IDAHO

Commercial Driver's License

July 2023

Your Safety • Your Mobility
Your Economic Opportunity

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IDAHO COMMERCIAL DRIVER'S LICENSE MANUAL

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Division of Motor Vehicles
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July 2023 Edition

Manual developed in conjunction with the
American Association of Motor Vehicle Administrator's
2005 CDL Testing Model

This manual and the Idaho Driver's Manual must both be studied in preparation for your CDL examinations. Both manuals paraphrase the language of the Idaho Motor Vehicle Code. Courts go by the actual language of the code, not these texts.

The Idaho Transportation Department (ITD) is committed to compliance with Title VI of the Civil Rights Act of 1964 and all related regulations and directives. ITD assures that no person shall on the grounds of race, color, national origin, gender, age, or disability be excluded from participation in, EH GHQLHG WKH EHQH¿WV RI RU EH RWKHUZLVH VXEMHF any ITD service, program, or activity. The department also assures that HYHU\ HúRUW ZLOO EH PDGH WR SUHYHQW GLVFULPLQDWL programs, policies, and activities on minority and low-income populations. In addition, the department will take reasonable steps to provide meaningful DFFHVV WR VHUYLFHV IRU SHUVRQV ZLWK OLPLWHG (QJO

How to Use This Manual

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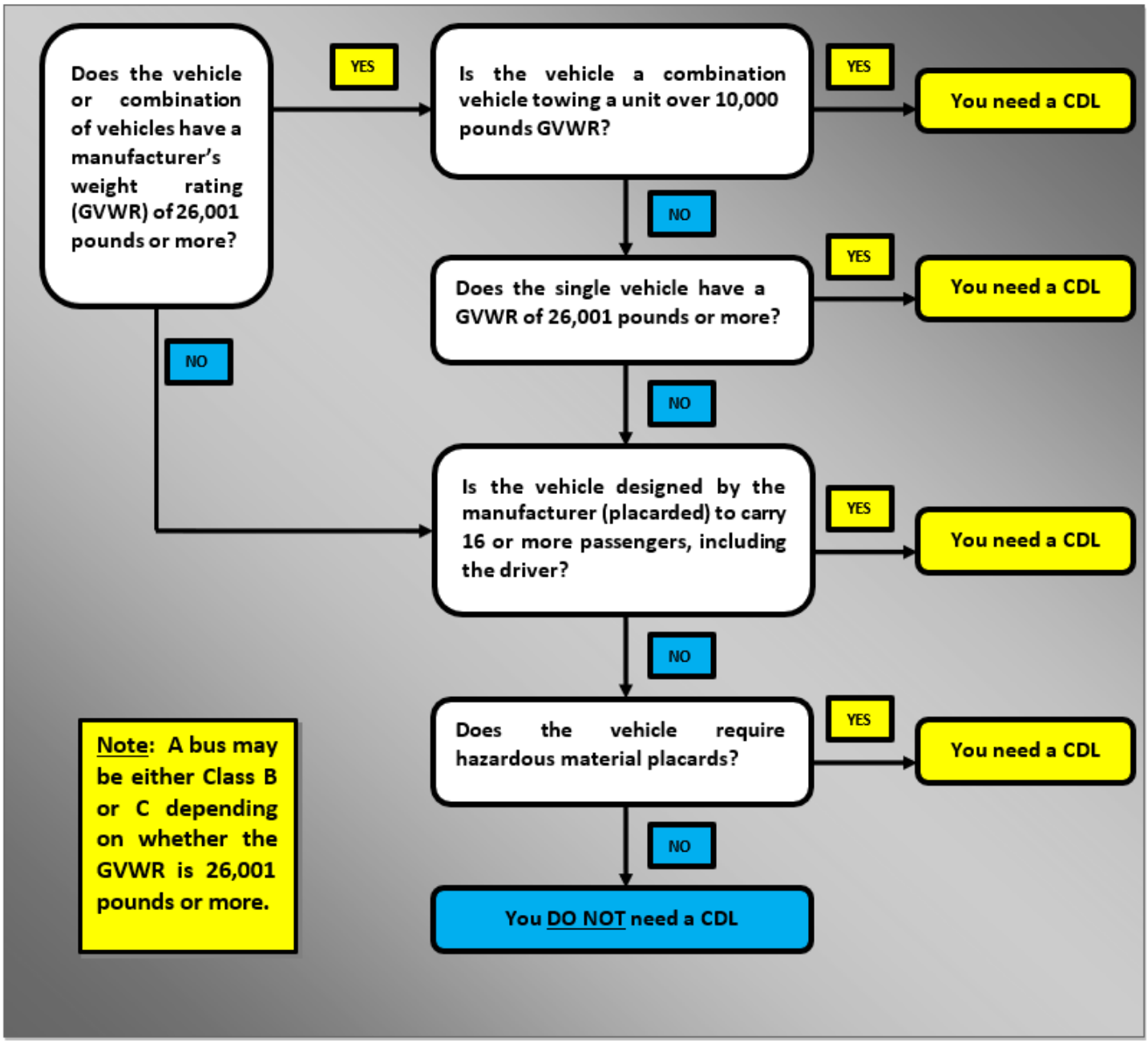


Check the charts below to see what chapters you need to study based on the &RPPHUFLDO 'ULYHU¶V /LFHQVH DQG HQGRUVHPHQWV

To Obtain License Type:	Chapters to Study												
	1	2	3	4	5*	6	7	8	9	10	11	12	13
Class A	X	X	X		X	X					X	X	X
Class B	X	X	X		X						X	X	X
Class C	X	X	X		X						X	X	X

To Obtain Endorsements:	Chapters to Study												
	1	2	3	4	5*	6	7	8	9	10	11	12	13
Hazardous Materials		X	X					X	X				
Doubles / Triples		X	X		X	X	X						
Tank Vehicle		X	X					X	X				
Passenger		X	X	X							X	X	X
School Bus		X	X	X						X	X	X	X

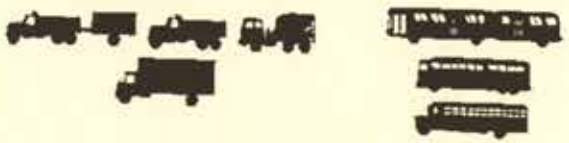
*Study Chapter 5 if you plan to operate vehicles equipped with air brakes.

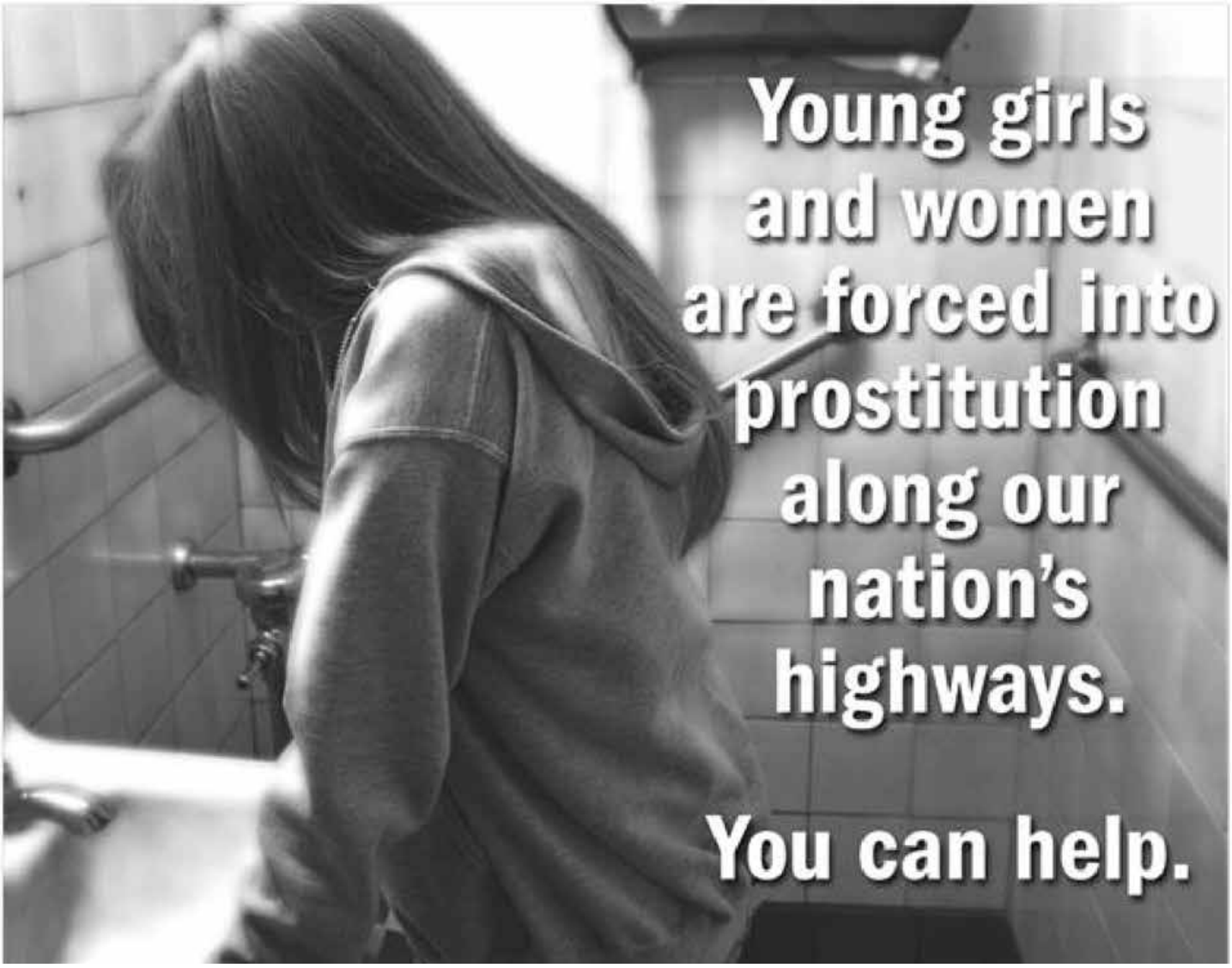
Knowledge Test Information:		
6 S H F L ¿ F Test:	Number of Questions:	Minimum Correct to Pass:
General Knowledge	50	40
Hazmat	30	24
Air Brake	25	20
Combination Vehicles	20	16
Tank Vehicles	20	16
Doubles/Triples	20	16
Passenger Vehicles	20	16
School Busses	20	16

CDL License Fees:

- CDL: One year (age 20) $15.00
- CDL: Three year (age 18 to 21) $30.00
- CDL: Four year (age 21 and over) $40.00
- Seasonal CDL(180 Days) $44.00
- Commercial Learner's Permit $29.00
- Duplicate CDL or permit..... $20.00
- License upgrade $30.00
- Add Endorsement (after issuance of a CDL does not include written test fee) .$20.00
- Written tests (each)..... $ 5.00
- SkillsTest: County CDL License fee $10.00
- SkillsTest: CDL Examiner License fee . * *[Varies, may be up to $190 per Idaho Code 49-306(10)]

IDAHO COMMERCIAL DRIVER'S LICENSE CLASSES (FMCSR 383.91) AND ASSOCIATED TESTS

CLASS	VEHICLE DESCRIPTION	TYPICAL VEHICLES IN CLASS	KNOWLEDGE TESTS REQUIRED	SKILLS TESTS REQUIRED
A	Any combination of vehicles with a GCWR of 26,001 or more pounds provided the GVWR of the vehicle(s) being towed is in excess of 10,000 pounds.		• General Knowledge • Combination Vehicles • Air Brakes (if equipped) • Endorsement tests as applicable	• Vehicle Inspection • Basic Control Skills • Road Test
B	Any single vehicle with a GVWR of 26,001 or more pounds. Note: These vehicles can tow a vehicle not in excess of 10,000 pounds GVWR.		• General Knowledge • Air Brakes (if equipped) • Endorsement tests as applicable	• Vehicle Inspection • Basic Control Skills • Road Test
C	Any single vehicle with a GVWR of 26,000 pounds or less that is hauling placarded hazardous materials or designed to transport 16 or more passengers, including the driver. Note: These vehicles can tow a vehicle not in excess of 10,000 pounds GVWR.		• General Knowledge • Air Brakes (if equipped) • Endorsement tests as applicable	• Vehicle Inspection • Basic Control Skills • Road Test
ENDORSEMENTS				
T	Combination vehicles with double or triple trailers.		• Doubles/Triple Trailers	Skills tests applicable to class of vehicle brought in for testing. Note: Any applicant for a passenger and/or school bus endorsement must take a skills test in a passenger vehicle and/or school bus.
N	Vehicles used to haul liquids or gaseous materials in permanent tanks or in portable tanks having a rating capacity of 1,000 gallons or more.		• Tank Vehicles	
H	Any vehicle used to transport hazardous materials in placardable amounts.		• Hazardous Materials	
P	Any vehicle designed to transport 16 or more passengers, including the driver.		• Passenger Vehicles	
S	Any vehicle used to transport preprimary, primary or secondary school students from home to school, from school to home, or to and from school-sponsored events		• School Bus	
X	Combination endorsement, representing the hazardous materials and tank vehicles endorsements.		• Tank Vehicles • Hazardous Materials	



Everyday Heroes Needed.

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highways and are already making calls that are saving lives. If you see a minor working any of those areas or suspect pimp control, call the national hotline and report your tip.

Make the Call, Save Lives.

National Hotline:

1-888-373-7888

1-888-373-7888 (US)
1-800-222-TIPS (Canada)
01800-5533-000 (Mexico)

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Human trafficking is a modern-day slavery. Traffickers use force, fraud and coercion to control their victims. A minor being sold for sex is a victim of human trafficking, as is any adult under pimp control. While the initial purchase of victims may occur online, the real-time sale of victims can happen in many locations, including truck stops, restaurants, rest areas, hotels/motels, strip clubs, private homes, etc.

Truckers are the eyes and the ears of our nation's highways.
If you suspect someone could be a victim of human trafficking:

1 Call 911 — If you're seeing a crime in progress. (See the back of this card for details to take note of when calling 911 or local law enforcement.)

2 Call the hotline — In uncertain if you're witnessing human trafficking, to access services, make a report, or share incidents that have been reported to law enforcement.

3 Provide support — Based on your comfort level: A. Tell management at location what you've seen. B. Ask the victim if you can help and assess how.

Questions to Ask:
- Do you keep your own money? If not, who does?
- Do your parents/siblings/relatives know where you are? If not, why not?
- When was the last time you saw your family?
- Is anyone hurting you?
- Are you or your family threatened? How?
- Can you come and go as you please?

Trafficking Red Flags to Look For:
- Lack of knowledge of their whereabouts; not in control of ID/passport
- Restricted or controlled communication; not allowed to speak for self being watched or followed
- Any mention of making a quota or having a pimp/daddy
- Signs of branding or tattooing of trafficker's name (often on the neck)
- A van, RV or vehicle with multiple women in a motel/rv park area and/or dropping women off and picking them up 15-20 minutes later
- Signs of bruising

Download the TAT app!

Operated by Polaris, the US National Human Trafficking Hotline tracks human trafficking data nationwide. Even if you call 911 or local law enforcement, please also report the incident to the hotline.

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1-888-373-7888 (US)
1-800-222-TIPS (Canada)
01800-5533-000 (Mexico)

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ELDT Entry-Level Driver Training

U.S. Department of Transportation
Federal Motor Carrier Safety Administration

Entry-Level Driver Training Requirements for CDL Applicants

The new Entry-Level Driver Training (ELDT) regulations require that all entry-level drivers of commercial motor vehicles (CMVs) who are subject to ELDT regulations receive training from a provider listed on FMCSA's Training Provider Registry.

To be eligible to take the Class A or Class B CDL skills test, the S or P skills test, or the H knowledge test, commercial driver's license (CDL) applicants must have completed applicable entry-level driver training from a registered training provider.

What must drivers do to meet the ELDT requirements?

Complete training with a registered training provider

Entry-level drivers subject to the ELDT regulations must select a training provider that is listed on the Training Provider Registry. Only registered training providers will be able to submit certi cation of a driver's completion of entry-level driver training to the Training Provider Registry.

When must a driver have completed their entry-level driver training?

Training must be completed before taking a CDL skills test or, if the driver is applying for the H endorsement, the knowledge test.

A State is not permitted to administer the CDL skills or knowledge test to driver if they cannot electronically verify that these requirements are met. A State may issue a commercial learner's permit (CLP) to a driver who has not yet completed entry-level driver training.

Use the scenario chart below to determine if you are required to complete entry-level driver training.

If	Then
A driver holds a CLP that was issued before February 7, 2022...	The driver is not required to complete entry-level driver training, as long as the driver obtains a CDL before the CLP expires.
A driver was issued a CDL or an S, P, or H endorsement before February 7, 2022…	The driver is not required to complete entry-level driver training for the previously-issued license or endorsement, even if it has since lapsed.
A driver holds a CLP that was issued before February 7, 2022, but the CLP expires before the driver applies for their CDL…	The driver must complete the required entry-level driver training before being permitted to take the CDL skills test.
A driver obtains a CLP on or after February 7, 2022...	The driver must complete the required entry-level driver training before being permitted to take the CDL skills test, S or P skills test, or H knowledge test.
A driver held a CDL prior to the compliance date, and applies for an upgrade to a higher class of CDL, or an S, P, or H endorsement for the rst time on or after February 7, 2022…	The driver must complete the required entry-level driver training for the class of CDL to which the driver is upgrading or the endorsement(s) for which the driver is applying befor e being permitted to take the applicable CDL skills test or H endorsement knowledge test.

ELDT EXCEPTIONS. The ELDT regulations do not apply to individuals that are not required to have a CDL as outlined in 49 CFR part 383, or for whom the state has waived the CDL skills test.

LEARN MORE AT: http://tpr.fmcsa.dot.gov or scan the code using the camera on your smartphone.

March 1, 2022

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Chapter 1: Introduction and Basic Information

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- Commercial Driver's License Tests
- 5HVWULFWLRQV DQG (QGRUVHPHQWV
- ([HPSWLRQV
- Fees
- +RZ WR *HW D &'/
- 6DIHW\ 5XOHV

1.0 INTRODUCTION

Idaho's Commercial Driver's License (CDL) 3URJUDP LV GHVLJQHG WR LPSURYH VDIHW\ RQ RXU KLJKZD\V E\ PHHWLQJ IHGHUDO UHTXLUHPHQWV IRU WHVWLQJ DQG OLFHQVLQJ FRPPHUFLDO GULYHUV 2Q 2FWREHU &RQJUHVV SDVVHG WKH &RPPHUFLDO 0RWRU 9HKLFOH 6DIHW\ $FW RI 1986. This law sets minimum standards for the licensing RI GULYHUV RI FRPPHUFLDO PRWRU YHKLFOHV

This manual provides driver license testing information for drivers who wish to have a FRPPHUFLDO GULYHU¶V OLFHQVH GRHV 127 SURYLGH LQIRUPDWLRQ RQ UHTXLUHPHQWV QHHGHG EHIRUH D FRPPHUFLDO PRWRU YHKLFOH &0 VXFK DV KRXUV RI VHUYLFH FRPPHUFLDO YHKLFOH OLFHQVLQJ HWF DUH QRW FRYHUHG LQ WKLV PDQXDO

7R JHW D &'/ \RX PXVW SDVV WKH VNLOOV WHVWV 7KLV PDQXDO ZLOO JLYH \RX WKH LQIRUPDWLRQ \RX QHHG WR WHVWV

> This manual is not a substitute for a truck or bus driver training class or program. Formal training is the most reliable way to learn the many special skills required for safely driving a large commercial vehicle and becoming a professional driver in the trucking industry.

&RPPHUFLDO 9HKLFOH 'H¿QLWLRQV

7KH ¿UVW ZRUG LQ &'/ LV ³&RPPHUFLDO´ 6R WR KDYH D &'/ WR RSHUDWH DQ\ commercial vehicles:

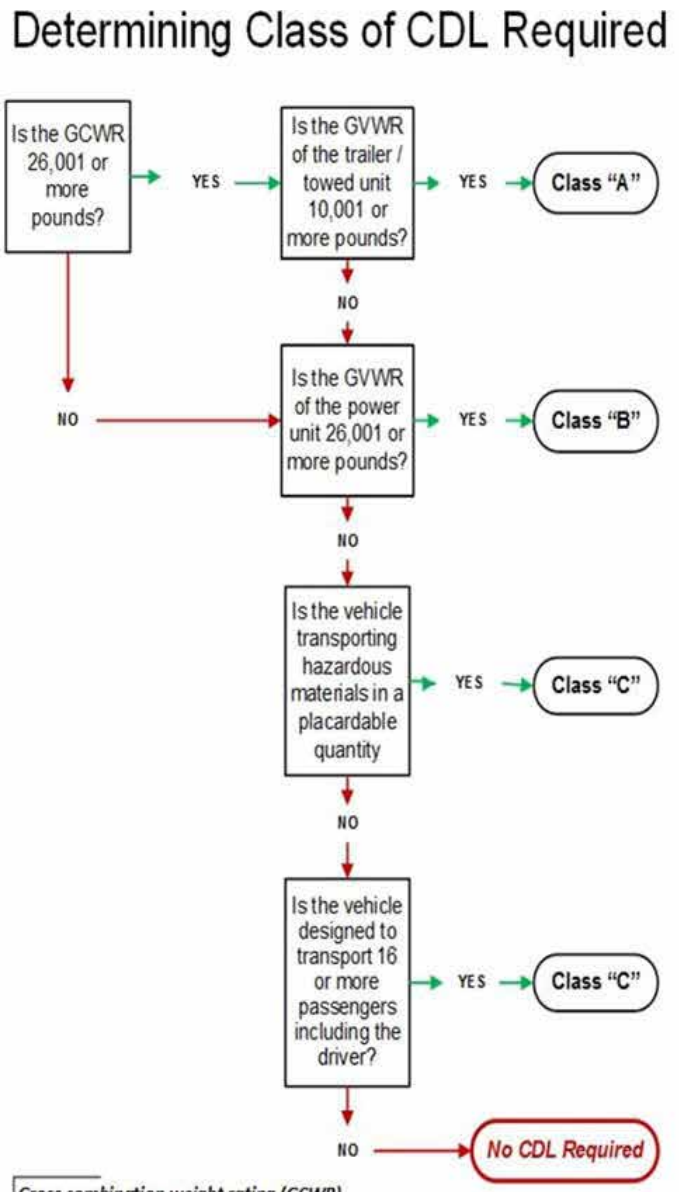
- $Q\ VLQJOH YHKLFOH ZLWK D ZHLJKW UDWLQJ *9:5 RI PRUH
- A combination vehicle with a gross FRPELQDWLRQ ZHLJKW UDWLQJ *9:5 RI WKH YHKLFOH V EHLQJ WRZHG LV PRUH SRXQGV
- $Q\ YHKLFOH GHVLJQHG WR WUDQVSRUW PRUH WKDQ SDVVHQJHUV LQFOXGLQJ WKH GULYHU
- $Q\ VL]H YHKLFOH ZKLFK UHTXLUHV PDWHULDO SODFDUGV RU LV OLVWHG DV D VHOHFW DJHQW 6&'/ 7KLV GHPRQVWUDWHV WKDW RQH RI WKH UHDVRQV IRU KDYLQJ D &'/ LV WR KDXO KD]DUGRXV PDWHULDOV See Chapter Nine for more information

GROSS VEHICLE WEIGHT RATING (GVWR)

7KH *9:5 JLYHV WKH PDQXIDFWXU ZHLJKW RI D VLQJOH YHKLFOH QRW WKH YHKLFOH¶V UHJLVWHUHG WKH *9:5 LV XVXDOO\ IRXQG R SDSHU LGHQWL¿FDWLRQ VWLFN GRRU 2Q WUDLOHUV LW PD\ EH LV FRPPRQO\ IRXQG RQ WKH IUD WKH GULYHU¶V VLGH)RU ,GDKR *9:5 WKH DFWXDO ZHLJKW RI W KHDYLHVW ORDG LV FRQVLGHUH 2WKHU VWDWHV PD\ XVH RWKHU

GROSS COMBINED WEIGHT RATING (GCWR)

7KH *&:5 LV WKH WRWDO ZHLJKW HDFK XQLW RI D FRPELQDWLRQ DQG WUDLOHU V DGGHG WRJHW



)LJXUH &ODVV RI &'/ 5HTXLUHG)RUZFKDUW

1.0.2 Commercial Vehicle Exemptions

(YHQ LI \RXU YHKLFOH LV D FRPPHUFLDO YHKLFOH DV GH¿QHG DERYH \RX PD\ VWLOO TXDOLI\ IRU RQH RI WKH IHGHUDO DQG RU VWDWH &'/ H[HPSWLRQV 7KHUH DUH IRXU FDWHJRULHV RI &'/ H[HPSWLRQV

Recreational Vehicle Exemption:

7KH 5HFUHDWLRQDO 9HKLFOH ([GULYHUV RI YHKLFOHV XVHG H[SHUVRQDO SRVVHVVLRQV RU ID QRQ EXVLQHVV RU UHFUHDWLRQ

SPECIAL NOTE: 5HFUHDWLRQDO 9H DUH H[HPSW IURP WKH &RPPH /LFHQVH UHTXLUHPHQWV +RZH who operates a CUSTOM MOTORCOACH FOR COMMERCIAL PURPOSES, with a gross vehicle weight rating or gross vehicle ZHLJKW JUHDWHU WKDQ UHTXLUHG WR KDYH D &RPPH /LFHQVH ZLWK D SDVVHQJHU H

This rule applies even if the vehicle is GHVLJQHG RU XVHG WR WUDQV SDVVHQJHUV LQFOXGLQJ WKH

Military Vehicle Exemption:

7KH 0LOLWDU\ 9HKLFOH ([HPSWL YHKLFOH RSHUDWRUV ZKR DUH GXW\ PLOLWDU\ SHUVRQQHO DQ UHTXLUHG WR ZHDU XQLIRUPV D &RGH RI 0LOLWDU\ -XVWLFH

Emergency Vehicle Exemption:

7KH (PHUJHQF\ 9HKLFOH ([HPS WR GULYHUV RI ¿UH¿JKWLQJ F HTXLSPHQW XVHG LQ UHVSRQV LQYROYLQJ WKH SUHVHUYDWLRQ

Farm Vehicle Exemption:

7KH)DUP 9HKLFOH ([HPSWLRQ DSSOLHV WR GULYHUV RI IDUP YHKLFOHV LQFOXGLQJ IDUP KDQGV XQGHU FHUWDLQ IDUP H[HPSWLRQ DSSOLHV WR GULYHUV which are:

- &RQWUROOHG DQG RSHUDWHG E\ WKH IDUPHU
- 8VHG WR WUDQVSRUW DJULFXOWXUDO VXSSOLHV DQG PDFKLQHU\ WR RU IURP D IDUP
- 1RW XVHG LQ FRPPRQ RU FRQWUDFW FDUULHU operations, and
- 1RW GULYHQ PRUH WKDQ FURZ ÀLHV´ IURP WKH IDUP

7KH IDUP H[HPSWLRQ LV LQWHQGHG IRU VPDOO WR PDUNHW RSHUDWLRQV RQO\ ,W GRHV QRW H[WHQG EH\RQG WKH ERXQGDULHV RI ,G'DKR XQOHVV WKH FXUUHQW UHFLSURFLW\ DJUHHPHQW VWDWHV $OVR LW GRHV QRW LQFOXGH WUDQVSRUWLQJ RWKHU IDUPHUV UHFHLYLQJ DQ\ FRPSHQVDWLRQ

7KH GH¿QLWLRQ RF FRPPHUFLDO YHKLFOHV LQFOXGHV PDQ\ YHKLFOHV WKDW PLJKW QRW seem to be commercial vehicles, but are when combined with large trailers, for H[DPSOH *9:5 VKRXOG EH FORVHO\ FKHFNHG to determine if the vehicle combination UHTXLUHV D &'/

9HKLFOHV ZHLJKLQJ RYHU *9:5 XVHG LQ FRPPHUFH DFURVV VWDWH lines fall under Federal Motor Carrier UHTXLUHPHQWV HYHQ WKRXJK WKH GULYHU DQ\ QRW QHHG D &'/ 2SHUDWRUV RI YHKLFOHV LQ WKLV FDWHJRU\ VKRXOG FRQWDFW GDKR 6WDWH 3ROLFH &RPPHUFLDO 9HKLFOH 6DUHW\ DW IRU JXLGDQFH

1.0.3 Commercial License Types

7KH &/ YHKLFOH FODVVL¿FDWLRQ LQFOXGHV PHPEHUV DQG IHGHUDO VWDQGDUG WR EH WUDQVSRUWHG RQO\ 7KH GHWHUPLQDWLRQ RI FODVVL¿FDWLRQ DQG HQGRUVHPHQW DUH IRU 7KUHH EDVLF YHKLFOHV

Class A - Combination Vehicles: $Q\ combination of vehicles with a gross combination VSRXQGV IDOOV LQ *URXS $ SURYLGHG WKH YHKLFOH V EHLQJ WRZHG LV SRXQGV

0RVW &ODVV $ YHKLFOHV DUH WUXFN WUDFWRU VHPL WUDLOHU FRPELQDWLRQV +RZHYHU WUDLQV PD\ EH IRXQG LQ D IHZ FRPPXQLWLHV &ODVV $ YHKLFOHV UHTXLUH D &'/ ZLWK D 3RZHU 8QLW DQG 7DQNHU HQGRUVHPHQW WR WUDQVSRUW IODPPDEOH &ODVV % DQG & OLTXLGV RU KD]DUGRXV PDWHULDOV

Class B - Heavy Straight Vehicles: $Q\ VLQJOH YHKLFOH ZLWK D *9:5 RI RU DQ\ YHKLFOH WRZLQJ DQRWKHU YHKLFOH QRW LQ H[FHVV RI *9:5 RU DQ\ FRPELQDWLRQ RI YHKLFOHV LQ &ODVV % LQFOXGHV VWUDLJKW WUXFNV DUWLFXODWHG EXVHV KHDY\ YHKLFOHV UHTXLUHV F NQRZOHGJH DQG VNLOO WKDQ G DQG EXVHV IRXQG LQ &ODVV & WKH VNLOOV UHTXLUHG WR GU GULYHUV ZKR KDYH TXDOL¿HG I PD\ DOVR GULYH YHKLFOHV LQ HQGRUVHPHQWV SRXQGV

Class C - Small Vehicles: $Q\ VLQJOH YHK ZLWK D *9:5 OHVV WKDQ S &RQ\ DQ\ VXFK YHKLFO YHKLFOH QRW LQ H[FHVV RI WKLV YL &'/ SURJUDP RQO\ LI WKH\ DUH

'HVLJQHG WR FDUU\ RU PRUH SDVVHQJHUV EXW GRHV QRW WUDQVSRUW KD]DUGRXV PDWHULDOV including the driver, or

8VHG WR WUDQVSRUW KD]DUGRXV PDWHULDOV LQ TXDQWLWLHV UHTXLULQJ +D]DUGRXV 0DWHULDOV 5HJXODWLRQV 3DUW 6XESDUW) RU &DUU\LQJ PDWHULDO OLVWHG DV D VHOHFW DJHQW RU WR[LQ LQ &)5 3DUW

7KHUH DUH D JUHDW YDULHW\ RI YHKLFOHV LQ & 6RPH UDWKHU ODUJH &ODVV & YHKLFOHV UHTXLUH PRUH VNLOO DQG NQRZOHGJH WR RSHUDWH WKDQ GR WKH VPDOOHU RQHV FDWHJRU\ LV EDVHG SULQFLSDOO\ RQ FDUJR FDUULHG %HFDXVH RI DQ DFFLGHQW LQYROYLQJ KD]DUGRXV PDWHULDO human passengers, the safe operation of even WKH VPDOOHU &ODVV & YHKLFOHV & NQRZOHGJH DQG WKH GULYHUV PXVW KDYH D &'/

1.0.4 Commercial License Endorsements

$OO FRPPHUFLDO GULYHUV ZKR GULYH FHUWDLQ W\SHV RI YHKLFOHV RU KDXO FHUWDLQ W\SHV RI FDUJR add endorsements to their CDL license and/or Commercial Learner's Permit (CLP) to show that WKH\ KDYH WKH VSHFLDOL]HG IRU WKHVH RSHUDWLRQV 7KHUH HQGRUVHPHQWV WKDW PD\ EH UHTXLUHG RQ WKH YHKLFOH RU W\SH RI FDUJR

Note: The only endorsements that may be DGGHG WR D &RPPHUFLDO /HDUQHU¶V &/3 DUH

- Passenger
- School bus
- Tank vehicle

(T) - Double and Triple Trailers: 0DQ\ GULYHUV ZKR DUH TXDOL¿HG WR GULYH &ODVV& YHKLFOHV PD\ ZLVK WR SXOO GRXEOH RU WULSOH WUDLOHUV VKRZV WKDW FRQVLGHUDEOH DGGLWLRQDO NQRZOHGJH DQG VNLOO LV QHFHVVDU\ WR VDIHO\ WUDQVSRUW WKHVH WUDLORUV LQ YDULRXV GULYLQJ HQYLURQPHQWV

&RQVHTXHQWO\ DGGLQJ WKH HQGRUVHPHQW WR WKH OLFHQVHV RI &ODVV $ GULYHUV LV QHFHVVDU\ LI WKH\ 2QH WKLQJ WR NHHS LQ PLQG LV WKDW WKH NQRZOHGJH H[DPLQDWLRQ RQ associated with pulling multiple trailers must be SDVVHG (T) Tank Vehicle: 'UL9HUV RI DQ\ FRP PRWRU YHKLFOH WKDW LV GHVLJQHG RU XVHG WR WUDQVSRUW D VHOHFW DJHQW RU KD]DUGRXV PDWHULDO LQ D TXDQWLW\ UHTXLULQJ SODFDUGLQJ XQGHU WKH +D]DUGRXV 0DWHULDOV 5HJXODWLRQV 3DUW 6XESDUW) RU &DUU\LQJ PDWHULDO OLVWHG DV D VHOHFW DJHQW RU WR[LQ LQ &)5 3DUW 7KHUH DUH D JUHDW YDULHW\ RI YHKLFOHV LQ & 6RPH UDWKHU ODUJH &ODVV & YHKLFOHV UHTXLUH PRUH VNLOO DQG NQRZOHGJH WR RSHUDWH WKDQ GR WKH VPDOOHU RQHV FDWHJRU\ LV EDVHG SULQFLSDOO\ RQ FDUJR FDUULHG %HFDXVH RI DQ DFFLGHQW LQYROYLQJ KD]DUGRXV PDWHULDO human passengers, the safe operation of even WKH VPDOOHU &ODVV & YHKLFOHV & NQRZOHGJH DQG WKH GULYHUV PXVW KDYH D &'/

(P) - Passengers: Drivers who wish to drive a YHKLFOH KDXOLQJ D GHVLJQ FDS more people, including the driver, must add a SDVVHQJHU HQGRUVHPHQW WR WKHLU &'/ 7KH\ PXVW SDVV D VSHFLDO NQRZOHGJH WHVW RQ VDIHW\ FRQVLGHUDWLRQV SDVVHQJHUV DQG PXVW SDVV SDVVHQJHU YHKLFOH 7KH HQGRUVHPHQW DSSOLFDQWV ZKR ZLVK WR GULYH $ % RU & YHKLFOHV

(H) - Hazardous Materials: $Q\ GULYHU UHTXLUHG WR KDXO KD]DUGRXV PDWHULDOV RI WKH YHKLFOH & ZKR ZLVKHV WR KDXO DQ\ PDWHULDO GHVLJQDWHG DV KD]DUGRXV XQGHU WKH +D]PDW GULYHUV PXVW SDVV D VSHFLDO NQRZOHGJH H[DPLQDWLRQ RQ KRZ WR UHFRJQL]H KD]DUGRXV PDWHULDOV DQG XQGHUVWDQG WKH +D]DUGRXV 0DWHULDOV &RPPXQLFDWLRQV 6WDQGDUG &)5 3DUW DQG VKRXOG DOVR NQRZ WKH HPHUJHQF\ SURFHGXUHV WR IROORZ LQ FDVH RI DQ DFFLGHQW RU VSLOO

The Transportation Security Administration (TSA) and the US Department of Transportation require background checks on commercial drivers who DUH FHUWL¿HG WR WUDQVSRUW KD]DUGRXV PDWHULDOV The background checks include a review of FULPLQDO LPPLJUDWLRQ DQG SVBFKHFNV RQ WKH ,'/ KROGHU SXUSRVH driver is found to represent a security threat, TSA will notify the person and the state will deny LVVXDQFH RI DQ HQGRUVHPHQW WKH JHDU VKLIW DQG FOXWFK S

$ ZULWWHQ WHVW DQG D 76$ DVVHVVPHQW DUH UHTXLUHG HDFK WLPH D UHQHZV KLV KHU OLFHQVH

; &RPELQDWLRQ YHKLFOHV ZLWK D 7DQN YHKLFOH (QGRUVHPHQW

Tank Vehicle: 'ULYHUV RI WDQN YHKLFOHV ZKR KDXO KD]DUGRXV PDWHULDOV RU ZDVWH LQ DPRXQWV UHTXLULQJ SODFDUGV PXVW DGG DQ ; HQGRUVHPHQW WR WKHLU &'/ VKRZLQJ WKDW WKH\ KDYH VSHFLDO NQRZOHGJH H[DPLQDWLRQV DQG KD]DUGRXV PDWHULDOV

(S) - School Buses: Drivers who wish to drive a school bus must add a school bus endorsement WR WKHLU &'/ &/3

7KH\ PXVW SDVV D VSHFLDO NQRZOHGJH H[DPLQDWLRQ RQ VDIHW\ FRQVLGHUDWLRQV SDVVHQJHUV LQ D VFKRRO EXV WHVWV LQ D VFKRRO EXV

The endorsement applies to applicants who wish WR GULYH D VFKRRO EXV LQ DQ\ FODVV

1.0.5 Commercial License Restrictions

5HVWULFWLRQV PD\ EH DGGHG WR &RPPHUFLDO GULYHU¶V OLFHQVHV 3HUPLWV EDVHG XSRQ WKH W\SH RI YHKLFOH DQG HTXLSPHQW WKDW 6NLOOV 7HVW 7KHUH DUH WHQ GLIIHUHQW UHVWULFWLRQ FRGHV

Note: If a CLP is issued with a Passenger (P) RU D 6FKRRO %XV 6 HQGRUVHPHQW, LW PXVW DOVR contain a (P), No passengers in a CMV bus UHVWULFWLRQ

,I D &/3 LV LVVXHG ZLWK D 7DQNHU 1 HQGRUVHPHQW LW PXVW DOVR FRQWDLQ D ; ± 1R FDUJR LQ D &09 WDQN YHKLFOH

(E) - Automatic Transmission: 7KH (UHVWUL prohibits driving of commercial vehicles with a PDQXDO WUDQVPLVVLRQ ,I DQ automatic transmission, this restriction will be YDFDWHG RQ WKH ,'/ KROGHU SXUSRV test and the restriction, an automatic transmission LQFOXGHV DQ\ WUDQVPLVVLRQ WKH JHDU VKLIW DQG FOXWFK S

(K) - Intrastate Only: ,QGLFDWHV WKH DSSOLFDQW ([FHSWHG ,QWUDVWDWH D UHVW on the CDL, if issued, that person is restricted IURP RSHUDWLQJ D &09 LQ LQW 6WDWHV PD\ LPSRVH WKLV UHV RWKHU WKDQ VSHFL¿HG (L) - No Air Brake Equipped CMV: If an applicant GRHV QRW WDNH WKH DLU EUDNHV WHVW RU SHU YHKLFOH QRW HTXLSSHG ZLWK D must be placed on the CLP or CDL, if issued, that the person is restricted from operating a &09 HTXLSSHG ZLWK DQ\ W\SH R WKH SXUSRVHV RI WKH VNLOOV DLU EUDNHV TXHVWLRQ RU WKH DL DQG \PXVW SDVV VNLOOV WKH DL

(M) - No Class A passenger vehicle: If an DSSOLFDQW DSSO\LQJ IRU D SDV SHUIRUPV WKH VNLOOV WHVW L UHTXLULQJ D *URXS % &'/ D UH placed on the CDL, if issued, that the person is restricted from operating a passenger vehicle UHTXLULQJ D *URXS $ &'/

(N) - No Class A and B passenger vehicle: If an DSSOLFDQW DSSO\LQJ IRU D SDV SHUIRUPV WKH VNLOOV WHVW L UHTXLULQJ D *URXS & &'/ D UH placed on the CDL, if issued, that the person is restricted from operating a passenger vehicle UHTXLULQJ D *URXS $ RU % &'/

(O) - No tractor trailer CMV: If an applicant SHUIRUPV WKH VNLOOV WHVW LQ D *URXS $ &'/ ZLWK WKH SRZHU XQLW FRQQHFWHG ZLWK D SLQWOH KLWFK ¿IWK ZKHHO FRQQHFWLRQ D UHVWULFWLRQ will be issued a CDL with the restriction on the CDL, if issued, that the person is restricted IURP RSHUDWLQJ D WUDFWRU WUDLOHU FRPELQDWLRQ FRQQHFWHG E\ D ¿IWK ZKHHO WKDW UHTXLUHV D *URXS $ &'/

An applicant who passes a skills test using a combination vehicle that is <u>not</u> a Truck Tractor Semi-Trailer combination, but is otherwise HTXLSSHG ZLWK D ¿IWK ZKHHO ZLWK DQ ³2´ UHVWULFWLRQ

Any combination OTHER THAN a TRACTOR-75$,/(5 ZLWK D IXOO VL]H ¿IWK ZKHHO FRXSOLQJ will result in an (O) restriction.

(P) - No passengers in CMV bus: A CLP holder with a P endorsement is prohibited from RSHUDWLQJ D &09 FDUU\LQJ SDVVHQJHUV RWKHU than Federal/State auditors and inspectors, test H[DPLQHUV RWKHU WUDLQHHV DQG WKH &/3 KROGHU DFFRPSDQ\LQJ WKH &/3 KROGHU DV SUHVFULEHG E\ † &)5 D RI WKLV SDUW

<u>A CLP holder with a (S) endorsement</u> is prohibited from operating a school bus with passengers, other than Federal/State auditors and inspectors, WHVW H[DPLQHUV RWKHU WUDLQHHV DQG WKH &/3 KROGHU DFFRPSDQ\LQJ WKH &/3 KROGHU DV SUHVFULEHG E\ † &)5 D RI WKLV SDUW

(V) - Medical Variance: ,I WKH 6WDWH LV QRWL¿HG DFFRUGLQJ WR † R WKDW WKH GULYHU KDV been issued a medical variance, the State PXVW LQGLFDWH WKH H[LVWHQFH RI variance on the CDLIS driver record and the CDL document, if issued, using the restriction code ‘‘V’’ to indicate there is information about a PHGLFDO YDULDQFH RQ WKH &'/,6 GULYHU UHFRUG

; 1RFDUJRLQ&09WDQNYHKLFOH A CLP KROGHU ZLWK DQ 1 HQGRUVHPHQW + DYH RQO\ RSHUDWHG DQ HPSW\ WDQN YHKLFOH DQG LV SURKLELWHG IURP RSHUDWLQJ DQ\ WDQN YHKLFOH WKDW SUHYLRXVO\ FRQWDLQHG D PDWHULDO WKDW KDV QRW EHHQ SXUJHG RI DQ\ UHVLGXH

(Z) - No full air brake equipped CMV: If an applicant LQ SRVVHVVLRQ RI D &'/ KROGV D 3 HQGRUVHPHQW DQG LV GULYLQJ D &09 HTXLSSHG ZLWK DQ\ EUDNLQJ V\VWHP RSHUDWLQJ XQGHU WKH SRZHU RI FRPSUHVVHG DLU RU YDFXXP ZLWKRXW DQ DOWHUQDWH EUDNH V\VWHP DSSURYHG E\ WKH 6WDWH PXVW LQGLFDWH RQ WKH &'/,6 UHFRUG WKDW WKH SHUVRQ LV UHVWULFWHG IURP RSHUDWLQJ D &09 HTXLSSHG ZLWK DQ\ EUDNLQJ V\VWHP RSHUDWLQJ XQGHU WKH SRZHU RI FRPSUHVVHG DLU RU YDFXXP ZLWKRXW DQ DOWHUQDWH EUDNH V\VWHP DSSURYHG E\ WKH 6WDWH)RU WKH SXUSRVHV RI WKH V UHVWULFWLRQ DLU RYHU K\GU DQ\ EUDNLQJ V\VWHP RSHUDWLQJ DLU EUDNH DQG SDUWLDOO\ RU SULQFLSOH

ZLOO EH LVVXHG D &'/

1.0.6 Seasonal CDL for Farm-Related Services

A Seasonal Commercial Driver’s License is D YDOLG EHWZHHQ TXDOL¿HG VHDV IDUP UHODWHG VHUYLFH LQGXV harvesters, farm retail outlets and suppliers, DJULFKHPLFDO EXVLQHVVHV DQ SDVVHQJHUV RWKHU 7KH 6HDVRQDO &'/ LV RQO\ YDOI RI WKH EXVLQHVV RU IDUP EH DQG WKH &'/ KROGHU Seasonal CDL is valid (with a Class D license) IRU GD\V LQ D PRQWK SHUL EH REWDLQHG WZLFH LQ D OLIH

The Seasonal CDL is not valid for driving Class A (combination) vehicles or passenger YHKLFOHV FRQVWUXFWHG WR FD LQFOXGLQJ WKH &'/ KROGHU 7KH 6 YDOLG IRU GULYLQJ YHKLFOHV PDWHULDOV UHTXLULQJ SODFDU IXHO LQ TXDQWLWLHV RI JD HHUWLOL]HUV LQ YHKLFOHV RU L ZLWK WRWDO FDSDFLWLHV RI VROLG JHUWLOL]HUV WKDW DUH ZLWK DQ\ RUJDQLF VXEVWDQFH

Requirements

7R DSSO\ IRU D 6HDVRQDO &'/ \R

- %H DW OHDVW \HDUV RI DJ
- +DYH DW OHDVW \HDU RI GU LQ DQ\ W\SH RI PRWRU YHKLF

- Have not violated the CDL single license
  UHTXLUHPHQWV
- +DYH QRW KDG DQ\ OLFHQVH VXVSHQVLRQV
  UHYRFDWLRQV RU FDQFHOODWLRQV
- +DYH QRW KDG DQ\ FRQYLFWLRQV LQ DQ\
  YHKLFOH IRU DQ\ RI WKH IROORZLQJ R‡HQVHV

  ([FHVVLYH VSHHGLQJ RU PRUH PLQHV
  above the posted speed limit);

  5HFNOHVV GULYLQJ

  ,PSURSHU RU HUUDWLF ODQH FKDQJHV

)ROORZLQJ WKH YHKLFOH DKHDG WRR FORVHO\

  'ULYLQJ D FRPPHUFLDO PRWRU YHKLFOH
  without obtaining a CDL;

  'ULYLQJ D FRPPHUFLDO PRWRU YHKLFOH
  without a CDL in the driver's possession;

  'ULYLQJ D FRPPHUFLDO PRWRU YHKLFOH
  without the proper class of CDL and/
  RU HQGRUVHPHQWV IRU WKH VSHFL¿F
  vehicle group being operated or for
  WKH SDVVHQJHUV RU W\SH RI FDUJR EHLQJ
  transported;

  9LRODWLRQ RI DQ\ RWKHU PRWRU YHKLFOH
  WUDˆF FRQWURO ODZV ZKLFK NLOOV RU
  WUDˆF DFFLGHQW

  'ULYLQJ ZKLOH XQGHU WKH LQÀXHQFH RI
  alcohol or a controlled substance,
  including a refusal to test;

  /HDYLQJ WKH VFHQH RI DQ DFFLGHQW

  8VLQJ D YHKLFOH WR FRPPLW D IHORQ\

The holder of a Seasonal CDL is subject to DOO GLVTXDOLI\LQJ R‡HQVHV DQG DSSOLFDEOH WR &'/ KROGHUV (VFH &DSWDLQ¶V IRU GHWHUPLQDWLRQ GULYLQJ UHFRUG ZLOO EH FKHFNHG SULRU WR WKH LVVXDQFH RI D 6HDVRQDO &'/ ,VVXDQFH RI D 6HDVRQDO CDL will be entered on the Commercial Driver's /LFHQVH ,QIRUPDWLRN 6\VWHP &'/6

The holder of a Seasonal CDL must pass the CDL
*HQHUDO .QRZOHGJH ZULWWHQ
WHVW LV DOVR UHTXLUHG LI WK
DUH HTXLSSHG ZLWK DLU EUDNH
DQG VNLOOV WHVWV DUH QRW U

1.1 COMMERCIAL DRIVER'S LICENSE TESTS

7KLV PDQXDO SURYLGHV \RX ZL
QHFHVVDU\ WR SDVV DOO &'/
,QIRUPDWLRQ UHJDUGLQJ WKH V
LV DOVR LQFOXGHG 7KH KHDGLQ
VXE VHFWLRQ PD\ KHOS \RX OR
RI LQWHUHVW

1.1.1 Knowledge Tests and License Classes

<RX ZLOO KDYH WR WDNH RQH
WHVWV ZLWWHQ WHVWV WDNH
'ULYHU¶V /LFHQVH 2ˆFH GHSHQG
RI OLFHQVH DQG ZKDW HQGRUV
7KH &'/ NQRZOHGJH WHVWV LQFO

- General Knowledge WDNHQ E\ DOO
  DSSOLFDQWV
- Passenger WDNHQ E\ DOO EXV
  DSSOLFDQWV
- Air Brakes UHTXLUHG LI \RXU Y
  DLU EUDNHV LQFOXGLQJ DLU
  EUDNHV
- Combination Vehicles UHTXLUHG LI \
  ZDQW WR GULYH FRPELQDWL
- Hazardous Materials UHTXLUHG LI \
  ZDQW WR KDXO KD]DUGRXV P
  GH¿QHG LQ &)5 ,Q RU
  REWDLQ WKLV HQGRUVHPHQW
  UHTXLUHG WR SDVV D 7UDQV
  $GPLQLVWUDWLRQ 76$ EDFN
  VHH &KDSWHU 1 ¶V
- Tank vehicle UHTXLUHG LI \RX ZD
  DQ\ OLTXLG RU JDVHRXV PDW
  WDQNV KDYLQJ DQ LQGLYLGX
  RI PRUH WKDQ JDOORQV D
  UDWHG FDSDFLW\ RI JDO
  WKDW LV HLWKHU SHUPDQHQ
  DWWDFKHG WR WKH YHKLFOH

- Doubles/Triples UHTXLUHG LI \RX ZDQW WR SXOO GRXEOH RU WULSOH WUDLOHUV
- School Bus UHTXLUHG DORQJ ZLWK D ,I \RX DUH DSSO\LQJ IRU D &RP SDVVHQJHU HQGRUVHPHQW LI \RX ZDQW WR GULYH D VFKRRO EXV

1.1.2 Skills Tests

,I \RX SDVV WKH UHTXLUHG NQRZOHGJH WHVWV \RX FDQ WDNH WKH &'/ VNLOOV WHVWV ZKHQ \RX DUH HOLJLEOH

The CDL Skills Test: This consists of three segments; vehicle inspection, basic vehicle FRQWURO DQG RQ URDG GULYLQJ <RX PXVW WDNH WKH segments in the order listed and must pass HDFK RQH EHIRUH PRYLQJ WR WKH QHIW <RX PXVW WDNH WKHVH WHVWV LQ WKH W\SH RI YHKLFOH IRU ZKLFK \RX ZLVK WR EH OLFHQVHG $Q\ YHKLFOH WKDW KDV FRPSRQHQWV PDUNHG RU ODEHOHG FDQQRW EH XVHG IRU WKH &'/ 6NLOOV 7HVW

Vehicle Inspection: <RX ZLOO EH WHVWHG WR VHH LI \RX NQRZ ZKHWKHU \RXU YHKLFOH LV VDIH WR GULYH <RX ZLOO EH DVNHG WR GR D 9HKLFOH ,QVSHFWLRQ RI \RXU YHKLFOH <RX PXVW SRLQW WR WXFK DQG QDPH WKH LWHP \RX DUH LQVSHFWLQJ DQG H[SODLQ WR WKH H[DPLQHU ZKDW \RX ZRXOG LQVSHFW DQG ZK\

Basic Vehicle Control: <RX ZLOO EH WHVWHG RQ \RXU VNLOO WR FRQWURO WKH YHKLFOH <RX ZLOO EH DVNHG WR PRYH \RXU YHKLFOH IRUZDUG EDFNZDUG DQG WXUQ LW ZLWKLQ D GH¿QHG DUHD 7KHVH DUHDV PD\ EH PDUNHG ZLWK WUDˆF ODQHV FRQHV EDUUHUV RU VRPHWKLQJ VLPLODU 7KH H[DPLQHU ZLOO WHOO \RX KRZ HDFK FRQWURO WHVW LV WR EH GRQH

On-road Test: <RX ZLOO EH WHVWHG RQ \RXU VNLOO WR VDIHO\ GULYH \RXU YHKLFOH LQ D YDULHW\ RI WUDˆF VLWXDWLRQV 7KH VLWXDWLRQV PD\ LQFOXGH right turns, intersections, railroad crossings, FXUYHV XS DQG GRZQ JUDGHV VLQJOH DQG PXOWLSOH URDGV VWUHHWV RU KLJKZD\V 7KH H[DPLQHU ZLOO WHOO \RX ZKHUH WR GULYH

See the charts in the front of this manual to see which sections you should study for each particular class of license and for each endorsement.

1.2 SELF-CERTIFICATION & MEDICAL REQUIREMENTS

,I \RX DUH DSSO\LQJ IRU D &RP Permit, or are renewing, upgrading, adding endorsements to or transferring a CDL from DQRWKHU VWDWH IHGHUDO UX provide information to the Idaho Transportation 'HSDUWPHQW UHJDUGLQJ WKH V PRWRU YHKLFOH RSHUDWLRQ \R GULYH ZLWKLQ RU RXWVLGH RI 6WDWH RU IR 6HOI &HUWL¿FDWLRQ

6HOI &HUWL¿FDWLRQ FDQ EH D FRXQW\ GULYHU¶V OLFHQVH RˆFH \RXU RZQ VHOI FHUWL¿FDWLRQ the following web address: KWWSV GPY LWG LGDKR JRY FGOVHOIFHUWL¿

There is no charge to self-certify and you can change your category at any time. Be aware, if you self- certify in the “Intrastate” category, a (K) (intrastate operation only) restriction will be placed on your commercial license.

1.2.1 Interstate or Intrastate Commerce

In interstate or intrastate commerce?

- From one State to another State or a IRUHLJQ FRXQWU\
- %HWZHHQ WZR SODFHV ZLWK during part of the trip, the CMV crosses a ,QWHUQDWLRQDO ERXQGDU\ OXWH RU IR 7KH H[DPLQHU ZLOO
- %HWZHHQ WZR SODFHV ZLWK the cargo or passengers are part of a trip that began or will end in another State or IRUHLJQ FRXQWU\

Intrastate commerce LV ZKHQ \RX GULYH D &09 LQ WKH VHDVRQDO
ZLWKLQ D 6WDWH DQG \RX GR QRW PHHW DQ\ RI WKH
descriptions above for interstate commerce

If you operate in both intrastate commerce and interstate commerce, you must choose interstate commerce .

1.2.2 Inter/Intrastate Commerce: Status Non-Excepted or Excepted?

2QFH \RX GHFLGH ZKHWKHU \RX ZLOO RSHUDWH LQ interstate commerce or intrastate commerce, \RX PXVW GHFLGH ZKHWKHU \RX ZLOO RSHUDWH DV D QRQ H[FHSWHG RU H[FHSWHG VWDWXV 7KLV GHFLVLRQ ZLOO WHOO \RX WR ZKLFK RI WKH IRXU W\SHV RI FRPPHUFH \RX PXVW VHOHFW

Interstate Commerce:

<RX RSHUDWH LQ excepted interstate commerce ZKHQ \RX GULYH D &09 LQ LQWHUVWDWH FRPPHUFH RQO\ IRU WKH IROORZLQJ H[FHSWHG DFWLYLWLHV

- To transport school children and/or school VWD‡ EHWZHHQ KRPH DQG VFKRRO
- As Federal, State or local government HPSOR\HHV
- 7R WUDQVSRUW KXPDQ FRUSVHV RU VLFN RU injured persons;
-)LUH WUXFN RU UHVFXH YHKLFOH GULYHUV’ GXULQJ emergencies and other related activities;
- ,I SULPDULO\ LQ WKH WUDQVSRUWDWLRQ RI SURSDQH winter heating fuel when responding to an HPHUJHQF\ FRQGLWLRQ UHTXLULQJ LPPHGLDWH response such as damage to a propane JDV V\VWHP DIWHU D VWRUP
- ,Q UHVSRQVH WR D SLSHOLQH HPHUJHQF\ FRQGLWLRQ UHTXLULQJ LPPHGLDWH UHVSRQVH VXFK DV D SLSHOLQH OHDN RU UXSWXUH
- ,Q FXVWRP KDUYHVWLQJ RQ D FKDUP\ RU WUDQVSRUW IDUP PDFKLQHU\ DQG VXSSOLHV XVHG LQ WKH FXVWRP KDUYHVWLQJ RSHUDWLRQV WR DQG IURP D IDUP RU WR WUDQVSRUW FXWWLQJ KDUYHVWHG FURSV WR VWRUDJH RU PDUNHW

- As a private motor carrier of passengers IRU QRQ EXVLQHVV SXUSRVHV
- 7R WUDQVSRUW PLJUDQW ZRU

I \RX DQVZHUHG \HV WR RQH RU activities as the RQO\ RSHUDWLRQ LQ ZK \RX RSHUDWH LQ excepted interstate commerce DQG GR QRW QHHG D)HGHUDO FHUWL¿FDWH

Note: Idaho Department of Education and Idaho Code requires public school bus drivers WR REWDLQ D PHGLFDO H[DPL

,I \RX DQVZHUHG QR WR DOO W \RX RSHUDWH non-excepted interstate commerce DQG DUH UHTXLUHG WR S PHGLFDO H[DPLQHU¶V FHUWL¿FD FRPPRQO\ UHIHUUHG WR DV D P '27 FDUG WR 7' 0RVW &/ KRO CMVs in interstate commerce are non-excepted interstate commerce GULYHUV

If you operate in both excepted interstate commerce and non-excepted interstate commerce, you must choose non-excepted interstate commerce to be qualified in both types of interstate commerce.

Intrastate Commerce:

<RX RSHUDWH LQ excepted intrastate commerce ZKHQ \RX GULYH D &09 RQO\ FRPPHUFH KDXOLQJ H[HPSW F XVHG LQ WKH IROORZLQJ DFWLYLWLHV ZKLFK GR PHGLFDO FHUWL¿FDWLRQ UHTXL

<RX RSHUDWH non-excepted intrastate commerce ZKHQ \RX GULYH D &
LQWUDVWDWH FRPPHUFH DQG
'27 PHGLFDO FHUWL¿FDWLRQ U

,I \RX RSHUDWH LQ ERWK H
FRPPHUFH DQG QRQ H[FHSW
FRPPHUFH \RX PXVW FKRRVH
LQWUDVWDWH FRPPHUFH

6HOI &HUWL¿FDWLRQ 6WD

:KHQ FRPSOHWLQJ DQ DSSOLFI
\RX ZLOO EH UHTXLUHG WR FKH
VWDWHPHQW WKDW GHVFULEHV \RXU VWDWXV %DVHG RQ

Figure 1.2 Sample MCSA-5876 Form

the information above, choose from:

- ,QWHUVWDWH QRQ H[FHSWHG
- ,QWHUVWDWH H[FHSWHG
- ,QWUDVWDWH QRQ H[FHSWHG
- ,QWUDVWDWH H[FHSWHG

1RWH 7KH DERYH GHVFULSWLRQV can be confusing. Generally, if you are 21 or older and maintain your medical FHUWL¿FDWLRQ DQG GR QRW RSHUDWH across state lines (or think you might) you should self-certify “Interstate - non-excepted” to avoid restrictions on your CDL. If you have questions call Driver Services (208) 334-8736

1.2.4 Medical Requirements for CDL Holders

Most people who drive Commercial Motor 9HKLFOHV DOVR FDOOHG D &9 KDYH D YDOLG 0HGLFDO ([DPLQHU¶V &HUWL¿FDWH LV LVVXHG WR W PHGLFDO H[DP GRQH E\ D SUR 1DWLRQDO 5HJLVWU\ RI 0HGLFDO ([DPLQHUV VHH VHFWLRQ 7KH GULYHU WKHQ VXEPLWV D FRS RI WKH 0&6$ IRUP WR WKHLU ORFDO '09 RU ,7' +HDGTXDUWHUV WR EH HQWHUHG RQ WKHLU GULYLQJ UHFRUG 7KLV PXVW EH DFFRPSOLVKHG EHIRUH GULYLQ D &09 LQ PRVW FDVHV

- $ FRS\ RI WKH 0&6$ IRUP VXEPLWWHG WR \RXU HPSOR\
- $ FRS\ RI WKH 0&6$ IRUP VXEPLWWHG WR ,7'

<RXU HPSOR\HU LV DOVR UHTXL RI \RXU ,GDKR GULYLQJ UHFRU ,GDKR GULYHU¶V /LFHQVH 5HFR VHH H[DPSOH DW HQG RI WKLV D VPDOO IHH

7KLV UHSRUW PD\ EH REWDLQHG via Access Idaho at: KWWSV ZZZ DFFH RUJ VHFXUH LWG GOU LQWHUDF

RU WKH 'ULYHU 5HFRUGV KHZ
DFFHVVLGDKR RUJ LWG PRQLWRULQJ

6RPH VWDWHV UHTXLUH DOO SHUVRQV ZKR GULYH D
&09 WR EH PHGLFDOO\ TXDOL¿HG RU WKH\ ZLOO ORVH
WKHLU FRPPHUFLDO GULYHU¶V OLFHQVH ,GDKR GRHV QRW
UHTXLUH D PHGLFDO FHUWL¿FDWH WR)$; D SKRWRFRS\ RI \RXU 0&6
\RX PD\ QRW GULYH D &09 ZLWKRXW D YDOLG PHGLFDO
FHUWL¿FDWH XQOHVV \RX DUH RSHUDWLQJ LQ GDKR
RQO\ KDXOLQJ 21/< H[HPSW FRPPRGLWLHV see
6HFWLRQ) or fall under one of the other
H[HPSWLRQV WR WKH PHGLFDO UHTXLUHPHQWV

,W LV WKH UHVSRQVLELOLW\ RI WKH FRPPHUFLDO GULYHU
WR GHWHUPLQH LI WKH\ DUH UHTXLUHG WR EH PHGLFDOO\
TXDOL¿HG IRU WKH W\SH RI GULYLQJ WKH\ SODQ WR GR ,I
\RX KDYH TXHVWLRQV FRQWDFW 'ULYHU 6HUYLFHV DW

6XEPLW 0HGLFDO ([DPLQHU¶V &HUWL¿FDWH

Most drivers operating commercial vehicles
ZLOO EH UHTXLUHG WR VXEPLW D FXUUHQW PHGLFDO
H[DPLQHU¶V FHUWL¿FDWH DQG RU DQ\ PHGLFDO
YDULDQFH GRFXPHQWV WKDW \RX KDYH EHHQ LVVXHG
L H 9LVLRQ 6NLOOV 3HUIRUPDQFH RU /DEHWLF
ZDLYHUV RU RWKHU H[HPSWLRQV WR ,7 WR RE WDLQ D
³FHUWL¿HG´ PHGLFDO VWDWXV DV SDUW RI \RXU GULYLQJ
UHFRUG

<RX PD\ SURYLGH WKLV E\ PDLOLQJ HPDLOLQJ RU
ID[LQJ D FRS\ RI \RXU '27 PHGLFDO FDUG WR
the Idaho Transportation Department, Driver
6HUYLFHV <RXU PHGLFDO SURYLGHU PD\ DOVR
VHUYLFH IRU \RX EXW PRVW G&RQW

<RX PD\ DOVR WDNH \RXU PHGLFDO FHUWL¿FDWH WR
\RXU ORFDO 6KHUL‡¶V '09 2ˆFH WR EH VFDQQHG WR
\RXU GULYLQJ UHFRUG

IMPORTANT

W LV WKH GULYHU¶V UHVSRQV
PHGLFDO FHUWL¿FDWH KDV EHH
E\ RQH RI WKH JRORZLQJ PHWK
•Email D SKRWR R I \RXU 0&6$
to: /0DLO#LWG LGDKR JRY
•Mail D SKRWRFRS\ RI \RXU 0&6
form to:
Idaho Transportation Department
Driver Services
32 %R[
%RLVH ,'

OR

• 7DNH \RXU 0&6$ FHUWL¿
\RXU ORFDO 6KHUL‡¶V '09 R
scanned.

<u>YHUV 086 7 NHHS D FRS\ RI W
form with them when driving a commercial
motor vehicle for at least two weeks after the
form has been submitted to ITD or your DMV.</u>

2ûFH ,I \RX DUH UHTXLUHG WR
medical status and fail to provide and keep
\RXU PHGLFDO FHUWL¿ WR H[DPLQHU¶V FHU
\RX EHFRPH ´QRW FHUWL¿HG´ D
&/SULYLOHJHV GRZQJUDGHG
&RPPHUFLDO 'ULYHU¶V /LFHQVH

0HGLFDO 4XDOL¿FDWLRQV

:KHQ DSSO\LQJ IRU D FRPPHUFL
\RX ZLOO DOVR EH DVNHG LI \R
LQ FRPSOLDQFH ZLWK WKH UHTX
RI WKH)HGHUDO 0RWRU &DUULH
4XDOL¿FDWLRQV RI 'ULYHUV
DSSOLHV WR &09 GULYHUV ZKR D
WR KDYH D 0HGLFDO ([DPLQH
SHUIRUP WKH GULYLQJ IXQFWLR

:KHQ \RX DSSO\ IRU RU UHQHZ 'ULYHU¶V /LFHQVH \RX ZLOO EH DVNHG WR DQVZHU D &RPPHUFLDO 'ULYHU ¿QG WUDLQH

³, DP VXEMHFW WR WKH 4XDOL¿FDWLRQV RI 'ULYHUV)HGHUDO 0RWRU &DUULHU 6DIHW\ 5HJXODWLRQV 3DUW LQFOXGLQJ WKH '27 0HGLFDO &DUG 5HTXLUHPHQWV DQG , FHUWLI\ WKDW , DP FRPSOLDQW ZLWK WKHVH UHTXLUHPHQWV Yes___ No ___”

,I \RX DUH UHTXLUHG WR SRVVHVV D FXUUHQW 0HGLFDO ([DPLQHU¶V &HUWL¿FDWH WR RSHUDWH D Commercial Motor Vehicle under State of Idaho ODZ RU)HGHUDO 0RWRU &DUULHU 6DIHW\ 5HJXODWLRQV \RX PXVW EH DEOH WR SDVV WKH SK\VLFDO H[DPLQDWLRQ DQG FKHFN WKH DSSURSULDWH ER[RQ WKH DSSOLFDWLRQ IRUP

- ,I \RX DUH QRW PHGLFDOO\ TXDOL¿HG WR GULYH a CMV in Interstate Commerce, but ZLVK WR GULYH LQ ,GDKR KDXOLQJ H[HPSW FRPPRGLWLHV \RX VKRXOG DQVZHU ³1R´ WR WKLV TXHVWLRQ
- ,I \RX RQO\ KDXO H[HPSW FR DUH WKHUHIRUH QRW UHTXL '27 3K\VLFDO \RX PD\ DQVZH TXHVWLRQ
- ,I \RX KDYH D &'/ EXW DUH Q GULYLQJ RU GR QRW KDYH D PD\ DQVZHU ³1R´ WR WKLV T

,I \RX NQRZLQJO\ DUH QRW F XQGHU WKH)0&65V VHH)0&6 GLVTXDOLI\LQJ PHGLFDO FRQG WKH ER[WKDW \RX DUH LQ FRPSOLDQFH ZLWK 3DUW \RX KDYH IDOVL¿HG \RXU DSSOLFDWLRQ DQG WKH VWDWH FRXOG FDQFHO \RXU &'/

1.2.7 National Registry of Medical Examiners

&09 GULYHUV DUH UHTXLUHG WR REWDLQ H[DPLQDWLRQ IURP D FHUWL¿HG PHGLFDO H[DPLQHU WKDW LV OLVWHG RQ WKH 1DWLRQDO 5HJLVWU\ RI &HUWL¿HG 0HGLFDO ([DPLQHUV

'HVLJQHG WR LPSURYH VDIHW\ E\ DFKLHYLQJ KLJK TXDOLW\ PHGLFDO H[DPV WKDW DUH FRQVLVWHQW with Federal regulations and guidelines, the 1DWLRQDO 5HJLVWU\ ZLOO KHOS FRPPHUFLDO PRWRU

ZHLJKW &6$UHJLVWU\ RQ a provider, (PDLO or call

For Medical and Health-Related Questions: (PDLO or telephone

For more information or help with medical UHSRUWLQJ RU VHOI FHUWL¿FDWLRQ 09 RU FDOO 'ULYHU 6HUYLFHV or see our website at ZZZ LWG LGDKR JRY

1.2.8 Medical Card Exemptions for &RPPHUFLDO 'ULYHU 4XDOL¿FD

Most Commercial Vehicle operations are not H[HPSW IURP WKH PHGLFDO F HYHQ ZKHQ RSHUDWLQJ RQO\ 0RWRU &DUULHU 6DIHW\ $GPLQ 5HTXLUHPHQWV IRU '27 PHGLFD IROORZHG LQ ,GDKR

GDKR GRHV QRW SURYLGH H[FH UHTXLUHPHQWV KRZHYHU FXU certain CDL Holders to drive a CMV without REWDLQLQJ D PHGLFDO FDUG 7

³([HPSW´ FRPPRGLWLHV DQG SHUIRUP RWKHU W\SHV RI WUXFN RSHUDWLRQV ZLWK D YDOLG &'/ DV RXWOLQHG LQ WKH IROORZLQJ VHFWLRQV

1.2.9 Exempt Commodities List- Idaho

&RPPHUFLDO 'ULYHU¶V /LFHQVH KROGHUV ZKR RSHUDWH LQ ,'$+2 21/< FDQ OHJDOO\ WUDQVSRUW the following exempt commodities without a DOT Medical Card in their possession:

Exempt Commodities List- Idaho
Bedding Plants
Bees (apiary)
Beet Pulp (for dairy feed)
Christmas Trees
Clay
Coal
Compost (soil aid)
Dirt (equipment towed behind the truck to unload the dirt is regulated)
Firewood
)LVK /LYH ¿VK LQ WDQNV
Fruits (fresh)
Furniture (moving & storage)
Fur-Bearing Animals
Grain
Grass (sod)
Gravel (equipment towed behind the truck to unload the gravel is regulated)
Hay (alfalfa)
Hops
Horses (riding, show, race, & rodeo)
Household Goods
Humus
Livestock
Livestock Feed/Silage
Logs
Mail
Manure (fresh, dry, & dehydrated)
Milk (bulk)
Minerals (mined, unprocessed, ore only)
Mobile/Modular Homes
Molasses (as livestock feed)
Mushrooms (fresh)
Newspapers & Newsprint
Onions (bulk)
Ores (raw products of the mine)
Peat Moss (bulk)
Pit Run
Potatoes (seed)
Potatoes (unprocessed)
Potato Waste (used for cattle feed)
Poultry
Rock (equipment towed behind the truck to unload the rocks is regulated)
Sand (equipment towed behind the truck to unload the sand is regulated)
Sap (maple)
Silage
Sugar Beets
Top Soil (equipment towed behind the truck to
unload the top soil is regulated)
Wheat (farm)
Whey
Worms

A current, complete list of regulated and exempt commodities can be found on the Idaho State Police website: KWWS LVS LGDKR JRY FYV FRP

1.2.10 Exempt Operations

Federal Motor Carrier Safety Regulations exempt drivers under certain circumstances from the DOT Medical card requirements (but these operations are not exempt from CDL licensing requirements).

Interstate or Foreign: Interstate drivers travel in the State of Idaho and also through other states:

- School bus operators transporting students to or from school or school-related activities are exempt from the federal medical card requirement. However, under federal law, Idaho law requires school bus operators to maintain a valid DOT Medical Examiner's Certificate
- Transportation performed by federal, state or local governments
- Operations of nonprofit organizations
- Transportation of sick or injured persons
- Firefighters and other persons operating fire trucks while responding to emergencies
- Apiarian industries (seasonal transportation of bees)
- Farm vehicles used to transport the farmer's equipment or supplies
- Vehicles used to transport agricultural products to or from farms
- Vehicles used to transport farm laborers
- Vehicles used to transport sick or injured livestock
- Tow service
- Utility service
- Vehicles used to transport household goods
- School bus operations at least 150 air miles (172.5 statute miles) from the driver's home, if the driver complies with the requirements under Federal law, Idaho law requires school bus operators to maintain a valid DOT Medical Examiner's Certificate

Intrastate: Intrastate drivers travel only within the borders of the State of Idaho:

- Transportation performed by federal, state or local governments
- Operations of nonprofit organizations
- Transportation of sick or injured persons
- Firefighters and other persons operating fire trucks while responding to emergencies
- Apiarian industries (seasonal transportation of bees)
- Farm vehicles used to transport the farmer's equipment or supplies
- Vehicles used to transport agricultural products to or from farms
- Vehicles used to transport farm laborers
- Vehicles used to transport sick or injured livestock
- Tow service
- Utility service
- Vehicles used to transport household goods
- School bus operations at least 150 air miles (172.5 statute miles) from the driver's home, if the driver complies with the requirements under Federal law, Idaho law requires school bus operators to maintain a valid DOT Medical Examiner's Certificate

More information on Interstate Exemptions specified under Federal Regulations can be found at www.ipfvd.org

1.3 CDL DISQUALIFICATIONS

1.3.1 General

You may not drive a commercial motor vehicle if your driving privileges are disqualified or if you are subject to an out-of-service order.

1.3.2 Alcohol Offenses Involving the Scene of an Accident, and Commission of a Felony

You will lose your CDL for one year if you are convicted of driving a CMV with an alcohol concentration of 0.04 or more, refusing to be tested, driving a CMV while under the influence of alcohol, or committing a felony involving the operation of a CMV. You will lose your CDL for three years if you are convicted of any of these offenses while transporting hazardous materials required to be placarded. You will lose your CDL for life if you are convicted of two of any of these offenses.

JLYHQ \RXU FRQVHQW WR DOFRKROWHVW RU WHVWLQJ \RX EHFRPH
SXW RXW RI VHUYLFH IRU KRXUV RQ LQFXUULQJ DQ DOFRKRO
GHWHFWDEOH DPRXQW RI DOFRKRO XQGHU

<RX ZLOO ORVH RXU &'/ IRU DW OHDVW RQH \HDU
IRU D ¿UVW R‡HQVH IRU

- 'ULYLQJ D &09 LI \RXU EORRG DOFRKRO FRQFHQWUDWLRQ LV RU KLJKHU
- 'ULYLQJ D &09 XQGHU WKH LQÀXHQFH RI DOFRKRO
- 5HIXVLQJ WR XQGHUJR EORRG DOFRKRO WHVWLQJ
- 'ULYLQJ D &09 ZKLOH XQGHU WKH LQÀXHQFH RI D FRQWUROOHG VXEVWDQFH
- Leaving the scene of an accident involving D &09
- &RPPLWWLQJ D IHORQ\ LQYROYLQJ WKH XVH RI D &09
- Driving a CMV when the CDL is VXVSHQGHG
- &DXVLQJ D IDWDOLW\ WKURXJK QHJOLJHQW RSHUDWLRQ RI D &09

<RX ZLOO ORVH \RXU &'/ IRU DW OHDVW \HDUV LI WKH R‡HQVH RFFXUV ZKLOH \RX DUH RSHUDWLQJ D &09 WKDW LV SODFDUGHG IRU KD]DUGRXV PDWHULDOV

<RX ZLOO ORVH \RXU &'/ IRU RQH \HDU for a conviction of Driving Under the ,QÀXHQFH RI DQ\ \SRIIHQVH
<RX ZLOO ORVH \RXU &'/ IRU OLIH IRU a second DUI conviction.

<RX ZLOO ORVH \RXU &'/ IRU OLIH LI \RX
FRPPLW D IHORQ\ LQYROYLQJ FRQWUROOHG VXEVWDQFHV

6HULRXV 7UDˆF 9LRODWLRQV

6HULRXV WUDˆF YLRODWLRQV LQFOXGH

- H[FHVVLYH VSHHGLQJ PSK RU PRUH above the posted limit)
- UHFNOHVV GULYLQJ
- improper or erratic lane changes
- IROORZLQJ D YHKLFOH WRR FORVHO\

- driving a CMV without obtaining a CDL or having a CDL in the driver's possession
- driving a CMV without the proper class of &'/ DQG RU HQGRUVHPHQWV
- WH[WLQJ RU XVLQJ D KDQGKHOG PRELOH WHOHSKRQH while driving a CMV
- improper or erratic lane changes
- IROORZLQJ D YHKLFOH WRR FORVHO\
- WUDˆF R‡HQVHV FRPPLWWHG LQ FRQQHFWLRQ ZLWK IDWDO WU

- driving a CMV without obtaining a CDL or having a CDL in the driver's possession
- driving a CMV without the proper class of &'/ DQG RU HQGRUVHPHQWV
- WH[WLQJ RU XVLQJ D KDQGKHOG PRELOH WHOHSKRQH while driving a CMV

<RX ZLOO ORVH \RXU &'/

-)RU DW OHDVW GD\V LI \RX ZHUH RSHUDWLQJ D YHKLFOH WUDQVSRUWLQJ KD]DUGRXV PDWHULDOV
-)RU DW OHDVW GD\V IRU WZR VHULRXV WUDˆF YLRODWLRQV SHUIRUPHG LQYROYLQJ D &09
-)RU DW OHDVW GD\V LI \RX ¿UVW YLRODWLRQ RI DQ RUGHU
-)RU DW OHDVW RQH \HDU LI \RX WZR YLRODWLRQV RI DQ RXW D WHQ \HDU SHULRG
-)RU DW OHDVW WKUHH \HDUV committed three or more violations of an RXW RI VHUYLFH RUGHU LQ D

1.3.4 Violation of Out-of-Service Orders

<RX ZLOO ORVH \RXU &'/ IRU
FRPPLW D IHORQ\ LQYROYLQJ FRQWUROOHG VXEVWDQFHV

1.3.5 Railroad - Highway / Grade Crossing Violations

<RX ZLOO ORVH \RXU &'/

-)RU DW OHDVW GD\V IRU \RXU ILUVW RIIHQVH
-)RU DW OHDVW GD\V IRU \RXU VHFRQG YLRODWLRQ ZLWKLQ D WKUHH \HDU SHULRG
-)RU DW OHDVW RQH \HDU IRU \RXU WKLUG YLRODWLRQ ZLWKLQ D WKUHH \HDU SHULRG

These violations include violation of a federal, state or local law or regulation pertaining to one RI WKH IROORZLQJ VL[R‡HQVHV DW D UDLOURDG KLJKZD\ grade crossing:

)RU GULYHUV ZKR DUH QRW UHTXLUHG WR DOZD\V stop, failing to stop before reaching the FURVVLQJ LI WKH WUDFNV DUH QRW FOHDUO\

)RU GULYHUV ZKR DUH QRW UHTXLUHG WR DOZD\V VWRS IDLOLQJ WR VORZ GRZQ DQG FKHFN WKDW WKH WUDFNV DUH FOHDU RI DQ DSSURDFKLQJ WUDLQ

)RU GULYHUV ZKR DUH DOZD\V UHTXLUHG WR VWRS stop, failing to stop before driving onto the FURVVLQJ

)RU DOO GULYHUV IDLOLQJ WR REH\ DQ RIILFLDO VSDFH WR GULYH FRPSOHWHO\ WKURXJK D FURVVLQJ ZLWKRXW VWRSSLQJ

)RU DOO GULYHUV IDLOLQJ WR REH\ D WUDIILF control device or the directions of an HQIRUFHPHQW R‡FLDO DW WKH FURVVLQJ

)RU DOO GULYHUV IDLOLQJ WR QHJRWLDWH D FURVVLQJ EHFDXVH RI LQVX‡FLHQW XQGHUFDUULDJH FOHDUDQFH

1.3.6 Hazardous Materials Endorsement

%DFNJURXQG &KHFN DQG 'LVTXDOLI\FDWLRQV

,I \RX UHTXLUH D KD]DUGRXV PDWHULDOV HQGRUVHPHQW \RX ZLOO EH UHTXLUHG WR VXEPLW \RXU SURRI RI OHJDO SUHVHQFH LQ WKH 8QLWHG 6WDWHV DQG FRPSOHWH D VHFXULW\ EDFNJURXQG FKHFN

<RX ZLOO EH GHQLHG RU \RX ZLOO ORVH \RXU KD]DUGRXV PDWHULDOV HQGRUVHPHQW LI \RX

- Are not a lawful permanent resident of the 8QLWHG 6WDWHV
- 5HQRXQFH \RXU 8QLWHG 6WD
- Are wanted or under indictment for certain IHORQLHV
- +DYH EHHQ DGMXGLFDWHG DV FDSDFLW\ RU KDYH EHHQ LQY FRPPLWWHG WR D PHQWDO K VSHFL¿HG LQ &)5
- $UH FRQVLGHUHG WR SRVH D GHWHUPLQHG E\ WKH 7UDQVS $GPLQLVWUDWLRQ

&RQWDFW 76$ DW LQIRUPDWLRQ \RX QHHG WR FR 76$ EDFNJURXQG FKHFN WKDW WKH website at KWWSV XQLYHUVDOHQUR

7KH 0RWRU &DUULHU 6DIHW\ 0&6,6 RIVXˆFLHQWO GLVTXDOLI¿HG IURP RSHUDWLQJ vehicle if the

&7 KROGHU KDV EHHQ FRQYLFW RI PRYLQJ YLRODWLRQV LQ WKH ,I \RXU SULYLOHJH WR RSHUDWH LV UHYRNHG FDQFHOOHG RU YLRODWLRQV RI WUDˆF FRQWU SDUNLQJ YLRODWLRQV \RX ZLO GULYLQJ SULYLOHJHV

,I \RXU SUL YLOHJH WR RSHUDWH UHYRNHG FDQFHOOHG RU VXVS FRQWUROOHG VXEVWDQFH RU OHJDO ZLOO ORVH \RXU &'/ IRU \HDU RI D VHFRQG YLRODWLRQ LQ \RX &0 \RX ZLOO ORVH \RXU &'/ IRU ,I \RXU OLFHQVH WR RSHUDWH \ UHYRNHG FDQFHOOHG RU VXVS REWDLQ D ³KDUGVKLS´ OLFHQVH

1.4 OTHER CDL RULES

7KHUH DUH RWKHU IHGHUDO DQG VWDWH UXOHV WKDW D+HFW GULYHUV RSHUDWLQJ &09V LQ DQG VWDWHV $PRQJ them are:

- <RX FDQQRW KDYH PRUH WKDQ RQH OLFHQVH \RX EUHDN WKLV UXOH D FRXUW PD\ ¿QH \RX XS WR RU SXW \RX LQ MDLO DQG NHHS \RXU KRPH VWDWH OLFHQVH DQG UHWXUQ DQ\ RWKHUV
- <RX PXVW QRWLI\ \RXU HPSOR\HU 6 DUWKQ PRUH WKDQ D V GD\V RI FRQYLFWLRQ IRU DQ\ WUDIILF YLRODWLRQ H[FHSW SDUNLQJ 7KLV LV WUXH QR PDWWHU ZKDW W\SH RI YHKLFOH \RX ZHUH GULYLQJ
- <RX PXVW QRWLI\ \RXU PRWRU YHKLFOH OLFHQVLQJ DJHQF\ ZLWKLQ GD\V LI \RX DUH FRQYLFWHG LQ DQ\ RWKHU MXULVGLFWLRQ RI DQ\ WUDˆF YLRODWLRQ H[FHSW SDUNLQJ 7KLV LV WUXH QR PDWWHU ZKDW W\SH RI YHKLFOH \RX ZHUH GULYLQJ
- <RX PXVW QRWLI\ \RXU HPSOR\HU ZLWKLQ GD\V LI \RX OLVWHQ EHQHˆW RU EH\RQG DUH GLVTXDOL¿HG IURP GULYLQJ
- <RX PXVW JLYH \RXU HPSOR\HU LQIRUPDWLRQ RQ DOO GULYLQJ MREV \RX KDYH KHOG IRU WKH SDVW \HDUV <RX PXVW GR WKLV ZKHQ \RX DSSO\ IRU D FRPPHUFLDO GUL YLQJ MRE
- No one can drive a commercial motor YHKLFOH ZLWKRXW D &'/ $ FRXUW PD\ ¿QH \RX XS WR RU SXW \RX LQ MDLO IRU EUHDNLQJ WKLV UXOH
- ,I \RX KDYH D KD]DUGRXV PDWHULDOV HQGRUVHPHQW \RX PXVW QRWLI\ DQG VXUUHQGHU \RXU KD]DUGRXV PDWHULDOV WKH VWDWH WKDW LVVXHG \RXU &'/ ZLWKLQ KRXUV RI DQ\ FRQYLFWLRQ RU ORGLFWPHQW LQ DQ\ MXULVGLFWLRQ FLYLOLDQ RU PLOLWDU\ RU LI \RX GR QRW JXLOW\ E\ UHDVRQ RI LQVDQLW\ RI D GLVTXDOL¿FDWLRQ OLVWHG LQ &)5 \RX KDYH EHHQ DGMXGLFDWHG DV ODFNLQJ PHQWDO FDSDFLW\ RU KDYH EHHQ LQYROXQWDULO\ FRPPLWWHG WR D PHQWDO KHDOWK IDFLOLW\ DV VSHFL¿HG LQ &)5 RU KDYH UHQRXQFHG \RXU 8 6 FLWL]HQVKLS

- <RXU HPSOR\HU PD\ QRW OHW \RX GULYH D FRPPHUFLDO PRWRU YHKLFOH XQOHVV WKDW D+HFW RU VXVSHQGHG RU UHYRNHG $ F WKH HPSOR\HU XS WR R PDLOLFLRXV DNLQJ WKLV UX
- <RX DUH QRW DOORZHG WR K mobile telephone to conduct a voice communication or dial a mobile telephone ZKHQ GULYLQJ PRUH WKDQ D V HU ZLWKLQ
- <RX DUH QRW DOORZHG WR V PHVVDJHV ZKLOH GULYLQJ
- <RX PXVW EH SURSHUO\ UHVW VDIHW\ EHOW DW DOO WLPHV ZKHQ GULYLQJ 7KLV LV GHVLJQHG WKH GULYHU wheel during a crash, helping the driver to control the vehicle and reduces the chance RI ZHUH DLVDIHW\ EHOW \RX DU LQMXU\ RU GHDW EHQHˆW LV LQ HIIHFW RXWDOO\ LQMX WKH YHKLFOH
- $OO VWDWHV DUH FRQQHFWHG V\VWHP WR VKDUH LQIRUPDWLRQ 7KH VWDWHV ZLOO FKHFN RQ GUL DQG PDNH VXUH WKDW GULYHUV RQH &'/

1.5 INTERNATIONAL REGISTRATION PLAN

,I \RX RSHUDWH D &'/ UHTXLUHG FRPPHUFE WKH YHKLFOH ZLWK PRUH WKDQ RQH OLFHQVH RU UHTXLUHG HQGRUVHPHQW 5HJLVWUDWLRQ 3ODQ ,53 DQG)XHO 7D[$JUHHPHQW ,)7$ 7K PDQGDWHG SURJUDPV SURYLGH collection and distribution of vehicle license IHHV DQG PRWRU IXHOV WD[HV I WKURXJKRXW WKH FRQWLJXRX &DQDGLDQ SURYLQFHV 8QGHU WKH ,53 MXULVGLFWL apportioned vehicles which includes issuing license plates and cab cards or proper credentials,

FDOFXODWH FROOHFW DQG GLVWULEXWH IHHV DQG GLVWULEXWH FDUULHUV IRU DFFXUDF\ RI UHSRUWHG GLVWDQFH IHHV DQG HQIRUFH ,53 UHTXLUHPHQWV

5HJLVWUDQW UHVSRQVLELOLWLHV XQGHU WKH 3ODQ

LQFOXGH DSSO\LQJ IRU ,53 UHJLVWUDWLRQ SD\LQJ DSSURSULDWH ,53 UHJLVWUDWLRQ IHHV SURSHUO\ GLVSODYLQJ UHJLVWUDWLRQ DQG SODFDUGV DQG PDLQWDLQLQJ DFFXUDWH GLVWDQFH UHFRUGV DQG PDNLQJ UHFRUGV DYDLODEOH IRU

1.5.1 International Fuel Tax Agreement

The basic concept behind IFTA is to allow a licensee (motor carrier) to license in a base MXULVGLFWLRQ IRU WKH UHSRUWLQJ DQG SD\PHQW RI IXHO XVH WD[HV 8QGHU WKH ,)7$ SURSHUO\ DQG DFFXUDWHO\ LVVXHG RQH VHW RI FUHGHQWLDOV ZKLFK ZLOO DXWKRUL]H RSHUDWLRQV WKURXJK DOO ,)7$ PHPEHU MXULVGLFWLRQV 7KH IXHO XVH WD[HV FROOHFWHG SXUVXDQW WR WKH ,)7$ are calculated based on the number of miles NLORPHWHUV WUDYHOHG DQG WKH QXPEHU RI JDOORQV OLWHUV FRQVXPHG LQ WKH PHPEHU MXULVGLFWLRQ E\ ZKLFK WKH OLFHQVHH ¿OHV RQH TXDUWHUO\ MXULVGLFWLRQ E\ ZKLFK WKH OLFHQVHH LV UHTXLUHG WR UHSRUW RSHUDWLRQV WKURXJK DOO ,)7$ PHPEHU MXULVGLFWLRQV

,W LV WKH EDVH MXULVGLFWLRQ¶V UHVSRQVLELOLW\ WR FROOHFW WKH WD[HV UHSRUWHG WR RWKHU ,)7$ MXULVGLFWLRQV DQG WR UHSUHVHQW WKH RWKHU PHPEHU MXULVGLFWLRQV LQ WKH WD[FROOHFWLRQ SURFHVV DQG SHUIRUPDQFH RI DXGLWV

An IFTA licensee must retain records to support WKH LQIRUPDWLRQ UHSRUWHG RQ WKH ,)7$ TXDUWHUO\ WD[UHWXUQ

The IRP registrant and the IFTA licensee may be the vehicle owner or the vehicle operator.

7KH UHTXLUHPHQW IRU DFTXLULQJ ,53 SODWHV IRU D vehicle and IFTA license for a motor carrier is GHWHUPLQHG E\ WKH GH¿QLWLRQV IURP WKH ,53 3ODQ DQG WKH ,)7$ IRU 4XDOL¿HG 9HKLFOH DQG 4XDOL¿HG 0RWRU 9HKLFOH

For purposes of IRP:

$ 4XDOL¿HG 9HKLFOH LV H[FHSW DV SURYLGHG EHORZ DQ\ 3RZHU 8QLW WKDW LV XVHG RU LQWHQGHG IRU XVH

LQ WZR RU PRUH ,53 -XULVGLFWLRQV DQG WKDW LV XVHG IRU WKH WUDQVSRUWDWLRQ RI SHUVRQV RU

WUDQVSRUWDWLRQ RI SURSHUW\ RU

LQ WZR RU PRUH ,)7$ -XULVGLFWLRQV DQG

or registered gross vehicle weight in

LQ WZR RU PRUH ,)7$ -XULVGLFWLRQV RU

weight, or

LQ WZR RU PRUH ,53 RU ,)7$ -XULVGLFWLRQV

(iv) Used in Combination when the gross vehicle weight of such combination

SRXQGV

:KLOH VLPLODU WKH 4XDOL¿HG

IFTA means a motor vehicle used, designed, or maintained for transportation of persons or

SURSHUW\ DQG

DYDLODEOH IRU WKH WUDQVSRUWDWLRQ RI SHUVRQV DQG D JU

weight or registered gross vehicle weight

H[FHHGLQJ SRXQGV RU

,VVXHG LQ FRPELQDWLRQ Z

RU VXFK FRPELQDWLRQ WK

gross vehicle or registered gross vehicle

WD[HV WKURXJK WKH EDV

ZHLJKW 4XDOL¿HG 0RWRU

PHPEHU MXULVGLFWLRQ

RQ¶W KDYH SHUVRQDO EH

5HJLVWUDQW DXWKRUL]HG E

,)7$ WKHQ \RX DUH UHTXLUHG

RSHUDWLQJ WKH YHKLFOH $ X

method of capturing this information is through the completion of an Individual Vehicle Distance

5HFRUG ,9'5 VRPHWLPHV UHIH

7UL3 5HSRUW 7KLV GRFXPHQW

traveled and fuel purchased for a vehicle that RSHUDWHV LQWHUVWDWH XQGH

UHJLVWUDWLRQ DQG ,)7$ IXHO W

$OWKRXJK WKH DFWXDO IRUPDW

WKH LQIRUPDWLRQ WKDW LV UH

NHHSLQJ GRHV QRW

,Q RUGHU WR VDWLVI\ WKH UHTXLUHPHQWV IRU ,QGLYLGXDO 9HKLFOH 'LVWDQFH 5HFRUGV WKHVH GRFXPHQWV must include the following information:

- Distance
- 3HU $UWLFOH ,9 RI WKH ,53 3ODQ

(i) Date of trip (starting and ending)

LL7ULS RULJLQ DQG GHVWLQDWLRQ ± &LW\ DQG State

LL5RXWH V RI WUDYHO

LY%HJLQQLQJ DQG HQGLQJ RGRPHWHU RU hubometer reading of the trip

(v) Total distance traveled

YL,Q -XULVGLFWLRQ GLVWDQFH

(vii) Power unit number or vehicle LGHQWL¿FDWLRQ QXPEHU

Fuel

3HU 6HFWLRQ 3 RI WKH ,)7$ 3URFHGXUHV 0DQXDO

$Q DFFHSWDEOH UHFHLSW RU LQYRLFH PXVW include, but shall not be limited to, the following:

'DWH RI SXUFKDVH

6HOOHU¶V QDPH DQG DGGU

1XPEHU RI JDOORQV SXUFK

)XHO W\SH

3ULFH SHU JDOORQ RU WRW

8QLW QXPEHU RU RWKHU X LGHQWL¿HU

3XUFKDVHU¶V QDPH

$Q H[DPSOH RI DQ ,9'5 WKDW PX LQ LWV HQWLUHW\ IRU HDFK WU (Figure 1.3 (DFK LQGLYLGXDO ,9'5 ¿OOHG RXW IRU RQO\ RQH YHKL ZKHQ WU\LQJ WR GHWHUPLQH KR odometer reading are the following:

- $W WKH EHJLQQLQJ RI WKH G
- When leaving the state or province
- $W WKH HQG RI WKH WULS GD

$Q DFFHSWDEOH UHFHLSW RU LQYRLFH PXVW

Figure 1.3 Sample Mileage and Fuel Record for IFTA Reporting

Individual Vehicle Mileage And Fuel Record

Carrier	ABC Carriers Inc	Account Number	999999999	Driver Name	John Doe Jr.	Unit Number	58
Load Information	Origins: 1/2/04 Pick Up Maplewood MO; 1/3/04 Pick Up Springfield IL		Destinations: 1/2/04 Delivery Springfield IL; 1/03/04 Delivery Dayton OH	Driver Comments			

Date	Town Origin-Jurisdiction Lines-Town Destination	State	Ending Odometer	Miles by Jurisdiction	Highways or Routes Traveled	Name of Fuel Stop and Location	Gallons Purchased
1/2/2004	**Beginning State & Odometer Reading**	MO	45,869	**All other odometer reading will be ending readings.**			
	Maplewood MO - IL Line	MO	45,878	9	64		
	MO Line - Springfield IL	IL	45,976	98	55-29	Ted's I-72 Fuel — Springfield IL	98
1/3/2004	Springfield IL - IN Line	IL	46,101	125	29-97-72-57-74		
	IN Line - OH Line	IN	46,259	158	74-32-65-465-70		
	OH Line - Dayton OH	OH	46,297	38	70-49		
	Total Trip Miles **		428			**Total Fuel Purchases**	98

Odometer Miles, Total Trip Miles & Total Jurisdictional Miles Must Agree		OFFICE USE	Total Jurisdictional Miles **				OFFICE USE ONLY
			Jurisdiction	Miles	Jurisdiction	Miles	
Ending Odometer	46,297		MO	9			
Beginning Odometer	45,869		IL	223			
Total Odometer Miles **	428		IN	158			
			OH	38			

Example

Note: Beginning odometer reading on this trip must match ending reading from prior trip and ending reading from this trip must be the beginning reading on the next trip.

1RW RQO\ GR WKH WULSV QHHG WR EH GRFXPHQWHG EXW WKH <RX IXHO SXUFKDVHV QHHG WR EH GRFXPHQWHG DV ZHOO <RX PXVW REWDLQ D UHFHLSW RU LQYRLFH DQG PXVW LQFOXGH LW ZLWK \RXU FRPSOHWHG ,)7$

- 0DNH VXUH WKDW DQ\ WULSV WKDW \RX HQWHU DUH DOZD\V ¿OOHG RXW LQ GHVFHQGLQJ RUGHU DQG WKDW \RXU WULSV LQFOXGH DOO 2 QHHG DJH WKDW \RX WUDYHOHG WKURXJK RQ \RXU URXWH &'/ 7KUHH \HDU DJH WR &'/)RXU \HDU DJH DQG RYHU 6HDVRQDO &'/ DV Commercial Learner's Permit Duplicate CDL or permit License upgrade $GG (QGRUVHPHQW DIWHU LVVXDQ &'/ GRHV QRW LQFOXGH ZULWWHQ Written tests (each) 6NLOOV 7HVW &RQWUDFWRU

7KHUH DUH GL‡HUHQW URXWHV WKDW D GULYHU PD\ WDNH DQG PRVW RI WKH PLHV PD\ EH ZLWKLQ RQH VWDWH :KHWKHU RU QRW WKH GLVWDQFH \RX WUDYHO LV SULPDULO\ LQ RQH MXULVGLFWLRQ RU VSUHDG DPRQJ several jurisdictions, all information for the trip PXVW EH UHFRUGHG 7KLV LQFOXGHV WKH GDWHV WKH URXWHV RGRPHWHU UHDGLQJV DQG IXHO SXUFKDVHV

%\ FRPSOHWLQJ WKLV GRFXPHQW, LOO V7HVW &RQWUDFWRU DOO UHFRUGV UHTXLUHG E\ ERWK WKH ,53 DQG WKH ,)7$ \RX ZLOO KDYH HQVXUHG WKDW WKH &'/ WHVW FRPSDQ\ DUH LQ FRPSOLDQFH ZLWK DOO VWDWH DQG provincial laws surrounding fuel and distance UHFRUG NHHSLQJ UHTXLUHPHQWV

7KH ,9'5 VHUYHV DV WKH VRXUFH GRFXPHQW IRU WKH FDOFXODWLRQ RI IHHV DQG WD[HV WKDW DUH SD\DEOH WR the jurisdictions in which the vehicle is operated, so these original records must be maintained for D PLQLPXP RI IRXU \HDUV

In addition, these records are subject to audit E\ WKH WD[LQJ MXULVGLFWLRQV 6RPH RI WKH complete and accurate records could result in ¿QHV SHQDOWLHV DQG VXVSHQVLRQ RI ,53 UHJLVWUDWLRQV DQG ,)7$ OLFHQVHV

)RU DGGLWLRQDO LQIRUPDWLRQ RQ WKH UHTXLUHPHQWV UHODWHG WR WKH &RPPHUFLDO 9HKLFOH 6HUYLFHV DW RU ,53 ,QF WKH R‚FLDO UHSRVLWRU\ IRU WKH ,53

Additional information can be found on the ,53 ,QF ZHEVLWH DW ZZZ LUSRQOLQH RJ 7KHUH is a training video on the website home page DYDLODEOH LQ (QJOLVK 6SDQLVK)UHQFK %ULQJ \RX FXUU 6RFLDO 6HFXULW\ FDUG DQG R IHHV <RX ZLOO DOVR EH UHTXL

For additional information on IFTA and the UHTXLUHPHQWV UHODWHG WR ,)7$ FRQWDFW &RPPHUFLDO Vehicle Services at Idaho Transportation RI OHJDO SUHVHQFH LQ WKH 8Q VL[IHGHUDOO\ DSSURYHG GRFX

1.6 CDL LICENSE FEES

&'/ 2QH \HDU DJH	
&'/ 7KUHH \HDU DJH	WR
&'/)RXU \HDU DJH DQG RYHU	
6HDVRQDO &'/ DV	
Commercial Learner's Permit	
Duplicate CDL or permit	
License upgrade	
$GG (QGRUVHPHQW DIWHU LVVXDQ	
&'/ GRHV QRW LQFOXGH ZULWWHQ	
Written tests (each)	
6NLOOV 7HVW &RQWUDFWRU	

Commercial Driver's License Skills Tester List available online at: KWWSV LWG LG LWGGPY "WDUJHW GULYHUV OLF

3UHSW YHUVLRQV DUH DYDLODE

1.7 HOW TO GET A CDL

7R DSSO\ IRU D FRPPHUFLDO GU must:

- %H DW OHDVW DJH RI RU ROG
- +DYH D YDOLG ,GDKR QRQ FR &ODVV ' RU KDYH SDVVHG D WR REWD'LQ RQH <RX PD\ EH \RXU &ODVV ' OLFHQVH WHVW WHVWV DW WKH VDPH WLPH
- 3URYLGH SURRI RI ,GDKR UH
- <RX PXVW KDYH DW OHDVW licensed driving experience in order to obtain a CDL per Idaho Code 49-303(4).

7R DSSO\ IRU \RXU &'/ JR WR \R LH HQVH)2 F H %ULQJ \RXU FXU

GRFXPHQWV DUH VKRZQ RQ WKH FLQWHL[MWQSVDKJLHS RU ODZIXO SHUPDQ

All applications shall also state whether the DSSOLFDQW KDV SUHYLRXVO\ EHHQ FHOSLWF DHEQYHHGWDV DWKUHLY&HRXQW\ DQG LI VR ZKHQ DQG E\ ZKDW VHW[DPLQHRU F7RKXHQGRUFXDEHQGW V SU whether a driver's license or privileges have ever EHHQ VXVSHQGHG UHYRNHG GQHDQPLHRQ GVLKHTXDOWKHFHUWL¿FDW or canceled, or whether an application has ever been refused, and if so, the date of and reason for the suspension, revocation, denial, GLVTXDOL¿FDWLRQ FDQFHOODWLRQ applicant's oath that all information is correct as VLJQL¿HG E\ WKH DSSOLFDQW¶V

(YHU\ DSSOLFDQW IRU D FODVV $ RU & commercial learner's permit shall provide proof RI 8QLWHG 6WDWHV FLWL]HQVKLS DQG VKDOO SURYLGH SURRI RI UHVLGHQF\ LQ WKH 8QLWHG 6WDWHV EHIRUH LVVXDQFH WUDQVIHU XSJUDGH RU UHQHZDO for issuance, transfer, upgrade or renewal, XQOHVV WKH DSSOLFDQW¶V GRFXPHQWDWLRQ FRQWDLQV

The applicant must submit proof of Legal Presence DDHFGHOSLWF DHEQYHHGWDV DWKUHLY&HRXQW\ DQG LI VR ZKHQ DQG E\ ZKDW VHW[DPLQHRU F7RKXHQGRUFXDEHQGW V SU RULJLQDO 1R SKRWRFRSLHV ZLG EQHDQPLHRQ GVLKHTXDOWKHFHUWL¿FDW driver's current legal name, supporting documents must be presented that establish the changes in QDPH ([DPSOHV LQFOXGH PDUUL GHRUHHRU IRUHIRXHU DQGHGWKHF

;KHQ D FHUWL¿HG FRS\ RI D EL GHOD\HG ELUWK FHUWL¿FDWH L SRVVLEOH WR REWDLQ D 86 3DV RI 8QLWHG 6WDWHV FLWL]HQVKLSHQWWDWXVHPHQW)RU UHVLGHQF\ LQ WKH 8QLWHG 6WDWHV DXWKRUL]HG SHUVRQ RI D)0&6$ RU 6WDWH DJHQF\ Department of State website at: KWWSV WU XQOHVV WKH DSSOLFDQW¶V GRFXPHQWDWLRQ FRQ¿UPV

ONLY GOVERNMENT ISSUED DOCUMENTS WILL BE ACCEPTED

To document proof of U.S. Citizenship or Permanent Residency, please present one of the following:

Government Issued Birth Certificate
Replacement: Contact your state or county of birth. A hospital issued "Certificate of Live Birth" is not acceptable. Birth certificates issued by the Commonwealth of Puerto Rico before July 1, 2010, are not acceptable.

Certificate of Naturalization
Replacement: Contact U.S. Citizenship & Immigration Services
1-800-375-5283
www.uscis.gov/n-565

Valid U.S. Passport
Issued by the Department of State
1-877-487-2778
www.travel.state.gov

Certificate of Citizenship
Replacement: Contact U.S. Citizenship & Immigration Services
1-800-375-5283
www.uscis.gov/n-565

Permanent Resident Card "Green Card"
Issued by the U.S. Citizenship & Immigration Services
1-800-375-5283
www.uscis.gov/greencard

Consular Report of Birth Abroad
Replacement: Contact the Department of State
202-485-8300
www.travel.state.gov

Federal Law Information
Part 383:Commercial Driver's License Standards and Requirements per Federal Motor Carrier Safety Administration

The documents to the left are WKH RQO\ CHJDO acceptable proof of legal presence in the 8QLWHG 6WDWHV under FMCSA 5HJXODWLRQV 'ULYHUV PD\ need to provide additional documentation if the name on their birth FHUWL¿FDWH RU legal presence document does not match their current legal QDPH)RU assistance, FRQWDFW \RXU '09 2ˆFH RU Driver Services at (208) 334-8736

10/28/2015 R1

(YHU\ DSSOLFDQW IRU D QRQ GAPLapplications shall also state whether the
C driver's license or commercial learner's permit DSSOLFDQW KDV SUHYLRXVO\ EH
GRPLFLOHG LQ D IRUHLJQ FRXQWU\ PXVW ZKHWKHU RU QRW GHG E\ ZKDW V
XQH[SLUHG HPSOR\PHQW DXWKRUL]DWLRQ GRFXPHQW whether a driver's license or privilege
LVVXHG E\ WKH 'HSDUWPHQW RI +RPHODQG 6HFXULWY RNHG G
RU DQ XQH[SLUHG IRUHLJQ SDVVSRUW DQG RU whether an application has
E\ DQ DSSURYHG , IRUP GRFXPHQWV ever been denied, revoked, or suspended, and if so, the date of and
applicant's most recent admittance into the reason for the suspension, revocation, denial,
8QLWHG 6WDWHV GLVTXDOL¿FDWLRQ FDQFHOODW
applicant's oath that all information is correct as

(YHU\ DSSOLFDWLRQ IRU D FODVV $ % RU & OLFHQVH VLJQL¿HG E\ WKH DSSOLFDQW¶V
shall state where the applicant has been licensed
IRU WKH SUHFHGLQJ WHQ \HDUV DQG XQGHU ZKLFK
of the following driving categories the applicant
will operate:

- Non-excepted interstate. The applicant RSHUDWHV RU H[SHFWV WR RSHUDWH LQ LQWHUVWDWH FRPPHUFH DQG LV UHTXLUHG WR SURYLGH D PHGLFDO H[DPLQHU¶V FHUWL¿FDWH
- Excepted interstate. The applicant RSHUDWHV RU H[SHFWV WR RSHUDWH LQ LQWHUVWDWH FRPPHUFH EXW HQJDJHV H[FOXVLYHO\ LQ WUDQVSRUWDWLRQ RU RSHUDWLRQV H[FHSWHG E\ WKH)HGHUDO 0RWRU &DUULHU Administration from all or parts of the TXDOL¿FDWLRQ UHTXLUHPHQWV RI)HGHUDO 0RWRU &DUULHU 6DIHW\ 5HJXODWLRQ SDUW DQG LV WKHUHIRUH QRW UHTXLUHG WR SURYLGH D PHGLFDO H[DPLQHU¶V FHUWL¿FDWH
- Non-excepted intrastate. The applicant RSHUDWHV RQO\ LQ LQWUDVWDWH FRPPHUFH and is subject to and meets all Idaho GULYHU TXDOL¿FDWLRQ UHTXLUHPHQWV DQG WKH applicable parts of federal motor carrier VDIHW\ UHJXODWLRQ SDUW &DUULHUV 6DIHW\ UHTXLUHG WR SURYLGH D PHGLFDO H[DPLQHU¶V FHUWL¿FDWH RU
- Excepted intrastate. The applicant operates in intrastate commerce, but HQJDJHV H[FOXVLYHO\ LQ H[HPSWHG transportation or operations as listed in VHFWLRQ % ,GDKR &RGH DQG WKH applicable parts of federal motor carrier VDIHW\ UHJXODWLRQ SDUW &DUULHUV 6DIHW\ WKHUHIRUH QRW UHTXLUHG WR SURYLGH D PHGLFDO H[DPLQHU¶V FHUWL¿FDWH

1.7.1 General Commercial Driver Qualifications

,QGLYLGXDOV DUH TXDOL¿HG W YHKLFOH LQ ,GDKR LI WKH\
- $UH DW OHDVW \HDUV RI D RSHUDWLRQV WUDYHOLQJ DF
- $UH DW OHDVW \HDUV RI D RSHUDWLRQV WUDYHOLQJ RQ ERUGHUV RI ,GDKR
- &DQ UHDG DQG VSHDN WKH (QJ VX^FLHQWO\ WR WDON ZLWK V XQGHUVWDQG WUD^F VLJQV D PDNH HQWULHV RQ UHSRUWV SDUW
- +DYH SURSHU GULYHU¶V OLFHQVH DQG H[FHSWLRQ DQG H[HPSWLRQ GRFXPHQWV DV UHTXLUHG E\ WKH)HGHUDO 0RWRU &DUULHU 6DIHW\ 5HJXODWLRQV SDUW
- ,I QRW H[HPSW XQGHU IHGHUDO UHJXODWLRQV PXVW SDVV D FXUUHQW H[DPLQHU¶V FHUWL¿FDWH '2 UHJXODWLRQV DQG WKH\ DUH SK drive a commercial vehicle (Federal Motor &DUULHU 6DIHW\ 5HJXODWLRQ SDUW 6XESDUW (QHU¶V
- +DYH D YDOLG &'/ LVVXHG IUI VWDWH RU MXULVGLFWLRQ
- +DYH SURYLGHG WKHLU HPSO FXUUHQW OLVW RI WUD^F YLR
- $UH QRW FXUUHQWO\ GLVTXD 'HSDUWPHQW RI 7UDQVSRUWD GULYH DQG LV FRPPHUFLDO YHKLF
- +DYH VXFFHVVIXOO\ SDVVHG ZULWWHQ H[DPLQDWLRQV DQ

IRU WKH FRPPHUFLDO YHKLFOH \RX DUH
RSHUDWH

Providing false or incorrect information when
DSSO\LQJ IRU \RXU GULYHU¶V OLFHQVH PD\ UHVXOW LQ
FDQFHOODWLRQ RI \RXU GULYLQJ SULYLOHJHV DQG RWKHU
SHQDOWLHV ,I \RX REWDLQ D &/ XVLQJ FDVH RU
LQFRUUHFW LQIRUPDWLRQ \RX ZLOO EH GLVTXDOL¿HG
from operating a commercial motor vehicle for a
SHULRG RI GD\V :KHQ DSSO\LQJ IRU \RXU &/
\RXU GULYLQJ UHFRUG ZLOO EH FKHFNHG IHH ZLOO EH
FROOHFWHG DQG \RX ZLOO EH UHTXLUHG WR WDNH WKH
QHFHVVDU\ NQRZOHGJH WHVWV

$IWHU SDVVLQJ WKH NQRZOHGJH WHVWV DQG REWDLQLQJ D
FRPPHUFLDO OHDUQHU¶V SHUPLW \RX PXVW VFKHGXOH
D VNLOOV WHVW ZLWK D FHUWL¿HG GDKR &'/ 6NLOOV
7HVWHU 7KH 'ULYHU¶V /LFHQVH R̂FH ZLOO SURYLGH
\RX ZLWK D OLVW RI 7KLUG 3DUW\ 6NLOOV 7HVWHUV $IWHU
SDVVLQJ WKH VNLOOV WHVW \RX PD\ REWDLQ \RXU &/
DW WKH 'ULYHU¶V /LFHQVH R̂FH

1.7.2 Foreign Commercial Driver's License
(if applicable)

,I \RX DUH D IRUHLJQ GULYHU IURP DQRWKHU
WKDQ 0H[LFR RU &DQDGD KROGLQJ D WHPSRUDU\
ZRUN YLVD IRU WKH 8QLWHG 6WDWHV \RX PD\
DSSO\ IRU DQ ,GDKR QRQ GRPLFLOHG &'/ RU
LQVWUXFWLRQ SHUPLW RU &'/ DQG \RX GR QRW KDYH
WR VXUUHQGHU \RXU KRPH FRXQWU\ &'/ RU
EHFRPH D SHUPDQHQW OHJDO UHVLGHQW RI WKH 8QLWHG 6WDWHV DQG UHVLGHQW RI GDKR \RX
PXVW VXUUHQGHU WKH QRQ GRPLFLOHG &'/ DQG DQ\
other licenses to receive a regular CDL without
UHWHVWLQJ XQOHVV \RX DUH XSJUDGLQJ \RXU &/ RU
DUH DGGLQJ HQGRUVHPHQWV

,I \RX DUH IURP &DQDGD RU 0H[LFR \RX PD\ EH
DOORZHG WR SXUFKDVH D QRQ-GRPLFLOHG
&DQDGLDQ DQG 0H[LFDQ &'/ KROGHUV DUH QRW
UHTXLUHG WR VXUUHQGHU WKHLU RULJLQDO &'/ RU
WKHLU SHUPDQHQW UHVLGHQFH IURP WKHLU FRXQWU\
RI RULJLQ WR WKH 8QLWHG 6WDWHV WR REWDLQ D
,GDKR WKH\ FDQ DSSO\ IRU DQ ,GDKR &'/ DQG
WR FRPSO\ ZLWK WKH 1RUWK $PHULFDQ)UHH 7UDGH
$JUHHPHQW 1$)7$ UHTXLUHPHQWV LI WKH\ OLFHQVH
\RX DUH VXUUHQGHULQJ ZDV LVVXHG LQ 0H[LFR RU
&DQDGD \RX PXVW SURYLGH D GULYLQJ UHFRUG QR
ROGHU WKDQ GD\V

1.7.3 Commercial Learner's Permit

$ &RPPHUFLDO /HDUQHUV 3HU
NQRZQ DV D &/3 LV D SHUPLW W
\RX WR SUDFWLFH RQ SXEOLF U
&'/ KROGHUV VLWWLQJ QH[W WR
permit involves more than just passing all the
NQRZOHGJH WHVWV IRU WKH W\
ZLOO EH GLVTXDOL¿HG
WR GR 7R PDNH VXUH WKDW \R
GULYLQJ UHFRUG LV FKHFNHG IR
DQG VWDWH DQG WKH 'LVWU
A Commercial Learner's Permit is obtained
E\ WDNLQJ WKH DSSURSULDWH
YHKLFOH \RX ZLVK WR RSHUDWH
NQRZOHGJH WHVWV D &/3 FDQ E
7KH &/3 ZLOO EH YDOLG IRU R
GD\V DQG PD\ EH UHQHZHG
ZLWKRXW UHTXLULQJ WKH SHUP
SDVV WKH UHTXLUHG NQRZOHGJ
RI SHUPLW SURYLGHG WKH NQR
WKDQ RQH \HDU ROG

7R TXDOLI\ IRU D &/3 \RX PXVW

• %H DW OHDVW \HDUV ROG
• +ROG D YDOLG ,GDKR &ODVV
• 3URYLGH SURRI RI ,GDKR UHV
• +DYH DW OHDVW RQH \HDU RI
GULYLQJ H[SHULHQFH
<RX PXVW KDYH D &/3 EHIRUH \R
VNLOOV WHVW 7KH H[DPLQHU PX
WDNHQ WKH DSSURSULDWH NQR
\RX FDQ WDNH WKH VNLOOV WHV
IURP D IDUP RU RWKHU H[HPSW
ZLOO QHHG WR SXUFKDVH D &/3
ZKHQ \RX WDNH WKH &/ 6NLOOV
law you must hold your CLP for at least 14
days before you can take a skills test.
<RX PXVW KDYH D FXUUHQW 0H
&HUWL¿FDWH LI UHTXLUHG WR
DQG RU)HGHUDO 0RWRU &DUUL
D &RPPHUFLDO /HDUQHU¶V 3HU
need to practice driving a commercial vehicle
SULRU WR WDNLQJ \RXU VNLOOV

7KH 0HGLFDO &HUWL¿FDWH PD\ EH UHTXLUHG HYHQ LI \RX DUH DW
D &/3 LV UHTXLUHG HYHQ LI \RX DUH DWWHQGLQJ
D SURIHVVLRQDO WUXFN GULYLQJ VFKRRO FRPSDQ\
sponsored training program, or receiving private
LQVWUXFWLRQ IURP D IULHQG LQ WKHLU RZQ YHKLFOH

)ROORZLQJ DUH WKH)HGHUDO 5HTXLUHPHQWV for operating a school bus with passengers
Commercial Learner's Permit:

383.25: Commercial learner's permit (CLP)

(a) A CLP is considered a valid CDL for purposes
RI EHKLQG WKH ZKHHO WUDLQLQJ RQ SXEOLF URDGV
RU KLJKZD\V LI DOO RI WKH IROORZLQJ PLQLPXP
conditions are met:

7KH &/3 KROGHU LV DW DOO WLPHV DFFRPSDQLHG
E\ WKH KROGHU RI D YDOLG &'/ ZKR KDV WKH SURSHU
&'/ JURXS DQG HQGRUVHPHQW V QHFHVVDU\ WR
RSHUDWH WKH &09 7KH &'/ KROGHU PXVW DW DOO
WLPHV EH SK\VLFDOO\ SUHVHQW LQ WKH FURQW VHDW
RI WKH YHKLFOH QH[W WR WKH &/3 KROGHU RU LQ WKH
FDVH RI D SDVVHQJHU YHKLFOH GLUHFWO\ EHKLQG RU
LQ WKH ¿UVW URZ EHKLQG WKH GULYHU DQG PXVW KDYH
the CLP holder under observation and direct
VXSHUYLVLRQ

(2) The CLP holder holds a valid driver's license
LVVXHG E\ WKH VDPH MXULVGLFWLRQ WKDW LVVXHG WKH
&/3

7KH &/3 KROGHU PXVW KDYH WDNHQ DQG
SDVVHG D JHQHUDO NQRZOHGJH WHVW WKDW PHHWV
the Federal standards contained in subparts F,
* DQG + RI WKLV SDUW IRU WKH &/3 RU WKH
YHKLFOH WKDW SHUVRQ RSHUDWHV RU H[SHFWV WR
RSHUDWH

7KH &/3 KROGHU PXVW EH
ROGHU

(QGRUVHPHQWV

(i) A CLP holder with a passenger (P)
HQGRUVHPHQW PXVW KDYH WDNHQ DQG SDVVHG
WKH 3 HQGRUVHPHQW NQRZOHGJH WHVW
holder with a P endorsement is prohibited from
RSHUDWLQJ D &09 FDUU\LQJ SDVVHQJHUV RWKHU
than federal/state auditors and inspectors,
WHVW H[DPLQHUV RWKHU WKDQ &'/ ZKR ODFN WKH
KROGHU DFFRPSDQ\LQJ WKH &/3 KROGHU DW
SUHVFULEHG E\ SDUDJUDSK D RI WKLV VHFWLRQ

(ii) A CLP holder with a school bus (S)
HQGRUVHPHQW PXVW KDYH W
WKH 6 HQGRUVHPHQW NQRZO
holder with an S endorsement is prohibited
from operating a school bus with passengers
other than federal/state auditors and
LQVSHFWRUV WHVW H[DPLQH
DQG WKH &'/ KROGHU DFFRPS
KROGHU DV SUHVFULEHG E\ S
WKLV VHFWLRQ

LLL $ &/3 KROGHU ZLWK D
HQGRUVHPHQW PXVW KDYH WD
1 HQGRUVHPHQW NQRZOHGJH
ZLWK DQ HQGRUVHPHQW PD
HPSW\ WDQN YHKLFOH DQG L
RSHUDWLQJ DQ\ WDQN YHKLF
FRQWDLQHG ZLWKLQ WKH FURSS PDWH
E\ SXUJHG RI DQ\ UHVLGXH

(iv) All other federal endorsements are
SURKLELWHG RQ D &/3

7KH &/3 KROGHU GRHV QI
commercial motor vehicle transporting
KD]DUGRXV PDWHULDOV DV GH
(b) The CLP must be a separate document from
WKH &'/ RU QRQ &'/

7KH &/3 PXVW EH VLG IRU
GD\V IURP WKH GDWH RI LVVXD
&/3 RU WKH H[SLUDWLRQ GDWH RI WKH &/3 KROGHU W
DQG HQGRUVHPHQW NQRZOHGJH

(d) The issuance of a CLP is a precondition to the
LQLWLDO LVVXDQFH RI D &'/ 7K
is also a precondition to the upgrade of a CDL if
WKH XSJUDGH UHTXLUHV D VNLO

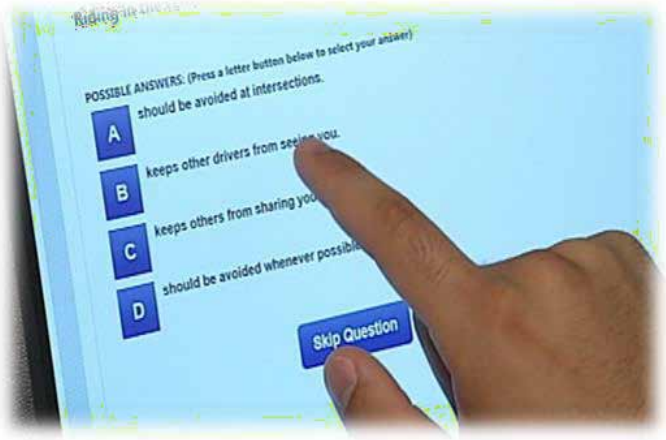
H 7KH &/3 KROGHU LV QRW HOL
VNLOOV WHVWV LQ WKH ¿UVW
RI WKH &/3

1.7.4 CDL Knowledge and Skills Tests

$ &'/ ZLOO EH LVVXHG RQO\ DIW
DQG WKH &/3 KROGHU UHTXLUHG NQRZOHG
RI WKLV VHFWLRQ

Knowledge Tests

- All test results will remain valid for one year from the date they were passed. If the appropriate license is not issued within WKH RQH \HDU SHULRG WKH UHWDNHQ
- If you do not pass a test (knowledge or skills), you must wait three days before retaking the test L H ,I \RX IDLOHG WKH WHVW RQ 0RQGD\ \RX ZRXOG EH HOLJLEOH WR UHWHVW RQ 7KXUVGD\
- The test fees must be paid again



1 RW<HR XV K R XFORQ WD KHL D P L Q H U well ahead of your desired test date. Examiners are required to notify ITD of your skills test a minimum of 48 hours prior to the test taking place.

This allows state and federal auditors to monitor WHVWV SHULRGLFDOO\ WR LQV FRQGXFWLQJ WKH WHVW SURSHU

If an ITD or FMCSA auditor monitors your test, do not be concerned. The examiner will conduct your test the same as if the auditor were not there.

<RX FDQ ¿QG D OLVW RI &'/ \RXU '09 RU RQOLQH DW LWG LG LWGGPY "WDUJHW GULYHUV OLF

%HIRUH WDNLQJ \RXU VNLOOV UHFRPPHQGHG \RX UHYLHZ D VV ¿QG RQ WKH ,7' :HEVLWH NQRZ 6WHSV WR D &'/´ <RX FDQ ¿QG LGDKR JRY ZS FRQWHQW XSO HDV\ VWHSV &'/ SGI

Test Length: The test consists of three parts, and &'/ WHVWV DUH QRW UHTXLUHG WR EH &RPSOHWHG ZLWK WKH H[FHSWLRQ RI WKH 9HKLFOH ,QVSHFWLRQ DQG %DVLF NQRZOHGJH WHVW ZKLFK PXVW EH SDVVHG ILUVW HDFK UHQHZDO

Special Note: The skills test is one test with three parts, not three separate tests; therefore, failing any part of the test counts as a failure for the entire test, and the entire test must be retaken. A commercial driver must be able to do a SUH WULS LQVSHFWLRQ EDFN GULYH RQ SXEOLF URDGV XQGHU YDULRXV GULYLQJ FRQGLWLRQV

$SSOLFDQWV PXVW WDNH WKH SURZOHG IRU WKH class of license applied for and also the test(s) IRU DQ\ HQGRUVHPHQW V WKH IURQW RI WKLV PDQXDO \RX ZLOO QHHG D WDEOHW RU VPDUWSKRQH \RX ZKLFK VHFWLRQV RI WKLV PDQXDO WR VWXG\ IRU HDFK WHVW

Skills Tests

$IWHU SDVVLQJ WKH NQRZOHGJH WHVWV WR D &/3 \RX PXVW PDNH DQ DSSRLQWPHQW WZLWK D &'/ ([DPLQHU WR WDNH By Federal VNLOOV WHVW Law, you must have your CLP for at least 14 days before you can take a skills test.

&'/ VNLOOV WHVW H[DPLQHUV DUH FRQWUDFWRUV IRU WKH Idaho Transportation Department (ITD) and most ZRUN RWKHU MREV

1.7.5 Skills Test Restrictions

7KH VNLOOV WHVW PXVW EH WDNHQ LQ D YHKLFOH WKDW LV UHSUHVHQWDWLYH RI WKH OLFHQVH FODVV \RX ZLVK WR RSHUDWH

IMPORTANT NOTE: If the vehicle used for the test:

- LV QRW HTXLSSHG ZLWK DLU EUDNHV will show an (L) restriction stating that \RX DUH QRW OLFHQVHG WR RSHUDWH YHKLFOHV HTXLSSHG ZLWK DLU EUDNHV
- LV HTXLSSHG ZLWK DQ DXWRPDWLF WUDQVPLVVLRQ \RXU &'/ ZLOO VKRZ DQ (UHVWULFWLRQ QR PDQXDO WUDQVPLVVLRQ FRPPHUFLDO YHKLFOH)RU WKH &'/ VNLOOV WHVW DQG DQ DXWRPDWLF WUDQVPLVVLRQ WUDQVPLVVLRQ QRW RSHUD VKLIW DQG FOXWFK SULQFLS
- LV RWKHU WKDQ D WUDFWRU IRU &ODVV $ FRPELQDWLRQ VKRZ DQ 2 UHVWULFWLRQ)RU SXUSRVHV RI WKH &'/ W UHVWULFWLRQ ZLOO EH SODFHG WHVW LQ DQ\ FRPELQDWLRQ YHKLFOH D WUDFWRU DQG D WUDLOHU ZLWK D ;;; OL]H ¿IWK ZKHHO FRXSOLQJ

Further Information:

- 7KH WUDFWRU WUDLOHU LV QRW UHTXLUHG WR KDYH D VOHHSHU
- 7KHUH LV QR PLQLPXP OHQJWK RU WHVW UHTXLUHPHQW IRU WKH WUDLOHU D IXOO VL]H ¿IWK ZKHHO KLWFK VHPL WUDLOHU
- $Q\ SLQWOH KLWFK JRRVHQHFN EXPSHU SXOO RU 59 VW\OH ¿IWK ZKHHO HTXLSSHG FRPELQDWLRQ ZLOO UHFHLYH DQ 2 UHVWULFWLRQ
- $Q\ WRZ YHKLFOH H[FHSW D GHGLFDWHG WUDFWRU ZLOO UHFHLYH DQ 2 UHVWULFWLRQ

1.7.6 Skills Test Vehicle & Requirements

6RPH H[DPLQHUV KDYH YHKLFOHV WKDW \RX FDQ UHQW WR WDNH \RXU VNLOOV WHVW WKHP WKH\ ZLOO KDYH DOO RI WKH GRFXPHQWDWLRQ DQG LQVXUDQFH VWDWH

,I \RX XVH D YHKLFOH RWKHU W \RX ZLOO QHHG WR EULQJ WR W

- $ URDGZRUWK\ FRPPHUFLDO DOO OLJKWV EUDNHV DQG U HTXLSPHQW &'/ FOHDQ JRRG
- Proof of current insurance and vehicle UHJLVWUDWLRQ
- <RXU GULYHU¶V /LFHQVH DQG VKRZLQJ \RX KDYH SDVVHG W WHVWV DQG SDLG WKH VNLOO

After completing the testing process, please wait 24 hours (or as directed by the Examiner) to ensure that the test results have been entered on your GULYHUV UHFRUG XQWLO WKH 'LYLVLRQ¶V QHFHVVDU &'/ <RX GR QRW KDYH WKH DXWKRULW operate a commercial vehicle until you obtain the CDL.

1.8 CRASH INFORMATION

&2035(+(16,9(1(:6($&&2817$%,/,7<

&6$ LV WKH)HGHUDO 0RWRU $GPLQLVWUDWLRQ¶V)0&6$ V and enforcement program, which holds motor FDUULHUV DQG GULYHUV DFFRX RQ RXU QDWLRQ¶V URDGV 6LQ DQG VWDWH HQIRUFHPHQW H‡RU reduced the rate of CMV crashes resulting LQ LQMXULHV RU IDWDOLWLHV RQ The rate of crash reduction slowed, prompting WKH)0&6$ WR GHYHORS D QHZ WKH VDIHW\ PRWRU FDUULHU)0&6$ ZDQWHG WR LPSURYH LWV HY &RPSOLDQFH 6DIHW\ $FFRXQW UHVXOW RI WKLV H‡RUW &6$ EH

&6$ D‡HFWV FDUULHUV VXEMHFW &DUULHU 6DIHW\ 5HJXODWLRQV passengers or cargo in interstate commerce,

DQG KD]DUGRXV PDWHULDOV F9LRODWLRQ RI HU DWWQ HLR &ODL
LQWUDVWDWH FRPPHUFH &6$ PD\ DOVR LPSDFW
FDUULHUV ZKRVH 6WDWH UHTXLUHV WKDW WKH\ REWDLQ D
8 6 '27 QXPEHU

7KH 6DIHW\ 0HDVXUHPHQW 6\VWHP 606 V\VWHP DQG WKRVH UHJ
)0&6$¶V V\VWHP IRU LGHQWLI\LQJ RQ HDFK RQLV DQG FRPPHUFLDO F
ZKR VKRXOG UHFHLYH LQWHUYHQWLRQV 7KH 606
allows FMCSA, law enforcement, and motor Commercial Drivers should become familiar with
FDUULHUV WR VHH D FRPSUHKHQVLYH SURÀOH RI ZKDW &6$ LV DQG KRZ LW D‡HF
VDIHW\ LVVXHV 7KH 606 DXWRPDWLFDOO\ LGHQWLÀHV HPSOR\HU)XUWKHU LQIRUPDWL
FDUULHUV ZKR SRVH WKH JUHDWHVW VDIHW\ ULVN VR found at: KWWSV FVD JRY JR
WKDW UHVRXUFHV FDQ EH SULRULWL]HG 7KH VDIHW\ ,((3,1<28 5$ '5(66
LQWHUYHQWLRQV LQFOXGH WRROV WR PRUH H‡FLHQWO\ DQG CURRENT
H‡HFWLYHO\ EULQJ FDUULHUV LQWR FRPSOLDQFH

,W LV \RXU UHVSRQVLELOLW\ D
NHHS D FXUUHQW DGGUHVV RQ
7UDQVSRUWDWLRQ DQG 'HSDUWPHQW
PXVW QRWLI\ WKH GHSDUWPHQ
RU $QQDQVWLDQ &HQWHU ZLWKLQ GGUHVV ZLWKL
6DIHW\ ,PSURYHPHQW &DWHJRULHV RU %HIRUH &6 SDUWLFXODUO\ LPSRUWDQW IRU
DQG GULYHUV DQG LGHQWLI\ these commercial drivers received an important
WKDW PD\ UHVXOW LQ XQVDIH EHKDYLRU legal notice; their letters were returned to ITD
RSHUDWLRQV XQGHOLYHUDEOH DV DGGUHVVHG

The three main components of CSA:

&RPSDUH VDIHW\ UHFRUGV RI PRWRU FDUULHUV DQG 'HSDUWPHQW
GULYHUV NQRZQ DV ³%HKDYLRUDO $QDO\VLV DQG ,PSURYHPHQW
6DIHW\ ,PSURYHPHQW &DWHJRULHV RU %HIRUH &6 GGUHVV ZLWKL
SDUWLFXODUO\ LPSRUWDQW IRU

(YDOXDWH VDIHW\ SHUIRUPDQFH RI FDUULHUV
DQG GULYHUV DQG LGHQWLI\ EHKDYLRUDO SDWWHUQV
WKDW PD\ UHVXOW LQ XQVDIH RSHUDWLRQV

7DNH QHFHVVDU\ WDLORUHG VDIHW\ YLRODWLRQV DQG SU
WR HQVXUH IXWXUH FRPSOLD

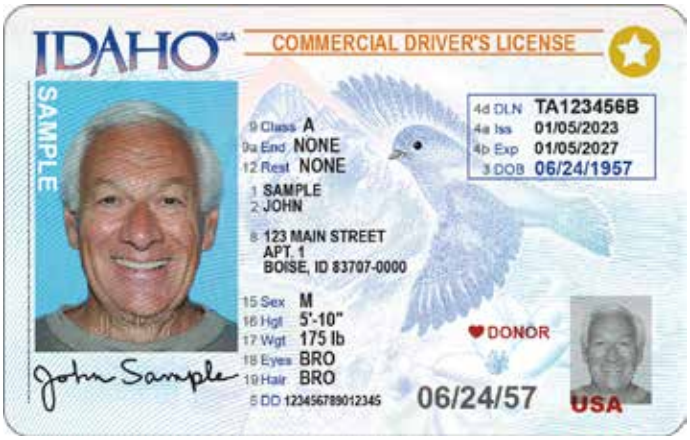
&DUULHUV DUH KHOG DFFRXQWD
YLRODWLRQV UHFRUGHG GXULQ
Drivers are responsible for compliance with some
YHKLFOH PDLQWHQDQFH UHJXO
GULYHUV DUH UHTXLUHG E\ UHJ S
YHKLFOH LQVSHFWLRQ WR HQVXU IH

:KLOH WKH)HGHUDO 0RWRU
$GPLQLVWUDWLRQ GRHV QRW
0HDVXUHPHQW 6\VWHP 606 RU
WR DVVLJQ IRUPDO VDIHW\ U
GULYHUV WKH DJHQF\ UHFRJ
drivers accountable for safe driving behavior
LV DQ LPSRUWDQW SDUW RI V
DQG HQIRUFHPHQW SURFHVV
investigate drivers with egregious violations
ZKHQ LQYHVWLJDWLQJ D PRWR
investigators use the Driver SMS, an internal
VDIHW\ DVVHVVPHQW WRRO WR
VWURQJ SDWWHUQV RI QRQFRPSOLDQFH
WKDW DUH QRW FRUUHFWHG PD\ UHVXOW LQ D 1RWLFH RI

'RQ¶W WXUQ D EOLQG H\H Call Driver
RHUDWLRQ DW LYHUV ZLWK JR RQ
SRUW DGGUHVV $QG YLRODWLRQV KWWSV WKH GO
JR V ZS FRQWHQW XSORDGV

1.10 CENTRAL ISSUE OF DRIVER'S LICENSES

All Idaho drivers' licenses are issued from a FHQWUDO ORFDWLRQ <RX ZLOO UHFHLYH D WHPSRUDU\ FDUG EHIRUH \RX OHDYH \RXU QRFDO OLFHQVLQJ R̂FH 7KH WHPSRUDU\ FDUG LQFOXGHV RQH VLGH DOO WKH LQIRUPDWLRQ LQFOXGHG RQ WKH SODVWLF FDUG 7KH WHPSRUDU\ FDUG ZLOO EH LVVXHG IRU GULYLQJ DQG LGHQWLW\ SXUSRVHV 7KH QHZ FDUG ZLOO EH PDLOHG WR \RX ZLWKLQ DERXW EXVLQHVV GD\V :KHQ WKH SODVWLF FDUG DUULYHV LQ WKH PDLO WKH WHPSRUDU\ GRFXPHQW VKRXOG EH GHVWURYHG.



Example of Idaho Commercial Driver's License

1.11 ADMINISTRATIVE LICENSE SUSPENSIONS (ALS)

<RXU GULYLQJ SULYLOHJHV ZLOO EH VXVSHQGHG XQGHU 6HFWLRQ $,GDKR &RGH LI \RX IDLO DQ HYLGHQWLDU\ WHVW IRU DQ\ RI WKH IROORZLQJ UHDVRQV

- Having a blood alcohol concentration of RU JUHDWHU ZKLOH RSHUDWLQJ RU EHLQJ LQ DFWXDO SK\VLFDO FRQWURO RI D FRPPHUFLDO YHKLFOH
- Having a blood alcohol concentration of RU JUHDWHU ZKLOH RSHUDWLQJ RU EHLQJ LQ DFWXDO SK\VLFDO FRQWURO RI D FRPPHUFLDO PRWRU YHKLFOH
- Having test results indicating the presence RI GUXJV RU RWKHU LQWR[LFDWLQJ VXEVWDQFHV

7KH VXVSHQVLRQ ZLOO EHFRPH H‡HFWLYH GD\V from the date the Notice of Suspension is issued XSRQ IDLOXUH RI DQ HYLGHQWLDU\ WHVW I\RX DUH driving a Commercial Motor Vehicle (CMV) at the WLPH RI \RXU DUUHVW \RXU FR DUH ORVW LPPHGLDWHO\ DQG Z WKURXJKRXW WKH DGPLQLVWUD

Penalties

1st Offense: KLOH RSHUDWLQJ RU JUHDWHU RU D FRPPHUF RU JUHDWHU

- &/ GULYLQJ SULYLOHJHV 2Q GLVTXDOLFDWLRQ RI FRPPH GULYLQJ SULYLOHJHV

&ODVV ' GULYLQJ SULYLOHJH VXVSHQVLRQ ZLWK DEVROXW SULYLOHJHV IRU WKH ¿UVW

driving privileges that allow for the RSHUDWLRQ RI D QRQ FRPPH EH UHTXHVWHG IRU WKH UHP WKH VXVSHQVLRQ

6HFRQG 2IIHQVH :KLOH RSHUDWLQJ %$& RU JUHDWHU RU D FRP %$& RU JUHDWHU

- CDL driving privileges: Lifetime GLVTXDOL¿FDWLRQ
- &ODVV ' GULYLQJ SULYLOHJH VXVSHQVLRQ ZLWK DEVROXW SULYLOHJHV RI DQ\ NLQG

*If the failure(s) occurred in a commercial vehicle (BAC.04 to less than .08%), Class D driving privileges will remain valid.

7KHVH VXVSHQVLRQV DUH VHS DGGLWLRQDO SHQDOWLHV RU V the court as a result of being convicted of the R‡HQVH $GGLWLRQDO LQIRUPD EH IRXQG LQ WKH ,GDKR 'ULYHU review of both manuals is recommended for all FRPPHUFLDO GULYHUV

1.12 DRUG AND ALCOHOL TESTING

0RVW GULYHUV VXEMHFW WR & DQVR UHTXLUHG WR SDUWLFLS VXEVWDQFH DQG DOFRKRO WHV UHTXLUHPHQWV LQFOXGH UDQ

VXVSLFLRQ SRVW DFFLGHQW
IROORZ XS WHVWLQJ IRU FRQW
DOFRKRO 3UH HPSOR\PHQW F
WHVWLQJ LV DOVR UHTXLUHG

1.13 DRIVER RECORD REQUESTS

'ULYHUV PD\ REWDLQ D FRS\ RI W
RQOLQH DW WKH '09 RU E\ PD

'ULYHU¶V OLFHQVH UHFRUGV DV PDLQWDLQHG E\
the Idaho Transportation Department can be found at: KWWSV ZZZ DFFHVVLGDKR RUJ GULYHUV
LWG GOU LQWHUDFWLYH VHDUFK KWPO"6FULSW)RU
VWDUWVWHS SHUVRQDO

<RX FDQ DOVR REWDLQ D FRS\ RI
UHFRUG E\ FRPSOHWLQJ DQ ³,GDKR
'ULYHU¶V /LFHQVH 5HFRUG 5HTXHVW´ IRUP See
Figure 1.4 DQG SD\LQJ D VPDOO IHH
/LFHQVH 5HTXHVW '/5 IRUP FDQ EH REWDLQHG DW
PRVW &RXQW\ 6KHULII¶V RIFHV RU RQ WKH 6WDWH RI
Idaho website at: KWWS ZZZ DFFHVVLGDKR RUJ

7KH 'ULYHU 5HFRUG 'DVKERDUG LV D YHU\ H‡HFWLYH
ZD\ WR PRQLWRU GULYLQJ UHFRUGV RI PXOWLSOH
GULYHUV KWWSV ZZZ DFFHVVLGDKR RUJ LWG
monitoring/

'HSHQGLQJ RQ \RXU FLUFXPVWDQFHV \RX FDQ WUDYHO
WR WKH FORVHVW &RXQW\ 6KHULII¶V RIFH ¿OO RXW WKH
IRUP SD\ WKH IHHV DQG UHFHLYH \RXU UHFRUG ZKLOH
\RX ZDLW <RX PD\ DOVR ID[RU PDLO WKH IRUP WR WKH
ITD or complete the application on the State of ,GDKR¶V ZHEVLWH

RESOURCES:

It is very important for drivers to research and know the laws regarding PHGLFDO FHUWL¿FDWHV WKDW WKH\ will be transporting.

7KH)HGHUDO 0RWRU &DUULHU 6DIHW\ $GPLQLVWUDWLRQ 5HJXODWLRQV PD\ EH IRXQG at ZZZ IPCSA GRT JOY

3UHSDUHG E\ &DUU
(DVW 2YHUODQG 5RDG 6XL
,GDKR 7UXFNLQJ $VVRFLDWLRQ
(DVW 2YHUODQG 5RDG 6XL
,GDKR 0RWRU 9HKLFOH
See
KWWS'ULYHUV ZZZ ITD¶V
)RU JXLGDQFH RQ H[HPSW DQG
FRPPRGLWLHV KDJDUGRXV PDV
contact:

Idaho State Police
Commercial Vehicle Safety Unit
(208) 884-7220

)RU VSHFL¿F JXLGDQFH RQ
PDUN WKH IRUP WR WKH
TXDOL¿FDWLRQ LVVXHV VXFK
vision limitations, loss of limbs, waiver
DSSOLFDWLRQV HWF FRQWDF

Federal Motor Carrier Safety
$GPLQLVWUDWLRQ %RLVH)LHO
(208) 334-1842

For general guidance on CDL licensing
UHTXLUHPHQWV FRQWDFW

Idaho Transportation Department
Driver Services
(208) 334-8736

Your Safety • Your Mobility
Your Economic Opportunity

Idaho Driver's License Record Request

ITD 3120 (Rev. 11-19)
itd.idaho.gov

If the request is mailed, please enclose the proper fee.

- Idaho Transportation Department PO Box 34 Boise, ID 83707
- Phone (208) 334-8736 Fax (208) 287 3885 Email: DMVHelp@itd.idaho.gov
- Make check or money order payable to the Idaho Transportation Department. – **Do not send cash.**
- No refunds will be processed, whether or not a record is found.
- Driver's License Record Online, immediate at accessidaho.org/itd/driver/dlr/index
- Employers who search multiple Driver's License Record's accessidaho.org/itd/monitoring/

In accordance with Idaho Code Section 49-202, and Administrative Rule Number 39.02.41, I hereby request the driving record(s) of the following:

Name	Driver's License Number	Date of Birth

Requester's Name/Business Name		FEIN		
Requester's Address Line 1		City	State	Zip
Requester's Address Line 2		Phone Number		

For Personal Requests Only

Need Previous or Original Issue Date	Fax or Email Back to
☐ Yes ☐ No	Fax Email

Authorization Statement

In order to receive motor vehicle or driver records under *Idaho Code Section 49-203* (see list on page 2), I certify under penalty of perjury pursuant to the law of the State of Idaho, that I meet the authorization requirements and that the use of such information will be strictly limited to the use described.

Requester's Signature	Date	Authorization (Select From List on Page 2)	
MasterCard or Visa Number	Expiration Date	Security Code	Cardholder's Authorization Signature

Request Type and Fees

Record Duration
☐ 3-Year ☐ Entire Idaho Record

Record Type
☐ Not certified $7.00 ea. ☐ Certified $21.00 ea. *Certified records cannot be faxed or emailed

Photo -Only for the individual named on the Driver's License or Law Enforcement. Not for Employers.
☐ Copy of license photograph $7.00 ea.

Total Remittance (total fees times number of requests) **$**

*Credit card purchases are subject to a 3% service fee.

Page 1 of 2

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Idaho Driver's License Record Request

ITD 3120 (Rev. 11-19)
itd.idaho.gov

Categories of Requestors Who May be Authorized to Receive Personal Information under *Idaho Code 49-203**

1. **Government:** For use by any government agency, including any court or law enforcement agency, in carrying out its functions or any private person or entity acting on behalf of a federal, state, or local agency in carrying out its functions.
2. **Driver Or Vehicle Safety:** For use in matters of motor vehicle or driver safety and theft, such as motor vehicle emissions, motor vehicle product alterations, recalls or advisories; performance monitoring of motor vehicles, motor vehicle parts, and dealers; motor vehicle market research activities, including survey research; and removal of non-owner records from the original records of motor vehicle manufacturers.
3. **Business Activities:** For use in the normal course of business by a legitimate business or its agents, employees or contractors, but only:
   a. To verify the accuracy of personal information submitted by the individual to the business or its agents, employees, or contractors.
   b. If such information as submitted is not correct or is no longer correct, to obtain the correct information, but only for the purpose of preventing fraud by pursuing legal remedies against or recovering on a debt or security interest against the individual.
4. **Court Proceedings:** For use in connection with any civil, criminal, administrative or arbitral proceeding in any federal, state, or local court or agency or before any self-regulatory body, including the services of process and investigation in anticipation of litigation, and the execution or enforcement of judgments and orders or pursuant to any order of a federal, state, or local court.
5. **Research:** For use in research activities and for use in producing statistical reports, so long as personal information is not published, re-disclosed, or used to contact individuals.
6. **Insurance:** For use by any insurer or insurance support organization (or by a self-insured entity) or its agents, employees, or contractors in connection with claims investigation activities, rating, or underwriting. A 3 year record is the only option for this authorization.
7. **Towed/Impounded Vehicles:** For use in providing notice to the owners of towed or impounded vehicles.
8. **Investigation:** For use by any licensed private investigative agency or licensed security service for any purpose permitted under the provisions of *Idaho Code Title 49*.
9. **Employer Information:** For use by an employer or its agent or insurer to obtain or verify information relating to a holder of a commercial driver's license that is required under the Commercial Motor Vehicle Safety Act of 1986 (*49 USC 31101* et seq.). A complete record is the only option for this authorization.
10. **Public Safety/Vehicle Operation:** For any other use specifically authorized under *Idaho Code*, if such use is related to public safety or the operation of a motor vehicle.
11. **Transportation Facilities:** For use in connection with the operation of private toll transportation facilities, including companies that operate parking facilities for the purpose of providing notice to the owners of vehicles who have used the facility.
12. **Written Consent Given/Personal Request:** The individual being inquired about has authorized the requestor in writing to have access to their personal information. A verified copy of the signed authorization must be included with the DLR request. Unless specifically stated, the individual's photograph, digitized signature, social security number, and medical or disability information will not be disclosed.*

If your request does not meet the above categories, you may complete a basic driving status check at accessidaho.org/itd/driver/license/index. You will need the Idaho driver's license or social security number, name as listed on the driver's license, and license holder's birth date to complete this request.

Additional public information may be available if your request does not meet any of the above categories. Please call (208) 334-8736 for more information.

*Release of an individual's photograph, digitized image of a photograph, digitized signature, social security number, and medical or disability information may not be disclosed without the written consent of the person to whom such information pertains, except for uses permitted under *Idaho Code Section 49-203, subsections (4)(a) and (4)(d)*.

Chapter 2: Driving Safely

This Section Covers

- Vehicle Inspection
- %DVLF &RQWURO RI <RXU 9HKLFOH
- 6KLIWLQJ *HDUV
- Seeing
- Communicating
- Space Management
- &RQWURROLQJ <RXU 6SHHG
- 6HHLQJ +D]DUGV
- Distracted Driving
- $JJUHVVLYH 'ULYHUV 5RDG 5DJH
- 1LJKW 'ULYLQJ 'ULYHU)DWLJXH
- Driving in Fog
- Winter Driving
- Hot Weather Driving
- 5DLOURDG +LJKZD\ &URVVLQJV
- Mountain Driving
- 'ULYLQJ (PHUJHQFLHV
- $QWLORFN %UDNLQJ 6\VWHPV
- 6NLG &RQWURO DQG 5HFRYHU\
- Accident Procedures
- Fires
- $OFRKRO 2WKHU 'UXJV DQG 'ULYLQJ
- +D]DUGRXV 0DWHULDOV 5XOHV

7KLV VHFWLRQ FRQWDLQV NQRZOHGJH DQG VDIH GULYLQJ information that all commercial drivers should NQRZ <RX PXVW SDVV D WHVW RQ WKLV LQIRUPDWLRQ WR JHW D &'/ 7KLV VHFWLRQ GRHV QRW KDYH VSHFLILF LQIRUPDWLRQ RQ DLU EUDNHV FRPELQDWLRQ YHKLFOHV GRXEOHV RU SDVVHQJHU YHKLFOHV for the Vehicle Inspection Test, you must review the material in Section 11 in addition to the information in this section. This section GRHV KDYH EDVLF LQIRUPDWLRQ RQ KD]DUGRXV PDWHULDOV +D]0DW WKDW DOO GULYHUV VKRXOG NQRZ ,I \RX QHHG D +D]0DW HQGRUVHPHQW \RX VKRXOG VWXG\ 6HFWLRQ

2.1 VEHICLE INSPECTION

2.1.1 Why Inspect

6DIHW\ LV WKH PRVW LPSRUWDQW UHDVRQ \RX LQVSHFW \RXU YHKLFOH VDIHW\ IRU \RXUVHOI DQG IRU RWKHU URDG XVHUV

A vehicle defect found during an inspection FRXOG VDYH \RX SUREOHPV ODV D EUHDNGRZQ RQ WKH URDG WK GROODUV RU HYHQ ZRUVH D F GHIHFW

)HGHUDO DQG VWDWH ODZV UHTX WKHLU YHKLFOHV)HGHUDO DO DOVR PD\ LQVSHFW \RXU YHKLF WKH YHKLFOH WR EH XQVDIH W VHUYLFH´ XQWLO LW LV ¿[HG

2.1.2 Types of Vehicle Inspection

Pre-Trip Vehicle Inspection: A vehicle LQVSHFWLRQ ZLOO KHOS \RX ¿Q FDXVH D FUDVK RU EUHDNGRZQ

During a Trip:)RU VDIHW\ \RX VKRXOG

- :DWFK JDXJHV IRU VLJQV RI W
- 8VH \RXU VHQVHV WR FKHFN
  ORRN OLVWHQ VPHOO IHH
- &KHFN FULWLFDO LWHPV ZKH
  … 7LUHV ZKHHOV DQG ULPV
  … %UDNHV
  … /LJKWV DQG UHÀHFWRUV
  … %UDNH DQG HOHFWULFDO F
  WUDLOHU
  … 7UDLOHU FRXSOLQJ GHYLFH
  … &DUJR VHFXUHPHQW GHYLF
  … &DUJR VHFXUHPHQW GHYLFHV

Post-trip Inspection and Report: <RX VKRXOG DQ DIWHU WULS LQVSHFWLRQ DV RU WRXU RI GXW\ RQ HDFK YHK PD\ LQFOXGH ¿OOLQJ RXW D YH OLVWLQJ DQ\ SUREOHPV \RX ¿ RU KDYH GURYH UHSRUW KHQV D RRWRU FDUUI YHKLFOH QHHGV UHSDLUV

2.1.3 What to Look For:

Tire Problems

- 7RR PXFK RU WRR OLWWOH D
- %DG ZHDU <RX QHHG DW OHD WUHDG GHSWK LQ HYHU\ PDM WLUHV <RX QHHG LQFK R
  No fabric should show through the tread or VLGHZDOO

- &XWV RU RWKHU GDPDJH
- 7UHDG VHSDUDWLRQ
- Dual tires that come in contact with each RWKHU RU SDUWV RI WKH YHKLFOH
- 0LVPDWFKHG VL]HV
- 5DGLDO DQG ELDV SO\ WLUHV XVHG WRJHWKHU
- &XW RU FUDFNHG YDOYH VWHPV
- 5H JURRYHG UHFDSSHG RU UHWUHDGHG WLUHV RQ WKH IURQW ZKHHOV RI D EXV DUH SURKLELWHG

Wheel and Rim Problems

- 'DPDJHG ULPV
- 5XVW DURXQG ZKHHO QXWV PD\ PHDQ WKH QXWV DUH ORRVH FKHFN WLJKWQHVV $IWHU D WLUH has been changed, stop a short while later DQG UH FKHFN WLJKWQHVV RI QXWV
- Missing clamps, spacers, studs, or lugs PHDQV GDQJHU
- 0LVPDWFKHG EHQW RU FUDFNHG ORFN ULQJV DUH GDQJHURXV
- Wheels or rims that have had welding UHSDLUV DUH QRW VDIH

Bad Brake Drums or Shoes

- &UDFNHG GUXPV
- 6KRHV RU SDGV ZLWK RLO JUHDVH RU EUDNH ÀXLG RQ WKHP
- 6KRHV ZRUQ GDQJHURXVO\ WKLQ RU EURNHQ

Steering System Defects

- 0LVVLQJ QXWV EROWV FRWWHU NH\V RU RWKHU SDUWV
- %HQW ORRVH RU EURNHQ SDUWV VXFK DV VWHHULQJ FROXPQ VWHHULQJ JHDU ER[RU WLH URGV
- ,I SRZHU VWHHULQJ HTXLSSHG FKHFN KRVHV SXPSV DQG ÀXLG OHYHO FKHFN IRU OHDNV
- 6WHHULQJ ZKHHO SOD\ RI PRUH WKDQ GHJUHHV DSSUR[LPDWHO\ PRYHPHQW DW WKH ULP RI D ZKHHO FDQ PDNH LW KDUG WR VWHHU

Emergency Equipment

- :DUQLQJ GHYLFHV IRU SDUNHG YHKLFOHV

&DUJR RU 3DVVHQJHU &DUULHUV

Figure 2.1 A typical steering system

Suspension System Defects

7KH VXVSHQVLRQ V\VWHP KROGV LWV ORDG ,W NHHSV WKH D[OH EURNHQ VXVSHQVLRQ SDUWV FDQ JHW RXW RI

- Spring hangers that allow movement of D[OH IURP SURSHU LQ
- &UDFNHG RU EURNHQ VSULQJ
- 0LVVLQJ RU EURNHQ OHDYHV VSULQJ ,ROH IRXUWK RU PL ZLOO SXW WKH YHKLFOH ³RXW GHIHFW FRXOG ESHFLDOO GHJUHV 23.
- %URNHQ OHDYHV LQ D PXOWL OHDYHV WKDW KDYH VKLIWHG WLUH RU RWKHU SDUW
- /HDNLQJ VKRFN DEVRUEHUV
- 7RUTXH URG RU DUP 8 EROW LOFK VWHHULQJ FUDFNHG GDPDJHG RU PLVV
- $Q\ ORRVH FUDFNHG EURNH IUDPH PHPEHUV
- $LU VXVSHQVLRQ V\VWHPV W DQG RU SHFLDO

See Figure 2.2

See Figure 2.4

Figure 2.2 Key Suspension Parts

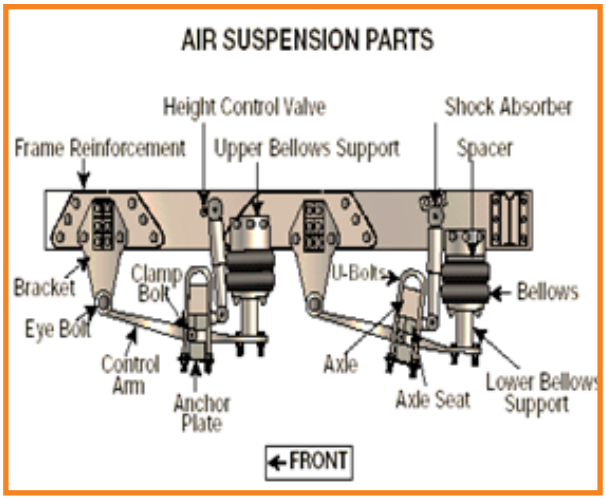


Figure 2.4 Air Suspension Parts

Exhaust System Defects

$ EURNHQ H[KDXVW V\VWHP FD
IXPHV LQWR WKH FDE RU VOHHS

- /RRVH EURNHQ RU PLVVLQJ PX‰HUV WDLOSLSHV RU YHU
- /RRVH EURNHQ RU PLVVLQJ EUDFNHWV FODPSV EROWV
- ([KDXVW V\VWHP SDUWV UXEE V\VWHP SDUWV WLUHV RU R RI YHKLFOH
- ([KDXVW V\VWHP SDUWV WKD

Emergency Equipment

9HKLFOHV PXVW EH HTXLSSHG HTXLSPHQW /RRN IRU

-)LUH H[WLQJXLVKHU V
- 6SDUH HOHFWULFDO IXVHV X ZLWK FLUFXLW EUHDNHUV
- :DUQLQJ GHYLFHV IRU SDUNH H[DPSOH WKUHH UHÀHFWLYH RU IXVHV RU OLTXLG EXUQ

Cargo (Trucks)

<RX PXVW PDNH VXUH WKH WUXF
and the cargo is balanced and secured before
HDFK WULS ,I WKH FDUJR FR
PDWHULDOV \RX PXVW LQVSHF
DQG SODFDUGLQJ

)LJXUH %URNHQ /HDI 6SULQJ

2.1.4 CDL Pre-Trip Vehicle Inspection Test

,Q RUGHU WR REWDLQ D &'/ \RX ZLOO EH UHTXLUHG WR SDVV D 9HKLFOH LQVSHFWLRQ WHVW <RX ZLOO EH WHVWHG WR VHH LI \RX NQRZ ZKHWKHU \RXU YHKLFOH LV VDIH WR GULYH <RX ZLOO EH DVNHG WR GR D 9HKLFOH LQVSHFWLRQ RI \RXU YHKLFOH DQG H[SODLQ WR WKH H[DPLQHU ZKDW \RX ZRXOG LQVSHFW DQG ZK\ <RX PXVW SRLQW WR WRXFK DQG QDPH WKH LWHP \RX DUH LQVSHFWLQJ 7KH IROORZLQJ VHYHQ VWHS LQVSHFWLRQ PHWKRG VKRXOG EH XVHIXO

2.1.5 Seven-step Inspection Method

Method of Inspection: <RX VKRXOG GR D YHKLFOH LQVSHFWLRQ WKH VDPH ZD\ HDFK WLPH \RX ZLOO OHDUQ DOO WKH VWHSV DQG EH VRPHWKLQJ

Approaching the Vehicle:

- 1RWH JHQHUDO FRQGLWLRQ ORRN IRU GDPDJH RU YHKLFOH OHDQLQJ WR RQH VLGH
- /RRN XQGHU WKH YHKLFOH IRU IUHVK RLO FRRODQW JUHDVH RU IXHO OHDNV
- &KHFN WKH DUHD DURXQG WKH YHKLFOH IRU KD]DUGV WR YHKLFOH PRYHPHQW SHRSOH RWKHU YHKLFOHV REMHFWV ORZ KDQJLQJ ZLUHV OLPEV HWF

Vehicle Inspection Guide

Step 1: Vehicle Overview

5HYLHZ /DVW 9HKLFOH ,QVSHFWLRQ 5HSRUW ULYHUV PD\ KDYH WR PDNH D YHKLFOH LQVSHFWLRQ UHSRUW LQ ZULWLQJ HDFK GD\ 7KH PRWRU FDUULHU PXVW UHSDLU DQ\ LWHPV LQ WKH UHSRUW WKDW ZHUH QRW FRUUHFWHG DQG FHUWLI\ RQ WKH UHSRUW WKDW UHSDLUV ZHUH PDGH RU ZHUH XQQHFHVVDU\ <RX PXVW VLJQ WKH UHSRUW RQO\ LI GHIHFWV ZHUH QRWHG DQG FRUUHFWHG RU QRW QHHGHG WR EH UHSDLUHG

Step 2: Check Engine Compartment

&KHFN WKDW WKH SDUNLQJ EUDNHV DUH RQ DQG RU ZKHHOV FKRFNHG <RX PD\ KDYH WR DVN VRPHRQH WR KROG WKH EUDNH SHGDO GRZQ¶W IDOO DQG EUHDN VRPHWKLQJ RU RSHQ WKH HQJLQH FRPSDUWPHQW GRRU

(QJLQH RLO OHYHO Coolant level in radiator; condition of KRVHV 3RZHU VWHHULQJ ÀXLG FRQGLWLRQ LQ VRPH HTXLSSHG ; LQGLVKLHOG ZDVKHU ÀXLG OHYHO %DWWHU\ÀXLG OHYHO FRQG GRZQ\ EDWWHU\ PD\ EH ORF $XWRPDWLF WUDQVPLVVLRQ UHTXLUH HQJLQH WR EH UXQ &KHFN EHOWV IRU WLJKWQHVV wear (alternator, water pump, air FRPUHVVRU OHDUQ KRZ P belts should have when adjusted right, and FKHFN HDFK RQH ZLOO /HDNV LQ WKH HQJLQH FRPSD FRRODQW RLO SRZHU VWHH ÀXLG EDWWHU\ ÀXLG &UDFNHG ZRUQ HOHFWULFDO Lower and secure hood, cab, or engine FRPSDUWPHQW GRRU

Step 3: Start Engine and Inspect Inside the Cab

Get in and Start Engine:

- 0DNH VXUH SDUNLQJ EUDNH L
- 3XW JHDUVKLIW LQ QHXWUDO DXWRPDWLF
- 6WDUW HQJLQH OLVWHQ IRU
- ,I HTXLSSHG FKHFN WKH $QW 6\VWHP $%6 LQGLFDWRU OL GDVKVKRXOG FRPH RQ DQG W LW VWD\V RQ WKH $%6 LV QR \RU WUDLOHUV RQ\ I WKH QHHW UHDU RI WKH WUDLOHU QRW SURSHUO\ FRQQHFWHG WR EH UHSDLUHG

Look at the Gauges:

- 2LO SUHVVXUH Should come up to norm ZLWKLQ VHFRQGV DIWHU HQJ See Figure 2.5
- $LU SUHVVXUH Pressure should build fr WR SVL ZLWKLQ PLQXW SVL WR JRYHUQRU FXW D-ROXQG RU ±know your YHKLFOH¶V UHTXLUHPHQWV
- $PPHWHU DQG RU YROWPHWH QRUPDO UDQJH V

- &RRODQW WHPSHUDWXUH should be in gradua
  ULVH WR QRUPDO RSHUDWLQJ UDQJH
- (QJLQH RLO WHPSHUDWXUH should be in
  JUDGXDO ULVH WR QRUPDO RSHUDWLQJ UDQJH
- :DUQLQJ OLJKWV DQG EX]]HUV 2LO FRRODQW
  FKDUJLQJ FLUFXLW ZDUQLQJ DQG DQWLORFN EUDNH
  V\VWHP OLJKWV VKRXOG JR RXW UHJKW DZD\

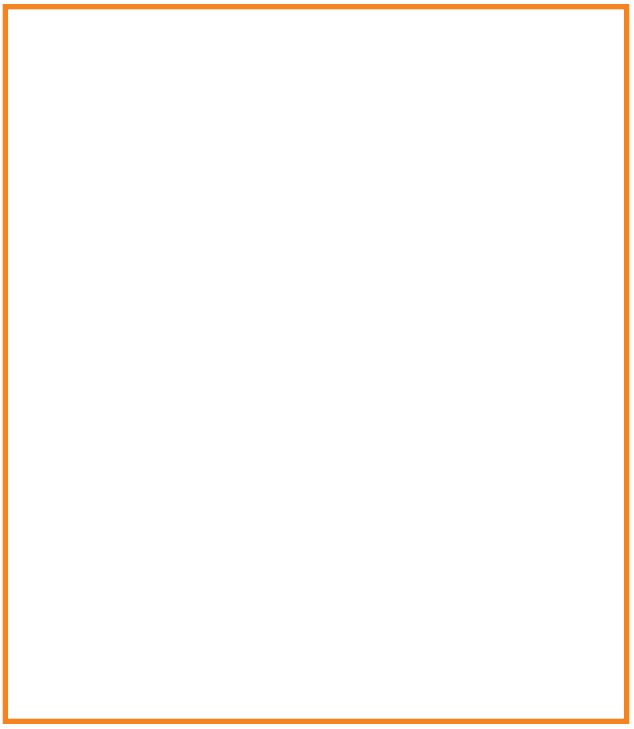


Figure 2.5 Oil Pressure

Check Condition of Controls. &KHFN DOO RI WKH IROORZLQJ IRU ORRVHQHVV VWLFNLQJ GDPDJH RU LPSURSHU setting:

- … 6WHHULQJ ZKHHO
- … &OXWFK
- … $FFHOHUDWRU ³JDV SHGDO´
- … %UDNH FRQWUROV
- …)RRW EUDNH
- … 7UDLOHU EUDNH LI YHKLFOH KDV
- … 3DUNLQJ EUDNH
- … 5HWDUGHU -DNH %UDNH FRQWUROV LI YHKLFOH KDV WKHP
- … 7UDQVPLVVLRQ FRQWUROV
- … ,QWHUD[OH GL‡HUHQWLDO ORFN LI YHKLFOH HTXLSSHG WLWK RQH
- … +RUQ V
- … :LQGVKLHOG ZLSHU ZDVKHU
- … /LJKWV
- … +HDGOLJKWV
- … 'LPPHU VZLWFK
- … 7XUQ VLJQDO

…)RXU ZD\ ÀDVKHUV
… 3DQHO LQ FOHDUDQFH LGHQWLI\LQJ OLJKW VZLWFKHV

Check Mirrors and Windshield. Inspect mirrors DQG ZLQGVKLHOG IRU FUDFNV GLUWKHU REVWUXFWLRQV WR VHH DGMXVW DV QHFHVVDU\

Check Emergency Equipment: &KHFN IRU IROORZLQJ VDIHW\ HTXLSPHQW DOZD\V UHTXLUHG LQ D FRPPHU

… Spare electrical fuses (unless vehicle has FLUFXLW EUHDNHUV
… 7KUHH UHG UHÀHFWLYH WULD OLTXLG EXUQLQJ ÀDUHV
… 3URSHUO\ FKDUJHG DQG UDWH[WLQJXLVKHU

Check for optional items such as:

… &KDLQV ZKHUH ZLQWHU FRQ
… 7LUH FKDQJLQJ HTXLSPHQW
… /LVW RI HPHUJHQF\ SKRQH QX
… $FFLGHQW UHSRUWLQJ NLW

Check Safety Belt:

… &KHFN WKDW WKH VDIHW\ EH PRXQWHG DGMXVWV ODWFK QRW UISSHG RU IUD\HG

6WHS 2‡ (QJLQH DQG &K
IROORZLQJ GDPDJH RU LPSURSHU
… 0DNH VXUH WKH SDUNLQJ EUI
… 7XUQ R‡ WKH HQJLQH DQG WD \RX
… 7XUQ RQ KHDGOLJKWV ORZ E ZD\ HPHUJHQF\ ÀDVKHUV DQ YHKLFOH

Step 5: Walk-Around Inspection:

*R WR IURQW RI YHKLFOH DQG F DUH RQ DQG ERWK RI WKH IRX ZRUNLQJ

3XVK GLPPHU VZLWFK DQG FK EHDPV ZRUN
… 7XUQ R‡ KHDGOLJKWV DQG IR HPHUJHQF\ ÀDVKHUV
… 7XUQ RQ SDUNLQJ FOHDUDQ DQG LGHQWL¿FDWLRQ OLJKW
… 7XUQ RQ ULJKW WXUQ VLJQD DURXQG LQVSHFWLRQ

General:

- … :DON DURXQG DQG LQVSHFW
- … &OHDQ DOO OLJKWV UHÀHFWRUV DQG JODVV DV \RX JR DORQJ

Left Front Side:

- … 'ULYHU¶V GRRU JODVV VKRXOG EH FOHDQ
- … 'RRU ODWFKHV RU ORFNV VKRXOG ZRUN SURSHUO\ /HIW IURQW ZKHHO
- … &RQGLWLRQ RI ZKHHO DQG ULP PLVVLQJ EHQW EURNHQ VWXGV FODPSV OXJV PLVDOLJQPHQW
- … &RQGLWLRQ RI WLUHV SURSHUO\ LQÀDWHG YDOYH VWHP DQG FDS 2. QR VHULRXV FXWV EXOJHV RU WUHDG ZHDU
- … 8VH ZUHQFK WR WHVW UXVW VWUHDNHG OXJ QXWV LQGLFDWLQJ ORRVHQHVV
- … +XE RLO OHYHO 2. QR OHDNV VXVSHQVLRQ
- … Condition of spring, spring hangers, VKDFNOHV 8 EROWV
- … 6KRFN DEVRUEHU FRQGLWLRQ
- … &RQGLWLRQ RI EUDNH GUXP RU RI KRVHV

Front:

- … &RQGLWLRQ RI IURQW D[OH &RQGLWLRQ RI VWHHULQJ V\VWHP
- … No loose, worn, bent, damaged or missing SDUWV
- … Must grab steering mechanism to test for ORRVHQHVV
- … &RQGLWLRQ RI ZLQGVKLHOG
- … &KHFN IRU GDPDJH DQG FOHDQ RI GDPDJH
- … &KHFN ZLQGVKLHOG ZLSHU DUPV VSULQJ WHQVLRQ
- … &KHFN ZLSHU EODGHV IRU GDPDJH UXEEHU DQG VHFXUHPHQW
- … /LJKWV DQG UHÀHFWRUV
- … 3DUNLQJ FOHDUDQFH DQG LGHQWLÀFDWLRQ clean, operating, and proper color (amber DW IURQW
- … 5HÀHFWRUV FOHDQ DQG SURSHUO\ DW IURQW
- … 5LJKW IURQW WXUQ VLJQDO OLJKW operating, and proper color (amber or ZKLWH RQ VLJQDOV IDFLQJ IRUZDUG

Right Side:

- … 5LJKW IURQW FKHFN DOO LW
- … UHÀHFWRUV DQG JODVV DV
- … 3ULPDU\ DQG VHFRQGDU\ VDI HQJDJHG LI FDE RYHU HQJLQ
- … 5LJKW IXHO WDQN V
- … EH FOHDQ 6HFXUHO\ PRXQWHG QRW GD OHDNLQJ
- …)XHO FURVVRYHU OLQH VHFXU
- … 7DQN V FRQWDLQ HQRXJK IX RU DQ\ VLJQV RI
- … &DS V RQ DQG VHFXUH
- … &RQGLWLRQ RI YLVLEOH SDU
- … 5HDU RI HQJLQH QRW OHDNL
- … 7UDQVPLVVLRQ QRW OHDNLQ
- … ([KDXVW V\VWHP VHFXUH QR WRXFKLQJ ZLUHV ¦XHO RU D
- …)UDPH DQG FURVV PHPEHUV /HIW IURQW FUDFNV
- … $LU GUDLQ HOHFWULFDO ZLULQ DJDLQVW VQDJJLQJ UXEELQ
- … 6SDUH WLUH FDUULHU RU UD /HIW IURQW EUDNH VR HIXLSSHG GLVF &RQGLWLRQ
- … 6SDUH WLUH DQG RU ZKHHO V LQ UDFN
- … 6SDUH WLUH DQG ZKHHO DGH VL]H SURSHUO\ LQÀDWHG
- … &DUJR VHFXUHPHQW WUXFNV
- … &DUJR SURSHUO\ EORFNHG E FKDLQHG HWF
- … +HDGHU ERDUG DGHTXDWH V UHTXLUHG
- … 6LGH ERDUGV VWDNHV VWUR RI GDPDJH SURSHUO\ VHW LQ GUDLW\ HTXLSSHG
- … &DQYDV RU WDUS LI UHTXLU secured to prevent tearing, billowing, or EORFNLQJ RI PLUURUV
- … ,I RYHUVL]H DOO UHTXLUHG ODPSV DQG UHÀHFWRUV VDI PRXQWHG DQG DOO UHTXLUH GULYHU¶V SRVVHVVLRQ
- Curbside cargo compartment doors in JRRG FRQGLWLRQ VHFXUHO\ ORFNHG DQG UHTXLUHG VHFX

Right Rear:

- … &RQGLWLRQ RI ZKHHOV DQG ULPV QR PLVVLQJ EHQW RU EURNHQ VSDFHUV VWXGV FODPSV RU OXJV
- … &RQGLWLRQ RI WLUHV SURSHUO\ LQIODWHG YDOYH VWHPV DQG FDSV 2. QR VHULRXV FXWV bulges, tread wear, tires not rubbing each RWKHU DQG QRWKLQJ VWXFN EHWZHHQ WKHP
- … 7LUHV VDPH W\SH H J QRW PL[HG UDGLDO DQG ELDV W\SHV
- … 7LUHV HYHQO\ PDWFKHG VDPH VL]HV
- … :KHHO EHDULQJ VHDOV QRW OHDNLQJ 6XVSHQVLRQ
- … Condition of spring(s), spring hangers, VKDFNOHV DQG 8 EROWV
- … $[OH VHFXUH
- … 3RZHUHG D[OH V QRW OHDNLQJ OXEH JHDU RLO
- … &RQGLWLRQ RI WRUTXH URG DUPV EXVKLQJV
- … &RQGLWLRQ RI VKRFN DEVRUEHUV
- … ,I UHWUDFWDEOH D[OH HTXLSSHG FKHFN FRQGLWLRQ RI OLIW PHFKDQLVP ,I DLU SRZHUHG FKHFN IRU OHDNV
- … &RQGLWLRQ RI DLU ULGH FRPSRQHQWV
- … %UDNHV
- … %UDNH DGMXVWPHQW
- … &RQGLWLRQ RI EUDNH GUXP V RU GLVFV
- … &RQGLWLRQ RI KRVHV ORRN IRU DQ\ ZHDU GXH WR UXEELQJ
- … /LJKWV DQG UHÀHFWRUV
- … 6LGH PDUNHU OLJKWV FOHDQ RSHUDWLQJ DQG SURSHU FRORU UHG DW UHDU RWKHUV DPEHU
- … 6LGH PDUNHU UHÀHFWRUV FOHDQ DQG SURSHU FRORU UHG DW UHDU RWKHUV DPEHU

Rear:

- … /LJKWV DQG UHÀHFWRUV
- … 5HDU FOHDUDQFH DQG LGHQWL¿FDWLRQ clean, operating, and proper color (red at UHDU
- … 5HÀHFWRUV FOHDQ DQG SURSHU FRORU UHG DW UHDU
- … Taillights clean, operating, and proper color UHG DW UHDU
- … 5LJKW UHDU WXUQ VLJQDO RSHUDWLQJ DQG SURSHU FRORU UHG \HOORZ RU DPEHU DW UHDU
- … License plate(s) present, clean, and VHFXUHG
- … Splash guards present, not damaged, SURSHUO\ IDVWHQHG QRW G RU UXEELQJ WLUHV
- … &DUJR VHFXUH WUXFNV
- … &DUJR SURSHUO\ EORFNHG E FKDLQHG HWF
- … 7DLOJDWHG YDOYH 7DLOJDUGV XS DQG SURSHU
- … (QG JDWHV IUHH RI GDPDJH VHFXUHG LQ VWDNH VRFNHWV
- … &OYDRV RU WDUS LI UHTXLU secured to prevent tearing, billowing, or EORFNLQJ RI HLWKHU WKH UH UHDU OLJKWV
- … ,I RYHU OHQJWK RU RYHU ZL DOO VLJQV DQG RU DGGLWLR DUH VDIHO\ DQG SURSHUO\ P UHTXLUHG SHUPLWV DUH LQ F FHDU GRRUV VHFXUHO\ FORV QRFNHG

Left Side:

- … &KHFN DOO LWHPV DV GRQH I
- … %DWWHU\ RU EDWWHULHV LI HQJLQH FRPSDUWPHQW
- … %DWWHU\ ER[RU ER[HV VHFX YHKLFOH
- … %R[KDV VHFXUH FRYHU
- … %DWWHULHV VHFXUHG DJDLQ
- … %DWWHULHV QRW EURNHQ RU
- …)OXLG LQ EDWWHULHV DW SU PDLQWHQDQFH IUHH W\SH
- … &HOO FDSV SURWHQW DQG VH H[FHSW PDLQWHQDQFH IUHH
- … Vents in cell caps free of foreign material H[FHSW PDLQWHQDQFH IUHH

Step 6: Check Signal Lights

- … *HW ,Q DQG 7XUQ 2‡ /LJKWV
- … 7XUQ R‡ DOO OLJKWV
- … 7XUQ RQ VWRS OLJKWV DSSO EUDNH RU KDYH D KHOSHU SX SHGDO
- … 7XUQ RQ OHIW WXUQ VLJQDO
- … *HW RXW DQG FKHFN OLJKWV
- … Left front turn signal light clean, operating and proper color (amber or white on VLJQDOV YDFLQJ WKH IURQW
- … Left rear turn signal light and both stop lights clean, operating, and proper color UHG \HOORZ RU DPEHU

Get In Vehicle:

- 7XUQ R‡ OLJKWV QRW QHHGHG IRU GULYLQJ
- &KHFN IRU DOO UHTXLUHG SDSHUV WUXFN WUDLOHU %UDNH 9DOYH DQ PDQLIHVWV SHUPLWV HWF 9DOYH RU ³-RKQVRQ %DU´ LV D
- 6HFXUH DOO ORRVH DUWLFOHV LQ FDE WKH\ PLJKW WKH VHUYLFH EUDNHV RQ D WU interfere with operation of the controls or 127 DFWLYDWH WKH EUDNHV RQ KLW \RX LQ D FUDVK
- 6WDUW WKH HQJLQH

Step 7: Start the Engine and Check

7KLV EUDNLQJ GHYLFH LV DFWL RQ D KDQGOH XVXDOO\ ORFDW FROXPQ RU GDVKERUG ,W PD\ WKH GULYHU ZLOO KDYH D IHHO

Test for Hydraulic Leaks: If the vehicle has K\GUDXOLF EUDNHV SXPS WKH 7KH DPRXQW RI WLPHV 7KHQ DSSO\ ¿UP SUHVVXUH DQG KROG IRU ¿YH VHFRQGV 7KLV SXPSV WKH PRYH ,I LW GRHV WKHUH PD\ SURFHGXUH *HW LW ¿[HG EHIRUH GULYLQJ KDV DLU EUDNHV GR WKH FKHFNV 6HFWLRQV DQG RI WKLV PDQXDO DQG VWHS LQVWUXFWLRQV LQ &KDSWHU

Brake System

Test Parking Brake(s)

-)DVWHQ VDIHW\ EHOW
- 6HW SDUNLQJ EUDNH SRZHU
- 5HOHDVH WUDLOHU SDUNLQJ DSSOLFDEOH 3ODFH YHKLF
- *HQWO\ SXOO IRUZDUG DJDL WR PDNH VXUH WKH SDUNLQ
- 5HSHDW WKH VDPH VWHSV I WUDLOHU SDUNLQJ EUDNH V SDUNLQJ EUDNHV UHOHDVHG
- ,I LW GRHVQ¶W KROG YHKLF ¿[HG

Test Service Brake Stopping Action

- *R DERXW ¿YH PLOHV SHU K
- 3XVK EUDNH SHGDO ¿UPO\
- ³3XOOLQJ´ WR RQH VLGH RU EUDNH WURXEOH
- $Q\ XQXVXDO EUDNH SHGDO VWRSSLQJ DFWLRQ FDQ PHD
- ,I \RX ¿QG DQ\WKLQJ XQVDI YHKLFOH LQVSHFWLRQ JHW and state laws forbid operating an unsafe YHKLFOH

Test Trailer Service Brake (if so equipped)

,Q PDQ\ WUXFN WUDFWRUV HTXL WKH 7UDLOHU %UDNH 9DOYH DO 9DOYH RU ³-RKQVRQ %DU´ LV D WKH VHUYLFH EUDNHV RQ D WU 127 DFWLYDWH WKH EUDNHV RQ

7KLV EUDNLQJ GHYLFH LV DFWL RQ D KDQGOH XVXDOO\ ORFDW FROXPQ RU GDVKERUG ,W PD\ WKH GULYHU ZLOO KDYH D IHHO 7KHQ DSSO\ ¿UP SUHVVXUH DQG KROG IRU ¿YH VHFRQGV 7KLV SXPSV WKH PRYH ,I LW GRHV WKHUH PD\ SURFHGXUH *HW LW ¿[HG EHIRUH GULYLQJ ,W PD\ WKH YHKLFOH 7R WHVW WKH 7UDLOHU %UDNH 6HOHDVH WKH SDUNLQJ EUDNH 3XOO WKH 7UROOH\ 9DOYH KD down

- *HQWO\ SXOO IRUZDUG DJDLQ PDNH VXUH LW ZLOO KROG W

Trailer Brake Handle in Freightliner Tractor

2.1.6 Inspection during a Trip

Check vehicle operation regularly! It is very important that you make a quick walk-around to look for problems when you stop your truck or bus during your trip.

<RX VKRXOG FKHFN

- … ,QVWUXPHQWV
- … $LU SUHVVXUH JDXJH LI \RX EUDNHV
- … 7HPSHUDWXUH JDXJHV
- … 3UHVVXUH JDXJHV
- … $PPHWHU YROWPHWHU
- … 0LUURUV
- … 7LUHV
- … Cargo, cargo straps or securement, cargo WDUSV RU FRYHUV
- … /LJKWV HWF

If you see, hear, smell, or feel anything that might mean trouble, check it out.

2.1.7 Post-trip (After Trip) Inspection and Report

<RX PD\ KDYH WR PDNH D ZULW
GD\ RQ WKH FRQGLWLRQ RI WKH
5HSRUW DQ\WKLQJ D‡HFWLQJ
OHDGLQJ WR PHFKDQLFDO EUHD

Safety Inspection:

'ULYHUV RI WUXFNV DQG WUXFN WUDFWRUV ZKHQ transporting cargo must inspect the securement RI WKH FDUJR ZLWKLQ WKH ¿UVW PLOHV RI D WULS DQG HYHU\ PLOHV RU HYHU\ WKUHH KRXUV ZKLFKHYHU FRPHV ¿UVW WKHUHDIWHU 7KLV LV D YHU\ LPSRUWDQW SDUW RI EHLQJ D SURIHVVLRQDO GULYHU 2IWHQ FDUJR ZLOO PRYH VOLJKWO\ RU VHWWOH GXULQJ WKH ¿UVW SDUW RI D WULS %\ PDNLQJ FDUHIXO FKHFNV RQ FDUJR VHFXUHPHQW \RX FDQ DYRLG ORVLQJ DOO RU SDUW RI \RXU ORDG DQG SRVVLEO\ LQMXULQJ VRPHRQH RU GDPDJLQJ SURSHUW\

The vehicle inspection report tells the motor FDUULHU DERXW SUREOHPV WKDW PD\ QHHG VHQG Keep a copy of your report in the vehicle for one GD\ 7KDW ZD\ WKH QH[W GULYHU FDQ OHDUQ DERXW DQ\ SUREOHPV \RX KDYH IRXQG

1. What is the most important reason for doing a vehicle inspection?

2. What things should you check during a trip?

3. Name some key steering system parts.

4. Name some suspension system defects.

5. What three kinds of emergency equipment must you have?

6. What is the minimum tread depth for front tires? For other tires?

7. Name some things you should check on the front of your vehicle during the walk-around inspection.

8. What should wheel bearing seals be checked for?

+RZ PDQ\ UHG UHÀHFWLYH WDSH JOHUDWLRQ FDQ GDP should you carry?

10. How do you test hydraulic brakes for leaks?

11. Why put the starter switch key in your pocket during the Vehicle inspection?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UHDGV[EVHFWLRQ 2.1.

7R GULYH D YHKLFOH VDIHO\ \RX QHHG WR OHDUQ VHQG DQG GLUH D FRPPHUFLDO YHKLFOH UHTXLU DERXW

- Accelerating
- Steering
- Stopping
- %DFNLQJ VDIHO\

)DVWHQ \RXU VHDWEHOW ZKHQ R SDUNLQJ EUDNH ZKHQ \RX OHDY

2.2.1 Accelerating

'RQ¶W UROO EDFN ZKHQ \RX V VRPHRQH EHKLQG \RX ,I \RX K WUDQVPLVVLRQ YHKLFOH SDUW EHIRUH \RX WDNH \RXU ULJKW 3XW RQ WKH SDUNLQJ EUDNH Z WR NHHS IURP UROOLQJ EDFN EUDNH RQO\ ZKHQ \RX KDYH D HQJLQH SRZHU WR NHHS IURP U WUDFWRU WUDLOHU HTXLSSHG Z YDOYH WKH KDQG YDOYH FDQ IURP UROOLQJ EDFN

6SHHG XS VPRRWKO\ DQG JUDGX GRHV QRW MHUN 5RXJK DFFHO PHFKDQLFDO GDPDJH :KHQ SX WUDQVPLVVLRQ FDQ GDP

6SHHG XS YHU\ JUDGXDOO\ ZKH DV LQ UDLQ RU VQRZ ,I \RX XVH GULYH ZKHHOV PD\ VSLQ <RX F WKH GULYH ZKHHOV EHJLQ WR V WKH DFFHOHUDWRU

2.2.2 Steering

+ROG WKH VWHHULQJ ZKHHO ¿U <RXU KDQGV VKRXOG EH RQ RSS ZKHHO ,I \RX KLW D FXUE RU D WKH ZKHHO FRXOG SXOO DZD\ IU \RX KDYH D ¿UP KROG

2.2.3 Stopping

3XVK WKH EUDNH SHGDO GRZ DPRXQW RI EUDNH SUHVVXUH \R

vehicle will depend on the speed of the vehicle and how you apply the brakes. You need to brake gently and evenly to avoid skidding the wheels. Release the brake pressure so the vehicle comes to a smooth, safe stop. If you have a manual transmission, you can also downshift to help slow the vehicle. Push in the clutch when the engine speed gets too low.

2.2.3 Backing Safely

Because you cannot see everything around your vehicle when backing, backing can be dangerous. Backing carefully and correctly will help you avoid an accident. When you back your vehicle, go slowly and look behind you. If possible, have someone help you. Use a helper if you have a large vehicle, if your visibility is limited in any direction, or if you are backing into a busy street. Your helper should stand where you can see him or her in your mirrors or by looking out the window. Keep checking your mirrors and the area behind your vehicle while backing.

Use a Helper: Use a helper if you can. Agree on hand signals before backing. Remember that your helper is only there to help you back up. You are responsible for what your vehicle does. Do not back up if you cannot see your helper or if you lose sight of him or her. Your helper is limited to what he or she can see. Be sure you know what is behind your vehicle before backing.

Start in the Proper Position: Put the vehicle in the best position to back up. You may want to put your position window down so you can look back easily. Before backing, check the area around your vehicle for children, animals, bicycles, and other objects.

Back Straight: Back up in a straight line whenever you can. Avoid backing around corners. Back to the right or left only enough to get your vehicle in the proper position to pull forward.

Use Mirrors on Both Sides: Check the outside mirrors on both sides of your vehicle frequently. Check your vehicle and the area around it before you start. Check your progress often while backing.

Back Slowly: Always back up as slowly as you can. Use the lowest reverse gear. That way, you can react more easily to what you see. Also, backing slowly reduces the chance of skidding on slippery surfaces.

Back and Turn toward the Driver's Side: Back toward the driver's side so you can see better. Backing toward the right side is dangerous because you cannot see as well. Turn around and look out the back window. Use the driver's side door as a reference point. Keep looking in that direction while backing. Use the steering wheel to keep the door in the same position in the window. Be sure to check frequently in front of your vehicle to see that the front will clear.

2.3 SHIFTING GEARS

2.3.1 Manual Transmissions

Transmission Types: Most manual transmissions have five forward speeds and one reverse. Some have six forward speeds. Your vehicle's transmission is designed to work with the engine to provide the best performance and fuel economy. Your vehicle's transmission is designed to work with the engine to provide the best performance and fuel economy. This is why your vehicle has different gears.

Basic Method for Shifting Up: Shifting up is changing from a lower gear to a higher gear. Shifting up is necessary to increase speed. This is what you do:

- Release accelerator
- Push in clutch
- Shift to higher gear
- Release clutch and accelerate

Let engine and gears slow down to the proper speed for the next gear.

Push in clutch and shift to the higher gear at the right time.

Release clutch and accelerate.

Shifting gears using double clutching requires practice. If you are not sure you can do it without grinding gears, do not try it. If you are not sure you can do it without grinding gears, do not try it. If you are not sure you can do it without grinding gears, do not try it.

Knowing When to Shift Up: The best time to shift up depends on how fast you want to go and how much power you need. Use Engine Speed (rpm): Shift up at about the same engine speed (rpm) each time you drive. Shift up at about the same engine speed (rpm) each time you drive. Shift up at about the same engine speed (rpm) each time you drive.

ZKHQ \RXU HQJLQH UHDFKHV W2K3-2 Multispeed Rear Axles and Auxiliary
6RPH QHZHU YHKLFOHV XVH ³SURJUHVVLYH´ VKLIWLQJ Transmissions
WKH USP DW ZKLFK \RX VKLIW EHFRPHV KLJKHU DV 0XOWL VSHHG UHDU D[OHV DQG D
\RX PRYH XS LQ WKH JHDUV)LQG RXW ZKDW¶V ULJKW DUH XVHG RQ PDQ\ YHKLFOHV
IRU WKH YHKLFOH \RX ZLOO RSHUDWH JHDUV <RX XVXDOO\ FRQWURO
NQRE RU VZLWFK RQ WKH JHDUV
Use Road Speed (mph): Learn what speeds HDFK JHDU LV JRRG IRU 7KHQ UDEVROXWHO\ RQ WKH 7KHUH DUH P
VSHHGRPHWHU \RX¶OO NQRZ ZKHQ WR VKLIW XS WKH ULJKW Z
YHKLFOH \RX ZLOO GULYH
:LWK HLWKHU PHWKRG \RX PD\ OHDUQ WR XVH HQJLQH
VRXQGV WR NQRZ ZKHQ WR VKLIW
2.3.3 Automatic Transmissions
6RPH YHKLFOHV KDYH DXWRPDW
VRXLEDQOXWHFWDQGOZ UDQJH V
EDNHQWLZKHQ JRLQJ GRZQ JU
ranges prevent the transmission from shifting up
EH\RQG WKH VHOHFWHG JHDU
USP LV[FHHGHG RZWLV YHU\ L
EUDNLQJ H‡HFW ZKHQ JRLQJ GR
Basic Procedures for Shifting Down:
- 5HOHDVH DFFHOHUDWRU SXUSRVHIXOO\ DQG OHW
VKLIW WR QHXWUDO DW WKH
- 5HOHDVH FOXWFK
- Press accelerator, increase engine and JHDU VSHHG WR WKH USP UHTXLUHG
JHDU
- Push in clutch and shift to lower gear at the VDPH WLPH
- 5HOHDVH FOXWFK DQG SUHVV DFFHOHUDWRU DW WKH VDPH WLPH
- 'RZQVKLIWLQJ OLNH XSVKLIWLQJ UHTXLUHV NQRZLQJ ZKHQ WR VKLIW 8VH HLWKHU WKH tachometer or the speedometer and GRZQVKLIW DW WKH ULJKW USP RU URDG VSHHG
2.3.4 Retarders (also called Jake Brakes)
6RPH YHKLFOHV KDYH ³UHWDUG
VORZ D YHKLFOH UHGXFLQJ WK
EUDNHV 7KH\ UHGXFH EUDNH Z
DQRWKHU ZD\ WR VORZ GRZQ 7
W\SHV RI UHWDUGHUV H[KDXV
DQG HOHFWULF $OO UHWDUGL
RU R‡ E\ WKH GULYHU 2Q VR
UHWDUGLQJ SRZHU FDQ EH DGM
³RQ´ UHWDUGHUV DSSO\ WKHLU
GULYH ZKHHOV RQO\ ZKHQHYHU
Special conditions where you should downshift:
Before going down a Hill: Slow down, and shift GRZQ WR D VSHHG WKDW \RX FDQ FRQWURO ZLWKRXW
QHHGLQJ WR XVH \RXU EUDNHV DFFHOHUDWRU SHGDO DOO WKH
WKH EUDNHV FDQ RYHUKHDW DQG ORVH WKHLU EUDNLQJ FDQ
SRZHU %HFDXVH WKHVH GHYLFHV \RX NQRZ ZKHUH WKHLU XVH LV
'RZQVKLIW EHIRUH VWDUWLQJ
VXUH \RX DUH LQ D ORZ HQRXJ
WKDW WKH JHDU UHTXLUHG WR
Caution: When your drive wheels have poor traction, the retarder may cause them to skid. Therefore, you should WXUQ WKH UHWDUGHU RII ZKHQ WKH URDG is wet, icy, or snow-covered.
Before Entering a Curve: Slow down to a safe speed, and downshift to the right gear before HQWHULQJ WKH FXUYH 7KLV OHWV \RX XVH VRPH SRZHU through the curve to help the vehicle be more VWDEOH ZKLOH WXUQLQJ ,W DOVR DOORZV \RX WR VSHHG XS DV VRRQ DV \RX DUH RXW RI WKH FXUYH

6XEVHFWLRQV DQG Knowledge

1. Why should you back toward the GULYHU¶V VLGH"

2. If stopped on a hill, how can you start moving without rolling back?

3. When backing, why is it important to use a helper?

4. :KDW¶V WKH PRVW LPSRUWDQW LQIRUPDWLRQ WKDW WKH GULYHU DQG KHOSHU should agree on?

5. What are the two special conditions where you should downshift?

6. When should you downshift automatic transmissions?

7. Retarders keep you from skidding when the road is slippery. True or False?

8. What are the two ways to know when to shift?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH
and 2.3.

2.4 SEEING

7R EH D VDIH GULYHU \RX QHHG RQ DOO DURXQG \RXU YHKLFOH LV D PDMRU FDXVH RI DFFLGHQ\

2.4.1 Seeing Ahead

$OO GULYHUV ORRN DKHDG EX HQRXJK DKHDG

Importance of Looking Far Enough Ahead:
%HFDXVH VWRSSLQJ RU FKDQJL ORW RI GLVWDQFH NQRZLQJ ZK RQ DOO VLGHV RI \RX LV YHU\ L ORRN ZHOO DKHDG WR PDNH VX PDNH WKHVH PRYHV VDIHO\

How Far Ahead to Look: 0RVW JRRG GULYH DTW OHDVW WHQ VXU WR VHFRQGV D ORRNLQJ DKHDG WKH GLVWDQFH WR VHFRQGV $W ORZHU VSHH EORFN $W KLJKZD\ VSHHGV LW¶ D PLOH ,I \RX¶UH QRW ORRNLQ PD\ KDYH WR VWRS WRR TXLFN ODQH FKDQJHV /RRNLQJ WR GRHVQ¶W PHDQ QRW SD\LQJ DW DUH FORVHU *RRG GULYHUV VK DQG IRUWK Figure 2.6 illustrates how LQ WR GR LW

City Driving – 12-15 Seconds is About One Block

Open Highway – 12-15 Seconds is about 1/4 Mile

Figure 2.6 Judging Distance

/RRN WR 7UDˆF FRRN IRU YHKLFOHV LaneChange: <RX QHHG WR FKHFN \RXU PLUURUV WKH KLJKZD\ LQWR \RXU ODQH WR PDNH VXUH QR RWKHU YHKLFOHV DUH LQ WKH ZD\ IRU EUDNH OLJKWV IURP VORZLQJ GRZQ RU VWRSSLQJ YHKLFOHV LQ WKHVH WKLQJV IDU HQRXJK DKHDG \RX FDQ FKDQJH \RXU VSHHG RU FKDQJH ODQHV LQ VDIHW\ DYRLG D SUREOHP ,I D WUˆF QLJKW KDV EHHQ JUHHQ IRU D ORQJ WLPH LW ZLOO SUREDEO\ FKDQJH WR \HOORZ EHIRUH \RX JHW WKHUH 6WDUW VORZLQJ GRZQ DQG EH UHDG\ WR VWRS

2.4.2 Seeing to the Sides and Rear

,W¶V LPSRUWDQW WR NQRZ ZKDW¶V JRLQJ RQ EHKLQG DQG WR WKH VLGHV &KHFN \RXU PLUURUV UHJXODUO\ &KHFN PRUH RIWHQ LQ VSHFLDO VLWXDWLRQV

Mirror Adjustment: Mirror adjustment should EH FKHFNHG SULRU WR WKH VWDUW RI DQ\ WULS DQG FDQ RQO\ EH FKHFNHG DFFXUDWHO\ ZKHQ WKH WUDLOHU DUH VWUDLJKW <RX VKRXOG FKHFN DQG DGMXVW HDFK PLUURU WR VKRZ VRPH SDUW RI WKH YHKLFOH /KLV ZLOO JLYH \RX D UHIHUHQFH SRLQW IRU MXGJLQJ WKH SRVLWLRQ RI WKH RWKHU LPDJHV

Regular Checks: <RX QHHG WR PDNH UHJXODU FKHFNV RI \RXU PLUURUV WR EH DZDUH RI WUDˆF DQG WR FKHFN \RXU YHKLFOH

7UDˆF &KHFN \RXU PLUURUV IRU YHKLFOHV RQ HLWKHU VLGH DQG LQ EDFN RI \RX ,Q DQ HPHUJHQF\ \RX PD\ QHHG WR NQRZ ZKHWKHU \RX FDQ PDNH D TXLFN ODQH FKDQJH 8VH \RXU PLUURUV WR VSRW YHKLFOHV 7KHUH DUH ³EOLQG VSRWV´ WKDW \RXU PLUURUV FDQQRW VKRZ \RX &KHFN\RXU YHKLFOH 8VH WKH PLUURUV WR NHHS DQ H\H RQ \RXU WLUHV ,W¶V RQH ZD\ WR VSRW ,I \RX¶UH FDUU\LQJ RSHQ FDUJR \RX FDQ XVH WKH PLUURUV WR FKHFN LW /RRN IRU ÒRRVH VWUDSV URSHV RU FKDLQV :DWFK IRU D ÀDSSLQJ RU ÀDOORRQLQJ WDUS

Special Situations: 6SHFLDO VLWXDWLRQV UHTXLUH PRUH WKDQ UHJXODU PLUURU FKHFNV 7KHVH DUH ODQH FKDQJHV WXUQV PHUJHV DQG WLJKW PDQHXYHUV

- %HIRUH \RX FKDQJH ODQHV W WKHUH LV HQRXJK URRP
- $IWHU \RX KDYH VLJQDOHG W RQH KDV PRYHG LQWR \RXU E
- 5LJKW DFWHU \RX VWDUW WKI GRXEOH FKHFN WKDW \RXU S
- $IWHU \RX FRPSOHWH WKH OD

Turns: ,Q WXUQV FKHFN \RXU PLUU WKH UHDU RI \RXU YHKLFOH ZLO

Merges: :KHQ PHUJLQJ XVH \RXU PDNH VXUH WKH JDS LQ WUˆF \RX WR HQWHU VDIHO\

Tight Maneuvers: $Q\ WLPH \RX DUH G FORVH TXDUWHUV FKHFN \RXU VXUH \RX KDYH HQRXJK FOHDUD RQ WKH PLUURUV RU VORZ GRZQ DQG EH UHDG\ WR VWRS

How to Use Mirrors: 8VH PLUURUV FRUU FKHFNLQJ WKHP TXLFNO\ DQG X \RX VHH

.HHS \RX XVH \RXU PLUURUV ZK URDG FKHFN TXLFNO\ /RRN EDF WKH PLUURUV DQG WKH URDG RQ WKH PLUURUV JRU WRR ORQ WUDYHO TXLWH D GLVWDQFH ZI KDSSHQLQJ DKHDG

0DQ\ ODUJH YHKLFOHV KDYH ³EOLQG VSRWV´ WKDW \RXU PLUURUV ZLGHU DUHD WKDQ ADW PLUURU %XW HYHU\WKLQJ DSSHDUV VPDO WKDO LW ZRXOG LI \RX ZHUH O ZKLOH ZD\ WR VHH PRUH DQ DUHD DURXQG \RX DQG DUH ZH¶UH JRLQJ WR UHDG IWigure 2-7 VKRZV WKH HQG RI YL FRQYH PLUURU

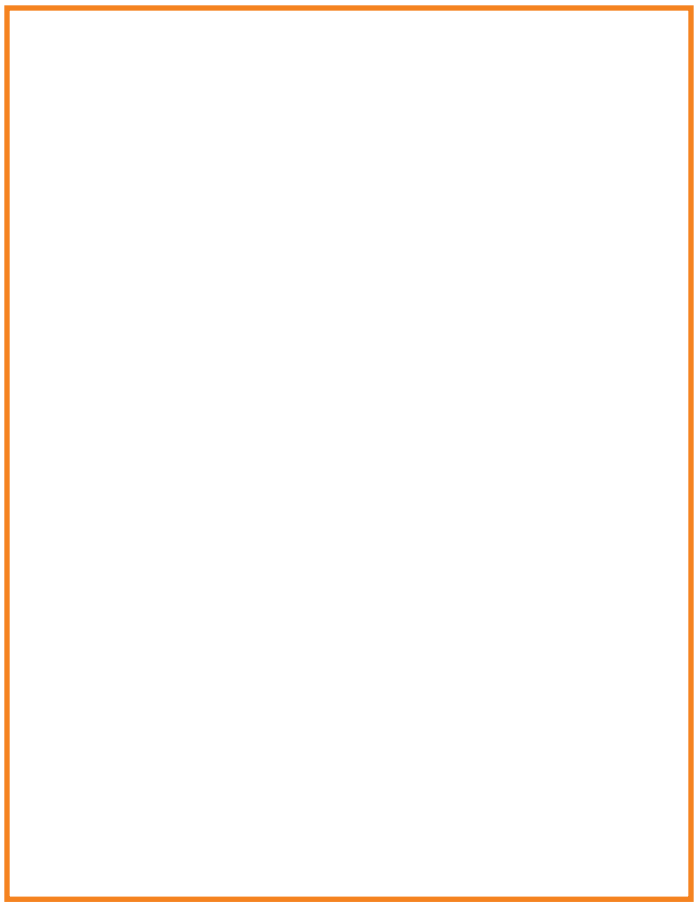


Figure 2.7 Convex Mirrors

2.5 COMMUNICATING

6LJQDOLQJ <RXU ,QWHQWLRQV

2WKHU GULYHUV FDQ¶W NQRZ ZKDW \RX DUH JRLQJ WR GR XQWLO \RX WHOO WKHP

6LJQDOLQJ ZKDW \RX LQWHQG WR GR LV DQ LPSRUWDQW SDUW RI VDIHW\ +HUH DUH VRPH JHQHUDO UXOHV IRU VLJQDOLQJ

Turns: There are three good rules for using turn signals:

- 6LJQDO HDUO\ 6LJQDO ZHOO EHIRUH \RX WXUQ ,W LV WKH EHVW ZD\ WR NHHS RWKHUV IURP WU\LQJ WR SDVV \RX
- 6LJQDO FRQWLQXRXVO\ <RX QHHG ERWK KDQGV RQ WKH ZKHHO WR WXUQ VDIHO\ 'RQ¶W FDQFHO WKH VLJQDO XQWLO \RX KDYH FRPSOHWHG WKH WXUQ
- &DQFHO \RXU VLJQDO 'RQ¶W IRUJHW WR WXUQ R‡ \RXU WXUQ VLJQDO DIWHU \RX¶YH WXUQHG LI \RX GRQ¶W KDYH VHOI FDQFHOLQJ VLJQDOV

Lane Changes: 3XW \RXU WXUQ VLJQI FKDQJLQJ ODQHV &KDQJH OD VPRRWKO\ 7KDW ZD\ D GULYHU KDYH D FKDQFH WR KRQN WKHL YHKLFOH

Slowing Down: :DUQ GULYHUV EHKLQG \RX UHDOL]H \RX¶OO QHHG WR V WDSV RQ WKH EUDNH SHGDO EUDNH OLJKWV VKRXOG ZDUQ WKH IRXU ZD\ HPHUJHQF\ ÀDVKH \RX DUH GULYLQJ YHU\ VORZO\ R RWKHU GULYHUV LQ DQ\ RI WKH

Trouble Ahead: 7KH VL]H RI \RXU YHK PDNH LW KDUG IRU GULYHUV KD]DUGV DKHDG ,I \RX VHH D UHTXLUH VORZLQJ GRZQ ZDUQ E\ ÀDVKLQJ \RXU EUDNH OLJKWV

Tight Turns: 0RVW FDU GULYHUV GR VORZO\ \RX KDYH WR JR WR PDI ODUJH YHKLFOH *LYH GULYHUV E\ EUDNLQJ HDUO\ DQG VORZLQJ

Stopping on the Road: 7UXFN DQG EXV G VRPHWLPHV VWRS LQ WKH URDG RU SDVVHQJHUV RU WR VWRS D :DUQ IROORZLQJ GULYHUV E\ À OLJKWV 'RQ¶W VWRS VXGGHQO\

Driving Slowly: 'ULYHUV RIWHQ GR QRW IDVW WKH\ DUH FDWFKLQJ XS W WR GR LV LPSRUWDQW IRU WKH\ DUH YHU\ FORVH I \RX PX IROORZLQJ GULYHUV E\ WXUQLQ ÀDVKHUV LI LW LV OHJDO /DZV ÀDVKHUV GL‡HU IURP RQH VWDV WKH ODZV RI WKH VWDWHV ZKH RQ¶W WUHFW F 6RPH GULYHUV W RWKHUV E\ VLJQDOLQJ ZKHQ LW VKRXOG QRW GR WKLV <RX FRX G EH EODPHG DQG LW WKRXVDQGV RI GROODUV

&RPPXQLFDWLQJ3URFHGXUHV

2WKHU GULYHUV PD\ QRW QRWLFH \RXU YHKLFOH HYHQ ZKHQ LW¶V LQ SODLQ VLJKW 7R KHOS SUHYHQW DFFLGHQWV OHW WKHP NQRZ \RX¶UH WKHUH

When Passing: :KHQHYHU \RX DUH DERXW WR SDVV D YHKLFOH SHGHVWULDQ RU ELF\FOLVW DVVXPH WKH\ GRQ¶W VHH \RX 7KH\ FRXOG VXGGHQO\ PRYH LQ IURQW RI \RX :KHQ LW LV OHJDO WDS WKH KRUQ OLJKWO\ RU DW QLJKW ÀDVK \RXU OLJKWV IURP ORZ WR KLJK EHDP DQG EDFN $QG GULYH FDUHIXOO\ HQRXJK WR DYRLG D FUDVK HYHQ LI WKH\ GRQ¶W VHH RU KHDU \RX

When It's Hard to See: $W GDZQ GXVN LQ UDLQ RU VQRZ \RX QHHG WR PDNH \RXU VHOI HDVLHU WR VHH ,I \RX DUH KDYLQJ WURXEOH VHHLQJ RWKHU YHKLFOHV RWKHU GULYHUV ZLOO KDYH WURXEOH VHHLQJ \RX 7XUQ RQ \RXU OLJKWV 8VH WKH KHDGOLJKWV QRW MXVW WKH LGHQWL¿FDWLRQ RU FOHDUDQFH OLJKWV 8VH WKH ORZ beams; high beams can bother people in the GD\WLPH DV ZHOO DV DW QLJKW

When Parked at the Side of the Road: When \RX SXOO R‡ WKH URDG DQG VWRS EH VXUH WR WXUQ RQ WKH IRXU ZD\ HPHUJHQF\ ÀDVKHUV 7KLV LV HYHQ PRUH LPSRUWDQW DW QLJKW

If you must stop on a road or the shoulder of any road, you must put out your emergency warning devices within ten minutes.

'HSHQGLQJ RQ WKH W\SH RI URDG \RX DUH WUDYHOLQJ RQH ZD\ WZR ODQH RU PXOWL ODQH SODFH \RXU warning devices at the following locations:

- ,I \RX PXVW VWRS RQ RU E\ D RQH ZD\ RU GLYLGHG KLJKZD\ SODFH ZDUQLQJ GHYLFHV IHHW IHHW DQG IHHW WRZDUG WKH DSSURDFKLQJ WUDIILF See Figure 2.8
- ,I \RX VWRS RQ D WZR ODQH URDG FDUU\LQJ WUDˆF LQ ERWK GLUHFWLRQV RU RQ DQ XQGLYLGHG KLJKZD\ SODFH ZDUQLQJ GHYLFHV ZLWKLQ IHHW RI WKH IURQW RU UHDU FRUQHUV WR PDUN WKH ORFDWLRQ RI WKH YHKLFOH DQG IHHW LQ EHWZHHQ and ahead of the vehicle, on the shoulder RU LQ WKH ODQH SHUPLWWHG See Figure 2.9.

Figure 2.8 Placing Warning Devices

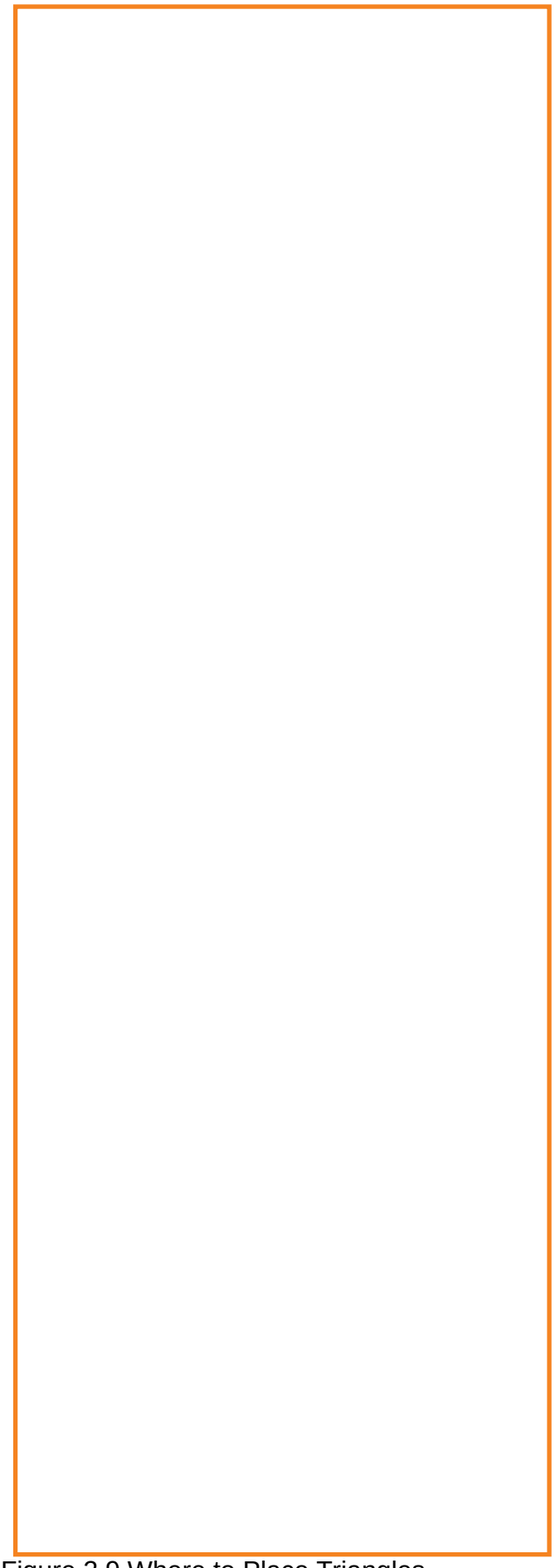


Figure 2.9 Where to Place Triangles

- ,I \RX VWRS EH\RQG DQ\ KLOO
  obstruction that prevents other drivers from
  VHHLQJ WKH YHKLFOH ZLWKL
- If line of sight view is obstructed due to hill
  RU FXUYH PRYH WKH UHDU P
  D SRLQW EDFN GRZQ WKH UR
  SURYLGHG See Figure 2.10.

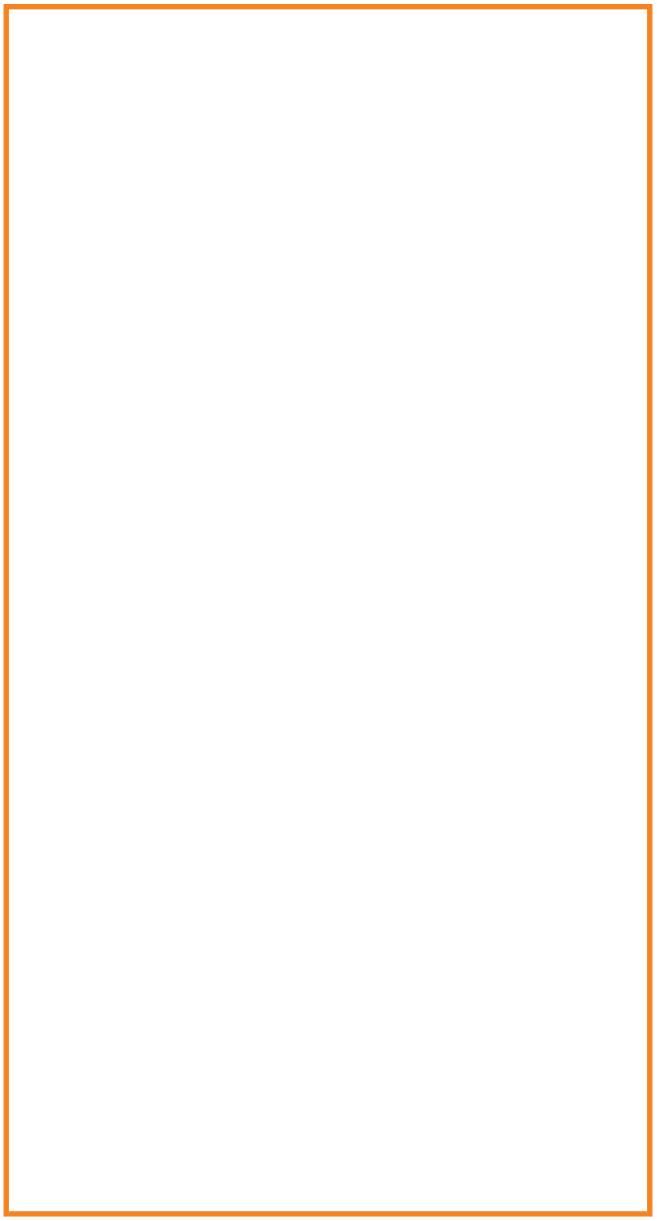


Figure 2.10 Obstructed View Triangle placement

When putting out the triangles, hold them
EHWZHHQ \RXUVHOI DQG WKH R
\RXU RZQ VDIHW\ 6R RWKHU GU

8VH <RXU +RUQ :KHQ 1HHGHG <
RWKHUV NQRZ \RX¶UH WKHUH ,
FUDVK 8VH \RXU KRUQ ZKHQ QH
can startle others and could be dangerous when
XVHG XQQHFHVVDULO\

2.6 CONTROLLING SPEED

'ULYLQJ WRR IDVW LV D PDMRU FDXVH RI DFFLGHQWV LQ VKRS
<RX PXVW DGMXVW \RXU VSHHG GHSHQGLQJ RQ GULYLQJ
FRQGLWLRQV 7KHVH LQFOXGH WUDFWLRQ FXUYHV
YLVLELOLW\ WUDˆF DQG KLOOV

2.6.1 Stopping Distance

Perception Distance +

Reaction Distance +

Braking Distance =

Total Stopping Distance

Figure 2.11 Total Stopping Distance

Perception distance: 7KH GLVWDQFH \RXU YHKLFOH
WUDYHOV LQ LGHDO FRQGLWLRQV WKH WLPH
H\HV VHH D KD]DUG XQWLO \RXU EUDLQ UHFRJQL]HV
LW .HHS LQ PLQG FHUWDLQ FRQGLWLRQV FDQ D‡HFW \RXU
,W FDQ EH D‡HFWHG JUHDWO\ GHSHQGLQJ RQ YLVLELOLW\
DQG WKH KD]DUG LWVHOI 7KH DYHUDJH SHUFHSWLRQ
WLPH IRU DQ DOHUW GULYHU LV VHFRQGV $W
WKLV DFFRXQWV IRU IHHW WUDYHOHG

Reaction distance: 7KH GLVWDQFH \R
FRQWLQXH WR WUDYHO LQ LGHD
SK\VLFDO \KLW WKH EUDNHV L
VHHQ ĐKHĐG ŶKH ĐYHUDJH GUL
WLPH RI VHFRQG WR VHFRQ
DFFRXQWV IRU IHHW WUDYHO

Braking distance: 7KH GLVWDQFH \RXU
WUDYHO LQ LGHDO FRQGLWLRQV
$W PSK RQ GU\ SDYHPHQW ZL
FDQ WDNH DERXW IHHW

Total stopping distance: The total minimum
GLVWDQFH \RXU YHKLFOH KDV
FRQGLWLRQV ZLWK HYHU\WKLQ
perception distance, reaction distance and
EUDNLQJ GLVWDQFH XQWLO \RX
WR D FRPSOHWH VWRS $W PS
WUDYHO D PLQLPXP RI \RXU IHHW
(‡HFWV 6SHHG6WRSSLQJ DQG WKH
IDVWHU \RX GULYH WKH JUHDWH
SRZHU RI \RXU YHKLFOH :KHQ
VSHHG JURRS WR PSK WKH L
JUHDWHU 7KH EUDNLQJ GLVWD
QRQOLQHU 7ULSOH WKH VSHHG IUR
LPSDFW DQG EUDNLQJ GLVWDQF

$W PSK \RXU VWRSSLQJ GLVWDQFH EHWZHHQ \RX DQG WKH
WKH OHQJWK RI D IRRWEDOO ¿HOG ,I \RX FDQ UHDFK WKH
WR PSK DQG WKH LPSDFW DQG EUDNH WLPHV
DUH WLPHV JUHDWHU WKDQ DW PSK
VSHHGV JUHDWO\ LQFUHDVH WKH DPRXQW RI
DQG VWRSSLQJ GLVWDQFHV %\ VORZLQJ GRZQ \RX
FDQ UHGXFH EUDNLQJ GLVWDQFH

(‡HFWV RI 9HKLFOH :HLJKW RQ 6WRSSLQJ
Distance: 7KH KHDYLHU WKH YHKLFOH
WKH EUDNHV PXVW GR WR VWRS LW
WKH\ DEVRUE %XW WKH EUDNHV
VKRFN DEVRUEHUV RQ KHDY\ YHKLFOHV
WR ZRUN EHVW ZKHQ WKH YHKLFOH LV
(PSW\ WUXFNV UHTXLUH JUHDWHU VWRSSLQJ GLVWDQFHV
EHFDXVH DQ HPSW\ YHKLFOH K

2.6.2 Matching Speed to Road Surface

<RX FDQ¶W VWHHU RU EUDNH D
WUDFWLRQ 7UDFWLRQ LV IULF DQG
WKH URDG 7KHUH DUH VRPH U
UHGXFH WUDFWLRQ DQG FDOO

Slippery Surface: ,W ZLOO WDNH ORQJ
LW ZLOO EH KDUGHU WR WXUQ ZLWKRXW VNLGGLQJ ZKHQ WKH
URDG LV VOLSSHU\ :HW URDGV FDQ GRXEOH VWRSSLQJ
GLVWDQFH <RX PXVW GULYH VORZHU WR EH DEOH WR VWRS
LQ WKH VDPH GLVWDQFH DV RQ D GU\ URDG 5HGXFH
VSHHG E\ DERXW RQH WKLUG H J
DERXW PSK RQ D ZHW URDG 2Q SDFNHG VQRZ
UHGXFH VSHHG E\ D KDOI RU PRUH
LF\ UHGXFH VSHHG WR D FUDZ
VRRQ DV \RX FDQ VDIHO\ GR VR

Identifying Slick Surfaces: Sometimes it's hard
WR NQRZ LI WKH URDG LV VOLFN
RI VOLSSHU\ URDGV

- Shaded Areas: 6KDG\ SDUWV RI WKH
  ZLOO UHPDLQ LF\ DQG VOLSS
  DUHDV KDYH PHOWHG
- Bridges: When the temperature drops,
  EULGJHV ZLOO IUHH]H EHIRUH WKH URDG ZLOO
  HVSHFLDOO\ FDUHIXO ZKHQ WKH
  FORVH WR GHJUHHV)DKUHQKHLW
- Melting Ice: 6OLJKW PHOWLQJ ZLOO PDNH
  ZHW :HW LFH LV PXFK PRUH
  LFH WKDW LV QRW ZHW

Black Ice: %ODFN LFH LV WKH
LQ WKH
Vehicle Icing: $Q HDV\ ZD\ WR FKH
ice is to open the window and feel the front
RI WKH PLUURU PLUURU VXS
WKH PRUH ZRUN
If there's ice on these, the road surface is
SUREDEO\ VWDUWLQJ WR LFH
Road Spray: ,I \RXU WLUHV ZHUH N
ZHW URDG VSUD\ DQG WKH\
VLJQ WKH URDG VXUIDFH PD\

DQG
• Just After Rain Begins: 5LJKW DIWHU L
VWDUWV WR UDLQ WKH ZDWH
RQ WKH URDG E\ YHKLFOHV
URDG YHU\ VOLSSHU\ ,I WKH
VORZ IURP WR
ZLOO ZDVK WKH RLO DZD\
Hydroplaning: When weather, water or slush
RQ WKH URDG FDXVH \RX WR
tires lose their contact with the road and have
OLWWOH RU QR WUDFWLRQ <RX
RU EUDNH <RX FDQ UHJDLQ FRQ
DFFHOHUDWRU DQG SXVKLQJ LQ
KORZ IRU YHKLFOH DQG OHW W
WKH\ RQ WKH LFH VKQGURSODQ
EUDNHV WR VORZ GRZQ ,I WKH
VNLG SXVK LQ WKH FOXWFK WR
W GRHV QRW WDNH D ORW
K\GURSODQLQJ +\GURSODQLQJ
DV ORZ DV PSK LI WKHUH LV
+\GURSODQLQJ LV PRUH OLNHO\
RU WKH WUHDG LV ZRUQ 7KH J
DZD\ WKH ZDWHU LI WKH\ DUH
ZRUN ZHOO

5RDG VXUIDFHV ZKHUH ZDWHU FROOHFWV RQ WKH URDGZD\ DQG FRUUHFW VXSHUHOHYDWLRQ
FRQGLWLRQV WKDW FDXVH D YHKLFOH WR WHQG WR VOLGH RXWZDUG RQ D FXUYH
:DWFK IRU FOHDU UHÀHFWLRQV IURP WKH URDG VXUIDFH LQGLFDWLQJ WKH SUHVHQFH RI
UDLQGURSV RQ WKH URDG 7KHVH ¶DUHDV FDQ EH KLGGHQ IURP GULYHUV E\ VSUD\
VWDQGLQJ ZDWHU

2.6.3 Speed and Curves

Drivers must adjust their speed for curves in WKH URDG ,I \RX WDNH D FXUYH WRR IDVW WZR WKLQJV FDQ KDSSHQ 7KH WLUHV FDQ <RX YHKLFOH ¶V WUDFWLRQ ZLOO LQ DQG FRQWLQXH VWUDLJKW DKHDG RU \RX PD\ VNLG 2U WKH WLUHV PD\ NHHS WUDFWLRQ DQG WKH YHKLFOH UROOV RYHU 7HVW fRU WKH VKRZ WKDW WUXFNV ZLWK D KLJK FHQWHU RI JUDYLW\ FDQ UROO RYHU DW WKH SRVWHG VSHHG OLPLW IRU D FXUYH

6ORZ WR D VDIH VSHHG EHIRUH \RX HQWHU D FXUYH %UDNLQJ LQ D FXUYH LV GDQJHURXV HDVLHU WR ORFN WKH ZKHHOV DQG FDXVH D VNLG 6ORZ GRZQ DV QHHGHG 'RQ¶W HYHU VSHHG OLPLW IRU WKH FXUYH \RX DFFHOHUDWH VOLJKWO\ LQ WKH FXUYH \RX NHHS FRQWURO

2.6.4 Speed and Distance Ahead

<RX VKRXOG DOZD\V EH DEOH GLVWDQFH \RX FDQ VHH DKHDG FRQGLWLRQV PD\ UHTXLUH WK EH DEOH WR VWRS LQ WKH GL QLJKW \RX FDQ¶W VHH DV IDU FDQ ZLWK KLJK EHDPV :KHQ \ EHDPV VORZ GRZQ

6SHHG DQG 7UDˆF)ORZ

:KHQ \RX¶UH GULYLQJ LQ KHDY VSHHG LV WKH VSHHG RI RWKHU YHKLFOHV going the same direction at the same speed are QRW OLNHO\ WR UXQ LQWR RQH DQRWKHU ,Q PDQ\ VWDWHV VSHHG OLPLWV DUH ORZHU IRU FDUV ,W FDQ YDU\ DV PXFK DV H[WUD FDXWLRQ ZKHQ \RX FKDQJH ODQHV RU SDVV RQ WKHVH URDGZD\V 'ULYH DW WKH VSHHG RI WKH WUDˆF LI \RX FDQ ZLWKRXW JRLQJ DW DQ LOOHJDO RU XQVDIH VSHHG .HHS D VDIH IROORZLQJ GLVWDQFH

7KH PDLQ UHDVRQ GULYHUV H[FHHG WKH VSHHG OLPLW LV WR VDYH WLPH %XW DQ\RQH WU\LQJ WR GULYH IDVWHU

2.6.5 Speed and Grades

Speed is critical when driving on a steep grade. Gravity increases the chance of a crash, and it is more WLULQJ)DWLJXH LQFUHDVHV W *RLQJ ZLWK WKH ÀRZ RI WUDˆF L

2.6.6 Speed on Downgrades

<RX VKRXOG WKLQN DERXW VSHHG RQ DQ\ GRZQKLOO JUDGH EHFDXVH WKLV LV ZKHUH PRVW WUXFN DFFLGHQWV KDSSHQ 7RR PXFK VSHHG RQ D GRZQKLOO JUDGH FDQ FDXVH \RX WR ORVH FRQWURO RI WKH YHKLFOH

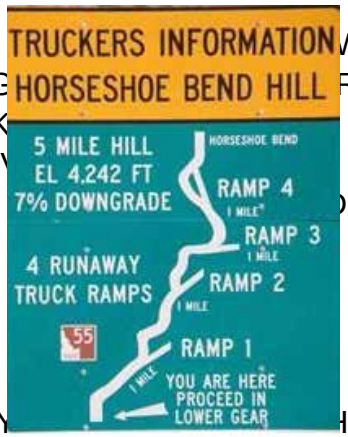
/HQJWK RI WKH JUDGH

6WHHSQHVV RI WKH JUDGH

5RDG FRQGLWLRQV

:HDWKHU

If a speed limit is posted, there is a sign %HGLQG DW WKH EHJLQQLQJ RI WKH VWHHS JUDGH VKRZLQJ WKH VSHHG OLPLW signs indicating the length and steepness of the JUDGH



<RX PXVW XVH EUDNLQJ H‡HFW engine as the principal GRZQ WR FRQWURO ZD\ RI FRQWUROO DV VSHHG RQ GRZQJ 7KH EUDNLQJ H‡ the engine is greatest when it is near the governed rpms and the transmission is in WKH ORZHU JHDU \RXU EUDNHV V ZLOO EH DEOH WR VORZ RU VWR DQG WUDˆF FRQGLWLRQV 6KLIW a low gear before starting down the grade and XVH WKH SURSHU EUDNLQJ WHF FDUHIXOO\ WKH VHFWLRQ RQ JR GRZQ JUDGHV IRU ³0RXQW

2.6.7 Roadway Work Zones

6SHHGLQJ WUDˆF LV WKH QXPEHU RQH FDXVH RI LQMXU\ DQG GHDWK LQ URDGZD\ ZRUN]RQHV 2EVHUYH WKH posted speed limits at all times when approaching DQG GULYLQJ WKURXJK D ZRUN]RQH :DWFK \RXU VSHHGRPHWHU DQG GRQ¶W DOORZ \RXU VSHHG WR FUHHS XS DV \RX GULYH WKURXJK ORQJ VHFWLRQV RI URDG FRQVWUXFWLRQ 'HFUHDVH \RXU VSHHG DQG GULYH ZHDWKHU RU URDG FRQGLWLRQV WKDW UHGXFH \RXU VSHHG HYHQ IXUWKHU ZKHQ DZRUNHU LV FORVH WR WKH URDGZD\

Subsections 2.4, 2.5, and 2.6 7HVW <RXU .QRZOHGJH

1. How far ahead does the manual say you should look?
2. What are two main things to look for ahead?
3. :KDW¶V \RXU PRVW LPSRUWDQW ZD\ WR see the sides and rear of your vehicle?
4. What does “communicating” mean in safe driving?
5. :KHUH VKRXOG \RX SODFH UHÂHFWRUV when stopped on a divided highway?
6. What three things add up to total stopping distance?
7. If you go twice as fast, will your stopping distance increase by two or four times?
8. Empty trucks have the best braking. True or False?
9. What is hydroplaning?
10. What is “black ice”?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UHXSHQ WR 2.4, 2.5, and 2.6.

2.7 MANAGING SPACE

7R EH D VDIH GULYHU \RX QHHG VSDFH DOO DURXQG \RXU YHKLFOH :KHQ WKLQJV JR ZURQJ VSDFH JLYHV \RX WLPH WR WKLQN DQG WR WDNH DFWLRQ

To have space available when something goes ZURQJ \RX QHHG WR PDQDJH VS WUXH IRU DOO GULYHUV LW LV YHKLFOHV 7KH\ WDNH XS PRUH UHTXLUH PRUH VSDFH IRU VWRS

2.7.1 Space Ahead

2QH VSDFH \RX VKRXOG DOZD\V KDYH LV DKHDG RI WKH YHKLFOH WKH VS FRQGLWLRQV HFRQGDU\ PRWRUFR LV FORVH

7KH 1HHG IRU 6SDFH $KHDG <R DKHDG LQ FDVH \RX PXVW VXGGH WR DFFLGHQW UHSRUWV WKH Y EXVHV PRVW RIWHQ UXQ LQWR LV 7KH PRVW IUHTXHQW FDXVH LV I 5HPHPEHU LI WKH YHKLFOH DKHD WKDQ \RXUV LW FDQ SUREDEO\ FDQ <RX PD\ FUDVK LI \RX DUH IR +RZ 0XFK 6SDFH" +RZ PXFK VSDF NHHS LQ IURQW RI \RX" 2QH JRRG DW OHDVW RQH VHFRQG IRU HD OHQJWK DW VSHHGV EHORZ PSK \RX PXVW DGG VHFRQG IRU VDI \RX DUH GULYLQJ D IRRW YHKL VHFRQGV EHWZHHQ \RX DQG WK D IRRW ULJ \RX¶OO QHHG VH \RX¶G QHHG VHFRQGV IRU D VHFRQGV IRU D IRRW YHKLFOH

7R NQRZ KRZ PXFK VSDFH \RX KD vehicle ahead passes a shadow on the road, a SDYHPHQW PDUNLQJ RU VRPH RV 7KHQ FRXQW R‡ WKH VHFRQGV WKRXVDQG DQG RQH RQH WKRX VR RQ XQWLO \RX UHDFK WKH \ \RXU FRXQW ZLWK WKH UXOH RI WHQ IHHW RI OHQJWK

,I \RX DUH GULYLQJ D IRRW WU VWRSSLQJ GLVWDQFH \RX¶UH WRR OLWWOH DQG FRXQW DJDLQ XQW IROORZLQJ GLVWDQFH RU VHF RYHU PSK $IWHU D OLWWOH S KRZ IDU EDFN \RX VKRXOG EH 5 VHFRQG IRU VSHHGV DERYH PS WKDW ZKHQ WKH URDG LV VOLS PRUH VSDFH WR VWRS

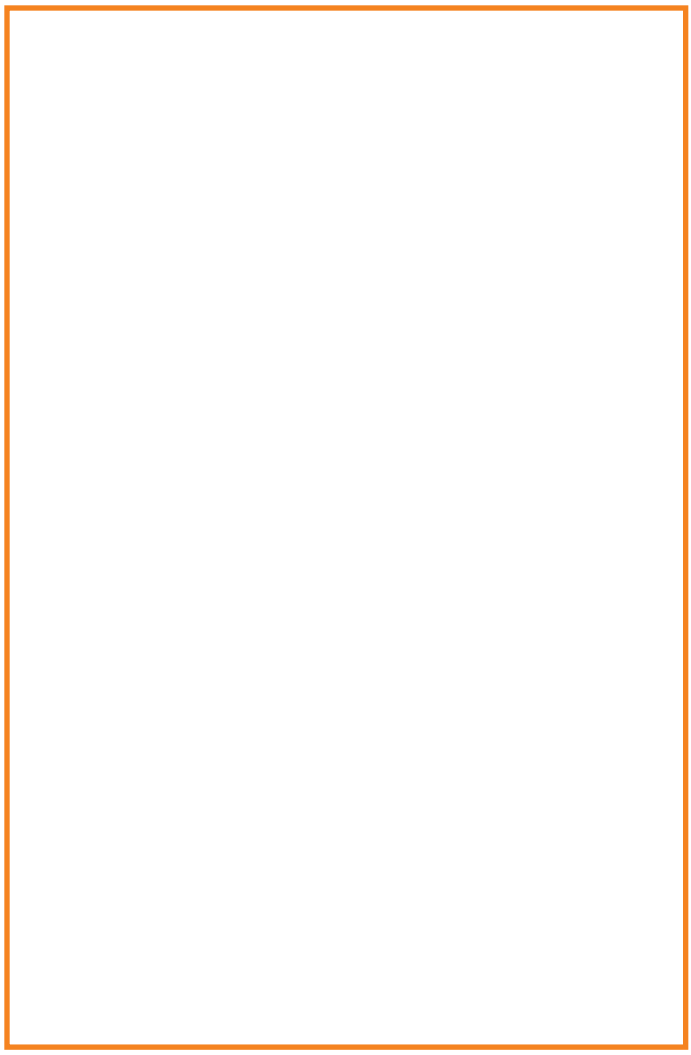


Figure 2.12 Following Distance

2.7.2 Space Behind

<RX FDQ¶W VWRS RWKHUV IURP IROORZLQJ \RX WRR FORVHO\ %XW WKHUH DUH WKLQJV \RX FDQ GR WR PDNH LW VDIHU

Stay to the Right: +HDY\ YHKLFOHV DUH RIWHQ WDLOJDWHG ZKHQ WKH\ FDQ¶W NHHS XS ZLWK WKH VSHHG RI WUDIˆF 7KLV RIWHQ KDSSHQV ZKHQ \RX¶UH JRLQJ XSKLOO ,I D KHDY\ ORDG LV VORZLQJ \RX GRZQ WKH ULJKW ODQH LI \RX FDQ *R LQ IURQW RI WKH VORZ YHKLFOH DQG VSHHG XS QRW SDVV DQRWKHU VORZ YHKLFOH DURXQG TXLFNO\ DQG VDIHO\

Dealing with Tailgaters Safely: In a large vehicle, it's often hard to see whether a vehicle is FORVH EHKLQG \RX <RX PD\ EH WDLOJDWHG

- :KHQ \RX DUH WUDYHOLQJ VORZO\ 'ULYHUV trapped behind slow vehicles often follow FORVHO\

- ,Q EDG ZHDWKHU 0DQ\ FDU G ODUJH YHKLFOHV FORVHO\ GX HVSHFLDOO\ ZKHQ LW LV KDU DKHDG

,I \RX ¿QG \RXUVHOI EHLQJ WD VRPH WKLQJV \RX FDQ GR WR U of a crash:

- Avoid quick changes: ,I \RX KDYH WR GRZQ RU WXUQ VLJQDO HDU VSHHG YHU\ JUDGXDOO\
- Increase your following distance: 2SHQLQJ XS URRP LQ IURQW \RX WR DYRLG KDYLQJ WR PD RU GLUHFWLRQ FKDQJHV ,W HDVLHU IRU WKH WDLOJDWHU
- Don't speed up: It's safer to be tailgated DW D ORZ VSHHG WKDQ D KLJ
- Avoid tricks: 'RQ¶W WXUQ RQ \RXU RU ÀDVK \RXU EUDNH OLJKWV VXJJHVWLRQV DERYH

2.7.3 Space to the Sides

&RPPHUFLDO YHKLFOHV DUH RIW PRVW RI D ODQH 6DIH GULYHU OLWWOH VSDFH WKH\ KDYH <RX \RXU YHKLFOH FHQWHUHG LQ \ GULYLQJ DORQJVLGH RWKHUV

Staying Centered in a Lane: <RX QHHG WR N \RXU YHKLFOH FHQWHUHG LQ W FOHDUDQFH RQ HLWKHU VLGH , \RX KDYH OLWWOH URRP WR VS

Traveling Next to Others: There are two dangers in traveling alongside other vehicles:

- 6RPHWLPHV GULYHUV FKDQJH ZKHQ WKH\ QHHG WR WXUQ RU ZKHQ WKH\ DUH VKRUW
- <RX VKRXOG EH WUDYHOLQJ ZKHQ \ FKDQJH VR \RX FDQ JHW

)LQG DQ RSHQ VSRW ZKHUH \RX WUDˆF :KHQ WUDˆF LV KHDY\ L ¿QG DQ RSHQ VSRW ,I \RX PXV YHKLFOHV WU\ WR NHHS DV PXF EHWZHHQ \RX DQG WKHP $OVR IRUZDUG VR WKDW \RX DUH VXU VHH \RX

Strong Winds: 6WURQJ ZLQGV PDNH GULYLQJ GLIILFXOW WUDFN\ ZR F
VWD\ LQ \RXU ODQH 7KH SURERSHU SURFHGXUH SDZK
OLJKWHU YHKLFOHV 7KLV SURFHGXUH EUHDNDZD\ WUDLOHUV ZLWK DQ DVS
EDG FRPLQJ RXW RI WXQQHOV XQGHUSDVVHV DQG 'RQ¶W GULYH DORQJ K
RWKHUV LI \RX FDQ DYRLG LW WDNH D FKDQFH R XS KDOIZD\ DFURV

2.7.4 Space Overhead

+LWWLQJ RYHUKHDG REMHFWV LV D GDQJHU 0DNH VXUH
\RX DOZD\V KDYH RYHUKHDG FOHDUDQFH DURXQG D WUXFN RU
WXUQV %HFDXVH RI ZLGH WXU
Don’t assume that the heights posted at bridges
DQG RYHUSDVVHV DUH FRUUHFW 5H SDYLQJ RU SDFNHG
VQRZ PD\ KDYH UHGXFHG WKH FOHDUDQFHV VLQFH
WKH KHLJKWV ZHUH SRVWHG

7KH ZHLJKW RI D FDUJR YDQ FKDQJHV LWV KHLJKW $Q
HPSW\ YDQ LV KLJKHU WKDQ D ORDGHG RQH 7KDW \RX
JRW XQGHU D EULGJH ZKHQ \RX ZHUH ORDGHG GRHV
QRW PHDQ WKDW \RX FDQ GR LW ZKHQ \RX DUH HPSW\

,I \RX GRXEW \RX KDYH VDIH VSDFH WR SDVV XQGHU
DQ REMHFW JR VORZO\ ,I \RX DUHQ¶W VXUH \RX FDQ
PDNH LW WDNH DQRWKHU URXWH :DUQLQJV DUH RIWHQ
posted on low bridges or underpasses, but
VRPHWLPHV WKH\ DUH QRW

6RPH URDGV FDQ FDXVH D YHKLFOH WR WLOW 7KHUH
can be a problem clearing objects along the
edge of the road, such as signs, trees, or bridge
VXSSRUWV :KHUH WKLV LV D SUREOHP GULYH D OLWWOH
FORVHU WR WKH FHQWHU RI WKH URDG

%HIRUH \RX EDFN LQWR DQ DUHD JHW RXW DQG FKHFN
for overhanging objects such as trees, branches,
RU HOHFWULF ZLUHV ,W¶V HDV\ WR PLVV VHHLQJ WKHP
ZKLOH \RX DUH EDFNLQJ $OVR FKHFN IRU RWKHU
KD]DUGV DW WKH VDPH WLPH

2.7.5 Space Below

0DQ\ GULYHUV IRUJHW DERXW WKH VSDFH XQGHU WKHLU
YHKLFOHV 7KDW VSDFH FDQ EH YHU\ VPDOO ZKHQ D
YHKLFOH LV KHDYLO\ ORDGHG 7KLV LV RIWHQ D SUREOHP
RQ GLUW URDGV DQG LQ XQSDYHG SDUNLQJ DUHDV
FKDQFH RQ JHWWLQJ KXQJ XS 'UDLQDJH FKDQQHOV
across roads can cause the ends of some vehicles
WR GUDJ &URVV VXFK GHSUHVVLRQV FDXVH IXOO

2.7.6 Space for Turns

7KH VSDFH DURXQG D WUXFN RU
WXUQV %HFDXVH RI ZLGH WXU
large vehicles can hit other vehicles or objects
GXULQJ WXUQV
Right Turns: Here are some rules to help prevent
ULJKW WXUQ FUDVKHV

- 7XUQ VORZO\ WR JLYH \RXUV
PRUH WLPH WR DYRLG SURBO
- ,I \RX DUH GULYLQJ D WUXFN
PDNH WKH ULJKW WXUQ ZLWK
DQRWKHU ODQH WXUQ ZLGH
WKH WXUQ HHS WKH UHDU R
FORVH WR WKH FXUE 7KLV Z
GULYHUV IURP SDVVLQJ \RX R

- 'RQ¶W WXUQ ZLGH WR WKH O
WXUQ $ IROORZLQJ GULYHU
WXUQLQJ OHIW DQG WU\ WR S
<RX PD\ FUDVK LQWR WKH RW
\RX FRPSOHWH \RXU WXUQ
- ,I \RX PXVW FURVV LQWR WKH
PDNH D WXUQ ZDWFK RXW IR
WRZDUG \RX &LYH WKHP URR
WR VWRS +RZHYHU GRQ¶W E
EHFDXVH \RX PLJKW VRP
\RX See Figure 2.13

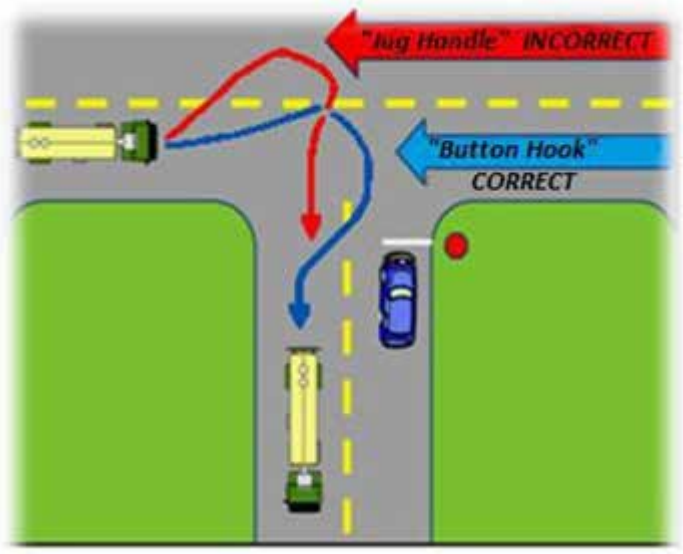
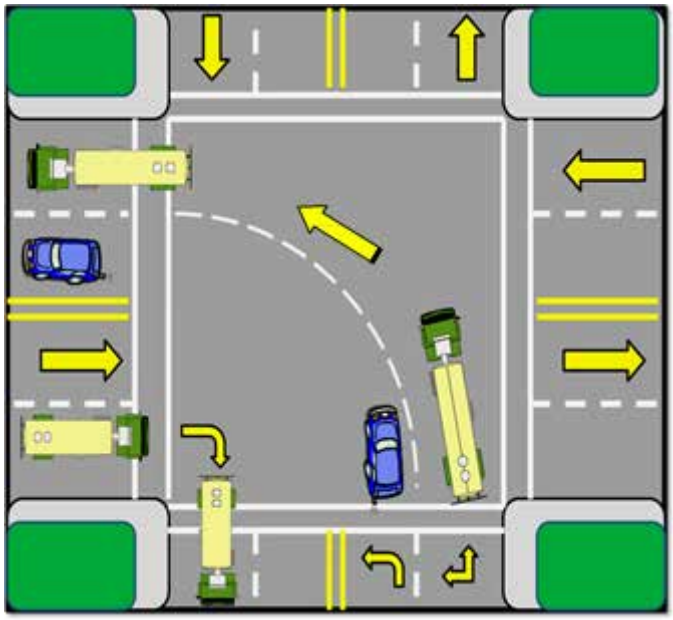


Figure 2.13 Correct Execution of Right Turn

Left Turns: 2Q D OHIW WXUQ PDNH VXUH \RX KDYH UHDFKHG WKH FHQWHU RI WKH LQWHUVHFWLRQ EHIRUH \RX VWDUW WKH OHIW WXUQ ,I \RX WXUQ WRR VRRQ WKH OHIW VLGH RI \RXU YHKLFOH PD\ KLW DQRWKHU YHKLFOH EHFDXVH RI R‡ WUDFNLQJ ,I WKHUH DUH WZR WXUQLQJ ODQHV DOZD\V WDNH WKH ULJKW WXUQ ODQH RQ¶W VWDUW LQ WKH LQVLGH ODQH EHFDXVH \RX PD\ KDYH WR VZLQJ ULJKW WR PDNH WKH WXUQ 'ULYHUV RQ\RXU OHIW FDQ EH PRUH UHDGLO\ VHHQ



)LJXUH &RUUHFW ([HFXWLRQ RI 7HIW 7XUQ

6 S D1FH H G W R U R V Q W U ^ F

%H DZDUH RI WKH VL]H DQG ZHL ZKHQ \RX FURVV RU HQWHU WUI LPSRUWDQW WKLQJV WR NHHS L

- %HFDXVH RI VORZ DFFHOHUD VSDFH ODUJH YHKLFOHV UHT QHHG D PXFK ODUJHU JDS WR WKDQ \RX ZRXOG LQ D FDU
- $FFHOHUDWLRQ YDULHV ZLWK PRUH URRP LI \RXU YHKLFOH ORDGHG
- %HIRUH \RX VWDUW DFURVV D \RX FDQ JHW DOO WKH ZD\ DF WUD^F UHDFKHV \RX

2.8 SEEING HAZARDS

2.8.1 Importance of Seeing Hazards

What Is a Hazard? $ KD]DUG LV DQ\ URD RU RWKHU URDG XVHU GULYHU WKDW LV D SRVVLEOH GDQJHU IURQW RI \RX LV KHDGHG WRZDU KLV EUDNH OLJKWV FRPH RQ DQ KDUG 7KLV FRXOG PHDQ WKDW DERXW WDNLQJ WKH R‡ UDPS UHWXUQ WR WKH KLJKZD\ 7KLV GULYHU RI WKH FDU FXWV LQ IU MXVW D KD]DUG LW LV DQ HPHU

6HHLQJ D]DUGV <RX %HJLQQHU <RX ZLOO KDYH PRUH WLPH WR DFW EHIRUH WKH\ EHFRPH HPHUJHQF DERYH \RX PLJKW PDNH D ODQ GRZQ WR SUHYHQW D FUDVK LI LQ IURQW RI \RX 6HHLQJ WKLV WR FKHFN \RXU PLUURUV DQG V %HLQJ SUHSDUHG UHGXFHV WKH GLG QRW VHH WKH KD]DUG XQW EDFN RQ WKH KLJKZD\ LQ IURQW GR VRPHWKLQJ YHU\ VXGGHQO\ D TXLFN ODQH FKDQJH LV PXFK WR D FUDVK

Learning to See Hazards: There are often clues WKDW ZLOO KHOS \RX VHH KD]D GULYH WKH EHWWHU \RX FDQ 7KLV VHFWLRQ ZLOO WDON DE VKRXOG EH DZDUH RI

2.8.2 Hazardous Roads

Move-Over Laws: The incidents of law enforcement officers and service vehicles performing duties at the roadside are increasing at a frightening pace. To help prevent motor vehicle drivers from striking a roadside worker, many states have enacted laws requiring drivers to slow down and move over when approaching a roadside emergency vehicle. Signs are posted on roadways in states that have such laws. Idaho is a Move-Over state.

IDAHO CODE 49-624 STATES: ³'5,9(5 '87< 8321 3352&+,1* $ 67$7,21$5< 9(+,&/(',63/$<,1*)/$6+,1* /,*+76 The driver of a motor vehicle, upon approaching a stationary police vehicle displaying flashing lights or an authorized emergency vehicle displaying flashing lights or a vehicle operated by a highway maintenance or construction worker displaying flashing lights, shall:

(1) ,I WKH GULYHU LV WUDYHOLQJ RQ D KLJKZD\ ZLWK WZR RU PRUH ODQHV FDUULHG LQ WKH VDPH GLUHFWLRQ LPPHGLDWHO\ UHGXFH the speed of his vehicle below the posted speed limit, proceed with due caution and, LI WUDYHOLQJ LQ D ODQH DGMDFHQW WR D VWDWLRQDU\ SROLFH YHKLFOH GLVSOD\LQJ ÀDVKLQJ OLJKWV DQ DXWKRUL]HG HPHUJHQF\ YHKLFOH GLVSOD\LQJ ÀDVKLQJ OLJKWV D VWDWLRQDU\ GLVSOD\LQJ ÀDVKLQJ OLJKWV RU D KLJKZD\ PDLQWHQDQFH RU FRQVWUXFWLRQ ZRUNHU GLVSOD\LQJ ÀDVKLQJ OLJKWV FKDQJH ODQHV LQWR D ODQH WKDW LV not adjacent to such vehicle as soon as it is possible to do so in a manner that is reasonable and prudent under the conditions WKHQ H[LVWLQJ ZLWK UHJDUG SRWHQWLDO KD]DUGV (2) ,I WKH GULYHU LV WUDYHOLQJ ZLWK RQH ODQH IRU HDFK GLUHFWLRQ RI WUDIILF RU LV XQDEOH WR FKDQJH ODQHV UHGXFH WKH VSHHG below the posted speed limit and maintain a VDIH VSHHG JRU WKH URDG ZHDWKHU FRQGLWLRQV XQWLO FRPSOHWH SROLFH YHKLFOH DXWKRUL]HG VWDWLRQDU\ WRZ WUXFN RU HPHUJHQF\ UHVSRQVH YHKLFOH

Slow down and be very careful if you see any of the following road hazards:

Work Zones: :KHQ SHRSOH DUH ZRUNLQJ URDG LW LV D KD]DUG 7KHUH PD\ VKDUS WXUQV RU XQHYHQ VXUIDFHV DUH RIWHQ GLVWUDFWHG DQG GULYHUV DQG FRQVWUXFWLRQ YHKLFOHV 'ULYH VORZO\ DQG FDUHIXOO\ QHDU \RXU IRXU ZD\ ÀDVKHUV RU EUDNH OLJKWV ´ 'URS2ƒ 6RPHWLPHV WKH SDYHPHQW VKRXOG QHDU WKH HGJH RI WKH HGJH FDQ WLOW \RX VLGH RI WKH URDG 7KLV FDQ F YHKLFOH WR ORVH FRQWURO ÀDVKLQJ DUURZ VLJQ RU EHKDUG WR VW RU D VWDWLRQDU\ KLJKZD\ R

Foreign Objects: Things that have fallen on WKH URDG FDQ EH KD]DUGV 7KH WR \RXU WLUHV DQG ZKHHO UL HQHFWLRQ DQG EUDNH OLQH EHWZHHQ GDPDJH 7KH VDPH LV WUXH RI Some obstacles that appear to be harmless can EH YHU\ GDQJHURXV)RU H[DP ER[HV PD\ EH HPSW\ EXW WKH\ VRPH VROLG RU KHDY\ PDWHULD GDPDJH 7KH VDPH LV WUXH RI VDFNV W LV LPSRUWDQW WR U RI DOO VRUWV VR \RX FDQ VHH WR DYRLG WKHP ZLWKRXW PDN PRYHV

2‡ 5DPSV 2Q 5DPSV)UHHZD\ DQG Be Careful of Stopped Buses: 3DVVHQJHUV P
H[LWV FDQ EH SDUWLFXODUO\ GDQJHURXV IRU FRPHUV DQG LHDYH
YHKLFOHV 2‡ UDPSV DQG RQ UDPS ‡VWRSSHG RU VORZHG YHKLFOHV
VSHHG OLPLW VLJQV SRVWHG 5HPHPEHU WKHVH VSHHGV
PD\ EH VDIH IRU DXWRPRELOHV EXW PD\ QRW EH VDIH
IRU ODUJHU YHKLFOHV RU KHDYLO\ ORDGHG YHKLFOHV ([LWV
that go downhill and turn at the same time can be
RQ WKH URDG ZLWK WKHLU EDFN
HVSHFLDOO\ GDQJHURXV 7KH GRZQJUDGH PDNHV LW FDQ¶W VHH \RX 6RPHWLPHV WK
GLˆFXOW WR UHGXFH VSHHG %UDNLQJ DW WXUQLQJ DW
WKH VDPH WLPH FDQ EH D GDQJHURXV SUDFWLFH 0DNH
VXUH \RX DUH JRLQJ VORZ\ HQRXJK EHIRUH \RX JHW
RQ WKH FXUYHG SDUW RI DQ R‡ UDPS RU RQ UDPS
UDLQ DQG PD\ QRW SD\ DWWHQW

2.8.3 Drivers Who Are Hazards

Distractions: People who are distracted are
,Q RUGHU WR SURWHFW \RXUVHOI DQG RWKHUV \RX PXVW
NQRZ ZKHQ RWKHU GULYHUV PD\ GR VRPHWKLQJ HOVHZKHUH
KD]DUGRXV 6RPH FOXHV WR WKLV W\SH RI KD]DUG DUH
GLVFXVVHG EHORZ

Blocked Vision: People who can’t see others
DUH D YHU\ GDQJHURXV KD]DUG
ZKRVH YLVLRQ LV EORFNHG 9DQ
ZDJRQV DQG FDUV ZLWK WKH UH
DUH H[DPSOHV 5HQWDO WUXFNV
FDUHIXOO\ 7KHLU GULYHUV DUH
OLPLWHG YLVLRQ WKH\ KDYH WR
WKH WUXFN ,Q ZLQWHU YHKLFO
FRYHUHG RU VQRZ FRYHUHG ZLQ

9HKLFOHV PD\ EH SDUWO\ KLGGHQ E\ EORFNHG Children: &KLOGUHQ WHQG WR DFW
RU DOOH\V ,I \RX RQO\ FDQ VHH WKH UHDU RU TURQW HQG FKHFNLQJ WUDˆF &KLOGUHQ SOD
of a vehicle but not the driver, then he or she can’t PD\ QRW ORRN IRU WUDˆF DQG D
VHH \RX %H DOHUW EHFDXVH KH VKH PD\ EDFN RXW RU Talkers: ULYHUV RU SHGHVWULDQ
HQWHU LQWR \RXU ODQH $OZD\V EH SUHSDUHG WR VWRS DQRWKHU PD\ QRW EH SD\LQJ FO
WUDˆF

Delivery Trucks Can Present a Hazard: Workers: 3HRSOH ZRUNLQJ RQ RU Q
3DFNDJHV RU YHKLFOH GRRUV RIWHQ EORFN WKH GULYHU¶V DUH D KD]DUG FRXH 7KH ZRUN
YLVLRQ 'ULYHUV RI VWHS YDQV SRVWDO YHKLFOHV DQG IRU RWKHU GULYHUV DQG WK
ORFDO GHOLYHU\ YHKLFOHV RIWHQ DUH LQ D KXUU\ DQG PD\ VXGGHQO\ VWHS RXW RI WKHLU YHKLFOH RU GULYH
WKHLU YHKLFOH LQWR WKH WUDˆF ODQH PD\ QRW VHH \RX

Parked Vehicles: &DQ EH KD]DUGV Ice Cream Trucks: Someone selling ice cream
HVSHFLDOO\ ZKHQ SHRSOH VWDUW WR JHW RXW RI WKHP LV D KD]DUG FOXH &KLOGUHQ
VXGGHQO\ VWDUW XS DQG GULYH LQWR \RXU ZD\ :DWFK PD\ QRW VHH \RX
for movement inside the vehicle or movement of Disabled Vehicles: Drivers changing a tire or
WKH YHKLFOH LWVHOI WKDW VKRZV SHRSOH LQVLGH RU :DWFK IRU EUDNH OLJKWV RU EDFNXS OLJKWV WKDW GUDZ DWWHQWLRQ
DQG RWKHU FOXHV WKDW D GULYHU LV DERXW WR PRYH

DUH RIWHQ FDUHOHVV -DFNHGLQJ ZKHUH WKH\ GRQ¶W EHORQJ DQG KRRGV DUH KD]DUG FOXHV

Accidents: $FFLGHQWV DUH SDUWLFXODUO\ KD]DUGRXV 3HRSOH LQYROYHG LQ WKH DFFLGHQW PD\ QRW ORRN IRU WUDˆF 3DVVLQJ GULYHUV WHQG WR ORRN DW WKH DFFLGHQW 3HRSOH RIWHQ UXQ DFURVV WKH URDG ZLWKRXW ORRNLQJ 9HKLFOHV PD\ VORZ RU VWRS VXGGHQO\

Shoppers: People in and around shopping areas DUH RIWHQ QRW ZDWFKLQJ WUDˆF EHFDXVH WKH\ DUH ORRNLQJ IRU VWRUHV RU ORRNLQJ

Confused Drivers: Confused drivers often FKDQJH GLUHFWLRQ VXGGHQO\ RU VWRS ZDUQLQJ &RQIXVLRQ LV FRPPRQ QHDU WXUQSLNH LQWHUFKDQJHV DQG HDMRU 7RXULVWV XQIDPLOLDU ZLWK WKH DUHD KD]DUGRXV &OXHV WR WRXULVWV LQ WRS OXJJDJH DQG RXW RI VWDWH OLFH 8QH[SHFWHG DFWLRQV VWRSSLQJ LQ WKH PLGGOH RI D EORFN FKDQJLQJ ODQHV IRU QR DSSDUHQW UHDVRQ EDFNXS OLJKWV VXGGHQO\ JRLQJ RQ DUH FOXHV WR +HVLWDWLRQ LV DQRWKHU FOXH LQFOXGLQJ GULYLQJ YHU\ VORZO\ XVLQJ EUDNHV RIWHQ RU VWRSSLQJ LQ WKH PLGGOH RI DQ LQWHUVHFWLRQ <RX PD\ DOVR VHH GULYHUV ZKR DUH ORRNLQJ DW VWUHHW VLJQV PDSV DQG KRXVH QXPEHUV PD\ QRW EH SD\LQJ DWWHQWLRQ WR WUDIILF

Slow Drivers: Motorists who fail to maintain QRUPDO VSHHG D[[[[KD]DUGV Seeing slow moving vehicles HDUO\ FDQ SUHYI[[[[UDVK 6RPH YHKLFOHV E[[[[QDWXUH are slow and seeing them is D KD]DUG FOXH FRQGXFWRUV DUH PDFKLQHU\ FRQVWUXFWLRQ WUDFWRUV HWF 6RPH RI WKHVH ZLOO KDYH WKH ³VORZ PRYLQJ YHKLFOH´ V\PERO WR DUQ \RX ZLWK DQ RUDQJH FHQWHU ZDWFK IRU LW

Drivers Signaling a Turn May Be a Hazard: 'ULYHUV VLJQDOLQJ D WXUQ PD\ VORZ PRUH WKDQ H[SHFWHG RU VWRS ,I WKH\ DUH PDNLQJ D WLJKW WXUQ LQWR DQ DOOH\ RU GULYHZD\ WKH\ PD\ JR YHU\ VORZO\ ,I SHGHVWULDQV RU RWKHU YHKLFOHV EORFN WKHP WKH\ PD\ KDYH WR VWRS RQ WKH URDGZD\ 9HKLFOHV WXUQLQJ OHIW PD\ KDYH WR VWRS IRU RQFRPLQJ YHKLFOHV

Drivers in a hurry: [illegible] commercial vehicle is preventing them from JHWWLQJ ZKHUH WKH\ ZDQW WR GULYHUV PD\ SDVV \RX ZLWKRXW ROFRPLQJ WUD F FXWWLQJ WR ULYHUV HQWHULQJ WKH URDG ZLWKRXW ORRNLQJ RUGHU WR DYRLG EHLQJ VWX \RX WR EUDNH %H DZDUH RI W GULYHUV ZKR DUH LQ D KXUU\

Impaired Drivers: ULYHUV ZKR DUH have had too PXFK WR

are on drugs, or who are ill are KD]DUGV clues to these drivers are:

- Weaving across the road or drifting from RQH VLGH WR DQRWKHU RQ DUH FOXHV WR
- Leaving the road (dropping right wheels onto the shoulder, or bumping across a FXUE LQ D WXUQ <RX
- Stopping at the wrong time (stopping at a green light, or waiting for too long at a VWRS
- 2SHQ ZLQGRZ LQ FROG ZHDW
- 6SHHGLQJ XS RU VORZLQJ GR GULYLQJ WRR IDVW RU WRR V

Be alert for drunk drivers and sleepy drivers late at night.

Driver Body Movement as a Clue: ULYHUV OR ZKR VLW VWUDLJKW LQ WKH GLUHFWLRQ WKH\ DUH J sometimes get a clue from a driver's head and ERG\ PRYHPHQWV WKDW D GULY PDNH D WXUQ HYHQ WKRXJK WK RQ 'ULYHUV PDNLQJ D WLJKW WXUQ PD\ EH JRLQJ WR FKDQJH ODQHV RU WXUQ PD\ JR YHU\ VORZO\ RU VWRS LQ WKH PLGGOH RI WKH URDG XVHUV DQG WKH\ PLJKW GR VRPHWKLQJ KD]

&RQÀLFWV <RX DUH LQ FRQÀL
change speed and/or direction to avoid hitting VRPHRQH &RQÀLFWV RFFXU DW LQWHUVHFWLRQV ZKHUH YHKLFOHV PHHW DW PHUJHV VXFK DV WXUQSLNH on ramps) and where there are needed lane changes (such as the end of a lane, forcing a PRYH WR DQRWKHU ODQH RI WUDˆF

2WKHU VLWXDWLRQV LQFOXGH VORZ PRYLQJ RU VWDQGLQJ WUDˆF LQ D WUDˆF ODQH DQG DFFLGHQW VFHQHV :DWFK IRU RWKHU GULYHUV ZKR DUH LQ FRQÀLFW EHFDXVH WKH\ DUH D KD]DUG WR \RX :KHQ WKH\ ÀDFW WR WKLV FRQÀLFW WKH\ PD\ GR VRPHWKLQJ WKDW ZLOO SXW WKHP LQ FRQÀLFW ZLWK \RX

2.8.4 Always Have a Plan

<RX VKRXOG DOZD\V EH ORRNLQJ IRU KD]DUGV &RQWLQXH WR OHDUQ WR VHH KD]DUGV RQ WKH URDG +RZHYHU GRQ¶W IRUJHW ZK\ \RX DUH ORRNLQJ IRU WKH KD]DUGV WKH\ PD\ WXUQ LQWR +HPHUJHQF\ 6LWXDWLRQV ORRN IRU WKH KD]DUGV LQ RUGHU WR KDYH WLPH WR SODQ D ZD\ RXW RI DQ\ HPHUJHQF\

:KHQ \RX VHH D KD]DUG WKLQN DERXW WKH HPHUJHQFLHV WKDW FRXOG GHYHORS DQG ZKDW \RX ZRXOG GR $OZD\V EH SUHSDUHG WR WDNH DFWLRQ EDVHG RQ \RXU SODQV ,Q WKLV ZD\ \RX ZLOO be a prepared, defensive driver who will improve \RXU RZQ VDIHW\ DV ZHOO DV WKH VDIHW\ RI DOO WUDI XVHUV

Subsections 2.7 and 2.8

7HVW <RXU .QRZOHGJH

+RZ GR \RX ¿QG RXW KRZ PD seconds of following distance space you have?

2. If you are driving a 30-foot vehicle at 55 mph, how many seconds of following distance should you allow?

<RX VKRXOG GHFUHDVH \RXU distance if somebody is following you too closely. True or False?

4. If you swing wide to the left before turning right, another driver may try to pass you on the right. True or False?

5. What is a hazard?

6. Why make emergency plans when you see a hazard?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH U and 2.8.

2.9 DISTRACTED DRIVING

$GULYHU GLVWUDFWLRQ LV DQ DWWHQWLRQ DZD\ IURP GULYLQ GULYLQJ D YHKLFOH DQG \RXU I WKH GULYLQJ WDVN \RX DUH S passengers, other vehicles, and pedestrians in GDQJHU 'LVWUDFWHG GULYLQJ UHVXOWLQJ LQ LQMXU\ GHDWK

Activities inside of the vehicle that can distract \RXU DWWHQWLRQ LQFOXGH W DGMXVWLQJ WKH UDGLR &' S FRQWUROV HDWLQJ GULQNLQJ PDSV RU RWKHU OLWHUDWXUH WKDW IHOO WDONLQJ RQ D FH UHDGLQJ RU VHQGLQJ WH[W PH W\SH RI WHOHPDWLF RU HOHFW FHOO SKRQH QDYLJDWLRQ V\VW GD\GUHDPLQJ RU EHLQJ RFFXSLH GLVWUDFWLRQV DQG PDQ\ RWK

Possible distractions that could occur outside a moving vehicle outside events such as police pulling someone over or a crash scene; sunlight/ reading billboards or other road advertisements;

2.9.1 The Distracted Driving Crash Problem

The Large Truck Crash Causation Study reported that percent of large truck crashes occurred when Commercial Motor Vehicle (CMV) drivers were externally distracted at the time of large truck crashes were inattention crashes.

Approximately people in the U.S. are injured in motor vehicle crashes involving distracted driving. In 2019, there were 3,142 fatalities in the U.S. that involved distracted driving.

Research indicates that the likelihood of a crash or near-crash event increases when a driver takes their eyes off the road for more than two seconds. Drivers who text message are 23 times more likely to have a crash or near-crash event than those who do not text message while driving.

For more information on distracted driving, see the Department's distracted driving website, www.distraction.gov.

Effects of Distracted Driving

2.9.2 Distracted Driving Regulations

Using a hand-held mobile phone while driving a CMV can result in driver disqualification, civil penalties up to $2,750 for drivers and up to $11,000 for employers who allow or require drivers to use a hand-held communications device while driving.

2.9.3 Types of Distractions

There are many types of distractions, but the most common are:

- Manual distraction – Driver takes one or both hands off the steering wheel to perform another task.
- Visual distraction – Driver takes their eyes off the road to look at something else.
- Cognitive distraction – Driver's mind is not on the task of driving.

2.9.4 Cell/Mobile Phones

Section 4116 of SAFETEA-LU, Public Law 109-59, August 10, 2005, directed the Secretary of Transportation to prohibit drivers of commercial motor vehicles from using hand-held mobile telephones while operating such vehicles. Drivers who violate the Federal restrictions, or who have multiple convictions for violating a state or local law or ordinance restricting the use of hand-held mobile telephones, may be disqualified from operating a CMV.

Using a hand-held mobile phone while driving a CMV can result in driver disqualification, civil penalties up to $2,750 for drivers and up to $11,000 for employers who allow or require drivers to use a hand-held communications device while driving.

7KH XVH RI KDQG KHOG PRELOH WHOHSKRQHV WR SHUIRUP VHFRQG
“using at least one hand to hold a mobile telephone to conduct a voice communication;
³GLDOLQJ D PRELOH WHOHSKRQH E\ SUHVVLQJ PRUH WKDQ D VLQJOH EXWWRQ´ RU GULYLQJ SRVLWLRQ ZKLOH UHVWUDLQHG E\ D VHDW EHOW WR UHDFK IRU D PRELOH WHOHSKRQH XVH D PRELOH SKRQH ZKLOH RSHUDWLQJ D &09 \RX PD\ RQO\ XVH D KDQGV IUHH PRELOH SKRQH WKDW LV ORFDWHG FORVH WR \RX DQG WKDW FDQ EH RSHUDWHG in compliance with the rule to conduct a voice FRPPXQLFDWLRQ

Driver using a wireless Bluetooth headset

<RX &'/ ZLOO EH GLVTXDOLILHG LI \RX KDYH WZR or more convictions of any state law on hand-held mobile telephone use while operating a CMV.

'LVTXDOLILFDWLRQ LV GD\V IRU WKH VHFRQG R‡HQVH ZLWKLQ \HDUV DQG GD\V IRU WKLUG RU VXEVHTXHQW R‡HQVHV ZLWKLQ \HDUV ,Q DGGLWLRQ WKH ¿UVW DQG HDFK VXEVHTXHQW YLRODWLRQ RI VXFK D SURKLELWLRQ DUH subject to civil penalties imposed on such drivers, LQ DQ DPRXQW XS WR 0RWRU FDUULHUV PXVW QRW DOORZ QRU UHTXLUH GULYHUV WR XVH D KDQG KHOG PRELOH WHOHSKRQH ZKLOH GULYLQJ also be subject to civil penalties in an amount of XS WR 7KHUH LV DQ HPHUJHQF\ H[FHSWLRQ WKDW DOORZV \RX WR XVH \RXU KDQG KHOG PRELOH WHOHSKRQHV LI QHFHVVDU\ WR HQIRUFHPHQW R‚FLDOV RU RWKHU

5HVHDUFK VKRZV WKDW WKH RGGV RI EHLQJ LQYROYHG LQ D VDIHW\ FULWLFDO HYHQW ZKLOH XVLQJ D PRELOH WHOHSKRQH DUH VLJQL¿FDQWO\ JUHDWHU for CMV drivers who engage in dialing a mobile telephone while driving than for those who do QRW 'LDOLQJ GULYHUV WRRN WKHLU H\HV R‡ WKH IRUZDUG URDGZD\ IRU DQ DYHUDJH RI VHFRQGV $W

SWKRQH WR SHUIRUP VHFRQG GULYHU WUDYHOLQJ IHHW SRI D IRRWEDOO ¿HOG ZLWKRXW ³PRYLQJ IURP D VHDWHG YHKLFOH VDIHO\ WR GR WKLV \RXU SULPDU\ UHVSRQVLELOLW\ 3PRYLQJ IURP D VHDWHG DWWHQWLRQ RQ WKH GULYLQJ WDVN ZKLOH XVLQJ HLWKHU KDQG KHOG FHOO SKRQH WKDW LV EHLQJ GLVWUDFWHG $WWHQWLRQ GULYLQJ WDVN ZKLOH XVLQJ HLWKHU

2.9.5 Texting

&)5 3DUW WK 0RWRU &DUULHU 6DIHW\ 5HJXO SURKLELWV WH[WLQJ E\ FRPPHUFL drivers while operating in interstate commerce; DQG LPSOHPHQWV QHZ GULYH VDQFWLRQV IRU GULYHUV RI &09 with this federal prohibition; or who have multiple convictions for violating a state or local law or RUGLQDQFH RQ PRWRU YHKLFOH SURKLELWV WH[WLQJ ZKLOH GUL FDUULHUV DUH SURKLELWHG IUR WKHLU GULYHUV WR HQJDJH LQ W

7H[WLQJ PHDQV PDQXDOO\ HQW UHDGLQJ WHFW‡RQV IURP DQ HOHF includes, but is not limited to, short message service, emailing, instant messaging, a command RU UHTXHVW WR DFFHVV DQ LQ HQJDJLQJ LQ DQ\ RWKHU IRUP RI HOHFWU\ IRU SUHVHQW RU IXWX a cellular telephone; personal digital assistant; SDJHU FRPSXWHU RU DQ\ RWK HQWHU ZULWH VHQG UHFHLYH (OHFWURQLF GHYLFH LQFOXGHV

<RX &'/ ZLOO EH GLVTXDOLILHG LI \RX KDYH WZR or more convictions of any state law on texting while operating a CMV.

'LVTXDOLILFDWLRQ LV WLPHV JUHDWHU ZLWKLQ \HDUV DQG GD\V IRU R‡HQVHV ZLWKLQ \HDUV ,Q DGGLWLRQ HDFK VXEVHTXHQW YLRODWLRQ are subject to civil penalties imposed on such GULYHUV LQ DQ DPRXQW XS W VHFRQGV $W

FDUULHU VKDOO DOORZ RU UHTXLUH GULYHUV WR H[HUFLVH GLVFUHWLRQ LQ WH[WLQJ ZKLOH GULYLQJ 7KLV H[FHSWLRQ DOORZV \RX WR FRPPXQLFDWH ZLWK ODZ HQIRUFHPHQW RU RWKHU HPHUJHQF\ VHUYLFHV

(YLGHQFH VXJJHVWV WKDW WH[W PHVVDJLQJ LV HYHQ ULVNLHU WKDQ WDONLQJ RQ D FHOO SKRQH EHFDXVH LW UHTXLUHV \RX WR ORRN DW D VPDOO VFUHHQ DQG PDQLSXODWH WKH NH\SDG ZLWK \RXU KDQGV is the most alarming distraction because it LQYROYHV ERWK SK\VLFDO DQG PHQWDO GLVWUDFWLRQ VLPXOWDQHRXVO\

5HVHDUFK VKRZV WKDW WKH RGGV RI EHLQJ LQYROYHG LQ D VDIHW\ FULWLFDO HYHQW FUDVK XQLQWHQWLRQDO ODQH GHYLDWLRQ JUHDWHU IRU &09 GULYHUV ZKR HQJDJH LQ WH[WLQJ ZKLOH GULYLQJ WKDQ IRU WKRVH RU UHFHLYLQJ WH[W WDNHV \RXU H\HV IRU DQ DYHUDJH RI VHFRQGV ZRXOG WUDYHO IHHW RU WKH HTXLYDOHQW RI IRRWEDOO ILHOG without looking at the roadway

2.9.6 Don’t Drive Distracted

Your goal should be to eliminate ALL in-vehicle distractions BEFORE driving begins.

Accomplishing this goal can be done by:

- $VVHVVLQJ DQG HOLPLQDWLQJ DOO SRWHQWLDO LQ vehicle distractions before driving
- Developing a preventative plan to reduce/ eliminate possible distractions
- ([SHFWLQJ GLVWUDFWLRQV WR RFFXU
- Discussing possible scenarios before getting behind the wheel

%DVHG RQ WKH DVVHVVPHQW RI SRWHQWLDO GLVWUDFWLRQV \RX FDQ IRUPXODWH D SUHYHQWDWLYH SODQ WR UHGXFH HOLPLQDWH SRVVLEOH GLVWUDFWLRQV ,I GULYHUV UHDFW D KDOI VHFRQG VORZHU EHFDXVH RI GLVWUDFWLRQV WKH FUDVKHV GRXEOH

Some tips to follow so you won’t become distracted:

- 7XUQ R‡ DOO FRPPXQLFDWLRQ SRVVLEOH
- ,I \RX PXVW XVH D PREOLOH SKRQH LW LV ZLWKLQ SURKLELWHG DQG VDIHU WR KDYH D VWDEOH SKRQH PRXQW RU KROGHU
- &RQVLGHU \RXU SKRQH LV RSHUDWLRQ restrained
- 8VH D KHDGVHW RU VSHDNHU wireless noise cancelling headset is best
- 8VH YRLFH DFWLYDWHG GLDOLQJ KDQGV IUHH IHDWXUH 'ULYHU FRPSOLDQFH LV WLPHV PRUH OLNHO\ WR 6HQGLQJ PREOLOH SKRQH HYHQ LI WKH\ KDQGV IUHH IXQFWLRQ
- $YRLG UHDG D WH[W PHVVDJH XQOHVV \RX FDQ SXOO RYHU VDIHO\ WR D VWRSSHG YHKLFOH ZKLOH GULYLQ
-)DPLOLDUL]H \RXUVHOI ZLWK \ IHDWXUHV DQG HTXLSPHQW EH EHKLQG WKH ZKHHO
- $GMXVW DOO YHKLFOH FRQWU SUHIHUHQFHV SULRU WR GULY
- 3UHSURJUDP UDGLR VWDWLRQ \RXU SKRQH RU GHYLFH &RQ URXWH FDEOHV REWDLQ &'¶V
- &OHDU WKH YHKLFOH RI DQ\ X DQG VHFXUH FDUJR
- 5HYLHZ PDSV SURJUDP WKH *3 \RXU URXWH EHIRUH \RX EHJL
- 'RQ¶W DWWHPSW WR UHDG RU
- $YRLG VPRNLQJ HDWLQJ DQG \RX GULYH /HDYH HDUO\ WR D WR VWRS WR HDW
- RQ¶W HQJDJH LQ FRPSOH[RU LQWHQVH FRQYHUVDWLRQV ZL ,I GULYHUV UHDFW
- Secure commitment from other occupants to EHKDYH UHVSRQVLEO\ DQG WR LQ UHGXFLQJ GLVWUDFWLRQV

2.9.7 Watch for Other Distracted Drivers

<RX QHHG WR EH DEOH WR UHFRJQL]H RWKHU GULYHUV ZKR DUH HQJDJHG LQ DQ\ IRUP RI GULYLQJ GLVWUDFWLRQ 1RW UHFRJQL]LQJ RWKHU GLVWUDFWHG GULYHUV FDQ SUHYHQW \RX IURP SHUFHLYLQJ RU UHDFWLQJ FRUUHFWO\ LQ WLPH WR SUHYHQW D FUDVK

Watch for:

- 9HKLFOHV WKDW PD\ GULIW RYHU WKH ODQH GLYLGHU OLQHV RU ZLWKLQ WKHLU RZQ ODQH
- 9HKLFOHV WUDYHOLQJ DW LQFRQVLVWHQW VSHHGV Drivers who are preoccupied with maps, food, cigarettes, cell phones, or other REMHFWV
- Drivers who appear to be involved in FRQYHUVDWLRQV ZLWK WKHLU SDVVHQJHUV

*LYH D GLVWUDFWHG GULYHU SOHQW\ RI URRP DQG PDLQWDLQ \RXU VDIH IOOORZLQJ GLVWDQFH careful when passing a driver who seems to be GLVWUDFWHG 7KH RWKHU GULYHU PD\ QRW EH DZDUH RI \RXU SUHVHQFH DQG WKH\ PD\ GULIW LQ IURQW RI \RX

2.10 AGGRESSIVE DRIVERS/ROAD RAGE

2.10.1 What Is It?

Aggressive driving and road rage are not new SUREOHPV +RZHYHU LQ WRGD\¶V ZRUOG ZKHUH KHDY\ DQG VORZ PRYLQJ WUDˆF DQG GULYHUV DUH WKH QRUP PRUH DQG PRUH GULYHUV DUH WDNLQJ RXW WKHLU DQJHU DQG IUXVWUDWLRQ LQ WKHLU YHKLFOHV

Crowded roads leave little room for error, leading WR VXVSLFLRQ DQG KRVWLOLW\ DPRQJ HQFRXUDJLQJ WKHP WR WDNH SHUVRQDO\ WKH PLVWDNHV RI RWKHU GULYHUV

Aggressive driving is the act of operating a motor YHKLFOH LQ D VHO¿VK EURG ZLWKRXW UHJDUG IRU WKH ULJKWV RU VDIHW\ RI RWKHUV)RU H[DPSOH FKDQJLQJ ODQHV VXGGHQO\ DQG DEUXSWO\ ZLWKRXW VLJQDOLQJ RU FXWWLQJ RIIHQ GULYLQJ

5RDG UDJH LV RSHUDWLQJ D PRWRU YHKLFOH LQ D PDQQHU WKDW HQGDQJHUV RU LV OLNHO\ WR HQGDQJHU DQ\ SHUVRQ RU SURSHUW\ DVVDXOWLQJ D GULYHU RU WKHLU YHKLFOH

Special Note:

Nothing is more maddening to the travelling SXEOLF WKDQ WZR WUXFNV ³G VSHHG JRYHUQRG WUXFNV VLG WKH IUHHZD\ IRU PLOHV EORF

Don't be that driver.

:KHQ SDVVLQJ PDNH VXUH \RX WUXFN DKHDG LQ D PDWWHU FDQ¶W ZDLW WR SDVV XQWLO RI \RX

:KHQ EHLQJ SDVVHG E\ DQRWKHU R‡ \RXU FUXLVH let the passing vehicle come around <RX ZLOO ORVH Q and help improve the public's perception of WKH SURIHVVLRQDO WUXFN GU

Idaho Code 49-655: 0,1,080 63((' 5(67$7,21 1R SHUVRQ VKDOO motor vehicle at such a slow speed as to impede the normal and reasonable PRYHPHQW RI WUDˆF H[FHSW VSHHG LV QHFHVVDU\ IRU VDIH RSHUDWLRQ FRPSOLDQFH ZLWK WKH ODZ DQ\ PLQLPXP VSHHG WKDW PD\ and posted pursuant to this section, no person shall operate a vehicle in the extreme left hand lane of a controlled-access highway for a period of time that LPSHGHV WKH ÀRZ RI WUDIILF H[FHSW ZKHQ UHDVRQDEOH DQG QHFHVVDU\ WR RSHUDWH DW D UHVWULFWHG VSHHG

0DQ\ RWKHU VWDWHV KDYH VL

2.10.2 Don't Be an Aggressive Driver

+RZ \RX IHHO EHIRUH \RX HYHQ VWDUW WKH HQJLQH KDV D ORW WR GR ZLWK KRZ VWUHVVHG ZKLOH GULYLQJ

- 5HGXFH \RXU VWUHVV EHIRUH DQG ZKLOH \RX GULYH /LVWHQ WR ³HDV\ OLVWHQLQJ´ PXVLF
- *LYH WKH GULYH \RXU IXOO DWWHQWLRQ ´RQ¶W DOORZ \RXUVHOI WR EHFRPH GLVWUDFWHG E\ WDONLQJ RQ \RXU FHOO SKRQH
- %H UHDOLVWLF DERXW \RXU WUDYHO WLPH ([SHFW GHOD\V EHFDXVH RI WUDˆF EDG ZHDWKHU DQG PDNH DOORZDQFHV
- ,I \RX¶UH JRLQJ WR EH ODWH WU\ WR FDOP GRZQ DQG H[SHFWHG ± GHDO ZLWK LW 7DNH D GHHS EUHDWK DQG DFFHSW WKH GHOD\
- *LYH RWKHU GULYHUV WKH EHQH¿W RI WKH GRXEW 7U\ WR LPDJLQH ZK\ WKH\ DUH GULYLQJ WKDW ZD\ :KDWHYHU WKHLU UHDVRQ WR GR ZLWK \RX
- 6ORZ GRZQ DQG NHHS \RXU IROORZLQJ GLVWDQFH UHDVRQDEOH
- 'RQ¶W GULYH VORZO\ LQ WKH OHIW ODQH RI WUDˆF
- $YRLG JHVWXUHV .HHS \RXU KDQGV RQ WKH ZKHHO $YRLG PDNLQJ DQ\ JHVWXUHV that might anger another driver, even VHHPLQJO\ KDUPOHVV H[SUHVVLRQV RI LUULWDWLRQ OLNH VKDNLQJ \RXU KHDG
- %H D FDXWLRXV DQG FRXUWHRXV GULYHU another driver seems eager to get in front RI \RX VD\ ³%H P\ JXHVW ´ 7KLV UHVSRQVH ZLOO VRRQ EHFRPH D KDELW DQG \RX ZRQ¶W EH DV R‡HQGHG E\ RWKHU GULYHUV¶ DFWLRQV

:KDW6KRXOG\RX'R:KHQ&RQIURQWHG by an Aggressive Driver

- Ignore gestures and refuse to react to vehicle description, license number, ORFDWLRQ DQG ´LI SRVVLEOH
- ,I \RX KDYH D FHOO SKRQH DVIHO\ FDOO WKH SROLFH

If an aggressive driver is involved in a crash farther down the road, stop a safe distance from the crash scene, wait for the police to arrive, and HUH SRUW WKH GULYLQJ EHKDYLR

- 5HSRUW DJJUHVVLYH GULYHU DSSURSULDWH DXWKRULWLHV

- Ignore gestures and refuse to react to
- 5HSRUW DJJUHVVLYH GULYHU

7DNH D GHHS EUHDWK

Subsections 2.9 and 2.10

7HVW <RXU .QRZOHGJH

1. What are some tips to follow so you ´RQ¶W EHFRPH D GLVWUDFWHG
2. How do you use in-vehicle communications equipment cautiously?
3. How do you recognize a distracted driver?
4. :KDW¶V WKH GLúHUHQFH EH aggressive driving and road rage?
5. What should you do when confronted with an aggressive driver?
6. What are some things you can do to reduce your stress before and while you drive?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH and 2.10.

)LUVW DQG IRUHPRVW PDNH HYHU\ DWWHPSW WR JHW RXW RI WKHLU ZD\ 3XW \RXU SULGH LQ WKH EDFN VHDW 'R QRW FKDOOHQJH WKHP E\ VSHHGLQJ XS RU DWWHPSWLQJ WR KROG \RXU RZQ LQ \RXU WUDYHO ODQH

2.11 DRIVING AT NIGHT

2.11.1 It Is More Dangerous

<RX DUH DW JUHDWHU ULVN ZKHQ \RX GULYH DW QLJKW 'ULYHUV FDQ¶W VHH KD]DUGV DV TXLFNO\ DV LQ GD\OLJKW VR WKH\ KDYH OHVV WLPH WR UHDFW 7KH SUREOHPV RI 'ULYHUV FDXJKW E\ VXUSULVH DUH ZRUVH DW QLJKW D FUDVK 7KH SUREOHPV RI QLJKW GULYHU WKH URDGZD\ DQG WKH YHKLFOH D‡HFW \RX DEL GHFLVLRQV :KHQ \RX DUH IDWL

2.11.2 Driver Factors

Vision: *RRG YLVLRQ LV FULWLFDO IRU VDIH GULYLQJ <RXU FRQWURO RI WKH EUDNH DFFHOHUDWRU DQG VWHHULQJ ZKHHO LV EDVHG RQ ZKDW \RX VHH VR WKH PRUH \RX FDQ VHH WKH EHWWHU \RX ZLOO KDQGOH WUDˆF DQG URDGZD\ FRQGLWLRQV 6SHFLDO WUDLQLQJ WR UHVSRQG WR SURBOHPV LQ DGYDQFH FDQ KHOS \RX DYRLG WURXEOH RU UHVSRQG WR PDQQHU

%HFDXVH VHHLQJ ZHOO LV VR FULWLFDO WR VDIH GULYLQJ \RX VKRXOG KDYH \RXU H\HV FKHFNHG UHJXODUO\ E\ DQ H\H VSHFLDOLVW <RX PD\ QHYHU NQRZ \RX KDYH SRRU YLVLRQ XQOHVV \RX H\HV DUH WHVWHG \RX QHHG WR ZHDU JODVVHV RU FRQWDFW OHQVHV IRU GULYLQJ

- $OZD\V ZHDU WKHP ZKHQ GULYLQJ ,I \RXU GULYLQJ VKRUW GLVWDQFHV OLFHQVH VD\V FRUUHFWLYH OHQVHV DUH UHTXLUHG LW LV LOOHJDO WR GULYH ZLWKRXW XVLQJ FRUUHFWLYH OHQVHV
- .HHS DQ H[WUD VHW RI FRUUHFWLYH OHQVHV LQ \RXU YHKLFOH ,I \RXU QRUPDO FRUUHFWLYH OHQVHV DUH EURNHQ RU ORVW \RX FDQ XVH WKH VSDUH OHQVHV WR GULYH VDIHO\
- $YRLG XVLQJ GDUN RU WLQWHG FRUUHFWLYH OHQVHV DW QLJKW HYHQ LI \RX WKLQN WKH\ KHOS ZLWK JODUH 7LQWHG OHQVHV FXW GRZQ WKH OLJKW WKDW \RX QHHG WR VHH FOHDUO\ XQGHU QLJKW GULYLQJ FRQGLWLRQV

Glare: Drivers can be blinded for a short time E\ EULJKW OLJKW ,W FDQ WDNH VHYHUDO VHFRQGV WR UHFRYHU IURP JODUH (YHQ WZR VHFRQGV LV RQ DOO UHDGLQJ EOLQGQHVV FDQ EH GDQJHURXV DW ORZ VSHHGV DQG \RX FDQ WUDYHO PRUH WKDQ KDOI WKH OHQJWK RI D IRRWEDOO ¿HOG GXULQJ WKDW WLPH

Fatigue and Lack of Alertness: Fatigue is SK\VLFDO RU PHQWDO WLUHGQHVV E\ SK\VLFDO RU PHQWDO VWUDLQ RU ODFN RI VOHHS)DWLJXH FDXVHV HUURUV UHODWHG WR VORZ GUXJV LW LPSDLUV \RXU YLVLRQ DQG UHDFWLRQ WLPH DQG \RX FDQ EH FRQIXVHG DQG GLVRULHQWHG 7KH\ FDQ G‡HFW \RXU DEL GHFLVLRQV :KHQ \RX DUH IDWL asleep behind the wheel and crash, injuring or NLOOLQJ \RXUVHOI RU RWKHUV)DWLJXHG GULYLQJ <RXU FDSDELOLWLHV DUH UHGXFHG ZKHQ \RX DUH WLUHG 6OHHS LV WKH RQO\ UHPHG\ IRU 6OHHS LQ $PHULFDQV KDYH GULYHQ ZKLOH PRUH WKDQ RQH WKLUG SHRSOH DGPLW WR KDYLQJ DFW SHRSOH UHSRUW WKDW WKH\ QHYHU NQRZ \RX RI VOHHS ODVWLQJ RQO\ D IHZ V IRU ORQJHU SHULRGV R‚ WLPH (RI D FROOLVLRQ LQFUHDVHV GU

At-Risk Groups: 7KH ULVN RI KDYLQJ D WR GURZV\ GULYLQJ LV QRW X ,I \RXU GULYHU¶V OLFHQVH DOHQVHV DUH SRSXODWLRQ &UD at times when sleepiness is most pronounced, LRU HDPSOH GXULQJ WKH QLJ DIWHUQRRQ 0RVW SHRSOH DUH HVSHFLDOO\ DFWHU PLGQLJKW W LI \RX KDYH EHHQ GULYLQJ IRU individuals who drive at night are much more OLNHO\ WR KDYH IDOO DVOHHS SHVSHFLDOO\ ZRUNHUV ZKR LGHQWL¿HG \R DW QLJKW HYHQ LI \RX WKLQN WKH\ KHOS ZLWK JODUH 7LQWHG OHQVHV FXW GRZQ WKH OLJKW WKDW \RX QHHG WR VHH FOHDUO\ XQGHU QLJKW GULYLQJ FRQGLWLRQV haul drivers and people with untreated sleep GLVRUGHUV RU ZLWK VKRUW W GHSULYDWLRQ DV EHLQJ DW LQF D IDOO DVOHHS FUDVK $W OHD WUXFN FUDVKHV LOYROYH IDWLJ

mph will travel more than half the distance of a IRRWEDOO ¿HOG GXULQJ WKDW WLPH VRXUFHV RI VOHHS SHU GD\ )HG Canada found that drivers averaged less than 5

6DIHW\ $GPLQLVWUDWLRQ then that the National

7UDQVSRUWDWLRQ 6DIHW\ %RDUG 176% UHSRUWHG WKDW GURZV\ GULYLQJ ZDV SUREDEO\ WKH FDXVH RI PRUH WKDQ KDOI RI FUDVKHV OHDGLQJ WR D WUXFN GULYHU¶V GHDWK 176% GULYHU IDWDOLW\ DQRWKHU WKUHH WR IRXU SHUVRQ DUH NLOOHG 1+76$

Warning Signs of Fatigue:

According to the National Sleep Foundation's 6OHHS LQ $PHULFD SROO RI $PHULFDQV KDYH GULYHQ ZKLOH IHHOLQJ VOHHSY DQG DFWXDOO\ KDYLQJ IDOOHQ DVOHHS DW WKH ZKHHO LQ WKH SDVW \HDU +RZHYHU PDQ\ SHRSOH FDQQRW WHOO LI RU ZKHQ WKH\ DUH DERXW WR IDOO DVOHHS

Here are some signs that should tell you to stop and rest:

- 'L^FXOW\ IRFXVLQJ IUHTXHQW EOLQNLQJ heavy eyelids
- <DZQLQJ UHSHDWHGO\ RU UXEELQJ \RXU H\HV
- Day-dreaming; or wandering/ disconnected thoughts
- Trouble remembering the last few miles GULYHQ PLVVLQJ H[LWV RU WUDIILF
- Trouble keeping head up
- Drifting from your lane, following too closely or hitting a shoulder rumble strip
- Feeling restless and irritable

When you are tired, trying to "Push on" is far more dangerous than most drivers think.

,W LV D PDMRU FDXVH RI IDWDO DQ\ VLJQV RI IDWLJXH VWRS G IRU WKH QLJKW RU WDNH D VK PLQXWH QDS FDQ EHQH¿W \RX OLWWOH DZD\ IURP \RXU GULYL

$UH\RX5W 5LVN"

%HIRUH \RX GULYH FRQVLGHU

- 6OHHS GHSULYHG RU IDWLJXHG KHX VOHHS RU OHVV WULSOHV \RXU ULVN
- 6X‡HULQJ IURP VOHHS ORVV LQVRPQLD SRRU TXDOLW\ VOHHS RU D VOHHS GHEW

- , Driving long distances without proper rest EUHDNV
- 'ULYLQJ WKURXJK WKH QLJKW RU ZKHQ \RX ZRXOG QRUPDOO\ 0DQ\ KHDY\ PRWRU YHKLFOH EHWZHHQ PLGQLJKW DQG D)RU HDFK WUXFN 7DNLQJ VHGDWLQJ PHGLFDWL depressants, cold tablets, antihistamines, HWF
- :RUNLQJ PRUH WKDQ KRXU LQFUHDVHV \RXU ULVN E\
- :RUNLQJ PRUH WKDQ RQH MR MRE LQYROYHV VKLIW ZRUN
- UL YLQJ DORQH RU RQ D ORQ boring road
-)OLQJ FKDQJLQJ WLPH]RQH

Preventing drowsiness before a trip:

- *HW DGHTXDWH VOHHS ± DGX hours to maintain alertness
- 3ODQ URXWH FDUHIXOO\ distance, stopping points and other logistic considerations
- 6FKHGXOH WULSV IRU WKH KI QRUPDOO\ DZDNH QRW WKH
- Drive with a passenger
- Avoid medications that cause drowsiness
- &RQVXOW \RXU SK\VLFLDQ LI GD\WLPH VOHHSLQHVV KDYH DW QLJKW RU WDNH IUHTXHQ
- ,QFRUSRUDWH H[HUFLVH LQW JLYH \RX PRUH HQHUJ\

No deadline is more important WKDQ DUULYLQJ VDIHO\

Maintaining alertness while driving:

- 3URWHFW \RXUVHOI IURP JODUH DQG H\HVWUDLQ with sunglasses
- .HHS FRRO E\ RSHQLQJ WKH ZLQGRZ RU XVLQJ the air conditioner
- $YRLG KHDY\ IRRGV
- %H DZDUH RI GRZQ WLPH GXULQJ WKH GD\ GU\JJV
- +DYH DQRWKHU SHUVRQ ULGH ZLWK \RX DQG WDNH WXUQV GULYLQJ
- 7DNH SHULRGLF EUHDNV ± DERXW HYHU\ miles or 2 hours during long trips
- 6WRS GULYLQJ DQG JHW VRPH UHVW RU WDNH D nap
- &D‡HEQH VXPSWLRQ FDQ LQFUHDVH awareness for a few hours, but do not GULQN WRR PXFK ,W ZLOO HYHQWXDOO\ ZHDUR‡ 'R QRW UHO\ RQ FD‡HLQH WR SURYLGH WHPSRUDU\ \RX PXVW DGMXVW \RXU VWRSSLQJ GLVWDQFH ZLWKLQ \R DZDNH IRU D ZKLOH WKH\ ZRQ¶W PDNH \RX PHDQ \RXU ZLWKLQ WKH UDQJH RI \RXU KH DOHUW
- ,I \RX DUH GURZV\ WKH RQOH\ VDIH FXUH LV WR JHW R‡ WKH URDG DQG JHW VRPH VOHHS I \RX GRQ¶W \RX ULVN \RXU OLIH DQG WKH OLYHV RI RWKHUV

2.11.3 Roadway Factors

Poor Lighting: ,Q WKH GD\WLPH WKHUH LV XVXDOO\ HQRXJK OLJKW WR VHH ZHOO 7KLV LV QRW WUXH DW QLJKW 6RPH DUHDV PD\ KDYH EULJKW VWUHHW OLJKWV EXW PDQ\ DUHDV ZLOO KDYH SRRU ,WKH\ GRQ¶W SRLQW LQ WKH U OLJKWLQJ ZR PRVW URDGV \RX ZLOO SUREDEO\ KDYH WR GHSHQG HQWLUHO\ RQ \RXU KHDGOLJKWV

/HVV OLJKW PHDQV \RX ZLOO QRW EH DEOH WR VHH KD]DUGV DV ZHOO DV LQ GD\WLPH SRDG XVHUV ZKR GR QRW KDYH OLJKWV DUH KDUG WR VHH PDQ\ DFFLGHQWV DW QLJKW LQYROYH SHGHVWULDQV MRJJHUV ELF\FOLVWV DQG DQLPDOV

(YHQ ZKHQ WKHUH DUH OLJKWV WKH URDG VFHQH FDQ EH FRQIXVLQJ

- 7UDˆF VLJQDOV DQG KD]DUGV FDQ EH KDUG WR VHH DJDLQVW D EDFNJURXQG RI VLJQV VKRS ZLQGRZV DQG RWKHU OLJKWV
- Drive slower when lighting is poor or FRQIXVLQJ
- 'ULYH VORZO\ HQRXJK WR EH VXUH \RX FDQ VWRS LQ WKH GLVWDQFH \RX FDQ VHH DKHDG

Drunk Drivers: 'UXQN GULYHUV DQG G WKH LQÀXHQFH RI GUXJV DUH D DQG WR \RX %H HVSHFLDOO\ DO WLPHV IRU EDUV DQG WDYHUQV KDYH WURXEOH VWD\LQJ LQ WKI speed, who stop without reason, or show other VLJQV RI EHLQJ XQGHU WKH LQ GUXJV

2.11.4 Vehicle Factors

Headlights: $W QLJKW \RXU KHDGOLJ EH WKH FDLQ VRXUFH RI OLJKW DQG IRU RWKHUV WR VHH \RX < DV PXFK ZLWK \RXU KHDGOLJKW GD\WLPH :LWK ORZ EHDPV \RX DERXW WHQ WLPHV GDUNHU ZLWK KLJK HHHU <RX PXVW DGMXVW \RXU VWRSSLQJ GLVWDQFH ZLWKLQ \R PHDQV JRLQJ VORZO\ HQRXJK W ZLWKLQ WKH UDQJH RI \RXU KH E\ WKH WLPH \RX VHH D KD]DUG WLPH WR VWRS I \RX 1LJKW GULYLQJ FDQ EH PRUH GI SUREOHPV ZLWK \RXU KHDGOLJ PD\ JLYH RQO\ KDOI WKH OLJKW GRZQ \RXU DFLOLW\ WR VHH DQ RWKHUV WR VHH \RX 0DNH VXUH DQG ZRUNLQJ +HDGOLJKWV FDQ VWUHHW OLJKWV EXW I WKH\ GRQ¶W SRLQW LQ WKH U JLYH \RX D JRRG YLHZ DQG WKH GULYHUV +DYH D TXDOL¿HG SH DUH DGMXVWHG SURSHUO\

Other Lights: 2 RUGHU IRU \RX WR E WKH JROORZLQJ PXVW EH FOHDQ

- Headlights
- Taillights
- ,GHQWL¿FDWLRQ OLJKWV
- Clearance lights
- 0DUNHU OLJKWV

Turn Signals and Brake Lights: $W QLJKW \ WXUQ VLJQDOV DQG EUDNH OL LPSRUWDQW IRU WHOOLQJ RWKH WR GR 0DNH VXUH \RX KDYH FO VLJQDOV DQG VWRS OLJKWV

Windshield and Mirrors: It is more important
DW QLJKW WKDQ LQ WKH GD\WLPH WR KDYH D FOHDQ
ZLQGVKLHOG DQG FOHDQ PLUURUV %ULJKW OLJKWV DW
QLJKW FDQ FDXVH GLUW RQ \RXU ZLQGVKLHOG RU PLUURUV
WR FUHDWH D JODUH RI LWV RZQ EORFNLQJ \RXU YLHZ
0RVW SHRSOH KDYH H[SHULHQFHG GULYLQJ WRZDUG
the sun just as it has risen or is about to set,
DQG IRXQG WKDW WKH\ FDQ EDUHO\ VHH WKURXJK D
ZLQGVKLHOG WKDW VHHPHG WR ORRN 2. LQ WKH PLGGOH
RI WKH GD\ &OHDQ \RXU ZLQGVKLHOG RQ WKH LQVLGH
DQG RXWVLGH IRU VDIH GULYLQJ DW QLJKW

2.11.5 Night Driving Procedures

Vehicle Procedures: 0DNH VXUH \RX DUH UHVWHG
DQG DOHUW ,I \RX DUH GURZV\ VOHHS EHIRUH \RX
GULYH (YHQ D QDS FDQ VDYH \RXU OLIH RU WKH OLYHV RI
RWKHUV ,I \RX ZHDU H\HJODVVHV
FOHDQ DQG XQVFUDWFKHG 'RQ¶W ZHDU VXQJODVVHV DW
QLJKW 'R D FRPSOHWH YHKLFOH
YHKLFOH 3D\ DWWHQWLRQ WR
UHÀHFWRUV DQG FOHDQLQJ WKRVH

Avoid Blinding Others: *ODUH IURP \RXU
headlights can cause problems for drivers coming
WRZDUG \RX 7KH\ FDQ DOVR ERWKHU GULYHUV
WKH VDPH GLUHFWLRQ \RX DUH ZKHQ \RXU OLJKWV VKLQH
LQ WKHLU UHDUYLHZ PLUURUV 'LP \RXU OLJKWV EHIRUH
WKH\ FDXVH JODUH IRU RWKHU GULYHUV LP \RXU OLJKWV
within 500 feet of an oncoming vehicle and when
IROORZLQJ DQRWKHU YHKLFOH ZLWKLQ IHHW

Avoid Glare from Oncoming Vehicles: Do
QRW ORRN GLUHFWO\ DW OLJKW VRXUFHV
/RRN VOLJKWO\ WR WKH ULJKW DW WKH HGJH RI WKH
PDUNLQJ LI DYDLODEOH ,I RWKHUZLVH \RX ZLOO EH
ORZ EHDPV RQ GRQ¶W WU\ WR ³JHW HYHQ´ E\ VKLQLQJ
SXWWLQJ \RXU RZQ KLJK EHDPV RQ 7KLV RQO\ FDXVHV
glare for oncoming drivers and increases the
FKDQFH RI D FUDVK

8VH+LJK%HDP+LJKW&RQWURO Some drivers
PDNH WKH PLVWDNH RI DOZD\V XVLQJ ORZ EHDPV
7KLV VHULRXVO\ FXWV GRZQ RQ WKHLU DELOLW\ WR VHH
DKHDG 8VH KLJK EHDPV ZKHQ LW LV VDIH DQG OHJDO
WR GR VR 8VH WHP ZKHQ \RX DUH QRW ZLWKLQ
IHHW RI DQ DSSURDFKLQJ YHKLFOH $OVR GRQ¶W OHW WKH
LQVLGH RI \RXU FDE JHW WRR EULJKW 7KLV PDNHV LW
KDUGHU WR VHH RXWVLGH .HHS WKH LQWHULRU OLJKW R‡
DQG DGMXVW \RXU LQVWUXPHQW OLJKWV DV ORZ DV \RX

FDQ WR VWLOO EH DEOH WR UHD
[<RX*HWOHHSWRSWKHDUHDW
Place: 3HRSOH RIWHQ GRQ¶W UHDO
ZLQGVKLHOG RU PLUURUV
DUH WR IDOOLQJ DVOHHS HYHQ
DUH IDOOLQJ VKXW ,\RX FDQ
\RXUVHOI LQ D PLUURU ,I \RX
MXVW IHHO VOHHS\ VWRS GULY
GDQJHURXV FRQGLWLRQ 7KH R
VOHHS

2.12 DRIVING IN FOG

)RJ FDQ RFFXU DW DQ\ WLPH
FDQ EH H[WUHPHO\ GDQJHURX
XQH[SHFWHG DQG YLVLELOLW\ L
<RX VKRXOG ZDWFK IRU IRJ\ F
UHDG\ WR UHGXFH \RXU VSHHG
WKH IRJ ZLOO WKLQ RXW DIWHU
7KHVHVWHSVFDQYLFH\RXUGULYLQJ
FKHFNLQDOOWKLWX\RXSQG R
DVHDRXFWRS XQWLO Y
must drive, be sure to consider the following:

- 2EH\ DOO IRJ UHODWHG ZDUQ
- 6ORZ GRZQ EHIRUH \RX HQWH
- 8VH ORZ EHDP KHDGOLJKWV D
- EHVW YLVLELOLW\ HYHQ LQ G
- IRU RWKHU GULYHUV ZKR PD\
- WXUQ RQ WKHLU OLJKWV
- 7XUQ RQ \RXU ZD\ ÀDVKHUV
- YHKLFOHV DSSURDFKLQJ \RX
- TXLFNHU RSSRUWXQLW\ WR Q
- Watch for vehicles on the side of the
- UR GZ HQJ WH GH JK
- PRYHV \RX SW WK
- 8VH URDGVLGH KLJKZD\ UHÀH
- WR GHWHUPLQH KRZ WKH URD
- DKHDG RI \RX
- /LVWHQ IRU WUDˆF \RX FDQQ
- $YRLG SDVVLQJ RWKHU YHKL
- Don’t stop along the side of the road,
- XQOHVV DEVROXWHO\ QHFHV

2.13 DRIVING IN WINTER

2.13.1 Vehicle Checks

0DNH VXUH \RXU YHKLFOH LV UHDG\ EHIRUH GULYLQJ LQ ZLQWHU ZHDWKHU <RX VKRXOG EH IDPLOLDU ZLWK WKH YHKLFOH LQVSHFWLRQ SD\LQJ SDUWLFXODU DWWHQWLRQ WR WKH IROORZLQJ LWHPV

Coolant Level and Antifreeze Amount: 0DNH VXUH WKH FRROLQJ V\VWHP LV IXOO DQG WKH DQWLIUHH]H LQ WKH FRROLQJ V\VWHP LV HQRXJK DQWLIUHH]H WR SURWHFW DJDLQVW IUHH]LQJ 7KLV FDQ EH FKHFNHG ZLWK D VSHFLDO FRRODQW WHVWHU

Defrosting and Heating Equipment: 0DNH VXUH WKH GHIURVWHUV ZRUN 7KH\ EORZ ZDUP DLU RQ WKH IURQW DQG VLGH ZLQGRZV WKDW \RX NQRZ KRZ WR RSHUDWH WKHP DQG H[SHFW WR QHHG WKHP H J PLUURU KHDWHUV DQG H[SHFW WR QHHG WKHP EDWWHU\ ER[KHDWHUV IXHO WDQN KHDWHUV FKHFN WKHLU RSHUDWLRQ

Wipers and Washers: 0DNH VXUH WKH ZLQGVKLHOG ZLSHU EODGHV DUH LQ JRRG FRQGLWLRQ 0DNH VXUH WKH ZLQGVKLHOG ZDVKHU QR]]OHV DUH QRW FORJJHG DQG WKDW WKH ZDVKHU IOXLG UHVHUYRLU LV IXOO the wiper blades press against the window hard enough to wipe the windshield clean, otherwise WKH\ PD\ QRW VZHHS R‡ VQRZ VXUH WKH ZLQGVKLHOG ZDVKHU ZDVKLQJ ÀXLG LQ WKH ZDVKHU

8VH ZLQGVKLHOG ZDVKHU DQG IUHH]LQJ RI WKH ZDVKHU OLTXLG HQRXJK ZKLOH GULYLQJ IRU H[IDLO VWRS VDIHO\ DQG ¿[WKH

Tires: 0DNH VXUH \RX KDYH HQRXJ WLUHV 7KH GULYH WLUHV PXVW WKH ULJ RYHU ZHW SDYHPHQW The steering tires must have traction to steer the YHKLFOH (QRXJK WUHDG LV H ZLQWHU FRQGLWLRQV <RX PX LQFK WUHDG GHSWK LQ HYHU\ WLUHV DQG DW OHDVW LQFK ZRXOG EH EHWWHU 8VH D JDXJH WR FKHFN WUHDG GHSWK KDYH HQRXJK WUHDG IRU VDIH GULYLQJ

Tire Chains: <RX PD\ ¿QG \RXUVHOI ZKHUH \RX FDQ¶W GULYH ZLWKRXW FKDLQV WR D SODFH RI VDIHW\ &DUU\ WKH ULJKW QXPEHU RI FKDLQV DQG H[WUD FURVV OLQNV 0DNH VXUH WKH\ ZLOO

¿W \RXU GULYH WLUHV &KHFN KRRNV ZRUQ RU EURNHQ FURVV EURNHQ VLGH FKDLQV /HDUQ KR RQ EHIRUH \RX QHHG WR GR LW

Windows and Mirrors: 5HPRYH DQ\ LFH VQRZ EHIRUH VWDUWLQJ 8VH D ZLQGVKLHOG EUXVK DQG ZLQGVKLHOG GHIURVWHU

Radiator Shutters and Winterfront: 5HPRYH LFH IURP WKH UDGLDWRU VKXWWHU ZLQWHUIURQW LV QRW FORVHG

Exhaust System: 9[KDXVW V\VWHP OHDNV FDQ EH GDQJHURXV ZKHQ LQKDOHG LQWR FRQGLWLRQV could permit poisonous carbon PRQR[LGH WR OHDN LQWR \RXU FDUV LW FDQ PRQR[LGH JDV ZLOO FDXVH \RX ODUJH HQRXJK DPRXQWV LW FDQ

H[KDXVW V\VWHP IRU ORRVH SDUWLFOHV DQG VLJQV RI OHDNV

2.13.2 Driving Tips for Winter

Slippery Surfaces: 'ULYH VORZO\ DQG VPRRWKO\ RQ VOLSSHU\ URDGV ,I LW LV YHU\ VOLSSHU\ \RX FDQ¶W GULYH DW DOO 6WRS DW WKH ¿UVW VDIH SODFH

Start Gently and Slowly: :KHQ ¿UVW VWDUWLQJ JHW WKH IHHO RI WKH URDG 'RQ¶W KXUU\

Check for Ice: &KHFN IRU LFH RQ WKH HVSHFLDOO\ EULGJHV DQG RYHUSDVVHV $ ODFN RI VSUD\ IURP RWKHU YHKLFOHV LQGLFDWHV LFH KDV IRUPHG RQ WKH URDG $OVR FKHFN \RXU PLUURUV DQG ZLSHU EODGHV IRU LFH ,I WKH\ KDYH LFH WKH URDG PRVW OLNHO\ ZLOO EH LF\ DV ZHOO

Adjust Turning and Braking to Conditions: 0DNH WXUQV DV JHQWO\ DV SRVV'RQ¶W'RS$V\EUDNH DQ\ KDUGHU WKDQ QHFHVVDU\ DQG FRPH WR D VWRS HQJLQH EUDNH RU VSHHG UHWDUGHU 7KH WUDFWLRQ RQ WKH GULYLQJ ZKHHOV WR VNLG RQ VOLSSHU\ VXUIDFHV

Adjust Speed to Conditions: Don’t pass slower YHKLFOHV XQOHVV QHFHVVDU\ *R VORZO\ DQG ZDWFK IDU HQRXJK DKHDG WR NHHS D VDIH\ SHHG $YRLG KDYLQJ WR VORZ GRZQ DQG SHHG XS ZDNH FXUYHV DW VORZHU VSHHGV DQG GRQ¶W EUDNH ZKLOH LQ FXUYHV %H DZDUH WKDW DV WKH WHPSHUDWXUH ULVHV WR WKH point where ice begins to melt, the road becomes HYHQ PRUH VOLSSHU\ 6ORZ GRZQ EHIRUH WKH WLUHV HYHU\ WZ PLOHV ZKHQ GULYLQJ LQ YHU\

Adjust Space to Conditions: Don’t drive DORQJVLGH RWKHU YHKLFOHV GLVWDQFH :KHQ \RX VHH D WUDFWRU WUDLOHU GRZQ RU VWRS WR ZDLW IRU LW WR DQWLFLSDWH VWRSV HDUO\ DQG VORZ GRZQ JUDGXDOO\ Watch for snowplows, as well as salt and sand WUXFNV DQG JLYH WKHP SOHQW\ RI URRP

Wet Brakes: :KHQ GULYLQJ LQ KHDY\ UDLQ RU GHHS VWDQGLQJ ZDWHU \RXU EUDNHV ZLOO JHW ZHW :DWHU LQ WKH EUDNHV FDQ FDXVH WKH EUDNHV WR EH ZHDN WR DSSO\ XQHYHQO\ RU WR JUDE EUDNLQJ SRZHU ZKHO ORFNXS RU WKH RWKHU DQG MDFNNQL¿QJ

- Slow down and place transmission in a low JHDU
- *HQWO\ SXW RQ WKH EUDNHV OLJKWO\ DJDLQVW EUDNH GU\ DQG VDIH 6WRS DW WKH ¿UVW VDIH SODFH JHWWLQJ LQ
- Increase engine rpm and cross the water ZKLOH NHHSLQJ OLJKW SUHVV
- When out of the water, maintain light SUHVVXUH RQ WKH EUDNHV I WR KHDW WKHP XS DQG GU\ W
- 0DNH D WHVW VWRS ZKHQ VD &KHFN EHKLQG WR PDNH VXU ORRORZLQJ WKHQ DSSO\ WKH VXUH WKH\ ZRUN ZHOO ,I QR IXUWKHU DV GHVFULEHG DER

5,9,1,19(5<+27

WEATHER

2.14.1 Vehicle Checks

attention to the following items:

Tires: &KHFN WKH WLUH PRXQWLQJ ZQV RI WKH WLUHV HYHU\ WZ PLOHV ZKHQ GULYLQJ LQ YHU\ SUHVVXUH LQFUHDVHV ZLWK WH HHS D ORQJHU ,ROORZLQJ air out or the pressure will be too low when the WLUHV FRROU ‡ 7’ WLUH LV W VWRSSHG XQWLO WKH WLUH FRR PD\ EORZ RXW RU FDWFK ¿UH

Engine Oil: 7KH HQJLQH RLO KHOSV N FRRO DV ZHOO DV OXEULFDWLQ HQRXJK HQJLQH RLO ,I \RX KDY JDXJH PDNH VXUH WKH WHPSH SURSHU UDQJH 7KLV FDQ FDXVH ODFN RI Engine Coolant: %H VXUH WKH FR DQWLIUHH]H DFFRUGLQJ WR WKH GLUHFWLRQV $QWLIUHH]H KHO KRW FRQGLWLRQV DV ZHOO DV F

:KHQ GULYLQJ FKHFN WKH ZDWHU WHPSHUDWXUH JDXJH
FRRODQW WHPSHUDWXUH JDXJH
0DNH VXUH WKDW LW UHPDLQV LQ WKH QRUPDO UDQJH

If the gauge goes above the highest safe WHPSHUDWXUH WKHUH PD\ EH VRPHWKLQJ ZURQJ WKDW FRXOG OHDG WR HQJLQH IDLOXUH DQG SRVVLEOH\ ¿UH 6WRS GULYLQJ DV VRRQ DV VDIHO\ SRVVLEOH DQG WU\ WR ¿QG RXW ZKDW LV ZURQJ

6RPH YHKLFOHV KDYH VLJKW JODVVHV VHH WKURXJK FRRODQW RYHUÀRZ FRQWDLQHUV RU FRRODQW UHFRYHU\ FRQWDLQHUV 7KHVH SHUPLW \RX WR FKHFN WKH FRRODQW OHYHO VLPSO\ OHYHO WKH HQJLQH LV KRW , I WKH FRQWDLQHU LV QRW SDUW RI WKH SUHVVXUL]HG V\VWHP LW FDQ EH VDIHO\ UHPRYHG DQG FRRODQW DGGHG GLUHFWO\ WKH HQJLQH LV DW RSHUDWLQJ WHPSHUDWXUH

1HYHU UHPRYH WKH UDGLDWRU FDS RU DQ\ SDUW RI WKH SUHVVXUL]HG V\VWHP XQWLO WKH HQJLQH KDV FRROHG 6WHDP DQG ERLOLQJ ZDWHU FDQ VSUD\ XQGHU SUHVVXUH DQG FDXVH VHYHUH ,I \RX FDQ WRXFK WKH UDGLDWRU FDS ZLWKRXW EXUQLQJ \RXUVHOI SURFHHG WR RSHQ

,I FRRODQW KDV WR EH DGGHG WR D V\VWHP ZLWKRXW D UHFRYHU\ WDQN RU RYHUÀRZ WDQN IROORZ WKHVH VWHSV

6KXW HQJLQH R‡

:DLW XQWLO HQJLQH KDV FRROHG

3URWHFW KDQGV XVH JORYHV ORQJ VOHHYHV DQG FORWK

7XUQ UDGLDWRU FDS VORZO\ WR WKH ¿UVW VWRS ZKLFK UHOHDVHV WKH SUHVVXUH

6WHS EDFN ZKLOH SUHVVXUH LV UHOHDVHG IURP FRROLQJ V\VWHP

:KHQ DOO SUHVVXUH KDV EHHQ UHOHDVHG press down on the cap and turn it further to UHPRYH LW

9LVXDOO\ FKHFN OHYHO RI FRRODQW DQG DGG PRUH FRRODQW LI QHFHVVDU\

5HSODFH FDS DQG WXUQ DOO WKH ZD\ WR WKH FORVHG SRVLWLRQ

Engine Belts: /HDUQ KRZ WR FKHFN Y EHOW WLJKWQHVV RQ \RXU YHKLFOH E\ SUHVVLQJ RQ WKH EHOWV Loose belts will not turn the water pump and/or

Hoses: 0DNH VXUH FRRODQW KRVH FRQGLWLRQ $ EURNHQ KRVH ZK WR HQJLQH IDLOXUH DQG SRVVLEOH\ ¿UH

2.14.2 Driving Tips for Hot Weather

Watch for Bleeding Tar: Tar in the road SDYHPHQW JUHTXHQWO\ ULVHV V KRW ZHDWKHU 6RPH YHKLFOH XVXDOO\ OHDYH ZKHUH V

Go Slowly Enough to Prevent Overheating: High speeds create more heat for tires and the XS WR WKH SRLQW ZKHUH LW LV ZLOO LQFUHDVH FKDQFHV RI WL DQG HQJLQH IDLOXUH

Subsections 2.11, 2.12, 2.13, and 2.14

7HVW <RXU .QRZOHGJH

<RX VKRXOG XVH QRZ EHDPV you can. True or False?

2. What should you do before you drive if you are drowsy?

:KDW HúHFWV FDQ ZHW EUDN How can you deal with these problems?

<RX VKRXOG OHW DLU RXW the pressure goes back to normal. True or False?

<RX FDQ VDIHO\ UHPRYH WK FDS DV ORQJ DV WKH HQJLQH overheated. True or False?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH 2.11, 2.12, 2.13, and 2.14.

5$,/52$'+,*+:$< CROSSINGS

5DLOURDG KLJKZD\ JUDGH FURVVLQJV DUH D VSHFLDO NLQG RI LQWHUVHFWLRQ ZKHUH WKH URDGZD\ FURVVHV WUDLQ WUDFNV 7KHVH FURVVLQJV DUH DOZD\V GDQJHURXV (YHU\ VXFK FURVVLQJ PXVW EH DSSURDFKHG ZLWK WKH H[SHFWDWLRQ WKDW D WUDLQ LV FRPLQJ ,W LV H[WUHPHO\ GLˆFXOW WR MXGJH WKH distance and speed of an approaching train from WKH FURVVLQJ

2.15.1 Types of Crossings

3DVVLYH &URVVLQJV 7KLV W\SH RI FURVVLQJ GRHV QRW KDYH DQ\ W\SH RI WUDˆF FRQWURO GHYLFH 7KH GHFLVLRQ WR VWRS RU SURFHHG UHVWV HQWLUHO\ LQ \RXU KDQGV 3DVVLYH FURVVLQJV UHTXLUH \RX WR UHFRJQL]H WKH FURVVLQJ VHDUFK IRU DQ\ WUDLQ XVLQJ WKH WUDFNV DQG GHFLGH LI WKHUH LV VXˆFLHQW FOHDU VSDFH WR FURVV VDIHO\

$FWLYH &URVVLQJV 7KLV W\SH RI FURVVLQJ KDV D WUDˆF FRQWURO GHYLFH LQVWDOOHG DW WKH FURVVLQJ WR UHJXODWH WUDˆF DW WKH FURVVLQJ 7KHVH DFWLYH GHYLFHV LQFOXGH ÀDVKLQJ UHG OLJKWV ZLWK RU ZLWKRXW EHOOV DQG ÀDVKLQJ UHG OLJKWV ZLWK EHOOV DQG JDWHV

2.15.2 Warning Signs and Devices

$GYDQFH :DUQLQJ 6LJQV 7KH [illegible] \HOORZ ZDUQLQJ VLJQ LV SODFHG [illegible] UDLOURDG KLJKZD\ FURVVLQJ VLJQ WHOOV \RX WR VORZ GRZ WKH WUDLQ DQG EH SUHSDUH LI D WUDLQ LV FRPLQJ $OO S FDUU\LQJ YHKLFOHV DUH UHT

See Figure 2.15

Pavement Markings: 3DYHPHQW PDUNLQJ WKH VDPH DV WKH DGYDQFH ZI FRQVLVW RI DQ ³;´ ZLWK WKH OH SDVVLQJ PDUNLQJ RQ HDFK DSSURDFK

See Figure 2.16

Figure 2.16 Railroad Crossing Pavement Markings

7KHUH LV DOVR D QR SDVVLQJ]R URDGV 7KHUH PD\ EH D ZKLWH RQ WKH SDYHPHQW EHIRUH WKH URQW RI WKH WUXFN RU EXV P \HOORZ ZKHQ RSSRVLQJ W DW WKH UDLOURDG FURVVLQJ VLJQ WHOOV \RX WR VORZ GRZ WKH WUDLQ DQG EH SUHSDUH LI D WUDLQ LV FRPLQJ $OO S FDUU\LQJ YHKLFOHV DUH UHT

Figure 2.15 Advance Warning Railroad Sign

Cross-buck Signs: 7KLV VLJQ PDUNV WK
FURVVLQJ ,W UHTXLUHV \RX WR
WR WKH WUDLQ ,I WKHUH LV QR
RQ WKH SDYHPHQW YHKLFOHV
VWRS PXVW VWRS QR FORVHU W
than 50 feet from the nearest rail of the nearest
WUDFN :KHQ WKH URDG FURVVL
RQH WUDFN D VLJQ EHORZ WKH
WKH QXPEHU RI WUDFNV See Figure

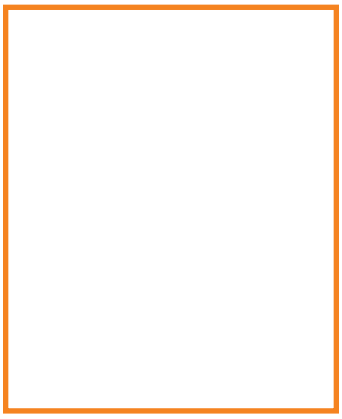


Figure 2.17 Cross-buck Signs

Flashing Red Light Signals: $W PDQ\ KLJKZD\
UDLOURDG JUDGH FURVVLQJV
KDV ÀDVKLQJ UHG OLJKWV DQG
EHJLQ WR ÀDVK VWRS $ WUDLQ
DUH UHTXLUHG WR \LHOG WKH
WKHUH LV PRUH WKDQ RQH WUD
DUH FOHDU EHIRUH FURVVLQJ

Gates: 0DQ\ UDLOURDG KLJKZD\
JDWHV ZLWK ÀDVKLQJ UHG OLJKWV
WKH OLJKWV EHJLQ WR ÀDVK DQG
DFURVV WKH URDG ODQH 5HPDLQ
JDWHV JR XS DQG WKH OLJKWV
3URFHHG ZKHQ LW LV VDIH See Figure 2.18

)LJXUH 5DLOURDG *DWHV /LJ

2.15.3 Driving Procedures

Never Race a Train to a Crossing: Never attempt
WR UDFH D WUDLQ WR D FURVVLQ
WR MXGJH WKH VSHHG RI DQ DS

Reduce Speed: <RXU VSHHG PXVW EH
DFFRUGDQFH ZLWK \RXU DELOLW
WUDLQV LQ DQ\ GLUHFWLRQ DQ
KHOG WR D SRLQW WKDW SHUPL
WKH WUDFNV LQ FDVH <RX D VWRS
Note: This law applies to all Commercial Vehicles, not just those carrying SDVVHQJHUV RU KD]DUGRXV PD
Don't Expect to Hear a Train: ZUDLQV PD\ G
or are prohibited from sounding horns when
DSSURDFKLQJ VRPH FURVVLQJV
where trains do not sound horns should be
LGHQWLÀHG E\ VLJQV 1RLVH LQ
DOVR SUHYHQW \RX IURP KHDUL
WKH WUDLQ LV GDQJHURXV\ FO

Don't Rely on Signals: <RX VKRXOG QRW U
upon the presence of warning signals, gates,
RU ÀDJPHQ WR ZDUQ RI WKH D
Be especially alert at crossings that do not
KDYH JDWHV RU ÀDVKLQJ UHG O

Double Tracks Require a Double Check:
5HPHPEHU WKDW D WUDLQ RQ R
WUDLQ RQ WKH RWKHU WUDFN
FURVVLQJ $IWHU RQH WUDLQ K

be sure no other trains are near before starting across the tracks.

Towns: Urban areas and grade crossings in cities and towns are just as dangerous as rural grade crossings. Approach them with as much caution.

2.15.4 Stopping Safely at Railroad-highway Crossings

A full stop is required at grade crossings whenever:

- The nature of the cargo may damage, destroy, or render dangerous mandatory regulations
- Such a stop is otherwise required by law or regulations

When stopping be sure to:

- Check for traffic behind you so you can signal gradually. Use a pullout lane if there is one.
- Turn off radio, your interphone, and other noise so you can hear the train.

2.15.5 Crossing the Tracks

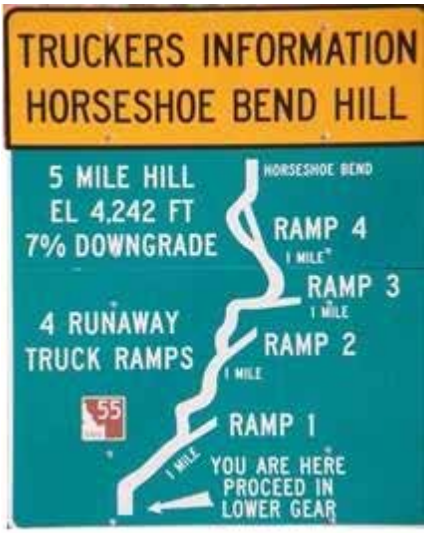
Railroad crossings with steep approaches can cause your unit to scrape or bottom out. Never attempt to shift gears while crossing railroad tracks. This is not only unsafe; it is illegal and can result in the loss of your CDL.

2.15.6 Special Situations

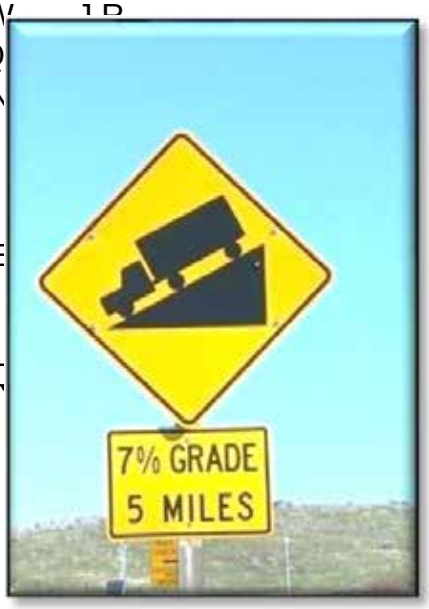
Be extra careful at railroad crossings in cities and towns. Urban areas and grade crossings in cities and towns are just as dangerous as rural grade crossings. Approach them with as much caution.

A full stop is required at grade crossings whenever:

- Law requires you to stop
- You are driving a vehicle carrying passengers for hire
- You are driving a vehicle carrying hazardous materials requiring placarding



<RX PXVW 1R
VORZO\ HQ
\RXU EUDN
KROG \RX
without getting
WRR KRW
EUDNHV E
WRR KRW
VWDUW W
7KLV PHDQ
KDYH WR
them harder and
harder to get the
same stopping
SRZHU ,I
continue to use
WKH EUDNHV KDUG WKH\ FDQ
FDQQRW VORZ GRZQ RU VWRS D



2.16.1 Select a “Safe” Speed

<RXU PRVW LPSRUWDQW FRQVLGHUDWLRQ LV WR VHOHFW D
speed that is not too fast for the:

- Total weight of the vehicle and cargo
- Length of the grade
- Steepness of the grade
- 5RDG FRQGLWLRQV
- Weather

If a speed limit is posted, or there is a sign indicating “Maximum Safe Speed,” never exceed the speed shown. Also, look for and heed warning signs indicating the length and steepness of the grade.

<RX PXVW XVH WKH EUDNLQJ H‡
WKH SULQFLSDO ZD\ RI FRQWUR
EUDNLQJ H‡HFW RI WKH HQJLQH
near the governed rpms and the transmission is
LQ WKH ORZHU JHDUV 6DYH \RX
EH DEOH WR VORZ RU VWRS DV
WUDˆF FRQGLWLRQV

2.16.2 Select the Right Gear before Starting Down the Grade

Shift the transmission to a low gear before
VWDUWLQJ GRZQ WKH JUDGH 'R
DIWHU \RXU VSHHG KDV DOUHD
QRW EH DEOH WR VKLIW LQWR
QRW HYHQ EH DEOH WR JHW ED
DOO HQJLQH EUDNLQJ H‡HFW ZL
automatic transmission into a lower gear at high speed could damage the transmission and also
OHDG WR ORVV RI DOO HQJLQH

:LWK ROGHU WUXFNV D UXOH I
WR XVH WKH VDPH JHDU JRLQJ
ZRXOG QHHG WR FOLPE WKH KLO
have low friction parts and streamlined shapes
IRU IXHO HFRQRP\ 7KH\ PD\ D
SRZHUIXO HQJLQHV 7KLV PHDQ
hills in higher gears and have less friction and air
GUDJ WR KROG WKHP EDFN JRLQ

For that reason, drivers of modern trucks may have to use lower gears going down a hill than would be required to go up the KLO<RXVKRXOGGRZKDLWUJKRW your vehicle.

2.16.3 Brake Fading or Failure

%UDNHV DUH GHVLJQHG VR EUD
UXE DJDLQVW WKH EUDNH GUXP
YHKLFOH %UDNLQJ FUHDWHV K
GHVLJQHG WR WDNH D ORW RI K
FDQ IDGH RU IDLO IURP H[FHV
E\ XVLQJ WKHP WRR PXFK DQG
HQJLQH EUDNLQJ H‡HFW

%UDNH IDGH LV DOVR D‡HFWHG
VDIHO\ FRQWURO D YHKLFOH HY
VKDUH RI WKH ZRUN %UDNHV R
stop doing their share before those that are in
DGMXVWPHQW 7KH RWKHU EUDN

DQG IDGH DQG WKHUH ZLOO QRW EH HQRXJK EUDNLQJ \RXU FK
DYDLODEOH WR FRQWURO WKH YHKLFOH FUDVK PD\ EH PXFK JU

%UDNHV FDQ JHW RXW RI DGMXVWPHQW TXLFNO\ HVSHFLDOO\ ZKHQ WKH\ DUH XVHG D ORW 6LQFH VKRZ GULYHUV OLQLQJV ZHDU IDVWHU ZKHQ WKH\ DUH KRW EUDNH DGMXVWPHQW PXVW EH FKHFNHG IUHTXHQWO\

- QRZ HVFDSH UDPS ORFDWLRQ
- URXWH 6LJQV VKRZ GULYHUV ORFDWHG D ORW DOVR EUDNH
- (VFDSH UDPSV VDYH OLYHV I FDUJR

2.16.4 Proper Braking Technique

5HPHPEHU 7KH XVH RI EUDNHV RU VWHHS GRZQJUDGH LV RQO EUDNLQJ H‡HFW RI WKH HQJLQ
is in the proper low gear, the following are the SURSHU EUDNLQJ WHFKQLTXHV

$SSO\ WKH EUDNHV MXVW K D GH¿QLWH VORZGRZQ

:KHQ \RXU VSHHG KDV EHHC DSSUR[LPDWHO\ ¿YH PSK EHO VSHHG UHOHDVH WKH EUDNH
application should last for about three VHFRQGV

:KHQ \RXU VSHHG KDV LQFUHDVHG WR \RXU ³VDIH´ VSHHG UHSHDW VWHSV DQG

)RU H[DPSOH LI \RXU ³VDIH´ VSHHG LV PSK \RX ZRXOG QRW DSSO\ WKH EUDNHV XQWLO \RXU SHHG UHDFKHV PSK <RX QRZ DSSO\ WKH EUDNHV KDG HQRXJK WR JUDGXDOO\ UHGXFH VSHHG WR PSK DQG WKHQ UHOHDVH WKH EUDNHV 5HSHDW WKLV DV RIWHQ DV QHFHVVDU\ XQWLO \RX KDYH UHDFKHG WKH HQG RI WKH GRZQJUDGH

Escape ramps: 7KH\ KDYH EHHQ EXLOW RQ PDQ\ VWHHS PRXQWDLQ GRZQJUDGHV PDGH WR VWRS UXQDZD\ YHKLFOHV VDIHO\ ZLWKRXW LQMXULQJ GULYHUV DQG SDVVHQJHUV 7KH\ XVH D ORQJ EHG RI ORRVH VRIW PDWHULDO WR VORZ D UXQDZD\ YHKLFOH VR PHWLPHV LQ FRPELQDWLRQ ZLWK DQ XSJUDGH

Any driver who loses brakes going downhill should use an escape ramp if LW¶V DYDLODEOH DKHDG RI \RX 5HPHPEHU IRU XVLQJ DQ HVFDSH UDPS

Subsections 2.15 and 2.16

7HVW <RXU .QRZOHGJH

1. What factors determine your selection of a “safe” speed when going down a long, steep downgrade?
2. Why should you be in the proper gear before starting down a hill?
3. Describe the proper braking technique when going down a long, steep downgrade.
4. What type of vehicles can get stuck on a railroad-highway crossing?
5. How long does it take for a typical tractor- trailer unit to clear a double track?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH 2.15 and 2.16.

2.17 DRIVING EMERGENCIES

7UDˆF HPHUJHQFLHV RFFXU ZKHQ WZR YHKLFOHV DUH DERXW WR FROOLGH 9HKLFOH PRYHPHQWV RFFXU ZKHQ WLUHV EUDNHV RU RWKHU FULWLFDO SDUWV IDLO)ROORZLQJ WKH VDIHW\ SUDFWLFHV LQ WKLV PDQXDO FDQ KHOS SUHYHQW HPHUJHQFLHV %XW LI DQ HPHUJHQF\ GRHV KDSSHQ \RXU FKDQFHV RI DYRLGLQJ D FUDVK GHSHQG XSRQ KRZ ZHOO \RX WDNH DFWLRQ $FWLRQV \RX FDQ WDNH DUH GLVFXVVHG EHORZ

2.17.1 Steering to Avoid a Crash

6WRSSLQJ LV QRW DOZD\V WKH VDIHVW WKLQJ WR GR LQ DQ HPHUJHQF\ :KHQ \RX GRQ¶W KDYH HQRXJK URDG WR VWRS \RX PD\ KDYH WR VWHHU DZD\ IURP ZKDW¶V DKHDG 5HPHPEHU \RX FDQ DOVR WXUQ WR PLVV DQ REVWDFOH ZKLOH EUDNLQJ WR VWRS +RZHYHU WRS KHDY\ YHKLFOHV DQG WUDLOHUV ZLWK PXOWLSOH WUDLOHUV PD\ ÀLS RYHU

Keep Both Hands on the Steering Wheel: In RUGHU WR WXUQ TXLFNO\ \RX PXVW KDYH D ¿UP JULS RQ WKH VWHHULQJ ZKHHO ZLWK ERWK KDQGV 7KH EHVW ZD\ WR KDYH ERWK KDQGV RQ WKH ZKHHO LV DQ HPHUJHQF\ LV WR NHHS WKHP WKHUH DOO WKH WLPH

How to Turn Quickly and Safely: $ TXLFN WXUQ FDQ EH PDGH VDIHO\ LI LW¶V JRQH WKH ULJKW ZD\

Here are some points that safe drivers use:

- 'R QRW DSSO\ WKH EUDNH ZKLOH \RX DUH WXUQLQJ ,W¶V YHU\ HDV\ WR ORFN \RXU ZKHHOV ZKLOH WXUQLQJ ,I WKDW KDSSHQV \RX¶OO ORVH FRQWURO VNLG RXW RI FRQWURO
- 'R QRW WXUQ DQ\ PRUH WKDQ QHHGHG WR FOHDU ZKDWHYHU LV LQ \RXU ZD\ 7KH PRUH VKDUSO\ \RX WXUQ WKH JUHDWHU WKH FKDQFHV RI D VNLG RU UROORYHU
- %H SUHSDUHG WR ³FRXQWHU VWHHU´ WKDW RQ LWV WXUQ WKH ZKHHO EDFN LQ WKH RWKHU GLUHFWLRQ DQG FKH RQFH \RX¶YH SDVVHG ZKDWHYHU REVWDFOH \RX¶UH WU\LQJ HQRXJK <RX VKRXOG WKLQN RI HPHUJHQF\ VWHHULQJ DQG FRXQWHU VWHHULQJ DV RQH GULYLQJ DFWLRQ

Where to Steer: If an oncoming driver has drifted LQWR \RXU ODQH D PRYH WR \R GULYHU UHDOL]HV ZKDW KDV KD UHVSRQVH ZLOO EH WR UHWXUQ

- ,I VRPHWKLQJ LV EORFNLQJ \ best direction to steer will depend on the VLWXDWLRQ
- ,I \RX KDYH EHHQ XVLQJ \RXU NQRZ ZKLFK ODQH LV HPSW\ VDIHO\ XVHG
- ,I WKH VKRXOGHU LV FOHDU EHVW 1R RQH LV OLNHO\ WR VKRXOGHU EXW VRPHRQH PD\ RYHUWDNH RU ZKDW¶V XVLQJ \RXU FLUFXLW
- ,I \RX DUH EORFNHG RQ ERWK WR WKH OHIW PD\ EH EHVW DQG RSSR

Leaving the Road: ,Q VRPH HPHUJHQFL PD\ KDYH WR GULYH R WKH UR ULJKW WKDQG DFFLGHQW 7KH EHVW

Most shoulders are strong enough to support the weight of a large vehicle and, therefore, R†HU DQ DYDLODEOH HVFDSH U JXDUDQWHHV LI \RX GR OHDYH W RQFH WKH ULJKW ZD\

- Avoid Braking. If possible, avoid using WKH EUDNHV XQWLO \RX VS DERXW PSK 7KHQ EUDNH Y DYRLGVNLGGLQJ RQ D ORRVH
- Keep One Set of Wheels on the Pavement, if Possible. This helps to PDLQWDLQ FRQWURO
- Stay on the Shoulder. If the shoulder is WRR ORZ WKDW RX LWRXQWLO \ WXUQ WKH ZKHHO EDFN LQ WKH RWKHU GLUHFWLRQ DQG FKH RQFH \RX¶YH SDVVHG ZKDWHYHU REVWDFOH \RX¶UH WU\LQJ EDFN RQWR SDWK 8QOHVV \RX DUH SUHSDUHG WR FRXQWHU VWHHU \RX ZRQ¶W EH DEOH WR UHWXUQ WR WKH URDG ,I \RX DUH IRUFH HQRXJK <RX VKRXOG WKLQN RI HPHUJHQF\ VWHHULQJ DQG FRXQWHU VWHHULQJ DV RQH GULYLQJ DFWLRQ

Returning to the Road: ,I \RX DUH IRUF UHWXUQ WR WKH URDG EHIRUH IROORZLQJ SURFHGXUH: WZR SDUWV

- +ROG WKH ZKHHO WLJKWO\ D HQRXJK WR JHW ULJKW EDFN VDIHO\

- 'RQ¶W WU\ WR HGJH JUDGXDO\ %UDNH RQ WKH RQ ORQJ KLOOV URDG ,I \RX GR \RXU WLUHV PLJKW JUDE XQH[SHFWHGO\ DQG \RX FRXOG ORVH FRQWURO

- When both front tires are on the paved VXUIDFH FRXQWHU VWHHU LPPHGLDWHO\ 7KH two turns should be made as a single ³VWHHU FRXQWHU VWHHU´ PRWLRQ

Loss of Hydraulic Pressure: ZKHQ WKH V\V ZRQ¶W EXLOG XS SUHVVXUH WK VSRQJ\ RU JR WR WKH ÀRRU +H \RX FDQ GR

Downshift: Putting the vehicle into a lower gear ZLOO KHOS WR VORZ WKH YHKLF

Pump the Brakes: Sometimes pumping the EUDNH SHGDO ZLOO JHQHUDWH \RX SUHVVXUH WR VWRS WKH YHKLF

Use the Parking Brake: 7KH SDUNLQJ RU HP EUDNH LV VHSDUDWH IURP WKH K 7KHUHIRUH LW FDQ EH XVHG W However, be sure to press the release button or SXOO WKH UHOHDVH OHYHU DW WKH ERWWRP WKH HPHUJHQF\ EUDNH VR \RX FD SUHVVXUH DQG NHHS WKH ZKHHO

Find an Escape Route: While slowing the YHKLFOH ORRN IRU DQ HVFDSH VLGHVWUHHW RU HVFDSH UDP JRRG ZD\ WR VORZ DQG VWRS VXUH WKH YHKLFOH GRHV QRW DIWHU \RX VWRS 3XW LW LQ SDUNLQJ EUDNH DQG LI QHFH VRPHRQH WR WHOO WKDW ZLOO VW

Brake Failure on Downgrades: *RLQJ VORZ HQRXJK DQG EUDNLQJ SURSHUO SUHYHQW EUDNH IDLOXUH RQ O the brakes have failed, however, you are going to have to look outside your vehicle for something to stop it.

2.17.2 How to Stop Quickly and Safely

,I VRPHERG\ VXGGHQO\ SXOOV RXW LQ IURQW RI \RX \RXU QDWXUDO UHVSRQVH LV WR KLW WKH EUDNHV 7KLV is a good response if there's enough distance to VWRS DQG \RX XVH WKH EUDNHV FRUUHFWO\

<RX VKRXOG EUDNH LQ D ZD\ WKDW ZLOO NHHS \RXU YHKLFOH LQ D VWUDLJKW OLQH DQG DOORZ \RX WR VWHHU EHFRPHV QHFHVVDU\ <RX FDQ XVH WKH ³FRQWURO´ EUDNLQJ´ PHWKRG RU WKH ³VWDE EUDNLQJ´ PHWKRG

Controlled Braking: :LWK WKLV PHWKRG \RX DSSO\ WKH EUDNHV DV KDUG DV \RX FDQ ZLWKRXW ORFNLQJ WKH ZKHHOV .HHS VWHHULQJ ZKHHO PRYHPHQWV VPDOO ZKLOH GRLQJ WKLV ,I \RX QHHG WR PDNH D JRRG ZD\ WR VORZ DQG VWRS ODUJHU VWHHULQJ DGMXVWPHQWV RU LI WKH ZKHHOV ORFN UHOHDVH WKH EUDNHV 5H DSSO\ WKH EUDNHV DV VRRQ DV \RX FDQ

Stab Braking: :LWK WKLV PHWKRG \RX DSSO\ \RXU EUDNHV DOO WKH ZD\ DQG UHOHDVH EUDNHV ZKHQ ZKHHOV ORFN XS $V VRRQ DV WKH ZKHHOV VWDUW UROOLQJ DSSO\ WKH EUDNHV IXOO DJDLQ ,W FDQ WDNH up to one second for the wheels to start rolling DIWHU \RX UHOHDVH WKH EUDNHV ,I \RX UH DSSO\ WKH EUDNHV EHIRUH WKH ZKHHOV VWDUW UROOLQJ WKH YHKLFOH ZRQ¶W VWUDLJKWHQ RXW

Don't "Jam on the brakes": (PHUJHQF\ EUDNLQJ GRHV QRW PHDQ SXVKLQJ GRZQ DV KDUG DV \RX FDQ 7KDW ZLOO RQO\ NHHS WKH ZKHHOV ORFNHG XS DQG FDXVH DVNLG ,I WKH ZKHHOV DUH VNLGGLQJ \RX FDQQRW FRQWURO WKH YHKLFOH

2.17.3 Brake Failure

%UDNHV NHSW LQ JRRG FRQGLWLRQ UDUHO\ IDLO 0RVW K\GUDXOLF EUDNH IDLOXUHV RFFXU IRU RQH RI WZR reasons:

- /RVV RI K\GUDXOLF SUHVVXUH

GRQ¶W XVH LW \RXU FKDQFHV RI JHWWLQJ SDVW HURVLRQ WKH URDG FUDVK PD\ EH PXFK JUHDWHU

- Check the Tires: $IWHU \RX¶YH FRPH ,I QR HVFDSH UDPS LV DYDLODEOH VWRS DV JHQWO\ DV SRVVLEOH DQG FKHFN D KD]DUGRXV HVFDSH URXWH \RX Feel if the vehicle seems to be handling RSHQ ¿HOG RU D VLGH URDG WKDW À DWWHQW RX RQH XSKLOO 0DNH WKH PRYH DV VRRQ DV \RX NQRZ LW LV \RXU EUDNHV GRQ¶W ZRUN 7KH ORQJHU \RX ZDLW WKH faster the vehicle will go, and the harder it will be WR VWRS

2.17.4 Tire Failure

Recognize Tire Failure: 4XLFNO\ NQRZLQ KDYH D WLUH IDLOXUH ZLOO F WR UHDFW +DYLQJ MXVW D I UHPHPEHU ZKDW LW LV \RX¶UH KHOS \RX 7KH PDMRU VLJQV RI

Sound: 7KH ORXG ³EDQJ´ RI D EORZRXW LV DQ HDVLO\ UHFRJQL]HG VLJQ %HFDXVH LW FDQ WDNH D IHZ VHFRQGV IRU \RXU YHKLFOH WR UHDFW \RX PLJKW WKLQN LW ZDV VRPH RWKHU YHKLFOH $%6 LV \RXU IULHQG 6XUH LW ZLOO NHHS \RX RXW RI WURXEOH EXW LW ZRQ¶W KHOS \RX GULYH EHWWHU RU VWRS IDVWHU

Vibration: If the vehicle thumps or vibrates KHDYLO\ LW PD\ EH D VLJQ WKDW \RXU JRQH ÀDW :LWK D UHDU WLUH QRW DV VHULRXV DV D IURQW WLUH EXW VWLOO FDXVH IRU FRQFHUQ 7KH ORQJHU \RX GULYH RQ WKH IODW WLUH WKH PRUH GDPDJH LW ZLOO VXVWDLQ DQG WKH PRUH H[SHQVLYH LW ZLOO EH WR UHSDLU

Feel: ,I WKH VWHHULQJ IHHOV ³KHDY\ LW LV SRVVLEOH D VLJQ WKDW RQH RI WKH IURQW Sometimes, failure of a rear tire will cause WKH YHKLFOH WR VOLGH EDFN DQG IRUWK RU ³¿VKWDLO´ +RZHYHU GXDO UHDU WLUHV XVXDOO\ SUHYHQW WKLV

Respond to Tire Failure: :KHQ D WLUH IDLOV \RXU YHKLFOH LV LQ GDQJHU <RX PXVW LPPHGLDWHO\

- Hold the Steering Wheel Firmly: If a front tire fails, it can twist the steering wheel out RI \RXU KDQG 7KH RQO\ ZD\ WR SUHYHQW WKLV LV WR NHHS D ¿UP JULS RQ WKH VWHHULQJ ZKHHO ZLWK ERWK KDQGV DW DOO WLPHV $ EORZRXW FDXVH GDPDJH WR \RXU YHKLFOH DV ZHOO
- 6WD\ R‡ WKH %UDNH It's natural to want to EUDNH LQ DQ HPHUJHQF\ +RZHYHU EUDNLQJ when a tire has failed could cause loss RI FRQWURO 8QOHVV \RX¶UH H[WUHPHO\ VRPHWKLQJ VWD\ R‡ WKH EUDNHV XQWLO WKH YHKLFOH KDV VORZHG GRZQ 7KHQ EUDNH YHU\

2.18 ANTILOCK BRAKING 6<67(06

%XW DV \RX¶UH SUREDEO\ DZDUH V\VWHPV RU $%6 LV DQ DFURQ\P IRU DQWLORFN DSSOLFDWLRQV

2.18.1 How Antilock Braking Systems Work

6HQVRUV GHWHFW SRWHQWLDO HFRQWURO XQLW (EUDNH SUHVVXUH WR DYRLG ZKH

%UDNH SUHVVXUH LV DGMXVW PDLQWDLQLQJ ZLWKRXW GDQ WR SUHYHQW WKLV $%6 ZRUNV IDU IDVWHU WKDQ W WR SRZHUIXO ORFNXS EUDNH V\VWHP ZLOO RSHUDWH

2.18.2 Vehicles Required to Have Antilock Braking Systems

7KH HPSDUWPHQW LQIRUPDQVSRU $%6 EH XQWLO WKH

- 7UXFN WUDFWRUV ZLWK DLU EUDNH VVWHP DIWHU 0DUFK
- 2WKHU DLU EUDNH YHKLFOHV (WUXFNV WUDFWRUV EXVHV WUDLOHUV DQG GROOLHV EXLOW RQ RU DIWHU 0DUFK
- +\GUDXOLFDOO\ EUDNHG WUXFNV EXVHV WUDLOHUV DQG GROOLHV ZLWK D JURVV YHKLFOH ZHLJKW UDWLQJ *9:5 RI SRXQGV RU PRUH EXLOW RQ RU DIWHU 0DUFK

0DQ\ FRPPHUFLDO YHKLFOHV EXLOW EHIRUH WKHVH GDWHV KDYH EHHQ YROXQWDULO\ HTXLSSHG ZLWK $%6

+RZZRQRZ,<RXYHKLFOHTXLSSHG with ABS

7UDFWRUV WUXFNV EXV KDYH \HOORZ $%6 PD RQ WKH LQVWUXPHQW

In the case of towed units manufactured EHIRUH LW ZDV UHTXLUHG E\ W 7UDQVSRUWDWLRQ LW PD\ EH G LV HTXLSSHG ZLWK $%6 /RRN XQ WKH (&8 DQG ZKHHO VSHHG VHQ IURP WKH EDFN RI WKH EUDNHV

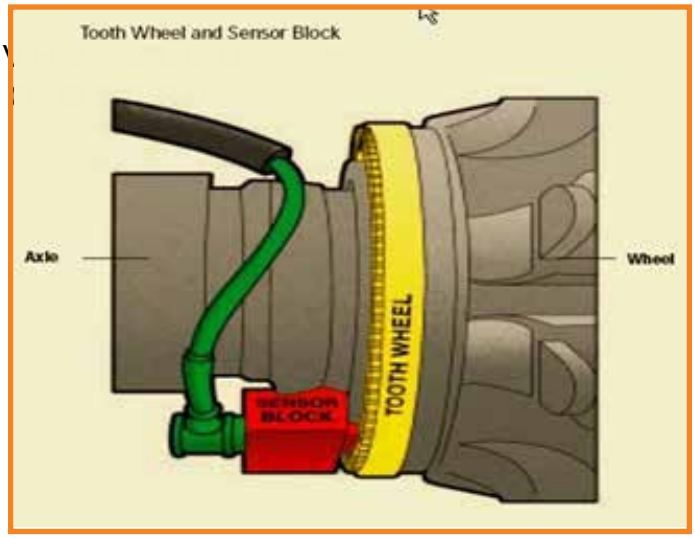
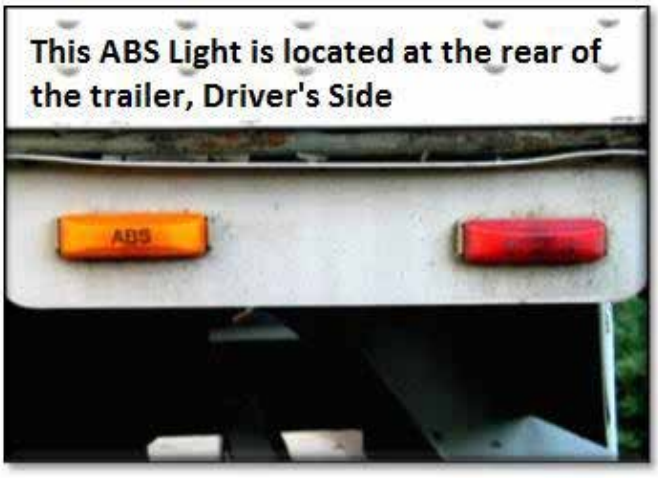


Figure 2.19 Tooth Wheel and Sensor Block

+RZ$%6 +HOSV

7UDLOHUV ZLOO KDYH \HOORZ $%6 PDUNLQJV RQ VOLS RQ WKH OHIW VLGH HLWKHU RQ WKH UHDU RU WKH IURQW RI WKH :KHQ \RXU VWHHULQJ ZKHHOV VWHHULQJ FRQWURO :KHQ \RXU \RX PD\ VNLG MDFNNQLIH RU H



$%6 KHOSV \RX DYRLG ZKHHO OF FRQWURO <RX PD\ RU PD\ QRW IDVWHU ZLWK $%6 EXW \RX VKR DURXQG DQ REVWDFOH ZKLOH VNLGV FDXVHG E\ RYHU EUDNLQ

2.18.5 ABS Only on the Tractor, or the Trailer

+DYLQJ $%6 RQ RQO\ WKH WUDF RU HYHQ RQ RQO\ RQH D[OH V FRQWURO RYHU WKH YHKLFOH

'ROOLHV PDQXIDFWXUHG RQ RU DIWHU 0DUFK DUH UHTXLUHG WR KDYH D ODPS RQ WKH OHIW VLGH RQ DOO\

:KHQ RQO\ WKH WUDFWRU KDV 2QH %UDNH Safety Reminders
able to maintain steering control, and there is
OHVV FKDQFH RI MDFNNQL¿QJ %XW NHHS \RXU H\H RQ
WKH WUDLOHU DQG OHW XS RQ WKH EUDNHV WR LGHQWLI\ DQ
VDIHO\ GR VR LI LW EHJLQV WR VZLQJ RXW RU GULYH OHVV FD

:KHQ RQO\ WKH WUDLOHU KDV $%6 3UHVV WKH EUDNH SHGDO DV KDUG
OLNHO\ WR VZLQJ RXW EXW LI \RX SUHVV WKH EUDNH SHGDO
RU VWDUW D WUDFWRU MDFNNQLIH EXW XS RQ WKH EUDNHV V
LI \RX FDQ VDIHO\ GR VR XQWLO GRX UHDLQ FRQWURO
QHFHVVDULO\ VKRUWHQ VWRS

2.18.6 Braking with ABS

:KHQ \RX GULYH D YHKLFOH ZLWK $%6 \RX VKRXOG
EUDNH DV \RX DOZD\V KDYH ,Q RWKHU ZRUGV

- 8VH RQO\ WKH EUDNLQJ IRUFH QHFHVVDU\ WR
  VWRS VDIHO\ DQG VWD\ LQ FRQWURO
- %UDNH WKH VDPH ZD\ UHJDUGOHVV RI
  ZKHWKHU \RX KDYH $%6 RQ WKH EXV WUDFWRU
  WKH WUDLOHU RU ERWK
- $V \RX VORZ GRZQ PRQLWRU \RXU WUDFWRU
  DQG WUDLOHU DQG EDFN R‡ WKH EUDNHV LI LW LV
  VDIH WR GR VR WR VWD\ LQ FRQWURO

7KHUH LV RQO\ RQH H[FHSWLRQ WR WKLV SURFHGXUH
,I \RX GULYH D VWUDLJKW WUXFN RU FRPELQDWLRQ ZLWK
ZRUNLQJ $%6 RQ DOO D[OHV LQ DQ HPHUJHQF\ VWRS
\RX FDQ IXOO\ DSSO\ WKH EUDNHV

2.18.7 Braking If ABS Is Not Working

Without ABS, you still have normal brake functions. Drive and brake as you always have.

9HKLFOHV ZLWK $%6 KDYH \HOORZ PDLQWHQDQFH ODPSV
WR WHOO \RX LI VRPHWKLQJ LVQ¶W ZRUNLQJ

$V D V\VWHP FKHFN RQ QHZHU YHKLFOHV WKH
PDOIXQFWLRQ ODPS FRPHV RQ DW VWDUW XS IRU D
EXOE FKHFN DQG WKHQ JRHV RXW LI WKH ODPS FRXOG VWD\
V\VWHPV WKH ODPS FRXOG VWD\ RQ XQWLO \RX DUH
GULYLQJ RYHU ¿YH PSK

,I WKH ODPS VWD\V RQ DIWHU WKH EXOE FKHFN RU LI LW
RQ RQFH \RX DUH XQGHU ZD\ \RX FD\ KDYH ORVW
$%6 FRQWURO RQ RQH RU PRUH ZKHHOV

5HPHPEHU LI \RXU $%6 PDOIXQFWLRQV \RX VWLOO
KDYH UHJXODU EUDNHV 'ULYH QRUPDOO\ EXW JHW WKH
V\VWHP VHUYLFHG VRRQ

2.18.8 Safety Reminders

ABS Will NOT:

- 3UHYHQW WUDFWRU RU WUXQLQJ
  SUHYHQW EUDNH GHQGLQJ
  EXW RQO\ WKH GULYHU FDQ
  GULYH ZKHQ DQG RW JRQ WRR
  QHFHVVDULO\ VKRUWHQ VWRS
  will help maintain vehicle control, but not
  DOZD\V VKRUWHQ VWRSSLQJ
  increase or decrease ultimate stopping
  SRZHU $%6 LV DQ ³DGG RQ´ V
  EUDNHV QRW D UHSODFHPHQ
- &KDQJH WKH ZD\ \RX QRUPDO
  QRUPDO EUDNH FRQGLWLRQV
  VWRS DV LW DOZD\V VWRSSHG
  LQWR SOD\ ZKHQ D ZKHHO ZR
  KDYH ORFNHG XS EHFDXVH RI
- &RPSHQVDWH IRU EDG EUDNH
  PDLQWHQDQFH

Remember: The best vehicle safety feature is still a safe driver.

- 'ULYH VR \RX QHYHU QHHG W
- ,I \RX QHHG LW $%6 FRXOG K
  VHULRXV FUDVK

2.19 SKID CONTROL AND 6(&21(5

$ VNLG KDSSHQV ZKHQHYHU WKH
RQ WKH URDG WKH LV FDXVHG
- Over-braking: %UDNLQJ WRR KDUG
  ORFNLQJ XS WKH ZKHHOV 6N
  occur when using the speed retarder when
  WKH URDG LV VOLSSHU\
- Over-steering: Turning the wheels more
  VKDUSO\ WKDQ WKH YHKLFOH
- Over-acceleration: 6XSSO\LQJ WRR F
  power to the drive wheels, causing them to
  VSLQ
- Driving Too Fast: 0RVW VHULRXV VN
  result from driving too fast for road

FRQGLWLRQV 'ULYHUV ZKR EHFRPH DZDUH WKDW WKHLU GULYLQJ LV
WR WKH FRQGLWLRQV GRQ¶W GULYH ZKHHOV RFFDVLRQDOO\ %HFDXVH
DQG GRQ¶W KDYH WR RYHU less traction than riding wheels, the rear wheels
IURP WRR PXFK VSHHG XVXDOO\ VLGHZD\V LQ DQ
ZLWK WKH IURQW ZKHHOV ,Q D
WKH YHKLFOH ZLOO VLGH VLGH
YHKLFOHV WR ZLQG WUDLOHUV
QHW WKH WUDLOHU SXVKHV WKH W
FDXVLQJ D VXGGHQ GHIOHFWLRQ
6NLGV PD\ EH ZLGH RU QDUURZ
DFFHOHUDWLRQ XVXDOO\ KDSSHQ RQ LFH RU VQRZ
7DNLQJ \RXU IRRW R‡ WKH DFFHOHUDWRU FDQ HDVLO\
VWRS WKHP ,I LW LV YHU\ VOLSSHU\ SXVK WKH FOXWFK
LQ 2WKHUZLVH WKH HQJLQH FDQ NHHS WKH ZKHHOV
IURP UROOLQJ IUHHO\ DQG UHJDLQLQJ WUDFWLRQ

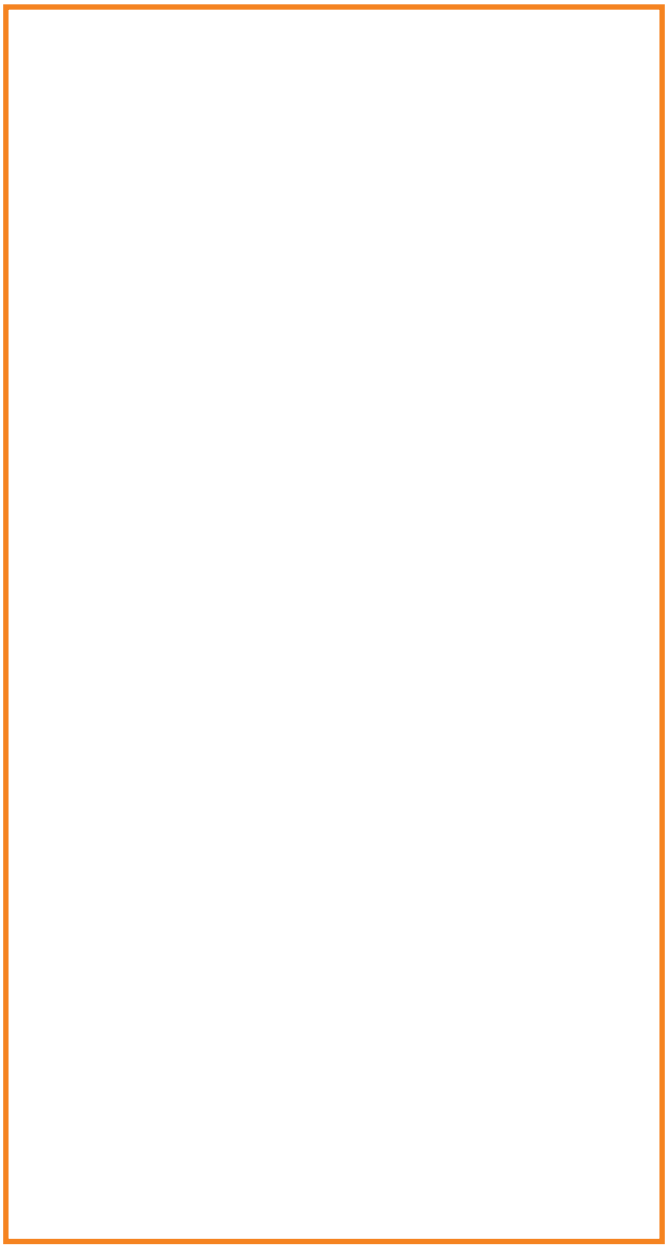


Figure 2.20 Tractor Jackknife

2.19.1 Drive-Wheel Skids

%\ IDU WKH PRVW FRPPRQ VNLG LV RQH LQ ZKLFK
WKH UHDU ZKHHOV ORVH WUDFWLRQ WKURXJK H[FHVVLYH
EUDNLQJ RU DFFHOHUDWLRQ 6NLGV PD[VHG\ DQG
DFFHOHUDWLRQ XVXDOO\ KDSSHQ RQ LFH RU VQRZ
7DNLQJ \RXU IRRW R‡ WKH DFFHOHUDWRU FDQ HDVLO\
VWRS WKHP ,I LW LV YHU\ VOLSSHU\ SXVK WKH FOXWFK
LQ 2WKHUZLVH WKH HQJLQH FDQ NHHS WKH ZKHHOV
IURP UROOLQJ IUHHO\ DQG UHJDLQLQJ WUDFWLRQ

- Stop Braking: This will let the rear wheels UROO DJDLQ DQG NHHS WKH VOLGLQJ
- Counter-steer: $V D YHKLFOH WXUQ RQ FRXUVH LW KDV D WHQGH RQ WXUQLQJ 8QOHVV \RX WX ZKHHO TXLFNO\ WKH RWKHU \RXUVHOI VNLGGLQJ LQ WKH

/HDUQLQJ WR VWD\ R‡ WKH EUD ZKHHO TXLFNO\ SXVK LQ WKH F VWHHU LQ D VNLG WDNHV D OR place to get this practice is on a large driving UDQJH RU ³VNLG SDG ´

2.19.2 Correcting a Drive-Wheel Braking Skid

R WKH IROORZLQJ WR FRUUHFW VNLG

2.19.3 Front-Wheel Skids

Driving too fast for the road conditions causes PRVW IURQW ZKHHO VNLGV 2W ODFN RI WUHDG RQ WKH IURQW VR QRW HQRXJK ZHLJKW LV RQ IURQW ZKHHO VNLG WKH IURQW VWUDLJKW OLQH UHJDUGOHVV R VWHHULQJ ZKHHO 2Q D YHU\ VO PD\ QRW EH DEOH WR VWHHU DU

:KHQ D IURQW ZKHHO VNLG RFFX VWRS WKH VNLG LV WR OHW WKH WXUQLQJ DQG RU EUDNLQJ VR TXLFNO\ DV SRVVLEOH ZLWKRXW

Subsections 2.17, 2.18, and 2.19
7HVW <RXU .QRZOHGJH

1. Stopping is not always the safest thing to do in an emergency. True or False?

2. What are some advantages of going right instead of left around an obstacle?

3. What is an “escape ramp?”

4. If a tire blows out, you should put the brakes on hard to stop quickly. True or False?

5. How do you know if your vehicle has antilock brakes?

6. What is the proper braking technique when driving a vehicle with antilock brakes?

7. How do antilock brakes help you?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH UHDG VXEVHFWLRQ 2.17, 2.18, and 2.19.

2.20 ACCIDENT PROCEDURES

:KHQ \RX¶UH LQ DQ DFFLGHQW •DQG QRW VHULRXVO\ KXUW \RX QHHG WR DFW WR SUHYHQW IXUWKHU GDPDJH RU LQMXU\ The basic steps to be taken at any accident are to:

1. Protect the area.
2. Notify authorities.
3. Care for the injured.

2.20.1 Protect the Area

7KH ¿UVW WKLQJ WR GR DW DQ DFFLGHQW VFHQH LV WR NHHS DQRWKHU DFFLGHQW IURP KDSSHQLQJ LQ WKH VDPH VSRW 7R SURWHFW WKH DFFLGHQW DUHD

- ,I \RXU YHKLFOH LV LQYROYHG LQ WKH DFFLGHQW WU\ WR JHW LW WR WKH VLGH RI WKH URDG help prevent another accident and allow WUDˆF WR PRYH
- ,I \RX¶UH VWRSSLQJ WR KHOS WKH DFFLGHQW 7KH DUHD LP WKH DFFLGHQW ZLOO EH QHH YHKLFOHV
- 3XW RQ \RXU ÀDVKHUV
- 6HW RXW UHÀHFWLYH WULDQ WUDˆF 0DNH VXUH RWKHU GU WKHP LQ WLPH WR DYRLG WK

2.20.2 Notify Authorities

,I \RX KDYH D FHOO SKRQH RU &% EHIRUH \RX JHW RXW RI \RXU Y XQWLO DIWHU WKH DFFLGHQW V protected, then phone or send someone to phone WKH SROLFH 7U\ WR GHWHUPL \RX FDQ JLYH WKH H[DFW ORFDW

2.20.3 Care for the Injured

,I D TXDOL¿HG SHUVRQ LV DW W WKH LQMXUHG VWD\ RXW RI WK DVVLVW 2WKHUZLVH GR WKH E DQ\ LQMXUHG SDUWLHV +HUH D to follow in giving assistance:

- ' RQ¶W PRYH D VHYHUHO\ LQM XQOHVV WKH GDQJHU RI ¿UH PDNHV LW QHFHVVDU\
- 6WRS KHDY\ EOHHGLQJ E\ DS SUHVVXUH WR WKH ZRXQG
- 'RQ¶W JLYH DQ\WKLQJ WR HDW RU GULQN WKH LQMXUHG SHUVRQ

2.21 FIRES

- 7UXFN ¿UHV FDQ FDXVH GDPDJ /HDUQ WKH FDXVHV RI ¿UHV DQ WKHP .QRZ ZKDW WR GR WR H

2.21.1 Causes of Fire

7KH IROORZLQJ DUH VRPH FDXVH

- After Accidents: Spilled fuel, improper XVH RI ÀDUHV
- Tires: 8QGHU LQÀDWHG WLUHV D KDSSHQLQJ LQ WKH WRXFK
- Electrical System: Short circuits due to GDPDJHG LQVXODWLRQ ORRV
- Fuel: 8LYHU VPRNLQJ LPSUR ORRVH IXHO FRQQHFWLRQV
- Cargo:)ODPPDEOH FDUJR LPSU VHDOHG RU ORDGHG FDUJR

2.21.2 Fire Prevention

3D\ DWWHQWLRQ WR WKH IROORZLQJ

- Vehicle Inspection: 0DNH D FRPSOHWH inspection of the electrical, fuel, and H[KDXVW V\VWHPV WLUHV DQG FDUJR VXUH WR FKHFN WKDW WKH FKDUJHG
- Enroute Inspection: &KHFN WKH WLUHV ZKHHOV DQG WUXFN ERG\ IRU VLJQV RI KHDW ZKHQHYHU \RX VWRS GXULQJ DWWHS
- Follow Safety Procedures: Follow correct VDIHW\ SURFHGXUHV IRU IXHOLQJ XVLQJ EUDNHV KDQGOLQJ ÀDUHV DQG RWKHU DFWLYLWLHV WKDW FDQ FDXVH D ¿UH
- Monitoring: &KHFN WKH LQVWUXPHQWV DQG gauges often for signs of overheating and XVH WKH PLUURUV WR ORRN IRU VLJQV RI VPRNH IURP WLUHV RU WKH YHKLFO
- &DXWLRQ 8VH QRUPDO FDX DQ\WKLQJ ÀDPPDEOH

)LUH¿JKWLQJ

.QRZLQJ KRZ WR ¿JKW ¿UHV LV ZKR GLGQ¶W NQRZ ZKDW WR ZRUVH .QRZ KRZ WKH ¿UH H[6WXG\ WKH LQVWUXFWLRQV SU EHIRUH \RX QHHG LW +HUH DU IROORZ LQ FDVH RI D ¿UH

3XOO WKH 5HG 7KH ¿UVW VWHS LV WR JHW WKH YHKLFOH R‡ WKH URDG DQG VWRS ,Q GRLQJ VR

- 3DUN LQ DQ RSHQ DUHD DZD WUHHV EUXVK RWKHU YHKLF WKDW PLJKW FDWFK ¿UH
- 'RQ¶W SXOO LQWR D VHUYLFH
- 1RWLI\ HPHUJHQF\ VHUYLFHV DQG \RXU ORFDWLRQ

Keep the Fire from Spreading: %HIRUH WU\LQ SXW RXW WKH ¿UH PDNH VXUH DQ\ IXUWKHU

Engine Fire: :LWK DQ HQJLQH ¿UH V HQJLQH DV VRRQ DV \RX FDQ 'R LI \RX FDQ DYRLG LW 6KRRW IR ¿UH DWRU RU IURP WKH YHKLF

Cargo Fire in a Van or Box Trailer: For a cargo ¿UH LQ D YDQ RU ER[WUDLOHU HQ SHFLDOO\ LI \RXU FDUJR FR PDWHULDOV 2SHQLQJ WKH YDQ ¿UH ZLWK R[\JHQ DQG FDQ FDX IDVW

Extinguish the Fire: Here are some rules to IROORZ LQ SXWWLQJ RXW D ¿UH

- :KHQ XVLQJ WKH H[WLQJXLVK DZD WKH YHKLFOH DV SRVVL
- $LP DW WKH VRXUFH RU EDVH ¿UH XS LQ WKH ÀDPHV

8VH WKH FRUUHFW ¿UH H[WLQJX

HU

Figures 2.21 and 2.22 (below) H [S O D L Q W K
R I ¿ U H H [W L Q J X L V K H U W R X V H

- 7 K H % & W \ S H ¿ U H H [W L Q J X L V K H U L V G H V L J Q H G W R
Z R U N R Q H O H F W U L F D O ¿ U H V D Q G E X U Q L Q J O L T X L G V
- 7 K H $ % & W \ S H L V G H V L J Q H G W R Z R U N R Q
E X U Q L Q J Z R R G S D S H U D Q G F O R W K D V Z H O O
- Water can be used on wood, paper, or cloth, but don't use water on an electrical ¿ U H F D Q F D X V H V K R F N R U D J D V R O L Q H ¿ U H L W Z L O O V S U H D G W K H À D P H V
- $ E X U Q L Q J W L U H P X V W E H F R R O H G / R W V R O
Z D W H U P D \ E H U H T X L U H G
- , I \ R X ¶ U H Q R W V X U H Z K D W W R X V H I I V S H I F L D O O \
R Q D K D] D U G R X V P D W H U L D O V ¿ U H Z D L W I R U
¿ U H ¿ J K W H U V
- 3 R V L W L R Q \ R X U V H O I X S Z L Q G / H I W W K H Z L O G
F D U U \ W K H H [W L Q J X L V K H U W R W K H ¿ U H

Continue until whatever was burning has been
F R R O H G $ E V H Q F H R I V P R N H R U À D P H G R H V Q R W
P H D Q W K H ¿ U H F D Q Q R W U H V W D U W

Figure 2.21 Class/Type of Fires

Class	Type
A	Wood, Paper, Ordinary & R P E X V W L E O H V Extinguish by Cooling and Quenching Using Water or Dry Chemicals
B	Gasoline, Oil, Grease, Other * U H D V \ / L T X L G V Extinguish by Smothering, Cooling or Heat Shielding using carbon Dioxide or Dry Chemicals
C	Electrical Equipment Fires Extinguish with Non-conducting Agents such as Carbon Dioxide or Dry Chemicals. DO NOT USE WATER.
D	) L U H V L Q & R P E X V W L E O H Extinguish by using Specialized Extinguishing Powders

Figure 2.22 Class of Fire/Type of Extinguisher

Class of Fire	Fire Extinguisher Type
B or C	5 H J X O D U ' U \ & K H P L F D
A, B, C, or D	0 X O W L 3 X U S R V H ' U \ &
D	3 X U S O H . ' U \ & K H P L F
B or C	& / ' U \ & K H P L F D O
D	' U \ 3 R Z G H U 6 S H F L D O Compound
B or C	& D U E R Q ' L R [L G H ' U \
B or C	+ D O R J H Q D W H G $ J H Q
A	Water
A	: D W H U : L W K $ Q W L) U H
A or B	: D W H U / R D G H G 6 W H D
B, Some A	Foam

Subsections 2.20 and 2.21
7 H V W < R X U . Q R Z O H G J

1. What are some things to do at an accident scene to prevent another accident?

1 D P H W Z R F D X V H V R I W L U H

: K D W N L Q G V R I ¿ U H V L V D %
extinguisher not good for?

4. When using your extinguisher, should
\ R X J H W D V F O R V H D V S R V V L E

1 D P H V R P H F D X V H V R I Y H K L

These questions may be on your test. If you
F D Q ¶ W D Q V Z H U W K H P D O O U H
2.20 and 2.21.

2.22 ALCOHOL, OTHER DRUGS, AND DRIVING

2.22.1 Alcohol and Driving

'ULQNLQJ DOFRKRO DQG WKH GDQJHURXV DQG D VHULRXV SUREOHP LQ GULQN DOFRKRO DUH LQYROYHG LQ WUDˆF DFFLGHQWV UHVXOWLQJ LQ RYHU

Alcohol impairs muscle coordination, reaction WLPH GHSWK SHUFHSWLRQ DQG QLJKW YLVLRQ , W DO‡HFWV WKH SDUWV RI WKH EUDLQ WKDW FRQWURO MXGJPHQW DQG LQKLELWLRQ)RU VRPH SHRSOH RQH GULQN LV DOO LW WDNHV WR VKRZ VLJQV RI LPSDLUPHQW

How Alcohol Works: $OFRKRO JRHV GLUHFWO\ LQWR WKH EORRG VWUHDP DQG LV FDUULHG WR WKH EUDLQ passing through the brain, a small percentage is UHPRYHG LQ XULQH SHUVSLUDWLRQ DQG E\ EUHDWKLQJ ZKLOH WKH UHVW LV FDUULHG WR WKH OLYHU 7KH OLYHU FDQ RQO\ SURFHVV RQH WKLUG DQ RXQFH RI DOFRKRO SHU KRXU ZKLFK LV FRQVLGHUDEO\ OHVV WKDQ WKH DOFRKRO LQ D VWDQGDUG GULQN 7KLV LV D ¿[HG UDWH VR RQO\ WLPH QRW EODFN FR‡HH RU D FROG VKRZHU ZLOO \RX EH DEOH WR \RX XS ,I \RX KDYH GULQNV IDVWHU WKDQ \RXU ERG\ FDQ JHW ULG RI WKHP \RX ZLOO EH PRUH DOFRKROLQ \RXU ERG\ DQG \RXU GULYLQJ ZLOO EH PRUH D‡HFWHG 7KH %ORRG $OFRKRO &RQFHQWUDWLRQ %$& FRPPRQO\ PHDVXUHV WKH DPRXQW RI DOFRKRO LQ \RXU ERG\ See Figure 2.23

$OO RI WKH IROORZLQJ GULQNV FRQWDLQ WKH VDPH amount of alcohol:

- $ RXQFH JODVV RI EHHU
- $ RXQFH JODVV RI ZLQH
- $ RXQFH VKRW RI SURRI OLTXRU

What Determines Blood Alcohol Concentration?

%$& LV GHWHUPLQHG E\ WKH DPRXQW RI DOFRKRO \RX GULQN PRUH DOFRKRO PHDQV KLJKHU %$& KRZ IDVW \RX GULQN IDVWHU GULQNLQJ PHDQV KLJKHU %$& DQG \RXU ZHLJKW D VPDOO SHUVRQ GRHVQ¶W KDYH WR GULQN DV PXFK WR UHDFK WKH VDPH %$&

Alcohol and the Brain: $OFRKRO D‡HFWV PRUH DQG PRUH RI WKH EUDLQ DV %$& ULVHV ¿UVW SDUW RI WKH EUDLQ JHWV D‡HFWHG FRQWURO 2QH RI WKH ¿UVW WKLQJV)LJXUH %ORRG $OFRKRO /HYHO DERXW WKLV LV LW FDQ NHHS GULQNHUV IURP NQRZLQJ WKH\ DUH JHWWLQJ GUXQN

What Is A Drink?

,W LV WKH DOFRKRO LQ GULQN SHUIRUPDQFH ,W GRHVQ¶W PDWWHU WKDW DOFRKRO FRPH IURP EHHUV RU JODVVHV RI ZLQH RU SRXUHG IURP 3HRSOH ZKR GULQN DOFRKRO DUH LQYROYHG LQ WUDˆF DFFLGHQWV 7KLV FKDUW VKRZV $SSUR[LPDWH &RQWHQW DIWHU GULQNLQJ

Drinks	Body Weight in Pounds								Only Safe Driving Limit	Impairment Begins	Driving Skills Significantly Impaired	Criminal Penalties	Legally Intoxicated Criminal Penalties
	100	120	140	160	180	200	220	240					
1	.04	.03	.03	.02	.02	.02	.02	.02					
2	.08	.06	.05	.05	.04	.04	.03	.03					
3	.11	.09	.08	.07	.06	.06	.05	.05					
4	.15	.12	.11	.09	.08	.07	.07	.06					
5	.19	.16	.13	.12	.11	.09	.09	.08					
6	.23	.19	.16	.14	.13	.11	.10	.09					
7	.26	.22	.19	.16	.15	.13	.12	.11					
8	.30	.25	.21	.19	.17	.15	.14	.13					
9	.34	.28	.24	.21	.19	.17	.15	.14					
10	.38	.31	.27	.23	.21	.19	.17	.16					

Subtract .01% for each 40 minutes of drinking. One drink is 1.25 oz of 80 proof liquor, 12 oz of beer, or 5 oz of table wine.

2I FRXUVH JRRG MXGJPHQW DQG VHQVH FRQWURO DUH DEVROXWHO\ QHFHVVDU\ IRU VDJH GULYLQJ

$V %$& FRQWLQXHV WR EXLOG XS PXVFOH FRQWURO LV YLVLRQ DQG FRRUGLQDWLRQ DUH DIIHFWHG PRUH DQG PRUH (‡HFWV RQ GULYLQJ PD\ LQFOXGH

- Straddling lanes
- 4XLFN MHUN\ VWDUWV
- Not signaling, failure to use lights
- 5XQQLQJ VWRS VLJQV DQG UHG OLJKWV
- Improper passing (See Figure 2.24)

7KHVH H‡HFWV PHDQ LQFUHDV
FUDVK DQG FKDQFHV RI ORVLQJ
Accident statistics show that the chance of a crash is much greater for drivers who have been GULQNLQJ WKDQ IRU GULYHUV

+RZ$OFRKROD(FWV'ULYLQJ All drivers ar
D‡HFWHG E\ GULQNLQJ DOFRK
judgment, vision, coordination, and reaction WLPH ,W FDXVHV VHULRXV GUL

- ,QFUHDVHG UHDFWLRQ WLPH
- Driving too fast or too slow
- Driving in the wrong lane
- 5XQQLQJ RYHU WKH FXUE
- Weaving

(‡HFWV 2I ,QFUHDVHG %ORRG $OFRKRO &RQWHQW Content

%ORRG $OFRKRO &RQWHQW LV
LQ RXU EORRG UHFRUGHG LQ
SHUFHQWLOOLOLWHUV RI EORRG
on the amount of blood (which increases with ZHLJKW DQG WKH DPRXQW RI D
RYHU WLPH KRZ IDVW \RX GUL
GULQN WKH KLJKHU \RXU %$&
RQO\ KDQGOH DERXW RQH GULQ
EXLQGV XS LQ \RXU EORRG

BAC	(‡HFWV RQ Body	(‡HFWV RQ Driving Condition
.02	Mellow feeling, slight body warmth	Less inhibited
.05	Noticeable relaxation	Less alert, less self-focused, coordination impairment begins
.08	'H¿QLWH impairment in coordination & judgment	Drunk driving limit, impaired coordination & judgment
.10*	Noisy, possible embarrassing behavior, mood swings	Reduction in reaction time
.15	Impaired balance & movement, clearly drunk	Unable to drive
.30	Many lose consciousness	
.40	Most lose consciousness, some die	
.50	Breathing stops, many die	

BAC of .10 means that 1/10 of 1 % (or 1/1000) of your total blood content is alcohol.

)LJXUH (ú HFWV 2I ,QFUHD
Alcohol Content

2.22.2 Other Drugs

%HVLGHV DOFRKRO RWKHU OHJDO GUXJV WKDW FDQ LPSDLU GULYLQJ DELOLWLHV LQFOXGH PDULMXDQD &%' DQG PHGLFLQHV WKDW FRQWDLQ DQ\ DPRXQW RI DOFRKRO 6HH Figure 2.24 EHORZ 8QGHU WKH LQÀXHQFH RI DQ\ ³FRQWUROOHG VXEVWDQFH´ DSSOLHV WR LOOHJDO GUXJV DQG ³EHQQLHV´ QDUFRWLFV RU DQ\ RWKHU VXEVWDQFH ZKLFK FDQ PDNH WKH GULYHU XQVDIH 7KLV FRXOG LQFOXGH D YDULHW\ RI SUHVFULSWLRQ DQG RYHU WKH FRXQWHU GUXJV FRQWDLQLQJ DOFRKRO 3D\ DWWHQWLRQ WR ZDUQLQJ ODEHOV DQG GRFWRU¶V RUGHUV DERXW GULYLQJ DELOLW\ +RZHYHU XVH RI D GUXJ JLYHQ WR D GULYHU E\ D GRFWRU LV permitted if the doctor informs the driver that it ZLOO QRW D‡HFW VDIH GULYLQJ

3D\ DWWHQWLRQ WR ZDUQLQJ ODEHOV IRU DOFRKRO drugs and medicines, and to doctor’s orders UHJDUGLQJ SRVVLEOH H‡HFWV 'RQ¶W XVH DQ\ GUXJ WKDW KLGHV LDWL JKH WKH RQO\ FXUH IRU IDWLJXH LV UHVW H‡HFWV RI RWKHU GUXJV PXFKOZRUVH 7KH UXOH LV GRQ¶W PL[GUXJV ZLWK GULYLQJ DW DOO

8VH RI GUXJV FDQ OHDG WR RYUDFNDFFLGHQWV UHVXOWLQJ LQ GHDWK LQMXU\FRPPXQLFDWH WKHDPDJH)XUWKHUPRUH LW FDQ OHDG WRUHVWULQG)LQH VHQWHQFHV ,W FDQ DOVR PHDQ WKH HQGH D SHUVRQ¶V GULYLQJ FDUHHU

2.22.3 Illness

2QFH LQ D ZKLOH \RX PD\ EHFRPH VR LOO WKDW \RX FDQQRW RSHUDWH D PRWRU YHKLFOH VDIHO\ ,W KDSSHQV WR \RX \RX PXVW QRW GULYH ,I\RX WKLQN \RX PD\ GULYH WR WKH SRLQW RI DQ HPHUJHQF\ \RX PD\ GULYH WR WKH QHDUHVW SODFH ZKHUH \RX FDQ VDIHO\ VWRS

2.23 HAZARDOUS MATERIALS RULES - ALL COMMERCIAL DRIVERS

All drivers should know something about hazardous materials.

<RX PXVW EH DEOH WR UHFRJQL]H KD]DUGRXV FDUJR DQG \RX PXVW NQRZ ZKHWKHU RU QRW \RXU FDU KDXO LW ZLWKRXW KDYLQJ D KD]DUGRXV PDWHULDOV HQGRUVHPHQW RQ \RXU &'/ OLFHQVH

2.23.1 What Are Hazardous Materials?

+D]DUGRXV PDWHULDOV DUH VXEVWDQFHV RU PDWHULDOV WKDW FDQ SRVH DQ XQUHDVRQDEOH ULVN WR SHRSOH SURSHUW\ RU WKH HQYLURQPHQW ZKHQ WUDQVSRUWHG LQ FRPPHUFH 7KH\ LQFOXGH PDWHULDOV GHVLJQDWHG XQGHU WKH +D]DUGRXV 0DWHULDOV 7UDQVSRUWDWLRQ $FW +0 7$ DQG PDWHULDOV WKDW PHHW WKH GH‡QLWLRQ RI D KD]DUGRXV PDWHULDO EXW DUH QRW GHVLJQDWHG

2.23.2 Why Are There Rules?

<RX PXVW NQRZ WKH PDQ\ UXOHV WKDW DSSO\ WR WUDQVSRUWLQJ KD]DUGRXV PDWHULDOV 7KH LQ‡RUPDWLRQ \RX QHHG WR NQRZ LV SURYLGHG LQ WKLV VHFWLRQ DQG LQ WKH &'/ PDQXDO

- Contain the product
- &RPPXQLFDWH WKH ULVN
- (QVXUH VDIH GULYHUV DQG H

To Contain the Product: 7KH UXOHV KD]DUGRXV SURGXFWV FDQ LQMXUH RU NLOO drivers and others from contact, the rules tell VKLSSHUV KRZ WR SDFNDJH VDIH ODEHOV IRU OHJLWLPDWH GULYHUV KRZ WR ORDG WUDQVWDQNV 7KHVH DUH FRQWDLQHU 6WD\ DZD\ IURP LOOHJDO

To Communicate the Risk: The shipper uses D VSHFLDO QXPEHU RU ODEHO WR LGHQWLI\ WKH OLPRC ODEHOV WR ZDUQ HPHUJHQF\ ZRUNHUV $IWHU DQ DFFLGHQW RU KD]DUG RXWEUHDN FRQWDLQHUV DUH GHVLJQHG WR prevent or reduce the amount of damage or LQMXU\ DW WKH VFHQH LI WKH\ SDUWLFLSDWH LQ WUDQVS OLYHV RI RWKHUV PD\ GHSHQG WKH KD]DUGRXV PDWHULDOV VKLSSHU¶V SDSHUZRUN)RU WKDW UHDVRQ \RX PXVW SDSHUV UHODWHG WR KD]DUGRXV PDWHULDOV WKH\ FDUU\ WKH HPHUJHQF\ UHVSRQVH VKLSSLQJ SDSHUV

- In a pouch on the driver’s door, or
- In clear view within reach while driving, or
- 2Q WKH GULYHU¶V VHDW ZKH vehicle

2.23.3 Lists of Regulated Products

Placards DUH XVHG WR ZDUQ RWKH PDWHULDOV 3ODFDUGV DUH VL RI D YHKLFOH WKDW LGHQWLI\ WKH KD]DUGRXV PDWHULDOV $ SODFDUGHG YHKLFOH IROORZV VSHFLDO 7K

UHDU DQG ERWK VLGHV 3ODFDUGV FDQ EH RUGHUHG IURP DOO IRXU GLUHFWLRQV 7KHUH DUH VSHFLDO VLJQV IRU LQFKHV PP VTXDUH WXUQDEOH UHG $PPR ID GHQWLILFDWLRQ SRLQW LQ D GLDPRQG VKDSH &XVWRPHUV WR QRWH WKDW WKHUH WKD EXON SDFNDJLQJ GLVSOD\ WKH VLGH SQWLQJ FRQVXPHU RI WKHLU FRQWHQWV RQ SODFDUGV 27 (PHUJHQF\ 5HVSRQVH *XLGH OLVWV WKH FKHPLFDOV DQG WKH DVVLJQHG WR WKHP

Class	Class Name	Example
1	Explosives	Ammunition, Dynamite, Fireworks
2	Gases	Propane, Oxygen, Helium
3	Flammable	Gasoline, Acetone
4	Flammable Solids	Matches, Fuses
5	Oxidizers	Ammonium Nitrate, Hydrogen Peroxide
6	Poisons	Pesticides, Arsenic
7	Radioactive	Uranium, Plutonium
8	Corrosives	Hydrochloric Acid, Battery Fluid
9	Miscellaneous Hazardous Materials	Formaldehyde, Asbestos
	ORM-D (Other Regulated Material-Domestic)	Hair Spray Charcoal Small-arms ammunition
	Combustible Liquids	Fuel Oils, Lighter Fluid

Figure 2.25 Hazardous Materials

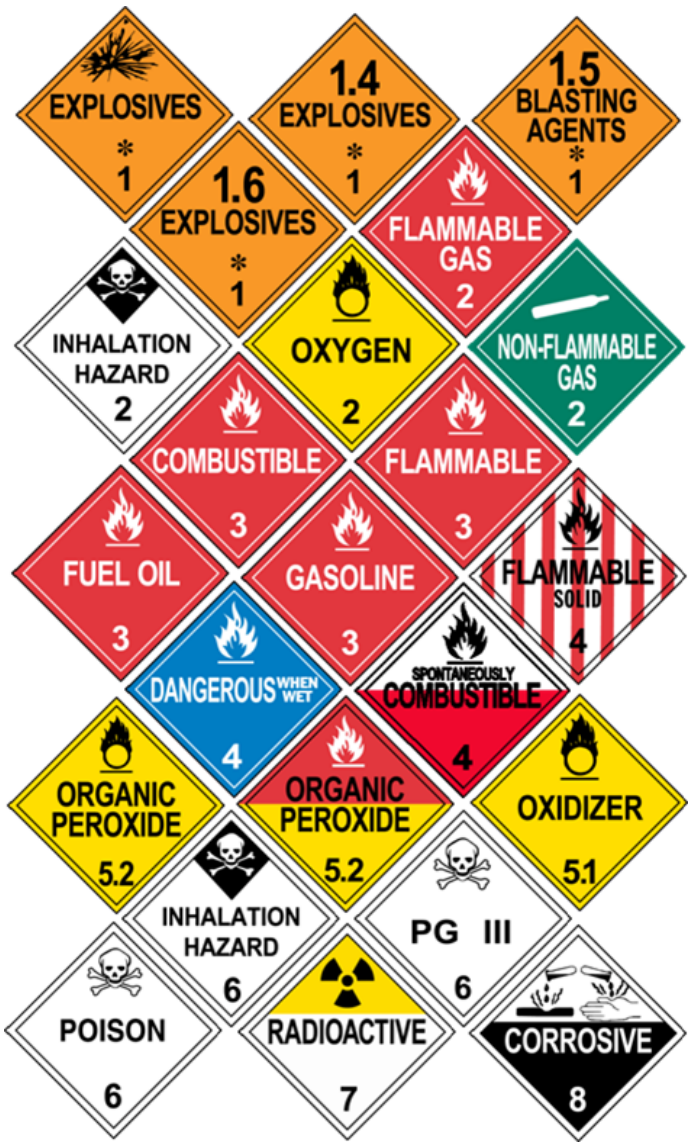


Figure 2.26 Hazardous Materials Placards

1RW DOO YHKLFOHV FDUU\LQJ QHHG WR KDYH SODFDUGV 7KH DUH JLYHQ LQ 6HFWLRQ RI WK GULYH D YHKLFOH WKDW FDUULH LW GRHV QRW UHTXLUH SODFDUG \RX FDQQRW GULYH LW XQOHVV KDV WKH KD]DUGRXV PDWHULDO See Figure 2.26.

7KH UXOHV UHTXLUH DOO GU[redacted]
YHKLFOHV WR OHDUQ KRZ WR VDIHO\ QRDG DQG
WUDQVSRUW KD]DUGRXV SURGXFWV 7KH\ PXVW KDYH
D FRPPHUFLDO GULYHU¶V OLFHQVH ZLWK WKH KD]DUGRXV
PDWHULDOV HQGRUVHPHQW 7R JHW WKH UHTXLUHG
HQGRUVHPHQW \RX PXVW SDVV D ZULWWHQ WHVW RQ
PDWHULDOV IRXQG LQ 6HFWLRQ [redacted]
WDQN HQGRUVHPHQW LV UHTXLUHG LI \RX
YHKLFOH WKDW LV GHVLJQHG WR WUDQVSRUW DQ\ OLTXLG RU
JDVHRXV PDWHULDO LQ D WDQN RU WDQNV KDYLQJ DQ
LQGLYLGXDO UDWHG FDSDFLW\ RI PRUH WKDQ JDOORQV
DQG DQ DJJUHJDWH FDSDFLW\ RI PRUH WKDQ JDOORQV
PRUH WKDW LV HLWKHU SHUPDQHQWO\ RU WHPSRUDULO\
DWWDFKHG WR WKH YHKLFOH RU FKDVVLV 7KH OLTXLG RU
JDV GRHV QRW KDYH WR EH D KD]DUGRXV PDWHULDO

'ULYHUV ZKR QHHG WKH KD]DUGRXV PDWHULDOV
HQGRUVHPHQW PXVW OHDUQ WKH SODFDUG UXOHV ,I \RX
GR QRW NQRZ LI \RXU YHKLFOH QHHGV SODFDUGV DVN
\RXU HPSOR\HU 1HYHU GULYH D YHKLFOH QHHGLQJ
SODFDUGV XQOHVV \RX KDYH WKH KD]DUGRXV PDWHULDOV
HQGRUVHPHQW 7R GR VR LV D FULPH :KHQ VWRSSHG
\RX ZLOO EH FLWHG DQG \RX ZLOO QRW EH DOORZHG WR
GULYH \RXU WUXFN ,W ZLOO FRVW \RX WLPH DQG PRQH\
$ IDLOXUH WR SODFDUG ZKHQ QHHGHG PD\ ULVN \RXU
OLIH DQG WKDW RI RWKHUV LI \RX KDYH DQ DFFLGHQW
(PHUJHQF\ KHOS ZLOO QRW NQRZ RI \RXU KD]DUGRXV
FDUJR

+D]DUGRXV PDWHULDOV GULYHUV PXVW DOVR NQRZ
ZKLFK SURGXFWV WKH\ FDQ ORDG WRJHWKHU DQG ZKLFK
WKH\ FDQQRW 7KHVH UXOHV DUH DOVR LQ 6HFWLRQ
%HIRUH ORDGLQJ D WUXFN ZLWK PRUH WKDQ RQH W\SH RI
SURGXFW \RX PXVW NQRZ LI LW LV VDIH WR ORDG WKHP
WRJHWKHU ,I \RX GR QRW NQRZ DVN \RXU HPSOR\HU
DQG FRQVXOW WKH UHJXODWLRQV

Subsections 2.22 and 2.23

7HVW <RXU .QRZOHGJH

1. Common medicines for colds can make you sleepy. True or False?

2. [redacted] drinker sober up. True or False?

3. What is a hazardous materials placard?

4. Why are placards used?

These questions may be on your test. If you do not know the answers to all of them, review Subsections 2.22 and 2.23.

Chapter 3: Transporting Cargo Safely

This Chapter Covers:

- Inspecting Cargo
- &DUJR :HLJKW DQG %DODQFH
- Securing Cargo
- Cargo Needing Special Attention

7KLV FKDSWHU WHOOV \RX DERXW KDXOLQJ FDUJR VDIHO\ <RX PXVW XQGHUVWDQG EDVLF FDUJR VDIHW\ UXOHV WR JHW D &'/

,I \RX ORDG FDUJR ZURQJ RU GR QRW VHFXUH LW LW FDQ EH D GDQJHU WR RWKHUV DQG \RXUVHOI /RRVH FDUJR WKDW IDOOV R‡ D YHKLFOH FDQ FDXVH WUDˆF SUREOHPV DQG RWKHUV FRXOG EH KXUW RU NLOOHG /RRVH FDUJR FRXOG KXUW RU NLOO \RX GXULQJ D TXLFN VWRS RU FUDVK <RXU YHKLFOH FRXOG EH GDPDJHG E\ DQ RYHUORDG 6WHHULQJ FRXOG EH D‡HFWHG E\ KRZ D YHKLFOH LV ORDGHG PDNLQJ LW PRUH GLˆFXOW WR FRQWURO WKH YHKLFOH

:KHWKHU RU QRW \RX ORDG DQG VHFXUH WKH FDUJR \RXUVHOI \RX DUH UHVSRQVLEOH IRU

- ,QVSHFWLQJ \RXU FDUJR
- 5HFRJQL]LQJ RYHUORDGV DQG SRRUO\ EDODQFHG ZHLJKW
- .QRZLQJ \RXU FDUJR LV SURSHUO\ VHFXUHG DQG GRHV QRW REVFXUH \RXU YLHZ DKHDG RU WR WKH VLGHV
- .QRZLQJ \RXU FDUJR GRHV QRW UHVWULFW \RXU DFFHVV WR HPHUJHQF\ HTXLSPHQW

([FHSWLRQ WR WKH LQVSHFWLRQ UXOH SHU)HGHUDO 0RWRU &DUULHU 5XOH E \RX DUH QRW UHVSRQVLEOH for inspecting the cargo of a commercial motor YHKLFOH DQG RU WUDLOHU LI LW FHDUV D 3HDO´ DQG \RX are ordered not to open the unit and inspect the FDUJR <RX DUH DOVR QRW UHVSRQVLEOH IRU LQVSHFWLQJ the cargo of a commercial motor vehicle and/or trailer if the cargo is loaded in such a manner WKDW PDNHV DQ LQVSHFWLRQ LPSUDFWLFDEOH RU GDQJHURXV D FRQWDLQHU

,I \RX LQWHQG WR FDUU\ KD]DUGRXV PDWHULDO WKDW UHTXLUHV SODFDUGV RQ \RXU YHKLFOH \RX ZLOO QHHG WR KDYH D KD]DUGRXV PDWHULDOV HQGRUVHPHQW

&KDSWHU RI WKLV PDQXDO KDV QHHG WR SDVV WKH KD]DUGRXV

3.1 INSPECTING CARGO

$V SDUW RI \RXU SUH WULS LQVS WUXFN LV QRW RYHUORDGHG DQ DQG VHFXUHG SURSHUO\

After Starting the Trip: Inspect the cargo and its VHFXULQJ GHYLFHV DJDLQ ZLWK DIWHU EHJLQQLQJ D WULS 0DN QHHGHG

Re-check: 3H FKHFN WKH FDUJR D GHYLFHV DV RIWHQ DV QHFHVV NHHS WKH ORDG VHFXUH <RX Q

- $IWHU \RX KDYH GULYHQ IRU PLOHV
- $IWHU HYHU\ EUHDN \RX WDN

Federal, state, and local regulations for commercial vehicle weight, securing cargo, FRYHULQJ ORDGV DQG ZKHUH \ YHKLFOHV YDU\ IURP SODFH WR ZKHUH \RX ZLOO EH GULYLQJ

3.2 WEIGHT AND BALANCE

<RX DUH UHVSRQVLEOH IRU \RXU RYHUORDGHG 7KH IROORZLQJ D RI ZHLJKW \RX VKRXOG NQRZ

'H¿QLWLRQV DQG ORZ

Gross Vehicle Weight Rating (GVWR): The YDOXH VSHFL¿HG E\ WKH PDQ ORDGHG ZHLJKW RI D VLQJOH YH

Gross Combination Weight Rating (GCWR): 7KH YDOXH VSHFL¿HG E\ WKH WKH SRZHU XQLW LI WKH YDOX)HGHUDO 0RWRU 9HKLFOH 6DIHW FHUWL¿FDWLRQ ODEHO RU WKH ZHLJKW UDWLQJ RI WKH YHKLFOH \RX ZLOO PRVW XQLW RU D FRPELQDWLRQ V QHHG WR NQRZ WKH KLJKHVW YDOXH

7KH XQGHUOLQHG DQG LWDOLFL]HG WHUPV DUH GHILQHG XQGHU the use by roadside enforcement only to determine ZKHWKHU WKH GULYHU YHKLFOH LV VXEMHFW WR &'/ UHJXODWLRQV ,W LV QRW XVHG WR GHWHUPLQH ZKHWKHU a vehicle is representative for the purposes of VNLOOV WHVWLQJ

Axle Weight: The weight transmitted to the JURXQG E\ RQH D[OH RU RQH VHW RI DQGHP

Tire Load: 7KH PD[LPXP VDIH ZHLJKW D WLUH FDQ FDUU\ DW D VSHFL¿HG SUHVVXUH 7KLV UDWLQJ LV VWDWHG RQ WKH VLGH RI HDFK WLUH

Suspension Systems: 6XVSHQVLRQ V\VWHPV KDYH D PDQXIDFWXUHU¶V ZHLJKW FDSDFLW\ UDWLQJ

Coupling Device Capacity: Coupling devices DUH UDWHG IRU WKH PD[LPXP ZHLJKW WKH\ FDQ SXOO DQG RU FDUU\

3.2.2 Legal Weight Limits

<RX PXVW NHHS ZHLJKWV ZLWKLQ OHJDO OLPLWV 6WDWHV KDYH PD[LPXPV IRU *9:V *&:V DQG D[OH ZHLJKWV 2IWHQ PD[LPXP D[OH ZHLJKWV DUH VHW E\ D EULGJH IRUPXOD $ EULGJH IRUPXOD SHUPLWV OHVV PD[LPXP D[OH ZHLJKW IRU D[OHV WKDW DUH FORVHU WRJHWKHU 7KLV LV WR SUHYHQW RYHUORDGLQJ EULGJHV DQG URDGZD\V

2YHUORDGLQJ FDQ KDYH EDG H‡HFWV RQ VWHHULQJ EUDNLQJ DQG VSHHG FRQWURO 2YHUORDGHG WUXFNV KDYH WR JR YHU\ VORZO\ RQ XSJUDGHV :RUVH WKH\ PD\ JDLQ WRR PXFK VSHHG RQ GRZQJUDGHV 7KH VWRSSLQJ GLVWDQFH LQFUHDVHV DQG EUDNHV FDQ IDLO ZKHQ IRUFHG WR ZRUN WRR KDUG

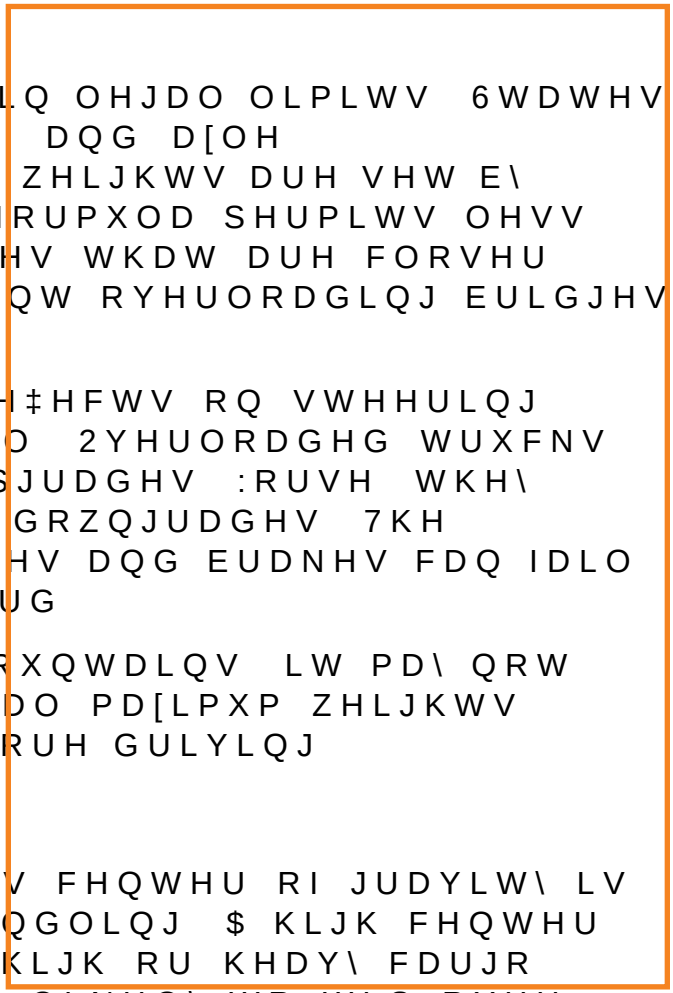
'XULQJ EDG ZHDWKHU RU LQ PRXQWDLQV LW PD\ QRW EH VDIH WR RSHUDWH DW OHJDO PD[LPXP ZHLJKWV 7DNH WKLV LQWR DFFRXQW EHIRUH GULYLQJ

3.2.3 Don’t Be Top-Heavy

7KH KHLJKW RI WKH YHKLFOH¶V FHQWHU RI JUDYLW\ LV YHU\ LPSRUWDQW IRU VDIH KDQGOLQJ $ KLJK FHQWHU RI JUDYLW\ FDUJR SLOHG XS KLJK RU KHDY\ FDUJR RQ WRS PHDQV \RX DUH PRUH OLNHO\ WR WLS RYHU ,W LV PRVW GDQJHURXV LQ FXUYHV RU LI \RX KDYH WR VZHUYH WR DYRLG D KD]DUG ,W LV YHU\ LPSRUWDQW WR GLVWULEXWH WKH FDUJR VR LW LV DV ORZ DV SRVVLEOH

3.2.4 Balance the Weight

3RRU ZHLJKW EDODQFH FDQ PDN XQVDIH 7RR PXFK ZHLJKW RQ WK FDXVH KDUG VWHHULQJ ,W FDQ DOVR FDXVH WLUHV 8QGHU ORDGH E\ VKLIWLQJ ZHLJKW WRR IDU W WKH VWHHULQJ D[OH ZHLJKW WI 7RR OLWWOH ZHLJKW RQ WKH G poor traction and cause the drive wheels to spin PRUH HDVLO\ 'XULQJ EDG ZHDW QRW EH DEOH WR NHHS JRLQJ : ZLWK D KLJK FHQWHU RI JUDYL FKDQFH RI UROORYHU 2Q ÀDWE also a greater chance that the load will shift to WKH VLGH RU IDOO R‡ See Figure 3.


)LJXUH /RDGLQJ &DUJR &RUU

3.3 SECURING CARGO

3.3.1 Blocking and Bracing

%ORFNLQJ LV XVHG LQ WKH IURQW, EDFN, DQG RU VLGHV RI D SLHFH RI FDUJR WR NHHS LW ZLRP FKHVLGLQJ %HOWV URSHV FKDLQV DQG WHQVLRQLQJ GHYLFHV LV VKDSHG WR ¿W VQXJO\ DJDLQVW WKH FDUJR WR SUHYHQW PRYHPHQW %UDFLQJ LV DOVR XVHG WR S3.2a. YHQW PRYHPHQW RI FDUJR %UDFLQJ JRHV IURP WKH XSSHU SDUW RI WKH FDUJR WR WKH ÀRRU DQG RU ZDOOV RI WKH FDUJR FRPSDUWPHQW

3.3.2 Cargo Tie-down

2Q ÀDWEHG WUDLOHUV RU WUDLOHUV ZLWKRXW VLGHV FDUJR PXVW EH VHFXUHG WR NHHS LW IURP VKLIWLQJ RU IDOOLQJ R‡

Figure 3.2 Tie Down Devices

movement, must be at least one and one-half times WKH ZHLJKW RI WKH DUWLFO

3URSHU WLH GRZQ HTXLSPHQW PX ropes, straps, chains, and tensioning devices

See Figures 3.2 and

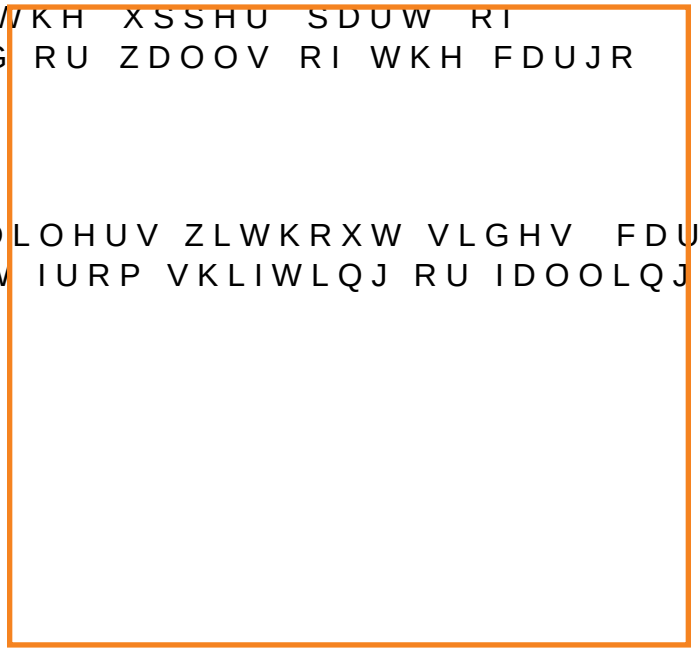


Figure 3.2a Using Tie Down Devices

&DUJR VKRXOG KDYH DW OHDVW WHQ IHHW RI FDUJR 0DNH VXUH GRZQV WR PHHW WKLV QHHG 1R FDUJR LW VKRXOG KDYH DW OHD

There are special requirements for securing heavy pieces of metal, pipe, and coiled steel, to name a few. Find out what they are if you are to carry such loads. Failure to properly secure these loads can be very dangerous.

,Q FORVHG YDQV WLH GRZQV FDQ W WR SUHYHQW WKH IURP FDUJR VK D‡HFW WKH KDQGOLQJ RI WKH Y PXVW EH RI WKH SURSHU W\SH DQ

)HGHUDO UHJXODWLRQV UHTXLUH ZRUNLQJ ORDG OLPLW RI DQ\ VHFXU to secure an article or group of articles against

3.3.3 Header Boards

)URQW HQG KHDGHU ERDUGV 3KHDGDFKH UDFNV KHOS SURWHFW \RX IURP \RXU FDUJR LQ FDVH RI D FUDVK RU HPHUJHQF\ VWRS See Figure 3.3 0DNH VXUH WKH IURQW HQG VWUXFWXUH \RXU YHKLFOH RU WUDLOHU 7KH IURQW HQG VWUXFWXUH VKRXOG EH QR ORZHU WKDQ WKH WRS RI WKH FDUJR \RX FDUU\ 6KLSSHU ORDGHG VHFXUHG V FDQ EUHDN D VHDO RQ D ORDG EXW \RX VKRXOG QRW RSHQ D WKH H[SUHVV SHUPLVVLRQ RI W FRPSDQ\

Figure 3.3 Header Board

3.3.4 Covering Cargo

There are two basic reasons for covering cargo:

- 7R SURWHFW SHRSOH IURP VSLOOHG FDUJR
- 7R SURWHFW WKH FDUJR IURP ZHDWKHU

6SLOO SURWHFWLRQ LV D VDIH VWDWHV %H IDPLOLDU ZLWK W LQ ZKLFK \RX GULYH

<RX VKRXOG ORRN DW \RXU FD PLUURUV IURP WLPH WR WLPH Z cover can tear loose, uncovering the cargo, and SRVVLEO\ EORFN \RXU YLHZ RU

3.3.5 Sealed and Containerized Loads

&RQWDLQHUL]HG ORDGV DUH J IUHLJKW LV FDUULHG SDUW ZD\ E\ WUXFN RFFXUV DW WKH EHJ WKH MRXUQH\ 6RPH FRQWDLQH WLPH GRZQ GHYLFHV RU ORFNV D VSHFLDO IUDPH 2WKHUV KDY ÀDWEHG WUDLOHUV DQG PXVW MXVW OLNH DQ\ RWKHU FDUJR

<RX FDQQRW LQVSHFW VHDOHG DQG VKRXOG FKHFN WKDW \RX ZHLJKW DQG D]OH ZHLJKW OLPL VWLOO UHVSRQVLEOH IRU DQ RY

3.4 CARGO NEEDING SPECIAL ATTENTION

3.4.1 Dry Bulk

'U\ EXON WDQNV UHTXLUH VSHFL KDYH D KLJK FHQWHU RI JUDYL VKLIW %H H[WUHPHO\ FDXWLRX JRLQJ DURXQG FXUYHV DQG PDN

3.4.2 Hanging Meat

+DQJLQJ PHDW VXVSHQGHG EH D UHIULJHUDWHG WUXFN FDQ EH ZLWK D KLJK FHQWHU RI JUDYLW QHHGHG RQ VKDUS FXUYHV VXF RU XDPSY *R VORZO\

3.4.3 Livestock

/LYHVWRFN FDQ PRYH DURXQG LQ D WUDLOHU FDXVLQJ XQVDIH KDQGOLQJ FKDUDFWHULVWLFV :LWK OHVV WKDQ D IXOO ORDG XVH IDOVH EXONHDGV WR NHHS GLYHUVWRFN EXQFKHG WRJHWKHU (YHQ ZKHQ EXQFKHG VSHFLDO FDUH LV QHFHVVDU\ EHFDXVH OLYHVWRFN FDQ QHDO RQ FXUYHV 7KLV VKLIWV WKH FHQWHU RI JUDYLW\ DQG PDNHV D UROORYHU PRUH OLNHO\

3.4.4 Oversized Loads

2YHU OHQJWK RYHU ZLGWK DQG RYHU ZHLJKW ORDGV UHTXLUH VSHFLDO WUDQVLW SHUPLWV 7KHVH WUDQVLW LV XVXDOO\ OLPLWHG WR FHUWDLQ WLPHV 6SHFLDO HTXLSPHQW PD\ EH QHFHVVDU\ VXFK DV ³ZLGH ORDG VLJQV ÀDVKLQJ OLJKWV ÀDJV HWF 6XFK ORDGV PD\ UHTXLUH D police escort or pilot vehicles bearing warning VLJQV DQG RU ÀDVKLQJ OLJKWV 7KHVH VSHFLDO ORDGV UHTXLUH VSHFLDO GULYLQJ FDUH

7HVW <RXU .QRZOHGJH

1. What four things related to cargo are drivers responsible for?
2. How often must you stop while on the road to check your cargo?
3. How is Gross Combination Weight 5DWLQJ GLúHUHQW IURP *URVV Weight?
4. Name two situations where legal maximum weights may not be safe.
5. :KDW FDQ KDSSHQ LI \RX GR enough weight on the front axle?
6. What is the minimum number of tie-GRZQV IRU DQ\ ÀDWEHG ORDG"
7. What is the minimum number of tie-downs for a 20 foot load?
8. Name the two basic reasons for covering cargo on an open bed.
9. What must you check before transporting a sealed load?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH

Chapter 4: Transporting Passengers Safely

This Chapter Covers:

- Vehicle Inspection
- Loading and Trip Start
- 2Q WKH 5RDG
- 3RVW WULS 9HKLFOH ,QVSHFW
- Prohibited Practices
- 8VH RI %UDNH 'RRU ,QWHUORF

Figure 4.0 Class A Passenger Bus

%XV GULYHUV PXVW KDYH D FR
OLFHQVH LI WKH\ GULYH D YHKLFOH GHVLJQHG WR VHDW
RU PRUH SHRSOH LQFOXGLQJ WKH GULYHU

%XV GULYHUV PXVW KDYH D SDVVHQJHU HQGRUVHPHQW
RQ WKHLU FRPPHUFLDO GULYHU¶V OLFHQVH WR JHW WKH
HQGRUVHPHQW \RX PXVW SDVV WKH NQRZOHGJH WHVW
RQ &KDSWHUV DQG RI WKLV PDQXDO WKH RXWHUYLRXV GULYH
KDV DLU EUDNHV \RX PXVW DOVR SDVV WKH QHDUVLGHG HHG
test on Chapter 5 as well as pass the skills tests in a passenger vehicle of the license class you wish to drive.

RU QRW QHHGHG WR EH UHSDLU
SUHYLRXV GULYHU¶V UHSRUW 7
WKDW WKH GHIHFWV UHSRUWHG

,I \RX RSHUDWH D YHKLFOH WKDW UHTXLUHV D SDVVHQJHU
3 HQGRUVHPHQW \RX ZLOO RQO\ EH DXWKRUL]HG WR
RSHUDWH WKH FODVV RI YHKLFOH WKDW \RX XVHG LQ
\RXU SDVVHQJHU HQGRUVHPHQW WHVW L H LI
\RX VNLOOV WHVW LQ D &ODVV & EXV \RX FDQQRW GULYH D
D &ODVV % EXV EXW LI WHVWHG LQ \RXU &ODVV % EXV
\RX FDQ GULYH ERWK &ODVV % DQG &ODVV & EXVHV

,I \RX WHVW LQ D &ODVV % EXV \RX ZLOO UHFHLYH
DQ 0 UHVWULFWLRQ RQ \RXU &'/ WKLV LV QRUPDO
,W PHDQV \RX FDQQRW RSHUDWH D &ODVV $ EXV
&ODVV $ EXVHV DUH YHU\ UDUH LQ WKH 8QLWHG
6WDWHV DQG IHGHUDO UXOHV UHTXLUH WKLV UHVWULFWLRQ
6HH)LJXUH

,I \RX WHVW LQ D &ODVV & EXV
DQ 1 UHVWULFWLRQ RQ \RXU &'/
% EXV

4.1 VEHICLE INSPECTION

4.1.1 Vehicle Systems

0DNH VXUH WKHVH LWHPV DUH L
before driving:

- Steering mechanism
- /LJKWV DQG UHÀHFWRUV
- Tires (front wheels must not have recapped or regrooved tires)
- Horn
- Windshield wipers
- 5HDU YLVLRQ PLUURU RU PLU
- Coupling devices (if present)
- Wheels and rims
- (PHUJHQF\ HTXLSPHQW

0DNH VXUH \RXU EXV KDV WKH ¿
HPHUJHQF\ UHÀHFWRUV UHTXLU
must also have spare electrical fuses, unless
HTXLSSHG ZLWK FLUFXLW EUHDN

4.1.2 Access Doors and Panels

$V \RX FKHFN WKH RXWVLGH RI
RSHQ HPHUJHQF\ H[LWV $OVR

DFFHVV SDQHOV IRU EDJJDJH HQWU\ DUHDV VHUYLFH HQJLQH HWF EHIRUH GULYLQJ

4.1.3 Bus Interior

3HRSOH VRPHWLPHV GDPDJH XQDWWHQGHG EXVHV $OZD\V FKHFN WKH LQWHULRU RI WKH EXV EHIRUH GULYLQJ WR HQVXUH ULGHU VDIHW\ $LVOHV DOZD\V EH FOHDU 7KH IROORZLQJ SDUWV RI \RXU EXV PXVW EH LQ VDIH ZRUNLQJ FRQGLWLRQ

- (DFK KDQGKROG DQG UDLOLQJ
- Floor covering
- Signaling devices, including the restroom HPHUJHQF\ EX]]HU LI WKH EXV KDV D restroom
- (PHUJHQF\ H[LW KDQGOHV

7KH VHDWV PXVW EH VDIH IRU ULGHUV $OO VHDWV PXVW EH VHFXUHO\ IDVWHQHG WR WKH

1HYHU GULYH ZLWK DQ RSHQ HPSW\ RU ZLQGRZ 7KH ³(PHUJHQF\ ([LW´ HPHUJHQF\ GRRU PXVW EH FOHDUO\ LGHQWLILHG LV D UHG HPHUJHQF\ GRRU OLJKW LW RQ DW QLJKW RU DQ\ WLPH YLVLELOLW\ LV SRRU RXWVLGH OLJKWV

4.1.4 Roof Hatches

<RX PD\ ORFN VRPH HPHUJHQF\ URRI KDWFKHV LQ D SDUWO\ RSHQ SRVLWLRQ IRU IUHVK DLU 'R QRW OHDYH WKHP RSHQ DV D UHJXODU SUDFWLFH .HHS LQ PLQG WKH EXV¶V KLJKHU FOHDUDQFH ZKLOH GULYLQJ ZLWK WKHVH RSHQ

8VH RXU 6HDWEHOW

The driver’s seat should have a seat belt in good ZRUNLQJ RUGHU $OZD\V XVH LW IRU VDIHW\

4.2 LOADING AND TRIP START

'R QRW DOORZ ULGHUV WR OHDYH FDUU\ RQ EDJJDJH GRRUZD\ RU DLVOH 7KHUH VKRXOG EH ORWKLQJ LQ WKH DLVOH WKDW PLJKW WULS RWKHU ULGHUV 6HFXUH EDJJDJH DQG IUHLJKW LQ ZD\V WKDW DYRLG GDPDJH DQG WKDW

- $OORZV WKH GULYHU WR PRYH VDIHO\
- $OORZV ULGHUV WR H[LW E\ DQ\ ZLQGRZ RU GRRU LQ DQ HPHUJHQF\
- 3URWHFWV ULGHUV IURP LQMXU\ LI FDUU\ RQ EDJJDJH IDOOV RU VKLIWV

4.2.1 Hazardous Materials

:DWFK IRU FDUJR RU EDJJDJH FR PDWHULDOV 0RVW KD]DUGRXV FDUULHG RQ D EXV 7KH)HGHUDO +D]DUGRXV 0DWH ZKLFK PDWHULDOV DUH KD]DUGRXV WUDQVSRUWDWLRQ 7KH UXOHV PDUN FRQWDLQHUV RI KD]DUG WKH PDWHULDO¶V QDPH LGHQW KD]DUG ODEHO 7KHUH DUH QLQ GLDPRQG VKDSHG KD]DUG ODEH :DWFK IRU WKH GLDPRQG VKDSH WUDQVSRUW DQ\ KD]DUGRXV PD VXUH WKH UXOHV DOORZ LW

4.2.2 Forbidden Hazardous Materials

+D]DUGRXV PDWHULDOV H[FOXGH DUPV D 2QH ´ 'HPRQVWUDWLRQ RI KD]DUGRXV VXS LV D PDWHULDO WKDW FDQ KRVSLWDO VXS HPHUJHQF\ GRRU ,I WKH HPHUJHQF\ GRRU LV FDUULHG RQ WKH EXV PDUN LW RXWVLGH OLJKWV WR VKRZ WKDW LW LV LQ WKH EXV¶V EDJJDJH DUHD

following:

- 'LYLVLRQ SRLVRQ JDV OL SRLVRQ WHDU JDV LUULWDW
- 0RUH WKDQ SRXQGV RI VR SRXQGV RI HDFK RWKHU SDFN
- ([SORVLYHV WKDW SRS SHUSHOH H[FHSW VPDOO DUP
- Labeled radioactive materials in the space RFFXSLHG E\ SHRSOH
- More than 500 pounds total of allowed KD]DUGRXV PDWHULDOV DQG SRXQGV RI DQ\ RQH FODVV

5LGHUV VRPHWLPHV ERUURZ D EX KD]DUGRXV PDWHULDO R QRW RQ EXV FRPPRQ KD]DUGV VXFK DV JDVROLQH DQG HDVLO\

+D]DUG &ODVV 'H¿QLWLRQV		
Class	Class Name	Example
1	Explosives	Ammunition, Dynamite, Fireworks
2	Gases	Propane, Oxygen, Helium
3	Flammable	Gasoline, Acetone
4	Flammable Solids	Matches, Fuses
5	Oxidizers	Ammonium Nitrate, Hydrogen Peroxide
6	Poisons	Pesticides, Arsenic
7	Radioactive	Uranium, Plutonium
8	Corrosives	Hydrochloric Acid, Battery Fluid
9	Miscellaneous Hazardous Materials	Formaldehyde, Asbestos
None	ORM-D (Other Regulated Material-Domestic)	Hair Spray Charcoal Small-arms ammunition
None	Combustible Liquids	Fuel Oils, Lighter Fluid

)LJXUH +D]DUG &ODVV 'H¿QLWLRQV

4.2.3 Standee Line

1R ULGHU PD\ VWDQG IRUZDUG RI WKH UHDU RI WKH GULYHU¶V VHDW %XVHV GHVLJQHG WR DOORZ VWDQGLQJ PXVW KDYH D WZR LQFK OLQH RQ WKH ÀRRU RU VRPH RWKHU PHDQV RI VKRZLQJ ULGHUV ZKHUH WKH\ FDQ QRW VWDQG

7KLV LV FDOOHG WKH VWDQGHH OLQH $OO VWDQGLQJ ULGHUV PXVW VWD\ EHKLQG LW

$<RXU 'HVWLQDWLRQ

When arriving at the destination or intermediate stops, announce in a clear voice:

7KH ORFDWLRQ
5HDVRQ IRU 6WRSSLQJ
1H[W GHSDUWXUH WLPH
%XV QXPEHU

5HPLQG ULGHUV WR WDNH FDU WKHP LI WKH\ JHW R‡ WKH EXV lower level than the seats, remind riders of the VWHS GRZQ ,W LV EHVW WR WH WR D FRPSOHWH VWRS

Charter bus drivers should not allow riders on the EXV XQWLO GHSDUWXUH WLPH WKHIW RU YDQGDOLVP RI WKH E

4.3 ON THE ROAD

4.3.1 Passenger Supervision

0DQ\ FKDUWHU DQG LQWHUFL SDVVHQJHU FRPIRUW DQG VDIH UXOHV DERXW VPRNLQJ GULQNL WDSH SOD\HUV DW WKH VWDUW UXOHV DW WKH VWDUW ZLOO KH

:KLOH GULYLQJ VFDQ WKH LQWH DV WKH URDG DKHDG WR WKH V <RX PD\ KDYH WR UHPLQG ULGHU WR NHHS WKHLU DUPV DQG KHDG

4.3.2 Stops

5LGHUV FDQ VWXPEOH ZKHQ JH EXV DQG ZKHQ WKH EXV VWDU ULGHUV WR ZDWFK WKHLU VWHS Wait for them to sit down or brace themselves

EHIRUH VWDUWLQJ 6WDUWLQJ D DV VPRRWK DV SRVVLEOH WR D PXVW KDYH D WZR LQFK OLQH RQ WKH ÀRRU RU VRPH RWKHU PHDQV RI VKRZLQJ ULGHUV ZKHUH WKH\ FDQ QRW VWDQG

2FFDVLRQDOO\ \RX PD\ KDYH D ULGHU <RX PXVW HQVXUH WKLV DV WKDW RI RWKHUV 'RQ¶W G ZKHUH LW ZRXOG EH XQVDIH IR VDIHU DW WKH QH[W VFKHGXOHG DUHD ZKHUH WKHUH DUH RWKHU have guidelines for handling disruptive riders

4.3.3 Common Accidents

7KH 0RVW &RPPRQ %XV $FFLGHQWV %XV DFFLGHQWV RIWHQ KDSSHQ DW LQWHUVHFWLRQV 8VH FDXWLRQ HYHQ LI D VLJQDO RU VWRS VLJQ FRQWUROV WUDˆF 6FKRRO DQG PDVV WUDQVLW EXVHV VRPHWLPHV VFUDSH R‡ WUDˆF mirrors or hit passing vehicles when pulling out IURP D EXV VWRS 5HPHPEHU WKH ,FOHDUDQFH \RXU bus needs, and watch for poles and tree limbs at VWRSV .QRZ WKH VL]H RI WKH JDS \RXU EXV QHHGV WR DFFHOHUDWH DQG PHUJH ZLWK WUDˆF DQG ZDLW IRU WKH JDS WR RSHQ EHIRUH OHDYLQJ WKH VWRS 1HYHU DVVXPH RWKHU GULYHUV ZLOO EUDNH WR JLYH \RX URRP ZKHQ \RX VLJQDO RU VWDUW WR SXOO RXW

4.3.4 Speed on Curves

&UDVKHV RQ FXUYHV WKDW NLOO SHRSOH DQG GHVWUR\ EXVHV DUH WKH UHVXOW RI H[FHVVLYH VSHHG RIWHQ ZKHQ UDLQ RU VQRZ KDV PDGH WKH URDG VOLSSHU\ (YHU\ EDQNHG FXUYH KDV D VDIH ³GHVLJQ VSHHG ,Q good weather, the posted speed is safe for cars, EXW LW PD\ EH WRR KLJK IRU PDQ\ EXVHV :LWK JRRG WUDFWLRQ WKH EXV PD\ UROO RYHU ZLWK SRRU WUDFWLRQ EULGJH RSHQV LW PLJKW VOLGH R‡ WKH FXUYH 5HGXFH VSHHG IRU FXUYHV ,I \RXU EXV OHDQV WRZDUG WKH RXWVLGH RQ D EDQNHG FXUYH \RX DUH GULYLQJ WRR IDVW

4.3.5 Railroad-Highway Crossings

6WRS DW 5DLOURDG &URVVLQJV

- 6WRS \RXU EXV EHWZHHQ DQG IHHW EHIRUH UDLOURDG FURVVLQJV
- /LVWHQ DQG ORRN LQ ERWK ,GLUHFWLRQV IRU WUDLQV <RX VKRXOG RSHQ \RXU IRUZDUG GRRU L L LW LPSURYHV \RXU DELOLW\ WR VHH RU KHDU DQ DSSURDFKLQJ WUDLQ
- %HIRUH FURVVLQJ DIWHU D WUDLQ KDV SDVVHG PDNH VXUH WKHUH LVQ¶W DQRWKHU WUDLQ FRPLQJ LQ WKH RWKHU GLUHFWLRQ RQ RWKHU WUDFNV
- ,I \RXU EXV KDV D PDQXDO WUDQVPLVVLRQ never change gears while crossing the WUDFNV

<RX GR QRW KDYH WR VWRS EXV FDUHIXOO\ FKHFN IRU RWKHU YH situations:

- At streetcar crossings
- ;KHUH D SROLFHPDQ RU ÀDJP WUDˆF
- ,I WUDˆF VLJQDO LV JUHHQ
- $W FURVVLQJV PDUNHG DV ³H ³DEDQGRQHG´

4.3.6 Drawbridges

6WRS DW UDZEULGJHV 6WRS DW ORZ GUDZ RU ORZ VLJQDO OLJKW RU V Stop at least 50 feet before the draw of the bridge DQG ORRN WR PDNH VXUH WKH FORVHG EHIRUH FURVVLQJ <RX EXW \RX PXVW VORZ GRZQ DQG when.

- 7KHUH LV D WUDˆF OLJKW VK
- 7KH EULGJH KDV DQ DWWHQG R‑FHU ZKR FRQWUROV WUDˆF EULGJH RSHQV

4.4 POST-TRIP (AFTER TRIP) VEHICLE INSPECTION

,QVSHFW \RXU EXV DW WKH HQG ZRUN IRU DQ LQWHUVWDWH FDU ZULWWHQ LQVSHFWLRQ UHSRUW UHSRUW PXVW VSHFLI\ HDFK EX WKDW ZRXOG D‡HFW VDIHW\ RU ,WKHUH DUH QR GHIHFWV WKH 5LGHUV VRPHWLPHV GDPDJH VD VXFK DV KDQGKROGV VHDWV H ZLQGRZV ,I \RX UHSRUW WKLV GDPDJH D PHFKDQLFV FDQ PDNH UHSDLUV RXW DJDLQ 0DNH WUDQVIW GUL VXUH SDVVHQJHU VLJQDOLQJ G GRRU LQWHUORFNV ZRUN SURSH

4.5 PROHIBITED PRACTICES

$YRLG IXHOLQJ \RXU EXV ZLWK ULGHUV RQ ERDUG XQOHVV LW LV DEVROXWHO\ QHFHVVDU\ 1HYHU UHIXHO LQ D FORVHG EXLOGLQJ ZLWK ULGHUV RQ ERDUG

'RQ¶W WDON ZLWK ULGHUV RU LQWHUIHUH LQ DQ\ RWKHU GLVWUDFWLQJ DFWLYLW\ ZKLOH GULYLQJ

Do not tow or push a disabled bus with riders

DERDUG WKH YHKLFOH XQOHVV JHWWLQJ WKHP R‡ ZRXOG EH XQVDIH 2QO\ WRZ RU SXVK WKH EXV WR WKH QHDUHVW VDIH VSRW WR GLVFKDUJH SDVVHQJHUV)ROORZ \RXU HPSOR\HU¶V JXLGHOLQHV RQ WRZ2QJ RU SXVKLQJ GLVDEOHG EXVHV

4.6 USE OF BRAKE-DOOR INTERLOCKS

8UEDQ PDVV WUDQVLW FRDFKHV PD\ KDYH D EUDNH DQG DFFHOHUDWRU LQWHUORFN V\VWHP 7KH LQWHUORFN DSSOLHV WKH EUDNHV DQG KROGV WKHP WRWWOH LQ LGOH SRVLWLRQ ZKHQ WKH UHDU GRRU LV RSHQ 7KH LQWHUORFN UHOHDVHV ZKHQ \RX FORVH WKH UHDU GRRU R QRW XVH WKLV VDIHW\ IHDWXUH LQ SODFH RI WKH SDUNLQJ EUDNH

SPECIAL NOTE: Recreational Vehicles are exempt from the Commercial Driver's License requirements.

However, any person who operates a CUSTOM MOTORCOACH for commercial purposes, with a gross vehicle weight rating or gross vehicle weight greater than 26,001 pounds, is required to have a Commercial Driver's License with a passenger endorsement.

This rule applies even if the vehicle is designed or used to transport less than 16 passengers, including the driver.

Chapter 4

7HVW <RXU .QRZOHGJH

1. Name some things to check in the interior of a bus during a Vehicle Inspection.
2. What are some hazardous materials you can transport by bus?
3. What are some hazardous materials \RX FDQ¶W WUDQVSRUW E\ EXV
4. What is a standee line?
5. Does it matter where you make a GLVUXSWLYH SDVVHQJHU JHW
6. How far from a railroad crossing should you stop?
7. When must you stop before crossing a drawbridge?
8. Describe from memory the "prohibited practices" listed in the manual.
9. The rear door of a transit bus has to be open to put on the parking brake. True or False?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH

Chapter 5: Air Brakes

This Chapter Covers:

- $LU %UDNH 6\VWHP 3DUWV
- 'XDO $LU %UDNH 6\VWHPV
- ,QVSHFWLQJ $LU %UDNHV
- 8VLQJ $LU %UDNHV

7KLV FKDSWHU WHOOV \RX DERXW DLU EUDNHV ,I \RX ZDQW WR GULYH D WUXFN RU EXV ZLWK DLU EUDNHV RU SXOO D WUDLOHU ZLWK DLU EUDNHV \RX QHHG WR UHDG WKLV VHFWLRQ ,I \RX ZDQW WR SXOO D WUDLOHU ZLWK DLU EUDNHV \RX DOVR QHHG WR UHDG &KDSWHU &RPELQDWLRQ 9HKLFOHV

Note: <RX RQO\ QHHG WR WDNH D ZULWWHQ DQG VNLOOV WHVW RQ WKH DLU EUDNH V\VWHP LI WKH YHKLFOH \RX LQWHQG WR GULYH KDV DQ DLU EUDNH V\VWHP DQG UHTXLUHV WKDW \RX KDYH D &'/ WR RSHUDWH LW ,I \RX GR QRW SDVV WKH DLU EUDNH ZULWWHQ WHVW RU LI \RX WHVW LQ D YHKLFOH ZLWKRXW DLU EUDNHV \RX ZLOO have a restriction (L) SODFHG RQ \RXU &'/

,I \RX ODWHU ZLVK WR UHPRYH WKH UHVWULFWLRQ \RX need to pass the written test and complete a QHZ VNLOOV WHVW LQ D FRPPHUFLDO YHKLFOH ZLWK DLU EUDNHV 2QFH \RX KDYH SDVVHG D WHVW LQ D YHKLFOH ZLWK DLU EUDNHV WKH UHVWULFWLRQ LV SHUPDQHQWO\ OLIWHG

$LU EUDNHV XVH FRPSUHVVHG DLU WR PDNH WKH EUDNHV ZRUN $LU EUDNHV DUH D JRRG DQG VDIH ZD\ RI VWRSSLQJ ODUJH KHDY\ YHKLFOHV KRZHYHU WKH EUDNHV PXVW EH ZHOO PDLQWDLQHG DQG XVHG SURSHUO\

$LU EUDNHV DUH UHDOO\ WKUHH GLIIHUHQW EUDNLQJ V\VWHPV VHUYLFH EUDNH SDUNLQJ EUDNH DQG HPHUJHQF\ EUDNH

- 7KH VHUYLFH EUDNH V\VWHP LV XVHG WR UHGXFH WKH VSHHG RI WKH YHKLFOH DQG WR VWRS LW ZKHQ \RX XVH WKH EUDNH SHGDO GXULQJ QRUPDO GULYLQJ
- 7KH SDUNLQJ EUDNH V\VWHP LV XVHG WR KROG WKH YHKLFOH LQ SODFH ZKHQ LW LV SDUNHG
- 7KH HPHUJHQF\ EUDNH V\VWHP XVHV SDUWV RI WKH VHUYLFH DQG SDUNLQJ EUDNH V\VWHPV WR VWRS WKH YHKLFOH LQ DQ HPHUJHQF\ VLWXDWLRQ

7KH SDUWV RI WKHVH V\VWHPV JHQHUDWH GHWDLO EHORZ

5.1 THE PARTS OF AN AIR BRAKE 6<67(0

7KHUH DUH PDQ\ SDUWV WR DQ DLU EUDNH V\VWHP ,I \RX ZDQW WR XQGHUVWDQG DOO RI WKH SDUWV RU SXOO D WUDLOHU ZLWK DLU EUDNHV \RX QHHG WR UHDG WKLV VHFWLRQ ,I \RX ZDQW WR SXOO D WUDLOHU ZLWK DLU EUDNHV \RX DOVR QHHG WR UHDG &KDSWHU &RPELQDWLRQ 9HKLFOHV

5.1.1 Air Compressor

The air compressor pumps air into the air VWRUDJH WDQNV UHVHUYRLUV is connected to the engine through gears or a YHOW 7KH FRPSUHVVRU PD\ EH FRROHG E\ WKH HQJLQH PD\ KDYH LWV RZQ RLO VXSSO\ E\ HQJLQH RLO ,I WKH FRPSUHVVRU VXSSOLHV RLO WR LWV RZQ

5.1.2 Air Compressor Governor

The governor controls when the air compressor ZLOO SXPS DLU LQWR WKH DLU WDQN SUHVVXUH UHDFKHV WKH governor stops the compressor from pumping DLU :KHQ WKH WDQN SUHVVXUH DURXQG SVL WKH FRPSUHVVRU WR VWDUW SX

5.1.3 Air Storage Tanks

$LU VWRUDJH WDQNV DUH XVHG DLU 7KH QXPEHU DQG VL]H RI WDQNV YHKLFOHV 7KH WDQNV ZR DOORZ WKH EUDNHV WR EH VXSSOLHG WKH FRPSUHVVRU VWRS

5.1.4 Air Tank Drains

&RPSUHVVHG DLU XVXDOO\ KDV some compressor oil in it, which is bad for the DLU EUDNH V\VWHP)RU H[DPS IUHH]H LQ FROG ZHDWKHU DQG The water and oil tend to collect in the bottom RI WKH DLU WDQN 0DNH VXUH WR FRPSOHWHO\

(DFK DLU WDQN LV HTXLSSHG ZLW Q
WKH ERWWRP 7KHUH DUH WZR W\S

0DQXDOO\ RSHUDWHG E\ WXUQ
WXUQ RU E\ SXOOLQJ D FDEOH <
WKH WDQNV \RXUVHOI DW WKH HC
driving (See Figure 5.1

$XWRPDWLF 7KH ZDWHU DQG F
DXWRPDWLFDOO\ H[SHOOHG 7KH\
HTXLSSHG IRU PDQXDO GUDLQLQJ

$XWRPDWLF DLU WDQNV DUH DYD VULF
KHDWLQJ GHYLFHV 7KHVH KHOS S
WKH DXWRPDWLF GUDLQ LQ FROG Z

Figure 5.1 Air Tank Drain

5.1.5 Alcohol Evaporator

6RPH DLU EUDNH V\VWHPV KDYH DQ HYDSRUDWRU OHW DLU
HYDSRUDWRU WR SXW DOFRKRO FRPSRVLWLRQ DFURVV WKH DLU
KHOSV WR UHGXFH WKH ULVN RI RLOLQJ DW WKH EUDNH VKRHV
DQG RWKHU SDUWV GXULQJ FROG ZHDWKHU ,FH LQVLGH
WKH V\VWHP FDQ PDNH WKH EUDNHV VWRS ZRUNLQJ

&KHFN WKH DOFRKRO FRQWDLQHU GDLO\ DQG ILOO DV
QHFHVVDU\ HYHU\ GD\ GXULQJ FROG ZHDWKHU 'LS WKH 6
WDQN GUDLQDJH LV VWLOO QHHGHG WR JHW U WKH ZDWHU DQG
RLO XQOHVV WKH V\VWHP KDV DXWRPDWLF GUDLQ YDOYHV

5.1.6 Safety Valve

$ VDIHW\ UHOLHI YDOYH LV LQVWDOOHG PLQF WKDQHL V U LW LQVLGH
WKH DLU FRPSUHVVRU SXPSV DLU LQWR WKH WDQNV 7KHVH VDIHW\ YDOYHV
SURWHFWV WKH WDQN DQG WKH WKH VLQ RI WKH FUXPR 7KLV
WRR PXFK SUHVVXUH 7KH YDOYH RI W XWKXDOYH WDQG FUH
RSHQ DW SVL ,I WKH VDIHW\ YDOYH V ZDLWKRXW G
VRPHWKLQJ LV ZURQJ +DYH WKH ZKDXG DQG EUDNH
PHFKDQLF

5.1.7 The Brake Pedal

<RX SXW RQ WKH EUDNHV E\ S
EUDNH SHGDO DOVR FDOOHG W
YDOYH 3XVKLQJ WKH SHGDO G
PRUH DLU SUHVVXUH /HWWLQJ
UHGXFHV WKH DLU SUHVVXUH DQ
5HOHDVLQJ WKH EUDNHV OHWV
JR RXW RI WKH V\VWHP VR WKH
WDQNV LV UHGXFHG ,W PXVW E
FRPSUHVVRU 3UHVVLQJ DQG U

5.1.8 Foundation Brakes

\RXU EUDNHV DUH XVHG
RQH GD\ GXULQJ FROG ZHDWKHU 'LS DLU WKH 6
7KH SDUWV RI WKH EUDNH DUH
Brake Drums, Shoes, and Linings: %UDNH
drums are located on each end of the vehicle's
D[OHV 7KH ZKHHOV DUH EROWH
WKH ZKHHO DQG PLQF KDQHL V U LW LQVLGH
SURWHFWV WKH WDQN DQG WKH WKH VLQ RI WKH FUXPR 7KLV
WRR PXFK SUHVVXUH

S-cam Brakes: :KHQ \RX SXVK WKH EUDNH SHGDO DLU LV OHW LQWR HDFK EUDNH FKDPEHU $LU SUHVVXUH pushes the rod out, moving the VODFN DGMX WZLVWLQJ F DPVKDIW 7 WKH 6 FDP because it is shaped OLNH WKH 7KH 6 FDP WKH EUDNH DZD\ IURP another and presses them against the LQVLGH RI WKH EUDNH GUXP :KHQ \RX UHOHDVH WKH EUDNH SHGDO WKH 6 FDP URWDWHV EDFN DQG D VSULQJ SXOOV WKH EUDNH VKRHV DZD\ IURP WKH GUXP OHWWLQJ WKH ZKHHOV UROO IUHHO\ DJDLQ See Figure 5.2

Figure 5.2a Wedge Brake

Figure 5.2 Drum Brake

Wedge Brakes: ,Q WKLV W\SH RI EUDNH WKH EUDNH FKDPEHU SXVKURG SXVKHV D ZHGJH GLUHFWO\ EHWZHHQ WKH HQGV RI WZR EUDNH VKRHV 7KLV shoves them apart and against the inside of the EUDNH GUXP :HGJH EUDNHV PD\ KDYH D VLQJOH EUDNH FKDPEHU RU WZR EUDNH FKDPEHUV SXVKLQJ ZHGJHV LQ DW ERWK HQGV RI WKH EUDNH VKRHV :HGJH W\SH EUDNHV PD\ EH VHOI DGMXVWLQJ RU PD UHTXLUH PDQXDO DGMXVWPHQW See Figure 5.2a

Disc Brakes: ,Q DLU RSHUDWHG GLVF EUDNH SUHVVXUH DFWV RQ D EUDNH F DGMXVWHU OLNH 6 FDP EUDNHV 6 FDP D ³SRWHU VFUHZ´ LV XVHG DUH DSSOLHG WKH SUHVVXUH R RQ WKH VODFN DGMXVWHU WXUQ FDXVHV WKH FDOLSHU WR FODPS D UROWRU OLNH D & FODPS See F

Figure 5.2b Disk Brake

:HGJH EUDNHV DQG GLVF EUDNH WKDQ 6 FDP EUDNHV

5.1.9 Supply Pressure Gauges

a pressure gauge connected to WKH DLU WDQ , I GXDO DLU EUDNH V WKH be a gauge for each half of the

V\VWHP RU D VLQJOH JDXJH ZLWK WZR LQGLFDWLQJ QHHGOHV
V\VWHPV ZLOO EH GLVFXVVHG LQ GHWDLO ODWHU RQ LQ WKLV FKDSWHU
WHOO \RX KRZ PXFK SUHVVXUH WKHUH LV LQ WKH EUDNH

5.1.10 Application Pressure Gauge

This gauge shows how much air SUHVVXUH \RX DUH QJ WR WKH EUDNHV 7KLV JDXJ W RQ DOO YHKLFOHV 1HHGLQ LQFUHDVH application pressure to hold the VDPH VSHHG PHDQV WKH EUDNHV DUH IDGLQJ <RX VKRXOG VORZ GRZQ DQG XVH D ORZHU JHDU 7KH QHHG IRU LQFUHDVHG DOVR EH FDXVHG E\ EUDNHV RXW RI DGMXVWPHQW OHDNV RU PHFKDQLFDO SUREOHPV

5.1.11 Low Air Pressure Warning

$ ORZ DLU SUHVVXUH ZDUQLQJ YHKLFOHV ZLWK DLU EUDNHV can see must come on before the air pressure LQ WKH WDQNV IDOOV EHORZ compressor governor cutout air pressure on ROGHU YHKLFOHV

7KH ZDUQLQJ LV XVXDOO\ D UHG OLJKW LW PD\ EH RQ WKH GDVK RU QHDU WKH YLVRU PD\ DOVR FRPH RQ

5.1.12 Stop Light Switch

$ ZDUQLQJ VLJQDO \RX 'ULYHUV EHKLQG \RX PXVW EH ZD \RXU EUDNHV RQ 7KH DLU EUDN SVL RU RQ KDQ WKH ZLWK DQ HOHFWULF VZLWFK WKD 7KH VZLWFK WXUQV RQ WKH EU SXW RQ WKH DLU EUDNHV

5.1.13 Front Brake Limiting Valve

6RPH ROGHU YHKLFOHV PDGH E D IURQW EUDNH OLPLWLQJ YDO FDE 7KH FRQWURO LV XVXDOO DQG ³VOLSSHU\´ :KHQ \RX SXW ³VOLSSHU\´ SRVLWLRQ WKH OL ³QRUPDO´ DLU SUHVVXUH WR WK Limiting valves were used to reduce the chance RI WKH IURQW ZKHHOV VNLGGLQ +RZHYHU WKH\ DFWXDOO\ UHG SRZHU RI WKH YHKLFOH)URQW XQGHU DOO FRQGLWLRQV 7HV ZKHO VNLGV IURP EUDNLQJ D RQ LFH 0DNH VXUH WKH FRQWU SRVLWLRQ WR KDYH QRUPDO VW

0DQ\ YHKLFOHV KDYH DXWRPDWL YDOYHV 7KH\ UHGXFH WKH DLU H[FHSW ZKHQ WKH EUDNHV DUH SVL RU PRUH DSSOLFDWLRQ SU FDQQRW EH FRQWURROHG E\ WK

5.1.14 Spring Brakes

All trucks, tractors, and buses must be equipped with emergency parking brakes. These brakes are usually powered by large, powerful springs that are held back by air pressure. If the air pressure is removed, the springs apply the brakes. (See Figure 5.3 below.) The spring brakes are a part of the brake chamber.

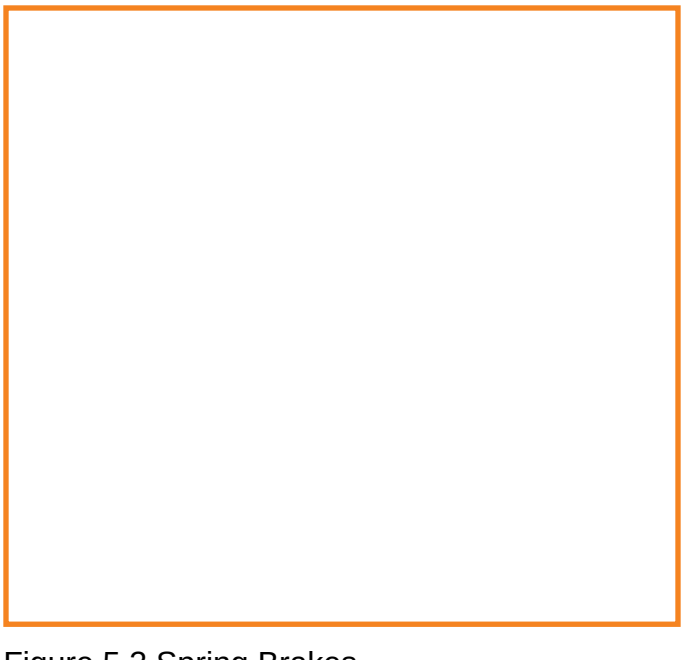


Figure 5.3 Spring Brakes

A parking brake control valve is usually a diamond-shaped knob that is mounted on the dashboard. It is used to set the air brakes. Some vehicles have a trailer brake control valve that is used to set the trailer brakes. Some vehicles have a combined parking brake control valve that sets both the truck and trailer brakes. Some vehicles have a trailer brake control valve that is used to set the trailer brakes. Some vehicles have a combined parking brake control valve that sets both the truck and trailer brakes.

Trailer Brake Control Valves: In some vehicles, a control handle on the steering column or dashboard is used to set the trailer brakes. This handle is usually yellow. Some vehicles have a trailer brake control valve that is used to set the trailer brakes. Some vehicles have a combined parking brake control valve that sets both the truck and trailer brakes.

5.1.15 Parking Brake Controls

Trailer Brake Handle

Dual Parking Control Valves: When main air SUHVVXUH LV ORVW WKH VSULQJ EUDNHV RQ WKH DQWL Some vehicles, such as buses, have a separate DLU WDQN ZKLFK FDQ EH XVHG WR RSHUDWH WKH VSULQJ EUDNHV 7KLV DOORZV \RX WR PRYH WKH YHKLFOH IRU DQ HPHUJHQF\ 2QH RI WKH YDOYHV LV XVHG WR SXOO RXW W\SH DQG LV XVHG WR DSSO\ WKH VSULQJ EUDNHV SDUNLQJ 7KH RWKHU YDOYH LV XVHG WR UHOHDVH ³RXW´ SRVLWLRQ :KHQ \RX SXVK WKH EXWWRQ IURP WKH VHSDUDWH DLU WDQN EUDNHV VR \RX FDQ PRYH WKH

:KHQ \RX UHOHDVH WKH EXWWRQ WKH VSULQJ EUDNHV FRPH RQ DJDLQ 7KHUH LV RQO\ HQRXJK DLU LQ WKH VHSDUDWH WDQN WR GR WKLV D IHZ WLPHV 7KHUHIRUH SODQ FDUHIXOO\ ZKHQ PRYLQJ RWKHUZLVH \RX PD\ be stopped in a dangerous location when the VHSDUDWH DLU VXSSO\ LV [illegible] RXW

See Figure 5.4

Figure 5.4 TPV and Brake Operation

5.1.16 Antilock Braking Systems (ABS)

7UXFN WUDFWRUV ZLWK DLU EU 0DUFK DQG RWKHU DLU WUXFNV EXVHV WUDLOHUV D EXLOW RQ RU DIWHU 0DUFK [illegible] commercial vehicles built before these dates [illegible] malfunction lamps to tell you if something isn't working.

- 7UDFWRUV WUXFNV DQG EXVHV LZLOO KDYH WR \RXU Q
  \HOORZ $%6 PDOIXQFWLRQ OLJKW RQ WKH VH RU LQFUHDVH
  LQVWUXPHQW SDQHO FDSDELOLW\ $%6 RQO\ DFWLY
  DUH DERXW WR ORFN XS $%6 G
- 7UDLOHUV ZLOO KDYH \HOORZ $%6 PDOIXQFWLRQ VKRUWHQ \RXU VWRSSLQJ GLVW
  lamps on the left side, either on the front or \RX NHHS WKH YHKLFOH XQGHU
  UHDU FRUQHU EUDNLQJ See Figure 5.5)
- 'ROOLHV PDQXIDFWXUHG RQ DU DIWHU
  DUH UHTXLUHG WR KDYH
  OHIW VLGH
- 2Q QHZHU YHKLFOHV WKH P
  FRPHV RQ DW VWDUW XS IRU
  WKHQ JRHV RXW TXLFNO\ 2
  WKH ODPS FRXOG VWD\ RQ
  RYHU ¿YH PSK ,I WKH ODPS
  WKH EXOE FKHFN RU JRHV
  XQGHU ZD\ \RX PD\ KDYH O
  DW RQH RU PRUH ZKHHOV

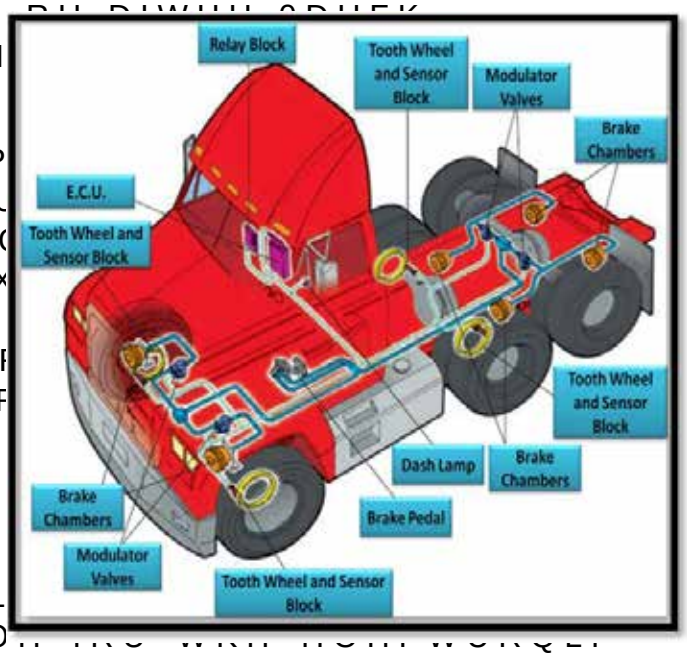


Figure 5.6 ABS Components

In the case of towed units manufactured before it
ZDV UHTXLUHG E\ WKH 'HSDUWP
LW PD\ EH GL^FXOW WR WHOO L WK
$%6 /RRN XQGHU WKH YHKLFO
FRQWURO XQLW (&8 DQG ZKHHG VSHHG VHQVRU ZLUHV
FRPLQJ IURP WKH EDFN RI WKH EUDNHV

Figure 5.5 ABS System

Subsection 5.1
7HVW <RXU .QRZOHGJH

1. Why must air tanks be drained?
2. What is a supply pressure gauge used for?
3. All vehicles with air brakes must have a low air pressure warning signal. True or False?
4. What are spring brakes?
5. Front wheel brakes are good under all conditions. True or False?
6. How do you know if your vehicle is equipped with antilock brakes?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UHWXUQ WR WKH VHYHQ VWHS 5.1.

5.2 DUAL AIR BRAKE

0RVW KHDY\ GXW\ YHKLFOHV XVH GXDO DLU EUDNH V\VWHPV IRU VDIHW\ $ GXDO DLU EUDNH V\VWHP KDV WZR VHSDUDWH DLU EUDNH V\VWHPV ZKLFK XVH D VLQJOH VHW RI EUDNH FRQWUROV (DFK V\VWHP KDV LWV RZQ DLU WDQNV KRVHV GLQHV W\SLFDOO\ RSHUDWHV WKH UHJXODU EUDNHV RQ WKH UHDU D[OH RU D[OHV 7KH RWKHU V\VWHP RSHUDWHV WKH UHJXODU EUDNHV RQ WKH IURQW D[OH DQG SRVVLEO\ RQH UHDU D[OH %RWK V\VWHPV VXSSO\ DLU WR WKH WUDLOHU LI WKHUH LV RQH 7KH ³SULPDU\´ V\VWHP 7KH RWKHU ³VHFRQGDU\´ V\VWHP See Figure 5.5 and Air Brake Appendix 1 at end of this chapter

%HIRUH GULYLQJ D YHKLFOHH ZLWK GXDO DLU V\VWHPV allow time for the air compressor to build up a PLQLPXP RI SVL SUHVVXUH LQ ERWK WKH SULPDU\ DQG VHFRQGDU\ V\VWHPV :DWFK WKH SUHVVXUH JDXJHV RU QHHGOHV LI WKH V\VWHP KDV WZR QHHGOHV WR QHHGOHV DUH SUHVVXUH JDXJHV RU QHHGOHV LI WKH V\VWHP KDV WZR SUHVVXUH JDXJHV RU QHHGOHV attention to the low air pressure warning light and EX]]HU 7KH ZDUQLQJ OLJKW DQG EX]]HU VKRXOG R‡ ZKHQ DLU SUHVVXUH LQ ERWK V\VWHPV ULVHV WR D YDOXH VHW E\ WKH PDQXIDFWXUHU 7KLV YDOXH PXVW

EH JUHDWHU WKDQ SVL SVL

7KH ZDUQLQJ OLJKW DQG EX]]HU EHIRUH WKH DLU SUHVVXUH GUR LQ HLWKHU V\VWHP ,I WKLV KDSSHQV \RX VKRXOG VWRS ULJKW DZD\ YHKLFOH ,I RQH DLU V\VWHP LV HLWKHU WKH IURQW RU WKH U RSHUDWLQJ IXOO\ 7KLV PHDQV WR VWRS %ULQJ WKH YHKLFOH WKH DLU EUDNHV V\VWHP ¿[HG

5.3 INSPECTING AIR BRAKE 6<67(06

<RX VKRXOG XVH WKH EDVLF VH SURFHGXUH GHVFULEHG LQ &KDS YHKLFOH 7KHUH DUH PRUH LWH YHKLFOH ZLWK DLU EUDNHV WKD These steps are discussed below, in the order WKH\¿ WLQWR WKH VHYHQ VWHS

5.3.1 During Step 2: Engine Compartment Checks

&KHFN $LU &RPSUHVVRU 'ULYH % LV EHOW GULYHQ ,I WKH DLU GULYHQ FKHFN WKH FRQGLWLR EHOW ZKLFK XVH D

5.3.2 During Step 5: Walk-Around Inspection

&KHFN 6ODFN $GMXVWHUV RQ 6 OHYHO JURXQG DQG FKRFN WKH YHKLFOH IURP PRYLQJ 7XUQ R‡ VR \RX FDQ PRYH WKH VODFN DG DQG SXOO KDUG RQ HDFK VODF FDQ UHDFK ,I D VODFN DGMXVW DGMXVWPH EH YHU\ KDUG WR VWRS 2XW R are the most common problem found in roadside LQVSHFWLRQV %HFDXVH FKHFN $QG VLQFH automatic slack adjustors adjust themselves during full brake applications, they must be checked

Automatic adjusters should not have to be manually adjusted except during brake installation. Manual adjustment may indicate excessive clearance between the brakes and drums, a problem in the adjuster itself, a problem with the related foundation brake components, or improper lubrication.

The manual adjustment of an automatic adjuster will gradually increase the brake chamber pushrod travel as the brake linings wear. Although this is normal, manual adjustment is required when the brakes have been adjusted beyond the point where the automatic adjuster can compensate for wear.

If the manual adjustment of an automatic adjuster should not correct the brake adjustment, the automatic adjuster is not functioning properly and should be replaced.

The manual adjustment of an automatic adjuster should not be used as a means to correct brake adjustment if it is slipping. Slipping is a condition where the adjuster gear teeth do not engage properly with the worm gear. Slipping may be caused by excessive brake lining wear, improper brake adjustment, or a damaged adjuster.

Note: Automatic slack adjusters are manufactured by several companies. Each manufacturer has its own unique design. The manufacturer's Service Manual should be consulted prior to troubleshooting a brake adjustment problem.

Check Brake Drums (or Discs), Linings, and Hoses:

- Brake drums (or discs) must not have cracks longer than one half the width of the friction area.
- Brake Linings (pads or friction material) must not be broken or cracked or greasy. Minimum lining thickness is usually 1/8 inch, but check with the vehicle manufacturer's specifications.
- Mechanical parts must be in place, not broken or missing.
- Check the air hoses connected to the brake chambers for cracks, abrasions, or other damage that could cause air leaks.

Check Brake Chambers: During a Static Air Brake Check, listen for air leaks at the brake chambers and at the connections to the brake chambers. Use soapy water to check for leaks that are not audible.

An illustrated, detailed explanation of this process is in Chapter 11.

Check Rate of Air Pressure Build-up: When the engine is at normal operating speed, the pressure should build from 85 psi to 100 psi within a specified time. Refer to the vehicle manufacturer's specifications. If it is not specified, it should take no more than 45 seconds for the system to build up from 85 psi to 100 psi.

If air pressure does not build up fast enough, your supervisor may require you to have the engineering department check the air compressor governor.

Check Air Compressor Governor Cut-in and Cut-out Pressures: Using an accurate gauge, observe the air pressure gauge as the engine runs at idle. The air governor should cut out the air compressor at the maximum air pressure specification. The pressure should drop at least 20 psi before the governor cuts in. The compressor should cut in at about the minimum air pressure specification. Refer to the vehicle manufacturer's specifications.

,I WKH DLU JRYHUQRU GRHV QRW WZHRSUR QDYDQGHVRFUWLEHGEUDNH S
DERYH LW PD\ QHHG WR EH ¿[HGWDQSRVHUVRUHWKDW
GRHV QRW ZRUN SURSHUO\ PD\ QRW NHHS HQRXJK DLU
SUHVVXUH IRU VDIH GULYLQJ

7KH ORZ DLU SUHVVXUH ZDU
or signal must come on before the pressure
GURSV WR OHVV WKDQ WR
RU WDQN ZLWK WKH ORZHVW
DLU V\VWHPV See Figure 5.7

Test Air Leakage Rate: :LWK D IXOO\ FKDUJHG DLU
V\VWHP W\SLFDOO\ SVL

Test the leakage rate without the foot brake applied:

7XUQ R‡ WKH HQJLQH

5HOHDVH WKH SDUNLQJ EUD

7LPH WKH DLU SUHVVXUH G
should be less than two psi in one minute for single vehicles and less than three psi in one minute for combination vehicles.

1 H [W
st the leakage rate with the foot brake applied. With the air pressure built up to governor FXWR‡ ± SVL

Low Air Pressure Warning Light

6KXW R‡ WKH HQJLQH

&KRFN \RXU ZKHHOV LI QHFHVVDU\

5HOHDVH WKH SDUNLQJ EUDNH DOO YHKLFOHV

5HOHDVH WKH WUDFWRU SURWHFWLRQ YDOYH
FRPELQDWLRQ YHKLFOHV

)XOO\ DSSO\ WKH IRRW EUDNH

+ROG WKH IRRW EUDNH IRU RQH PLQXWH

Check the air gauge to see if the air pressure drops more than three pounds in one minute (single vehicle) or four pounds in one minute (combination vehicle).

,I WKH DLU SUHVVXUH IDOOV PRUH WKDQ WKUHH SVL
in one minute for single vehicles (more than four psi for combination vehicles), the air loss
UDWH LV WRR PXFK &KHFN IRU DLU OHDNV DQG ¿[
EHIRUH GULYLQJ WKH YHKLFOH 2WKHUZLVH \RX
FRXOG ORVH \RXU EUDNHV ZKLOH GULYLQJ

Test Low Pressure Warning Signal:

6KXW WKH HQJLQH R‡ ZKHQ \RX KDYH HQRXJK
air pressure so that the low pressure warning
VLJQDO LV QRW RQ

7XUQ WKH HOHFWULFDO SRZHU RQ 7HVW WKH ORZ DLU SUHVVXUH :DU

,I WKH ZDUQLQJ VLJQDO GRHVQ¶W Service Brakes RX FRXOG ORVH DLU SUHVVXUH DQG \RX ZRXOG QRW NQRZ LW 7KLV FRXOG FDXVH VXGGHQ HPHUJHQF\ EUDNLQJ LQ D VLQJOH FLUFXLW DLU V\VWHP ,Q GXDO V\VWHPV WKH VWRSSLQJ GLVWDQFH ZLOO EH LQFUHDVHG 2QO\ OLPLWHG EUDNLQJ FDQ EH GRQH EHIRUH WKH VSULQJ EUDNHV FRPH RQ

Check That Spring Brakes Come On Automatically: &RQWLQXH WR IDQ R‡ WKH DLU SUHVVXUH E\ VWHSSLQJ RQ DQG R‡ WKH EUDNH SHGDO WR UHGXFH WDQN SUHVVXUH 7KH WUDFWRU SURWHFWLRQ YDOYH DQG SDUNLQJ EUDNH YDOYH VKRXOG FORVH SRS RXW RQ D WUDFWRU WUDLOHU FRPELQDWLRQ YHKLFOH DQG WKH SDUNLQJ EUDNH YDOYH VKRXOG FORVH SRS RXW RQ RWKHU FRPELQDWLRQ DQG VLQJOH YHKLFOH W\SHV when the air pressure falls to the manufacturer's VSHFL¿FDWLRQ ± SVL 7KLV ZLOO FDXVH WKH VSULQJ EUDNHV WR FRPH RQ

Test Parking Brake:

Test the parking brake using the following method:

6WRS WKH Y

$SSO\ WKH S EUDNH

3ODFH WKH ` ORZ JHDU

'ULYH IRUZDUG VORZO\ DQG SXOO JHQWO\ DJDLQVW WKH EUDNH WR WHVW WKDW WKH EUDNH ZLOO KROG

On Combination Vehicles, also test the trailer parking brakes as follows:

6WRS WKH Y

$SSO\ SXOO Tractor Protection Valve 7UDLOHU $LU ; release (push in) the SDUNLQJ EUDN

3ODFH WKH YHKLFOH LQ ORZ JHDU

'ULYH IRUZDUG VORZO\ DQG SXOO :KHQ VWRSSHG VHOHFW DJDLQVW WKH EUDNH

,I WKH EUDNHV GR QRW VWRS WKH YHKLFOH IURP PRYLQJ IRUZDUG WKH\ DUH IDXOW\ DQG PXVW EH DGMXVWHG RU YHKLFOH ZLWKRXW $%6 \RX WUDYHO

5HOHDVH WKH SDUNLQJ EUDNH DQG GULYH IRUZDUG $SSO\ WKH EUDNHV ¿UPO\ XVLQJ WKH EUDNH SHGDO WR UHGXFH WDQN SUHVVXUH E\ VWHSSLQJ RQ DQG R‡ WKH EUDNH SHGDO 1RWH DQ\ YHKLFOH ¿WWLQJ´ VXFK DV D WUDLOHU RU GHDG\HG VWRSSLQJ D VKRZ \RXU SURGXFW ZKHQ DQG ZKHUH ZRXOG ¶W NQRZ DERXW XQWLO RQ WKH URDG

Subsections 5.2 and 5.3

7HVW <RXU .QRZOHGJH

1. What is a dual air brake system?

:KDW DUH WKH VODFN DGMX

+RZ FDQ \RX FKHFN VODFN D

4. How can you test the low pressure warning signal?

5. How can you check that the spring brakes come on automatically?

6. What are the maximum leakage rates?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH 5.2 and 5.3.

5.4 USING AIR BRAKES

5.4.1 Normal Stops

3XVK WKH EUDNH SHGDO GRZQ & VR WKH YHKLFOH FRPHV WR D V \RX KDYH D PDQXDO WUDQVPLVV clutch in until the engine rpm is down, close to

5.4.2 Braking with Antilock Brakes

CKHFN \RXU EUDNH KDQGE RQ VOLS YHKLFOH ZLWKRXW $%6 \RXU Z

:KHQ \RXU VWHHULQJ ZKHHOV 5HPHPEHU \RX \RXU $%6 PDOIXQ
VWHHULQJ FRQWURO :KHQ \RXU EUDNHV DUH DSSOLHG
\RX PD\ VNLG MDFNNQLIH RU HYHQ VSLQ WKH ZKHHOV

$%6 KHOSV \RX DYRLG ZKHHO ORFNXS 7KH FRPSXWHU
VHQVHV LPSHQGLQJ ORFNXS UHGXFHV WKH EUDNLQJ
SUHVVXUH WR D VDIH OHYHO DQG VXSSOLHV

<RX PD\ RU PD\ QRW EH DEOH WR VWRS JDVWHU ZLWK
$%6 EXW \RX VKRXOG EH DEOH WR VWHHU DURXQG DQ
REVWDFOH ZKLOH EUDNLQJ DQG DYRLG VNLGV FDXVHG
E\ RYHU EUDNLQJ

+DYLQJ $%6 RQ RQO\ WKH WUDFWRU RQO\ WKH WUDLOHU
RU HYHQ RQ RQO\ RQH D[OH VWLOO JLYHV \RX PRUH
FRQWURO RYHU WKH YHKLFOH GXULQJ EUDNLQJ %UDNH
QRUPDOO\

:KHQ RQO\ WKH WUDFWRU KDV $%6 \RX VKRXOG EH
able to maintain steering control, and there is
OHVV FKDQFH RI MDFNNQLIH RU VSLQ 7KH GULYHU
WKH WUDLOHU DQG OHW XS RQ WKH EUDNHV LI \RX
VDIHO\ GR VR LI LW EHJLQV WR VZLQJ RXW

:KHQ RQO\ WKH WUDLOHU KDV $%6 WKHUH LV OHVV
FKDQFH RI WKH WUDLOHU VZLQJLQJ RXW MDFNNQLIH
%XW LI \RX ORVH VWHHULQJ FRQWURO RU VWDUW D WUDFWRU
MDFNNQLIH OHW XS RQ WKH EUDNHV LI \RX FDQ VDIHO\
GR VR XQWLO \RX JDLQ FRQWURO

:KHQ \RX GULYH D WUDFWRU WUDLOHU FRPELQDWLRQ ZLWK
$%6 \RX VKRXOG EUDNH DV \RX DOZD\V GR
other words:

- 8VH RQO\ WKH EUDNLQJ IRUFH QHFHVVDU\ WR
  VWRS VDIHO\ DQG VWD\ LQ FRQWURO
- %UDNH WKH VDPH ZD\ UHJDUGOHVV RI ZKHWKHU
  \RX KDYH $%6 RQ WKH WUDFWRU WKH WUDLOHU RU
  ERWK
- $V \RX VORZ GRZQ PRQLWRU \RXU WUDFWRU
  DQG WUDLOHU DQG EDFN R‡ WKH EUDNHV LI LW LV
  VDIH WR GR VR WR VWD\ LQ FRQWURO

7KHUH LV RQO\ RQH H[FHSWLRQ WR WKLV SURFHGXUH LI
\RX DOZD\V GULYH D VWUDLJKW WUXFN RU FRPELQDWLRQ
ZLWK ZRUNLQJ $%6 RQ DOO D[OHV \RX FDQ XVH
WKH EUDNHV GXULQJ DQ HPHUJHQF\ WR VWHHU ZLWK
:LWKRXW $%6 \RX VWLOO KDYH QRUPDO EUDNH
IXQFWLRQV 'ULYH DQG EUDNH DV \RX DOZD\V KDYH

5.4.3 Emergency Stops

\RXU QDWXUDO UHVSRQVH LV W
is a good response if there's enough distance to
VWRS DQG \RX XVH WKH EUDNH
<RX VKRXOG EUDNH LQ D ZD\ W
YHKLFOH LQ D VWUDLJKW OLQH
LW EHFRPHV QHFHVVDU\ 8QOHV
\RXU YHKLFOH \RX FDQ XVH WKH
PHWKRG RU WKH 3VWDE EUDNH

Controlled Braking: :LWK WKLV PHWKRG
WKH EUDNHV DV KDUG DV \RX F
WKH ZKHHOV .HHS VWHHULQJ
%XW NHHS \RXU H\HV RQ
YHU\ VPDOO ZKLOH GRLQJ WKLV
ODUJHU VWHHULQJ DGMXVWPHQ
UHOHDVH WKH EUDNHV 5H DSSO
DV\RX FDQ

6WDE %UDNLQJ

- $SSO\ \RXU EUDNHV DOO WKH
  5HOHDVH EUDNHV ZKHQ ZKHH

$V VRRQ DV WKH ZKHHOV VWI
WKH EUDNHV IXOO\ DJDLQ LV
second for the wheels to start rolling after
\RXU HYHDVW\ WR
EUDNHV EHIRUH WKH ZKHHOV
YHKLFOH ZRQ¶W VWUDLJKWH

5.4.4 Stopping Distance

Stopping distance was described in Chapter 2
XQGHU 3SHHG DQG 6WRSSLQJ '
WKH EUDNHV LI LW LV
EUDNHV WKHUH LV DQ DGGHG
7KLV LV WKH WLPH UHTXLUHG I
DIWHU WKH EUDNH SHGDO LV SX
LWKRXW $%6 RU FRPELQDWLRQ XVHG
HPHUJHQF\ VWUDLJKW WUXFN DSSO\
EUDNH
RZHYHU ZLWK DLU EUDNHV LW
KDOI VHFRQG RU PRUH IRU WKH
WKH OLQHV WR WKH EUDNHV

The air brake lag distance at 55 mph on dry pavement adds about 32 feet. So at 55 mph, for an average driver under good traction brake conditions, the total stopping distance is over 450 feet.

Figure 5.8 Stopping Distance

Thus, the total stopping distance for vehicles with DLU EUDNH V\VWHPV LV PDGH XS RI IRXU GL‡HUHQW factors:

Perception Distance +

Reaction Distance +

Brake Lag Distance +

(‡HFWLYH 6WRSSLQJ 'LVWDQFH

Total Stopping Distance (See Figure 5.8)

GUXPV DQG WKH IRUFH RI WKLV &RQWLQXHG RYHUXVH PD\ LQFUH WKH YHKLFOH EDQQRW EH VORZ

%UDNH IDGH LV DOVR D‡HFWHG VDIHO\ FRQWURO D YHKLFOH HY VKDUH RI WKH ZRUN %UDNHV R stop doing their share before those that are in DGMXVWPHQW 7KH RWKHU EUDN DQG IDGH DQG WKHUH ZLOO QR DYDLODEOH WR FRQWURO WKH Y RXW RI DGMXVWPHQW TXLFNO\ DUH KRW WKHUHIRUH FKHFN EU

5.4.5 Brake Fading or Failure

%UDNHV DUH VR GHVLJQHG WKD UXE DJDLQVW WKH EUDNH GUX YHKLFOH %UDNLQJ FUHDWHV GHVLJQHG WR WDNH D ORW RI FDQ IDGH RU IDLO IURP H[FH E\ XVLQJ WKHP WRR PXFK DQG HQJLQH EUDNLQJ H‡HFW

([FHVVLYH XVH RI WKH VHUYLFH EUDNHV UHVXOWV LQ RYHUKHDWLQJ DQG OHDGV WR EUDNH IDGH UHVXOWV IURP H[FHVVLYH KHDW FDXVLQJ FKHPLFDO FKDQJHV LQ WKH EUDNH OLQLQJ ZKLFK UHGXFH IULFWLRQ DQG DOVR FDXVH H[SDQVLRQ RI WKH EUDNH GUXPV DQG WKH RYHUKHDWHG GUXPV H[SDQG and linings have to move farther to contact the

GH¿QLWH VORZGRZQ

$SSO\ WKH EUDNHV GXVW KD ;KHQ \RXU VSHHG KDV EHHQ DSSURSULDWHO\ ¿YH PSK EHOR VSHHG UHGXFH WKH EUDNH VKRHV VKRXOG ODVW IRU DERXW WKU

5.4.6 Proper Braking Technique

Remember: The use of brakes on a long and/or steep downgrade is only a VXSSOHPHQW WR HQJLQH IRU WKH engine.

2QFH WKH YHKLFOH LV LQ WKH IROORZLQJ LV WKH SURSHU EUD

:KHQ \RXU VSHHG KDV LQFUHDVHG WKH \RXU EUDNHV ,I ³VDIH´ VSHHG UHSHDW VWHSV XVHG WKH EUDNHV OLJKWO\ ZKLO WR KHDW DQG GU\ WKHP

)RU H[DPSOH LI \RXU ³VDIH´ VSHHG LV PSK \RX ZRXOG QRW DSSO\ WKH EUDNHV KDUG GRZQ WR PSK UHDFKHV PSK <RX QRZ DSSO\ WKH EUDNHV KDUG LQ \RXU DLU HQRXJK WR JUDGXDOO\ UHGXFH WKH VSHHG WR PSK DQG WKHQ UHOHDVH WKH EUDNHV 5HSHDW WKH VWHSV XQWLO \RX UHDFK WKH ERWWRP RI WKH GRZQJUDGH

Never leave your vehicle unattended without applying the parking brakes or chocking the ZKHHOV <RXU YHKLFOH PLJKW FDXVH LQMXU\ DQG GDPDJH

5.4.7 Low Air Pressure

If the low air pressure warning comes on, stop DQG VDIHO\ SDUN \RXU YHKLFOH DV V OH 7KHUH PLJKW EH DQ DLU OHDN LQ &RQWURROHG EUDNLQJ LV SRVVLEOH RXJK DLU UHPDLQV LQ WKH DLU WDQNV 7 NHV will come on when the air pressure drops into the UDQJH RI WR SVL $ KHDYLO\ ORD LOO WDNH D ORQJ GLVWDQFH WR VWRS EH SULQ EUDNHV GR QRW ZRUN RQ DOO D[OHV GHG YHKLFOHV RU YHKLFOHV RQ VOLSSHU NLG RXW RI FRQWURO ZKHQ WKH VSULQJ EUDNHV FRPH RQ ,W is much safer to stop while there is enough air in WKH WDQNV WR XVH WKH IRRW EUDNHV

5.4.8 Parking Brakes

$Q\ WLPH \RX SDUN XVH WKH SDUNLQJ EUDNHV H[FHSW DV QRWHG EHORZ 3XOO WKH SDUNLQJ EUDNH FRQWURO NQRE RXW WR DSSO\ WKH SDUNLQJ EUDNHV SXVK LW LQ WR UHOHDVH 7KH FRQWURO ZLOO EH D \HOORZ GLDPRQG VKDSHG NQRE ODEHOHG ³SDUNLQJ EUDNH YHKLFOHV 2Q RO FOHV PD\ EH D URXQG E RU some other shape (including a lever that swings from side to VLGH RU XS DQG G

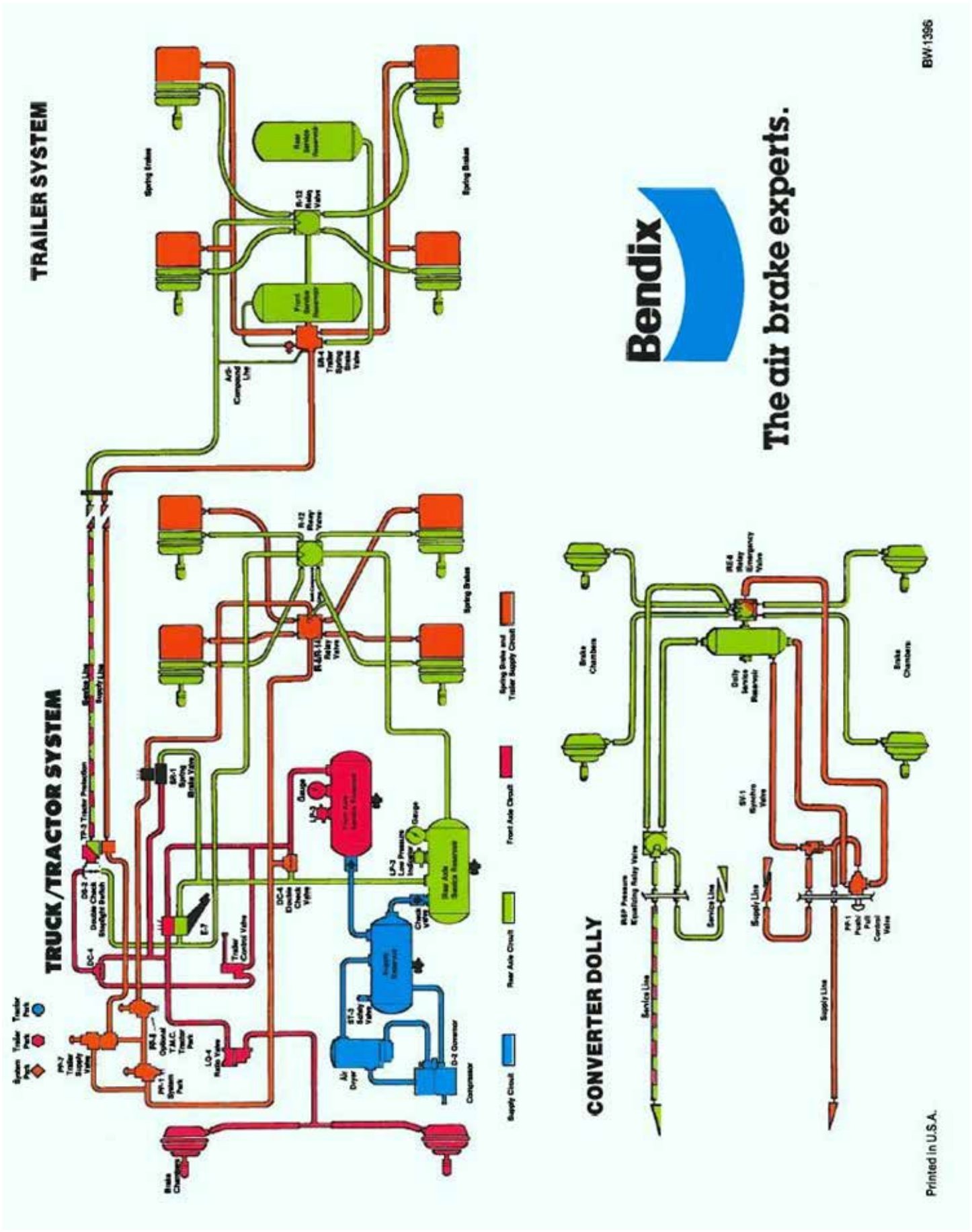
'RQ¶W XVH WKH SDUNLQJ EUDNHV WKH EUDNHV DUH YHU\ KRW IURP MXVW KDYLQJ FRPH GRZQ D VWHHS JUDGH RU LI WKH EUDNHV DUH YHU\ ZHW LQ IUHH]LQJ WHPSHUDWXUHV ,I SDUNLQJ EUDNHV DUH XVHG ZKLOH WKH EUDNHV DUH KRW WKH FRUPDO EUDNLQJ FDQ EH GDPDJHG E\ WKH KHDW LQ IUHH]LQJ WHPSHUDWXUHV ZKHQ WKH EUDNHV DUH YHU\ ZHW WKH\ FDQ IUHH]H DQG SUHYHQW \RX IURP PRYH 8VH ZKHHO FKRFNV RQ DQ\ KLOO WR KROG WKH YHKLFOH /HW KRW EUDNHV FRRO EHIRUH

Subsections 5.4

7HVW <RXU .QRZOHGJH

1. Why should you be in the proper gear before starting down a hill?
2. What factors can cause brakes to fade or fail?
3. The use of brakes on a long, steep downgrade is only a supplement to the EUDNLQJ HúHFW RI WKH HQJLQH
4. If you are away from your vehicle only a short time, you do not need to use the parking brake. True or False?
5. How often should you drain air tanks?
6. How do you brake when you drive a tractor- trailer combination with ABS?
7. What should you do if your ABS is not working. True or False?

These questions may be on your CDL test. If you



Appendix 1 The Air Brake System

Chapter 6: Combination Vehicles

This Chapter Covers:

- Driving Combinations
- &RPELQDWLRQ 9HKLFOH $LU %UDNHV
- $QWLORFN %UDNH 6\VWHPV
- &RXSOLQJ DQG 8QFRXSOLQJ
- Inspecting Combinations

This chapter provides information needed to SDVV WKH WHVWV IRU FRPELQDWLRQ WUDLOHU GRXEOHV WULSOHV WUDLOHU 7KH LQIRUPDWLRQ LV PLQLPXP NQRZOHGJH QHHGHG IRU GULYLQJ FRPELQDWLRQ YHKLFOHV <RX &KDSWHU LI \RX QHHG WR SDVV WKH WHVW IRU GRXEOHV DQG WULSOHV

6.1 DRIVING COMBINATION 9(+,&/(6$)(/<

&RPELQDWLRQ YHKLFOHV DUH XVXDOO\ KHDYLHU DQG UHTXLUH PRUH GULYLQJ VNLOO WKDQ VLQJOH FRPPHUFLDO YHKLFOHV 7KLV PHDQV WKDW GULYHUV RI FRPELQDWLRQ YHKLFOHV QHHG PRUH NQRZOHGJH DQG VNLOO WKDQ GULYHUV RI VLQJOH YHKLFOHV ZH WDON DERXW VRPH LPSRUWDQW VDIHW\ TXHVWLRQV WKDW DSSO\ VSHFL¿FDOO\ WR FRPELQDWLRQ YHKLFOHV

6.1.1 Rollover Risks

0RUH WKDQ KDOI RI WUXFN GULYHU GHDWKV LQ FUDVKHV DUH WKH UHVXOW RI WUXFN UROORYHUV .HHS WKH FDUJR LV SLOHG XS LQ D WUXFN WKH PRYHV KLJKHU XS IURP WKH URDG 7KH WUXFN EHFRPHV HDVLHU WR WXUQ RYHU)XOO\ ORDGHG ULJV DUH WHQ WLPHV PRUH OLNHO\ WKDQ HPSW\ YHKLFOHV

7KH IROORZLQJ WZR WKLQJV ZLOO KHOS \RX SUHYHQW rollover:

.HHS WKH FDUJR DV FORVH WR WKH JURXQG DV SRVVLEOH

'ULYH VORZO\ DURXQG WXUQV

.HHSLQJ FDUJR ORZ LV HYHQ PRUH LPSRUWDQW LQ FRPELQDWLRQ YHKLFOHV WKDQ LQ VWUDLJKW WUXFNV $OVR NHHS WKH ORDG FHQWHUHG RQ \RXU YHKLFOH ,I WKH ORDG LV WR RQH VLGH VR LW PDNHV D WUDLOHU OHDQ

D UROORYHU LV PRUH OLNHO\

is centered and spread out as much as possible

&DUJR GLVWULEXWLRQ LV FRYH PDQXDO

5ROORYHUV KDSSHQ ZKHQ \RX V VORZO\ DURXQG FRUQHUV RQ U $YRLG TXLFN ODQH FKDQJHV H DQG 6HHLQJ WUDFWRU WUDLOHU JLYH \RX WKH 7UXFNV ZLWK WUDLOHUV KDYH VKRXOG DOVR VWXG\ WKH ZKLS H‡HFW :KHQ \RX P FKDQJH WKH WUDFN WKH WUDLOHU RYHU 7KHUH DUH PD RQO\ WKH WUDLOHU KDV RYHUW

³5HDUZDUG DPSOL¿FDWLRQ´ FD WKH ZKLSFitureH6E1WVKRZV HLJKW of combination vehicles and the rearward DPSOL¿FDWLRQ HDFK KDV LQ D 9HKLFOHV ZLWK WKH OHDVW FUD shown at the top and those with the most at the ERWWRP 5HDUZDUG DPSOL¿FDW LQ WKH FKDUW PHDQV WKDW DV OLNHO\ WR WXUQ RYHU DV W WKDW WULSOHV KDYH D UHDUZD 7KLV PHDQV \RX FDQ UROO WKH WLPHV DV HDVLO\ DV D ¿YH 6WHHU JHQWO\ DQG VPRRWKO\ 7KH WUDLOHUV I \RX PDNH D VXGG \RXU)VWHHULQJ ZKHHO \RXU W WR UROO RYHU LQ D FUDVK Follow far enough behind other vehicles (at OHDVW VHFRQG IRU HDFK IH OHQJWK SOXV DQRWKHU VHFR PSK /RRN IDU HQRXJK GRZQ W EHLQJ VXUSULVHG DQG KDYLQJ ODQH FKDQJH $W QLJKW GULYH REVWDFOHV ZLWK \RXU KHDGOLJ WR FKDQJH ODQHV RU VWRS JH VDIH VSHHG EHIRUH JRLQJ LQWR

)LJXUH 5HDUZDUG $PSOL¿FDWLRQ

6.1.3 Brake Early

&RQWURO \RXU VSHHG ZKHWKHU IXOO\ ORDGHG RU HPSW\ /DUJH FRPELQDWLRQ YHKLFOHV WDNH ORQJHU WR VWRS ZKHQ WKH\ DUH HPSW\ WKDQ ZKHQ WKH\ DUH IXOO\ ORDGHG :KHQ OLJKWO\ ORDGHG WKH YHU VWL‡ VXVSHQVLRQ VSULQJV DQG VWUXFWXUHV JLYH SRRU WUDFWLRQ DQG PDNH LW YHU\ HDV\ WR ORFN XS WKH ZKHHOV <RXU WUDLOHU FDQ VZLQJ RXW DQG VWULNH RWKHU YHKLFOHV <RXU WUDFWRU FDQ MDFNNLIH YHU\ TXLFNO\ <RX DOVR PXVW EH YHU\ FDUHIXO DERXW GULYLQJ ³EREWDLO´ WUDFWRUV WUDFWRUV ZLWKRXW VHPLWUDLOHUV 7HVWV KDYH VKRZQ WKDW EREWDLOV FDQ EH YHU\ KDUG WR VWRS VPRRWKO\ ,W WDNHV WKUHH ORQJHU WR VWRS WKDQ D WUDFWRU VHPLWUDLOHU ORDGHG WR PD[LPXP JURVV ZHLJKW

,Q DQ\ FRPELQDWLRQ YHKLFOH DOORZ ORWV RI IROORZLQJ GLVWDQFH DQG ORRN IDU DKHDG VR \RX FDQ EUDNH HDUO\ 'RQ¶W EH FDXJKW E\ VXUSULVH DQG KDVH WR PDNH D ³SDQLF´ VWRS

6.1.4 Railroad-Highway Crossings

5DLOURDG KLJKZD\ FURVVLQJV SUREOHPV SDUWLFXODUO\ ZKHQ ORZ XQGHUQHDWK FOHDUDQFH VWXFN RQ UDLVHG FURVVLQJV

- /RZ VOXQJ XQLWV ORZER\ FDU FDUULHU PRYLQJ YDQ SRVVXP EHOO\ OLYHVWRFN WUDLOHU

6.1.3 Brake Early

with its landing gear set to accommodate a WDQGHP D[OH WUDFWRU

lRU DQ \UHDVRQ \RXU JHW VWXFN RQ WKH WUDFNV get out of the YHKLFOH DQG ZDYH \RXU ORRN XS WKH lURP WKH WUDFNV & KHFN VLJQSRVWV TXLFNO\ or signal housing at the crossing lRU HPHUJHQF\ QRWL¿FDWLRQ lQIRUPDWLRQ

&DOO RU RWKHU HPHUJHQF\ number and give the location of the crossing XVLQJ DOO LGHQWL¿DEOH ODQ 27 QXPEHU LI SRVWHG

6.1.5 Prevent Trailer Skids

:KHQ WKH ZKHHOV RI D WUDLOH ZLOO WHQG WR VZLQJ DURXQG WR KDSSHQ ZKHQ WKH WUDLOHU 7KHVH WUDLOHUV FDQ JHW ORDGHG 7KLV W\SH RI MDFNNQ ³WUDLOHU SHQGXOLH´

Figure 6.2 Trailer Jackknife

The procedure for stopping a trailer skid is:

Recognize the Skid: 7K H HDUOLHVW DQG EHVW ZD\ WR UHFRJQL]H WKDW WKH WUDLOHU KDV VWDUWHG WR VNLG LV E\ VHHLQJ LW LQ \RXU PLUURUV $Q\ WLPH \RX DSSO\ WKH EUDNHV KDUG FKHFN WKH PLUURUV WR PDNH VXUH WKH WUDLOHU LV VWD\LQJ ZKHUH LW VKRXOG EH 2QFH WKH WUDLOHU VZLQJV RXW RI \RXU ODQH LW¶V YHU\ GLˆFXOW WR SUHYHQW D MDFNNQLIH

Stop Using the Brake: 5HOHDVH WKH EUDNHV WR JHW WUDFWLRQ EDFN 'R QRW XVH WKH WUDLOHU KDQG EUDNH LI \RX KDYH RQH WR ³VWUDLJKWHQ RXW WKH ULJ ´ 7KLV LV WKH ZURQJ WKLQJ WR GR VLQFH WKH EUDNHV RQ WKH WUDLOHU ZKHHOV FDXVHG WKH VNLG LQ WKH ¿UVW SODFH 2QFH WKH WUDLOHU ZKHHOV JULS WKH URDG DJDLQ WKH trailer will start to follow the tractor and straighten RXW

7XUQ :LGH)RU 2‡ 7UDFNLQ

When a vehicle goes around a corner, the rear ZKHHOV IROORZ D GL‡HUHQW ZKHHOV 7KLV LV FDOOHG R‡ WU

)LJXUH 2ú 7UDFNLQJ

Figure 6.3 VKRZV KRZ R‡ WUDFNLQJ SDWK IROORZHG E\ D WUDFWRU ULJ LWVHOI /RQJHU YHKLFOHV UHDU ZKHHOV RI WKH SRZHUHG ZLOO R‡ WUDFN VRPH DQG WKH WUDLOHU ZLOO R‡ WUDFN HYHQ than one trailer, the rear wheels of the last trailer ZLOO R‡ WUDFN WKH PRVW 6WH enough around a corner so the rear end does QRW UXQ RYHU WKH FXUE SHGH NHHS WKH UHDU RI \RXU YHKLF 7KLV ZLOO VWRS RWKHU GULYH WKH ULJKW

,I \RX FDQQRW FRPSOHWH \RXU
DQRWKHU WUDˆF ODQH WXUQ
WKH WXUQ 7KLV LV EHWWHU W H
OHIW EHIRUH VWDUWLQJ WKH W HS
RWKHU GULYHUV IURP SDVVLQJ

Figure 6.4

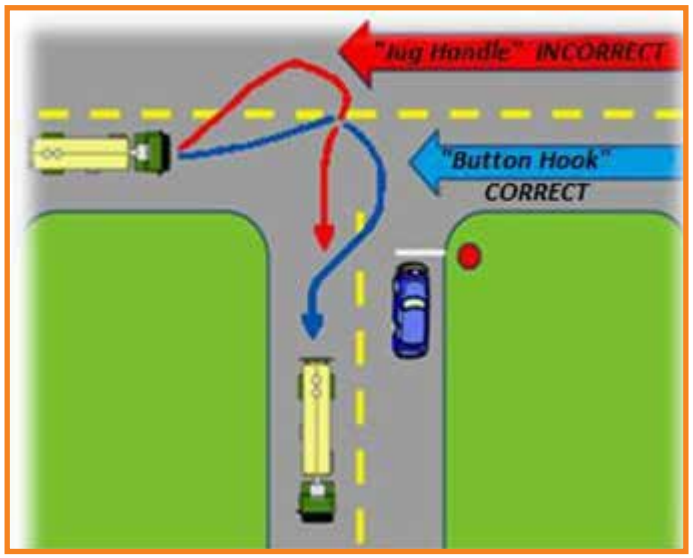


Figure 6.4 Jug Handle vs. Buttonhook Turns

Sometimes the road is too narrow and the turn at the intersection is too tight to utilize the Button Hook Method. On these occasions you will be forced to use the Jug Handle Method to complete the turn successfully; however, these instances DUH RIWHQ XVXDOO\ %XW WKH %XWWRQ Method if at all possible, because it is the safest and most practical way to complete a turn successfully.

Figure 6.5 Regulatory Sign With Restrictions

Figure 6.5 LV D UHJXODWRU\ VLJQ VV
allowed vehicle combinations lengths that
FDQ RSHUDWH RQ D VSHFL¿F K
RI KLJKZD\ 9HKLFOHV LQ H[FH
GLPHQVLRQV PD\ RSHUDWH RQ D
RI KLJKZD\ ZLWK DQ RYHU OHJD
ZLOO FRQWDLQ DGGLWLRQDO R
WKDW PXVW EH PHW VXFK DV R‡
OHQJWK UHVWULFWLRQV 7KHVH
KHOS WR HQVXUH WKH YHKLFOH
in the lane of travel and not drift into oncoming
WUDˆF)LJXUH % DOVR UHLQ
WKDW D VLQJOH WUXFN DQG W
KDYH JUHDWHU R‡WUDFNLQJ D
WKDQ WKH GRXEOH WUDLOHU FR

Highway Restrictions: .QRZLQJ ZKDW R‡ WUDFNLQJ
LV DQG KRZ LW D‡HFWV \RXU YHKLFOH ZLOO KHOS \RX
XQGHUVWDQG WKH UHDVRQ EHKLQG KLJKZD\ UHVWULFWLRQV

7UDQVSRUWDWLRQ HQJLQHHUV VWXG\ WUDIILF FRQGLWLRQV
VHYHUDO IDFWRUV ZKHQ GHWHUPLQLQJ WKH W\SH DQG
VL]H RI YHKLFOHV D KLJKZD\ FDQ VDIHO\ DFFRPP
Two of the factors engineers consider when
VHWWLQJ UHVWULFWLRQV RQ D KLJKZD\ DUH WKH R‡
WUDFNLQJ DQG VZHSW SDWK FKDUDFWHULVWLFV RI WKH
YDULRXV WUXFN DQG WUDLOHU FRPELQDWLRQV

Narrow mountain roads with steep grades and sharp curves present unique challenges for both the driver and the engineer.

6.1.7 Backing with a Trailer

:KHQ EDFNLQJ D FDU VWUDLJKW
turn the top of the steering wheel in the direction
\RX ZDQW WR JR :KHQ EDFNLQJ
WKH VWHHULQJ ZKHHO LQ WKH R‡
WKH WUDLOHU VWDUWV WR WXU
WKH RWKHU ZD\ WR IROORZ WKH

:KHQHYHU \RX EDFN XS ZLWK D WUDLOHU \RX PXVW EDFN VORZO\ 7KLV ZLOO SUHYHQW \RXU
\RXU YHKLFOH VR \RX FDQ EDFN LQ D VWUDLJKW OLQH R‡ FRX
,I \RX PXVW EDFN RQ D FXUYHG SDWK EDFN WR WKH
GULYHU¶V VLGH VR \RX FDQ VHH See Figure 6.6

Backing Slowly: Keep your trailer in a straight line as you back. If you must back around a curve, back toward the driver's side if possible. This will give you the best view.

Correct Drift Immediately: $V VRRQ DV \RX
WKH WUDLOHU JHWWLQJ R‡ WKH
E\ WXUQLQJ WKH WRS RI WKH V
GLUHFWLRQ RI WKH GULIW

Pull Forward: :KHQ EDFNLQJ D WUDLO
XSV WR UHSRVLWLRQ \RXU YHKL

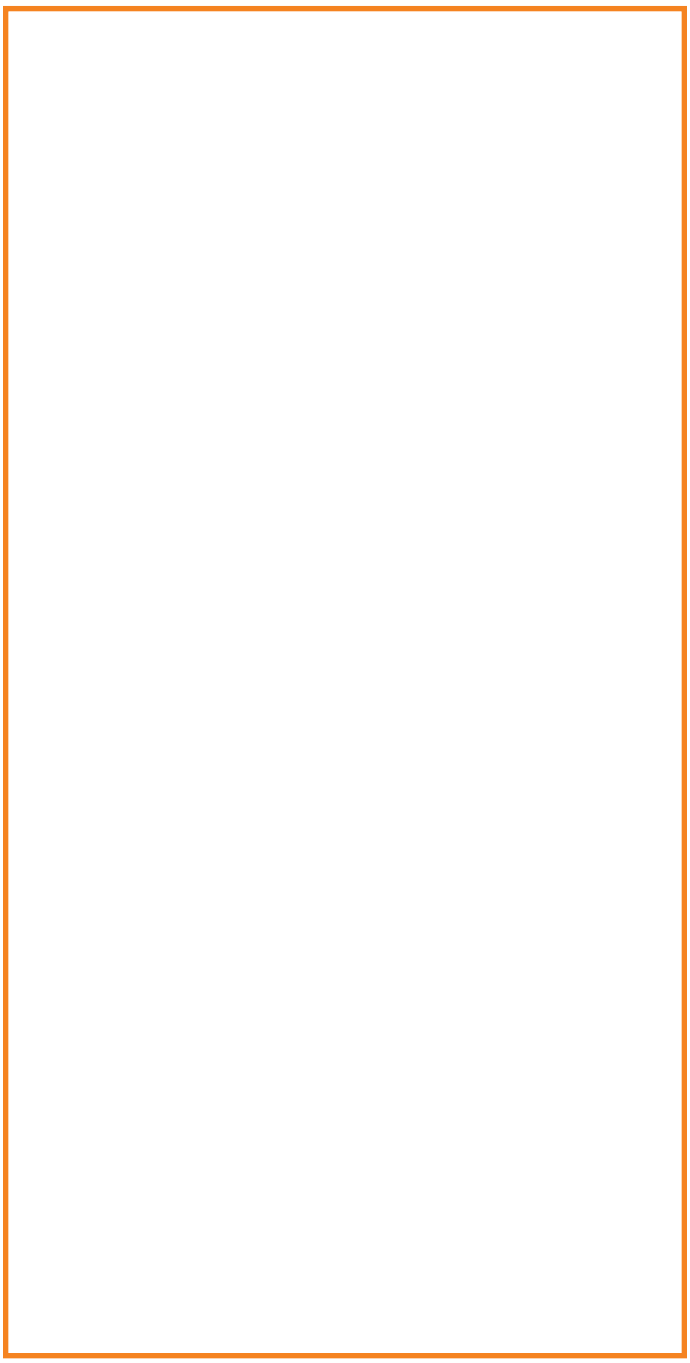


Figure 6.6 Backing a Trailer

Subsections 6.1
7HVW <RXU .QRZOHGJH

1. What two things are important to prevent rollover?
2. When you turn suddenly while pulling doubles, which trailer is most likely to turn over?
3. Why should you not use the trailer KDQG EUDNH WR VWUDLJKWHQ trailer?

:KDW LV Rú WUDFNLQJ"

5. When you back a trailer, you should position your vehicle so you can back in D FXUYHG SDWK WR WKH GULY False?
6. What type of trailers can get stuck on railroad-highway crossings?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH 6.1.

6.2 COMBINATION VEHICLE AIR BRAKES

<RX VKRXOG VWXG\ &KDSWHU UHDGLQJ WKLV VHFWLRQ ,Q F
/RRN DW \RXU 3DWK /RRN DW \RXU OLQH RI WUDYHO
EHIRUH \RX EHJLQ *HW RXW DQG ZDON DURXQG WKH
YHKLFOH &KHFN \RXU FOHDUDQFH WR WKH VLGHV DQG
RYHUKHDG LQ DQG QHDU WKH SDWK RI \RXU YHKLFOH
EHORZ

Use Mirrors on Both Sides: &KHFN WKH RXWVLGH
PLUURUV RQ ERWK VLGHV IUHTXHQWO\ *HW RXW RI WKH
YHKLFOH DQG UH LQVSHFW \RXU SDWK LI \RX DUH XQVXUH

6.2.1 Trailer Hand Valve

7KH WUDLOHU KDQG YDOYH DOORZV WKH GULYHU WR FRQWURO WKH WUDLOHU YDO
9DOYH RU -RKQVRQ %DU RSHUDWHV WKH WUDLOHU EUDNHV RQO\ DQG LV HQWLUHO\ VHSDUDWH
EUDNHV RQO\ DQG LV HQWLUHO\ VHSDUDWH IURP WKH WUDFWRU EUDNHV 7KH WUDLOHU KDQG
WUDFWRU EUDNHV 7KH WUDLOHU KDQG YDOYH LV FRQQHFWHG WR WKH 3
XVHG RQO\ WR WHVW WKH WUDLOHU EUDNHV DQG WR KROG WKH WUDLOHU VWDWLRQDU\
LQ GULYLQJ EHFDXVH RI WKH GDQJHU RI WKH GULYHU DFFLGHQWDOO\ DSSO\LQJ WKH WUDFWRU
WUDLOHU VNLG 7KH IRRW EUDNH YDOYH LV SODFHG RQ WKH ULJKW VLGH RI WKH
EUDNHV RQ WKH YHKLFOH LQ RUGHU WR DOORZ WKH GULYHU WR XVH LQ W
7KHUH LV PXFK OHVV GDQJHU RI EDFNLQJ WKH WUDFWRU SURW
MDFNNQLIH ZKHQ XVLQJ MXVW WKH WUDLOHU EUDNHV

The trailer hand valve on this International tractor is located on the steering column.

Figure 6.7 Trailer Hand Valve

1HYHU XVH WKH KDQG YDOYH IRU SDUNLQJ EHFDXVH
DOO WKH DLU PLJKW OHDN RXW XQORFNLQJ WKH EUDNHV
LQ WUDLOHUV WKDW GRQ¶W KDYH VSULQJ EUDNHV $OZD\V
XVH WKH SDUNLQJ EUDNHV ZKHQ SDUNLQJ ,I WKH WUDLOHU
GRHV QRW KDYH VSULQJ EUDNHV
WR NHHS WKH WUDLOHU IURP PRYLQJ

6.2.2 Tractor Protection Valve

7KH WUDFWRU SURWHFWLRQ YDOYH
9DOYH RU -RKQVRQ %DU RSHUDWHV WKH WUDLOHU EUDNHV RQO\ DQG LV HQWLUHO\ VHSDUDWH
EUDNHV RQO\ DQG LV HQWLUHO\ VHSDUDWH IURP WKH WUDFWRU EUDNHV 7KH WUDLOHU KDQG
WUDFWRU EUDNHV 7KH WUDLOHU KDQG YDOYH LV FRQQHFWHG WR WKH 3
XVHG RQO\ WR WHVW WKH WUDLOHU EUDNHV DQG WR KROG WKH WUDLOHU VWDWLRQDU\
LQ GULYLQJ EHFDXVH RI WKH GDQJHU RI WKH GULYHU DFFLGHQWDOO\ DSSO\LQJ WKH WUDFWRU
WUDLOHU VNLG 7KH IRRW EUDNH YDOYH LV SODFHG RQ WKH ULJKW VLGH RI WKH
EUDNHV RQ WKH YHKLFOH LQ RUGHU WR DOORZ WKH GULYHU WR XVH LQ W
7KHUH LV PXFK OHVV GDQJHU RI EDFNLQJ WKH WUDFWRU SURW
MDFNNQLIH ZKHQ XVLQJ MXVW WKH WUDLOHU EUDNHV
OHWV WKH DLU RXW RI WKH WUD
FDXVHV WKH WUDLOHU HPHUJHQ
,I WKH HPHUJHQF\ EUDNHV DUH
SRVVLEO\ ORVH FRQWURO RI \RX
EUDNHV DUH FRYHUHG ODWHU

6.2.3 Trailer Air Supply Control

7KH WUDLOHU DLU VXSSO\ FRQW
LV D UHG HLJKW VLGHG NQRE
FRQWURO WKH WUDFWRU SURWH
LQ WR VXSSO\ WKH WUDLOHU ZL
VKXW WKH DLU R‡ DQG SXW RQ
EUDNHV 7KH YDOYH ZLOO SRS
tractor protection valve) when the air pressure
GURSV LQWR WKH UDQJH RI W

7UDFWRU SURWHFWLRQ YDOYH F
YDOYHV RQ ROGHU YHKLFOHV
DXWRPDWLFDOO\ 7KHUH PD\ EH
D NQRE 7KH ³QRUPDO´ SRVLWLR
D WUDLOHU 7KH ³HPHUJHQF\´ S
VKXW WKH DLU R‡ DQG SXW RQ
EUDNHV

6.2.4 Trailer Air Lines

(YHU\ FRPELQDWLRQ YHKLFOH K
VHUYLFH OLQH DQG WKH HPHUJ
between each vehicle (tractor to trailer, trailer to
GROO\ GROO\ WR VHFRQG WUDL

Service Air Line: The service line (also called the control line or signal line) carries air, which
LV FRQWUROOHG E\ WKH IRRW E
EUDNH 'HSHQGLQJ RQ KRZ KDUG
EUDNH XVH ZKHQ FKRFNV
EUDNH RU SXOO WKH KDQG YDO
(See Figure 6.7)
VHUYLFH OLQH ZLOO VLPLODUO\

LV FRQQHFWHG WR UHOD\ YDOYH WKH VXSSO\ OLQH LV FRQQHFWHG WR WKH WUDLOHU EUDNHV WR EH DSSOLHG GLUHFWO\ WKH WUDLOHU EUDNHV FDQQRW EH DSSOLHG ZRXOG RWKHUZLVH EH SRVVLEOH

Emergency Air Line: 7KH HPHUJHQF\ OLQH LV FRQQHFWHG WR WKH VXSSO\ OLQH KDV VXSSOLHV DLU WR WKH WUDLOHU HPHUJHQF\ OLQH FRQWUROV WKH RQ FRPELQDWLRQ YHKLFOHV / WKH HPHUJHQF\ OLQH FDXVHV WKH EUDNHV WR FRPH RQ 7KH SUHVVXUH FDXVHG E\ D WUDLOHU EUHDNDZD\ DSDUW WKH HPHUJHQF\ DLU KRVH FDXVHG E\ D KRVH PHWDO WXEH EUHDNLQJ OHWWLQJ WKH DLU line loses pressure, it also causes the tractor SURWHFWLRQ YDOYH WR FORVH SRS RXW

(PHUJHQF\ OLQHV DUH RIWHQ P red (red hose, red couplers, or other parts) to NHHS IURP JHWWLQJ WKHP PL[VHUYLFH OLQH

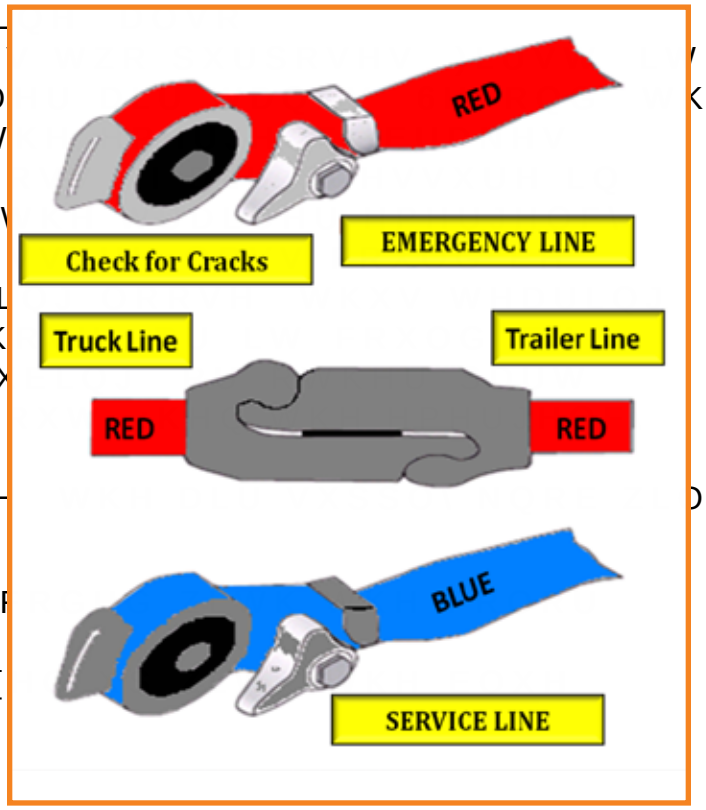


Figure 6.8 Coupling Components

6.2.5 Hose Couplers (Glad Hands)

³*ODG KDQGV´ DUH FRXSOLQJ GHYLFHV XVHG WR FRQQHFW WKH VHUYLFH DQG HPHUJHQF\ OLQHV IURP WKH WUXFN RU WUDFWRU WR WKH WUDLOHU 7KH FRXSOHUV have a rubber seal, which prevents air from HVFDSLQJ &OHDQ WKH FRXSOHUV DQG UXEEHU VHDOV EHIRUH D FRQQHFWLRQ LV PDGH the glad hands, press the two seals together with WKH FRXSOHUV DW D GHJUHH DQJOH A turn of the glad hand attached to the hose will MRLQ DQG ORFN WKH FRXSOHUV

:KHQ FRXSOLQJ PDNH VXUH WR FRXSOH WKH JODG KDQGV WRJHWKHU 7R KHOS DYRLG ³GHDG FRORUV DUH VRPHWLPHV XVHG RQ WKH HPHUJHQF\ VHUYLFH OLQHV DQG UHG IRU WKH OLQHV 6RPHWLPHV PHWDO WDJV DUH DWWDFKHG WR WKH OLQHV ZLWK WKH ZRUGV ³VHUYLFH´ DQG ³HPHUJHQF\ stamped on them (See Figure 6.8

,I \RX GR FURVV WKH DLU OLQHV sent to the service line instead of going to charge WKH WUDLOHU DLU WDQNV $LU ZLOO QRW EH DYDLODEOH WR UHOHDVH WKH WUDLOHU VSULQJ EUDNHV SDUNLQJ EUDNHV

ZRGHU WUDLOHUV GR QRW KDYH DLU VXSSO\ LQ WKH WUDLOHU DQG WKHUH ZLOO EH QR HPHUJHQF\ EUDNHV ZKHQ FRXSOLQJ \RX FRXOG GULYH DZD\ EXW \RX WUDLOHU EUDNHV 7KLV ZRXOG $OZD\V WHVW WKH WUDLOHU EUDNHV WKH KDQG YDOYH RU E\ SXOOLQJ SURWHFWLRQ YDOYH FRQWURO LQ D ORZ JHDU WR PDNH VXUH WKH FRXSOHUV DUH ZRUNLQJ ³GHDG´ KRVHV RDVH WKH SURFHVV %OXH LV XVHG IRU WKH FRXSOHUV WR ZKLFK WKH KRVHV ZKHQ WKH\ DUH QRW LQ XVH 7K and dirt from getting into the coupler and the DLU OLQHV ³8VH WKH GXPP\ FRXSOHUV DUH QRW FRQQHFWHG WR GXPP\ ERXSOHUV WKH JODG KDQGV EH ORFNHG WRJHWKHU GHSHQGV WLPH RUWDQW WR NHHS

6.2.6 Trailer Air Tanks

(DFK WUDLOHU DQG FRQYHUWHU GROO\ KDV RQH RU PRUH DLU WDQNV 7KH\ DUH ¿OOHG E\ WKH HPHUJHQF\ VXSSO\ OLQH IURP WKH WUDFWRU 7KH\ SURYLGH WKH DLU SUHVVXUH XVHG WR RSHUDWH WUDLOHU EUDNHV $LU SUHVVXUH LV VHQW IURP WKH DLU WDQNV WR WKH EUDNHV E\ UHOD\ YDOYHV

The pressure in the service line tells how much SUHVVXUH WKH UHOD\ YDOYHV VKRXOG VHQG WR WUDLOHU EUDNHV 7KH SUHVVXUH LV FRQWUROOHG E\ WKH EUDNH SHGDO DQG WKH WUDLOHU KDQG EUDNH

,W LV LPSRUWDQW WKDW \RX GRQ¶W OHW ZDWHU DQG RLO EXLO XS LQ WKH DLU WDQNV ,I \RX GR WKH EUDNHV PD\ QRW ZRUN FRUUHFWO\ (DFK WDQN KDV D GUDLQ YDOYH DQG \RX VKRXOG GUDLQ HDFK WDQN HYHU\ GD\ ,I \RXU WDQNV KDYH DXWRPDWLF GUDLQV WKH\ ZLOO NHHS PRVW PRLVWXUH RXW EXW \RX VKRXOG VWLOO RSHQ WKH GUDLQV WR PDNH VXUH

6KXW R‡ 9DOYHV

6KXW R‡ YDOYHV DOVR FDOOHG 3URWHFWLYH DUH XVHG LQ WKH VHUYLFH DQG VXSSO\ DLU OLQHV DW WKH EDFN RI WUDLOHUV XVHG WR WRZ ZKHQ WKH DLU OLQHV DUH GLVFRQQHFWHG 7KHVH YDOYHV SHUPLW FORVLQJ WKH DLU OLQHV R‡ ZKHQ QR RWKHU WUDLOHU LV EHLQJ WRZHG <RX PXVW FKHFN WKDW DOO VKXW R‡ YDOYHV DUH LQ WKH RSHQ SRVLWLRQ DW WKH EDFN RI WKH ODVW WUDLOHU WKRVH YDOYHV PXVW EH FORVHG

6.2.8 Trailer Service, Parking, and Emergency Brakes

1HZHU WUDLOHUV KDYH VSULQJ EUDNHV MXVW OLNH WUXFNV DQG WUXFN WUDFWRUV KRZHYHU ROGHU WUDLOHUV DQG WUDLOHUV EXLOW EHIRUH WR KDYH VSULQJ EUDNHV 7KRVH WKDW GR QRW KDYH VSULQJ EUDNHV KDYH HPHUJHQF\ EUDNHV ZKLFK ZRUN IURP WKH DLU VWRUHG LQ WKH 7KH HPHUJHQF\ EUDNHV FRPH RQ ZKHQ \RX SXOO WKH HPHUJHQF\ OLQH RXW RI WKH WUDLOHU KDYH QR SDUNLQJ EUDNH

7KH HPHUJHQF\ EUDNHV FRPH RQ ZKHQ WKH DLU VXSSO\ NQRE LV SXOOHG RXW RU WKH WUDLOHU LV GLVFRQQHFWHG

$ PDMRU OHDN LQ WKH HPHUJHQ tractor protection valve to close and the trailer HPHUJHQF\ EUDNHV WR FRPH RQ KROG ROO\ DV ORQ DV WKHUH LV DLU LQ WKH WUDLOHU DLU WDQN (YHQWXDO DQG WKHUH ZLOO EH PRUH LQ WKH WDQNV LV YHU\ LPSRUWDQW IRU VDIHW FKRFNV ZKHQ \RX SDUN WUDLO EUDNHV

<RX PD\ QRW OLFH D PDMRU OHDN LQ WKH VHUYLFH OLQH OLQH XQWLO \RX WU\ WR SXW WKH DLU ORVV IURP WKH OHDN SUHVVXUH TXLFN\ ,I LW JRHV HPHUJHQF\ EUDNHV ZLOO FRPH

Subsections 6.2

7HVW <RXU .QRZOHGJH

1. Why should you not use the trailer hand valve while driving?

2. Describe what the trailer air supply control does.

3. Describe what the service line is for.

4. What is the emergency air line for?

5. Why should you use chocks when parking a trailer without spring brakes?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH 6.2.

$17,/2&.6<67(06

6.3.1 Trailers Required to Have ABS

All trailers and converter dollies built on or after 0DUFK DUH UHTXLUHG WR K PDQ\ WUDLOHUV DQG FRQYHUW WKLV GDWH KDYH EHHQ YROXQ $%6 7UDLOHUV ZLOO KDYH \HO lamps on the left side, either on the front or rear corner. (See Figure 6.9) 'ROOLHV PDQXID RQ RU DIWHU 0DUFK DUH ODPS RQ WKH OHIW VLGH

)LJXUH $%6 0DOIXQFWLRQ :DUQLQJ /LJKW

7KH $%6 :DUQLQJ /LJKW ZLOO FRPH RQ DQG stay on if there is a problem with the ABS System.

In the case of vehicles manufactured before the UHTXLUHG GDWH LW PD\ EH GLIILFXOW WR GHWHUPLQH LV HTXLSSHG ZLWK $%6 /RRN XQGHUQHDWK WKH HOHFWURQLF FRQWURO XQLW RU DW WKH VHQVRU ZLUHV FRPLQJ IURP WKH

6.3.2 Braking with ABS

$%6 LV DQ DGGLWLRQ WR \RXU QRUPDO EUDNHV. W GRHV QRW GHFUHDVH RU LQFUHDVH \RXU QRUPDO EUDNLQJ FDSDFLW\ $%6 RQO\ DFWLYDWHV ZKHQ ZKHHOV DUH DERXW WR ORFN XS

$%6 GRHV QRW QHFHVVDULO\ VKRUWHQ \RXU VWRSSLQJ GLVWDQFH EXW LW GRHV KHOS \RX NHHS YHKLFOH XQGHU FRQWURO GXULQJ KDUG EUDNLQJ

$%6 KHOSV \RX DYRLG ZKHHO ORFNXS 7KH FRPSXWHU VHQVHV LPSHQGLQJ ORFNXS UHGXFHV WKH EUDNLQJ SUHVVXUH WR D VDIH OHYHO DQG \RX PDLQWDLQ FRQWURO

+DYLQJ $%6 RQ RQO\ WKH WUDLOHU EUDNHV FDQ RFFDVLRQDOO\ UHVXOW LQ WUDLOHU VZD\ RU MDFNNLIH RQ D VORSSHU\ VXUIDFH

:KHQ RQO\ WKH WUDLOHU KDV $% V OLNHO\ WR VZLQJ RXW EXW LI \RX URO RU VWDUW D WUDFWRU MDFNNLIH LI \RX FDQ VDIHO\ GR VR XQWL

:KHQ \RX GULYH D WUDFWRU WU K $%6 \RX VKRXOG EUDNH DV \RX other words:

- 8VH RQO\ WKH EUDNLQJ IRUFH VWRS VDIHO\ DQG VWD\ LQ FF

- %UDNH WKH VDPH ZD\ UHJDU \RX KDYH $%6 RQ WKH WUDFW ERWK
- $V \RX VORZ GRZQ PRQLWRU DQG WUDLOHU DQG EDFN R‡ V VDIH WR GR VR WR VWD\ LQ

Remember, if your ABS malfunctions, you still have regular brakes. Drive normally, but JHW WKH V\VWHP VHUYLFHG VR allow you to drive faster, follow more closely, or drive less carefully.

6.4 COUPLING AND UNCOUPLING

.QRZLQJ KRZ WR FRXSOH DQG XQ EHFDXVH WKH ILIWK WKHUH LV D FRXSOLQJ GHYLFH RQ WKH WUDFWRU LV HTXLSSHG ZLWK $%6 /RRN XQGHU WKH FRXSOLQJ GHYLFH RQ WKH WUDFWRU WKH HOHFWURQLF FRQWURO XQLW RU DW WKH VHQVRU ZLUHV FRPLQJ IURP WKH EUDNHV 7KHUH DUH GL‡HUHQW ULJV VR OHDUQ WKH XQFRXSOLQJ WKH WUXFN V \RX Z

6.4.1 Coupling Tractor-Semitrailers

Step 1: Inspect Fifth Wheel

... &KHFN IRU GDPDJHG PLVVLQJ &KHFN WR VHH WKDW PRXQWL VHFXUH QR FUDFNV LQ IUDP %H VXUH WKDW WKH ¿IWK ZK JUHDVHG DV UHTXLUHG)DLO ¿IWK ZKHHO SODWH OXEULFD steering problems because of friction

& K H F N ¿ I W K H O L Q S U R S H U V L W L R Q
coupling:

... : K H H O W L O W H G G R Z Q W R Z D U G U H D U R I W U D F W R U

... - D Z V R S H Q

... 6 D I H W \ X Q O R F N L Q J K D Q G O H L Q W K H D X W R P D W L F O R F N S R V L W L R Q

... , I \ R X K D Y H D V O L G L Q J ¿ I W K Z K H H O P D Y H V X U H L W L V O R F N H G

... 0 D N H V X U H W K H W U D L O H U N L Q J S L Q L V Q R W E H Q W R E U R N H Q

Step 2: Inspect Area and Chock Wheels

... 0 D N H V X U H D U H D D U R X Q G W K H Y H K L F O H D U

... % H V X U H W U D L O H U Z K H H O V D U H F K R F N H G R U V S U L Q J E U D N H V D U H R Q

... & K H F N W K D W F D U J R L I D Q \ L V V H F X U H G against movement due to the tractor being F R X S O H G W R W K H W U D L O H U

Step 3: Position Tractor

... 0 R Y H W K H W U D F W R U G L U H F W O \ W U D L O H U 1 H Y H U E D F N D Q J O H E H F D X V H \ R X P L J K W S V L G H Z D \ V D Q G E U H D N W K H

... & K H F N W K H S R V L W L R Q E \ O R R N L Q J G R Z Q E R W K

Step 4: Back Slowly

... % D F N X Q W L O ¿ I W K Z K H H O M W R U D L O H U ' R Q ¶ W K L W W K H

Step 5: Secure Tractor

... 6 H W W K H S D U N L Q J E U D N H

... 6 K L I W W K H W U D Q V P L V V L R Q

Step 6: Check Trailer Height

... The trailer should be low enough that it L V U D L V H G V O L J K W O \ E \ W K H W U D F W R U L V E D F N H G X Q G H U W K H W U D L O H U D V Q H H G H G , Q O R Z W K H W U D F W R U P D \ V W U W U D L O H U Q R V H , I W K H W U D L Q R W F R X S O H F R U U H F W O \

... & K H F N W K D W W K H N L Q J S L Q D D O L J Q H G

6 W H S & R Q Q H F W $ L U / L Q H V W R

... & K H F N J O D G K D Q G V H D O V D Q H P H U J H Q F \ D L U O L Q H W R W U J O D G K D Q G

... & K H F N J O D G K D Q G V H D O V D Q V H U Y L F H D L U O L Q H W R W U D L

... 0 D N H V X U H D L U O L Q H V D U H V Z K H U H W K H \ Z R Q ¶ W E H F U X V K Z K H Q W K H W U D F W R U L V E D F

Step 8: Supply Air to Trailer

-)URP WKH FDE SXVK WKH ³DLU VXSSO\´ NQRE RU move the tractor protection valve control from WKH ³HPHUJHQF\´ WR WKH ³QRUPDO´ SRVLWLRQ WR VXSSO\ DLU WR WKH WUDLOHU EUDNH V\VWHP

- :DLW XQWLO WKH DLU SUHVVXUH LV QRUPDO
- &KHFN EUDNH V\VWHP IRU FURVVHG DLU OLQHV
- 6KXW HQJLQH R‡ VR \RX FDQ KHDU WKH EUDNHV
- $SSO\ DQG UHOHDVH WUDLO IRU VRXQG RI WUDLOHU EUD DQG UHOHDVHG <RX VKRXO move when applied and air escape when WKH EUDNHV DUH UHOHDVHG
- &KHFN DLU EUDNH V\VWHP S VLJQV RI PDMRU DLU ORVV
- :KHQ \RX DUH VXUH WUDLOH ZRUNLQJ VWDUW WKH HQJL
- 0DNH VXUH DLU SUHVVXUH L

6WHS /RFN 7UDLOHU %UDNHV

- 3XOO WKH ³DLU VXSSO\´ NQRE RXW RU PRYH the tractor protection valve control from ³QRUPDO´ WR ³HPHUJHQF\´

Step 10: Back Under Trailer

- 8VH ORZHVW UHYHUVH JHDU
- %DFN WUDFWRU VORZO\ XQGHU WUDLOHU KLWWLQJ WKH NLQJSLQ WRR KDUG

Step 11: Check Connection for Security

- 3DLVH WUDLOHU ODQGLQJ JH JURXQG
- 3XOO WUDFWRU JHQWO\ IRUZ EUDNHV DUH VWLOO ORFNHG WUDLOHU LV ORFNHG RQWR W

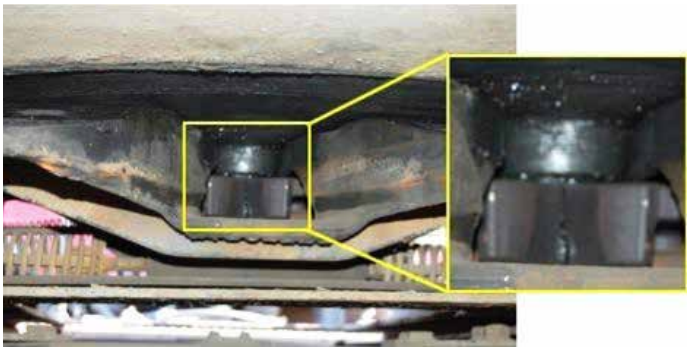
Step 12: Secure Vehicle

- 6KLIW WKH WUDQVPLVVLRQ L
- $FWLYDWH WKH SDUNLQJ EUD
- 6KXW R‡ HQJLQH DQG WDNH V VR VRPHRQH HOVH ZRQ¶W PR \RX DUH XQGHU LW

Step 13: Inspect Coupling

- 8VH D ÀDVKOLJKW LI QHFHVV

- 0DNH VXUH WKHUH LV QR VSD DSURQ RQ WKH WUDLOHU DQ SODWH ,I WKHUH LV VSDFH NLQJSLQ PD\ EH RQ WRS RI wheel jaws, and trailer would come loose HDVLO\
- *R XQGHU WUDLOHU DQG ORR WKH ¿IWK ZKHHO 0DNH VXUH WUDFWRU VWRSV RQ DURXQG NLQJSLQ



… &KHFN WKDW WKH ¿IWK ZKHHO ORFNLQJ OHYHU LV LQ WKH ³ORFN´ SRVLWLRQ

… &KHFN WKDW WKH VDIHW\ ODWFK LV LQ SRVLWLRQ RYHU ORFNLQJ OHYHU RQ VRPH ¿IWK ZKHHOV WKH FDWFK PXVW EH SXW LQ SODFH E\ KDQG

… If the coupling isn't right, don't drive the FRXSOHG XQLW JHW LW ¿[HG

Step 14: Connect Electrical Cord/ Check Air /LQHV

… Plug the electrical cord into the trailer and IDVWHQ WKH VDIHW\ FDWFK

… 5DLVH WKH ODQGLQJ JHDU DQ 1HYHU GULYH ZLWK ODQGLQJ XS DV LW PD\ FDWFK RQ UDLO RWKHU WKLQJV

… $IWHU UDLVLQJ ODQGLQJ JHD KDQGOH VDIHO\

… When the full weight of the trailer is resting on the tractor:

… &KHFN IRU HQRXJK FOHDUD rear of tractor frame and landing gear ZKHQ WKH WUDFWRU WXUQ QRW KLW WKH ODQGLQJ JH

… &KHFN WKDW WKHUH LV HQ between the top of the tractor tires and WKH QRVH RI WKH WUDLOH

Step 16: Remove Trailer Wheel Chocks

… 5HPRYH DQG VW HO FKRFNV LQ D VI

… &KHFN ERWK DLU OLQHV DQG HOHFWULFDO OLQH IRU VLJQV RI GDPDJH

… 0DNH VXUH DLU DQG HOHFWULFDO OLQHV ZLOO QRW KLW DQ\ PRYLQJ SDUWV RI WKH YHKLFOH

6WHS 5DLVH 7UDLOHU /DQGLQJ *HDU

… 8VH ORZ JHDU UDQJH LI VR HTXLSSHG WR EHJLQ UDLVLQJ WKH ODQGLQJ JHDU 2QFH IUHH RI ZHLJKW VZLWFK WR WKH KLJK JHDU UDQJH

6.4.2 Uncoupling Tractor-Semitrailers

The following steps will help you to uncouple safely:

Step 1: Position Vehicle

… 0DNH VXUH VXUIDFH RI SDUN VXSSRUW ZHLJKW RI WUDLOH

… Have tractor lined up with the trailer (pulling out at an angle can damage ODQGLQJ JHDU

6WHS (DVH 3UHVVXUH RQ /RFNLQJ KDZH PRYHV

… 6KXW R‡ WUDLOHU DLU VXSSO\ WR ORFN WUDLOHU EUDNHV

… (DVH SUHVVXUH RQ ¿IWK ZKHHO ORFNLQJ MDZV E\ EDFNLQJ XS JHQWO\ 7KLV ZLOO KHOS \RX UHOHDVH WKH ¿IWK ZKHHO ORFNLQJ MDZV

… 6HW SDUNLQJ EUDNHV ZKLOH WKH WUDFWRU LV SXVKLQJ DJDLQVW WKH NLQJSLQ 7KLV ZLOO KROG WKH YHKLFOH ZLWK SUHVVXUH R‡ WKH ORFNLQJ MDZV

Step 3: Chock Trailer Wheels

… &KRFN WKH WUDLOHU ZKHHOV LI WKH WUDLOHU GRHVQ¶W KDYH VSULQJ EUDNHV RU LI \RX¶UH QRW VXUH 7KH DLU FRXOG OHDN RXW RI WKH WUDLOHU DLU WDQN UHOHDVLQJ WKH HPHUJHQF\ :LWKRXW FKRFNV WKH WUDLOHU FRXOG PRYH

6WHS /RZHU WKH /DQGLQJ *HDU

… ,I WKH WUDLOHU LV HPSW\ OHDYH LW FRXSOHG XQWLO LW PDNHV ¿UP FRQWDFW ZLWK WKH JURXQG

… If the trailer is loaded, after the landing JHDU PDNHV ¿UP FRQWDFW ZLWK WKH JURXQG WXUQ FUDQN LQ ORZ JHDU D IHZ HÍWUD WXUOV 7KLV ZLOO OLIW VRPH ZHLJKW R‡ WKH WUDFWRU 'R QRW OLIW WUDLOHU R‡ WKH ¿IWK ZKHHO

0DNH LW HDVLHU WR XQODWFK ¿IWK ZKHHO

0DNH LW HDVLHU WR FRXSOH QHZ WUDLOHU

6WHS 'LVFRQQHFW $LU /LQHV DQG (OHFWULFDO Cable

… 'LVFRQQHFW DLU OLQHV IURP WUDLOHU DLU OLQH JODG KDQGV WR GXPS\ FRXSOHUV DW EDFN RI FDE RU FRXSOH WKHP WRJHWKHU

… Hang electrical cable with plug down to SUHYHQW PRLVWXUH IURP HQWHULQJ LW

… 0DNH VXUH OLQHV DUH VXSSRUWHG VR WKH\ ZRQ¶W EH GDPDJHG ZKLOH GUIYLQJ WKH WUDFWRU

Step 6: Unlock Fifth Wheel

… 5DLVH WKH UHOHDVH KDQGOH ORFN

… 3XOO WKH UHOHDVH KDQGOH RXW WR SRVLWLRQ

… .HHS OHJV DQG IHHW FOHDU RI WKH UHDU WUDFWRU ZKHHOV WR DYRLG VHULRXV

Step 7: Pull Tractor Partially Clear of Trailer

… 3XOO WUDFWRU IRUZDUG XQW RXW IURP XQGHU WKH WUDLO

… Stop with the tractor frame under the trailer (prevents trailer from falling to ground if ODQGLQJ JHDU VKRXOG FROO

Step 8: Secure Tractor

… $SSO\ SDUNLQJ EUDNH

… 3ODFH WUDQVPLVVLRQ LQ QH

Step 9: Inspect Trailer Supports

… 0DNH VXUH WKH JURXQG LV V WUDLOHU

… 0DNH VXUH WKH ODQGLQJ JHD

Step 10: Pull Tractor Clear of Trailer

… 5HOHDVH SDUNLQJ EUDNHV

… &KHFN WKH DUHD DQG GULYH XQWLO LW FOHDUV

Subsections 6-3 and 6-4

7HVWV <RXU .QRZOHGJH

1. What might happen if the trailer is too high when you try to couple?

2. After coupling, how much space should be between the trailer apron and ¿IWK ZKHHO SODWH"

3. True or False: The kingpin locking jaws should close around the shank of the kingpin. True or False?

4. To drive, you need to raise the ODQGLQJ JHDU RQO\ XQWLO LW pavement. True or False?

5. How do you know if your trailer is equipped with antilock brakes?

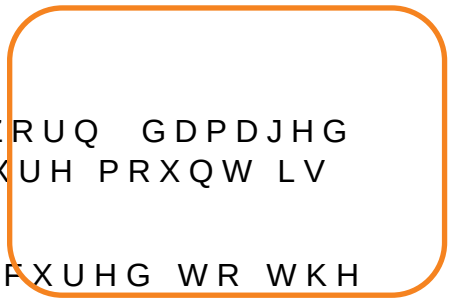
These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH

6.3 and 6.4.

6.4.3 Coupling a Pintle Hook

Step 1: Inspect Pintle Hook

- %HIRUH RSHUDWLQJ FKHFN IRU ZRUQ GDPDJHG RU PLVVLQJ SDUWV DQG PDNH VXUH PRXQW LV VHFXUH
- ,I WKH SLQWOH KRRN LV QRW VHFXUHG WR WKH PRXQWLQJ VXUIDFH WKH SLQWOH KRRN FRXOG separate from the vehicle which, if not avoided, could result in death or serious LQMXU\



)LJXUH /RFN +DQGOH 8S

6WHS /RZHU 'UDZEDU LQWR 3O

- 3RVLWLRQ WKH GUDZEDU H\H WKH SLQWOH KRRN DQG ORZH

6WHS 8QORFN /RFN 3LQ DQG 2SHQ /DWFK

- 8QORFN DQG UHPRYH WKH WHWKHUHG ORFN SLQ LI applicable (Figure 6.10

6WHS /RFN 3LQWOH +RRN

- 3XVK WKH ODWFK FORVHG :K ORFNHG WKH ORFN KDQGOH PRYH XS XQWLO LW LV ÀXVK latch (Figure 6.13

)LJXUH /RFN 3LQ DQG /DWFK

)LJXUH /DWFK &ORVHG

- /LIW WKH ORFN KDQGOH DZD\ IURP WKH YHKLFOH XQWLO WKH ORFN FOHDUV WKH ORFN VHDW RQ WKH KRRN ERG\
- 2SHQ WKH ODWFK E\ URWDWLQJ WKH ODWFK DVVHPEO\ XS WRZDUG WKH YHKLFOH XQWLO WKH latch is in its most upright position, then UHOHDVH WKH FRQQHFWLRQ (Figures 6.11 and 6.12)

- ,QVHUW WKH WHWKHUHG ORFN DQG ORFN KROHV DQG ORFN SLQ LI DSSOLFDEOH Figu
-)DLOXUH WR FRUUHFWO\ ORFN in separating the trailer from the vehicle which, if not avoided, could result in death RU VHULRXV LQMXU\

)LJXUH /RFN &RPSRQHQWV

6.4.4 Uncoupling a Pintle Hook

6WHS 3DUN RQ /HYHO 6XUIDFH

- 3DUN WKH WUDLOHU RQ D ¿U EORFN WUDLOHU WLUHV

Step 2: Disconnect Electrical Connector, Breakaway Brake Switch and Safety Chains

… 'LVFRQQHFW HOHFWULFDO FRQQHFWRU

… 'LVFRQQHFW EUHDNDZD\ EUDNH VZLWFK ODQ\DUG

… 'LVFRQQHFW VDIHW\ FKDLQV IURP WRZ YHKLFOH

Step 3: Unlock the Coupler

… 8QORFN WKH FRXSOHU DQG RSHQ LW

Step 4: Check Ground Surface for Correct Support

… %HIRUH H[WHQGLQJ MDFN PDNH FHUWDLQ WKH JURXQG VXUIDFH EHORZ WKH MDFN SDG ZLOO VXSSRUW WKH WRQJXH ORDG

Step 5: Rotate Jack Handle

… 5RWDWH MDFN KDQGOH WR H[WHQG WKH MDFN DQG transfer the weight of the trailer tongue to WKH MDFN

Step 6: Raise Trailer Coupler

… 5DLVH WKH WUDLOHU FRXSOHU DERYH WKH WRS YHKLFOH KLWFK

Step 7: Drive Forward

… 'ULYH WRZ YHKLFOH IRUZDUG

6.4.5 Coupling a Drawbar

Figure 6.14 Drawbar Coupling Components

6WHS 5HPRYH 6DIHW\ /RFN VFU

… 5HPRYH VDIHW\ ORFN VFUHZ DQG NHHS WKH UHODWLYH VL DVLGH DOVR ORRVHQ VDIHW\ DQG WXUQ RXW WKH DGMXVW OHDVW ¼ WXUQ

… 5RWDWH WKH VDIHW\ FRYHU VR WKDW LW LV FRPSOHWHO\

Step 2: Reverse Truck

… 5HYHUVH WUXFN YHU\ VORZO FXS GUDZEDU H\H LV LQ S DERYH WKH GUDZEDU FRXSOL

6WHS /RZHU WKH 'UDZEHDP

… Lower the drawbeam until the ball cup GUDZEDU H\H OLHV FRPSO WKH GUDZEDU FRXSOLQJ EDO

Step 4: Rotate the Safety Cover Bar

… 5RWDWH WKH VDIHW\ FRYHU DQG ¿W LQ VDIHW\ ORFN V ZLWK LWV VHOI ORFNLQJ QXW

… 7LJKWHQ LQ EROW WKH ORFN WRJHWKHU ZLWK WKHLU UHO QXWV D DW D WR ZUHQFK VHWWLQJ

6WHS $GMXVW WKH $GMXVWPH

… $GMXVW WKH DGMXVWPHQW V PP YHUWLFDO FOHDUD WKH JXDUG GLVN DQG WK UHDFKHG /RFN VHWWLQJ ZL (Figure 6.15)

… ,Q WKH HYHQW WKDW WKH VD ZLOO QRW SHUIHFWO\ ORGJH WUDYHO LV VWUDLJKW) IRUEL

Figure 6.16

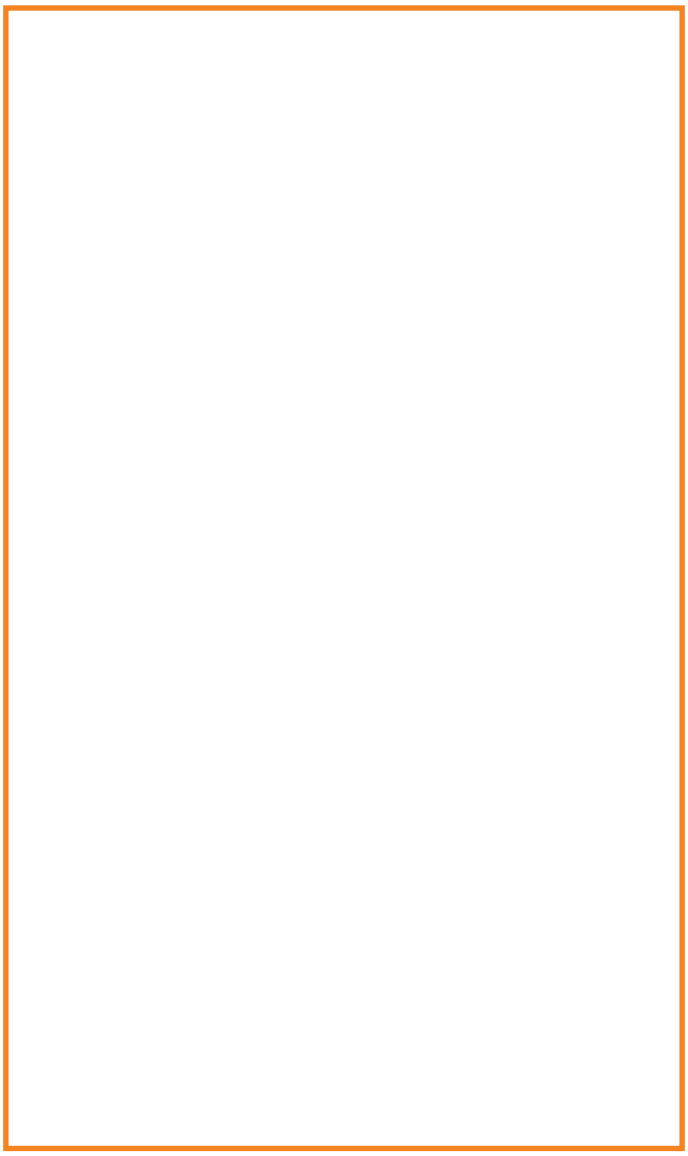


Figure 6.15 Vertical Clearance

Figure 6.16 Drawbar Coupled

Step 6: Protect Coupling Ball and Anchor Edge onto Ball

… Protect the part that is still visible of the FRXSOLQJ EDOO ZLWK WKH UXEEHU GXVW SURRI EHOORZV SURWHFWLRQ FRYHU

… $QFKRU WKH HGJH GLUHFWO\

6WHS /XEULFDWH WKH 'UDZED

… /XEULFDWH WKH LQVLGH RI W FXS GLUHFWO\ WKURXJK W

6.4.6 Uncoupling a Drawbar

Step 1: Turn Trailer Brake On

… 0DNH VXUH WKDW WKH WUDLO

6WHS 5HPRYH &RYHU DQG /RR

… 5HPRYH WKH UXEEHU GXVW S SURWHFWLRQ FRYHU

… /RRVHQ WKH DGMXVWPHQW V FRXQWHU QXW

… /RRVHQ VDIHW\ ORFN VFUHZ VDIHW\ ORFN VFUHZ WRJH ORFNLQJ QXW

6WHS 5RWDWH 6DIHW\ &RYH Trailer Drawbeam

… 5RWDWH WKH VDIHW\ FRYHU VR WKDW LW LV FRPSOHWHO\

… Lift the trailer drawbeam until the drawbar FRXSOLQJ EDOO LV IXOO\ IRUZDUG ZLWK WKH WUDLOHU

… 5RWDWH WKH VDIHW\ FRYHU XQWLO LW ORGJHV EDFN LQ L

6WHS /RFN 6DIHW\ 6FUHZ DQG /RFNLQJ 1XW

…)LW LQ VDIHW\ ORFN VFUHZ VHOI ORFNLQJ QXW

6.4.7 Coupling a Gooseneck Hitch

,I \RX DUH KRRNLQJ XS D JRRV ZKHHO KLWFK WKH SURFHGXUH D UHFHLYHU DQG EDOO EXW LW

6WHS 2SHQ WKH /DWFK DQG Gooseneck Ball

… 2SHQ WKH FODPS ODWFK RQ FRXSOHU

… 0DNH VXUH WKDW WKH JRRVH SURSHUO\ OXEULFDWHG

6WHS 3RVLWLRQ &RXSOHU DQG / DWFK WKH &ODPS

… 3RVLWLRQ WKH WUDLOHU¶V FRXSOHU GLUHFWO\ RYHU WKH EDOO DQG ORZHU WKH JRRVHQHFN WUDLOHU LQWR SRVLWLRQ DQG ODWFK WKH FODPS

Step 3: Attach Safety Chains

… $WWDFK \RXU VDIHW\ FKDLQV 5HPHPEHU WKDW DOO WUDLOHUV DUH UHTXLUHG E\ ODZ WR KDYH VDIHW\ FKDLQV

6WHS &RQQHFW 7UDLOHU /LJKW :LULQJ

… &RQQHFW \RXU WUDLOHU OLJKW ZLULQJ WR \RXU YHKLFOH¶V FRQQHFWRU

… &KHFN DOO \RXU OLJKWV LQFOXGLQJ \RXU EUDNH OLJKWV

6WHS /RZHU DQG 6WRZ WKH 7UDLOHU -DFN

… &RPSOHWHO\ ORZHU DQG VWRZ WKH WUDLOHU MDFNV DOORZLQJ WKH ZHLJKW WR VHWWOH RQWR WKH WRZ YHKLFOH

6.4.8 Uncoupling a Gooseneck Hitch

Step 1: Remove Safety Pin and Clip

… 6LPSO\ UHPRYH VDIHW\ SLQ DQG FOLS

6WHS 5RWDWH +DQGOH DQG 5DLVH 7UDLOHU Rú Ball

… 5RWDWH KDQGOH FRXQWHUFORFNZLVH SRVLWLRQ DQG UDLVH WUDLOHU R‡ EDOO WR ORDG SRVLWLRQ DXWRPDWLFDOO\

Step 3: Install Safety Pin and Clip

… ,QVWDOO VDIHW\ SLQ DQG FOLS

Figure 6.17

Figure 6.17 Gooseneck Hitch, Pin and Clip

6.5 INSPECTING A COMBINATION VEHICLE

8VH WKH VHYHQ VWHS LQVSH GHVFULEHG LQ &KDSWHU WR LQ YHKLFOH 7KHUH DUH PRUH LWH combination vehicle than on a single vehicle IRU H[DPSOH WLUHV ZKHHOV HWF KRZHYHU WKHUH DUH DO FKHFN ZKLFK DUH GLVFXVVHG L

6.5.1 Additional Items to Check During a Walk-Around Inspection

$GG WKHVH FKHFNV WR WKRVH &KDSWHU

Coupling System Areas:

&KHFN ¿IWK ZKHHO ORZHU

… 6HFXUHO\ PRXQWHG WR IUDP

… 1R PLVVLQJ RU GDPDJHG SDU

… (QRXJK JUHDVH

… &RXSOHU ZLOO UHWXUQ

¿IWK ZKHHO SODWH

… /RFNLQJ MDZV DURXQG WKH KHDG RI WKH SLQ

… 5HOHDVH DUP SURPHUO\ VHD ODWFK ORFN HQJDJHG

Figure 6.18

See Figure 6.18

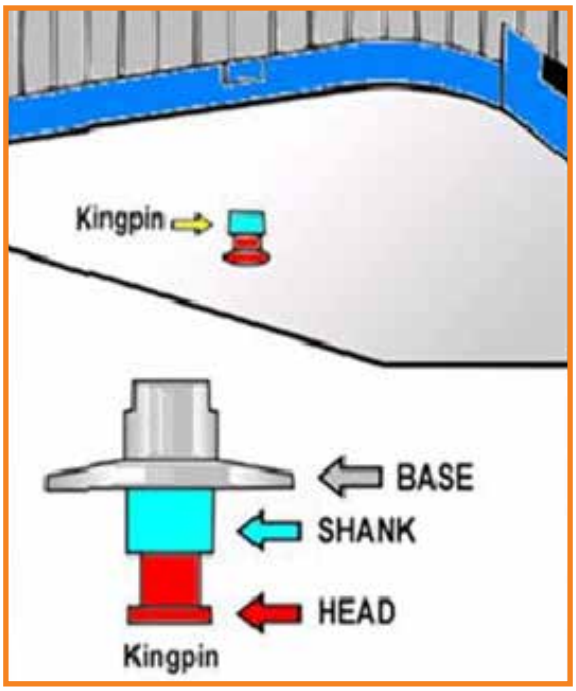


Figure 6.18 Kingpin and Shank

&KHFN ¿IWK ZKHHO XSSHU

- *OLGH SODWH VHFXUHO\ PRX IUDPH
- .LQJSLQ QRW GDPDJHG

Air and electric lines to trailer:

- (OHFWULFDO FRUG ¿UPO\ SOXJJHG LQ DQG VHFXUHG
- $LU OLQHV SURSHUO\ FRQQHFWHG WR 1ODG KDQGV DQG SURSHUO\ VHFXUHG ZLWK HQRXJK VODFN IRU WXUQV QR DLU OHDNV
- $OO OLQHV IUHH IURP GDPDJH

6OLGLQJ ¿IWK ZKHHO

- 6OLGH QRW GDPDJHG RU SDU
- 3URSHUO\ JUHDVHG
- $OO ORFNLQJ SLQV SUHVHQW SODFH
- ,I DLU SRZHUHG QR DLU OHD
- &KHFN WKDW ¿IWK ZKHHO LV that tractor frame will hit landing gear, or WKH FDE ZLOO KLW WKH WUD

Landing Gear:

-)XOO\ UDLVHG QR PLVVLQJ S RWKHUZLVH GDPDJHG
- &UDQN KDQGOH LQ SODFH DQ
- ,I SRZU RSHUDWHG QR DLU OHDNV

6.5.2 Combination Vehicle Brake Check

Do these checks in addition to Section 5.3, Inspecting Air Brake Systems. Chapter 11 has illustrated, detailed instructions.

7KH IROORZLQJ VHFWLRQ H[SO DLU EUDNHV RQ FRPELQDWLRQ EUDNHV RQ D GRXEOH RU WULS RQ DQ\ FRPELQDWLRQ YHKLFOH

Check That Air Flows to All Trailers: 8VH WKH WUDFWRU SDUNLQJ EUDNH DQG KROG WKH YHKLFOH :DLW IRU QRUPDO WKHQ SXVK LQ WKH U NQRE 7KLV ZLOO VXSSO\ DLU VXSSO\ OLQHV 8VH WKH WU SURYLGH DLU WR WKH VHUYLFH WKH YHKLFOH DQG RSHQ WKH HP

YDOYH DW WKH UHDU RI WKH ODVW WUDLOHU LQ WKH WUDLQ WR KHOS GHWHUPLQH WKH
DLU HVFDSLQJ WKHUHE\ VKRZLQJ WKH WUDLOHU\ZLWHP WKH W
LV FKDUJHG &ORVH WKH HPHUJHQF\ DQG OLQH YDOYH
2SHQ WKH VHUYLFH OLQH YDOYH WR FKHFN WKDW VHUYLFH
pressure goes through all the trailers (this test
DVVXPHV WKDW WKH WUDLOHU KDQGEUDNH RU WKH VHUYLFH
EUDNH SHGDO LV RQ DQG WKHQ FORVH WKH YDOYH ,I \RX
GR 127 KHDU DLU HVFDSLQJ IURP ERWK OLQHV FKHFN
WR VHH WKDW WKH VKXW R‡ YDOYHV RQ WKH WUDLOHUV DQG
GROO\ V DUH LQ WKH 23(1 SRVLWLRQ <RX 086 KDYH
DLU DOO WKH ZD\ WR WKH EDFN RI WKH ODVW WUDLOHU LQ WKH
FRPELQDWLRQ IRU DOO WKH EUDNHV WR ZRUN

Test Tractor Protection Valve: Charge the
WUDLOHU DLU EUDNH V\VWHP
DLU SUHVVXUH DQG SXVK WKH
6KXW WKH HQJLQH R‡ DQG VWHS RQ DQG R‡ WKH EUDNH
pedal several times to reduce the air pressure
LQ WKH WDQNV 7KH WUDLOHU DLU
called the tractor protection valve control) should
SRS RXW RU JR IURP ³QRUPDO´ WR ³HPHUJHQF\´
position) when the air pressure falls into the
SUHVVXUH UDQJH VSHFL¿HG E\
XVXDOO\ ZLWKLQ WKH UDQJH RI

,I WKH WUDFWRU SURWHFWLRQ YDOYH GRHVQ¶W ZRUN ULJKW
DQ DLU KRVH RU WUDLOHU EUDNH
WKH DLU IURP WKH WUDFWRU 7KLV ZRXOG
HPHUJHQF\ EUDNHV WR FRPH RQ
ORVV RI FRQWURO RI WKH YHKLFOH

Test Trailer Emergency Brakes: Charge the
WUDLOHU DLU EUDNH V\VWHP DQG
UROOV IUHHO\ 7KHQ VWRS DQG
DLU VXSSO\ FRQWURO DOVR FDOOHG WUDFWRU
YDOYH FRQWURO RU WUDLOHU

Test Trailer Service Brakes: &KHFN IRU QR
DLU SUHVVXUH UHOHDVH WKH
WKH YHKLFOH IRUZDUG VORZO
EUDNHV ZLWK WKH KDQG FRQWU
HTXLSSHG <RX VKRXOG IHHO W
RQ WKH WUDLOHUV DQG
7KLV WHQGV \RX WKH WUDLOHU
DQG ZRUNLQJ 7KH WUDLOHU EL
RI WKH ODVW WUDLOHU LQ WKH
with the hand valve but controlled in normal
operation with the foot pedal, which applies air to
WKH VHUYLFH EUDNHV DW DOO
WKDW LV EXLOG XS QRUPDO

Subsection 6.5

7HVW <RXU .QRZOHGJH

: KLFK VKXW RU YDOYHV VKR
and which closed?
+RZ FDQ \RX WHVW WKDW DL
trailers?
WR SVL.
3. How can you test the tractor protection
valve?
4. How can you test the trailer
emergency brakes?
5. How can you test the trailer service
brakes?

These questions may be on your test. If you
6HF.RU SURWHFWLRQ

Chapter 7: Doubles and Triples

This Chapter Covers:

- Pulling Double/Triple Trailers
- &RXSOLQJ DQG 8QFRXSOLQJ
- Inspecting Doubles and Triples
- &KHFNLQJ $LU %UDNHV

7KLV FKDSWHU KDV LQIRUPDWLRQ \RX QHHG WR SDVV WKH &'/ NQRZOHGJH WHVW IRU GULYLQJ YDJHQ\ ZLWK GRXEOH DQG WULSOH WUDLOHUV ,W WHOOV DERXW KRZ LPSRUWDQW LV WR EH YHU\ FDUHIXO ZKHQ GULYLQJ ZLWK PRUH WKDQ RQH WUDLOHU KRZ WR FRXSOH DQG XQFRXSOH GRXEOHV DQG WULSOHV DQG DERXW LQVSHFWLQJ GRXEOHV DQG WULSOHV \RX VKRXOG DOVR VWXG\ &KDSWHUV DQG

7.1 PULLING DOUBLE/TRIPLE TRAILERS

7DNH VSHFLDO FDUH ZKHQ SXOOLQJ WZR DQG WKUHH WUDLOHUV 7KHUH DUH PRUH WKLQJV WKDW FDQ JR ZURQJ and doubles/triples are less stable than other FRPPHUFLDO YHKLFOHV 6RPH DUHDV RI FRQFHUQ DUH GLVFXVVHG EHORZ

7.1.1 Prevent Trailer from Rolling Over

7R SUHYHQW WUDLOHUV IURP UROOLQJ RYHU \RX PXVW VWHHU JHQWO\ DQG JR VORZO\ DURXQG FRUQHUV RQ UDPSV R‡ UDPSV DQG FXUYHV $ VDIH VSHHG RQ D FXUYH IRU D VWUDLJKW WUXFN RU D VLQJOH WUDLOHU FRPELQDWLRQ YHKLFOH PD\ EH WRR IDVW IRU D VKRUW RI GRXEOHV RU WULSOHV

%HZDUH RI WKH &UDFN WKH:KLS (IIHFWˆ FXOW HVFDSH

'RXEOHV DQG WULSOHV DUH PRUH OLNHO\ WR WXUQ RYHU than other combination vehicles because of WKH ³FUDFN WKH ZKLS´ D‡HFW <RX PXVW VWHHU JHQWO\ ZKHQ SXOOLQJ WUDLOHUV 7KH ODVW WUDLOHU LQ D FRPELQDWLRQ LV PRVW OLNHO\ WR ZXUQ RYHU ,I \RX GRQ¶W XQGHUVWDQG WKH FUDFN WKH ZKLS D‡HFW VWXG\ VXEVHFWLRQ RI WKLV PDQXDO

7.1.3 Inspect Completely

7KHUH DUH PRUH FULWLFDO SDUWV WR FKHFN ZKHQ \RX KDYH WZR RU WKUHH WUDLOHUV &KHFN WKHP DOO DQG follow the procedures described later in this VHFWLRQ

7.1.4 Look Far Ahead

'RXEOHV DQG WULSOHV PXVW EH WR DYRLG UROORYHU RU MDFNN DKHDG VR \RX FDQ VORZ GRZQ JUDGXDOO\ ZKHQ QHFHVVDU\

7.1.5 Manage Space

:KHQ GULYLQJ ZLWK GRXEOHV DQG WULSOHV WDNH XS FRPPHUFLDO YHKLFOHV 7KH\ DUH EXW DQG RQH WUDLOHU KRZ WR FRXSOH DQG XQFRXSOH PRUH VSDFH EHWZHHQ WUXFNV DQG WUDLOHUV FDUHIXOO\ DQG GLVWDQFH 0DNH VXUH \RX KDYH EHIRUH HQWHULQJ RU FURVVLQJ DUH FOHDU DW WKH VLGHV EHIR

7.1.6 Adverse Conditions

%H PRUH FDUHIXO LQ DGYHUVH ZHDWKHU YOLSSHU\ FRQGLWL GULYLQJ \RX PXVW EH HVSHFL GULYH GRXEOH DQG WULSOH E JUHDWHU OHQJWK DQG PRUH G \RXU GULYH D[OHV WKDQ RWKHU FKDQJH IRU VNLGV DQG ORVV R UDPSV R‡ UDPSV DQG FXUYHV $ VDIH VSHHG RQ D FXUYH IRU D VWUDLJKW WUXFN RU D VLQJOH WUDLOHU FRPELQDWLRQ YHKLFOH PD\ EH WRR IDVW IRU D VKRUW RI GRXEOHV RU WULSOHV

7.1.7 Parking the Vehicle

0DNH VXUH \RX GR QRW JHW LQ SXOO VWUDLJKW WKURXJK <RX KRZ SDUNLQJ ORWV DUH DUUDQJ ORQJ GLVWDQFH VHSDUDWLRQ

7.1.8 Antilock Braking Systems on Converter Dollies

&RQYHUWHU GROOLHV 7KH ODVW WUDLOHU LQ D FRPELQDWLRQ LV PRVW OLNHO\ WR ZXUQ RYHU ,I \RX GRQ¶W XQGHUVWDQG WKH FUDFN WKH ZKLS D‡HFW VWXG\ WKH GROO\

7.2 COUPLING AND UNCOUPLING

 QRZLQJ KRZ WR FRXSOH DQG X LV EDVLF WR VDIH RSHUDWLRQ &KHFN WKHP DOO DQG :URQJ FRXSOLQJ DQG XQFRXSO GDQJHURXV &RXSOLQJ DQG XQ GRXEOHV DQG WULSOHV DUH OL

7.2.1 Coupling Twin Trailers

6HFXUH 6HFRQG 5HDU 7UDLOHU

,I WKH VHFRQG WUDLOHU GRHVQ¶W KDYH VSULQJ EUDNHV drive the tractor close to the trailer, connect the HPHUJHQF\ OLQH FKDUJH WKH WUDLOHU DLU WDQN DQG GLVFRQQHFW WKH HPHUJHQF\ OLQH IURP WKH WUDLOHU HPHUJHQF\ EUDNHV DUH FRUUHFWO\ DGMXVWHG &KHFN WKDW WKH EUDNHV KDYH DQ\ GRXEW DERXW WKH EUDNH

For the safest handling on the road, the more KHDYLO\ ORDGHG VHPLWUDLOHU VKRXOG EH LQ ¿UVW position behind the tractor, and the lighter trailer VKRXOG EH LQ WKH UHDU

Figure 7.1 Converter gear on a dolly

Position Converter Dolly in Front of Second (Rear) Trailer

5HOHDVH GROO\ EUDNHV E\ RS SHWFRFN YDOYH RU LI WKH G XVH WKH GROO\ SDUNLQJ EUDNH

- Position combination as close as possible WR FRQYHUWHU GROO\
- 0RYH GROO\ WR UHDU RI ¿UV FRXSOH LW WR WKH WUDLOHU
- /RFN SLQWOH KRRN
- 6HFXUH GROO\ VXSSRUW LQ U
- 3XOO GROO\ LQWR SRVLWLRQ WR QRVH RI WKH VHFRQG VHF
- /RZHU WKH GROO\ VXSSRUW
- 8QKRRN WKH GROO\ IURP WKH
- :KHHO WKH GROO\ LQWR SRVI VHFRQG WUDLOHU LQ OLQH Z

$ FRQYHUWHU JHDU RQ D GROO\ LV D FRXSOLQJ GHYLFH RI RQH RU WZR D[OHV DQG D ¿IWK ZKHHO E\ ZKLFK D VHPLWUDLOHU FDQ EH FRXSOHG WR WKH UHDU RI D WUDFWRU WRZLQJ D GRXEOH WRWRP ULJ (See Figure 7.1)

Connect Converter Dolly to Front Trailer

- %DFN ¿UVW VHPLWUDLOHU LQ GROO\ WRZLQJ

- +RRN GROO\ WR IURQW WUDLOHU

- /RFN SLQWOH KRRN
- Secure converter gear support in raised SRVLWLRQ

Connect Converter Dolly to the Rear Trailer

- 0DNH VXUH WKH WUDLOHU E DQG RU ZKHHOV FKRFNHG
- 0DNH VXUH WKH WUDLOHU KHLJKW LV FRUUHFW LW PXVW EH VOLJKWO\ ORZHU WKDQ WKH FHQWHU RI WKH ¿IWK ZKHHO VR WKH WUDLOHU LV UDLVHG VOLJKWO\ ZKHQ WKH GROO\ LV SXVKHG XQGHU LW

- %DFN WKH FRQYHUWHU GRO WUDLOHU
- 5DLVH WKH ODQGLQJ JHDU VOLJKWO\ R‡ WKH ground to prevent damage if the trailer PRYHV

- 7HVW WKH FRXSOLQJ E\ SXOO RI WKH VHFRQG VHPLWUDLOH
- 0DNH D YLVXDO FKHFN RI FRX space between the trailer apron and the ¿IWK ZKHHO SODWH DQG WKH FORVHG DURXQG WKH NLQJSL
- &RQQHFW WKH VDIHW\ FKDLQ OLJKW FRUGV

- &ORVH WKH FRQYHUWHU GRO YDOYH
- &ORVH WKH VHUYLFH DQG HP R‡ YDOYHV DW WKH UHDU RI

- 2SHQ WKH VHUYLFH DQG HPH R‡ YDOYHV DW UHDU RI WKH WKH FRQYHUWHU GROO\ LI V
- 5DLVH WKH ODQGLQJ JHDU FR

- &KDUJH WKH WUDLOHU EUDNHV XQWLO 6XSSO\´ NQRE LQ DQG FKHFN IRU DLU DW UHDU RI VHFRQG WUDLOHU E\ RSHQLQJ WKH HPHUJHQF\ DLU OLQH VKXW R‡ ,I DLU SUHVVXUH LV ZURQJ DQG WKH EUDNHV ZRQ¶W ZRUN

7.2.2 Uncoupling Twin Trailers

Uncouple Rear Trailer

- 3DUN WKH YHKLFOH LQ D VWUDLJKW OLQH RQ ¿UP OHYHO JURXQG
- $SSO\ WKH SDUNLQJ EUDNHV VR WKH YHKLFOH ZRQ¶W PRYH
- &KRFN WKH ZKHHOV RI WKH VHFRQG WUDLOHU WR V GRHVQ¶W KDYH VSULQJ EUDNHV
- Lower the landing gear of the second semitrailer enough to remove some of the ZHLJKW IURP WKH GROO\
- &ORVH WKH DLU VKXW R‡ YDOYHV DW WKH UHDU RI WKH ¿UVW VHPLWUDLOHU DQG RQ WKH GROO\ IRU HTXLSSHG
- 'LVFRQQHFW DOO RI WKH GROO\ DLU OLQHV DQG VHFXUH WKHP
- 5HOHDVH WKH GROO\ EUDNHV
- 5HOHDVH FRQYHUWHU GROO\ ODWFK
- 6ORZO\ GULYH WKH WUDFWRU IRUZDUG R‡ WKH ¿UVW VHPLWUDLOHU DQG GRFNV RUGHU WR SXOO WKH GROO\ XQGHU WKH UHDU VHPLWUDLOHU

Uncouple Converter Dolly

- /RZHU WKH GROO\ ODQGLQJ J VR FRQYHUWHU¶V KHLJKW FKD $SSO\ WKH FRQYHUWHU JHDU FKRFN WKH ZKHHOV
- 5HOHDVH WKH SLQWOH KRRN WUDLOHU
- 6ORZO\ SXOO FOHDU RI WKH

1HYHU XQORFN WKH SLQWOH KR XQGHU WKH UHDU WUDLOHU 7K XS SRVVLEO\ FDXVLQJ LQMXU\ GL ˆFXOW WR UH FRXSOH WKH HT

7.2.3 Coupling and Uncoupling Triple Trailers

Couple Tractor and First Semitrailer to Second, Third Trailers

- &RXSOH WKH WUDFWRU WR W WKH PHWKRG DOUHDG\ GHVFU WUDFWRU VHPLWUDLOHUV
- 0RYH WKH FRQYHUWHU GROO FRXSOH ¿UVW WUDLOHU WR V WKH PHWKRG IRU FRXSOLQJ WUDLOHU FRPELQDWLRQ LV

Uncouple Triple-Trailer Combination

- 8QFRXSOH WKH WKLUG WUDL GROO\ RXW WKH UHDU WKH PHWKRG IRU XQFRXSOL
- 8QFRXSOH WKH UHPDLQGHU DQG GRFNV RUGHU WR SXOO WKH GROO\ XQGHU WKH UHDU VHPLWUDLOHU

7.2.4 Coupling and Uncoupling Other Combinations

7KHUH DUH PDQ\ GLIIHUHQW FRPELQDWLRQV RI WUDLOHUV DQG GROO\ FRQ WKH PDQ\ W\SHV RI WUXFN WUD FRPELQDWLRQV WKDW DUH LQ XV WR FRYHU LQ WKLV PDQXDO <RX FRUUHFW ZD\ WR FRXSOH WKH Y

according to the manufacturer and/or owner VSHFL¿FDWLRQV

7.3 INSPECTING DOUBLES AND TRIPLES

8VH WKH VHYHQ VWHS LQVSHFWLRQ SURFHGXUH GHVFULEHG LQ &KDSWHU WR LQVSHFW \RXU FRPELQDWLRQ YHKLFOH 7KHUH DUH PRUH WKLQJV WR LQVSHFW RQ D FRPELQDWLRQ YHKLFOH WKDQ RQ D VLQJOH YHKLFOH 0DQ\ RI WKHVH LWHPV DUH VLPSO\ PRUH RI ZKDW \RX ZRXOG ¿QG RQ D VLQJOH YHKLFOH IRU H[DPSOH WLUHV ZKHHOV OLJKWV UHÀHFWRUV HWF KRZHYHU WKHUH DUH DOVR VRPH QHZ WKLQJV WR ,QFOXGHG DUH GLVFXVVHG EHORZ

7.3.1 Additional Checks

Do these checks in addition to those already listed in Chapter 2, Step 5: Do the Walk-Around Inspection.

Coupling System Areas

Check Fifth Wheel lower):

- 6HFXUHO\ PRXQWHG WR IUDPH
- 1R PLVVLQJ RU GDPDJHG SDUWV
- (QRXJK JUHDVH
- No visible space between trailer apron and ¿IWK ZKHHO SODWH
- /RFNLQJ MDZV DURXQG WKH VKDQN QRW WKH KHDG RI WKH NLQJSLQ
-)LIWK ZKHHO UHOHDVH DUP SURSHUO\ DQG VDIHW\ ODWFK ORFN HQJDJHG

Check Fifth Wheel (upper):

- *OLGH SODWH DSURQ VHFXUHO\ PRXQWHG WR WKH WUDLOHU IUDPH
- .LQJSLQ QRW GDPDJHG
- $LU DQG HOHFWULF OLQHV WR WUDLOHU
- (OHFWULFDO FRUG ¿UPO\ SOXJJHG LQ DQG VHFXUHG

Sliding Fifth Wheel:

- 6OLGH QRW GDPDJHG RU SDU
- 3URSHU OXEULFDWLRQ
- $OO ORFNLQJ SLQV SUHVHQW
- ,I SRZHUHG QR DLU OHD
- &KHFN WKDW ¿IWK ZKHHO LV that tractor frame will hit the landing gear, or the cab of the tractor hit the trailer GXULQJ WXUQV

Landing Gear:

-)XOO\ UDLVHG QR PLVVLQJ S RWKHUZLVH GDPDJHG
- &UDQN KDQGOH LQ SODFH DQ
- ,I SRZHU RSHUDWHG QR DLU

Double and Triple Trailers:

- 6KXW R‡ YDOYHV DW UHDU R VHUYLFH DQG HPHUJHQF\ OLQ

  5HDU RI IURQW WUDLOHUV
  5HDU RI ODVW WUDLOHU &
  &RQYHUWHU GROO\ DLU WD
  &/26(' VHDWHG
- %H VXUH DLU OLQHV DUH VXS KDQGV DUH SURSHU\ FRQQH
- If spare tire is carried on converter gear GROO\ PDNH VXUH LW¶V VH
- %H VXUH SLQWOH H\H RI GRO SLQWOH KRRN RI WUDLOHU V
- WDNH VXUH SLQWOH KRRN LV
- 6DIHW\ FKDLQV VKRXOG EH V WUDLOHU V
- %H VXUH OLJKW FRUGV DUH ¿ WUDLOHUV

7.3.2 Additional Items to Check during a Walk-Around Inspection

Do these checks in addition to subsection 5.3, Inspecting Air Brake Systems.

7.4 DOUBLES/TRIPLES AIR BRAKE CHECK

&KHFN WKH EUDNHV RQ D GRXEOH RU WULSOH WUDLOHU V\VWHP DQG \RX ZRXOG DQ\ FRPELQDWLRQ YHKLFOH 6XE7RSLF QRW VWRS DQG H[SODLQ KRZ WR FKHFN FRPELQDWLRQ YHKLFOHV <RX PXVW FRQGXFW EUDNH FKHFNV RQ DOO WUDLOHU H IROORZLQJ FKHFNV RQ \RXU GRXEOH RU WULSOH WUDLOHU V\VWHP

7.4.1 Additional Air Brake Checks

Check That Air Flows to All Trailers (Double and Triple Trailers): 8VH WKH WUDFWRU DLU SDUNLQJ EUDNH DQG RU FKRFN WKH ZKHHOV WR KROG WKH YHKLFOH :DLW IRU WKH DLU SUHVVXUH WR EXLOG WR WKH UHG ³WUDLOHU DLU VXSSO\´ YDOYH ZLOO VXSSO\ DLU WR WKH HPHUJHQF\ DQG VHUYLFH OLQHV *R WR WKH UHDU RI WKH YHKLFOH DQG RSHQ WKH HPHUJHQF\ OLQH VKXW R‡ YDOYH RI WKH ODVW WUDLOHU <RX VKRXOG KHDU DLU HVFDSLQJ IURP WKH HPHUJHQF\ OLQH YDOYH DQG WKHQ LW VKRXOG VWRS :KHQ WKH HPHUJHQF\ OLQH YDOYH WR FKHFN WKDW DLU IORZV through all the trailers (this test assumes that the WUDLOHU KDQGEUDNH RU WKH RQ DQG WKHQ FORVH WKH YDOYH

,I \RX GR 127 KHDU DLU HVFDSLQJ IURP ERWK OLQHV FKHFN WKDW WKH VKXW R‡ YDOYHV RQ WKH WUDLOHU V DQG GROO\ V DUH LQ WKH 23(1 SRVLWLRQ <RX 0867 KDYH DLU DOO WKH ZD\ WR WKH EDFN RI WKH ODVW WUDLOHU LQ WKH FRPELQDWLRQ IRU DOO WKH EUDNHV WR ZRUN

Test Tractor Protection Valve: Charge the WUDLOHU DLU EUDNH V\VWHP WKDW LV EXLOG XS QRUPDO DLU SUHVVXUH DQG SXVK WKH ³DLU VXSSO\´ NQRE LQ 6KXW WKH HQJLQH R‡ DQG VWHS RQ DQG R‡ WKH EUDNH pedal several times to reduce the air pressure LQ WKH WDQNV 7KH WUDLOHU DLU VXSSO\ FRQWURO DOVR called the tractor protection valve control) should SRS RXW RU JR IURP ³QRUPDO´ WR ³HPHUJHQF\´ position) when the air pressure falls into the SUHVVXUH UDQJH VSHFL¿HG E\ WKH PDQXIDFWXUHU

Test Trailer Emergency Brakes: Charge the WUDLOHU V\VWHP DQ [illegible] 6XE7RSLF QRW VWRS DQG DLU VXSSO\ FRQWURO DOVR FDOOHG WKH WUDFWRU PHUJHQF\ EUDNHV DUH RQ

Test Trailer Service Brakes: &KHFN IRU QR DLU SDUNLQJ EUDNH DQG UHOHDVH WKH WUDLOHU EUDNHV E\ PRYLQJ WKH YHKLFOH IRUZDUG VORZO\ with the hand valve, but controlled in normal operation with the foot pedal, which applies air to WKH VHUYLFH EUDNHV DW DOO Z

> Special Note: The (T) endorsement alone on your CDL may not be all that is required for you to legally pull double/ triple trailers.

Section 7
7 H V W < R X U . Q R Z O H G J H

1. What is a converter dolly?
2. Do converter dollies have spring brakes?
3. What three methods can you use to secure a second trailer before coupling?
4. How do you check to make sure trailer height is correct before coupling?
5. What do you check when making a visual check of coupling?
6. Why should you pull a dolly out from under a trailer before you disconnect it from the trailer in front?
7. What should you check for when inspecting the converter dolly? The pintle hook?

6 K R X O G W K H V K X W R ú Y D O Y H V R Q W K H U H D U of the last trailer be open or closed? On W K H ¿ U V W W U D L O H U L Q D V H W R I G R X E O H V " 2 Q W K H middle trailer of a set of triples?

+ R Z F D Q \ R X W H V W W K D W D L U A R Z V W R D U O trailers?

10. How do you know if your converter dolly is equipped with antilock brakes?

These questions may be on your test. If you F D Q ¶ W D Q V Z H U W K H P D O O U H O D W H G T X H V W L R Q V

The following information is not on the test for this chapter. However, it is very important for you to read and understand the following requirements.

7.5 LONG COMMERCIAL VEHICLES CERTIFICATION

< R X V K R X O G U H Y L H Z W K H V H) H C 6 D I H W \ 5 H J X O D W L R Q V

- † ± (P S O R \ H U U H V S R Q V L E
- † ± * H Q H U D O U H T X L U H P H C
- † ± / & 9 ' R X E O H V
- † ± / & 9 7 U L S O H V

These sections of Federal Code outline the special ADDITIONAL training and F H U W L ¿ F D W L R Q H [D P V W K D W D G U L Y H U P X V W S D V V and driver must follow before the driver can legally operate vehicles towing double and/or triple trailers.

Included below are the LCV Double and Triple requirements from Code of Federal Regulations:

§ 380.203 LCV Doubles:

(a) To qualify for the training necessary to operate an LCV Double, a driver-student shall, during the 6 months immediately preceding application for training have:
(1) A valid Class A CDL with a doubles/triples trailer endorsement (T).
(2) Driving experience in a Group A vehicle as described in CFR 383.91. Evidence of driving experience shall be an employer's written statement that the driver has, for at least 6 months immediately preceding application, operated a Group A vehicle while under his/her employ.
(3) No more than one driver's license.
(4) No suspension, revocation, or cancellation of his/her CDL.
(5) No convictions for a major o ense, as de ned in CFR 383.51(b), while operating a CMV.
(6) No convictions for a railroad-highway grade crossing o ense, as de ned in CFR 383.51(d), while operating a CMV.
(7) No convictions for violating an out-of-service order as de ned CFR 383.51(e).
(8) No more than one conviction for a serious tra c violation, as de ned in CFR 383.5, while operating a CMV.

(9) No convictions for a violation of State or local law relating to motor vehicle tra c control arising in connection with any tra c crash while operating a CMV.

(b) Driver-students meeting the preliminary requirements in paragraph (a) of this section shall successfully complete a training program that meets the minimum unit requirements for LCV Doubles as set forth in the appendix to this part.

(c) Driver-students who successfully complete the Driver Training Program for LCV Doubles shall be issued a certi cate, in accordance with subpart D of this part, indicating the driver is quali ed to oper ate an LCV Double.

§ 380.205 LCV Triples:

(a) To qualify for the training necessary to operate an LCV Triple, a driver-student shall, during the 6 months immediately preceding application for training, have:

(1) A valid Class A CDL with a double/triple (T) trailer endorsement.

(2) Experience operating the vehicle listed under paragraph (a)(2)(i) or (a)(2)(ii) of this section. Evidence of driving experience shall be an employer's written statement that the driver has, during the 6 months immediately preceding application, operated the applicable vehicle(s):

(i) Group A truck-tractor/semi-trailer combination as described CFR 383.91; or

(ii) Group A truck-tractor/semi-trailer/trailer combination that operates at a gross vehicle weight of 80,000 pounds or less.

(3) No more than one driver's license.

(4) No suspension, revocation, or cancellation of his/her CDL.

(5) No convictions for a major o ense, as de ned in CFR 383.51(b), while operating a CMV.

(6) No convictions for a railroad-highway grade crossing o ense, as de ned in CFR 383.51(d), while operating a CMV.

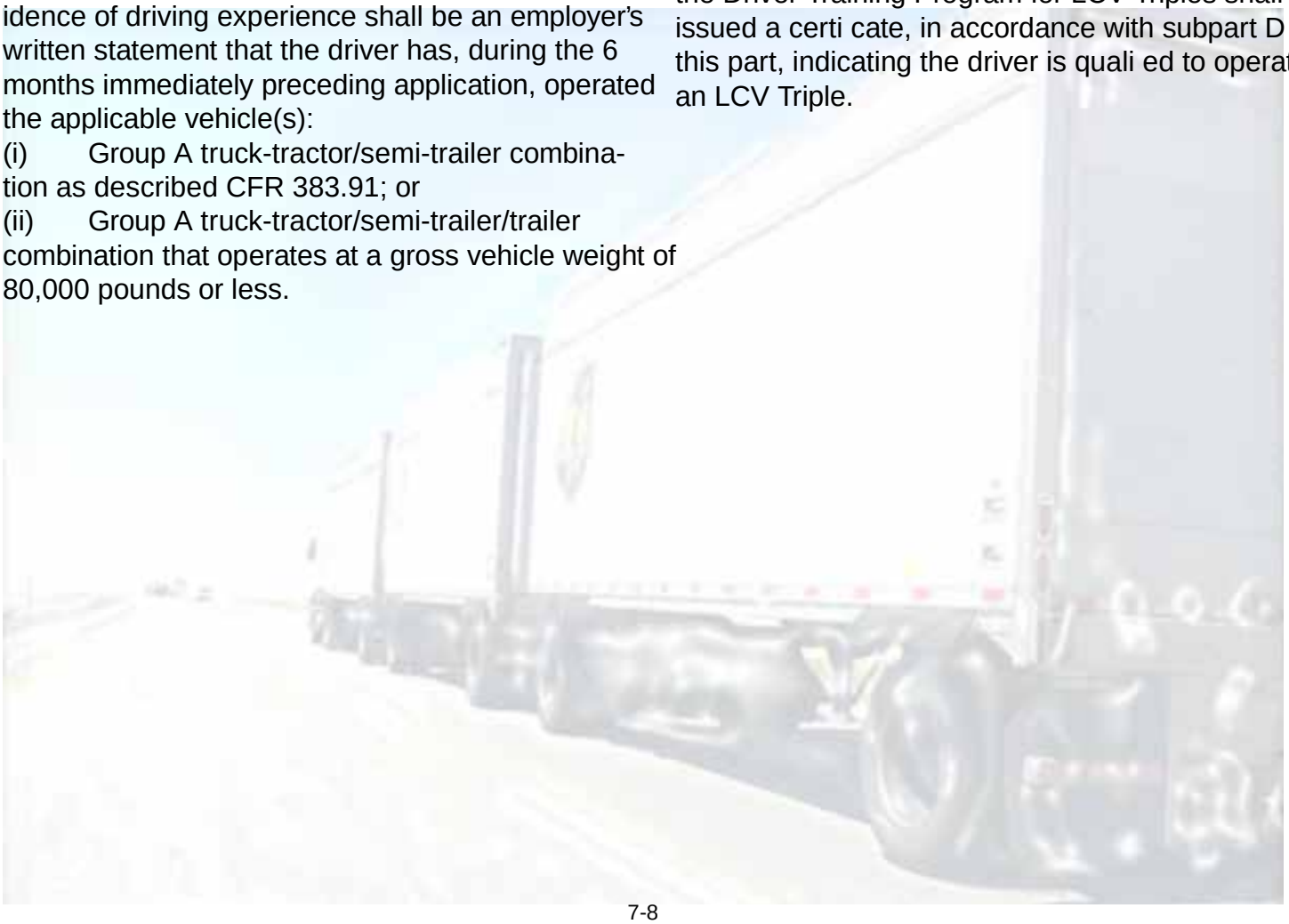
(7) No convictions for violating an out-of-service order, as de ned in CFR 383.51(e).

(8) No more than one conviction for a serious tra c violation, as de ned in CFR 383.5, while operating a CMV.

(9) No convictions for a violation of State or local law relating to motor vehicle tra c control arising in connection with any tra c crash, while operating a CMV.

(b) Driver-students meeting the preliminary requirements in paragraph (a) of this section shall successfully complete a training program that meets the minimum unit requirements for LCV Triples as set forth in the appendix to this part.

(c) Driver-students who successfully complete the Driver Training Program for LCV Triples shall be issued a certi cate, in accordance with subpart D of this part, indicating the driver is quali ed to operate an LCV Triple.



Chapter 8: Tank Vehicles

This Chapter Covers:

- ,QVSHFWLQJ 7DQN 9HKLFOHVGULYLQJ IXUWKHU <RX PD\ DO
- 'ULYLQJ 7DQN 9HKLFOHV
- 6DIH 'ULYLQJ 5XOHV

This chapter has information needed to pass the &'/ NQRZOHGJH WHVW IRU GULYLQJ \RX VKRXOG DOVR VWXG\ &KDSWHUV WDQN HQGRUVHPHQW LV UHTXLUHG WKDW WUDQVSRUW OLTXLGV RU JDVHV GRHV QRW KDYH WR EH D KD]DUGRXV $ WDQN HQGRUVHPHQW LV UHTXLUHG RQ D &ODVV $ RU % &'/ DQG \RX ZRXOG DOVR QHHG D OLTXLG RU OLTXLG JDV LQ D WDQN RI DQ LQGLYLGXDO UDWHG FDSDFLW\ JDOORQV DQG DQ DJJUHJDWH UDWHG FDSDFLW\ JDOORQV RU PRUH WKDW LV HLWKHU WHPSRUDULO\ DWWDFKHG WR WKH YHKLFOH RU WKH FKDVVLV $ WDQN HQGRUVHPHQW LV DOVR UHTXLUHG IRU &ODVV & vehicles when the vehicle is used to transport KD]DUGRXV PDWHULDOV LQ OLTXLG RU JDV IRUP LQ WKH DERYH GHVFULEHG UDWHG WDQNV

A commercial motor vehicle transporting an HPSW\ VWRUDJH FRQWDLQHU WDQN QRW GHVLJQHG IRU WUDQVSRUWDWLRQ ZLWK D UDWHG FDSDFLW\ RI ‡ JDOORQV RU PRUH WKDW LV WHPSRUDULO\ DWWDFKHG WR D ÀDWEHG WUDLOHU LV QRW FRQVLGHUHG D WDQN YHKLFOH

%HIRUH ORDGLQJ XQORDGLQJ 1HYHU GULYH D WDQN YHKLFOH \RX PXVW LQVSHFW WKH YHKLFOH WKDW WKH YHKLFOH LV VDIH WR FDUU\ WKH OLTXLG RU JDV DQG LV VDIH WR GULYH

8.1 INSPECTING TANK VEHICLES

7DQN YHKLFOHV KDYH VSHFLDO UHTXLUHPHQWV WR FKHFN 7DQN YHKLFOHV FRPH LQ PDQ\ VL]HV <RX QHHG WR FKHFN WKH YHKLFOH¶V RSHUDWRU PDQXDO WR PDNH VXUH \RX NQRZ KRZ WR LQVSHFW \RXU WDQN YHKLFOH

8.1.1 Leaks

2Q DOO WDQN YHKLFOHV WKH PRVW LPSRUWDQW LWHP WR FKHFN IRU LV OHDNV &KHFN XQGHU DQG DURXQG WKH YHKLFOH IRU VLJQV RI DQ\ OHDNDJH 'RQ¶W FDUU\ OLTXLGV RU JDVHV LQ D OHDNLQJ WDQN 7R GR VR LV D FULPH <RX ZLOO EH FLWHG D WDQN YHKLFOH FOHDQ XS RI DQ\ VSLOO

,Q JHQHUDO FKHFN WKH IROORZ

. &KHFN WKH WDQN¶V ERG\ RU YHKLFOH RU OHDNV DQG $ &KHFN WKH LQWDNH GLVFK R‡ YDOYHV 0DNH VXUH WK in the correct position before loading, XQORDGLQJ RU PRYLQJ WK H[WUHPH FROGHU KDWHU FRYHUV KD HQHUJ\ WR SURSHUO\ FRQWDLQ WKH FRYHUV RU PRUH WKDQ WKH

8.1.2 Check Special Purpose Equipment

,I \RXU YHKLFOH KDV DQ\ RI WKH IROORZLQJ RU JDV LW ZRUN

- 9DSRU UHFRYHU\ NLWV
- *URXQGLQJ DQG ERQGLQJ FD
- (PHUJHQF\ VKXW R‡ V\VWHPV
- %XLOW LQ ¿UH H[WLQJXLVKH

8.1.3 Special Equipment

&KHFN WKH HPHUJHQF\ HTXLSP \RXU YHKLFOH)LQG RXW ZKDW

8.2 DRIVING TANK VEHICLES

+DXOLQJ OLTXLGV LQ WDQNV U EHFDXVH RI WKH KLJK FHQWHU OLTXLG¶V PRYHPHQW See Figure 8.1

Figure 8.1 Center of Gravity

8.2.1 High Center of Gravity

+LJK FHQWHU RI JUDYLW\ PHD
ORDG¶V ZHLJKW LV FDUULHG
7KLV PDNHV WKH YHKLFOH WR
UROO RYHU /LTXLG WDQNHUV
UROO RYHU 7HVWV KDYH VKRZ
RYHU DW WKH VSHHG OLPLWV SRVWHG IRU FXUYHV 7DNH
KLJKZD\ FXUYHV DQG RQ UDPS R‡ UDPS FXUYHV
ZHOO EHORZ WKH SRVWHG VSHHGV

8.2.2 Danger of Surge

/LTXLG VXUJH UHVXOWV IURP P
LQ SDUWLDOO\ ¿OOHG WDQNV
EDG H‡HFWV RQ KDQGOLQJ)
FRPLQJ WR D VWRS WKH OLTX
IRUWK :KHQ WKH ZDYH KLWV W
WHQGV WR SXVK WKH WUXFN L
LV PRYLQJ ,I WKH WUXFN LV RQ D
VXFK DV LFH WKH ZDYH FDQ VKRYH
RXW LQWR DQ LQWHUVHFWLRQ

Figure 8.2 Tank Surge

7KH GULYHU RI D OLTXLG WDQN
ZLWK WKH KDQGOLQJ RI WKH YH

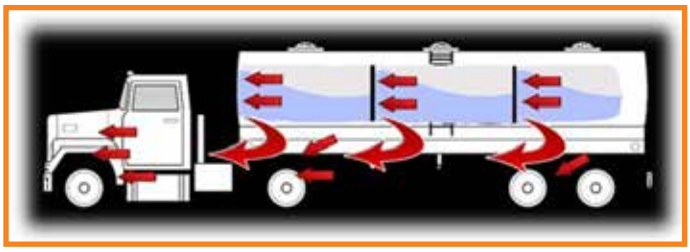


Figure 8.3 Direction of Surge

8.2.3 Bulkheads

6RPH OLTXLG WDQNV DUH GLYLG
WDQNV E\ EXONKHDGV :KHQ ORD
WKH VPDOOHU WDQNV WKH GUL
WR ZHLJKW GLVWULEXWLRQ 'RQ
RQ WKH IURQW RU UHDU RI WKH

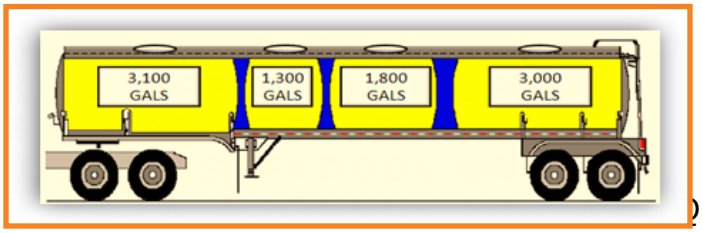
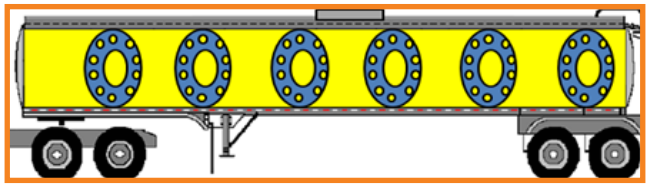


Figure 8.4 Tank Bulkheads

%D‰HG 7DQNV

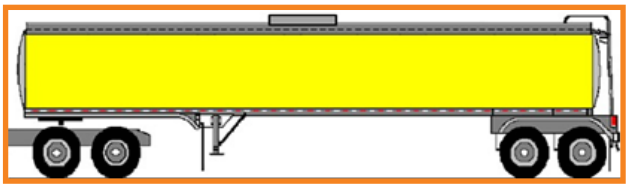
%D‰HG OLTXLG WDQNV KDYH EX
KROHV WKDW OHW WKH OLTXLG
KHOS WR FRQWURO WKH IRUZDU
VXUJH 6LGH WR VLGH VXUJH F
FDQ FDXVH D UROORYHU



)LJXUH %DüHG /LTXLG 7DQN

8 Q E D ‰ H G 7 D Q N V

8 Q E D ‰ H G O L T X L G W D Q N H U V V R P H W L P H V F D O O H G ³ V P R R W K E R U H ´ W D Q N V K D Y H O R W O Q J L Q V L G H W R V O R Z G R Z Q W K H À R Z R I W K H O L T X L G W K U H U R W K H I U Z D U D Q G E D F N V X U J H L V Y H U \ V W U R Q J 8 Q E D ‰ H G W D Q N D U H X V X D O O \ W K R V H W K D W W U D Q V S R U W I R U G S U R G X F W V V X F K D V P L O N V D Q L W D W L R Q U H J X O D W L R Q V I R U E G W K H X V H R I E D ‰ H V E H F D X V H R I W K H G L F X O W \ L Q F O H D Q L Q J W K H L Q V L G H R I W K H W D Q N



)LJXUH 8QEDüHG /LTXLG 7DQ

%H H[WUHPHO\ FDXWLRXV VO
GULYLQJ VPRRWK ERUH WDQN
VWDUWLQJ DQG VWRSSLQJ

8.2.6 Outage

1 H Y H U O R D G D F D U J R W D Q N W R W D E H O I X O O V H D Q G D V W K H \ Z D U P D Q G \ R X P X V W O H D Y H R R P I U W K H H [S D Q G L Q J O L T X L G 7 K L V L V F D O O H G R X W D X J 6 L Q F H G L ‡ H U H Q W O L T X L G V H [S D Q G E \ G L ‡ H U H Q W D P R X Q W V W K H \ U H T X L U H G L ‡ H U H Q W D P R X Q W V R I R X W D J H < R X P X V W N Q R Z W K H R X W D J H U H T X L U H P H O W Z K H Q K D X O L Q J O L T X L G V L Q E X O N

8.2.7 How Much to Load?

$ I X O O W D Q N R I G H Q V H O L T X L G V X F K D V V R P H D F L G V P D \ H [F H H G O H J D O Z H L J K W O L P L W V R U W K D W U H D V R Q \ R X P D \ R I W H Q R Q O \ S D U W L D O O \ ¿ O O W K H W D Q N V Z L W K K H D Y \ O L T X L G V 7 K H D P R X Q W R I O L T X L G W R O R D G L Q W R D W D Q N G H S H Q G V R Q

- 7 K H D P R X Q W W K H O L T X L G Z L O O H [S D Q G L Q W U D Q V L W
- 7 K H Z H L J K W R I W K H O L T X L G
- Legal weight limits

8.3 SAFE DRIVING RULES

In order to drive tank vehicles safely you must remember to follow all the safe driving rules. A few of these rules include the following:

8.3.1 Drive Smoothly

Because of the high center of gravity and the surge of the liquid, you must start, slow down, and stop very smoothly. You must also make smooth turns and lane changes.

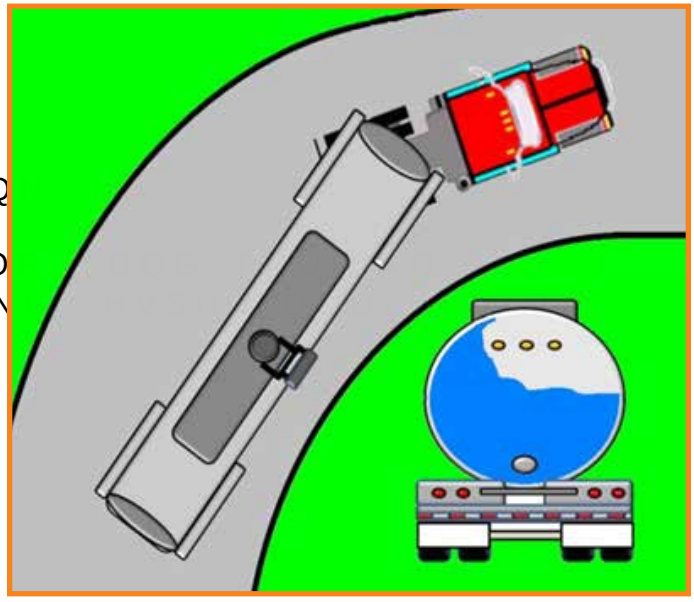


Figure 8.7 Cornering Surge

8.3.2 Curves

. H H S D V W H D G \ S U H V V X U H R Q W
not release them too soon when coming to a
V W R S % U H D N H I D U W K H G D Y D Q F H
\ R X U R O O R Z L Q J G L V W D Q F H
J \ R X P X V W P D N H D T X L F N V W R S
X V H F R Q W U R O O H G R U V W D E E U
U H P H P E H U K R Z W R V W R S W K H Y H
E U D N L Q J P H W K R G V U H Y L H Z V X E
U H P H P E H U W K D W L I \ R X V W H H U
\ R X U Y H K L F O H P D \ U R O O R Y H U

8 L W V R U W K D W U H D V R Q 6 O R Z G R Z Q E H I R U H F X U Y H V W K H W K R X J K W K H F X U Y H 7 K H S R V W H P D \ E H W R O I D V W I R U D W D Q N Y

8.3.4 Stopping Distance

.HHS LQ PLQG KRZ PXFK VSDFH \RX QHHG WR VWRS \RXU YHKLFOH 5HPHPEHU WKDW ZHW URDGV GRXEOH WKH QRUPDO VWRSSLQJ GLVWDQFH (PSW\ WDQN YHKLFOHV PD\ WDNH ORQJHU WR VWRS WKDQ IXOO RQHV

8.3.5 Skids

'RQ¶W RYHU VWHHU RYHU DFFHOHUDWH RU RYHU EUDNH ,I \RX GR \RXU YHKLFOH PD\ VNLG 2Q WDQN WUDLOHUV LI \RXU GULYH ZKHHOV RU WUDLOHU ZKHHOV EHJLQ WR VNLG \RXU YHKLFOH PD\ MDFNNQLIH :KHQ DQ\ YHKLFOH VWDUWV WR VNLG \RX PXVW WDNH LPPHGLDWH DFWLRQ WR UHVWRUH WUDFWLRQ WR WKH ZKHHOV

Section 8
7HVW <RXU .QRZOHGJH

+RZ DUH EXONHDGV GLúHUHQW WKDQ EDüHV"

2. Should a tank vehicle take curves, on-UDPSV RU Rú UDPSV DW WKH SRVWHG VSHHG limits?

+RZ DUH VPRRWK ERUH WDQNHUV GLúHUHQW WR GULYH WKDQ WKRVH ZLWK EDüHV"

4. What three things determine how much liquid you can load?

5. What is outage?

6. How can you help control surge?

7. What two reasons make special care necessary when driving tank vehicles?

These questions may be on your test. If you FDQ¶W DQVZHU WKHP DOO UH UHDG 6HFWLRQ

6 SHFLDO +RZ <RX /RDG DQG 8QORDG \RXU 7DQN 9HKLFOH the following portions of these chapters in order to pass your tank endorsement knowledge test:

Chapter 2, Section 2.23

Chapter 3, Section 3.4

Chapter 9, Section 9.5

Chapter 9: Hazardous Materials

This Chapter Covers:

- Application Process
- 7KH ,QWHQW RI WKH 5HJXODWLRQV %DVHG RQ WKH GDWD SU
- %XON 7DQN /RDGLQJ 8QORDGLQJ 6SHFLDO 3URYLVLRQ 76$ ZLOO SHUIRU 0DUNLQJ 76$ ZLOO FKHFN WKH)%, ¿QJHU
- 'ULYHU 5HVSRQVLELOLWLHV FULPLQDO KLVWRU\ UHFRUGV
- 'ULYLQJ DQG 3DUNLQJ 5XOHV FKHFNV DQG LPPLJUDWLRQ VWD
- &RPPXQLFDWLRQV 5XOHV
- (PHUJHQFLHV
- /RDGLQJ DQG 8QORDGLQJ
- +D]DUGRXV 0DWHULDOV (QG Process

<RX PXVW KDYH D &'/ ZLWK D] DUGRXV materials (hazmat) endorsement before driving vehicles placarded for hazmat. <RX FDQQRW REWDLQ D] PDYW K LF DW K a commercial learner's permit.

7R JHW WKLV HQGRUVHPHQW \RX PXVW SDVV D ZULWWHQ WHVW DERXW KD]PDW UHJXODWLRQV DQG \RX PXVW XQGHUJR D VHFXULW\ WKUHDW DVVHVVPHQW FKHFN DV UHTXLUHG E\ WKH 86$ 3$75,27 $FW RI

Unlike other CDL Endorsement tests, you must re-take the written test and pass the background investigation every time you renew your CDL (every 4 years).

The following application process LQVWUXFWLRQV DUH IRU \RX Study materials for the hazmat written test begin in section 9.0.7.

Note: Certain felony convictions will UHVXOW SHUPDQHQW RU LQWHULP from holding a hazardous materials endorsement on your CDL. Other felony convictions may result in a delay in your ability to obtain a hazmat HQGRUVHPHQW 3OHDVH FRQWDFW 76$ directly for further information on felony convictions.

9.0 HAZMAT ENDORSEMENT APPLICATION PROCESS:

7KH ¿UVW VWHS LQ REWDLQLQJ D +D]PDW (QGRUVHPHQW RQ D &'/ LV WR FRQWDFW WKH 7UDQVSRUWDWLRQ 6HFXULW\ Administration (TSA) to start the application IRU WKH SURFHVV NQRZQ DV WKH +D]PDW $VVHVVPHQW 3URJUDP +7$3

Note: 3OHDVH UHIHU WR WKH (/'7 UHTXLUHPHQW for hazmat referenced on page .

'XULQJ WKLV SURFHVV \RX ZLOO DQG WKHQ VXEPLW \RXU ¿QJHUS WKH)%, ZLOO SHUIRU 76$ ZLOO FKHFN WKH)%, ¿QJH FULPLQDO KLVWRU\ UHFRUGV FKHFNV DQG LPPLJUDWLRQ VWD

$W WKH WLPH \RX FRPSOHWH WK \RX PXVW SD\ WR SD\ D SURFHVVLQJ IH FUHGLW FDUG GLUHFWO\ RQ WKH RQOLQH DSSOLFDWLRQ DQG \RX PXVW XQGHUJR D WKH LQLWLDO WR WKH RSH (QUROOPHQW FHQWHU (OHFWUR PRVW VHFXUH DQG FRQYHQLHQ VDYH WLPH DW WKH ¿QJHUSUL \RX FKRRVH QRW WR SD\ HOHFW EULQJ D PRQH\ RUGHU IRU WKH FROOHFWLRQ VLWH &DVK DQG S EH DFFHSWHG E\ HQUROOPHQW

The results of the threat assessment will be SURYLGHG GLUHFWO\ WR WKH DSSOLFDQW 7'RQ ZKLFK ZLOO UHFRUGV DFFRUGLQJO\ <RX ZLO UHJDUGLQJ WKH UHVXOWV RI WK IURP 76$:KLOH PRVW WKUHDW SURFHVVHG IDLUO\ TXLFNO\ LW ZHHNV WR UHFHLYH WKH UHVXO

76$ SURFHVVHV DQG DSSOLFDW (QGRUVHPHQW +0(EDFNJURXQ FDUGV 7UDQVSRUWDWLRQ :RU &ULPLQDO DQG 76$ 3UH&KH DW RQH FHQWUDO ORFDWLRQ

9.0.1 Pre-Enrollment

%HJLQ WKH HQUROOPHQW DSSOLFDWLRQ SURFHVV E\ HQWHULQJ \RXU ELRJUDSKLF LQIRUPDWLRQ RQOLQH RU YLVLWLQJ DQ HQUROOPHQW 'DKR UHVLGHQWV <RX FDQ EH 'SSOLFDWLRQ SURFHVV 7KLV LV FRPPRQO\ UHIHUUHG WR DV SUH HQUROOPHQW <RX DUH QRW UHTXLUHG WR S,UHHQUROO LQ WKLV SDJH complete the application process; however, TSA HQFRXUDJHV \RX WR SUH HQUROO WR H[SHGLWH WKH application process:

- %\ SUH HQUROOLQJ \RX FDQ HQVXUH WKDW \RXU SHUVRQDO GDWD LV HQWHUHG FRUUHFWO\ IURP WKH FRPIRUW RI \RXU KRPH RU RWKHU ORFDWLRQ
- <RX PD\ EH DEOH WR PLQLPL]H \RXU WLPH DW DQ HQUROOPHQW FHQWHU
- <RX FDQ VHW DQ DSSRLQWP HQUROOPHQW FHQWHU FRQ KRPH RU WUDYHOLQJ FLUFX QRWH DQ DSSRLQWPHQW LV visit an enrollment center and is provided WR DVVLVW \RX ZLWK VFKHG WR PLQLPL]H ZDLW WLPHV D FHQWHU
- <RX FDQ UHYLHZ WKH SURFH GRFXPHQW V UHTXLUHG DW \RXU OHLVXUH
- <RX ZLOO EH DEOH WR UHTXHVW DVVLVWDQFH ZLWK HQUROOPHQW TXHVWLRQV HQUROOPHQW ZHEVLWH

<RX PD\ SUH HQUROO RQOLQH DW KWWSV XQLYHUVDOHQUROO GKV JRY or

Call the UES Call Center at 1-855-347-8371 0RQGD\ WKURXJK)ULGD\ IURP 0RXQWDLQ 7LPH WR FRPSOHWH \RXU SUH HQUROOPHQW RYHU WKH SKRQH

9.0.2 Fingerprinting

$IWHU FRPSOHWLQJ \RXU SUH HQUROOPHQW \RX PXVW EH ¿QJHUSULQWHG DQG SURYLGH \RXU ELRPHWULF GRFXPHQWDWLRQ DW RQH RI WKH 6HUYLFH FHQWHUV QDWLRQZLGH \RX FDQ VHOHFW WKH ORFDWLRQ WKDW LV PRVW FRQYHQLHQW IRU \RXU SUH HQUROOPHQW DSSRLQWPHQW D FRQ¿UPDWLRQ QXPEHU IRU \RXU

*R WR D ¿QJHUSULQW VLWH U "Universal Enrollment Service Center". Idaho sites are currently located in Boise, Idaho Falls, and in Spokane and Kennewick, WA for North YLVLW DQ HQUROOPHQW 'DKR UHVLGHQWV <RX FDQ EH 'SSOLFDWLRQ SURFHVV any UESC in any participating state.

\RX FDQ VHH D OLVW RI UHTXLU (KWWSV XQLYHUVDOHQUROO GKV JRY ¿QJHUSULQW VLWHV). <RX FDQ DOVR YLHZ LQIRUPDWLRQ WR \RXU QHDUHVW HQUROOPH XQLYHUVDOHQUROO GKV) JRY OR

Notice: TSA requires multiple LGHQWL¿FDWLRQ GRFXPHQWV WR SURFHVV a HME, such as your Idaho driver's OLFHQVH DQG DGGLWLRQDO LGHQWL¿FDWLRQ document such as a US passport. TSA may also require a plastic driver's license, not a paper temporary.

The TSA website is the best source of information on current document requirements, site locations, operating hours, and driving directions.

9.0.3 Determination of Security Threat

If the TSA determines you do not pose a security threat: <RX ZLOO EH QRWL¿HG FOHDU WR EH LVVXHG D KD]PDW FDQ SURFHHG WR WKH FRXQW\ G WR WDNH WKH ZULWWHQ H[DPLQ &'/ ZLWK WKH KD]DUGRXV PDWHU

If the TSA determines you pose a security threat: 7KH 76$ ZLOO QRWLI\ \RX LQLWLDO GHWHUPLQDWLRQ DQG DSSHDO SURFHVV

9.0.4 Knowledge Testing

First time, renewal and transfer applicants must SDVV WKH ZULWWHQ H[DPLQDWLRQ test and receive clearance from the TSA prior WR UHFHLYLQJ WKHLU +D]0DW HQG RU &'/ UHFRUGV

<RX PD\ WDNH WKH ZULWWHQ WHVW EHIRUH WKH DVVHVVPHQW WKH VHFXULW\ DVVHVVPHQW driver's record will show the test as being FRPSOHWHG EXW WKH +$=0$7 UHPDLQ LQ D SHQGLQJ VWDWXV FOHDUDQFH LV UHFHLYHG E\ WKH 6WDWH

,I \RX FKRRVH WR ZDLW WR WDNH WKH WHVW DQG WKH VHFXULW\ FOHDUDQFH LV QRW UHFHLYHG E\ WKH 6WDWH \RX FDQ WDNH WKH WHVW DQG JR WR D &'/ ZLWK WKH + HQGRUVHPHQW DQG WKH NQRZOHGJH WHVW \RX IDLO WKH KD]PDW NQRZOHGJH WHVW ZDLW WKUHH GD\V EHIRUH UHWHVWLQJ

9.0.5 Renewals and Extensions

$ 76$ VHFXULW\ FOHDUDQFH LV YDOLG IRU ¿YH \HDUV KRZHYHU ,GDKR &'/¶V DUH YDOLG IRU D PD[LPXP RI IRXU \HDUV 7KHUHIRUH \RX PXVW KDYH D VHFXULW\ DVVHVVPHQW DQG SDVV D ZULWWHQ H[DPLQDWLRQ WR UHQHZ \RXU HQGRUVHPHQW HYHU\ IRXU \HDUV

,I \RX KDYH FRPSOHWHG D VHFXULW\ DVVHVVPHQW EHIRUH DQG \RX KDYH D KD]DUGRXV PDWHULDOV HQGRUVHPHQW WR ,GDKR \RX PD\ QRW KDYH WR JR WKURXJK D QHZ WKUHDW DVVHVVPHQW IRU WKH WUDQVIHU LI \RXU QHZ ,GDKR OLFHQVH ZLOO H[SLUH ZLWKLQ RI \RXU ODVW WKUHDW DVVHVVPHQW

9.0.6 Issuance or Denial of Hazardous Materials Endorsements

- ,I WKH 76$ KDV LVVXHG D ³'HWHUPLQDWLRQ RI 1R 6HFXULW\ 7KUHDW´ RU KDV JUDQWHG D waiver, the department will allow issuance, UHQHZDO RU WUDQVIHU RI WKH KD]DUGRXV PDWHULDOV HQGRUVHPHQW VKRXOG UHWXUQ WR WKH FRXQWHU RI OLFHQVLQJ R̂FH IRU LVVXDQFH ZLWK D KD]DUGRXV PDWHULDOV HQGRUVHPHQW
- ,I WKH 76$ KDV LVVXHG D ³Final Determination of Threat Assessment´ WKH GHSDUWPHQW ZLOO GHQ\ UHQHZDO RU WUDQVIHU RI WKH KD]DUGRXV PDWHULDOV HQGRUVHPHQW

9.0.7 Introduction to Hazardous Materials Endorsements

,I \RX WDNH WKH ZULWWHQ +D]DUGRXV PDWHULDOV DUH S D ULVN WR KHDOWK VDIHW\ WUDQVSRUWDWLRQ 7KH WHUP +$=0$7 ZLOO XVH WKH VHFXULW\ RU WR +0 LQ JRYHUQPHQW UHJX +D]DUGRXV PDWHULDOV LQFOXG RULHQWHG \RX RQ WKH VWDWH RI ,GDKR 7KH +D]DUGRXV 0DWHULDOV 5HJ IRXQG LQ SDUWV RI WLWO)HGHUDO 5HJXODWLRQV 7KH FR WKH 7UDQVSRUWDWLRQ LV &)5 7KH +D]DUGRXV 0DWHULDOV 7DE FRQWDLQV D OLVW RI WKHVH L LV QRW DOO LQFOXVLYH :KHW LV FRQVLGHUHG KD]DUGRXV characteristics and the shipper's decision on ZKHWKHU RU QRW WKH PDWHULD D KD]DUGRXV PDWHULDO LQ WKH FRQWH\ RU QHZ ,GDKR ZDLQLQJ VLJQV FDOOHG SODFDU

7KLV VHFWLRQ LV GHVLJQHG XQGHUVWDQGLQJ \RXU UROH LQ KDXOLQJ KD]DUGRXV PDWHULDOV constantly changing nature of government regulations, it is impossible to guarantee absolute accuracy of the materials in this section. ,W LV HVVHQWLDO IRU \RX 7KH DSSOLFDQW LV UHVSRQVLEOH IRU WKH FRPSOHWH U LQIRUPDWLRQ RQ WKH DSSOLFDWLRQ IRUP &'/ 7KH &'/ LV D FRPPHUFLDO GULYHU¶V OLFHQVH RU &'/ ZLWK D KD]DUGRXV PDWHULDOV HQGRUVHPHQW <RX PXVW KDYH D FRPPHUFLDO EHIRUH \RX GULYH DQ\ VL]H YHK WUDQVSRUW KD]DUGRXV PDWHULDOV &)5 <RX PXVW SDVV D ZULWWHQ WHVW RQ WKH UHJXODWLRQV DQG UHTXL HQGRUVHPHQW

Everything you need to know to pass the written test is in this manual, in Chapters 8 and 9. +RZHYHU WKLV LV RQO\ D\ RXH JLQQLQJ 0RVW GULYHUV QHHG WR NQRZ PXFK PRUH RQ WKH MRE <RX FDQ OHDUQ PRUH E\ UHDGLQJ DQG XQGHUVWDQGLQJ the federal and state rules applicable to KD]DUGRXV PDWHULDOV DV ZHOO DV WKH KD]DUGRXV PDWHULDOV WUDLQLQJ SURJUDPV HPSOR\HU FROOHJHV DQG XQLYHUVLWLHV DQG YDULRXV DVVRFLDWLRQV XVXDOO\ R‡HU JHW FRSLHV RI WKH)HGHUDO 5HJXODWLRQV WKURXJK \RXU ORFDO *RYHUQPHQW 3ULQWLQJ 2ˆFH ERRNVWRUH DQG YDULRXV LQGXVWU\ SXEOLVKHUV 8QLRQ RU FRPSDQ\ RIWHQ KDYH FRSLHV RI WKH UXOHV IRU GULYHU XVH)LQG RXW ZKHUH \RX FDQ JHW \RXU RZQ FRS\ WR XVH RQ WKH MRE

7KH UHJXODWLRQV UHTXLUH WUDLQLQJ DQG WHVWLQJ IRU DOO GULYHUV LQYROYHG LQ WUDQVSRUWLQJ KD]DUGRXV PDWHULDOV <RXU HPSOR\HU UHSUHVHQWDWLYH LV UHTXLUHG WR SURYLGH WUDLQLQJ DQG WHVWLQJ +D]DUGRXV PDWHULDOV HPSOR\HUV DUH UHTXLUHG WR NHHS D UHFRUG RI WUDLQLQJ IRU HDFK HPSOR\HH DV ORQJ DV WKH HPSOR\HH LV ZRUNLQJ ZLWK KD]DUGRXV PDWHULDOV DQG WKHQ IRU WKUHH \HDUV 7KH UHJXODWLRQV UHTXLUH WKDW KD]DUGRXV PDWHULDOV HPSOR\HHV EH WUDLQHG DW OHDVW RQFH HYHU\ WKUHH \HDUV

$OO GULYHUV PXVW EH WUDLQHG RQ WKH VSHFLDO KD]DUGRXV PDWHULDOV WUDQVSRUWLQJ FHUWDLQ ÀDPPDEOH OLTXLGV RU JDVHV PXVW LQFOXGH KRZ WR UHFRJQL]H SRVVLEOH VHFXULW\ WKUHDWV

7KH UHJXODWLRQV DOVR UHTXLUH WKDW GULYHUV have special training before driving a vehicle WUDQVSRUWLQJ FHUWDLQ ÀDPPDEOH OLTXLGV RU JDVHV KLJKZD\ URXWH FRQWUROOHG TXDQWLWLHV RI SDUWLFXODU PDWHULDOV ,Q DGGLWLRQ FHUWDLQ GULYHUV WUDQVSRUWLQJ FDUJR WDQNV DQG SRUWDEOH VHFXULW\ WDQNV PXVW EH WHVWHG DQG FHUWLILHG their designated representative must provide VXFK WUDLQLQJ

6RPH ORFDOLWLHV UHTXLUH SHUPLWV WR WUDQVSRUW FHUWDLQ H[SORVLYHV RU EXON KD]DUGRXV PDWHULDOV 6WDWHV DQG FRXQWLHV DOVR PD\ UHTXLUH GULYHUV WR IROORZ VSHFLDO KD]DUGRXV PDWHULDOV URXWHV 7KH IHGHUDO JRYHUQPHQW PD\ UHTXLUH SHUPLWV RU H[HPSWLRQV IRU VSHFLDO KD]DUGRXV PDWHULDOV

FDUJR VXFK DV URFNHW IXHO)L H[HPSWLRQV DQG VSHFLDO UR

9.1 THE INTENT OF THE REGULATIONS

HOO DV DWWHQGLQJ 7UDQVSRUWLQJ KD]DUGRXV PDW 7KH UHJXODWLRQV DUH LQWHQ WR SURWHFW \RX DQG WKH SXEOLF &)5 WKRVH DURXQG \RX DQG WKH HTXLSPHQW VKLSSHUV KRZ WR SDFNDJ and drivers how to load, transport, and unload the PDWHULDO 7KHVH DUH FDOOHG

9.1.1 Contain the Material

9.1.2 Communicate the Risk

warn drivers and others about the materials KD]DUGV GHVFULEHG 7KH UHJXODWLRQV WR SURYLGH WKLV LQIRUPDWLRQ SURSHU VKLSSLQJ S UHVSRQVH LQIRUPDWLRQ DQG WKH KD]DUG WR PRQLWRU DQG WUDFN GULYHU

9.1.3 Assure Safe Drivers and Equipment

,Q RUGHU WR REWDLQ D KD] HQGRUVHPHQW RQ D &RPP WKDW HPSOR\HH LV SURSHUO\ WUDLQHG DQG FHUWLILHG 7KH UHJXODWLRQV DOVR UHTXLUH GULYHUV WR

- ,GHQWLI\ ZKDW DUH KD]DUG
- 6DIHO\ ORDG VKLSPHQWV
- 3URSHUO\ SODFDUG \RXU YHK
- 6DIHO\ WUDQVSRUW VKLSPHQ
- 6DIHO\ WDQN PXVW UHFHLYH /HDUQ WKH UXOHV DQG IROORZ UXOHV UHGXFHV WKH ULVN RI L PDWHULDOV 7DNLQJ VKRUWFXW XOWLPDWH 1RQFRPSOLDQFH ZLWK HVVHQWLDO KD]DUGRXV PDWHULDOV

,QVSHFW \RXU YHKLFOH EHIRUH GULYLQJ HDFK WULS /DZ HQIRUFHPHQW RˆFHUV PD\ VWRS DQG LQVSHFW \RXU YHKLFOH :KHQ VWRSSHG WKH\ PD\ FKHFN \RXU VKLSSLQJ SDSHUV YHKLFOH SODFDUGV DQG WKH KD]DUGRXV PDWHULDOV \RXU GULYHU¶V OLFHQVH DQG \RXU KD]DUGRXV PDWHULDOV

9.2 HAZARDOUS MATERIALS TRANSPORTATION: WHO DOES WHAT?

9.2.1 The Shipper

- Sends products from one place to another E\ WUXFN UDLO YHVVHO RU
- 8VHV WKH KD]DUGRXV PDWHUL to determine the product's:

  ,GHQWL¿FDWLRQ QXPEHU
  Proper shipping name
  +D]DUG FODVV
  3DFNLQJ JURXS
  &RUUHFW SDFNDJLQJ
  &RUUHFW ODEHO DQG PDUNLQJV
  Correct placards

- 0XVW SDFNDJH PDUN DQG ODEHO WKH KD]DUGRXV PDWHULDOV EHLQJ VKLSSHG
- Prepares shipping papers
- 3URYLGHV HPHUJHQF\ UHVSRQVH LQIRUPDWLRQ
- Supplies placards for the shipment
- &HUWL¿HV RQ WKH VKLSSLQJ SDSHU WKDW WKH shipment has been prepared according WR WKH UXOHV XQOHVV \RX DUH SXQOLQJ EDU]R WDQNV VXSSOLHG E\ \RX RU

9.2.2 The Carrier

- 7DNHV WKH VKLSPHQW IURP W GHVWLQDWLRQ
- 3ULQWV WUDQVSRUWDWLRQ VKLSSHU FHUWL¿FDWH labeled, and otherwise prepared the VKLSPHQW IRU WUDQVSRUWD

- 5HIXVHV LPSURSHU VKLSPHQWV
- 5HSRUWV DFFLGHQWV and incidents LQYROYLQJ KD]DUGRXV materials to the proper JRYHUQPHQW DJHQF\

9.2.3 The Driver

- 0DNHV VXUH WKH VKLSSHU KD PDUNHG DQG ODEHOHG WKH PDWHULDO SURSHUO\
- 5HIXVHV OHDNLQJ SDFNDJHV

- 3ODFDUGV YHKLFOH ZKHQ O
- 6DIHO\ WUDQVSRUWV WKH V GHOD\
- Follows all special rules about transporting KD]DUGRXV PDWHULDOV
- .HHSV KD]DUGRXV PDWHULD SDSHUV DQG HPHUJHQF\ UHV LQIRUPDWLRQ LQ WKH SURS

WR 7KH ZRUGV DQG SKUDVHV L EH RQ \RXU WHVW 7KH PHDQLQJ ZRUGV DUH LQ WKH JORVVDU\ FKDSWHU

$ PDWHULDO¶V KD]DUG FODVV DVVRFLDWHG ZLWK LW 7KHUH D FODVVHV 7KH W\SHV RI PDWHUL nine classes are in Figure 9.1 EHORZ

Hazardous Materials Class			
Class	Division	Name of Class or Division	Examples
1	1.1 1.2 1.3 1.4 1.5 1.6	Mass Explosion W Œ } i Ÿ } v , Ì &] Œ , Ì Œ Minor Explosion s Œ Ç / v • v •] Ÿ Æ š Œ u o Ç / v	Dynamite Flares Display Fireworks u u µ v] Ÿ } v À o • Ÿ v P P v š • • Æ ‰ Ÿ À •] À À]
2	2.1 2.2 2.3	Flammable Gases Non-Flammable Gas es Poisonous/Toxic Gases	Propane , o] µ u Fluorine } u ‰ Œ • •
3		& o u u o >] < u	Gasoline
4	4.1 4.2 4.3	& o u u o ^ } o] Spontaneously } u µ • Ÿ o v P Œ } µ • t Z	Ammonium W] Œ š U t © t Z] š W Z } • ‰ Z } Œ µ v ^ } š µ u
5	5.1 5.2	K Æ]] Ì Œ • K Œ P v] W Œ }	Ammonium Nitrate • D š Z Ç o š Z Ç o < š } v W Œ } Æ]
6	6.1 6.2	Poison (Toxic Material) / v (Ÿ } µ • ^ µ •	Potassium Ç v] š w š Z • Œ Æ s] Œ µ •
7		Z] } Ÿ À	Uranium
8		} Œ Œ } •] À •	© Œ Ç & o µ]
9		Miscellaneous , Ì Œ } µ • D š	W } o Ç Z o } Œ] v š Œ] ‰ Z • v Ç o • ~ W
None		K Z D r ~ K š Z Œ Z P µ o š D š Œ } u • Ÿ	& } } U D]] v • U Œ o] À } Œ] v P •
		} u µ • Ÿ o >] < µ	Fuel•Oil

Figure 9.1 Hazardous Materials Classes

9.3 COMMUNICATION RULES

'H¿QLWLRQV

Some words and phrases have special meanings ZKHQ WDONLQJ DERXW KD]DUGRXV PDWHULDOV 6RPH RI WKHVH PD\ GL‡HU IURP PHDQLQJV \RX DUH XVHG

$ VKLSSLQJ SDSHU GHVFULEHV WKH KD]DUGRXV PDWHULDOV EHLQJ WUDQVSRUWHG DQG SURYLGHV LQIRUPDWLRQ bills of lading, and manifests are all shipping SDSHUV Figure 9.6 VKRZV DQ H[DPSOH VKLSSLQJ SDSHU

$IWHU DQ DFFLGHQW RU KD]DUGRXV PDWHULDOV VSLOO RU OHDN \RX PD\ EH LQMXUHG DQG XQDEOH WR FRPPXQLFDWH WKH KD]DUGV RI WKH PDWHULDOV \RX DUH WUDQVSRUWLQJ)LUH¿JKWHUV DQG SROLFH FDQ SUHYHQW RU UHGXFH WKH DPRXQW RI GDPDJH RU LQMXU\ DW WKH VFHQH LI WKH\ NQRZ ZKDW KD]DUGRXV PDWHULDOV DUH EHLQJ FDUULHG <RXU OLIH DQG WKH OLYHV RI RWKHUV PD\ GHSHQG RQ TXLFN\ ORFDWLQJ WKH KD]DUGRXV PDWHULDOV VKLSSLQJ SDSHUV)RU WKDW UHDVRQ WKH UXOHV UHTXLUH

- 6KLSSHUV WR GHVFULEH KD]DUGRXV PDWHULDOV FRUUHFWO\ DQG LQFOXGH DQ HPHUJHQF\ response telephone number on shipping SDSHUV
- &DUULHUV DQG GULYHUV WR TXLFNO\ LGHQWLI\ KD]DUGRXV PDWHULDOV VKLSSLQJ SDSHUV RU NHHS WHP RQ WRS RI RWKHU VKLSSLQJ SDSHUV DQG NHHS WKH UHTXLUHG HPHUJHQF\ response information with the shipping SDSHUV
- 'ULYHUV WR NHHS KD]DUGRXV PDWHULDOV shipping papers:

In a pouch on the driver's door, or
In clear view within immediate reach while the seat belt is fastened while driving, or
2Q WKH GULY W when out of the YHKLFOH

9.3.2 Package Labels

6KLSSHUV SXW GLDPRQG VKDSHG KD]DUG ZDUQLQJ ODEHOV RQ PRVW KD]DUGRXV PDWHULDOV 7KHVH ODEHOV LQIRUP RWKHUV RI WKH KD]DUG ,I WKH GLDPRQG ODEHO ZRQ¶W ¿W RQ WKH SDFNDJH VKLSSHUV PD\ SXW WKH ODEHO RQ D WDJ VHFXUHO\ DWWDFKHG WR WKH SDFNDJH)RU H[DPSOH FRPSUHVVHG JDV

9.3.3 Lists of Regulated Products

Placards: Placards are used to warn others of KD]DUGRXV PDWHULDOV 3ODFD WKH RXWVLGH RI D YHKLFOH DQ ZKLFK GHQRWH WKH KD]DUG FO A placarded vehicle must have at least four LGHQWLFDO SODFDUGV 7KH\ DU and both sides of the vehicle (See Figure 9.3

Figure 9.3 Hazmat Placards

Placards must be readable from all four GLUHFWLRQV 7KH\ DUH DW OHDV VTXDUH VTXDUH RQ SRLQW LQ &DUJR WDQNV DQG RWKHU EXO WKH LGHQWL¿FDWLRQ QXPEHU SODFDUGV RU RUDQJH SDQHOV SRLQW GLVSOD\V WKDW DUH WKI ,GHQWL¿FDWLRQ QXPEHUV DUH E\ ¿UVW UHVSRQGHUV WR LGHQW $Q LGHQWL¿FDWLRQ QXPEHU PD