

M/C Ofcr. James Malone

Michigan Department of State Police

Commercial Vehicle Enforcement Division

Gaylord Post – Petoskey Detachment



WHAT RULES APPLY?

WEIGHT ENFORCEMENT

LOAD SECUREMENT

CDL REQUIREMENTS

WHAT RULES APPLY?

Section 390.3(f)(2) of the FMCSR states that transportation performed by the Federal government, a State government, or a political subdivision of a State, is exempt from the FMCSR.

The state law that adopted the FMCSR, however, brought government operations back into the regulations. Section 480.15(6) of Act 181 states that government transportation must comply with the following parts of the FMCSR:

WHAT RULES APPLY?

- Part 382, Controlled Substance and Alcohol Use Testing;
- Part 391, Qualifications of Drivers;
- Part 392, Driving of Motor Vehicles; and
- Part 393, Parts and Accessories Necessary for Safe Operation.

WHAT RULES APPLY?

EXEMPTIONS:

Part 395, “Hours of Service for Drivers”, and

Part 396, “Inspection, Repair, and Maintenance” are not included.

Government operations are NOT subject to hours of service/log books or driver daily, and annual inspections.

WHAT RULES APPLY?

MCLA 257.603

Government vehicles that are actively engaged in road maintenance may:

- (a) Park or stand, irrespective of this act.
- (b) Proceed past a red or stop signal or stop sign, but only after slowing down as may be necessary for safe operation.
- (c) Exceed the prima facie speed limits so long as he or she does not endanger life or property.
- (d) Disregard regulations governing direction of movement or turning in a specified direction.

WHAT RULES APPLY?

MCLA 257.603

(6)The exemptions provided for by this section apply to persons, teams, motor vehicles, and other equipment while actually engaged in work upon the surface of a highway but do not apply to those persons and vehicles when traveling to or from work. The provisions of this CHAPTER governing the size and width of vehicles do not apply to vehicles owned by public highway authorities when the vehicles are proceeding to or from work on public highways. **DOES NOT INCLUDE WEIGHT!**

WHAT RULES APPLY?

HOWEVER,

MDOT will issue a permit suspending weight restrictions for the purposes of winter maintenance operations.

RECEIVED NOV 07 2016



OFFICE MEMORANDUM

DATE: October 25, 2016
TO: County Road Commission Manager
FROM: Scott D. Thayer
North Region Engineer
SUBJECT: Suspension of Weight Restrictions-Winter Operations

This letter suspends the restrictions imposed under MCL 257.722 governing weight restrictions and authorizes the Eminet County Road Commission employees to carry out winter operations on the state trunk line system, pursuant to maintenance procedures and performance guidelines of the Michigan Department of Transportation.

MCL 257.722(9) The state transportation department, or a local authority with respect to highways under its jurisdiction, may suspend the restrictions imposed by this section when and where, in its discretion, conditions of the highways or the public health, safety, and welfare so warrant, and may impose the restricted loading requirements of this section on designated highways at any other time that the conditions of the highway may require.

As per section MCL 257.722(9), this suspension of restrictions applies for the duration of the 2016-2017 winter snow and ice season. MDOT's suspension of restrictions applies to all county road commission vehicles owned and leased while engaged in snow and ice control related operations on the state trunk line system. A copy of this authorization letter shall be kept in each vehicle.

Scott D. Thayer

C: R. Liptak
D. Wilson
J. Gallitis
B. Wahl
R. Tyree
TMC's
MC Lt. Archambault
Sgt. Paul Richardson

WHAT RULES APPLY?

This document is valid for the duration of the declared snow and ice season and a copy of the letter must be carried in every vehicle.

WEIGHT ENFORCEMENT

WEIGHT ENFORCEMENT

When not operating under the suspension, normal loading maximums apply to government vehicles.

WEIGHT ENFORCEMENT

Spacing Between Axles	Normal Loadings when Seasonal Load Limitations are Not in Force	
	Vehicles Exceeding 80,000 lbs. Gross Weight	Vehicles 80,000 lbs. (Or under) Bridge Formula Gross Weight
9' or over *normal loading	18,000 lbs.	20,000 lbs.
3 1/2' or more but less than 9' *normal loading	13,000 lbs.	13,000 lbs.
When part of a tandem axle assembly *on designated routes only	*16,000 lbs.	34,000 lbs. on tandem
When less than 3 1/2' *normal loading	9,000 lbs.	9,000 lbs.
Maximum load on any wheel shall not exceed (pounds per inch of tire width)	700 lbs.	700 lbs.

WEIGHT ENFORCEMENT

If vehicle is under 80,000lbs gross weight and operating on a designated or special designated route Bridge Formula applies.

WEIGHT ENFORCEMENT

If vehicle is under 80,000lbs gross weight and operating on a designated or special designated route Bridge Formula applies:

$$W = 500 \left[\frac{LN}{N-1 + 12N + 36} \right]$$

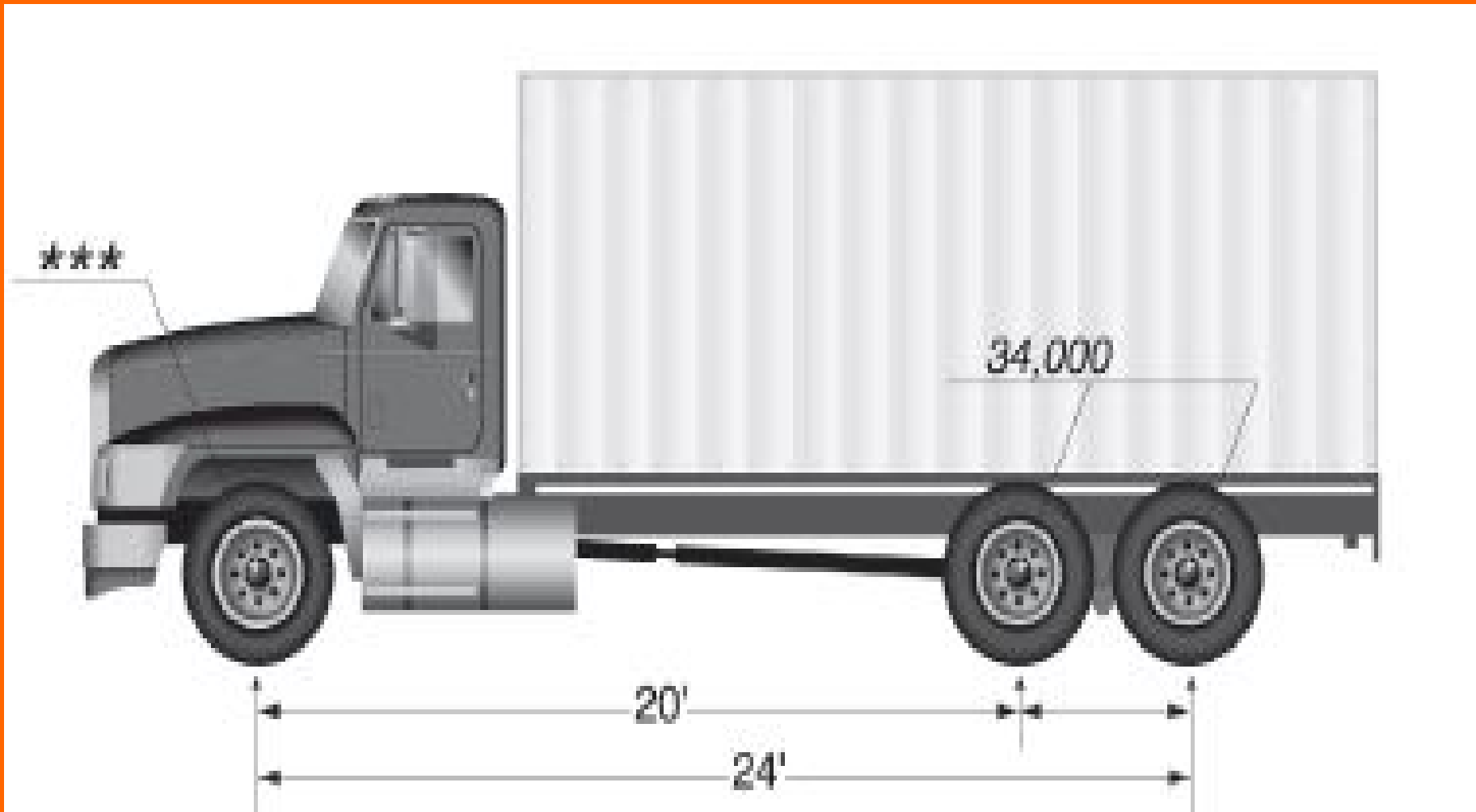
W = The maximum weight in pounds that can be carried on a group of two or more axles to the nearest 500 pounds

L = The spacing in feet between the outer axles of any two or more consecutive axles

N = The number of axles being considered

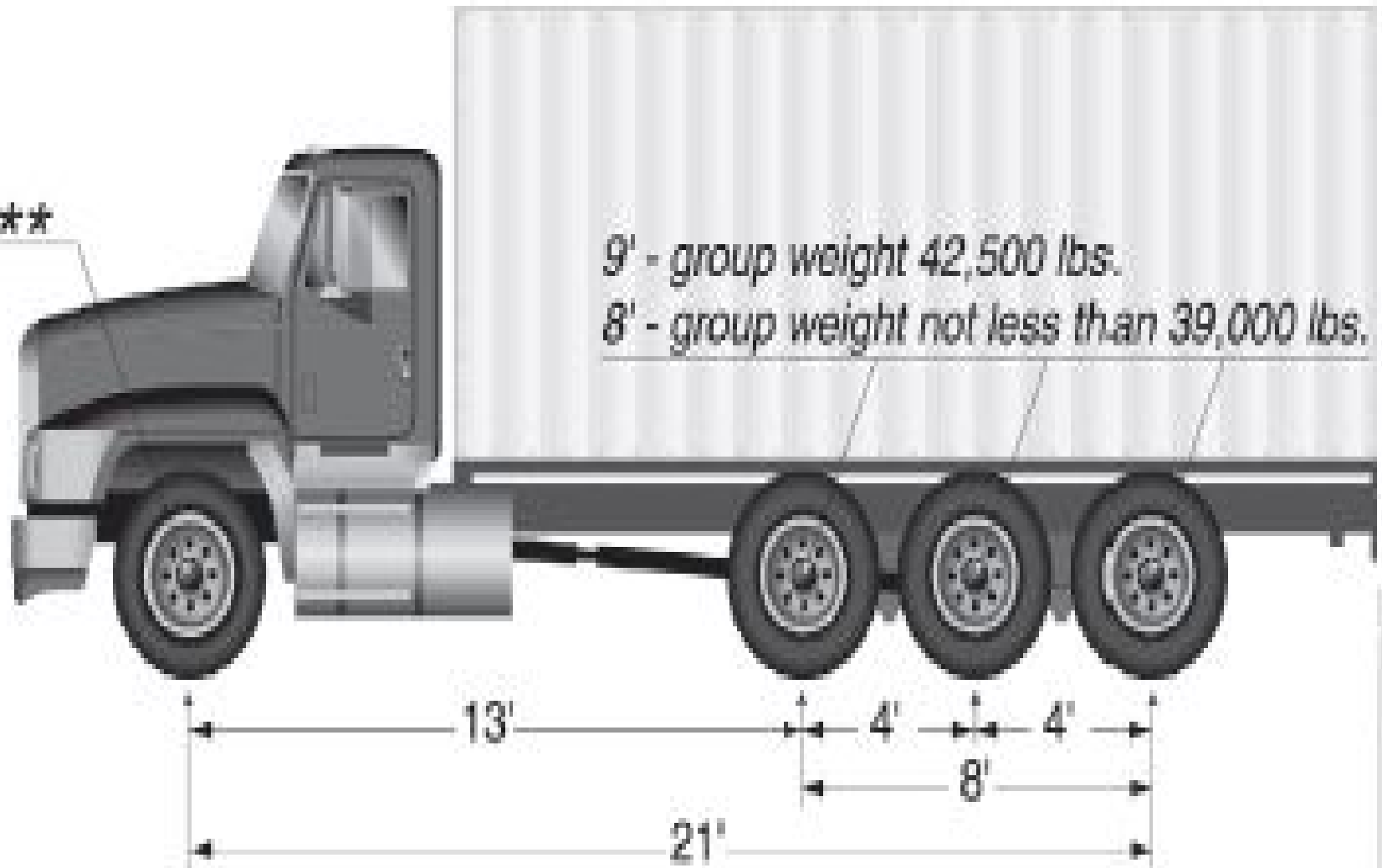
WEIGHT ENFORCEMENT

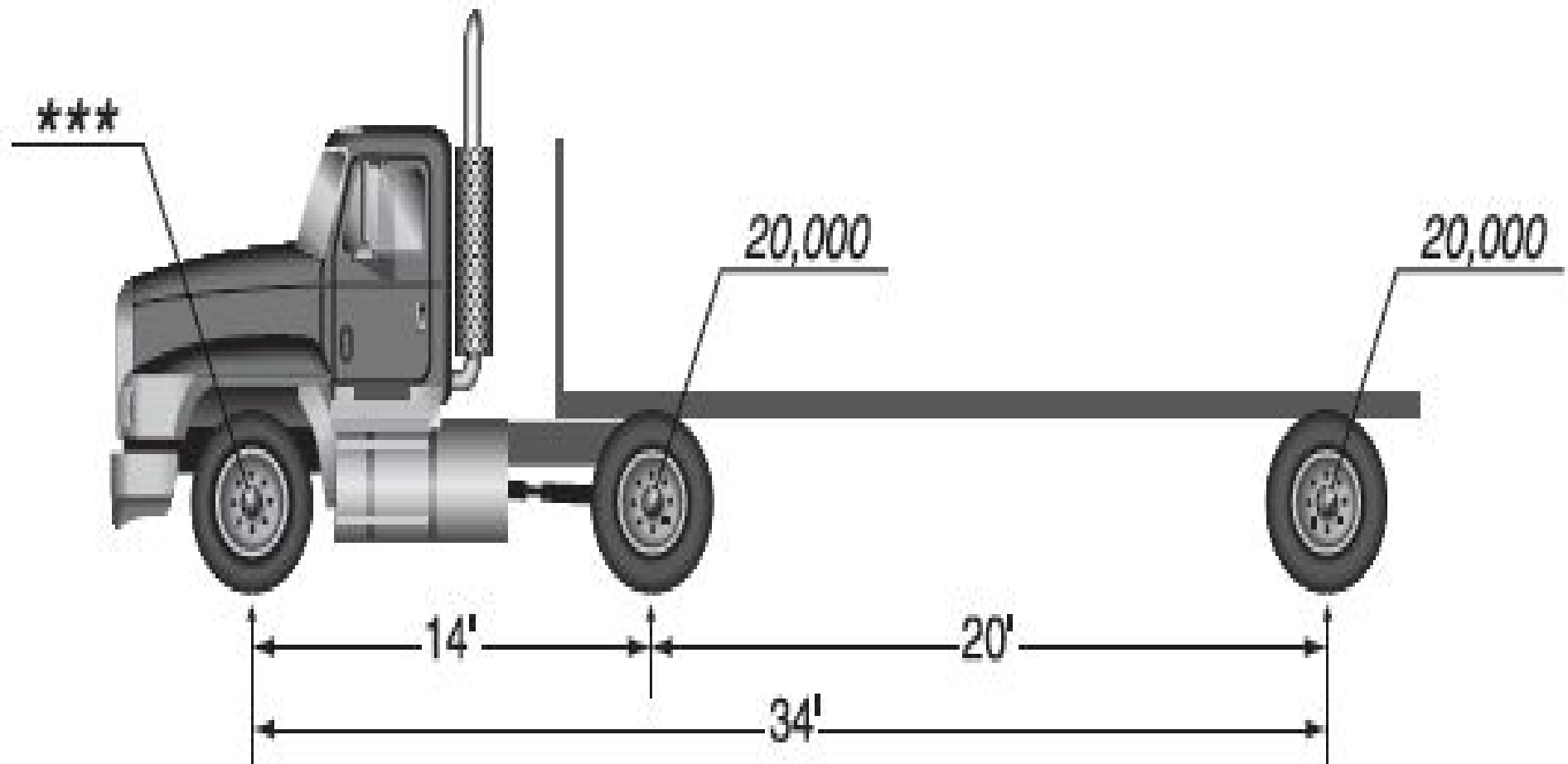


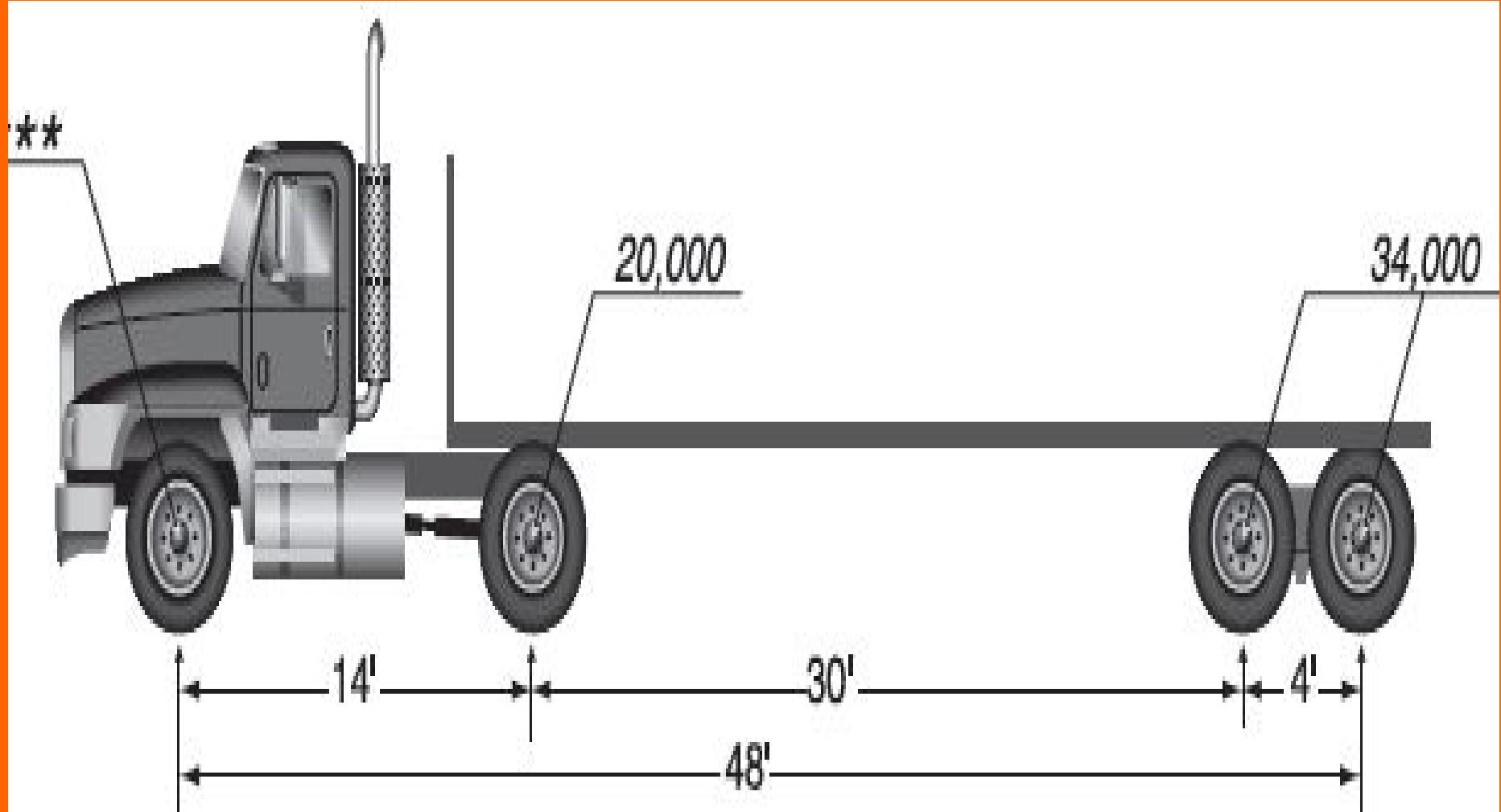


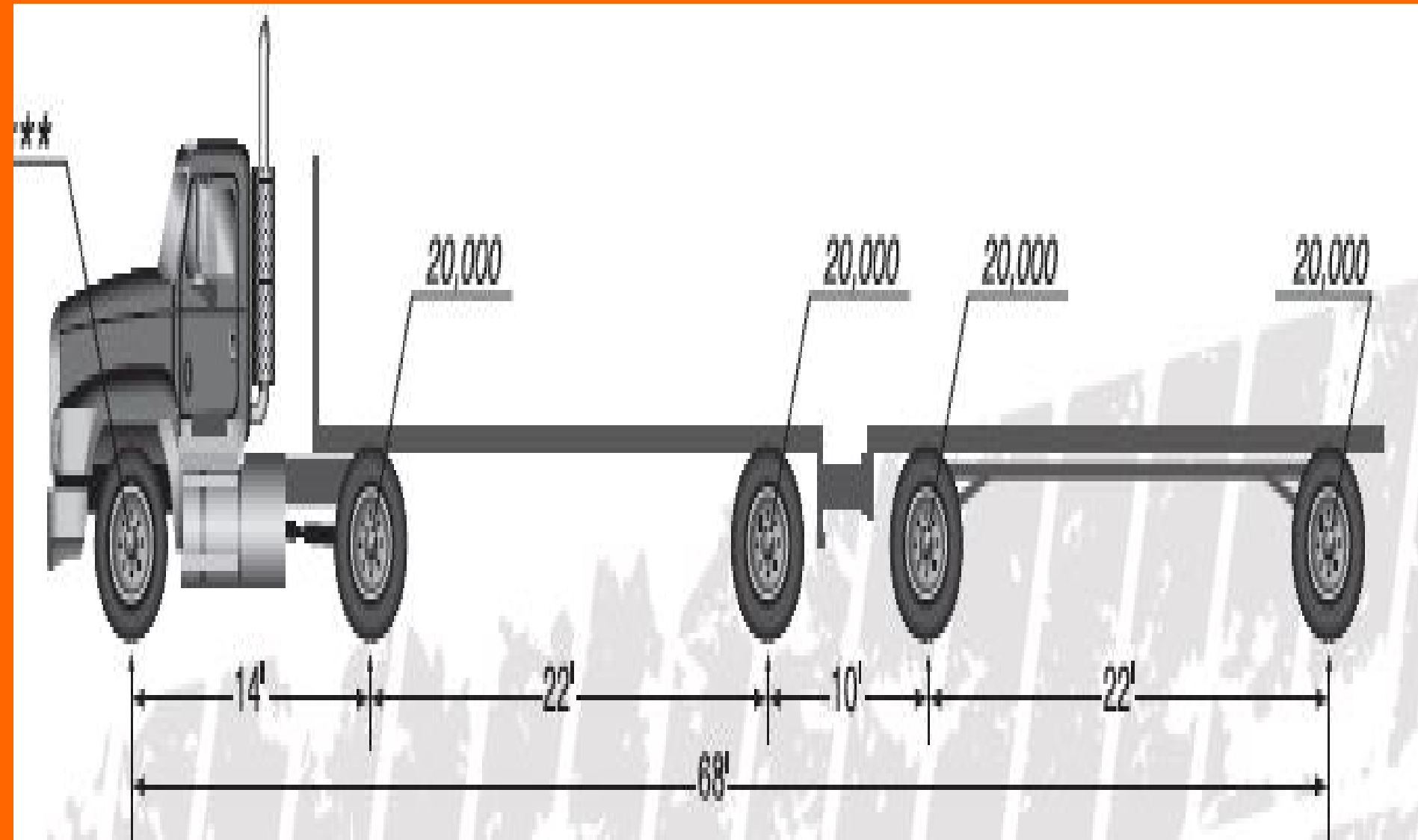
9' - group weight 42,500 lbs.

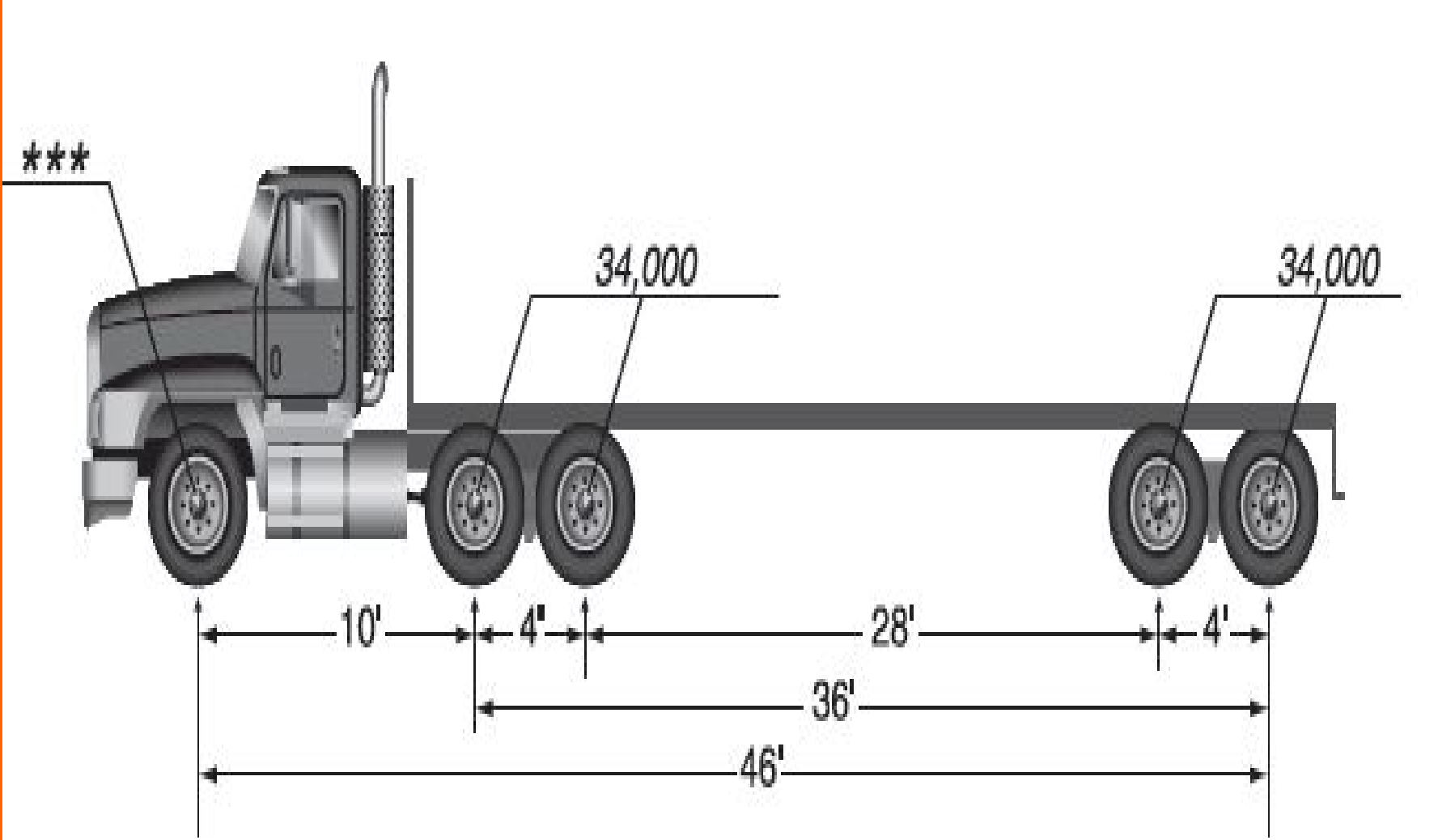
8' - group weight not less than 39,000 lbs.











WEIGHT ENFORCEMENT

IF OVER 80,000 POUNDS OR ON A NON-DESIGNATED ROUTE, NORMAL LOADING IS ENFORCED:

WEIGHT ENFORCEMENT

9' OR OVER = 18,000 LBS

3 ½' BUT LESS THAN 9' = 13,000 LBS

TANDEM = 16,000 LBS EACH

LESS THAN 3 ½ ' = 9,000 LBS



Normal Loading 15,400

9'

18,000



Normal Loading

15,400

9'

3'6"

16,000

16,000



Normal Loading 15,400

13,000

13,000

13,000



Normal Loading 15,400

13,000

13,000

13,000

13,000

QUESTIONS ABOUT WEIGHT?

LOAD SECUREMENT



What are the rules for securing heavy vehicles, equipment and machinery?

- 393.130
- (a) **Applicability.** The rules in this section apply to the transportation of heavy vehicles, equipment and machinery which operate on wheels or tracks, such as front end loaders, bulldozers, tractors, and power shovels and which individually weigh 4,536 kg (10,000 lb.) or more. Vehicles, equipment and machinery which is lighter than 4,536 kg (10,000 lb.) may also be secured in accordance with the provisions of this section, with [§393.128](#), or in accordance with the provisions of [§§393.100](#) through [393.114](#).

What are the rules for securing heavy vehicles, equipment and machinery?

- **(b) Preparation of equipment being transported.**
- **(1) Accessory equipment, such as hydraulic shovels, must be completely lowered and secured to the vehicle.**
- **(2) Articulated vehicles shall be restrained in a manner that prevents articulation while in transit.**

What are the rules for securing heavy vehicles, equipment and machinery?

- (c) Securement of heavy vehicles, equipment or machinery with crawler tracks or wheels.
- (1) In addition to the requirements of paragraph (b) of this section, heavy equipment or machinery with crawler tracks or wheels must be restrained against movement in the lateral, forward, rearward, and vertical direction using a minimum of four tiedowns.
- (2) Each of the tiedowns must be affixed as close as practicable to the front and rear of the vehicle, or mounting points on the vehicle that have been specifically designed for that purpose.

INTERPRETATIONS

- **Question 3:** A tractor loader-backhoe weighing over 10,000 pounds is being transported on a trailer. The loader and backhoe accessories are each equipped with locking devices or mechanisms that prevent them from moving up and down and from side-to-side while the construction equipment is being transported on the trailer. Must these accessories also be secured to the trailer with chains?

ANSWER

- *Guidance:* No. However, if the construction equipment does not have a means of preventing the loader bucket, backhoe, or similar accessories from moving while it is being transported on the trailer, then a chain would be required to secure those accessories to the trailer.

WORKING LOAD LIMIT

- 393.106: Aggregate working load limit for tiedowns. The aggregate working load limit of tiedowns used to secure an article or group of articles against movement must be at least one-half times the weight of the article or group of articles.
- 50,000 POUND ARTICLE = 25,000 WLL

Tables to § 393.108 [Working Load Limits (WLL), Chain]

Size mm (inches)	WLL in kg (pounds)				
	Grade 30 proof coil	Grade 43 high test	Grade 70 transport	Grade 80 alloy	Grade 100 alloy
1. 7 (1/4)	580 (1,300)	1,180 (2,600)	1,430 (3,150)	1,570 (3,500)	1,950 (4,300)
2. 8 (5/16)	860 (1,900)	1,770 (3,900)	2,130 (4,700)	2,000 (4,500)	2,600 (5,700)
3. 10 (3/8)	1,200 (2,650)	2,450 (5,400)	2,990 (6,600)	3,200 (7,100)	4,000 (8,800)
4. 11 (7/16)	1,680 (3,700)	3,270 (7,200)	3,970 (8,750)		
5. 13 (1/2)	2,030 (4,500)	4,170 (9,200)	5,130 (11,300)	5,400 (12,000)	6,800 (15,000)
6. 16 (5/8)	3,130 (6,900)	5,910 (13,000)	7,170 (15,800)	8,200 (18,100)	10,300 (22,600)
Chain Mark Examples:					
Example 1	3	4	7	8	10
Example 2	30	43	70	80	100
Example 3	300	430	700	800	1000

- (1) One-half the working load limit of each tiedown that goes from an anchor point on the vehicle to an anchor point on an article of cargo;
- (2) One-half the working load limit of each tiedown that is attached to an anchor point on the vehicle, passes through, over, or around the article of cargo, and is then attached to an anchor point on the same side of the vehicle.
- (3) The working load limit for each tiedown that goes from an anchor point on the vehicle, through, over, or around the article of cargo, and then attaches to another anchor point on the other side of the vehicle.

EXERCISE



HOW MANY CHAINS?

3/8" GRADE 70 TRANSPORT

WLL 6,600LBS

BACKHOE WEIGHS 36,000LBS

HOW MANY CHAINS?

MUST ACCOUNT FOR 18,000LBS

NEED AT LEAST 4 +



HOW MANY CHAINS?

4 CHAINS COVER 12,200LBS NOT
26,400LBS

BECAUSE

$\frac{1}{2}$ WORKING LOAD LIMIT WHEN
ATTACHED TO VEHICLE

ANSWER

EACH OF 4 CHAINS ACCOUNTS FOR 3,300LBS

4 CHAINS X 3,300LBS = 13,200WLL

+

1 CHAIN X 6,600LBS + 6,600WLL

=

5 CHAINS MEET REQUIREMENT OF 18,800LBS

Questions about Cargo Securement?

COMMERCIAL DRIVERS LICENSES

Group A To operate a vehicle which is:

- A combination of vehicles with a gross combination weight rating [GCWR], of 26,001 pounds or more, and tows a vehicle with a gross vehicle weight rating [GVWR] of more than 10,000 pounds

Group B To operate:

- A single vehicle having a gross vehicle weight rating [GVWR] of 26,001 pounds or more

Group C To operate small vehicles:

- Designed to carry 16 or more people including the driver; or
- Not meeting the requirements for group A or B which carry hazardous materials in amounts requiring placarding (refer to CDL Manual)

- T DOUBLE or TRIPLE TRAILERS** (Triple-trailer combinations are not permitted in Michigan)
- P PASSENGER:** For vehicles which are designed to carry more than 15 people (including the driver)
- N TANK VEHICLES:** Any commercial motor vehicle that is designed to transport any liquid or gaseous materials within a tank or tanks having an individual rated capacity of more than 119 gallons and an aggregate rated capacity of 1,000 gallons or more that is either permanently or temporarily attached to the vehicle or the chassis. A commercial motor vehicle transporting an empty storage container tank, not designed for transportation, with a rated capacity of 1,000 gallons or more that is temporarily attached to a flatbed trailer is not considered a tank vehicle.
- H HAZARDOUS MATERIALS:** To carry hazardous materials in amounts requiring placarding (includes small trucks, pickup trucks and passenger vehicles)
- X** An “X” endorsement will appear on the license instead of the H and N codes when an applicant receives both the tanker and hazardous materials’ endorsements
- S SCHOOL BUS** for commercial motor vehicles used to transport pre-primary, primary, or secondary school students from home to school, school to home, or to and from school sponsored events

WHAT CDL IS REQUIRED FOR
THE FOLLOWING VEHICLES?











QUESTIONS?



THE END

M/C Ofcr. Jim Malone

989-619-3692