

(iv) What to do when becoming ill while driving.

(b) *Air brakes.* All CMV drivers operating vehicles equipped with air brakes must have knowledge of the following 7 areas:

(1) General air brake system nomenclature;

(2) The dangers of contaminated air supply (dirt, moisture, and oil);

(3) Implications of severed or disconnected air lines between the power unit and the trailer(s);

(4) Implications of low air pressure readings;

(5) Procedures to conduct safe and accurate pre-trip inspections, including knowledge about:

(i) Automatic fail-safe devices;

(ii) System monitoring devices; and

(iii) Low pressure warning alarms.

(6) Procedures for conducting en route and post-trip inspections of air-actuated brake systems, including:

(i) Ability to detect defects that may cause the system to fail;

(ii) Tests that indicate the amount of air loss from the braking system within a specified period, with and without the engine running; and

(iii) Tests that indicate the pressure levels at which the low air pressure warning devices and the tractor protection valve should activate.

(7) General operating practices and procedures, including:

(i) Proper braking techniques;

(ii) Antilock brakes;

(iii) Emergency stops; and

(iv) Parking brake.

(c) *Combination vehicles.* All CMV drivers operating combination vehicles must have knowledge of the following 3 areas:

(1) Coupling and uncoupling—The procedures for proper coupling and uncoupling a tractor to a semi-trailer;

(2) Vehicle inspection—The objectives and proper procedures that are unique for performing vehicle safety inspections on combination vehicles; and

(3) General operating practices and procedures, including:

(i) Safely operating combination vehicles; and

(ii) Air brakes.

### § 383.113 Required skills.

(a) *Pre-trip vehicle inspection skills.* Applicants for a CDL must possess the following basic pre-trip vehicle inspection skills for the vehicle class that the driver operates or expects to operate:

(1) *All test vehicles.* Applicants must be able to identify each safety-related part on the vehicle and explain what needs to be inspected to ensure a safe operating condition of each part, including:

(i) Engine compartment;

(ii) Cab/engine start;

(iii) Steering;

(iv) Suspension;

(v) Brakes;

(vi) Wheels;

(vii) Side of vehicle;

(viii) Rear of vehicle; and

(ix) Special features of tractor trailer, school bus, or coach/transit bus, if this type of vehicle is being used for the test.

(2) *Air brake equipped test vehicles.* Applicants must demonstrate the following skills with respect to inspection and operation of air brakes:

(i) Locate and verbally identify air brake operating controls and monitoring devices;

(ii) Determine the motor vehicle's brake system condition for proper adjustments and that air system connections between motor vehicles have been properly made and secured;

(iii) Inspect the low pressure warning device(s) to ensure that they will activate in emergency situations;

(iv) With the engine running, make sure that the system maintains an adequate supply of compressed air;

(v) Determine that required minimum air pressure build up time is within acceptable limits and that required alarms and emergency devices automatically deactivate at the proper pressure level; and

(vi) Operationally check the brake system for proper performance.

(b) *Basic vehicle control skills.* All applicants for a CDL must possess and demonstrate the following basic motor vehicle control skills for the vehicle class that the driver operates or expects to operate:

(1) Ability to start, warm up, and shut down the engine;

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(2) Ability to put the motor vehicle in motion and accelerate smoothly, forward and backward;

(3) Ability to bring the motor vehicle to a smooth stop;

(4) Ability to back the motor vehicle in a straight line, and check path and clearance while backing;

(5) Ability to position the motor vehicle to negotiate safely and then make left and right turns;

(6) Ability to shift as required and select appropriate gear for speed and highway conditions; and

(7) Ability to back along a curved path.

(c) *Safe on-road driving skills.* All applicants for a CDL must possess and demonstrate the following safe on-road driving skills for their vehicle class:

(1) Ability to use proper visual search methods;

(2) Ability to signal appropriately when changing direction in traffic;

(3) Ability to adjust speed to the configuration and condition of the roadway, weather and visibility conditions, traffic conditions, and motor vehicle, cargo and driver conditions;

(4) Ability to choose a safe gap for changing lanes, passing other vehicles, as well as for crossing or entering traffic;

(5) Ability to position the motor vehicle correctly before and during a turn to prevent other vehicles from passing on the wrong side, as well as to prevent problems caused by off-tracking;

(6) Ability to maintain a safe following distance depending on the condition of the road, visibility, and vehicle weight;

(7) Ability to adjust operation of the motor vehicle to prevailing weather conditions including speed selection, braking, direction changes, and following distance to maintain control; and

(8) Ability to observe the road and the behavior of other motor vehicles, particularly before changing speed and direction.

(d) *Test area.* Skills tests shall be conducted in on-street conditions or under a combination of on-street and off-street conditions.

(e) *Simulation technology.* A State may utilize simulators to perform skills testing, but under no cir-

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cumstances as a substitute for the required testing in on-street conditions.

[76 FR 26889, May 9, 2011]

### § 383.115 Requirements for double/triple trailers endorsement.

In order to obtain a double/triple trailers endorsement each applicant must have knowledge covering:

(a) Procedures for assembly and hookup of the units;

(b) Proper placement of heaviest trailer;

(c) Handling and stability characteristics including off-tracking, response to steering, sensory feedback, braking, oscillatory sway, rollover in steady turns, and yaw stability in steady turns;

(d) Potential problems in traffic operations, including problems the motor vehicle creates for other motorists due to slower speeds on steep grades, longer passing times, possibility for blocking entry of other motor vehicles on freeways, splash and spray impacts, aerodynamic buffeting, view blockages, and lateral placement; and

(e) Operating practices and procedures not otherwise specified.

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### § 383.117 Requirements for passenger endorsement.

An applicant for the passenger endorsement must satisfy both of the following additional knowledge and skills test requirements.

(a) *Knowledge test.* All applicants for the passenger endorsement must have knowledge covering the following topics:

(1) Proper procedures for loading/unloading passengers;

(2) Proper use of emergency exits, including push-out windows;

(3) Proper responses to such emergency situations as fires and unruly passengers;

(4) Proper procedures at railroad-highway grade crossings and drawbridges;

(5) Proper braking procedures; and

(6) Operating practices and procedures not otherwise specified.

(b) *Skills test.* To obtain a passenger endorsement applicable to a specific vehicle class, an applicant must take