

VEHICLE EQUIPMENT SAFETY COMMISSION

REGULATION V-2

(Approved September 17, 1966)

MINIMUM PERFORMANCE REQUIREMENTS AND
UNIFORM TEST PROCEDURES FOR RETREADED TIRES
FOR
PASSENGER CARS AND STATION WAGONS

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1. **SCOPE:** This specification is for retreaded pneumatic tires, designed for use on passenger cars and station wagons operated on highways open to public use for vehicular traffic.

2. **DEFINITIONS:**
 - 2- 1 **BUFF LINE**—The dividing line in the cross section of a tire between the buffed surface of the original tire and the new retread rubber.
 - 2- 2 **BUFFED SURFACE**—The surface prepared by rasping a tire carcass to provide proper adhesion between the previously vulcanized carcass and the new rubber.
 - 2- 3 **CUT-OFF RIB**—An indentation molded into a retreaded tire to produce a sharp ending at the edge of the new retread rubber.
 - 2- 4 **REGROOVING or RECUTTING**—The cutting of a tread design into tread rubber where a design does not already exist or the cutting into an existing tread design to a depth greater than that provided by the new tire manufacturer or the retreader.
 - 2- 5 **REINFORCEMENT**—Any material, usually rubber and fabric, vulcanized to the tire to add strength to the cord body at an injury.
 - 2- 6 **REPAIRED TIRE**—Any tire with punctures, cuts or other types of injuries that have been reconditioned as required to provide additional safe service life.
 - 2- 7 **REPAIR PATCH**—The reinforcing material used to strengthen the area around an injury in a tire.
 - 2- 8 **REPAIR PLUG**—The rubber material that fills the cavity of injury in a tire.
 - 2- 9 **RETREADED TIRE**—A carcass to which tread rubber has been affixed to extend the useable life of the tire.
 - 2-10 **SKIVING**—The removal of an injury by cutting it out with a bevelled cut.

- 2-11 **SPECIAL MILEAGE TIRE**—A tire manufactured with an extra layer of rubber between the cord body and the original tread design, which extra layer is designed for the purpose of recutting or regrooving, and which is specifically labelled as a special mileage commercial tire.
- 2-12 **TREAD DEPTH**—The distance, measured near the center-line of the tire, from the base of the tread design to the top of the tread.
- 2-13 **UNDERTREAD**—The rubber between the base of the tread design and the tire body.
- 2-14 **VESC DEFINITION REFERENCES**—The definitions which appear in Vehicle Equipment Safety Commission regulation V-1 and subsequent amendments or revisions to Regulation V-1 shall constitute definitions in this regulation as if they were printed herein.

3. TEST PROCEDURES AND REQUIREMENTS:

- 3- 1 The Test Procedures and Requirements, the Tables and Figures which appear in Vehicle Equipment Safety Commission Regulation V-1 and subsequent amendments or revisions to Regulation V-1 shall constitute the Test Procedures and Requirements, the Tables and Figures in this regulation as if they were printed herein.
- 3- 1.1 Where a reference in Regulation V-1 refers to "A New Tire", this shall mean a "Retreaded Tire" for the purpose of Regulation V-2.
- 3- 2 At the conclusion of both the endurance test and the high speed performance test of a retreaded tire, there shall be no evidence of tread, ply, cord, or bead separation, broken cords, new tread lifting above cutoff rib, open splice, separation of new retread at buffline, tread chunking or groove cracking.
- 3- 3 At the conclusion of both the endurance test and the high speed performance test of a retreaded tire, there shall be no evidence of repair plug or patch edge cracking or loosening.
- 3- 4 In the breaking energy test of a retreaded tire, where the tire has been repaired prior to retreading, one of the points of measurement shall be at the point of repair.

4. REGROOVING AND RECUTTING:

- 4- 1 No tire shall be regrooved or recut unless it is a tire permanently labelled by the manufacturer as a special mileage commercial tire.
- 4- 2 No tire shall be regrooved or recut unless there is sufficient original tread design remaining on the tire to indicate the actual amount of undertread on the tire.

5. TREAD DESIGN AND DEPTH:

- 5- 1 At the completion of the retreading process, all tires shall have a skid resistant tread design of not less than 9/32 inches in depth across the face of the tread of the tire.

6. REPAIRS MADE PRIOR TO RETREADING:

- 6- 1 Cuts, snags or cracks which do not extend into the tire fabric may be repaired.
- 6- 2 Nail holes, punctures or cuts up to 1/8 inch in size which extend into or through the tire fabric may be repaired.
- 6- 3 Nail holes, punctures or cuts from 1/8 to 1/4 inch which extend into or through the tire fabric may be repaired with a maximum of two per tire, provided they are a minimum of 15 inches apart and confined to the tread area.
- 6- 4 Section repair of holes up to one-half inch in diameter (maximum in fabric after skiving) in the tread area only are allowed with a limit of one such repair per tire.
- 6- 5 No repairs are allowed for cuts, bruise breaks, etc., for holes larger than one-half inch through the fabric of the tire after skiving.

7. IDENTIFICATION:

- 7- 1 Each tire which meets or exceeds the standards prescribed by this regulation shall be permanently identified in the English language on one side thereof at a location which will normally not be obstructed by the rim when the tire is inflated on the rim, with at least the following information:
 - 7- 1.1 Retreader's or distributor's name or trademark shall appear on one sidewall of the tire.
 - 7- 1.2 The designation V-2 as illustrated in Figure 3 of Regulation V-1 with the numeral "2" substituted for the numeral "1" in the illustration shall appear on both sidewalls of the tire.
- 7- 2 Retreaded tires, regrooved tires or recut tires which do not meet all of the standards of this regulation may only be sold for off-highway uses and each such tire shall be permanently marked in letters not less than 1/2 inch high with the words "NOT FOR HIGHWAY USE" on both sidewalls at a location which will normally not be obstructed by the rim when the tire is inflated on the rim.

8. REPORTS:

- 8- 1 Any report required to be made to secure approval under this regulation shall include full information on tests and observations made as required by this regulation.