# Product Service Bulletin

## Important Information To Better Service Your Customers

**Post For Ready Reference**

**April 23, 2003**

**PSB #2003-06**

**TO: Goodyear Company Owned Outlets**
**Goodyear Contract Dealers**
**Kelly-Springfield Dealers**
**Dunlop Dealers**

**SUBJECT: Puncture Repairing and Retreading of tires that are "H" Speed-Rated and higher (equal to or greater than 130 mph) includes Goodyear EMT & Dunlop DSST tires**

With the ever increasing popularity of Speed-Rated tires, it is important for you and your customers to know how repairing and retreading will affect the speed rating.

Accordingly, the following information will enable you to discuss these important subjects with your customers.

### I. SUMMARY STATEMENT

#### A. REPAIR

A Goodyear, Dunlop or Kelly-Springfield manufactured speed-rated tire may be repaired to correct a commonly repairable nail hole puncture in the tread area only, **but proper materials and procedures must be applied**. INCORRECT OR IMPROPER REPAIR WILL RESULT IN THE TIRE NO LONGER BEING SPEED-RATED BY GOODYEAR, and the warranty may also be affected.

#### B. RETREADING

If a Goodyear, Dunlop or Kelly-Springfield manufactured speed-rated tire is retreaded, it no longer is speed rated by the company.

## II. DETAILED POLICY - Puncture Repair of Speed-Rated Tires

**A**. The puncture must be confined to the tread area only. (See "Repair Area", item III-B).

**B**. Restrictions on the number and size of repairs must be followed. (See "Puncture Repair Limits" table, item III-C).

**C**. A detailed repair procedure must be followed. (See "Repair Procedure", item III-E).

**D.** A speed-rated tire repaired in strict accordance with items II-A, B & C will retain its speed rating.

## III. REPAIR PROCEDURE FOR SPEED-RATED TIRES

### A. GENERAL

The objective of the puncture repair is to seal the tire against loss of inflation pressure and to prevent damage to the carcass from moisture. In all puncture repairs, approved by Goodyear, Dunlop and Kelly-Springfield, the hole must be filled with a plug, and a patch covering the hole must be applied according to repair material manufacturer instructions to the inside of the tire. **Never repair tires which are worn below 2/32" tread depth.**

**NOTE: NO TIRE IS TO BE REPAIRED WITHOUT FIRST BEING REMOVED FROM THE RIM.**

### B. REPAIR AREA

Repairing is limited to the tread area only within the outside grooves. No repairs are allowed in the tread area beyond the outside grooves or in the sidewall area of the tire.

### C. PUNCTURE REPAIR LIMITS

| TIRE SPEED (SPEED SYMBOL) | MAX. NUMBER REPAIRS | MAX. REPAIR DIAMETER |
|---|---|---|
| 130 mph (210 km/h) and over (H, V, W, Y, Z) | 1 | 1/4 in. (6mm) |

## D. MATERIALS

1. Precured rubber plugs - 1/4" (6mm) diameter
2. Precured patches
3. Precured plug/patch combi-units
4. Chemical vulcanizing cement
5. Pre-buff cleaner

## E. REPAIR PROCEDURE

1. **CAREFULLY REMOVE THE TIRE COMPLETELY FROM THE RIM.**

2. Locate the puncture on the inside of the tire and circle with crayon.

3. Remove puncturing object if it is still in the tire.

4. Carefully inspect tire on a good tire spreader, with ample light, which will show any cracks, breaks, punctures, damaged or broken beads.

5. Check liner for cuts, cracks, or holes which may cause the tubeless liner to lose air.

6. Check the injury with an inspection awl:

   a. Determine size and angle of injury
   b. Check for ply or belt separation

7. Reject any tire that has separation, loose cords, damaged bead(s), or any other non-repairable injury.

8. If the hole is simple and round, steps 9 through 17 of the puncture repair procedure will be successful.

**NOTE:** If the hole shows evidence of fabric splitting, such an injury cannot be properly repaired using this puncture repair procedure. Such an injury must be skived out and repaired as a section (reinforced) repair, which will maintain the serviceability of the tire, but will invalidate the tire's speed rating. If a section repair is necessary, the customer must be advised, before the repair is made, that the tire will lose its speed rating, and must not exceed operation at normal highway speeds.

9. Use a pre-buff cleaner and a scraper to remove contaminants from the liner in the area to be buffed around the injury.

## E. REPAIR PROCEDURE (cont.)

10. Use a 7/32"carbide cutter for ¼" repairs to clean out the puncture.

    a. Make sure that the drill follows the direction of the puncturing object.

    b. Always drill from inside to outside of tire.

11. Using chemical vulcanizing cement, lightly coat at least 1/2 of the tapered end of the repair plug. Install the plug in the prepared puncture according to the manufacturer's instructions. Trim the liner side of the plug slightly higher than the surface of the liner without stretching the plug.

12. Center the patch (or patch template) over the injury without removing the backing. Adhere to patch or template instructions, as to positioning as related to bead location. Using a marking crayon, mark around the outside edge of the patch, approximately 1/4" larger than the patch.

13. Buff the liner and plug at the puncture location. The buffed area should be slightly larger than the patch. The buffed surface should be finely grained (RMA 1 or 2 texture) and even for proper bonding. Use care to prevent burning the rubber with the buffing tool. Do not buff through the liner. Do not buff into the marking crayon.

14. Clean the buffing dust from the tire using only a vacuum or brush. Do not use gasoline or other petroleum solvents on the buffed area.

15. Coat the buffed liner surface and the patch with one evenly applied coat of chemical vulcanizing cement in accordance with the recommendations of the repair materials manufacturer. Allow the cement to dry thoroughly. Do not touch the cemented areas.

16. Install the patch with the beads of the tire in the relaxed position. Position the patch over the puncture according to the markings on the patch. Stitch the entire patch starting from the center, keeping the strokes close together to avoid trapping air under the patch.

17. Cut off the protruding end of the plug about 1/8" above the tread surface.

18. **FINAL INSPECTION** - The repair must seal the inner liner and fill the injury. After remounting and inflating check the repair, both beads and valve with a soap solution to assure a complete seal.