

Industry Standard Puncture Repair Procedures

1) Inspection: Before repairing, determine if the injury is within repairable limits. Mark the injury, then remove puncturing object from the tire. Before deflating, apply soap solution to the tire to determine if air loss is from one or more puncture(s). Unseat the beads and apply approved bead lubricant. Remove the tire from the wheel carefully to avoid further damage, especially to the beads, and place the tire on a spreader.



2) Probing: Probe the puncture with a blunt, smooth surface awl or other probing tool to determine the size and direction of the injury, making sure no foreign material is left in the injury.



3) Internal Examination: Spread the beads, marking the puncture with a tire crayon. Inspect for evidence of other damage. (ex. damage to the bead area, run flat, etc.) If after a thorough internal examination the tire is determined to be repairable and injury is within repairable limits, proceed to the next step.



4) Select Proper Repair Materials: Center the repair unit over the injury and outline with crayon an area slightly larger than the repair. Repair materials must be selected which are recommended for the construction type (radial, belted bias, bias) of the tire to be repaired.



5) Cleaning: Clean the area inside the outlined area thoroughly with a pre-buff chemical cleaner (**Do NOT use gasoline!**) This removes dirt, mold lubricants, etc., and also keeps buffing tools clean. Chemical cleaning is not to be substituted for mechanical buffing. Make certain that no loose or frayed wire ends protrude through the inner liner.



6) Buffing: Buff the cleaned area thoroughly to a flat, smooth velvet surface (RMA #1 buffed texture for chemical vulcanizing repairs, or RMA #3 buffed texture for uncured repairs), taking care not to gouge the inner liner or expose casing fabric. Remove buffing dust from the inner liner with a vacuum cleaner.



7) Puncture Preparation: Ream the puncture channel with a fine reamer from the inside in a clockwise direction to prepare the injury. All exposed cables must be removed to prevent further damage to the tire or the repair.

8) After completing basic preparation, finish repair by selecting one of the following repair methods:

Chemical Vulcanizing Repairs:

a) Fill Injury: Cement the puncture channel and fill the injury from the inside with contour conforming material. Cut or buff material flush with the inner liner. Follow repair material manufacturer's recommendations. It is very important to fill the injury to prevent rusting of steel cables or deterioration of fabric.



b) Cementing: Always use chemical vulcanizing cement recommended by the repair material manufacturer and apply a thin, even coating to the prepared and buffed surface. Cement must be allowed to dry thoroughly!



c) Repair Unit Application: Tire must be in a relaxed position when the repair unit is being installed. **(Do not spread the beads excessively).** Remove backing from suitable repair unit and center over the injury. Stitch repair down thoroughly with stitching tool, working from the center out.



Combination Repair Units:

a) Cementing: Always use the cement recommended by the repair material manufacturer. Apply a thin, even coating to the prepared, buffed surface and inside the injury channel. **Cement must be allowed to dry thoroughly!**



b) Repair Unit Insertion Remove the backing from the stem and repair head. Pull through according to manufacturer's recommendations.



c) Stitching: Stitch repair head down firmly with stitching tool, working from the center out.



9) Finish Repair: Regardless of type of repair used, the finished repair should fill the injury and seal the inner liner. After inflating, check finished repair, both beads, and the valve stem with soap and water solution to assure a complete seal.

RMA Buffing Textures



RMA #1



RMA #2



RMA #3



RMA #4



RMA #5



RMA #6