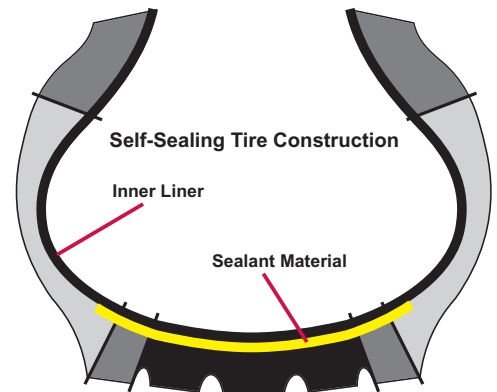


## Section Repair of a Self-Sealing Truck Tire

Nail hole injuries in the crown area up to 3/8" (10mm) in diameter should be repaired using a non-reinforced patch/plug combination unit as shown in Tech repair manual RM-4. For 3/8" (10mm) injuries an M10P non-reinforced repair unit must be used.

In order to properly reinforce crown and shoulder injuries larger than 3/8" (10mm) in a Self-Sealing tire, the inner liner must be removed. The following procedures show the recommended method to remove the inner liner from the crown area of the tire and apply the repair unit after the outside skive has already been prepared.



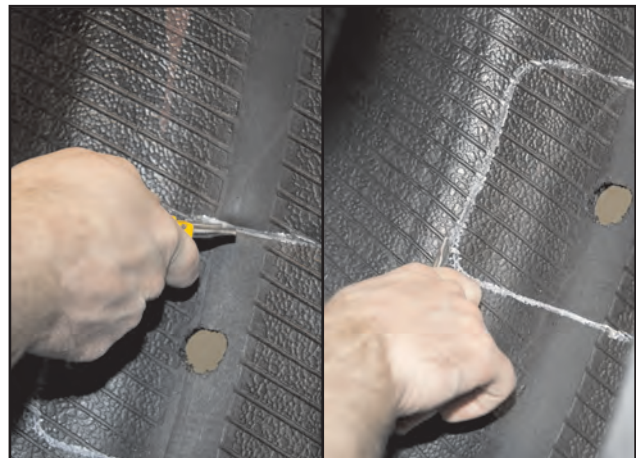
### Recommended Tools and Materials

1. Repair Templates (optional)
2. Tire regroover with wide blade
3. Low speed air buffer (5000 rpm max)
4. RSB3 twisted wire brush
5. Fine grit buffing wheel (60 grit or 170SSG)
6. 1/16" (1.5mm) x 2" (50mm) cushion gum

### AFTER THE DAMAGE HAS BEEN COMPLETELY REMOVED FROM THE INJURY:



**1.** Outline the area where the inner liner is to be removed at least 1/2" (13mm) larger than the repair unit, or use the appropriate size repair template. Center the template over the injury.



**2.** Use a sharp knife to cut the inner liner along the outlined area. Use a probe to determine the depth of the sealant material.



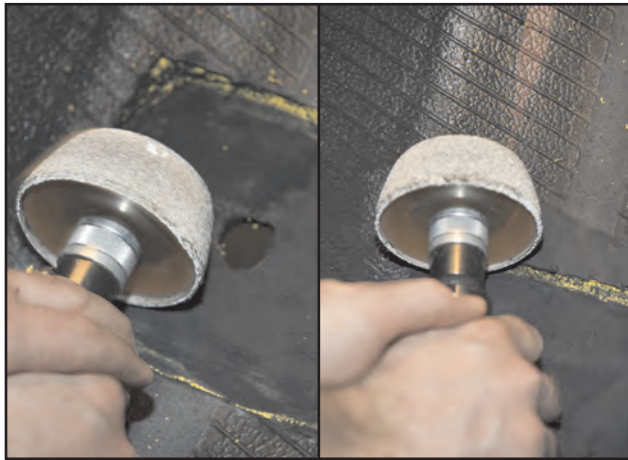
**3.** Using a tire regroover with a wide, flat blade set to the appropriate depth, cut the inner liner and sealant material out of the tire in the marked area, leaving a thin layer of sealant on the casing.

Note: Another method is to first pull out the inner liner if possible, then use the regroover to remove the remaining sealant material.

**Caution:** Sealant material migrates during tire service. The thickness of this material tends to be greater in the center of the crown area and thinner near the shoulders. Care should be taken not to damage the body ply when using the regroover.



**4.** Using a twisted wire brush (RSB3) on a low RPM buffer (5,000 RPM Max.), lightly buff the remaining sealant material from the casing. Make sure to completely remove the material from the exposed area.

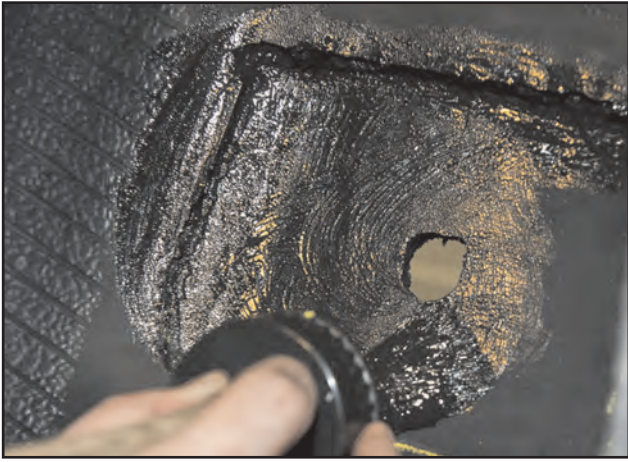


**5.** Buff the casing with a fine grit buffing wheel on a low RPM buffer to an RMA #1 or #2 buffed texture. Also, buff a 2" (50mm) perimeter on the inner liner, with the buffing wheel rotating in toward the exposed area.

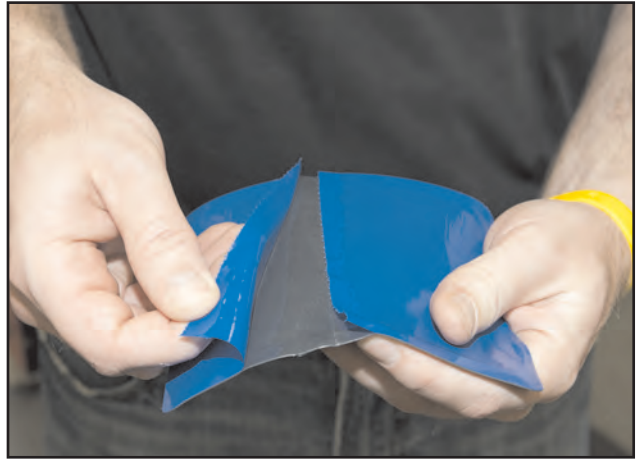
If the injury is in the shoulder area of the tire or the repair unit extends beyond the sealant material, only the inner liner with sealant under it needs to be removed. The remaining inner liner must be buffed to an RMA #1 or #2 buffed texture, and then tapered evenly toward the casing.



**6.** Use a soft wire brush, moving from right to left, to remove buffing dust and debris from the buffed area, followed by a vacuum to remove this material from the tire.



**7.** Apply a thin, even coat of Tenvulc black cement to the entire buffed surface on both the inside and outside skived area of the tire. Allow 15 to 20 minutes drying time. Additional drying time may be necessary in cold or humid conditions.



**8.** Break the perforation on the back of the repair unit and expose the center of the repair, leaving the protective poly backing on both ends.



**9.** Center the repair within the prepared area. Press down the center of the repair unit with your thumb and stitch the repair from the center out, using firm pressure.



**10.** Remove the remaining poly from under the repair unit and continue stitching the repair unit toward the edges.



**11.** Remove the protective poly from the top of the repair. Initial and date the repair with an ink pen, along with any other necessary markings.



**12.** Apply a thin, even coat of Temvulc to the edge of the repair unit. Allow 15 to 20 minutes drying time.



**13.** Cut 4 strips of #864 cushion gum, 1/16" (1.5mm) thick by 2" (50mm) wide to a length that is approximately 2" (50mm) longer than each side of the repair unit. Place each strip of rubber overlapping the edge of the repair unit and the inner liner and stitch. Make sure the gum covers both the edge of the repair unit and the buffed area on the inner liner.

An alternative method of stripping the repair would be to use an extruder and rope rubber. The rope rubber must be stitched thoroughly after filling the area from the repair edge onto the inner liner.



**14.** Apply butyl inner liner sealer to the cushion gum and overbuffed area on the inner liner. Fill the prepared skive from the outside of the tire with an extruder gun and approved rope rubber. The repair is now ready to be cured.

For more information, contact your Tech International representative.  
Tech International, P.O. Box 486, Johnstown, Ohio 43031 USA  
1-800-705-2206 ? 1-740-967-9015 ? Fax: 740-967-3697 ? [www.tech-international.com](http://www.tech-international.com)