TECH®
Tire Repairs

Repair Manual
RM-5

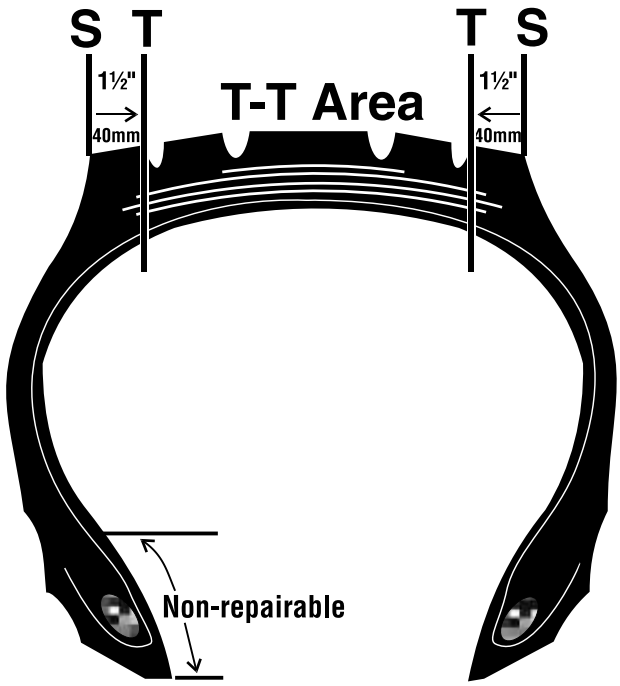
Two-Piece
Repair Method

TWO-PIECE RADIAL TRUCK NAIL HOLE REPAIR METHOD

As with any automotive repair, a tire repair requires utmost precision and accuracy to attain maximum safety and effectiveness. Tech's Two-Piece Repair method is effective for repairing tire injuries at any angle. However, they can be ineffective if the repair units are improperly applied. This is why we've provided you with this step-by-step repair manual. When followed exactly, the manual enables you to treat every injury with optimum results. By doing so, you assure safety and effectiveness, as well as satisfy your customer.

Please follow the instructions closely so you can put your customer back on the road with a quality Tech repair.

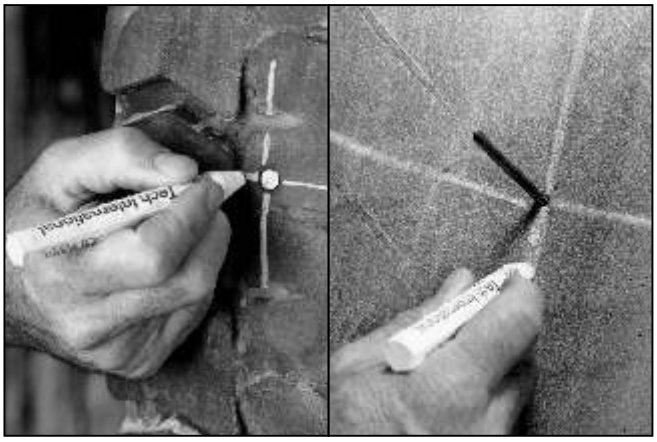
The Tech Two-Piece repair System is recommended for repairing tread, shoulder and sidewall injuries. Injuries in speed rated passenger tires can only be repaired in the tread area and cannot exceed 1/4" (6mm).



NAIL HOLE LIMITATIONS

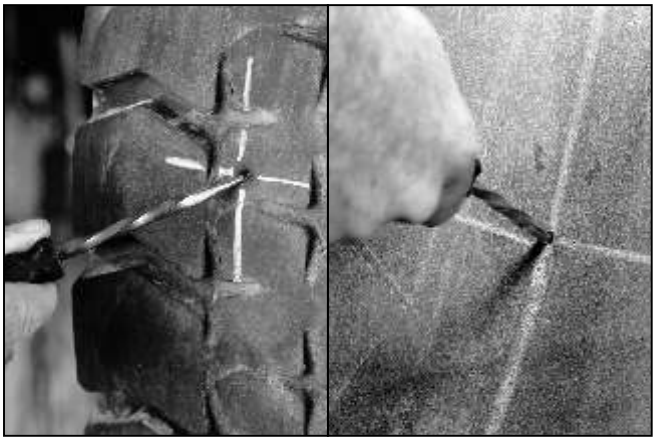
AREA	INJURY SIZE	REPAIR UNIT	STEM	CARBIDE CUTTER	REPAIR TEMPLATE
T-T	1/8" (3mm)	CT-10	250-1	270	165TM
T-T	1/4" (6mm)	CT-12	251-1	271	167TM
T-T	3/8" (10mm)	CT-20	251/38-1	271/38	170TM
S-T	1/4" (6mm)	CT-20	251-1	271	170TM

All injuries larger than those defined in the chart or outside the specified T-T area must be treated as a section repair.

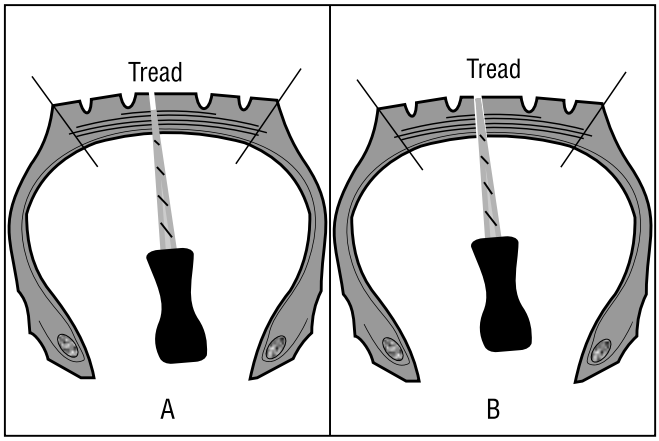


1 Perform a thorough inspection of the tire. During the inspection process, locate and mark the injury on the inside and outside of the tire.

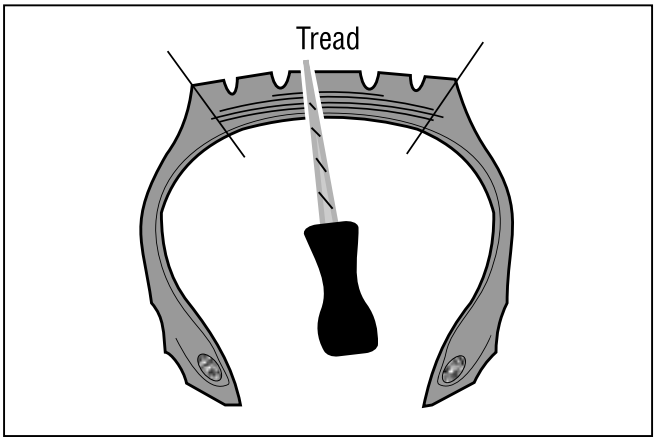
2 Remove the object from the tire.



3 Inspect the injury to determine the size and angle of penetration.



4 If the injury accepts only the tapered portion of the Spiral Cement Tool, the injury is 1/8" (3 mm), Illustration A. If the injury accepts the spiral portion of the tool, the injury size is 1/4"(6mm), Illustration B.



5 If the injury accepts the Spiral Cement Tool with little or no resistance, measure the injury to assure the damage does not exceed 3/8" (10mm).

6 Apply Rub-O-Matic #704-A to the injured area.

7 While the area is still moist, use a rubber scraper #933 to remove contaminating substances.

8 Prepare the injury with the proper size carbide cutter on a low r.p.m. drill (max. 1200 rpm). Following the direction of the injury, cut from the inside out in a clockwise rotation. Repeat this process at least three times.

9 This process must also be repeated at least three times from the outside of the tire to assure proper injury preparation. Inspect the injury with a probe to assure complete damage removal.

10 Using a Spiral Cement Tool, cement the injury from the inside of the tire with Chemical Vulcanizing Fluid. Turn the tool in a clockwise direction both into and out of the tire. This step should be repeated 3 to 5 times. Leave the tool in the injury as you go to the next step.

11 Place the wire puller in the middle of the black exposed portion of the stem.

12 Remove the protective poly from the stem.

13 For lubrication, apply a coat of Chemical Vulcanizing Fluid #760 to the wire puller where it contacts the stem. Avoid touching the gray cushion gum.

14 Remove spiral cement tool and feed the small end of the wire puller through the injury.

15 Grasp the wire puller from the outside of the tire and begin pulling the stem into place.

16 If the wire puller comes off, grasp the stem with a pair of pliers and pull the stem until it fills the injury, exposing approximately 1/2" (13mm) of the gray cushion gum.

17 On the inside of the tire, place the appropriate repair unit template over the stem, align bead direction arrows with the tire beads and draw a perimeter around the template, using a Tech marking crayon.
(If template is not available, mark 1/2" perimeter around repair.)

18 Cut the stem 1/8" (3mm) above the innerliner on the inside of the tire.

19 Use a low r.p.m. (max. 5000 rpm) buffer and texturizing wheel to mechanically buff the stem flush to the inner liner. Then buff the outlined area to achieve an even RMA #1 or #2 buffed texture.

20 Use a clean, soft wire brush on a low R.P.M. air buffer to remove buffing dust from the buffed area. Begin on the right side of repair area and move to the left.

21 Vacuum all buffing dust from the tire. If necessary, clean the area thoroughly, from the center out, with Rub-O-Matic and a lint free cloth. Allow 3 to 5 minutes for the solvents to evaporate.

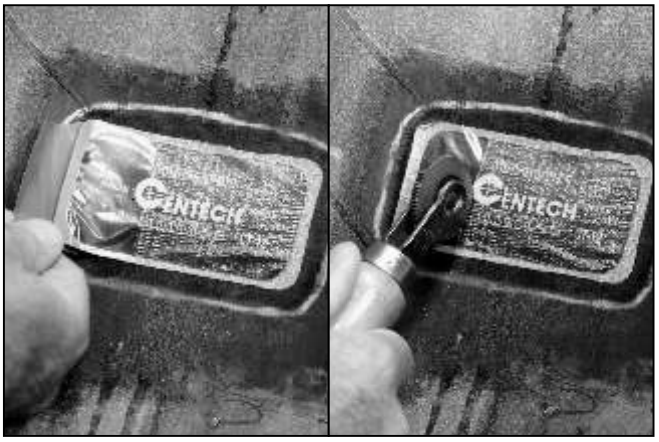
22 Using Chemical Vulcanizing Fluid #760, brush a thin, even coat into the clean, textured area. Allow 3 to 5 minutes to dry.

23 Roll the protective poly back to the outer edges of the repair unit. This enables you to handle the repair unit without contaminating the gray cushion gum.

24 During repair unit installation, be sure the tire is in a relaxed postion. Center the repair unit over the filled injury and press into place.

CAUTION: WEAR EYE PROTECTION

25 Stitch the repair unit down from the center out.



26 Remove the rest of the blue poly. Stitch the repair unit from the center to the outer edges.

27 Remove the clear protective poly.

28 To cover over-buffed areas in tubeless tires, apply Security Coat to the outer edge of the repair unit and over-buffed areas.

*If tube type, cover the repair with Tire Talc to prevent the repair from vulcanizing to the tube.

29 Cut the stem off on the outside of the tire 1/8" (3mm) above the tire's surface.

30 The tire is now ready to be returned to service.