

Notes



If you have
any questions
regarding this
repair process,
call Tech's repair
hotline
1-800-433-TECH
or
1-800-336-TECH.

Tech International
P. O. Box 486
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RM-10

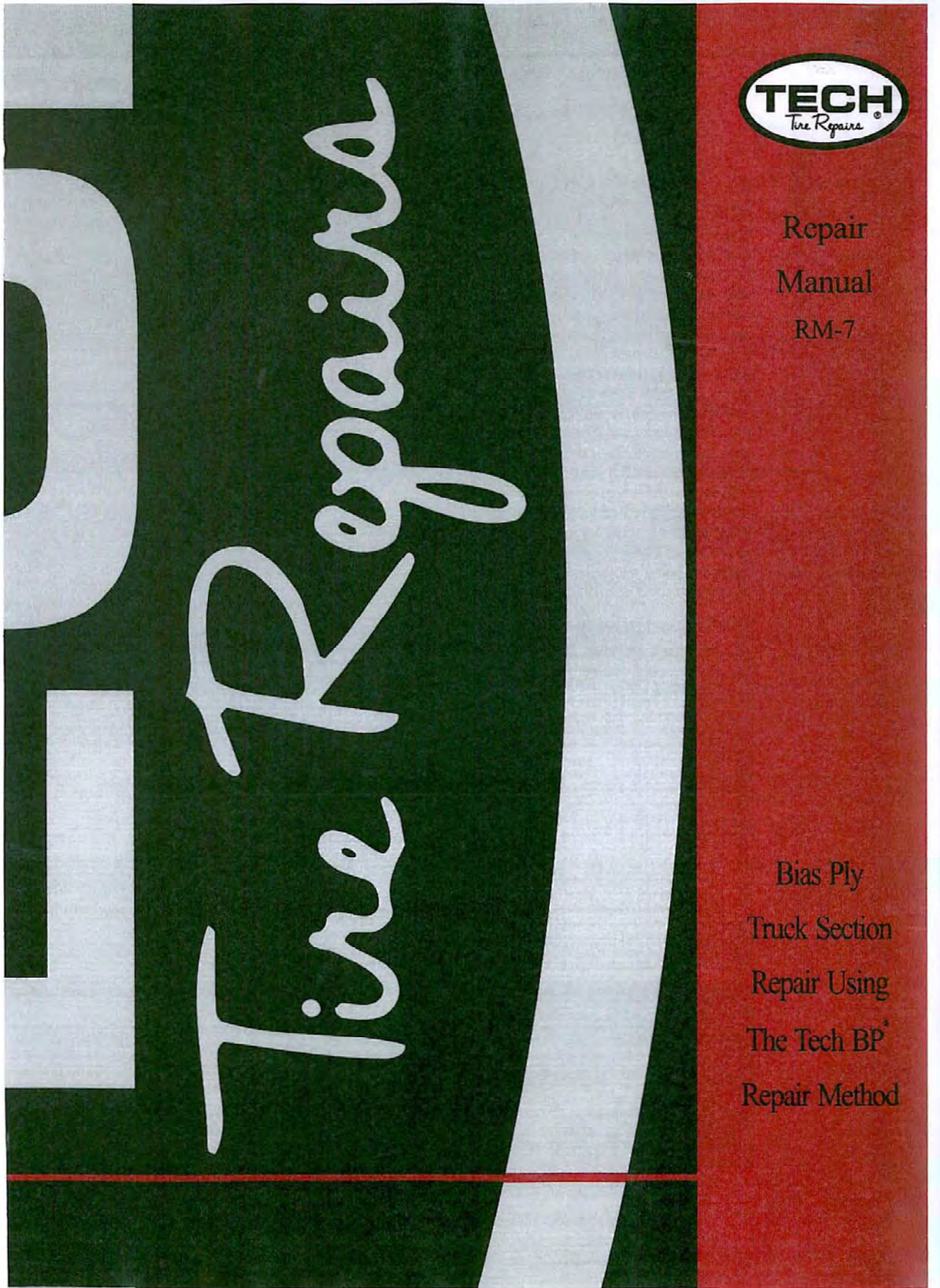


When your tires need more than air.®



https://web.archive.org/web/20100525060843/http://www.techtirerepairs.com/_assets/documents/RepairManuals/RM-7%20%20%20Bias%20Ply%20truck%20Section%20Repair.pdf





T

TECH BP®

Bias Ply tire repairs

Tech BP tire repairs can be used on tubeless or tube-type tires. They offer excellent flexibility, greater strength, superior construction and have been proven safe and dependable by millions of on-the-road miles. All Tech bias repairs are manufactured with a ply of rubber between the fabric and cushion gum which acts as a float or shock absorbing ply. Repair unit construction allows for easy application and enables repairs to be made closer to the tire bead, eliminating the need for a separate sidewall repair unit. These repairs are also designed to have excellent air retention when used in tubeless tires.

TECH BP REPAIRS (low temperature chemical cure)

Cat. No.	Description	Box Qty.	Dimensions (Inches)	Dimensions (mm)	Piles
310	0 OT	50	1 1/4	30	1
311	1 OT	25	2 3/4	60	1
311T	1 OT in plastic tub	80	2 3/4	60	1
312	2 OT	20	3	75	1
313	3 OT	10	3 3/4	90	2
314	4 OT	10	5	125	2
603	BP-3	10	4 x 4	100 x 100	2
604	BP-4	10	5 1/8 x 5 1/8	130 x 130	4
605	BP-5	10	6 1/2 x 6 1/2	165 x 165	4
606	BP-6	5	9 1/8 x 9 1/8	240 x 240	6
607	BP-7	5	11 1/8 x 11 1/8	290 x 290	6
608	BP-8	5	13 1/8 x 13 1/8	340 x 340	6
609	BP-9	3	15 1/8 x 15 1/8	380 x 380	8
610	BP-10	3	17 1/8 x 17 1/8	430 x 430	8
620	BP-T0	10	8 x 8	200 x 200	4
621	BP-T1	5	9 x 9	225 x 225	4
622	BP-T2	5	11 x 11	275 x 275	4
623	BP-T3	5	15 x 15	375 x 375	4
624	BP-T4	5	9 x 9	225 x 225	6
625	BP-T5	5	11 x 11	275 x 275	6
626	BP-T6	5	15 x 15	375 x 375	6



1 Inspect the tire on the inside and the outside to determine the repairability of the casing. The tire should not be repaired if it shows signs of being run under-inflated, if it has ply separation, or if it has bead damage beyond repairable limitations.

- The inspection area should have good lighting inside and outside of the tire.

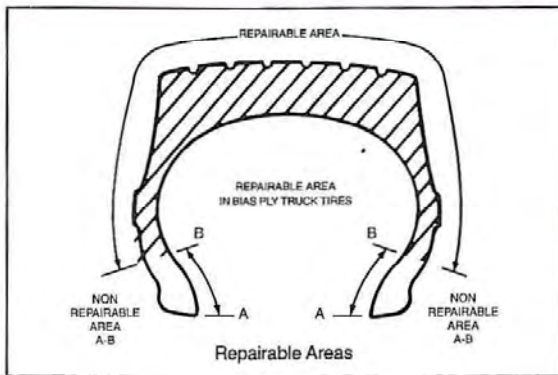
TECH BP REPAIRS (uncured)

Cat. No.	Description	Box Qty.	Dimensions (Inches)	Dimensions (mm)	Piles
311U	U-10T	25	2 1/4	55	1
312U	U-20T	20	3	75	1
313U	U-30T	10	3 3/4	90	2
314U	U-40T	10	5	125	2
603U	U-BP-3	10	3 3/4 x 3 3/4	85 x 85	2
604U	U-BP-4	10	4 7/8 x 4 7/8	115 x 115	4
605U	U-BP-5	10	5 3/4 x 5 3/4	140 x 140	4
606U	U-BP-6	5	8 3/4 x 8 3/4	220 x 220	6
607U	U-BP-7	5	10 3/4 x 10 3/4	265 x 265	6
608U	U-BP-8	5	12 3/4 x 12 3/4	315 x 315	6
609U	U-BP-9	3	14 3/4 x 14 3/4	355 x 355	8
610U	U-BP-10	3	16 3/4 x 16 3/4	405 x 405	8
620U	U-BP-T0	10	7 x 7	175 x 175	4
621U	U-BP-T1	5	8 x 8	200 x 200	4
622U	U-BP-T2	5	10 x 10	250 x 250	4
623U	U-BP-T3	5	14 x 14	350 x 350	4
624U	U-BP-T4	5	8 x 8	200 x 200	6
625U	U-BP-T5	5	10 x 10	250 x 250	6
626U	U-BP-T6	5	14 x 14	350 x 350	6

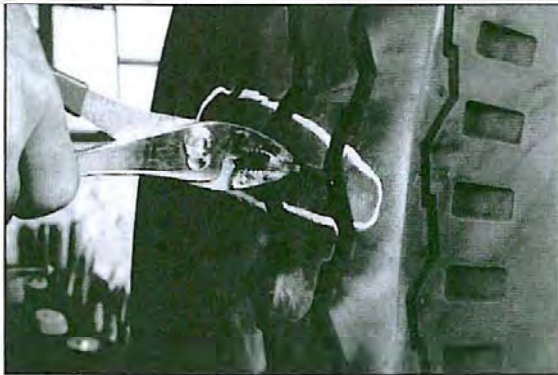
BIAS PLY TRUCK REPAIR USING THE BP® REPAIR METHOD

The following is a section repair of a bias truck tire using a Tech BP repair unit. The curing procedure is what is recommended if the curing system being used is a spotter. In this type of curing system, the repair is applied after the skive fill has been cured with a spotter. TECH BP low temperature repairs can be used chemically or in a heat cure system such as a section mold or retrain process. BP repairs are also available in uncured form for use in section molds.





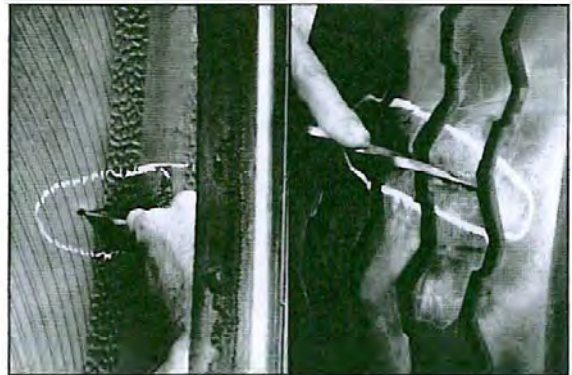
- 2** If the injury falls in the non-repairable area, the tire can not be repaired. Measure the distance between the bead toe and the end of the injury on the inside of the tire to determine the non-repairable area.
 $7.00 (8) - 8.75 (9) = 3\frac{1}{4}" (81\text{mm})$
 $9.00 (10) - 14.00 (15) = 4" (100\text{mm})$



- 4** Remove any injuring objects.



- 3** Locate and mark all injuries on the outside and inside of the tire.



- 5** To determine the extent of damage and any possible ply separation, probe the injury using a blunt point awl or a spiral cement tool (#915), from inside and outside of the tire.

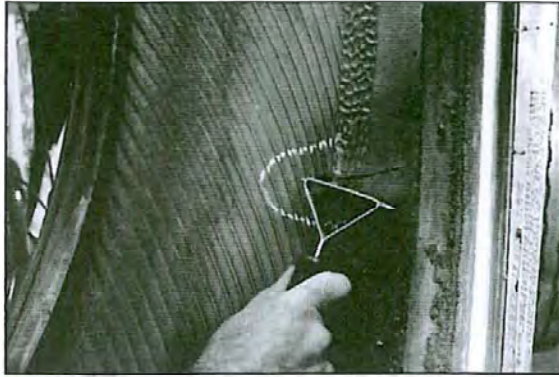


- 6** On the inside of the tire, measure the largest area of damaged cord, then refer to the BP Limitations Chart to determine if the injury is repairable.



- 7** When determined repairable, pre-clean the innerliner by applying Tech Rub-O-Matic Aerosol (#704-A) to the injured area.





- 8** While the area is still moist, use the Tech Scraper (#933) to remove contaminating substances.
 *Also remove contaminating substances from the outside of the tire.

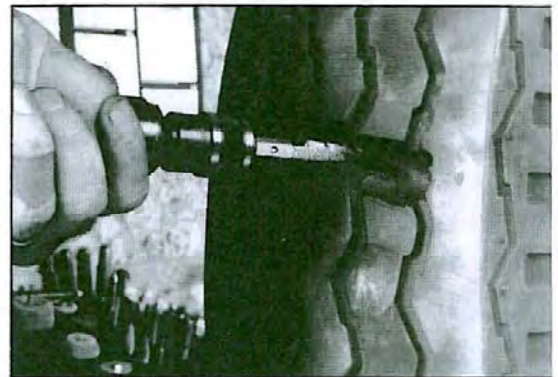


ALWAYS WEAR EYE PROTECTION WHEN BUFFING

- 9** Using a low r.p.m. (max. 5,000 r.p.m.) buffer, such as the Tech #S-1032 or #S-1036 air buffers, and using a rotary gouge #S-2045 or #S-2046, remove the outer rubber around the perimeter of the injury just above the construction plies of the tire.*



- 10** Using a Tech Skiver (#940 or #941), remove only damaged material from the tire. This should be removed at a 90° angle to the tire.



- 11** Use a RUBBERHOG Rasp (#230 SSG) on a Tech low r.p.m. air buffer to remove any irregularities and to round off the skive ends. This prevents injury growth after repair. To keep the size of the injury as small as possible, it is important to use a Y-skive whenever possible.



- 12** If repairing a tread injury, use a pencil rasp (#RH-625) on a low r.p.m. air buffer, and lightly buff the tread grooves for good adhesion of the filler rubber.



- 13** Switch to a RUBBERHOG rasp (#230 SSG) on a low r.p.m. air buffer. Dress the rubber of the skive at a 45° angle.

* (Another method of quickly removing surface rubber is to use a coarse gritted RUBBERHOG Rasp (#390 SSG) on a low r.p.m. air buffer.)





14 With the same rasp or an innerliner wheel (#RH-106), lightly buff a perimeter around the skive area approximately 1½" (40mm).



15 Using the Rubberhog innerliner wheel (#RH-106) on a low r.p.m. air buffer, buff a perimeter on the innerliner approximately 1½" (40mm) to receive a platform of filler rubber.



16 When using a spotter or section mold, you will need to know the thickness of the rubber to be cured. Measure the section depth at the thickest part of the skive. Write the measurement on the outside of the tire for future reference.



17 Take a measurement of the largest overall cord damage to determine the proper size repair unit. Do not measure across the 45, only measure the cord damage of the fabric area. You also need to know the ply rating of the tire to properly use the chart.

CAR, TRUCK AND EARTHMOVER SIZE OF INJURY—TREAD, SHOULDER AND SIDEWALL

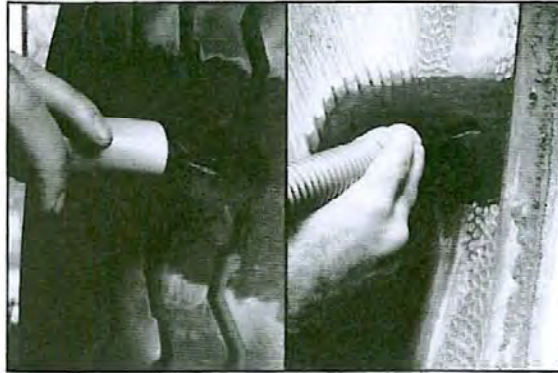
	mm inches	3 1/8"	5 1/4"	10 3/8"	15 1/2"	20 3/4"	25 1"	40 1 1/2"	50 2"	60 2 1/4"	75 3"	100 4"	125 5"
4	0 CT	1 CT	2 CT	3 CT	BP-3	BP-3	BP-4	BP-5	BP-6				
6	0 CT	1 CT	2 CT	3 CT	BP-3	BP-3	BP-4	BP-5	BP-6				
8	0 CT	2 CT	3 CT	4 CT	BP-3	BP-4	BP-5	BP-6	BP-7				
10	0 CT	2 CT	3 CT	4 CT	BP-3	BP-4	BP-5	BP-6	BP-7	BP-8			
12	0 CT	2 CT	3 CT	4 CT	BP-4	BP-5	BP-6	BP-7	BP-8	BP-9	BP-10		
14	1 CT	2 CT	3 CT	4 CT	BP-4	BP-5	BP-6	BP-7	BP-8	BP-9	BP-10	BP-11	
16	1 CT	3 CT	4 CT	5 CT	BP-5	BP-6	BP-7	BP-8	BP-9	BP-10	BP-11	BP-12	
18	1 CT	3 CT	4 CT	5 CT	BP-5	BP-6	BP-7	BP-8	BP-9	BP-10	BP-11	BP-12	BP-13
20	1 CT	3 CT	4 CT	5 CT	BP-5	BP-6	BP-7	BP-8	BP-9	BP-10	BP-11	BP-12	BP-13
22	1 CT	3 CT	4 CT	5 CT	BP-5	BP-6	BP-7	BP-8	BP-9	BP-10	BP-11	BP-12	BP-13
24	1 CT	3 CT	4 CT	5 CT	BP-5	BP-6	BP-7	BP-8	BP-9	BP-10	BP-11	BP-12	BP-13

18 Instructions for using the chart are as follows:
A. Locate the ply rating on the B.P. chart. (The ply ratings are listed down the left hand side of the chart).
B. Locate the injury size on the chart (listed across the top of the chart).
C. Join the two columns and you will find the proper repair unit where the columns meet.

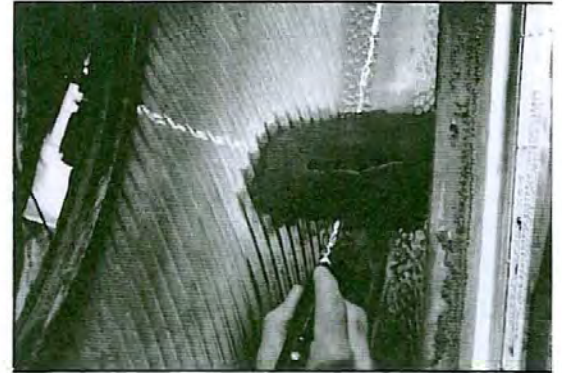


19 Write the size of repair unit needed on the outside of the tire.





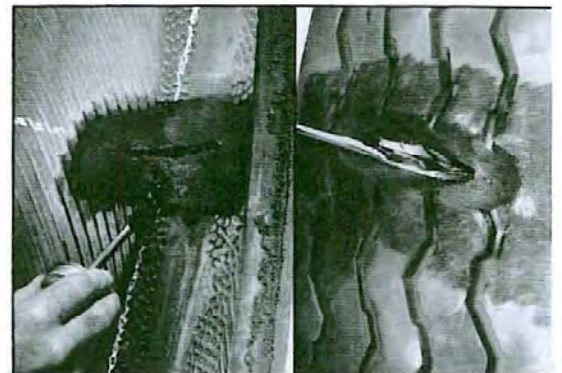
20 Vacuum the exterior skive area and the innerliner of the tire to remove all buffing debris.



21 Draw crayon index lines at right angles from the skive on the inside of the tire to aid in centering the spotter and repair unit.



22 Clean the skive area thoroughly on the inside and outside of the tire with Tech Rub-O-Matic (#704) and a clean, lint-free cloth. Allow approximately 3 to 4 minutes for drying time. Double drying time if there is any exposed cord body.

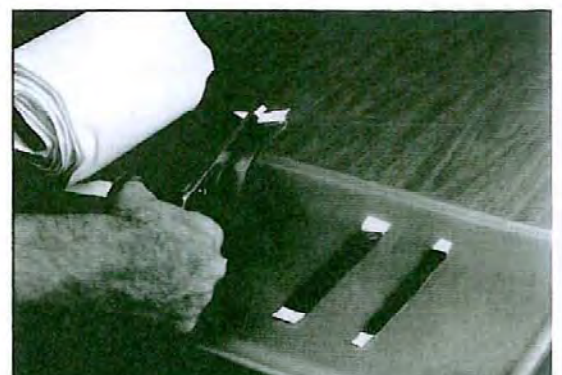


23 Apply an even coat of cement to the entire skive area, inside and out with either Tech Temvulc (#1082) or Tech Chemical Vulcanizing Fluid (#760) and allow to dry thoroughly.*



24 Using Tech Vul-Gum $\frac{1}{8}$ " (3mm) thick, cut a platform of Vul-Gum 1" (25mm) larger than the skive opening on the innerliner of the tire. Center the platform over the injury.

*A. Tech Temvulc (#1082) — When applying Tech Temvulc black retread cement, allow approximately 15 to 20 minutes drying time (longer in humid climates). Double the drying time if the vulcanizing fluid is being applied to exposed cord body.



25 Using $\frac{1}{8}$ " (3mm) thick Vul-Gum, cut enough strips to fill the skive and preheat to approximately 120° to 130° F (49° to 55° C).

*B. Tech Chemical Vulcanizing Fluid (#760). When using Tech Chemical Vulcanizing Fluid, allow approximately 3 to 5 minutes for drying time (longer for humid climates). Apply two coats and double the drying time when used in tube type tires.

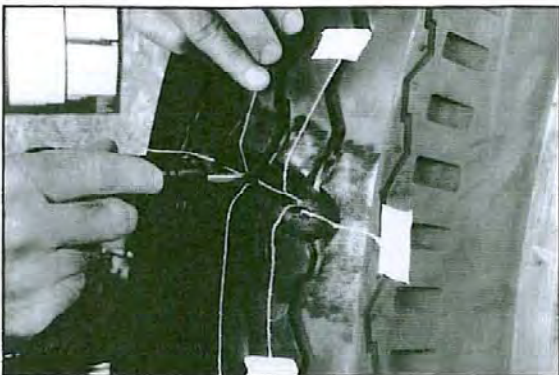




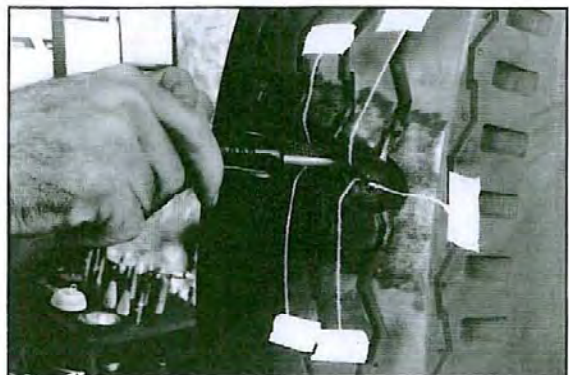
26 Press the platform down with your thumb.



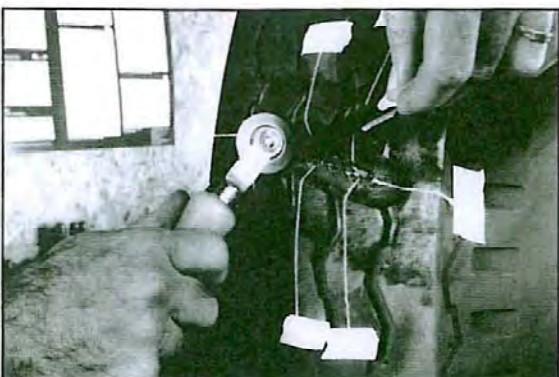
27 Stitch the platform into place using a Tech stitcher.



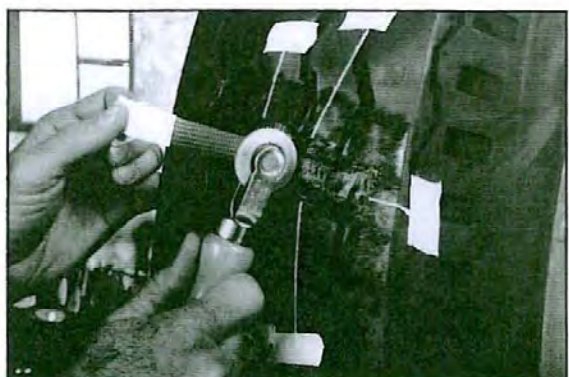
28 On the outside of the tire, place vent strings down into the injury to release inner ply pressure (air trapped within the cord body of the tire during manufacturing). Tape the ends of the strings to the outside of the tire approximately 3" (75mm) away from the skive.



29 Pack the Vul-Gum into the skive with a blunt object, such as a skive packing tool (#986). Do not try to fill too large an area at once due to the fact that you might trap air in the rubber. Fill the skive up with this tool until you can switch to a stitcher.

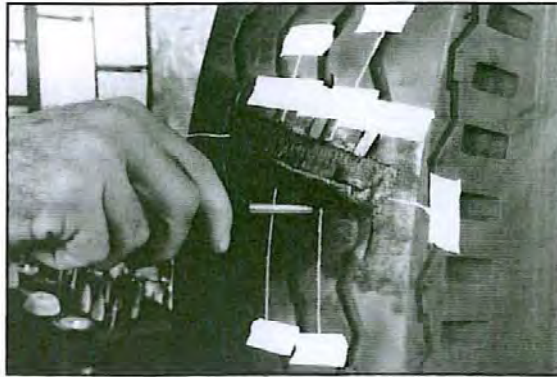


30 Finish the filling process with Tech stitcher.
Note: Avoid stretching the Vul-Gum during the filling process.



31 Fill to a point where the rubber is approximately $\frac{1}{8}$ " to $\frac{1}{4}$ " (3mm to 6mm) above the tire's surface, and at the highest point in the center of the skive fill.





- 32** When filling a tread section and there is a tread groove in the skive, the groove must be blocked to prevent the rubber from flowing out of the skive while curing. The blocks can be made of scrap regrooved rubber. In large lugs, you may use plaster as a blocking material.

EXAMPLE

Platform	= 1/8" or 3mm
Section Depth	= 1 1/2" or 38mm
Overbuild	= 1/4" or 6mm
Total Vul-Gum	= 1 7/8" or 47mm

$$1 \frac{7}{8}'' = 1 \frac{5}{8}''$$

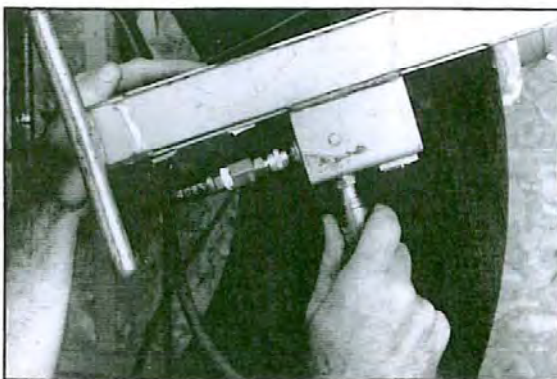
$$15 \times 10 = 150 \text{ minutes}$$

Vul-Gum cure rate

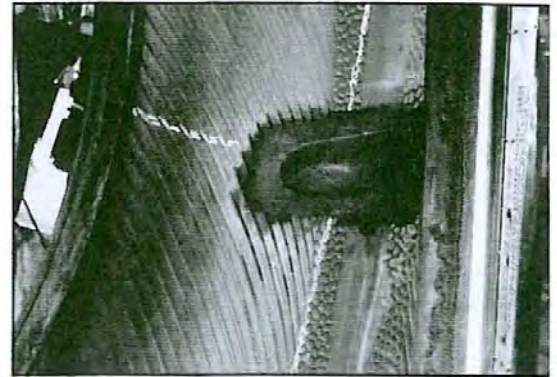
10 minutes for every 1/8" (3mm)
of thickness at 300°F (149°C)

Plus manufacturer's required warm up time

- 34** Determine the cure time needed to vulcanize the uncured Vul-Gum. The cure rate for Tech Vul-Gum is 10 minutes for every 1/8" or (3mm) of rubber. When using a cold spotter, you will have to also determine the manufacturer's recommended warm-up time.



- 36** Connect the air line and set the pressure on a Tech Spotter to no higher than 35 p.s.i. If you are using a manual type spotter, it will be necessary to retighten the spotter after 5 to 10 minutes.



- 33** Remove the white polyethylene protective covering.

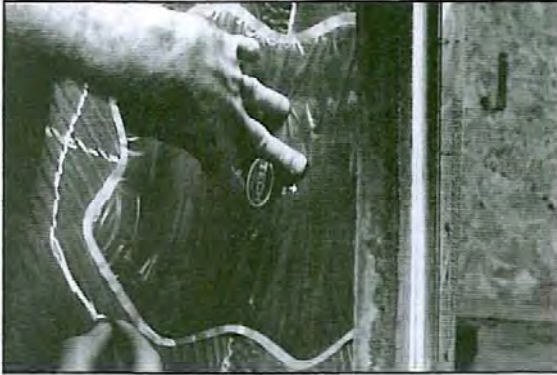


- 35** Place the spotter over the skive fill with proper contour plates. Make sure the heating elements are working properly.

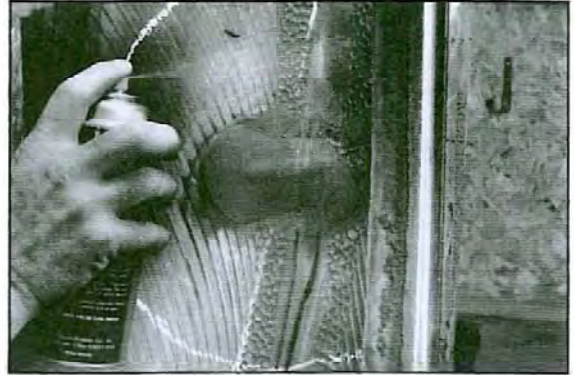


- 37** After the allotted cure time, disconnect the air line and remove the spotter from the tire. Allow the tire to cool down, then, using a skiving knife, cut any over-flow away from the tire. This step is usually not necessary when using an air spotter.





38 Using the index lines, center the previously determined repair unit over the injury and draw a perimeter approximately 1" (25mm) around the circumference of the repair unit. This is to be used as a guide for mechanical buffing.



39 Pre-clean within the marked area by applying Tech Rub-O-Matic Aerosol (#704A).



40 While the area is still moist, remove contaminating substances using a Tech Scraper (#933).



ALWAYS WEAR EYE PROTECTION WHEN BUFFING

41 Using the low r.p.m. air buffer (5,000 r.p.m. maximum), mechanically buff the area with the Tech Rubberhog (#RH-106). Buff away the platform. Also remove any vent ribs and/or embossed surfaces to an even velvet texture.



42 Vacuum the entire buffed area and surrounding area to remove debris from the tire.

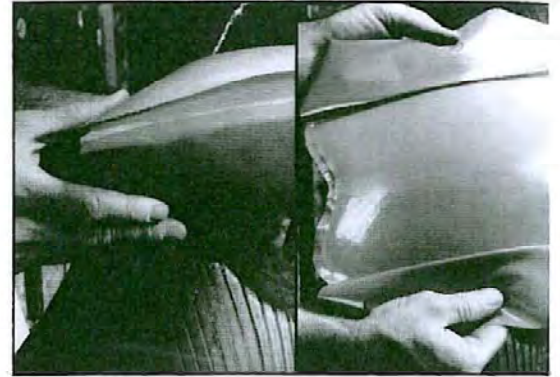


43 Clean with Tech Rub-O-Matic and a clean, lint-free cloth. Always clean from the center, out. Make sure the surface is cleaned thoroughly. Allow 3 to 4 minutes for the solvents to evaporate. (Double the time for tube type tires if there is exposed fabric.)





- 44** Apply a thin, even coat of Tech Chemical Vulcanizing Fluid (#760) to the prepared area of the innerliner. Allow approximately 3 to 5 minutes for drying time, two coats for tube type tires and double the drying time. It is important that the Vulcanizing Fluid is completely dry.



- 45** Break the perforation and roll the blue poly backing approximately half way back. This will allow you to handle the repair unit without contaminating the gray cushion gum of the repair.
- Note: Make sure that the beads of the tire are in a relaxed position before applying the repair unit.*



- 46** Center the repair unit over the injury using the index lines. Be sure that the bead arrow is aligned with either bead of the tire. Press down the center of the repair with your thumb or the side of your hand.



- 47** Stitch the repair unit into place from the center outward. Exert firm pressure on the stitcher during this process to promote increased adhesion.

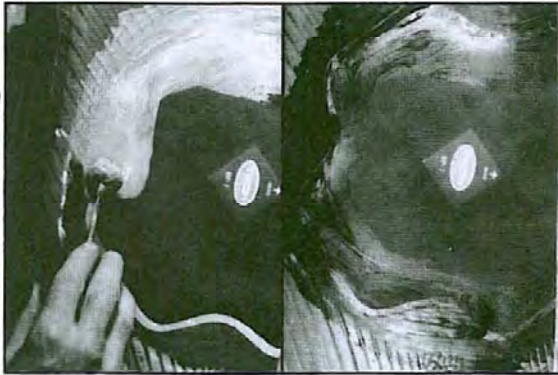


- 48** Remove the blue poly the rest of the way out as you stitch.

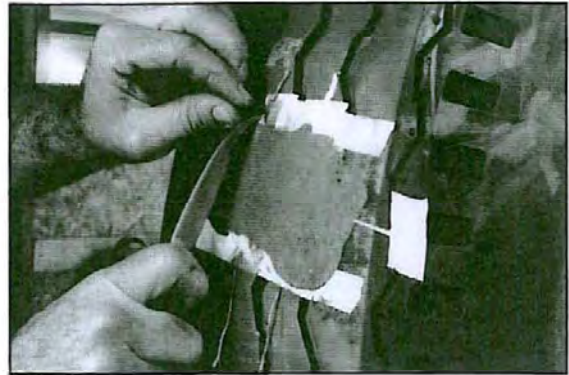


- 49** Remove the protective clear poly from the top of the repair unit.





50 If the tire is tubeless, apply a coat of Tech Security Coat (#738) to the outer edge of the repair unit and to the buffed surface beyond the repair unit's edge to assure good air retention. If tube type you must cover the repair with Tech Talc (#706).



51 Cut away damming material if there was any used.



52 Mechanically buff the section on the outside of the tire down even with the original tire's surface. The buffing wheel should be turning from the center of the section to the tire's surface to prevent the buffing wheel from attacking the edge of the filler rubber.



53 If this section is in the tread, you must regroove the tread lugs back into the tire. This will allow the section to flex properly with the tire and not develop a hot spot. First mark in the tread design of the tire with a marking crayon.



54 Using a Tech regroover, regroove the skive no deeper than the present tread depth of the tire.



55 The tire is now ready to be returned to service. If all of the procedures in this manual have been followed correctly, the repair will last the life of the casing even if tire receives several retreads.

NOTE: Use the following as a trouble shooting guide:

A. Porosity (Tiny air bubbles, pits or gummy)	B. Large Air Pockets	C. Poor Bond to the Skive Area of Cured Rubber
1. Lack of pressure	1. Skive was improperly filled (trapped air)	1. Wet cement
2. Lack of heat	2. Check to see if venting strings were used.	2. No cement
3. Not enough cure time		3. Contaminated surface
		4. Uncured rubber was defective



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call Tech's repair
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1-800-433-TECH
or
1-800-336-TECH.

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RM-7



When your tires need more than air.



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df](https://web.archive.org/web/20051231123651/http://www.patchrubber.com/training/pilot_wire.pdf)



Fast-Dry Cement

Fast-Dry Self-Vulcanizing Cement eliminates the most common cause of failed repairs — lack of proper drying time. Fast-Dry Cement activates the chemical vulcanization process to bond repair units to the tire casing. **Flammable, Flash point 44° F, Shelf life 1 year.**

Order No.	Size	liters	Ship Wt. Case Lbs.	Case Qty.
16-450	1 Qt.	.34	11	6

Cleaner Fluid

Dissolves lubricants and contaminants prior to buffing. Also used to help remove excessive buffing dust prior to applying repair units. Fast-cleaning action maximizes adhesion. Available in an aerosol (non-flammable mixture) and spout type (flammable mixture - Flash point 44° F). cans.

Order No.	Size	liters	Ship Wt. Case Lbs.	Case Qty.
16-481	16 Oz.	0.5	16	7
16-471	1 Qt.	.34	11	5
16-472	1 Gal.	3.3	32	15

Repair Sealer

Restores the air retention qualities to the overbuff area or a damaged innerliner. Can be used in a service application or prior to the repair/refueling cycle. **Flammable, Flash point 14° F, Shelf life 1 year.**

Order No.	Size	liters	Ship Wt. Case Lbs.	Case Qty.
16-170	1 Pt.	.47	11	5

Bead Sealer

Forms an airtight seal between the tire and rim, reducing bead leaks. Bead Sealer is a thick, high-solid content, black sealant. Brush on the beads of tubeless tires during mounting. Quick, economical and profitable way to end comebacks from bead leaks. **Flammable, Flash point 14° F, Shelf life 1 year.**

Order No.	Size	liters	Ship Wt. Case Lbs.	Case Qty.
16-118	1 Qt.	.34	11	5

Patch Dispenser Cabinet

Organize and store all the essentials for a professional tire repair. Dispenser Cabinet features adequate shelf space for compounds and adhesives, tools and accessories sold separately.

Order No.	Description	Dimensions
14-216	Dispenser Cabinet	17 1/2" H. x 19 1/2" W. x 9 1/2" D.



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Cincinnati, OH 45240
Phone: (513) 536-2574 • Fax: (513) 536-4940
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Fast-Dry Cement
16-450



Cleaner Fluid
16-471, 16-472, 16-481



Repair Sealer
16-170



Bead Sealer
16-118



Patch Dispenser Cabinet
14-216

Distributed by:



do it right!

Pilot Wire Patch Plugs

- Combination plug stem and repair unit fills and seals the injury in one fast, easy step
- For 1/8", 1/4", and 3/8" crown puncture repairs on passenger, light truck, and truck tires
- The wire tip eliminates pull-thru wires

Simplify and speed nailhole tire repair with Pilot Wire Patch Plugs. The combination patch plugs fills and seals the injury in one step. Use the 1/8" units to seal pinhole leaks, keeping the injury as small as possible. The 1/4" unit is also acceptable for the repair of Z-rated tires in the tread only. 3/8" units are the maximum puncture repair limit for passenger and light truck tires. Choose any of the Patch Plug repairs for truck tire punctures up to 3/8".

The wire tip, molded into the repair units, eliminates pull-thru wires and makes them easy to thread through the injury from inside the tire. The stem and repair unit are coated with Dual Cure Cushion Gum creating a permanent bond to the tire with increased adhesion compared to chemical cure repair units.

The proper carbide cutter reams and standardizes the injury for the installation of the Pilot Wire Patch Plug (see chart). Pilot Wire Patch Plugs are for use in the crown area on passenger and truck tires if the angle of penetration is not more than 20° from the perpendicular.

Pilot Wire Patch Plugs

Order No.	Stem Dia. Inches	Patch Dia. mm	Box Qty	Carbide Cutters
14-040	1/8	3	174	44
14-041	1/4	6	134	44
14-042	3/8	10	174	44

*For correct hole size use specified carbide cutter number.



https://web.archive.org/web/20140207072057/http://www.patchrubber.com/training/pass_puncture.pdf



do it *right!*



Inspect It!



Drill It!



Fill It!



Seal It!



Passenger **Tire Puncture Repair**



M
A Myers Industries Company



**Patch Rubber
Company**

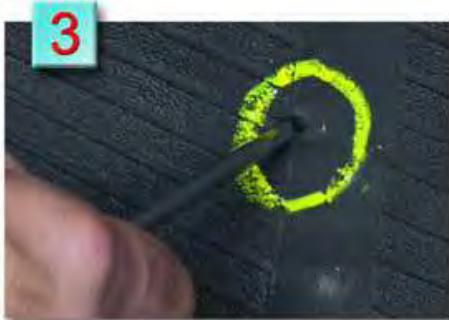


Passenger Tire Puncture Repair Procedures

Procedimientos Para Reparacion de Pinchaduras en Llantas Para Vehiculos de Pasajeros



1. Consult warning on back cover for reparability of tires.
2. Locate the injury and circle with a tire crayon. DO NOT INVERT RADIAL TIRES.
1. Consulte la advertencia en la cubierta posterior para la reparación de las llantas.
2. Localice el daño y márquelo con un marcador para llantas. NO INVIERTA LLANTAS RADIALES.



3. Remove the foreign object and probe the injury with an awl to determine the angle of penetration.
3. Quite el objeto extraño y pruebe el daño con un punzón para determinar el ángulo de penetración.



4. Clean the area around the injury with Patch Rubber Cleaner Fluid and a scraper.
4. Limpie el área alrededor de la parte dañada con Patch Rubber Cleaner Fluid y un raspador.

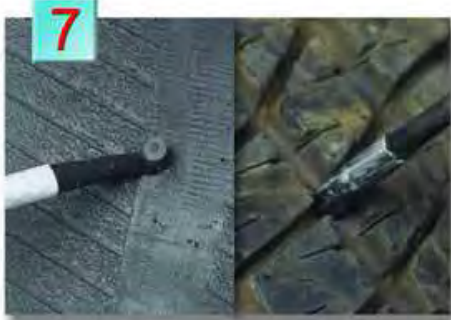


5. Using a low speed drill (max. 500-700 RPM) and a 3/16" tapered carbide cutter, ream the injury following the angle of penetration from the inside of the tire. Use proper eye protection.
5. Usando un pulidor de baja velocidad (máx. 500-700 RPM) y un cortador de carburo afilado de 3/16" pulgadas, alise el daño siguiendo el ángulo de penetración desde la parte interior de la llanta. Utilice protección apropiada para los ojos.



6. Remove the poly from the plug stem. Hook the stem into the wire puller. Coat the entire plug with Patch Rubber Fast-Dry Self-Vulcanizing Cement.
6. Remueva el polietileno protector del parche tipo tarugo y enganche el tallo dentro de la varilla de alambre proporcionada. Curbra el tarugo completamente con Patch Rubber Fast-Dry Self Vulcanizing cement.





7. While the cement is still wet, push the wire puller through the injury from the inside of the tire. Grasping the wire, use a steady pull until 1/2" of the gray rubber on the plug is exposed outside the tire.

7. Mientras el cemento esté húmedo, empuje el tirador de alambre a través del área dañada desde la parte interior de la llanta. Sujutando el alambre metálico, tire en forma pareja hasta que 1/2" pulgada del hule gris que se encuentra en el parche, quede expuesto fuera de la llanta.



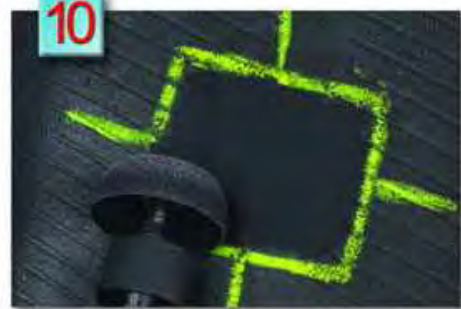
8. Using a flexible knife, cut the plug on the inside of the tire 1/8" above the innerliner. Be careful not to stretch the plug when cutting.

8. Utilizando un cuchillo flexible, corte la parte del tarugo expuesta en la parte interior de la cubierta 1/8" de pulgada sobre el revestimiento interno. Tenga cuidado de no estirar el tarugo cuando esté cortando.



9. Making sure the bead arrows of the repair unit are pointing to the beads, center the repair unit over the injury. Use a tire crayon and outline an area 1/2" larger than the repair unit.

9. Asegurándose que la flecha indicadora en el parche apunte al talon de la llanta; centre el parche sobre la herida. Con un marcador para caucho marque el área claramente una 1/2" pulgada mas grande que el parche.



10. Use a low speed buffer (max. 5,000 RPM) and a buffing rasp to buff the plug and the outlined innerliner area. (RMA #1 Buffing Texture). BE CAREFUL NOT TO BUFF THROUGH THE INNERLINER.

10. Utilice un pulidor de baja velocidad (máximo de 5,000 RPM) y una raspadora pulidora para pulir el área marcada del revestimiento interno. (textura de pulido R.M.A. Nº 1). Tenga cuidado de no perforar el revestimiento interno cuando esté puliendo.



11. Use a vacuum to remove the buffing dust.

11. Utilice una aspiradora para quitar el polvillo del pulido.



12. Apply a light coat of Patch Rubber Cleaner Fluid to the buffed area, scrape clean and allow to dry.

12. Aplique una capa liviana de Patch Rubber Cleaner Fluid en el área pulida, limpie con un raspador y deje que se seque.





13. Apply an even coat of Patch Rubber Fast-Dry Self-Vulcanizing Cement to the entire buffed area. Allow cement to dry until tacky. Never use blow dryers, compressed air, or heat lamps to facilitate drying. Drying time is affected by temperature and humidity.

13. Aplicar el cemento de secado rápido y vulcanizante marca Patch Rubber a toda el área raspada o pulida. Dejar secar el cemento hasta que pegue. Nunca use secadores de aire, compresor de aire o secar con lámparas calientes para facilitar el secado. El tiempo de secado es afectado por la temperatura y la humedad.



14. When cement is dry, partially remove the poly backing from the patch leaving just enough to hold the patch. Do not touch the back of the patch. With the beads of the tire in the relaxed position, apply the patch to the buffed area making sure the bead arrow points to the bead. Remove the remaining poly from under the patch.

14. Cuando el cemento esté seco, quite parcialmente el respaldo de polietileno del parche dejando sólo lo necesario como para sostener el mismo. No toque la parte posterior del parche. Con los talones de la llanta en posición relajada, coloque el parche en el área pulida asegurándose que las flechas del parche se encuentran señalando al talón de la llanta. Quite el polietileno restante del parche.



15. Stitch the repair unit vigorously from the center working outwardly. Use as much hand pressure as possible. Remove top cover film.

15. Adhiérala bien trabajando desde el centro hacia afuera. Utilice la mayor cantidad de presión posible con las manos. Quite la película cobertora superior.



16. Apply Patch Rubber Repair Sealer to the overbuff area.

16. Aplique Rubber Repair Sealer sobre el área pulida.



17. Apply Patch Rubber Bead Sealer to the bead of the tire before inflation to help prevent air loss around the bead.

17. Aplique Patch Rubber Bead Sealer al talón de la llanta antes de inflarla para evitar la pérdida de aire alrededor del talón de la llanta.



18. After inflating, cut the plug flush with the outside tread area. Return tire to service.

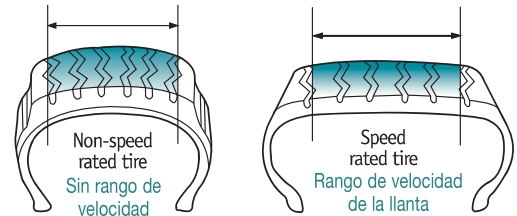
18. Después de inflarla, corte el parche en forma pareja con la parte externa del dibujo. Vuelva a poner la llanta en servicio.



Repairable Areas & Limits / Areas de Reparación y Límites

Puncture Repair Procedure For Passenger Tires With 1/4" Maximum Size Injury In The Tread Area Only. Do Not Repair Sidewall Or Shoulder Injuries.

Procedimiento para la Reparación de Pinchazos en Llantas de Autos para Pasajeros con un daño máximo de 1/4" solamente en el área de las estrias. No intente Reparar Daños de los Costados de la Llanta o de los Hombros.



DO NOT REPAIR A TIRE IF:

- There is 2/32" or less of tread on any 2 adjacent tread grooves. The tire is not legal for use on U.S. highways.
- The tire cord or steel belt is exposed, there are flex breaks, or severe sidewall abrasions.
- There is any evidence of a separation in the tread area or the sidewall of the tire.
- There is any evidence to indicate the tire has been RUN FLAT. **DO NOT INFLATE**, as reinflation could result in serious injury. Dismount the tire and inspect for innerliner damage.
- There are punctures or damage in the shoulder or sidewall areas.
- Never use any rim that is bent, pitted from corrosion, cracked, or worn. Remove rust, dirt, or foreign materials from rim parts.

ALWAYS:

- Inflate the tire to maximum allowed pressure. **DO NOT OVER INFLATE**.
- Check the surface and the valve for the source of the leak(s) by using water, soap solution, or leak detector.
- Locate the injury and circle with a crayon.
- Remove the valve core to deflate the tire.
- Dismount and inspect the inside of the tire on a well lighted spreader for innerliner cracks, open splices, exposed tire cord or steel belts, broken beads or bead wires, bulges or blisters, or other interior damage. If any damage other than a 1/4" maximum puncture injury in the tread area is present, **DO NOT REPAIR**.

NO REPARA UNA LLANTA SI:

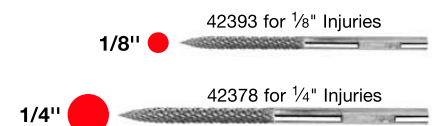
- Hay 2/32" o menos de estria en cualquier 2 ranuras adyacentes. La llanta no es legal para el uso en carreteras de EEUU.
- La cuerda de la llanta o la banda de acero está al descubierto, rupturas encorvadas, o raspaduras severas en los lados.
- Hay cualquier evidencia de una separación en el área de las estrias o el costado de la llanta.
- Hay cualquier evidencia que indique que la llanta ha sido **CORRIDA DESINFLADA. NO INFLE**, ya que el volverla a inflar podría resultar en lesiones serias. Desmonte la llanta e inspecciónela que no tenga daños en el forro interior.
- Hay pinchazos o daños en el área de los costados o de los hombros.
- Nunca use un aro que esté doblado, con picaduras de corrosión, agrietado, o desgastado. Quite el óxido, la suciedad, o materiales extraños de las partes del aro.

SIEMPRE:

- Infle la llanta a la presión máxima permitida. **NO INFLE MAS DE LO DEBIDO**.
- Para encontrar un escape(s) revise la superficie y la válvula utilizando agua, una solución jabonosa, o un detector de fugas.
- Localice el daño y circúlelo con un lápiz de color.
- Quite el centro de la válvula para desinflar la llanta.
- Desmonte e inspeccione el interior de la llanta con un ensanchador bien iluminado para grietas en el forro interior, empalmes abiertos, cuerdas expuestas de la llanta o cinturones estabilizadores de acero, rebordes quebrados o alambres de rebordes, protuberancias o ampollas, u otro daño interior. Si encuentra cualquier otro daño aparte de un pinchazo de no más de 1/4" en el área de las estrias, **NO REPARA**.

CARBIDE CUTTERS:

Punta para cortar cuerdas de acero



Tools For Passenger Puncture Repair

Herramientas para reparación de ponchaduras y/o agujeros



Order No.	Description
a. 47024	Awl Punzón para revisar llantas
b. 45100	Yellow Crayon Crayón marcador amarillo
c. 42620	Scraper Paspador manual
d. 82674	Safety Glasses Lentes de protección
e. 31675	Low-Speed Buffer/Skiver Pulidora neumático de baja velocidad
f. 42378	3/16" Carbide Cutter Punta para cortar cuerdas de acero
g. 42375	3/16" Adapter Adaptador
h. 14526	Pulling Wires Insertador de alambre para tacos o tapones
i. 42500	Knife Cuchillo
j. 42770	Black Contour Cup - 60 Grit Copa negra para pulir hule
k. 42399	Adapter with Spacer Adaptador con espaciador
l. 42611	Stitcher Rodillo para asentar parches, hule cojín, etc.

Repair Materials for Passenger Puncture Repair

Materiales para reparación de ponchaduras y/o agujeros



Order No.	Description
a. 12118	Bullseye 12 Radial Patch Zapata Radial
b. 12117	Bullseye 10 Radial Patch Zapata Radial
c. 14569	1/4" Plug Stem Taco de hule
d. 16451	Fast-Dry Self-Vulcanizing Cement Cemento vulcanizante de secado rápido
e. 16170	Repair Sealer Sellador de reparaciones
f. 16471	Cleaner Fluid Líquido limpiador
g. 16118	Bead Sealer Sellador de talon, pestaña, ceja



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https://web.archive.org/web/20140207080812/http://www.patchrubber.com/training/truck_punc.pdf



do it **right!**



Inspect It!



Drill It!



Fill It!



Seal It!



Truck Tire Puncture Repair



M
A Myers Industries Company



**Patch Rubber
Company**



Truck Tire Puncture Repair Procedures

Procedimientos Para Reparar Pinchaduras En Llantas De Camión



1. Locate the injury and circle with a tire crayon. **Consult warning on back cover for reparability of tires. DO NOT INVERT RADIAL TIRES.**

1. Localice el daño y márkelo con un marcador para llantas. **Consulte la advertencia en la cubierta posterior para la reparación de las llantas de camión. NO INVIERTA LLANTAS RADIALES.**



2. Remove the foreign object and probe the injury with an awl to determine the angle of penetration.

2. Quite el objeto extraño y pruebe el daño con un punzón truncado para determinar el ángulo de penetración.



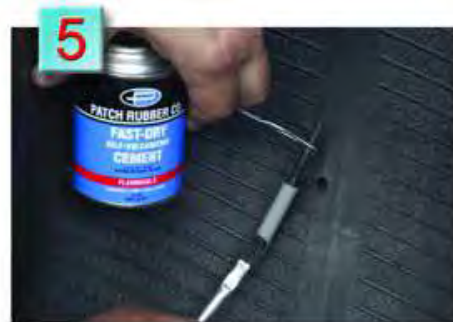
3. Clean the area around the injury with Patch Rubber Cleaner Fluid and a scraper.

3. Limpie el área alrededor de la parte dañada con Patch Rubber Cleaner Fluid y un raspador.



4. Using a low speed drill (max. 500-700 RPM) and a carbide cutter, ream the injury following the angle of penetration from the inside of the tire. Use proper eye protection.

4. Usando un pulidor de baja velocidad (máx. 500-700 RPM) y un cortador de carburo afilado, alise el daño siguiendo el ángulo de penetración desde la parte interior de la llanta. Utilice protección apropiada para los ojos.



5. Remove the poly from the plug stem. Hook the plug stem onto the wire puller. Coat the entire plug with Patch Rubber Fast-Dry Self-Vulcanizing Cement.

5. Remueva el polietileno protector del parche tipo tarugo y enganche el tallo dentro de la varilla de alambre proporcionada. Curba el tarugo completamente con Patch Rubber Fast-Dry Self-Vulcanizing cement.





6. While the cement is still wet, push the wire puller through the injury from the inside of the tire. Grasping the wire, use a steady pull until 1/2" of the gray rubber on the plug is exposed outside the tire.

6. Mientras el cemento esté húmedo, empuje el tirador de alambre a través del área dañada desde la parte interior de la llanta. Sujetando el alambre metálico, tire en forma pareja hasta que 1/2" pulgada del caucho (hule) gris que se encuentra en el parche, quede expuesto afuera de la llanta.



7. Using a flexible knife, cut the plug on the inside of the tire 1/8" above the innerliner. Be careful not to stretch the plug when cutting.

7. Utilizando un cuchillo flexible, corte el parche en la parte interior de la cubierta 1/8" de pulgada sobre el revestimiento interno. Tenga cuidado de no estirar el parche cuando esté cortando.



8. Making sure the bead arrows of the repair unit are pointing to the beads, center the repair unit over the injury. Use a tire crayon and outline an area 1/2" larger than the repair unit.

8. Asegurándose que la flecha indicadora en el parche apunte al talón de la llanta; centre el parche sobre la herida. Con un marcador para caucho marque el área claramente una 1/2" pulgada mas grande que el parche.



9. Use a low speed buffer (max. 5,000 RPM) and a buffing rasp to buff the plug and the outlined innerliner area (RMA #1 Buffing Texture). BE CAREFUL NOT TO BUFF THROUGH THE INNERLINER.

9. Utilice un pulidor de baja velocidad (máximo de 5,000 RPM) y una piedra raspadora para pulir el área marcada del revestimiento interno (textura de pulido R.M.A. Nº 1). Tenga cuidado de no perforar el revestimiento interno cuando esté puliendo.



10. Use a vacuum to remove the buffing dust.

10. Utilice una aspiradora para quitar el polvillo del pulido.



11. Apply a light coat of Patch Rubber Cleaner Fluid to the buffed area, scrape clean and allow to dry.

11. Aplique una capa liviana de Patch Rubber Cleaner Fluid en el área pulida, limpie con un raspador y deje que se seque.





12. Apply an even coat of Patch Rubber Fast-Dry Self-Vulcanizing Cement to the entire buffed area. Allow cement to dry until tacky. Never use blow dryers, compressed air, or heat lamps to facilitate drying. Drying time is affected by temperature and humidity.

12. Aplicar el cemento de secado rápido y vulcanizante marca Patch Rubber a toda el área raspada o pulida. Dejar secar el cemento hasta que pegue. Nunca use secadores de aire, compresor de aire o secar con lámparas calientes para facilitar el secado. El tiempo de secado es afectado por la temperatura y la humedad.



13. When cement is dry, partially remove the poly backing from the patch leaving just enough to hold the patch. Do not touch the back of the patch. With the beads of the tire in the relaxed position, apply the patch to the buffed area making sure the bead arrow points to the bead. Remove the remaining poly from under the patch.

13. Cuando el cemento esté seco, quite parcial-mente el respaldo de polietileno del parche dejando sólo lo necesario como para sostener el mismo. No toque la parte posterior del parche. Con los talones de la llanta en posición relajada, coloque el parche en el área pulida asegurándose que las flechas del parche se encuentran señalando al talón de la llanta. Quite el polietileno restante del parche.



14. Stitch the repair unit vigorously from the center working outwardly. Use as much hand pressure as possible. Remove top cover film.

14. Adhiérala bien trabajando desde el centro hacia afuera. Utilice la mayor cantidad de presión posible con las manos. Quite la película cobertora superior.



15. Apply Patch Rubber Repair Sealer to the overbuff area .

15. Aplique Rubber Repair Sealer sobre el área pulida.



16. After inflating, cut plug flush with the outside tread area. Return tire to service.

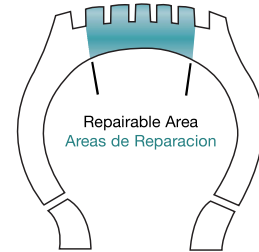
16. Después de inflarla, corte el parche en forma pareja con la parte externa del dibujo. Vuelva a poner la llanta en servicio.



Repairable Areas & Limits / Areas de Reparación y Límites

Puncture Repair Procedure For Truck Tires With 3/8" Maximum Size Injury In The Tread Area Only. Do Not Repair Sidewall Or Shoulder Injuries.

Procedimiento para la Reparación de Pinchazos en Llantas de Camiones con un daño máximo de 3/8" solamente en el área de las estrias. No intente Reparar Daños de los Costados de la Llanta o de los Hombros.



DO NOT REPAIR A TIRE IF:

- There is 2/32" or less of tread on any 2 adjacent tread grooves. The tire is not legal for use on U.S. highways.
- The tire cord or steel belt is exposed, there are flex breaks, or severe sidewall abrasions.
- There is any evidence of a separation in the tread area or the sidewall of the tire.
- There is any evidence to indicate the tire has been RUN FLAT. **DO NOT INFLATE**, as reinflation could result in serious injury. Dismount the tire and inspect for innerliner damage.
- There are punctures or damage in the shoulder or sidewall areas.
- Never use any rim that is bent, pitted from corrosion, cracked, or worn. Remove rust, dirt, or foreign materials from rim parts.

ALWAYS:

- Inflate the tire to maximum allowed pressure. **DO NOT OVER INFLATE**.
- Check the surface and the valve for the source of the leak(s) by using water, soap solution, or leak detector.
- Locate the injury and circle with a crayon.
- Remove the valve core to deflate the tire.
- Dismount and inspect the inside of the tire on a well lighted spreader for innerliner cracks, open splices, exposed tire cord or steel belts, broken beads or bead wires, bulges or blisters, or other interior damage. If any damage other than a 3/8" maximum puncture injury in the tread area is present, **REFER TO A FULL SERVICE REPAIR FACILITY**.

NO REPARA UNA LLANTA SI:

- Hay 2/32" o menos de estria en cualquier 2 ranuras adyacentes. La llanta no es legal para el uso en carreteras de EEUU.
- La cuerda de la llanta o la banda de acero está al descubierto, rupturas encorvadas, o raspaduras severas en los lados.
- Hay cualquier evidencia de una separación en el área de las estrias o el costado de la llanta.
- Hay cualquier evidencia que indique que la llanta ha sido **CORRIDA DESINFLADA. NO INFLE**, ya que el volverla a inflar podría resultar en lesiones serias. Desmonte la llanta e inspecciónela que no tenga daños en el forro interior.
- Hay pinchazos o daños en el área de los costados o de los hombros.
- Nunca use un aro que esté doblado, con picaduras de corrosión, agrietado, o desgastado. Quite el óxido, la suciedad, o materiales extraños de las partes del aro.

SIEMPRE:

- Infle la llanta a la presión máxima permitida. **NO INFLE MAS DE LO DEBIDO**.
- Para encontrar un escape(s) revise la superficie y la válvula utilizando agua, una solución jabonosa, o un detector de fugas.
- Localice el daño y circúelo con un lápiz de color.
- Quite el centro de la válvula para desinflar la llanta.
- Desmonte e inspeccione el interior de la llanta con un ensanchador bien iluminado para grietas en el forro interior, empalmes abiertos, cuerdas expuestas de la llanta o cinturones estabilizadores de acero, rebordes quebrados o alambres de rebordes, protuberancias o ampollas, u otro daño interior. Si encuentra cualquier otro daño aparte de un pinchazo de no más de 3/8" en el área de las estrias, **REFIERASE A UN LUGAR DE REPARACIÓN DE NEUMATICUS**.

Repair Materials Chart

RADIAL PLY

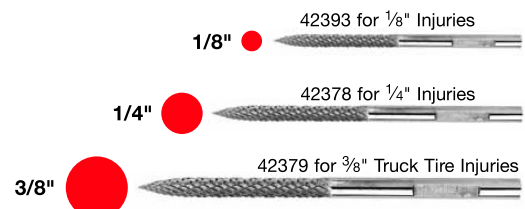
Injury Size Inches	Injury Size mm	Order No. Plug Stem	Order No. Cutter	Order No. Repair Unit	Description
1/4	6	14569	42378	12117	Bullseye 10
3/8	8	14570	42379	12118	Bullseye 12
Option					
				12090	Bullseye 20

BIAS PLY

1/4	6	14569	42378	12022	CX 2
3/8	8	14570	42379	12142	CX 3-2

CARBIDE CUTTERS:

Punta para cortar cuerdas de acero



Tools For Truck Puncture Repair

Herramientas para reparación de ponchaduras y/o agujeros



Order No.	Description
a. 47024	Awl Punzón para revisar llantas
b. 45121	White Paintstick Marcador blanco
c. 42620	Scraper Paspador manual
d. 82674	Safety Glasses Lentes de protección
e. 31670	Low Speed Buffer/Skiver Pulidora neumático de baja velocidad
f. 42378	3/16" Carbide Cutter Punta para cortar cuerdas de acero
g. 42375	3/16" Adapter Adaptador
h. 42379	5/16" Carbide Cutter Punta para cortar cuerdas de acero
i. 42376	5/16" Adapter Adaptador
j. 42770	Black Contour Cup Copa negra para pulir hule
k. 42399	Adapter with Spacer Adaptador con espaciador
l. 14526	Pulling Wires Insertador de alambre para tacos o tapones
m. 42500	Knife Cuchillo
n. 42611	Stitcher Rodillo para asentar parches, hule cojín, etc.

Repair Materials for Truck Puncture Repair

Materiales para reparación de ponchaduras y/o agujeros



Order No.	Description
a. 12117	Bullseye 10 Radial Patch Zapata Radial
b. 12118	Bullseye 12 Radial Patch Zapata Radial
c. 12090	Bullseye 20 Radial Patch Zapata Radial
d. 14569	1/4" Plug Stem Taco de hule
e. 14570	3/8" Plug Stem Taco de hule
f. 16471	Cleaner Fluid Liquido limpiador
g. 16118	Bead Sealer Sellador de talon, pestaña, ceja
h. 16170	Repair Sealer Sellador de reparaciones
i. 16451	Fast-Dry Self-Vulcanizing Cement Cemento vulcanizante de secado rápido



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https://web.archive.org/web/20140207072047/http://www.patchrubber.com/training/bias_section.pdf



Bias Tire Section Repairs

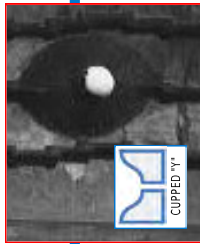
The Patch Rubber Co.



1. Remove the foreign object and probe the injury with a blunt tool to determine the **angle** and **extent of injury**.



2. Use a **low speed buffer** (max. 5,000 RPM) with a tungsten carbide tool or micro-cup cutter to remove the damaged area. Round out all corners and probe to ensure all separations have been removed. Use proper eye protection.



3. Buff the innerliner to RMA #3 texture. Trim exposed cord. Tread serves should be a cupped "Y" type with a 3/8" sleeve through the cord body. Sidewall injuries should be sanded through the rubber at a 60° taper and through the cord plys at a 90° angle. Vacuum buffing dust.



4. Measure the damaged cord body and select the proper repair unit.



5. Apply Patch Rubber Cement to sanded area and let dry. Lay filler cord in the sleeve area and fill with repair gum, excluder rope or appropriate filler material. The injury should be built up 1/16" above head and innerliner surfaces for proper vulcanization.



6. Cure spotter repairs, and allow to cool before proceeding to step 7. A guideline for curing: 235° F (146° C). Heat from both sides of injury, 3 minutes per 1/32 of injury for Fast Cure Repair Gum, 4 minutes per 1/32 of injury for Regular Cure Repair Gum. For retreading and section molds, the repair unit is laid prior to filling in the sleeve area.



7. Use **cleaner fluid** and scraper to **clean** the innerliner.



8. Center the repair unit over the injury with the bead arrows pointing directly at the bead. Using a tire crayon, outline an area 1" larger than the repair unit with crosshairs for centering location marks.



9. Use a **low speed buffer** (max. 5,000 RPM) and a 36 grit rasp to buff the innerliner (RMA #1 buffing texture). Vacuum buffing dust and use a light coat of Patch Rubber Cleaner Fluid and a scraper to clean the buffed area.



10. Apply an even coat of Patch Rubber Fast-Dry Cement to the buffed area. Allow to dry completely. Drying time will vary depending on temperature and humidity.



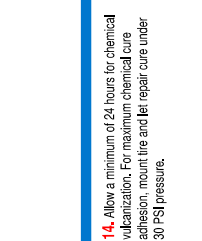
11. Make sure that the tire is in a **relaxed position**. Partially remove backing leaving enough to hold without touching the back of the repair unit. Apply the repair unit. Stitch vigorously from the center working outwardly. Use as much hand pressure as possible.



12. If the section repair is to be vulcanized during the retreat cure cycle, it is recommended to apply a reinforcing metal plate over the repair unit to prevent dimpling during cure.



13. Apply Patch Rubber Repair Sealer to the overbuff area.



14. Allow a minimum of 24 hours for chemical vulcanization. For maximum chemical cure adhesion, mount tire and let repair cure under 30 PSI pressure.

A-B Non-Repairable
Bead Area Damage

TIRE SIZE	Inches	mm
Passenger	2	51
Light Truck	3-1/4	90
16,000 - 18,000 (7,200 - 8,750)	4	100
18,000 - 21,000 (8,200 - 9,400)	5	125
21,000 - 25,5 (9,400 - 10,200)	6	150
25,5 - 33,8 (10,200 - 13,400)	7	195
33,8 - 40,2 (13,400 - 16,000)	8	200

CX PASSENGER, TRUCK & OTR TIRE REPAIR APPLICATION

Injury Size*		Tire Ply Rating											
		Inches	mm	4	6	8	10	12	14	16	18		
1 1/4	6			CX 2	CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 3		
3/8	10			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
1/2	13			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
3/4	19			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
1-1/2	38			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
2	51			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
2-1/2	64			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
3	76			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
4	102			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		
5	127			CX 2	CX 2	CX 2	CX 2	CX 2	CX 3	CX 4	CX 5		

*Reinforced Repair-down size one patch, i.e., 1-1/2" thru 12 ply rating tire. Section repair: 6-4, reinforced repair: 5-3.

ORDERING INFORMATION

In.	Size	Ply	Order No.	Mfg. No.	Qty./Box
2	51	1	12021	CX 1	20
2-1/2	64	1	12022	CX 2	20
3-1/4	82	1	12023	CX 3	10
4-5/8	118	1	12024	CX 4	10
3	76	2	12142	CX 3-2	24
4	102	2	12143	CX 4-2	12
6	152	2	12145	CX 5-2	12
5	127	3	12146	CX 5-3	12
7	178	3	12147	CX 7-3	12
6	152	4	12148	CX 6-4	12
8	203	4	12150	CX 8-4	12
10	254	4	12151	CX 10-4	12
13	330	4	12153	CX 13-4	6
16	406	4	12154	CX 16-4	6
9	229	6	12155	CX 9-6	12
12	305	6	12156	CX 12-6	6
16	406	8	12158	CX 16-8	6
18	457	8	12159	CX 18-8	6

SIDEWALL REPAIR UNITS

5	127	2	12170	CXS 5-2	10
8	203	4	12171	CXS 8-4	10
10	254	4	12172	CXS 10-4	5
12	305	6	12173	CXS 12-6	5

WARNING!

Only a trained person should remove a tire from the wheel. Please refer to R.M.A., N.T.D.R.A. and tire manufacturing literature for proper mounting and dismounting procedures.



1283 S. Main Street, Akron, Ohio 44301
330-253-5592 Fax: 1-330-761-4133
E-mail: sales@po.myerstiresupply.com

REPAIR MATERIALS



ORDERING INFORMATION

Order No.	Size	Per Case	WL Lbs.
Fast-Dry Self-Vulcanizing Cement	1 Qt.	6	11
16450	1/2 Pt.	6	11
Repair Sealer	1 Pt.		
16451	1 Pt.		
Cleaners Fluid	1 Qt. Spout Can	6	13
16471	10-3/4 Oz. Aerosol Can	12	9
Black Repair Cement	1 Qt.	6	11
16325	1 Qt.	6	11
Repair Gum	Extruder Rope		
18122	Extruder Rope		
18304	Filler Gum-Fast Cure 1" W x 11/16" Gauge	25	20

Form No. 493004.3

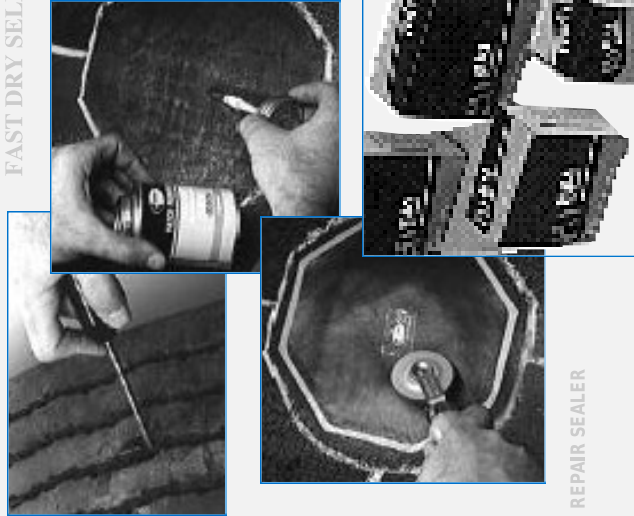
CX 5-3 BIAS PLY PATCH



CLEANER FLUID

The Patch Rubber Company

FAST DRY SELF-VULCANIZING CEMENT



REPAIR SEALER

EXTRUDER ROPE

BIAS TIRE SECTION REPAIR

https://web.archive.org/web/20140207074553/http://www.patchrubber.com/training/radial_section.pdf



do it **right!**



Radial **Tire Section Repair**



M
A Myers Industries Company



**Patch Rubber
Company**



Radial Tire Section Repair Procedures

Procedimientos Para Reparar Llantas Radiales



1. Remove the foreign object and probe the injury with an awl to determine the angle and extent of injury.

1. Quite el objeto extraño y pruebe el daño con un punzón truncado para determinar el ángulo y extensión del mismo.



2. Use a low speed buffer (max. 5,000 RPM) with tungsten carbide tool or micro-cup cutter, remove excess rubber and expose the damaged steel cord. Use proper eye protection.

2. Utilice un pulidor de baja velocidad (máx. 5,000 RPM) con una raspa de carburo de tungsteno o un micro-cortador, quite el exceso de caucho y exponga la tela de acero dañada. Utilice protección apropiada para los ojos.



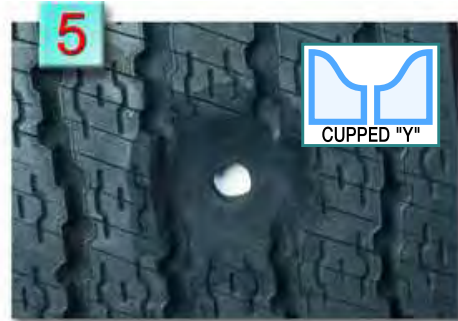
3. Use a high speed grinder (min. 16,000 RPM) with aluminum oxide stones and/or burrs to completely remove all damaged wires. Sidewall injuries should be skived through the rubber at a 60° taper and through the wire ply at a 90° angle.

3. Utilice un pulidor de alta velocidad (mín. 16,000 RPM) con piedras de óxido de aluminio y/o roca dura para quitar completamente todas las fibras metálicas dañadas. Las paredes laterales deben tener un acopado "Y" pulido a 60° en el área de la corona y un anous de 90° en el cinturón.



4. Measure the length and width of the damaged area and select proper repair unit. (Measure only the widest opening for crown or shoulder repairs.)

4. Mida el largo y el ancho del área dañada y seleccione la unidad de reparación correcta. (Para las reparaciones de la corona u hombros, mida solamente la abertura más ancha).



5. For crown repairs skives should be a cupped "Y" type with a 90° skive through the wire belts and ply.

5. Para la reparación de resquebrajaduras en las estrías debe usarse una herramienta en forma de "Y" acopada con una lima de 90° a través de la capa y de las bandas de alambre.





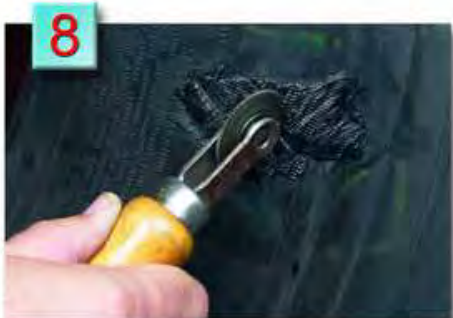
6. Lightly buff the skive with a wire brush and low speed buffer (max. 5,000 RPM). Apply Patch Rubber Black Repair Cement to skived area and let dry.

6. Cepille ligeramente el área dañado con un cepillo de alambre y un pulidor de baja velocidad (5,000 RPM máximo). Aplique un Parche de Goma Negra y Cemento para la Reparación en el área dañado y déjelo secar.



7. Build up the skived area with repair gum, extruder rope or appropriate filler material. The injury should be built up 1/16" above tire and innerliner surfaces for proper vulcanization.

7. Reconstruya el área pulida con goma reparadora, quite la tela o el material de relleno apropiado. El daño debe estar reconstruido 1/16" pulgadas por encima del neumático y del revestimiento interno para lograr una vulcanización adecuada.



8. Stitch vigorously from the center working outwardly. Use as much hand pressure as possible.

8. Cosa vigorosamente desde el centro hacia afuera. Use tanta presión con la mano como sea posible.



9. Cure the repair and allow to cool before proceeding to step 10. As a guideline; curing at 295° F (146° C) and heating from both sides of injury, allow 3 minutes per 1/32" of injury using a Fast Cure Repair Gum, and 4 minutes per 1/32" of injury for Regular Cure Repair Gum. In retreading and section molds the repair unit is laid prior to filling the skive area.

9. Vulcanize la reparación, y espere que se enfríe antes de proseguir con el paso 10. Indicaciones para el curado: 146° C (295° F). Caliente desde ambos lados de daño; para caucho de reparación de curado rápido demora 3 minutos por cada 1/32" de daño. Para caucho de reparación de curado regular demora 4 minutos por cada 1/32" de daño. Para reencauchajes o moldes de sección, la unidad que va a ser reparada se alisa antes de rellenar el área pulida.



10. Use Patch Rubber Cleaner Fluid and scraper to clean the innerliner.

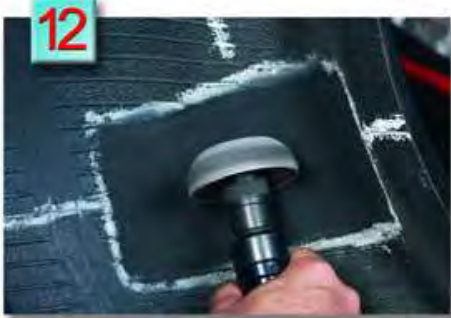
10. Para limpiar el revestimiento interno, utilice Patch Cleaner Fluid y un raspador.



11. Center the repair unit over the injury with the bead arrows pointing directly at the bead. Using a tire crayon, outline an area 1" larger than the repair unit with crosshairs for centering location marks.

11. Centre la unidad de reparación sobre el daño con la flecha de la unidad de reparación señalando directamente al talón de la cubierta. Con un marcador para caucho (hule), marque un área de 1" pulgada más grande que la unidad de reparación con hilos cruzados para centrar las marcas de localización.





12. Use a low speed buffer (max. 5,000 RPM) and a 36 grit rasp to buff the innerliner (RMA #1 buff texture). Vacuum buffing dust and use a light coat of Patch Rubber Cleaner Fluid and a scraper to clean the buffed area.

12. Utilice un pulidor de baja velocidad (máx. 5,000 RPM) y un raspador #36 para pulir los revestimientos internos (textura de pulido RMA #1). Limpie el polvillo del pulido y utilice una fina capa de limpiador líquido para parches de caucho (hule) y un raspador para limpiar las áreas pulidas



13. Apply an even coat of Patch Rubber Fast-Dry Self-Vulcanizing Cement to the entire buffed area. Allow cement to dry until tacky. Never use blow dryers, compressed air, or heat lamps to facilitate drying. Drying time is affected by temperature and humidity.

13. Aplicar el cemento de secado rápido y vulcanizante marca Patch Rubber a toda el área raspada o pulida. Dejar secar el cemento hasta que pegue. Nunca use secadores de aire, compresor de aire o secar con lámparas calientes para facilitar el secado. El tiempo de secado es afectado por la temperatura y la humedad.



14. Make sure that the tire is in a relaxed position. Partially remove backing leaving enough to hold without touching the back of the repair unit. Apply patch. Stitch vigorously from the center working outwardly. Use as much hand pressure as possible.

14. Asegúrese que la llanta se encuentre en una posición relajada. Quite parcialmente el respaldo dejando lo suficiente como para sostener sin tocar la parte posterior de la unidad de reparación. Aplique el parche. Adhiérala bien trabajando desde el centro hacia afuera. Utilice la mayor cantidad de presión posible con las manos.

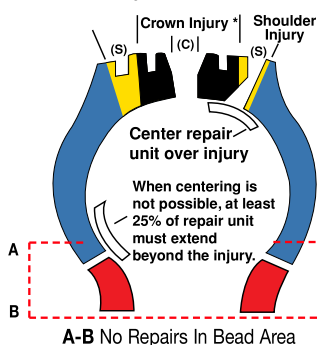


15. Apply Patch Rubber Repair Sealer to overbuff area.

15. Aplique Patch Rubber Repair Sealer sobre el área de pulido.

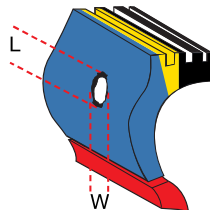
"BULLSEYE" RADIAL REPAIR UNITS USAGE

*CROWN INJURY (C) Measure max. diameter of damaged wire belt.

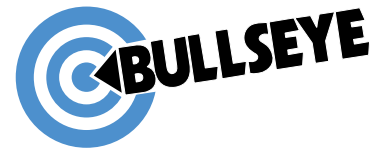


A-B Non-Repairable Bead Area Damage

TIRE SIZE	RADIAL PLY
Passenger	1-1/2" (40mm)
Light Truck (7.00 - 8.75)	2-1/2" (64mm)
Heavy Duty (9.00 -14.00)	3"



SIDEWALL INJURY (W x L)
Measure (W) the width of the injury across the Radial Ply and (L) the length of the injury to determine the correct size repair unit.



The Patch Rubber Co.
A Myers Industries Company



BULLSEYE PASSENGER TIRE REPAIR APPLICATION

INJURY SIZE			Speed Ratings					
Shoulder Injury (S)	Crown Injury (C)	Sidewall Injury W x L	Q	S	H	V	Z	
1/4" (6mm)	3/8" (10mm)	1/4" (6mm) x 1/2" (13mm)	10					
	3/4" (19mm)	1/2" (13mm) x 1-1/4" (32mm)	14					
1/4" (6mm)	1/4" (6mm)	1/4" (6mm) x 1/2" (13mm)		10				
	1/2" (13mm)	3/8" (10mm) x 1-1/4" (32mm)		12				
1/8" (3mm)	1/4" (6mm)	1/4" (6mm) x 1/4" (6mm)			10			
1/8" (3mm)	1/4" (6mm)	1/8" (3mm) x 1/8" (3mm)				10		
1/8" (3mm)	1/8" (3mm)							10

BULLSEYE TRUCK TIRE REPAIR APPLICATION

INJURY SIZE			TRUCK TIRE SIZES		
Shoulder Injury (S)	Crown Injury (C)	Sidewall Injury W x L	6.00-7.50 7R - 8.5R 205/ - 225/	8.25-10.00 9R - 11R 11/ 235/ - 285/	11.00-14.00 12R - 15.5R 12/- 13/ 295/ - 385/
Inches mm	Inches mm	Inches mm	Use Repair Unit No.		
Up to 1/8 3	Up to 1/4 6	1/8 3 x 1/8 3	10	10	10
1/4 6	Up to 3/8 10	3/8 10 x 3/8 10	12	12	12
3/8 10			20	20	20
	1/2 13	1 cable x 1-1/2 38	22	33/40*	33/40*
		1 cable x 3 76	22	20	20
		1 cable x 4-3/4 121	22	22	22
		2 cables x 3/4 19	20	24	24
		2 cables x 1-1/2 38	20	20	20
		2 cables x 2-1/2 64	22	22	24
1/2 13			40	40	40
	3/4 19	1/2 13 x 1-1/2 38	33/40*	33/40*	35/40*
		1/2 13 x 2-1/2 64	22	40	40
		1/2 13 x 4 102		42	42
		1/2 13 x 5 127		44	44
3/4 19				42	42
	1 25	3/4 19 x 1 25	33/40*	35/42*	35/42*
		3/4 19 x 2-1/2 64	22	40	40
		3/4 19 x 4 102		42	44
		3/4 19 x 5 127		44	44
1 25				44	44
	1-1/2 38	1 25 x 2 51	40	37/44*	37/44*
		1 25 x 3 76		42	42
		1 25 x 4 102		44	44
1-1/4 32					46
	1-1/2 38	1-1/2 38 x 2 51		37/44*	37/44*
		1-1/2 38 x 3 76		44	44
		1-1/2 38 x 4 102		44	44

* The Bullseye 33 & 35 are for crown repairs only. Injuries must be at least 1-1/2" (35mm) from tread edge to be a crown repair. *33/40, 35/42 - Either Bullseye Repair Unit can be used for the specified injury.

* El Bullseye 33 y 35 son solamente para la reparacion del centro ("corona") de la llanta. Danos tienen que estar por lo menos a 1-1/2" (35mm) desde la orilla del grabado hacia el centro para ser categorizados como una reparacion de "corona". Cualquier de los Kits de Reparacion Bullseye pueden ser utilizados para el dano especificado.

ORDERING INFORMATION

Bullseye Radial Repairs

Dual Cure

Order No.	Mfr. Order Code	Size		Qty/Box
		Inches	mm	
12117	BUL DC 10	2 x 3	51 x 76	20
12118	BUL DC 12	3 x 4	76 x 102	10
12119	BUL DC 14	3 x 5	76 x 127	10
12090	BUL DC 20	3 x 5	76 x 127	10
12091	BUL DC 22	3 x 6	76 x 152	10
12092	BUL DC 24	3 x 8	76 x 203	10
12089	BUL DC 26	3 1/2 x 10	89 x 254	10
12093	BUL DC 40	4 x 8	102 x 203	10
12094	BUL DC 42	5 x 10	127 x 254	10
12095	BUL DC 44	5 x 13	127 x 330	10

Bullseye Radial Crown Repairs

Dual Cure

Order No.	Mfr. Order Code	Size		Qty/Box
		Inches	mm	
12096	BUL DC 33	4 x 5	102 x 127	10
12097	BUL DC 35	5 x 6	127 x 152	10
12101	BUL DC 37	5 x 7	127 x 178	10

WARNING!

Only a trained person should remove a tire from the wheel.
Please refer to R.M.A., and tire manufacturing literature for proper mounting and dismounting procedures.

¡ADVERTENCIA!

Solamente una persona entrenada debe quitar la llanta del rin. Por favor refiérase a R.M.A., y a la literatura de los fabricantes de llantas para conocer los procedimientos correctos de armado y desarmado para llantas de pasajeros.



Chemicals For Radial Section Repair



Order No.	Size	Per Case	Weight	
			Lbs.	Kg.
Fast-Dry Self-Vulcanizing Cement <i>Cemento vulcanizante de secado rápido</i>				
16450	1 Qt.	6	11	5.0
16451	1/2 Pint	12	7	3.0
Repair Sealer <i>Sellador de reparaciones</i>				
16170	1 Pt.	12	10.5	4.8
Cleaner Fluid <i>Líquido limpiador</i>				
16471	1 Qt. Spout Can	6	12	5.4
16483	10 oz. Aerosol Can	12	16	7.2
Black Repair Cement <i>Goma Negra y Cemento</i>				
16325	1 Qt.	6	12	5.4
Repair Gums <i>Goma Reparadora</i>				
18122	Extruder Rope	—	25	11.3
18304	Filler Gum-Fast Cure 1" x 1/16" Gauge		30	13.5



**Patch Rubber
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www.patchrubber.com

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CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF Texas }

COUNTY OF Harris }

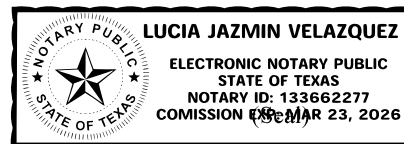
On 02/13/2025 before me, Lucia Jazmin Velazquez, on this day
Date (Notary Public)

personally appeared by means of an interactive two-way audio and video communication
Tanya Zeif

_____, who has
provided satisfactory evidence of identity in accordance with Chapter 406, Texas Government
Code to be the person whose name is subscribed to the foregoing instrument and acknowledged
to me that they executed the same for the purposes and consideration therein expressed. This
notarial act was an online notarization.

WITNESS my hand and official seal.

Signature: Lucia Jazmin Velazquez



OPTIONAL _____

Description of Attached Document

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