Proper Puncture Repair Guidelines for
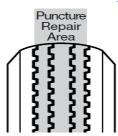## Passenger Vehicle and Light Truck Tires

The following puncture repair guidelines are intended for all passenger vehicle and light truck tire sizes through LOAD RANGE E ("Tire(s)"), that are used on motor vehicles with a gross vehicle weight rating (GVWR) of 10,000 lbs. or less.

Not all Tires can be repaired. Only specially-trained personnel using the proper tools and repair materials should repair Tires.

Nitto Tire recommends Tires to be repaired according to the outlined instructions and steps illustrated in the Rubber Manufacturers Association (RMA) wall chart, "Puncture Repair Procedures for Passenger and Light Truck Tires" (document PRP-PLTT-0811). Contact Nitto Tire U.S.A. Inc.'s Consumer Relations Department for an RMA wall chart.

Considerations for the Proper Repair of Passenger and Light Truck Tires:

- Tires that have sustained a puncture must be dismounted and the interior inspected for possible damage that is not visible on the outside. Any Tire repair done without removing the Tire from the wheel is improper and unsafe.

- Never repair a Tire with 2/32" (1.6mm) or less tread remaining. At this tread depth, the Tire is worn out and must be replaced.

- Never repair a Tire with a puncture larger than ¼"(6.4mm) in diameter. Such Tires cannot be properly repaired and must be replaced.

- Never repair a Tire where the repair patch may overlap or make contact with a previously repaired patch.

- Never repair a Tire with a puncture or other damage outside the tread area. Do not repair Tires with sidewall or bead area damage. Such Tires cannot be repaired and must be replaced. Do not repair a Tire where the damage extends into the tread shoulder/belt edge area.

- The repair must be of a plug (stem) and inside patch type or a patch combined with a separate plug. Do not use a rope type repair that is inserted and applied externally. Such repairs are considered improper. The injury must be completely filled with a suitable vulcanizing rubber stem and internal patch to prevent air loss. An internal plug (stem) and inside patch repair is the only acceptable and proper repair.

- Do not repair a Tire that has an existing improper repair; such Tire must be replaced.

- Never substitute an inner tube for a proper repair or to remedy an improper repair.

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Before attempting to repair a Tire, ask the customer if an aerosol puncture sealant was used to inflate/seal the Tire. Aerosol puncture sealants could contain a highly flammable, explosive gas. Vapors escaping the air chamber during the repair process can be ignited causing an explosion that can result in serious injury or death.

For vehicles equipped with dual Tire assemblies, if one of the dual Tires is determined to have been run significantly underinflated or flat, the other Tire will have carried the load for both Tires resulting in an overloaded condition. Both Tires should be inspected for damage.

Effect of Proper Repairs on Tire Speed Ratings

The speed-rating of Tires that have been properly repaired will have reduced speed ratings as follows:

ORIGINAL SPEED RATING	AFTER PUNCTURE REPAIR
(Y), Y, W, Z, V, VR, H	H (maximum speed 130 mph)
T	T
S	S

The maximum safe speed of the vehicle is limited by the lowest speed-rated tire fitted to the vehicle.

Tire Sealants and OEM Mobility Kits

Vehicle original equipment Mobility Kits and aftermarket sealants, such as aerosols, liquids or gels injected into a tire through the valve, provide only temporary mobility and are not considered a proper repair. Tires that have been inflated using a puncture sealant may have been damaged as a result of being run in an underinflated and/or overloaded condition, and should be inspected accordingly before the tire is repaired.

For more information, please contact Nitto Tire U.S.A. Inc.'s Consumer Relations Department at (888) 529-8200.

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