

TIRE

INFORMATION SERVICE BULLETIN

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DEMOUNTING AND MOUNTING PROCEDURES FOR MOTORCYCLE TIRES

WARNING

TIRE CHANGING CAN BE DANGEROUS AND SHOULD BE DONE BY TRAINED PERSONNEL USING PROPER TOOLS AND PROCEDURES. ALWAYS READ AND UNDERSTAND ANY MANUFACTURER'S WARNING CONTAINED IN THEIR TREAD LABEL, CUSTOMER LITERATURE, OR MOLDED INTO THE TIRE SIDEWALL.

Failure to comply with these procedures may result in faulty positioning of the tire and/or rim parts and cause the assembly to burst with explosive force, sufficient to cause serious physical injury or death. Never mount or use damaged tires or rims.

- ALWAYS wear approved eye protection while servicing tire wheel assemblies.
- ALWAYS clean components and apply approved tire mounting/rubber lubricant to wheel, tube and tire beads.
- NEVER use antifreeze, silicones, or petroleum-based lubricants.
- NEVER rework, weld, heat, or braze rims.
- BE SURE the wheel is the correct size for the tire being mounted.
- LOCK ASSEMBLY ON MOUNTING MACHINE OR PLACE IN SAFETY CAGE BEFORE INFLATING.

WARNING

NEVER INFLATE BEYOND 40 POUNDS PRESSURE TO SEAT BEADS.
NEVER STAND, LEAN, OR REACH OVER THE ASSEMBLY DURING INFLATION.

Inspect both sides of the tire to be sure that the beads are evenly seated. If tire is mounted on a machine that does not have a positive lock-down device to hold the wheel, inflation should be done in a safety cage or other restraining device. If both beads are not properly seated when pressure reaches 40 psi, completely deflate the assembly, reposition the tire and/or tube on the rim, relubricate, and reinflate. Inflating beyond 40 psi air pressure when trying to seat the beads is a DANGEROUS PRACTICE that may break a tire bead (or even the rim) with explosive force, possibly resulting in serious injury or death. After the beads are fully seated, pressure may be increased above 40 psi to operating pressures, not to exceed the maximum molded on the tire sidewall.



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For normal operation, follow pressure recommendations in the owner's manual or on the vehicle placard. Load and cold inflation pressure imposed on the rim/wheel must not exceed the rim and wheel manufacturer's recommendations, even if the tire is approved for a higher load or inflation.

NEVER use a flammable or volatile substance, bead sealer, inflator, or rubber "donut" to aid bead seating.

FOLLOW MOTORCYCLE OWNER'S MANUAL TO SELECT CORRECT REPLACEMENT TIRE SIZE. TIRE DIAMETER MUST ALWAYS MATCH RIM DIAMETER. All passenger car and motorcycle rims actually differ in diameter. Only motorcycle tires should be mounted on motorcycle rims. Most motorcycle rims are marked the suffix "M/C". DO NOT mount passenger car tires on motorcycle rims. For example: Fit 15" diameter motorcycle tires only on 15 M/C motorcycle rims. Never mount a 15" passenger tire on a 15 M/C motorcycle rim¹.

NOTE: See special tire manufacturer's tread label mounting instructions for bead lock tires which may only be mounted on certain matching motorcycle model rims.

The National Highway Traffic Safety Administration (NHTSA) issued a CONSUMER ADVISORY² warning about the hazards of fixing tires filled with flammable aerosol inflators. The following text was extracted and paraphrased from the Consumer Advisory:

Many aerosol inflators contain a flammable propellant that can cause an explosion. Aerosol flat tire fixes should [only] be considered as emergency, temporary repairs and used with caution. After filling a tire with an aerosol inflator, don't expose the tire to extreme heat, flames, sparks or other ignition sources. Be careful using metal tools like tire irons, metal reamers, and hammers, because they could cause sparks while being used to repair a tire. Service personnel should assume a tire may have been repaired previously with an aerosol product. Before starting to fix a tire, remove the valve core and as much of the aerosol propellant as possible. Then, inflate and deflate the tire a few times to completely remove all traces of the potentially explosive propellant. Once this is done, you may [remove the tire from the rim and] repair the tire [using industry recommended repair procedures] ...

MOTORCYCLE TIRE DEMOUNTING INSTRUCTIONS

Remove wheel assembly from motorcycle in accordance with vehicle manufacturer's instructions.

1. Place, do not throw or drop the assembly, in a horizontal position on the changer. Secure the assembly to the changer with a changer hold down device.
2. Loosen rim locks, where applicable. Also, loosen washers and nuts from the valve stem. Carefully remove the valve core to completely deflate the assembly. **STAND BACK.** Remove the washers and nuts from the valve stem.
3. Loosen both tire beads from the rim.
4. Use commercially available lubricants made for bead seating to seat tire beads. Also, vegetable oil and animal soap solutions may be used. NEVER use antifreeze, silicones, or petroleum-based lubricants. If a lubricant is water-based, it should contain a rust inhibitor. Lightly lubricate the top bead of the tire and demount it from the rim beginning at the valve area.
5. Beginning with the valve area, remove the tube (if tubed) from the tire by hand, being careful not to pinch the tube between the tire bead and the rim. Lightly lubricate the second bead and the top rim flange.
6. Demount the bottom bead of the tire from the rim. This may be done using tire irons only, but it is often easier to begin the process with an iron and simply push the tire off the rim. Remove the rim band on the spoke wheel.

¹ For more information, see RMA TISB Vol. 28 *Never Mount 15-inch Passenger Car Tires on 15-inch Motorcycle Rims Fitted to Motorcycles or Sidecars*.

² USDOT/NHTSA Consumer Advisory, Sept. 24, 1991 "NHTSA Warns About Hazards of Fixing Tires Filled with Aerosol Inflators" (NHTSA 49-91).

MOTORCYCLE TIRE MOUNTING INSTRUCTIONS

1. With a wire brush (remove the rim band on spoked wheels before brushing), remove any rubber deposits, dried soap solution, rust, heavy paint, etc., from rim flanges and bead seat ledges (especially safety humps and radius). All interior surfaces should be smooth and clean. Special care must be exercised to be sure that any broken wire fragments from the brush are removed (see Photo 1). For a tubeless rim, replace rubber valve assembly. Replace valve core in metal valve assembly.



Photo 1

2. For tubetype/spoked wheels check the drop center well to make certain no spokes are loose or protrude above the nipples (see Photo 2). Inspect the rim band (replace if damaged with new band of same specification). Reinstall rim band and make certain it is in place, completely covering the spoke ends (see Photo 2a).



Photo 2

3. Follow the owner's manual to select correct replacement tire size. Tire diameter must always match rim diameter (see Photo 3). All passenger car and motorcycle rims actually differ in diameter. Only motorcycle tires should be mounted on motorcycle rims. Most motorcycle rims are marked the suffix "M/C". DO NOT mount passenger car tires on motorcycle rims.



Photo 2a

EXAMPLE: MOUNT 15" DIAMETER MOTORCYCLE TIRES ONLY ON 15 M/C MOTORCYCLE RIMS. NEVER MOUNT A 15" PASSENGER CAR TIRE ON A 15 M/C MOTORCYCLE RIM.

NOTE: WHERE TUBELESS TIRES ARE FITTED ON RIMS WHICH ARE NOT SUITABLE FOR TUBELESS APPLICATION, AN APPROPRIATE MOTORCYCLE INNER TUBE SHALL BE FITTED. DO NOT FIT TUBES IN RADIAL MOTORCYCLE TIRES, OR FIT RADIALS ON RIMS REQUIRING TUBES, UNLESS THE TUBES BEAR MATCHING SIZE AND RADIAL (R) MARKINGS.



Photo 3

MOTORCYCLE TIRE MOUNTING INSTRUCTIONS

4. If a changer is used, center and securely fasten the wheel to the changer with a changer hold down ~~rim~~ cone or clamping device (see Photo 4). Follow approved mounting and safety instructions for equipment used. **Consult any special owner's manual or tire manufacturer's mounting instructions.**



Photo 4

5. Be sure the inside of the tire and rim well are free of dirt, liquids, nuts, washers, or other foreign material and damage.
6. With a soft brush, cloth, or spray, apply a solution of mild soap and water or approved tire mounting/rubber lubricant (NEVER use antifreeze, silicones, or petroleum-based lubricants) to the rim contact surfaces and the bottom tire bead (see Photo 6). Mount the bottom bead on the wheel taking into account any directional arrows. This may often be accomplished by simply pushing the bead onto the rim (see Photo 6a).

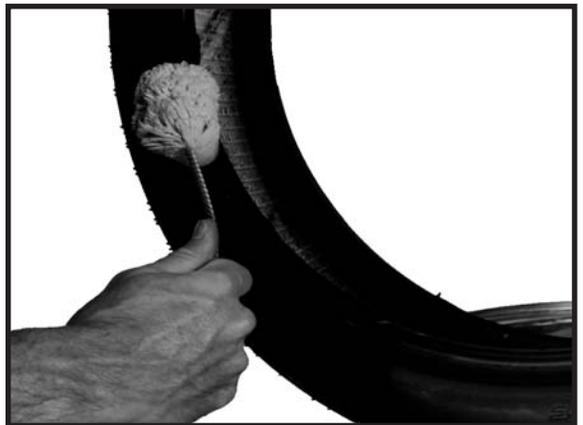


Photo 6



Photo 6a

MOTORCYCLE TIRE MOUNTING INSTRUCTIONS

7. For tubed rims select a new tube with the exact same size marking as the new tire. Follow tube or rim manufacturers' instructions for matching tube valve base and stem to rim.

Be sure the tube is clean and not damaged. Lightly dust the tube with talcum powder to ease fitting. Carefully insert the tube in the tire starting by fitting the stem through the valve hole. After aligning the tube valve with the valve stem hole in the rim, insert and center the valve stem through the valve hole in the rim (see Photo 7). If the tube has a fully threaded valve stem, fit the valve stem washer and start the locking nut by threading it part of the way on the stem.

Check the inside of the tire once more for any loose items or damage. Make sure all washers and lock nuts are accounted for and correctly assembled to the threaded valve stem before proceeding (see Photo 7a). Insert valve core and slightly inflate to round out and center the tube. This helps prevent pinching.



Photo 7



Photo 7a

8. Apply lubricant to the exposed rim flange, tube base and the base of the upper tire bead (see Photo 8). DO NOT let excessive lubricant run between the tire and tube or contact the treads.



Photo 8

9. Mount top bead of the tire on the rim using mounting tools if necessary. The bead in the valve area will be the last part of the bead to go over the rim flange.

DO NOT use a pry bar or lift sharply on the tire bead. Take extreme care not to pinch or damage the tube. NEVER use a substitute tool such as a screwdriver. Re-center the valve stem, if necessary, by rotating both tire and tube (see Photo 9).



Photo 9

MOTORCYCLE TIRE MOUNTING INSTRUCTIONS

10. Before inflating to seat tire beads, ensure that assembly is secure on tire mounting machine/changer or placed in an approved safety cage. If the tire mounting machine/changer is not equipped with a positive hold down device for the assembly inflation process, an approved safety cage must be used (see Photo 10).



Photo 10

11. Use an extension air hose with a clip-on chuck and in-line valve with gauge or pre-set pressure regulator to permit you to stand clear of tire assembly (see Photo 11). **STAND BACK. NEVER STAND, LEAN, OR REACH OVER ASSEMBLY DURING INFLATION.** Inflate slowly and carefully (in short bursts), with the valve core, inserted to seat the tire beads. DO NOT exceed 40 PSI to seat beads. While the assembly remains secured, visually check for even bead seating. If the beads are not seated, deflate completely and repeat the above procedures (see Photo 11a).



Photo 11



Photo 11a

12. For tubed assemblies, always remove the valve core, after the beads are seated, to completely deflate the tube. Deflation and re-inflation helps prevent tube folds, creases, or wrinkles.

MOTORCYCLE TIRE MOUNTING INSTRUCTIONS

13. Re-insert the valve core; while still secured, re-inflate the assembly to the proper operating pressure, (consult motorcycle owner's manual, placard, and any special tread label or sidewall instructions) tighten the nut on the valve stem; and, check and tighten any rim locks. Install metal valve cap with a rubber gasket to guard against leakage (see Photos 13 and 14).

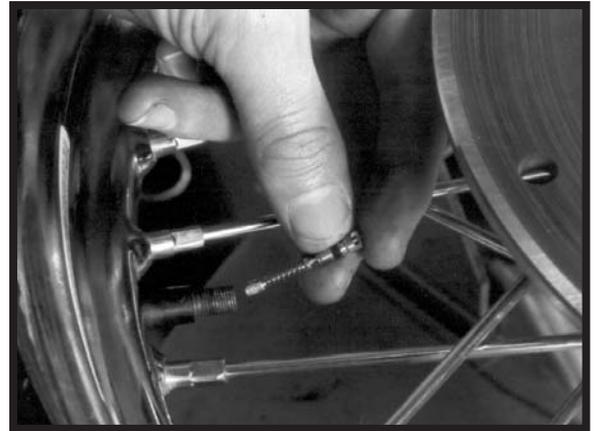


Photo 13

14. Balance the wheel assembly and re-install in accordance with any directional arrows for front or rear fitment. Check tire "run-out" and re-check bead seating (see Photo 15).

NOTE: TIRE AND WHEEL ASSEMBLY BALANCE MUST BE CHECKED WITH A BALANCE STAND OR COMPUTER WHEEL BALANCER. SOME MANUFACTURERS PROVIDE A BALANCE DOT TO BE ALIGNED WITH THE VALVE STEM.



Photo 14

15. Follow vehicle manufacturer's instructions for remounting finished wheel assembly on motorcycle. Spin the wheel assembly to check alignment and clearance (see Photo 16).



Photo 15

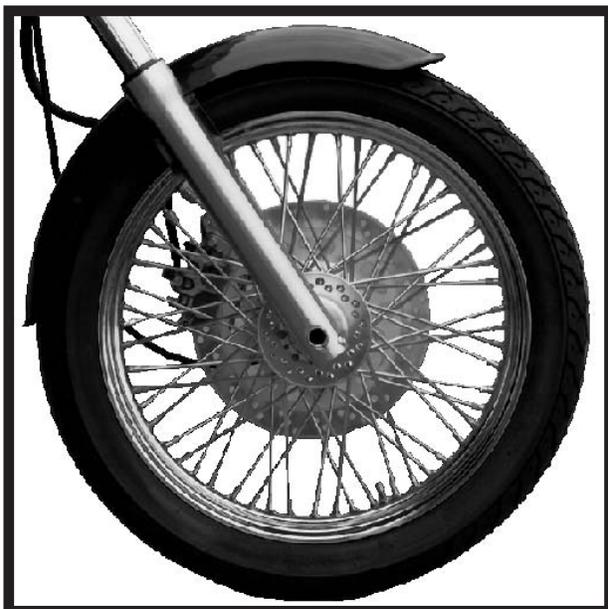


Photo 16

SAFETY PROCEDURES FOR TUBED ASSEMBLIES

ALWAYS wear approved eye protection while servicing tire wheel assemblies

ALWAYS clean components and apply approved tire mounting/rubber lubricant to wheel, tube and tire beads.

NEVER use antifreeze, silicones, or petroleum-based lubricants.

NEVER rework, weld, heat, or braze rims.

BE SURE the wheel is the correct size for the tire being mounted.

LOCK ASSEMBLY ON MOUNTING MACHINE OR PLACE IN SAFETY CAGE BEFORE INFLATING.

Improper mounting can result in tube failure, deflation and accident. To reduce the chance of accident and injury:

NEVER install a tube as a substitute for a proper repair.

ALWAYS fit a matching tube in a tire being mounted to a rim requiring a tube.

ALWAYS use a new tube in a new tire with matching size marking. NEVER install a non-radial tube in a radial motorcycle tire. Check for matching size and radial (R) marking.

A serviceable tube removed, for any reason, MUST be returned to the same tire from which it was removed, or destroyed.

ALWAYS replace the valve core.

NEVER install a larger - or smaller - sized tube than was designed for the tire being used.

Before installing a tube, ALWAYS be sure that the tube is clean and that the inside of the tire is free of dirt, liquids, or foreign material and damage.

NEVER mount a tire on a wheel rim that is damaged or that has been repaired by welding or brazing.

ALWAYS thoroughly clean the interior surfaces of the rim.

BE SURE the wheel is the correct size for the tire being mounted.

- ▶ With spoked wheel rims, an effective "rim band" MUST cover the spoke ends in the drop center rim well so that the spoke ends will not chafe the tube. Inspect the spoke ends and rim band for any damage; replace if necessary.

ALWAYS center tube and lubricate tube, rim and tire bead contact surfaces with approved tire mounting/rubber lubricant to prevent pinching. NEVER use antifreeze, silicones, or petroleum-based lubricants. Replace and secure any required rim locks.

ALWAYS ensure that all lock nuts and washers are accounted for and correctly assembled to the valve stem before inflating.

NEVER use a flammable or volatile substance, bead sealer, inflator, or rubber "donut" to aid bead seating.

NEVER exceed 40 psi to seat beads if beads do not seat by 40 psi, deflate and repeat mounting steps. When beads are seated, deflate completely and re-inflate to avoid tube folds, creases, or wrinkles.