Garages – Servicing Split Rim Wheels – Fact Sheets

WHAT SHOULD I KNOW WHEN DISASSEMBLING SPLIT RIM WHEELS?

- Ensure that you are trained before working on a tire/rim assembly. Know, understand, and follow the proper safety procedures. Serious or fatal injuries can result if proper precautions are not followed.
- Use mechanical lifting and moving devices for the tires and wheels.
- Follow the manufacturers' assembly and disassembly procedures.
- Check tire/rim assembly for proper component seating prior to removing it from the vehicle.
- Stand to the side, out of the way of flying wheel parts, in case the assembly disassembles explosively.
- Always deflate the tire before removing wheel nuts on any multi-piece tires that are to be removed from their hubs.
- Deflate tires (both tires in a dual assembly) by first removing the valve core. Insert a wire in the valve stem to ensure that the stem is not blocked and that the tire is deflated completely before removing the rim/wheel from the axle.

Do not inflate any tire if:

- it has been driven under-inflated by 80 percent or less of its recommended pressure, or
- there is obvious or suspected damage to the tire or wheel components.

Such tires should always be deflated completely, removed from the vehicle, disassembled, and inspected. If the tire is in a dual assembly, check the air pressure in both tires with an air pressure gauge. An under-inflated tire may not otherwise be detected when the other tire is supporting the weight of the vehicle or trailer.

What are some tips for rim inspections?

- Check that the proper tire size and construction matches the manufacturer's rim or wheel rating and size. The tire size must match the size of the rim. Rims or wheels may accommodate tires of various widths. Check with the manufacturer's specifications.

- Check rim parts against multi-piece rim/wheel matching chart.
- Check all metal surfaces for rust, corrosion, cracks, bent flanges, sprung rings, and deep tool marks on rings or in gutter areas.
- Clean and repaint lightly rusted rims. Remove all dirt and other foreign material from metal surfaces.
- Use parts that are in good condition: destroy and dispose of parts that are corroded, bent, out-of-round, cracked or otherwise damaged.

When assembling split rims, what should I do?

- Wear approved safety glasses.
- Check tire for cracks, cuts and penetrating objects.
- Ensure that removable rings are properly seated before inflating.
- Use a suitable tire lubricant that is tended for use with rubber products and that will not promote the corrosion of the metal rims.
- Place the tire in a safety cage large enough for tire expansion before inflating tire.
- Inflate the tire using a clip-on air chuck and hose extension with an in-line pressure gauge and valve.
- Use remote control inflation equipment.
- Stand clear of the tire during inflation and ensure that no other person is in the trajectory path during inflation.
- Inflate in incremental stages in steps of 70kPa (10psi). Check the rim after each stage to ensure correct seating.
- Inflate the tire while the rim/wheel is on the vehicle, if the tire is under-inflated but has more than 80 percent of the recommended pressure.
- Inspect the tire, rims, and rings for proper seating after the tire is fully inflated. If the tire is not well-seated, deflate the tire, inspect all parts, and follow proper re-assembly and inflation procedures.
- Remove the properly inflated tire from the restraining device.
- Install the wheel of the vehicle correctly ensuring that the correct parts are used, that the nuts are tightened in the proper order, and that the recommended torque is applied.

What should I avoid doing?

- Do not inflate tires on split rims that are not contained behind a safety cage or guard.
- Do not stand in front of or over the rim during inflation.
- Do not attempt to seat rings while tire is partially or totally inflated.
- Do not re-inflate or add inflation pressure to a tire that has been run flat or is seriously under-inflated without removing and checking for ring seating and rim damage.
- Do not use damaged, worn or corroded rims/wheels or mounting hardware.
- Do not use an assembly with excessive side ring play, wide gaps between ring ends or butting ring ends unless specified by manufacturer.
- Do not use a rim/wheel component you cannot identify.
- Do not rework, weld, braze, or otherwise heat wheel components.
- Do not hammer on components of an inflated or partially inflated assembly.