LOSS CONTROL DATA GUIDE

Tire Rim Explosions

Tire rim explosions usually result from the failure to follow proper procedures for rim inspection and tire inflation. These explosions are caused by outward pressure in the tire when the rim or fastenings are loosened, or the locking ring slips out of place. The following guidelines should be followed during tire demounting and mounting operations.

Before servicing any tire/rim assembly

- Completely deflate tire (or both tires of a dual assembly) by removing valve core(s) before loosening tire/rim assembly nuts or clamps.
- Use proper tools to demount or mount rim parts. Use only rubber, plastic or brass-tipped mallets.
- Use only nonflammable tire lubricants to facilitate tire demounting and mounting.
- Demount and inspect all tire and rim parts before reinflating. Do not reinflate a tire that has been operating in a run-flat or underinflated condition.

Deflating and demounting

- Demount tire from rim only after tire is completely deflated.
- Use bead breaking tool or duck bill hammer to loosen tire bead from the side ring. For tubeless tires both beads should be loosened before attempting to remove tire from rim.

Inspection of parts

- Discard and destroy all parts that are bent, pitted from corrosion, cracked or worn.
- Replace damaged or badly worn tires.
- Do not rework, weld, heat or braze any rim parts for any reason.
- Check identification stamp on all rim parts to ensure proper matching. Do not use any rim parts unless it can be positively identified by the manufacturer's identification stamp. Destroy and discard any parts which cannot be identified.
- Remove rust, dirt, foreign material from rim parts. Repaint metal parts to increase longevity.

Mounting

- For tubeless tires – Place the rim base on the floor with the well side up. Lubricate both tire beads and the top flange of the rim base. Mount tire.
- For tube-type tires – Insert the tube into the tire and inflate just enough to round out the tube. Lay the rim on the floor, align the valve with the rim valve slot and work the tire onto the rim. Remove the valve core from the valve stem to exhaust all air from the tube. This will prevent trapped air in the tube from interfering with the proper seating of the side or lock ring into the rim gutter groove. Mount tire.

Inflation

- Check to see that all rim parts are properly seated.
- Place tire/rim assembly in restraining device which meets OSHA requirements.
- Do not use starting fluid, ether, gasoline or any other flammable material to lubricate, seal, or seat the beads of a tubeless tire.
- Use a clip-on air chuck and an in-line air valve with gauge to inflate the tire/rim assembly. While inflating the tire, stay out of the trajectory and stand clear of the tire/rim assembly. Do not rest or lean any part of body against the restraining device during inflation.
- Inflate to 10 psi and then check tire beads for proper seating. Do not inflate beyond 40 psi to seat any tire beads. If beads are not seated at 40 psi, deflate tire and determine the problem.
- For tube-type tires, inflate to service pressure without the valve core installed and then completely deflate the tire to prevent wrinkles in the tube. Insert the valve core and reinflate the tire to the recommended service pressure as specified for the type and/or rim.
- Visually inspect the tire/rim assembly during inflation for improper seating of the ring(s) or any unusual conditions in the tire or rim. Do not hammer on any type of tire/rim assembly to correct a problem while the tire contains inflation pressure.
- Do not inflate tire/rim assembly beyond the inflation pressure specified for the tire or rim.
- Inspect tire/rim assembly for proper seating of all parts before removing from the restraining device.
- Do not inflate tire on the vehicle. Inflate tire in a tire inflation cage or other restraining device.