INSPECTION CRITERIA

ALUMINUM RIMS
SAFETY INFORMATION

▪ **WARNING** Federal OSHA (Occupational Safety & Health Administration) regulations require all employers to ensure that their employees who service rims/wheels understand the safety information contained in this manual. Do not permit your employees to service rims/wheels unless they are thoroughly trained and completely understand all related safety information.

▪ **DANGER** Deflate tire before loosening assembly nuts. Disassembly of an inflated wheel may cause serious injury or death. Follow Hutchinson Assembly / Disassembly instructions.

▪ **CAUTION** Wear Personal Protective Equipment during the inspection phase.

▪ **WARNING** Serious injury or death may result from using damaged or worn parts. These parts may fail during inflation, later during handling, or while in service on the vehicle.

▪ **WARNING** Dirt or corrosion can prevent rim components from seating properly or cause a bead hang-up (tire bead not seated properly). Assembling such components can lead to explosive separation, resulting in serious injury or death.
SCOPE & INSTRUCTIONS

- **WARNING** The following guidelines provide non-exhaustive generic inspection criteria. Actual vehicle use (terrain, loading, service mileage etc.) affects a rim’s durability, and the inspection criteria.
  - Rims should at least be inspected every time the wheels are removed from the vehicle (outside areas only), and every time they are disassembled (fully).
  - Customers are responsible for establishing a usage-specific inspection schedule.
  - Rims should be inspected vs. similar wheels for any sign of unusual wear pattern, special damaging event etc., independently of these criteria.

- **NOTICE** For further instructions on servicing safety and inspection criteria, refer to the following guides:
QUICK START GUIDE
GENERAL GUIDELINES

- Scrap rims for the following reasons:
  - Bent in any area (flange, disc, inner rim, outer rim, etc.)
  - Cracked in any area, no matter how small
  - Out-of-round regardless of degree (inner or outer rim)
  - Subjected to high heat or direct fire
  - Leaking due to cause other than:
    - O-ring
    - Valve (CTIS or Fill Valve)
    - Incorrect assembly
  - Stripped threaded holes
    - Fill valve
    - CTIS valve attachment

Example of bent flatbase
Example of bent outer disc
Example of cracked flange
Example of fire damage
CRITERIA - RIM HALVES

Acceptable

- Nicks/gouges < 25mm [1"] long X 1.3mm [.05"] deep
  => Use paint touch-up

- Nicks/gouges < 6mm [0.25"] long X 1.3mm [.05"] deep
  => Use paint touch-up

- Nicks/gouges < 25mm [1"] long X 1.3mm [.05"] deep
  => Polish rough areas. Touch-up paint optional

- Light abrasion (paint removal only)
- Nicks/gouges < 25mm [1"] long X 1.3mm [.05"] deep
  => Use paint touch-up

- 0.13mm [.005"] to 0.25mm [.010"] total rust on hub bore transferred from vehicle hub:
  can be removed with sandpaper
  => Use primer touch-up

Scrap

- Nicks/gouges ≥ 25mm [1"] long X 1.3mm [.05"] deep

- Nicks/gouges ≥ 6mm [0.25"] long X 1.3mm [.05"] deep

- Nicks/gouges ≥ 25mm [1"] long X 1.3mm [.05"] deep
  => Material loss around wheel

- Nicks/gouges ≥ 25mm [1"] long X 1.3mm [.05"] deep

- Multiple scouring lines
- Scouring lines > 1.3mm [.05"] wide
  => Excessively deep scouring

- ≥ 0.25mm [.010"] total rust on hub bore transferred from vehicle hub

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CRITERIA - FASTENERS & HARDWARE

See also: SUPPLEMENTAL CRITERIA

Studs

- Light to moderate surface corrosion: **ACCEPTABLE**
- Return to Hutchinson for stud replacement for:
  - Moderate to severe corrosion
  - Stripped studs
  - Deformed/damaged studs
  - Broken studs
- Rim with loose studs: **SCRAP INNER RIM**
- Outer rim shall be thoroughly inspected

Nuts

- Stripped or damaged nut: **REPLACE NUT**

Fill Valve

- Replace only if damaged/leaking

Seals

- Large o-ring (rim halves): replace at every tire change or rim disassembly
- Small o-ring (hub): replace at every removal from the vehicle
- Small o-ring (between rim halves): replace at every tire change or rim disassembly
SUPPLEMENTAL CRITERIA
SUPPLEMENTAL CRITERIA – FASTENERS

**Acceptable**
- Very light red rust spotting on the nut, bolt head, and threads is permissible

**Scrap**
- Red rust exposed over 75% of the surface of the hardware
- Fasteners difficult to re-use due to rust