

# Wheels

## Wheel Selection

### ⚠️ WARNING

Air pressure on a weakened or cracked rim can create an unsafe, explosive condition resulting in serious personal injury or death. Do not attempt to modify or repair a wheel. Replace damaged or weakened wheel and rim with new.

### ⚠️ WARNING

Use manufacturer's suggested rim contours only. Failure to use recommended rim contours may result in dramatic separation between tire and wheel, resulting in possible serious personal injury or death.

Trailer wheels, tires and axles **MUST** be properly matched when specifying or replacing trailer wheels. Make sure the following critical wheel replacement characteristics are observed:

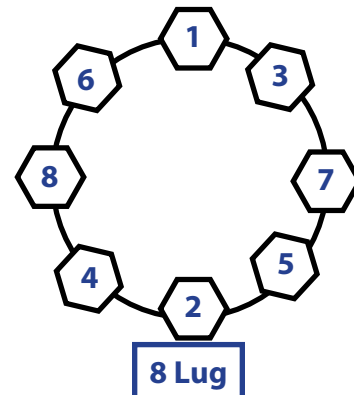
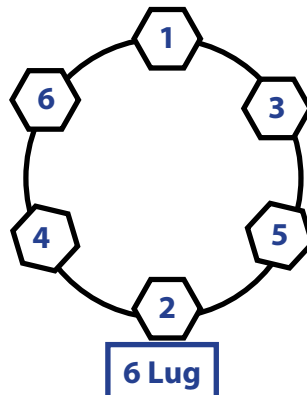
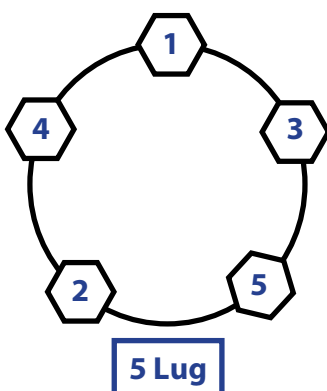
1. Bolt Circle.
  - A. Wheels have varying bolt circle patterns, some close enough to allow installation of mismatched wheel bolt patterns to axle hub bolt patterns.
2. Capacity.
  - A. Wheel load capacity **MUST** match tire and trailer maximum load ratings.
3. Offset.
  - A. The relationship of the tire's centerline to the axle's hub face **MUST** match across replacement parts.
  - B. Failure to match offset reduces axle carrying capacity.
4. Rim Contour.
  - A. Replacement wheels **MUST** directly match the mating rim contour.

## Torque Requirements

It is extremely important to maintain proper wheel mounting torque limits on your trailer axle. Use of torque wrenches will ensure proper torque limits are applied to wheel mounting lug nuts. Use no other method to torque wheel lug nuts.

Make sure wheel fasteners match the cone angle of the wheel (usually 60° or 90°) being serviced. Attach new wheel to the axle hub as follows:

1. Start all bolts or nuts by hand to prevent cross-threading.
2. Continue to hand-tighten wheel lug nuts in the sequential pattern shown in Figure 9.
3. After wheel lug nuts are fully hand-tightened, torque nuts in stages in the sequential pattern shown in Figure 9.
  - A. Torque wheel lug nuts to the torque values listed in the Wheel Torque Requirement Chart.



Size	Bolt Circle	Off Set	Recommended Torque (ftlbs)	
			Steel	Aluminum
12"	4-4 or 5-4.5	0.00	50-75	95-105
13"	4-4 or 5-4.5	0.00	50-75	95-105
14"	5-4.5	0.00	90-120	110-120
15"	5-4.5	0.00	90-120	110-120
15"	6-5.5	0.00	90-120	110-120
16" (1/2" Stud)	6-5.5	0.00	90-120	110-120
16" (9/16" Stud)	8-6.5	0.00	90-120	125-130
16" Dual (5/8" Stud) 10-12K	8-6.5	0.00	275-325	-
16" Dual (M22-1.5 Std (15-16K)	8-6.5	0.00	450-500	-
17.5" (9/16" Stud)	8-6.5	0.00	N/A	125-130
17.5" (5/8" Stud)	8-6.5	0.00	275-325 (Flange Nut)	150

**⚠ WARNING**

**Proper and accurate torque MUST be maintained to prevent wheels from loosening, studs from cracking and/or breaking or other possible hazardous breakage resulting in serious injury or death.**

4. Wheel lug nuts should be torqued before first road use and after each wheel removal.
  - A. Check and re-torque wheel lug nuts after 10, 25 and 50 miles. A periodic check during regular service is recommended.

Tires

Prior to mounting tires onto wheels, do as follows:

1. Make sure rim size and contour are approved by the Tire and Rim Association Yearbook or the tire manufacturer's catalog.
2. Verify tire load rating.
  - A. If the load is not evenly distributed across all tires, use the tire rated for the heaviest wheel position.
3. Consult the Rubber Manufacturers Association or the tire manufacturer's guidelines for wheel mounting procedures.

Tire pressure is very important to promoting tire life and performance. Tire pressure should always be in accordance with the manufacturer's recommended pressure rating for any given load. Check tire pressure as follows:

1. Always check tire pressure cold before operation.
2. Do not bleed air from tires when they are hot.