



LIPPERT COMPONENTS

SEALED BEARING SYSTEM (SBS™)



LCI's SBS™ is comprised of opposing tapered roller bearing cones sealed inside a precision ground, one-piece double cup arrangement. These bearings are designed with a small amount of axial end play. This end play is essential to the longevity of the bearings service life. The SBS™ is maintenance free and does not require annual repacking. The bearing comes from the factory permanently greased for the duration of its life.

Drum Removal

Should the hub need to be removed for either inspection or maintenance, the following these directions:

1. Lift and support the trailer unit per OEM's specifications.

WARNING!

Lift unit by the frame and never the axle or suspension. Do not go under unit unless it is properly supported by jack stands. Unsupported units can fall causing serious injury or death.

2. Remove the Wheel
3. Detach grease cap. Carefully progressively pry around the flange.
4. Loosen spindle nut (counterclockwise) and take off spindle washer.
5. Remove hub from the spindle. The SBS™ bearing cartridge will remain in the hub.

NOTE: - DO NOT remove cartridge bearing from the hub unless replacement is needed. Special tools and techniques are required to remove old bearing.

Bearing Inspection

1. Lift and support the trailer unit per OEM's specifications.

WARNING!

Lift unit by the frame and never the axle or suspension. Do not go under unit unless it is properly supported by jack stands. Unsupported units can fall causing serious injury or death.

2. Confirm wheel end clearance. Pull tire assembly forward and push assembly away from you. A small amount of end play is acceptable.
 3. Spin tire slowly forwards and backwards. Wheel assembly must turn freely and smoothly.
 4. Excessive wheel end play, restricted rotation, noise, or erratic rotation must result in replacing the bearing unit.
 5. Inspect bearing units every year or 12,000 miles, whichever comes first.

NOTE: A small amount of grease weeping from the seal area is normal. Excessive leakage indicates abnormal bearing operation.

SBS™ Bearing End Play Inspection

The following chart shows maximum axial end play for each of the sizes of SBS™ bearings and the amount of tilt that results. Since there are a large number of wheel and tire combinations used on trailers, the tilt is expressed in inches per inch. The movement as measured at the tire tread can be found by the following method:

Example: If the tilt value is shown as .003" per inch and the tire measures 30" in diameter, simply multiply .003" X 15" (1/2 tire diameter) = .045" which is the total expected movement at the tires' outer diameter.

Bearing Size	End Play	Resultant tilt value
35 MM	.005" axial	.003"/in.
42 MM	.006" axial	.005"/in.
50 MM	.008" axial	.004"/in.

Important: Most mounted tires will deflect when enough hand pressure is applied while shaking the tire. Excessive pressure will result in the perception that the bearings' tilt is greater than it actually is. The same occurrence will appear when checking any wheel end, including those with conventional bearing sets.

Hub Installation

1. Clean and inspect spindle shaft and apply a light coat of anti-seize lubricant to the spindle shaft before reassembling drum.
2. Install drum assembly onto spindle (DO NOT FORCE!).
3. Install steel washer onto spindle end.
4. Thread self-locking nut onto spindle thread by hand. Finish installation using a 1 1/2" or 1 7/16" socket and torque to 170-180 lb-ft. (this torque will set the internal bearing adjustment, no other adjustments need to be made).
5. Reinspect assembly for excessive end play, noise and rotation restriction prior to remounting wheel end hardware.