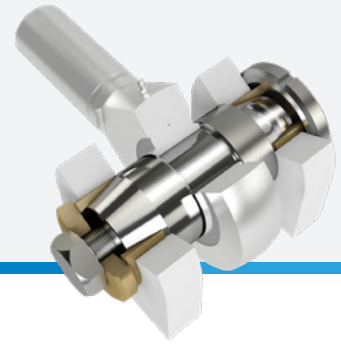


# Expander<sup>®</sup> System Stepped Pin

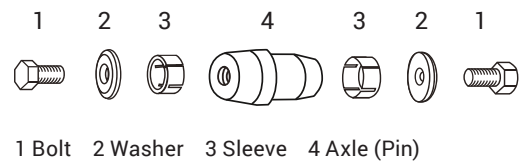
## INSTALLATION INSTRUCTIONS

6.0

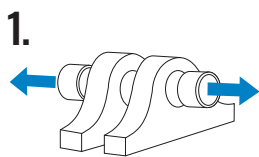


### Congratulations

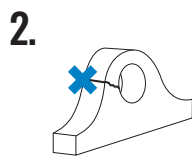
You have purchased a custom engineered solution to the pivot wear problem on your machine. Contact your dealer or Expander before proceeding if you have any questions.



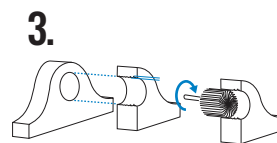
### Preparation



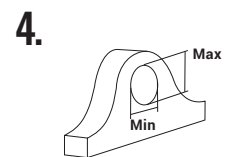
Remove any bushings in the lug ears to eliminate future wear between the bushing and the mounting lug.



Repair any structural damage i.e. cracks or bent lug ears before installation.



Smooth out irregularities and clean the bore surfaces.

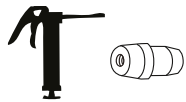


The difference between min and max diameter in the worn lugs must be within 1.5 mm (.06") for the sleeves to fit correctly.

**ATTENTION!** If the worn lugs diameter at any point is 2 mm (.080") or more over original lug diameter contact your dealer or Expander System. You will need oversized sleeves.

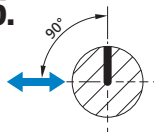
## Installation

5.



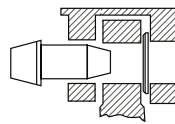
Lubricate the axle with available lubrication. Graphite grease is not to be used on threads.

6.



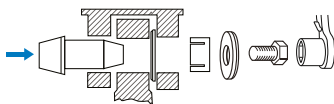
**NOTE!** If applicable: position greasing outlet 90 degrees to force direction to minimize stress concentration at outlet.

7.



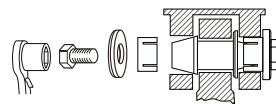
The spacer is always positioned on the opposite side of the stepped part of the axle. If the pivot already has a spacer, leave it in its position. If the Expander System includes a spacer, place it between the inner sphere of the bearing and the lug ear, with the bevel facing the bearing.

8.



Insert the axle. Install the sleeve, washer and fastener on the side with small axle diameter. Press on the axle end with large diameter until the axial play is eliminated. Tighten the fastener with recommended torque.

9.



Install sleeve, washer and fastener on the side with large axle diameter. Tighten the fastener with recommended torque.

## Torque recommendations

10. Hex Bolts

Torques M12-M24  $\pm 10\%$ , M30... +30/-0%

	M12	M14	M16	M20	M24	M30	M36	M42
lb-ft	52	85	129	258	369	443	516	664
Nm	70	115	175	350	500	600	700	900

Hex Nuts: Standard Height

Torques M12-M24  $\pm 10\%$ , M30... +30/-0%

	M12	M14	M16	M20	M24	M30	M36	M42
lb-ft	48	85	129	184	258	369	443	516
Nm	65	115	175	250	350	500	600	700

Hex Nuts: Low Height

All Torques  $\pm 10\%$

	M12		M16	M20	M24	M30		
lb-ft	44		92	148	203	258		
Nm	60		125	200	275	350		

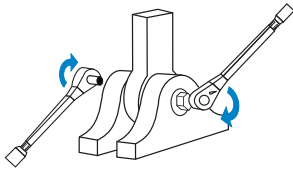
Spanner Nuts

All Torques  $\pm 10\%$

	M17	M25	M35	M45	M55	M65	M75	M85
lb-ft	37	89	184	369	443	516	590	664
Nm	50	120	250	500	600	700	800	900

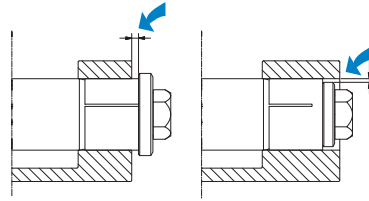
## Final Check

11.



After initial torque, grease the pivot (if applicable), move the machine through full range of motion several times and recheck the torque. Check the torque after 10 hours, 40 hours and at regular service intervals to ensure proper seating of the sleeves.

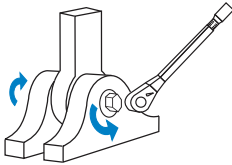
12.



Ensure that there is a minimum distance of 0,5 mm (0.02") between the washer and the lug. **NOTE!** If flange design for easy removal of the sleeve is used there should be a minimum distance of 6 mm. **ATTENTION!** If the washer is in contact with the lug, contact your dealer or Expander System.

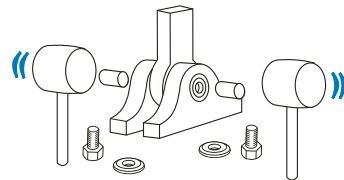
## Dismounting

13.



To dismount the Expander System, unscrew the fasteners on both sides and remove the washers.

14.



Tap the axle alternatively on each side until the tension on the sleeves is released (use a piece of pipe between the axle and the mallet/hammer not to damage the threads). Remove the sleeves and axle. Do not damage the threads.