PTE
Power Transmission Engineering, Inc.
480 South Irmen Addison, Illinois 60101 USA
630.628.9799 Fax. 630.628.9794
info@ptecoupling.com

STC INSTALLATION INSTRUCTIONS

Warning; Never snug or tighten screws before mounting STC coupling on the hub/shaft: both the hub and STC coupling can be permanently damaged by low screw torques.

1. Remove any burrs or raised metal on the shaft and all mating parts. Clean and remove all contamination and lubricant from the shaft, hub bore and ID of the STC coupling.
2. Loosen all locking screws a minimum of two revolutions.
3. Slide the STC coupling onto the hub (hub should be mounted on shaft) and into position.
4. By hand, begin to snug four (4) screws in a star pattern, see page 6, FIG. 14. To maintain concentricity do not over-tighten. Snug remaining screws to the collar, do not tighten.
5. Verify that the hub is correctly positioned!
6. Set torque wrench at 50% of final torque. Start at 12 o'clock position, begin to evenly tighten, in a clockwise sequence, each screw a maximum of 1/4 revolution. Several passes will be required to achieve the specified screw torque. Note: as the next screw is tightened the previous screw tightened will relax.
7. Continue to make complete passes around the STC coupling until the torque wrench turns less than 1/8 revolution. Increase the "Final Torque" rating by 5% to compensate for the neighboring screw relaxing.
8. With the torque wrench set at the final torque specification, randomly check several screws torque. If any screw moves more than 1/16 of a revolution, repeat step 7

STC REMOVAL INSTRUCTIONS

1. With a star pattern, loosen screws 1/4 turn for five complete passes or until all screws are loose.
2. If the unit is corroded, a light tapping on the head of the screws can help the unit release. Also remove any corrosion or buildup from in front of the hub or STC coupling prior to removal.

Hub Design Considerations:
There are many possible hub designs that can be utilized with the STC coupling. The transition radius requires careful attention to ensure that the area is polished (10 RMS) and does not cause a stress riser or potential for cracks.

To avoid problems associated with maintaining hub bore tolerances, it is recommended to machine a web relief area of approximately 70% of "x "with a depth of 0.002 per inch of shaft, see FIG. 44.

Note: for split or half STC see bulletin on HSTC installation

Maximum Screw Torques

Grade 10.9 Hex Head Screw, Din 931 specifications

screw size	M5	M6	M8	M10	M12	M16	M20	M24	M27	M30
"s" mm socket	8	10	13	17	19	24	30	36	41	46
Drive	1/4			3/8		1/2		3/4		1
Torque Nm	*5*	*12*	*30*	*60*	*100*	*244*	*475*	*827*	*1220*	*1633*
Torque ft-lbs	4	8.8	22	44	74	180	350	610	900	1204