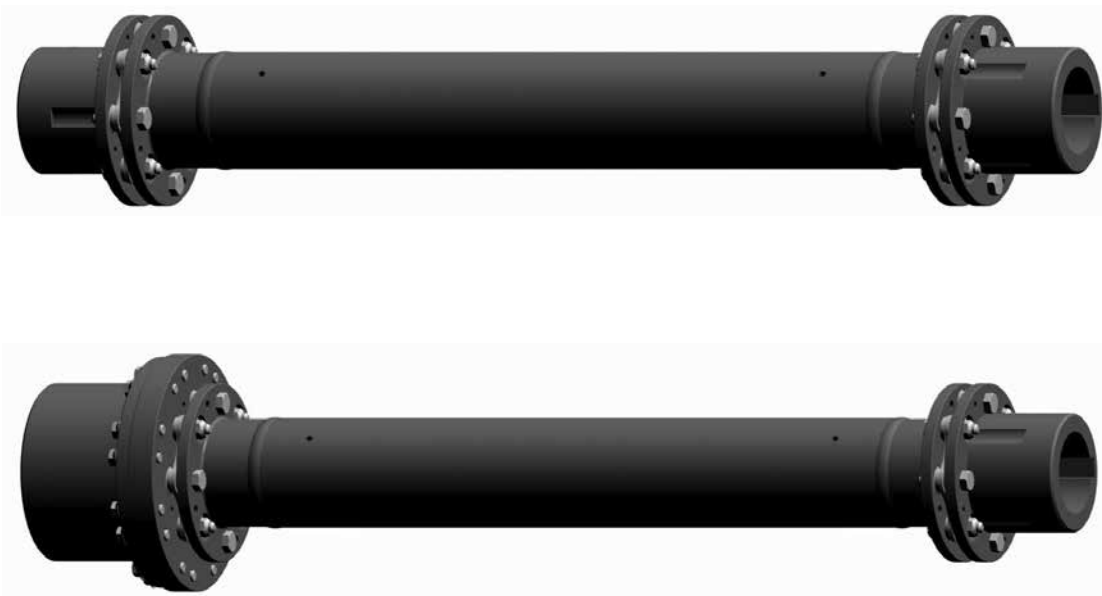


Type XTSRLS52**Sizes 726-4588****Figure 1 – Thomas XTSRLS52 Coupling Range 726 to 4588 sizes****1. General Information**

- 1.1. Rexnord Thomas Couplings are designed to provide a mechanical connection between the rotating shafts of mechanical equipment, using a flexible disc to accommodate inherent misalignment while transmitting the power and torque between the connected shafts.
- 1.2. These instructions are intended to help you to install and maintain your Rexnord Thomas coupling. Please read these instructions prior to installing the coupling, and prior to maintenance of the coupling and connected equipment. Keep these instructions near the coupling installation and available for review by maintenance personnel. For special engineered couplings, Rexnord may provide an engineering drawing containing installation instructions that take precedence over this document.
- 1.3. Rexnord Industries, LLC owns the copyright of this material. These Installation and Maintenance instructions may not be reproduced in whole or in part for competitive purposes
- 1.4. Symbol descriptions:



Danger of injury to persons.



Damages on the machine possible.



Pointing to important items.



Hints concerning explosion protection.

2. Safety and Advice Hints



- 2.1. Safety should be a primary concern in all aspects of coupling installation, operation, and maintenance.
- 2.2. Do not make contact with the coupling when it is rotating and/or in operation.
- 2.3. Because of the possible danger to person(s) or property from accidents which may result from improper use or installation of these products, it is extremely important to follow the proper selection, installation, maintenance and operational procedures.
- 2.4. All personnel involved in the installation, service, operation, maintenance, and repair of this coupling and the connected equipment must read, understand, and comply with these Installation and Maintenance instructions.



For this coupling to meet the ATEX requirements, you must precisely follow these installation and maintenance instructions, and the supplement form 0005-08-49-01. This supplement outlines the ATEX requirements. If the operator does not follow these instructions, the coupling will immediately be considered non-conforming to ATEX.

- 2.1. All rotating power transmission products are potentially dangerous and can cause serious injury. They must be properly guarded in compliance with OSHA, ANSI, ATEX, European machine safety standards and other local standards. It is the responsibility of the user to provide proper guarding.
- 2.2. The coupling should be stored in a dry corrosion protected environment, free from external loads (for example by stacking) to prevent damage which may cause a hazard when the coupling is put into service.
- 2.3. For ATEX requirements the guard must have a minimum of 12.7 mm (1/2 inch) radial clearance to the coupling outside diameter and allow for proper ventilation.
- 2.4. Make sure to disengage the electrical power and any other sources of potential energy before you perform work on the coupling.
- 2.5. All conductive parts of the equipment should be connected in such a way that hazardous electrical potential differences cannot occur. In case insulated metal parts could be charged thus becoming a potential ignition source, earth connections must be provided.
- 2.6. Proper lockout-tag out procedures must be followed to safeguard against unintentional starting of the equipment. Ensure electrical power and any other sources of potential energy are disengaged before you perform any work on the coupling.
- 2.7. Packaging material can generate electrostatic charges. It may then become an explosive hazard. It must be removed from the coupling outside any hazardous areas.
- 2.8. All work on the coupling must be performed when the coupling is at rest with no load.
- 2.9. Do not start or jog the motor, engine, or drive system without securing the coupling components. If the equipment is started with only a hub attached, the hub must be properly mounted and ready for operation, with the key and set screw (if included) fastened. When the full coupling assembly is started, all fasteners and hardware must be completely and properly secured. Do not run the coupling with loose fasteners.
- 2.10. Use explosive environment appropriate tools only, for more information see DIN EN 1127-1:2008:02, Annex A.
- 2.11. The coupling may only be used in accordance with the technical data provided in the Thomas Disc coupling catalog. Customer modifications and alterations to the coupling are not permissible.
- 2.12. All spare parts for service or replacement must originate from or be approved by Rexnord Industries, LLC

3. Coupling Diagrams

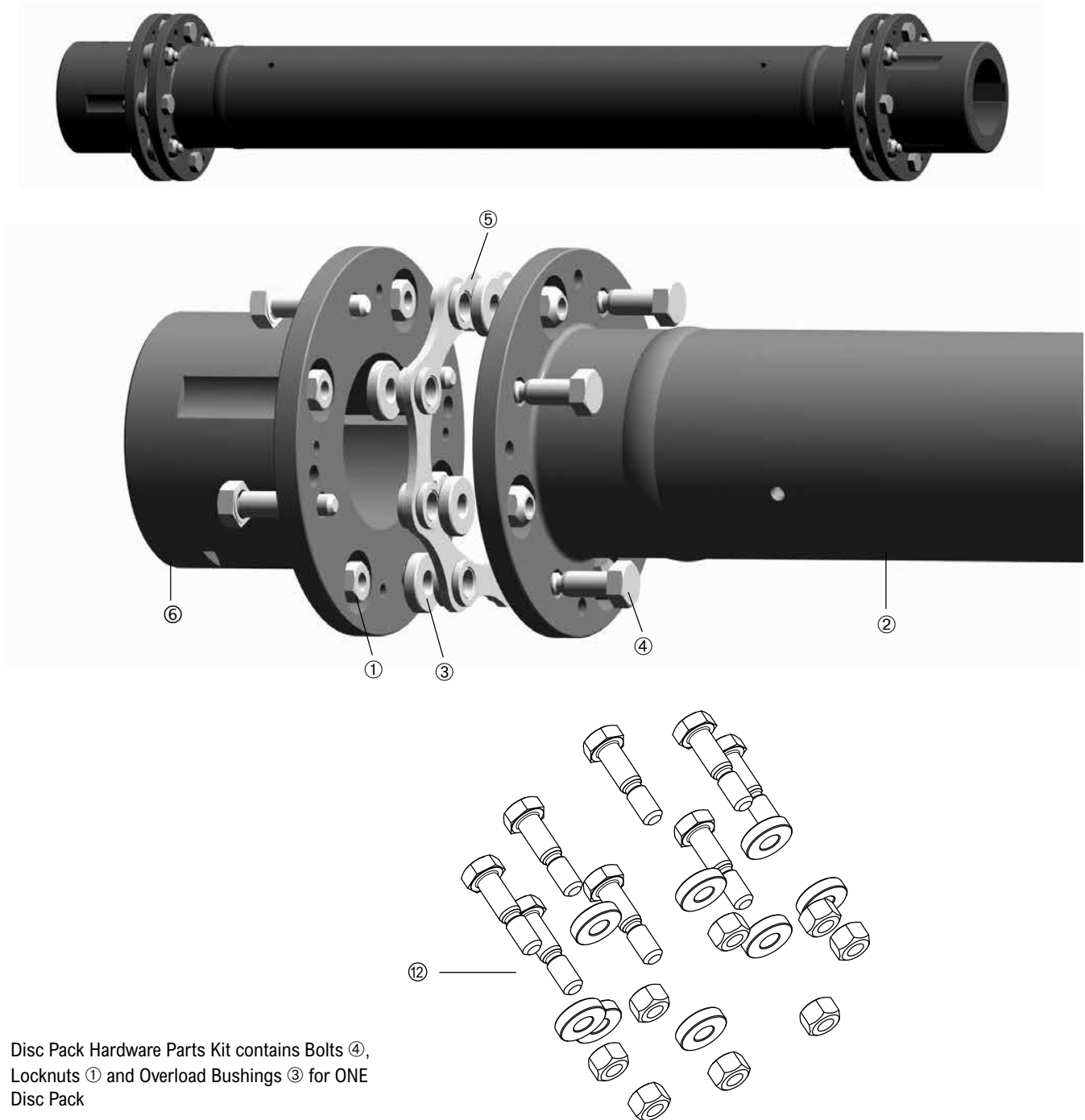
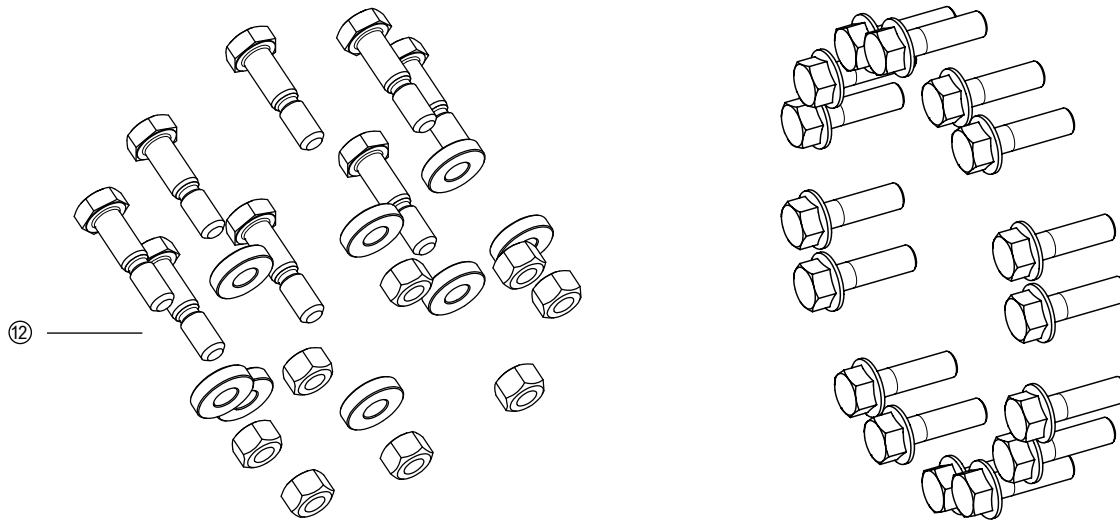
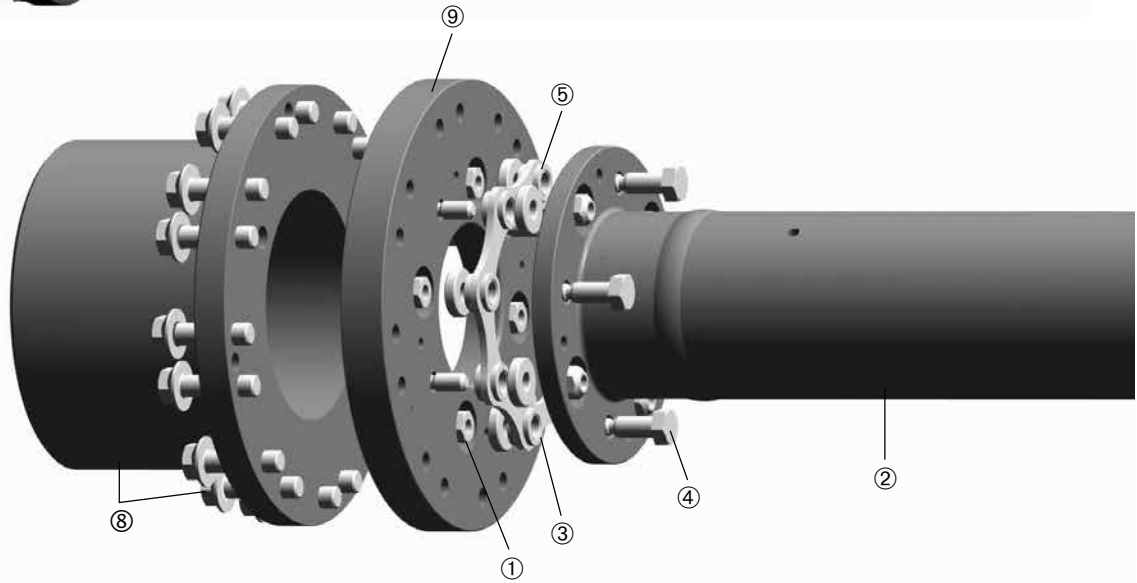
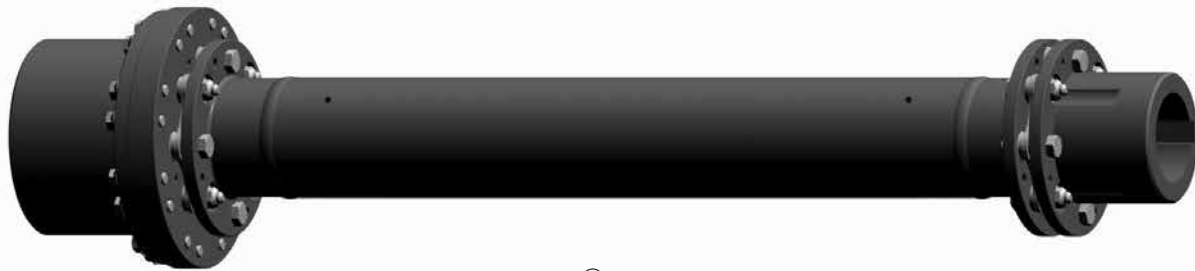


Figure 2 – Rexnord Thomas XTSRLS52 series Coupling Components

Thomas XTSRLS52 couplings with standard hubs do not utilize adapters, as such are not factory tightened to the locknut torque found in Table 7.



Disc Pack Hardware Parts Kit contains Bolts ④, Locknuts ① and Overload Bushings ③ for ONE Disc Pack

* Adapter hub capscrews are included with the oversize hub options of LH, XL or XXL hub

Figure 3 – Rexnord Thomas XTSRLS52 Adapter Series Coupling Components

Thomas XTSRLS52 couplings with oversize hub are delivered from the factory fully consisting of a center spool, adapter, disc pack, bolts, overload bushings and locknuts that have already been tightened at the factory to the torque specified in Table 7. This end of the center member is ready for field installation and it is recommended that you do not disassemble it unless you are replacing the disc packs.

Table 1 — Rexnord Thomas XTSR52 Coupling Component part numbers

Note: the circled numbers identified in the column headers below, correspond to the coupling component numbers in Figure 2.

Size	Disc Pack ^⑤	Disc Pack Hardware Parts Kit ^⑫	Hubs**		Adapter Mount Style Hubs					
			Standard Part No. ^⑥	Oversize Hub Options			Adapters ^⑨			Center Member ^②
				LH Hub + cap screw kit Part No.	XL Hub + cap screw kit Part No.	XXL Hub + cap screw kit Part No.	LH Part No.	XL Part No.	XXL Part No.	
726	10000091	10001561	10001191	—	10001612	10001613	—	10001161	10002621	No standard center members available. All center members for these couplings will be specific to the customers needed DBSE.
826	10000092	10001562	10001192	10001612	10001613	10001614	10000242	10001162	10002622	
996	10000093	10001563	10001193	10001613	10001614	10001615	10000243	10001163	10002623	
1088	10000094	10001564	10001194	10001614	10001615	10001616	10000244	10001164	10002624	
1298	10000095	10001565	10001195	10001615	10001616	10001617	10000245	10001165	10002625	
1548	10000096	10001566	10001196	10001616	10001617	10001618	10000246	10001166	10002626	
1698	10000097	10001567	10001197	10001617	10001618	10001619	10000247	10001167	10002627	
1928	10000098	10001568	10001198	10001618	10001619	10001620	10000248	10001168	10002628	
2068	10000099	10001569	10001199	10001619	10001620	10001621	10000249	10001169	10002629	
2278	10000100	10001570	10001200	10001620	10001621	10001622	10000250	10001170	10002630	
2468	10000101	10001571	10001201	10001621	10001622	10001623	10000251	10001171	10002631	
2698	10000102	10001572	10001202	10001622	10001623	10001624	10000252	10001172	10002632	
2888	10000103	10001573	10001203	10001623	10001624	10001631	10000253	10001173	10002633	
3058	10000104	10001574	10001204	10001624	10001631	10001625	10000254	10001174	10002634	
3358	10000105	10001575	10001205	10001631	10001625	10001626	10000255	10001175	10002635	
3668	10000106	10001576	10001206	10001625	10001626	10001627	10000256	10001176	10002636	
3908	10000107	10001577	10001207	10001626	10001627	10001628	10000257	10001177	10002637	
4178	10000108	10001578	10001208	10001627	10001628	10001629	10000258	10001178	10002638	
4588	10000109	10001579	10001209	10001628	10001629	10001630	10000259	10001179	10002639	

** All hub part numbers are non bored.



Be sure to disengage the electrical power and any other sources of potential energy before you perform work on the hub and coupling assembly.

4. Hub Mounting

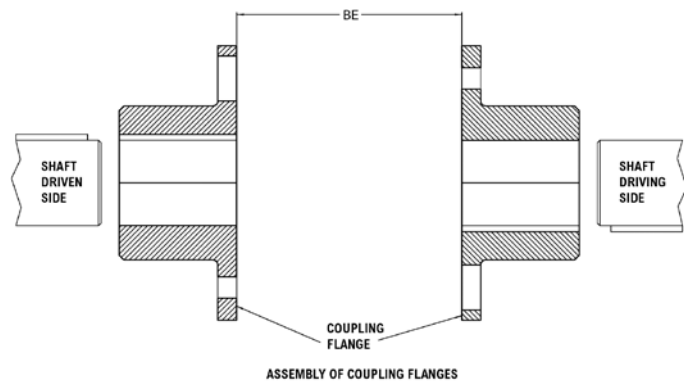
- 4.1. Examine the coupling assembly to assure there is no visible damage.
- 4.2. Clean the hub bores and shafts using lint free cloth. Remove any nicks or burrs.
- 4.3. The key(s) should have a close side-to-side fit in the keyway in the hub and shaft, with a slight clearance over the top when assembled
- 4.4. Remove the cap screws that attach the hubs to the adapters, and remove both hubs.



CAUTION! When heating hubs is required, an oven is preferred and an open flame is not recommended. If flame heating is considered mandatory, it is important to provide uniform heating to avoid distortion and excessive temperature. A thermal stick applied to the hub surface will help determine the hub temperature.



DANGER! Touching hot hubs causes burns. Wear safety gloves to avoid contact with hot surfaces.


Figure 4 – Mounting Hubs on Shafts

5. Straight Bore with Clearance/Slip Fit

- 5.1. Install the key(s) in the shaft.
- 5.2. Check to be sure that the set screw(s) in the hub does not protrude into the keyway or the bore. Remove or back out the set screw to provide clearance during assembly.
- 5.3. Slide the hub up the shaft to the desired axial position.
- 5.4. If used; assemble and tighten the set screw(s) using a calibrated torque wrench to the values shown in Table 2

Table 2 — Set Screw Tightening Torque

Set Screw Size		1/4-20	1/4-28	5/16-18	5/16-24	3/8-16	3/8-24	1/2-13	1/2-20
Hex Head Key Size		1/8	1/8	5/32	5/32	3/16	3/16	1/4	1/4
Tightening torque	(Nm)	7	9	15	16	27	31	68	75
	(in-lb)	66	76	132	144	240	276	600	660
Set Screw Size		M6	M8	M10	M12	M16	1/4	3/8	
Hex Head Key Size		3	4	5	6		1/8	3/16	
Tightening torque	(Nm)	6	12	25	50	100	8	25	
	(in-lb)	55	110	220	440	880	70	220	



CAUTION! Never use two set screws with one on top of the other in the same tapped hole.

6. Straight Bore with Interference Fit

- 6.1. Accurately measure the bore and shaft diameters to assure proper fit.
- 6.2. Install the key(s) in the shaft.
- 6.3. Heat the hub in an oven until the bore is sufficiently larger than the shaft.
- 6.4. 275°F (135°C) is usually sufficient for carbon steel hubs. Do not exceed 400°F (205°C).

Figure 5 – Shaft end to hub face measurement example

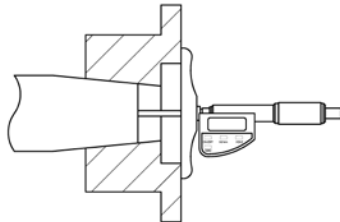
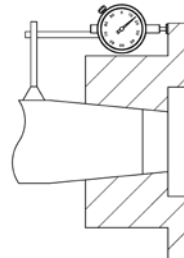


Figure 6 – Dial indicator placement for axial draw measurement example



- 6.5. With the hub expanded, install it quickly on the shaft to the desired axial position. A pre-set axial stop device can be helpful.

7. Taper Bore

- 7.1. Check for acceptable contact pattern between the hub and the shaft.
- 7.2. Put the hub on the shaft, keeping the keyways (if existing) aligned.
- 7.3. Lightly tap the face of the hub with a soft mallet. The resultant position will provide a starting point for the hub axial draw up.
- 7.4. Use a depth micrometer to measure the distance from the shaft end to the hub face, as shown in Figure 5. Record the dimension.
- 7.5. Mount a dial indicator to read axial hub advancement, as shown in Figure 6. Alternatively, the indicator can be positioned to contact the end of the hub. Set the indicator to “zero”.
- 7.6. Remove the hub and install the key(s) in the shaft.
- 7.7. Heat the hub in an oven until the bore is sufficiently larger than the shaft.
- 7.8. 350°F (177°C) is usually sufficient for carbon steel hubs. Do not exceed 500°F (260°C).

- 7.9. Higher temperatures may be required for higher interference fit levels where alloy steel hubs may be encountered. A general rule to consider is that for every 160°F increase in temperature, steel will expand 0.001 inch for every inch of shaft diameter (or 0.029 mm/100°C). When calculating temperatures, also consider additional expansion to provide clearance and allow for a loss of heat and subsequent shrinkage during the handling process.
- 7.10. With the hub expanded, install it quickly on the shaft to the “zero” set point. Continue to advance the hub up the taper to the desired axial position, as defined by Rexnord’s customer. Use the indicator as a guide only. A pre-set axial stop device can be helpful.
- 7.11. Inspect the assembly to verify that the hub is properly positioned. Consult Rexnord if necessary.
- 7.12. Install any hub axial retention device (if any) in accordance with the equipment manufacturer’s specifications.

8. Shaft Alignment



ATTENTION! Soft Foot – The equipment must rest flat on its base. If one or more feet of the machine are shorter, longer, or angled in some way to prevent uniform contact (a condition commonly known as “soft foot”) it must now be corrected.



ATTENTION! To improve the life of the coupling, the shafts must be aligned to minimize distortion of the flexing elements. Shaft alignment is required in the axial, parallel, and angular directions, with each of these values not to exceed the recommended ratings for the coupling and the alignment values shown in Table 3. Shaft alignment can be measured using various established methods, including Laser Alignment, Reverse Dial Indicator, and Rim and Face

- 8.1. Move the connected equipment to achieve acceptable alignment. When well aligned, the disc packs will be centered and approximately parallel to their mating flange faces and the flexing elements will have little visible waviness when viewed from the side.



As a guide, the maximum and minimum values for dimension “N” shown in Figures 9 and 10 are given in Table 3. These dimensions are suggested for initial installation. Additional capacity is available to compensate for thermal and structural equipment movement. Maximum axial capacity values for these couplings are also given in Table 3.

- 8.2. Table 3 shows installation limits for Angular and Parallel alignment. The “Angular Alignment Total Indicator Reading” value is the maximum difference between the measurements (X-Y) taken at opposite ends of the hub flange, as shown in Figure 7. The “Parallel Alignment” value (P) is the offset between the centers of the hubs, as shown in Figure 8. If parallel offset is measured by rotating the hubs with a dial indicator on the outside diameter, the total indicated reading should be divided by (2) to calculate P.

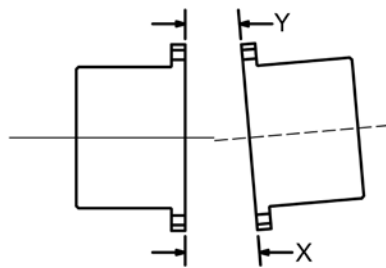


Figure 7 - Angular Misalignment

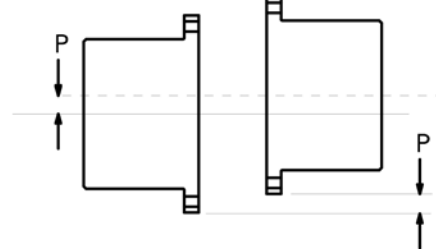


Figure 8 - Parallel Misalignment

- 8.3. The “Angular Misalignment” value is the maximum difference between the measurements X and Y taken at opposite ends of the hub flanges, as shown in Figure 7.
- 8.4. The “Parallel Misalignment” value (P) is the offset between the centers of the hubs, as shown in Figure 8.

Table 3 — Alignment Values

Size	"A" Dimension		"N" Dimension				"C" Lengths (Distance between hub flanges)	Installation Axial Limits +/-		Axial Capacity +/-		Recommended Installation Limits***					
	Std. Hub		Min.	Max.	Min.	Max.						Parallel Misalignment				Angular Misalignment Between Hubs (X-Y)	
												Parallel Alignment Total Indicator Reading (TIR*)		Installation Limit Parallel Offset "P"***			
	(in)	(mm)	(in)	(in)	(mm)	(mm)						(in)	(mm)	(in)	(mm)		
726	3.74	95.0	0.33	0.35	8.3	8.8	NO STANDARD 'C' DIMENSIONS - Application Specific	0.026	0.65	0.051	1.3	0.008 inch per inch (0.008 mm per mm) of 'L' dimension		0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.005	0.13
826	4.25	108.0	0.36	0.38	9.1	9.6		0.030	0.75	0.059	1.5	0.008 inch per inch (0.008 mm per mm) of 'L' dimension		0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.006	0.15
996	5.08	129.0	0.37	0.39	9.3	9.9		0.035	0.90	0.070	1.8	0.008 inch per inch (0.008 mm per mm) of 'L' dimension		0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.007	0.18
1088	5.51	140.0	0.40	0.42	10.1	10.7		0.025	0.65	0.051	1.3	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.005	0.13
1298	6.54	166.0	0.50	0.52	12.6	13.3		0.031	0.80	0.061	1.6	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.006	0.15
1548	7.76	197.0	0.57	0.59	14.4	15.1		0.037	0.90	0.073	1.8	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.008	0.20
1698	8.58	218.0	0.61	0.64	15.4	16.2		0.040	1.00	0.080	2.0	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.008	0.20
1928	9.65	245.4	0.66	0.69	16.7	17.4		0.046	1.15	0.091	2.3	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.009	0.23
2068	10.39	264.0	0.71	0.74	18.0	18.8		0.049	1.25	0.097	2.5	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.010	0.25
2278	11.46	290.5	0.74	0.77	18.8	19.5		0.054	1.35	0.107	2.7	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.011	0.28
2468	12.32	313.0	0.79	0.82	20.1	20.8		0.058	1.50	0.116	3.0	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.012	0.30
2698	13.50	343.0	0.91	0.94	23.0	23.9		0.064	1.60	0.127	3.2	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.013	0.33
2888	14.61	371.0	0.97	1.01	24.7	25.6		0.068	1.75	0.136	3.5	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.014	0.36
3058	15.55	395.0	0.97	1.01	24.7	25.6		0.072	1.85	0.144	3.7	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.015	0.38
3358	16.81	427.0	1.06	1.09	27.0	27.7		0.079	2.00	0.158	4.0	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.016	0.41
3668	18.35	466.0	1.18	1.21	29.9	30.8		0.087	2.20	0.173	4.4	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.018	0.46
3908	19.29	490.0	1.18	1.21	29.9	30.8		0.093	2.35	0.185	4.7	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.019	0.48
4178	20.63	524.0	1.25	1.30	31.9	33.0		0.099	2.50	0.197	5.0	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.020	0.51
4588	23.11	587.0	1.40	1.43	35.5	36.4		0.108	2.75	0.216	5.5	0.004 inch per inch (0.004 mm per mm) of 'L' dimension		0.002 inch per inch (0.002 mm per mm) of 'L' dimension		0.023	0.58

* Parallel Misalignment measured by rotating the hubs with a dial indicator on the outside hub diameter will result in a maximum TIR.
 All sizes use 0.001 inch per inch of "C" length (or 0.001 mm per mm of "C" length) for non-standard "C" lengths, multiply "C" x 0.001 to calculate the TIR.
 ** Parallel offset "P" is equivalent to one-half of the TIR measurement using dial indicators.
 **** During installation and/or operation, do not exceed the maximum misalignment capacity of coupling.
 For sizes 726-996 maximum misalignment capacity of coupling is 1/2° per disc pack.
 For sizes 1088-4588 maximum misalignment capacity of coupling is 1/3° per disc pack.

Note:

1. Refer to Rexnord Bulletin 538-214 Coupling Alignment Fundamentals for more details regarding alignment methods and procedures.
- a. The Angular Misalignment value is the maximum difference between the measurements X and Y taken at opposite ends of the hub flanges, as shown in Figure 7.
- b. The Parallel Misalignment value "P" is the offset between the centers of the hubs, as shown in Figure 8.

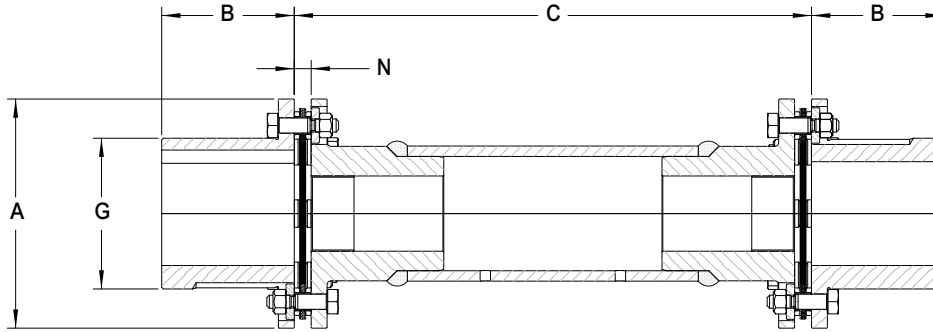


Figure 9 – Standard Hub without Adapter

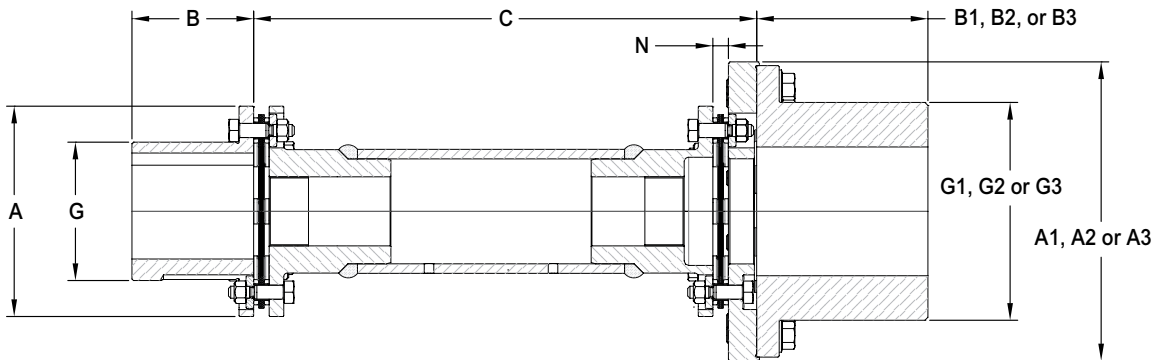


Figure 10 – Oversize Hub with Adapter

Table 4 — Oversize Hub with Adapter Dimensions

Size	"A1" Dimension		"A2" Dimension		"A3" Dimension	
	LH Hub		XL Hub		XXL Hub	
	in	mm	in	mm	in	mm
726	—	—	4.25	108.0	5.08	129.0
826	4.25	108.0	5.08	129.0	5.51	140.0
996	5.08	129.0	5.51	140.0	6.54	166.0
1088	5.51	140.0	6.54	166.0	7.83	199.0
1298	6.54	166.0	7.83	199.0	8.66	220.0
1548	7.83	199.0	8.66	220.0	9.66	245.4
1698	8.66	220.0	9.66	245.4	10.39	264.0
1928	9.66	245.4	10.39	264.0	11.44	291.0
2068	10.39	264.0	11.44	291.0	12.32	313.0
2278	11.44	291.0	12.32	313.0	13.58	345.0
2468	12.32	313.0	13.58	345.0	15.00	381.0
2698	13.58	345.0	15.00	381.0	15.94	405.0
2888	15.00	381.0	15.94	405.0	17.20	437.0
3058	15.94	405.0	17.20	437.0	18.98	482.0
3358	17.20	437.0	18.98	482.0	19.80	503.0
3668	18.98	482.0	19.80	503.0	20.83	529.0
3908	19.80	503.0	20.83	529.0	23.94	608.0
4178	20.83	529.0	23.94	608.0	25.51	648.0
4588	23.94	608.0	25.51	648.0	26.69	678.0

9. Final Assembly

9.1.a. Thomas XTSRLS52 couplings with standard hubs do not utilize adapters, as such are not factory tightened to the locknut torque found in Table 7. If no oversize hubs were supplied proceed to step 9.6.



Refer to the assembly drawing of coupling to obtain the appropriate 'C' length.



Any disc packs fastened with the correct torques between an adapter and a center member flange should stay fastened.

9.1.b. Thomas XTSRLS52 couplings with oversize hub are delivered from the factory fully assembled consisting of a center spool, adapter, disc pack, bolts, overload bushings and locknuts that have already been tightened at the factory to the torque specified in Table 7. This end of the center member is ready for field installation and it is recommended that you do not disassemble it, unless you are replacing the disc packs.

9.2. Verify that the hubs have been mounted to provide the correct "C" dimension shown in Figure 10. The "C" dimension is the distance measured between the faces of the two hub flanges. Note that the "C" dimension does not include the narrow extended length of material that provides the pilot on the outside diameter of the hub when oversize hub and adapter are used.

9.3. If any disc packs are still fastened to the center member and a hub without an adapter, remove the locknuts, overload bushings, and bolts.

9.4. Due to the hub-to-adapter piloting feature when an oversize hub is supplied, the center member subassembly must be compressed to allow it to be slipped between the two end hubs.



ATTENTION! Use the compression cap screws (provided) as defined in Table 5 to compress the center member assembly by inserting them through the holes in the flanges of the center spool and threading them into the adapter tapped holes as shown in Figure 11B.

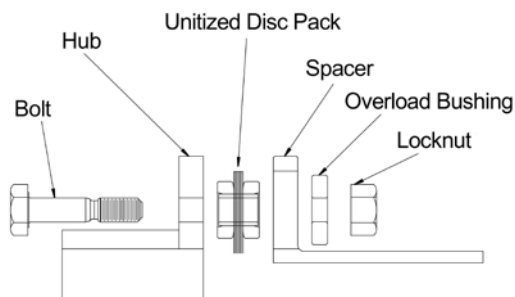


Figure 11 – Disc Pack Bolt Configuration if No Adapter

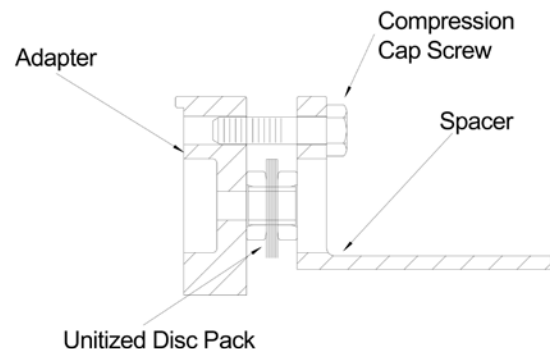


Figure 11B – Using Cap Screws for Compression if Adapter

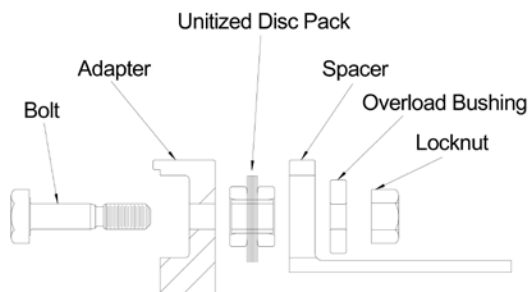


Figure 11C – Disc Pack Bolt Configuration if Adapter



Tighten the compression cap screws equally to compress both ends only enough to allow the center member subassembly to fit between the hubs. (Do not tighten more than necessary to provide clearance for assembly.)

9.5. Place disc pack between the flange of the adapter (or hub if no adapter) and the flange of the spacer and align the bolt holes of the disc pack to the holes in the adapter (or hub if no adapter) and spacer.

Table 5 — Compression Cap Screws

Size	Compression Cap Screws	
	Flanged Hex Head Style	
	Capscrew Size	Quantity
726	M6 x 20 mm (0.787 in)	6
826	M6 x 20 mm (0.787 in)	6
996	M8 x 25 mm (0.984 in)	6
1088	M6 x 25 mm (0.984 in)	16
1298	M8 x 30 mm (1.181 in)	16
1548	M10 x 35 mm (1.378 in)	16
1698	M10 x 40 mm (1.575 in)	16
1928	M12 x 40 mm (1.575 in)	16
2068	M12 x 40 mm (1.575 in)	16
2278	M12 x 50 mm (1.968 in)	16
2468	M14 x 50 mm (1.968 in)	16
2698	M12 x 60 mm (2.362 in)	24
2888	M14 x 70 mm (2.756 in)	24
3058	M16 x 70 mm (2.756 in)	24
3358	M16 x 70 mm (2.756 in)	24
3668	M16 X 80 mm (3.149 In)	32
3908	M16 X 80 mm (3.149 In)	32
4178	M16 X 80 mm (3.149 In)	32
4588	M20 x 90 mm (3.543 in)	32

- 9.6. Lubricate the cap screw threads and insert the cap screws through the hub flange clearance holes and into the mating threaded holes in the adapter. Tighten each cap screw to the torque as listed in Table 5 above.
- 9.7. Remove the cap screws from the spacer flange to the adapter, allowing the hub outside diameter to make contact with the pilot diameter of the adapter.



When aligning bolt holes ensure that at each bolt hole position one of the bolt holes in the flanges is the small fitted bolt hole and the other one in the opposing flange is the large clearance hole as shown in Figure 11.

- 9.8. Push bolt through small diameter bolt hole and through disc pack until body of bolt is in contact with the disc pack bushing.
- 9.9. Place overload bushing on threaded side of bolt through large diameter flange clearance hole.
- 9.10. Apply a clean motor oil to the bolt threads and screw a locknut onto each bolt until hand tight..
- 9.11. Repeat steps 9.6. through 9.10. until all cap screws, bolts, overload bushings, and locknuts are in place.
- 9.12. Proceed to the other end of the coupling. Remove the support bolts, if used, and continue to support the center member. Repeat steps 9.5. through 9.10. to install the second disc pack.



Note: All bolts and cap screw threads must be lubricated prior to assembly. A clean motor oil is recommended. Do not use lubricants containing molybdenum disulfide or greases.

- 9.13. Slightly tighten all locknuts using an alternating progressive pattern on each disc pack as shown in Figure 13 and 14 making sure the disc pack is not distorted and all the bolts are fully seated. Tighten each locknut to the appropriate torque value shown in Table 7, using an incremental torque in a progressive alternating pattern as shown in Figures 13 and 14.

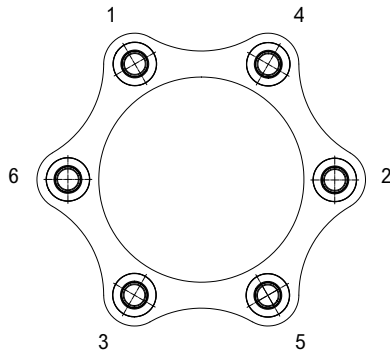
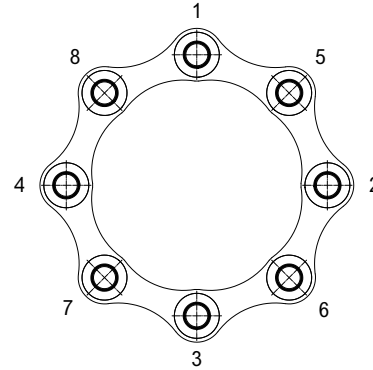


As a guide, measure the distance between flanges known as dimension 'N' shown in Figures 9 and 10 and given in Table 3.



PRECAUTION

Remove any dust deposits from the coupling components and the coupling elements in an appropriate way for explosive environments.


Figure 13 – 6 Bolt Sizes 726, 826 and 996 only

Figure 14 – 8 Bolt Sizes 1088 thru 4588
Table 6 — Flange Hex Head Cap Screw Tightening Torques

Size	“A” Dimension LH Hub		Cap Screw for LH Hub				“A” Dimension XL Hub		Cap Screw for XL Hub				“A” Dimension XXL Hub		Cap Screw for XXL Hub			
	(in)	(mm)	Size (mm)	Torque		Wrench Size (mm)	(in)	(mm)	Size (mm)	Torque		Wrench Size (mm)	(in)	(mm)	Size (mm)	Torque		Wrench Size (mm)
				(lb-ft)	(Nm)					(lb-ft)	(Nm)					(lb-ft)	(Nm)	
726	—	—	—	—	—	10	4.25	108	M6x20	12.3	16.7	10	5.08	129	M8x25	27.0	36	13
826	4.25	108	M6x20	12.3	16.7	10	5.08	129	M8x25	27	36	13	5.51	140	M6x25	12	16.7	10
996	5.08	129	M8x25	27	36	13	5.51	140	M6x25	12.3	16.7	10	6.54	166	M8x30	27.0	36	13
1088	5.51	140	M6x25	12.3	16.7	10	6.54	166	M8x30	27	36	13	7.83	199	M10x35	51	69	15
1298	6.54	166	M8x30	27	36	13	7.83	199	M10x35	51	69	15	8.66	220	M10x40	51	69	15
1548	7.83	199	M10x35	51	69	15	8.66	220	M10x40	51	69	15	9.66	245	M12x40	92	124	16
1698	8.66	220	M10x40	51	69	15	9.66	245	M12x40	92	124	16	10.39	264	M12x40	92	124	16
1928	9.66	245	M12x40	92	124	16	10.39	264	M12x40	92	124	16	11.44	291	M12x50	92	124	16
2068	10.39	264	M12x40	92	124	16	11.44	291	M12x50	92	124	16	12.32	313	M14x50	142	193	18
2278	11.44	291	M12x50	92	124	16	12.32	313	M14x50	142	193	18	13.58	345	M12x60	92	124	16
2468	12.32	313	M14x50	142	193	18	13.58	345	M12x60	92	124	16	15.00	381	M14x70	142	193	18
2698	13.58	345	M12x60	92	124	16	15.00	381	M14x70	142	193	18	15.94	405	M14x70	142	193	18
2888	15.00	381	M14x70	142	193	18	15.94	405	M14x70	142	193	18	17.20	437	M16x70	218	295	21
3058	15.94	405	M14x70	142	193	18	17.20	437	M16x70	218	295	21	18.98	482	M16x80	218	295	21
3358	17.20	437	M16x70	218	295	21	18.98	482	M16x80	218	295	21	19.80	503	M16x80	218	295	21
3668	18.98	482	M16x80	218	295	21	19.80	503	M16x80	218	295	21	20.83	529	M16x80	218	295	21
3908	19.80	503	M16x80	218	295	21	20.83	529	M16x80	218	295	21	23.94	608	M20x90	427	579	27
4178	20.83	529	M16x80	218	295	21	23.94	608	M20x90	427	579	27	25.51	648	M20x100	427	579	27
4588	23.94	608	M20x90	427	579	27	25.51	648	M20x100	427	579	27	26.69	678	M20x110	427	579	27

Note:

1. These torque values are approximate for cap screws with lubricated threads.

10. Disc Pack Replacement

If it becomes necessary to replace the disc packs, it can be done as follows.

Note: The XTSR52LS center member subassemblies with adapter and oversize hub have their locknuts factory tightened

10.1. Remove the center member subassembly by removing all cap screws, compressing the center member subassembly (using the cap screws as defined in the final assembly procedure) and dropping it out from between the hubs. There are jacking screw tapped holes in each end hub to disengage the pilots between the hubs and adapters, using the compression cap screws (provided) as defined in Table 5.

10.2. Remove all locknuts, bolts, overload bushings, and disc packs. Special wrenches may be required. Clean the two adapters and the center spool, removing any nicks and burrs. See Figures 2 and 3. Install the new disc packs to the adapters first if oversize hubs are utilized.



Match marks (if applied at assembly balance) must be in-line to maintain balance integrity.

10.3. Install the disc packs to the adapter first so that the bushing heads in the disc pack line up with the bolt holes in the adapter flanges as shown in Figure 11C. Insert the bolts through the adapter bolt holes and disc pack assembly.

10.4. Proceed to install the center member assembly as outlined in the Final Assembly section 9.

Table 7 — Lock Nut Tightening Torque

XTSRLS52 Coupling Size	"A" Dimension Std. Hub		Locknut			
			Thread Size (mm)	Torque		Wrench Size (in)
	(in)	(mm)		(lb-ft)	(Nm)	
726	3.74	95.0	M5	4.7	6.4	8
826	4.25	108.0	M6	8.1	11	11
996	5.08	129.0	M8	18	24	14
1088	5.51	140.0	M8	19	26	15
1298	6.54	166.0	M10	39	53	18
1548	7.76	197.0	M12	66	90	21
1698	8.58	218.0	M14	110	150	22
1928	9.66	245.4	M16	162	220	24
2068	10.39	264.0	M18	236	320	27
2278	11.46	290.5	M20	265	360	30
2468	12.32	313.0	M22	383	520	32
2698	13.50	343.0	M24	575	780	36
2888	14.61	371.0	M27	885	1200	41
3058	15.55	395.0	M27	885	1200	41
3358	16.81	427.0	M30	1180	1600	46
3668	18.35	466.0	M33	1475	2000	50
3908	19.29	490.0	M33	1475	2000	50
4178	20.63	524.0	M36	2065	2800	55
4588	23.11	587.0	M42	3245	4400	65

Notes:

1. These torque values are approximate for steel bolts with lubricated threads.
2. Bolts should be held from rotating while the locknuts are tightened to the values shown. Do not tighten the fastener by rotating the bolt head.