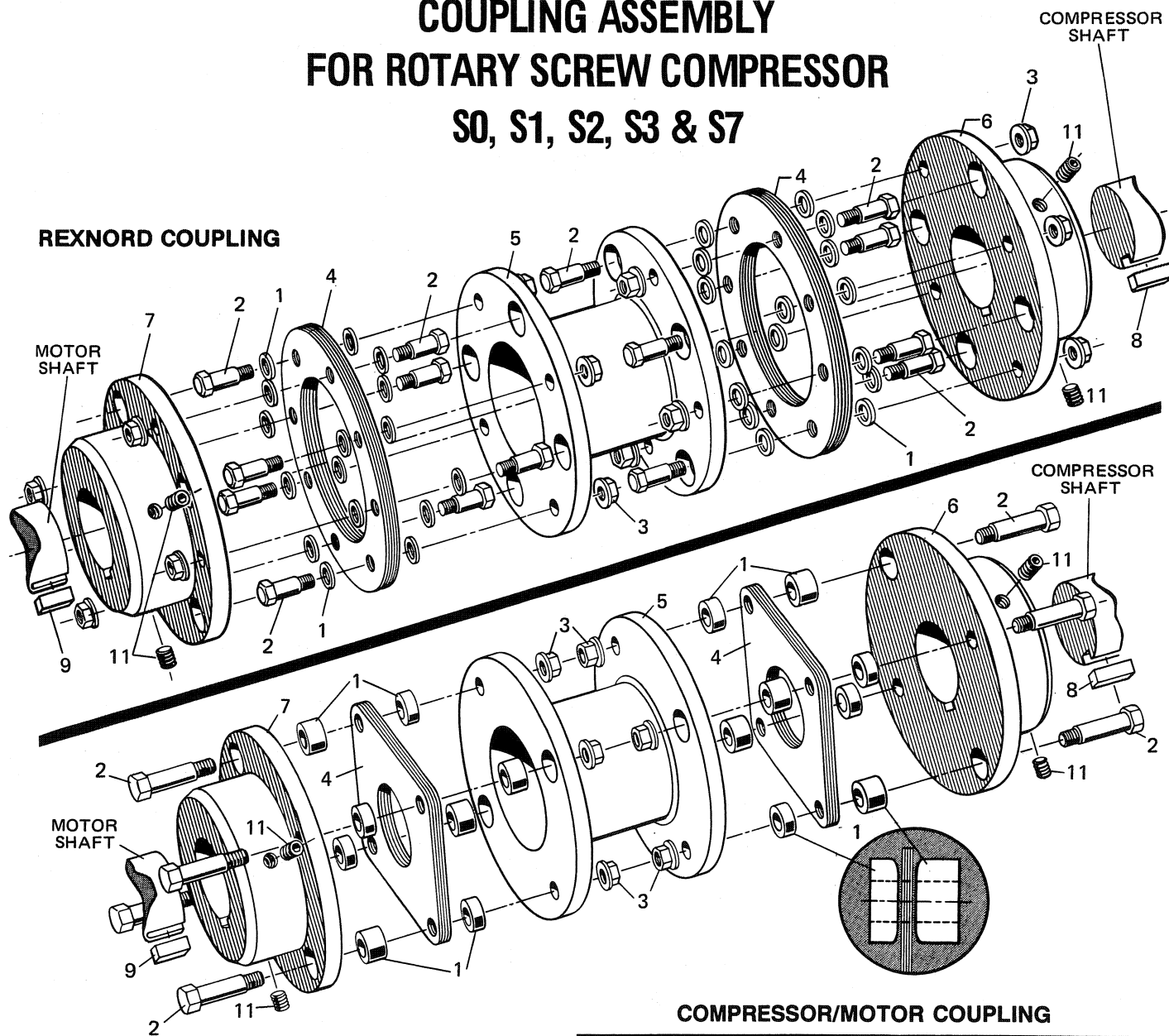


## COUPLING ASSEMBLY FOR ROTARY SCREW COMPRESSOR S0, S1, S2, S3 & S7



### DANA COUPLING

**NOTE:**

Rexnord Coupling is in all illustrations. Dana Coupling is the same with the following exceptions;

Item 4 — Disc Pack — Dana has a square disc pack held in place by a quantity of sixteen — Item 1, Washer, Beveled, • 8 thick washers, and 8 narrow washers.

Item 2 — Screws, Shoulder Hex Hd.,

Item 3 — Locknut, Flanged for each disc pack.

### COMPRESSOR/MOTOR COUPLING

Item	Description	REXNORD Coupling Quan. [Shown]	DANA Coupling Quan. [Shown]
1	Washer, Beveled	32	16*
2	Screw, Shoulder Hex Hd.	16	8
3	Locknut, Flanged	16	8
4	Disc, Pack	2	2
5	Spacer Center Spool	1	1
6	Hub Coupling (Compressor)	1	1
7	Hub Coupling (Motor)	1	1
8	Key (Compressor)	1	1
9	Key (Motor)	1	1
11	Set Screws 1/2"-20 UNF	4	4

## GENERAL

The Codepak Rotary Screw Liquid Chiller is delivered with the motor mounted, bolted in place, and factory aligned to the compressor with coupling hubs fastened to the compressor and motor shafts.

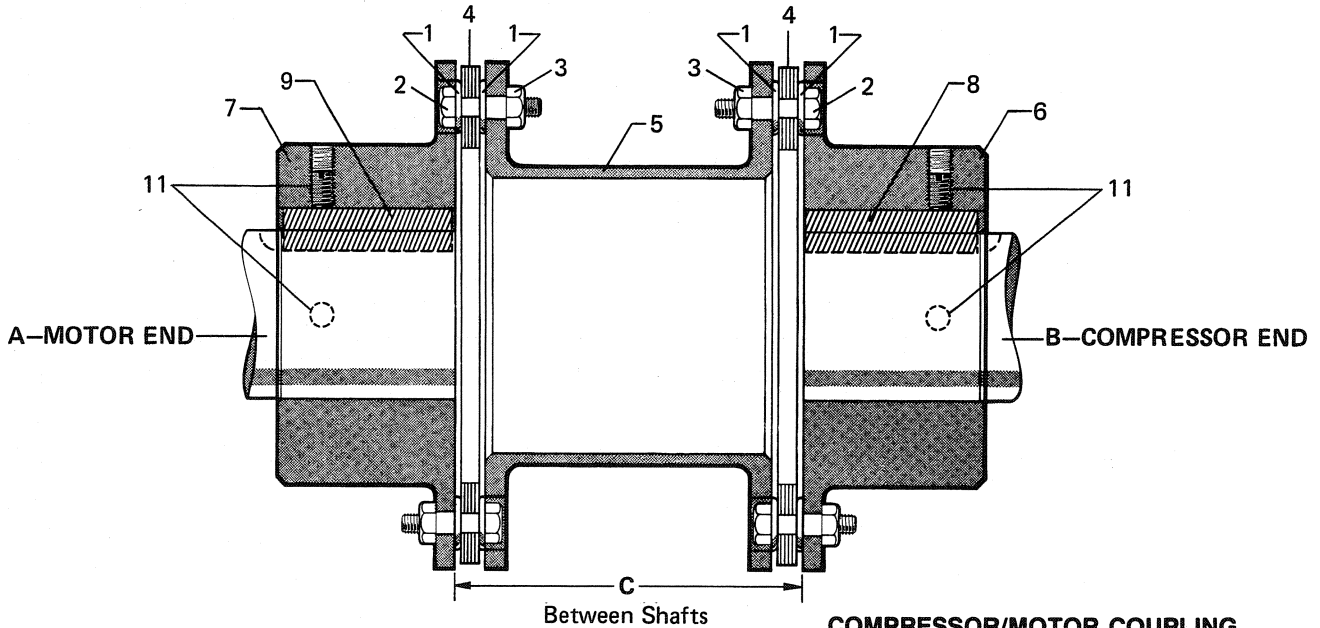
## DISASSEMBLE COUPLING

Before disassembling the coupling note the arrangement of bolts, washers and nuts as they must be reassembled

in the same orientation. When each disc pack is removed tie a string or a wire through one bolt hole of each disc pack to retain the dialed position of individual discs. Adjacent discs are dialed to give extended trouble free coupling life. (See Fig. 1 to identify coupling parts).

## PULLING COUPLING HUB

After disassembling the coupling parts there may be some difficulty in removing the coupling hubs from the com-



**COMPRESSOR/MOTOR COUPLING**

Item	Description	REXNORD Coupling Quan. [Shown]	DANA Coupling Quan. [Shown]
1	Washer, Beveled	32	16*
2	Screw, Shoulder Hex Hd.	16	8
3	Locknut, Flanged	16	8
4	Disc, Pack	2	2
5	Spacer Center Spool	1	1
6	Hub Coupling (Compressor)	1	1
7	Hub Coupling (Motor)	1	1
8	Key (Compressor)	1	1
9	Key (Motor)	1	1
11	Set Screws 1/2"-20 UNF	4	4

**TABLE 1 - COMPRESSOR/MOTOR COUPLING-**

COMPRESSOR MODEL NO.	FLEXIBLE COUPLING PART NO.	A - MOTOR HUB			B - COMPRESSOR HUB			C BETWEEN SHAFTS
		SHAFT SET SCREWS			SHAFT DIA. OR DESCRIPTION	SET SCREWS		
		DIA.	SIZE	QUAN.		SIZE	QUAN.	
Model YS-S0/S1	029-20731	$\frac{2.377}{2.376}$	1/2-20 UNF	2	$\frac{1.752}{1.751}$	1/2-20 UNF	2	6.55"
Model YS-S2/S3	029-20732	$\frac{2.377}{2.376}$	1 1/2-20 UNF	2	$\frac{2.252}{2.251}$	1/2-20 UNF	2	7"
Model YS-1250 HP	029-20719	$\frac{3.252}{3.251}$	1/2-20 UNF	2	$\frac{3.252}{3.251}$	1/2-20 UNF	3	6.68"
Model YS-1000 HP	029-20720	$\frac{3.002}{3.001}$	1/2-20 UNF	2	$\frac{3.252}{3.251}$	1/2-20 UNF	2	5.88"

\* 8 thick washers and 8 narrow washers.

**FIG. 1 - COMPRESSOR MODELS S0/S1, S2/S3, AND S7 COUPLING PART NUMBERS**

pressor shaft and motor shaft. A puller tool (Part Number 064-46743) can be purchased from York to assist in hub removal. Refer to Fig. 2 for assembly of tool and parts. Tighten square head set screw to pull hub.

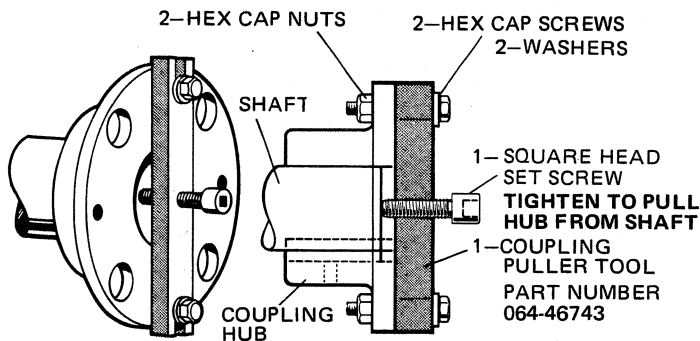


FIG. 2 - PULLING COUPLING HUB TOOLS

**COUPLING INSTALLATION**

Wipe clean; inside of hubs, and keys. Place keys in keyway of both shafts and place the coupling hubs over both shafts matching the keyway with the key model.

Push the motor shaft into the motor as far as it will go.

*IMPORTANT: — It is very important that all coupling parts be thoroughly cleaned and degreased. Oil screws lightly and wipe off residual so that no oil drips on parts.*

1. Assemble disc pack (do not rearrange discs, keep disc pack tied together until assembled) to center spool in the following order: (See Fig. 3).
  - a. (4) bolts.
  - b. (4) washers - assemble the rounded edge toward disc pack.

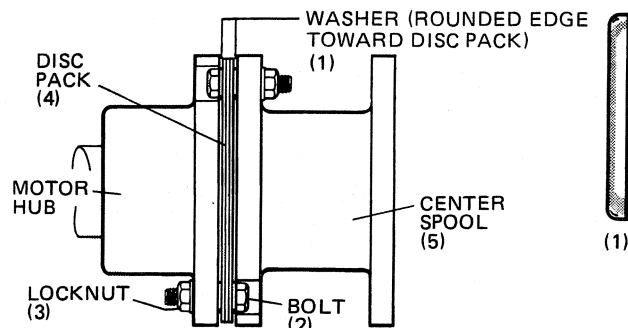


FIG. 3 - DISC PACK ASSEMBLED TO CENTER SPOOL

- c. Place bolts with washers through 4-holes equally spaced (in every other hole) in the disc pack. (Remove ties from disc pack).
  - d. Place (4) more washers over the ends of bolts with rounded edge against the disc pack.
  - e. Slide the center spool over the bolts in the disc pack, using the small diameter doles.
  - f. Place (4) locknuts on the bolts. Do not tighten locknuts.
2. Assemble the center spool with disc pack attached to the motor hub. (Refer to Fig. 3 and 4).
    - a. Place the center spool and disc pack assembly between the compressor shaft hub and the motor shaft hub.

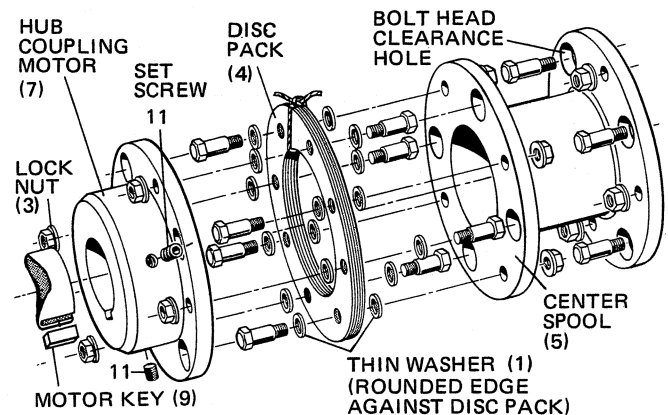
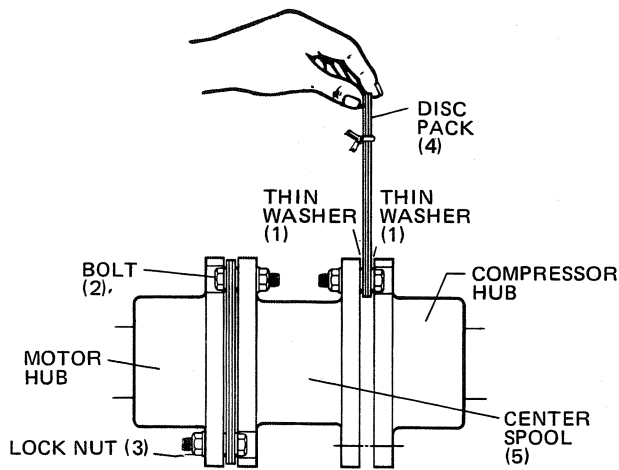


FIG. 4 - CENTER SPOOL WITH DISC PACK ASSEMBLED TO MOTOR HUB

- b. Line-up the bolt head clearance holes in the center spool with the bolt holes in motor hub. Keep assembly in this position.
  - c. Place a bolt with a washer (beveled edge toward disc pack) through a bolt head clearance hole and through the disc pack with the tread end of the bolt flush with the opposite end of the disc pack.
  - d. Slide a washer (beveled side toward disc pack) between the disc pack and the motor shaft hub. Line up washer with hole and end of bolt, and push bolt through the washer into the motor hub hole. Assemble locknut to the threaded end of bolt and tighten (hand tight).
  - e. Repeat this procedure with the remaining three holes. Tighten all nuts hand tight.
3. To assemble the center spool and disc pack to the compressor hub use the following procedure: (Refer to Fig. 5).



**FIG. 5 – DISC PACK ASSEMBLED BETWEEN COMPRESSOR HUB AND CENTER SPOOL**

a. Hold the disc pack vertically above the opening between the center spool and the compressor hub. (Do not remove the disc pack ties.) Line up one set of holes in the disc pack between the center spool and the compressor hub holes, and place a washer between disc pack and center spool (beveled side toward the disc pack.) Slide a bolt through the washer and the disc pack. Place a washer (beveled side toward disc pack) between the disc pack and the compressor hub, and continue sliding the bolt

through the washer and the hub. Place a locknut on the threaded end of bolt and tighten (hand tight). Remove ties from the disc pack. Rotate the disc pack between the center spool and the compressor hub so that the holes in the hub, spool and disc pack are in alignment.

- b. Assemble the remaining bolts, washers (beveled side toward disc pack) and locknuts in the remaining holes in accordance with the above procedure.
4. Tighten all locknuts on both hubs and center spool with a torque wrench. Torque locknut (see Table 2).
5. Seal all set screws in place with sealer Part No. 013-02825.
6. Install coupling guard if used.

**TABLE 2 – COUPLING BOLTS TORQUE**

COMPRESSOR MODEL	TORQUE COUPLING BOLTS	
	REXNORD	DANA
S0/S1	43 ft./lbs.	58 ft./lbs.
S2/S3	43 ft./lbs.	58 ft./lbs.
S7	63 ft./lbs.	115 ft./lbs.

