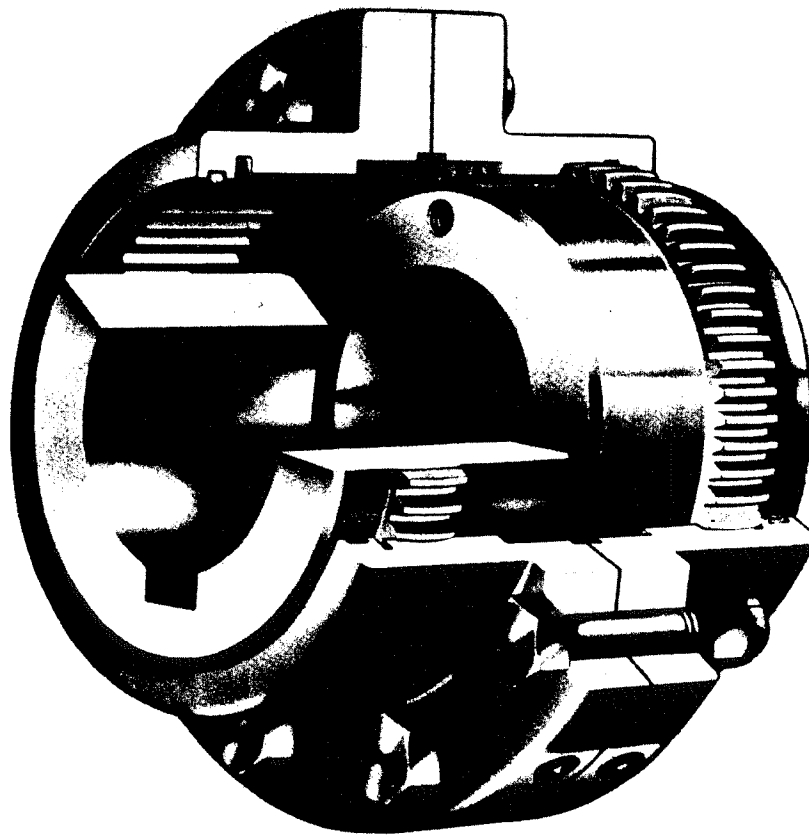


INSTALLATION AND MAINTENANCE INSTRUCTIONS

Lovejoy

VARI-CROWN® GEAR TEETH
SIER-BATH

SERIES F STANDARD TYPE FLEXIBLE GEAR COUPLINGS



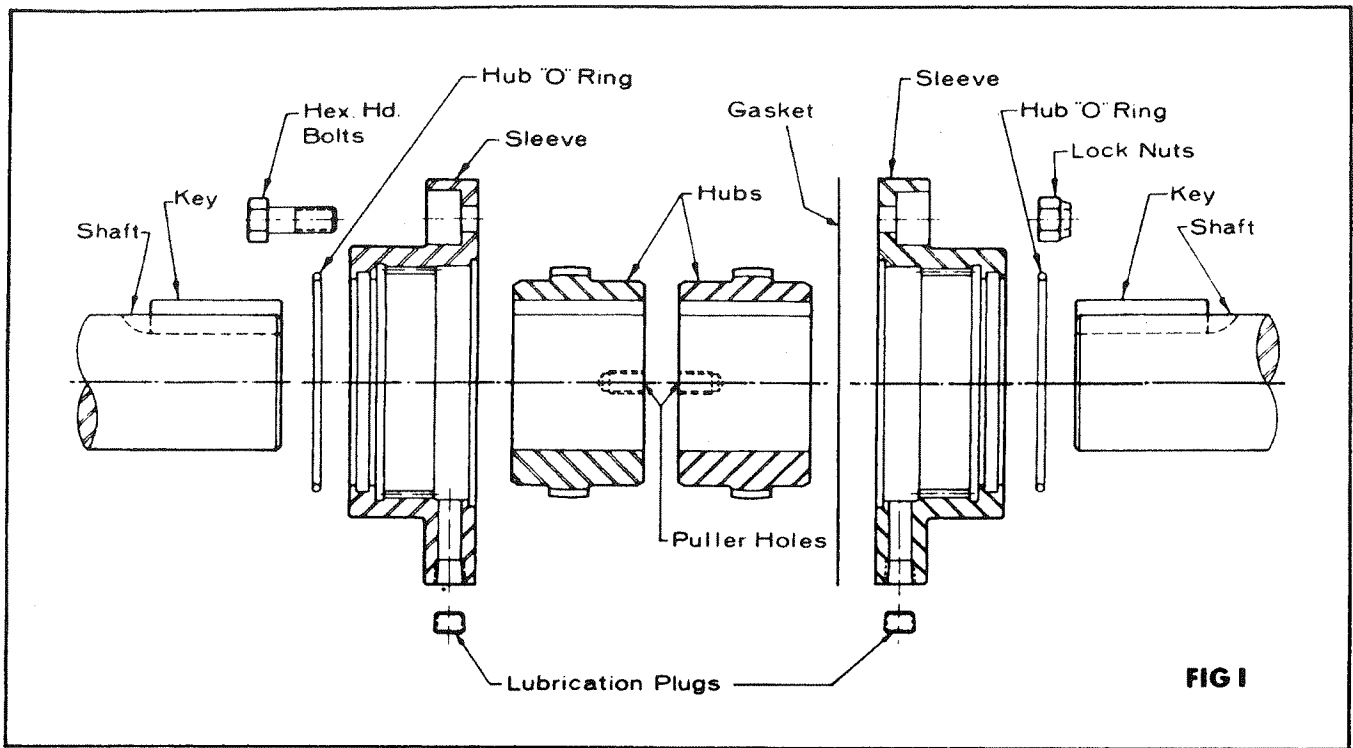
Lovejoy

SIER-BATH®

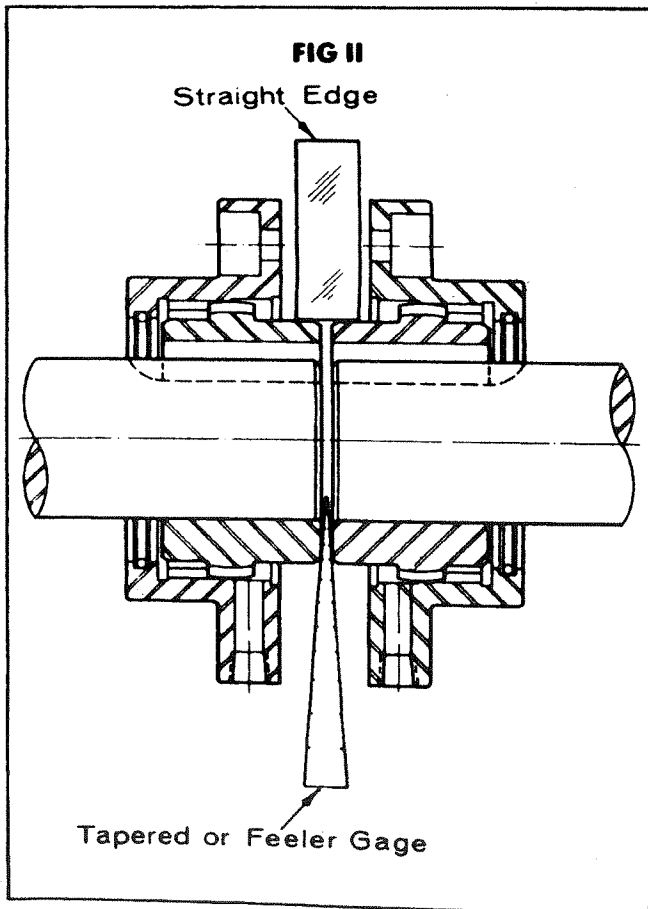
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TITLE
INSTALLATION AND
MAINTENANCE INSTRUCTIONS

BULLETIN
C-19556



**FOLLOW THESE SIMPLE STEPS TO CORRECTLY INSTALL
THE SIER-BATH FLEXIBLE GEAR COUPLING.**



- STEP NO. 1** Be sure that all parts are available and are clean.
- STEP NO. 2** Apply a light coat of grease to the "O" rings and insert "O" rings into cleaned grooves of sleeves.
- STEP NO. 3** Place sleeves over shaft ends. Care should be taken not to damage "O" rings.
- STEP NO. 4** Install hubs on shafts. Hub face to be flush with shaft end.
- STEP NO. 5** Align hubs with straight edge and tapered gage. See Fig. II. Maintain required spacing between hub faces. See Fig. IV for correct hub spacing.
- STEP NO. 6** Coat hub and sleeve gearing with grease. Slide sleeves over hub gearing. Insert gasket. Bolt sleeves together and tighten uniformly. See Fig. IV for correct tightening torque. Fig. III shows properly assembled coupling.
- STEP NO. 7** Remove both dryseal lube plugs and add grease in sufficient amount to overflow with lubricant holes in horizontal position. Install lube plugs and seat securely. See Fig. IV for correct amount of lubricant.

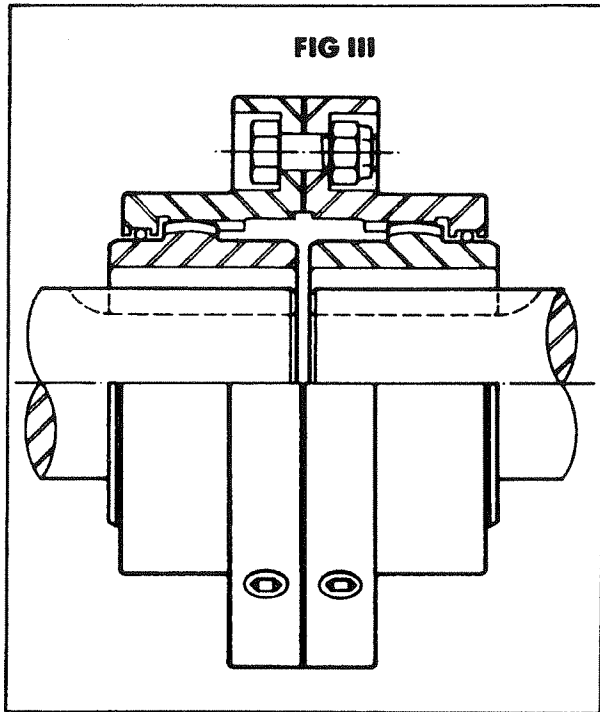


FIG IV					
Size	Grease Capacity		Tightening Torque — In. Lbs.		Distance Between Shafts and Distance Between Hubs
	Weight	Volume	Shrouded Bolts	Exposed Bolts	
F-1	1½ oz.	⅛ pts.	130	130	⅛"
F-1½	2½ oz.	¼ pts.	425	425	⅛"
F-2	4¾ oz.	⅜ pts.	425	940	⅛"
F-2½	9 oz.	⅝ pts.	940	1750	⅜"
F-3	13½ oz.	1 pts.	940	1750	⅜"
F-3½	1⅞ lb.	1¼ pts.	1750	2650	¼"
F-4	1¾ lb.	1 qts.	1750	2650	¼"
F-4½	3 lb.	1¾ qts.	1750	2650	⅝"
F-5	3½ lb.	2 qts.	2650	3650	⅝"
F-5½	5¼ lb.	3 qts.	2650	3650	⅝"
F-6	5¾ lb.	3¼ qts.	—	3650	⅝"
F-7	8¾ lb.	1¼ gal.	—	4850	¾"
F-8	15 lb.	2⅞ gal.	—	6300	¾"
F-9	18½ lb.	2⅞ gal.	—	8300	½"

SHRINK FIT: Shrink fits are recommended for heavy duty or low speed applications. Be sure the key is a snug side fit in the shaft and coupling keyway with clearance on top. Install keys into shafts. Heat hubs uniformly, using hot oil or an oven to approximately 350°F. Slip hubs on the shafts to the correct location as determined by your installation.

PRESS FIT: Light press fits may be used for many installations. Unless otherwise specified Sier-Bath Couplings are furnished with an interference fit.

MAINTENANCE

Should your Sier-Bath Series "F" coupling need to be disassembled for an alignment check, remove bolts and nuts, slide sleeves off hubs. Clean out old lubricant and inspect "O" rings and gear teeth. Check alignment. Re-assemble starting at step #6.

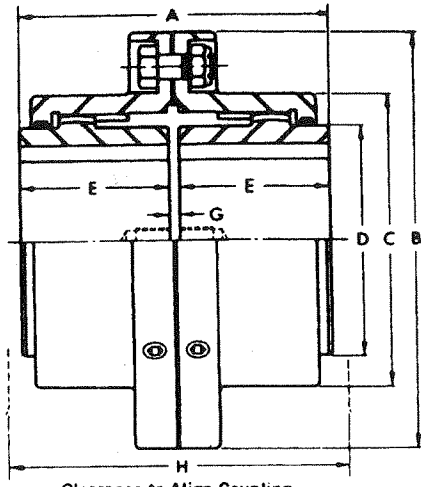
To re-lubricate without disassembling coupling, remove lube plugs and position lube holes at horizontal position. Force grease into one hole until clean grease flows out of opposite hole.

Re-install plugs securely.

Caution: Always wear safety glasses and use the proper tools when working on machinery.



COUPLING DATA



SIZE	ROUGH BORE	CAPACITY		* MAX. SPEED			WR ¹ SOLID BORE	LUBE CAPACITY		APROX. WEIGHT SOLID BORE	A	B	C	D	E	G	H	BORES & KEYWAYS 1 SQUARE KEY				
		H.P./100 R.P.M.	TORQUE LB. IN. x 10 ³	UNBAL.	DYN. BAL. CL. 2	PAR. MIS. CAP.		WEIGHT	VOLUME									MAX. BORE	KEYWAY			
																		W	H			
F-1	1/2	12	7.6	6,000	9,500	0.55	19	2 oz.	1/4 pt.	9	3 1/2	4 1/16	3 1/16	2 1/16	1 1/16	1/8	4 1/16	1 1/8	3/16	3/16	3/16	
F-1 1/2	3/4	30	18.9	5,500	8,500	.060	65	4 oz.	1/4 pt.	19	4	6	3 3/32	3	1 1/4	1/8	4 3/4	2 1/8	1/2	1/4	1/4	
F-2	1	50	31.5	5,000	7,800	.085	150	5 1/2 oz.	3/8 pt.	34	5	7	4 29/32	4	2 1/8	1/8	6	2 3/4	3/8	5/16	5/16	
F-2 1/2	1 1/2	90	56.7	4,400	6,800	.105	340	10 1/2 oz.	3/4 pt.	54	6 1/4	8 3/8	5 29/32	4 3/8	3 3/32	3/16	7 1/8	3 3/4	3/4	3/8	3/8	3/8
F-3	1 1/2	150	94.5	4,000	6,200	.115	655	1 lb.	1 1/4 pt.	80	7 3/8	9 7/16	6 29/32	5 1/8	3 9/32	3/16	8 3/8	4	1	1/2	1/2	1/2
F-3 1/2	1 3/4	240	151.3	3,500	5,500	.130	1485	1 1/4 lb.	1 1/2 pt.	130	8 3/8	11	7 29/32	6 1/2	4 3/16	1/4	9 3/8	4 3/8	1	1/2	1/2	1/2
F-4	2 1/2	350	220.6	3,000	4,600	.150	2725	2 lb.	1 1/4 qt.	190	9 3/4	12 1/2	9 1/4	7 1/2	4 3/4	1/4	10 1/4	5 3/8	1 1/4	3/8	3/8	3/8
F-4 1/2	3	480	302.5	2,700	4,100	.175	4280	3 1/2 lb.	2 qt.	250	10 15/16	13 3/8	10 3/8	8 1/2	5 1/16	5/16	11 1/2	6	1 1/2	3/4	3/4	3/4
F-5	3	690	434.9	2,500	3,900	.200	8280	4 1/2 lb.	2 1/2 qt.	380	12 3/8	15 1/16	11 1/16	9 1/2	6 1/32	5/16	13	6 1/2	1 1/2	3/4	3/4	3/4
F-5 1/2	4	910	573.5	2,200	3,600	.220	12,795	6 1/2 lb.	3 1/2 qt.	520	14 1/8	16 3/8	12 1/16	10 1/2	6 29/32	5/16	14 3/8	7 3/8	1 3/4	3/4	3/4	3/4
F-6	4	1190	750.0	2,100	3,400	.120	17,290	7 1/4 lb.	1 gal.	650	15 1/8	18	14	11 1/2	7 1/32	5/16	17	8	2	1	1	1
F-7	5	1600	1008.4	2,000	3,300	.135	32,180	9 1/4 lb.	1 1/4 gal.	950	17 3/4	20 3/4	15 3/4	13	8 1/16	3/8	20	9	2 1/4	1 1/8	1 1/8	1 1/8
F-8	6	2100	1323.5	1,900	3,200	.160	64,610	17 1/2 lb.	2 1/4 gal.	1560	22 3/4	23 1/4	18 1/2	15 1/2	11	3/8	25	11	2 3/4	1 3/8	1 3/8	1 3/8
F-9	7	2900	1827.7	1,800	3,100	.165	110,940	20 lb.	2 3/4 gal.	2015	23 1/2	26	20 3/8	17	11 1/2	1/2	26 1/2	12	3	1 1/2	1 1/2	1 1/2

*For couplings operating at higher speeds, consult Sier-Bath.

NOTES: • Horsepower, Torque Capacity and Parallel Misalignment Capacity, for sizes 1 through 5 1/2, are based on 1 1/2° misalignment per gear mesh and Max. Bore. Consult factory for greater H.P. capacity.

• Horsepower, Torque Capacity and Parallel Misalignment Capacity, for sizes 6 through 30 are based on 3/4° misalignment per gear mesh and Max. Bore. Consult factory for greater H.P. capacity.

• Shrouded bolt design furnished on sizes 1 through 5 1/2 unless otherwise specified.

• Exposed bolts only are standard on sizes 6 through 30.

Coupling Grease

LOVEJOY provides high quality, high speed coupling grease for low to high-speed applications. The grease is designed to address the problems that are unique to Gear Coupling applications such as high pressure, high centrifugal force, prolonged work periods and corrosive environments.

Lubrication

Centrifugal separation of the oil and thickener during operation is a basic problem in Gear Coupling applications, especially high speed applications. The higher the operational speed, the greater the amount of separation can be expected, causing the soap properties in the grease to accumulate in the areas where lubrication is required. The soap does not provide adequate lubrication which results in accelerating the coupling wear. The LOVEJOY grease properties are designed to resist centrifugal separation.

Changes in consistency to address different situations is the key to successful lubrication. LOVEJOY grease is manufactured to a No. 1 consistency grade. During prolonged use, the grease will become semi-fluid. When inactive, the grease will thicken, become heavier and will not leak out of the coupling. The ability to change consistency provides successful lubrication across the complete range of requirements.

Contents

The LOVEJOY grease contains ingredients that have been proven to operate successfully in Gear Coupling applications. The grease contains:

- Lithium Soap
- Highly Refined Paraffinic Mineral Oil
- Rust Inhibitors
- Anti-oxidants
- EP/Anti-wear additive