# **POWERTORK** ®

## SERIES "F" - COUPLING INSTALLATION AND MAINTENANCE INSTRUCTIONS.

#### INSTALLATION

- 1) Make sure that all the proper coupling parts, keys, etc. are on hand.
- 2) Make sure that the prime mover is disconnected from the power source so that it cannot be started accidentally during installation.
- 3) Remove dirt and burrs from the shafts and coat with a suitable anti-galling lubricant.
- 4) Pack sleeve teeth and coat seals with coupling grease and insert coupling seals in the grooves. (See listing on back of sheet for recommended greases.)
- 5) Insert keys in shaft keyways. Keys should have a snug fit to the sides of the keyways with slight clearance top to bottom.
- 6) Place sleeves over the shafts with the flanges facing each other.
- 7) Mount hubs on the shafts.
- 8) Align the shafts by placing the machines in their approximate positions. (Refer to Table No. 1 on back of sheet for the correct shaft separation.) Best coupling performance is obtained when the alignment is checked with dial indicators.

NOTE: Always rotate the hub on which the indicator is mounted.



### A. Angular Alignment.

Check by mounting indicator on the body of one hub and placing the pointer on the end face of the other hub. (See Figure 1.) Adjust machines until the best possible alignment is obtained. As an alternate method, insert a feeler gage between the hubs at four points approximately 90° apart and adjust the machines. (See Figure 2.)

B. Parallel Alignment.

Mount the indicator on the body of one hub and place the pointer on the body of the other hub. (See Figure 3.) Adjust machines until the indicator reading is the same at four points approximately 90° apart. As an alternate method, place a straight edge across one hub body and adjust the machines until the straight edge rests squarely on the other hub body. (See Figure 4.) This should be done at 90° intervals around the hub.

Securely tighten foundation bolts and recheck the alignment. Adjust the machines again, if necessary.

9) Assemble Coupling.

Figure 3.

Coat hub teeth and body with coupling grease. Make sure flanges are free of dirt and burrs. Slide sleeves in until they mesh with hub teeth. Lube holes should be at about 90° on the opposite sleeve. Insert the gasket and then bolt sleeves together, tighten to torques shown in Table No. 1. Use only the bolts furnished in the accessory kit, as these bolts have a special body diameter to assure proper alignment.

#### 10) Lubricate.

Remove pipe plugs from one flange with the position of the pipe plugs approximately 45° above and below horizontal and pump grease into the hole that is above horizontal until the grease flows from the hole that is below horizontal. Replace the pipe plugs making sure they are tightened firmly.

Note: 1) Do not attempt to pump grease into the coupling by removing only one pipe plug.

2) Do not fill the interior of spacer. The correct amount of coupling grease is shown in Table No. 1. One-half of this amount should be put into each coupling sleeve.

## CAUTION: INSTALL GUARDS AROUND COUPLING ACCORDING TO LOCAL AND NATIONAL CODES.

Figure 4.

## MAINTENANCE

- 1) Use only greases from the approved grease listing or equivalent.
- 2) Frequency of relubrication varies with application and ambient conditions. Six month relubrication is satisfactory for average operation. Other conditions such as slow speed, reversing drives or severe environments may require more frequent inspection and relubrication.
- 3) For optimum coupling performance, alignment should be checked periodically. A well-aligned installation may change by the settling of foundations, shifting of machines, etc. Disassemble the coupling sleeves, clean the coupling hubs, inspect the gear teeth and follow Steps 8, 9 and 10.

## TABLE No.1

Series F	Size	1	1½	2	<b>2</b> ½	3	31⁄2	4	<b>4½</b>	5	<b>5</b> ½	6	7
Lube Capacity	- Full Flex (1)												
Greas⊢ Weight (LBS-OZ)		0-1.1	0-2.3	0-5	0-6.5	0-9.5	1-7	1-11	2-11	3-11	55	7-12	105
Volume (Pints)		.06	.06	.25	.60	.86	1.5	1.8	2.9	4.0	5.4	8.2	11.2
Lube Capacity	- Flex Rigid (1)												
Greas Weight (LBS-OZ)		06	0-1.2	0-2.5	0-3.3	0-4.8	0-11.5	0-13.5	1-5.5	1-13.5	2-8.3	3-14	53
Volum	e (Pints)	.03	.03	.13	.30	.43	.75	.90	1.5	2.0	2.7	4.1	5.6
(1) Lubrication capacities shown are with hubs mounted normally. Capacities will be more when hubs are reversed.													
Shaft Separati	on												
Full Flex - Standard Mount		.13	.13	.13	.19	.19	.25	.25	.31	.31	.31	.31	.38
Full Flex - One Hub Reversed		.44	.72	.94	1.09	1.28	1.72	1.97	2.38	2.72	3.16	2.34	2.81
Full Flex - Both Hubs Reversed		.75	1.31	1.75	2.00	2.38	3.19	3.69	4.44	5.13	6.00	4.38	5.25
Flex Rigid - Standard Mount		.16	.16	.16	.19	.19	.22	.31	.34	.34	.41	.41	.50
Flex Rigid - One Hub Reversed		.47	.75	.97	1.09	1.28	1.69	2.03	2.41	2.75	3.26	2.44	2.94
Rigid - Rigid		.19	.19	.19	.19	.19	.19	.38	.38	.38	.50	.50	.63
Bolts / Lube Pl	lugs												
Exposed	No.	6	8	6	6	8	8	8	10	8	14	14	16
	Dia.	1/4	3/8	1/2	5/8	5/8	3/4	3/4	3/4	7/8	7/8	7/8	1
Shrouded	No.	6	8	10	10	12	12	14	14	14	-	-	-
	Dia.	1/4	3/8	3/8	1/2	1/2	5/8	5/8	5/8	3/4	-	-	-
Lube Plug	Dia.	1/8	1/8	1/8	1/8	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
	Thread	27 NPT	27 NPT	27 NPT	27 NPT	18 NPT	18 NPT	18 NPT	18 NPT	18 NPT	18 NPT	18 NPT	18 NPT

Bolt Tightening Torque (FT·LBS)												
Exposed Bolt	8	30	65	160	160	300	300	300	485	485	485	725
Shrouded Bolt	8	30	30	65	65	160	165	165	300	-	-	-

## **APPROVED GREASES**

The following greases (or equivalents from other manufacturers) are suitable for most industrial applications with ambient temperatures up to 150°F. For higher temperatures, reciprocating machines, recurrent reverse loading and other unusual applications, consult SCI. Amoco Coupling Grease

Amoco	Coupling Grease				
Техасо	1912 Coupling Grease				

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