

Form-Flex® 8 BOLT DOUBLE FLEX COUPLING TYPE HSH, FSH, HFTH ALL SIZES

P-5028-TBW
Form 1180A

Service & Installation Instructions

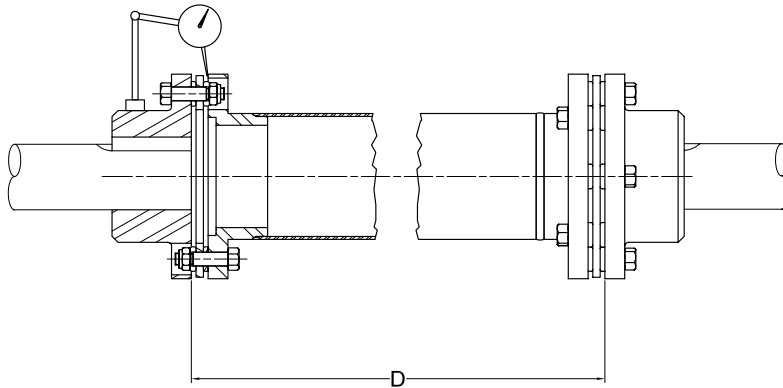


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Altra Industrial Motion

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Distribuidor exclusivo para la República Argentina
T. 011 4222 5040 - F. 011 4201 2478
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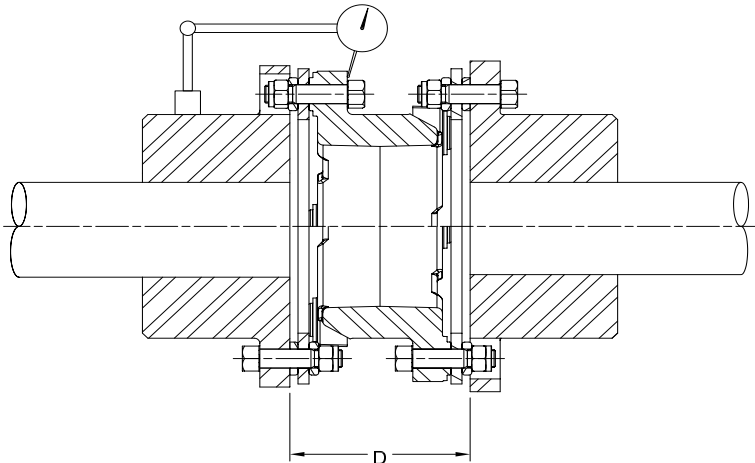
(HFTH)
Figure 1



PARTS LIST

1. Bolt (16)
2. Hub (2)
3. Double Radius Washer (16)
4. Nut (16)
5. Spacer (1)
6. Flex Element (2)
7. Single Radius Washer (8)

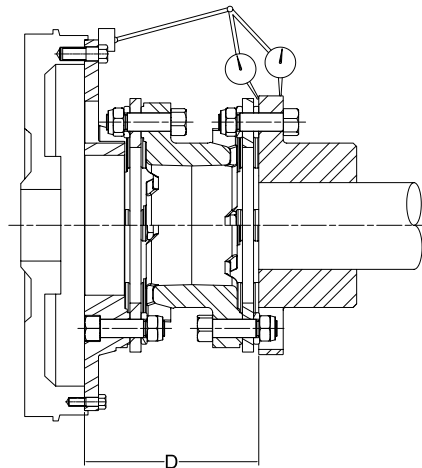
(HSH)
Figure 2



PARTS LIST

1. Bolt (16)
2. Hub (2)
3. Washer (16)
4. Nut (16)
5. Spacer (1)
6. Flex Element (2)

(FSH)
Figure 3



PARTS LIST

1. Bolt (16)
2. Hub (1)
3. Washer (16)
4. Nut (16)
5. Spacer (1)
6. Flex Element (2)
7. Adapter Plate (1)

Proper care in installing and aligning will permit couplings to operate to full capacity, compensate for mis-alignment, and provide very good service life.

1. Inspect shafts and hub(s) bores and make sure they are free from burrs. Check for the proper fit of the keys to the shafts and hubs.
2. Fit the couplings hub(s) so that the shaft end(s) is/are flush with the machined face of the flange. If the hub is bored for an interference fit, the hubs should be heated then quickly positioned on the shaft. *Do Not* spot heat or heat above 300°F as it may cause distortion.
3. Move the equipment to be connected into position. Set the gap to the required distance between shaft ends, D dimension. See Fig. 1, 2 or 3.

ASSEMBLY & ALIGNMENT

4. Type FSH

- a. Install bolts (1) in Flywheel Adaptor (7).
- b. Install Flywheel Adaptor (7).
- c. Attach a dial indicator to the Flywheel Adaptor (7), indicate a point on the hub (2) flange outside diameter.
- d. Rotate the Flywheel Adaptor (7) with the hub (2) stationary. The driver and driven equipment will have allowable parallel misalignment when the Total Maximum Indicator Reading (TIR) is within limits as shown in table II.
- e. Reposition the dial indicator to indicate a point on hub (2) flange face near the outside diameter.
- f. With the dial indicator attached to the Flywheel Adaptor (7) and held stationary rotate the hub (2). The driver and drive equipment will have allowable angular misalignment when the maximum indicator reading is within limits as shown in table II.
- g. With equipment aligned and using Fig. 3 as a guide attach the flex elements (6) to the Flywheel Adaptor bolts (1), position the element washers (3) over the bolts (1) and install the nuts (4).
- h. Bring the spacer (5) into position install the bolts (1) thru the spacer and flex elements, place the element washers (3) over the bolts and install the nuts (4). (The spacer must be supported at this time as not to damage the connected flex elements.)
- i. Position the flex elements between the hub (2) and spacer (5). Install the bolts (1) thru the spacer and flex elements place the element washers (3) over the bolts and install the nuts (4).
- j. Install the bolts (1) thru the hub (2) and flex elements (6) place the element washers (3) over the bolts and install the nuts (4).

- k. With equipment aligned and coupling assembled inspect all components for correct orientation. Tighten all nuts (4) to their proper torque value as shown in table I.

5. Type HSH & HFTH

- a. Bring the equipment into approximate good alignment by attaching one end of spacer (5) to a hub (2). Use Fig. 1 or 2 as a guide. (The spacer must be supported at this time as not to damage the connected flex elements.)
Note: Type HFTH has two style element washers (3) & (7) on bolt (1) position on either side of flex element (6) attached to the spacer (5). Element washer (7) must be positioned with the flat side adjacent to the spacer (5).
- b. With one end of the coupling assembled align the equipment well enough to assemble the opposite end of the spacer to the hub.
- c. Assemble the spacer to the hub using fig. 1 or 2 as a guide.
- d. Tighten all nuts (4) to their proper torque value as shown in table I with lightly oiled threads.
- e. Attach a dial indicator to each hub. Indicate a point on the nearest spacer flange. See fig. 1 or 2.
- f. Rotate the assembled coupling, the equipment will be aligned when the Total Indicator Reading (T.I.R.) is within the allowable limits as shown in table II for both ends.

6. Inspection

IMPORTANT: To ensure unlimited life recheck alignment and retorque nuts after one or two hours of actual operation. If the equipment is portable this should be done each time the equipment is moved.

TABLE I (Lightly oiled threads)

SIZE	22	26	31	35	37	42	45	50	55	60	70	75	80	85	92	92HT
FT-LB ± 10%	25	30	40	70	95	125	150	210	320	450	575	830	1000	1400	1400	2400

TABLE II Total indicator reading-inches.

SIZE	22	26	31	35	37	42	45	50	55	60	70	75	80	85	92	92HT
TIR	.003	.003	.004	.004	.005	.005	.006	.006	.007	.008	.009	.010	.011	.012	.013	.013

REPLACEMENT PARTS

To order replacement parts it is necessary to furnish the complete part number(s) and the required part(s). Order must be placed with your distributor.

 **WARNING: Rotating equipment is potentially dangerous and must be properly guarded. The user should comply with applicable safety codes in accordance to OSHA standards.**

 **WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov**

FLYWHEEL BOLT TIGHTENING DATA

BOLT SIZE & THREAD	THREAD COEFFICIENT 'C'	SOCKET WRENCH SIZE (INCHES)	BOLT TIGHTENING TORQUE (FT - LB)
3/8-16	.18	9/16	36
1/2-13	.16	3/4	80
5/8-11	.15	15/16	147
3/4-10	.14	1 1/8	246
7/8-9	.13	1 5/16	377
1-8	.13	1 1/2	541

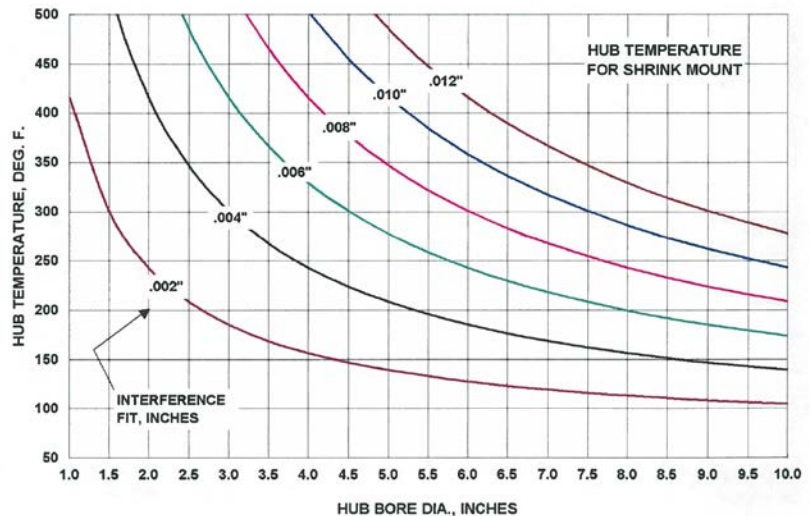
DATA SUPPLIED FOR REFERENCE ONLY! Engine manufacturer or packager is responsible for specifying and/or supplying fasteners and locking method. These values apply for coarse thread cadmium plated Grade 8 bolts lubricated with oil and tightened to 70% of yield strength

HUB SHRINK FIT TEMPERATURES

DATA SUPPLIED FOR REFERENCE ONLY! Installer must ensure that proper procedures and values are used.

Graph assumes steel hub material and 70° F. ambient temperature, and includes a 10% safety margin. For example, for 6" bore and .008" interference, heating the hub from 70° to 300° will expand the hub by .0088".

Do not exceed the interference specified on the assembly drawing to avoid overstressing the hub.



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Mexico

Comisión Federal de Electricidad 850,
Industrial San Luis,
San Luis, S.L.P., 78395 - Mexico
+52 444 137 1500

Europe

Merchant Drive, Hertford
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2000 Clovis Barker Road
San Marcos, TX 78666
512-353-4000