

Guardian HH Shaft Coupling

Service & Installation Instructions

GUA-MRK-DOC-028



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IMPORTANT READ ALL NOTICES & WARNINGS BEFORE ATTEMPTING ANY INSTALLATION!

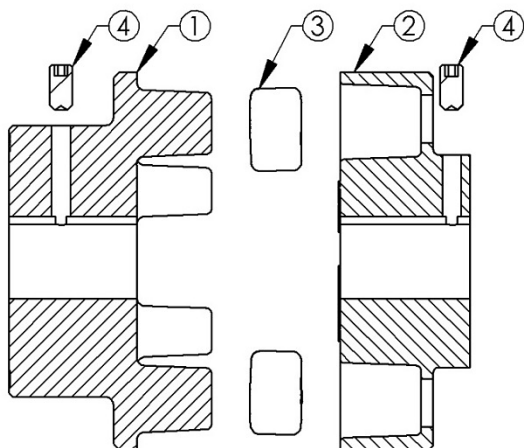
NOTICES:

- PLEASE CAREFULLY READ OVER AND UNDERSTAND INSTRUCTIONS BEFORE ATTEMPTING ANY MAINTENANCE. IF ADDITIONAL ASSISTANCE IS NEEDED PLEASE CONTACT GUARDIAN BEFORE SERVICING/INSTALLING THE PRODUCT.
- WHILE GUARDIAN MAKES EVERY EFFORT TO ENSURE THE ACCURACY OF THE INFORMATION PROVIDED, WE MAKE NO WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF SAID INFORMATION. THE INFORMATION PROVIDED CORRESPONDS TO THE INSTALLATION STANDARDS AT THE TIME OF PRINTING.
- THESE INSTALLATION INSTRUCTIONS ACT AS GENERAL GUIDELINES, AND DO NOT COVER EVERY SCENARIO. IF YOUR INSTALLATION DOES NOT APPLY, PLEASE CONTACT GUARDIAN TO FURTHER REVIEW YOUR APPLICATION TO ENSURE PROPER INSTALLATION IS COMPLETED.
- ENSURE PROPER SIZING AND OFFSETS TO AVOID CAUSING DAMAGE TO THE MACHINERY AND/OR COUPLING.
- KEEP COUPLINGS FREE OF DUST AND GRIME TO ENSURE LONG LIFE.
- VERIFY APPLICATION DATA AND REVIEW TORQUE SPECIFICATIONS, MIS-ALIGNMENT, AND APPLICATION SERVICE FACTORS. IF FURTHER ASSISTANCE IS NEEDED PLEASE CONTACT GUARDIAN COUPLINGS.
- CHECK TO MAKE SURE MAXIMUM ALLOWABLE BORE DIAMETERS ON HUBS ARE NOT EXCEEDED. SEE CATALOG SPECIFICATIONS FOR MORE DETAILS.
- HUBS THAT ARE MODIFIED OR MACHINED BY THE CUSTOMER ARE NOT COVERED UNDER THE STANDARD WARRANTY TERMS. IF MODIFICATIONS ARE MADE BY THE CUSTOMER IT IS RECOMMENDED THAT THE CUSTOMER ADHERES TO GUARDIAN MACHINING STANDARDS TO ENSURE PROPER OPERATION.

WARNINGS:

- DISENGAGE ALL POWER TO NECESSARY MACHINERY BEFORE PERFORMING ANY WORK ON THE ASSEMBLY. MAKE SURE NO ACCIDENTAL ENGAGEMENT CAN OCCUR.
- IMPROPER USE OR INSTALLATION MAY RESULT IN SERIOUS INJURY OR DEATH. GUARDIAN COUPLINGS WILL NOT BE LIABLE FOR IMPROPER USE/INSTALLATION OF THE PRODUCTS. THE PURCHASER/INSTALLER IS RESPONSIBLE FOR PROPER INSTALLATION, SAFEGUARDS, MAINTENANCE AND OPERATION OF THE PRODUCT AND EQUIPMENT.
- ANY MODIFICATIONS TO INSTRUCTIONS AND/OR COUPLING CHARACTERISTICS MAY RESULT IN A PREMATURE FAILURE.
- MAKE SURE THAT HUBS ARE NOT IN CONTACT WITH ANY NON-ROTATING SURFACES.
- IF ANY PROBLEMS OCCUR DURING ASSEMBLY, CONTACT GUARDIAN COUPLINGS IMMEDIATELY.
- THIS PRODUCT CONTAINS WEAR ELEMENTS THAT WILL EVENTUALLY FAIL. MAKE SURE THE ASSEMBLY IS ADEQUATELY COVERED/ENCLOSED TO AVOID INJURY IN CASE OF A FAILURE.

SECTION 1 – COUPLING OVERVIEW



ITEM NUMBER	ITEM DESCRIPTION
1	HH COUPLING HUB
2	FH COUPLING HUB
3	FH COUPLING RUBBER INSERTS
4	SETSCREW

FIGURE 1.1 HH COUPLING CROSS SECTION

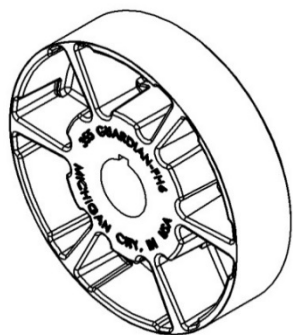


FIGURE 1.2 FH COUPLING HUB (POCKET SIDE)

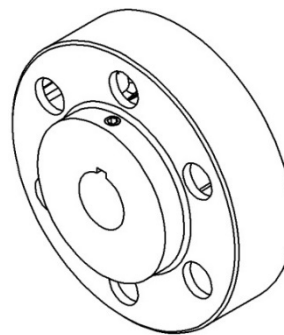


FIGURE 1.3 FH COUPLING HUB (BODY SIDE)

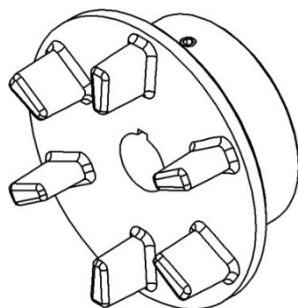


FIGURE 1.4 HH COUPLING HUB (TEETH SIDE)

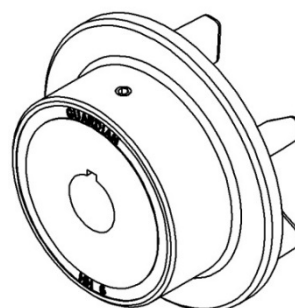


FIGURE 1.5 HH COUPLING HUB (BODY SIDE)

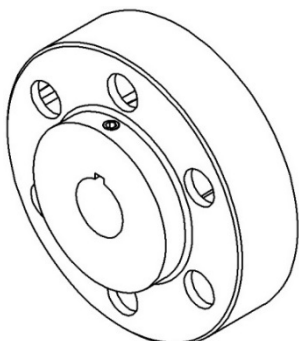


FIGURE 1.6 BORE & KEYWAY

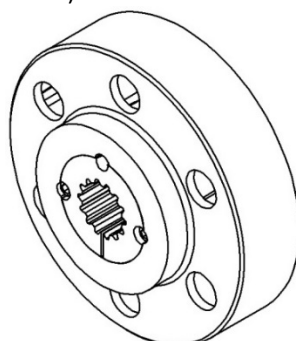


FIGURE 1.7 TAPER-LOCK BUSHING

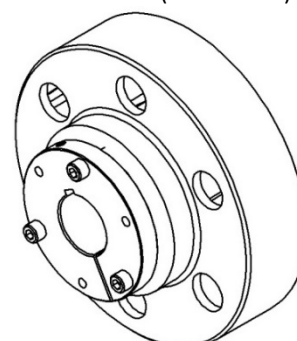


FIGURE 1.8 QD BUSHING

SECTION 2 - TOOLS/MATERIAL REQUIRED

- TORQUE WRENCH
- ALLEN SOCKETS
- MEDIUM STRENGTH REMOVABLE LOCTITE
- CALIPERS
- P-80 RUBBER LUBRICANT (OR ACID FREE GREASE)
- ALIGNMENT TOOLS (IE: STRAIGHT EDGE, DIAL INDICATOR, SHIMS... ETC.)

SECTION 3 – INSTALLATION INSTRUCTIONS

- 1) PLEASE READ & FOLLOW ALL NOTICES & WARNINGS PRIOR TO INSTALLATION OF THIS PRODUCT
DISENGAGE ALL POWER TO NECESSARY MACHINERY BEFORE PERFORMING ANY WORK ON THE ASSEMBLY
MAKE SURE NO ACCIDENTAL ENGAGEMENT CAN OCCUR**
- 2) INSTALL AND MATE HH COUPLING HUB BORE WITH DRIVING SHAFT
COUPLING SHOULD BE INSTALLED WITH THE HUB TEETH AWAY FROM DRIVING UNIT
(SEE FIGURE 1.4 THRU 1.6 FOR TYPICAL MOUNTING OPTIONS)
- 3) WITH HUB PROPERLY POSITIONED, TORQUE CLAMPING FASTENER TO RECOMMENDED SEATING TORQUE
GUARDIAN RECOMMENDS USING MEDIUM STRENGTH REMOVABLE LOCTITE FOR BORE & KEYWAY SETSCREW
(SEE TABLE 4.2 FOR PROPER BORE & KEYWAY SETSCREW SEATING TORQUES)
FOR TAPER-LOCK AND QD BUSHINGS, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS
- 4) IF REQUIRED, INSTALL RUBBER INSERTS INTO FH COUPLING HUB POCKETS
GUARDIAN RECOMMENDS APPLYING P-80 LUBRICANT TO RUBBER INSERTS WHEN INSTALLING
(LUBE SUPPLIED WITH COUPLING)
- 5) WITH RUBBER INSERTS INSTALLED IN HUB, INSTALL AND MATE FH COUPLING HUB BORE WITH DRIVEN SHAFT
(SEE FIGURE 1.4 THRU 1.6 FOR TYPICAL MOUNTING OPTIONS)
- 6) POSITION COUPLING HUB ON DRIVEN SHAFT
- 7) WITH HUB PROPERLY POSITIONED, TORQUE CLAMPING FASTENER TO RECOMMENDED SEATING TORQUE
GUARDIAN RECOMMENDS USING MEDIUM STRENGTH REMOVABLE LOCTITE FOR BORE & KEYWAY SETSCREW
(SEE TABLE 4.2 FOR PROPER BORE & KEYWAY SETSCREW SEATING TORQUES)
FOR TAPER-LOCK AND QD BUSHINGS, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS
- 8) APPLY P-80 LUBRICANT TO RUBBER INSERTS AND FLYWHEEL TEETH
(LUBE SUPPLIED WITH COUPLING)
- 9) MOVE DRIVEN UNIT AND COUPLING HUB TOWARD HH COUPLING HUB.
ENSURE HH HUB TEETH GO BETWEEN RUBBER INSERTS AND INSERTS DO NOT TIP DURING INSTALLATION

SECTION 4 - REFERENCE DATA

TABLE 4.1 HH COUPLING SERIES MOUNTING SETSCREW

HH COUPLING SERIES		HH6	HH12	HH25	HH50	HH100
IMPERIAL SETSCREWS		3/8-16	1/2-13		3/4-10	
SEATING	FT-LBS	23	50		167	
TORQUE	Nm	31	68		226	

TABLE 4.2 HH COUPLING SERIES ASSEMBLY

HH COUPLING SERIES	HH6	HH12	HH25	HH50	HH100
ASSEMBLY GAP	.157"	.157"	.157"	.157"	.157"

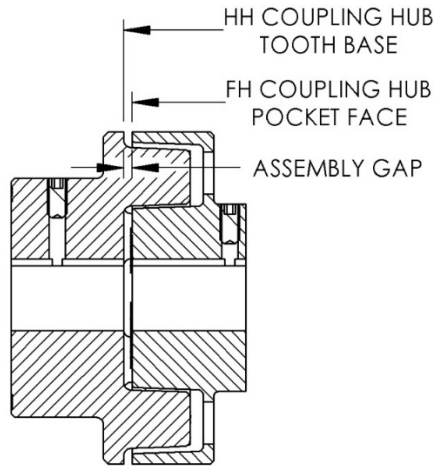
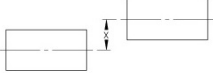
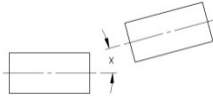
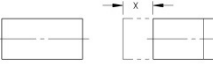
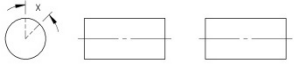


FIGURE 4.1 HH HUB ASSEMBLY GAP

TABLE 4.4 FH COUPLING SERIES MISALIGNMENT CAPABILITIES

FH COUPLING SERIES	FH6	FH12	FH25	FH50	FH100
RADIAL					
	.040"	.040"	.040"	.040"	.040"
ANGULAR					
	1°	1°	1°	1°	1°
AXIAL					
	.118" MAX	.118" MAX	.118" MAX	.118" MAX	.118" MAX
TORSIONAL ANGLE					
	3° - 5°	3° - 5°	3° - 5°	3° - 5°	3° - 5°

SECTION 5 - STORAGE

- COUPLINGS SHOULD BE STORED IN A DRY, WELL MAINTAINED ENVIRONMENT
- HUMID STORAGE ENVIRONMENTS COULD LEAD TO SURFACE RUST ON THE HUB AND BORE (INSPECT BORE FOR RUST AND BURRS PRIOR TO INSTALLATION)
- COUPLINGS SHOULD BE STORED WITH RUBBER INSERTS FREE OF OIL

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