

# Guardian FBA Flywheel Coupling

## Service & Installation Instructions

GUA-MRK-DOC-010



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### IMPORTANT READ ALL NOTICES & WARNINGS BEFORE ATTEMPTING ANY INSTALLATION!

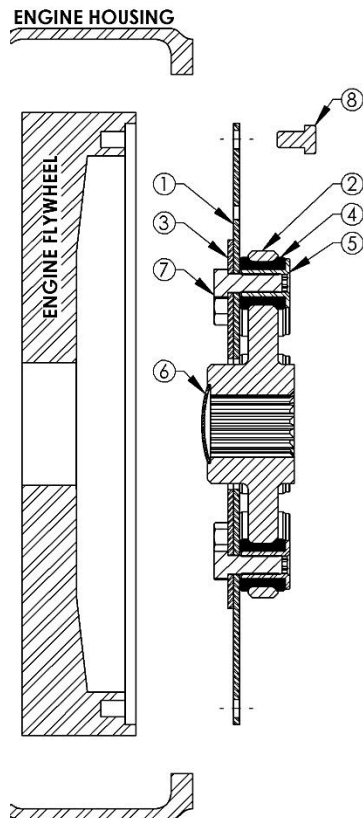
#### NOTICES:

- 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.
- 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.
- FBA COUPLINGS ARE CONSIDERED A ONE-PIECE COUPLING DESIGN, DO NOT DISASSEMBLE COUPLING

#### 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 THE COUPLING IS 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.

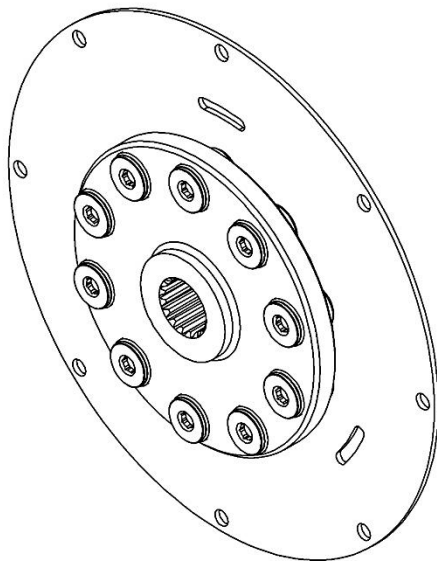
## SECTION 1 – COUPLING OVERVIEW



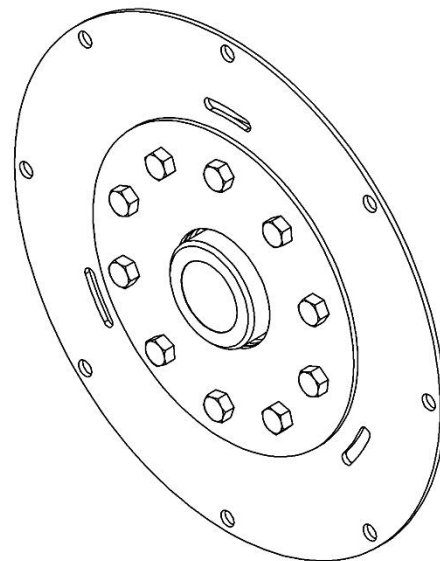
**FIGURE 1.1** FBA COUPLING CROSS SECTION

ITEM NUMBER	ITEM DESCRIPTION
1	FBA COUPLING FLYWHEEL
2	FBA COUPLING HUB
3	FBA SUPPORT PLATE (OPTIONAL)
4	FBA RUBBER GROMMET
5	FBA STEEL INSERT
6	GREASE PLUG (OPTIONAL)
7	FBA COUPLING BOLTS
8	COUPLING MOUNTING HARDWARE*

\*SHOWN FOR REFERENCE ONLY – NOT INCLUDED WITH COUPLING



**FIGURE 1.2** FBA COUPLING (HUB SIDE)



**FIGURE 1.3** FBA COUPLING (BOLT HEAD SIDE)

## SECTION 2 - TOOLS/MATERIAL REQUIRED

- TORQUE WRENCH
- ALLEN SOCKETS
- MEDIUM STRENGTH REMOVABLE LOCTITE
- FBA COUPLING GREASE (SUPPLIED WITH COUPLING)

### 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 COUPLING WITH ENGINE FLYWHEEL PILOT AND MOUNTING HOLES  
SAE 6-1/2 THRU SAE 11-1/2 COUPLINGS SHOULD BE INSTALLED WITH BOLT HEAD SIDE TOWARD FLYWHEEL  
SAE 14 COUPLINGS SHOULD BE INSTALLED WITH BOLT HEAD SIDE AWAY FROM FLYWHEEL  
(COUPLING ORIENTATION IS BASED ON STANDARD SAE FLYWHEEL OFFSETS)
- 3) WITH COUPLING HOLES ALIGNED, INSTALL PROPERLY SIZED BOLTS INTO COUPLING MOUNTING HOLES  
GUARDIAN RECOMMENDS USING MEDIUM STRENGTH REMOVABLE LOCTITE  
(SEE TABLE 4.1 FOR STANDARD SAE ENGINE FLYWHEEL HOLE SIZES)
- 4) ENSURING COUPLING IS FLAT WITH ENGINE FLYWHEEL, TORQUE BOLTS TO RECOMMENDED SEATING TORQUE  
(SEE TABLE 4.1 FOR BOLT SEATING TORQUES)
- 5) APPLY LUBRICATING GREASE TO COUPLING SPLINE AND MATING SPLINED SHAFT  
GUARDIAN RECOMMENDS USING SHELL ALVANIA CG GREASE (GREASE SUPPLIED WITH COUPLING)
- 6) COUPLING IS NOW READY FOR INSTALLATION OF PUMP/ENGINE HOUSING  
REFER TO GUARDIAN’S SUPPLEMENTARY INSTALLATION INSTRUCTIONS FOR FURTHER ASSISTANCE

### SECTION 4 - REFERENCE DATA

**TABLE 4.1 SAE – J620d ENGINE FLYWHEEL HOLE SIZES AND SEATING TORQUES**

SAE FLYWHEEL SIZE		6-1/2	7-1/2	8	10	11-1/2	14	18
<b>IMPERIAL BOLTS</b>		<b>5/16-18</b>		<b>3/8-16</b>			<b>1/2-13</b>	<b>5/8-11</b>
SEATING TORQUE	FT-LBS	19		34			85	170
	Nm	26		46			115	230
<b>METRIC BOLTS</b>		<b>M8</b>		<b>M10</b>			<b>M12</b>	<b>M16</b>
SEATING TORQUE	FT-LBS	20		40			70	155
	Nm	27		54			95	210

### 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 SPLINE BORE  
(INSPECT SPLINE BORE FOR RUST AND BURRS PRIOR TO INSTALLATION)

**NOTES**

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