

Guardian SAE Engine Housing Adaptors & Spacers

Service & Installation Instructions

P-8613-GC
GUA-MRK-DOC-032



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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.
- ADAPTORS/SPACERS 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 MAY RESULT IN A PREMATURE COUPLING FAILURE.
- MAKE SURE THAT ADAPTORS/SPACERS ARE NOT IN CONTACT WITH ANY ROTATING SURFACES.
- IF ANY PROBLEMS OCCUR DURING ASSEMBLY, CONTACT GUARDIAN COUPLINGS IMMEDIATELY.
- WARNING: THIS PRODUCT MAY CONTAIN CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

SECTION 1 – ADAPTOR/SPACER OVERVIEW

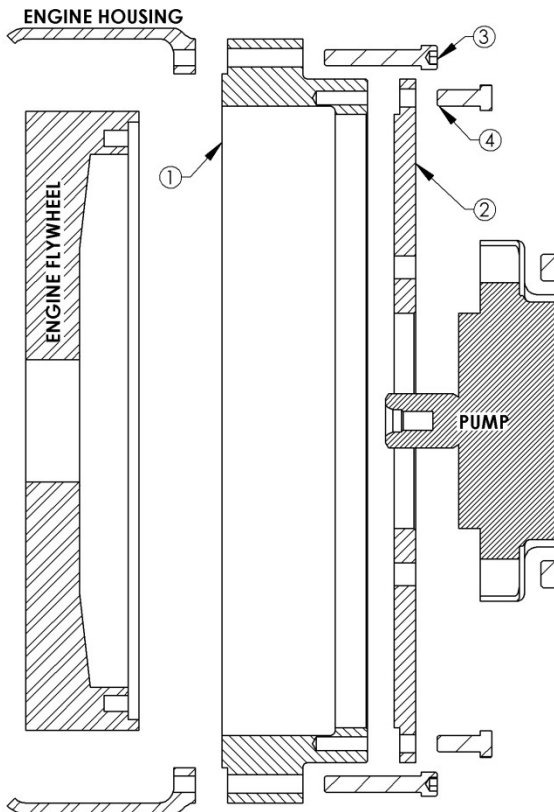


FIGURE 1.1 SAE HOUSING ADAPTOR CROSS SECTION

ITEM NUMBER	ITEM DESCRIPTION
1	SAE ENGINE HOUSING ADAPTOR
2	SAE PUMP MOUNTING PLATE (OR AUXILIARY EQUIPMENT)
3	ADAPTOR MOUNTING HARDWARE*
5	PLATE MOUNTING HARDWARE*

*SHOWN FOR REFERENCE ONLY – NOT INCLUDED WITH ADAPTOR

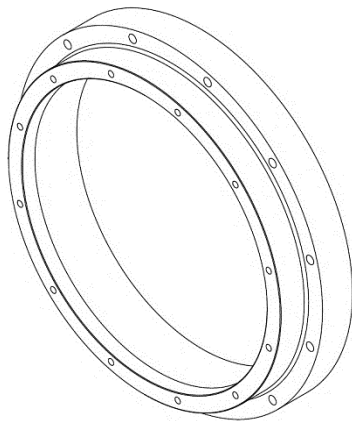


FIGURE 1.2 SAE HOUSING ADAPTOR (EQUIPMENT SIDE)

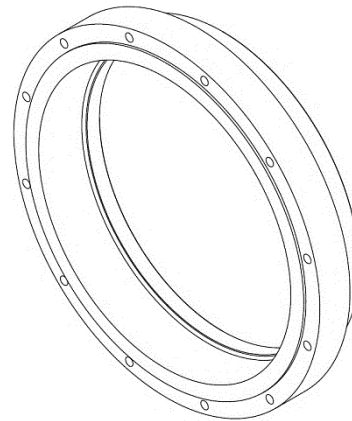
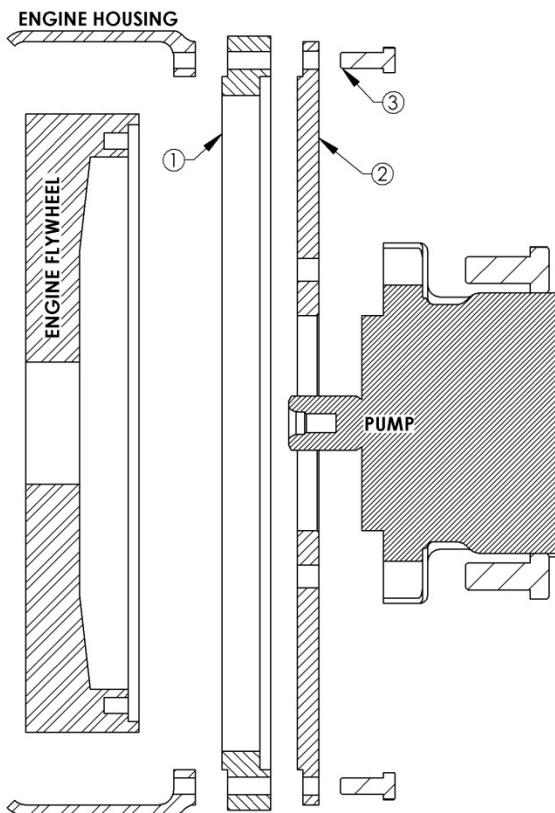


FIGURE 1.3 SAE HOUSING ADAPTOR (ENGINE SIDE)

SECTION 1 – ADAPTOR/SPACER OVERVIEW (continued)



ITEM NUMBER	ITEM DESCRIPTION
1	SAE ENGINE HOUSING SPACER
2	SAE PUMP MOUNTING PLATE (OR AUXILIARY EQUIPMENT)
3	SPACER MOUNTING HARDWARE*

*SHOWN FOR REFERENCE ONLY – NOT INCLUDED WITH ADAPTOR

FIGURE 1.5 SAE HOUSING SPACER CROSS SECTION

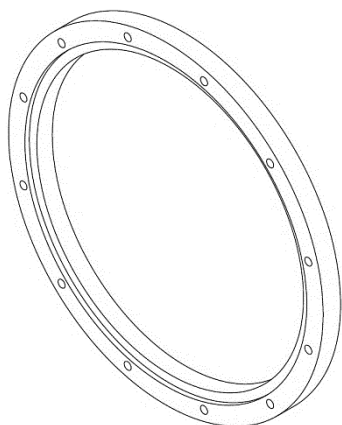


FIGURE 1.5 SAE HOUSING SPACER (EQUIPMENT SIDE)

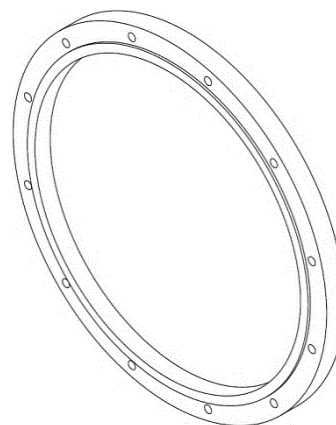


FIGURE 1.6 SAE HOUSING SPACER (ENGINE SIDE)

SECTION 2 - TOOLS/MATERIAL REQUIRED

- TORQUE WRENCH
- ALLEN SOCKETS
- MEDIUM STRENGTH REMOVABLE LOCTITE

SECTION 3A – INSTALLATION INSTRUCTIONS (SAE ADAPTORS)

- 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 ADAPTOR WITH ENGINE HOUSING PILOT AND MOUNTING HOLES
- 3) WITH ENGINE HOLES ALIGNED, INSTALL PROPER SIZED BOLTS INTO ENGINE HOUSING MOUNTING HOLES
GUARDIAN RECOMMENDS USING MEDIUM STRENGTH REMOVABLE LOCTITE
(SEE TABLE 5.1 FOR STANDARD SAE ENGINE HOUSING HOLE SIZES)
- 4) ENSURING ADAPTOR IS SEATED FLAT WITH ENGINE HOUSING, TORQUE BOLTS TO RECOMMENDED SEATING
TORQUE (SEE TABLE 5.1 FOR ENGINE HOUSING BOLT SEATING TORQUES)
- 5) ADAPTOR IS NOW READY FOR SAE PUMP MOUNTING PLATE OR AUXILIARY EQUIPMENT
FOR PUMP PLATES, REFER TO GUARDIAN DOCUMENT GUA-MRK-DOC-031 FOR INSTALLATION INSTRUCTIONS
FOR AUXILIARY EQUIPMENT, REFER TO EQUIPMENT MANUFACTURER FOR INSTALLATION INSTRUCTIONS

SECTION 3B – INSTALLATION INSTRUCTIONS (SAE SPACERS)

- 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 SPACER WITH ENGINE HOUSING PILOT AND MOUNTING HOLES
- 3) SPACER IS NOW READY FOR SAE PUMP MOUNTING PLATE OR AUXILIARY EQUIPMENT
FOR PUMP PLATES, REFER TO GUARDIAN DOCUMENT GUA-MRK-DOC-031 FOR INSTALLATION INSTRUCTIONS
FOR AUXILIARY EQUIPMENT, REFER TO EQUIPMENT MANUFACTURER FOR INSTALLATION INSTRUCTIONS

SECTION 4 - REFERENCE DATA

TABLE 5.1 SAE – J617c ENGINE HOUSING HOLE SIZES AND SEATING TORQUES

SAE HOUSING SIZE		1	2	3	5	5	6
IMPERIAL BOLTS		1/2-13	3/8-16				
SEATING TORQUE	FT-LBS	55	35				
	Nm	75	56				

SECTION 5 - STORAGE

- ADAPTORS/SPACERS SHOULD BE STORED IN A DRY, WELL MAINTAINED ENVIRONMENT
- HUMID STORAGE ENVIRONMENTS COULD LEAD TO SURFACE RUST ON THE ENGINE MOUNTING SURFACES,
WHICH REQUIRES REMOVAL PRIOR TO INSTALLATION
- ADAPTORS/SPACERS SHOULD BE STORED AND HANDLED IN A MANNER TO PREVENT DAMAGE TO THE
MACHINED ENGINE AND EQUIPMENT MATING FEATURES

WARRANTY

Guardian Ind. Inc. warrants that the Goods will be free from defects in material and workmanship for a period of twelve (12) months from delivery, or such other period as shall be agreed upon in writing by the parties. Guardian Ind. Inc.'s limited warranty excludes remedy for damage or defect caused by abuse; failure to resist corrosion or erosion from any corrosive agent or fluid, or due to deposits of foreign material from any fluid; modifications not executed by Guardian Ind. Inc.; improper installation or operation; defects or failures arising out of, in any way related to, or as a result, either direct or indirect, of the Buyer's failure to properly advise Guardian Ind. Inc. of all normal and special operating conditions, known to or suspected by the Buyer, when Guardian Ind. Inc. is manufacturing the Product for a specific operation; or normal wear and tear under normal usage. All weights stated in Guardian Ind. Inc.'s catalog and lists are approximate and are excluded from this warranty. EXCEPT AS EXPRESSLY SET FORTH IN THIS PARAGRAPH, GUARDIAN IND. INC. MAKES NO OTHER WARRANTY WITH RESPECT TO THE GOODS DELIVERED HEREUNDER AND EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, ARISING BY OPERATION OF LAW OR OTHERWISE.

Guardian Ind. Inc. must be notified in writing of any defect in the Goods within a reasonable period of time after discovery (not to exceed thirty (30) days) and the defective Goods must be delivered within the warranty period specified above, prepaid, to Guardian Ind. Inc.'s factory, with evidence that the Goods have been properly installed, maintained and operated in accordance with Guardian Ind. Inc.'s instructions. If Guardian Ind. Inc. determines that any such returned Goods are not in conformity with the warranty set forth herein, then Guardian Ind. Inc. shall, at its sole option and expense, either repair the same or supply replacement Goods.

The remedies of Buyer set forth herein are exclusive, and the total liability of Guardian Ind. Inc. hereunder, whether based on contract, warranty, negligence, indemnity, strict liability or otherwise, and shall not exceed the purchase price of the Goods giving rise to any such claim for liability. IN NO EVENT SHALL GUARDIAN IND. INC. OR ITS SUPPLIERS BE LIABLE TO BUYER, ANY SUCCESSORS IN INTEREST, OR ANY BENEFICIARY OF THIS CONTRACT FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, OR SPECIAL DAMAGES OR LOSSES, OR FOR ANY SECONDARY CHARGES OR ADMINISTRATIVE OR PUNITIVE DAMAGES, FINES, PENALTIES, FEES, EXPENSES AND OTHER CHARGES, ARISING OUT OF THE CONTRACT OR ANY BREACH THEREOF, WHETHER BASED UPON LOSS OF USE, LOSS OF PRODUCTION, LOST PROFITS OR REVENUE, INTEREST, LOST GOODWILL, WORK STOPPAGE, IMPAIRMENT OF OTHER GOODS, LOSS BY REASON OF SHUTDOWN OR NON-OPERATION, INCREASED EXPENSES OF OPERATION OR CLAIMS OF CUSTOMERS OF BUYER FOR SERVICE INTERRUPTION, OR ANY OTHER TYPE OF ECONOMIC LOSS OR DAMAGE, WHETHER OR NOT SUCH LOSS OR DAMAGE IS BASED ON CONTRACT, WARRANTY, NEGLIGENCE, INDEMNITY, STRICT LIABILITY OR OTHERWISE.

Further details pertaining to TERMS AND CONDITIONS OF SALES can be found at the following link:

http://www.altramotion.com/~media/Files/Corporate/Terms%20and%20Conditions/Sales-Terms/Guardian_Sales_Terms.ashx



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