

Guardian Curved Jaw Coupling

Service & Installation Instructions

P-8607-GC
GUA-MRK-DOC-018



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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.

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.
- 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 – COUPLING OVERVIEW

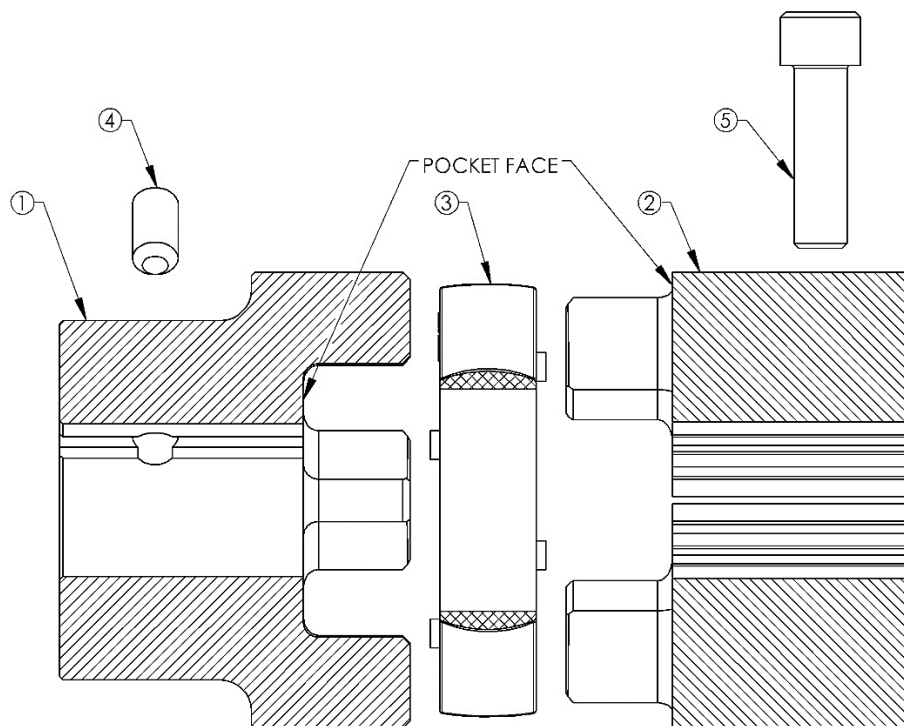


FIGURE 1.1 HORIZONTAL (T10) TAPER GRID COUPLING (EXPLODED VIEW)

ITEM NUMBER	ITEM DESCRIPTION
1	CURVED JAW COUPLING HUB (A-STYLE)
2	CURVED JAW COUPLING HUB (B-STYLE)
3	SPIDER ELEMENT
4	SETSCREW
5	CROSS-CLAMP BOLT

SECTION 1 – COUPLING OVERVIEW

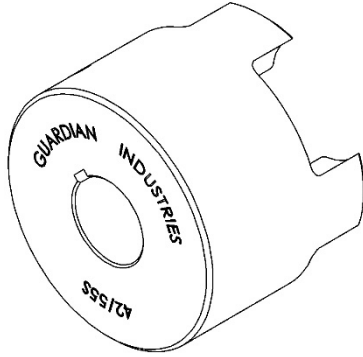


FIGURE 1.2 CURVED JAW COUPLING HUB (BODY SIDE)

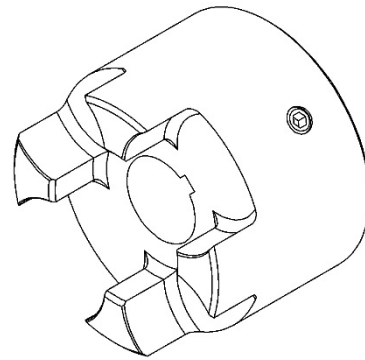


FIGURE 1.3 CURVED JAW COUPLING HUB (POCKET SIDE)

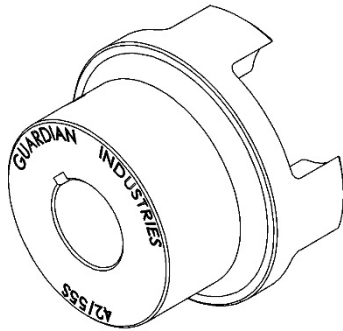


FIGURE 1.4 CURVED JAW A-STYLE BODY

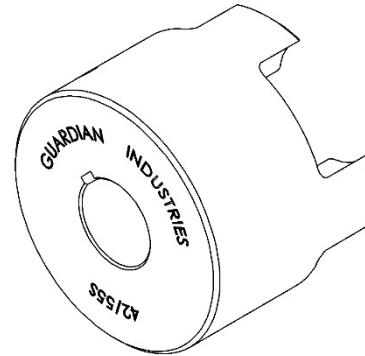


FIGURE 1.5 CURVED JAW B-STYLE BODY

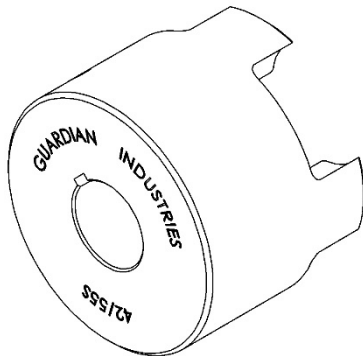


FIGURE 1.6 BORE & KEYWAY HUB

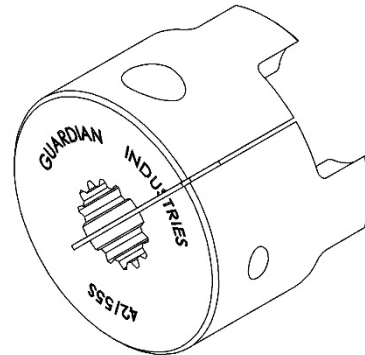


FIGURE 1.7 CROSS-CLAMP HUB

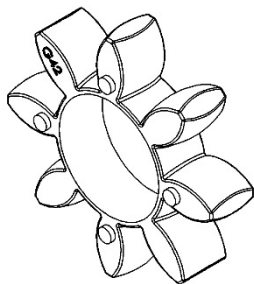


FIGURE 1.8 CURVED JAW SPIDER ELEMENT

SECTION 2 - TOOLS/MATERIAL REQUIRED

- TORQUE WRENCH
- ALLEN SOCKETS
- MEDIUM STRENGTH REMOVABLE LOCTITE
- CALIPERS / FEELER GAGE(S)
- 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 COUPLING HUB BORE WITH DRIVING SHAFT
HUB SHOULD BE INSTALLED WITH THE HUB BODY TOWARD THE DRIVING UNIT
(SEE FIGURE 1.6 THRU 1.7 FOR TYPICAL MOUNTING OPTIONS)
- 3) POSITION HUB ON MATING SHAFT
IDEAL HUB POSITION IS WITH THE POCKET FACE OF THE HUB FLUSH WITH THE END OF MATING SHAFT
OVERHUNG HUBS SHOULD HAVE A MINIMUM SHAFT ENGAGEMENT EQUAL TO THE HUB BORE DIAMETER
- 4) WITH HUB PROPERLY POSITIONED, TORQUE CLAMPING FASTENER TO RECOMMENDED SEATING TORQUE
GUARDIAN RECOMMENDS USING MEDIUM STRENGTH REMOVABLE LOCTITE FOR BORE & KEYWAY SETSCREW
(SEE TABLE 4.1 FOR PROPER BORE & KEYWAY SETSCREW SEATING TORQUES)
- 5) REPEAT STEPS 2 THRU STEPS 4 FOR THE DRIVEN SHAFT HUB
- 6) MOVE DRIVEN AND DRIVING EQUIPMENT TOGETHER UNTIL PROPER DISTANCE BETWEEN HUBS IS ACHIEVED
(ASSEMBLY GAP CAN BE USED AS REFERENCE WHEN UNABLE TO MEASURE DISTANCE BETWEEN HUBS)
(SEE FIGURE 4.1 AND TABLE 4.2 FOR PROPER DISTANCE BETWEEN HUBS AND ASSEMBLY GAP)
- 7) ENSURE DRIVEN UNIT IS ALIGNED TO DRIVING UNIT, WITHIN COUPLINGS ALLOWABLE MISALIGNMENT
ANGULAR ALIGNMENT
MEASURE THE ASSEMBLY GAP BETWEEN HUBS IN (4) LOCATIONS 90° APART
THE MEASUREMENT RANGE SHOULD NOT EXCEED THE ANGULAR LIMIT LISTED IN TABLE 4.3
PARALLEL ALIGNMENT
PLACE A STRAIGHT EDGE SQUARE ON THE OUTER DIAMETER OF BOTH HUBS IN (4) LOCATIONS 90° APART
THE MAXIMUM GAP SHOULD NOT EXCEED THE OFFSET LIMIT LISTED IN TABLE 4.3

SECTION 4 - REFERENCE DATA

TABLE 4.1 CURVED JAW BORE & KEYWAY SETSCREW SEATING TORQUE

COUPLING SERIES		7GS	9GS	14GS	19/24	24/32	28/38	38/45	42/55
SETSCREW SIZE		6-32	8-32	8-32	10-24	5/16-18	5/16-18	5/16-18	3/8-16
SEATING TORQUE	FT-LBS	.83	1.7	1.7	7	14	14	14	23
	Nm	1.1	2.3	2.3	9.5	19.0	19.0	19.0	31.2
COUPLING SERIES		48/60	55/70	65/75	75/90	90/100	100/110	110/125	125/145
SETSCREW SIZE		3/8-16	1/2-13	1/2-13	1/2-13	3/4-10	3/4-10	3/4-10	3/4-10
SEATING TORQUE	FT-LBS	23	50	50	50	167	167	167	167
	Nm	31.2	67.8	67.8	67.8	226.4	226.4	226.4	226.4

TABLE 4.2 CURVED JAW DISTANCE BETWEEN HUBS AND ASSEMBLY GAP

COUPLING SERIES	7GS	9GS	14GS	19/24	24/32	28/38	38/45	42/55
DIST. BETWEEN HUBS	.328	.427	.503	.609	.683	.769	.981	1.031
ASSEMBLY GAP	.063	.063	.063	.078	.078	.109	.156	.156
COUPLING SERIES	48/60	55/70	65/75	75/90	90/100	100/110	110/125	125/145
DIST. BETWEEN HUBS	1.081	1.173	1.369	1.534	1.746	1.966	2.140	2.367
ASSEMBLY GAP	.156	.156	.188	.219	.266	.297	.328	.359

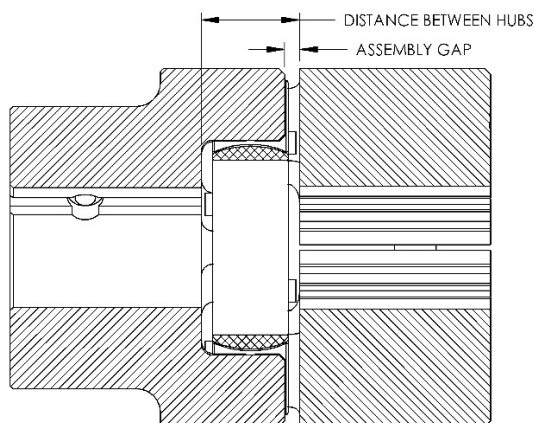


FIGURE 4.1 CURVED JAW COUPLING ASSEMBLY GAP

TABLE 4.3 CURVED JAW COUPLING INSTALLATION ALIGNMENT LIMITS (INCH)

COUPLING SERIES	7GS	9GS	14GS	19/24	24/32	28/38	38/45	42/55
OFFSET LIMIT	.002	.002	.002	.008	.009	.010	.011	.012
ANGULAR LIMIT	.010	.014	.021	.030	.030	.040	.050	.070
COUPLING SERIES	48/60	55/70	65/75	75/90	90/100	100/110	110/125	125/145
OFFSET LIMIT	.014	.015	.016	.018	.019	.020	.021	.024
ANGULAR LIMIT	.080	.090	.110	.130	.170	.190	.220	.250

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)
- COUPLING SHOULD BE STORED WITH SPIDER ELEMENT FREE OF OIL

WARRANTY

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