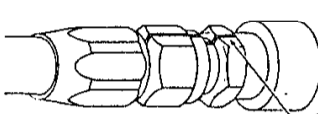
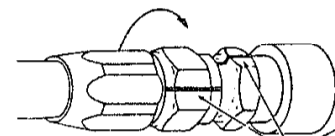


GENERAL ELECTRIC

41A306340

REV NO.	TITLE SWIVEL END HOSE FITTING TORQUING		CONT ON SHEET	SH NO.																																												
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SWIVEL END HOSE FITTING TORQUING				REVISIONS																																												
PURPOSE OF THIS DRAWING: FLARE FITTINGS ARE USED FOR EITHER RIGID TUBE OR FLEX HOSE END CONNECTIONS. LEAK TIGHTNESS DEPENDS ON METAL TO METAL SEAL OF SURFACES MACHINED AT EITHER 45° OR 37° FROM AXIS OF FITTING. 45° FLARE FITTINGS ARE COMMONLY REFERRED TO AS "SAE FITTINGS." 37° FLARE FITTINGS ARE COMMONLY REFERRED TO AS "JIC FITTINGS." (ACTUALLY, BOTH TYPE FITTINGS ARE NOW CONTROLLED BY SPECIFICATIONS ISSUED BY THE SOCIETY OF AUTOMOTIVE ENGINEERS (SAE).) IN ANY EVENT, 37° AND 45° FLARE FITTINGS MUST NEVER BE MIXED, OR LEAKAGE MAY OCCUR. TORQUE VALUES: LEAKAGE MAY OCCUR FROM EITHER UNDERTIGHTENING OR OVERTIGHTENING FLARE FITTINGS. PROPER TIGHTNESS MAY BE ACHIEVED EITHER BY USE OF TORQUE WRENCHES OR BY ROTATING THE FITTING TO A GIVEN POSITION PAST FINGER-TIGHT. USE OF TORQUE WRENCH IS SELF-EXPLANATORY. TO USE POSITION METHOD: 1. TIGHTEN NUT FINGER-TIGHT UNTIL IT BOTTOMS ON THE SEAT. 2. MARK A LINE LENGTHWISE ON THE NUT AND EXTEND IT ONTO THE ADAPTER. USE AN INDELIBLE MARKER SUCH AS THE "SANFORD SHARPIE" OR SIMILAR. SEE FIGURE 1. 3. USING A WRENCH, ROTATE THE NUT TO TIGHTEN IT. ROTATE THE NUT THE PROPER NUMBER OF HEX FLATS AS SHOWN IN CHART BELOW. SEE FIGURE 2. <table border="1"> <thead> <tr> <th>TORQUE (REFERENCE ONLY) (IN. LBS.)</th> <th>NOMINAL SIZE (INCHES)</th> <th>HOSE OR TUBING - SIZE</th> <th>ROTATE NUMBER OF HEX FLATS</th> </tr> </thead> <tbody> <tr><td>70-120</td><td>1/4</td><td>-4</td><td>2 1/2</td></tr> <tr><td>85-160</td><td>5/16</td><td>-5</td><td>2 1/2</td></tr> <tr><td>100-200</td><td>3/8</td><td>-6</td><td>2</td></tr> <tr><td>200-300</td><td>1/2</td><td>-8</td><td>2</td></tr> <tr><td>300-400</td><td>5/8</td><td>-10</td><td>1 1/2 to 2</td></tr> <tr><td>500-700</td><td>3/4</td><td>-12</td><td>1</td></tr> <tr><td>700-1000</td><td>1</td><td>-16</td><td>3/4 to 1</td></tr> <tr><td>1000-1300</td><td>1 1/4</td><td>-20</td><td>3/4 to 1</td></tr> <tr><td>1000-1400</td><td>1 1/2</td><td>-24</td><td>1/2 to 3/4</td></tr> <tr><td>1500-1800</td><td>2</td><td>-32</td><td>1/2</td></tr> </tbody> </table> 4. MISALIGNMENT OF MARKS WILL SHOW HOW MUCH NUT WAS TIGHTENED. LACK OF MARKS OR ALIGNMENT OF MARKS WILL SHOW THE NUT MAY NOT HAVE BEEN TIGHTENED.  Mark a line on nut and adapter before torquing FIG. 1  Misalignment of mark shows amount which nut was tightened FIG. 2				TORQUE (REFERENCE ONLY) (IN. LBS.)	NOMINAL SIZE (INCHES)	HOSE OR TUBING - SIZE	ROTATE NUMBER OF HEX FLATS	70-120	1/4	-4	2 1/2	85-160	5/16	-5	2 1/2	100-200	3/8	-6	2	200-300	1/2	-8	2	300-400	5/8	-10	1 1/2 to 2	500-700	3/4	-12	1	700-1000	1	-16	3/4 to 1	1000-1300	1 1/4	-20	3/4 to 1	1000-1400	1 1/2	-24	1/2 to 3/4	1500-1800	2	-32	1/2	2006 PRINTS TO
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