

Service Call:
Fitting Torque Chart

Tools Required:

Hand Tools
Torque Wrench
Torque Seal
Crows foot

Model(s):
All Models

Tech Tip Safety Rules



Danger

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

Do Not Perform Maintenance Unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
 - manufacturer's instructions and safety rules
 - employer's safety rules and worksite regulations
 - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

Introduction

This tech-tip will provide the torque specs for the main hydraulic connections used by Terex Utilities. This information should only be used as a guide. Always reference torque specifications that are called out in your unit specific maintenance manual. For information on Flats from wrench resistance (FFWR) you can reference Tech Tip 96.

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JIC Swivel Nut

Thread Size	Size	OD Tube	Torque Ft. lbs (N-M)
7/16 - 20	4	1/4	9 (12)
1/2 - 20	5	5/16	17 (23)
9/16 - 18	6	3/8	20 (27)
3/4 - 16	8	1/2	30 (41)
7/8 - 14	10	5/8	40 (54)
1 1/16 - 12	12	3/4	85 (115)
1 3/16 - 12	14	7/8	100 (136)
1 5/16 - 12	16	1	110 (149)
1 5/8 - 12	20	1-1/4	150 (203)
1 7/8 - 12	24	1-1/2	170 (231)
2 1/2 - 12	32	2	300 (407)
	40	2-1/2	400 (542)
	48	3	500 (678)

Note: The torque required to seal swivel female fittings or hose couplings to a male connector depends on many variables such as fluid medium, surface finish, etc.

The above values are intended only as a guide for the maximum values the fittings may be subjected to.

These values are the recommended torque values for JIC (37-degree Seat) Swivel nuts either swaged or brazed type. The swivel nuts will normally withstand this torque for a minimum of 15 repeated assemblies.

You will need to use a torque wrench with crow's foot made for hydraulic fittings. Below is an example of the setup.



SAE O-Ring Boss Fitting

SAE #	Tube Size	O-Ring		Torque IN-lbs (N-M)
		ARP #	T.T P/N	
4	1/4"	904	55638	107 (12) +/- 10 (1)
5	5/16"	905	79994	145 (16)+/- 20 (2)
6	3/8"	906	55639	225 (25)+/- 25 (3)
8	1/2"	908	15690	420 (47)+/- 50 (6)
10	5/8"	910	438594	660 (75)+/- 50 (6)
12	3/4"	912	55641	900 (102)+/- 50 (6)
16	1"	916	18586	1200 (136)+/- 80 (9)
20	1-1/4"	920	415240	1600 (181)+/- 80 (9)
24	1-1/2"	924	438595	2000 (226)+/- 80 (9)
32	2"	932	421348	2800 (316)+/- 120 (14)

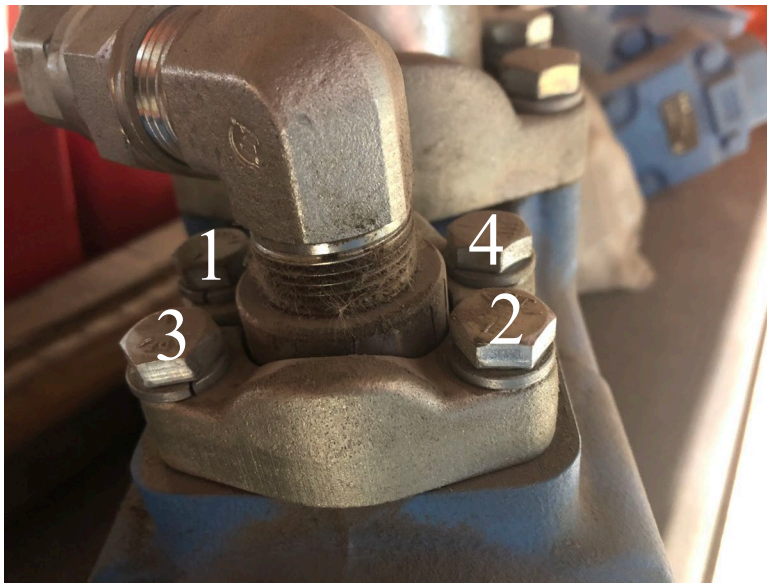
Flat Face O-Ring

Tube Size	Thread Size	Torque Ft. lbs (N-M)
4	9/16 18	10-12 (14-16)
6	11/16 16	18-20 (24-27)
8	13/16 16	32-35 (43-47)
10	1 14	46-50 (60-68)
12	1-3/16 12	65-70 (90-95)
14	1-3/16 12	65-70 (90-95)
16	1-7/16 12	92-100 (125-135)
20	1-11/16 12	125-140 (170-190)
24	2 12	150-165 (200-225)

Flange Ports

Size	Flange Size	Bolt	Torque Ft lbs	Metric Bolt	Torque N-M
8	1/2	5/16-18	17	M8	24
12	3/4	3/8-16	31	M10	50
16	1	3/8-16	31	M10	50
20	1-1/4	7/16-14	52	M10	50
24	1-1/2	1/2-13	77	M12	92
32	2	1/2-13	77	M12*	92
40	2-1/2	1/2-13	77	M12	92
48	3	5/8-11	155	M16	210
56	3-1/2	5/8-	155	M16	210
64	4	5/8-11	155	M16	210
80	5	5/8-11	155	M16	210

***Does not meet ISO 6162 Spec**



Torque bolts in the order shown: 1, 2, 3, then 4