

## **Service Call:**

Tightening 37° JIC Flare Fittings

## **Tools Required:**

Standard and Angle Wrench Set

## **Model(s):**

All Terex Utilities equipment using 37° Flare fittings on hoses

## **Introduction**

The proper way to tighten a 37° JIC Flare Fitting is using the Flats from Wrench Resistance (FFWR) method.

With this method the fitting is tightened until there is slight resistance on the nut. A mark is made on the nut and fitting and the nut is tightened based on the amount of wrench flats that pass the mark on the fitting.

While following this process it is critical to mark and tighten one fitting at a time before moving on to ensure no fittings are missed.

## 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.

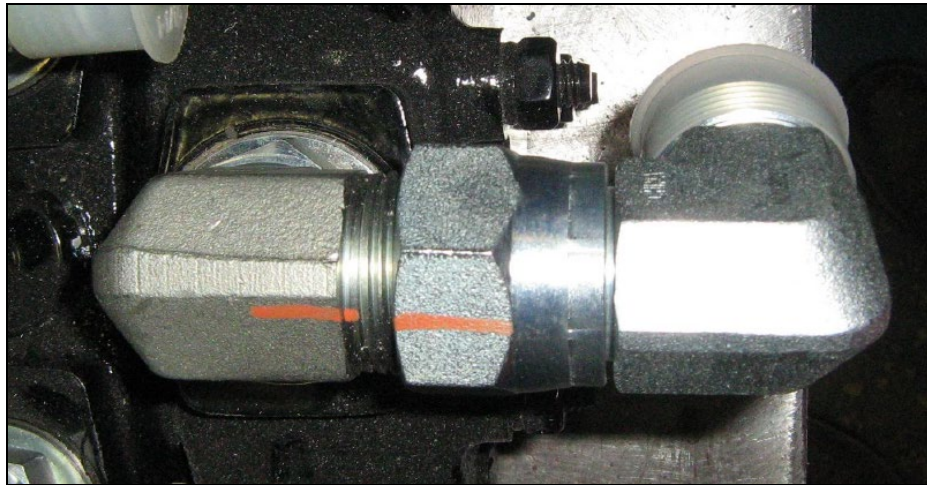
The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

## Step 1

Thread the hose end or adapter nut onto the fitting until it cannot be tightened by hand any further. Lightly tighten the nut with a wrench (approximately 30 in. lbs.) making sure it does not bind; this is also known as tightening until wrench resistance.

## Step 2

Mark a straight line across the two fittings as shown below with a paint or permanent marker.



## Step 3

Using the following chart to determine how many flats to tighten the fitting. The column FFWR (Flats from Wrench Resistance) is the amount of flats required.

DASH SIZE	THREAD SIZE	SWIVEL NUT TORQUE - JIC 37 FLARE FITTING		FFWR
		N-M	LB-IN	
-4	7/16-20	15-17	130-150	2
-5	1/2-20	19-22	165-195	2
-6	9/16-18	27-30	235-265	1-1/2
-8	3/4-16	59-65	525-575	1-1/2
-10	7/8-14	68-79	600-700	1-1/2
-12	1 1/16-12	107-119	950-1050	1-1/4
-14	1 3/16-12	127-140	1128-1236	1-1/4
-16	1 5/16-12	158-170	1400-1500	1
-20	1 5/8-12	215-237	1900-2100	1
-24	1 7/8-12	254-288	2250-2550	1
-32	2 1/2-12	339-384	3000-3400	1

In the picture below a -10 fitting is shown tightened 1.5 flats. Whenever possible use two wrenches when tightening fittings so only the nut turns.

