

## **Gas Inflation System (Torsional) Inlet Valve Installation Instructions**

**M-07-IS-GIVT**

**9<sup>th</sup> April 2014**

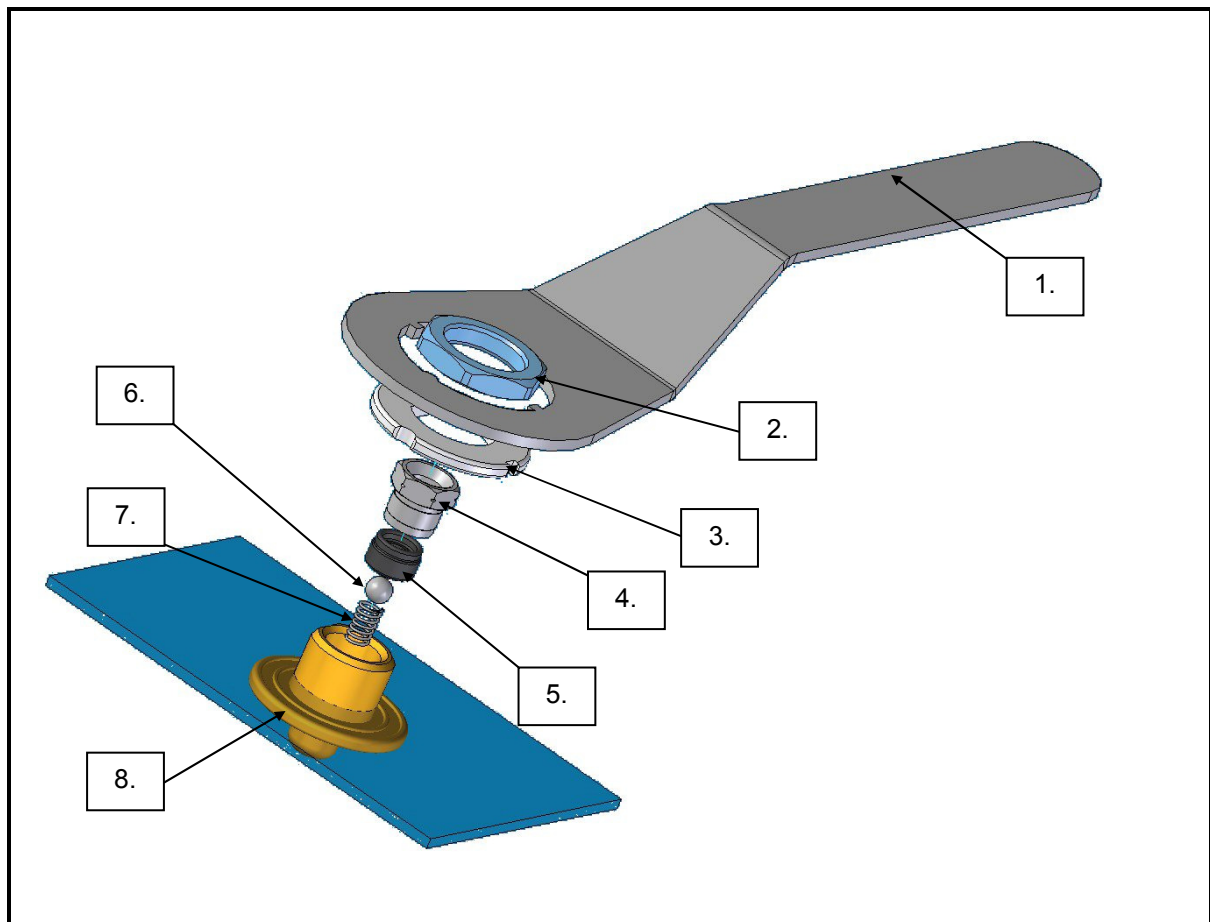
**Revision 8**

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1. Parts List

Item number	Part number	Description
1	0320000	Spanner
2	B15671 B15420	M24 Nut M24 Nut (unplated)
3	17675	Plastic Washer
4	32400010 0806001	M16 Quick-Fit Connector Body M16 Quick-Fit Connector Body (Stainless Steel, purple code)
5	18271	Ball seat
6	03800016	Sealing Ball
7	77400068	Spring
8	Various	Valve body



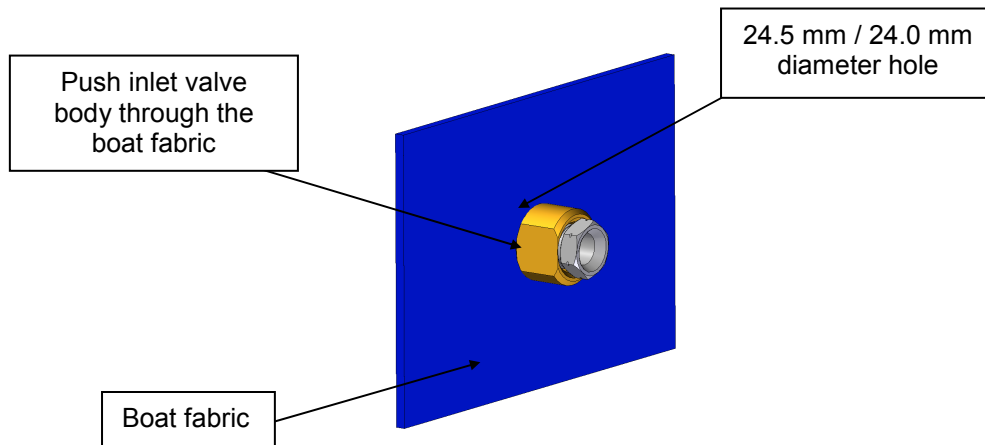
## 2. Installation

Tools required for this operation:

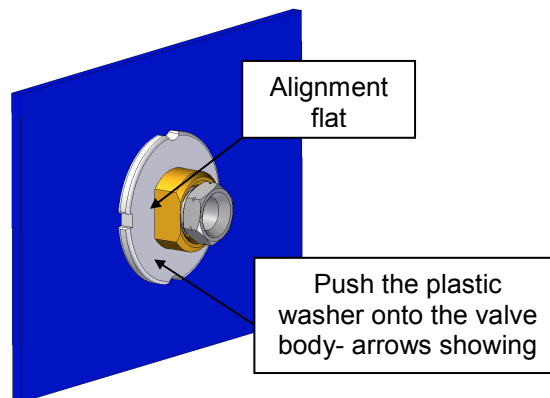
1 off spanner part number 0320000.

1 off 33 A/F spanner (same spanner used on existing Leaffield inlet valve.)

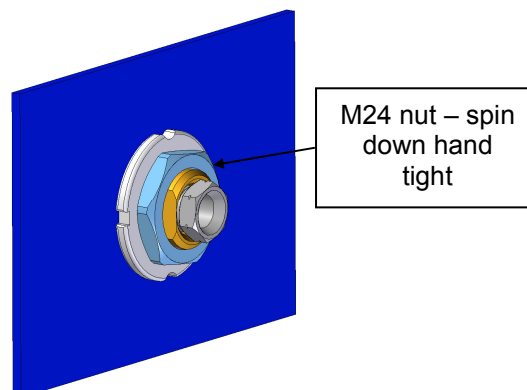
1. Cut a 24.5 / 24.0mm diameter hole in the fabric. Push the M24 threaded section of the inlet valve body through the hole in the tube fabric.



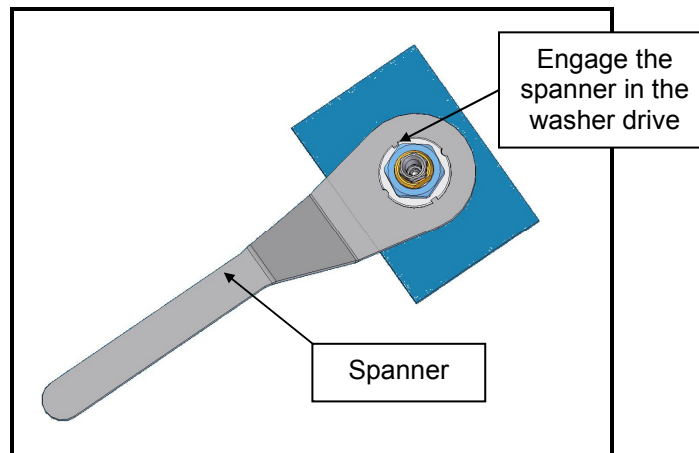
2. Place the washer over the M24 x 1.5 thread, ensuring that the flats line up.



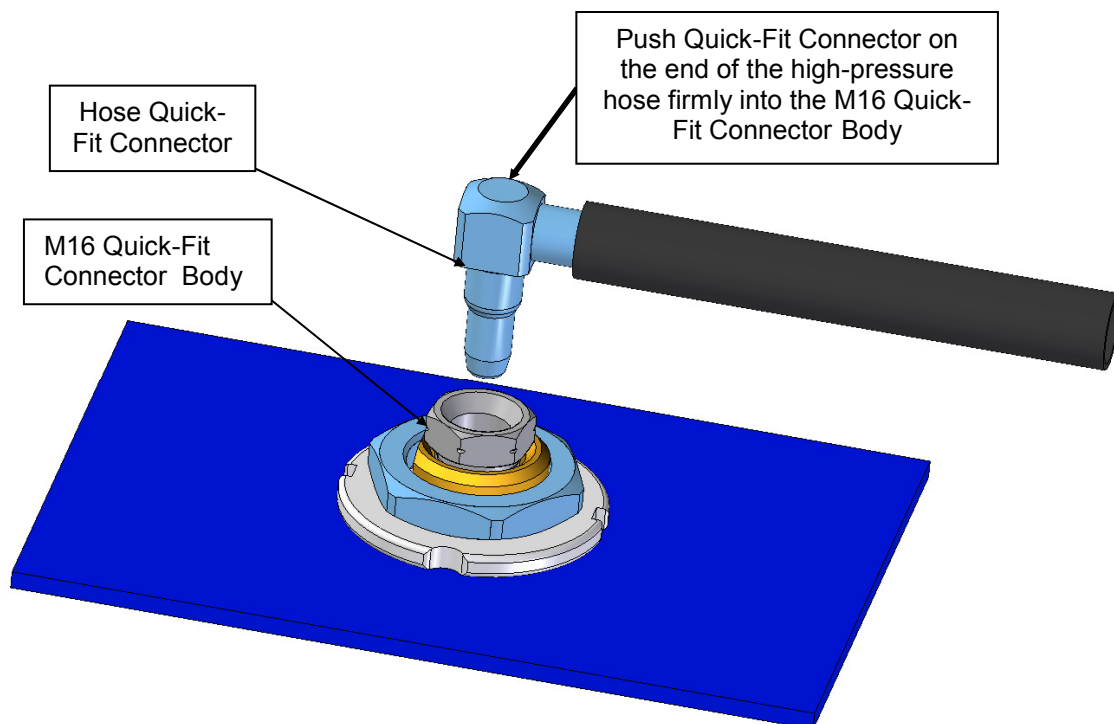
3. Locate the nut onto the inlet valve body and spin down the thread. Tighten hand tight.



4. Locate the flat spanner into the 4 features on the outside diameter of the washer. Align the jets in the inlet valve by ensuring the arrows on the spanner are orientated along the axis of the tube.



5. Locate a 33mm A/F socket and torque wrench on the M24 nut. Tighten the M24 nut to a torque of 30Nm (22.1 ft/lbs).
6. Remove the red plastic dust cap from the top thread of the inlet valve. The valve is now ready to accept the quick fit connector on the end of the high-pressure hose. Push the connector firmly into the hole, make sure a click is heard and then rotate through 90 degrees. Check that the connection has been correctly made by pulling the hose connector firmly upwards, away from the valve.



7. If the hose has not been correctly snapped into place it may blow out during inflation. In this case check that the 'O' Ring is still in place in the M16 Quick-Fit Connector Body before pushing together as described above. If it is not present replace the M16 Quick-Fit Connector Body. (See item 3.1.6 below.)

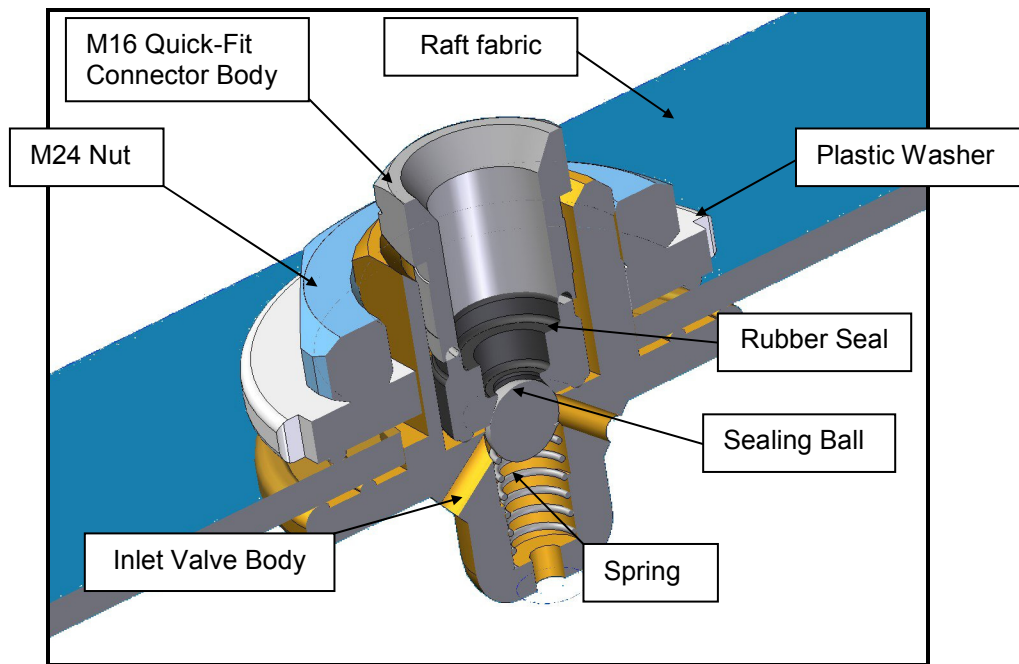
3. Service instructions

- 3.1 If the valve is leaking from around the M16 Quick-Fit Connector Body or the hose needs replacing:

List of tools and equipment required for this operation:

1 off 16mm A/F spanner  
1 off spanner part number 0320000  
1 off tool part number TM2238  
Mild detergent  
Warm Water

1. Engage the spanner in the washer features. Locate a 16mm A/F spanner onto the M16 connector and unscrew. The connector will remain connected to the end of the hose and is re-usable, if in acceptable condition.
2. Remove the rubber ball seal. Care must be taken when doing this as there is a spring underneath the seal which supports the sealing ball. This ball may be ejected from the assembly resulting in loss.
3. Remove the spring and the sealing ball and thoroughly clean the parts with a mild detergent and clean, warm water. If the sealing ball, rubber seal or spring appear to be damaged or badly pitted the parts should be replaced.
4. Thoroughly dry the components and lightly grease with Molykote 111.
5. Carefully put the spring into the valve body. Drop the sealing ball on top followed by the rubber seal. **Important:** Make sure the seal is the right way up- tapered hole over the sealing ball- and push down squarely into the valve body.
6. Screw in the M16 Quick-Fit Connector Body and torque to a setting of 9-12Nm (6.5-9ft/lb).

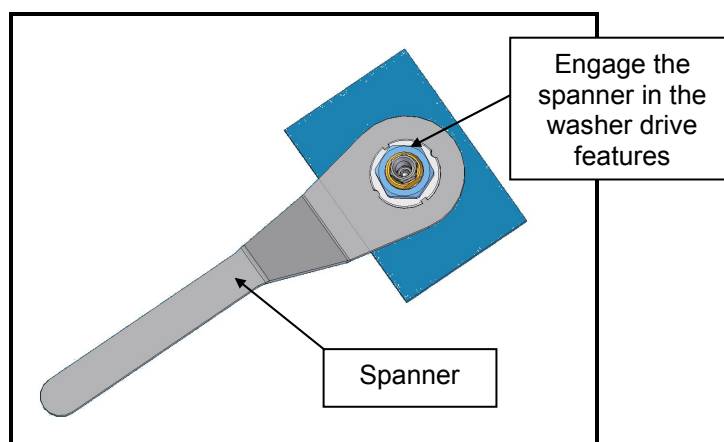


7. Operate the valve by pushing the 4mm rod, TM2238, through the M16 Quick-Fit Connector Body and check that the metal ball moves freely against spring pressure.
8. Once the M16 Quick-Fit Connector Body and the hose have been snapped together the M16 Quick-Fit Connector Body becomes a permanent hose attachment. If the hose/M16 Connector requires replacing a new hose and connector will be required.

### 3.2 If the valve is leaking from around the plastic washer and the fabric

This type of leakage occurs if the valve has become loose in the fabric. To identify this type of leak cover the area around the washer with soapy water and watch for bubbles. To rectify this type of leak, carry out the following procedure.

1. Locate the flat spanner into the 4 features on the washer.



2. Locate a 33mm A/F socket and torque wrench on the M24 nut. Rotate the spanner to align the jets along the axis of the tube using the 2 direction indicator arrows on the spanner. Tighten the M24 nut to a torque of 30Nm (22.1 ft/lbs).
3. Inflate the tube and check that the leak has stopped by applying some soapy water around the washer. If the valve is still leaking bubbling will be apparent and the washer should be replaced.