Push Lock Fittings (XDT)

Fitting Procedure

The fitting is installed and removed without the need for tools, it is removable and reusable.

1 To release the tube push the collet **B** and release the tube **A**. All tubes have an assembly mark to assist installation.

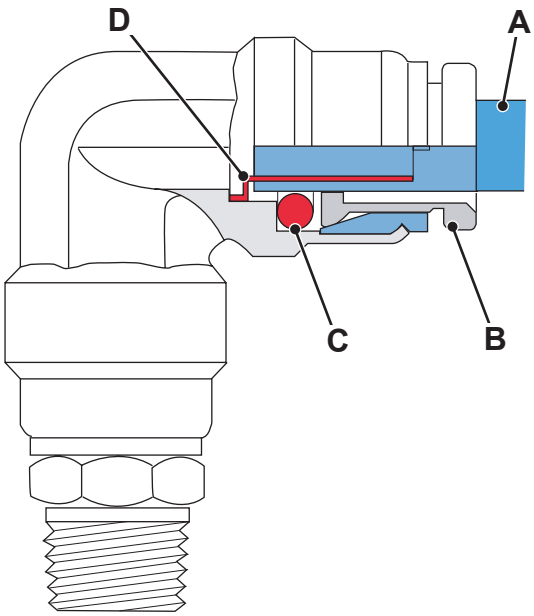

Fig 7.

	Description
A	Tube
B	Collet
C	O-ring
D	Steel support tube

Rapid Assembly Hose Fittings

Fitting Procedure

The hose has a toolless installation. The hose is not removable. The complete hose and fitting assembly must be replaced.

1 To install the hose, push the tube into the fitting body.

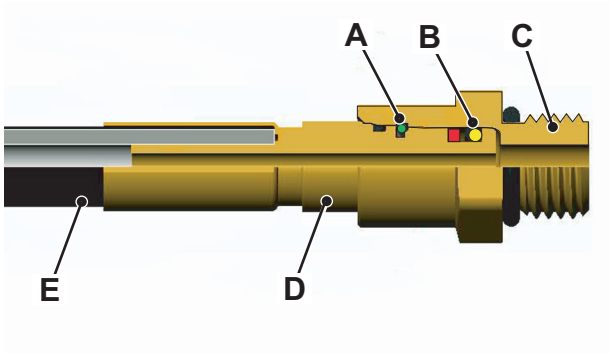

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Fig 8.

	Description
A	Snap ring
B	O-ring and back-up ring
C	Tube
D	Fitting body
E	Hose

ORFS Hose Connections

Fitting Procedure

The hose fittings are for flat face components for resistance over torque. The o-ring seal offers 100% reliability

1 Always coat the o-ring **D** with hydraulic oil before installation.

2 The rubber O-Ring is compressed in a precision machined groove in the adaptor **D** to form a tight seal against a flat surface of the sleeve **B**.

3 Torque tighten the nut **A** to compress the fitting

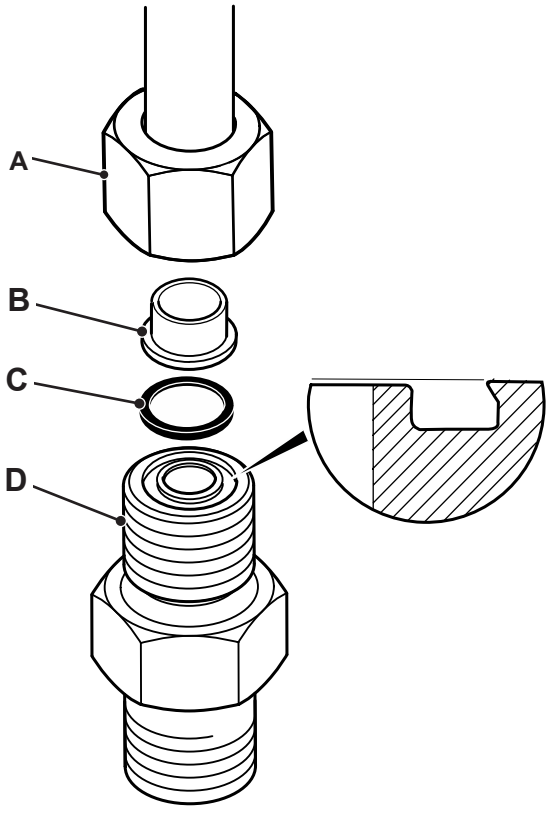

Fig 9.

Pressure Testing

The display panel can be used to self check machine pressures. Refer to *Section C, Logic Control*. Pressures which can be measured are:

- Charge Pressure
- Float/Lift Pressure
- Park Brake Pressure

Bleeding the Hydraulic System (Start-Up Procedure)

⚠ WARNING

This procedure requires the machine to be disabled (wheels raised off the ground, work function disconnected, etc.) while the procedure is carried out.

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After replacing the hydraulic oil or repairing or replacing hydraulic components or removing hydraulic pipes, bleed air from the hydraulic circuit.

1 Ensure that the machine hydraulic oil and system components (reservoir, hoses, valves, fittings, and heat exchanger) are clean and free of any foreign material.

Install new hydraulic system filter element(s) if necessary. Check that inlet line fittings are properly tightened and free of air leaks.

2 If the pump has been replaced fill its housing by adding filtered hydraulic fluid to the upper case drain port.

3 If necessary fill the hydraulic reservoir with fluid of the recommended type and viscosity. Use a 10-micron filler filter. Ensure the reservoir is closed after filling is complete.

4 Disconnect the pump from all control input signals.

Important: *Air entrapment in oil under high pressure may damage hydraulic components. Check carefully for inlet line leaks.*

Important: *Do not run at maximum pressure until the system is free of air and fluid has been thoroughly filtered.*

Important: *After start-up the fluid level in the reservoir may drop due to system components filling. Damage to hydraulic components may occur if the fluid supply runs out. Ensure the reservoir remains full of fluid during start-up.*

5 Disable the engine (unplug the ESOS or flywheel sensor) to prevent it from starting. Crank the starter for several seconds. Wait 30 seconds and then crank the engine a second time as stated above. This operation helps remove air from the system lines. Refill the reservoir to recommended full oil level.

6 Charge pressure can be checked in the cab via the charge pressure transducer (see the advanced menu on the right gauge cluster).

When the display begins to register charge pressure, enable and start the engine. Let the engine run for a minimum of 30 seconds at low idle to allow the air to work itself out of the system. Check for leaks at all line connections and listen for cavitation. Check for proper fluid level in the hydraulic reservoir.

7 When adequate charge pressure is established, increase engine speed to normal operating rpm to further purge residual air from the system.

8 Turn off the engine. Connect the pump control signal. Start the engine, checking to be certain the pump remains in neutral. Run the engine at normal operating speed and carefully check for forward and reverse control operation.

9 Continue to cycle between forward and reverse for at least five minutes to bleed all air and flush system contaminants out of the system loop.

Normal charge pressure fluctuation may occur during forward and reverse operation.

10 Check that the reservoir is full.

Fault Finding

Introduction

The purpose of this section is to help you trace hydraulic problems to a faulty unit (valve, actuator, ram etc.). Once you have traced the faulty unit, refer to the appropriate dismantling, inspecting and test instructions given elsewhere in the manual.

To help identify circuits, valves, rams etc. mentioned in the problem solving procedures, refer to hydraulic schematic diagrams.

- Before you begin problem solving, read the Safety Information at the beginning of this manual.
- Make simple checks before say, stripping a major component.
- Make sure that the hydraulic fluid is at correct working temperature (50 °C, 122 °F).
- Whatever the fault, check the condition of the hydraulic fluid. Drain and replace if necessary.
- Be sure to remove ALL contamination and if possible identify its origin. It may be part of a component from elsewhere in the circuit.