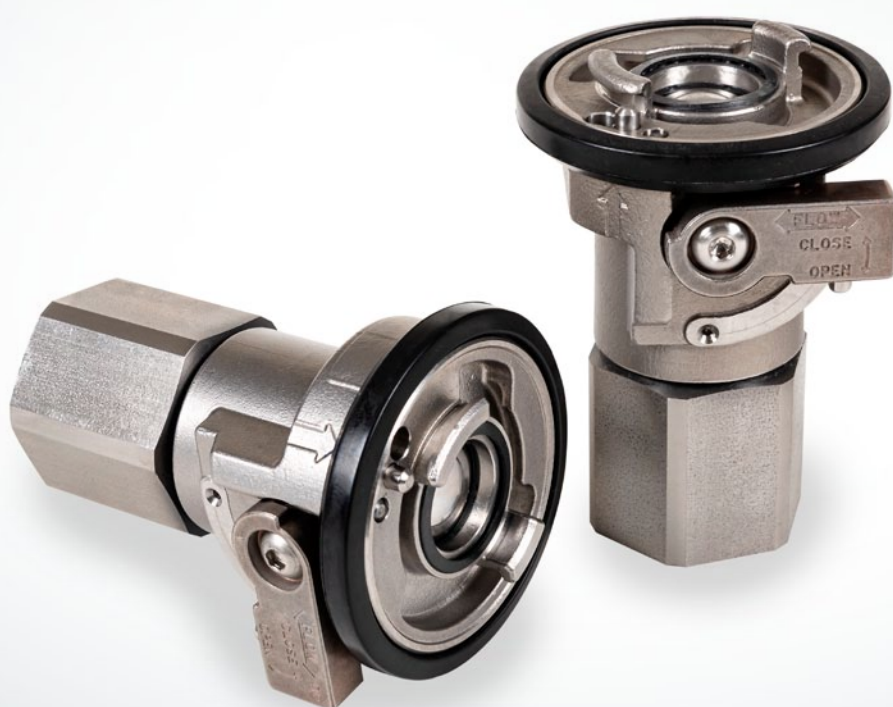


Operator's Manual

Danfoss Hansen® FD83 Coupling



Connecting Instructions



Instructions for connecting a pair of FD83 Couplings.



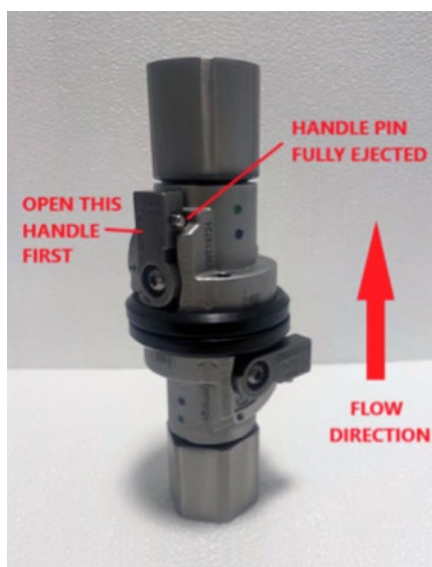
1. Align the lugs with the grooves on the mating coupling.



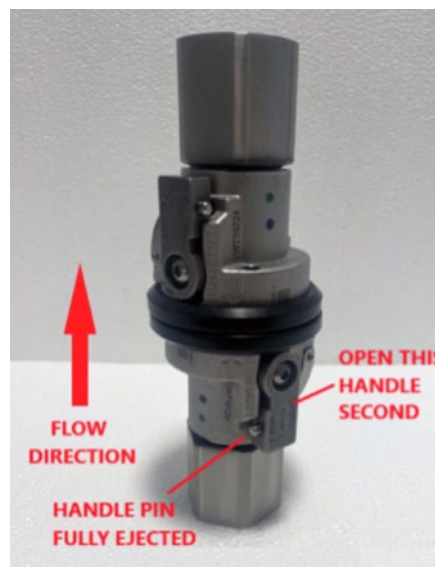
2. Push the parts together so the pins are compressed.



3. While continuing to push the parts together, twist the two couplings until the arrows align. The parts will "click" when fully engaged.



4. Compress the handle pin and twist it to open the 1st valve. The pin on the handle will fully eject when the valve is completely open. If there is pressure in the system, the coupling that the flow will reach last should be opened first.



5. Compress the handle pin and twist it to open the 2nd valve. The pin on the handle will fully eject when the valve is completely open. If there is pressure in the system, the coupling that the flow will reach first should be opened last.

Disconnecting Instructions



6. Close the handle that is on the same side as the flow direction first. Press the handle pin and twist the handle until the pin is fully ejected. If the pin is not fully ejected, the valve is still partially open and can leak if the couplings are disconnected.



7. Close the handle that is farthest from the flow direction last. Press the handle pin and twist the handle until the pin is fully ejected. If the pin is not fully ejected, the valve is still partially open and can leak if the couplings are disconnected.



8. Untwist the couplings until the lugs are free to disengage.



9. Pull the couplings apart.



Note:

The couplings should not be disconnected if the handle pins are not fully closed with the handle pins fully ejected. If the couplings are disconnected with the handle partially open, it is possible for the valve to be opened and cause a leak.

Troubleshooting

Cannot connect couplings:

If connection torque is too high (friction between bodies), faces can be lubricated as below. Use FUCHS HP LUBE 09 or equivalent (DO NOT USE mineral use based lubricants, or other product not compatible with EPDM material).



Area 1



Area 2



Area 3



Area 4

Cannot rotate handle while parts are connected and arrows are aligned:

After some time without use, grease used for lubrication can dry up and make first handle rotation difficult (ball valve is sticking on sealing). In that case:



1. Manually push handle without activating pin, to apply extra force. Handle will rotate of $\sim 1^\circ$, and friction of ball valve will be reduced.



2. Handle can then be rotated per standard instructions.

Face seal replacement:

DO NOT re-assemble face seal (FD83-2121-32) if it is disassembled from its housing, for any reason (dis-assembly could damage sealing and create a leakage in connected state). Assemble a new one (please contact customer service for further information), and lubricate it using FUCHS HP LUBE 09 or equivalent (DO NOT USE mineral use based lubricants, or other product not compatible with EPDM material).

Suggested quality checks

Connection test:

Connect the couplings into mechanical stop. The two arrows must be fully aligned (applicable to FD83 2" only).



Latching test:

- **Step 1:** when the parts are connected, rotate handle to open the circuit by actioning the handle pin
- **Step 2:** then push the handle and try to close it without actioning the handle pin. The handle must be locked in open position.
- **Step 3:** Close the circuit and try to open it without actioning the handle pin. The handle must be locked in close position.



Step 1



Step 2

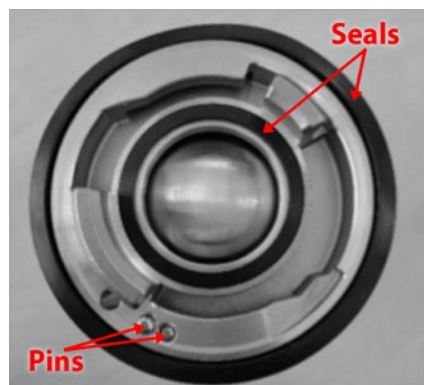


Step 3

FD83 Coupling Instructions

Visual inspection:

Check the presence of all components: pins, seals, wire, QR code and color dot.



About Danfoss Power Solutions

Danfoss Power Solutions is a global manufacturer and supplier of high-quality hydraulic and electric components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market as well as the marine sector. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of applications. We help you and other customers around the world speed up system development, reduce costs and bring vehicles and vessels to market faster.

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- Steering components and systems
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