Engineering data sheet

Chapter: Ci

Sheet No.: 530520

Ci IV8 Activation Test Tool

Item numbers covered by this datasheet

530520 Tool: Ci IV8 Activation Test (ATT)

Related products

530525 Tool: Ci Act Silencer C (included) 305950 Adapter Ci IV8 (M20) A (included) 305948 Adapter Ci Actuator B (included)

305495 Tool: Ci Actuator Reset tool (not included) 305491 Tool: IV8 Act Plug (not included)

General

The Ci IV8 Activation Tool (ATT) is a force measuring tool.

It is used for measuring

a. Required activation force of Ci IV8 discharge valve.

b. Force provided by the Ci IS8, Ci IM8, Ci PA8

It can also be used on IV4 and IV7 valves and actuators.

Specifications

Temperature:

Storage: -25°C to $+70^{\circ}\text{C}$ Use: $+15^{\circ}\text{C}$ to $+30^{\circ}\text{C}$

Materials:

Body: Aluminium (Anodised)
Internal & gauge: Steel, brass, stainless steel

Seals: FKM/PU/NBR
Hydraulic oil: Biodegradable

Pressure gauge: 16 bar (1.6 Mpa)

Force range: 0-1000N

Thread connections:

Left side: M16x0.75 Right side: M20x1

Dimensions:

Body: 81mm x Ø55mm

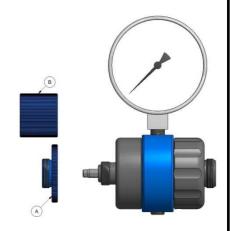
Gauge: Ø63mm Weight: 0.5 kg

Markings

Tool: Fire Eater logo, "Tool ATT Ci 1kN a". Gauge: Fire Eater logo and serial number.



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Operating instructions

Testing of Ci IV8 actuation force:

Notice: All Aluminium threads are designed for holding, not for actually tightening.

- 1. Warning: Close hand wheel valves before proceeding!
- 2. Remove Actuator (if installed)
 Disconnect all hoses, blind off all outlets, use Tool Ci Act Silencer (C) in the discharge outlet.
- 3. Install the adapter A to the tool
 No other accessories are installed at this point
 Push the piston back until flush with the A
- 4. Screw the ATT into the Ci IV8
 Tighten by rotating the gauge until it is in upright position.
 Install the Ci Act reset tool (if pointer moves, loosen knob on Act Reset tool).
- 5. Check the pointer is at "0" & reset the sliding pointer Tighten Ci Act reset tool knob gently until the Ci IV8 activates. Notice: There may be multiple peaks due to O-ring friction of valve. Notice: Even with the silencer there will be some noise when the valve activates
- 6. Record the maximum force.
- 7. Remove the silencer and the tool without disassembling it Reset Ci IV8 and pressurise it.

Testing of Actuator force:

- 8. Remove adapter A Install adapter B.
- Install the actuator in the tool
 Position the sliding pointer outside the scale
 Tighten the Act reset until app 0.2 kN is
 displayed.

IS8, turn back the knob 1 turn IM8/PA8, leave the force at 0.2 kN Release the actuator.

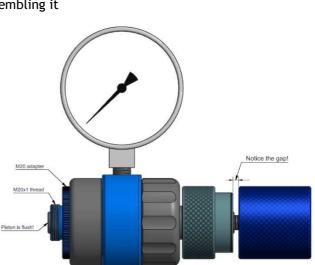
- 10. Record the maximum force.
- 11. Reset the actuator by tightening the Act Reset tool.
- 12. Release force and remove actuator.

Completion:

- 13. Record the measured values, evaluate safety factor.
- 14. Reconnect hoses, Reinstall actuators, as per Service Manual Open Hand wheel valve and seal in open position.

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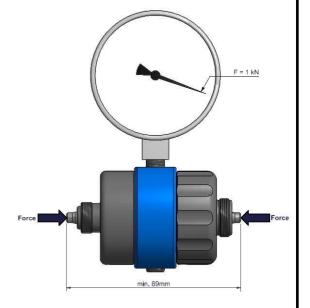
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Calibration and Verification:

There are no serviceable parts inside the tool, if the gauge is removed special equipment is required in order to refill hydraulic fluid. The tool can be serviced by Fire Eater only.

Check regularly that the filling is correct:

- 1. Place the tool in a vice with parallel and smooth jaws.
- 2. Tighten the vice unto pointer is at 1.0 kN.
- 3. Measure the distance between the pistons, minimum 89mm is required.

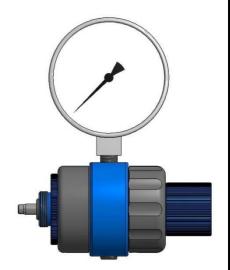


Maintenance

Notice: There are no user serviceable parts inside the tool! Do not disassemble the tool or adjust the sliding pointer screw as this voids the calibration.

Apply a small amount of low friction lubricant to threads and piston tips to reduce wear of the tool.

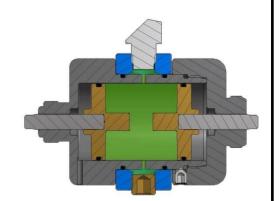
In transport position both adapters (A and B) are fitted to protect the pistons.



Operating principle

In the section view, the function of the tool can be seen. The green area is hydraulic fluid and the force on the pistons is proportional to the pressure.

A sliding pointer (red pointer) will track the max applied force.



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