Pressure and function test of BHH actuators

Application:
The instruction is applicable in connection with manual pressure and function test of actuators type BHH 125 - 16000.

System connection:
Bettis Standard: QS0555 (Final inspection and test).

Procedure:

Function test:
When an actuator has been assembled, visually check that it can turn its nominal angle both ways, without abnormal resistance.
If the actuator has emergency operation shaft, a key can be used, otherwise compressed air is to be used, i.e. 5 - 7 bar (73 - 102 PSi).

Control of indicator cam:
The cam is measured with a depth micrometer. Travel of cam 4.2 +/- 0.4 mm.

Pressure test:
Pressure test shall be carried out on the actuators before the shaft cover is mounted. The actuators shall be tested by connecting the hydraulic test equipment to the oil ports of the actuator. The actuator bottom must be visible and the port surface as free a practically possible.
When the actuator has been connected to the test equipment, it shall be pressurized according to the following guidelines:
The actuators shall be tested at min. 250 bar (3625 PSi) and max. 270 bar (3915 PSi), unless otherwise specified.
The test pressure shall be maintained for 1 minute in each end position, and at the same time the actuator is visually controlled for external leakage, and by means of flow indicator for internal leakage. The pressure test is completed by draining the oil, normally by means of compressed air. The ports are plugged and the cavity of the actuator top is inspected for leakage oil.

Faults/defects/approval:
If faults/defects are found, the actuator must be removed from the lot and dismounted. If repair is possible, it is carried out and the actuator is tested again. If repair is not possible, the actuator shall be scrapped.
The approved actuators are provided with name plate after painting. The name plate is marked with the correct test pressure.

Documentation:
Test certificate shall not be issued, as it is a “GO-NOGO” test, and only approved units are released for stock or dispatch.

Note: Not Certified dimensional drawings. Such drawings are available on request. Contact factory with correct model designation and serial number.

Important: Due to Emerson’s continuing commitment to engineered product advancement, data presented herein is subject to change.

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