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Tightness Test Bogie Frame

[Gaziray Project]

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1 GENERALITY

1.1 SCOPE

This instruction defines the criteria necessary for the performance of tightness testing on the bogie frame.

The test is designed tightness welds in order to avoid any infiltration of liquid in case the structure was subjected to washing by immersion.

2 PRELIMINARY PHASE

2.1 WORKING ENVIRONMENT

For the test you need:

- a) a source of compressed air to at least 4/5 kg /cmq
- b) a reducer / regulator with pressure gauge built
- c) a shut-off cock
- d) a gauge of reference with the following characteristics:
 - Scale between 4 and 6 kg/cmq
 - Readable slightest variation of 0.05 kg/cm
 - Accuracy class of 1.6 or higher
- e) set of flexible pipes complete with fittings suitable for the various connections.

2.2 GENERAL CONDITION

The test must be complied with safety standards relating to:

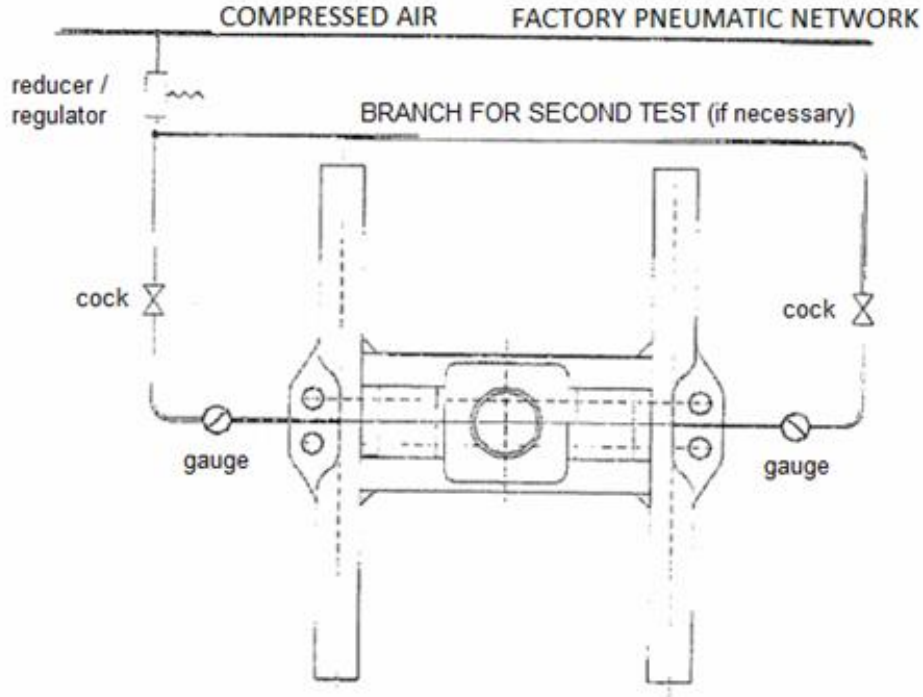
- a) heavy handling facilities provided by normal means
- b) the management of equipment and / or plant compressed air systems

The test shall be done on every single “bogie frame”. If all the structures were made connecting the trolley then the test will be performed in a single application.

The structure shall be made a threaded hole (usually M6) derived from the vent hole provided for the stress relieving treatment.

The source of compressed air must be connected to the structure through a suitable fitting attached to the threaded hole previously made.

This plant will be built as in' attached drawing.



3 TECHNICAL REQUIREMENTS

3.1 EXECUTE TEST

3.1.1 Instructions

Start the test with the isolation valve closed and the reducer-regulator already set (Using the built-in gauge) on an outlet pressure of 0.5 kg /cm.

Note: Do not exceed the maximum pressure of 0.6 kg /cm to avoid permanent damage of the structure under test.

Slowly open the stopcock and check the slow ascent of the pressure of 'air (from zero to value), reading this parameter to the main gauge.

When pressure is reached the maximum value, close the tap.

After waiting about 15 minutes, take the new reading on the gauge and determine the deviation from its initial value.

4 END TEST

4.1 CONCLUSION

The test is passed if the pressure difference measured is less than 0.05 kg / cm.

If you experience more significant losses, check first with a liquid surfactant (soapy water) leaks in the circuit, starting at the nipple mounted on the structure.

Then extend the search to the pipe connecting the pressure gauge and that of the cock.

If this first test shows abnormalities in the circuit, eliminate losses and repeat the test.

If you do not show losses in the test circuit to verify (using the same method) the welding of the structure.

Once you have highlighted the leak, repair the defective welding in accordance with dedicated instruction prepared by Welding Engineer.

At repair executed, repeat the test.

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