TEST CODE SHEET

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1. TYPE OF TEST(S)

Endurance.

2. BYELAW REQUIREMENT FOR FITTINGS

Byelaw 52

Every water fitting shall be constructed of materials, the nature, the strength and thickness of which ..... will prevent, so far as is reasonably, damage from : (a) any external load; (b) vibration, stress .....

Byelaw 87

.... every draw off tap .... shall : (b) be capable of operating effectively at : (i) any water temperature not exceeding 65°C and ..... (c) if it incorporates a renewable seal or washer, be made or adapted so that the seal or washer can be readily renewed or replaced .....

3. BRITISH STANDARDS OR WATER SPECIFICATION, DEEMED TO SATISFY BYELAW REQUIREMENTS

(See Water Supply Byelaw Guide)

3.1 Fittings with 'kitemarks' which are deemed to satisfy the requirements of byelaws are listed in the directory.

4. TEST PROCEDURE

Note Unless stated otherwise the temperature of the test fluid shall be 20 ± 10°C.

4.1 Tests applicable to the following:-

COMBINATION TAP ASSEMBLIES with metal bodies (single outlet and divided outlet type spouts)
COMBINATION TAP ASSEMBLIES with plastic bodies (single outlet and divided outlet type spouts)

(A) COMBINATION TAP ASSEMBLIES WITH METAL/PLASTIC BODIES (SINGLE OUTLET SPOUT)

APPARATUS

An automatic test rig is to provide the following:

a) A swivel motion of the tap spout at a rate of 15 cycles per minute.
b) Supply water at a static pressure of between 2 and 4 bar, and at a temperature less than 30°C.

TEST METHOD

Mount the tap on the test endurance rig in accordance with setting-up procedure IGN 1-5-57. If the nozzle has a jet regulator, leave it on and ensure that it does not obstruct the test path.

Securely fix a weight to the end of the swivel nozzle as follows:

a) A 1kg weight if the range of the nozzle is equal to or less than 200mm or
b) A weight giving a bending moment of 2Nm if the range of the nozzle is greater than 200mm.

With the tap closed adjust the water pressure in the supply circuit to between 2 and 4 bar. With the tap open adjust the flowrate to between 4 and 6 litre/minutes.

Subject the swivel nozzle to 80,000 cycles, through an arc of approximately 110° in both directions. If there is a stop, the swing is over 90% of the theoretical travel.

5. ACCEPTANCE CRITERIA

During the test there shall be:

a) No rupture of the swivel nozzle.
b) No rupture of the device connecting the nozzle to the body.
c) No rupture of the assembly.

Upon completion of the test, check for water tightness of the tap downstream of the head works mechanism (See TCS 1112.1 J Test Method ii)

(B) COMBINATION TAP ASSEMBLIES WITH METAL/PLASTIC BODIES (DIVIDED OUTLET TYPE SPOUT)

APPARATUS

An automatic test rig to provide the following:

a) A swivel motion of the tap spout at a rate of 15 cycles per minute.
b) Supply water at a static pressure of between 2 and 4 bar and at a temperature less than 30°C.

TEST METHOD

Mount the tap on the test endurance rig in accordance with setting-up procedure IGN 1-50-57. Attach a sight glass to the cold water inlet (se figure 1). Securely fix a weight to the end of the swivel as follows;

a) A 1kg weight if the range of the nozzle is equal to or less than 200mm or
b) A weight giving a bending moment of 2Nm if the range of the nozzle is greater than 200mm.

With the tap closed adjust the water pressure in the supply circuit to between 2 and 4 bar. With the hot tap open, adjust the flowrate to between 4 and 6 litres/minute.

Open the cold tap and manually fill the sight glass to a recorded level 15mm above the topmost seal of the swivel nozzle.

Subject the nozzle to 80,000 cycles through an arc of approximately 110° in both directions. If there is a stop, the swing is over 90% of the theoretical travel.

5. ACCEPTANCE CRITERIA

During the test there shall be

a) No rupture of the swivel nozzle.
b) No rupture of the device connecting the nozzle to the body.
c) No rupture of the assembly.
d) No increase in the water level in the sight glass.

Upon completion of the test, check for water tightness of the tap downstream of the head works mechanism (see Test Code Sheet 1112.1 J Test Method ii) and no increase in the water level in the sight glass (see Test Code Sheet 2211.3)

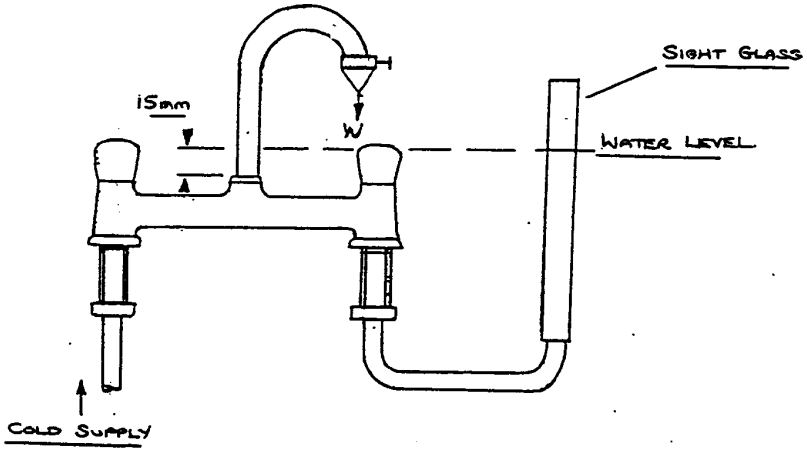

Illustration is diagrammatic only

Figure 1 - Endurance test rig for divided outlet swivel nozzle