KES

Oil Removing Test of Air Filter Oil

KES T – L254

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1. Scope of Application

This shall regulate oil removing test of air filter oil.

2. Outline of Test Method

Dip aluminum sample polished well in test material and wash it in water and examine the ratio of removing oil film.

3. Equipment

(1) Composition

(a) The equipment shall be composed of moving part and driving part as shown in figure 1 ~ 3.

(b) Movement of pael should be 30 times per 1 minute.

Stroke should be 50 ± 0.6 mm.

4. Aluminum Plate

(1) Material

Use Aluminum plate regulated in KS A 6701 (Aluminum an aluminum alloy plate).

(2) Dimension

Dimension should be square of 100 mm as figure 1 and this thickness should be 1 mm and drill the hole of 6mm inner diameter as figure 1 for binding or supporting.

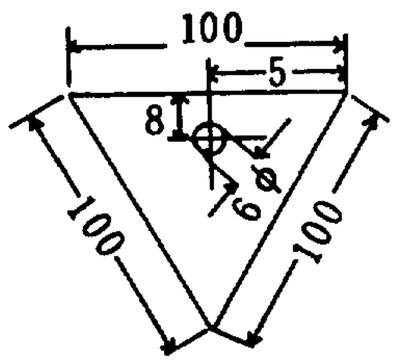

Fig. 1

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5. Test Preparation

5.1 Pre-polishment of aluminum plate

Remove stain of test sample with proper sand paper regulated in KS L 6003 (Sand paper) or KS L 6002 (Polishing cloth). Luster the test sample by polishing it with 240 sand paper regulated in KS L 6003 (Sand paper) or KS L 6002 (Polishing cloth).

For polishing method, put sand paper on flat plate and dip it with acetone and put test sample on it. Then, polish it be pressing it with filter paper and drawing circles.

At this time, do not press directly with hands.

5.2 Final polishemnt of metal plate

Get aluminum plate with filter paper and polish its sides with absorbent cotton dipping with acetone attached with 150 carbon silicon sand paper regulated in KS L 6001 (Sand paper grain size)

Press it with new absorbent cotton. After that, polish it evenly from one end to the other end and take care that edges should not be rounded.

Finally press absorbent cotton strongly and polish until new absorbent cotton become dirty. Then remove dust with ethyl alcohol and clean it with benzene and warm methyl alcohol and measure it accurately to 1 mg after drying it in decicator.

6. Operation

(1) Attachment of oil film

After dipping aluminum plate washed and dried at the clause 5 for 1 minute at the room temperature and hanging it for 1 hour, drop test sample and absorb oil drop with absorbent.

(2) Fixation of oil film

Hang aluminum plate in 60 ± 2 ℃ boiler and leave it for 16 hours at air boiler.

(3) Growth of oil film

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