

KES

Test for Strength of
Oil Curtain (Test Method
for 증전 4구)

KES T – L298

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1. Scope of application

This standard shall specify the test for measuring degree of small floating of lubricant and grease by rotary four globe-shaped friction tester.

2. Device

The rotary four globe-shaped friction tester consists of driver, load part and test part according to its structure and measurements described in figure 1.

2.1 Drive part

(1) An electric motor for driving : Use tri-AC inductive electric motor as above 2HP, revolution rate(1000 rpm for 50 C / S, 1200rpm for 60 C / S). Directly connect the motor with a shaft like as a gear pump for press and regulate operation for the electric motor in the center.

Remarks 1. It is convenient for use a motor in the transmission

2. Dimensions of operation: 57 mm for 50 C / S, 47.5 mm for 60 C / S in the exterior diameter.

(2) Input shaft part: divide it into two parts as the exterior and the interior input shaft. Outer shaft is a rotary body mounted on thrust along the above No. axel (JIS B 1531 No.axel) and the below No. axel(JIS B 1531) as shown in figure 1. And set 285mm exterior diameter difference of illumination on the top of outer shaft. Inner shaft can just move the interior of outer shaft in the direction of upside and downside as 23 mm in diameter and 20 0mm in length and has two holes for supporting on the top and the bottom. Fix outer shaft and inner shaft with supporting bolt in one hole.

(3) Driving belt : 25 mm rubber belt in width, insert two free wheel in the top and bottom and belt up difference of illumination of motor and difference of illumination for outer shaft.

2.2 Load part

- (1) Gear pump for press : 20 kg / cm^2 maximum using pressure, 7 ℓ /min maximum exhaust. Directly connect the motor for driving.

Remarks: It is good for using pressurizing device for pressure test by the method of pressurizing.

- (2) Oil tank for pressurizing: standing cylindrical type. In the center, prepare oil mounted and oil level-meter. In the bottom, prepare oil absorbing hole-mounted steel net for filtering. And in the gateway of absorbing hole, mount an oil-absorbing gauge.
- (3) Cylinder : Connect it on the top of oil tank, $80.1 \pm 0.05 \text{ mm}$ in the interior diameter. Can put a piston for pressurizing in the inside.
- (4) Pressurizing piston : $80 \pm 0.05 \text{ mm}$ in the exterior diameter. Can be stand with the above cylindrical axis number (JIS B 1533 cylindrical axis number) and the below cylindrical axis number(JIS B 1533) in the inside of cylinder and shall prepare supporting bar mounted a reagent container on the top.
- (5) Spline : Can be mounted on the bottom of supporting bar. It is mounted in the inside of torsion bar supporter and mounted on the torsion bar for measuring friction with 5 mm in the interior diameter and 350 mm in length a No. 4 piano wire (JIS G 3522 piano wire).
The torsion bar shall slip through the spline in the upside and downside.
- (6) Manometer : JIS B 7505, 15 kg / cm^2 maximum scale, 0.5 kg / cm^2 detailed scale.
- (7) Oil for pressurizing : Use 3050 general lubricant(NDS XXK 2342), 3065 general lubricant(NDS XXK 2343) or sufficient quality mineral oil. Fill in the oil tank for pressurizing by set-up oil surface(Specified oil surface).

2.3 Test part

- (1) Reagent container : According to its structure and dimensions described in figure 2, prepare a 300W nichrome wire electric heat plate for pressurizing under the container.
And we shall fix three steel ball for test with spherical pressure in the inside of the