VDO Oil Pump
Technical Specs

Gearbox Oil Pump p/n 405.040/001/001

**Leak Test**

Leak proof up to: 3 Bar
Test medium: Diesel CEC-RF-03-A-84 (Test Diesel)

Working temperature: +100°C to +150°C
Storage temperature: -40°C to +150°C
Material continued usage temperature: -40°C to +150°C

**Vibration Test**

Not carried-out

**RF Suppression**

The pump has RF suppression for:

LW
MW
KW
UKW

According to: VDON 4.3232.1 up to 10 dB
Test medium: Diesel CEC-RF-03-A-84 (Test Diesel)

**Reference Specs**

Drawing: K 405.040/001/001
Gearbox Oil SAE 90 DIN 51 512
Diesel CEC-RF-03-A-84
RF suppression VDON 4.3232.1
Vibration Test Not performed
System Description

Electric pump designed to circulate gearbox oil through a cooling system.

Pump operation temperature  
+100ºC to +150ºC

Block diagram:

Transmission gearbox oil with oil cooler temperature switch

Inside Ø Heat exchanger + pipes:  
d = 6.5 mm

Length of feed pipe:  
c.a. = 1700 mm

Length of return pipe:  
c.a. = 1700 mm

Effective heat exchanger pipe length:  
c.a. = 1800 mm

Total  
= 5200 mm
Main Functions

When the gear box oil temp has reached 100ºC, the temp switch closes its contact and the electric pump starts the oil flow through the heat exchanger to prevent overheating.

Pump Specs

Hydrostatic gear pump with oil immersed motor and integrated RF suppression.

Electrical Specs

Test Voltage 13 V ± 0.1V
Operating Voltage 6 – 15V
Over-voltage Test 16.5 V for 1 hour
20 V for 2 minutes

Test Values

The viscosity test at +20ºC equals that of a gearbox oil SAE 90 at +150ºC

<table>
<thead>
<tr>
<th>Test</th>
<th>Unit</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>V</td>
<td>13 V ± 0.1V</td>
</tr>
<tr>
<td>Temperature</td>
<td>ºC</td>
<td>20 ±5</td>
</tr>
<tr>
<td>Pressure</td>
<td>Bar</td>
<td>4</td>
</tr>
<tr>
<td>Volume</td>
<td>l/h</td>
<td>&gt; 160</td>
</tr>
<tr>
<td>Current</td>
<td>A</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>RPM</td>
<td>RPM</td>
<td>4600</td>
</tr>
</tbody>
</table>

![Graph showing current, voltage, and RPM relationships](image)
127.5 mm ± 2.5 mm

Ø 9 mm ± 0.1 mm
Ø 8 mm

14.4 mm

2.5 mm

87.5 mm ± 1.5 mm

Ø 37 mm

22 mm ± 0.8 mm

Ø 15 mm
Ø 16 mm

200 µm mesh aperture

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F. Alessio 30/05/03