23.2) Coolant temperature sensor (Suffix -01)

◆NOTE: A measurement of the cylinder head temperature and/or a measurement of the material temperature is not provided.

The temperature sensor (1) is directly fitted into the cylinder head i.e. a direct temperature reading of the coolant is taken.

◆NOTE: The temperature sensor part no. 965531 and its connection is not changed. In case of a retrofitting/repair or overhaul, observe the installation and maintenance related changes. If a cylinder head of the new version is installed at the position of the temperature measurement, then especially the sensor position and the wiring need to be changed.

Coolant temperature sensor

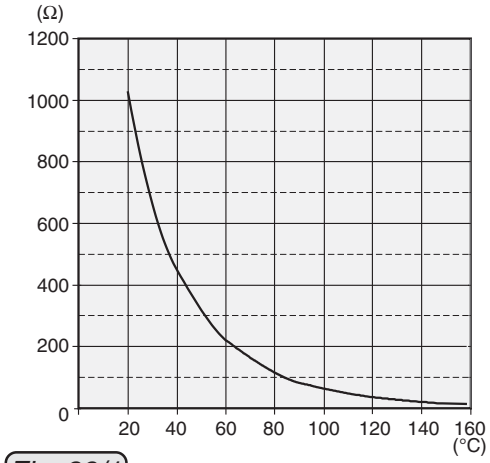

Fig. 89/1

0027

04899_1

	Axes		
Cyl. Head	x axis in.	y axis in.	z axis in.
2	1.02	8.90	1.74
3	-6.81	-8.90	1.74

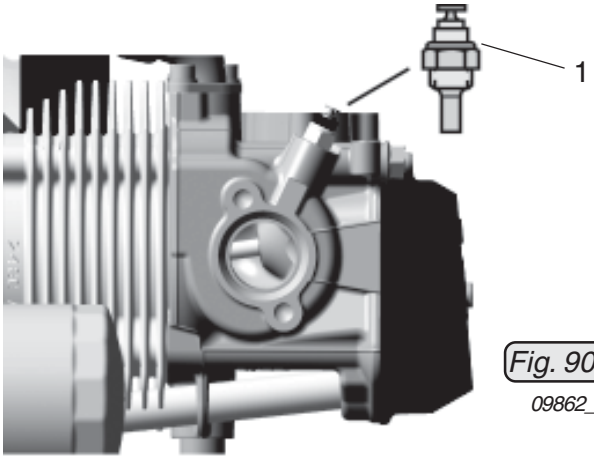

Fig. 90/1

09862_3

d06055

23.3) Sensor for oil temperature

See Fig. 91/92

- location: oil pump housing
- marking (2): marked with "TO" (temperature oil) on oil pump flange

■ CAUTION: To avoid any mix-up with indication wiring, mark this particular cable also with "TO".

- position of the temperature sensor (1) on the oil pump flange:

	Axes		
point of support	x axis mm	y axis mm	z axis mm
	-115	46	-150

04869

- connection of sensor wiring: spade terminal 6,3 x 0,8 to DIN 46247
- grounding: via engine block
- graph of sensor resistance over temperature

■ CAUTION: The graph resistance over temperature has been determined, and is effective at the following conditions only.

ambient temperature: 20 °C (68 °F)

tolerance: ± 15%

BRP-Rotax offers a non-certified temperature indicating instrument. Refer to Illustrated Parts Catalog, latest issue.

▲ WARNING: Certification to the latest requirements such as FAR of EASA has to be conducted by the aircraft manufacturer.

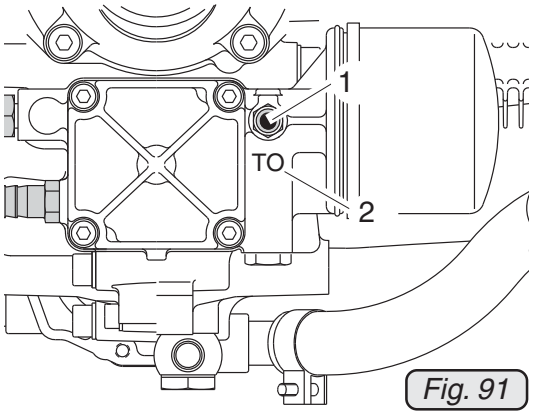

Fig. 91

00226

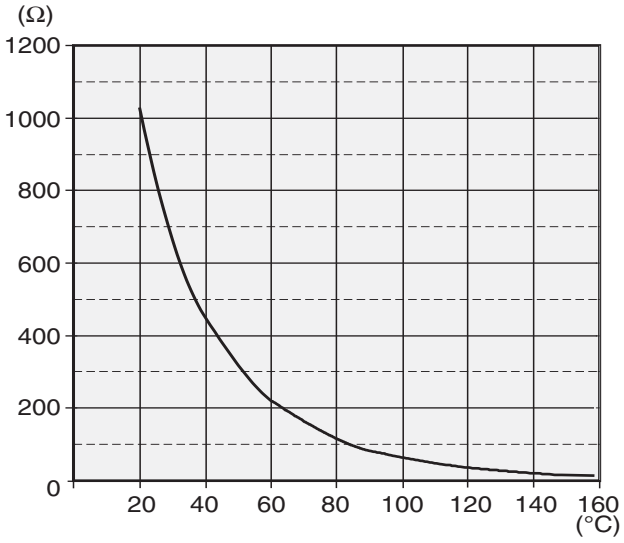

Fig. 92

00227

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23.4) Oil pressure sensor

See Fig. 93/94.

- location: oil pump housing
- position of connection on oil pressure pick-up (1):

	Axes		
point of connectio	x axis mm	y axis mm	z axis mm
	ca. -100	75	ca. -150

04870

- connection of pick-up wiring: single pole screw connection for ring terminal 3 to DIN 46225 (tightening torque, max. 1Nm (8,848 in lb)
- grounding: via engine block
- graph of resistance over pressure

■ CAUTION: The graph resistance over pressure has been determined, and is effective at the following conditions only.

ambient temperature: 20 °C (68 °F)
voltage: 12 V
tolerance: ± 5%

BRP-Rotax offers a non-certified pressure gauge. Refer to Illustrated Parts Catalog, latest issue.

▲ WARNING: Certification to the latest requirements such as FAR of EASA has to be conducted by the aircraft manufacturer.

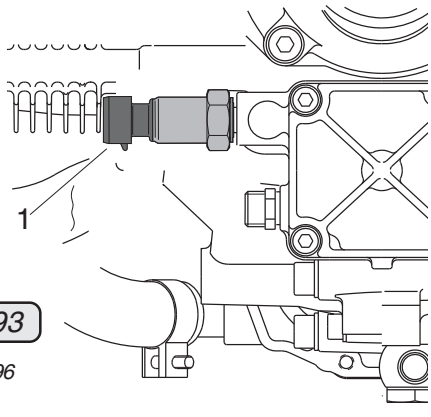

Fig. 93

06596

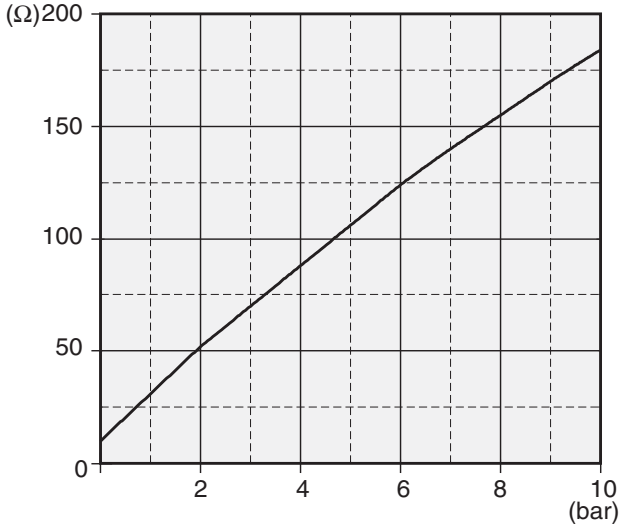

Fig. 94

00229

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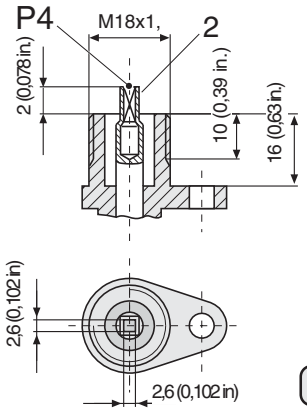
23.5) Mechanical rev-counter (tach drive)

See Fig. 95/96.

- location: ignition housing (1)
- direction of rotation of the rev-counter shaft (2): clockwise, see fig.
- position of rev-counter drive:

04871

	Axes		
point of engagement P4	x axis mm	y axis mm	z axis mm
	-465	87	-160



05483

Fig. 95

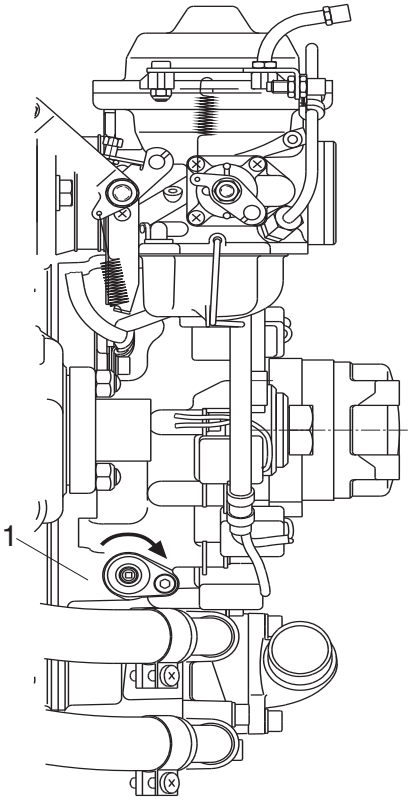


Fig. 96

00562

- installation dimensions: see Fig.
- reduction ratio: i = 4 i.e. 1/4 of engine speed

23.6) Monitoring of the intake manifold pressure

See Fig. 97.

Connection nipple (1) to measure manifold pressure:

outside dia. ø ..... 6 mm (1/4")
slip-on length ..... max. 17 mm (11/16")

■ CAUTION: Utilize the total slip-on length on all joints. Secure hose by suitable screw clamps or crimp connection.

d06055

▲ WARNING: The connecting nipple is sealed with a screw of type M3.5x6 (2). If this connecting nipple is needed the screw has to be removed.

■ CAUTION: Flawless operation of the indicating instrument needs the installations of a water trap between engine and instrument for the fuel condensate.

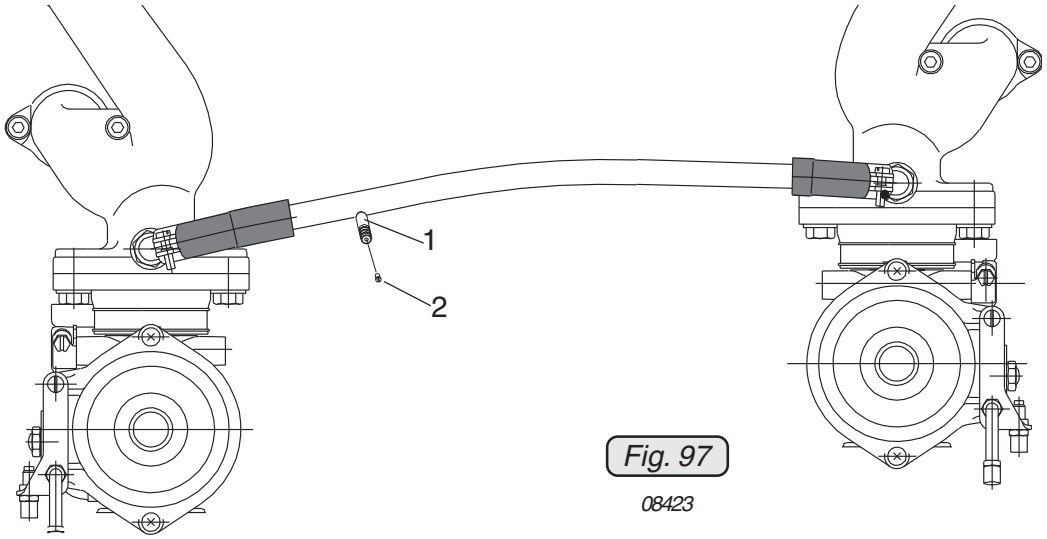


Fig. 97

08423

◆ NOTE: For in-flight variable pitch propellers and constant speed propellers a manifold pressure gauge must be fitted permanently in the cockpit.

23.7) Air temperature in the airbox (optional)

See Fig. 98.

To take air temperature readings in the airbox a connection is provided. This connection is closed on the standard engine by a plug screw.

- connection: tapping 1/8-27 NPT
  thread length approx. 9 mm (3/8")

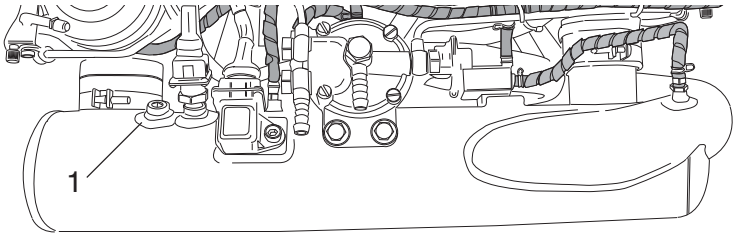


Fig. 98

05740

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