

## B. Technical Directions for Built-in Engines OM 636

Change: Note added

**Quantity of heat to be carried off in the cooling water**  
for continuous output B

approx. 675 kcal/HP<sub>h</sub>

**Feed volume of water circulating pump**  
for pressure head of approx. 2 m

approx. 4500 litre/h at 3000 rpm  
approx. 3800 litre/h at 2500 rpm  
approx. 2800 litre/h at 2000 rpm

**Air passage** at 3000 rpm

2.6 m<sup>3</sup>/min

**Tilt of engine:**

towards front or rear  
towards left or right (crankshaft axis)  
More tilt on request.

up to 15°  
up to 15°

**Starter conductor:** The specified cable cross section is:

Cable length in m	up to 0.4	0.6–2.0	2.5	3.0–3.5	4	5–6
Wire cross section in mm <sup>2</sup>	25	35	50	70	95	120

**Exhaust pipe:**

The dynamic pressure should not exceed 600 mm WC.  
The table shows the required inner diameter.

Length in m	0 to 8	8 to 14	14 to 25
Inner dia. in mm	38	54	66

**Intake pipe:**

With a clean air filter 300 mm WC vacuum should not be exceeded. The inner diameter of the intake pipe in relation to the length should correspond to the following table:

Length in m	0 to 4	4 to 8	8 to 12	12 to 16	16 to 20
Inner dia. in mm	54	60	68	85	108

**Fuel:**

The fuel used should be standard commercial diesel fuel according to DIN 51 601. Tractor fuels, kerosene, and pure distillates of shale oil may be used if they correspond to DIN 51 602 and/or DIN 61 636 (also see page 0–5/1).

Vegetable oils can also be used in special cases, e.g., castor oil and soy bean oil available in the tropics.

**Cooling:**

The closed circulation water cooling is the only practicable system. The heat exchange can not only be accomplished with radiator and fan but also with water cooler, e.g., in a boat. Non-recovery cooling is not permitted (also see Job No. 20–1).

**Clutch:**

Different clutches can be installed depending on the intended use, e.g., the Fichtel & Sachs clutch "K 12 SSZ" or for boat engines the Giubo clutch "GW 100".

**Standard delivery range:**

Engine with flywheel 256 mm dia., flange for flywheel housing complete with screws, electric starter, 150 watt generator, cooling water pump, fan, complete forced-feed lubrication with filter, pump, filler pipe, air vent, overflow, dipstick.

Fuel system with filter, feed pump, injection pump, and pneumatic governor.

**Note:**

The threaded hole M 10 (at starter flange) at left-hand bottom of cylinder crankcase for attaching clutch housing is no longer there since the beginning of 1963. If an older clutch housing is attached to these engines which still has a fastening lug for the absent threaded hole, the hole should be closed up blind.

Thorough tests have shown that the remaining seven bolts are enough for attaching the housing.

**Not included in the delivery range** are, e.g., air filter fuel tank, fuel lines between tank and feed pump, water cooler, water pipes from and to the cooler, water relief valve, control switches, thermostat, centrifugal governor.