D. Fuel Consumption Data for Vehicle and Built-in Engines OM 636

a) Vehicle Engines

For vehicles the rated fuel consumption is specified according to DIN 70030. In addition to the rated fuel consumption one further consumption value is specified as "Operational consumption during average overland drives" which is based on experiences.

Model 180 D	Rated fuel consumption according to DIN 70 030 measured at 82.5 km/h ..... 6.8 lit/100 km Operational consumption during average overland drives approx. 5.7 to 7.8 lit/100 km
Model L and O 319 D	Rated fuel consumption according to DIN 70 030 measured at 60 km/h ..... 9 lit/100 km without trailer
Model Unimog ..... (with 25, 30 and 32 PS) (27, 33 and 35 HP SAE)	Fuel consumption **on the road** (without trailer) ..... approx. 10 lit/100 km **in the field** (according to operational performance) .....approx. 2 to 6 lit/h

b) Built-in Engines

The fuel consumption of built-in engines is specified according to DIN 6270. The fuel consumptions in g/HPh can be taken from the table.

Fuel Consumption for Built-in Engines OM 636

	Continuous Output A according to DIN 6270 [1]								Continuous Output B according to DIN 6270 [1]				Continuous Output [2]		
Intended use	Power units with constant load. e.g. pump drives, drill drives for deep boring units. Non-sea-going ships with mainly constant speed: freighters and passenger boats, tug boats. Stationary, mobile, and automatic generator and marine sets Tested marine main and ship engines for river and sea boats. According to Germ. Lloyd.								Power units with heavily varying load, e.g. Road construction machinery, winch drives for deep boring units. Boats with great speed changes: Sports, police, customs boats etc.				For sea-going ships		Fan output
Cooling systems	Uk – UkWt – UkWtKr				UkV – UkKV				Uk UkWt UkWtKr		UkV UkKV		Uk UkWr UkWtKr		
Speed rpm	Continuous output 100 % PS	Fuel consumption [4] g/PS/h	Overload 110 % PS	Fuel consumption [4] g/PS/h	Continuous output 100 % PS	Fuel consumption [4] g/PS/h	Overload 110 % PS	Fuel consumption [4] g/PS/h	Output PS	Fuel consumption [4] g/PS/h	Output PS	Fuel consumption [4] g/PS/h	Continuous output 100 % PS	Fuel consumption [4] g/PS/h	PS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1500	17	208	19	208	17	208	19	208	19	208	19	208	16	208	0.1
1800	20	208	23	208	20	208	23	208	23	208	23	208	19	208	0.2
2500	28	216	31	216	27	224	30	223	31	216	30	223	26	216	0.6
3000	32	226	35	226	31	233	34	233	35	226	34	233	30	226	1.0

Above outputs are actual outputs at the flywheel.

The power consumption of the auxiliary machinery necessary for engine operation, such as cooling water pumps, fans, idling generator etc., has already been subtracted.

1) Reference conditions according to DIN 6270: atmospheric pressure 736 Torr, inlet air temperature 20° C, relative humidity 60 %.
2) Testing with 10 % overload for 1 hour at: atmospheric pressure 760 Torr, inlet air temperature 40° C, sea water inlet temperature 30° C.
4) The fuel consumptions include a tolerance of 5% for the use of a fuel with a minimum of 10,000 K.cal/kg.

Note:

1 Torr (Torricelli) = pressure of 1 mm mercury column
736 Torr = 1 atm. = 1 kg/cm² = 1 technical atmosphere (equal to approx. 280 m above sea level)
760 Torr = 1 physical atmosphere (equal to seal level = 0)
Engine cooling: Depending on intended use the engine is equipped with a water recooling device.

Legend:

UkWtKr (circulation cooling with heat exchanger and centrifugal pump)
UkWt (circulation cooling with heat exchanger)
UkKV (circulation cooling with radiator and fan)
UkV (circulation cooling with fan)
Uk (circulation cooling)