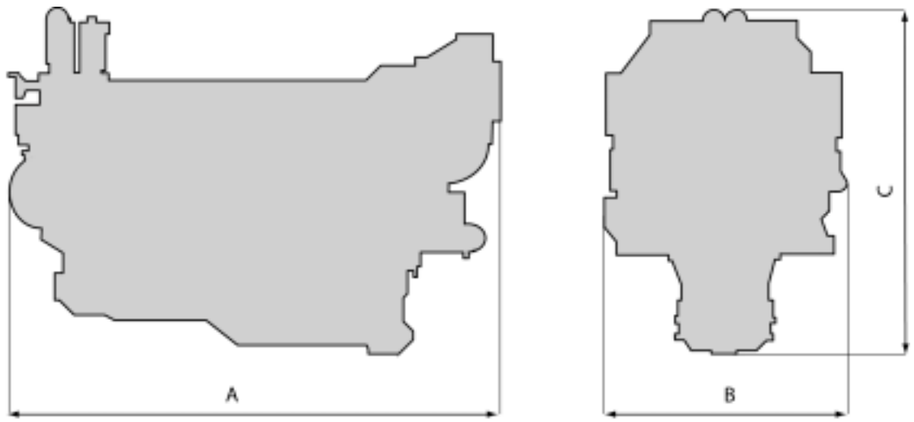
18/22

677-906 kW at 1200 min^{-1}

➢ Dimensions



Engine type		A	B	C
TB12RS18/22	mm	3025	1400	2120
TB16RS18/22	mm	3555	1400	2120

Engine type	Weight (t)
TB12RS18/22	4.7
TB16RS18/22	n.a.

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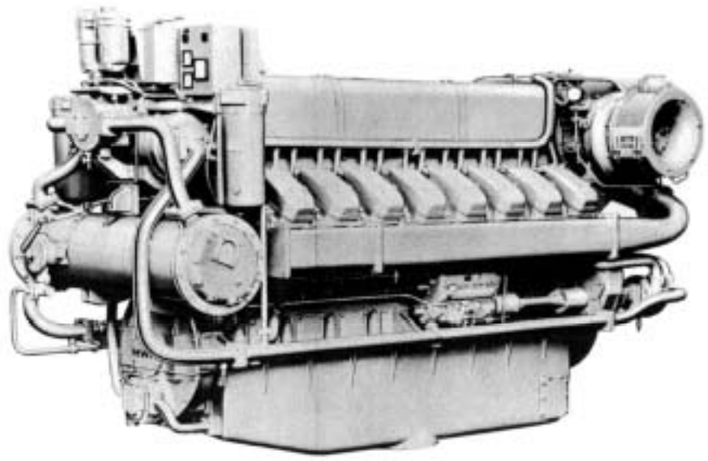
WÄRTSILÄ

Total Service



WÄRTSILÄ DEUTZ marine engines

Characteristics

- Water-cooled four stroke 12 and 16 cylinder 60° V-engines.
- Mechanical governor.
- Pre-combustion chamber process.
- Glow plug.
- Three camshafts.
- Turbocharged and charged air cooled.
- Indirect cooling.

Benefits

- Easy access.
- Easy maintenance.
- Easy engine operation.
- Running on crude oil.

WÄRTSILÄ

➢ Engine description

Crankcase	The crankcase is made of grey cast iron and is made in one piece. The side wall openings ensure easy access to the crankshaft.
Crankshaft	The single-piece crankshaft is fitted in underslung arrangement and is made of CrMo steel.
Torsional vibration damper	Viscous-fluid vibration damper.
Cylinder liner	The water-cooled cylinder liner is made of centrifugal cast iron and is sealed with rubber rings to the crankcase.
Connecting rod	The obliquely split connecting rod is made of CrMo-steel. The bearings are of the lead bronze type with a steel back and a galvanic plated running-in layer.
Piston	The oil cooled piston is made of light alloy and has 5 piston rings. The piston crown is oil-cooled, which flows via a channel in the connecting rod.
Cylinder head	The cylinder head contain a pre-combustion chamber, two inlet and two exhaust valves, one safety valve, one injection valve and one glow plug.
Camshaft	The engine has 3 camshafts One camshaft is controlling the exhaust valves for both cylinder banks. Two camshafts are controlling the inlet valves, each for one cylinder bank.
Injection pump	The engine has a block-type injection pump.
Governor	Mechanical.
Fuel system	Two high pressure pumps and a duplex switch-over filter are mounted in the fuel system.
Lubrication oil system	Forced oil circulation by engine mounted gear lubricating pump via a lube oil cooler. Pre-lubrication by hand pump.
Lube oil filter	A duplex filter is installed. Each filter is equipped with a coarse and a fine filter. A centrifugal oil filter is mounted in partial flow.
Starting system	The engine is started with compressed air. Starting air valves are mounted in the cylinder head and mounted on one cylinder bank.
Cooling water system	Indirect cooling.
Exhaust gas system	The exhaust gas lines are isolated.
Turbocharging	The engine has a water-cooled turbocharger and a charge air cooler.

➢ Technical Data

Engine type[1]		TB12RS18/22	TB16RS18/22
Model		60° V-engine	60° V-engine
Number of cylinders		12	16
Bore / stroke	mm	180 / 220	180 /220
Displacement	l	67.2	89.6
Rotation direction (facing flywheel)		Counter-clockwise	

Continuous operation			
Engine speed	min^{-1}	1200	1200
Engine output[2]	kW	677	906
Mean effective pressure	bar	10.0	10.0
Fuel consumption[3]	g/kWh	125	125
Lubricating oil consumption	kg/h	1.05	1.05
Idling speed	min^{-1}	600	600
Total oil capacity of engine	l	185	230

[1] Explanation model designation
'T' refers to turbocharger
'B' refers to charge air cooler.
'R' refers to crude oil
'S' refers to high speed

[2] Continuous power according to DIN 6270.

[3] Fuel consumption with a tolerance of +5%.

Note:
The values given in this data sheet are for information purposes only and not binding.
The data in the offer is decisive.