

D2842

MAN high speed marine engines
for heavy duty applications.



Full speed ahead.

Typical applications for marine heavy duty operation cover passenger and goods transportation as well as escort and patrol duties at sea. MAN marine diesel engines from 258 mhp to 900 mhp perform these tasks reliably and efficiently. They meet the international current emission standards and are environmentally friendly. The worldwide service network ensures minimal maintenance effort and a customer-oriented service.

Engine description D2842.

Characteristics

| | |
|---------------------------|--|
| Cylinders and arrangement | 12 cylinders in 90° V design |
| Operation mode | watercooled 4-stroke diesel engine with exhaust turbocharger and intercooler, boost pressure control with waste gate |
| Number of valves | 2 valves per cylinder, replaceable |
| Fuel system | Direct injection with Bosch injection pump |
| Engine block | High-strength casting with integrated oil and water ducts and replaceable cylinder liners |
| Engine lubrication | Closed system with forced feeding, oil cooling and filtering |
| Type of cooling | Heat exchanger with seawater pump fitted alternatively equipment for keel cooling |
| Engine electric | Electronic engine monitoring for LE419/LE412/LE405 |
| Exhaust gas status | IMO/MARPOL 73/78, 97/68/EC for LE412/LE419 On request: ZKR, SAV and BSO for commercial application |
| Fuel | DMX fuel to ISO 8217, EN 590 |

| Dimensions D2842 | | LE419 | LE412/405 |
|---|----|--------------|------------------|
| A-Overall width of engine | mm | 1,230 | 1,230 |
| B-Overall length of engine | mm | 1,751 | 1,751 |
| C-Overall height of engine - flat oil pan | mm | 1,105 | 1,105 |
| - deep oil pan | mm | 1,216 | 1,216 |
| D-Top of engine to crankshaft centre | mm | 685 | 685 |
| E-Length front end to edge of flywheel housing | mm | 1,491 | 1,491 |
| Average weight of engine ready for installation (dry) | kg | 1,790 | 1,790 |

For detailed examinations of installation dimensions, please order drawings from our factory.

MAN engines have outstanding qualities

- High tractive power even at low speeds
- Powerful acceleration and rapid reaction to commands
- High performance combined with low weight
- Compact, space-saving design
- Low emission values
- High efficiency owing to low fuel consumption, low running costs and long service life
- World-wide service network with rapid supply of spare parts

Technical data D2842

| Type of engine | | LE419 | LE412 | LE405 |
|--|----------|-----------|-----------|-----------|
| Bore | mm | 128 | 128 | 128 |
| Stroke | mm | 142 | 142 | 142 |
| Displacement | l | 21.93 | 21.93 | 21.93 |
| Compression ratio | | 15.5:1 | 15.5:1 | 15.5:1 |
| Rotation looking on flywheel | | left | left | left |
| Flywheel housing | | SAE 1 | SAE 1 | SAE 1 |
| Nominal rating | kW (mhp) | 440 (598) | 588 (800) | 662 (900) |
| Rated speed | rpm | 1,800 | 1,800 | 2,100 |
| Torque at rated speed | Nm | 2,334 | 3,120 | 3,010 |
| Maximum torque | Nm | 2,340 | 3,459 | 3,440 |
| at speed | rpm | 1,700 | 1,200 | 1,500 |
| Specific fuel consumption ² | g/kWh | 216 | 222 | 218 |
| Fuel consumption ² | l/h | 114 | 156 | 172 |
| Classifiable | | √ | √ | √ |

¹ The rating is according to DIN ISO 3046/1. ² Consumption at rated power.

Definition of heavy duty operation

| | |
|---------------------------------|---------|
| Annual operating hours | > 3,000 |
| Percentage of time at full load | ≤ 100% |
| Average load application | ≤ 100% |

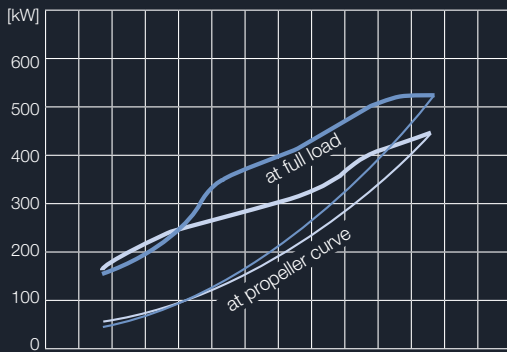
Typical applications

Trawlers
Tugs and Pushboats
Freight barges and Freighters
Ferries
Dredgers

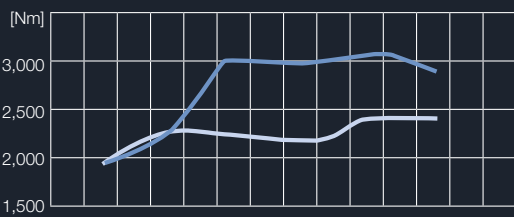


Power charts D2842.

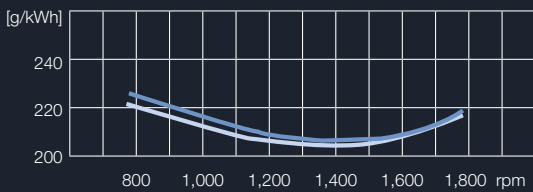
Power



Torque

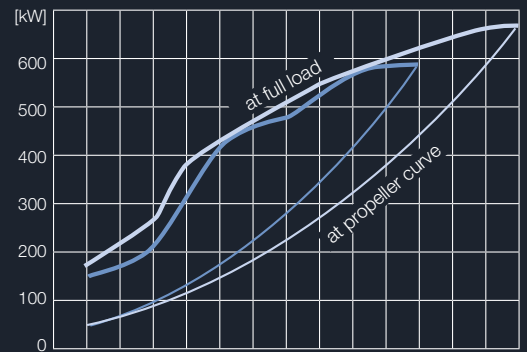


Specific fuel consumption (full load)

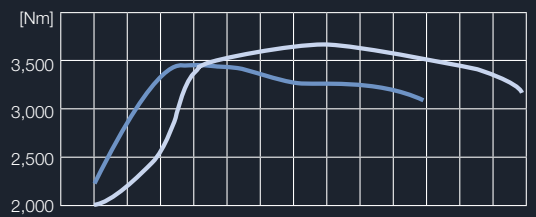


- D 2842 LE 403 (529 kW, 1,800 rpm)
- D 2842 LE 419 (440 kW, 1,800 rpm)

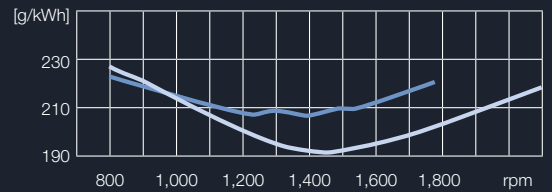
Power



Torque



Specific fuel consumption (full load)



- D 2842 LE 412 (588 kW, 1,800 rpm)
- D 2842 LE 405 (662 kW, 2,100 rpm)

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