

# Marine

High speed engines for fast boats

**MAN Engines** 









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### 70 % of the earth is covered by water

# Reason enough to enjoy life on the ocean with a MAN engine

With powers ranging from 730 to 1,800 hp, MAN yacht engines are Europe's number one. MAN engines impress with their extraordinary dynamics, their extreme running smoothness, economy and their trend-setting environmental friendliness. The finest from modern technology.

#### **Customer Benefits**

- High tractive power even at low speeds
- Powerful acceleration and rapid reaction to commands
- High performance combined with low weight
- Compact, space-saving design

- High efficiency owing to low fuel consumption
- Low running costs and long service life
- Low emission values
- World-wide service network with rapid supply of spare parts

#### Get out there and fish it with a MAN Engine

That's a lot of water to cover, and a large amount of fish that comes along with it. Get those lines cast in every one of your "hot spots" with the power of MAN engines covering the distance. Our high-performance R6, V8 and V12 marine engines are just built for pleasure crafts, so you can sportfish in complete comfort and style while getting the fuel efficiency, clean running, smooth acceleration, quiet operation, and total reliability you expect. With a MAN on board, you're already starting off with a nice catch.

#### Get out there and enjoy it with a MAN Engine

Straight six-cylinder or V8/V12, with their innovative and dependable technology, MAN yacht engines open up new dimensions on the water. They develop enormous torque even at low revs – the kind of power you feel as a tingling down the spine. Breathtaking acceleration and high speeds are experiences to be savoured, yet our compact, lightweight power units are decidedly modest when it comes to fuel consumption. With a MAN on board, you're already starting off the day right.







#### MAN Service Competent and motivated

MAN is there for you from the outset. Where qualified guidance is needed for the installation, our experts are at your side with advice and practical assistance. Of course you can always rely on our worldwide service network. Qualified service centres provide you with fast and skilled servicing and repairs. Worldwide partners ensure a service network for marine engines. As you can see we are there whenever and wherever you need us.

# MAN Environmental Awareness Future-oriented and ecofriendly

At MAN, we attach very great importance indeed to eco-friendliness. Every day, our engineers do their utmost to develop eco-friendly engines which comply with current emission standards worldwide.

With their particularly low fuel consumption, MAN engines not only ensure high economy, but also protect our environment. And your ears: this means that the quiet yet very powerful engine makes every trip a unique experience. Real recreation – both for the customer and the environment.

# MAN Gold Standard More safety and improved warranty

The MAN Gold Standard® seal of quality is a perfectly matched overall concept which complies with excellent quality standards both in regards to installation as well as in regards to tuning of the MAN engine system. Close cooperation between shipbuilder and the MAN engine specialists ensures that an engine compartment with optimum technical features is implemented. Improved technology and simplified access to the individual servicing points on the engine drastically speed up servicing work. This allows you to cut costs in the short term and maintain the value of the boat in the long term. This certificate of quality gives customers enhanced reliability and a longer warranty on the engine and its components.

If you want only the best, you should rely on the MAN Gold Standard®.





# **Light duty operation**

# Definition of application type

#### Characteristics

Annual operating hours: ≤ 1,000

Percentage of time at full load: ≤ 20 %

Average load application: ≤ 50 %

Particular operation conditions: no wide-open throttle

below rated speed

■ Average TBO operating hours: ≤ 5000

Oil change interval: ≤ 400 hours

#### **Typical applications**

- Pleasure crafts
- Escort boats and patrol boats
- Ambulance boats
- Police boats



### R6-730 and R6-800

### Engine description

#### Characteristics

Cylinders and arrangement: 6 cylinders in-line

Operation mode: 4-stroke diesel engine, watercooled

■ Turbocharging: Exhaust turbocharger with intercooler, boost pressure control with waste gate

Number of valves: 4 valves per cylinder

■ Fuel system: Common Rail direct fuel injection with electronic control

Engine lubrication: Closed system with forced feeding, oil cooling and filtering

Type of cooling: Heat exchanger with engine and seawater circuit

■ Engine control: Electronic injection control (EDC)

Electronic engine monitoring including diagnostic unit

■ Fuel: DIN EN 590

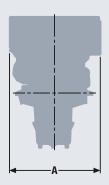
### R6-730 and R6-800

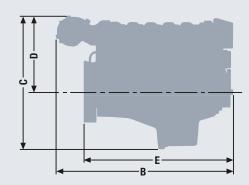
### Technical data

#### Technical features R6-730 and R6-800

Type designation		R6-730	R6-800
Displacement		12.82	12.82
Maximum output to DIN ISO 3046-1	kW (hp)	537 (730)	588 (800)
Rated speed	rpm	2,300	2,300
Maximum torque	Nm	2,450	2,700
at speed	rpm	1,200-2,100	1,300–2,100
Absolute fuel consumption at rated power <sup>1)</sup>	l/h	145	158
		IMO Tier 2, EPA Tier 3 <sup>2)</sup> ,	IMO Tier 2, EPA Tier 3 <sup>2)</sup> ,
Exhaust gas status		RCD 94/25/EC, 97/68/EC,	RCD 94/25/EC, 97/68/EC,
		SAV/BSO	SAV/BSO_

<sup>1)</sup> Tolerance +5% according to DIN ISO 3046-1





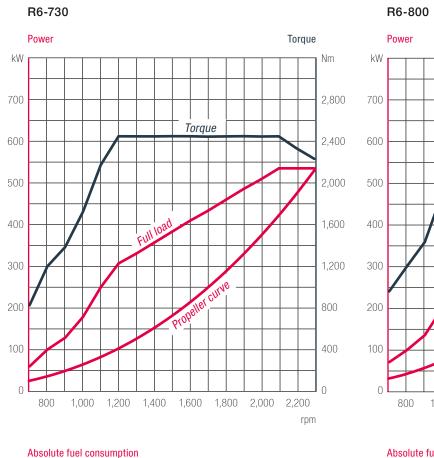
#### Dimensions R6-730 and R6-800

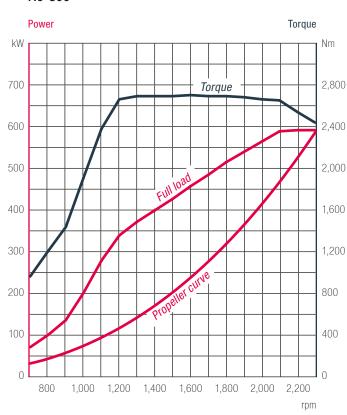
Type designation		R6-730/R6-800
A-Overall width	mm	910
B-Overall length	mm	1,634
C-Overall height – standard oil pan	mm	1,097
D-Top of engine to crankshaft centre	mm	683
E-Length of engine from front end to edge of flywheel housing	mm	1,356
Average weight of engine ready for installation (dry)	kg	1,305

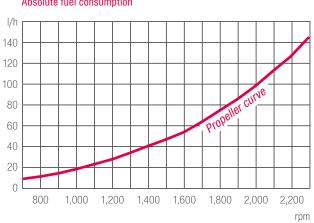
<sup>2)</sup> Increased fuel consumption only with EPA Tier  $3\,$ 

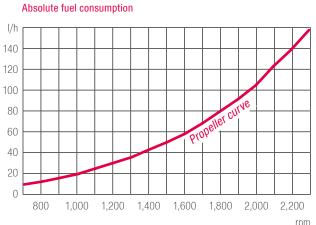
### R6-730 and R6-800

### Power charts











### **V8-900**

### Engine description

#### Characteristics

Cylinders and arrangement:
 8 cylinders in 90° V arrangement

Operation mode: 4-stroke diesel engine, watercooled

■ Turbocharging: Exhaust turbocharger with intercooler,

boost pressure control with waste gate

Number of valves:4 valves per cylinder

■ Fuel system: Common Rail direct fuel injection with electronic control

Engine lubrication:
 Closed system with forced feeding, oil cooling and filtering

Type of cooling: Heat exchanger with engine and seawater circuit

Engine control:
 Electronic injection control (EDC)

Electronic engine monitoring including diagnostic unit

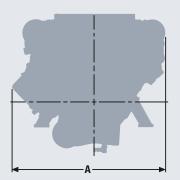
■ Fuel: DIN EN 590

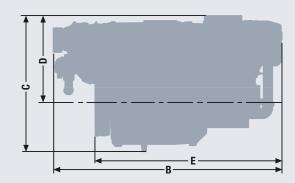
### **V8-900**

# Technical data

#### Technical features V8-900

Type designation		V8-900
Displacement		14.62
Maximum output to DIN ISO 3046-1	kW (hp)	662 (900)
Rated speed	rpm	2,300
Maximum torque	Nm	2,900
at speed	rpm	1,500–2,100
Fuel consumption at rated power		176
Exhaust gas status		IMO Tier 2, SAV/BSO, RCD 94/25/EC, 97/68/EC





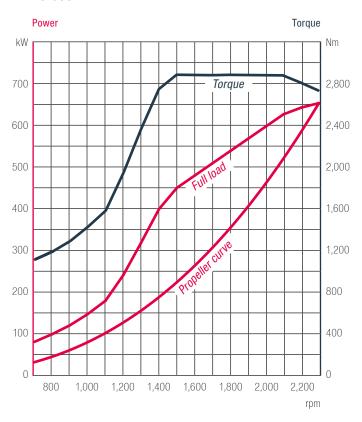
#### Dimensions V8-900

Type designation		V8-900
A-Overall width	mm	1,240
B-Overall length	mm	1,546
C-Overall height	mm	1,173
D-Top of engine to crankshaft centre	mm	789
E-Length of engine from front end to edge of flywheel housing	mm	1,175
Average weight of engine ready for installation (dry)	kg	1,565

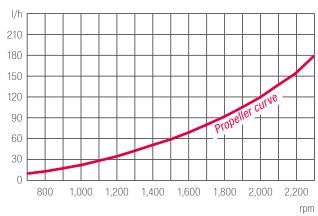
### **V8-900**

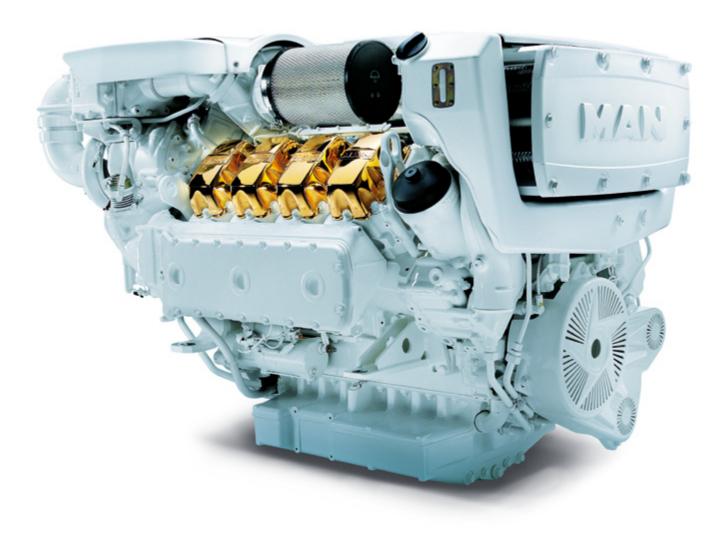
### Power charts

#### V8-900



#### Absolute fuel consumption





### V8-1000 and V8-1200

# Engine description

#### Characteristics

Cylinders and arrangement:
 8 cylinders in 90° V arrangement

Operation mode: 4-stroke diesel engine, watercooled

■ Turbocharging: Exhaust turbocharger with intercooler (1-stage: V8-1000,

2-stage: V8-1200), boost pressure control with waste gate

Number of valves:4 valves per cylinder

• Fuel system: Common Rail direct fuel injection with electronic control

Engine lubrication:
 Closed system with forced feeding, oil cooling and filtering

Type of cooling: Plate heat exchanger, seawater cooled

■ Engine control: Electronic injection control (EDC)

Electronic engine monitoring including diagnostic unit

■ Fuel: DIN EN 590

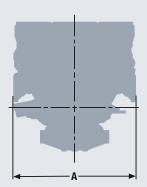
### V8-1000 and V8-1200

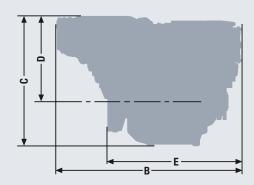
### Technical data

#### Technical features V8-1000 and V8-1200

Type designation		V8-1000	V8-1200
Displacement		16.16	16.16
Maximum output to DIN ISO 3046-1	kW (hp)	735 (1,000)	882 (1,200)
Rated speed	rpm	2,300	2,300
Maximum torque	Nm	3,350	4,010
at speed	rpm	1,300–2,100	1,200-2,100
Absolute fuel consumption at rated power <sup>1)</sup>	l/h	195	231
Exhaust gas status		IMO Tier 2, EPA Tier 3 <sup>2)</sup> , RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3 <sup>2</sup> ), RCD 94/25/EC, 97/68/EC

<sup>1)</sup> Tolerance +5% according DIN ISO 3046-1





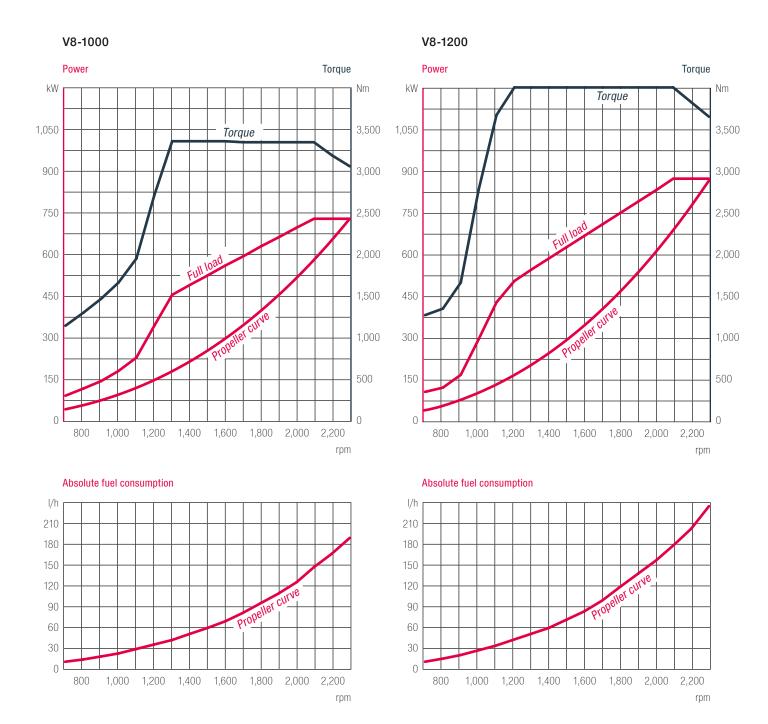
#### Dimensions V8-1000 and V8-1200

Type designation		V8-1000	V8-1200
A-Overall width	mm	1,153	1,153
B-Overall length	mm	1,736	1,745
C-Overall height	mm	1,236	1,222
D-Top of engine to crankshaft centre	mm	825	811
E-Length of engine from front end to edge of flywheel housing	mm	1,243	1,262
Average weight of engine ready for installation (dry)	kg	1,780	1,875

<sup>2)</sup> increased fuel consumption only with EPA Tier 3

### V8-1000 and V8-1200

### Power charts





### V12-1360

### Engine description

#### Characteristics

Cylinders and arrangement:
 12 cylinders in 90° V arrangement

Operation mode: 4-stroke diesel engine, watercooled
 Turbocharging: Exhaust turbocharger with intercooler,

boost pressure control with waste gate

Number of valves:4 valves per cylinder

Fuel system: Common Rail direct fuel injection with electronic control

Engine lubrication:
 Closed system with forced feeding, oil cooling and filtering

Type of cooling: Heat exchanger with engine and seawater circuit

■ Engine control: Electronic injection control (EDC)

Electronic engine monitoring including diagnostic unit

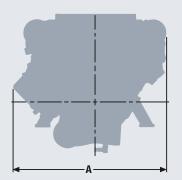
• Fuel: DIN EN 590

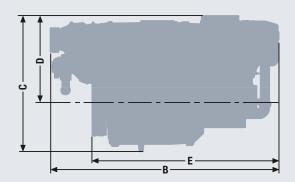
### V12-1360

# Technical data

#### Technical features V12-1360

Type designation		V12-1360
Displacement		21.93
Maximum output to DIN ISO 3046-1	kW (hp)	1,000 (1,360)
Rated speed	rpm	2,300
Maximum torque	Nm	4,550
at speed	rpm	1,200–2,100
Fuel consumption at rated power	l/h	263
Exhaust gas status		IMO Tier 2, SAV/BSO, RCD 94/25/EC, 97/68/EC





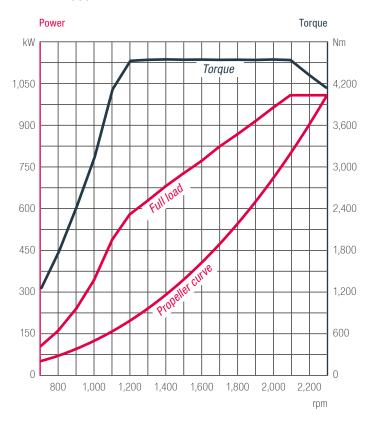
#### Dimensions V12-1360

Type designation		V12-1360
A-Overall width	mm	1,307
B-Overall length	mm	1,846
C-Overall height – standard oil pan	mm	1,270
D-Top of engine to crankshaft centre	mm	789
E-Length of engine from front end to edge of flywheel housing	mm	1,493
Average weight of engine ready for installation (dry)	kg	1,965

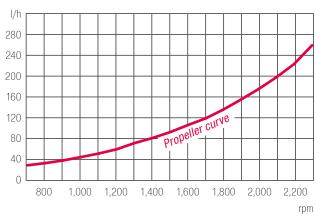
### V12-1360

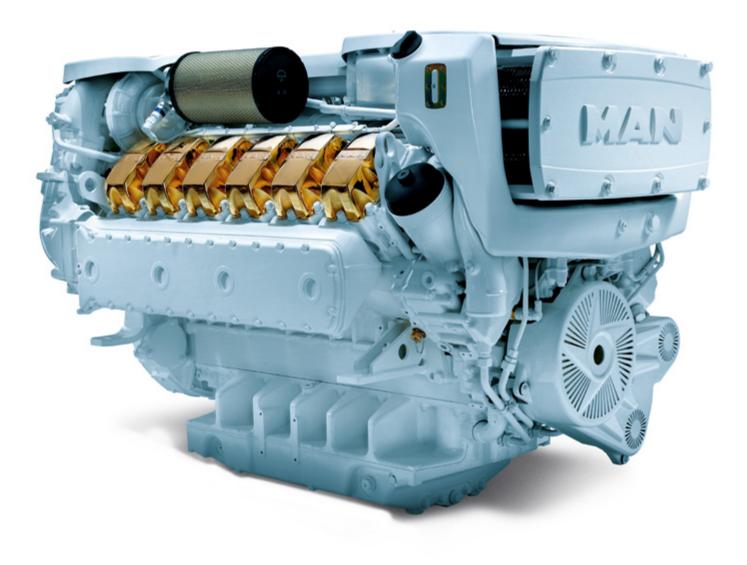
### Power charts

#### V12-1360



#### Absolute fuel consumption





### V12-1400 and V12-1550

# **Engine description**

#### Characteristics

Cylinders and arrangement:
 12 cylinders in 90° V arrangement

Operation mode: 4-stroke diesel engine, watercooled

Turbocharging: Exhaust turbocharger with intercooler, boost pressure control with waste gate

Number of valves:4 valves per cylinder

■ Fuel system: Common Rail direct fuel injection with electronic control

Engine lubrication:
 Closed system with forced feeding, oil cooling and filtering

Type of cooling: Plate heat exchanger, seawater cooled

Engine control:
 Electronic injection control (EDC)

Electronic engine monitoring including diagnostic unit

■ Fuel: DIN EN 590

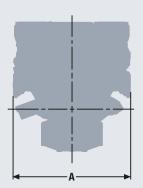
### V12-1400 and V12-1550

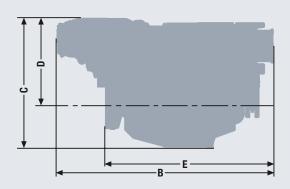
### Technical data

#### Technical features V12-1400 and V12-1550

Type designation		V12-1400	V12-1550
Displacement		24.24	24.24
Maximum output to DIN ISO 3046-1	kW (hp)	1,029 (1,400)	1,140 (1,550)
Rated speed	rpm	2,300	2,300
Maximum torque	Nm	4,670	5,140
at speed	rpm	1,200–2,100	1,300-2,100
Absolute fuel consumption at rated power <sup>1)</sup>	l/h	266	296
Classifiable		<b>✓</b>	_
Exhaust gas status		IMO Tier 2, EPA Tier 3 <sup>2)</sup> , RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3 <sup>2)</sup> , RCD 94/25/EC, 97/68/EC

<sup>1)</sup> Tolerance +5% according DIN ISO 3046-1





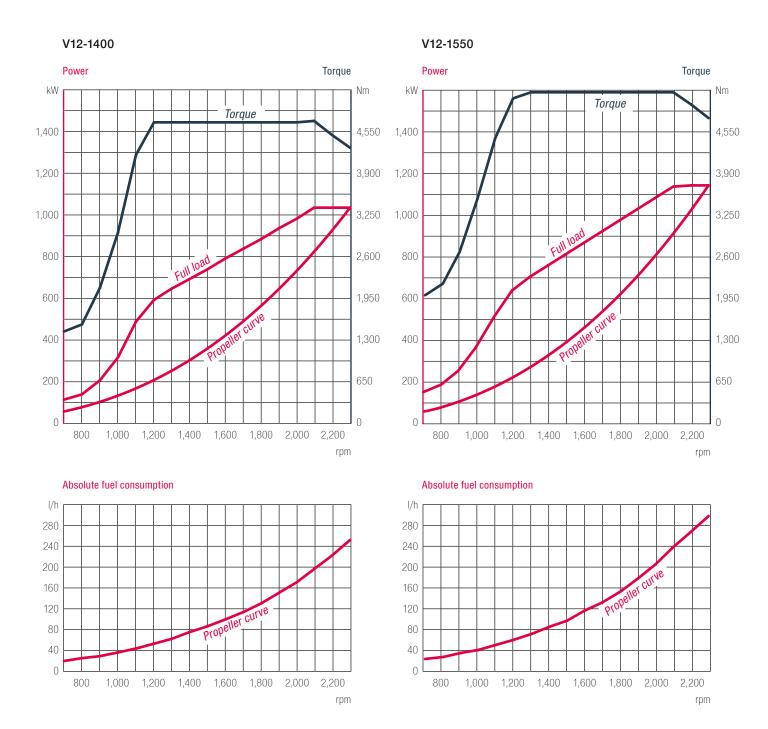
#### Dimensions V12-1400 and V12-1550

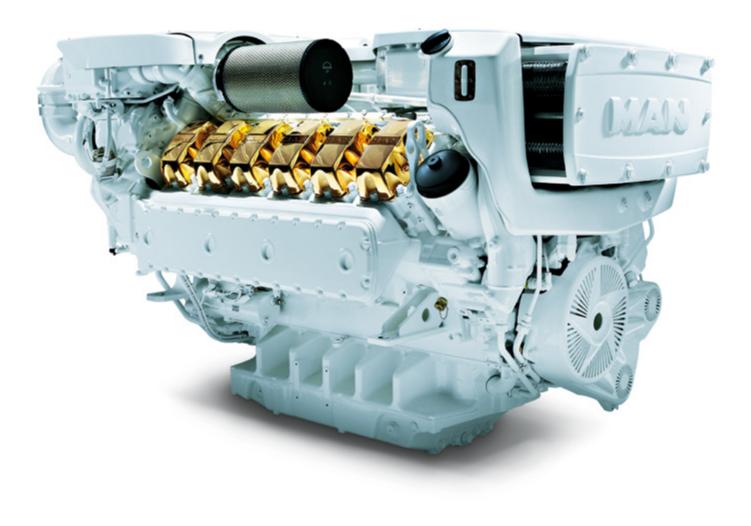
Type designation		V12-1400	V12-1550
A-Overall width	mm	1,270	1,153
B-Overall length	mm	2,230	2,124
C-Overall height	mm	1,289	1,289
D-Top of engine to crankshaft centre	mm	825	825
E-Length of engine from front end to edge of flywheel housing	mm	1,614	1,631
Average weight of engine ready for installation (dry)	kg	2,270	2,270

<sup>2)</sup> increased fuel consumption only with EPA Tier 3

### V12-1400 and V12-1550

### Power charts





### V12-1650 and V12-1800

# Engine description

#### Characteristics

Cylinders and arrangement: 12 cylinders in 90° V arrangement

Operation mode: 4-stroke diesel engine, watercooled

Turbocharging: 2-stage exhaust turbocharger with intercooler,

boost pressure control with waste gate

Number of valves:4 valves per cylinder

■ Fuel system: Common Rail direct fuel injection with electronic control

Engine lubrication:
 Closed system with forced feeding, oil cooling and filtering

Type of cooling:
Plate heat exchanger, seawater cooled

Engine control: Electronic injection control (EDC)

Electronic engine monitoring including diagnostic unit

■ Fuel: DIN EN 590

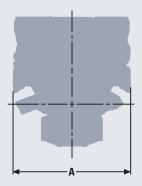
### V12-1650 and V12-1800

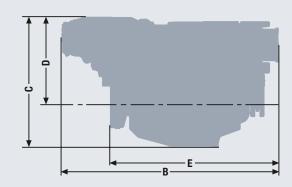
### Technical data

#### Technical features V12-1650 and V12-1800

Type designation		V12-1650	V12-1800
Displacement	<u> </u>	24.24	24.24
Maximum output to DIN ISO 3046-1	kW (hp)	1,213 (1,650)	1,324 (1,800)
Rated speed	rpm	2,300	2,300
Maximum torque	Nm	5,510	6,020
at speed	rpm	1,200–2,100	1,200-2,100
Absolute fuel consumption at rated power <sup>1)</sup>	l/h	315	339
Classifiable		<b>✓</b>	_
Exhaust gas status		IMO Tier 2, EPA Tier 3 <sup>2)</sup> , RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3 <sup>2)</sup> , RCD 94/25/EC, 97/68/EC

<sup>1)</sup> Tolerance +5% according DIN ISO 3046-1





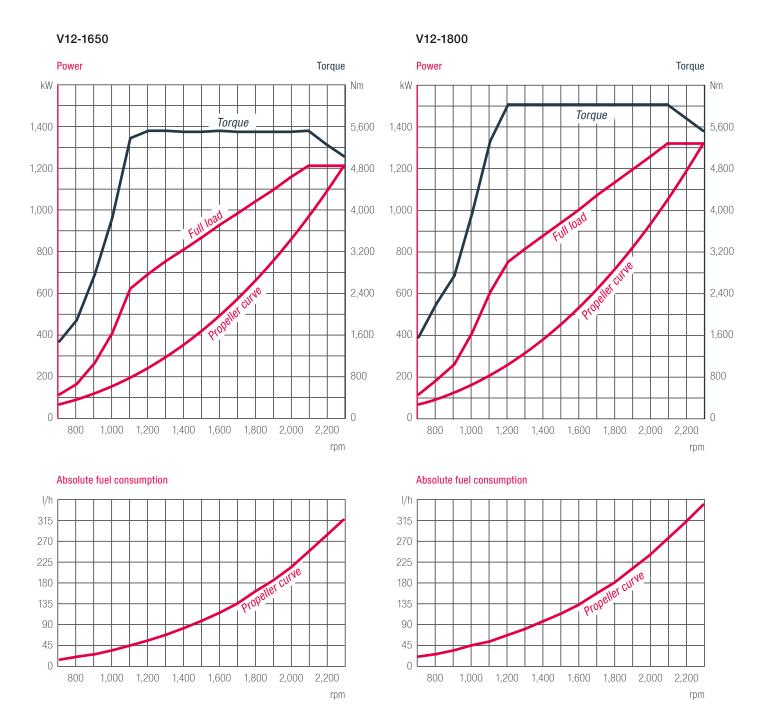
#### Dimensions V12-1650 and V12-1800

Type designation		V12-1650	V12-1800
A-Overall width	mm	1,150	1,153
B-Overall length	mm	2,255	2,139
C-Overall height	mm	1,350	1,265
D-Top of engine to crankshaft centre	mm	885	811
E-Length of engine from front end to edge of flywheel housing	mm	1,667	1,658
Average weight of engine ready for installation (dry)	kg	2,400	2,365

<sup>2)</sup> increased fuel consumption only with EPA Tier 3

### V12-1650 and V12-1800

### Power charts



# **Notes**

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# **Notes**


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All data provided in this document is non-binding. This data serves informational purposes only and is especially not guaranteed in any way. Depending upon the subsequent specific individual projects, the relevant data may be subject to changes and will be assessed and determined individually for each project. This will depend on the particular characteristics of each individual project, especially specific site and operational conditions.

#### MAN Truck & Bus AG

Vogelweiherstr. 33 90441 Nuremberg, Germany man-engines@man.eu www.man-engines.com