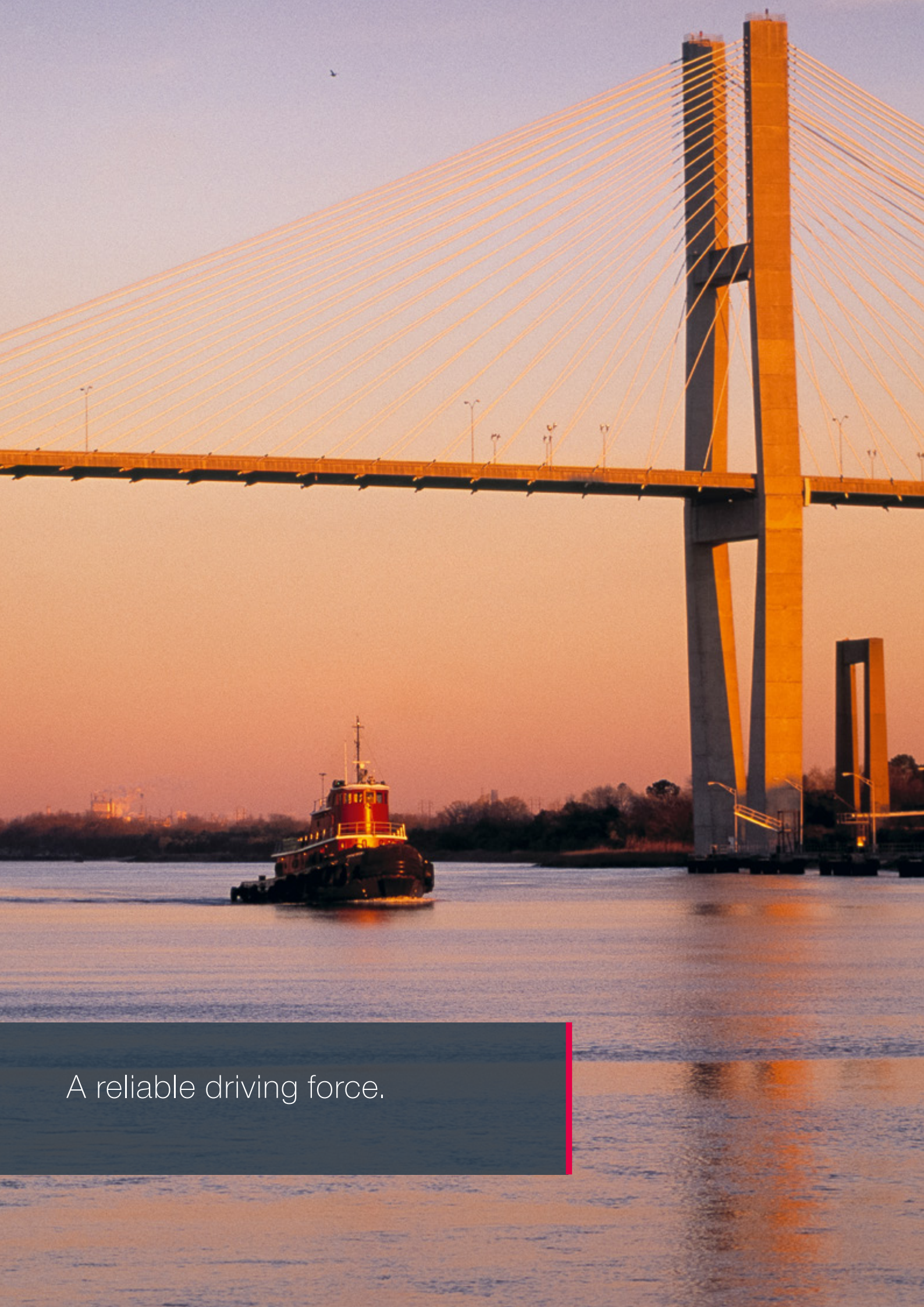
Commercial

Marine

Marine

High speed propulsion engines

MAN Engines



A reliable driving force.

Contents

MAN Marine Engines
A reliable driving force

At sea, ships and boats have to contend with elemental forces, while harbours require them to navigate precisely through the narrowest of corridors.

Customer Benefits

- Maximum torque at the most fuel efficient point of operation
- Maximum torque across a large range of engine speed for a powerful and steady acceleration
- Class-leading compactness for a space-saving design
- Best fuel consumption values and long service intervals minimizing the TCO
- Low acoustics and low vibrations
- World-wide service network with rapid spare parts supply

Light duty operation

In light duty operation (730–1,900 hp), MAN Engines offer exceptional dynamics accompanied by maximum economic efficiency. And by the way: their pathbreaking technology for adhering to emission guidelines means that they easily take up a leading position on patrol boats, sea-rescue boats and coastguard boats.

Medium duty operation

In medium duty operation (560–1,400 hp), the fuel-saving MAN engines ensure maximum efficiency on accompanying boats, pilot boats and deep-sea patrol boats, on fishing boats, ferries and on passenger ships. A long service life with low lifecycle costs and also quick supply of spare parts through the world-wide servicing network make the MAN engines profit earners in professional navigation.

Heavy duty operation

MAN Engines offer a perfectly coordinated power spectrum for heavy duty (440–1,000 hp) operation with powerful acceleration and high tractive force. They are the ultimate in terms of reliability and efficiency in freight and passenger shipping as well as in trawlers, tugs and push boats.

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. 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 Warranty
Relaxing and calculable

With MAN engines for work boats you are on the safe side since MAN Engines goes one step further. With the “Work Plus” Warranty you do not only extend the warranty for your engine, but it also gives you the certainty and peace of mind that you have made the right decision. In practice this means an additional year of safety for you and your engine plus attractive pricing which makes this offer even more appealing.

MAN Environmental Awareness
Future-oriented and eco-friendly

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.

Light duty operation

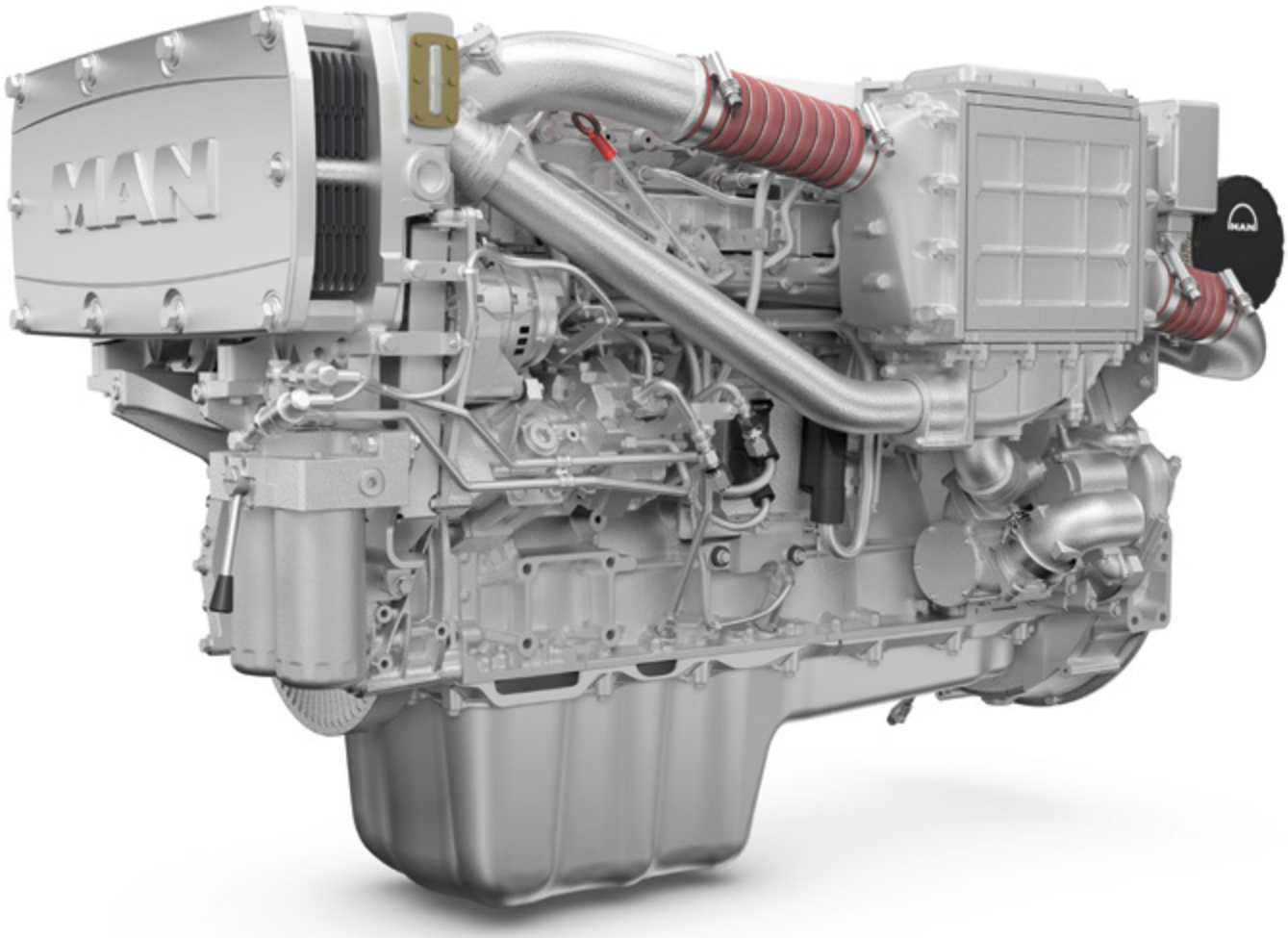
Definition of application type

Characteristics

- Annual operating hours: ≤ 1,000
- Percentage of time at full load: ≤ 20 %
- Average load application: ≤ 50 %
- Average TBO operating hours: ≤ 5000
- Oil change interval: ≤ 400 hours

Typical applications

- Season fishing
- Escort boats and patrol boats
- Ambulance boats
- Police boats



D2676

Engine description

Characteristics

Cylinders and arrangement:	6 cylinders in-line
Operation mode:	4-stroke diesel engine, watercooled
Turbocharging:	Turbocharger with charge air intercooler and 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

D2676

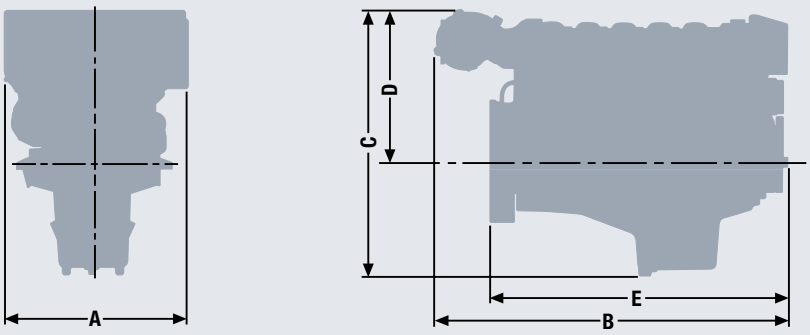
Technical data

Technical features D2676

Type designation		LE 443	LE 423
Displacement	l	12.42	12.42
Maximum output to DIN ISO 3046-1	kW (hp)	537 (730)	588 (800)
Rated speed	rpm	2,300	2,300
Maximum torque	Nm	2,445	2,674
at speed	rpm	1,300–2,100	1,400–2,000
Absolute fuel consumption at rated power [1]	l/h	142	158
Classifiable		✓	–
Exhaust gas status		IMO Tier 2, EPA Tier 3 RCD 2013/53/EC, 97/68/EC	IMO Tier 2, EPA Tier 3 [2], RCD 2013/53/EC, 97/68/EC

1) Tolerance +5% according to DIN ISO 3046-1

2) For private use only



Dimensions D2676

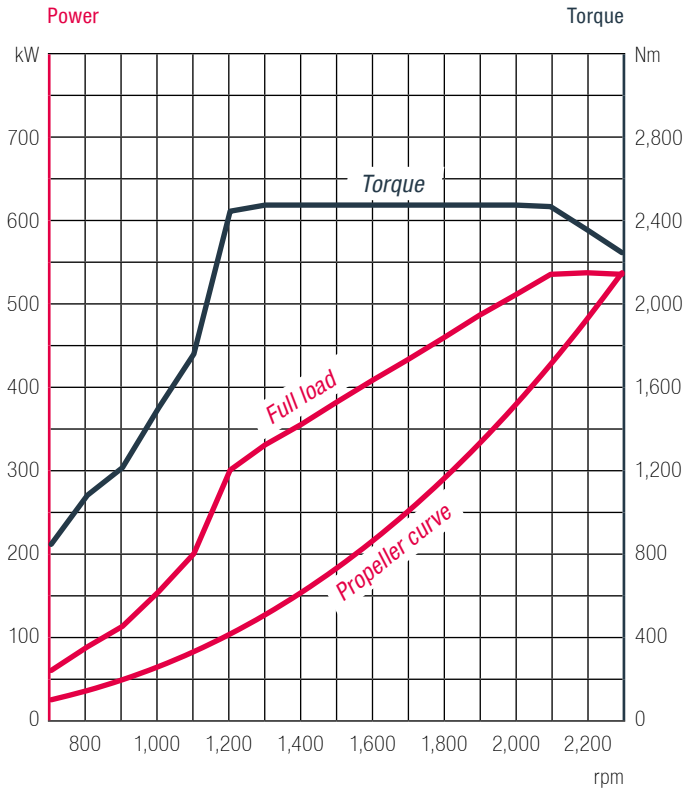
Type designation		LE 443/ LE 423
A-Overall width	mm	922
B-Overall length	mm	1,800
C-Overall height – standard oil pan	mm	1,103
D-Top of engine to crankshaft centre	mm	704
E-Length of engine from front end to edge of flywheel housing	mm	1,532
Average weight of engine ready for installation (dry)	kg	1,215

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

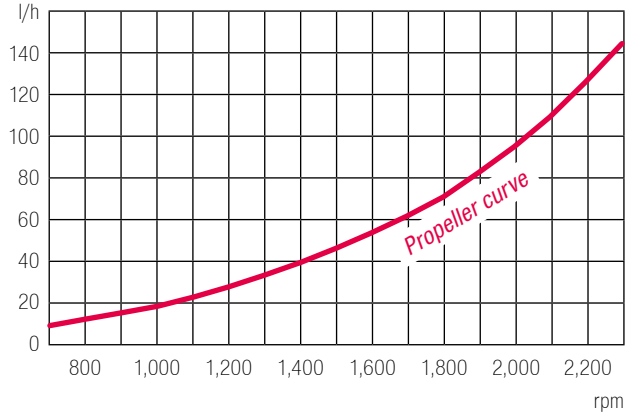
D2676

Power charts

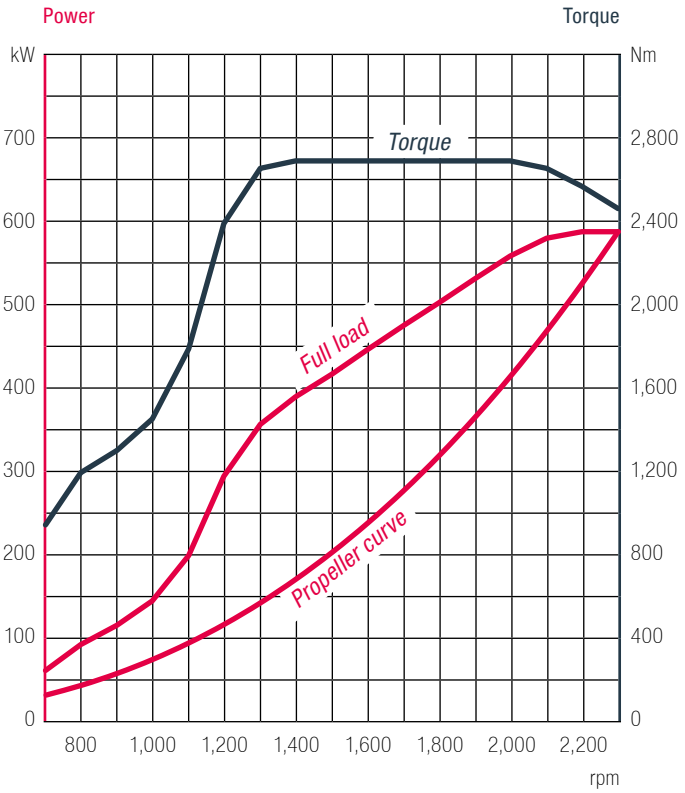
D2676 LE 443



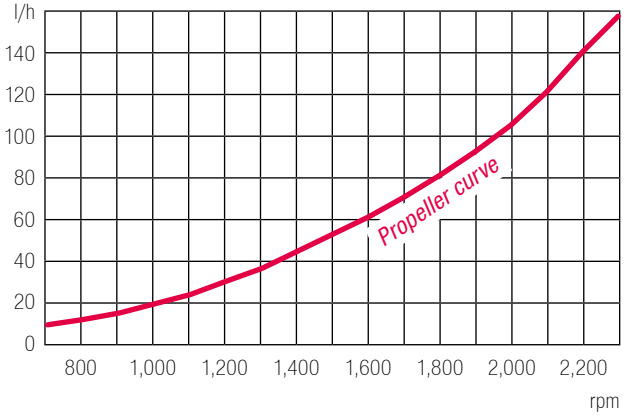
Absolute fuel consumption

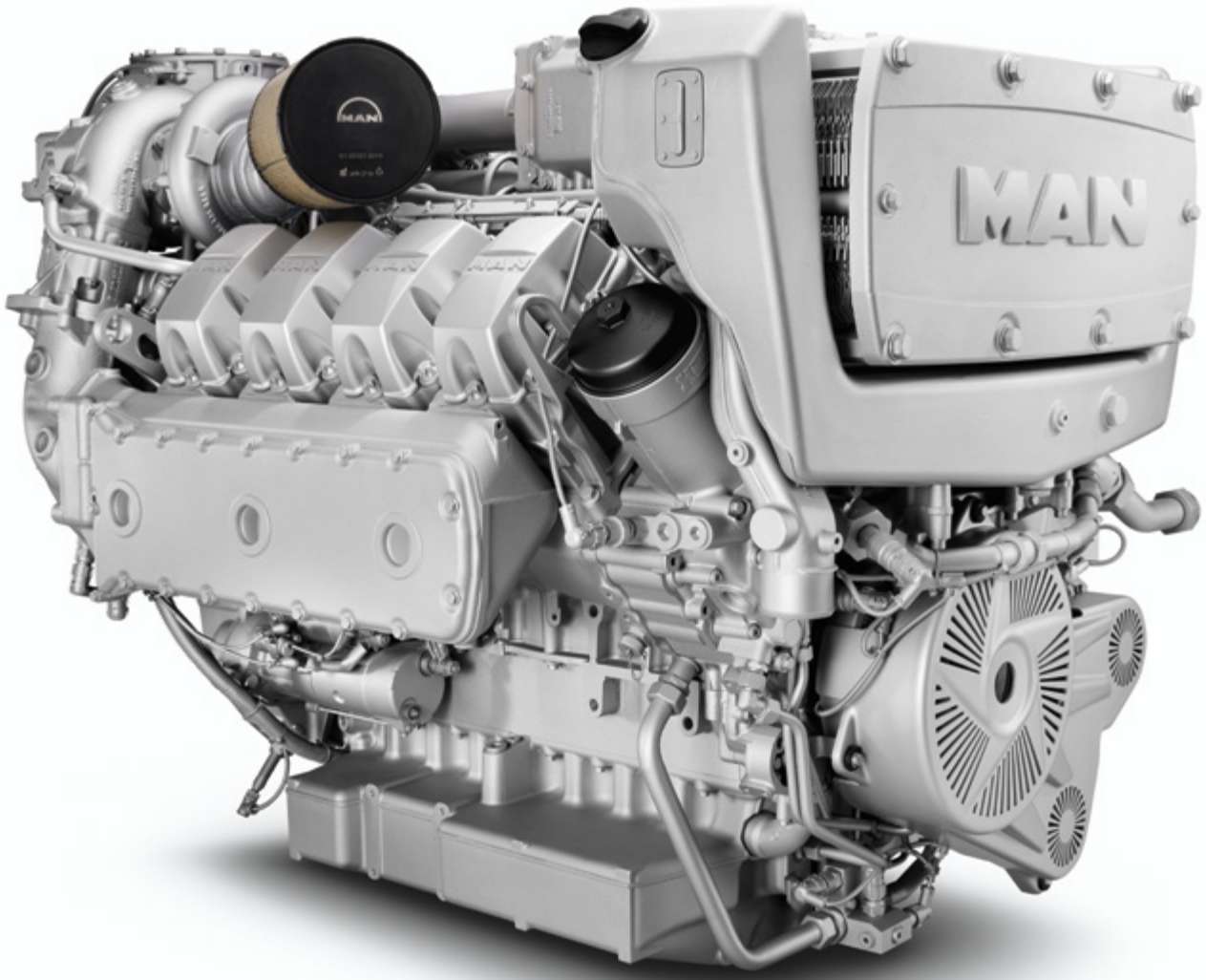


D2676 LE 423



Absolute fuel consumption





D2868

Engine description

Characteristics

■ Cylinders and arrangement:	8 cylinders in 90° V arrangement
■ Operation mode:	4-stroke diesel engine, watercooled
■ Turbocharging:	Turbocharger with charge air intercooler and waste gate (1-stage: D2686 LE 426, 2-stage: D2868 LE 436)
■ 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

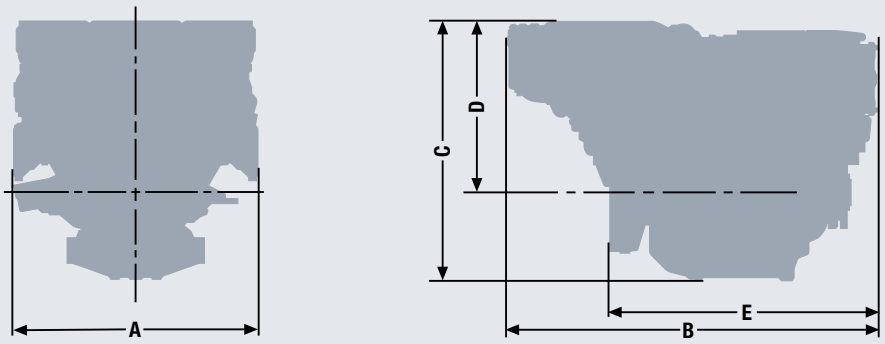
D2868

Technical data

Technical features D2868

Type designation		LE 426	LE 436
Displacement	l	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	3,340	4,010
at speed	rpm	1,300–2,100	1,200–2,100
Absolute fuel consumption at rated power [1)]	l/h	199	240
Exhaust gas status		IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3 [2)], RCD 94/25/EC, 97/68/EC

1) Tolerance +5% according to DIN ISO 3046-1 2) For private use only



Dimensions D2868

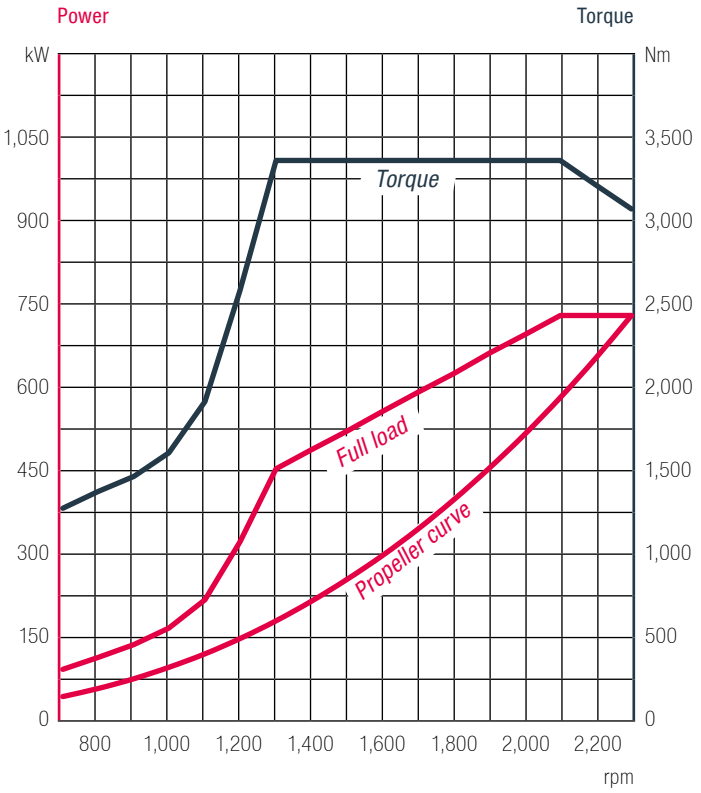
Type designation		LE 426	LE 436
A-Overall width	mm	1,153	1,153
B-Overall length	mm	1,745	1,745
C-Overall height	mm	1,236	1,222
D-Top of engine to crankshaft centre	mm	825	811
E-Length of engine from front end to edge of flywheel housing	mm	1,243	1,262
Average weight of engine ready for installation (dry)	kg	1,780	1,875

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

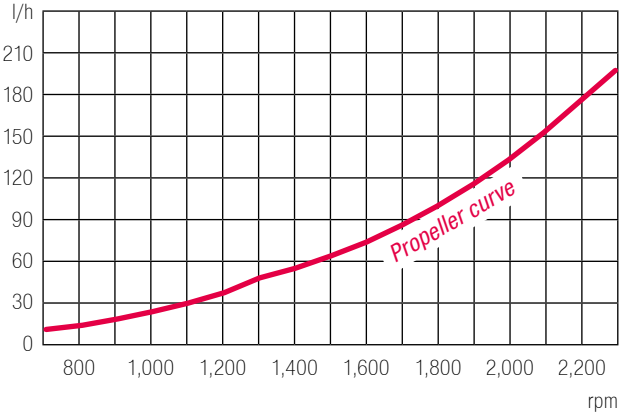
D2868

Power charts

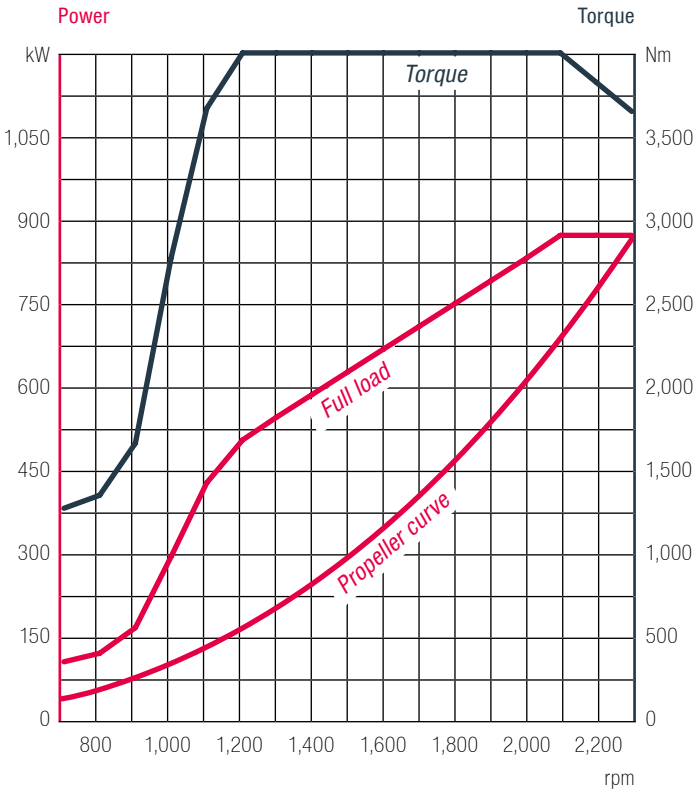
LE 426



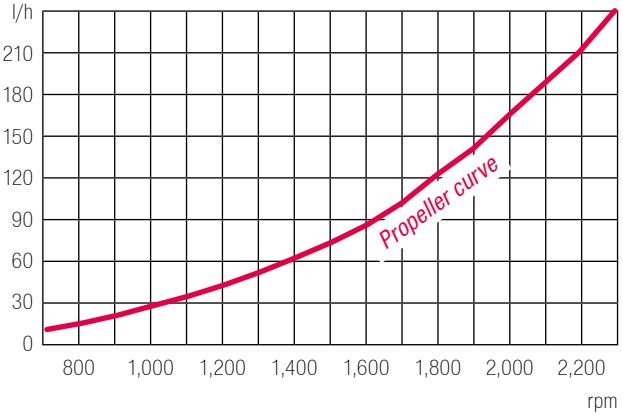
Absolute fuel consumption

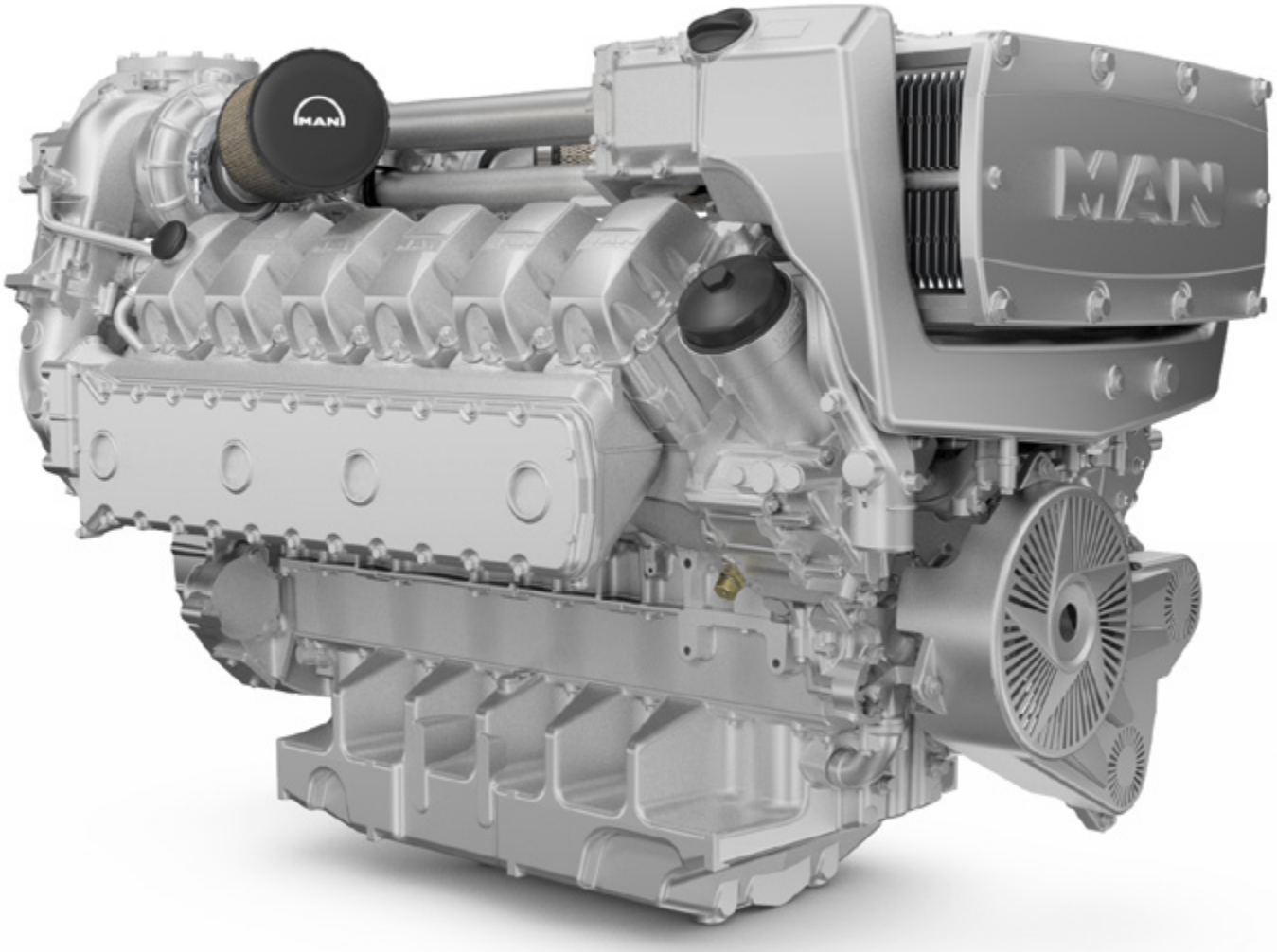


LE 436



Absolute fuel consumption





D2862

Engine description

Characteristics

■ Cylinders and arrangement:	12 cylinders in 90° V arrangement
■ Operation mode:	4-stroke diesel engine, watercooled
■ Turbocharging:	Turbocharger with charge air intercooler and waste gate (1-stage: D2862 LE 446/426, 2-stage: D2862 LE 456/436)
■ 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

D2862

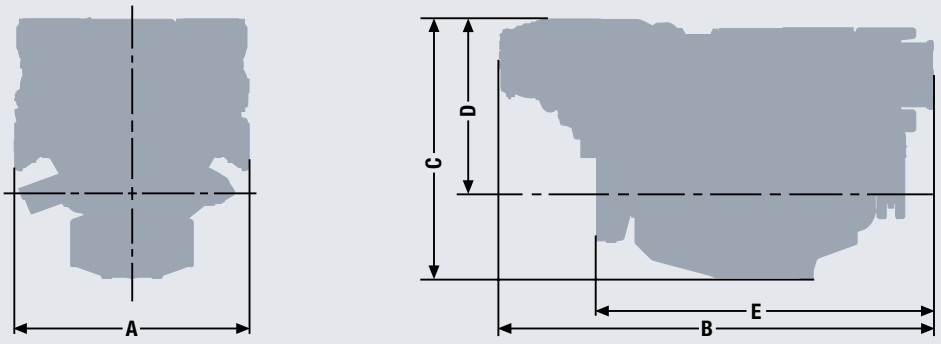
Technical data

Technical features D2862

Type designation		LE 446	LE 426	LE 456	LE 436
Displacement	l	24.24	24.24	24.24	24.24
Maximum output to DIN ISO 3046-1	kW (hp)	1,029 (1,400)	1,140 (1,550)	1,213 (1,650)	1,324 (1,800)
Rated speed	rpm	2,300	2,300	2,300	2,300
Maximum torque	Nm	4,680	5,180	5,510	6,010
at speed	rpm	1,200–2,100	1,200–2,100	1,200–2,100	1,200–2,100
Absolute fuel consumption at rated power [1]	l/h	267	299	323	351
Classifiable		✓	–	✓	–
Exhaust gas status		IMO Tier 2, EPA Tier 3 [2], RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3 [2], RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3 [2], RCD 94/25/EC, 97/68/EC

1) Tolerance +5% according to DIN ISO 3046-1

2) For private use only



Dimensions D2862

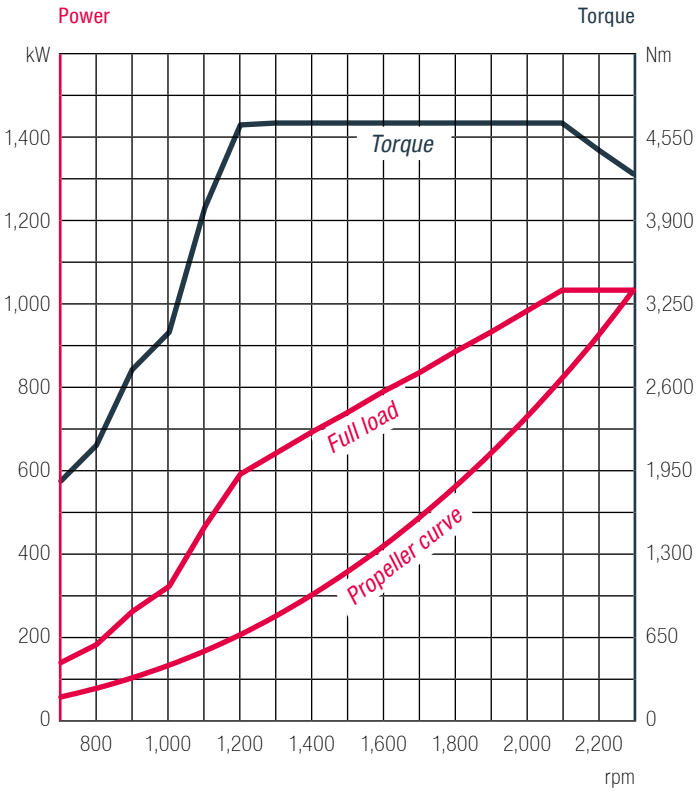
Type designation		LE 446/426	LE 456/436
A-Overall width	mm	1,270	1,150
B-Overall length	mm	2,230	2,255
C-Overall height	mm	1,280	1,350
D-Top of engine to crankshaft centre	mm	815	885
E-Length of engine from front end to edge of flywheel housing	mm	1,614	1,667
Average weight of engine ready for installation (dry)	kg	2,270	2,365

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

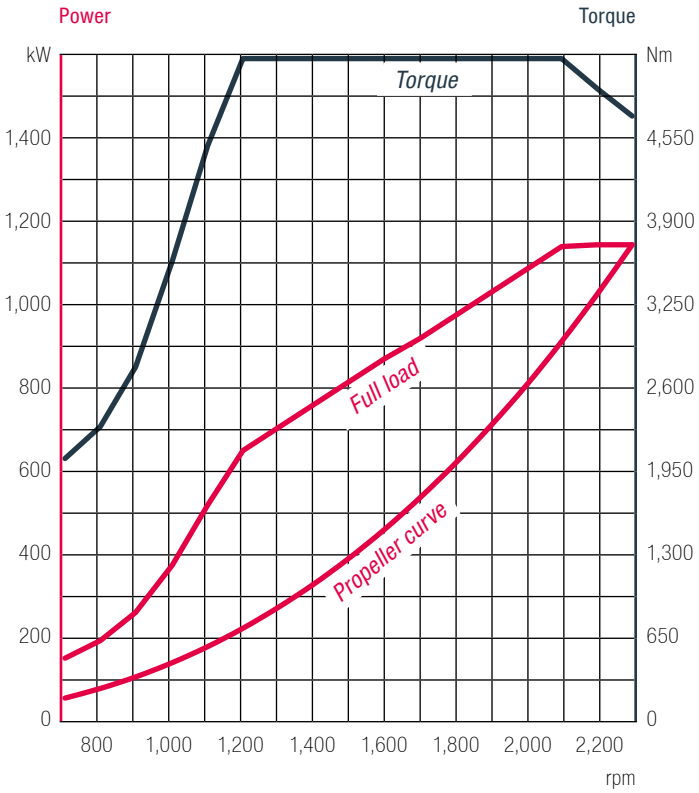
D2862

Power charts

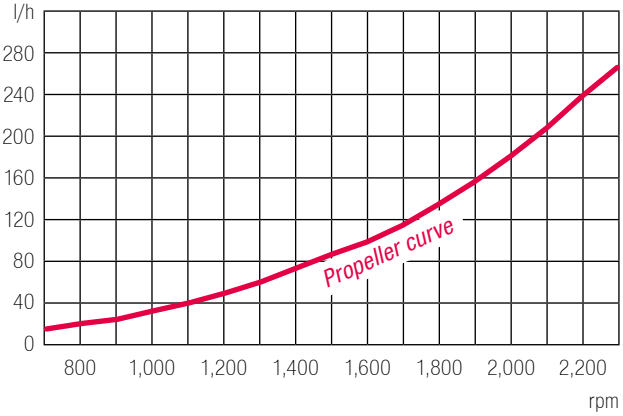
LE 446



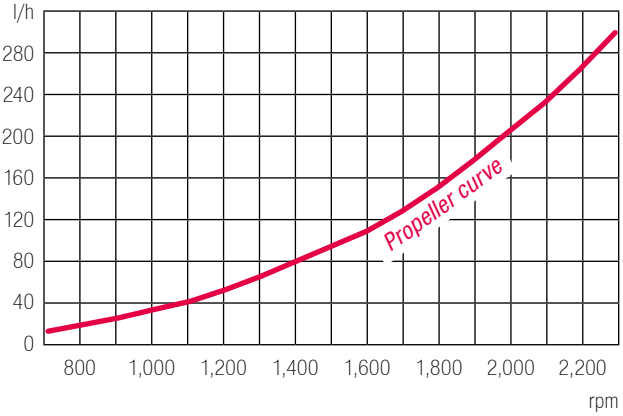
LE 426



Absolute fuel consumption



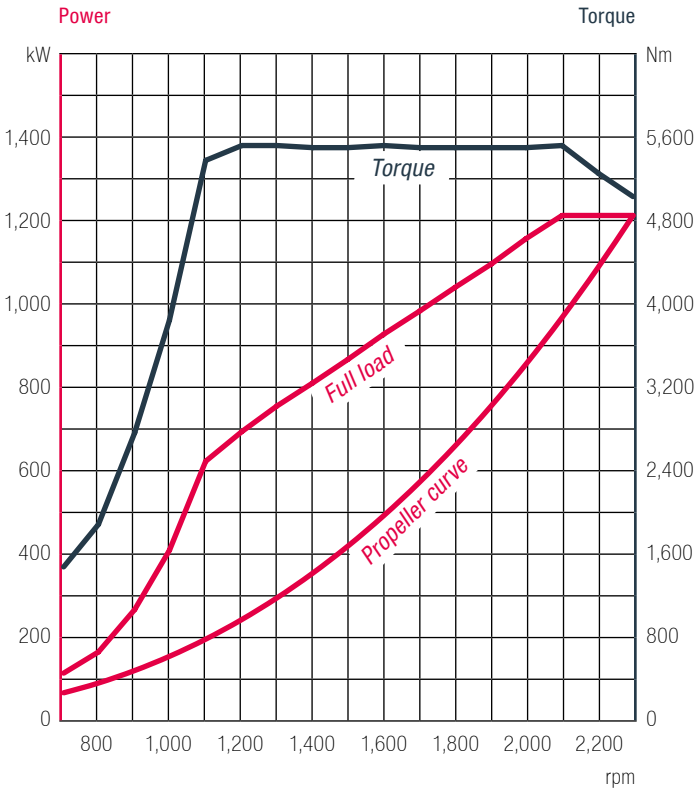
Absolute fuel consumption



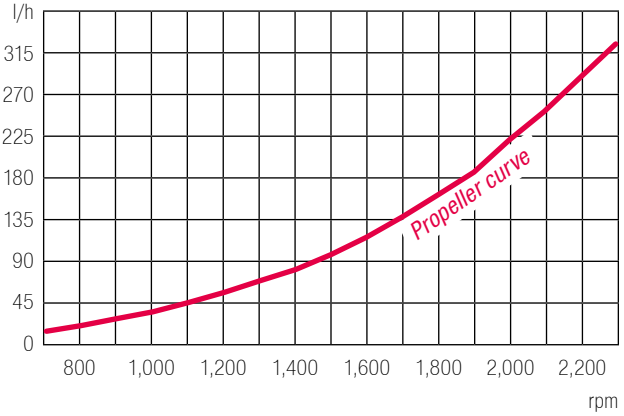
D2862

Power charts

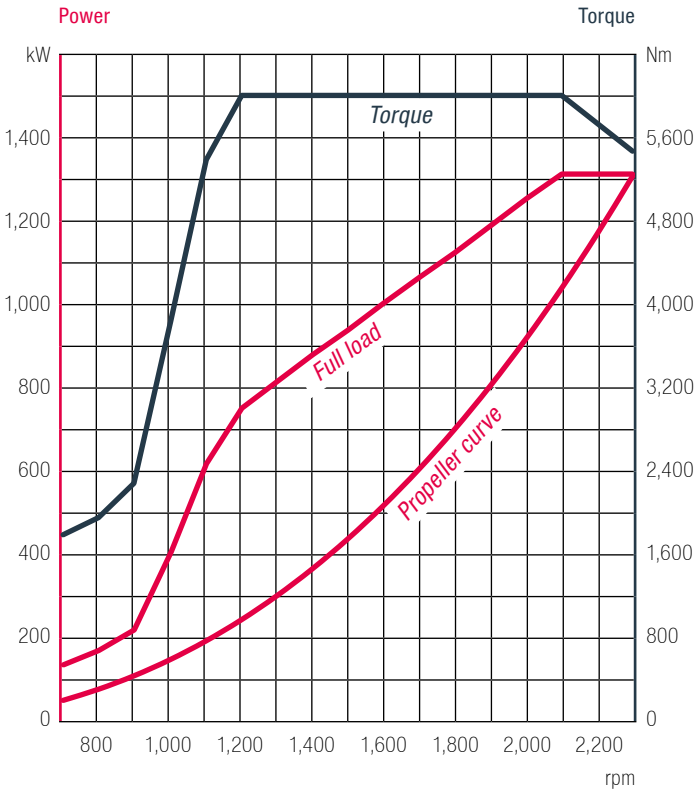
LE 456



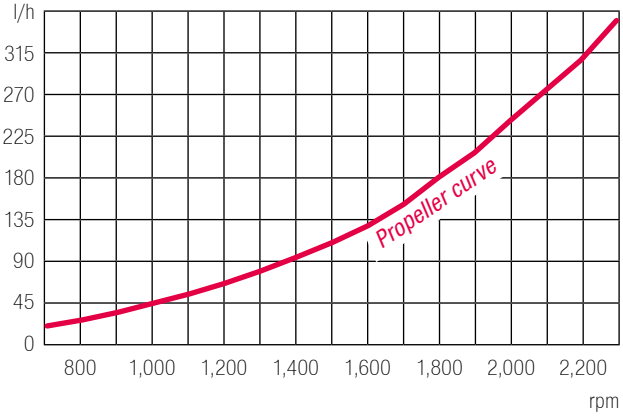
Absolute fuel consumption



LE 436



Absolute fuel consumption



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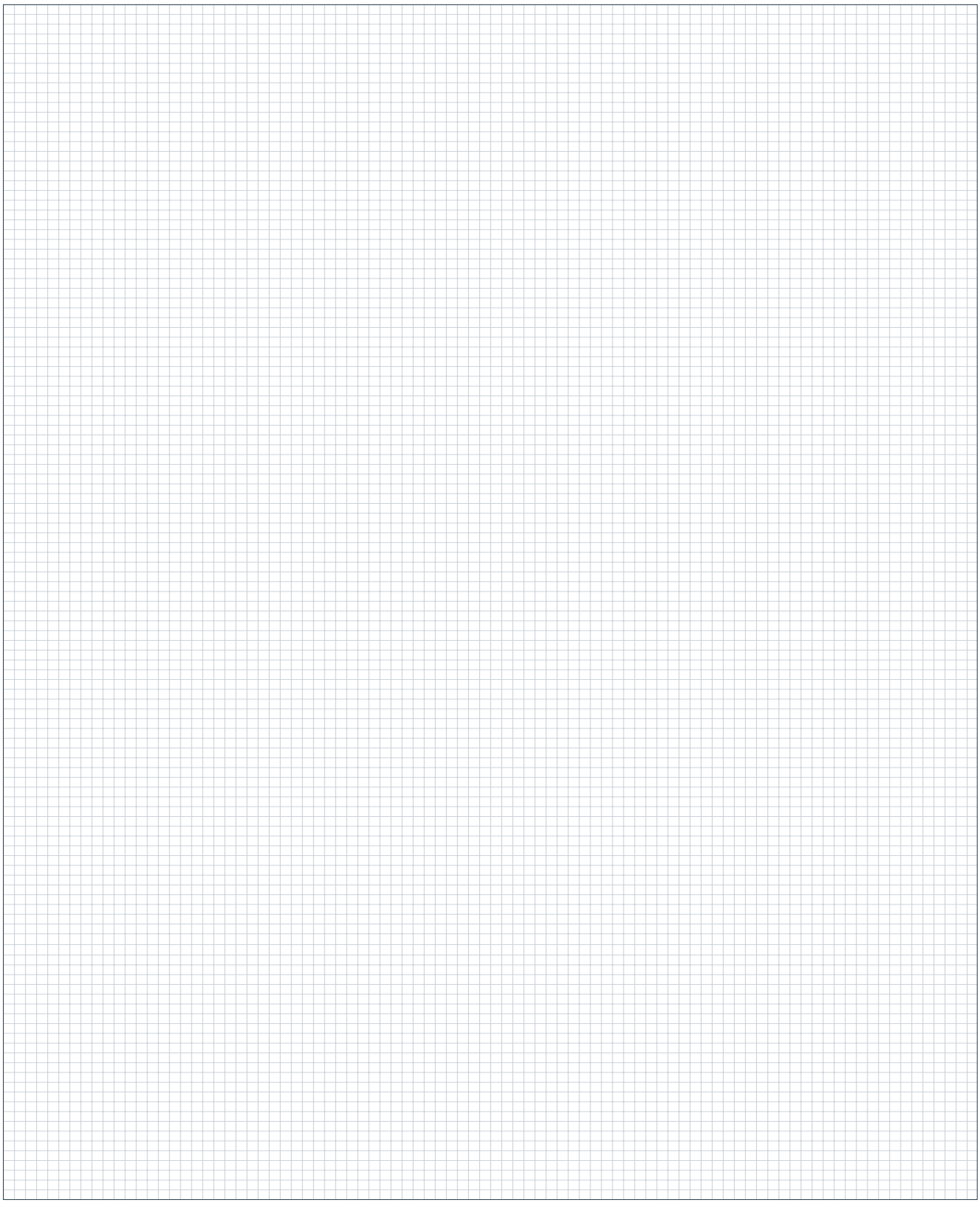


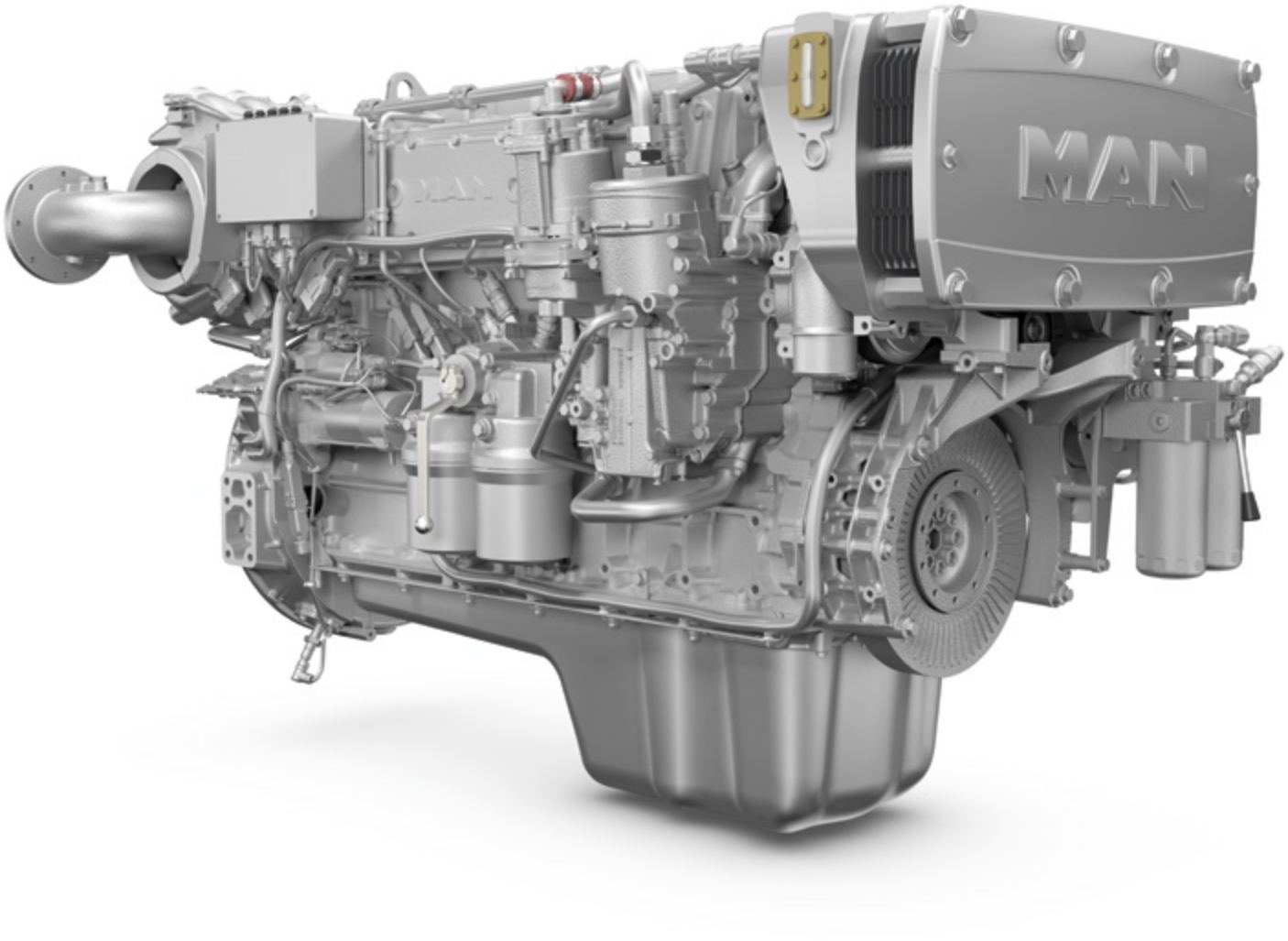
Medium duty operation

Definition of application type

Characteristics	D2676 LE 422/LE 425 LE 432/LE 435	D2862 LE 463/LE 466	D2862 LE 422/LE 425 LE 432/LE 435 D2868 LE 422/LE 425
■ Annual operating hours:	≤ 3,000	≤ 3,000	≤ 4,000
■ Percentage of time at full load:	≤ 50 %	≤ 20 %	
■ Average load application:	≤ 70 %	≤ 50 %	≤ 60 %

Typical applications

- Escort boats and pilot boats
- Fishing boats
- Passenger boats and ferries
- Cruising vessels
- Seagoing patrol boats



D2676

Engine description

Characteristics

Cylinders and arrangement:	6 cylinders in-line
Operation mode:	4-stroke diesel engine, watercooled
Turbocharging:	Turbocharger with charge air intercooler and wastegate
Number of valves:	4 valves per cylinder
Fuel system:	Common rail injection with high pressure pump
Engine block:	High-strength casting with integrated oil and water ducts and replaceable cylinder liners
Engine lubrication:	Force-feed lubrication, lubrication oil cooler in cooling water circuit of the engine
Type of cooling:	Seawater cooled charge air cooler, plate heat exchanger by rubber impeller pump
Engine control:	Electronic injection control, electronic engine monitoring including diagnostic unit
Fuel:	DIN EN 590
Average TBO:	12,000 operating hours
Oil change interval:	500 operating hours

D2676

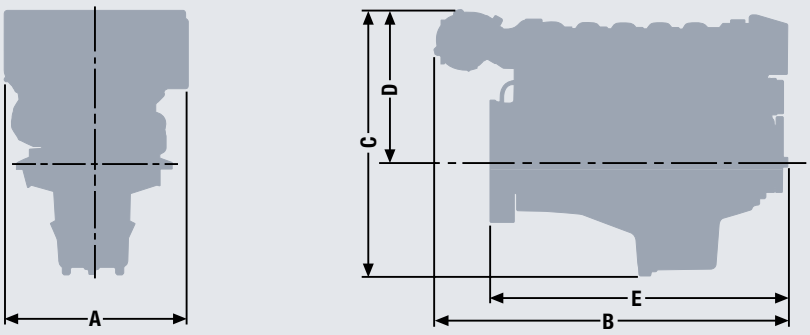
Technical data

Technical features D2676

Type designation		LE 432	LE 435	LE 422	LE 425
Displacement	l	12.42	12.42	12.42	12.42
Nominal rating [1]	kW (hp)	412 (560)	412 (560)	478 (650)	478 (650)
Rated speed	rpm	2,100	2,100	2,100	2,100
Torque at rated speed	Nm	1,869	1,869	2,174	2,174
Maximum torque	Nm	2,065	2,065	2,402	2,402
at speed	rpm	1,300–1,900	1,300–1,900	1,200–1,900	1,200–1,900
Specific fuel consumption [2]	g/kWh	209	214	217	225
Fuel consumption [2]	l/h	103	105	123	128
Classifiable		✓	✓	✓	✓
Exhaust gas status		IMO Tier 2, 97/68/EC	IMO Tier 2, RCD 2013/53/EC, EPA Tier 3, 97/68/EC	IMO Tier 2, 97/68/EC	IMO Tier 2, RCD 2013/53/EC, EPA Tier 3, 97/68/EC

1) Rating according to DIN 3046-1

2) Consumption at rated power



Dimensions D2676

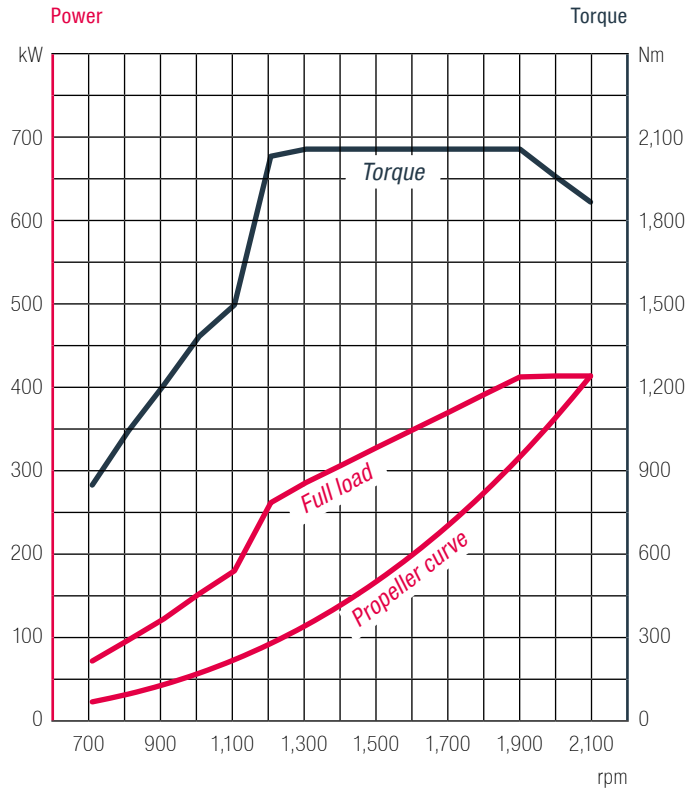
Type designation		LE 432/LE435/LE422/LE425
A-Overall width	mm	922
B-Overall length	mm	1,800
C-Overall height	mm	1,103
D-Top of engine to crankshaft centre	mm	704
E-Length of engine from front end to edge of flywheel housing	mm	1,532
Average weight of engine ready for installation (dry)	kg	1,215

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

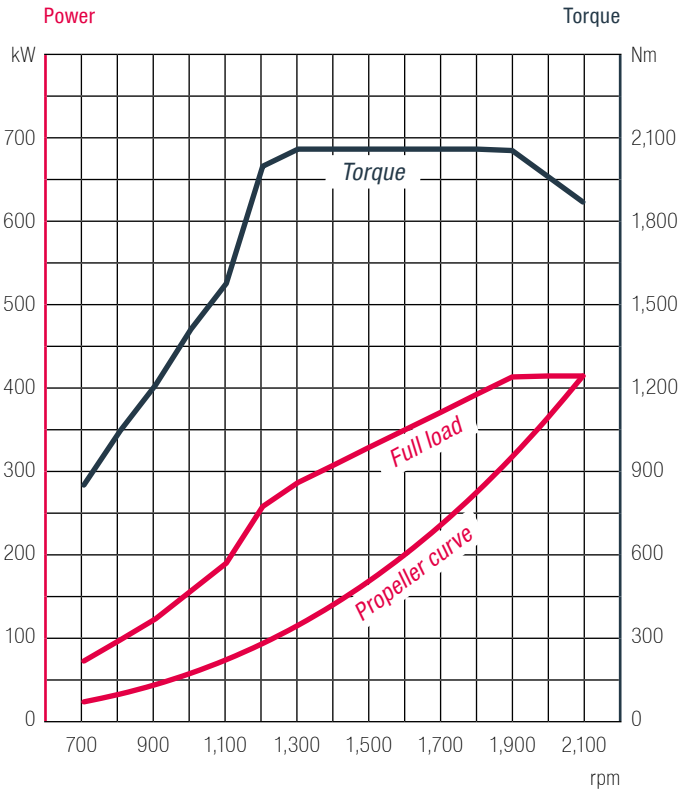
D2676

Power charts

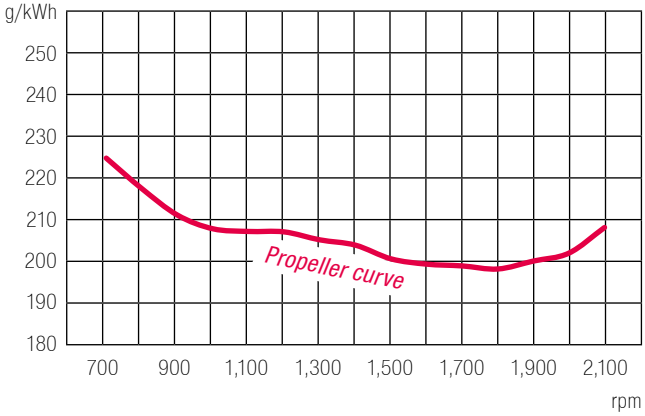
D2676 LE 432



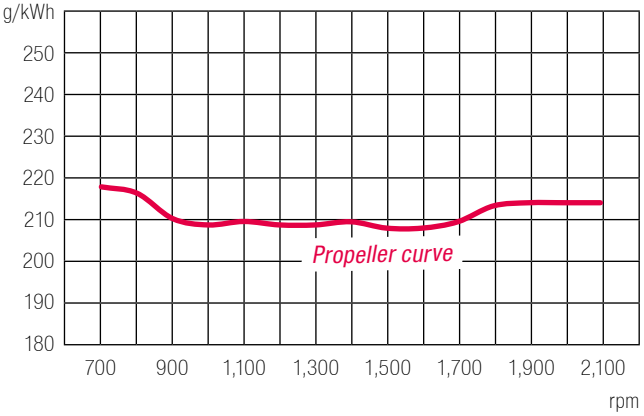
D2676 LE 435



Specific fuel consumption



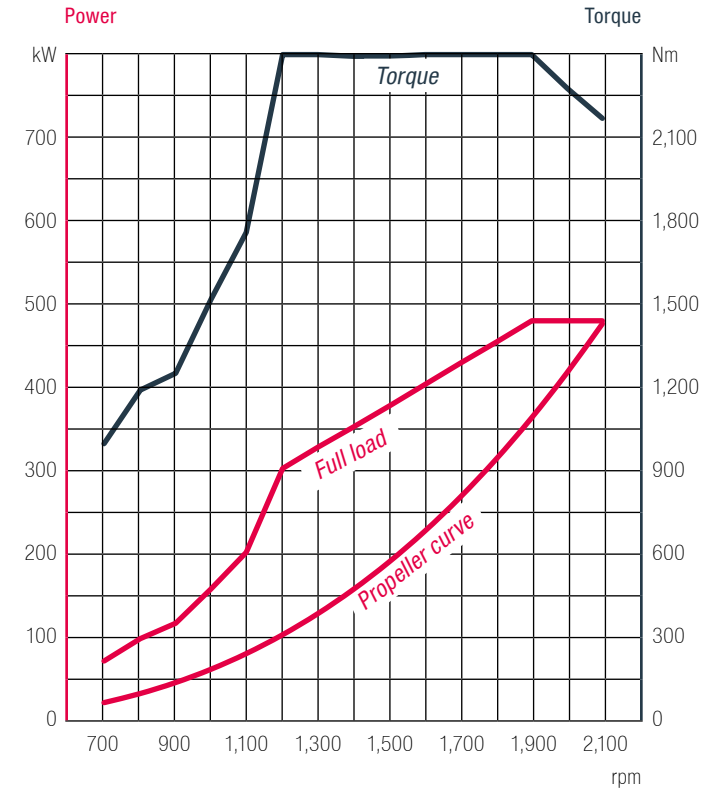
Specific fuel consumption



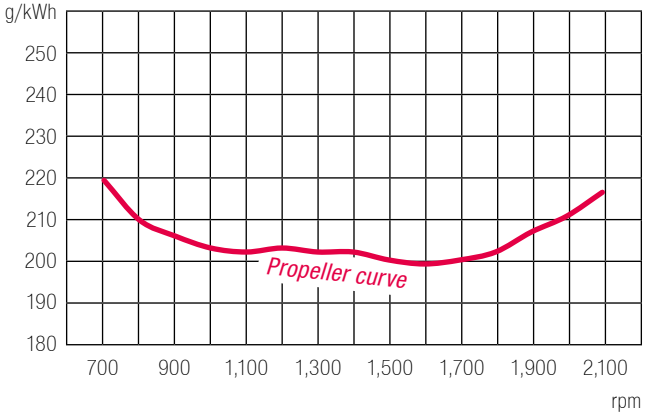
D2676

Power charts

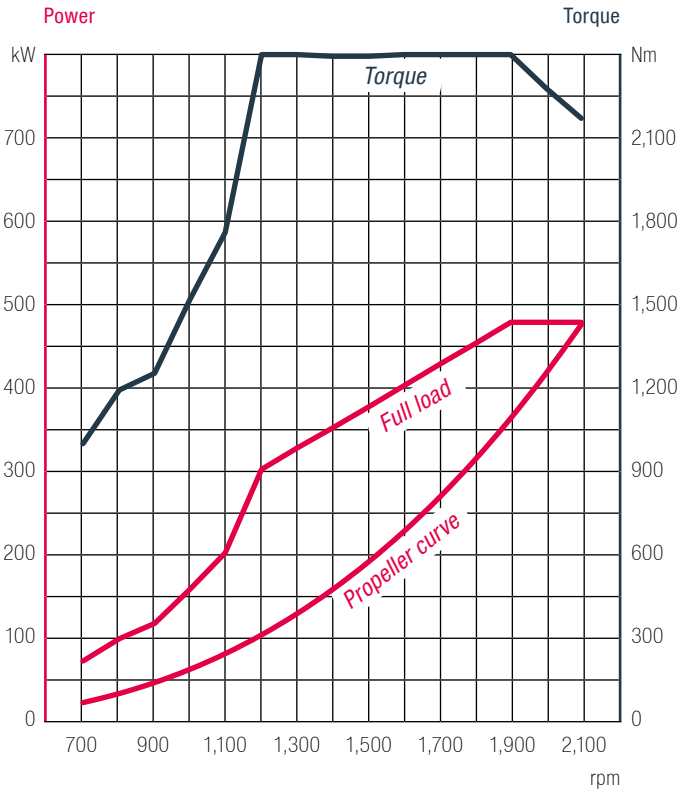
D2676 LE 422



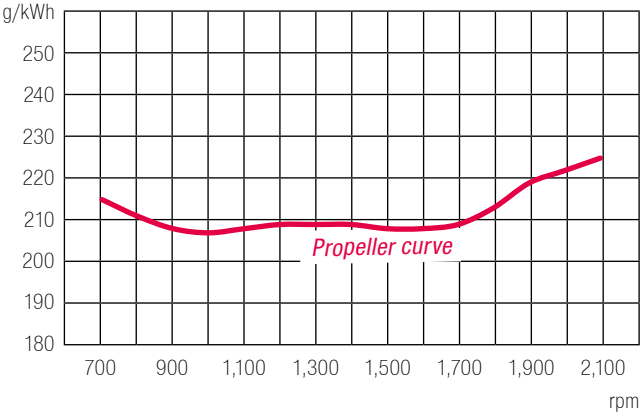
Specific fuel consumption



D2676 LE 425



Specific fuel consumption



D2868

Engine description

Characteristics

- Cylinders and arrangement: 8 cylinders in V arrangement
- Operation mode: 4-stroke diesel engine, watercooled
- Turbocharging: Turbocharger with charge air intercooler and wastegate
- Number of valves: 4 valves per cylinder
- Fuel system: Common Rail direct fuel injection
- 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: Plate heat exchanger, seawater cooled
- Engine control: Electronic injection control, Electronic engine monitoring including diagnostic unit
- Fuel: DIN EN 590
- Average TBO: 12,000 operating hours
- Oil change interval: 500 operating hours

D2868

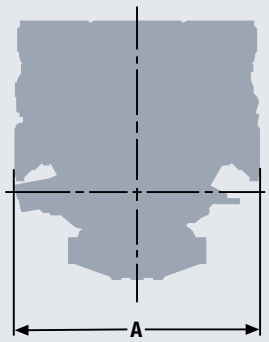
Technical data

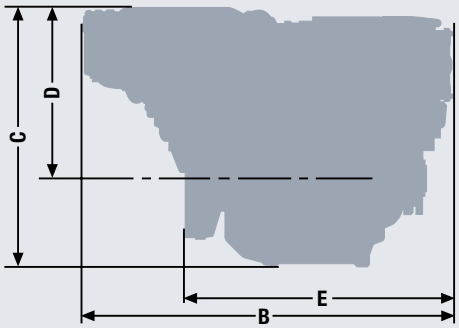
Technical features D2868

Type designation		LE 422	LE 425
Displacement	l	16.16	16.16
Maximum output [1]	kW (hp)	588 (800)	588 (800)
Rated speed	rpm	2,100	2,100
Torque at rated speed	Nm	2,674	2,674
Maximum torque	Nm	2,950	2,980
at speed	rpm	1,300–1,900	1,400–1,900
Specific fuel consumption [2]	g/kWh	212	223
Fuel consumption [2]	l/h	148	156
Classifiable		✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

1) Rating according to DIN 3046-1

2) Consumption at rated power





Dimensions D2868

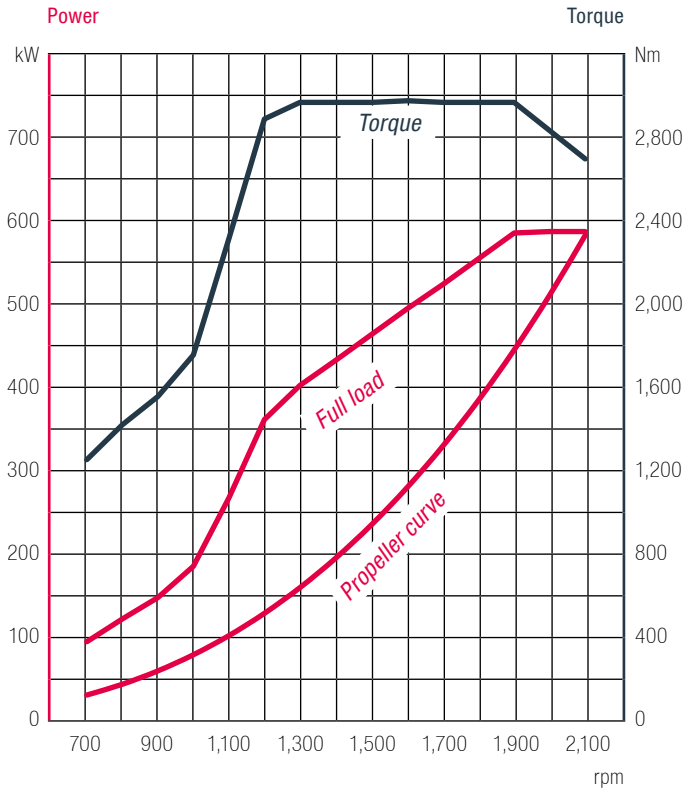
Type designation		LE 422	LE 425
A-Overall width	mm	1,153	1,153
B-Overall length	mm	1,736	1,736
C-Overall height	mm	1,236	1,236
D-Top of engine to crankshaft centre	mm	825	825
E-Length of engine from front end to edge of flywheel housing	mm	1,243	1,243
Average weight of engine ready for installation (dry)	kg	1,800	1,800

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

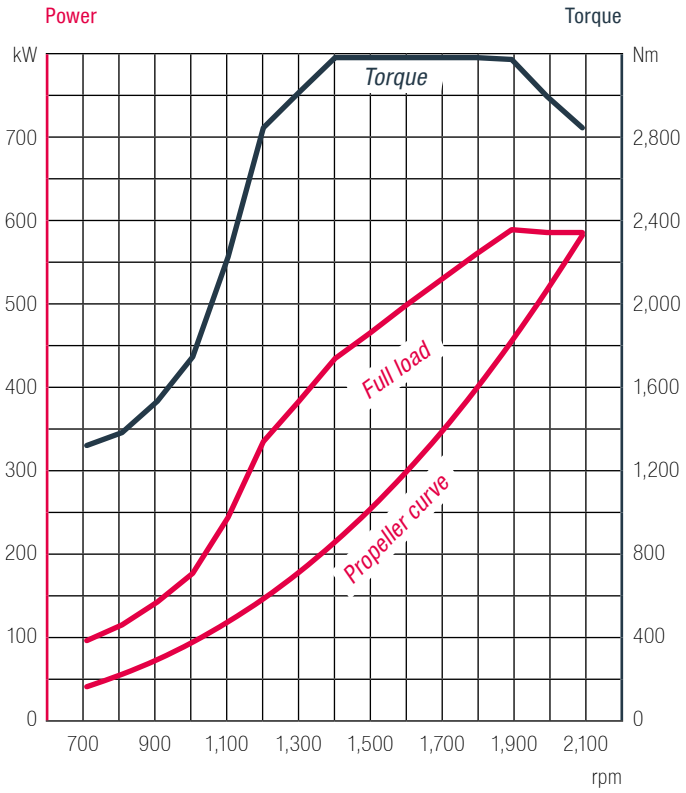
D2868

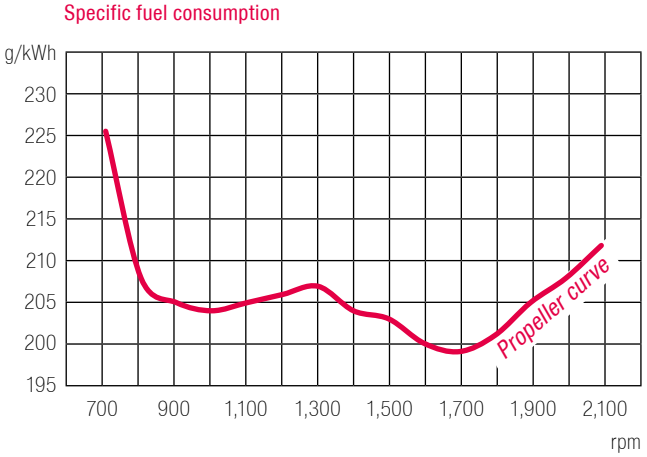
Power charts

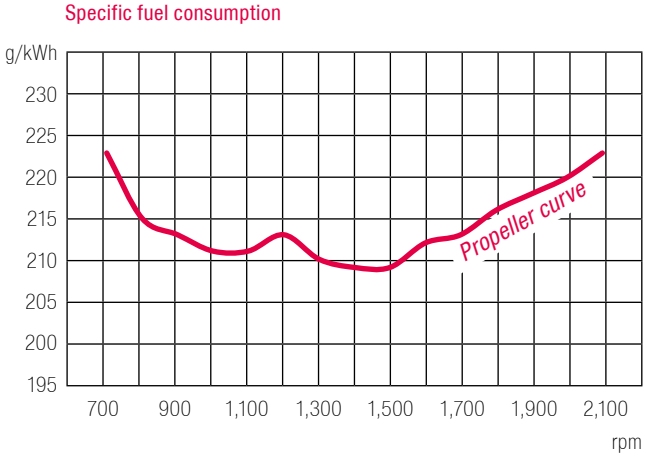
D2868 LE 422

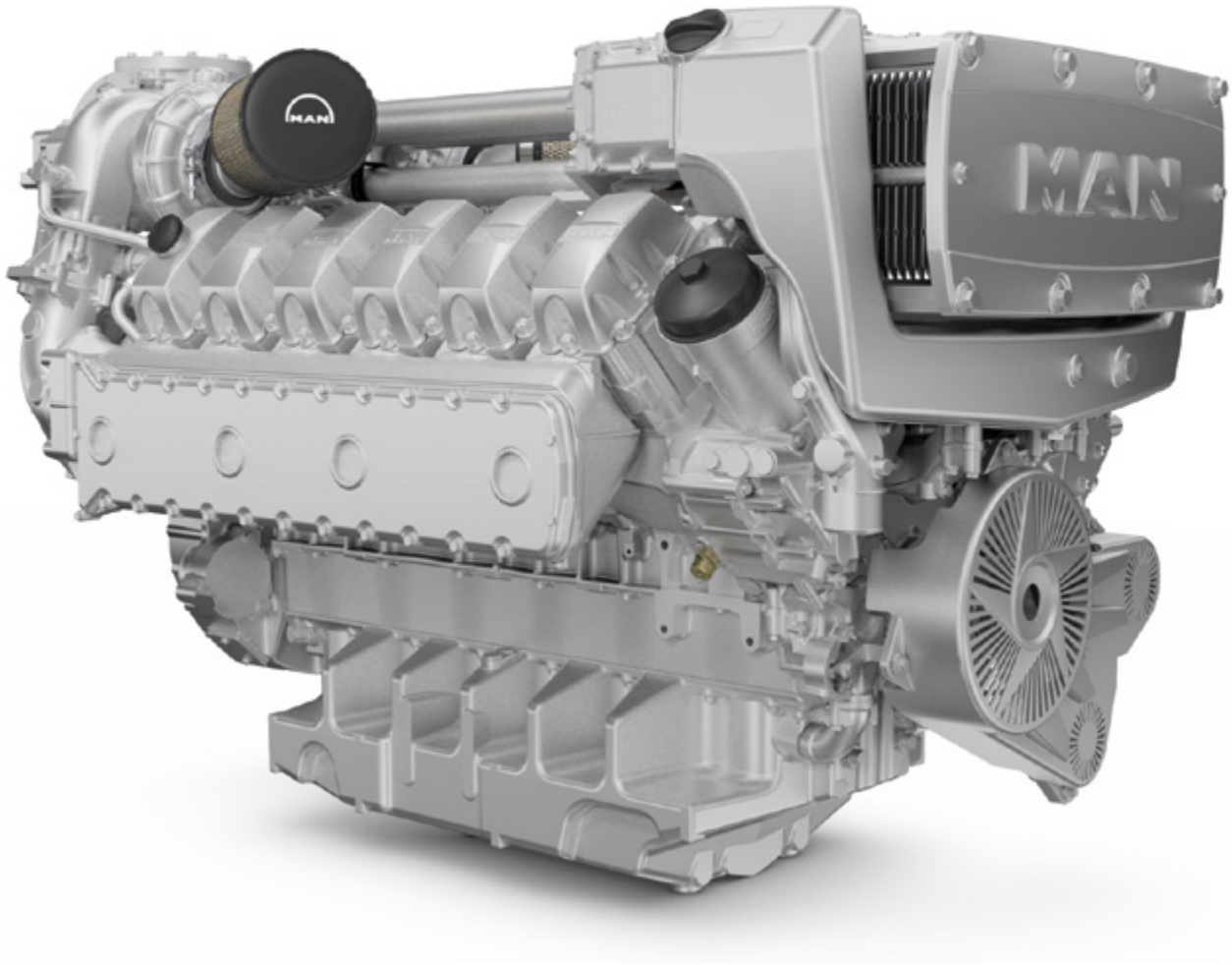


D2868 LE 425









D2862

Engine description

Characteristics

Cylinders and arrangement:	12 cylinders in V arrangement
Operation mode:	4-stroke diesel engine, watercooled
Turbocharging:	Turbocharger with charge air intercooler and wastegate
Number of valves:	4 valves per cylinder
Fuel system:	Common Rail direct fuel injection with electronic control
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:	Plate heat exchanger seawater cooled
Engine control:	Electronic injection control (EDC) Electronic engine monitoring including diagnostic unit
Fuel:	DIN EN 590
Average TBO:	12,000 operating hours
Oil change interval:	500 operating hours

D2862

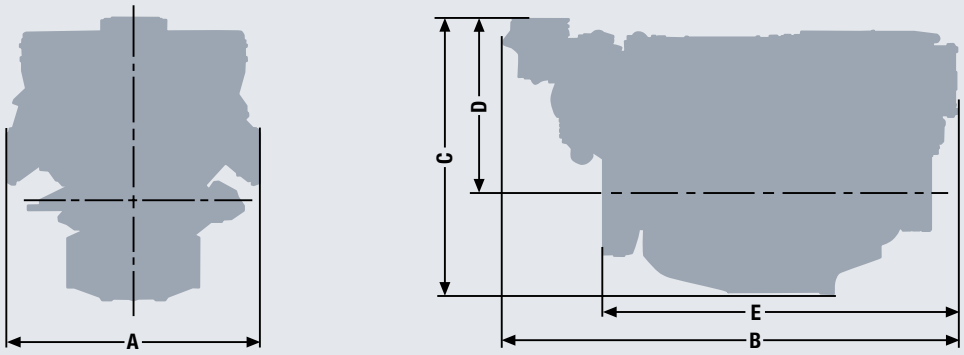
Technical data

Technical features D2862

Type designation		LE 422	LE 425
Displacement	l	24.24	24.24
Nominal rating [1]	kW (hp)	749 (1,019)	749 (1,019)
Rated speed	rpm	2,100	2,100
Torque at rated speed	Nm	3,406	3,406
Maximum torque	Nm	3,780	3,770
at speed	rpm	1,300–1,900	1,100–1,900
Specific fuel consumption [2]	g/kWh	207	215
Fuel consumption [2]	l/h	185	192
Classifiable		✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

1) Rating according to DIN 3046-1

2) Consumption at rated power



Dimensions D2862

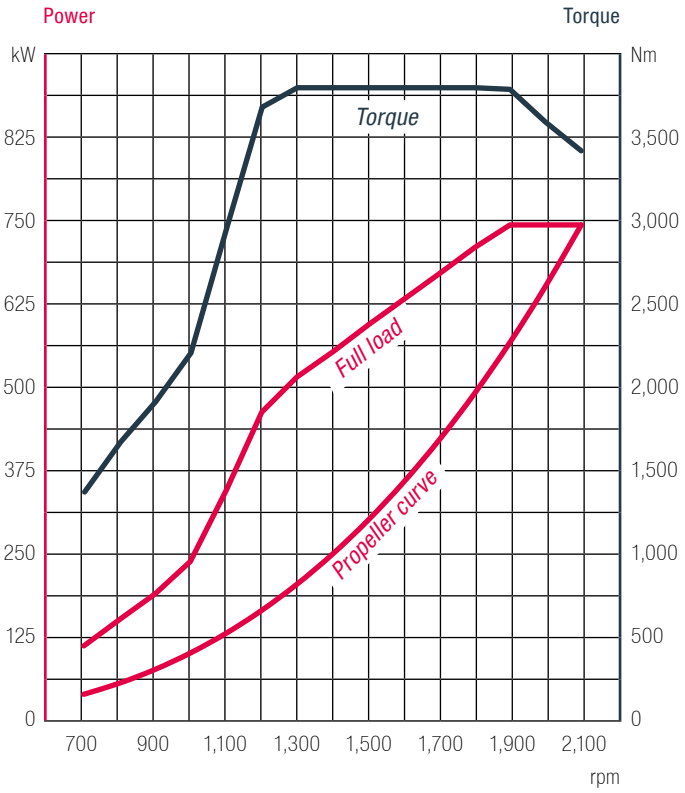
Type designation		LE 422/425
A-Overall width	mm	1,270
B-Overall length	mm	2,230
C-Overall height	mm	1,280
D-Top of engine to crankshaft centre	mm	815
E-Length of engine from front end to edge of flywheel housing	mm	1,614
Average weight of engine ready for installation (dry)	kg	2,270

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

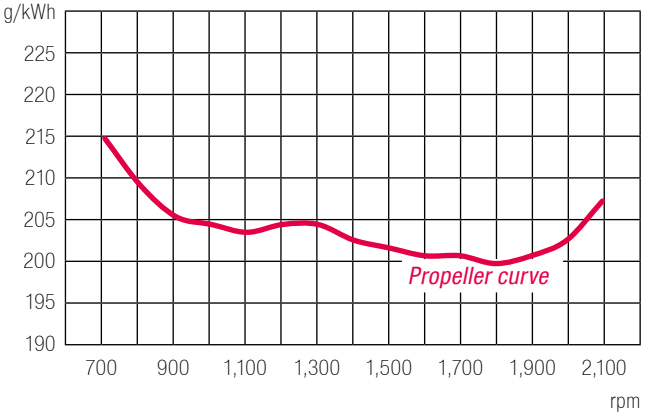
D2862

Power charts

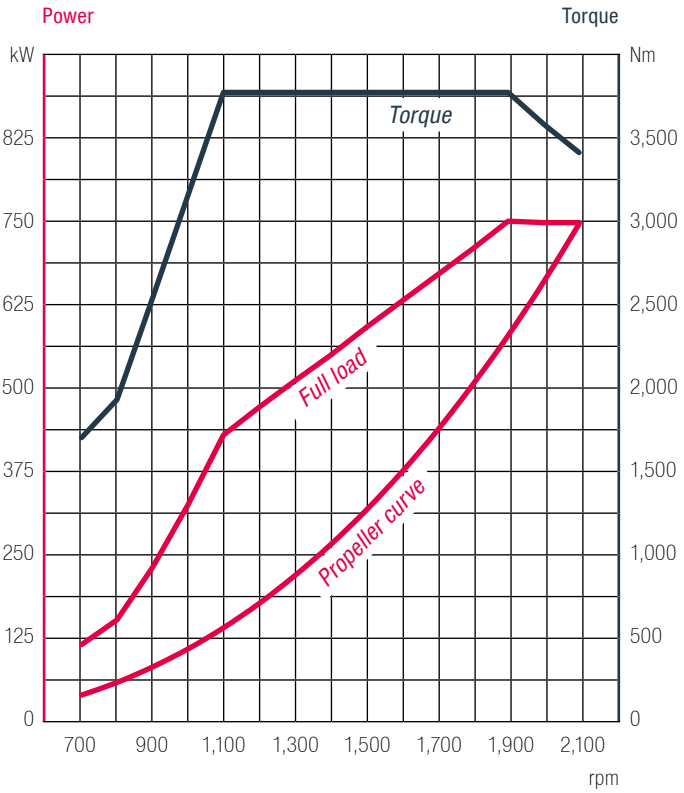
D2862 LE 422



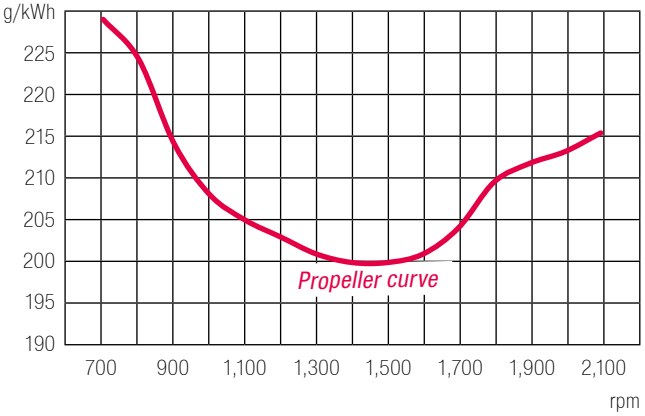
Specific fuel consumption



D2862 LE 425



Specific fuel consumption



D2862

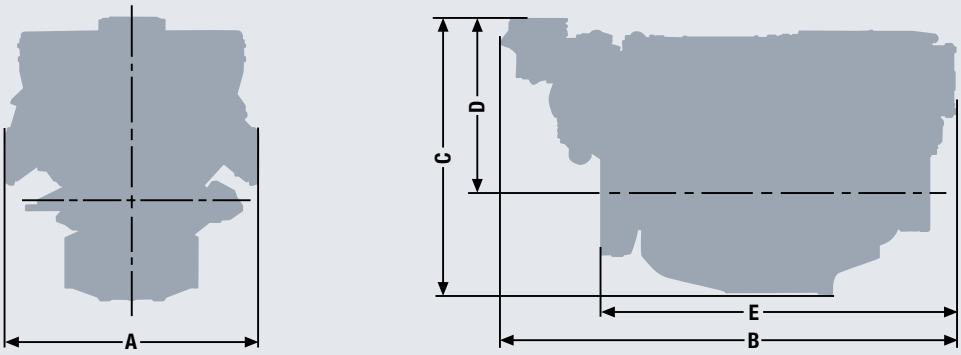
Technical data

Technical features D2862

Type designation		LE 432	LE 435
Displacement	l	24.24	24.24
Nominal rating [1]	kW (hp)	882 (1,200)	882 (1,200)
Rated speed	rpm	2,100	2,100
Torque at rated speed	Nm	4,010	4,010
Maximum torque	Nm	4,450	4,450
at speed	rpm	1,300–1,900	1,400–1,900
Specific fuel consumption [2]	g/kWh	211	208
Fuel consumption [2]	l/h	222	218
Classifiable		✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

1) Rating according to DIN 3046-1

2) Consumption at rated power



Dimensions D2862

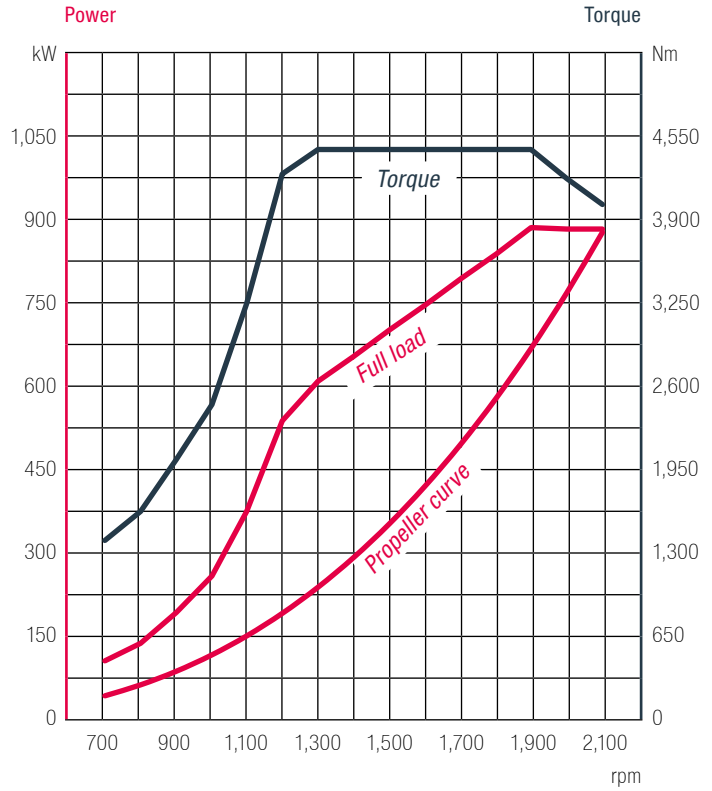
Type designation		LE 432/435
A-Overall width	mm	1,270
B-Overall length	mm	2,230
C-Overall height	mm	1,280
D-Top of engine to crankshaft centre	mm	815
E-Length of engine from front end to edge of flywheel housing	mm	1,614
Average weight of engine ready for installation (dry)	kg	2,270

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

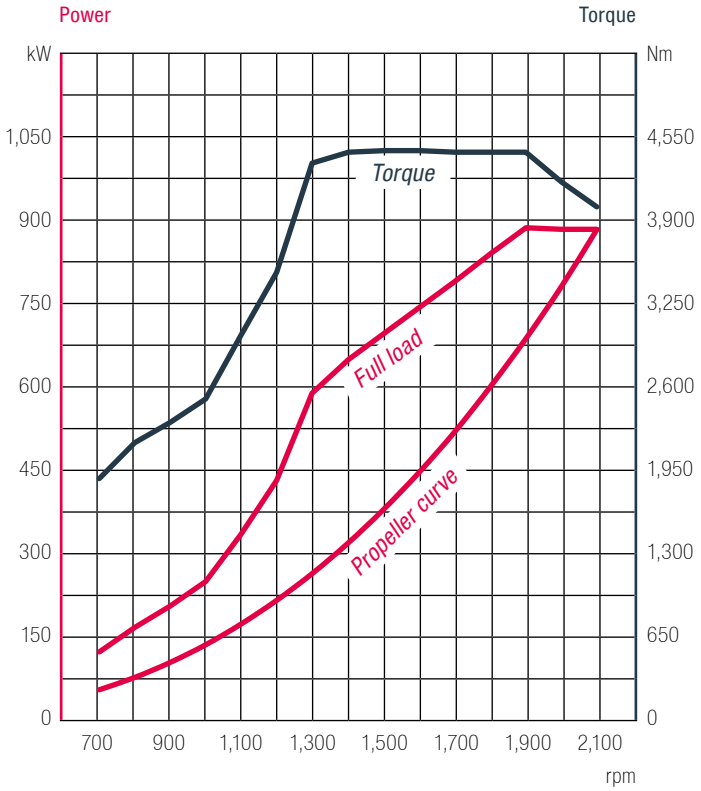
D2862

Power charts

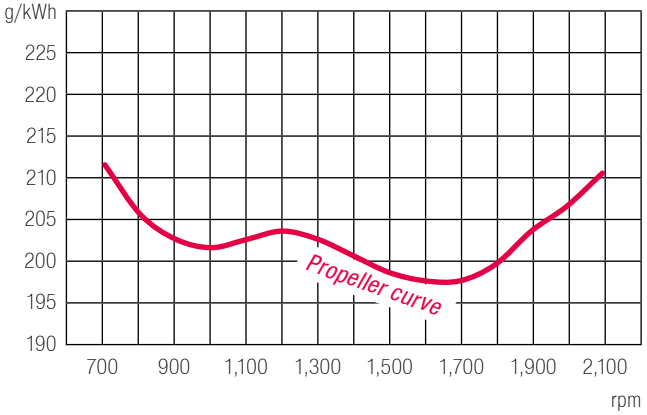
D2862 LE 432



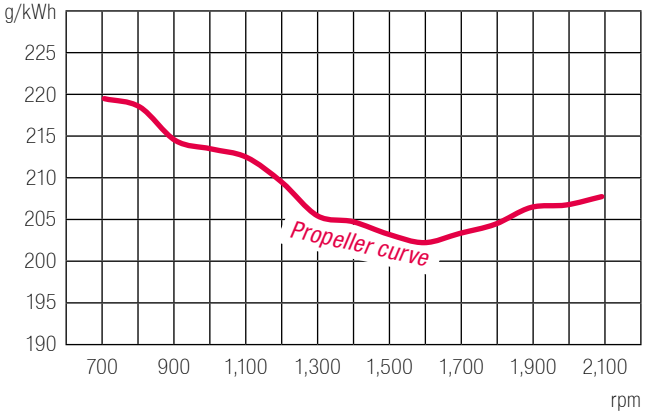
D2862 LE 435



Specific fuel consumption



Specific fuel consumption



D2862

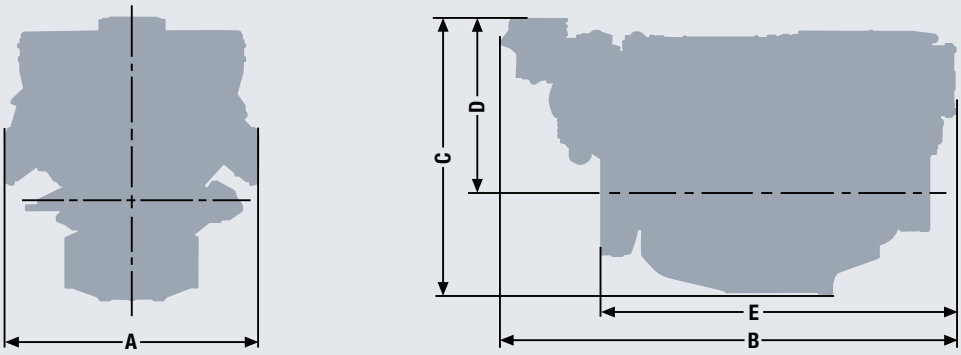
Technical data

Technical features D2862

Type designation		LE 463	LE 466
Displacement	l	24.24	24.24
Nominal rating [1]	kW (hp)	1,029 (1,400)	1,029 (1,400)
Rated speed	rpm	2,100	2,100
Torque at rated speed	Nm	4,680	4,680
Maximum torque	Nm	5,120	5,180
at speed	rpm	1,300–1,900	1,300–1,900
Specific fuel consumption [2]	g/kWh	210	209
Fuel consumption [2]	l/h	257	256
Classifiable		✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

1) Rating according to DIN 3046-1

2) Consumption at rated power



Dimensions D2862

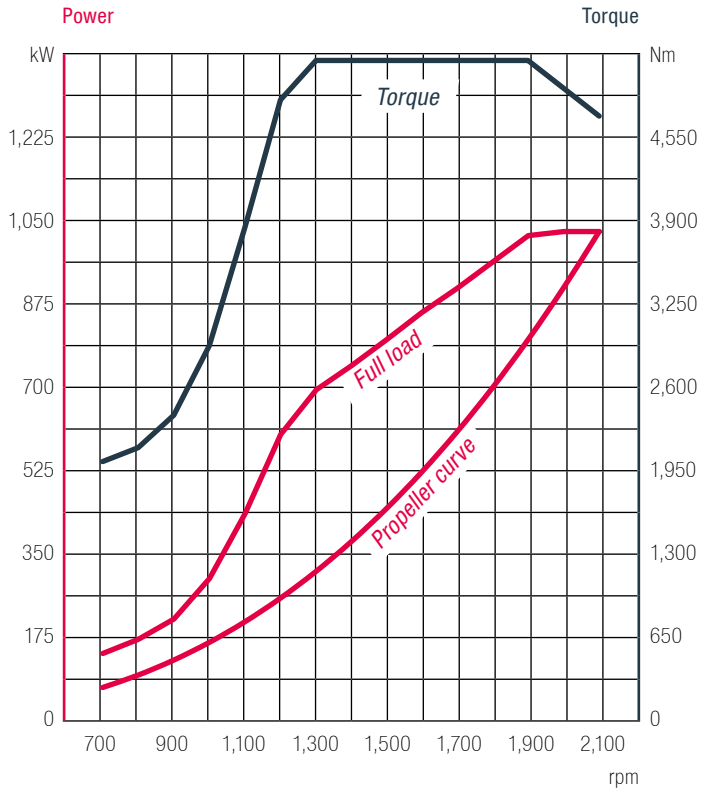
Type designation		LE 463/466
A-Overall width	mm	1,270
B-Overall length	mm	2,230
C-Overall height	mm	1,280
D-Top of engine to crankshaft centre	mm	815
E-Length of engine from front end to edge of flywheel housing	mm	1,614
Average weight of engine ready for installation (dry)	kg	2,270

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

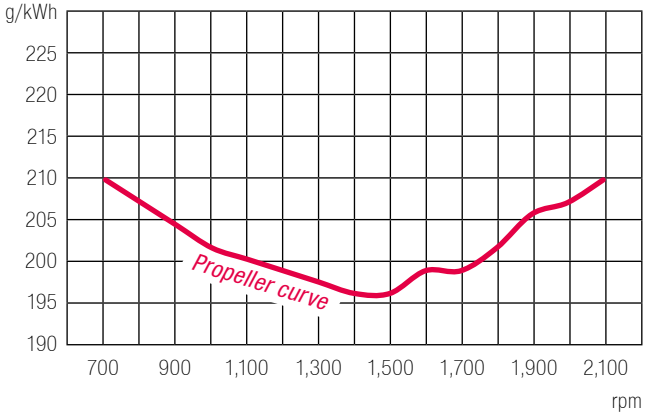
D2862

Power charts

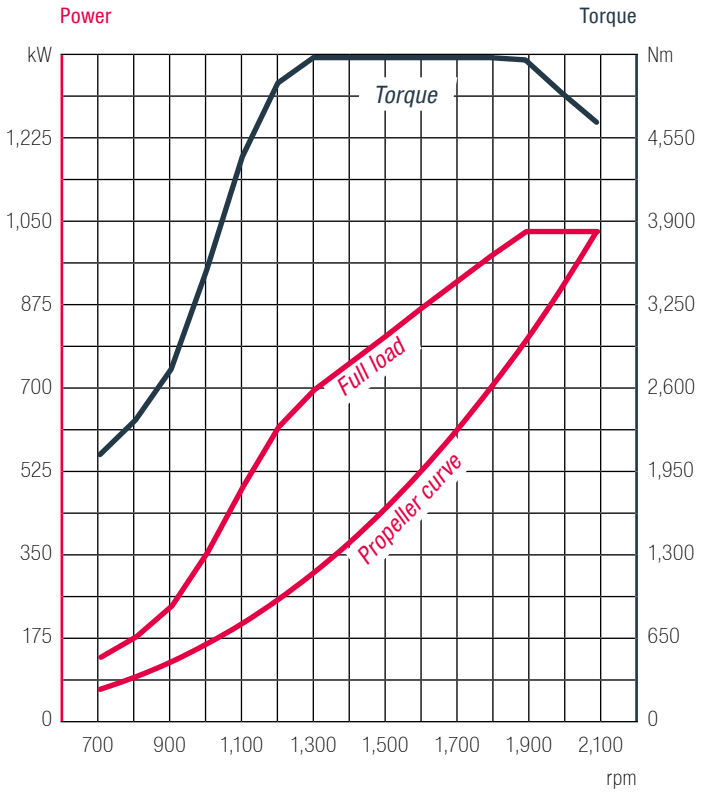
D2862 LE 463



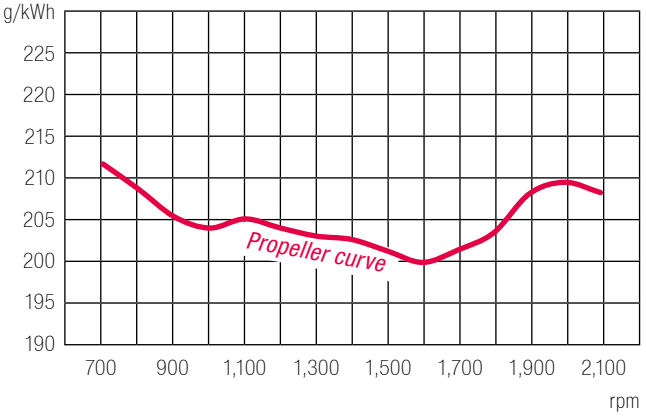
Specific fuel consumption



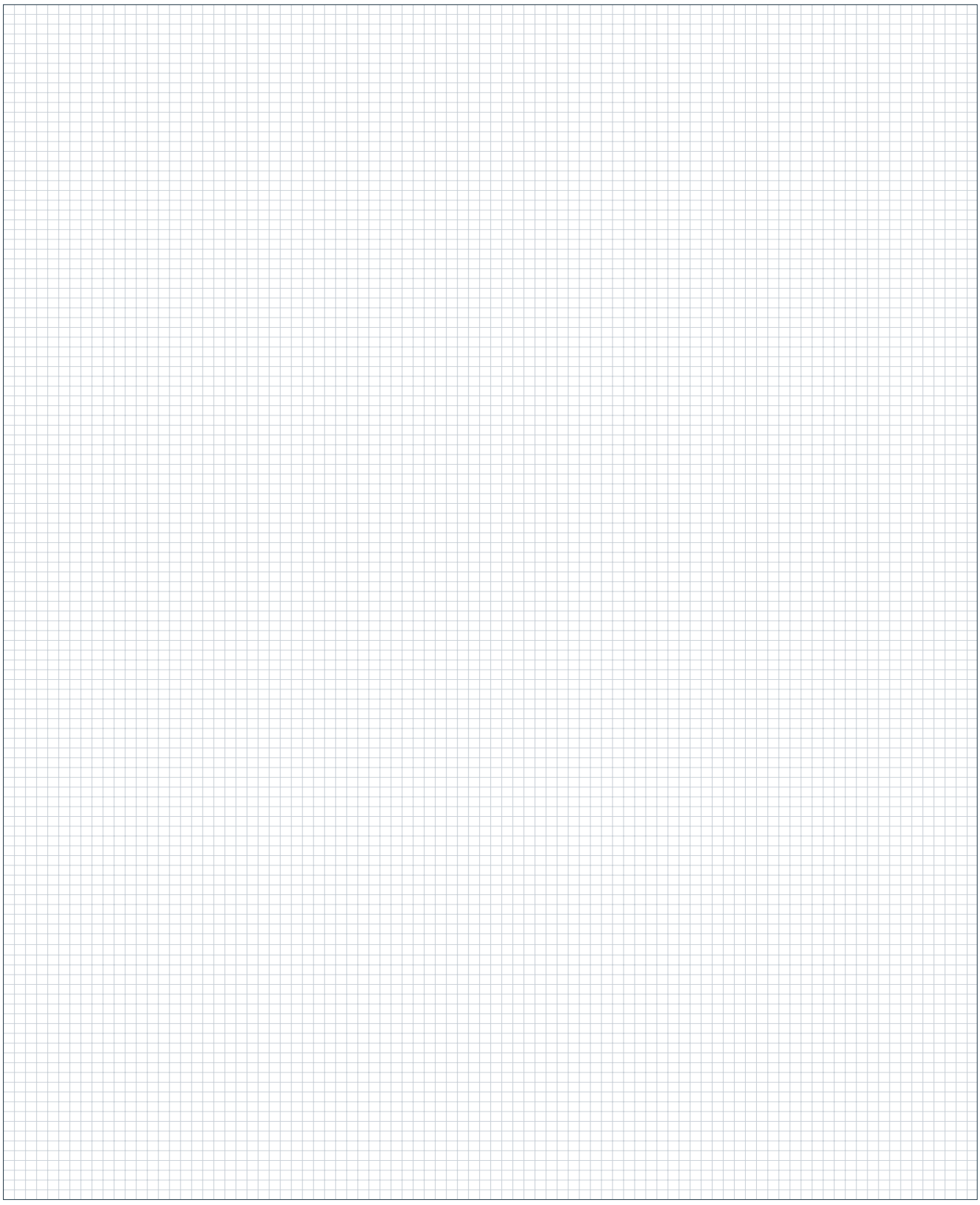
D2862 LE 466



Specific fuel consumption



Notes



Heavy duty operation

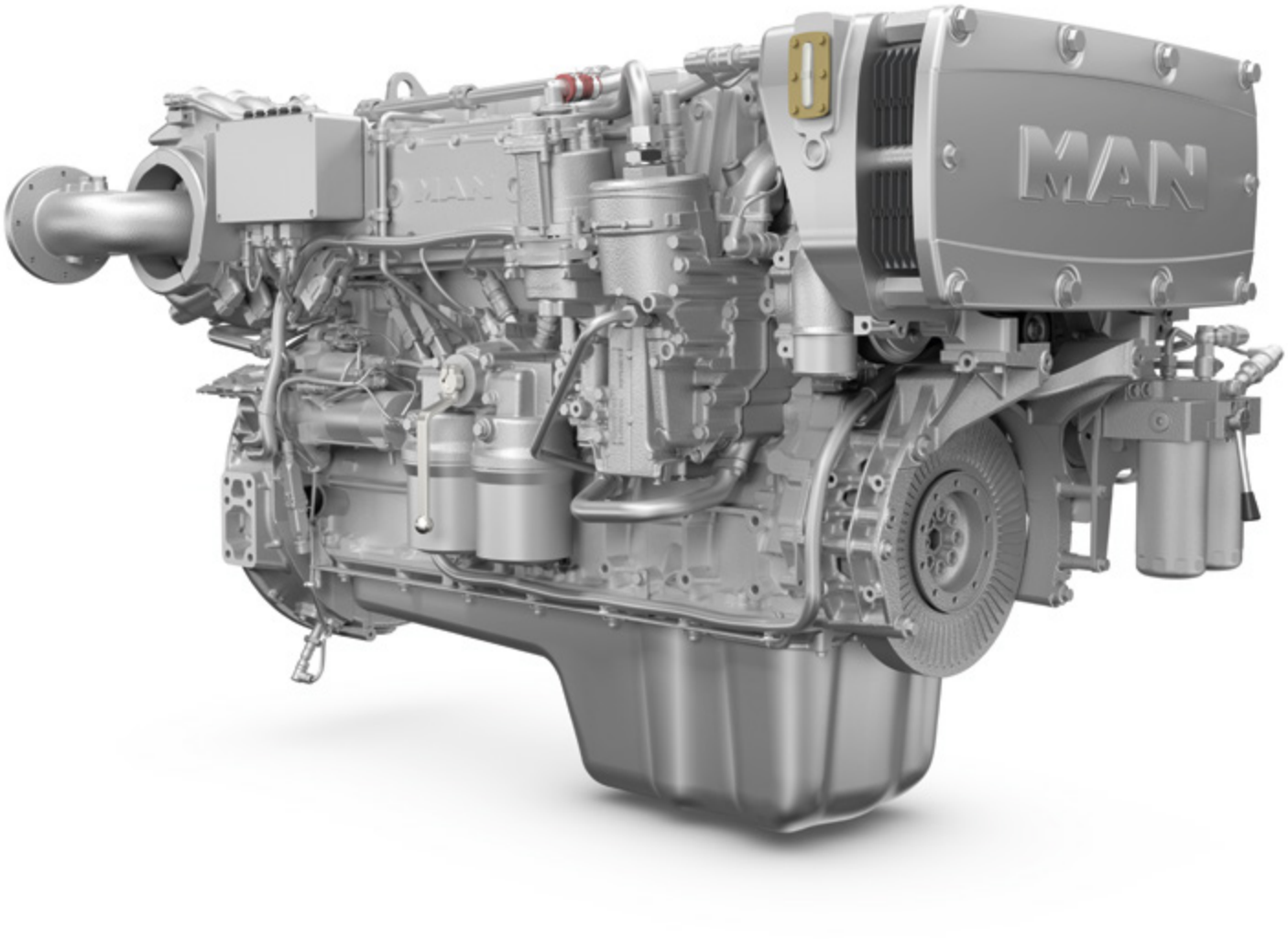
Definition of application type

Characteristics

- Annual operating hours: unlimited
- Percentage of time at full load: ≤ 100 %
- Average load application: ≤ 100 %

Typical applications

- Trawlers
- Tugs and pushboats
- Freight barges and freighters
- Ferries
- Dredgers



D2676

Engine description

Characteristics

- Cylinders and arrangement: 6 cylinders in-line
- Operation mode: 4-stroke diesel engine, watercooled
- Turbocharging: Turbocharger with charge air intercooler and wastegate
- Number of valves: 4 valves per cylinder
- Fuel system: Common rail injection with high pressure pump
- Engine block: High-strength casting with integrated oil and water ducts and replaceable cylinder liners
- Engine lubrication: Force-feed lubrication, lubrication oil cooler in cooling water circuit of the engine
- Type of cooling: Seawater cooled charge air cooler, plate heat exchanger by rubber impeller pump
- Engine control: Electronic injection control, electronic engine monitoring including diagnostic unit
- Fuel: DIN EN 590
- Average TBO: 18,000 operating hours
- Oil change interval: 600 operating hours

D2676

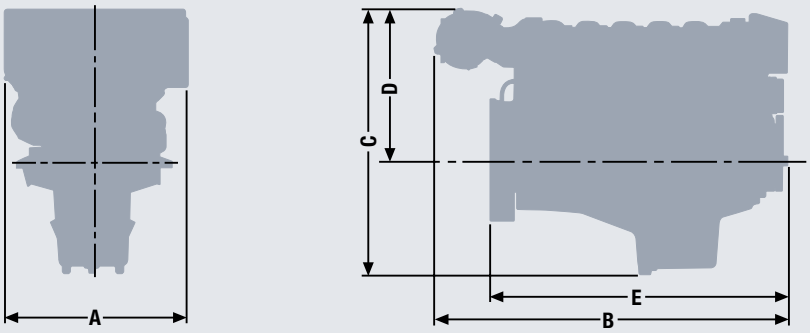
Technical data

Technical features D2676

Type designation		LE 431	LE 434	LE 421	LE 424
Displacement	l	12.42	12.42	12.42	12.42
Nominal rating [1]	kW (hp)	324 (440)	324 (440)	382 (520)	382 (520)
Rated speed	rpm	1,800	1,800	1,800	1,800
Torque at rated speed	Nm	1,719	1,719	2,027	2,027
Maximum torque	Nm	1,925	1,925	2,275	2,270
at speed	rpm	1,200–1,600	1,200–1,600	1,200–1,600	1,200–1,600
Specific fuel consumption [2]	g/kWh	205	210	207	212
Fuel consumption [2]	l/h	79	81	94	96
Classifiable		✓	✓	✓	✓
Exhaust gas status		IMO Tier 2, 97/68/EC	IMO Tier 2, RCD 2013/53/EC, EPA Tier 3, 97/68/EC	IMO Tier 2, 97/68/EC	IMO Tier 2, RCD 2013/53/EC, EPA Tier 3, 97/68/EC

1) The rating is according to DIN 3046/1.

2) Consumption at rated power.



Dimensions D2676

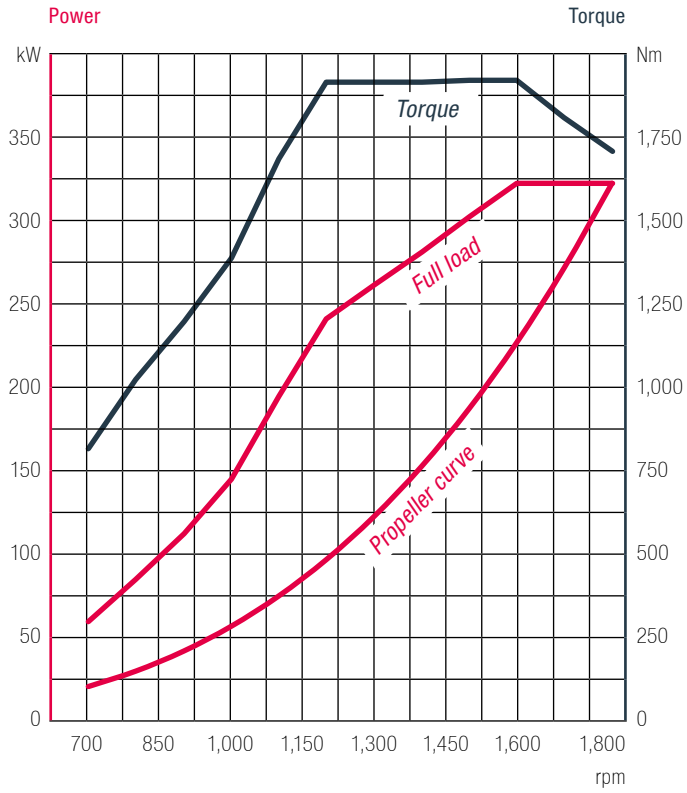
Type designation		LE 431/LE 434 /LE 421/LE 424
A-Overall width	mm	922
B-Overall length	mm	1,800
C-Overall height	mm	1,103
D-Top of engine to crankshaft centre	mm	704
E-Length of engine from front end to edge of flywheel housing	mm	1,532
Average weight of engine ready for installation (dry)	kg	1,215

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

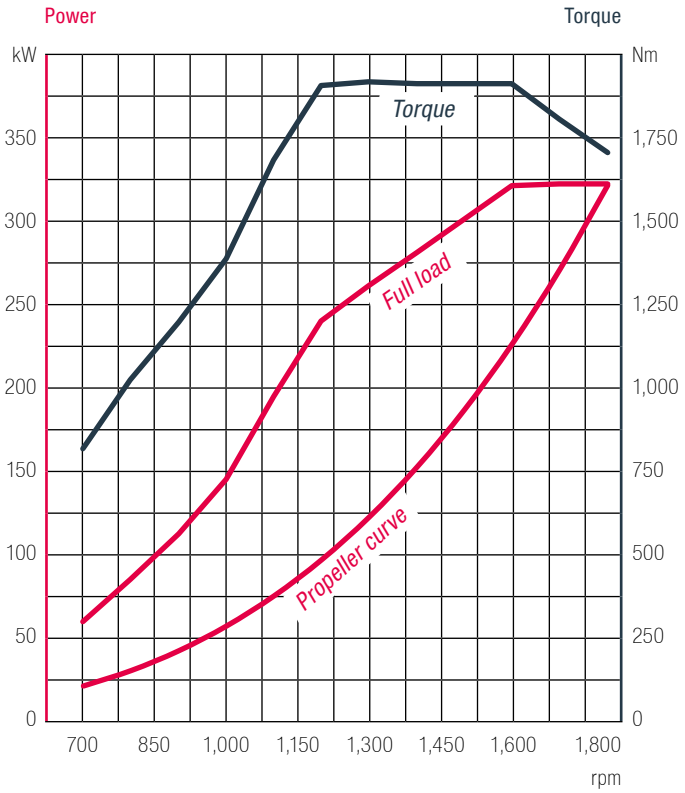
D2676

Power charts

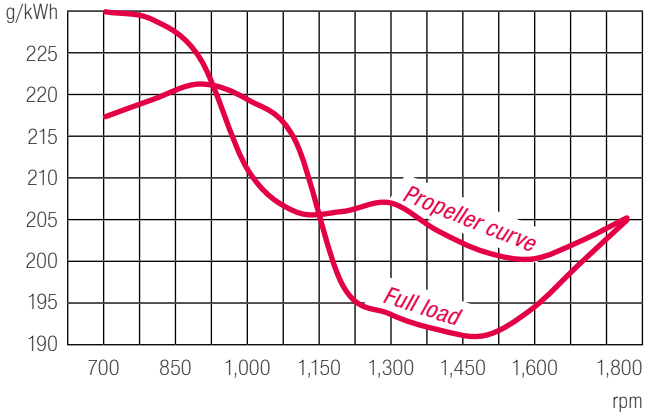
D2676 LE 431



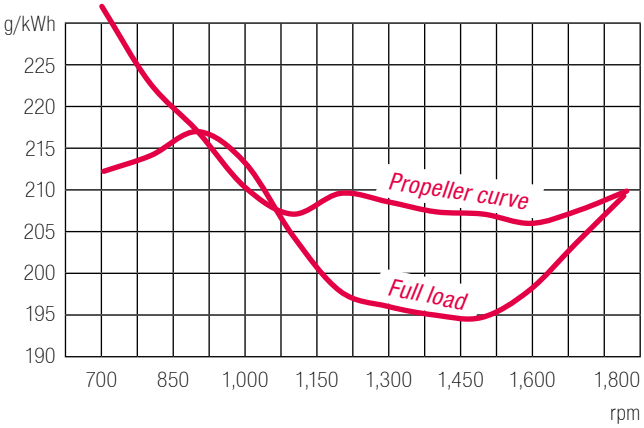
D2676 LE 434



Specific fuel consumption



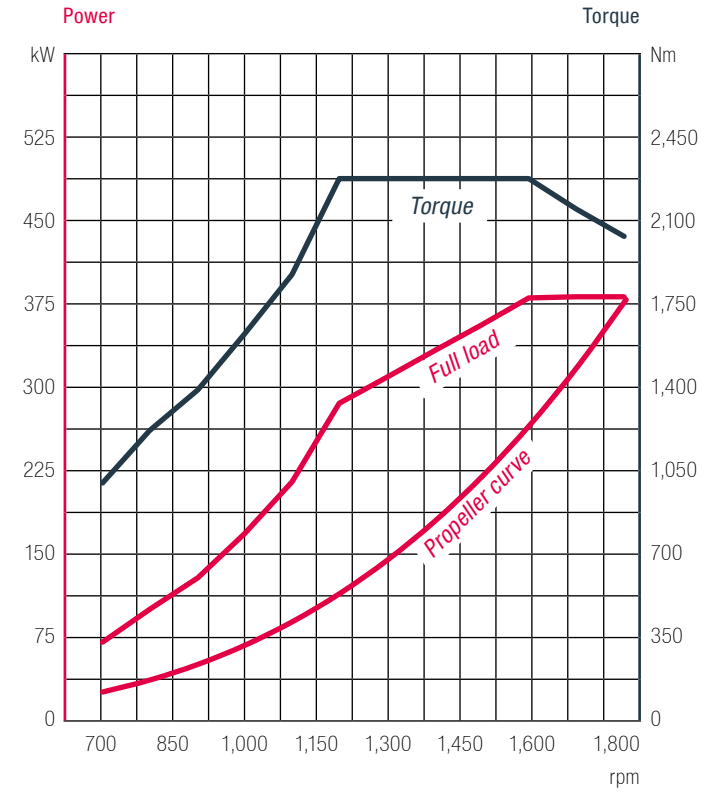
Specific fuel consumption



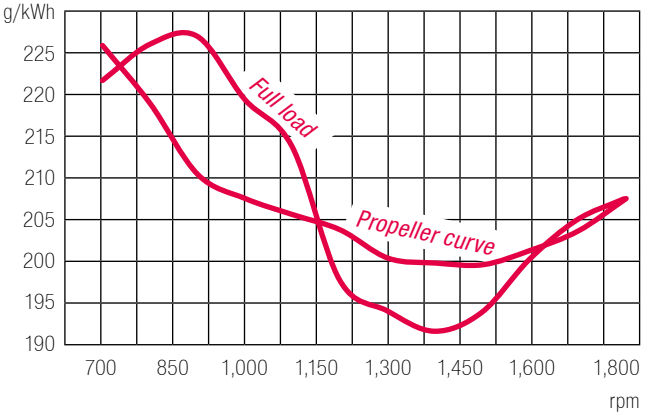
D2676

Power charts

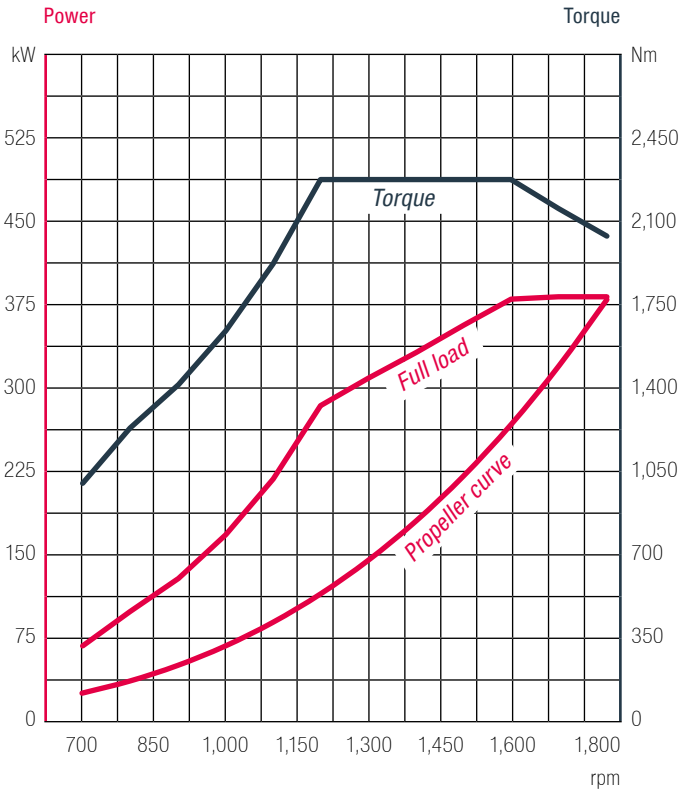
D2676 LE 421



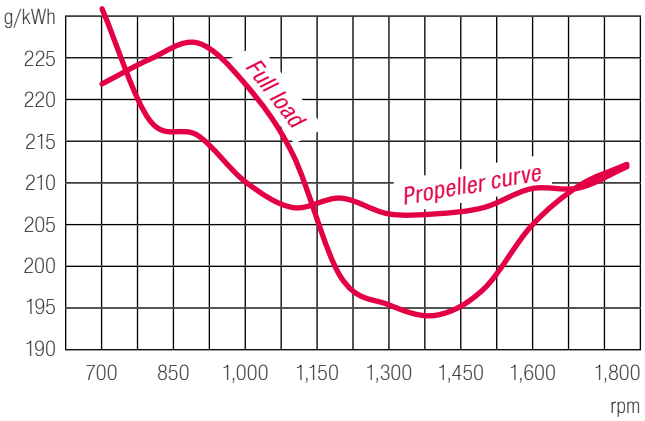
Specific fuel consumption



D2676 LE 424



Specific fuel consumption



D2868

Engine description

Characteristics

- Cylinders and arrangement: 8 cylinders in V arrangement
- Operation mode: 4-stroke diesel engine, watercooled
- Turbocharging: Turbocharger with charge air intercooler and waste gate
- Number of valves: 4 valves per cylinder
- Fuel system: Common Rail direct fuel injection
- 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: Plate heat exchanger, seawater cooled
- Engine control: Electronic injection control
Electronic engine monitoring including diagnostic unit
- Fuel: DIN EN 590
- Average TBO: 18,000 operating hours
- Oil change interval: 600 operating hours

D2868

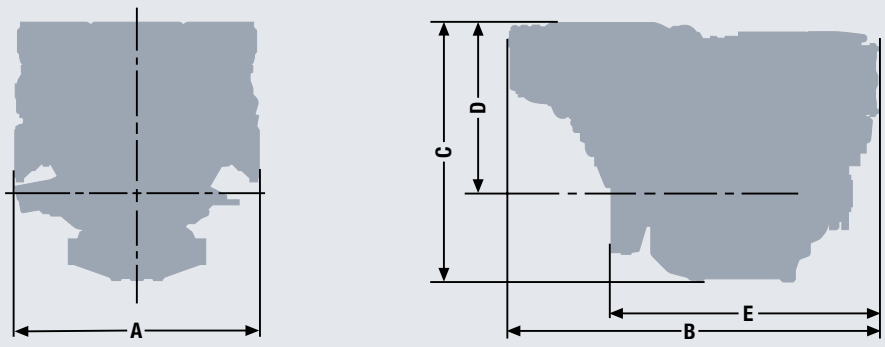
Technical data

Technical features D2868

Type designation		LE 421	LE 424	LE 431
Displacement	l	16.16	16.16	16.16
Nominal rating [1]	kW (hp)	441 (600)	441 (600)	500 (680)
Rated speed	rpm	1,800	1,800	1,800
Torque at rated speed	Nm	2,340	2,340	2,653
Maximum torque	Nm	2,630	2,630	2,985
at speed	rpm	1,100–1,600	1,100–1,600	1,100–1,600
Specific fuel consumption [2]	g/kWh	206	220	206
Fuel consumption [2]	l/h	108	116	123
Classifiable		✓	✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC	IMO Tier 2, RCD 94/25/EC, 97/68/EC

1) The rating is according to DIN 3046/1

2) Consumption at rated power



Dimensions D2868

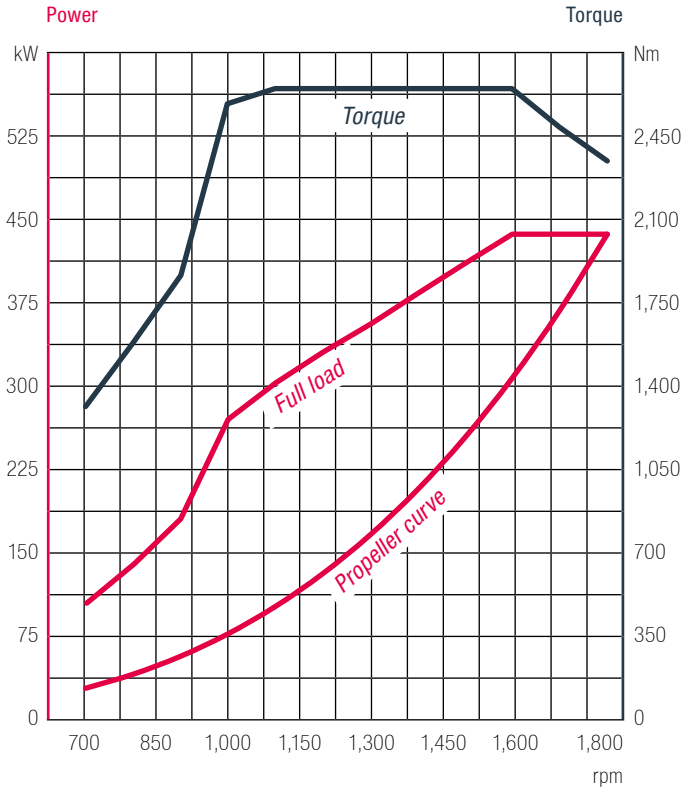
Type designation		LE 421/LE 424/LE 431
A-Overall width	mm	1,153
B-Overall length	mm	1,736
C-Overall height	mm	1,236
D-Top of engine to crankshaft centre	mm	825
E-Length of engine from front end to edge of flywheel housing	mm	1,243
Average weight of engine ready for installation (dry)	kg	1,800

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

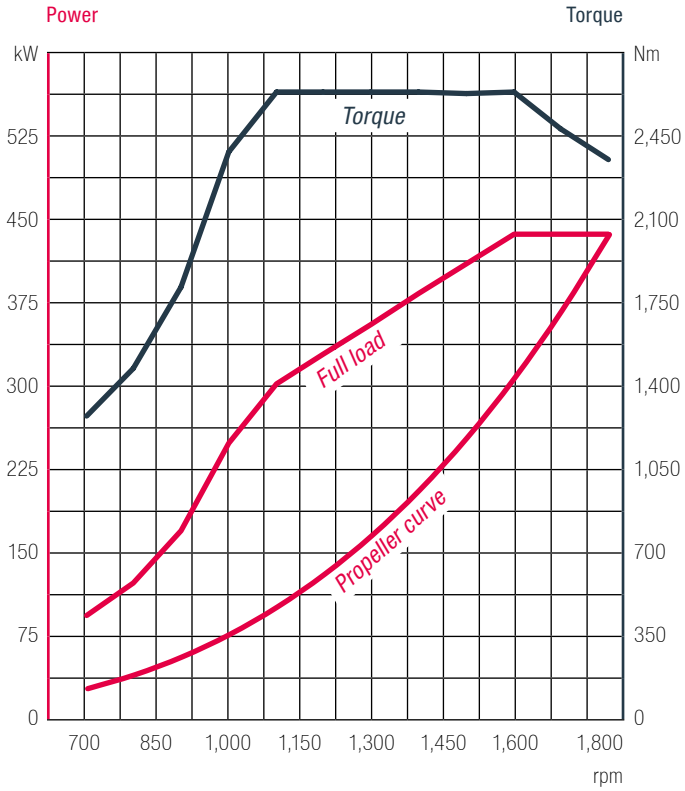
D2868

Power charts

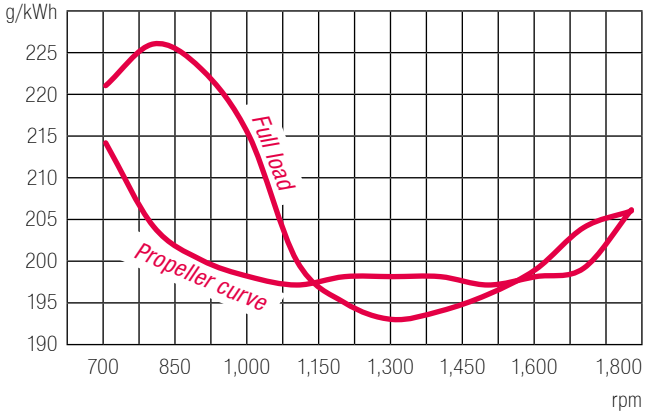
D2868 LE 421



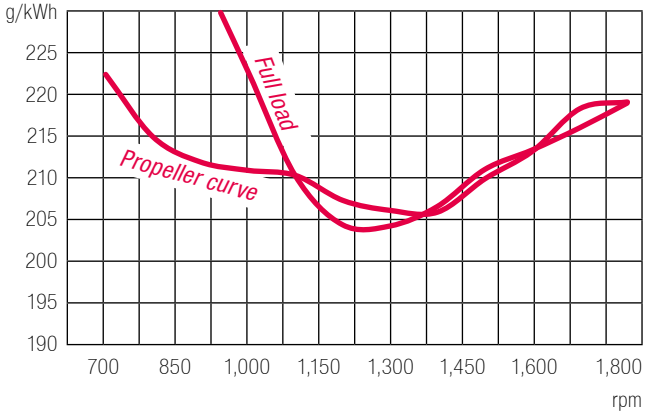
D2868 LE 424



Specific fuel consumption



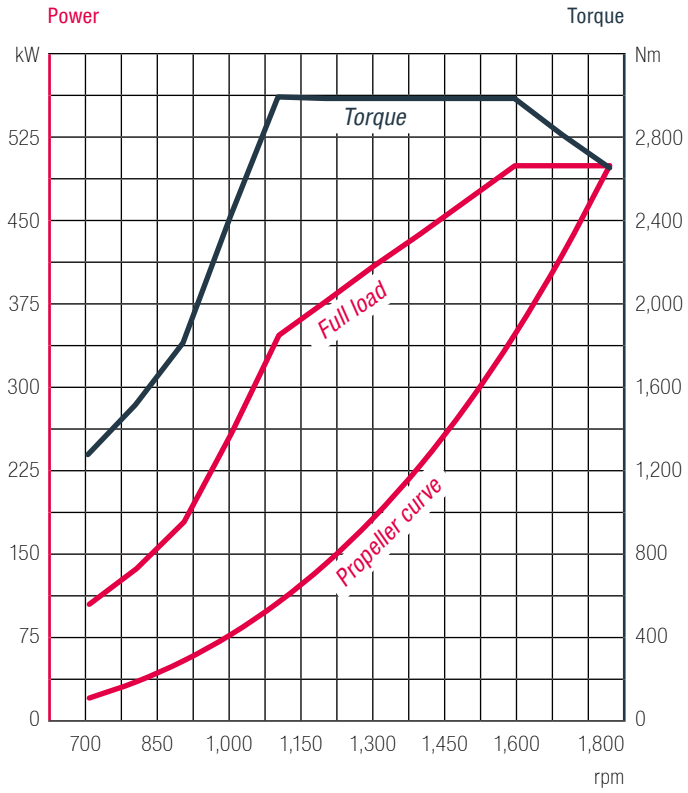
Specific fuel consumption

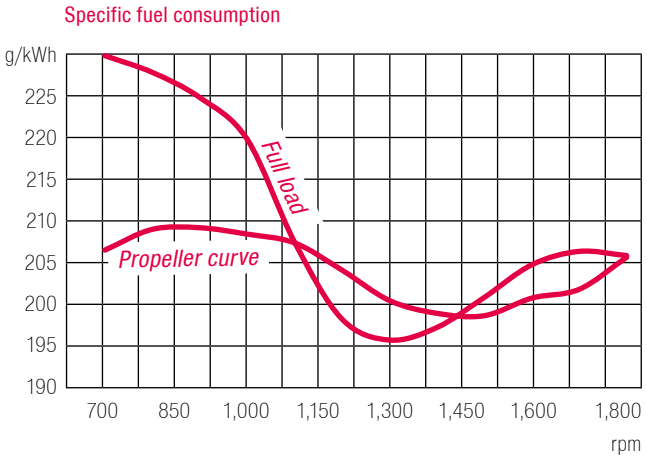


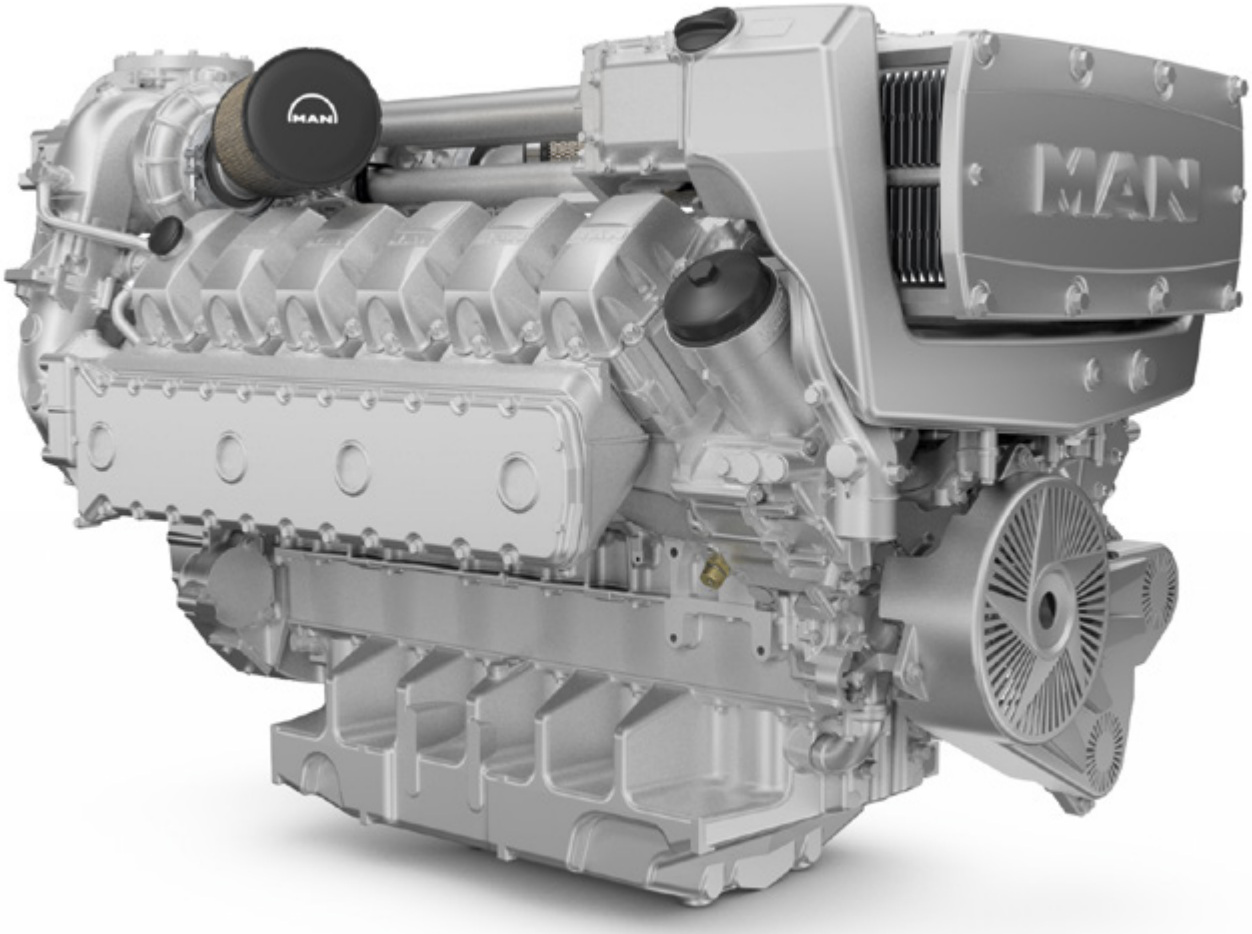
D2868

Power charts

D2868 LE 431







D2862

Engine description

Characteristics

Cylinders and arrangement:	12 cylinders in V arrangement
Operation mode:	4-stroke diesel engine, watercooled
Turbocharging:	Turbocharger charge air intercooler and waste gate
Number of valves:	4 valves per cylinder
Fuel system:	Common Rail direct fuel injection with electronic control
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:	Plate heat exchanger seawater cooled
Engine control:	Electronic injection control (EDC) Electronic engine monitoring including diagnostic unit
Fuel:	DIN EN 590
Average TBO:	18,000 operating hours
Oil change interval:	600 operating hours

D2862

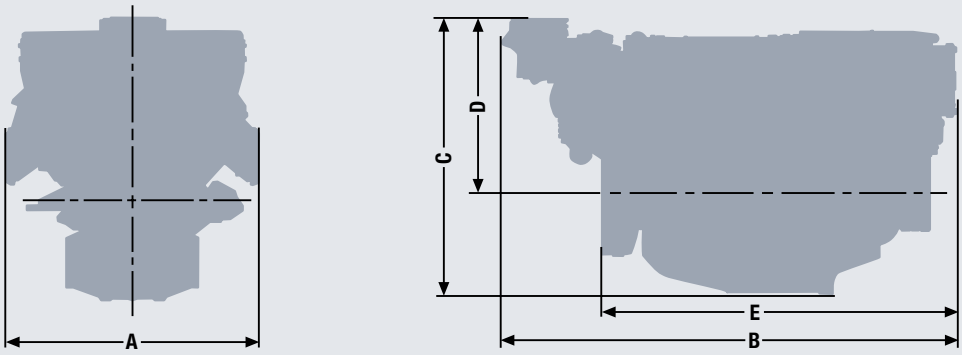
Technical data

Technical features D2862

Type designation		LE 431	LE 434
Displacement	l	24.24	24.24
Nominal rating [1]	kW (hp)	551 (749)	551 (749)
Rated speed	rpm	1,800	1,800
Torque at rated speed	Nm	2,923	2,923
Maximum torque	Nm	3,305	3,305
at speed	rpm	1,000–1,600	1,000–1,600
Specific fuel consumption [2]	g/kWh	198	204
Fuel consumption [2]	l/h	130	134
Classifiable		✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

1) The rating is according to DIN 3046/1

2) Consumption at rated power



Dimensions D2862

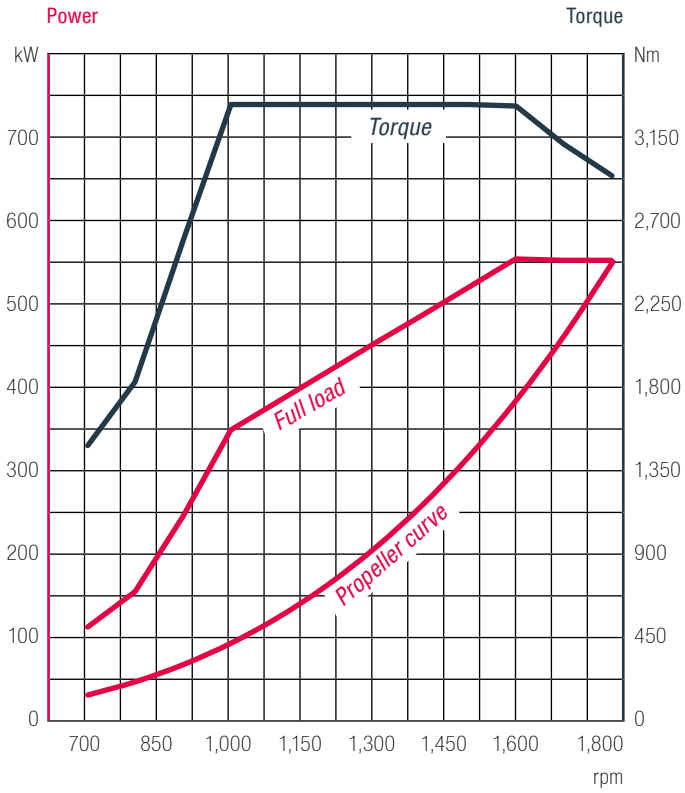
Type designation		LE 431/434
A-Overall width	mm	1,270
B-Overall length	mm	2,230
C-Overall height	mm	1,280
D-Top of engine to crankshaft centre	mm	815
E-Length of engine from front end to edge of flywheel housing	mm	1,614
Average weight of engine ready for installation (dry)	kg	2,270

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

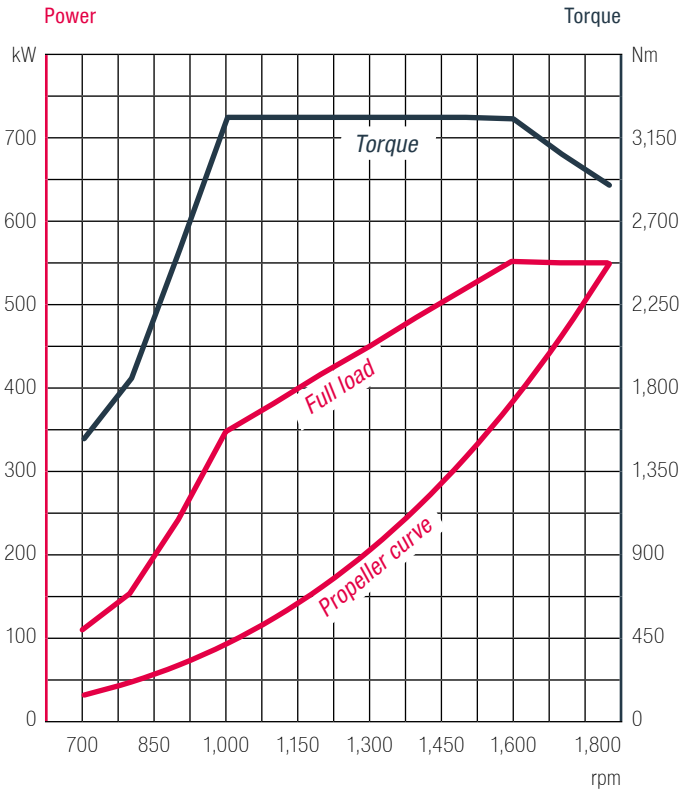
D2862

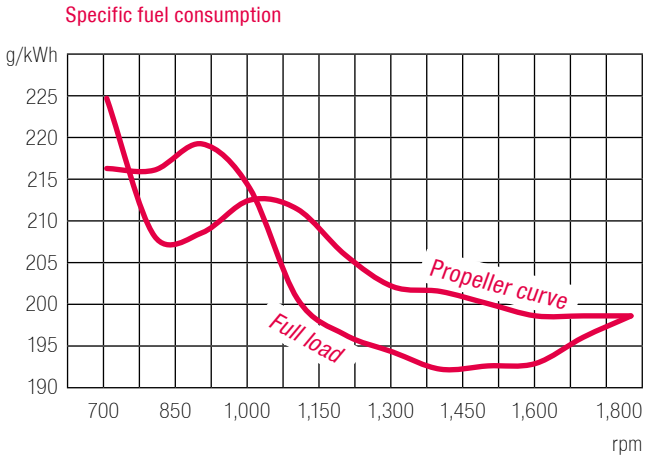
Power charts

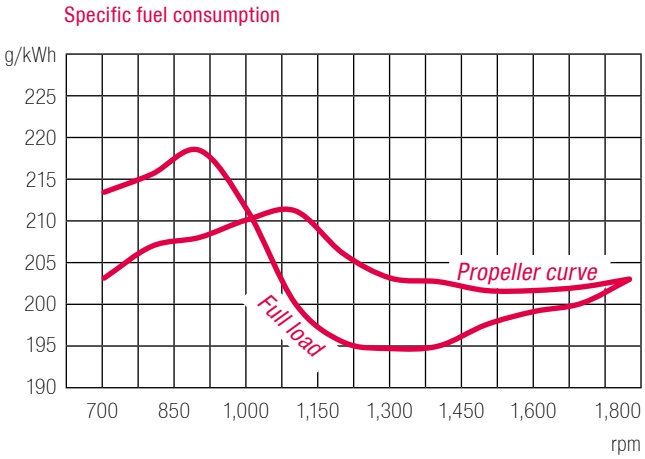
D2862 LE 431



D2862 LE 434







D2862

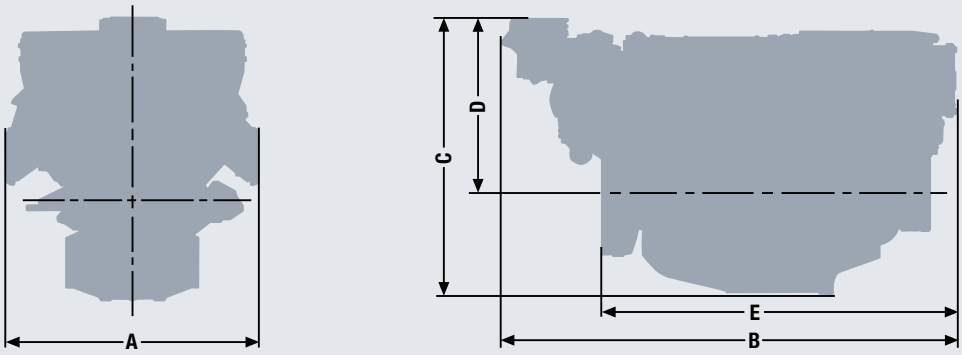
Technical data

Technical features D2862

Type designation		LE 421	LE 424
Displacement	l	24.24	24.24
Nominal rating [1]	kW (hp)	662 (900)	662 (900)
Rated speed	rpm	1,800	1,800
Torque at rated speed	Nm	3,512	3,512
Maximum torque	Nm	3,955	3,950
at speed	rpm	1,000–1,600	1,100–1,600
Specific fuel consumption [2]	g/kWh	198	203
Fuel consumption [2]	l/h	156	160
Classifiable		✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

1) The rating is according to DIN 3046/1

2) Consumption at rated power



Dimensions D2862

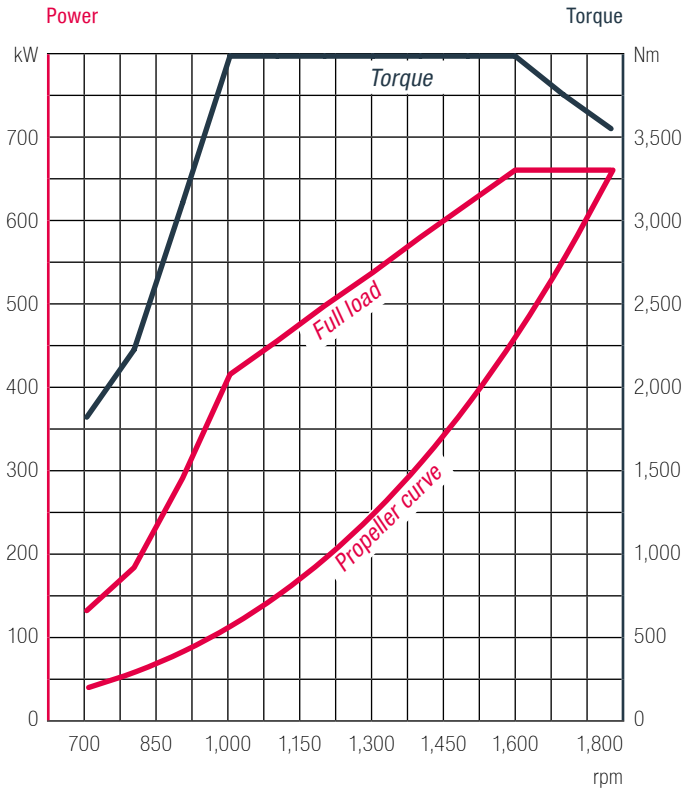
Type designation		LE 421/424
A-Overall width	mm	1,270
B-Overall length	mm	2,230
C-Overall height	mm	1,280
D-Top of engine to crankshaft centre	mm	815
E-Length of engine from front end to edge of flywheel housing	mm	1,614
Average weight of engine ready for installation (dry)	kg	2,270

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

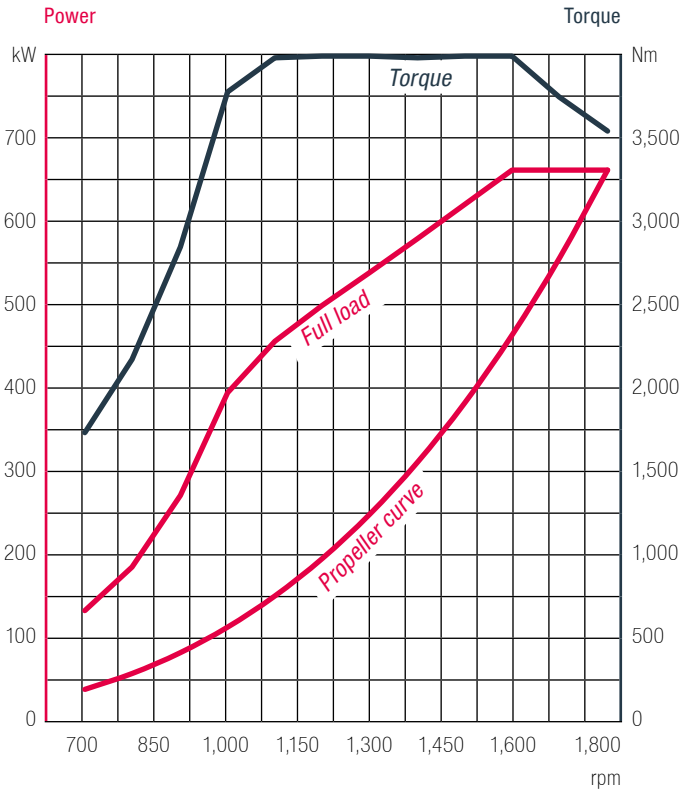
D2862

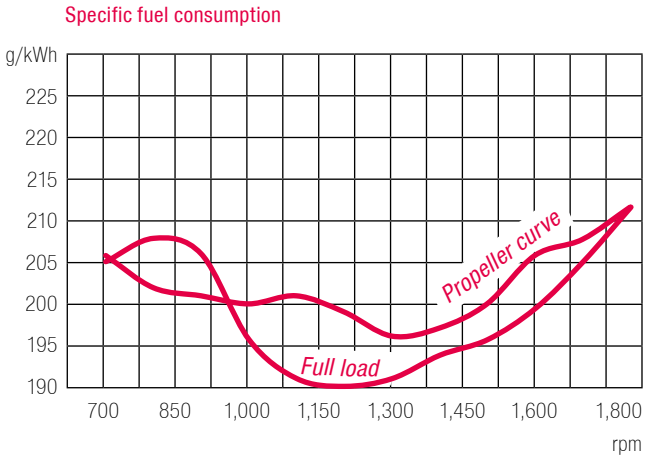
Power charts

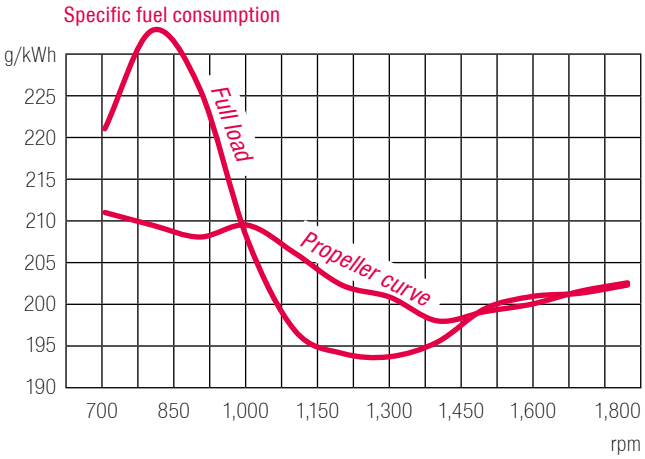
D2862 LE 421



D2862 LE 424







D2862

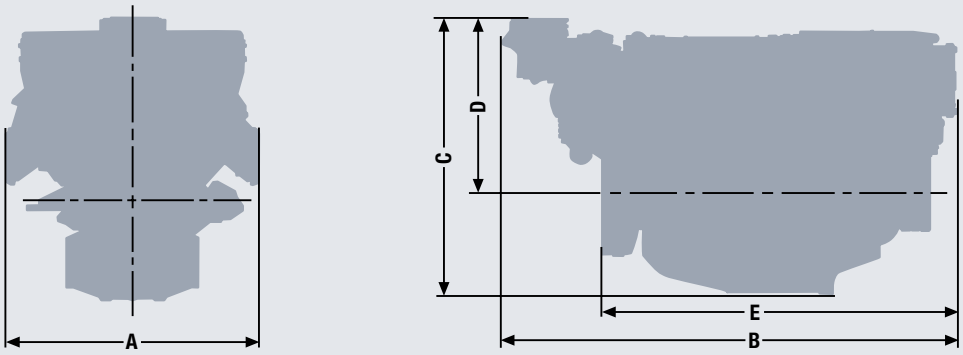
Technical data

Technical features D2862

Type designation		LE 441	LE 444
Displacement	l	24.24	24.24
Nominal rating [1]	kW (hp)	735 (1,000)	735 (1,000)
Rated speed	rpm	1,800	1,800
Torque at rated speed	Nm	3,900	3,900
Maximum torque	Nm	4,380	4,380
at speed	rpm	1,100–1,600	1,100–1,600
Specific fuel consumption [2]	g/kWh	200	212
Fuel consumption [2]	l/h	175	186
Classifiable		✓	✓
Exhaust gas status		IMO Tier 2, RCD 94/25/EC, 97/68/EC	IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

1) The rating is according to DIN 3046/1

2) Consumption at rated power



Dimensions D2862

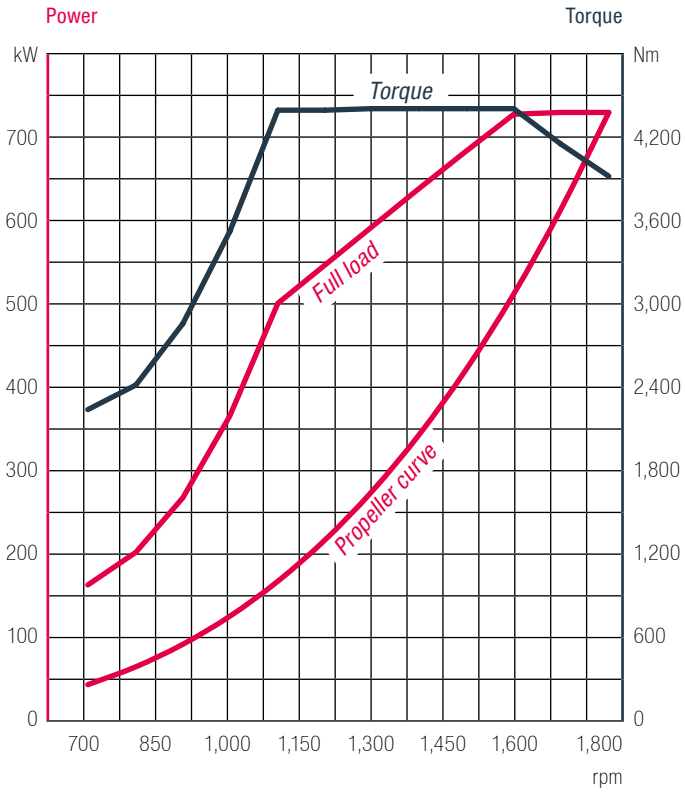
Type designation		LE 441/444
A-Overall width	mm	1,270
B-Overall length	mm	2,230
C-Overall height	mm	1,280
D-Top of engine to crankshaft centre	mm	815
E-Length of engine from front end to edge of flywheel housing	mm	1,614
Average weight of engine ready for installation (dry)	kg	2,270

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

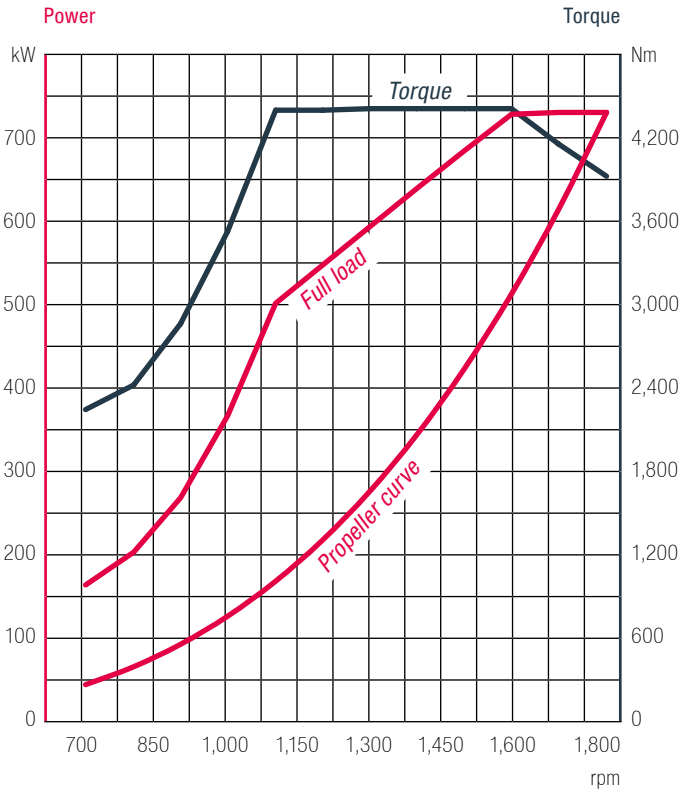
D2862

Power charts

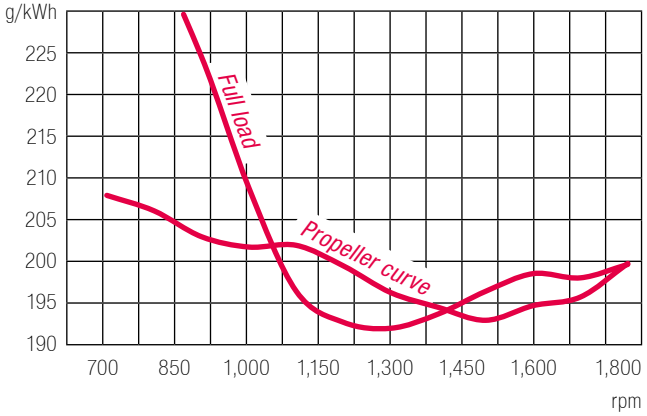
D2862 LE 441



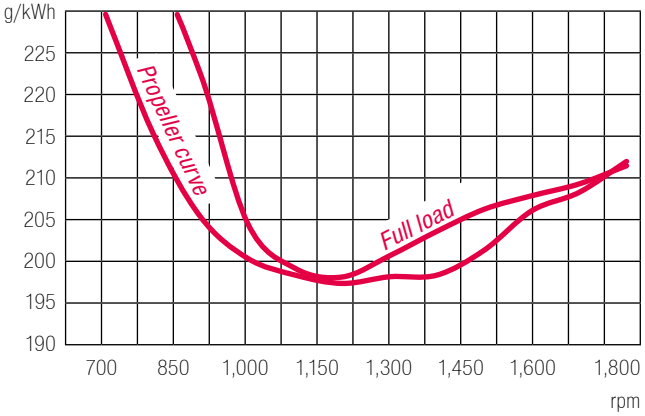
D2862 LE 444



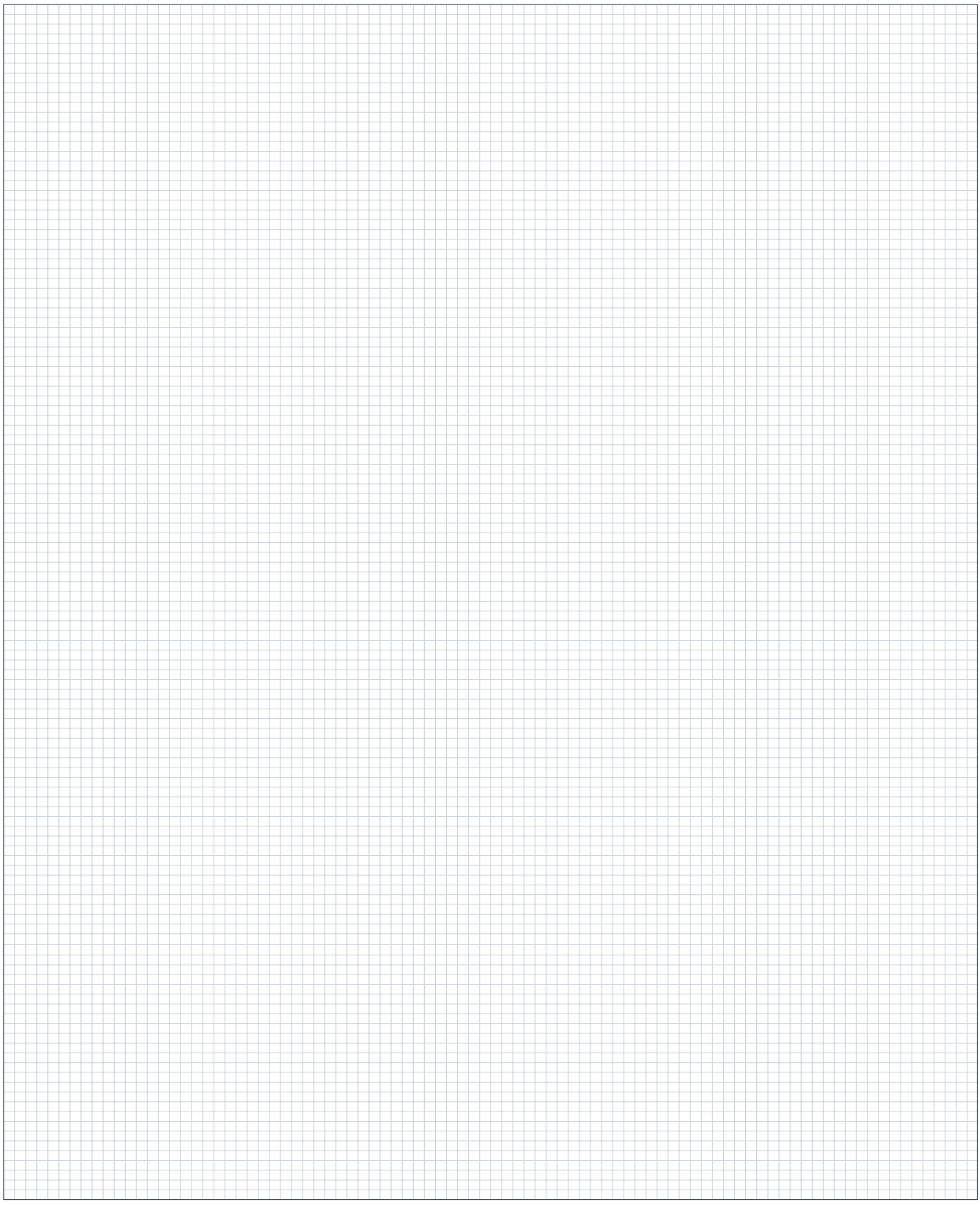
Specific fuel consumption



Specific fuel consumption



Notes



Engine range

Light duty

6 inline and V8 engines

Characteristics	Unit	D2676		D2868	
Type designation		**LE 443**	**LE 423**	**LE 426**	**LE 436**
Arrangement and number of cylinders		R6	R6	V8	V8
Nominal rating	hp	730	800	1,000	1,200
Maximum torque	Nm	2,445	2,674	3,340	4,010
Engine classifiable		✓	–	–	–
Rated speed	rpm	2,300	2,300	2,300	2,300
Fuel consumption	l/h	142	158	199	240
Bore/Stroke	mm	126/166	126/166	128/157	128/157
Displacement	l	12.42	12.42	16.16	16.16
Length of engine from front end to edge of flywheel housing	mm	1,523	1,523	1,243	1,262
Width	mm	922	922	1,153	1,153
Height	mm	1,103	1,103	1,236	1,222
Dry weight	kg	1,215	1,215	1,780	1,875
Exhaust gas status		A	A	B	B

V12 engines

Characteristics	Unit	D2862			
Type designation		**LE 446**	**LE 426**	**LE 456**	**LE 436**
Arrangement and number of cylinders		V12	V12	V12	V12
Nominal rating	hp	1,400	1,550	1,650	1,800
Maximum torque	Nm	4,680	5,180	5,510	6,010
Engine classifiable		✓	–	✓	–
Rated speed	rpm	2,300	2,300	2,300	2,300
Fuel consumption	l/h	267	299	323	339
Bore/Stroke	mm	128/157	128/157	128/157	128/157
Displacement	l	24.24	24.24	24.24	24.24
Length of engine from front end to edge of flywheel housing	mm	1,614	1,614	1,667	1,667
Width	mm	1,270	1,270	1,150	1,150
Height	mm	1,280	1,280	1,350	1,350
Dry weight	kg	2,270	2,270	2,365	2,365
Exhaust gas status		B	B	B	B

A IMO Tier 2, EPA Tier 3, RCD 2013/53/EC, 97/68/EC
B IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

Engine range

Medium duty

6 inline and V8 engines

Characteristics	Unit	D2676				D2868	
Type designation		**LE 432**	**LE 435**	**LE 422**	**LE 425**	**LE422**	**LE425**
Arrangement and number of cylinders		R6	R6	R6	R6	V8	V8
Nominal rating	hp	560	560	650	650	800	800
Maximum torque	Nm	2,065	2,065	2,402	2,402	2,950	2,980
Engine classifiable		✓	✓	✓	✓	✓	✓
Rated speed	rpm	2,100	2,100	2,100	2,100	2,100	2,100
Fuel consumption	l/h	103	105	123	128	148	156
Bore/Stroke	mm	126/166	126/166	126/166	126/166	128/157	128/157
Displacement	l	12.42	12.42	12.42	12.42	16.16	16.16
Length of engine from front end to edge of flywheel housing	mm	1,532	1,532	1,532	1,532	1,243	1,243
Width	mm	922	922	922	922	1,153	1,153
Height	mm	1,103	1,103	1,103	1,103	1,236	1,236
Dry weight	kg	1,215	1,215	1,215	1,215	1,800	1,800
Exhaust gas status		A	B	A	B	C	D

V12 engines

Characteristics	Unit	D2862					
Type designation		**LE 422**	**LE 425**	**LE 432**	**LE 435**	**LE 463**	**LE 466**
Arrangement and number of cylinders		V12	V12	V12	V12	V12	V12
Nominal rating	hp	1,019	1,019	1,200	1,200	1,400	1,400
Maximum torque	Nm	3,780	3,770	4,450	4,450	5,120	5,180
Engine classifiable		✓	✓	✓	✓	✓	✓
Rated speed	rpm	2,100	2,100	2,100	2,100	2,100	2,100
Fuel consumption	l/h	185	192	222	218	257	256
Bore/Stroke	mm	128/157	128/157	128/157	128/157	128/157	128/157
Displacement	l	24.24	24.24	24.24	24.24	24.24	24.24
Length of engine from front end to edge of flywheel housing	mm	1,614	1,614	1,614	1,614	1,614	1,614
Width	mm	1,270	1,270	1,270	1,270	1,270	1,270
Height	mm	1,280	1,280	1,280	1,280	1,280	1,280
Dry weight	kg	2,270	2,270	2,270	2,270	2,270	2,270
Exhaust gas status		C	D	C	C	D	C

A IMO Tier 2, 97/68/EC
B IMO Tier 2, EPA Tier 3, RCD 2013/53/EC, 97/68/EC
C IMO Tier 2, RCD 94/25/EC, 97/68/EC
D IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

Engine range

Heavy duty

6 inline and V8 engines

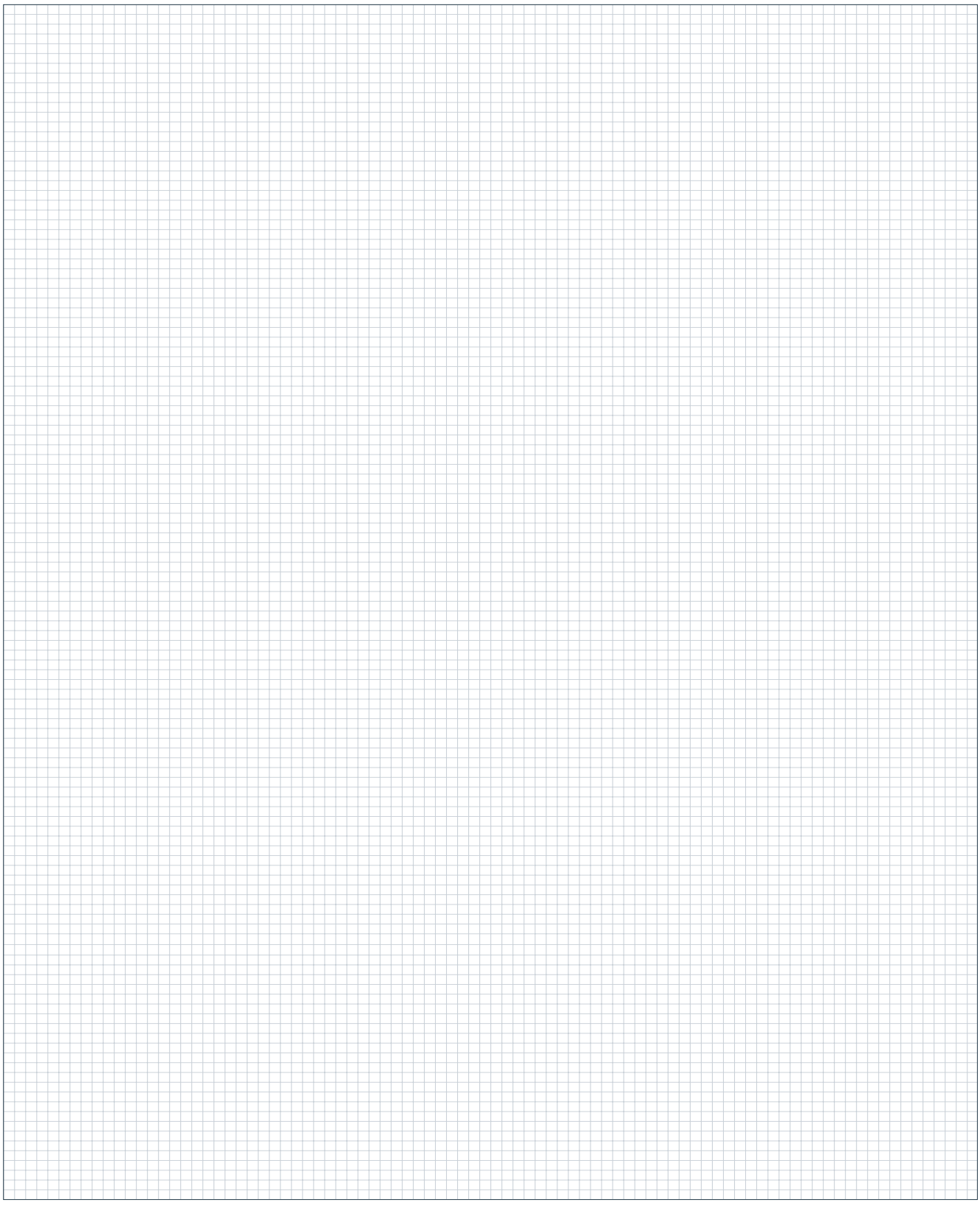
Characteristics	Unit	D2676				D2868		
Type designation		**LE 431**	**LE 434**	**LE 421**	**LE 424**	**LE 421**	**LE 424**	**LE 431**
Arrangement and number of cylinders		R6	R6	R6	R6	V8	V8	
Nominal rating	hp	440	440	520	520	600	600	680
Maximum torque	Nm	1,925	1,925	2,275	2,270	2,630	2,630	2,985
Engine classifiable		✓	✓	✓	✓	✓	✓	✓
Rated speed	rpm	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Fuel consumption	l/h	79	81	94	96	108	116	123
Bore/Stroke	mm	126/166	126/166	126/166	126/166	128/157	128/157	128/157
Displacement	l	12.42	12.42	12.42	12.42	16.16	16.16	16.16
Length of engine from front end to edge of flywheel housing	mm	1,532	1,532	1,523	1,523	1,243	1,243	1,243
Width	mm	922	922	922	922	1,153	1,153	1,153
Height	mm	1,103	1,103	1,103	1,103	1,236	1,236	1,236
Dry weight	kg	1,215	1,215	1,215	1,215	1,800	1,800	1,800
Exhaust gas status		A	B	A	B	C	D	C

V12 engines

Characteristics	Unit	D2862					
Type designation		**LE 431**	**LE 434**	**LE 421**	**LE 424**	**LE 441**	**LE 444**
Arrangement and number of cylinders		V12	V12	V12	V12	V12	V12
Nominal rating	hp	749	749	900	900	1,000	1,000
Maximum torque	Nm	3,305	3,305	3,955	3,950	4,380	4,380
Engine classifiable		✓	✓	✓	✓	✓	✓
Rated speed	rpm	1,800	1,800	1,800	1,800	1,800	1,800
Fuel consumption	l/h	130	134	156	160	175	186
Bore/Stroke	mm	128/157	128/157	128/157	128/157	128/157	128/157
Displacement	l	24.24	24.24	24.24	24.24	24.24	24.24
Length of engine from front end to edge of flywheel housing	mm	1,614	1,614	1,614	1,614	1,614	1,614
Width	mm	1,270	1,270	1,270	1,270	1,270	1,270
Height	mm	1,280	1,280	1,280	1,280	1,280	1,280
Dry weight	kg	2,270	2,270	2,270	2,270	2,270	2,270
Exhaust gas status		C	D	C	D	C	D

A IMO Tier 2, 97/68/EC
B IMO Tier 2, EPA Tier 3, RCD 2013/53/EC, 97/68/EC
C IMO Tier 2, RCD 94/25/EC, 97/68/EC
D IMO Tier 2, EPA Tier 3, RCD 94/25/EC, 97/68/EC

Notes



MAN Truck & Bus AG
Vogelweiherstr. 33
90441 Nuremberg, Germany
man-engines@man.eu
www.man-engines.com

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