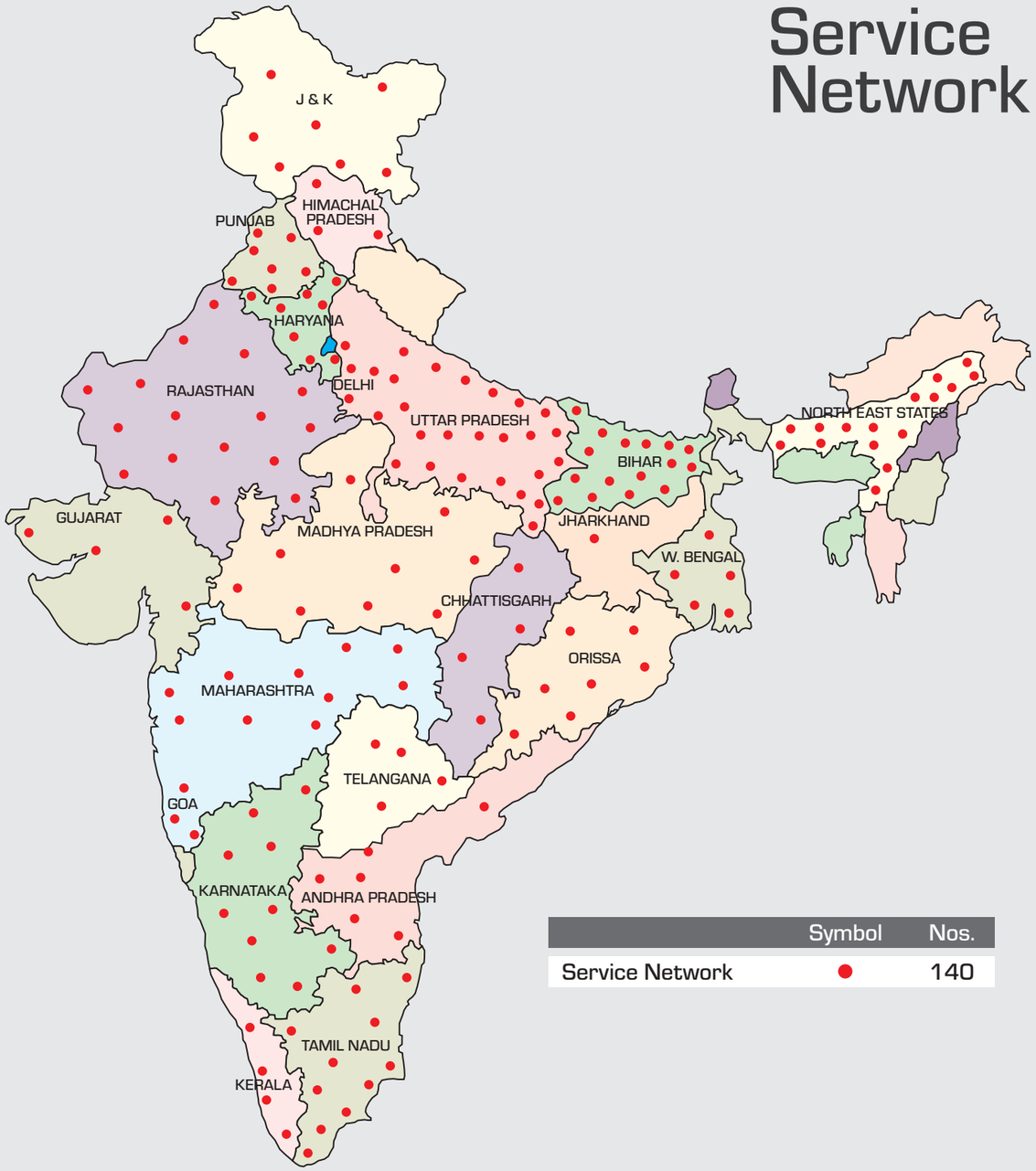
Service Network



	Symbol	Nos.
Service Network	●	140

powerol by Mahindra

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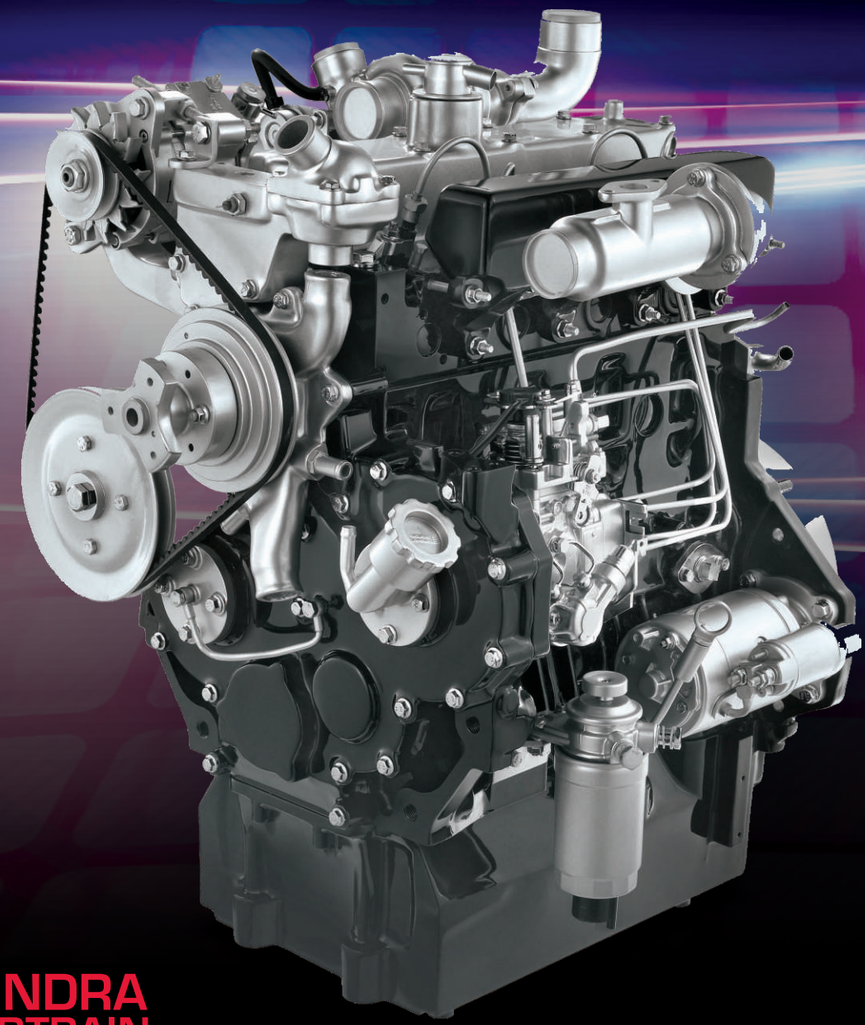
Mahindra Rise.

powerol by Mahindra

The efficient heart of your Business, Mahindra Powerol Engines



MAHINDRA POWERTRAIN

Group Overview

Our story was cast and hewn in India's steel industry in 1945, and today, we're a US $16.9 billion global federation of companies. Famous for our rugged and reliable automobiles, some also know us for our innovative IT solutions, and others for our commitment to rural prosperity.

Befitting our size, we operate in 20 key industries, providing insightful and ingenious solutions that are global in their ramifications. Our companies act as a federation, with an optimum balance of entrepreneurial independence and synergy. From Mobility to Rural Prosperity and IT, from Financial Services to Clean Energy and Business Productivity, we're empowering enterprise everywhere.

Headquartered in Mumbai, India, we have an operational presence in over 100 countries and employ more than 200,000 people. And though we operate across vast geographies, our governing spirit of "Rise" binds us as one Mahindra, dictating that we empower people everywhere to not only chart new frontiers, but to conquer them too.

About Mahindra Powerol

Mahindra & Mahindra Ltd. entered the field of Power Generation in 2001. Today, Mahindra engines under the brand name of Mahindra Powerol are powering diesel generators up to a rating of 200kVA & engines from 15hp to 260hp (variable & constant speed).

Mahindra Powerol offers variable speed diesel engines for various industrial applications. It offers these engines to the OEMs in various application segments like Construction, Off Highway, Marine, Pump, Bus A/C, Eartmoving, Material Handling & other Industrial segments.

These engines are the most fuel efficient and reliable engines in the market and can withstand long and tough working hours effortlessly. Due to its versatile nature, Mahindra Powerol engines are the ideal choice for several industries.

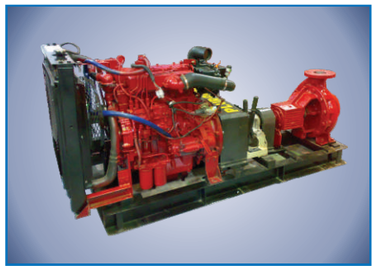
The unique advantages of these engines are:

▪ Fuel Efficient ▪ Low Maintenance Cost

▪ Reliable & Rugged Engines ▪ Widespread Service Network

Mahindra Powerol Engines & Diesel Generators are manufactured at two state-of-the-art factories located in India at Pune & Delhi. They comply to the most stringent emission norms making them ready to meet any environmental challenge in the industry.

In 2014, Mahindra Powerol won the Deming Prize for its commitment towards TQM.



Features and Benefits

Mahindra Powerol is the leading diesel engine manufacturer in India with annual engine manufacturing of over 2 lacs engines for tractors, (both India & overseas market), power generation, industrial & marine application.

Engineering Capabilities and Facilities:

- Dedicated R&D set-up at Mahindra Reserch Valley (MRV) Chennai
- New rating developments
- Dedicated manpower for industrial business
- In-house engine design capability
- Modern equipments & software for design development and upgradation of engines, systems and control.
- Test cells for R&D testing.
- Manufactured in world class manufacturing facilities.

Manufacturing Facilities:

- India's most advanced engine assembly plant with cutting edge technology
- Fully automated, controlled environment
- ISO 9001 TUV and QS 14000 certified & winner of Deming & JQM Application Award
- Every engine is 100% tested on all critical parameters
- Fully automated material handling J-bar type engine assembly
- Stringent quality control of the highest level maintained in the manufacture of the engines
- Fully mechanized processes. All critical parts machined on CNC machines for closest tolerance and exact dimensions
- Manufacture and testing under moisture and temperature controlled conditions

Design Features:

- Engine designed with consultation from AVL, Austria, one of the world's leading engine design houses.
- Compact design, low noise & vibration suitable for industrial applications.
- Robust design proven in extreme climatic conditions.
- Can absorb sudden loads and shocks without affecting base performance.
- High back-up torque at lower engine RPMs
- Compact cooling package.
- Easy availability of spares parts.
- Fuel Efficient

Meeting Standards

Mahindra Powerol Engines are emission compliant and meet all BS-II and BS-III standards, CEV norms, EPA Tier III emission norms.

Scope of Supply

Engine Standard Scope of Supply
SAE-3 Flywheel Housing
SAE-10 Flywheel
Lub Oil Cooler
Lub Oil Filter
Fuel Filter (Duel fuel filter)
Radiator Fan
In-line Fuel Pump with Mechanical governor and Fuel feed Pump (Inbuilt)
Exhaust Turbocharger (for Turbo Engines)
Turbocharger Inlet/Outlet Piping.
12V Electrical Starter
Battery Charging Alternator

SECTORS	APPLICATIONS
Constructions	Concrete Pumps, Transit Mixers
Road Equipments	Compactors Sweeping Machine
Earthmoving	Earthmoving Equipments
Industrial Pumpsets	Fire Fighting Pumpset
Agriculture	Agricultural Applications
Marine Systems	Fishing Trawlers, Boats
Bus A/C	Bus A/C Power Packs
Material Handling	Crane, Forklift

Optional Accessories
24 V Electrical System
Exhaust Silencer and Mountings
Dry Type Air Cleaner and Mountings
Cold start Kit
Electrical Solenoid
Electrical Engine RPM Meter
Hour Meter
Lub Oil Pressure Sensor and Gauge
Water temp sensor and Gauge
Radiator
Compressor
Hydraulic Pump
Panel
Holset Coupling
Clutch Assembly

Mahindra Powerol Industrial Engines

Variable Speed Engines - 15hp to 94hp

Engine Model Name	Emission Norms	Aspiration	No. of Cyl.	Rated Power	Rated Speed	Bore x Stroke	Capacity	Max Torque (1300-1400 RPM)	Engine Dry wt.	Dimension		
										L	W	H
		NA/TC	Nos	hp	RPM	mm x mm	cc	N-m	Kg.	mm	mm	mm
215 DI	-	NA	1	15	2300	100 x 110	864	54	150	656	642	778
255 DI LS	BS-III CEV	NA	2	23.5	2400	88.9 x 110	1366	80	190	600	530	900
275 DI LS	BS-III CEV	NA	3	35	1900	-	2048	142	250	700	530	900
275 TU	BS-III CEV	NA	3	39	2600	88.9 x 101.6	2048	118	250	700	530	900
275 TU	BS-III CEV	NA	3	39	2100	88.9 x 110	2048	142	250	700	530	1050
475 DILS	BS-III CEV	NA	4	42	1900	-	2731	175	300	800	530	900
575 DI	BS-III CEV	NA	4	44.5	2300	88.9 x 101.6	2523	157	350	800	530	900
575 DILS	BS-III CEV	NA	4	44.5	1900	88.9 x 110	2731	184	300	800	530	900
585 DI	-	NA	4	50	2600	88.9 x 101.6	2523	153	300	800	530	900
595 DI	BS-III A	TC	4	49.9	2100	88.9 x 101.6	2523	192	350	850	530	900
555 DI	BS-III CEV	NA	4	49.25	2100	94 x 110	3052	187	320	850	600	1000
555 DI TU	BS-III CEV	NA	4	49.25	2100	96 x 122	3052	210	320	850	600	1000
605 DI	BS-III A	NA	4	57	2100	94 x 115	3192	213	320	850	600	1000
605 DI	BS-III CEV	TC	4	60	2400	96 x 122	3192	219	350	850	600	1000
705 DI	BS-III A	NA	4	65	2200	96 x 122	3532	228	400	850	600	1000
805 DI	BS-III A	TC	4	76	2300	94 x 115	3192	280	425	850	600	1000
4085 IA	BS-III CEV	TCI	4	80	2300	96 x 122	3532	303	425	850	600	1000

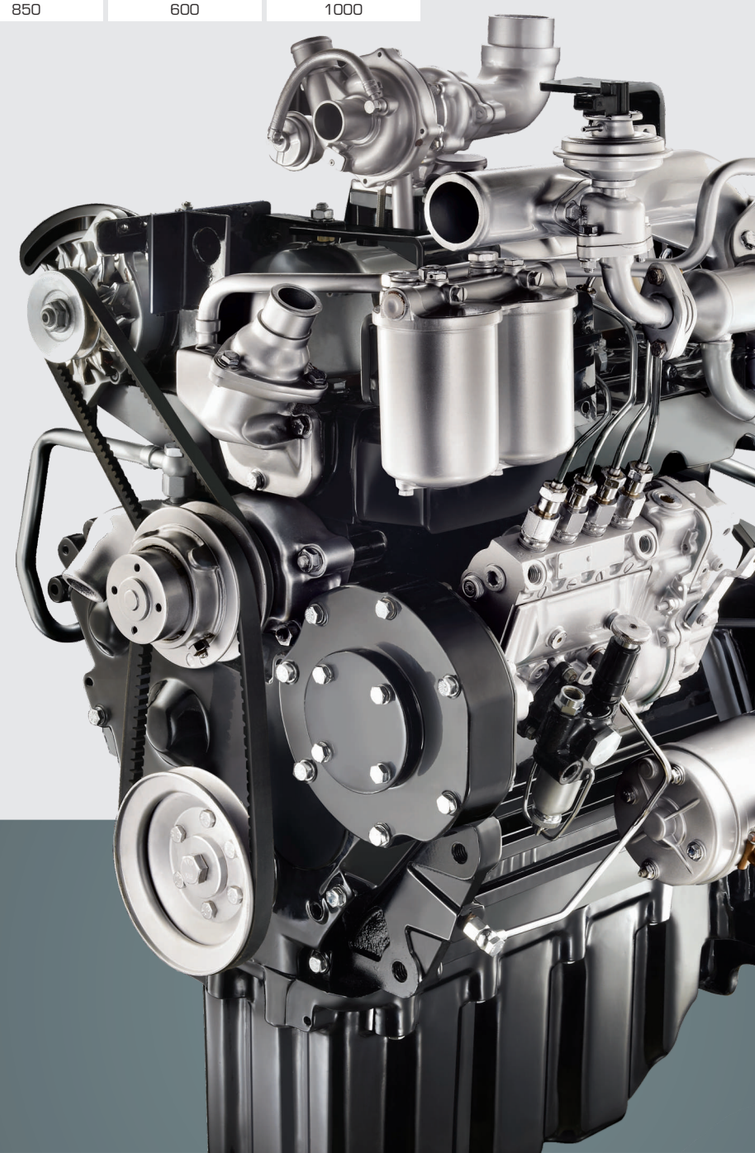
Fixed Speed Engines

1800 RPM ENGINES

Engine Model Name	Aspiration	Rated Power	Rated Speed	Type of Gov.	Bore x Stroke	Capacity	Dimension		
							L	W	H
	NA/TC	hp	RPM		mm	cc	mm	mm	mm
2205 G18	NA	18	1800	Mech.	88.9 x 110	1365	600	530	900
3335 G18	NA	30	1800	Mech.	88.9 x 110	2048	700	530	900
4485 G18	NA	43	1800	Mech.	88.9 x 110	2731	850	600	1000
4645 G18	TC	58	1800	Mech.	88.9 x 110	2731	1200	650	1050
4725 G18	TC	65	1800	Mech.	94 x 115	3190	1200	770	1050
4905 G18	TCI	72	1800	Mech.	96 x 122	3532	1300	770	1050

1500 RPM ENGINES

Model	Power	Aspiration	No. of Cylinder	Bore x Stroke	Displacement	*Unit Dry Wt of Bare Engine	Dimension		
							L	W	H
	hp	NA/TC	Nos.	mm	cc	kg.	mm	mm	mm
2185 GM C2	16	NA	2	88.9 x 110	1365	190	902	588	892
2205 GM C2	18	NA	2	88.9 x 120	1489	190	902	588	892
3255 GM C2	22	NA	3	88.9 x 101.6	1891	240	948	588	892
3285 GM C2	25	NA	3	88.9 x 110	2047	240	948	588	892
3335 TCGM C2	30	TC	3	88.9 x 101.6	1891	275	935	636	872
3385 TCIGM C2	35	TCA	3	88.9 x 101.6	1891	275	1015	671	860
3445 TCIGM C2	40	TCA	3	88.9 x 110	2047	280	1015	671	860
4575 TCIGM C2	52	TCA	4	88.9 x 110	2730	280	1270	665	950
4725 GM C2	65	TCA	4	94 x 115	3191	370	1371	786	997
4905 GM C2	82	TCA	4	96 x 122	3530	370	1493	843	1210
41035 GM C2	94	TCA	4	96 x 122	3530	370	1493	843	1210



- Above specifications are subject to change without notice due to continuous technical developments.
- *Dry Weight of engine is without flywheel housing, mounting brackets and radiator.

Mahindra Powerol Industrial Engines

Variable Speed Engines - 80hp to 260hp

Engine Model Name	Emission	Aspiration	No. of Cyl.	Rated Power	Rated Speed	Bore	Stroke	Capacity	Max Torque	Engine Dry wt.	Dimension		
											L	W	H
		TA	Nos	hp	RPM	mm	mm	cc	N-m	Kg.	mm	mm	mm
mPower 4.8	Non Emission	TA	4	130	2200	105	137	4.8 L	520	435	983	870	1071
mPower 4.8	BS III CEV	TA	4	135	2200	105	137	4.8 L	620	435			
mPower 4.8	Non Emission	TA	4	170	2200	105	137	4.8 L	696	435			
mPower 7.2	BS III CEV	TA	6	170	2200	105	137	7.2 L	750	610	1393	870	1063
mPower 7.2	Non Emission	TA	6	202	2200	105	137	7.2 L	880	610			
mPower 7.2	BS III CEV	TA	6	215	2200	105	137	7.2 L	1060	610			
mPower 7.2	Non Emission	TA	6	230	2200	105	137	7.2 L	985	610			
mPower 7.2	Non Emission	TA	6	260	2200	105	137	7.2 L	960	610			

Fixed Speed Engines

1500 RPM ENGINES

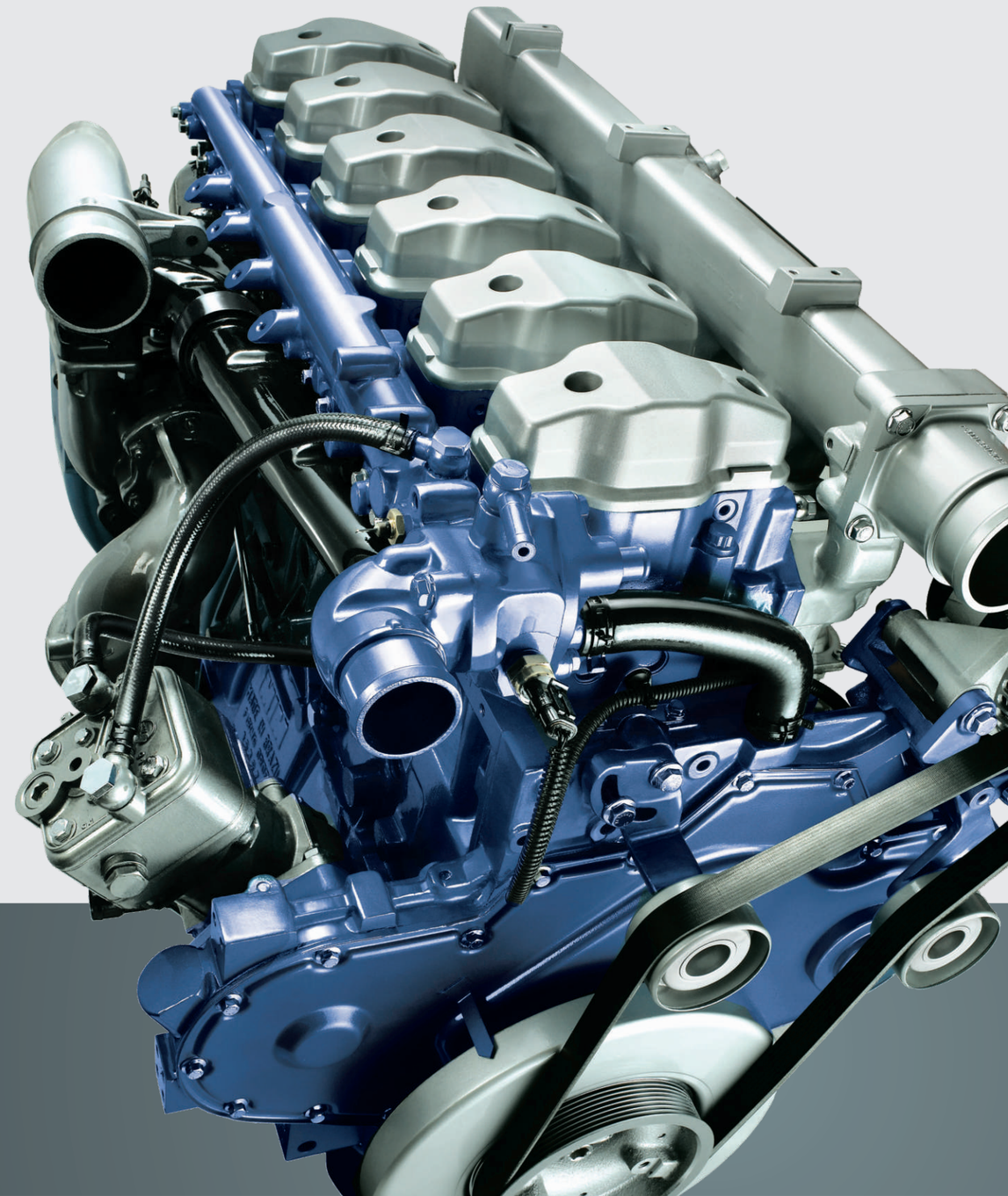
Engine Model Name	Power	Aspiration	No. of Cyl.	Bore x Stroke	Displacement	*Unit Dry Wt of Bare Engine	Length x Width x Hight with Radiator
	hp	-	No.	mm	cc	kg.	mm
mPower 4.8	80	TCA	4	105 x 137	4742	410	1277 x 861 x 1246
mPower 4.8	101	TCA	4	105 x 137	4742	410	1277 x 861 x 1246
mPower 4.8	126	TCA	4	105 x 137	4742	410	1277 x 861 x 1246
mPower 7.2	156	TCA	6	105 x 137	7118	600	1727 x 932 x 1274.4
mPower 7.2	174	TCA	6	105 x 137	7118	600	1727 x 932 x 1274.4
mPower 7.2	200	TCA	6	105 x 137	7118	600	1727 x 932 x 1534.4
mPower 7.2	220	TCA	6	105 x 137	7118	610	1727 x 932 x 1794.4
mPower 7.2	240	TCA	6	105 x 137	7118	610	1727 x 932 x 1794.4

1800 RPM ENGINES

Engine Model Name	Power	Aspiration	No. of Cyl.	Bore x Stroke	Displacement	*Unit Dry Wt of Bare Engine	Length x Width x Hight with Radiator
	hp	-	No.	mm	cc	kg.	mm
mPower 7.2	200	TCA	6	105 x 137	7118	600	1727 x 932 x 1534.4
mPower 7.2	220	TCA	6	105 x 137	7118	610	1727 x 932 x 1794.4
mPower 7.2	240	TCA	6	105 x 137	7118	610	1727 x 932 x 1794.4

2200 RPM ENGINES

Engine Model Name	Power	Aspiration	No. of Cyl.	Bore x Stroke	Displacement	*Unit Dry Wt of Bare Engine	Length x Width x Hight with Radiator
	hp	-	No.	mm	cc	kg.	mm
mPower 4.8	110	TCA	4	105 x 137	4742	410	1277 x 861 x 1246
mPower 4.8	130	TCA	4	105 x 137	4742	410	1277 x 861 x 1246
mPower 4.8	170	TCA	4	105 x 137	4742	410	1277 x 861 x 1246
mPower 7.2	230	TCA	6	105 x 137	7118	610	1727 x 932 x 1794.4
mPower 7.2	260	TCA	6	105 x 137	7118	610	1727 x 932 x 1794.4



- Above specifications are subject to change without notice due to continuous technical developments.
- *Dry Weight of engine is without flywheel housing, mounting brackets and radiator.