



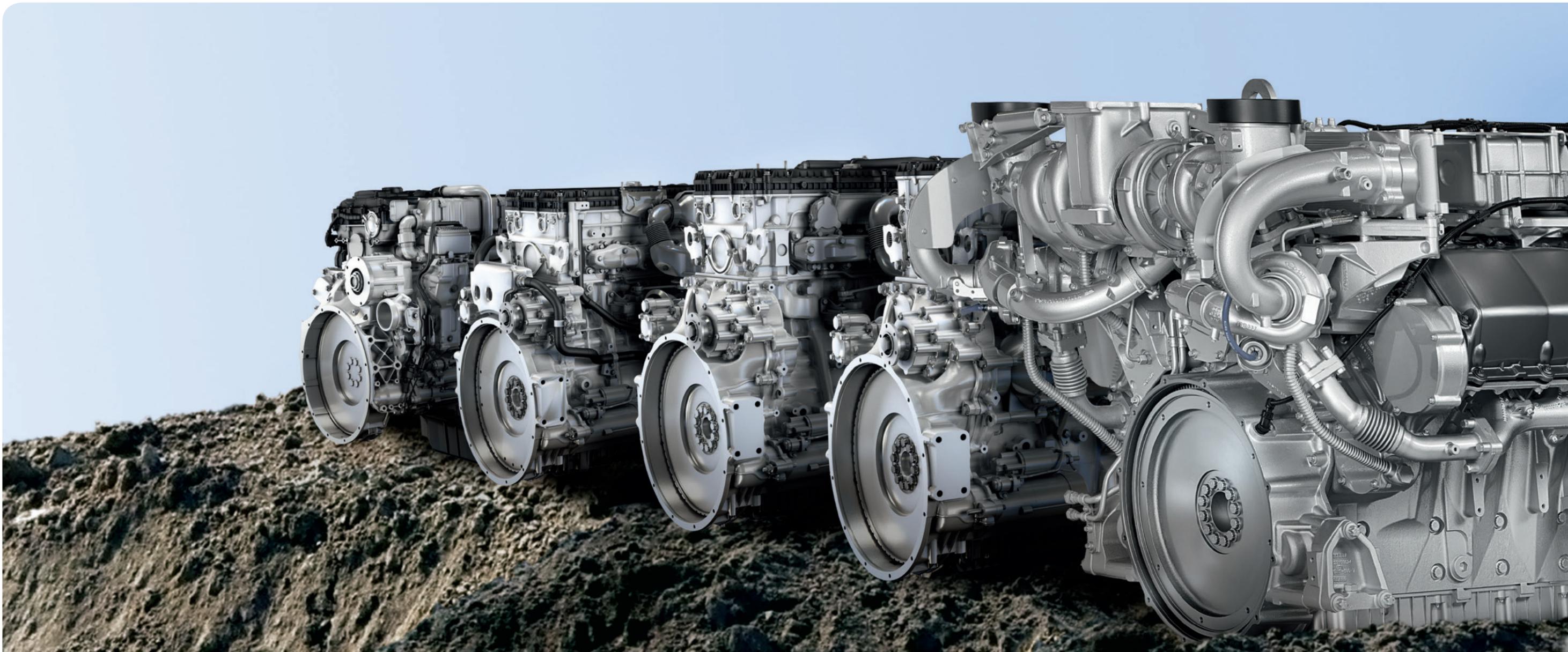
Construction & Industrial, Mining

**Off-Highway engines by
MTU. Tougher – whatever
the conditions.**

Series 1000–Series 1600
EU Stage IV/EPA Tier 4 final



Power. Passion. Partnership.

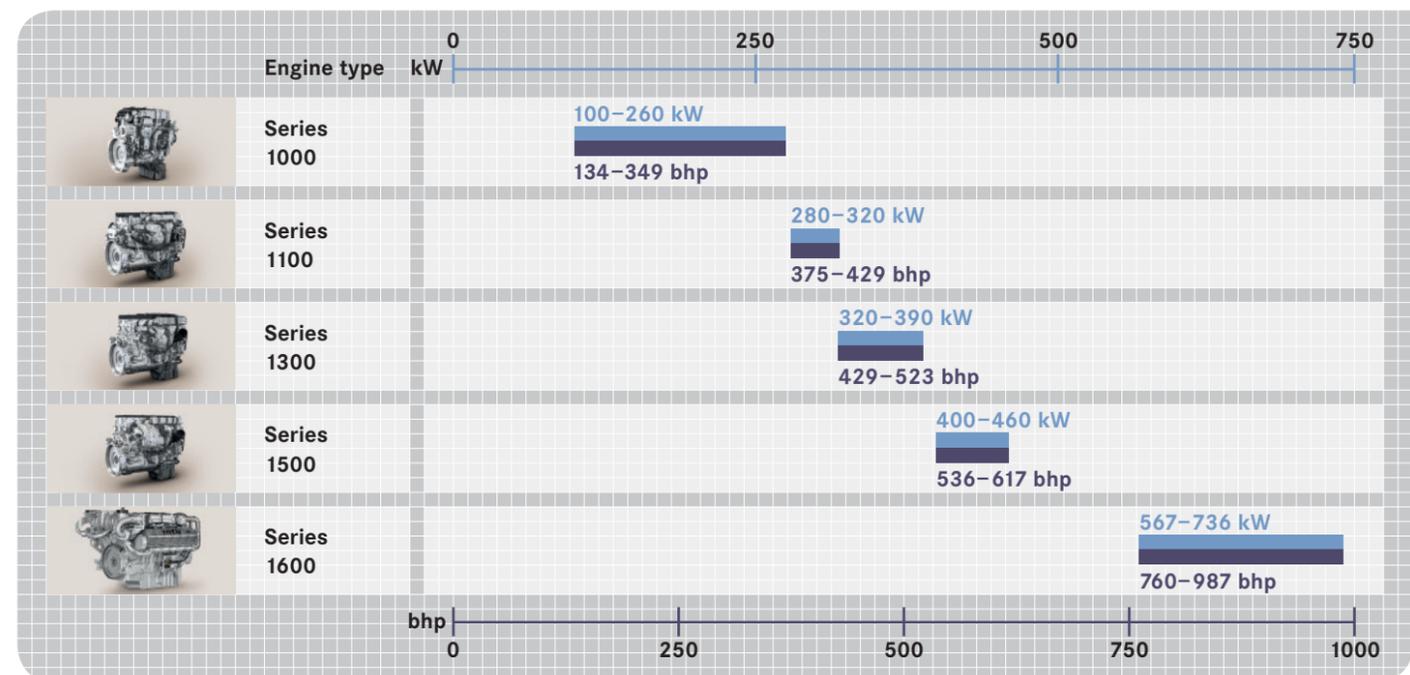


Tougher – whatever the conditions: our Series 1000–1600.

All around the world, off-highway operations face extreme conditions every day. It's a good thing you can depend on MTU drive systems in any situation. Systems that ensure projects are completed reliably.

We are off-highway specialists with more than 100 years of experience. Not only do we offer robust and durable drive systems for maximum pulling power in the 100–736kW (134–987bhp) power range, but our systems also deliver industry-leading availability and reliability. Moreover, our entire product lineup meets EU Stage IV/EPA Tier 4 final emissions standards while achieving significantly low fuel consumption. The bottom line for you: uncompromising performance with the certainty that you're relying on the best solution – just what you need in tough times, on the toughest jobs, in the toughest environments, worldwide.

www.tougher-whatever-the-conditions.com



Designed to perform. Built for your success.

Our range of EU Stage IV/EPA Tier 4 final engines up to 736kW (987bhp)

What do the construction industry, mining and industrial enterprises have in common? They all need tough engines. Whatever the priority – output, productivity or durability – an engine must deliver, no matter how tough the conditions get. As the requirements become increasingly demanding, the superiority of MTU engines becomes ever more clear.

MTU engines are built to deliver maximum performance and ensure continuous operation anytime, anywhere – so specialized equipment can perform reliably and optimally in all climates, on any terrain. Under these extreme conditions,

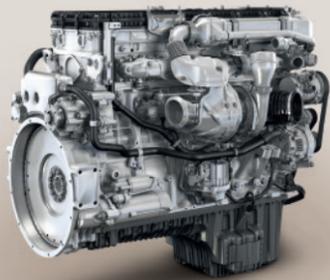
MTU engines prove their worth. Our engines stand for maximum availability and reliability at minimum life cycle costs, so you can optimize productivity. These characteristics make the Series 1000-1600 ideal for Construction and Mining equipment, proving once again that MTU is your reliable partner. Today and in the future.

Our experience and understanding of systems:

MTU also helps customers design and integrate the engine/SCR combination into their existing drive solutions. During the design phase of any given individual drive solution, our engineers provide you with expertise and support that is unique anywhere the world. No other company can match our reliable track record of offering complete solution packages, spanning everything that's needed to develop customized solutions from a single source. It's this expertise that we gladly make available to you.



Series 1000



Series 1100



Series 1300

Series		S 1000	S 1000	S 1100	S 1300
Configuration		4R 1000	6R 1000	6R 1100	6R 1300
Rated Power	kW	100–170	180–260	280–320	320–390
	bhp	134–228	241–349	375–429	429–523
Rated Speed	rpm	2200	2200	1700	1700
Peak Torque	Nm	600–900	1000–1400	1900–2100	2100–2460
Dry Weight	kg	540	705	990	1140
	lbs	1190	1555	2183	2513
Displacement	l	5.1	7.7	10.7	12.8
	cu in	311	470	652	781
Emissions Technology		EGR + SCR	EGR + SCR	EGR + SCR	EGR + SCR

EGR: Exhaust Gas Recirculation
SCR: Selective Catalytic Reduction

All benefits at a glance:

- + No DPF, no DOC
- + Up to 5% fuel savings compared to EU Stage IIIA/EPA Tier 3
- + DEF consumption approx. 3%
- + Up to 20% longer engine Life (up to 15.000 h)
- + High torque at low RPM
- + Outstanding transient behaviour
- + High engine brake performance
- + Common electronic vehicle interface J 1939
- + Quick and easy maintenance
- + Airless SCR system below 560kW
- + Reduced engine noise emissions. One-box aftertreatment system (includes muffler noise reduction ~20 dBA)

Series 1000–1600:

Ready for the future:
MTU engines meet the emission standards of today and tomorrow.

More efficient than ever:
Save up to 5% on fuel and make each job even more economical and environmentally friendly.

Designed to perform:
Uncompromising availability for reliable operation - even under extreme conditions.

The toughest. Ever:
Rely on robust MTU engines to maximize performance, minimize life cycle costs, and extended time between overhaul (TBO).



Series 1500



Series 1600

Series		S 1500	S 1600	S 1600
Configuration		6R 1500	10V 1600	12V 1600
Rated Power	kW	400–460	567–613	636–736
	bhp	536–617	760–822	853–987
Rated Speed	rpm	1700	1900/2100	1900/2100
Peak Torque	Nm	2600–2900	3385–3517	4020–4220
Dry Weight	kg	1277	1940	2200
	lbs	2815	4277	4850
Displacement	l	15.6	17.5	21.0
	cu in	952	1068	1282
Emissions Technology		EGR + SCR	EGR	EGR

EGR: Exhaust Gas Recirculation
SCR: Selective Catalytic Reduction

Low Emissions. High Performance.

Keep going.



mtu ValueCare

Emissions solutions for EU Stage IV/EPA Tier 4 final.

To guarantee the highest possible reductions in emissions, we make use of our proven key technologies. As a result, every solution we provide is optimally designed to match your application and specific performance requirements. How? Our engines fulfill EU Stage IV/EPA Tier 4 final without the use of diesel particle filters (DPF) and diesel oxidation catalysts (DOC).

To meet the strict emissions standards EU Stage IV/EPA Tier 4 final, our Series 1000–1500 engines are equipped with exhaust gas recirculation (EGR) and selective catalytic reduction (SCR). In fact, the Series 1600

only uses cooled exhaust gas recirculation (EGR) as a key to comply with the emissions regulations.

The ingenious combination of our inhouse core technologies not only optimizes performance, but also allows you to achieve one of your most important objectives: reducing harmful emissions and simultaneously reducing fuel consumption. Which is beneficial for the environment and your success.

Full support. For full performance.

We have a strong commitment to our customers. With MTU ValueCare, this focus extends the sale of our engines and systems. From maintenance to spare parts to remanufactured products, MTU offers a full range of support to help keep your operation productive.

Designed for maximum performance, uptime and value, MTU ValueCare is a diverse portfolio of products and services that can help you get the most from your equipment.

The products and services offered under MTU ValueCare are available throughout the world through our extensive network of authorized distributors and service dealers. For more information, please contact your local MTU service center or visit www.mtu-online.com.



Local support. Worldwide.

We ensure that you receive individualized support from our global network of more than 1,200 service centers – anywhere, anytime.

- ▣ Global Headquarters
- ▣ Regional Headquarters
- ▣ Sales and Customer Service Center

SCR Technology based on the example of Series 1300

- 1 Urea Tank**
with urea fluid
- 2 DEF Urea Supply Unit (pump)**
pumps liquid urea from the tank to the dosing unit
- 3 Aftertreatment Control Module (ACM)**
controls and regulates functions of the aftertreatment system
- 4 Dosing unit with Urea Nozzle**
prepares correct urea quantity in relation to untreated engine emissions and provides for optimal spraying of urea/air mixture into exhaust line
- 5 SCR Catalyst**
converts nitrogen oxides in exhaust gas into harmless air components
- 6 NOx Sensors**
measure individual engine emissions in exhaust system

EGR Technology based on the example of Series 1600

- 1 Two-stage controlled turbocharging**
assures low fuel consumption across wide speed range, exceptionally high torque at low speeds, and clean combustion
- 2 EGR Coolers**
bring about a lowering of the combustion temperature (and subsequently of nitrogen oxides generated in-engine) and can be integrated into the high-temperature cooling circuit so that less heat is introduced into the circuit, which in turn permits lower cooler dimensions
- 3 EGR Rate**
EGR valve regulates recirculated exhaust gas quantities. EGR rate is optimized for all operating modes

