WORKING HARD.
IN ALL CONDITIONS.

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Rolls-Royce provides world-class power solutions and complete life cycle support under our product and solution brand MTU. Through digitalization and electrification, we strive to develop drive and power generation solutions that are even cleaner and smarter and thus provide answers to the challenges posed by the rapidly growing societal demands for energy and mobility. We deliver and service comprehensive, powerful, and reliable systems, based on both gas and diesel engines, as well as electrified hybrid systems. These clean and technologically advanced solutions serve our customers in the marine and infrastructure sectors worldwide.

A solution provider
Our systems power the largest yachts, the strongest tugboats, and the biggest land vehicles and provide energy for the world’s most important mission-critical applications. Through advanced solutions such as microgrids, we integrate renewable energies and manage the power needs of our customers.

Our customized service offerings help you maximize uptime and performance and are supported by our digital solutions, which enable remote monitoring, predictive maintenance, and a range of other benefits that keep your systems running at their best.

For over 110 years, we have provided innovative power solutions for our customers – meeting even the most demanding drive requirements. Our products and services span a wide range of applications and power needs, with both standard and customized options.

An expert in technology
As part of Rolls-Royce, we have long been known for cutting-edge innovation and technological leadership in product development. That same spirit of innovation inspires our sustainability efforts. Our focus is on developing and implementing system solutions that both maximize efficiency and reduce emissions – which in turn work to reduce our impact on the environment.

A passionate and reliable partner
We at Rolls-Royce spend every day working together with our customers to deliver engines, systems, and complete life cycle solutions that best fit your needs. We understand that each application is different and has its own specific demands. Our engineers embrace the challenge of finding the perfect solution for your unique power requirements. Every step of the way – from project planning, through design, delivery, and commissioning to the lifetime care of your equipment – we are dedicated to helping you get the most from your MTU investment.

Partnership with Mercedes-Benz
MTU Series 1000, 1100, 1300, and 1500 engines are based on Mercedes-Benz models customized for off-highway use. These engines range from 115-480 kW and have been specially designed for agriculture and forestry applications and further developed to meet EU Stage V regulations.
IT TAKES MORE THAN POWER TO MOVE MOUNTAINS.
We offer a broad range of high-performance, economical diesel engines for a broad range of applications. Those applications span from construction equipment like excavators and dump trucks to the industrial segments like port handling, airport ground support, or waste compacting. Our engines have also proven themselves as drive systems for stationary applications and machines such as pumps and compressors.

**Your benefits:**
- Low life cycle costs due to low fuel and DEF consumption
- Highest quality standards for maximum availability and minimal downtime
- Top performance, even under full load and with frequent load changes
- Global service network – customer support anywhere and anytime

**System solutions**
- RELIABLE PERFORMANCE.

Digitalization
- For over 100 years, we’ve been known for technological innovation and leadership – driving efficiency and reliability to new heights. Today, we’re applying that same spirit of innovation to digitalization. Our aim is to magnify the power of your investment.

Power takeoff options
- Various power takeoff options for highly specialized applications offer even greater flexibility, making it easier to connect additional power trains and shaft drives, for example, for hydraulic pumps, air compressors, and other auxiliary devices.

Integration
- We provide comprehensive engineering and technical support for the design and implementation of the engines. Our application engineering team helps reduce design costs.

**Construction & industrial**
- Working hard in all conditions.
Applications overview

ENGINES FOR CONSTRUCTION APPLICATIONS.

03

Dump trucks
Rugged terrain, hard ground, persistently swirling dust, or pervasive dampness: all-terrain transport vehicles demand a great deal from their engines.

Power generation
Energy is vital for construction sites, even in remote areas. MTU solutions offer an energy supply from conventional and renewable energy sources. Our modular solutions, consisting of different CHP units, backup generators, and battery energy storage systems provide the perfect fit for any energy and space requirements.

Road building equipment
Dust, mud, moisture, heat, multi-shift operation: engines in road construction machines must work under the most severe conditions. Our engines are built for that.

Mobile cranes
Performing at the highest level: Construction work must be carried out quickly and in a profitable manner. Reliable engines ensure safety, mobility, and precision.

Loaders, dozers, and excavators
Moving massive amounts of material and running at full speed and full load: operating under extreme load cycles shows what an engine really is made of.

Pumps, compressors, and other special applications
Our engines ensure high throughput for shredder equipment, pumps, and compressors, as well as driving trench excavators, augers, and many other special machines.

Pumps, compressors, and other special applications
Our engines ensure high throughput for shredder equipment, pumps, and compressors, as well as driving trench excavators, augers, and many other special machines.
ENGINES FOR INDUSTRIAL APPLICATIONS.

Applications overview

Airport ground support
Ground power units, baggage loaders, runway sweepers, towing tractors, or firefighting equipment: smooth operation demands uncompromising reliability.

Snow groomers
With efficient, high-performance MTU diesel engines, special-purpose vehicle drives can be optimally adjusted to meet extraordinary demands—whether preparing ski slopes or clearing snow from roads and runways—at the highest altitudes and lowest temperatures.

Harbor equipment
Moving goods quickly and efficiently in perfect sync with harbor logistics systems. Our engines provide a strong link in the never-ending global supply chain.

Specialized and public service vehicles
Versatile solutions for specific tasks. Engines and machines, applications and drives, and investments and earnings are all perfectly tuned to one another.
Maximum availability – every day and everywhere
Our engines represent the best availability and reliability, low life cycle costs, and maximum economy for thousand-fold proven durability and an excellent power-to-weight ratio. With our integration of know-how and numerous years of experience we ensure that our extensive product range can consistently provide the right drive solution.

Cost-effectiveness and low emissions
MTU engines are among the lowest-consumption engines on the market. Optimized, efficient combustion and exhaust aftertreatment mean that our diesel drives meet the widest range of emissions specifications up to EU Stage V. In addition to their well-known longevity, low-maintenance construction and long service intervals also ensure their cost-effectiveness.

Below sea level or thousands of meters high, hot or cold, wet or dusty – top performance is always called for, even in the harshest environments. Designed for the highest level of performance, our engines prove themselves everywhere at any time.

Core competence

TOP PERFORMANCE IN ALL CONDITIONS.

1 Telescopic handler
2 Snow groomer
3 Excavator
UNLEASH THE BEAST.
Series 6R 1000/OM 936*
Uncompromising availability.
For heavy and medium duty operation.
180–280 kW (134–375 bhp)

Series 460
The proven, evolved engine.
For heavy and medium duty operation.
220–375 kW (295–503 bhp)

Series 1100/OM 470
More efficient than ever. Save up to 3% in fuel in comparison to EU Stage IV/EPA Tier 4 final.
For heavy and medium duty operation.
240–340 kW (322–456 bhp)

Series 4R 1000/OM 934*
Increased rated power. One of the most successful engines ever.
For heavy and medium duty operation.
115–170 kW (154–228 bhp)

Series 1500/OM 473*
The toughest ever. With improved peak torque.
For heavy and medium duty operation.
320–390 kW (429–523 bhp)

Series 900
Maximum efficiency and availability.
For heavy and medium duty operation.
75–240 kW (101–322 bhp)

Series 1300/OM 471*
The toughest ever. With improved peak torque.
For heavy and medium duty operation.
380–480 kW (509–644 bhp)

One-box solution for exhaust gas aftertreatment
Combined “all-in-one” box with selective catalytic reduction (SCR), diesel particulate filter (DPF), and integrated dosing unit provides proven product features for profitable use while meeting the emission limits for EU Stage V. The decrease in harmful emissions is achieved along with a reduction in fuel consumption.

Internal emission reduction
With exhaust gas recirculation (EGR), the amount of nitrogen oxide can be significantly reduced using internal emission technology alone, resulting in a positive impact on the overall system consumption (fuel and urea). Combustion can be further optimized to lower emissions and consumption by the use of common rail fuel injection. Single-stage and two-stage turbocharging also increase engine efficiency.

Fuel injection
We optimize fuel combustion in the cylinder by means of its electronically controlled common rail fuel injection system in combination with other technologies such as supercharging.

Two-stage turbocharging
Two-stage turbocharging ensures low fuel consumption across a wide speed range, exceptionally high torque at low speeds, and clean combustion. On our Series 1500 engines, a turbo compound unit recovers energy from the exhaust gases and increases efficiency even further – with a 5% fuel saving over similar engines.

Fuel separation
We separate fuel components in the cylinder by means of our industry-leading common rail fuel injection system in combination with other technologies such as supercharging.

Two-stage turbocharging
Two-stage turbocharging ensures low fuel consumption across a wide speed range, exceptionally high torque at low speeds, and clean combustion. On our Series 1500 engines, a turbo compound unit recovers energy from the exhaust gases and increases efficiency even further – with a 5% fuel saving over similar engines.

Planning security
Our engines can be operated all over the world in compliance with local regulations. This is achieved without making changes to the engine’s footprint, which means equipment manufacturers have planning security for their own designs.

Optional parts
We provide optional parts for your engine such as oil pans, starters/generators, flywheel housings, and much more. Genuine parts maximize performance, prolong engine life, and meet today's strict requirements, making them the best possible match for your engine.

Analytics
We use the most diverse analysis and simulation tools to develop state-of-the-art engines. These include vibration analyses, component strength verification, and dynamic response simulations.

Electronics
The MCM engine control unit and the ACM aftertreatment control unit, control key systems such as fuel injection and turbocharging, as well as the emission management system – ensure high torque, full power, and the lowest fuel consumption. The CPC4 vehicle control unit provides an extensive set of functions to the vehicle and its operator.

Core technology
The higher the requirements and the more specific the application, the greater the need for our engines. That’s because we develop the optimum drive solutions for all individual tasks. The large range of engines contains the right answer for every application – a solution including the highest performance and greatest reliability, safety, environmental friendliness, and operating efficiency.

ALL ENGINES AT A GLANCE.

Frame away.
For the lowest maintenance, also for operators.
75% at idle, 60% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
45% at idle, 30% at load.

Frame away.
For the lowest maintenance, also for operators.
80% at idle, 60% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
50% at idle, 40% at load.

Frame away.
For the lowest maintenance, also for operators.
65% at idle, 50% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
40% at idle, 30% at load.

Frame away.
For the lowest maintenance, also for operators.
55% at idle, 40% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
35% at idle, 25% at load.

Frame away.
For the lowest maintenance, also for operators.
70% at idle, 55% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
45% at idle, 35% at load.

Frame away.
For the lowest maintenance, also for operators.
60% at idle, 50% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
40% at idle, 35% at load.

Frame away.
For the lowest maintenance, also for operators.
75% at idle, 60% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
50% at idle, 40% at load.

Frame away.
For the lowest maintenance, also for operators.
85% at idle, 70% at load.

Core technology
The highest requirements and the most specific application.
For the highest standards, also for operators.
55% at idle, 40% at load.
Core technology

THE FULL POWER RANGE.

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<th>Series</th>
<th>kW</th>
<th>100</th>
<th>250</th>
<th>400</th>
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<th>700</th>
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<td>Series 460</td>
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<td>220–375 kW (295–503 bhp)</td>
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<td>75–240 kW (101–322 bhp)</td>
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<td>Series 4R 1000/OM 934/DD5</td>
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<td>140–170 kW (200–240 bhp)</td>
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<td>180–280 kW (244–375 bhp)</td>
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<td>240–340 kW (322–456 bhp)</td>
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<td>320–390 kW (429–523 bhp)</td>
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<td>261–377 kW (350–505 bhp)</td>
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<td>Series 1600/OM 473/DD16</td>
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<td>380–480 kW (509–644 bhp)</td>
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<td>373–447 kW (500–600 bhp)</td>
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<td>567–970 kW (760–1,301 bhp)</td>
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- Off-highway
- On-highway

Working hard in all conditions.

Construction & industrial
ENGINEERING TODAY
WHAT YOU’LL NEED TOMORROW.
The increasingly stringent emissions limits are fast approaching the ideal “zero emissions” target for diesel engines. The statistics speak for themselves: over the course of 19 years, EU emissions stages have been tightened four times and EPA Tier regulations have been created to govern industrial engines. EU Stage V will be the fifth time since Stage I (1996) that emissions limits have been tightened, representing a cut of more than 94% in nitrogen oxides. At 97.8%, reductions in soot particulate emissions have been even greater.

97.8% REDUCTION IN SOOT EMISSIONS OVER 19 YEARS.

EMISSION FORECAST 2028.

Wherever in the world you want to market your construction and industrial machines, you need a drive package that performs. With our Emission Flex Package, you increase your flexibility in highly regulated markets as well as in countries with no or lower emissions standards.

Our software allows the engine’s exhaust gas aftertreatment system and SCR system to be deactivated without hardware changes, eliminating the need for time-consuming modifications. With two engine generations from 115–480 kW, we are well prepared to offer the solution that meets your individual requirements best.

NRMM EMISSION LEGISLATION 130–560 KW.

Green technology

EMISSION FLEX PACKAGE.
ENERGY FOR YOUR CONSTRUCTION SITE.

Providing construction sites with temporary power can be challenging, especially when working in densely populated residential locations. We offer you different smart solutions for this challenge, like the Series 1600 Genset or our EnergyPack.
Complete power system solutions for C&I

READY FOR EVERY CHALLENGE.

Customers around the world trust us to provide reliable power for a wide range of applications, in all types of conditions. Our gensets are compact, powerful, robust, and easy to integrate just where you need them.

ENERGYPACK — THE FLEXIBLE STORAGE SOLUTION.

Improves the reliability and profitability of your power supply

The new MTU EnergyPack is a valuable addition for any power generation. It stores electricity from distributed power sources — such as the national grid, gas gensets, wind turbines, or solar panels — and delivers it when you need it. The MTU EnergyPack is an all-in-one solution that can be easily scaled to your needs. You can use the stored power to cover your construction site’s requirements, for example, to compensate for compensation of weak grid connections and supply fluctuations without recurring to the public grid. The MTU EnergyPack offers storage capacities up to 2,600 kWh and different power strings from 40 to 2,000 kVA/kWe.

1 Our new MTU Series 1600 Open power unit.
2 Our new MTU Series 1600 Enclosed power unit.
Service

TAKE CARE OF YOUR INVESTMENT.

Our engines and systems are built to deliver robust, reliable performance. But our commitment to your success doesn’t end there. For maximum uptime, longer life, and optimized costs, rely on MTU ValueCare – the only service portfolio designed specifically with your equipment in mind.

Save time
When it’s time for an overhaul, count on factory remanufactured engines to put your equipment back to work even faster. They also help reduce downtime, service time, and indirect costs such as storage.

Reduce life cycle costs
Count on a wide range of factory remanufactured parts to help optimize the life cycle costs of your equipment.

Keep everything running smoothly
Original parts, filters, oils, and coolants work in perfect harmony with your equipment to maximize its performance, prolong its life, and protect it – making them an essential part of your preventive maintenance program.

Maximize uptime
Avoid the unexpected with professional service from MTU-certified technicians. Preventive maintenance services can be planned around your schedule, so your equipment is available when you need it most.

Empower your operators
Ensure a long, reliable equipment life by empowering your staff. The MTU hands-on training provides all of the knowledge they’ll need to operate and care for your equipment. And with our digital solutions, you can monitor equipment health and activity from afar, helping you be more proactive.

Extended Warranty for new engines
Adds up to 3 years to the standard two-year warranty. It includes local support from MTU-certified technicians, and 100% genuine parts and consumables, ensuring protection against unexpected repair costs and enhanced resale value when coverage is transferred.

Extended Warranty for remanufactured engines
Adds up to 5 years’ peace of mind with the Extended Warranty plan, upholding resale value and ensuring long-term confidence in your investment. You can choose Extended Warranty any time after purchase and it is also available for remanufactured engines. It does not include dismantling costs, transport, or repair on site.
OUR GLOBAL 24/7 PROMISE.

Whenever and wherever you need expert support, our specialists are available. Our global service network of more than 1,200 locations – backed by our cutting-edge Parts Logistics and Customer Care Center – provides you this assurance.

To find your local MTU distributor, visit www.mtu-solutions.com.

Always on call, 24/7
Whether it’s connecting you with a local service partner or assigning an urgent problem to a dedicated team of MTU experts, we’re ready to assist you – wherever you are, whatever you need.

Europe, Middle East, Africa
+49 7541 90 77777
Asia/Pacific
+65 6860 9669
North and Latin America
+1 248 560 8888
info@ps.rolls-royce.com

Always on call
24/7

Remanufactured products
REMAN ENGINE – EXCHANGE AND SAVE.

The factory rebuild process

1 Disassembly
The engine is taken apart completely and recyclable materials are separated.

2 Cleaning
Paint and rust are removed from all parts and components.

3 Inspection
All parts are examined against factory-specified tolerance and wear limits.

4 Reworking
All reusable parts are reworked and machined using series production processes to meet tolerance requirements.

5 Reassembly
Engines are assembled using reworked/rebuilt parts and components and new wear parts.

6 Quality control
Test run using series production criteria to replicate difficult field conditions (e.g. extreme temperatures).

Complete remanufactured engines – for rapid availability
- Plug-and-play solution reduces downtimes
- A worthwhile investment if the vehicle is to deliver maximum availability for a long time to come
- For maximum and longest vehicle availability

A completely remanufactured engine includes:
- Air compressor
- Control unit with updated software
- Engine wiring harness
- Exhaust manifold
- Flywheel
- Power steering pump
- Starter (for Series 500)
- Turbocharger
- Vibration damper
- Water pump

Factory engine overhaul – the economical alternative
A factory overhaul is the economical alternative to a remanufactured engine, and is especially worthwhile for older vehicles. Your engine will come back from the factory fully overhauled and renewed.