

Construction & Industrial

RTH 5.39S – world's tallest rotating telescopic handler 4R 1000 (170 kW)



Tall, taller, tallest: Magni telescopic handlers

With a working height of 38.7 metres, the RTH 5.39S is the world's tallest rotating telescopic handler – just four metres higher than its predecessor, the RTH 5.35S. Both models are powered by MTU Series 4R 1000 high-speed diesel engines that produce 170 kW and meet the emissions specifications set by EU Stage IV and Tier 4 final.

The telescopic handler is tall enough to deal with tasks right up to the 13th floor. With its maximum load capacity of 2 tonnes, the crane can be extended up to 38.7 metres. A further innovation, the patented boom, houses the machine's hoses and pipelines internally whilst its control system utilizes two cylinders to ensure smooth extension and retraction of the six boom elements. The result is high load capability throughout the working zone. Like the other machines in the Magni range of telescopic handlers, the RTH 5.39S is a 3-in-1 unit with various attachments that allow it to operate as a crane or a work platform.

Customer

Magni Telescopic Handlers Srl, telescope handler manufacturer

Market Launch

2016

Production Site

Italy

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Bell B30E 4x4

6R 1000 (246 kW)



Nimble mineworker

Since the beginning of the year, a Bell B30E 4x4 has been used as a special-purpose vehicle, specifically for the underground extraction of dolomite, at natural-stone company TKDZ GmbH Wellen. The two-axle vehicle was adapted to the specific requirements of pit mining to transport head in the narrowest of spaces on routes of up to 2500 meters in length with downhill gradients of up to 10 percent. Here the machine works all year round on an alternate single shift, clocking up as many as 1500 operating hours per year. It is driven by an MTU Series 6R 1000 diesel engine rated at 246 kilowatts. With its exhaust gas recirculation and selective catalytic reduction, it meets the requirements of the EU Stage IV emissions standard without a diesel particulate filter. In addition to this, the engines boast a high power density and low fuel consumption. In operations at TKDZ, the MTU engines consume just 6.7 liters of fuel per hour on average. The engine – developed specifically for off-highway applications in the agricultural, construction and industrial sectors – is resistant to the dusty air produced during stone mining at TKDZ's natural-stone mines.



Customer

Construction machinery manufacturer Bell Equipment GmbH

Commissioning year

2016

Commissioning country

Germany

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Belaz 75710 - the largest haul truck in the world

2x 16V 4000 C11 engines (each 1,715 kW/2,332 hp)



Belaz 75710 - the largest haul truck in the world

The Belaz 75710 is the largest haul truck in the world and It can carry over 450 tonnes – almost 90 tonnes more than the previous largest truck. It is the first vehicle of its kind with a twin-engine system. Its two 16-cylinder MTU Series 4000 diesel engines produce 1,715 kW each. When the truck is loaded, both MTU diesel engines are at work. But when it is empty, one engine can run at idle speed, which saves fuel. The power generated by the MTU engines is transferred via two generators to four electric motors, which then drive the eight wheels. If one of the electric motors should fail, the vehicle can still drive back to base in limp mode and therefore does not create an obstruction for other mine traffic or need to be towed back by a recovery vehicle. The first of its kind is now showing its mettle in a Siberian coal mine.

Customer

Mining and construction vehicle manufacturer Belaz

First Commissioning

2015

Location

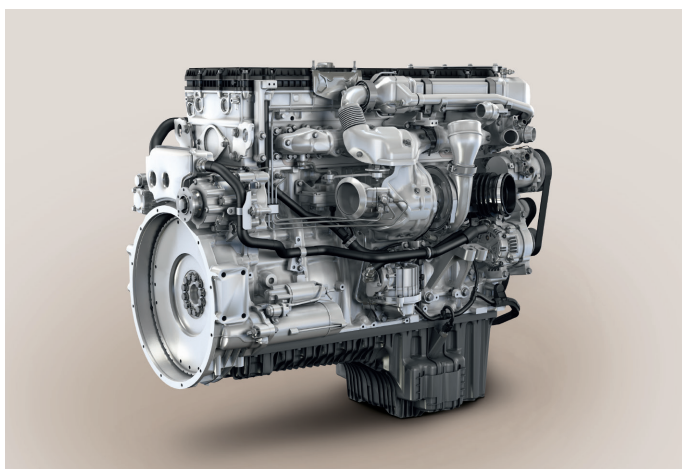
Russia

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New wheel loader of Hidromek

MTU 6R 1100 (280 kW)



New wheel loader of Hidromek with MTU-engine

Turkish construction vehicle manufacturer Hidromek presented its first articulated wheel loader at Intermat 2015 in Paris. The vehicle is powered by an MTU engine of Series 1100. The six cylinder in-line engine has a power output of 280 kilowatts. The loader has a working weight of 24 tons and a loading bucket capacity of four cubic meters. Serial production of the vehicle is set to start in 2016.

Hidromek trusts in MTU engines also in another future product: A new motor grader which is set to go into production will be powered by MTU, too: An engine of the type 6R 1000 will be installed in all graders sold to regions in which the emissions regulations of EPA Tier 4 apply. The engines of Series 1000 and 1100 are based on Daimler technology and have been developed by MTU for duty in off-highway applications.

Customer

Construction vehicle manufacturer Hidromek

Year of Commissioning

Series production at Hidromek is scheduled as of 2016

Productions Site

Turkey

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JCB 457 wheel loader

6R 1000 (193 kW/258 hp)



JCB 457 wheel loader powered by MTU Series 1000 engines

JCB Type 457 wheel loaders are powered by Series 1000, 6-cylinder inline engines from MTU. Generating 193 kW, the MTU drive units incorporate exhaust gas recirculation (EGR) and selective catalyst reduction (SCR) technology that allows the new series-production machines from construction and agricultural equipment manufacturer JCB to meet EU Stage IV and EPA Tier 4 final emissions regulations.

This compact and powerful MTU engine allows fuel savings, contributing to a 16% reduction over the previous generation. The unit's high power density also means additional savings on space. The MTU 6R 1000 is part of the newly developed engine generation in the sub-560 kW power range. Even at low speed, Series 1000 to Series 1500 engines produce high torque which they maintain over a wide speed range.

JCB 457 wheel loaders operate at mines, gravel pits and waste-disposal sites and are used for transporting heavy and bulky loads.

Customer

Construction vehicle manufacturer JCB

Launch

2014

Productions Site

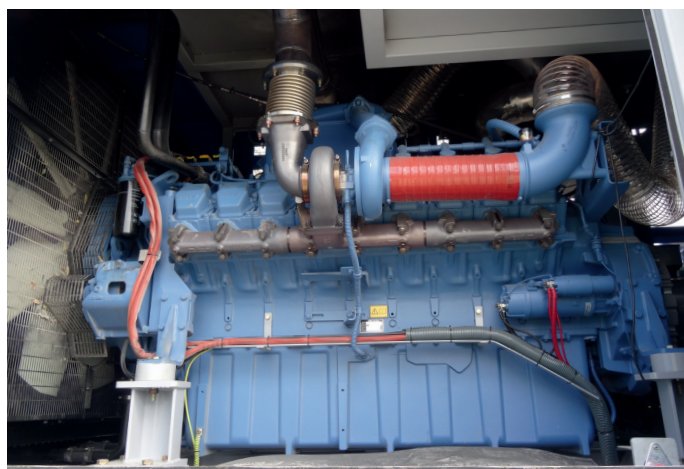
Great Britain

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Scrap with MTU

18V 2000 G85-TB (1,191 kW)



Scrap with MTU

The scrap shredder Thor 2121K is the first mobile system with a hammer mill big enough to mince up entire autos and other large items. And when it's finished its dire task, it separates metallic from non-metallic scrap and moves it over conveyor belts to separate skips. Each hour, the Thor 2121K can manage between 30 and 40 tons depending on the input material and the density requirements. The power is delivered by an MTU 18V 2000 G85-TB engine. The MTU engine develops 1,191 kW and is housed in a separate module. The Thor 2121K demands a massive power peak from the engine each time scrap material enters the hammer mill. The engine is designed to be subjected to a 10% overload, delivering up to 1,310 kW. The hydraulic clutch installed in the driveline between the engine and the shredder rotor allows ZB to make some torque demand adjustments. Additionally, the Thor 2121K is designed to work on very dusty and warm environments and therefore the engine is equipped with heavy duty air filters and an oversized radiator for 50°C ambient temperature. The Thor 2121K is designed and built by the ZB Group. The scrap and recycling specialist is based in Erretería, Basque Country, northern Spain.

Customer

Scrap and recycling specialist group

Year of Commissioning

2015 to date

Productions Site

Spain

Video



<http://goo.gl/upc4Kp>

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Terex front-discharge mixer

MTU Series 1300 engines (260 to 335 kW/354 to 455 hp)



The front-discharge mixers from Terex

On Terex's front-discharge cement mixers, the mixing drum is arranged directly behind the cab and the discharge chute is right above the driver's head. This is the opposite of rear-discharge mixers, where the cement is discharged from the rear of the drum. Just like the rear-discharge mixer however, the ready-mixed cement, water and aggregate is transported in the drum up to the building site. Front discharge mixers are equipped with very long discharge spouts, which enable the driver to drive right up to the point where the concrete is needed. Since the chute is hydraulically controlled, there is no need to re-fill the mix on site into intermediate transport containers – it can be unloaded right where it is needed, saving considerable time.

The six different types of Terex front-discharge cement mixers have to withstand heavy loads, which is why for powering them, the MTU Series 1300 units delivering 260 to 335 kW are offered. In this case, the engines are installed at the rear of the truck to balance out the weight and prevent the vehicle from tipping forwards.

Front-discharge cement mixers are particularly used in the construction of houses, schools, hospitals, dams, motorways and railway tracks.

Customer

Terex

Productions Site

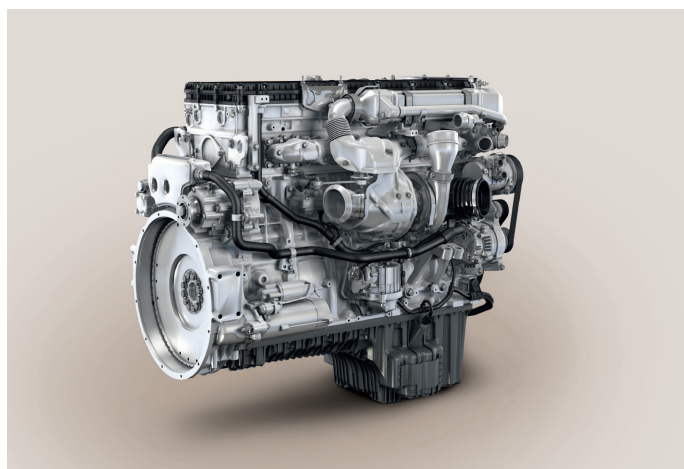
United States of America

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Øveraasen's snow clearing equipment

MTU series 502, 1000, 1100, 1600, 2000 engines



Snow clearing powered by MTU

Almost all the snow clearing vehicles made by the Norwegian airport equipment manufacturer Øveraasen are fitted with MTU engines.

There are the RS 200 and the RS 400 runway snow sweeper, which are towed by an articulated-truck tractor unit, for example. In those rigs, 320-kW MTU Series 1100 engines drive the complete machine. The machines brush rotates around its own axis 720 times a minute and the blower speed blows 140 metres per second. The machine can clear over 350,000 square metres of surface area per hour.

Another speciality from the Øveraasen is the self-propelled snow blowers. They can clear up to 12,000 tonnes of snow per hour.

Øveraasen has three different types of self-propelled snow blowers in its current range. The Type TV 1520 is powered by a single MTU Series 2000 16-cylinder engine that employs its 1,100 kW of power to drive both the vehicle and the blower. The TV 2200 is the world's biggest self-propelled snow blower. A Series 502 unit drives the vehicle while the blower gets its power from a 1,100 kW MTU Series 2000 engine. The latest addition to the range is the smaller Type TV 1000 Plus. The machine is powered by a 730-kW 12-cylinder MTU Series 1600 engine. It can clear up to 7,000 tons of snow per hour. The vehicle is also MTU-powered. It has a six-cylinder Series 1000 under the bonnet.

Customer

Øveraasen

Latest Commissioning

December 2015 (snow blower TV 1000 Plus with MTU series 1600 and 1000 engines in Paris)

Application Area

Among others Frankfurt Airport, Germany;
Charles de Gaulle Airport and Orly Airport, France

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