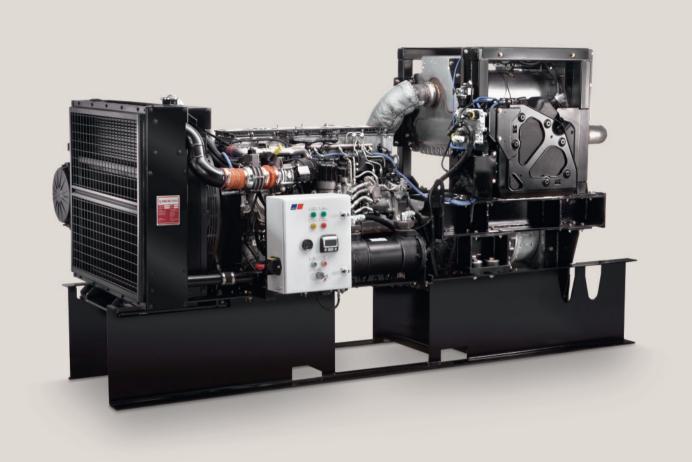
MTU Mobile Rig Power Module



Long history.
Short trip times.



Power. Passion. Partnership.

New Engine, Same High Standards

For more than 70 years, MTU has powered the oil and gas industry through engineering leadership and innovation. All over the world, mobile rigs depend on MTU Series 60 engines to get the job done under tough conditions and strict deadlines. To meet new EPA 2010 standards, MTU offers a new solution—the on-highway certified Series 1300. This cutting-edge engine is the product of over four years of development and 5.6 million miles of on-highway testing. As the heart of the new MTU Mobile Rig Power Module, the Series 1300 offers the same legendary high standards of reliability and durability as the Series 60, with improved emissions technology and load performance.

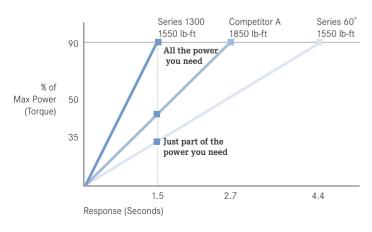
Time is Money

To maximize revenue, mobile rigs must get to the worksite, service the well and move on to the next job as quickly as possible. Any work stoppage or missed deadline has serious cost implications. Reliable power is critical. The Series 1300 has been engineered to meet the high demands and fast trip times required for mobile well servicing equipment. Running at 1,800 rpm, the six-cylinder engine delivers up to 350 kW (470 hp).

A mobile rig engine must have the power and responsiveness to sense a stuck pipe, and to provide additional torque to remove it. To ensure smooth operation, the Series 1300 engine features a fast response to changing load requirements—delivering 90% peak torque in 1.5 seconds, 65% faster than the Series 60. At 1,100 rpm, it produces 1,250-1,650 lb.-ft. of torque. And it achieves peak torque at 1,240 rpm, with more than 90% peak torque available at 1,000 rpm. Engineered with new turbocharging technology and electronics, the Series 1300's guick load pickup response time creates efficiency and maximizes uptime. The wastegated asymmetrical turbocharger with fixed geometry design has fewer moving parts (compared with VGT design) for proven performance.

Series 1300 Load Acceptance

Demand Torque Response



Engineered for Life

Fast load pickup response times are just one way the Series 1300 lowers cost of ownership. Backed by a legacy of superior engineering, the Series 1300 offers the longest scheduled maintenance intervals in its class, along with extended time between overhauls (1.2 million mile B50). The three-stage integrated Jacobs[®] engine brake offers quiet engine braking and provides superior braking horsepower for extended brake life. Sturdy rear gear train and ribbed cast iron block minimize noise vibration harshness. And a fully integrated DDEC10 electronic fuel injection and control system protects the engine from damage due to extreme operating conditions.

A smart, fuel-efficient design helps you make the most of every gallon. The Series 1300 provides up to five percent better fuel economy, compared to the Series 1300 EPA 2007 engine with comparable engine ratings and load weights. Amplified Common Rail System optimizes each injection event to minimize fuel consumption and allows for easy injector replacement. And to get you back on the job quickly and lower costs, the engine is designed for easy serviceability. Oil, coolant and fuel filters are positioned above the frame rails for easier, faster and cleaner changes. And the crankcase breather features a maintenance-free design.

A Cleaner Approach

Certified for on-highway (EPA GHG14) standards and designed to exceed Tier 4i off-highway standards, the Series 1300 features proven emissions technology. The Series 1300 engine was a clean-sheet design. Optimal performance, reliability and fuel economy were enhanced through MTU's vast engineering experience and expertise in market-tested technologies like SCR (selective catalytic reduction) with DEF (diesel exhaust fluid) and proven technologies like EGR (exhaust gas recirculation) with DPF (diesel particulate filter).

The Series 1300 delivers 90% peak torque in 1.5 seconds, 65% faster than Series 60.





Everything in One Package

The MTU Mobile Power Module is a turnkey solution, fully assembled for ease of installation. Everything is designed to work together, which prolongs preventive maintenance and overhaul intervals. The available 1-Box™ emissions package is fully integrated as one solution, unlike other engine manufacturers. And each module can be customized to your exact requirements. We'll work with you to develop a complete system, tailored to the precise needs of your project.

A World of Support

The reliability and performance of your mobile rig is crucial for your business. Since mobile rigs operate in remote locations, your service network must be able to get to the well quickly and have the expertise to get you back on the job fast, MTU **Value**Care products and services are available 24/7 through our convenient global service network, backed by years of on-highway engine expertise. From spare parts to engine overhauls, MTU ValueCare offers a full range of support. Whenever and wherever you need expert assistance, MTU professionals are available. This continuous and long-term care ensures high availability, dependability and efficiency throughout the lifecycle of your Mobile Rig Power Module. To find your local MTU distributor, visit www.mtu-online.com.

6R 1300 Y Engine Specifications

- EPA GHG14 (on-highway) certified
- Configuration: 6-cylinder, in-line diesel engine with
- Displacement: 781 cu. in. (12.8 L)
- Power range: 261-350 kW (350-470 hp) @ 1800 rpm
- Torque: 1250-1650 lb-ft @ 1100 rpm
- DOHC, 4 valves per cylinder
- Amplified Pressure Common Rail System (APCRS)
- Exhaust gas recirculation (EGR) with controlled recirculation rate

Series 1300 Standard Equipment

1. Cooling System

- 2-Circuit Radiator
- Coolant & CAC Piping
- Horton Fan Clutch

2. Air Shutdown Flap

3. 6R 1300 Y engine

- EPA 2010 certified
- 350 kW (470 hp) @ 1800 rpm 10. Air System

4. Engine Mounted Fuel Filtration System w/Hand **Priming Pump**

- 5. Engine Mounted Air Compressor (650 CC)
- 6. Allison° 4500/4700 Series with Spicer® 1810 Companion Flange

7. Exhaust Aftertreatment

- 1-Box System includes DOC, DPF & SCR
- DEF Tank
- DEF Pump
- Metering Unit
- Sensor Box
- · ACM (Aftertreatment Control Module)
- Exhaust Piping
- Harnesses (Connecting All ATS Devices)
- DEF Supply/Return Line

8. COTTA® and NAMCO®

9. Basic Remote Monitoring Panel (not shown in picture)

- Start & Stop
- CEL/SEL
- DEF Guage
- Diagnostic Connection

- Donaldson® Air Filter Assv with Restriction Indicator
- Fabricated Air Cleaner Mounts, Hump Hoses and Clamps

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