



EMISSIONS-CERTIFIED AND NON-CERTIFIED ENGINES FOR MINING APPLICATIONS

### FOR MINING APPLICATIONS.

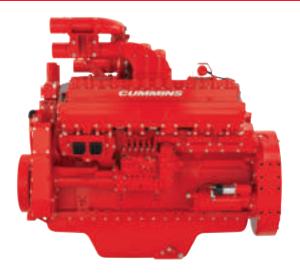
# Q S T 3 0

#### Performance.

While fuel efficiency is important, the secret to making money in any kind of mining operation is equipment availability, which means you need an engine that combines proven reliability and durability as well as fuel economy. That's the QST30. Sophisticated electronic controls and flexible calibrations so you can custom-tailor your engine's performance to its equipment, work environment and job demands. An integrated water pump, lube pump and cooler housings with metric O-ring fittings to eliminate possible leak points. The durability of the base engine is well proven, with thousands of QST30 engines in haul trucks, blast hole drills and wheel loaders delivering superior uptime everywhere around the world. The QST30 is applicable around the world with two emissions levels available one for Tier 2/Stage II-regulated zones and a non-certified version.

## **Cummins QST30 For Emissions-Regulated Mining Applications.**

Modifications to the base QST30 engine to meet legislated Tier 2/Stage II emissions levels for both U.S. and European regulations include an upgraded turbocharger and intake system, as well as a modified fuel spray pattern and a re-contoured piston bowl. These changes provide better combustion with fewer emissions, while maintaining the structural integrity, reliability and durability that have won the QST30 its hard-earned reputation for low cost-of-operation and exceptional life cycle value. Its enhanced fuel economy and long service intervals make it an excellent choice for repowers, especially when cost and productivity are taken into consideration.



#### **QST30 Tier 2/Stage II Certified And Non-Certified Ratings**

| 40.00           | _, _, _, _, _, _, _, _, _, _, _, _, _, _ |                                  |                 |
|-----------------|------------------------------------------|----------------------------------|-----------------|
| ENGINE<br>MODEL | ADVERTISED<br>HP (KW) @ RPM              | PEAK TORQUE<br>LB-FT (N•M) @ RPM | RATING<br>Type  |
| QST30 1200      | 1200 (895) @ 2100                        | 3750 (5084) @ 1400               | RESTRICTED*     |
| QST30 1200      | 1200 (895) @ 1900                        | 3751 (5086) @ 1400               | RESTRICTED**    |
| QST30 1100      | 1100 (820) @ 2100                        | 3414 (4629) @ 1400               | INTERMITTENT*** |
| QST30 1082      | 1082 (807) @ 2000                        | 3414 (4629) @ 1400               | INTERMITTENT**  |
| QST30 1050      | 1050 (783) @ 2100                        | 3415 (4630) @ 1300               | INTERMITTENT*   |
| QST30 1050      | 1050 (783) @ 2000                        | 3415 (4630) @ 1400               | INTERMITTENT**  |
| QST30 1050      | 1050 (783) @ 1900                        | 3414 (4629) @ 1300               | INTERMITTENT*   |
| QST30 1050      | 1050 (783) @ 1800                        | 3414 (4629) @ 1300               | INTERMITTENT*   |
| QST30 1000      | 1000 (746) @ 2100                        | 3414 (4629) @ 1300               | INTERMITTENT*   |
| QST30 1000      | 1000 (746) @ 1800                        | 3415 (4630) @ 1300               | INTERMITTENT*   |
| QST30 950       | 950 (709) @ 2100                         | 3090 (4190) @ 1300               | INTERMITTENT*   |
| QST30 925       | 925 (690) @ 1900                         | 3090 (4190) @ 1300               | INTERMITTENT**  |
| QST30 900       | 900 (671) @ 2100                         | 2764 (3748) @ 1300               | INTERMITTENT*   |
| QST30 898       | 898 (670) @ 2000                         | 3023 (4099) @ 1300               | INTERMITTENT**  |
| QST30 853       | 853 (636) @ 2000                         | 2806 (3804) @ 1400               | INTERMITTENT**  |
| QST30 850       | 850 (634) @ 2100                         | 2765 (3749) @ 1300               | INTERMITTENT**  |
| QST30 850       | 850 (634) @ 2000                         | 2807 (3806) @ 1400               | INTERMITTENT*   |
| QST30 850       | 850 (634) @ 1800                         | 2807 (3806) @ 1400               | CONTINUOUS*     |
| QST30 833       | 833 (621) @ 2000                         | 2807 (3806) @ 1400               | INTERMITTENT**  |
| QST30 760       | 760 (567) @ 2100                         | 2471 (3350) @ 1300               | INTERMITTENT*   |
|                 |                                          |                                  |                 |

<sup>\*</sup> Indicates both a certified and non-certified rating

#### **Specifications Certified (Non-Certified)**

| opositionations continue (troit con union)                       |                                                                                                                                                                 |  |  |  |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| 50° VEE 12-CYLINDER                                              |                                                                                                                                                                 |  |  |  |
| TURBOCHARGED AND AFTERCOOLED, TURBOCHARGED AND CHARGE AIR COOLED |                                                                                                                                                                 |  |  |  |
| 1,861 CU IN                                                      | 30.5 LITERS                                                                                                                                                     |  |  |  |
| 5.51 IN X 6.50 IN                                                | 140 MM X 165 MM                                                                                                                                                 |  |  |  |
| 156 U.S. QT                                                      | 148 LITERS                                                                                                                                                      |  |  |  |
| 89 U.S. QT                                                       | 84 LITERS                                                                                                                                                       |  |  |  |
| 74.3 IN (76.1 IN)                                                | 1905 мм (1933 мм)                                                                                                                                               |  |  |  |
| 58.4 IN (59.3 IN)                                                | 1483 MM (1506 MM)                                                                                                                                               |  |  |  |
| 68.8 IN (69.3 IN)                                                | 1744 MM (1760 MM)                                                                                                                                               |  |  |  |
| 6,610 LB                                                         | 2,998 KG                                                                                                                                                        |  |  |  |
| 7,337 LB                                                         | 3,328 KG                                                                                                                                                        |  |  |  |
|                                                                  | 50° VEE 1 TURBOCHARGED AND TURBOCHARGED AND 1,861 CU IN 5.51 IN X 6.50 IN 156 U.S. QT 89 U.S. QT 74.3 IN (76.1 IN) 58.4 IN (59.3 IN) 68.8 IN (69.3 IN) 6,610 LB |  |  |  |

<sup>\*\*</sup> Indicates a non-certified rating

<sup>\*\*\*</sup> Indicates a certified rating

#### **Features And Benefits.**

- Robust one-piece cast-iron cylinder block with fieldproven reliability and wide cylinder spacing provides durability and service ease for multiple full-life overhauls.
- Front gear train has wide helical gears for long-term durability.
- Swirl-port cylinder heads optimize durability and combustion sealing. Advanced airflow improves fuel economy, low-end torque performance and emissions capability.
- Chrome plating on valve stem and a nitro-sulphurizing treatment on the entire valve surface provide additional durability.
- State-of-the-art combustion control system features powerful electronic control modules and multiple sensors to monitor performance and allow variable injection timing for optimized combustion control in any mining condition.
- Dual high-efficiency turbochargers from Cummins Turbo Technologies allow increased accessibility and weight savings. Tier 2 turbochargers feature watercooled bearing housings and titanium impellers for long life-to-rebuild.
- One-piece Ferrous Cast Ductile (FCD) iron pistons provide the strength and durability to handle high cylinder pressures for longer life.
- Piston-cooling nozzles direct cooling streams of oil beneath each piston for long life with increased reliability.
- Two-stage Cummins oil filter, also available as Fleetguard, combines full-flow and bypass filtration to effectively remove harmful sludge and up to three times as many contaminants to reduce engine wear.
- Prelub system distributes and pressurizes oil in the engine before cranking can occur, and is proven to greatly extend life-to-rebuild.
- Longer service intervals are achieved with optional Centriguard<sup>™</sup> centrifuge filters and the CENTINEL<sup>™</sup> continuous oil replacement system.

#### A Name You Can Trust. Every Time. Everywhere.

Cummins possesses a vast amount of knowledge in mine operations. We are ready to assist you with experienced and dedicated local mining business leaders and high-horsepower-engine technical support – fully backed by the strength of Cummins industry-leading technology and total support of top management. When you buy a piece of equipment with a Cummins QST30, you get more than just an engine. You get:

- Full life cycle support, with proven engineering expertise from engine commissioning through final overhaul.
- Immediate parts and service availability.
- An established worldwide network with over 500 distributor facilities in nearly 190 countries, dedicated and empowered to service your needs. Every hour, every day.
- The best warranty in the business, which includes full coverage for unlimited hours during the first year, extending through two years or 2,000 hours (whichever comes first). The base warranty also includes 3-year/10,000-hour standard protection on major components. Extended warranties are available as well.



With the strength of Cummins at your side, your mine can process more material with increased uptime and greater productivity at a low cost per ton. Most important, our worldwide presence and comprehensive support make Cummins a proven, committed mining partner you can always depend on.

For more about the proven advantages of Cummins QST30 and all our advanced technology for mining applications, see your local Cummins distributor.





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