EVERY™ SITE.

QSX

FOR INDUSTRIAL APPLICATIONS
TIER 3/STAGE IIIA

FOR INDUSTRIAL APPLICATIONS.

QSX

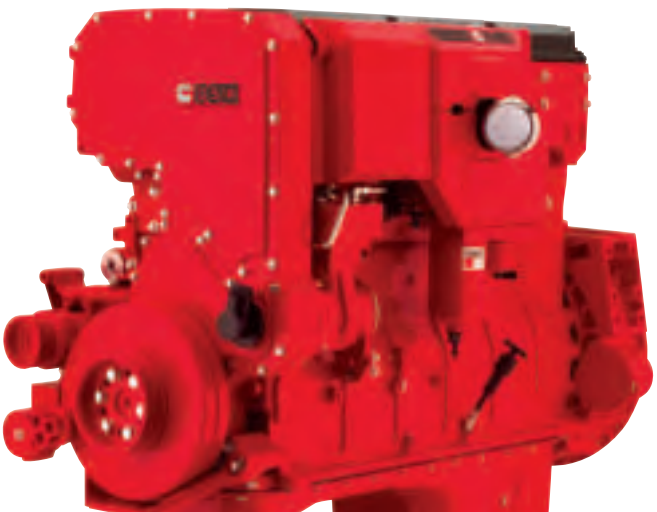
The Cummins QSX combines an advanced dual overhead cam design with proven Cummins heavy-duty components. The result is dependable performance without compromise, every hour of every day.

The dual overhead cam design allows the engineers at Cummins to optimize combustion efficiency and the integrated engine brake (Intebrake™) at the same time, using advanced "in-cylinder" technology. And the advanced design not only meets Tier 3 emissions standards, it is the base platform to reach Tier 4 requirements as well.

Performance.

The high-pressure injection system and electronic controls of the QSX ensure clean, powerful and efficient operation every time. Fuel is injected at pressures of up to 30,000 psi, for cleaner, more complete combustion. The intelligence of the electronic control system allows you to use a variety of fuel – even kerosene when diesel fuel isn't available.

Add to that our patented wastegated turbocharger and you have an engine capable of delivering optimum performance at every rpm. The wastegated turbo maximizes output without overboost at high speed and improves airflow at lower speeds for improved responsiveness.



Ratings

Engine Model	Advertised hp (kW) @ rpm	Peak hp (kW) @ rpm	Peak Torque lb-ft (N•m) @ rpm
QSX 665*	665 (496) @ 2100	665 (496) @ 1900	1875 (2542) @ 1400
QSX 630*	630 (470) @ 2100	630 (470) @ 1900	1875 (2542) @ 1400
QSX 600	600 (447) @ 2100	610 (455) @ 1900	1875 (2542) @ 1400
QSX 600*	600 (447) @ 1800	600 (447) @ 1800	1875 (2542) @ 1400
QSX 560	560 (418) @ 1800	560 (418) @ 1800	1875 (2542) @ 1400
QSX 560*	560 (418) @ 1800	560 (418) @ 1800	1744 (2365) @ 1400
QSX 535	535 (399) @ 2100	589 (439) @ 1800	1873 (2540) @ 1400
QSX 535	535 (399) @ 2100	572 (427) @ 1800	1806 (2449) @ 1400
QSX 520	520 (388) @ 2100	555 (414) @ 1800	1744 (2365) @ 1400
QSX 510**	510 (380) @ 1800	510 (380) @ 1800	1744 (2365) @ 1400
QSX 500	500 (373) @ 2100	550 (410) @ 1800	1744 (2365) @ 1400
QSX 500	500 (373) @ 2000	533 (397) @ 1800	1744 (2365) @ 1400
QSX 500**	500 (373) @ 1800	500 (373) @ 1800	1744 (2365) @ 1400
QSX 485	485 (362) @ 2100	519 (387) @ 1800	1639 (2222) @ 1400
QSX 450	450 (336) @ 2100	480 (358) @ 1800	1550 (2102) @ 1400
QSX 450	450 (336) @ 2000	480 (358) @ 1800	1550 (2102) @ 1400
QSX 450**	450 (336) @ 1800	450 (336) @ 1800	1550 (2102) @ 1400
QSX 435	435 (324) @ 2100	465 (347) @ 1800	1489 (1994) @ 1400
QSX 410	410 (306) @ 2000	410 (306) @ 2000	1346 (1825) @ 1400
QSX 400	400 (298) @ 2100	440 (328) @ 1800	1452 (1969) @ 1400
QSX 390	390 (291) @ 2000	390 (291) @ 2000	1346 (1825) @ 1400
QSX 375**	375 (280) @ 1800	375 (280) @ 1800	1346 (1825) @ 1400

*Indicates a restricted rating.
**Indicates a continuous rating.
All ratings are intermittent unless otherwise noted.
Additional ratings may be available. Check with your Cummins distributor or dealer.

Specifications

Engine Type	In-Line, 6-Cylinder	
Displacement	915 cu in	15 L*
Advertised Horsepower	375-665 hp	280-496 kW
Peak Torque	1346-1875 lb-ft	1825-2542 N•m
Bore and Stroke	5.39 in x 6.65 in	137 mm x 169 mm
Aspiration	Turbocharged and Charge Air Cooled	
Oil System Capacity	48 U.S. qt	45.42 L*
Coolant Capacity	20 U.S. qt	18.9 L*
Length	56.8 in	1443 mm
Width	40.6 in	1032 mm
Height	51.1 in	1298 mm
Dry Weight	3,200 lb	1,451 kg

*L = Liters/Litres

Versatility.

No matter what type of job you have to do – from agriculture to mining to construction to a wide range of industrial applications – the QSX is designed to work as an integral part of your equipment. Our Electronic Control Module (ECM) has the built-in capacity and connections to take input from all your other vehicle systems and adjust engine performance to match. And everything that makes this a great engine for original equipment also makes it a great engine for repowers.

Features And Benefits.

Cummins QSX has standard features that other diesel engines can't even offer as options:

- Dual Overhead Cams – The first drives the high-pressure fuel system, the second operates the intake and exhaust valves.
- Patented Wastegated Turbo – Maximizes performance at every rpm.
- High-Pressure Fuel System – Up to 30,000 psi for cleaner, more complete combustion.
- Quantum System Electronic Controls – Optimize engine performance. The intelligence of the system even allows you to use a variety of fuel such as kerosene when diesel fuel isn't available.
- Heavy-Duty Rings, Pistons, Bearings – Built to last in excess of 21,000 hours (35% load factor) with high-strength alloys.
- Engine Protection System – Minimizes potential damage, downtime.
- Less Downtime – Due to extended service intervals.
- Fleetguard® ES Oil and Fuel Filters – Allow 500-hour service intervals.

Options.

- Optional Water-In-Fuel Sensor – Alerts driver to a sign of possible water in the fuel filter, contamination that could cause performance and durability problems.
- Rear Engine Power Take-Off (REPTO) – Option that delivers up to 400 hp (298 kW). Available for SAE A, B and C spline types.
- Intebrake System – Integrated engine brake delivers up to 400 hp (298 kW) for added control, reduced service brake wear and maintenance costs.

Maintenance Intervals.

Oil drain intervals for the Cummins QSX are set for up to 625 hours or six months. Filters are vertically mounted for easy access and rapid changing, with no messy spills. Polyvee belts have auto-tensioners, so they never need adjusting. Metallic gaskets have an edge-molded design for 100% leak-free operation.

Dipsticks and oil fills are available from both sides of the engine. And there are three drain ports available, so you never have to worry about having access to maintenance points.

Every Installation.

Getting every installation right – the first time – is as important to Cummins as it is to you. PowerMatch and Advisor help ensure that we get it right, every time.

Cummins PowerMatch.

PowerMatch helps OEMs optimize engine performance so you can lower fuel consumption, increase operator satisfaction, improve equipment life and protect the customer's investment. PowerMatch tailors engine performance to specific equipment models and applications. Advanced electronics are used to enhance power curves and trim ratings, matching the job the equipment will be doing while taking into account variables such as work environment, load factors, ambient temperature and altitude.

PowerMatch can also be used to create a unique torque curve, set up alternate torque curves, alternate governor settings or set up engine protection features. Turn on the Boost Power feature, and the equipment user gets an extra burst of power needed to get through tough spots – but only for as long as needed – so fuel economy and durability are not compromised. Because PowerMatch allows for immediate field-testing of new calibrations, application engineers can quickly develop the optimum calibration for every customer.

Cummins Advisor.

Getting every installation right is what Cummins Advisor is all about. Advisor puts a virtual engineer on the OEM team, allowing the OEM to focus on machine requirements instead of engine requirements. This shortens engineering cycle times and cost. Cummins Advisor models equipment installation for exceptional productivity, reliability and durability.

After a comprehensive review of load factors, climates, duty cycle and equipment usage, Advisor recommends the best engine and rating match for the equipment and operating conditions. It then builds a virtual model of the intake, exhaust, cooling, fuel and mounting systems. When Advisor identifies an issue, it lists acceptable alternatives. This approach allows changes while the equipment design is still "on paper," ensuring optimum performance while minimizing costs – every time.

Every Part. Online.

QuickServe® Online (http://quickserve.cummins.com) gives you easy access to parts and service information. While there are part numbers for over eight million engines indexed in the QuickServe Online database, you can find the information you need in seconds with our high-speed search function and your engine's serial number.

Warranty Coverage.

Cummins QSX gives you everything you need, with one of the simplest and most comprehensive plans anywhere. Three simple steps explain everything you need to know:

Step One: Full coverage on all Cummins industrial engines and branded components with unlimited hours during the first year of operation. This includes Cummins branded electrics such as alternators, starters, etc.

Step Two: Full coverage is extended for the second year, up to 2,000 hours of operation. Total hours are cumulative from the time the engine goes in service.

Step Three: Major components coverage including block, crankshaft, camshaft and rods on all products for the third year or up to 10,000 hours of operation. Total hours are cumulative from the time the engine goes in service.

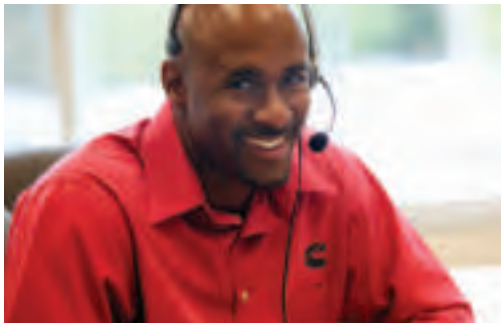
Encompass Extended Coverage.

Unlike plans offered by other diesel manufacturers, Encompass gives you a choice of plans that include parts only, parts and labor, or parts, labor and travel coverage. Encompass protection plans are available for your QSX engine with your choice of up to 5 years of extended coverage with unlimited hours. 5-year to 7-year coverage is available for up to 6,000 hours of operation.

These plans cover all Cummins-manufactured components. Maintenance components are included through the end of the third year.

Encompass protection plans may be purchased up to six months after the in-service date of your QSX engine. See your Cummins distributor for pricing. For additional details, ask to see Bulletin 3624570.

A $200 deductible applies per service visit after the expiration of the base warranty.

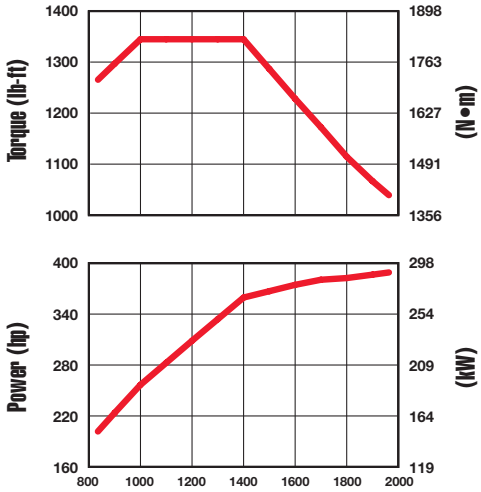


Every Question. Answered.

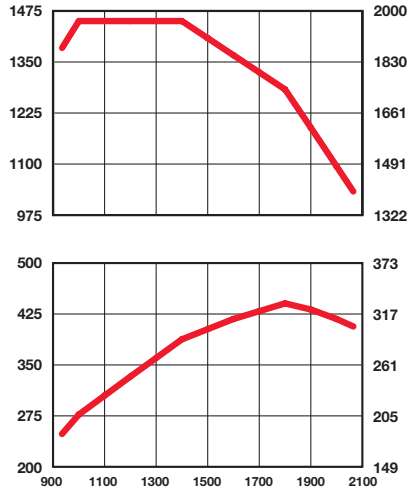
- Service Network – Cummins engines are backed by the strength of Cummins global network of over 5,500 service locations worldwide.
- Customer Assistance Center – For technical assistance, service locations and product literature, call 1-800-DIESELS™ (1-800-343-7357) Customer Assistance Center. For customers in Europe, the Middle East and Africa, call +44 (0) 1327 886464 or e-mail to cabo.customerassistance@cummins.com.
- Cummins E-Mail – For online assistance to Cummins-related questions, click on the Contact Us link in the header at everytime.cummins.com.
- Cummins Online Registration – Register all your Cummins engines quickly and easily at everytime.cummins.com to ensure quality parts and service for your engine.

TORQUE AND POWER CURVES.

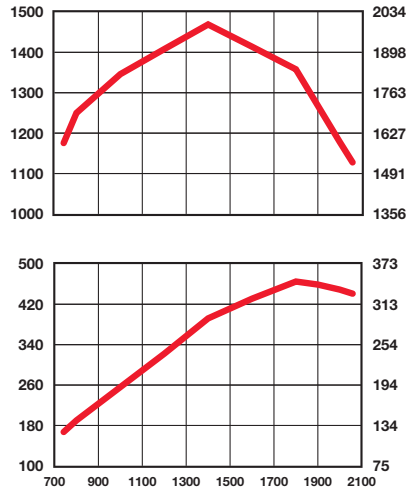
390 HP/291 KW @ 2000
1346 LB-FT/1825 N•M @ 1400 FR 10582



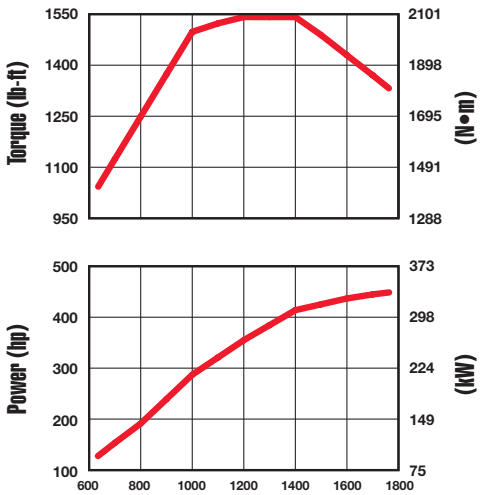
400 HP/298 KW @ 2100
1452 LB-FT/1969 N•M @ 1400 FR 10581



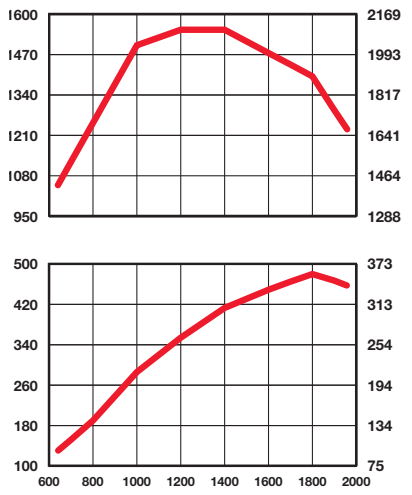
435 HP/324 KW @ 2100
1489 LB-FT/1994 N•M @ 1400



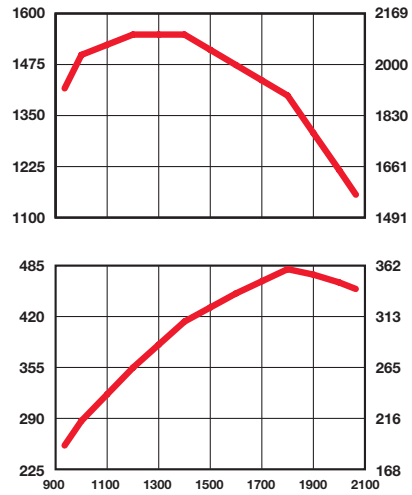
450 HP/336 KW @ 1800
1550 LB-FT/2102 N•M @ 1400 FR 10574



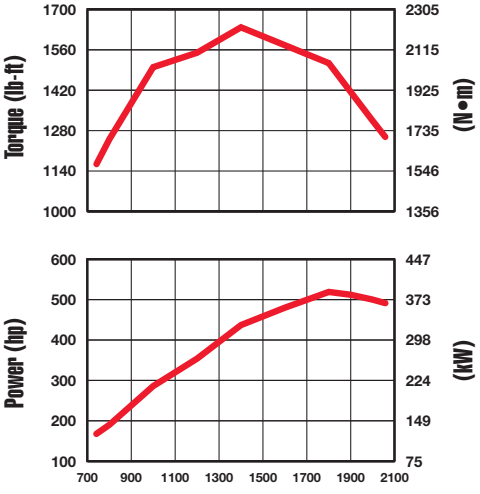
450 HP/336 KW @ 2000
1550 LB-FT/2102 N•M @ 1400 FR 10573



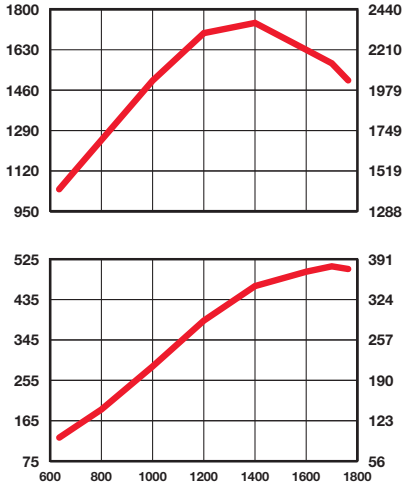
450 HP/336 KW @ 2100
1550 LB-FT/2102 N•M @ 1400 FR 10572



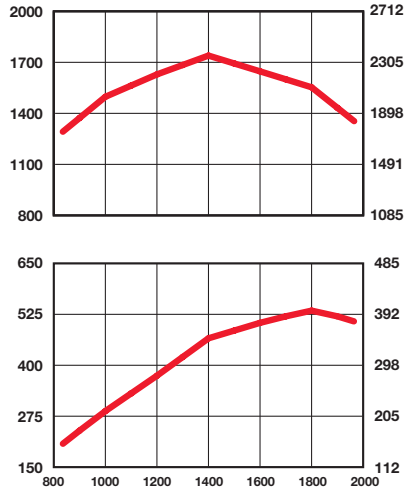
485 HP/362 KW @ 2100
1639 LB-FT/2222 N•M @ 1400



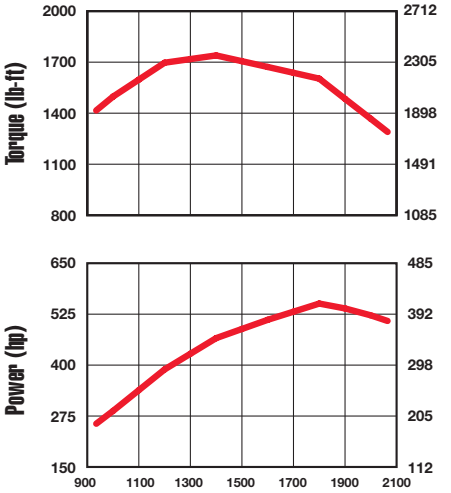
500 HP/373 KW @ 1800
1744 LB-FT/2365 N•M @ 1400



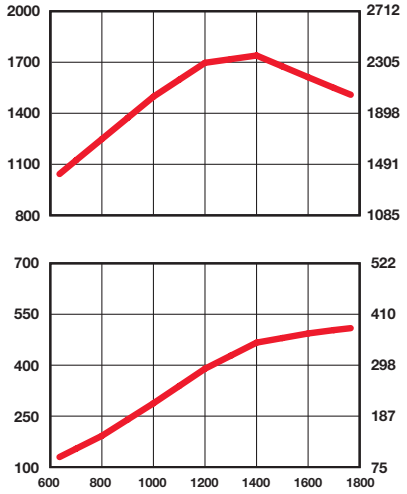
500 HP/373 KW @ 2000
1744 LB-FT/2365 N•M @ 1400 FR 10583



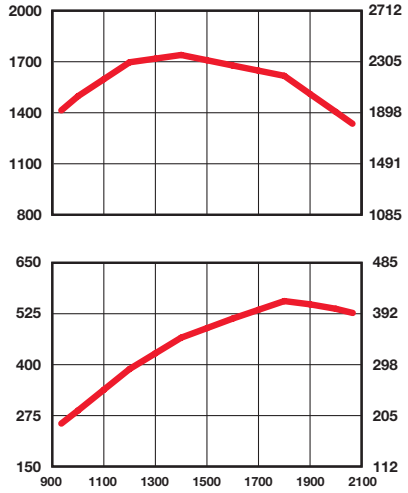
500 HP/373 kW @ 2100
1744 LB-FT/2365 N•M @ 1400 FR 10577



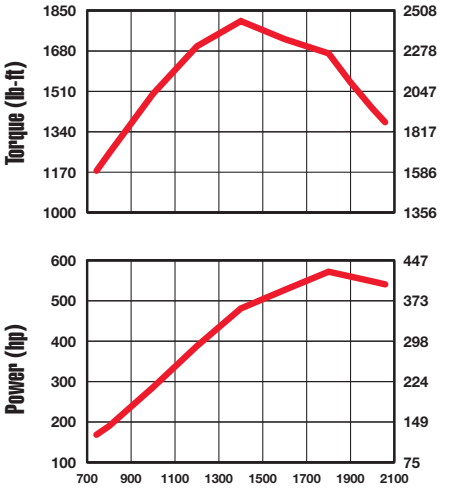
510 HP/380 kW @ 1800
1744 LB-FT/2365 N•M @ 1400 FR 10571



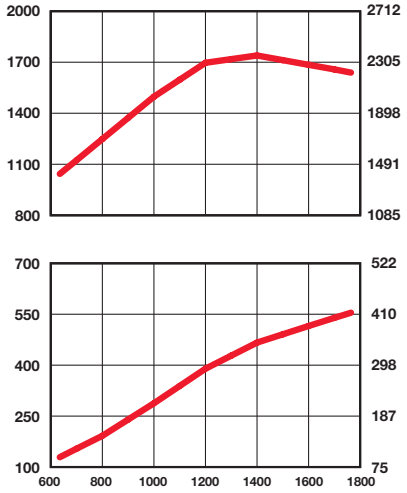
520 HP/388 kW @ 2100
1744 LB-FT/2365 N•M @ 1400 FR 10570



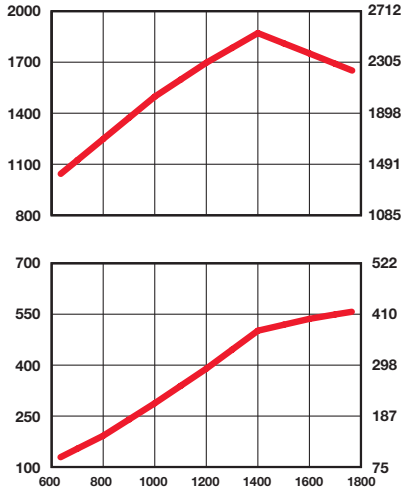
535 HP/399 kW @ 2100
1806 LB-FT/2449 N•M @ 1400



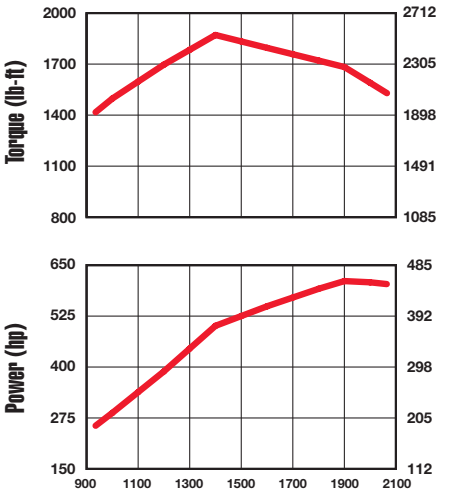
560 HP/418 kW @ 1800
1744 LB-FT/2365 N•M @ 1400 FR 10579



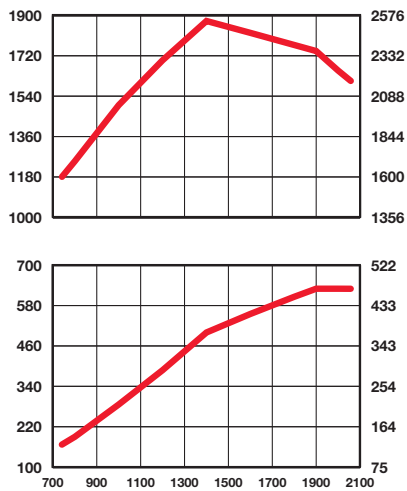
560 HP/418 kW @ 1800
1875 LB-FT/2542 N•M @ 1400 FR 10569



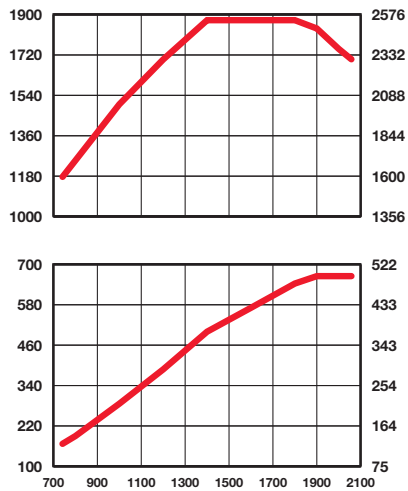
600 HP/447 kW @ 2100
1875 LB-FT/2542 N•M @ 1400 FR 10568



630 HP/470 kW @ 2100
1875 LB-FT/2542 N•M @ 1400



665 HP/496 kW @ 2100
1875 LB-FT/2542 N•M @ 1400



Cummins Inc.
Box 3005
Columbus, IN 47202-3005
U.S.A.

Phone: 1-800-DIESELS (1-800-343-7357)
Fax: 1-800-232-6393
Internet: everytime.cummins.com

Cummins Engine Company Ltd
UK

Phone: +44 (0) 1327 886464
Fax: +44 (0) 870 2413180

For other countries, see everytime.cummins.com/customercenter

Bulletin 4087066 Printed in U.S.A. Rev. 1/09