



# X12™ for truck applications



# The productivity champion

Cummins X12™ redefines the entire medium-bore engine category (10L-13L), setting new standards for productivity in regional haul, vocational and intermodal truck applications. The performance is not just unchallenged – it's unbeatable. Smaller in size – at least 150 lbs lighter than the lightest competitive 11L engine and up to 600 lbs lighter than competitive medium bore engines – the X12 still delivers powerful performance from 350 to 500 hp and 1250 to 1700 lb-ft of peak torque. At just 2050 pounds, it has the highest power-to-weight ratio of any heavy-duty engine from 10 liters to 16 liters in size. The combination of power and efficiency is striking. With the response and power of larger displacement engines, the X12 delivers the performance drivers desire while maximizing efficiency for every job.

## X12 SPECIFICATIONS

<b>Horsepower @ 1900 rpm</b>	350-500 hp (261-373 kW)	
<b>Peak Torque</b>	1250-1700 lb-ft (1695-2305 N·m)	
<b>Clutch Engagement Torque</b>	800 Ft-Lb (1085 N·m)	
<b>Number of Cylinders</b>	6	
<b>System Weight*</b>	2241 lb	1017 KG
<b>Engine (Dry)</b>	2050 lb	930 KG
<b>Aftertreatment System*</b>	191 lb	87 KG

\*Depending on configuration

## X12 PRODUCTIVITY RATINGS

Engine model	Power hp (kW)	Peak torque LB-FT (N·M) @ RPM	Governed speed (RPM)	Market*
<b>500</b>	500 (373)	1700 (2305) @ 1000	2000	V
<b>475</b>	475 (354)	1700 (2305) @ 1000	2000	V
<b>455</b>	455 (339)	1700 (2305) @ 1000	2000	V
<b>455</b>	455 (339)	1550 (2101) @ 1000	2000	V
<b>430</b>	430 (321)	1650 (2237) @ 1000	2000	V
<b>430</b>	430 (321)	1550 (2101) @ 1000	2000	V
<b>380</b>	380 (283)	1450 (1966) @ 1000	2000	V / R
<b>370</b>	370 (276)	1350 (1830) @ 1000	2000	V
<b>365</b>	365 (272)	1250 (1695) @ 900	2100	V / R
<b>350</b>	350 (261)	1450 (1966) @ 1000	2000	V / R
<b>350</b>	350 (261)	1350 (1830) @ 1000	2000	V / R

\* H = Line / Regional Haul V = Vocational R = Refuse

## FEATURES AVAILABLE WITH EX RATINGS\*

### For productivity

- **On-ramp boost** identifies when a vehicle is on an on-ramp and allows for improved vehicle acceleration to assist in merging
- **Predictive gear shifting** enhances transmission gear selection using look-ahead data to improve vehicle performance on hills

### For efficiency

- **Predicting engine braking** uses look-ahead data and improved transmission integration to better control vehicle speed on hills
- With **dynamic power**, your powertrain adapts to the route and vehicle load, allowing for improved fuel economy during easy drive cycles and adequate performance during more difficult drive cycles

\* Requires the Endurant™ HD transmission and GPS to enable the full suite of powertrain features

## X12 EFFICIENCY RATINGS

Engine model	Power hp (kW)	Peak torque LB-FT (N·M) @ RPM	Governed speed (RPM)	Market*
<b>455ST</b>	455 (339)	1550/1700 (2101/2305) @ 1000	1800	H
<b>455EX</b>	455 (339)	1700 (2305) @ 1000	1800	H
<b>455</b>	455 (339)	1700 (2305) @ 1000	1800	H
<b>430</b>	430 (321)	1650 (2237) @ 1000	1800	H
<b>430</b>	430 (321)	1550 (2101) @ 1000	1800	H
<b>410ST</b>	410 (306)	1450/1650 (1966/2237) @ 1000	1800	H
<b>410</b>	410 (306)	1650 (2237) @ 1000	1800	H
<b>410</b>	410 (306)	1450 (1966) @ 1000	2000	H
<b>410</b>	410 (306)	1450 (1966) @ 1000	1800	H
<b>400ST</b>	400 (298)	1550/1700 (2101/2305) @ 1000	1800	H
<b>400EX</b>	400 (298)	1650 (2237) @ 1000	1800	H
<b>380</b>	380 (283)	1450 (1966) @ 1000	1800	H
<b>380EX</b>	380 (283)	1450 (1966) @ 1000	1800	H
<b>370</b>	370 (276)	1350 (1830) @ 1000	1800	H
<b>350</b>	350 (261)	1350 (1830) @ 1000	1800	H

## MAINTENANCE INTERVALS THAT VARY BY DUTY-CYCLE

Item	Vocational	Severe 3-4.9 mpg	Short-haul 5.0-5.9 mpg	Normal 6.0-6.9 mpg	Light >7.0 mpg
<b>Oil Drain Interval*</b>	1500 hrs. / 18 months	40,000 Mi 64,000 Km	50,000 Mi 80,000 Km	60,000 Mi 97,000 Km	75,000 Mi 120,000 Km
<b>Oil Drain with Valvoline PB</b>	1500 hrs. / 18 months	45,000 Mi 72,000 Km	55,000 Mi 89,000 Km	65,000 Mi 105,000 Km	80,000 Mi 130,000 Km
<b>Oil Drain with OilGuard™</b>	Extensions available	Extensions available	Extensions available	Extensions available	Up to 100,000 Mi Up to 160,000 Km
<b>Fuel Filter**</b>	1500 hrs.	30,000 Mi 48,000 Km	40,000 Mi 64,000 Km	50,000 Mi 80,000 Km	60,000 Mi 97,000 Km
<b>Fuel Filter Extensions***</b>	—	40,000 Mi 64,000 Km	50,000 Mi 80,000 Km	60,000 Mi 97,000 Km	75,000 Mi 120,000 Km
<b>DPF Ash Maintenance****</b>	12,000–16,000 hrs.	300,000–400,000 Mi 480,000–640,000 Km	300,000–400,000 Mi 480,000–640,000 Km	400,000–600,000 Mi 640,000–960,000 Km	600,000–800,000 Mi 960,000–1,300,000 Km

\*If combined percent idle time plus power takeoff (PTO) time is greater than 40% for Short-haul, Normal, or Light intervals, use the next lower drain interval.

\*\*Less than 3 MPG ODI and Fuel Filter at 4,500 miles.

\*\*\* A remote mount filter using FF5971NN is recommended for filter extensions.

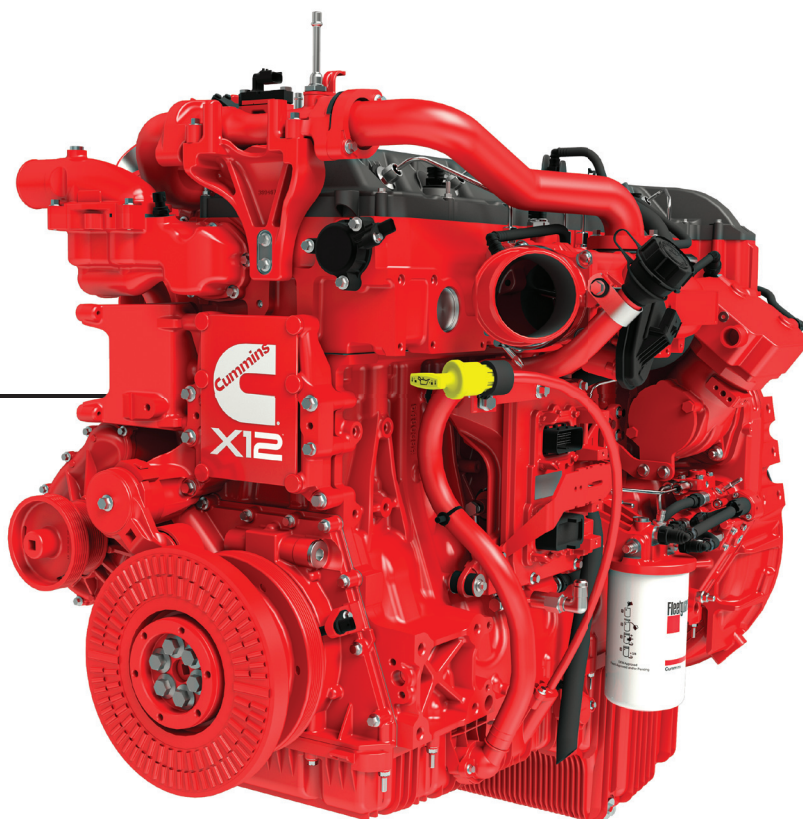
\*\*\*\*Cummins recommends using Cummins Remanufactured DPF at the DPF ash maintenance interval. Users can experience extended DPF ash maintenance using the DPF maintenance fault lamp (FC5383).

## FIXED X12 MAINTENANCE INTERVALS

Item	Miles
DEF	300,000 Mi
Valvetrain	300,000 Mi
Crankcase Breather	N/A
HC Doser	N/A

## Ease of service. Ease of mind.

Cummins X12 for 2021 is a workhorse that was designed to be on the job rather than in the bay. The highly accessible service points are as appreciated by technicians as the elongated maintenance intervals are by accountants.



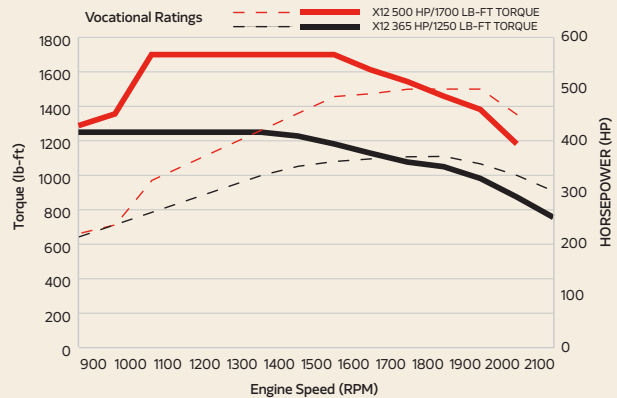
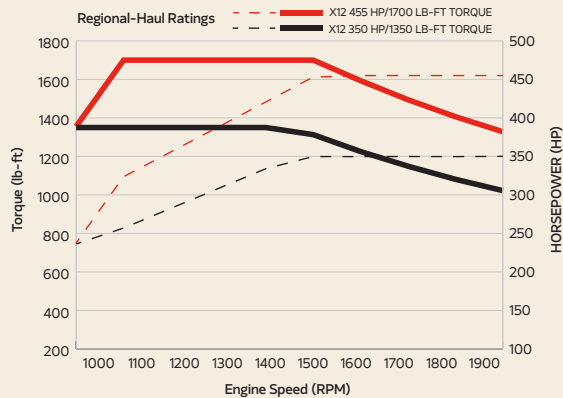
## The best of all worlds

A legacy of proven performance goes into every Cummins X12. From L10 and M11 in the 1980s to ISM and ISX engines through the turn of the century, we've been building on a proven platform designed for maximum uptime and productivity. The X12 is manufactured in Jamestown, N.Y., in the same production facility as the Cummins X15,<sup>™</sup> and shares many heavy-duty components, including our proprietary Cummins Holset VGT<sup>®</sup> Turbo, XPI fuel system, Electronic Control Module (ECM), Single Module<sup>™</sup> aftertreatment system and integrated powertrain features. It's an engine platform that's been tested in the toughest, most challenging operations around the world – from the outback of Australia to the Rockies of Colorado, it just keeps rolling.

## Better in the short haul. And over the long haul.

Regional-haulers with hub-and-spoke operations can expect their total cost of ownership (TCO) to drop significantly with the X12. A low-friction design increases fuel economy while extended maintenance intervals and high mileage, real-world experience ensures maximum uptime. Less time spent in the shop means more money earned on the road.

### X12 HORSEPOWER AND TORQUE



## Run quicker. Deliver more.

This engine is ideal for a variety of applications — from regional haul to refuse, mixers, tankers and bulk haulers. The X12 with Endurant™ HD powertrain is currently available to regional haul customers in the Freightliner Cascadia®. Customers can also spec the X12 engine in a variety of vocational truck applications through Freightliner, Western Star, Autocar, Oshkosh, Terex and several other specialty truck manufacturers.

The X12 is designed to deliver exceptional throttle response for inner-city stop-and-go operations, especially when paired with an automated manual transmission. Plus, its compact size enables shorter bumper to back of cab (BBC) dimensions with improved maneuverability. A new Cummins engine brake improves stopping power over the ISX12 and lengthens service brake life. And drivers will really like the way the X12 performs, whether the traffic light is turning green or red.

## Carry more. Do more.

Put the ultra-compact, lightweight X12 in your vehicle instead of competitive medium-bore engines, and you'll be able to carry up to 600 lbs. of extra payload. You'll get even more when paired with the Endurant HD transmission from Eaton Cummins Automated Transmission Technologies. The X12 with Endurant HD powertrain is the lightest in its class so you can get more done with each trip while maximizing your bottom line. One revolutionary change that further reduces weight and takes up less space is Cummins Single Module™ aftertreatment system.

The Single Module eliminates up to 40 percent of the aftertreatment weight when compared to ISX12 Aftertreatment pairing, and the compact packaging offers improved thermal management across the unit. That means fewer regenerations, lower maintenance, improved performance and a lower TCO while meeting 2021 greenhouse gas (GHG) emissions and National Highway Traffic Safety Administration (NHTSA) standards.

## Redefining uptime

Cummins Connected Solutions offers a range of digital products and services tailored to the needs of your business.

Wirelessly connect your Cummins engine for continuous monitoring and diagnosis of system fault alerts using a convenient mobile app, email or web portal through Connected Diagnostics™. Gain peace of mind and avoid unnecessary service stops by filtering and prioritizing engine monitoring and diagnostic data with deep, solution-based reporting and service scheduling assistance via Connected Advisor™. And, ensure your Cummins engine is running at peak performance by downloading the latest ECM calibrations remotely using Connected Software Updates.

All three solutions are made available by Cummins through a range of telematics service providers. Contact your Cummins account representative to learn more.

 Connected Diagnostics™

 Connected Software Updates



## Trust makes all the difference

The most reassuring part of owning any Cummins-powered vehicle is knowing that we've always got your back. Cummins provides extended coverage options so you can tailor coverage to your needs while keeping overall cost to a minimum. Cummins engine experts and our extensive training programs ensure service and support excellence that you can depend on, no matter the situation. We are committed to the success of your business, which means complete dedication to working with you as a partner on everything from upfront vehicle and engine spec'ing to maximizing your uptime. You aren't just buying a Cummins engine; you're buying Cummins expertise and commitment, which you can access anywhere your business takes you by calling 1-800-CUMMINS™ (1-800-286-6467). Peace of mind is always nearby with over 3,700 authorized Cummins parts and service locations throughout North America.

For details about the X12, see your local Cummins distributor or dealer, or visit [cummins.com](https://cummins.com).



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