

# ECOTORQ GEN2 ENGINE



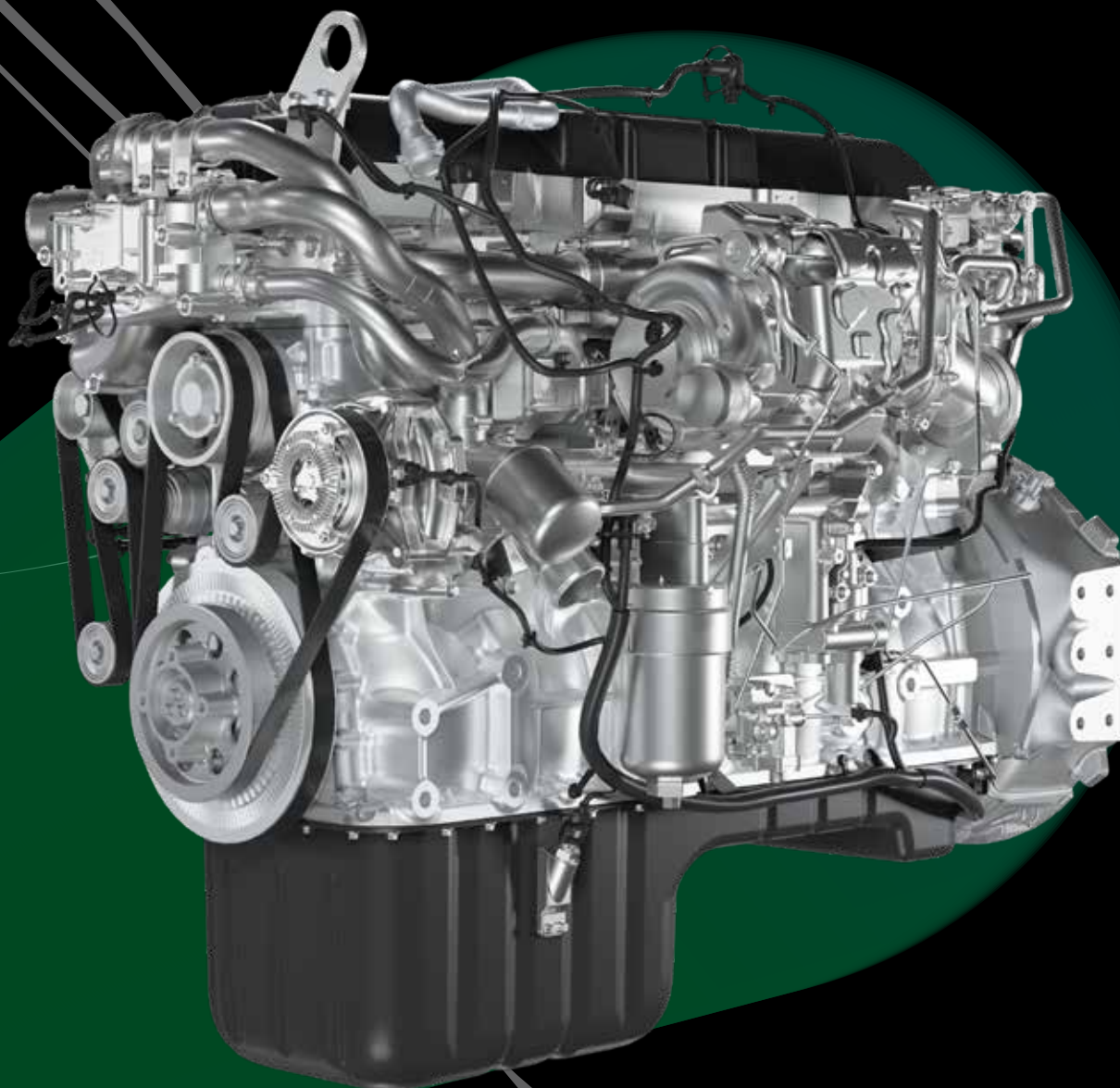
**ECOTORQ**  
GEN 2



**TRUCKS**

Sharing the load

# GEN2 ECOTORQ ENGINE



## New Combustion System

- » Increased Compression Ratio (CR21) and Peak Firing Pressure (PFP)
- » Optimized Combustion with New State of the Art Piston Shape
- » New Generation Fuel Injection System
- » High Power & Torque Capability



## Active Thermal Management

- » New Variable Displacement Oil Pump (VDOP) allows flow adjustment according to operating conditions, ensuring fuel savings
- » New Electronically Controlled Piston Cooling Jets actively controls piston temperature, ensuring fuel savings
- » New e-TOV (Thermostatic Oil Valve) enables operation at higher oil temperatures and ensures optimized oil temperature control



## Weight & Durability

- » Enhanced material and optimized design ensures weight reduction and high durability
- » New cylinder head with enhanced and optimized cooling circuit
- » Weight Reduction of 47 kg with respect to GEN1.5
- » New Exhaust/Intake Valves & Seats with enhanced materials

## Cooling & Lubrication

- » Improved Serviceability w/Cartridge Type Oil Filter Less Maintenance Cost
- » New Cooling Circuit with Relocated Thermostat to Enable Better Cooling



## Fuel Economy & TCO

- » New Water Pressure Sensor enables early detection of potential cooling system failures and prevents engine losses
- » New High Efficient Fixed Geometry (FGT) Turbocharger
- » HVO Compatibility

## Calibration & Software

- » Best Fuel Economy Calibrations Developed

### Variable Displacement Oil Pump (VDOP)

Electronically controlled variable displacement oil pump designed to achieve SFC benefit by reducing oil flow.

### Electronic Oil Temperature Control Valve(OTCV)

Running engine at higher and constant oil temperature to reduce friction loss.

### Cartridge Oil Filter

New oil filter module with cartridge type, which is environmental friendly. One cartridge oil filter instead of two spin-on is used to reduce cost of ownership.

### Electronically Controlled Piston Cooling Jets (e-PCJ)

e-PCJ introduced to control piston temperature by optimizing oil flow.

The Ecotorq GEN2 EU6 12.7-liter engine powertrain redefines fuel efficiency in transport operations.



VEHICLES WITH ECOTORQ GEN2 ENGINE



Construction

3545D	3545D L	3545M	3545M L	4145XD
4145M	4145M L	4145D L	4145D	4445XD



Road

1845	3245S
3545	2645T



Tractor

1845T	F-MAX	F-MAX L	F-MAX LL
3551T			

POWER: ECOTORQ GEN2 ENGINE

- » F-Line construction trucks have 450 PS and 2300 Nm torque. When off-road mode is activated in case of high power demand, the torque increases to 2500 Nm. This feature provides fuel consumption benefit to the customer by enabling a lower torque when high power is not required.
- » F-LINE 4x2 tractor, 1845T and road series will run by 450 PS. Thanks to Eco Mode, power can be decreased to 420 PS for better fuel consumption if needed.
- » F-LINE 6x4 tractor and F-MAX series will run by 510 PS. For 6x4 tractor, power mode and normal mode will be available. For F-MAX series, power mode, normal mode and eco mode will be available.
- » Features tab on multimedia screen can be used for choosing the driving modes suitable for specific driving needs.

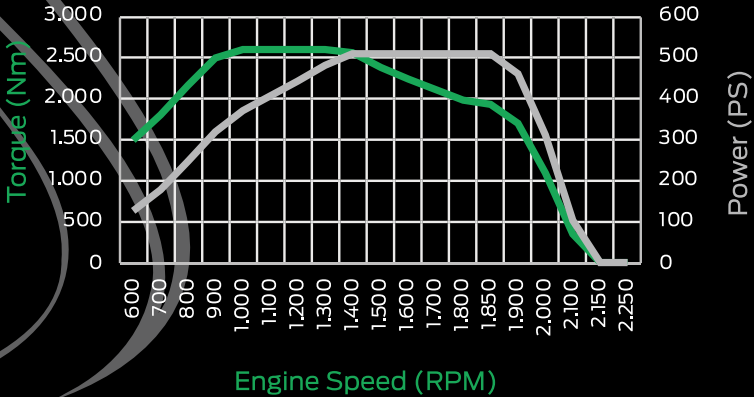


		Driving Modes							
		Power		Normal		Eco		Off-Road	
Power Rating	Vehicles Series	Power	Torque	Power	Torque	Power	Torque	Power	Torque
510 PS	Tractor: F-MAX Series	510 PS	2600Nm	510 PS	2600Nm	450 PS	2600Nm		
	Tractor: 3551T	510 PS	2600Nm	510 PS	2600Nm				
450 PS	Tractor: 1845T	450 PS	2300Nm	450 PS	2300Nm	420 PS	2300Nm		
	Construction			450 PS	2300Nm			450 PS	2500Nm
	Road	450 PS	2300Nm	450 PS	2300Nm	420 PS	2300Nm		

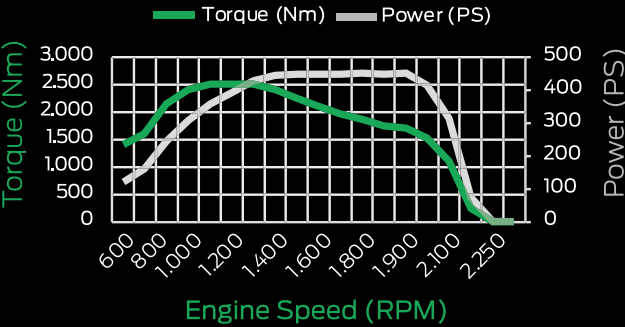
# POWER: ECOTORQ GEN2 ENGINE

The Ecotorq GEN2 engine has 12.7 L volume and produces 450 PS power for road, construction and 4x2 tractor. It can also have 510 PS for F-MAX series and 6x4 tractor series to be suitable in applications where power is a priority.

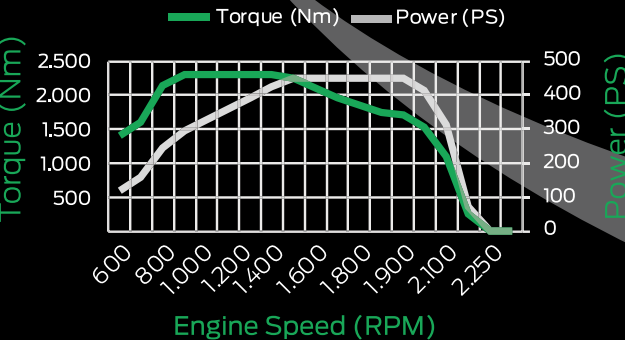
Ecotorq GEN2 12.7 L EU6 510 PS  
F-MAX SERIES AND 3551T



Ecotorq GEN2 12.7 L EU6 450 PS  
CONSTRUCTION



Ecotorq GEN2 12.7 L EU6 450 PS  
1845T AND ROAD



# HVO

Hydro-treated vegetable oil (HVO) is a type of renewable diesel fuel made from vegetable oils, such as rapeseed, soybean, palm, or waste cooking oil, through a process called hydrotreating. HVO is considered a sustainable alternative to fossil fuels because it is produced from renewable feedstocks and has lower carbon emissions compared to conventional diesel.

- » Drop-in Fuel --> No hardware or calibration change is needed on the truck in order to use it with HVO. Just fill in HVO and drive.
- » HVO provides comparable performance, consumption and emission results with diesel fuel EN 590.
- » HVO leads to high well-to-wheel CO2 emission reduction (source dependant: up to %70)



REDUCTION IN  
HARMFUL  
EMISSIONS





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THE ENVIRON-  
MENT

LONG  
STORAGE  
LIFE

SUSTAINABLY  
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