THE NEW INTERNATIONAL A26 ENGINE

BUILT WITH UPTIME IN ITS DNA



A NEW DAY

2013-2014 N13 SCR (Program 718) 2 stage EGR cooler Series turbochargers

2013

2015-2017 N13 SCR (Program 745) Single stage EGR cooler Series turbochargers

2015

2017 A26 SCR (Program 786) Over \$100M Investment Single Variable Geometry Turbocharger

2017

ESN starting 43xxxxx

ESN starting 44xxxxx

ESN starting 45xxxxx

NOMENCLATURE



The A26 nomenclature hints at the common block shared with the MAN D26 engine.

26

A stands for Alpha

26

- The first or a new beginning
 - Domination and strength
 - Project Alpha

Shorthand for the 126mm piston diameter, an indication of the size of the engine.

THE INTERNATIONAL A26 ENGINE

UPTIME

We are standing behind it with the best engine warranty in the industry - two years and unlimited miles.

FUEL EFFICIENCY

The A26 is up to 5% more fuel efficient. This is the most efficient engine offered in our on-highway product lineup (LT Series).

WEIGHT

At 2,299 lbs. the A26 is the lightest engine in its class and enables an impressive 200 lbs. of additional weight reduction in vehicle mounted components (after treatment, cooling module, after treatment control module delete).

NOISE

The A26 is our quietest engine, so you can have a clear conversation outside the truck when it's running and so you can enjoy the quiet ride on the road.

Engine braking power is **increased by up to 67%** for confident braking performance, particularly at low- to mid-RPMs and at higher altitudes.





LET'S TAKE A LOOK...INSIDE.



AS SIMPLE AS A MODERN ENGINE CAN BE.



BORN WITH UPTIME IN ITS DNA

The larger piston pin, connecting rod, and bushing deliver optimal load distribution for enhanced durability.

Smaller piston cooling jets increase oil pressure, improving lubrication and engine durability. Exposing less oil to hot pistons also reduces oil oxidation, to improve oil drain interval. Stainless steel, laser welded, single stage EGR cooler delivers proven durability and performance, in a compact, easy to service design.

The high pressure common rail fuel pump has undergone six years of testing and has been in production on the MAN D38 15 liter since 2015, with proven reliability.

The single, variable geometry turbocharger features a titanium compressor wheel, delivering superior fatigue life over competitive aluminum designs. Electronic actuator is sold separately, reducing service cost.

Increased computing power of the new engine control module controls the vehicle after treatment system, eliminating the separate after treatment control module.



UP TO 5% BETTER FUEL ECONOMY

The cylinder head coolant passages are 50% less restrictive, reducing parasitic loss to the water pump, improving fuel economy.

The all new piston assembly features a low friction skirt coating and low friction rings for increased fuel economy. The A26 is specifically designed to allow use of FA-4 oil for maximum fuel economy. FA-4 oil is available as an optional factory fill.

2500 bar (36,300 psi) high pressure common rail fuel system delivers maximum fuel injection pressure to reduce emissions and fuel consumption, with multiple injection events for smooth and quiet operation.

Oil cooler thermostat bypass allows oil to bypass the oil cooler in cold weather, to improve fuel economy.

THE LIGHTEST ENGINE IN ITS CLASS

The composite valve covers are lighter than traditional aluminum valve covers.

The shot peened aluminum flywheel housing delivers high strength with large weight savings over a traditional iron flywheel housing.

Compacted graphite iron (CGI) has higher strength and fatigue resistance than traditional gray iron. These superior properties allow thinner walls to reduce weight and maximize payload.

At 2,299 lbs., the A26 is 600-700 lbs. lighter than traditional 15 liter designs

The assembled camshaft features tool-grade steel lobes that are almost as hard as diamonds for unsurpassed durability, with hollow design to minimize weight.



THE QUIETEST ENGINE WE OFFER

The gear teeth are produced using a grinding process for a smoother, harder gear surfaces that create less noise.



The six blade fan (not shown) generates less noise by having less blades.

The A26 calibration is specifically programmed to reduce engine noise.

The uniquely sculpted crankcase is designed to dampen vibration for a quieter in-cab experience.



INNOVATIVE CYLINDER HEAD DESIGN

Innovative Iron

High strength, high thermal conductivity gray iron invented by the foundry.

Advanced Breathing

Optimized port flow geometry to substantially reduce restriction, helping the engine breath consistently from cylinder to cylinder, increasing fuel economy.

Enhanced Cooling

Water jacket geometry directs coolant to the valve bridges first, better cooling the head and increasing it's long term durability.

Less restrictive flow also reduces parasitic loss to the water pump, increasing fuel economy. Lower water jacket cools the flame deck first.

Better flow achieved through the exhaust ports.

Less restrictive flow throughout both the upper and lower water jacket.

Water Jacket (Coolant) Exhaust of Air Intake ports

THE A26 LT IS ACCELERATING FUEL ECONOMY'S CLIMB



LT Series A26 Type VI Fuel Economy Tests in the International IL/KY Routes



Type IV Test: ProStar N13 vs LT A26

The LT with A26 is the first production vehicle **from any OEM we have ever tested** to exceed 8 mpg on the Kentucky Hilly cycle.

NOT INCLUDED IN THE TEST:

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- Predictive Cruise Control
 - Neutral Coast



The Engineering Test Routes: Illinois and Kentucky The 50/50 Weighting Represents 98% of Customers

Dot

(41)

orest

College Grove

Rockval

Start/End Break – 15 min idle 2nd +52 mile DeKalb Gasis, Aurora DeKalb IL, +115 miles Orland Park Krisdala Baka Rest rea Westhound Krisdala Baka Rest Area, Alpha IL, +128 mile Lunch – 30 min idle 2 Limestone Res Stop Sout Limestone Rest Stop Pontiac IL, +96 miles st Break – 15 min idle Illinois Flatland 3000

2500

(feet) 2000

Altitude 1000

500

0 0

2

3



6

Time (hours)

7

8

9

10



Springs

Moonevha

Pigeo

Break

International KY Route: 475 miles



Midway

Pleasant View Campaign

FUEL ECONOMY

Up to 3% more fuel efficient than the ISX15 Up to 5% more fuel efficient than the N13



<image>

<u>A 26</u>

Our new fuel economy leader.

LT Series is up to 7% more fuel efficient with the X15 Efficiency Series LT Series is up to 9% more fuel efficient with the A26



*Baseline is 2018 model year ProStar, EN3 10 speed transmission and respective engine.

Technical Specifications

Engine Type	Diesel, 4-Cycle
Configuration	Inline 6-Cylinder
Displacement	12.4 L (758 cu. in.)
Bore & Stroke	4.96 in. & 6.54 in. (126 mm & 166 mm)
Compression Ratio	18.5:1
Aspiration	Variable Geometry Turbocharger with Charge Air Cooler
Combustion System	2500 bar High Pressure Common Rail
Engine Lubrication	42 Quarts (40 L)
Total Engine Weight (Dry)	2,299 lbs. (1043 kg)
Valves	4 Valves Per Cylinder, Single Overhead Camshaft
B10 Design Life	1,200,000 mi (1,931,000 km)



Linehaul: LT Series and RH Series

HP @ 1700 RPM	Torque [lb-ft*] @ RPM	Governed speed [RPM]	High idle speed [RPM]
370	1350 @ 1000	1800	2000
400*	1550-1750 @ 975	1800	2000
410	1450 @ 1000	1800	2000
410	1450-1650 @ 1000	1800	2000
430	1550 @ 1000	1800	2000
450	1700 @ 1000	1800	2000
450*	1550-1700 @ 1000	1800	2000
475	1700 @ 1000	1800	2000



*Down sped ratings for optimal fuel economy.

DESIGNED TO BE THE BEST

THE HIGHEST UPTIME

5% BETTER FUEL ECONOMY

THE LIGHTEST IN ITS CLASS

OUR QUIETEST ENGINE

26