S13 INTEGRATED
POWERTRAIN

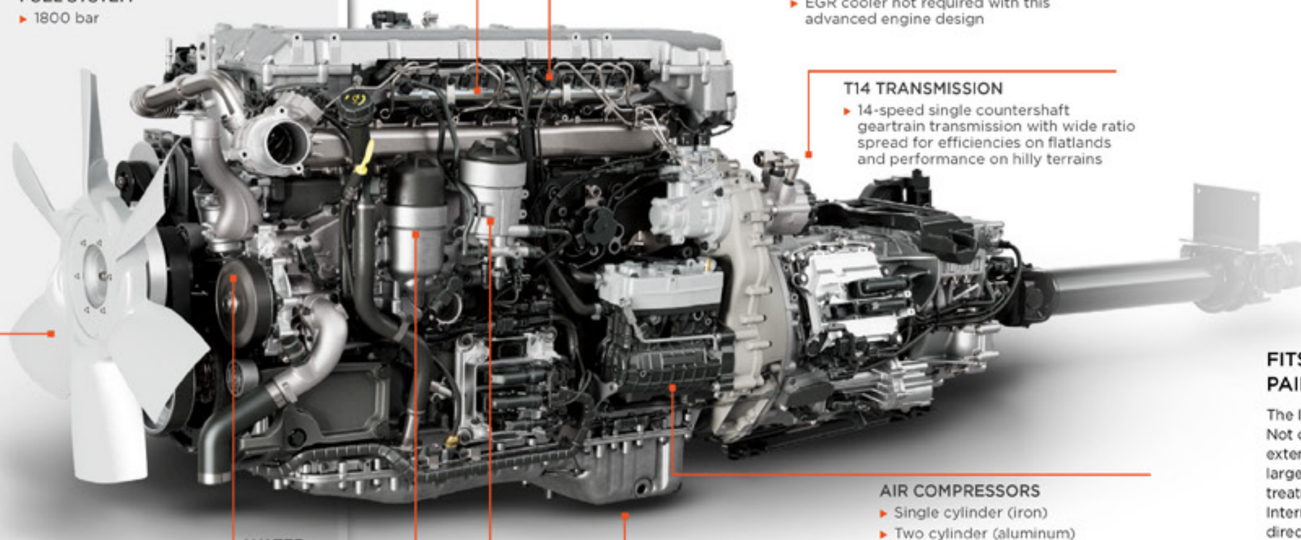
INTERNATIONAL® S13
INTEGRATED POWERTRAIN

TO LEARN MORE OR INQUIRE ABOUT A TRUCK, CONTACT YOUR LOCAL INTERNATIONAL DEALERSHIP AT RUSHTRUCKCENTERS.COM/LOCATIONS.

IT ALL COMES TOGETHER

A clean sheet of paper and decades of experience. That's what the engineering team started with when they began work on the International® S13 Integrated Powertrain. And this wasn't just any team. This was a dream team of engineers located literally all over the world. Thanks to this spirit of collaboration between partner companies, the team was able to shift what's possible and rethink, redesign and reinvent what an integrated powertrain can be. The result is the S13 Engine, T14 Transmission and Dual Stage Aftertreatment system designed to work as one that's simple, easy-to-service and delivers stellar performance with superior operating economy.

S13 INTEGRATED



HIGH PRESSURE FUEL SYSTEM
- 1800 bar

NO COOLED EGR
- EGR cooler not required with this advanced engine design

T14 TRANSMISSION
- 14-speed single countershaft geartrain transmission with wide ratio spread for efficiencies on flatlands and performance on hilly terrains

AIR COMPRESSORS
- Single cylinder (iron)
- Two cylinder (aluminum)
- Two cylinder clutched (aluminum)

6-BLADE FAN
- Converted from a 10-blade to a 6-blade for additional efficiency improvement

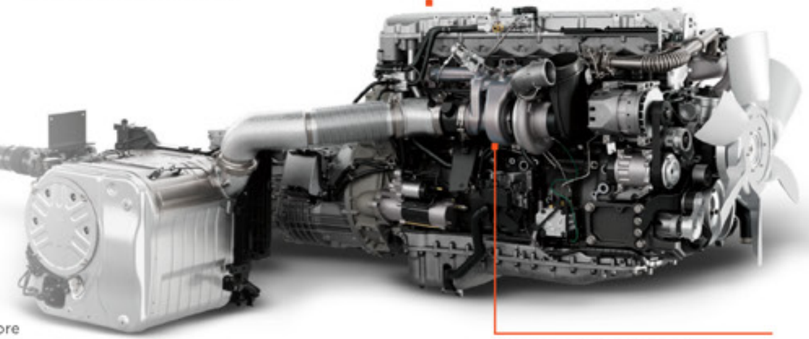
WATER PUMP

OIL FILTER

FUEL FILTER

OIL PAN
- Aluminum pan provides corrosion protection

ALUMINUM VALVE COVER



DUAL STAGE AFTERTREATMENT
- Compact design for more frame rail mounting space
- No active DPF regen needed

FIXED GEOMETRY TURBO
- More reliable and efficient design

Up to 15% More Fuel Efficient*

FITS INTO YOUR FLEET LIKE YOUR FAVORITE PAIR OF WORK GLOVES

The International S13 Integrated Powertrain was designed with fleets in mind. Not only can fleets benefit from exceptional fuel economy but they also get extended service intervals to keep their equipment on the road, plus the largest service network in the industry for convenient access to white-glove treatment from ASE-Certified technicians. Fleets can even order (if desired) the International Integrated Powertrain with a single, or dual PTO option installed directly at the factory. The powertrain is also designed to work seamlessly with OnCommand® Connection remote diagnostics which means fleets can enjoy up to 80% fewer vehicle breakdowns and roadside tows.

Experience the International S13 Integrated Powertrain in the new LT®Series and RH™Series

* Comparing the fuel economy of the 2017 GHG International® A26 engine in a 2017 International® LT® Series truck with aero package to the fuel economy of the new International® S13 Integrated Powertrain in a 2024 International® LT® Series truck with the LT aero package and chassis enablers. Actual customer results may vary due to various factors, including but not limited to, truck specifications, weight of the vehicle, predictive features, environmental conditions, etc.

S13 SPECIFICATIONS

Technical Specifications

Engine Type	Diesel, 4-Cycle
Configuration	Inline 6-Cylinder
Displacement	12.74L (777 cu. in.)
Bore & Stroke	5.12 in. & 6.30 in. (130 mm & 160 mm)
Compression Ratio	23:1
Aspiration	Fixed Geometry Turbocharger
Combustion System	1800 bar Common Rail
Engine Lubrication	47.5 Quarts (45 L)
Total Engine Weight (Dry)	2,284 lbs. (1,036 kg)
Valves	4 Valves Per Cylinder, Dual Overhead Camshaft
B10 Design Life	1,200,000 mi (1,931,000 km)

DRIVING PROFITABILITY

More Time on Road and Less Time Waiting for Repairs

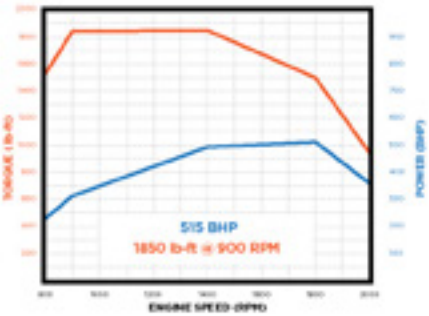
Industry Leading Engine Warranty

Base Engine	2 years, unlimited miles, unlimited hours
Base Major Component	5 years, 500,000 miles
Base Towing*	2 years, unlimited miles, unlimited hours
Optional Engine	Up to 6 years, 600,000 miles
Optional Major Component	Up to 7 years, 700,000 miles

*Towing for Vehicles with engine failures

International® LT® and RH™ Series

HP @ 1800 RPM	Torque [lb-ft] @ 900 RPM	Governed speed [RPM]
370	1250	2000
400	1450	2000
400	1850	2000
430	1550	2000
450	1750	2000
470	1750	2000
515	1850	2000



T14 BENEFITS

Transmission Key Benefits

Deep low-end gearing and shifting smoothness, delivering efficiencies of a direct drive in an overdrive package

14 speed with 2 crawler gears

A lightweight, efficiently packaged and robustly designed gearbox

Single countershaft transmission designed for simplicity and reliability

International® LT® and RH™ Series

Gear	Ratio	% Step
R2	12.60	
R1	16.23	
1	20.81	29%
2	16.16	29%
3	12.57	29%
4	9.76	29%
5	7.56	29%
6	5.87	29%
7	4.55	29%
8	3.53	28%
9	2.77	29%
10	2.15	29%
11	1.66	29%
12	1.29	29%
13	1.00	28%
14	0.78	-

Transmission Base Warranty (includes towing)

5 years; 750,000 miles (1,200,000 km) up to 1750 lb/ft

3 years; 500,000 miles (800,000 km) greater than 1750 lb/ft

A/T BENEFITS

Dual Stage Aftertreatment Key Benefits

With Dual Stage Aftertreatment, and significantly improved emission control, the combustion can be optimized further for improved performance and fuel efficiency.

- Two DEF Injectors
- Dual Stage catalysts with upstream and midstream DEF dosing

No driver interaction required - The system manages the regeneration during operation

DPF filter does not need to be cleaned/replaced until 650,000 miles @ >8.2 mpg

Robust, compact aftertreatment allows less heat loss and helps significantly in improving the fuel economy and packaging

Dual Stage Aftertreatment Base Warranty

2 years, unlimited miles, unlimited hours