



Authorized Rovers North Installation Centers

- Concours Cars, Colorado Springs, Colorado . . . (719) 473-6288
- Cooper Technica, Chicago, Illinois (312) 440-0711
- East Coast Rover, Warren, Maine (207) 594-8086
- 4x4 Center, Williston, Vermont. (802) 864-8565
- G&S Services, Seattle, Washington. (206) 361-7002
- Ships Mechanical Services, Portland, Oregon . . (503) 252-5566



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Improve your off-road performance and double your fuel mileage.

300 Tdi

If you own a 1994 or 1995 Defender 90, you can now replace its present Land Rover engine with a new 300 Tdi engine kit from Rovers North using Land Rover Genuine Parts.

The retrofit 300 Tdi engine kit has everything you need to transform your vehicle's performance and extend its working life. The kit has been designed by Land Rover Parts to ensure this transformation can be undertaken with relative ease using only Genuine Parts.

A Genuine Land Rover 300 Tdi power pack will ensure that the integrity of your "Best 4x4xFar" is maintained and will enable you and your Land Rover to achieve even more outstanding performance on or off-road by providing:

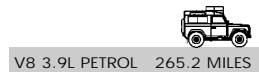
Greater Fuel Economy

The comment among V8 D90 owners is "My Land Rover will go anywhere except by a gas station!" Your fuel range will now virtually double with a new 300Tdi fitted to your Land Rover.

Simulated Urban Cycle Fuel Consumption:

Defender 90 V8 3.9L Petrol	14-17 mpg
Post 300Tdi Conversion	27-30 mpg

Simulated Mileage per Fuel Tank Total:



Increased Off-Road Driveability

Experience superior engine lugging ability and unsurpassed engine braking when working off-road.

Made famous as a powerplant for numerous Camel Trophy Events, the 300 Tdi is Land Rover's star off-road performer.

Maximum Torque 195 ft. lbs. @ 1800rpm

Lower Running Costs

The 300 Tdi is designed to deliver more efficient running, longer service intervals and lower maintenance costs – with major services only needed every 12,000 miles or 20,000 kilometers. Tried and tested over two million miles through blistering desert heat and freezing arctic wastes.

Without an ignition system and spark plugs to replace, 300 Tdi maintenance is limited to regular engine oil and fuel filter changes, plus without an ECU to set off warning lights, you will be making less trips for service.



Steve Dick, 1994 Defender 90 owner on his recent Rovers North 300Tdi engine kit. "I've always been interested in getting a diesel for lack of ignition components. I was pleasantly surprised by the engine braking off-road, as well as the 27 mpg on-road."



Steve's new 300Tdi

The Benefits of a New 300 Tdi Engine

- Brand New, Year 2000, Land Rover Built & Approved Engine
- Improved Fuel Economy
- Enhanced Reliability, Durability & Serviceability
- Improved Noise Vibration Harshness
- Lower Emissions
- All Genuine Parts
- Increased Off-Road Performance

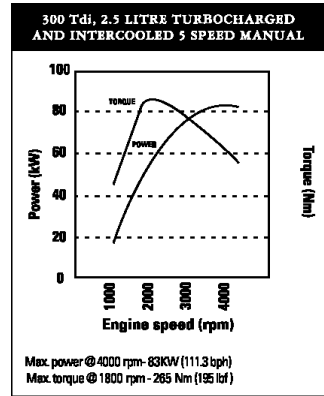
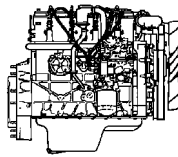
- Superior Cold Start Performance
- Land Rover Engineered and Approved
- Protected by Full 12 Month Unlimited Mileage Warranty
- Service Support from our Rovers North Authorized Installation Network
- Longer Service Intervals
- Enhanced Resale Value



Genuine Parts

Specifications:

Manufacturer: Land Rover
 Engine Type: 2.5 litre Direct Injection Turbocharged Intercooled Diesel fitted with clutch assembly.
 Configuration: 4 cylinder in-line
 Capacity: 2.495 litre
 Max Power: 111.3bhp (83kW) @ 4000rpm
 Max Torque: 195ft. lb. (265Nm) @ 1800rpm
 Min sfc @ FL: 215g/kw/hr
 FIE: Bosch Rotary Mechanical Pump
 Weight: 257kg
 Emissions: European, ECD1 & 91/542 Swiss, USA '87
 Firing Order: 1-3-4-2
 Compression Ratio: 19.5:1
 Bore & Stroke: 90.47mm x 97mm
 Combustion System: Direct injection, compression ignition
 Gearbox Type: 5-speed R380



The 300Tdi Improvements for the year 2000:

Component	Improvement	Benefits
Cylinder head	Totally new design (compared to 1999)	Optimized combustion, Improved Emissions, ECDI Compliant
Fuel Injectors	Revised geometry (compared to 1999)	Optimized combustion
Pistons	Revised piston profile, centralized combustion bowl, state of the art ring pack	Improved Emissions Very low oil consumption
Cylinder Block	Localized stiffness, micro bore honing	Improved NVH, Improved Emissions and oil consumption
Turbocharger and Exhaust Manifolds	New, state of the art single casting for turbo housing and exhaust outlet	Improved NVH
7 rib Polyvee Drivebelt & Auto Tensioner	Auto tensioner maintains belt tension throughout life of belt with no adjustment	Improved Serviceability & Reliability
NVH Top Cover	New design incorporating styling enhancement and significant NVH improvement while easy to remove for service	Improved Styling Improved NVH
Front Cover	Includes rotary oil pump of gyrotor type	Improved Reliability
Timing belt	New long life HSN timing belt	Improved Serviceability up to 84,000 miles
Sump	Pressure from composite 'Antiphon' material gives significant noise reduction	Improved NVH

* (NVH - Noise Vibration Harshness)

300 TURBO DIESEL

The kit contains the following key components

- Engine: New 300Tdi Fitted with complete clutch assembly.
- Gearbox: R380 5-speed gearbox
- Basic Kits:
 - Fan Assembly
 - Air Cleaner
 - Glow Plug Timer
 - Engine Wiring Harness
 - Accelerator Cable
 - Fuel Gauge Unit & Pipes
 - Chassis Mounting Brackets
 - Cross Member
 - PAS Hoses
 - Heat Shield
 - Power Steering Box
 - Clutch Slave Cylinder
 - Oil Cooler Pipes
 - Rovers North Tdi decals & Land Rover Genuine Parts Warranty Certificate
- Fitting Instructions: Detailed & Illustrated, 300 Tdi Workshop Supplement Fitting Templates
- *NVH Package: Engine Top Cover, Bulkhead Insulation, Front Floor Covers
- Exhaust System: Down Pipe, Muffler & Tail Section Brackets & Fittings
- Cooling System: Radiator, Intercooler, Engine Heater, All Hoses & Fittings Required

Prices

1994, 95 Defender 90 without A/C \$ 9,800.00
 1994, 95 Defender 90 with A/C \$ 10,600.00
 Core Charge: \$ 2,800.00
 The customer is responsible for shipping costs for new and core units.

For professional installation please refer to our Rovers North Authorized Installation Centers listed on the back.

* (NVH - Noise Vibration Harshness)

Summary of Installation Procedures

- Removing current engine/transmission, ECU wiring harness and cooling system
- Modifying chassis to accept new engine mounts supplied (requires welding)
- Installing new R380 Gearbox into existing transfer box
- Removing fuel tank to access fuel sending unit for modifications
- Installing new engine/transmission and cooling system
- Converting existing wiring harnesses to comply with new Tdi requirements
- Upgrading fuel system to Tdi Diesel requirements and specifications
- Relocating existing power steering reservoir
- Cutting hole in right front wing to accept turbo air intake. (not needed with raised air intake.)
- Installing complete new exhaust system

Tools recommended:

- Standard and metric hand tools
- 3/8" Drill
- Oxygen/Acetylene torches with cutting tip
- Hand-held grinder
- Mig welder (recommended)
- Chassis paint/rust inhibitor
- Degreaser
- Engine hoist, transmission jack, and portable power unit
- Vehicle lift unit (not necessary, but helpful)
- Straight edge, tape measure
- Soldering gun, solder and heatshrink tubing
- Digital multi meter (test light will work)
- If A/C is currently installed on your 3.9 V8, then a proper EPA compliant refrigerant reclaimer/charger is needed.

Exchange components required:

- Complete petrol engine
- Main gearbox
- ECU unit & harness
- Radiator

Components must be dry of fluids and properly packed to ensure safe arrival.



Genuine Parts

Built to Last – The New 300 Tdi Diesel Engine

At the heart of Land Rover's vehicles is a new breed of diesel engine – the 300 Tdi.

This technically-advanced, precision-engineered power unit has set new standards for diesel power, economy and reliability. Now the proven qualities of the 300 Tdi engine are being made available to inject new heart into other older Land Rover vehicles. Land Rover-approved retro-fit kits are available for all Defender models from 1994-95, providing the opportunity to benefit from the latest technological advancements made by Land Rover, without compromising the the vehicle's 'on or off road' performance.

The reasons why the 300 Tdi is certain to be the first choice of owners and operators are the same as those which have made the Land Rover the success it is.

With extraordinary power, increased torque, remarkable class-leading fuel economy, and faster acceleration the 300Tdi is a leader on it's own. Quieter cleaner emissions and longer service intervals mean lower maintenance costs.

Performance

The 300 Tdi produces 111.3 bhp (83kW) – more than enough to deliver climbing ability, giving unsurpassed pulling power, while peaking at only 1800 rpm. The result being improved off-road performance and a greater capacity for payload, than previous Land Rover diesel engines.

It is currently alone in its class in giving the benefits of the latest fuel injection technology. The 300 Tdi allows fuel to enter the combustion chamber directly without the need for a pre-combustion chamber. This means access to more power and a fuel economy 25-30% better than indirect injection.

'Peaking at around only 1,800 rpm, the engine's high torque gives unsurpassed pulling power'.

Economy

Fuel economy figures speak for themselves.

DEFENDER 90

Urban cycle (mpg)	24.1
Highway (mpg)	32.5
Combined (mpg)	28.8

Low Ownership Costs

The 300 Tdi is designed for more efficient running, longer service intervals and lower running costs. 12,000 miles or 20,000 kilometers separate each service, with oil and filter changes needed only every 6,000 miles or 10,000 kilometers.

Easy installation

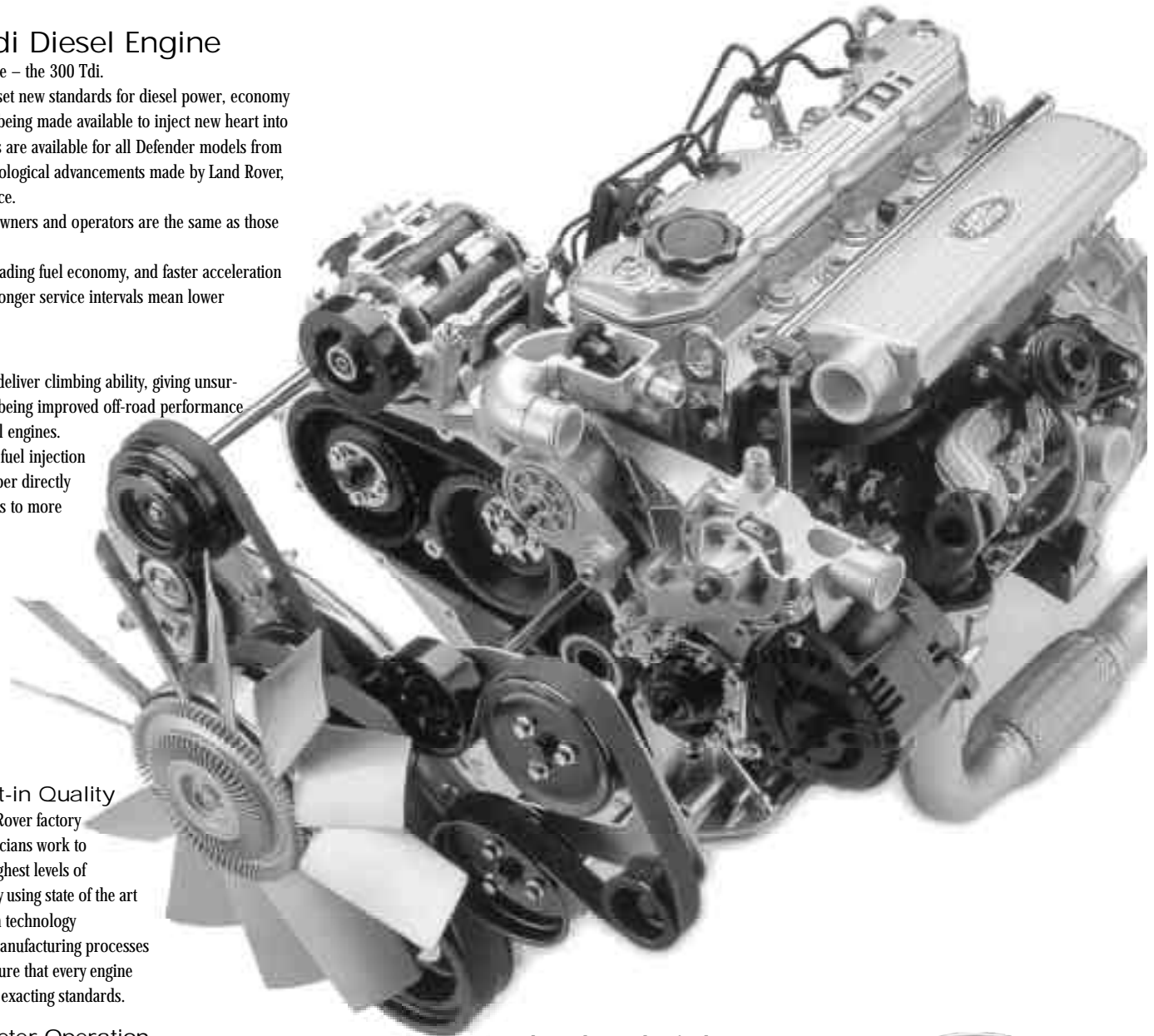
Each Land Rover 300 Tdi conversion is engineered to fit, without complications. Each package contains all genuine parts and full detailed fitting instructions.

Built-in Quality

Land Rover factory technicians work to the highest levels of quality using state of the art design technology and manufacturing processes to ensure that every engine meets exacting standards.

Quieter Operation

The traditional diesel noise is dramatically reduced in the 300 Tdi through a two-stage direct injection system which creates even less combustion noise than other direct injection-equipped motors.



'The re-designed Defender engine now offers 25-30% better fuel economy than indirect injection engines'.



Genuine Parts