



Paisley News



Issue 2 21/01/08

J . E . PAISLEY & CO LTD

**For all your Diesel Fuel
Injection and Turbocharger
Requirements**

4 Nen Street
Oamaru

**Phone 03 434 8967
Fax 03 434 8389
E Mail john@jep.co.nz**

Common Rail - Injector Tester

J E Paisley are pleased to announce that we are the first and only company in the South island to have installed a **Bosch EPS200**. The EPS200 is a stand alone common rail injector tester, able to comprehensively test common rail and two spring type injectors. The tester will perform the following checks;

Nozzle leakage test

Electrical leakage check

Spray pattern check

Electrical chatter check

Idle and Full load fuel delivery measurement

Backflow quantity

1st and 2nd opening pressures on two spring injectors

Bosch, Delphi and Denso and Siemens injectors can easily be tested helping ensure maximum HP output and fuel economy.

With the increasing numbers of common rail vehicles on the roads, and the growing trend towards common rail engines, the EPS200 will prove a valuable asset for our customers, testing will enable them to eliminate injector faults when diagnosing vehicles, and or the unnecessary replacement of serviceable units at the time of engine overhaul. assuring maximum HP output.



Exchange pumps Available for

DE10 John Deere — Class

VP44 fitted to Nissan—MAN—Isuzu — Cummins

Japanese pumps available for WL Mazda - Ford Courier—4M40 Mitsubishi - Toyota 1HD T

Nissan Covec TD27Ti

Others available, ring us for details with the vehicle model and engine type

Authorised Service to the world's leading Diesel Fuel Injection systems



BOSCH



STANADYNE

DENSO

J E Paisley & Co Ltd



Diesel systems OAMARU

4 Nen street

Oamaru

Phone 03 434 8967

Fax 03 434 8389

Email john@jep.co.nz

Two Spring injectors: Bosch and Zexel both manufacture injectors whose design makes it possible to only enable the 1st opening pressure and tip leakage to be checked on a conventional pop tester. The EPS200 makes it possible to now check both the 1st and 2nd opening pressures as well as the spray pattern and full leakage tests. In the case of the ZD30 Nissan the checking of the 2nd opening pressure and both the idle and full load flow of the injector is essential when determining if an injector is serviceable, or is the likely cause of a lack of power complaint. J E Paisley can now offer a comprehensive test on these injectors.

Petrol Injectors and Turbochargers: Remember we also offer a full petrol injector testing and cleaning service, along with turbocharger overhauls, balancing and spare parts supply.

Timing there have been a few requests lately for the timing procedure and supply of gauges for Japanese and European engines with the VE type injector pump.

The basic procedure is as follows

Block the CSD if fitted by inserting a 5-10mm block as shown.



With the engine on TDC (ensuring number 1 cylinder is firing) remove the bolt from the head plug located between the injector pipes and Insert the timing gauge ensuring a slight preload.

Rotate the engine against the direction of rotation watching the timing gauge pointer until the needle stops moving.



At this point zero the gauge and slowly rotate engine back to TDC. The Gauge should indicate the correct plunger lift for the engine being timed. If the lift is incorrect loosen the pump flange securing bolts and the rear mounting bolt, carefully rotate the pump to achieve the correct lift. Retighten the flange and rear securing bolts. Rotate the engine back until the gauge stops moving and repeat the procedure. **LOAN Gauges available**

Just give us a ring

Points to note:

Watch or have someone watch the gauge carefully when rotating the engine to ensure the needle has not moved around past

one rotation leading you to an incorrect reading, e.g. you think the gauge has moved to 0.20mm when in fact it has move around to 1.20mm. Also make sure you have 0.50mm to 1mm preload when fitting the gauge to ensure the gauge pin is in contact with the plunger. Both of these are the most common causes of timing difficulties.

Also note, some vehicles are timed after TDC, predominantly Mitsubishi but there are others. Make sure you have the correct timing information for the engine you are timing. Also ensure the TDC mark is correct. Front pulleys with rubber inserts are known for slipping. If you are in doubt check the TDC mark by removing the rocker cover and rocking the valves or fit a whistle to number 1 cylinder. If your having problems give us a call and we will gladly talk you through it. Timing gauge kits are available from \$160.00. With an adapter for 6mm head plugs. 10mm adapters are available.

Authorised Service to the world's leading Diesel Fuel Injection systems

BOSCH

ZEXEL

DELPHI

STANADYNE

DENSO