2000 PCED On Board Diagnostics II Diesel

SECTION 3: Symptom Charts
Procedure revision date: 01/13/2004

# **AN: Symptom Chart 13**

AN: Introduction

## **AN1 PRELIMINARY CHECKS**

- Perform the following preliminary checks:
  - External leaks (rocker cover gasket, crankshaft seals, etc.)
  - Proper dipstick
  - Proper oil viscosity and API rating. Refer to operator's guide.
  - Air Filter Minder
  - Loads do not exceed maximum GCVW

#### Are all checks OK?

Yes	No
1(5() I() AIN/	REPAIR as required. VERIFY a symptom no longer exists.

## **AN2 VERIFY HIGH OIL CONSUMPTION**

- Confirm oil consumption through maintenance records or other documentation.
- If records are not available, have operator log oil consumption for 1450 km (900 miles).

#### Is oil consumption rate higher than 0.95 liter (1 quart) per 900 miles?

Yes	No
GO to AN3.	No problem exists. RETURN vehicle to customer.

## AN3 CHECK FOR OIL IN FUEL

Remove fuel filter housing cover and check color of fuel.

## Is fuel black, indicating there is oil in the fuel?

Yes	No
GO to AN4.	GO to AN5.

## AN4 CHECK FUEL INJECTOR O-RINGS

Remove injector and inspect middle O-rings.

## Are middle O-rings missing or damaged?

Yes	No

REPLACE injector O-rings. VERIFY repair.	If high oil consumption has existed since vehicle was new, REPLACE fuel injectors. If engine did not consume oil when new, GO to AN5.
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## **AN5 CHECK BASE ENGINE**

• Perform crankcase pressure test. Refer to <u>Section 4A</u> or <u>Section 4B</u>, Diagnostic Subroutines.

## Is pressure within specification?

Yes	No
GO to AN7.	GO to AN6.

## **AN6 ISOLATE TURBOCHARGER**

- Remove air duct at turbocharger compressor housing outlet.
- Repeat crankcase pressure test.

## Did crankcase pressure decrease?

Yes	No
REPLACE turbocharger. VERIFY repair.	GO to AN7.

## AN7 CHECK TURBOCHARGER FOR OIL LEAK

• Refer to the Workshop Manual for turbocharger inspection procedures.

## Is turbocharger the cause of high oil consumption?

Yes	No
REPLACE turbocharger. VERIFY repair.	RETURN to Step GO to AN1.