

**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
GO to <a href="#">AN2</a> .	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 <a href="#">AN3</a> .	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 <a href="#">AN4</a> .	GO to <a href="#">AN5</a> .

**AN4 CHECK FUEL INJECTOR O-RINGS**

- Remove injector and inspect middle O-rings.

**Are middle O-rings missing or damaged?**

Yes	No

INSTALL new injector O-rings. VERIFY repair.

If high oil consumption has existed since vehicle was new, TEST the fuel injectors. REFER to the [Injector Performance Test](#). If engine did not consume oil when new, GO to [AN5](#) .

## AN5 CHECK BASE ENGINE

- Perform crankcase pressure test. Refer to Section 4A or Section 4B, Diagnostic Subroutines.

Is pressure within specification?

Yes	No
GO to <a href="#">AN7</a> .	GO to <a href="#">AN6</a> .

## AN6 ISOLATE TURBOCHARGER

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

Did crankcase pressure decrease?

Yes	No
INSTALL a new turbocharger. VERIFY repair.	GO to <a href="#">AN7</a> .

## 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
INSTALL a new turbocharger. VERIFY repair.	RETURN to Step GO to <a href="#">AN1</a> .

