

ENGINE—4.6L—OIL LEAK FROM HEAD GASKET AREA—ROMEO BUILT ENGINES ONLY	Article No. 01-21-10
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FORD: 1998 MUSTANG
1998-2000 CROWN VICTORIA
1998-1999 F-250 LD
1998-2000 EXPEDITION, F-150
1999-2000 E SERIES

LINCOLN: 1998-2000 TOWN CAR

MERCURY: 1998-2000 GRAND MARQUIS

ISSUE

Some vehicles equipped with the Romeo built 4.6L 2V engine may exhibit an engine oil leak or oil weepage from the cylinder head gasket at the right hand rear or the left hand front of the engine. Oil weepage is not considered detrimental to engine performance or durability. An oil leak may be caused by metal chip debris lodged between the head gasket and the block, chip debris between the cylinder head and the head gasket, or by damage to the cylinder head sealing surface that occurred during the manufacturing process.

ACTION

If an oil leak is verified at the head gasket area, replacement of head gasket and cylinder head can be performed. Refer to the following Service Tips. Particular attention must be paid to inspecting cylinder block for metal chip debris damage on cylinder head to block mating surface which may require block replacement.

SERVICE INFORMATION

A service remanufactured Cylinder Head assembly is available -- Part XL3Z-6049-AARM (LH), XL3Z-6049-BARM (RH) containing:

- Cylinder head assembly
- Cylinder head gasket
- Cylinder head bolts
- Rocker arm cover gasket
- Intake manifold gasket
- Exhaust manifold gasket
- Exhaust manifold studs
- Exhaust manifold nuts

Always verify the origin of an oil leak by using fluorescent dye. At times, a Cam Cover Gasket or engine Oil Galley Plug (particularly at the rear of the right hand head) may be the source of the engine oil leak. (Figure 1)

1998 - 2000 Head Gasket/Cylinder Head Replacement Service Tips

NOTE

TAKE EXTRA CARE NOT TO DAMAGE THE HEAD GASKET SEALING SURFACE WHEN PERFORMING CYLINDER HEAD REPLACEMENT. THE SUCCESS OF THE REPAIR IS DEPENDENT UPON FOLLOWING THE INSPECTION PROCEDURE PAYING PARTICULAR ATTENTION TO THE AREAS DEPICTED IN THE ACCOMPANYING FIGURES.

Article No. 01-21-10 Cont'd.

- When cleaning the block deck of residual gasket coating use Citrus Metal Surface Cleaner (part number F4AZ-19A536-RA) and a plastic scraper. Wipe with a LINT-FREE shop rag. A shop vac can be used to pick up loose debris/dirt PRIOR to the citrus cleaner application.

NOTE

DO NOT USE A METAL TOOL OF ANY KIND ON THE GASKET SEALING SURFACE. RESULTING SCRATCHES WILL PROVIDE A LEAK PATH.

- During normal inspection, pay particular attention to the RIGHT bank block deck area behind cylinder #4 or the LEFT bank block deck area in front of cylinder #5 around the oil hole breakout for dimples and impressions left by metal chips (Figures 2 and 3).
- The block surface around the cylinder head alignment dowels (2 per bank) is another common location for scratches or dimples.
- A known quality straight edge should be used to ensure the block surface is flat. If a dimple or impression measures over .001" (.025mm) deep, it is recommended to replace the block. This type of damage is rare.
- If block does not pass checks, a new or remanufactured long block engine assembly must be ordered. For truck applications, which require use of the Modular Engine Lift Bracket 303-F047 (014-00073) for engine removal, use nine links of 5/16 " chain in place of the rear bracket (Figure 4).
- As part of the inspection of the block for damage, remove any machining chips that may be in the bottom of the cylinder block bolt bosses. This can be done using a pencil style magnet.
- After removal of the chip from the block bolt bosses, and if no permanent damage to the block is found, verify that both the block and head sealing surfaces are clean prior to installing new gasket.
- During installation of the new head gasket(s) and the new cylinder head(s) to the block, lubricate the new head bolts with an oil soaked rag and allow oil to drip from the bolts, prior to assembly.

NOTE

INSPECT THE NEW CYLINDER HEAD FOR DAMAGE PRIOR TO INSTALLATION.

NOTE

GASKET SHOULD BE PLACED DIRECTLY INTO POSITION AND NOT DRAGGED OR MOVED ALONG SEALING SURFACE TO AVOID DAMAGE. THE GASKET COATING IS ESSENTIAL TO THE FUNCTION OF THE GASKET. CHIPS, SCRAPES, OR CUTS IN THE SURFACE OF THE GASKET COATING MAY CAUSE THE GASKET TO LEAK.

NOTE

DO NOT APPLY RTV, COPPER COAT, AVIATION CEMENT, ETC. TO THE GASKET OR BLOCK/HEAD SURFACES. THE GASKET IS TO BE INSTALLED DRY. ANY FOREIGN MATERIAL IN BETWEEN THE GASKET AND THE HEAD/BLOCK MAY CAUSE THE GASKET TO LEAK.

PART NUMBER	PART NAME
XL3Z-6049-AARM	Remanufactured Cylinder Head Assembly - Left
XL3Z-6049-BARM	Remanufactured Cylinder Head Assembly - Right
F4AZ-19A536-RA	Citrus Metal Surface Cleaner

OTHER APPLICABLE ARTICLES: NONE

WARRANTY STATUS: INFORMATION ONLY

OASIS CODES: 401000, 499000

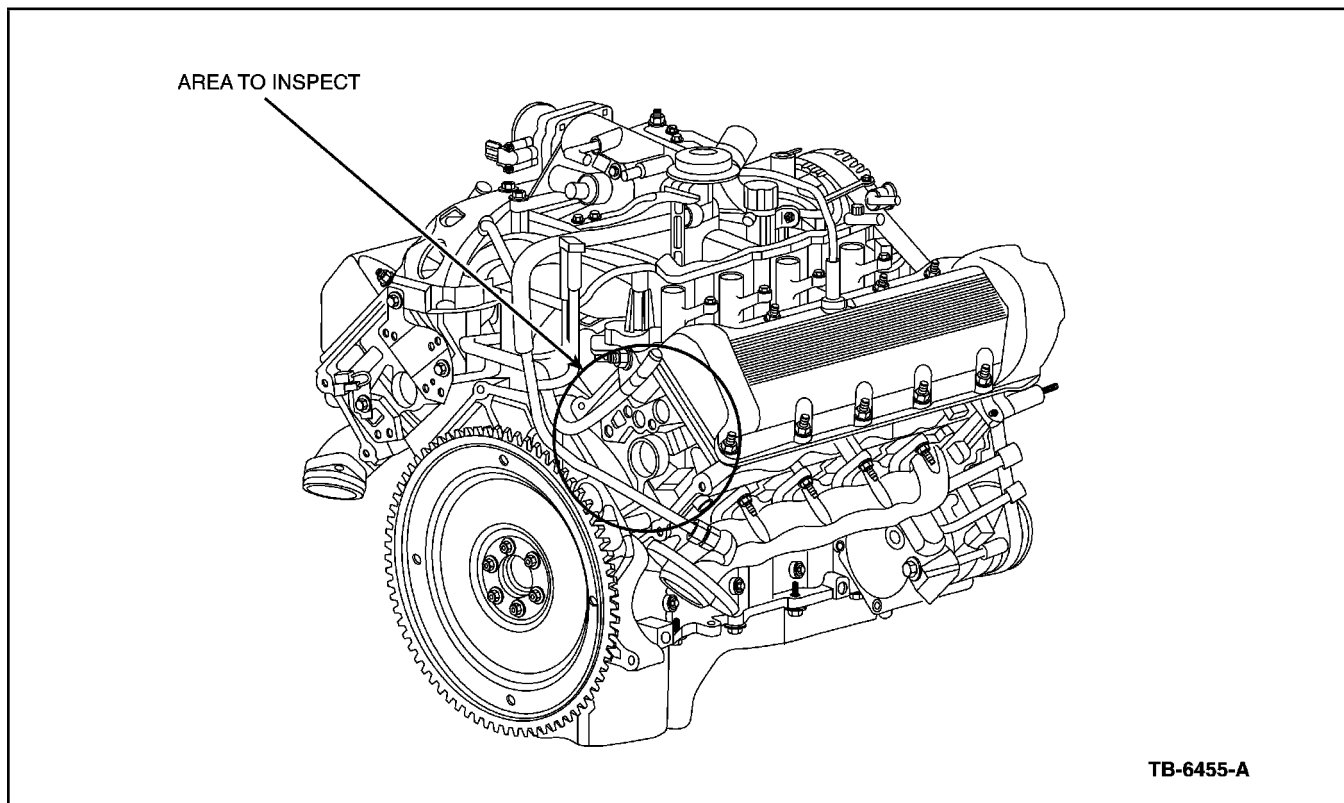


Figure 1 - Article 01-21-10

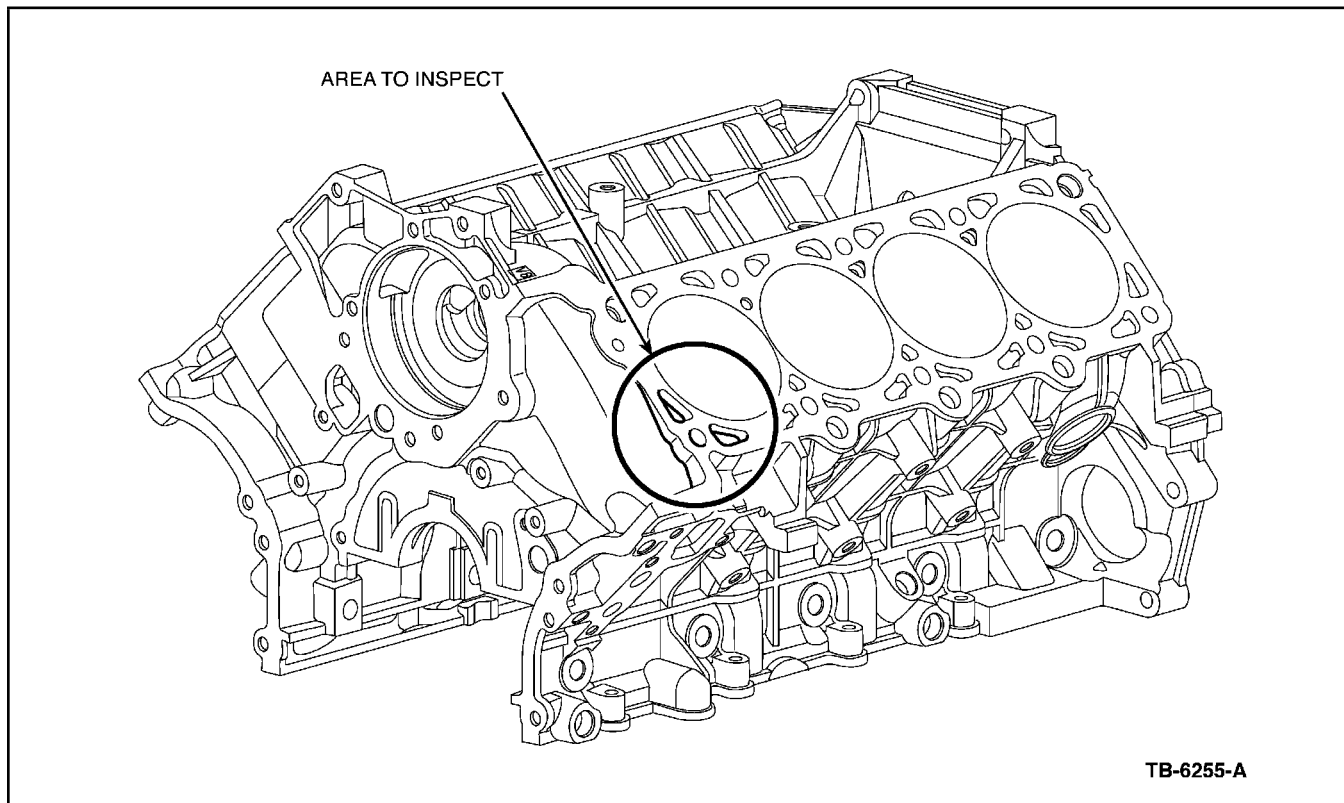


Figure 2 - Article 01-21-10

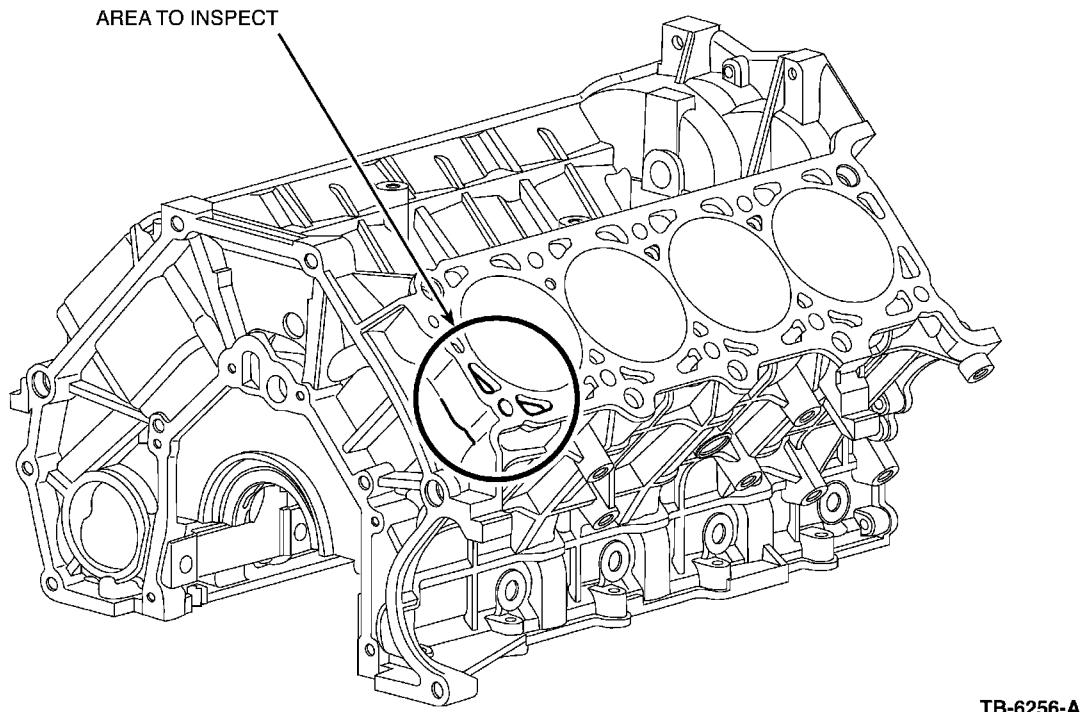


Figure 3 - Article 01-21-10

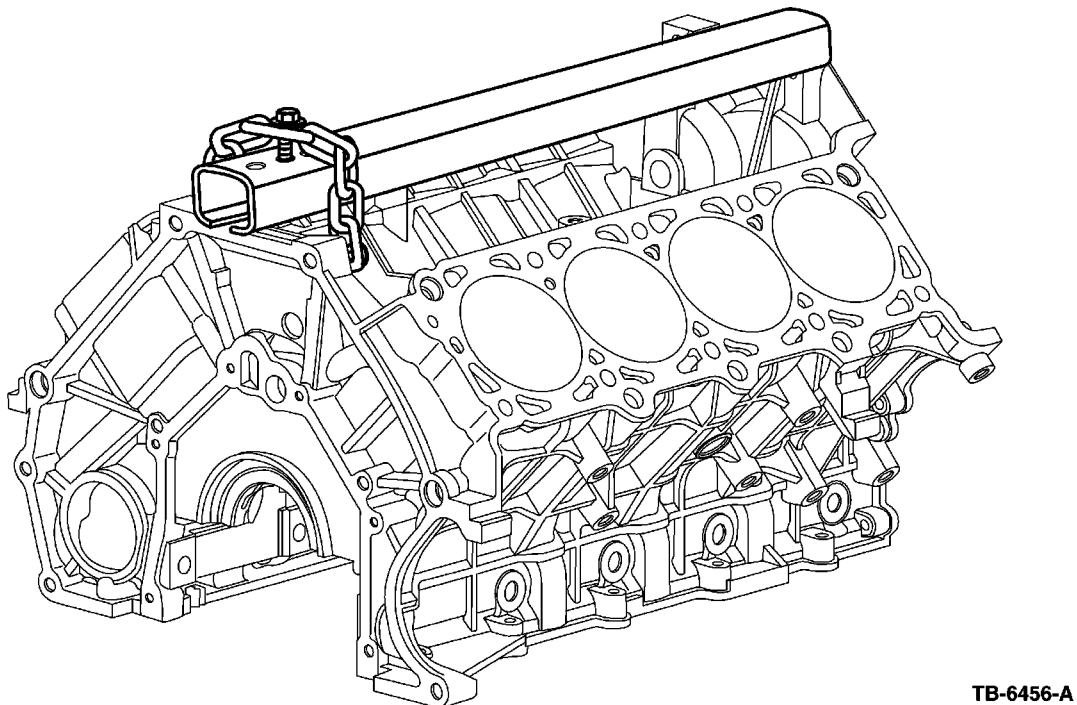


Figure 4 - Article 01-21-10