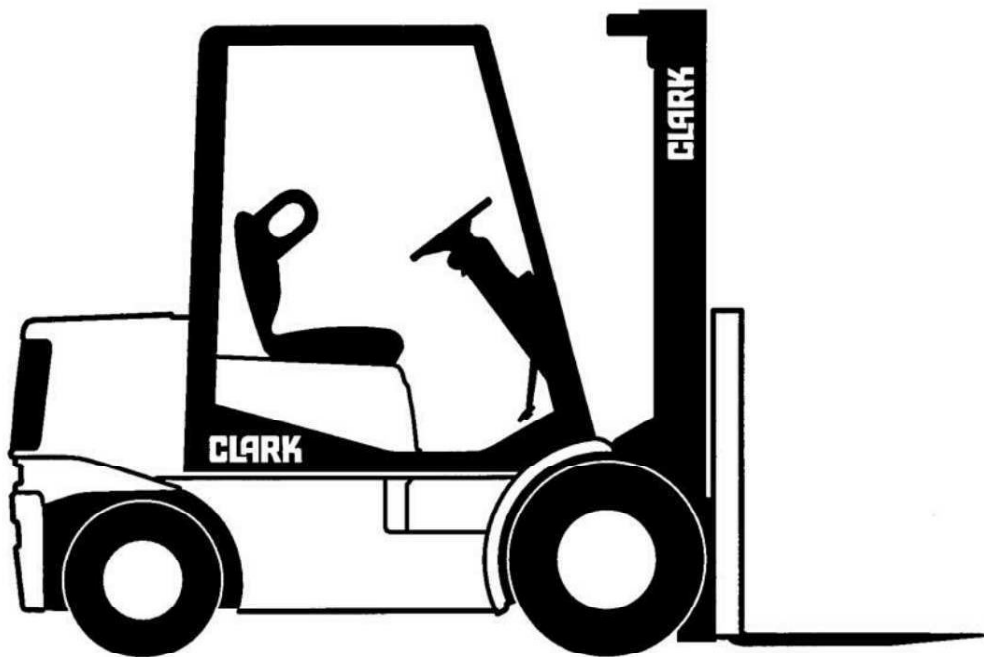


**OH-544
C500 915
(Perkins Gas)**



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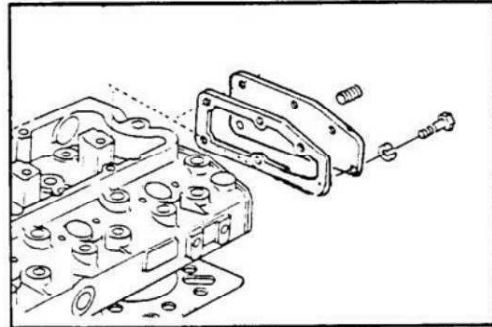
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3. Install new crankcase head end gasket.

4. Install crankcase head end cover, rear engine lift bracket and fasteners.

Tighten fasteners to a torque of (33-37 M.m)
24-27 lbf-ft.

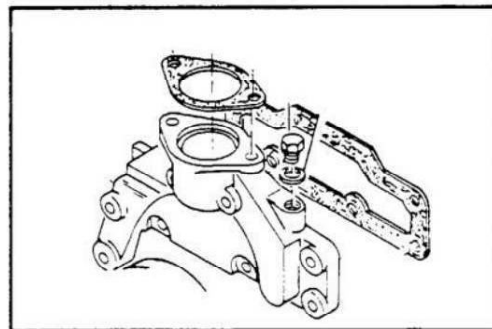


25770

5. Install new thermostat housing gasket.

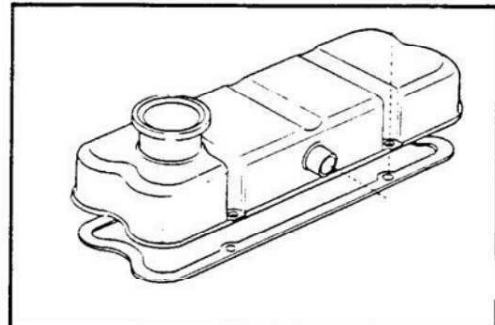
6. Install thermostat housing, engine front lift bracket and fasteners.

Tighten fasteners to a torque of (33-37 N.m)
24-27 lbf-ft.



25771

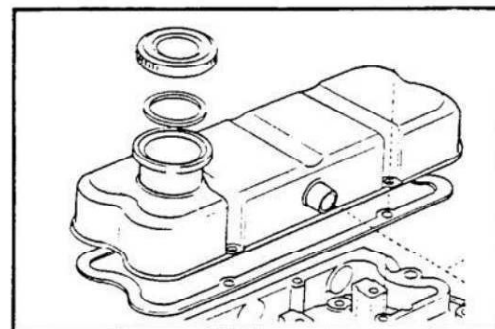
7. Install new rocker arm cover gasket, rocker arm cover and fastener.



25772

8. Replace oil filler cap.

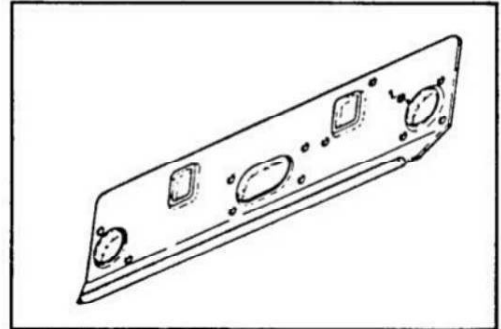
9. Replace crankcase ventilation line and valve.



25773

10. Install new intake and exhaust manifold gasket.

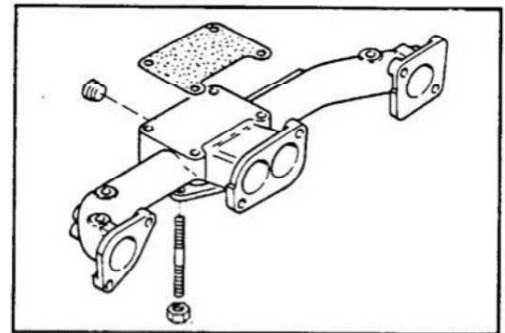
11. Put intake manifold in position. Insert fasteners and tighten to a torque of (33-37 N.m) 24-27 lbf-ft.



25774

12. Install new intake-to-exhaust manifold gasket and install exhaust manifold.

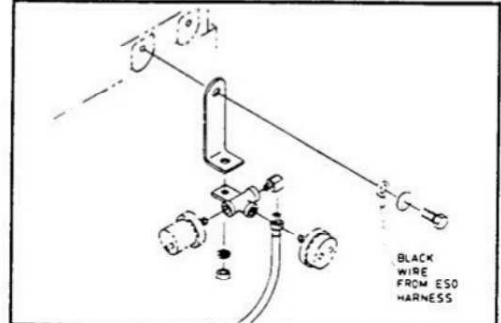
Tighten fasteners to a torque of (33-37 N.m) 24-27 lbf-ft.



25775

13. Install engine oil pressure gauge manifold bracket.

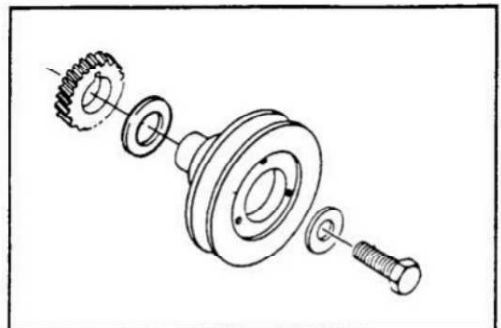
Tighten fastener to a torque of (33-37 N.m) 24-27 lbf-ft.



25829

GEAR COVER AND GEAR REMOVAL:

1. Remove crankshaft pulley mounting bolt, washer, and crankshaft pulley.



25776

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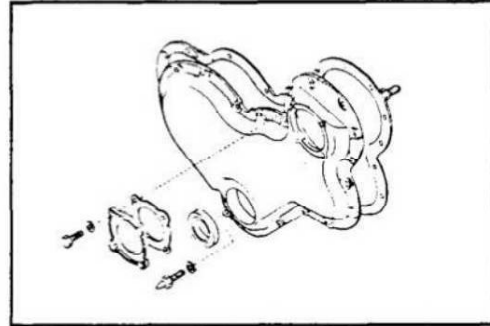
CLARK

2. Remove gear cover fasteners.

NOTE: Make sure fasteners are identified for position when removed to assure proper assembly.

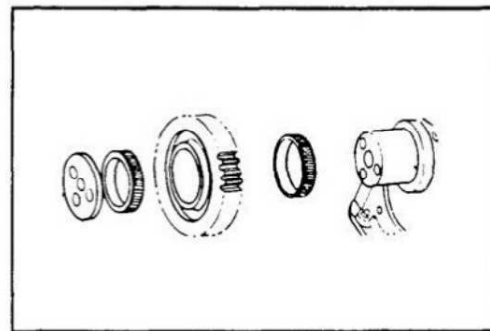
3. Remove gear cover and gasket.

NOTE: Before removing any gears, make sure match marks are on each gear. They determine gears are in proper assembly when marks are correctly aligned.



25777

4. Bend back tabs on idler gear retainer to release fasteners. Remove fasteners, retainer, outboard bearing, idler gear, inboard bearing and idler gear hub.

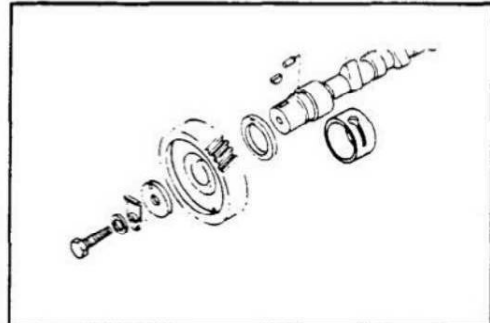


25778

5. Bend back camshaft gear tab washer and remove fasteners, washer, tab washer and locator plate.

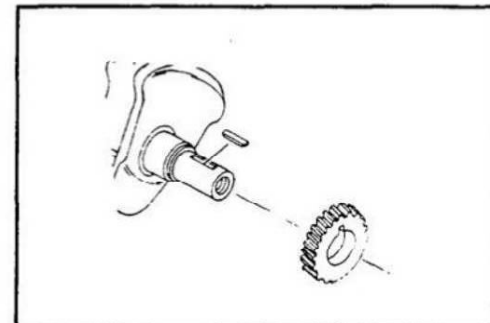
Use a gear puller to remove camshaft timing gear.

Remove camshaft thrust plate, locating pin and key.



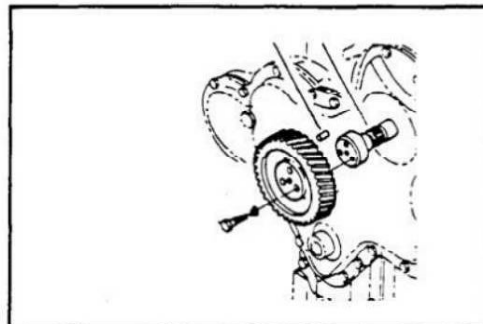
25779

6. Remove crankshaft gear and key.



25821

7. Remove three (3) distributor drive gear fasteners and lockwashers. Remove distributor drive gear and key.

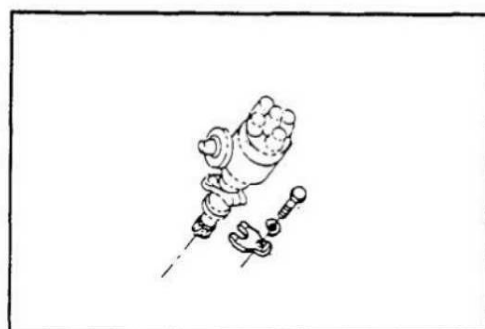


25780

8. Remove distributor fastener and mounting clamp.

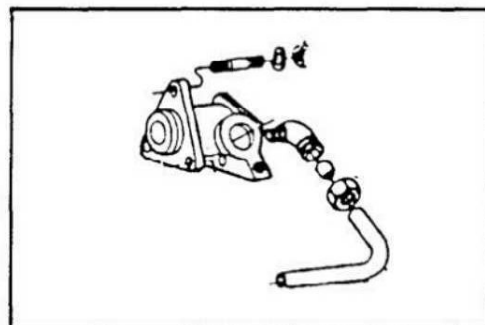
NOTE: Make a mark on distributor body and on distributor mounting adaptor to make sure distributor is correctly positioned at assembly.

Remove distributor.



25781

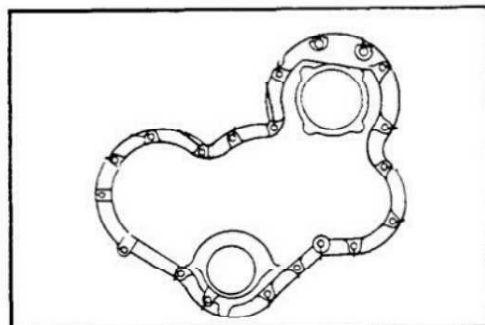
9. Remove distributor drive lube fitting nut at engine block fitting end.



25782

10. Remove fasteners attaching gear cover backing plate to engine block. Remove backing plate and gasket.

NOTE: Make sure fasteners are kept in correct order to assure proper assembly of parts.



25783

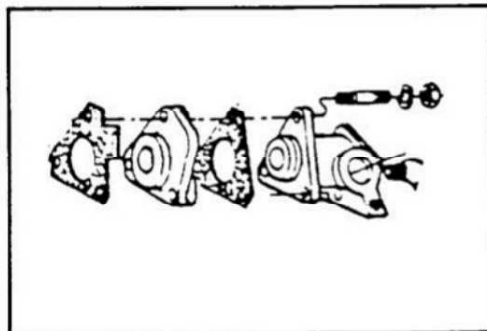
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11. Remove fasteners attaching distributor drive assembly to backing plate.

Remove distributor drive assembly, gasket, spacer and spacer gasket.

Remove distributor drive assembly lube line.



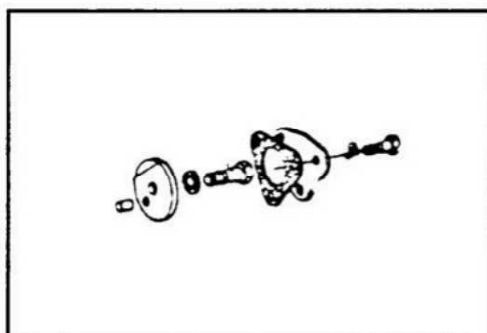
25784

12. Remove adaptor end cover fasteners.
Remove end cover and gasket.

13. Remove thrust plate fastener and lock-washer.

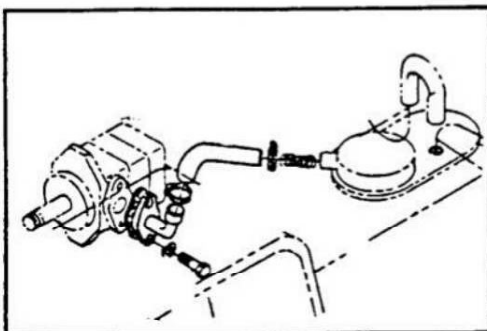
14. Remove thrust plate and locating pin.

15. Remove distributor drive shaft.



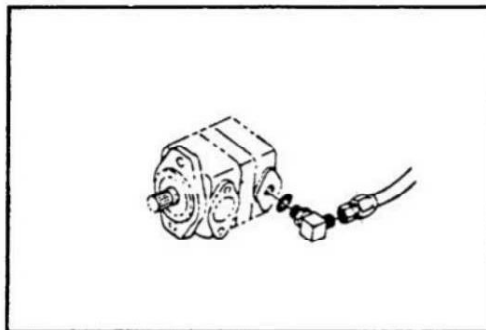
25785

16. Remove main hydraulic pump inlet line fasteners from mounting flange.



25912

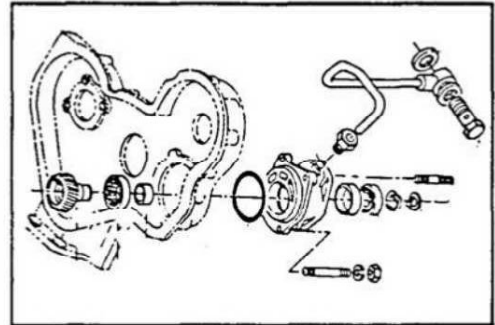
17. Loosen fitting on main pump outlet line and remove outlet line from main pump.



25913

18. Remove fasteners attaching pump to pump adaptor and remove pump and gasket.

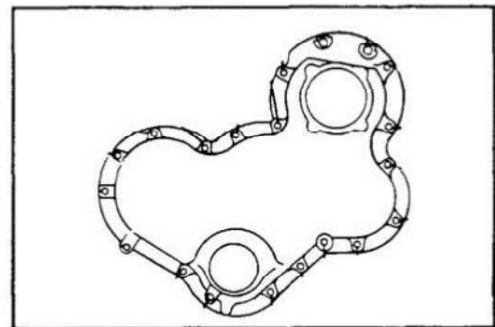
19. Remove oil line fitting nut at pump adaptor and lift oil line off adaptor.



25915

20. Remove adaptor assembly from gear case.

21. Remove fasteners attaching gear cover backing plate to engine block. Remove backing plate and gasket.



25783

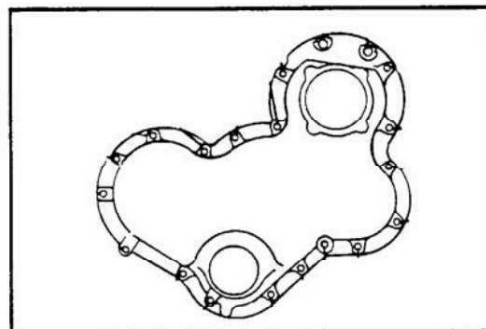
GEAR COVER PARTS INSPECTION:

1. Inspect gear assemblies for mechanical damage to gear teeth or for evidence of broken, badly worn, pitted or otherwise damaged teeth.
2. Inspect web area of cover for evidence of cracks or corroded areas.
3. Inspect hub areas of gears for any cracks, badly worn faces, worn mounting surfaces, or damaged threads or keyways.
4. Examine lube lines to make sure they are clean and not leaking.
5. Carefully clean all gasket surfaces to remove all traces of old gaskets.
6. Inspect bearings for evidence of any pitted or corroded areas. Make sure bearings are free in cages but not worn to permit roller to "shift" in cages.
7. Examine bearings for evidence of worn or damaged surfaces.
8. Inspect gear cover for any evidence of mechanical damage. Look for porous surfaces or warpage of mounting surfaces.
9. Inspect backing plate for cracks or any other damage.
10. Inspect all threaded holes for any damaged threads.
11. Damaged or faulty parts must be repaired or replaced with new before assembly.
12. Apply a thin layer of engine oil to all parts.

GEAR COVER INSTALLATION:

1. Install a new gasket and gear cover backing plate on front face of engine block.

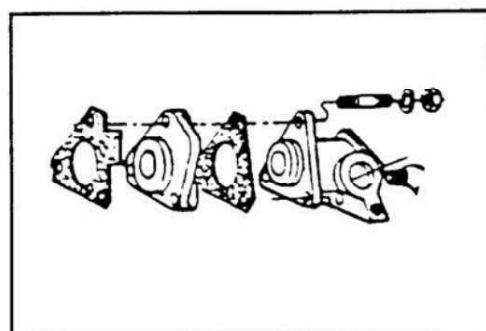
Install fasteners and tighten to a torque of (18-21 N.m) 13-16 lbf-ft.



25783

2. Assemble distributor drive in reverse order of disassembly. Use new gaskets. Make sure locating pin is in correct position to locate thrust plate.

Tighten thrust plate fastener to a torque of (18-21 N.m) 13-16 lbf-ft.

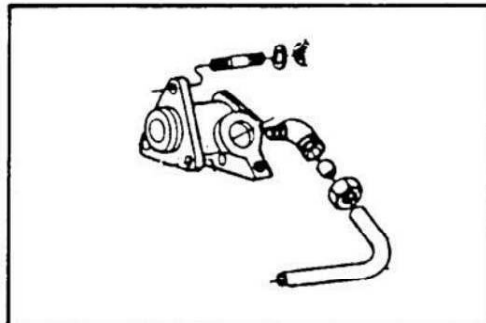


25784

3. Assemble end cover on housing and tighten fasteners to a torque of (18-21 N.m) 13-16 lbf-ft.

4. Assemble distributor drive and spacer to backing plate using a new gasket.

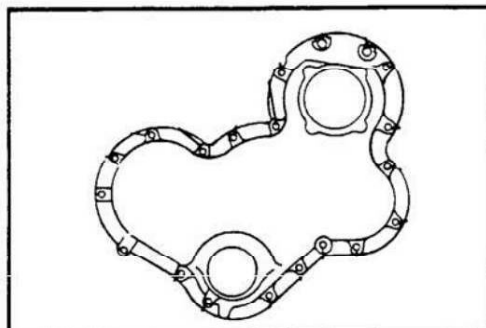
Tighten fasteners to a torque of (18-21 N.m) 13-16 lbf-ft.



25782

5. Attach lube line to rear of distributor housing.

6. Assemble gear cover backing plate to engine block. Use a new gasket. Make sure fasteners are in same position as when removed. Tighten fasteners to a torque of (18-21 N.m) 13-16 lbf-ft.

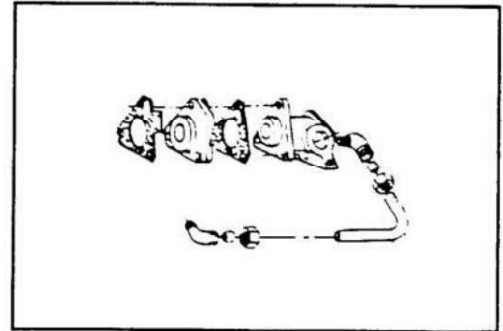


25783

7. Assemble lube line to fitting in engine block.

8. Put distributor drive gear and pin on drive shaft making sure pin is correctly positioned.

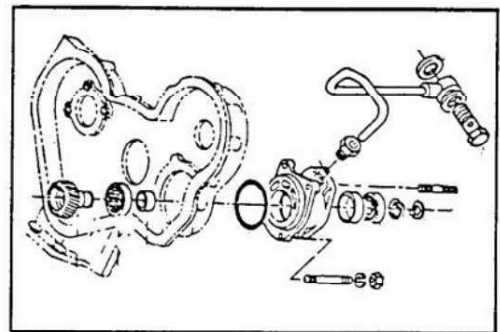
Insert fasteners and tighten to a torque of (33-37 N.m) 24-27 lbf-ft.



25786

9. Install main hydraulic pump adaptor on gear case.

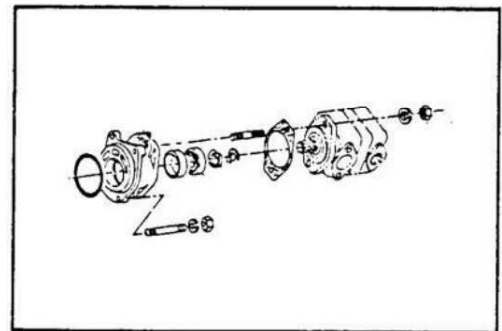
10. Install oil line on pump adaptor.



25915

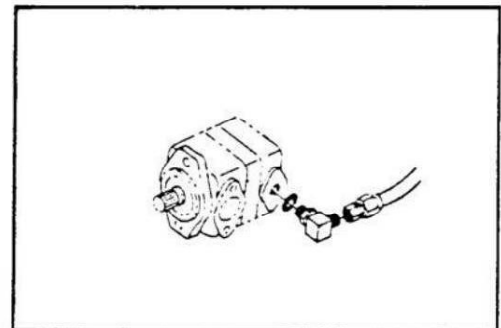
11. Position main hydraulic pump on adaptor and tighten fasteners to a torque of (33-37 N.m) 24-27 lbf-ft.

12. Install pump inlet flange on pump and tighten fasteners to a torque of (79-89 N.m) 58-66 lbf-ft.



25914

13. Install pump outlet line on pump and tighten fitting to a torque of (54-59 N.m) 40-44 lbf-ft.



25913

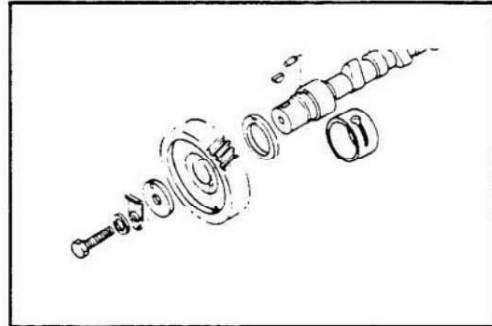
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14. Install camshaft thrust plate, locating pin and key.

Locate timing gear keyway in proper position on camshaft, insert fastener, lockwasher and tab-washer and tighten fastener (drawing gear onto shaft) to a torque of (50 N.m) 68 lbf-ft.

Bend tab on tab washer to lock fastener.

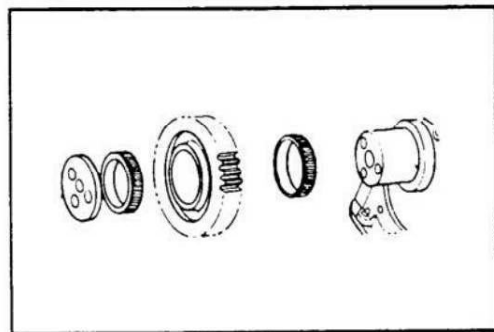


25779

15. Put idler gear hub into position making sure oil passages in hub line up with passage in crankcase.

Insert inboard bearing, idler gear, outboard bearing, retaining plate and fasteners.

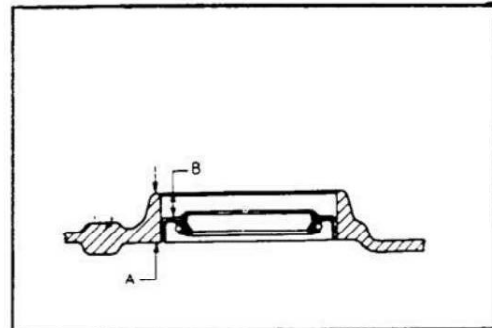
Tighten fasteners to a torque of (41 N.m) 30 lbf-ft.



25778

16. Carefully press out old crankshaft seal from outside of gear case cover. Press a new seal into bore from front of cover (with lips of seal toward inside of case) until it is (10,92-11,43 mm) 0.43-0.45 in. below face of bore (dim B) if bore width (dim A) is (20,6 mm) 0.81 in.

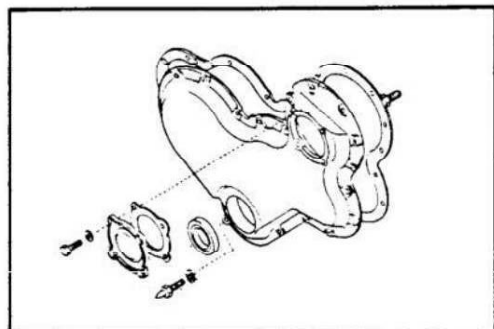
If dim. A is (17,5 mm) 0.69 in., reduce dim. B to (7,76-8,18 mm) 0.30-0.32 in.



25787

17. Put gear case cover and gasket in position on front of engine using care not to damage seal when passing over crankshaft.

Insert fasteners in correct position and tighten to a torque of (18-21 N.m) 13-16 lbf-ft.



25777