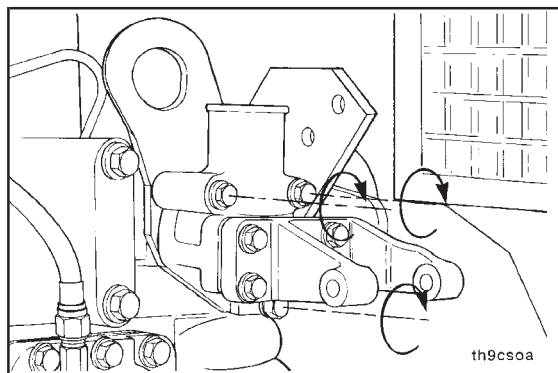


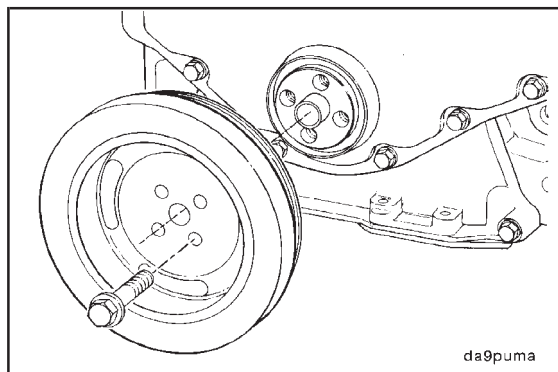


10 mm

Install the "package".



Torque Value: 24 N•m [18 ft-lb]

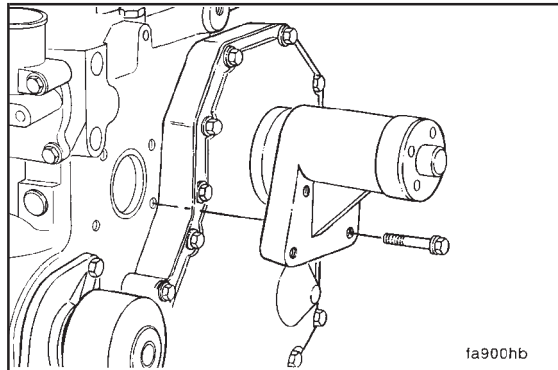


15 mm

Install the crankshaft pulley/vibration damper.



Torque Value: 125 N•m [92 ft-lb]

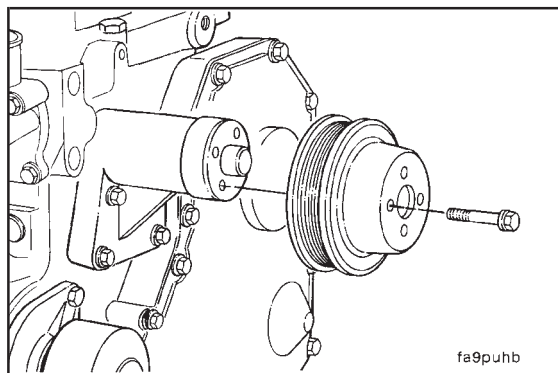


10 mm

Install the fan hub.



Torque Value: 24 N•m [18 ft-lb]



10 mm or 13 mm

Install the fan hub pulley.



Torque Value



8 mm Capscrew - 24 N•m [18 ft-lb]

10 mm Capscrew - 43 N•m [32 ft-lb]

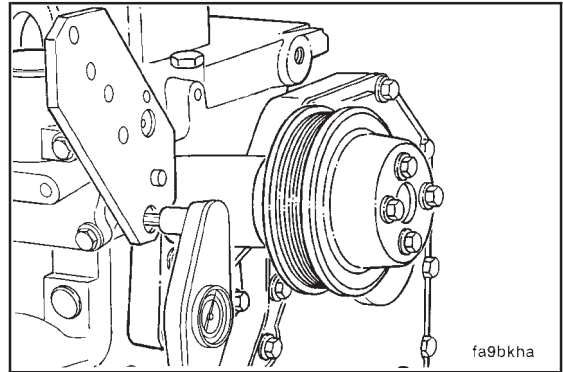
Belt Tensioner - Installation (0-120)

5 mm Allen

Install the tensioner bracket to the cylinder head.

Tighten the socket head screws.

Torque Value: 24 N•m [18 ft-lb]

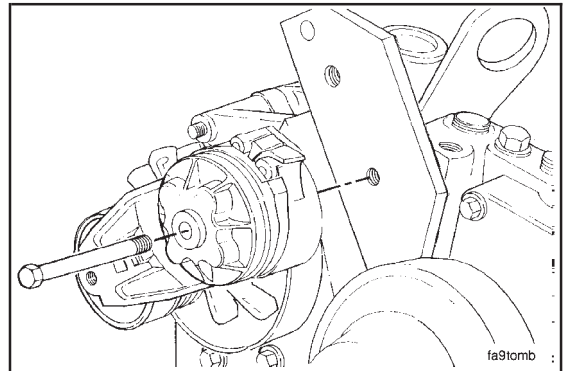


13 mm

Position the belt tensioner on the bracket and secure it with the capscrew.

Torque Value: 43 N•m [32 ft-lb]

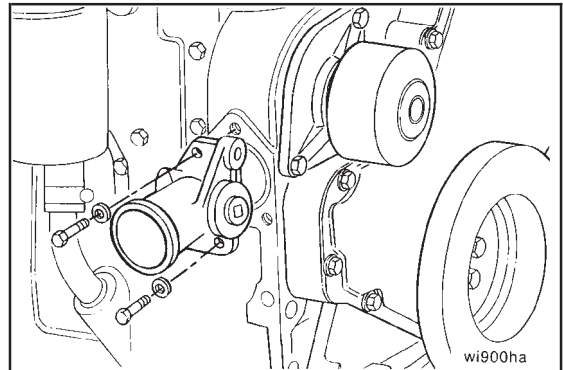
NOTE: Some tensioners can be bolted to two different locations on the bracket. Install into the location dictated by your requirement.



Water Inlet Connection - Installation (0-121)

Caution: Do not tighten at this time. To avoid misalignment and overstressing the lower support mounting ear on the alternator, leave the capscrews loose until all the alternator parts are installed.

Install the water inlet connection and sealing ring.

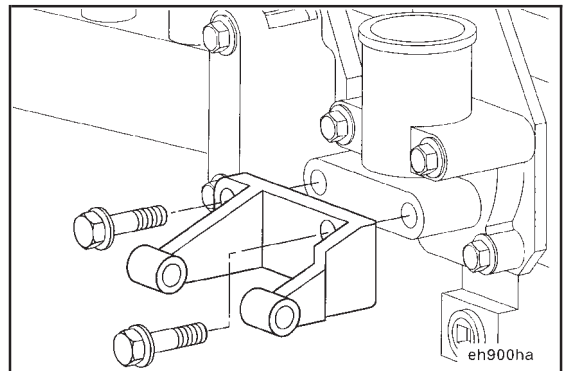


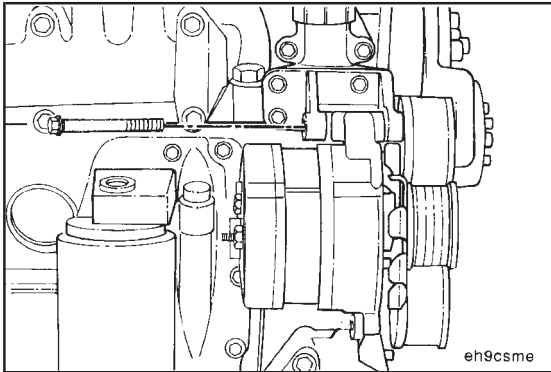
Alternator - Installation (0-122)

10 mm

Assemble the alternator bracket to the thermostat housing.

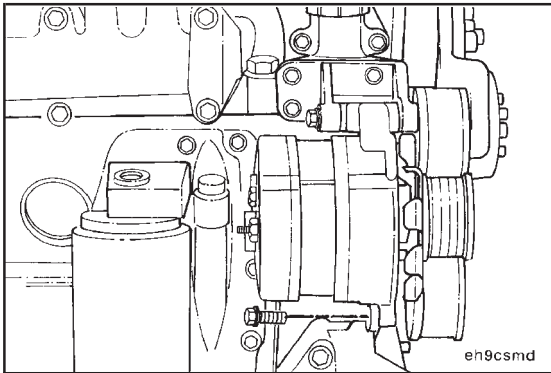
Torque Value: 24 N•m [18 ft-lb]





Position the alternator on the bracket and secure it with the mounting cap screw and spacer.

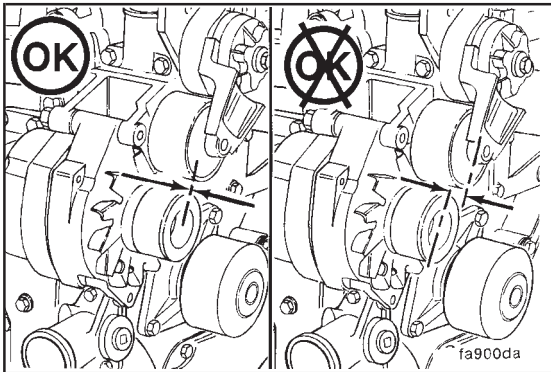
Do not tighten at this time.



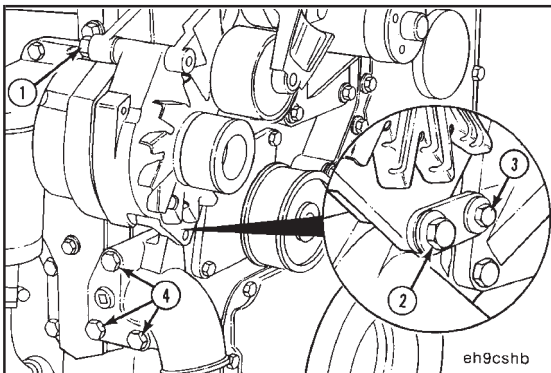
Caution: Do not tighten at this time. To avoid misalignment and overstressing the lower support mounting ear on the alternator, leave the cap screws loose until all the alternator parts are installed.



Install the alternator link.



Check the alternator pulley visually or with a straight edge to make sure it is aligned with the other pulleys and is parallel to the front face of the block.



After all parts are assembled, tighten all cap screws in the following sequence:

1. Alternator-to-alternator bracket cap screw.
2. Lower brace-to-alternator cap screw.
3. Alternator-to-water inlet cap screw.
4. Water inlet-to-block cap screws.

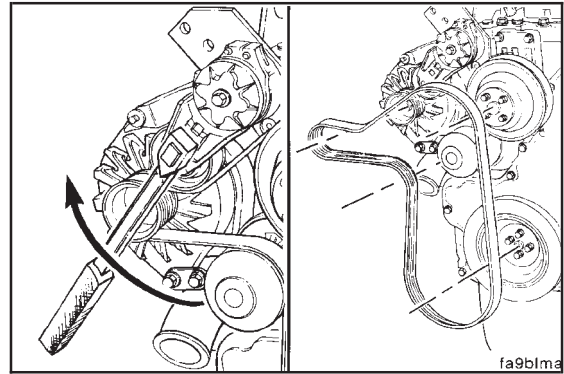
NOTE: Wrench size and torque value is determined by the make and model of alternator. Refer to the Engine Component Torque Values.

Drive Belt - Installation (0-123)

3/8 inch Square Drive

Lift the tensioner and install the belt.

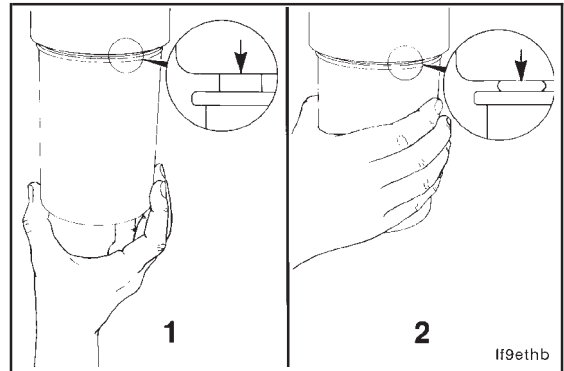
Service Tip: If difficulty is experienced installing the drive belt (the belt seems too short), position the belt over the grooved pulleys first and then while holding the tensioner up, slide the belt over the water pump pulley.



Oil Filter - Installation (0-124)

Lubricate the filter seal and tighten the filter according to the filter manufacturer's instructions.

Be sure to use the correct filter for your engine. Fleetguard LF3345 is used **only** for the 4B engine. Fleetguard LF3349 can be used for the 4B and 6B engine.

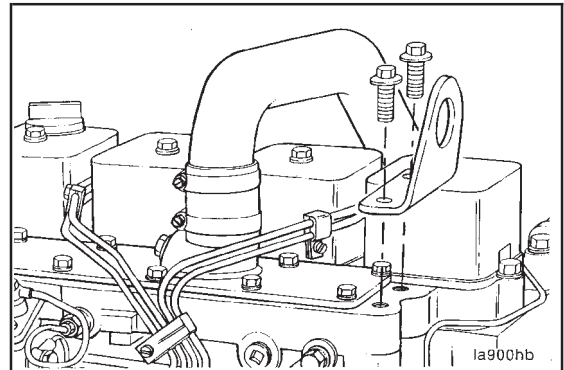


Rollover Stand - Engine Removal (0-125)

18 mm

Install the rear lifting bracket.

Torque Value: 77 N•m [57 ft-lb]

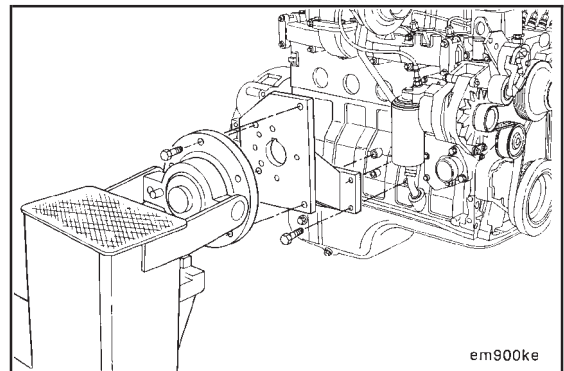


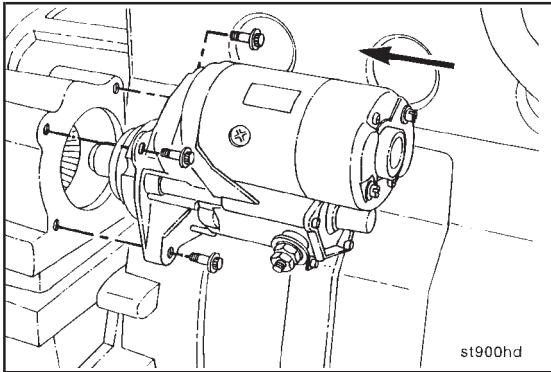
Remove the engine from the rollover stand.

Engine Weight

4B engine (wet) weight: 325-350 Kg [715-770 lb]

6B engine (wet) weight: 410-440 Kg [910-970 lb]





10 mm

Install the starting motor.



Torque Value: 43 N•m [32 ft-lb]



Section 1 - Cylinder Block - Group 1

Section Contents

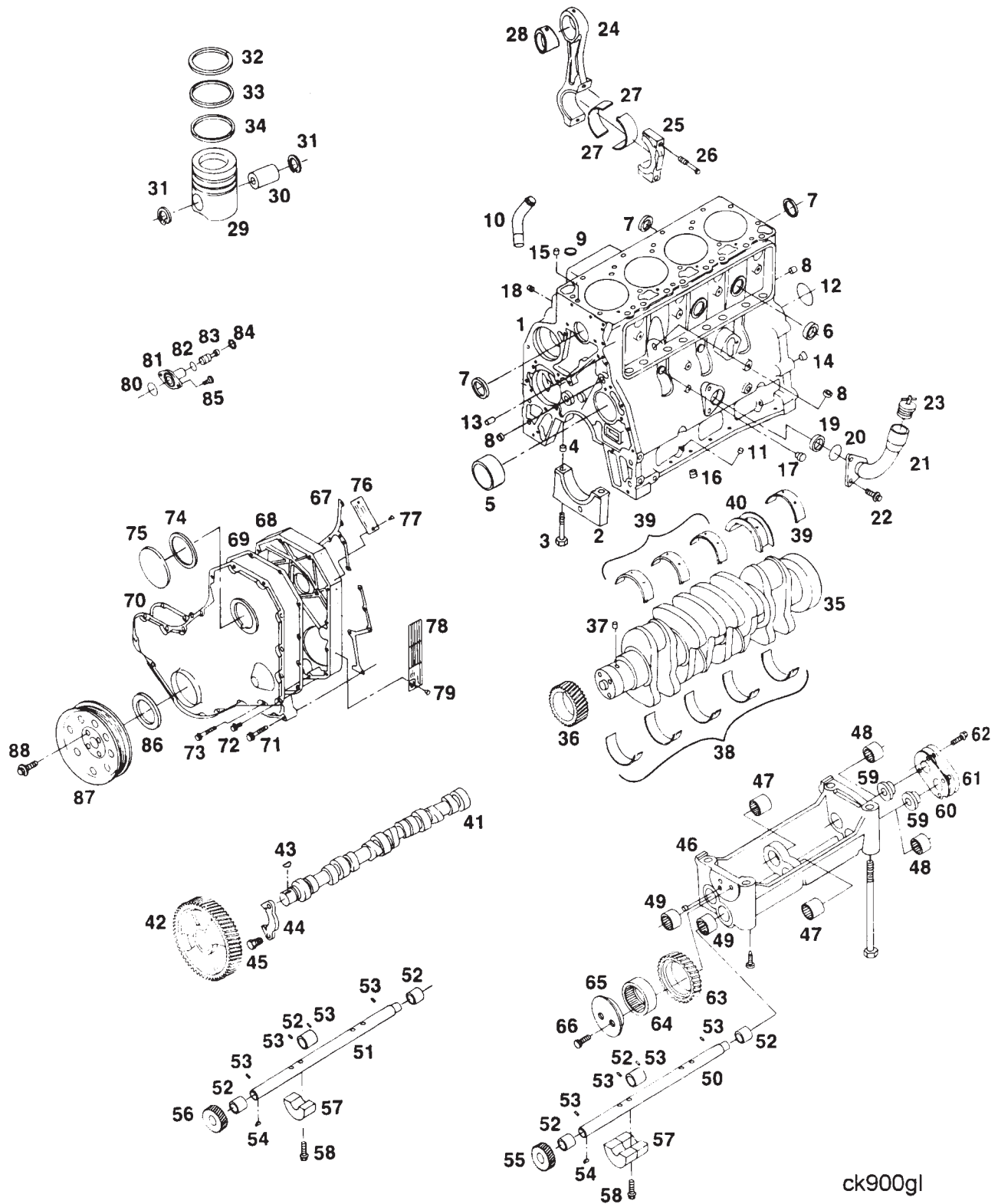
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NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Cylinder Block - Exploded View



Item	Part Name	Qty.	Remarks
1	Block, Cylinder	1	
2	Cap, Main Bearing	5	7 for 6B
3	Screw, Hex Hd Cap (Flg)	10	M14-2.0 x 119
4	Ring Dowel	10	
5	Bushing, Cam	1	
6	Plug, Expansion	2	1.0 in.
7	Plug, Expansion	4	
8	Plug, Expansion	3	.70 in.
9	Plug, Expansion	1	Not used with Turbocharger
10	Tube, Turbo Oil Drain	1	
11	Plug, Expansion	1	3/8 in.
12	Plug, Expansion (Welch)	1	2.37 in.
13	Pin, Dowel	2	
14	Ring, Dowel	2	
15	Ring, Dowel	2	
16	Nozzle, Piston Cooling	4	
17	Plug, Pipe	2	1/8 NPTF
18	Plug, Pipe	1	1/2 NPTF (N/A Only)
19	Plug, Expansion	1	Use w/o side oil fill
20	Seal, Rectangular Ring	1	
21	Tube, Oil Filler	1	
22	Screw, Hex Head Cap	2	M12-1.75x25
23	Cap, Filler	1	
24	Rod, Connecting	4	6 for 6B
25	Cap, Connecting Rod	4	6 for 6B
26	Bolt, Connecting Rod	8	12 for 6B
27	Bearing, Connecting Rod	8	12 for 6B
28	Bushing	4	6 for 6B
29	Piston	4	6 for 6B
30	Pin, Piston	4	6 for 6B
31	Ring, Retaining	8	12 for 6B
32	Ring, Piston (Top)	4	6 for 6B
33	Ring, Piston (Mid)	4	6 for 6B
34	Ring, Piston (Oil)	4	6 for 6B
35	Crankshaft	1	
36	Gear, Crankshaft	1	
37	Pin, Dowel	1	
38	Bearing, Main (Lower)	5	7 for 6B
39	Bearing, Main (Upper)	4	6 for 6B
40	Bearing, Main (Thrust)	1	
41	Camshaft	1	
42	Gear, Camshaft	1	
43	Key	1	
44	Support, Cam Thrust	1	