



Specification

C15 On-highway Engine

S/N: MXS00001-UP



Specifications

C15 On-highway Engine

Media Number -SENR9691-08

Publication Date -01/08/2008

Date Updated -22/08/2008

i03291112

CAT Compression Brake

SMCS - 1119; 1129

S/N - MXS1-UP

S/N - NXS1-UP

S/N - RKS1-UP

Refer to Specifications, "Variable Valve Actuator" for information that is related to the adjustment of the variable valve actuator.

NOTICE

Do not disassemble the Variable Valve Actuator. There are no components of the Variable Valve Actuator that are serviceable. If the Variable Valve Actuator is disassembled, the warranty will be void.

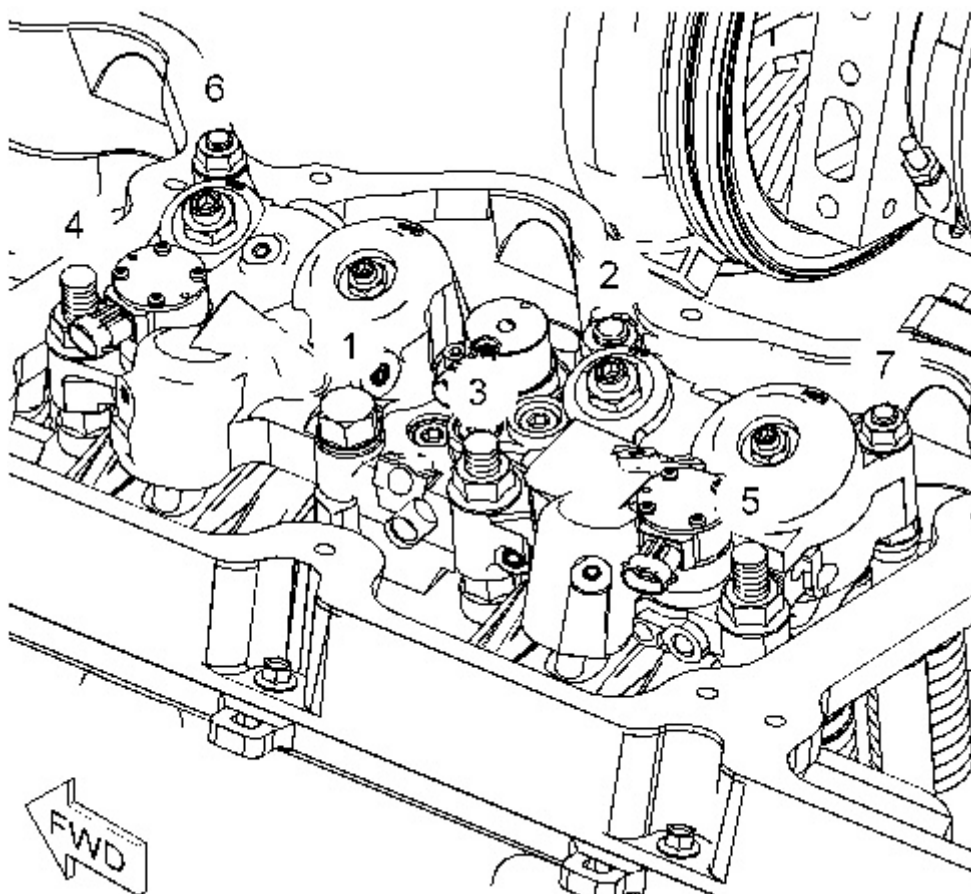


Illustration 1

g01100789

Tightening sequence for the valve actuator group

Use the following procedure to tighten the valve actuator group:

1. In order to install the valve actuator group for the compression brake to the cylinder head, place the housing over the mounting studs. Finger tighten the mounting stud nuts and the mounting bolt.
2. Tighten the nuts, the bolt and flange nuts of each valve actuator group in the numerical sequence that is shown in Illustration 1.
3. Again, tighten the nuts, the bolt and flange nuts of each valve actuator group in the numerical sequence that is shown in Illustration 1.

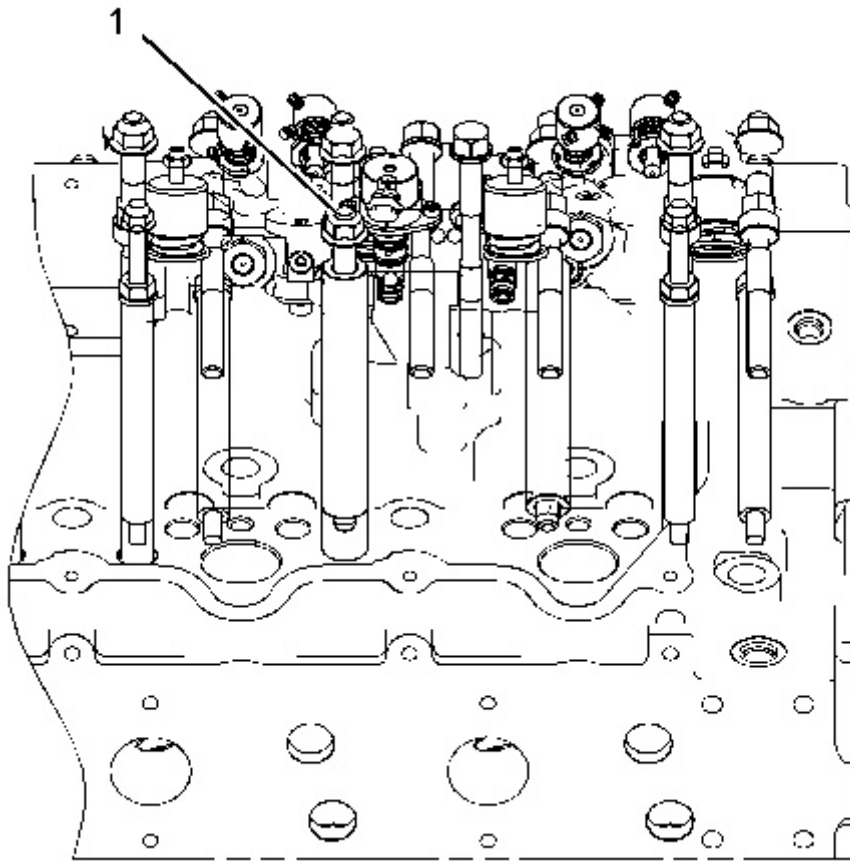


Illustration 2

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Right side view of engine

(1) Torque for the taperlock studs ... $65 \pm 10 \text{ N}\cdot\text{m}$ ($48 \pm 7 \text{ lb ft}$)



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i03021983

Camshaft

SMCS - 1210

S/N - MXS1-UP

S/N - NXS1-UP

Note: Before installation of the camshaft, ensure that the camshaft and the camshaft bearings are clean. lubricate the camshaft lobes with a 50/50 mixture of **8T-2998** Lubricant and clean engine oil. Apply a thin coat of clean engine oil on the camshaft bearings.

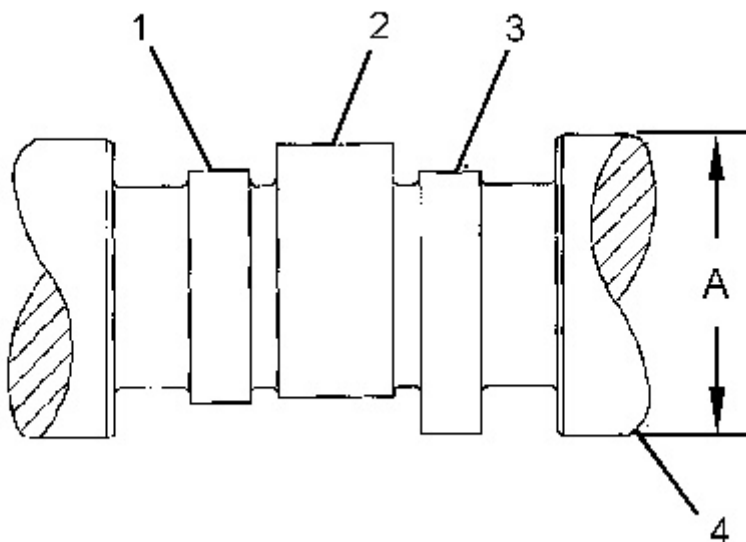


Illustration 1

g01525229

(1) Exhaust lobe

(2) Injector lobe

- (3) Inlet lobe
- (4) Front of camshaft

(A) Diameter of camshaft journal ... 84.85 ± 0.02 mm (3.341 ± 0.001 inch)

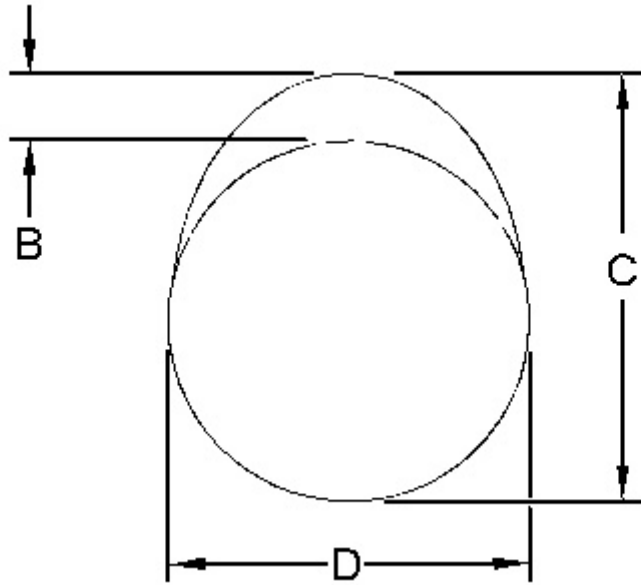


Illustration 2

g01525234

Use the following procedure in order to determine the actual camshaft lobe lift :

1. Measure the camshaft lobe height (C) .
2. Measure the base circle (D) .
3. Subtract the base circle (D) from the lobe height (C) . The difference is the actual camshaft lobe lift .

(B) Specified camshaft lobe lift

Exhaust lobe ... 8.51521 mm (0.335244 inch)
 Injector lobe ... 10.33686 mm (0.406962 inch)
 Inlet lobe ... 9.62494 mm (0.378934 inch)

The maximum permissible difference between the actual lobe lift in Step 3 and the specified lobe lift is 0.13 mm (0.005 inch).

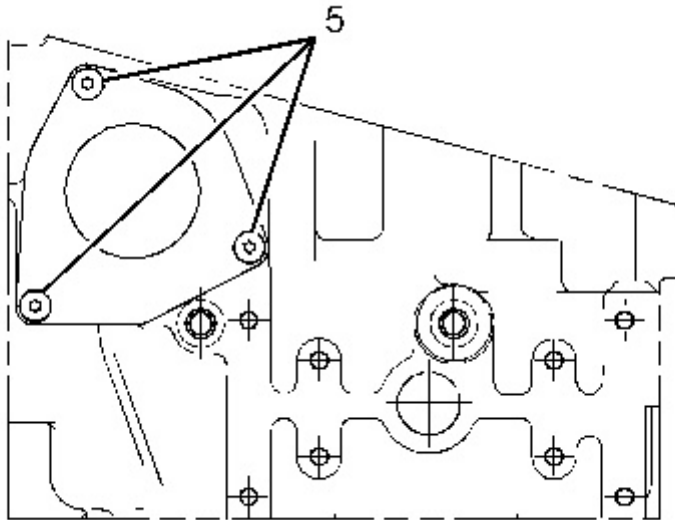


Illustration 3

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(5) Torque for three flat head screws ... $13 \pm 3 \text{ N}\cdot\text{m}$ ($115 \pm 27 \text{ lb in}$)



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i03022667

BrakeSaver

SMCS - 1155

S/N - BXS1-UP

S/N - MXS1-UP

S/N - NXS1-UP

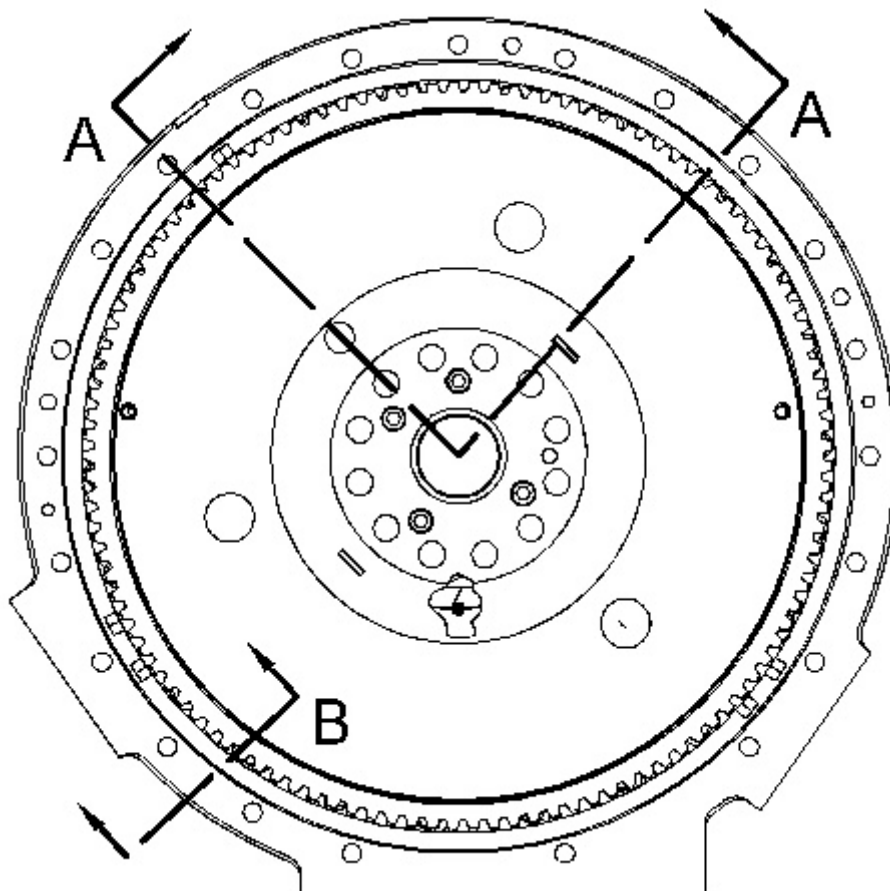


Illustration 1

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Front view

Note: Base the wear sleeve against the carrier. Flush the seal with the wear sleeve. The seal and the wear sleeve should be installed simultaneously. The seal group cannot be used once the seal has been separated from the wear sleeve.

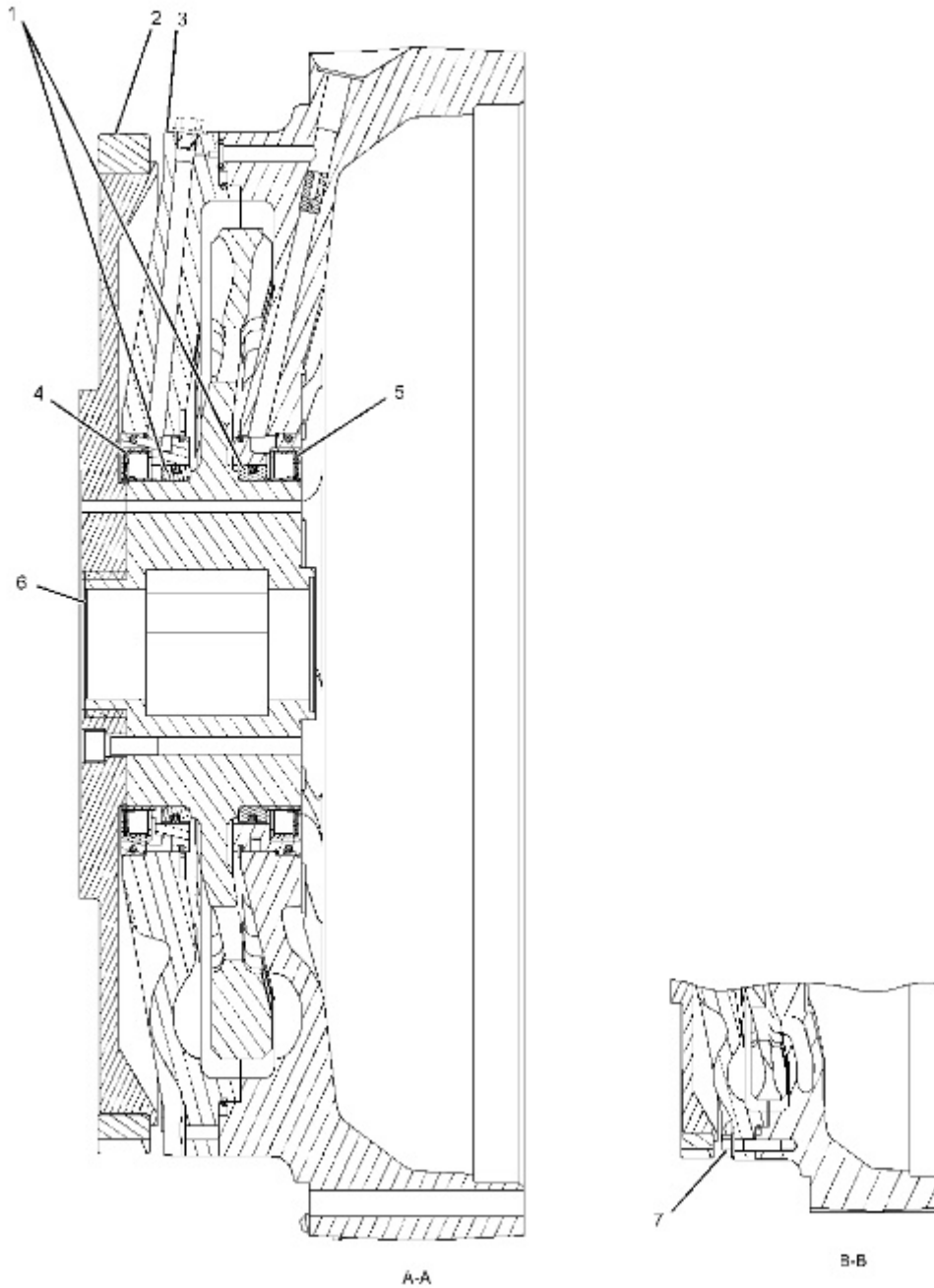


Illustration 2

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(3) Stator

(4) Seal group

(5) Brakesaver seal group

(1) The seal carriers are heated to 149 °C (300 °F) in order to install the seal carriers onto the rotor assembly (6). Do not use a torch.

(2) Heat the gear to 315 °C (600 °F) for the installation on the gear plate assembly. Do not use a torch.

(7) Torque for 22 bolts ... 55 ± 7 N·m (41 ± 5 lb ft)



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i04385391

Flywheel Housing

SMCS - 1157

S/N - -

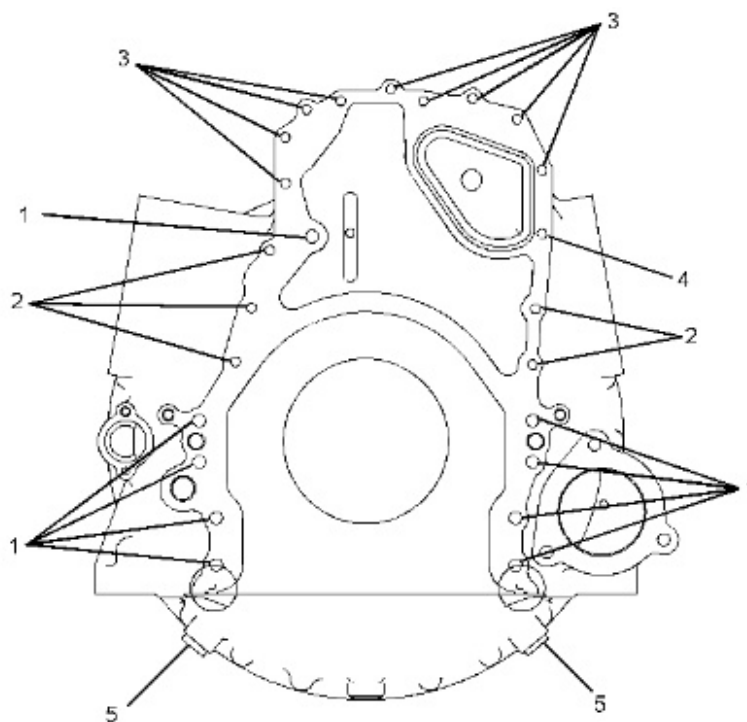


Illustration 1

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Diesel Engines

ABS	Agco-Sisu
Akasaka	Baudouin
BMW	Bukh
Caterpillar	CHN 25/34
Cummins	Daihatsu
Detroit	Deutz
Doosan-Daewoo	Fiat
Ford	GE
Grenaa	Guascor
Hanshin	Hatz
Hino	Honda
Hyundai	Isotta
Isuzu	Iveco
John-Deere	Kelvin
Kioti	Komatsu
Kubota	Liebherr
Lister	Lombardini
MAK	MAN B&W
Mercedes	Mercruiser
Mirrlees BS	Mitsubishi
MTU	MWM
Niigata	Paxman
Perkins	Pielstick
Rolls / Bergen	Ruggerini
Ruston	Scania
Shibaura	Sisu-Valmet
SKL	Smit-Bolnes
Sole	Stork
VM-Motori	Volvo
Volvo Penta	Westerbeke
Wichmann	Yanmar

Machinery

ABG	Airman
Akerman	Ammann
Astra	Atlas Copco
Atlas Weyha.	Atlet
Bell	Bendi
Bigjoe	Bobcat
Bomag	BT
Carelift	Case
Caterpillar	Cesab
Challenger	Champion
Claas	Clark
Combilift	Crown
Daewoo-Doosan	Demag
Deutz-Fahr	Dressta

Machinery

Drott	Dynapack
Extec	Faun
Fendt	Fiat
Fiatallis	Flexicoil
Furukawa	Gehl
Genie	Grove-gmk
Halla	Hamm
Hangcha	Hanix
Hanomag	Hartl
Haulpack	Hiab
Hidromek	Hino truck
Hitachi	Hyster
Hyundai	IHI
Ingersoll-rand	JCB
JLG	John-Deere
Jungheinrich	Kalmar
Kato	Kioti
Kleeman	Kobelco
Komatsu	Kramer
Kubota	Lamborghini
Landini	Liebherr
Linde	Link-belt
Manitou	Massey-Ferg.
Mccormick	MDI-Yutani
Mitsubishi	Moxy
Mustang	Neusson
New-Holland	Nichiyu
Nissan	OK
OM-Pimespo	others-tech
Pel-Job	PH-mining
Poclain	Powerscreen
Same	Samsung
Sandvik	Scania
Schaefer	Schramm
Sennebogen	Shangli
Shibaura	Steiger
Steinbock	Steyr
Still	Sumitomo
Super-pac	Tadano
Takeuchi	TCM
Terex	Toyota
Valpadana	Venieri
Versatile	Vogele
Volvo	Weidemann
Wirtgen	Yale
YAM	Yanmar