



Test Monitoring Center

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1K/1N Information Letter No. 09-1
Sequence No. 29
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ASTM consensus has not yet been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: Single Cylinder Diesel Mailing List
SUBJECT: Corrected Tolerance for Top Ring End Gap Clearance for 1K / 1N Test

The 1K / 1N Top Ring end gap clearance specification tolerance has been corrected to ± 0.076 mm. The incorrect previously published value showed the clearance specification tolerance to be ± 0.76 mm. Figure A1.2 of D 6750 has been revised and is attached.

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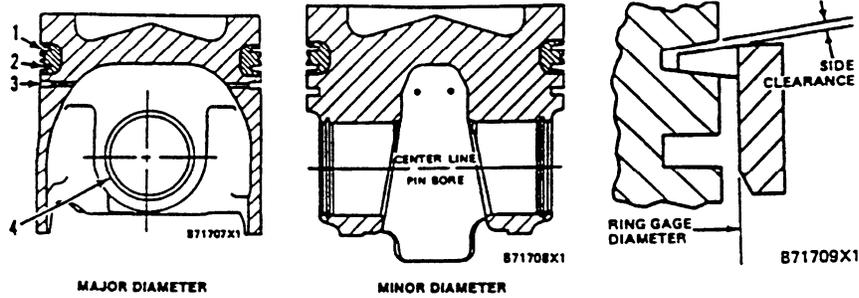
Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/diesel/scote/procedure_and_ils/1k/il09-01.pdf

Distribution: Email

(Revises Test Method D 6750-08, as amended by Information Letter 08-01)

1Y0727 Piston And 1Y0728 Rings



	TOP RING ^A	INTERMEDIATE RING ^A	OIL CONTROL RING ^A
Width of groove in piston for piston ring (new)	—	2.455 ± 0.01 mm	3.21 ± 0.01 mm
Thickness of piston ring (new)	—	2.365 ± 0.01 mm	3.137 ± 0.006 mm
Side Clearance between groove and piston ring (new)	0.193 ± 0.032 mm	0.090 ± 0.02 mm	0.073 ± 0.016 mm
End gap clearance between end of ring (new) installed in 137.160 mm diameter gage.	0.724 ± 0.076 mm	0.673 ± 0.076 mm	0.572 ± 0.190 mm

^A This engine uses Keystone style piston rings and grooves in the piston for top rings. The piston ring lands are also elliptically ground, therefore measure top and ringside clearance as follows:

- (1) Assemble piston ring on the piston with UP side toward the top of the piston.
 - (2) Install piston and ring in a 137.160 mm diameter ring gage.
 - (3) Push piston and ring until ring to be measured is at the top of the gage as shown. Keep the piston in the center of the gage.
 - (4) Measure the side clearance with a feeler gage at both major diameter (90° from the centerline of the pin bore) and minor diameter. Either measurement should be within specifications shown.
- Install the oil control ring with gap in the sprint 180° away from the gap in the ring.
- (a) Top ring groove.
 - (b) Intermediate ring groove.
 - (c) Oil control ring groove.
 - (d) Bore in piston for pin. 50.815 ± 0.008 mm
Piston pin diameter 50.795 ± 0.005 mm
Clearance between pin and bore in piston 0.020 ± 0.013 mm

FIG. A1.2 Piston Specifications