

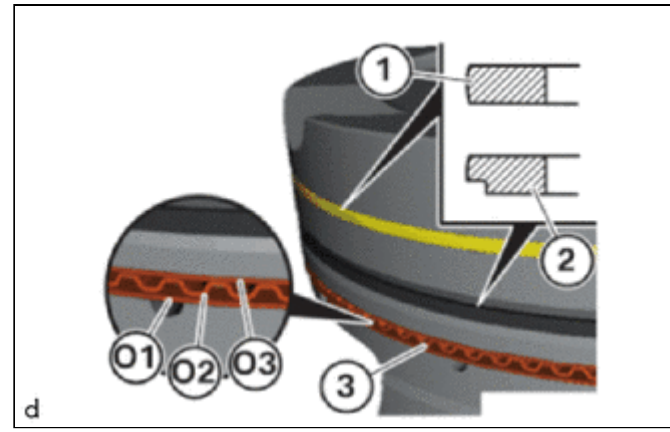
# Your Ultimate Source for OEM Repair Manuals

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## 2014 TOYOTA Tacoma Access Cab OEM Service and Repair Workshop Manual

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- (1) Upper piston ring (1): Plain rectangular compression ring (engraving must point upwards)
- (2) Centre piston ring (2): Taper faced piston ring (engraving must point upwards)
- (3) Oil scraper ring (3): Consisting of 2 piston rings (O1) and (O3) with a spring (O2) in the centre



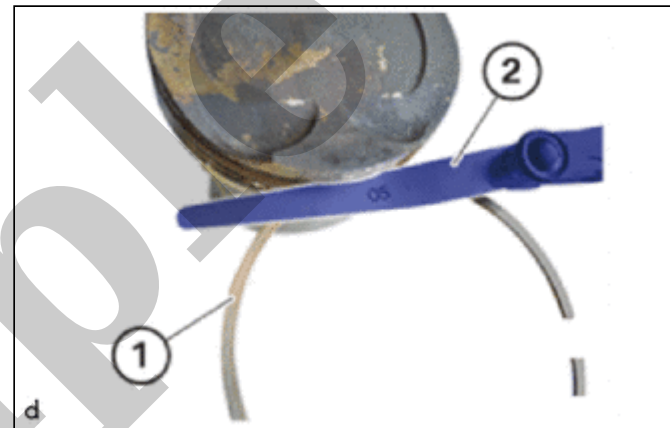
(b) With a feeler gauge, measure the clearance of the new upper piston ring (plain rectangular compression ring).

Standard Ring Groove Clearance:

ENGINE	SET OF THE PISTON RINGS	RING GROOVE CLEARANCE OF THE PISTON RING, MIDDLE
B58 (2 Port Type)	13011-WAA02	0.035 to 0.85 mm (0.0014 to 0.0335 in.)
B58 (6 Port Type)	13011-WAA01 13011-WAA03	0.02 to 0.07 mm (0.0008 to 0.0028 in.)

**HINT:**

- The clearance is outside of the tolerance.
  - Renew the piston.



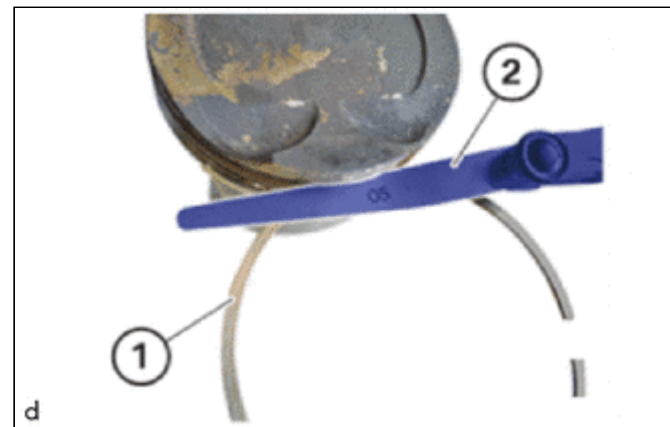
(c) With a feeler gauge, measure the clearance of the new centre piston ring (taper faced piston ring).

Standard Ring Groove Clearance:

ENGINE	SET OF THE PISTON RINGS	RING GROOVE CLEARANCE OF THE PISTON RING, MIDDLE
B58 (2 Port Type)	13011-WAA02	0.015 to 0.06 mm (0.0006 to 0.0024 in.)
B58 (6 Port Type)	13011-WAA01 13011-WAA03	0.03 to 0.07 mm (0.0012 to 0.0028 in.)

**HINT:**

- The clearance is outside of the tolerance.
  - Renew the piston.



**NOTICE:**

- Damage on the cylinder wall and oil spray nozzles.

Major force can scratch the cylinder wall and bend the oil spray nozzles.

- Carefully move the piston and connecting rod sub-assembly in the engine block.

- Piston, piston pin, connecting rod sub-assembly and connecting rod bearings are matched to each other and balanced.

Always install the piston, piston pin, connecting rod and connecting rod bearing shells in the cylinder from which they were removed.

- The connecting rod sub-assemblies of the engine are balanced and are matched to each other.

A single connecting rod sub-assembly is not permitted to be replaced. Always replace all connecting rod sub-assemblies.

**HINT:**

The description is for one component only. The procedure is identical for all further components.

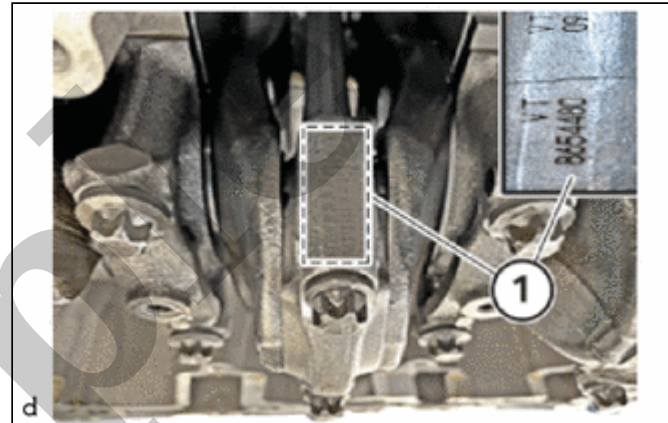
- (a) Turn the crankshaft until the connecting rod bearing journal reaches a vertical position.

**NOTICE:**

- Engine damage caused by incorrectly installed connecting rod bearings and connecting rod bearing caps.

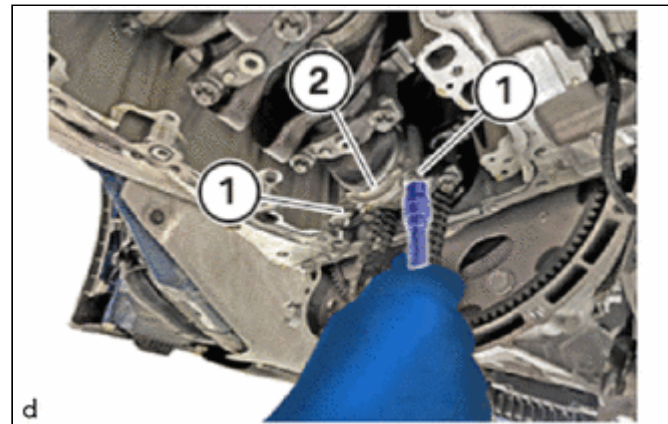
Engine damage may result from incorrectly installing connecting rod bearings and connecting rod bearing caps.

- Always install all connecting rod bearings and connecting rod bearing caps in the same position from which they were removed.



- (b) Note the mounting orientation of the connecting rod bearing cap (1) before removal in marked area, if necessary mark with a standard tool.

- (c) Release the connecting rod bolts (1) on the connecting rod bearing cap (2).



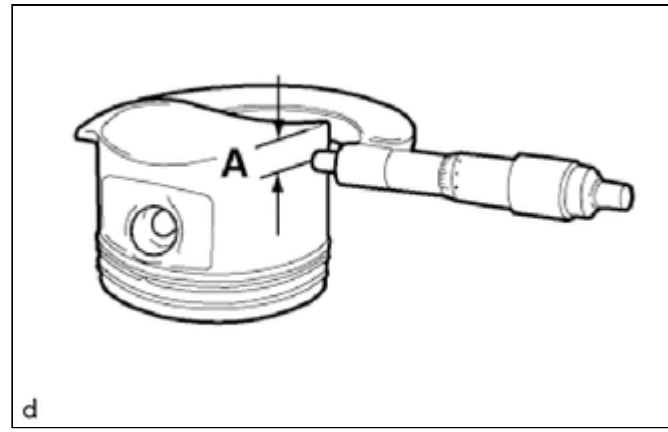
- (d) Feed the connecting rod bearing cap (2) out and remove.
- (e) Make sure that the connecting rod bearing cap (2) can be reinstalled with the connecting rod bearing shell on the correct position.
- (f) Place the connecting rod bearing cap (1) with the connecting rod bearing shell (2) properly.

**NOTICE:**

DISTANCE (A) TO THE LOWER END OF THE PISTON SKIRT	NOMINAL DIMENSION OF PISTON DIAMETER
14 mm (0.551 in.)	81.938 to 81.956 mm (3.226 to 3.227 in.)
26 mm (1.02 in.)	81.870 to 81.884 mm (3.223 to 3.224 in.)
49 mm (1.93 in.)	81.285 to 81.309 mm (3.200 to 3.201 in.)

**HINT:**

If the piston diameter is not as specified, replace the piston.



**7. REMOVE PISTON PIN HOLE SNAP RING**

**NOTICE:**

The description is for one component only. The procedure is identical for all further components.

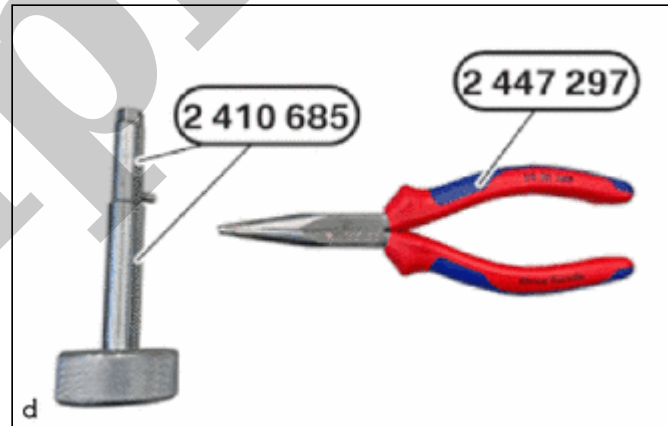
**HINT:**

Wear safety goggles.

- (a) Use the special tools 2 410 685 and 2 447 297 for removing the piston from connecting rod.

**SST: 09200-WA580**

**SST: 09900-WA150**



- (b) Use special tool 2 447 297 to remove the piston pin hole snap ring (1).

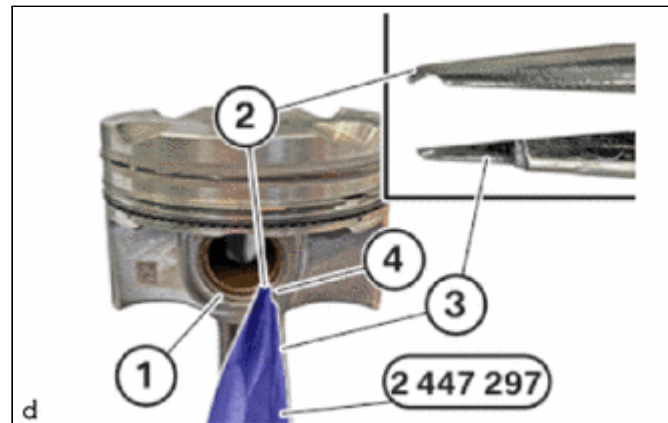
**SST: 09900-WA150**

**CAUTION:**

- Piston pin hole snap ring with preload.

Danger of injury!

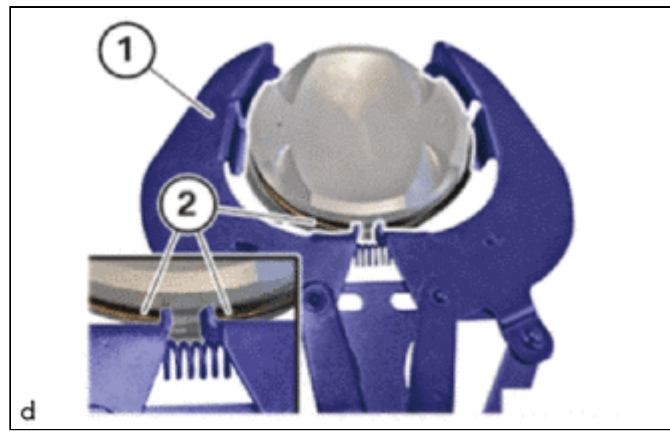
- The use of the specified special tool for the disassembly or installation is mandatory.
- Wear safety goggles.



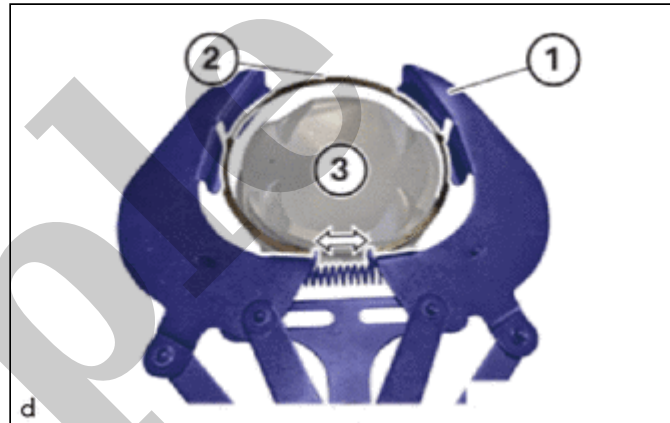
- (c) Insert the flat side (3) of the special tool into the groove (4).

- (d) Grip the piston pin hole snap ring (1) by the domed side (2) and remove.

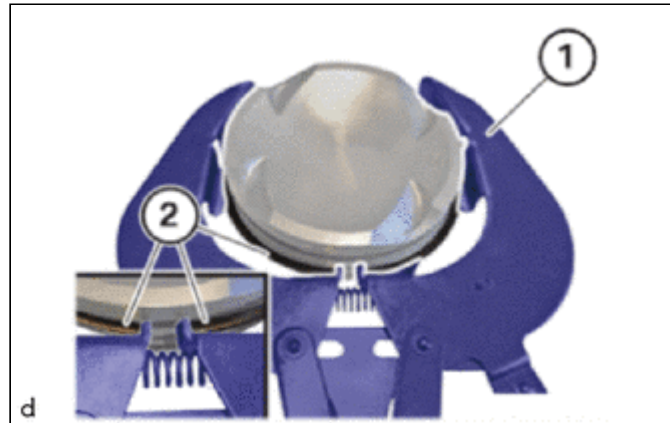
(b) Position the piston ring pliers (1) on the top piston ring (2).



(c) Tension the piston ring pliers (1) in the direction of arrow, feed out and remove the top piston ring (2).



(d) Position the piston ring pliers (1) on the middle piston ring (2).



(e) Tension the piston ring pliers (1) in the direction of arrow, feed out and remove the top piston ring (2).