



SERVICE BULLETIN

Release Date: August 1, 2018

Expiration Date: August 1, 2020

IND

Communication #: I-18-06

Model Year(s): 2014-2018

— Confidential and Proprietary —

VERSION: R04 (September 25, 2018)

**ALLOW KIT INSTALLATION ON 2014-16 CALIFORNIA MODELS*

**ADDED NEW KIT IDENTIFIER MARKING INFO*

IMPORTANT STOP SALE NOTICE!

Stop selling affected vehicles immediately until the repair procedure has been completed on affected units at your dealership.

IMPORTANT

If you are working with a printed copy, please verify you have the most current version of these instructions.

SUBJECT: CONNECTING ROD REPLACEMENT

PURPOSE

Indian Motorcycle has determined that 111 c.i. engine connecting rods, when used in conjunction with the Thunder Stroke 116 c.i. Stage 3 Big Bore accessory pistons, may exhibit durability concerns under certain operating conditions. Motorcycles equipped with the accessory Thunder Stroke 116 c.i. Stage 3 Big Bore Kit, and utilizing aftermarket tuners/controllers, or other performance modifications are more susceptible to these durability concerns. The Indian Motorcycle Warranty Policy excludes damages or failures resulting from: modified components; use of aftermarket or unapproved components, accessories, or attachments.

Indian Motorcycle is releasing this service bulletin to provide parts and labor coverage necessary to replace the connecting rod and piston assemblies with updated parts on engines equipped with the Thunder Stroke 116 c.i. Stage 3 Big Bore Kit.

NOTICE

Before ordering service kits, please verify the actual quantity of kits needed by reviewing impacted units in dealer inventory, along with confirmed consumer requests for updates.

NOTICE

Motorcycles that have never had a Thunder Stroke 116 c.i. Stage 3 Big Bore Kit installed onto them ARE NOT AFFECTED BY THIS BULLETIN and may continue to be retailed.

AFFECTED MODELS

MODEL YEAR	MODELS	AFFECTED MODELS
2014-2018	Chief, Chief Classic, Chief Dark Horse, Chief Vintage	This Bulletin only affects motorcycles equipped with 116 ci Stage 3 Big Bore Kits.
	Springfield, Springfield Dark Horse	
	Chieftain, Chieftain Classic, Chieftain Dark Horse, Chieftain Limited, Chieftain Elite	
	Roadmaster, Roadmaster Classic, Roadmaster Elite	

CUSTOMER NOTIFICATION

Dealers should review sales records and make arrangements with customers to complete the bulletin repair. Indian Motorcycle will NOT be sending a letter to registered owners.

WARRANTY CLAIM PARTS INFORMATION

Bulletin parts are excluded from the standard RMA policy and cannot be returned. Due to the limited visibility of dealer installed Thunder Stroke 116 c.i. Stage 3 Big Bore kits, an Initial Recommended Order Quantity has not been provided for this bulletin. Dealers should review inventory and sales records to determine an order amount that's right for their dealership.

2014–2018 INDIAN MOTORCYCLES (111 C.I.) EQUIPPED WITH THE THUNDER STROKE 116 C.I. STAGE 3 BIG BORE ACCESSORY KIT	
Bulletin	I-18-06
Claim Type	SB (Service Bulletin)
Labor Allowance	10.0 hours (600 minutes)
Part Number / Description	2207957 (QTY 1) Kit - Connecting Rod, 116 2880067 (QTY 1) Kit - Oil Change, Indian Motorcycle
Parts Availability	Available to order
University of Polaris Video Training Required	NO

SUPPLEMENTAL VIDEO

A service video has been created to help highlight the connecting rod replacement procedure. To view the video:

- Using DEX, Log onto the University of Polaris and search for the “**Connecting Rod Replacement**” video.

ACCESSORY REMOVE & REPAIR LABOR

Indian Motorcycle will cover labor for the removal and installation of ADDITIONAL accessories required to complete the bulletin work. Follow the steps below to obtain reimbursement.

For accessory removal and installation labor:

1. Start a new Ask Polaris Case, Service & Warranty Question > Authorization: Non-Cosmetic & Polaris ESC or Authorization: Out of Warranty.
2. Enter your contact information and VIN, along with miles and hours into the applicable fields.
3. Enter Indian I-18-06 in the CONCERN and CAUSE fields. In the CORRECTION field, enter "ACCESSORY REMOVAL AND INSTALLATION".
4. Enter warranty fail codes 142/279/209.
5. Add part 0000541, quantity 1.
6. Attach photos of the vehicle and accessories sufficient to support the labor time requested.
7. Submit the case to Polaris.

INVENTORY / STOCK PART CLAIMS

Dealers should review their service parts inventory and ensure the following service parts are **NOT** used:

- 2881677 - Thunder Stroke 116ci Stage 3 Big Bore Accessory Kit

NOTE

To remove these service parts from circulation, file a parts stock claim as directed below.

Use the following process for filing a PART STOCK warranty claim for any of the parts listed above.

1. Start a new Part Stock warranty claim.
2. Select Product Line: IND
3. Enter today's date into the Date Failed and Date Repair information fields
4. Enter Indian I-18-06 into the CONCERN field.
5. Enter Indian I-18-06 into the CAUSE field.
6. Enter Indian I-18-06 into the CORRECTION field.
7. Enter the part number and quantity, maximum TWO per claim.
8. Enter warranty fail codes: 140/280/152
9. Validate the parts.
10. Save and submit the claim to Polaris.

BULLETIN CONTACT LIST & SCHEDULING TOOL

A scheduling tool is available for dealers to keep a record of customers contacted and scheduled for this bulletin. This optional tool provides visibility for your dealership and will be helpful to track the status of scheduled service. For more information, log in to <http://www.universityofpolaris.com>.

COVERAGE PERIOD

Coverage will begin on 8/1/2018. Coverage will expire on 8/1/2020

SPECIAL TOOLS

The special tool outlined in this bulletin (**FRDHM10**) was direct-shipped to dealers at no-cost the week of July 23, 2018. If additional tools are required, they can be requested by submitting an Ask Polaris case to Technical Service.

PARTS RETURN / DISPOSAL INFORMATION

Under no circumstances shall the parts removed be re-used, sold, or re-purposed for another application. It is your dealership / distributor's responsibility to make sure every part replaced (related to this communication) is taken out of circulation and disposed of properly or returned to Polaris (if required).

FEEDBACK FORM

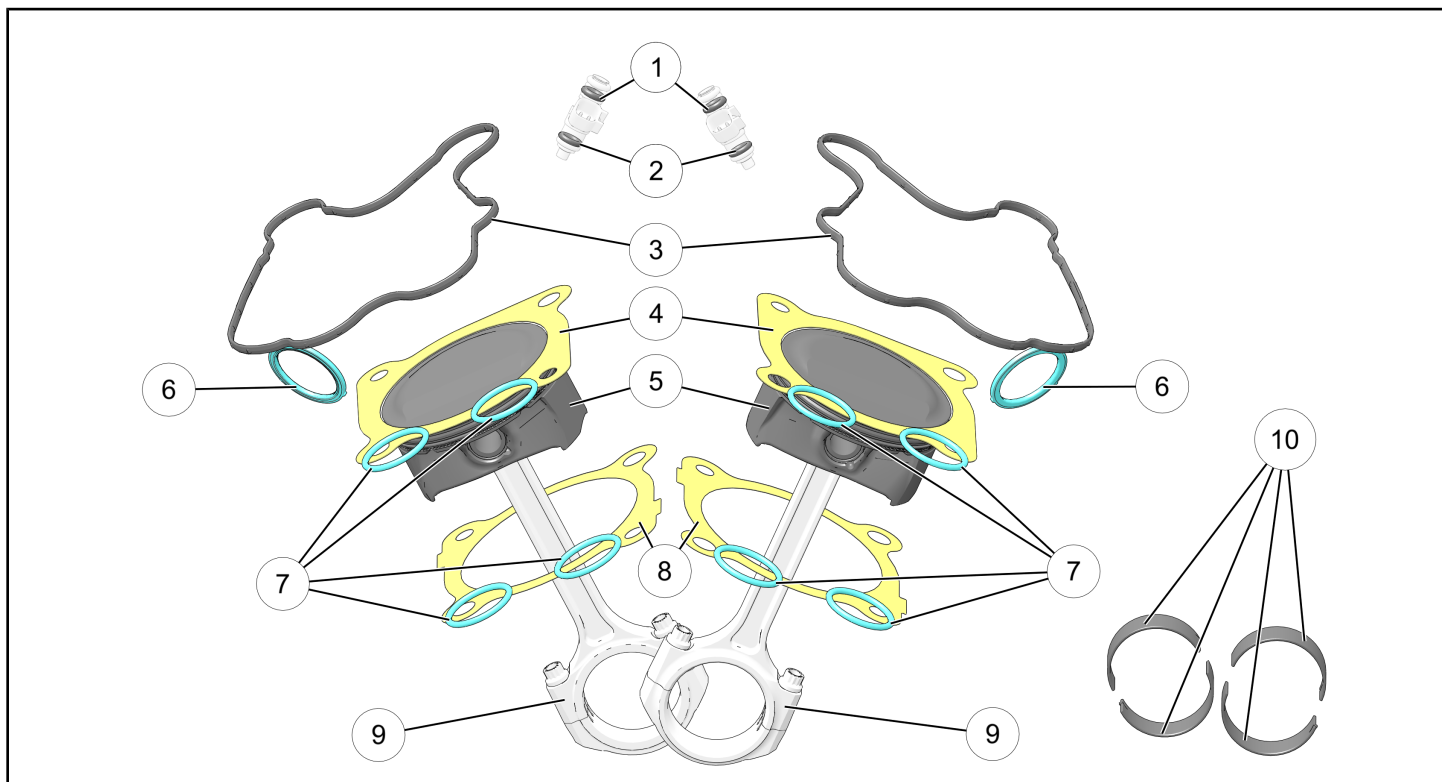
A feedback form has been created for the technician to provide Polaris with an overall satisfaction rating for the instructions, provide comments on your experience or upload pictures/video. This feedback form is viewable on a mobile device by scanning the QR code or by clicking **HERE** if viewing this document electronically.



I-18-06 CONNECTING RODS

KIT CONTENTS

116 Kit 2207957



ITEM	DESCRIPTION	PART NUMBER	QTY
①	Fuel Injector O-Ring, Upper	1500198	2
②	Fuel Injector O-Ring, Lower	5412891	2
③	Seal, Rocker Cover	5414859	2
④	Seal, Head Gasket	5814541	2
⑤	Piston (includes wrist pin and circlips)	3023066	2
⑥	Gasket, Exhaust	5257156	2
⑦	Gasket, Pushrod Tube	5414683 (BROWN)	8
		5416074 (BLACK)	8
⑧	Gasket, Base	5256328	2
⑨	Connecting Rod (includes rod bearings & bolts)	3053589	2
⑩	Bearings, Connecting Rod	3515097-002	4

Oil Change Kit 2880067

DESCRIPTION	PART NUMBER	QTY
Oil Filter (not shown)	2521421	1
Engine Oil (20W40), Pint (not shown)	2880065	1
Engine Oil (20W40), Quart (not shown)	2880122	5
Washer, Copper (not shown)	5812232	2

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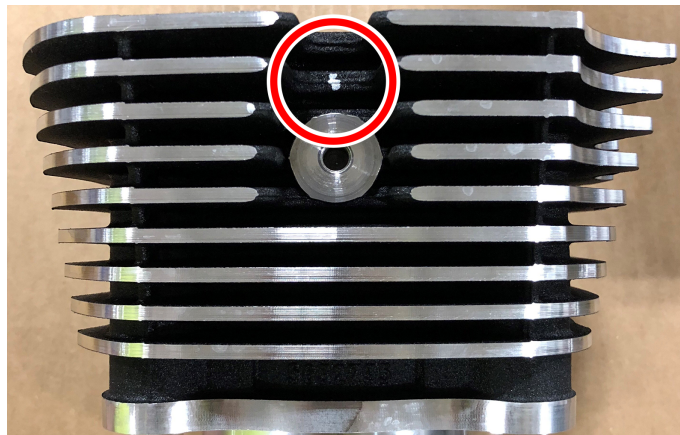
TOOLS REQUIRED

- T40 Torx
- 8mm, 15mm socket
- 12-point 10mm socket
- 8 inch socket extension
- pick tool
- piston ring compressor tool
- 0° offset 12-pt 10mm box end wrench
- Telescoping Mirror
- Special Tool - FRDHM10
- Socket Wrench
- Torque Wrench

I-18-06 CONNECTING ROD REPLACEMENT

IMPORTANT

Before performing the Connecting Rod Replacement procedure, verify that the white paint mark (photo below) is NOT present in the Knock Sensor relief within the cylinder. If the white paint mark is present, the motorcycle is equipped with an *updated* 116 c.i. kit and connecting rod replacement is not required.



ENGINE REMOVAL

IMPORTANT

Keep Transmission in gear for ease of turning engine crankshaft when accessing the connecting rods.

NOTICE

Drain the engine oil prior to performing the engine removal.

Refer to the online Indian Motorcycle (Full-Size) Service Manual to remove the engine from the frame.

- CHAPTER 3: ENGINE / COOLING / EXHAUST > **ENGINE REMOVAL**

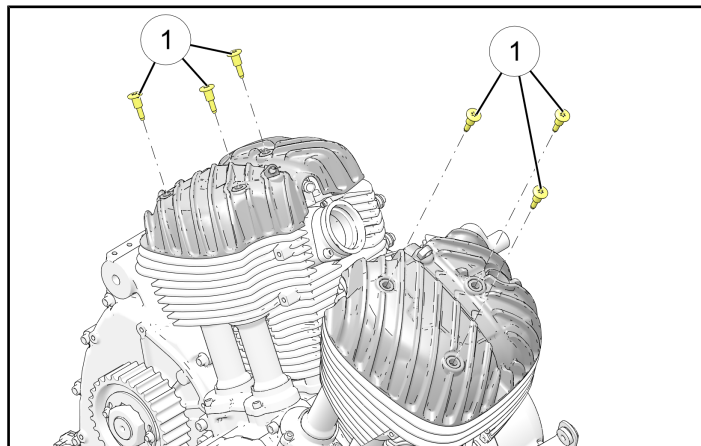
CONNECTING ROD REMOVAL

NOTICE

This procedure requires the use of a 10mm crowsfoot (PN **FRDHM10**). This special tool was shipped to dealers the week of July 23rd 2018.



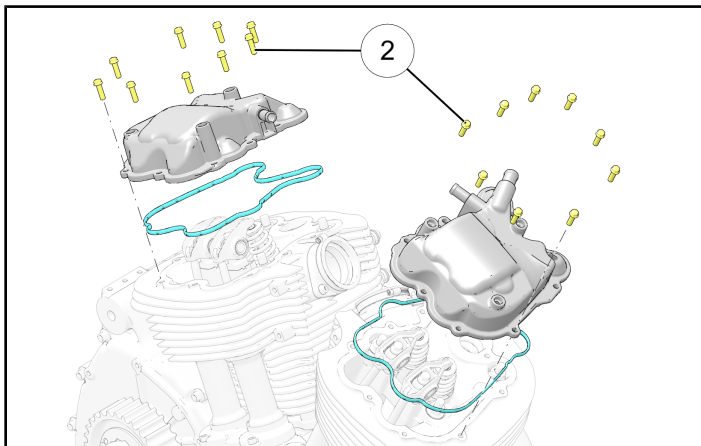
1. Using a T40 Torx, remove the three fasteners ① from each of the outer valve covers and remove covers.



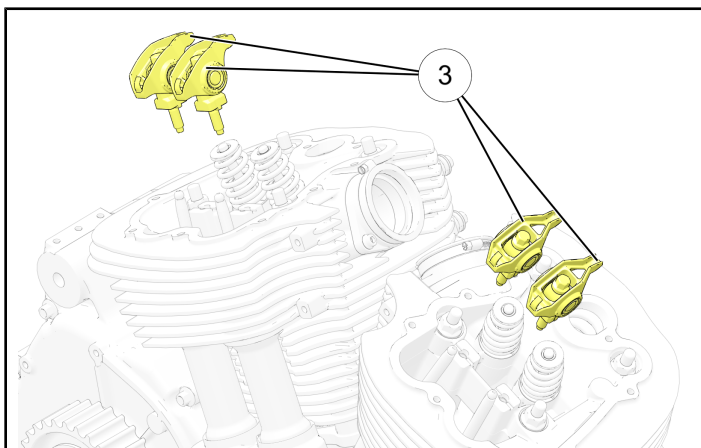
IMPORTANT

Keep mated parts together for assembly.

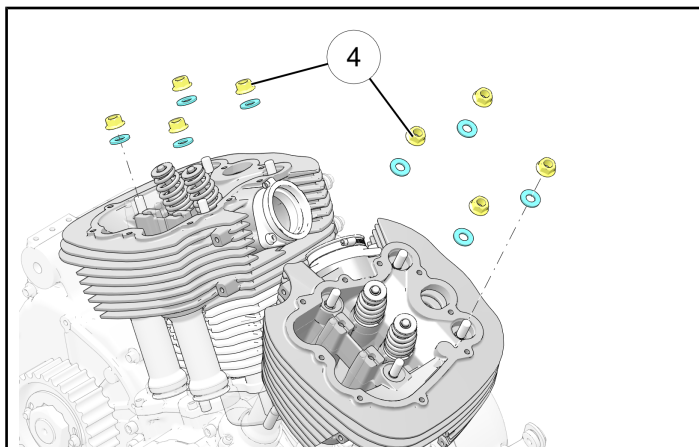
2. Using an 8mm socket, remove the fasteners ② securing the inner valve covers and seals to the cylinder head. **DISCARD** seals.



3. Remove rocker arm fasteners ③ and relieve valve spring pressure by removing rocker arms as an assembly.



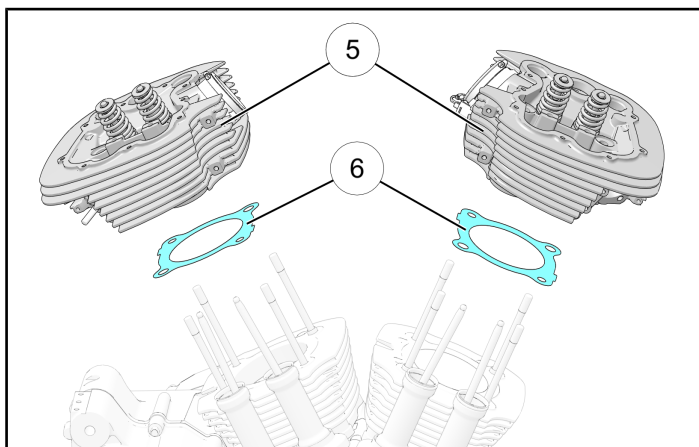
4. Using an 15mm socket, alternately loosen cylinder head nuts ④. Remove nuts and washers.



CAUTION

Cylinder and Cylinder Head heat sink edges are extremely sharp. Gloves should be worn whenever handling these components to prevent personal injury.

5. Remove cylinder heads ⑤ and head gaskets ⑥.



CAUTION

Do NOT use a mallet on the cylinder heads during removal, cylinder head damage may occur.

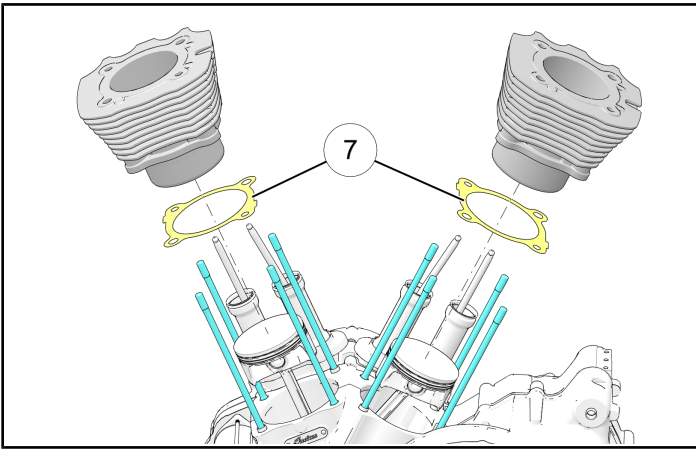
6. Remove pushrods and gaskets.

IMPORTANT

Note the color of the pushrod tube gaskets before you discard them. The pushrod tube gaskets will be brown or black, ensure the same color gaskets are used from the service kit upon installation.

7. Remove cylinder (s). Support pistons to prevent damage. Place a section of hose over the cylinder studs to prevent damage to the piston rings.

8. Remove cylinder base gasket ⑦.



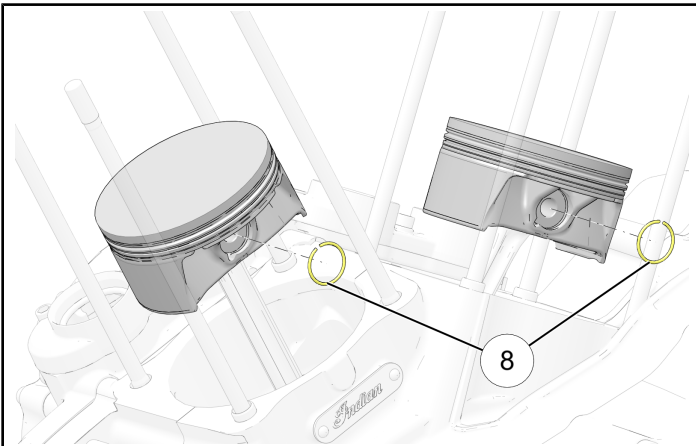
9. Clean gasket surfaces of cylinders thoroughly.

CAUTION

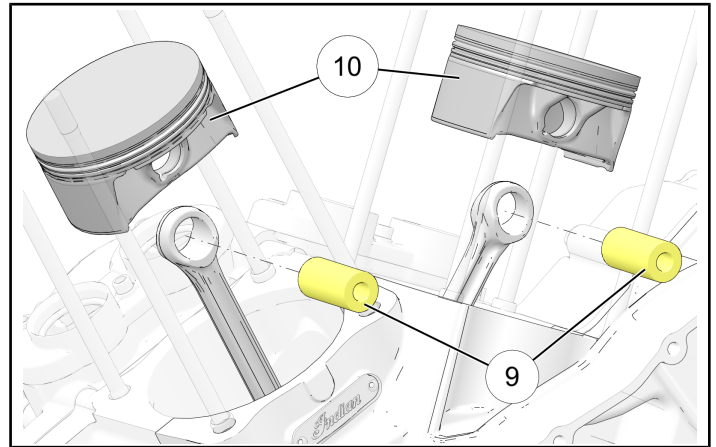
Careless handling of cylinder, pistons or rings may cause irreparable damage. Do not damage gasket surfaces during cleaning.

10. Cover crankcase with a clean shop towel to prevent piston circlip from falling into the crankcase.

11. Remove the left piston pin circlip ⑧ and **DISCARD**.



12. Push piston pin ⑨ out to left side of engine and remove the piston ⑩ and **DISCARD**.

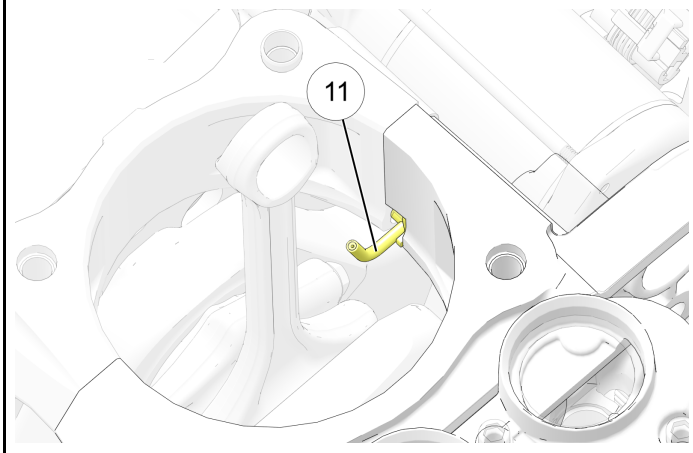


STOP!

Serious damage may occur if the following step is not performed properly. If damage to piston cooling jet occurs, start an ASK Polaris case for technical direction.

CAUTION

The piston cooling jet ⑪ is located on the inside of the cylinder wall. Be careful not to damage the cooling jet during the connecting rod replacement.



STOP!

Serious damage may occur if the following step is not performed properly. If connecting rods cannot be removed using the provided torque adapter (e.g. rounded bolt head), start an ASK Polaris case for technical direction.

IMPORTANT

Make sure to turn the connecting rod bolt in the correct orientation. Turn the socket clockwise when looking down at the rod through the cylinder bore.

13. To assist in some of the connecting rod bolt removal, use an 8 inch extension and Special Tool (PN FRDHM10) as shown.



NOTICE

To watch a video of the connecting rod replacement, log into the University of Polaris and search “Connecting Rod Replacement”.

CAUTION

To avoid the risk of rounding bolt heads, Do NOT use a wobble type extension.

IMPORTANT

Make sure the detent ball properly engages in the hole of the tool.

14. Using the following detailed steps, remove the connecting rod fasteners and **DISCARD** both parts of the connecting rod and fasteners.

Working from the pushrod side of the engine:

CAUTION

Cover cylinder walls with a shop rag to prevent damage to cylinder walls during connecting rod replacement

NOTICE

Loosen and remove connecting rod bolts by hand after breaking them loose.

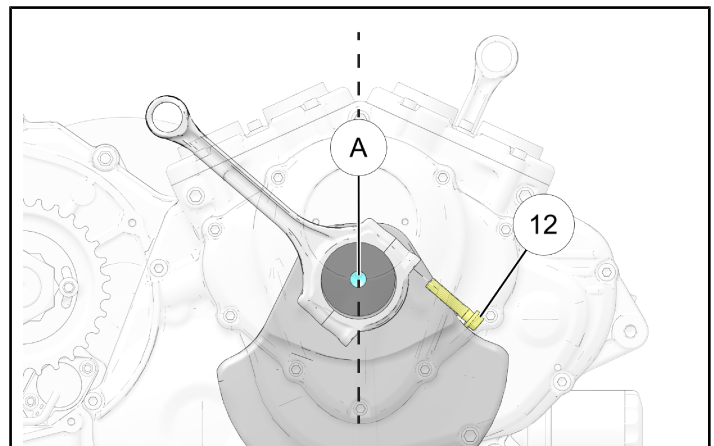
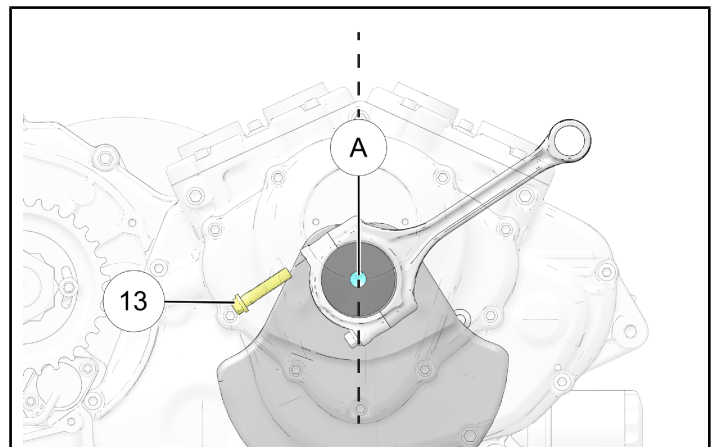
CAUTION

Magnets used to recover items from the crankcase must be clean and free from debris.

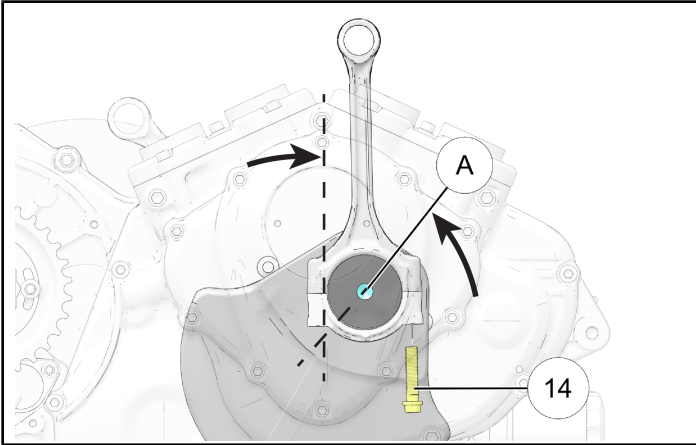
CAUTION

Do NOT rock the connecting rod back and forth to remove bearing cap, crankshaft bearing damage may occur.

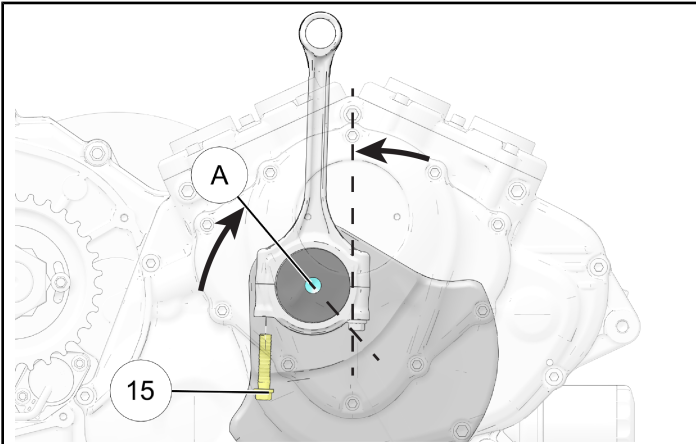
- a. Using the transmission output gear, rotate the crankshaft pin (A) to the 12 o'clock position. Allow connecting rods to rest in cylinder bore as shown. Break loose rear connecting rod, front bolt (12) and front connecting rod, rear bolt (B) using a 0° offset 12-pt 10mm box end wrench. Loosen and remove bolts by hand.



- b. Using the transmission output gear, rotate the crankshaft pin (A) to the 2 o'clock position. Secure the front connecting rod in the vertical position. Break loose front connecting rod, front bolt (14) using a special tool **FRDHM10**. Loosen and remove the bolt using the extension and special tool. Remove the top and bottom parts of the connecting rod from the engine.



- c. Using the transmission output gear, rotate the crankshaft pin (A) to the 10 o'clock position. Secure the rear connecting rod in the vertical position. Break loose rear connecting rod, rear bolt (15) using special tool **FRDHM10**. Loosen and remove the bolt using the extension and special tool. Remove the top and bottom parts of the connecting rod from the engine.

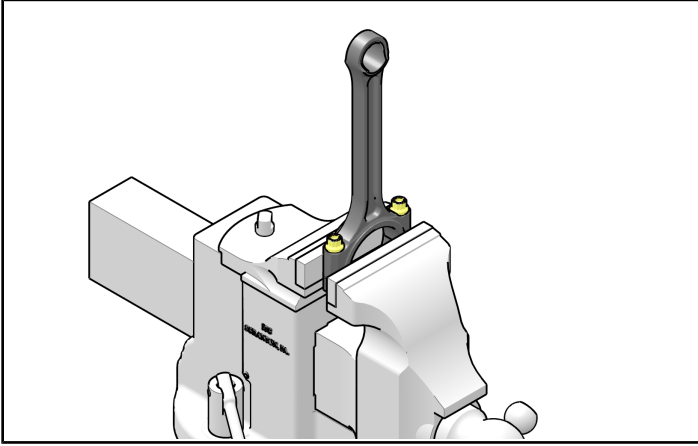


CONNECTING ROD INSTALLATION

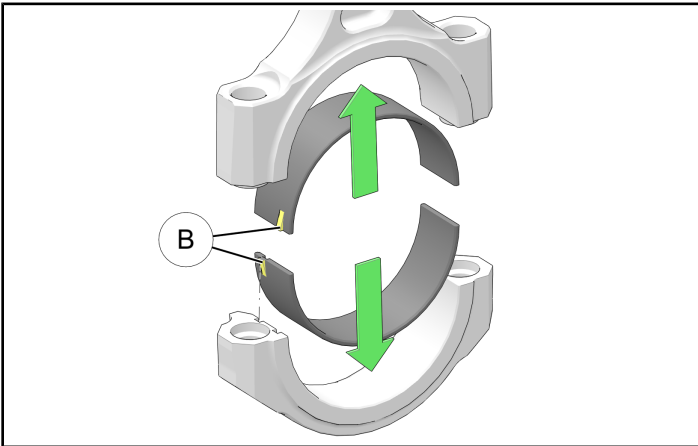
CAUTION

Inspect cylinder for debris and clean prior to installation, if necessary.

1. Place the connecting rod in a soft-jaw vise (or similar) and remove the connecting rod fasteners.

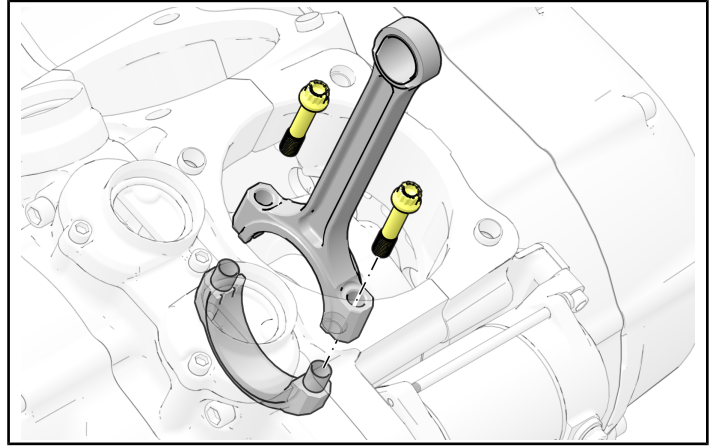


2. Align the detent of the new bearings **B** with the detent in the top and bottom sections of the connecting rod prior to installation.



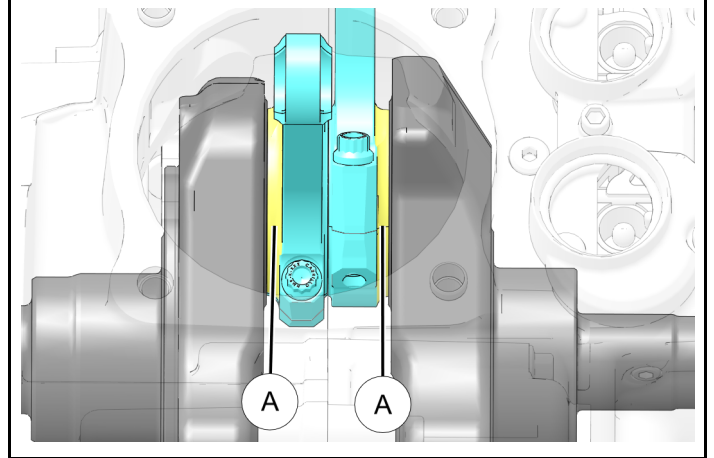
3. Apply engine assembly lube to bearing surface.

4. Install the Top of the connecting rod onto the crankshaft. Install the bottom section and mate with the top of the connecting rod.



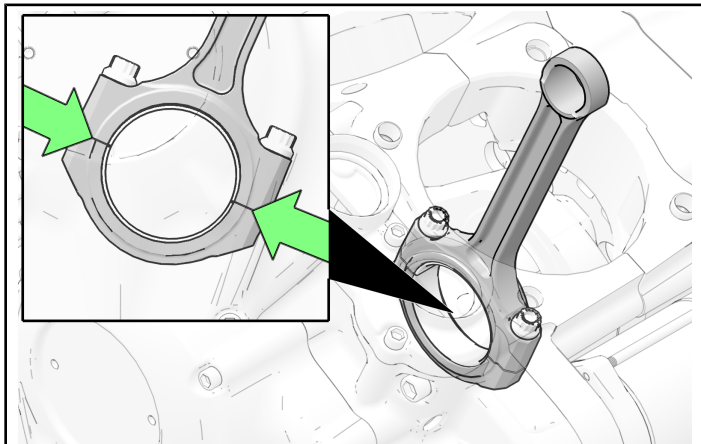
IMPORTANT

Ensure the chamfered side **A** of the connecting rods are orientated as shown during installation.



5. Apply assembly lube to connecting rod fasteners.
6. Install the connecting rod fasteners hand tight.
7. Using a 12-point 10mm socket and 8 inch extension, tighten the connecting rod fasteners to draw the bottom section into the connecting rod until fully seated.

8. With a telescoping mirror, visually inspect the mating surface of the connecting rod to make sure there are no gaps and that both ends seat properly.



9. Repeat steps 1–8 for the other connecting rod.
10. Torque connecting rod fasteners to specification.

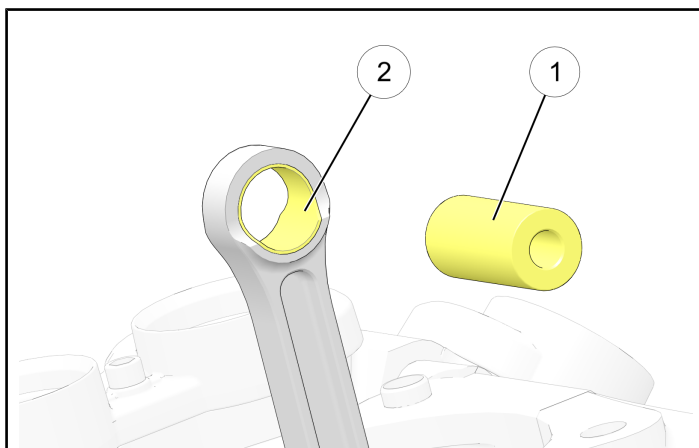
TORQUE

Connecting Rod Fasteners:
46 ft-lbs (62 Nm)

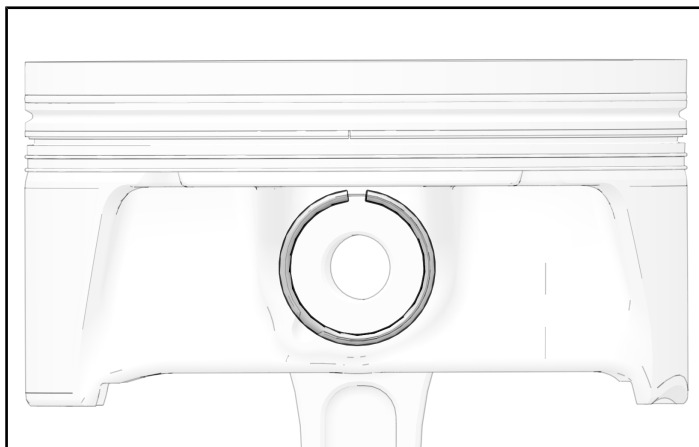
IMPORTANT

Verify that the piston cooling jet was not damaged during connecting rod removal or installation.

11. Apply a light coat of engine oil to piston and rings.
12. Place a clean shop towel over crankcase to prevent foreign material from entering crankcase.
13. Lubricate *NEW* piston pin ① and I.D. of connecting rod small end ② with engine oil or moly lube.



14. Install a *NEW* circlip on one side of the piston with end gap facing UP (12:00 position).



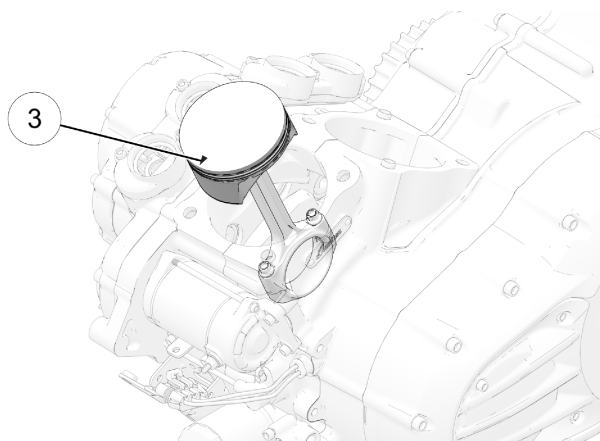
IMPORTANT

Never reuse piston pin circlips.

15. Install *NEW* piston over connecting rod with arrow on piston crown facing **FRONT** of engine.

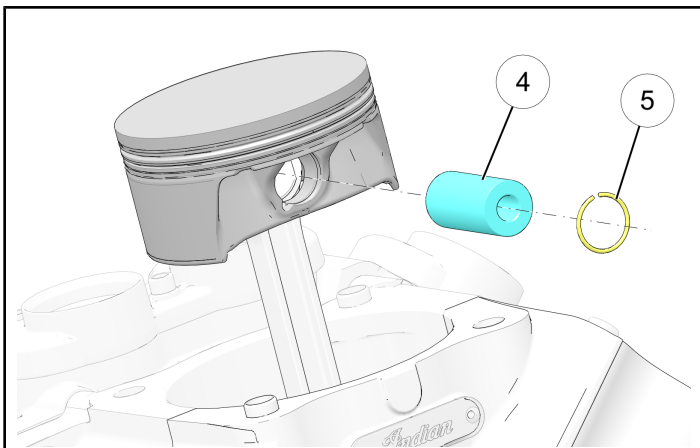
IMPORTANT

The pistons are marked with an arrow on the crown. Install pistons on connecting rods with arrow ③ facing the **FRONT** of the engine.

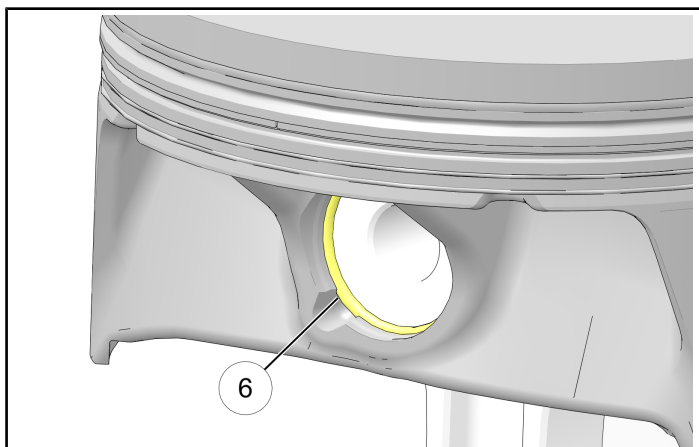


16. Push piston pin ④ through rod and piston pin hole until it is stopped by circlip.

17. Install remaining circlip ⑤ with end gap facing **UP** (12:00 position.)

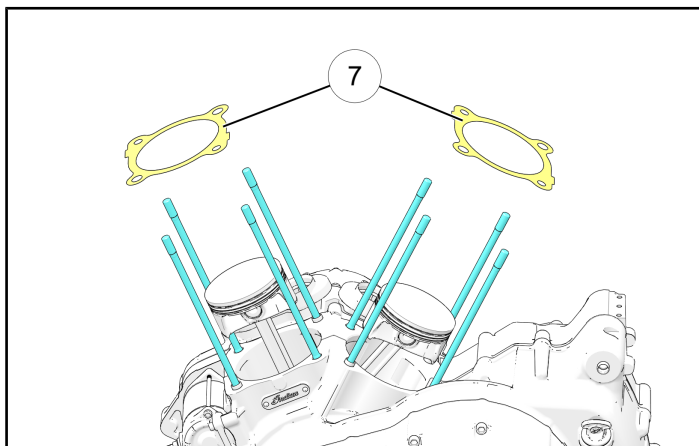


18. Make sure both piston circlips are seated properly in the groove ⑥.



19. Clean the old silicone along the crankcase splitline and apply new silicone prior to new gasket installation.

20. Install *NEW* cylinder base gaskets onto crankcase



IMPORTANT

Inspect all sealing surfaces carefully for scratches or imperfections. **DO NOT** allow oil or grease to contact gaskets or sealing surfaces during the assembly process.

21. Apply Moly lube to inside surfaces of a piston ring compressor band and outside of piston rings.

22. Install piston ring compressor over rings and compress rings into ring grooves.

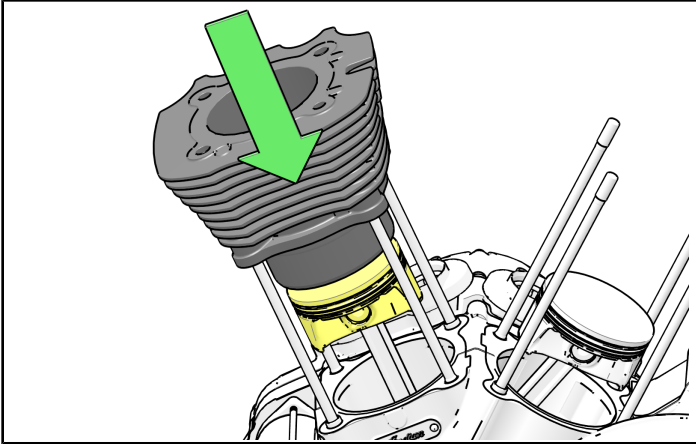
CAUTION

Be sure compressor band end gap does not align with any ring end gap when compressing the rings.

NOTICE

Install cylinders in their original locations. **Cylinder with Knock Sensor is the front cylinder.**

23. Carefully install cylinder (s) over piston/ring assembly. Do not force cylinder over piston. Monitor rings carefully. If a piston ring becomes dislodged from the ring compressor; remove cylinder, inspect ring carefully for damage.



24. Remove piston ring compressor when rings are fully captive in cylinder.
25. Slide cylinder down over piston until seated to base gasket and crankcase surface.
26. Repeat for other cylinder.
27. Lubricate pushrod tube gaskets with a small amount of engine oil and press them into the lifter blocks until fully seated.

CAUTION

Make sure to install the correct pushrod tube gasket color (same as the ones that were removed). Installing incorrect gaskets could result in engine damage.

IMPORTANT

Verify that the correct gaskets were installed. Also verify that the pushrod tube is fully seated and the gasket is not folded or damaged after installation.

28. Verify that locating dowels ⑧ are in position on the cylinder deck.

NOTICE

Gaskets and gasket sealing surfaces must be free of oil and grease during assembly.

29. Slide push rods through push rod tubes until seated in lifters.

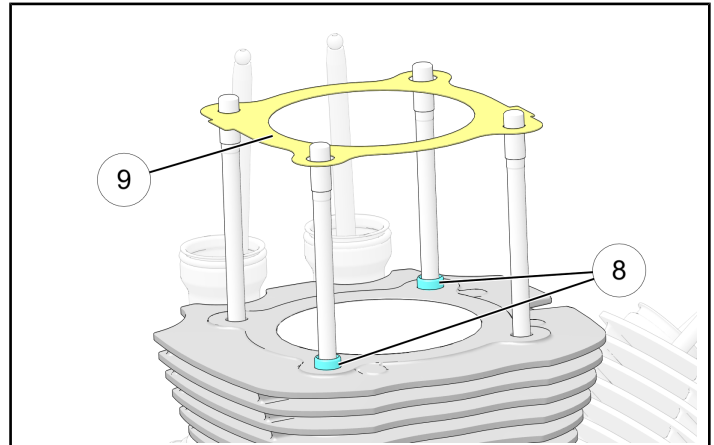
NOTICE

All push rods and rocker arms are identical, although an effort should be made to put parts back into the same location from which they were removed.

IMPORTANT

Verify that the push rods are fully seated in lifter.

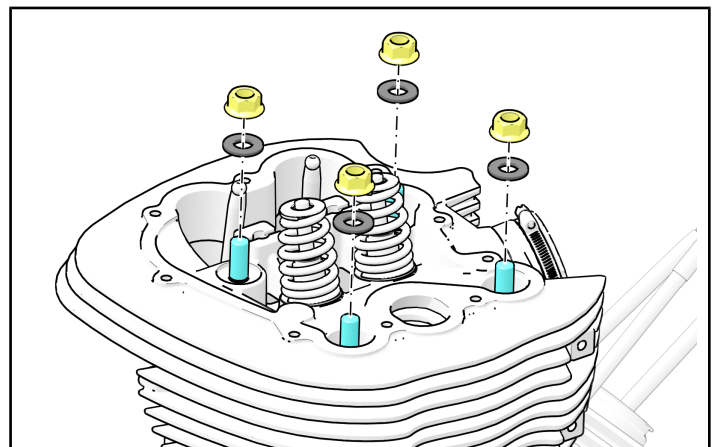
30. Install a **NEW** head gasket ⑨.



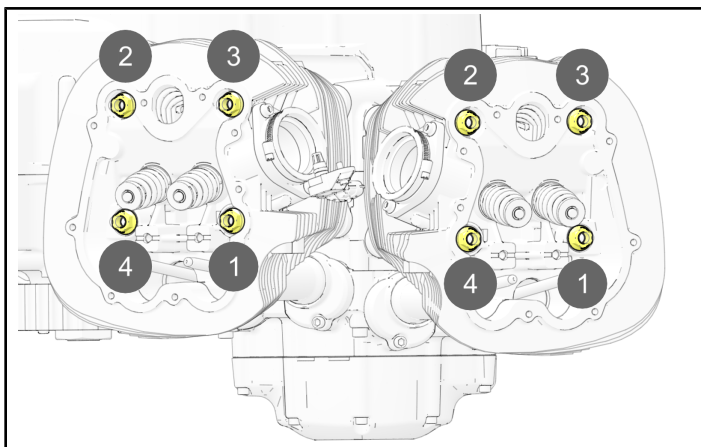
NOTICE

Use care not to damage, tear or displace push rod tube o-rings when fitting the cylinder head to the cylinder.

31. Set cylinder head in place on cylinder and press down over the push rod tubes until fully seated.
32. Apply assembly lube to the tops of the valve stems.
33. Install washers and nuts on cylinder studs. Tighten finger tight.



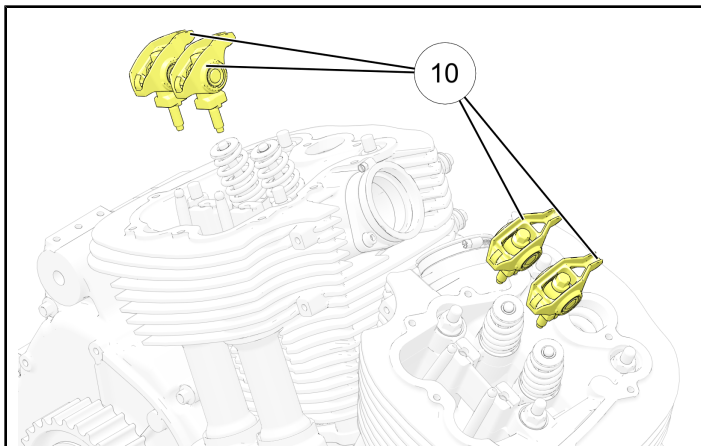
34. Fully torque cylinder head following the procedure below to ensure accurate final torque:



TORQUE

Cylinder Head Nuts:
 Step 1: **26 ft-lbs (35 Nm)**
 Step 2: **Turn additional 50°**
 Step 3: **Turn additional 90°**

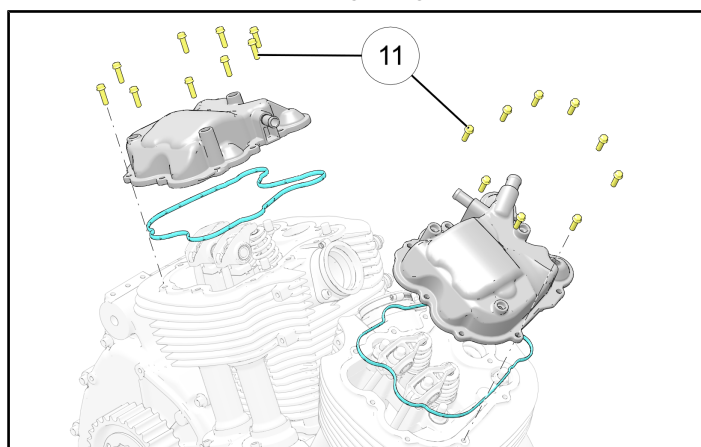
35. Install rocker arms and fasteners ⑩.



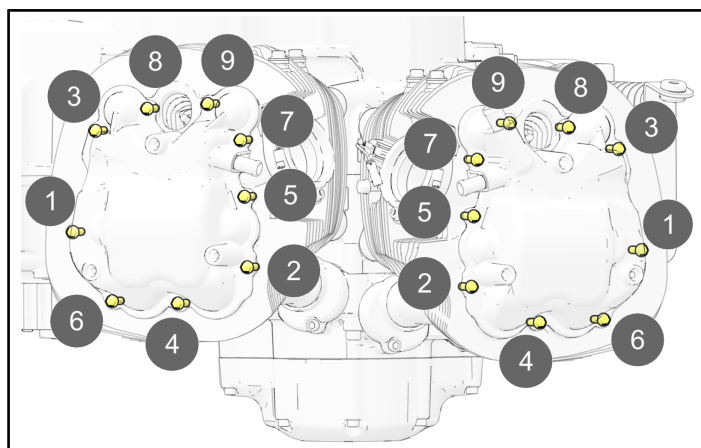
TORQUE

Rocker Arm Fasteners:
22 ft-lbs (30 Nm)

36. Using *NEW* gaskets, install the inner valve covers and thread fasteners ⑪ in finger tight.



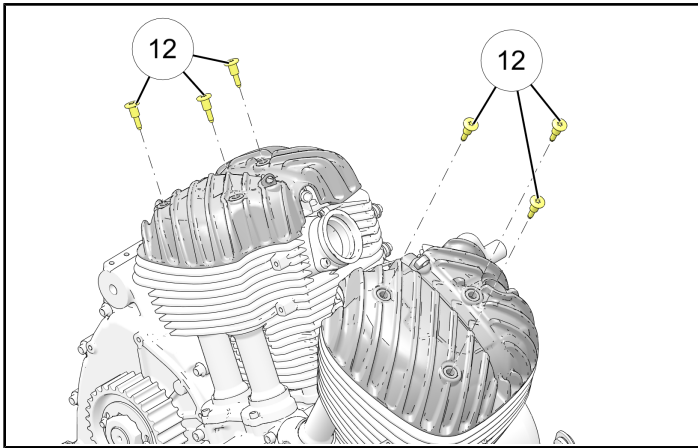
37. Using the torque sequence, torque inner valve cover fasteners to specification.



TORQUE

Inner Valve Cover Fasteners:
89 in-lbs (10 Nm)

38. Install the outer valve covers and torque fasteners ⑫ to specification.



TORQUE

Outer Valve Cover Fasteners:
89 in-lbs (10 Nm)

ENGINE INSTALLATION

Refer to the online Indian Motorcycle (Full-Size) Service Manual to install the engine into the chassis.

- **CHAPTER 3: ENGINE / COOLING / EXHAUST > ENGINE INSTALLATION**

IMPORTANT

Install Engine Oil Change Kit (2880067) after performing this procedure.

1. Test ride motorcycle and check all systems for proper operation.
2. When test ride is completed, check entire vehicle and engine for fluid leaks and be sure all fasteners have been properly torqued.
3. Inspect oil level and adjust if necessary.
4. File a claim for I-18-06.