

ST-R CAMSHAFT SET HONDA CRF450R Part No. 2257-CS-KIT

- Please read through this manual prior to beginning work.
- Keep manual handy during installation and follow procedures step by step.
- This manual must be retained until the product is scrapped.

This product is designed for the RACETRACK USE ONLY and is not intended for use on public roads. When using this product, confirm race regulation before installation.



DANGER

Indicates a potential hazard that could result in death, injury or engine breakdown.



CAUTION

Indicates a potential hazard that could result in motorcycle damage.

REFERENCE

Indicates special information for simplified installation.

● Applicable Model

HONDA : CRF450R '09-'11

DO NOT use for any other models.

● Kit Contents

No.	Part No.	Description	Qty
1	2257-CS-00	Yoshimura Camshaft	1*
2	2257-CSSPRKT-00	Yoshimura Camshaft Sprocket	1*
3	91007-KRN-671	Camshaft Bearing	1*
4	INST KIT	Instruction Kit	1
5	17029	Yoshimura Decal	1

*Components are pre-assembled in kit.

● Idle Speed Setting

Minimum Idle Speed: 2000 rpm

● Strongly Recommended Components for 2009 Model Only

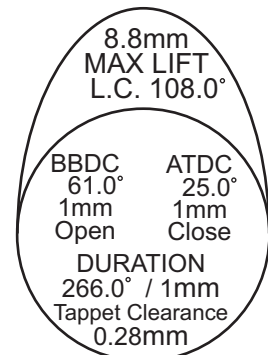
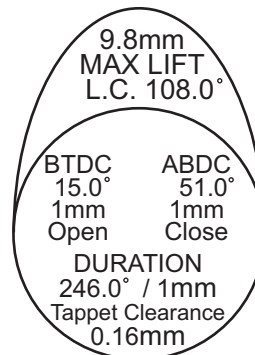
No.	Part No.	Description	Qty
1	06140-MEN-305	Auto Decomp Assembly	1*

*These are Honda OEM PN's and must be acquired through a Honda dealer.

● Specifications

INTAKE

EXHAUST



* The profiles above are designed specifications. There may be small variances from measured numbers.

● Required Components for 2010-2011 Model Only

No.	Part No.	Description	Qty
1	06140-MEN-305	Auto Decomp Assembly	1*
2	14106-MEN-A30	Decompressor Spring	1*

Installation Steps

Component removal and installation must be done in accordance with the Honda Genuine Service Manual. Please refer to your Honda Genuine Service Manual for removal and installation procedures.



CAUTION

Be careful not to drop any parts into the crankcase while removing and installing. Removed parts need to be washed and dried properly before the installation.

● Auto Decompression

■ NOTE: The Yoshimura Camshaft Kit uses the stock Honda Decompression Release Mechanism. Please refer to the Honda Genuine Service Manual for instructions on removing the stock decompression release components. The following components will need to be transferred over from the stock camshaft to the Yoshimura camshaft:

- Decompressor Plunger
- Decompressor Spring
- Camshaft Bearing
- Stopper Pin
- Decompressor Weight

● Component Inspection

■ Inspect and check clearances, wear, and damage on the components below:

Valve Retainers	Valves	Exhaust Side Rocker Arm Sliding Surface
Valve Cotters	Valve Guides	Cam Chain
Valve Spring Seats	Camshaft Journal Bearings	Cam Chain Tensioner
Valve Springs	Intake Side Tappets	Cam Chain Guide

*For other parts, follow the service manual to inspect. If necessary, replace or repair the parts.



DANGER

Check and replace each part properly. Incorrect procedures may cause engine damage. Make sure that the rocker arm sliding surface has no damage. Replace rocker arm if any suspect damage or out of spec tolerance is found. Rocker arm replacement is recommend even in the absence of damage.

● Measuring and Adjusting Tappet Clearance

■ Specification (cold engine)

INTAKE : 0.13 ~ 0.19mm

EXHAUST : 0.25 ~ 0.31mm



CAUTION

Verify tappet clearance is within the specified range. Adjust if necessary. To prevent burns or scratches, use a small amount of oil on cam top. Apply molybdenum oil solution to cam lobes.

● Measuring and Adjusting Valve Timing

■ The valve timing for the intake valve lift at 1mm.

- Open : BTDC 15.0°
- Close : ABDC 51.0°
- Lobe center : 108.0°

■ The valve timing for the exhaust valve lift at 1mm.

- Open : BBDC 61.0°
- Close : ATDC 25.0°
- Lobe center : 108.0°

Before Starting The Engine

● Cranking

■ To prevent burns and scratches in the engine, follow the steps below to ensure proper engine lubrication.

1. Fill the specified quantity of the new oil. (Recommended : Exceeds API-SG grade; SAE10W-40 or 15W-50)
2. To reduce friction on the engine, remove the spark plug and crank the engine.
3. After a few cranks, check oil level and top-up if necessary.

Break-in

■ Start the engine and check the oil leak. Let it run until the oil temperature is fully warm. For the first 30 minutes, do not exceed 25% throttle position. Between 30 minutes to 1 hour of operation, do not exceed 50% throttle position.

■ Maintain oil pressure during engine warmup by holding the engine speed between 2,000 ~ 3,000rpm.

■ After the break-in, measure and adjust the tappet clearance and check if any noise is present.

■ If abnormal noise occurs, disassemble and inspect the engine.

■ During break-in period, do not allow engine speed to drop below 5,000rpm in order to maintain sufficient oil pressure.



CAUTION

During the break-in, do not ride aggressively (sudden start and acceleration).

Quality control is implemented to all the products. If, however, any failure was found, please notify Yoshimura R&D, USA through the selling dealer. Necessary technical service or replacement will be made. Due to on going improvement, the specifications and prices of the products are subjected to be changed without notice.

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