

## ST-R CAMSHAFT SET HONDA TRX450ER / CRF450X Part No. 2276-CS-KIT

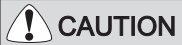
- Please read through this manual prior to beginning work.
- Keep manual handy during installation and follow procedures step by step.
- This manual must be retained until the product is scrapped.

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 :**  
2008-2009 TRX450ER  
2008-2009 CRF450X

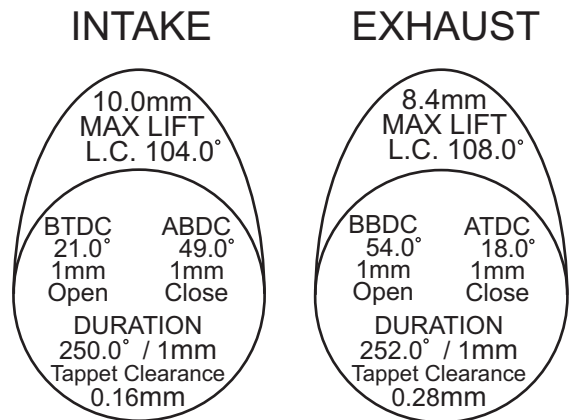
DO NOT use for any other models.

### ● *Kit Contents*

No.	Part No.	Description	Qty
1	2276-CS-00	Yoshimura Camshaft	1*
2	2276-CSFL-01	Yoshimura Camshaft Flange	1*
3	843-000-6905	Camshaft Bearing	1*
4	INST KIT	Instruction Kit	1
5	17029	Yoshimura Decal	1

\*Components are pre-assembled in kit.

### ● *Specifications*



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

## Installation Steps

Component removal and installation must be done in accordance with the Honda Genuine Service Manual. Please refer to you 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 21.0°
- Close : ABDC 49.0°
- Lobe center : 104.0°

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

- Open : BBDC 54.0°
- Close : ATDC 18.0°
- 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-off 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 products. If, however, any failure is found, please notify Yoshimura R&D USA through the selling dealer. Necessary technical service or replacement will be made. Due to ongoing improvement, the specifications and prices of the products are subjected to be changed without notice.

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