

12/06/03
rev. 27/08/03

To all TM Racing Dealers

TM Racing Company inform you that, in order to reduce drastically the “kickback” problem and the damage it causes, on the 4-Stroke bykes 2003 models, beginning from the 16/06/03, a new ignition timing below 2000 rpm will be introduced on the 4-Stroke models. This updating has been achieved through the adoption of a modified flywheel rotor, new woodruff key and new CDI map.

All these three parts must work together ! Do not use them singularly or coupled with the old ones, otherwise the engine will be seriously damaged!

We also recommend to update the 2003 bykes with Kokusan ignition and electric starter, delivered before the 16/06/03. This is possible with our Optional Kits, part code F 15431 (250 cc), F 15432 (400 cc), F 15440 (450 cc) and F 15441 (530 - 600 cc), which contains instructions and pictures to illustrate how to do the work.

This update is not required on the Kick-start models since they are much less sensitive to the “kickback” problem.

We remember you once again that you must use all the parts in the kit together, and it is suitable for the 2003 models with Kokusan ignition only.

When you need spare parts, please check for the paint marked number on the CDI box and put this number *always* on the order, so as to identify the map profile.

IGNITION TIMING UPDATE KITS

Part code F 15431 (250 cc) / F 15432 (400 cc) / F 15440 (450 cc) / F 15441 (530 - 600 cc)

These kits have been made with the purpose of reducing drastically the “kickback” problem. The ignition timing changes only below 2000 rpm, so only when starting the engine. There is no improvement in performance, since the ignition advance over 2000 rpm remains absolutely the same.

The F 15431 is composed of: <ul style="list-style-type: none"> - F 15429 Flywheel rotor - F 49973 Woodruff key, special - F 15433.35 CDI - F 05814 Cover gasket 	The F 15440 is composed of: <ul style="list-style-type: none"> - F 15429 Flywheel rotor - F 49973 Woodruff key, special - F 15439.38 CDI - F 05814 Cover gasket
The F 15432 is composed of: <ul style="list-style-type: none"> - F 15429 Flywheel rotor - F 49973 Woodruff key, special - F 15434.34 CDI - F 05814 Cover gasket 	The F 15441 is composed of: <ul style="list-style-type: none"> - F 15429 Flywheel rotor - F 49973 Woodruff key, special - F 15438.37 CDI - F 05814 Cover gasket

Each Kit contains parts that have been studied to be a replacement of the standard corresponding parts.

Do not try to use the kit parts singularly or coupled with the old ones, otherwise the engine will be seriously damaged!

ASSEMBLING INSTRUCTIONS

Dry the oil sump removing the bolt on the bottom.

Remove the ignition cover.

Remove the flywheel rotor with the TM Racing tool F 50800.

Remove the standard woodruff key.

Clean with solvent the tapered shaft area.

Insert a dial gauge within the TM Racing tool F 50807 and then through the spark plug threaded hole.

Rotate the crankshaft until the piston is at TDC.

Assemble the F 49973 woodruff key on the shaft, being sure to dispose it like in the picture. With piston at TDC, the "L" side of the key should face right hand. Please refer to picture n. 1

Note: the F49973 has been made in a shape that you can hardly assemble the rotor if it is not correctly in place.

Assemble the F 15429 flywheel rotor and tighten the nut @ 90/ 100 Nm.

Check with the piston at 0 mm. BTDC (exactly at TDC) that the end of flywheel sector is facing the center of pulser coil (pickup) and that the distance between sector and pulser is correct. Please refer to picture n. 2.

Assemble the ignition cover using the new gasket.

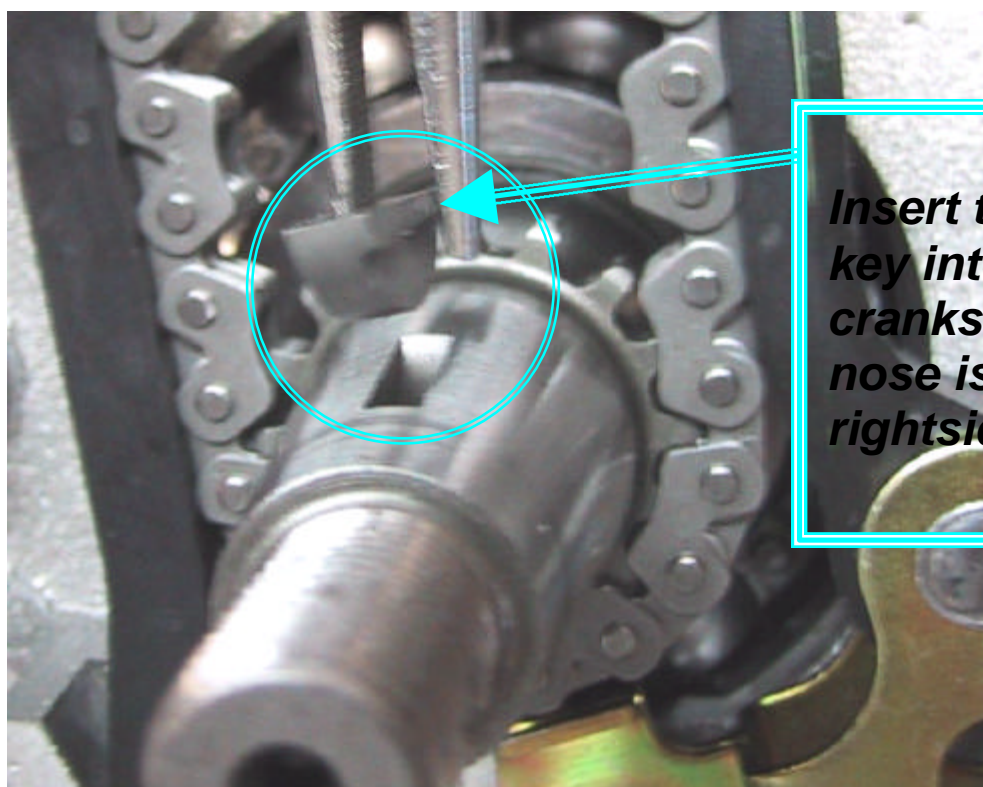
Remove the dial gauge.

Re-assemble the bolt on the bottom of the oil sump and tighten it.

Fill the oil sump up to the level.

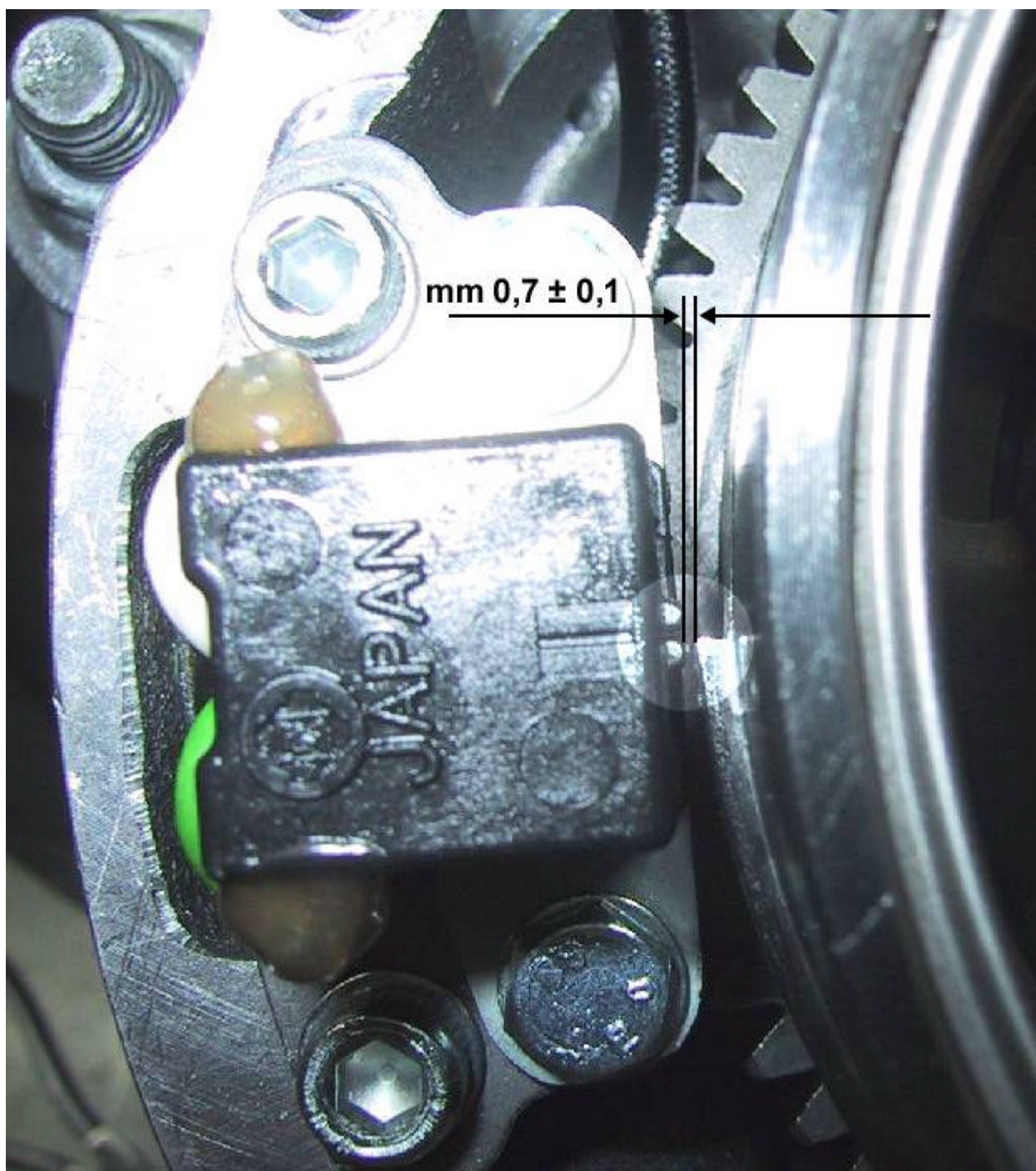
Replace the CDI with the new one included in the kit.

Picture 1



Insert the woodruff key into the crankshaft so as the nose is pointing rightside

Picture 2



Position between flywheel and pick-up when piston is 0° before T.D.C. If necessary, move the pick-up to adjust. Check if the distance between pick-up and flywheel is correct (Picture 2).