



## CAMSHAFTS KIT FOR '04 ENDURO 4T MODELS

08/09/04 (rel. 01)

### **INTRODUCTION**

In order to meet many customers' requests and offer the possibility to upgrade the 450 and 530F ES '04 models, TM Racing Company is introducing a new kit for the above 4Stroke models.

This kit is identified as follows:

Camshafts + CDI Kit for 450cc F28597 ( CDI map is TM56 )

Camshafts + CDI Kit for 530cc F28596 ( CDI map is TM57 )

Both kits include the inlet and exhaust complete camshafts ( same for both the kits ) and a CDI unit properly mapped for each type of engine.

Please note that these camshafts have the same lobe profile of the camshafts used in 2005 bike models, but are suitable only for 2004 bike models.

This new kit features:

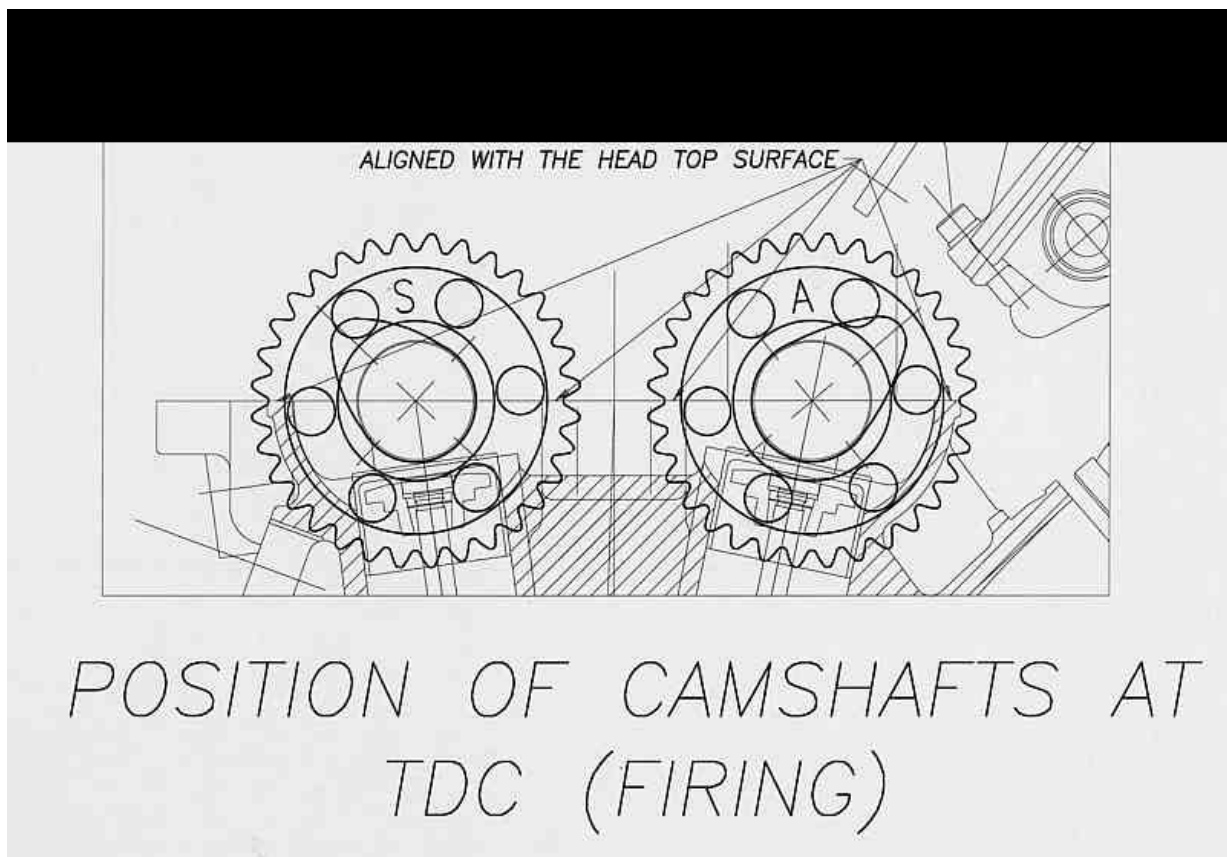
- brand new and original inlet and exhaust cam lobe profiles, with less valve opening duration but only slightly reduced lift.
- revised automatic decompressor.
- new CDI map.

All these modifications will allow:

- easier starting.
- drastical reduction of kickback and consequent starter gears and clutch failure.
- better engine idling.
- easier carburettor setting.
- considerably improved throttle response at low speed, particularly with the street legal silencer.
- smoother power delivery.

## **MOUNTING INSTRUCTIONS**

- Remove seat, tank, spark plug and carburettor
- Remove the head cover
- Unscrew the cap on the ignition cover and rotate the crankshaft counter-clockwise until you reach the TDC (closed valve) position
- Remove the cam chain tensioner so as the chain is fully loosened
- Remove the camshaft caps, the bearing retainer half-rings and the camshafts. Be careful to hook the chain on the head so as it does not fall in the distribution chain housing.
- Check that the crankshaft is still at TDC. If necessary use a dial gauge with the adapter to find the correct TDC position.
- Install the new camshafts and mount the chain so as the mark on the sprocket of each camshaft is aligned with head upper face. Follow the sketch for this operation.



NOTE : The cam lobe position in the sketch is purely representative

- Reassemble carefully the half-ring retainers and the camshaft caps previously disassembled, using the correct tightening torque of 10 Nm for the M6 threads.
- Turn fully clockwise the screw inside the chain tensioner so as the rod is totally retracted
- Reassemble the tensioner and the spacer on the cylinder
- Reassemble carefully all the parts previously disassembled.

## **FINAL OPERATIONS**

- Remove the CDI and install the kit new one which has been properly remapped.

DO NOT USE THE NEW CAMSHAFTS WITHOUT THE PROPER CDI - REMEMBER:

450cc TM56

530cc TM57

- Check for the carburettor setting of your bike, for both the engines we recommend to follow the indications which can be downloaded on our website from the following page: <http://www.mototm.com/tmr/hpmoto.html>

We anyway add to these instructions a copy of the latest Setting Table available.

## TM RACING 4T CARBURETTORS SETTING TABLE 2004 MODELS

rev. 03 del 22/04/04

12/03/04

Type	250cc. END/MX TDMR 38	450cc. END TDMR 40	450cc. END Race Team TDMR 40	450cc. SMR TDMR 40	450cc. MX TDMR 40	450cc. SMX 95 TDMR 40 (41)	530cc. END TDMR 40	530cc. SMR TDMR 40	530cc. MX TDMR 40	660cc. SMX TDMR 41
Main Jet	165	170	180	170	180	180 (205)	205	205	200	215
Slow Jet	40	55	55	50	55	45 (55)	55	55	55	50
Needle Jet	P-5	P-6	P-5	P-8	P-5	P-5	P-5	P-5	P-5	P-8
Jet Needle	10E1-52	10E1-52	10E1-52	10E1-52	10E1-52	10E1-52	10E1-52	10E1-52	10E1-52	10E1-52
Clip Position	3 <sup>^</sup> from top	3 <sup>^</sup> from top	2 <sup>^</sup> from top	3 <sup>^</sup> from top	3 <sup>^</sup> from top	3 <sup>^</sup> from top	3 <sup>^</sup> from top	3 <sup>^</sup> from top	2 <sup>^</sup> from top	2 <sup>^</sup> from top
Throttle Valve	2.0 no holes	2.0 no holes	2.0 no holes	2.0 no holes	2.0 no holes	2.0 no holes	2.0 no holes	2.0 no holes	2.0 no holes	3.0 no holes
Slow Air Screw	1.5 turns	1.5 turns	1.5 turns	0.75 turns	1.5 turns	1.5 turns	1.5 turns	1.5 turns	1.0 turn	1.75 turns
Getto aria min.	120	120	120	120	120	120	120	120	120	120
Float Height	11.0 mm.	11.0 mm.	11.0 mm.	11.0 mm.	10.0 mm.	10.4 mm.	11.0 mm.	11.0 mm.	10.0 mm.	11 mm.
Fuel Valve	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Acc. Pump Rod Length	84.0 mm.	85.0 mm.	95.0 mm.	85.0 mm.	82.0 mm.	82.0 mm.	84.0 mm.	82.0 mm.	82.0 mm.	82.0 mm.
Stopper Screws Outs. Length	8.5 mm.	11.5 mm.	12.5 mm.	11.5 mm.	8.0 mm.	8.0 mm.	12.5 mm.	12.5 mm.	8.0 mm.	7.5 mm.
Acc. Pump Jet	35	40	40	40	40	40	40	40	40	40