



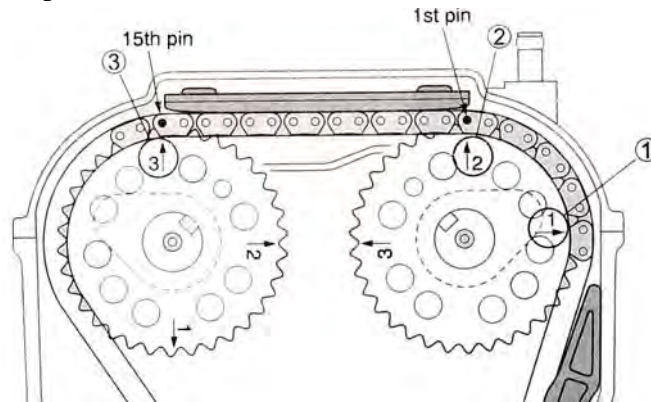
DRI SUZUKI LTZ 435/470 NATIONAL KIT ASSEMBLY TIPS

2003 –05 Models

SPECIAL NOTE: DRI does not recommend working on the engine of your Suzuki LTZ 400 without the assistance of the Genuine OEM Suzuki Service Manual.

ASSEMBLY

It is **MANDATORY** that the cylinder head and cam tower bolts are torqued properly. Consult the OEM Suzuki Service Manual for specific instruction and torque settings. Head bolts must be torqued exactly as per specified in OEM service manual.



CAM TIMING

Start with Piston at TDC, Set like manual, see picture.

BREAK-IN: Read and follow instructions for DRI TECH Sheet *4-Stroke Engine Break In*.

*NOTE: Engine will run better after it has 3-5 hours on it.

VALVE SETTINGS: Valves should be checked initially every 3-4 hours for first 12-hour period after initial set-up and every 20 hours after that. Consult your camshaft specification card for correct clearances. Stock clearances no longer apply after camshaft has been upgraded to a DRI camshaft.

DRI CAM SETTINGS (Clearances must be set and checked with engine cold)

Cam Profile Number	Intake	Exhaust
327 X510	.008" - .010"	.010" - .012"
327 X94	.007" - .009"	.010" - .012"

PISTON RINGS: Piston ring installation is a very delicate procedure and should be performed by a trained professional. All rings **MUST** have gap checked.

*DRI recommends consulting their 4-STROKE PISTON RING ASSEMBLY TIPS install sheet before attempting to install your rings.

470cc KIT: The 470cc kit requires a special stroker crankshaft that must be supplied by DRI. The piston for the 470cc kit is a 2-Ring design. It does not run a 2nd ring. It only requires a top compression ring and a 3-piece oil ring.



COMPRESSION RELEASE: DRI does not use a compression release on the LTZ. DRI has removed this on our #510 and #94 camshafts. Under normal conditions and with a properly charged battery, starting machine will not be a problem.

CYLINDER BREATHER FITTING: On 435cc/470cc cylinders that have no breather fitting in cylinder, customer will be required to install new 45° (1/4-18 NP) breather fitting in cylinder
*Stock steel breather is not reusable after cylinder goes through acid/plating bath.

SPARK PLUG: NGK CR7E is Standard. For high-speed use a CR8E. Gap: 0.028" – 0.031".

AIR INTAKE: DRI recommends using a Pro Flow Air Cleaner kit, with K&N Filter. For best performance it is recommended to use stock air box with lid removed.

EXHAUST: For maximum performance use Fat Boy 4 Complete Stainless Exhaust System. Turndown and or spark arrester are optional

FUEL: Use VP C-12 Fuel. Motor Octane 108

OIL: Maxima Premium 4 10W40

*Consult Suzuki OEM Service Manual for oil capacity specifications.

OIL BREATHER: It is NOT recommended to remove the breather catch tank. Make sure that ALL of the engines breather hose lines are free of kinks or any other types of obstructions.

CARBURETION: It is recommended when installing these engine kits to upgrade the carburetion. DRI recommends an Edelbrock or Keihin FCR. (Both Carburetors are available from DRI in thumb or twist. Call for additional details)

TOP END SERVICE

For maximum performance, top end should be serviced at least every 20 hours.

For standard usage, top end should be serviced at least every 50 hours.

A top end service includes checking valves, valve sealing, piston clearance, cam chain and tensioner, lower rod bearing, etc.

Piston clearance should be kept between .0015" -.0025" not recommended to exceed .004"

Ring end gap should be kept .015" - .020" not to exceed .020"

Consult DRI or a qualified technician for additional assistance.

CRANKSHAFT: For Standard usage stock rod should be sufficient. Under serious performance conditions an upgraded connecting rod may be required. Contact DRI for additional details.

GEARING: OEM Gearing 14/40, Dune Riding 14/40, MX Racing 15/38-40 (18" tires)

IGNITION: It is recommended to use a Vortex X10 CDI unit with this engine kit



CLUTCH: The clutch must be kept in excellent condition for maximum performance to be delivered. Call DR Tech department with any questions regarding clutch performance or upgrades.

NOTES

1. Valve clearance and Deck height must be checked. Valve to Piston clearance should be minimum .040", Piston to Head clearance should be .060".
2. Must use special modified DRI steel head gasket

DRI is not responsible for any engine component (gears, rod, etc.) fatigue or failure due to increased horsepower and torque.

