DRI SUZUKI LT 500 NATIONAL & ELIMINATOR KIT ASSEMBLY TIPS

1987-1990 Models

SPECIAL NOTE: DRI does not recommend working on the engine of your Suzuki LT 500R without the assistance of the Genuine OEM Suzuki Service Manual.

ASSEMBLY: It is strongly recommended to follow all instructions in OEM Suzuki Service Manual, specifically for torque values.
Also consult the DRI Tech Sheet for *2-Stroke Top End Assembly*.

PRESSURE TEST: All reassembled 2-Stroke engines must be pressure tested to ensure correct operation. For more information, please consult the DRI Tech Sheet for *2-Stroke Pressure Testing*. ***IT IS MANDATORY THAT YOUR ENGINE IS PRESSURE TESTED FOR AIR LEAKS, FAILURE TO PROPERLY PERFORM THIS TEST CAN AND WILL CAUSE ENGINE DAMAGE***

BREAK-IN: Read and follow instructions for DRI TECH Sheet *2-Stroke Engine Break In*.
*NOTE: Engine will run better after it has 3-5 hours on it.

PISTON RINGS: Piston ring installation is a very delicate procedure and should be performed by a trained professional. Always install rings with trademark facing UP. All rings **MUST** have gap checked. Gap should be .015" to .020".

POWER VALVE: Proper power valve operation is critical to maximum engine performance. Power valve should be kept in good, clean working condition. Assemble as per OEM service manual instructions. (Wound 1 turn counter clockwise)
NOTE: When removing and replacing cylinder make sure that power valve is unhooked by unclipping the plastic power valve clip. This clip should also be installed new after each top end service.

TOP END WASHERS: Suzuki uses a unique washer design on the piston pin to help keep the connecting rod aligned. *It is **CRITICAL** that the* Top End Washers, Top End Bearing and Piston pin *are kept in excellent shape. These parts should be replaced with new at 1st sign of any wear. At the very least replace these components with every top end rebuild*

SPARK PLUG: Use NGK BR9EIX Gap: .028"
Champion N6YC Gap: .028"
*NOTE: Do not use 8 heat range plugs.

AIR INTAKE: DRI recommends using its Clamp Air Filter kit. This simple kit helps convert the air filter system over from a push on type filter to a clamp-on system while still maintaining the OEM Suzuki LT 500 air box. For best performance it is recommended to use stock air box with lid removed and stock snorkel hooked up,
DRI Clamp-On A/C kit is supplied with plastic flange, K&N filter and outerwear, basic instructions for installing new flange inside stock air box.

See DRI Tech Sheet for *Air Filters* for proper air filter maintenance instructions. Install Outerwear dry. Do not oil Outerwear. Only oil the K&N filter.

EXHAUST: For maximum performance use a Paul Turner LT 500 2-Stroke Pipe and Fat Boy 2 Silencer. ***THIS IS THE SINGLE MOST IMPORTTANT THING THAT YOU CAN DO TO GET MAXIMUM PERFORMANCE FROM YOUR LT 500.***
It is also recommended that a billet exhaust clamp at the pipe/silencer slip fit joint.

FUEL: Use VP C-12 Fuel. Motor Octane 108 or Sonoco STD with motor octane of 105

TRANSMISSION OIL: Maxima MTL *Endurance 85 WT*
*Consult Suzuki OEM Service Manual for oil capacity specifications.

PREMIX OIL: Maxima 927. Mix at 32:1 (4oz per Gallon).
In conditions where temperature is below 40° use Maxima Super M or Maxima K2.

CARBURETION/INTAKE: It is recommended when installing these engine kits to upgrade the carburetion. DRI recommends using a Keihin 39mm PWK Carburetor.

REED CAGE: It is recommended to use a PYRAMID Reed Valve with OEM Intake manifold. DO NOT use reed spacers.

JETTING: Consult DRI Tech Sheet for *Keihin Carburetor Jetting* for information on how to properly set Keihin Carburetors.

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 30-50 hours.
A top end service includes checking pistons, reed valves, piston to cylinder clearance, replacing top end washers, top end bearing, piston pin etc.
Piston clearance should be kept between .0035” and .0045”. Not to exceed .005”

CRANKSHAFT: For Hi Performance use an OEM crankshaft with stock OEM rod should be used for best reliability.

GEARING: OEM Gearing 13/40(42), Dune Riding 13/38, Hill Racing 13/42, High Speed 15x36-38.

IGNITION: Stock ignition is adequate for most applications. But it should be checked that it is producing proper power output. (As stators become older or get exposed to moisture they tend too weaken power output, causing engine to perform improperly)
However, a flywheel modification is recommended for better performance and reliability in Hi Revving applications like TT’s Ovals and Drag Racing.

CLUTCH: The clutch must be kept in excellent condition and properly adjusted for maximum performance to be delivered. DRI recommends using a Hinson billet clutch basket and DR C25 Clutch.

Call DR Tech department with any questions regarding clutch performance or upgrades.

NOTES

1. Squish clearance should be checked. Piston to head squish should be minimum .040”

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