



DRI YAMAHA RAPTOR 660/740 NATIONAL KIT ASSEMBLY TIPS

2001-2005 Models

SPECIAL NOTE: DRI does not recommend working on the engine of your Yamaha Raptor 660 without the assistance of the Genuine OEM Yamaha Service Manual.

ASSEMBLY: It is strongly recommended to follow all instructions in OEM Yamaha Service Manual, specifically for torque values and cam timing set.

Also consult the DRI Tech Sheet for *4-Stroke Top End Assembly*.

SPECIAL NOTE: It is also advisable to read DRI TECH Sheet *4-Stroke Upgrade Components*

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
280 X3	.005" - .007"	.007" - .009"
280 X14	.005" - .007"	.007" - .009"

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.

COMPRESSION RELEASE: DRI recommend using the factory compression release system that is attached to the camshaft. Install and adjust exactly as per the instructions in the OEM Yamaha Service Manual

SPARK PLUG: Use NGK IFR9H11 Gap: .039" - .043".

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 Honda OEM Service Manual for oil capacity specifications.

**NOTE: The Honda TRX 450 has a unique oiling system. The motor and transmission are fed by separate oil. They must be checked and changed in separate ways. Consult manual for additional details.

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

*Using the stock carburetor is not a recommended.

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 14/38, Dune Riding 14/38, Hill Racing 13/48, MX Racing 15/38-40

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.

RADIATOR:

STARTER CLUTCH:

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.