



FAT BOY 4 COMPLETE EXHAUST SYSTEM

MODEL: 2001-03 Yamaha 660 Raptor

- 1. Remove stock exhaust system; for an easier installation it is recommended to also remove the rear fender. Retain (4) stock head nuts.**
- 2. Before starting your Fat Boy 4 installation. You must make sure that the cylinder head exhaust gaskets are intact and in good condition (usually they stay in the cylinder head). Under normal conditions it is OK to reuse them. If they are missing or in need of replacement they may be purchased from your Yamaha Dealer Part # 3YF-14613-01-00. DO NOT RUN MACHINE WITHOUT EXHAUST GASKETS. It also a good idea to make sure that the (4) exhaust studs mounted in cylinder head are in good shape. If there is any doubt of there condition. Replace with Yamaha OEM studs Part # 90116-06541-00.**
- 3. Install the left (#1) header first. Left header has diagonal bend and tubing is welded in center. Install stock header nuts and finger tighten.**
- 4. Install mid-pipe (has I.D. tag on it) at *bottom* hole, onto left #1 header already on machine. Before installing apply a fine coat of Hi-Temp silicone in the (2) small tubes on the front side of mid-pipe. This is necessary to ensure a proper seal between the head pipes and the mid section. If the silicone is applied properly it will not be noticeable after you installation is complete.**
- 5. Install muffler and tail pipe assembly. Install bolt in front mount first then install in back mount. After both bolts are installed, tighten both evenly. Make sure to use the 8x25mm flange type bolts (supplied by DRI). Make sure to slide barrel clamp into place at tail pipe and mid-pipe joint. Do not fully tighten.**
- 6. Install right (#2) header. When sliding header into mid-pipe make sure to lift mid-pipe up so there is clearance between clutch cable and left (#1) header (desired clearance should be 1/16" to 1/4"). Finish sliding right (#2) header into mid-pipe and finger tighten header nuts. After headers are installed check again to make sure there is ample clearance for clutch cable. Before tightening headers slide a piece of 1/4" card board in between headers so they will have a small space after install is complete. Cardboard should be placed above the weld joint on header #1. After header bolts have been tightened remove cardboard.**
- 7. Check exhaust system front to back. Tighten headers, mid-pipe/tail pipe clamp and make sure muffler bolts are secure.**
- 8. JETTING MUST BE CHANGED. Before reinstalling rear fender it is recommended to change carburetor jetting. Following are some jetting recommendations.**
- 9. Additional Performance and Jetting Recommendations;**



For the best performance using your NEW Fat Boy 4 it is recommended to use a Pro Flow Air Cleaner Flange system with either a K&N or Uni air filter. The kits are made by Pro Design and are sold through Duncan Racing. The K&N filter makes the best power and it is recommended to run air box with the lid removed.

Jetting Recommendations:

The following guidelines are for Raptors with the following type set-ups.

Sea Level Temperature between 60° and 90°

Fat Boy 4 Complete Exhaust

Stock Engine Pro Flow Kit with K&N Air Filter Lid Removed.

Pilots #25

Needle Stock #4

Main Jets: #1 Carb-#165, #2 Carb-#170

*DRI has included at no charge the necessary jets for the above jetting changes with an extra main jet each way.

The above specs should be an excellent starting point for most installations. Jetting should check after install.

Be careful not to run machine to lean-engine damage may result. To rich power will be lost.

Jetting Notes:

Colder temperature requires richer settings.

Higher elevations cause engine to be low on compression and generally require leaner settings.

Air box lid on requires leaner settings than with lid off.

For more information contact:

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Check our Website for additional Raptor Performance items. www.duncanracing.com