

# Kawasaki Brute force 750/650 Dual Exhaust

## **Exhaust installation**

Thank you for your purchase. This system covers years 2005 –2023. As there are differences in the installation of the 2012-2020 models, any specific instructions related to the earlier models will be noted to apply to those years. Also some hardware may not be used on the later models.

\*\*\*This Exhaust Requires Re jetting or use of an aftermarket fuel controller. Running your engine without re-jetting the carb or a Fuel controller on fuel injected models can result in motor damage

#### **Installation Hardware**

- 2) Billet Muffler Clamps
- 2) Billet Muffler Hangers
- 1) 4X4 Heat Tape
- 2) 10X40mm flange Bolts
- 2) 16mm Aluminum Spacers
- 4) 5mmX12mm Alan bolts
- 6) Springs
- 2) Spark Arrestors
- 2) 1 ¾ T Bolt Clamps
- 4) Hose Clamps
- 2) Heat Sheids
- 2) 2 Bolt Exhaust Gaskets
- 2) 02 Bungs
- 1) 02 Bung Reducer

#### 2005-2011 Models Only

- 1) U Bracket
- 2) 8X25 Flange Bolt
- 2) 8mm Flange Nuts
- 1) 10X25mm Coarse thread Blot

#### 1) Laser Cut Flat Washer

To install your new Empire exhaust system carefully remove your stock system by following the procedure outlined in your Kawasaki factory service manual.

When installing your system DO NOT FULLY TIGHTEN any mount or nut until you have carefully aligned all the components and lightly snugged bolts.

Preparation- Remove stock rear fender, side covers, heat shields and exhaust system

Re route the vent tube at the rear of the engine. Route it underneath the frame tube as shown in Fig. 11 to provide sufficient clearance and protection from exhaust

#### Pipe installation

- 1. This exhaust includes oxygen sensor bungs in both head pipes. If oxygen sensors will not be used, install the included plugs in each pipe. Be sure to use anti seize on the threads of each sensor before installing.
- 2. Install the rear exhaust gasket followed by the rear Empire head pipe. leave the exhaust flange nuts slightly loose (Fig. 1a)
- 3. The T bolt clamp can be put in various positions . choose one that you find convenient to tighten with the body work in place and with the tools that you have available
- 4. Install the rear intermediate pipe onto the rear head pipe. This will route around the frame tube as you move it into place (Fig. 2)
- 5. Move the T bolt clamp into place and lightly tighten
- 6. Install the front exhaust gasket and then the new head pipe. Leave the flange nuts slightly loose (Fig. 1b)
- 7. Place the T bolt clamp over the open end of the front head pipe and slide the intermediate pipe back along the engine, over the head pipe and into position. The outlet is positioned just above the rear intermediate pipe. Remember the T bolt clamp can be placed in various positions, choose one that you find convenient to tighten with the body work in place and with the tools that you have available (Fig. 2B & 2C)
- 8. Align the open ends of the intermediate pipes, front pipe above the rear. Check all clearances between the pipes and the stock components. Adjust if needed.
- 9. Slide the Y Pipe Collector onto the 2 intermediate pipes (spring hooks facing inward on the front of the collector and outward at the rear) (Fig. 2D)
- 10. Install the 2 exhaust springs between the front and rear intermediate pipes. NOTE on the 2005-2011 models you may find it easier to remove the intermediate pipes and the collector in order to install the springs. Also you will need to bend the stock heat shield up slightly at the edge to maintain sufficient clearance for the collector.
- 11. install the mid section on to the collector. Secure with 2 springs from the collector to the mid sections. Fig.3

#### MUFFLER INSTALLATION Note use non permanent thread locker on all bolt threads

- 1. Install the muffler onto the mid section.
- 2. Make sure mufflers is fully seated onto the mid section
- 3. Install the remaining 1 springs from the muffler tabs to the mid section.
- 4. Carefully check all the clearances between the exhaust components and the stock components
- 5. Maintain alignment and tighten the muffler mount bolts, then tighten the T bolt clamps and finally the flange nuts at the ports. Recheck all your clearances.
- 6. install the 2 heat shields to the intermediate pipe using the 3 hose clamps provided (Fig. 4)
- 7. apply the provided heat tape under the rear fender assembly above the exposed section of pipe
- 8. Reinstall all the stock heat shields and body work. Double check clearances.

On fuel Injected Models This Exhaust system requires use of an aftermarket fuel controller. Running your motor without one can result in motor damage. Call us for the latest version if you did not order with your exhaust system. 623 439 5038

- We recommend repacking the silencer every 25 to 30 HRS. Packing pillow Part # EMP-PAC-18
- Quiet cores are also available with built in spark arrestor. Part # Q-core

### **1A**



# 2A



## 1B

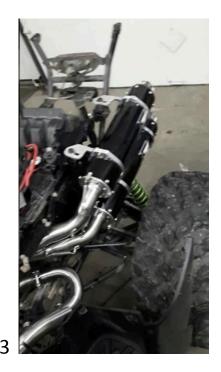




2C







2D

