**2018 HD SOFTAIL** Stainless Steel 2-1 Full System

Part # 005-4970199

# NOTE: You will need the TBR Wide Tire kit for the Fatboy & Breakout.



# **INSTALLATION INSTRUCTIONS**

## \* For images, please reference page 4 of these instructions.

# **FATBOB**

### Disassembly

- 1. Make sure the motorcycle is completely cool before starting the installation.
- 2. Remove the rear passenger peg and bracket
- 3. Remove the OEM heat shields
- 4. Remove the lower muffler to expose the muffler bracket bolts
- 5. Loosen the upper muffler clamp and remove the muffler bracket bolts. Now slide the muffler and bracket off the bike together
- 6. Locate the O2 sensor plugs and disconnect them
- 7. Now remove the OEM headers by unscrewing the header flange nuts

## **TBR Installation**

- 1. Remove the OEM clips, flanges, and O2 sensors from the stock headers. Now install them on the new TBR headers as shown. The O2 Sensors will use the included 18mm adapters (Reference Image 1)
- 2. Loosely install the TBR front and rear headers on the motorcycle (Reference Image 2)
- 3. Install the supplied TBR bracket as shown using the supplied 5/16" x 1 1/2" bolts (Reference Image 3)
- 4. Install the supplied 5/16" clip nuts onto the new TBR muffler (Reference Image 4)
- 5. Now install the muffler onto the bike. Be sure the muffler bracket lines up with the installed clip nuts. Now loosely thread the included 5/16" x 3/4" bolts onto the bracket to install the muffler.
- 6. Install the supplied springs behind the muffler and headers (Reference Image 5)
- 7. You will need to reroute the front O2 sensor wiring in order to allow the sensor wire to reach. Simply disconnect the lower plug from the frame and reroute it above the engine mount as shown (Reference Image 6)
- 8. Reconnect the O2 sensors
- 9. Ensure the exhaust has clearance and is fitted properly. Now begin to tighten the header flange nuts THEN move on to tighten the muffler bracket bolts.
- 10. Install the supplied heat shields at this time if desired (Reference Image 7)
- 11. Now using a thread locker, bolt the passenger peg mount onto the frame using the plugged holes located just above the swingarm pivot. These holes are located on both sides of the frame. Reinstall the passenger peg on the mounting bracket (Reference Images 8 & 9)
- 12. Before you run the bike, clean off all fingerprints and dirt, as any oily residue will etch the metal and become somewhat permenent when the system gets hot. Run the bike and enjoy. It is normal for some white smoke to appear the first time you start the bike. This is packing/manufacturing oil from inside the pipe burning off. Check for gaps or leaks. If you find a leak, a little high temperature silicon sealant should fix it. After 50 to 100 miles, recheck all fasteners for tightness.

**IMPORTANT** - **PLEASE READ CAREFULLY:** We recommend that this performance part be installed by a qualified motorcycle technician. If you have any doubts as to your ability to install this performance part, please consult with your local motorcycle dealer. Read all instructions first before starting installation. Make sure the motorcycle and exhaust system are completely cool before starting the installation. Also, make sure the bike is secure on a center stand or ideally a service lift during installation. Be sure to save all stock components for possible use later.

**WARRANTY:** Two Brothers Racing products are intended for closed course competition purposes only, and therefore are sold "as is" without warranty. Two Brothers Racing specifically disclaims any warranties of merchantability or fitness for a particular purpose and disclaims all responsibility for consequential and incidental damages or any other losses arising from the use of these products or parts.

# NOTE: You will need the TBR Wide Tire kit to install.

#### Disassembly

- 1. Make sure the motorcycle is completely cool before starting the installation.
- 2. Remove the rear passenger peg and bracket
- 3. Remove the OEM heat shields
- 4. Remove the mufflers to expose the muffler bracket bolts
- 5. Loosen the upper muffler clamp and remove the muffler bracket bolts. Now slide the muffler and bracket off the bike together.
- 6. Locate the O2 sensor plugs and disconnect them
- 7. Now remove the OEM headers by unscrewing the header flange nuts

#### **TBR Installation**

- 1. Remove the OEM clips, flanges, and O2 sensors from the stock headers. Now install them on the new TBR headers as shown. The O2 Sensors will use the included 18mm adapters (Reference Image 1)
- 2. Loosely install the TBR front and rear headers on the motorcycle (Reference Image 2)
- 3. Install the passenger peg relocator bracket using the OEM 3/8" bolts. (Reference Image 10)
- Install the supplied TBR Wide Tire bracket as shown using the supplied 5/16" x 1 1/2" bolts. (Reference Images 3)
- 5. Install the supplied 5/16" clip nuts onto the new TBR muffler (Reference Image 4)
- 6. Now install the muffler onto the bike. Be sure the muffler bracket lines up with the installed clip nuts. Now loosely thread the included 5/16" x ¾" bolts into the bracket to install the muffler
- 7. Install the supplied springs behind the muffler and headers (Reference Image 5)
- You will need to reroute the front O2 sensor wiring in order to allow the sensor wire to reach. Simply
  disconnect the lower plug from the frame and reroute it above the engine mount as shown
  (Reference Image 6)
- 9. Reconnect the O2 sensors
- 10. Ensure the exhaust has clearance and is fitted properly. Now begin to tighten the header flange nuts THEN move on to tighten the muffler bracket bolts.
- 11. Install the supplied heat shields at this time if desired (Reference Image 7)
- You will need to use the 3/8 Nylon Nut to secure the passenger peg mount to the Passenger Peg Relocator Bracket. Once the mount is bolted to the bracket, you can reinstall your passenger peg as shown. (Reference Images 11 & 14)
- 14. Before you run the bike, clean off all fingerprints and dirt, as any oily residue will etch the metal and become somewhat permanent when the system gets hot. Run the bike and enjoy. It is normal for some white smoke to appear the first time you start the bike. This is packing/manufacturing oil from inside the pipe burning off. Check for gaps or leaks. If you find a leak, a little high temperature silicon sealant should fix it. After 50 to 100 miles, recheck all fasteners for tightness.

# STREET BOB, LOW RIDER, SLIM DELUXE, & HERITAGE

## Disassembly

- 1. Make sure the motorcycle is completely cool before starting the installation.
- 2. Remove the rear passenger peg and bracket
- 3. Remove the OEM heat shields
- 4. Remove the mufflers to expose the muffler bracket bolts
- 5. Remove the muffler bracket
- 6. Locate the O2 sensor plugs and disconnect them
- 7. Now remove the OEM headers by unscrewing the header flange nuts
- For STREET BOB & LOWRIDER: You will need to remove the controls. Unbolt the brake side controls from the frame. The brake rod will need to be removed from the brake arm. <u>The master cylinder will remain</u> <u>attached to the frame.</u>

For SLIM, DELUXE, & HERITAGE: You will need to remove the floorboard bracket. Unbolt the brake side floorboard bracket from the frame.

**NOTE:** For the Heritage you will need to remove the bags, as they may become damaged from the heat generated by the exhaust.

# **TBR Installation**

- 1. Remove the OEM clips, flanges, and O2 sensors from the stock headers. Now install them on the new TBR headers as shown. The O2 Sensors will use the included 18mm adapters (Reference Image 1)
- 2. Loosely install the TBR front and rear headers on the motorcycle (Reference Image 2)
- 3. Install the supplied TBR bracket as shown using the supplied 5/16" x 1 1/2" bolts (Reference Image 3)
- 4. Install the supplied 5/16" clip nuts onto the new TBR muffler (Reference Image 4)
- Now install the muffler onto the bike. Be sure the muffler bracket lines up with the installed clip nuts. Now loosely thread the included 5/16" x ¾" bolts into the bracket to install the muffler
- 6. Install the supplied springs behind the muffler and headers (Reference Image 5)
- You will need to reroute the front O2 sensor wiring in order to allow the sensor wire to reach. Simply
  disconnect the lower plug from the frame and reroute it above the engine mount as shown.
  (Reference Image 6)
- 8. Reconnect the O2 sensors
- 9. Install the supplied heat shields at this time if desired (Reference Image 7)
- 10. For STREET BOB & LOW RIDER: Using thread lock, reinstall the floorboard <u>using the included spacers</u> and bolts to allow ample clearance for the exhaust header. Use the included 3/8" bolts and 3/8" ID spacers to mount the controls. Then use the included 5/16" x 24 TPI bolt and 5/16" ID spacer to space the control arm as shown. (Reference Images 12 & 13)

For SLIM, DELUXE, & HERITAGE: Using thread lock, reinstall the floorboard <u>using the included spacers</u> and <u>bolts</u> to allow ample clearance for the exhaust header. Use the included 3/8" bolts and 3/8" ID spacers to mount the controls as shown. (Reference Image 13)

 Ensure the exhaust has clearance and is fitted properly. Now begin to tighten the header flange nuts, THEN move on to tighten the muffler bracket bolts.

- 12. Now using a thread locker, bolt the passenger peg mount onto the frame using the plugged holes located just above the swing arm pivot. These holes are located on both sides of the frame. Reinstall the passenger peg on the mounting bracket. (Reference Images 8 & 9)
- 13. Before you run the bike, clean off all fingerprints and dirt, as any oily residue will etch the metal and become somewhat permanent when the system gets hot. Run the bike and enjoy. It is normal for some white smoke to appear the first time you start the bike. This is packing/manufacturing oil from inside the pipe burning off. Check for gaps or leaks. If you find a leak, a little high temperature silicon sealant should

#### Care & Cleaning

Keep system free of dirt and moisture. Store in a cool, dry place. Make sure vehicle is completely cool before maintenance.

Stainless Header System: Polished stainless steel pipes will turn a light golden hue after a few heat cycles, this is a normal characteristic of high quality stainless steel. Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Titanium Header System: Polished titanium pipes will experience color shift ranging from deep blue/purple through amber after a few heat cycles. This is a normal characteristic of high quality titanium. Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Polished Aluminum Canisters: Use an aluminum or mag wheel polish to restore the bright finish to factory spec.

Brushed Aluminum Canisters: Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth.

Carbon Fiber Canisters: Clean using a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth. Always make sure the fiberglass packing inside is in good condition and not burned out, as exhaust heat inside an empty canister will deteriorate the carbon fiber sleeve. TBR sells repack kits (Road - #005-10038, Offroad - #005-10038MX) that include everything you need to easily do it yourself.

Titanium Mufflers: For cleaning use a mild water based spray cleaner. Always apply cleaner or polish with a soft, clean cloth. Always make sure the fiberglass packing inside is in good condition and not burned out, as exhaust heat inside an empty canister will deteriorate the carbon fiber sleeve.

TBR sells repack kits (Road - #005-10038, Offroad - #005-10038MX) that include everything you need to easily do it yourself.

Repack all road canisters at the first signs of packing material deterioration. Part #005-10038 Repack all offroad canisters after every 10 hours of use. Part #005-10038MX

NEVER dyno test your bike with carbon fiber or titanium canisters installed - the intense heat and lack of cooling air can quickly burn through the canister material. Two Brothers Racing does not provide a warranty for burned canisters.



#### BILL OF MATERIALS

1	TBR Muffler	
1	Front Header	005-49601HF
1	Rear Header	005-49601HR
1	Front Heat Shield	005-496-HS1
1	Rear Heat Shield	005-496-HS2
1	HD Dyna Bracket	005-375-B
2	45mm Springs	005-S45
2	O2 Sensor Kits	005-92-22KIT
5	Hose Clamps	005-HC-64024
2	5/16" Clip Nuts	005-10-516CN
2	5/16" x ¾" Flange Bolts	005-FB51634
2	5/16" x 1 1/2" Flange Bolts	005-FB516112
2	3/8" ID x 1/2" Spacers	005-S-11-10
1	5/16" ID x 1/2" Spacer	005-S-11
2	3/8" x 2" Socket Head Screw	005-SH382
1	5/16" – 24 x 1 ¼" Socket Head Screw	005-SH516114-24
* Available Seperately TBR Wide Tire Kit 005-496-		005-496-FK

TWOBROS.COM | 401 S. GRAND AVE. | SANTA ANA, CA 92705 | 800-211-2767

# **REFERENCE IMAGES**























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