

# Owner's Manua Owner'

# **Banks Monster Exhaust System**

2003-2007 Ford Power Stroke 6.0L Turbo-Diesel F450/F550 Trucks, Cab & Chassis

THIS MANUAL IS FOR USE WITH SYSTEMS 47273-47292

Gale Banks Engineering 546 Duggan Avenue • Azusa, CA 91702 (626) 969-9600 • Fax (626) 334-1743

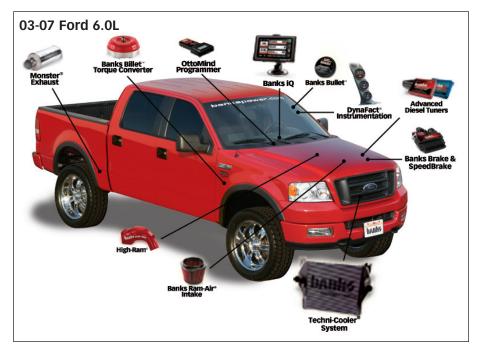
Product Information & Sales: (800) 438-7693 Customer Support: (888) 839-5600 Installation Support: (888) 839-2700

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## Also Available from Banks Power



# Banks iQ System (P/N 61151-61152)

- 5" touchscreen interface that can control the Banks Diesel Tuner and/or SpeedBrake on the fly.
- Interchangable gauge display, read and clear codes, monitor engine diagnostics, log data, time your vehicles runs and much more.

# Banks Ram-Air Intake System (P/N 42155)

- Increases your airflow over stock.
- Adds power, improves fuel economy, lowers EGTs and reduces smoke.

# High-Ram Intake (P/N 42750-42751)

 Increases flow and provides more uniform air distribution to the engine for more available power at a given boost level.

# Banks Techni-Cooler® System (P/N 25974-25975)

 Provides increased air flow to the engine by increasing air density for more increased power, lower EGTs and improved fuel economy.

# Banks Brake (P/N 55467-55468)

 Increases the stopping power of your truck and extends the service life of your brakes

# Banks Billet Torque Converter (P/N 72522)

- Higher torque capacity over stock
- Lockup clutch is slip-resistant so transmission fluids stay cooler and transmission life is prolonged.

#### Banks SpeedBrake iQ Compatible (P/N 55455-55456) PDA Compatible (P/N 55457-55458)

- Allows for controlled hill decent at a user defined vehicle speed.

# Boost and Pyro Gauges (P/N 64507)

 Keep your engine safe by monitoring vital engine parameters

# Banks Bullet (P/N 66524-66525)

- Adds power safely to your vehicle
- Displays critical engine functions
- Engine safeguards
- Change power levels on-the-fly

#### Banks Diesel Tuner Six-Gun w/ switch (P/N 61023) Six-Gun w/ iQ (P/N 63749) EconoMind w/ switch (P/N 63743-63745)

#### EconoMind w/ iQ (P/N 63747-63748)

- Adds power safely to your vehicle
- Engine and transmission safeguards
- Change power levels on-the-fly

# Banks Speed-Loader (P/N 62988)

 Furthers the power output of the Banks Six-Gun and provides EGT limiting safety.

#### **Thermocouple**

 Add a temperature limiting function to your Diesel Tuner

# OttoMind Programmer (P/N 66064)

- Contains Banks tunes that boost your vehicles HP, Torque and MPG.
- Displays a host of critical engine functions
- Provides "service technician" diagnostic capabilities
- Has upgradeable functionality, so it will never be out of date

#### Banks Stinger Systems (P/N 46465-46486) Contains:

- Ram-Air Intake system
- Monster Exhaust (single or dual)
- EconoMind Tuner w/ Banks iO

#### Banks PowerPack Systems (P/N 46497-46519) Contains:

- Ram-Air Intake system
- Monster Exhaust (single or dual)
- EconoMind Tuner w/ Banks iQ
- High-Ram
- Techni-Cooler System

# Banks Six-Gun Bundle (P/N 46594-46613) Contains:

- Ram-Air Intake system
- Monster Exhaust (single or dual)
- Six-Gun Tuner w/ Banks iQ

#### Banks Big Hoss Bundle (P/N 46623-46643) Contains:

- Ram-Air Intake system
- Monster Exhaust (single or dual)
- Six-Gun Tuner w/ Banks iQ
- Big Head Wastegate Actuator
- High-Ram
- Techni-Cooler System

For More Information please call (800) 438-7693 or Visit us online @ www.bankspower.com

### **General Installation Practices**

#### **Dear Customer,**

If you have any questions concerning the installation of your Banks Power System, please call our Technical Service Hotline at (888) 839-2700 between 7:00 am and 5:00 pm (PT). If you have any questions relating to shipping or billing, please contact our Customer Service Department at (888) 839-5600.

Thank you.

- **1.** Before starting work, familiarize yourself with the installation procedure by reading all of the instructions.
- **2.** The exploded view (**Figure 1**, pages 6-7) provides only general guidance. Refer to each step and section diagram in this manual for proper instruction.
- 3. Throughout this manual, the left side of the vehicle refers to the driver's side, and the right side to the passenger's side.
- **4.** Disconnect the negative (ground) cable from the battery (or batteries, if there are two) before beginning work.
- 5. Route and tie wires and hoses a minimum of 6" away from exhaust heat, moving parts and sharp edges. Clearance of 8" or more is recommended where possible.
- **6.** When raising the vehicle, support it on properly weight-rated safety stands, ramps or a commercial hoist. Follow the manufacturer's safety precautions. Take care to balance the vehicle to prevent it from slipping or falling. When using ramps, be sure the front wheels are centered squarely on

the topsides. When raising the front of the vehicle, put the transmission in park (automatic) or reverse (manual), set the parking brake, and block the rear wheels. When raising the back of the vehicle, be sure the vehicle is on level ground and the front wheels are blocked securely. Caution! Do not use floor jacks to support the vehicle while working under it. Do not raise the vehicle onto concrete blocks, masonry or any other item not intended specifically for this use.

**7.** During installation, keep the work area clean. Do not allow anything to be dropped into intake, exhaust, or lubrication system components while performing the installation, as foreign objects will cause immediate engine damage upon start-up.

#### **Tools Required:**

- 1/2" and 3/8" drive ratchets with inch. and metric sockets and 1/2" and 3/8" drive extension
- Inch and metric combination or open-end wrenches
- Standard screwdriver
- Clean shop towels or rags
- Pry-bar
- Reciprocating saw

#### **Highly recommended** tools and supplies:

- Inch-pound and foot-pound torque wrenches
- Penetrating oil or light lubricant spray
- Transmission jack (manual transmission)

# **Monster Exhaust System Installation**

- **1.** Disconnect the negative (ground) cable from the battery (if there is more than one battery, disconnect both negative cables). Secure the cable so it cannot accidentally come in contact with the post.
- 2. Raise the vehicle and support it securely with properly weight-rated safety stands, ramps or a commercial hoist. Take care to balance the vehicle to prevent it from slipping or falling. When using ramps, be sure the wheels are centered squarely on the topsides. Place the transmission in park (automatic) or reverse (manual), set the parking brake and securely block the wheels that are on the ground. CAUTION: DO NOT WORK UNDER ANY VEHICLE SUPPORTED ONLY BY A JACK. SEVERE INJURY MAY RESULT.

# WARNING! The following step may require the use of a torch and/ or saw. Proper safety equipment should be used. Failure to use proper safety equipment may result in severe injury.

**3.** From under the vehicle, remove the factory exhaust system from the catalytic converter back. Starting at the rear of the vehicle, remove each component by either cutting through the pipe near the clamps or by removing the clamps and heating the joints with an oxy-acetylene torch to allow crimped pipes to separate. DO NOT CUT OR DAMAGE CATALYTIC CONVERTER TUBING DURING THE REMOVAL PROCESS. To assist in removal, the T.O.P. should be cut before the resonator if it is going to be replaced. Remove the hanger pins from the rubber hangers with a pry bar. (Spray lubricant will ease hanger removal.

**4.** Remove the two (2) nuts attaching the turbine outlet pipe (T.O.P.) to the catalytic converter inlet. Loosen and remove the band clamp that attaches the rear intermediate pipe to the catalytic converter outlet. Remove the catalytic converter assembly from the vehicle. Remove the band-clamp that attaches the T.O.P. to the turbocharger and remove the factory T.O.P. from the vehicle. Retain V-band clamp for re-assembly.

Note: To assist in T.O.P. removal, remove the rear engine hoist hook by removing the two (2) Hex screws and remove the valve cover heatshield. The dipstick tube may also be removed or slightly bent to allow for T.O.P. removal/installation. Retain all hardware and parts for reassembly.

#### For Manual Transmissions only:

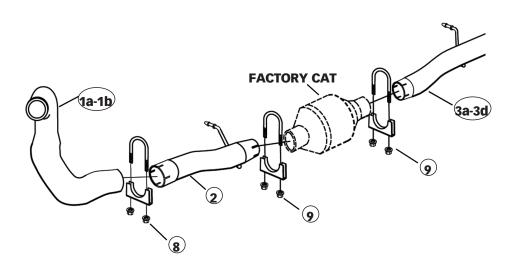
the transmission will need to be lowered to allow for removal and installation of the T.O.P. Using a Transmission Jack, support the rear of the transmission to allow working room for the T.O.P. and remove the rear transmission mount and crossmember. Remove the Front drive shaft support bracket from the cab. Lower the transmission 4-6" and remove the factory T.O.P. Install the Banks T.O.P. Raise the transmission and reinstall drive shaft bracket. transmission crossmember and rear transmission mount. Refer to vehicles owners manual for factory Torque Specifications.

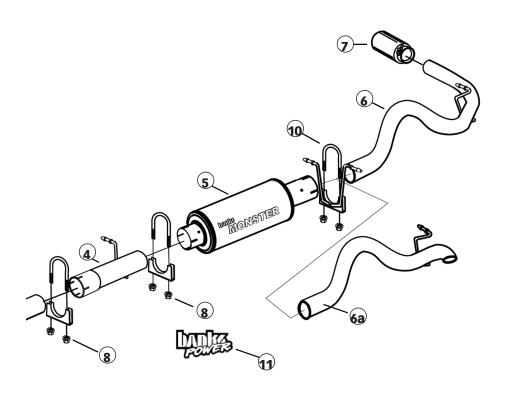
**5.** Loosely place the factory V-band clamp on the Banks T.O.P. Install the Banks T.O.P. to the turbine housing. Loosely snug the V-band clamp assuring the T.O.P. is aligned properly.

Figure 1

# **General Assembly Diagram**

Item #	Part Number	Description	QTY
1a	53525	T.O.P w/Resonator (Build Date 9/03 & Earlier)	1
1b	53537	T.O.P w/ Out Resonator (Build Date 10/03 & Later)	1
2	53526	Front Intermediate Pipe	1
3a	53539	EC 162" WB - Rear Interm. Pipe (Kit 47273)	1
3b	53540	RC 165" WB - Rear Interm. Pipe (Kit 47274)	1
3c	53528	CC 176" WB - Rear Interm. Pipe (Kit 47275)	1
3d	53543	CC 200" WB - Rear Interm. Pipe (Kit 47276)	1
4	53541	Extension Pipe	1
5	53800	Monster Muffler	1
6	53546	Tailpipe	1
6a	53547	Tailpipe, Turndown	1
7	52383	Tailpipe Tip	1
8	52470	Exhaust Clamp, 4"	2
9	52468	Exhaust Clamp, 3.5"	1
10	53544	Hanger Clamp, Muffler	1
11	96009	Banks Power Decal	2
	96441	Owners Manual	1





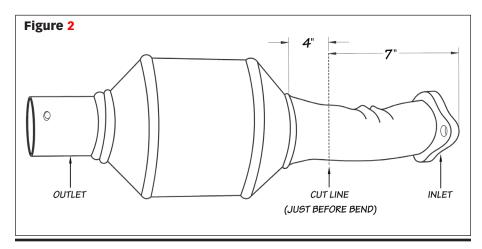
Note: Reinstall the engine hoist hook and valve cover heat shield if previously removed.

**6.** The catalytic converter inlet will need to be trimmed to accommodate the Banks exhaust system. Be careful not to trim an excessive amount of tubing. Be sure to wear proper safety equipment.

IMPORTANT: Diesel catalysts may become plugged with soot which can restrict exhaust flow, impeding performance. Inspect the converter by shining a powerful flashlight into the inlet. Observe the light through the other end of the converter. The full circle of the flashlight should be visible without any blockage in the gridwork of the catalyst. If excessive soot is observed, the catalyst may need to be cleaned. TAKE PRECAUTIONS to avoid blowing soot toward the work area or where it could be inhaled. ALWAYS use breathing protection. Also inspect the catalyst for damage (i.e. chips, bent corners, etc.) to the gridwork. If your catalytic converter is damaged, it may be covered under vour vehicle's emissions warranty.

- A) With the catalytic converter removed from the vehicle and the headpipe removed from the converter, measure approximately 4" from the weld and mark the location (this location should be before any bend, about 7" rear of the inlet flange). Using a reciprocating saw or equivalent, vertically cut and remove 7" from the converter outlet tubing (see **Figure 2**).
- B) Install the supplied Banks front intermediate pipe onto the previously installed Banks T.O.P. Loosely install a supplied 4" exhaust clamp onto the forward end of the front intermediate pipe.
- C) Install the supplied 31/2" clamp onto the outlet of the front intermediate pipe. Place the trimmed catalytic converter onto the previously installed front intermediate pipe. Loosely snug the clamp onto the catalytic converter inlet.
- **7.** Place a supplied 3½" clamp onto the front of the supplied rear intermediate pipe.

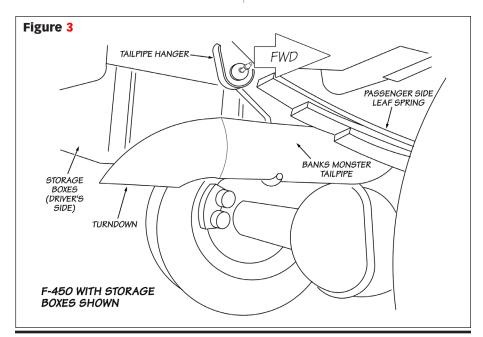
Note: Review the Parts List Table on pages 12-13 to verify the rear intermediate pipe P/N.



- **8.** Install the supplied rear intermediate pipe onto the catalytic converter outlet. Be sure the notch and catalytic converter pin are properly aligned. Lightly snug the 3½" clamp onto the front of the intermediate pipe / catalytic converter outlet.
- **9.** Install a 4" clamp onto front the supplied extension pipe. Install the supplied extension pipe onto the outlet of the rear intermediate pipe. Loosely snug the clamp at the connection.
- **10.** Install a 4" exhaust clamp onto the Banks Monster Muffler inlet. Connect the muffler inlet onto the rear of the extension pipe. Install the 4" muffler clamp onto the Monster muffler outlet such that the hanger pins are towards the front of the vehicle. Install the hanger pins into the vehicle's rubber insulators.

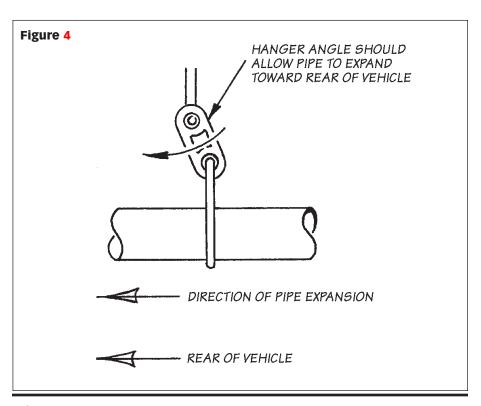
- **11.** Route the tailpipe over the rear axle housing and into the muffler outlet. Install the tailpipe hanger pin into the corresponding rubber hanger. Loosely snug the 4" clamp onto the muffler outlet.
- **12.** For Models with storage boxes: Adjust the tailpipe turndown parallel with the ground so that the bumper or storage boxes do not get in the path of the exhaust (see **Figure 3**).
- **13.** For Models without storage boxes: Install the 5" Monster tailpipe tip on the exhaust. Keep the wrapping on until installation is complete. The tip should be rotated so the clamp nut and drain hole are pointing down. Align the end of the tip with the body line of the truck. Remove the protective covering from the tailpipe tip.

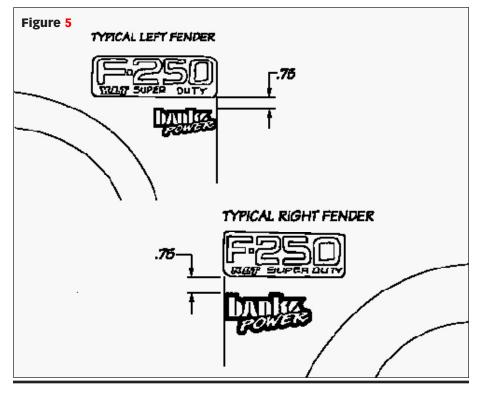
Caution: The protective covering may ignite and burn if not removed prior to running the engine.



- **14.** With everything positioned properly, begin to tighten the clamps starting with the ones closest to the front and working your way back. Torque the exhaust clamps evenly to 35 ft-lbs. Make sure that each slip is fully inserted (+/- 1/4 inch) and that all mount hangers are in the forward position (see **Figure 4**). Torque V-band clamp on the T.O.P. to 7 ft-lb.
- **15.** Your system includes two "Banks Power" logos designed to complement the Ford badging on your truck. Use the provided measurements (see **Figure 5**) to position the logos for a clean factory look.
- **16.** Re-connect negative battery cable(s). Start the engine and listen for exhaust leaks. Tighten the exhaust clamps as necessary. Whenever possible, tack-welding slip connections to prevent disengagement is recommended.

Banks Monster Exhaust installation is now complete.





# □ Parts List—Ford Power Stroke Monster Exhaust

T.O.P System (Build Date 10/03 & Later)	48781		_	_	_	_	<b>~</b>
T.O.P System (Build Date 9/03 & Earlier)	48761	1		_	_	_	<b>~</b>
	Description	T.O.P w/Resonator	T.O.P w/out Resonator	Front Intermediate Pipe	Exhaust Clamp, 4"	Exhaust Clamp, 3.5"	Owners Manual
	Item# P/N	53525	53537	53526	52470	52465	96440
	Item	19	10	7	∞	6	

1				Ext. Cab 162" WB	Ext. Cab 162" WB Storage Boxes	Reg. Cab 165" WB	Reg. Cab 165" WB Storage Boxes	Crew Cab 176" WB	Crew Cab 176" WB Storage Boxes	Crew Cab 200" WB	Crew Cab 200" WB Storage Boxes
		•	2003 Models	47277	47278	47279	47280	47281	47282	47283	47284
P/N	Description	tion	2004-07 Models	47285	47286	47287	47288	47289	47290	47291	47292
Ċ.	53539   EC 162"	." WB -	WB - Rear Interm. Pipe	_	_						
	(Kit 4727	273)									
4	53540 RC 165' (Kit 472	5" WB - 274)	RC 165" WB - Rear Interm. Pipe (Kit 47274)			_	-				
က	53538 CC 176" (Kit 4727)	5" WB - 275)	WB - Rear Interm. Pipe 75)					<b>~</b>	_		
4	53543 CC 200' (Kit 472'	)" WB - 276)	CC 200" WB - Rear Interm. Pipe (Kit 47276)							~	_
4	53541 Extension Pipe	ion Pip	эс	_	_	_	_	_	_	_	<b>~</b>
9	53800 Monster	er Muffler	fler	_	_	_	_	_	-	_	_
7	53546 Tailpipe	(I)		_		<b>~</b>		_		_	
7	53547 Tailpipe,		Turndown		_		_		-		_
ω,	52383 Tailpipe	e Tip		_		_		_		_	
1	52470 Exhaust		Clamp, 4"	2	2	2	2	2	2	2	2
9	52468 Exhaust		Clamp, 3.5"	_	_	-	_	_	-	_	_
4	53544 Hanger		Clamp, Muffler	_	_	<b>~</b>	_	_	<b>-</b>	_	_
0	96009 Banks Power Decal	Power	' Decal	2	2	2	2	2	2	2	2
7	96441 Owners	s Manual	nal	<b>~</b>	~	_	_	_	~	~	<b>—</b>

# **Notes**

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