



◀ The JBA headers have much longer primary tubes than the stock manifolds or other short-tube designs. This should translate into some extra horsepower and torque. This particular set is made of ceramic-coated mild steel (PN 6675SJS; from \$1,077 mail-order) and comes with slip-fit 2½-inch collectors.

Long in the Tube

JBA HEADERS' '05 MUSTANG LONG-TUBES GO ON EASY AND MAKE GOOD POWER

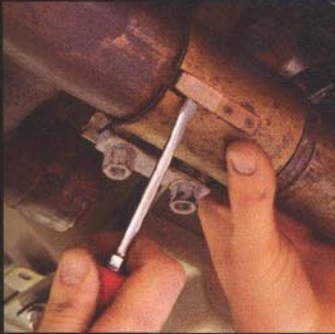
We were thrilled when HiTech Motorsport volunteered to let us tag along while it installed a set of JBA long-tube headers and matching off-road H-pipe on its new '05 GT. After looking under a few '05 hoods, we were ecstatic that there was some extra room compared to other 4.6 cars, especially the Four-Valves. As it turns out, installing the JBA headers and matching H-pipe is definitely something the average enthusiast can do in the driveway.

Text and Photos by **Travis Thompson**

The guys at HiTech were looking for a nice set of long-tube headers for their new '05. They needed something that would add some serious power and last a long time. The JBA headers were a natural choice because of their long 1½-inch primary tubes, 2½-inch collectors, and they're available in ceramic-coated mild steel or stainless steel. The JBA H-pipe lined up with the headers perfectly, so there was no need to cut or weld anything. You will need to pick up two pairs of oxygen sensor wire extensions because all four sensors are moved farther back in the system.

Horse Sense: Since the factory tailpipes and mufflers are already 2½ inches in diameter, the guys at HiTech decided to stick with the stock stuff in back and see how it turned out. With the long-tubes and no cats, the exhaust sound went from a mild performance rumble to a looser, much louder tone. A pair of high-flow cats would add more control to the sound.

JBA HEADERS' '05 MUSTANG LONG-TUB



▲ The first step is to unbolt the clamps at the back of the factory H-pipe. They feature a traditional 15mm nut/bolt setup (left) as well as a new latch (right) that you'll need to unhook with a screwdriver.



▲ At the other end of the H-pipe are the 15mm nuts that hold it to the exhaust manifolds. You can see here how easy it is to reach the collector nuts, which have just been removed. The studs stay in the manifolds.



▲ Once you've unhooked the three oxygen sensors in the factory H-pipe, you can pull it off its hangers and remove it. The factory pipe is 2 1/4 inches and only has two cats, which is an improvement over previous designs.

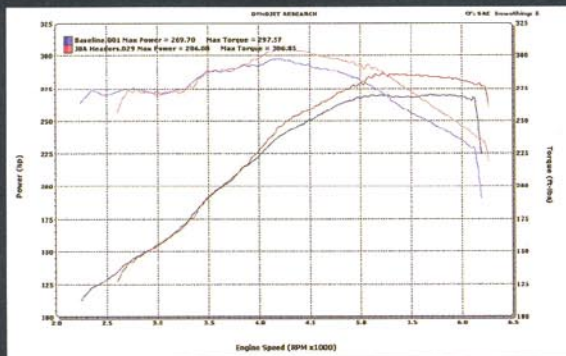
ON THE DYNO

RPM	Baseline POWER	TORQUE	JBA Headers POWER	TORQUE	Difference POWER	TORQUE
2,700	124.23	271.85	139.35	271.05	15.12	-0.80
2,800	128.41	269.76	145.78	273.46	17.37	3.70
2,900	134.54	271.77	149.98	271.62	15.44	-0.15
3,000	140.81	273.91	153.92	269.47	13.11	-4.44
3,100	146.18	274.20	159.88	270.86	13.70	-3.34
3,200	150.29	272.18	165.35	271.39	15.06	-0.79
3,300	155.26	271.82	173.22	275.67	17.96	3.85
3,400	160.26	271.52	182.39	281.75	22.13	10.23
3,500	166.62	273.46	191.03	286.66	24.41	13.20
3,600	173.57	276.24	197.83	288.62	24.26	12.38
3,700	183.12	282.88	204.01	289.59	20.89	6.71
3,800	191.73	287.71	210.49	290.92	18.76	3.21
3,900	197.19	287.68	217.95	293.50	20.76	5.82
4,000	202.80	287.88	226.86	297.87	24.06	9.99
4,100	210.46	290.88	236.46	302.90	26.00	12.02
4,200	216.58	291.66	245.01	306.39	28.43	14.73
4,300	222.45	292.09	250.80	306.33	28.35	14.24
4,400	231.08	296.02	254.70	304.03	23.62	8.01
4,500	237.95	297.55	258.47	301.67	20.52	4.12
4,600	242.58	296.30	262.27	299.45	19.69	3.15
4,700	246.59	294.35	266.77	298.11	20.18	3.76
4,800	250.71	292.62	271.42	296.98	20.71	4.36
4,900	254.10	290.13	275.07	294.84	20.97	4.71
5,000	258.29	288.63	279.06	293.13	20.77	4.50
5,100	262.43	287.15	282.45	290.88	20.02	3.73
5,200	265.27	284.34	285.10	287.95	19.83	3.61
5,300	267.46	280.95	285.69	283.11	18.23	2.16
5,400	268.97	276.99	284.82	277.02	15.85	0.03
5,500	269.27	271.97	284.68	271.85	15.41	-0.12
5,600	268.47	266.05	284.05	266.41	15.58	0.36
5,700	267.75	260.42	283.49	261.22	15.74	0.80
5,800	267.69	255.63	282.72	256.02	15.03	0.39
5,900	268.81	252.11	282.00	251.03	13.19	-1.08
6,000	269.67	248.48	280.47	245.52	10.80	-2.96
6,100	269.33	243.89	278.97	240.20	9.64	-3.69

We were curious to see what kind of power the new exhaust would make, especially since the bone-stock car put down 269.27 hp and 297.55 lb-ft of torque on the Dynojet. Even with the stock

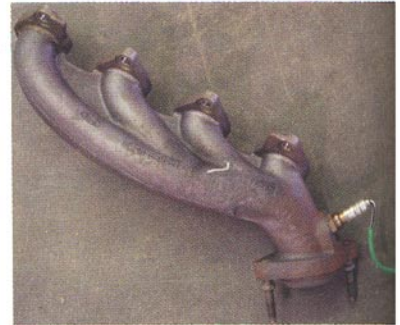
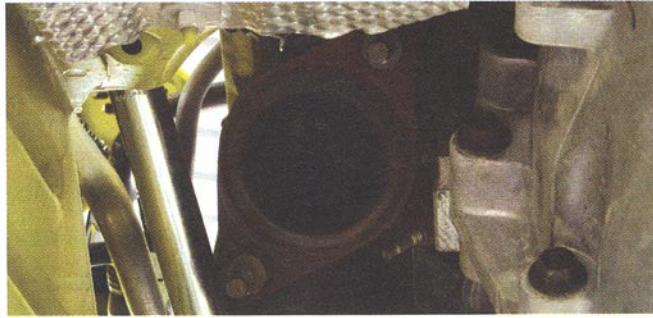
mufflers and tailpipes, and no tuning, the '05 picked up 15 hp and 8.84 lb-ft of torque at the peaks. What's even better, the car picked up power from 2,500 rpm where

they dyno started all the way to redline. Of course, a custom tune was required to make the car run properly. HiTech found that the car liked the cam timing retarded by two degrees.



JBA HEADERS' '05 MUSTANG LONG-TUBES

► The bottom manifold nuts and studs are easily accessible. Be careful not to drop a manifold on your head, and keep track of the gaskets. Remember to unhook the fourth oxygen sensor.



▲ Here's a good look at one of the stock manifolds. The primaries are longer and smoother than previous log-style manifolds, and the outlet is about 2 1/4 inches. Ford definitely made an effort to get more flow out of the stock system.



▲ Ford stuck with durable, multilayer steel gaskets, so there's no reason to replace them. Just reuse them with the new headers. The challenge is keeping them in place while installing the new headers.



▲ One look at the 1/2-inch JBA flanges tells you they mean business. This view shows the 1 1/2-inch primaries, which are constructed of thick 14-gauge steel.



▲ Here's what the passenger side of the engine looks like from the bottom. There's plenty of room to feed the header up in there. We ended up removing the starter to get some extra clearance.



GT Header features:

- Increased hp and tq
- Patented technology
- Easy bolt-on install
- 3/8" thick flanges
- 409 stainless tube
- Complete hardware
- 50 state smog legal

Long Tube Headers also available!



GT Exhaust features:

- High flow muffler design
- Easy installation
- Great power and sound
- Complete hardware

JBA

jba performance exhaust co

MUSTANG • COBRA • MACH I • TRUCK • FOCUS

**POWER.
SOUND.
QUALITY.**



2005 Mustang V6 Headers & Exhaust also available.

New! 2005 MUSTANG :: HEADERS & EXHAUST

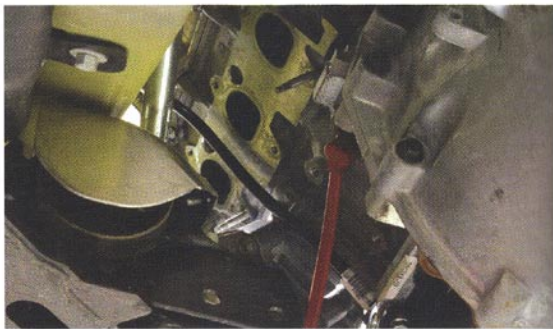
www.jbaheaders.com

call toll free **800.830.3377**

JBA Performance Exhaust Co. • 7149 Mission Gorge Road • San Diego, CA 92120 • PH 619.229.7797

JBA HEADERS '05 MUSTANG LONG-TUBE

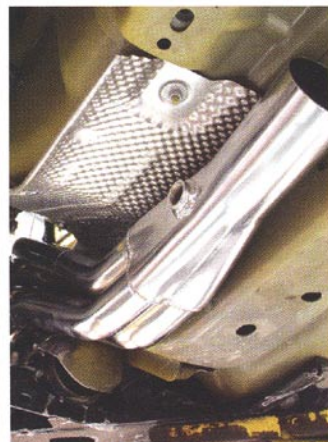
► The story is basically the same on the driver side. You'll need to unhook the steering shaft and remove the dipstick tube, but the header slides right in.



▲ Work the header up into position, and finger tighten the bottom bolts to hold it in place. The difficulty is keeping the gaskets in the right spot while you're positioning the header.



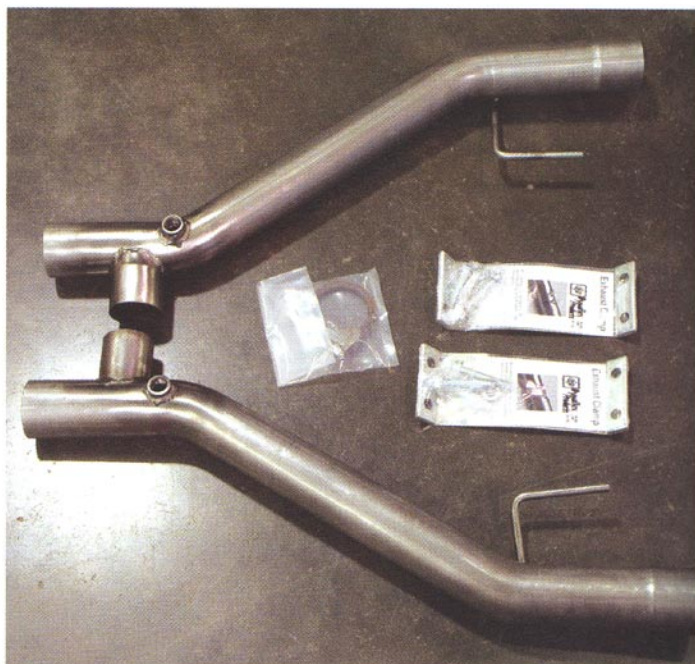
▲ With the driver-side header in place, you can reinstall the dipstick tube and the steering shaft.



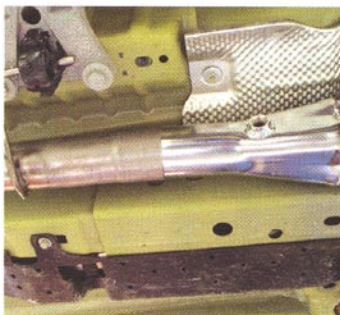
▲ Here's a look at the installed passenger-side header. The starter can be reinstalled with the header in place. Doesn't that fit nicely? The front oxygen sensors are farther away from the engine than they used to be, so wiring extensions are needed.



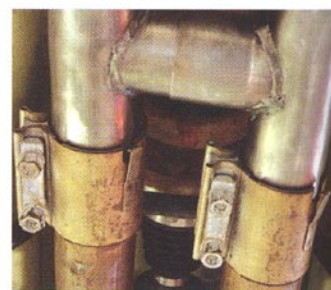
▲ Once the car is dropped back down, tighten the upper header bolts. The front primary makes it a little more difficult to get a wrench/ratchet to these bolts.



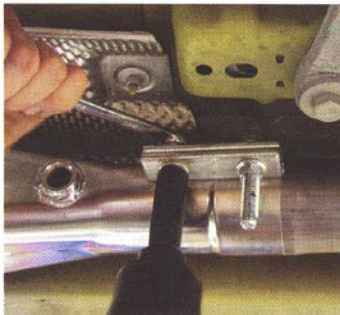
▲ Now for the JBA off-road H-pipe (PN 6675SH; from \$176 mail-order). It comes with everything you need to install it on the factory hangers, except for a pair of oxygen sensor wiring extensions.



▲ The JBA H-pipe slips right over the 2 1/2-inch collectors and hangs perfectly on the factory hangers.



▲ In back, the factory exhaust hooks right up to the H-pipe using factory clamps. JBA also includes a standard exhaust clamp to hold the two sides of the H-pipe together. When all the clamps are tight, you're ready to go. **5.0**



▲ The H-pipe comes with a pair of high-quality band clamps to attach it to the slip-on collectors. These clamps seal the system up tight, while allowing you to drop the H-pipe quickly and easily.

SOURCES 5.0

HiTech Motorsport
Dept. 5.0
13915 Radium St. NW, Ste. C
Anoka, MN 55303
(763) 712-9088
www.hitechmotorsport.com

JBA Headers
Dept. 5.0
7149 Mission Gorge Rd., Ste. D
San Diego, CA 92120
(800) 830-3377
www.jbaheaders.com