

# To The Max

**PULL MORE POWER  
FROM YOUR V-STAR**

Staff Report

ONE OF THE MOST common questions we get from readers is “How do I make my bike go faster, pull harder, rev higher, run stronger?” And, generally, the answer begins with “Did you try a pipe and jet kit yet?”

We metric riders are fortunate in that import motorcycle engines usually make plenty of power; they’re just corked up from the factory for noise and emissions purposes. Adding a free-flowing exhaust system and rejetting the carbs will unleash some previously restrained ponies. We’re equally fortunate that many aftermarket manufacturers have developed already-tuned packages, eliminating time-consuming trial and error on our end. In this case, Maxair Engineering and the Roadhouse Brand exhaust company have worked together to produce a fine system with compatible parts.

We decided to test out Maxair’s Predator kit in conjunction with Roadhouse’s Classic pipe. Our guinea pig was a stock V-Star 1100 needing a little extra power, since it often sees two-up touring duty. We started the project with a visit to Fast-Lane Motorsports in Torrington, Connecticut, for a baseline dyno run. Bone stock, the Star produced 51.7 horsepower and 55 ft-lbs. of torque.

Installation took just one afternoon, using basic hand tools. We have to admit, of the many bikes we’ve worked on, this model has what are



**1** Our subject is a bone stock Yamaha V-Star 1100.

probably the easiest carbs to remove and reinstall. There is plenty of room to work, and connections are easy to access. Thank you, Yamaha.

Rejetting is done on the workbench. You just select the proper parts from the Maxair kit, according to the instructions. Parts are provided for different configurations: stock pipe, drilled stock pipe, slip-on exhaust, or full aftermarket exhaust. Reinstallation is even easier, thanks to the K&N filter pods that are included with the Maxair kit. By the way, we reinstalled the stock chrome air cleaner on the right side strictly for aesthetics — it’s not functional, but without it, the naked engine and carbs are visible.

Installing the Roadhouse pipe was no headache, either. It weighs a few pounds less than the factory system, and the 2-into-1 style unleashes power down low and in the midrange. The sound is just a bit louder than stock.

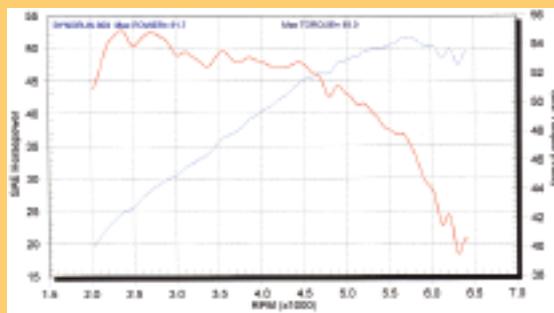
Our jet kit came with the optional pilot mixture thumbscrews for fine-tuning. After adjusting the pilot screws and synchronizing the carbs, we headed back to the dyno. The results: 61

## SOURCES

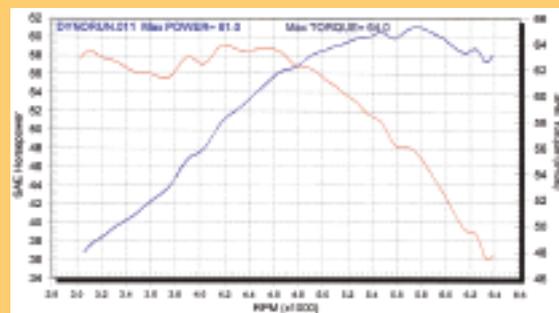
Maxair Predator for the V-Star 1100 \$219  
**MAXAIR ENGINEERING**  
1643 Spruce Street  
Dept. RB  
Boulder, CO 80302  
303/362-1336  
www.maxairengineering.com

V-Star 1100 Classic Exhaust \$499  
**ROADHOUSE BRAND**  
27 West Easy Street, #401  
Dept. RB  
Simi Valley, CA 93065  
805/579-1880  
www.roadhousebrand.com

**FAST-LANE MOTORSPORTS**  
788 New Hawington Road  
Dept. RB  
Torrington, CT 06790  
860/489-6939



**In stock form, our V-Star 1100 produced 51.7 horsepower and 55 ft-lbs. of torque.**



**Adding the Maxair Predator kit and Roadhouse Brand Classic exhaust gave us an impressive boost to 61 horsepower and 64 ft-lbs. of torque.**



**2** The Maxair kit comes with jet assortments, hardware, air filters, and detailed instructions.



**3** Start by disconnecting the fuel line from the fuel valve on the underside of the tank. Unhook the fuel gauge sender wires, which are located under the seat.



**4** Remove the stock air cleaner on the right side of the engine and save it for future use.



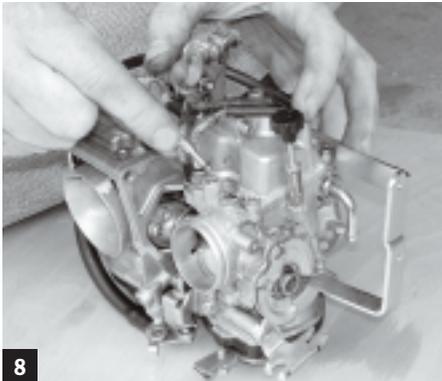
**5** Remove the tank, loosen the airbox hose clamps on the carb boots, and then remove the airbox assembly.



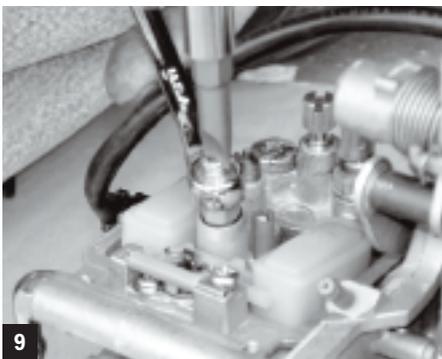
**6** The carbs can be popped off the engine with a slight twisting motion and slid out the left side of the frame. It's a good idea to wash them with spray carb cleaner.



**7** On the workbench, drill a small hole in the pilot screw plug with the drill bit provided. Drive in a sheet metal screw and remove the plug with a pair of pliers.



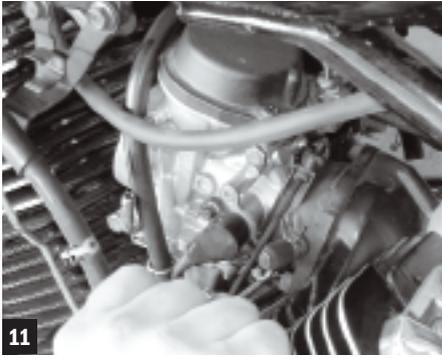
**8** Install the new pilot jet adjusting screws. These have a thumbscrew for easier tuning.



**9** Remove the bowl screws and discard them. Then install the new main jets according to the directions for your application. Clean out the bowls and reinstall them. New stainless steel bowl hardware is included with the kit.

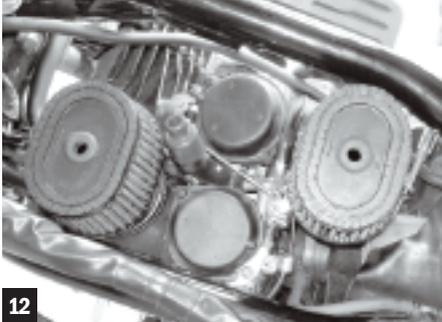


**10** Flip the carbs over and remove the top cap. Lift out the diaphragm and remove the stock needle, being careful not to damage the plastic needle holder. Shim the needle according to the directions and reinstall it.



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Replace the carbs. A shot of silicone spray will help them slide into the boots easily.



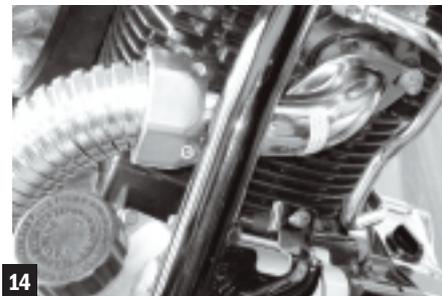
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Put the provided billet adapters on the K&N filters, and then install the filters on the carbs. Connect the T-shaped PCV hose to the top of the air filters before reinstalling the tank and seat.



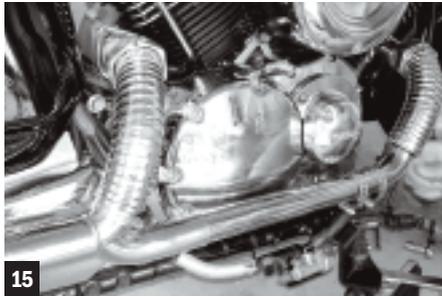
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At this point, we gutted the stock air cleaner housing and reinstalled it, strictly for looks.



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Now for the pipe. Unbolt the right-side floorboard and remove the stock exhaust. Fit the forward cylinder pipe and sleeve to the engine, leaving the bolts a bit loose. Orientating the convoluted tubing pipe cover can be tricky – just spin it until the flange meets up against the head and looks proper.



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Assemble the rear cylinder pipe before installing it. Loosely fit the rear pipe to the engine, mating it to the front pipe.



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Slide on the rear muffler can and align the entire system, checking it out from behind and above. Note: Aligning the end may require a rubber mallet. We used a size 11 Timberland instead.



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Tighten the mounting bolts and flanges, and install the long chrome heat shield with the clamps provided. Then reinstall the right floorboard with the spacers that are included in the kit.



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Now the bike looks more nostalgic than it did stock. But there's nothing old-fashioned about its power. **RB**

horsepower and 64 ft-lbs. of torque. Not bad! But bear in mind, these figures simply keep things relative. The ultimate test is the bike's seat-of-the-pants feel. And, judging from the owner's grin after his first test ride, he's very happy.

If you want to try this installation yourself, there's a wealth of knowledge on the Maxair web site's Tech Forum. You can consult with other V-Star owners for tips and baseline settings, and post your own experiences. **RB**

## Backfires

**T**hough this installation was relatively seamless, and we followed the instructions and suggested jetting, we encountered a situation that needed some attention. Our V-Star developed a low-rpm backfire upon decel back to idle. We consulted the International Star Riders Association web site and found a solution in the form of an AIS removal mod.

It seems the OEM air injection system is the root of all backfire evil for plenty of Star riders. Disconnecting the AIS can be done two different ways; one is temporary, and the other more permanent. The quick and dirty method is to simply reroute the two AIS hoses (located under the left plastic side cover) back to themselves and close the loop. This way, the AIS won't force air into the exhaust and create backfires. Since low-rpm drivability was our primary concern, we decided to do this mod – despite the benefits of the AIS emissions control system and the legalities concerning disabling it. ■