

## HURRICANE VIPER-AC 7000 400HP TURBO KIT INSTALL INSTRUCTIONS

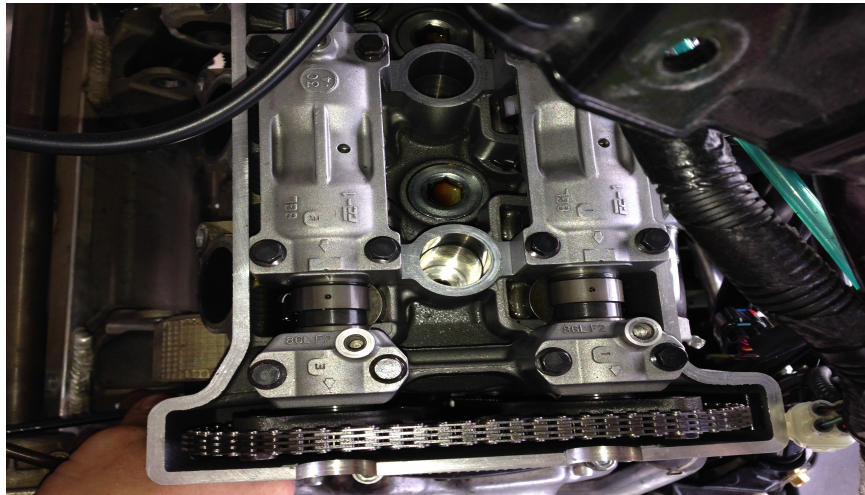
Drain coolant. Remove the stock muffler and air box. Modify the shield at the rad cap using supplied template. Remove throttle bodies. Remove fuel tank and stock header. Remove primary and secondary clutches. Remove parimeter rod and aluminum upright bar on clutch side. Remove bolts and rotate jack shaft suport brace and belt guard as shown in picture.

Loosen front motor mounts and remove both rear motor mount bolts. Rotate engine forward and suport with 15/16 socket as shown in picture at the motor mount.

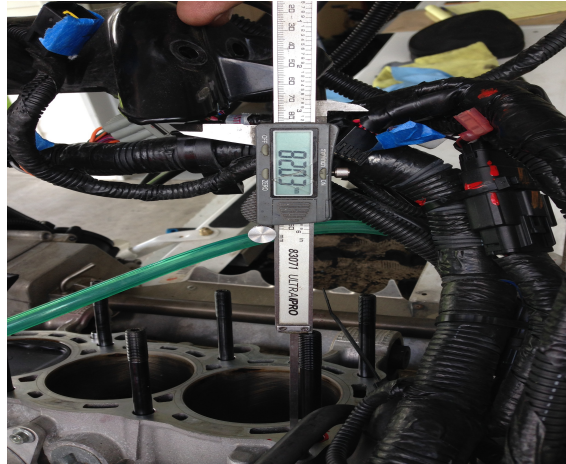


Remove valve cover and heat exchanger vent tube after motor is raised. This will allow chain tensioner to be removed after the timing marks are aligned as picture below.

Set timing mark on flywheel through sight hole in stator cover with cam dots aligned with marks on cam caps as shown in picture.



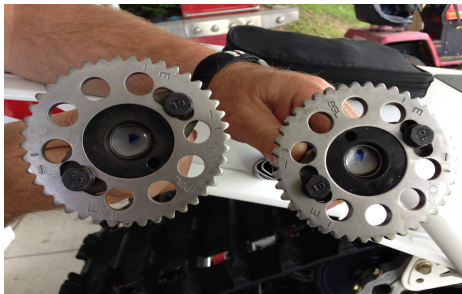
Remove cam chain tensioner, cam caps and cams. Remove head bolts and cylinder head. **DO NOT TIP HEAD UPSIDE DOWN TO ALLOW VALVE BUCKETS TO FALL.** Clean block and head surfaces with acidtone. Clean threads in block and ARP studs with brake clean. Apply red loctight on studs that enter the block. **Set left front head Stud depth to 82mm above block deck as shown in picture.** Then install the other 7 studs into block with red loctight till they bottom.



Spray copper coat to each side of supplied stainless head shim. Install one of head gasket over studs followed by . Then install the second head gasket on top.



Lower head down over studs and install supplied washers. Lube nuts with molly style lube and torque from center outwards. Torque specs are first stage (35lbs),second stage(45lbs),third stage(55lbs) using a well calibrated torque wrench.



Slot bolt holes in cam gears and reinstall on cams.

Install cams in head and set dot alignment to caps as shown in previous timing picture page2. Install chain tensioner with the word UP to top.





Rotate engine in running direction to set chain tension and re-align timing marks as shown in timing picture. Loosen cam gear bolts and install cam timing jig as shown in picture. Be sure that the flat part of bolt hex rests on jig. Apply red loctight liberally to cam gear bolts and tighten with wrench.

Install valve cover,heat exchanger vent tube,motor into mounts and tighten front and rear bolts,parameter bars,header,jack shaft brace,clutch guard,gas tank and etc.

Remove rubber cap from rear vacuum nipple on all three throttle bodies . Install supplied vacuum hose manifold to rear nipples as shown in picture. Install vacuum hose from multy T on vacuum manifold to blow off valve, Powercommander map sensor and optional boost gauge. Install throttle bodies to head.





Install the oil return fitting into the stator cover. Remove screw beside throttle bodies on the head and install oil supply fitting with copper gasket from screw. **(Do not over tighten fitting)**

At this point you can install the Hurricane turbo assembly to the stock muffler mounts as you insert the oil return hose onto the stator fitting leaving hose clamp loose. Install supplied nut and bolt to upper mount with washer. Fasten header to turbo using supplied copper gasket. Apply a thin coating of high temp silicone to both sides on gasket. Now install oil supply hose from turbo to oil supply fitting on head. Hold fitting with wrench as braided hose is tightened to prevent over tightening the fitting.

Install silicone couplers to throttle bodies reusing stock clamps. Install the 2 supplied radiator support bolts and bushings as shown in the picture.



Remove factory fuel pump from tank. As shown in picture below. Remove both white plastic clips and remove fuel bowl from pump assembly.

With the aid of a second person use small flat screw drivers and carefully unclip the four plastic side clips holding the regulator housing from the fuel cover as seen in picture below.



Unclip black plastic clip from regulator. Pull out factory regulator held in by rubber grommet from plastic housing.



While holding on to the regulator and using a T-handle 6mm to tighten the screw all the way in till it bottoms out as per picture on the right.

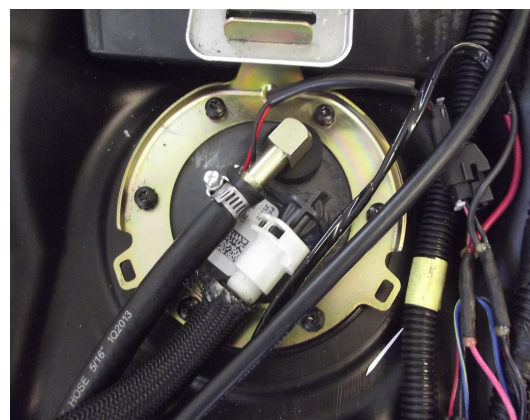
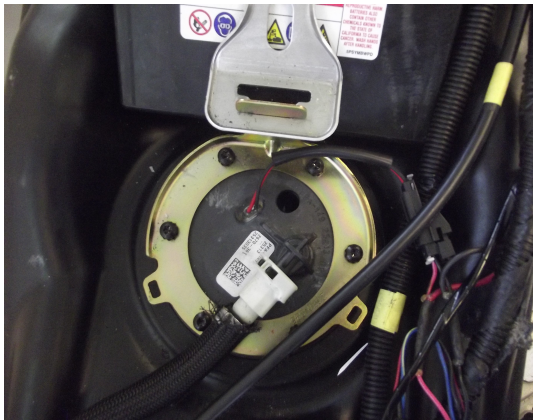


At this point remove the black fuel hose and screen filter from factory pump. Connect fuel hose and screen filter to supplied in-tank pump. Plug in power and ground wires to pump. Re-install the fuel pump back into fuel bowl.



Drill 1/2in hole in stock sending unit for fuel return and install supplied fitting and grommet as shown in picture and template supplied.

Re install fuel pump system back into tank. Re-connect fuel line and add your return fuel line with gromet supplied in kit.







Remove factory plug from end of the fuel rail. Remove rubber O ring from plug and install it on new regulator. Install the supplied fuel regulator to rail. Connect the fuel return line from the tank to the regulator. Cut part of the blow off valve hose supplied and connect the hose from intercooler nipple to the fuel regulator.

Remove factory in-line fuel filter right side of handle bar. Install the supply brass "T" to the fuel line from tank and connect to fuel rail supply line. Install 5/16 fuel line from brass "T" to the intercooler secondary fuel system. Install idle motor hose under throttle bodies to matching nipple on intercooler and apply zip tie. Now install intercooler and clamps to couplers and tighten clamps. Install supplied elbow and clamps to air box and turbo. Rotate the turbo towards engine firmly as clamps are tightened on elbow. Tighten clamp at oil return as well. The valve cover vent hose should be layed along side the front of the engine beside the throttle bodies to vent to atmosphere. Lay the aluminum oil tank vent tube along side the rad cap and leave it vented to atmosphere as well.



Install Hurricane 400HP Powercommander V control box to the belt guard with supply velcro. Plug in 16 pin connector located just behind steering shaft. Plug in 4 pin connect from Powercommander V to secondary fuel system. Install ground wire to chassis at clutch guard. Install vacuum hose to multi T.

This Hurricane Viper 4000hp turbo kit is designed to boost a modified Viper engine to 4000hp using race gas. Your Hurricane Viper 400hp turbo kit has also been mapped with the Powercommander V to manage the AF to be at 10.5-11.2 @WOT. You can expect the engine to run under leaner conditions with part thottle and less boost respectively

Thank you for choosing The Hurricane Viper 4000hp turbo kit. We have built your kit with pride and have engineered your turbo kit to be as safe as possible on your engine. It is however your responsibility to monitor all operating parameters to insure continued safe operation or your sled.

Hurricane Performance does not assume any liability resulting from damage caused from the Hurricane Viper 4000hp turbo kit or any options there of.

Please ride safe and enjoy the power

Hurricane Performance