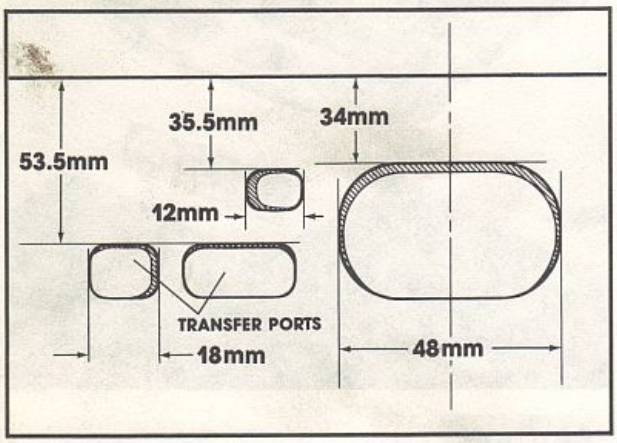
DATE January 10, 1984

YZ250L
PERFORMANCE MODIFICATIONS

The following tuning modifications can be completed on the YZ250L to increase the machine's output approximately three horsepower. The output increase may vary depending on the engine and how carefully these instructions are followed. Be aware that some of these modifications may affect the warranty; check the Owner's Warranty Guide for details.

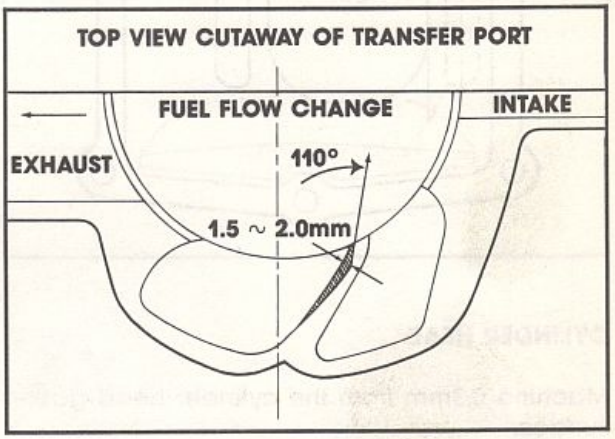
CYLINDER

1. Using a hand grinder, grind away the port material shown in the shaded sections of the illustration, being sure to match the specifications given. When ground, the shaded areas must be smooth and continuous with no abrupt changes in shape or contour.



CAUTION:

Be sure to chamfer all ports. Also, make sure there are no sharp edges or protrusions along all port edges.



NOTE: The illustration above refers to the transfer port window leading into the cylinder; **this is not at the base of the cylinder.** This transfer port modification must be done correctly to obtain the indicated horsepower increase.

2. After completing all grinding, match the power valve to the cylinder:
   a. With the power valve in its most advanced position, check the seam between the valve and the cylinder.
   b. If the seams don't match, grind enough material off the cylinder or the valve until they match exactly.

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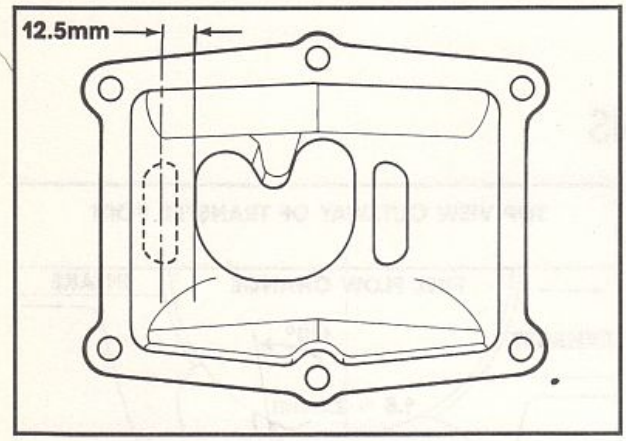
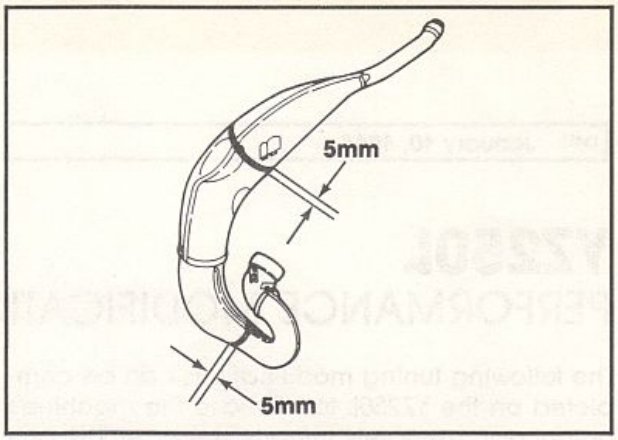
3. Using a hand grinder, make a 10mm hole in the left side of the intake port; see the illustration. This should duplicate the hole in the right side of the intake port that leads into the transfer subport.





CYLINDER HEAD

Machine 0.3mm from the cylinder head gasket surface.

CAUTION:

The squish band in the combustion chamber may require remachining to maintain a clearance of 0.75mm between the band and the piston.

EXHAUST PIPE

For increased midrange and top-end performance, shorten the head pipe approximately 5mm. To increase top-end power further, shorten the expansion chamber area approximately 5mm. With the pipe still in place on the motorcycle, cut away the appropriate section with a hacksaw or other tool, then tack weld the pipe back together. Remove the pipe from the motorcycle and complete the welding job using a TIG welder.

WARNING:

Remove the fuel tank and the carburetor before welding. Welding can produce sparks that could cause a fire. Use a TIG welder when performing this modification; do not use an arc or gas welder. A TIG welder is the least hazardous welder for this application.

IGNITION TIMING

For optimum power, be sure the ignition timing is set to standard: 1.5mm BTDC.

AIR BOX

To increase the airflow volume in the air box, cut three 1.6-inch holes in the top of the air box, and three 1.5-inch holes on the left side of the box. See the photo for details.

CAUTION:

When operating in muddy or extremely dusty conditions, seal the holes with duct tape.

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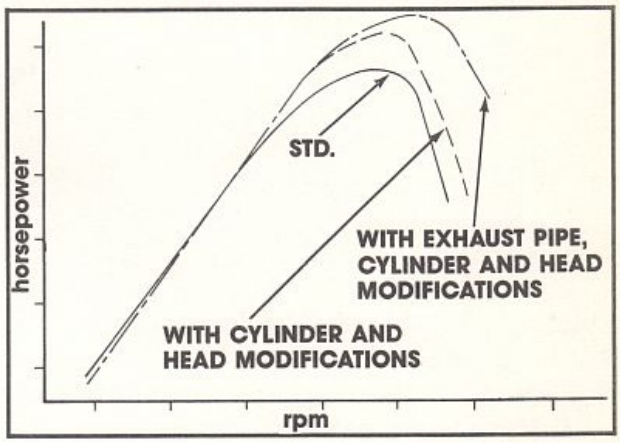
CARBURETOR FLOAT LEVEL

Check the carburetor float level. To do this, remove the carburetor from the machine and hold it upside down. Incline the carbuetor 60° ~ 70° so the float valve isn't depressed by the weight of the float. With the gasket removed, measure the distance from the mating surface of the float chamber to the top of the float. This measurement should be 27.0mm.

PERFORMANCE GRAPH

The following graph shows resultant average performance increases from the preceding modifications. The median performance increase is approximately three horsepower. After performing these modifications, it may be necessary to install a spark plug that is one step colder than standard. Also, a richer main jet and needle setting may be needed. Keep these adjustments in mind when bringing the machine into proper tune.



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