

PLYMOUTH FURY vs. STOCK

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and direct, two factors that contribute materially to good breathing efficiencies at high engine speeds. The ports could stand "cleaning up" and proper alignment with their respective manifolds. It isn't advisable to enlarge the port areas too much for general use unless larger valves are to be installed, in which case the reward will be increased top end power accompanied by a slight loss of torque in the mid-range. In the "clean up" operation, particular attention should be paid to the valve pockets and seats, enlarging them to take full advantage of existing valve sizes. Incidentally, all Plymouth V8's use mechanical valve lifters, tubular pushrods and adjustable rocker arms.

The 301 engine can be made over into a Fury 318 engine by using the Fury crankshaft with its .180 of an inch longer stroke and Fury pistons and balancing the entire assembly. Reboring should be held to $\frac{1}{8}$ of an inch oversize, which means a maximum bore size of $4\frac{1}{2}$ inches. This bore with the standard 3.13 inch stroke would yield 317.2 cubic inches. The same bore with the 3.31 inch Fury crank stroke would mean 335.4 cubic inches. There are, of course, special pistons and stroker crankshafts available for just about any reasonable bore-stroke combination for these engines.

So far, the Plymouth V8 engines are unknown quantities in the field of competition. They should, however, respond about as well to various treatments as their larger hemispherical cousins in spite of the difference in combustion chamber design. Plans are now under way to "go the route" on a new Fury engine so we'll know more about this phase of Plymouth engine modification and development at a later date.

As with other modern, well-designed overhead valve engines, the Plymouth V8 responds very nicely to minor modifications. Milling the heads of the 301 engine .040 of an inch brings a favorable increase in performance and a compression ratio of 9.2 to 1, which should be considered maximum with a stock cam for use with the best premium gasolines. With a good re-ground cam and polished combustion chambers, the maximum advisable compression ratio is $9\frac{1}{4}$ to 1. In no case should the heads be milled more than .055 of an inch due to the rather thin "top deck" structure. Higher compression ratios may be obtained by using special domed pistons. The Fury $9\frac{1}{4}$ to 1 compression ratio is OK as is. If the combustion chambers are polished, the compression ratio may be raised to $9\frac{1}{4}$ to 1 by milling the heads .035 of an inch.

These engines with their relatively large
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