

# MOTORCYCLE SERVICE NEWS

NUMBER  
240

PAGE  
I

YAMAHA INTERNATIONAL CORPORATION  
MONTEBELLO, CALIFORNIA  
DATE 6-25-70

## HS1 DESIGN AND MODIFICATION

The model HS1 Yamaha motorcycle was especially designed and produced to meet the five horsepower limitation classification which exists in many parts of the United States. Machine performance is average to good for the stated horsepower rating which is a realistic, honest figure. Machine reliability is exceptionally good and this fine little twin admirably suits the purpose for which it was intended for sale.

Any attempt to modify the machine for increased performance will result in cancellation of the warranty and will not be regarded as official Yamaha recommended practice, as is true with all our models.

The decision to modify and the consequences thereof shall be the responsibility of the dealer and/or customer and will in no way be the responsibility of Yamaha International or Yamaha Motor Company.

In the event that the decision is made to modify the machine the following have been reported to be the most efficient procedures:

1. Increase of compression ratios by the removal of 1/16" from the surface of the head with subsequent machining of the combustion chamber to the original configuration.
2. Modification of the intake port by the removal of 1/16" from the bottom of the piston.
3. Modification of exhaust porting by the removal of 1/16" from the top edge of the piston for the width of the exhaust port, and tapering this cut to nothing toward the top of the piston.
4. Enlargement of the induction passage by substituting the slides of the YL1 carburetor for those presently equipped with the machine, or else cutting 10mm from the top of the existing slides and giving them a total length of 20.5mm.

Naturally any of the above modification steps can be done by itself, but in any event the fourth or any other step should be regarded as just as serious or irrevocable as the complete modification procedure.