



MOTORCYCLES BICYCLES  
**BSA HAP ALZINA**  
3074 BROADWAY  
IMPORTERS **Oakland 11, California, U.S.A.** WESTERN UNITED STATES  
**SUNBEAM**

**MEMO FROM "PARTS"**  
**IMPORTANT . . . . FILE IN YOUR PARTS BINDER**

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**- CARBURETTOR JETTING FOR ALTITUDE CONDITIONS -**

The problem of properly jetting a carburettor for altitude operation at other than sea level oftentimes poses a vexing rider and dealer problem. All carburettors as originally received are properly jetted for sea level which means, obviously, that they are considerably off at, for example, Denver's 6000' level. This is occasioned by the drop in barometric pressure that decreases steadily at a reasonably fixed ratio per thousand feet of altitude. The standard formula for decrease is:

DECREASE IN JET SIZE AT	3000 FEET	- 5%
DECREASE IN JET SIZE AT	6000 FEET	- 9%
DECREASE IN JET SIZE AT	9000 FEET	- 13%
DECREASE IN JET SIZE AT	12000 FEET	- 17%

A word of caution would not be amiss here; these are general approximations or, in other words, the "starting point" to determine the eventual jet size based on sparkplug readings and it is only the sparkplug "reading" that insures accuracy in fitting the jet size that should be used for the particular conditions. It is not possible in a single instruction sheet to deal with the complete theory of jets, sparkplugs, etc. However it may be helpful to somewhat over-simplify the problem by stating briefly the principle of "sparkplug readings".

Run the machine at maximum power for a sufficient distance to be sure that engine temperature is properly up. Simultaneously release the clutch and "kill" the engine. Do not let it slow down gradually; at the maximum operating point you wish to halt engine operation as completely as possible. Extract the sparkplug and survey the condition of the center core of the electrode. A white core with an entire absence of deposit on the core or bleached appearance indicates too lean a mixture and thus the fitting of the next highest number jet and a re-trial. A light brown coloring of the center core or insulator with perhaps a greyish deposit on the body of the plug indicates a correct mixture. A black, sooty appearance with perhaps oil on the core would indicate too large a jet or too rich a mixture and thus the fitting of a smaller jet and re-trial.

BE SURE, BEFORE TESTING, THAT THE PROPER HEAT RANGE OF PLUG IS FITTED AND THAT IT IS PROPERLY TIGHTENED WITH A TORQUE WRENCH TO THE CORRECT FOOT POUNDAGE.