

## UNDERSTANDING THE WEBER CARBURETOR

by Tom Dill

One of the better parts on earlier twincams is the Weber. Since many are mystified by them and their awesome look, they are afraid to even look crossed much less work on them. The following series of articles lays bare the function and parts designation of the carburetor. Most of the series has been lifted from A Guide To Tuning, Warnerford Warnerford, Australia. Float levelling has been skipped as most manuals deal well with this.

### PART I

#### IDLE JET

Both the DCOE and IDA carburetors have an idle jet assembly which meters both fuel and air into the idle circuit.

At idling speed the idle mixture adjustment can be set to control the volume of mixed or emulsified fuel and air provided by the idle jet assembly and if a correct jet has been selected the setting of the idle mixture screw should be between a quarter and one full turn open.

As the throttle is opened from the idling position the throttle disc crosses a series of holes which are referred to as the secondary idle bleed circuit or transfer holes. These are fixed holes having no adjustment and are also fed by the idling jet assembly. Naturally it is important that a controlled mixture is fed through them so that smooth acceleration takes place from idle until the main jet assembly comes into operation. The control of this mixture is very closely associated with the idle jet air bleed (the 'F' number in DOCE units ...).

#### SELECTION

To determine these jet hole sizes tables have been prepared. Table 2 deals with the fuel bleed hole designated by the number 35, 40, 45, 50, 55, etc, and the sizes are given in mm. against the capacity of each cylinder. Where an engine has siamese inlet ports it may be necessary to go one size larger than quoted.

TABLE NO. 2

<u>Cylinder Size in cc</u>	<u>Idle Jet Fuel Bleed Hole Size MM</u>
200	.35 to .40
250	.40 to .45
300-350	.45 to .50
400	.50
450-550 . . . . .	.50 to .55
600	.55 to .60
650	.60 to .65
700	.65 to .70
750-850 . . . . .	.70 to .75