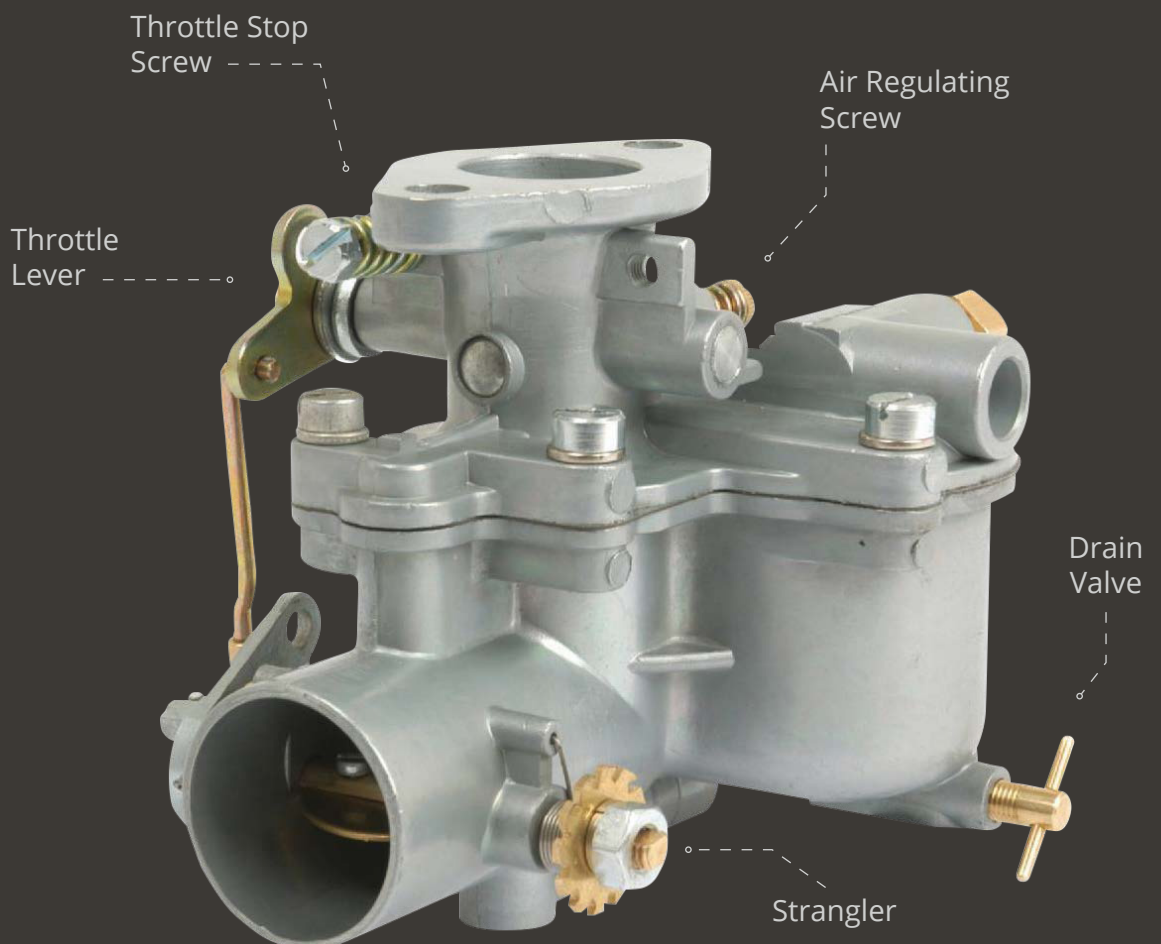


Carburettor Service Bulletin

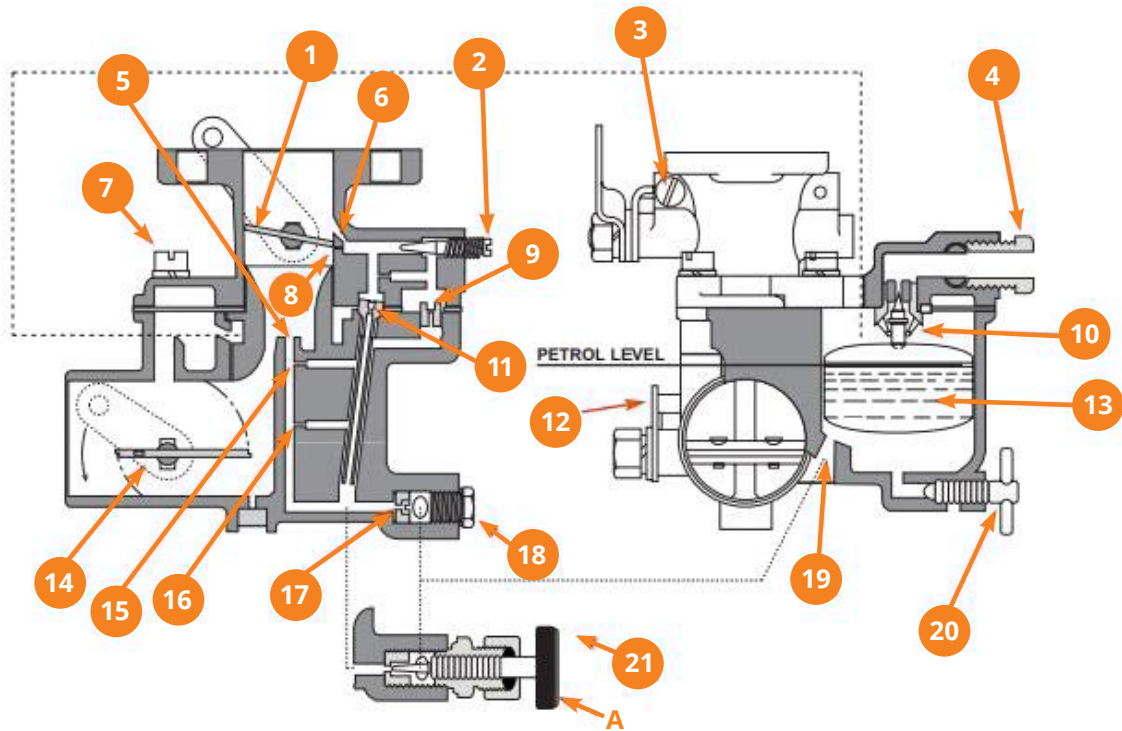
S.173376



Erratic Slow-Running or Stalling on Deceleration

Remove and clean the slow-running jet 11, also check the outlet hole 6 and progression hole 8 in the throttle body. Any carbon formation should be carefully removed but avoid the use of a sharply pointed instrument which may enlarge the diameters. To check whether the slow-running jet well is free from obstruction, remove the main jet plug 18 or adjustable jet assembly 21, and insert the nozzle of a syringe filled with clean petrol into the hole from which the jet 11 has been removed. On discharging the syringe, petrol should flow through the drilling from which the main

jet was removed. When replacing jets use a screwdriver of correct size, to prevent damaged slots and threads caused by a badly fitting blade. Jets should be screwed home firmly, as leakage may take place down the thread and affect the slow running. If the air-regulating screw has been screwed home hard several times in the process of adjustments, a parallel portion will be formed on the conical tip. This will adversely affect the range of the screw, and a new one should be fitted. Ensure that the spring effectively spring-loads the screw, and prevents it vibrating out of position.



Idling

Alternative types of idling circuits are employed in this carburettor: in these the slow-running tube can be either vertical or inclined. The object of the latter (shown in the diagram) is to provide a longer feed. Fuel is drawn direct from the main jet discharge channel, and, the end of the tube being below the emulsion holes, the slow-running system is in action for a longer period (a feature found necessary on certain designs of engines) thus providing a cleaner and smoother pick-up. When the throttle is almost closed, the slow-running mixture is supplied by the slow-running jet 11, which draws its fuel from the metered side of the main jet 17 at the base of float chamber. This fuel is partly emulsified by air from an air-bleed hole (the small horizontal hole shown just above the head of the slow-running jet) in communication with the air jet, and by air admitted by the conical tip of the air regulating screw 2. The resulting mixture is drawn through the inclined outlet hole 6, and the mixture strength is controlled by the position of this screw. Idling adjustments are made

by the throttle stop screw and air regulating screw 3 and 2 respectively. Turning the former clockwise will open the throttle and increase the engine speed. When it is unscrewed, the engine speed will not be reduced. The quality of the idle mixture is controlled by the setting of the air regulating screw, and the size of the small horizontal bleed hole to which reference has already been made. The latter is not adjustable, as it is a permanent drilling in the diecasting. Should the engine refuse to tick-over for any length of time, the slow-running jet may be obstructed, and should be cleaned. After replacement, reset the idling with the air regulating screw and the throttle stop screw. If the engine 'hunts' the mixture is too rich and is **weakened** by turning the air regulating screw in an **anticlockwise** direction. Conversely, to **enrich** the mixture the screw must be turned **clockwise**. The hole (or in some cases holes) 8 at the throttle edge communicates with the idling circuit. This aids the changeover from the idling to the main jet system, and gives a smooth progressive.

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Main Jet

Either an adjustable or a fixed main jet (21 and 17 respectively) can be supplied. When an adjustable jet is used, the setting is carried out by the engine manufacturer and should not be altered without good reason. (The small button 'A' in the head of the adjusting needle is provided merely as a means of registering the position of the needle.) Always regulate the screw with the engine at normal running temperature and working load, with the throttle wide open. To richen the mixture, the adjusting screw 21 should be turned anti-clockwise. By screwing it

clockwise, the mixture will be weakened. Lack of power, engine overheating and cutting-out will be experienced if the mixture is too weak. Maximum fuel economy is obtained by setting the mixture for full power. Too rich a mixture will result in rapid carbon formation in the combustion spaces, a dirty exhaust and possible poor starting due to fouled spark plug gaps. NOTE: When resetting the adjusting needle, do not force the taper on the jet seating as this will damage the conical tip, and result in difficulty in obtaining a correct setting.

Drain Tap

Where paraffin or T.V.O. is used, a drain tap 20 is fitted under the float chamber. After use, ensure that it is screwed home firmly.

Main Jet

For all speeds above idling, the main jet 17 or 21 alone supplies the mixture.

Air Jet

The air jet 9 screws into the upper face of the float chamber, adjacent to the slow running jet. Increasing its size will weaken the mixture by reducing the depression on the main jet. Altering the size of the jet will affect the mixture at all engine speeds, but particularly those in the higher ranges, when the depression in the choke tube is at its maximum. In some instances, where the full value of the drilled hole is required for the ventilation of the main jet, an air jet is not used.

Slow-Running Jet

The name is self-explanatory, the purpose of the jet being to supply metered fuel to the edge of the throttle plate for idling, and to the progression hole or holes 8. Half-size jets are not available, as the air regulating screw has enough range of mixture control to suit individual engines.

Petrol Level

With the float chamber in position, and the float holding the needle shut against its seating, the petrol level should be 15mm (19/22") below the top face of the float chamber at 4-6" head. The level may be lowered, if required, by substituting a thicker washer under the needle seating. The normal thickness is 1mm, but washers 1/14" or 2mm thick can be supplied.

