

THROTTLE CONTROL BRACKETS, GOVERNORS AND RPM ADJUSTMENTS

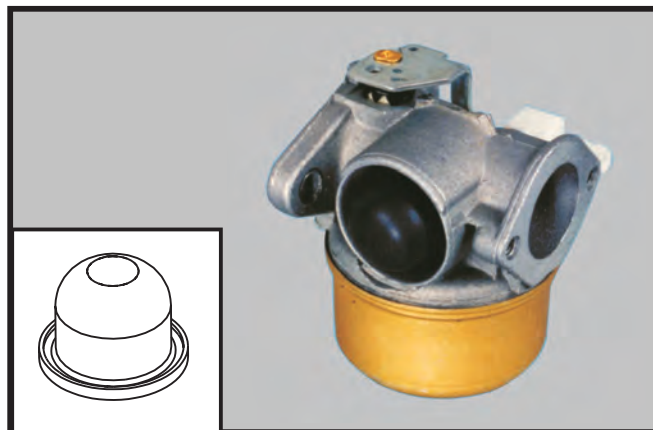
Before adjusting any mixture screws, reset the screws to the recommended carburetor presets. Check for proper governor adjustments as outlined in the appropriate Technician's Handbook. Identify the locations of your high speed and low speed RPM adjustment screws. Check to make sure that the throttle control brackets are adjusted properly to allow for full choke. Always make sure that normal maintenance procedures (ie., oil, fuel, air cleaner, etc.) have been checked. Consult microfiche card #30, the computer parts look up system or Service Bulletin #107 for C.P.S.C. specifications to determine the proper RPM settings. Start the engine, allow it to warm up, the carburetor can then be adjusted for optimum performance by using the information outlined in this book. Now the low and high speed screws can be adjusted to the recommended RPM's.

HOW TO IDENTIFY A TecumsehPower CARBURETOR

TecumsehPower has a variety of carburetors. To help identify these carburetors here are some simple procedures to follow.

DUAL SYSTEM CARBURETORS

The easiest way to identify the dual system carburetor is by the presence of a large primer bulb located on the side of the carburetor. The absence of adjustment needles help to identify the carb as well. The dual system carburetor is used on 4-cycle vertical crankshaft rotary mower engines.



SERIES 1 CARBURETORS

Series 1 carburetors come in a variety of styles. They are used on both 2 and 4-cycle vertical and horizontal shaft engines in the 2 through 7 h.p. range. It is a float style carburetor with a smaller venturi than the Series 3 and 4 carburetors. Some will have an adjustable idle and main and others will have a fixed main with an adjustable idle. There are also some fixed speed applications that will only have a fixed main system and the idle system will not be drilled.



SERIES 1 EMISSION

This carburetor is similar to the standard Series 1 carburetor. The emission equivalent has a fixed idle and main. The idle restrictor jet will be capped to prevent access unless the cap is removed. The fixed main jet is part of the bowl nut. A ball plug is visible from the bottom, which seals the passage. This carburetor also has a serviceable main nozzle emulsion tube.



HOW TO IDENTIFY A Tecumseh Power CARBURETOR

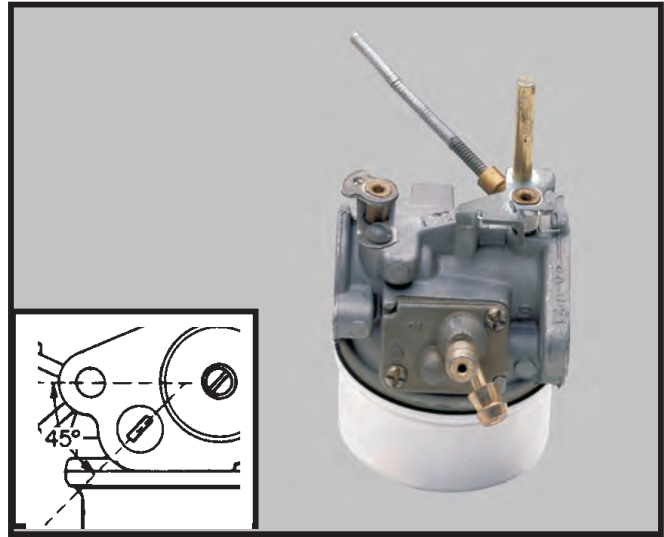
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SERIES 2 CARBURETORS

Series 2 carburetors were used on outboard engines. This carburetor is the same as the Series 1 with the exception of the remote adjustable idle mixture screw, and a built in fuel pump.

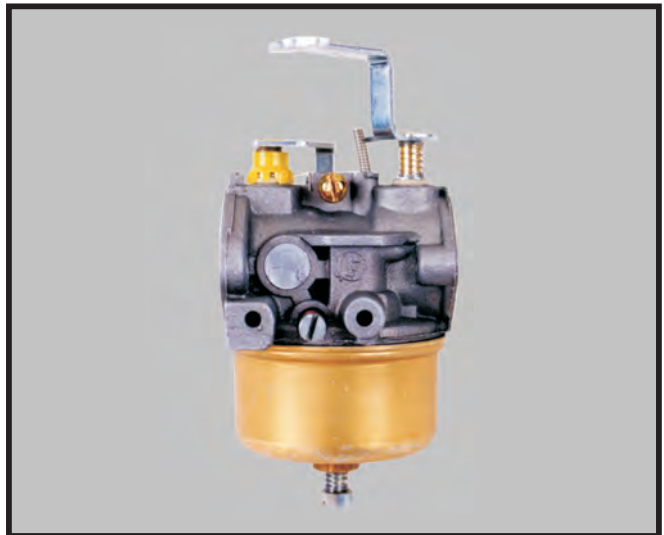
Series 2 carburetors have a built-in fuel pump consisting of a fuel pump element which inflates and deflates with crankcase pulsations which opens and closes two flap valves in the fuel pump, thereby pumping fuel from a remote tank to the carburetor float bowl.

When replacing the fuel pump element, install with the slot opening at a 45° angle as illustrated. Installation in any other position will damage the diaphragm.



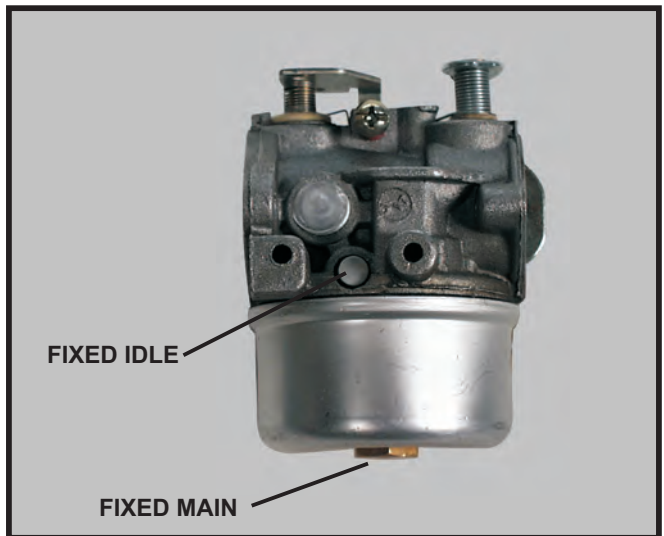
SERIES 3 & SERIES 4 CARBURETORS

Series 3 and 4 carburetors are generally used on 8 through 12.5 horsepower 4-cycle engines. The venturi size of these carburetors are larger than Series 1 and Dual System Carburetors. The quickest way to identify these carburetors is by the presence of bosses on each side of the idle mixture screw.



SERIES 3 & SERIES 4 EMISSION

This carburetor is similar to the standard Series 3 & 4 carburetor with a few subtle differences. The emission equivalent has a fixed idle and main. The idle restrictor jet will be capped to prevent access unless the cap is removed. The fixed main jet is part of the bowl nut. A ball plug is visible from the bottom, which seals the passage. This carburetor also has a serviceable main nozzle emulsion tube.



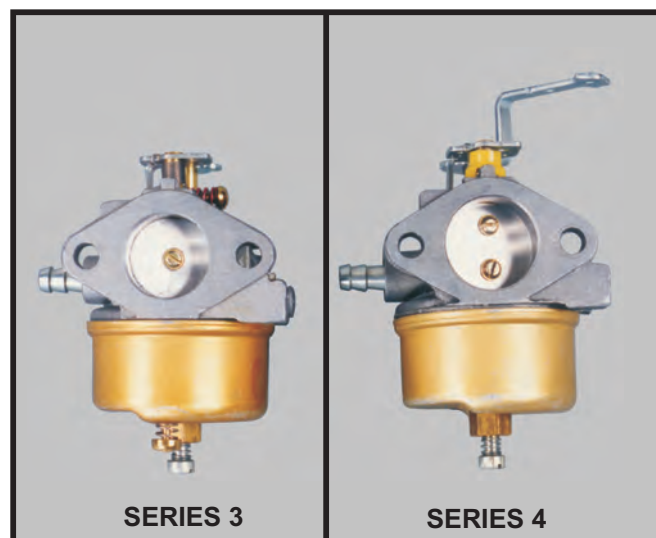
HOW TO IDENTIFY A TecumsehPower CARBURETOR

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To determine whether the carburetor is a Series 3 or Series 4, look at the throttle or choke end of the carburetor.

Series 3 will have one screw on the throttle and choke plates.

The Series 4 will have two screws on the throttle and choke plates.



VECTOR CARBURETORS

The Vector carburetor is a float feed, nonadjustable carburetor, with a one piece extruded aluminum body. The float bowl, float, nozzle, and venturi are nonmetallic, which eliminates the corrosion and varnishing problems associated with similar metallic parts. Common service areas of the carburetor are contained in the fuel bowl, which include the float, needle, seat and main nozzle emulsion tube. All of these parts can be serviced without removing the carburetor body from the engine.

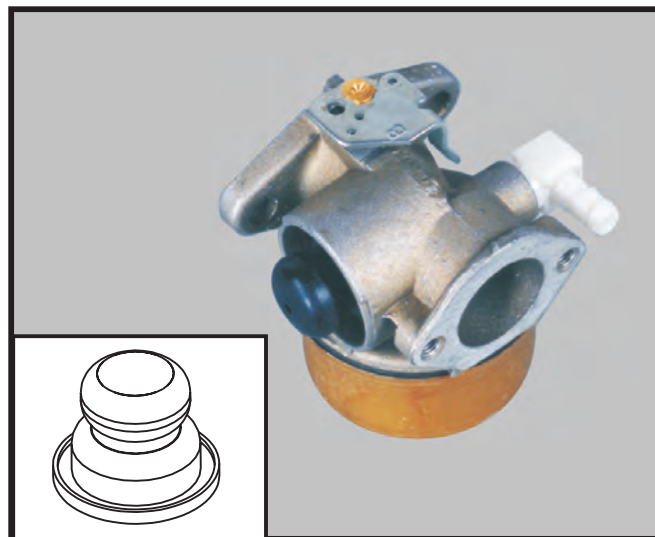
NOTE

If the unit was run with poor filter maintenance the venturi should be removed and the air bleeds cleaned with solvent.



SERIES 6 CARBURETORS - 4 CYCLE

Series 6 carburetors are used on 2 and 4-cycle engines. They have a larger venturi than the dual system carburetor and use a simple fixed idle system. Series 6 carburetors used on both vertical and horizontal applications are nonadjustable. The 4-cycle version pictured has a stepped primer bulb.



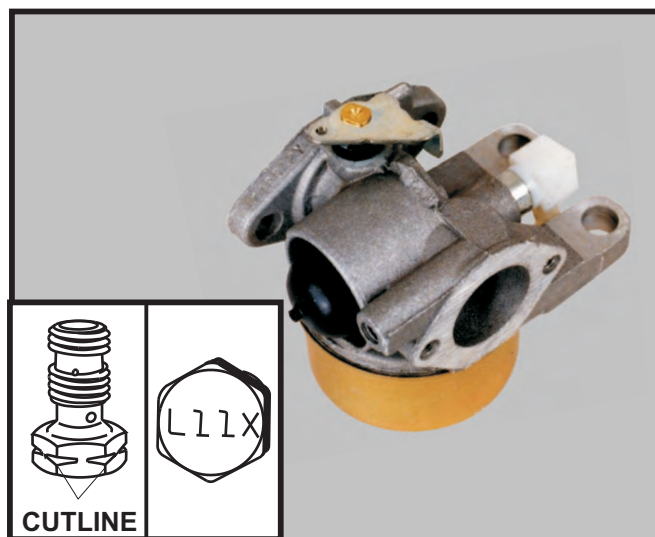
HOW TO IDENTIFY A TecumsehPower CARBURETOR

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SERIES 6 CARBURETORS - 2-CYCLE

Series 6 carburetors used on TVS/TVXL840 engines are similar in appearance and operation to the carburetors used on 4-cycle engines with the following differences:

1. The bowl nut is left-hand thread. This bowl nut is identified by an "L" stamped on the nut and the international left thread notches across the points.
2. A dampening spring is installed on the float hinge pin to reduce erratic float travel.
3. The two mounting bosses extend out from the carburetor body.



SERIES 7 CARBURETORS (EMISSION)

The Series 7 carburetor is an emissions grade carburetor used on medium frame vertical shaft overhead valve engines. It has a non-metallic bowl and a snap-on bowl retainer to connect it to the carburetor body. This model has a fixed main jet and a fixed idle jet; both are located in the carburetor bowl. The float bowl, float, nozzle, and venturi are non-metallic, which eliminates the corrosion and varnishing problems associated with similar metallic parts. Common service areas of the carburetor are contained in the fuel bowl, which include the float, needle, seat and main nozzle emulsion tube. All of these parts can be serviced without removing the carburetor body from the engine.



SERIES 8 CARBURETOR (EMISSION)

The Series 8 carburetor has both a fixed main and idle circuit. The fixed idle system is achieved by a restrictor jet that meters the fuel for the idle circuit. The idle restrictor jet will be capped to prevent access unless the cap is removed. The fixed main jet is part of the bowl nut. A ball plug is visible from the bottom, which seals the passage. This carburetor also has a serviceable main nozzle emulsion tube. It also has a stepped primer bulb.



HOW TO IDENTIFY A TecumsehPower CARBURETOR

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SERIES 9 CARBURETOR

The Series 9 carburetor is an emissions carburetor that uses the same carburetor body as the Series 8 but with a simple fixed idle system, identical to the one used on the Series 6 carburetor. It has the idle discharge port located at the 7 o'clock position on the throttle end of the carburetor. Identify this carburetor by the stepped primer bulb, the presence of a non-drilled idle mixing well and a serviceable main nozzle emulsion tube.



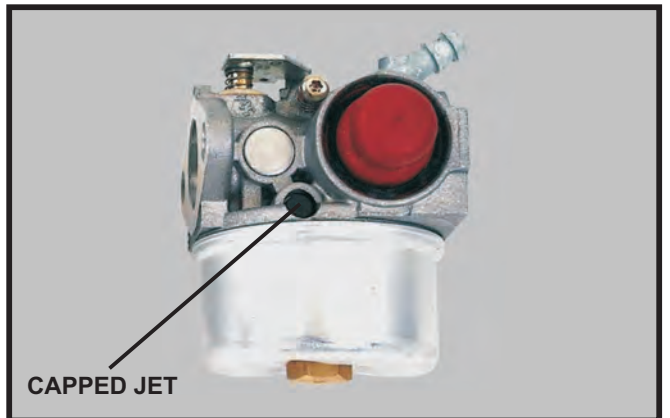
SERIES 10 (EMISSION)

The Series 10 carburetor is identical to the Series 8 carburetor with the addition of a choke. To assist in cold weather starts. It has a fixed idle and main. The idle restrictor jet will be capped to prevent access unless the cap is removed. The fixed main jet is part of the bowl nut. A ball plug is visible from the bottom, which seals the passage. This carburetor also has a serviceable main nozzle emulsion tube. It also has a stepped primer bulb to assist in starting.



SERIES 11

This carburetor adds a fuel chamber, built into the carburetor body, that feeds fuel into the venturi during the initial warm up period. This patented feature eliminates, hunting, surging and false starts inherent to emissions engines. However external identification of the Series "11" carburetor has been a challenge. To make this ID simple, the Series "11" carburetor idle restrictor cap will be black, and all others will be gray. The part number for the black cap is **640200** and the gray is **640053**.

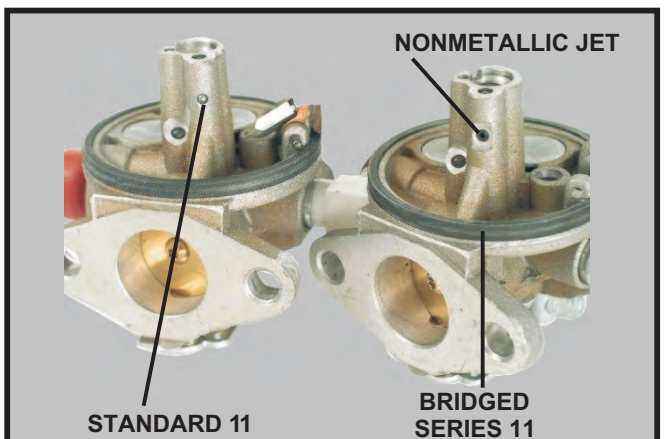


SERIES 11 BRIDGED

This carburetor is identical to the Series "11" with the exception of the center leg. A non-metallic jet is pressed into the center leg to allow additional fuel into the main jet for applications that require this fuel to enhance run performance

CARBURETOR CLEANING - SERIES 11 and SERIES 11 BRIDGED

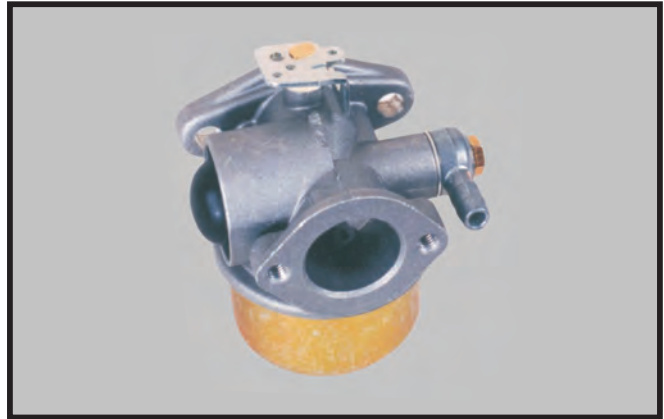
With the additional fuel well welch plug removed, you can see the small plastic metering jet, which can be distorted if left to soak in a carb dip tank. Currently, this metering jet is not a serviceable part. Our position has been to soak a carburetor no more than ½ hour but the exception is the Series 11 carburetor. To be safe, service all TecumsehPower carburetors with Carburetor Spray #**696410** along with a .012" (.304 mm) gauge wire.



NON-TecumsehPower CARBURETORS

DELLORTO CARBURETOR

The Dellorto carburetor is similar to the dual system carburetor. It has no adjustments and has a primer assist start. It has a noncorrosive float and the needle is viton tipped, eliminating the viton seat found in the dual system carburetor. The angle of the fuel inlet is adjustable and attached to the carburetor body with a banjo bolt. This carburetor is used on some TVS rotary lawnmower engines.



WALBRO LMK CARBURETOR

The Walbro LMK has a large venturi and a fixed main with an adjustable idle. It is used on some OHV engines. This carburetor has a noncorrosive float and a viton tipped needle. It also has a nonmetallic choke shaft. It is easily identified by the Walbro name on the carburetor body next to the idle adjustment screw.



WALBRO WHG CARBURETOR

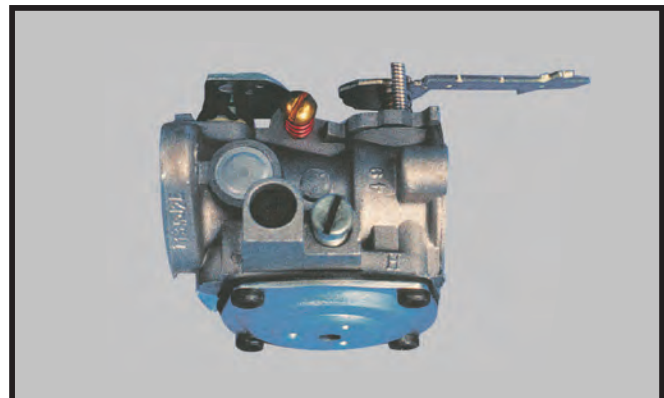
The WHG, used on OH cast iron engines, can be built as a fully adjustable, single adjust or nonadjustable carburetor. It has a large venturi. Its most recognizable feature is the large square mounting surface on the choke end of the carburetor.



DIAPHRAGM CARBURETORS

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The diaphragm carburetors are unique. These carburetors can be operated at a more severe angle than float style carburetors. They still require that the fuel supply be located in a position that allows it to be gravity fed. Its most distinctive feature is the lack of a fuel bowl.



DIAPHRAGM CARBURETORS

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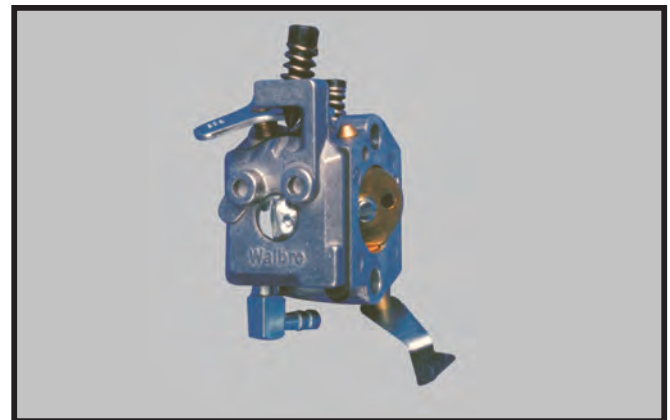
WTAWALBRO CARBURETOR

The WTA carburetor has a rubber-type diaphragm, which is exposed to intake pressure on one side and to atmospheric pressure on the other. The WTA is used on TC200 and 300 engines. There are two adjustment screws. They are the idle mixture screw and the idle RPM screw. The WTA has a choke and an all metal fuel inlet fitting. The Walbro name is molded onto the pump cover.



WT WALBRO CARBURETOR

The WT Walbro carburetor is used on the TC-II style engine. It is similar to the WTA carburetor but its reverse image. The WT has no choke lever and has a combination plastic and metal fuel inlet fitting.



TILLOTSON HU CARBURETOR

The Tillotson HU carburetor is the reverse image of the WTA Walbro carburetor. It is used on the TC-II. The Tillotson HU has a replaceable main and Tillotson is visible on the pump cover.



TecumsehPower TC CARBURETOR

This carburetor has a fixed idle and main which meets the emissions standards for two cycle engines. The main jet is serviceable and can be accessed by removing the plastic cap. The jet is removed for cleaning purposes only, and must be covered after servicing to maintain compliance with emissions regulations.

