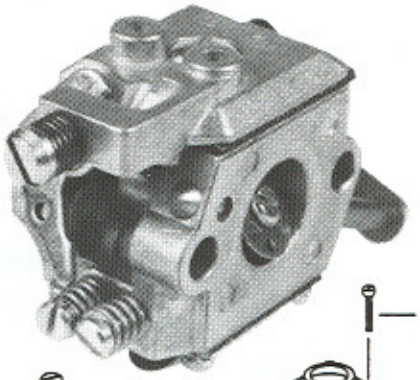
CHAIN SAW, TRIMMER AND BLOWER CARBURETOR SERVICE MANUAL

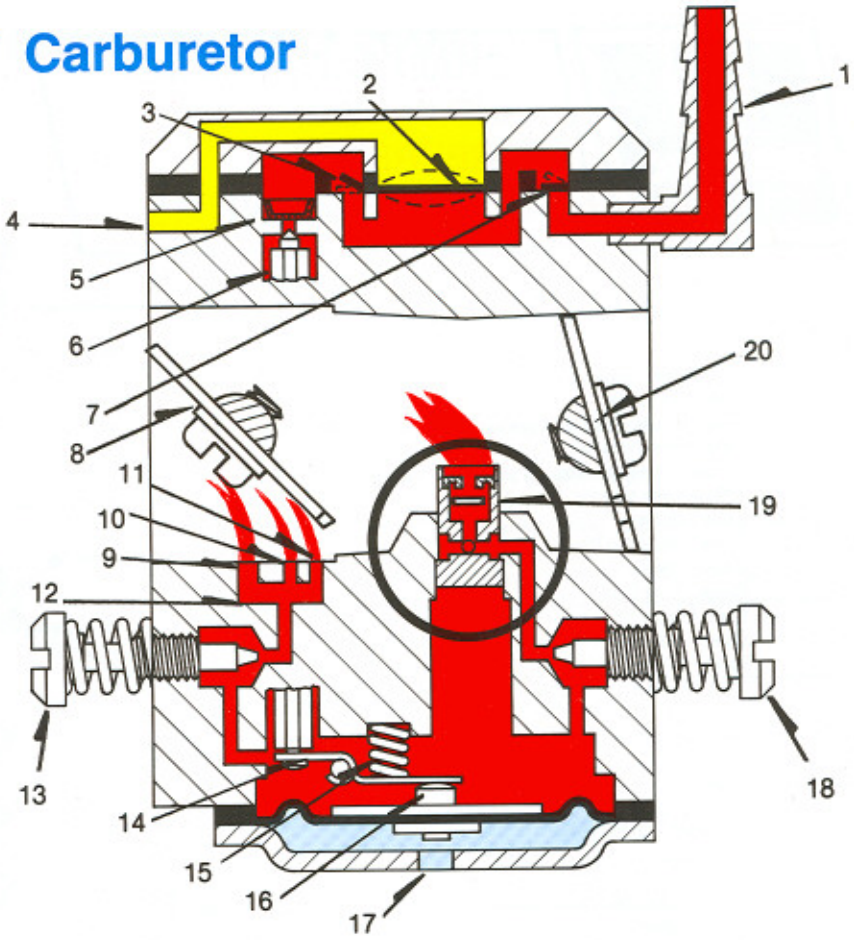


Ref. No.		Part Name
1		Body - Air Purge
2	*	Ring - Screen Retainer
3		Ring - Shaft Retainer
4	++	O'Ring - Power Needle
5	++	O'Ring - Idle Needle
7		Lever - Throttle
8		Cover - Metering Diaphragm
9		Cover - Primer
10		Cover - Fuel Pump
11	++	Cap - Limiter Kit
13		Shaft - Assembly Throttle
14		Valve - Throttle
15		Shaft Assembly - Choke
16		Clip - Shaft Retainer
17		Swivel Assembly
18		Valve - Choke
18A		Shaft Assy - Fast Idle
19	*	Valve - Inlet Needle
20		Governor - Check Valve
21		Seat Assembly - Check Valve
21A		Seat Assembly - Check Valve
22		Nozzle Assemby - Check Valve
23	*	Plug - Welch
24	*	Plug - Welch or Cup
25		Plug - Welch
26		Plug - Accelerator Screw
27		Plug - Primer Fitting
27A		Plug - Idle Needle
28		Ball - Choke Friction
29	**	Gasket - Metering Diaphragm
30	**	Gasket - Cover Screw
31	**	Gasket - Fuel Pump
32	**	Diaphragm - Fuel Pump
32A		Diaphragm - Fuel Pump
33	**	Diaphragm - Surge
34	**	Diaphragm - Assembly Metering
35		Screw - Throttle Valve
35A		Screw - Choke Valve
36		Screw - Throttle Shaft
37		Screw - Metering Lever Pin
38		Screw - Pump Cover
39		Screw - Idle Adjust Kit
40		Screw - Metering Cover [4]
41		Screw - Clip
42		Spring - Choke Friction
43		Spring - Needle (idle)
44		Spring - Needle (power)
45		Spring - Idle Screw Friction
46		Spring - Throttle Return
47		Spring - Choke Return
48		Spring - Metering Lever
48A		Spring - Fuel Pump
49	++	Needle - Idle
20	++	Needle - Power
50A		Needle & Cap Kit
51		Jet - Main Fuel Kit
52	++	Washer - Idle Needle
53	++	Washer - Power Needle
53A	++	Washer - Needles
54	*	Screen - Check Valve
55	*	Screen - Fuel Inlet
56	*	Pin - Metering Lever
57		Seal - Shaft
58		Piston - Accelerator Kit
59	*	Lever - Metering
60		Lever - Fast Idle
61		Valve - Check
62		Primer - Bulb

* Contents in Repair Kit ** Contents in Gasket/Diaphragm Kit ++ Contents in Needle Kit

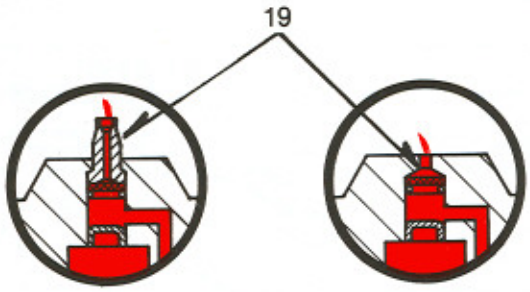
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Walbro Model WT Carburetor



COLOR CODE

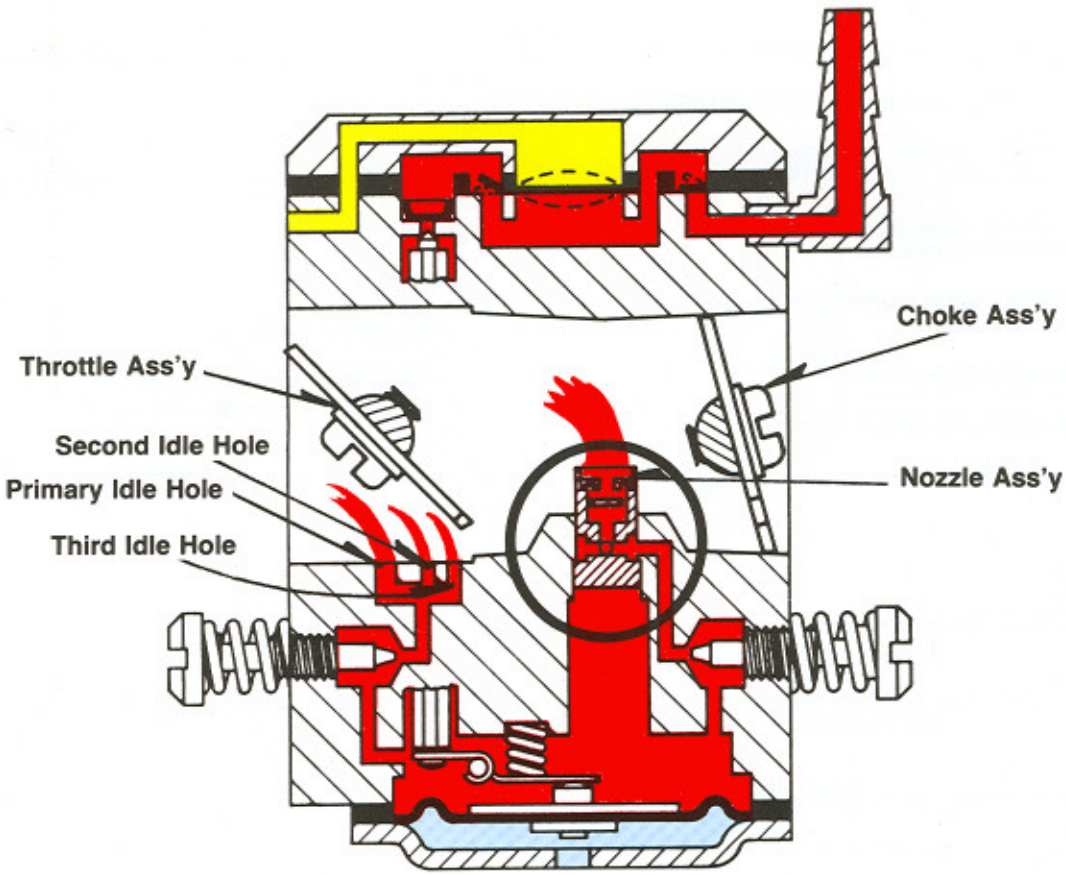
- -Fuel
- -Crankcase Impulse Air
- -Air



OPERATING FUNCTIONS

1. Fuel Inlet: Fuel drawn from tank enters here.
2. Pump Diaphragm: Fluctuates by engine pulses to activate fuel pump.
3. Outlet Check Valve: Closes during vacuum pulse, opens during pressure pulse.
4. Pulse Channel: Crankcase pulse enters here.
5. Fuel Inlet Screen: Filters fuel before entering metering chamber.
6. Inlet Needle: Lifts off seat to allow correct amount of fuel to enter metering system.
7. Inlet Check Valve: Opens during vacuum pulse to draw fuel in, closes during pressure pulse.
8. Throttle Valve Assembly: Allows correct air/fuel ratio from idle to wide open throttle.
9. Primary Idle Hole: Main fuel source at the idle position.
10. Second Idle Hole: Allows additional fuel to flow thru progression.
11. Third Idle Hole: Allows additional fuel to flow thru progression before wide open throttle.
12. Welch Plug: Covers idle pocket.
13. Idle Needle: Adjusts amount of fuel entering idle pockets.
14. Metering Lever: Lifts inlet needle off seat.
15. Metering Spring: When compressed allows lever to lift inlet needle.
16. Metering Diaphragm: Drawn onto lever to lift inlet needle off seat.
17. Atmospheric Vent: Allows atmospheric pressure onto dry side of metering diaphragm.
18. High Speed Needle: Adjusts amount of fuel entering the nozzle at high speed.
19. Nozzle: Meters correct amount of fuel drawn into engine at high speed.
20. Choke Valve Assembly: Closes off outside air from entering carb at the start position.

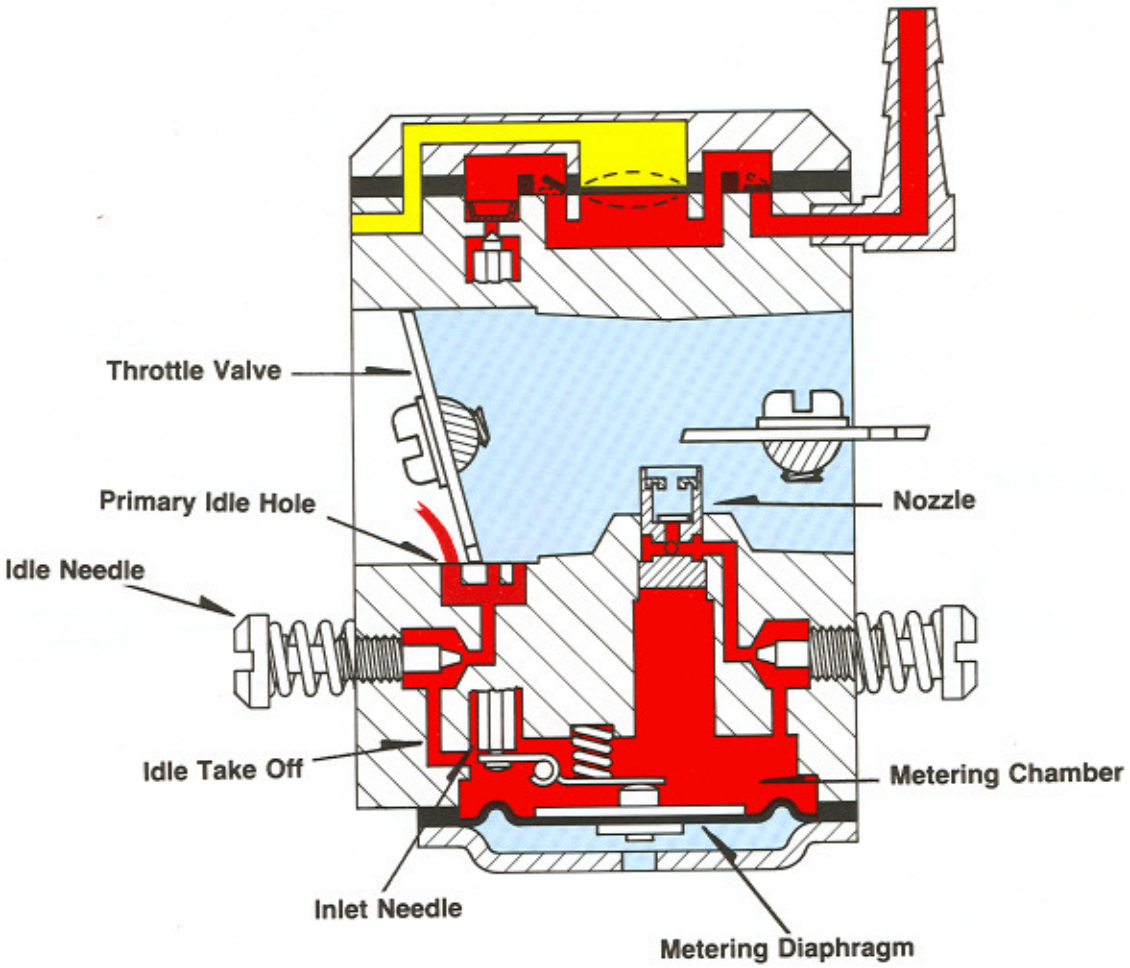
WT Starting Circuit



STARTING PROCEDURE:

1. Close carburetor choke completely.
2. Set at part-throttle position or as recommended by engine manufacturer.
3. Start engine.
4. After the engines initial fire, disengage choke and repeat step 2 and 3.

WT Idle Circuit



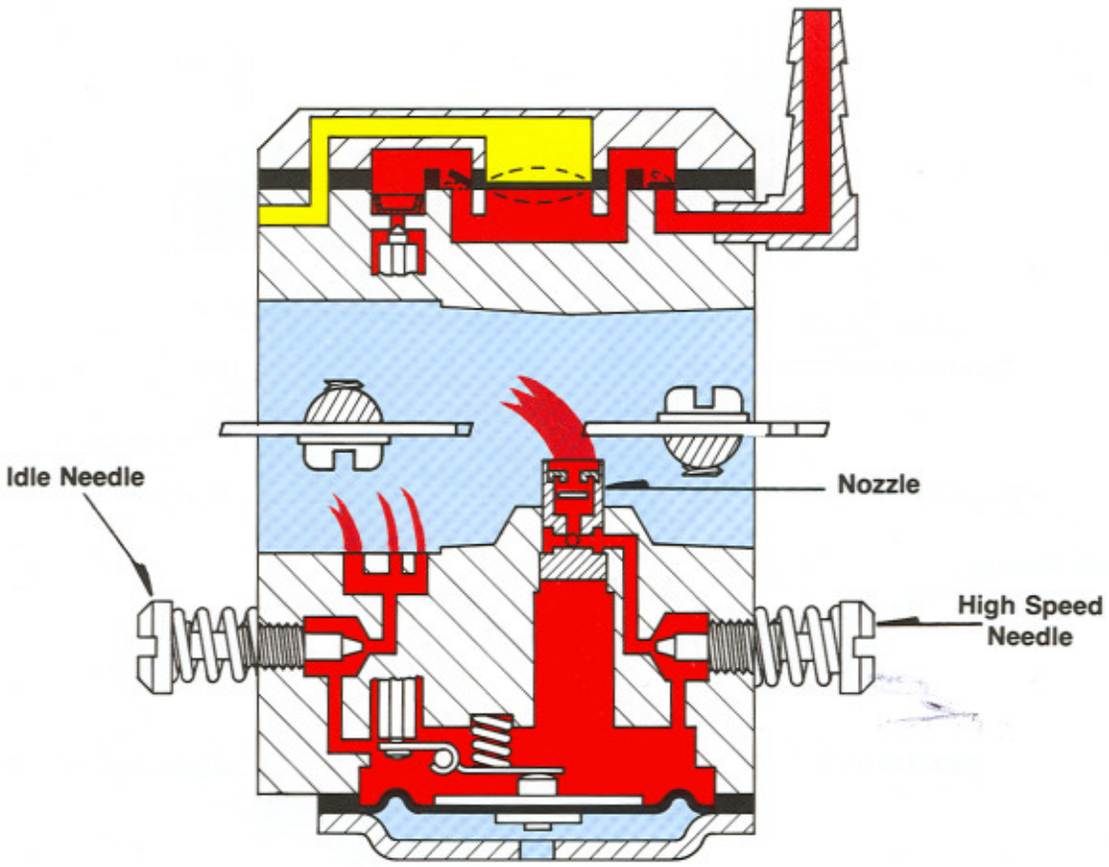
NOTE: The idle and high speed adjustment needles are pre-set by the engine manufacturer to their respective engine requirements therefore any carburetor adjustments must comply with the engines service manual specifications.

IDLE NEEDLE ADJUSTMENT

With both the idle and high speed needles set at 1¼ turns open proceed as follows:

1. Start engine and adjust idle speed screw so that engine idles slightly less than clutch engagement.
2. Turn idle needle clockwise (lean) until engine runs smoothly.
3. Readjust idle speed screw to specified engine idle RPM.
4. Continue turning idle needle clockwise slowly until idle RPM begins to decrease. STOP.
5. Turn idle needle counter-clockwise for an optimum idle adjustment.
6. Record the needle setting for your future reference.

WT High Speed Circuit



HIGH SPEED NEEDLE ADJUSTMENT

NOTE: Special care must be taken when adjusting the high speed needle. An over-lean setting can severely damage an engine. Refer to owners manual for additional instructions.

1. With the high speed needle at 1¼ turns open the engine should run at w.o.t. at a slightly richer condition.

2. With the engine running at w.o.t. turn the high speed needle slowly clockwise until the engine obtains a smooth (2-cycle) running speed.

3. Optimum adjustment is obtained when a very slight 4-cycle sound at w.o.t. is heard.

NOTE II: Due to variations in altitudes readjustments to the high speed needle may be required upon receiving the engine.

W.O.T. = Wide Open Throttle

Walbro Model WT (Maintenance Instructions)

DISASSEMBLY

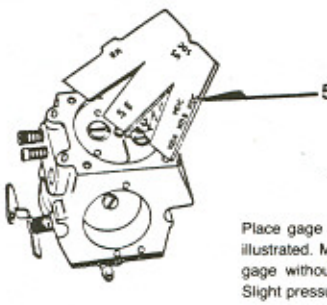
1. Remove fuel pump cover screw and pump cover.
2. Remove fuel pump diaphragm and fuel pump gasket.
3. Inspect diaphragm for flatness and continuity. The flapper valves should be flat and free from curling.
4. Blow through external pulse hole on body casting to insure that there are no obstructions.
5. Blow through internal fuel hole on body casting to insure that there are no obstructions.
6. Remove and discard fuel inlet screen.
7. Remove the four screws and metering diaphragm cover.
8. Remove metering diaphragm and gasket.
9. Inspect metering diaphragm for holes, dirt and foreign material.
10. Remove metering lever, pin, spring and inlet needle.
11. Clean inlet seat by air blowing, wipe inlet needle tip clean.
12. Inspect lever and spring for damage.
13. Remove idle and high speed needle.
14. Carefully remove welch plug covering idle pocket.
15. Thoroughly inspect and clean the carburetor, especially all small orifices and openings, using a solvent wash and an air gun.
16. Dry carburetor with air and check operation of the throttle assembly.

RE-ASSEMBLY

1. Install the correct new filter screen using the appropriate tool. Walbro tool no. 500-15 is designed for installing the round screen.
2. Install a new welch plug. Welch plug must be flattened so as not to interfere with the operation of the metering diaphragm. A sealant such as fingernail polish may be used but wiped off immediately. Tool no. 500-15 may also be used for installing the welch plug.
3. Install high and idle needles and set at approximately 1¼ turns open.
4. Install the metering diaphragm and related components as follows:

   Install the gasket over the locator pins on the metering side of the casting. Next, place the metering diaphragm assembly on top of the gasket. Next, add the metering cover with the four screws. Note, over tightening of these screws may cause them to strip.
5. With the large cover screw, install the pump cover with the pump diaphragm in contact with the casting surface. Next add the fuel pump gasket over the diaphragm.
6. Visually inspect the carburetor and tighten all screws.

ADJUSTING THE METERING LEVER

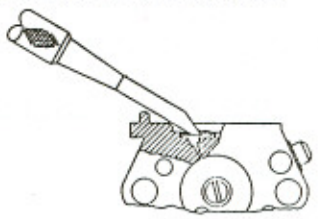


WA - WT - WTA

Place gage across carburetor body casting as illustrated. Metering lever should just touch the gage without opening the inlet needle valve. Slight pressure will bend the lever up or down.

REMOVING THE WELCH PLUG

Using tool no. 500-16, tap into welch plug until it penetrates and pops off.



Note: Be careful not to damage casting and idle holes.

WALBRO CORPORATION
CASS CITY, MICHIGAN 48726 U.S.A.