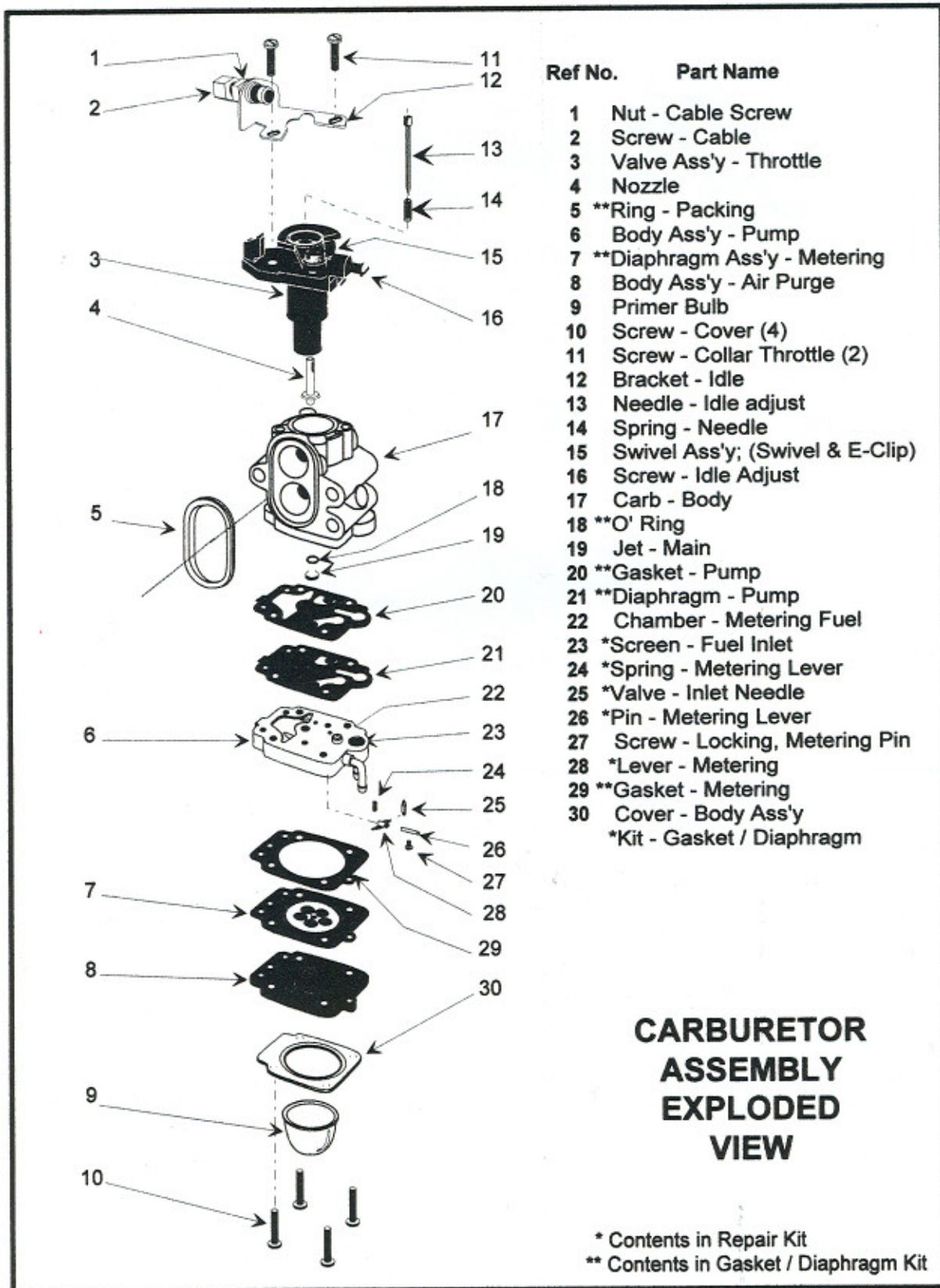


**WYA series**

**SERVICE  
MANUAL**

**Trimmer/Blower  
Carburetor**



Ref No.	Part Name
1	Nut - Cable Screw
2	Screw - Cable
3	Valve Ass'y - Throttle
4	Nozzle
5	**Ring - Packing
6	Body Ass'y - Pump
7	**Diaphragm Ass'y - Metering
8	Body Ass'y - Air Purge
9	Primer Bulb
10	Screw - Cover (4)
11	Screw - Collar Throttle (2)
12	Bracket - Idle
13	Needle - Idle adjust
14	Spring - Needle
15	Swivel Ass'y; (Swivel & E-Clip)
16	Screw - Idle Adjust
17	Carb - Body
18	**O' Ring
19	Jet - Main
20	**Gasket - Pump
21	**Diaphragm - Pump
22	Chamber - Metering Fuel
23	*Screen - Fuel Inlet
24	*Spring - Metering Lever
25	*Valve - Inlet Needle
26	*Pin - Metering Lever
27	Screw - Locking, Metering Pin
28	*Lever - Metering
29	**Gasket - Metering
30	Cover - Body Ass'y
	*Kit - Gasket / Diaphragm

## CARBURETOR ASSEMBLY EXPLODED VIEW

\* Contents in Repair Kit  
 \*\* Contents in Gasket / Diaphragm Kit

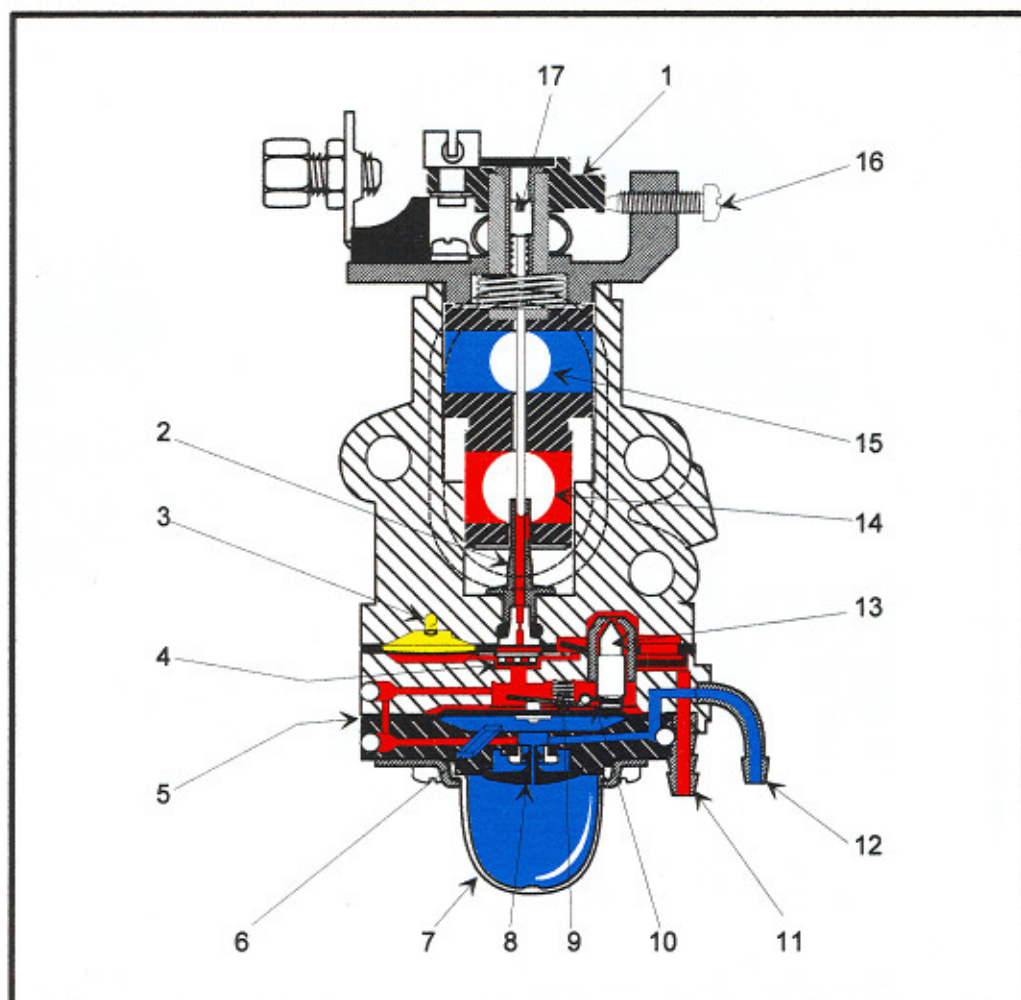


## STANDARD WYA OPERATING FUNCTION

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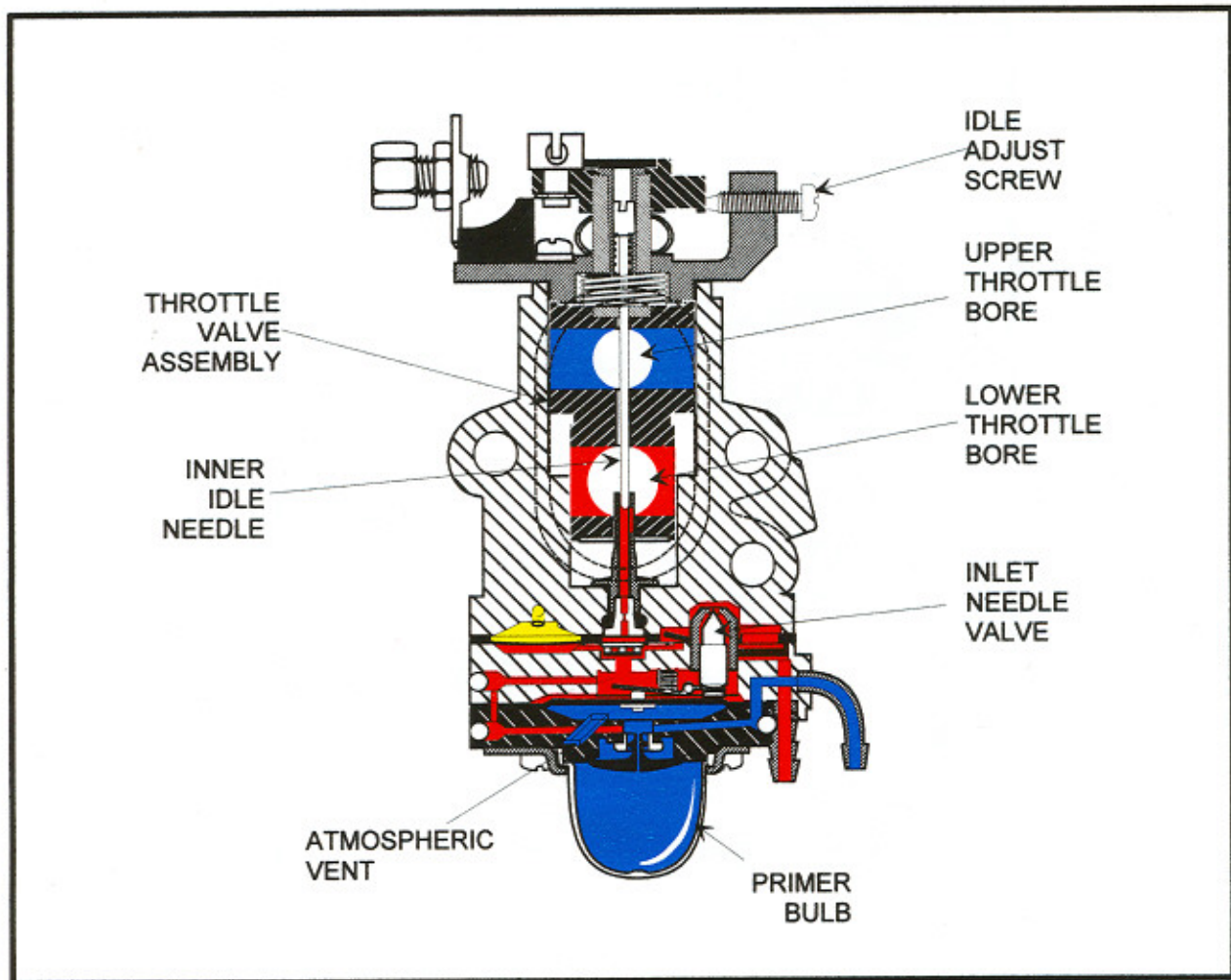
### COLOR CODE

- = Fuel
- = Crankcase Pulse
- = Air



### STANDARD WYA OPERATING FUNCTION

1. Throttle Lever Ass'y: Controls throttle valve operation from idle to wide open throttle position.
2. Nozzle: Allows fuel to pass from the main jet to the throttle valve opening.
3. Crankcase Pulse: Positive and negative crankcase pulses enter here to activate the fuel pump.
4. Main Jet: Controls amount of fuel allowed to enter the nozzle during operation.
5. Metering Diaphragm Assembly: Low pressure received from the crankcase allows metering diaphragm to activate metering lever.
6. Atmospheric Vent Hole: Allows atmospheric pressure onto dry side of metering diaphragm assembly.
7. Purge Bulb: Forces air out of system when depressed, and draws fuel in from tank when released.
8. Check Valve: Opens when bulb is depressed to let air out, closes when bulb is released.
9. Metering Spring: Transmits force to metering lever.
10. Metering Lever: Lifts inlet needle off valve seat.
11. Fuel Inlet Fitting: Fuel line is attached here.
12. Primer Fitting: Fuel and air exits primer through this fitting.
13. Inlet Needle: Regulates amount of fuel delivered to metering chamber.
14. Lower Throttle Bore: Allows fuel and air delivery during engine performance.
15. Upper Throttle Bore: Allows air to flow primarily for exhaust scavenging.
16. Idle Adjust Screw: Controls engine's recommended RPM speed at idle.
17. Inner Idle Needle: Controls fuel delivery at idle, part throttle, and wide open throttle positions.

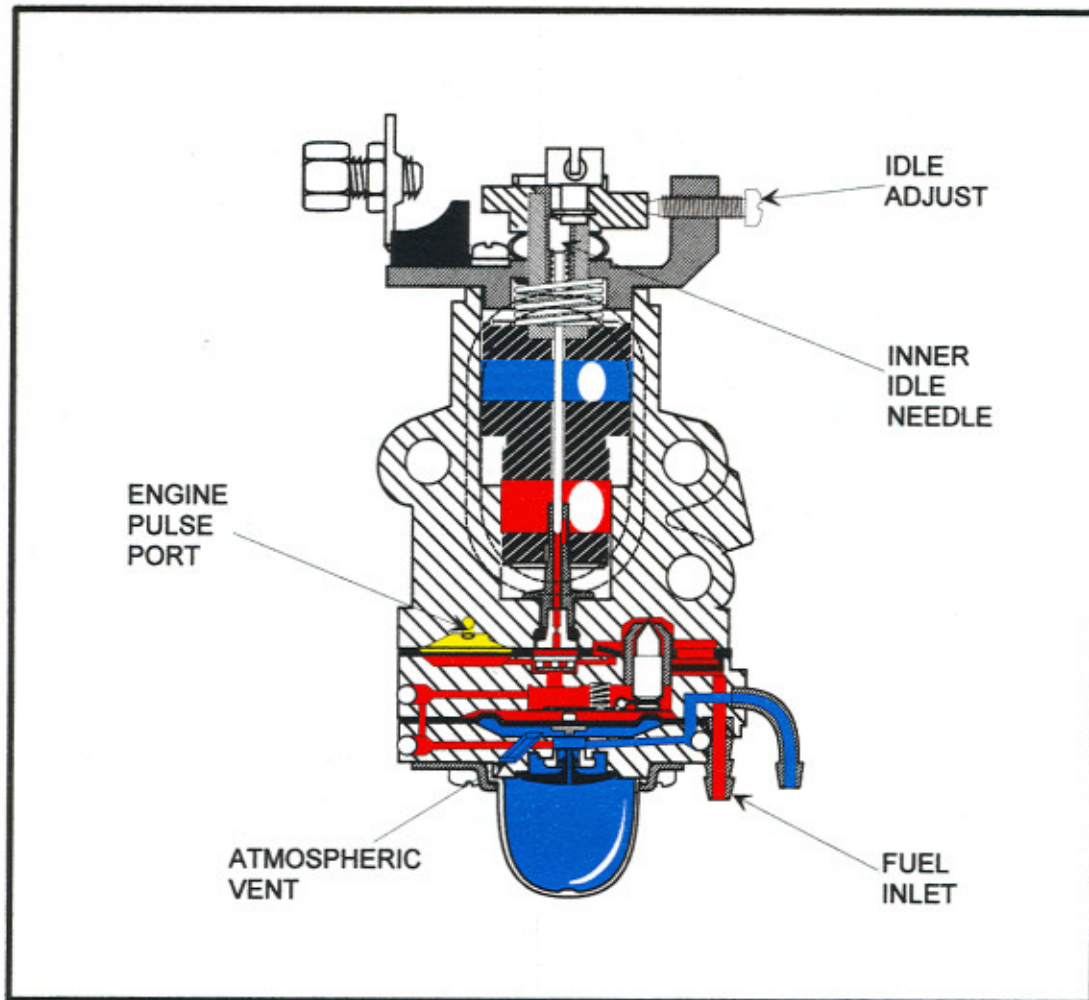


### WYA AT WIDE OPEN THROTTLE POSITION

With the WYA at the wide open throttle (w.o.t) position, the throttle lever will ride to the highest point on the lever. This will allow the idle needle to pull away from the nozzle outlet and allow enough fuel to flow into the engine at w.o.t. With the throttle valve fully open, the max. amount of air is allowed in through the lower throttle bore.

The upper throttle bore allows air to flow into the combustion chamber via the stratified scavenging port. This "air only" charge allows for clean exhaust emissions by blocking the transfer port's fuel from being swept into the exhaust stream.





WYA AT IDLE POSITION

With the throttle valve at the manufacturer's preset adjustment, the engine is allowed the correct fuel and air it requires at the idle position. The inner idle needle is preset to meet the engine and federal emission regulation requirements. The needle is and should always be covered to limit its access and adjustment. No idle needle adjustment is provided on the carburetor the original engine came with.

#### WYA IDLE ADJUSTMENT PROCEDURE WHEN ADJUSTING REPLACEMENT CARBURETOR:

1. Before starting engine, remove limiting device (glue) from the top of the inner idle needle.
2. Using a 2.5mm wide Flathead screwdriver, turn out the inner needle until threads disengage.
3. Turn inner idle needle clockwise 10 turns from thread engagement.
4. Start engine.
5. With the engine in the idle position, continue turning the inner idle needle clockwise. The RPM should increase (lean) until the peak lean idle RPM is attained. Turn inner idle needle counter clockwise (rich) until optimum idle is attained.
6. Reinstall limiting device (ball or glue) to limit access to inner idle needle.

**Note:** Original Engine Manufacturer's engine adjustment/operation specifications must be maintained.



### METERING LEVER SETTING PROCEDURE

The correct metering lever setting is important in order to obtain the correct fuel delivery at idle, part throttle and wide open throttle positions. The procedure is as follows:

1. Place a screwdriver on the head of the inlet needle. Do not apply pressure, just keep the needle stable. (See Fig. 1.)
2. To obtain a leaner setting, apply enough pressure on the opposite end of the lever with a second screwdriver (See Fig. 1.)
3. To obtain a richer setting, place your second screwdriver beneath the lever and bend the lever up to contact the metering diaphragm earlier.
4. Place the appropriate side of the metering lever gage and slide it over the lever.
5. The gage should pass over the lever while making slight contact as you pass it over.



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