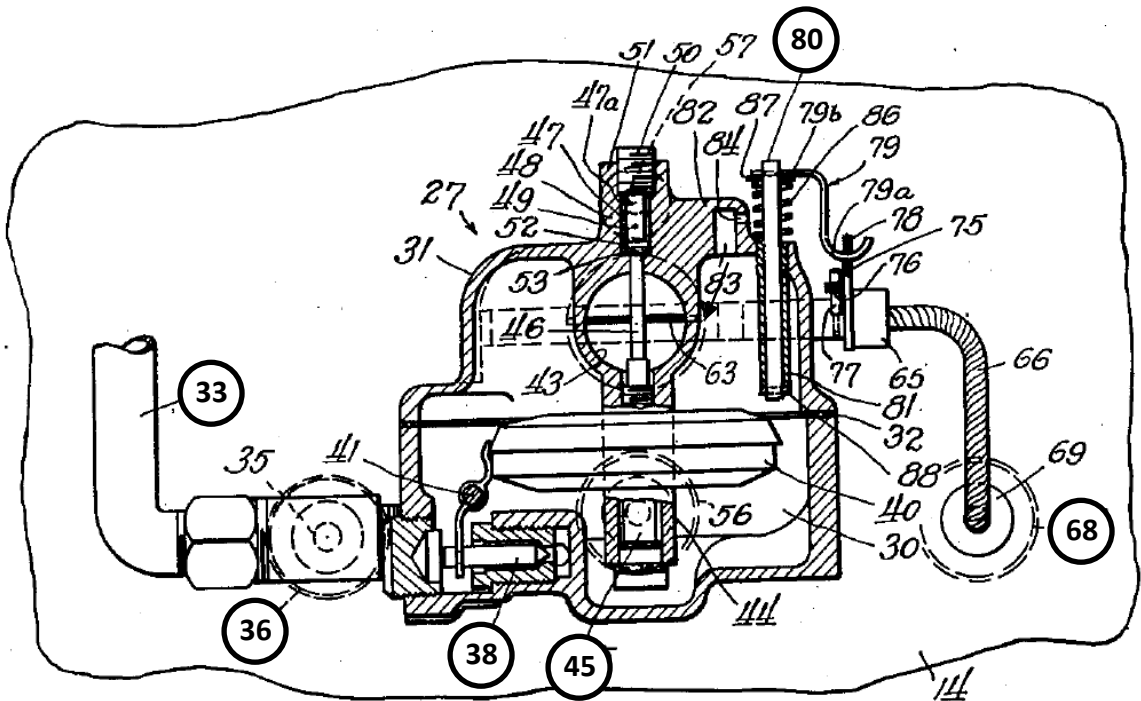
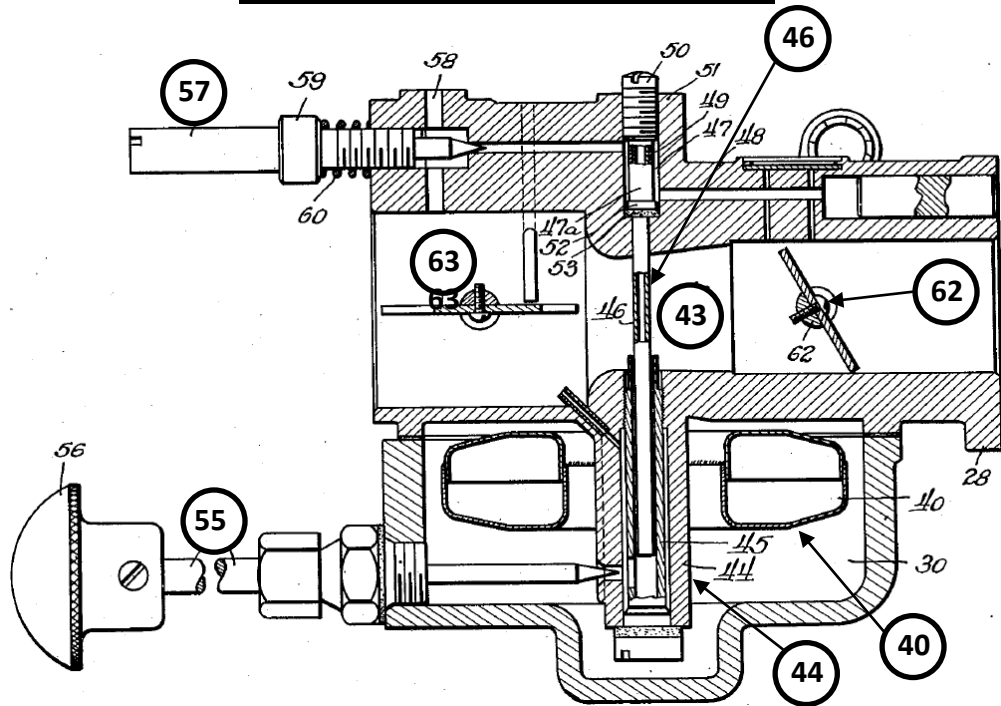


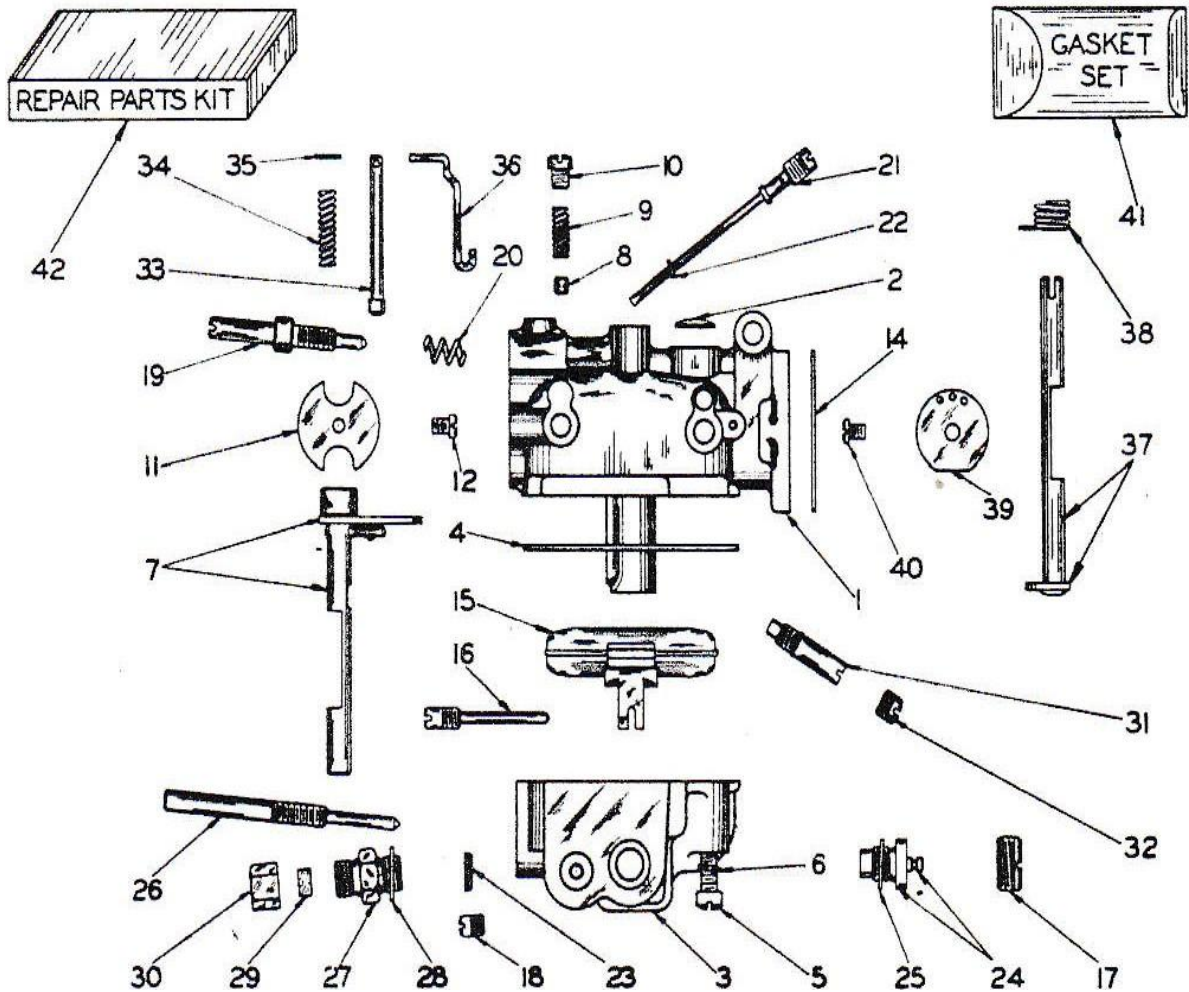
# Tillotson MD8A Carburetor



<u>Item</u>	<u>Description</u>
33.	Fuel Line
36.	Fuel Supply Control Knob
38.	Float Needle Valve
40.	Float
43.	Venturi
44.	Idle Passage
45.	High Speed Jet

<u>Item</u>	<u>Description</u>
46.	Idle Tube
55.	High Speed Adjust Needle
57.	Idle Speed Adjust Needle
62.	Throttle Butterfly Valve
63.	Choke Butterfly Valve
68.	Prime/Choke /Run Control Knob
80.	Primer Plunger

# Tillotson MD8A Carburetor



Item	Part #	Part Name	Item	Part#	Part Name
1	8181	Body, Upper Half	22	7900	Idle Tube Gasket
2	*02531	Body, Channel Welch Plug	23	*07283	Inlet Connection Screen
3	7929	Fuel Bowl	24	*08018	Inlet Needle, Seat and Gasket
4	7903	Body Gasket	25	2510	Inlet Seat Gasket
5	6062	Body Retaining Screw	26	*08180	Main Adjustment Screw
6	992	Body Retaining Screw Lockwasher	27	702	Main Adjustment Screw Gland
7	8002	Choke Shaft and Primer Lever (Complete)	28	676	Main Adjustment Screw Gland Gasket
8	*07923	Choke Friction Pin	29	705	Main Adjustment Screw Packing
9	*07925	Choke Friction Pin Spring	30	703	Main Adjustment Screw Packing Nut
10	*07912	Choke Friction Pin Screw	31	*08179	Main Nozzle
11	8010	Choke Shutter	32	2395	Main Nozzle Channel Plug Screw
12	5430	Choke Shutter Screw	33	7993	Primer Pin
14	5591	Flange Gasket	34	*07994	Primer Pin Return Spring
15	7804	Float	35	*03804	Primer Pin Washer
16	*07901	Float Lever Pinion Screw	36	7995	Primer Pin Link
17	7896	Fuel Bowl Plug Screw (Large)	37	8185	Throttle Shaft and Lever
18	*03311	Fuel Bowl Drain Screw (Small)	38	*07910	Throttle Return Spring
19	*08252	Idle Adjustment Screw	39	8011	Throttle Shutter
20	*05725	Idle Adjustment Screw Spring	40	*05430	Throttle Shutter Screw
21	*07921	Idle Tube	41	*08025	Gasket and Packing Set
			42	8314	Repair Parts Kit

(\*) Indicates contents of Repair Parts Kit No .08314.

## **CARBURETOR SETTINGS / ADJUSTMENTS / REPAIR INSTRUCTIONS**

**CHECK FLOAT LEVEL:** To check, separate the Fuel Bowl Assembly from the Upper Body Assembly and Gasket (See Disassembly Instructions No. 1 and 2 below). Then with Fuel Bowl Assembly held in the upside down position, the lowest point of the float at the free end should project 1/32 of an inch below the rim of the bowl. If resetting is required, remove the float (Disassembly Instructions No. 2) and slightly bend the vertical float lever to obtain the proper measurement. When inspection indicates Fuel Level continues to rise beyond the float setting point, remove the Inlet Needle and seal, clean the seating surfaces with a soft cloth. Place Inlet Needle in it's Seat and tap very lightly, turning the Inlet Needle with thumb and forefinger several times to reseal. Reinstall, then if the proper Fuel Level is not maintained, install a new Inlet Needle and Seat Assembly. (DO NOT CHANGE FLOAT SETTING FROM MANUFACTURERS SPECIFICATIONS.)

**INITIAL START OF COLD ENGINE:** First completely close both Idle (19) and Main Adjustment Screws (26) by turning fully to the right and then open them approximately ½ a turn. Next Prime, Choke, and pull the starter rope. After the engine has been running a few seconds and starts to roll or lope, slowly open the Choke to the full open (run) position.

**TO ADJUST CARBURETOR:** After the engine has become thoroughly warm and while running at constant half open throttle speed, slowly close the Main Adjustment Screw (26) by turning clockwise as far as possible without reducing the engine speed. Now close the throttle to a very slow or trolling speed as indicated on the panel and slowly close the Idle Adjustment Screw by turning clockwise, approximately a ¼ of a turn or until smooth slow speed performance is obtained.

Final correct settings will be approximately one-third (⅓) of a turn of the Main Adjustment Screw and one-fourth (¼) of a turn open of the Idle Adjustment Screw.

Regardless of altitude or climatic conditions, a proper carburetor adjustment can be made by following the above rules. (which eliminates jet changes).

### **IMPORTANT**

**HOW TO DISASSEMBLE FOR CLEANING OR REPAIR:** Remove carburetor from the motor using the instructions provided below. To correctly disassemble the carburetor, the following parts must be removed separately and in order indicated.

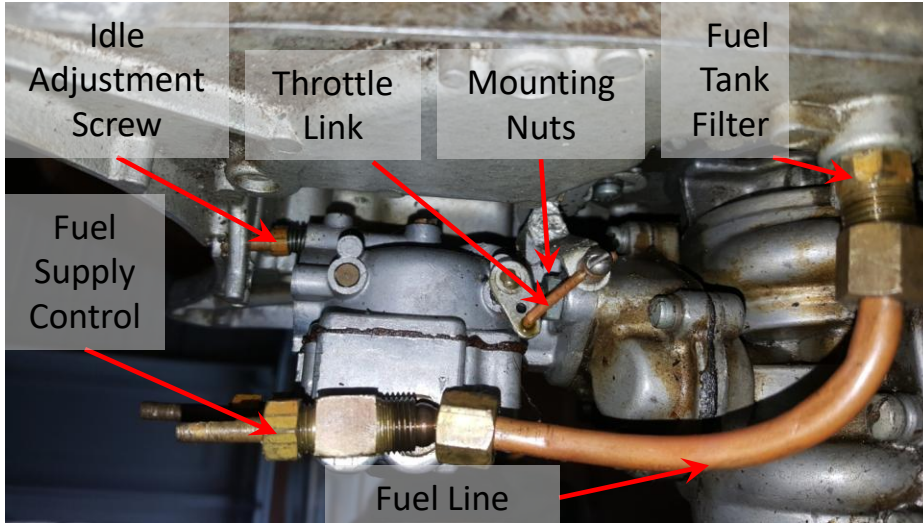
1. Complete Main Adjustment Screw (26) and Gland Assembly from the fuel bowl.
2. Body retaining screws and lockwashers to separate the upper body and fuel bowl assemblies.
3. Float Lever Pinion Pin (16) and Float (15) from Fuel Bowl.
4. Large Plug Screw (17) then Inlet Needle Seat (24) and Gasket Assembly (25) from Fuel Bowl.
5. Idle Adjustment Screw (19), Spring, Idle Tube (21) and Gasket (22) also Main Nozzle Channel Plug Screw (32) from Upper Body.
6. Throttle Shutter (39), Shaft and' Lever Assembly (37).

To reassemble reverse the above instructions when installing parts indicated.

# Carburetor Removal & Disassembly Tips

## REMOVE CARBURETOR FROM MOTOR:

1. Completely remove Idle Adjustment Screw.
  2. Remove Throttle Link (Tip: Take note the position of the link in the set screw for reassembly).
  3. Remove Fuel Line (completely loosen compression nuts and partially loosen Manifold nuts).
  4. Remove Manifold mounting nuts. (Tip: Place motor on it's back for disassembly / reassembly).
- To re-install the carburetor, reverse the above instructions.



## DISASSEMBLE / CLEAN CARBURETOR / REPLACE GASKETS AND PACKING:

1. Remove the float bowl retaining screws and separate the float bowl from body.
  - Check float level (see previous page).
2. Remove the remaining carburetor parts and soak in gasoline for a couple days to clean.
3. Spray carburetor cleaner in all passages.
4. Remove and replace old worn gaskets and packing.
5. Remove and clean fuel tank filter and flush out the fuel tank.

