



General Instructions

- Take lots of pictures as you take your carburetor apart. This will give you a reference of where things go.
- Using a cookie sheet with folded up sides will help keep parts from falling on the floor.
- We suggest not removing the throttle shaft, valves, or choke shaft unless they are corroded, or very dirty. These parts can be easily damaged and are difficult to re-assemble.
- Instruction sheets that come with our carburetor kits are somewhat generic. It may not match your parts exactly.
- Do NOT use WD-40 around your carburetor. It reacts with ethanol.
- Using Silicon Spray Lubricant on the gaskets will help with sticking in case you need to take the carburetor apart again.
- Be careful after taking the top of the carburetor off. Turning the carburetor upside down may cause parts to fall out and you won't know where they were.
- Screws and jets that are frozen can often be removed after heating outside the screw or jet.
- Stuck check balls can be removed by heating the outside of where the check ball resides and tapping the carburetor on the work bench.
- Do not discard any parts until complete done. You may have to refer for size, or matching.

Cleaning:

- Clean with carburetor dis-assembled.
- Soak all parts except rubber & electrical in Simple Green for 2 hours. Aluminum parts will get discolored if left longer.
- Wash parts with hot water if available to remove all chemicals.
- Blow out each passage way taking special notice of the smaller ones. Test each passage that air goes through the entire passage.
- Blow out the idle mixture hole.

- Check any hole above the idle mixture hole (inside the bore). This is the idle discharge and often becomes plugged.
- A tooth brush can facilitate cleaning parts.
- Soda blasting, then washing again will make the carburetor look good any will clean any minor deposits.
- Any corrosion, or deposits that are hard to remove may indicate the passages are also corroded and the carburetor should be replaced.
- If your engine has been sitting for 6 months or more, the gas has probably turned, and the gas tank will need to be cleaned as well as the fuel lines. Flushing new gas through the tank will not be enough.

Assembly:

- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
 - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
 - Plastic, or Nitrophyl floats should be weighed. The weight is in grams. Check our technical pages for any weight specification that we may have.
- Most gaskets will fit as expected, but you may have to trim some, especially under the venturis.
- Your kit may include multiple gaskets in order to get better coverage out of the kit. Use the one that fits the best. Look for any opening the gasket may leave allowing air into the carburetor. Some holes may be casting holes that don't lead to anything and do not have to be covered.
- Mounting gaskets for multiple bore carburetors do not have to have matching holes. Example a four-barrel gasket can be open in the middle instead of 4 holes as long as the carburetor has some kind of passage between bores. The passage is between primary, or secondary, not both.
- When adjusting the float be careful not to put any pressure on the needle. The viton tip is easily damaged.
- Most idle mixture screws can be cleaned using a soft wire wheel. Inspect for any scoring, which would indicate over tightening. Screw with scoring should be replaced.

Accelerator Pumps:

- On leather cups run your finger around the inside of the cup to break any manufacturer sealant.
- Apply 2 drops of oil to cups (leather, or rubber) before inserting into carburetor. Do not soak the cup in oil. The swelling of the cup needs to happen inside the carburetor. Allow the 2 drops of oil and the gas to do its job naturally.
- Twist the pump as you are inserting to help keep the cup from curling or folding over.
- Test your accelerator pump circuit before putting the top of the carburetor back on. Our technical pages have instructions on how to do this for most carburetor types.
- Pump wells are usually slight tapered, and the pump will not seal until it gets towards the bottom.

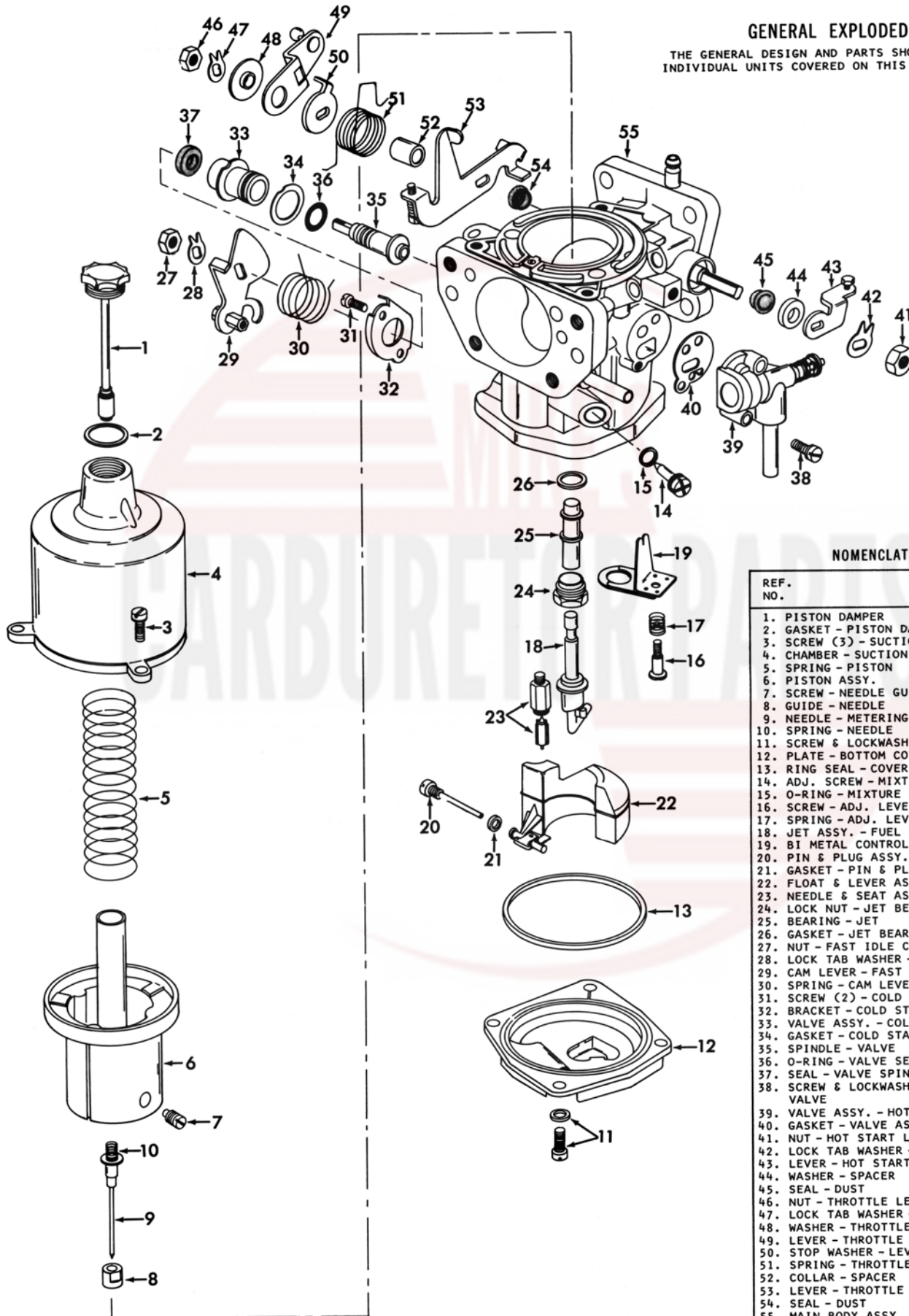
INSTRUCTION SHEET

S. U. CARBURETOR — MODEL HIF

50-488

GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO
INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET



NOMENCLATURE

REF. NO.	
1.	PISTON DAMPER
2.	GASKET - PISTON DAMPER
3.	SCREW (3) - SUCTION CHAMBER
4.	CHAMBER - SUCTION
5.	SPRING - PISTON
6.	PISTON ASSY.
7.	SCREW - NEEDLE GUIDE LOCK
8.	GUIDE - NEEDLE
9.	NEEDLE - METERING
10.	SPRING - NEEDLE
11.	SCREW & LOCKWASHER (4) - COVER PLATE
12.	PLATE - BOTTOM COVER
13.	RING SEAL - COVER PLATE
14.	ADJ. SCREW - MIXTURE
15.	O-RING - MIXTURE SCREW
16.	SCREW - ADJ. LEVER
17.	SPRING - ADJ. LEVER SCREW
18.	JET ASSY. - FUEL
19.	BI METAL CONTROL SPRING
20.	PIN & PLUG ASSY. - FLOAT LEVER
21.	GASKET - PIN & PLUG ASSY.
22.	FLOAT & LEVER ASSY.
23.	NEEDLE & SEAT ASSY.
24.	LOCK NUT - JET BEARING
25.	BEARING - JET
26.	GASKET - JET BEARING
27.	NUT - FAST IDLE CAM
28.	LOCK TAB WASHER - NUT
29.	CAM LEVER - FAST IDLE
30.	SPRING - CAM LEVER
31.	SCREW (2) - COLD START BRACKET
32.	BRACKET - COLD START VALVE
33.	VALVE ASSY. - COLD START
34.	GASKET - COLD START VALVE
35.	SPINDLE - VALVE
36.	O-RING - VALVE SEAL
37.	SEAL - VALVE SPINDLE DUST
38.	SCREW & LOCKWASHER (2) - HOT START VALVE
39.	VALVE ASSY. - HOT START
40.	GASKET - VALVE ASSY.
41.	NUT - HOT START LEVER
42.	LOCK TAB WASHER - NUT
43.	LEVER - HOT START
44.	WASHER - SPACER
45.	SEAL - DUST
46.	NUT - THROTTLE LEVER
47.	LOCK TAB WASHER - NUT
48.	WASHER - THROTTLE LEVER
49.	LEVER - THROTTLE
50.	STOP WASHER - LEVER
51.	SPRING - THROTTLE RETURN
52.	COLLAR - SPACER
53.	LEVER - THROTTLE STOP
54.	SEAL - DUST
55.	MAIN BODY ASSY.

ADJUSTMENTS

DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. CAUTION: MARK LEVERS AND CHECK LEVER SPRING HOOK UP POINTS BEFORE REMOVING. DUST SEALS (37)(45)(54) MUST BE REMOVED BEFORE CLEANING AND SAVED TO BE USED OVER. SUCTION CHAMBER AND PISTON ASSY. ARE PRECISION MADE AND MUST NOT BE TREATED ROUGHLY.

CLEANING

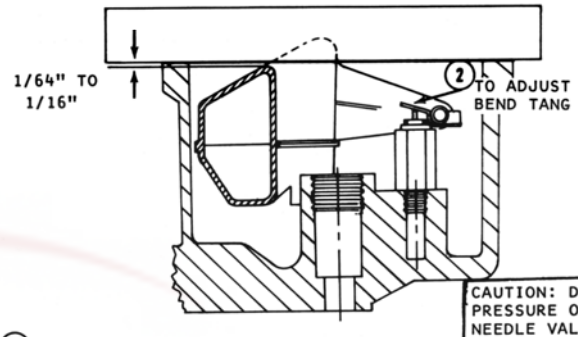
CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE A CARBURETOR CLEANING SOLVENT. MAKE CERTAIN THE THROTTLE BORES ARE FREE OF ALL CARBON AND VARNISH DEPOSITS. RINSE OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. CAUTION: DO NOT SOAK PARTS CONTAINING RUBBER OR PLASTIC MATERIALS.

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS.

SPECIAL INSTRUCTIONS

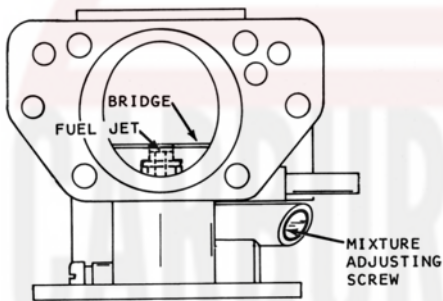
PISTON ASSY. (6) - LUBRICATE PISTON ROD LIGHTLY BEFORE INSTALLING (LUBRICATE NO OTHER PART OF PISTON)



- ① CARBURETOR BODY INVERTED. PLACE STRAIGHT EDGE ACROSS HOUSING AND CENTER OF FLOAT. CLEARANCE BETWEEN STRAIGHT EDGE AND FLOAT SHOULD BE 1/64" TO 1/16"

DRY FLOAT LEVEL ADJUSTMENT

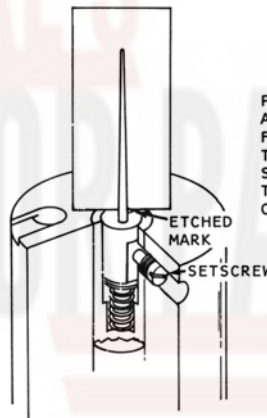
FIG. 1



TURN MIXTURE ADJUSTING SCREW IN UNTIL FUEL JET IS LEVEL WITH BRIDGE IN VENTURI. THEN LOWER JET BY BACKING OUT MIXTURE SCREW 2 1/2 TURNS. NOTE: THIS IS BASIC SETTING FOR A CARBURETOR AT 68°F(20°C). IF TEMPERATURE IS ABOVE 68°F(20°C) TURN SCREW LESS THAN 2 1/2 TURNS AND IF LOWER TURN MORE THAN 2 1/2 TURNS.

BASIC FUEL JET ADJUSTMENT

FIG. 2

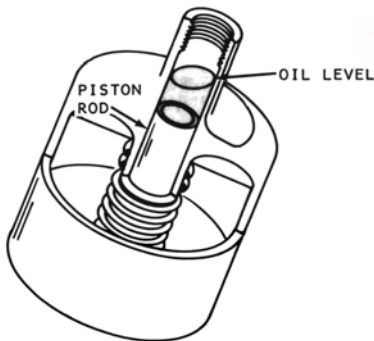


PLACE NEEDLE, SPRING AND GUIDE BUSHING IN AIR VALVE WITH ETCHED MARK POINTING AWAY FROM HOLES IN AIR VALVE OR ON SOME MODELS THE FLAT SIDE OF GUIDE BUSHING ALIGNS WITH TOP OF AIR VALVE AND TIGHTEN SETSCREW. CAREFUL NOT TO OVER TIGHTEN SETSCREW.

METERING NEEDLE ADJUSTMENT

FIG. 3

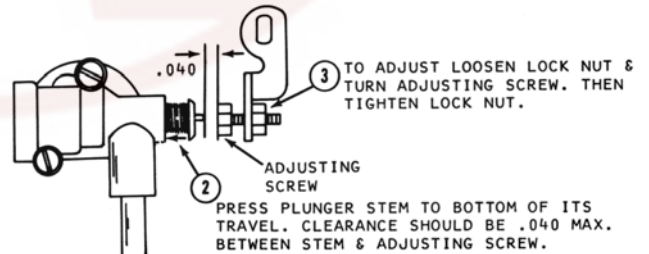
CARBURETOR INSTALLED. FILL THE RESERVOIR WITH LIGHT ENGINE OIL (NO HEAVIER THAN SAE 30). ADD OIL UNTIL OIL LEVEL IS 1/2" ABOVE TOP OF HOLLOW PISTON ROD.



CARBURETOR LUBRICATION

FIG. 4

- ① ADJUST IDLE TO CAR MANUAL SPECIFICATIONS.



HOT START VAL ADJUSTMENT

FIG. 5

INSTRUCTION SHEET

S. U. CARBURETORS TYPE HS



DISASSEMBLY

USE EXPLODED VIEW ON REVERSE SIDE AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. ONLY RUBBER MOUNTED FLOAT CHAMBERS NEED TO BE REMOVED.

CLEANING

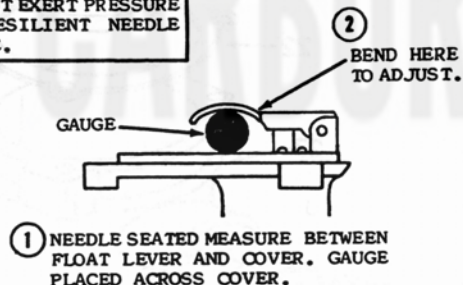
CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE (1) A CARBURETOR CLEANING SOLVENT, (2) LACQUER THINNER OR (3) DENATURED ALCOHOL. MAKE CERTAIN THE THROTTLE BODY IS FREE OF ALL HARD CARBON DEPOSITS. WASH OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTING WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS.

CAUTION: DO NOT SOAK RUBBER, LEATHER OR PLASTIC PARTS IN SOLVENT.

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND ADJUSTMENTS.

CAUTION
DO NOT EXERT PRESSURE
ON RESILIENT NEEDLE
VALVE.



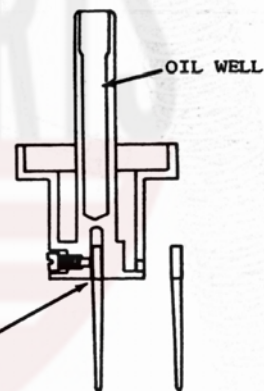
BRASS FLOAT 5/16" 8MM
NYLON FLOAT 1/8" 3MM

FLOAT LEVEL ADJUSTMENT

Fig. 1

NOTE: AFTER CARBURETOR IS
MOUNTED. REMOVE CAP AND
FILL OIL WELL WITH SAE20
TO WITHIN 1/2" OF TOP.

PLACE SHOULDER OF SHANK
FLUSH WITH FACE OF PISTON
AND TIGHTEN LOCKSCREW.



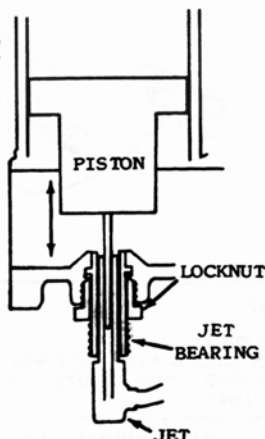
PISTON AND NEEDLE ASSEMBLY

Fig. 2

1 INSTALL JET BEARING, WASHER AND
LOCKNUT. INSTALL JET ASSEMBLY IN
BEARING.

2 PISTON SHOULD MOVE FREELY UP AND
DOWN ITS FULL TRAVEL. IF NOT
ADJUST.

3 TO ADJUST LOOSEN LOCKNUT AND
ROTATE BEARING UNTIL FREE MOVE-
MENT OF PISTON IS FOUND WITH LOCK-
NUT TIGHT.
NOTE: PISTON SHOULD BE AS FREE
WITH JET IN PLACE OR REMOVED.



CENTERING NEEDLE AND JET

Fig. 3

1 TURN JET ADJUSTING NUT ALL THE
WAY UP THEN BACK OFF 2 TURNS.

2 SET IDLE SPEED R.P.M.

3 TURN JET ADJUSTING NUT UNTIL THE
FASTEST IDLE SPEED IS OBTAINED.
RESETTING SLOW IDLE R.P.M. IF
NECESSARY.

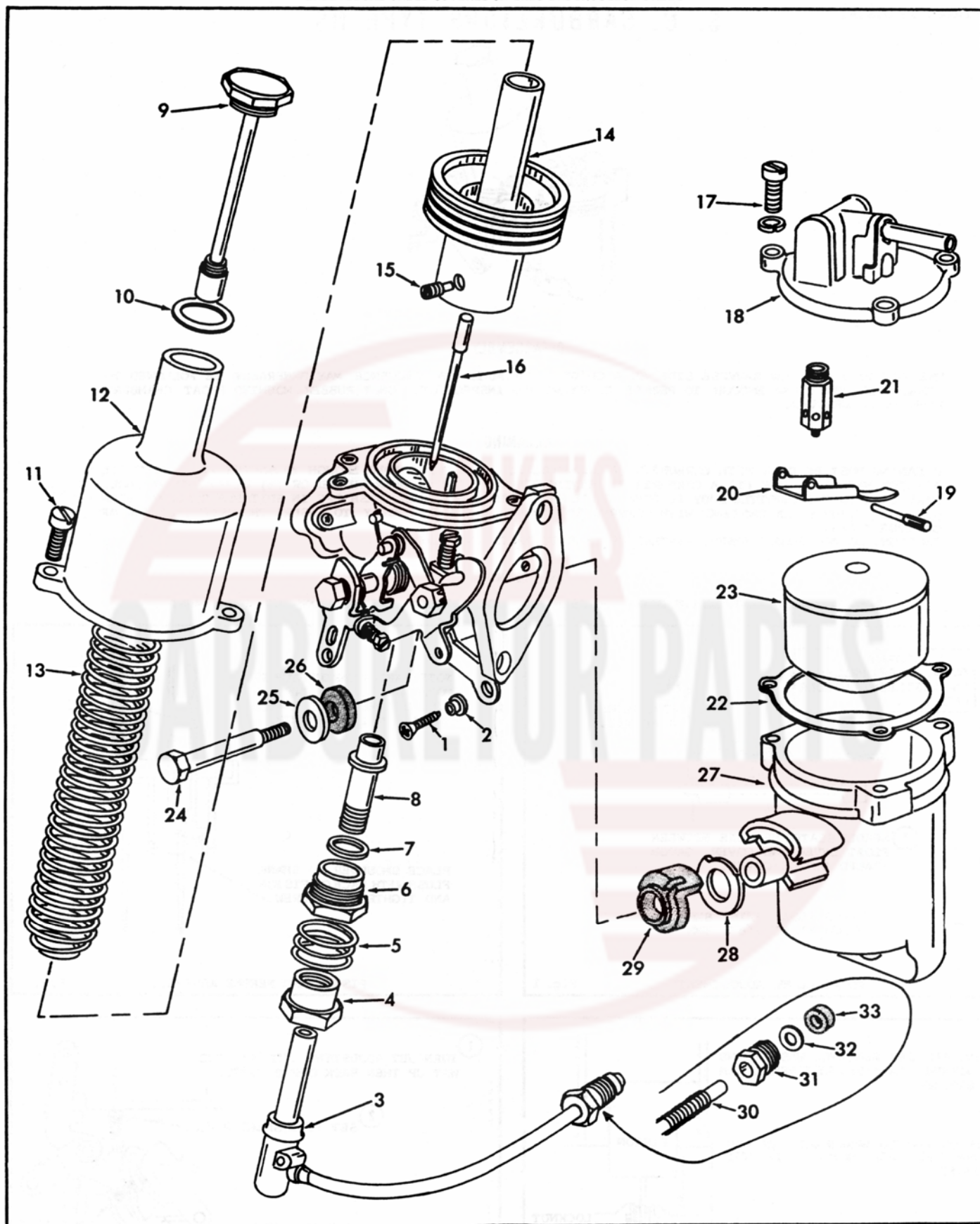


IDLE ADJUSTMENT ON CAR

Fig. 4

GENERAL EXPLODED VIEW

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INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET



NOMENCLATURE

- | | | | |
|--------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 1. SCREW - LINK TO JET | 11. SCREW - CHAMBER TO BODY (2) | 20. LEVER - FLOAT | 27. FLOAT CHAMBER |
| 2. BUSHING - LINK TO JET SCREW | 12. CHAMBER - PISTON | 21. NEEDLE & SEAT ASSEMBLY | 28. WASHER - SUPPORT |
| 3. JET ASSEMBLY | 13. SPRING - PISTON | 22. GASKET-FLOAT CHAMBER COVER | 29. GROMMET - RUBBER |
| 4. NUT - JET ADJUSTING | 14. PISTON | 23. FLOAT | |
| 5. SPRING - JET LOCKING | 15. SCREW - NEEDLE LOCKING | | |
| 6. NUT - JET LOCKING | 16. NEEDLE | | |
| 7. WASHER - JET BEARING | 17. SCREW & LOCKWASHER - | | |
| 8. BEARING - JET | FLOAT CHAMBER COVER (3) | | |
| 9. CAP & DAMPER ASSEMBLY | 18. COVER - FLOAT CHAMBER | | |
| 10. WASHER - CAP | 19. PIN - FLOAT LEVER | | |
| | | REMOVE FOLLOWING PARTS IF FLOAT | |
| | | CHAMBER IS RUBBER MOUNTED | |
| | | 24. BOLT - FLOAT CHAMBER | |
| | | 25. WASHER - STEEL | |
| | | 26. WASHER - RUBBER | |
| | | | JET TUBE ATTACHING SOME MODELS |
| | | | 30. PLASTIC FUEL LINE WITH WIRE |
| | | | SPRING GUARD |
| | | | 31. NUT - FUEL LINE |
| | | | 32. WASHER - BRASS |
| | | | 33. WASHER - RUBBER |