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PI-036

Weber Jetting

Before you start to change jets in the carburetor please look over the exploded diagram of the Weber. Note the primary side of the carb has the smaller of the two butterflies, and it is the first to open when operating the throttle.

Our jet kit includes: Idle jets - 45, 50, 55, 60
 Main jets - 125, 130, 135, 140, 145, 150

IDLE JET

The idle jet meters fuel to the idling and progression circuits. This circuit is generally used for a large percentage of driving and therefore the size of this jet is quite critical for both smooth idle and acceleration. The idle jet acts as a fuel source before the main jet takes over. There is an idle jet in the primary circuit and the secondary circuit. To cure stumble off of idle or a stumble from mid to high range, a richer jet will often be effective.

IDLE JET REMOVAL AND REPLACEMENT

Locate the idle jet on the carb with the help of the diagram. Primary idle jet #33 and secondary jet #33A. Idle jets are located directly below the top cover #1, held by a brass screw holder. Unscrew the brass screw and withdraw the jet assembly. Separate the jet from the holder and replace with the desired size and reinstall in the carb. It is advised to increase or decrease jet sizes by only five points at a time.

MAIN JETS

The main jet meters fuel to the nozzle in the auxiliary venturi via the emulsion tube. Its size will depend on the requirements of the engine. The main jets function during the normal operation of the engine at constant speeds. You can adjust rich or lean conditions at mid to high range by changing the main jets.

MAIN JET REMOVAL AND REPLACEMENT

Locate the main jets in the diagram. Primary main jet #19 and secondary main jet #19A. The jets are located inside the float bowl. Disconnect the choke plate operating rod #36 at its upper end by removing the split pin or prying off the circlip #6. On automatic choke carbs, open the throttle slightly if necessary to allow the choke plates to fully close. Unscrew and remove the carb cover retaining screws #3 together with the spring washers, then carefully lift the cover #1 from the main body #88 at the same time disengaging the choke operating rod #36 by tilting the cover. Unscrew the primary #19 and/or the secondary #19A main jets from the bottom of the float bowl – noting their correct locations.

Select the desired size main jet and replace it in the proper location. Do not overtighten. (Again it is advised to increase or decrease jet sizes by only five points at a time. This will make enough of a change that you can judge which direction, rich or lean, you need to go).

Assembly is reverse of removal. If you are careful with the paper gasket, it will last through many jet changes.

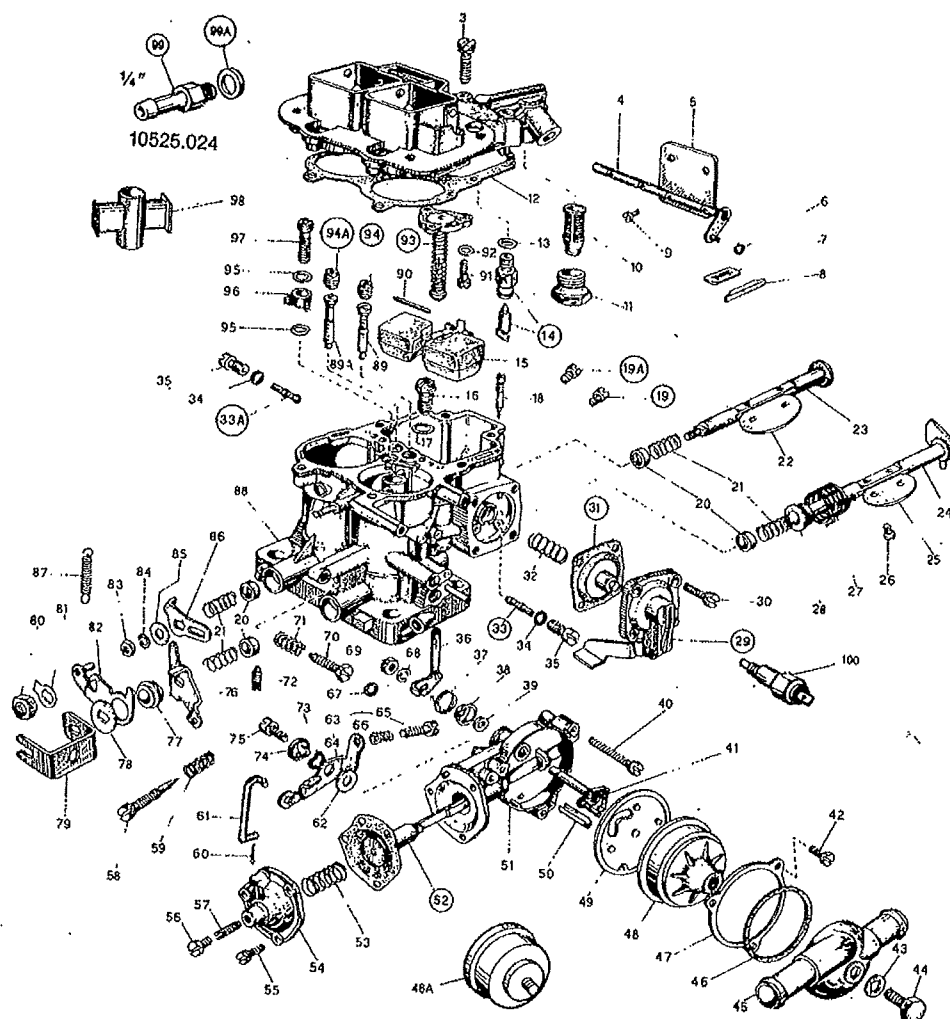
**After any change in jetting or timing, be sure the engine does not run too lean,
as serious engine damage can result.**

Test for proper fuel mixture with CO meter or a spark plug check.

Rev. 2/10

WEBER CARBURETOR

Type 32/36 DGV/ DGAV (shown) DGEV



CALIBRATED PARTS & REPAIR KITS

Key No.	Description	Basic No.			
19 & 19A	Main Jets	73801	14	Needle Valve	79516.200
33	Primary Idle Jet	74409	31	Pump Diaphragm	47407.048
33A	Secondary Idle Jet	74403	93	Power Valve	57804.052
89 & 89A	Emulsion Tube	61440	99	Fuel Union 1/4"	10525.024
94 & 94A	Air Corrector Jet	77201	99A	Sealing Washer	41535.003
52	Choke Diaphragm	47407.056		Gasket Set	92.0108.05
				Tune Up Kit	92.1137.05



WEBER CARBURETOR TROUBLESHOOTING GUIDE

This guide is intended for diagnostic purposes only. Specific procedures and adjustments should be obtained from factory service manuals or carburetor specifications sheet.

Every Weber carburetor is thoroughly tested at the factory and meets high quality and performance standards.

Since other engine component problems affect the performance of the carburetor, it is strongly recommended to perform the General Engine Checks section of this guide **BEFORE** making any carburetor adjustments.

GENERAL ENGINE CHECKS

IGNITION SYSTEM:

1. Cracked, broken wires
2. Incorrect ignition wire location (firing order)
3. Timing improperly adjusted
4. Distributor cap cracked, arcing
5. Low coil output
6. Corroded plug terminals
7. Incorrect vacuum advance hose connection
8. Points corroded, wrong gap
9. Incorrect spark plug gap

EMISSION SYSTEM:

1. Cracked, loose vacuum hoses
2. Improper vacuum hose connections
3. Faulty EGR valve operation
4. Airpump diverter valve, anti-backfire valve faulty
5. Faulty PCV valve operation
6. Dirty breather filters
 - Charcoal canister
 - Valve cover breather
 - PCV filter (inside air filter assembly)
7. Faulty feedback system operation
8. Vacuum delay valves (switches) faulty

FUEL SUPPLY SYSTEM

1. Dirty fuel filter
2. Incorrect fuel pump pressure (1.5-3.5 psi)
3. Restricted, kinked fuel lines
4. Fuel lines in contact with hot surface
5. Contaminated fuel

SPARK PLUG ANALYSIS

Normal spark plug condition is a sandy brown deposit on the insulator surface with no signs of electrode damage. The following information will help you analyze your plugs' condition.

OIL DEPOSITS — WET FOULING

1. Worn piston rings, bearings, seals
1. Excessive cylinder wear
2. Leaking — damaged head gasket

BLACK CARBON BUILD-UP, DRY FOULING

1. Fuel mixture too rich
2. Dirty air filter
3. Engine over heating
4. Defective ignition wires
5. Sticking valves, worn seals
6. High carburetor float level
7. Damaged, sticking needle and seat assembly
8. Incorrect fuel pump pressure (1.5-3.5 psi)
9. Spark plug heat range too cold

BLISTERED, BURNED ELECTRODES

1. Spark plug heat range too hot
2. Timing improperly adjusted
3. Engine over heating
4. Incorrect spark plug gap
5. Burned engine valves
6. Wrong type of fuel

INSULATORS CHIPPED

1. Incorrect spark plug gap
2. Improper spark plug installation
3. Severe detonation

PLUG GAP BRIDGED

1. Lead deposits fused to electrodes
2. Engine over-heating
3. Spark plug heat range too hot

GASOLINE FOULING

1. Distributor cap cracked, arcing
2. Loose, broken ignition wires
3. Low ignition coil output

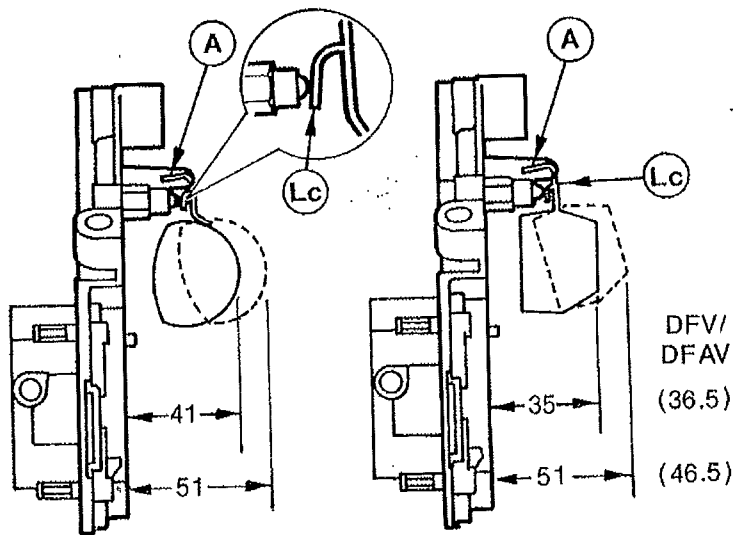
ONCE THE ABOVE CHECKS HAVE BEEN PERFORMED, THE FOLLOWING SPECIFIC PROBLEMS CAN BE ANALYZED.

FLOAT LEVELING INSTRUCTIONS

_____ **DGV/DGAV/DGEV**

**DGV Series
w/Brass Float**

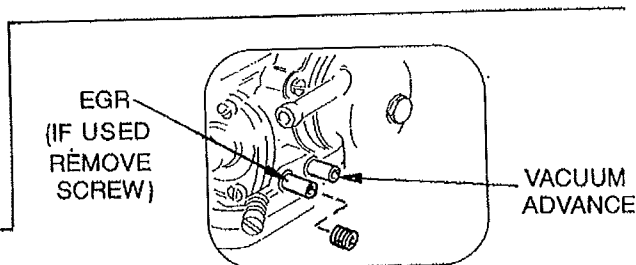
**DGV Series
w/Plastic Float**



The float level is a critical part of any carburetor calibration. Varying the level of fuel in the bowl will change the point at which the main circuit starts to feed, alter the characteristics of an emulsion tube, and affect both driveability and fuel consumption. Follow these general instructions for float leveling.

GENERAL INSTRUCTIONS. Float level, expressed in mm, refers to the distance of the float from the face of the carburetor cover when the top cover is held vertical with the float pivot at the top and the float tab (Lc) resting, against, but not compressing, the spring-loaded ball in the needle valve, measurement is made between the bottom of the float to the face of the top cover without the cover gasket.

To adjust the float level, tab (Lc) should be carefully bent until the required dimension is achieved. Float stroke is the dimension from the top cover to the bottom of the float when the float is at the bottom of its travel. Adjust this dimension by bending tab (A).



To ensure that your new Weber DGV/DGAV series carburetor will perform correctly, these operations are critical:

BEFORE INSTALLATION

Check and set the float level as per the measurements on the above diagram. This requires removal of the top cover and disconnection of the choke linkage. Adjustments may be made carefully with a needle-nose pliers. Reassemble.

Examine the carburetor and find the two idle adjustment screws; the idle speed screw (controls the opening of the throttle plates) and the idle mixture screw (regulates the amount of air/fuel mixture in the idle circuit).

To adjust the idle speed screw, be sure the choke plates are in the open position. (On automatic choke models, hold the choke plate open, rotate the throttle lever completely and release it. This disengages the choke fast idle cam and fully closes the throttle plates.) Now, turning the idle speed screw out, let it just lose contact with the throttle lever and turn it back in one-half turn.

Adjust the idle mixture screw by turning it inward until fully closed (gently so as not to damage the seat). Then turn it out two full turns.

The carburetor is now ready to go on your car.

AFTER INSTALLATION

Start the car, warm it up and adjust the idle as follows: Turn the mixture screw in until the engine starts to misfire (if it goes all the way without stalling the engine, recheck the speed screw; it is turned in too far). Now turn the mixture screw out gradually until you attain the smoothest, fastest idle possible. After adjusting the mixture, regulate the final idle speed by turning the idle speed screw until you achieve the rpm recommended for your car.

