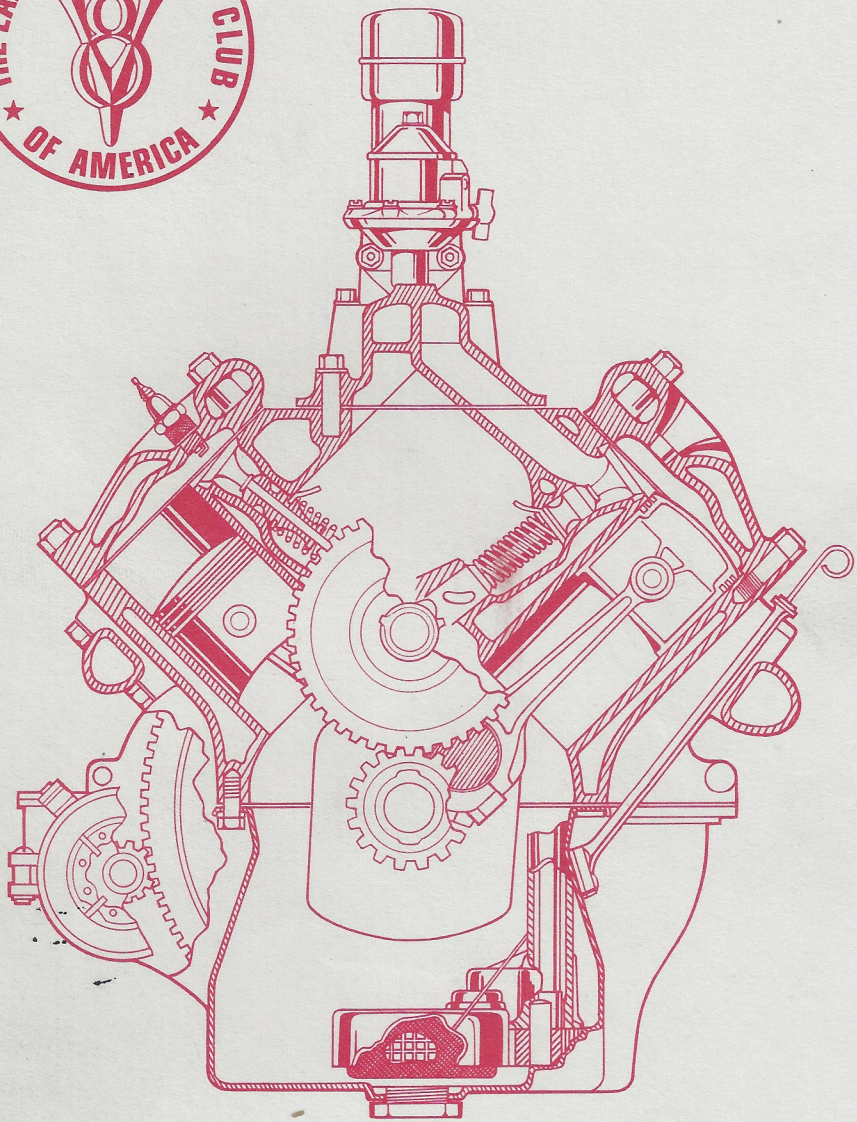
THE EARLY Ford V-8 CLUB OF AMERICA



Drive Lines

The Valley V8's

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Drive Lines

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of the EARLY FORD V8 CLUB of AMERICA

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RESEDA, CA. 91335

COVER / ROY JONES

PRESIDENT'S MESSAGE

I just spoke to John Upshaw, the manager of Von's Market where we held our July 4th Car Show. He was more than pleased; he was overwhelmed! There is a good possibility that we will make this an annual fund raiser along with our Pizza Night. Clarke Hansen has the record for bringing the most cars (3) whereas the Paul Kirks and John Busks brought two each. The turn-out of 24 cars is something we can all be proud of.

For the August 2nd meeting our speaker will be Ed Warnock who will talk about authenticity and accuracy in restoring an early Ford V-8. I believe this subject will not only appeal to those of us who are restoring our own car, but will be of interest to anyone considering purchase of an original or restored Ford V-8.

Ed has been a member of our Valley V-8s Regional Group since it began back in 1971. His credits include a '32 Roadster Pickup and a '39 Convertible Coupe which have both won numerous awards. This year Ed is serving as Vice President of the National Early Ford V-8 Club.

The August meeting will begin with a parking lot highlighting of the 1941 Ford. We will be featuring Frank Williams' black coupe.

Our name tag drawing will be worth $35.

See you there - -

Larry

UPCOMING EVENTS

Aug. 2 — Valley V8 Meeting - Valley Federal Savings, Nordhoff at Reseda Blvds
7:00 - 1941 Ford Highlight
7:30 - Regular meeting begins

Aug. 9 — Swap Meet - Pomona Fairgrounds
Rust Peddlers. Ph. (213) 596-1839

Aug. 15-16 — Swap Meet - Long Beach State University
Model T
Club Sponsors. (213) 323-0985

New Member

Dick Aldrich — '40 Coupe
541 No. Keystone St.
Burbank, CA 91506

Secretary Sez . . .

Early Fords driven to the July 5th meeting were:

Ernie Baily	'47 Pickup
Rick Van Blair	'46 Club coupe
Bill Woods	'40 Merc coupe
Shel Harriman	'32 Victoria
Don Durkee	'41 Coupe
Don Dupree	'46 Pickup
Clark Hansen	'34 Victoria
Paul Kirk	'40 Deluxe coupe

Paul Kirk gave the parking lot presentation. He displayed his very original '40 deluxe coupe (black beauty). Some major changes for 1940 were the introduction of sealed beam headlights, column shift transmission, built in vent window, dics wheels, and power convertible tops. Gone were the rumble seats, the crank out windshields, and the convertible sedans (except Merc).

Don Durkee was beating on people who ordered jackets to come up with the bucks. The woman who's making them has put out her money and it would help if she could collect soon.

Several people including me are interested in touring V-8's up to the Western National in San Mateo on 1 Sep. A rendezvous point needs to be established.

A motion has been made to have business cards made up with the club name and address on them - good idea.

Some interest was shown in a trip to see Harrah's collection in Sparks Nevada. However, a 10-hour bus ride each way and two nights in Reno received a mixed reaction.

Tom Welsh's name tag was drawn and he missed his $30 by not being there, next month - 35 bucks.

Jay Harris, past president of the National Club, entertained us with several reels of film which included the Southern California Groups 1973 tour to Santa Paula airport and the Second Grand National meet at Tulsa in 1978. It was nice to see some of the people we know and the cars they drove at these past club activities. - Thanks Jay.

SHEL HARRIMAN

RESTORING MY SOUTH WIND HEATER

Paul Kirk

Four years ago I acquired my '40 five-window coupe. The first thing that I did was to take the body off the frame so that I could do a ground-up restoration.

South Wind heaters frequently were installed as optional equipment in Fords. Someone, at some earlier date, had installed a South Wind heater in my coupe. However, the parts from the firewall forward were missing; I had purchased the car with the engine disassembled.

Restoring my South Wind heater provided me with a number of interesting hours of work and research. Over the past four years I acquired, at reasonable prices, at swap meets four South Wind heaters. Several of these heaters were complete with the heater carburetor, choke, fuel and vacuum lines, and gas intake adaptors. Incidentally, there are two types of gas intake adaptors. With one type it is necessary to drill a hole into the carburetor bowl and the small air mixer attaches to the outside of the carburetor bowl with a small line going down into the carburator bowl. The other type of gas intake adaptor consists of an external bowl with float control. This type is inserted with a "T" in the fuel line between the fuel pump and the carburator. I elected to enstall the latter type.

Finding literature on the South Wind heater proved to be an interesting experience. The first thing I did was to write to Stewart-Warner to ask them for copies of literature on the operation and maintenance of the South Wind heater. Surely, I thought, they would have a file of such materials and would be pleased to provide me with this information for a fee. Wrong! They had not retained any information on the South Wind heaters. This was most discouraging. Happily however, I stumbled on two copies of Skinned Knuckles (Vol. 2, No. 12, July 1978 and Vol. 3, No. 1, August 1978) which gave the information I was looking for. The editor, Bill Cannon, was kind enough to provide me with a copy

of the materials on South Wind heators that had been the basis of these articles. One pamphlet was "Installation Instructions" for the South Wind published by Steart-Warner. Another pamphlet was a 1947 "Owners Manual". The third piece of literature was a South Wind service manual. (I will be happy to make copies of these materials for any of you who would like it.)

Armed with this information I could now tackle the restoration of my South Wind heater. I now knew for certain what parts were necessary for its installation. I also had information on how to check the operation of the various components in the system and how to overhaul the heater.

The happy conclusion to this article is that during the past month I finished restoring and installing my South Wind heater. It operates perfectly. The heat it puts out is fabulous. Obviously this is exactly what I need in the middle of July!

FORD CARBURETOR

The Ford type dual carburetor (formerly marked "Chandler-Groves") was first used on the 1938 Ford and Lincoln-Zephyr cars. It is a plain tube dual downdraft-type and any mechanic understanding plain tube carburetors should have no difficulty with this model.

For jet and venturi sizes for the various models, see specification section.

In this type all the main channels are carried in a removable nozzle bar (see insert Fig. 2) which carries the idle tube and an aspirating nozzle. (Aspiration means the act of breathing). The central portion of the nozzle bar forms the discharge nozzle. In this construction it is possible to locate the discharge nozzle in the center of the air stream without having attaching brackets or bosses which interfere with the flow of air into the venturis.

The discharge nozzle proper is located in the smallest part of the venturi, (see Fig. 1) is circular and of such diameter as to create a high suction at the end of the nozzle. This suction, in addition to the atomizing holes in the nozzle, helps to completely vaporize the fuel.

This dual carburetor can be considered as two carburetors built into one unit. There is a separate set of venturi, idle tubes, nozzle bars, main metering system, idle system and throttle plates, one for each side. There is one accelerating pump with the fuel being divided at the pump discharge nozzle, (shown in the insert Fig. 4, Page 47) one air chamber and one fuel chamber. There is one power valve which takes the fuel from the fuel chamber through one passage and divides the fuel evenly for each side.

In the following explanations one barrel is generally referred to unless mentioned otherwise.

CHOKE

The choke valve is mounted on a shaft located off center in the air passage as shown in Fig. 1. A torsion spring "S" tends to close the choke valve when the choke lever is moved to the choke position. There is a certain amount of free movement in the mechanism at part choke position so that if the choke is partially closed to operate at a relatively low speed, the inrushing air at a higher speed will force the valve open and compensate for the increased speed.

This, however, does not mean that the car can or should be continuously operated with the choke control in part choked position. With full choke the valve is held in locked position by the control lever. If the choke is held in full closed position after the engine fires, a poppet valve or air bleeder "T" in the choke valve will open. This supplies enough air to keep the engine running and eliminates choke sensitivity.

The opening of this poppet valve and the rush of air flowing through it makes considerable noise, which should attract the owner's attention to the fact that the choke button is out and will continue to make this noise until the choke button is pushed either all the way in, or to a part choke position.

When the carburetor is choked the throttle valve is automatically open to the correct position for starting. For this reason it is neither necessary nor desirable for the operator to pull out the throttle button, or pump the accelerator when starting.

In full choke position, everything below the choke valve is subjected to intake manifold vacuum and the bulk of the fuel is supplied by the main discharge nozzles.

Fig. 1 shows the idle speed adjusting screw and part of the choke mechanism.

IDLE FUEL SUPPLY

The fuel from the carburetor bowl passes through the main metering jet into the idle

EQUIPMENT USED

9510A—JET WRENCH
9510D—FUEL LEVEL GAUGE

ABOVE APPLIES TO MODELS:

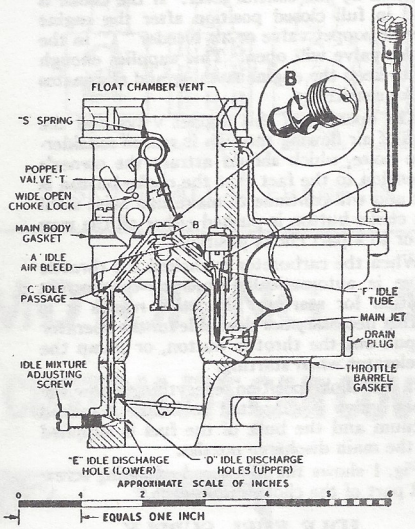
ALL STARTING 1938

Nov. 25, 1938

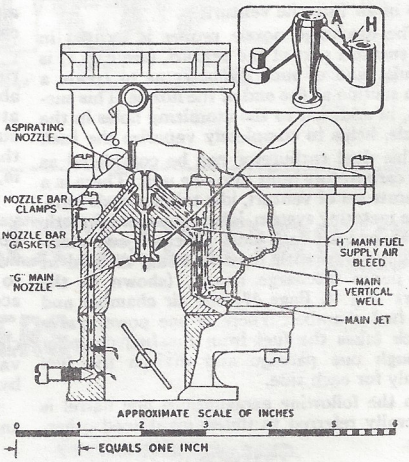
tube "F" as indicated by the arrows in Fig. 1. Air is introduced into the fuel stream by the idle air bleed "A" and a small additional amount of air is bled in by a small hole "B" in the aspirating nozzle (see insert Fig. 1). The idle mixture goes around the aspirating nozzle by means of an undercut around its outside diameter as shown. The mixture then travels down the idle passages "C" to the idle discharge holes "D" and "E".

When the engine is set to a speed of 350 RPM, the mixture is discharged out of the lower hole "E" only. As the throttle plate opens and the speed is increased, the upper holes "D" start discharging. In this carburetor the lower holes only discharge from idle to about 450 RPM. The upper holes very gradually start discharging, in addition to the lower holes, from about 450 RPM to 1250 RPM. The action and timing are such that upper discharge holes gradually start to feed, reach a maximum about 750 RPM and then gradually become less effective as the main nozzle starts.

The lower discharge holes are provided with an idle mixture adjustment. Turning the needle out gives a richer mixture and in, a leaner mixture. The idle adjustments should be set for the highest and steadiest vacuum reading as described under Operation 9510-E, Page 13. The idle adjustment should not be jammed against the seat hard enough to groove the point. If this occurs the adjusting screws will have to be replaced in order to obtain a satisfactory idle adjustment.



IDLE FUEL SUPPLY
Fig. 1



MAIN FUEL SUPPLY
Fig. 2

ABOVE APPLIES TO MODELS:

ALL

EQUIPMENT USED

9510A—JET WRENCH
9510D—FUEL LEVEL GAUGE

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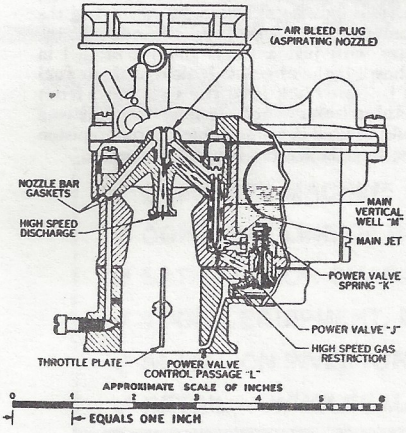
Ford Carburetor (Cont'd)

MAIN FUEL SUPPLY

As the idle system becomes less effective, the main nozzle "G" starts to deliver fuel. This occurs at about 900 RPM. Between 900 RPM and 1250 RPM there is a definite blend of the idle system and the main metering system. The power valve remains closed in this range, and approximately up to 3800 RPM except under load which cause manifold vacuum to drop. In this range all the fuel passes through the main jets, as shown in Fig. 2, up through the main vertical well, then up and around the idle tube. The main fuel is emulsified by air entering at the main fuel supply air bleed "H" which lightens the fuel and makes the mixture more responsive to throttle changes. The mixture is again aspirated by the aspirating nozzle as it starts down the main nozzle "G".

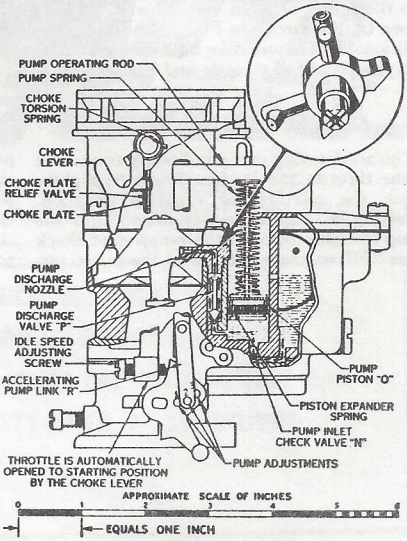
The nozzle bars are held in place by clamps and the channels sealed against leaks by the nozzle bar gaskets. In disassembling and assembling these nozzle bars, care should be taken to see that the gaskets are in place and in good condition and that the clamp screws are tight. When removing jets, be sure a screw driver which fits the slot is used. This will eliminate the danger of slipping and damaging the metering orifice.

The power valve "J" (shown in Fig. 3) is operated by the vacuum below the throttle plate through passage "L" and the power valve spring "K". At idle, the vacuum is the



Power Fuel Supply

Fig. 3



Acceleration Fuel Supply

Fig. 4

EQUIPMENT USED

9510A—JET WRENCH
9510D—FUEL LEVEL GAUGE

ABOVE APPLIES TO MODELS:

ALL STARTING 1938

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highest and decreases as the load increases. The diaphragm (actuated by vacuum) holds the power valve on its seat until the vacuum drops to from 8½ to 9 inches of mercury where it is not high enough to resist the action of the spring. This point at level road running at a constant speed is approximately 3800 RPM.

Under load as in climbing hills, etc., the vacuum drops as it becomes necessary to open the throttle wider in order to maintain speed. When the vacuum drops to from 8½ to 9 inches of mercury the power valve is opened by the spring the same as when the engine speed exceeds 3800 RPM on level road and the fuel then flows into the power valve and channels and through the high speed gas restrictions into the center or main vertical well "M", as shown by the arrows in Fig. 3. This gives the additional fuel required for high speeds and for heavy loads at full throttle and low speeds.

ACCELERATING PUMP

The accelerating pump is directly connected to the throttle and its function is to slightly enrich the mixture for rapid acceleration. Referring to Fig. 4, fuel is drawn into the pump chamber through the pump inlet check valve "N" on the up-stroke of the pump piston (closing the throttle). When the throttle is opened the piston "O" moves down closing the pump inlet check valve and overcoming the weight of the pump discharge valve needle. The accelerating fuel then goes around the pump discharge valve "P" and out the pump discharge nozzle (see insert Fig. 4). Free movement against a spring load is provided in the pump piston stem and the pump operating rod to give a prolonged discharge when the throttle is opened suddenly.

The accelerating pump is provided with an adjustment for varying the quantity of the accelerating charge. This adjustment is made by changing the position of the pump link "R". The positions are marked 1, 2 and 3. Number 2 is the average setting; Number 1 the summer or hot weather setting, and Number 3 the extremely cold weather setting.

Failure of the accelerating pump is mostly due to dirt in the pump inlet check ball seat. This **can be checked by removing** the carburetor **air horn and operating** the **pump** with just a small amount of fuel in the bowl. **If the check is leaking, air or fuel will bubble back into the fuel bowl from the inlet hole.** When cleaning this seat care should be used in re-installing the pump piston to be sure the leather is not damaged.

ABOVE APPLIES TO MODELS:

ALL STARTING 1938

EQUIPMENT USED

9510A—JET WRENCH
9510D—FUEL LEVEL GAUGE

Nov. 25, 1938

The Valley V's

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