

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-133-7  
Relating to Exemptions under Section 27156  
of the Vehicle Code

REDLINE, INC., A SUBSIDIARY OF IMPAC  
REDLINE CARBURETOR CONVERSION KITS #K8605 AND #K8606  
USING ONE (1) WEBER MODEL 32/34 DFT9 A

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the Redline Carburetor Conversion Kits #K8605 and #K8606 using one (1) Weber 32/34 DFT9 A carburetor have been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, are exempt from the prohibitions of Section 27156 of the Vehicle Code for the vehicles listed below:

<u>Year</u>	<u>Make</u>	<u>Model</u>	<u>Engine (liter, CID)</u>	<u>Redline Kit No.</u>
1972-1978	Ford	Courier	1.8, 109.6	K8605
1979-1980	Ford	Courier	2.0, 120.2	K8606
1971-1978	Mazda	B1600	1.6, 96.8	K8605
1971-1978	Mazda	B1800	1.8, 109.6	K8605
1979-1984	Mazda	B2000	2.0, 120.2	K8606

The following modifications to the exhaust emission control system are permitted:

- 1) The throttle positioner (dashpot), on vehicles so equipped, may be removed.
- 2) The throttle opener control system, on vehicles so equipped, may be disconnected and removed.
- 3) The deceleration control valve (Coasting Richer valve) and accelerator microswitch, on vehicles so equipped, may be disconnected and removed.
- 4) The vacuum hose routing may be changed as specified in the installation instructions.

All other original equipment emission control devices must be retained. The vehicle must be tuned to the vehicle manufacturer's specifications.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE REDLINE CARBURETOR CONVERSION KITS #K8605 AND #K8606.

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

"43644. (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

REDLINE, INC.

EXECUTIVE ORDER D-133-7  
(Page 3 of 3)

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at El Monte, California, this 21<sup>st</sup> day of May, 1986.



K. D. Drachand, Chief  
Mobile Source Division

State of California  
AIR RESOURCES BOARD

EVALUATION OF THE REDLINE CARBURETOR CONVERSION KITS  
NO. K8605 AND NO. K8606 USING ONE (1) 32/34 DFT9 A  
WEBER CARBURETOR FOR EXEMPTION FROM THE  
PROHIBITIONS OF VEHICLE CODE SECTION 27156  
IN ACCORDANCE WITH SECTION 2222, TITLE 13  
OF THE CALIFORNIA ADMINISTRATIVE CODE

MAY, 1986

EVALUATION OF THE REDLINE CARBURETOR CONVERSION  
KIT NO. K8605 AND NO. K8606 USING ONE (1) MODEL 32/34 DFT9 A  
WEBER CARBURETOR FOR EXEMPTION FROM THE  
PROHIBITIONS OF VEHICLE CODE SECTION 27156  
IN ACCORDANCE WITH SECTION 2222, TITLE 13  
OF THE CALIFORNIA ADMINISTRATIVE CODE

by

Mobile Source Division  
State of California  
AIR RESOURCES BOARD  
9528 Telstar Avenue  
El Monte, CA 91731

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

## SUMMARY

Redline, Inc., a distributor of Italian made Weber carburetors, has applied for exemption from the prohibitions of Vehicle Code Section 27156 for the Redline Carburetor Conversion Kits No. K8605 and No. K8606 using one (1) Weber model 32/34 DFT9 A carburetor.

These Redline Carburetor Conversion Kits are designed to replace the Zenith-Stromberg, Nikki-Stromberg, Nikki or Hitachi carburetors found on 1971-1984 Ford Courier or Mazda pick-up trucks with engines up to 2.0 liters in displacement.

Comparative exhaust emission tests and other information submitted demonstrate that the aftermarket Redline Carburetor Conversion Kits No. K8605 and No. K8606 using one (1) Weber model 32/34 DFT9 A carburetor do not adversely affect emissions of the applicable vehicles. Based on the results of the tests and the evaluation of the Redline Carburetor Conversion Kits, the staff recommends that the exemption be granted as requested for the following vehicle applications:

<u>Year</u>	<u>Make</u>	<u>Model</u>	<u>Engine (liter, CID)</u>	<u>Redline Kit No.</u>
1972-1978	Ford	Courier	1.8, 109.6	K8605
1979-1980	Ford	Courier	2.0, 120.2	K8606
1971-1978	Mazda	B1600	1.6, 96.8	K8605
1971-1978	Mazda	B1800	1.8, 109.6	K8605
1979-1984	Mazda	B2000	2.0, 120.2	K8606

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EVALUATION OF THE REDLINE CARBURETOR CONVERSION KITS NO. K8605 AND NO. K8606 USING ONE (1) MODEL 32/34 DFT9 A WEBER CARBURETOR FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13 OF THE CALIFORNIA ADMINISTRATIVE CODE

I. INTRODUCTION

Redline, Inc. of Compton, California, a subsidiary of Imported Parts and Accessories Corporation (IMPAC), is a distributor of Italian made Weber carburetors. The company has applied for exemption from the prohibitions of Vehicle Code Section 27156 for two Carburetor Conversion Kits designated as Redline Kits No. K8605 and No. K8606 using one (1) Weber model 32/34 DFT9 A carburetor to replace the original equipment manufacturer (OEM) Zenith-Stromberg, Nikki-Stromberg, Nikki or Hitachi two-barrel carburetors found on the following vehicles:

<u>Year</u>	<u>Make</u>	<u>Model</u>	<u>Engine (liter, CID)</u>	<u>Redline Kit No.</u>
1972-1978	Ford	Courier	1.8, 109.6	K8605
1979-1980	Ford	Courier	2.0, 120.2	K8606
1971-1978	Mazda	B1600	1.6, 96.8	K8605
1971-1978	Mazda	B1800	1.8, 109.6	K8605
1979-1984	Mazda	B2000	2.0, 120.2	K8606

This report describes the evaluation of the Redline Carburetor Conversion Kits and the findings.

II. CONCLUSION

Comparative exhaust emission data and other information submitted by the applicant demonstrated that the Redline Kits No. K8605 and No. K8606 using one (1) 32/34 DFT9 A Weber carburetor meet the Air Resources Board (ARB) requirements for exemption from the prohibitions of Vehicle Code Section 27156.

### III. RECOMMENDATION

Based on the submitted information and the emissions test data on the Redline Carburetor Conversion Kits, the staff recommends that Redline, Inc. be granted exemption from the prohibitions of Vehicle Code Section 27156 for the Redline Carburetor Conversion Kits No. K8605 and No. K8606 for use on the vehicles described above and that Executive Order No. D-133-7 be issued.

### IV. DEVICE DESCRIPTION

The Redline Carburetor Conversion Kits No. K8605 and No. K8606 are similar in design. Each kit uses one (1) model 32/34 DFT9 A Weber carburetor as an economical replacement for the OEM carburetors found on the 1971-1984 Ford Courier and Mazda pick-up trucks described previously.

These vehicles are equipped with a Zenith-Stromberg, Nikki-Stromberg, Nikki or Hitachi carburetor depending on the make and model-year. All these OEM carburetors are of the progressive two-barrel design (See Appendix 1).

The Weber 32/34 DFT9 A is a progressive two-barrel carburetor which is similar in basic design to the OEM carburetors (See Appendix 2). The Weber 32/34 DFT9 A is a slightly different version of the Weber DFT (Ford 740) carburetors used as original equipment on some Ford imports originally sold in California. It has provisions for vacuum operated emission control systems, including distributor vacuum advance/retard units, EGR and air injection control systems.

A variety of emission control devices are used on these vehicles. Some are integral to the OEM carburetor and others are external devices which either control specific functions of the OEM carburetor or are activated by movement of the throttle. The installation of the Weber carburetor retains

most of these devices or duplicates the functions of the devices in a different manner, however, some devices cannot be retained. These devices and their disposition after the installation of the Weber carburetor are:

- 1) The throttle positioner (dashpot), on vehicles so equipped, is removed.
- 2) The throttle opener control system, on vehicles so equipped, is disconnected and removed.
- 3) The deceleration control valve (Coasting Richer Valve) and accelerator switch, on vehicles so equipped, are disconnected and removed.

The Redline Kits No. K8605 and No. K8606 come complete with a Weber DFT9 A carburetor, an air cleaner adaptor and all the hoses, gaskets and hardware necessary to install the Weber carburetor on the Ford Courier or Mazda pick-ups. Installation instructions, which are included in every kit, show the kit installer how to properly install the Weber carburetor. Vacuum hose routing diagrams, contained in the instructions, show the proper vacuum hose connections to the Weber carburetor (see Appendix 3). An underhood label, included in the kit, is to be affixed to the vehicle near the OEM vacuum hose routing diagram which states that the vehicle is equipped with a Redline Kit and that appropriate vacuum hose routing diagrams may be found in the applicable Redline Kit installation instructions. For persons who may have technical questions or need a copy of a vacuum hose routing diagram, the Redline technical information phone numbers (Tech Lines) are included on this label (see Appendix 4). The carburetor calibrations for the kits No. K8605 and No. K8606 are shown in Appendix 5. Facsimilies of the identification labels are shown in Appendix 6.

V. DEVICE EVALUATION

The applicant performed comparative cold-start CVS-75 exhaust emission tests at Import Certification Laboratories in Anaheim, California. A 1984 Mazda B2000 pick-up truck with a 2.0 liter engine and a 5-speed manual transmission was used as the test vehicle. The 1984 model-year vehicle was used for testing since vehicles of 1984 model-year were required to meet more stringent emission standards than vehicles of the previous model-years. It would be expected that vehicles of previous model-years would have the same degree of performance/emissions impact as the vehicle tested when using the same Redline Kit.

The results of the submitted data are shown in Table 1.

Table 1

<u>Condition</u>	Exhaust Emissions gm/mi*			<u>Fuel Economy City mi/gal</u>
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	
Baseline	0.30	3.36	0.80	20.9
Redline Kit	0.24	3.44	0.60	20.2

\*Average of three tests in each condition.

Confirmatory testing was performed at the Haagen-Smit Laboratory, on the same vehicle and the results of these tests are shown in Table 2.

Table 2

<u>Condition</u>	Exhaust Emissions gm/mi*			<u>Fuel Economy City mi/gal</u>
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	
Baseline	0.34	3.2	0.78	21.8
Redline Kit	0.35	3.2	0.68	20.1

\*Average of two tests in each configuration.

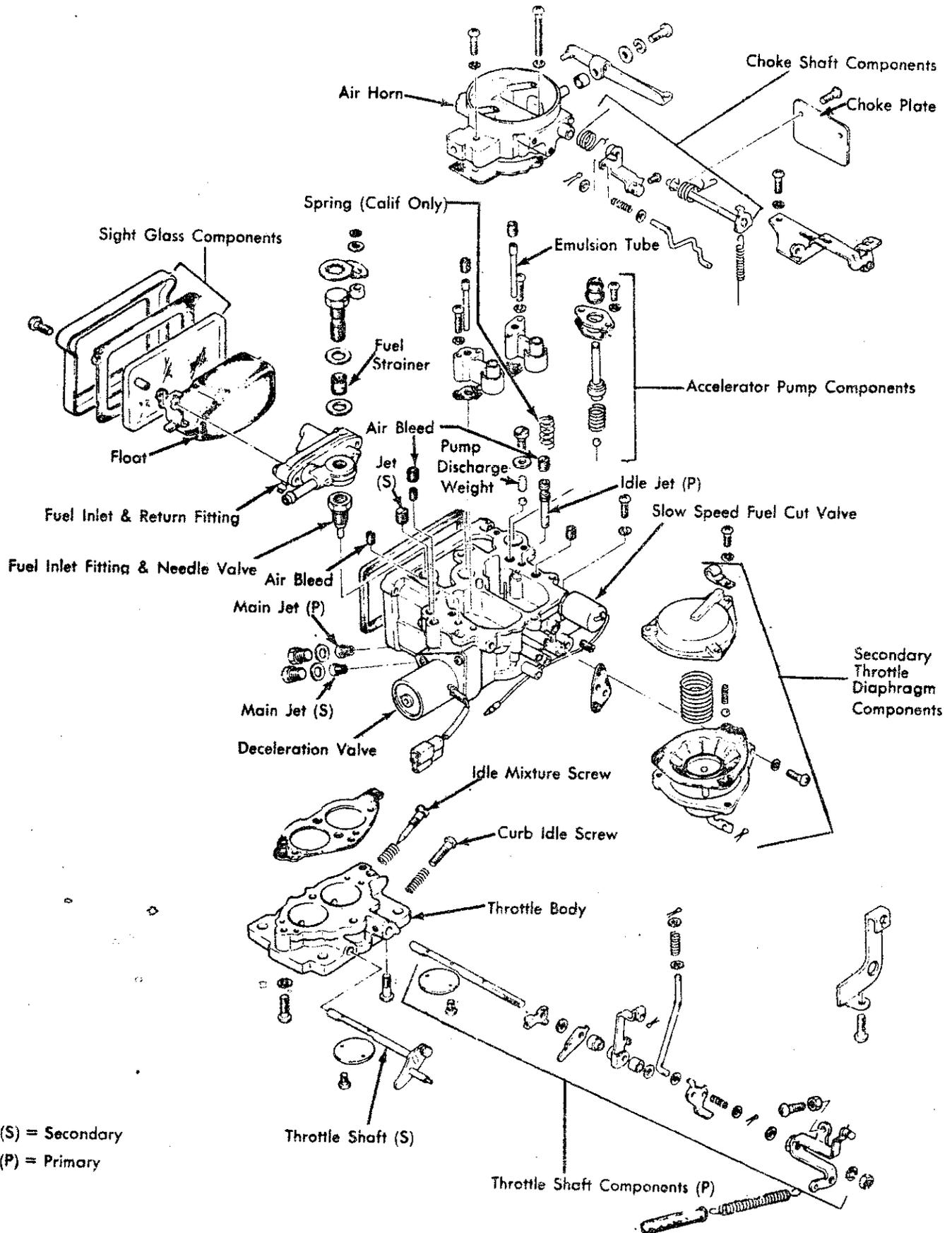
## VI. DISCUSSION

The results of the emission testing show no increase in NOx emissions. The HC/CO emissions remain unchanged since the differences between the baseline and device tests are considered to be within the limits of test variability as determined by the Haagen-Smit Laboratory.

This demonstrates that the installation of the Redline Kit. No. K8606 and the modifications to the original exhaust emission control system required for the installation will not have an adverse effect on emissions from the 1984 Mazda pick-up test vehicle which was selected to be representative of all the vehicles on this exemption application. Since Redline Kits No. K8605 and No. K8606 are similar in design, it would be expected that the conversion kit No. K8605 would achieve the same level of emission control when installed on the same type of vehicles to replace OEM carburetors of similar designs.

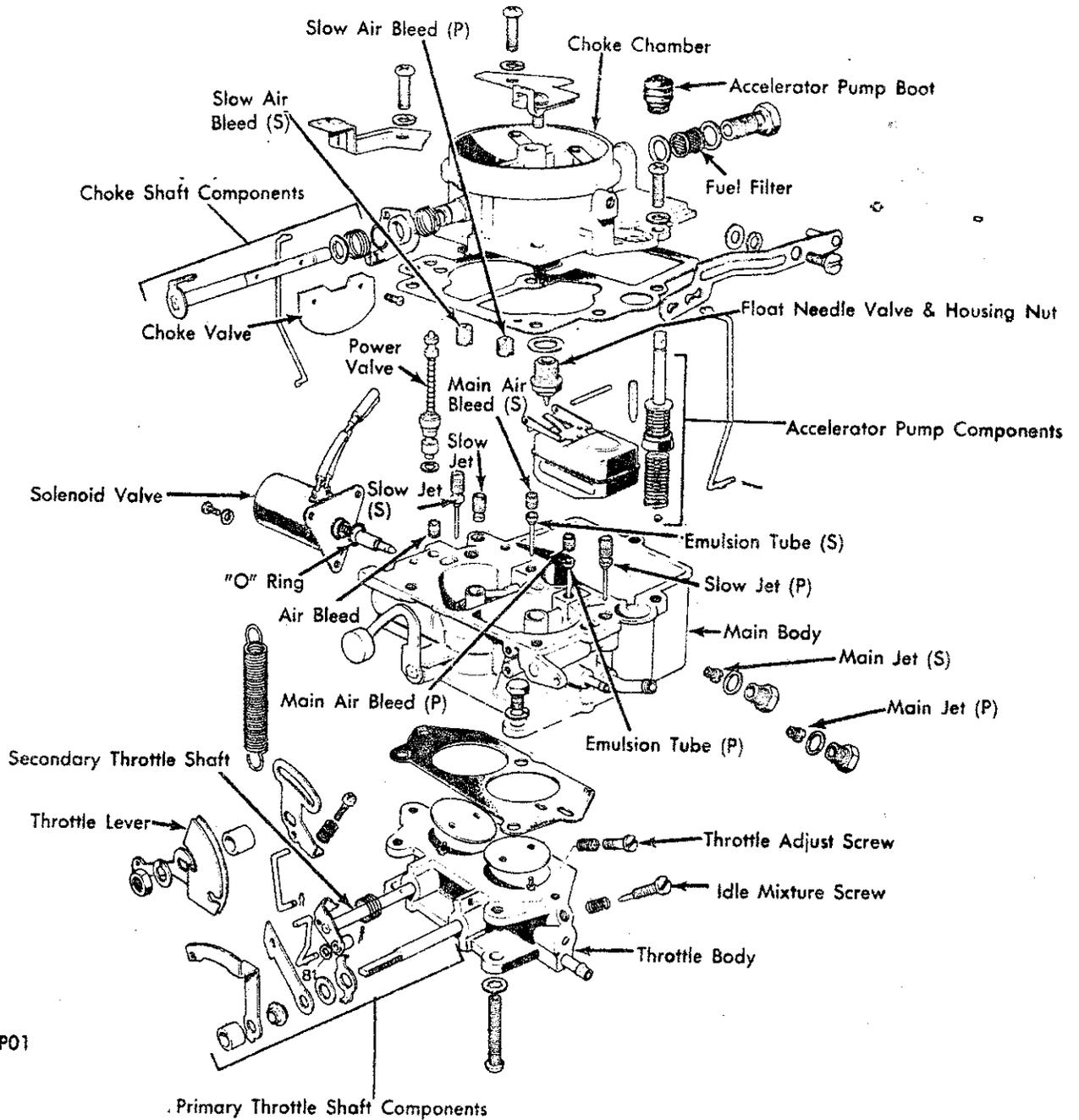
Redline has submitted all the required information and fulfilled the requirements for an exemption.

ZENITH-STROMBERG 2-BARREL (Cont.)



(S) = Secondary  
(P) = Primary

ZENITH - STROMBERG 2-BARREL (Cont.)

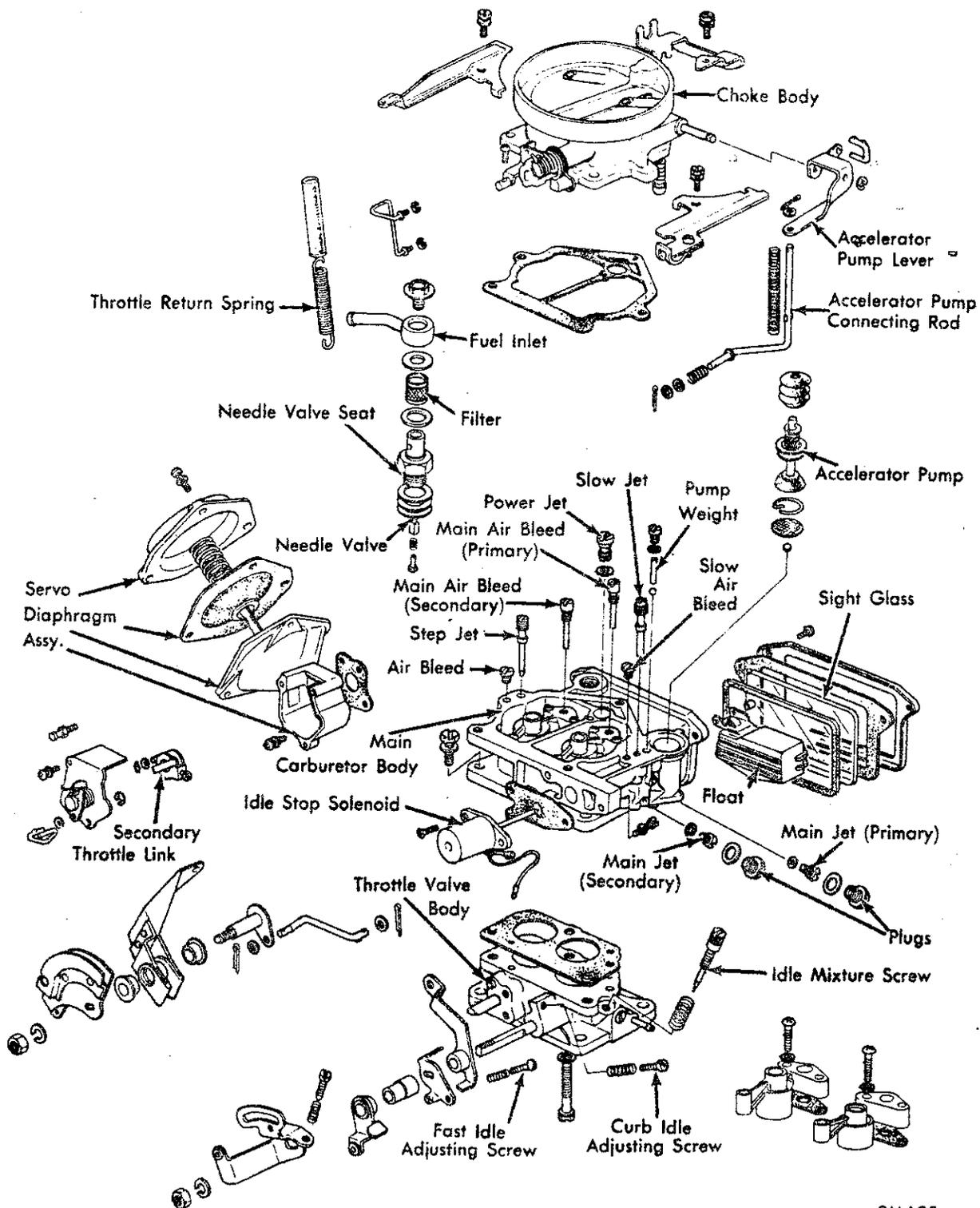


1MAP01

(S) = Secondary System  
(P) = Primary System

MAZDA CARBURETOR EXPLODED VIEW

NIKKI (STROMBERG) 215282-231 2-BARREL (Cont.)

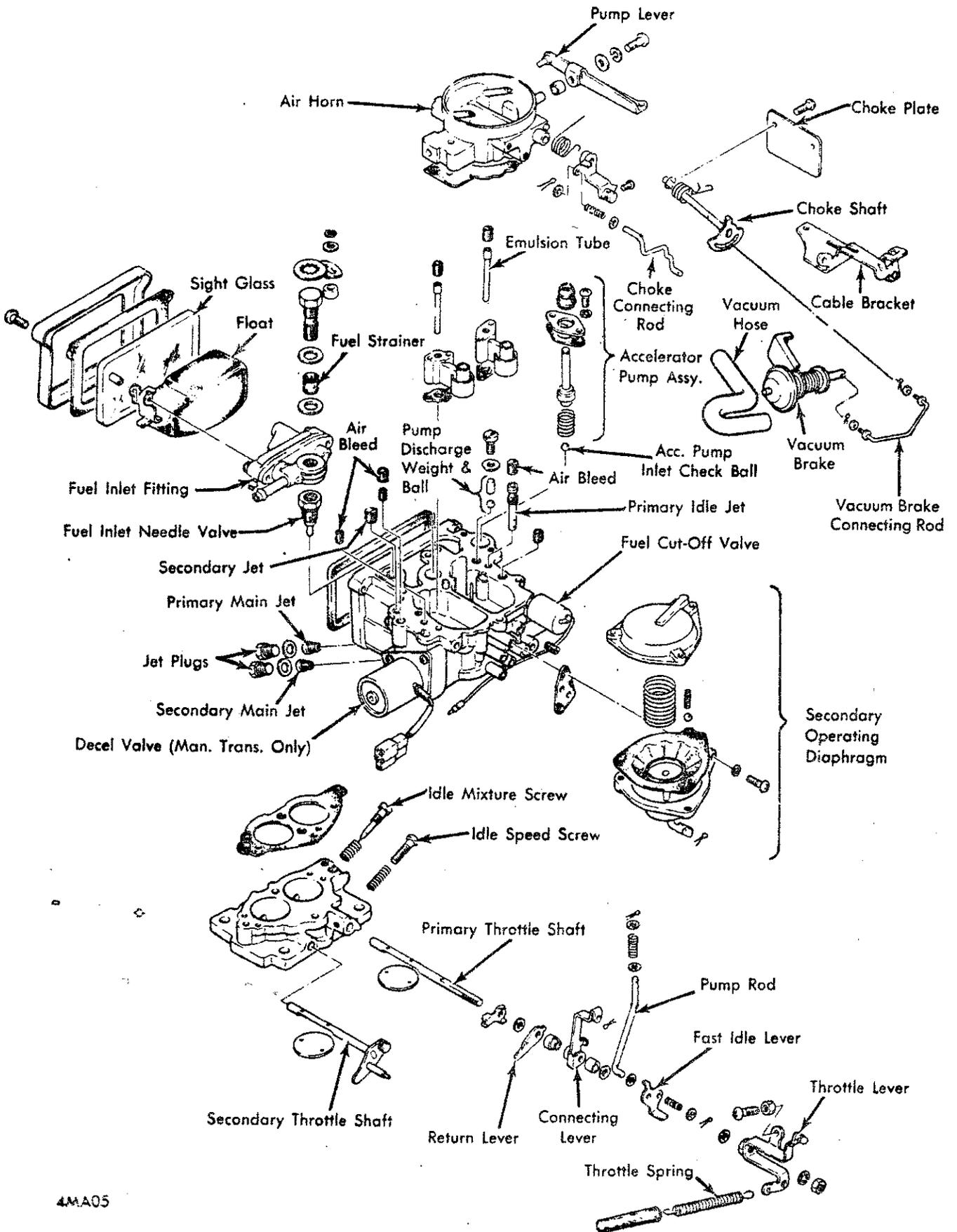


3MA05

NIKKI (STROMBERG)  
(TYPICAL)

# 1976 Nikki Carburetors

## NIKKI (STROMBERG) 2-BARREL (Cont.)



4MA05

# 1981 Nikki Carburetors

## NIKKI 2-BARREL - MAZDA B2000 (Cont.)

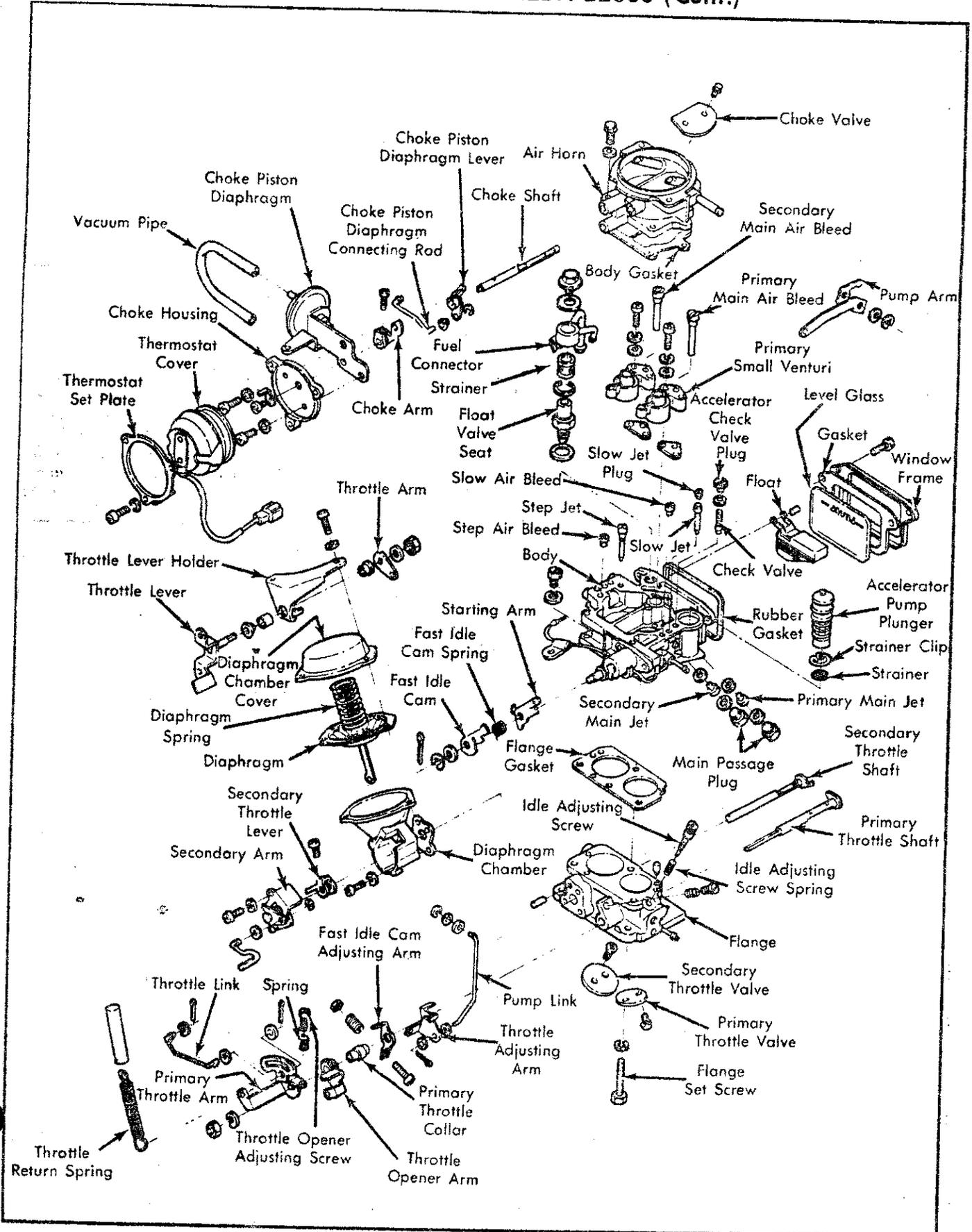


Fig. 9 Exploded View of Nikki 2-Bbl. Carburetor

# 1981 Hitachi Carburetors

## HITACHI DCS 328 2-BARREL (Cont.)

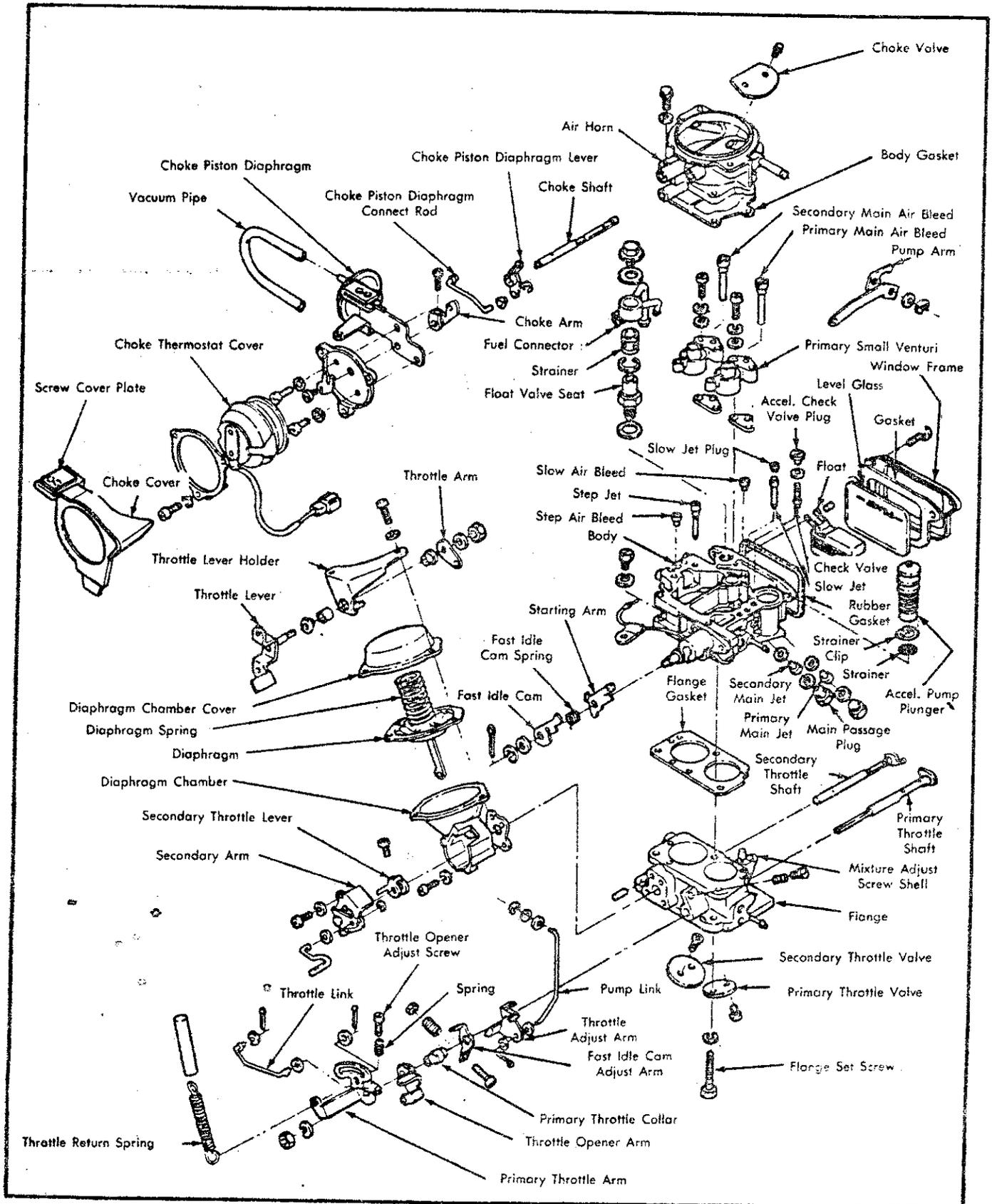


Fig. 8 Exploded View of Hitachi DCS 328 2-Barrel Carburetor (Ford Courier 2000)



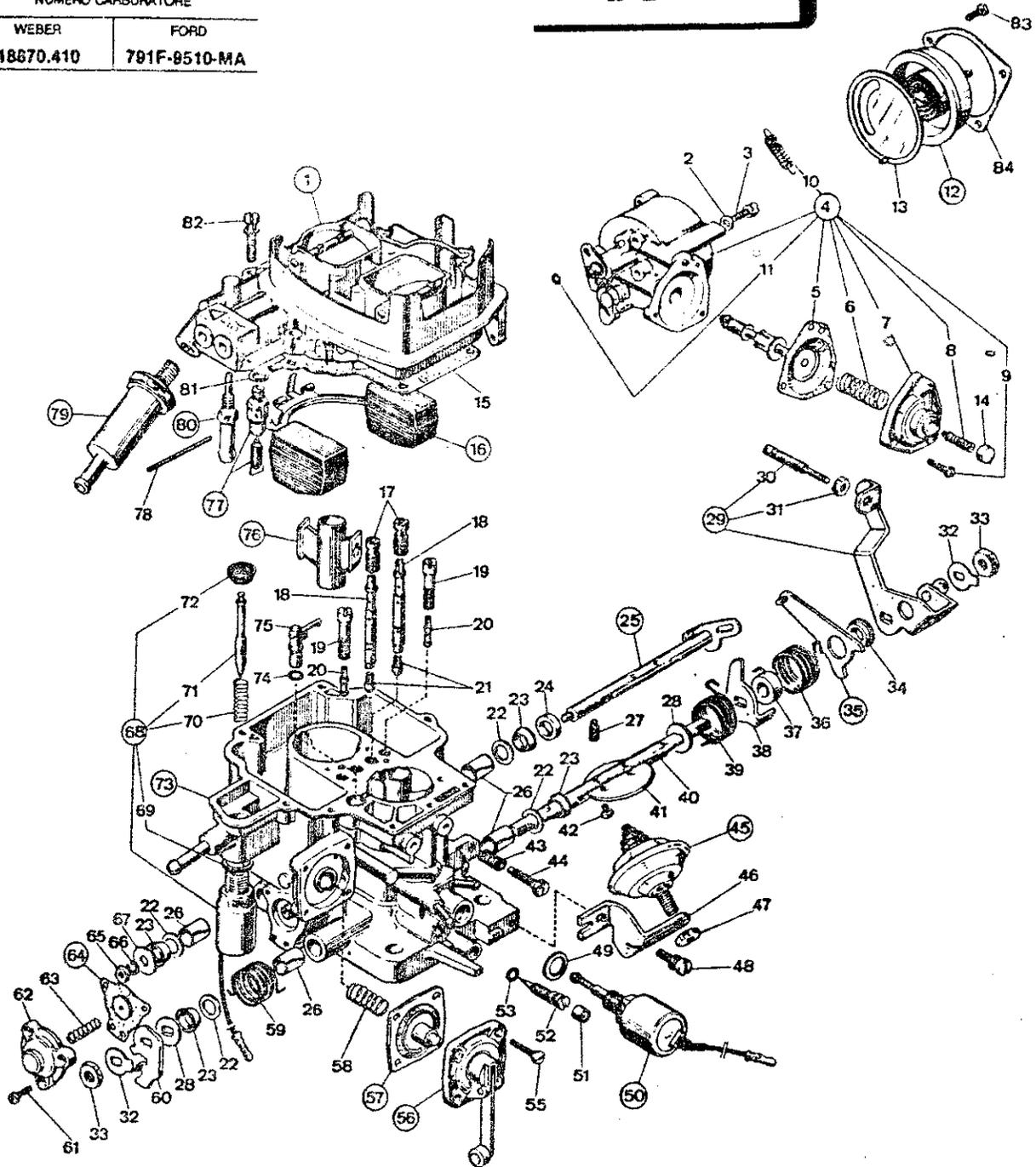
NUMERO CARBURATORE

WEBER

FORD

18670.410

791F-9510-MA

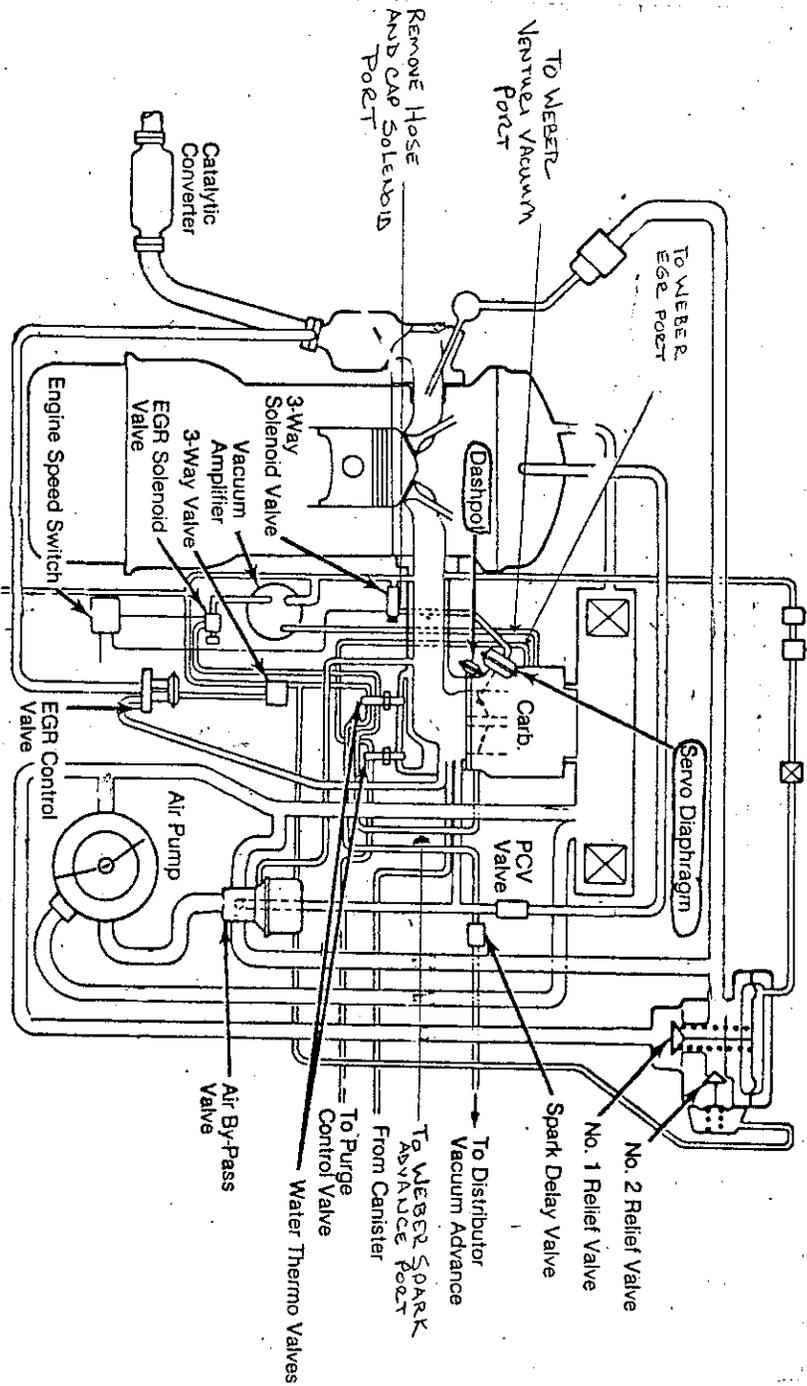


Nelle ordinazioni indicare: numero di matricola del particolare richiesto, la eventuale taratura e il numero e tipo di carburatore.

Fig.	Q.	DENOMINAZIONE	Numero di ordinazione	Fig.	Q.	DENOMINAZIONE	Numero di ordinazione
1	1	Coperchio carburatore	31716.737	19	2	Porta getto del minimo	52570.004
2	3	Rosetta per scatola avviamento automatico	55510.107	20	1	Getto del minimo primario	74403.080 *
3	3	Vite fissaggio dispositivo avviamento	64700.004	20	1	Getto del minimo secondario	74403.080 *
4	1	Dispositivo avviamento completo di:	57604.305	21	1	Getto principale primario	73406.107 *
5	1	— Membrana	47407.159	21	1	Getto principale secondario	73405.100 *
6	1	— Molla per membrana	47600.225	22	4	Rosetta ferma piastrina	56510.087
7	1	— Coperchio per membrana	22384.041	23	4	Guarnizione tenuta alberini	41575.010
8	1	— Vite registro membrana	64595.022	24	1	Boccola ritegno guarnizione	12750.055
9	3	— Vite fissaggio coperchio membrana	64560.004	25	1	Alberino principale secondario	10015.255
10	1	— Molla avviamento	47805.042	26	4	Piastrina supporto alberini	52130.010
11	1	— Guarnizione per dispositivo avviamento autom.	41565.008	27	1	Vite registro farfalla secondaria	64565.013
12	1	Scatola con spirale termostatica	57604.333	28	2	Rosetta di rasamento alberino primario	55520.019
13	1	Guarnizione tenuta calore	41640.055	29	1	Leva comando farfalla completa di:	45041.195
14	1	Tappo per coperchio membrana	61075.011	30	1	— Vite registro minimo veloce	64565.025
15	1	Guarnizione per coperchio carburatore	41705.057	31	1	— Dado per vite di registro	54715.016
18	1	Galleggiante	41090.012	32	2	Rosetta di sicurezza	55520.002
17	1	Getto aria di freno primario	77501.195 *	33	2	Dado fissaggio alberino primario	54715.014
17	1	Getto aria di freno secondario	77501.250 *	34	1	Boccola per leva allentata	12775.053
18	1	Tubetto emulsionatore eduzionale					

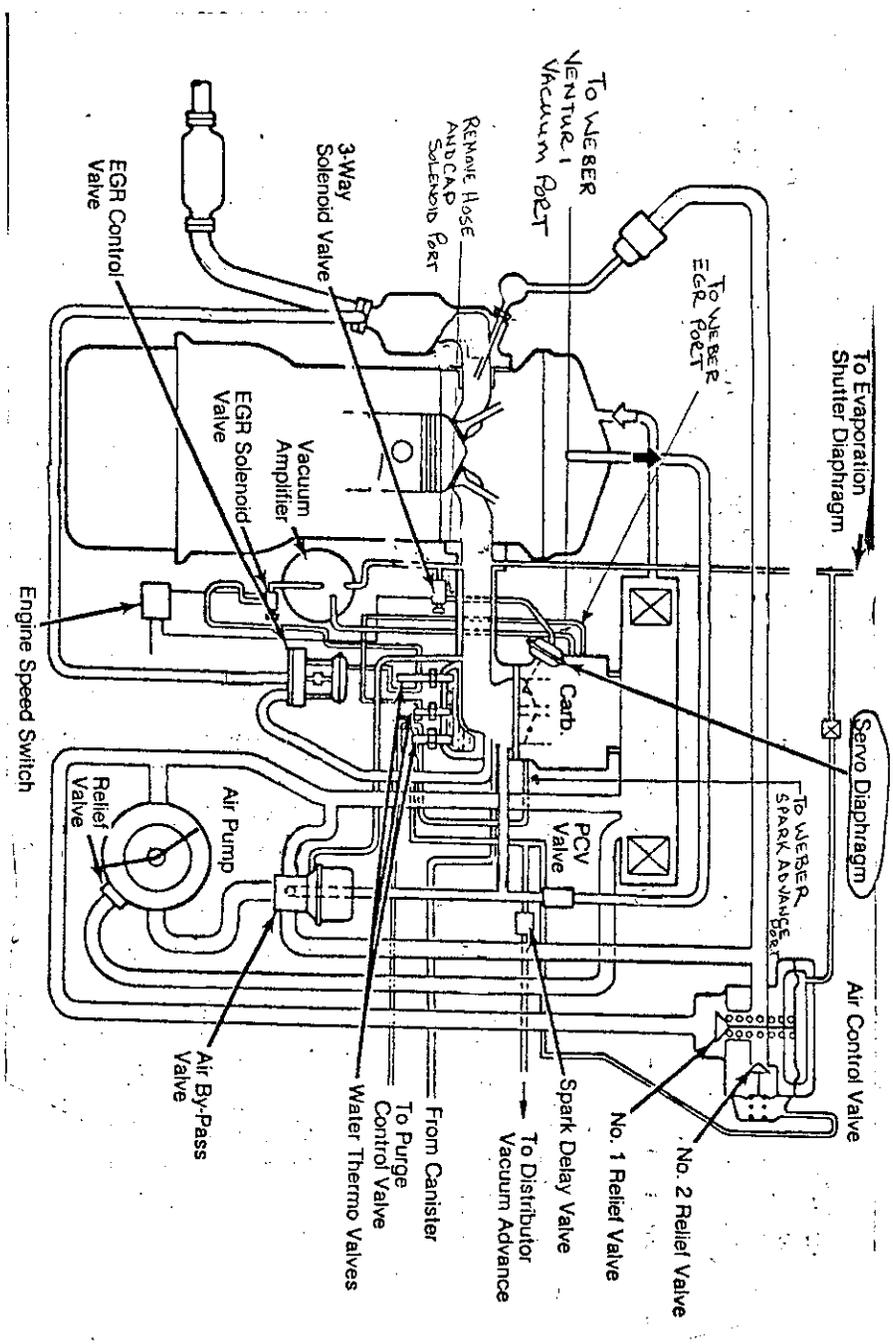
83-84 MAZDA B2000  
2.0 LITRE MT (CAL.)

ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED



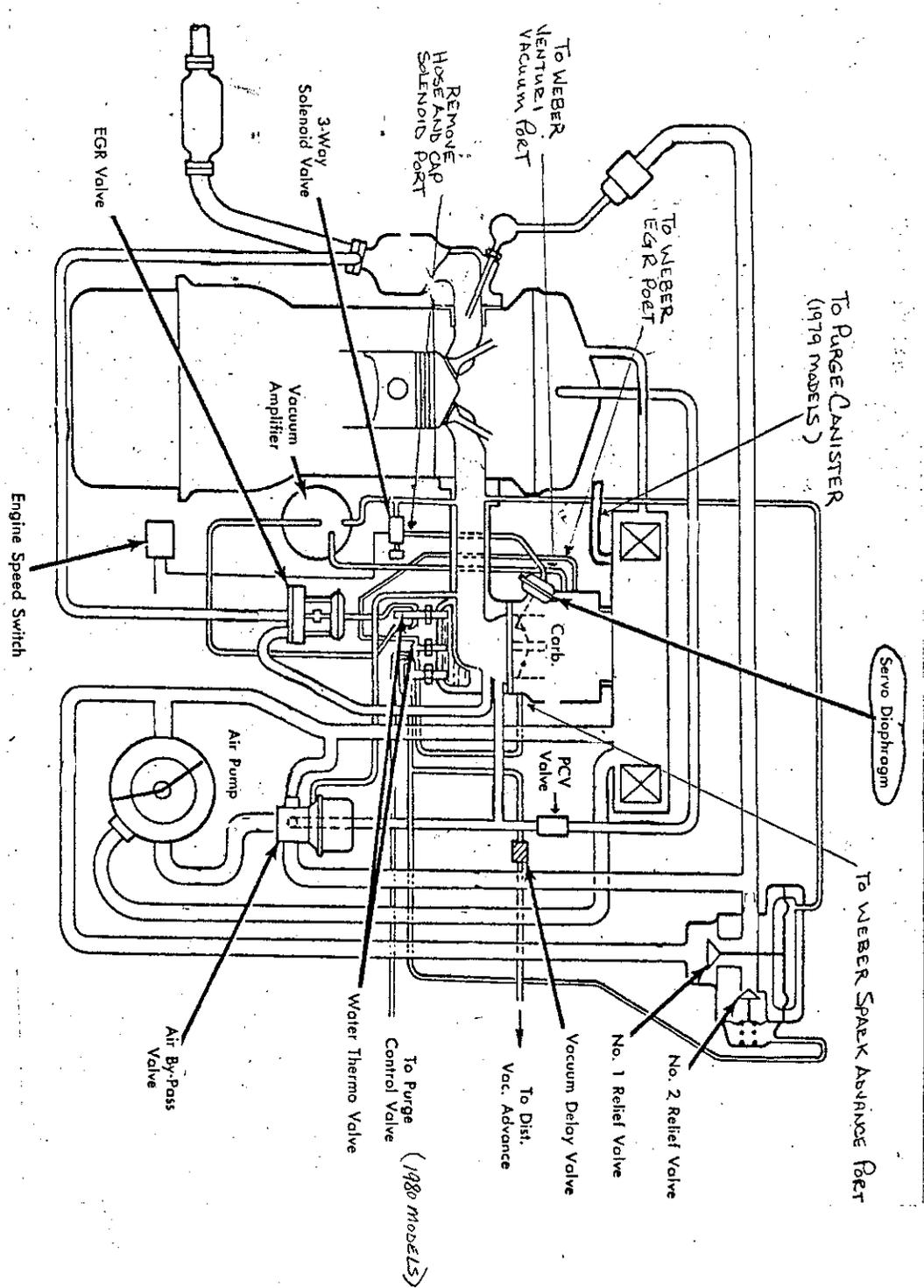
81-82 MAZDA B2000  
2.0 LITRE (CAL.)

ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED



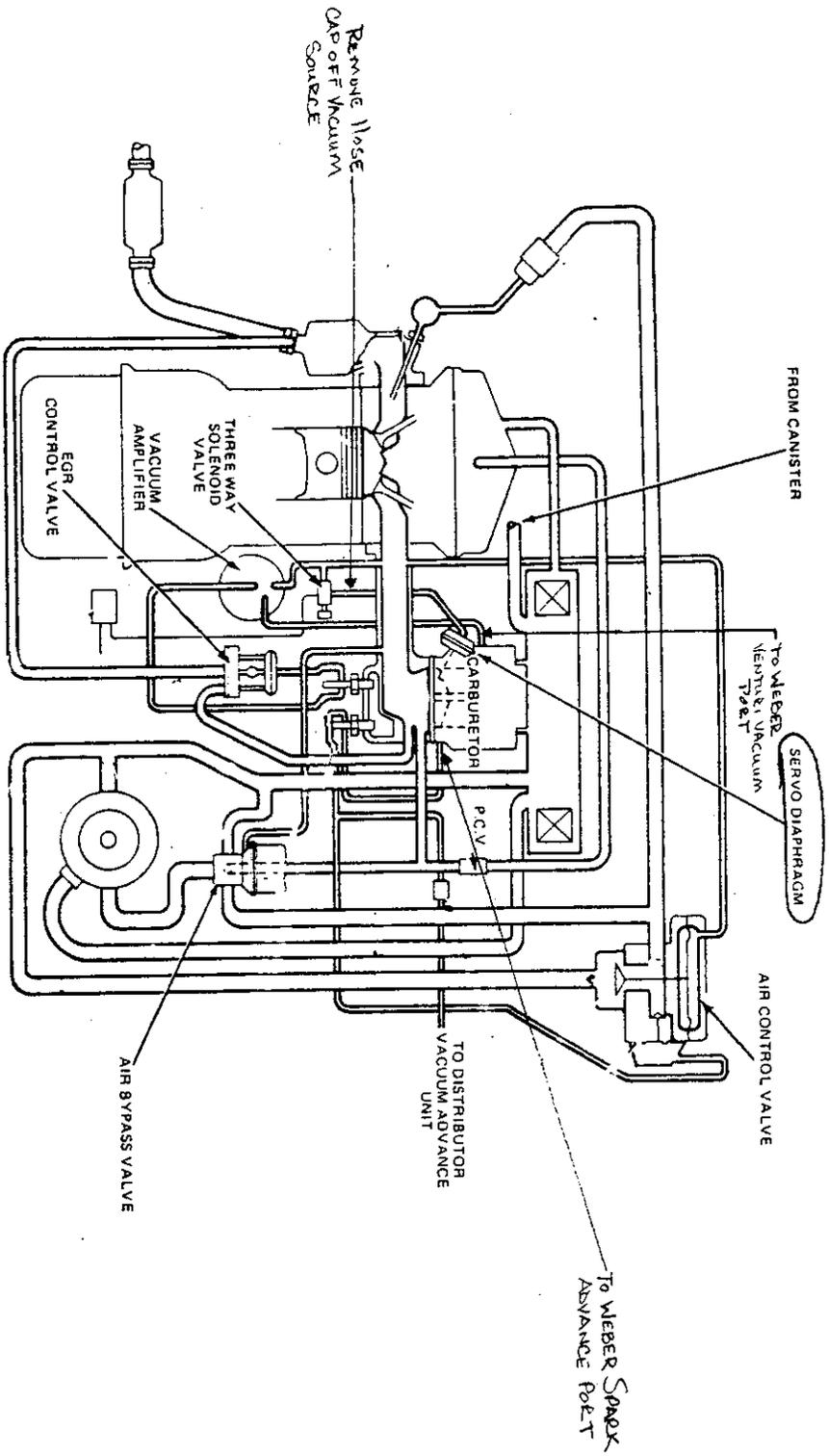
71-80 INJECTION PUMP  
2.0 LITRE (GAL.)

ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED



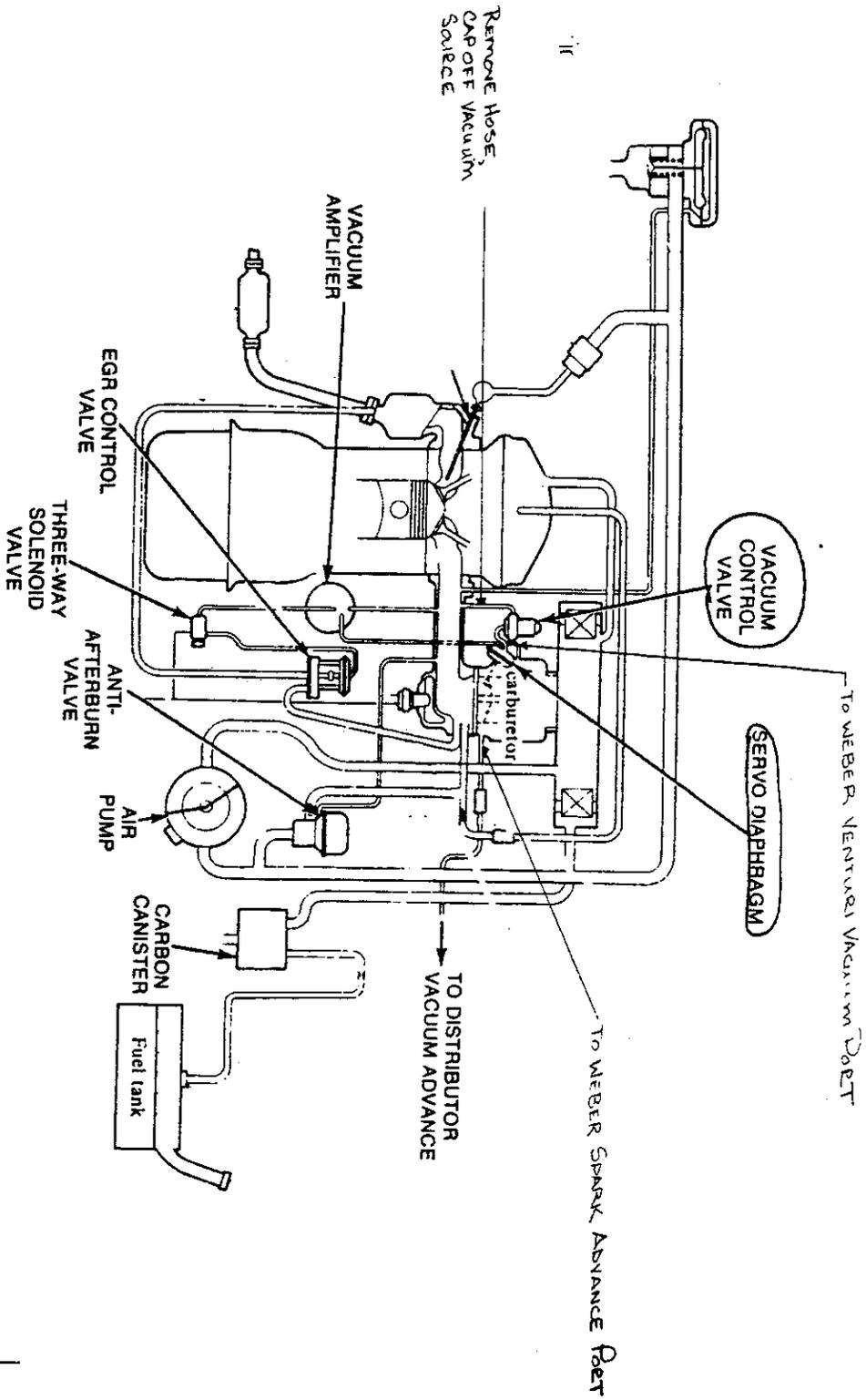
79-80 Courier  
2.0 LITRE (CAL.)

ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED



77-78 COURIER  
1.8 LITRE (CAL.)

ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED



5/13/86

THIS VEHICLE IS EQUIPPED WITH A REDLINE/WEBER CARBURETOR CONVERSION KIT. (See carburetor identification tag for kit number) PLEASE REFER TO THE APPROPRIATE VACUUM DIAGRAM SUPPLIED WITH THE KIT FOR PROPER VACUUM HOSE ROUTING. IF NEEDED, COPIES OF THE APPLICABLE VACUUM MAP ARE AVAILABLE THROUGH REDLINE, INC.

TECH LINES

California 1-800 932-3722  
U.S. 1-800 932-3787

A-5

K 8605

Stage of Development 1Date: 4-27-84Prototype # 1006Location of # DASHROT BOSSCarburetor Model 32/34 DFT 9APart # 1006 PROTO # Base Unit #  
22670.045

Application:

Model COURIER Year 72-78 Month MFG mod yearEngine Size 1.8 L Air Cond. - Y Transmission:  MT AT

Calibrated parts	Adjustments	Value
Main venturi <u>24/25</u>	Float levelling:	
Auxiliary venturi <u>40/40</u>	with gasket (brass)	mm
Main jet <u>110/110</u>	with gasket (plastic)	<u>7</u> mm
Air corrector jet <u>155/160</u>	without gasket (brass)	mm
Emulsion tube <u>F21/F30</u>	without gasket (plastic)	mm
Full power fuel bush <u>1.00</u>	from face to carburetor bowl	mm
Full power air bush <u>N.A.</u>	Maximum float stroke	<u>19</u> mm
Power valve spring <u>47600 131</u> P.n.		
Fuel enrichment bush <u>NA</u>	Accelerating pump	
Air enrichment bush <u>NA</u>	10 complete pump strokes	
Mixture enrichment tube/hole <u>2.00</u>	delivery	cm <sup>3</sup>
Auxiliary venturi mixture enrichment bush	Pump Cam # Throttle opening pump	<u>14850.130</u>
<u>N.A.</u>	stroke adjustment	mm

		Value
idle jet	47/60	Main throttle plate adjustment
idle air bush	175/70	1st throttle opening at start of 2nd one
irreversibility hole	N.A.	7.2 mm
idle mixture adjusting hole/bush	1.20	Dash-pot
idle mixture bush	N.A.	Throttle opening at dash pot contact
Sonic idle air bush/hole	N.A.	N.A. mm
By-pass idle air hole		
By-pass idle mixture hole	N.A.	Manual starter
Spark Advance hole		Mechanical pull-down mm
Progression hole	T <sub>1</sub>	Fast idle mm
	T <sub>2</sub>	Pneumatic pull-down mm
	T <sub>3</sub>	Minimum pneumatic pull-down mm
	T <sub>4</sub>	Max pneumatic pull-down (half
	T <sub>5</sub>	choke) mm
		Starter rod complete P.n.
		Starter spring P.n.
Progression slot	N.A.	Automatic starter
Throttle plate angle	78°/78°	<del>THROTTLE</del> Starter plate clearance adjustment .60 mm
Needle valve	1.50	Mechanical pull-down 5
Fuel recycle hole	.50 (10525.032)	Fast idle on starter piston
		Fast idle
Pump jet	Free ball type .50	Fast idle cam timing (mm/step nr.)
Pump discharge	N.A.	Pull-down lever/modular clear. mm
Inlet valve w/discharge pump	.45	Minimum pneumatic pull-down 5 mm
Pneumatic pump jet	N.A.	Maximum pneumatic pull-down mm
Pneumatic pump discharge	N.A.	Fixed index mark 1 <sup>ST</sup> MARK RICH
Mechanical pump diaphragm	47407.050 P.n.	Moving index adjustment

alibrated Parts, Con't.

Adjustments, Con't.

		Value	
Starter jet		Bimetal assembly 57804 416	P.n.
Starter air jet		Pull-down diaphragm spring	P.n.
Gasket kit	P.n.	Starter spring	P.n.
Tune up kit	P.n.	Starter spring	P.n.
Master repair kit	P.n.		

ADDITIONAL NOTES

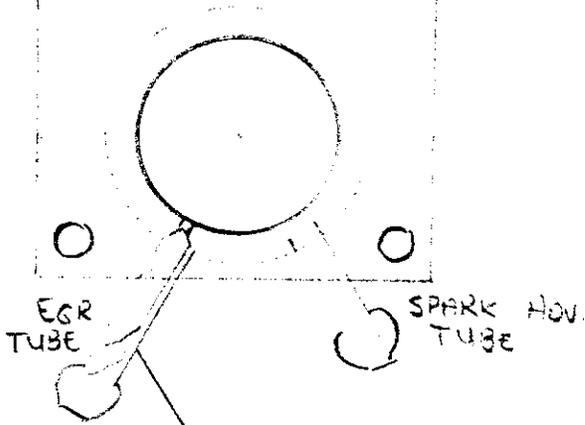
~~SEE NOTES ON PROTO SHEET 1003 FOR EGR PORT PLACEMENT~~

SEE NOTES ON CARB 1005 FOR EGR PORT PLACEMENT

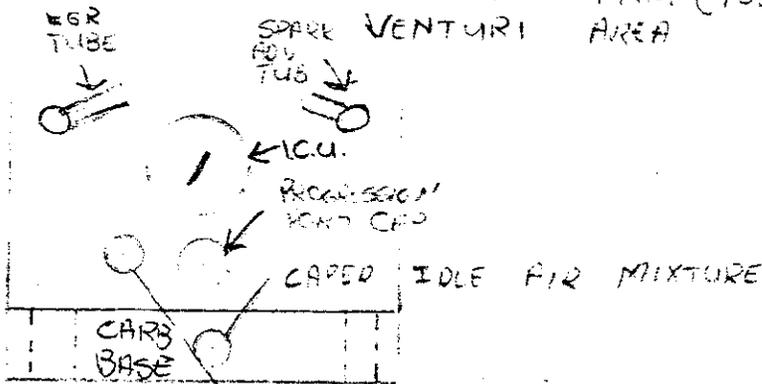
# DFT MODIFICATIONS COURIER ~~ALL~~ MODELS

108-2.3

LOOKING DOWN ON  
CARB TOP



USE THIS TUBE AS DRILL GUIDE FOR #30 DRILL  
DRILL UP TO .050 BEFORE BREAKING THROUGH  
AND USE THE SAME CENTER AS GUIDE  
FOR A 1MM (.039) DRILL AND DRILL THROUGH INTO  
VENTURI AREA IN CARB



THIS CAP MUST BE DRILLED OUT USING #2  
DRILL

THIS HOLE MESSAGE MUST BE PLUGGED TO  
MAKE ORIGINAL EGR PORT IN-OPERATIVE  
A LEAD BAR .230 POUND X .675 LONG  
IS SUGGESTED

79 2.3

- STOCK STUDS OK
- 5/16 BLUE IN.
- STOCK DFT FUEL LET.
- MUST USE 2MM WASHER ON DFT TO USE STOCK <sup>THROTTLE</sup> LEVER
- AUX. SPRING TAB
- 2 HOSE CLAMPS
- 5MM WASHERS & 5MM NYLOCK NUT
- CARB # (503) EGR PORT PLUGGED ON BOT AND DRILLED THROUGH ON TOP 1MM
- REMOVE RESERVE & MOUNT
- REMOVE STOCK THROTTLE LEVER AND  
M/C UNIT UPSIDE DOWN ON WEBER

K8606

(6)

Stage of Development 1Date: 4-26-84Prototype # 1003Location of # Dashpot BossCarburetor Model 32-34 DFTPart # PROTO # 1003 (made from 22670 045)Application: Model COURIER Year 79/80 Month \_\_\_\_\_Engine Size 2.0 Air Cond. - Y  NTransmission:  MT AT

Calibrated parts	Adjustments	Value
Main venturi <u>24 / 25</u>	Float levelling:	
Auxiliary venturi <u>4.0 / 4.0</u>	with gasket (brass)	mm
Main jet <u>112 / 115</u>	with gasket (plastic)	<u>7</u> mm
Air corrector jet <u>155 / 160</u>	without gasket (brass)	mm
Emulsion tube <u>F21 / F30</u>	without gasket (plastic)	mm
Full power fuel bush <u>1.00</u>	from face to carburetor bowl	mm
Full power air bush <u>N.A.</u>	Maximum float stroke	<u>19</u> mm
Power valve spring <u>47600.131 P.n.</u>		
Fuel enrichment bush <u>N.A.</u>	Accelerating pump	
Air enrichment bush <u>N.A.</u>	10 complete pump strokes	
Mixture enrichment tube/hole <u>2.00</u>	X delivery	cm <sup>3</sup>
Auxiliary venturi mixture enrichment bush	PUMP CAM Throttle opening pump	<u>14850 130</u>
<u>N.A.</u>	stroke adjustment	mm

Calibrated Parts , Con't.

Adjustments, Con't.

K 8606

		Value
idle jet	55 / 60	Main throttle plate adjustment
idle air bush	175 / 70	1st throttle opening at start of 2nd one
irreversibility hole	NA	7.2 mm
idle mixture adjusting hole/bush	1.20mm	Dash-pot
idle mixture bush	NA	Throttle opening at dash pot contact
Sonic idle air bush/hole	NA	mm
By-pass idle air hole		
By-pass idle mixture hole	N.A.	Manual starter
Spark Advance hole	STD DET	Mechanical pull-down
Progression hole	T1	Fast idle
	T2	Pneumatic pull-down
	T3	Minimum pneumatic pull-down
	T4	Max pneumatic pull-down (half
	T5	choke)
		mm
		Starter rod complete
		P.n.
		Starter spring
		P.n.
Progression slot	NA	Automatic starter
Throttle plate angle	78° / 78°	Starter plate clearance adjustment
Needle valve	1.50 mm	mm
Fuel recycle hole	0.50 mm (STOCK FUEL REG)	Mechanical pull-down
		7
		Fast idle on starter piston
		Fast idle
Pump jet	(Free ball type) .50	Fast idle cam timing
		(mm/step nr.)
Pump discharge	NA	Pull-down lever/modular clear.
		mm
Inlet valve w/discharge pump	0.45°	Minimum pneumatic pull-down
		5 mm
Pneumatic pump jet	NA	Maximum pneumatic pull-down
		mm
Pneumatic pump discharge	NA	Fixed index mark
Mechanical pump diaphragm	47407.050 P.n.	Moving index adjustment

## Calibrated Parts, Con't.

## Adjustments, Con't.

			Value
Starter jet	N.A.	Bimetal assembly	53704 416 P.n.
Starter air jet	N.A.	Pull-down diaphragm spring	P.n.
Gasket kit	P.n.	Starter spring	P.n.
Tune up kit	P.n.	Starter spring	P.n.
Master repair kit	P.n.		

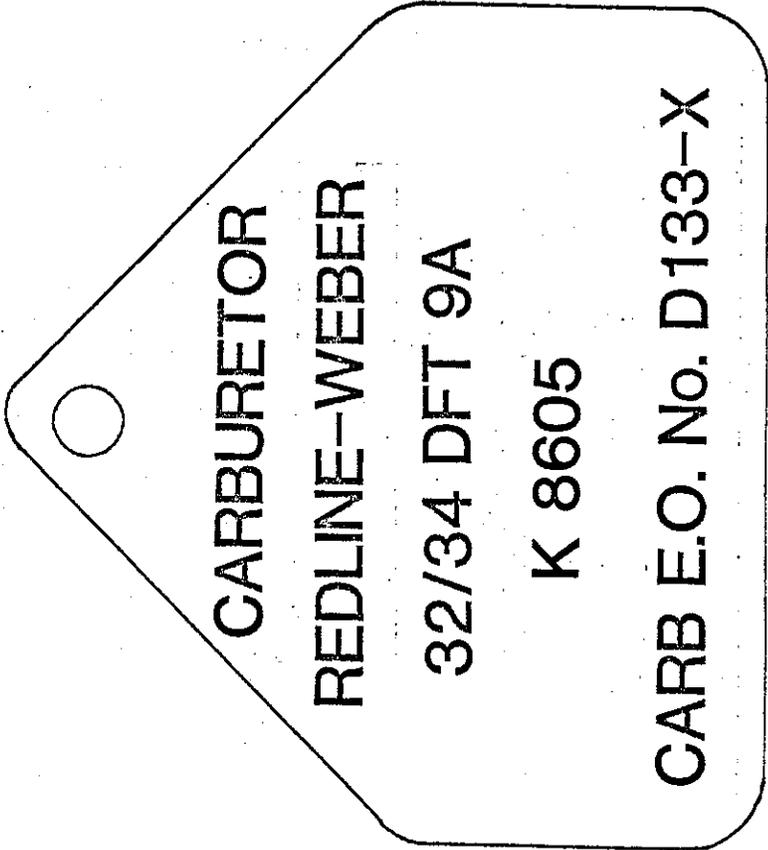
ADDITIONAL NOTES

## EGR PORT NOTES

STANDARD EGR PORT AS ON 32/34 DFT 9  
(1976 SPEC E.O.) IS LEFT IN TACT

AN ADDITIONAL EGR PORT IS ADDED AND IS  
TERMED AS "VENTURI VACUUM EGR" THIS  
PORT IS 1.785" FROM THE BASE OF THE  
CARBURETOR AND 1.0 mm IN DIAMETER. THE PORT  
IS DRILLED THROUGH TO THE PRIMARY VENTURI AND  
IS LOCATED DIRECTLY ABOVE THE VAC. ADVANCE  
PORT - WE USE THE 444-280-06 FITTING FOR  
VENTURI VACUUM.

BETTER REFERENCE IS THROTTLE PLATE PORT IS 1.211 FROM  
BOTTOM OF THROTTLE PLATE TO CTR. OF PORT WHILE PLATE IS  
IN CLOSED POSITION



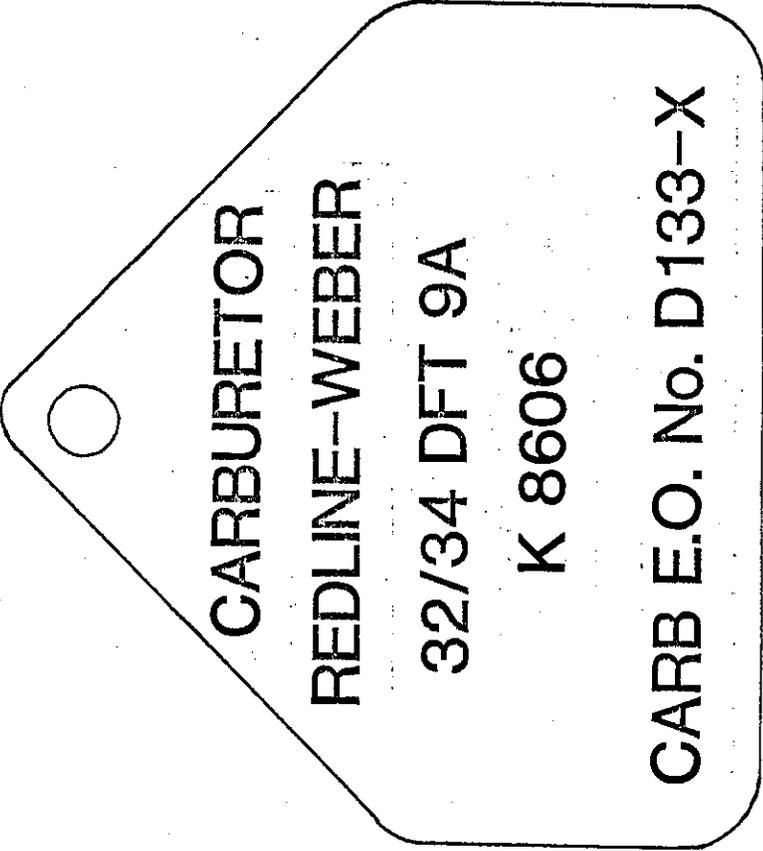
CARBURETOR

REDLINE-WEBER

32/34 DFT 9A

K 8605

CARB E.O. No. D133-X



**CARBURETOR**

**REDLINE-WEBER**

**32/34 DFT 9A**

**K 8606**

**CARB E.O. No. D133-X**

# INSTALLATION INSTRUCTIONS



READ & UNDERSTAND ALL STEPS OF THESE INSTRUCTIONS BEFORE BEGINNING THIS INSTALLATION. AFTER UNPACKING, EXAMINE THE CARBURETOR AND OTHER COMPONENTS FOR SHIPPING DAMAGE.

## FORD COURIER & MAZDA PICKUP 1972 TO 1980

*Kit Nos. K8605 and 52-50701 ('72-'78 Courier 1.8 and Mazda B1600, B1800)  
K8606 and 52-50703 ('79-'80 Courier, 2.0 and Mazda B2000)  
K8607 and 52-50704 ('77-'78 Courier, 2.3)  
K8608 and 52-50705 (;79-'80 Courier, 2.3)*

### TOOLS AND EQUIPMENT NEEDED

Combination, box or open-end wrenches  
(metric)  
Socket Set (metric)  
Screwdrivers (regular and Phillips)  
Pliers  
Wiping Rags  
Knife  
Gasket Scraper  
Cleaning Solvent  
Gasket Sealer

### PARTS SUPPLIED WITH INSTALLATION KIT:

1 - 32/34 DFT Weber Carb.  
1 - Air Filter Adaptor  
1 - Wire Assembly  
1 - Hardware Kit

### TUNE-UP SPECIFICATIONS

All tune-up specifications for the Weber Carburetor remain the same as those specified by the Factory for the original unit. Emissions tune-up should be carried out by a suitably qualified Dealer or Independent garage, using infrared gas analyzing equipment.

**NOTE:** Late model vehicles fitted with Emission Control Systems have many vacuum lines and electrical connections in their fuel systems. It is essential when dismantling, that disconnected lines be identified with a corresponding number tag or label system. To establish function, locate and identify the source of each line.

- NOTE -

For installation procedures for the Mazda B2000, refer to installation steps for Courier 2.0 liter vehicles.

This kit meets original equipment performance levels and is offered as a direct replacement.

## PREPARATION FOR KIT INSTALLATION.

After unpacking examine the carburetor and other kit components for shipping damage.

Before installing the kit the vehicle must be prepared as follows:

1. Remove the vehicle gas cap.
2. Raise the hood and disconnect the vehicle battery.
3. On vehicles with 2.0 liter and 2.3 ('79-'80 only) liter engines, remove two air filter mounting nuts (save the nuts for reinstallation of filter). Remove the air filter.
4. On vehicles with 1.6, 1.8 and '77-'78 2.3 liter engines, loosen the air filter clamp securing filter to carburetor and remove the air filter.
5. Remove the dashpot from the intake manifold. On vehicles with 2.3 liter engines, also remove the throttle return spring bracket.
6. If vehicle is equipped with "Coasting Richer" microswitch, unplug the wires from the microswitch on the manifold and remove switch from the bracket. This switch will NOT be used with the Weber carburetor.
7. Disconnect the fuel inlet and return lines from the carburetor.
8. Disconnect all lines and electrical wires from the stock carburetor. Use a corresponding number system to identify lines and wires during reinstallation. See figures 7 and 8 or the vacuum line map on inside of the hood for identification.
9. Disconnect throttle linkage and remove the throttle return spring.
10. Remove stock carburetor.
11. Remove the stock heat spacer and gasket.

12. Clean mounting face of intake manifold.

13. For 1.6 and 1.8 liter installations, remove throttle lever from stock carburetor and install it on the Weber as shown in figure 1-A. **NOTE:** On these vehicles, it is necessary to cut the tab that contacted the microswitch from the stock lever. If the vehicle has a 2.0 liter engine, install the throttle

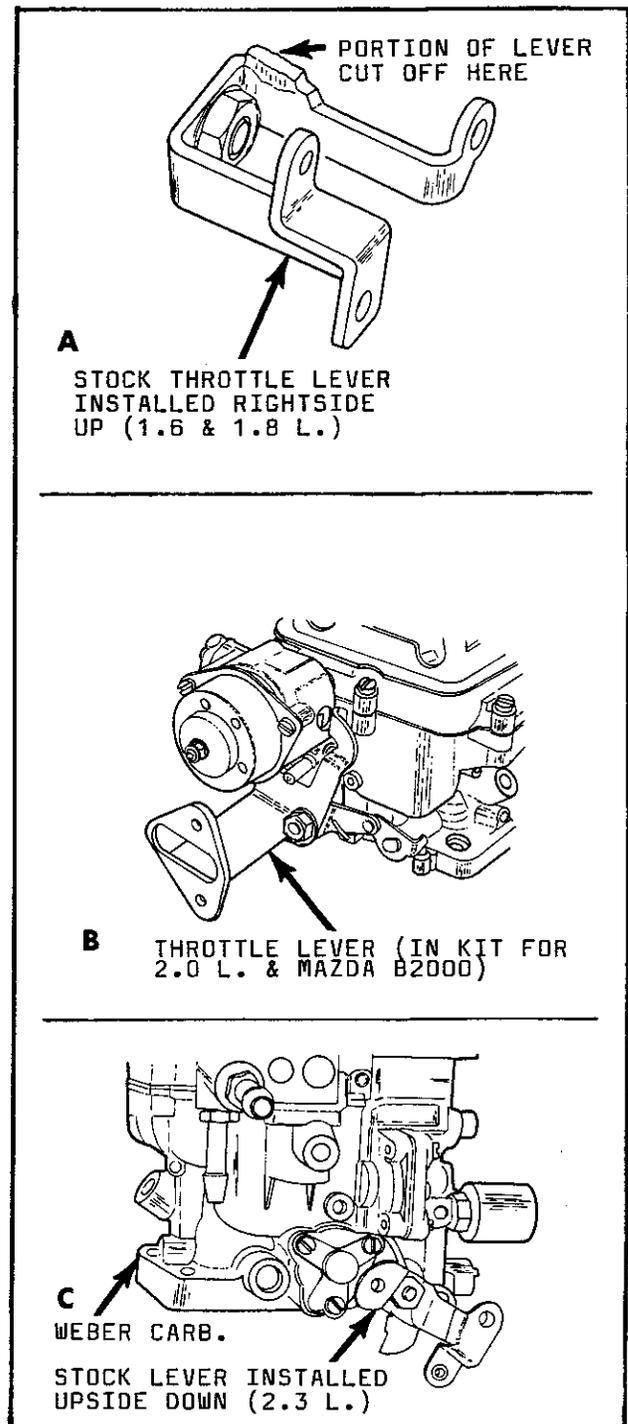


Figure 1

supplied in kit on the Weber carburetor as shown in figure 1-B. If the vehicle has a 2.3 liter engine, remove throttle lever from stock carburetor, turn it upside down and install on the Weber. See figure 1-C.

14. When installing the throttle lever on the Weber carburetor **DO NOT OVERTIGHTEN THE NUT**. Proper tightness can be achieved by installing the nut just slightly more than finger-tight. After tightening, open the choke by hand and check for full throttle operation from idle position to wide-open throttle. If any sticking or binding occurs, loosen the nut and retighten with reduced torque. If excessive torque has been applied, recentralization of the throttle plate may be necessary. Check operation as above again. When proper tightness of the nut and centralization of throttle plate have been achieved, secure nut with the lock tab.

**KIT INSTALLATION.**

15. Coat manifold gasket lightly with gasket sealer and install on the intake manifold. See figure 2.

16. Install heat spacer supplied in kit above the manifold gasket.

17. Coat the carburetor gasket lightly with gasket sealer and install above the heat spacer.

18. Install the Weber carburetor above the carburetor gasket (Fig. 2).

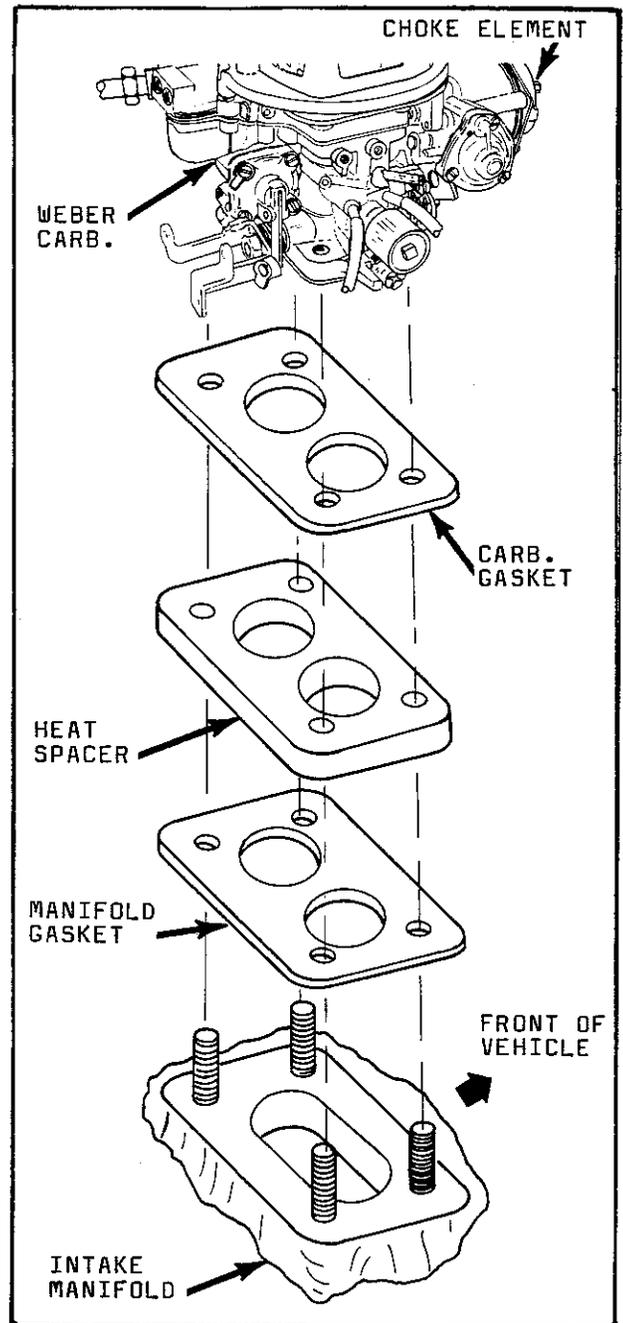
**NOTE:** On vehicles with 1.6, 1.8 or 2.3 liter engines install the carburetor with the choke element toward the **FRONT** of the vehicle. See figure 2.

On Couriers with 2.0 liter engines or the Mazda B2000 vehicles, install the carburetor with choke element toward the **REAR** of the vehicle.

Install carburetor washers and mounting nuts and tighten the nuts.

19. Install throttle linkage.

**NOTE:** On 1.6, 1.8 and 2.3 liter vehicles install the linkage with spacers supplied, as shown in figure 3. On 2.0 liter vehicles, no spacers are used and linkage connects directly to the throttle lever.



**Figure 2**

20. Connect throttle return spring.

**NOTE:** On 1.6, 1.8 & 2.0 liter engines, the spring is connected to the stock return spring bracket (Fig. 3). On 2.3 liter engines the return spring is connected to a bracket, supplied in kit, which is secured by a bolt near the left rear of the intake manifold as shown in figure 4.

21. Connect fuel supply and fuel return lines. See figure 4.

22. Install hoses removed in step 8 on the Weber carburetor. The spark advance line is connected to the lower fitting on the choke end of the carburetor as shown in figure 5. The other lower fitting is connected to the vacuum amplifier, which then connects to the EGR control valve. See figure 6 or 7. The third fitting shown in Figure 5 is the venturi vacuum fitting, which connects to the vacuum amplifier (Fig. 6 or 7).

23. Connect the wire assembly supplied in kit to choke element, idle cutoff solenoid, and to a 12V. source (same source as on the stock carburetor). Use two 5-mm washers and Nylock nut supplied to install wire on the choke element.

**CAUTION:** Make sure no hose or electrical wire insulation contacts the EGR valve. High temperature is present.

24. Install the air cleaner adaptor on the Weber carburetor. The adaptor is secured to the carburetor with two Allen bolts supplied in kit to replace original screws in the carburetor top.

25. Install stock air cleaner on the adaptor. On 1.6, 1.8 and '77-'78 2.3 liter installations the filter is secured with a wing nut and clamp. On 2.0 liter and 2.3 ('79-'80 only) liter installations, secure the filter with two bolts supplied in the kit.

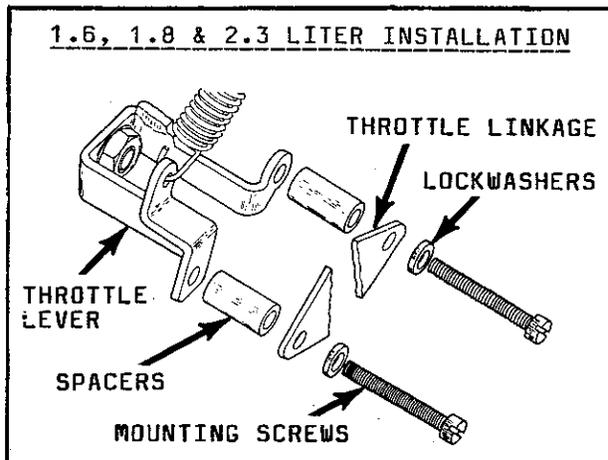


Figure 3

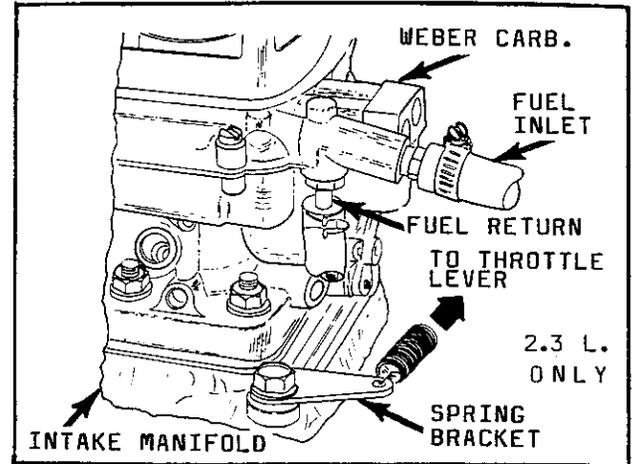


Figure 4

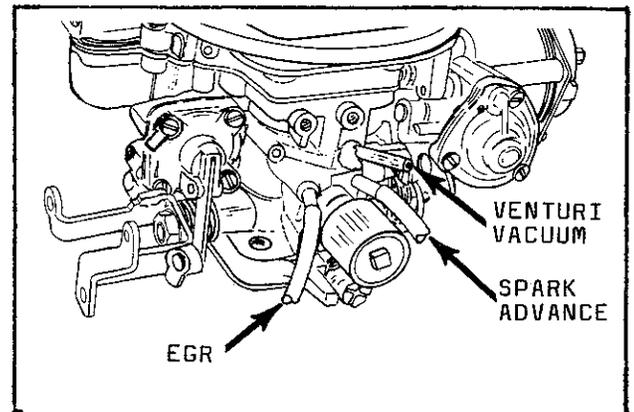


Figure 5

26. Reconnect the vehicle battery.

27. Before starting the engine, check for proper linkage operation and correct as necessary.

28. **START THE ENGINE.** After warmup check for air leaks around the carburetor mounting base and correct as necessary.

29. Check idle speed and adjust as necessary to Factory specifications. Idle mixture is preset at Weber factory. Refer to Tune-Up Specifications on page 1.

30. CHECK FOR ADEQUATE HOOD CLEARANCE BEFORE CLOSING THE HOOD.

NOTE: If difficulties arise during kit installation, **WEBER U.S.** will make every effort to provide needed assistance. Contact our technical liaison through your distributor for this assistance.

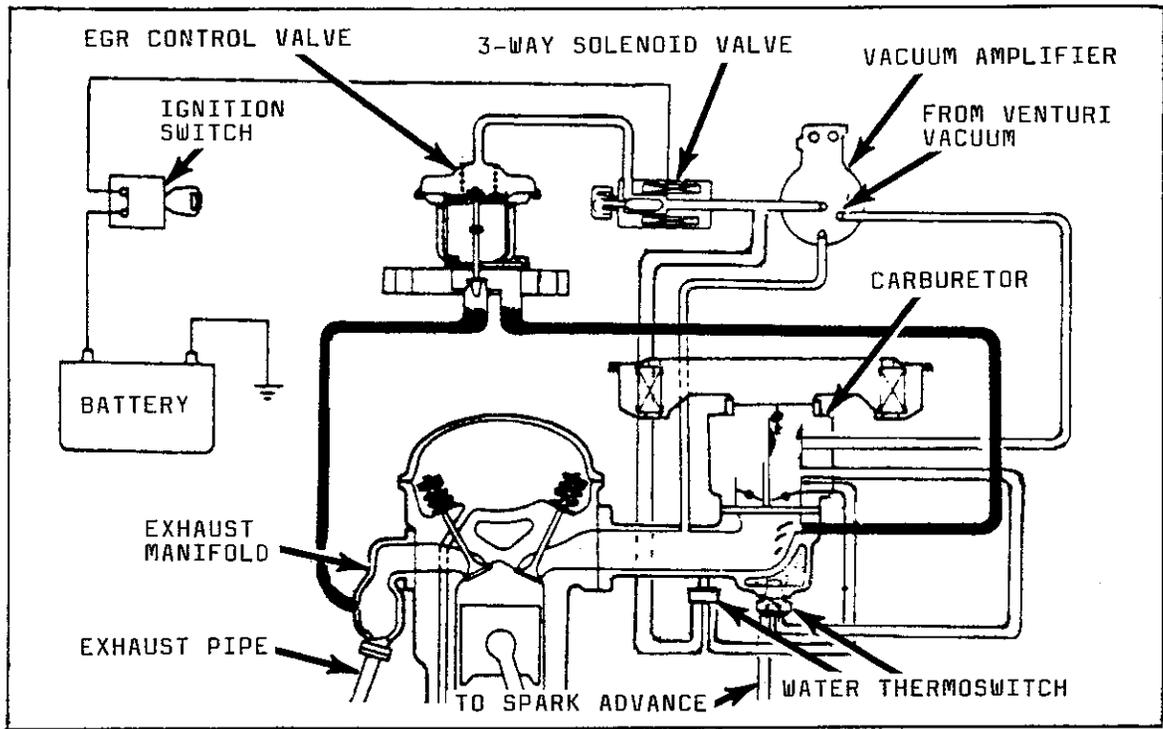


Figure 6. Emission Control System Schematic (2.0 L.)

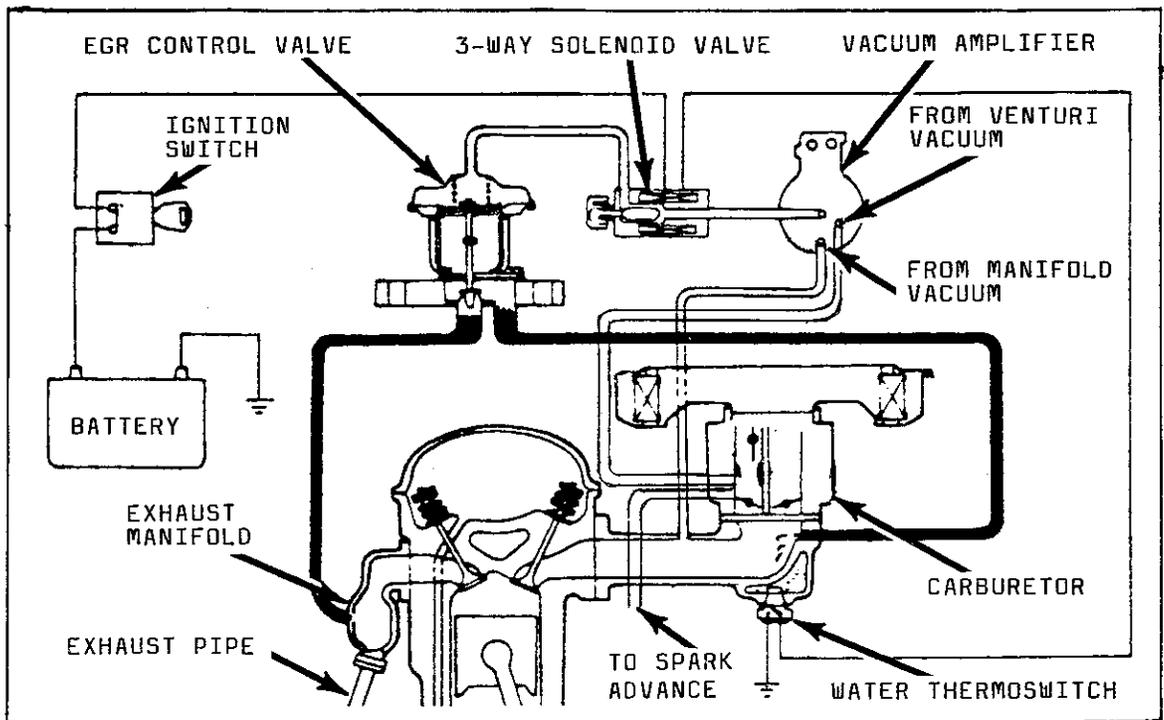


Figure 7. Emission Control System Schematic (1.8 & 2.3 L.)

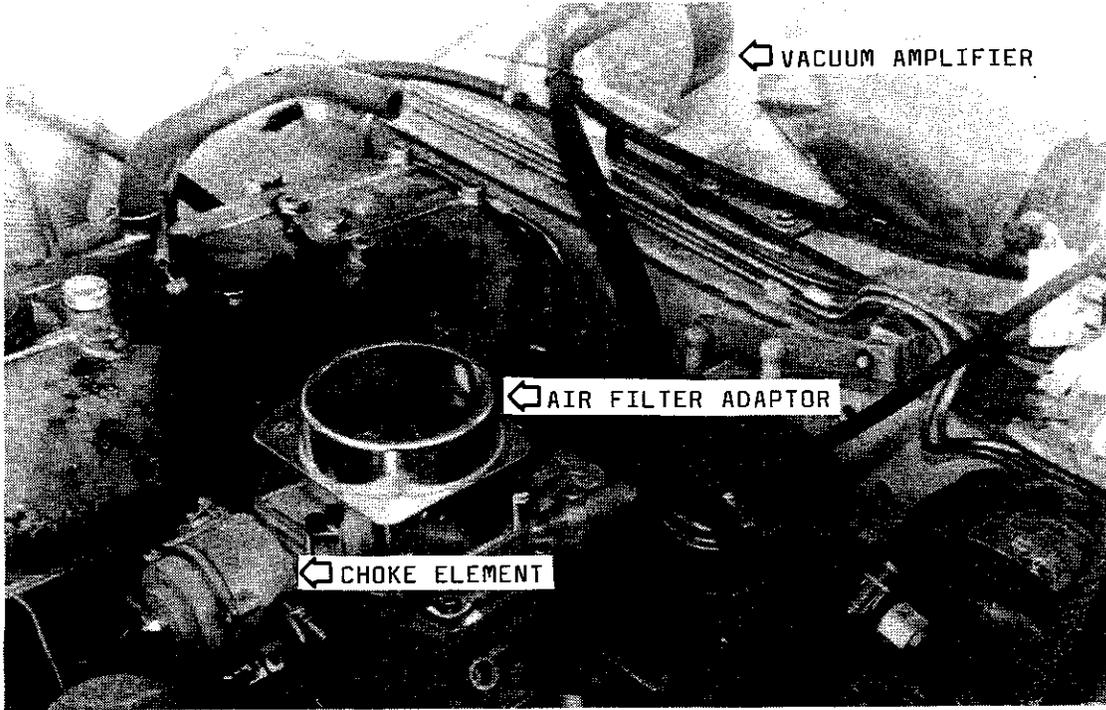


Figure 8. Typical Installation (1.8 L.)