

INSTRUCTION SHEET

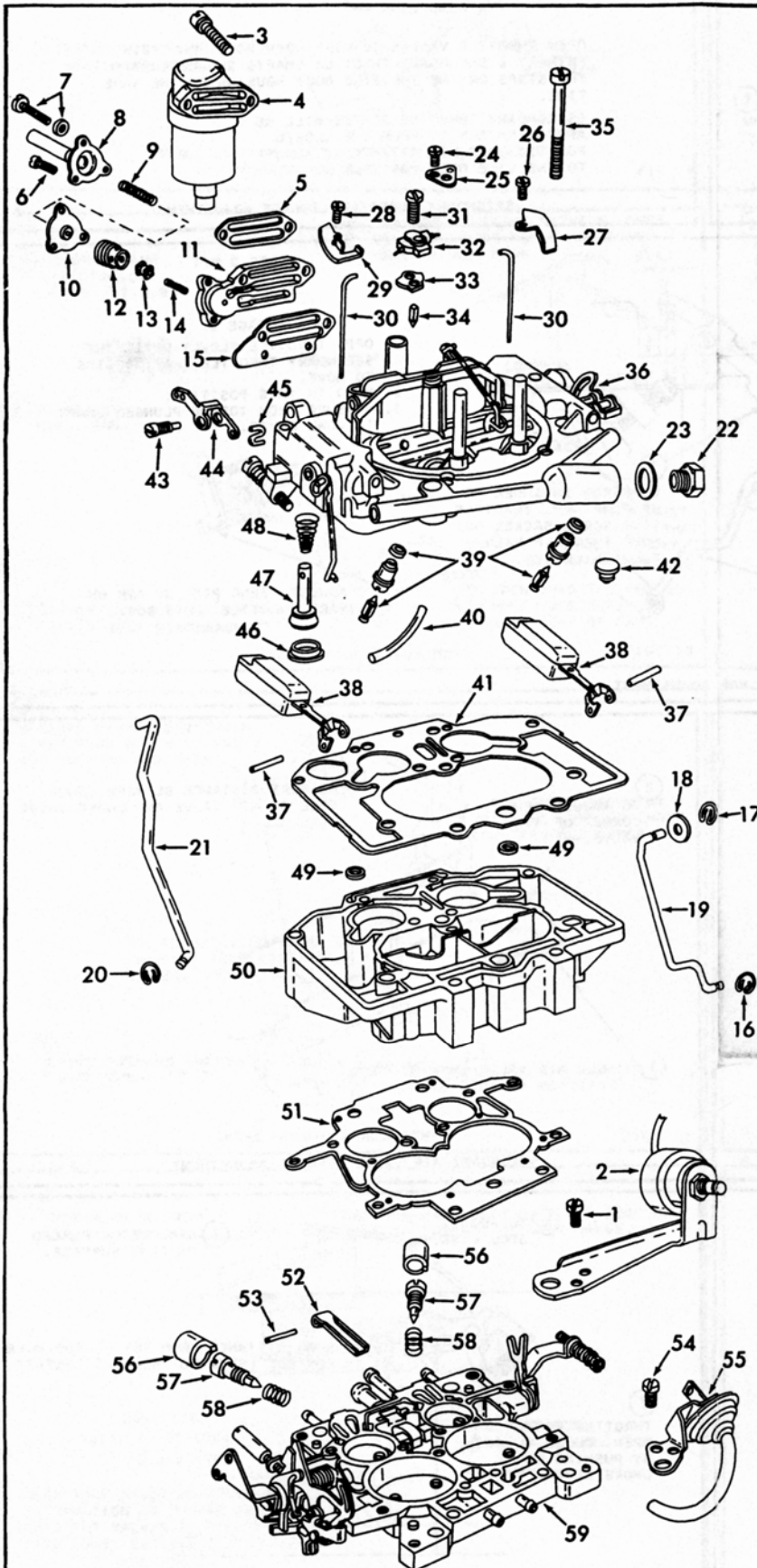
OFF VEHICLE CARBURETOR SERVICE

CARTER MODEL - THERMO-QUAD (TQ)

50-509-3

GENERAL EXPLODED VIEW

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



DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. NOTE: TWO BOWL COVER SCREWS (35) ARE LOCATED BETWEEN CHOKE VALVE AND WALL OF AIR HORN. WHEN REMOVING BOWL COVER CAREFULLY UNHOOK FAST IDLE ROD FROM FAST IDLE CAM. ROD WILL REMAIN HOOKED TO CHOKE SHAFT. BOWL VENT VALVE (42) CAN EASILY BE REMOVED AND INSTALLED WITHOUT REMOVING LEVER AND ROD. TO REMOVE PUMP PLUNGER (47) USE A SMALL ROD PLACED ON END OF PLUNGER SHAFT AND TAP LIGHTLY DRIVING OUT INTAKE CHECK (46). LIMITER CAPS CAN BE REMOVED BY INSTALLING A SHEET METAL SCREW IN THE CENTER OF THE CAP AND TURN CLOCKWISE.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW-TPS ASSY.	28. SCREW-METERING ROD COVER
2. THROTTLE POSITION SOLENOID ASSY.	29. PLATE-METERING ROD COVER
3. SCREW & LOCKWASHER(2)-ALTITUDE COMPENSATOR	30. ROD(2)-METERING
4. ALTITUDE COMPENSATOR ASSY.	31. SCREW-PUMP JET HOUSING
5. GASKET-ALTITUDE COMP. ASSY.	32. HOUSING-PUMP JET
6. SCREW(2)-DIAPHRAGM COVER	33. GASKET-PUMP JET HOUSING
7. SCREW & SEAL WASHER(1)	34. NEEDLE-PUMP DISCHARGE CHECK
8. COVER-DIAPHRAGM	35. SCREW(10)-BOWL COVER
9. SPRING-DIAPHRAGM	36. BOWL COVER ASSY.
10. DIAPHRAGM ASSY.-ENRICHMENT VALVE	37. PIN(2)-FLOAT LEVER
11. HOUSING-IDLE ENRICHMENT VALVE	38. FLOAT ASSY.(2)
12. VALVE SEAT-ENRICHMENT	39. NEEDLE, SEAT & GASKET ASSY.(2)
13. VALVE-ENRICHMENT SEAT	40. TUBE-PUMP PASSAGE
14. SPRING-ENRICHMENT VALVE	41. GASKET-BOWL COVER
15. GASKET-ENRICHMENT VALVE HOUSING	42. VALVE-BOWL VENT
16. RETAINER-CHOKE PULL-OFF ROD	43. SCREW-PUMP ARM
17. RETAINER-CHOKE PULL-OFF ROD	44. PUMP ARM
18. WASHER-CHOKE PULL-OFF ROD	45. LINK-PUMP S
19. ROD-CHOKE PULL-OFF	46. CHECK VALVE-PUMP INTAKE
20. RETAINER-PUMP ROD	47. PUMP ASSY.
21. ROD-PUMP ARM CONNECTOR	48. SPRING-PUMP
22. FITTING-FUEL INLET	49. O-RING(2)-MAIN WELL SEAL
23. GASKET-INLET FITTING	50. BOWL ASSY.-FUEL
24. SCREW-STEP UP PISTON COVER PLATE	51. GASKET-THROTTLE BODY
25. PLATE-STEP UP PISTON COVER	52. LEVER-STEP UP PISTON
26. SCREW-METERING ROD COVER PLATE	53. PIN-LEVER
27. PLATE-METERING ROD COVER	54. SCREW-CHOKE PULL-OFF BRACKET
	55. DIAPHRAGM PULL-OFF ASSY.-CHOKE
	56. CAP(2)-IDLE LIMITER
	57. NEEDLE(2)-IDLE ADJUSTING
	58. SPRING(2)-IDLE ADJ. NEEDLE
	59. THROTTLE BODY ASSY.

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL USING 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 IMMERSE MAIN PLASTIC BODY (50) IN CLEANING SOLVENTS FOR A PROLONGED PERIOD OF TIME. DO NOT SOAK DIAPHRAGM ASSEMBLIES, SOLENOID OR RUBBER PARTS IN CLEANING SOLVENTS.

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS NECESSARY FOR CARBURETOR BEING SERVICED.

SPECIAL INSTRUCTIONS

VACUUM DIAPHRAGM ASSEMBLY (55) - LEAK TEST BEFORE INSTALLING ON THE THROTTLE BODY.

IDLE ADJUSTING NEEDLES (57) - TURN IN UNTIL LIGHTLY SEATED, THEN BACK OUT 1 1/2 TURNS. (DO NOT INSTALL IDLE LIMITER CAPS AT THIS TIME.)

O-RINGS (49) - BE SURE THEY ARE CENTERED OVER HOLES IN MAIN WELL CAVITIES OF PLASTIC BOWL BEFORE INSTALLING BOWL COVER.

PUMP PLUNGER (47) INSTALLATION - INSTALL PUMP SPRING (48) LARGE END IN FIRST THEN INSTALL PUMP. HOLD IN PLACE BY INSTALLING "S" LINK (45) WITH LOWER OPEN END TOWARDS CHOKE. THEN INSTALL NEW INTAKE CHECK ASSEMBLY (46) AND TAP LIGHTLY INTO PLACE.

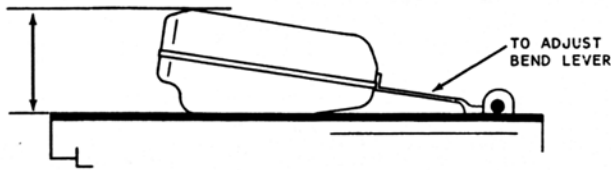
PUMP PASSAGE TUBE (40) - WHEN INSTALLING AVOID KINKING OF TUBE.

BOWL COVER SCREWS (35) - INSTALL THEN TIGHTEN TO 50 INCH LBS. IN TWO OPERATIONS.

TPS ASSEMBLY (2) - DO NOT MOUNT ON CARBURETOR UNTIL ALL BENCH ADJUSTMENTS HAVE BEEN MADE.

ADJUSTMENTS

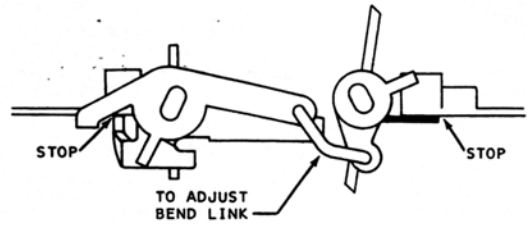
CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.



BOWL COVER GASKET IN PLACE, COVER INVERTED. MEASURE FROM GASKET TO BOTTOM OF EACH FLOAT AT TOE END.

DRY FLOAT LEVEL ADJUSTMENT

FIG. 1



OPEN THROTTLE VALVES TO WIDE OPEN POSITION. BOTH PRIMARY & SECONDARY THROTTLE SHAFTS SHOULD CONTACT THE STOPS ON THE THROTTLE BODY HOUSING AT THE SAME TIME.

(SECONDARY THROTTLE PLATES WILL BE APPROXIMATELY 80° FROM THE CLOSED POSITION. DO NOT ATTEMPT TO ADJUST TO THE WIDE OPEN POSITION.)

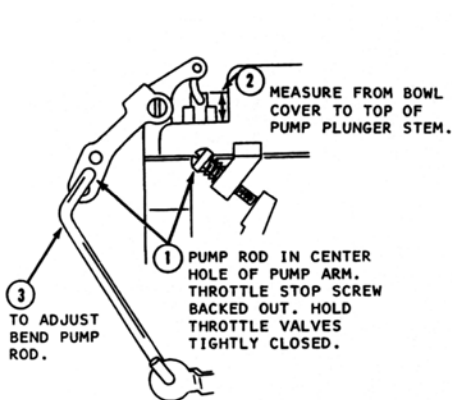
SECONDARY THROTTLE LINKAGE ADJUSTMENT

FIG. 2

EARLY

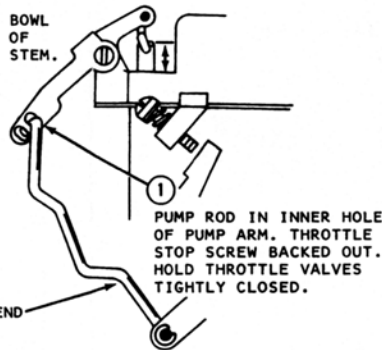
LATE

STAGE 2 M/T



② MEASURE FROM BOWL COVER TO TOP OF PUMP PLUNGER STEM.

③ TO ADJUST BEND PUMP ROD.

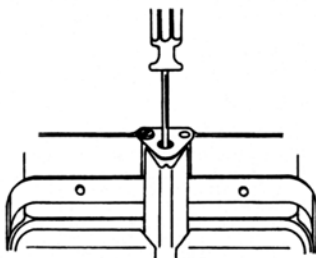


STAGE 2
1. OPEN THROTTLE SLOWLY UNTIL THE SECONDARY THROTTLE SHAFT BEGINS TO MOVE.
2. HOLD IN THIS POSITION.
3. MEASURE FROM TOP OF PLUNGER SHAFT TO BOWL COVER.

4. TO ADJUST, BEND PICK UP ARM ON PRIMARY THROTTLE SHAFT DOG.

PUMP ROD ADJUSTMENT

FIG. 3

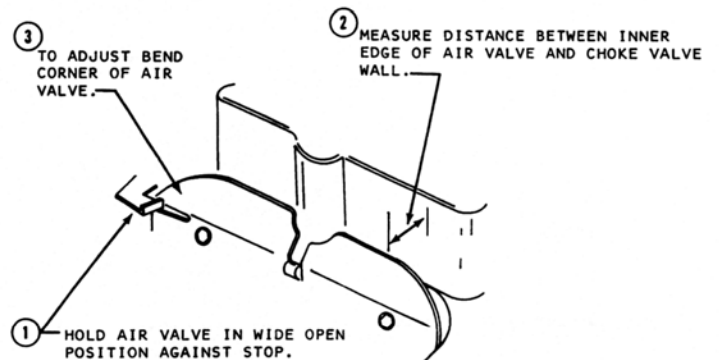


1. THROTTLE VALVES TIGHTLY CLOSED.
2. PRESS DOWN ON STEP UP PISTON. TURN ADJUSTMENT SCREW IN CENTER OF PISTON COUNTERCLOCKWISE, UNTIL PISTON IS IN THE FULL DOWN POSITION. TURN SCREW CLOCKWISE UNTIL PISTON STARTS TO MOVE UPWARD. TURN 1 1/2 ADDITIONAL TURNS.
3. TO OBTAIN BEST DRIVEABILITY, TURN SCREW CLOCKWISE (RICHER METERING) COUNTERCLOCKWISE (LEANER METERING).

(AT WIDE OPEN THROTTLE BE SURE PISTON DOES NOT BIND AGAINST PISTON COVER.)

METERING ROD ADJUSTMENT

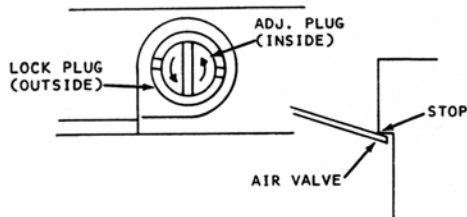
FIG. 4



SECONDARY AIR VALVE OPENING ADJUSTMENT

FIG. 5

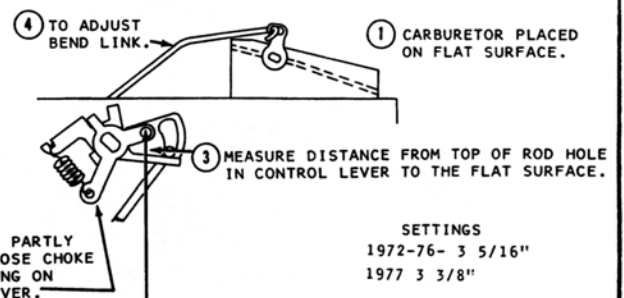
② TURN ADJUSTMENT PLUG COUNTERCLOCKWISE UNTIL AIR VALVE JUST CONTACTS STOP. THEN TURN 1 1/4 ADDITIONAL TURNS. HOLD IN THIS POSITION AND TIGHTEN LOCK PLUG.



① LOOSEN LOCK PLUG SO AIR VALVE FALLS OPEN FREELY.

SECONDARY AIR VALVE SPRING ADJUSTMENT

FIG. 6



SETTINGS
1972-76- 3 5/16"
1977 3 3/8"

CHOKE CONTROL LEVER ADJUSTMENT

FIG. 7

- 2 APPLY LIGHT PRESSURE ON AIR VALVE AND CHECK CLEARANCE BETWEEN STOP AND EDGE OF AIR VALVE.

.040 CLEARANCE

- 1 APPLY VACUUM TO FULLY SEAT DIAPHRAGM.

TO ADJUST BEND ROD.

CHOKE DIAPHRAGM CONNECTOR ROD ADJUSTMENT
(SECONDARY AIR VALVE)

FIG. 8

- 4 VERY LIGHT PRESSURE ON CHOKE VALVE. MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND INNER WALL OF AIR HORN.

TO ADJUST BEND TANG (EARLY)

- 3 CLOSE CHOKE VALVE AS FAR AS POSSIBLE USING CONTROL LEVER. (SPRING ON CONTACT LEVER FULLY EXTENDED)

- 1 OPEN THROTTLE AND SET FAST IDLE SCREW ON HIGH STEP OF CAM, RELEASE THROTTLE.

- 2 APPLY VACUUM TO FULLY SEAT DIAPHRAGM.

EARLY MODELS
VACUUM KICK ADJUSTMENT

FIG. 9

STEP 2

- 6 REMOVE CLAMP THEN FOLLOW STEPS 1.2.3.4.

- 4 MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND INNER WALL OF AIR HORN.

- 7 TO ADJUST BEND TANG.

- 3 HOLD LEVERS TOGETHER (SMALL CLAMP). CLOSE CHOKE VALVE AS FAR AS POSSIBLE USING CONTROL LEVER.

TO ADJUST BEND TANG THAT CONTACTS CHOKE DIAPHRAGM ROD.

- 2 APPLY OUTSIDE VACUUM TO FULLY SEAT DIAPHRAGM.

- 1 OPEN THROTTLE AND SET FAST IDLE SCREW ON HIGH STEP OF CAM.

VACUUM KICK ADJUSTMENT

FIG. 10

- 3 MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL OF AIR HORN.

- 2 CLOSE CHOKE VALVE BY PRESSING DOWN ON CHOKE COUNTERSHAFT LEVER.

- 1 PLACE FAST IDLE SCREW ON SECOND STEP AND AGAINST SHOULDER OF FIRST STEP.

TO ADJUST BEND ROD

FAST IDLE CAM LINKAGE ADJUSTMENT

FIG. 11

- 3 MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND WALL OF AIR HORN.

- 1 CLOSE CHOKE VALVE BY PRESSING DOWN ON CHOKE COUNTERSHAFT LEVER.

- 4 TO ADJUST BEND TANG ON FAST IDLE CONTROL LEVER.

- 2 HOLD PRIMARY VALVES WIDE OPEN.

CHOKE UNLOADER ADJUSTMENT

FIG. 12

- 2 CHOKE VALVE IN FULLY OPEN POSITION.

- 3 MEASURE CLEARANCE BETWEEN PICKUP LEVER & ITS STOP .060-.090

- 1 FAST IDLE SCREW FREE OF FAST IDLE CAM.

- 4 TO ADJUST BEND TANG ON FAST IDLE OPERATING LEVER

- 5 CYCLE THROTTLE TO CHECK OPERATION.

SECONDARY THROTTLE LOCKOUT ADJUSTMENT

FIG. 13

- 1 REMOVE PLUG FROM BOWL COVER.

- 3 MEASURE CAREFULLY FROM TOP EDGE OF HOLE TO SURFACE OF VENT VALVE.

- 4 TO ADJUST BEND OPERATING LEVER.

CURB IDLE ADJUSTED (FOLLOW INFORMATION ON ENGINE DECAL) THROTTLE VALVES CLOSED TO CURB IDLE. (SOLENOID ENERGIZED)

(ON CAR)
BOWL VENT ADJUSTMENT

FIG. 14

CURB IDLE ADJUSTED. PLACE FAST IDLE SCREW ON SECOND STEP AND AGAINST FIRST STEP OF FAST IDLE CAM. ADJUST SCREW TO PROPER R.P.M.

FAST IDLE SCREW

FAST IDLE CAM

(ON CAR)
FAST IDLE SPEED ADJUSTMENT

FIG. 15

ADJUSTMENT DATA TABLE

YEAR	MAKE		DRY FLOAT LEVEL	PUMP ADJUSTMENT		FAST IDLE CAM LINKAGE	UNLOADER ADJ.	AIR VALVE OPENING	VACUUM BREAK		BOWL VENT VALVE	CURB. IDLE R.P.M. NOTE 1	FAST IDLE R.P.M.
				STAGE 1	STAGE 2				STEP 1 HIGH	STEP 2 LOW			
1972	CHRYSLER CORP.												
	340" ENG.	A/T	1"	1/2"	---	7/64"	3/16"	29/64"	---	9/64"	13/16"	900	1900
		S/T	1"	9/16"	---	7/64"	3/16"	29/64"	---	5/32"	13/16"	750	1900
	400" ENG.	A/T	1"	1/2"	---	7/64"	3/16"	31/64"	---	9/64"	13/16"	900	1900
		S/T	1"	9/16"	---	7/64"	3/16"	31/64"	---	5/32"	13/16"	750	1900
	W/AIR PUMP	A/T	1"	1/2"	---	7/64"	3/16"	31/64"	---	9/64"	13/16"	750	2100
	W/AIR PUMP	S/T	1"	9/16"	---	7/64"	3/16"	31/64"	---	5/32"	13/16"	800	2000
1973	CHRYSLER CORP.												
	340" ENG.	A/T	1"	1/2"	---	7/64"	3/16"	15/32"	---	5/32"	13/16"	750	1800
		S/T	1"	9/16"	11/32"	7/64"	3/16"	15/32"	---	5/32"	13/16"	900	1300
	400" ENG.	A/T	1"	1/2"	---	7/64"	3/16"	15/32"	---	5/32"	13/16"	750	1800
		S/T	1"	9/16"	11/32"	7/64"	3/16"	15/32"	---	5/32"	13/16"	900	1700
	440" ENG.	A/T	1"	1/2"	---	7/64"	3/16"	15/32"	---	5/32"	13/16"	700	1700
	440" ENG. MOTOR HOME		1"	9/16"	---	7/64"	3/16"	15/32"	---	5/32"	13/16"	E/D	1800
1974	CHRYSLER CORP.												
	360" ENG.	A/T	1"	1/2"	---	3/32"	5/16"	1/2"	---	5/32"	13/16"	E/D	1900
		S/T	1"	9/16"	11/32	3/32"	5/16"	1/2"	---	7/32"	---	E/D	1900
	CARB. NO. 6488S (CALIF.)	A/T	1"	9/16"	---	3/32"	5/16"	1/2"	---	5/32"	---	E/D	1800
	CARB. NO. 9022S TRUCK	A/T	1"	9/16"	---	3/32"	5/16"	1/2"	---	7/32"	13/16"	E/D	2000
	400" ENG.	A/T	1"	1/2"	---	3/32"	5/16"	1/2"	---	5/32"	13/16"	E/D	1900
		S/T	1"	9/16"	11/32"	3/32"	5/16"	1/2"	---	5/32"	---	E/D	1700
	440" ENG.	A/T	1"	1/2"	---	3/32"	5/16"	1/2"	---	1/2"	13/16"	E/D	1700
	440" ENG.	A/T	1"	1/2"	---	3/32"	5/16"	1/2"	---	5/32"	13/16"	E/D	2000
	CARB. NO. 6545S TRUCK	ALL/T	1"	9/16"	11/32"	3/32"	5/16"	1/2"	---	5/32"	13/16"	E/D	2000
1975	CHRYSLER CORP.												
	360" ENG.	A/T	29/32"	35/64"	---	3/32"	5/16"	1/2"	---	3/32"	13/16"	E/D	1600
	360" ENG. CALIF.	A/T	31/32"	35/64"	---	3/32"	5/16"	1/2"	---	5/32"	13/16"	E/D	1700
	400" ENG.	A/T	29/32"	35/64"	---	3/32"	5/16"	1/2"	---	3/32"	13/16"	E/D	1800
	400" ENG. CALIF.	A/T	31/32"	35/64"	---	3/32"	5/16"	1/2"	---	5/32"	13/16"	E/D	1800
	440" ENG. FED. & CALIF.	A/T	29/32"	35/64"	---	3/32"	5/16"	1/2"	---	3/32"	13/16"	E/D	1600
	440" ENG. W/CARB. NO.												
	9012S, 9052S, 9073S	A/T	29/32"	35/64"	---	3/32"	5/16"	1/2"	---	3/32"	13/16"	E/D	1800
	CARB. NO. 6545S TRUCK	ALL/T	1"	9/16"	11/32"	3/32"	5/16"	1/2"	---	5/32"	---	E/D	2000
1976	CHRYSLER CORP.												
	360" ENG.	A/T	29/32"	33/64"	5/16"	3/32"	5/16"	1/2"	---	3/32"	13/16"	E/D	1700
	360" ENG. CALIF.	A/T	29/32"	33/64"	5/16"	7/64"	5/16"	33/64"	---	3/32"	13/16"	E/D	1700
	400" ENG. FED. & CAN.	A/T	29/32"	33/64"	5/16"	3/32"	5/16"	33/64"	---	3/32"	13/16"	E/D	1800
	400" ENG. CALIF.	A/T	29/32"	33/64"	5/16"	7/64"	5/16"	33/64"	---	3/32"	13/16"	E/D	1600
	400" ENG. CARB. NO. 9097S	A/T	29/32"	33/64"	5/16"	7/64"	5/16"	33/64"	---	3/32"	13/16"	E/D	1600
	440" ENG.	A/T	29/32"	33/64"	5/16"	3/32"	5/16"	33/64"	---	3/32"	13/16"	E/D	1600
	CARB. NO. 9058S, 9059S,	A/T	29/32"	31/64"	---	3/32"	5/16"	33/64"	---	3/32"	13/16"	E/D	1600
	CARB. NO. 9095S, CALIF.	A/T	29/32"	33/64"	5/16"	3/32"	5/16"	33/64"	---	3/32"	13/16"	E/D	1800
	CARB. NO. 6545S TRUCK	ALL/T	1"	9/16"	11/32"	3/32"	5/16"	1/2"	---	5/32"	---	E/D	2000
1977	CHRYSLER CORP.												
	360" ENG. CARB. NO. 9076S	A/T	13/16"	1/2"	5/16"	3/32"	5/16"	1/2"	19/32"	5/32"	13/16"	E/D	---
	9093S	A/T	13/16"	1/2"	23/32"	3/32"	5/16"	1/2"	19/32"	5/32"	13/16"	E/D	---
	400" ENG.	A/T	13/16"	1/2"	5/16"	3/32"	5/16"	1/2"	---	3/32"	13/16"	E/D	---
	440" ENG.	A/T	13/16"	1/2"	5/16"	3/32"	5/16"	1/2"	19/32"	3/32"	13/16"	E/D	---
1977	DODGE TRUCK												
	440-1" ENG.	A/T	27/32"	1/2"	23/32"	3/32"	5/16"	1/2"	19/32"	3/32"	---	E/D	---
1974-76	INTERNATIONAL												
	345", 392" ENG.												
	CARB. NOS. 6551, 6590, 6592		1-1/16"	11/32"	1/8"	3/32"	5/16"	1/2"	11/32"	9/32"	13/16"	E/D	1575
	CARB. NOS. 9027, 9028		1-1/16"	11/32"	9/64"	3/32"	5/16"	1/2"	11/32"	9/32"	13/16"	E/D	1575

NOTE: 1 - SOLENOID ENERGIZED
E/D = ENGINE DECAL

ALL ORIGINAL METAL FLOAT SETTINGS OF 1" OR 1-1/16" USE 29/32" WHEN PLASTIC FLOATS ARE USED.

ALL OTHER FLOAT SETTINGS ARE FOR PLASTIC FLOATS.

AFTERMARKET REPLACEMENT METAL FLOATS USE PLASTIC FLOAT SETTINGS.