Section XVIII

CHRYSLER C-300B

CONTENTS

GENERAL DATA AND SPECIFICATIONS

Item	Body Style	Starting Vehicle Number	C-300B
	Sport Coupe	3N561001	Chrysler
Wheel Base (Inches)			126
Tread (Front) (Inches)			60.4
Tread (Rear) (Inches)			59.6
Length with Bumper			222.7
Width with Bumper			78.8
Rear Axle Ratio with PowerFlite			3.54
Tire Size			8.00 x 15

Section XVIII
CHRYSLER C-300B

1. FRONT WHEEL SUSPENSION

The same basic design as used in Model C-72, in the Front Wheel Suspension Section I.

2. REAR AXLE

A standard or optional rear axle, of the same basic design as used on Model C-72, with the exceptions as listed in Data and Specifications.

3. REAR AXLE DATA AND SPECIFICATIONS

Type	Semi-Floating
Gear Type	Hypoid
Ring Gear Diameter	8.75″
Pinion Bearings	2
Type	Tapered Roller
Adjustment	Solid Washer
Differential Bearings	2
Type	Tapered Roller
Adjustment	Threaded Adjuster
Drive Gear Pinion	Matched Sets
Drive Gear Run-Out	.005″ Maximum
Drive Gear and Pinion Backlash	.006″ to .008″
Differential Side Gear Clearance	.004″ to .012″
Axle Ratio	Standard
With Standard 3-Speed Trans.	3.54*
No. Drive Gear Teeth	—
No. Drive Pinion Teeth	—
With PowerFlite	3.54*
No. Drive Gear Teeth	39
No. Drive Pinion Teeth	11
Lubrication	
Type Recommended	Ex. Press. Hypoid
Summer	90
Winter	90
Extreme Cold	80
Capacity	3½ pints
Wheel Bearings	
Type	Tapered Roller
Adjustment	Select Shims
Axle End Play	.003″ to .008″
Road Clearance (full load)	
Frame Side Member	5.8″
Rear Axle Clearance	8.4″
Tread (Rear)	59.6″

3. REAR AXLE DATA AND SPECIFICATIONS, CONT'D

***OPTIONAL RATIOS AVAILABLE**
3.07 (40-13), 3.36 (37-11), 3.54 (39-11), 3.73 (41-11), 3.91 (43-11), 3.9 (39-10)
4.0 (40-10), 4.1 (41-10), 4.3 (43-10)
4.56 (41-9), 4.89 (44-9)

4. BRAKES

The Brakes are the same design as used on all models.

5. CLUTCH

The Clutch is the same design as used on Model C-71.

6. COOLING SYSTEM

The Cooling System is the same design as used on Model C-72. For servicing, refer to the Cooling System, Section V.

7. ELECTRICAL SYSTEM

The Electrical System is identical with that used on Model C-72, with exceptions listed in the Data and Specifications which follows:—

8. ELECTRICAL SYSTEM—DATA AND SPECIFICATIONS

	C-300B
BATTERY	
Voltage	12 volts
Capacity	78 plate, 70 ampere—hour
Ground Terminal	Negative
STARTING MOTOR	
Model	MDF-6001
No. of Poles and Field Coils	4
Brushes	4
Drive	Solenoid Shift, Positive Engagement
Brush Spring Tension (New Brushes)	42 to 53 ozs.
End Play	.005″ to .030″
Free Running Test	3200 RPM min. 60 amps. @ 10 volts
Stall Torque Test	6.5 lbs. min. 240 amps. @ 4 volts
Solenoid Switch:—	
Pull-In Coil Draw	28.6 to 32.9 amps. @ 6 volts
Hold-In Coil Draw	10.2 to 11.8 amps. @ 6 volts
Pinion Adjustment (Clearance Between Pinion and Stop)	3/32″ to 1/32″—1/64″

GENERATOR			
Model			
Standard	(GJC-7002B; 1642002)	Up to	
	(GJC-7002A; 1642002)	After	
With Power Steering	(GJC-7003A; 1642005)	Up to	
	(GJC-7003C; 1642005)	After	
With Air Conditioning	(GJC-7006A; 1642009) (GHM-6004C; 1704265)	or	(GJC-7006B; 1642009) or
With Power Steering and Air Conditioning	(GJC-7003A; 1642005) (GHM-6003B; 1704265)	or	(GJC-7003C; 1642005) or
Rotation	Clockwise at Drive End		
Voltage	12 volt		
Rated Output	30 amperes		
Ground Polarity	Negative		

8. ELECTRICAL SYSTEM—DATA AND SPECIFICATIONS, CONT'D

BEARINGS (TYPE):—	
Standard	Ball at drive end, Bronze at opposite end
Power Steering and Air Conditioning	Ball—Both Ends
Poles	2
Brushes	2
Spring Tension	18 to 36 ozs.
Field Coil Draw (Arm to Field Terminal)	1.2 to 1.3 amps. @ 10 volts
Motorizing Draw	3.4 to 3.9 amps. at 10 volts
Test Bench Output Test (at 70° F)	20 amps., 15-volts @ 1750 max. RPM 30 amps., 15-volts @ 2050 to 2250 RPM

GENERATOR-REGULATOR	
Model	VRX—6201A
Ground Polarity	Negative
Resistors (3 used):	
Marked 60	55 to 70 ohms
Marked 38	24.5 to 42 ohms
Marked 30	28.0 to 34.5 ohms

VOLTAGE REGULATOR

Voltage Winding Resistance	43.7 to 49.3 ohms
Armature Spring Turns	14½
*Armature Air Gap	.048" to .052"

*Contacts closed with high limit gauge installed
Contacts open with low limit gauge installed
Gauge on contact side and next to brass stoppers.
Operating Voltage after 15 Minutes Run at 10 amps.

Temp. F.	50°	60°	70°	80°	90°	100°	120°
Voltage at Specific Temperatures	14.42 to 15.05	14.36 to 14.94	14.30 to 14.90	14.23 to 14.83	14.16 to 14.76	14.09 to 14.69	13.94 to 14.54

Voltage Winding Resistance	107 to 121 ohms
Armature Spring Turns	14½
*Armature Air Gap	.048" to .052"

*Contact closed with high limit gauge installed
Contact open with low limit gauge installed
Gauge on contact side and next to brass stop pin.
Operating Amperage after 15 Minutes Run at 10 amp.

Temp. F.	40	60	70	80	100
Amps.	31-35	29-33	38-32	37-31	25-29

Cut-Out Relay:	
Armature Spring Turns	10¾
Air gap (Contacts open)	.031" to .034"
(Measure gap as near to hinge as possible)	
Point gap (minimum)	.015"
Contacts close (volts)	13.0—13.8 at 1300
Contacts open (after charge of 10 amps.)	8.2—9.3 volts (0 to 6 amp. Discharge)

COIL	
Model	CAD 4002
Amps.—Engine Stopped	3.1
Amps.—Engine Idling	2.5

8. ELECTRICAL SYSTEM—DATA AND SPECIFICATIONS, CONT'D

DISTRIBUTOR

Model	Chrysler Part No. 1704309 IBK—4301C
Breaker Gap (in.)	.015" to .018"
Dwell	29 to 32 one set of points 32 to 36 Total Dwell
Drive	Camshaft
Breaker Arm Tension (oz.)	17-20
Condenser Capacity	.25 to .28 MFD
Timing	8° BTC
Timing Mark Location	Vibration Damper
Side Play	.005" Maximum
End Play (measured after assembly)	.003" to .010"

ADVANCE CURVES

Automatic Advance (distributor degrees and distributor RPM)	0°	350 to 450
	0° to 4.25°	450
	2.8° to 4.8°	500
	7° to 9°	1200
Vacuum Advance (distributor degrees and inches of vacuum)	Start	7"-8"
	2°	8.5" to 9.5"
	6°	11.25" to 12.75"
	7° to 9°	13.5"

SPARK PLUGS

	Standard AGR 41 Hi-Speed AGR 31
Thread (mm.)	14
Tightening Torque (lb. ft.)	30 to 32
Gap	.035"

ELECTRICAL LIGHT BULBS

	Number Required	Mazda Number	C.P. or Watts	Chrysler Part No.
Headlights (Seal Beams)	2	5400	50-40W	1648133
Headlight Beam Indicator Light	1	57	-2	127934
Parking and Front Turn Signal	2	1034	32-4	151567
Rear Tail, Stop and Turn Signal Light	2	1034	32-4	151567
License Plate Light	2	67	3	142450
Glove Box Light	1	57	2	127934
Instrument Lights	4	57	2	127934
Map Light	1	1004	15	151578
Ignition Switch Light	1	57	2	127934
Turn Signal Indicator Light	2	57	2	127934
Dome Light	1	1004	15	151578
Hand Brake Warning Light	1	90	6	142453
Back Up Light	2	1141	21	142456
Transmission Push Button Light	1	57	2	127934
Radio Dial Light	2	1892		
Clock Light	1	57	2	127934
Underhood Light	1	1003	15	151577
Trunk Light	1	1003	15	151577

8. ELECTRICAL SYSTEM—DATA AND SPECIFICATIONS, CONT'D

CIRCUIT PROTECTORS

Circuit	Type	Rated Capacity	Location
Lighting System	Circuit Breaker	20 AMP	Back of Headlight Switch
Clock	Internally Protected		
Windshield Wiper	Circuit Breaker	5 AMP	Back of Wiper Switch
Radio	Fuse	9 SPE	In Radio Lead Wire
Window Lifts	Circuit Breaker	20 AMP	Behind Left Front Kick Panel
Four Way Seat	Circuit Breaker	15 AMP	Behind Left Front Kick Panel

9. ENGINE

The Chrysler C-300B Engine is a modified Chrysler FirePower engine. The modifications include twin four-barrel carburetors, (Fig. 1), a new intake manifold, (Fig. 2), a full race camshaft, and mechanical tappets with the adjustment screws at the push rod end of the rocker arms, inner and outer high load valve springs, and removable exhaust valve seat inserts. Also, hardened crankshaft, heavy duty main and rod bearings, special cylinder head covers, air cleaners and silencer housing and distributor and spark plugs.

Service procedure will be the same as outlined for the FirePower engine, Model C-72, in the Engine Section VII, with the following exceptions:

a. Complete Data and Specifications.

b. The top compression ring is a chrome ring.

c. Crankshaft is special hardened, the bearings and main bearing caps are heavy duty and should not be interchanged with the crankshaft bearings and caps used in the standard FirePower engines.

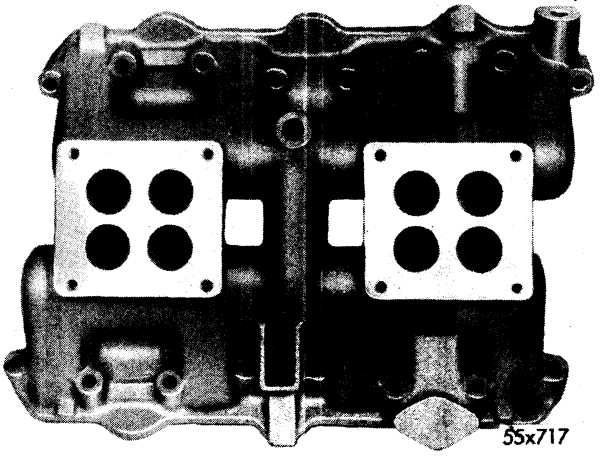

Fig. 2—Intake Manifold C-300B Engine

d. The valve tappet clearance is adjusted at the rocker arm as shown in Figure 3 to the following values:

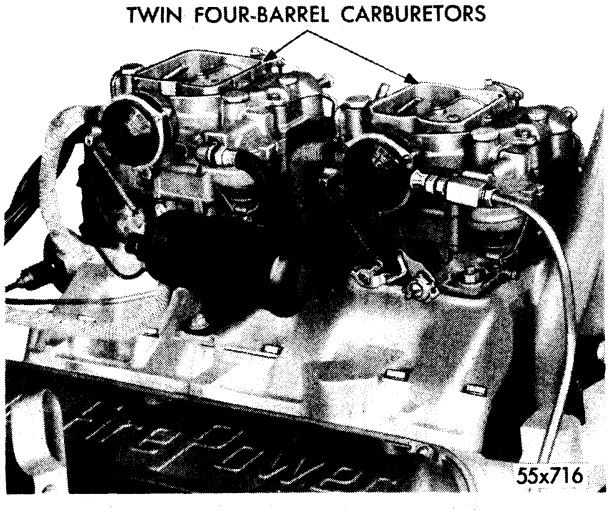

Fig. 1—C-300B Chrysler Engine

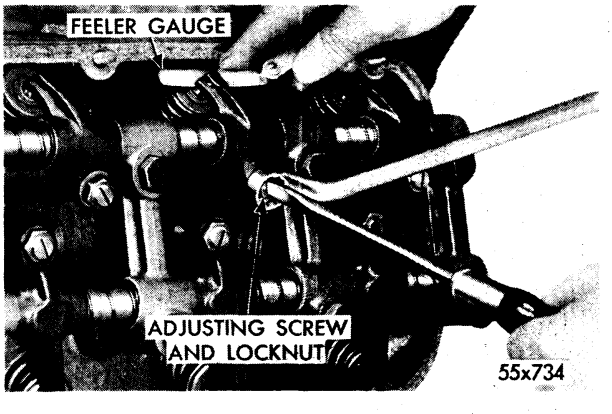

Fig. 3—Adjusting Valve Clearance

	Hot	Cold
Intake	.015″	.015″
Exhaust	.024″	.028″

e. Engine Idle Setting

Set idle adjustment to obtain a smooth idle at 650 rpm.

f. Ignition Timing

Disconnect distributor vacuum line, set ignition at 8 degrees BTDC, and reset engine idle back to 650 rpm.

g. Valve Timing Checking

Turn the crankshaft until Number One intake valve is closed and Number One piston is on Top dead center (TDC).

Install a dial indicator so that the pointer contacts the valve spring retainer as nearly at a right angle as possible. Since the C-300B incorporates mechanical tappets, it is not necessary to allow time for the tappet to bleed down.

Adjust the valve rocker screw to afford zero clearance. Then set the dial indicator to zero and turn the crankshaft clockwise (normal running direction) until the dial indicator shows that the valve has lifted .081 inch.

The timing marks on the vibration damper should read from 5 degrees BTC to 7 degrees ATC. If the reading is not within the specified limits, check the gear index marks and inspect the timing chain for wear.

Before making this check, determine the accuracy of the TDC mark on the damper by bringing the number one piston to TDC with an indicator placed in the spark plug hole.

After the valve timing has been checked, reset the valve lash to the specified operating limits.

10. ENGINE—DATA AND SPECIFICATIONS

	C-300B
ENGINE	
Type	V 90°
Number of Cylinders	8
Bore	3.940″
Stroke	3.630″
Piston Displacement	354 cu. in.
Compression Ratio	9.0 to 1
Compression Pressure at 150 rpm (plugs removed)	
Wide Open Throttle	150 to 180 lbs.
Maximum Variation Between Cylinders	
(any one engine)	15 lbs.
Firing Order	1-8-4-3-6-5-7-2
CYLINDER NUMBERING—From Front of Engine	
Left Bank	1-3-5-7
Right Bank	2-4-6-8
CRANKSHAFT	
Type	Fully Counter-Balanced
Bearings	Tri-Metal
Journal Diameter	2.4995 to 2.5005″
Crank Pin Diameter	2.249 to 2.250″
Maximum Out-of-Round Permissible	.001″
Number Main Bearings	5
Diameter Clearance (Desired)	.001 to .002″
Maximum Allowable Before Reconditioning Shaft	.010″
End Play	.002 to .007″
Thrust Taken By	No. 3 Main Bearing
Finish at Rear Seal Surface	Diagonal Knurling
Interchangeability of Bearings	Upper and Lower Nos. 1, 2, 4 Upper and Lower No. 3 Upper and Lower No. 5 Not Interchangeable

10. ENGINE—DATA AND SPECIFICATIONS, CONT'D

BEARING SIZES—	
Diameter and Length	No. 1 2.500 x .875″ No. 2 2.500 x .875″ No. 3 2.500 x .870″ No. 4 2.500 x .875″ No. 5 2.500 x 1.595″
MAIN BEARINGS (Service)	
All available in Standard and the following Undersizes	.001, .002, .003, .010, .012″
CONNECTING RODS AND BEARINGS	
Type	High Manganese Forged Steel
Length	6 5/8″
Weight (less bearings)	25.2 oz.
Bearings	Tri-Metal
Diameter and Length	2.2507 to 2.2512 x 29/32″
Diametral Clearance Desired	.001 to .002″
Maximum Allowable Before Reconditioning	.0025″
Side Clearance	.006 to .014″
Bearings for Service	Standard .001, .002, .003, .010, .012″ US
CONNECTING ROD BUSHINGS	
Type	Steel-Backed Bronze
Number of Bushings	8
Diameter and Length	.9843 to .9846 x 1 1/4″
Interchangeability	All
Clearance	.0001 to .0004″ Selective
CAMSHAFT	
Drive	Chain
Bearings	Steel-Backed Babbitt
Number	5
Thrust Taken by	Thrust Plate
End Play	.002 to .006″
Maximum Allowable Before Reconditioning	.010″
Diametral Clearance	.001 to .003″
Maximum Allowable Before Recondition	.005″
Valve Lift—Intake	.444″
Valve Lift—Exhaust	.435″
CAMSHAFT BEARING JOURNALS	
Diameter and Length	
No. 1	1.998 to 1.999 x 15/16″
No. 2, 3 and 4	1.998 to 1.999 x 3/4″
No. 5	1.4355 to 1.4365 to 29/32″
CAMSHAFT BEARINGS	
Diameter and Length (after reaming)	
No. 1	2.000 to 2.001 x 15/16″
No. 2, 3 and 4	2.000 to 2.001 x 13/16″
No. 5	1.4375 to 1.4385 x 7/8″

10. ENGINE—DATA AND SPECIFICATIONS, CONT'D

TIMING CHAIN	
Adjustment	None
Number of Links	68
Pitch	.375″
Width	1⅛″
TAPPETS	
Type	Mechanical
Clearance in Block	.002 to .003″
Body Diameter	.9025 to .9030″
Clearance Between Valve Stem Rocker Arm or Tappet	Intake .015″—Hot Exhaust .024″—Hot
PISTONS	
Type	Horizontal Slot w/steel strut
Material	Aluminum Alloy Tin Coated
Land Clearance (diametral)	.028 to .033″
Clearance at Skirt	1½″ from Bottom of Skirt .00075 to .00125″
Weight (Std. through .060″ oversize)	22.8 ounces
Piston Length (overall)	3.99″
Ring Groove Depth	
No. 1	.220″
No. 2	.220″
No. 3	.210″
Pistons for Service	Std., .005, .020, .040, .060″ OS
PISTON PINS	
Type	Full Floating
Diameter and Length	.9841 to .9843″ x 3.140 to 3.150″
Inside Diameter	.659 to .669″
Clearance in Piston	.0000 to .0005″
End Play	.004 to .026″
Clearance in Rod (selective)	.0001 to .0004″
Piston Pins for Service	Std. .003, .008″ OS
Direction Offset in Piston	Toward Right Side of Engine .060″
PISTON RINGS	
Number of Rings per Piston	3
Top Compression Ring	1 Chromium
Second Compression Ring	1 Tin Coated
Oil	1
Width of Rings	
(Compression) (all)	.0775 to .0780″
(Oil)	.1860 to .1865″
Wall Thickness	
Compression	.197″
Oil	.158″
Piston Ring Gaps (all)	.010 to .020″
Ring Side Clearance	
Compression	
Upper	.002 to .0035″
Intermediate	.002 to .0035″
Oil	.0010 to .0025″

10. ENGINE—DATA AND SPECIFICATIONS, CONT'D

VALVES—Intake	
Material	Silicon Chromium Steel
Head Diameter	1 5/16"
Length (to top of valve face)	5 1/32"
Stem Diameter	.372 to .373"
Stem to Guide Clearance	.001 to .003"
Maximum Allowable Before Reconditioning	.004"
Distance from Top Face of Guide to Face of Block	31/32"
Angle of Seat	45°
Adjustment	Adjusting Screw at Rocker Arm
Lift	.444"
VALVES—Exhaust	
Material	Nitrided Chrome-Nickel Steel
Head Diameter	1 3/4"
Length (to top of valve face)	4 63/64"
Stem Diameter	.371 to .372"
Stem to Guide Clearance	.002 to .004"
Maximum Allowable Before Reconditioning	.006"
Distance from Top Face of Guide to Face of Block	1 3/32"
Angle of Seat	45°
Adjustment	Adjusting Screw at Rocker Arm
Lift	.435"
VALVE SPRINGS—Outer	
Number	16
Free Length	1 7/8"
Load When Compressed to (valve closed)	1 21/32" 58 to 63 lbs.
Load When Compressed to (valve open)	1 7/32" 156 to 161 lbs.
Assemble with Closed Coils Toward	Head
Valve Springs I. D.	.990 to 1.010"
VALVE SPRINGS—Inner	
Number	16
Free Length	1 25/32"
Load When Compressed to (valve closed)	1 17/32" 26-30 lbs.
Load When Compressed to (valve open)	1 3/32" 64-69 lbs.
Assemble with Closed Coils Toward	Head
Valve Spring I. D.	.690 to .710"
Valve Spring Installed Height (spring to seat to retainer)	1 5/8 to 1 11/16"
CYLINDER HEAD	
Number Used	2
Combustion Chamber	Hemispherical
Valve Seat Runout (maximum)	.003"
Intake Valve Seat Angle	45°
Seat Width (finished)	.060 to .085"
Exhaust Valve Seat Angle	45°
Seat Width (finished)	.040 to .060"
Cylinder Head Gasket Compressed (thickness)	.024"

10. ENGINE—DATA AND SPECIFICATIONS, CONT'D

ENGINE LUBRICATION	
Pump Type	Rotary, Full Pressure
Capacity (qts.)	5*
Pump Drive	Camshaft
Normal Pressure at (lbs. at RPM)	40 to 65 lbs. at 2000 RPM
Pressure Drop Results from Clogged Filter	15 to 20 lbs.

*When Filter Element is Replaced Add 1 Qt.

11. FUEL AND EXHAUST SYSTEMS—CARBURETOR

NOTE

The front carburetor cannot be used in the rear of engine, and the rear carburetor cannot be used in the front as the metering of the carburetors are different. The C-300B four-barrel carburetors (Fig. 4 and 5) are of the same basic design as those used in C-72 and C-73 Models. The C-300B carburetors have velocity control valves on secondary barrels. To disassemble the carburetor for cleaning or overhaul, refer to WCFB type carburetor, Fuel and Exhaust Section VIII of this Manual.

ACCELERATOR PUMP ADJUSTMENT

Before making adjustment, be sure that pump connector link is installed in outer hold (long stroke of pump lever), with ends extending toward accelerator pump shaft arm.

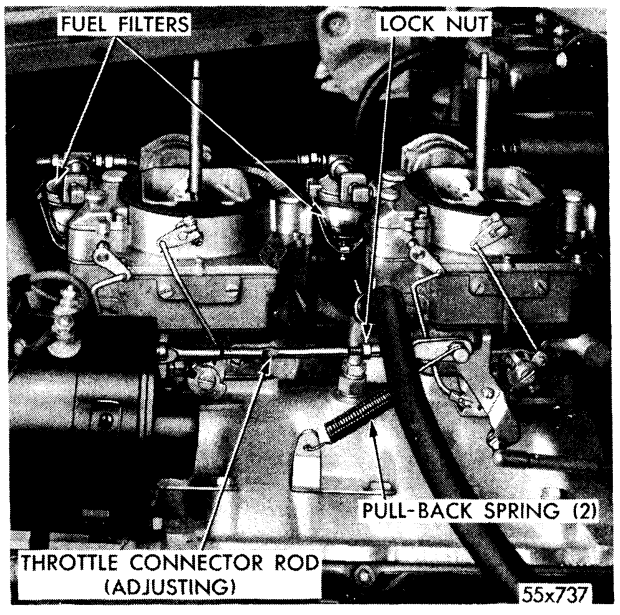

Fig. 4—Air Cleaner and Silencer Removed (Carburetors Installed)

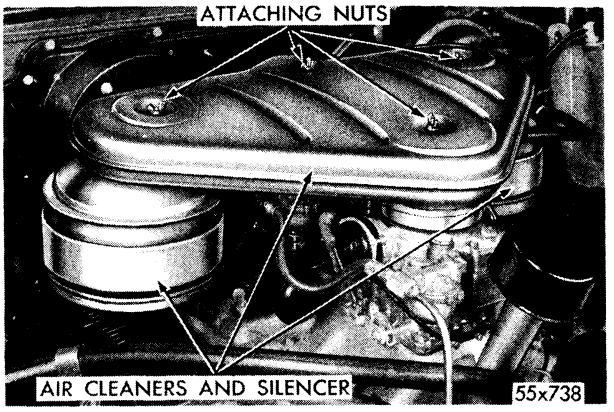

Fig. 5—Air Cleaner and Silencer Installed

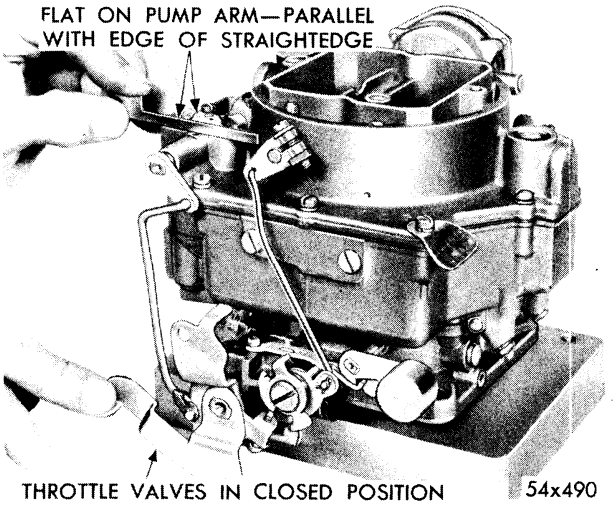

Fig. 6—Accelerator Pump Adjustment

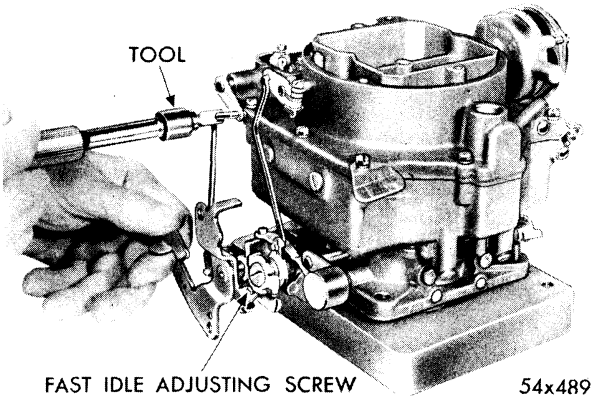

Fig. 7—Bending Throttle Connector Rod

Back off idle speed adjusting screw until primary throttle valves are fully seated in their bores. (Make sure that fast idle adjusting screw is off the fast idle cam.)

Hold a straight edge across top of dust cover boss, as shown in Figure 6, and adjust length of pump rod as in preceding adjustment until the flat on top of pump arm (under set screw) is parallel with upper edge of straight edge. When making this adjustment, be sure that fast idle adjusting screw does not hold throttle open. To adjust pump setting, bend throttle connector rod at the upper angle, using Tool T-109-213, as shown in Figure 7.

METERING ROD ADJUSTMENT

Loosen set screw in metering rod arm (if previously tightened) enough to obtain a slight bind on pump shaft. Lift lever slightly. With primary throttle valves seated in their bores, depress metering rod link until metering rods bottom, as shown in Figure 8. Keeping lever in contact with the metering rod link, tighten set screw securely.

CHOKE ROD ADJUSTMENT

Loosen choke lever clamp screw. Insert a .020 inch wire gauge Tool T-109-29, between tang on fast idle cam and boss on throttle body casting. Hold gauge in place by pressure of screwdriver exerted on choke lever clamp screw, as shown in Figure 9. This will automatically take up all slack in the linkage. Hold choke valve tightly closed, and tighten clamp screw.

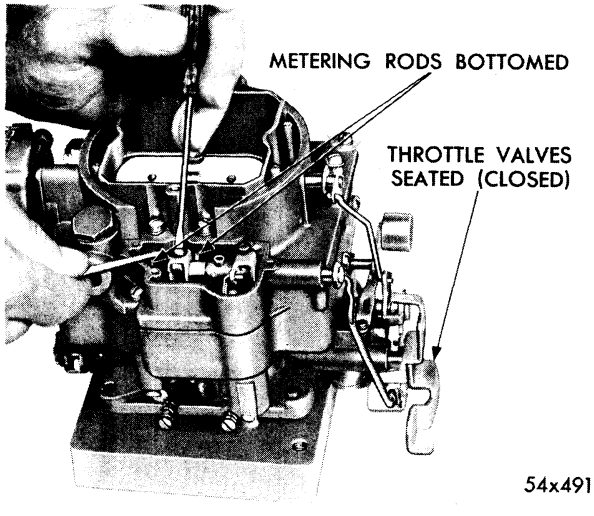

Fig. 8—Metering Rod Adjustment

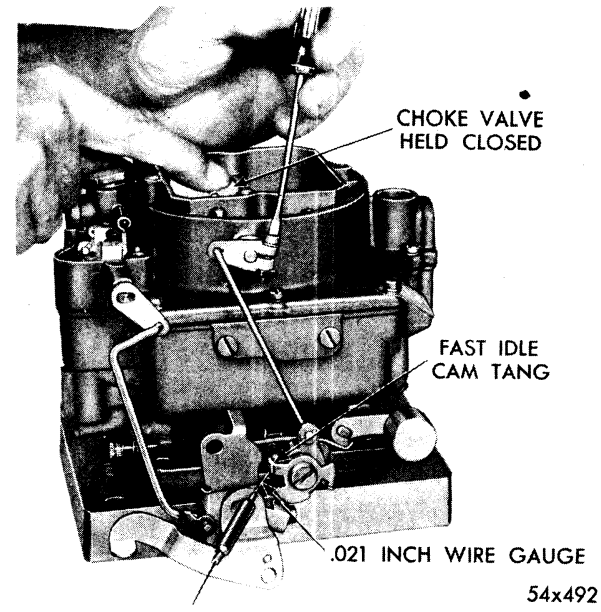

Fig. 9—Choke Rod Adjustment

VELOCITY VALVE ADJUSTMENT

To check position of velocity valves, disconnect secondary throttle operating rod from the primary operating lever by removing hairpin clip. Insert Gauge, Tool T-109-242(27/64)", between the lower edge of velocity valve and bore, as shown in Figure 10. In this position the tang of secondary throttle lever should be resting against its stop.

To adjust position, bend tang on secondary throttle lever, using Tool T-109-41 until correct clearance of $^{27}/_{64}$ inch has been obtained, when tang is resting against its stop. Reconnect sec-

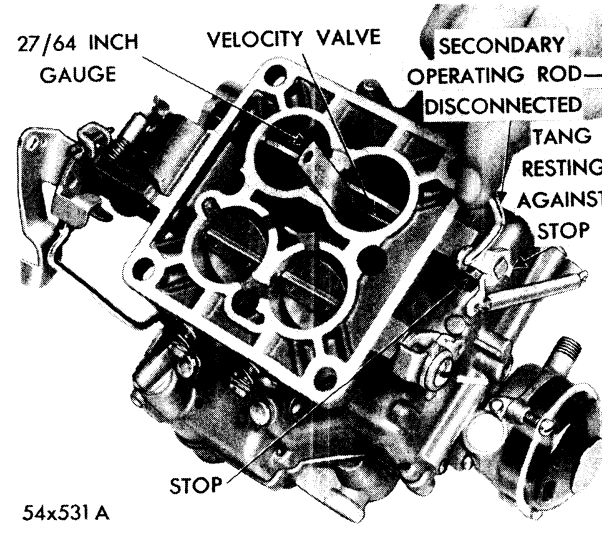

Fig. 10—Checking Velocity Valve Clearance

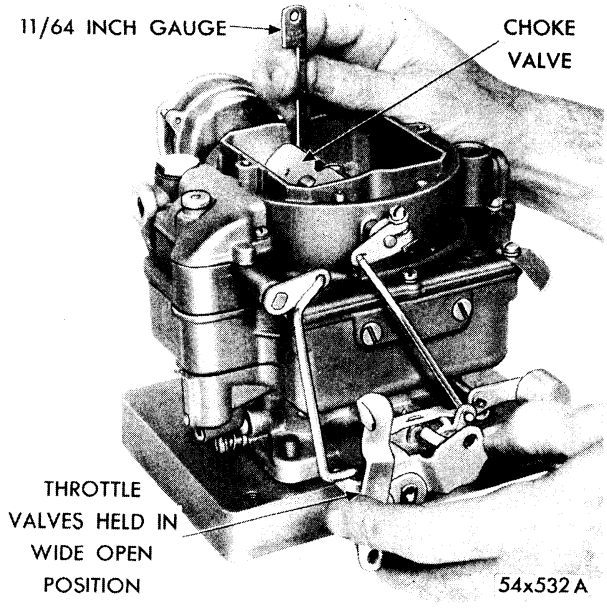

Fig. 11—Choke Unloader Adjustment

ondary throttle operating rod to primary operating lever, then install hairpin clip.

CHOKE UNLOADER ADJUSTMENT

With the primary throttle valves held in wide open position, insert $^{11}/_{64}$ inch unloader gauge Tool T-109-166 or a Number 17 drill between upper edge of choke valve and inner dividing wall of air horn, as shown in Figure 11. With finger pressing against upper part of choke valve, slight drag should be felt on gauge as it is being withdrawn.

If no drag is felt, or if too much drag is apparent, bend unloader tang on throttle lever,

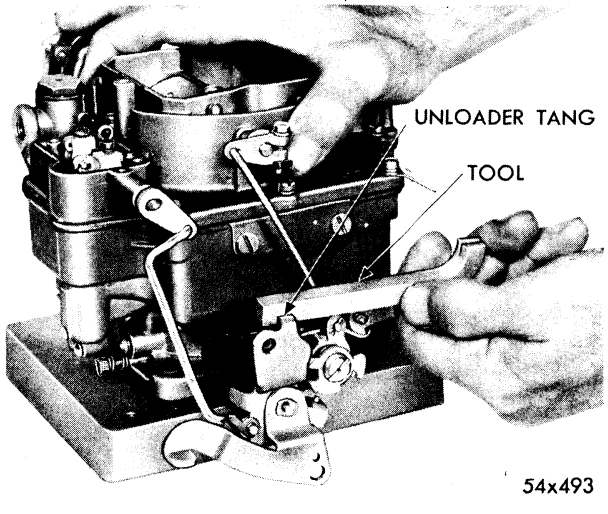

Fig. 12—Bending Unloader Tang

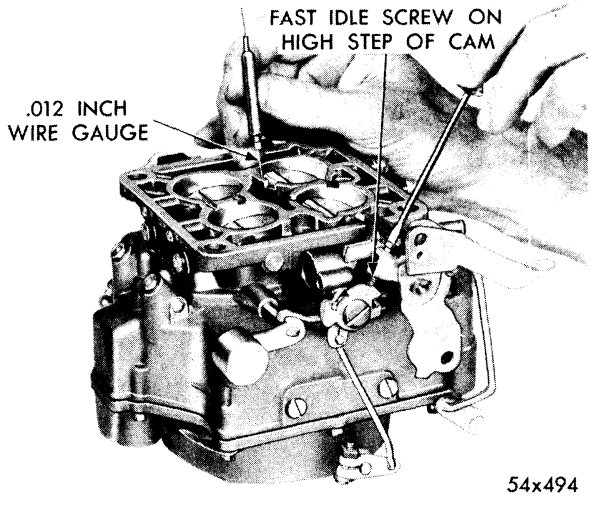

Fig. 13—Fast Idle Adjustment

as shown in Figure 12, using Tool T-109-41.

FAST IDLE ADJUSTMENT—(ON BENCH)

Insert a .006 to .010 inch wire gauge, Tool T-109-200 or drill between primary throttle valves and side of bore opposite idle adjusting screws. Move choke valve to fully closed position, and adjust fast idle screw to give a slight drag on wire when screw is resting on high step of fast idle cam, as shown in Figure 13.

VELOCITY VALVE LOCKOUT ADJUSTMENT

Make this adjustment after completing fast idle adjustment.

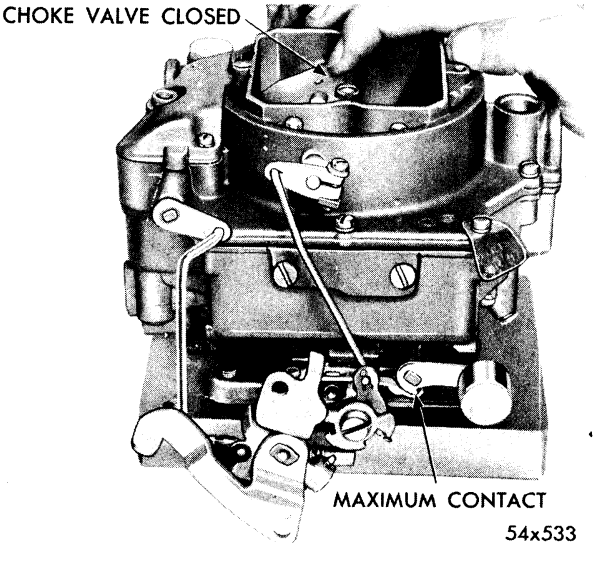

Fig. 14—Velocity Valve Lockout Adjustment-Maximum

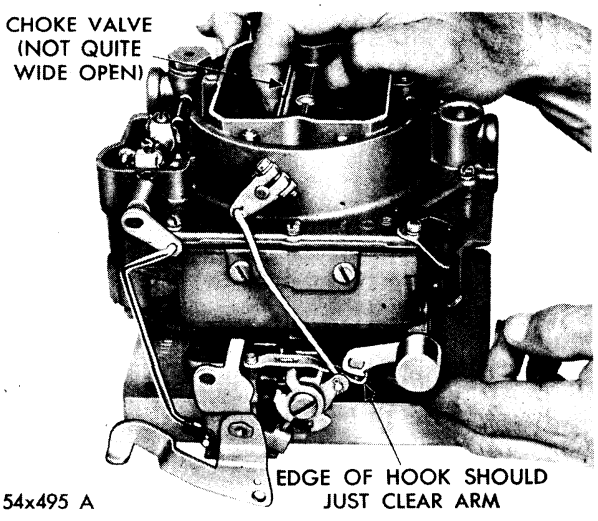

Fig. 15—Velocity Valve Lockout Adjustment-Minimum

With choke valve in closed position, the edge of hook on lockout arm should contact the velocity valve shaft lever, making a maximum contact of the locking step on lever, as shown in Figure 14. Bend lock-out arm until desired contact has been obtained. Slowly open choke valve. The velocity valves should become unlocked a few degrees before choke valve reaches wide open position, as shown in Figure 15. Bend tang on fast idle cam (that raises or lowers the lockout arm) until correct release has been obtained.

BOWL VENT CAP ADJUSTMENT

With throttle valves closed, the bowl vent cap should lift approximately $\frac{1}{16}$ inch off its seat.

Use Tool T-109-197, as shown in Figure 16, to check clearance. To increase clearance, remove dust cover and bend actuating arm. To decrease lift press down on cap until correct clearance has been obtained. After adjustments have been checked and corrected, install metering rod dust cover and gasket. Install screws and tighten securely.

Idle speed and mixture adjustment must be performed after installation of carburetor on engine.

FAST IDLE ADJUSTMENT

Before setting fast idle, engine should be fully warmed and running at 600 to 650 rpm. Remove the air cleaner. Remove hairpin clips from choke connector rods. Stop engine and open

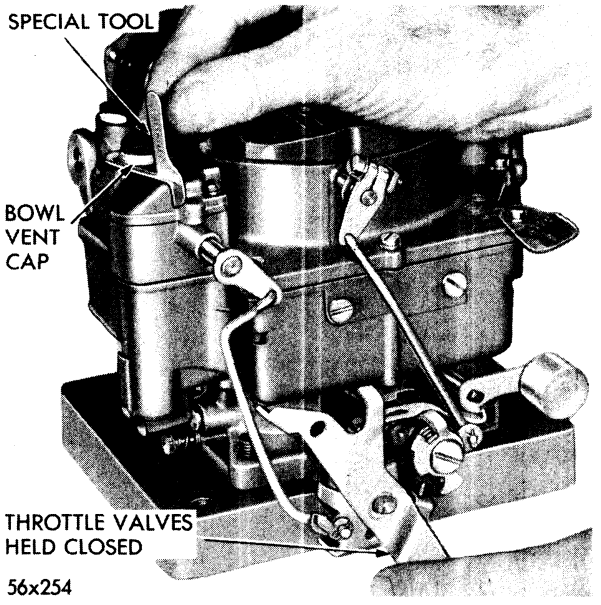

Fig. 16—Checking Bowl Vent Cap Adjustment

throttles halfway. Close both choke blades fully, while holding throttles open.

Let throttle close making certain fast idle adjusting screws contact highest step of fast idle cams. Remove lower ends of choke connector rods from fast idle cams and let choke blades go fully open.

Start engine without touching throttle and check engine rpm. Adjust fast idle adjusting screws until the desired 1450 to 1500 rpm has been obtained. If the engine fast idle speed is not already 1450 to 1500 rpm with engine running hot, it will be necessary to proceed as follows:

Open throttles until fast idle adjusting screws can be reached easily with a screwdriver. Turn screws in or out and repeat above steps until desired fast idle speed is obtained. Install choke connector rods, hairpin clips, and air cleaner.

IDLE SPEED AND MIXTURE ADJUSTMENTS

(Carburetors on Engine)

Connect a tachometer to engine and set hand brake securely. Place transmission in neutral. Start and warm engine to normal operating temperature, making sure choke is fully off and that carburetor is on slow idle. Set engine at 600 to 650 rpm, adjusting both idle screws until a smooth engine idle is obtained. In order to synchronize both carburetors, remove throttle

control rod and throttle connector rod. Install connector rod studs and return springs. Starting with closed throttle valves, open each an equal amount. Open all four mixture screws one turn. Start engine and adjust speed and mixture as necessary to obtain an idle of 600 to 650 rpm. Install connector rod, adjusting length so there is slight end play, and no binding with both carburetors at idle. Attach throttle control rod, making sure it is adjusted so that carburetor position is not disturbed.

12. FUEL AND EXHAUST SYSTEM—DATA AND SPECIFICATIONS

CARBURETOR C-300B

Make	Carter
Type	4 Barrel Downdraft
Model (PowerFlite Transmission)	
Front carburetor	WCFB 2444S
Rear carburetor	WCFB 2445S
Quantity Used	2
Nominal Size	1⅛" 4 Bore 4 Bolt

ADJUSTMENTS

Float Setting (casting to top of floats)	
Primary	3/16"
Secondary	5/16"
Choke Rod	.020"
Velocity Valve	27/64"
Choke Unloader	11/64"
Fast Idle	.006 to .010"
Idle Speed	650 RPM
Idle Mixture (both screws, both carburetors)	Approximately 1 full turn open—Set for Best Idle
Accelerator Pump	Long Stroke

CHOKE

Control	Integral Automatic
Choke Setting	Index Mark (Std. Setting)

SPECIAL TOOLS—Required for servicing the carburetor:

C3400	Stand, Carburetor Repair
T109-29	Gauge, Wire (.020")
T109-41	Bending Tool, Tang
T109-58	Tool, Jet Removing
T109-166	Gauge, Choke Unloader (11/64")
T109-200	Gauge, Wire (Fast Idle) (.006 to .010")
T109-213	Bending Tool, Rod
T109-222	Gauge, Float Level (Primary) 3/16"
T109-220	Gauge, Float Level (Secondary) 5/16"
T109-242	Gauge, Velocity Valve (27/64")

13. FRAME, SPRINGS AND SHOCK ABSORBERS

The frame, rear springs and shock absorbers are of the same design as used on Model C-72, with the exceptions as listed in the Data and Specifications, which follow:

14. FRAME, SPRINGS AND SHOCK ABSORBERS—DATA AND SPECIFICATIONS

FRAME—	
Model	C-300B
Type	Welded, Double-Channel Box Section, Side Rails and Lateral Cross Members
Dimensions	See Figures 1, 2, 3 and 4 of the Frame, Springs and Shock Absorber Section IX
REAR SPRINGS—	
Type	Semi-Elliptic
No. of Leaves	7
Width	2.5″
Length	55″
Shackle	Silent Block Rubber Bushings
Hanger	Side Strapped with Rubber Bushed Bolts
Inserts—Type	Wax Impregnated
Size	3.5 x 2.5″
SHOCK ABSORBERS—	
Type	Oriflow, Double Acting, Hydraulic

15. STEERING

The manual or power steering are of the same design as used on Model C-71 with the exceptions listed in the Data and Specifications that follow:

16. STEERING—DATA AND SPECIFICATIONS

	C-300B
Tread—Front	60.4″
Rear	59.6″
Wheel Base	126.0″
Camber	¼ Degree + or —⅜ Degree
*Caster	Preferred Left + ½ Degree, Right 0 Degree —2 Degree to 0 Degree with Manual Steering 0 Degree with Power Steering
Toe-In (Outside Thread Inches)	⅛″ Preferred
Toe-Out on Turns	21½ Degrees + or —1 Degree (Inner wheel when outer wheel is 20 Degrees)
*King Pin Inclination at Camber (Degrees)	5.5 Degrees at 0 Degree

*Any difference in caster between left and right wheels should make the left side 0 to ¾ Degree more negative caster than right side.

17. TRANSMISSION

The C-300B PowerFlite transmission has a different direct clutch return spring and a regulator valve spring to give 95 to 105 psi. line pressure. These two changes give increased clutch capacity.

All external pressures and settings on the C-300B installation will be the same as Model C-72 installation with the exception of the throttle linkage adjusting. The throttle linkage should be adjusted as follows:

With the push button selector in the neutral position, adjust the engine idle adjusting screws on the carburetors to give 650 engine RPM. Shut off engine and set throttle linkage. Never

set throttle linkage before final adjustment of engine idle.

18. UNIVERSAL JOINTS AND PROPELLER SHAFT

The same design as used on all models.

19. WHEELS AND TIRES

The C-300B are equipped with Hi-Speed Super Cushion Nylon Special tubeless tires. The tires are 4 ply and the size is 8.00 x 15. Refer to Section XIII for service procedures.

20. BODY AND SHEET METAL

The same design as used on Model C-71.

21. LUBRICATION

Refer to the Lubrication Section XV for servicing procedures.

22. RADIO AND HEATER

Radio, Hi-Fi and Heaters can be installed in the C-300B Models. Refer to Radio, Hi-Fi and Heater Section XVI, for servicing procedures.

23. AIR CONDITIONING

The C-300B Models can be equipped with air conditioning. Refer to the Air Conditioning Section XVII.

NOTES