TUNE-UP

ENGINE IDENTIFICATION

Engine Identification Number is stamped on block below number one spark plug. First five digits contain engine cubic inch displacement.

Application	Digits
225"	XX-225

MODEL IDENTIFICATION

Number is located on left front door lock pillar.

D11AB4J000001

First & Second Digits – Model Designation.
Third Digit – Body Type.
Fourth Digit – Gross Vehicle Weight.
Fifth Digit – Engine Type.
Sixth Digit – Model Year.
Seventh Digit – Plant.
Remaining Digits – Sequential Serial Number.

TUNE-UP NOTES

► *IDLE SPEED ADJUSTMENT CAUTION* – Procedures and specifications for idle speed adjustment must be followed exactly as outlined. *See "Hot (Slow) Idle RPM" under Tune-Up.*

NOTE – For other items affecting Tune-Up, see CARBURETION Section or EMISSION CONTROL Section.

NOTE – For Tune-Up purposes only: Light Duty will refer to D100, W100, and all "B" models except B300 Van, B300 Sportsman 15 Passenger, CB300, and MB300. Heavy Duty will refer to D200, D300, W200, W300, B300 Van, B300 Sportsman 15 Passenger, CB300, and MB300.

NOTE – Due to changes and corrections, always refer to Engine Tune-Up Decal in engine compartment before attempting tune-up. In the event of a conflict between specifications given in this manual and decal specifications, decal specifications prevail.

COMPRESSION PRESSURE

With engine warm, spark plugs removed, and throttle wide open, compression pressure should be as specified. Maximum variation between cylinders should not exceed 25 psi.

Application	Minimum PSI
All	100

VALVE TAPPET CLEARANCE

Adjust valve tappet clearance by turning self-locking rocker arm screw.

Intake (Hot)	.012"
Exhaust (Hot)	.024"

VALVE ARRANGEMENT

E-I-E-I-E-I-I-E-I-E-I-E (Front to rear.)

SPARK PLUGS

Gap	.035"
Torque	30 ft. lbs.

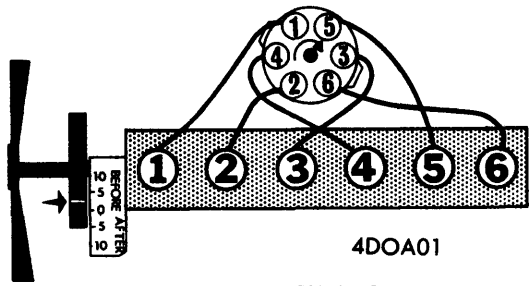
Spark Plug Type

Application	Champion No.
All	N-11Y

DISTRIBUTOR

Electronic Ignition Air Gap	
Go	.008"
No Go	.010"
Cam Angle	①

① – Not adjustable.



FIRING ORDER & TIMING MARKS

IGNITION TIMING

Adjust timing with hot (slow) idle speed set, engine running at normal operating temperature, distributor vacuum advance line disconnected and plugged and transmission in Neutral.

Application	①Timing
Light Duty	TDC
Heavy Duty	2.5 ATDC

① – Tolerance ±2°.

HOT (SLOW) IDLE RPM

With engine running at normal operating temperature, timing checked, air cleaner installed, air conditioning off, and transmission in Neutral, connect tachometer and insert probe of suitable exhaust gas analyzer a minimum of two feet into tail pipe. Warm up and calibrate analyzer according to manufacturer's instructions and clamp hose between distributor vacuum control valve and intake manifold. Adjust idle mixture screw 1/16 turn richer (out) and wait 30 seconds before reading meter and, if necessary, adjust again until meter shows a definite increase in richness. Adjust idle mixture screw 1/16 turn at a time to obtain air/fuel mixture specified on Vehicle Emission Control Information label located in engine compartment. If idle speed changes as mixture screw is turned, adjust speed to specified value and readjust mixture as required so that specified air/fuel ratio is obtained at specified idle speed.

Idle Speed

Application	RPM
Man. Trans.	800
Auto. Trans.	
Holley Carb.	750
Carter Carb.	800

IDLE SPEED SOLENOID ADJUSTMENT

Carter Carburetors Only – Warm up engine and attach tachometer. With engine running (solenoid energized), turn solenoid adjusting screw to obtain specified engine RPM. *See preceding Idle Speed table.* Then adjust engine-off throttle stop screw until end of screw just touches stop. Back off screw one full turn obtaining low speed setting. Test by disconnecting solenoid wire at solenoid (do not let wire ground to engine). Engine RPM should drop.

TUNE-UP (Cont.)

COLD (FAST) IDLE RPM

Carter Carburetors Only – With engine off and transmission in Neutral, open throttle slightly and close choke valve until fast idle speed screw can be positioned on second highest speed step of fast idle cam. Start engine without touching throttle. Adjust fast idle speed screw to obtain specified fast idle RPM.

Holley Carburetors Only – Remove air cleaner and cap vacuum fittings to heated air control and OSAC (eliminates vacuum advance). With engine off, close throttle and position fast idle speed screw on highest speed step of fast idle cam. Move fast idle cam until speed screw drops one place to second highest step of cam. Start engine without touching throttle, allow speed to stabilize, and adjust engine speed to specifications by turning screw.

Fast Idle Speed

Application	RPM
Man. Trans.	
Holley Carb.	1600
Carter Carb.	2000
Auto. Trans.	1800

DASHPOT ADJUSTMENT

With hot (slow) idle speed set to specifications, position throttle lever so that tab on lever is just touching dashpot stem but not depressing it. Allow 30 seconds for engine speed to stabilize. Engine speed should be 2300 RPM. Adjust by loosening lock nut and screwing dashpot in or out as required.

AUTOMATIC CHOKE SETTING

Nonadjustable. Check for free movement on pivot by moving choke rod up and down. If unit binds, install new one.

FUEL PUMP PRESSURE & VOLUME

Pressure (At Idle)	3.5-5 psi
Volume (At Idle)	1 qt. in 1 min.

MANIFOLD HEAT CONTROL VALVE

Check valve for freedom of movement and lubricate (when manifold is cool) with suitable solvent (Part No. 3419129) every 4,000 miles.

EMISSION CONTROL

See appropriate article in EMISSION CONTROL Section.

IGNITION

DISTRIBUTOR

Application	Chrysler Part No.
Light Duty	
Man. Trans.	3755467, 3755825
Auto. Trans.	3755042, 3755470
Heavy Duty, Man. & Auto. Trans.	3755056

Other Data & Specifications – *See Tune-Up and Chrysler Distributors in ELECTRICAL Section.*

IGNITION COIL

Application	Chrysler Part No.
All	2444242

Resistance	Ohms @ 70-80°F
Primary	1.60-1.79
Secondary	9,400-11,700
Ballast Resistor	
Coil Side	.5-.6
Control Unit Side	4.75-5.75

CARBURETION

CARBURETORS

Carter BBS Series 1-Bbl.

Application	Carter Part No.
Man. Trans.	7044S
Auto. Trans.	7045S

Holley No. 1945 1-Bbl.

Application	Man. Trans.	Auto. Trans.
Federal	R-6725	R-6875
California	R-6921	R-6875

Other Data & Specifications – *See Tune-Up and Carter or Holley Carburetors in CARBURETION Section.*

ACCELERATOR AND DOWNSHIFT LINKAGE ADJUSTMENT

Accelerator Adj., Man. Trans. – Make sure throttle return spring is connected,choke is open, and fast idle adjusting screw is off fast idle cam. Adjust accelerator pedal height to 121 to 123 degrees by adjusting rod length at threaded ball socket. Be sure wide open throttle is attained with stop against floor. Adjust throttle hand control stop location on throttle control wire (if so equipped) so that there is ¼ inch free travel of wire before stop engages. Lubricate bell crank pivot with suitable lubricant (Lubriplate).

Downshift & Accel. Adj., Auto. Trans. – Make sure throttle return spring is connected, choke is open, and fast idle adjusting screw is off fast idle cam. Disconnect transmission rod from bellcrank. Hold transmission lever forward and adjust length of rod by turning threaded ball socket so that it lines up with ball. Connect socket to ball. Adjust accelerator pedal height to 121 to 123 degrees by adjusting rod length at threaded ball socket. Be sure wide open throttle is attained with stop against floor. Lubricate bell crank pivot with suitable solvent (Lubriplate).

ELECTRICAL

BATTERY

12 Volt – Negative Ground.

Application	Capacity (Amps.)
Standard	48
Optional	59, 70, 90

ALTERNATOR

Application	Amps.	Chrysler Part No.
All	41	(Red Tag) 3755404
All	50	(Green Tag) 3755406
All	60	(Blue Tag) 3755407
All①	60	(No Color) 3755413

① – With double groove pulley.

Other Data & Specifications – *See Chrysler Alternators in ELECTRICAL Section.*

STARTER

Application	Chrysler Part No.
All	3656575

Other Data & Specifications – *See Chrysler Starters in ELECTRICAL Section.*

ALTERNATOR REGULATOR

Application	Chrysler Part No.
All	3438150

Other Data & Specifications – *See Chrysler Alternator Regulators in ELECTRICAL Section.*

ENGINE

INTAKE MANIFOLD TIGHTENING

Starting in the center and working outward, tighten manifold nuts to 25 ft. lbs.

BELT ADJUSTMENT

Tension (Lbs.) Using Strand Tension Gauge

Application	New Belt	①Used Belt
All	120	70

① – A belt is considered "Used" after 15 minutes of running.

CAPACITIES (EXCEPT COOLING)

Application	Quantity
Crankcase (Includes 1 qt. filter)	5 qts.
Automatic Transmission	
11¾" Torque Converter	19 pts.
10¾" Torque Converter	16.25 pts.
Manual Transmission	①
Front & Rear Axles & Transfer Case	①
Four-Wheel Drive Knuckle Ends	①
Fuel Tank	N/A

① – Fill to bottom of oil filler hole.

COOLING CAPACITIES

Application	Quantity W/Heater
D100 & D200	①13 qts.
W100 & W200	②13 qts.
D300 & W300	14 qts.

① – Add 1 quart with increased cooling package.
② – Add 1½ quarts with automatic transmission and/or increased cooling package.

FILTERS & CLEANERS

Filter or Cleaner	Service Interval (Miles)
Oil Filter	Replace 8,000
Air Cleaner	
Oil Bath	①Clean 12,000
Paper Element	②Clean 8,000
Crankcase Inlet Air Cleaner	①Clean 12,000
Fuel Vapor Storage Canister Filter	Replace 12,000
Fuel Filter	
Paper Element	Replace 12,000
Disposable Canister	Replace 24,000

① – Use SAE 30.
② – Replace at 24,000 miles.