

TUNE-UP

ENGINE IDENTIFICATION

Engine Code Letters are suffix of Engine Identification Number. Number is stamped on pad located at right hand side of cylinder block next to distributor.

Application	Code
250" Man. Trans.	TPT, TPW, TPR, TKH, TPD TPL, TKD, TRB, TPJ, TBB
250" Man. Trans. LPG	TPX, TKJ
250" Auto. Trans.	TPY, TPS, TTK, TPH, TKG, TPK
292" Man. Trans.	TKL
292" Man. Trans. LPG	TKP
292" Auto. Trans.	TKR, TKS

MODEL IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

A combination Vehicle Identification Number and Rating Plate is used on all vehicles. Plate is attached to toe and dash panel on "P" models, on air intake plenum panel on cowl models and on left hand door pillar on all remaining models.

TCS132F000001

- First Digit - Make (GMC Division).
- Second Digit - Truck Type.
- Third Digit - Engine Designation.
- Fourth Digit - Truck Series.
- Fifth Digit - Model Type.
- Sixth Digit - Model Year 2 (1972).
- Seventh Digit - Assembly Plant.
- Remaining Digits - Sequence Built 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 - 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 air cleaner removed and throttle and choke wide open, crank engine through at least four compression strokes. Compression should be 130 psi with a maximum variation of 20 psi between cylinders.

VALVE TAPPET CLEARANCE

Hydraulic Lifters One turn down from zero lash.

VALVE ARRANGEMENT

E-I-I-E-E-I-I-E-E-I-I-E

SPARK PLUGS

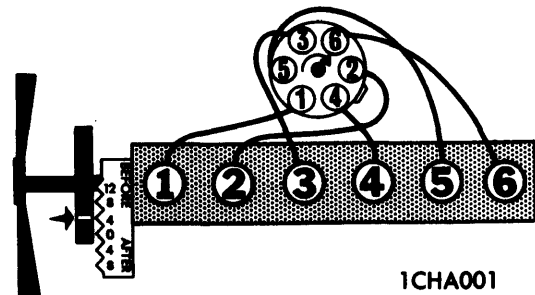
Gap035"
Torque 25 ft. lbs.

Spark Plug Type

Application	AC No.
250"	R46T
292"	R44T

DISTRIBUTOR

Point Gap	
New019"
Used016"
Cam Angle.....	31-34°
Breaker Arm Spring Tension	19-23 ozs.
Condenser Capacity18-.23 mfd.



FIRING ORDER & TIMING MARKS

IGNITION TIMING

Ignition timing is checked or adjusted with engine at normal operating temperature, distributor vacuum line disconnected and plugged, manual transmission in Neutral, automatic transmission in "D" and engine at normal idle. On "P" models, use number two cylinder and timing mark tab on bottom of engine front cover.

Application	Timing
All	4° BTDC

HOT (SLOW) IDLE RPM

NOTE - During adjustments do not turn idle speed solenoid more than one complete turn without disconnecting electrical lead. Idle speed is adjusted with engine at normal operating temperature, choke valve fully open, "Fuel Tank" line disconnected from vapor canister, distributor vacuum line disconnected and plugged, air conditioning "OFF", manual transmission in Neutral and automatic transmission in "D". Rotate idle speed solenoid (DO NOT turn CEC solenoid) to obtain specified idle RPM (solenoid energized). Disconnect electrical lead and turn screw at end of solenoid with an Allen wrench to obtain an engine speed of 450 RPM (solenoid de-energized).

Idle Speed (RPM)

Application	Solenoid Energized RPM
250" Man. Trans.	700
250" Auto. Trans.	600
292" Man. Trans.	700
292" Auto. Trans.	700

TUNE-UP (Cont.)

COLD (FAST) IDLE RPM

Fast idle RPM is checked or adjusted with engine at normal operating temperature, choke valve open, transmission in Neutral and fast idle lever on highest step of fast idle cam. Bend fast idle lever to obtain an engine speed of 2400 RPM.

CHOKE ADJUSTMENT

With air cleaner removed, check that choke valve and rod move freely. Disconnect choke rod from choke lever and hold choke valve closed. With rod pushed down to bottom of travel, top of rod should be even with bottom of hole in choke lever. To adjust, bend rod at offset point in rod.

FUEL PUMP PRESSURE & VOLUME

Pressure (At Idle)..... 3.5-4.5 psi
Volume (At Cranking Speed) 1 pt. in 30-45 sec.

MANIFOLD HEAT CONTROL VALVE

Check valve for freedom of movement and lubricate with a suitable solvent (GM Manifold Heat Control Valve Solvent).

EMISSION CONTROL

See appropriate article in EMISSION CONTROL Section.

IGNITION

DISTRIBUTOR

Application	Delco Part No.
250" "G" Models.....	1110493
250" 2500 & 3500 Series①.....	1110498
250" All Others.....	1110489
292" All.....	1110486

① - California emission package.

Other Data & Specifications - See Tune-Up and Delco Starters in ELECTRICAL Section.

IGNITION COIL

Application	Delco Part No.
All.....	1115202

Resistance	Ohms @ 75°F
Primary.....	1.41-1.65
Secondary.....	3,000-20,000
Ballast Resistor Loom.....	1.8

CARBURETION

CARBURETORS

Rochester Model MV 1-Bbl.

Application	Carb. No.
250" All 1500 Series & G-2500 (Federal)	
Man. Trans.	7042021
Auto. Trans.	7042022
250" All 1500 Series & G-2500 (Calif.)	
Man. Trans.	7042991
Auto. Trans.	7042992
250" C-2500, K-2500 & G-3500 (Federal)①	
Man. Trans.	7042021
Auto. Trans.	7042022
250" C-2500, K-2500 & G-3500 (Calif.)①	
Man. Trans.	7042991
Auto. Trans.	7042992
250" All 2500 & 3500 Series②.....	7042025
292" All.....	7042026

① - Under 6,000 lbs. GVW as shown on Vehicle Identification Plate.

② - Over 6,000 lbs. GVW as shown on Vehicle Identification Plate.

Other Data & Specifications - See Tune-Up and Rochester Carburetors in CARBURETION Section.

ACCELERATOR LINKAGE ADJUSTMENT

Throttle linkage is cable type and is nonadjustable. Inspect all components for wear or damage and replace as necessary.

DETENT CABLE ADJUSTMENT

Turbo Hydra-Matic 350 Trans. - Remove air cleaner and pry up on each side of snap lock to release it. Compress locking tabs and disconnect lock assembly from bracket. Position carburetor in wide open position and pull rearward on cable housing until internal stop on transmission is felt. With cable and throttle in this position, push snap lock on cable until it is flush with top. Install air cleaner.

DETENT SWITCH ADJUSTMENT

Turbo Hydra-Matic 400 Trans. - Adjustment is required only if switch is removed or replaced. Install switch and press plunger as far forward as possible. This will preset switch for adjustment. Switch will now adjust itself when accelerator pedal is depressed to wide open position.

ELECTRICAL

BATTERY

12 Volt - Negative Ground.

Application	Delco Part No.	Cranking Power Watts @ 0°F
250" Standard.....	Y-86.....	2300
292" Standard.....	R-88.....	2900
All Optional.....	R-88X.....	3750

STARTER

Application	Delco Part No.
250" G-1500 & 2500.....	1108365
250" G-3500.....	1108425
250" "C", "K" & "P" Models	
Man. Trans.	1108368
Auto. Trans.	1108367
292" "C", "K" & "P" Models	
Man. Trans.	1108360
Auto. Trans.	1108425

Other Data & Specifications - See Delco Starters in ELECTRICAL Section.

ALTERNATOR

Application	Amps.	Delco Part No.
All Standard.....	37.....	1102452
All Standard ^①	37.....	1102453
All Standard ^②	37.....	1102456
P-2500 & 3500 ^③	42.....	1102458
All Optional.....	42.....	1102458
All Optional.....	61.....	1102455

① - Standard for all models with power steering or A.I.R., except for P-2500 & 3500.

② - Standard for all models with power steering and A.I.R.

③ - Standard for P-2500 & 3500 with power steering or A.I.R.

Other Data & Specifications - See Delco Alternators in ELECTRICAL Section.

ALTERNATOR REGULATOR

Application	Delco Part No.
All.....	1119515

Other Data & Specifications - See Delco Alternator Regulators in ELECTRICAL Section.

ENGINE

INTAKE MANIFOLD TIGHTENING

Tighten all outer bolts to 30 ft. lbs. then tighten center nuts to 30 ft. lbs.

FILTERS & CLEANERS

Filter or Cleaner	Service Interval (Miles)
Oil Filter.....	Replace 12,000
Air Cleaner	
Element Type.....	①Check 12,000
Oiled Element Type.....	Replace 12,000
Polyurethane Wrap Type.....	Clean 24,000
Oil Bath Type.....	②Check 12,000
Crankcase Ventilation Filter.....	Replace 24,000
PCV Valve.....	Replace 24,000
TH-400 Sump Strainer.....	Replace 24,000
Fuel Filter	
Carburetor Inlet Type.....	Replace 12,000
In-Line Type.....	Replace 24,000
Distributor Cam Lubricator.....	Replace 24,000

① - Replace if dirty, do not clean. Rotate 180° at 12,000 miles and replace at 24,000 miles.

② - Check oil level and add SAE 50 oil if necessary.

BELT ADJUSTMENT

Tension (Lbs.) Using Strand Tension Gauge

Application	New Belt	Used Belt
Water Pump.....	125±5.....	75±5
Power Steering.....	125±5.....	75±5
Air Conditioning.....	140±5.....	90±5
A.I.R. Pump.....	125±5.....	75±5

COOLING CAPACITIES

Application	Quantity
250"	
"G" Models ^①	12 qts.
P-1500.....	12 qts.
P-2500 & 3500.....	12.5 qts.
"C" & "K" Models	
Man. Trans.	12.2 qts.
Auto. Trans. or H.D. Radiator.....	12.5 qts.
292"	
"C" & "K" Models.....	12.6 qts.
"C" & "K" Models H.D. Radiator.....	13.3 qts.
P2500 & 3500.....	13.1 qts.

① - Add one quart if equipped with heater.

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ENGINE (Cont.)

CAPACITIES (EXCEPT COOLING)	
Application	Quantity
Crankcase	
250"	① 4 qts.
292"	① 5 qts.
Auto. Trans.	
TH 350	10 qts.
TH 400	9.5 qts.
Man. Trans.	
3-Speed	3.5 pts.
4-Speed	7 pts.
Four-Wheel Drive	
Transfer Case	5 pts.
Power Take-Off	1 pt.
Drive Axles	②
Fuel Tank	
"G" Models	③ 24.5 gals.
Panel, Suburban & Jimmy	
1500 Series	20.5 gals.
2500 Series	23.5 gals.
"C" & "K" Models, All Others	
1500 Series	20.2 gals.
2500 & 3500 Series	21 gals.
P-1500	17 gals.
P-2500 & 3500	30 gals.
① - Add one quart with filter change.	
② - Fill to bottom of filler plug hole.	
③ - 22 gals. if equipped with anti-overfill.	