

1973 GMC V8 Tune-Up

TUNE-UP

ENGINE IDENTIFICATION

Engine Code letters are suffix of Engine Identification Number. Number is stamped on pad on front right hand side of cylinder block.

Application	Code
307" Man. Trans.	TCT, TCU, TCK, TCR, TCD, TCB, TCX, TCJ
307" Auto. Trans.	TCH, TCY, TCA, TCC, TCS, TCW, TCL, TCM
350" Man. Trans.	TJB, TJC, TDY, TJH, TJM, TJR, TJW, TJJ, TJK, TJH
350" Auto. Trans.	TJA, TJZ, TJY, TJX, TJS, TJT, TJU, TJL
454" Man. Trans.	TRA, TRJ, TRC, AJT, TRK, TRR
454" Auto. Trans.	TRL, TRB, TRH, TRK

MODEL IDENTIFICATION

A combination Vehicle Identification Number and Rating Plate is used on all vehicles. Plate is attached to dash and toe panel on all "P" models (except Motor Home Chassis) and on left hand door pillar on all remaining models. Plate location on Motor Home Chassis must be supplied by body builder.

TCQ133F100001

- 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 3 (1973).
- 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.

NOTE - For Tune-Up purposes only, Light Duty (L/D) will refer to all 1500 series, Suburban and Rally Van models. Heavy Duty (H/D) will refer to all remaining models.

COMPRESSION PRESSURE

With air cleaner removed and throttle and choke wide open, crank engine through at least four compression strokes. Compression should be 150 psi with a maximum variation of 20 psi between cylinders.

VALVE TAPPET CLEARANCE

Hydraulic Lifters One turn down from zero lash.

VALVE ARRANGEMENT

307", 350"
E-I-I-E-E-I-I-E (Both banks, front to rear.)
454"
E-I-E-I-E-I-E-I (Left bank, front to rear.)
I-E-I-E-I-E-I-E (Right bank, front to rear.)

SPARK PLUGS

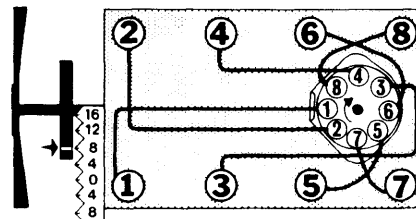
Gap035"
Torque..... 15 ft. lbs.

Spark Plug Type

Application	AC No.
All	R44T

DISTRIBUTOR

Point Gap
New019"
Used016"
Cam Angle..... 28-32°
Breaker Arm Spring Tension 19-23 ozs.
Condenser Capacity 18-23 mfd.



3CHA001

FIRING ORDER & TIMING MARKS

IGNITION TIMING

Ignition timing is checked or adjusted with engine at normal operating temperature, distributor vacuum line disconnected and plugged, transmission in Neutral and engine at normal idle.

Ignition Timing Specifications

Application	Man. Trans.	Auto. Trans.
307"		
Light Duty.....	4° BTDC	8° BTDC
Heavy Duty.....	TDC	TDC
350"		
Light Duty.....	8° BTDC	12° BTDC
Heavy Duty.....	4° BTDC	4° BTDC
454"		
Light Duty.....	10° BTDC	10° BTDC
H/D (Federal).....	10° BTDC	10° BTDC
H/D (Calif.).....	5° BTDC	8° BTDC

TUNE-UP (Cont.)

HOT (SLOW) IDLE RPM

Preliminary Adjustments - All Models - Idle speed is checked or adjusted with engine at normal operating temperature, air cleaner installed, choke valve open, distributor vacuum line disconnected and plugged, "Fuel Tank" line to vapor canister disconnected (if equipped), air conditioning off and parking brake on.

NOTE - When adjustment of idle speed solenoid is required to obtain specified idle speed, **DO NOT** turn CEC solenoid.

307" Light Duty - Adjust idle speed solenoid to obtain specified idle RPM with manual transmission in Neutral and automatic transmission in "D". Disconnect idle speed solenoid lead and adjust idle speed solenoid screw (inside hex nut) with an Allen wrench to obtain an engine speed of 450 RPM.

350" & 454" Light Duty - Adjust idle speed solenoid to obtain specified idle RPM with manual transmission in Neutral and automatic transmission in "D".

307" & 350" Heavy Duty - Adjust carburetor idle speed screw to obtain specified idle RPM with manual transmission in Neutral and automatic transmission in "P".

454" Heavy Duty - Adjust idle speed solenoid to obtain specified idle RPM with manual transmission in Neutral and automatic transmission in "P".

Application	Idle Speed (RPM)	
	Man. Trans.	Auto. Trans.
307" & 350"		
Light Duty.....	900.....	600.....
Heavy Duty.....	600.....	600.....
454"		
Light Duty.....	900.....	600.....
Heavy Duty.....	700.....	700.....

DISTRIBUTOR

Application	Delco Part No.	
	Man. Trans.	Auto. Trans.
307"		
1500 Series.....	1112227.....	1112102.....
2500, 3500 Series.....	1112096.....	1112096.....
350"		
Light Duty.....	1112093.....	1112094.....
Heavy Duty.....	1112097.....	1112097.....
454"		
2500 Series Suburban.....	①.....	1112504.....
All Others.....	1112113.....	1112113.....

① - Not applicable.

COLD (FAST) IDLE RPM

Rochester Model 2GV 2-Bbl. - Fast idle RPM is correct when slow idle RPM is correctly adjusted. See *Hot (Slow) Idle RPM* in this Section.

Rochester Model 4MV 4-Bbl. - Fast idle speed is checked or adjusted with engine at normal operating temperature, choke valve open, transmission in Neutral and fast idle lever on high step of fast idle cam. Adjust fast idle screw to obtain specified fast idle RPM.

Fast Idle Speed (RPM)

Application	Man. Trans.	Auto. Trans.
Light Duty.....	1300①.....	1600.....
Heavy Duty.....	1600.....	1600.....
Motor Home Chassis.....	1600.....	1600.....

① - Vacuum advance line disconnected and plugged.

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)	
307".....	5-6.5 psi
350", 402".....	7-8.5 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

Other Data & Specifications - See *Delco Distributors in ELECTRICAL* Section.

IGNITION COIL

Application	Delco Part No.
All.....	1115238.....
Resistance	
Ohms @ 75°F	
Primary.....	1.77-2.01.....
Secondary.....	3,000-20,000.....
Ballast Resistor Loom.....	1.8.....

1973 GMC V8 Tune-Up

CARBURETION

CARBURETORS

Rochester Model 2GV 2-Bbl.

Application	Carb. No.
307"	
G-1500 All.....	7043103
C & K-1500 All.....	7043105
C, K & P-2500 & 3500 All.....	7043108

Rochester Model 4MV 4-Bbl.

Application	Carb. No.
350" "G" Models, Light Duty	
Man. Trans.	7043211
Auto. Trans.	7043210
350" All Others, Light Duty	
Man. Trans.	7043203
Auto. Trans.	7043202
350" Heavy Duty	
Motor Home & G-3500.....	7043215
All Others	7043208
454" Light Duty	
Man. Trans.	7043201
Auto. Trans.	7043200
454" Heavy Duty	
Motor Home	7043216
All Others (Federal).....	7043207
All Others (California).....	7043507

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 in 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
Standard		
307" & 350"	R88	2900
454"	R88W	3750
Optional All.....	R88W	3750

STARTER

Application	Delco Part No.
307"	
"G" Models W/Heavy Duty Clutch.....	1108520
All Others	1108367
350"	
P-3500 Man. Trans.	1108360
Motor Home	1108502
All Others	1108427
454"	
Motor Home	1108502
All Others	1108430

Other Data & Specifications — See *Delco Starters* in *ELECTRICAL* Section.

ALTERNATOR

Application	Amps.	Delco Part No.
All		
Standard.....	37	1100934
Optional.....	42	1100573
Optional ①	61	1100597

① — Standard if equipped with A/C.

Other Data & Specifications — See *Delco Alternators* in *ELECTRICAL* Section.

ALTERNATOR REGULATOR

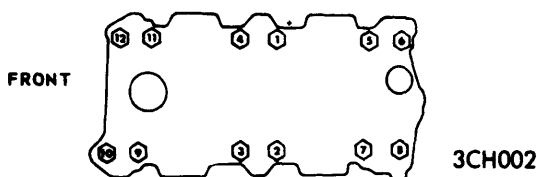
Delco — Nonadjustable, integral with alternator.

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

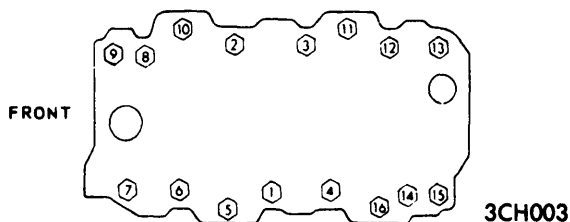
ENGINE

INTAKE MANIFOLD TIGHTENING

Tighten bolts to 30 ft. lbs. in sequence shown in illustration.



307" & 350"
INTAKE MANIFOLD TIGHTENING SEQUENCE



454"
INTAKE MANIFOLD TIGHTENING SEQUENCE

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

CAPACITIES (EXCEPT COOLING)

Application	Quantity
Crankcase	① 4 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	
Conventional	5 pts.
Full Time	8.25 pts.
Power Take-Off	1 pt.
Drive Axles	②
Fuel Tank	
"G" Models	21 gals.
"C" & "K" Models	
Suburban & Jimmy	21 gals.
Suburban & Jimmy (Optional)	30 gals.
All Others Short W.B.	16 gals.
All Others Long W.B.	20 gals.
Auxiliary Tank (Left Side)	20 gals.
P-1500	22 gals.
P-2500 & 3500	30 gals.

- ① - Add one quart with filter change.
② - Fill to bottom of filler plug hole.

COOLING CAPACITIES

Application	Quantity
307"	
"G" Models ①	
Standard	15 qts.
H.D. Radiator	16 qts.
Air Conditioning	18 qts.
"C" Models	
Man. Trans.	15.8 qts.
Auto. Trans. or H.D. Radiator	16.2 qts.
"K" Models	
Man. Trans. or H.D. Radiator	16.1 qts.
Auto. Trans.	16.5 qts.
"P" Models	
Man. Trans.	18.7 qts.
Auto. Trans. or Air Conditioning	19.1 qts.
350"	
"G" Models	②
C-1500	
Man. Trans.	15.8 qts.
Auto. Trans. & H.D. Radiator	16.2 qts.
Air Conditioning	17.7 qts.
C-2500 & 3500	
Man. Trans.	16.2 qts.
Auto. Trans. & Air Conditioning	17.7 qts.
H.D. Radiator	18.2 qts.
"K" Models	
Man. Trans. & H.D. Radiator	16.5 qts.
Auto. Trans. & Air Conditioning	17.9 qts.
"P" Models	
Standard	16.9 qts.
H.D. Radiator	18.5 qts.
454"	
All	
Man. Trans. & H.D. Radiator	18.5 qts.
Auto. Trans. & Air Conditioning	21 qts.

- ① - Add one quart if equipped with heater.
② - See capacity specifications for 307" engine.

FILTERS & CLEANERS

Filter or Cleaner	Service Interval (Miles)
Oil Filter	Replace 12,000
Air Cleaner	
Element Type	① Check 12,000
Oiled Element Type	Replace 12,000
Polyurethane Wrap Type	Clean 24,000
Oil Bath Type	② Check 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.