

TUNE-UP

ENGINE IDENTIFICATION

Engine can be identified by the fourth digit of Vehicle Identification Number. Number is the first line of rating plate or vehicle certification label.

VIN Engine Codes

Application	Code
302" (5.0L) 2-Bbl.	F
351" M (5.8L) 2-Bbl.	G
351" W (5.8L) 2-Bbl.	W
400" (6.6L) 2-Bbl.	Z
460" (7.5L) 4-Bbl.	L

MODEL IDENTIFICATION

RATING PLATE

F100/350, E100/350, U150 (Bronco) — Rating plate is located on lock face of left front door.

Cowl & Windshield Models — Rating Plate is located on right side of cowl top panel under hood.

TUNE-UP NOTES

NOTE — In some applications within this article it will be necessary to refer to the engine calibration number. To determine location of calibration number decal on engine, refer to Ford Motor Co. Vacuum Diagrams in EMISSION CONTROL Section. Most numbers for V8 engines are located on an identification label on front of right valve cover.

NOTE — For Tune-Up purposes, "Light Duty" refers to vehicles up to 8500 lbs. "Heavy Duty" refers to vehicles exceeding 8500 lbs.

NOTE — When connecting a tachometer to SSI coil, install the alligator clip on tachometer into the "DEC" (TACH TEST) cavity.

NOTE — For other items affecting Tune-Up, see FUEL SYSTEMS Section or EMISSION CONTROL Section.

NOTE — Due to production changes, 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, use the decal specifications.

CAUTION — When performing tune-up on vehicles equipped with a catalytic converter, do not allow or create a condition of engine misfire in one or more cylinders for an extended period of time. Damage to converter from overheating may occur due to loading with unburned fuel.

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

ENGINE COMPRESSION

Compression Ratio

302"	①
351" M	①
351" W	①
400"	①
460"	①
Recommended Fuel	②(87 AKI Minimum)

① — Not available from manufacturer.

② — Leaded or unleaded. If equipped with a catalytic converter, unleaded fuel (87 AKI Minimum) must be used.

Test compression with all spark plugs removed and engine at normal operating temperature. Crank engine through at least five compression strokes before recording reading. Maximum compression variation should not exceed 25% between highest and lowest cylinder.

VALVE TAPPET CLEARANCE

Application	Allowable①	Desired①
302"071-.193"	.096-.165"
351" W098-.198"	.123-.173"
351" M & 400"100-.200"	.125-.175"
460"075-.175"	.100-.150"

① — Clearance specified is measured at valve stem tip with tappet collapsed.

VALVE ARRANGEMENT

All Models

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

Gap042-.046"
Torque	15-25 ft. lbs.

Spark Plug Type

Application	Autolite No.
Standard	ASF-42
Heavy Duty	ASF-52

HIGH TENSION WIRE RESISTANCE

1) Loosen wires from spark plugs by twisting spark plug boot carefully to loosen seal on spark plug. Remove wires by pulling on plug boot. Remove distributor cap from distributor, leaving wires connected to cap.

NOTE — DO NOT disconnect wires from distributor cap unless replacement is necessary.

2) Using an ohmmeter, check resistance of each wire by connecting one ohmmeter lead to spark plug terminal and other lead to distributor cap insert. Replace any wire with over 5,000 ohms resistance per inch.

NOTE — Whenever a high tension wire is disconnected, the interior of spark plug terminal boot must be coated with dielectric silicone grease before connection.

TUNE-UP (Cont.)

DISTRIBUTOR

All models are equipped with Motorcraft Dura Spark II ignition system and no adjustments are required.

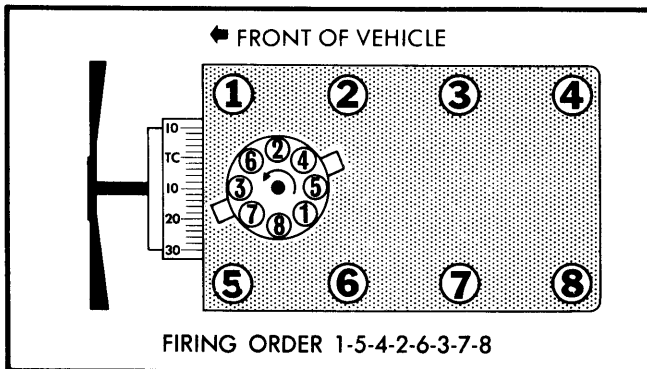


Fig. 1 302" & 460" Firing Order & Timing Mark Identification

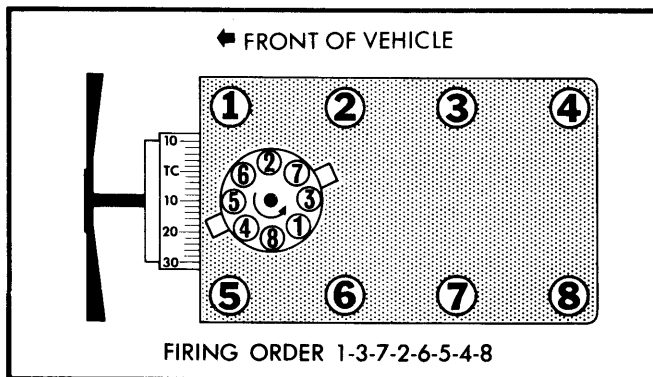


Fig. 2 351" & 400" Firing Order & Timing Mark Identification

IGNITION TIMING

NOTE — Magnetic probe timing device may be used if instrument is available and engine is so equipped. Timing probe offset is 135°ATDC on all V8 engines.

1) Determine specified timing and mark degree line on damper (some vehicles mark both pointer and damper notch). Disconnect vacuum line(s) at distributor and plug lines.

2) Connect tachometer (Rotunda 20362 or equivalent). Connect timing light (Rotunda 270001 or equivalent) to No. 1 spark plug wire. Set timing to specifications if more than ±2° variation is found.

3) To adjust, loosen distributor hold-down bolt and rotate distributor to align marks in step 1). Tighten hold-down bolt and recheck timing.

Ignition Timing Specifications (Degrees BTDC@RPM)

Application	Man. Trans.	Auto. Trans.
302"		
Federal	6@550	8@550
Calif.	4@750	10@550
351" M		
Federal	①10@650	②③6@500
Calif.	①10@650	②③8@500
351" W		
Federal		④10@500
Calif.		8@500
400"		
Federal	6@600	3@600
Calif.	6@600	6@600
460"		
Federal		8@650

- ① — High altitude is 16@650.
- ② — High altitude is 12@500.
- ③ — Heavy duty is 10@600.
- ④ — High altitude is 16@500.

HOT (SLOW) IDLE RPM

NOTE — On engines that idle smoothly but become rough at 1000-2000 RPM, check for crossed orange and purple primary ignition wires between distributor and module. To check, turn ignition key off and set engine at initial timing mark firing point. One spoke of distributor armature should be opposite stator pole. If pole is between spokes, primary wires are probably crossed.

ALL MODELS

Preliminary Adjustments — 1) Apply parking brake and block wheels. Turn off all accessories. Disengage power take off units, if equipped.

2) Remove air cleaner assembly and plug lines. Make sure throttle and choke linkages are not binding. Connect tachometer (Rotunda 20362) to engine.

3) On light duty vehicles equipped with A.I.R. with two vacuum lines on side of dump valve, disconnect and plug both lines. If dump valve has only one vacuum line on top, check to see if line is connected directly to intake manifold vacuum. If not, run a slave line from dump valve directly to an intake manifold vacuum source. Plug other vacuum line.

NOTE — On 351" M, 400" and 460" engines, place transmission shift lever in "NEUTRAL" (Man. Trans.) or "PARK" (Auto. Trans.) and run engine until normal operating temperature is reached. Shut off engine.

4) On heavy duty vehicles with 351" M, 400" or 460" engines, disconnect system vacuum hose to decel throttle control diaphragm and plug hose. If so equipped, disconnect fuel evaporative line at first point of removal other than valve itself. Plug line and cap the open port. Do not disconnect at purge valve or damage will result.

TUNE-UP (Cont.)

NOTE — If purge hose vacuum line is connected through PCV system; Do not disconnect hose as vehicle is equipped with continuous purge system.

5) Before making speed checks, run engine at 2500 RPM for 15 seconds in Neutral (man. trans.) or Park (auto. trans.). Allow engine speed to return to curb idle and move shift lever to Neutral (man. trans.) or Drive (auto. trans.). Measure curb idle speed and adjust if not within ± 50 RPM of specifications.

302" & 351" W ENGINES

Curb Idle — 1) Run engine at 2500 RPM for 15 seconds in "NEUTRAL" (Man. Trans.) or "PARK" (Auto. Trans.) and then let engine speed stabilize.

2) Place shift lever in "DRIVE" (Auto. Trans.) or "NEUTRAL" (Man. Trans.). Measure curb idle speed and adjust if not within ± 50 RPM of specifications.

3) If curb idle cannot be adjusted low enough, check for presence of dashpot. Make sure there is clearance between dashpot stem and throttle lever pad and repeat curb idle adjustment until consistent speed is obtained.

4) Collapse dashpot stem and check clearance between dashpot stem and throttle lever pad. Adjust if not to specifications.

TSP "OFF" Speed — 1) When checking Throttle Solenoid Positioner "OFF" (TSP "OFF") speed, collapse solenoid (anti-dieseling solenoid or solenoid-dashpot) plunger by forcing throttle lever against plunger.

2) Check the TSP "OFF" speed and adjust if not within ± 50 RPM of specifications.

351" M & 400" ENGINES (LIGHT DUTY VEHICLES)

Curb Idle, Man. Trans. With A/C and Non-A/C and Auto. Trans. Non-A/C — 1) Adjust curb idle to specifications by turning throttle stop screw. If curb idle cannot be adjusted low enough, check specified clearance between dashpot stem and throttle lever and adjust as necessary.

2) Repeat curb idle check until RPM can be repeated. Check dashpot clearance between dashpot stem and throttle lever and adjust to specifications.

Curb Idle, Except Auto. Trans. With A/C — 1) Adjust curb idle to specifications by turning throttle stop screw. If curb idle cannot be adjusted low enough, check clearance between dashpot stem and throttle lever and adjust as necessary.

2) Check A/C "ON" (with solenoid-dashpot energized). Shut engine off and turn ignition switch to "Engine Run" position, but do not start engine. Move climate control lever to A/C "ON" position. Manually move throttle lever away from energized solenoid-dashpot. Solenoid dashpot should extend to new position. If not, check climate control lever position and solenoid-dashpot connection.

NOTE — There is no curb idle A/C "ON" speed specification.

351" M & 400" ENGINES (HEAVY DUTY VEHICLES)

Curb Idle and Decel Throttle Control Speed — 1) Make sure throttle solenoid is energized. Connect slave vacuum hose from intake manifold source to diaphragm. Run engine at 2500 RPM for 15 seconds with transmission in Neutral. Let engine speed stabilize.

2) If engine speed is not within ± 50 RPM of specifications, adjust solenoid positioner by turning long screw on mounting bracket until specification is obtained.

3) Disconnect slave manifold vacuum hose from diaphragm and plug hose, allowing engine to return to curb idle speed.

4) For carburetors with throttle solenoid positioner (TSP) or solenoid-dashpot, run engine at 2500 RPM for 15 seconds in "NEUTRAL" (Man. Trans.) or "PARK" (Auto. Trans.) and let speed stabilize. Compare speed to specifications.

5) If speed is not within ± 50 RPM, adjust to specifications. On vehicles equipped with separate TSP, adjust by turning long screw on mounting bracket. On vehicles equipped with integral decel throttle control diaphragm and TSP or vehicles equipped with solenoid-dashpot, turn hex head on rear of solenoid until 1750 RPM is obtained. On vehicles not equipped with solenoid device, turn throttle adjusting screw to obtain specified RPM.

NOTE — Each time curb idle speed is adjusted, check dashpot clearance. Collapse dashpot stem and check clearance between end of collapsed stem and throttle lever pad. Adjust if not within specifications.

6) Repeat curb idle speed check until consistent speed is obtained. For vehicles equipped with integral decel throttle control diaphragm and TSP, repeat applicable instructions in Step 5) until consistent speed is repeated.

7) Check dashpot clearance once more by collapsing dashpot stem and measuring clearance between end of stem and throttle lever pad.

TSP "OFF" Idle Speed — 1) With engine idling and transmission shift lever in "NEUTRAL" (Man. Trans.) or "PARK" (Auto. Trans.), collapse the solenoid plunger by forcing throttle lever pad against plunger.

2) Measure TSP "OFF" idle speed and compare to specifications. If not within specifications, adjust throttle adjusting screw until specified speed is obtained.

460" ENGINES

Curb Idle and Decel Throttle Control Speeds — 1) To check the curb idle, run the engine at 2500 RPM for 15 seconds in "NEUTRAL" (Man. Trans.) or "PARK" (Auto. Trans.). Let speed stabilize, and compare to curb idle specifications. If not within specifications, adjust by turning throttle adjusting screw. Repeat speed check until specified speed is repeatable.

2) On engines with decel throttle control diaphragm, make sure curb idle is adjusted to specifications. Connect a slave vacuum hose from engine manifold source to diaphragm. Run engine again at 2500 RPM for 15 seconds, letting engine speed stabilize.

TUNE-UP (Cont.)

3) If speed is not within ± 50 RPM, adjust diaphragm positioner by loosening lock nut and rotating positioner until 1800 RPM is obtained and tighten lock nut.

4) Disconnect slave manifold vacuum hose from diaphragm. Plug hose, allowing engine to return to curb idle. Repeat steps 2) and 3).

ALL MODELS

NOTE — If specified idle speed cannot be obtained by normal adjustments on vehicles with speed control, disconnect accelerator cable at carburetor throttle lever. If specified idle speed can now be obtained with linkage disconnected, check speed control installation.

Engine Service After Speed Checks — 1) Reconnect all vacuum lines or hoses to their original positions. Reinstall air cleaner assembly. Run engine at 2500 RPM for 15 seconds and recheck curb idle speed.

2) Final curb idle speed check must be made with air cleaner installed. Adjust as necessary and recheck dashpot clearance.

Curb Idle Speed (RPM)

Application	Man. Trans.	Auto. Trans.
302"		
Federal	700	575
Calif. ①	800	650
351" M		
Federal	650	②550
Calif. ①	800	②550
351" W		
Federal ③		600
Calif. ③		600
400"		
Federal ①	600	②550
Calif. ①	600	②550
460"		650

- ① — TSP "OFF" is 550 RPM.
- ② — A/C "ON" is 625 RPM.
- ③ — TSP "OFF" is 500 RPM.

COLD (FAST) IDLE RPM

NOTE — Before adjusting Cold (Fast) Idle RPM, perform Hot (Slow) Idle RPM preliminary adjustments.

All Models — 1) On all vehicles under 8500 GVW, disconnect and plug EGR vacuum hose at EGR/PVS valve (if equipped). If not equipped, do not remove EGR vacuum hose. On heavy duty vehicles with decel throttle control, disconnect EGR vacuum hose at EGR valve and plug hose.

2) If equipped with spark delay valve, remove valve and route vacuum hose directly to distributor. With engine running at normal operating temperature, transmission shift lever in Neutral (man. trans.) or Park (auto. trans.) and choke plate fully opened, place fast idle lever on specified step of cam.

NOTE — Before each speed check, run engine at 2500 RPM for 15 seconds to let engine speed stabilize.

3) Check fast idle speed and adjust, if not within ± 100 RPM of specifications, by turning fast idle adjusting screw. Repeat steps 2) and 3) until consistent fast idle speed is obtained. When speed is correct, reconnect and/or install all vacuum hoses, air cleaner and spark delay valve (if equipped).

Fast Idle Speed (RPM) ①

Application	Man. Trans.	Auto. Trans.
302"		
Federal	2000	2000
Calif.	2500	2400
351" M	2000	2000
351" W		②1750
400"	1750	2000
460"		1600

- ① — Set fast idle speed screw on highest step of cam.
- ② — Set fast idle speed screw on kickdown step of cam.

DASHPOT ADJUSTMENT

With idle mixture and speed properly adjusted, remove air cleaner and loosen dashpot lock nut. With choke open, hold throttle plate closed (idle position) and check clearance between throttle lever pad and dashpot plunger tip. Plunger MUST be completely collapsed to check clearance. Turn dashpot in or out to obtain .035-.059" clearance. Tighten lock nut.

IDLE MIXTURE

NOTE — If adjustments to the air/fuel mixture are made that require removing the idle limiter caps, BLUE Service Limiter Caps must be installed. Idle mixture should be adjusted only during carburetor repair or when necessary as a result of government inspection laws.

PROPANE ENRICHMENT PROCEDURE

1) Leave all vacuum signal hoses attached to air cleaner assembly when relocating air cleaner for carburetor adjustments. Air cleaner MUST be installed for engine speed checks.

CAUTION — Do not let engine idle for extended periods, as catalyst overheating may cause excessive underbody temperatures.

2) Apply parking brake and block wheels. Disconnect automatic brake release and plug vacuum connections. Connect tachometer (Rotunda 20362 or equivalent).

3) Disconnect and plug fuel evaporative purge valve return hose at engine. Disconnect evaporative emission purge hose at air cleaner. Plug nipple.

NOTE — Check and make sure correct PCV valve is installed and that air cleaner element is clean, as an excessively dirty air cleaner element could cause an erroneous propane reading.

4) Disconnect flexible fresh air tube from air cleaner duct or adapter. Insert hose from propane enrichment tool (Rotunda T75L-9600-A) into duct or fresh air tube.

TUNE-UP (Cont.)

5) For vehicles equipped with thermactor, disconnect and plug hoses of dump valves equipped with two fittings. If valves have one fitting, remove and plug hose at valve. Connect slave hose to dump valve and intake manifold vacuum source.

6) Be sure idle mixture limiter(s) is set to maximum rich position (counterclockwise against stop). Check curb idle speed or A/C "OFF" RPM and set as specified. Remove PCV valve from grommet, leaving connection open.

NOTE — If idle mixture limiter caps have been previously removed from 2-Bbl. or 4-Bbl. carburetors, shut off engine, turn mixture screws clockwise until seated and then back (counterclockwise) 2 turns. Start engine and proceed to step 7).

7) With shift lever in "NEUTRAL" (Man. Trans.) or "PARK" (Auto. Trans.), run engine at 2500 RPM for 15 seconds before each mixture check.

8) With engine idling at normal operating temperature, place transmission shift lever in "NEUTRAL" (Man. Trans.) or "DRIVE" (Auto. Trans.). Gradually open propane tool valve and watch for engine speed gain on tachometer. When speed reaches maximum and begins to drop off, note amount of speed gain.

NOTE — If engine speed will not drop off, check bottle gas supply. If necessary, repeat test with new bottle.

9) Compare measured speed gain to specifications. If idle mixture adjustment is necessary, adjust to "Reset RPM." If speed increase is within "RPM Gain" specification, proceed to step 16).

10) If measured speed gain is zero RPM and minimum speed gain specification is zero RPM, proceed to step 13).

11) If measured speed gain is GREATER than specification, turn mixture screw(s)/limiter(s) counterclockwise in equal amounts and repeat steps 6) through 9) until measured speed rise meets "Reset RPM" specifications. After final adjustment, proceed to step 16).

12) If measured speed gain is LESS than specification, turn mixture screw(s)/limiter(s) clockwise in equal amounts and repeat steps 6) through 9) until speed rise meets "Reset RPM" specifications. After final adjustment, proceed to step 16).

13) If there is ZERO increase in RPM and the minimum speed gain specification is zero RPM, perform the following speed drop test. While watching tachometer, adjust mixture screw(s)/limiter(s) clockwise by number of turns specified. Note drop in engine speed.

14) If measured speed is EQUAL TO or drops off MORE THAN speed drop specifications, return mixture limiter(s) to maximum rich position or mixture screw(s) to position prior to adjustment. Then proceed to step 16).

15) If measured speed drop is LESS THAN the specified minimum, leave mixture limiter(s) in adjusted position and repeat steps 6) through 14).

16) Check curb idle speed and remove all test equipment. Install PCV valve in grommet. Reconnect and/or install all components and reinstall air cleaner.

NOTE — Idle mixture adjustment by propane enrichment not required for heavy duty vehicles.

Idle Mixture Specifications

Application	RPM Gain/Reset RPM
302"	
Federal	
Man. Trans.	5-65/20-50
Auto. Trans.	20-80/40-60
Calif.	
Man. Trans.	50-130/70-110
Auto. Trans.	0-70/20-50
351" M	
Man. Trans.	75-120/80-110
Auto. Trans.	30-100/40-70
351" W	120-240/160-200
400"	
Man. Trans.	N/R
Auto. Trans.	30-100/40-70
460"	N/R

AUTOMATIC CHOKE ADJUSTMENT

Loosen choke cover screws and turn choke cover in desired direction as indicated on cover to specified setting.

Automatic Choke Specifications

Application	Setting
302"	①3N/R
351" M	②3N/R
351" W	Index
400"	
Man. Trans.	2N/R
Auto. Trans.	③3N/R
460"	5N/R

① — Calibration No. 0-54Q-R0, 0-54K-R10 or 0-54N-R0 is 1N/R.

② — Calibration No. 0-60D-R10, 0-62D-R10 or 0-59S-R0 is Index.

③ — Calibration No. 0-62D-R0 or 0-62L-R0 is Index.

MANIFOLD HEAT CONTROL VALVE

Check valve for freedom of movement and lubricate with a suitable solvent.

FUEL PUMP

Check mechanical fuel pump at curb idle RPM with engine at normal operating temperature and transmission in "NEUTRAL."

Pressure 6-8 psi
Volume One pint in 20 seconds

EMISSION CONTROL

See appropriate article in EMISSION CONTROL Section.

GENERAL SERVICING

IGNITION

DISTRIBUTORS

All units are equipped with Motorcraft Dura-Spark II Ignition system. Units are self-contained and require no outside adjustments.

Other Data & Specifications — See *Tune-Up and Motorcraft Distributors* in *ELECTRICAL* Section.

IGNITION COIL

Resistance

Primary 1.13-1.23 ohms
 Secondary 7,700-9,300 ohms
 Resistor Wire 1.05-1.15 ohms

Reserve Voltage 28 Kv minimum

FUEL SYSTEMS

CARBURETORS

Application	Model
302", 351" W, 351" M, & 400"	Motorcraft 2150 2-Bbl.
460"	Holley 4180-C

Other Data & Specifications — See *Tune-Up and Holley or Motorcraft Carburetors* in *FUEL SYSTEMS* Section.

ACCELERATOR LINKAGE ADJUSTMENT

All Models — Linkage is cable type and no adjustment is necessary.

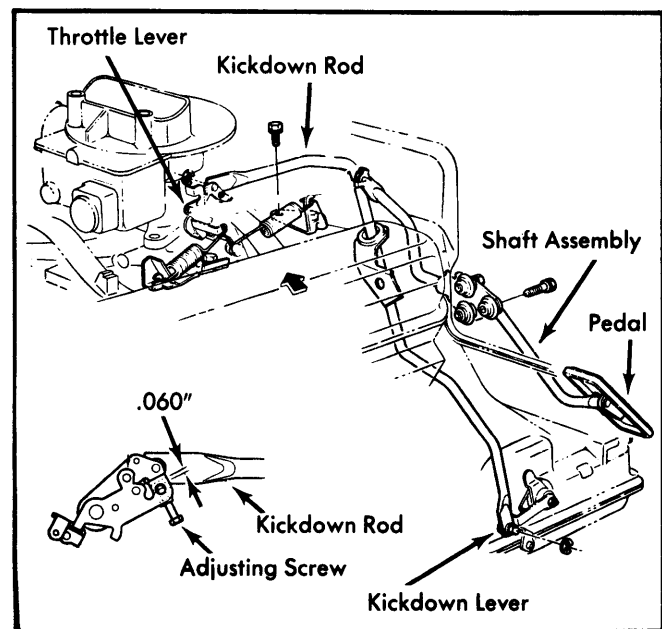


Fig. 3 View of Typical Accelerator Linkage

DOWNSHIFT LINKAGE ADJUSTMENT

With accelerator linkage correctly adjusted, hold throttle lever in wide open position. Place a .060" feeler gauge between throttle lever and adjusting screw. Loosen adjusting screw lock nut and turn adjusting screw until downshift lever on transmission is against internal stop. Tighten adjusting screw lock nut.

ELECTRICAL

BATTERY

12 Volt — Negative Ground.

Application	Amp. Hr.
Standard	
Federal	36
Calif.	45
Optional (All)	63, 71, 81

STARTER

Motorcraft positive engagement type with either a 4" or 4½" armature.

Engine Cranking Speed	
4" Armature	180-250 RPM
4½" Armature	150-290 RPM
Starter Current Draw	
4" Armature	150-200 amps.
4½" Armature	150-180 amps.

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

ALTERNATORS

All Models use Motorcraft Alternator

I.D. Color	Rated Amp. Output
Rear Terminal	
Orange	40
Green	60
Side Terminal	
Black	70
Red	100

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

ALTERNATOR REGULATOR

Motorcraft Electronic Regulators are externally mounted. Two different models are color coded as they are not interchangeable, but similar in appearance.

Application	Color of Plate
Vehicles with Ammeters	Blue
Vehicles with Indicator Lights	Black

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

GENERAL SERVICING (Cont.)

ENGINE

INTAKE MANIFOLD TIGHTENING

Tighten intake manifold bolts in sequence shown in diagrams to the following specifications:

Engine	Torque (Ft. Lbs.)
302" & 351" W	23-25
351" M & 400"	
5/16" Bolt	19-25
3/8" Bolt	22-32
460"	22-32

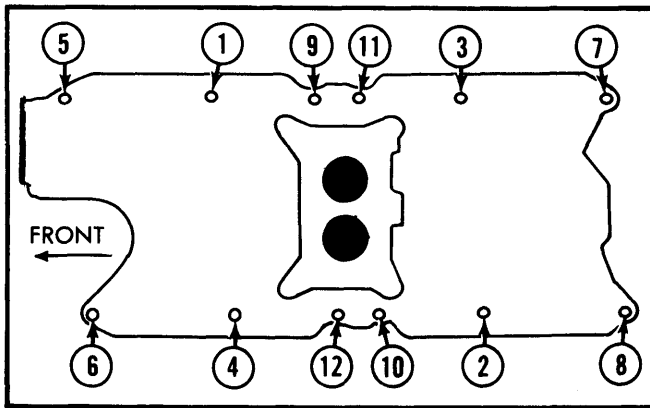


Fig. 4 302" & 351" W Intake Manifold Tightening Sequence

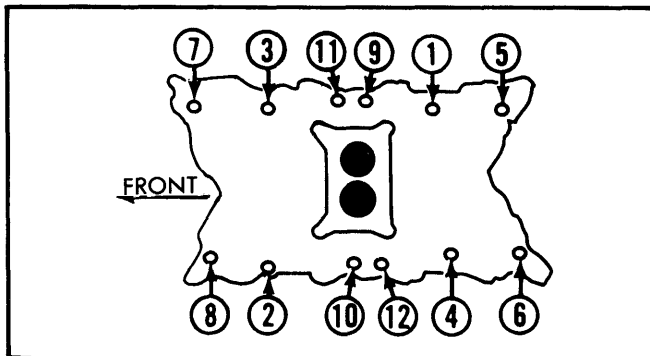


Fig. 5 351" M & 400" Intake Manifold Tightening Sequence

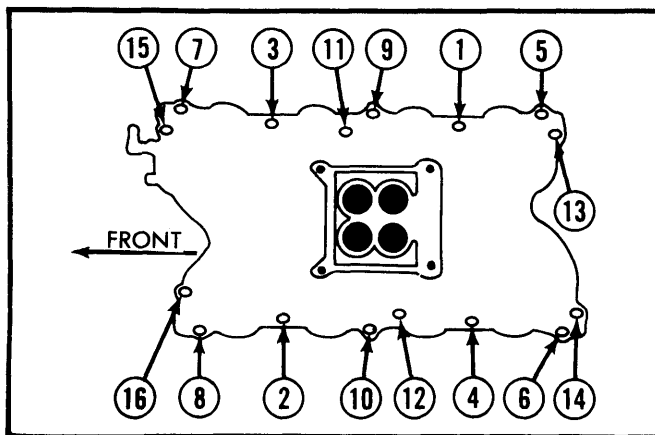


Fig. 6 460" Intake Manifold Tightening Sequence

BELT ADJUSTMENT

Application	Tension (Lbs.) Using Strand Tension Gauge New Belt	Ⓢ Used Belt
1/4" Belts	50-80	40-60
All Others	120-160	75-120

Ⓢ — Any belt operated for 10 minutes or more.

COOLING CAPACITIES

Application	Quarts
302"	
E100/150	
Standard Cooling	
Man. Trans.	15.0
Auto. Trans.	17.5
Extra Cooling	18.5
F100/350 & Bronco	
Man. Trans.	13.0
Auto. Trans.	14.0
351" M & 400"	
E250/350	
Standard Cooling	20.0
Super Cooling	28.0
F100/350 & Bronco	
Standard Cooling	15.0
Super Cooling	16.0
351" W	
E100/150	
Standard & Extra Cooling	20.0
Super Cooling	21.0
460"	28.0

CAPACITIES (EXCEPT COOLING & FUEL)

Application	Quantity
Crankcase	Ⓢ 5.0 qts.
Automatic Transmission (Dexron II)	
C-4	10.0 qts.
C-6	
2-WD	11.75 qts.
4-WD	13.5 qts.
Manual Transmission (SAE 80W-90)	
3-Speed	3.5 pts.
4-Speed T-18	7.0 pts.
4-Speed N.P. 435	
With Extension	7.0 pts.
Without Extension	6.5 pts.
4-Speed Overdrive	5.0 pts.
Transfer Case (Dexron II)	6.0 pts.
Rear Axles (SAE 80W-90)	
Ford	6.5 pts.
Dana 60	7.0 pts.
Dana 61	6.0 pts.
Dana 70	7.0 pts.
Front Axles (SAE 80W-90)	
Dana 44	4.0 pts.
Dana 50	5.0 pts.

Ⓢ — Add 1 quart for filter change.

GENERAL SERVICING (Cont.)

FUEL TANK CAPACITIES

Application	Quantity (Gals.)
F100, F150, F250 (Short W.B.)	
Standard	16.5
Auxiliary	19.0
F100, F150, F250, F350 (Long W.B.)	
Standard	19.0
Auxiliary	19.0
E100, E150, Club Wagon (Short W.B.)	
Standard	18.0
Auxiliary	18.0
All Other "E" Models (Long W.B.)	
Standard	22.1
Auxiliary	18.0
Bronco	
Standard	25.0
Optional	32.0

FILTERS & CLEANERS

Filter or Cleaner	Service Interval (Miles)
Oil Filter	Replace ①15,000
Air Filter	Replace 30,000
Crankcase Filter	Replace 30,000
PCV Valve	Replace 30,000
Fuel Filter	Replace ②15,000

- ① — Replace first time at 7,500 miles.
- ② — Replace at 30,000 mile intervals thereafter.