

1974 Ford 6 Tune-Up

TUNE-UP

ENGINE IDENTIFICATION

Engine code letter is fourth digit of Official Serial Number or Warranty Number.

Application	Code
200" 6-Cyl.	T
240" 6-Cyl.	A
300" 6-Cyl.	B

MODEL IDENTIFICATION

RATING PLATE

F100/350 & E100 - Rating Plate is located on rear (lock) face of left front door.

U100 - Rating Plate is located on inner panel of glove box door.

Cowl & Windshield Models - Rating Plate is mounted on right side of cowl top panel or upper cowl panel under hood.

F25YLQ00000

First Digit - Truck Series Letter.

Second & Third Digits - Truck Series Numbers.

Fourth Digit - Engine Code.

Fifth Digit - Assembly Plant.

Remaining Digits - Consecutive Unit 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.

COMPRESSION PRESSURE

Check compression with throttle wide open at cranking speed. Compression pressure should be at least 75% of highest reading.

VALVE TAPPET CLEARANCE

Application	Clearance
200"	⓪.079-.129"
240" & 300"	⓪.100-.150"

⓪ - Clearance is with tappet collapsed.

VALVE ARRANGEMENT

200" - E-I-I-E-I-E-E-I-E-I-E (front to rear).

240" & 300" - E-I-E-I-E-I-E-I-E-I-E-I (front to rear).

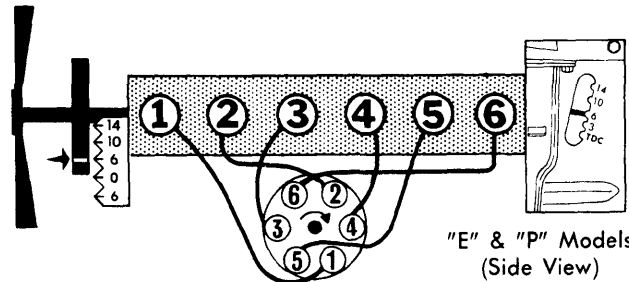
SPARK PLUGS

Gap032-.036"
Torque	15-20 ft. lbs.

Application	Spark Plug Type	Autolite No.
200"		BRF-82
240" & 300"		BRF-42

DISTRIBUTOR

Point Gap	
U100025"
All Models (Exc. U100)027"
Cam Angle	33-39°
Breaker Arm Spring Tension	17-21 ozs.
Condenser Capacity21-.25 mfd.



"E" & "P" Models
(Side View)

FIRING ORDER & TIMING MARKS

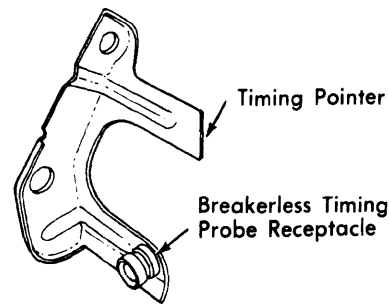
IGNITION TIMING

Conventional Distributor - With engine at normal operating temperature, disconnect distributor vacuum line(s) and plug line(s). Install timing light to number one spark plug. Check and adjust timing at 600 RPM.

Breakerless Distributor - Install breakerless timing equipment to engine per manufacturer's instructions. Disconnect and plug distributor line(s). Bring engine to normal operating temperature and reduce idle to 600 RPM. Check and adjust timing as required. Reconnect vacuum line(s) and reset idle RPM.

NOTE - Receptacle for the electronic probe is located at front of engine (see illustration).

NOTE - Refer to engine compartment, Emission Control Tune-Up Decal for specifications.



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TYPICAL BREAKERLESS TIMING POINTER & PROBE RECEPTACLE

HOT (SLOW) IDLE RPM

Set parking brake and bring engine to normal operating temperature. Check timing and dwell and install a tachometer. Place automatic transmission in "D" or manual transmission in neutral. Turn headlights to high beam and air conditioning "OFF." With air cleaner installed, adjust curb idle RPM to

TUNE-UP (Cont.)

specifications. On engines equipped with idle stop solenoid, turn solenoid plunger screw in or out to obtain specified RPM. Disconnect solenoid lead wire to bullet connector, then adjust carburetor throttle stop screw to obtain 500 RPM. Reconnect solenoid lead wire and open throttle slightly by hand so solenoid plunger may extend. Adjust mixture screw for smoothest idle within range of idle limiter caps.

NOTE — Refer to engine compartment, Emission Control Tune-Up Decal for specifications.

IDLE MIXTURE ADJUSTMENT

EXHAUST GAS ANALYZER PROCEDURE

Install a suitable calibrated exhaust gas analyzer. With air cleaner installed, take an analyzer reading. Adjust idle mixture screw within range of limiter cap to specified air/fuel ratio or CO percentage. Correct for any changes in engine idle RPM immediately as idle mixture screw is turned.

NOTE — Allow at least ten seconds following each mixture adjustment for analyzer to properly respond and stabilize.

Idle Limiter Cap — If proper air/fuel or CO percentage cannot be achieved within limits of idle limiter cap, remove cap and adjust mixture screw until proper air/fuel or CO percentage is achieved. Replace with a colored limiter cap.

NOTE — Refer to engine compartment, Emission Control Tune-Up Decal for specifications.

COLD (FAST) IDLE RPM

With hot (slow) idle speed properly adjusted, install a tachometer and bring engine to normal operating temperature. Manually rotate fast idle cam until fast idle screw rests on proper step of cam. Adjust fast idle screw until specified cold (fast) idle RPM is achieved.

NOTE — When setting fast idle speed, all vacuum distributor and EGR controls must be by-passed to insure proper speeds during cold operation. Use a jumper hose from carburetor "Dist." port to vacuum advance port on distributor. Disconnect and plug EGR vacuum source.

Application	Fast Idle RPM
200" & 240"	1750
300"	1600

GOVERNOR ADJUSTMENT

240" & 300" — On vehicles equipped with conventional velocity governor, connect a tachometer to engine. With engine at normal operating temperature and throttle at wide open position, compare RPM with operating range stamped on governor plate. If adjustment is required, remove governor seal. To increase RPM, turn cap counterclockwise and clockwise to decrease RPM. With adjustment completed, stop engine and seal cap.

FUEL PUMP PRESSURE & VOLUME

Pressure (at 500 RPM)	4-6 lbs.
Volume	① 1 pt. in 15 sec.

① — With fuel return line (pump to tank) pinched off.

MANIFOLD HEAT CONTROL VALVE

240" & 300" — Check valve for freedom of movement and lubricate with a suitable solvent (Rotunda COAZ-19A501-A).

EMISSION CONTROL

See Appropriate Article in EMISSION CONTROL Section.

IGNITION

DISTRIBUTOR

Application	① Ford Part No.	
	Man. Trans.	Auto. Trans.
200"	D3BF-CA	
240"	D3UF-PA	D3UR-BA, RA
300"	D3TF-GA	D3TF-GA

① — Basic part number is 12127.

Other Data & Specifications — See Tune-Up & Ford Distributors in ELECTRICAL Section.

IGNITION COIL

Application	① Ford Part No.
Conventional	B6A-B
Breakerless	D4AZ-A

① — Basic part number is 12029.

Resistance	Ohms @ 75°F
Conventional	
Primary	1.40-1.54
Secondary	7600-8800
Breakerless	
Primary	1.0-2.0
Secondary	7000-13,000

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CARBURETION

CARBURETORS

Carter Model YF 1-Bbl.

Application	① Ford Part No.	
	Man. Trans.	Auto. Trans.
200"	D4TE-ABA	
240"	D4TE-ZA, D4UE-LA	D4TE-AAA, D4UE-MA, NA
300"	D4TE-YA, YC, ACA, AGA, AUA, AVA, D4UE-KA, KB, RA	D4TE-AGA, ACA, D4UE-RA

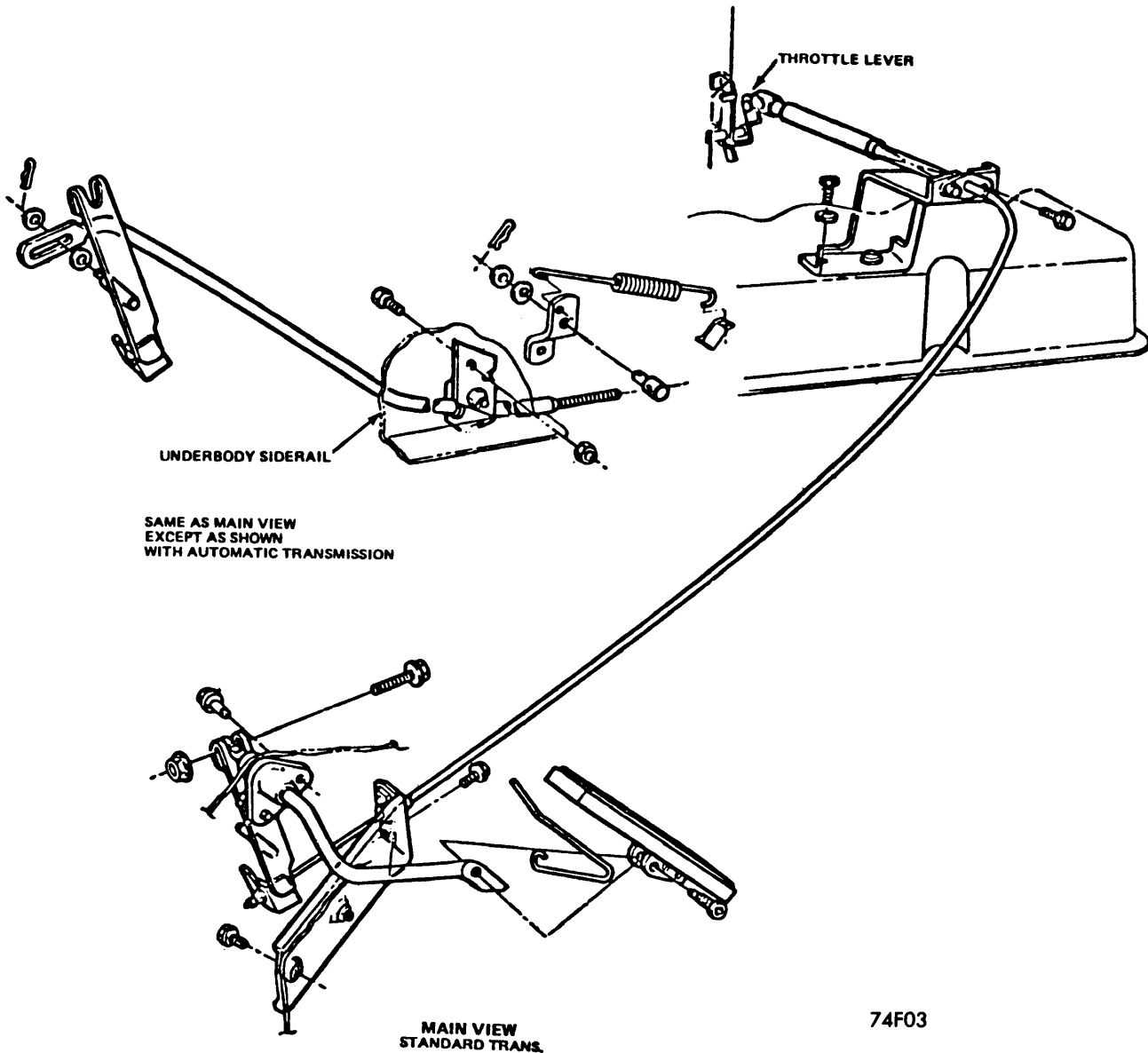
① — Basic part number is 9510.

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

ACCELERATOR AND DOWNSHIFT LINKAGE ADJUSTMENT

E100 240" & 300" — On engines with automatic transmission, hold accelerator pedal in wide open position. Disconnect downshift rod at transmission downshift lever. Move downshift rod at transmission downshift lever. Move downshift rod to maximum rearward position. Move transmission downshift lever to maximum forward position. Adjust downshift rod trunnion so that it slips freely into downshift lever, then lengthen rod one or two turns of trunnion. Tighten and reinstall trunnion and downshift rod.

F100/350, F100 & 250 (4x4) 240" & 300" — On automatic transmission, rotate throttle to wide open position. Insert a .060" feeler gauge between throttle lever and adjusting screw. Rotate downshift lever until it reaches internal



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ACCELERATOR & DOWNSHIFT LINKAGE E100/300"

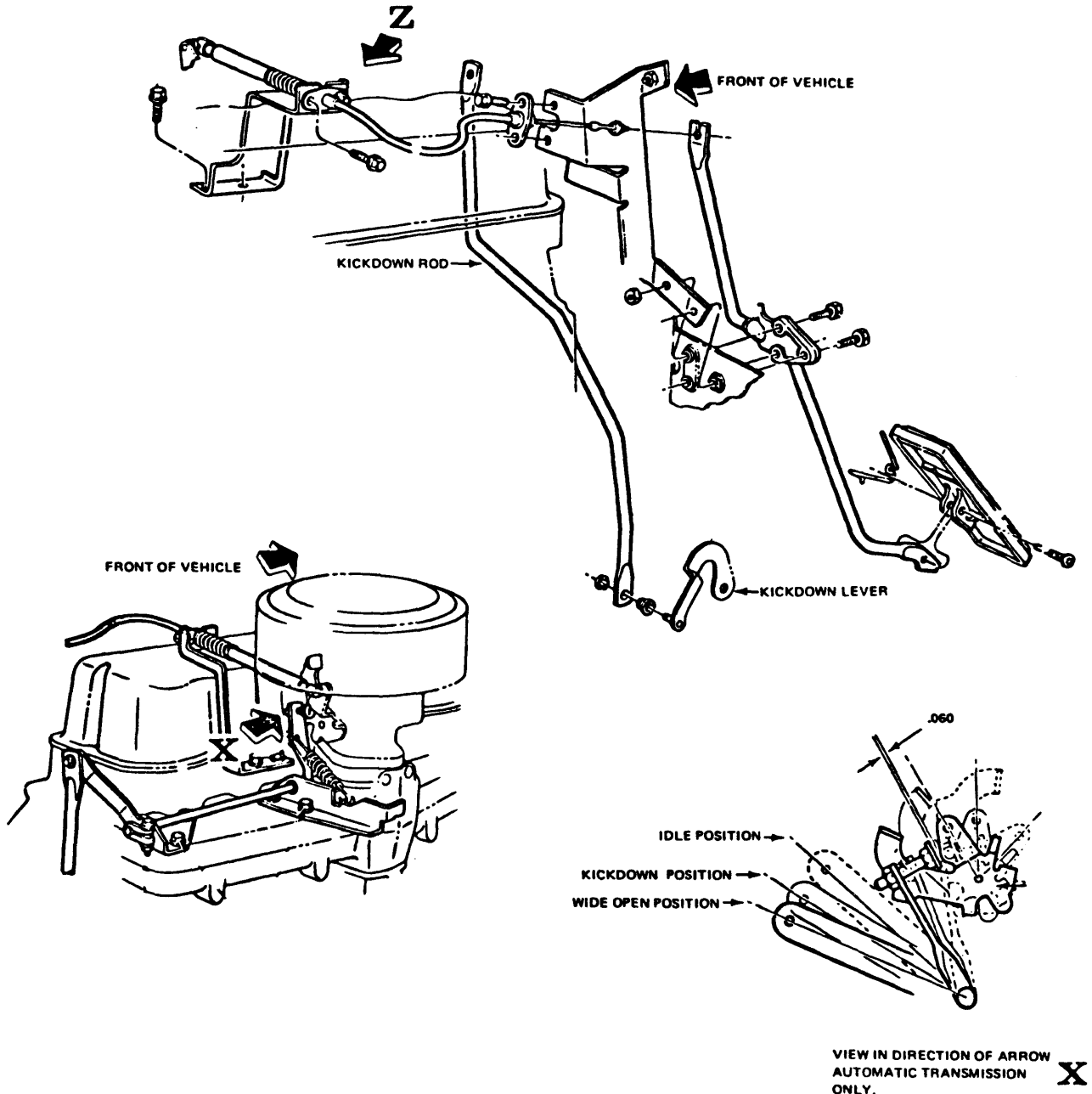
CARBURETION (Cont.)

stop. Do not use downshift rod to rotate lever. Adjust screw until it contacts .060" feeler gauge. Tighten lock nut and remove feeler gauge.

against internal stop. Tighten lock nut and remove feeler gauge.

P350 240" & 300" - On automatic transmission, hold throttle in wide open position. Place a .060" feeler gauge between throttle lever and adjusting screw. Loosen lock nut and adjust screw until downshift lever on transmission is

U100 Hand Throttle - Press throttle knob against instrument panel. With carburetor throttle lever against idle stop, slide hand throttle cable in cable clamp until throttle lever contacts pedal shaft arm. Tighten cable clamp screw.

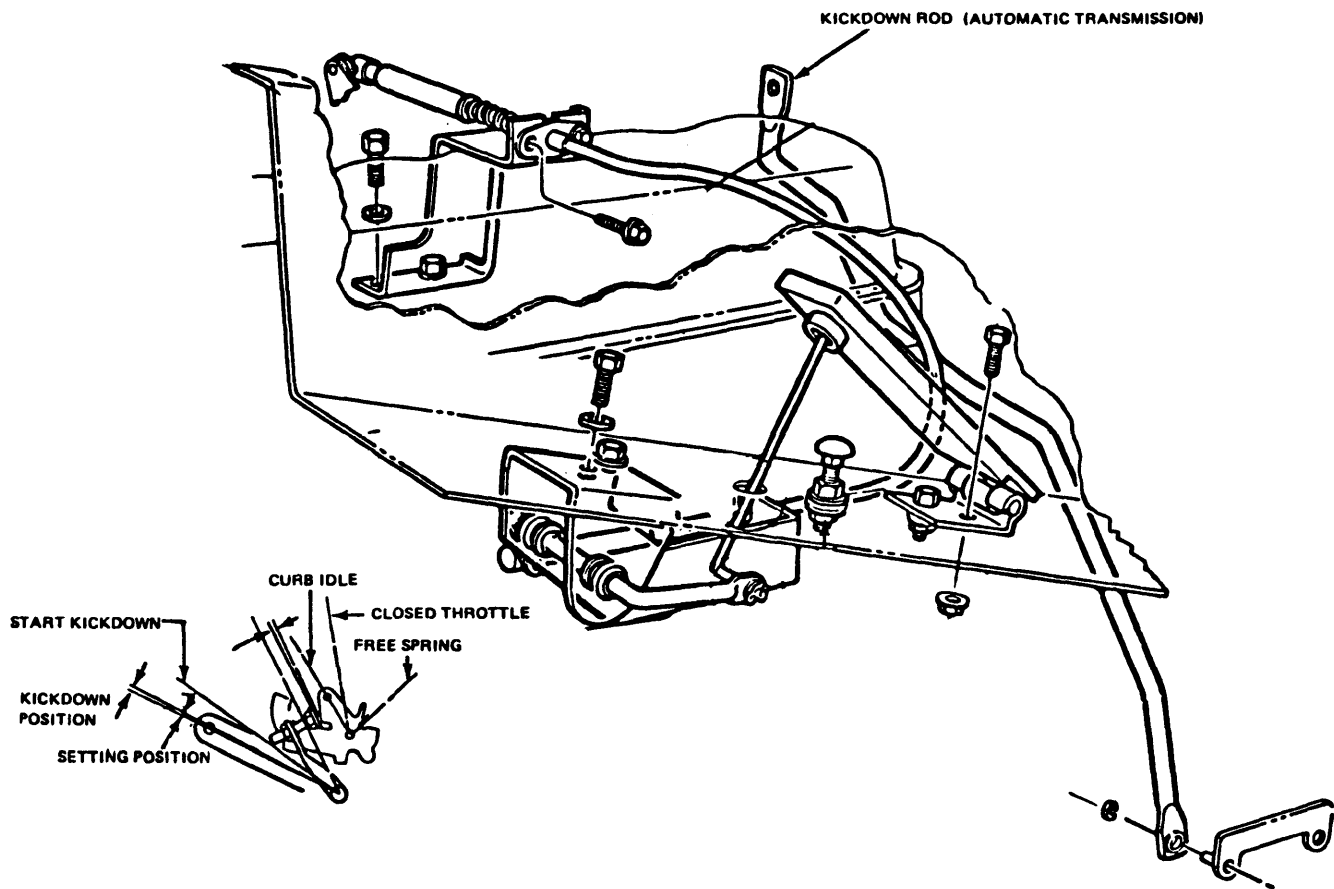


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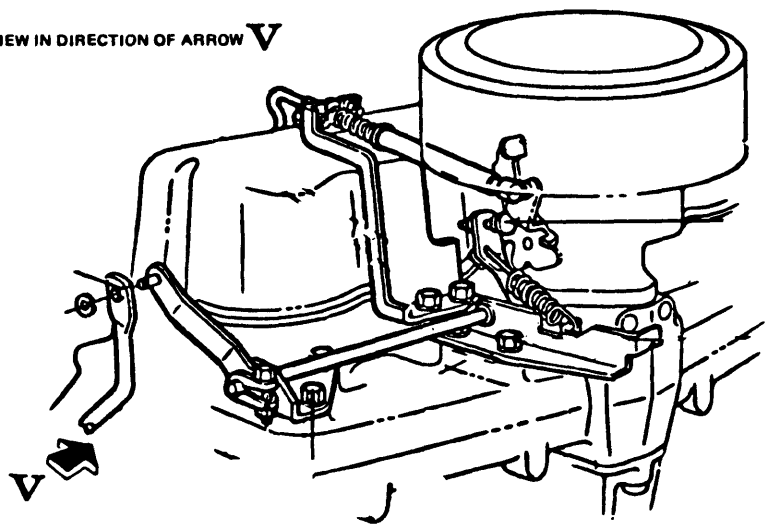
ACCELERATOR LINKAGE F100/350

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CARBURETION (Cont.)



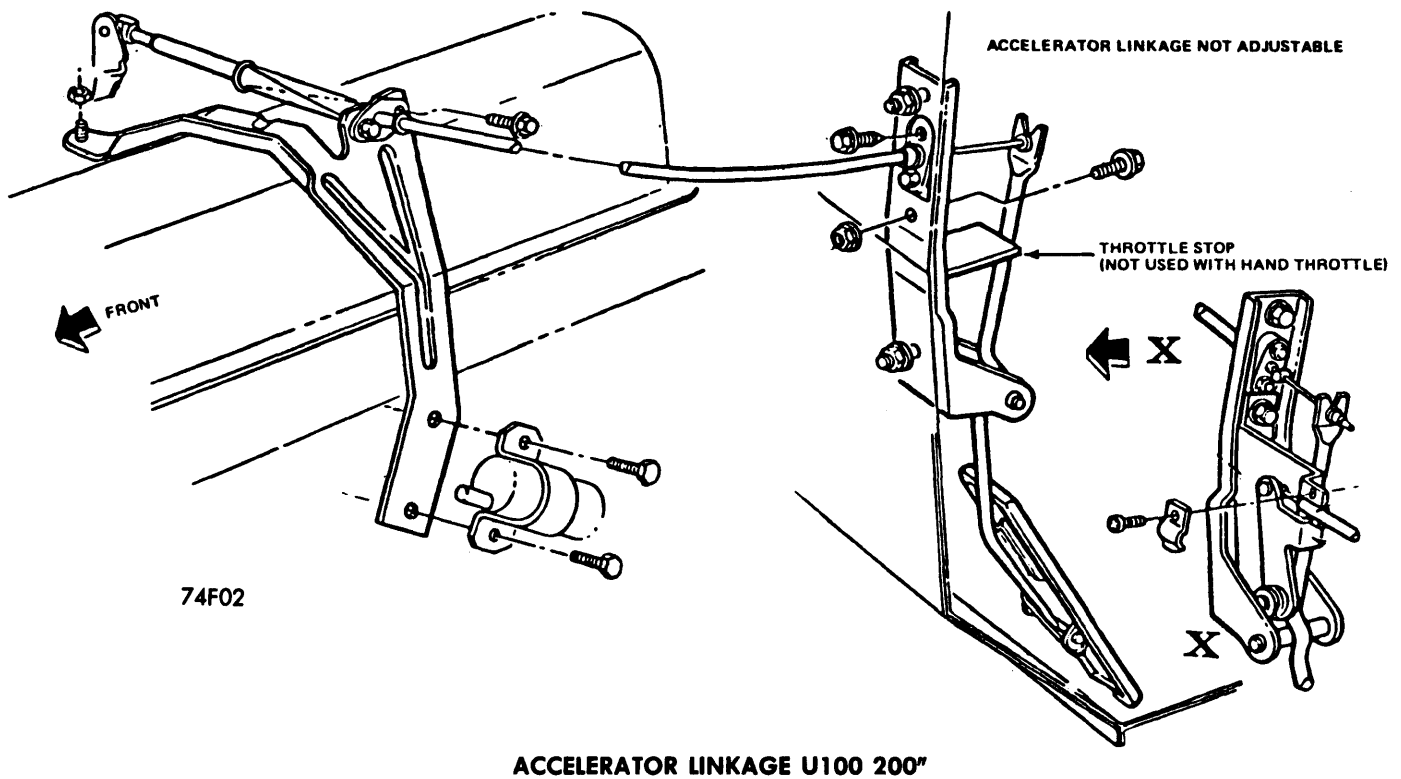
VIEW IN DIRECTION OF ARROW **V**



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ACCELERATOR LINKAGE P350 300"

CARBURETION (Cont.)



ELECTRICAL

BATTERY

12 Volt - Negative Ground.

Filler Caps	Plates	Capacity Amps.
Yellow	54	45
Red	66	55
Red	66	70
Yellow	78	70

STARTER

Application	①Ford Part No.
U100 (Man. Trans.)	C6OZ-A
U100 (Auto. Trans.)	C3OZ-C
E, P, F100/350 (Man. Trans.) 240" & 300"	C5TZ-D
E, P, F100/350 (Auto. Trans.) 240" & 300"	C2OZ-B

① - Basic part number is 11002.

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

ALTERNATOR

Application	Amps. & I.D. Color	①Ford Part No.
All Models W/O A.I.R.	38 Purple	D2AZ-C
All Models W/A.I.R.	38 Purple	D4OZ-C
E, P, F100/350		
W/O A.I.R.	42 Orange	D2AZ-C
All Models W/A.I.R.	42 Orange	D4OZ-C
All Models W/O A.I.R.	55 Red	D2AZ-D
All Models W/A.I.R.	55 Red	D4OZ-B
E100/300, F250/350		
W/O A.I.R.②	61 Green	D2TZ-B
E100/300, F250/350		
W/A.I.R.②	61 Green	D4OZ-A

① - Basic part number is 10346.
 ② - Camper Special.

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

ALTERNATOR REGULATOR

Application	①Ford Part No.
All Models	D4TZ-A

① - Basic part number is 10316.

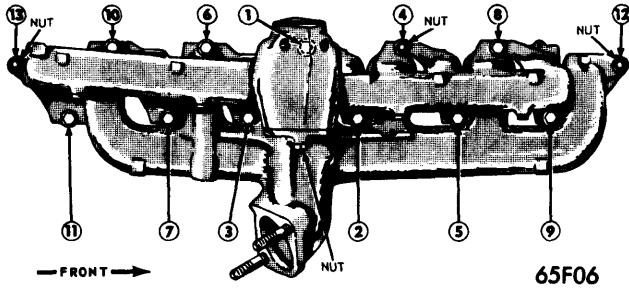
Other Data & Specifications - See Motorcraft Alternator Regulators in ELECTRICAL Section.

ENGINE

INTAKE MANIFOLD TIGHTENING

Working from the center outward, tighten nuts and bolts to specifications.

Application	Intake	Exhaust
200"		13-18
240" & 300"	28-33	23-28



INTAKE & EXHAUST MANIFOLD TIGHTENING SEQUENCE 240" & 300"

BELT ADJUSTMENT

Tension (Lbs.) Using Strand Tension Gauge

New	110-140 lbs.
Used ^①	80-110 lbs.

① - Belt run for a minimum of 10 minutes is considered used.

COOLING CAPACITIES

Application	Quantity (Qts.)
E100 300"	14.5
E100 300" E.C.	16.25
U100 200"	10
E100 240"	14
E100 240" Man. Trans. W/E.C. or Auto. Trans.	14.5
F100/250 240" & 300" (4x4) Man. Trans.	14.4
F100/250 240" & 300" (4x4)E.C. or Auto. Trans.	16.7
F100 240" Man. Trans.	14.1
F100/250 240" & 300" Auto. Trans.	14.4
F100/250 240" & 300" E.C. W/Auto. Trans.	16.3
F100/250 240" E.C. W/Man. Trans.	14.4
F100 300" Man. Trans. (Calif.)	14.4
F100/250 300" Man. Trans.	14.4
F100/250 300" E.C. W/Man. Trans.	16.7
F350 Man. Trans.	② 14.4
F350 E.C. W/Man. Trans.	③ 16.7
F350 Auto. Trans.	16.7
F350 E.C. W/Auto. Trans.	18.3
P350	18.1

- ① - Includes 1 qt. for std. heater.
- ② - With dual rear wheels 16.7 qts.
- ③ - With dual rear wheels 18.3 qts.

FILTERS & CLEANERS

Filter or Cleaner	Service Interval (Miles)
Oil Filter	①③ 12,000
Air Cleaner (Oil Bath)	②③ 6,000
Air Cleaner (Dry Type)	②③ 24,000
Crankcase Breather	12,000
Fuel Filter	12,000
Emission Breather (In Air Cleaner)	②③ 24,000

- ① - 6000 miles under dusty conditions, trailer towing or stop and go driving.
- ② - More often under dusty conditions.
- ③ - 4000 miles on F250/350, P350, M, E300 and Camper Special.
- ④ - 6000 miles on F250/350, P350, M, E300 and Camper Special.
- ⑤ - 12,000 miles on F250/350, P350, M, E300 and Camper Special.

FUEL TANK CAPACITIES

Application	Quantity
U100	12.25 gal.
E100 (Exc. E300 Van)	20.25 gal.
E100 (E300 Van)	23 gal.
F100 & F250	19.2 gal.
F250 (4x4)	19.3 gal.
F250 (4x4) (Calif.)	17.5 gal.
F350 (Stake, Cab & Platform)	19.3 gal.
F350 (Stake, Cab & Platform) (Calif.)	17.5 gal.
F350 (Cowl)	22.5 gal.
F350 (Cowl) (Calif.)	20.2 gal.
F350 (Camper Special)	20.6 gal.
F350 (Camper Special) (Calif.)	19.3 gal.
P350 (104" Wheelbase)	17 gal.
P350 (122" Wheelbase)	30 gal.
P350 (122" Wheelbase) (Calif.)	23.5 gal.

CAPACITIES

(EXCEPT COOLING & FUEL)

Application	Quantity
Crankcase ^①	
200"	6 qts.
240"	② 5 qts.
300"	⑤ 5 qts.
Drive Axles	③
Transfer Case	
F100	4.5 pts.
F250	4.5 pts.
U100	2.75 pts.
Automatic Transmission	
Ford C-4	10.25 qts.
Ford C-6	14 qts.
FMX	11 qts.
Manual Transmission	
Ford 3.03	3.5 pts.
T-18	7 pts.
T-87G	5.5 pts.
New Process 435	6.75 pts.

- ① - Add 1qt. with filter change.
- ② - F100/250 and E100/300 are 4 qts.
- ③ - Fill to bottom of filler hole.
- ④ - E100/300 are 4 qts.