

SHOP TIPS

VOL. 6, NO. 8

APRIL, 1968

FROM

Autolite



1969
FORD
ECONOLINE
AND
CLUB WAGON
• • • • •
MODELS
FEATURES
SPECIFICATIONS

Continental MARK III

LINCOLN-MERCURY'S
NEWEST ADDITION
TO THE FORD FAMILY
OF FINE CARS



Technical parts and service information published by the Autolite-Ford Parts Division and distributed by Ford and Lincoln-Mercury dealers to assist servicemen in Service Stations, Independent Garages and Fleets.

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ECONOLINE CARGO VAN

1969 FORD Models, Features

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Be sure and file this and future bulletins for ready reference. If you have any suggestions for additional information that you would like to see included in this publication, please write to: Autolite-Ford Parts Division of Ford Motor Company, Merchandising Services Dept., P.O. Box 3000, Livonia, Michigan 48151.

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INTRODUCTION

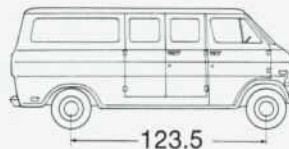
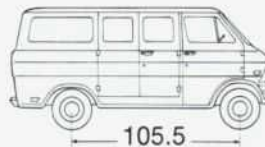
Ford recently introduced a *second generation* of Econolines and Club Wagons. Inside and out, bumper to bumper, and from tires to roof they're full of "better ideas" that put them way ahead of similar vehicles.

MODELS

FORD ECONOLINE

Econolines come in three body styles: Cargo Van, Display Van and Window Van: *Cargo Vans* have solid side panels and feature windowless right-side and rear cargo doors for maximum security. Optional vent-type or stationary windows are available for the cargo doors. *Display Vans* come with stationary windows in the right side, rear cargo doors and the right rear quarter panel for natural lighting of bins and shelves. Vent-type side or rear cargo door windows are optional. *Window Vans* feature stationary windows all around for better visibility. Vent-type windows are used in the cargo doors. They are also available in the left side panel opposite the right side cargo doors.

Each of the three body styles can be built on either of two wheelbases: 105.5" or 123.5". Econolines with a 105.5" wheelbase are called Regular Vans and 123.5" models are called SuperVans.

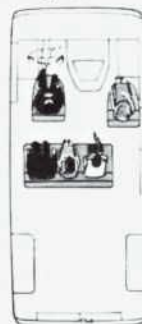


FORD CLUB WAGON

1969 Ford Club Wagons are available with seating arrangements for 5, 8, or 12 passengers and 9 passengers with table. The 5-, 8-, and 9-passenger models are built on either the 105.5" or 123.5" wheelbase. The 12-passenger model comes only on a 123.5" wheelbase.

Camper conversion models of both the Econoline and Club Wagon can be purchased through Ford dealers.

Longest wheelbases in industry



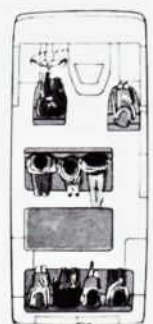
5 PASSENGER



8 PASSENGER



12 PASSENGER



9 PASSENGER
with TABLE

ECONOLINE and CLUB WAGON and Specifications



CLUB WAGON

NEW FEATURES

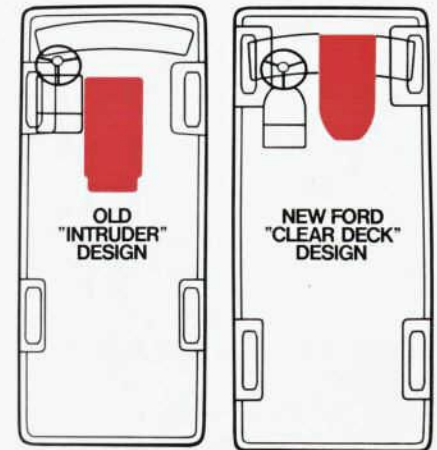
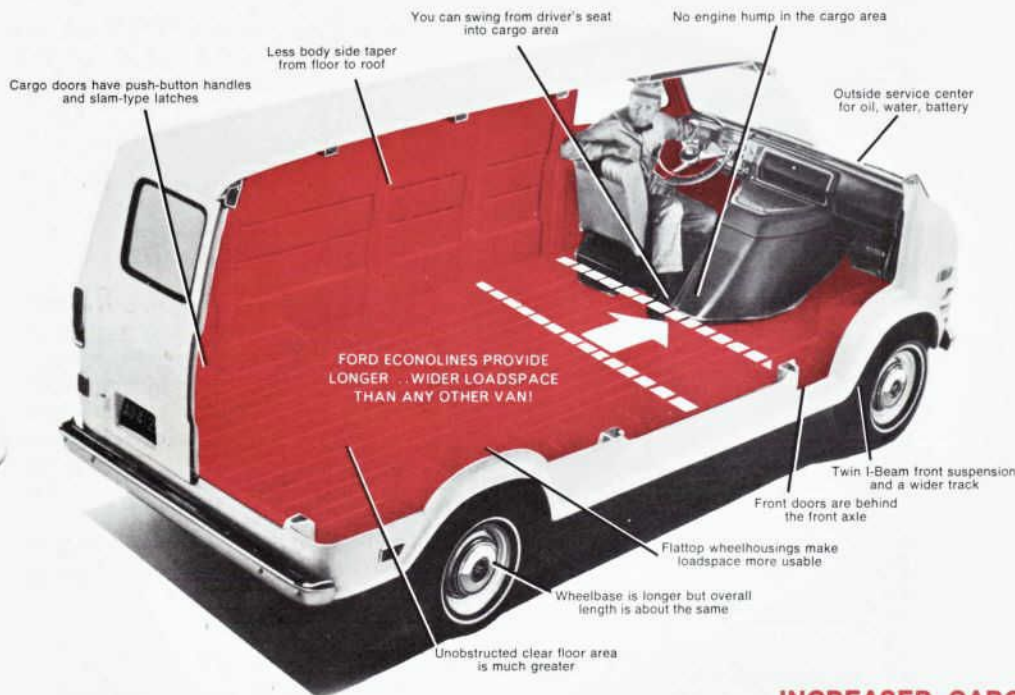


Figure 1—Engine Location Comparison

In completely redesigning the Econoline and Club Wagon, Ford moved the engine, front axle and associated parts forward. This produced a whole host of *better ideas*—like:

- An outside service center.
- Easier driver entry.
- Driver access to the cargo area, without getting out of the van.
- New suspension system with better stability and handling.
- More cargo space for bigger payloads.

Ford also added a new, powerful 302 CID V-8 engine option, and many other features. Here is a brief rundown of the more important highlights.

INCREASED CARGO SPACE

Moving the engine forward (Figure 1) substantially increased the cargo area (from 23% to 37% more usable space, depending on the model). Regular Vans now have more than 8½ feet of clear floor space behind the driver's seat and measure 11½ feet from the instrument panel to the rear doors. SuperVan models measure more than 10 feet from behind the driver's seat to the rear doors. The distance from the instrument panel (to the right of the engine) to the rear doors, is more than 13 feet. More load-space has been achieved even though bumper-to-bumper dimensions have increased less than *two inches*.

Front and rear tread widths have also been increased to over 6½ feet. Together with the new, longer wheelbases, the wider tread contributes to good riding quality and excellent stability whether the vehicle is loaded or unloaded. Maximum payloads for each series are shown in Figure 2.

| SERIES | E-100 | E-200 | E-300 |
|------------------------|-------|-------|-------|
| Maximum GVW (lbs.) | 4,500 | 5,400 | 7,600 |
| Maximum Payload (lbs.) | 1,265 | 1,725 | 3,500 |

Figure 2—Load Capacity



DISPLAY VAN

1969 FORD

Models, Features

TWIN-I-BEAM FRONT SUSPENSION

Ford's exclusive Twin-I-Beam front suspension has now been added to Econoline and Club Wagon models. It provides solid I-Beam durability and ruggedness, with each front wheel attached to its own forged steel I-Beam axle and held in alignment by a forged steel radius rod.

High ride qualities are, nevertheless, achieved with coil springs, double-acting shock absorbers and independent front wheel action. Twin-I-Beam front suspension softens up the ride—yet toughens up the Econoline and Club Wagon to provide easier steering on turns, better stability on the highway, lower maintenance costs and longer tire life.

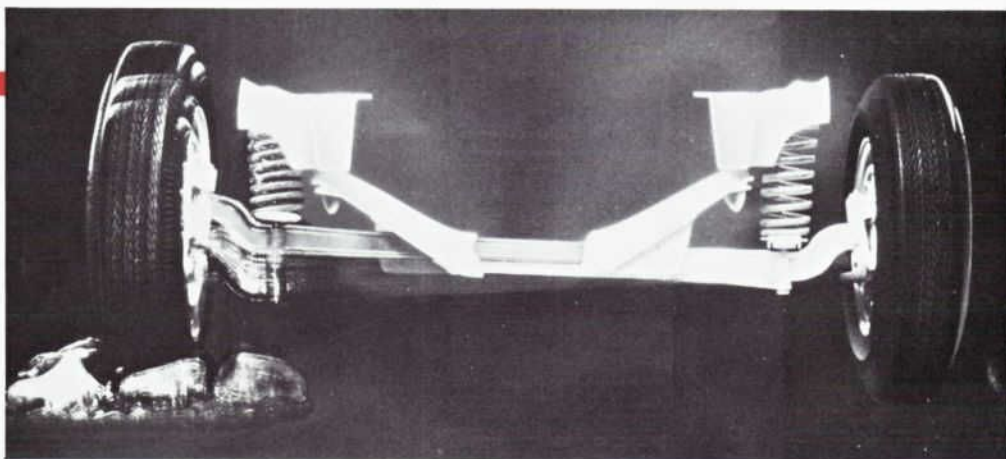


Figure 3—Twin-I-Beam Front Suspension

TURNING RADIUS

Short-turn maneuverability is an important asset in city driving. The redesigned suspension system provides very sharp wheel cuts (Figure 4). The Regular E-100 Vans can turn within a 40-foot diameter circle; the curb-to-curb turning circle of the E-100 SuperVan is only 45.7 feet.

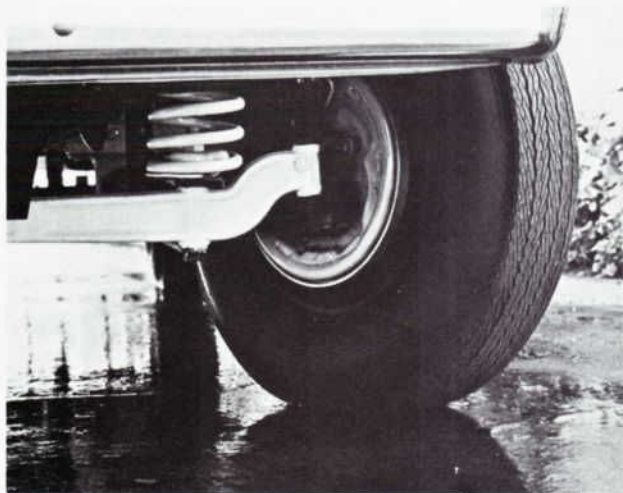


Figure 4—Sharp Wheel Cut

NEW 302 C.I.D. V-8

Ford's all new 302 CID, 205 horsepower, V-8 (Figure 5) is available to handle the bigger payloads. Hydraulic valve lifters and a silent timing chain keep engine noise down to a whisper. Two 6-cylinder engines continue to be available; the 170 CID, 100-horsepower unit, and the 240 CID, 150-horsepower engine. All Ford engines have a closed crankcase emission control system to reduce crankcase emissions to the atmosphere, and a thermostatically controlled air intake system for improved economy and performance.



Figure 5—302 CID—V-8

ECONOLINE and CLUB WAGON and Specifications



CLUB WAGON

SERVICE FEATURES

A new, outside service center (Figure 6) makes it more convenient to check many maintenance points. Coolant in the radiator, battery and the windshield washer reservoir can be checked, as well as the oil dipstick, oil fill pipe, brake master cylinder, voltage regulator, windshield wiper motor and many other items. Complete access to the engine is attained by removing the cover within the vehicle.

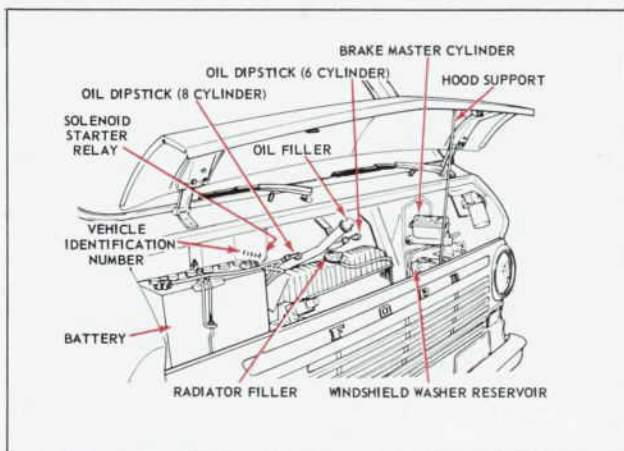


Figure 6—Outside Service Center

SERVICE LOCATIONS

Hood Latch

To open the hood, pull outward on the hood latch handle located in the center of the grille. Hold the hood open by raising the hood support rod and inserting the end of the support into the hole provided in the hood panel.

Gas Filler Cap

A non-vented type filler cap is located at the lower, left rear quarter panel. A fuel tank vent tube is located at the right rear of the fuel tank.

Crankcase Ventilation Regulator Valve

6-Cylinder Engines—The regulator (PCV) valve is located at the rear of the rocker arm cover as shown in Figures 7 and 8. The 240 CID engine (Figure 8) has a flame arrestor that should be cleaned along with the other tubes and fittings at the recommended maintenance interval.

8-Cylinder Engine—The regulator (PCV) valve is located at the rear of the right hand rocker arm cover (Figure 9).

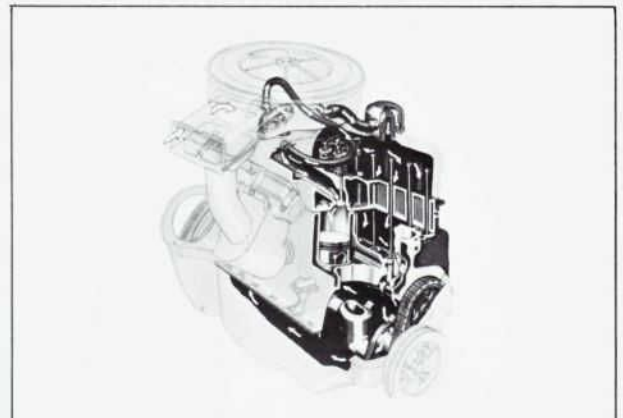


Figure 7—Regulator (PCV) Valve—170 CID Engine

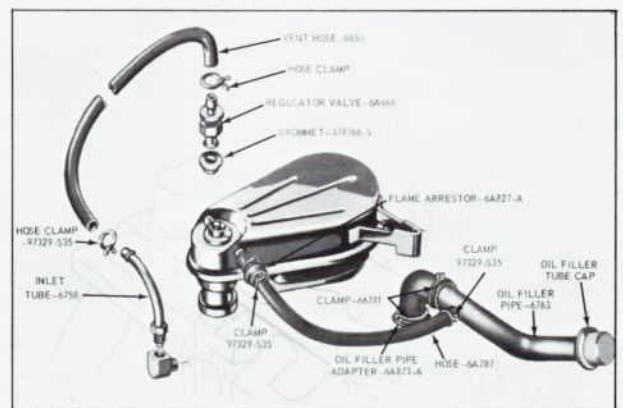


Figure 8—Regulator (PCV) Valve—240 CID Engine

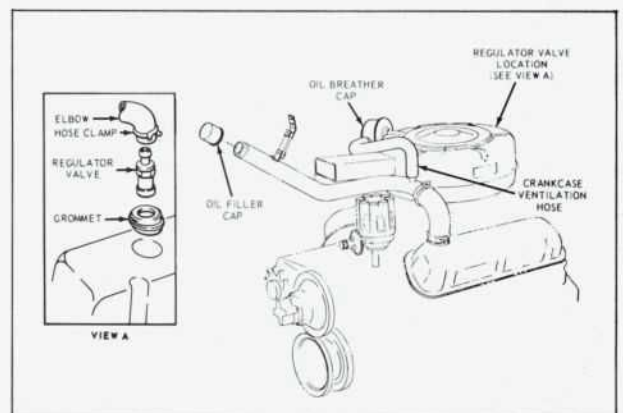


Figure 9—Regulator (PCV) Valve—302 CID Engine



WINDOW VAN

1969 FORD Models, Features

Oil Filler Cap

The oil fill location for all engines is in the end of a long tube at the front of the engine (Figures 6 and 9).

Air Filter

The dry, paper type filter element is standard on all engines. An oil bath type air cleaner (Figure 10) is optional on 240 and 302 CID engines. The oil bath air cleaner should be cleaned and re-filled every 6000 miles, or more frequently under continuous stop and go driving or extremely dusty conditions. Use engine oil SAE 30 above 32° F; and SAE 20 weight below 32° F.

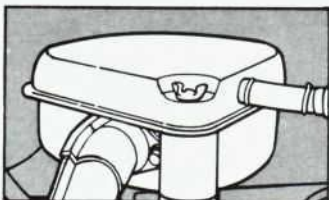
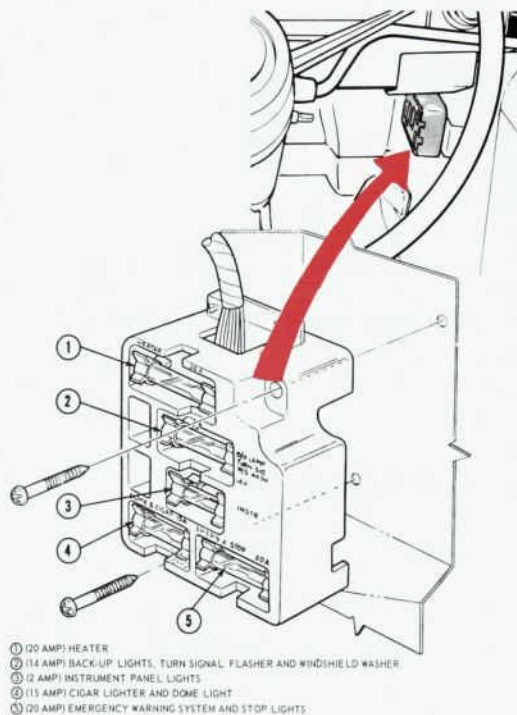


Figure 10—Optional Oil Bath Air Cleaner

Fuse Panel

The fuse panel (Figure 11) is mounted under the instrument panel on the left side of the engine compartment, above and to the right of the accelerator pedal. The complete circuit protection information is shown under specifications on page 7.

Selected circuits, such as headlights, are protected with circuit breakers. A circuit breaker is designed to stop current flow in case of a short-circuit or overload. It automatically restores current flow after a few seconds, but will again interrupt current flow if the overload or short-circuit continues. This on-off cycle will continue as long as the overload short-circuit exists.



- ① 20 AMP HEATER
- ② 114 AMP BACK-UP LIGHTS, TURN SIGNAL, FLASHER AND WINDSHIELD WASHER
- ③ 12 AMP INSTRUMENT PANEL LIGHTS
- ④ 115 AMP CIGAR LIGHTER AND DOME LIGHT
- ⑤ 20 AMP EMERGENCY WARNING SYSTEM AND STOP LIGHTS

Figure 11—Fuse Panel

SPECIFICATIONS

IDENTIFICATION

The vehicle warranty number is stamped on the warranty plate, which is attached to the rear face of the left front door lock panel.

The official Vehicle Identification Number for title and registration purposes is stamped on the inboard face of the alternator regulator bracket (See figure 6).

GENERAL DIMENSIONS

| | |
|-------------------------------|--------|
| Wheelbase | |
| Regular Van | 105.5" |
| SuperVan | 123.5" |
| Over-all Length | |
| Regular Van | 169.1" |
| SuperVan | 187.1" |
| Unobstructed Floor Dimensions | |
| Width between wheelhousings | 53.5" |
| Length behind driver: | |
| Regular Van | 103.7" |
| SuperVan | 121.7" |

APPROXIMATE REFILL CAPACITIES (U.S. Measure)

| | |
|--|----------|
| Fuel Tanks | 24 gals. |
| Cooling System (Includes 1 qt. for heater) | |
| 170 CID | 10 qts. |
| 240 CID | 12 qts. |
| 240 CID (Optional radiator) | 16 qts. |
| 302 CID | 16 qts. |
| Engine Crankcase (Includes 1 qt. for filter) | |
| 170 CID | 4½ qts. |
| 240 & 302 CID | 5 qts. |
| Transmission | |
| 3-Speed Manual | 3½ pts. |
| SelectShift Cruise-O-Matic | 10 pts. |
| Rear Axle | |
| Standard | 5 pts. |
| Heavy Duty and Limited Slip | 6 pts. |

ECONOLINE and CLUB WAGON and Specifications



CLUB WAGON

SPECIFICATIONS CONTINUED

LIGHTS (12 VOLTS)

| | LAMP WATTAGE OR CANDELA | LAMP NUMBER |
|-------------------------------------|-------------------------------|----------------|
| Alternator Indicator | 2 c | 1895 |
| Back Up Lamp | 32 c | 1156 |
| Front Turn Signal | 32 c | 1157A |
| Headlight | 50-40 watts | 6012 |
| High Beam Indicator | 2 c | 1895 |
| Interior, Dome and Cargo | 15 c | 1003 |
| Interior Turn Signal | 2 c | 1895 |
| Oil Pressure Indicator | 2 c | 1895 |
| Parking and Front Turn Indicator | 4-32 c | 1157 |
| Radio Dial | 1.9 c | 1893 |
| Rear License Plate | 4 c | 97 or 1155 |
| Speedometer and Odometer | 2 c | 1895 |
| Spotlight | 30 watt | 4405 |
| Stop, Tail, and Rear Turn Indicator | 4-32 c | 1157 |

FUSES AND CIRCUIT BREAKERS

| | LOCATION | CIRCUIT PROTECTION NO. | FUSE NO. |
|---|--|---------------------------|-------------|
| Headlamps | Integral with light switch | 12 amp. | — |
| Tail, License and Parking Lamps and Horns | Integral with light switch | 15 amp. | — |
| Turn Signal, Back-Up Lamps and Windshield Washer Circuits | Fuse panel—on engine side panel. L.H. side under instrument panel. | 14 amp. | SFE 14 |
| Emergency Warning and Stoplamp Circuits | Fuse panel—on engine side panel. L.H. side under instrument panel. | 20-amp. | AGX 20 |
| Cigar Lighter and Dome Lamp | Fuse panel—on engine side panel. L.H. side under instrument panel. | 15 amp. | AGC 15 |
| Heater and Defroster | Fuse panel—on engine side panel. L.H. side under instrument panel. | 20 amp. | AGX 20 |
| Instrument Panel Lamps | Fuse panel—on engine side panel. L.H. side under instrument panel. | 2 amp. | AGA 2, IAG |
| Radio | Cartridge in feed line | 7.5 amp. | SFE 7.5 |
| Windshield Wiper System | Integral with wiper switch | Fuse C.B. | — |

ENGINE

| | 170 CID I-6 | 240 CID I-6 | 302 CID V-8 2V |
|---|-----------------|---|--|
| Type | In Line 6 Cyl. | In Line 6 Cyl. | 8-Cyl. 90°V OHV |
| Displacement | 170 Cu. In. | 240 Cu. In. | 302 Cu. In. |
| Bore & Stroke (Inches) | 3.50 x 2.94 | 4.00 x 3.18 | 4.00 x 3.00 |
| Compression Ratio | 8.7:1 | 9.2:1 | 8.6:1 |
| Taxable (SAE) Horsepower | 29.4 | 38.4 | 51.2 |
| Max. Brake Horsepower @ Specified rpm | 100 @ 4200 | 150 @ 4000 | 205 @ 4600 |
| Max. Gross Torque (Lb. Ft.) @ Specified rpm | 156 @ 2200 | 234 @ 2200 | 300 @ 2600 |
| Idle rpm | 700 | 600 Exc. E-300 525 E-300 500 Exc. E-300 | 625 Exc. E-300 525 E-300 550 Exc. E-300 500 E-300 |
| Manual Transmission | 700 | 600 Exc. E-300 525 E-300 500 Exc. E-300 | 625 Exc. E-300 525 E-300 550 Exc. E-300 500 E-300 |
| Automatic Transmission | --- | --- | --- |
| Ignition Timing (BTC) 2 (with Vac. disc.) | | | |
| Manual Transmission | 6° | 6° | 6° |
| Automatic Transmission | --- | 6° Exc. E-300 10° E-300 | 6° |
| Distributor | | | |
| Breaker Point Gap | 0.027* | 0.027* | 0.021* |
| Dwell Angle | 35° - 40° | 35° - 40° | 24° - 29° |
| Spark Plug (Autolite Sales No.) | BF-82 | BTF-42 | BTF-31 |
| Spark Plug Gap | 0.032* - 0.036* | 0.032* - 0.036* | 0.028* - 0.032* |
| Firing Order | 1-5-3-6-2-4 | 1-5-3-6-2-4 | 1-5-4-2-6-3-7-8 |
| Compression Pressure-Psi 3 | | | |
| Sea Level @ Cranking Speed | 150-200 | 150-200 | 130-170 |
| Engine Idle Manifold Vacuum 4 | 17 | 15 | 18 |
| Carburetor | Man. Choke 1V | Man. Choke 1V | Man. Choke 2V |
| Idle Air/Fuel Ratio | | | |
| Thermactor | 14.0 | 12.1 | 13.1 |
| IMCO | --- | 13.7 | 13.8 |
| Fuel | Regular | Regular | Regular |
| Valve Lifter Tappets | Manual | Hydraulic | Hydraulic |
| Battery (Autolite Sales No.) | | | |
| Type—Standard | SV22HF | SV22HF | SV22HF |
| —Optional | SV24F | SV24F | SV24F |
| Group | 22HF | 22HF | 22HF |
| Amp Size | 45 | 45 | 45 |
| Electrical (Autolite Sales No.) | | | |
| Point Set | DP-3 | DP-3 | DP-12 |
| Condenser | DP-70 | DP-70 | DP-77 |
| Cap | DC-6 | DC-13 | DC-13 |
| Rotor | DH-4 | DH-4 | DH-6 |
| Regulator | DR-87 | DR-87 | DR-5 |
| Ignition Coil | GR-341 | GR-341 | GR-341 |
| Regulator Valve (PCV) (Autolite Sales No.) | DG-5 | DG-5 | DG-5 |
| Filters (Autolite Sales No.) | | | |
| Oil | EV-5 | EV-5 | EV-8 |
| Air | FL-1 | FL-1 | FL-1 |
| Fuel | FA-3 | FA-3 | FA-3 |
| | FG-14 | FG-14 | FG-14 |

ENGINE

NOTES: 1 Adjust with headlights "on" automatic transmission in drive, and A/C at max. cooling. 2 If the individual requirements of the vehicle and/or the use of sub-standard fuel dictate, the initial timing may have to be retarded from the normal setting to eliminate detonation (spark knock). If retarding is necessary, it should be done progressively and not exceed 2° BTC. 3 Allowable variation between cylinders—20 psi. 4 Minimum inches of Mercury @ specified rpm (sea level) with auto. trans. in neutral. Subtract 1-inch for engines with dual diaphragm distributors.

SHOCK ABSORBERS

(Autolite Sales No.)

| | Auto-Flex | Auto-Flex XD | Super-Flex |
|-------|-----------|--------------|------------|
| FRONT | AB-137 | ----- | ----- |
| REAR | AB-138 | ----- | ----- |

1969 FORD Econoline and Club Wagon Models, Features and Specifications (con't.) LOAD CAPACITIES AND TIRE INFLATION PRESSURES

Club Wagons

| Model Codes | Equipment Required | Passenger Wt. @ 150 Lb. Each | Allowable Additional Luggage & Load (Lb.) ① | Standard Tubeless Tires ② | Inflation | |
|---------------------------------|--------------------|---------------------------------|---|---------------------------------|-----------|------|
| | | | | | Front | Rear |
| 5 Passenger Club Wagons | | | | | | |
| E110, E120, E130 | Standard | 750 | 200 | 7.35 x 14—4 PR-PT | 40 | 40 |
| E210, E220, E230 | HD Package A | 750 | 825 | 8.15 x 15—4 PR-PT | 30 | 32 |
| E310, E320, E330 | HD Package B | 750 | 1,325 | 8.00 x 16.5—8 PR-TT | 40 | 60 |
| E311, E321, E331 | HD Package C | 750 | 1,810 | 8.00 x 16.5—8 PR-TT | 40 | 60 |
| 8 Passenger Club Wagons | | | | | | |
| E210, E220, E230 | Std. HD Pkg. A | 1,200 | 320 | 8.15 x 15—4 PR-PT | 30 | 32 |
| E310, E320, E330 | HD Package B | 1,200 | 810 | 8.00 x 16.5—8 PR-TT | 40 | 60 |
| E311, E321, E331 | HD Package C | 1,200 | 1,295 | 8.00 x 16.5—10 PR-TT | 40 | 75 |
| 12 Passenger Club Wagons | | | | | | |
| E310, E320, E33N | Std. HD Pkg. B | 1,800 | 480 | 8.00 x 16.5—8 PR-TT | 40 | 60 |
| E311, E321, E331 | HD Package C | 1,800 | 940 | 8.00 x 16.5—10 PR-TT | 40 | 75 |

① Luggage normally computed at an average of 40 pounds per passenger. ② WSW tires optional. PT—Passenger Type TT—Truck Type.

Econoline Vans

| Series and Model | Max. GVW (Lbs.) | Nominal Tonnage Rating | Minimum Equipment Required for GVW Rating Plate | Minimum Required Tires | Inflation Pressures | |
|-------------------------------------|--------------------|---------------------------|--|---------------------------|---------------------|------|
| | | | | | Front | Rear |
| E-100 Econoline Van | | | | | | |
| E140 | 4000① | ½ | | 6.95 x 14—4PR-PT② | 30 | 30 |
| E141 | 4200 | ½ | 950# Rear Springs on 105.5" Wheelbase | 7.35 x 14—4 PR-PT | 30 | 30 |
| E142 | 4500 | ½ | 1200# Rear Springs | 7.75 x 14—4PR-PT | 30 | 30 |
| E-100 Econoline Window Van | | | | | | |
| E150 | 4000① | ½ | | 6.95 x 14—4PR-PT② | 30 | 30 |
| E151 | 4200 | ½ | 950# Rear Springs on 105.5" Wheelbase | 7.35 x 14—4PR-PT | 30 | 30 |
| E152 | 4500 | ½ | 1200# Rear Springs | 7.75 x 14—4PR-PT | 30 | 30 |
| E-100 Econoline Display Van | | | | | | |
| E160 | 4000① | ½ | | 6.95 x 14—4PR-PT② | 30 | 30 |
| E161 | 4200 | ½ | 950# Rear Springs on 105.5" Wheelbase | 7.35 x 14—4PR-PT | 30 | 30 |
| E162 | 4500 | ½ | 1200# Rear Springs | 7.75 x 14—4PR-PT | 30 | 30 |
| E-200 Econoline Van | | | | | | |
| E240 | 5100① | ¾ | | 8.15 x 15—4PR-PT② | 30 | 34 |
| E241 | 4950 | ½ | | 8.15 x 15—4PR-PT | 30 | 34 |
| E242 | 5400 | ¾ | 123.5" WB and 240 Six Engine | 7.75 x 15—8PR-PT | 30 | 36 |
| E243④ | 5100 | ¾ | | 8.15 x 15—4PR-PT | 30 | 34 |
| E244④ | 5400 | ¾ | 123.5" WB and 240 Six Engine | 7.75 x 15—8PR-PT | 30 | 36 |
| E-200 Econoline Window Van | | | | | | |
| E250 | 5100① | ¾ | | 8.15 x 15—4PR-PT② | 30 | 34 |
| E251 | 4950 | ½ | | 8.15 x 15—4PR-PT② | 30 | 34 |
| E252 | 5400 | ¾ | 123.5" WB and 240 Six Engine | 7.75 x 15—8PR-PT | 30 | 36 |
| E253④ | 5100 | ¾ | | 8.15 x 15—4PR-PT | 30 | 34 |
| E254④ | 5400 | ¾ | 123.5" WB and 240 Six Engine | 7.75 x 15—8PR-PT | 30 | 36 |
| E-200 Econoline Display Vans | | | | | | |
| E260 | 5100① | ¾ | | 8.15 x 15—4PR-PT② | 30 | 34 |
| E261 | 4950 | ½ | | 8.15 x 15—4PR-PT② | 30 | 34 |
| E262 | 5400 | ¾ | 123.5" WB and 240 Six Engine | 7.75 x 15—8PR-PT | 30 | 36 |
| E263④ | 5100 | ¾ | | 8.15 x 15—4PR-PT | 30 | 34 |
| E264④ | 5400 | ¾ | 123.5" WB and 240 Six Engine | 7.75 x 15—8PR-PT | 30 | 36 |
| E-300 Econoline Vans | | | | | | |
| E340 | 6050① | ¾ | | 8.00 x 16.5—6PR-TT② | 35 | 45 |
| E341 | 6800 | ¾ | 1250# Frt. Springs, W/123.5" WB | 8.00 x 16.5—8PR-TT | 40 | 60 |
| E342 | 7400③ | 1 | 1250# Frt. Springs & 105.5" WB only | 8.00 x 16.5—6PR-TT | 35 | 60 |
| E343④ | 7400③ | 1 | 1250# Frt. Springs & 105.5" WB only | Front/10PR-TT Rear | 35 | 60 |
| E344 | 7600 | 1 | 123.5" WB and 1350# Front Springs | 8.00 x 16.5—6PR-TT | 40 | 60 |
| E345④ | 7600 | 1 | 123.5" WB and 1350# Front Springs | Front/10PR-TT Rear | 40 | 60 |
| E-300 Econoline Window Vans | | | | | | |
| E350 | 6050① | ¾ | | 8.00 x 16.5—6PR-TT② | 35 | 45 |
| E351 | 6800 | ¾ | 1250# Frt. Springs W/123.5" WB | 8.00 x 16.5—8PR-TT | 40 | 60 |
| E352 | 7400③ | 1 | 1250# Frt. Springs & 105.5" WB only | 8.00 x 16.5—6PR-TT | 35 | 60 |
| E353④ | 7400③ | 1 | 1250# Frt. Springs & 105.5" WB only | Front/10PR-TT Rear | 35 | 60 |
| E354 | 7600 | 1 | 123.5" WB & 1350# Front Springs | 8.00 x 16.5—6PR-TT | 40 | 60 |
| E355④ | 7600 | 1 | 123.5" WB & 1350# Front Springs | Front/10PR-TT Rear | 40 | 60 |
| E-300 Econoline Display Vans | | | | | | |
| E360 | 6050① | ¾ | | 8.00 x 16.5—6PR-TT② | 35 | 45 |
| E361 | 6800 | ¾ | 1250# Frt. Springs W/123.5" WB | 8.00 x 16.5—8PR-TT | 40 | 60 |
| E362 | 7400③ | 1 | 1250# Frt. Springs & 105.5" WB only | 8.00 x 16.5—6PR-TT | 35 | 60 |
| E363④ | 7400③ | 1 | 1250# Frt. Springs & 105.5" WB only | Front/10PR-TT Rear | 35 | 60 |
| E364 | 7600 | 1 | 123.5" WB & 1350# Front Springs | 8.00 x 16.5—6PR-TT | 40 | 75 |
| E365④ | 7600 | 1 | 123.5" WB & 1350# Front Springs | Front/10PR-TT Rear | 40 | 75 |

① Standard GVW. ② Standard Tires ③ W/105.5" WB only. ④ Reference Pennsylvania Registration Data.

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LINCOLN *Continental* MARK III



Meet the Lincoln Continental MARK III, *third* in a series of individually styled prestige cars from the Ford Motor Company. It continues the tradition of elegance and distinction established with the introduction of the Mark I in 1939 and Mark II in 1955. The Mark III features the longest hood of any U.S. car (over six feet), a classic broad radiator shell-type grille, and a short rear deck theme that suggests the original Continental's spare tire cover.

The Mark III also features:

- An all new 460 Cu. In V-8 that sets new standards for performance, economy and control over the emission of unburned hydrocarbons and carbon monoxide.
- Select-Shift Turbo Drive 3-speed automatic transmission.
- A 2.80:1 rear axle ratio (3.00:1 optional) to give the best combination of brisk performance, good fuel economy and noise-free driving.
- Power, (front-disc), (rear-drum) brakes.
- Dual-Chamber tires (optional).
- Perimeter type frame and a separate, rigidly constructed body to provide low noise, vibration and harshness qualities.
- Ford Motor Company Lifeguard Design Safety Features.

MODEL . . . 2 Door Hardtop

Identification

The car warranty number and other important identifying information is stamped on the warranty plate which is attached to the rear lock face of the left front door.

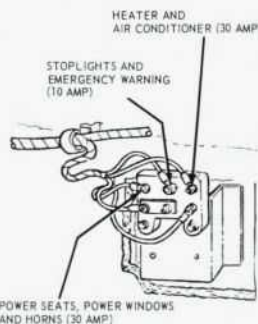
The official Vehicle Identification Number (VIN), for title and registration purposes, is stamped on an aluminum tab that is riveted to the instrument panel close to the windshield on the passenger side of the car and is visible from the outside.

GENERAL DIMENSIONS

| | |
|---------------------------------|--------|
| Wheelbase | 117.2" |
| Tread—Front | 62.0" |
| —Rear | 62.0" |
| Overall Length | 216.1" |
| Overall Width | 79.4" |
| Overall Height—Loaded | 52.9" |

SERVICE LOCATIONS

- GAS FILLER CAP**—Left rear quarter panel
OIL FILLER CAP—Front of left rocker arm cover
(PCV) REGULATOR VALVE—Rear of right rocker arm cover
HOOD LATCH—Lower center of grille
 To Open: Push downward on lever.
FUSE PANEL—In right side of glove compartment behind removable cover
CIRCUIT BREAKER—High on dash panel in front of glove compartment



APPROXIMATE REFILL CAPACITIES (U.S. Measure)

| | |
|--|-----------|
| Fuel Tank | 24.0 gal. |
| Cooling System (Includes 1 qt. for heater) | 23.0 qts. |
| Engine Crankcase (Includes 1 qt. for filter) | 5.0 qts. |
| Power Steering | 3.5 pts. |
| Transmission, includes Cooler (dry system)* | 13.5 qts. |
| Rear Axle | 5.0 pts. |

*Dipstick used to determine exact fill requirements

CIRCUIT PROTECTION

| Circuit | Location | Rating Amperes | Type Fuse or C.B.* |
|---|--|----------------|--------------------|
| Headlight Circuit | Integral with Lighting Switch | 18 | C.B. |
| Tail-lights, Running Lights, License Plate Light, Parking Lights, Marker Lights | Integral with Lighting Switch | 15 | C.B. |
| Instrument Panel and Instrument Cluster Illumination | Fuse Panel | 6 | SFE 6 |
| Clock Feed, Courtesy Lights, Luggage Compartment Light, Glove Compartment Light, Map Light and Reading Lights | Fuse Panel | 14 (1) | SFE 14 (1) |
| Warning Lights (except Low Fuel Warning) | Fuse Panel | 7.5 | SFE 7.5 |
| Low Fuel Warning | Fuse Panel | 7.5 | SFE 7.5 |
| Windshield Washer and Back Up Lights | Fuse Panel | 7.5 | SFE 7.5 |
| Turn Signal | Fuse Panel | 7.5 | SFE 7.5 |
| Ammeter | Fuse Panel | 14 | SFE 14 |
| Speed Control | Fuse Panel | 7.5 | SFE 7.5 |
| Radio | Fuse Panel | 7.5 | SFE 7.5 |
| Power Antenna | Fuse Panel | 10 | 3AG 10 |
| Front Cigar Lighter and Stereo | Fuse Panel | 15 | SFE 15 |
| Rear Cigar Lighter | Fuse Panel | 15 | SFE 15 |
| Power Seats, Windows and Horns | Circuit Breaker Panel (Seat and window motors also protected by integral circuit breakers) | 30 | C.B. |
| Stop Lights and Emergency Warning | Circuit Breaker Panel | 10 | C.B. |
| Heater and Air Conditioner | Circuit Breaker Panel | 30 | C.B. |
| Charging Circuit | Fusible Link Block (below starter relay in engine compartment) | Fusible Link | |
| Headlight Dimmer | Fuse Cartridge in Feed Wire | 4 | |

(1) Use 20 Ampere SFE 20 fuse if equipped with moveable steering column.

.. MODELS AND SPECIFICATIONS



LIGHTS (12 VOLTS)

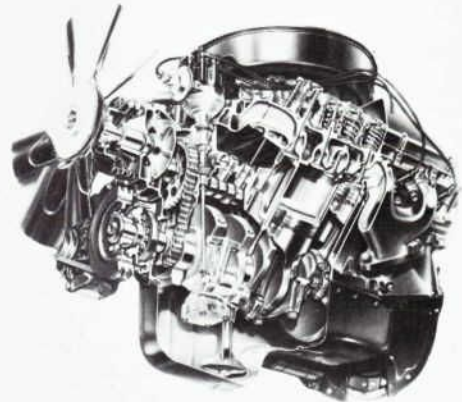
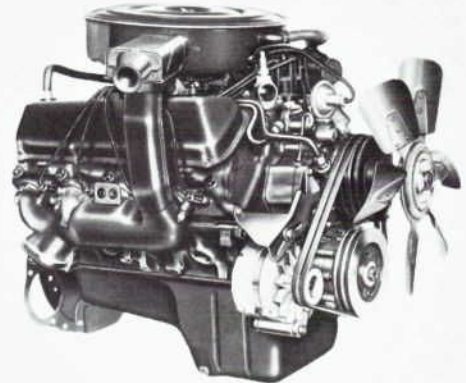
| LAMP DESCRIPTION | Candle Power or Wattage | Lamp Number | LAMP DESCRIPTION | Candle Power or Wattage | Lamp Number |
|---|-------------------------|-------------|--|-------------------------|-------------|
| Headlight—Hi-Lo Beam | 37.5 & 50 W. | 4002 | Luggage Compartment Light | 6 c. | 631 |
| Headlight—Hi Beam | 37.5 W. | 4001 | Overhead Console Warning Lights | 2 c. | 1891 |
| Front Park & Turn Signal | 4-32 c. | 1157 NA | Courtesy Lights (Foot Wall) | 6 c. | 631 |
| Rear Tail/Stop/Turn Signal | 4-32 c. | 1157 | Hi-Beam Indicator | 2 c. | 194 |
| Back Up Light | 32 c. | 1156 | Turn Signal Indicators | 2 c. | 194 |
| License Plate Light | 4 c. | 97 | Warning Lights, Brake & Low Fuel | 2 c. | 194 |
| Rear Seat Reading Light | 15 c. | 1003 | Ignition Switch Lights | 1 c. | 161 |
| Glove Compartment Light | 2 c. | 1895 | Instrument Illumination Lights | 2 c. | 194 |
| Transmission Control Selector Indicator Light | 1.5 c. | 1445 | Radio Dial Light | 1.9 c. | 1893 |
| Door Courtesy Lights | 6 c. | 212-1 | Heater/Air Cond./Auto. Climate Control Light | 2 c. | 1895 |
| Map Light | 6 c. | 212-1 | Rear Vent & Wiper Control Lights | 2 c. | 194 |
| Front Side Marker Light | 4 c. | 97NA | Cigar Lighter Light | 2 c. | 1895 |
| Rear Side Marker Light | 4 c. | 97 | Speed Control Light | 1 c. | 53X |

TIRE INFLATION AND LOAD RECOMMENDATIONS

| Models | Tire Usage Standard | Recommended Tire Pressure (Cold) (Up to Full Rated Load) | | Full Rated (Max.) Load (lbs.) | Total Occupants | Luggage |
|----------------|---------------------------------|--|----------|-------------------------------|------------------------|----------|
| | | Front | Rear | | | |
| 2-door Hardtop | 8.55 x 15 | Front 26 | Rear 24 | 1050 | 6 3—Front 3—Rear | 150 lbs. |
| | Optional 8.55 x 15 Dual Chamber | Inner 42 Outer 26 | 40 24 | | | |

ENGINE

| | |
|---|--------------------|
| Type | 8-Cyl. 90° V OHV |
| Displacement | 460 Cu. In. |
| Bore and Stroke (Inches) | 4.36 x 3.85 |
| Compression Ratio | 10.5:1 |
| Max. Brake Horsepower @ Specified rpm | 365 @ 4600 |
| Max. Gross Torque (Lb. Ft.) @ Specified rpm | 500 @ 2800 |
| Idle rpm | 550 |
| Ignition Timing (BTC) 2 (Vac. disconnected) | 10° |
| Distributor—Breaker Point Gap | 0.017" |
| —Dwell Angle | 26°-31° |
| Spark Plug (Autolite Sales No.) | BF-42 |
| Spark Plug Gap | 0.032"-0.036" |
| Firing Order | 1-5-4-2-6-3-7-8 |
| Compression Pressure—Psi 3 Sea Level @ Cranking Speed | 180-200 |
| Engine Idle Manifold 4 | 17 |
| Carburetor | 617 cfm 4V A/Choke |
| (Autolite Sales No.) | CA-550 |
| Idle Air/Fuel Ratio | 13.8 |
| Fuel | Premium |
| Valve Lifter Tappets | Hydraulic |
| Battery (Autolite Sales No.) | SV 29HR |
| Group | 29HR |
| Amp Size | 85 |
| Electrical (Autolite Sales No.) | |
| Point Set | DP-79 |
| Condenser | DC-13 |
| Cap | DH-6 |
| Rotor | DR-5 |
| Regulator | GR-383 |
| Ignition Coil | DG-5 |
| Regulator (PCV) Valve (Autolite Sales No.) | EV-8 |
| Filters (Autolite Sales No.) | |
| Oil | FL-1 |
| Air | FA-50 |
| Fuel | FG-14 |



SHOCK ABSORBERS (Autolite Sales No.)

| | Auto-Flex | Auto-Flex XD | Super-Flex |
|-------|-----------|--------------|------------|
| FRONT | AB 105 | AX 110 | AA 134 |
| REAR | AB 104 | AX 108 | — |

NOTES: 1 Adjust with headlights "on", automatic transmission in drive, and A/C at max. cooling. 2 If the individual requirements of the vehicle and/or the use of sub-standard fuel dictate, the initial timing may have to be retarded from the normal setting to eliminate detonation (spark knock). If retarding is necessary, it should be done progressively and not exceed 2° BTC. 3 Allowable variation between cylinders—20 psi. 4 Minimum inches of Mercury @ specified rpm (sea level) with automatic transmission in neutral. Subtract 1-inch for engines equipped with dual diaphragm distributors.

DIAGNOSING HYDRAULIC TAPPETS

To diagnose clicking noises which may be attributed to possible hydraulic tappet problems, proceed with the following steps:

1. Check engine crankcase oil and radiator coolant levels and fill to proper level, if necessary.
2. Locate objectionable engine noise by using a piece of hose, stethoscope or sounding rod. Check other engine parts which may be mistaken for tappet noise.
3. If the noise appears to be within the rocker arm cover, determine if the rocker arm is striking the inside of the cover by running the hand along the top of the cover.
4. Remove the rocker arm cover.
5. With the engine running locate the position of the noise by applying hand pressure to the push rod end of the rocker arm.
6. Check the rocker arm adjustment and re-adjust, if necessary, as follows:

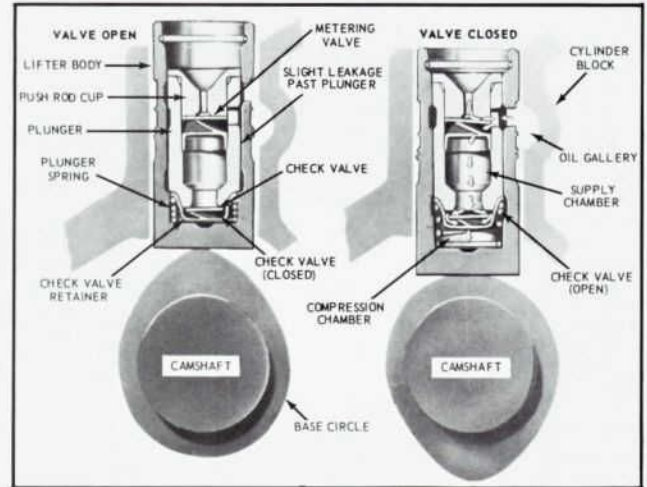
Individual Mounted Rocker Arms (Adjustable)

- a. Rotate engine until the individual affected cylinder is at approximate T.D.C. at the end of the compression stroke.
- b. With the engine in this position check the affected push rods for end clearance.
- c. If push rod end clearance is present, rotate the rocker arm adjusting nut clockwise until the pushrod end clearance is removed and then turn the adjusting nut one additional turn and evaluate for noise. If idle roughness is noted at start-up, allow sufficient running time to let the tappet bleed down to its operating range.

NOTE: Rocker arm should NOT be adjusted with the engine operating. Rocker arm adjusting nut torque (when loosening) should meet or exceed 4.0 ft. lbs. to maintain adjustment. Replace nuts if necessary.

Shaft Mounted Rocker Arms (Non-Adjustable)

- a. Rotate the engine until the individual affected piston is at approximate T.D.C. at the end of the compression stroke.
 - b. Using the proper tool, apply pressure slowly to the rocker arm to bleed down the hydraulic tappet until the plunger is bottomed and then measure the available clearance between the rocker arm and valve stem tip. If the clearance is not within specifications (.050"-.200") correct as required, using a longer or shorter service pushrod.
7. Check for push rod interference with cylinder head, intake manifold/baffles, loose rocker arm pedestal bolts.
 8. Check for worn valve guides and/or valve spring noise by applying side pressure to the valve spring retainer. Valve spring noise can sometimes be removed by rotating the valve spring. Check valve spring assembled height/squareness and correct as required.
 9. IF THE PARTS ARE WITHIN SPECIFICATIONS AND THE ADJUSTMENT IS CORRECT, REPLACE ONLY THE AFFECTED TAPPET. DO NOT DISASSEMBLE, CLEAN, TEST OR RE-USE TAPPETS REMOVED. DO NOT REPLACE NON-OFFENDING TAPPETS.



If the noise is still present it may be necessary to check for low oil pressure, oil aeration, oil cleanliness, etc. Oil aeration check should be performed as follows:

- a. Operate the engine until normal operating temperatures are reached.
- b. Stop engine and remove oil pressure sending unit.
- c. Install a petcock type valve into the sending unit opening which will permit attachment of a $\frac{1}{4}$ " to $\frac{3}{8}$ " diameter hose of sufficient length to reach the oil fill opening. Close the valve.
- d. Operate the engine at approximately 500 RPM for five minutes, then open valve slightly to permit steady oil discharge and observe for air bubbles.

NOTE: Direct oil flow over a "white" card or through a transparent tube to facilitate observation. Do not operate engine at excessive speeds for long periods with the bleed attached.

- e. Increase engine speed to 1000 RPM and recheck for air bubbles.
- f. If aeration is present, inspect the oil pump intake system for leaks and repair as required.
- g. If no aeration is detected, remove aeration checking device and install hydraulic testing gauge to check engine oil pressure at normal operating temperature. Engine oil pressure at the sending unit should be 35-55 P.S.I. at 2000 rpm.
- h. If oil pressure is below specification, check for excessive wear in the oil pump, as indicated in the shop manual, and sticking of the oil pump relief valve. If the oil pump assembly is within specifications, check other lubricating clearances in the crankshaft, camshaft, etc.

NOTE: Hydraulic tappets holding a valve open during extended shut-down periods (overnight) may leak down and be noisy (clatter) for a short period (less than 30 seconds) following cold engine start-up. This condition, commonly referred to as "morning sickness", is not detrimental to engine operation and is not considered an objectionable noise.

It must be emphasized that the Hydraulic Tappet Diagnostic Procedure must be followed in determining the cause of clicking noise, sounding similar to a collapsed tappet. If cause of the noise is determined to be a tappet, the tappet should be replaced. Do not clean or test the tappet to be replaced and do not clean or test the remaining tappets.

AUTOLITE "STATIC SHIELD" SPARK PLUG CABLE

All Ford Motor Company cars and most trucks since 1954 have been built with resistance type spark plug cables; called "static shield" by Autolite. They provide two important advantages over solid conductor "metallic" cables: (1) Resistance cable suppresses ignition interference in accordance with SAE specifications and (2) Resistance cable reduces spark plug electrode erosion, thus prolonging service life of the plug.

Spark plugs do not fire until enough voltage is built up to jump the gap. The surge of electrical energy that jumps the gap is divided into two parts. Only the first part (capacitive portion) actually ignites the air/fuel mixture. It's practically impossible to see. The balance of electrical energy (inductive portion) causes the noticeable flash. It contributes nothing to combustion. However, this continuing discharge after ignition is radiated as a pulse of electrical noise by "metallic" conductor ignition cables in a manner similar to an antenna. It is a major factor in electrical interference and severe electrode wear.

ADDING RESISTANCE

Adding resistance to the secondary ignition circuit reduces or eliminates the *inductive* portion of electrical energy created when voltage jumps a spark plug gap. One way to achieve this is to use resistor spark plugs. However, this lumps the resistance into one spot and limits the frequency range that can be controlled.

Another, is to incorporate a resistance of 3 to 7 thousand ohms per running foot in the secondary spark plug cables. Distributing the resistance along the entire length of cable is particularly desirable because; first, a cross-firing condition is less likely to occur between wires, and second, ignition suppression is controlled over a wider frequency range, as opposed to locating the resistance in one spot.

Both standard spark plugs and resistor spark plugs can be used with resistance cables.

AUTOLITE "STATIC SHIELD" RESISTANCE CABLE

Autolite "static shield" ignition cable is recommended for replacement of the original equipment wire on all 1954-68 cars and most trucks. Original equipment radio resistance cable should never be replaced with solid core metallic conductors except for special applications: such as high performance competition. Autolite "static shield" resistance cable is recommended because of the many superior features illustrated in Figure 1.

REMOVING "STATIC SHIELD" CABLES

Properly installed and handled, Static Shield ignition cable will give service comparable to metallic conductors. When removing Static Shield cable from spark plugs or distributor caps, it should never be "yanked" or "pulled" off by the cable. It is best to grasp the molded boot and rotate it slightly to break the adhesion between the boot and spark plug or tower (Figure 2). Then, remove the cable by pulling on the *boot*.

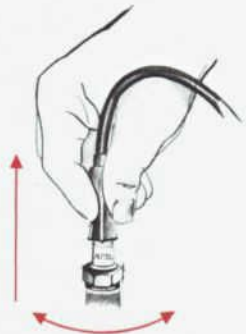


Figure 2—Removing "Static Shield" Cable

A—CONDUCTOR: Non-metallic core, impregnated with conducting graphite to reduce radio and TV interference. It is covered with a cotton and glass braid, which is coated with a conductive neoprene coating, to provide high tensile strength with greater flexibility for easier handling and better vibration resistance.

B—INNER CORE: Special rubber compound with high dielectric properties. Insulates and guards against voltage loss.



C—OUTER BRAID: A skeleton braid of fiber glass reinforces the insulating core. It provides extra strength and resists stretching of the cable and separation of the conductor: a major cause of ignition cable failure.

D—OUTER SHEATH: A tough Autolite Neoprene or Hypalon jacket of synthetic rubber covers the insulated conductor and braid. It's highly resistant to flame, heat, corona, water and oil. Autolite "static shield" Resistance Cable meets or exceeds rigid original equipment specifications.

Figure 1—Features of Autolite "Static Shield" Cable

INSTALLATION

Spark plug cable should be replaced when it deteriorates from the effects of age, heat, electrical tracking, etc. An Ohmmeter test provides the most positive method of finding a faulty cable. Generally, a cable with resistance in excess of 1000 ohms per inch should be replaced. However, if one of the shorter cables in a set shows an abnormal reading in comparison to the others, it should be replaced. For example: a short cable that has 40,000 ohms resistance, while the other cables vary from 5,000 to 20,000 ohms.

Replacement sets come in three types, and should be installed as follows:

Tailored Sets—These are complete sets. They are cut to the correct length, with molded boots and terminals in place. Simply remove from the box and install.

Universal Sets—The spark plug end has the terminal and boot in place. However, the distributor end may have to be cut to obtain the correct length. Install the boot, then insert hairpin terminal No. 5373 in the center of each cable (Figure 3). Crimp the terminal firmly on the cable (Figure 4).



Figure 3—Installing Hairpin Terminal



Figure 4—Crimping Hairpin Terminal



Bulk Wire Sets—Cut lengths from the bulk roll equal to the length of the original cables. Install boots on both ends. Insert hairpin terminal No. 5374 in center of spark plug end of cable. Install the proper spark plug terminal over this hairpin terminal. Install hairpin terminal No. 5373 in distributor end and crimp.

ADJUSTING IGNITION POINT GAP AND DWELL ANGLE

All Models With Single or Dual Diaphragm Distributors

The distributor vacuum line, or lines, must be disconnected and plugged on all distributors with vacuum advance to properly check or adjust the ignition point gap and dwell angle. This is required because timing advance (caused by the vacuum diaphragm) *increases* the point gap, and *decreases* the dwell angle. Ignition timing specifications are designated with NO vacuum advance. Failure to disconnect the vacuum line(s) can cause erroneous readings.

The vacuum portion of timing advance is accomplished by the vacuum diaphragm rotating the distributor breaker plate. The contact points are attached to the breaker plate. Since the breaker plate rotates around a different center than the distributor shaft and cam, the point gap increases as the breaker plate rotates in the advance direction. Increased point gap results in decreased dwell angle because the points are closed for a shorter period of time. If the vacuum line(s) are connected, a dwell decrease can cause an erroneous dwell angle adjustment. It is therefore *imperative* that all distributor vacuum line(s) be disconnected and plugged prior to any dwell angle check or adjustment.

DRIVELINE U-JOINT USAGE

All 1968 Light Trucks

The driveline of 1968 Light Trucks uses two types of universal joints:

1. A U-joint with a zerk grease fitting that must be lubricated every 6,000 miles.
2. A lifetime lubricated universal joint without a grease fitting. It never needs lubrication.
3. Some trucks have a universal joint that can be lubricated at one end of the driveline and a lifetime lubricated U-joint at the other end. These trucks should *not* be modified to make both universal joints the same.

To achieve proper lubrication of universal joints with zerk grease fittings, follow this recommended procedure:

1. Add lubricant (Ford specification M1C75-B) until fresh lubricant appears at all journal cross bearings seals.
2. If lubricant does not appear at seals, move the driveline laterally in all four directions and pull against the opposite bearing cap with gun pressure applied to the grease fitting.
3. In extreme cases when lubricant does not appear, it may be necessary to remove the driveshaft to disassemble and clean the bearing.

PROPER USE OF SEALER—REPAIR OF WINDSHIELD AND BACKLITE WATER LEAKS

All 1964-1968 Cars

The recommended sealer for repairing water leaks around windshields and backlites on all models with *butyl* or *rubber* weatherstrip-installed glass is Auto Glass Liquid Sealer (Ford Part No. C5AZ-19554-A), or equivalent.

Sealants marketed by suppliers that contain *silicone* or *polysulfide* are not compatible with butyl and must not be used to seal butyl-installed glass. This type of sealer has a deteriorating effect on the butyl and will result in further leaks.

Auto Glass Liquid Sealer is compatible with butyl and is recommended for all windshield and backlite water leaks. Because of its flow characteristics, this sealer can also be used to seal sheet metal water leaks.

BATTERY POST CLAMPS

"Slow engine starter cranking" or "no starter action" can be caused by a loose cable clamp connection at the battery post. The loose connection, in some cases, is the result of an undersize battery post which prevents the battery cable clamp from completing a tight connection. This condition can be corrected by cutting approximately $\frac{1}{8}$ " off the bolt end stop of the battery cable clamp.

A visual inspection alone is not adequate to determine whether or not a satisfactory connection exists. Check the cable to post connection prior to replacing any electrical components, using the electrical charging system diagnosing procedure outlined in the appropriate Shop Manual.

If a faulty connection exists because of an undersize battery post, the following procedure should be used to insure a tight connection.

1. Remove cable from vehicle and secure cable clamp in vise.
2. Use a hacksaw to remove approximately $\frac{1}{8}$ " from areas shown in Figure 2.
3. Check and clean cable and battery post if necessary.
4. Reinstall the cable, and tighten clamp bolt 55 inch-lbs.

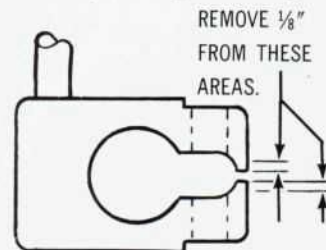


Figure 2—Revised Battery Post Clamp

DYNAMICALLY BALANCING WHEEL AND TIRE ASSEMBLIES ON VEHICLES WITH DISC BRAKES

The first step in dynamically balancing wheel and tire assemblies on cars with disc brakes is to pull back the shoe and lining assemblies from the rotor. Failure to do this may result in additional drag effort to rotate the wheel and tire, which may be too great for the balancing equipment to handle.

The drag effort can be removed by the following procedure:

1. Remove the wheel and tire assembly from the hub and rotor assembly.
2. Remove the two bolts that retain the caliper splash shield, and remove the shield.
3. Push the pistons into the cylinder bores by applying steady pressure with a screwdriver or similar tool for at least a minute on the shoe and lining assembly toward the respective caliper housing on each side of the rotor.
4. After the pistons have been retracted, install the caliper splash shield with the two retaining bolts.
5. Install the wheel and tire assembly on the hub and rotor assembly.
6. Dynamically balance the wheel and tire assembly with the same equipment that is used for drum brake assemblies.
7. **Important!** After balancing the wheel and tire, pump the brake pedal several times until a firm pedal is obtained, that indicates that the shoe and lining assemblies are properly seated.

NEW TEST PROCEDURE—DISTRIBUTOR VACUUM ADVANCE CONTROL VALVE (All 1968 Engines So Equipped)

An improved and simplified method of testing the Distributor Vacuum Advance Control Valve (Deceleration Valve) has been released.

This procedure is preferable to that in the 1968 Ford-Mercury and the Cougar, Fairlane, Falcon, Montego and Mustang Shop Manuals.

The test and adjustment procedure should only be used after the engine has reached normal operating temperature.

1. Connect a tachometer to the engine.
2. Start engine and check engine idle speed. If required, adjust to normal specification with headlights on high beam.
3. Turn off the headlights and note engine idle RPM under this condition.
4. Remove the plastic cover from the distributor vacuum advance control valve exposing the adjusting screw. Slowly turn the adjusting screw counter-clockwise without exerting excessive inward pressure. After five and no more than six turns, the idle speed should suddenly increase to approximately 1000 RPM. Any further turns outward will release the compressed spring and retainer washer. If the idle speed does not increase after the sixth turn, push inward on the end of the valve spring retainer and release. The engine idle speed will increase and stay at approximately 1000 RPM.
5. After the valve has been triggered to the higher RPM level, slowly start to turn the adjusting screw in a clockwise direction until the idle speed drops and remains at the same level as Step 3. Then make one additional turn in the clockwise direction.
6. After Step 5, increase engine speed to 2000 RPM, hold speed for approximately five seconds and then release throttle. The engine should return to idle, the speed noted

in Step 3 within four seconds. If the idle speed does not return within four seconds, check the return time with the dashpot backed-off so that it does not contact the throttle lever at idle speed and repeat the run-down check from 2000 RPM.

7. If the engine will not return to the idle speed of Step 3, in three seconds with dashpot back-off, turn adjustment screw an additional one-quarter turn in a clockwise direction and repeat the rundown check from 2000 RPM.
8. Repeat Step 7, if necessary, with one-quarter turn increments, checking the idle return time after each one-quarter turn until the engine returns to idle within the required time. Note: if it takes more than one complete turn from Step 5 to meet the idle return time specification, the valve should be replaced.

REVISED CARBURETOR AIR/FUEL RATIOS

All 1968 Cars and Light Trucks

The following list of revised air/fuel ratios supersedes all previously published carburetor air/fuel ratio specifications. These revised specifications have been specifically developed for setting the carburetor idle mixture with a *Certified Exhaust Gas Analyzer*.

NOTE: Refer to appropriate 1968 Ford Motor Company Shop Manuals, and/or the October and December 1968 issues of Shop Tips, for the idle mixture setting procedure. Using the correct procedure provides optimum vehicle performance and effective exhaust emission control.

IDLE AIR FUEL RATIO

| ENGINE | IMCO | THERMACTOR |
|---------------------------------------|------|------------|
| CARS | | |
| 170 Six (1-V)..... | 14.0 | 12.8 |
| 200 Six (1-V)..... | 14.2 | 14.1 |
| 240 Six (1-V)..... | 13.7 | 12.1 |
| 289 V-8 (2-V)..... | 13.8 | 13.1 |
| 302 V-8 (2-V)..... | 13.8 | 13.1 |
| 302 V-8 (4-V)..... | 14.1 | 13.9 |
| 390 V-8 (2-V) Reg. Fuel..... | 14.0 | 13.1 |
| 390 V-8 (2-V) Prem. Fuel..... | 14.5 | — |
| 390 V-8 (4-V)..... | 14.3 | 13.9 |
| 390 V-8 (4-V) GT Man. Trans..... | — | 13.3 |
| 390 V-8 (4-V) GT Auto. Trans..... | — | 14.0 |
| 427 V-8 (4-V)..... | — | 13.9 |
| 428 V-8 (4-V)..... | 14.3 | 13.9 |
| 428 V-8 (4-V) Cobra Jet & Police..... | — | 13.9 |
| 429 V-8 (4-V)..... | 13.8 | — |
| 460 V-8 (4-V)..... | 13.8 | — |
| 462 V-8 (4-V)..... | 14.5 | — |
| TRUCKS | | |
| 170 Six (1-V)..... | 14.0 | 12.8 |
| 240 Six (1-V)..... | 13.7 | 12.1 |
| 289 V-8 (2-V)..... | — | 13.1 |
| 300 Six (1-V)..... | 14.0 | 13.3 |
| 302 V-8 (2-V)..... | 13.8 | 13.1 |
| 360 V-8 (2-V)..... | 14.5 | 13.7 |
| 390 V-8 (2-V)..... | 14.5 | 13.7 |

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