GROUP 12—DOORS, SHEET METAL AND GENERAL MAINTENANCE

The 1962-1963 maintenance recommendations are in Group 14, and the 1962-1963 specifications are in Group 15 of this manual.

The service procedures outlined in Group 12 of the 1961 Shop Manual remain the same for 1962 and 1963, with the following exceptions.

SIDE DOOR AUXILIARY STEP REPLACEMENT

1. From under the body, remove the step front mud deflector to underbody rail screw. Remove the screws and nuts to the front and rear mud deflectors at the lower portion of the rocker panel (Fig. 60).

2. From inside, disconnect the actuating lever rod retaining pin at the door.

3. Remove the linkage cover inside the body to allow removal of the rod retaining hairpin clip, washer, spring, and rod assembly. Remove the door hold-open link pin roller from the linkage arm.

4. Remove the screws inside the body at the floor pan to allow the step assembly to be removed.

5. To install, reverse the above procedure and seal the necessary screw holes. **All moving parts should be lubricated before installation.**

SIDE DOOR AUXILIARY STEP

The side door step is actuated through linkage from the door and extends as the door is opened and retracts as the door is closed.

SIDE DOOR STEP ADJUSTMENT

The door-to-step mechanism connecting linkage is adjustable to permit proper closing of the door. To adjust the linkage, remove the rod retaining pin at the door. With the door closed and step fully retracted, turn the actuating lever rod so that the hole in the rod aligns with the holes in the actuating lever rod door bracket, then install the pin.

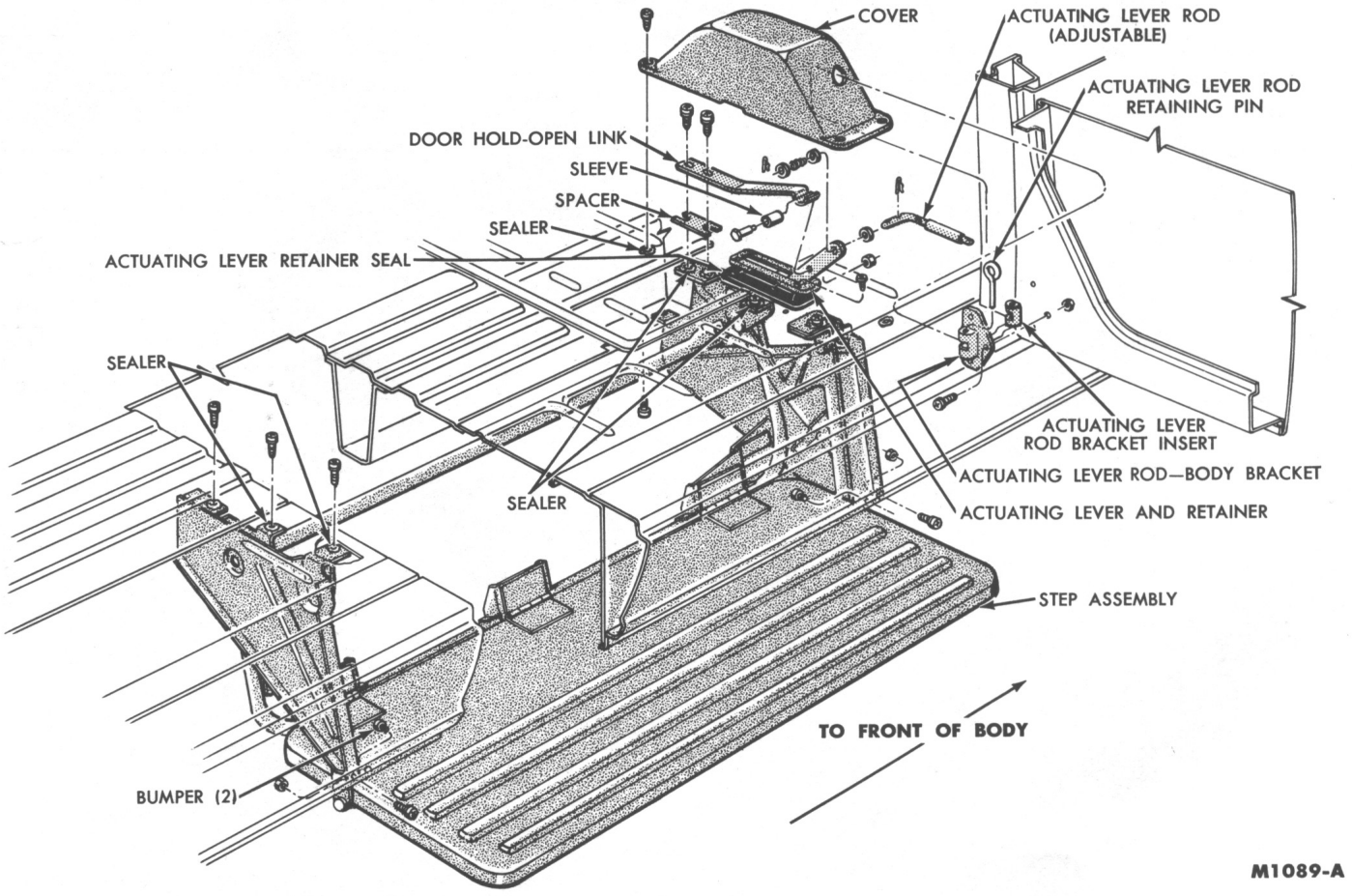


FIG. 60—Side Door Auxiliary Step Installation

GROUP 13—INTERIOR TRIM, SEATS AND WINDOWS

The 1962-1963 maintenance recommendations are in Group 14, and the 1962-1963 specifications are in Group 15 of this manual.

The service procedures outlined in Group 13 of the 1961 Shop Manual are the same for 1962 and 1963.

GROUP 14—MAINTENANCE AND LUBRICATION

MAINTENANCE SCHEDULE (Part 14-1)

INTERVAL	OPERATION
AS REQUIRED	Check Door Drain Holes (Semi-Annually)
	Check Battery Water Level
	Check Tire Condition and Pressure
	Check Engine and Transmission Mountings
	Check Steering Stop Adjustments
	Check and Adjust Transmission Controls
	Check Front Wheel Alignment
	Check Brake Adjustment
	Inspect Exhaust System

INTERVAL	OPERATION
AS REQUIRED	Inspect Front and Rear Springs
	Inspect Engine Cooling System, Hoses and Lines
	Drain and Flush Cooling System (Every 36,000 Miles or 2 Years)
	Lubricate Door and Tailgate Hinges, Engine Cover Hinges, Door Striker Plates, Latch Rotors and Door Lock Cylinders
	Lubricate Heater and Air Control Pivots and Defroster Detent
	Adjust Clutch Pedal Travel

1962 AND 1963 MAINTENANCE AND LUBRICATION SCHEDULE

INTERVAL	OPERATION	LUBRICANT
AT EACH FUEL STOP	Check Radiator Coolant Level	
	Check Engine Oil Level	
EACH 1000 MILES	Lubricate Front Axle Spindle Bolts	Chassis Lubricant
	Lubricate Steering Linkage	Chassis Lubricant
	Lubricate Drive Shaft Universal Joint and Slip Yoke	Chassis Lubricant
	Check Rear Axle Lubricant Level	FoMoCo or Rotunda Hypoid Gear Lubricant C2AZ-19580-A (SAE 90) above —25°F, C2AZ-19580-B, (SAE 80) below —25° F. Equivalent substitute rear axle lubricants must conform to Ford Specifications M-2C28-B (SAE 90) or M-2C28-A (SAE 80).
	Check Transmission Lubricant Level and Clean Breather	Engine Oil (MIL-L-2104-A) SAE 50 or Straight Mineral Oil Gear Lubricant (with no EP additives) SAE 90 for prevailing temperatures above 10° F. Engine Oil (MIL-L-2104-A) SAE 30 or Straight Mineral Oil Gear Lubricant (with no EP additives) SAE 80 for prevailing temperatures below 10° F. Equivalent substitute lubricants must conform to Ford Specification M-2C27-E (above 10° F) or M-2C27-C (below 10° F).
	Lubricate Transmission, Accelerator, Clutch, Brake and Parking Brake Linkage Pivots and Clevises	Engine Oil SAE 10W
	Lubricate Clutch and Brake Pedals	Chassis Lubricant
EACH 4000 MILES	Check Brake Master Cylinder Fluid Level	FoMoCo or Rotunda Heavy Duty Brake Fluid B7A-19542
	Clean Engine Crankcase (non-positive Ventilation) Vent System	
	Clean Engine Positive Crankcase Ventilation System**	
EACH 6000 MILES	Change Engine Oil and Replace Oil Filter (or each 6 months)	SAE 40 or 20W-40 for prevailing temperatures above 100° F SAE 30 or 10W-30 between 32° F and 100° F SAE 20 or 10W-30 between 10° F and 32° F SAE 10W between 10° F and —10° F SAE 5W* or 5W-20 for prevailing temperatures below —10° F Use only engine oils which have been tested and certified by their marketers as satisfying the engine operating sequence* for service MS. When an MS oil is used which is not certified by the maker as having passed the engine operating sequence test, addition of Rotunda Oil Conditioner to the engine oil will satisfy the requirements
	Clean Carburetor Oil Bath Air Cleaner and Fill Reservoir	SAE 30 above 32° F. SAE 20 below 32° F.
EACH 8000 MILES	Perform Minor Engine Tune-Up	
	Cross-Switch Tires	

*Defined by the ASTM Committee D2 for Section I (formerly G IV) to Technical committee B published in the SAE handbook, 1962 edition.
**Maintain at 2000-mile intervals or every two months when truck is used in stop-and-go service.

CONTINUED ON NEXT PAGE

1962 AND 1963 MAINTENANCE AND LUBRICATION SCHEDULE (Continued)

INTERVAL	OPERATION	LUBRICANT
EACH 12,000 MILES	Lubricate Speedometer Cable	Ford Speedometer Cable Grease B5A-19581-A
EACH 24,000 MILES	Check Steering Gear Lubricant Level	FoMoCo Special Steering Gear Lubricant 8BA-19578-A. Equivalent substitute steering gear lubricants must conform to Ford Specification M-4738.
	Change Transmission Lubricant	Engine Oil (MIL-L-2104-A) SAE 50 or Straight Mineral Oil Gear Lubricant (with no EP additives) SAE 90 for prevailing temperatures above 10° F. Engine Oil (MIL-L-2104-A) SAE 30 or Straight Mineral Oil Lubricant (with no EP additives) SAE 80 for prevailing temperatures below 10° F. Equivalent substitute lubricants must conform to Ford Specification M-2C27-E (above 10° F) or M-2C27-C (below 10° F)
	Inspect and Adjust Brakes	
	Repack and Adjust Front Wheel Bearings	FoMoCo Wheel Bearing Grease C2AZ-19585-A
	Perform Major Engine Tune-up	

MAINTENANCE OPERATIONS (Part 14-2)

OPERATION AND LUBRICANT

CHECK BATTERY WATER LEVEL	The level should be maintained at the ring in the bottom of each filler	well. Do not overfill the battery.
CHECK RADIATOR COOLANT LEVEL	The level should be maintained just below the bottom of the radiator	filler neck.
CHECK BRAKE MASTER CYLINDER FLUID LEVEL	The level should be maintained ⅜ inch below the top of the filler opening.	
CHECK STEERING GEAR LUBRICANT LEVEL	Remove the lowest bolt in the steering gear housing cover and check the lubricant level. To add lubricant, turn the steering wheel to the left to move the ball nut below	the filler hole, remove the filler plug, and fill until lubricant comes out of the bolt hole. Use FoMoCo Special Steering Gear Grease. Part No. B8A-19578-A.
CHECK TRANSMISSION LUBRICANT LEVEL	The level should be maintained at the bottom of the filler hole.	
CHECK REAR AXLE LUBRICANT LEVEL	The level should be maintained at the bottom of the filler hole.	
CHECK EXHAUST SYSTEM FOR LEAKS	Torque the exhaust manifold bolts to 13-18 ft-lbs, beginning at the center of the manifold and working toward either end. Inspect the entire system for signs of leaking or burning through. Eliminate all points of interference between the pipes and chassis or body that would cause rattles or vibration. Check for broken or improperly aligned clamps.	
CHECK ENGINE AND TRANSMISSION MOUNTINGS	Check engine mounts for tightness and tighten to specifications.	
CHECK STEERING STOP ADJUSTMENT	Steering Stops should be adjusted so right or left front wheel turns out	no more than 33° from the straight ahead position.
CHECK FRONT WHEEL ALIGNMENT	Check Front Wheel Alignment as covered in Part 7-1 of the 1961 Econoline Shop Manual. See Group	15 of this Shop Manual Supplement for specifications.

CONTINUED ON NEXT PAGE

OPERATION AND LUBRICANT (Continued)

CHECK DOOR DRAIN HOLES	The Drain Holes are located at the underside of the body side and rocker panels and outboard of the weatherstrip at the bottom of the	doors. Check the drain holes for obstructions. Use a screwdriver to clear the openings.
CHECK STEERING GEAR ADJUSTMENTS	See Part 8-1 of the 1961 Econoline Shop Manual for adjustment	procedure.
CHECK AND ADJUST TRANSMISSION CONTROLS	Check the transmission controls for wear and ease of operation. See Group 5 of the 1961 Econoline Shop	Manual for Adjustment of the Transmission Control Linkage.
CLEAN ENGINE CRANKCASE BREATHER CAP	Wash the oil filler tube breather cap in solvent, and oil it.	
CLEAN CARBURETOR OIL-BATH AIR CLEANER AND FILL RESERVOIR	Remove the air cleaner and drain the oil from the reservoir. Wash all parts in solvent and dry them with compressed air. Install a new gasket	if necessary. Saturate the element with engine oil, and fill the reservoir to the full mark.
CLEAN ENGINE POSITIVE CRANKCASE VENTILATION SYSTEM	Clean the positive crankcase ventilation valve as outlined in Part 1-1 of the 1961 Econoline Shop Manual.	
LUBRICATE TRANSMISSION, ACCELERATOR, CLUTCH, BRAKE, AND PARKING BRAKE LINKAGE PIVOTS AND CLEVISES	Spray pivots with engine oil – SAE 10W.	
LUBRICATE HEATER AND AIR CONTROL PIVOTS AND DEFROSTER DETENT	Lubricate heater and air control pivots with SAE 10W oil. Lubricate defroster detent with Lubriplate.	
LUBRICATE CLUTCH AND BRAKE PEDALS	Lubricate clutch and brake pedals at grease fittings with chassis lubri-	cant.
LUBRICATE DOOR HINGES AND LOCK ROTORS	Spray with engine oil – SAE 10W.	
LUBRICATE DOOR LOCK CYLINDERS	Spray with lock lubricant.	
LUBRICATE DOOR LATCH STRIKER PLATES	Apply stick wax.	
LUBRICATE SPEEDOMETER CABLE	Lubricate Speedometer Cable as Outlined in Part 11-1 of the 1961	Econoline Shop Manual.
LUBRICATE FRONT AXLE SPINDLE BOLTS	Apply lubricant with pressure gun.	
LUBRICATE STEERING LINKAGE	Apply lubricant with pressure gun.	
REPACK AND ADJUST FRONT WHEEL BEARINGS	Front wheel bearing lubrication procedure is given in Part 7-2 of	the 1961 Econoline Shop Manual.
LUBRICATE UNIVERSAL JOINTS AND SLIP YOKE	Apply lubricant with pressure gun.	

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OPERATION AND LUBRICANT (Continued)

CHANGE ENGINE OIL AND REPLACE ROTUNDA OIL FILTER	Discard the used filter element and wash the housing and other filter parts in solvent. Install a new Rotunda filter element, and fill the crankcase to the full mark on the	oil level dipstick. Run the engine at idle speed and check for oil leaks at the filter and drain hole. Recheck level and add oil if necessary.
CHANGE TRANSMISSION LUBRICANT	Drain and refill with the recommended lubricant.	
DRAIN AND FLUSH COOLING SYSTEM	Drain and flush cooling system. Install required amount of coolant.	
INSPECT TIRES AND CHECK TIRE AIR PRESSURE	Check for bruises, cuts, holes and other damage. Remove objects wedged in the treads. Make sure that	the air pressures in all tires agree with those specified for the tires and vehicle being checked.
INSPECT FRONT AND REAR SPRING LEAVES	Inspect the front and rear spring leaves and tighten spring clips or U-bolts to specifications.	
INSPECT ENGINE COOLING SYSTEM, HOSES AND LINES	Inspect engine cooling system for signs of leakage. Inspect engine cooling system hoses and lines for	signs of leakage, cracks and/or deterioration. Make corrections as necessary.
INSPECT AND ADJUST BRAKES	Remove one front wheel and drum, and inspect the drum and linings for wear or damage. Scored drums should be repaired. Reline or replace the brake shoes if the linings are worn to within 1/32 inch of any rivet.	Adjust the brakes until the pedal travel is not more than half the distance between the released position and the floor. See Part 9-1 of 1961 Econoline Shop Manual for adjustment procedures.
ADJUST CLUTCH PEDAL TRAVEL	The clutch pedal must be properly adjusted to provide correct pedal total travel and pedal free travel. See	Part 5-1 of 1961 Econoline Shop Manual for the complete checking and adjusting procedure.
PERFORM MAJOR ENGINE TUNE-UP	Clean, adjust and test spark plugs. Take a compression reading of each cylinder. Replace spark plugs. Check and adjust the deflection of the drive belts. Replace fuel filter. Check and adjust carburetor fuel level. Clean the distributor cap and rotor. Lubricate the distributor cam and bushing. Clean battery cables and terminals. Check battery state of charge. Check and adjust breaker point dwell.	Check and adjust spark advance Perform a spark intensity test of each spark plug wire. Check fuel pump pressure and capacity. Inspect the radiator, hoses and engine for coolant leaks. Check and adjust ignition timing. Adjust accelerator pump link to seasonal position. Check and adjust engine idle speed. Check and adjust idle fuel mixture. Check and adjust valve lash.
PERFORM MINOR ENGINE TUNE-UP	Clean, adjust and test spark plugs. Check and adjust drive belt deflection. Replace fuel filter. Clean distributor cap and rotor. Check condition of distributor breaker points. Lubricate distributor cam and distributor bushing. Check battery state	of charge. Check and adjust breaker point dwell. Check and adjust ignition timing. Adjust accelerator pump link to seasonal position. Check and adjust engine idle speed. Check and adjust idle fuel mixture. Check and adjust valve lash.
CHECK BRAKE ADJUSTMENTS	Adjust the brakes whenever pedal travel is more than half the distance between the released position and the	floor. See Part 9-1 of the 1961 Econoline Shop Manual for adjustment procedures.
CROSS-SWITCH TIRES AND TIGHTEN WHEEL STUD NUTS	All tires, including the spare tire, should be cross-switched as shown in	the diagram in Part 7-2 of the 1961 Econoline Shop Manual.

GROUP 15—SPECIFICATIONS AND SPECIAL TOOLS

NOTE: All specifications are given in inches unless otherwise noted.

ENGINE

GENERAL SPECIFICATIONS

Piston Displacement (Cubic Inches)	144 or 170
Bore and Stroke	144 Six—3.50 x 2.50 170 Six—3.50 x 2.94
Compression Ratio	8.7:1
Engine Fuel Requirements	Regular
Comp. Pressure—Sea Level @ Cranking Speed	150-190
Brake Horsepower @ Specified Engine rpm	144 Six— 85 @ 4200 170 Six—101 @ 4400
Torque (ft-lbs) @ Specified Engine rpm	144 Six—134 @ 2000 170 Six—156 @ 2400
Firing Order	1-5-3-6-2-4
Valve Arrangement (Front to Rear)	E-I-I-E-I-E-E-I-E-I-I-E
Taxable Horsepower (SAE)	29.4
Engine Idle rpm	550-575
Engine Idle Manifold Vacuum—Minimum Inches Hg. @ Specified Engine Idle rpm (Sea Level) For 1962 both Engines	144 Six—16 170 Six—17 18
Initial Ignition Timing—B.T.D.C.*	(1962) 6° (1963) 4°
Crankcase Oil Capacity—Quarts Without Filter Replacement—U.S. Measure —Imperial Measure With Filter Replacement—U.S. Measure —Imperial Measure	 3.5 3 4.5 3.75
Oil Pressure (psi) Hot @ 2000 rpm	35-55

CAMSHAFT AND TIMING CHAIN

Journal Standard Diameter		1.8095-1.8105
Journal Maximum Out of Round		0.0005
Journal to Bearing Clearance —Wear Limit		0.001-0.003 0.006
Timing Chain Deflection		0.5
Camshaft Lobe Lift	Intake	0.2405
	Exhaust	0.2395
Max. Allowable Lobe Lift Loss—Intake & Exhaust		0.005
Camshaft End Play —Wear Limit		0.001-0.007 0.012

CAMSHAFT BEARINGS

Inside Diameter—Assembled	1.8115-1.8125
Location in Relation to Front Face of Block Cam Bearing Bore—No. 1 Bearing Only—Below	0.115-0.125

CYLINDER HEAD

Gasket Surface Flatness**	0.003 in any 6 inches or 0.006-inch overall
Valve Guide Bore Diameter—Intake and Exhaust	0.3115-0.3125
Valve Seat Width—Intake and Exhaust	0.070-0.080
Valve Seat Angle—Intake and Exhaust	45°
Valve Seat—Maximum Runout (1962 and 1963) —Wear Limit (1962 only)	0.002 0.0025

*The initial ignition timing may be advanced 5° over the recommended setting. To do this, advance the timing progressively until engine detonation (spark knock) is evident under actual road test acceleration. Retard the timing until the detonation is eliminated. If the individual requirements of the vehicle and/or if sub-standard fuels are used, the initial timing may be retarded from the recommended setting not to exceed 2° BTC.

**1963—0.007 inch overall

VALVE MECHANISM

Valve Lash—Intake & Exhaust		0.018
Valve Stem Diameter—Standard	Intake	0.3100-0.3107
	Exhaust	0.3090-0.3097
Valve Stem Diameter 0.003 O.S.	Intake	0.3130-0.3137
	Exhaust	0.3120-0.3127
Valve Stem Diameter 0.015 O.S.	Intake	0.3250-0.3257
	Exhaust	0.3240-0.3247
Valve Stem Diameter 0.030 O.S.	Intake	0.3400-0.3407
	Exhaust	0.3390-0.3397
Valve Stem to Valve Guide Clearance	Intake	0.0008-0.0025
	Exhaust	0.0018-0.0035
—Wear Limit	Intake	0.0045
	Exhaust	0.0055
Valve Head Diameter	Intake (144) Intake (170)	1.462-1.472 1.522-1.532*
	Exhaust	1.261-1.276
Valve Face Angle—Intake & Exhaust		44°
Valve Face Maximum Runout (Intake & Exhaust) —Wear Limit (1962 only)		0.0015 0.002
Valve Spring Free Length (Approximate)		2.00
Valve Spring Maximum Out of Square		(1962) 1/16—(1963) 0.072)
Valve Spring Pressure (lbs)—Specified Length —Wear Limit		47.75—56.25 @ 1.585 43 @ 1.585
Valve Spring Pressure (lbs)—Specified Length —Wear Limit		112-122 @ 1.222 101 @ 1.222
Valve Spring Assembled Height		1 9/16-1 39/64
Valve Push Rod Maximum Runout		0.025
Valve Tappet Diameter		0.8740-0.8745
Valve Tappet to Tappet Bore Clearance		0.0005-0.0020
Rocker Arm to Rocker Shaft Clearance —Wear Limit		0.002-0.0045 0.006
Rocker Arm Shaft Outside Diameter		0.780-0.781
Rocker Shaft Bore Diameter		0.783-0.784

*1963—1.522-1.537

CRANKSHAFT

Main Bearing Journal Standard Diameter	Coded Red	2.2486-2.2490
	Coded Blue	2.2482-2.2486
Main Bearing Journal Maximum Runout —Wear Limit		0.0025 0.0035
Main Bearing Journal Thrust Face Maximum Runout		0.001
Connecting Rod Journal Diameter	Coded Red	2.1236-2.1240
	Coded Blue	2.1232-2.1236
Connecting Rod and Main Bearing Journal Maximum Out-of-Round —Wear Limit (1962 only)		0.0004 0.0006
Connecting Rod and Main Bearing Journal Maximum Taper —Wear Limit (1962 only)		0.0003 0.001
Thrust Bearing Journal Length		1.275-1.277
Crankshaft Free End Play —Wear Limit		0.004-0.008 0.012
Assembled Flywheel Clutch Face Maximum Runout		0.010
Assembled Flywheel Outside Diameter Runout		0.007

MAIN BEARINGS

Journal Clearance—Copper Lead		0.0007-0.0025
Bearing Wall Thickness—Copper Lead	Red	0.0754-0.0759
	Blue	0.0758-0.0763
	0.002 U.S.	0.0768-0.0773

CONNECTING ROD

Piston Pin Standard Inside Diameter		0.9107-0.9112
Bearing Bore Diameter	Coded Red	2.2390-2.2394
	Coded Blue	2.2394-2.2398
Bearing Bore Maximum Out-of-Round		0.0002
Bearing Bore Maximum Taper		0.0002
Connecting Rod Length (Center to Center)	144 Six	4.854-4.856
	170 Six	4.714-4.716
Connecting Rod—Maximum Twist Total Difference		0.012
Connecting Rod—Maximum Bend Total Difference		0.004
Connecting Rod Assembly (Assembled to Crankshaft) Side Clearance		0.004-0.008
—Wear Limit		0.014

CONNECTING ROD BEARINGS

Bearing to Crankshaft Clearance		0.0008-0.0023
Bearing Wall Thickness	Red	0.0569-0.0574
	Blue	0.0573-0.0578
	0.002 U.S.	0.0583-0.0588

PISTON

Standard Piston Diameter at Right Angle to Piston Pin Centerline	Red	3.4976-3.4982
	Blue	3.4988-3.4994
	0.003 O.S.	3.5000-3.5006
Piston to Bore Clearance at Right Angle to Piston Pin Centerline		0.0018-0.0036

PISTON PIN

Piston Pin Dia. Standard (Coded Green)	0.9120-0.9123
Piston Pin Length	3.010-3.030
Piston Pin to Piston Clearance	0.0001-0.0003

PISTON RINGS

Ring width—Compression—Upper	0.0774-0.0781
Lower	0.0770-0.0780
Side Clearance—Compression—Upper	0.0019-0.0036
Lower	0.0020-0.004
Piston Ring Gap Width—Compression (Upper and Lower)—Standard Bore	0.010-0.020
Side Clearance—Oil	Snug
Gap Width—Oil—Standard Bore	0.015-0.055 Rail

CYLINDER BLOCK

Cylinder Bore Std. Diameter Spread for 8 Grades		3.5000-3.5024
Cylinder Bore Maximum Out-of-Round		0.001
—Wear Limit		0.003
Cylinder Bore Maximum Taper		0.001
—Wear Limit		0.005
Main Bearing Bore Diameter	Coded Red	2.4012-2.4016
	Coded Blue	2.4016-2.4020
Head Gasket Surface Flatness*		0.003 in any 6 inches or 0.006 inch overall

*1963—0.007 inch overall.

OIL PUMP

Relief Valve Spring Tension (lbs)	8.6-9.5 @ 1.078
Relief Valve Clearance	0.0015-0.0029
Drive Shaft to Housing Bearing Clearance	0.0015-0.0029
Rotor Assembly End Clearance (Pump Assembled)	0.0011-0.0041
Outer Race to Housing—Radial Clearance	0.006-0.012

TORQUE LIMITS

	Foot-Pounds
Main Bearing Cap Bolts (Oiled)	60-70
Cylinder Head Bolts (Oiled)	65-75
Oil Pan to Cylinder Block	7-9
Flywheel to Crankshaft	75-85
Exhaust Manifold to Cylinder Head	13-18
Oil Pump to Cylinder Block	12-15
Oil Pump Cover Plate	6-9
Camshaft Thrust Plate to Cylinder Block	12-15
Cylinder Front Cover	7-9
Water Outlet Housing	12-15
Oil Pan Drain Plug	15-20
Crankcase Ventilation Tube to Engine	6-9
Rocker Arm Cover	3-5
Camshaft Sprocket to Camshaft	35-45
Damper or Pulley to Crankshaft	45-55
Connecting Rod Nuts	19-24
Rocker Shaft Support to Cylinder Head	30-35
Water Pump to Cylinder Block	12-15
Oil Tube to Oil Pump Nut	12-15
Valve Rocker Arm Adjusting Screw (Self-Locking)—Minimum Torque to Rotate	3
Fuel Pump to Cylinder Block	12-15
Engine Front Support—Rear Support Assembly to Engine	24-32
Insulator Assembly to Attaching Bracket Lock Nut	11-15
Insulator Assembly to Engine	18-24
Engine Rear Support—Support Retainer to Engine	24-30
Support Assembly to Body Lock Nut	10-15
Insulator to Transmission Extension Bolts	23-29
Insulator Assembly Nuts	23-29
Support to Transmission Extension Bolts	37-42
Oil Filter Adapter to Cylinder Block	50-60
Muffler Inlet Pipe to Exhaust Manifold	23-27

IGNITION SYSTEM

SPARK PLUGS

Part Number	Size	Gap (Inches)	Torque (Ft-Lbs)
Autolite BF-82	18 mm	0.035	15-20

CONDENSER

Capacity Microfarads	Min. Leakage Megohms	Max. Series Resistance Ohms
0.21-0.25	5	1

DISTRIBUTOR—GENERAL SPECIFICATIONS

Breaker Arm Spring Tension (Ounces)	17-20
Contact Spacing (Inches)	0.024-0.026
Dwell Contact at Idle Speed	35°-38°

VACUUM ADVANCE CHARACTERISTICS

Note: The vacuum advance characteristics given apply to the distributor with the indicated number only. The distributor number is stamped on the distributor housing or on a plate attached to the distributor housing.

DISTRIBUTOR NO. C3UF-12127-E (144 Six) (1963)
Set test stand to 0° @ 250 rpm and 0 inches of vacuum.

Distributor rpm	Advance (Degrees)	Vacuum Inches of Mercury
500	1 - 2	0.30
800	4¾ - 5¾	0.80
1200	8 - 9	1.80
1600	10 -11	3.00
2000	11 -12¼	3.90
Maximum Advance Limit	13½	10

Note: The vacuum advance characteristics given apply to the distributor with the indicated number only. The distributor number is stamped on the distributor housing or on a plate attached to the distributor housing.

DISTRIBUTOR NO. C3UF-12127-D (170 Six) (1963)
Set test stand to 0° @ 250 rpm and 0 inches of vacuum.

Distributor rpm	Advance (Degrees)	Vacuum Inches of Mercury
600	¼ - 1¼	0.45
800	3½ - 4½	0.75
1200	7 - 8	1.75
1600	9¾ -10¾	2.90
2000	11 -12¼	3.70
Maximum Advance Limit	15	10

DISTRIBUTOR DIMENSIONS

Distributor Shaft	Inches
Diameter (at bushing)	0.4675-0.4680
End clearance (to gear)	0.028
Gear Location (from bottom of gear to bottom of mounting rib)	2.510-2.515

COIL

Primary Resistance (Ohms)	1.40-1.54 (75°F.)
Secondary Resistance (Ohms)	8000-8800 (75°F.)
Amperage Draw Engine Stopped Engine Idling	 4.5 2.5
Primary Circuit Resistor (Ohms)	1.30-1.40 (75°F.)

VACUUM ADVANCE CHARACTERISTICS

Note: The vacuum advance characteristics given apply to the distributor with the indicated number only. The distributor number is stamped on the distributor housing or on a plate attached to the distributor housing.

DISTRIBUTOR NO. C0DF-12127-A (144 Six) (1962)
Set test stand to 0° @ 300 rpm and 0 inches of vacuum.

Distributor rpm	Advance (Degrees)	Vacuum Inches of Mercury
400	0	0.33
600	½ - 1½	0.78
800	3½ - 4½	1.30
1400	10 -12	3.45
1800	12½ -15	5.00
2000	12¾ -15½	5.35
Maximum Advance Limit	16½	10

Note: The vacuum advance characteristics given apply to the distributor with the indicated number only. The distributor number is stamped on the distributor housing or on a plate attached to the distributor housing.

DISTRIBUTOR NO. C1DF-12127-B (170 Six) (1962)
Set test stand to 0° @ 450 rpm and 0 inches of vacuum.

Distributor rpm	Advance (Degrees)	Vacuum Inches of Mercury
700	1½ - 2½	0.43
1000	5¼ - 6¼	0.92
1300	7½ - 8¾	1.50
1700	10 -11¼	2.40
2000	11 -12¼	3.00
Maximum Advance Limit	16½	10

FUEL SYSTEM

FUEL PUMP

Minimum Intake Vacuum (Hg.) @ 500 Engine rpm	6
Eccentric Total Lift	0.290-0.310
Fuel Pump Static Pressure psi @ 500 Engine rpm	3.5-5.5
Min. Fuel Pump Volume (Flow) @ 500 Engine rpm	1 pint within 30 seconds

FUEL TANK

	(U.S. Gallons)	(Imperial Gallons)
Capacity	14	11.6

CARBURETOR

144 SIX (1963)	
C3UF-9510-A	Manual-Shift transmission
Main Metering Jet Identification No.	
0-5,000 Feet	52
5,000-10,000 Feet	50
10,000-15,000 Feet	48
Float Setting	1 ± 1/64 inch from bottom of float to air horn, with air horn inverted
Venturi Size	1 1/64 inches
Spark Control Valve Identification No. or Color	Red
Initial Idle Mixture Adjustment	3-4 turns open
Power Valve Opens at	6-8 inches of mercury
144 SIX (1962)	
C2UE-9510-A	Manual-Shift transmission
Main Metering Jet Identification No.	
0-5,000 Feet	53
5,000-10,000 Feet	52
10,000-15,000 Feet	51
Float Setting	11/64 ± 1/64 inch from the roof of the float chamber to the lowest point of the float, carburetor inverted
Fuel Level Setting	23/32 ± 1/32 inch below the economizer piston mounting surface.
Float drop	3/16 inch between the bottom of the float at the lowest point and the floor of the float chamber with the main body in an upright position.
Venturi Size	1 1/8 inches
Spark Control Valve Identification No.	728
Initial Idle Mixture Adjustment	1-1½ turns open
Power Valve Opens at	4-7 inches of mercury

170 SIX (1963)	
C3UF-9510-B	Manual-Shift transmission
Main Metering Jet Identification No.	
0-5,000 Feet	57
5,000-10,000 Feet	55
10,000-15,000 Feet	53
Float Setting	1 ± 1/64 inch from bottom of float to air horn, with air horn inverted.
Venturi Size	1 7/64 inches
Spark Control Valve Identification No. or Color	Red
Initial Idle Mixture Adjustment	3-4 turns open
Power Valve Opens at	6-8 inches of mercury
170 SIX (1962)	
C1UE-9510-D	Manual-Shift transmission
Main Metering Jet Identification No.	
0-5,000 Feet	60
5,000-10,000 Feet	59
10,000-15,000 Feet	58
Float Setting	11/64 ± 1/64 inch from the roof of the float chamber to the lowest point of the float, carburetor inverted
Fuel Level Setting	23/32 ± 1/32 inch below the economizer piston mounting surface.
Float drop	3/16 inch between the bottom of the float at the lowest point and the floor of the float chamber with the main body in an upright position.
Venturi Size	1¼ inches
Spark Control Valve Identification No.	35
Initial Idle Mixture Adjustment	1-1½ turns open
Power Valve Opens at	7-10 inches of mercury

COOLING SYSTEM

Cooling System Pressure	13-15 psi
Water Pump Impeller to Housing Clearance	0.005-0.025
Pump Pulley or Pulley Hub to Pump Housing Mounting Face Alignment	3.94 inches from front face of pulley hub
Drive Belt Tension	
New Belt	90-120 lbs.
Used Belt*	60-90 lbs.

*Belt operated for a minimum of 10 minutes is considered a used belt.

Cooling System Capacity*	U.S. Measures	9 Quarts
	Imperial Measures	7.5 Quarts
Thermostats		
Low Temp.	Opens °F	155°-162°
	Fully Open at °F	182°
High Temp.	Opens °F	185°-192°
	Fully Open at °F	210°-212°

*Add 1.5 qts. for heater.

CLUTCH AND MANUAL-SHIFT TRANSMISSION

CLUTCH IDENTIFICATION

Pressure Plate			Disc	
Diameter (Inches)	Number of Springs	Spring Color	Number of Springs	Spring Color
8½	6	Unpainted	6	(3) Green (3) Unpainted

PILOT BUSHING

Maximum ID	0.634 inch

TORQUE LIMITS

	Ft-Lbs
Flywheel Housing to Engine Bolts	40-50
Clutch Release Equalizer Frame Bracket Bolts	25-32
Pressure Plate Cover to Flywheel	23-28

TORQUE LIMITS (Continued)

TRANSMISSION (1963)	Ft - Lbs
Input Shaft Gear Bearing Retainer to Transmission Case	19-25
Transmission to Flywheel Housing	32-36
Transmission Cover to Transmission Case	14-19
Speedometer Cable Retainer to Transmission Extension	3-4.5
Transmission Extension to Transmission Case	42-50
Flywheel Housing to Engine	40-50
Gear Shift Lever to Cam & Shaft Assembly Lock Nuts	14-19

TRANSMISSION (1962)	
Main Drive Gear Bearing Retainer to Transmission Case	12-15
Transmission to Flywheel Housing	32-36
Transmission Cover to Transmission Case—Side	10-13
Speedometer Cable Retainer to Transmission Extension	3-4.5
Transmission Extension to Transmission Case	37-42
Flywheel Housing to Engine	40-50
Gear Shift Lever to Cam & Shaft Assembly Lock Nuts	12-15

ADJUSTMENTS

CLUTCH	Inches
Clutch Pedal Free Travel	⅞-1⅛
Clutch Pedal Total Travel	6-6½
Maximum Variation of Finger Height	0.031
TRANSMISSION (1963)	
Detent Set Screw Head	Flush to 0.020 below case surface
End Play—Reverse Idler	0.004-0.018
End Play—Cluster Gear	0.004-0.018
TRANSMISSION (1962)	
Cam Ramp to Interlock Shift Sleeve—Clearance	0.001-0.013
(5) Interlock Shift Sleeves Available—Length	1.286-1.288
End Play—Cluster Gear	0.0045-0.0185

TRANSMISSION GEAR RATIO

Gear	Low	2nd	High	Reverse
Gear Ratio (1963)	3.41	1.86	1.00	3.51
Rear Ratio (1962)	3.39	1.97	1.00	4.12

APPROXIMATE LUBRICANT REFILL CAPACITIES

Application	Pints
Transmission (1963)	3
Transmission (1962)	2½

REAR AXLE

REAR AXLE RATIOS AND GEAR IDENTIFICATION

Axle Ratio	Number of Teeth	
	Drive Gear	Pinion
3.50 to 1	35	10
4.00 to 1	36	9

ADJUSTMENTS

REAR AXLE	Inches
Backlash Between Drive Gear and Pinion	0.008-0.012
Backlash Variation between Teeth	Max. 0.002
Runout of Backface of Ring Gear as Assembled	Max. 0.002
Thickness: Differential Side Gear Thrust Washers	0.030-0.032
Differential Pinion Gear Thrust Washers	0.030-0.032
Rear Bearing Cone to Pinion Gear Nominal Shim Shims Available: 0.008 through 0.024 inch	0.018

APPROXIMATE LUBRICANT REFILL CAPACITIES

Application	Pints
Rear Axle	2

TORQUE LIMIT

REAR AXLE	Foot-Pounds
Rear Cover Bolts	10-17
Differential Bearing Cap Screws	40-50
Differential Bearing Adjusting Nut Lock Bolts	12-20
Universal Joint Flange Axle End to Universal Joint Bearing Assembly Nuts	10-14
Drive Gear Attaching Cap Screws	40-50
Rear Axle Shaft Bearing Retaining Nuts	30-35
Minimum Torque Required to Tighten Pinion Flange Lock Nut to Obtain Correct Pinion Bearing Preload	140
Pinion Bearing Preload (Inch-Pounds) New Bearings Used Bearings	17-27 6-10
Differential Bearing Preload	2-3 notches tight

DRIVE PINION ADJUSTING SHIM THICKNESS CHANGES—INCHES

Old Pinion Marking	New Pinion Marking								
	−4	−3	−2	−1	0	+1	+2	+3	+4
+4	+0.008	+0.007	+0.006	+0.005	+0.004	+0.003	+0.002	+0.001	0
+3	+0.007	+0.006	+0.005	+0.004	+0.003	+0.002	+0.001	0	−0.001
+2	+0.006	+0.005	+0.004	+0.003	+0.002	+0.001	0	−0.001	−0.002
+1	+0.005	+0.004	+0.003	+0.002	+0.001	0	−0.001	−0.002	−0.003
0	+0.004	+0.003	+0.002	+0.001	0	−0.001	−0.002	−0.003	−0.004
−1	+0.003	+0.002	+0.001	0	−0.001	−0.002	−0.003	−0.004	−0.005
−2	+0.002	+0.001	0	−0.001	−0.002	−0.003	−0.004	−0.005	−0.006
−3	+0.001	0	−0.001	−0.002	−0.003	−0.004	−0.005	−0.006	−0.007
−4	0	−0.001	−0.002	−0.003	−0.004	−0.005	−0.006	−0.007	−0.008

FRONT AND REAR SUSPENSION

CASTER*

Degrees	5° ± ¾°

*Maximum difference between both front wheel caster angles is ¾°.

CAMBER*

Degrees	⅜° ± ¼°

*Maximum difference between both front wheel camber angles—½° (¼° preferred).

TREAD AND TOE-IN

Tread (Inches)	Front Rear	60 60¼
Toe-In (Inches)		3/32 ± 1/32
Toe-Out on Turns (Degrees)†		21½°

†Angle of inside wheel when outside wheel is turned 20°.

King Pin Inclination.....7½°

FRONT SUSPENSION TORQUE LIMITS

Description	Foot-Pounds
Spring to Front Hanger	30-50
Spring Shackle at Rear to Body and Spring	20-32
Spring to Front Axle—Spring Clip Nuts	50-60
Shock Absorber Mounting Bolt and Nut—Upper and Lower	40-55
Stabilizer to Body	25-35
Stabilizer to Link	12-17
Stabilizer Link to Front Axle	40-55
Stabilizer to Link Nut	12-17
Spindle Connecting Rod to Spindle Arm	45-55
Spindle Arm to Spindle Nut	100-250
Drag Link to Left Spindle Arm	45-55

SEMI-ELLIPTIC LEAF SPRINGS—FRONT

No. of Leaves	Capacity at Normal Loaded Height (Pounds)	Deflection Rate (Pounds per Inch)	Length (Inches)	Width (Inches)
4	768-812	119-131	48.0	2.25
5 optional	836-884	129-143	48.0	2.25

REAR SUSPENSION TORQUE LIMITS

Description	Foot-Pounds
Spring to Front Hanger	30-50
Spring Shackle at Rear to Body and Spring	20-32
Spring to Rear Axle—Spring Clip Nuts	30-40
Shock Absorber Mounting Bolt and Nut—Upper and Lower	30-40

SEMI-ELLIPTIC LEAF SPRINGS—REAR

No. of Leaves	Capacity at Normal Loaded Height (Pounds)	Deflection Rate (Pounds per Inch)	Length (Inches)	Width (Inches)
5	622-668	74-85	48.0	2.25
6	874-946	128-142	48.0	2.25
optional		190-210		

STEERING

STEERING GEAR AND LINKAGE ADJUSTMENTS

Sector Shaft End Play—Steering Linkage Disconnected	No Perceptible
*Worm Bearing Pre-Load (Pull to keep steering wheel moving)	3-6 in-lbs.
†Total Pre-Load@ Mesh Load plus Worm Bearing Pre-Load (Pull to rotate worm past center high spot)	8-13 in-lbs.
Backlash permissible at 30° on either side of straight-ahead steering position	No Perceptible

*With seal installed in adjuster assembly and not in mesh with sector tooth.
†Must be minimum of 2 in-lbs greater than worm bearing preload.

DIMENSION

Sector Adjusting Screw Head to End of Sector Shaft Maximum Clearance	0.002 inch

TORQUE LIMITS

Description	Foot-Pounds
Steering Arm to Spindle	100-250
Pitman to Drag Link Ball Stud	45-55
Sector Shaft Arm to Drag Link Ball Stud	45-55
Spindle Arm Connecting Rod and End Assembly to Spindle Arm	45-55
Spindle Connecting Rod Clamp to Adjusting Sleeve	25-35
Steering Wheel to Shaft	25-35*
Steering Gear Housing Cover to Housing	12-20
Pitman Arm to Sector Shaft Assembly	55-65
Steering Gear Housing to Body	30-40
Steering Column to Instrument Panel Bracket	10-15

*1963—35-55

BRAKES

BRAKE CHECKS AND ADJUSTMENTS

Type of Check or Adjustment	Specification
Brake Pedal	Pedal Free Play ¼-7/16 inch
Brake Shoe Repair	Brake Lining Clearance (Midway between Rivets)
	Maximum 0.005 inch Lining Wear Limit
	(From Top of Rivets) Maximum 1/32 inch
Master Cylinder	Hydraulic Master Cylinder Bore, Honed
	Diameter, Maximum 1.003 inch

DIMENSIONS

		Front	Rear
Drum Inside Diameter		10.000	
Drum Maximum Boring Limit		10.060	
Lining Width	Primary	2.50	1.75
	Secondary	2.50	1.75
Wheel Cylinder Bore Diameter		1.125	0.8125
Master Cylinder Bore Diameter		1.000	

TORQUE LIMITS

	Foot-Pounds
Master Cylinder Eccentric Bolt to Brake Pedal Assembly	12-24
Brake Tube Fitting	10-12½
Rear Brake Assy. & Bearing Retainer to Rear Axle Housing	30-35
Brake Cylinder to Brake Carrier Plate	11-19
Parking Brake Control to Front Floor	7-15
Master Cylinder to Mounting Bracket	23-29
Parking Brake Control to Mounting Bracket	23-29
Brake Hose	12-18
Brake Line Connection or Rear Axle Housing Bolt	12-18
Front Brake Carrier Plate to Spindle	45-60
Wheel Nuts	55-85

GENERATING AND STARTING SYSTEM

REGULATOR

Current Rating (Amperes)	25
Current Regulation (Amperes)	23-27
Cut-In Voltage	12.4—13.2
Maximum Reverse Current to Open (Amperes)	8
Voltage Regulation @ 75°F.	14.6—15.4

STARTER MOTOR

Normal Engine Cranking rpm	Min. Torque @ 5 Volts		Maximum Commutator Runout (Inches)	No Load Amperage @ 12 v
	Ft-Pounds (Min.)	Amp. Load (Max.)		
250-290	8*	450*	0.002	70
	9.6†	500†		

*144 Six †170 Six

ALLOWANCE FAST CHARGE TIME—DOMESTIC ONLY

Specific Gravity	Maximum Fast Charge Time
1.150 or less	1 hour
1.150 to 1.175	¾ hour
1.175 to 1.200	½ hour
1.200 to 1.225	¼ hour
Above 1.225	Slow Charge Only

STARTER MOTOR BRUSHES

Mfg. Length (Min.) (Inches)	Wear Limit (Inches)	Brush Spring Tension (Min.) (Ounces)	No. Used
0.46	5/16	45	4

BATTERIES

Plates	Amp. Hours	Specific Gravity
54	40	1.270-1.290

BATTERY FREEZING TEMPERATURES

Specific Gravity	Freezing Temp.
1.250	−62°F.
1.200	−16°F.
1.150	+ 5°F.
1.100	+19°F.

VOLTAGE REGULATION SETTING VERSUS AMBIENT AIR TEMPERATURE

Ambient Temperature °F.	Voltage Regulation Setting (Volts)
35	15.0-15.8
55	14.8-15.6
75	14.6-15.4
95	14.3-15.1
115	14.1-14.9
135	13.8-14.6

GENERATOR

Part Number	Field Current Draw Amperes @ 12 v 75° F.	Watts	Gen. rpm Charge Starts*	Maximum Rate		Pulley		Brushes		
				Amps.	Gen. rpm*	Belt Width (In.)	Pitch Diameter (Inches)	No.	Original Length (Inches)	Spring Tension (Oz.)
C2DF-10,000-B	1.2-1.8	375	1420	25	2610	3/8	2.7	2	29/32	20-26

External Circuit Resistance (generator armature terminal to battery positive terminal: 0.6 Volt Maximum @ 25 Amperes).
Maximum Commutator Runout: 0.002 inch.
*To find equivalent engine rpm, divide generator pulley diameter by crankshaft pulley diameter, and multiply by generator rpm.

LIGHTS, INSTRUMENTS AND ACCESSORIES

BULB CHART

	Candle Power or Wattage	Trade
Headlights	50/40w	6012
Front Turn Signal and Parking	32/4 c.p.	1157
Rear Turn Signal, Stop and Tail	32/4 c.p.	1157
License Plate	4 c.p.	1155
Dome Light	15 c.p.	1003
Cargo Light	15 c.p.	1003
Front Turn Signal Light (Accessory)	32 c.p.	1156
Spotlight	30w	4405

	Candle Power or Wattage	Trade No.
Instrument Panel Indicators:		
Hi Beam	1.5 c.p.	1445
Oil Pressure	2 c.p.	1895
Generator	2 c.p.	1895
Turn Signal	2 c.p.	1895
Cluster	2 c.p.	1895
Radio Dial	2 c.p.	1895

FUSE AND CIRCUIT BREAKER CHART

Circuit	Protective Device	Location
Headlights	Circuit Breaker	Integral with Headlight Switch
Dome Light & Rear Parking	AGC 15 or 3AG-15 Fuse	Fuse Panel on Lighting Switch
Turn Signals	SFE-14 Fuse	
Radio	SFE-7.5 Fuse	
Heater Blower	SFE-14 Fuse	
Instrument Panel Light Rheostat	1AG-1 or AGA-1	Cartridge in feed wire
Emergency Warning Flasher	SFE-14	
Windshield Wiper Motor Single-Speed Two-Speed	 5 Amp Circuit Breaker 12 Amp Circuit Breaker	Integral with Switch
Cigar Lighter	Reset Circuit Breaker	On back of lighter socket
Spotlight	SFE-7.5	Cartridge in feed wire

HORN

Horn Current at 12 v	9.5 Amperes

STOP LIGHT SWITCH

Operating Pressure	60-110 psi

TURN INDICATOR

Current Draw at 12 v	0-4 Amperes

INSTRUMENTS

Fuel and Temperature Gauges—Average Voltage at Gauge Terminals	5 v

HEATER MOTOR CURRENT DRAW

At Low Speed	4-5 Amperes at 12 volts
At High Speed	5-6 Amperes at 12 volts

WINDSHIELD WIPER MOTOR CURRENT DRAW

FORD Single Speed		0.7 ± 0.3 amperes at 12 volts no load
FORD 2 Speed	Low	3.0 ± 0.3 amperes at 12 volts no load
	High	2.0 ± 0.3 amperes at 12 volts no load
Bosch Single Speed		2.6 ± 0.3 amperes at 12 volts no load
Bosch 2 Speed	Low	3.0 ± 0.3 amperes at 12 volts no load
	High	1.5 ± 0.3 amperes at 12 volts no load

BODY

GENERAL DIMENSIONS

	87A	89A	89B
Overall Length (Inches) Including Rear Bumper	168.33	168.33	168.33
Overall Width (Inches) Including Rear Bumper	75.00	75.00	75.00
Overall Height (Inches) 6.50 x 13 Tire 7.00 x 13 Tire	 75.94 76.23	 77.32 77.21	 77.70 77.43
Wheelbase (Inches)	90.00	90.00	90.00
Tread (Inches) Front Rear	 60.00 60.24	 60.00 60.24	 60.00 60.24
Estimated Curb Weight (Pounds)	2414	2464	2700

SPECIAL TOOLS

ENGINE

Tool Number	Source	Tool Purpose
835*	KRW	Engine Stand (Existing)
1002*	KRW	Engine Stand (New)
1009*	KRW	Engine Stand (New)—Requires 6005-CF Conversion Flange for Adapters
3600-E	M	Piston Pull Scale
6001-ES	M	Engine Stand
6001-FAB	M	Engine to Repair Stand Mount
6110-E	M	Ring Groove Cleaner
6149-3	M	Piston Ring Expander
6149	M	Piston Ring Compressor
6331	M	Main Bearing Upper Insert Remover

*No longer available; those still in use will handle 1963 engines. Manzel tools 6001-ES and 6001-FAB will replace.

Tool Number	Source	Tool Purpose
6505-G	M	Valve Stem Clearance Gauge
6513-CG	M	Exhaust Valve Micrometer
6513-EE	M	Valve Spring Compressor
1011	O	3-Jaw Puller
12132	M	Distributor Shaft Bushing Burnisher
12132-A	M	Distributor Shaft Bushing Replacer
12132-H	M	Distributor Shaft Bushing Remover
KD-385	KD	Valve Spring Compressor
LM-106	M	Valve Spring Tester
RC-500	S	Ring Groove Cleaner

TRANSMISSION

Tool Number	Source	Tool Purpose
82	S	Socket Type Short Screwdriver
1175-AB	M	Puller Head Adapter—Extension Housing Seal Grease and Oil Seal Remover
3200-32	St	Transmission—High Jack (2-Stage)
7000-DD	M	Rubber Tip Assy.—Replacement Part for 7000-DE Air Nozzle
7064	M	Snap Ring Pliers
7688	M	Shift Fork Cam Oil Seal Replacer

FRONT SUSPENSION

Tool Number	Source	Tool Purpose
OW483	OTC	Adjustable Face Spanner—Upper Bearing Retainer Lock Nut Removal and Replacement
2086-L	M	Brake Shoe Return Spring Remover and Replacer
3590-FC	M	Steering Arm Remover
3600-AA	M	Steering Wheel Remover
3600-E	M	Steering Wheel Pull Scale

REAR AXLE

Tool Number	Source	Tool Purpose
951	O	Pinion Gear Bearing Cone Remover
4201-C	M	Ring Gear Backlash Indicator
4209-C	M	Pinion Tension Scale Socket
4209-C12	M	Pinion Tension Scale

GENERATOR

Tool Number	Source	Tool Purpose
10044-A	M	Generator Pole Screw Wrench

BRAKES

Tool Number	Source	Tool Purpose
1112-144	MB	Torque Brake Cylinder Hydraulic Lines

Key: KD—K. D. Mfg. Co. KRW—K. R. Wilson, Inc. M—Manzel, Inc. O—Owatonna S—Snap-on Tool Corp. St—Stephenson W—Williams MB—Milbar

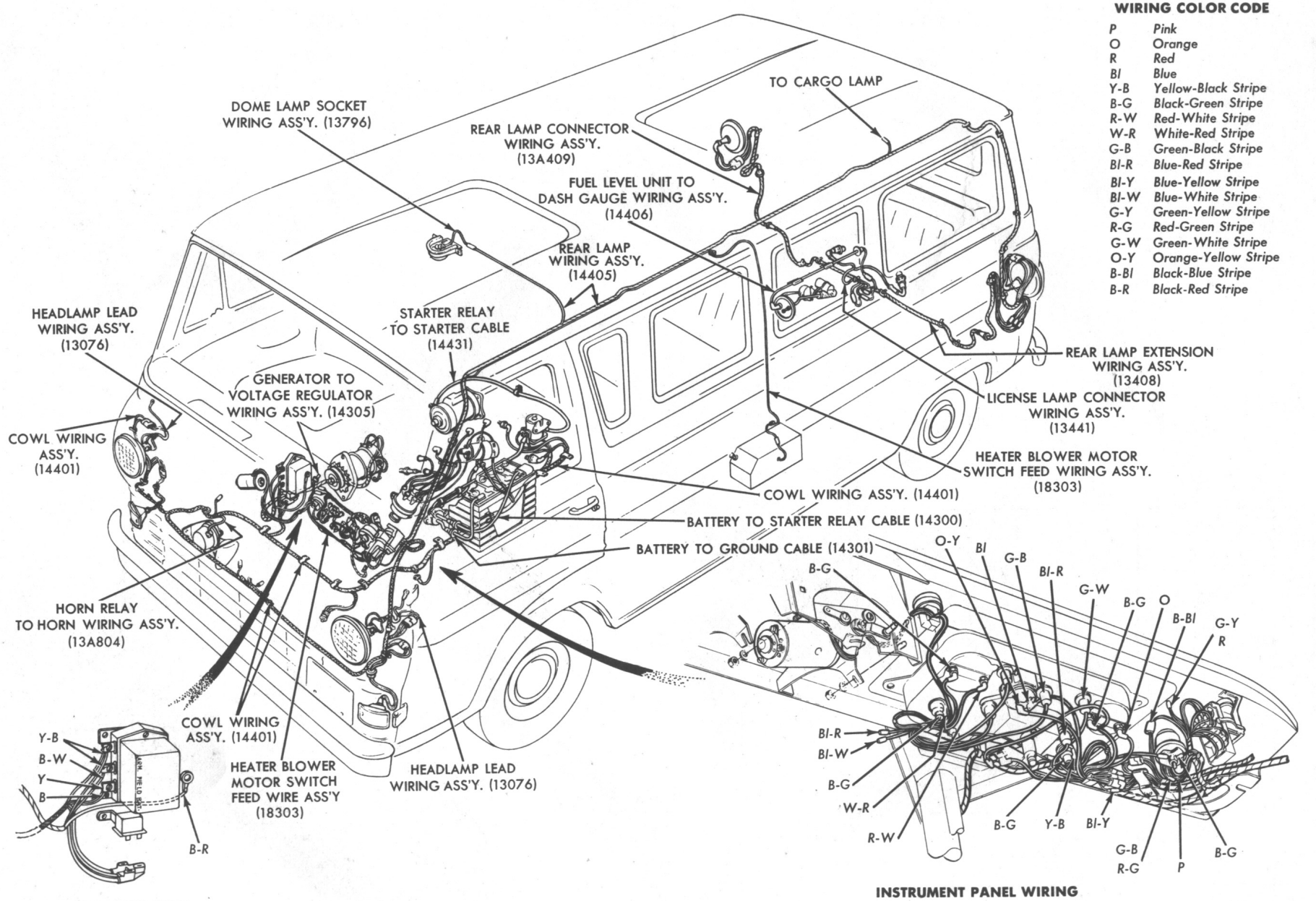


FIG. 61—Wiring Diagram

FORD DIVISION · FORD MOTOR COMPANY

FORD DIVISION
QUALITY SERVICE
SERVICE PUBLICATIONS



FORM 7766-63

LITHO IN U.S.A.