

TUNE-UP

ENGINE IDENTIFICATION

Engine code letter is fourth digit of Vehicle Identification Number or Warranty Number.

Application	Code
G-3500 254" 4-Cyl. Diesel.....	L

MODEL IDENTIFICATION

VEHICLE CERTIFICATION LABEL & RATING PLATE

Vehicle Certification Label is attached to rear face of drivers door. Vehicle Identification Number is stamped on label. Rating Plate is mounted on right side of cowl top panel in engine compartment.

G35LKJ70000

- First Digit** - Truck Series Letter.
- Second & Third Digit** - Truck Series Numbers.
- Fourth Digit** - Engine Code.
- Fifth Digit** - Assembly Plant.
- Remaining Digits** - Consecutive Unit Number.

TUNE-UP NOTES

Adjustment of injectors or internal adjustments of injection pump must be done in a properly equipped injector shop with perfectly clean environment.

COMPRESSION PRESSURE

No information available at time of publication.

VALVE TAPPET CLEARANCE

Application	Intake	Exhaust
254" (Hot).....	.015"	.012"
254" (Cold).....	.014-.018"	.010-.014"

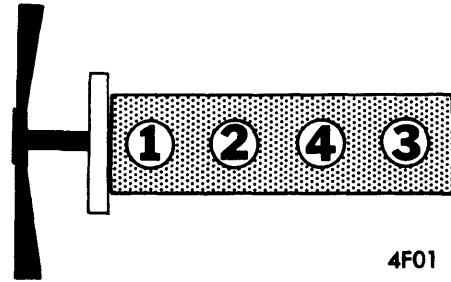
VALVE ARRANGEMENT

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

INJECTORS

Application	Type
Simms.....	NL645
C.A.V.	C.A.V.6422

NOTE - Tighten injector mounting bolts to 15 ft. lbs.



4F01

FIRING ORDER 254" DIESEL (1-2-4-3)

INJECTOR TIMING

- 1) Rotate engine until number one cylinder on compression is 22° BTDC. Flywheel 22° mark will be aligned with notch in flywheel housing opening. A timing mark on rear face of camshaft gear will be visible in injection pump opening.
- 2) Remove plug in mounting flange of injection pump, and insert tool (C.9077). Rotate gear until spring loaded plunger drops into center punch mark in rear face of gear. Release plunger and turn gear 5/8" counterclockwise. Install new "O" ring to front face of injection pump.
- 3) Install pump and gear to engine, keeping stud in center of slotted mounting hole. Turn pump until plunger re-engages with timing mark. Tighten attaching bolts and nut. Remove timing tool and reinstall plug.
- 4) If any doubt as to accuracy of timing marks on pump or cam gear exist, fuel pump should be spill-timed to engine. With engine set at 22° BTDC on number one cylinder compression stroke, disconnect number one injector pipe, remove delivery valve holder and extract volume reducer, delivery valve and spring. Replace delivery valve holder to injector pump body.
- 5) Install spill pipe tool (CT-9023) to delivery valve holder. Loosen attaching nuts and fully retard pump. Operate hand primer on supply pump. Fuel should run from end of spill tube. Slowly advance injection pump until flow of fuel from spill tube just ceases. Tighten attaching nuts. Reinstall delivery valve, spring, volume reducer and reconnect injection pipe.

IDLE RPM

With engine at normal operating temperature, adjust idle speed stop screw on governor housing back plate to 500-625 RPM. Tap accelerator pedal to ensure a consistent return to this idle speed.

MAXIMUM NO-LOAD RPM

With engine at normal operating temperature, in neutral, depress accelerator pedal fully to hold governor control lever against maximum speed stop. Adjust stop to give a no-load speed of 3090 RPM. Tighten lock nut and seal adjusting screw.

Maximum No-Load RPM	3090
Maximum Full Load RPM	2800

TUNE-UP (Cont.)

BLEEDING FUEL SYSTEM

NOTE — If air has been allowed to enter fuel system for any reason, it will be necessary to bleed system to remove all air.

1) Check that all fuel line connections are tight and there is sufficient fuel in tank. Loosen two bleed screws on top of filter two or three turns and operate priming lever on fuel supply pump. Continue pumping until a stream of fuel, free of bubbles, issues from filter.

NOTE — If eccentric on injection pump is on maximum lift, it will render fuel pump priming lever inoperative. If this occurs, rotate engine until priming lever can be operated.

2) Tighten first inlet and then outlet bleed screws on filter as priming lever returns to its downward position.

3) Loosen bleed screws on injection pump body approximately two or three turns, and operate primer as before. When fuel free of bubbles issues from bleed screws, tighten screw farthest from inlet connection first and then other bleed screw second. Wipe all excess fuel from filter and pump.

NOTE — Never lever injection pump plungers up or down to prime injector tubes or test injectors, as plunger arms may be seriously damaged.

FUEL PUMP PRESSURE & VOLUME

Pressure..... 2 3/4 - 4 1/2 psi
Volume..... 1 qt. in 1 1/4 min.

ELECTRICAL

BATTERY

12 Volt — Negative Ground.

Application	Plates	Capacity (Amps)
Standard.....	54.....	45
Optional.....	66.....	55
Optional.....	66.....	70

STARTER

Mfg.	ⓁFord Part No.
Delco-Remy.....	C6TZ-C

Ⓛ — Basic part number is 11002.

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

ALTERNATOR

I.D. Plate	Amps	ⓁFord Part No.
Orange.....	42.....	DOAZ-E
Red.....	55.....	DOAZ-F

Ⓛ — Basic part number is 10346.

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

ALTERNATOR REGULATOR

Application.....	ⓁFord Part No.
Standard.....	C3SZ-B

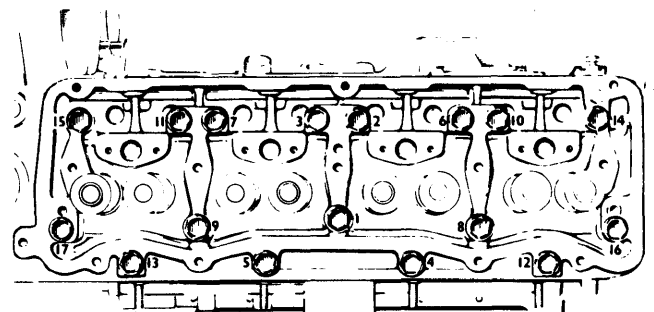
Ⓛ — Basic part number is 10316.

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

ENGINE

CYLINDER HEAD TIGHTENING

Tighten cylinder head bolts to 105-110 ft. lbs. in order shown in illustration.



4F02

CYLINDER HEAD TIGHTENING SEQUENCE

1971 Ford Diesel 4 Tune-Up

ENGINE (Cont.)

BELT ADJUSTMENT

Tension (Lbs.) using Strand Tension Gauge.

Application	Lbs.
Single Belt	
New	120-150
Used ①	90-120
Dual Belt	
Front New	120-150
Front Used ①	90-120
Rear New	90-120
Rear Used ①	85-130

① — Belt operated a minimum of ten minutes is considered used.

FILTERS & CLEANERS

Filter or Cleaner	Service Interval (Miles)
Oil Filter	① Replaces 6000
Fuel Filter	Replace 24,000
Air Cleaner (Oil Bath)	① Clean 6000

① — More frequently under continuous stop and go operations or extremely dusty conditions.

CAPACITIES

Application	Quantity
Crankcase	12 qts.
Fuel Tank	17 gal.
Rear Axle	6 pts.
Cooling System	18.1 qts.
Transmission	7 pts.