

TUNE-UP

ENGINE IDENTIFICATION

Engine can be identified by eighth digit of Vehicle Identification No. and by prefix of engine serial number stamped on metal plate fixed to right front rocker cover.

304" H
 360" N

MODEL IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

2JE01

Vehicle identification number is stamped on metal plate located on left side of firewall on CJ5, CJ6 and Commando models and affixed to left front lock pillar on all other models.

J2A144CN0001

- First Digit - Builder.
- Second Digit - Year Model.
- Third Digit - Plant, Transmission and Drivers Side.
- Fourth & Fifth Digit - Chassis Type.
- Six Digit - Body Style.
- Seventh Digit - Trim Code.
- Eighth Digit - Engine Code.
- Remaining Digits - Sequence Build No.

TUNE-UP NOTES

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

NOTE - For other items affecting Tune-Up, see CARBURETION Section or EMISSION CONTROL Section.

COMPRESSION PRESSURE

With air cleaner and spark plugs removed, and throttle and choke wide open, crank engine through at least four compression strokes. Compression should be 185 psi with a maximum variation of 25%.

VALVE TAPPET CLEARANCE

Hydraulic Lifter Zero Lash

VALVE ARRANGEMENT

E-I-I-E-E-I-I-E (Both banks, front to rear)

SPARK PLUGS

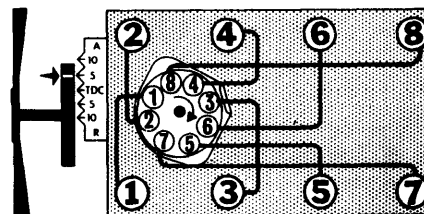
Gap033-.036"
 Torque 25-30 ft. lbs.

Spark Plug Type

Application Champion No.
 All N-12Y

DISTRIBUTOR

Point Gap016"
 Cam Angle 29-31°
 Breaker Arm Spring Tension 17-21 ozs.
 Condenser Capacity18-.23 mfd.



FIRING ORDER & TIMING MARKS

IGNITION TIMING

Set timing with engine at normal operating temperature, manual transmission in Neutral, automatic transmission in "D" and vacuum hose disconnected and plugged.

Application Timing
 All 5° BTDC

HOT (SLOW) IDLE RPM

NOTE - Do not idle engine for over three minutes at a time. If idle mixture adjustment is not completed within three minutes, run engine at 2000 RPM for one minute before continuing, repeat as necessary.

With engine at normal operating temperature, Man. Trans. in Neutral, Auto. Trans. in "D", accessories OFF and air cleaner in place, adjust to specifications. With idle mixture screw at full (rich) stop, turn screw clockwise until a loss of RPM is indicated, then turn mixture screw counterclockwise until highest RPM reading is obtained at "lean best idle" setting. If idle speed changed more than 30 RPM during mixture adjustment, reset to specified RPM and repeat mixture adjustment.

Idle Speed RPM

Application	Air/Fuel Ratio	RPM
Man. Trans.	13.8/1-14.2/1	700-750
Auto. Trans.	13.8/1-14.2/1	650

COLD (FAST) IDLE RPM

With engine at operating temperature, position fast idle screw on second step of fast idle cam and adjust engine to 1600 RPM.

AUTOMATIC CHOKE SETTING

Application	Setting
Man. Trans.	1 Notch Rich
Auto. Trans.	2 Notches Rich

FUEL PUMP PRESSURE & VOLUME

Pressure 5-6.5 psi
 Volume 1 qt. in 1 minute @ 500 RPM

EMISSION CONTROL

See appropriate article in EMISSION CONTROL Section.

IGNITION

DISTRIBUTOR

Application	Delco-Remy No.
All	1112111

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

IGNITION COIL

Resistance	Ohms @ 75°F
Primary (With Delco Coil)	1.77-2.05
Secondary (With Delco Coil).....	3000-20000
Primary (With Amer. Mtrs. Coil).....	1.64-1.80
Secondary (With Amer. Mtrs. Coil).....	9000-11800

CARBURETION

CARBURETORS

Ford 2100

Application	Carb. No.
304" (Man. Trans.).....	2DM2
304" (Auto. Trans.).....	2DA2
360" (Man. Trans.).....	2DM2
360" (Auto. Trans.).....	2RA2

Other Data & Specifications — See *Ford Carburetors in CARBURETION Section.*

DASHPOT ADJUSTMENT

With throttle valve fully closed in curb idle position, depress dashpot plunger stem and adjust clearance between stem and throttle to specification.

Application	Clearance
Man. Trans.	$\frac{7}{64}$ "
Auto. Trans.	$\frac{9}{64}$ "

ELECTRICAL

BATTERY

12 Volt — Negative Ground.

Application	Amp. Hr. Rating
Standard	
304"	50
360"	60
Optional.....	70

STARTER

Application	Ford No.
All	DOFF-11001-B

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

ALTERNATOR

Application	Amps.	Motorola No.
Standard.....	37	8AL2025F
Optional.....	55	8AL2015K

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

ALTERNATOR REGULATOR

Application	Motorola No.
All	8RB2005

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

ENGINE

INTAKE MANIFOLD TIGHTENING

Tighten all manifold bolts evenly to a torque of 40-45 ft. lbs.

BELT ADJUSTMENT

Tension (Lbs.) Using Strand Tension Gauge

New Belt.....	125-145
Used Belt.....	90-110

FILTERS & CLEANERS

Filter Or Cleaner	Service Interval (Miles)
Air Filter.....	Ⓢ Clean 6000
Oil Filter.....	Replace 6000
Fuel Filter.....	Replace 12000

Ⓢ — Replace every 12000 miles.

CAPACITIES

Crankcase (Includes Filter).....	5 qts.
Cooling System (Includes Heater).....	10.5 qts.
Transmission	
3-Speed T14A.....	2.5 pts.
3-Speed T15A.....	2.75 pts.
4-Speed T18	6.0 pts.
Automatic (Oil Change)	5 qts.
Automatic (Overhaul)	11 qts.
Differential	
Front (Except Truck).....	2.5 pts.
Front (Truck)	3.0 pts.
Rear (Except Truck Heavy Duty)	3.0 pts.
Rear (Truck Heavy Duty)	6.0 pts.
Fuel Tank	
CJ5, CJ6, Commando	16 gals.
Wagoneer	22 gals.
Truck	20 gals.