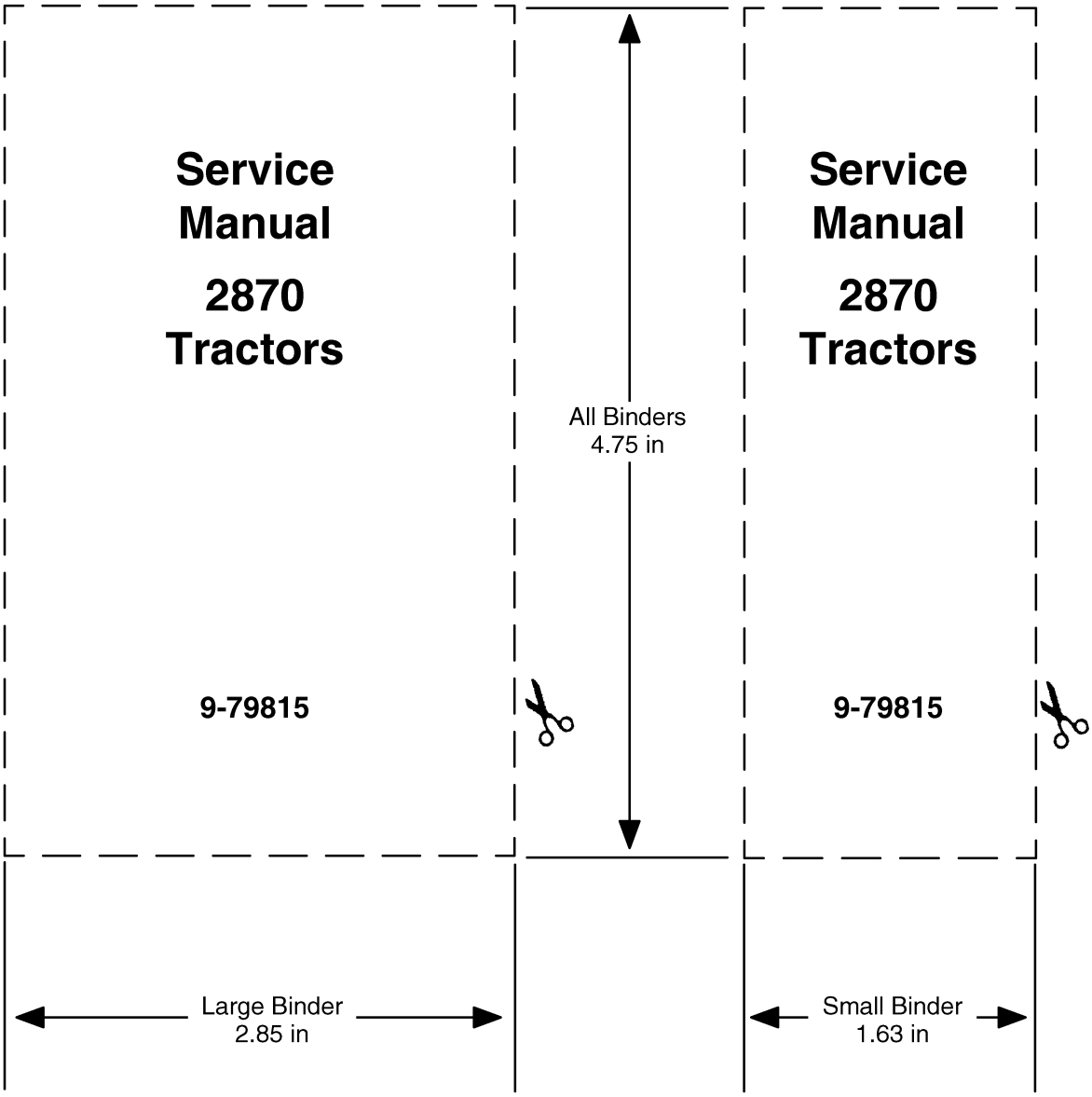
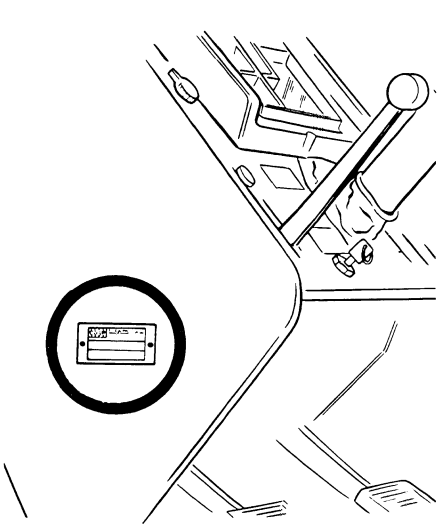

Service
Manual
2870
Tractors
9-79815
All Binders
4.75 in
Service
Manual
2870
Tractors
9-79815
Large Binder
2.85 in
Small Binder
1.63 in

TABLE OF CONTENTS
2870 TRACTORS

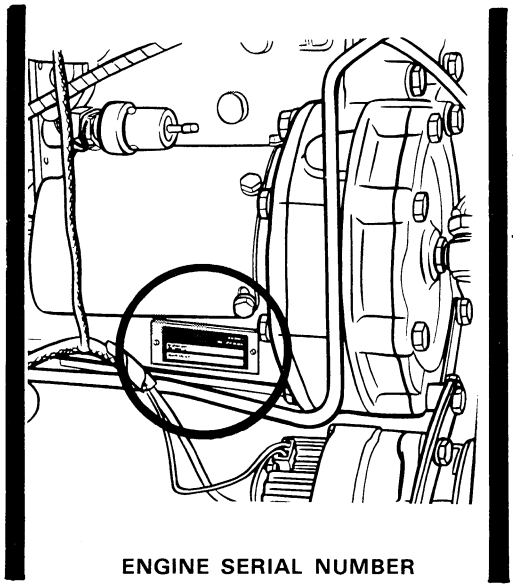
Section
1010

2870 TRACTOR
GENERAL SPECIFICATIONS

SERIAL NUMBERS



TRACTOR SERIAL NUMBER



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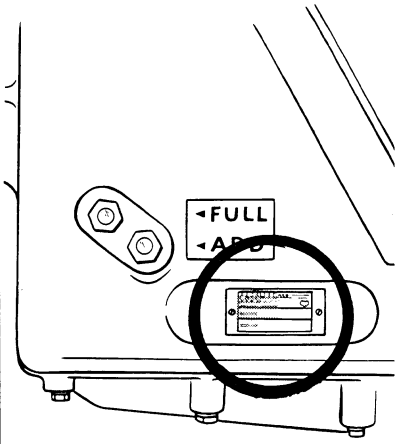
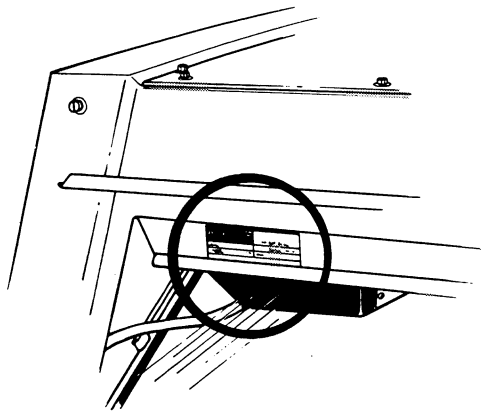
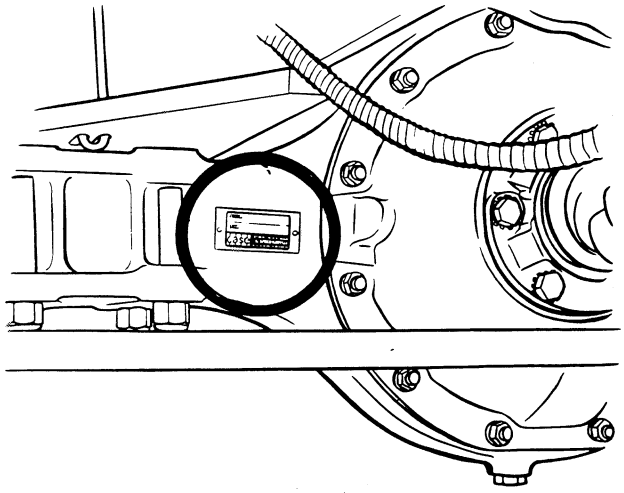


TRANSMISSION SERIAL NUMBER



CAB SERIAL NUMBER



AXLE SERIAL NUMBER

CASE CORPORATION

Rac 9-80416

PRINTED IN U.S.A.

DIESEL ENGINE

General

Type	6 Cylinder, 4 Stroke Cycle, Valve-In-Head, Turbocharged Diesel Engine
Firing Order	1-5-3-6-2-4
Bore	5 Inches (127mm)
Stroke	5.71 Inches (145mm)
Piston Displacement	674 Cubic Inches (11 045 cm^3)
Compression Ratio	14.7 to 1
Cylinder Sleeves	Removable Wet Type
No Load Governed Speed	2330 to 2420 RPM
Rated Engine Speed	2200 RPM
Engine Idling Speed	750 to 800 RPM
*Valve Tappet Clearance (Exhaust)	(Cold) .031 Inch (0.80mm)
	(Intake) (Cold) .014 Inch (0.35mm)

Piston and Connecting Rod

Rings per Piston	4
Number of Compression Rings	3
Number of Oil Rings	1
Type Pins	Full Floating Type
Type Bearings	Replaceable Steel Back With Lead-Bronze Liners

Main Bearings

Number of Bearings	7
Type Bearings	Replaceable, Steel Back with Lead-Bronze Liners

Engine Lubrication System

Oil Pressure	65 to 87 PSI (448 to 600 kPa) Engine Warm and Operating at Rated Engine Speed
Type System	Pressure and Spray Circulation
Oil Pump	Gear Type
Oil Filtration	Oil Cleaned Continuously by Cyclonic Separation and Centrifugal Cleaner.
Oil Capacity	28.4 U.S. Qts. (26.9 litres)
Oil Cooling	Oil Cooler Flange Mounted to Oil Cleaner; Water Cooling.
Turbocharger Oil Filter	Full Flow Spin-On Type

Fuel System

Fuel Injection Pump ..... Robert Bosch, Multiple Plunger

Pump Timing ..... 20 Degrees Before Top Dead Center

Fuel Injectors ..... Robert Bosch, 21mm Opening Pressure
2930 to 3045 PSI (20 202 to 20 995 kPa)

Fuel Transfer Pump ..... Plunger Type, Integral Part of Injection Pump

Governor ..... Variable Speed, Fly-Weight Centrifugal Type,
Integral Parts of Injection Pump.

First Stage Filter ..... Full Flow Spin-On Type

Second Stage Filter ..... Full Flow Spin-On Type

Fuel Tank Water Trap and Drain (2) ..... Located in Base of Each Fuel Tank

Fuel Tank Capacity ..... 75 U.S. Gallons (283.9 litres) Each Tank

Fuel Level Gauge ..... Electric, Located on Instrument Panel

Hand Primer Pump ..... Located on Top of the Fuel Transfer Pump

Preliminary Fuel Filter ..... Located at the Bottom of the Fuel Transfer Pump

TRACTOR SPECIFICATIONS

Air Intake System

Type ..... Air Induction System - Aspirated - Strata Tube With Dry Type Final and Safety Elements.

Cooling System

Capacity of System ..... 44 U.S. Quarts (41.6 litres)
Type of System ..... Pressurized, Thermostat Controlled By-Pass Type: Forced Circulation, (Centrifugal Type Pump).
Radiator ..... Heavy Duty Fin and Tube Type
Thermostat (2) ..... Thermostats Start to Open approximately 175°F (79°C) Fully Open at 202°F. (94°C.)
Pressure Cap Required ..... 14 PSI (96.5 kPa)

Hydraulic Brakes

Type ..... Self-Adjusting Multiple Disc Dry Type Transmission Brakes.

Parking Brake

Type ..... Cable Actuated by over center Type Handle - Adjustable from Operator's Seat. Multiple Disc Type

Electrical System

Type of System ..... 12 Volt Negative Ground
Batteries ..... (2) 12 Volt Batteries Connected in parallel Group Size 30H, Rated in 1.255 to 1.265 Specific Gravity. Discharge Rate 300 Amps at 0°F. Voltage drops to 9.2 after 10 seconds. Voltage drops 1.0 Volt per cell after 5 min.
Alternator ..... 12 Volt 61 Amp Output, Negative Ground
Voltage Regulator ..... 12 Volt, Solid State, Internal Component of Alternator.
Starter Motor ..... 12 Volt with Solenoid Switch
Head Lights (2) ..... 12 Volt, 40/60 Watt Sealed High-Low Beam
Front Flood Lights (2) (optional) ..... 12 Volt, 35 Watt Sealed Beam
L.H. Rear Flood and Tail Light (1) ..... 12 Volt, 60 Watt Sealed Beam Combination Tail and Flood Lamp.
R.H. Rear Flood (optional) (1) ..... 12 Volt, 60 Watt Sealed Beam
Circuit Breaker System over Load Check ..... Two 40 Amp. 12 Volt Circuit Breakers connected in parallel, 80 Amp rating, 60 Amp. Min. Continuous Capacity.
Lights Circuit Breaker ..... 40 Amp., Located on Light Switch
Parking Brake Warning Buzzer ..... 12 Volt
Flasher Lights (2) With Directional Turn Signals ..... 12 Volt, Amber Lens

Electrical System

Bulb and Lamp Replacement:
- Instrument Cluster Warning Bulbs ..... No. 194
- Instrument Cluster Illumination Bulbs ..... No. 168
- Pyrometer Illumination Bulb ..... No. 53
- Dome Light Bulb ..... No. 93
- Console Light Bulb ..... No. 168
- Flasher Light Bulbs ..... No. 1156
- Front Driving Lamps ..... No. 4652
- Front Flood Lamps ..... No. 4406
- Rear Flood Lamp ..... No. 4466
- Rear Flood and Tail Lamp:
  - Lamp ..... No. 4469
  - Bulb ..... No. 1003

Power Shift Transmission

Type ..... 3 Speed Compound Planetary With Hydraulically Actuated Clutches and a 4 Speed Gear Range Section.

Gear Selection ..... 12 Speeds Forward and 4 Speeds Reverse.

Shifting ..... Hydraulic Power Shifting Controlled By a Lever on Operator's Console. 4 Speed Range Controlled by a Mechanical Shifter From a Lever on Operator's Console.

Oil Type ..... Case TFD (Transmission - Final Drive)

Oil Capacity (Without PTO) ..... 40 U.S. Quarts (37.9 litres)
(With PTO) ..... 44 U.S. Quarts (41.6 litres)

Hydraulic Pump

Type ..... Direct Drive, Gear Type, Triple Hydraulic Pump

First Section ..... Charging Pump, Capacity at 2200 Engine RPM - 44 GPM (166.6 l/min.)

Intermediate Section ..... Supplies oil to the Transmission Hydraulics and PTO. Capacity at 2200 Engine RPM - 17 GPM (64.4 l/min.).

Third Section ..... Supplies oil to the Steering System. Capacity at 2200 Engine RPM 19 GPM (71.9 l/min.).

Front Steering ..... 9.8 GPM (37.1) l/min.)
Rear Steering ..... 4.2 GPM (15.9 l/min.)

Hydrostatic Front Power Steering

Oil Supply ..... Triple Hydraulic Pump

HGA Hydrostatic Type ..... Integral and Bi-Directional Gerotor Metering Section, Actuated By The Steering Wheel.

Front Steering Cylinders ..... Two Double Acting Cylinders

Rear Power Steering

Oil Supply ..... Triple Hydraulic Pump

Control Valve Type ..... 4 Way, Three Position Spool Type.

Rear Steering Cylinders ..... Two Double Acting Cylinders

Controls ..... Hand Lever on Instrument Panel (Manual or Automatic)

Axle Differential and Planetaries

Front and Rear ..... Spiral Bevel with Planetary Reduction in Hub.

Differential Oil Cap (Front & Rear) Each ..... 24 U.S. Quarts (22.7 litres)

Planetary Oil Cap. eac. (Front & Rear) Each ..... 12 U.S. Quarts (11.4 litres)

3 Point Hitch System

Type Control ..... Hand Lever

Type Valve ..... 3 Positions - Raise - Hold - Lower with Speed Control

Type Draft Arms ..... Rigid Swinging, with Manual Float Adjustment

Type Hitch ..... 3 Point Category III

Hitch Coupler ..... Case Available - Category III

L.H. Dual Remote Hydraulic System

Type Remote Valve (L.H. Side) ..... Dual Valve w/Built-in Female ASAE R366 Standard Hydraulic Couplers. Individual Hand Lever Control.

Portable Cylinder Male Couplings Available ..... Quick Detachable Break-away Type

Oil Supply ..... Triple Hydraulic Pump

Relief Valve Pressure ..... 2150 to 2250 PSI (14 824 to 15 514 kPa)

Portable Cylinders ..... Case Cylinders Available

R.H. Dual Remote Hydraulic System

Oil Supply ..... From L.H. Remote Valve (Connected in Series)

Type Remote Valve (R.H. Side) ..... Dual Valve W/Built-in Female ASAE R366 Standard Hydraulic Couplers. Individual Hand Lever Control.

Relief Valve Pressure ..... Dependent on L.H. Remote

Portable Cylinder Male Couplings ..... Available Quick Detachable Break-away Type.

Portable Cylinders ..... Case Cylinders Available

Power Take-Off

Type Clutch ..... Hydraulically Operated

Rotation ..... Clockwise

Spline Size ..... 20 Splines 1-3/4 In. (44.5mm) Dia.
Adapter 1-3/4" to 1-3/8" Dia. Available

Engine Speed 2200 RPM ..... 1000 RPM Shaft Speed

Drawbar

Yoke Type ..... Full Swinging Roller Mounted,
Will Accommodate a 1-1/2 Inch (38.1mm), Dia. Pin.

Tire and Wheel Equipment – Front and Rear

TIRE SIZE	TIRE PLY & TREAD	RIM SIZE	TIRE ** PRESSURE (No Added Ballast)	TIRE PRESSURE (With Max. Ballast or Heavy Implement)
18.4-34*	6 R1 & R2	W16L-34	16 PSI (110 kPa)	16 PSI (110 kPa)
18.4-34	8 R1 & R2	W16L-34	16 PSI*** (110 kPa)	20 PSI (138 kPa)
20.8-34	6 R1	W18L-34	14 PSI*** (97 kPa)	14 PSI (97 kPa)
20.8-34	8 R1 & R2	W18L-34	16 PSI*** (110 kPa)	18 PSI (124 kPa)
23.1-30	8 R1 & R2	W20L-30	16 PSI (110 kPa)	16 PSI (110 kPa)
24.5-32	10 R1 & R2	DW27-32DC	18 PSI (124 kPa)	20 PSI (138 kPa)
30.5-32	10 R1 & R2	DW27-32DC	16 PSI (110 kPa)	16 PSI (110 kPa)

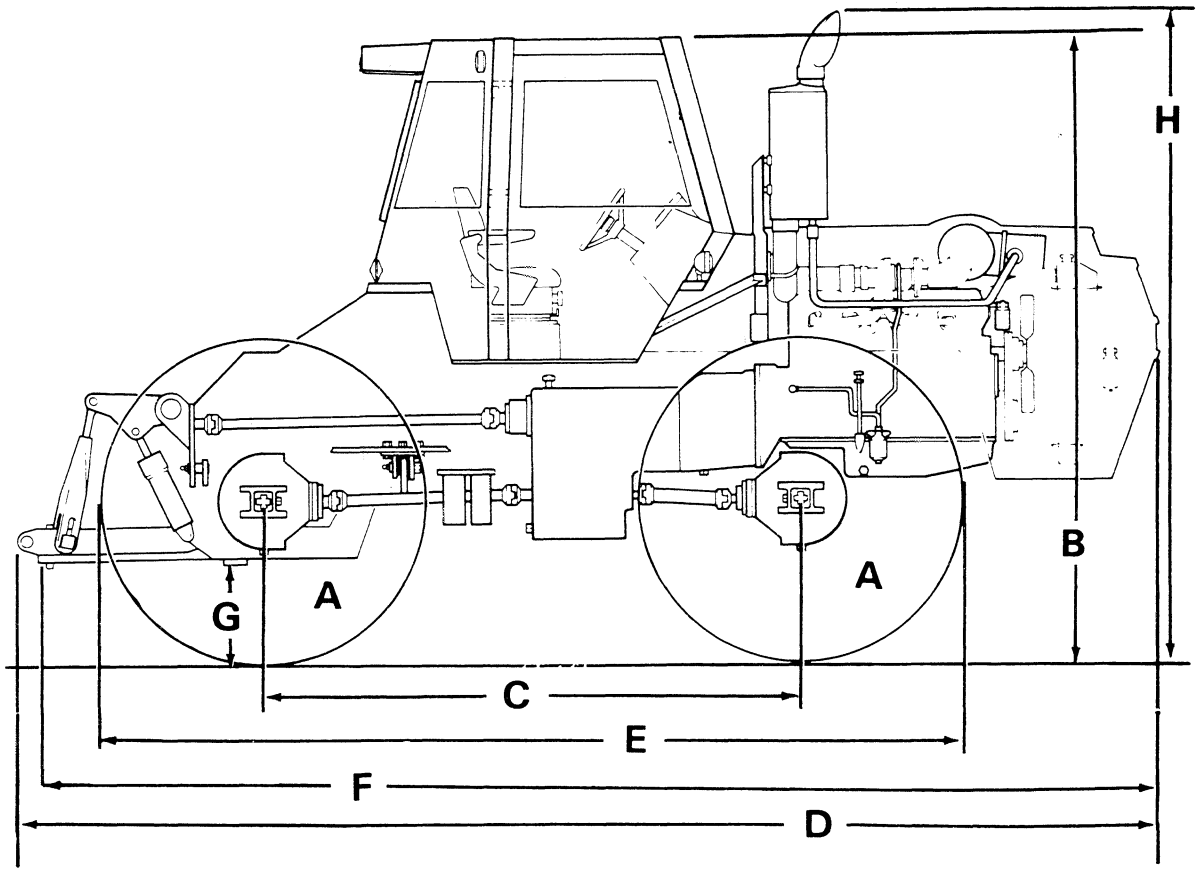
*18.4-34, 6 ply tires can only be used with duals and on outside tires only.
**Minimum inflation pressure for single tires.
***Absolute minimum inflation pressure for tires used as duals is 12 PSI (82.7 kPa).

IMPORTANT: 18.4-34 and 20.8-34 singles are not suitable for use with ballast, either tire liquid or added weights, or with heavy mounted attachments.

Approximate Travel Speeds in MPH and KM/H at 2200 RPM with 12 Speed Power Shift Transmission

TRANSMISSION RANGE	POWER SHIFT			TIRE SIZE
	1	2	3 AND REVERSE	
1	2.0 mph (3.2 km/h)	2.7 mph (4.4 km/h)	3.4 mph (5.5 km/h)	23.1-30
2	3.1 mph (5.0 km/h)	4.1 mph (6.6 km/h)	5.1 mph (8.2 km/h)	
3	4.3 mph (6.9 km/h)	5.8 mph (9.3 km/h)	7.2 mph (11.6 km/h)	
4	7.9 mph (12.7 km/h)	10.7 mph (17.2 km/h)	14.7 mph (23.7 km/h)	
1	2.2 mph (3.5 km/h)	2.9 mph (4.7 km/h)	3.7 mph (6.0 km/h)	30.5-32
2	3.4 mph (5.5 km/h)	4.4 mph (7.1 km/h)	5.6 mph (9.0 km/h)	
3	4.6 mph (10.5 km/h)	6.2 mph (10.0 km/h)	7.7 mph (12.4 km/h)	
4	8.6 mph (13.8 km/h)	11.4 mph (18.3 km/h)	15.7 mph (25.3 km/h)	
1	2.0 mph (3.2 km/h)	2.7 mph (4.4 km/h)	3.3 mph (5.3 km/h)	18.4-34
2	3.0 mph (4.8 km/h)	4.1 mph (6.6 km/h)	5.1 mph (8.2 km/h)	
3	4.3 mph (6.9 km/h)	5.7 mph (9.2 km/h)	7.2 mph (11.6 km/h)	
4	7.9 mph (12.7 km/h)	10.6 mph (17.0 km/h)	14.5 mph (23.3 km/h)	
1	2.0 mph (3.2 km/h)	2.7 mph (4.3 km/h)	3.4 mph (5.5 km/h)	20.8-34
2	3.1 mph (5.0 km/h)	4.2 mph (6.8 km/h)	5.2 mph (8.4 km/h)	
3	4.4 mph (7.1 km/h)	5.9 mph (9.5 km/h)	7.4 mph (11.9 km/h)	
4	8.1 mph (13.0 km/h)	10.8 mph (17.4 km/h)	14.9 mph (24.0 km/h)	

Approximate Overall Measurements



A	TIRE	WHEEL RIM
	23.1-30 RI	W20L-30

F	228 Inches (5 791mm)
B	123 Inches (3 124mm)
D	237 Inches (6 020mm)
G	18 Inches (457mm)
C	110 Inches (2 794mm)
E	175 Inches (4 445mm)
H	131 Inches (3 327mm)

Overall Width (Minimum) ..... 99 Inches (2 515mm)
Turning Radius (Minimum) ..... 210 Inches (5 334mm)
Overall Length (W/Hitch Coupler) ..... 243 Inches (6 172mm)
Rear Axle Oscillation ..... 30°

Approximate Shipping Weight

4 Wheel Steering w/20.8 x 34 Tires ..... 18,500 Pounds (8392 kg)

IMPORTANT: The total tractor weight with ballast and weights must not exceed 28,500 lbs. (12 930 kg).

Operator's Cab

The Case Operators Cab is equipped with built-in roll over protection as specified in ASAE Standard S336.1, SAE Standard J168a, and OSHA Regulation 1928.53.

Section

2102

ENGINE TUNE-UP

CASE CORPORATION

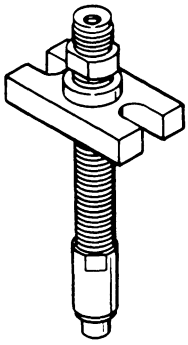
Rac 9-80056

PRINTED IN U.S.A.

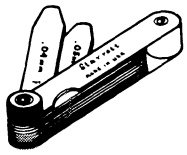
ENGINE TUNE-UP

By following the step by step outline in this section a complete engine tune-up will be performed and a minimal amount of time will be required.

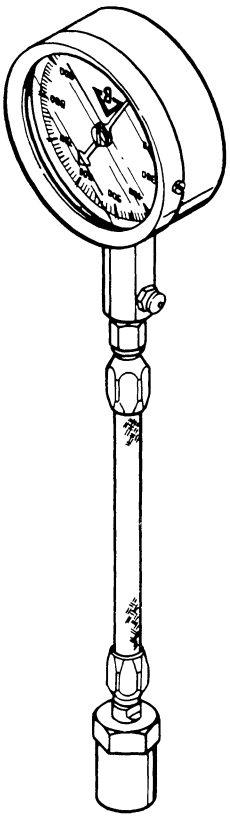
SPECIAL TOOLS



☆ COMPRESSION GAUGE ADAPTER
BACHARACH 70-301

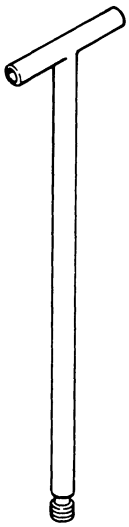


FEELER GAUGE

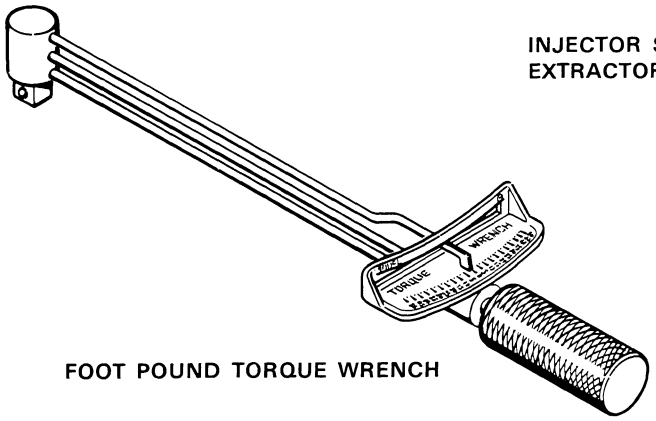


☆ COMPRESSION GAUGE
BACHARACH 70-003

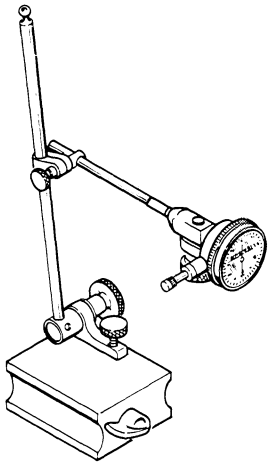
CAS-1003 INJECTOR BORE
CARBON REAMER



INJECTOR SEALING WASHER
EXTRACTOR - SEE PAGE 4

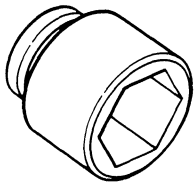


FOOT POUND TORQUE WRENCH



DIAL INDICATOR

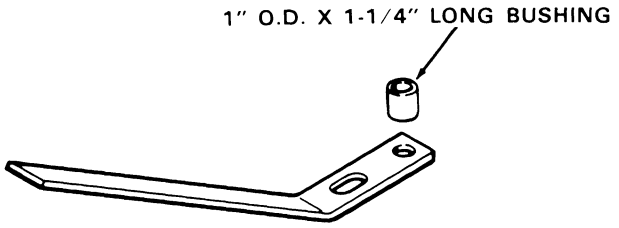
VALVE SPRING COMPRESSOR
TOOL - SEE PAGE 4



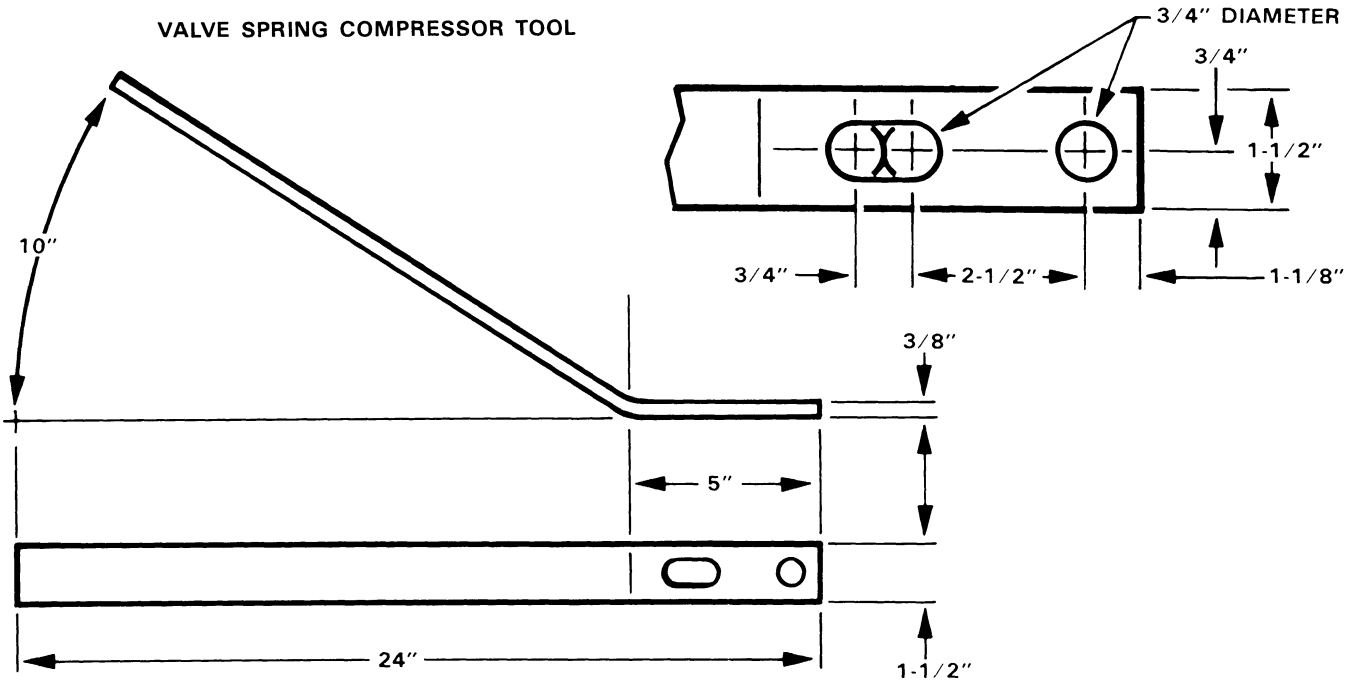
60mm (2-3/8") SOCKET

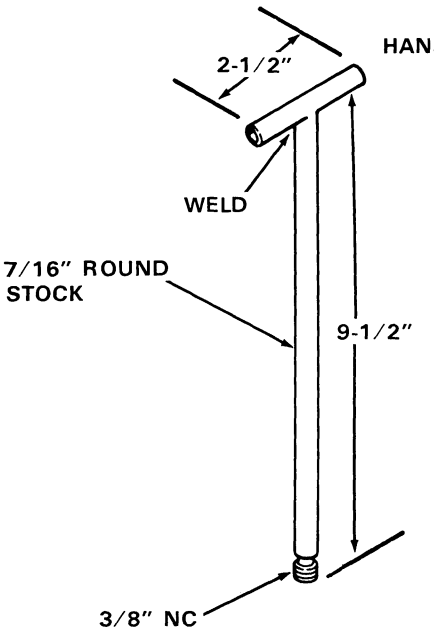
☆ These tools are found in Case Kits M20247 and M20519

SPECIFICATIONS FOR TOOLS WHICH MUST BE MADE



VALVE SPRING COMPRESSOR TOOL



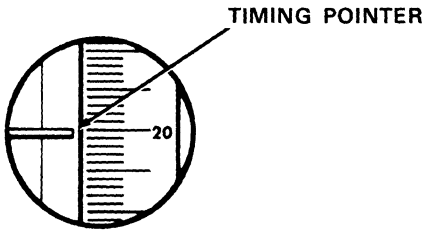


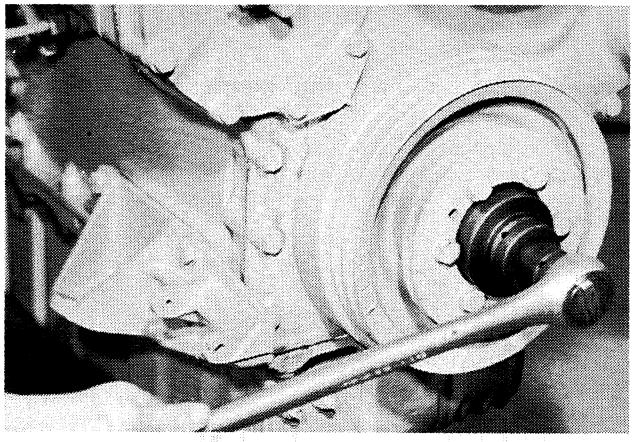
INJECTOR SEALING WASHER EXTRACTOR

ENGINE TUNE-UP PROCEDURE

Checking Top Dead Center

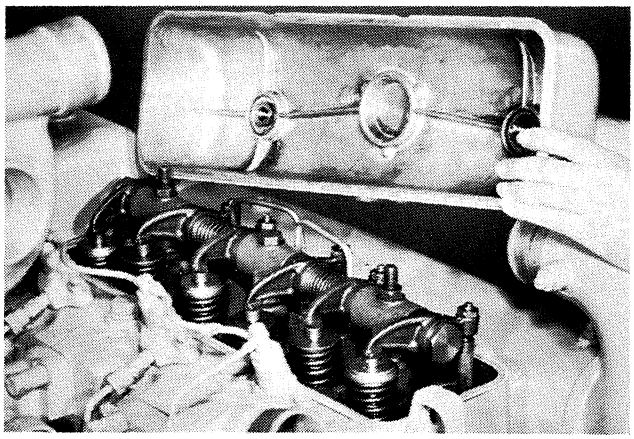
STEP 1





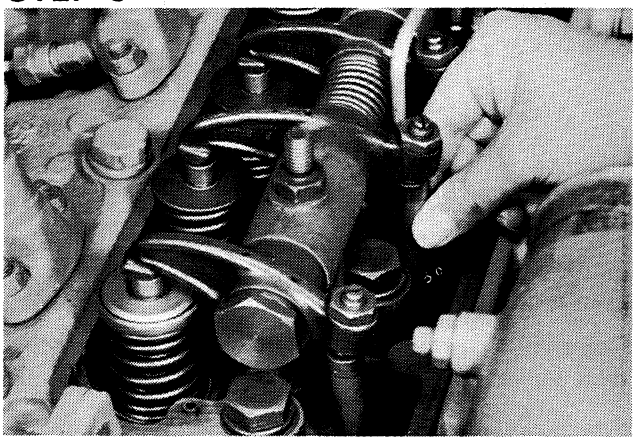
Crank engine until 20° BTDC mark on damper is aligned with timing pointer.

STEP 2



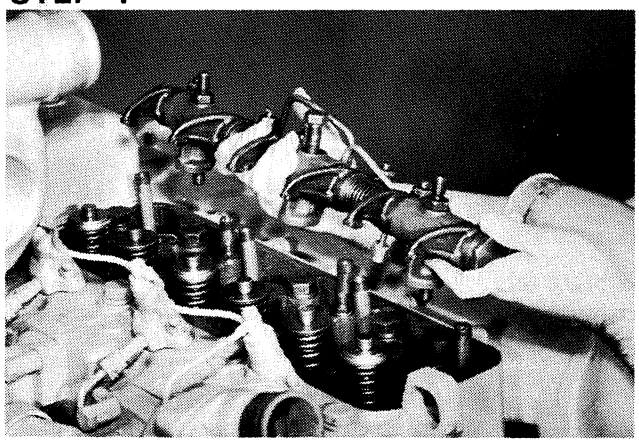
Remove turbocharger crossover tube and valve cover.

STEP 3



Check #1 cylinder push rods for looseness. If push rods are tight, crank engine one revolution and realign timing pointer with 20° BTDC mark.

STEP 4

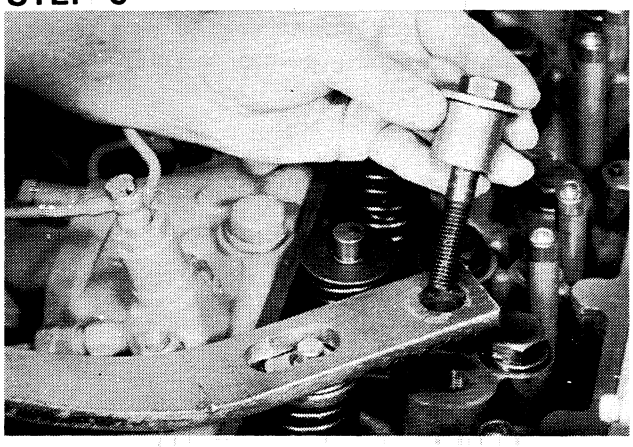


Remove the rocker arm assembly from cylinder head.

STEP 5

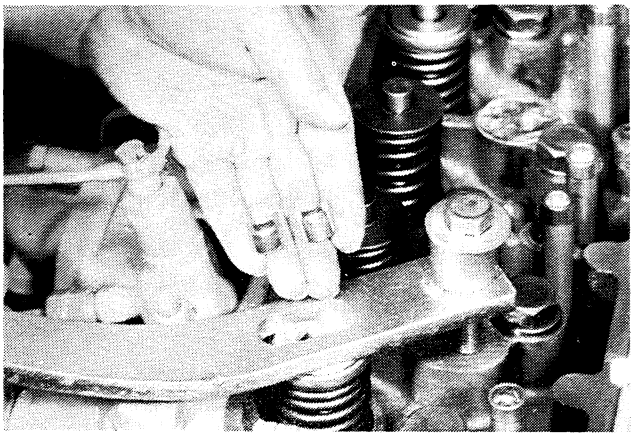
Remove the wear cap from No. 1 cylinder intake valve.

STEP 6



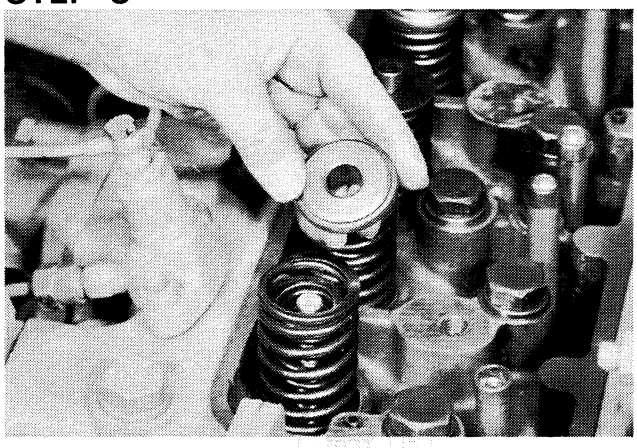
Install fabricated compression tool and bushing, see Page 4. *NOTE:* Use the center rocker arm mounting bolt to secure tool.

STEP 7



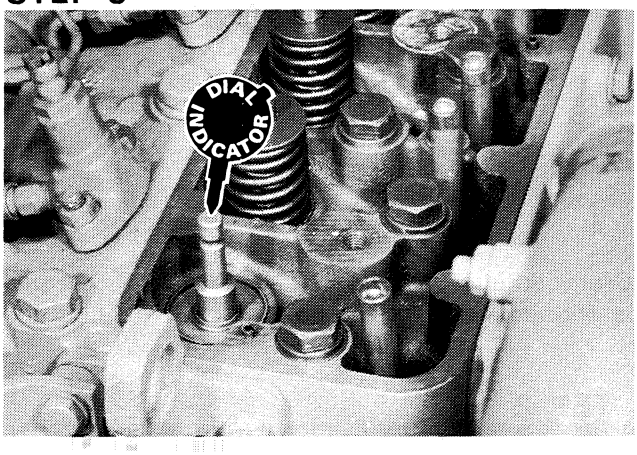
Compress valve springs and remove the valve keepers.

STEP 8



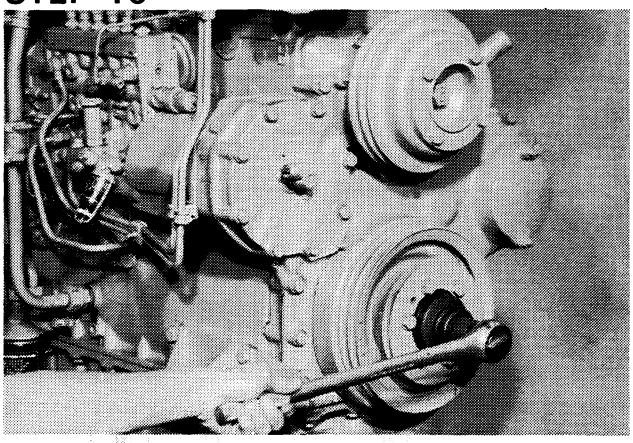
Remove the valve spring keeper and springs.

STEP 9



Place a dial indicator on the end of the valve stem with the valve resting on top of the piston.

STEP 10

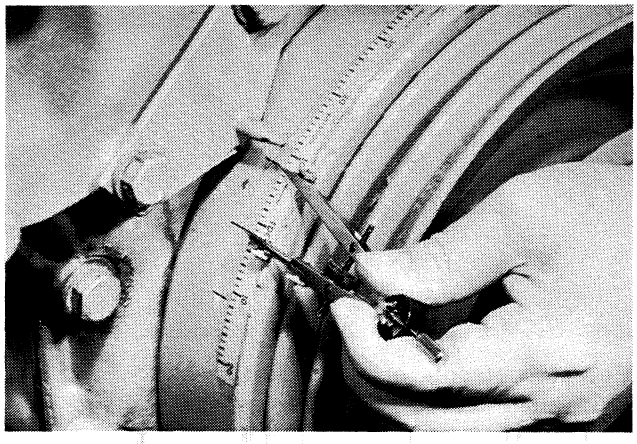


Crank engine clockwise until dial indicator hand stops moving. Reset indicator to zero.

Crank engine clockwise until .010" shows on dial indicator. Scribe a mark on crankshaft damper in line with the timing pointer.

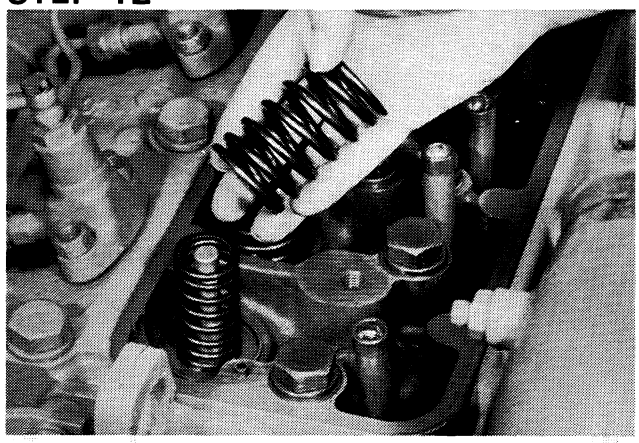
Crank engine counter-clockwise past zero until .010" shows on dial indicator. Again, scribe a mark on crankshaft damper in line with timing pointer.

STEP 11



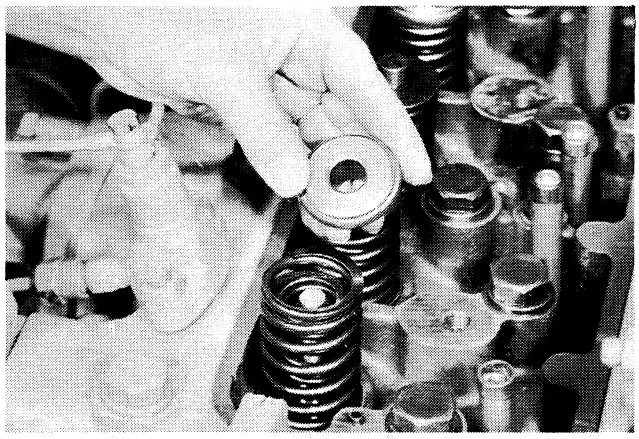
Half the distance between these two scribe marks on crankshaft damper will be top dead center (TDC). If the timing strip does not agree with this mark, remove strip and reposition it to agree with TDC mark.

STEP 12



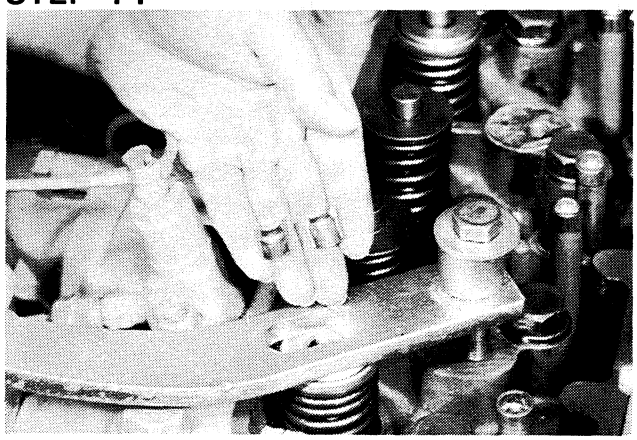
Install the inner and outer valve springs with the close coil end of springs towards cylinder head.

STEP 13



Place the valve spring keeper on top of the springs.

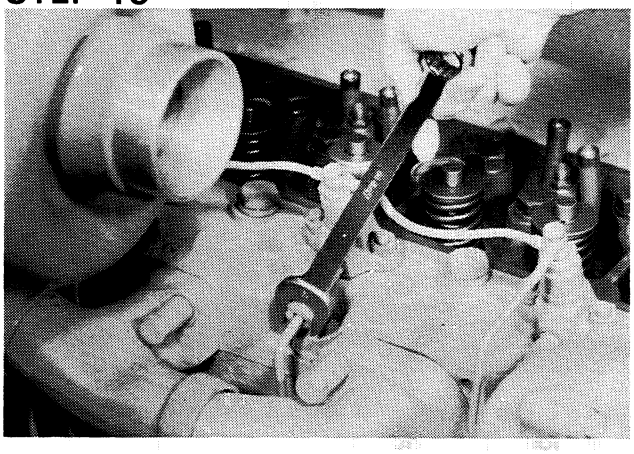
STEP 14



Compress the valve springs and install the valve keepers. Then remove compression tool and tap valve stem to insure keepers are firmly seated.

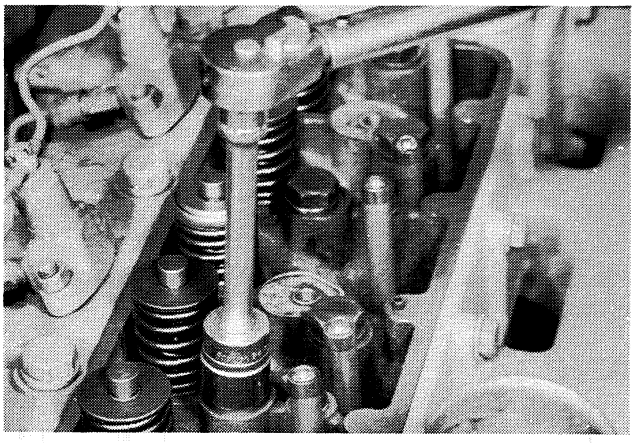
Retorquing Cylinder Heads

STEP 15

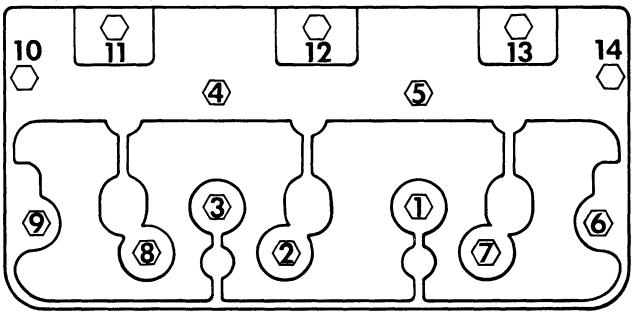


Disconnect the high pressure fuel supply lines to the injectors and remove the inline filter from the injectors. This will provide access to the 18mm cylinder head bolts. *IMPORTANT:* Use extreme care when removing inline filters and cap all opening to prevent dirt entering fuel injectors.

STEP 16



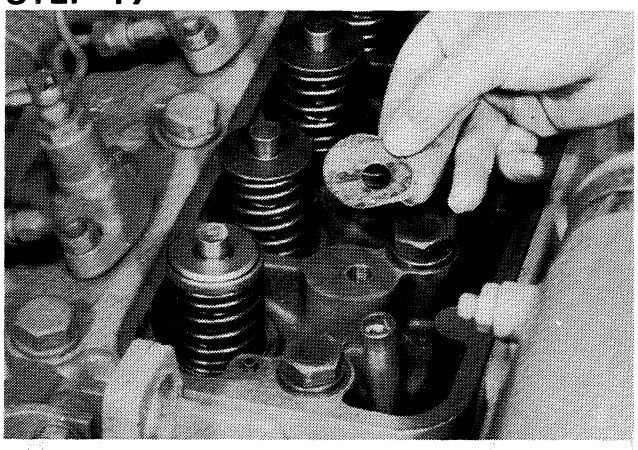
Retorque the cylinder head bolts following the torquing sequence shown. *IMPORTANT:* This function must be performed while the engine is hot.



Retorque 16mm bolts to 177 ft. lbs., using a 24mm socket and 18mm bolts to 221 ft. lbs., using a 27mm socket. Back off each cylinder head bolt individually 2 or 3 turns. Put 5 or 6 drops of clean engine oil under the head of the bolt and under the hardened washer. Then retorque bolt to specific torque following sequence shown.

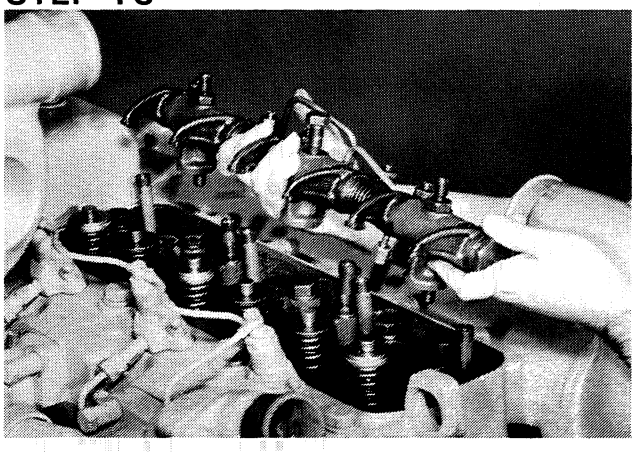
IMPORTANT: *Do not back off all the bolts at the same time. Recheck the torque to make sure all bolts have retained the specified torque*

STEP 17



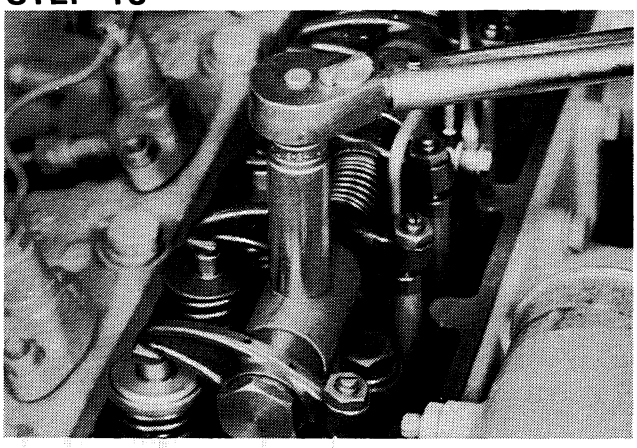
Reinstall rocker arm bracket gaskets, replace if damaged. *NOTE:* These gaskets have the task of sealing the oil pressure in the rocker arms, therefore it is important that gaskets are installed.

STEP 18



Reinstall the rocker arms on the cylinder heads.

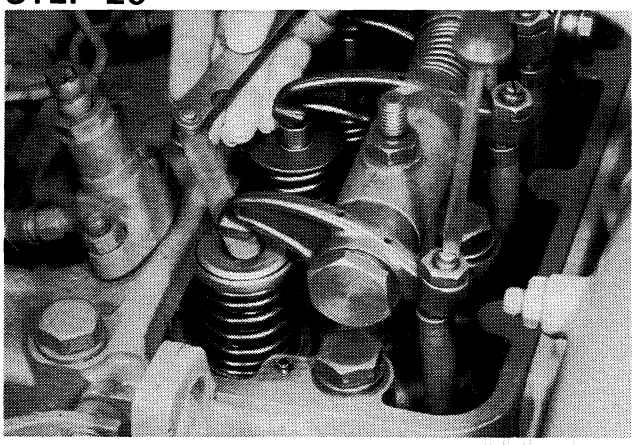
STEP 19



Torque the bracket retainer bolts to 61 ft. lbs.

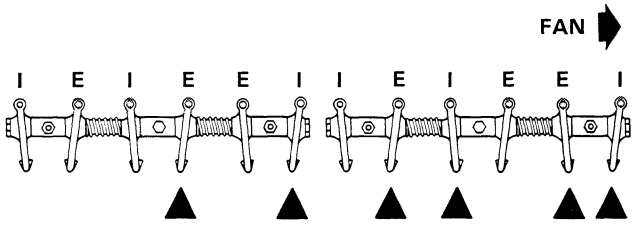
Tappet Adjustment

STEP 20



Check and adjust the intake and exhaust valves as pointed out by the arrows below. *IMPORTANT:* Tappet adjustment must be performed on a cold engine (engine allowed to cool down a minimum of 1/2 hour after shutdown).

Taper Clearance - Intake Valves .014"
Exhaust Valves .031"



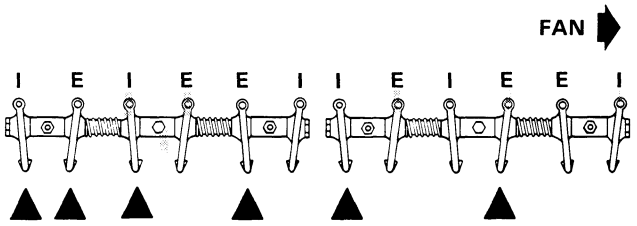
NO. 1 TDC COMPRESSION STROKE

STEP 21

Crank the engine one complete revolution and align the timing pointer with the TDC mark.

Check and adjust the intake and exhaust valves as pointed out by the arrows below.

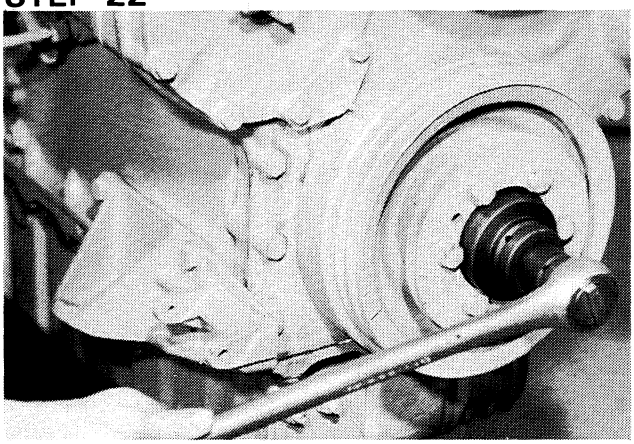
Tappet Clearance - Intake Valves .014"
Exhaust Valves .031"



NO. 6 TDC COMPRESSION STROKE

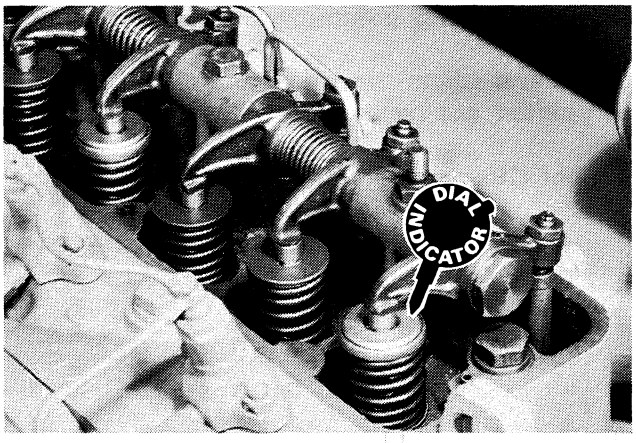
Checking Valve Timing

STEP 22



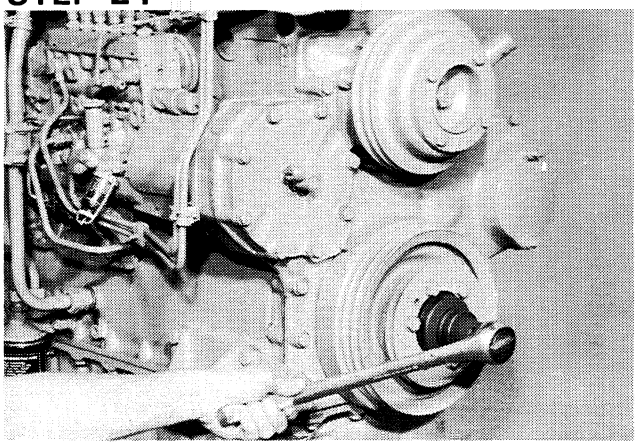
Crank the engine until timing pointer is aligned with TDC No. 1 cylinder compression stroke (push rod loose). *IMPORTANT:* The valve tappets must be properly adjusted before valve timing can be checked.

STEP 23



Place a dial indicator on the No. 1 intake valve retainer and set the dial indicator at zero (0).

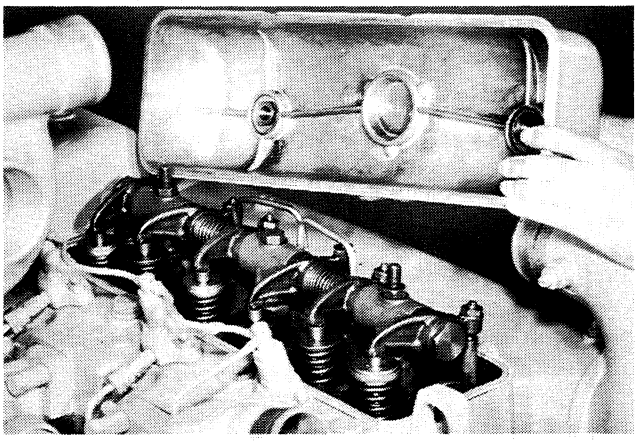
STEP 24



Crank engine clockwise one revolution. The dial indicator should give a reading of 2.1mm to 3.1mm. If this reading is not obtained then the complete valve train assembly must be checked.

NOTE: This procedure can be also used to check the proper assembly of cam to crankshaft gear teeth without removing the front timing gear cover.

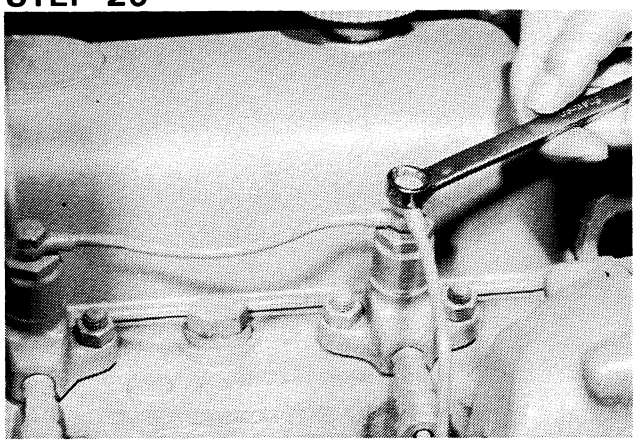
STEP 25



Replace the rocker arm valve covers.

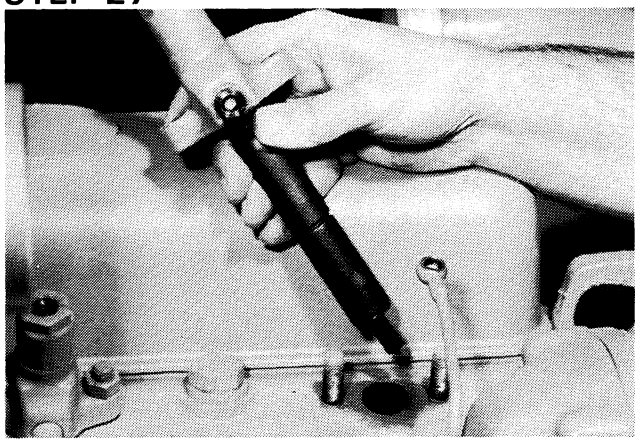
Checking Nozzel Spray Pattern

STEP 26



Remove the fuel supply and return lines to the injectors.

STEP 27



Remove and test each fuel injector, refer to Section 3113 for specifications and testing procedure. *NOTE:* A compression test should be performed on each cylinder before injectors are reinstalled.

Compression Check

STEP 28

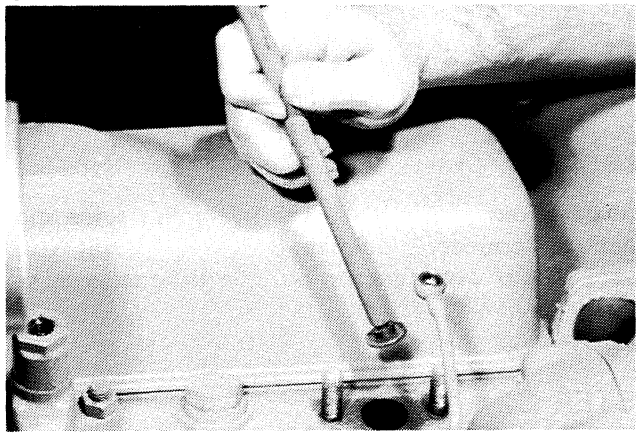
There are two methods of checking compression pressure - the cranking method and the engine running method. The engine must be at operating temperature for either method used.

A. Cranking Method - Remove all fuel injectors.

B. Running Method - Disconnect high pressure fuel line and leakoff line from No. 1 fuel injector. Route fuel from these lines back to fuel tank or into a clean container. Repeat for each cylinder.

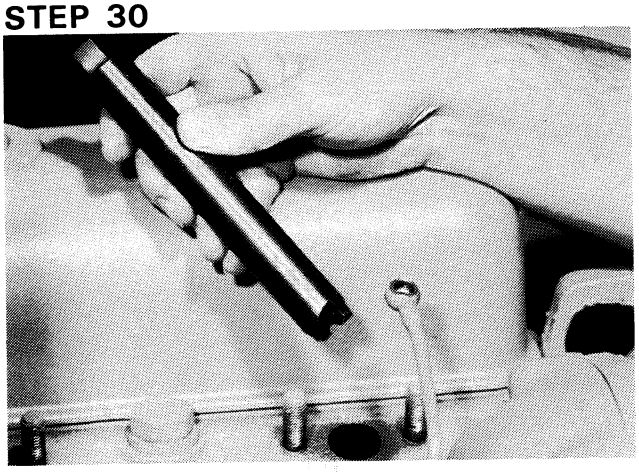
CAUTION *Before cranking engine, make sure all operating controls are in neutral, brakes are set and wheels are securely blocked.*

STEP 29



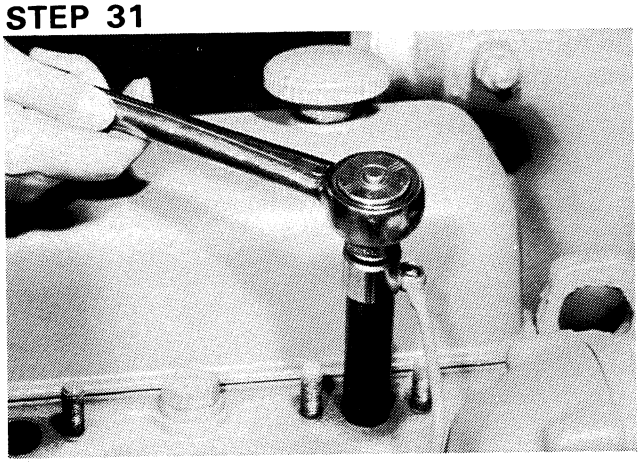
Remove the injector sealing washer, see Page 4 for extractor specifications.

STEP 30



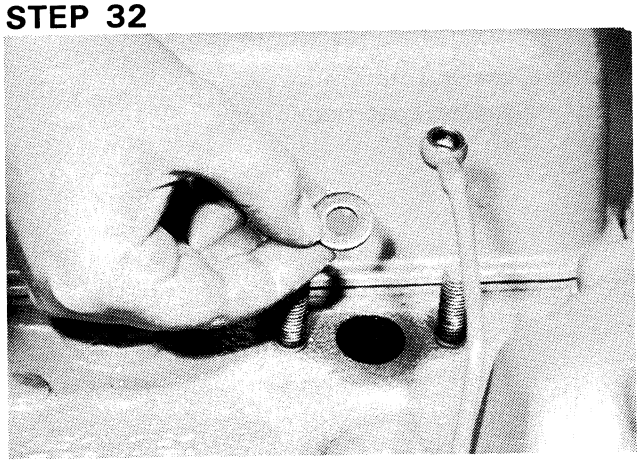
Install carbon reamer tool CAS-1003 in injector bore.

STEP 31



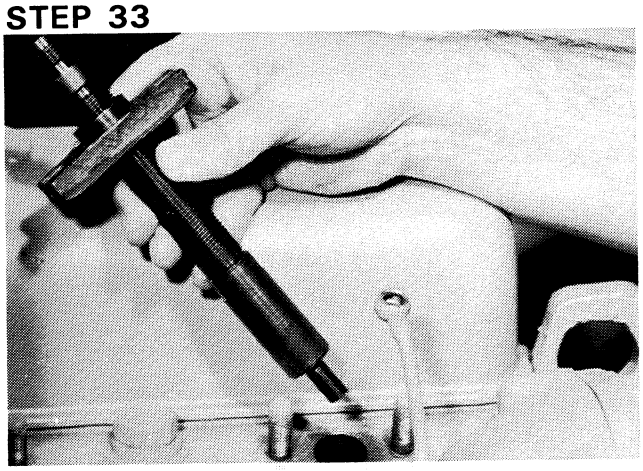
Always turn carbon reamer in a clockwise direction, counter-clockwise direction will dull tool. Blow out injector bore with compressed air.

STEP 32



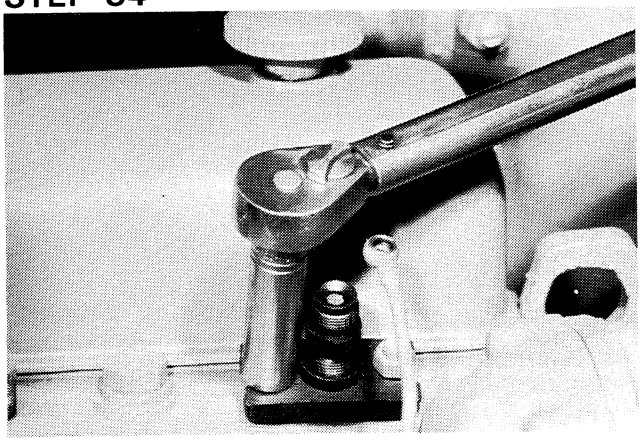
Install a new injector sealing washer in head bore.

STEP 33



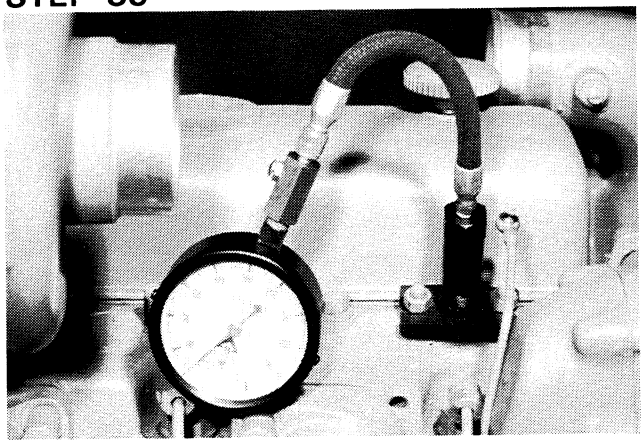
Install Bacharach 70-301 compression gauge adapter, see Page 3.

STEP 34



Torque adapter in place with injector retainer nuts to 7 ft. lbs.

STEP 35



Install Bacharach 70-003 compression gauge to adapter.

STEP 36

NOTE: Take several compression readings on each cylinder using the vent valve button to relieve gauge pressure.

NOTE: When checking compression using the cranking method, start at No. 1 cylinder and continue on down the line (No. 2, 3, 4 etc.). Then, recheck No. 1 cylinder after completing the last cylinder since compression may vary due to battery run-down.

It is very important that all cylinder pressures be approximately the same. See chart for allowable compression pressure variation.

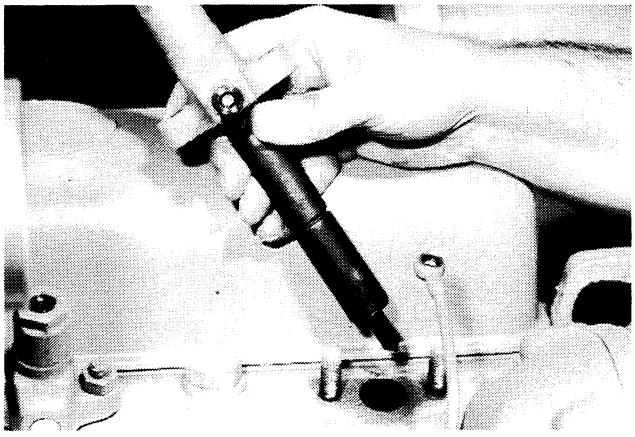
If compression is greater than normal, carbon deposits are indicated. If compression is below normal, leaking valves or excessive ring clearance is indicated.

NOTE: To make a simple test when a compression leak is indicated, squirt a teaspoon of oil into cylinder and recheck compression. If pressure rises to near normal, compression loss is past the rings. Very little change in compression indicates leakage is past the valves.

	ENGINE SPEED	NORMAL COMPRESSION PRESSURE	ALLOWABLE VARIATION BETWEEN CYLINDERS
CRANKING	APPROXIMATELY 200 RPM UNTIL COMPRESSION GAUGE STABILIZES	400 PSI*	25 PSI
RUNNING	800 RPM	480 PSI*	20 PSI

*NOTE: A 4% REDUCTION IN PSI MUST BE ALLOWED FOR EVERY 1000 FT. ABOVE SEA LEVEL.

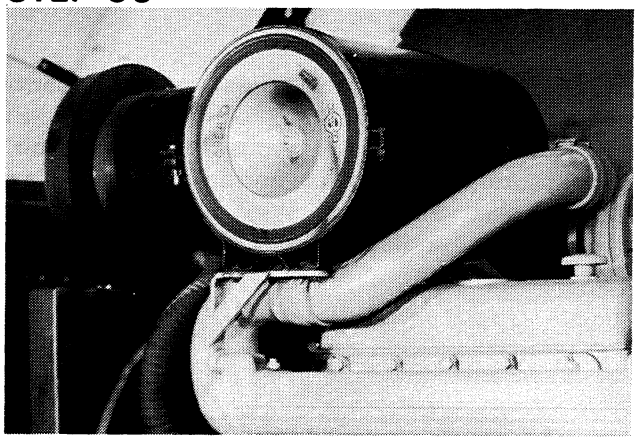
STEP 37



Reinstall fuel injectors, refer to Section 3113.

Cleaning and Servicing Air Intake System

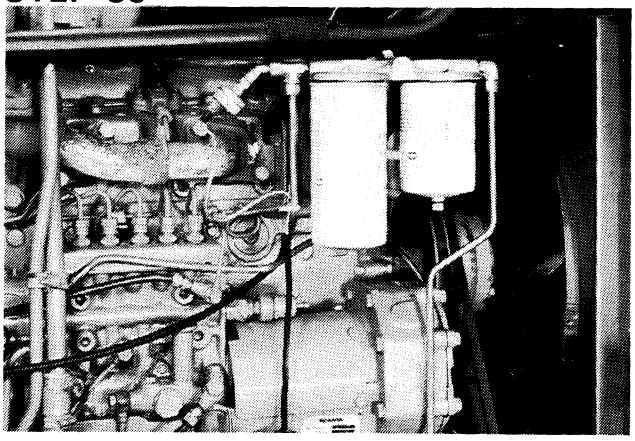
STEP 38



Inspect and service the air intake system, refer to Section 2175 of this manual for servicing the air intake system.

Cleaning and Servicing Fuel Filters

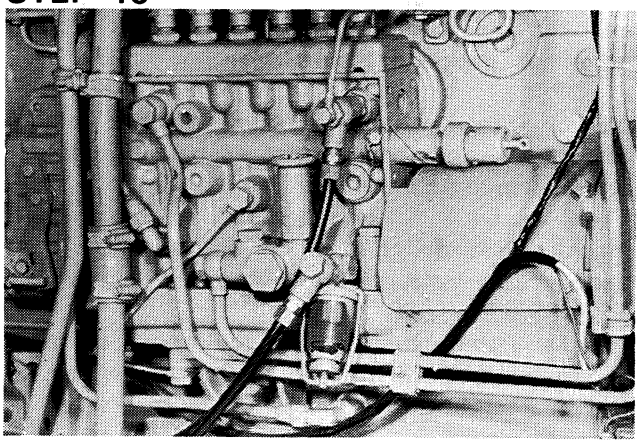
STEP 39



Refer to Section 3110 for cleaning and servicing the fuel filters and system.

Retiming Injection Pump

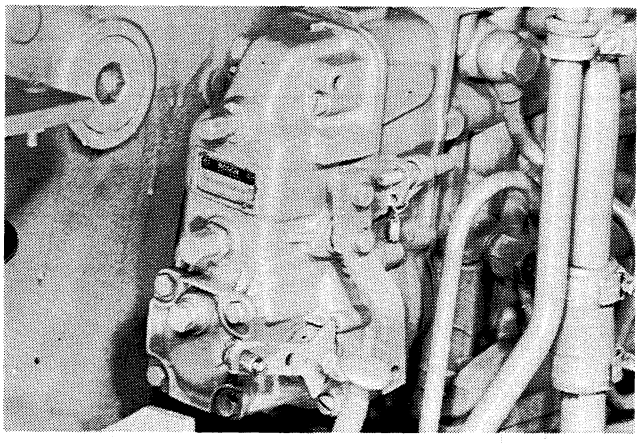
STEP 40



Refer to Section 3112 for checking and adjusting fuel pump timing.

Checking Engine Governed Speed

STEP 41



Refer to Section 3112 for checking and adjusting the engine governed speed.

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Please download this document

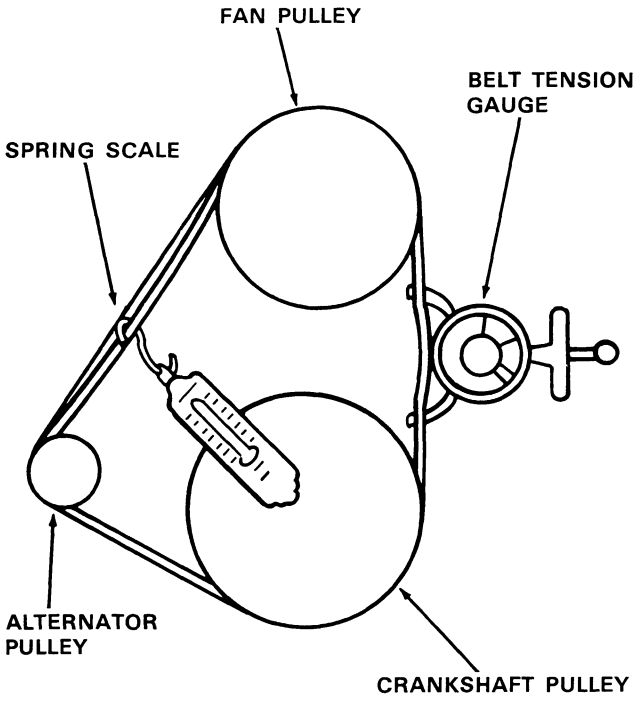
first, and then click the above link

to download the complete manual.

Thank you so much for reading

Fan Belt Adjustment

STEP 42



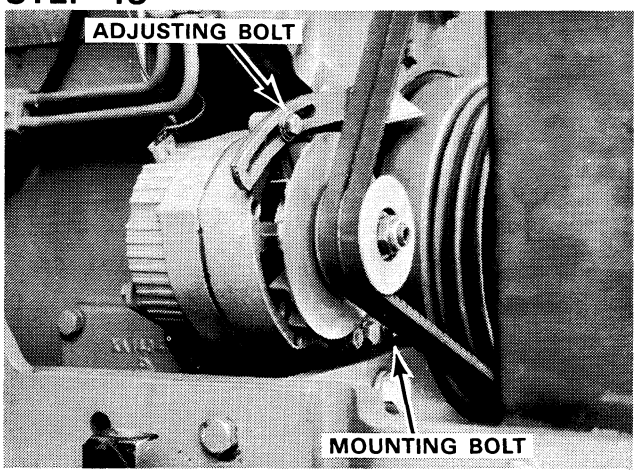
Measure the fan belts for proper tension or deflection using a belt tension gauge or a spring scale. *NOTE:* When using a spring scale, the measurement must be made at the mid point between the fan and alternator pulleys.

Belt tension must be 60 lbs. (267N) per belt when using a belt tension gauge. DO NOT exceed a combined tension of 120 lbs. (534N) on the belts.

Belt deflection must be .39" (10mm) per belt when using a spring scale.

NOTE: Excessive tension will cause alternator and water pump bearing failure and extreme belt wear. Insufficient tension will cause low or no alternator output and excessive belt wear.

STEP 43



Loosen alternator adjusting and mounting bolts. Pull outward on alternator and retighten bolts, then recheck belt tension or deflection as outlined in Step 42.

To replace fan belts, swing alternator inward toward engine. Remove old belts, slip new belts over fan and onto fan pulley, then onto crankshaft and alternator pulleys. Tighten new belts to 70 lbs. (311N) tension per belt. *NOTE:* Readjust new belts to 60 lbs. (267N) tension per belt after the first 15 minutes of operation.

NOTE: If the tractor is equipped with air conditioning, refer to air conditioning section of this service manual for compressor belt adjustment.