Group III
GENERAL SPECIFICATIONS

Power (at 2,200 engine rpm):	SAE	DIN
Gross	160 hp (119.3 kW**)	
Net	145 hp (108.1 kW**)	147.5 PS

**Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. The gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft (152 m) altitude and 85°F (29.4°C) temperature and DIN 70 020 (non-corrected). No derating is required up to 10,000 ft. (3000 m) altitude.*

***In the international system of units, power is expressed in Kilowatts (kW).*

Engine: John Deere turbocharged diesel, vertical 6-cylinder, valve-in-head, 4-stroke cycle.

Bore and stroke	4.75 x 5 in. (120.5 mm x 127 mm)
Piston displacement	531 cu. in. (8702 cm³)
Compression ratio	15.8 to 1
Maximum torque @ 1500 rpm	432 lb-ft (59.7 kg-m)
NACC or AMA (U.S. Tax) horsepower	54.0
Lubrication	Pressure system with full-flow filter
Cooling	Pressurized with thermostat and controlled bypass
Fan	Suction
Air cleaner w/restriction indicator	Dry
Electrical system	12 volt (12-V) w/alternator
Batteries (2)	Reserve capacity: 310 minutes each battery

Torque Converter:

Type	Twin-turbine
Torque multiplication	3.34 to 1
Transmission	Power Shift planetary

Recommended Travel Speeds

Forward and reverse	4.5 mph (7.2 km/h) maximum

Differentials:

Front	No-Spin
Rear	Standard

Drive Axles ... Inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22-degree total. 15.8 inches (401 mm) vertical travel at center of tire.

Brakes:

Service ..... Power actuated, 4-wheel, inboard-mounted wet disk. Foot-operated by either right or left pedal.

Parking ..... 10 x 1.5 inch (254 mm x 38 mm) expanding shoe on transmission output shaft. Adjustable, hand operated with warning light on dash.

Steering ..... Full power steering. Frame articulated 80 degrees by two hydraulic cylinders. Turning radius of 15 feet 6.7 inches (4.74 m). Turning clearance is 36 ft 10.8 inches (11.25 m).

Hydraulic Systems:

Loader functions ..... independent engine driven, vane pump delivers 44.5 gpm (168.4 L/min) at 600 psi (42.2 kg/cm²) and 2,200 engine rpm.
2,250 psi (158.2 kg/cm²) relief valve pressure setting.

Control ..... Two lever triple hydraulic valve for use with refuse bucket or special multipurpose bucket.

Steering and brakes .... Engine-driven, eight-piston, variable-displacement pump delivers 26 gpm (98.4 L/min) at 2,200 engine rpm and 2,000 psi (140.6 kg/cm²). Maximum system pressure is 2,400 psi (168.7 kg/cm²)

Compactor Wheels (Cepeco):

Width	23 in. (584 mm)
Diameter	56.75 in. (1 442 mm)
60° cleats, 32/wheel	5 in. (127 mm)
Encased General tires	13-24, 12 ply L-G
Compaction	Up to 3,223 psi (226.6 kg/cm²)

Compactor Wheels (Caron):

Width	23 in. (584 mm)
Diameter	60 in. (1 524 mm)
20 tractor cleats	5.5 in. (140 mm) long @ tip
10 contour cleats	3 in. (76 mm) long @ tip
Compaction	Up to 3640 psi (25 097 kPa)

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Group IV
PREDELIVERY, DELIVERY, AND AFTER-SALE SERVICES

TEMPORARY STORAGE

After receiving your compactor from the factory and before putting the machine into temporary storage perform the following checks.

For long term storage (over 30 days) information, consult your JD646-B Operator's Manual.

1. Check battery electrolyte level and charge the battery, if necessary.

2. Check the level of coolant in the radiator. The coolant should be maintained at a level midway between the radiator core and filler neck.

3. Fill the fuel tank.

4. Check crankcase oil level. Oil should be at top mark of dipstick after machine has been shut down for ten minutes.

5. Relieve hydraulic pressure by stopping engine, lowering boom and operating steering wheel or control levers until system fails to respond.

PREDELIVERY SERVICE

Because of the shipping factors involved, plus extra finishing touches that are necessary to promote customer satisfaction, proper predelivery service is of prime importance to the dealer and the customer.

If adjustments are required, procedures are found in the After-Sale section.

Use the following check list when preparing a compactor for delivery to the customer.

1. Pre-cleaner

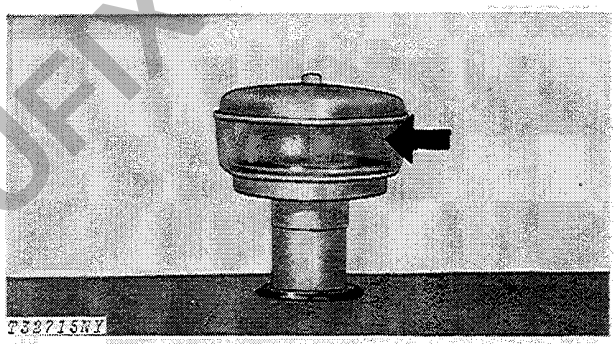


Fig. 1-Pre-cleaner

Check and clean pre-cleaner bowl.

Pre-cleaner checked and cleaned *Yes* *No*

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2. Air Cleaner

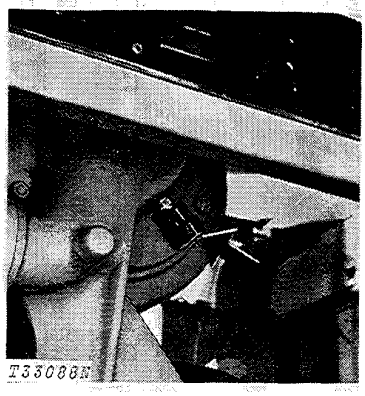
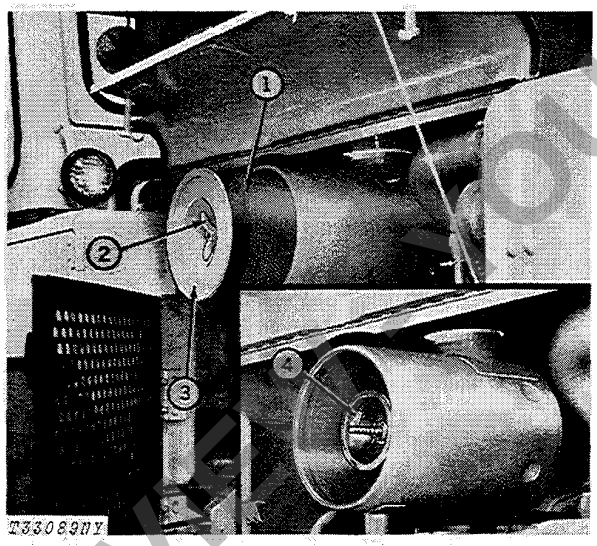


Fig. 2-Air Cleaner Restriction Indicator

Check air filter air restriction indicator. If the indicator shows red, check and clean primary air filter element. Replace both primary and safety filter elements, if necessary.



1—Primary Filter Element
2—Wing Nut
3—Air Cleaner Cover
4—Safety Filter Element

Fig. 3-Air Cleaner

Air cleaner checked *Yes* *No*
Filters replaced *Yes* *No*

3. Fuel Filters

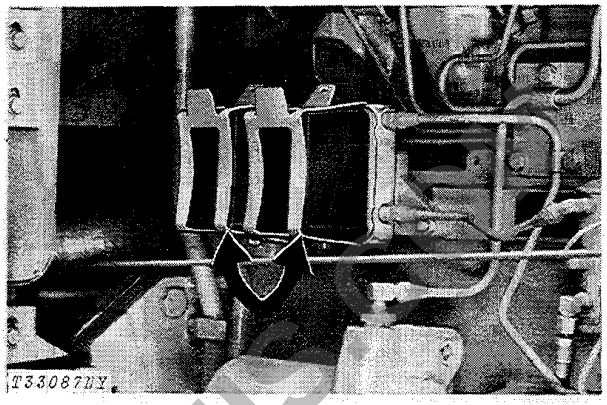


Fig. 4-Fuel Filters

Check fuel filters and drain any sediment that is present.

Sediment present in filter *Yes* *No*

4. Air Intake Hoses

Check air intake hoses for loose or improper connections. Check air cleaner to exhaust stack aspirator hose for restrictions, damage or loose connections.

Hoses checked *Yes* *No*

5. Batteries

Check battery electrolyte level. Batteries are located to the left of the operator and are accessible through the top door in the battery compartment. If distilled water is not available, use clean soft water. Avoid use of hard water. Remove foreign material from top of battery and coat terminals with petroleum jelly. Check vent holes in battery caps.

IMPORTANT: Never add water to battery in freezing weather unless engine is to be run two or three hours to assure mixing of water and electrolyte.

Punch date code on battery.

Water added *Yes* *No*

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29. Bleeding the Fuel System

After removing any components of the fuel system, air should be removed by bleeding. Bleeding is also necessary whenever the fuel tank has been emptied.

Loosen the filter bleed screw on upper left hand side of fuel filter body.

Turn key to start position to start the electric fuel pump. When fuel free of air bubbles comes out of bleed plug, turn key to off position and tighten bleed screw.

Fuel system bled *Yes* *No*

30. Parking Brake

Check the parking brake for proper adjustment. Adjust, if necessary.

Forty-five pounds (20 kg) of force is required at top of handle to activate parking brake. See page I-IV-26 to adjust parking brake.

Parking brake adjusted *Yes* *No*

31. Wheel Retaining Cap Screws

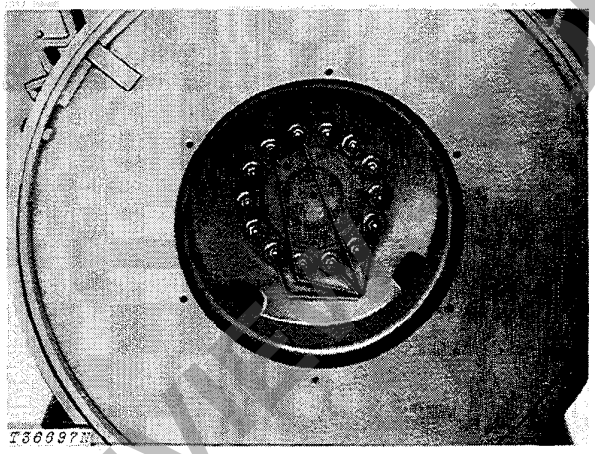


Fig. 41-Wheel Retaining Cap Screws (Cepeco Wheel Shown)

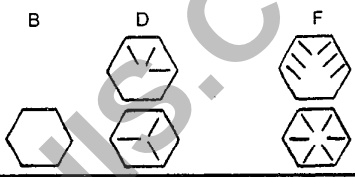
Check all wheel retainer cap screw torque. Tighten wheel retaining cap screws on Cepeco and Caron wheels to 450 lb-ft. (62.2 kg/m).

Wheel retaining cap screws tightened *Yes* *No*

32. Accessible Hardware Torque Values

Check all accessible bolts and nuts for proper tightness. If hardware seems loose, tighten it to the proper torque. The table below gives correct torque values for various bolts and cap screws. Most hardware used is high-strength (note dashes on hex. heads).

RECOMMENDED TORQUE IN LB-FT [Kg-m]
COARSE AND FINE THREADS



Bolt Diameter	Plain Head	Three Dashes	Six Dashes
1/4	Not used	10[1.4]	14[1.9]
5/16	Not used	20[2.8]	30[4.1]
3/8	Not used	35[4.8]	50[6.9]
7/16	35[4.8]	55[7.6]	80[11.1]
1/2	55[7.6]	85[11.8]	120[16.6]
9/16	75[10.4]	130[18.0]	175[24.2]
5/8	105[14.5]	170[23.5]	240[33.2]
3/4	185[25.6]	300[41.5]	425[58.8]
7/8	160[22.1]	445[61.5]	685[94.7]
1	250[34.6]	670[92.5]	1030[142.4]
1-1/8	330[45.6]	910[125.8]	1460[201.9]
1-1/4	480[66.4]	1250[172.8]	2060[284.8]

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Fig. 42-Torque Chart

The types of bolts and cap screws are identified by head markings as follows:

Plain Head: regular machine bolts and cap screws.

3-Dash Head: tempered steel high-strength bolts and cap screws.

6-Dash Head: tempered steel extra high-strength bolts and cap screws.

Machine bolts and cap screws 7/8-inch and larger are sometimes formed hot rather than cold, which accounts for the lower torque.

All accessible hardware torqued *Yes* *No*

33. Final Check

The final predelivery procedure is overall clean-up of the compactor. Make it LOOK like a new compactor with the proper touch-up of chipped paint and a good wash job. Deliver to the customer a new looking compactor.

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MAINTENANCE WITHOUT ACCIDENT
WORK SAFELY



T27999

This safety alert symbol identifies important safety messages in this manual and on the compactor. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

EVERY EMPLOYER HAS A SAFETY PROGRAM. KNOW WHAT IT IS!



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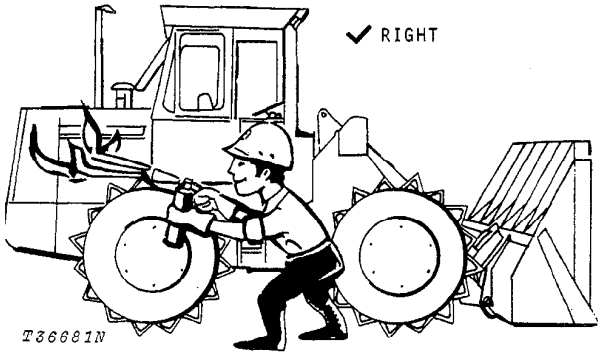
Consult your shop foreman for specific instructions on a job, and the safety equipment required.

For instance, you may need: Hard hat, safety shoes, safety goggles, heavy gloves, reflector vests, ear protectors, respirators.



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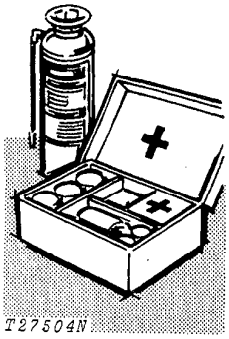
ALWAYS AVOID loose clothing or any accessory—flopping cuffs, dangling neckties and scarves, or rings and wrist watches—that can catch in moving parts and put you out of work.



T36681N

BE ALERT!

Plan ahead — work safely — avoid accidental damage and injury. If a careless moment does cause an accident or fire, react quickly with the tools and skills at hand — know how to use a first aid kit and a fire extinguisher — and where to get aid and assistance. In an emergency, split-second action is the key to safety.



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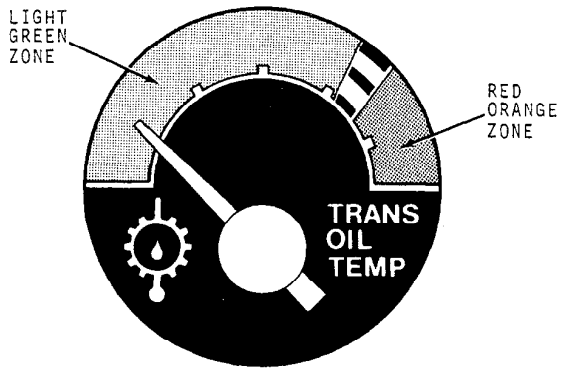
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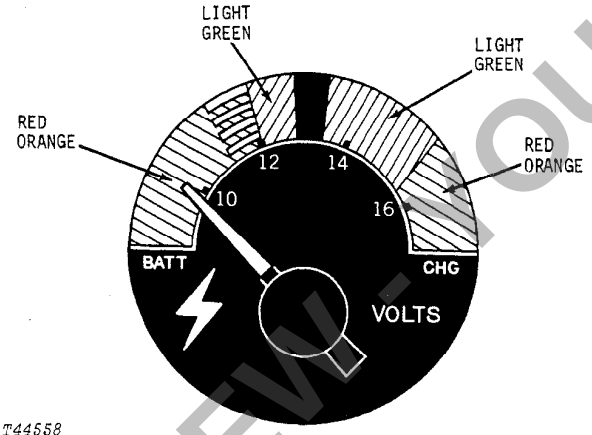


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Fig. 25-Transmission Oil Temperature Gauge

Normal operating range is indicated by the green zone on the gauge face.

If the transmission oil temperature indicator hand is not in the green zone, stop engine and check oil level.



T44558

Fig. 26-Voltmeter

Normal operating range is indicated by the right-hand green zone.

If the voltmeter indicator hand is not in the right-hand green zone, troubleshoot the electrical system.

All gauges operational *Yes* *No*

16. Light Operation

Check light operation.



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Fig. 27-Light Switch

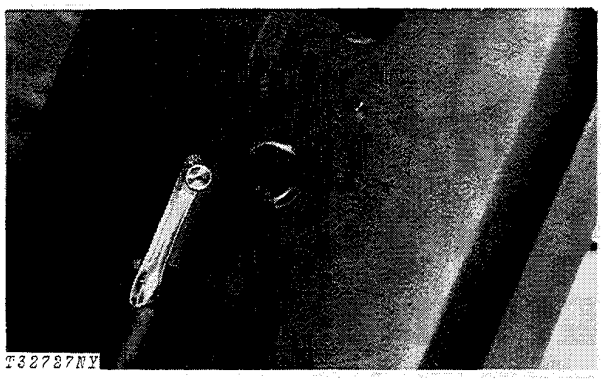
All lights are controlled by two switches. The headlights, taillights and work lights are controlled by a push-pull light switch located on the right-hand dash panel. The flashing warning lights are controlled by a lever mounted on the steering column.

The light switch mounted on the right-hand dash panel has three positions:

1 - Completely In - All lights are off.

2 - First Position (Half-way Out) - Headlights and taillights are on.

3 - Second Position (Completely Out) - Worklights, headlights and taillights are on.



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Fig. 28-Turn Signal/Warning Light Switch

The turn signal/warning light switch is used to indicate a right or left turn as well as to operate the flashing lights when in a fully clock-wise position.

All lights operational *Yes* *No*

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