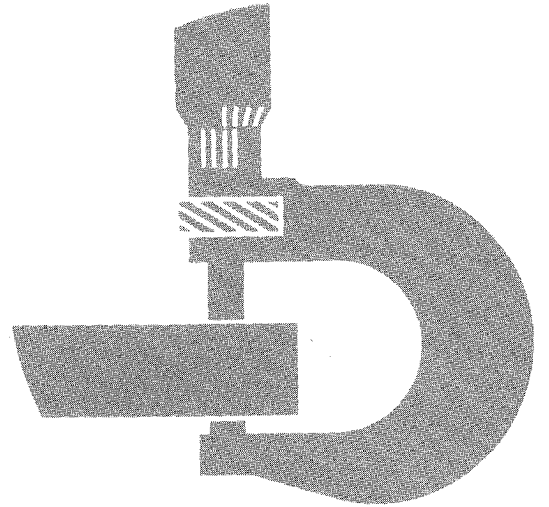


755A Crawler Loader



TECHNICAL MANUAL

TM-1231

LITHO IN U.S.A.

**755A CRAWLER LOADER
Technical Manual
TM-1231 (Mar-84)**

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All information, illustrations and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice. Wherever applicable, specifications and design information are in accordance with SAE and ICED standards.

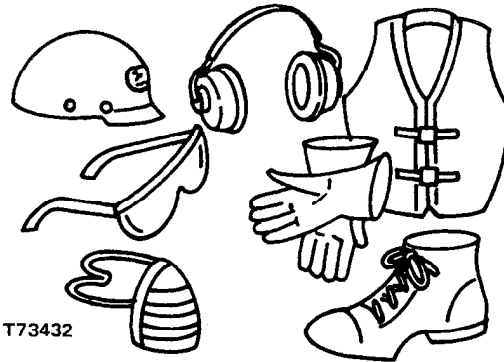
MAINTENANCE WITHOUT ACCIDENT

SAFETY AND YOU



T27999N

CAUTION: This safety symbol followed by the word "caution" identifies important safety messages in this manual and on the crawler loader. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



T73432

Wear safety equipment.



T45672

Wear fairly tight clothing.



T73433

T73433

Be prepared if an accident or fire should occur. Know where the first aid kit and the fire extinguishers are located - know how to use them.



X981

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

IF ANY fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type injury or gangrene may result.

MAINTENANCE WITHOUT ACCIDENT

KEEP SHOP AND STORAGE AREA CLEAN



Maintenance area should be adequately vented.

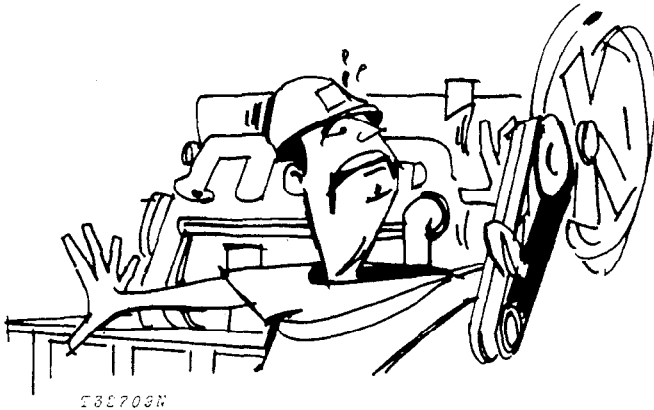
Keep maintenance area clean and dry.

Store flammable materials in a cool and well-vented area out of reach of unauthorized personnel.

FOLLOW SAFE WORKING CONDITIONS

Perform work on equipment only if authorized to do so.

Follow recommended procedures.



Do not service equipment while it is being operated or engine is running.

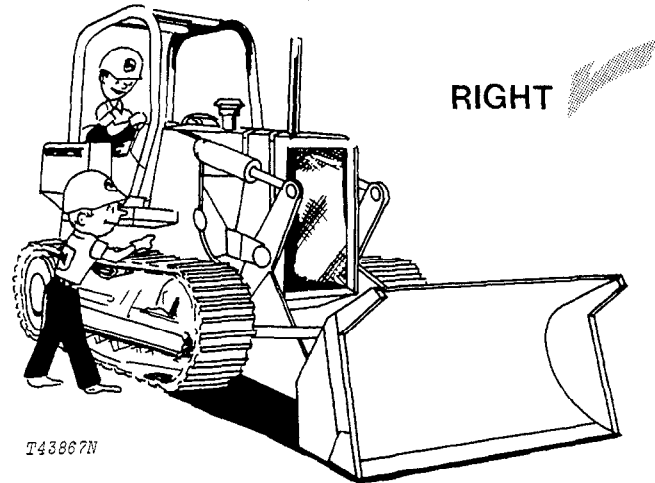
Keep hands away from moving parts.

Do not use open flame around machine.

If machine is on an incline, block it securely.

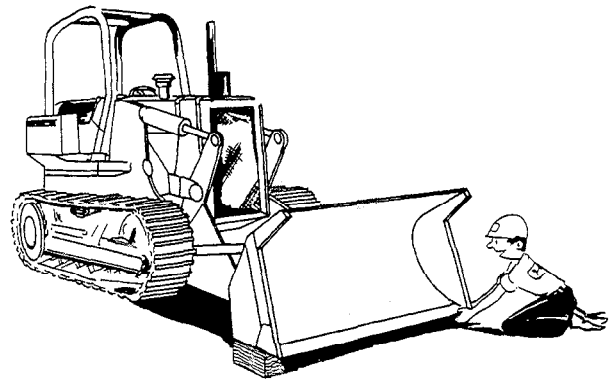
Use hoisting equipment for lifting heavy parts.

Litho in U.S.A.



RIGHT

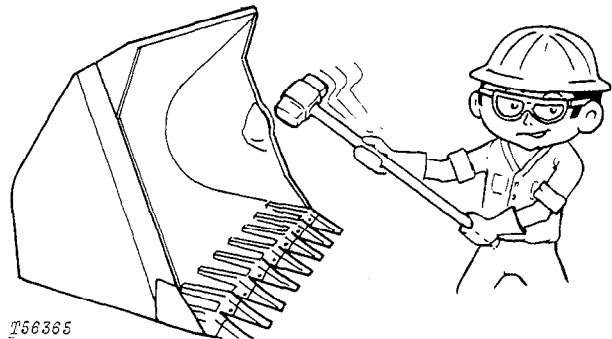
Always use two service technicians - one, the operator at the controls, the other checking within sight of the operator.



Support all raised equipment.

Do not work under raised bucket.

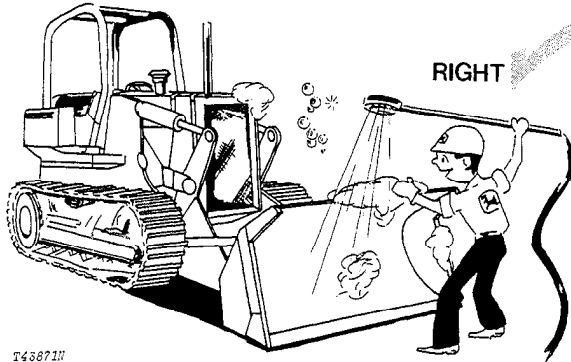
Always lower bucket before working on it.



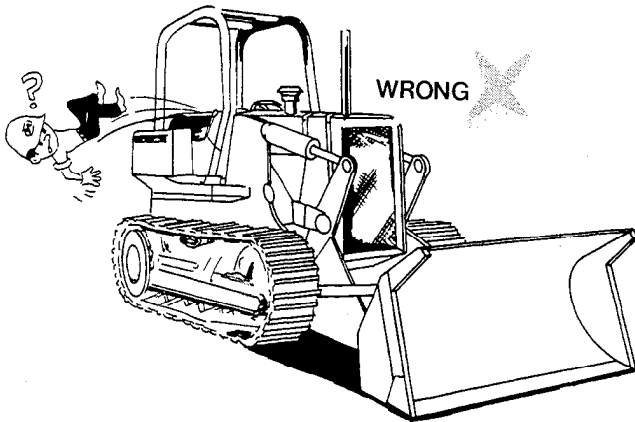
Wear safety glasses when drilling, grinding or hammering metal.

MAINTENANCE WITHOUT ACCIDENT

OBSERVE SERVICE PRECAUTIONS



Keep all equipment free of dirt and oil.



Remove oil, grease, mud, ice, or snow from floor of operator's compartment or steps.

Do not remove radiator filler cap unless engine is cool. Then loosen cap slowly to the stop. Release pressure before you remove cap.

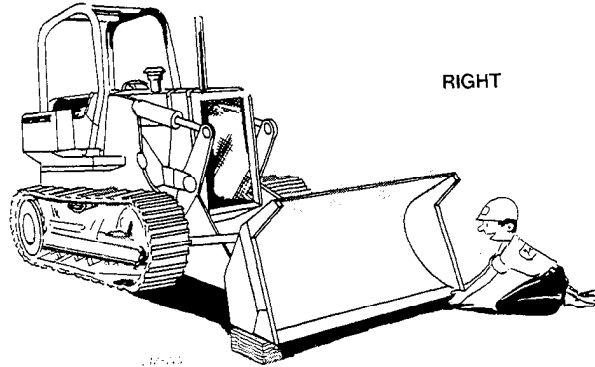
Check exhaust system periodically for excessive leakage.

Relieve hydraulic pressure before working on hydraulic system.

Use the correct test group when checking hydraulic pressure.

Discharge accumulators completely before recharging or servicing.

OBSERVE REPAIR PRECAUTIONS



Securely block bucket before changing cutting edges. Wear gloves when working with sharp edges.

Relieve hydraulic pressure before working on hydraulic system.

Turn off battery disconnect switch before repairing the electrical system or performing a major overhaul.

Install lift arm locking pin before working in engine area.

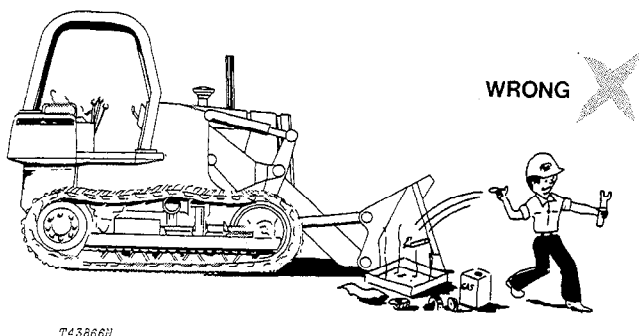
CHECK SAFETY EQUIPMENT ON MACHINE

Check that all protective devices (guards, canopies, shields, ROPS, seat belts, etc.) are installed and secured on machine.

Inspect machine carefully for leakage from lines, hoses, and fittings.

MAINTENANCE WITHOUT ACCIDENT

AVOID EXPLOSIONS OR FIRE



Do not smoke while refueling.

Do not smoke while handling highly flammable materials.

Shut off engine when refueling.

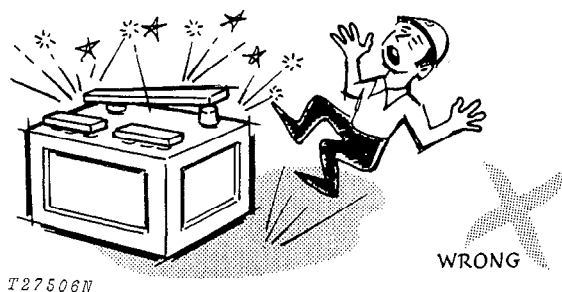
Use care in refueling if engine is hot.

Use good commercial, nonflammable solvents for cleaning parts.

Although it is impractical to try to cover every possible maintenance situation, the safety precautions recommended here should serve to develop and promote safe maintenance procedures.

The information contained in this manual is not intended to replace safety codes, insurance requirements, federal, state, and local laws, rules and regulations. In particular, your service area or jobsite activities may be subject to state safety rules and/or federal regulation under the Occupational Safety and Health Act (OSHA). Familiarize yourself with all regulations applicable to your situation in order to avoid possible safety violations.

OBSERVE BATTERY PRECAUTIONS



Do not place metal objects across posts to check charge.

Do not smoke near battery.

Do not allow sparks or open flame near battery.

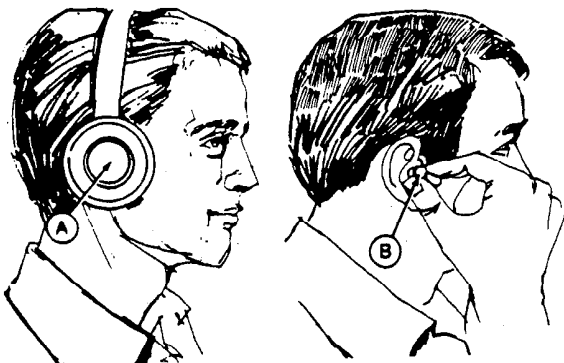
Provide adequate ventilation when charging batteries.

TEST COOLANT HEATER IN LIQUID ONLY

Use a heavy-duty grounded cord to connect coolant heater to electrical power.

Do not plug into electrical power unless heating element is immersed in coolant. Sheath could burst and result in personal injury.

PROTECT AGAINST NOISE



X7662

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs (A) or earplugs (B) to protect against objectionable or uncomfortable loud noise.

UNDERSTAND CORRECT SERVICE

Be sure you understand a service procedure before you work on the machine.

Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

PREPARE MACHINE FOR REPAIR

Lower all equipment to the ground.

Put forward and reverse speed control lever in neutral position. Move neutral lock lever to locked position.

Stop the engine.

Operate all hydraulic control levers to release hydraulic pressure in the system.

Disconnect negative (-) battery cable.

KEEP ROPS INSTALLED PROPERLY

If ROLL-GARD® protective frame or ROLL-OVER protective equipment is loosened or removed for any reason, make certain all parts are reinstalled correctly. Tighten mounting bolts to proper torque. The protection offered by ROPS will be impaired if the ROPS is subject to structural damage, has been involved in an overturn incident or is in anyway altered. Damaged ROPS should be replaced, not reused.

START ENGINE FROM OPERATOR'S SEAT ONLY

Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear and will move if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral, and park brake applied.

Group III General Specifications

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with 2.25 cu. yd. [1.72 m³] bucket with teeth, roll-over protective canopy, four counterweights, fuel tank, 175 lb. [79 kg] operator and standard equipment.)

Power (@ 2100 rpm):	SAE	DIN
Gross	142 hp (106 kW)	
Net	30 hp (97 kW)	132 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. (152.4 m) altitude and 85°F (29°C) temperature, and DIN 6270 conditions (non-corrected). No derating is required up to 10,000 feet (3000 m) altitude.

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

Bore and stroke . . . 4.19 × 5 in. (106.4 × 127 mm)
 Piston displacement 414 cu. in. (6.785 L)
 Compression ratio 16.2 to 1
 Maximum torque @ 1300 rpm . . 400 lb-ft (542 N·m)
 (55.3 kg-m)

NACC or AMA (U.S. Tax) horsepower 42
 Lubrication Pressure system with full flow filters
 Main bearings 7
 Cooling Pressurized with thermostat and controlled bypass
 Fan Blower
 Dual-stage aspirated air cleaner
 with restriction indicator Dry
 Electrical system 24 volt with alternator
 Batteries (two 12-volt) Reserve capacity:
 180 minutes each

Transmission:

Cold weather starting Disconnect clutch completely disengages splitter drive, hydrostatic drive and all hydraulics.
 Splitter drive Pressure-lubricated helical gears drive both hydrostatic transmissions, main hydraulic pump, winch drive shaft, and auxiliary pump drive.
 Drive Dual-Path, fully automatic, infinitely variable hydrostatic transmissions.
 Speeds Infinite from 0 to 6.7 mph (0 to 10.8 km/h) forward or reverse.
 Control Single-lever, variable speed, forward and reverse.

Steering:

Fully modulated, infinitely variable pedal steering for live power turns and counterrotation. No need for steering clutches or steering brakes.

Brakes:

Service Hydrostatic
 Parking Wet-disk brakes are automatically applied when engine is stopped, or manually applied with center foot pedal during normal operation.

Hydraulic System: Open-center

Control Single-lever bucket control with automatic bucket positioner and float position. Three-function valve.

Pump Vane, 55 gpm (3.4 L/s) @ rated engine speed
 Pressure 2500 psi (17 237 kPa) (175.7 kg/cm²)
 Oil lines Seamless steel tubing; double-wire-braid hose
 Filter 10 micron filter in return line with bypass

Hydraulic Cylinders: Bore Stroke

Boom (2) 5.50 in. (140 mm) 32 in. (813 mm)
 Bucket (2) 4.50 in. (114 mm) 21.52 in. (547 mm)
 Cylinder rods . . Ground, heat-treated, chrome-plated, polished
 Boom cylinder rods 3.75 in. (95 mm) dia.
 Bucket cylinder rods 2.25 in. (57 mm) dia.

Tracks (6-roller track frame with front and rear track guides and sprocket guard):

Two bar grouser width 17 in. (432 mm)
 Track shoes, each side 36
 Ground contact area 3173 sq. in. (20 472 cm²)
 Ground pressure . . . 11.0 psi (75.8 kPa) (0.773 kg/cm²)
 Length of track on ground 93.5 in. (2.37 m)
 Track gauge 66 in. (1.68 m)
 Carrier roller 1 each side
 Adjustment Hydraulic
 Minimum ground clearance 15.3 in. (389 mm)

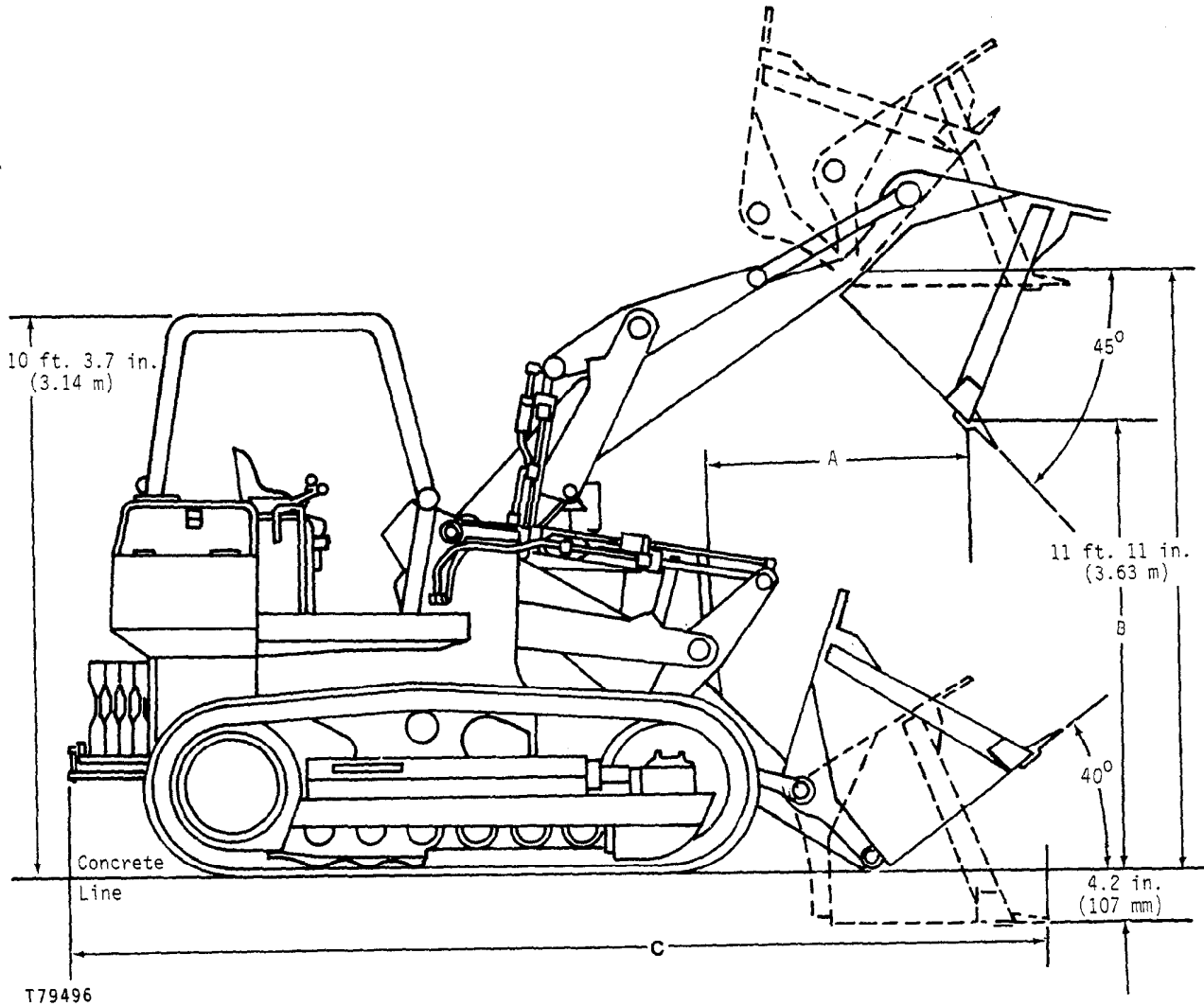
SAE Operating Weight with ROPS 35,000 lb.
(15 900 k)

Capacities:	U.S.	Liters
Cooling system	7 gal.	26.5
Fuel tank	73 gal.	276.3
Crankcase	18 qt.	17.0
Crankcase, including filter	20 qt.	18.9
Splitter drive	1.5 gal.	5.7
Final drive each:		
1st reduction	6.25 gal.	23.6
2nd reduction	3.5 gal.	13.2
Loader hydraulic system	37 gal.	140.1
Hydrostatic drives	33 gal.	124.9

SAE Operating Weight with ROPS 35,000 lb.
(15 900 kg)

SAE Operating Weight with ROPS
Cab 35,400 lb.
(16 060 kg)

LOADER DIMENSIONS



BUCKET CAPACITIES	DIMENSIONS		
	A	B	C
2.25 cu. yd. (1.72 m ³) bucket	47 in. (1194 mm)	9 ft. 4 in. (2.84 m)	18 ft. 3 in. (5.56 m)
2 cu. yd. (1.53 m ³) multipurpose	47.4 in. (1.20 m)	9 ft. 3.6 in. (2.83 m)	18 ft. 3.5 in. (5.58 m)

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