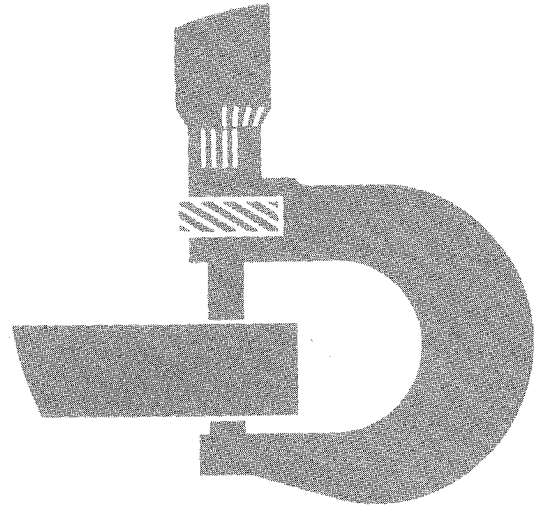


480C Forklift



TECHNICAL MANUAL

480C FORKLIFT TECHNICAL MANUAL TM-1249 (JUN-81)

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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.

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A JOHN DEERE ILLUSTRATION

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SAFETY AND YOU

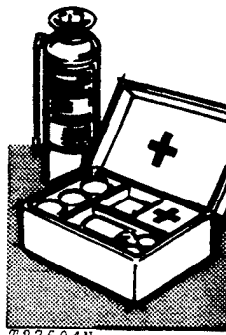


CAUTION: This safety symbol is used for important safety messages. When you see this symbol, follow the safety message to avoid personal injury.



45A:T81289 T30:1 I102 280581

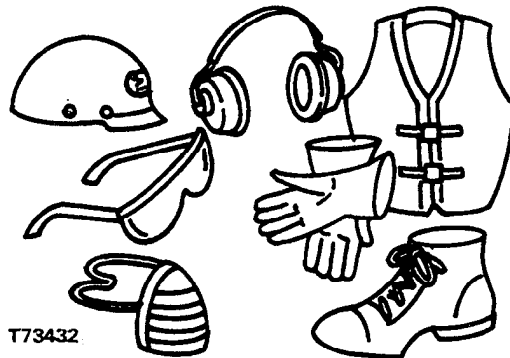
Be prepared for an accident or fire.
Know where the first aid kit and fire extinguisher are.
Know how to use them.
Know where to get help.



T27504N

45A:T27504 N T30:1 I103 280581

Wear safety equipment.



T73432

45A:T73432 T30:1 I104 280581

Wear fairly tight clothing.



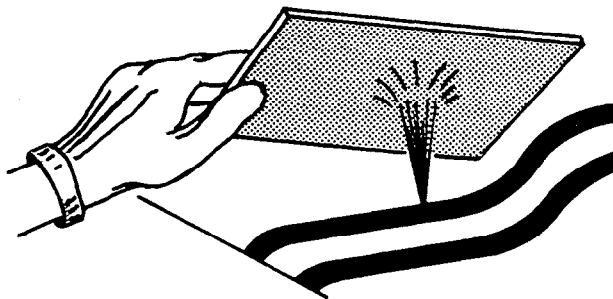
T49672

45A:T49672 T30:1 I105 280581



CAUTION: Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious injury. Before disconnecting lines, be sure connections are tight and lines, pipes and hoses are not damaged. Use a piece of cardboard or wood, rather than hands, to search for leaks.

If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.



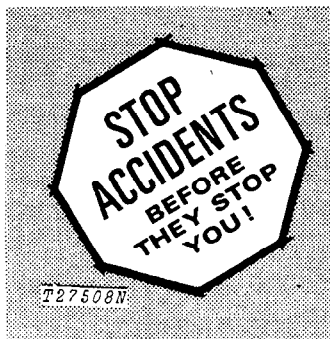
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KEEP SHOP AND STORAGE AREA CLEAN

Maintenance area should be well-ventilated.

Keep maintenance area clean and dry.

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



45A:T27508 N T091 1107 280961

FOLLOW SAFE WORKING CONDITIONS

Do not work on the equipment unless you are approved to do so. Then be sure you know the correct procedure.

Do not work on equipment while it is being operated.

Keep hands away from moving parts.

When the engine is running, do not work on equipment unless the procedure is approved.

X WRONG



T32709N

If you must work on the machine with the engine running, ALWAYS USE TWO service technicians. One must be at the controls. The other must be within sight of the operator.

Put a support under all raised equipment.

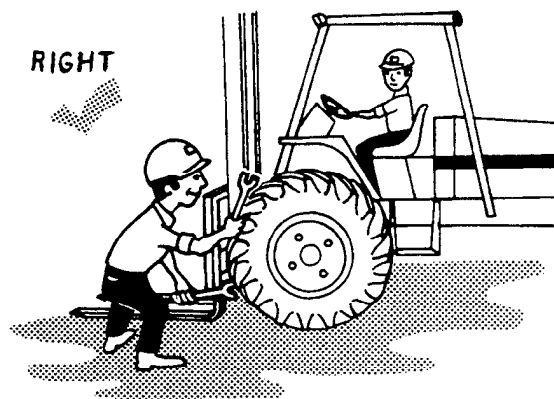
If the machine is parked on a slope, use blocks to hold it in place.

Do not lift heavy parts by yourself. Use a hoist or jack.

TAKE CARE! WATCH OUT FOR OTHER PEOPLE IN THE AREA.

When you drill, grind or hammer metal, wear safety glasses.

RIGHT



45A:T32709 N T81390 T30:1 IIG8 070781

OBSERVE SERVICE PRECAUTIONS

Keep ALL equipment free of dirt and oil.

Clean oil, grease, mud, ice or snow from the operator's station, steps and hand rail.

Do not remove the radiator cap unless the engine is cool. First, loosen the cap slowly to the stop. Then release all pressure in the cooling system before you remove the cap.

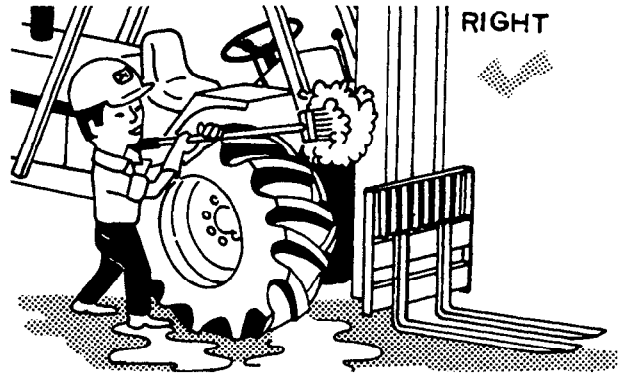
Check the exhaust system regularly for leaks.

Release hydraulic pressure before you work on the hydraulic system.

When you check hydraulic pressure, be sure to use the correct test gauge.

Before you work on the fuel system, close the fuel shutoff valve.

Before you work on the electrical system, or make major repairs, disconnect the battery ground strap.

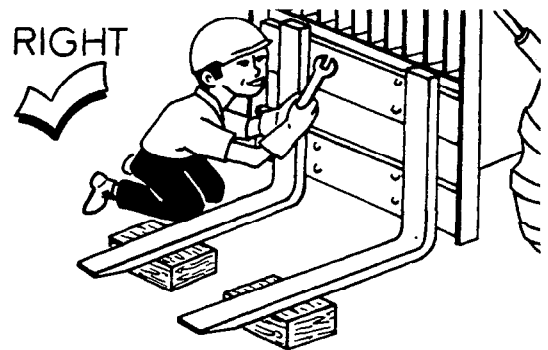


45A/T81391 T30:1 I109 280501

Put blocks under forks if you must work on raised mast or carriage.

Before you work on hydraulic system, release hydraulic pressure.

Before you overhaul the forklift or work on the electrical system, disconnect the battery.



45A/T81392 T30:1 I110 280501

CHECK SAFETY EQUIPMENT ON MACHINE

All protective parts (shields, guards, ROPS, etc.) should be in good condition and fastened in place.

Check for leaks in all systems:

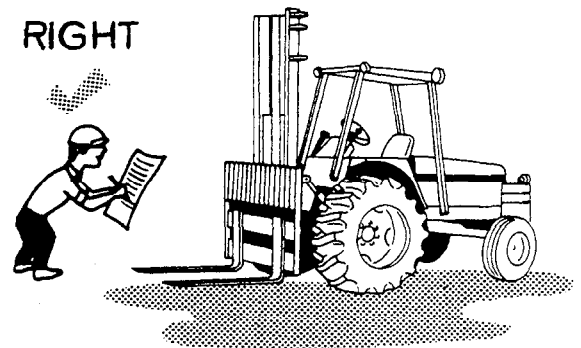
Air intake system

Engine oil system

Transmission-hydraulic system

Fuel system

Cooling system



45A/T81393 T30:1 I111 280501

AVOID EXPLOSIONS OR FIRE

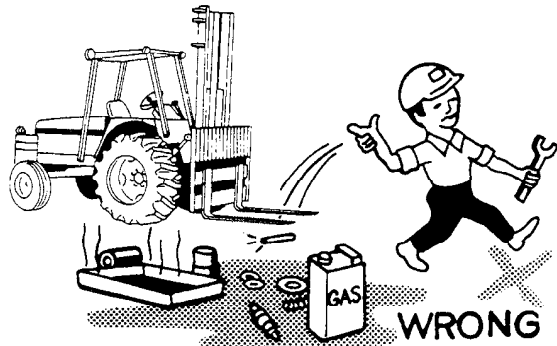
Do not smoke while you fill the fuel tank.

Do not smoke while you work with material that will start on fire easily.

Stop the engine before you fill the fuel tank.

Do not fill fuel tank if engine is hot.

Do not use gasoline or diesel fuel for cleaning parts. Use solvents that will not start on fire.



45A-T01374 T301 1112 280501

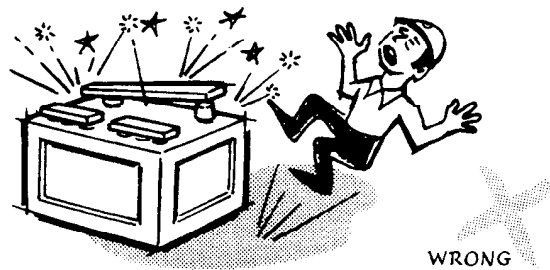
OBSERVE BATTERY PRECAUTIONS

Do not put metal objects across terminals to check the battery charge.

When you charge a battery, be sure there is enough ventilation.

Keep sparks and flames away from batteries.

Do not smoke near battery.



45A-T27506 T301 1113 280281

GENERAL SPECIFICATIONS

480C FORKLIFT

(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 16.9-24 drive tires, 11L-15 steering tires, pallet fork, and standard equipment.)

Power (@2200 engine rpm):

	SAE	DIN
Gross	56 hp (42 kW)	
Net	52 hp (39 kW)	55 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. Gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500 ft. altitude and 85°F. temperature and DIN 70 020 standard conditions of 760 mm Hg barometer (sea level) and 20°C. temperature.

Engine: John Deere 4-cylinder diesel, valve-in-head, 4-stroke cycle
 Bore and stroke 4.02 x 4.33 in. (102 x 110 mm)
 Piston Displacement 219 cu. in. (3.589 L)
 Compression ratio 16.2 to 1
 Max. torque @ 1 400 rpm 142 lb-ft (193 N-m)
 (22.1 kg-m)

NACC or AMA (U.S. Tax) horsepower 25.65
 Main bearings 5
 Lubrication Pressure system w/full-flow filter
 Cooling Pressurized w/thermostat and fixed bypass
 Fan Suction
 Air cleaner Dry
 Electrical system 12 volt w/alternator
 Battery (12 volt) Reserve capacity: 110 minutes

Clutch Disconnect . . . Hand operated, single 10 in. (254 mm) plate

Transmission 8-speed transmission w/hydraulically actuated no-clutch direction reverser.

Gear:	Travel Speeds:			
	mph		km/h	
	Fwd.	Rev.	Fwd.	Rev.
1	1.6	1.4	2.6	2.3
2	2.3	2.0	3.7	3.2
3	3.5	3.0	5.6	4.8
4	4.8	4.1	7.7	6.6
5	6.3	5.4	10.1	8.7
6	9.0	7.8	14.5	12.6
7	13.5	11.6	21.7	18.7
8	18.7	16.1	30.1	25.9

Final Drives Inboard, planetary
Brakes Hydraulically actuated, wet-disk. Foot-operated individually or simultaneously.

Steering Power (hydrostatic)
 Turning radius (brake applied w/o fork) 10 ft. 10 in. (3.30 m)
 Turning clearance (brake applied w/o fork) 22 ft. 6 in. (6.86 m)
 Wheel rotation, max. left to max. right 3 turns

T301 III14 280581

General Specifications

Tires:

Drive

16.9-24, 8 ply rating, R4
 19.5L-24, 8 ply rating,
 R4, low profile,
 tubeless

Steering

11L-15, 8 ply rating, F3
 7.50/8.00-16,
 10 ply rating, F3

Wheel Tread (front and rear) 62 in. (1.58 m)

Dimensions:

Overall width 6 ft. 7 in. (2.01 m)
 Ground clearance, min. 1 ft. 2 in. (356 mm)
 Reach from center line of
 drive wheels to front of
 fork carriage 2 ft. 8 in. (813 mm)

Capacities:

	U.S.	Imp.	Liters
Cooling system	3.0 gal.	2.5 gal.	11.4
Fuel tank	19.5 gal.	16.3 gal.	73.8
Engine lubrication, including filter	1.5 gal.	1.3 gal.	5.7
Hydraulic system	12.5 gal.	10.4 gal.	47.3

SAE Operating Weight (w/required counterweights):

14 ft., 6000-lb capacity11,440 lb. (5190 kg)
 21 ft. 6 in., 5000-lb. capacity ...11,310 lb. (5129 kg)
 28 ft., 5000-lb. capacity12,160 lb. (5513 kg)

Shipping Weight:

Two 4-ft. (1.22 m) 5000-lb.
 (2268 kg) pallet tines 350 lb. (159 kg)
 Two 4-ft. (1.22 m), 6000-lb.
 (2722 kg) pallet tines 425 lb. (193 kg)

Additional Standard Equipment:

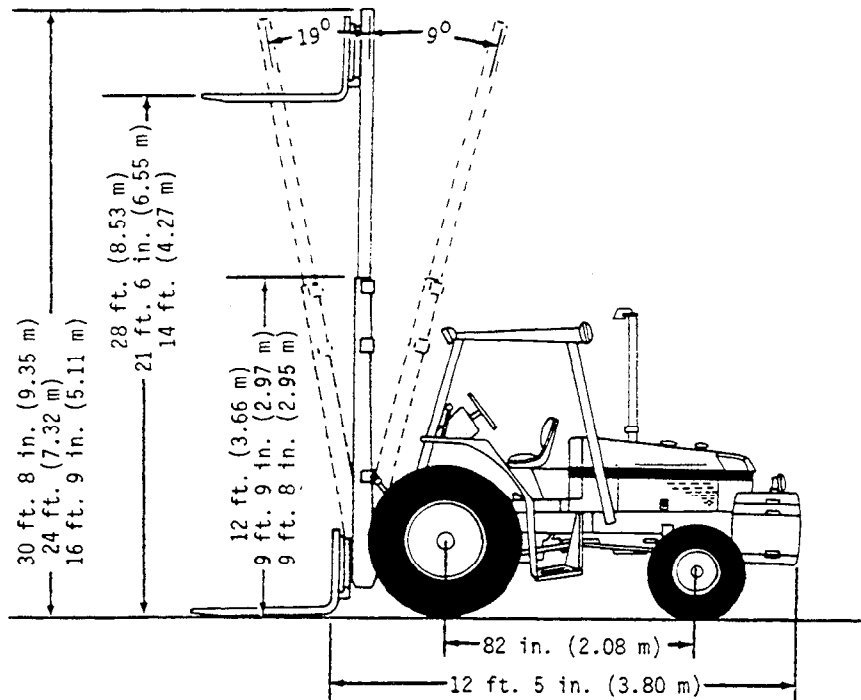
Electric hour meter
 Under-hood muffler w/extension and rain cap
 Cold weather starting aid
 Overhead guard
 Hand throttle
 Foot throttle
 Differential lock
 Fenders
 Fuel filter
 Key switch safety start
 Antifreeze
 Fuel gauge
 Oil pressure indicator light
 Alternator charge indicator light
 Coolant temperature gauge
 Appropriate counterweight
 Lights
 Transistorized voltage regulator
 Horn
 Air cleaner restriction indicator

Special Equipment:

Engine coolant heater
 Vandal protection
 Load backrest extension
 Parking brake

T30.I III15 290581

General Specifications



Operating Information	Maximum Lifting Height					
	14 ft. (4.27 m)			21 ft. 6 in. (6.55 m)		28 ft. (8.53 m)
Max. lift capacity*	4000 lb. (1815 kg)	6000 lb. (2722 kg)	Standard and free lift	5000 lb. (2268 kg)	4000 lb. (1815 kg)	5000 lb. (2268 kg)
Lift Capacity at full height*	4000 lb. (1815 kg)	6000 lb. (2722 kg)		2500 lb. (1134 kg)	2500 lb. (1134 kg)	1000 lb. (454 kg)
Side-shift . . . 3 in. (76 mm) to right and left of center	Yes			Yes		No
Rate of lift @ 2200 engine rpm (max. load)	52 fpm 15.9 (m/min)			76 fpm (23.2 m/min)		76 fpm (23.2 m/min)
Rate of lift @ 2200 engine rpm (empty)	55 fpm (16.8 m/min)			86 fpm (26.3 m/min)		86 fpm (26.3 m/min)
Rate of drop (max. load)	29 fpm (8.8 m/min)			54 fpm (16.5 m/min)		54 fpm (16.5 m/min)
Rate of drop (empty)	33 fpm (10.1 m/min)			68 fpm (20.7 m/min)		68 fpm (20.7 m/min)

*Measured at 24 in. (610 mm) from heel of fork with load centered

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