

John Deere JD480 Forklift



Technical Manual

TM1016
LITHO IN U.S.A.

JD480 FORKLIFT

TECHNICAL MANUAL

TM-1016 (Dec-73)

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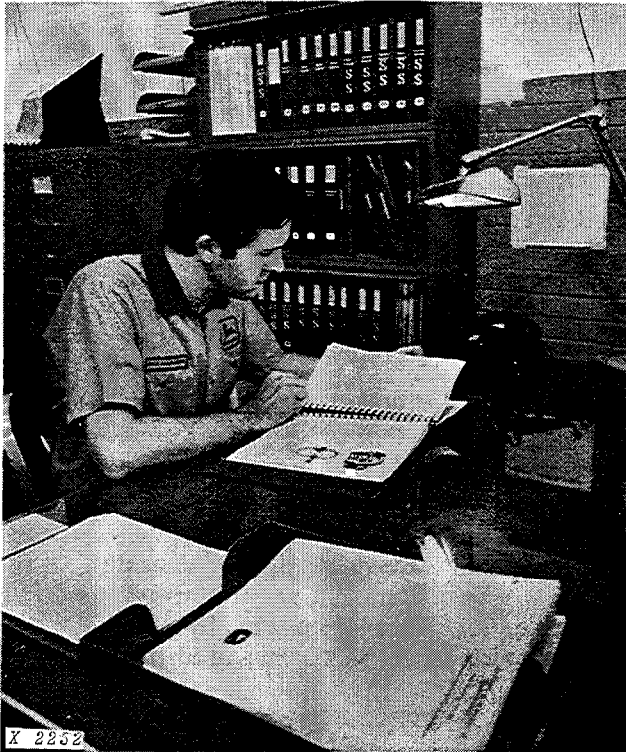
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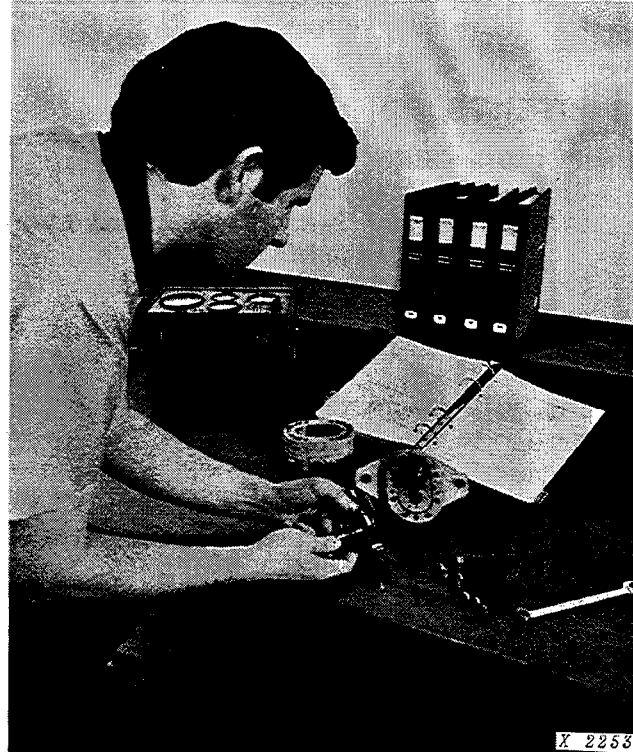
The specifications and design information contained in this manual were correct at the time this machine was manufactured. It is John Deere's policy to continually improve and update our machines. Therefore, the specifications and

design information are subject to change without notice. Wherever applicable, specifications and design information are in accordance with SAE and IEMC standards.

INTRODUCTION



Use FOS Manuals for Reference



Use Technical Manuals for Actual Service

This technical manual is part of a twin concept of service:

- **FOS Manuals**—for reference
- **Technical Manuals**—for actual service

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

Fundamentals of Service (FOS) Manuals cover basic theory of operation, *fundamentals* of trouble shooting, *general* maintenance, and *basic* types of failures and their causes. FOS Manuals are for training new men and for reference by experienced men.

Technical Manuals are concise service guides for a *specific* machine. Technical Manuals are on-the-job guides containing only the vital information needed by a journeyman mechanic.



When a serviceman should refer to a FOS Manual for more information, a FOS symbol like the one at the left is used in the TM to identify the reference.

Some features of this technical manual:

- *Table of contents at front of manual*
- *Exploded views showing parts relationship*
- *Photos showing service techniques*
- *Specifications grouped for easy reference*

This technical manual was planned and written for you—a journeyman mechanic. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.



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

Section 10 GENERAL

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Group 5 SPECIFICATIONS

FORKLIFT DESIGN

The JD480 Forklift is designed for handling, lifting, and stacking materials and other miscellaneous products either loose, strapped, bundled, or on pallets.

All references in this manual to front, rear, left, and right are determined by facing in the direction of the forklift forward travel.

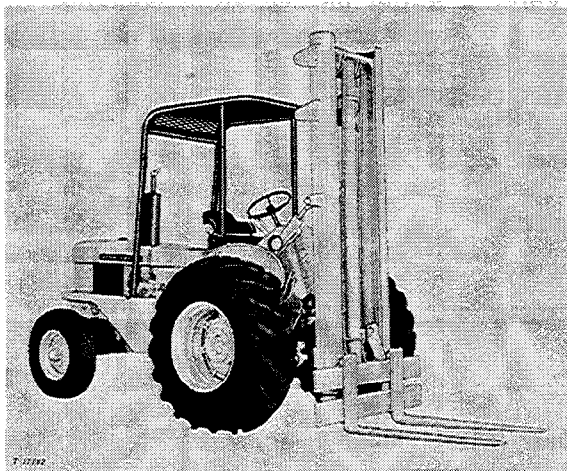


Fig. 1-JD480 Forklift

SPECIFICATIONS

TRAVEL SPEEDS (mph at 2500 engine rpm with 14.9 - 28 tires, without slip).

ENGINE

	Diesel	Gasoline
Flywheel horsepower (observed at 2500 rpm)	59.0	59.0
Max. torque in ft-lbs. at 1300 rpm (observed-nominal)	145.0	145.0
N.A.C.C. or A.M.A. horsepower rating for tax purposes	23.84	23.84
Number of cylinders	4	4
Bore and stroke (inches)	3.86 x 4.33	3.86 x 3.86
Displacement (inches)	202.2	180.0
Compression ratio	16.7 to 1	7.5 to 1*
Firing order	1-3-4-2	1-3-4-2

Gear	Forward	Reverse
1st	1.7	1.4
2nd	2.3	2.0
3rd	3.4	2.9
4th	4.3	4.1
5th	6.4	5.5
6th	9.0	7.8
7th	13.4	11.6
8th	18.8	16.2

ELECTRICAL SYSTEM

Battery voltage (nominal)	12 volts
Battery specific gravity at full charge (corrected to 80° F.)	1.260 0.010
Battery terminal grounded	Negative
Alternator regulation	Voltage regulator
Ignition system type	Battery-distributor
Spark plugs	
Size	14 mm

TRANSMISSION

Constant mesh, 8 forward speeds; helical gears and sliding collars; mechanical shuttle.

REVERSER

Hydraulic wet clutches, no clutching required. Provides reverse speeds for gear selections 1 through 8 which are 16% slower than corresponding forward speeds.

DISCONNECT CLUTCH

11-inch dry-type clutch operated by a pedal (early units) or a hand disconnect lever (later units).

*8.6 to 1 with high-altitude pistons

DRIVE AXLES

Two planetary reduction drive axles with spiral bevel gear drive differential.

FORKLIFT HYDRAULIC SYSTEM

Type - Open center, constant volume system to operate forklift functions.

Pump - Engine crankshaft driven, positive displacement, gear-type pump.

STEERING AND BRAKES HYDRAULIC SYSTEMS

Type - Open center, constant volume system to operate the forklift power steering and hydraulic brake systems.

Pump - Engine drive, positive-displacement gear type pump.

Relief

Valve - Relief mechanism is contained in the metering valve located at the pump.

TIRE OPTIONS

Front	14.9 - 28, 8 PR
	16.9 - 24, 8 PR
Rear	7.50 - 16, 10 PR
	11.00L - 15, 6 PR

WHEEL TREADS

Front	62 in.
Rear (with 7.50-16 tires)	56 in.
Rear (with 11.00L-15 tires)	62 in.

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