



830 TRACTOR



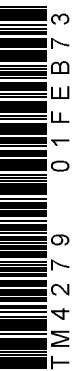
JOHN DEERE

TECHNICAL MANUAL 830 TRACTOR

TM4279 (01FEB73) English

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ENGLISH



Tractor-830

Technical Manual

TM-4279 (Feb-73)

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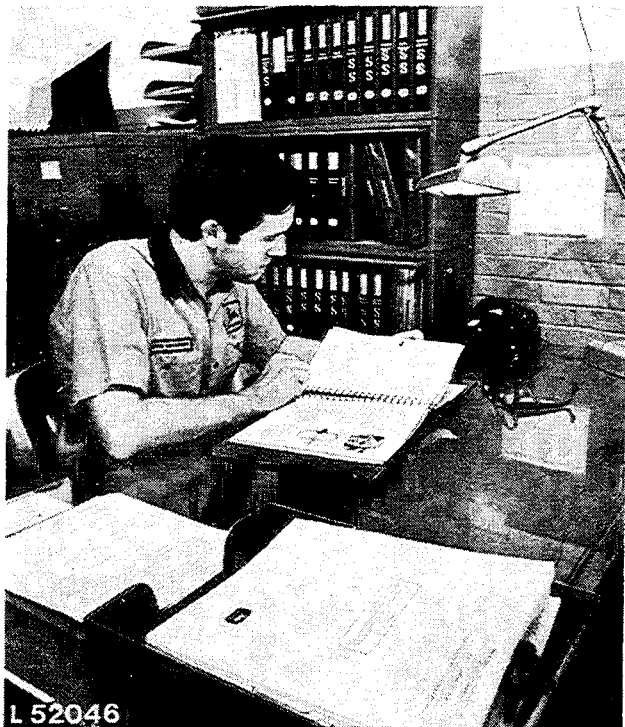
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INTRODUCTION



Use FOS Manuals for Reference

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.



Use Technical Manuals for Actual Service

Some features of this technical manual:

- *Table of contents at front of whole Manual.*
- *Contents at front of each Section*
- *Exploded views showing parts relationship*
- *Photos showing service techniques*
- *Specifications at end of each Group*
- *Special tools at end of each Group*

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 indicates 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.

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Group 5 SPECIFICATIONS

SERIAL NUMBERS

The engine serial number is stamped into the name plate at the lower right of the front cylinder block.

NOTE: If ordering engine parts, indicate all digits of the serial number on the name plate.

The name plate showing the tractor serial number is located on the right-hand side of the front support.

NOTE: If ordering tractor parts, (excluding engine parts), indicate all digits of the serial number on the name plate.

MODEL NUMBERS

The injection pump, injection nozzles, the alternator, starter and the hydraulic pump have model numbers to facilitate identification of different makes of a given unit.

SPECIFICATIONS

ENGINE

Number of cylinders 3

Cylinder liner bore 98 mm (3.86 in.)

Stroke 110 mm (4.33 in.)

Displacement 2490 cm³ (152 cu.in.)

Compression ratio 16.7 : 1

Maximum torque at
1400 rpm 14.1 mkp (102 ft.lbs.)

Firing order 1 - 2 - 3

Valve clearance (engine hot or cold)

Intake valve 0.35 mm (0.014 in.)

Exhaust valve 0.45 mm (0.018 in.)

Fast idle 2545 rpm

Slow idle 650 rpm

Working speed range 1400 to 2400 rpm

PTO power 35 HP (26.2 kW)
(at 2400 rpm engine speed and
624 rpm powershaft speed)

ENGINE CLUTCH

Dual dry disk clutch, foot-operated.

ELECTRICAL SYSTEM

Batteries 2 x 12 volts,
55 ampere-hours

or 1 x 12 volts,
70 ampere-hours

Starter 12 volts, 4 HP

Alternator 14 volts, 28 amps.

Battery terminal grounded negative

* With the engine run in above 100 hours of operation) and having reached operating temperature (engine and transmission); measured by means of a dynamometer. Permissible variation ± 5%.

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