



4430 and 4630 Tractors



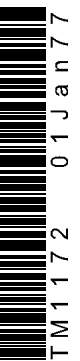
TECHNICAL MANUAL 4430 and 4630 Tractors

TM1172 (01Jan77) English



John Deere Tractor Works
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4430 AND 4630 TRACTORS TECHNICAL MANUAL TM-1172 (JAN-77)

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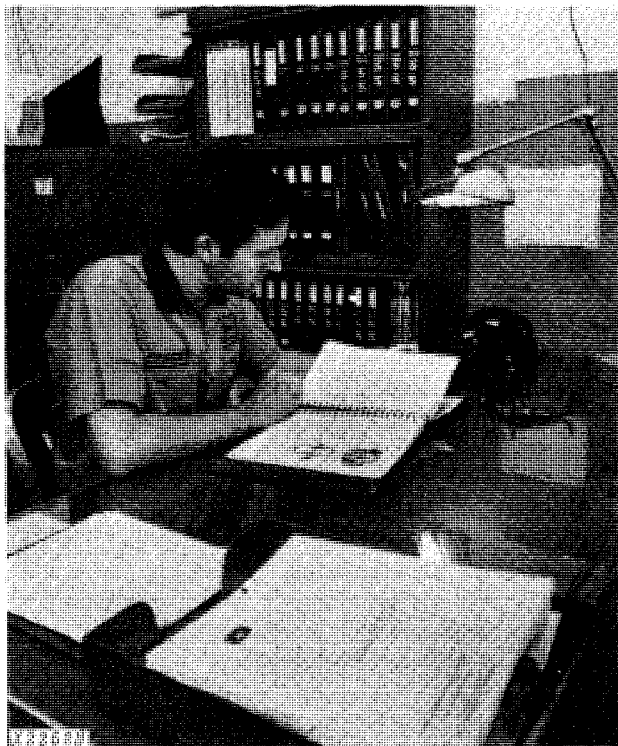
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All information, illustrations and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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 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 GENERAL TRACTOR SPECIFICATIONS

HORSEPOWER:*

4430	125.88 hp (93.87 kW)
4630	150.66 hp (112.43 kW)

ENGINE:

Type	6-cylinder, in-line, valve-in-head, diesel, turbocharged
Bore and stroke	4-1/4 x 4-3/4 in. (108 x 121 mm)
Displacement	404 cu. in. (6620 cm ³)
Compression ratio	15.5 to 1
Firing order	1-5-3-6-2-4
Valve clearance	In.-0.018 in. (0.46 mm) Ex.-0.028 in. (0.71 mm)
Injection pump timing	TDC
Engine Speeds:	
Working range	1500 to 2200 rpm
Maximum transport speed	2400 rpm
Engine speeds:	
Slow idle	800 rpm
Fast idle	2400 rpm

*Official test: hp. measured at the PTO at 2200 engine rpm.

LUBRICATION SYSTEM:..... Full pressurized
 with full-flow micronic oil
 filter, water cooled oil
 cooler, and bypass valves
 for filter and cooler.

FUEL SYSTEM:

Type	Diesel, direct injection
Filter	Two-stage with replaceable impregnated paper element.
Injection pump type	Multiple plunger, in-line
Air cleaner	Dry type, with safety element

COOLING SYSTEM:

Type	Pressurized with centrifugal pump
Temperature control	Heavy-duty thermostats



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for your reading.
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