

John Deere 1500 Powr-Till Seeder



JOHN DEERE

TECHNICAL MANUAL John Deere 1500 Powr-Till Seeder

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ENGLISH



1500 POWR-TILL SEEDER

Technical Manual

TM-1152 (Mar-77)

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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 mechanics and for reference by experienced mechanics.

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

When a service person should refer to a FOS Manual for more information, a FOS note is used in the TM to identify the reference.

Litho in U.S.A.

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—an experienced 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.



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.

"Right-hand" and "left-hand" sides are determined by facing the direction the seeder will travel when in use.


Because John Deere sells its products worldwide, U.S. units of measure are shown with their respective Metric equivalents throughout this operator's manual. These equivalents are the SI (International System) Units of Measure.

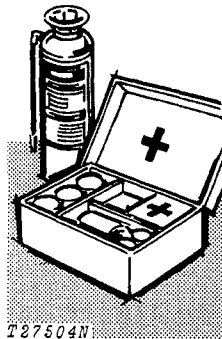
SAFETY AND YOU



T27999N

INTRODUCTION

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



T27504N

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.

PERSONAL SAFETY

Avoid working on equipment with the tractor engine running. If it is necessary to make checks with the engine running, **ALWAYS USE TWO PEOPLE**—one, the operator, at the controls, the other person checking so as to be visible to the operator on the tractor seat. **KEEP HANDS AWAY FROM MOVING PARTS.**



H23440N

Always avoid loose clothing or any accessory—flopping cuffs, dangling neckties and scarves—that can catch in moving parts and put you out of work.

Always wear your safety glasses while on the job.

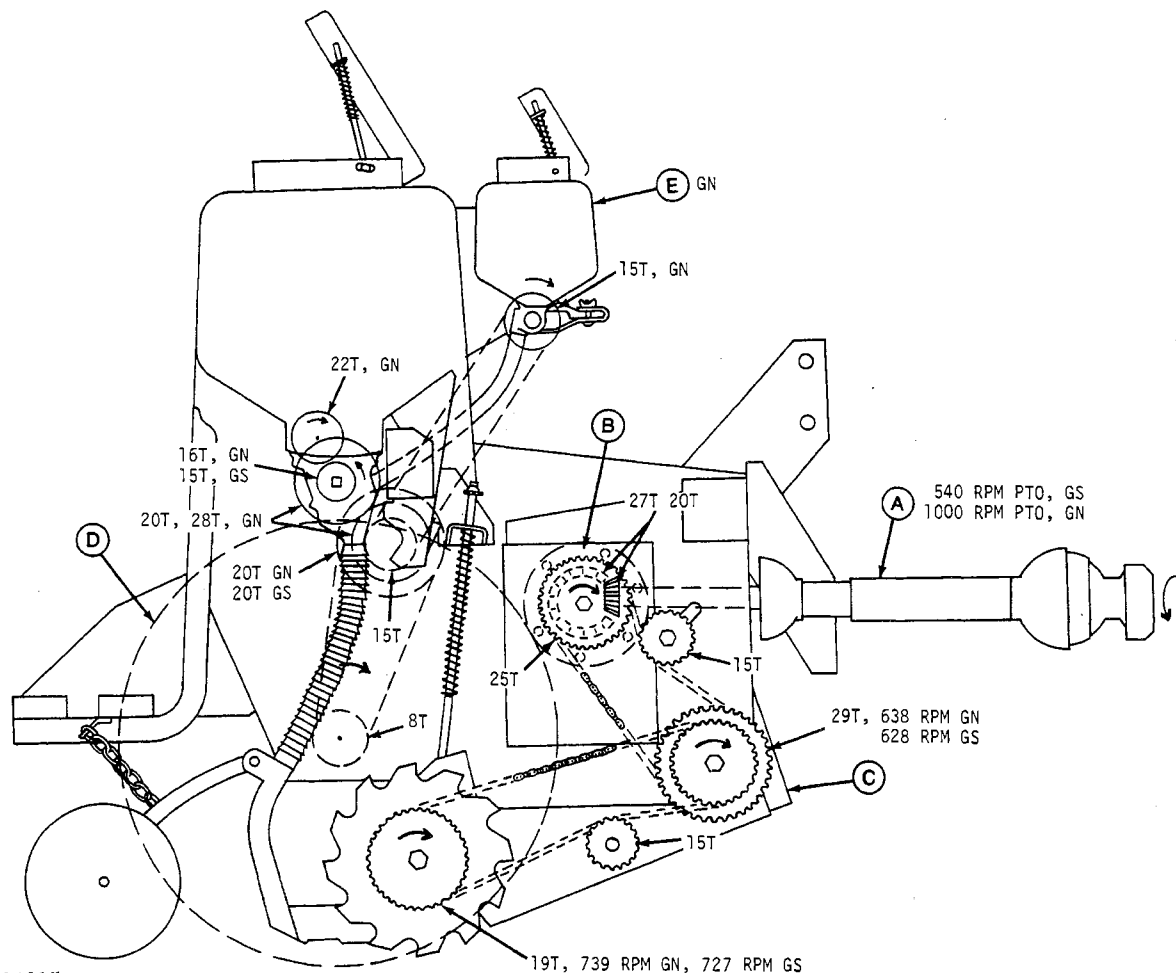
FLUIDS UNDER PRESSURE

Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and lines, pipes and hoses are not damaged.

Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected 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.

GENERAL INFORMATION DESCRIPTION



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- | | | | |
|-------------------|---------------------|----------------------------|---------------------|
| A—Powr-Gard Drive | C—Cutter Wheel Unit | E—Grass Seed Box | PTO—Power Take-Off |
| B—Slip Clutch | D—End Wheel | RPM—Revolutions Per Minute | T—Teeth |
| | | | GN—Grain Model Only |
| | | | GS—Grass Model Only |

Power Train Diagram - 1500 Powr-Till Seeder

There are two models of the 1500 Powr-Till Seeder; a grass model and a grain model. The grass model has a 2-1/2 bushel (88 l) seed box and must be powered by a 540 rpm PTO. The grain model holds 10 bushels (352 l) and must be powered by a 1000 rpm PTO. A grass seed attachment (E) may be added to the grain model to make a combination grain and grass seeder (as illustrated).

The PTO drive is a Powr-Gard drive shaft (A), which fully protects the drive line from the tractor to the implement gear case. Power is transmitted from the gear case by a double roller chain to two hex. line shafts, which are joined. A double-disk slip clutch (B) is located on the gear case output shaft to protect the gear case and the units. Each cutter wheel unit (C) is driven by a fully enclosed lubricated roller chain.

The seed metering system is ground driven by the right-hand end wheel (D), and uses accurate and dependable fluted force feeds.

The power-driven cutter wheels till an area 1/2 to 3/4-inch (13-19 mm) wide. The cutter wheels are mounted in units of two wheels each. Each unit pivots about the two-piece line shaft and floats vertically. An adjustable down pressure spring is mounted on each unit.

The seeding rate is controlled by a single lever on both the grain and grass models. Seeds drop through rubber tubes into the seed furrow. Furrow depth is adjustable for varying moisture conditions and/or seed requirements, usually 3/4 to 1-inch (19 to 25 mm) deep.

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