



# 100 Stack Wagon



JOHN DEERE

## TECHNICAL MANUAL 100 Stack Wagon

TM1144 (01NOV77) English

**Des Moines Works**  
**TM1144 (01NOV77)**

LITHO IN U.S.A.  
ENGLISH



# 100 STACK WAGON Technical Manual TM-1144 (Nov-77)

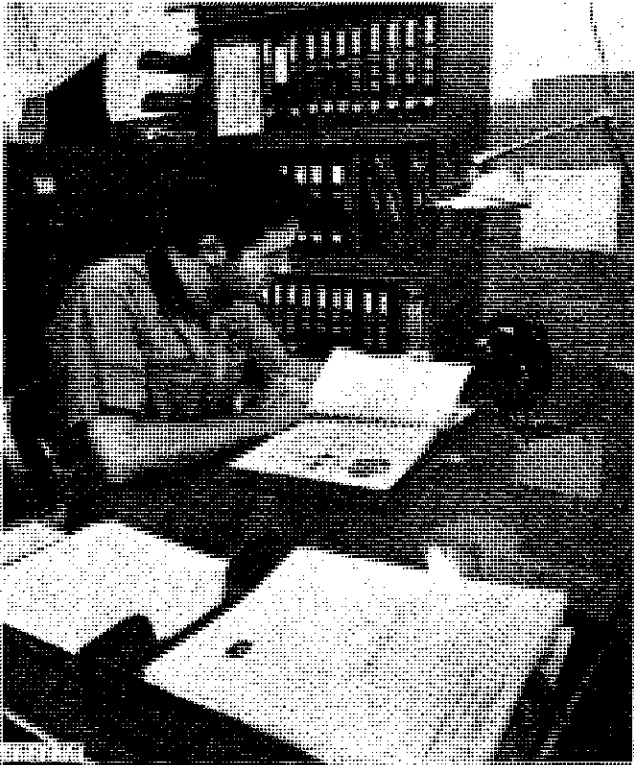
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## INTRODUCTION



*Use FOS Manuals for Reference*

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

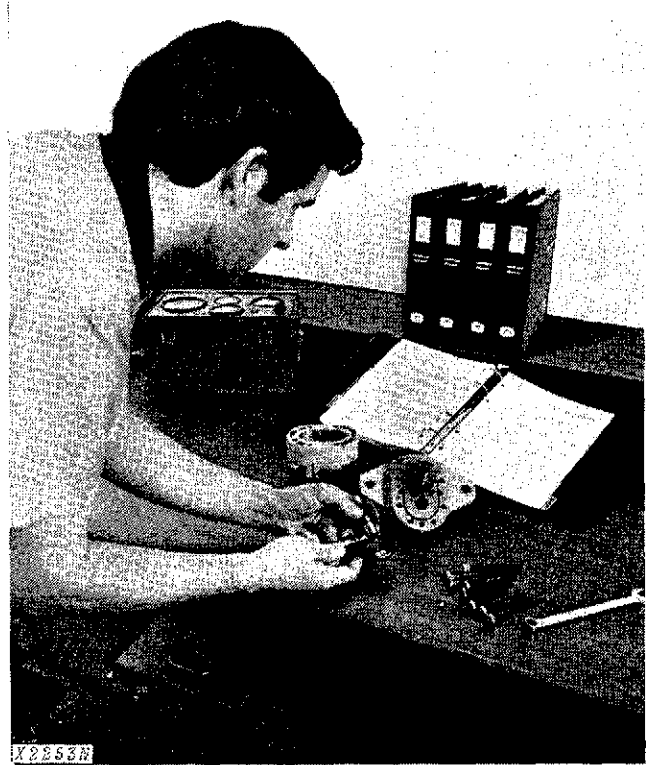
- **FOS Manuals—**for reference
- **Technical Manuals—**for actual service

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 people and for reference by experienced technicians.

*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 technician.

**NOTE:** *Whenever the service technician may need to refer to a FOS Manual for additional information, a specific manual, chapter and/or page number is given.*



*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—an experienced technician. 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.

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

### FOR YOUR CONVENIENCE


Vertical lines appear in the margins of many of the pages. These lines identify new material and revised information that affects specifications, procedures, and other important instructions.

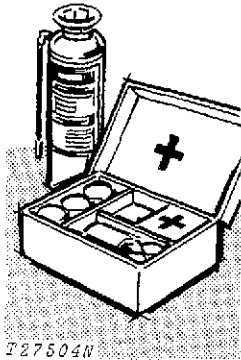
## SAFETY AND YOU



T27993N

### 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

Shut off tractor engine and remove switch key before working on the stack wagon, when it is attached to the tractor.

If it is necessary to make checks with the tractor 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.

RIGHT



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.

Before removing any housing covers, stop engine. Take all objects from your pockets which could fall into the opened housings. Don't let adjusting wrenches fall into opened housings.

Don't attempt to check belt tension while the engine is running.

### 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

The John Deere 100 Stack Wagon consists of three basic units: the pickup unit, the compression chamber, and the unloading mechanism.

The stack wagon rotor and unloading drive are driven by a 540-rpm PTO of a 60 HP or larger tractor. A double-disk friction slip clutch is located between the gear case and the rotor drive. It is designed to slip if the rotor assembly encounters an obstruction that would cause more than 300 ft-lbs (408 Nm) of torque to be transferred to the clutch.

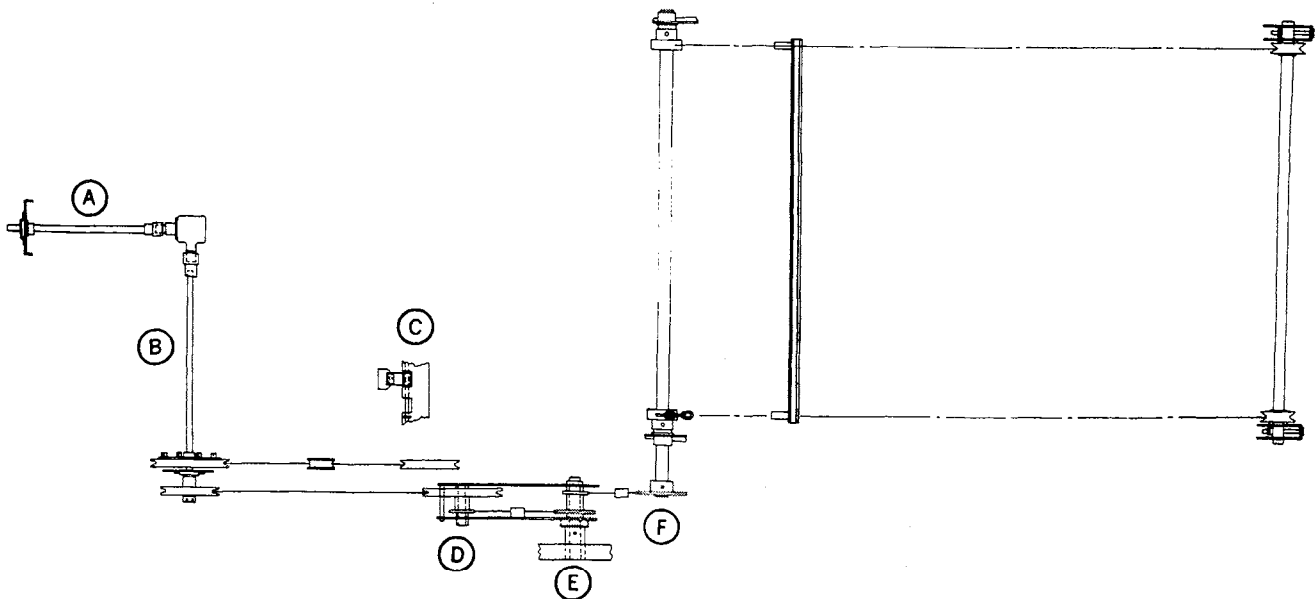
The pickup is raised and lowered by a single- or double-acting remote hydraulic cylinder (customer furnished) that is controlled by one of the tractor control levers.

The compression chamber canopy is raised and lowered by double-acting cylinders that are controlled by another of the tractor control levers. Material placement in the wagon is controlled by a deflector which is raised and lowered by a canopy actuated cable.

The door is opened and closed by opening a valve with the control rope—allowing compression chamber cylinder oil to operate the door cylinder. Only when the door is open can the unloading chain move the stack out of the wagon—the unloading speed controlled by the PTO lever.

## SERIAL NUMBER

The serial number for the stack wagon is located on the front right-hand side of the main frame.



N29802N

A—Input Shaft, 540 RPM  
B—Output Shaft, 1002 RPM  
C—Rotor, 1537 RPM

D—Unloading Sheave, 387 RPM\*  
E—Unloading Sprocket Assembly, 145 RPM\*  
F—Unloading Log Chain, 72 RPM\*

(\* - with tractor engine running at 1000 rpm)

Fig. 1-Drive Train Diagram

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