

820 Mower-Conditioner

**John Deere Ottumwa Works
TM1547 (19FEB01)**

LITHO IN U.S.A.
ENGLISH

Introduction

FOREWORD

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.



This is the safety-alert symbol. When you see this symbol on the machine or in this manual, be alert to the potential for personal injury.

The technical manual contains two types of information: diagnostics and repair. Diagnostic groups help you identify the majority of routine failures quickly. Repair groups tell how to repair the components.

Information is organized in groups for the various components requiring service instruction. At the beginning of each group are summary listings of all applicable essential tools, service equipment and tools, other materials needed to do the job, service parts kits, specifications, wear tolerances, and torque values.

Binders, binder labels, and tab sets can be ordered by John Deere dealers direct from the John Deere Distribution Service Center.

This manual is part of a total product support program.

FOS MANUALS—REFERENCE

TECHNICAL MANUALS—MACHINE SERVICE

COMPONENT MANUALS—COMPONENT SERVICE

Fundamentals of Service (FOS) Manuals cover basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes. FOS Manuals are for training new personnel and for reference by experienced technicians.

Technical Manuals are concise guides for specific machines. Technical manuals are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Component Technical Manuals are concise service guides for specific components. Component technical manuals are written as stand-alone manuals covering multiple machine applications.

Dealer Presentation Sheet

JOHN DEERE DEALERS

IMPORTANT: Please remove this page and route through your service department.

This is a complete revision for TM1547, 820 Mower-Conditioners.

Listed below is a brief explanation of "WHAT" was changed and "WHY" it was changed.

This manual was revised to correct and update:

Section 20 —For miscellaneous art and text changes throughout this section with the following major changes:

- Group 20:
 - Procedure for replacing Power-Cushion drive shaft has been expanded to include additional information for installing rear bearing jam nut.
- Group 25:
 - Procedures to remove and install slip clutch has been revised to include changes for machines (Serial No. 986001—).

Section 30 —For miscellaneous art and text changes throughout this section with the following major changes:

- Group 15:
 - New procedures to install guards and adjust hold-downs for machines (Serial No. 986001—) have been added.

Section 50 —For miscellaneous art and text changes throughout this section with the following major changes:

- Group 15:
 - New procedure to remove and install left roll arm for machines (Serial No. 986001—) has been added.
 - New procedure to replace idler gear bearings and seals for machines (Serial No. 986001—) has been added.
- Group 20:
 - New procedures to remove and install upper and lower rolls for machines (Serial No. 986001—).
 - New procedure to adjust roll alignment for machines (Serial No. 986001—) has been added.
 - To revise procedure for adjusting roll pressure.

Section 60 —For miscellaneous art and text changes throughout this section with the following major changes:

- Group 15:
 - New procedure to adjust windrow width for machines (Serial No. 986001—) has been added.

Section 70 —For miscellaneous art and text changes throughout this section with the following major changes:

- Group 20 (new):
 - Procedures to repair the optional hydraulic center link used on machines (Serial No. 986001—) have been added.

EX,1547,DLR -19-14DEC95

**Thanks very much for your reading,
Want to get more information,
Please click here, Then get the complete
manual**

JustClickHere 

NOTE:

**If there is no response to click on the link above,
please download the PDF document first, and then
click on it.**

**Have any questions please write to me:
admin@servicemanualperfect.com**

Dealer Presentation Sheet

Contents

SECTION 10—GENERAL

- Group 05—Safety
- Group 10—Specifications
- Group 15—General Information
- Group 20—Lubrication

- Group 10—Diagnosing Malfunctions
- Group 15—Hydraulic Lift Cylinders
- Group 20—Hydraulic Center Link

SECTION 20—POWER TRAIN

- Group 05—General Information
- Group 10—Diagnosing Malfunctions
- Group 15—PTO Hookup
- Group 20—Driveline
- Group 25—Slip Clutch
- Group 30—Main Drive Gear Case
- Group 35—Cutterbar Drive Gear Case
- Group 40—Miscellaneous Drive Components

SECTION 80—TOOLS

- Group 05—Special Tools
- Group 10—Fabricated Tools

Index

SECTION 30—CUTTING COMPONENTS

- Group 05—General Information
- Group 10—Diagnosing Malfunctions
- Group 15—Cutterbar

SECTION 40—PLATFORM

- Group 05—General Information
- Group 10—Diagnosing Malfunctions
- Group 15—Platform
- Group 20—Reel

SECTION 50—CONDITIONER

- Group 05—General Information
- Group 10—Diagnosing Malfunctions
- Group 15—Roll Arms and Bearings
- Group 20—Rolls

SECTION 60—CARRIER FRAME

- Group 05—General Information
- Group 10—Diagnosing Malfunctions
- Group 15—Carrier Frame and Components
- Group 20—Tongue
- Group 25—Wheel Hub and Support
- Group 30—Electrical

SECTION 70—HYDRAULICS

- Group 05—General Information

All information, illustrations and specifications in this 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.

TM1547-19-19FEB01

COPYRIGHT© 1995
DEERE & COMPANY
Moline, Illinois
All rights reserved
A John Deere ILLUSTRATION® Manual
Previous Editions
Copyright 1994 Deere & Company

Contents

10

20

30

40

50

60

70

80

INDX

Contents

Page

Group 05—Safety 10-05-1

Group 10—Specifications

Machine Specifications 10-10-1

Cap Screw Torque Values 10-10-3

Group 15—General Information

Machine Description 10-15-1

Group 20—Lubrication

Main Drive Gear Case Oil 10-20-1

Cutterbar Drive Gear Case Oil 10-20-1

Grease 10-20-2

HANDLE FLUIDS SAFELY—AVOID FIRES

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



DX,FLAME -19-04JUN90

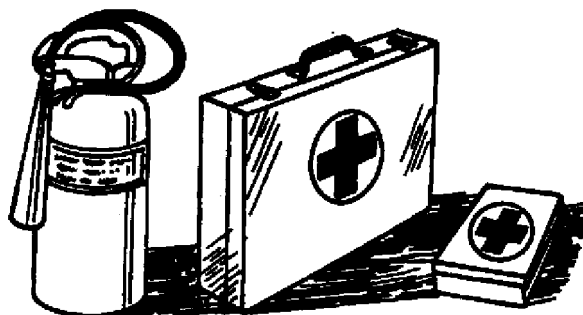
TS227 -UN-23AUG88

PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



DX,FIRE2 -19-03MAR93

TS291 -UN-23AUG88

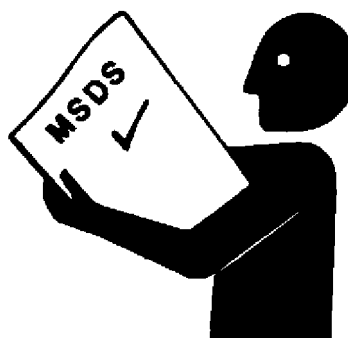
HANDLE CHEMICAL PRODUCTS SAFELY

Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with John Deere equipment include such items as lubricants, coolants, paints, and adhesives.

A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques.

Check the MSDS before you start any job using a hazardous chemical. That way you will know exactly what the risks are and how to do the job safely. Then follow procedures and recommended equipment.

(See your John Deere dealer for MSDS's on chemical products used with John Deere equipment.)



TS1132 -UN-26NOV90

DX,MSDS,NA -19-03MAR93

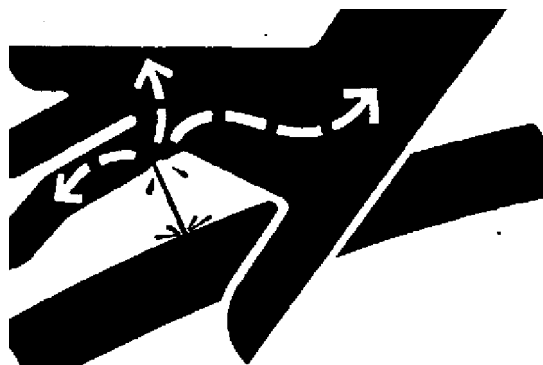
AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.



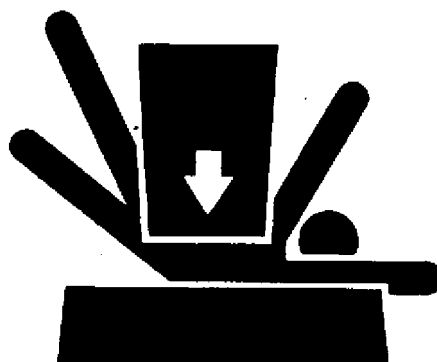
X9811 -UN-23AUG88

DX,FLUID -19-03MAR93

SUPPORT MACHINE PROPERLY

Always lower the attachment or implement to the ground before you work on the machine. If you must work on a lifted machine or attachment, securely support the machine or attachment.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.



DX,LOWER -19-04JUN90

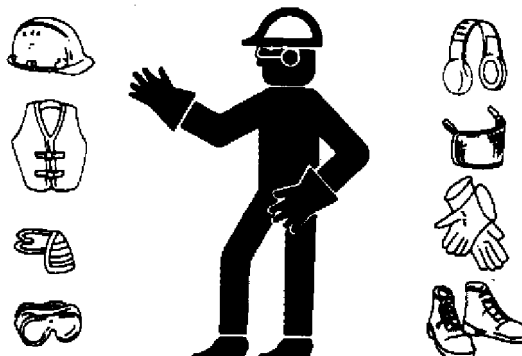
WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



DX,WEAR -19-10SEP90

STAY CLEAR OF ROTATING DRIVELINES

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

Wear close fitting clothing. Stop the engine and be sure PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

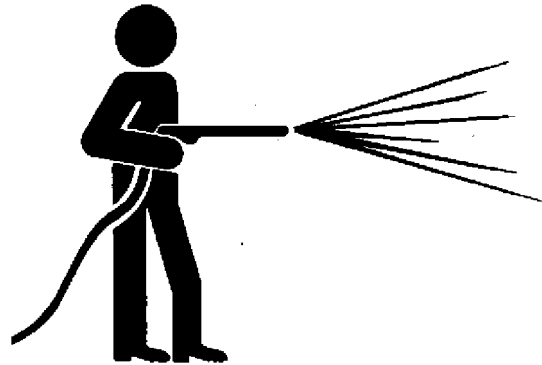


DX,PTO -19-12SEP95

WORK IN CLEAN AREA

Before starting a job:

- Clean work area and machine.
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.



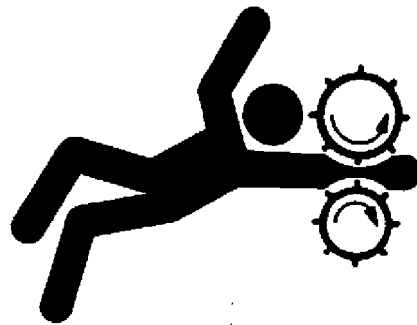
DX,CLEAN -19-04JUN90

T6642EJ -UN-18OCT88

SERVICE MACHINES SAFELY

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



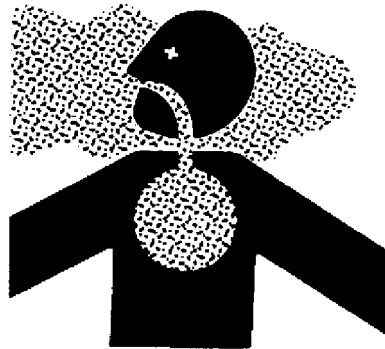
DX,LOOSE -19-04JUN90

TS228 -UN-23AUG88

WORK IN VENTILATED AREA

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.



DX,AIR -19-04JUN90

TS220 -UN-23AUG88

ILLUMINATE WORK AREA SAFELY

Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.

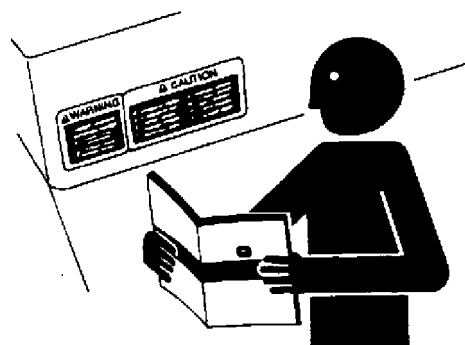


DX,LIGHT -19-04JUN90

TS223 -UN-23AUG88

REPLACE SAFETY SIGNS

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.



DX,SIGNS1 -19-04JUN90

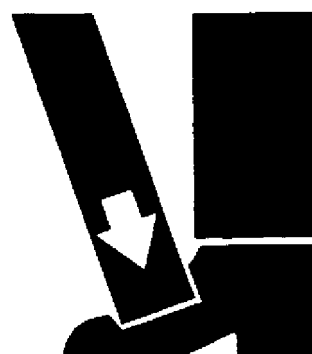
TS201 -UN-23AUG88

10
05
5

USE PROPER LIFTING EQUIPMENT

Lifting heavy components incorrectly can cause severe injury or machine damage.

Follow recommended procedure for removal and installation of components in the manual.



DX,LIFT -19-04JUN90

TS226 -UN-23AUG88

REMOVE PAINT BEFORE WELDING OR HEATING

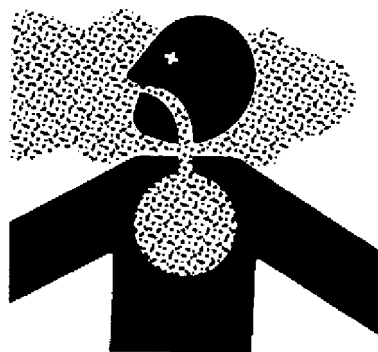
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

Remove paint before welding or heating:

- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.



DX,PAINT -19-03MAR93

TS220 -UN-23AUG88

AVOID HEATING NEAR PRESSURIZED FLUID LINES

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can be accidentally cut when heat goes beyond the immediate flame area.



DX,TORCH -19-03MAR93

TS953 -UN-15MAY90

SERVICE TIRES SAFELY

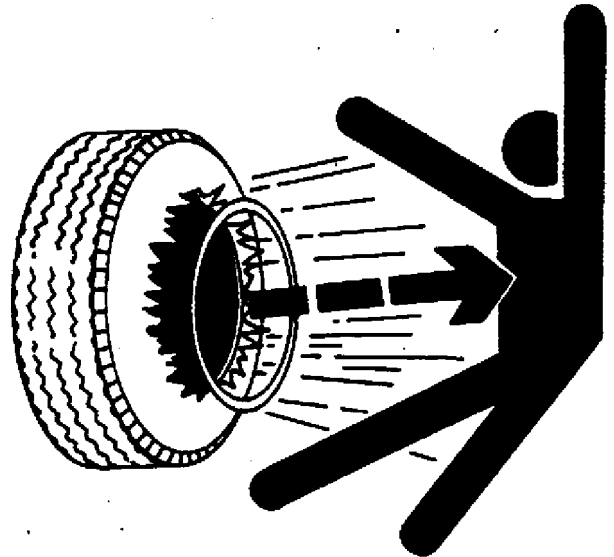
Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.



DX,RIM -19-24AUG90

TS211 -UN-23AUG88

PRACTICE SAFE MAINTENANCE

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.



DX,SERV -19-03MAR93

TS218 -UN-23AUG88

USE PROPER TOOLS

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only service parts meeting John Deere specifications.



DX,REPAIR -19-04JUN90

TS779 -UN-08NOV89