9400, 9500, and 9600 Combines Diagnosis and Tests

For complete service information also see:

9400, 9500 and 9600 Combines Repair. . . TM1401
Cutting Platforms, Corn Heads and Row Crop Heads TM1581
6359 Engine CTM4
6076 Engine (—499999) CTM6
6068 Engine CTM8
Cam Lobe Motors CTM19
6076 Engine (500000—) CTM42
Engine Accessories CTM67
Electronic Fuel Injection CTM68
Alternators and Starting Motors CTM77

John Deere Harvester Works
TM1402 (18AUG97)
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.

Technical manuals are divided in two parts: repair and operation and tests. Repair sections tell how to repair the components. Operation and tests sections help you identify the majority of routine failures quickly.

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.

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

Fundamental service information is available from other sources covering basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes.

DX,TMIFC -19-22MAY92

Thanks very much for your reading,

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Have any questions please write to me:
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Contents

SECTION 210—General
- Group 05—Safety
- Group 10—Machine/Component Identification
- Group 15—General Specifications
- Group 20—Diagnostic/Testing Procedures
- Group 25—Electrical System Operational Checkout

SECTION 220—Engine Operation and Tests
- Group 10—Cooling System and Rotary Screen Operation
- Group 15—6359 Engine Operation
- Group 20—6068 Engine Operation
- Group 25—6076 Engine Operation - Nippondenso
- Group 30—6076 Engine Operation - Bosch

SECTION 230—Fuel/Air Operation and Tests
- Group 05—Air Intake System
- Group 10—Fuel System

SECTION 240—Electrical System Operation and Tests
- Group 5A—Electrical Schematic Symbols
- Group 5B—How to Use This Diagnostic Information
- Group 5C—Service Equipment and Tools
- Group 5D—Seven Step Electrical Test Procedure
- Group 5E—Visually Inspect Electrical System
- Group 5F—Wiring Diagram and Schematic Information
- Group 10—Ground Points
- Group 15A—Air Suspension Seat System Identification
- Group 15B—Air Suspension Seat Diagnostics—Type A
- Group 15C—Air Suspension Seat Diagnostics—Type B
- Group 15D—Alternator and Battery System Identification
- Group 15E—Alternator and Battery Diagnostics—Type A
- Group 15F—Alternator and Battery Diagnostics—Type B
- Group 15G—Auxiliary Field Lights Diagnostics
- Group 15H—Auxiliary Power Outlet Diagnostics
- Group 15I—Backshaft Speed Adjust Diagnostics
- Group 15J—Combine Data Center Diagnostics
- Group 15K—Concave Position Adjust Diagnostics
- Group 15L—Contour Master (Hdr Tilt) Control System Identification
- Group 15M—Contour Master (Hdr Tilt) Control Diagnostics—Type A
- Group 15N—Contour Master (Hdr Tilt) Control Diagnostics—Type B
- Group 15O—Corn Head Adjustable Deck Plates Diagnostics
- Group 15P—Corner Post Gauges Identification
- Group 15Q—Corner Post Gauges Diagnostics—Type A
- Group 15R—Corner Post Gauges Diagnostics—Type B
- Group 15S—Cylinder Speed Adjust Diagnostics
- Group 15T—Dial-A-Matic System Identification
- Group 15U—Dial-A-Matic Diagnostics—Type A
- Group 15V—Dial-A-Matic Diagnostics—Type B
- Group 15W—Dial-A-Matic Diagnostics—Type C
- Group 15X—Dial-A-Speed Diagnostics
- Group 15Y—Digital Tachometer Identification
- Group 15Z—Digital Tachometer Diagnostics—Type A
- Group 15AA—Digital Tachometer Diagnostics—Type B
- Group 15AB—Digital Tachometer Diagnostics—Type C
- Group 15AC—Digital Tachometer Diagnostics—Type D
- Group 15AD—Electric Fuel Pump Diagnostics
- Group 15AE—Engine Compartment Relay Panel Identification
- Group 15AF—Engine Compartment Relay Panel Diagnostics—Type A
- Group 15AG—Engine Compartment Relay Panel Diagnostics—Type B

Continued on next page

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.

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Group 15AH—Engine Oil Pressure Monitor Diagnostics
Group 15AI—Fan Speed Adjust System Identification
Group 15AJ—Fan Speed Adjust Diagnostics—Type A
Group 15AK—Fan Speed Adjust Diagnostics—Type B
Group 15AL—Fan Speed Adjust Diagnostics—Type C
Group 15AM—Fan Speed Adjust Diagnostics—Type D
Group 15AN—Fan Speed Adjust Diagnostics—Type E
Group 15AO—Four-Wheel Drive Diagnostics
Group 15AP—HarvesTrak™ Diagnostics
Group 15AQ—Header Engage Diagnostics
Group 15AR—Header Raise/Lower Diagnostics
Group 15AS—Header Raise/Lower Diagnostics with Dial-A-Matic™
Group 15AT—Heating and Air Conditioning System Identification
Group 15AU—Heating and Air Conditioning Diagnostics—Type A
Group 15AV—Heating and Air Conditioning Diagnostics—Type B
Group 15AW—Heating and Air Conditioning Diagnostics—Type C
Group 15AX—Heating and Air Conditioning Diagnostics—Type D
Group 15AY—Horn Diagnostics
Group 15AZ—Injection Pump (Engine Control) System Identification
Group 15BA—Injection Pump System—6076 Bosch Type A—Diagnostics
Group 15BB—Injection Pump System—6076 Bosch Type B—Diagnostics
Group 15BC—Injection Pump System—6076 Bosch Type C—Diagnostics
Group 15BD—Injection Pump System—6076 Bosch Type D—Diagnostics
Group 15BE—Injection Pump System—6076 John Deere Type A—Diagnostics
Group 15BF—Injection Pump System—6076 John Deere Type B—Diagnostics
Group 15BG—Injection Pump System—6076 Nippondenso Type A—Diagnostics
Group 15BH—Injection Pump System—6076 Nippondenso Type B—Diagnostics
Group 15BI—Injection Pump System—6359 Engine—Diagnostics
Group 15BJ—Injection Pump System—6068 Engine—Diagnostics
Group 15BK—Lighting System Identification
Group 15BL—Lighting System Diagnostics—Type A
Group 15BM—Lighting System Diagnostics—Type B
Group 15BN—Low Shaft Speed Monitor System Identification
Group 15BO—Low Shaft Speed Monitor Diagnostics—Type A
Group 15BP—Low Shaft Speed Monitor Diagnostics—Type B
Group 15BQ—Low Shaft Speed Monitor Diagnostics—Type C
Group 15BR—Parking Brake System Identification
Group 15BS—Parking Brake Diagnostics—Type A
Group 15BT—Parking Brake Diagnostics—Type B
Group 15BU—Power Distribution Board System Identification
Group 15BV—Power Distribution Board Diagnostics—Type A
Group 15BW—Power Distribution Board Diagnostics—Type B
Group 15BX—Radio System Diagnostics
Group 15BY—Reel/Belt Speed Diagnostics
Group 15BZ—Reel Fore/Aft Diagnostics
Group 15CA—Reel Raise/Lower Diagnostics
Group 15CB—Separator Engage System Identification
Group 15CC—Separator Engage Diagnostics—Type A
Group 15CD—Separator Engage Diagnostics—Type B
Group 15CE—Starting Aid Diagnostics
Group 15CF—Starting System Diagnostics
Group 15CG—Unloading Auger Engage System Identification
Group 15CH—Unloading Auger Engage Diagnostics—Type A
Group 15CI—Unloading Auger Engage Diagnostics—Type B
Group 15CJ—Unloading Auger Swing Diagnostics
Group 15CK—Warning Display Panel System Identification
Group 15CL—Warning Display Panel Diagnostics—Type A
Group 15CM—Warning Display Panel Diagnostics—Type B
Group 15CN—Wiper System Diagnostics
Group 20A—Circuit Code Listing
Group 20B—Connector Number Listing and End Views

Continued on next page

SECTION 250—Power Train Operation and Tests
Group 00—Power Train Diagnostic Specifications
Group 05—Transmission and Final Drives
Group 10—Hydrostatic Drive System Adjustments
Group 15—Hydrostatic Drive System Operational Tests
Group 20—Hydraulic/Hydrostatic System Overheating Diagnostics
Group 25—Hydro Charge Pressure Low Diagnostics
Group 30—Hydrostatic Drive System Diagnostics
Group 32—Transmission Lubrication Pump Diagnostics
Group 35—Hydrostatic Drive System Theory of Operation

SECTION 255—Four-Wheel Drive
Group 00—Four-Wheel Drive
Group 05—4-Wheel Drive System Operational Checks
Group 10—Four-Wheel Drive Diagnostics
Group 15—Four-Wheel Drive System Theory of Operation

SECTION 260—Service Brakes System Operation and Tests
Group 00—Service Brake System Specification and Adjustments
Group 05—Brake System Diagnostics
Group 10—Service Brake System Theory of Operation
Group 15—Park Brake System Specifications and Adjustments
Group 20—Hydraulic Park Brake System Diagnostics
Group 25—Hydraulic Park Brake Theory of Operation
Group 30—Mechanical Park Brake Specifications and Adjustments
Group 35—Mechanical Park Brake Diagnostics
Group 40—Mechanical Park Brake Theory of Operation

SECTION 270—Hydraulic Operation and Tests
Group 05—Hydraulic System Diagnostics
Group 10—Hydraulic System Diagnostic Specifications
Group 10A—Hydraulic System Operational Tests and Adjustments
Group 15A—Backshaft Speed Diagnostics
Group 15B—Chaff Spreader System Identification
Group 15C—Chaff Spreader Diagnostics—Type A
Group 15D—Chaff Spreader Diagnostics—Type B
Group 15E—Corn Head Deck Plates Adjust Diagnostics
Group 15F—Cylinder Speed Adjust Diagnostics
Group 15G—Header Raise/Lower Diagnostics
Group 15H—Header Tilt (CONTOUR MASTER) Diagnostics
Group 15I—Overheating Diagnostics
Group 15J—Overall Diagnostics—Hydraulic System
Group 15K—Reel Belt/Speed Diagnostics
Group 15L—Reel Fore/Aft Diagnostics
Group 15M—Reel Raise/Lower Diagnostics
Group 15N—Unloading Auger Swing Diagnostics
Group 20A—Backshaft Speed Theory of Operation
Group 20B—Chaff Spreader—Type A Theory of Operation
Group 20C—Chaff Spreader—Type B Theory of Operation
Group 20D—Corn Head Deck Plates Adjust Theory of Operation
Group 20E—Cylinder Speed Adjust Theory of Operation
Group 20F—Header Raise/Lower Theory of Operation
Group 20G—Header Tilt (CONTOUR MASTER) Theory of Operation
Group 20H—Overheating Theory of Operation
Group 20I—Overall Hydraulic System Theory of Operation
Group 20J—Reel/Belt Speed Theory of Operation
Group 20K—Reel Fore/Aft Theory of Operation
Group 20L—Reel Raise/Lower Theory of Operation
Group 20M—Unloading Auger Swing Theory of Operation

SECTION 275—Main Engine Gearcase Systems Operation and Test
Group 00—Engine Gearcase Systems Diagnostics
Group 05—Main Engine Gearcase Hydraulic Specifications
Group 10—Steering System Specifications and Adjustments
Group 15—Steering System Diagnostics
Group 20—Steering System Theory of Operation
Group 25—Separator Drive System Diagnostics
Group 30—Separator Drive System Theory of Operation

Continued on next page

Group 35—Separator Drive Pressure Low Diagnostics
Group 40—Separator Drive Temp High Diagnostics
Group 45—Separator Drive Filter Restricted Diagnostics
Group 50—Engine Gearcase Hydraulic Theory of Operation
Group 55—Engine Gearcase Control Valve Theory of Operation
Group 60—Unloading Auger Engage System Diagnostics
Group 65—Unloading Auger Engage System Theory of Operation

SECTION 280—Dial-A-Matic System Operation and Tests
Group 00—Dial-A-Matic Adjustments
Group 05—Dial-A-Matic System Identification
Group 10—Dial-A-Matic System—Type A Diagnostics
Group 15—Dial-A-Matic System—Type B Diagnostics
Group 20—Dial-A-Matic System Header Mechanical Diagnostics
Group 25—Dial-A-Matic System—Type A Theory of Operation
Group 30—Dial-A-Matic System—Type B Theory of Operation

SECTION 290—Heating/Air Conditioning Operation and Tests
Group 05—Specifications and Special Tools
Group 10—Heating/Air Conditioning System Identification
Group 15—Heating/Air Conditioning System Diagnostic Information
Group 20—Heating/Air Conditioning System—Type A Diagnostics
Group 25—Heating/Air Conditioning System—Type B Diagnostics
Group 30—Heating/Air Conditioning System—Type C Diagnostics
Group 35—Heating/Air Conditioning System—Type D Diagnostics
Group 40—Heating/Air Conditioning—Type A Theory of Operation
Group 45—Heating/Air Conditioning—Type B Theory of Operation
Group 50—Heating/Air Conditioning—Type C Theory of Operation
Group 55—Heating/Air Conditioning—Type D Theory of Operation

Index

Section 210
General

Contents

Page

Group 05—Safety 210-05-1

Group 10—Machine/Component Identification 210-10-1

Group 15—General Specifications 210-15-1

Group 20—Diagnostic/Testing Procedures 210-20-1

Group 25—Electrical System Operational Checkout 210-25-1

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.

TS227 -UN-23AUG88

DX,FLAME -19-04JUN90

PREVENT BATTERY EXPLOSIONS

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; it may explode. Warm battery to 16˚C (60˚F).

TS204 -UN-23AUG88

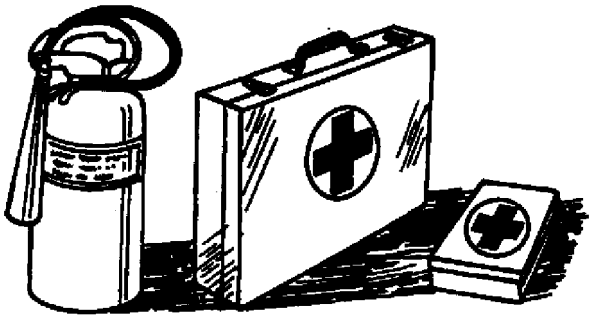
DX,SPARKS -19-03MAR93

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.



TS291 -UN-23AUG88

DX,FIRE2 -19-03MAR93

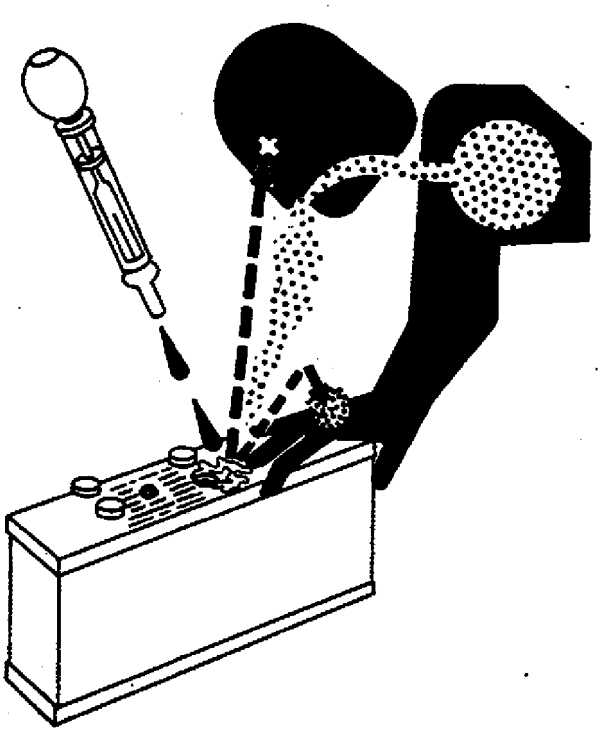
PREVENT ACID BURNS

Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid the hazard by:
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:
1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your eyes with water for 15—30 minutes. Get medical attention immediately.

If acid is swallowed:
1. Do not induce vomiting.
2. Drink large amounts of water or milk, but do not exceed 2 L (2 quarts).
3. Get medical attention immediately.



TS203 -UN-23AUG88

DX,POISON -19-21APR93

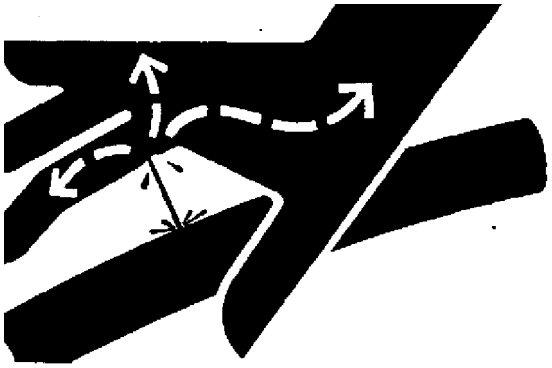
AVOID HIGH-PRESSURE FLUIDS

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.

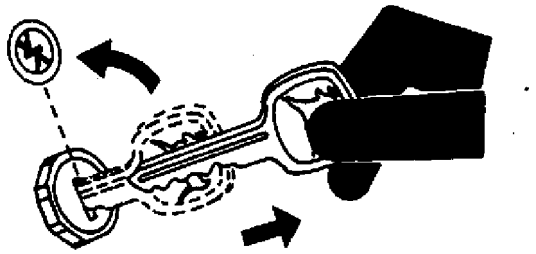


X9811 -UN-23AUG88

DX,FLUID -19-03MAR93

PARK MACHINE SAFELY

Before working on the machine:
- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a “DO NOT OPERATE” tag in operator station.



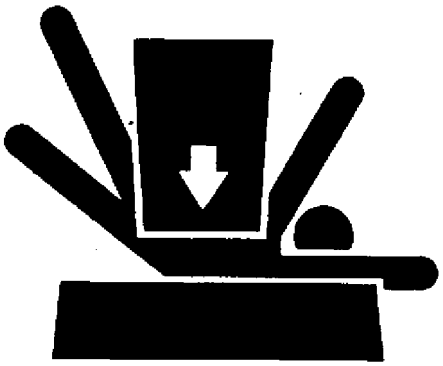
TS230 -UN-24MAY89

DX,PARK -19-04JUN90

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.



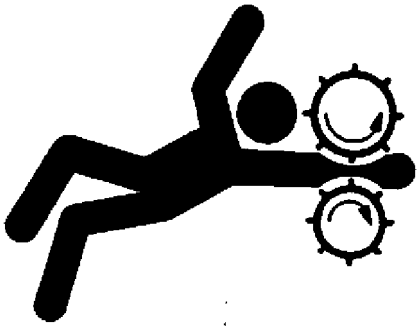
TS229 -UN-23AUG88

DX,LOWER -19-04JUN90

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.



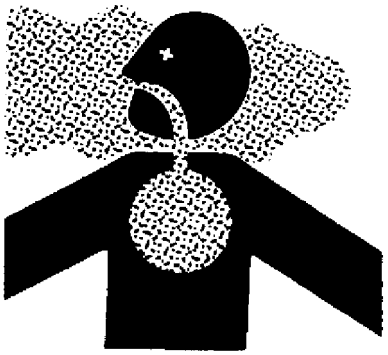
TS228 -UN-23AUG88

DX,LOOSE -19-04JUN90

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.



TS220 -UN-23AUG88

DX,AIR -19-04JUN90

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.

TS223 -UN-23AUG88

DX,LIGHT -19-04JUN90

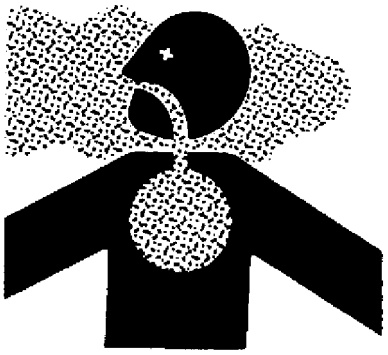
AVOID HARMFUL ASBESTOS DUST

Avoid breathing dust that may be generated when handling components containing asbestos fibers. Inhaled asbestos fibers may cause lung cancer.

Components in products that may contain asbestos fibers are brake pads, brake band and lining assemblies, clutch plates, and some gaskets. The asbestos used in these components is usually found in a resin or sealed in some way. Normal handling is not hazardous as long as airborne dust containing asbestos is not generated.

Avoid creating dust. Never use compressed air for cleaning. Avoid brushing or grinding material containing asbestos. When servicing, wear an approved respirator. A special vacuum cleaner is recommended to clean asbestos. If not available, apply a mist of oil or water on the material containing asbestos.

Keep bystanders away from the area.

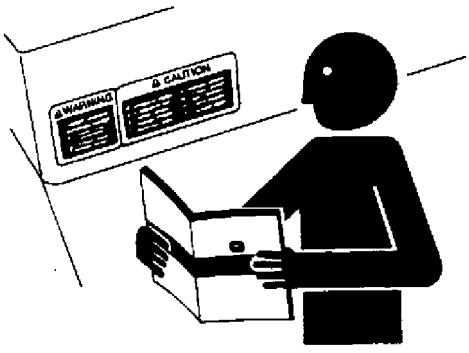


TS220 -UN-23AUG88

DX,DUST -19-15MAR91

REPLACE SAFETY SIGNS

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



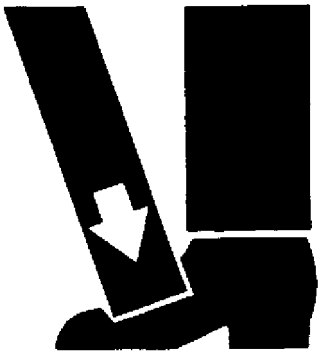
TS201 -UN-23AUG88

DX,SIGNS1 -19-04JUN90

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.



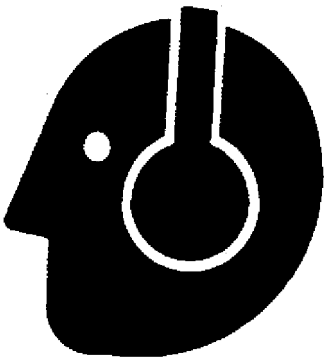
TS226 -UN-23AUG88

DX,LIFT -19-04JUN90

PROTECT AGAINST NOISE

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.



TS207 -UN-23AUG88

DX,NOISE -19-03MAR93

SERVICE TIRES SAFELY

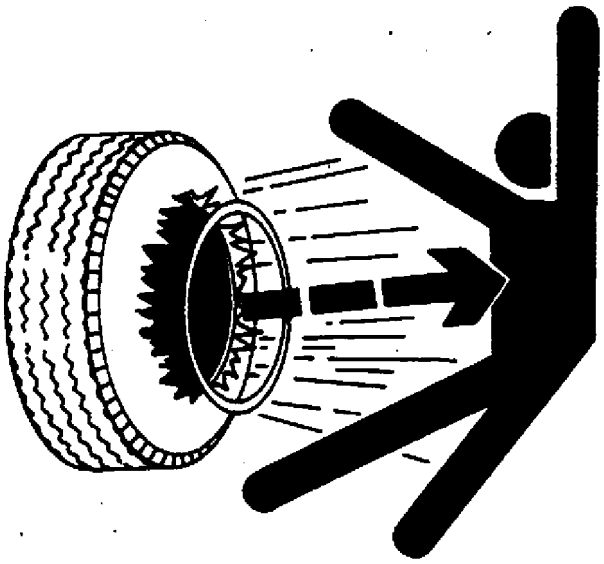
Explosive separation of a tire and rim parts can cause serious injury or death.

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.



TS211 -UN-23AUG88

DX,RIM -19-24AUG90