

Front-Wheel Drive Axles 730, 733, 740, 745 and 750

COMPONENT TECHNICAL MANUAL

**Front-Wheel Drive Axles 730, 733,
740, 745 and 750**

CTM4820 01JUL03 (ENGLISCH)

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.

Use this Component Technical Manual in conjunction with the machine Technical Manual. An application

listing in the introduction identifies product-model/component type-model relationship. See the machine technical manual for information on component removal and installation, and gaining access to the components.

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

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.

LX24603.0000299 -19-14NOV01-1/1

General Information

This Component Technical Manual contains service information and a description of the assembly and method of operation of the following front-wheel drive axles:

- **700 Series**

730, 733, 740, 745 and 750.

Triple Link Suspension (TLS) is dealt with NOT in this Component Technical Manual but in the Technical Manuals of the relevant tractor types.

LX24603,0000303 -19-01JUN03-1/1

Front-Wheel Drive Axles - Survey



LX1031381

Standard 730

LX1031381 -UN-13AUG03



LX1031382

750 with TLS and multi-disk brake

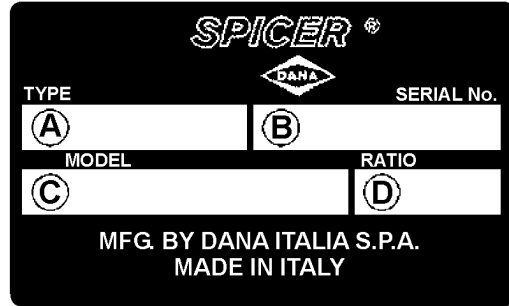
LX1031382 -UN-13AUG03

Type plate

The type plate on 730, 733 and 740 front-wheel drive axles is located on the right-hand side of the axle housing, whereas on 745 and 750 axles it is located on the left-hand side of the axle housing.

Refer to the axle type shown on the plate to identify repair information in the Component Technical Manual.

- A—Axle type/design
- B—Axle serial number
- C—Tractor model
- D—Ratio



LX1029076

LX1029076 -UN-22AUG02

LX24603,00002EE -19-01JUN03-2/3

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Want to get more information,
Please click here, Then get the complete
manual**

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please download the PDF document first, and then
click on it.**

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

Introduction

Axle options

Tractors (not for North America)	730	733	740	745	750
6020	X				
6120 and 6220	X ^a				
6320 and 6420	X	X ^{b, a, c, d}			
6420S		X ^{a, c, d}			
6520 and 6620			X ^{a, c, d}		
6820				X ^{a, c, d}	
6920 and 6920S					X ^{a, c, d}
6215	X				
6515			X		
SE tractors: 6020, 6120, 6220, 6320 and 6420	X				
SE tractors: 6520 and 6620			X		
Tractors (North America)	730	733	740	745	750
6120 and 6220	X ^a				
6320		X ^{a, c}			
6420		X ^{a, c, d}			
6215 and 6415	X				
6615 and 6715			X		
6120L, 6220L, 6320L and 6420L	X				
6320L, 6420L and 6520L		X			
7220 and 7320			X ^{a, d}		
7420				X ^{a, d}	
7520					X ^{a, d}

^aalso available with TLS

^balso available as narrow track

^calso available with TLS and multi-disk brake

^dalso available with AutoTrac

LX24603,00002EE -19-01JUN03-3/3

Contents

Front-Wheel Drive Axles

- Group 00—Safety Information
- Group 01—General Repair Information
- Group 05—Steering Cylinder and Tie-Rods
- Group 10—Planetary Drive and Wheel Hub
- Group 15—Knuckle Housing and Drive Shafts
- Group 20—Axle Housing and Differential
- Group 200—Description and Theory of Operation

INDX

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Contents

INDX

Front-Wheel Drive Axles

Contents

	Page		Page
Group 00—Safety Information			
Recognize Safety Information	00-1	Check and Adjust Tread (Basic Adjustment)	05-16
“Important” - Information	00-1	Check and Adjust Toe-In	05-18
“Note” - Information	00-1	Check and Adjust Steering Angle	05-20
Prevent Machine Runaway	00-1	Group 10—Planetary Drive and Wheel Hub	
Handle Fluids Safely—Avoid Fires	00-2	Special or Essential Tools	10-1
Prepare for Emergencies	00-2	Other Material	10-1
Avoid High-Pressure Fluids	00-3	Specifications	10-2
Remove Paint Before Welding or Heating	00-4	Planetary Drive and Wheel Hub -	
Avoid Heating Near Pressurized Fluid Lines	00-4	Sectional View (Without Multi-Disk Brake)	10-4
Work In Ventilated Area	00-5	Planetary Drive, Multi-Disk Brake and	
Wear Protective Clothing	00-5	Wheel Hub - Sectional View	10-6
Practice Safe Maintenance	00-6	Planetary Drive - Exploded View (Without	
Park Machine Safely	00-6	Multi-Disk Brake)	10-8
Use Proper Lifting Equipment	00-7	Planetary Drive Removal (Without	
Construct Dealer-Made Tools Safely	00-7	Multi-Disk Brake)	10-9
Support Machine Properly	00-7	Planetary Drive Reconditioning (Without	
Work in Clean Area	00-8	Multi-Disk Brake)	10-10
Illuminate Work Area Safely	00-8	Planetary Drive Installation (Without	
Service Machines Safely	00-8	Multi-Disk Brake)	10-14
Use Proper Tools	00-9	Planetary Drive and Multi-Disk Brake—	
Service Tires Safely	00-9	Exploded View	10-16
Service Front-Wheel Drive Tractor Safely	00-10	Planetary Drive and Multi-Disk Brake	
Dispose of Waste Properly	00-10	Removal	10-17
Live With Safety	00-11	Planetary Drive Reconditioning (With	
Retighten Wheel Nuts	00-11	Multi-Disk Brake)	10-20
Mixing of Lubricants	00-11	Planetary Drive and Multi-Disk Brake	
Lubricant Storage	00-12	Installation	10-23
Group 01—General Repair Information			
General Safety and Repair Information	01-1	Check Multi-Disk Brake for Leaks	10-28
Front-Wheel-Drive Axles - Torques for Bolts		Planetary Drive - Fill With Oil	10-29
and Nuts	01-2	Wheel Hub - Exploded View	10-30
Group 05—Steering Cylinder and Tie-Rods			
Other Material	05-1	Remove Wheel Hub	10-31
Specifications	05-2	Recondition the Wheel Hub	10-32
Steering Cylinder and Tie-Rods —		Installing the Wheel Hub	10-34
Sectional View	05-3	Group 15—Knuckle Housing and Drive Shafts	
Steering Cylinder and Tie-Rods —		Special or Essential Tools	15-1
Exploded View	05-4	Other Material	15-3
Removing the Tie Rods	05-5	Specifications	15-4
Remove the Steering Cylinder	05-6	Knuckle Housing and Drive Shaft -	
Recondition the Steering Cylinder	05-7	Sectional View	15-5
Install the Steering Cylinder	05-12	Knuckle Housing and Drive Shaft -	
Install the Tie-Rods	05-13	Exploded View	15-8
		Remove Knuckle Housing	15-9

Continued on next page

Page

Recondition the Knuckle Housing and King Pin. 15-11
 Install Knuckle Housing 15-15
 Knuckle Housing — Adjust the Preload at the Knuckle Pin Bearings. 15-20
 Knuckle Housing — Remove and Install the Steering Angle Sensor. 15-22
 Removing the Drive Shafts 15-23
 Recondition the Drive Shafts. 15-24
 Installing the Drive Shafts 15-27

Group 20—Axle Housing and Differential

Special or Essential Tools 20-1
 Other Material 20-2
 Specifications 20-3
 Differential — Sectional View 20-4
 Differential — Exploded View 20-8
 Axle Housing - Exploded View 20-10
 Removing the Axle Housing 20-12
 Repairing the Axle Housing. 20-13
 Installing the Axle Housing 20-14
 Remove the Bevel Pinion Drive Shaft 20-15
 Repairing the Bevel Pinion Drive Shafts 20-17
 Install the Bevel Pinion Drive Shaft 20-18
 Removing the Differential 20-24
 Recondition the Differential 20-25
 Install Differential. 20-34
 Axle Housing - Fill with Oil 20-39

Group 200—Description and Theory of Operation

Front Wheel Drive Axles - Summary of References 200-1
 Description of Front Wheel Drive. 200-2
 Layout of Front Axle 200-3
 Operation of Differential 200-5
 Operation of Self-Locking Differential 200-7
 Operation of Planetary Drive 200-8
 Operation of Multi-Disk Brake 200-9
 Positive Front Wheel Lead Check 200-10

Recognize Safety Information

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

Follow recommended precautions and safe operating practices.



T81389 -JUN-07DEC88

DX,ALERT -19-29SEP98-1/1

“Important” - Information

Information marked as IMPORTANT points out problems that may lead to machine damage. By following the directions given, these problems can be avoided.

LX,CRA05 002885 -19-09APR92-1/1

“Note” - Information

When marked with NOTE the information given is more detailed or contains restrictions to directions given previously. On the other hand useful information may be given belonging to certain instructions without being directly connected to them.

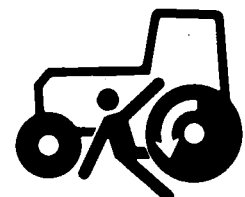
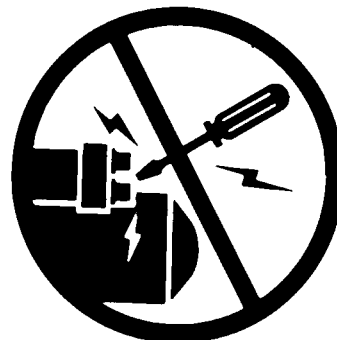
LX,CRA05 002886 -19-09APR92-1/1

Prevent Machine Runaway

Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.



TS177 -JUN-11JAN89

DX,BYPAS1 -19-29SEP98-1/1

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

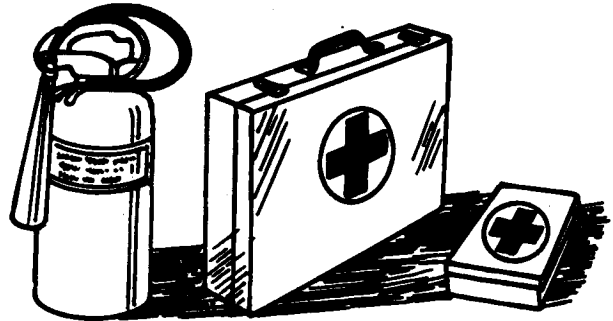
DX,FLAME -19-29SEP98-1/1

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 -19-03MAR93-1/1

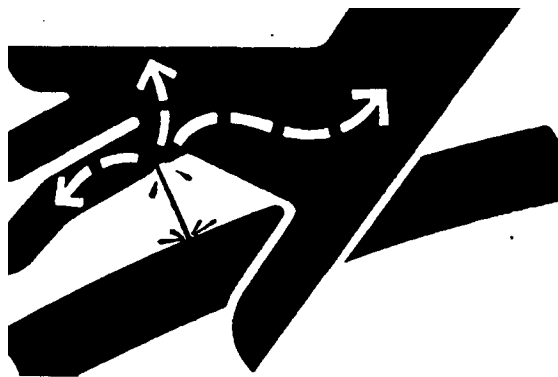
Avoid High-Pressure Fluids

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

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DX,FLUID -19-03MAR93-1/1

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.

Remove paint before heating:

- Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
- 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.

Do not use a chlorinated solvent in areas where welding will take place.

Do all work in an area that is well ventilated to carry toxic fumes and dust away.

Dispose of paint and solvent properly.



TS220 -UN-23AUG88

DX,PAINT -19-24JUL02-1/1

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.



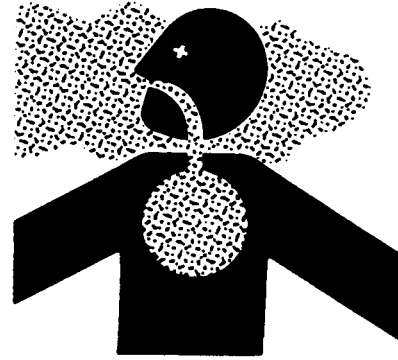
TS953 -UN-15MAY90

DX,TORCH -19-03MAR93-1/1

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 -19-17FEB99-1/1

TS220 -JUN-23AUG88

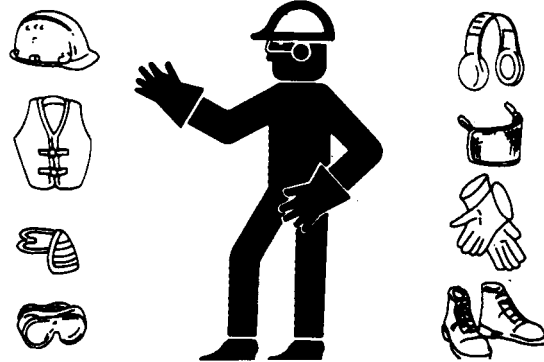
Wear Protective Clothing

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 -19-10SEP90-1/1

TS206 -JUN-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.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.



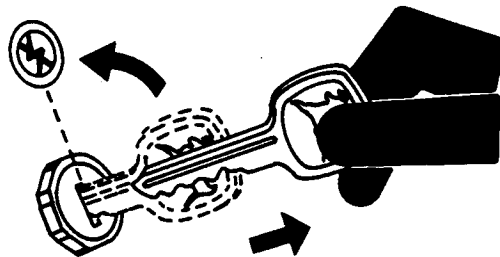
TS218 -UN-23AUG88

DX,SERV -19-17FEB99-1/1

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.



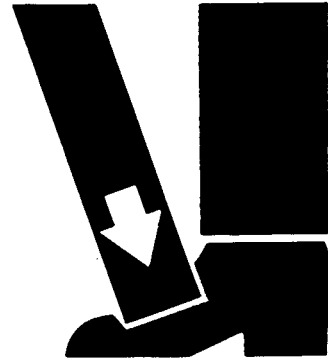
TS230 -UN-24MAY89

DX,PARK -19-04JUN90-1/1

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.



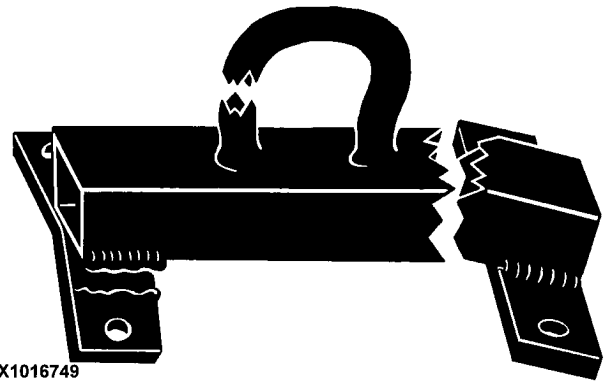
DX,LIFT -19-04JUN90-1/1

TS226 -UN-23AUG88

Construct Dealer-Made Tools Safely

Faulty or broken tools can result in serious injury. When constructing tools, use proper, quality materials, and good workmanship.

Do not weld tools unless you have the proper equipment and experience to perform the job.



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DX,SAFE,TOOLS -19-10OCT97-1/1

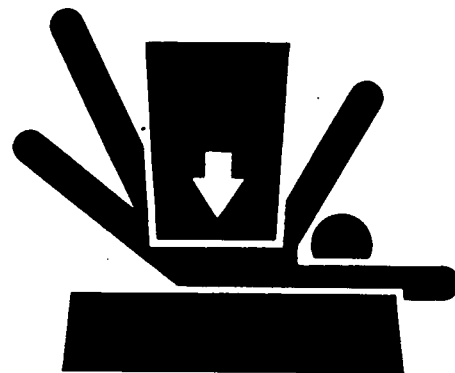
LX1016749 -UN-01JUL97

Support Machine Properly

Always lower the attachment or implement to the ground before you work on the machine. If the work requires that the machine or attachment be lifted, provide secure support for them. If left in a raised position, hydraulically supported devices can settle or leak down.

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.

When implements or attachments are used with a machine, always follow safety precautions listed in the implement or attachment operator's manual.



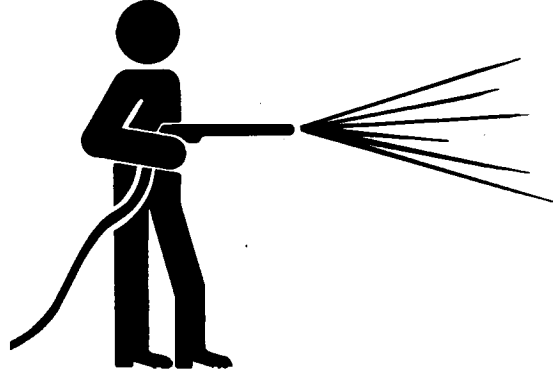
DX,LOWER -19-24FEB00-1/1

TS229 -UN-23AUG88

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.

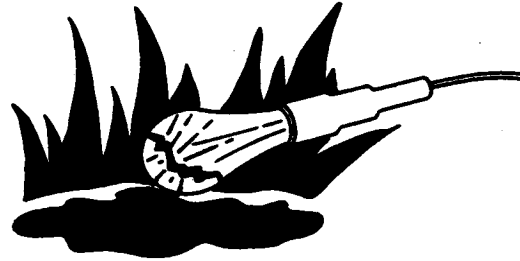


T6642EJ -UN-18OCT88

DX,CLEAN -19-04JUN90-1/1

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.



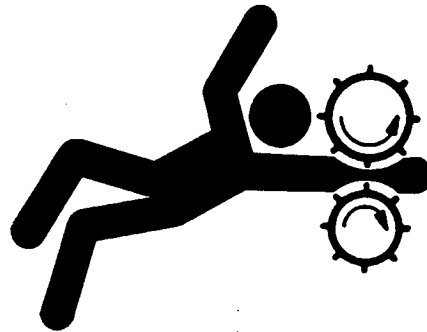
TS223 -UN-23AUG88

DX,LIGHT -19-04JUN90-1/1

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 -19-04JUN90-1/1

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.



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TS779 -UN-08NOV89

DX,REPAIR -19-17FEB99-1/1

Service Tires Safely

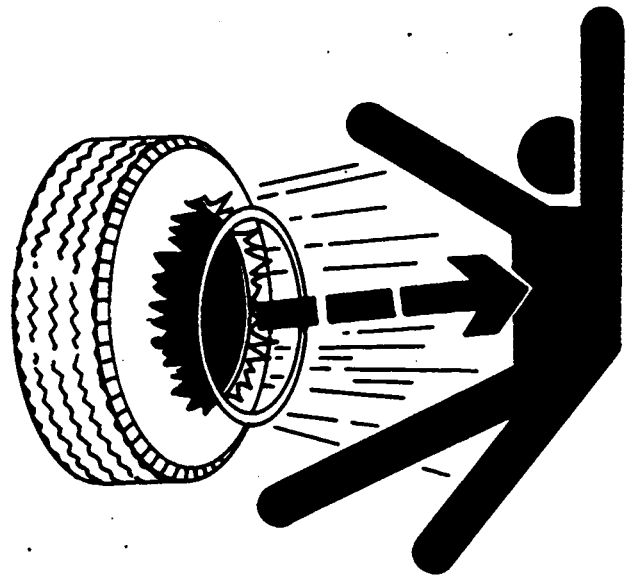
Explosive separation of a tire and rim parts can cause serious injury or death.

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.

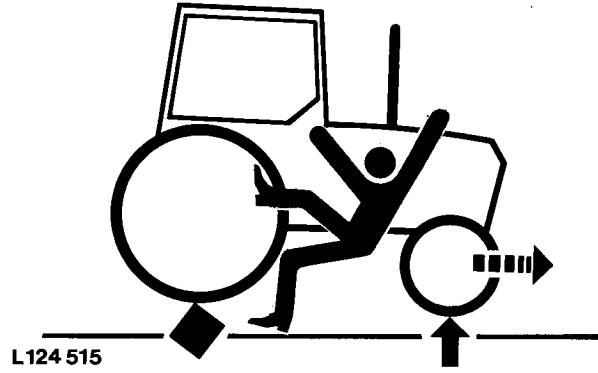


TS211 -UN-23AUG88

DX,RIM -19-24AUG90-1/1

Service Front-Wheel Drive Tractor Safely

When servicing front-wheel drive tractor with the rear wheels supported off the ground and rotating wheels by engine power, always support front wheels in a similar manner. Loss of electrical power or transmission/hydraulic system pressure will engage the front driving wheels, pulling the rear wheels off the support if front wheels are not raised. Under these conditions, front drive wheels can engage even with switch in disengaged position.



L124515 -UN-06AUG94

LX,MFWD2 -19-01MAY91-1/1

Dispose of Waste Properly

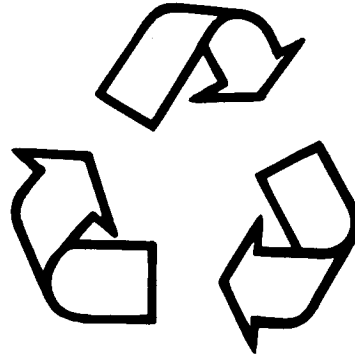
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.



TS1133 -UN-26NOV90

DX,DRAIN -19-03MAR93-1/1

Live With Safety

Before returning machine to customer, make sure machine is functioning properly, especially the safety systems. Install all guards and shields.

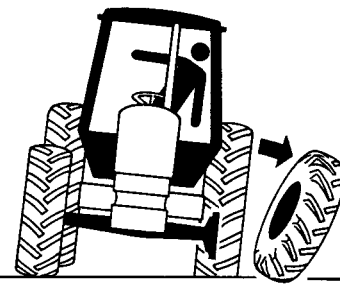


TS231 -19-07OCT88

DX,LIVE -19-25SEP92-1/1

Retighten Wheel Nuts

Retighten wheel nuts at the intervals specified in the Operator's Manual section "Break-In Period".



L124 516

L124516 -JUN-03JAN95

LX,CRA05 002995 -19-21APR92-1/1

Mixing of Lubricants

In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Consult your John Deere dealer to obtain specific information and recommendations.

DX,LUBMIX -19-18MAR96-1/1

Lubricant Storage

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Whenever possible, store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

DX,LUBST -19-18MAR96-1/1