856 Series Rear Mounted Row Crop Cultivator

John Deere Des Moines Works OMN200507 Issue H7 (This manual replaces OMN200507 I6)

Introduction

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the Specification section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

THE TIRE MANUFACTURER'S warranty applicable to your machine may not apply outside the U.S.

An operator's support video for the 856 Row Crop Cultivator is available. Use the order form in the John Deere Service Literature section at the rear of this manual.



71ML -UN-040

Page	Page
SafetyRecognize Safety Information05-1Understand Signal Words05-1Follow Safety Instructions05-1Operate Cultivator Safely05-2Park Cultivator Safely05-3Keep Riders Off Machine05-3Prepare for Emergencies05-3Wear Protective Clothing05-4Protect Against Noise05-4	Hydraulic Hose Diagram (Lift-assist Wheel Attachment)
Handle Chemical Products Safely	Implement Codes
Remove Paint Before Welding or Heating	Preparing 7000 Series TractorsAdjusting Tractor for Machine25-1Hitch Conversion25-2Lateral Float25-4Load/Depth Mix Control25-4Adjust Rate of Drop25-5Determining Front Ballast25-6Implement Codes25-7Prepare Tractor for Machine With25-7
Safety Features	Lift-assist Conversion
Preparing 4050/55, 4250/55, 4450/55 Tractors Adjusting Tractor for Machine	Preparing 8000 Series Tractors Adjust Tractor for Machine 30-1 Hitch Conversion 30-2 Lateral Float 30-3 Load/Depth Mix Control 30-4 Adjust Rate of Drop 30-4 Determine Front Ballast 30-5 Implement Codes 30-6 Lift-assist Installation 30-7

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.

OMN200507 H7-19-28JUL97

COPYRIGHT® 1996 DEERE & COMPANY Moline, Illinois All rights reserved A John Deere ILLUSTRUCTION® Manual

Page	Page
Lift-assist Conversion	Control Levers with Lift-assist Wheel
Preparing the Machine	—4050/55, 4250/55, 4450/55 Tractor 50-4
Setting Hitch Pins	—4555/60, 4755/60, 4955/60, 7000 Series Tractors 50-5
Inflating Tires	—8000 Series Tractors 50-6
	Checking Lift-assist Wheel Operation 50-7
Attaching and Detaching	Adjusting
Attaching Machine to Tractor	Rig Gauge Wheels
Setting Hitch Load Depth Control	Rig Coulters
Using External Raise/Lower Switch 40-3	_
Rockshaft Control System Reset 40-4	Guide Rigs
Attaching	Frame Gauge Wheels 50-10
Machine to Tractor without	Setting Adjustable Barring Off Disks/Disk
Quick-coupler	Hillers
Machine to Tractor with Quick-coupler 40-6	Adjusting 50.42
Warning Light Plug	Fixed Disks
Implementing Warning Lights 40-7	Spray Shields 50-13
Wing Fold Hydraulic Hoses 40-8	Frame Coulter 50-13
Attaching Lift-Assist Hydraulic Hoses	Rig Down-Pressure Springs 50-14
4050/55, 4250/55, 4450/55 Tractors 40-9	Spray Shield Support Springs 50-15
4555/60, 4755/60, 4955/60 Tractors 40-10	Rig-mounted Rolling and Tunnel
4050/55, 4450/50, 4550/60, 4755/60,	Shields
and 4955/60	Frame-mounted Rolling Shields 50-17
Attaching Machine With Lift-Assist	Spring-Trip Shanks 50-18
7000 Series Tractor	Precision Plus Shanks and Fins 50-18
8000 Series Tractor	Wing Flotation 50-19
Leveling Machine France 40.47	Frame Gauge Wheels and Frame
Machine Frame 40-17	Stabilizing Coulter
Wings	Installation
Detaching Machine with Lift-assist from	Setup (Rigid Toolbar) 50-21
4050/55, 4250/55, 4450/55 Tractors 40-19	Layout Diagrams (Rigid Toolbar) 50-22
4555/60, 4755/60, 4955/60 Tractors 40-20	Dimension Chart (Rigid Toolbar) 50-23
7000 Series Tractor	Setup (Folding Toolbar) 50-24
8000 Series Tractor	Layout Diagrams (Folding Toolbar) 50-25
	Layout Diagrams (Folding Toolbar) 50-26
Transporting	Dimension Chart (Folding Toolbar) 50-27
Stay Clear of Electric Power Lines	Using Row Spacing Charts and Diagrams 50-28
Use Safety Lights and Devices	Row Spacing
Keep Riders Off Machine	Model 4W with 914 mm (36 in.) Spray
Transport Procedure	Shields or Frame-mounted Rolling 50-29
	Model 4W with 965 mm (38 in.) Spray
Operating the Machine	Shields or Frame-mounted Rolling 50-30
Keep Riders Off Machine 50-1	Model 4W with 1016 mm (40 in.) Spray
Guidelines for Use	shields or Frame-mounted Rolling 50-31
Tightening Hardware 50-2	Model 6W with 914 mm (36 in.)
Control Levers Without Lift-assist Wheel	Frame-mounted Rolling Shields or
(Attachment)	Spray
For Tractors with Electronic Hitch—Using	
Draft Control	Continued on next page

Page	Page
	Davi Organizar Continued Continued
Row Spacing—Continued	Row Spacing—Continued—Continued
Model 6W with 965 mm (38 in.)	Model 12N with 762 mm (30 in.)
Frame-mounted Rolling Shields or	Rig-mounted Rolling Shields 50-55
Spray	Model 16N with 762 mm (30 in.) FM Rolling Shields or Spray Shield 50-56
Model 6W with 1016 mm (40 in.) Frame-mounted	Model 16N with 762 mm (30 in.)
Rolling Shields or Spray 50-34	Rig-mounted Rolling Shields 50-57
Model 8W with 914 mm (36 in.) Spray Shields or Frame-mounted Rolling 50-35	Model 6NN with 559 mm (22 in.)
•	Rig-mounted Tunnel Shields 50-58
Model 8W with 965 mm (38 in.) Spray Shields or Frame-mounted Rolling 50-36	Model 8NN with 559 mm (22 in.)
Model 8W with 1016 mm (40 in.) Spray	Rig-mounted Tunnel Shields 50-59
Shields or Frame-mounted Rolling 50-37	Model 12 Rigid with 559 mm (22 in.)
Model 8W (Folding) with 914 mm (36	Rig-mounted Tunnel Shields 50-60
in.) FM Rolling Shields or Spray 50-38	Model 12NN Folding with 559 mm (22
Model 8W (Folding) with 965 mm (38	in.) Rig-mounted Tunnel Shields 50-61
in.) FM Rolling Shields or Spray 50-39	Model 16NN with 559 mm (22 in.)
Model 8W (Folding) with 1016 mm (40	Rig-mounted Tunnel Shields 50-62
in.) FM Rolling Shields or Spray 50-40	Model 18NN with 559 mm (22 in.)
Model 10W with 914 mm (36 in.) Spray	Rig-mounted Tunnel Shields 50-63
Shields or FM Rolling Shield 50-41	Model 24NN with 559 mm (22 in.)
Model 10W with 965 mm (38 in.) Spray	Rig-mounted Tunnel Shields 50-64
Shields or FM Rolling Shield 50-42	Model 24NN with 508 mm (20 in.)
Model 12W with 914 mm (36 in.) Spray	Rig-mounted Tunnel Shields 50-65
Shields or FM Rolling Shield 50-43	
Model 12W with 965 mm (38 in.) Spray	Attachments
Shields or FM Rolling Shield 50-44	Shields and Spray Equipment 55-1
Model 12W with 1016 mm (40 in.)	Guidance Rigs
Spray Shields or FM 50-45	Disk Hillers/Barring Off Disks 55-3
Model 6N with 762 mm (30 in.)	Bed Knives
Rig-mounted Rolling Shields 50-46	Rig Gauge Wheels
Model 6N with 762 mm (30 in.)	Rig Down Pressure Springs 55-6
Frame-mounted Rolling Shields or	Frame Coulters
Spray	Frame Gauge Wheels
Model 8N with 762 mm (30 in.) Spray	S-tine Sweeps
Shields or Frame-mounted Rolling 50-48	Tru-Width C-shank Sweeps
Model 8N with 762 mm (30 in.)	Precision Plus Fin Sweep
Rig-mounted Rolling Shields 50-49	Mini Ridger
Model 10N with 762 mm (30 in.) Spray	Rear Parking Stand
Shields or FM Rolling Shield 50-50	Spray Kit
Model 10N with 762 mm (30 in.)	• •
Rig-mounted Rolling Shields 50-51	Spray Shields
Model 10N (Folding) with 762 mm (30	Spray Shields Alternate Mounting 55-10
in.) FM Rolling Shields or Spray 50-52	Frame Mounted Rolling Shields 55-10
Model 10N (Folding) with 762 mm (30	Rig Mounted Rolling/Tunnel Shields 55-12
in.) Rig-mounted Rolling Shields 50-53	Quick Attach Nozzles 55-13
Model 12N with 762 mm (30 in.) FM	
Rolling Shields or Spray Shields 50-54	Continued on next page

Page	Page
Spray Equipment Hose Routing	Troubleshooting
All 4W Models	Diagrams
6W and 6N Models With	Symptom/Problem/Solution Chart 65-2
Frame-Mounted Shields 55-15	
6N and 6NN Models With Rig-Mounted	Service
Shields	Using Safe Service Procedures 70-1
8N and 8W Models With	Practice Safe Maintenance 70-1
Frame-Mounted Shields 55-17	Replacing Ground Engaging Tools 70-1
	Service Tires Safely
8N and 8NN Models With Rig-Mounted	Metric Bolt and Cap Screw Torque
Shields	Values
	Unified Inch Bolt and Cap Screw Torque
Shields	Values
10N Models With Rig-Mounted Shields 55-20	Tightening Hardware 70-5
All 8W Folding Models	Tires and Wheel Bolts 70-5
All 10W Models	Tightening Lift-assist Axle Nut 70-5
10N Folding Models With Rig-Mounted	Adjusting Lift-assist Wheel 70-6
Shields	Rig Hanger Brackets 70-6
10N Folding Models With	Barring Off Disk/Disk Hiller Assemblies 70-7
Frame-Mounted Shields 55-24	Removing Hydraulic Cylinders 70-8
12W and 12N Models With	Installing and Bleeding Hydraulic
Frame-Mounted Shields 55-25	Cylinders
12N and 12NN Models With	Hydraulic Hose Diagram
Rig-Mounted Shields 55-26	Wing Fold
16NN and 16N With Rig-Mounted	Independent Wing Fold
Shields	Single Lift-assist 70-13
16N Models With Frame-Mounted	Dual Lift-assist 70-14
Shields	Secure Hydraulic Hoses 70-15
All 18NN Models 55-29	Sweeps
All 24NN Models	
	Storage
Lubrication and Maintenance	Preparing Cultivator for Storage 75-1
Lubricating and Maintaining Machine	Removing Cultivator from Storage 75-2
Safely	
	Specifications
Grease	Implement-tractor-tire Compatibility Chart 80-1
Alternative and Synthetic Lubricants 60-2	Tractor Recommendations 80-2
Lubrication and Symbols 60-2	Attachments or Options 80-8
Lubricate	Specifications
Wing Hinges—Every 50 Hours 60-3	Row Spacing
Lift-assist Wheel	Wide Row Class—914, 965, 1016 mm
Frame Coulters—Every 25 Hours 60-4	(36, 38 and 40 in.) 80-10
Rig Coulters—Every 25 Hours 60-4	Narrow Row Class—711, 762 mm
Rig Gauge Wheel Adjustment—Every	(28-30 in.)
250 Hours 60-5	Narrow/Narrow Row Class—559 mm
Barring Disk/Disk Hillers Angle	(22 in.)
Adjustment Spindle—Every 250	Narrow/Narrow Row Class—508 mm
Hours 60-5	(20 in.)
Disks—Every 25 Hours	Product Identification Number Location 80-12
Depth Stop Adjustment—Every 250	
Hours	Continued on next page

ίv

Page	
Crime Prevention Tips	
Help Prevent Crime	
Record Identification Numbers 85-1	
Keep Proof of Ownership	
Park Indoors Out of Sight 85-1	
When Parking Outdoors	
Reduce Vandalism 85-2	
Report Thefts Immediately 85-2	
John Deere Service Literature Available 90-1	
Index	

vi

Safety

RECOGNIZE SAFETY INFORMATION

This is the 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.



UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

A DANGER

A WARNING

A CAUTION

DX,SIGNAL -19-03MAR93

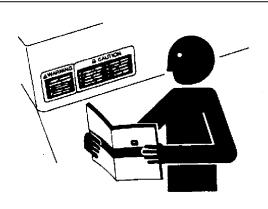
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



DX,READ

-UN-23AUG88



OPERATE CULTIVATOR SAFELY

Clear area around machine before raising or lowering machine or wings.

Stop tractor on level ground when raising or lowering wings.

Operate the cultivator from the tractor seat only.

Do not operate with wings in the transport position.

Do not operate close to a ditch or creek.

Slow down when turning or traveling over rough ground.

Apply both tractor brakes evenly when making emergency stops. Plan ahead.

Shut off tractor and shift to "Park" or set brakes when leaving tractor. Remove key when leaving tractor unattended.

For tractor stability and operator safety, tractor front end weights may be required.



N03,885FC,A43 -19-28DEC88



PARK CULTIVATOR SAFELY

Park cultivator on a level surface.

Lower frame to lowest level allowed by rigs, especially when not equipped with down pressure springs.

BEFORE UNHITCHING, lower front and rear parking stands and secure with pin and spring-locking pin.

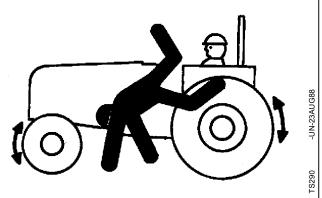


N03L,856FC,A45A-19-24OCT96

KEEP RIDERS OFF MACHINE

Only allow the operator on the machine. Keep riders off.

Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.



DX,RIDER

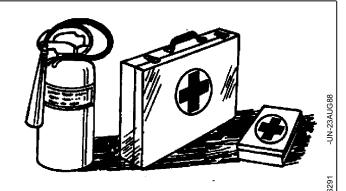
-19-03MAR93

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.



DX,FIRE2

-19-03MAR93

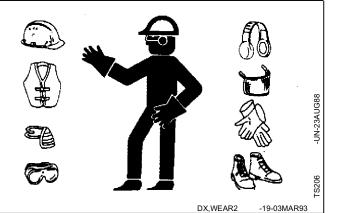
100501 PN=6



WEAR PROTECTIVE CLOTHING

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

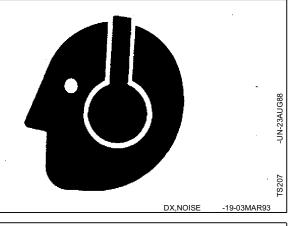
Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



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.



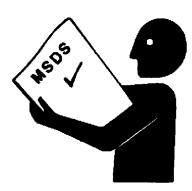
HANDLE CHEMICAL PRODUCTS SAFELY

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.)



32

-UN-26NOV90

DX,MSDS,NA -19-03MAR93



HANDLE PESTICIDES AND FERTILIZERS CAREFULLY

Keep dust away from skin and hair.

Keep containers low when pouring.

Let the wind blow fumes away from you when filling tank.

Wear a filtered respirator if you cannot avoid dust.

Wear goggles to protect your eyes.

Wash exposed skin areas frequently—do not leave pesticide on your skin.

Do not smoke while handling pesticides.

Properly dispose of pesticide container, unused pesticide and left-over fertilizer.

Read and observe manufacturers recommendations.

Store pesticides in a separate, plainly marked LOCKED building.

Store pesticides in original containers with labels intact.



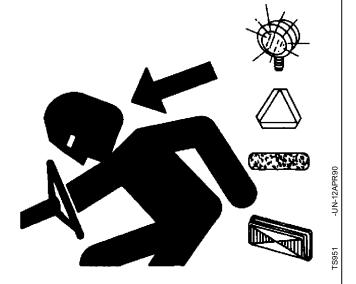
N04,665C,A1 -19-23OCT96



USE SAFETY LIGHTS AND DEVICES

Prevent collisions between other road users, slow moving tractors with attachments or towed equipment, and self-propelled machines on public roads. Frequently check for traffic from the rear, especially in turns, and use hand signals or turn signal lights.

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible and in good working order. Replace or repair lighting and marking that has been damaged or lost. An implement safety lighting kit is available from your John Deere dealer.



DX,FLASH

-19-12SEP95

TRANSPORT CULTIVATOR SAFELY

Keep away from overhead power lines. Serious injury or death may result. Know the transport height of your machine.

Always fold wings fully. Wings must rest against stops.

Travel at a reasonable and safe speed.

Shift the tractor into a lower gear when transporting down steep slopes or hills.

Latch the tractor brakes together.

Stop slowly.



70000

N03N,885FC,A46 -19-08NOV94



SERVICE MACHINE SAFELY

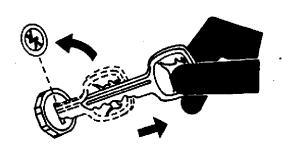
To help prevent serious injury or death caused by unexpected movement, be sure to service machine on level surface.

If machine is connected to tractor, engage parking brake and place transmission in "PARK", shut off engine and remove key.

If machine is detached from tractor, block wheels and use safety stands to prevent movement.



40000



-UN-24M

TS230

N03,970C,A37 -19-07AUG96

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.



TS218

DX,SERV

-19-03MAR93



REMOVE PAINT BEFORE WELDING OR HEATING

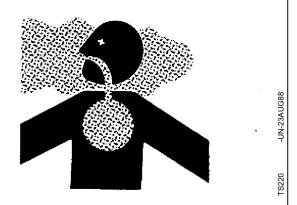
Avoid potentially toxic fumes and dust.

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:

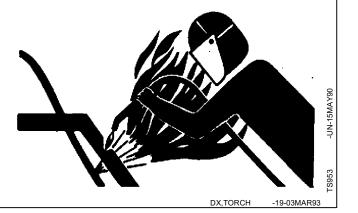
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes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



DX,PAINT -19-03MAR93

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.





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.



DX,FLUID -19-03MAR93

CHECK HYDRAULIC HOSES

Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly. Replace damaged hoses.

Escaping fluid under pressure can penetrate the skin causing serious injury. 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 can result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere and Company Medical Department in Moline, Illinois, U.S.A.



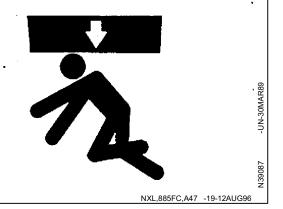
05-9



SUPPORT RAISED EQUIPMENT

Prevent injury or death. Always support frame with jack stands or completely lower frame and wings before working around or under machine. If there is a failure in the hydraulic system, unsupported raised equipment could suddenly lower, causing serious personal injury or death.

If a support is not available, completely lower the frame and wings to the ground.



SERVICE TIRES SAFELY

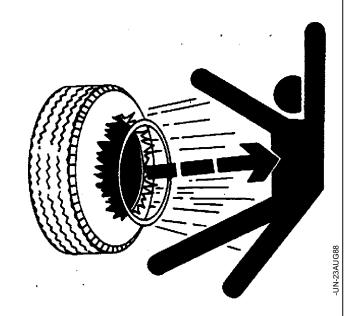
Explosive separation of a tire and rim parts can cause serious injury or death.

Only attempt to mount a tire if you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.

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

Inspect tires and wheels daily. Do not operate with low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.





SAFETY SIGNS



*On machines with transport height of 4.3 m (14 ft) or greater.

N03N,856C,C1 -19-28OCT96

Thank you so much for reading. Please click the "Buy Now!" button below to download the complete manual.



After you pay.

You can download the most perfect and complete manual in the world immediately.

Our support email: ebooklibonline@outlook.com