

Product: John Deere 9400,9500,9600 Combines Service Repair Technical Manual
Full Download: <https://www.arepairmanual.com/downloads/john-deere-940095009600-combines-service-repair-technical-manual/>

9400, 9500, and 9600 Combines Repairs

John Deere Harvester Works
TM1401 (28JUL97)

LITHO IN U.S.A.
ENGLISH

Sample of manual. Download All 1235 pages at:

<https://www.arepairmanual.com/downloads/john-deere-940095009600-combines-service-repair-technical-manual/>

Product: John Deere 9400,9500,9600 Combines Service Repair Technical Manual
Full Download: <https://www.arepairmanual.com/downloads/john-deere-940095009600-combines-service-repair-technical-manual/>

**9400, 9500, and
9600 Combines
Repairs**

TM1401 (28JUL97)



Sample of manual. Download All 1235 pages at:
<https://www.arepairmanual.com/downloads/john-deere-940095009600-combines-service-repair-technical-manual/>

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.

Contents

SECTION 10—GENERAL

- Group 05—Safety
- Group 10—Identification Number Location
- Group 15—Specifications
- Group 20—Tune Up and Adjustment
- Group 25—Fuels and Lubricants

SECTION 20—ENGINE

- Group 05—Remove and Install Engine
- Group 10—Cooling System
- Group 15—Lower Engine Repair

SECTION 30—FUEL AND AIR REPAIR

- Group 05—Air Intake System
- Group 10—Diesel Fuel System

SECTION 40—ELECTRICAL SYSTEM

- Group 05—Components
- Group 10—Bulbs and Switches
- Group 15—Batteries
- Group 20—Harness and Connector Repair
- Group 25—Gauges and Monitors
- Group 30—Wiper and Radio
- Group 35—Alternator
- Group 40—Starting Motor
- Group 45—Electrical Engine Control

SECTION 50—POWER TRAIN REPAIR

- Group 05—Transmission and Differential
- Group 10—Ring and Pinion Final Drive
- Group 15—Planetary Final Drive
- Group 20—Hydrostatic System
- Group 25—Cam Lobe Motor
- Group 30—Tires and Wheels

SECTION 60—Power Steering and Brakes

- Group 05—Steering
- Group 10—Brakes

SECTION 70—HYDRAULIC REPAIR

- Group 05—Hydraulic Reservoir
- Group 10—Hydraulic Pumps
- Group 15—Hydraulic Valves

- Group 20—Hydraulic Cylinders
- Group 25—Motors
- Group 30—Accumulator
- Group 35—Reel/Belt Pickup Pump Drive

SECTION 80—SEPARATOR SHELL

- Group 05—Gull Wing Doors

SECTION 90—OPERATOR STATION REPAIR

- Group 05—Air Conditioning System (R-12)—Type A
- Group 10—Air Conditioning System (R134A)—Type B
- Group 15—System Components
- Group 20—Cab

SECTION 110—FEEDER HOUSE REPAIR

- Group 05—Feeder House/Conveyor
- Group 10—Feeder House Conveyor Drum
- Group 15—Conveyor Shaft and Slip Clutch
- Group 20—Feeder House Drives and Reverser Gear Case
- Group 25—CONTOUR MASTER Platform Driveshafts
- Group 30—CONTOUR MASTER Tilt Cylinder
- Group 35—CONTOUR MASTER Tilt Frame
- Group 40—CONTOUR MASTER Feeder House

SECTION 120—SEPARATOR

- Group 05—Separator Repair
- Group 10—Cylinder Drives
- Group 15—Straw Walkers and Crankshafts
- Group 20—Straw Chopper, Straw Spreader and Chaff Spreader
- Group 25—Shoe Supply Augers, Cleaning Fan and Chaffer and Sieve Frame
- Group 30—Tailings Elevator and Augers
- Group 35—Primary Countershaft Gearcase
- Group 40—Header Electromagnetic Clutch

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.

TM1401-19-28JUL97

COPYRIGHT© 1997
DEERE & COMPANY
Moline, Illinois
All rights reserved
A John Deere ILLUSTRATION™ Manual
Previous Editions
Copyright 1994, 1992, 1989, 1988 Deere & Company

10

20

30

40

50

60

70

80

90

110

**SECTION 130—GRAIN TANK AND UNLOADING
SYSTEM REPAIR**

- Group 05—Grain Tank Cross Augers
- Group 10—Unloading Auger System Drives
- Group 15—Vertical Unloading Auger and Lower Gearcase
- Group 20—Horizontal Unloading Auger and Gearcase
- Group 25—Upper Clean Grain Elevator
- Group 30—Grain Tank and Extensions
- Group 35—Clean Grain Elevator and Loading Auger Gear Case

**SECTION 140—ENGINE GEARCASE AND
CONTROL VALVE REPAIR**

- Group 05—Engine Gearcase and Valve

**SECTION 160—DIAL-A-MATIC HEADER HEIGHT
CONTROL**

- Group 05—Dial-A-Matic Header Height Control

Index

Contents

120

130

140

160

INDX

Contents

120

130

140

160

INDX

Section 10 GENERAL

10

Contents

	Page		Page
Group 05—Safety	10-05-1	Engine Coolant	10-25-3
Group 10—Identification Number Location		Liquid Coolant Conditioner	10-25-3
Combine Identification Number	10-10-1	Engine Oil	10-25-4
Transmission	10-10-1	Greases	10-25-7
Engine Serial Number for 9400 Combines ..	10-10-1	Lubricant Storage	10-25-7
Hydrostatic Drive Unit Pump	10-10-2	Alternative and Synthetic Lubricants	10-25-8
Hydrostatic Drive Unit Motor	10-10-2	Filter Part Numbers	10-25-8
Cam Lobe 4-Wheel Drive Motor	10-10-2		
Engine Gearcase	10-10-2		
Cab	10-10-3		
Group 15—Specifications			
Specifications—9400 Combines	10-15-1		
Operating Speeds—9400 Combines	10-15-3		
Ground Speeds (Separator Full Load) ..	10-15-4		
Specifications—9500 Combines	10-15-5		
Operating Speeds—9500 Combines	10-15-7		
Ground Speeds	10-15-8		
Specifications—9600 Combines	10-15-9		
Operating Speeds—9600 Combines	10-15-11		
Dimensions	10-15-14		
Metric Bolt and Cap Screw Torque			
Values	10-15-15		
Unified Inch Bolt and Cap Screw Torque			
Values	10-15-16		
O-Ring Boss Fitting Torque Chart	10-15-17		
Flat Face O-Ring Seal Fitting Torque			
Chart	10-15-18		
SAE Four Bolt Flange Fitting Torque			
Chart	10-15-19		
Prevent Hydraulic System Contamination .	10-15-20		
Check Oil Lines and Fittings	10-15-21		
Group 20—Tune Up and Adjustment			
Tune-Up and Adjustment	10-20-1		
Care and Maintenance of Belts	10-20-2		
Defective Belts	10-20-3		
Right-Hand Drives and Part Numbers ..	10-20-5		
Left-Hand Drives and Part Numbers	10-20-7		
Group 25—Fuels and Lubricants			
Diesel Fuel	10-25-1		
Fuel Storage	10-25-2		

Contents

10

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.



DX,ALERT -19-03MAR93

T81389
-JUN-07DEC88

10
05
1

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.



DX,SIGNAL -19-03MAR93

TS187
-19-30SEP88

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
-JUN-23AUG88

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).



DX,SPARKS -19-03MAR93

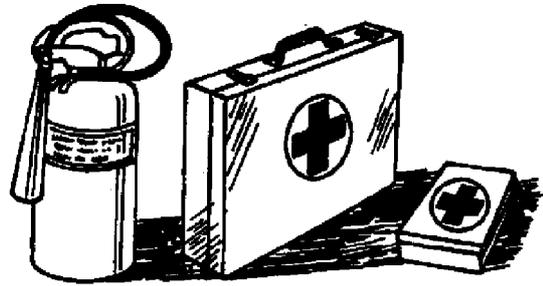
TS204
-JUN-23AUG88

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

TS201
-JUN-23AUG88

10
05
2

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:

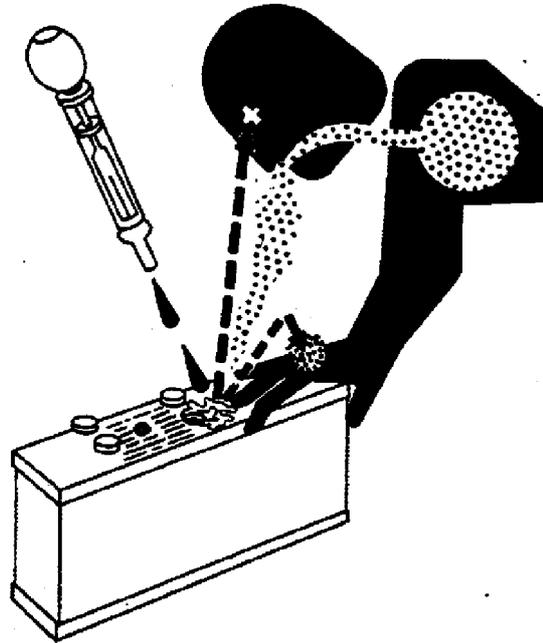
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

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.



10
05
3

-JUN-23AUG88

T5203

DX,POISON -19-21APR93

10
05
4

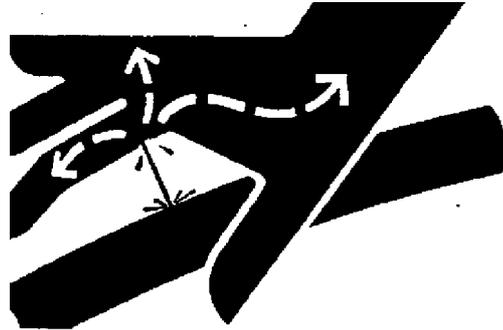
AVOID HIGH-PRESSURE FLUIDS

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.



-JUN-23AUG88

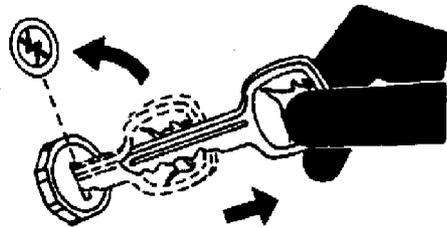
X9811

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.



-JUN-24MAY89

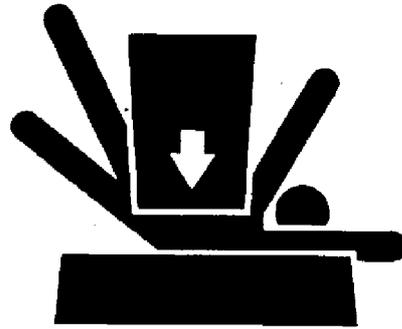
TS230

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.



DX.LOWER -19-04JUN90

TS229 -JUN-23AUG88

10
05
5

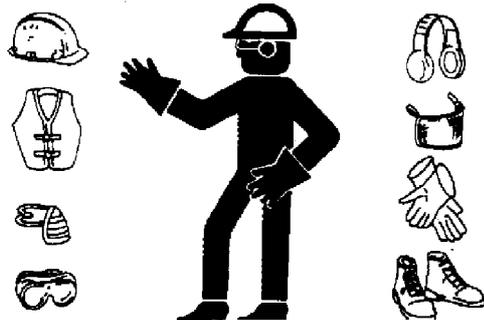
WEAR PROTECTIVE CLOTHING

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.



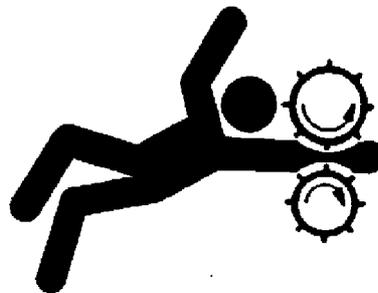
DX.WEAR -19-10SEP90

TS206 -JUN-23AUG88

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

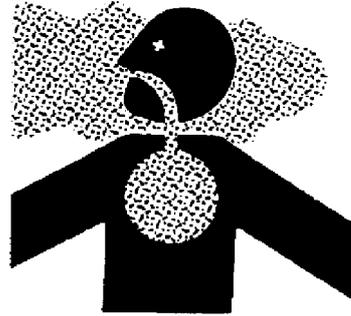
TS228 -JUN-23AUG88

10
05
6

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

-JUN-23AUG88

TS220

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

-JUN-23AUG88

TS223

REPLACE SAFETY SIGNS

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



DX,SIGNS1 -19-04JUN90

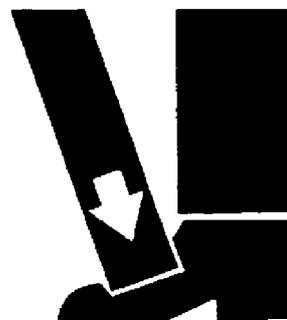
-JUN-23AUG88

TS201

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

-JUN-23AUG88

TS226

SERVICE TIRES SAFELY

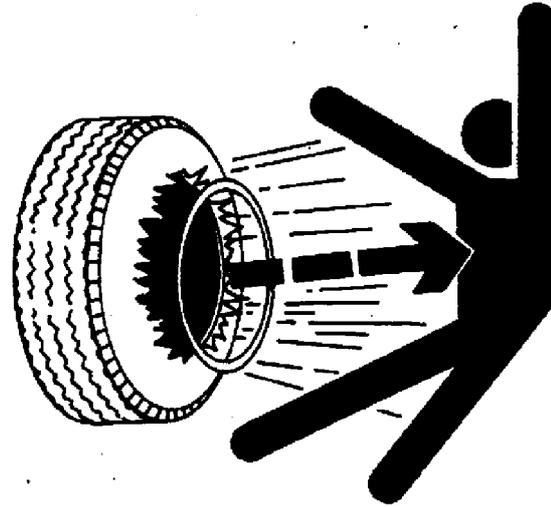
Explosive separation of a tire and rim parts can cause serious injury or death.

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.



10
05
7

-JUN-23AUG88

TS211

DX,RIM -19-24AUG90

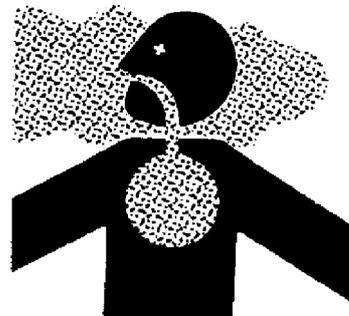
AVOID HARMFUL ASBESTOS DUST

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.



-JUN-23AUG88

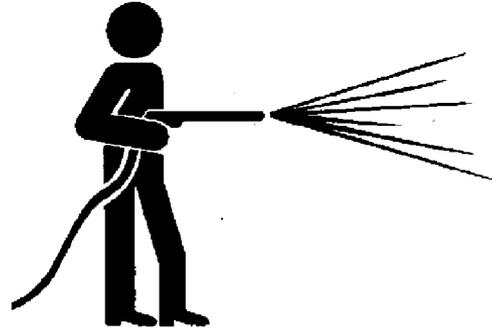
TS220

DX,DUST -19-15MAR91

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 -JUN-18OCT88

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 -JUN-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.



10
05
9

-JUN-08NOV/89

TS179

DX,REPAIR -19-04JUN90

DISPOSE OF WASTE PROPERLY

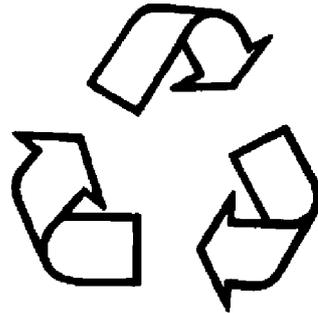
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

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.



-JUN-26NOV/90

TS1133

DX,DRAIN -19-03MAR93

USE ADEQUATE SERVICE FACILITIES

Keep the service area clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment.

Make sure the service area is adequately vented.

Periodically check the shop exhaust system for leakage. Engine exhaust gas is dangerous.

Be sure all electrical outlets and tools are properly grounded.

Use adequate light for the job at hand.

Service the machine on a level, hard-surfaced area.

Use lifting equipment and safety stands which have adequate strength for the job being performed.

HX,1401,1005,A -19-11DEC92

LIVE WITH SAFETY

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



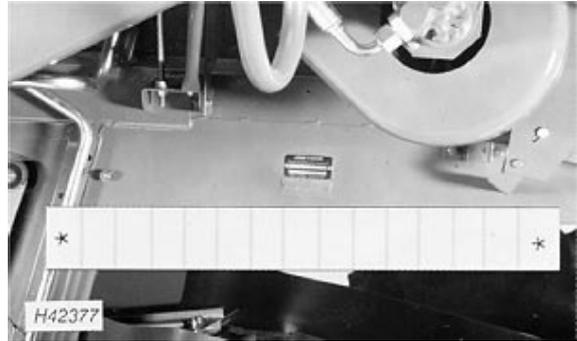
TS231 -19-07OCT88

DX,LIVE -19-25SEP92

Group 10 Identification Number Location

COMBINE IDENTIFICATION NUMBER

Located on left-hand side above rear axle.

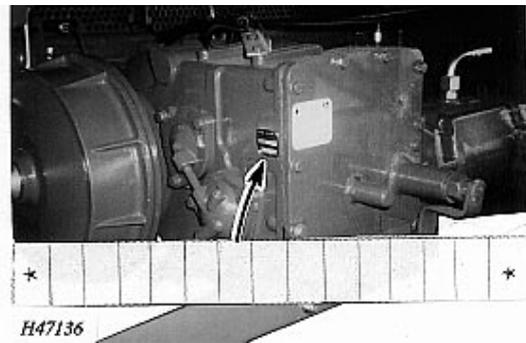


HX,1401,1010A -19-11DEC92

10
10
1

TRANSMISSION (LATER UNITS)

Located on the side of the transmission.

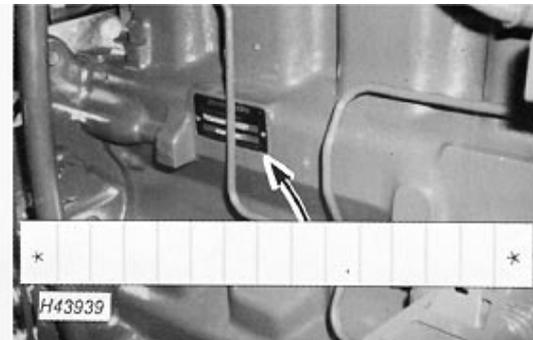


HX,9000ID,C -19-27SEP96

-JUN-19OCT95
H47136

ENGINE SERIAL NUMBER FOR 9400 COMBINES

Located on rear side of engine.

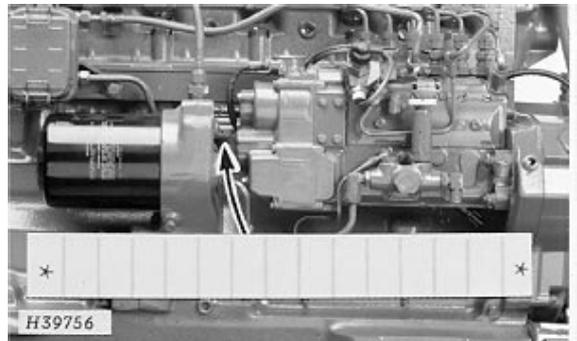


HX,1401,1010B -19-11DEC92

-JUN-10OCT91
H43939

ENGINE SERIAL NUMBER FOR 9500, 9500 SIDEHILL, 9600 AND CTS COMBINES

The engine serial number is located on rear side of engine.



HX,1010,A -19-28AUG96

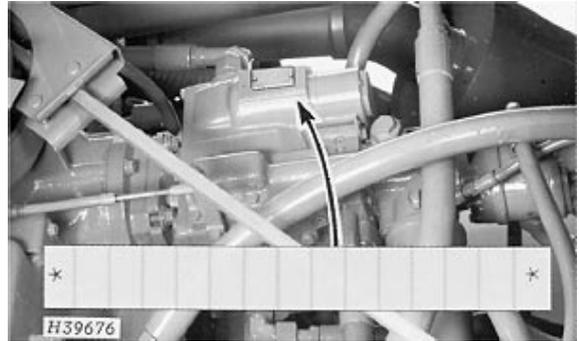
-JUN-11OCT88
H39756

Early Engine Shown

10-10-2

HYDROSTATIC DRIVE UNIT PUMP

Located on the side of the pump section.

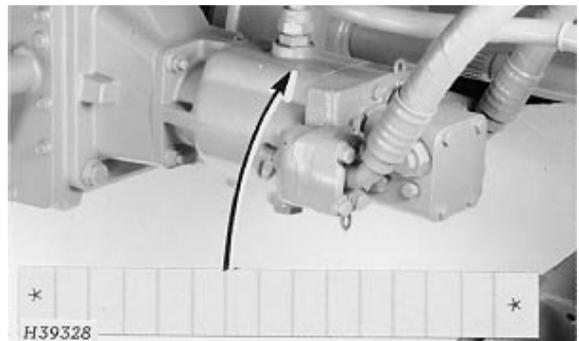


-JUN-11OCT88
H39676

1401,1010,D -19-12SEP91

HYDROSTATIC DRIVE UNIT MOTOR

Located on top of the motor section.



-JUN-11OCT88
H39328

1401,1010,E -19-12SEP91

CAM LOBE 4-WHEEL DRIVE MOTOR

Located on top of motor.

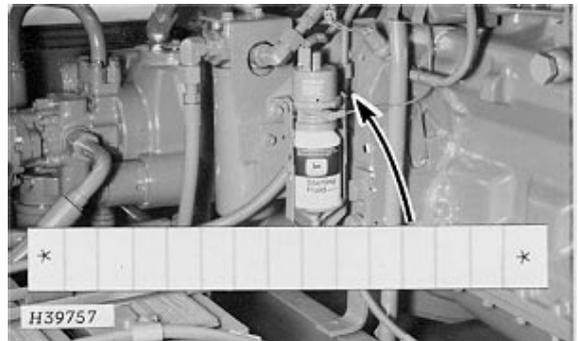


-JUN-11OCT88
H39677

1401,1010,F -19-12SEP91

ENGINE GEARCASE

Located on the back side.



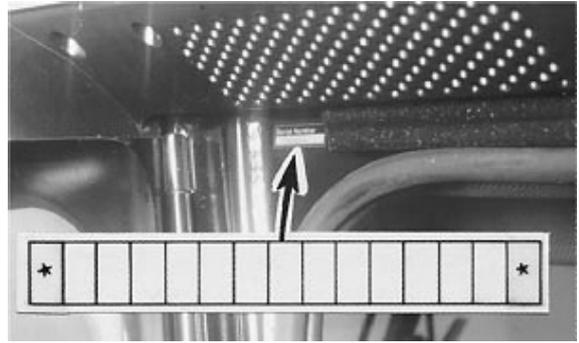
-JUN-11OCT88
H39757

1401,1010,G -19-12SEP91

Identification Number Location/Cab

CAB

Located on door frame.



10
10
3

-UN-27OCT89
H41155

1401,1010,Y -19-12SEP91

Identification Number Location/Cab

10
10
4

SPECIFICATIONS—9400 COMBINES

Engine (6359A)	Make John Deere (—640100) Model 6359A Type six-cylinder, in line, valve-in-head, diesel, turbocharged Brake Horsepower (125 kW) (167 hp) Displacement 5.9L (359 cu. in.) Bore and Stroke 107 x 110 mm (4.20 x 4.33 in.) Firing Order 1-5-3-6-2-4 Air Cleaner Dry Type with Safety Element Thermostats (Two) 82°C (180°F)
Engine (6068H)	Make John Deere (—640101) Model 6068H Type six-cylinder, in line, valve-in-head, diesel, turbocharged Brake Horsepower 138 kW (185 hp) Displacement 6.8L (414 cu. in.) Bore and Stroke 107 x 110 mm (4.20 x 4.33 in.) Firing Order 1-5-3-6-2-4 Air Cleaner Dry Type with Safety Element Thermostats (Two) 82°C (180°F)
Electrical System:	12 volt, negative ground with 90 amp alternator
Transmission:	three speeds
Brakes:	hydraulic shoe
Cylinder:	Types rasp bar or spike tooth Diameter 660 mm (26 in.) Width 1362 mm (53-1/2 in.) Number of bars: rasp bar 10 spike tooth 12
Concave:	Types open bar or spike tooth Area 8123 sq. cm (1259 sq. in.)
Beater:	Diameter 394 mm (15-1/2 in.) Number of wings 8
Beater Grate:	Type open bar two-position adjustable Area 5300 sq. cm (821-1/2 sq. in.)

**10
15
1**

HX,1401,1015,A -19-27NOV96

SPECIFICATIONS—9400 COMBINES

10
15
2

Finger Bar:	Type adjustable	
	Area 4780 sq. cm (741 sq. in.)	
Separator:	Type straw walkers	
	Width 1391 mm (55 in.)	
Cleaning Shoe:	Chaffer width 1286 mm (51 in.)	
	Chaffer length (with extension) 1220 mm (45 in.)	
	Sieve width 1286 mm (51 in.)	
	Sieve length 1159 mm (46 in.)	
	Precleaner width 1286 mm (51 in.)	
	Precleaner length 840 mm (33 in.)	
	Total area 411 sq. cm (6370 sq. in.)	
Straw Walkers:	Type Lip	
	Number of walkers 4	
	Length 4000 mm (157 in.)	
	Total area 556 sq. cm (8624 sq. in.)	
Grain Tank:	Capacity 6410L (182 bu.)	
	Average Unloading Rate 4200L/min. (120 bu./min.)	
Weights:	Less header (base equipment on a Corn Combine) 10 333 kg (22,780 lb.)	
Capacities:	Fuel tank 530L (140 gal.)	
	Cooling system (with heater) 36L (38 U.S. qts.)	
	Engine crankcase (with filter) 6359A 14L (14-1/2 U.S. qts.)	
	Engine crankcase (with filter) 6068H 18.9L (20 U.S. qts.)	
	Transmission 9.6L (10 U.S. qts.)	
	Final Drives (each) 8.0L (8.5 U.S. qts.)	
	Feeder House Reverser Gearcase 1.9L (2 U.S. qts.)	
	Separator Drive Gearcase 2.4L (2-1/2 U.S. qts.)	
	Straw Walker Drive Gearcase 0.7L (1-1/2 U.S. qts.)	
	Dual-Range Cylinder Drive Gearcase 1.9L (2 U.S. qts.)	
	Engine Gearcase 16L (17 U.S. qts.)	
	Loading Auger Gearcase 4.7L (5 U.S. qts.)	
	Hydraulic/Hydrostatic Reservoir 34L (36 U.S. qts.)	
	Air Conditioning System 2.2 kg (4.9 lb)	

HX.1401,1015.B -19-13SEP94

OPERATING SPEEDS—9400 COMBINES

Speeds shown are average and can vary from combine to combine. Speeds are rated at high idle with separator engaged, no load.

Engine: Slow Speed, Separator Off	(-639,999)	1200 rpm
	(640,000-)	1350 rpm
Fast Speed, Separator Off	(-639,999)	2550 rpm
Fast Speed, Separator Engaged	(640,000-)	2350 rpm
Full Load Rated Speed	(-639,999)	2400 rpm
	(640,000-)	2200 rpm
Separator Drive Shaft Speed		1550 rpm
Main Countershaft Speed		1550 rpm
Hydrostatic Pump Speed:	Ring and Pinion Final Drives	3510 rpm
Cylinder Speed:	Grain Special	470-960 rpm
	Extended Single Range	300-980 rpm
	Extended Dual Range (High Range)	300-980 rpm
	Extended Dual Range (Low Range)	150-480 rpm
Feeder House Lower Shaft:	Fixed Speed	520 rpm
	Variable	520-715 rpm
Secondary Countershaft		530 rpm
Cleaning Fan:	Standard	750-1350 rpm
	Optional	500-980 rpm
Clean Grain Elevator		400 rpm
Tailings Elevator		430 rpm
Shoe Crankshaft		280 rpm
Straw Walkers		170 rpm
Unloading Auger Countershaft		1060 rpm
Loading Auger		460 rpm
Inner Grain Tank Unloading Augers:	Front	405 rpm
	Rear	380 rpm
Vertical and Horizontal Unloading Augers		440 rpm
Straw Chopper:	Low (Corn)	1595 rpm
	High (Grain)	2130 rpm
Straw Spreader Shaft		235 rpm
Shoe Grain Supply Augers Shaft		405 rpm

10
15
3

HX,1401,1010,B -19-27NOV96

GROUND SPEEDS (SEPARATOR FULL LOAD)

For 9400 Combines equipped with ring and pinion final drives.

	TIRE SIZE	2WD	4WD	Speed in Km/h (mph)		
				FIRST GEAR	SECOND GEAR	THIRD GEAR
	20.8x38 R1	X		5.9 (3.7)	11.1 (6.9)	29.4 (18.4)
	20.8x38 R1		X	4.8 (3.0)	7.7 (4.8)	13.4 (8.4)
(Australia Only)	24.5x32 R1	X		5.9 (3.7)	14.3 (9.0)	29.4 (18.4)
	24.5x32 R1	X		5.9 (3.7)	11.1 (6.9)	29.4 (18.4)
	24.5x32 R1		X	4.8 (3.0)	7.7 (4.8)	13.4 (8.4)
	24.5x32 R3	X		5.7 (3.6)	10.6 (6.7)	28.3 (17.6)
	30.5Lx32 R1	X		5.9 (3.7)	11.1 (6.9)	29.4 (18.4)
	30.5Lx32 R1		X	4.8 (3.0)	7.7 (4.8)	13.4 (8.4)
	30.5Lx32 R2	X		6.3 (3.9)	11.7 (7.2)	31.2 (19.3)
	30.5Lx32 R2		X	5.2 (3.2)	8.0 (5.0)	14.0 (8.7)
	30.5Lx32 R3	X		5.7 (3.6)	10.6 (6.7)	28.3 (17.6)

HX,1401,1010Z -19-11DEC92

10
15
4

SPECIFICATIONS—9500 COMBINES

Engine: Make John Deere (—640200)
 Model 6076T
 Type six-cylinder, in line, valve-in-head, diesel, turbocharged
 Brake Horsepower 142 kW (190 hp)
 Displacement 7.6L (466 cu. in.)
 Bore and Stroke 116 x 121 mm (4.56 x 4.75 in.)
 Firing Order 1-5-3-6-2-4
 Air Cleaner Dry Type with Safety Element
 Thermostats (Two) 82°C (180°F)

Engine: Make John Deere (640201—)
 Model 6076H
 Type six-cylinder, in line, valve-in-head, diesel, turbocharged
 Brake Horsepower Corn and Rice Special 175 to 186 kW (235 w/boost to 250)
 Grain 160 to 170 kW (215 w/boost to 228)
 Displacement 7.6L (466 cu. in.)
 Bore and Stroke 116 x 121 mm (4.56 x 4.75 in.)
 Firing Order 1-5-3-6-2-4
 Air Cleaner Dry Type with Safety Element
 Thermostats (Two) 82°C (180°F)

Electrical System: 12 volt, negative ground with 90 amp alternator

Transmission: three speeds

Brakes: hydraulic shoe

Cylinder: Types rasp bar or spike tooth
 Diameter 660 mm (26 in.)
 Width 1362 mm (53-1/2 in.)
 Number of bars: rasp bar 10
 spike tooth 12

Concave: Types open bar or spike tooth
 Area 8123 sq. cm (1259 sq. in.)

Beater: Diameter 394 mm (15-1/2 in.)
 Number of wings 8

Beater Grate: Type open bar two-position adjustable
 Area 5300 sq. cm (821.5 sq. in.)

HX,1401,1015,E -19-27NOV96

10
15
5

SPECIFICATIONS—9500 COMBINES

10
15
6

Finger Bar:	Type adjustable	
	Area	4780 sq. cm (741 sq. in.)
Separator:	Type straw walkers	
	Width	1391 mm (55 in.)
Cleaning Shoe:	Chaffer width	1286 mm (51 in.)
	Chaffer length	830 mm (32-1/2 in.)
	Sieve width	1286 mm (51 in.)
	Sieve length	1159 mm (46 in.)
	Precleaner width	1286 mm (51 in.)
	Precleaner length	840 mm (33 in.)
	Total area	411 sq. cm (6370 sq. in.)
Straw Walkers:	Type Lip	
	Number of walkers	4
	Length	4500 mm (177 in.)
	Total area	626 sq. cm (9702 sq. in.)
Grain Tank:	Capacity	7.0 cu m (204 bu.)
	Average unloading rate	4200L/min. (120 bu./min.)
Weights:	Less Header (Base equipment on Corn Combine)	10935 kg (24,110 lb.)
Capacities:	Fuel tank	530L (140 gal.)
	Cooling system (with heater)	36L (38 U.S. qts.)
	Engine crankcase (with filter)	23.2L (24-1/2 U.S. qts.)
	Transmission	9.6L (10 U.S. qts.)
	Final Drives (each)	8.0L (8.5 U.S. qts.)
	Feeder House Reverser Gearcase	1.9L (2 U.S. pts.)
	Separator Drive Gearcase	2.4L (2-1/2 U.S. qts.)
	Straw Walker Drive Gearcase	0.7L (1-1/2 U.S. pts.)
	Dual-Range Cylinder Drive Gearcase	1.9L (2 U.S. qts.)
	Engine Gearcase	16L (17 U.S. qts.)
	Loading Auger Gearcase	4.7L (5 U.S. qts.)
	Hydraulic/Hydrostatic Reservoir	34L (36 U.S. qts.)

HX,1401,1015,F -19-13SEP94

Specifications/Operating Speeds—9500 Combines

OPERATING SPEEDS—9500 COMBINES

Speeds shown are average and can vary from machine to machine. Speeds are rated at high idle with separator engaged, no load.

Engine:	Slow Idle (Separator Off)	1200 rpm
	Mid Speed	1650 rpm
	Fast Idle (Separator Engaged)	2340 rpm
	Separator Full Load	2200 rpm
Separator Drive Shaft Speed		1550 rpm
Main Countershaft Speed		1550 rpm
Hydrostatic Pump Speed:	Ring and Pinion Final Drives	3510 rpm
Cylinder Speed:	High Range	480-980 rpm
	Low Range	240-480 rpm
	Grain Special	470-960 rpm
	Edible Bean	150-250 rpm
Feeder House Lower Shaft:	Fixed Speed	520 rpm
	Variable	520-715 rpm
Secondary Countershaft		530 rpm
Cleaning Fan:	Standard	750-1350 rpm
	Optional	500-980 rpm
Clean Grain Elevator		400 rpm
Tailings Elevator		430 rpm
Shoe Crankshaft		280 rpm
Straw Walkers		170 rpm
Unloading Auger Countershaft		1060 rpm
Loading Auger		460 rpm
Inner Grain Tank Unloading Augers:	Front	360 rpm
	Rear	360 rpm
Vertical and Horizontal Unloading Augers		390 rpm
Straw Chopper:	Low (Corn)	1595 rpm
	High (Grain)	2130 rpm
Straw Spreader Shaft		235 rpm
Shoe Grain Supply Augers Shaft		405 rpm

HX.1401,1015,G -19-13SEP94

10
15
7