W540, W550, W650, W660, T550, T560, T660, and T670 Combines Repair Technical Manual

(Serial No. 130000 -)

REPAIR TECHNICAL MANUAL

W540, W550, W650, W660, T550, T560, T660, and T670 Combines (From SN 130000)

TM415519 01JUN21 (ENGLISCH)

John Deere GmbH & Co. KG
John Deere Werk Zweibrücken
Worldwide Edition
PRINTED IN U.S.A.

Contents

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-19-20140415

Version Date

01 June 2021

OUCC019,0007781-19-20210603

Section 10 - General Information

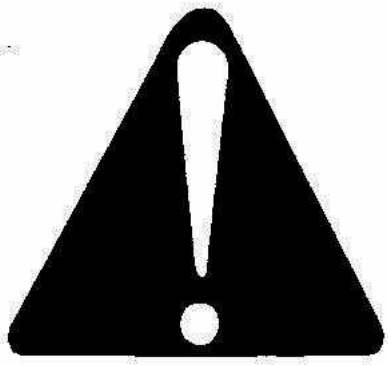
Contents

Group 20 - Fuel, Lubricants, Coolant and Capacities

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-UN: Safety-alert symbol

DX,ALERT-19-19980929

Understand Signal Words

DANGER ; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING ; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION ; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

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.

TS187-19: Signal Words

DX,SIGNAL-19-20161005

Follow Safety Instructions

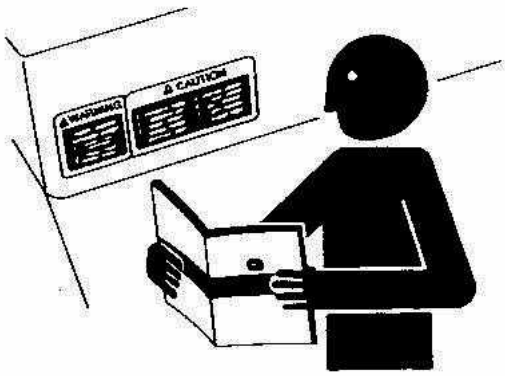
Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere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

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

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.



TS201-UN: Safety Messages

DX,READ-19-20090616

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: Battery Explosions

DX,SPARKS-19-19930303

Handling Batteries Safely

Battery gas can explode. Keep sparks and flames away from batteries. Use a flashlight to check battery electrolyte level.

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

Always remove grounded (-) battery clamp first and replace grounded clamp last.

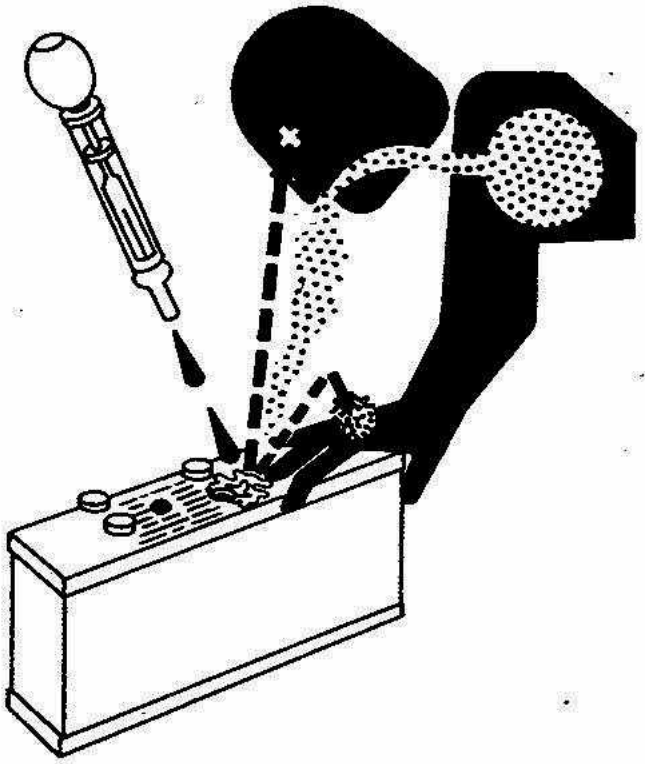
Sulfuric acid in battery electrolyte is poisonous and strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid hazards by:

- Filling batteries in a well-ventilated area
- Wearing eye protection and rubber gloves
- Avoiding use of air pressure to clean batteries
- Avoiding breathing fumes when electrolyte is added
- Avoiding spilling or dripping electrolyte
- Using correct battery booster or charger procedure.

TS204-UN: Caution

If acid is spilled on skin or in eyes:



TS203-UN: Caution

1. Flush skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush 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 qt.).
3. Get medical attention immediately.

WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

DX,WW,BATTERIES-19-20101202

Wait Before Opening High-Pressure Fuel System

High-pressure fluid remaining in fuel lines can cause serious injury. Only technicians familiar with this type of system should perform repairs. Before disconnecting fuel lines, sensors, or any other components between the high-pressure fuel pump and nozzles on engines with High-Pressure Common Rail (HPCR) fuel system, confirm that the fuel pressure is relieved.

TS1343-UN: High-Pressure Fuel Lines

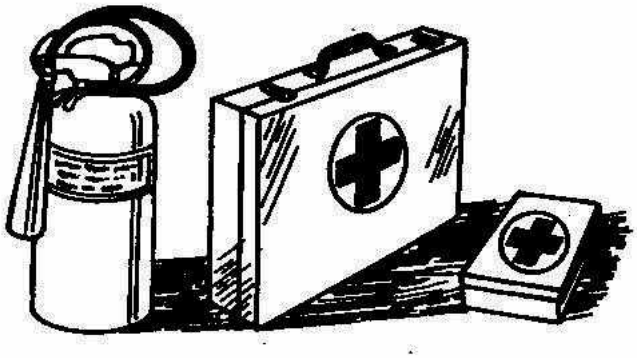
DX,WW,HPCR2-19-20140909

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: First Aid Kit

DX,FIRE2-19-19930303

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: Avoid Fires

DX,FLAME-19-19980929

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:

TS203-UN: Acid Burns

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.

DX,POISON-19-19930421

Avoid High-Pressure Fluids

Inspect hydraulic hoses periodically – at least once per year – for leakage, kinking, cuts, cracks, abrasion, blisters, corrosion, exposed wire braid or any other signs of wear or damage.

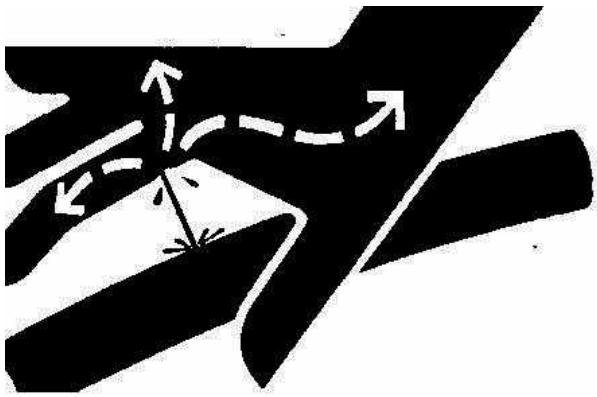
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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 in English from Deere & Company Medical Department in Moline, Illinois, U.S.A., by calling 1-800-822-8262 or +1 309-748-5636.



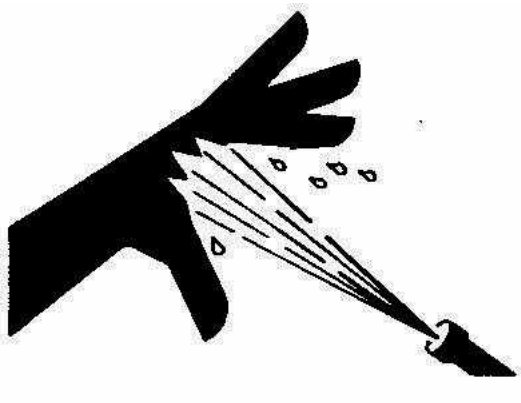
X9811-UN: High Pressure

DX,FLUID-19-20111012

Protect Against High Pressure Spray

Spray from high pressure nozzles can penetrate the skin and cause serious injury. Keep spray from contacting hands or body.

If an accident occurs, see a doctor immediately. Any high pressure spray 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.



TS1343-UN: High Pressure Spray

DX,SPRAY-19-19920416

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.

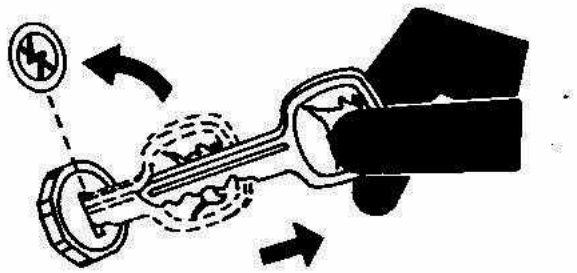
TS177-UN: Machinery Runaway

DX,BYPAS1-19-19980929

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: Remove the Key

DX,PARK-19-19900604

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: Safety Systems

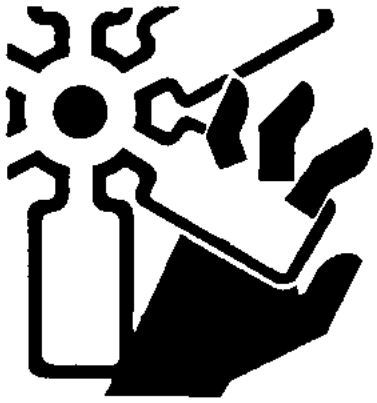
DX,LIVE-19-19920925

Install All Guards

Rotating cooling system fans, belts, pulleys, and drives can cause serious injury.

Keep all guards in place at all times during engine operation.

Wear close-fitting clothes. Stop the engine and be sure fans, belts, pulleys, and drives are stopped before making adjustments, connections, or cleaning near fans and their drive components.



TS677-UN: SafetyFan

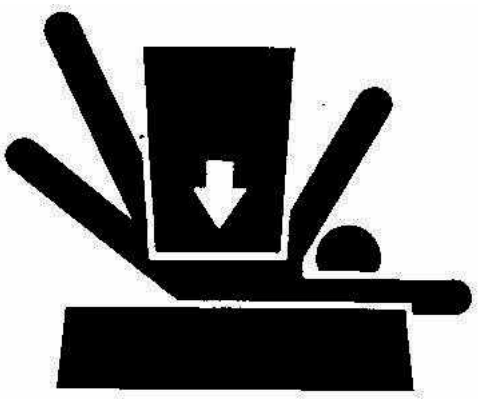
DX,GUARDS-19-20090818

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.



TS229-UN: Support Properly

DX,LOWER-19-20000224

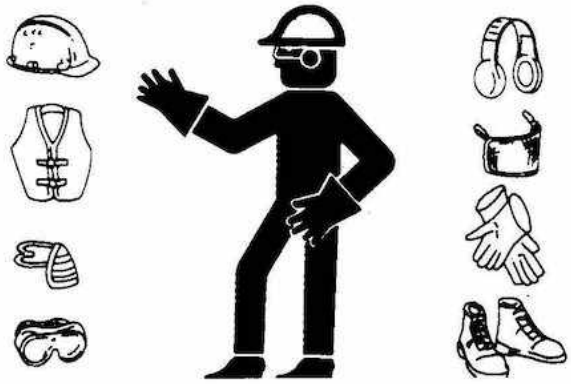
Wear Protective Clothing

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.



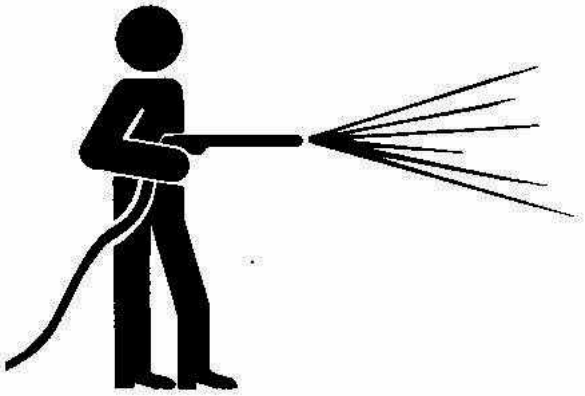
TS206-UN: Protective Clothing

DX,WEAR-19-19900910

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.



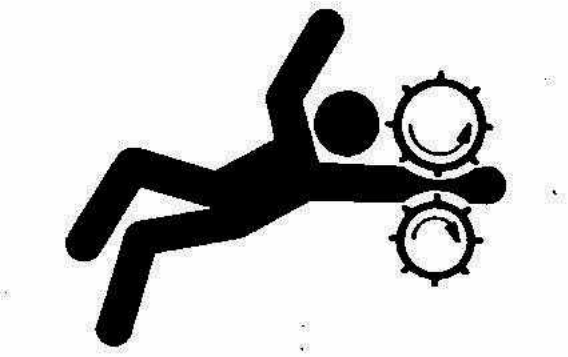
T6642EJ-UN: Clean Work Area

DX,CLEAN-19-19900604

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.



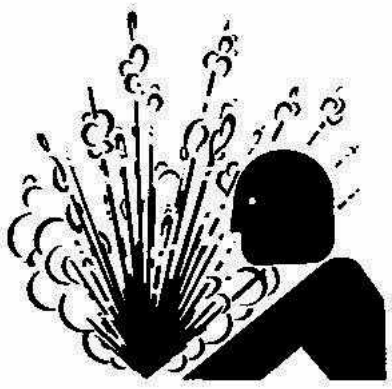
TS228-UN: Moving Parts

DX,LOOSE-19-19900604

Service Cooling System Safely

Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.



TS281-UN: Cooling System

DX,RCAP-19-19900604

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

Keep all shields in place at all times. Make sure rotating shields turn freely.

Wear close-fitting clothing. Stop the engine and be sure that all rotating parts and drivelines are stopped before making adjustments, connections, or performing any type of service on engine or machine driven equipment.

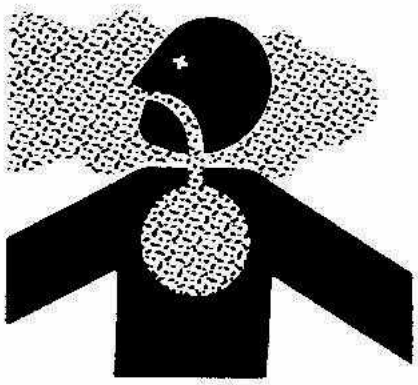
TS1644-UN: Rotating Drivelines

DX,ROTATING-19-20090818

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.

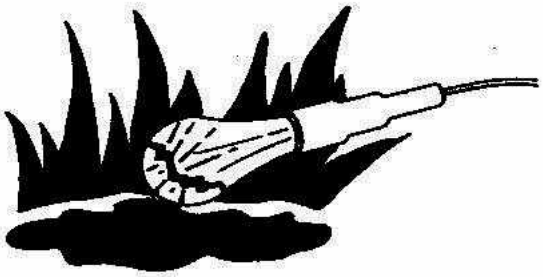


TS220-UN: Engine exhaust fumes

DX,AIR-19-19990217

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.

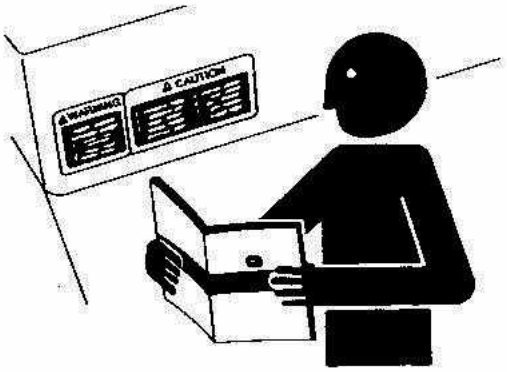


TS223-UN: Work Area Safely

DX,LIGHT-19-19900604

Replace Safety Signs

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



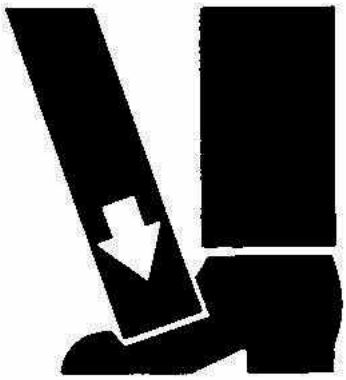
TS201-UN: Safety Signs

DX,SIGNS1-19-19900604

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: Proper Lifting Equipment

DX,LIFT-19-19900604

Service Tires Safely

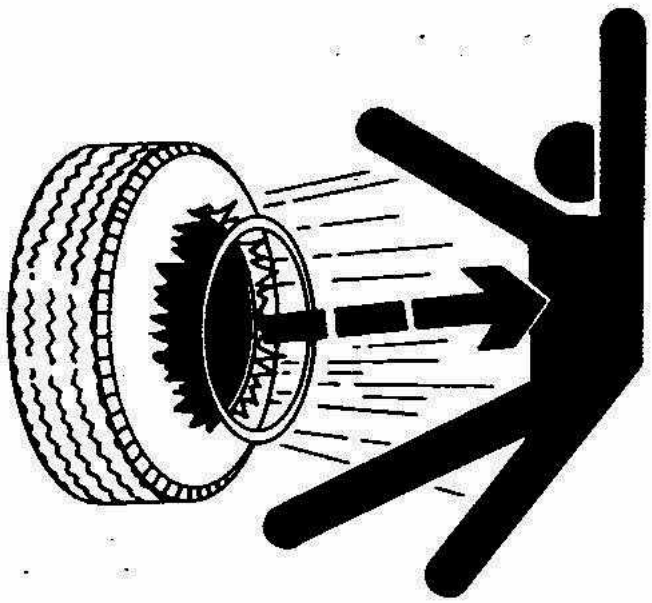
Explosive separation of a tire and rim parts can cause serious injury or death.

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: Explosive Tire and Rim Parts

DX,RIM-19-19900824

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 accidentally burst when heat goes beyond the immediate flame area.

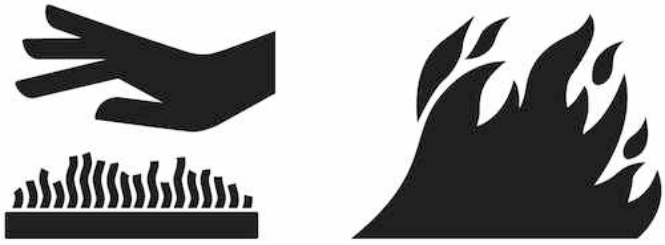
TS953-UN: Flammable Spray

DX,TORCH-19-20041210

Avoid Hot Exhaust

Servicing machine or attachments with engine running can result in serious personal injury. Avoid exposure and skin contact with hot exhaust gases and components.

Exhaust parts and streams become very hot during operation. Exhaust gases and components reach temperatures hot enough to burn people, ignite, or melt common materials.



RG17488-UN: Safety—Hot Parts

DX,EXHAUST-19-20090820

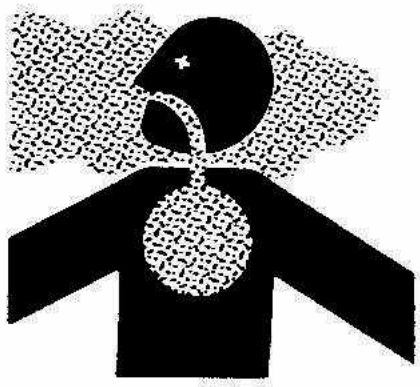
Remove Paint Before Welding or Heating

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.



TS220-UN: Toxic Fumes

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.

DX,PAINT-19-20020724

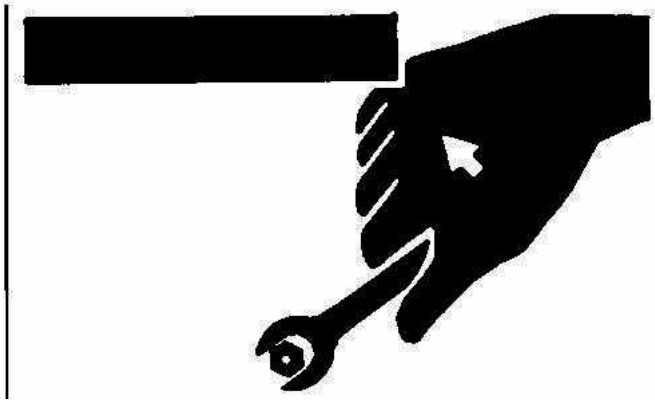
Use Proper Tools

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.



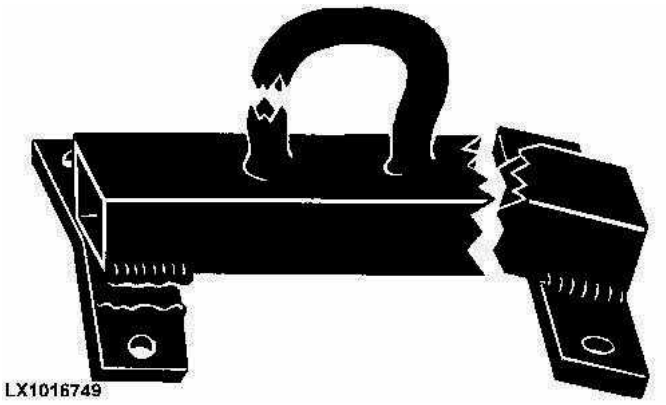
TS779-UN: Proper Tools

DX,REPAIR-19-19990217

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.



LX1016749-UN: Construct Dealer-Made Tools Safely

DX,SAFE,TOOLS-19-19971010

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 away 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.

Falling while cleaning or working at height can cause serious injury. Use a ladder or platform to easily reach each location. Use sturdy and secure footholds and handholds.

TS218-UN: Keep Area Clean

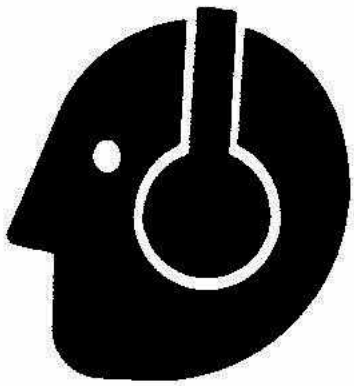
DX,SERV-19-20170228

Protect Against Noise

There are many variables that affect the sound level range, including machine configuration, condition and maintenance level of the machine, ground surface, operating environmental, duty cycles, ambient noise, and attachments.

Exposure to loud noise can cause impairment or loss of hearing.

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



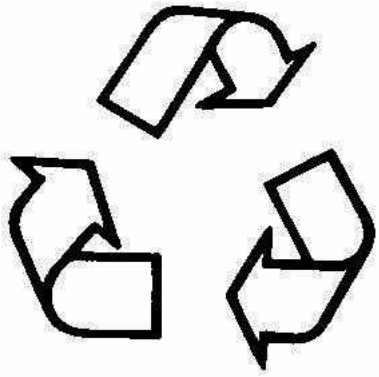
TS207-UN: Noise Exposure

DX,NOISE-19-20171003

Decommissioning — Proper Recycling and Disposal of Fluids and Components

Safety and environmental stewardship measures must be taken into account when decommissioning a machine and/or component. These measures include the following:

- Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.
- Follow instructions for specialized components.
- Release stored energy by lowering suspended machine elements, relaxing springs, disconnecting the battery or other electrical power, and releasing pressure in hydraulic components, accumulators, and other similar systems.
- Minimize exposure to components which may have residue from agricultural chemicals, such as fertilizers and pesticides. Handle and dispose of these components appropriately.
- Carefully drain engines, fuel tanks, radiators, hydraulic cylinders, reservoirs, and lines before recycling components. Use leak-proof containers when draining fluids. Do not use food or beverage containers.
- Do not pour waste fluids onto the ground, down a drain, or into any water source.
- Observe all national, state, and local laws, regulations, or ordinances governing the handling or disposal of waste fluids (example: oil, fuel, coolant, brake fluid); filters; batteries; and, other substances or parts. Burning of flammable fluids or components in other than specially designed incinerators may be prohibited by law and could result in exposure to harmful fumes or ashes.
- Service and dispose of air conditioning systems appropriately. Government regulations may require a certified service center to recover and recycle air conditioning refrigerants which could damage the atmosphere if allowed to escape.
- Evaluate recycling options for tires, metal, plastic, glass, rubber, and electronic components which may be recyclable, in part or completely.
- Contact your local environmental or recycling center, or your John Deere dealer for information on the proper way to recycle or dispose of waste.



TS1133-UN: Recycle Waste

DX,DRAIN-19-20150601

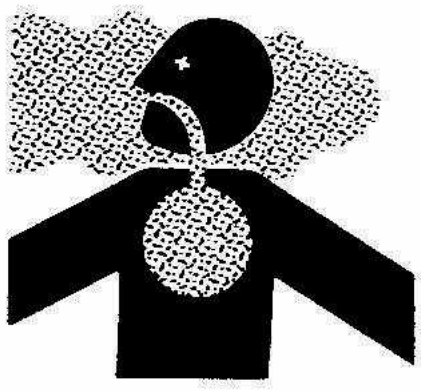
Avoid Harmful Asbestos Dust

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: Asbestos Dust

DX,DUST-19-19910315

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-19-19921211

Servicing Electronic Control Units

1. **IMPORTANT:**
   Do not open control unit and do not clean with a high-pressure spray. Moisture, dirt, and other contaminants can cause permanent damage.

   Control units are not repairable; replace only if indicated in the diagnostic procedure.
2. Since control units are the components LEAST likely to fail, isolate failure before replacing by completing the diagnostic procedure.
3. The wiring harness terminals and connectors for electronic control units are repairable.
4. **IMPORTANT:**
   If an electronic control unit is not programmed identical to the original control unit, misleading diagnostic messages and poor performance will occur.

   Before putting back into service, verify that the control unit is programmed identical to the original control unit.

DX,WW,ECU01-19-20151002

Welding Near Electronic Control Units

TS953-UN: Welding Graphic

1. **IMPORTANT:**
   Do not jump-start engines with arc welding equipment. Currents and voltages are too high and may cause permanent damage.

   Disconnect the negative (-) battery cable(s).
2. Disconnect the positive (+) battery cable(s).
3. Connect the positive and negative cables together. Do not attach to vehicle frame.
4. Clear or move any wiring harness sections away from welding area.
5. Connect welder ground close to welding point and away from control units.
6. After welding, reverse Steps 1—5.

DX,WW,ECU02-19-20090814

Precautions for Welding

Remove paint before welding or heating (see Safety Section in this manual for more information on paint removal and high-pressure lines).

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

IMPORTANT:
Welding on the engine is NOT ALLOWED. If welding must be performed on the machine, follow these precautions.

IMPORTANT:
High currents or electrostatic discharge into electronic components from welding may cause permanent damage.

TS953-UN: Welding Precaution

1. Remove paint from the area to be welded and ground cable clamp location.
2. Disconnect the negative (-) battery cable(s) or open battery (-) switch if equipped.
3. Disconnect the positive (+) battery cable(s) or open battery (+) switch if equipped.
4. Clear or move any wiring harness sections away from the welding area.
5. Welding on engine components is not allowed.
6. Never connect the welder ground to any engine component or engine driven components that may be connected to the engine.
7. After welding, reverse steps 2—3.

DX,WELDING,PRECAUTIONS-19-20101206

Keep Electronic Control Unit Connectors Clean

1. **IMPORTANT:**
   Keep terminals clean and free of foreign debris. Moisture, dirt and other contaminants may cause the terminals to erode over time and not make a good electrical connection.

   If a connector is not in use, put on the proper dust cap or an appropriate seal to protect it from foreign debris and moisture.

2. **IMPORTANT:**
   Do not probe through the wire insulation or through the back of the connector. Do not insert items such as paper clips or wires into connector terminals.

   Make measurements on a connector terminal using JDG10466 Flex Probe Kit in SERVICEGARD.
3. Observe the locking mechanism of the connector when disconnecting and reconnecting.
4. Do not pull on wires to disconnect.
5. Before reconnecting:
   - Look for bent terminals; do not force connectors into each other.
   - Replace any terminal where corrosion exists.
   - Clean the connector of any foreign debris.
   - Dry the connector of any moisture.

6. When reconnecting, make sure seals around the connector pairs are functional.

DX,WW,ECU03-19-20090611

Clean Exhaust Filter Safely

During exhaust filter cleaning operations, the engine may run at elevated idle and hot temperatures for an extended period of time. Exhaust gases and exhaust filter components reach temperatures hot enough to burn people, or ignite or melt common materials.

Keep machine away from people, animals, or structures which may be susceptible to harm or damage from hot exhaust gases or components. Avoid potential fire or explosion hazards from flammable materials and vapors near the exhaust. Keep exhaust outlet away from people and anything that can melt, burn, or explode.

Closely monitor machine and surrounding area for smoldering debris during and after exhaust filter cleaning.

Adding fuel while an engine is running can create a fire or explosion hazard. Always stop engine before refueling machine and clean up any spilled fuel.

Always make sure that engine is stopped while hauling machine on a truck or trailer.

Contact with exhaust components while still hot can result in serious personal injury.

Avoid contact with these components until cooled to safe temperatures.

If service procedure requires engine to be running:

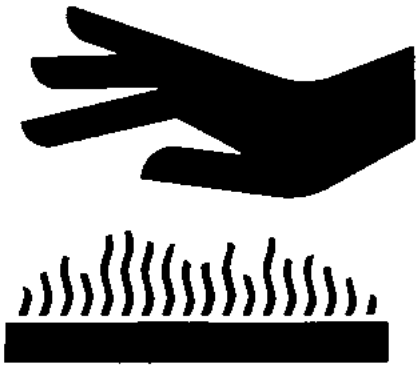
- Only engage power-driven parts required by service procedure
- Ensure that other people are clear of operator station and machine

Keep hands, feet, and clothing away from power-driven parts.

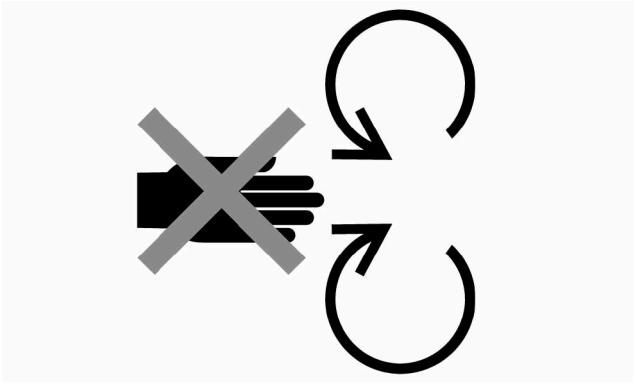
Always disable movement (neutral), set the parking brake or mechanism and disconnect power to attachments or tools before leaving the operator's station.

Shut off engine and remove key (if equipped) before leaving the machine unattended.

TS227-UN: Fire Safety



TS271-UN: Hand Over Flame



TS1693-UN: Moving Parts

TS1695-UN: Stop

DX,EXHAUST,FILTER-19-20110112

Handle Fuel Safely—Avoid Fires

Handle fuel with care: it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Fill fuel tank outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.

Use only an approved fuel container for transporting flammable liquids.

Never fill fuel container in pickup truck with plastic bed liner. Always place fuel container on ground before refueling. Touch fuel container with fuel dispenser nozzle before removing can lid. Keep fuel dispenser nozzle in contact with fuel container inlet when filling.

Do not store fuel container where there is an open flame, spark, or pilot light such as within a water heater or other appliance.

TS202-UN: Avoid Fires

DX,FIRE1-19-20111012

Handle Starting Fluid Safely

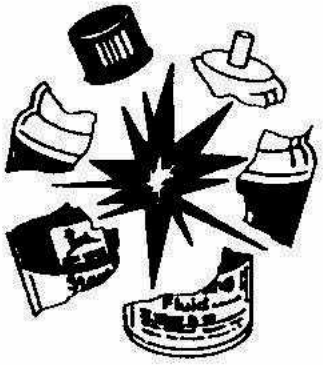
Starting fluid is highly flammable.

Keep all sparks and flame away when using it. Keep starting fluid away from batteries and cables.

To prevent accidental discharge when storing the pressurized can, keep the cap on the container, and store in a cool, protected location.

Do not incinerate or puncture a starting fluid container.

Do not use starting fluid on an engine equipped with glow plugs or an air intake heater.



TS1356-UN: Store Safely

DX,FIRE3-19-20140314

W540 Combine

Engine:	Manufacturer		**John Deere**
	Engine types		6068HZ505 (6.8 L Tier 4/Stage 5)
			6068HZ484 (6.8 L Tier 2/Stage 2)
	Engine power at 2200 rpm		175 kW (235 hp/238 PS)
	Max engine power at 2000 rpm		191 kW (256 hp/260 PS)
	Displacement		6.8 L (414 in³)
	Air cleaner		Dry type with safety element
	Thermostats (two)		82°C (180°F)
Fuel tank:	Capacity		800 L (210 gal)
DEF tank:	Capacity		33 L (8.7 gal)
Electrical system:		12 volt, 200 A alternator	
Transmission:		ProDrive™, electrical (PBST) or mechanical shift	
Brakes:		Hydraulic drum brakes	
Separator:	Type		Tangential separator with beater
Threshing cylinder:	Number of rasp bars		10
	Diameter		660 mm (26 in)
	Width		1400 mm (55 in)
Concave:	Dimensions		750 x 1400 mm (30 x 55 in)
Beater:	Number of wings		8
Second concave:	Type		Open bars, adjustable to two positions
	Number of bars		10
Straw walkers:	Type		11-stage perforated walkers
	Number of walkers		5
	Walker length		4.78 m (15 ft 8.2 in)
Power separator:	Type		Retractable
	Number of fingers		15
Grain tank:	Capacity		8000 L (227 bu)
			10 000 L (287 bu) (option)
	Maximum unload rate		5280 L/min (150 bu./min.)
Weight:	Without header, with straw chopper and chaff spreader		13 700 kg (30 203 lb)

OUCC019,000727C-19-20190329

W550 Combine

Engine:	Manufacturer		**John Deere**
	Engine types		6068HZ504 (6.8 L Tier 4/Stage 5)
			6068HZ484 (6.8 L Tier 2/Stage 2)
	Engine power at 2200 rpm		202 kW (271 hp/275 PS)
	Max engine power at 2000 rpm		224 kW (300 hp/305 PS)
	Displacement		6.8 L (414 in³)
	Air cleaner		Dry type with safety element
	Thermostats (two)		82°C (180°F)
Fuel tank:	Capacity		800 L (210 gal)
DEF tank:	Capacity		33 L (8.7 gal)
Electrical system:		12 volt, 200 A alternator	
Transmission:		ProDrive™, electrical (PBST) or mechanical shift	
Brakes:		Hydraulic drum brakes	
Separator:	Type		Tangential separator with beater
Threshing cylinder:	Number of rasp bars		10
	Diameter		660 mm (26 in)
	Width		1400 mm (55 in)
Concave:	Dimensions		750 x 1400 mm (30 x 55 in)
Beater:	Number of wings		8
Second concave:	Type		Open bars, adjustable to two positions
	Number of bars		10
Straw walkers:	Type		11-stage perforated walkers
	Number of walkers		5
	Walker length		4.78 m (15 ft 8.2 in)
Power separator:	Type		Retractable
	Number of fingers		15
Grain tank:	Capacity		8000 L (227 bu)
			10 000 L (287 bu) (option)
	Maximum unload rate with Regular Unload Rate gear case		5280 L/min (150 bu./min.)
	Maximum unload rate with High Unload Rate gear case		6900 L/min (196 bu./min.)
Weight:	Without header, with straw chopper and chaff spreader		13 700 kg (30 203 lb)

OUCC019,000727D-19-20190329

W650 Combine

Engine:	Manufacturer		**John Deere**
	Engine types		6090HZ027 (9.0 L Tier 4/Stage 5) 6068HZ484 (6.8 L Tier 2/Stage 2)
	Engine power at 2200 rpm for Tier 4		225 kW (302 hp/306 PS)
	Engine power at 2400 rpm for Tier 2		202 kW (271 hp/275 PS)
	Max engine power at 2000 rpm for Tier 4		256 kW (343 hp/348 PS)
	Max engine power at 2200 rpm for Tier 2		224 kW (300 hp/305 PS)
	Displacement for Tier 4		9.0 L (554 in^3)
	Displacement for Tier 2		6.8 L (414 in^3)
	Air cleaner		Dry type with safety element
	Thermostats (two)		82°C (180°F)
Fuel tank:	Capacity		800 L (210 gal)
DEF tank:	Capacity		33 L (8.7 gal)
Electrical system:		12 volt, 200 A alternator	
Transmission:		ProDrive™, electrical (PBST) or mechanical shift	
Brakes:		Hydraulic drum brakes	
Separator:	Type		Tangential separator with beater
Threshing cylinder:	Number of rasp bars		10
	Diameter		660 mm (26 in)
	Width		1670 mm (65 in)
Concave:	Dimensions		750 x 1670 mm (30 x 65 in)
Beater:	Number of wings		8
Second concave:	Type		Open bars, adjustable to two positions
	Number of bars		10
Straw walkers:	Type		11-stage perforated walkers
	Number of walkers		6
	Walker length		4.78 m (15 ft 8.2 in)
Power separator:	Type		Retractable
	Number of fingers		18
Grain tank:	Capacity		9000 L (257 bu) 11 000 L (312 bu) (option)
	Maximum unload rate		5280 L/min (150 bu./min.)
Weight:	Without header, with straw chopper and chaff spreader		15 500 kg (34 171 lb)

OUCC019,000727E-19-20210406

W660 Combine

Engine:	Manufacturer	**John Deere**
	Engine types	6090HZ028 (9.0 L Tier 4/Stage 5) 6090HZ007 (9.0 L Tier 2/Stage 2)
	Engine power at 2200 rpm for Tier 4	249 kW (334 hp/339 PS)
	Engine power at 2400 rpm for Tier 2	239 kW (320 hp/325 PS)
	Max engine power at 2000 rpm for Tier 4	285 kW (382 hp/387 PS)
	Max engine power at 2200 rpm for Tier 2	273 kW (365 hp/371 PS)
	Displacement	9.0 L (554 in³)
	Air cleaner	Dry type with safety element
	Thermostats (two)	82°C (180°F)
Fuel tank:	Capacity	800 L (210 gal)
DEF tank:	Capacity	33 L (8.7 gal)
Electrical system:	12 volt, 200 A alternator	
Transmission:	ProDrive™, electrical (PBST) or mechanical shift	
Brakes:	Hydraulic drum brakes	
Separator:	Type	Tangential separator with beater
Threshing cylinder:	Number of rasp bars	10
	Diameter	660 mm (26 in)
	Width	1670 mm (65 in)
Concave:	Dimensions	750 x 1670 mm (30 x 65 in)
Beater:	Number of wings	8
Second concave:	Type	Open bars, adjustable to two positions
	Number of bars	10
Straw walkers:	Type	11-stage perforated walkers
	Number of walkers	6
	Walker length	4.78 m (15 ft 8.2 in)
Power separator:	Type	Retractable
	Number of fingers	18
Grain tank:	Capacity	9000 L (257 bu) 11 000 L (312 bu) (option)
	Maximum unload rate with Regular Unload Rate gear case	5280 L/min (150 bu./min.)
	Maximum unload rate with High Unload Rate gear case	6900 L/min (196 bu./min.)
Weight:	Without header, with straw chopper and chaff spreader	15 500 kg (34 171 lb)

OUCC019,000727F-19-20210406

T550 Combine

Engine:	Manufacturer	**John Deere**
	Engine types	6068HZ504 (6.8 L Tier 4/Stage 5) 6068HZ484 (6.8 L Tier 2/Stage 2)
	Engine power at 2200 rpm	202 kW (271 hp/275 PS)
	Max engine power at 2000 rpm	224 kW (300 hp/305 PS)
	Displacement	6.8 L (414 in³)
	Air cleaner	Dry type with safety element
	Thermostats (two)	82°C (180°F)
Fuel tank:	Capacity	800 L (210 gal)
DEF tank:	Capacity	33 L (8.7 gal)
Electrical system:	12 volt, 200 A alternator	
Transmission:	Three-speed, electrical (PBST) or mechanical shift	
Brakes:	Hydraulic drum brakes	
Threshing cylinder:	Number of rasp bars	10
Concave:	Type	13 open bar
Separator rotor:	Diameter	800 mm (31 in)
Separator Grate:	Type	Finger rake, eight rows, adjustable to two positions
Beater:	Number of wings	8
Third concave:	Type	Open bars, adjustable to two positions
	Number of bars	10
Finger rake:	Type	Adjustable
Separator:	Type	Separator rotor/straw walkers
Straw walkers:	Type	Perforated plate
	Number of walkers	5
Grain tank:	Capacity	8000 L (227 bu) 10 000 L (287 bu) (option)
	Maximum unload rate with Regular Unload Rate gear case	5280 L/min. (150 bu/min.)
	Maximum unload rate with High Unload Rate gear case	6900 L/min (196 bu/min.)
Weight:	Without header, with straw chopper and chaff spreader	15 200 kg (33 510 lb)

OUCC019,0007280-19-20190329

T560 Combine

Engine:	Manufacturer	**John Deere**
	Engine types	6090HZ028 (9.0 L Tier 4/Stage 5)
	Engine power at 2200 rpm	249 kW (334 hp/339 PS)
	Max engine power at 2000 rpm	285 kW (382 hp/387 PS)
	Displacement	9.0 L (554 in³)
	Air cleaner	Dry type with safety element
	Thermostats (two)	82°C (180°F)
Fuel tank:	Capacity	800 L (210 gal)
DEF tank:	Capacity	33 L (8.7 gal)
Electrical system:	12 volt, 200 A alternator	
Transmission:	Three-speed, electrical (PBST) or mechanical shift	
Brakes:	Hydraulic drum brakes	
Threshing cylinder:	Number of rasp bars	10
Concave:	Type	13 open bar
Separator rotor:	Diameter	800 mm (31 in)
Separator Grate:	Type	Finger rake, eight rows, adjustable to two positions
Beater:	Number of wings	8
Third concave:	Type	Open bars, adjustable to two positions
	Number of bars	10
Finger rake:	Type	Adjustable
Separator:	Type	Separator rotor/straw walkers
Straw walkers:	Type	Perforated plate
	Number of walkers	5
Grain tank:	Capacity	8000 L (227 bu) 10 000 L (287 bu) (option)
	Maximum unload rate	6900 L/min (196 bu/min)
Weight:	Without header, with straw chopper and chaff spreader	15 800 kg (34 833 lb)

OUCC019,0007281-19-20210406

T660 Combine

Engine:	Manufacturer	**John Deere**
	Engine types	6090HZ028 (9.0 L Tier 4/Stage 5) 6090HZ007 (9.0 L Tier 2/Stage 2)
	Engine power at 2200 rpm for Tier 4	249 kW (334 hp/339 PS)
	Engine power at 2400 rpm for Tier 2	239 kW (320 hp/325 PS)
	Max engine power at 2000 rpm for Tier 4	285 kW (382 hp/387 PS)
	Max engine power at 2200 rpm for Tier 2	273 kW (365 hp/371 PS)
	Displacement	9.0 L (554 in³)
	Air cleaner	Dry type with safety element
	Thermostats (two)	82°C (180°F)
Fuel tank:	Capacity	800 L (210 gal)
DEF tank:	Capacity	33 L (8.7 gal)
Electrical system:	12 volt, 200 A alternator	
Transmission:	Three-speed, electrical (PBST) or mechanical shift	
Brakes:	Hydraulic drum brakes	
Threshing cylinder:	Number of rasp bars	10
Concave:	Type	13 open bar
Separator rotor:	Diameter	800 mm (31 in)
Separator Grate:	Type	Finger rake, eight rows, adjustable to two positions
Beater:	Number of wings	8
Third concave:	Type	Open bars, adjustable to two positions
	Number of bars	10
Finger rake:	Type	Adjustable
Separator:	Type	Separator rotor/straw walkers
Straw walkers:	Type	Perforated plate
	Number of walkers	6
Grain tank:	Capacity	9000 L (287 bu) 11 000 L (312 bu) (option)
	Maximum unload rate with Regular Unload Rate gear case	5280 L/min. (150 bu/min.)
	Maximum unload rate with High Unload Rate gear case	6900 L/min (196 bu/min.)
Weight:	Without header, with straw chopper and chaff spreader	16 500 kg (36 376 lb)

OUCC019,0007282-19-20210406

T670 Combine

Engine:	Manufacturer		**John Deere**
	Engine types		6090HZ028 (9.0 L Tier 4/Stage 5) 6090HZ007 (9.0 L Tier 2/Stage 2)
	Engine power at 2200 rpm for Tier 4		292 kW (392 hp/397 PS)
	Engine power at 2400 rpm for Tier 2		278 kW (373 hp/378 PS)
	Max engine power at 2000 rpm for Tier 4		335 kW (449 hp/455 PS)
	Max engine power at 2200 rpm for Tier 2		317 kW (425 hp/431 PS)
	Displacement		9.0 L (554 in³)
	Air cleaner		Dry type with safety element
	Thermostats (two)		82°C (180°F)
Fuel tank:	Capacity		800 L (210 gal)
DEF tank:	Capacity		33 L (8.7 gal)
Electrical system:		12 volt, 200 A alternator	
Transmission:		Three-speed, electrical (PBST) or mechanical shift	
Brakes:		Hydraulic drum brakes	
Threshing cylinder:	Number of rasp bars		10
Concave:	Type		13 open bar
Separator rotor:	Diameter		800 mm (31 in)
Separator Grate:	Type		Finger rake, eight rows, adjustable to two positions
Beater:	Number of wings		8
Third concave:	Type		Open bars, adjustable to two positions
	Number of bars		10
Finger rake:	Type		Adjustable
Separator:	Type		Separator rotor/straw walkers
Straw walkers:	Type		Perforated plate
	Number of walkers		6
Grain tank:	Capacity		11 000 L (312 bu)
	Maximum unload rate		6900 L/min (196 bu/min.)
Weight:	Without header, with straw chopper and chaff spreader		16 500 kg (36 376 lb)

OUCC019,0007283-19-20210406

Operating Speeds

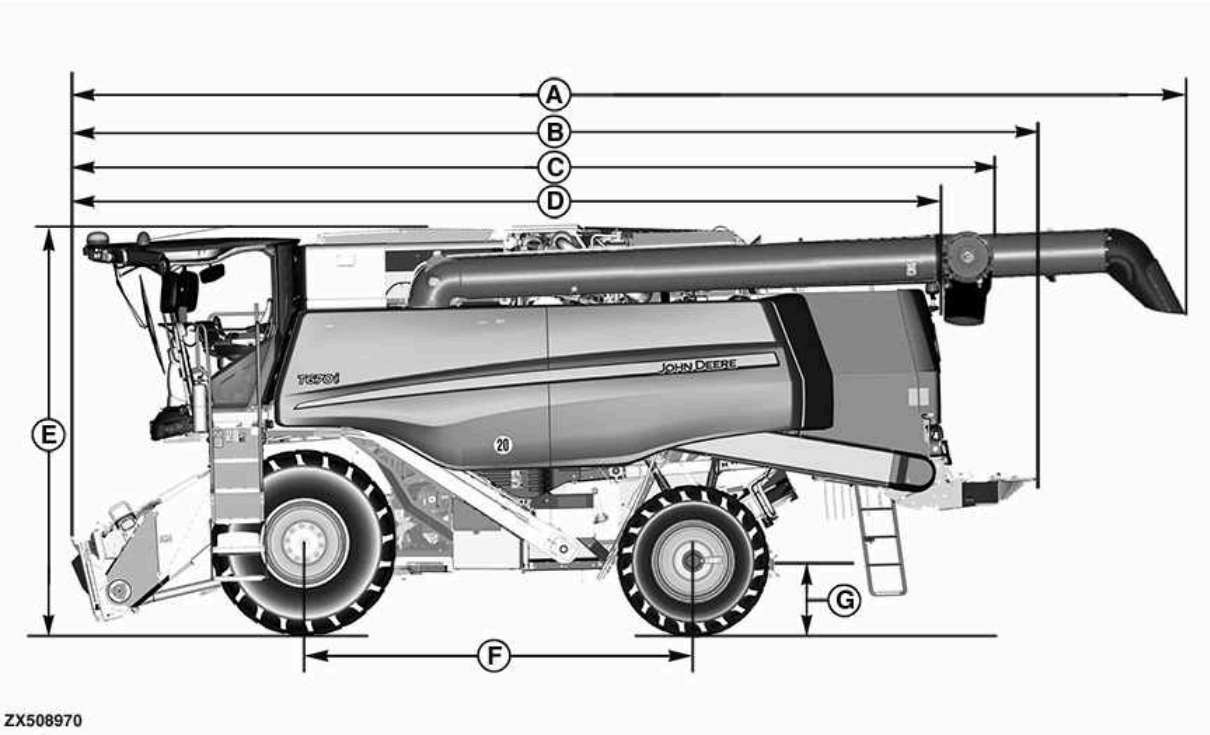
Speeds shown are average and can vary from machine to machine. Speeds are rated at high idle with separator engaged, no load.

Threshing cylinder	Speed	470 - 950 rpm
Threshing cylinder, drive with reduction gear	High speed	470 - 950 rpm
	Low speed	250 - 465 rpm
Power separator (W Series)	Speed	540 rpm
Separator rotor (T Series)	High speed	740 rpm
	Low speed	370 rpm
Feeder house lower shaft	Speed	490 rpm
Cleaning fan	Speed	550 - 1350 rpm
Clean grain elevator	Speed	370 rpm
Tailings elevator	Speed	430 rpm
Straw walkers	Speed	156 rpm
Straw chopper (Basic model)	Speed	3400 rpm
Straw chopper (Dual speed)	High speed	3400 rpm
	Low speed	1800 rpm
Chaff spreader	High speed	800 rpm
	Low speed	400 rpm

OUCC002,000491D-19-20180727

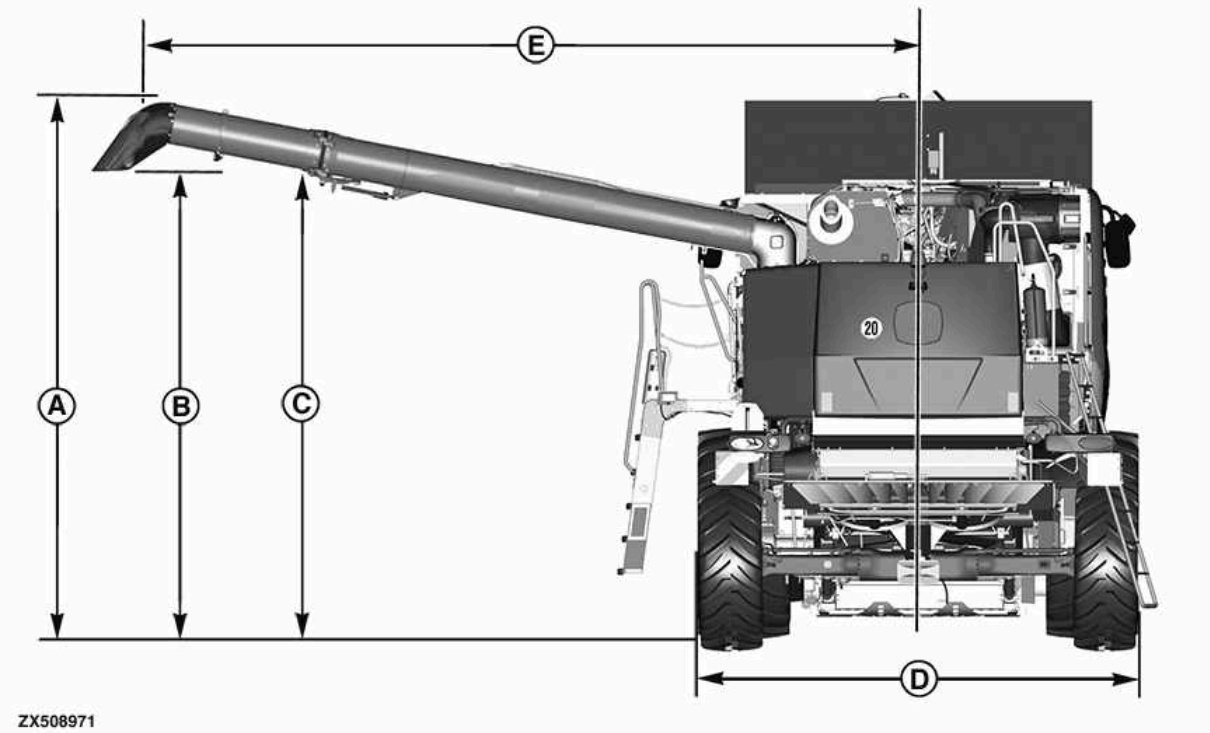
Dimensions

Machine without John Deere™ Tracks



ZX508970-UN: Side View

Legend	Dimension
A	8.99 m (29 ft 6 in) with 5.20 m (17 ft) unloading auger 9.22 m (30 ft 3 in) with 5.60 m (18.5 ft) unloading auger 10.29 m (33 ft 9 in) with 6.50 m (21.5 ft) unloading auger 10.99 m (36 ft 1 in) with 7.20 m (23.5 ft) unloading auger 12.49 m (40 ft 12 in) with 8.70 m (28.5 ft) unloading auger
B	9.47 m (31 ft 1 in)
C	8.90 m (29 ft 2 in) with 6.50 m (21.5 ft) folding unloading auger
D	8.65 m (28 ft 5 in)
E	4.00 m (13 ft 2 in) maximum
F	3.80 m (12 ft 5 in)
G	0.50—0.60 m (1 ft 8 in—2 ft 0 in) [Depending on rear tire size]

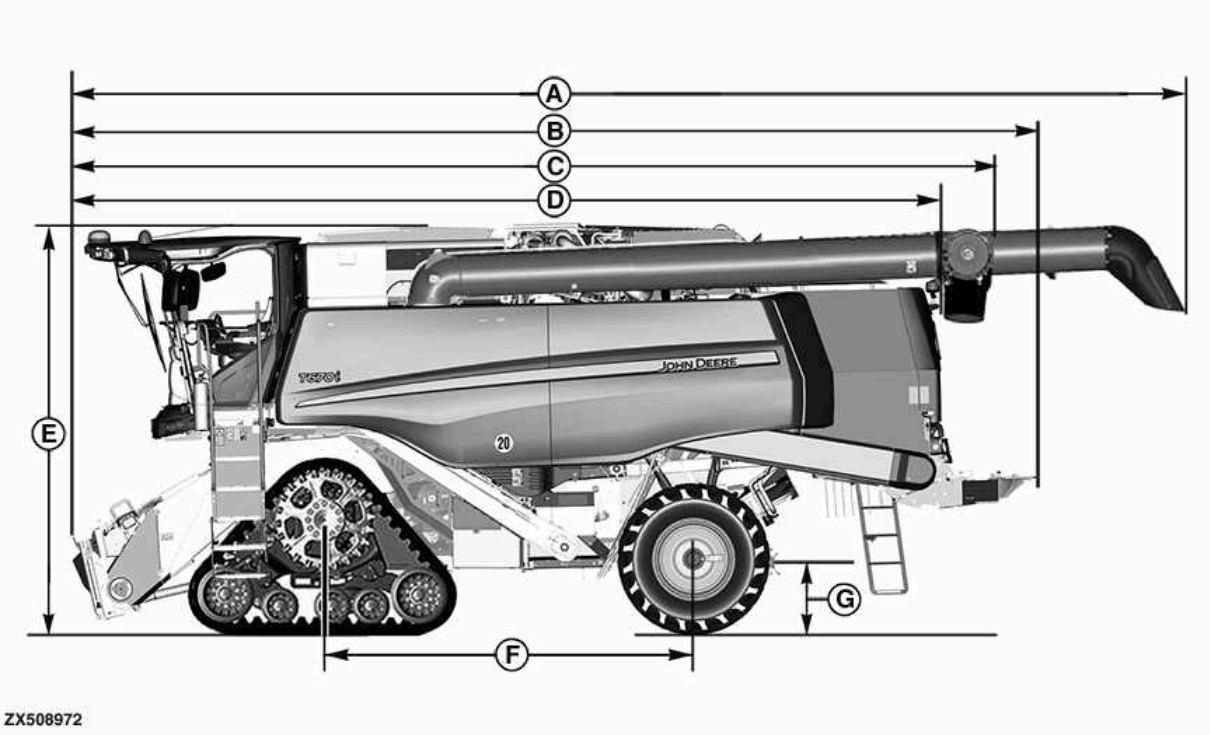


ZX508971-UN: Rear View

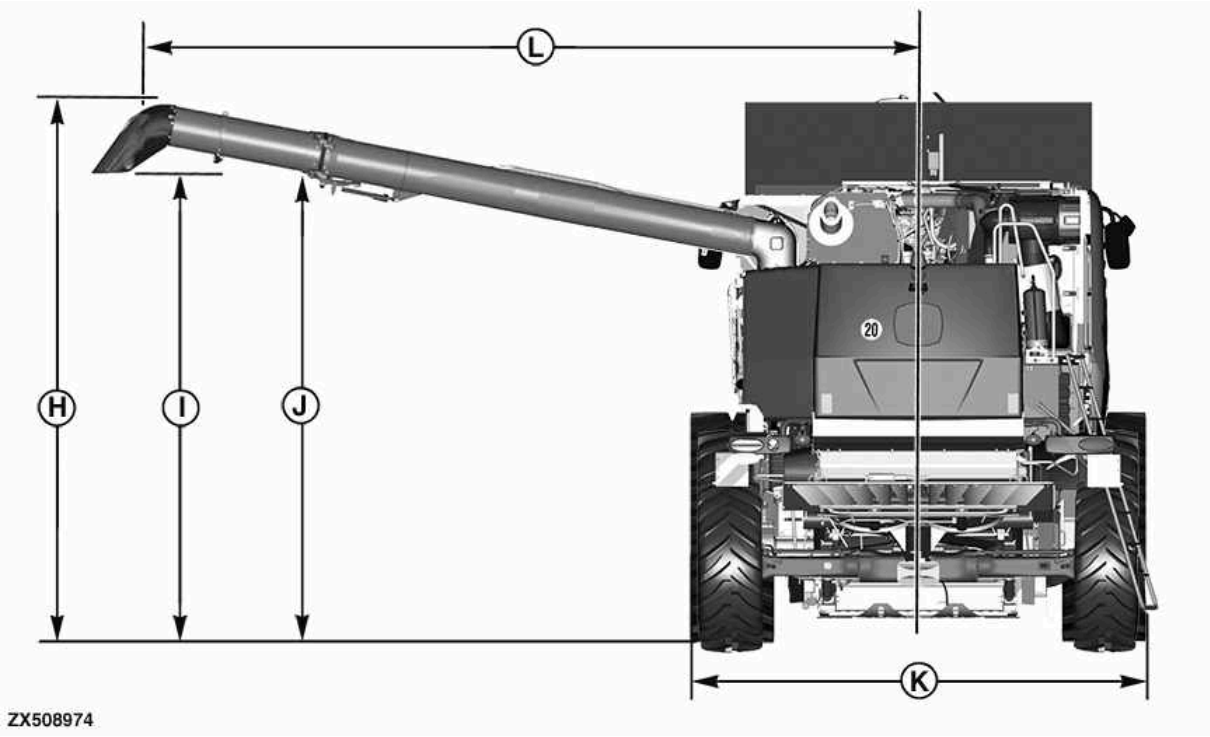
Legend	Dimension
A	4.61 m (15 ft 1 in) with 5.20 m (17 ft) unloading auger
	4.62 m (15 ft 2 in) with 5.60 m (18.5 ft) unloading auger
	4.81 m (15 ft 9 in) with 6.50 m (21.5 ft) unloading auger
	4.93 m (16 ft 2 in) with 7.20 m (23.5 ft) unloading auger
	5.23 m (17 ft 2 in) with 8.70 m (28.5 ft) unloading auger
B	3.91 m (12 ft 10 in) with 5.20 m (17 ft) unloading auger
	3.98 m (13 ft 1 in) with 5.60 m (18.5 ft) unloading auger
	4.18 m (13 ft 9 in) with 6.50 m (21.5 ft) unloading auger
	4.30 m (14 ft 1 in) with 7.20 m (23.5 ft) unloading auger
	4.59 m (15 ft 1 in) with 8.70 m (28.5 ft) unloading auger
C [Dimension is measured 1.22 m (4 ft) from the grain spill point. This represents the unloading auger when centered over the grain cart.]	4.02 m (13 ft 2 in) with 5.20 m (17 ft) unloading auger
	4.03 m (13 ft 3 in) with 5.60 m (18.5 ft) unloading auger
	4.22 m (13 ft 10 in) with 6.50 m (21.5 ft) unloading auger
	4.34 m (14 ft 3 in) with 7.20 m (23.5 ft) unloading auger
	4.64 m (15 ft 3 in) with 8.70 m (28.5 ft) unloading auger
D [Depending on front tire size]	**5 walkers:** 3.20 m (10 ft 6 in) overall width with 620/70 R38 tires
	5 walkers: 3.30 m (10 ft 9 in) overall width with 680/75 R38 tires
	5 walkers: 3.50 m (11 ft 6 in) overall width with 800/65 R32 tires
	6 walkers: 3.50 m (11 ft 6 in) overall width with 680/85 R32 tires
	5 walkers: 3.80 m (12 ft 5 in) overall width with 900/60 R32 tires
	6 walkers: 3.80 m (12 ft 5 in) overall width with 800/65 R32 tires
	6 walkers: 4.00 m (13 ft 1 in) overall width with 900/60 R32 tires
E **(5 walkers)**	6.13 m (20 ft 1 in) with 5.20 m (17 ft) unloading auger

Legend	Dimension
	6.16 m (20 ft 3 in) with 5.60 m (18.5 ft) unloading auger
	7.15 m (23 ft 5 in) with 6.50 m (21.5 ft) unloading auger
	7.74 m (25 ft 5 in) with 7.20 m (23.5 ft) unloading auger
	9.23 m (30 ft 3 in) with 8.70 m (28.5 ft) unloading auger
E **(6 walkers)**	6.27 m (20 ft 7 in) with 5.20 m (17 ft) unloading auger
	6.30 m (20 ft 8 in) with 5.60 m (18.5 ft) unloading auger
	7.29 m (23 ft 11 in) with 6.50 m (21.5 ft) unloading auger
	7.88 m (25 ft 10 in) with 7.20 m (23.5 ft) unloading auger
	9.37 m (30 ft 9 in) with 8.70 m (28.5 ft) unloading auger

Machine with John Deere Tracks



ZX508972-UN: Side View



ZX508974-UN: Rear View

Legend	Dimension
A	8.99 m (29 ft 6 in) with 5.20 m (17 ft) unloading auger
	9.22 m (30 ft 3 in) with 5.60 m (18.5 ft) unloading auger
	10.29 m (33 ft 9 in) with 6.50 m (21.5 ft) unloading auger
	10.99 m (36 ft 1 in) with 7.20 m (23.5 ft) unloading auger
	12.49 m (40 ft 12 in) with 8.70 m (28.5 ft) unloading auger
B	9.47 m (31 ft 1 in)
C	8.90 m (29 ft 2 in) with 6.50 m (21.5 ft) folding unloading auger
D	8.65 m (28 ft 5 in)
E	4.00 m (13 ft 2 in) maximum
F	3.80 m (12 ft 5 in)
G	0.50—0.60 m (1 ft 8 in—2 ft 0 in) [Depending on rear tire size]
H	4.61 m (15 ft 1 in) with 5.20 m (17 ft) unloading auger
	4.62 m (15 ft 2 in) with 5.60 m (18.5 ft) unloading auger
	4.81 m (15 ft 9 in) with 6.50 m (21.5 ft) unloading auger
	4.93 m (16 ft 2 in) with 7.20 m (23.5 ft) unloading auger
	5.23 m (17 ft 2 in) with 8.70 m (28.5 ft) unloading auger
I	3.91 m (12 ft 10 in) with 5.20 m (17 ft) unloading auger
	3.98 m (13 ft 1 in) with 5.60 m (18.5 ft) unloading auger
	4.18 m (13 ft 9 in) with 6.50 m (21.5 ft) unloading auger
	4.30 m (14 ft 1 in) with 7.20 m (23.5 ft) unloading auger
	4.59 m (15 ft 1 in) with 8.70 m (28.5 ft) unloading auger
J [Dimension is measured 1.22 m (4 ft) from the grain spill point. This represents the unloading auger when centered over the grain cart.]	4.02 m (13 ft 2 in) with 5.20 m (17 ft) unloading auger
	4.03 m (13 ft 3 in) with 5.60 m (18.5 ft) unloading auger
	4.22 m (13 ft 10 in) with 6.50 m (21.5 ft) unloading auger
	4.34 m (14 ft 3 in) with 7.20 m (23.5 ft) unloading auger

Legend	Dimension
	4.64 m (15 ft 3 in) with 8.70 m (28.5 ft) unloading auger
K (T560)	3.18 m (11 ft 5 in) without Axle Extensions - 60.9 cm (24 in) Tracks
	3.46 m (11 ft 4 in) with 65 mm (2-1/2 in) Axle Extensions - 76.2 cm (30 in) Tracks
K (T660/T670)	3.45 m (11 ft 3 in) without Axle Extensions - 60.9 cm (24 in) Tracks
	3.74 m (12 ft 3 in) with 65 mm (2-1/2 in) Axle Extensions - 76.2 cm (30 in) Tracks
L (T560)	6.13 m (20 ft 1 in) with 5.20 m (17 ft) unloading auger
	6.16 m (20 ft 3 in) with 5.60 m (18.5 ft) unloading auger
	7.15 m (23 ft 5 in) with 6.50 m (21.5 ft) unloading auger
	7.74 m (25 ft 5 in) with 7.20 m (23.5 ft) unloading auger
	9.23 m (30 ft 3 in) with 8.70 m (28.5 ft) unloading auger
L (T660/T670)	6.27 m (20 ft 7 in) with 5.20 m (17 ft) unloading auger
	6.30 m (20 ft 8 in) with 5.60 m (18.5 ft) unloading auger
	7.29 m (23 ft 11 in) with 6.50 m (21.5 ft) unloading auger
	7.88 m (25 ft 10 in) with 7.20 m (23.5 ft) unloading auger
	9.37 m (30 ft 9 in) with 8.70 m (28.5 ft) unloading auger

OUCC019,00077C6-19-20210505

Vibrations at Operator's Position

Measured in accordance with ISO 2631 and ISO 5349.

Conditions: Travel speed 5 km/h, separator engaged.

1. Max. acceleration value to which the body of the operator is subjected..... 2.26 m/s^2
2. Max. acceleration value to which the seat surface is subjected..... 1.13 m/s^2
3. Max. acceleration value to which the feet of the operator are subjected 1.16 m/s^2

OUCC002,000491F-19-20160106

Sound Level

The sound level inside the operator's cab ranges from 74.3 to 80.1 dB(A) as measured on several representative machines in accordance with ISO 5131. The sound level depends upon the engine speed and load, separator settings, field and crop conditions and the type of cutting platform used.

OUCC002,0004920-19-20160106

Type Plates

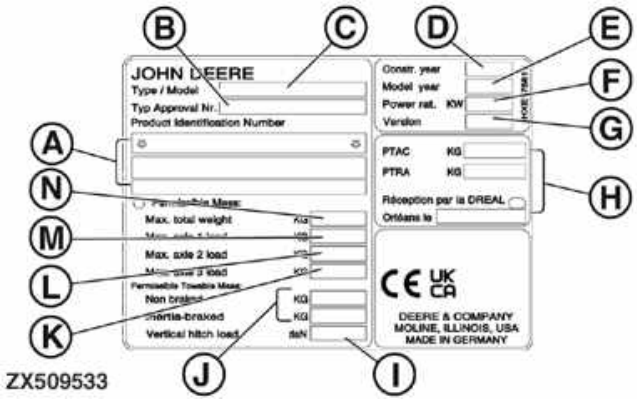
Serial numbers identifying machine components or assemblies are stamped on components or factory serial number plates.

These numbers and letters are required when ordering replacement parts.

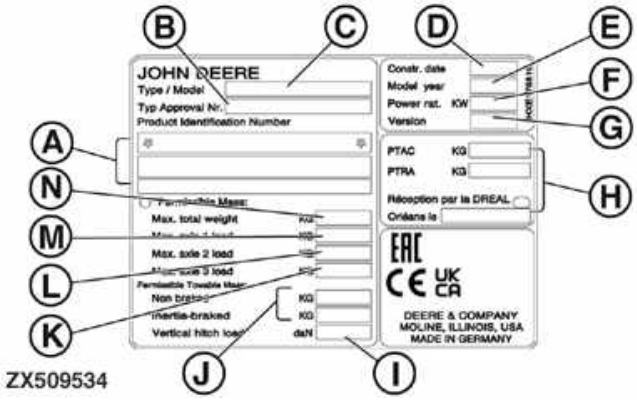
To ensure that you always have these numbers at hand, enter the appropriate serial numbers in the spaces provided in each illustration.

OUCC002,0004921-19-20160106

Combine (Product Identification) Type Plate



ZX509533-UN: Plate—Other than EAC



ZX509534-UN: Plate—EAC Only

ZX274253-UN: Plate—North America

A - Product Identification Number

B - Type Approval Number (in Certain Countries Only)

C - Model

D - Manufacturing Year (Other than EAC)

D - Manufacturing Date (Month/Year) (EAC Only)

E - Model Year

F - Engine Power

G - Version (in Certain Countries Only)

H - French Homologation Purpose Only

I - Permissible Drawbar Load

J - Permissible Trailer Load

K - Permissible Axle Load 3

L - Permissible Axle Load 2

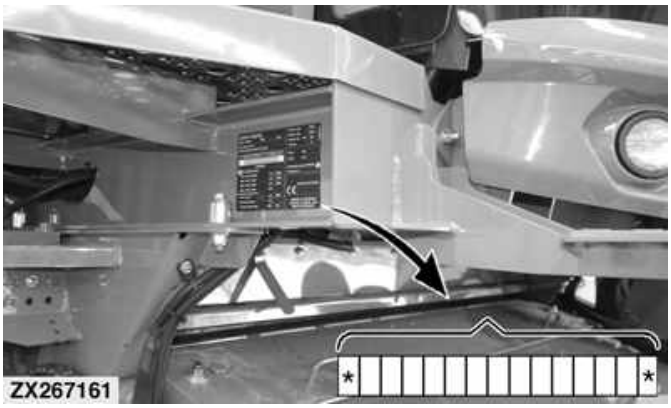
M - Permissible Axle Load 1

N - Permissible Total Weight

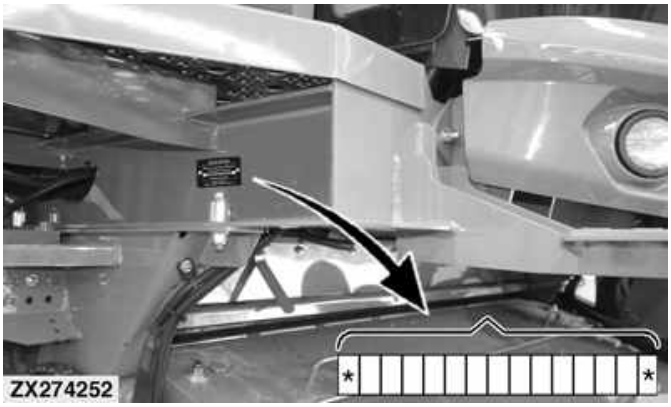
OUCC019,00077C7-19-20210510

Product Identification Number

The product identification number is located on the right side of the platform.



ZX267161-UN: Product Identification Number (Europe)



ZX274252-UN: Product Identification Number (North America)

OUCC002,0004923-19-20180727

Machine Component Serial Numbers

Engine Serial Number—PowerTech™ PSS 6090 (Final Tier 4/Stage IV and Stage V)

The serial number is near the oil filter.

Engine Serial Number—PowerTech™ PSS 6068 (Final Tier 4/Stage IV and Stage V)

The serial number is behind the fuel filter.

Engine Serial Number—PowerTech™ 6090 (Tier 2/Stage II)

The serial number is near the oil filter neck.

Engine Serial Number—PowerTech™ 6068 (Tier 2/Stage II)

The serial number is behind the fuel filter.

Exhaust Filter System Serial Number (Final Tier 4/Stage IV and Stage V Engine Only)

The serial number is on top.

NOTE:

Several parts are removed for the illustration purpose only.

SCR (Selective Catalytic Reduction) Module Serial Number (Final Tier 4/Stage IV and Stage V Engine Only)

The serial number is on top.

NOTE:

Several parts are removed for the illustration purpose only.

Hydrostatic Pump Serial Number (ProDrive™ Transmission)

The serial number is on the pump housing.

ProDrive™ Transmission Serial Number

The serial number is on the transmission housing.

Main Drive Motor Serial Number (ProDrive™ Transmission)

The serial number is on the motor housing.

Hydrostatic Pump Serial Number (3-Speed Mechanical And Push-Button Shift Transmission)

The serial number is on the pump housing.

3-Speed Mechanical And Push-Button Shift Transmission Serial Number

The serial number is on the right side of the transmission.

Main Drive Motor Serial Number (3-Speed Mechanical And Push-Button Shift Transmission)

The serial number is on the motor housing.

Cab Serial Number

The serial number is on the inside of the right-hand side panel.

NOTE:

The cab serial number is the same as for the air-conditioning system.

Feeder House Serial Number

The serial number plate is on the right side of the feeder house.

Reverser Gear Case Serial Number

The serial number is on the upper part of the gear case.

Cylinder Drive Reduction Gear Serial Number

The serial number is on the gear sheave.

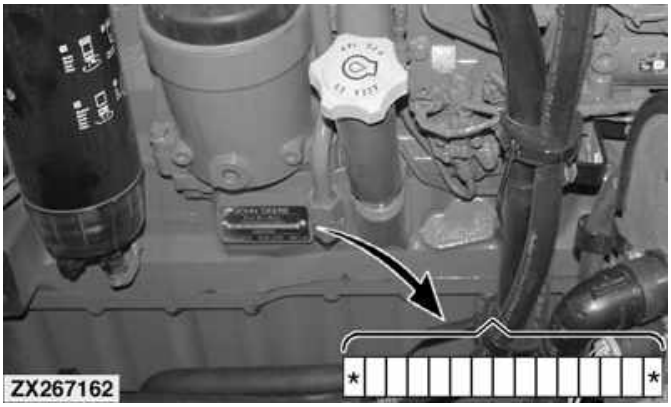
Vertical Auger Lower Gear Case

The serial number is on the front side of the gear case.

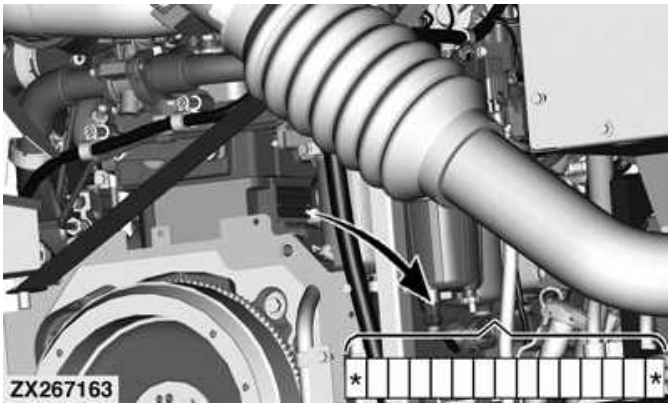
Primary Countershaft Gear Case

The serial number is on the front side of the gear case.

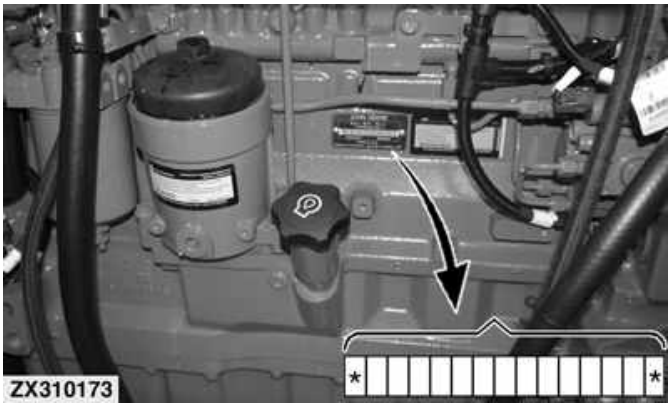
NOTE:



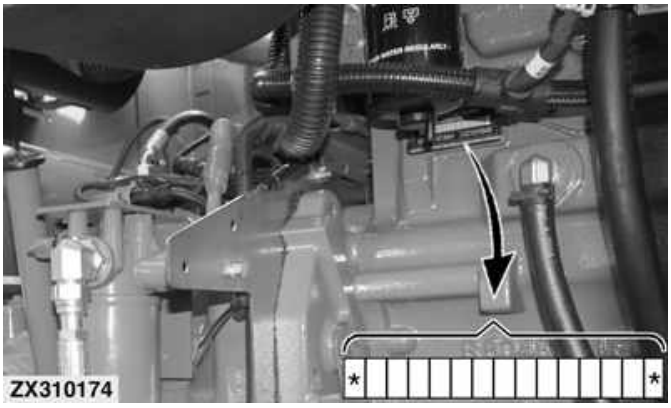
ZX267162-UN: Engine Serial Number - Engine Type 6090



ZX267163-UN: Engine Serial Number - Engine Type 6068



ZX310173-UN: Engine Serial Number - Engine Type 6090



Several parts are removed for the illustration purpose only.

Clean Grain Elevator Gear Case

The serial number is on the front side of the gear case.

NOTE:
Several parts are removed for the illustration purpose only.

Countershaft Drive Serial Number

The serial number is on the countershaft drive mounting support.

Engine Gear Case Serial Number

The serial number is on the rear of the housing at the engine connection.

NOTE:
Several parts are removed for the illustration purpose only.

Final Drive Serial Number

The serial number is on the transmission housing opposite the input shaft.

Rear Wheel Drive Motor Serial Number

The serial number is on the left-hand side of the motor.

Rear Axle Serial Number

The serial number is on the rear side (right-hand) of the rear axle.

Straw Chopper Serial Number

The serial number is on the right side of the chopper housing.

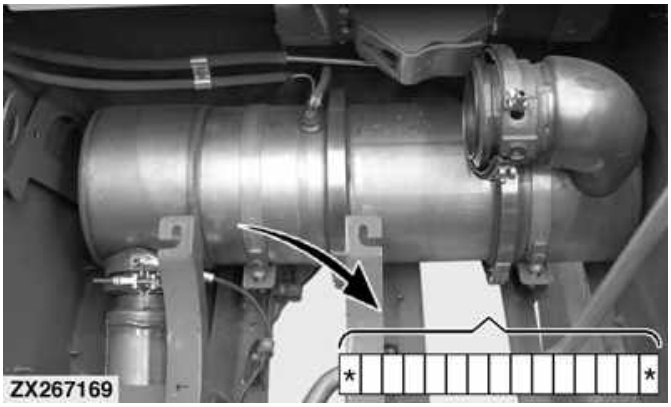
Straw Chopper Deflector Serial Number

The serial number is on the right side of the deflector housing.

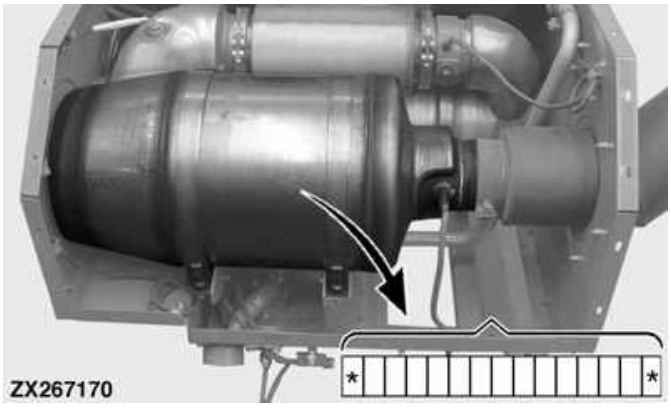
Chaff Spreader Serial Number

The serial number is on the rear of the chaff spreader.

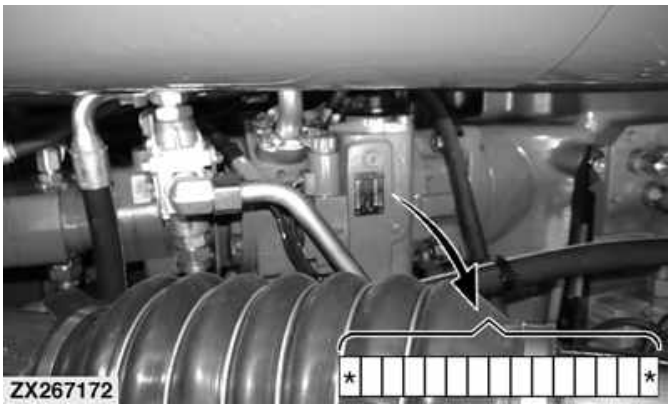
ZX310174-UN: Engine Serial Number - Engine Type 6068



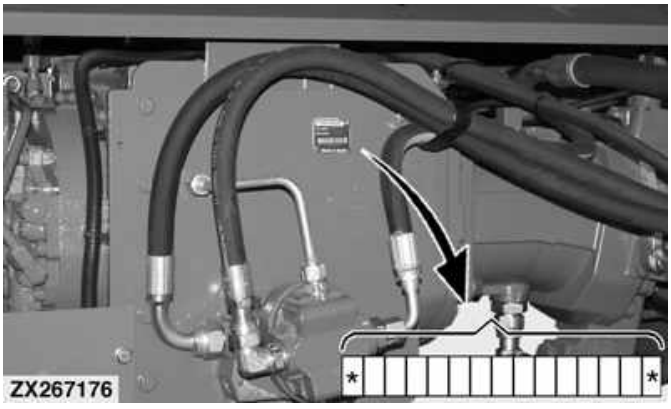
ZX267169-UN: Exhaust Filter System Serial Number

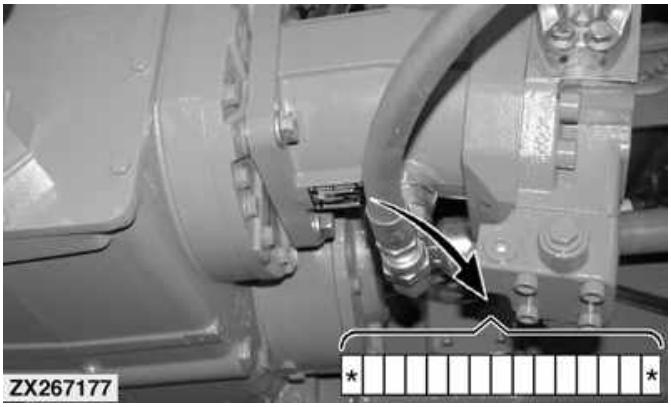


ZX267170-UN: SCR Module Serial Number

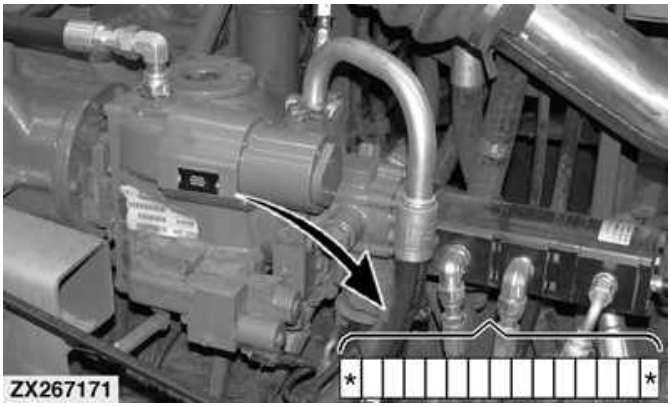


ZX267172-UN: Hydrostatic Pump Serial Number (ProDrive™ Transmission)

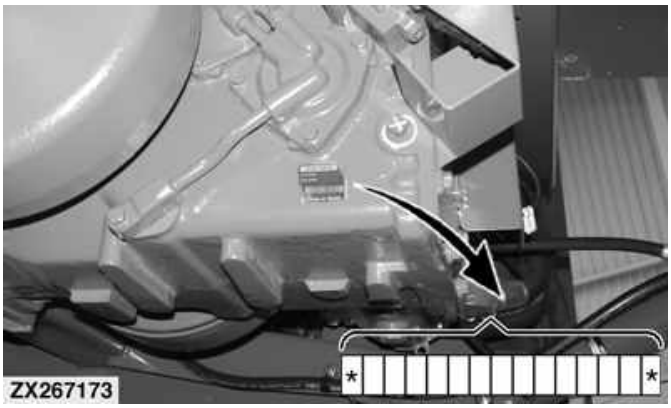




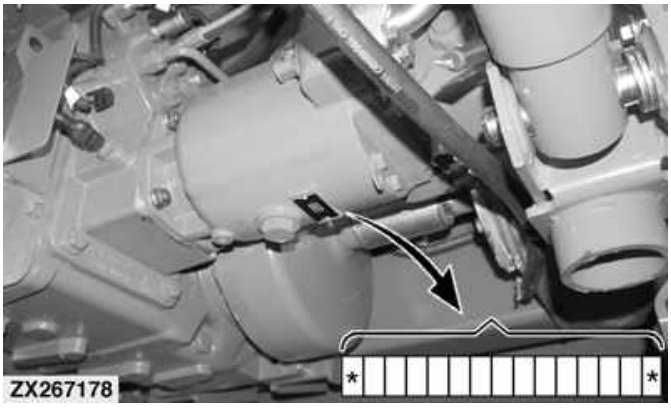
ZX267177-UN: Main Drive Motor Serial Number (ProDrive™ Transmission)

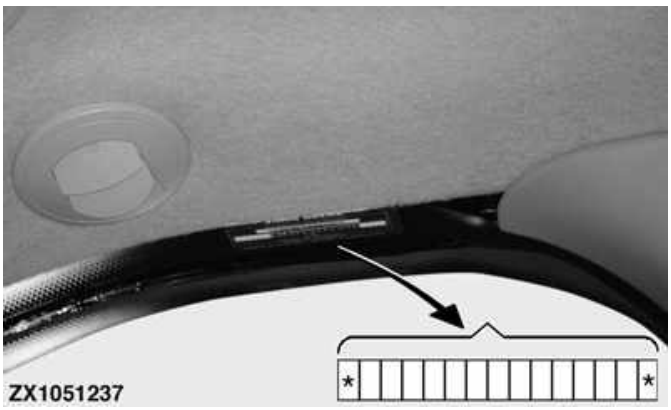


ZX267171-UN: Hydrostatic Pump Serial Number (Push-Button Shift Transmission)

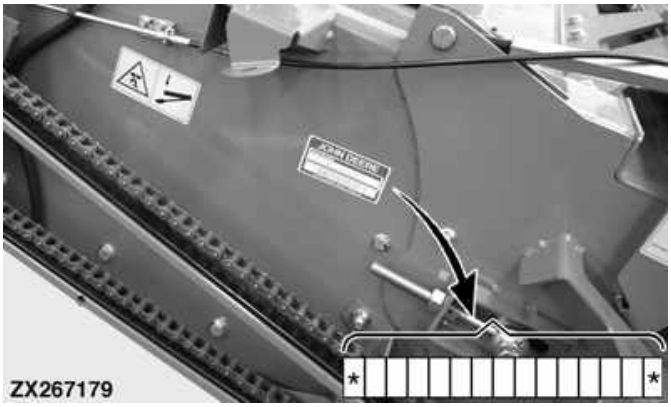


ZX267173-UN: 3-Speed Transmission

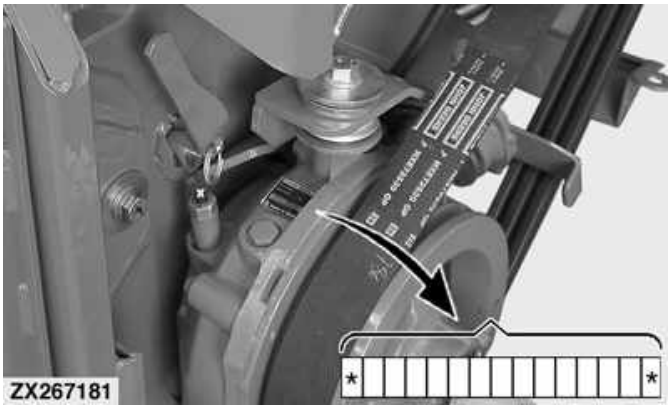




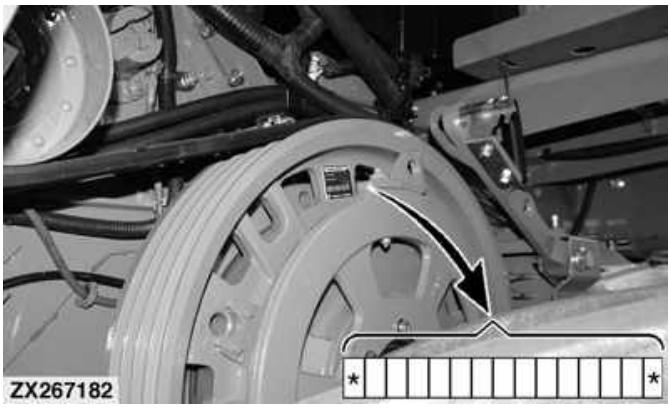
ZX1051237-UN: Cab Serial Number



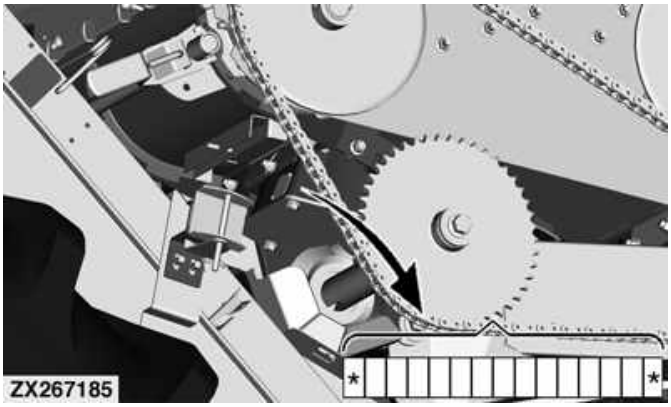
ZX267179-UN: Feeder House Serial Number



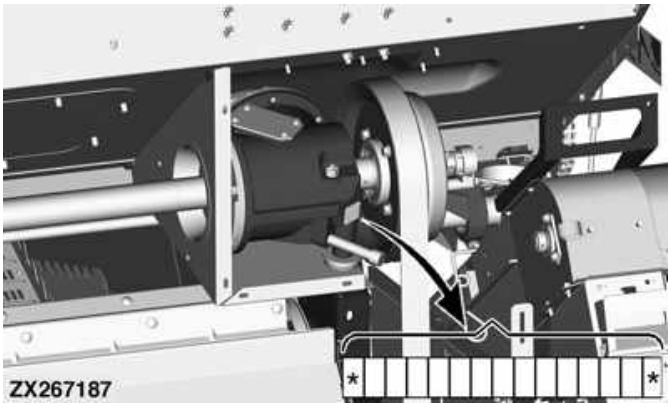
ZX267181-UN: Reverser gear case Serial Number



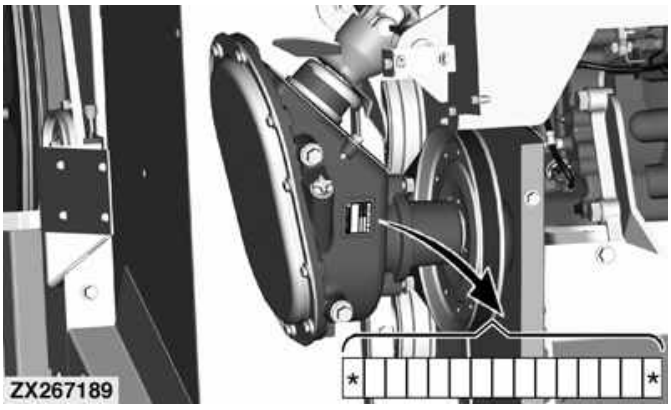
ZX267182-UN: Cylinder Drive Reduction Gear Serial Number



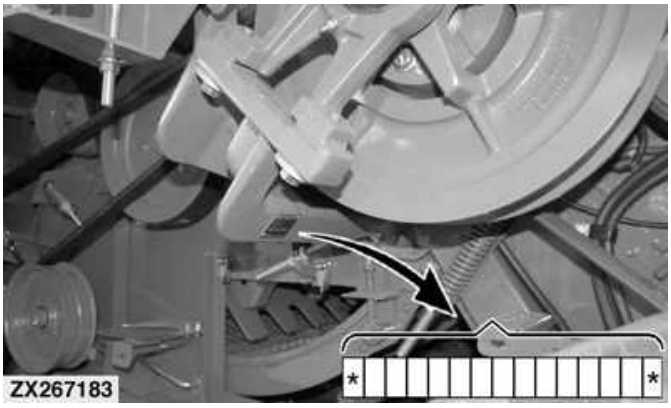
ZX267185-UN: Vertical Auger Lower Gear Case



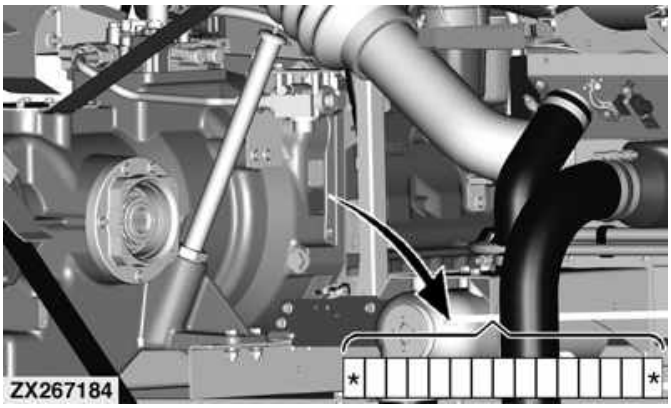
ZX267187-UN: Primary Countershaft Gear Case



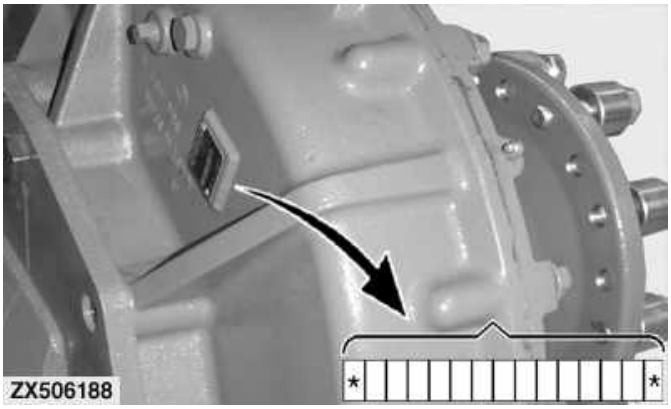
ZX267189-UN: Clean Grain Elevator Gear Case



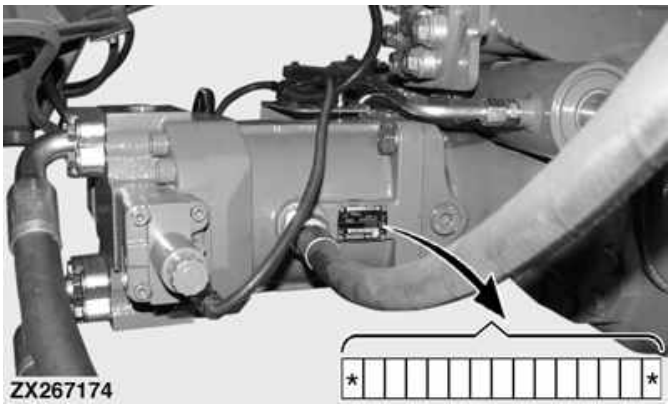
ZX267183-UN: Countershaft Mounting Serial Number



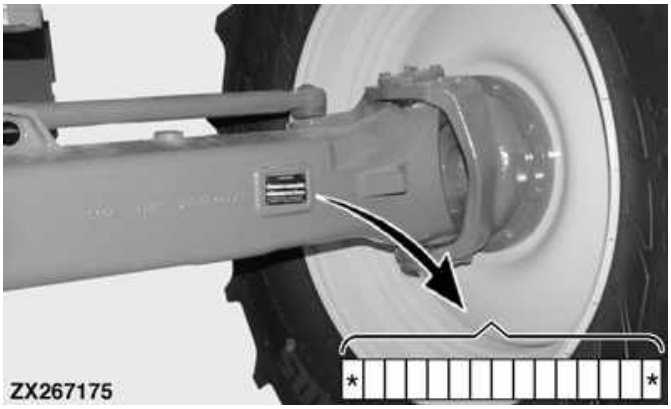
ZX267184-UN: Engine Gear Case Serial Number



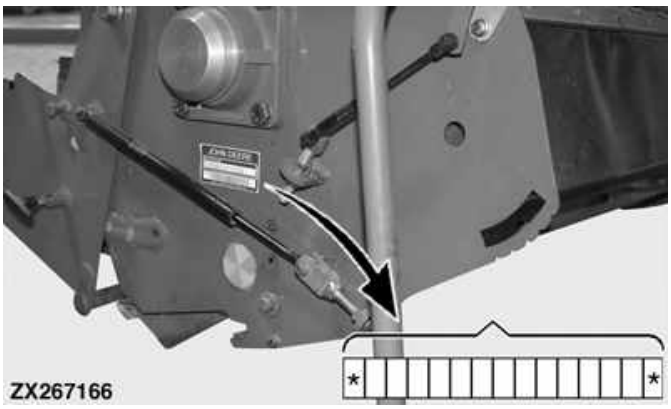
ZX506188-UN: Final Drive Serial Number



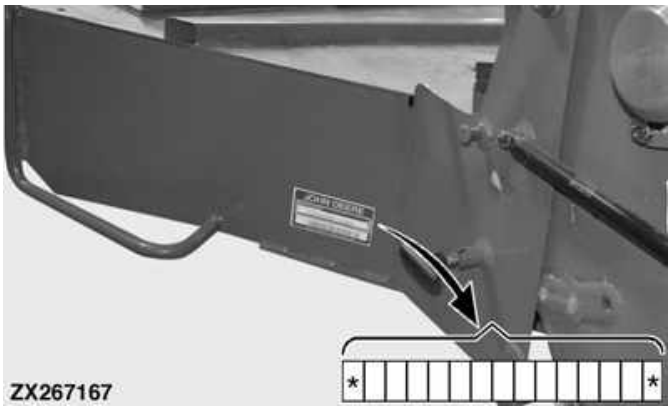
ZX267174-UN: Rear Wheel Drive Motor Serial Number



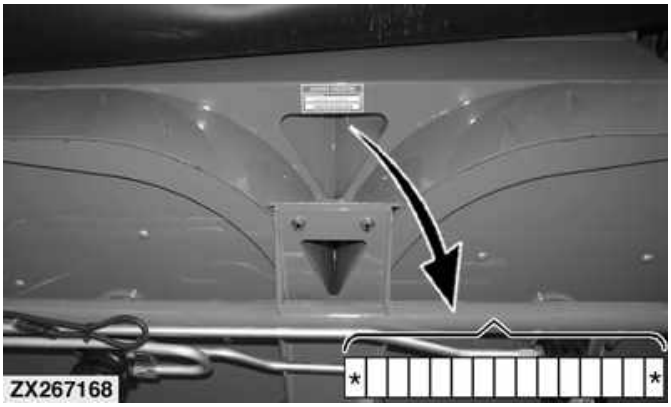
ZX267175-UN: Rear Axle Serial Number



ZX267166-UN: Straw Chopper Serial Number



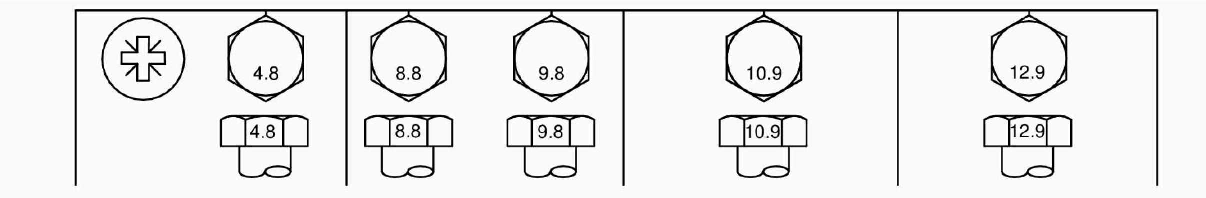
ZX267167-UN: Straw Chopper Deflector Serial Number



ZX267168-UN: Chaff Spreader Serial Number

OUCC019,0006F2F-19-20210406

Metric Bolt and Screw Torque Values



TS1742-UN: Metric Bolt and Screw

Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]		Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]		Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]		Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]	
	N·m	**lb·in**	**N·m**	**lb·in**	**N·m**	**lb·in**	**N·m**	**lb·in**	**N·m**	**lb·in**	**N·m**	**lb·in**	**N·m**	**lb·in**	**N·m**	**lb·in**
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112
									N·m	**lb·ft**	**N·m**	**lb·ft**	**N·m**	**lb·ft**	**N·m**	**lb·ft**
M8	8.6	76.1	9.4	83.2	16.2	143	17.6	156	23.8	17.6	25.9	19.1	27.8	20.5	30.3	22.3
			N·m	**lb·ft**	**N·m**	**lb·ft**	**N·m**	**lb·ft**								
M10	16.9	150	18.4	13.6	31.9	23.5	34.7	25.6	46.8	34.5	51	37.6	55	40.6	60	44.3
	N·m	**lb·ft**														
M12	—	—	—	—	55	40.6	61	45	81	59.7	89	65.6	95	70.1	105	77.4
M14	—	—	—	—	87	64.2	96	70.8	128	94.4	141	104	150	111	165	122
M16	—	—	—	—	135	99.6	149	110	198	146	219	162	232	171	257	190
M18	—	—	—	—	193	142	214	158	275	203	304	224	322	245	356	263
M20	—	—	—	—	272	201	301	222	387	285	428	316	453	334	501	370
M22	—	—	—	—	365	263	405	299	520	384	576	425	608	448	674	497
M24	—	—	—	—	468	345	518	382	666	491	738	544	780	575	864	637
M27	—	—	—	—	683	504	758	559	973	718	1080	797	1139	840	1263	932
M30	—	—	—	—	932	687	1029	759	1327	979	1466	1081	1553	1145	1715	1265
M33	—	—	—	—	1258	928	1398	1031	1788	1319	1986	1465	2092	1543	2324	1714
M36	—	—	—	—	1617	1193	1789	1319	2303	1699	2548	1879	2695	1988	2982	2199

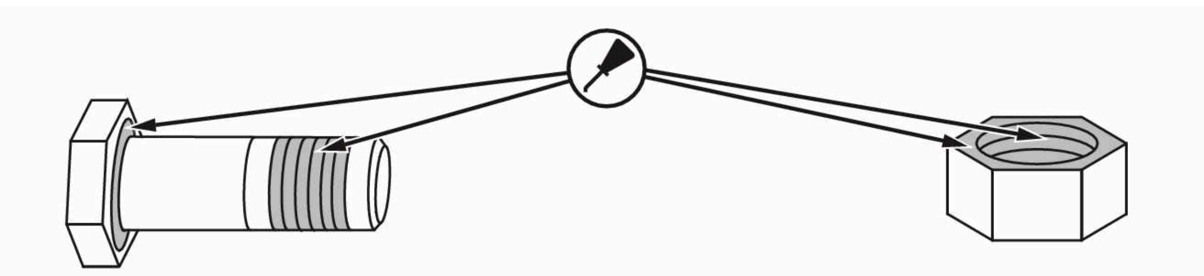
The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.

DO NOT use these values if a different torque value or tightening procedure is given for a specific application.

For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

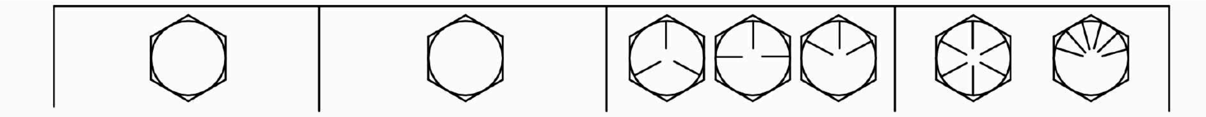
- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.



TS1741-UN: Lubricant Locations

DX,TORQ2-19-20180530

Unified Inch Bolt and Screw Torque Values



TS1671-UN: Unified Inch Bolt and Screw

Bolt or Screw Size	SAE Grade 1 [Grade 1 applies for hex cap screws over 6 in (152 mm) long, and for all other types of bolts and screws of any length.]				SAE Grade 2 [Grade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]		Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]		Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]		Hex Head [Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.]		Flange Head [Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
1/4	3.1	27.3	3.2	28.4	5.1	45.5	5.3	47.3	7.9	70.2	8.3	73.1	11.2	99.2	11.6	103
													N·m	lb·ft	N·m	lb·ft
5/16	6.1	54.1	6.5	57.7	10.2	90.2	10.9	96.2	15.7	139	16.8	149	22.2	16.4	23.7	17.5
									N·m	lb·ft	N·m	lb·ft				
3/8	10.5	93.6	11.5	102	17.6	156	19.2	170	27.3	20.1	29.7	21.9	38.5	28.4	41.9	30.9
					N·m	lb·ft	N·m	lb·ft								
7/16	16.7	148	18.4	163	27.8	20.5	30.6	22.6	43	31.7	47.3	34.9	60.6	44.7	66.8	49.3
	N·m	lb·ft	N·m	lb·ft												
1/2	25.9	19.1	28.2	20.8	43.1	31.8	47	34.7	66.6	49.1	72.8	53.7	94	69.3	103	75.8
9/16	36.7	27.1	40.5	29.9	61.1	45.1	67.5	49.8	94.6	69.8	104	77	134	98.5	148	109
5/8	51	37.6	55.9	41.2	85	62.7	93.1	68.7	131	96.9	144	106	186	137	203	150
3/4	89.5	66	98	72.3	149	110	164	121	230	170	252	186	325	240	357	263
7/8	144	106	157	116	144	106	157	116	370	273	405	299	522	385	572	422
1	216	159	236	174	216	159	236	174	556	410	609	449	785	579	860	634
1-1/8	305	225	335	247	305	225	335	247	685	505	751	554	1110	819	1218	898
1-1/4	427	315	469	346	427	315	469	346	957	706	1051	775	1552	1145	1703	1256
1-3/8	564	416	618	456	564	416	618	456	1264	932	1386	1022	2050	1512	2248	1658
1-1/2	743	548	815	601	743	548	815	601	1665	1228	1826	1347	2699	1991	2962	2185

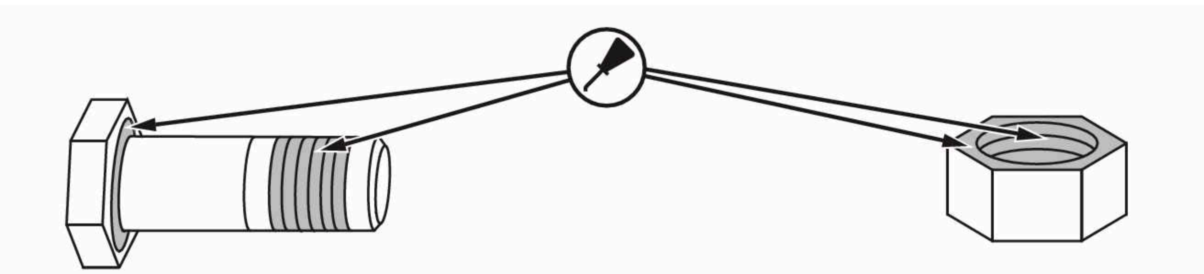
The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.

DO NOT use these values if a different torque value or tightening procedure is given for a specific application.

For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.



TS1741-UN: Lubricant Locations

DX,TORQ1-19-20180530