

Rubber Track System MY16 (W-T and S Series Combines)



OPERATOR'S MANUAL Rubber Track System MY16 (W-T and S Series Combines) OMZ93197 ISSUE K5 (ENGLISCH)

**John Deere GmbH & Co. KG
John Deere Werk Zweibrücken**

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Introduction

Foreword



INTENDED USE: This operator's manual is part of the machine. This operator's manual is produced for the following reasons:

1. The operator should understand exactly how the machine works.
2. Operator and bystanders should not get injured.
3. The operator should be able to use maximum machine capacity.

Be sure to read the safety instructions. To operate the machine at top efficiency, it must be operated and serviced according to this operator's manual. If in doubt, contact your local John Deere Dealer.

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

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

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

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction of forward travel.

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

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

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

If you are not the original owner of this machine, it is in your interest to contact your local John Deere dealer to inform them of this unit's serial number. This will help John Deere notify you of any issues or product improvements.

OUC002,0004833 -19-11NOV15-1/1

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A John Deere ILLUSTRATION™ Manual

Safety

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.



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

T81389 —UN—28JUN13

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.

 **DANGER**

 **WARNING**

 **CAUTION**

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

TS187 —19—30SEP88

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.

DX,READ -19-16JUN09-1/1

TS201 —UN—15APR13

Replace Safety Signs

Replace missing or damaged safety signs. Use this operator's manual for correct safety sign placement.

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



TS201 —UN—15APR13

DX,SIGNS -19-18AUG09-1/1

Safe Track Operating Practices

DO NOT stand near tracks when machine is running.

Safe operating practices of track drive machines are no different from wheel drive machines.

ALWAYS refer to your Combine Operator's Manual, and review Safety section before operating machine. The Combine Operator's Manual details safe operating practices that must be followed to protect you and others from accidental death and/or injury.



H48148 —UN—12DEC96

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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.

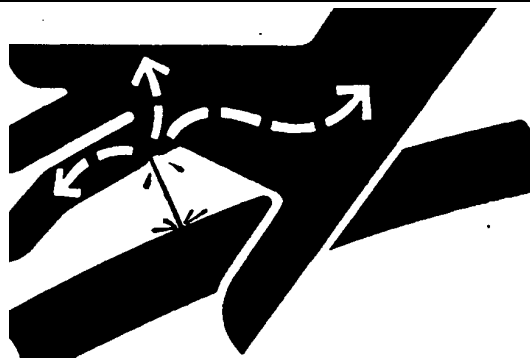
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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



X9811 —UN—23AUG88

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.

DX,FLUID -19-12OCT11-1/1

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. Shut off the engine. Remove the key and set the parking brake. 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 build-up of grease, oil, or debris.

Disconnect battery ground cable (—) before making adjustments on electrical systems or welding on machine.



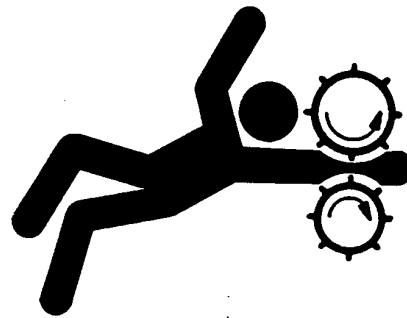
TS218 —UN—23AUG88

HX,AG,SF6789 -19-05MAY99-1/1

Service Machines Safely

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



TS228 —UN—23AUG88

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

Service Accumulator Systems Safely

Escaping fluid or gas from systems with pressurized accumulators that are used in air conditioning, hydraulic, and air brake systems can cause serious injury. Extreme heat can cause the accumulator to burst, and pressurized lines can be accidentally cut. Do not weld or use a torch near a pressurized accumulator or pressurized line.

Relieve pressure from the pressurized system before removing accumulator.

Relieve pressure from the hydraulic system before removing accumulator. Never attempt to relieve hydraulic system or accumulator pressure by loosening a fitting.

Accumulators cannot be repaired.



TS281—UN—15APR13

DX,WW,ACCL2 -19-22AUG03-1/1

Remove Paint Before Welding or Heating

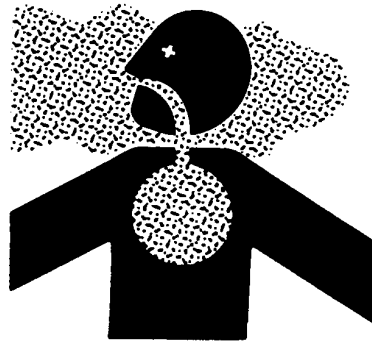
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Remove paint before heating:

- Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

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



TS220—UN—15APR13

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 -19-24JUL02-1/1

Avoid Heating Near Pressurized Fluid Lines

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can accidentally burst when heat goes beyond the immediate flame area.



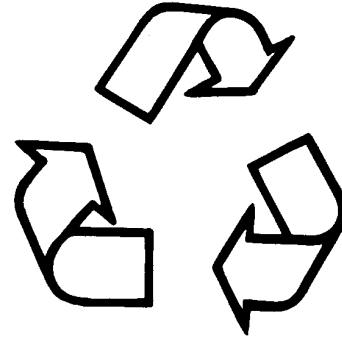
TS953—UN—15MAY90

DX,TORCH -19-10DEC04-1/1

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.

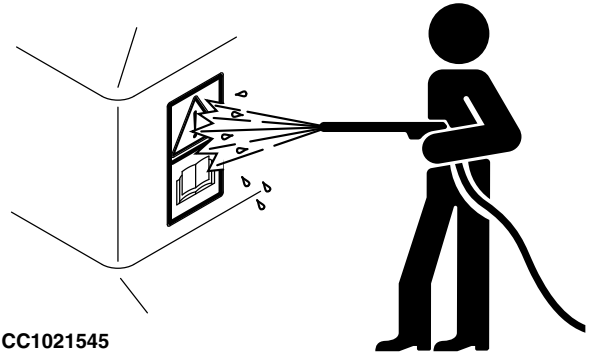
DX,DRAIN -19-01JUN15-1/1

T51133 —UN—15APR13

Avoid High-Pressure Jet on Safety Decals

Pressurized water can remove or damage safety decals. Do not direct high-pressure jet on safety decals.

Immediately replace missing or damaged safety decals. Replacement safety decals are available from your John Deere dealer.



CC1021545

CC1021545 —UN—23APR02

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Safety Decals

Pictorial Safety Signs

At several important places of this machine safety signs are affixed intended to signify potential danger. The hazard is identified by a pictorial in a warning triangle. An adjacent pictorial provides information how to avoid personal injury. These safety signs, their placement on the machine and a brief explanatory text are shown below.

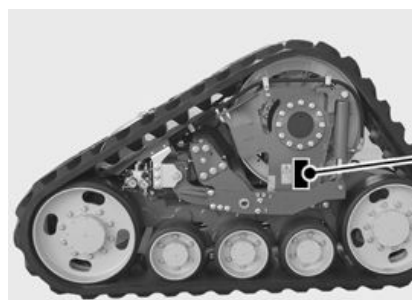


TS231 —19—07OCT88

OUCC002,0004834 -19-11NOV15-1/3

Operator's Manual

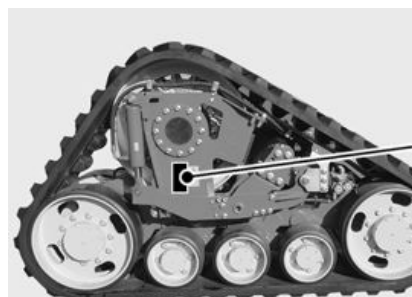
This operator's manual contains all important information necessary for safe machine operation. Carefully observe all safety rules to avoid accidents.



ZX263118



ZX263118 —UN—12NOV15



ZX263119



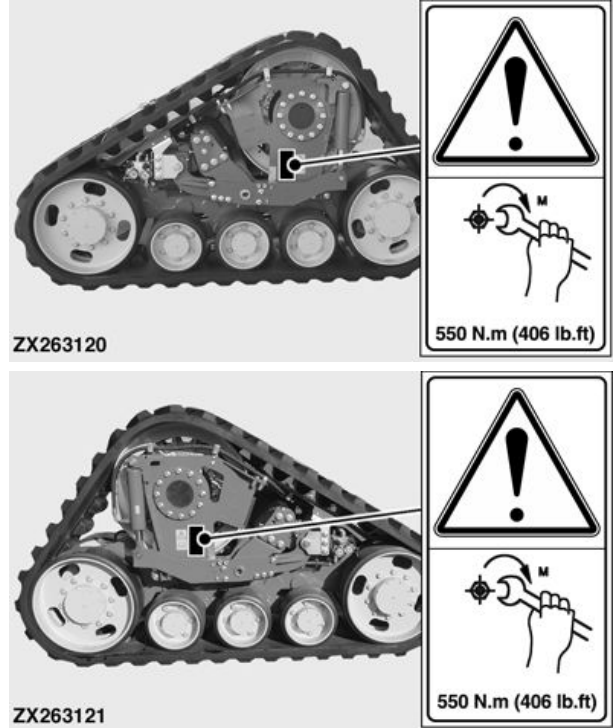
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Carrier Rollers and Idlers Attaching Screws

Retighten carrier rollers and idlers attaching screws at specified torque and intervals.



ZX263120 —UN—12NOV15

ZX263121 —UN—12NOV15

OUC002,0004834 -19-11NOV15-3/3

Fire Prevention

When in use, the rubber track system must be inspected periodically throughout the harvest day. Buildup of crop material and other debris must be removed to ensure proper machine function and to reduce the risk of fire.

Regular and thorough cleaning of the machine combined with the other routine maintenance procedures listed in the Operator's Manual greatly reduce the chance of downtime, and improve machine performance. Always follow all safety procedures posted on the machine and in this Operator's Manual.

Your machine is equipped with one or two general-purpose fire extinguishers. Extinguishers must be checked daily when entering or exiting the cab and when working around machine to ensure that they are in working condition. Fire extinguishers must be replaced or professionally serviced after any usage.

For further information, refer to **Track Cleanout Areas** section.

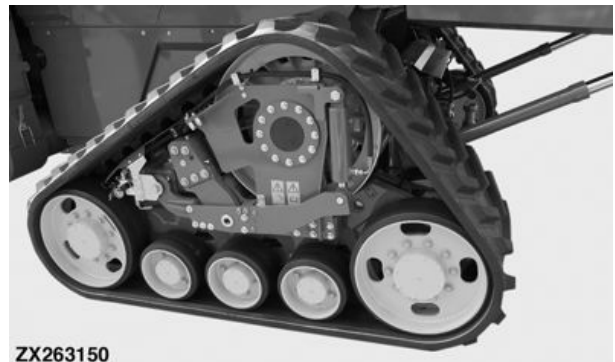
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Clean Tracks

IMPORTANT: Tracks must be cleaned immediately after operation in wet and muddy conditions.

Always keep drive wheel and mainframe clear of dirt and debris.

Mainframe and wheel areas must be cleaned periodically to prevent buildup of dirt and debris. Buildup can cause premature wear on rubber track belt, bogie wheels, and idler wheels.



ZX263150 —UN—12NOV15

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Remove Accumulated Crop Debris

The build up of chaff and crop debris in the engine compartment, on the engine, and near moving parts is a fire hazard. Check and clean these areas frequently. Before performing any inspection or service, shut off the engine, set the parking brake and remove the key.



TS227 —UN—15APR13

HX,9010SA,B -19-23AUG97-1/1

In Case of Fire

⚠ CAUTION: Avoid personal injury.

Stop machine immediately at the first sign of fire. Fire may be identified by the smell of smoke or sight of flames. Because fire grows and spreads rapidly, get off the machine immediately and move safely away from the fire. Do not return to the machine! The number one priority is safety.

Call the fire department. A portable fire extinguisher can put out a small fire or contain it until the fire department arrives; but portable extinguishers have limitations. Always put the safety of the operator and bystanders first. If attempting to extinguish a fire, keep your back to the wind with an unobstructed escape path so you can move away quickly if the fire cannot be extinguished.

Read the fire extinguisher instructions and become familiar with their location, parts, and operation before a fire starts. Local fire departments or fire equipment distributors may offer fire extinguisher training and recommendations.

If your extinguisher does not have instructions, follow these general guidelines:



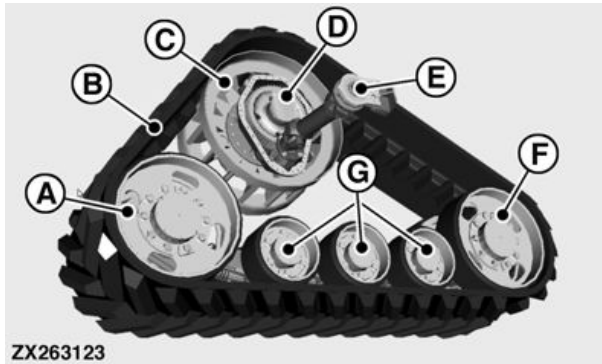
TS227 —UN—15APR13

1. Pull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
2. Aim low. Point the extinguisher at the base of the fire.
3. Squeeze the lever slowly and evenly.
4. Sweep the nozzle from side-to-side.

DX,FIRE4 -19-22AUG13-1/1

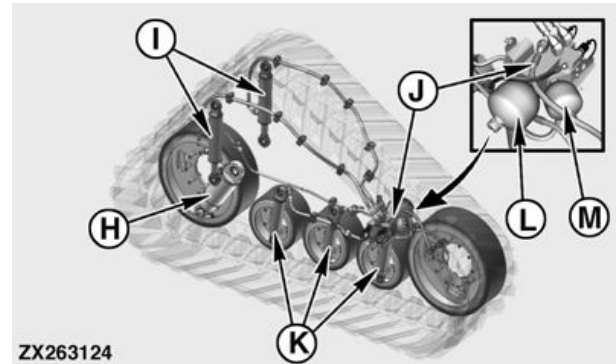
Operating the Tracks

Rubber Track system description



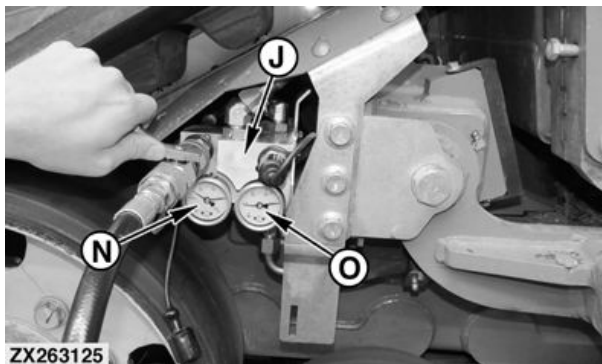
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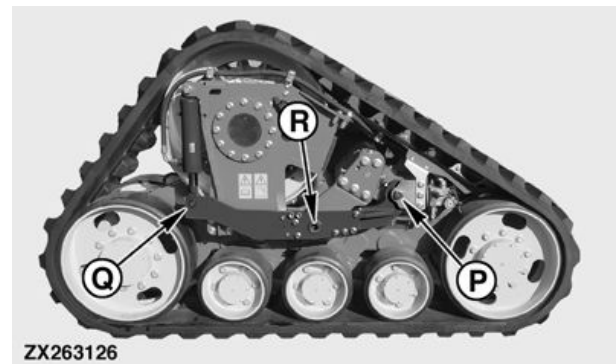
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ZX263124 —UN—12NOV15



ZX263125

ZX263125 —UN—12NOV15



ZX263126

ZX263126 —UN—12NOV15

A—Idler Wheel
B—Rubber Track Belt
C—Drive Wheel
D—Gear Box
E—Input Drive
F—Idler Wheel
G—Carrier Roller

H—Belt Tensioning Cylinder
I— Suspension Cylinder
J— Valve Block
K—Carrier Roller Cylinder
L— Accumulator

M—Accumulator
N—Belt Tension Pressure Gauge
O—Suspension Pressure Gauge
P—Rocker Arm Pivot Point
Q—Hydraulic Cylinder Pivot Point

R—Application of Front Axle Weight to Rocker Arm

Track Features and Benefits:

Features and benefits of tracks:

- Compaction – reduces compaction and soil pumping.
- Flotation – increased flotation in adverse conditions.
- Traction – maximum pulling efficiency.
- Flexibility – easily installed and interchanged between vehicles.
- Soft Ride – rubberized idlers and bogies cushion ride.
- Auto Tension – efficient absorption of impacts or ingestion of debris.
- Dual Tensioning – dual cylinders maintain low belt tension for efficient operation.
- Integrated Track – continuous rubber track minimizes surface damage.
- Positive Drive – gently spreads torque on rubber belt with low rolling resistance.
- Speed – normal operating range maintained.
- Stability – low center of gravity for improved stability.

Track Components:

The tracks are installed on the left and on the right side of the front axle instead of the normal drive wheels.

Weight force is transmitted to a track carriage via a rocker arm system with support cylinders.

Hydraulically suspended carrier rollers compensate for slightly uneven ground. This results in an even ground pressure over the entire contact area of the track.

To ensure a same pressure on all suspension hydraulic cylinders (K), the belt tension and the suspension hydraulic circuits are independent.

Suspension System:

Idler wheels (A) and (F) and carrier rollers (G) along with the dual auto tensioning system compensate for uneven ground terrain.

The weight of the combine front axle is applied to the tracks at connection point (G) between the track arm and the rocker arm.

At the pivot point, the rocker arm is connected to the running gear of the track.

Continued on next page

OUC002,000484B -19-13NOV15-1/2

On the opposite side, the rocker arm rests on two hydraulic cylinders (I). One hydraulic cylinder is installed on the inside and the other on the outside of the track.

The weight of the combine on the front axle applies a draft force to the hydraulic cylinders (I).

The rod sides of the hydraulic cylinders are connected to the two accumulators (L) and (M). The gas cushion of the pre-charged accumulators provides suspension for the entire running gear.

The three carrier rollers (G) are suspended on rocker arms and hydraulic cylinders (K) allowing them, independently from each other, to compensate for slightly uneven ground.

The hydraulic cylinders share hydraulic oil circuit as the main hydraulic cylinders and also work against the two accumulators.

IMPORTANT: Never drive the machine if hydraulic pressure is not present in the system. This would lead to overloading of the front and rear idlers resulting in severe damage.

Accumulator (L) has a capacity of 1.0 L (0.25 gal) and a pre-charge of 5000 kPa (50 bar) (725 psi).

Accumulator (M) has a capacity of 0.5 L (0.12 gal) and a pre-charge of 3000 kPa (30 bar) (450 psi).

OUECC002,000484B -19-13NOV15-2/2

Break in the Tracks

 **CAUTION: Shut OFF engine, set park brake and remove key.**

IMPORTANT: Always expose new or clean track to dry and dusty soil conditions as soon as possible.

The following break-in procedure is for a new track system, or installation of a new track belt. Prior to operating machine, talc must be applied to drive lugs of rubber track belt to aid in proper belt conditioning.

Proceed as follows:

1. Pour one cup of talc to front and rear idler wheels.
2. Move machine forward or in reverse to spread talc over drive lug teeth.
3. Verify that guide/drive lugs have talc on all surfaces.
4. Run machine for approximately ten hours after installation.
5. Check hydraulic pressure on track tensioning system and adjust as needed (see **Adjust Track Belt Tension** in this section).
6. Check track module hardware torque and retighten as needed (see **Lubrication and Maintenance** section).

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Operate Machine With Tracks



ZX263122

ZX263122 —UN—12NOV15

IMPORTANT: Whenever possible avoid transporting machine with header attached. High speed road travel increases tread wear rates and builds excessive heat, which can reduce drive lug life. Road travel should be avoided prior to completing break-in period, particularly on asphalt roads. If road travel is necessary with new tracks, reduce transport speed and apply talc to drive lugs to aid in proper belt conditioning.

NOTE: Driving a machine with tracks is the same as driving a machine with tires. Therefore, instructions on how to drive a combine is given in the Combine Operator's Manual.

There are no differences between operating machines with tracks versus machines with wheels. All controls and shift functions remain the same as a machine with wheels.

Track machines allow for a higher front axle load capacity and provide more traction.

Machine behavior on paved roads is similar to behavior of machine with wheels. On non-paved, poor roads and in field, machine behavior is more comfortable because the dual auto tensioning system compensates better for uneven ground and machine is not prone to bounce.

Refer to Combine Operator's Manual for operational information not related to tracks.

The following points must be considered for operation with tracks:

- Correct belt tension
- Correct suspension adjustment

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Adjust Track Belt Tension

To ensure safe operation of belt running gear, check pressure daily.

Hydraulic pressure gauge (A) is used to provide a quick visual check to verify that pressure is within recommended operating range.

NOTE: The second pressure gauge on control valve is used to check/adjust track suspension pressure (see *Adjust Track Suspension System* in this section).

Hydraulic pressure must be 8000 ± 500 kPa (80 ± 5 bar; 1200 ± 75 psi). Ideal operating pressure is **8000 kPa (80 bar) (1160 psi)**.

IMPORTANT: If pressure is too low, this indicates that there is a leak somewhere in the hydraulic system and a closer inspection must be performed. See your John Deere dealer for further information.

IMPORTANT: Never drive the machine if hydraulic pressure is not present in the system. This would lead to overloading of the front and rear idlers resulting in severe damage.

If pressure is outside of these ranges it must be adjusted. Proceed as follows:

1. Install filling hose (B) on left-hand side coupler of track control valve (C) and close the shut off tap (D).

NOTE: Filling hose (B) used for adjustment of hydraulic pressure is supplied with machine.

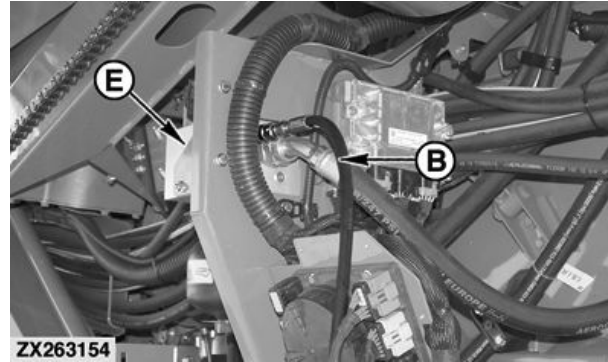
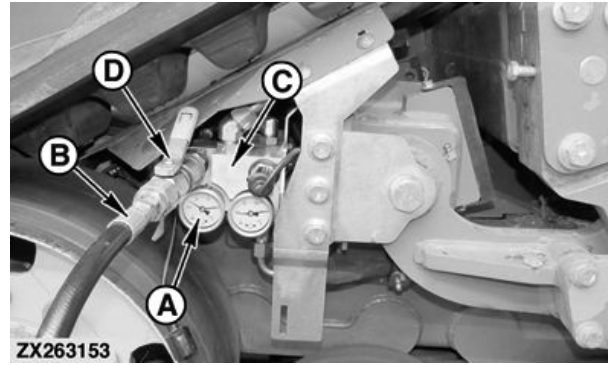
2. Connect the filling hose (B) to the combine valve block (E) and open the shut off tap (D).

NOTE: Refer to relevant *Combine Operator's Manual* to localize valve block (E).

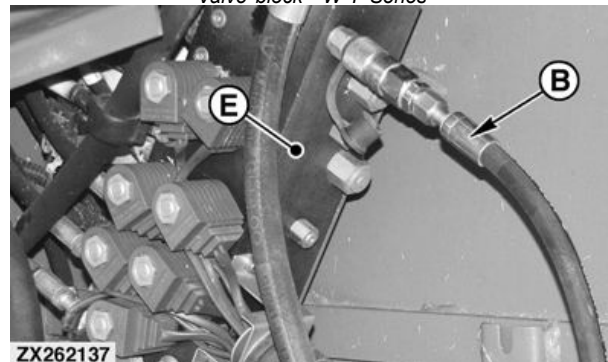
3. Start the engine and move the reel adjustment switch to forward position until the pressure rises to $10000-12000$ kPa ($100-120$ bar) ($1450-1740$ psi).
4. Close the shut off tap (D) and shut off the engine.
5. Slowly open the shut off tap (D) until a pressure of **80 bar (1160 psi)** is reached, then close again.

A—Gauge
B—Filling Hose
C—Track Control Valve

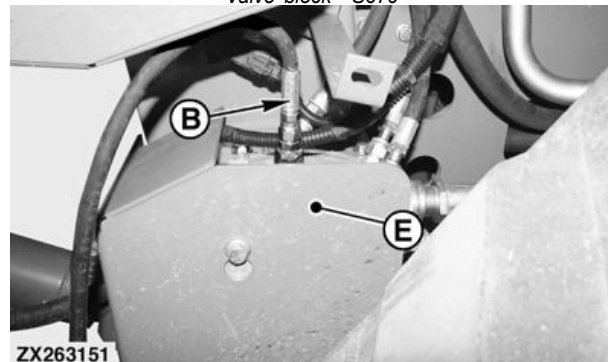
D—Shut Off Tap
E—Combine Valve Block



Valve block—W-T Series



Valve block—S670



Valve block—S680/S685/S690

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Adjust Track Suspension System

Hydraulic pressure gauge (A) is used to provide a quick visual check to verify that pressure is at recommended operating value.

NOTE: The second pressure gauge on control valve is used to check/adjust track belt tension pressure (see *Adjust Track Belt Tension* in this section).

IMPORTANT: Machine should not be used on the road with an attached header heavier than 3400 kg (7496 lb).

IMPORTANT: Track suspension adjustment must be performed with an empty grain tank and no header attached to the combine.

Track suspension pressure must be adjusted for road travel. Proceed as follows:

1. Install filling hose (B) on right-hand side coupler of track control valve (C) and close the shut off tap (D).

NOTE: Filling hose (B) used for adjustment of hydraulic pressure is supplied with machine.

2. Connect the filling hose (B) to the combine valve block (E) and open the shut off tap (D).

NOTE: Refer to relevant Combine Operator's Manual to localize valve block (E).

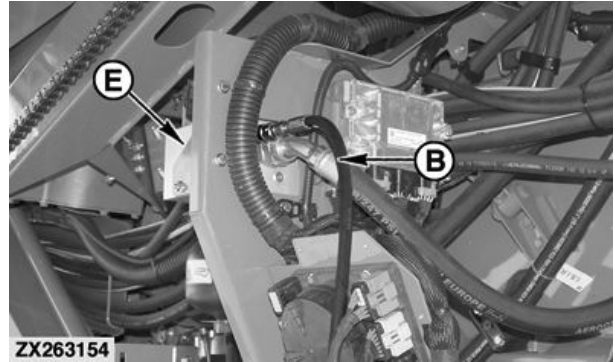
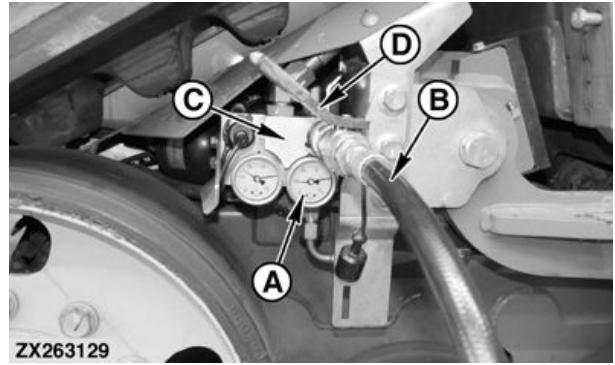
3. Start the engine and move the reel adjustment switch to forward position until the pressure rises to 10000—12000 kPa (100–120 bar) (1450–1740 psi).
4. Close the shut off tap (D) and shut off the engine.
5. 5 - Slowly open the shut off tap (D) until the pressure has been reached (see tables), then close again.

Pressure for machine without foldable header	
Left-Hand Side Pressure	Right-Hand Side Pressure
5500 kPa (55 bar) (798 psi)	5000 kPa (50 bar) (725 psi)

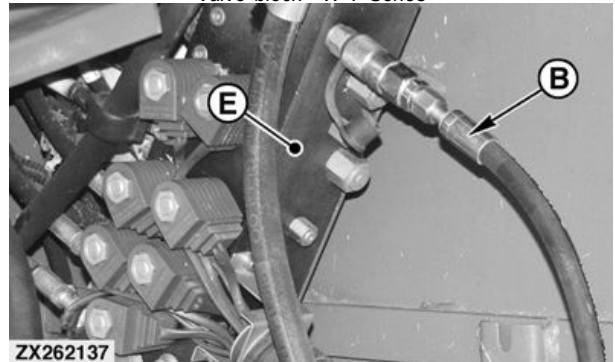
Pressure for machine with foldable header		
Header Weight	Left-Hand Side Pressure	Right-Hand Side Pressure
2000 kg (4409 lb)	7000 kPa (70 bar) (1015 psi)	6500 kPa (65 bar) (943 psi)
2500 kg (5512 lb)	7500 kPa (75 bar) (1088 psi)	7000 kPa (70 bar) (1015 psi)
3000 kg (6614 lb)	8000 kPa (80 bar) (1160 psi)	7500 kPa (75 bar) (1088 psi)

6. Perform a 10 min. test drive and check the temperature of both track belts (see **Check Track Belt Temperature** in this section).

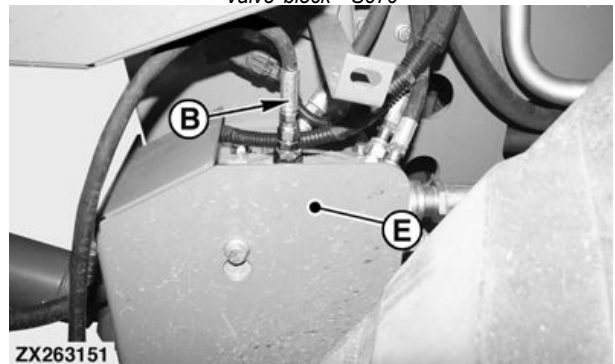
NOTE: After pressure setup, make sure that idler does still have ground contact. If not, reduce in steps of 5 bar the pressure.



Valve block—W-T Series



Valve block—S670



Valve block—S680/S685/S690

A—Gauge
B—Filling Hose
C—Track Control Valve

D—Shut Off Tap
E—Combine Valve Block

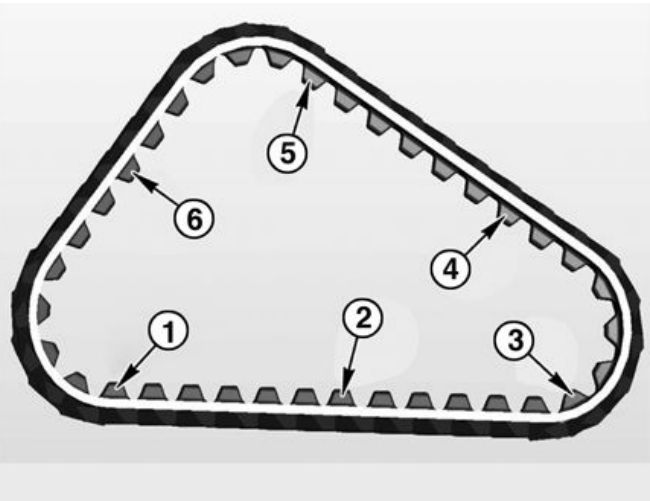
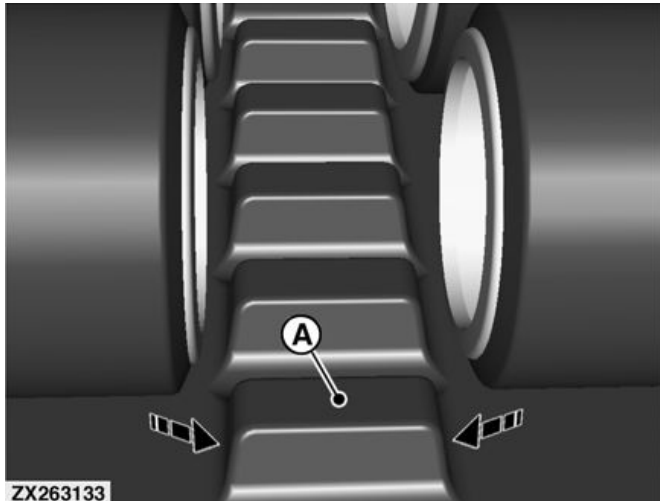
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OUC002,0004853 -19-15NOV15-1/2

IMPORTANT: After a runtime of 10 operating hours, check the pressure.

OUC002,0004853 -19-15NOV15-2/2

Check Track Belt Temperature



A—Lug

Check track belt temperature as follows:

1. Drive at least 2 km (1.24 miles) straight, without steering.
2. Check if the belts are centered. Only slight contact between drive wheel or idlers and lugs (A) is allowed.
3. Check temperature on drive lugs (A), both track units, on several lugs (1—6), and always at same distance to belt (see arrows).

If a difference more than 20°C is found, then camber and toe-in must be adjusted. Contact your John Deere dealer.

IMPORTANT: Do not operate tracks if belt temperature is not within temperature specification. Contact your John Deere dealer

OUC002,0004858 -19-12NOV15-1/1

Check Track Belt Wear

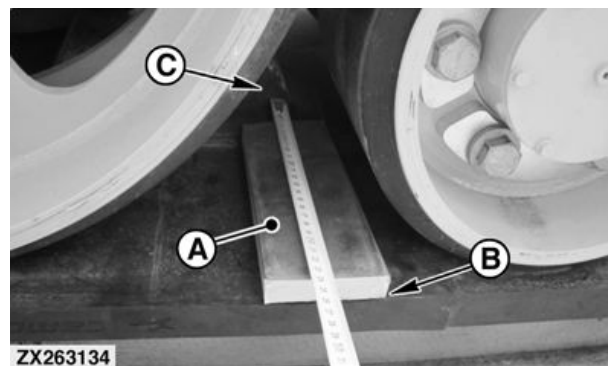
To measure belt wear correctly put a 200 mm (8 in) long X 20 mm (0.8 in) height metal plate (A) on belt, and measure distance between outside edge (B) and lug (C). Dimension must be 230—250 mm (9.05—9.84 in).

Belt can be used till up to 10 mm (0.4 in) wear.

NOTE: Even wear of lugs and tread bars without damages just on one side is considered as a normal wear.

A—Metal Plate
B—Outer Edge

C—Lug



OUC002,0004859 -19-12NOV15-1/1

Troubleshooting

Belt Gets Hot

Symptom	Problem	Solution
Belt gets hot (above 70 °C) at the drive studs and excessive wear occurs.	Check the belt tracking. When driving straight ahead, the belt should track centered on the drive wheel and must only have slight contact with the idlers either at the left or at the ride side. Drive the machine 50 m straight ahead without steering, then stop and check. Is the belt tracking centered? Check the basic adjustment of the suspension cylinders on both running gears. All four hydraulic cylinders must be extended by approximately the same distance (± 2 cm / 0.8 inches).	No: See your John Deere Dealer and have the adjustments checked. Add hydraulic oil as necessary to match both sides. Check for leakage.

Belt Becomes Loose

Symptom	Problem	Solution
Belt tension does not remain constant or drops quickly.	Check belt tensioning system for external leakage. Are there signs of external leakage?	Yes: Repair leakage in hydraulic system. No: See your John Deere Dealer and have the integrated accumulator in the hydraulic cylinder checked.

Belt Oily

Symptom	Problem	Solution
The inner side of the belt is oily.	Check all components for external leakage. Are there signs of external leakage?	Yes: Repair leakage at hydraulic lines, hydraulic cylinders or hubs of carrier rollers and of idlers.

Suspension Comfort Worsens

Symptom	Problem	Solution
Suspension comfort worsens	Cause may be one of the two accumulators.	See your John Deere Dealer and have the accumulators checked for specified nitrogen charge or adjusted.

Steel Wires Protrude from Belt

Symptom	Problem	Solution
Wire ends protrude from the belt.	The appearance does not necessarily indicate a defective belt but is conditional on the manufacturing process.	Always cut wire ends so they are flush with the rubber.

OUCC002,000484F -19-11NOV15-1/1

Lubrication and Maintenance

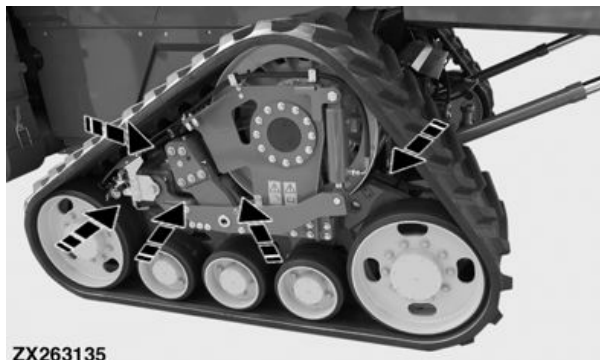
Track Cleanout Areas

IMPORTANT: The tracks must be cleaned immediately after operation in wet and muddy conditions.

Mainframe and wheel areas (A) must be cleaned periodically to prevent buildup of dirt and debris. Buildup can cause premature wear on rubber track belt, carrier rollers, and idler wheels.

Remove all dirt and debris, particularly at the locations marked by arrows.

Carefully check and clean the area between belt and machine frame as well as the axle area.



ZX263135 —UN—12NOV15



ZX263136 —UN—12NOV15

OUCC002,000485A -19-12NOV15-1/1

Service Interval Chart

Service	Service Intervals				
	Daily	50 Operating Hours	400 Operating Hours or Annually	1000 Operating Hours	2000 Operating Hours
Clean Dirt and Debris From Drive Wheels	X				
Clean Dirt and Debris From Mainframe	X				
Check Belt Tension Pressure	X				
Lubricate Track Units		X			
Check Carrier Rollers Oil Level			X		
Check Idler Wheels Oil Level			X		
Check Drive Line Bearing Support Splines			X		
Change Carrier Rollers Oil				X	
Change Idler Wheels Oil				X	
Change Reduction Gear Box Oil					X

IMPORTANT: Service times are for average conditions. Service more often if machine is used in extreme conditions.

OUC002,000485B -19-13NOV15-1/1

Capacities

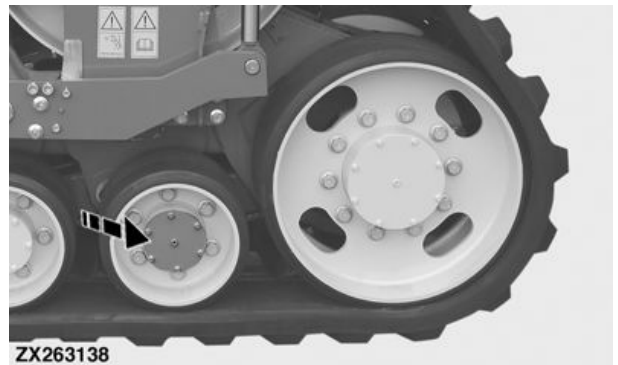
Carrier Roller Hub

IMPORTANT: Always use recommended hydraulic oil (see Hydraulic Oil in this section).

The following oils are preferred:

- John Deere Hy-Gard™
- John Deere Low Viscosity Hy-Gard™

Capacity: 0.25 L (0.26 qt)



ZX263138 —UN—12NOV15

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OUC002,000485C -19-12NOV15-1/3

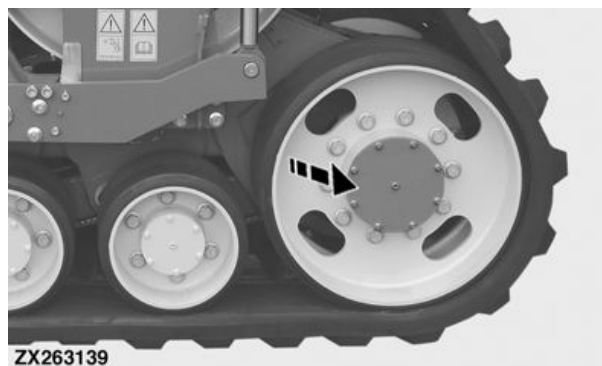
Idler Wheel Hub

IMPORTANT: Always use recommended hydraulic oil (see Hydraulic Oil in this section).

The following oils are preferred:

- John Deere Hy-Gard™
- John Deere Low Viscosity Hy-Gard™

Capacity: 1.6 L (1.7 qt)



ZX263139 —UN—12NOV15

OUCC002,000485C -19-12NOV15-2/3

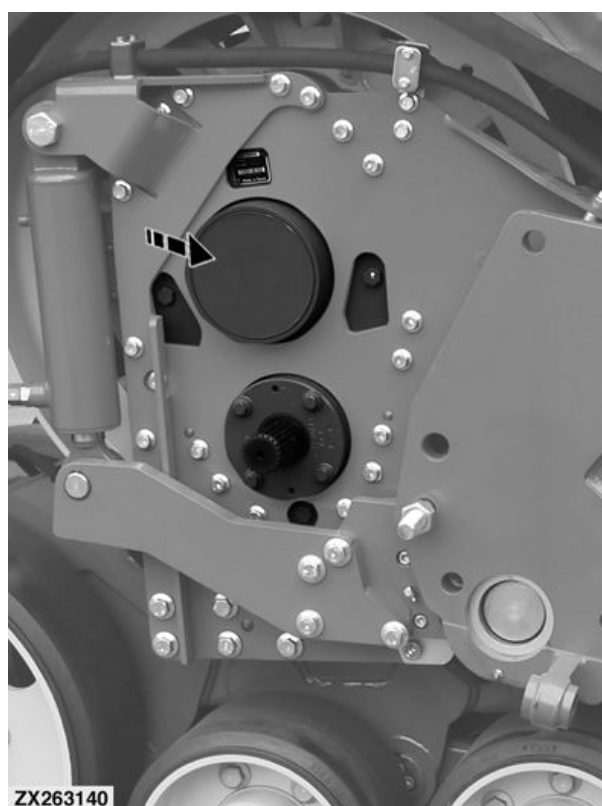
Reduction Gear Box

IMPORTANT: Always use recommended transmission oil (see Transmission Oil in this section).

The following oils are preferred:

- John Deere Extreme-Gard™
- John Deere GL-5 Gear Lubricant

Capacity: about 4.2 L (1.11 gal)



ZX263140 —UN—12NOV15

OUCC002,000485C -19-12NOV15-3/3

Transmission Oil

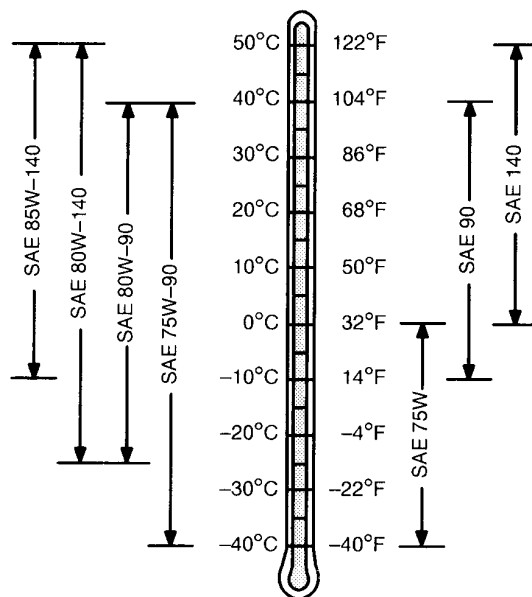
Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere Extreme-Gard™
- John Deere GL-5 Gear Lubricant

Other oils may be used if they meet the following:

- API Service Category GL-5



Oil Viscosities for Air Temperature Ranges

OUCC002,000485D -19-12NOV15-1/1

TS1653 —UN—14MAR96

Hydraulic Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes.

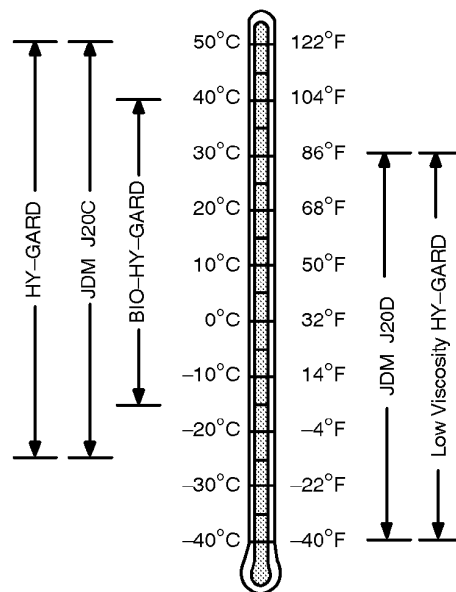
The following oils are preferred:

- John Deere Hy-Gard™
- John Deere Low Viscosity Hy-Gard™

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use John Deere Bio Hy-Gard™ oil when a biodegradable fluid is required.¹



¹ Bio Hy-Gard meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. Bio Hy-Gard should not be mixed with mineral oils, because this reduces the biodegradability and makes proper oil recycling impossible.

OUCC002,000485E -19-12NOV15-1/1

TS1660 —UN—10OCT97

Grease

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD Polyurea Grease is preferred.

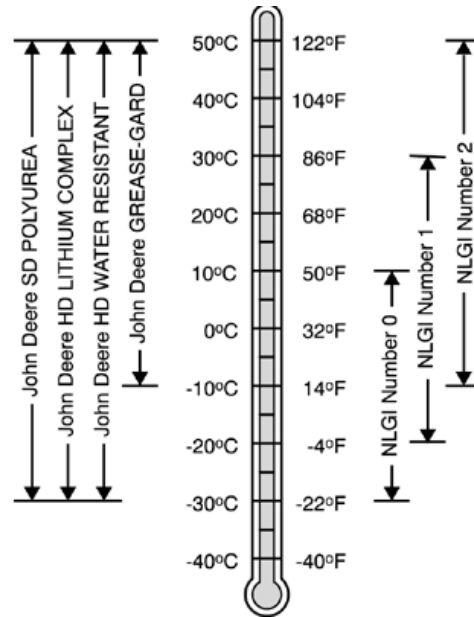
The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere HD Water Resistant Grease
- John Deere Grease-Gard™

Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB

IMPORTANT: Some types of grease thickeners are not compatible with others. Consult your grease supplier before mixing different types of grease.



Greases for Air Temperature Ranges

TS1673 —UN—31OCT03
OUCC002,0004861 -19-12NOV15-1/1

After the First 10 Operating Hours

Drive Wheels

Tighten the drive wheel screws (A) to **310 N·m (230 lb·ft)** before the first use and then again after 10 operating hours.

A—Drive Wheel Screws (20X per Track Unit)



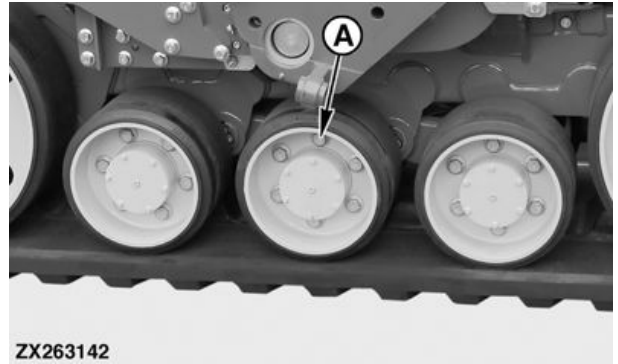
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ZX263141 —UN—12NOV15
OUCC002,000485F -19-12NOV15-1/4

Carrier Rollers

Tighten the carrier roller screws (A) to **550 N·m (406 lb·ft)** before the first use and then again after 10 operating hours.

**A—Carrier Roller Screws (36X
per Track Unit)**



ZX263142

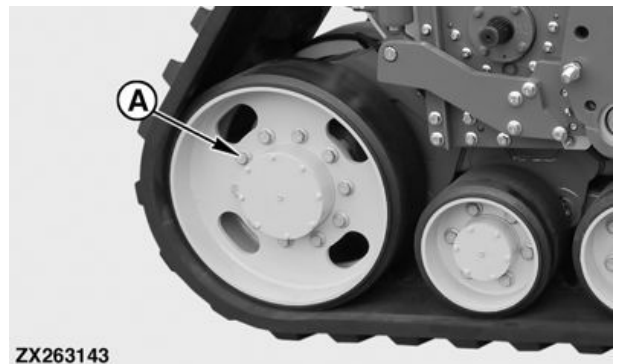
ZX263142 —UN—12NOV15

OUCC002,000485F -19-12NOV15-2/4

Idler Wheels

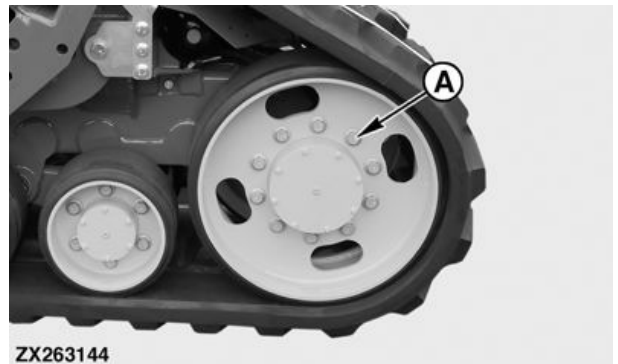
Tighten the idler wheel screws (A) to **550 N·m (406 lb·ft)** before the first use and then again after 10 operating hours.

**A—Idler Wheel Screws (40X
per Track Unit)**



ZX263143

ZX263143 —UN—12NOV15



ZX263144

ZX263144 —UN—12NOV15

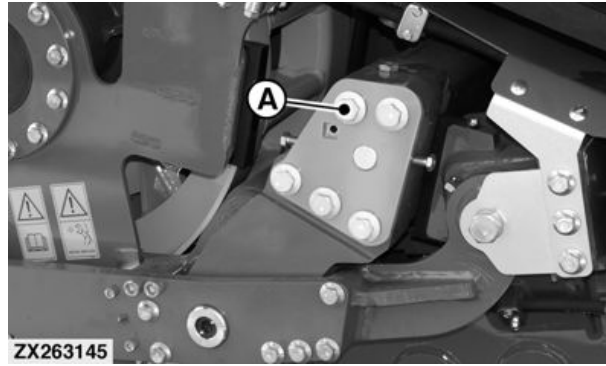
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OUCC002,000485F -19-12NOV15-3/4

Track Arm

Tighten the track arm screws (A) to **600 N·m (450 lb·ft)** before the first use and then again after 10 operating hours.

A—Track Arm Screws



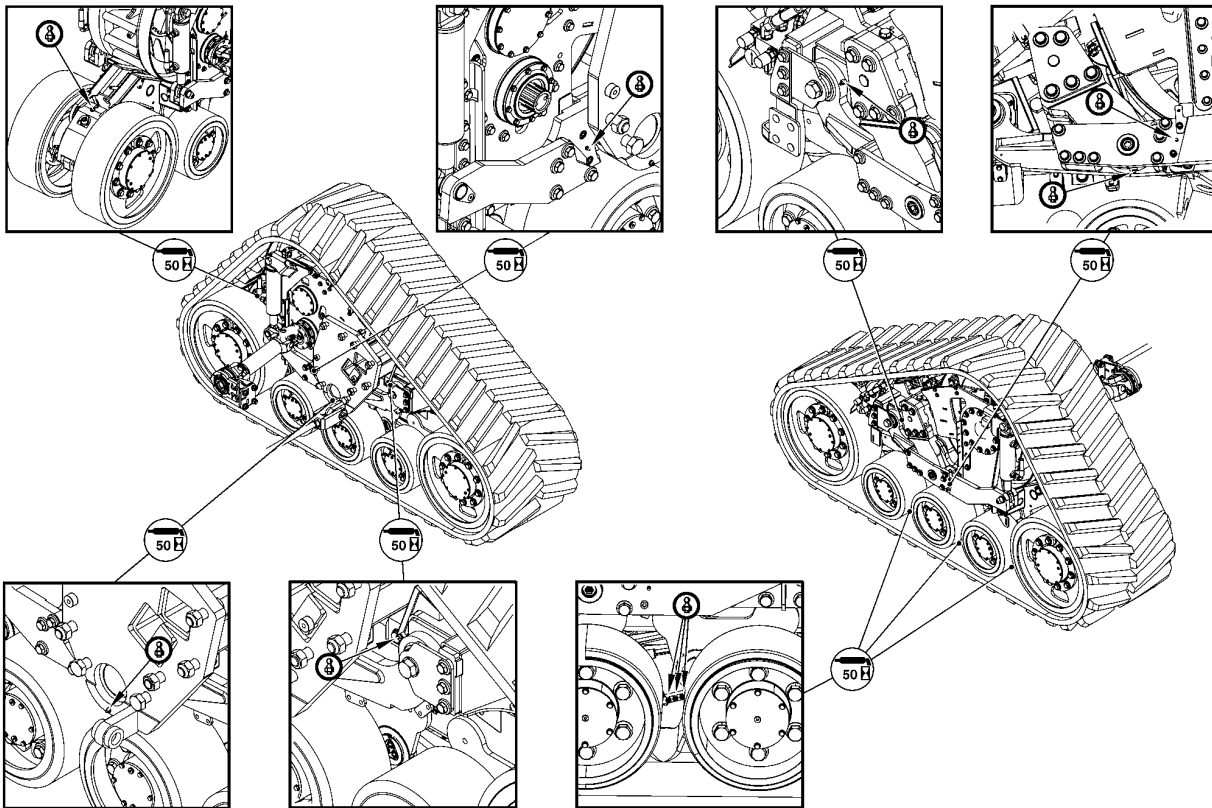
ZX263145 —UN—12NOV15

OUCC002,000485F -19-12NOV15-4/4

Every 50 Operating Hours



JOHN DEERE



Refer to lubrication chart to lubricate track unit grease fittings.

IMPORTANT: Lubrication chart sticker is also glued on combine.

OUCC002,0004862 -19-12NOV15-1/1

ZX263146 —UN—12NOV15

Every 400 Operating Hours or Annually

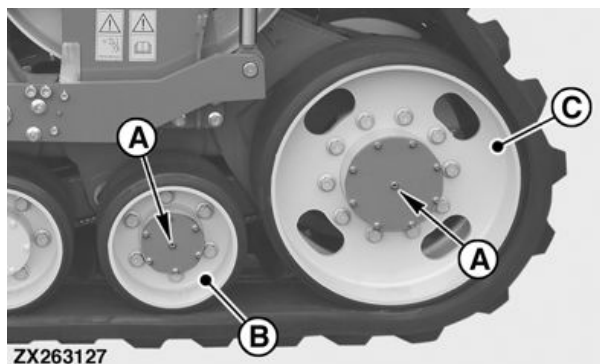
Carrier Roller and Idler Wheel

NOTE: Checking the oil level in the hubs of carrier rollers (B) and of idlers (C) is identical.

Remove plug (A) and verify that oil level is at bottom of hole opening. Add oil as required.

A—Fill/Check Plug
B—Carrier Roller

C—Idler Wheel



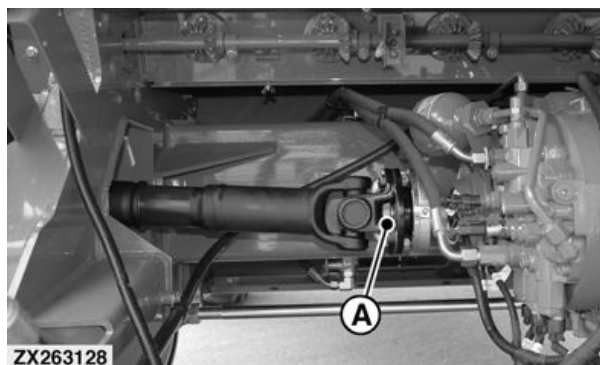
ZX263127 —UN—12NOV15

OUC002,0004840 -19-16NOV15-1/2

Drive Line Bearing Support

At both sides, check splines of drive line bearing support (A).

A—Drive Line Bearing Support



ZX263128 —UN—16NOV15

OUC002,0004840 -19-16NOV15-2/2

Every 1000 Operating Hours

Carrier Rollers

To drain oil into a suitable container, remove cap screws (A) and cover (B) from carrier roller hub (C).

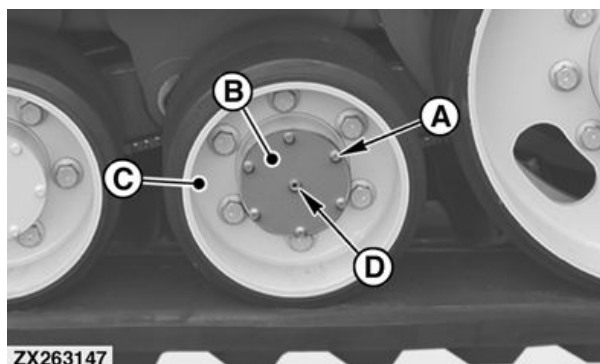
Install cover (B) and retain with cap screw (A).

Remove plug (D) from carrier roller hub and fill with **0.25 L (0.26 qt)** of specified hydraulic oil (see **Hydraulic Oil** in this section).

Install plug (D) back in place with a new o-ring.

A—Cap Screw
B—Cover

C—Hub
D—Fill/Check Plug



ZX263147 —UN—12NOV15

Continued on next page

OUC002,000484D -19-13NOV15-1/2

Idler Wheels

To drain oil into a suitable container, remove cap screws (A) and cover (B) from carrier roller hub (C).

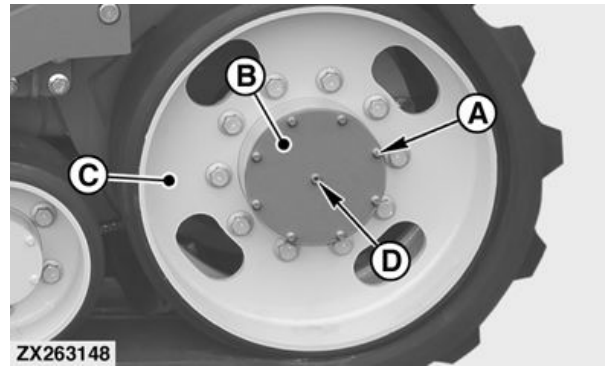
Install cover (B) and retain with cap screw (A).

Remove plug (D) from carrier roller hub and fill with **1.6 L (1.7 qt)** of specified hydraulic oil (see **Hydraulic Oil** in this section).

Install plug (D) back in place with a new o-ring.

A—Cap Screw
B—Cover

C—Hub
D—Fill/Check Plug



ZX263148 —UN—12NOV15

OUC002.000484D -19-13NOV15-2/2

Every 2000 Operating Hours

Reduction Gear Box

To drain oil into a suitable container, remove drain plug (A) of gear box (B).

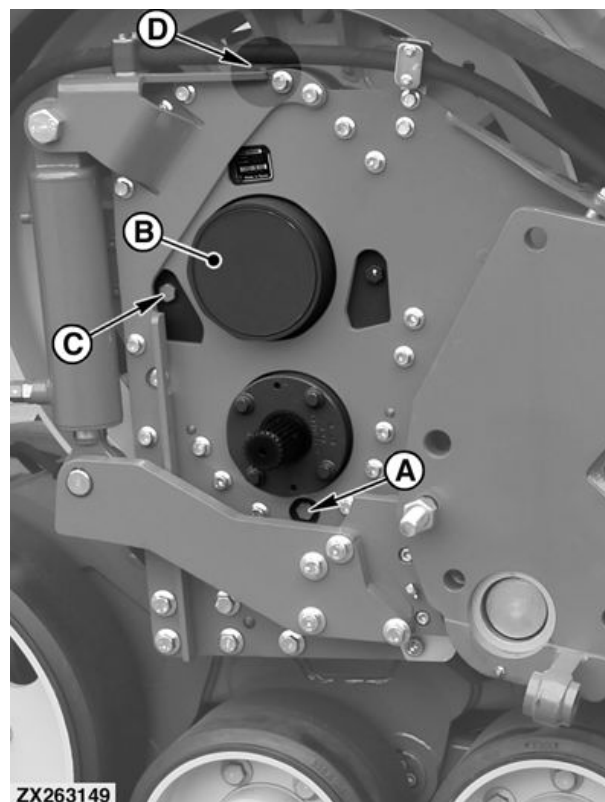
Remove check plug (C).

Fill with about **4.2 L (1.11 gal)** of specified transmission oil (see **Transmission Oil** in this section) until the oil is at level of plug (C) opening.

NOTE: On both sides, use the front check plug (C).

A—Drain Plug
B—Gear Box

C—Check Plug
D—Vent Screw



ZX263149 —UN—12NOV15

OUC002.000484C -19-13NOV15-1/1

Check Track Toe-in and Camber

To check track toe-in and camber, proceed as follows

1. Check Track Camber

Verify combine is exactly level. Perform this check on bottom of front axle (A).

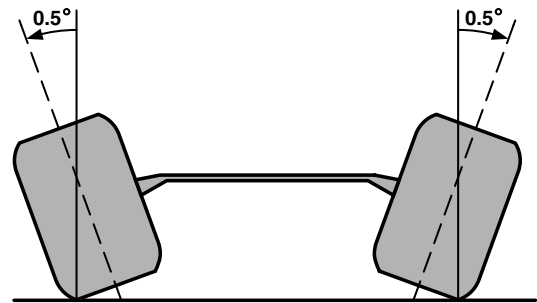
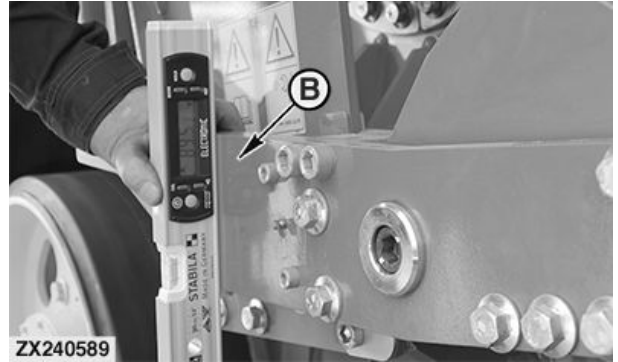
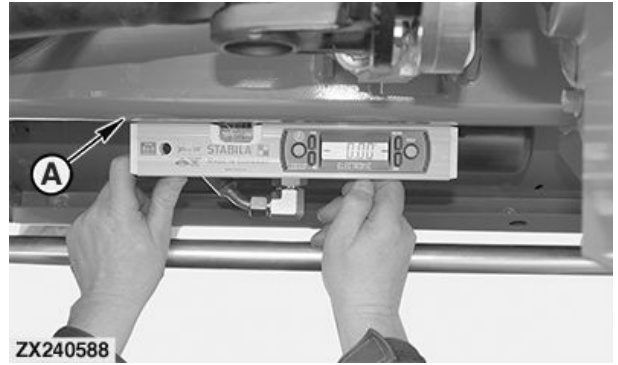
NOTE: Camber adjustments are same on right- and left-hand sides.

2. Check track cambers on outside pivot arm (B).
Camber angle must be 89.5° as shown.

IMPORTANT: In case track camber does not meet the specified angle, contact your John Deere dealer to perform track camber adjustment.

A—Front Axle

B—Pivot Arm



Continued on next page

OUC002,0004860 -19-12NOV15-1/2

ZX240588 —UN—09JUN15

ZX240589 —UN—09JUN15

H104436 —UN—13MAR12

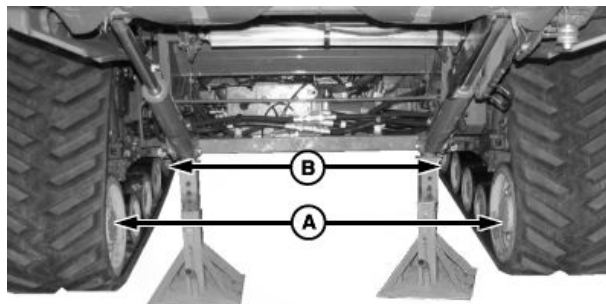
3. Check Track Toe-in

Measure distance between inside of front idler wheel axle hubs (A) and inside of rear idler wheel axle hubs (B).

IMPORTANT: The track tread must always be measured at the same height and in the same place front, and rear.

4. Check that when measured in direction of travel, track tread is 4—6 mm (0.15 — 0.23 in) wider at rear.

IMPORTANT: In case track toe-in does not meet the specified dimension, contact your John Deere dealer to perform track toe-in adjustment.



A—Idler Wheel Axle Hub—Front

B—Idler Wheel Axle Hub—Rear

H104432 —UN—12JAN12

OUC002,0004860 -19-12NOV15-2/2

Specifications

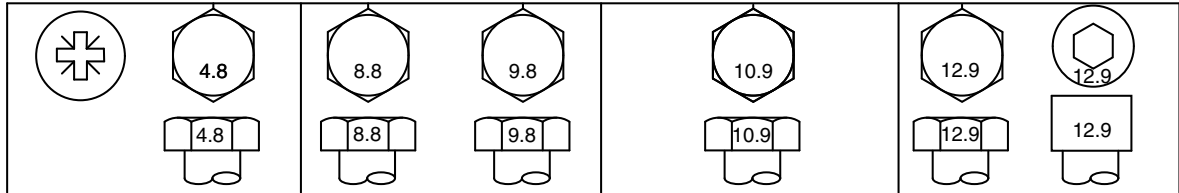
Specifications

Volume of Accumulator 1	1.0 L (0.25 gal)
Charge Pressure of Accumulator 1	5000 kPa (50 bar) (725 psi)
Volume of Accumulator 2	0.5 L (0.12 gal)
Charge Pressure of Accumulator 2	3000 kPa (30 bar) (450 psi)
Weight of one track unit	2250 kg (4960 lb)

OUCC002,0004856 -19-13NOV15-1/1

Metric Bolt and Screw Torque Values

TS1670 —UN—01MAY03



Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b	
	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	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
									N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
			N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.								
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
	N·m	lb.-ft.														
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. 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 fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

^a"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.

^b"Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B, F13E or F13H zinc flake coating.

DX,TORQ2 -19-12JAN11-1/1

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.

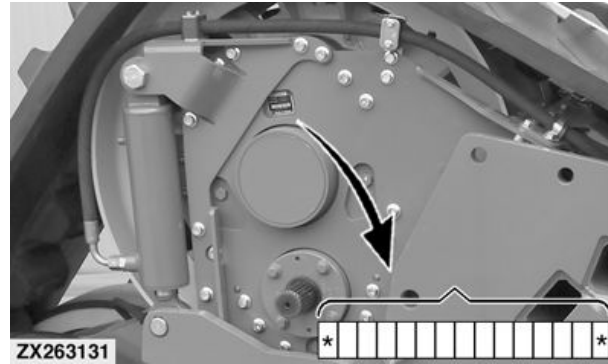
To ensure that you always have these numbers at hand, enter the appropriate serial numbers in the spaces provided in each illustration.

OUCC002,0004857 -19-12NOV15-1/1

Track Component Serial Number

Reduction Gear Box

The serial number is located on the inner face of track assembly.

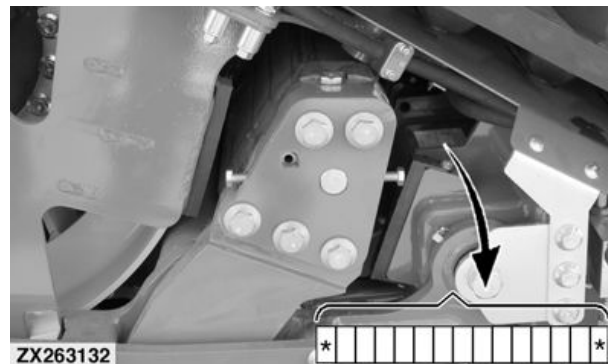


ZX263131—UN—12NOV15

OUCC002,0004854 -19-12NOV15-1/2

Running Gear

The serial number is located on top of cross beam.



ZX263132—UN—12NOV15

OUCC002,0004854 -19-12NOV15-2/2

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