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1355, 1365, and 1465 Mower-Conditioners

OPERATOR'S MANUAL

1355, 1365, and 1465 Mower-Conditioners

OMCC59993 ISSUE J6 (ANGLAIS)

John Deere Arc-lès-Gray

European Edition

PRINTED IN U.S.A.

Introduction

Foreword

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 require a specific metric or inch wrench.

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

WRITE PRODUCT IDENTIFICATION NUMBERS (PIN) 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.

BEFORE DELIVERING THIS MACHINE, your dealer performed a predelivery inspection.

THIS MOWER-CONDITIONER IS DESIGNED SOLELY for use in customary agricultural or similar operations ("INTENDED USE"). Use in any other way is considered as contrary to the intended use. The manufacturer accepts no liability for damage or injury resulting from this misuse, and these risks must be borne solely by the user. Compliance with and strict adherence to the conditions of operation, service, and repair as specified by the manufacturer also constitute essential elements for the intended use.

THIS MOWER-CONDITIONER SHOULD BE OPERATED, serviced and repaired only by persons familiar with all its particular characteristics and acquainted with the relevant safety rules (accident prevention). The accident prevention regulations, all other generally recognized regulations on safety and occupational medicine and the road traffic regulations must be observed at all times. Any arbitrary modifications carried out on this MOWER-CONDITIONER relieves the manufacturer of all liability for any resulting damage or injury.

REGISTER USED PRODUCTS. If you purchased used John Deere products from an authorized John Deere dealer, the warranty registration information was updated by the dealer and requires no further information on your part.

If you purchased any used John Deere product from an auction, through a trader or from a farmer, please register it now. John Deere and John Deere dealers value their customer’s safety and satisfaction. Your local John Deere dealer is best equipped and anxious to provide you superior levels of support for your machine. Please enter your product details and your address online, using the John Deere website corresponding to your country. Then select the dealer of your choice and you will receive a voucher for a discount towards a qualifying purchase of John Deere parts.

CC03745,0001168 -19-23SEP15-1/1

Predelivery Inspection

The following checks, adjustments and service jobs were performed prior to delivery of the machine:

1. □ Mower-conditioner is correctly assembled.
2. □ All grease fittings are lubricated.
3. □ Gear case oil level has been checked and topped up (if necessary).
4. □ Slip clutch setting checked.
5. □ Belt tension has been checked.
6. □ All bolts and nuts have been tightened to the correct torque.
7. □ All parts delivered in the bundle have been installed on the mower-conditioner.
8. □ Knives have been securely fastened to the disks.
9. □ Tines have been securely fastened to the rotor.
10. □ Roll spacing has been adjusted.
11. □ Tire pressure has been checked and adjusted (if necessary).
12. □ Hydraulic hoses and connections have been checked and are free of leaks.
13. □ Hydraulic cylinders operate properly.
14. □ The powerline has been cut to the required dimensions and is working properly.
15. □ Grouper canvas tension checked.
16. □ The machine is working properly.
17. □ Grouper canvas tracking checked.
18. □ Paint and decals are smooth and neat.
19. □ Operator's manual has been given to customer.
20. □ The operator is familiar with the safety precautions to be taken when using the machine.
21. □ The customer has been told that he must check the torque of disk nuts and knife bolts and change oil in cutterbar after the first 10 hours of operation.

Date:

Signature Dealer/Service Technician:

CC03745,0000FF9 -19-25JAN10-1/1

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Original Instructions. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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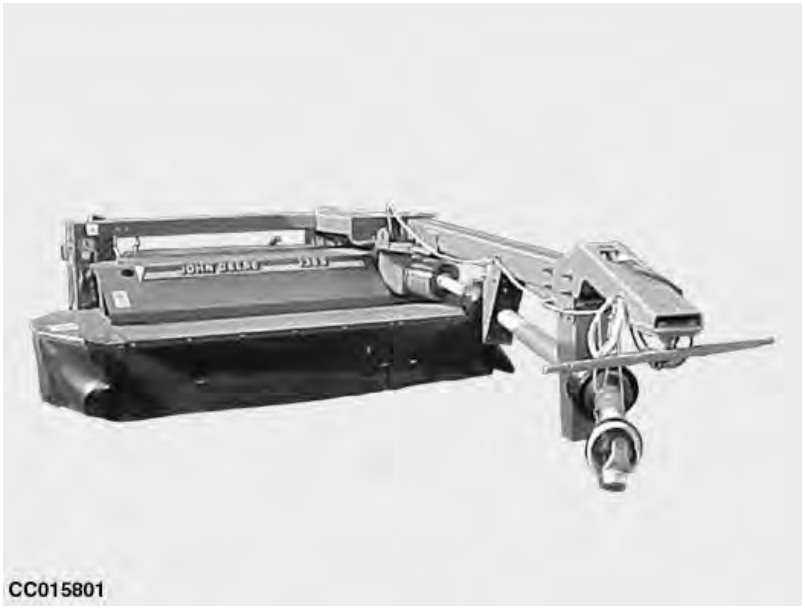
Identification Views



1355 with Linkage Drawbar Tongue

CC015801 —UN—05AUG99

1365 with Swivel Hitch (up to S.N. 359906)

CC015802 —UN—05AUG99

Continued on next page

VC39598,0000255 -19-08AUG12-1/3

CC1038115 —UN—26JUL12

1365 with Swivel Hitch (from S.N. 359907)

VC39598,0000255 -19-08AUG12-2/3

CC015803 —UN—05AUG99

1465 with Pin Drawbar Tongue

VC39598,0000255 -19-08AUG12-3/3

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.

T81389 —UN—28JUN13

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

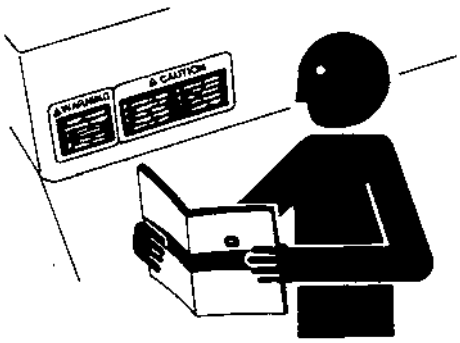
Follow Safety Instructions

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.



TS201 —UN—15APR13

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

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

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

TS187 —19—30SEP88

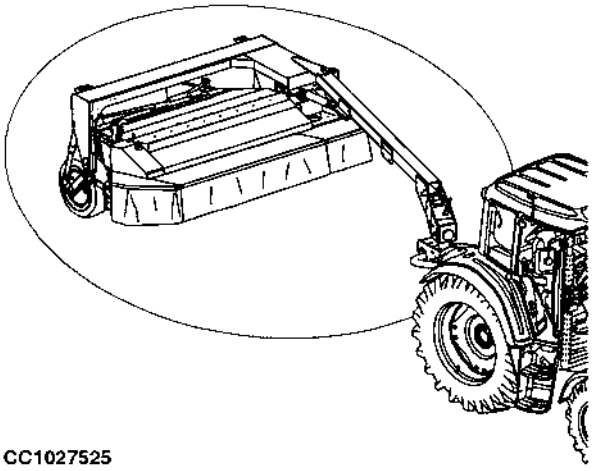
precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

DX,SIGNAL -19-05OCT16-1/1

Maintain a Safety Area Around the Machine

Machine movements and parts in motion can cause serious injury.

Do not, under any circumstances, attach, detach or operate the machine with people or animals in the vicinity.



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OUCC006,0000F36 -19-17AUG05-1/1

Keep Riders Off Machine

Keep riders off.

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

TS249 —UN—23AUG88

CC03745,0000C33 -19-28NOV06-1/1

Observe Road Traffic Regulations

Always observe local road traffic regulations when using public roads.

H28930 —UN—30JUN89

FX,ROAD -19-01MAY91-1/1

Store Attachments Safely

Stored attachments such as dual wheels, cage wheels, and loaders can fall and cause serious injury or death.

Securely store attachments and implements to prevent falling. Keep playing children and bystanders away from storage area.

TS219 —UN—23AUG88

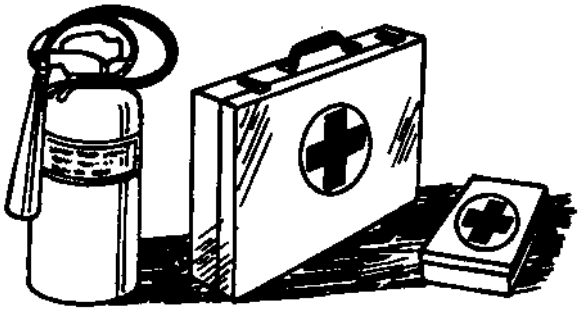
DX,STORE -19-03MAR93-1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



TS291 —UN—15APR13

DX,FIRE2 -19-03MAR93-1/1

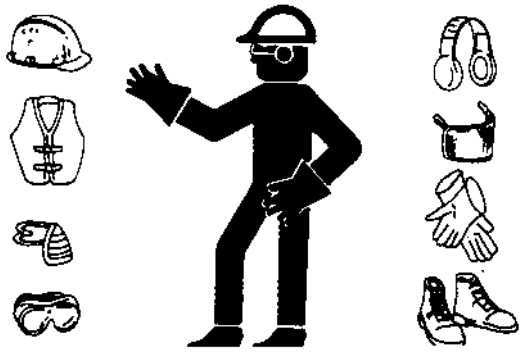
Wear Protective Clothing

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.

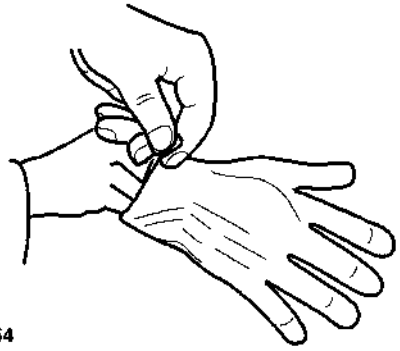


TS206 —UN—15APR13

DX,WEAR -19-10SEP90-1/1

Handling of Knives

Prevent personal injury by wearing safety gloves to handle knives.



CC1026954

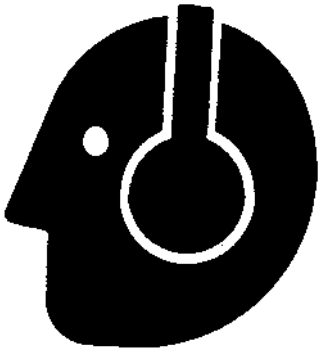
CC1026928 —UN—26JAN05

OUCC006,0000DB6 -19-04JAN05-1/1

Protect Against Noise

Prolonged exposure to loud noise can cause impairment or loss of hearing.

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



TS207 —UN—23AUG88

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

Check Machine Safety

Always check the road and general operating safety of the machine before using.

FX,READY -19-28FEB91-1/1

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

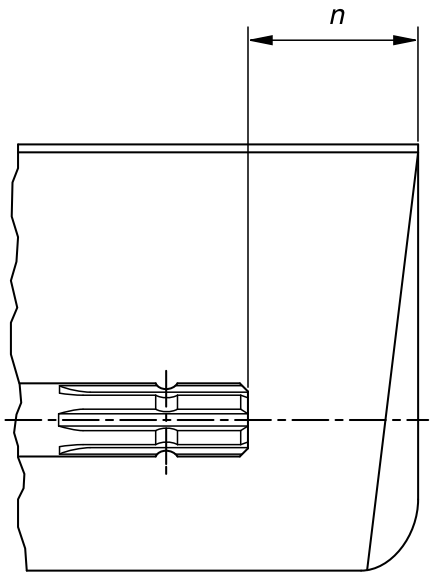
Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

Do not install any adapter device between the tractor and the primary implement PTO drive shaft that will allow a 1000 rpm tractor shaft to power a 540 rpm implement at speeds higher than 540 rpm.

Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft and the added adaptor device as outlined in the table.

PTO Type	Diameter	Splines	n ± 5 mm (0.20 in.)
1	35 mm (1.378 in.)	6	85 mm (3.35 in.)
2	35 mm (1.378 in.)	21	85 mm (3.35 in.)
3	45 mm (1.772 in.)	20	100 mm (4.00 in.)

TS1644 —UN—22AUG95

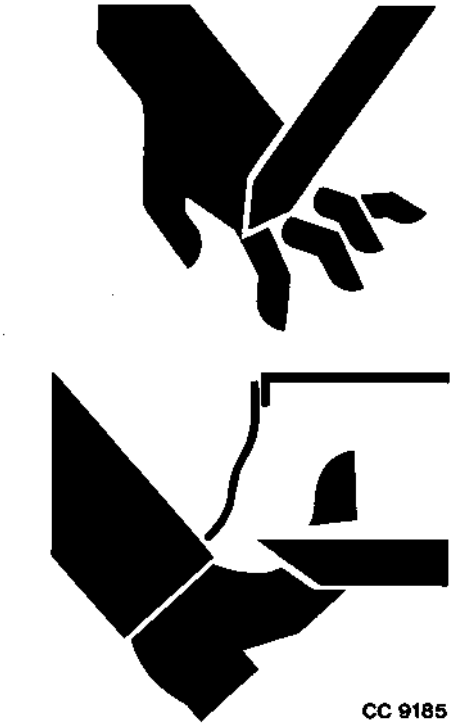


H96219 —UN—29APR10

DX,PTO -19-30JUN10-1/1

Operate Safely

1. Keep all curtains and shields in place.
2. Never hand feed material into the machine.
3. Do not lean against or sit or stand on the cutterbar curtains or their supporting framework.
4. Do not operate mower-conditioner with cutterbar in raised position.
5. Regularly check that disk and knife bolts are tight; also verify that tines are securely mounted on rotor.
6. Always operate the machine at rated speed.
7. Drive slowly over rough ground.
8. Avoid holes when operating on hillsides. Tractor rollover could result. It is requested that the mower-conditioner be used only with tractors having an operator enclosure.
9. Provide sufficient weight to stabilize the tractor when operating on hilly land or under other adverse conditions. See your tractor operator's manual.
10. Lower mower-conditioner to the ground when leaving it and tractor unattended.
11. Always apply parking brake before detaching from tractor.



TS268 —UN—23AUG88

CC9185 —UN—07FEB95

CC03745,0000B5C -19-15DEC05-1/1

Avoid Injury from Thrown Objects

Use extreme care to avoid injury from thrown objects. Do not, under any circumstances, operate the mower-conditioner when other people are in the vicinity. Stones and other objects can be thrown very far by the rotating cutting blades.

The cutterbar curtains are very important to reduce the potential for thrown objects. Always keep these curtains down when operating the mower-conditioner. Replace the curtains if worn or damaged.

For additional operator protection from thrown objects, only use this mower-conditioner with a tractor equipped with a complete operator enclosure.

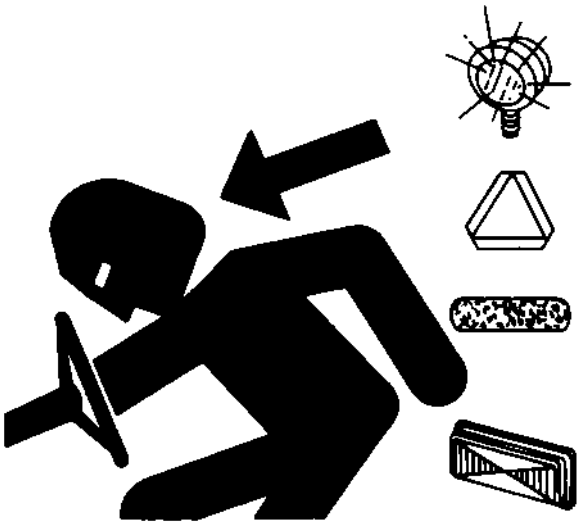
TS265 —UN—23AUG88

CC03745,0000EE3 -19-17JAN08-1/1

Use Safety Lights and Devices

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

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



TS951 —UN—12APR90

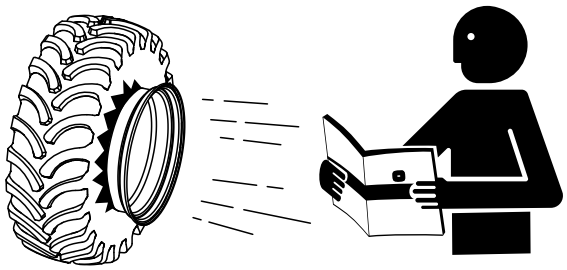
DX,FLASH -19-07JUL99-1/1

Follow Tire Recommendations

Keep your machine in proper working order.

Use only prescribed tire sizes with correct ratings and inflate to the pressure specified in this manual.

Use of other than prescribed tires may decrease stability, affect steering, result in premature tire failure, or cause other durability or safety issues.



H111235 —UN—13MAY14

DX,TIRE,INFO -19-19MAY14-1/1

Service Tires Safely

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

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

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

Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.

RXA0103438 —UN—11JUN09

DX,WW,RIMS -19-19AUG09-1/1

Observe Maximum Transport Speed

IMPORTANT: Maximum transport speed is determined by local road traffic regulations and speed capability of this implement.

Always observe local road traffic regulations when driving on public roads.

NOTE: See your John Deere dealer for more information.

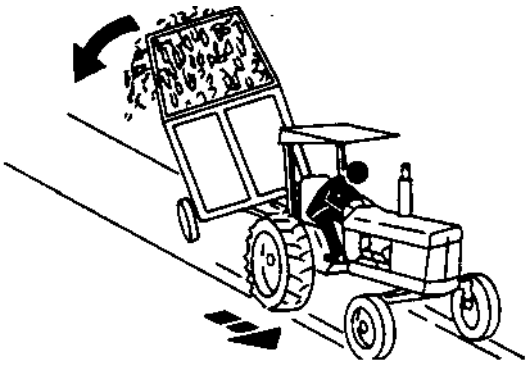
Do not exceed implement gross weight (PTAC) when towing this implement at transport speed.

Some tractors are capable of operating at speeds that exceed the maximum transport speed capability of this implement. Regardless of the maximum speed capability of the tractor being used to tow this implement, do not exceed the implement's maximum transport speed.

Exceeding the implement's maximum transport speed can result in:

- Loss of control of the tractor/implement combination
- Reduced or no braking ability
- Implement tire failure
- Damage to the implement structure or its components

Use additional caution and reduce speed when towing under adverse surface conditions, when turning, and when on inclines.



TS216 —UN—23AUG88

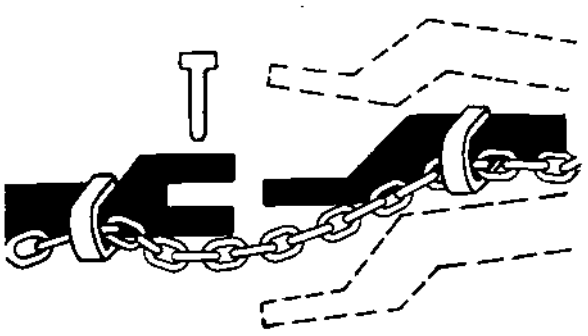
OUCC007,00018D5 -19-15DEC10-1/1

Use a Safety Chain

A safety chain will help control drawn equipment should it accidentally separate from the drawbar.

Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning.

See your John Deere dealer for a chain with a strength rating equal to or greater than the gross weight of the towed machine. Do not use safety chain for towing.



TS217 —UN—23AUG88

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

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. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

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

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

TS218 —UN—23AUG88

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

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.

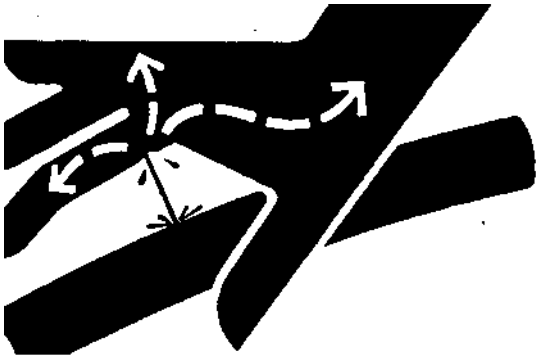
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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.



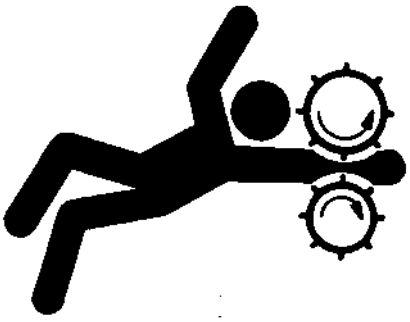
X9811 —UN—23AUG88

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

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

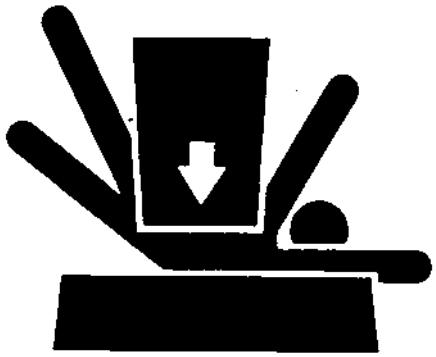
DX,LOOSE -19-04JUN90-1/1

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—23AUG88

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

Remove Paint Before Welding or Heating

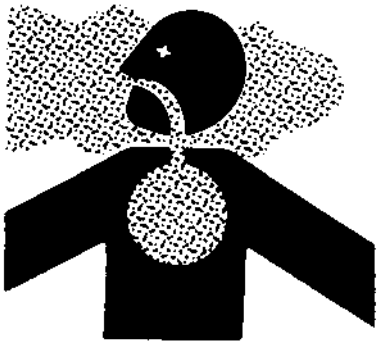
Avoid potentially toxic fumes and dust.

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.

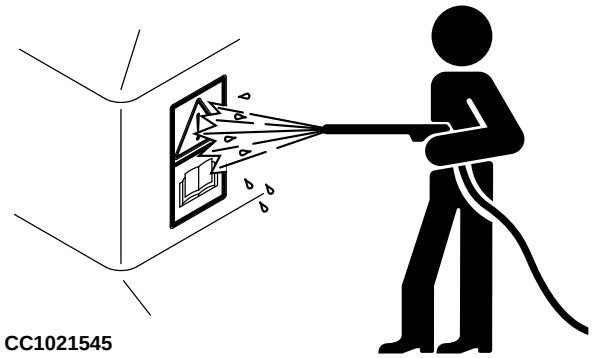
TS953 —UN—15MAY90

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

Avoid High-Pressure Jet on Safety Signs

Pressurized water can remove or damage safety signs. Avoid to direct high-pressure jet on safety signs.

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



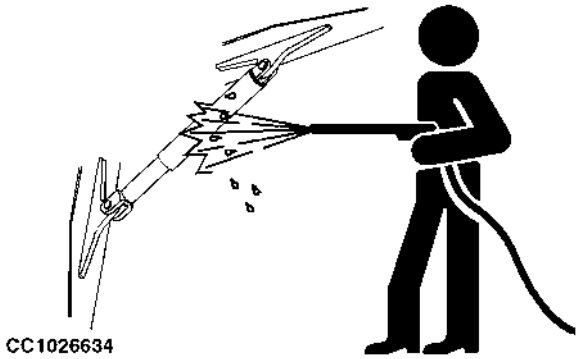
CC1021545

CC1021545 —UN—23APR02

CC03745,0001031 -19-23JUN11-1/1

Avoid High-Pressure Jet on Cylinders

Pressurized water can damage cylinders. Avoid to direct high-pressure jet on cylinders.



CC1026634

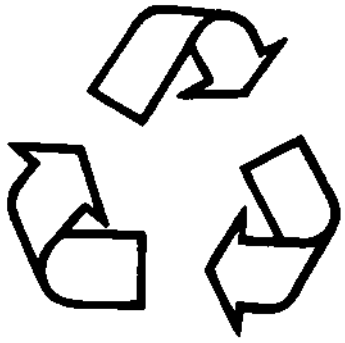
CC1026634 —UN—03DEC04

CC03745,0000FD3 -19-08SEP09-1/1

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);



TS1133 —UN—15APR13

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

Safety Signs

Pictorial Safety Signs

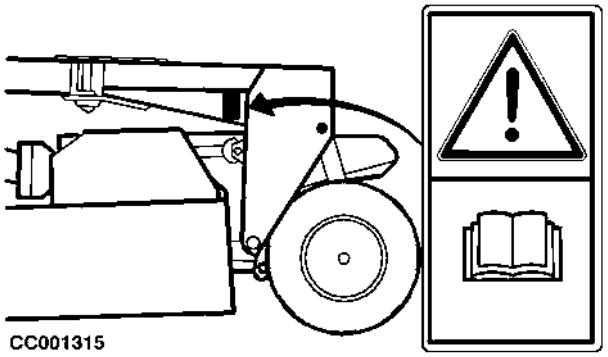
At several important places of this machine safety signs are affixed intended to signify potential danger. The hazard is identified by a pictorial in a warning triangle. An adjacent pictorial provides information how to avoid personal injury. These safety signs, their placement on the machine and a brief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

TS231 —19—07OCT88

FX,WBZ -19-19NOV91-1/1

Operator's Manual

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

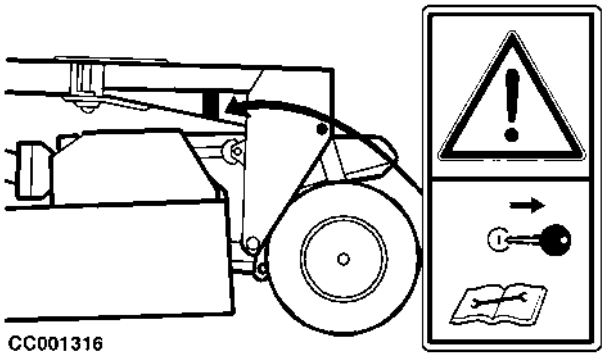


CC001315 —UN—23FEB95

CC,1350MC001789 -19-23AUG94-1/1

Repair and Maintenance

Before carrying out repair and maintenance work, shut off tractor engine and remove key.

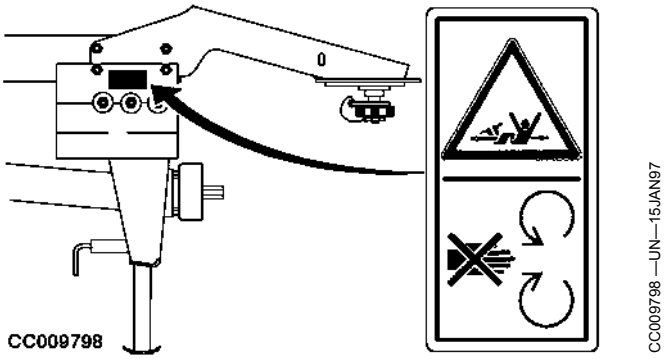


CC001316 —UN—23FEB95

CC,1350MC001790 -19-23AUG94-1/1

Mower-Conditioner Drive Line

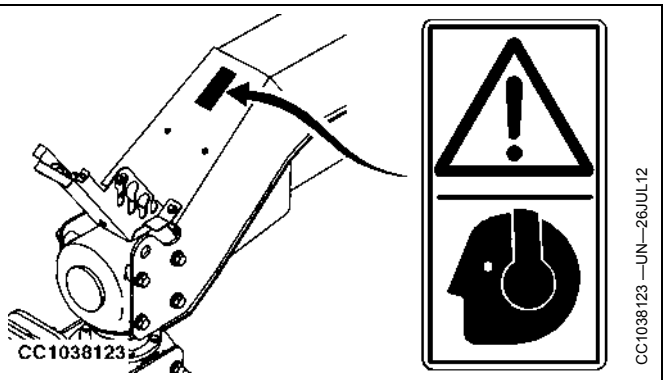
Stay clear of rotating drive line to avoid personal injury.



CC,1350MC003622 -19-21NOV96-1/1

Noise Protection

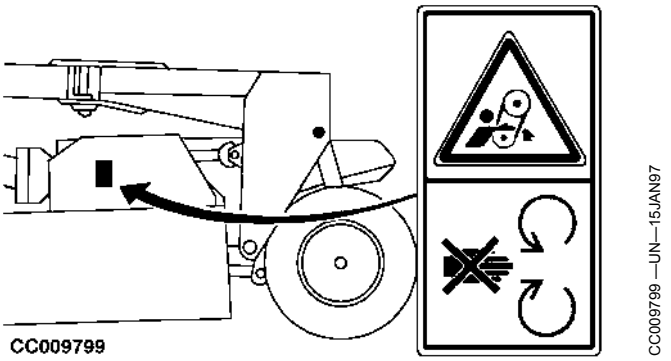
Use noise protection to avoid possible hearing damage.



VC39598,000029F -19-08AUG12-1/1

Drive Belt Guard

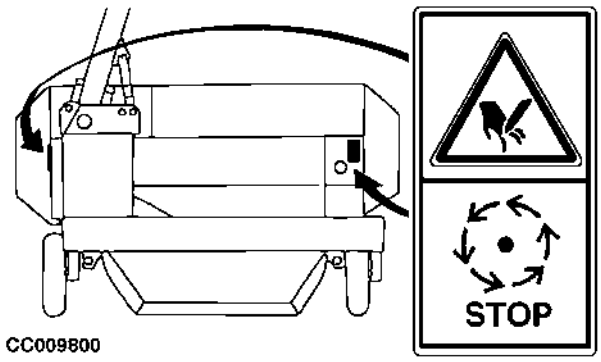
Do not open or remove guard when mower-conditioner is running.



CC,1350MC003706 -19-13DEC96-1/1

Rotor

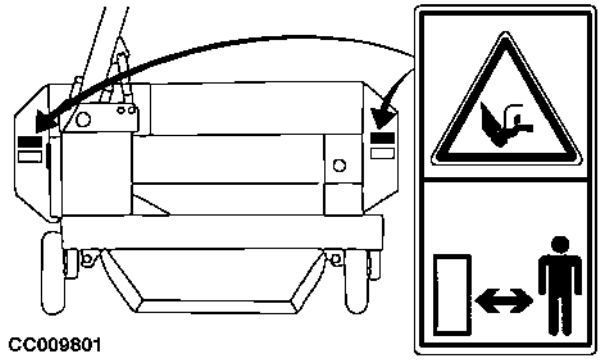
Do not touch any moving machine parts. Wait until moving parts have stopped.



CC,1350MC003623 -19-21NOV96-1/1

Cutterbar

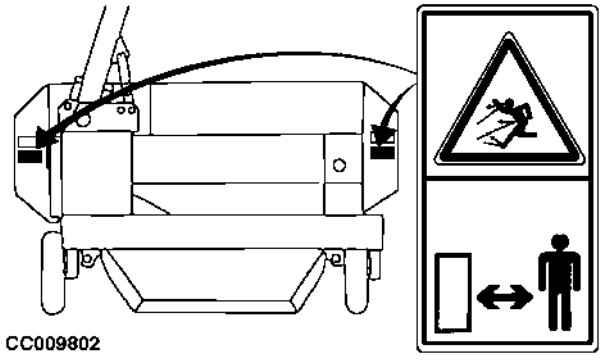
Stay clear of rotating knives as long as mower-conditioner is running.



CC,1350MC003624 -19-21NOV96-1/1

Cutterbar Curtains

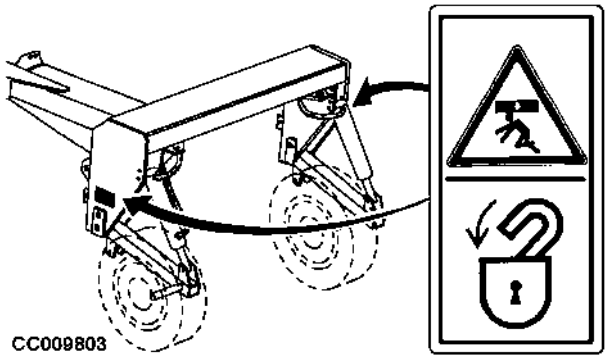
Do not operate the mower-conditioner with curtains in raised position.



CC,1350MC003625 -19-21NOV96-1/1

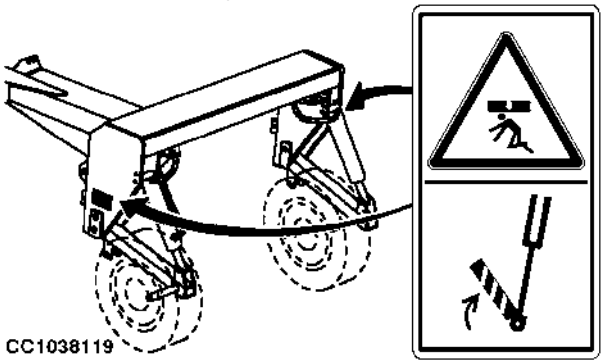
Platform

Insert cylinder stops when platform is raised.



CC009803 —UN—15JAN97

Up to S.N. 357999



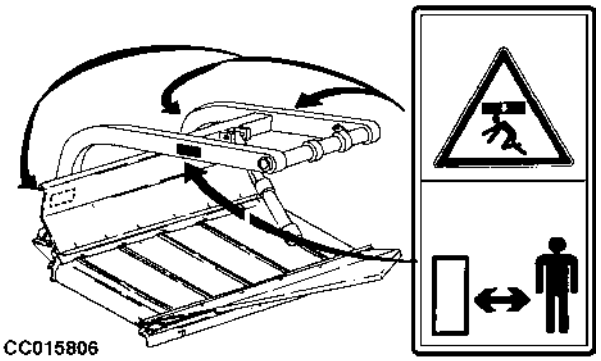
CC1038119 —UN—26JUL12

From S.N. 358000

VC39598,000029D -19-08AUG12-1/1

Grouper

Stay clear of raised grouper.

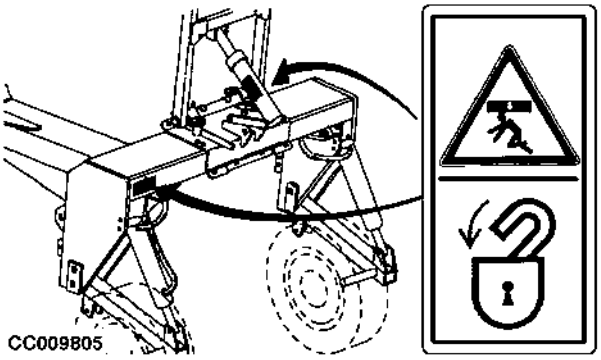


CC015806 —UN—09AUG99

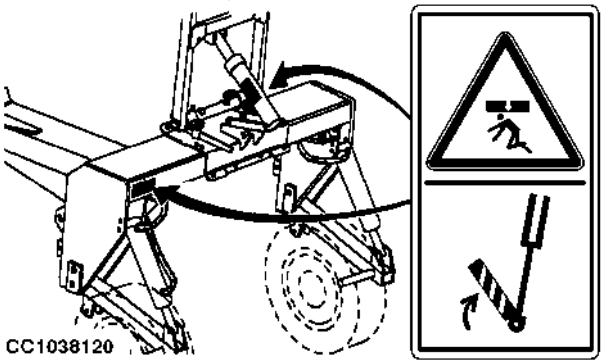
CC,1355MC004947 -19-21JUN99-1/1

Grouper Frame

Insert grouper frame safety lock when grouper is raised.



Up to S.N. 357999



From S.N. 358000

VC39598,000029E -19-08AUG12-1/1

Preparing the Tractor

Selecting Tractor PTO Speed

CAUTION: Under no circumstances should a mower-conditioner equipped for 540 rpm PTO drive be operated with a tractor at 750 or 1000 rpm PTO speed.

Under no circumstances should a mower-conditioner equipped for 1000 rpm PTO drive be operated with a tractor at 540 or 750 rpm PTO speed.

IMPORTANT: Always run tractor at rated PTO speed. Overspeed will damage mower-conditioner.

The tractor PTO shaft size must be 1-3/8 in.

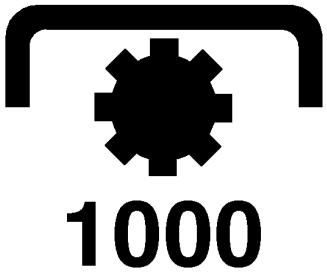
Follow the tractor Operator's Manual to install the appropriate PTO shaft.

Refer to tag on mower-conditioner gear case to select tractor PTO speed.

Follow the tractor Operator's Manual to properly set the PTO speed at 540 or 1000 rpm.

CC1020007

CC1020007 —UN—09JUL01



CC007602

CC007602 —UN—02OCT96

CC03745,00005AE -19-01DEC03-1/1

Checking Ballast, Wheel Spacing and Tire Inflation

Provide sufficient weight to stabilize tractor when operating on hilly land or in other adverse conditions (see your tractor operator's manual).

To insure proper stability, adjust ballast, wheel spacing and tire inflation according to tractor operator's manual.

CC1027549

CC1027549 —UN—24OCT05

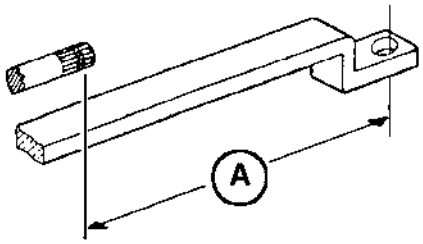
OUCC006,0000F5F -19-01SEP05-1/1

Adjusting Tractor Drawbar (Pin Drawbar Tongue Only)

Before attaching mower-conditioner to tractor, adjust tractor drawbar so that distance (A) measures 350, 400 or 550 mm (13.77, 15.74 or 21.66 in.). Replace all shields or guards removed.

IMPORTANT: If tractor drawbar has been adjusted to 350 or 400 mm (13.77 or 15.74 in.), it is requested to install a hitch extension. See "Installing Equal Hitch To Tractor Drawbar" In this Section.

Vertically align drawbar hitch pin hole with center line of tractor PTO shaft.



CC009831

CC009831 —UN—15JAN97

A—350, 400 or 550 mm (13.77, 15.74 or 21.66 in.)

CC,1350MC003646 -19-26NOV96-1/1

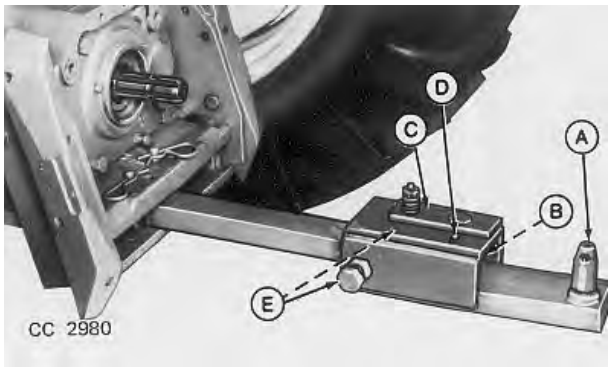
Installing Equal Hitch to Tractor Drawbar (Pin Drawbar Tongue Only)

If tractor drawbar is adjusted to 350 or 400 mm (13.77 or 15.74 in.), slide equal hitch (A) onto drawbar, as shown.

Place shims (B) between drawbar and hitch to ensure a tight fit. Store extra shims under strap (C).

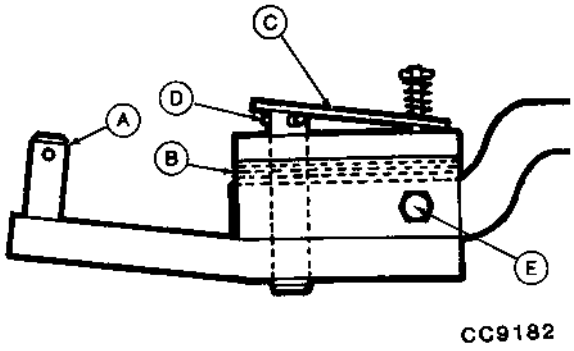
Secure hitch with hitch pin and spring pin (D).

Tighten adjusting bolts (E) on both sides of equal hitch. Tighten lock nuts against hitch.



CC2980 —UN—03FEB97

A—Equal hitch
B—Shims
C—Locking strap
D—Spring pin
E—Adjusting bolts



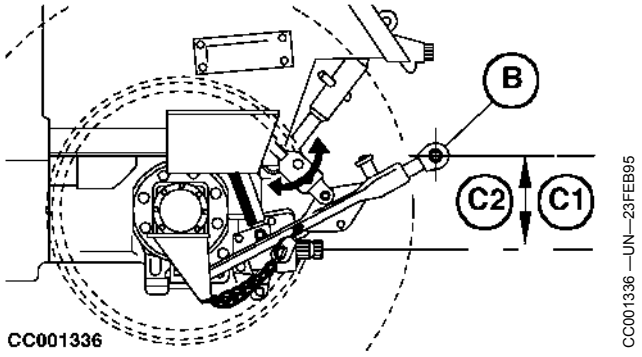
CC9182 —UN—03FEB97

CC,1350MC003647 -19-26NOV96-1/1

Adjusting Draft Links (Linkage Drawbar Tongue Only)

Mower-conditioners equipped with linkage drawbar tongue can be attached to any tractor with a three-point hitch conforming to category II, III or III N. See your John Deere dealer to adapt the features of your tractor to those offered by the linkage drawbar tongue.

If necessary, raise and adjust the draft links (B) so that distance between PTO shaft center line and center line of draft links is (C1) 298 mm (11.73 in.) or (C2) 228 mm (8.97 in.) in accordance with tongue end position (See “Adjusting Linkage Drawbar Tongue” in “Preparing the Mower-Conditioner” section).



B—Draft links
C1—298 mm (11.73 in.)
C2—228 mm (8.97 in.)

AG,OUCC006,377 -19-26MAY00-1/1

Preparing the Mower-Conditioner

Adjusting Pin Drawbar Tongue to the Tractor

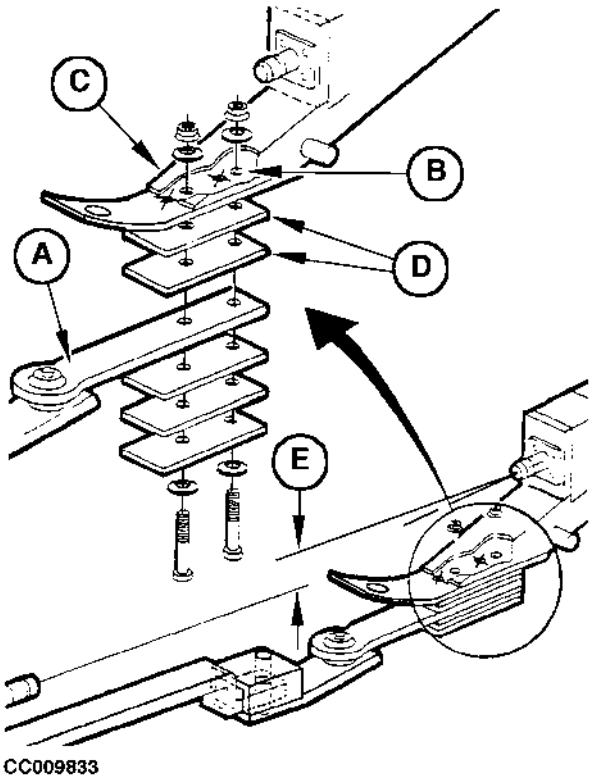
IMPORTANT: This attaching procedure must be performed with tongue in operating position (see Section "Transporting The Mower-Conditioner") and platform onto the ground. Use jackstand to raise or lower the tongue when installing ball joint hitch (A).

Install ball joint hitch (A) in rear holes (B) of tongue end (C).

Install sufficient hitch straps (D) between tongue end (C) and ball joint hitch (A) to give a dimension (E) in relation to the tractor (see illustration) when full tongue end load is applied onto tractor drawbar.

Tighten the ball joint hitch mounting bolts to 343 N·m (255 lb-ft).

NOTE: Any straps (D) left over must be installed under ball joint hitch (A).



A—Ball joint hitch
B—Rear fixing holes
C—Tongue end
D—Hitch straps
E—35 mm (1.37 in.)

AG,OUCC006,374 -19-26MAY00-1/1

Adjusting Linkage Drawbar Tongue to the Tractor

Adjusting Position of Tongue End

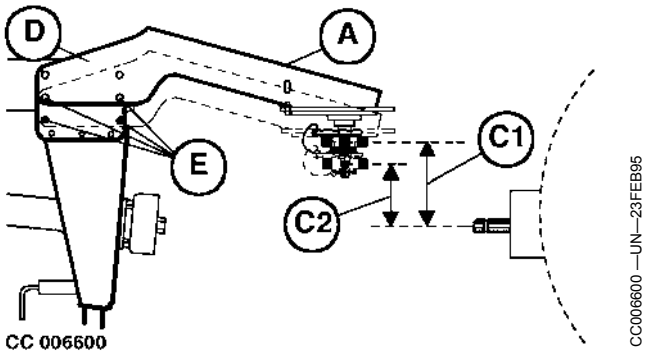
Adjust tractor draft links as described in "Adjusting Draft Links (Linkage Drawbar Tongue Only)" in "Preparing the Tractor" Section so that distance (C1) between PTO shaft center line and center line of draft links is 298 mm (11.73 in.).

If distance (C1) cannot be achieved, then the tongue end (A) position must be modified as follows:

Remove the six mounting screws (D) of the tongue end (A), then slide tongue end (A) down so that mounting screws (D) can be inserted in holes (E). Tighten screws to the following specifications:

Specification	
Screws—Torque	280 N·m (206 lb-ft)

This position of tongue end (A) corresponds to distance (C2) of 228 mm (8.97 in.). Check that draft links can meet this distance (C2).



A—Tongue end
C1—298 mm (11.73 in.)
C2—228 mm (8.97 in.)
D—Mounting screws
E—Holes

Keep the draft links in a position that corresponds to distance (C1) or (C2).

Continued on next page

OUCC006,0000F44 -19-20SEP05-1/3

Determining Which Linkage Drawbar Tongue Hitch Type to Use

With the draft links (A) in the position previously defined, measure the distance (B) between the center line of the tongue end pin (C) and the tip of the PTO shaft (D).

If distance (B) is 496 to 606 mm (19.52 to 23.85 in.) the direct hitch (E) is required to attach the tongue to the tractor.

IMPORTANT: With distance (B) between 496 to 510 mm (19.52 to 20.07 in.), the hitch extension (F) can still be used if the mower-conditioner is already equipped with one. Nevertheless, the hitch extension (F) can still be used if distance (B) is above 510 mm (20.07 in.) provided that telescoping hook-up shows a sufficient overlap. Refer to telescoping hook-up Operator's Manual to check overlap.

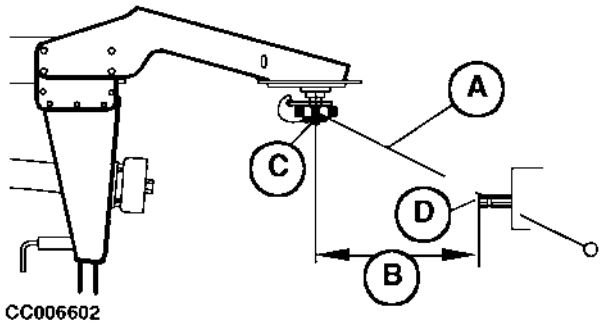
If distance (B) is below 496 mm (19.52 in.), the hitch extension (F) is required to attach the tongue to the tractor.

Install hitch extension (F) on direct hitch (E) as follows:

Use locating holes (G) to install hitch extension (F) on direct hitch (E) so that distance (B) of 496 to 606 mm (19.52 to 23.85 in.) is maintained.

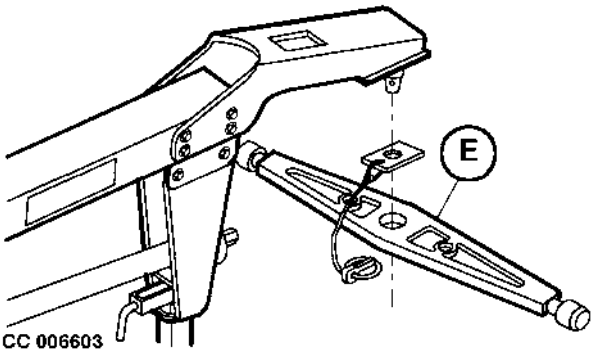
Use screws and lock nuts (H) as shown to install hitch extension (F) on direct hitch (E). Tighten screws to 675 N·m (500 lb-ft).

A—Draft links
B—496 to 606 mm (19.52 to 23.85 in.)
C—End pin
D—PTO shaft
E—Direct hitch
F—Hitch extension
G—Locating holes
H—Fixing screws and lock nuts



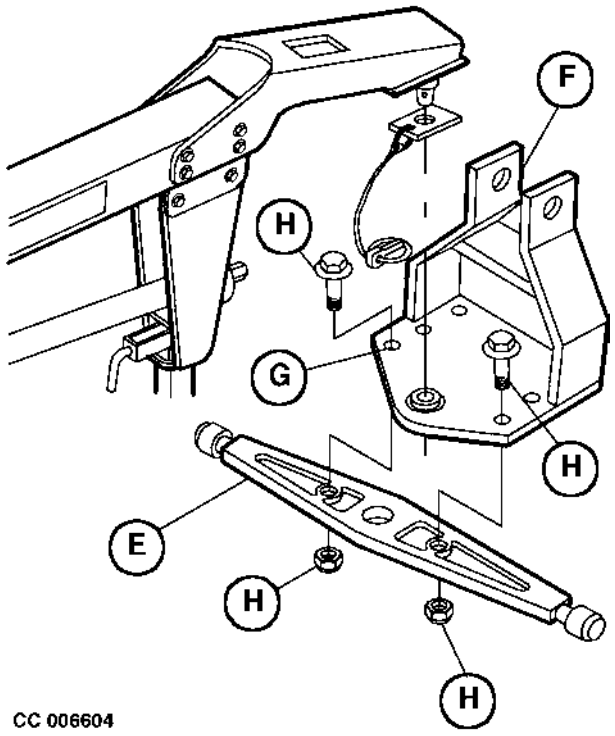
CC006602

CC006602 —UN—23FEB95



CC 006603

CC006603 —UN—23FEB95



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CC006604 —UN—23FEB95

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OUCC006,0000F44 -19-20SEP05-2/3

Adjusting Linkage Drawbar Tongue End Pin Position

Adjust position of end pin support (A) so that distance (B) between center line of pin (C) and tip of hexagonal shaft (D) is equal to the distance (E) ± 5 mm (0.20 in.) previously measured.

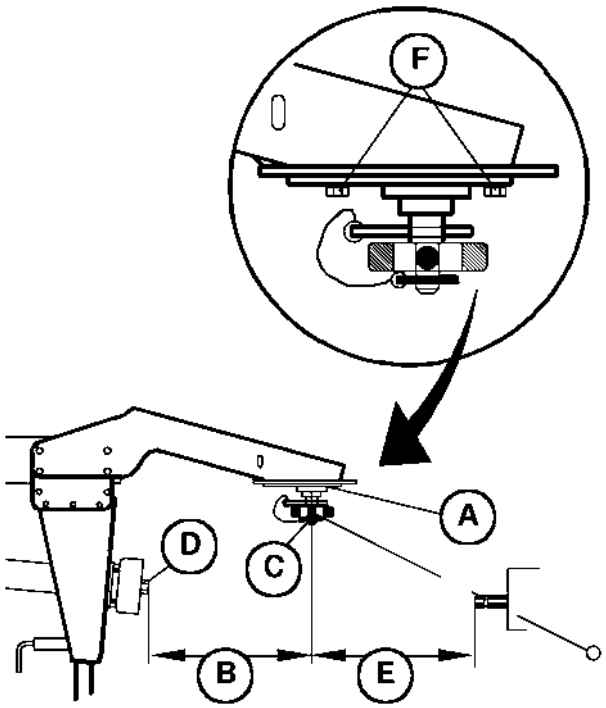
Remove the four fixing screws (F), then refer to the sketch opposite and to chart below to determine the position of tongue end pin support (A).

Support Position	Distance B=E
1	496 mm (19.52 in.)
2	506 mm (19.92 in.)
3	516 mm (20.31 in.)
4	526 mm (20.70 in.)
5	536 mm (21.10 in.)
6	546 mm (21.49 in.)
7	556 mm (21.88 in.)
8	566 mm (22.28 in.)
9	576 mm (22.67 in.)
10	586 mm (23.07 in.)
11	596 mm (23.46 in.)
12	606 mm (23.85 in.)

NOTE: Do not reverse the orientation of pin support (A) when adjusting its position.

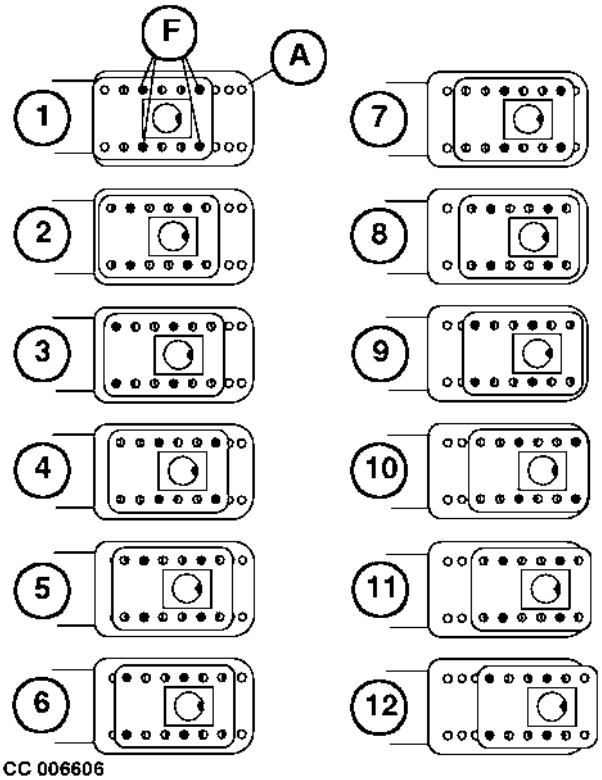
Tighten screws (F) to 350 N·m (255 lb-ft).

A—Pin support
B—See chart
C—Pin center line
D—Hexagonal shaft
E—496 to 606 mm (19.52 to 23.85 in.)
F—Fixing screws



CC 006605

CC006605 —UN—23FEB95



CC 006606

CC006606 —UN—23FEB95

OUCC006,0000F44 -19-20SEP05-3/3

Adjusting Telescoping Hook-Up

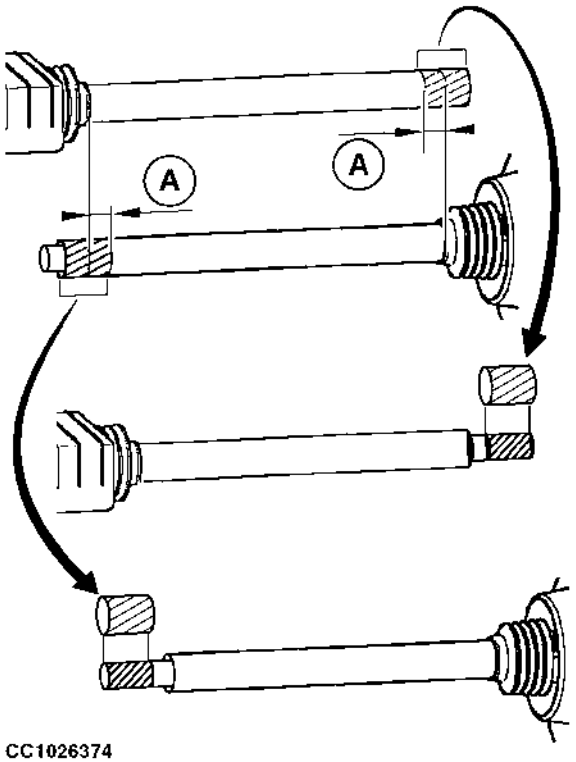
For mower-conditioner equipped with a linkage drawbar tongue or a swivel hitch:

1. Disassemble both half drive lines.
2. Attach the mower-conditioner to the tractor. (See "Attaching and Detaching" section.)
3. Connect the half drive lines to the tractor PTO shaft and the swivel hitch gear case input shaft.
4. Hold the half drive lines next to each other and mark them at distance (A).
5. Shorten inner and outer guard tubes equally.
6. Shorten inner and outer sliding profiles by the same length as the guard tubes.
7. In the longest working position, check that the PTO drive shaft has still a minimum overlap of 150 mm (6 in.).

IMPORTANT: Once cut, round off all sharp edges and remove burrs, particularly on the inner face of outer hook-up half.

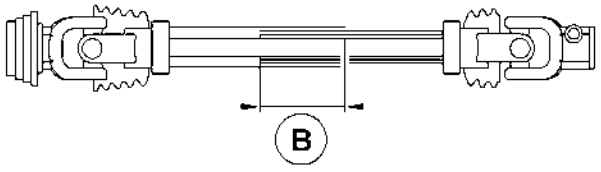
NOTE: Refer to the basic telescoping hook-up Operator's Manual.

A—50 mm (2 in.) **B—150 mm (6 in.)**



CC1026374

CC1026374 —UN—16SEP04



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CC1027560 —UN—24OCT05

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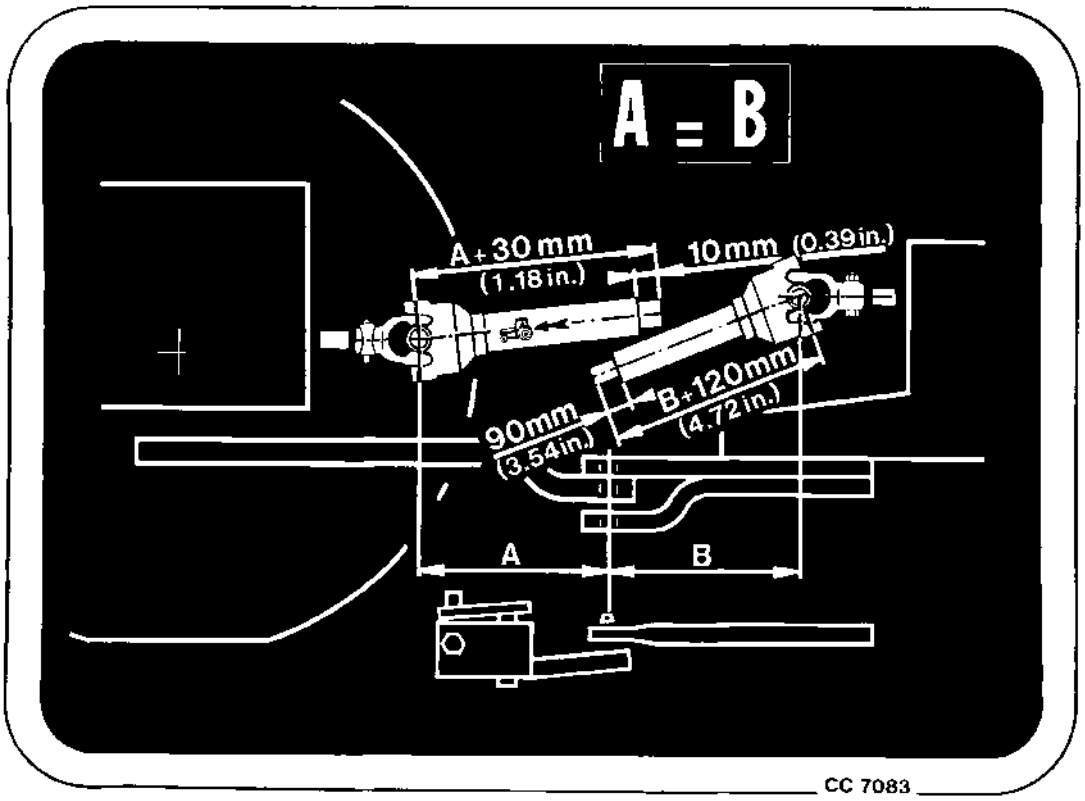
OUCC006,0000F45 -19-25OCT05-1/2



CC7083 —UN—05OCT98

For mower-conditioners equipped with a pin drawbar tongue:

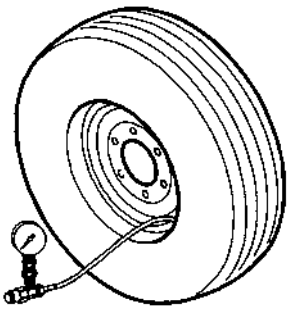
1. Disassemble both half drive lines.
2. Adjust the tractor drawbar so that dimensions A and B are equal. (See ”Adjusting Tractor Drawbar (Pin Drawbar Tongue Only)” in ”Preparing the Tractor” Section.)
3. Attach the mower-conditioner to the tractor. (See ”Attaching and Detaching” section.)
4. Connect the half drive lines to the tractor PTO shaft and the tongue shaft.
5. Shorten drive shafts and guard tubes to obtain the dimensions specified above.

IMPORTANT: Once cut, round off all sharp edges and remove burrs, particularly on the inner face of outer hook-up half.

OUCC006,0000F45 -19-25OCT05-2/2

Tire Inflation

1355, 1365 and 1465 Mower-Conditioners	
Tire type	**Pressure**
10.0/75 X 15.3 (8 PR)	230 kPa (2.3 bar; 33 psi)
11L - 14 (8 PR)	210 kPa (2.1 bar; 30 psi)
11L - 15 (8 PR)	230 kPa (2.3 bar; 33 psi)



CC1027526

CC1027526 —UN—29AUG05

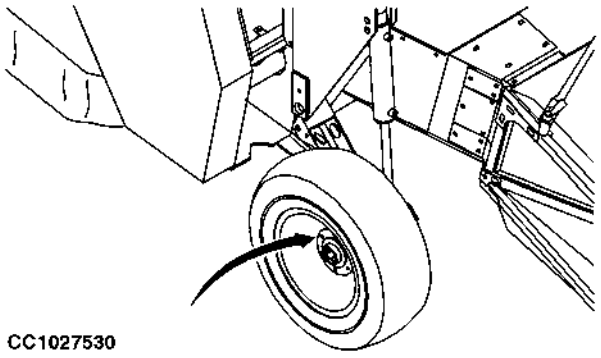
OUCC006,0000F53 -19-29AUG05-1/1

Checking Wheel Hardware Torque

Whenever a wheel has been removed and installed, check torque after one hour of operation. Wheel hardware should be tightened to specification:

Specification

Wheel Nuts—Torque.....115 N·m (85 lb-ft)



OUCC006,0000F3F -19-29AUG05-1/1

Attaching and Detaching

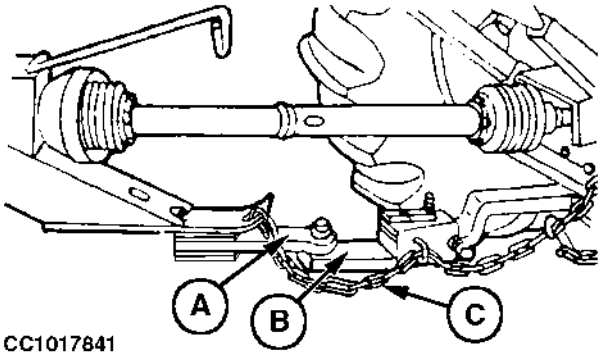
Attaching Pin Drawbar Tongue to the Tractor

Before attaching the mower-conditioner to the tractor, see Section “Preparing the Tractor” and “Preparing the Mower-Conditioners” for proper adjustment of tractor drawbar and equal hitch installation and pin drawbar tongue.

With or without equal hitch, always attach mower-conditioner as follows:

Install ball joint hitch (A) on equal hitch installation (B).

Attach safety chain (C) as shown. Leave only enough slack for turns.



CC1017841 —UN—30MAY00

A—Ball joint hitch
B—Equal hitch installation
C—Safety chain

⚠ CAUTION: The chain must prevent the tongue from hitting the ground in case the mower conditioner accidentally detaches from the tractor.

IMPORTANT: NEVER use the safety chain (C) for towing!

Once the tongue is attached, always refer to “Adjusting Telescoping Hook-up” in this Section to properly adjust the length of the telescoping hook-up.

OUCC006,000047F -19-04SEP01-1/1

Attaching Linkage Drawbar Tongue to the Tractor

IMPORTANT: Before attaching the linkage drawbar tongue to the tractor, make sure that all adjustments described under “Preparing the Tractor” and “Preparing the Mower-Conditioner” sections have been done.

Carefully follow the procedure below prior to attaching the linkage drawbar tongue to the tractor.

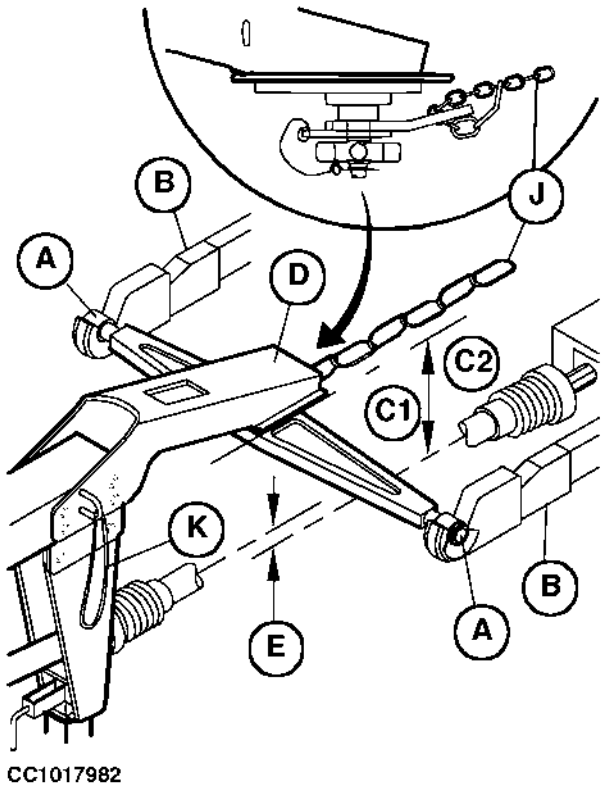
Lower platform to the ground.

Tongue with Direct Hitch

Connect hitch pins (A) to the draft links (B) and secure with quick-lock pins. Put the tongue in working position as described in “Transporting the Mower-conditioner” Section.

Raise tongue until distance (C1) or (C2) is achieved as explained in “Preparing the Mower-Conditioner” section.

With the tongue end (D) in either of these positions, vertical distance (E) between front and rear hook-up joint center lines should be approx. 35 mm (1.37 in.) as shown opposite. Re-adjust distance (C1) or (C2) if necessary to meet the distance (E).



CC1017982 —UN—15JUN00

Tongue equipped with Direct Hitch

A—Hitch pins
B—Draft links
C1—298 mm (11.73 in.)
C2—228 mm (8.97 in.)
D—Tongue end
E—35 mm (1.37 in.)
J—Tongue height resume chain
K—Strap

Continued on next page

AG,OUCC006,358 -19-10MAY00-1/3

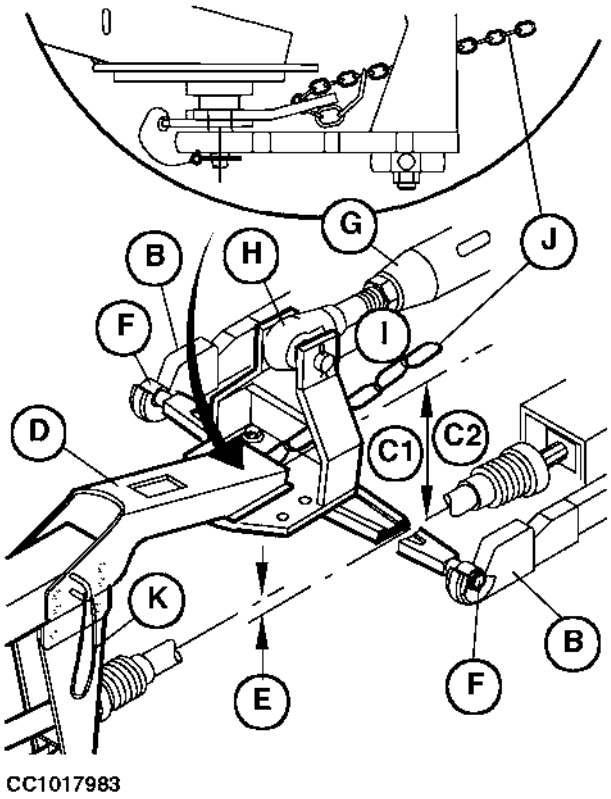
Tongue with Hitch Extension

Connect hitch pins (F) to the draft links (B) and secure with quick-lock pins. Align center link (G) with upper attaching hole (H), insert upper hitch pin (I), then secure with quick-lock pin. Adjust center link (G) length so that base plate of hitch extension is levelled, then put the tongue in working position as described in “Transporting the Mower-conditioner” Section.

Raise tongue until distance (C1) or (C2) is achieved as explained in “Preparing the Mower-Conditioner” section.

With tongue end (D) in either of these positions, distance (E) between front and rear hook-up joint axles should be approx. 35 mm (1.37 in.) as shown opposite. Re-adjust distance (C1) or (C2) if necessary to meet the distance (E).

B—Draft links
C1—298 mm (11.73 in.)
C2—228 mm (8.97 in.)
D—Tongue end
E—35 mm (1.37 in.)
F—Hitch pins
G—Center link
H—Upper attaching hole
I— Upper hitch pin
J— Tongue height resume chain
K—Strap



CC1017983

CC1017983 —UN—15JUN00

Tongue equipped with Hitch Extension

Continued on next page

AG,OUCC006,358 -19-10MAY00-2/3

IMPORTANT: When operating mower-conditioner, adjust the position of the draft links so that distance (E) of 35 mm (1.37 in.) is maintained. This is the standard operating position of the tongue and should be maintained at all times. Failure to do so could result in damage to the telescoping hook-up and cutterbar.

If the tongue is equipped with the tongue height resume chain (J), then attach chain (J) to the tractor so that chain is just tightened. This chain allows the initial tongue operating position to be maintained when lowering the three-point hitch.

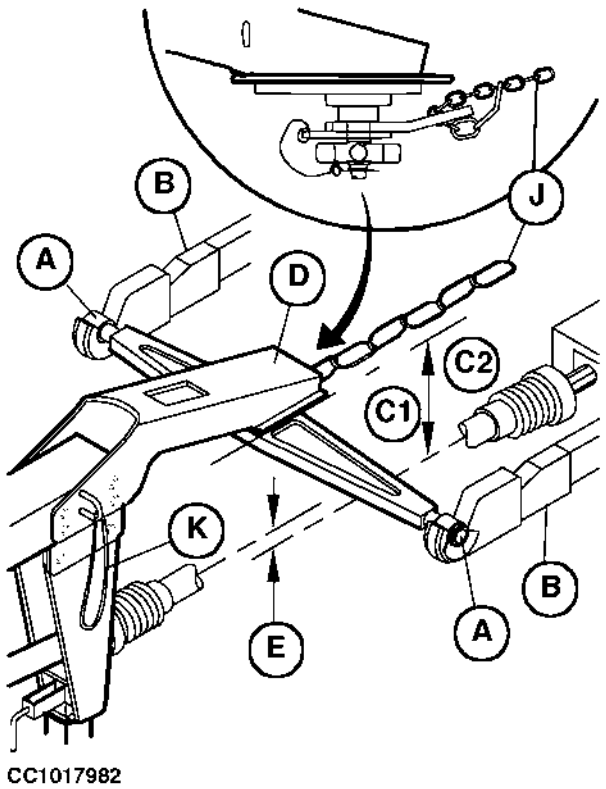
If the tongue is not equipped with the tongue height resume chain (J), then refer to your tractor Operator's Manual to maintain the three-point hitch at the position required for operating the tongue.

IMPORTANT: NEVER use the tongue height resume chain (J) for towing!

Once the tongue is attached, always refer to "Adjusting Telescoping Hook-up" in this Section to properly adjust the length of the telescoping hook-up. This procedure MUST BE followed EACH TIME THE LINKAGE DRAWBAR TONGUE IS ATTACHED TO A DIFFERENT TRACTOR! Failure to do so could lead to hook-up damage.

NOTE: Make sure that telescoping hook-up strap (K) stays clear of tractor components at all times.

A—Hitch pins
B—Draft links
C1—298 mm (11.73 in.)
C2—228 mm (8.97 in.)
D—Tongue end
E—35 mm (1.37 in.)
F—Tractor hitch pins
G—Center link
H—Upper attaching hole
I— Upper hitch pin
J—Tongue height resume chain
K—Strap



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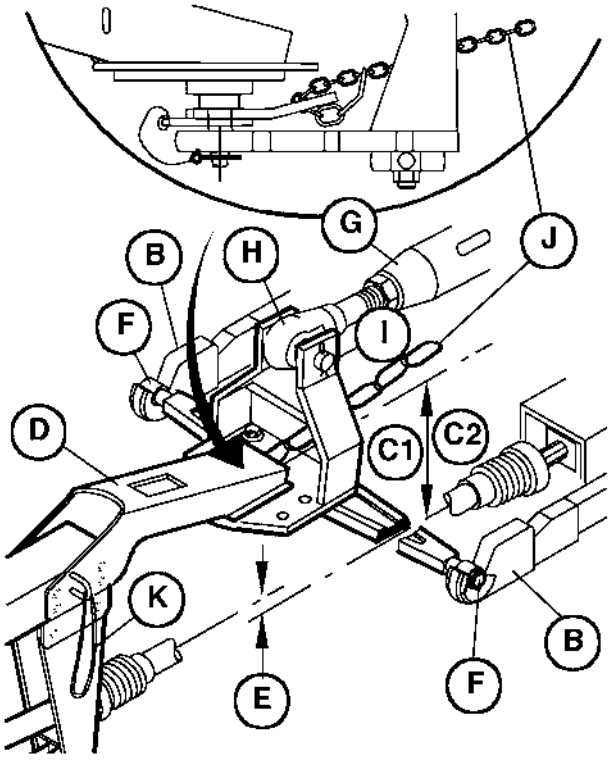
CC1017982 —UN—15JUN00

Tongue equipped with Direct Hitch



CC1017983

CC1017983 —UN—15JUN00

Tongue equipped with Hitch Extension

AG,OUCC006,358 -19-10MAY00-3/3

Attach Swivel Hitch to the Tractor

CAUTION: Before connecting implement to the three-point hitch, load/depth control knob (A) must be turned fully counterclockwise (in depth control) to prevent unintentional movement of the rockshaft.

To prevent possible injury, use ONLY hitch control lever (B) when attaching implements. DO NOT use raise/lower switch (C).

NOTE: A John Deere 6020 Series tractor is shown throughout the procedure.

Mower-conditioners equipped with swivel hitch can be attached to any tractor with a three-point hitch conforming to category II, III or III N. See your John Deere dealer to adapt the features of your tractor to those offered by the swivel hitch.

CC1027647 —UN—24OCT05

A—Load/Depth Control Knob
B—Hitch Control Lever
C—Raise/Lower Switch

Continued on next page

VC39598,00002C4 -19-24AUG12-1/6

1. If equipped, install the tongue height resume chain on mower-conditioner hitch:

   Up to S.N. 354999:

   Slide the tongue height resume chain (A) over one of the two lower hitch pins (B).

   From S.N. 355000 to S.N. 359906:

   Install tongue height resume chain (A) into right-hand side threaded hitch pin as shown. Tighten screw (C) to specified torque:

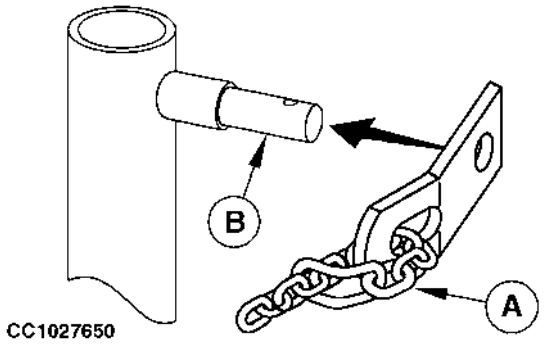
Specification	
Screw—Torque	350 N·m (255 lb-ft)

   From S.N. 359907:

   Install tongue height resume chain (A) into right side of swivel hitch as shown. Tighten screw (C) to specified torque:

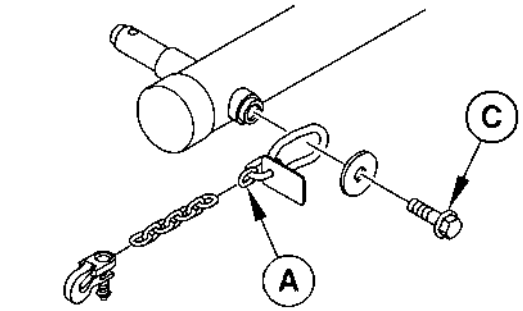
Specification	
Screw—Torque	350 N·m (255 lb-ft)

A—Tongue Height Resume Chain
B—Lower Hitch Pins
C—Screw



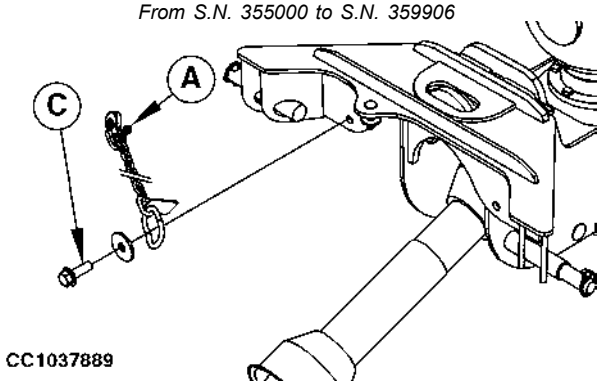
CC1027650 —UN—24OCT05

Up to S.N. 354999



CC1027659 —UN—24OCT05

From S.N. 355000 to S.N. 359906



CC1037889 —UN—26JUL12

From S.N. 359907

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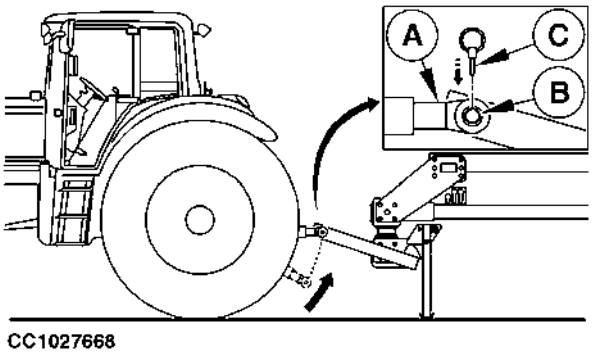
VC39598,00002C4 -19-24AUG12-2/6

2. Connect the two draft links (A) to lower hitch pins (B) and secure by means of quick lock pins (C).
3. Slowly raise mower-conditioner hitch. Check for interference. Lower hitch to ground and adjust if necessary.

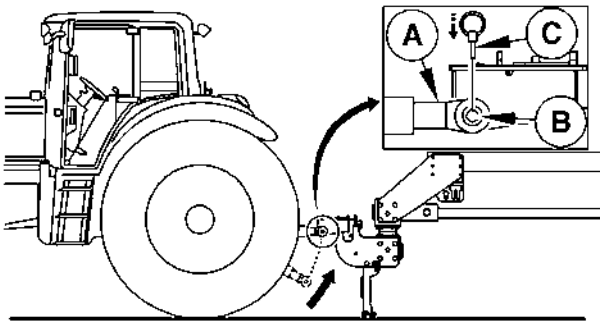
A—Draft Links
B—Lower Hitch Pins
C—Quick Lock Pins



CC1027668

CC1027668 —UN—24OCT05

Up to S.N. 359906



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CC1037891 —UN—26JUL12

From S.N. 359907

VC39598,00002C4 -19-24AUG12-3/6

4. Adjust tractor hitch height.

IMPORTANT: Always operate the machine with specified height. Failure to do so can result in tractor or mower-conditioner damage.

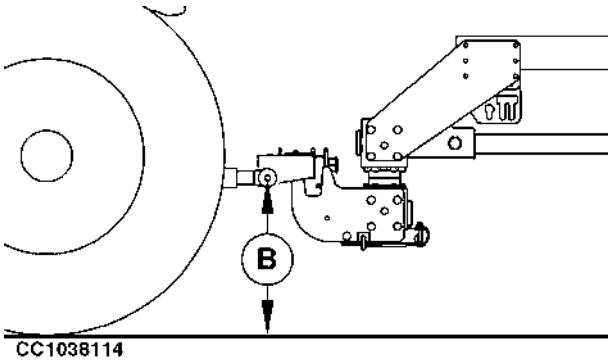
Raise hitch to obtain the distance (B).

Specification

Distance between Ground and Lower Hitch Pins—Distance.....710 mm (2 ft. 4 in.)

a. **If the mower-conditioner is equipped with a tongue height resume chain:** Attach tongue height resume chain (A) to the tractor. See Attach Resume Chain to the Tractor in this Section.

A—Tongue Height Resume Chain
B—Distance



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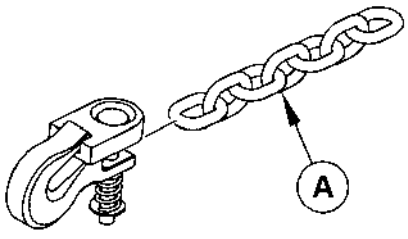

CC1027657

CC1027657 —UN—24OCT05

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VC39598,00002C4 -19-24AUG12-4/6

b. **If the mower-conditioner is not equipped with a tongue height resume chain:** Adjust depth stop knob (A) to maintain the PTO driveline in horizontal position. (See procedure in operator's manual of tractor.)

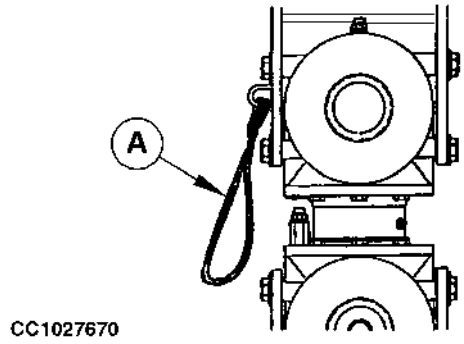
A—Depth Stop Knob

CC1027648 —UN—24OCT05

VC39598,00002C4 -19-24AUG12-5/6

NOTE: For machines equipped with strap, make sure that telescoping hook-up strap (A) stays clear of tractor components at all times.

A—Telescoping Hook-Up Strap



CC1027670 —UN—25OCT05

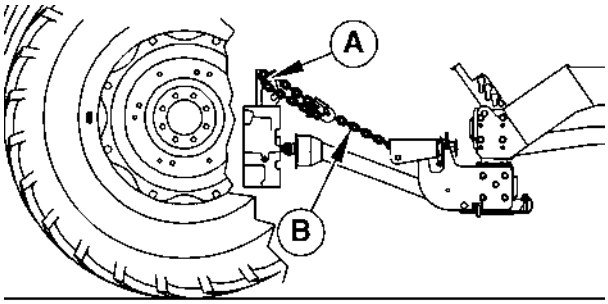
VC39598,00002C4 -19-24AUG12-6/6

Attach Resume Chain to the Tractor

IMPORTANT: Always operate the machine to the specified height. Failure to do so can result in tractor or mower-conditioner damage. See Attach Swivel Hitch to the Tractor for specification.

Attach tongue height resume chain (B) to the upper hitch point of tractor (A) so that it is just tightened when swivel hitch is correctly attached to the tractor.

A—Upper Hitch Point **B—Resume Chain**



CC1038124 —UN—26JUL12

VC39598,00002A0 -19-08AUG12-1/1

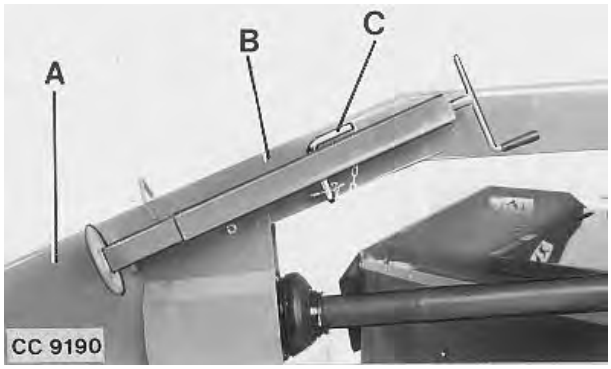
Secure the Jackstand in Transport Position

On Pin Drawbar Tongue

When operating or transporting the mower-conditioner, always store jackstand (B) on tongue (A) as shown.

Secure jackstand (B) with lock pin (C).

A—Tongue
B—Jackstand
C—Lock Pin



CC9190 —UN—03FEB97

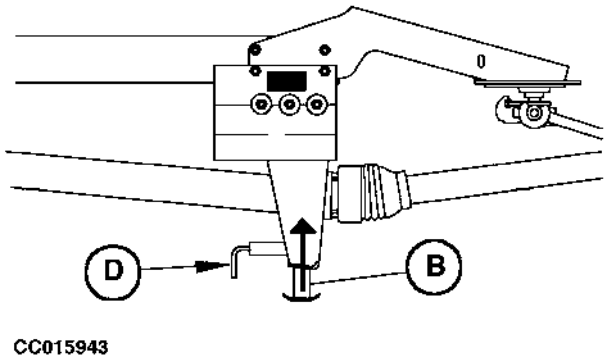
VC39598,000024F -19-08AUG12-1/3

On Linkage Drawbar Tongue

When operating or transporting the mower-conditioner, always store jackstand (B) in full raised position as shown.

Secure jackstand (B) with latch (D).

B—Jackstand
D—Latch



CC015943 —UN—05AUG99

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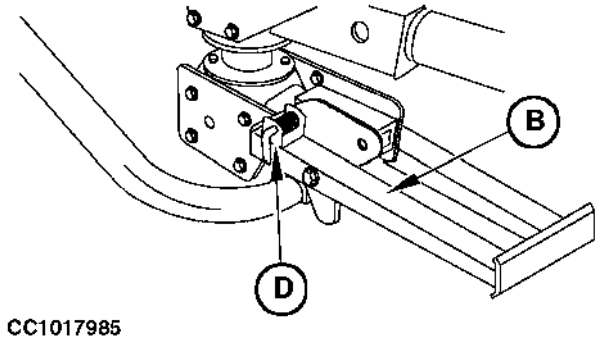
VC39598,000024F -19-08AUG12-2/3

On Swivel Hitch

When operating or transporting the mower-conditioner, always store jackstand (B) as shown.

Secure jackstand (B) with latch (D).

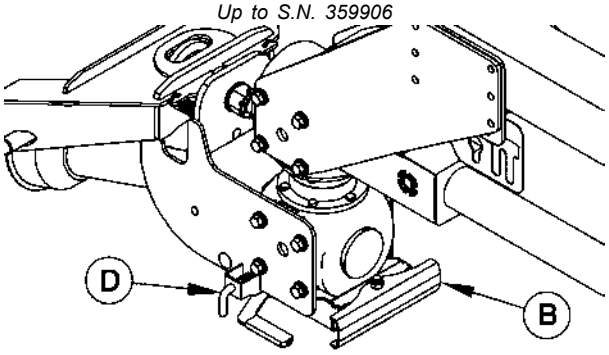
B—Jackstand **D—Latch**



CC1017985

CC1017985 —UN—15JUN00

Up to S.N. 359906



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CC1037890 —UN—26JUL12

From S.N. 359907

VC39598,000024F -19-08AUG12-3/3

Attach PTO Driveline

⚠ CAUTION: Always shut off tractor engine before attaching PTO driveline. Entanglement in rotating driveline can cause serious injury or death.

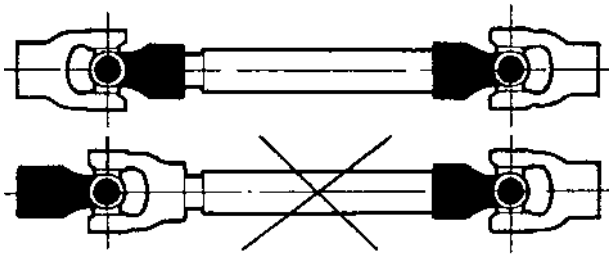
IMPORTANT: Make sure that telescoping members are assembled so that joint planes are in proper position as shown.

Keep hook-up and PTO shaft splines free from paint, dirt, chaff and burrs. Apply John Deere Moly High Temperature EP Grease or John Deere EP Moly Grease on tractor PTO shaft before attaching PTO driveline.

Never use a steel hammer to connect or disconnect the hook-up on PTO shaft.

Refer to the basic telescoping hook-up Operator's Manual to properly connect telescoping hook-up to the tractor PTO shaft.

TS198 —UN—23AUG88



CC8570

CC8570 —UN—03FEB97

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VC39598,00002A3 -19-08AUG12-1/2

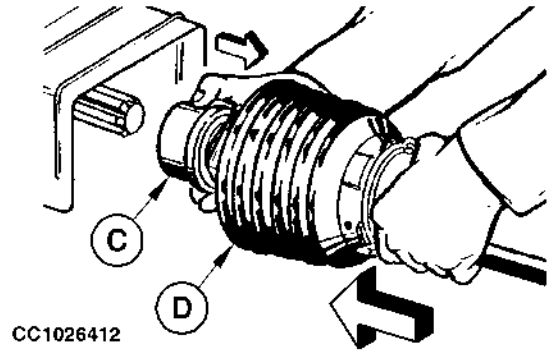
1. Shut off tractor engine.
2. Raise tractor PTO shield (B), if equipped.
3. Pull back on collar (C). Collar will "click" and hold in ready position.
4. Align splines by rotating mower-conditioner driveline. Push driveline onto tractor PTO shaft until collar (C) snaps forward. Locking collar (C) will ”click” two times.

IMPORTANT: The locking collar (C) must rotate freely to indicate that the telescoping driveline is correctly latched to the tractor PTO shaft.

5. Attach chain (A) to the provided attaching hole on the tractor.
6. To check if driveline is latched, pull back on guard (D). Do not pull on collar (C), as this will release latch.
7. Lower tractor PTO shield (B).

NOTE: Make sure that telescoping hook-up is properly adjusted. (See Adjust Telescoping Hook-Up in Preparing the Mower-Conditioner Section.)

A—Chain
B—PTO Shield
C—Collar
D—Cone Guard



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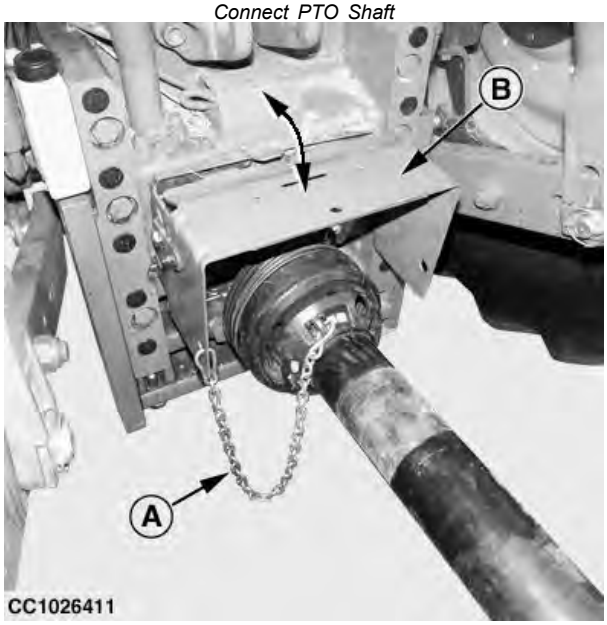
Connect PTO Shaft



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VC39598,00002A3 -19-08AUG12-2/2

Connect Mower-Conditioner to Tractor Hydraulic System

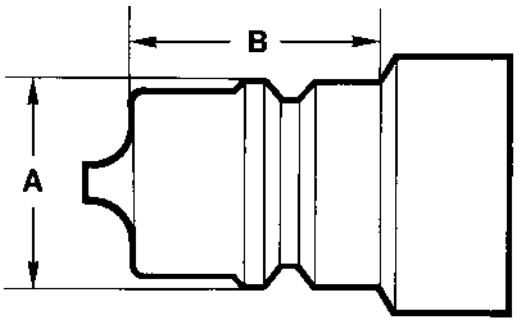
CAUTION: Maximum working pressure of mower-conditioner hydraulic hoses is about 20000 kPa (200 bar; 2900 psi).

Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines.

IMPORTANT: All hydraulic couplers must be clear of debris, dust and sand. Use protective caps on fluid openings until ready to make connection. Foreign material can damage the hydraulic system.

NOTE: ISO hydraulic couplers are standard with the mower-conditioner. If they do not fit the tractor, see your John Deere dealer for correct coupler.

Specification	
A—Diameter	23.66 — 23.74 mm (0.931 — 0.934 in.)
B—Length	24 mm (0.945 in.)



LX 006613

LX006613 —UN—15AUG94

A—Diameter **B—Length**

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OUCC223,0000463 -19-22DEC09-1/2

1. If equipped, push tractor SCV (Selective Control Valve) lever lockouts (A) to the right (transport lock) before attaching implements to prevent implement movement and possible personal injury.
2. **Connecting platform lift hydraulic hose**

   Connect platform lift hydraulic hose to a single-acting SCV to operate the mowing unit lift.

   Push hose firmly into tractor receptacle.

NOTE: Refer to your tractor Operator's Manual to connect mowing unit/grouper lift hydraulic hose in the recommended outlet.

3. **Connecting hydraulic tongue positioning hoses** *(if mower-conditioner is equipped with hydraulic tongue positioning system)*

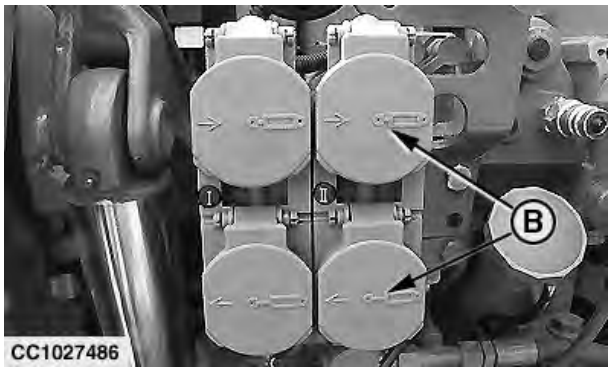
   Connect hydraulic tongue positioning hoses to a double-acting SCV to operate the tongue swing.

   Check to be sure symbols (B) on covers, indicating cylinder movement, match symbols (C) on hose identification plate (D).

   Push hoses firmly into tractor receptacle.

A—SCV lever lockouts
B—SCV symbols
C—Identification plate symbols
D—Hose identification plate

LX1026123 —UN—04MAY01



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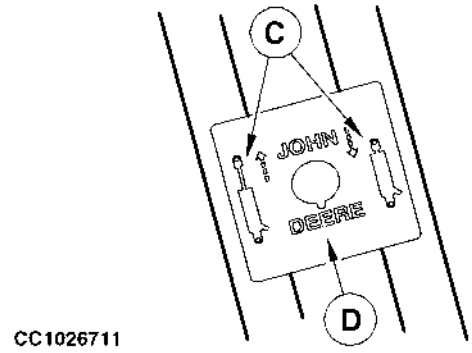
John Deere 6020 Series SCV Couplers Shown



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OUCC223,0000463 -19-22DEC09-2/2

Connecting Grouper to Tractor Hydraulic System

Grouper with Hydraulic Lift on tractor SCV :

Connect grouper hydraulic lift hoses to a single-acting selective control valve.

Grouper with Direct Drive Hydraulic Circuit :

IMPORTANT: If the grouper is driven by the hydraulic circuit on 6000 or 7000 Series tractors, the tractor must be equipped with one 200 or 300 Series selective control valve to drive the grouper hydraulic motor. If used on 3000 or 5000 Series tractors, the tractor must be equipped with one double-acting (3-position) selective control valve to drive the grouper hydraulic motor.

When using a 30, 40, 50 or 55 Series tractor with air conditioned cab, a second oil cooler is required to avoid oil overheating when driving the grouper's hydraulic motor.

Connect grouper hydraulic motor hoses to a double-acting selective control valve.

AG,OUCC006,386 -19-30MAY00-1/1

Connecting Electrical Harness

IMPORTANT: All electrical equipment installed on the mower-conditioner is designed for use on 12 Volt electrical systems with negative ground.

Connecting Road Light Wiring Harness (If Equipped)

The road light wiring harness of mower-conditioner and endwise transport system comply with 1724 ISO standard.

Terminal	Function	Reference
1	Left-Hand Turn Signal Light	L
2	—	54G
3	Ground	31
4	Right-Hand Turn Signal Light	R
5	Right-Hand Tail Light	58R
6	Brake Lights	54
7	Left-Hand Tail Light	58L

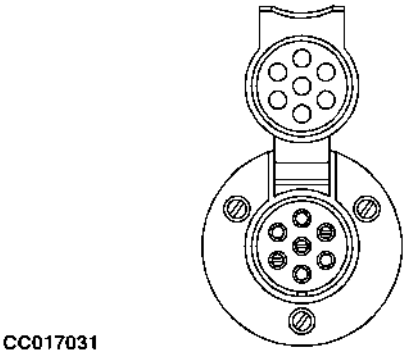
Connect light harness plug from the mower-conditioner to seven terminal outlet on tractor.

Connecting Grouper Electro-Hydraulic Lift (If Equipped)

Connect the electro-hydraulic lift valve wiring harness to the button wiring harness installed on selective control lever.

Connecting Powered Windrow Deflectors (If Equipped)

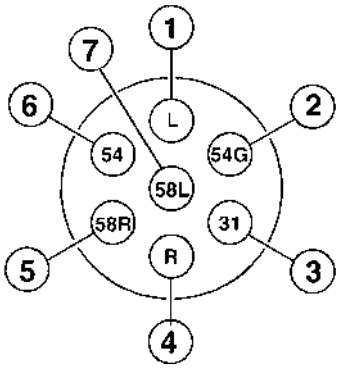
Connect the electrical cylinder wiring harness to the windrow deflector control switch wiring harness installed on the tractor cab.



CC017031

CC017031 —UN—15FEB00

Tractor 7-Terminal Outlet



CC017032

CC017032 —UN—25FEB00

Connecting Grouper Canvas Speed Remote Control (If Equipped)

Connect the canvas speed remote control wiring harness to the control switch installed on the tractor cab.

OUCC006,0000F7C -19-19SEP05-1/1

Attaching Tongue Positioner Rope

⚠ CAUTION: Avoid personal injury and/or machine damage. Do not attach rope to operator's seat or other locations that could cause snagging. This could result in the tongue position changing.

Attach the tongue positioner rope (A) to a convenient location near tractor centerline. This will reduce the possibility of tractor tires snagging the rope when turning.

A—Tongue positioner rope

E21608 —UN—22SEP88

AG,OUCC006,392 -19-31MAY00-1/1

Detach the Mower-Conditioner

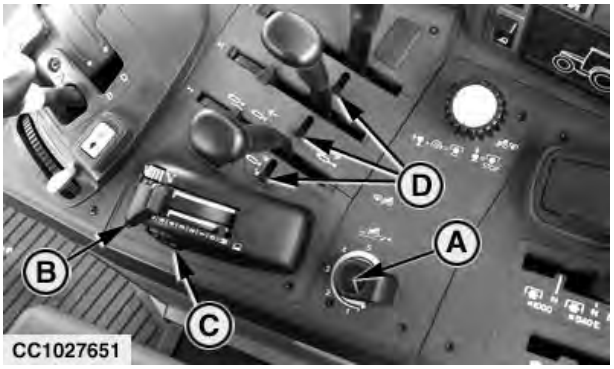
CAUTION: To prevent injury to bystanders, do not allow anyone near the machine when detaching it.

NOTE: A John Deere 6020 Series tractor is shown throughout the procedure.

CAUTION: Before disconnecting implement from the three-point hitch, load/depth control knob (A) must be turned fully counterclockwise (in depth control) to prevent unintentional movement of the rockshaft.

To prevent possible injury, use ONLY hitch control lever (B) when detaching implements. DO NOT use raise/lower switch (C).

1. Before detaching implement, push tractor SCV lever lockouts (D) to the right (transport lock) to prevent implement movement and possible personal injury.



CC1027651 —UN—24OCT05

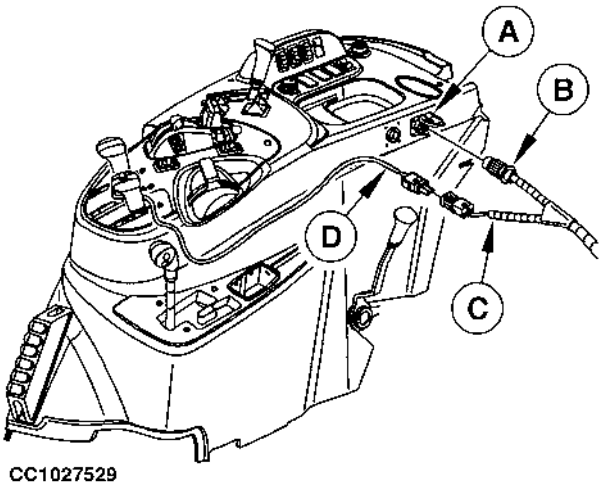
A—Load/Depth Control Knob
B—Hitch Control Lever
C—Raise/Lower Switch
D—SCV Lever Lockouts

2. Engage tractor parking brake, place transmission in PARK, disengage PTO, shut off tractor engine and remove key.

VC39598,00002C5 -19-22AUG12-1/11

3. If the machine is equipped with a grouper or with the hydraulically controlled windrow forming shields, disconnect power supply plug (B) from convenience outlet (A) and selective control valve wiring harness (D) from wiring harness (C).

A—Outlet
B—Power Supply Plug
C—Wiring Harness
D—Selective Control Valve Wiring Harness



CC1027529 —UN—24OCT05

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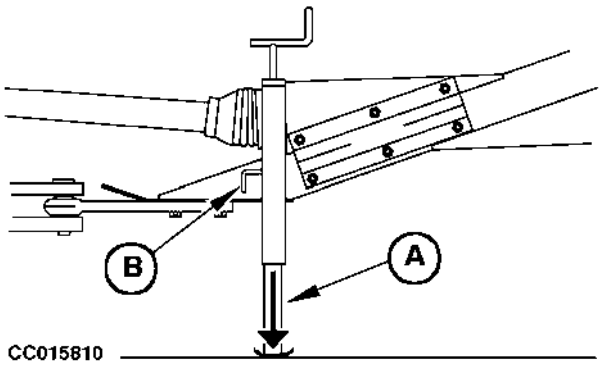
VC39598,00002C5 -19-22AUG12-2/11

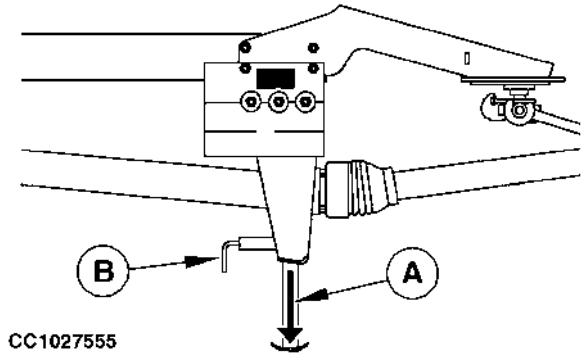
4. Park mower-conditioner on a level surface, or block mower-conditioner wheels so machine cannot roll after detaching from the tractor.
5. Lower mowing unit.
6. Lower jackstand (A) and secure it with latch (B).

A—Jackstand **B—Latch**



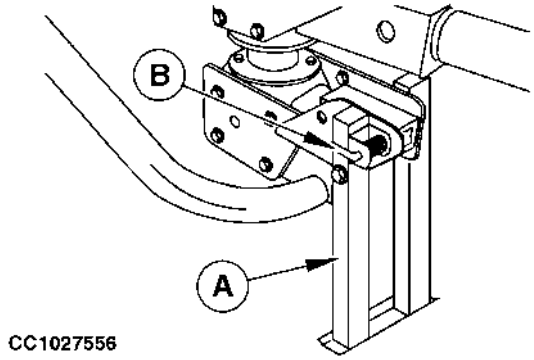
CC015810 —UN—05AUG99

Pin Drawbar Tongue Jackstand



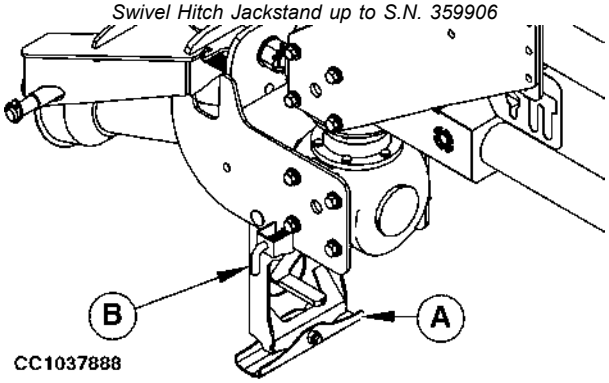
CC1027555 —UN—24OCT05

Linkage Drawbar Tongue Jackstand



CC1027556 —UN—24OCT05

Swivel Hitch Jackstand up to S.N. 359906



CC1037888 —UN—26JUL12

Swivel Hitch Jackstand from S.N. 359907

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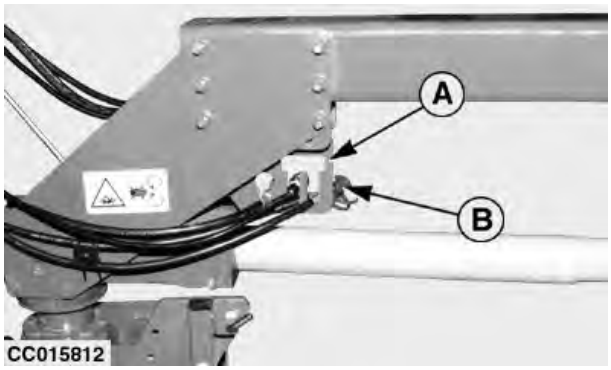
VC39598,00002C5 -19-22AUG12-3/11

7. Disconnect all the wiring harnesses (road light and implement(s)) and hydraulic hoses. Install protective caps (B) on couplers.

   Store wiring harnesses and hydraulic hoses in the provided support (A) to keep them clean by avoiding contact with the ground.

8. If equipped, detach tongue height resume chain from tractor.

A—Support **B—Protective Cap**



CC015812 —UN—05AUG99

Support on Swivel Hitch Shown

VC39598,00002C5 -19-22AUG12-4/11

9. Raise tractor PTO shield (B), if equipped.

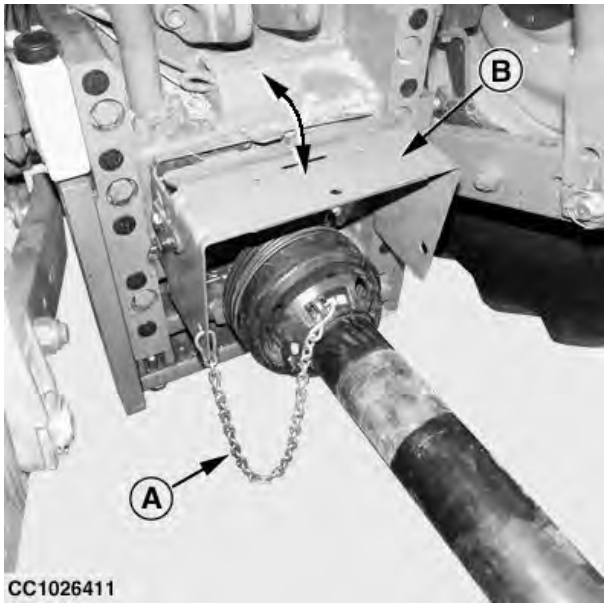
⚠ CAUTION: Never detach telescoping driveline while the tractor is running.

Never use a steel hammer to connect or disconnect the driveline on PTO shaft.

IMPORTANT: Keep driveline and PTO shaft splines free from paint, dirt, chaff and burrs.

10. Hold guard (D) and pull back on collar (C). Slide driveline off tractor shaft.

A—Chain **C—Collar**
B—PTO Shield **D—Cone Guard**



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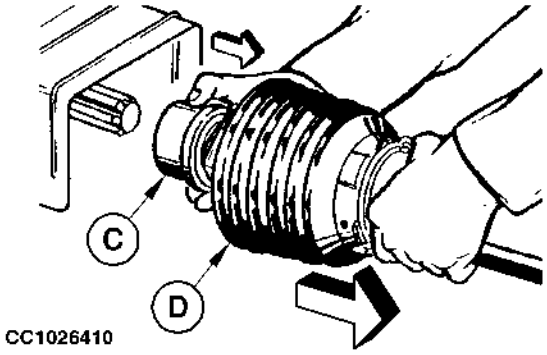

CC1026410 —UN—07OCT04

Disconnect PTO Shaft

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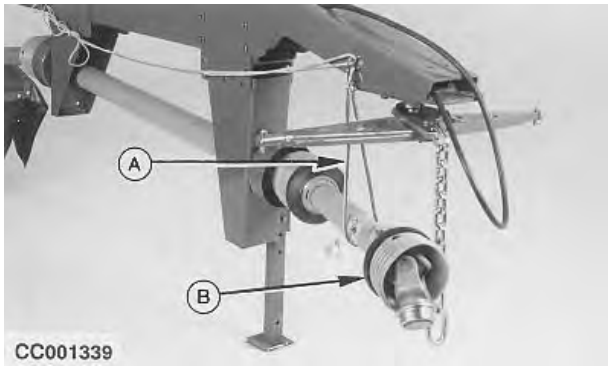
VC39598,00002C5 -19-22AUG12-5/11

11. Install driveline in storage position.

    a. On linkage drawbar tongue:
    Loop strap (A) around driveline (B).

A—Strap **B—Driveline**

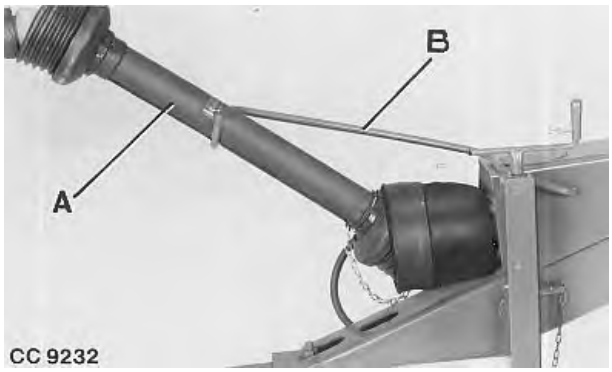


CC001339 —UN—08FEB95

VC39598,00002C5 -19-22AUG12-6/11

    b. On pin drawbar tongue:
    Place driveline (A) on support (B).

A—Driveline **B—Support**



CC9232 —UN—03FEB97

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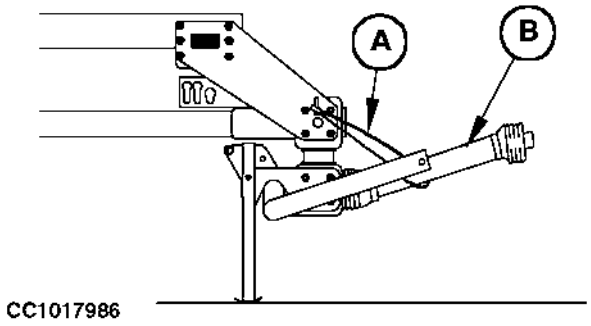
VC39598,00002C5 -19-22AUG12-7/11

c. On swivel hitch:
Up to S.N. 359906
Loop strap (A) around driveline (B).
From S.N. 359907
Place driveline (B) on support (A).

A—Strap/Support **B—Driveline**



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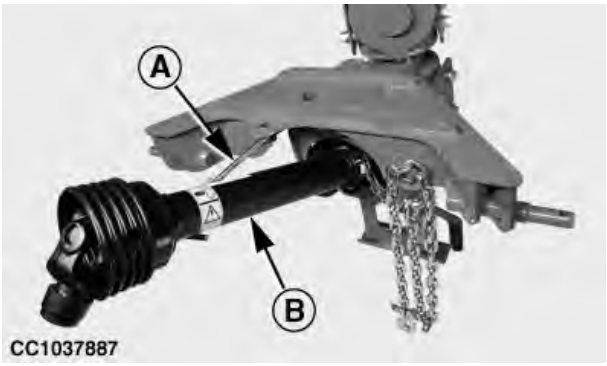
Up to S.N. 359906



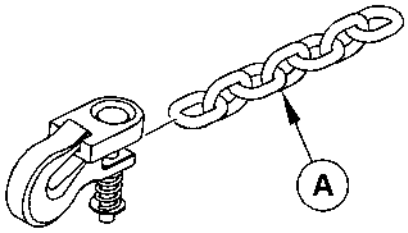
CC1037887 —UN—26JUL12

From S.N. 359907

VC39598,00002C5 -19-22AUG12-8/11

12. If equipped, detach tongue height resume chain (A) from the tractor.

A—Tongue Height Resume Chain



CC1027657 —UN—24OCT05

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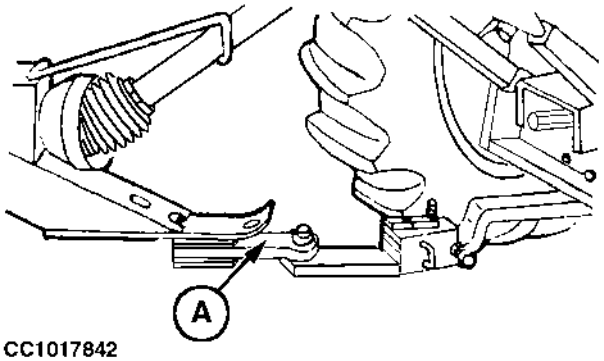
VC39598,00002C5 -19-22AUG12-9/11

13. Detach the tongue from the tractor.

    a. **On pin drawbar tongue:**
    Slightly raise tongue with jackstand then detach ball joint hitch (A) from tractor drawbar.
    Carefully drive tractor away.

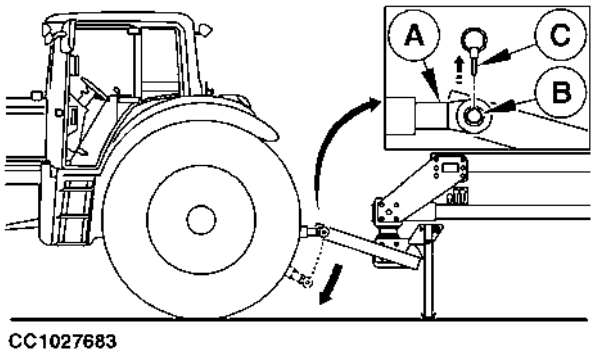
A—Ball Joint Hitch



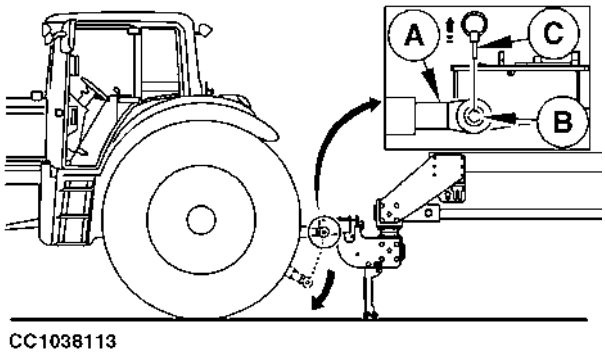
VC39598,00002C5 -19-22AUG12-10/11

b. **On linkage drawbar tongue and swivel hitch:**
Lower tractor draft links until mower-conditioner jackstand rests on the ground.
Remove quick lock pins (C) then slide draft links (A) away from hitch pins (B).
Carefully drive tractor away.

A—Draft Links
B—Hitch Pin
C—Quick Lock Pin



Up to S.N. 359906



From S.N. 359907

VC39598,00002C5 -19-22AUG12-11/11

Transporting the Mower-Conditioner

Operating Rope Control Positioner

A mechanical device allows the mower-conditioner to be shifted from transport to operating position and vice versa from the tractor.

Pull rope (A) to release lock (B).

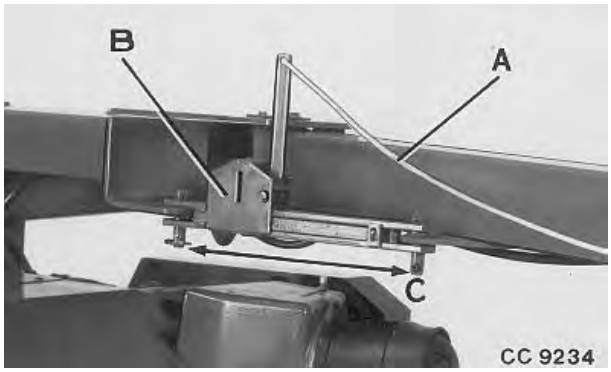
To change from operating to transport position, reverse tractor toward right-hand side. To simplify this operation, keep the platform on ground.

Lock (B) will engage automatically.

NOTE: Mechanical tongue positioner (E) must always be connected to the correct holes depending on the mower-conditioner model and tongue type.

If the positioner is connected to the wrong holes tractor-to-windrow distance will not be correct.

A—Rope
B—Lock
C—Locking device in transport position
D—Locking device in operation position
E—Mechanical tongue positioner



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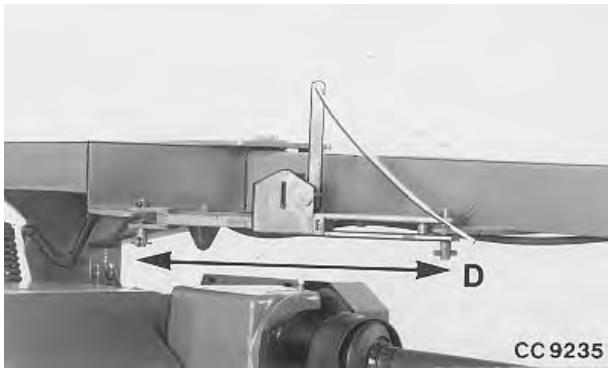

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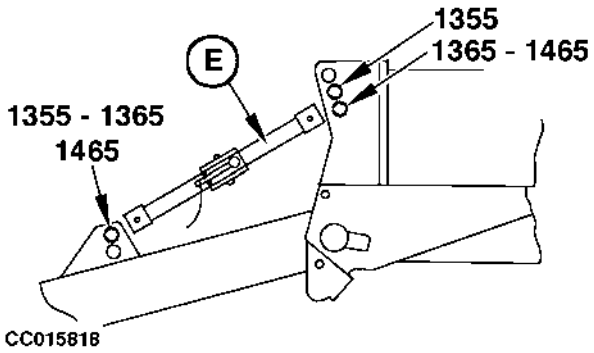
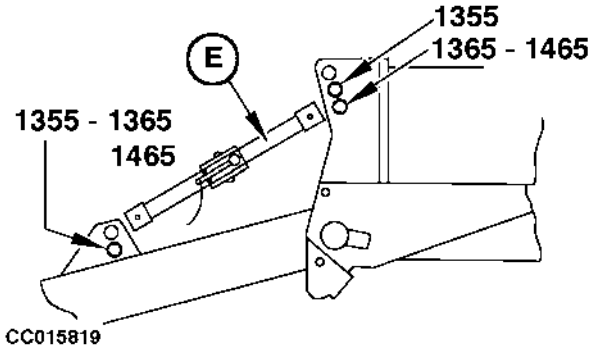


CC015818 —UN—05AUG99

Pin Drawbar Tongue



CC015819 —UN—05AUG99

Linkage Drawbar and Swivel Hitch Tongue

CC,1355MC004953 -19-21JUN99-1/1

Position of Tongue Cylinder

⚠ CAUTION: The tongue position may change suddenly with hydraulic control. Avoid any personal injury and/or machine damage by placing the hydraulic flow control in "slow" position.

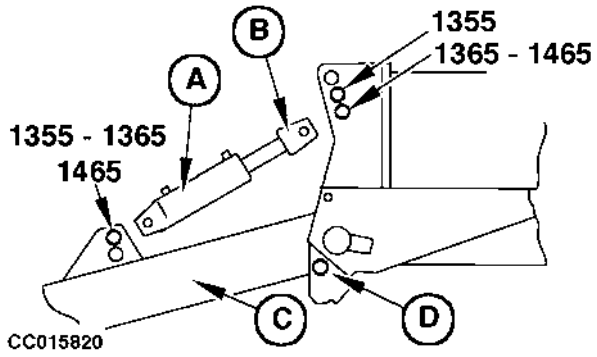
As an option, the mower-conditioner may be equipped with a hydraulic cylinder (A) for tongue positioning. This equipment requires a tractor equipped with a double-acting selective control valve.

Adjust length of hydraulic cylinder (A) by means of rod end (B) so that tongue (C) does not touch transport lock pin (D).

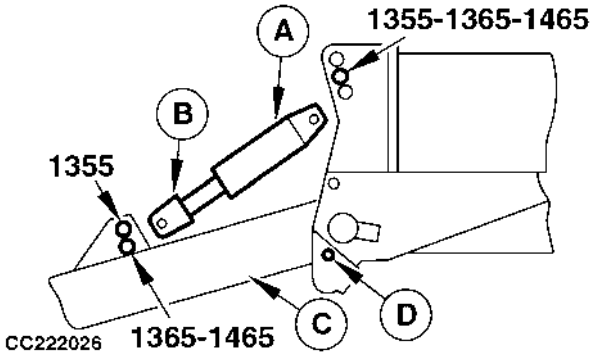
NOTE: Ends of hydraulic cylinder (A) must be attached to the correct holes depending on the mower-conditioner model.

If the hydraulic cylinder is connected to the incorrect holes, it will not be possible to properly align tongue and tractor-to-windrow distance will not be correct.

A—Hydraulic Cylinder
B—Hydraulic Cylinder Rod End
C—Tongue
D—Transport Lock Pin



Pin Drawbar Tongue



Linkage Drawbar and Swivel Hitch Tongue

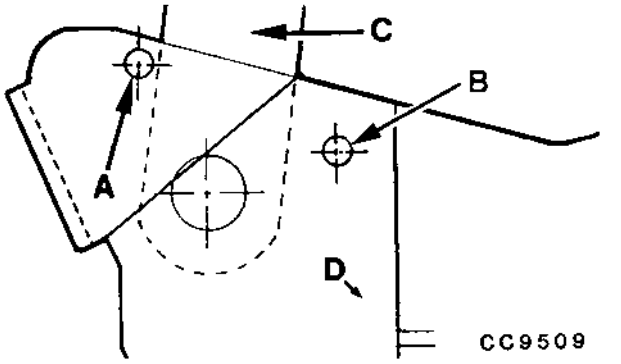
JC87117,00001A5 -19-13AUG15-1/1

Operating Tongue Positioning Lock Pin

⚠ CAUTION: Avoid personal injury and/or machine damage by inserting tongue positioning lock pin into main carrier frame before transporting or operating the mower-conditioner.

Insert lock pin into hole (A) for transport position or into hole (B) for operating position. This will prevent tongue (C) from striking main frame (D) or folding to an unstable position in the event of a positioning device failure.

A—Transport position hole
B—Operating position hole
C—Tongue
D—Main frame



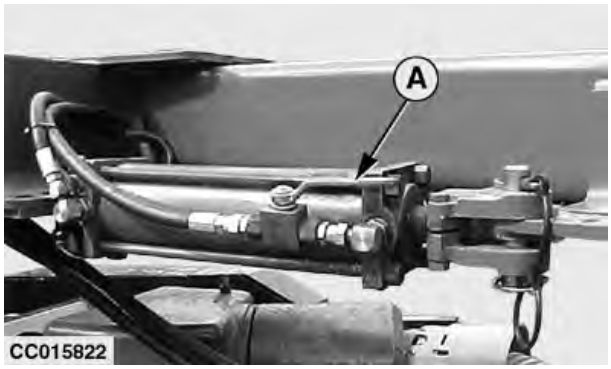
CC,1350MC001837 -19-24AUG94-1/1

Operating Tongue Positioning Hydraulic Lock

Turn valve (A) to lock cylinder and install transport tongue lock pin before transporting the mower-conditioner.

Before operating the mower-conditioner, remove transport lock pin and open the valve to unlock the cylinder.

A—Valve



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Raising the Side Safety Curtains

To raise the side safety curtains in transport position, see ”Side Safety Curtains” in ”Operating the Mower-Conditioner” section.

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OUCC006,0000F3D -19-13SEP05-1/1

Transporting Mower-Conditioner

1. Fully raise mowing unit.

IMPORTANT: Never engage platform cylinder stops during transport on the road.

2. Move the mower-conditioner tongue to transport position.

   Use the locking device to lock tongue in transport position. (See ”Operating Tongue Positioning Lock Pin” or ”Operating Tongue Positioning Hydraulic Lock” in this Section.)

3. Be sure road lighting, marking and reflectors are clean and visible.

CAUTION: Always lock draft links using stabilizer chains, turnbuckles or sway blocks and lock rockshaft lever in raised position to prevent accidents during transport on the road. (See your tractor Operator's Manual.)

OUCC006,0000FD9 -19-22NOV05-1/1

Transporting Mower-Conditioner with Grouper

CAUTION: Always drive the mower-conditioner with the grouper in down position during transport on the road.

IMPORTANT: Never use grouper frame lock hook as a supporting device when driving the mower-conditioner in the fields with grouper raised.

CC,1350MC003667 -19-05DEC96-1/1

Towing Mower-Conditioner on Public Roads

CAUTION: Use of flashing warning lights and turn signals is recommended when towing this equipment on public roads. An implement safety lighting kit is available from your John Deere dealer.

CAUTION: Use care when towing this machine at transport speeds. Reduce speed if the weight of the machine exceeds weight of tractor.

The maximum transport speed capability for this machine is 25 km/h (15.5 mph).

Maximum transport speed is determined by local road traffic regulations, so always observe local road traffic regulations when using public roads.

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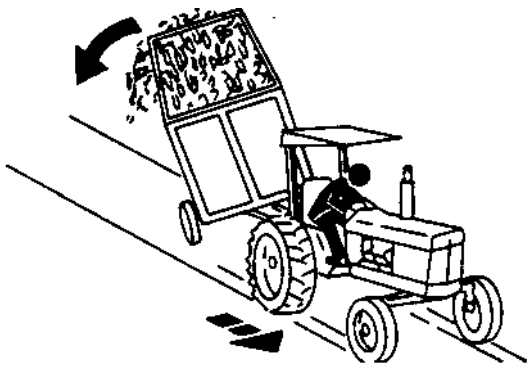

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OUCC006,0000F46 -19-25OCT05-1/1

Operating the Mower-Conditioner

Pre-Operation Checklist

CAUTION: Never adjust mower-conditioner with power engaged. Disengage PTO, shut off tractor engine and remove the key.

Inspect and service machine before starting work each day:

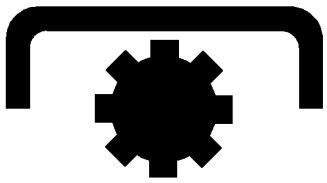
- Check knives: reverse or replace if they are blunt.
- Check that knives are correctly positioned.
- Check that knives rotate freely.
- Check rotor drive belt for proper tension and alignment.
- Check rotor for missing tines. Check tines for wear and replace pins or bushings as necessary.
- Check for any loose bolts.
- Check platform lift movements.
- If equipped, check grouper drive and lift movements.
- Check grouper canvas tracking. See “Service” Section.
- Check that safety shields and curtains are in place and in good condition.
- Check tire inflation pressures and wheel bolt torques (see “Operating the Mower-Conditioner” Section).
- Lubricate mower-conditioner (see “Lubrication and Maintenance” Section).
- Clean machine thoroughly of any foreign objects.
- Check oil level in cutterbar and gearboxes.
- Check linkage drawbar tongue adjustment in relation to tractor used.

OUCC006,0000480 -19-04SEP01-1/1

PTO Speed

CAUTION: Never operate a 540 rpm machine at 1000 rpm and vice versa. For proper identification, refer to tag attached to main gear case.

Check that the appropriate tractor PTO speed is selected. (See your relevant tractor Operator's Manual.)



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CC03745,0000B56 -19-25NOV05-1/1

Breaking-In Mower-Conditioner

After mower-conditioner has been connected to tractor, inspect for loose hardware.

CAUTION: Stay away from machine while it is running. Always disengage PTO, shut off tractor engine and remove the key before inspecting machine.

Run machine empty at slow idle speed for a short time. Disengage PTO, shut off engine and remove the key before inspecting the machine for loose hardware.

Mower conditioner with swivel hitch:

Change oil of gear cases after first 50 hours of use. See “After First 50 Hours” in “Lubrication and Maintenance” section.

IMPORTANT: After this initial break-in period, the machine is ready for normal operation. Do not operate machine empty for long periods of time as this may lead to premature wear.

OUCC006,0000481 -19-04SEP01-1/1

Starting and Driving Mower-Conditioner

CAUTION: Before operating the mower-conditioner, always lock draft links using stabilizer chains, turnbuckles or sway blocks.

Before starting machine, lower platform to the ground. Engage tractor PTO and gradually increase the engine speed, taking care that people stand clear of the machine.

Choose an operating speed from 6 to 15 km/h (4 to 9 mph).

When mowing, the engine should be run at PTO rated speed. Too slow an engine speed may cause the mower-conditioner to become clogged when the crop is heavy.

If difficult conditions require a slower ground speed, shift to a lower gear rather than reducing engine speed so that engine maintains its rated speed to keep rollers or rotor and cutterbar running at optimum mowing and conditioning speed.

CC,1350MC001801 -19-24AUG94-1/1

Operating the Linkage Drawbar Tongue

CAUTION: Always use the tractor three-point hitch in "Depth" control.

Always work with three-point hitch locked laterally using stabilizer chains, stabilizer support or sway blocks as specified in your tractor Operator's Manual.

If equipped with the tongue height resume chain:

Raise three-point hitch until the chain can be connected to the tractor with the same length and at the same location as required for the tongue adjustment (see "Attaching Linkage Drawbar Tongue To the Tractor" in "Attaching and Detaching" Section), then slowly lower three-point hitch until chain begins to tighten.

If not equipped with the tongue height resume chain:

Adjust the three-point hitch position at the height required for the tongue adjustment (See "Attaching Linkage Drawbar Tongue To the Tractor" in "Attaching and Detaching" Section). Refer to your tractor Operator's Manual to maintain the three-point hitch at the position required.

IMPORTANT: Do not adjust cutting height or pitch angle of cutterbar by means of the three-point hitch as this may lead to hook-up failure.

IMPORTANT: Do not make turns sharper than 90° as this may lead to hook-up failure.

CC,1350MC003672 -19-06DEC96-1/1

Operating the Swivel Hitch

CAUTION: Always use tractor three-point hitch in "Depth" control.

Always work with three-point hitch locked laterally using stabilizer chains, stabilizer support or sway blocks as specified in your tractor Operator's Manual.

If equipped with the tongue height resume chain:

Raise three-point hitch until tongue is parallel to the ground, then connect the chain to the tractor so that chain is just tightened.

If not equipped with the tongue height resume chain:

Raise three-point hitch until tongue is parallel to the ground. Refer to your tractor Operator's Manual to maintain the three-point hitch at the position required.

IMPORTANT: Do not adjust cutting height or pitch angle of cutterbar by means of the three-point hitch.

CC,1350MC002436 -19-02NOV94-1/1

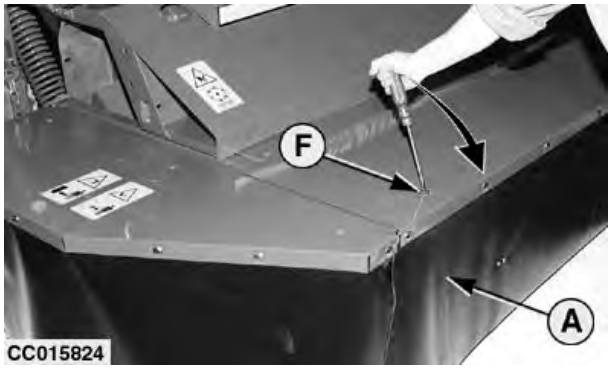
Front Safety Curtains

CAUTION: When operating the mower-conditioner, always ensure that front curtain (A) is in lowered position and that it is latched together with the side curtain (C) and with the small front curtain (D). Use straps (E) to keep the curtains together.

To raise the front safety curtain (A), introduce a screwdriver in the groove of lock (F), pull it as shown and lift the front curtain.

Front safety curtain (A) can be automatically maintained in fully raised position by means of retainer (B) to allow access to the cutterbar for service.

A—Front curtain
B—Retainer
C—Right-hand side curtain
D—Small front curtain
E—Straps
F—Lock



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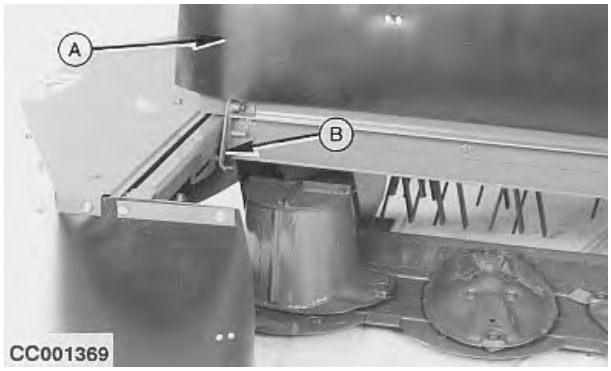

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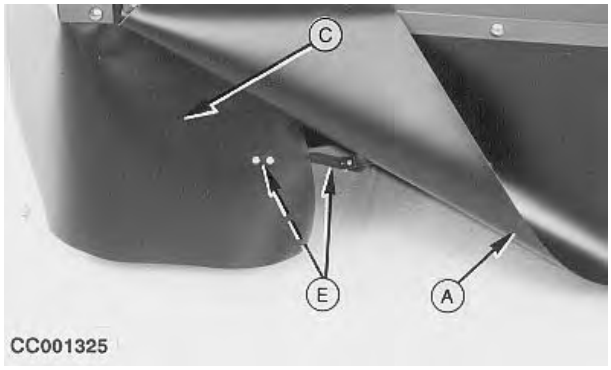

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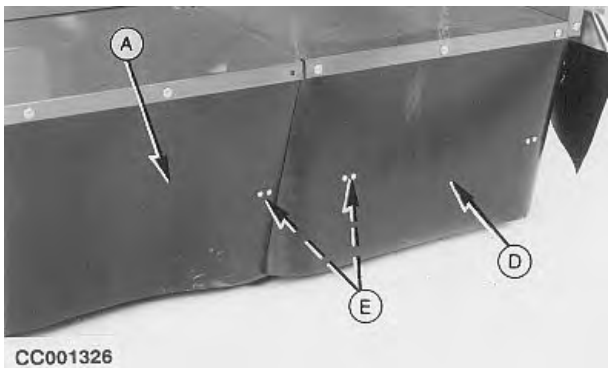

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Side Safety Curtains

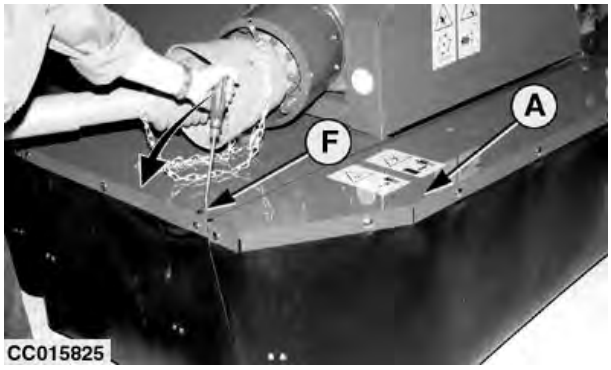
CAUTION: When operating the mower-conditioner, always ensure that side curtains (A) are in lowered position and latched together with front curtains (C) and (D). Use straps (E) to keep the curtains together.

Side safety curtains (A) are automatically maintained in the fully raised or lowered position.

To raise the side safety curtain, introduce a screwdriver in the groove of lock (F), pull it as shown and lift the side curtain.

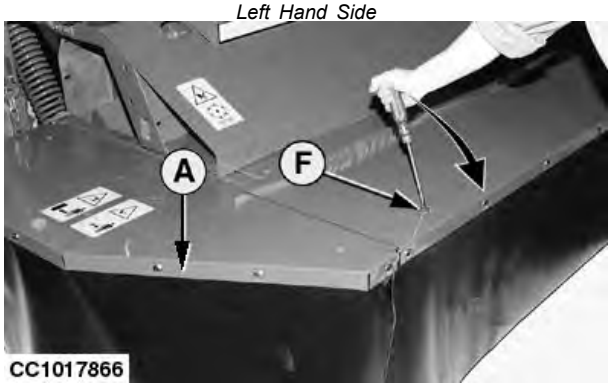
To lower the side curtains pull latch (B) and lower the side curtain.

A—Side curtain
B—Latch
C—Front curtain
D—Small front curtain
E—Straps
F—Lock



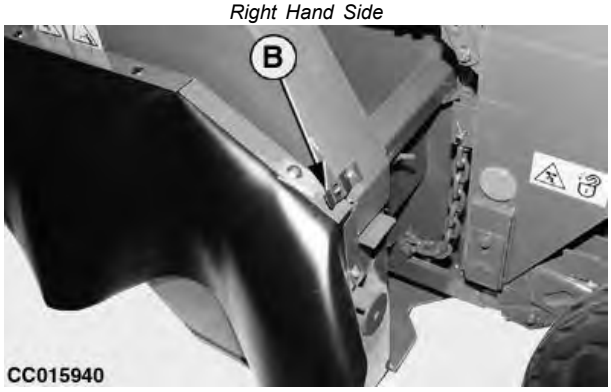
CC015825 —UN—05AUG99

Left Hand Side



CC1017866 —UN—30MAY00

Right Hand Side



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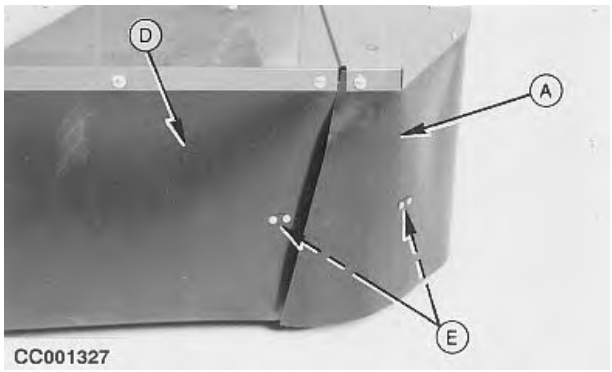

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AG,OUCC006,385 -19-29MAY00-1/1

Adjusting Cutting Height

L=(in) L=mm	15,7 400	15,1 385	14,5 370	13,9 355	13,3 340
① (in) mm	1,1 29	1,5 38	2,1 53	2,7 70	3,4 88
② (in) mm				3,7 95	4,4 113
③ (in) mm				4,7 120	5,4 138

CC1017702

CC1017702 —UN—08MAY00

Cutting height can be modified by altering either length (L) of right-hand and left-hand turnbuckles or position of right-hand and left-hand skid shoes. This will change the initial adjustment of the platform ground pressure.

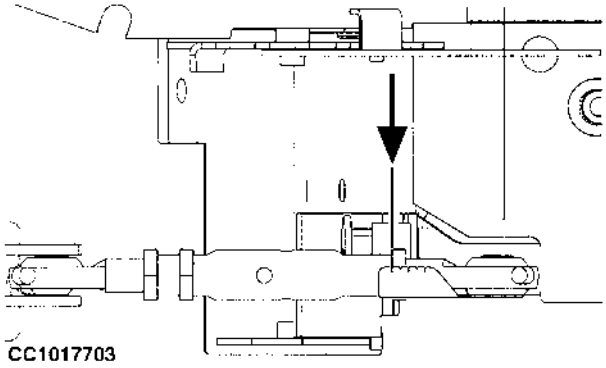
Refer to chart above to determine value of length (L) and skid shoe positions (1, 2 and 3) relative to cutting height.

IMPORTANT:

To alter cutting height, proceed as follows:

1. **Adjust the right-hand turnbuckle.**
2. **Adjust the left-hand turnbuckle until rod is loose.**
3. **Shorten the left-hand turnbuckle one additional turn.**

NOTE: Each time cutting height is altered, readjust the platform float as described under "Adjusting Platform Float" in this Section.



CC1017703

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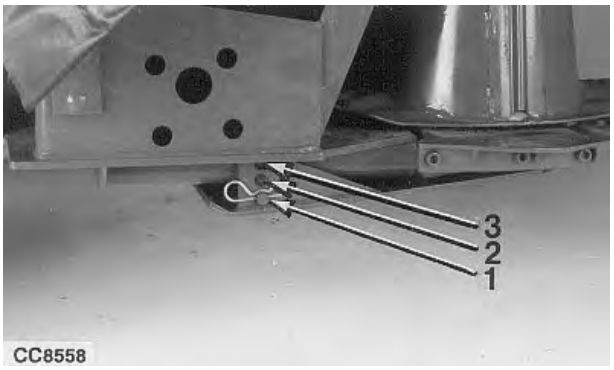

CC8558

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AG,OUCC006,343 -19-04MAY00-1/1

Adjusting Platform Float

IMPORTANT: Always adjust the cutting height before adjusting platform float. Turnbuckles must be properly adjusted to prevent sticking (see "Adjusting Cutting Height" in this Section).

Be sure that platform lift cylinders are attached as shown.

After adjusting cutting height, adjust pre-load of springs (A). Platform weight should be distributed in such a way that a 40 to 70 kg (88 to 154 lb) load is applied to right-hand side and a 70 to 90 kg (154 to 198 lb) load to left-hand side.

NOTE: This is a basic adjustment that depends on the ground speed and ground surface conditions. Re-adjust as necessary.

To distribute the specified load, lower machine to ground. Adjust pre-load of spring (A) by turning crank (B).

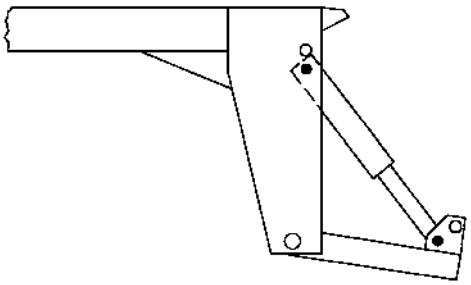
NOTE: When performing this adjustment, hold left-hand and right-hand side curtains away from the platform.

After adjustment, fold up the crank (B) to maintain the adjustment.

NOTE: Proper balancing of the platform will extend machine service life.

On very damp ground, it is recommended to reduce platform weight.

A—Spring **B—Crank**



CC015945

Left-hand Side

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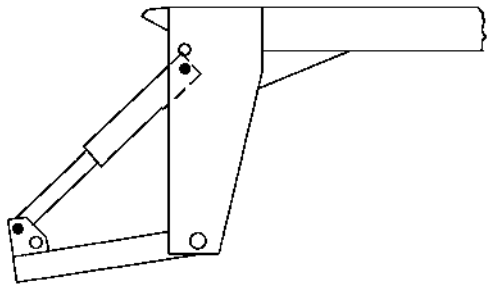
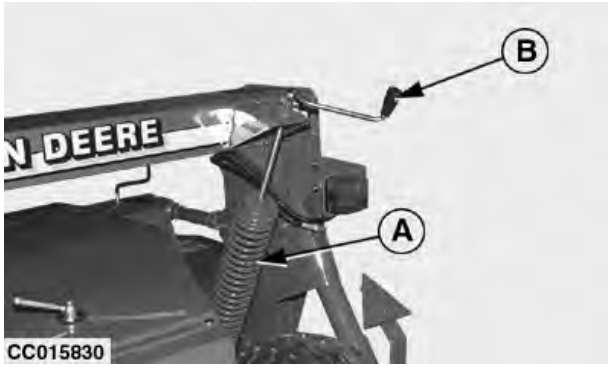


CC015946

Right-hand Side

CC015946 —UN—05AUG99



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CC,1355MC004961 -19-22JUN99-1/1

Adjusting Conditioning Intensity (1355 and 1365 Only)

⚠ CAUTION: Disconnect PTO, shut off the tractor engine and remove the key before adjusting.

Conditioning intensity can be adjusted by altering the clearance (B) between conditioning hood (C) and rotor tine tips (D).

Conditioning intensity adjustment can be improved by modifying the rotor speed (see “Changing Rotor Speed” in this Section).

Turn crank (A) counterclockwise to obtain less conditioning effect.

Turn crank (A) clockwise to obtain more conditioning effect.

The minimum clearance (B) that can be obtained is 10 mm (0.39 in.), to be used in short crops and grass.

The maximum clearance (B) that can be obtained is 120 mm (5 in.), to be used in extremely dense leguminous crops (alfalfa and clover).

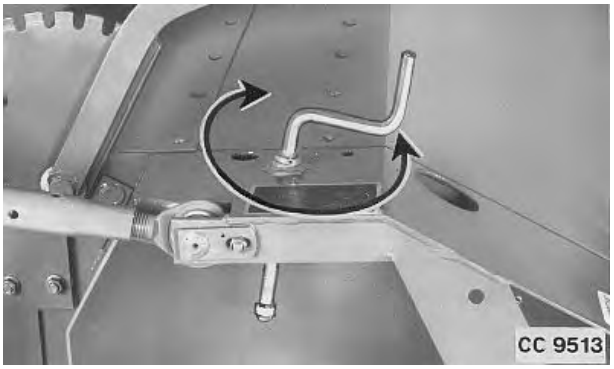
IMPORTANT: The operator must determine the correct clearance between conditioning hood and tine tips to provide the best conditioning effect for crop and prevent hay plugging at front of conditioning hood.

NOTE: Position of the conditioning hood has a slight effect on windrow width.

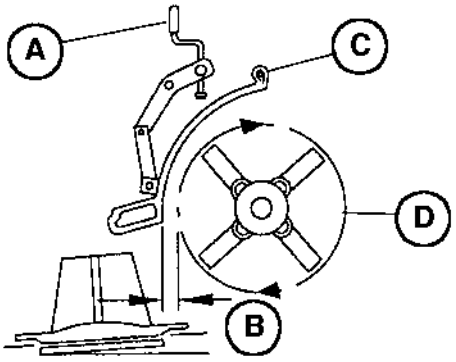
For characteristics of good conditioning effect, see “Checking Conditioning Effect” in this Section.

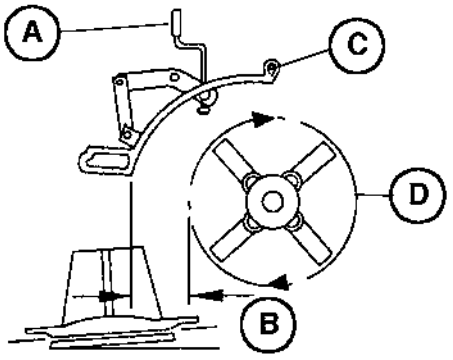
Depending of the field conditions, position of the conditioning hood affects the crop transfer to the grouper.

A—Adjusting crank
B—Clearance
C—Conditioning hood
D—Tine tip



CC9513 —UN—07FEB95





ZX001331

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Change Rotor Speed (1355 and 1365 Only)

Conditioning intensity can be adjusted by changing the rotor speed. Two rotor speeds are possible, depending on position of sheaves.

Position I: High speed 870 rpm. Maximum conditioning effect to be used for grass. Machines are delivered from the factory in this position.

Position II: Low speed 630 rpm. Minimum conditioning effect to be used for leguminous.

To modify rotor speed, proceed as follows:

For 1365 with tensioning arm outside :

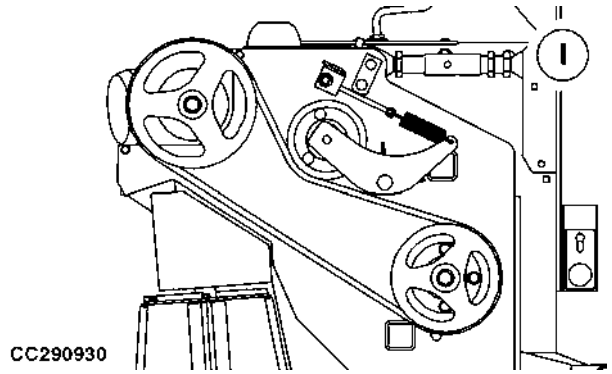
1. Remove rotor belt (see Remove Drive Belt (1355 and 1365 Only) in Service Section).
2. Remove screws (A) and washers located outside sheaves (B).
3. Exchange the sheaves, then reinstall washers and screws (A) in original positions.
4. Tighten screws (A) to specified torque:

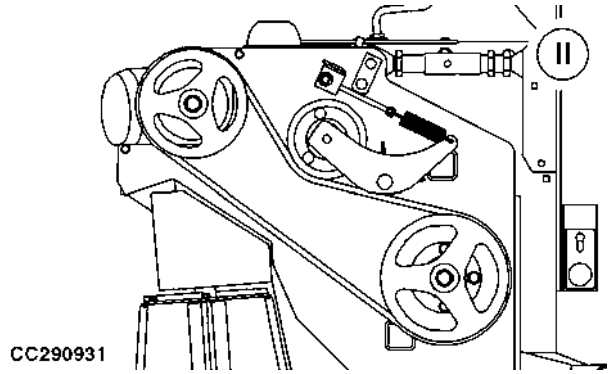
Specification	
Sheave screws—Torque	340 N·m (250 lb.-ft.)

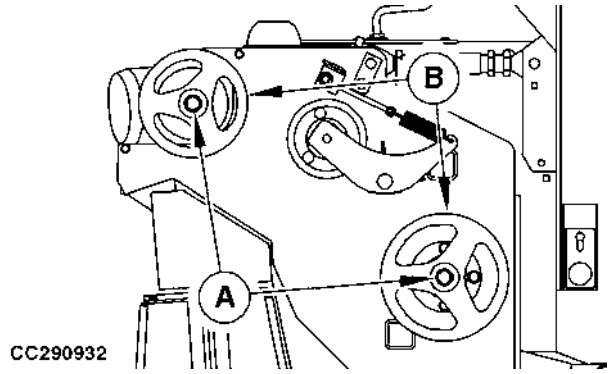
5. Reinstall rotor belt (see Install Drive Belt (1355 and 1365 Only) in Service Section).
6. Check for proper belt tension (see Adjust Belt Tension in Service Section).

NOTE: For characteristics of good conditioning effect, see Check Conditioning Effect in this Section.

A—Screws **B—Sheaves**







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NB02380,00001DD -19-06OCT16-1/2

For 1365 without tensioning arm outside and 1355 :

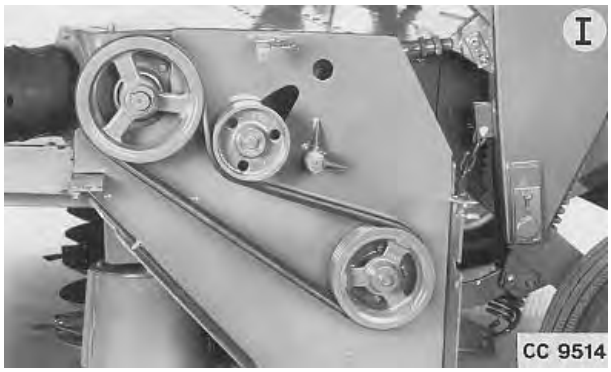
1. Remove rotor belt (see Remove Drive Belt (1355 and 1365 Only) in Service Section).

IMPORTANT: Note how many washers are installed on each shaft. The same number must be reinstalled to obtain original (factory) adjustment.

2. Remove cotter pin (A), screw (B) and washers located on the outside of sheaves (C).
3. Exchange the sheaves, then reinstall washers, cotter pin and screw in original positions.
4. Reinstall rotor belt (see Install Drive Belt (1355 and 1365 Only) in Service Section).
5. Check for proper belt tension (see Adjust Belt Tension in Service Section).

NOTE: For characteristics of good conditioning effect, see Check Conditioning Effect in this Section.

A—Cotter Pin
B—Screw
C—Sheaves



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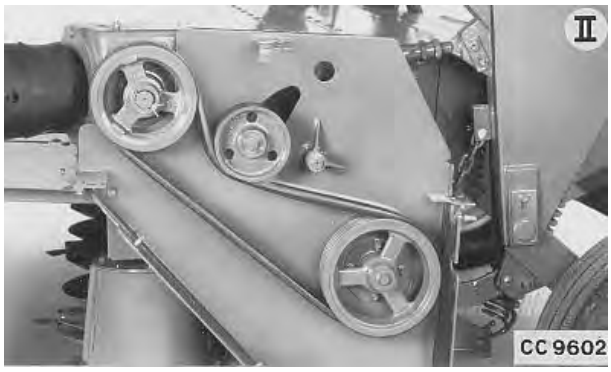

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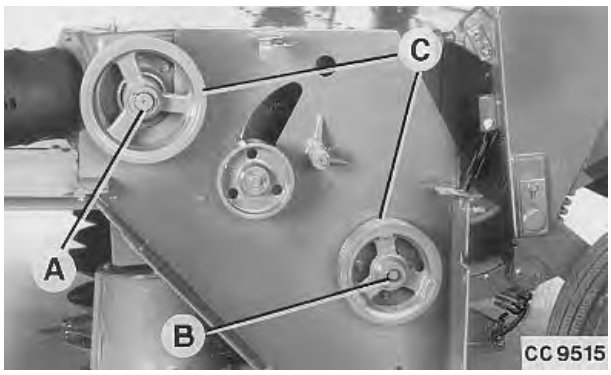

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NB02380,00001DD -19-06OCT16-2/2

Adjusting Roll Pressure (1465 Only)

Depending on crop condition, conditioning intensity can be varied by adjusting roll pressure.

If conditioner rolls are too aggressive for tender crops, reduce roll pressure.

Make a short test run and check windrow. If the crop is crushed or slashed, reduce roll pressure.

NOTE: Length (X) is factory adjusted at 104 mm (4.09 in.).

To increase roll pressure, turn adjusting nut (A) to reduce length (X).

IMPORTANT: Length (X) must not be less than 100 mm (3.93 in.).

To decrease roll pressure, turn adjusting nut (A) to increase length (X).

IMPORTANT: Length (X) must not be more than 140 mm (5.51 in.).

NOTE: For characteristics of good conditioning effect, see "Checking Conditioning Effect" in this Section.

A—Adjusting nut

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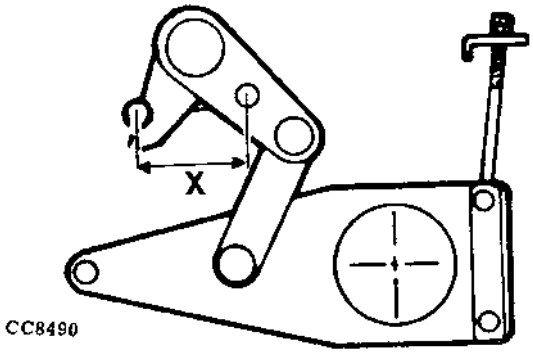

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Check Conditioning Effect

Grass Crops

The heads should not be separated from the stems. The stems should show impact and rubbing marks but must not be slashed.

Mixed Grass, Clover or Alfalfa

Blossoms and leaves should not be lost or scattered. The blossoms, leaves and stems should show impact and rubbing marks.

NOTE: Conditioning consists of crushing the stems as well as disturbing the waxy outer layer of the plant stem to speed up moisture evaporation.

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Adjusting Windrow Width

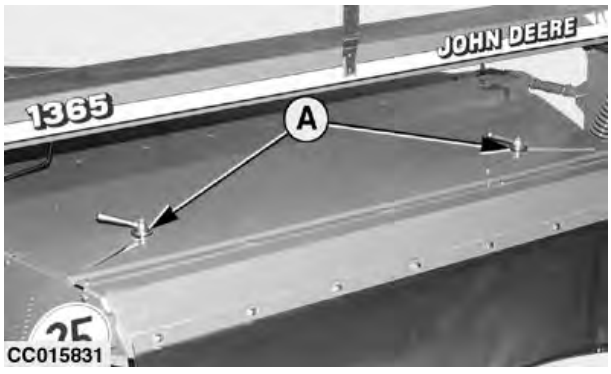
Windrow width can be adjusted:

From 0.70 to 1.30 m (2.29 ft to 4.26 ft) on 1355 mower-conditioner.

From 0.80 to 1.80 m (2.62 ft to 5.90 ft) on 1365 and 1465 mower-conditioner.

Loosen crank arms (A). Slide them either towards each other or away from each other until the desired position is obtained. Tighten crank arms (A).

A—Crank arms



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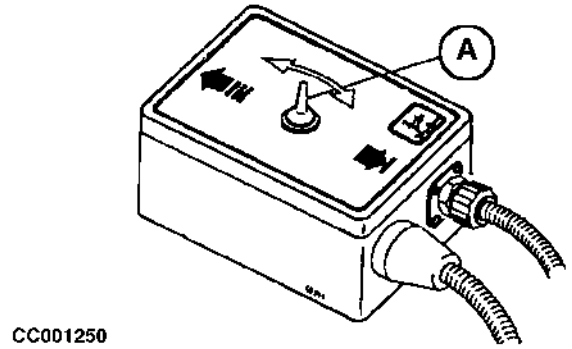
Adjusting Powered Windrow Forming Shields

Actuate switch (A) to adjust the position of the windrow forming shields (B). This adjustment is made directly from the tractor cab via the electrical cylinder (C).

Two parallel windrows can be brought closer together for more efficient harvesting with a 4.5 m (14 ft 9 in) pick-up on an SPFH. A double windrow can be picked up in a single pass, thus reducing operating time.

A—Switch
B—Powered windrow forming shields
C—Actuator



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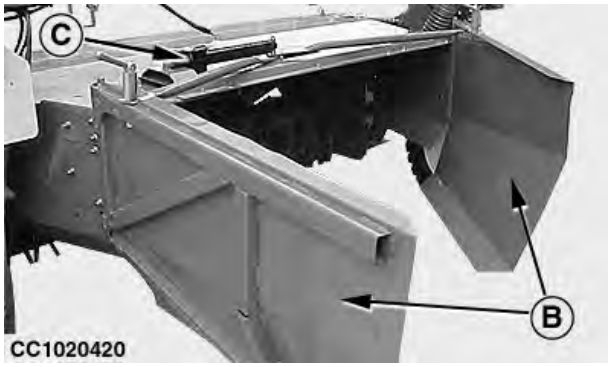

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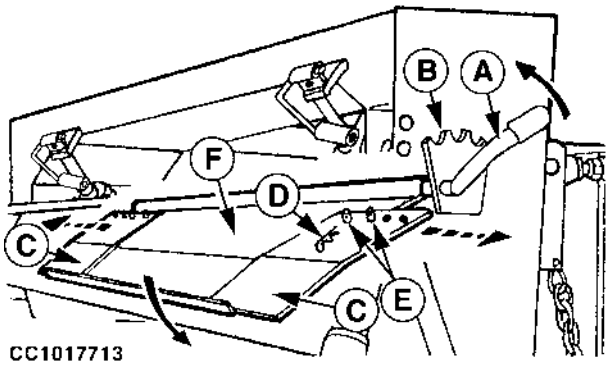
Adjusting Wide Rear Windrow Deflector (Option)

NOTE: Windrow width can be increased up to 2.13 m (7 ft) on 1365-1465 and up to 1.60 m (4.30 ft) on the 1355 mower-conditioner.

To increase windrow width, pull lever (A) rearward and secure in one of slots (B). Push the two adjustable plates (C) outside plate (F) and secure with spring pins (D) on studs (E).

To decrease windrow width, reverse procedure described above.

NOTE: The wide rear windrow deflector must be always set in up position (lever full forward) when using the grouper.



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A—Lever
B—Slots
C—Adjustable plates
D—Spring pins
E—Studs
F—Plate

AG,OUCC006,353 -19-04MAY00-1/1

Operating the Grouper

Grouper Canvas Drive

To meet all tractor hydraulic system requirements, two grouper canvas drive configurations are available:

Self-contained Hydraulic Circuit:

In this configuration, the grouper is driven by a belt which makes the hydraulic canvas motor shift the windrow towards the left-hand side.

NOTE: This configuration avoids all risk of grouper oil becoming contaminated by oil from the tractor.

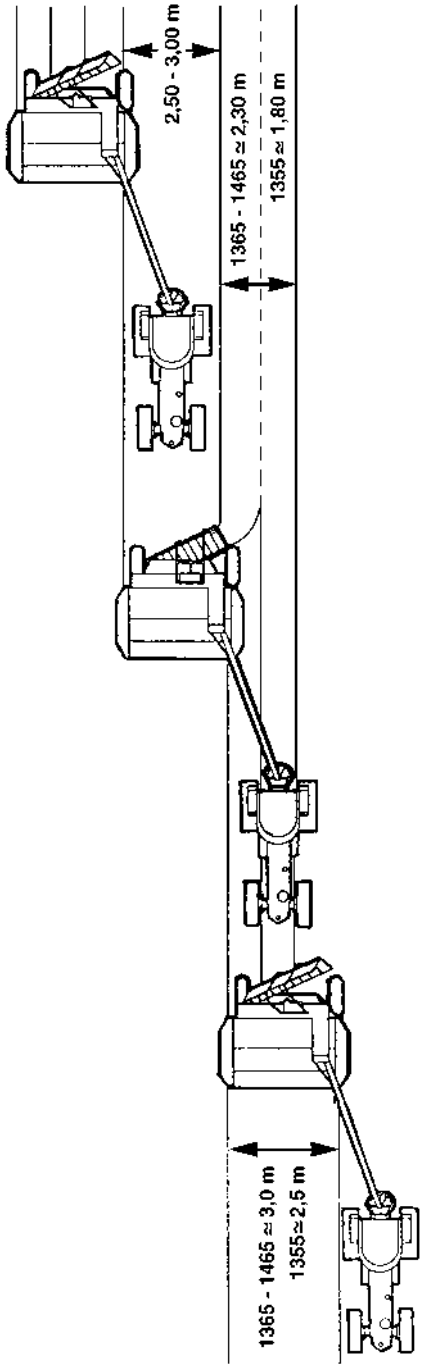
Direct Drive Hydraulic Circuit:

In this configuration, the grouper is directly driven by the tractor hydraulic system via one double-acting selective control valve, which makes the hydraulic canvas motor shift the windrow towards the left-hand side.

IMPORTANT: When using a 30, 40, 50 or 55 Series tractor with air conditioned cab, a second oil cooler is required to avoid oil overheating when driving the grouper's hydraulic motor.

NOTE: This configuration is particularly suitable for using the grouper with John Deere tractors. A 6000 or 7000 Series tractor must be equipped with a 200 or 300 Series selective control valve to drive the grouper's hydraulic motor.

A 3000 Series tractor must be equipped with a double-acting (3-position) selective control valve to drive the grouper's hydraulic motor.



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Grouper Lift

To operate the grouper lift movements, two grouper lift options are available:

Hydraulic Lift Option:

Requires two selective control levers to control the grouper lift movements.

Electro-hydraulic Lift Option:

Requires only one selective control lever to control the grouper lift movements.

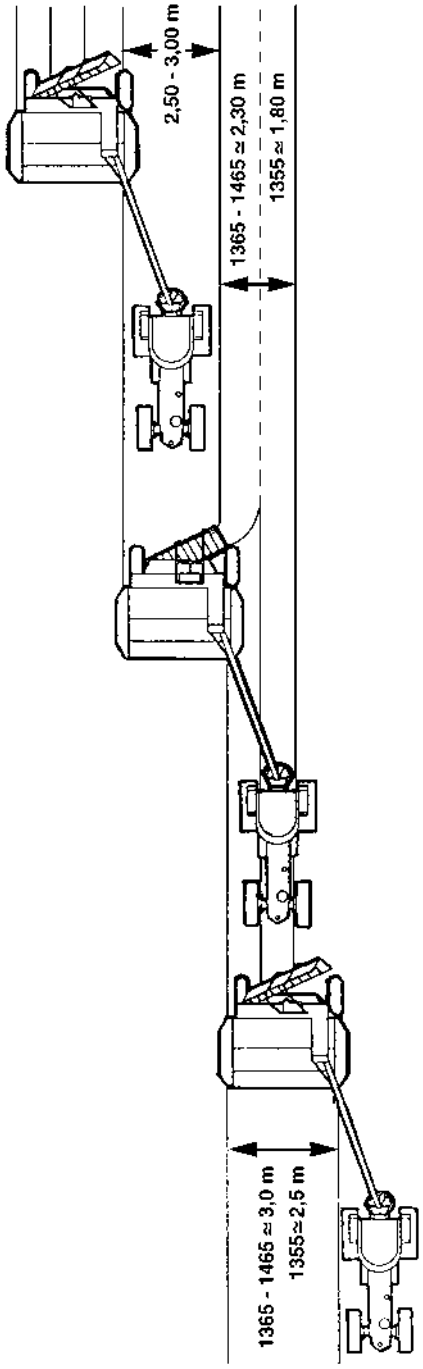
NOTE: When lifting the grouper, the canvas motor is automatically disengaged. When lowering the grouper, the canvas motor will be automatically re-engaged.

The canvas speed can be adjusted to suit field conditions and tractor ground speed.

Use the grouper alternately engaged and disengaged during clockwise travel around the field to double the windrows. Grouper up during the first pass, down during the second one, then up for the third pass, etc.

IMPORTANT: To obtain the best grouper performance, it is strongly recommended to set the 1355 and 1365 mower-conditioner impeller at the highest speed (870 rpm) (see "Changing Rotor Speed" in "Operating the Mower Conditioner" Section).

NOTE: In adverse conditions and particularly when crop transfer between mower-conditioner rotor and canvas is not adequate (especially on 1355 mower-conditioner) the use of the 1000 rpm rotor speed is recommended (see "Attachments" Section).



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AG,OUCC006,355 -19-04MAY00-1/1

Adjusting Grouper Canvas Speed

IMPORTANT: To prolong the service life of the grouper canvas, do not use the highest speed (position "10") unless absolutely necessary. This high speed should be used when the narrowest windrow is required.

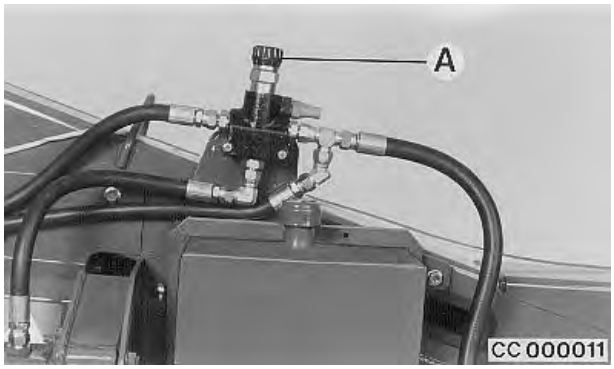
On Grouper With Self Contained Hydraulic Circuit:

Depending on ground speed, windrow width and crop conditions, canvas speed can be adjusted by using graduated control knob (A).

Under normal conditions, set control knob (A) to position "8".

On Grouper With Direct Drive Hydraulic Circuit:

Depending on working speed, windrow width and crop conditions, canvas speed can be adjusted either by using graduated control knob (A) or by adjusting the selective control valve flow if tractor is equipped with flow (load) control valves (B).



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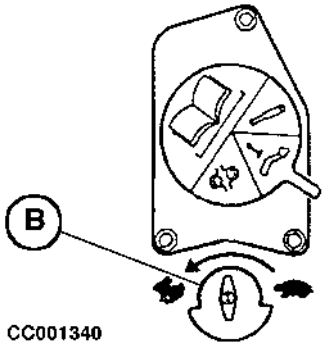

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6000/7000 Series Tractor

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IMPORTANT: To avoid tractor hydraulic circuit overheating, always refer to the following procedure to adjust canvas speed:

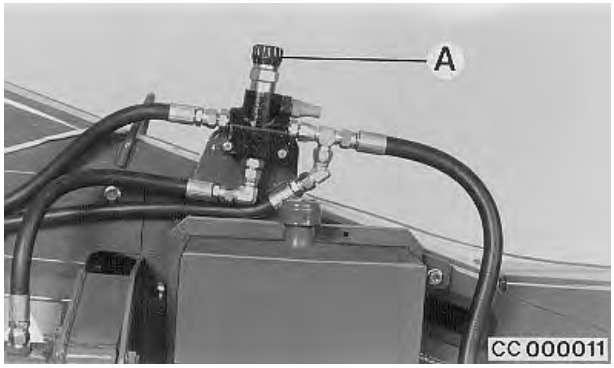
On tractor with flow (load) control valve, start to set the selective control valve flow at its minimum then set graduated control knob (A) to position "8". Slowly increase flow by using flow (load) control valve (B) until canvas speed remains constant. This is an initial setting for normal conditions.

If canvas speed needs to be reduced, reduce oil flow by using flow (load) control valve (B) only.

If canvas speed needs to be increased, set graduated control knob (A) to the desired position, then increase oil flow by using flow (load) control valve (B) in the same way as for the initial setting.

On tractor without flow (load) control valve, adjust canvas speed by using graduated control knob (A).

Under normal conditions, set control knob (A) to position "8".



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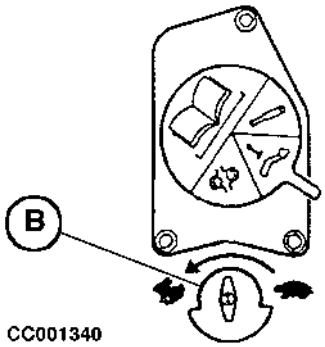

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6000/7000 Series Tractor

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Raising or Lowering Grouper—Electro-Hydraulic Lift Only

CAUTION: To prevent injury to bystanders, always lower the grouper when leaving the mower-conditioner unattended.

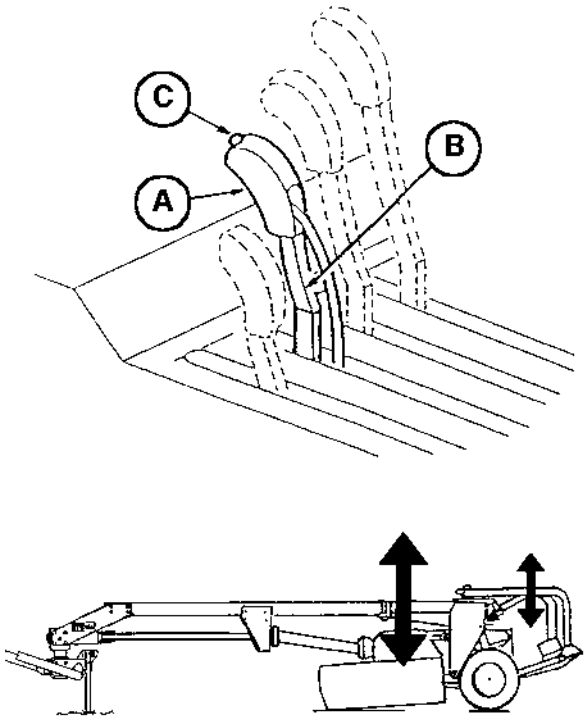
For greater convenience, install electrical control handle (A) on selective control lever (B) which controls the lifting of the mower-conditioner.

Press button (C) to raise the grouper while using selective control lever (B).

Press button (C) to lower the grouper while using selective control lever (B).

NOTE: If necessary, platform can be raised or lowered while keeping the grouper in up or down position. To do so, do not press button (C) while raising or lowering platform. Nevertheless, the selective control lever (B) should be actuated to raise or lower the grouper.

A—Handle
B—Control lever
C—Button



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AG,OUCC006,393 -19-31MAY00-1/1

Raising or Lowering Grouper—Hydraulic Lift Only

CAUTION: To prevent injury to bystanders, always lower the grouper when leaving the mower-conditioner unattended.

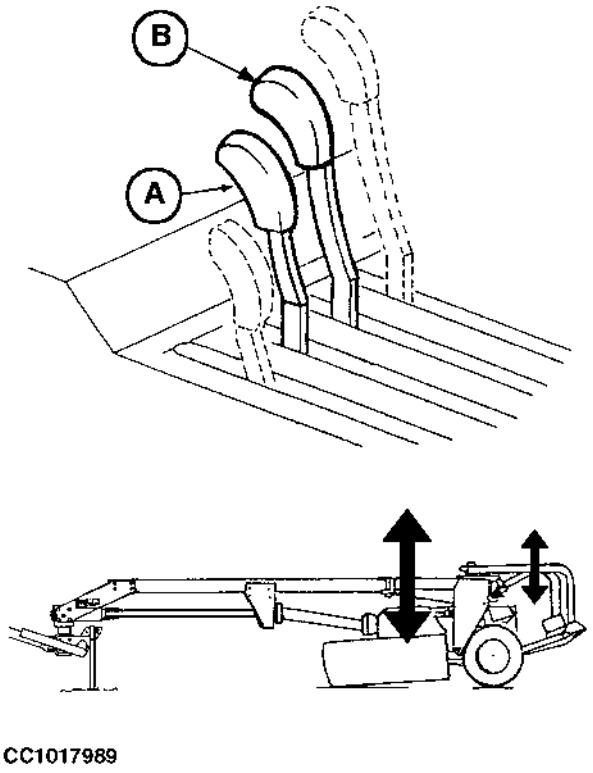
In this configuration, two selective control levers are required: One for the mower-conditioner platform and one for the grouper.

Use selective control lever (A) to raise and lower the platform.

Use selective control lever (B) to raise and lower the grouper.

A—Platform selective control lever

B—Grouper selective control lever



CC1017989

CC1017989 —UN—15JUN00

AG,OUCC006,396 -19-07JUN00-1/1

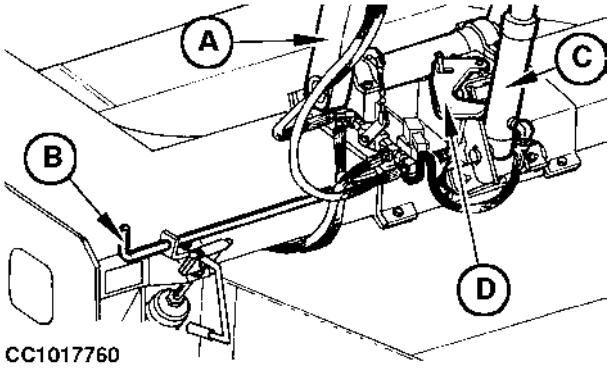
Grouper Lock Device

CAUTION: When working beside or under the canvas frame in raised position, the grouper frame locking device must be moved to locked position. Use this safety feature any time grouper is raised.

To secure the grouper frame, proceed as follows:

Fully raise the grouper frame (A). Pull lock lever (B) and simultaneously rotate it clockwise so that hydraulic cylinder (C) is firmly latched by hook (D). Release lock lever (B).

To unhook lock device, pull lock lever (B) and simultaneously rotate it counterclockwise so that hydraulic cylinder (C) is unlatched. Release lock lever (B).



CC1017760

CC1017760 —UN—17MAY00

A—Grouper frame
B—Lock lever
C—Hydraulic cylinder
D—Hook

AG,OUCC006,366 -19-15MAY00-1/1

Adjusting Grouper Canvas Frame Position

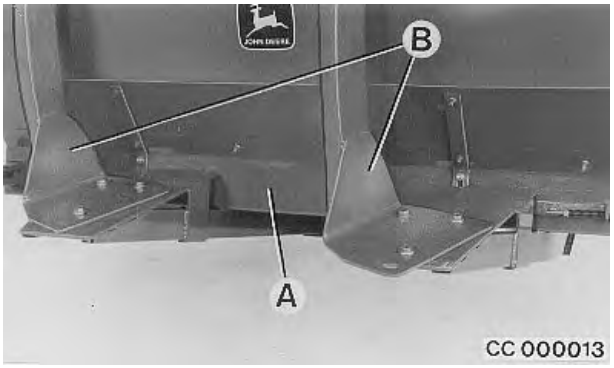
Depending on crop conditions (1st cut, 2nd cut) and windrow width, canvas frame (A) can be installed in several positions by relocating it on tubular frame supports (B) to shift the windrow better.

In addition, the windrow can be shifted further to the left or right by sliding tubular frame (C) along the mower-conditioner's carrier frame (D).

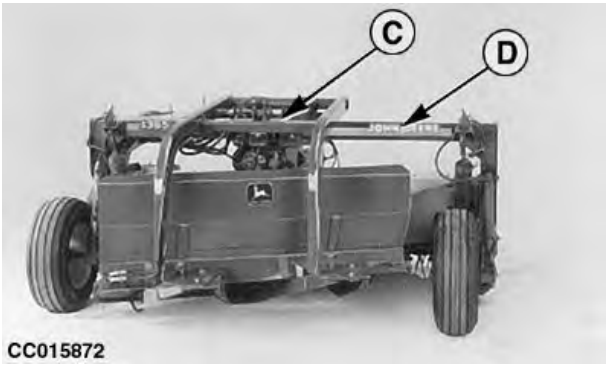
For example: On 1365, 1465 mower-conditioner left-hand tubular frame support (E) is originally fixed in the foremost fixing holes of left-hand canvas frame support (F) and right-hand tubular frame support (G) is fixed in the rearmost fixing holes of right-hand canvas frame support (H).

To perform the 2nd cut conditions, install the canvas frame (A) so that left-hand tubular frame support (E) is fixed in the rearmost fixing holes of canvas frame support (F) as it is on the right-hand side.

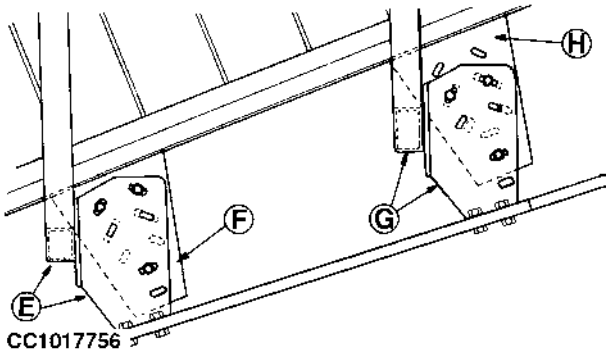
A—Canvas frame
B—Tubular frame supports
C—Tubular frame
D—Carrier frame
E—Left-hand tubular frame support
F—Left-hand canvas frame support
G—Right-hand tubular frame support
H—Right-hand canvas frame support



CC000013 —UN—10FEB95



CC015872 —UN—05AUG99



CC1017756 —UN—17MAY00

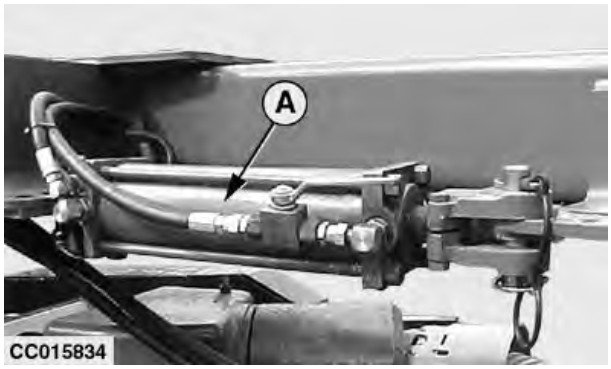
AG,OUCC006,367 -19-15MAY00-1/1

Attachments

Hydraulic Tongue Positioning

As an option, the mower-conditioner may be equipped with a hydraulic tongue positioning device (A). This equipment requires a tractor with two double-acting control valves.

A—Hydraulic tongue positioning device

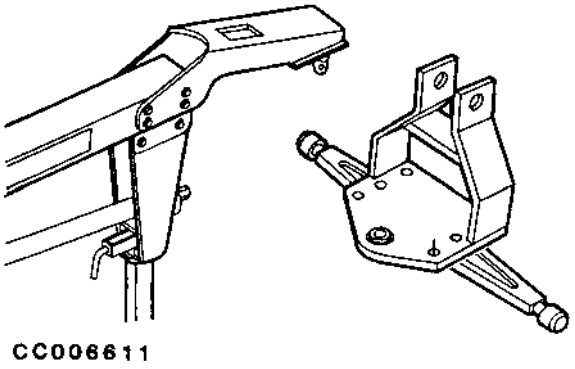


CC015834 —UN—05AUG99

CC,1355MC004971 -19-22JUN99-1/1

Hitch Extension for Linkage Drawbar Tongue

This hitch extension allows mower-conditioners equipped with the linkage drawbar tongue to be attached to tractors that have short or long draft links. The hitch extension is not required for use on tractors with long draft links.



CC006611 —UN—08FEB95

CC,1350MC003675 -19-06DEC96-1/1

Tongue Height Resume Chain

This chain allows the operator to retain the initial tongue operating position for field operation when the tractor is not equipped with a three-point hitch auto height resume device.

This chain can also be used in the event of tractor hydraulic circuit leakage or incorrect usage of three-point hitch during field operation.

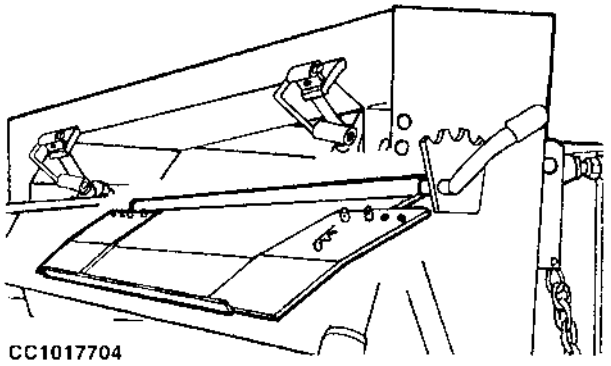
CC006609 —UN—08FEB95

CC,1350MC002442 -19-07NOV94-1/1

Wide Rear Windrow Deflector

As an option, the mower-conditioner may be equipped with a wide rear windrow deflector. It allows windrow width to be increased up to 2.13 m (7 ft) on 1365-1465 mower-conditioners and up to 1.60 m (4.30 ft) on the 1355 mower-conditioner.

This device allows wide windrows to be produced which can be picked up using a wide pick-up.



CC1017704 —UN—08MAY00

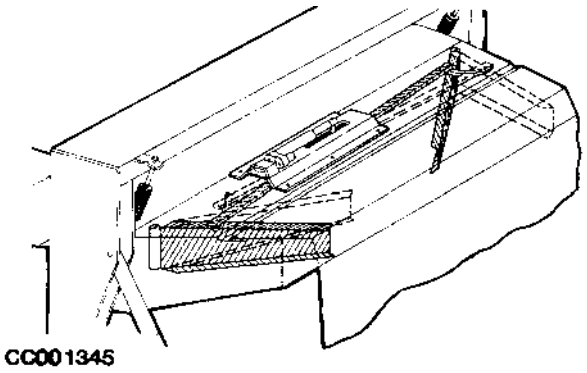
AG,OUCC006,344 -19-04MAY00-1/1

Powered Windrow Deflectors (1365 and 1465 Only)

This attachment allows the operator to adjust the position of the windrow deflectors directly from the tractor cab via an electrical cylinder actuated by two switches.

Two parallel windrows can be brought closer together for more efficient harvesting with a 4.5 m (14.76 ft) pick-up on an SPFH. A double windrow can be picked up in a single pass, thus reducing operating time.

NOTE: Do not use this attachment with the grouper.



CC001345 —UN—08FEB95

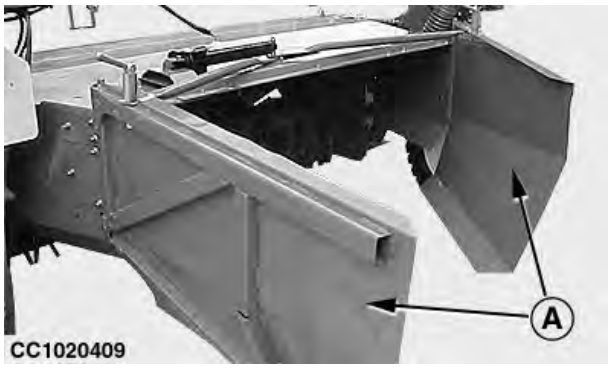
AG,OUCC006,359 -19-10MAY00-1/1

Powered Windrow Forming Shields (1365 Only)

This attachment allows the operator to adjust the position of the windrow forming shields (A) directly from the tractor cab via an electrical cylinder actuated by a switch.

Two parallel windrows can be brought closer together for more efficient harvesting with a 4.5 m (14 ft 9 in) pick-up on an SPFH. A double windrow can be picked up in a single pass, thus reducing operating time.

A—Powered windrow forming shields



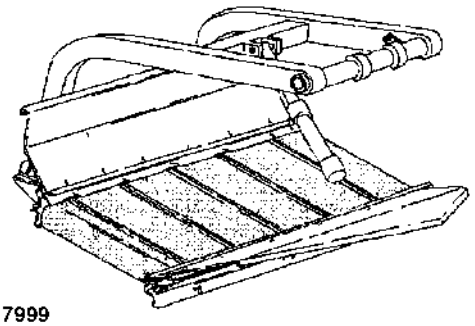
CC1020409 —UN—11SEP01

OUCC006,0000485 -19-04SEP01-1/1

Grouper

The grouper allows to lay two windrows side by side.

Grouping windrows allows to pick up 2 windrows with a 3 meter windrow pickup.



CC1017999

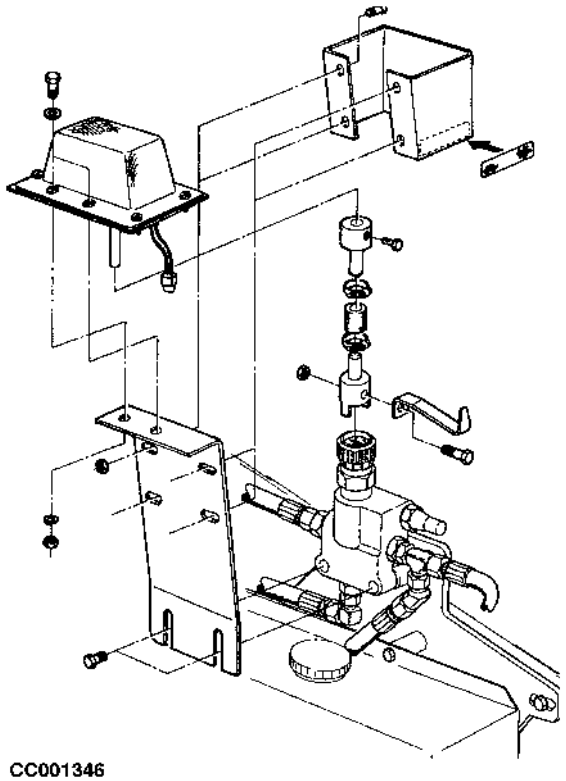
CC1017999 —UN—21JUN00

OUCC006,00004C3 -19-10SEP01-1/1

Grouper Canvas Speed Remote Control (For Self-Contained Hydraulic Circuit Drive Option Only)

This attachment consists of an electric motor installed on top of the canvas speed hydraulic control valve and is activated by a switch from the tractor cab. A visual indicator shows the setting of the canvas speed.

With this equipment the canvas speed can be set on-the-go which is very convenient when the field conditions change.



CC001346

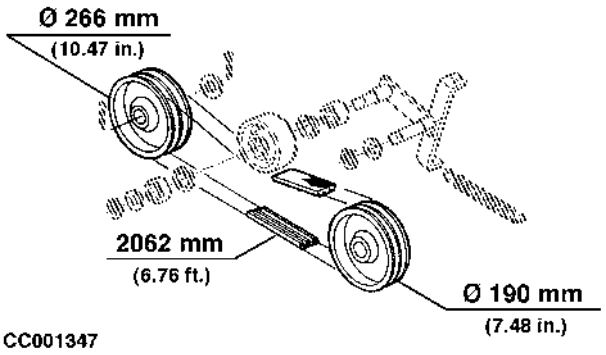
CC001346 —UN—23FEB95

CC,1350MC001843 -19-24AUG94-1/1

1000 RPM Rotor Speed

For adverse conditions, when crop transfer from the mower-conditioner rotor and the grouper canvas is not adequate (especially on 1355 mower-conditioner), this bundle increases the rotor speed from 870 rpm to 1000 rpm.

IMPORTANT: Due to the increased tractor power requirement when using the 1000 rpm rotor speed, the use of this bundle should be limited to conditions where it is necessary.

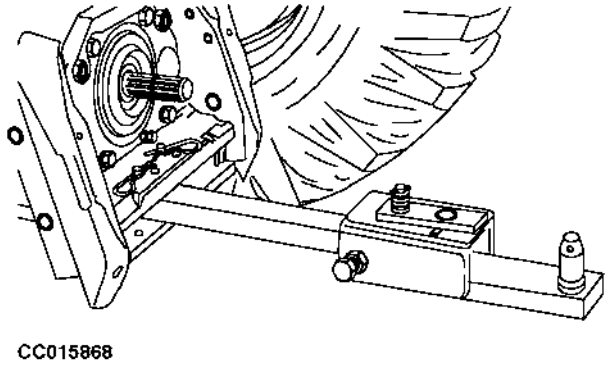


CC001347 —UN—23FEB95

CC,1355MC004974 -19-22JUN99-1/1

Equal Hitch (For Pin Drawbar Tongue Only)

The equal hitch allows attaching the pin drawbar tongue to the tractor drawbar correctly.

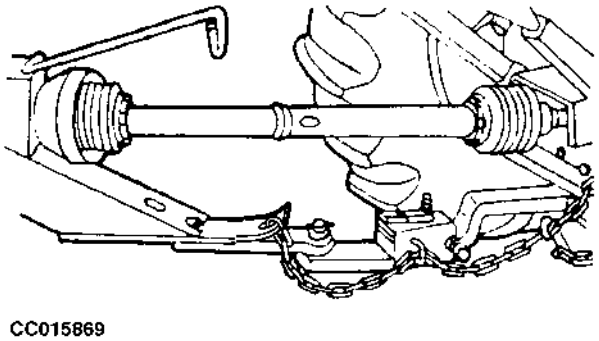


CC015868 —UN—05AUG99

CC,1355MC005013 -19-23JUN99-1/1

Safety Chain (For Pin Drawbar Tongue Only)

A safety chain will help control mower-conditioner should it accidentally be separated from the drawbar while transporting.

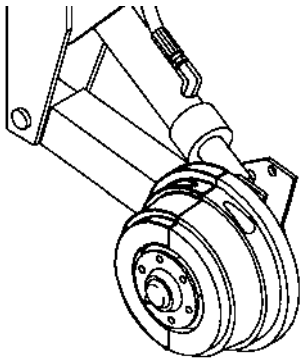


CC015869 —UN—05AUG99

OUCC006,00004C0 -19-10SEP01-1/1

Wheel Weight (1355 With Swivel Hitch Only)

A wheel weight is available to increase the mower-conditioner's stability.



CC015904 —UN—05AUG99

OUCC006,00004C1 -19-10SEP01-1/1

Triangular Warning Sign

A triangular warning sign for slow moving vehicles is available as an attachment.

OUCC006,00004BF -19-10SEP01-1/1

Lubrication and Maintenance

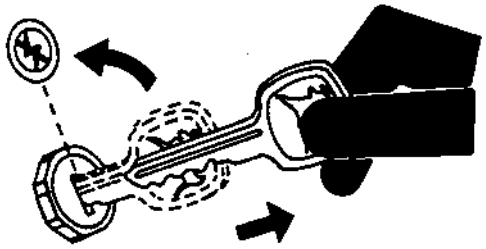
Lubricate and Maintain Machine Safely

CAUTION: To help prevent personal injury caused by unexpected movement, be sure to service machine on a level surface.

Do not lubricate or maintain the machine while it is in motion.

If machine is connected to tractor, engage tractor park brake and/or place transmission in "Park", shut off engine and remove key.

If machine is detached from tractor, block wheels to prevent movement.



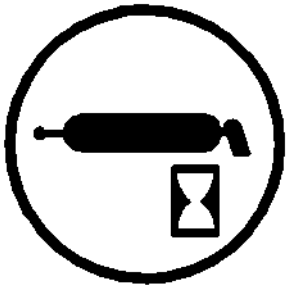
TS230 —UN—24MAY89

JC87117,00001AB -19-13AUG15-1/1

Observe Service Intervals

Using tractor hour meter as a guide, perform services at the hourly intervals indicated on following pages.

IMPORTANT: The maintenance intervals recommended are based on normal conditions; severe or unusual conditions may require more frequent lubrication.



CC 000934

CC000934 —UN—05APR95

OUCC006,00004BE -19-10SEP01-1/1

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.

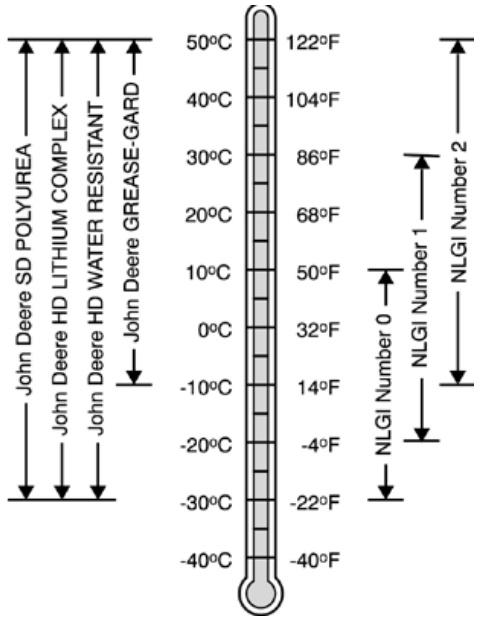
The following greases are also recommended:

- 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

GREASE-GARD is a trademark of Deere & Company

DX,GREA1 -19-14APR11-1/1

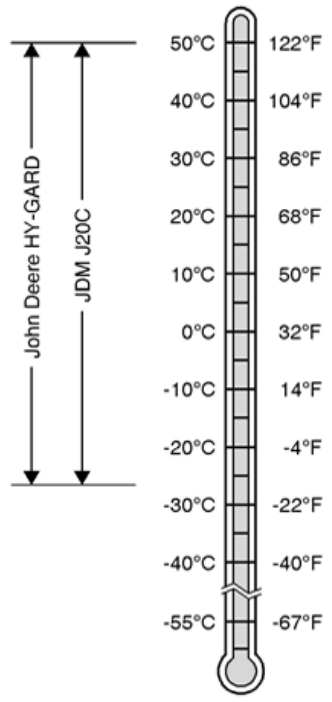
High Viscosity Gear Case Oil

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

John Deere HY-GARD ™ (high viscosity) is recommended.

Other oils may be used if they meet the John Deere Standard JDM J20C.

John Deere Low Viscosity HY-GARD™ and BIO-HY-GARD™ oils are NOT recommended.



CC1027835

CC1027835 —UN—06JAN06

HY-GARD is a trademark of Deere & Company
BIO-HY-GARD is a trademark of Deere & Company

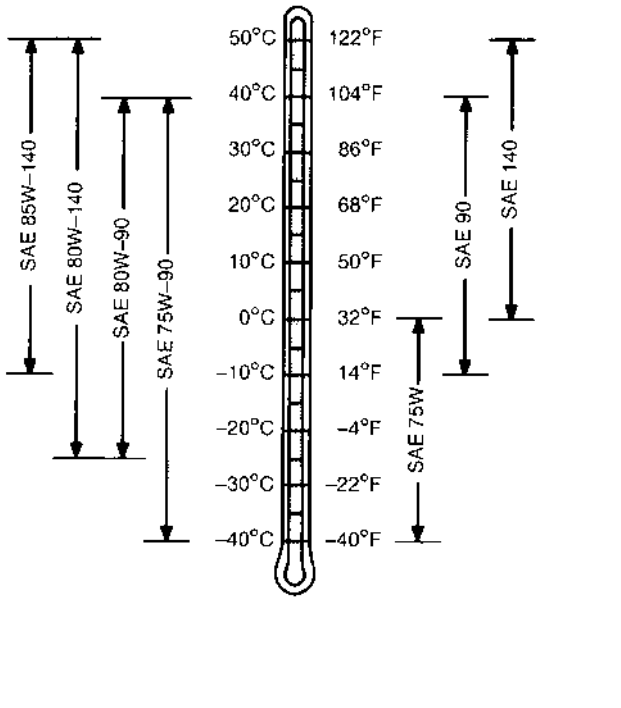
OUCC006,0000F69 -19-11JAN06-1/1

Gear Case Oil

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

John Deere GL-5 GEAR LUBRICANT is recommended.

Other oils may be used if they meet API Service Classification GL-5.



CC03745,0001072 -19-29NOV11-1/1

Transmission and Hydraulic Oil

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

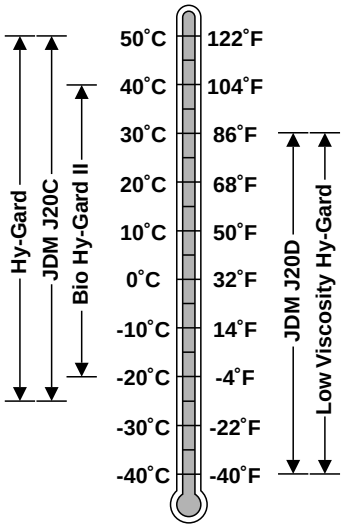
The following oils are preferred:

- 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™ II oil when a biodegradable fluid is required.[1]



TS1739 —UN—13SEP16

Oils for Air Temperature Ranges

Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

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

DX,ANTI -19-25AUG16-1/1

Alternative and Synthetic Lubricants

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

Synthetic lubricants may be used if they meet the performance requirements as shown in this manual.

The temperature limits and service intervals shown in this manual apply to both conventional and synthetic lubricants.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

DX,ALTER -19-11APR11-1/1

Mixing of Lubricants

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

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

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

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

Lubricant Storage

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

Use clean containers to handle all lubricants.

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

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

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

DX,LUBST -19-11APR11-1/1

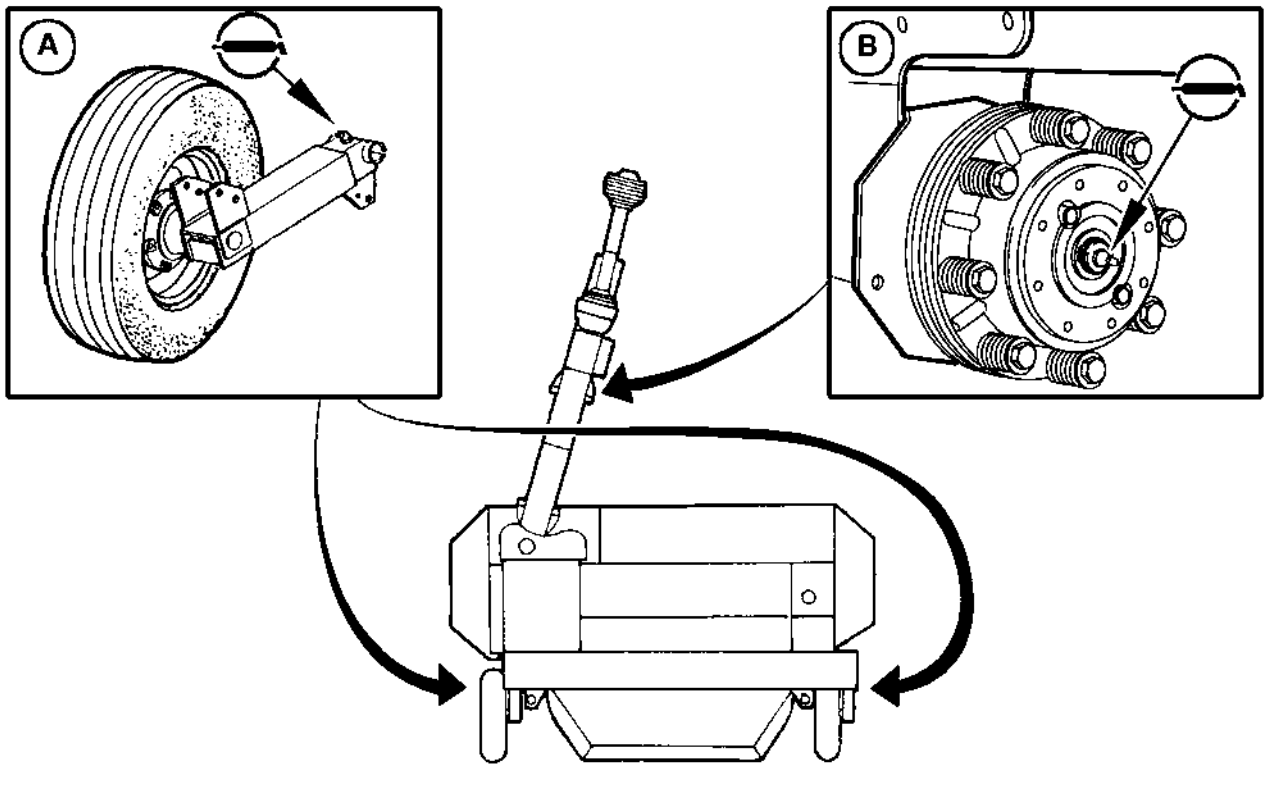
Perform Lubrication and Maintenance

Clean lubrication fittings before using grease gun. Replace any lost or broken fittings immediately. If a new fitting fails to take grease, remove and check for failure of adjoining parts.

Extend swing cylinder fully and lower mowing unit to the ground to allow access to all lubrication fittings.

OUCC006,0000D81 -19-09DEC04-1/1

As Required



CC009905

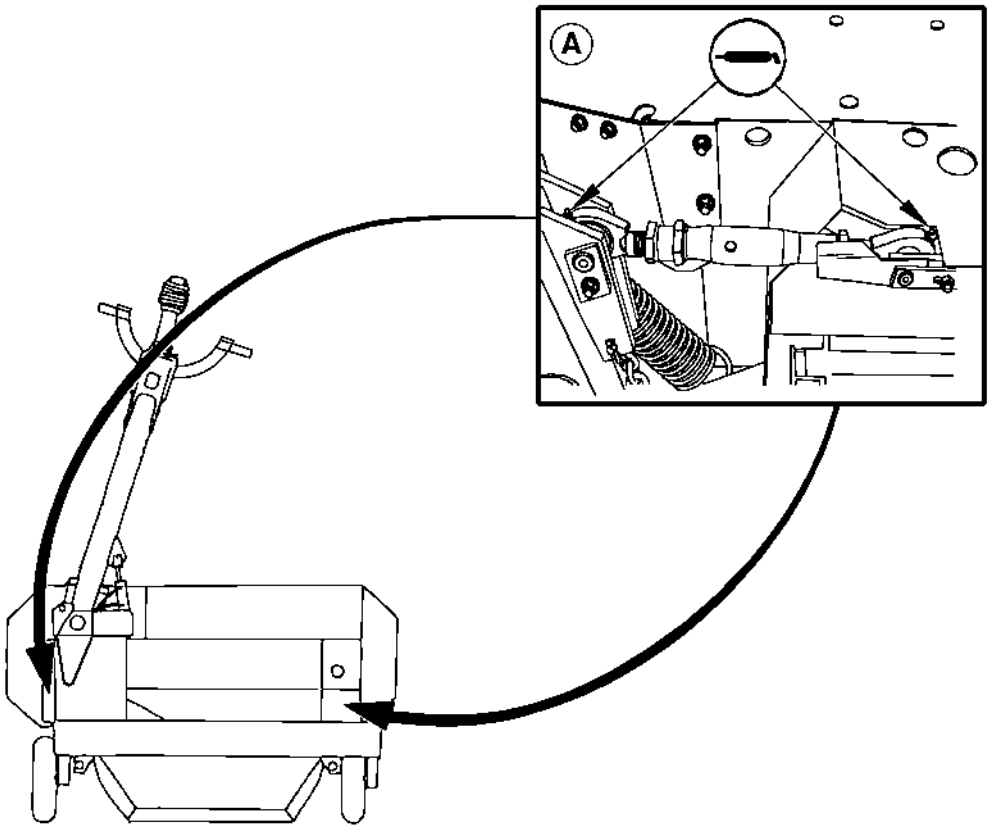
CC009905 —UN—15JAN97

A—Wheel support on both sides B—Slip clutch overrunning plate (pin drawbar tongue)

Lubricate with John Deere GREASE-GARD

Continued on next page

AG,OUCC006,357 -19-04MAY00-1/4



CC1017715 —UN—15JUN00

CC1017715

A—Cutting height turnbuckles

Lubricate with John Deere GREASE-GARD.

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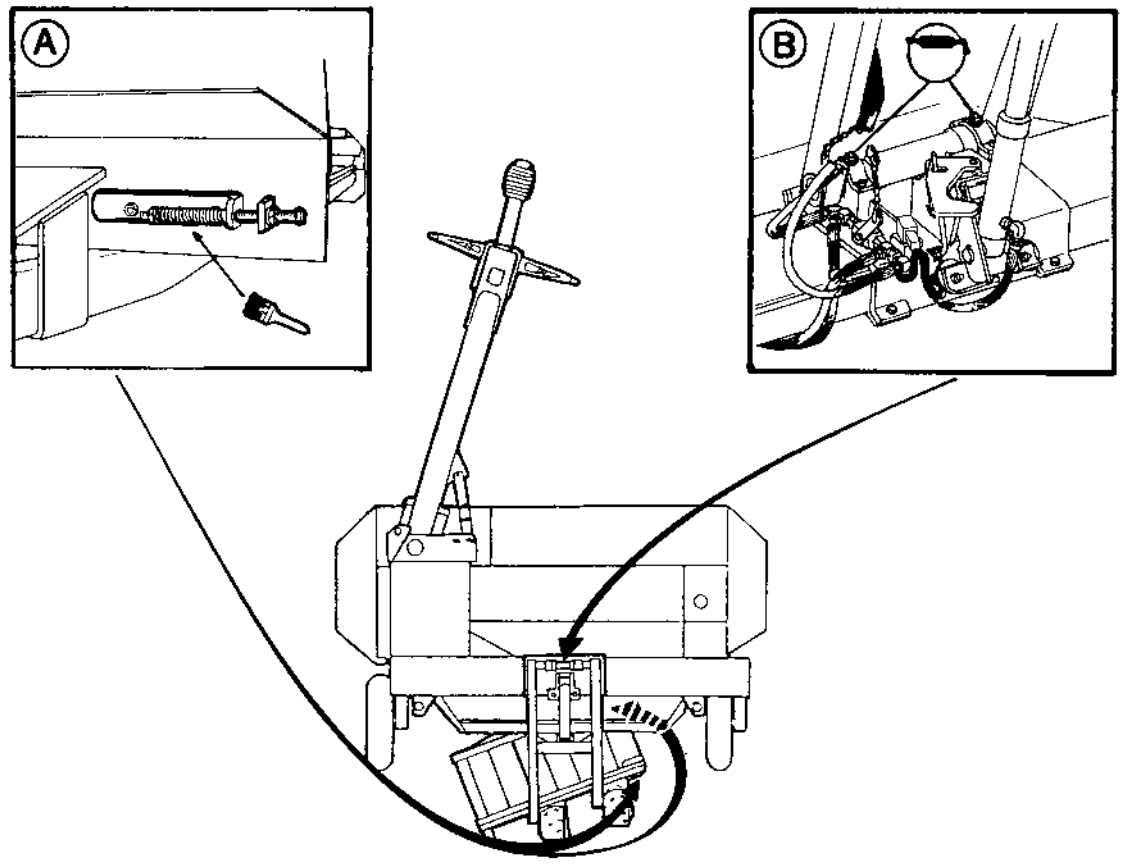
AG,OUCC006,357 -19-04MAY00-2/4



CC1017705

CC1017705 —UN—17MAY00

A—Canvas tensioners **B—Tubular frame grease fittings**

Lubricate with John Deere GREASE-GARD.

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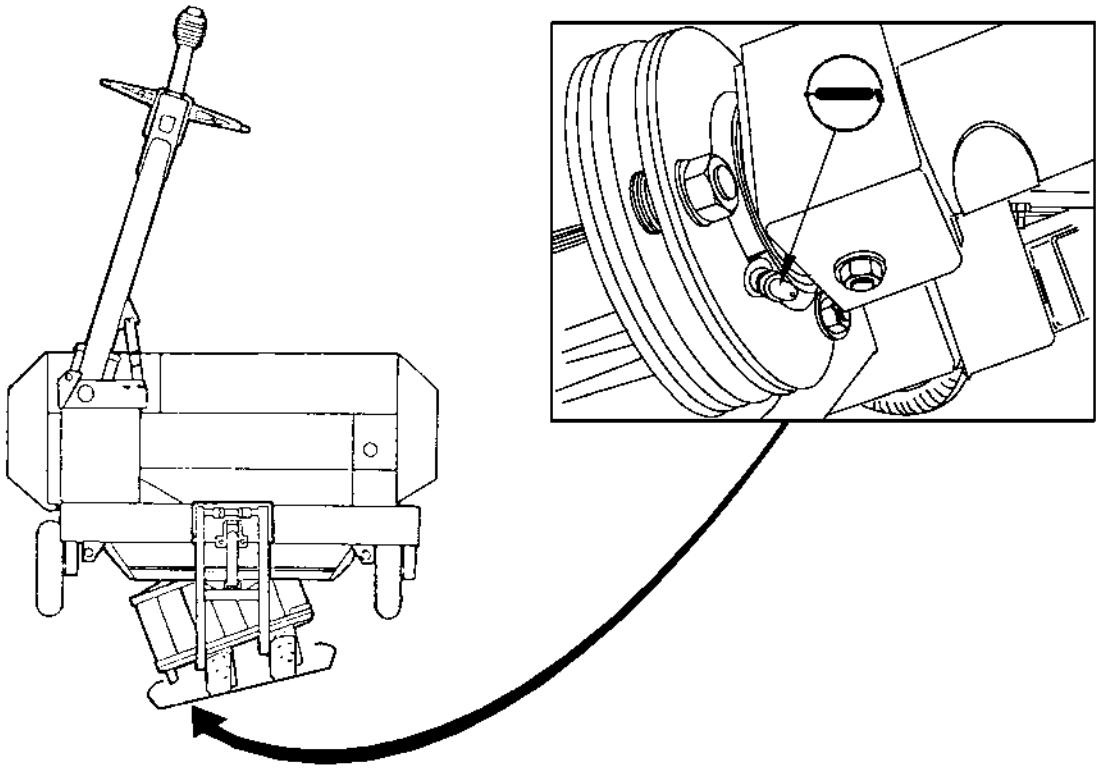
AG,OUCC006,357 -19-04MAY00-3/4



CC1017763

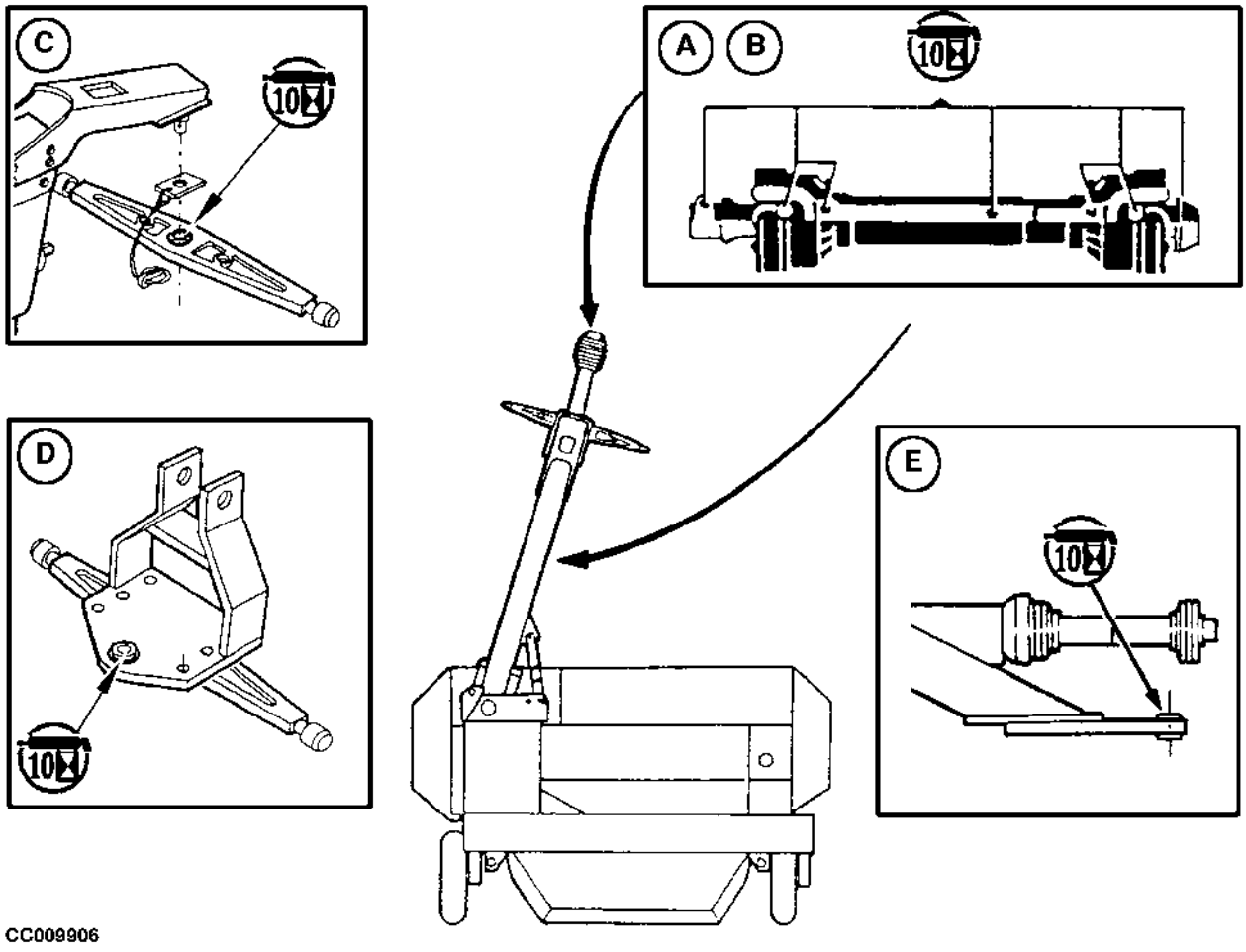
CC10117763 —UN—15JUN00

A—Grouper motor bearing

Lubricate with John Deere GREASE-GARD.

AG,OUCC006,357 -19-04MAY00-4/4

Every 10 Hours



CC009906

A — PTO Hook-Up
B—Drive Line
C—Direct Hitch Ball Joint
D—Hitch Extension Ball Joint
E—Ball Joint Hitch

Lubricate with John Deere Grease-Gard™.

Grease-Gard is a trademark of Deere & Company

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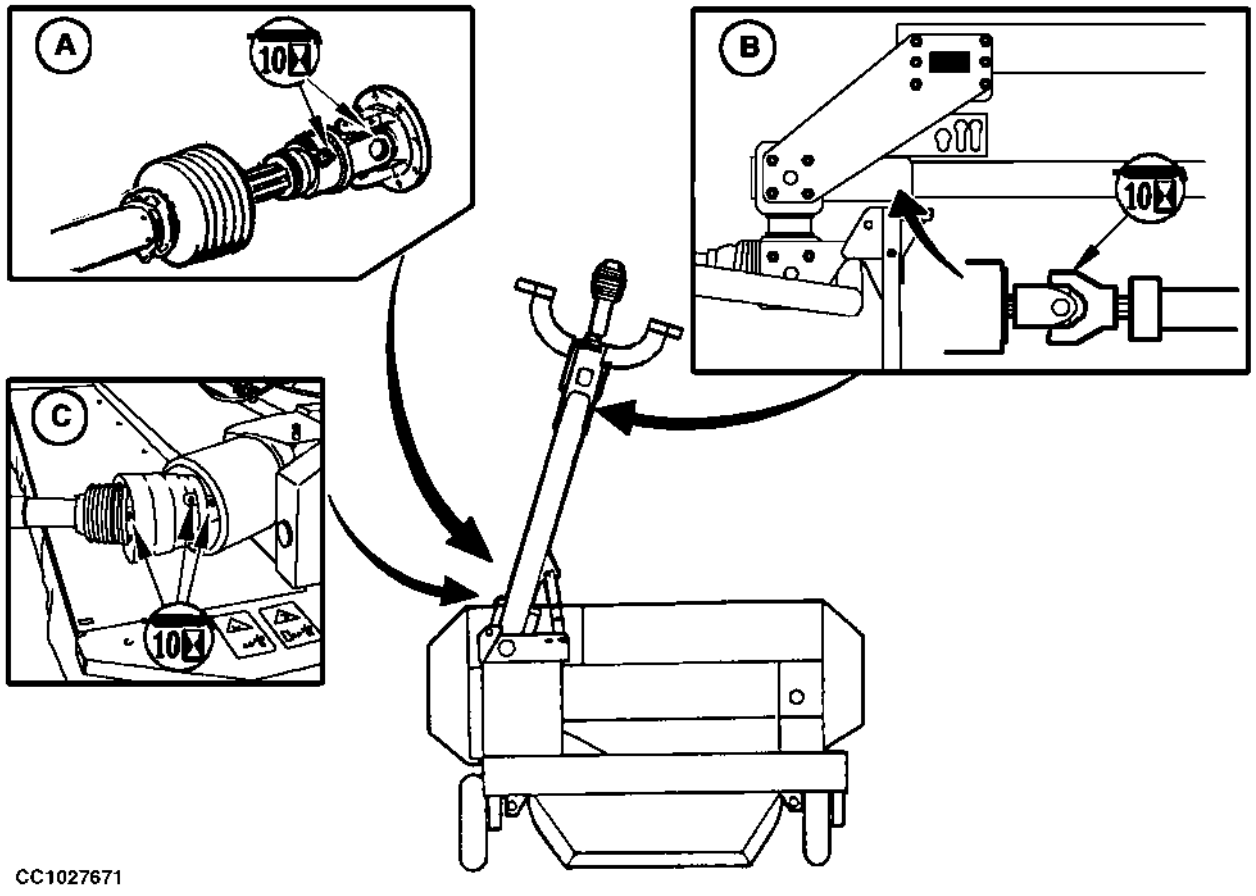
JC87117,00001B7 -19-22SEP15-1/4



A—Drive Line Overrunning Joint (if equipped) **B—Swivel Hitch Intermediate Shaft Yoke** **C—Swivel Hitch Shaft Yoke**

Lubricate with John Deere Grease-Gard™.

Grease-Gard is a trademark of Deere & Company

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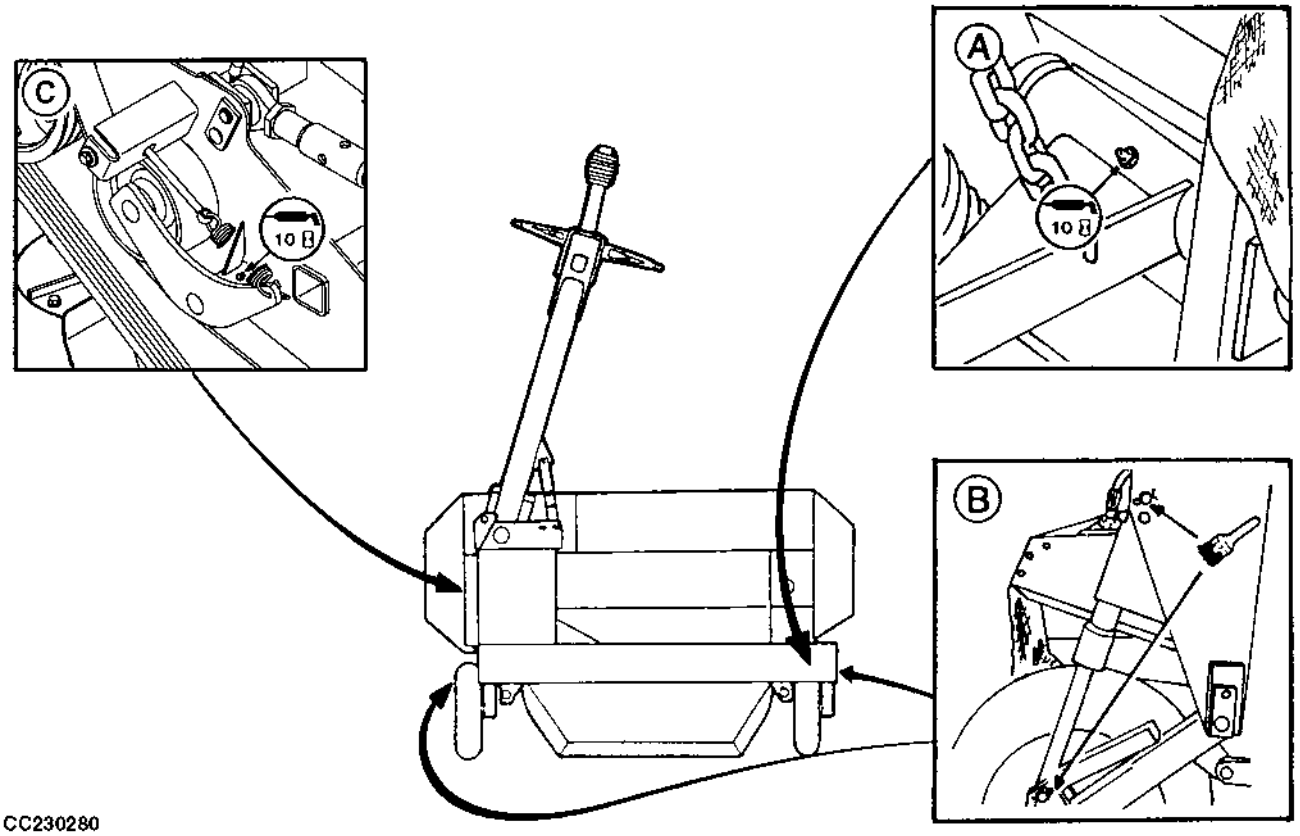
JC87117,00001B7 -19-22SEP15-2/4



A—Platform Right-Hand Lower Link Joint **B—Right and Left-Hand Cylinder Pins** **C—Idler Pivot Pin**

Lubricate points (A), (B), and (C) with John Deere Grease-Gard™.

Grease-Gard is a trademark of Deere & Company

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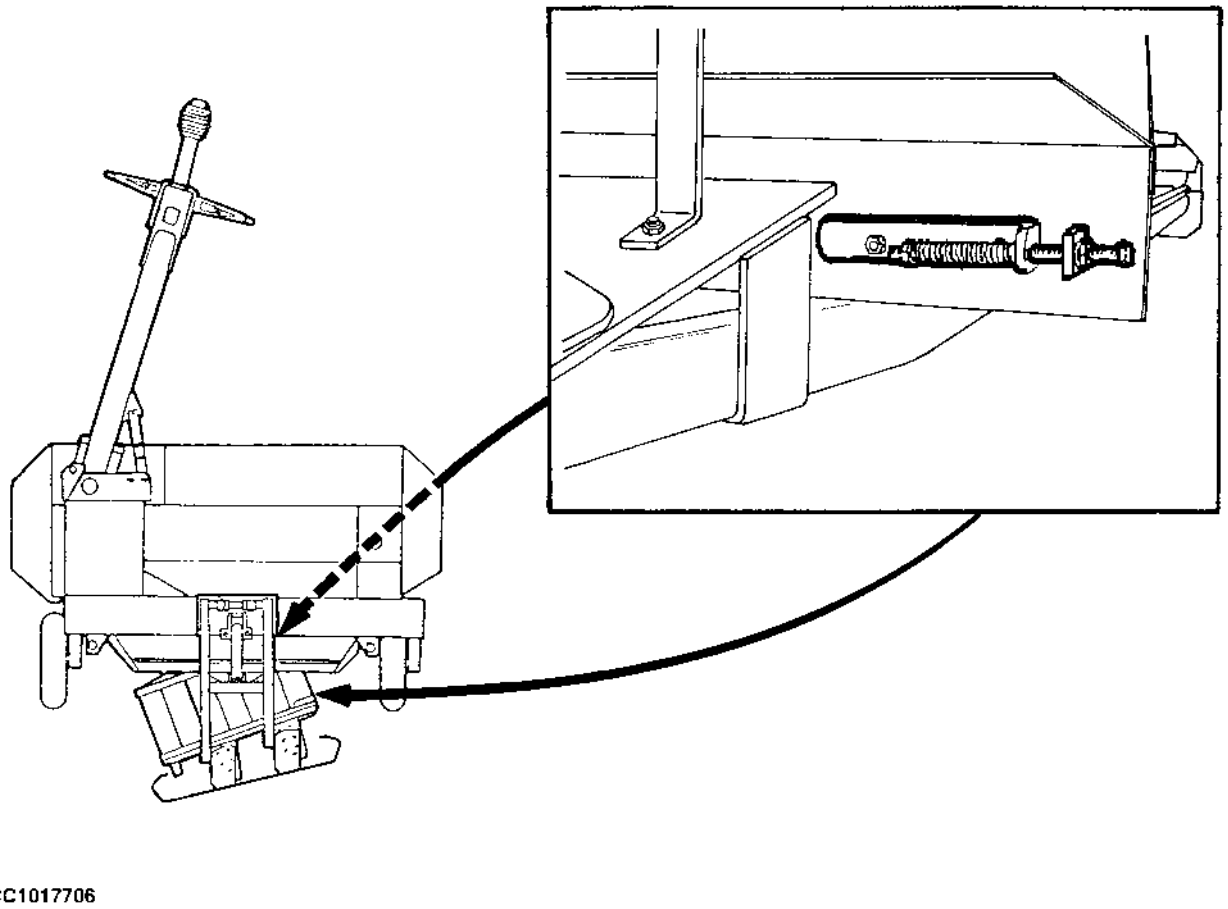
JC87117,00001B7 -19-22SEP15-3/4



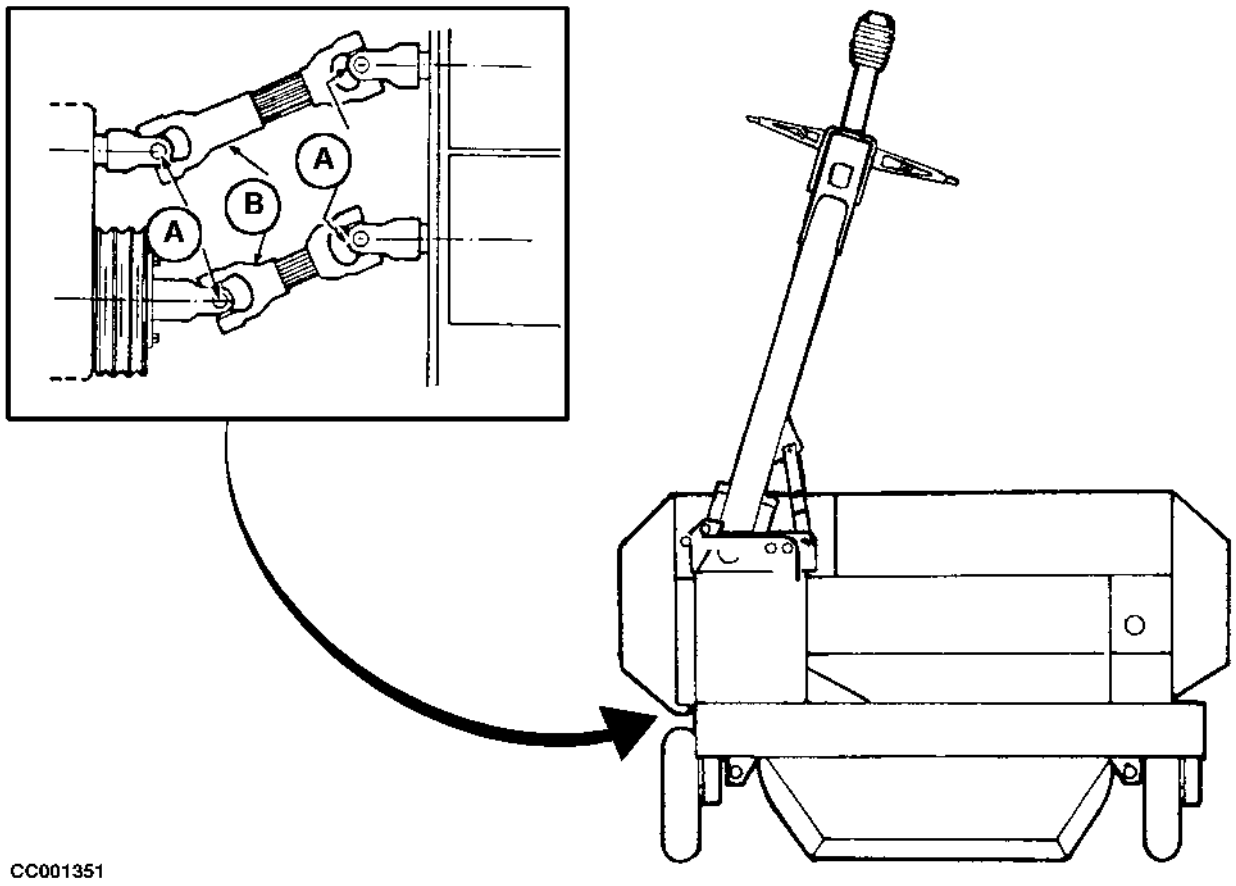
CC1017706

CC1017706 —UN—17MAY00

Check canvas tension. Adjust if necessary (see Adjust Grouper Canvas Tension in Service Section).

JC87117,00001B7 -19-22SEP15-4/4

Every 10 Hours (1465 Only)



A—Upper and lower yokes

B—Upper and lower grooved arms

Lubricate with John Deere GREASE-GARD

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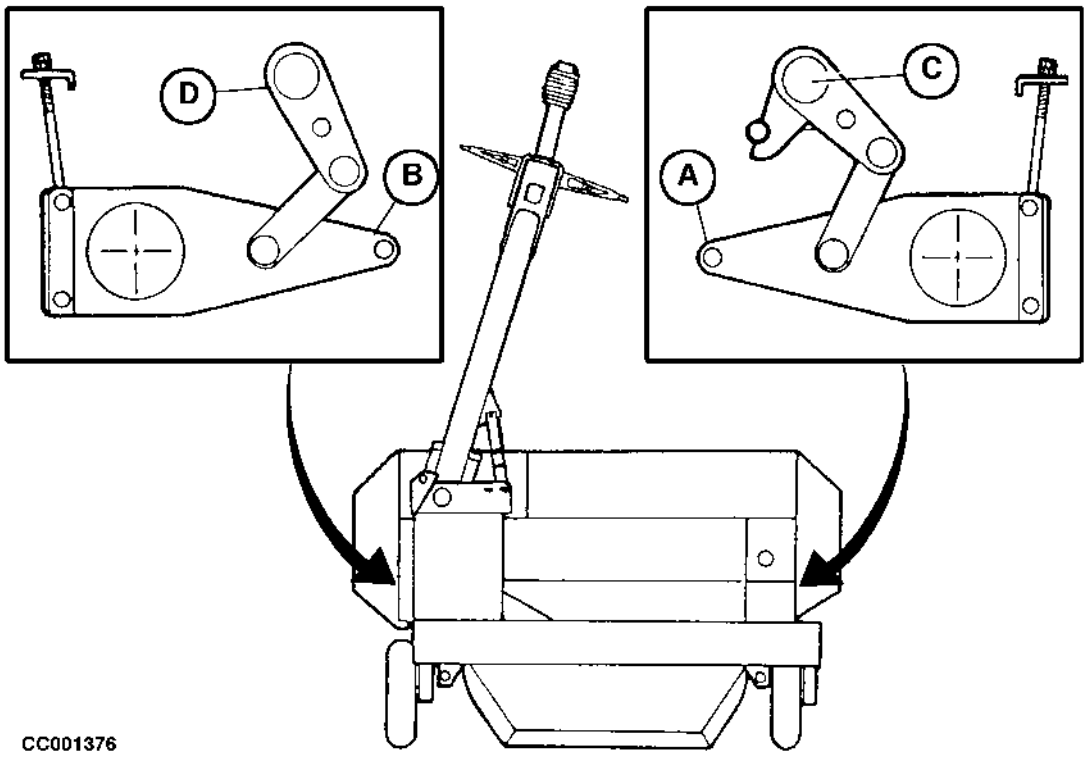
CC,1355MC004976 -19-22JUN99-1/2



CC001376 —UN—23FEB95

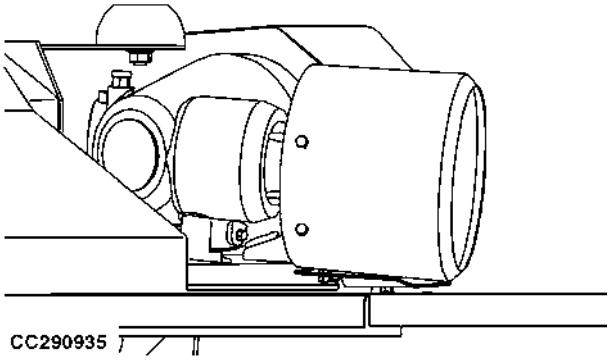
A—Right-hand roller arm pivot
B—Left-hand roller arm pivot
C—Right-hand torsion bar bearing
D—Left-hand torsion bar bearing

Lubricate with John Deere GREASE-GARD

CC,1355MC004976 -19-22JUN99-2/2

After the First 25 Hours: Main Drive Gear Case (With COMER Gear Case)

Change the oil in the COMER® main drive gear case after the first 25 hours. See Every 300 Hours: Main Drive Gear Case (With COMER Gear Case) in this Section.



CC290935 —UN—26SEP16

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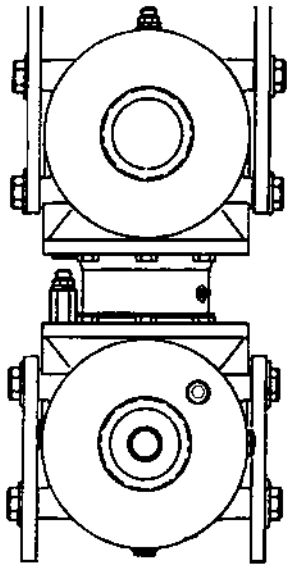
NB02380,00001E0 -19-06OCT16-1/1

After the First 50 Hours: Swivel Hitch Gear Cases

NOTE: The break-in oil used in swivel hitch gear cases is black. Do not drain this black oil during the first 50 hours of operation.

Change the oil in the swivel hitch gear cases after the first 50 hours of operation. (See Every 250 Hours or Yearly: Drain and Refill Swivel Hitch Gear Cases in this Section.)



CC1026409

CC1026409 —UN—22NOV04

CC03745,00011BB -19-06OCT16-1/1

Every 100 Hours

Remove housing from end of front canvas drive roller as shown.

Pack housing with John Deere GREASE-GARD.

Reinstall housing.

CC000015 —UN—07FEB95

CC,1350MC001854 -19-24AUG94-1/1

Every 100 Hours - Main Drive Gear Case (Without COMER Gear Case)

CAUTION: Always install both cylinder stops to support cylinders when working around or under a raised platform.

Change the oil in the main drive gear case every 100 hours of operation or at the start of each season, whichever comes first.

Remove shield (A) located above left-hand disk of cutterbar.

A—Shield

CC8518 —UN—07FEB95

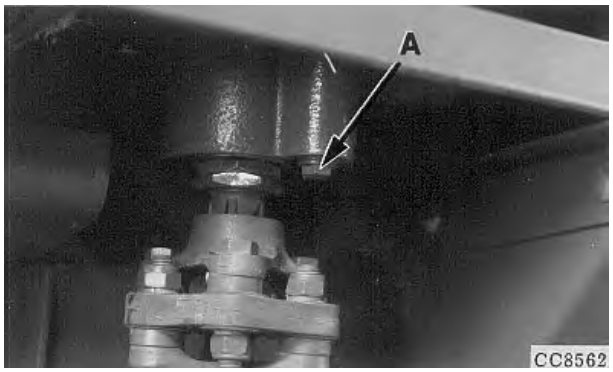
JC87117,00001B9 -19-22SEP15-1/3

Drain the Main Drive Gear Case

Drain the oil while it is hot (i.e after operation). With machine horizontal in both directions, pull out drain plug (A) and drain the oil into a suitable receptacle.

Clean drain plug (A) before putting it back.

A—Drain Plug



CC8562 —UN—07FEB95

JC87117,00001B9 -19-22SEP15-2/3

Refill the Main Drive Gear Case

Pull out filler plug (A) and level plug (B). Add 5 liters (1.32 US gal) of oil. Use a type specified under Gear Case Oil in this Section.

Check the oil level at level plug bore.

Put plugs (A) and (B) back in place.

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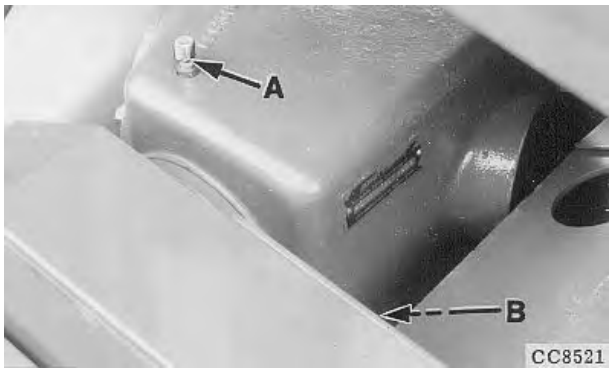
A—Filler Plug **B—Level Plug**



CC8521 —UN—07FEB95

JC87117,00001B9 -19-22SEP15-3/3

Every 100 Hours - Roller Drive Gear Case (1465 Only)

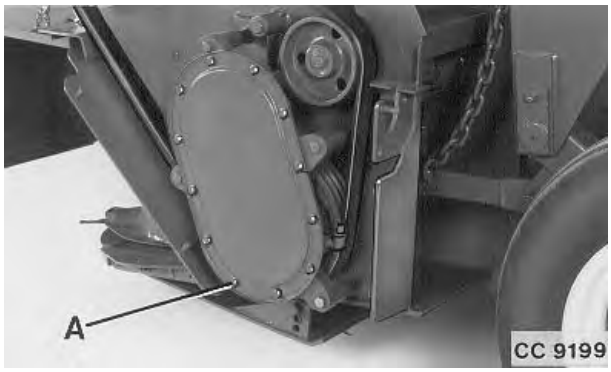
IMPORTANT: Change the oil in the roller drive gear case every 100 hours of operation or at the start of each season, whichever comes first.

Draining the Roller Drive Gear Case

Drain the oil while it is hot (i.e after operation). With machine horizontal in both directions, pull out drain plug (A) and drain the oil into a suitable receptacle.

Clean drain plug (A) before putting it back.

A—Drain plug



CC9199 —UN—07FEB95

OUCC006,0000F4F -19-26AUG05-1/2

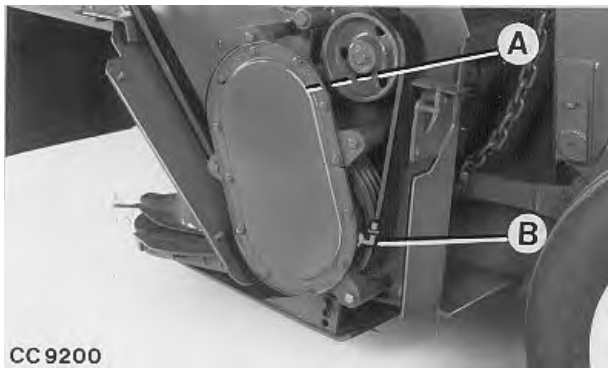
Refilling the Roller Drive Gear Case

Pull out filler plug (A) and level plug (B). Add 0.5 liters (0.132 US gal) of oil. Use a type specified under ”Gear Case Oil”.

Check the oil level at level plug bore.

Put plugs (A) and (B) back in place.

A—Filler plug **B—Level plug**



CC9200 —UN—07FEB95

OUCC006,0000F4F -19-26AUG05-2/2

Every 100 Hours - Cutterbar

IMPORTANT: Change the oil in the cutterbar after the first 10 hours and then every 100 hours or at the start of each season, whichever comes first.

Draining the Cutterbar

Drain the oil while it is hot (i.e after operation).

Raise platform to transport position and lock hydraulic cylinders (See ”Installing and Removing Platform Cylinder Stops” in ”Service” Section).

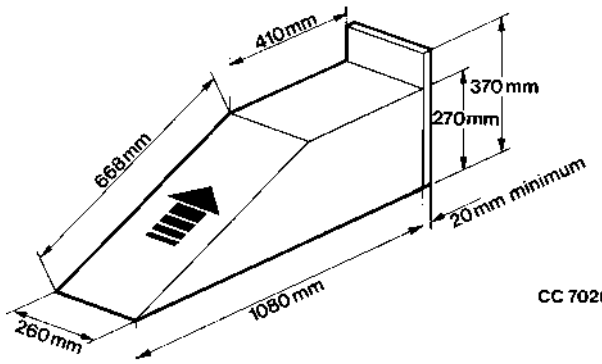
Place right-hand wheel on a wooden block to ensure oil is drained completely.

NOTE: The wooden block shown opposite helps ensure maximum safety.

Remove bracket (A) and gasket. Drain the oil into a suitable receptacle, allowing sufficient time for the oil to drain completely (preferably overnight).

Reinstall bracket (A) with a new gasket. Tighten cap screws to 100 N·m (75 lb-ft).

A—Bracket



CC7020 —UN—07FEB95

CC8523 —UN—07FEB95

OUCC006,0000F50 -19-26AUG05-1/2

Refilling the Cutterbar

IMPORTANT: Excessive oil will cause overheating and serious damage to the cutterbar. If in doubt as to amount of oil contained in cutterbar, drain off oil and refill with quantity specified below.

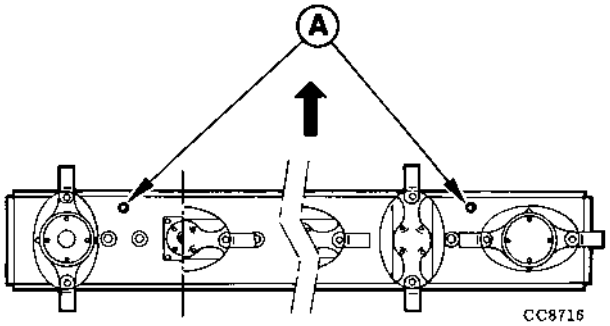
Park machine on a flat surface, so that it is horizontal in both directions.

Pull out filler plugs (A).

Add 1.6 liters (0.42 US gal) of oil on 1355 mower-conditioner and 2.0 liters (0.52 US gal) of oil on 1365-1465 mower-conditioners.

Use a type specified under ”Gear Case Oil”.

Clean and put filler plugs (A) back in place.



CC8716 —UN—07FEB95

A—Filler plugs

OUCC006,0000F50 -19-26AUG05-2/2

Every 100 Hours or Monthly - Hydraulic Hoses

Check condition of hydraulic hoses every 100 hours or monthly, whichever comes first.

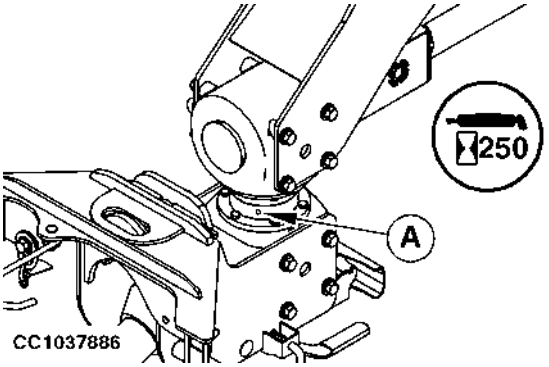
Check more often if working in rough conditions.

CC,1355MC005024 -19-30JUL99-1/1

Every 250 Hours

Lubricate with John Deere GREASE-GARD.

A—Swivel Hitch Grease Nipple



CC1037886 —UN—16AUG12

VC39598,0000251 -19-08AUG12-1/1

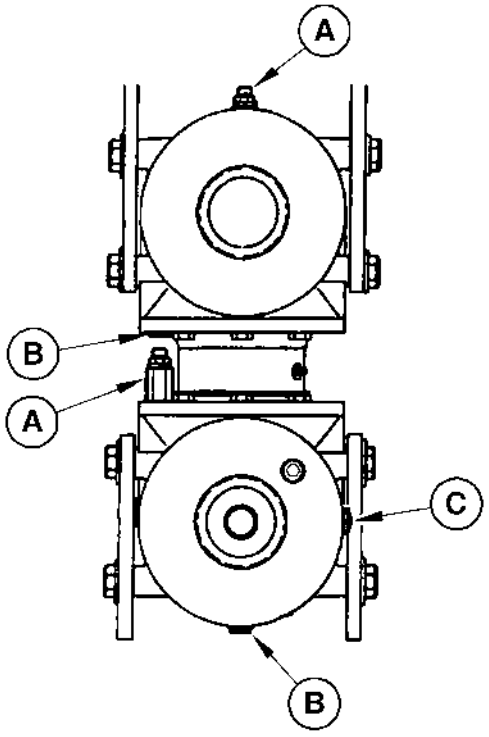
Every 250 Hours or Yearly: Drain and Refill Swivel Hitch Gear Cases

IMPORTANT: Change the oil in the swivel hitch gear cases every 250 hours or yearly, whichever comes first.

NOTE: The break-in oil used in swivel hitch gear cases is black. Do not drain this black oil during the first 50 hours of operation.

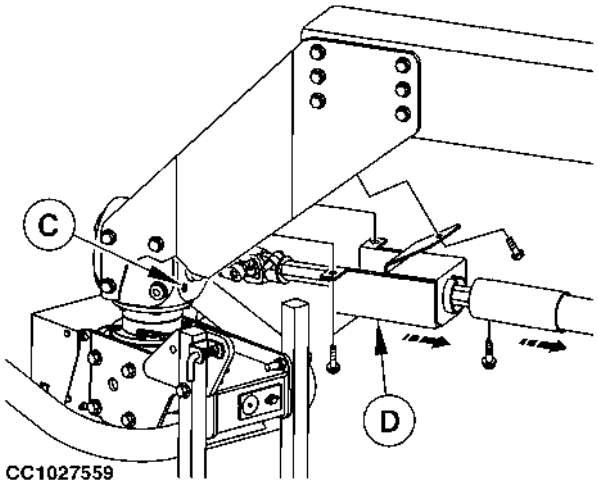
1. Drain the oil while it is hot (i.e. after operation).
2. Level swivel hitch gear cases.
3. Pull out plugs (A) and (B) then drain the oil into a suitable receptacle.
4. Remove shield (D) to access the upper gear case level plug (C).
5. Add 0.8 liters (0.21 US gal) of oil into the upper gear case. Add 2.4 liters (0.63 US gal) of oil into the lower gear case. Use oil specified under Gear Case Oil.
6. Check the oil level at bores of level plugs (C).
7. Clean all plugs before reinstalling them.
8. Install shield (D).

A—Gear Case Refill Plugs
B—Drain Plugs
C—Level Plugs
D—Shield



CC1026408

CC1026408 —UN—30SEP04



CC1027559

CC1027559 —UN—24OCT05

CC03745,00011BC -19-06OCT16-1/1

Every 300 Hours: Main Drive Gear Case (With COMER Gear Case)

Change the oil in the COMER® main drive gear case every 300 hours of operation.

1. Drain the oil while it is hot (i.e. after operation).
2. Level gear case.
3. Pull out refill plug (A).
4. Place a suitable receptacle under drain plug (B).
5. Pull out drain plug (B) and drain oil.

NOTE: Clean all plugs before reinstalling them.

6. Reinstall drain plug (B).
7. Refill the main drive gear case with specified quantity of oil:

Specification	
Main drive gear case oil—Quantity	2.7 L (0.71 US gal)

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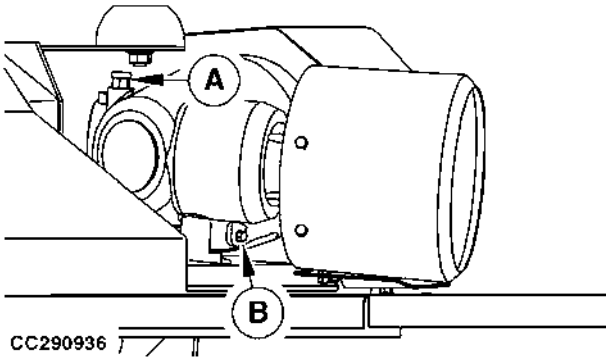


CC290936 —UN—26SEP16

A—Refill Plug **B—Drain Plug**

Use oil specified under Gear Case Oil in this Section.

8. Reinstall refill plug (A).

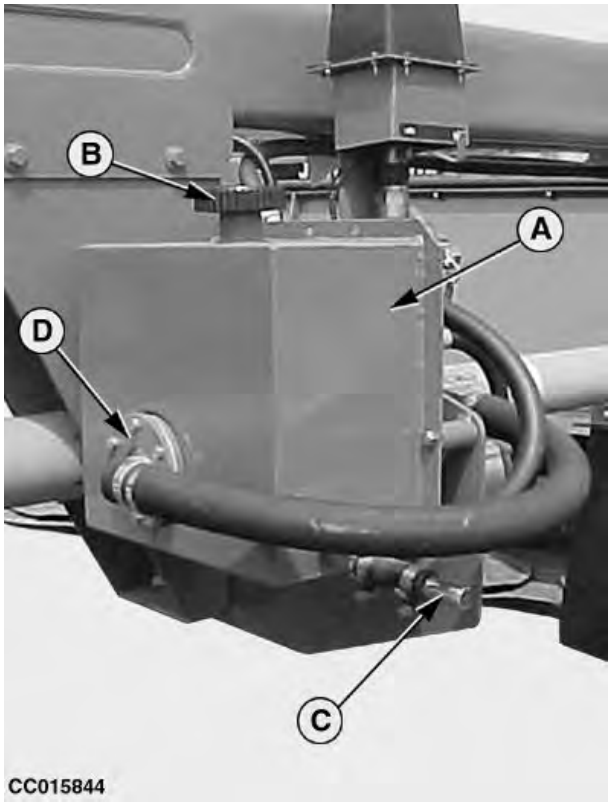
NB02380,00001C9 -19-06OCT16-1/1

Every 400 Hours (Self-Contained Hydraulic Circuit Drive Only)

Drain and refill hydraulic pump oil reservoir (A):

1. Open reservoir cap (B).
2. Remove drain plug (C).
3. Remove and clean oil filter (D).
4. Reinstall drain plug (C).
5. Refill oil reservoir (A) with about 10 liters (2.64 US gal). Use oil specified under “Transmission and Hydraulic Oil”.

A—Hydraulic pump oil reservoir
B—Cap
C—Drain plug
D—Oil filter



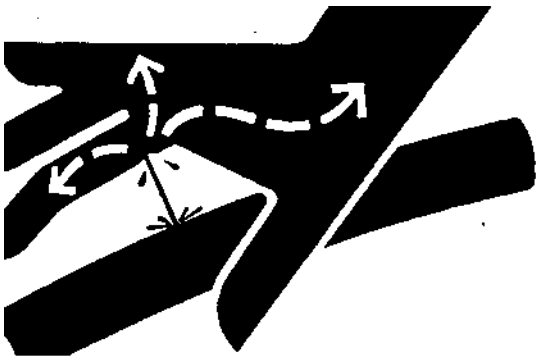
CC015844 —UN—05AUG99

AG,OUCC006,368 -19-15MAY00-1/1

Every 6 Years - Hydraulic Hoses

Due to wear on hydraulic hoses over time, it is recommended to change hydraulic hoses every 6 years.

In some countries, regulations make this recommendation mandatory.



X9811 —UN—23AUG88

CC03745,00002EC -19-18DEC01-1/1

Troubleshooting

Mower-Conditioner Operation

Symptom	Problem	Solution
Excessive noise	Improper hitching	Rehitch correctly. See “Attaching and Detaching” Section
	Rolls too close (1465 only)	Space rolls. See “Service” Section
	Rolls out of synchronization (1465 only)	Retime rolls. See “Service” Section
Excessive vibration	Knives missing	Check knives
	Bolts loose	Check
	Rotor out of balance	Check number of tines. See “Service” Section
	Rolls out of synchronization (1465 only)	Retime rolls. See “Service” Section
	Rolls too close (1465 only)	Space rolls. See “Service” Section
	Improper hitching	Rehitch correctly. See “Attaching and Detaching” Section
Damaged leaves and broken stems	Excessive rotor speed	Reduce rotor speed. See “Operating the Mower-conditioner” Section
	Conditioning hood too close to rotor	Reposition conditioning hood. See “Operating the Mower-conditioner” Section
Obstruction of rotor	Tines worn	Replace tines. See “Service” Section
	PTO speed too slow	Correct engine speed
	Drive belt slipping or broken	Tension or replace belt. See “Service” Section
	Conditioning hood too close to rotor	Reposition conditioning hood. See “Operating the Mower-conditioner” Section
Rolls plugging	Foreign objects between rolls	Disengage tractor PTO and stop engine. When all moving parts are completely stopped, remove foreign objects
	Excessive roll pressure	Reduce pressure. See “Operating the Mower-conditioner” Section
	Cutting height too low	Raise cutterbar. See “Operating the Mower-conditioner” Section

Continued on next page

Symptom	Problem	Solution
	Very heavy crop	Reduce ground speed or cut less than full width of cutterbar
	Incorrect PTO speed	Correct PTO speed
	Very long crop	Increase roll spacing. See “Operating the Mower-conditioner” Section
Cutterbar plugging	Bent or broken knives.	Replace knives. See “Service” Section
	Excessive slippage of slip clutch	Check slip clutch or reduce ground speed. See “Service” Section
	Wet crop conditions on clayey ground (earth plugging)	Increase cutting height by reducing platform pitch with turnbuckles or by adjusting skid shoes. See “Operating the Mower-conditioner” Section
		Reduce platform weight. See “Operating the Mower-conditioner” Section
	Dull or broken knife sections	Replace knives for clean, efficient cutting. See “Service” Section
	Earth plugging on muddy ground	Reduce platform weight. See “Operating the Mower-conditioner” Section
		Increase cutting height. See “Operating the Mower-conditioner” Section
Ragged cut	Dull knives	Check correct installation of knives. See “Service” Section
		Reverse or replace knives. See “Service” Section
	Excessive ground speed	Reduce ground speed
	Incorrect platform floating	Adjust platform weight. See “Operating the Mower-conditioner” Section
	Incorrect cutting height	Change cutterbar pitch or skid shoe setting. See “Operating the Mower-conditioner” Section
	Incorrect cutterbar pitch	Change cutterbar pitch. See “Operating the Mower-conditioner” Section

Continued on next page

Symptom	Problem	Solution
	Down crop	Tilt cutterbar
		Increase platform weight. See “Operating the Mower-conditioner” Section
Frequent breakage of knives	Cutterbar set too low	Raise cutterbar by changing platform pitch or skid shoe setting. See “Operating the Mower-conditioner” Section
	Incorrect platform float spring adjustment	Readjust float springs (decrease weight). See “Operating the Mower-conditioner” Section
	Excessive ground speed	Reduce ground speed
	Improper knife mounting	Check knife bolts and nuts. See “Service” Section
		Ensure that knives rotate freely on bolts
		Check knives. See “Service” Section
Oil leakage at gear boxes		Retighten plugs, screws, etc...
Poorly formed or bunchy windrows	Improper windrower shield adjustment	Readjust windrower shields so that material flows along sides of shields. See “Operating the Mower-conditioner” Section
	Incorrect PTO speed	Correct PTO speed
	Incorrectly spaced conditioning hood	Reposition conditioning hood. See “Operating the Mower-conditioner” Section
	Insufficient rotor speed	Increase rotor speed. See “Operating the Mower-conditioner” Section
Strips of uncut material left on field	Broken knives	Replace knives. See “Service” Section
	Foreign object on cutterbar	Stop tractor PTO, remove foreign object
	Conditioning too aggressive	Decrease intensity of conditioning. See “Operating the Mower-conditioner” Section

Continued on next page

Symptom	Problem	Solution
	Strips of uncut material passing between diverging disks	Turn or replace knives before end is worn to halfway point. See “Service” Section
		Reduce working speed
		Use correct working speed
		Decrease cutting height, increase cutting angle. See “Service” Section
	Strips of uncut material passing between converging disks	Decrease platform weight. See “Operating the Mower-conditioner” Section
		Clean or replace wear plates between disks
		Check knife wear. See “Service” Section
Intermediate tongue shaft breakage	Improper hitching	Rehitch. See “Attaching and Detaching” Section
Excessive power required at PTO	Incorrect setting of slip clutch	Readjust. See “Service” Section
V-belt breakage	Misalignment	Align sheaves (see your John Deere dealer)
	Faulty alignment of idler	Adjust idler. See “Service” Section
	Rotor vibration	Check for correct number of tines or check rotor bearings
		Check for correct tightening of locking collars on roll shaft. See “Service” Section
	Belt idler not tight	Tighten belt idler. See “Service” Section
Excessive driveline vibration (1000 rpm)	Improper hitching	Rehitch. See “Attaching and Detaching” Section

OUCC006,00004BD -19-10SEP01-4/4

Telescoping Hook-Up Locking System

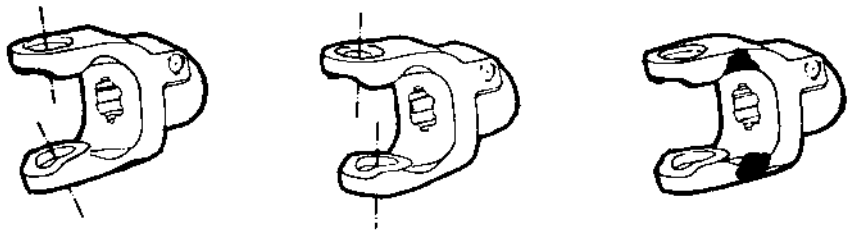
CC001359

CC001359 —UN—23FEB95

Symptom	Problem	Solution
Locking system tight or completely seized	Locking system soiled	Clean and grease lock and yoke shank
	Locking system damage on the outside (due to forced engagement, incorrect handling, insufficient clearance)	Follow service instructions, replace sleeve, provide more clearance
	Axial forces too high	Clean and grease profile tubes, or replace tubes, if necessary
	Sleeve deformed in the area of the balls, excessive shaft length	Adjust shaft length. See “Preparing the Mower-Conditioner” Section
		Replace locking system

AG,OUCC006,397 -19-08JUN00-1/1

End Yokes



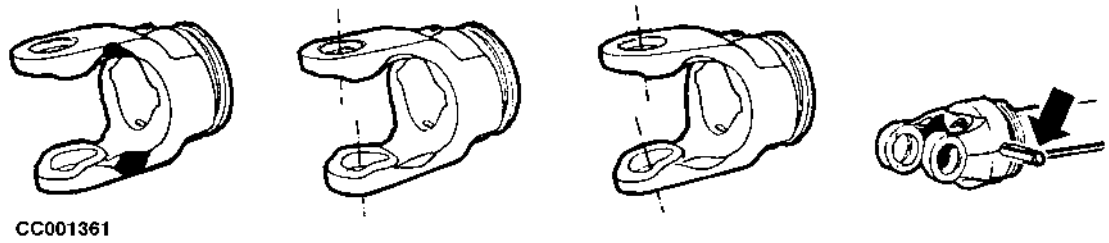
CC001360

CC001360 —UN—23FEB95

Symptom	Problem	Solution
Yoke ears spread	PTO drive shaft too long	Adjust PTO shaft length. See ”Preparing the Mower-Conditioner” Section
		Replace parts
	Axial forces too high	Clean and grease profile tubes; replace both tubes, if necessary
Yoke ears distorted	Overload caused by high starting and peak torques	Adjust PTO shaft length. See ”Preparing the Mower-Conditioner” Section
		Replace parts
Pressure marks on yoke ears	Excessive bending of rotating drive shaft due to bad adjustment of telescoping hook-up length	Readjust telescoping hook-up. See ”Preparing the Mower-Conditioner” Section
Bearing caps blued	Insufficient lubrication	Replace bearing caps

CC03745,0000B57 -19-28NOV05-1/1

Inboard Yokes



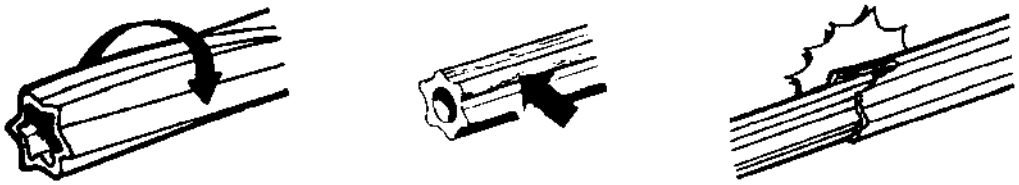
CC001361

CC001361 —UN—23FEB95

Symptom	Problem	Solution
Yoke not fixed on profile tubes, pin moving	Excessive dynamic load. Unequal or excessive joint angles	Check correct fit of yoke and tube Replace parts
Yoke ears spread	PTO drive shaft too long	Adjust PTO shaft length. See ”Preparing the Mower-Conditioner” Section Replace parts
	Axial forces too high	Clean and grease profile tubes; replace both tubes, if necessary
Yoke ears distorted	Overload caused by high starting and peak torques	Adjust PTO shaft length. See ”Preparing the Mower-Conditioner” Section Replace parts
Pressure marks on yoke ears	Excessive bending of rotating drive shaft due to bad adjustment of telescoping hook-up length	Readjust telescoping hook-up. See ”Preparing the Mower-Conditioner” Section
Bearing caps blued	Insufficient lubrication	Replace bearing caps

CC03745,0000B58 -19-28NOV05-1/1

Profile Tubes



CC001362

CC001362 —UN—23FEB95

Symptom	Problem	Solution
Tight telescopic sections	Profiles soiled (insufficient maintenance)	Clean and grease profiles. See “Lubrication and Maintenance” Section
	Profile tubes seized (insufficient maintenance)	Replace parts
		Clean and grease profiles. See “Lubrication and Maintenance” Section
	Profile tube not deburred after shortening	Deburr telescopic section after shortening
		Replace parts
Telescopic sections splayed or split	Profile overlap too short	Provide at least minimum profile overlap. See “Preparing the Mower-Conditioner” Section
		Replace parts
Telescopic sections distorted	Overload caused by high starting and peak torques or blocking	Adjust slip clutch to specified PTO rated speed. See “Service” Section
		Replace parts

AG,OUCC006,401 -19-08JUN00-1/1

Telescoping Hook-Up Guards

CC001363

CC001363 —UN—23FEB95

Symptom	Problem	Solution
Guard tubes deformed and split on one side	Insufficient guard tube overlap or no overlap at all with extended PTO drive shaft	Adjust guard tube length. See “Preparing the Mower-Conditioner” Section
		Replace parts
Premature wear of guard bearing	Guard tubes interfering with components on the tractor	Ensure adequate clearance to tractor components
		Replace parts
	Extremely dirty or damaged guard tubes	Clean guard tubes
		Replace parts

AG,OUCC006,398 -19-08JUN00-1/1

Grouper Electrical System

Symptom	Problem	Solution
Lowering function works erratically or not at all (grouper with electro-hydraulic option)	Wire loose or disconnected at solenoid	Check connections
	Poor battery or wiring connections on tractor	Check and clean connections
	Buildup of damp material on valve causing short circuit	Clean valve
	Tractor key shut off	Turn key on
	Wiring harness not fully plugged in	Check

CC,1350MC001868 -19-24AUG94-1/1

Grouper Canvas Operation

Symptom	Problem	Solution
Crop does not reach grouper	The crop falls down in front of canvas	Increase ground speed
		Check that on 1355—1365 rotor speed is adjusted at 870 rpm. See “Operating the Mower-conditioner” Section
		On 1355—1365, choose the best position of conditioning hood. See “Operating the Mower-conditioner” Section
		Set the rotor speed at 1000 rpm. See “Attachments” Section
	Wide rear windrow deflector not in uppermost position	Adjust wide rear deflector in uppermost position. See “Operating the Mower-conditioner” Section
Canvas plugging	Shut-off valve lever seized	Clean and lubricate lever
	Ground speed too fast for crop conditions	Reduce ground speed in heavy, bushy or extremely wet crops
	Ground speed too slow for crop conditions	Increasing ground speed may improve crop delivery
	Mower-conditioner speed too slow	Operate PTO at rated speed
	Canvas speed not adapted to ground speed	Increase or reduce canvas speed
	Hydraulic pump reservoir oil level incorrect	Refill with specified oil quality (See “Lubrication and Maintenance” Section)
	Pump belt tension incorrect	Adjust belt tension
	Canvas tension incorrect	Adjust canvas tension

CC,1355MC004988 -19-22JUN99-1/1

Grouper Canvas Alignment

Symptom	Problem	Solution
Canvas running high at drive roll	Drive roll out of adjustment	Move drive roll strap to left
Canvas running low at drive roll	Drive roll out of adjustment	Move drive roll strap to right
Canvas running low at idler roll	Idler roll springs out of adjustment	Adjust springs to correct dimension
Canvas running high at idler roll	Idler roll springs out of adjustment	Adjust springs to correct dimension

CC,1350MC001870 -19-24AUG94-1/1

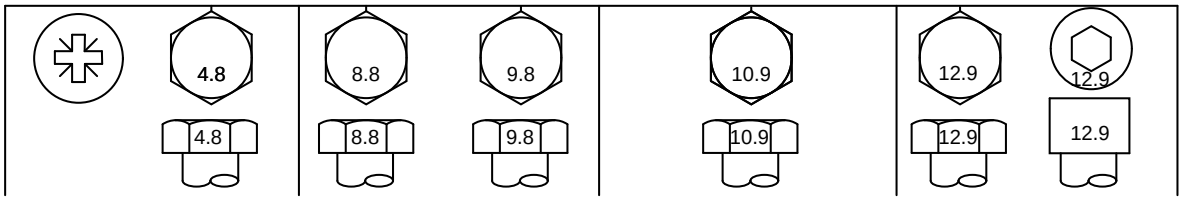
Grouper Canvas Drive

Symptom	Problem	Solution
Canvas will not move with grouper down	Drive or idler roll wrapped with material	Loosen canvas and clean rolls
	Idler roll tension adjustment incorrect	Readjust idler roll tension
	Resetting spring of shut-off valve blocked, disengaged or broken	Clean, check, change broken part
	Drive belt broken	Replace broken belt
Canvas still running while grouper is fully raised up	Shut-off valve not actuated	Check chain for breakage and/or chain attaching hardware

CC,1350MC001871 -19-24AUG94-1/1

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

Installing and Removing Platform Cylinder Stops

⚠ CAUTION: Always engage safety stops when servicing the mower-conditioner in raised position.

Installing Cylinder Stops

Hydraulically raise mower-conditioner and place cylinder stops (A) in lock-out position to prevent machine from lowering in the event of a hydraulic system failure.

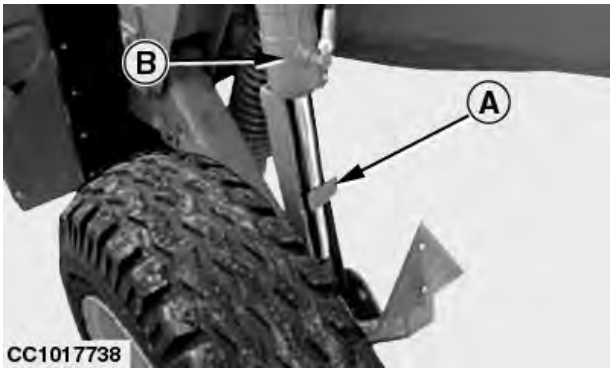
Lower machine until cylinders (B) rest on stops.

Removing Cylinder Stops

Hydraulically raise mower-conditioner and remove cylinder stops (A).

Lower machine.

IMPORTANT: Never engage platform cylinder stops during transport on the road.



CC1017738 —UN—17MAY00

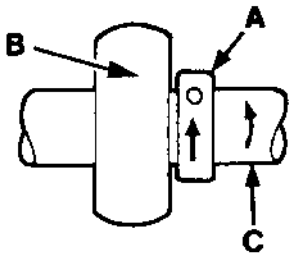
A—Cylinder stop **B—Cylinder**

AG,OUCC006,365 -19-10MAY00-1/1

Tightening Bearing Locking Collars

Tighten all locking collars (A) on running shafts (C) in direction of shaft rotation.

A—Locking collar
B—Bearing
C—Running shaft



CC8578 —UN—07FEB95

CC,1350MC001878 -19-27AUG94-1/1

Adjusting Slip Clutch —Mower-Conditioner With Pin Drawbar Tongue

IMPORTANT: The slip clutch has been designed to protect the drive train.

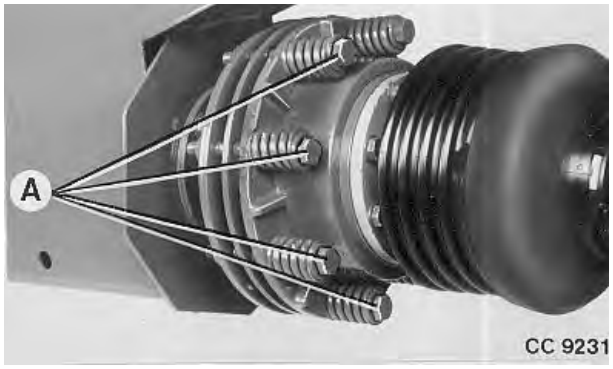
Do not overtighten! Overtightening will lessen this protection.

Remove slip clutch shield.

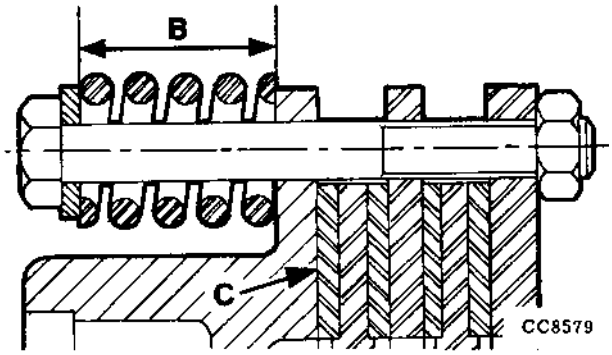
Tighten or loosen spring adjusting nuts (A) until specified spring dimension (B) has been obtained.

Wear of slip clutch facing (C) will alter length (B) of spring and adjustment will have to be made.

A—Adjusting nuts
B—39.8±0.8 mm (1.56±0.03 in.)
C—Slip clutch facing



CC9231 —UN—03FEB97



CC8579 —UN—03FEB97

CC,1350MC003692 -19-12DEC96-1/1

Adjusting Slip Clutch —Mower-Conditioner With Linkage Drawbar Tongue or With Swivel Hitch

IMPORTANT: The slip clutch has been designed to protect the drive train.

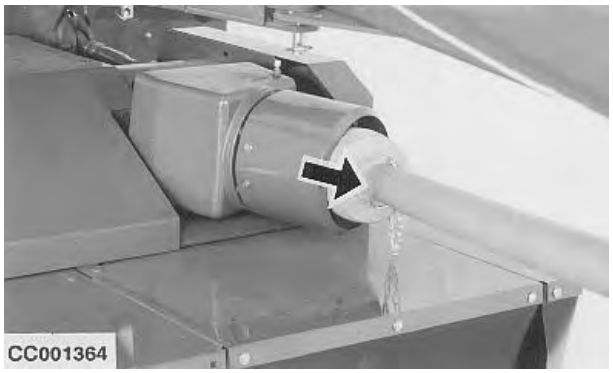
Do not overtighten! Overtightening will lessen this protection.

Remove slip clutch shield.

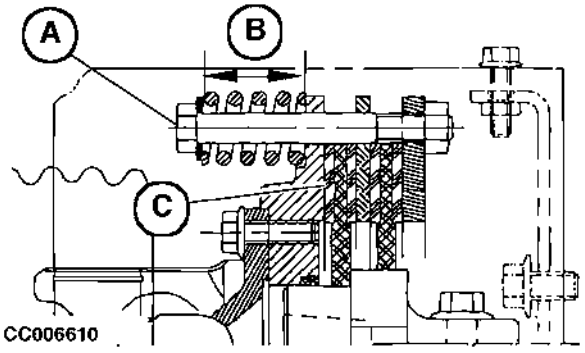
Tighten or loosen spring adjusting nuts (A) until specified spring dimension (B) has been obtained.

Wear of slip clutch facing (C) will alter length (B) of spring and adjustment will have to be made.

A—Adjusting nuts
B—39.8±0.8 mm (1.56±0.03 in.)
- 540 rpm PTO
43.7±0.8 mm (1.72±0.03 in.)
- 1000 rpm PTO
C—Slip clutch facing



CC001364 —UN—08FEB95



CC006610 —UN—23FEB95

AG,OUCC006,404 -19-14JUN00-1/1

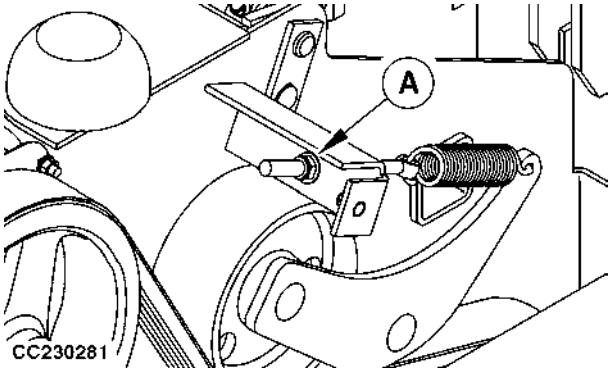
Adjust Belt Tension

On 1365 with tensioning arm outside:

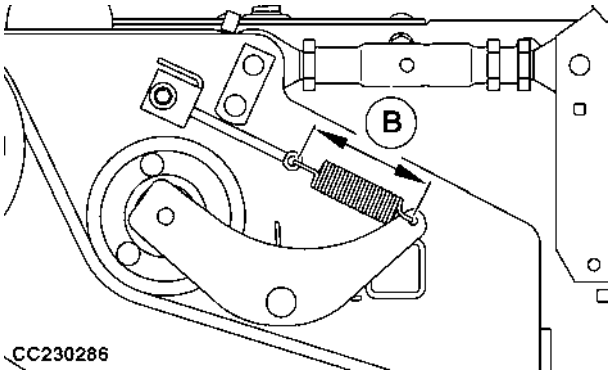
Tighten spring adjusting nut (A) until spring specified length (B) is obtained:

Specification	
Tensioning Spring—Length	175 mm (6-7/8 in.)

A—Adjusting Nut **B—Length**



CC230281 —UN—19JAN15



CC230286 —UN—19JAN15

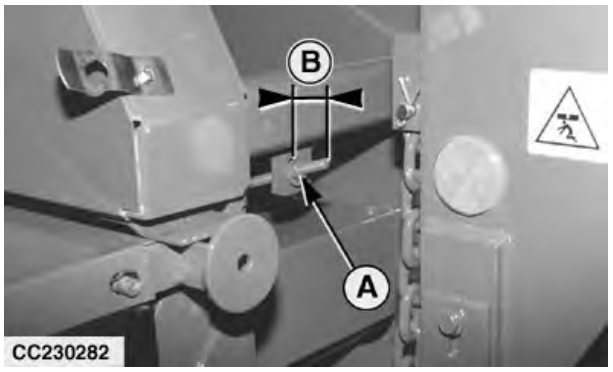
JC87117,00001B8 -19-18SEP15-1/2

On 1365 without tensioning arm outside and 1355 only:

1. Tighten spring adjusting nut (A) until spring starts to extend (spring coils still together).
2. Measure length (B).
3. Continue to tighten nut (A) until length (B) is increased by 80 mm (3-1/8 in.).

On 1465 only:

1. Tighten spring adjusting nut (A) until spring starts to extend (spring coils still together).
2. Measure length (B).
3. Continue to tighten nut (A) until length (B) is increased by 50 mm (2 in.).



CC230282 —UN—18SEP15

A—Adjusting Nut **B—Length**

JC87117,00001B8 -19-18SEP15-2/2

Remove Drive Belt (1355 and 1365 Only)

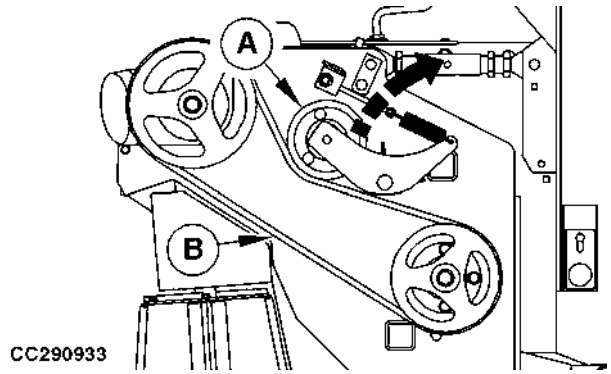
NOTE: Shields removed for illustration purposes.

Completely loosen tensioning spring of idler pulley (A).

Tilt belt idler assembly to rear as shown.

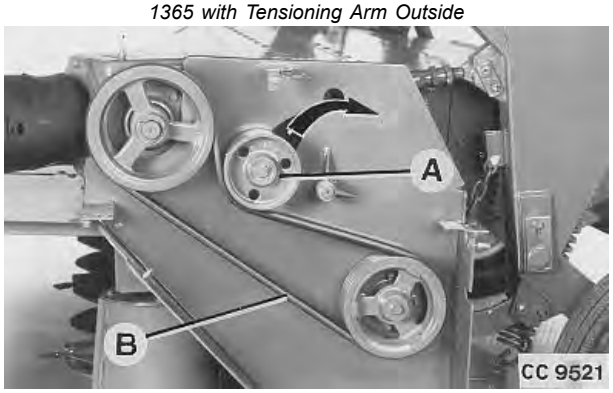
Remove belt (B) groove by groove.

A—Idler Pulley **B—Belt**



CC290933 —UN—26SEP16

1365 with Tensioning Arm Outside



CC9521 —UN—07FEB95

1365 without Tensioning Arm Outside and 1355

NB02380,00001DE -19-03OCT16-1/1

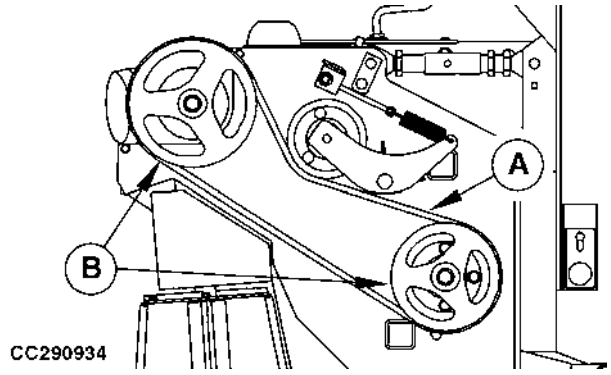
Install Drive Belt (1355 and 1365 Only)

NOTE: Shields removed for illustration purposes.

Install drive belt (A) on pulleys (B).

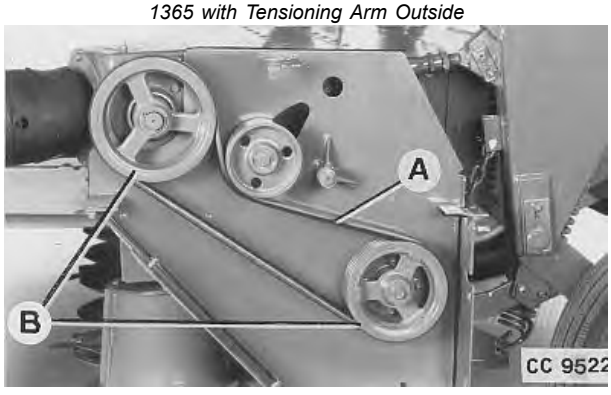
See Adjust Belt Tension in this Section for adjustment of belt tension.

A—Drive Belt **B—Pulleys**



CC290934 —UN—26SEP16

1365 with Tensioning Arm Outside



CC9522 —UN—07FEB95

1365 without Tensioning Arm Outside and 1355

NB02380,00001DF -19-06OCT16-1/1

Removing Drive Belt (1465 Only)

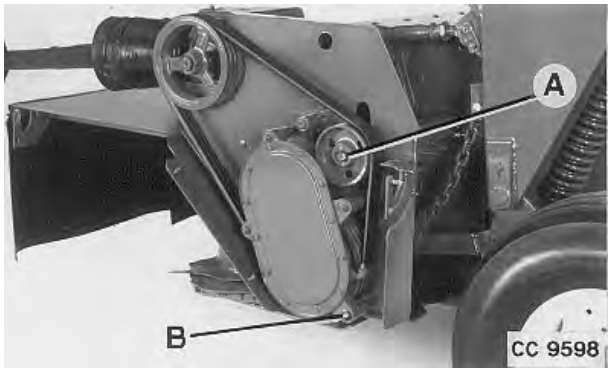
Remove all left-hand shields and side safety curtain.

Completely loosen tensioning spring of idler pulley (A).

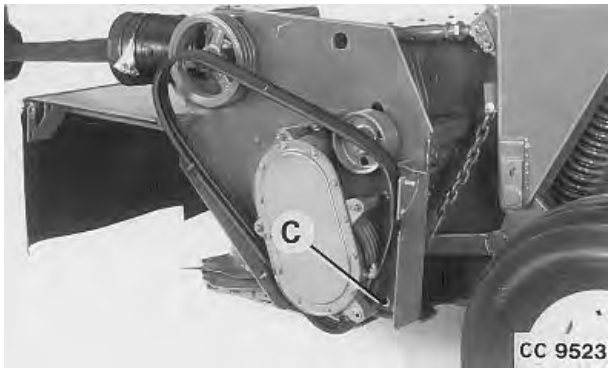
Remove screw and bushing (B).

Remove belt through gap (C) created by bushing (B).

A—Idler pulley
B—Bushing
C—Gap



CC9598 —UN—07FEB95



CC9523 —UN—07FEB95

CC,1355MC004992 -19-22JUN99-1/1

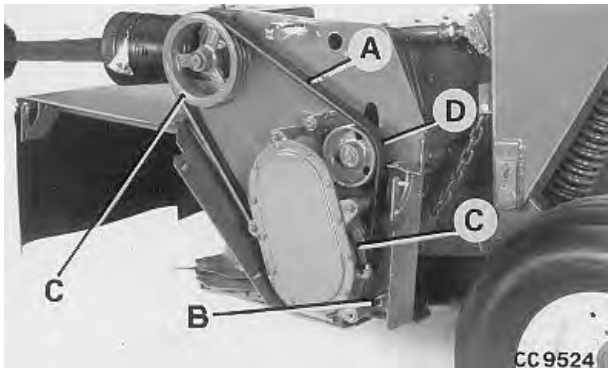
Install Drive Belt (1465 Only)

Install belt (A) on pulleys (C) through gap (B) and above idler pulley (D).

Reinsert and tighten screw and bushing.

See Adjust Belt Tension in this Section for adjustment of belt tension.

A—Drive Belt
B—Gap
C—Pulleys
D—Idler Pulley



CC9524 —UN—07FEB95

JC87117,00001BA -19-13AUG15-1/1

Adjusting Roll Spacing (1465 Only)

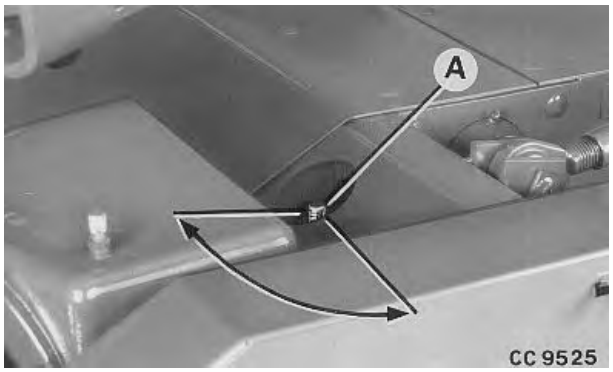
CAUTION:

To avoid personal injury while performing this adjustment:

- **Keep all shields in place.**
- **Keep hands and clothing away from all moving parts.**
- **Carefully follow the procedure below.**

IMPORTANT: Roll stops control clearance between the upper and lower roll. Rolls should never be adjusted to allow contact during use, as serious damage to the machine may occur.

1. Place tongue in field operating position and lower machine to the ground.
2. Engage PTO drive with tractor throttle at slowest engine speed.
3. Stand away from machine and loosen adjusting nut (A) on one side of machine by a quarter turn at a time, using a wrench.
4. Proceed until roll contact causes vibration and a rumbling noise.
5. Tighten adjusting nut (A) by a quarter turn at a time until the noise stops, using a wrench.
6. Tighten an additional 1/2 to 3/4 turn for minimum roll clearance.



CC9525 —UN—07FEB95

A—Adjusting nut

7. Repeat procedure on opposite side.

IMPORTANT: After adjustment is complete, shut off tractor engine, remove key, disengage PTO drive and visually check for contact between rolls. With tractor engine off, adjust clearance between rolls to prevent roll contact, if necessary.

NOTE: Rolls may be adjusted to provide a wider gap for less conditioning of special crops.

CC,1355MC004994 -19-22JUN99-1/1

Adjusting Roll Synchronization (1465 Only)

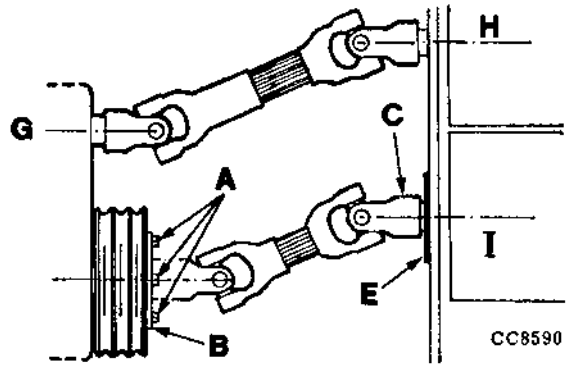
IMPORTANT: Check roll spacing before attempting to synchronize rolls.

Synchronize rolls as follows:

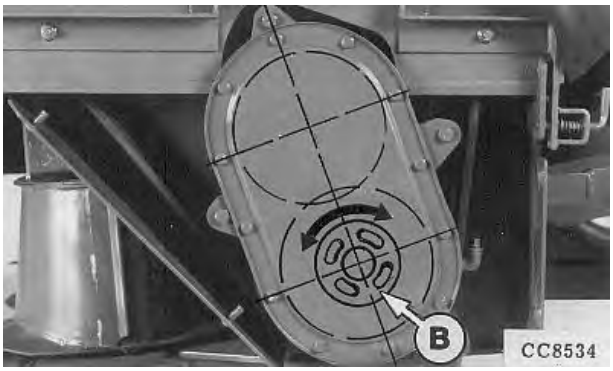
1. Loosen the four bolts (A) on roll timing plate (B).
2. Turn yoke disk (C) forward to remove backlash and make a mark (D) on yoke edge and flange (E).
3. Turn yoke disk (C) rearward to remove backlash and make a second mark (F) on flange (E) opposite mark (D) on the yoke.
4. Position mark (D) on yoke halfway between the two marks (D) and (F) on flange (E).
5. Tighten bolts (A) to 95 N·m (70 lb-ft).

NOTE: If rolls cannot be correctly synchronized, check roll positioning.

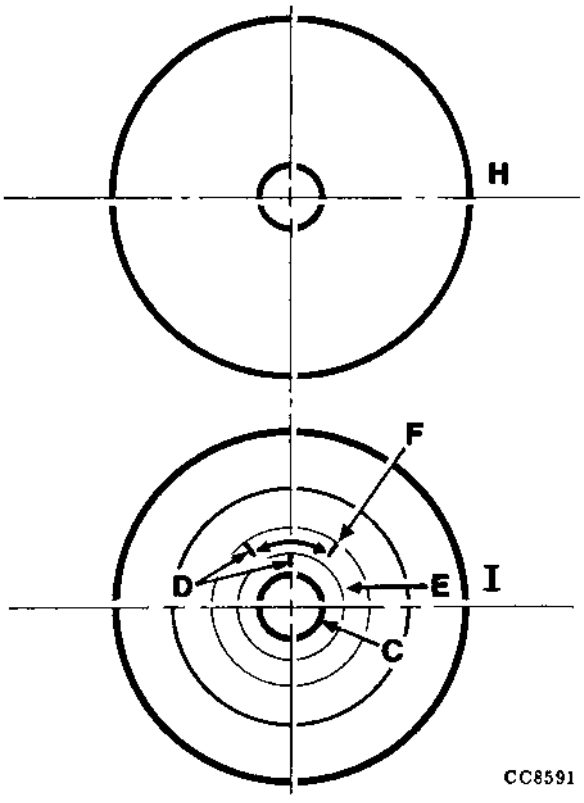
A—Bolt
B—Timing plate
C—Yoke disk
D—Mark
E—Flange
F—Mark
G—Roll gear case
H—Upper roll
I— Lower roll



CC8590 —UN—07FEB95



CC8534 —UN—07FEB95

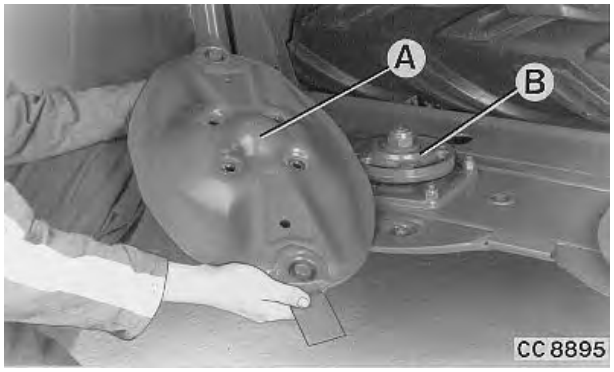


CC8591 —UN—07FEB95

CC,1355MC004995 -19-22JUN99-1/1

Removing Disks

To remove cutterbar disks (A) from their quills (B), see your John Deere dealer.



CC8895 —UN—07FEB95

CC8897 —UN—07FEB95

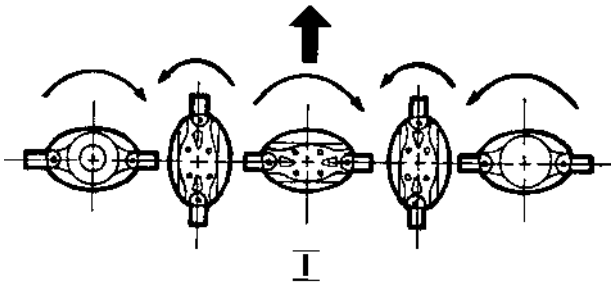
CC,1350MC001887 -19-27AUG94-1/1

Reinstalling and Synchronizing Disks

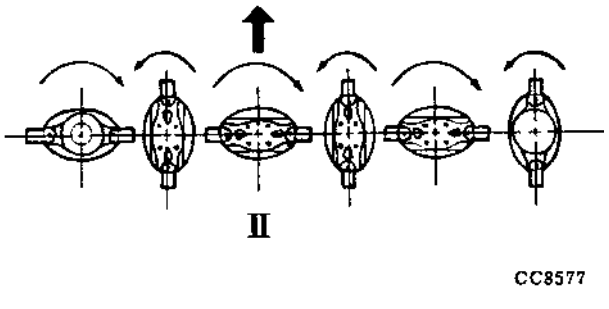
When reinstalling disks on cutterbar always ensure good disk synchronization. To install disks on the cutterbar, see your John Deere dealer.

I— Synchronization for 1355

II— Synchronization for 1365 and 1465



CC8576 —UN—07FEB95



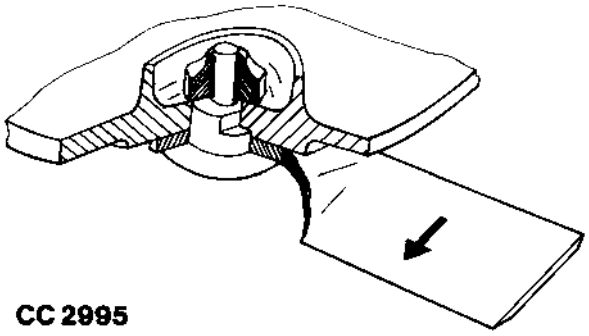
CC8577 —UN—07FEB95

CC,1355MC005000 -19-22JUN99-1/1

Understand Direction of Knife Rotation

The knives are twisted. An arrow is engraved on each knife to indicate the direction of rotation. When worn, the knives can be turned over and reinstalled on the same disk and at the same location to offer a new cutting edge.

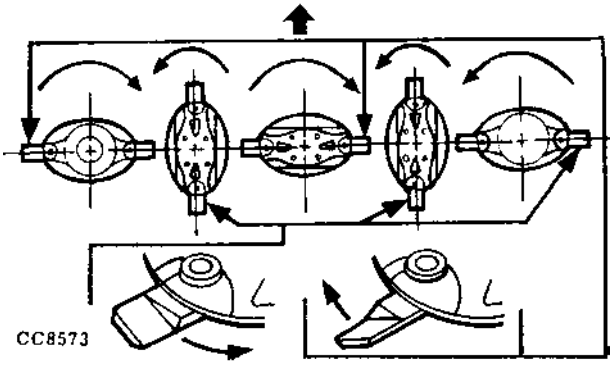
When the second cutting edge is also blunt, replace knife. Install new knife with chamfered edge facing the ground.



CC2995 —UN—07FEB95

CC03745,0000FF7 -19-04JAN10-1/1

Direction of Disk Rotation



CC8573 —UN—07FEB95

CC,1350MC001893 -19-27AUG94-1/1

Check Knives

⚠ CAUTION: Cracked, broken or distorted knives must be replaced immediately.

Never straighten bent knives.

Systematically check knives :

- at the beginning of each season
- before using the machine
- immediately after hitting an obstruction

Worn knives should either be turned over on the same disk to use the other cutting edge or be replaced. Dull knives require more horsepower to cut the crop and will leave an uneven stubble.

Mowing quality and operator safety depend to a great extent on careful inspection of the knives.

IMPORTANT: Uneven ground and knives striking against obstacles may cause cracks and distortion of the knives, increasing accident risks, badly affecting quality of work and increasing risk of damage to cutterbar.

Refer to Checking Knife Wear and Checking Knife Fitting Hole in this Section.

CC03745,0000FFD -19-22JAN10-1/1

Removing and Servicing Knives

CAUTION: Knives have two cutting edges. Be careful when working around the knives. Knives are sharp and can cause serious injury. Wear gloves when handling knives.

TS268 —UN—23AUG88

AG,OUCC006,348 -19-04MAY00-1/1

Removing and Servicing Knives (With Disk Immobilizing Device Only)

Knives are attached to disks by special knife bolts.

Clean area around special nut (A). Turn disks to align knife bolt with hole (B). Insert the disk immobilizing device (C) in holes of disks (D) as shown.

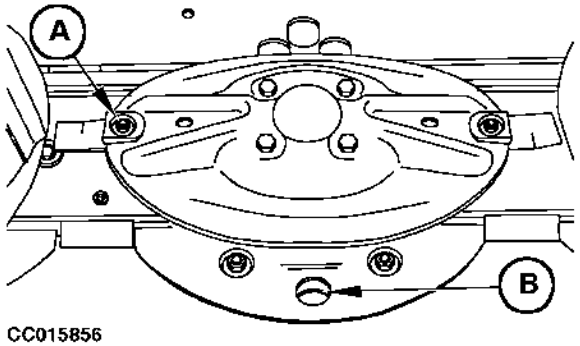
IMPORTANT: Only apply tractive efforts on the disk immobilizing device.

Remove knife bolt nut using a socket wrench then remove knife screw through hole (B).

Refer to “Checking Knives” and “Checking Knife Bolts” in this Section before reinstalling knives.

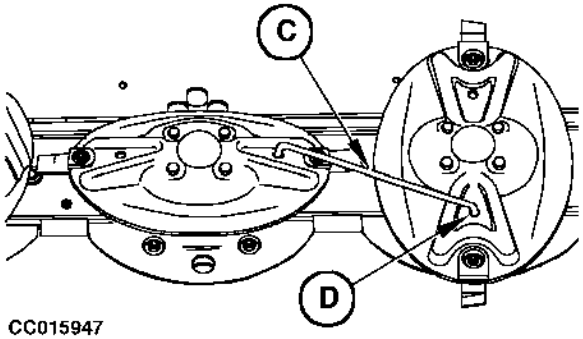
CAUTION: Remove the disk immobilizing device after intervention on knives.

A—Nut
B—Hole
C—Disk immobilizing device
D—Hole of disks



CC015856

CC015856 —UN—05AUG99



CC015947

CC015947 —UN—05AUG99

AG,OUCC006,347 -19-04MAY00-1/1

Removing and Servicing Knives (Without Disk Immobilizing Device Only)

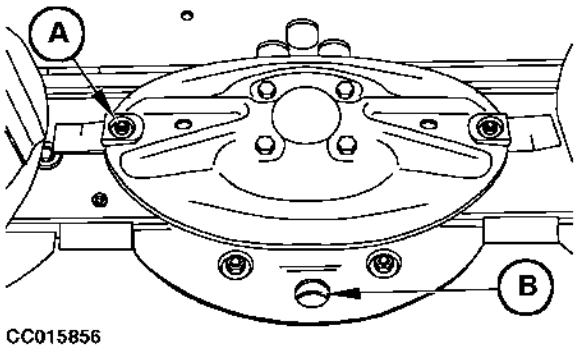
Knives are attached to disks by special knife bolts.

Clean area around special nut (A). Turn disks to align knife bolt with hole (B).

Immobilize disks to prevent them from turning while loosening knife bolt.

Remove knife bolt nut using a socket wrench then remove knife screw through hole (B).

Refer to “Checking Knives” and “Checking Knife Bolts” in this Section before reinstalling knives.



CC015856 —UN—05AUG99

A—Nut **B—Hole**

AG,OUCC006,349 -19-04MAY00-1/1

Installing Knives

IMPORTANT: Always replace or turn over both knives on a disk to avoid creating an out of balance force which causes vibration and damage to the machine.

Refer to “Checking The Knives” and “Checking Knives Hardware” in this Section before reinstalling knives.

Ensure securing elements are in good condition.

Clean bearing area and reinstall knife with their special bolts.

Fit knives so that the arrow on their upper face is pointing in the direction of rotation of the disk it is fitted to.

Ensure that special knife bolt is correctly seated in groove (A).

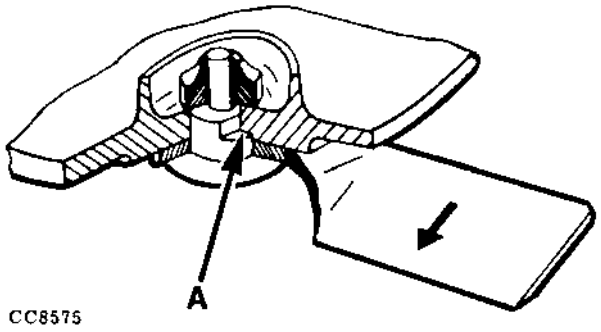
CAUTION: If bolt is not installed correctly, locknut cannot be tightened sufficiently which may lead to loss of knife and bolt during operation.

IMPORTANT: To correctly engage the bolt in the disk hole, the bolt flats must align with the hole flats and each bolt mark (B) must be aligned with disk center line (C-C). Top of bolt will be flush with top of nut when properly installed and tightened.

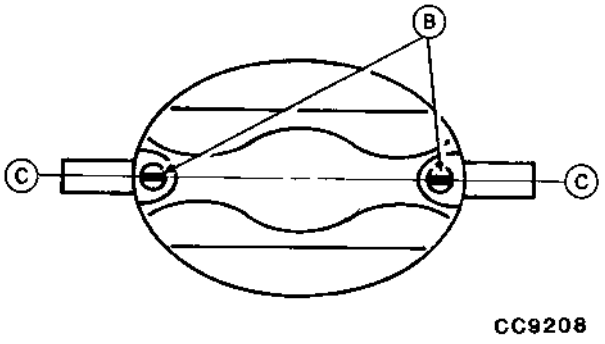
Tighten knife locknut to 120 N·m (90 lb-ft).

Whenever knives are checked or installed, ensure that they rotate freely on their bolts.

IMPORTANT: Always use genuine John Deere knives and special knife hardware.



CC8575 —UN—07FEB95



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Replace each special knife bolt when it has been removed and reinstalled five times.

CC,228FM 003352 -19-23JUL96-1/1

Checking Knife Wear

Turn over knife:

When the cutting edge is worn on one side and the conditions described below are not met.

Always turn over both knives of a disk on the same location.

Replace knife:

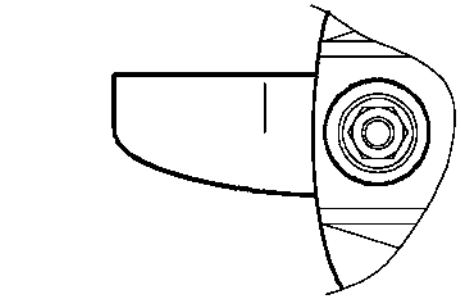
When it is cracked, broken or distorted.

IMPORTANT: Never straighten bent knives.

When knife length (A) is below 65 mm (2.60 in).

When the width (B) of the knife, measured at a distance (C) of 10 mm (0.40 in) from the edge of the disk is less than 34 mm (1.35 in).

A—65 mm (2.60 in.)
B—34 mm (1.35 in.)
C—10 mm (0.40 in.)



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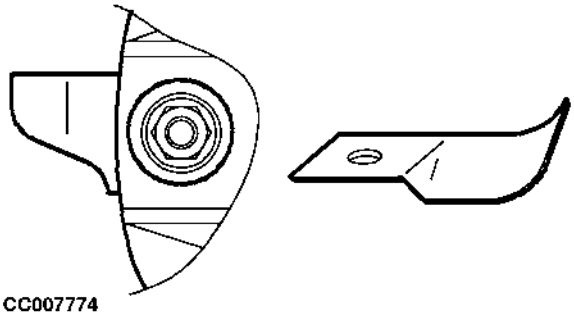

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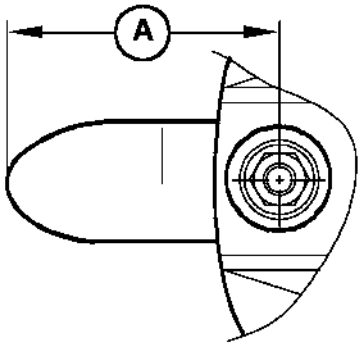

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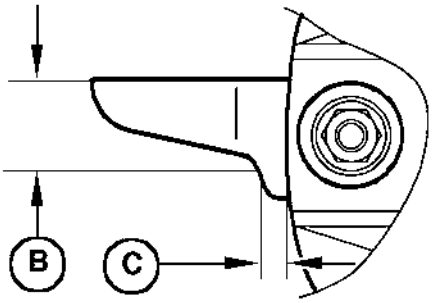

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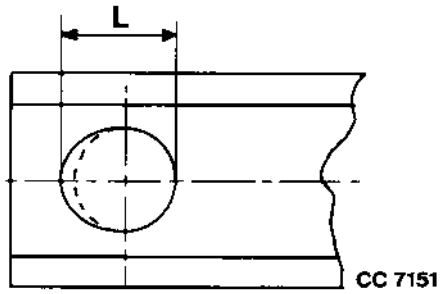
CC,228FM 003294 -19-22JUL96-1/1

Checking Knife Fitting Hole

A knife must be replaced if its fitting hole becomes elongated by 2 mm (0.08 in.) or more as illustrated.

L—Initial diameter + 2 mm (0.08 in.); the knife must be replaced



CC7151 —UN—07FEB95

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Checking Knife Hardware

Frequently check knife hardware especially:

- At the beginning of the season.
- Every time before starting work.
- Immediately after striking an obstacle.
- When replacing knives.

Refer to ”Checking Knife Bolt Wear” and ”Checking Knife Lock Nut Wear” in this Section.

CC03745,0000B88 -19-27APR06-1/1

Checking Knife Bolt Wear

IMPORTANT: Always use genuine John Deere special knife bolts.

Replace bolts:

After they have been removed and reinstalled five times.

If they are visibly distorted.

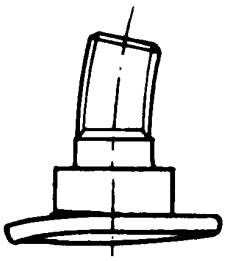
If thread locking compound is no longer serviceable or has become inefficient due to water, oil, earth or mud.

When head has worn flush with bearing surface of knife.

When diameter of bolt neck has worn by 3 mm (0.12 in.).

If cracked. Check bolt head/shank interface (A). Examine bolt threads.

If bolt is damaged due to interference (B). Correct interference.



CC 7152

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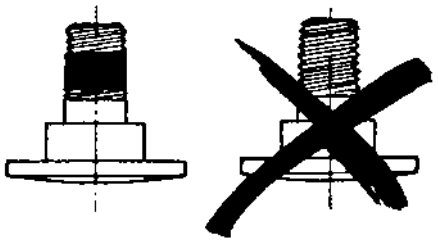

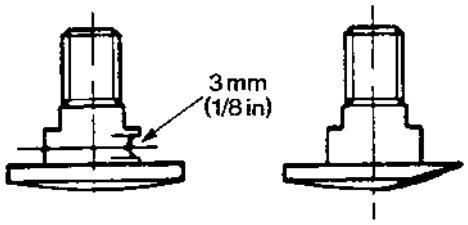

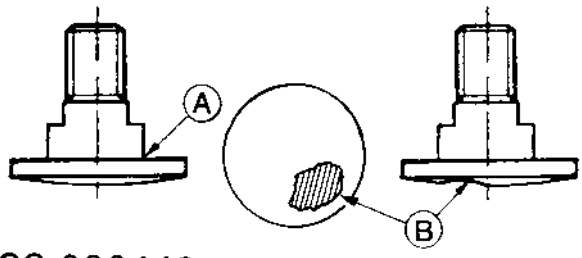

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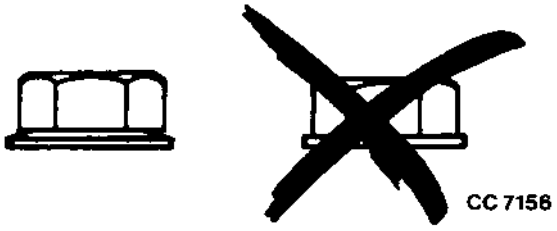
Check Knife Lock Nut Wear

IMPORTANT: Always use genuine John Deere special knife lock nuts.

Always replace lock nuts when they have been removed and reinstalled five times.

Replace the lock nut if washer loses its elasticity or has become separated from the nut.

Replace when height (A) on the worn side of the knife lock nut is less than half the total height (B).



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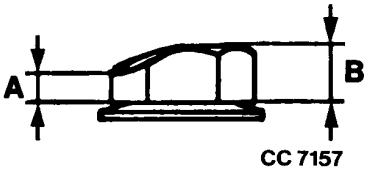

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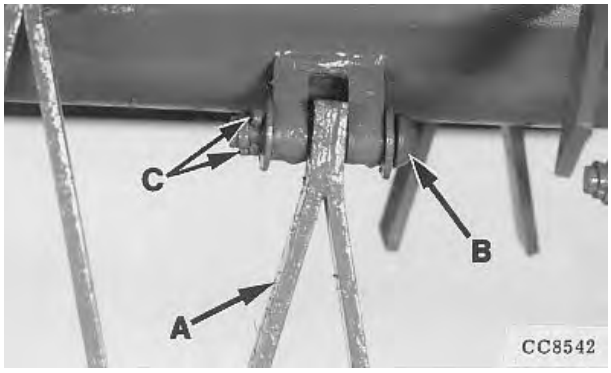
Replacing Rotor Tines (Assembly with Pin and Cotter Pin)

IMPORTANT: Do not use the machine if tines are missing. This will cause rotor imbalance and therefore vibrations, damaging the bearings.

56 tines are used on 1365 and 49 on 1355 mower-conditioner.

1. Remove cotter pin (C) and pin (B).
2. Check pin (B) for damage. If necessary, replace pin (B) and cotter pin (C) by one bolt with lock nut. (See "Replacing Rotor Tines" in this Section.)
3. Check inner bushing of tine (A). Replace bushing and tine if necessary.
4. Reinstall tine (A).
5. Secure pin (B) with new cotter pin to avoid the risk of loss.



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A—Tine
B—Pin
C—Cotter pin

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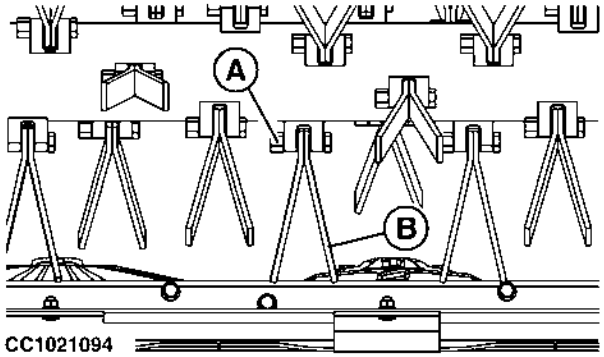
Replacing Rotor Tines

IMPORTANT: Do not operate machine if tines are missing. Rotor will be out of balance causing vibration and machine damage.

1. Remove bolts (A).
2. Check screw and lock nut for damage. Replace if necessary.

NOTE: Bolt and lock nut should be replaced after maximum 5 removals.

3. Install new tine (B) with bushing. Fasten bolts (A).



A—Bolt **B—Tine**

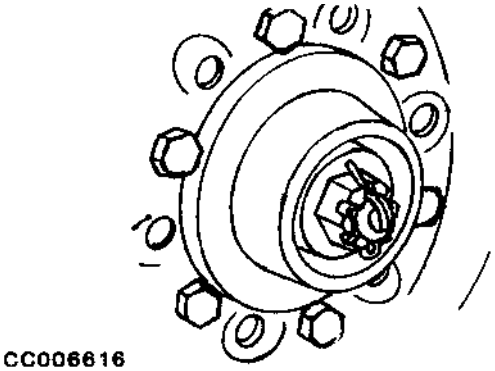
OUCC006,00007B4 -19-11OCT02-1/1

Adjusting Wheel Bearings

To adjust wheel bearings, jack up wheel, remove hub cap and cotter pin.

Tighten adjusting nut to 1.7 N·m (1.25 lb-ft), then back off by one slot and secure with a new cotter pin.

Reinstall hub cap.



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Adjusting Grouper Canvas Tension

Adjust length of spring (E) on rear canvas tensioner (A) to 100 mm (3.93 in.) by using tightening screw (D) and lock nuts (C).

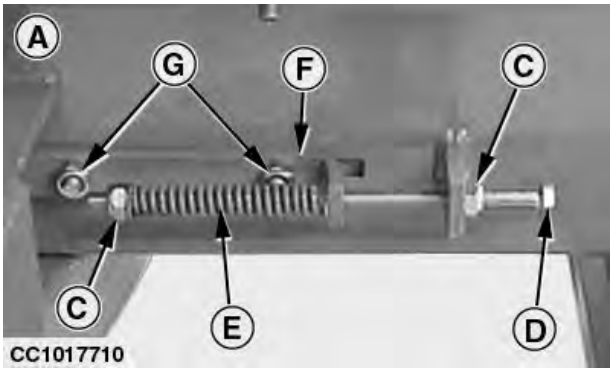
Adjust length of spring (E) on front canvas tensioner (B) to 80 mm (3.15 in.) by using tightening screw (D) and lock nuts (C).

Check grouper canvas tracking.

IMPORTANT: For proper operation, front and rear tensioner straps (F) must always move freely without too much play. Use lock nuts (G) to adjust play at straps (F).

If the canvas track against the frame it will cause excessive wear to the frame and canvas. Readjust grouper canvas if necessary (See "Adjusting Grouper Canvas Tracking" in this section).

A—Rear canvas tensioner
B—Front canvas tensioner
C—Lock nuts
D—Tightening screws
E—Springs
F—Straps
G—Plate lock nuts



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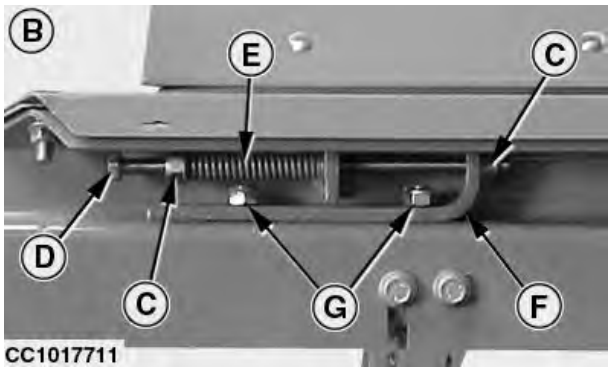

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AG,OUCC006,350 -19-04MAY00-1/1

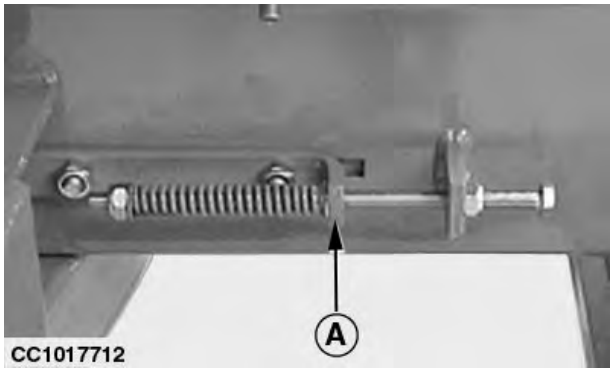
Adjusting Grouper Canvas Tracking

IMPORTANT: Before altering grouper canvas tracking, make sure that tracking is not good with the grouper canvas tension correctly adjusted (See "Adjusting Grouper Canvas Tension" in this Section).

Canvas must run parallel to front of canvas frame. Allowing canvas to track against the frame will cause excessive wear to the frame and canvas. The drive roll is adjusted in factory perpendicular to the front of canvas frame

1. Check that drive roll is perpendicular to the front of canvas frame with a set square. Adjust it, if necessary, by moving canvas motor support (D).
2. Loosen the two tensioners (A) to release canvas tension.
3. Slowly operate canvas then refer to the sketch opposite for proper adjustment: If dimension "B" is greater than dimension "C" then move canvas motor support (D) to the left. If dimension "B" is less than dimension "C" then move canvas motor support (D) to the right.
4. Tighten canvas motor support (D) mounting bolts then adjust canvas tension (See "Adjusting Grouper Canvas Tension" in this Section) and recheck tracking.

   Repeat steps 2 through 4, if necessary.



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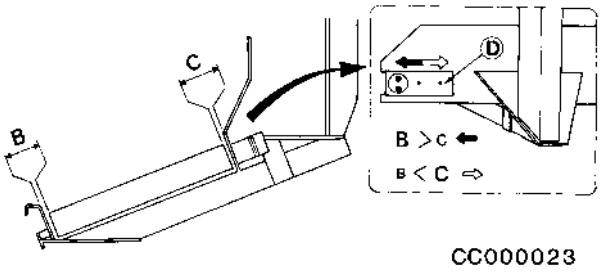

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A—Tensioners
B—Dimension at front of canvas frame
C—Dimension at rear of canvas frame
D—Canvas motor support

AG,OUCC006,351 -19-04MAY00-1/1

Replacing Grouper Rubber Band and Canvas

To replace rubber band, proceed as follows:

Remove sheet (A) and plate (B) to replace rubber band (C). (Note position of each part, and take care when re-assembling.)

To replace canvas, proceed as follows:

Secure canvas frame with adequate lifting device.

Remove hydraulic hoses from canvas motor.

Remove canvas frame from the tubular frame. Note the location of tubular frame fixing holes.

Release canvas tension. (See “Adjusting Grouper Canvas Tension” in this Section.)

Remove the four mounting screws (D) and loosen the two other screws (E). Then remove complete front beam (F) assembly from canvas frame. Take out the canvas (G).

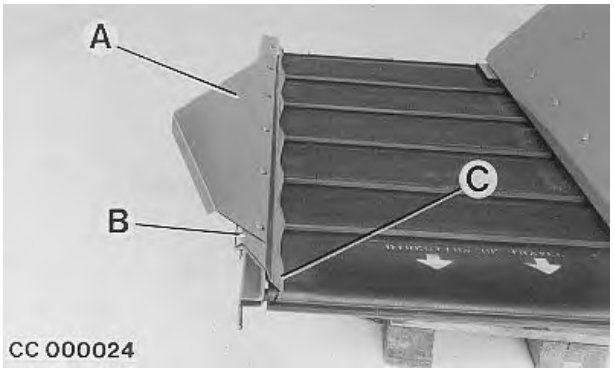
Install a new canvas (G) as shown. Observe direction of travel arrows marked on canvas. Ensure that the two rolls are securely located in their respective holders.

IMPORTANT: During installation, be sure to slide new canvas between rubber band (I) and guide (H).

Reinstall all parts by reversing removal procedure and see under “Adjusting Grouper Canvas Frame Position” in “Operating the Mower-conditioner” Section for a proper canvas frame orientation.

Adjust canvas tension as described under “Adjusting Grouper Canvas Tension” in this Section.

A—Sheet
B—Plate
C—Rubber band
D—Mounting screws
E—Mounting screws
F—Front beam
G—Canvas
H—Guide
I— Rubber band



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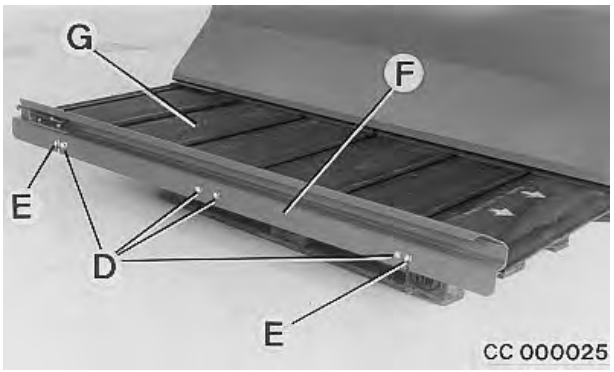

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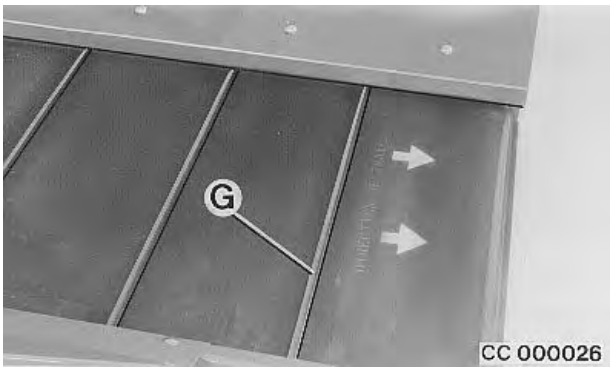

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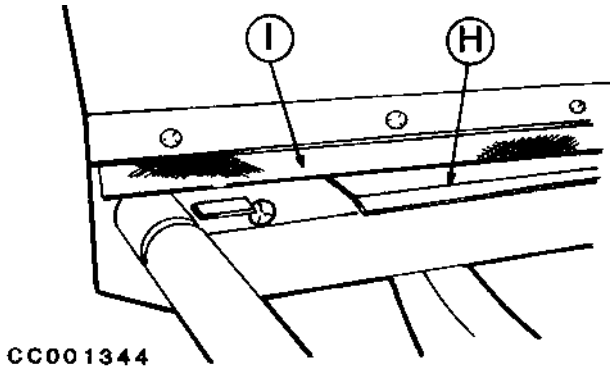

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Removing Grouper Canvas Drive Roll

Loosen the canvas.

Remove fittings and hoses (A) from motor.

Remove shield (B).

Remove nut (C) and its washer.

Loosen clamp nut (D) on the roll.

Use a large screwdriver to spread the clamp and remove motor (E) from the roll.

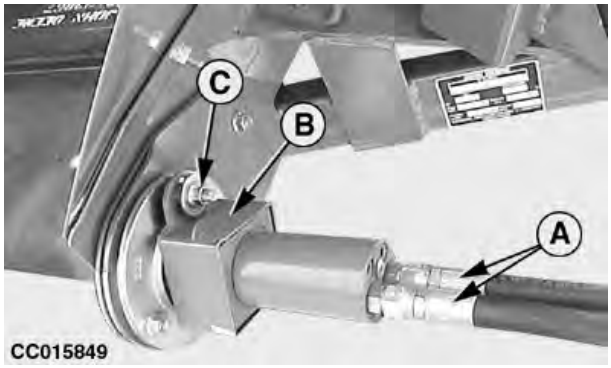
Remove circlip (F).

Remove both mounting nuts (G).

Remove bearing plate (H).

Remove drive roll (I).

A—Hoses
B—Shield
C—Nut
D—Clamp nut
E—Motor
F—Circlip
G—Mounting nuts
H—Bearing plate
I— Roll



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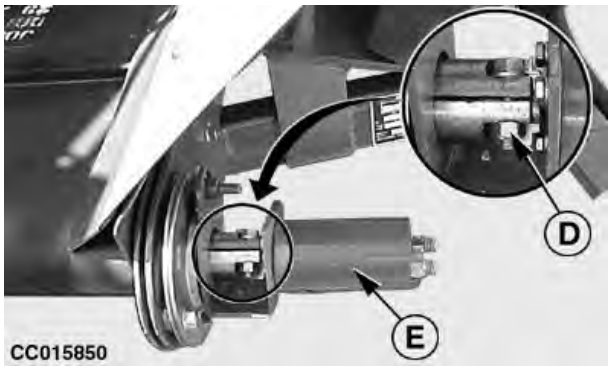

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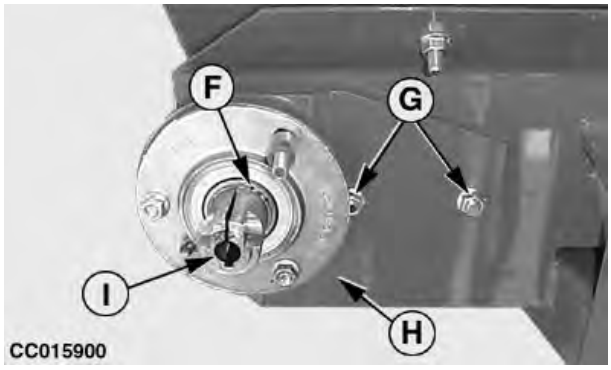

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CC,1355MC004996 -19-22JUN99-1/1

Installing Grouper Canvas Drive Roll

Install drive roll (A) into canvas frame.

Install bearing plate (B) and circlip (C).

Spread drive roll clamp slightly using large screwdriver in hub slot.

Align motor key with the drive roll and insert motor shaft.

Tighten clamp nut (D) to 33 N·m (24lb-ft).

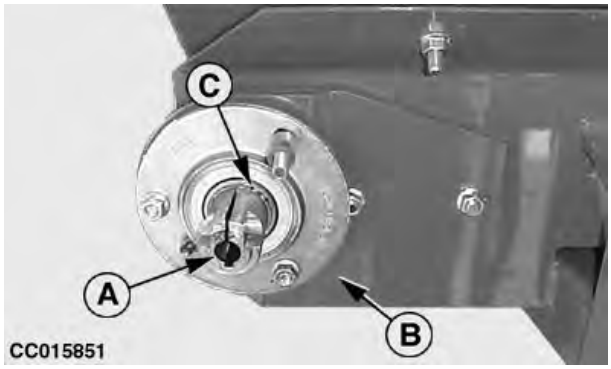
Install washer and nut (E).

Attach shield (F).

Attach fittings and hoses to motor.

Adjust canvas tracking (see “Adjusting Grouper Canvas Tracking” in this section).

A—Roll
B—Bearing plate
C—Circlip
D—Clamp nut
E—Nut
F—Shield



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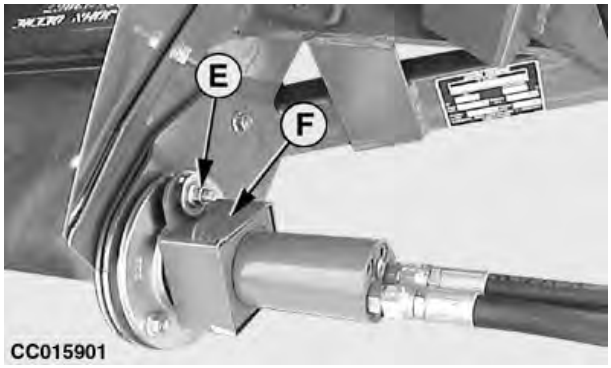
CC015852—UN—05AUG99



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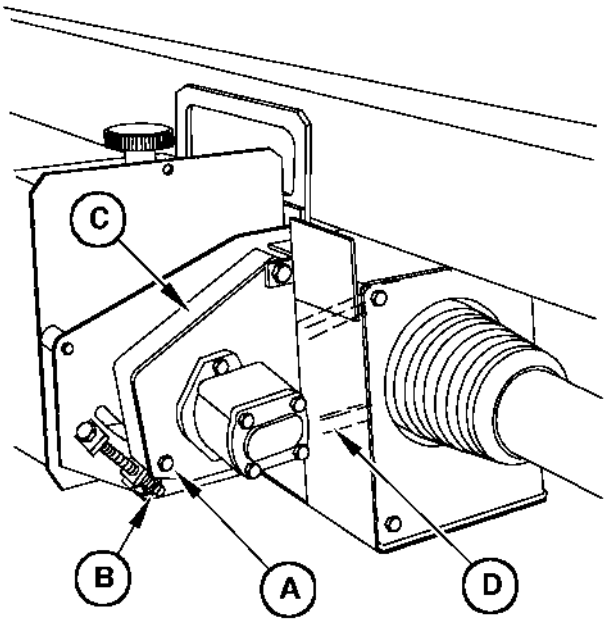
Adjusting Hydraulic Pump Drive Belt Tension (Linkage Drawbar and Swivel Hitch Tongue)

Loosen locking screw (A), then tighten adjusting nut (B) so that the length of spring (E) and strap (D) are the same.

Tighten locking screw (A).

A—Locking screw
B—Adjusting nut
C—Hydraulic pump support
D—Strap
E—Spring



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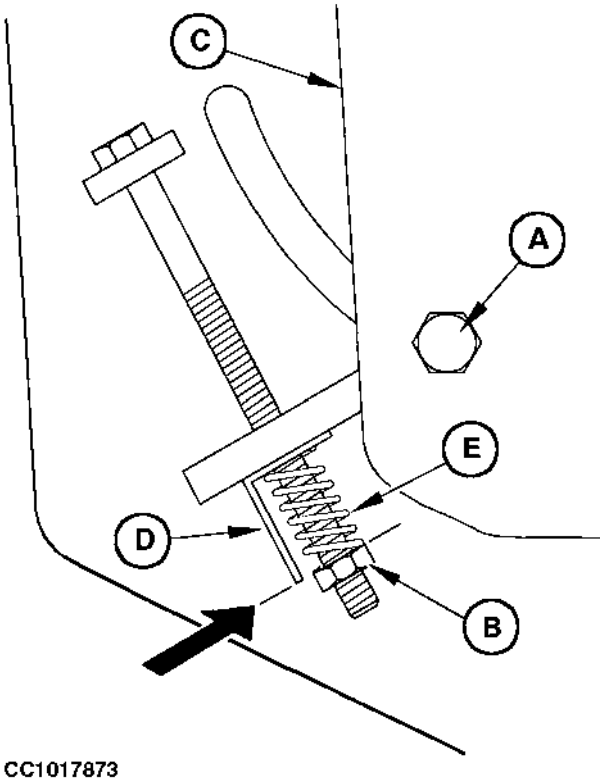
CC015853

Hydraulic pump drive



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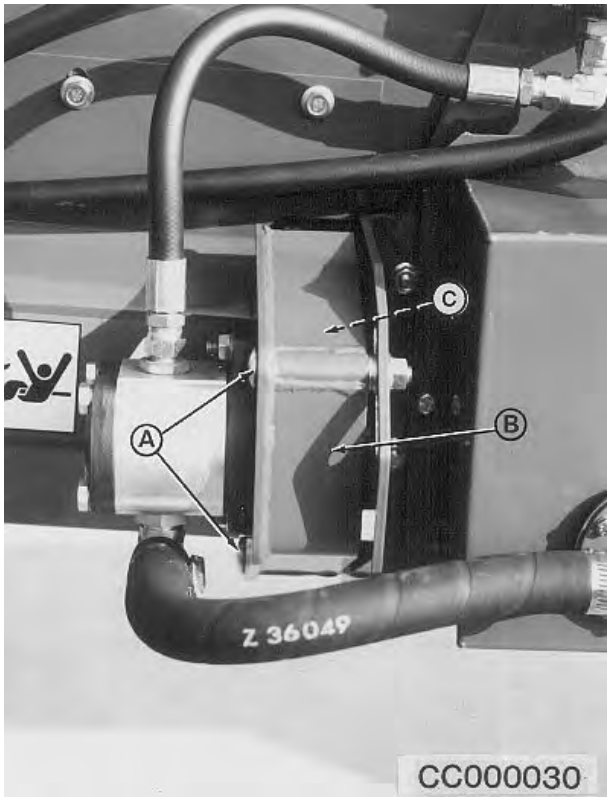
AG,OUCC006,388 -19-31MAY00-1/1

Adjusting Hydraulic Pump Drive Belt Tension (Pin Drawbar Tongue)

Loosen locking screws (A), then slide the hydraulic pump support (B) so that drive belt (C) is correctly tightened.

Tighten locking screws (A).

A—Locking screws
B—Hydraulic pump support
C—Drive belt



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Replacing Hydraulic Pump Drive Belt (Linkage Drawbar and Swivel Hitch Tongue)

Remove shield (A).

Loosen locking screw (B) and adjusting nut (F) to release belt tension.

Disengage rear driveline (C) from intermediate drive shaft (D).

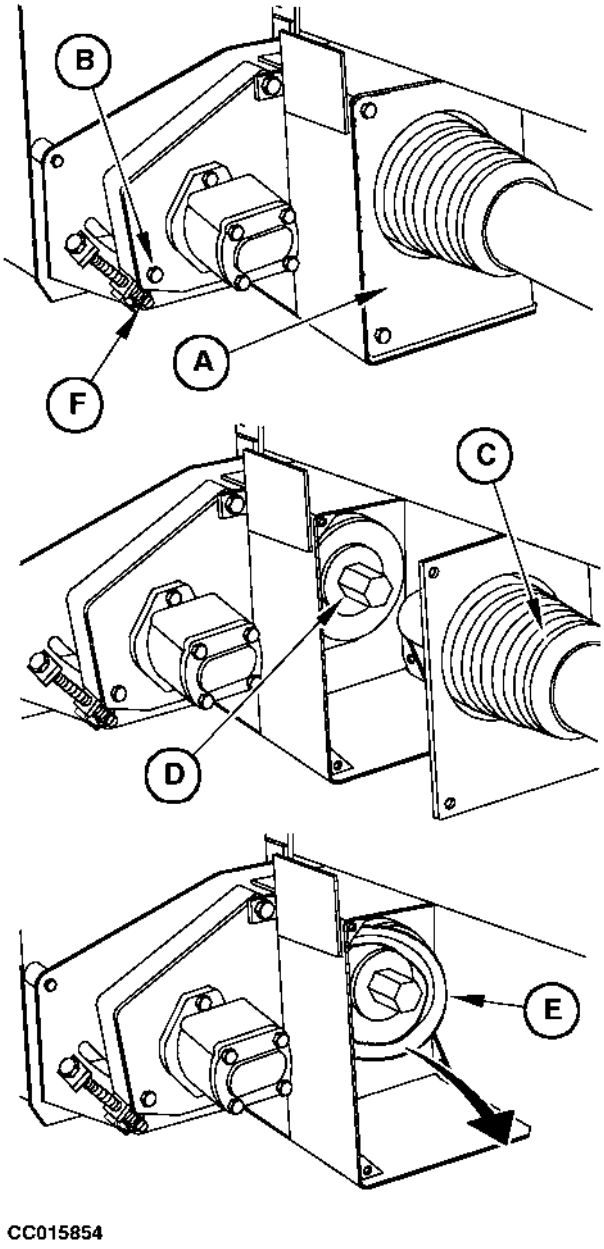
Remove belt (E) from the pulleys.

In case of a mower-conditioner equipped for 540 rpm PTO, install a 1120 mm (3.67 ft) long drive belt.

In case of a mower-conditioner equipped for 1000 rpm PTO, install a 932 mm (3.05 ft) long drive belt.

Reinstall new belt on pulleys. Adjust drive belt tension as described under “Adjusting Hydraulic Pump Drive Belt Tension” in this Section, then reinstall all parts previously removed.

A—Shield
B—Locking screws
C—Rear driveline
D—Intermediate drive shaft
E—Belt
F—Adjusting nut



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AG,OUCC006,406 -19-14JUN00-1/1

Replacing Hydraulic Pump Drive Belt (Pin Drawbar Tongue)

Remove slip clutch shield (A).

Loosen locking screws (B) to release belt tension.

Disengage rear driveline (C) from input bevel gear case shaft (D).

Remove belt (E) from the pulleys, then pass it around the driveline (C) to discard it.

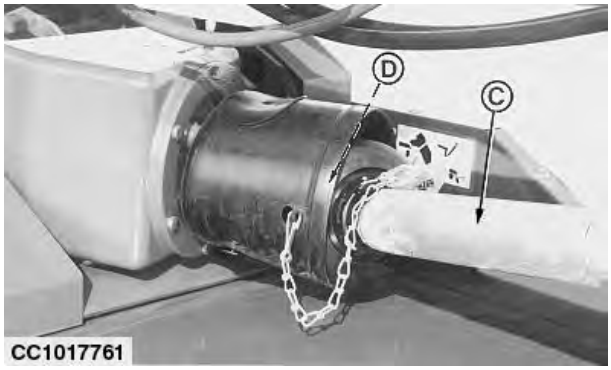
In case of a mower-conditioner equipped for 540 rpm PTO, install a 1000 mm (3.28 ft) long drive belt.

In case of a mower-conditioner equipped for 1000 rpm PTO, install a 807 mm (2.64 ft) long drive belt.

Reinstall new belt on pulleys. Adjust drive belt tension as described under “Adjusting Hydraulic Pump Drive Belt Tension” in this Section, then reinstall all parts previously removed.

A—Slip clutch shield
B—Locking screws
C—Rear driveline
D—Input bevel gear case shaft
E—Belt

CC000031 —UN—09FEB95



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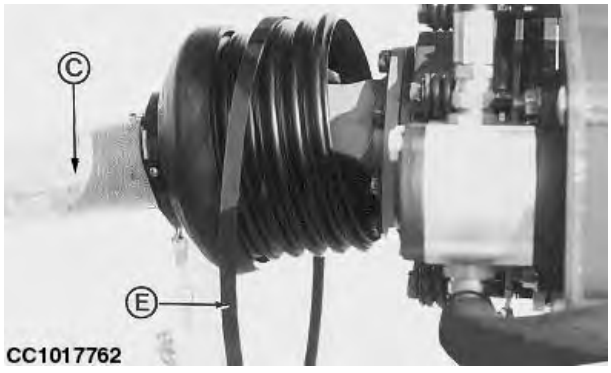


CC1017762 —UN—17MAY00

AG,OUCC006,369 -19-15MAY00-1/1

Adjusting Grouper Raising and Lowering Time

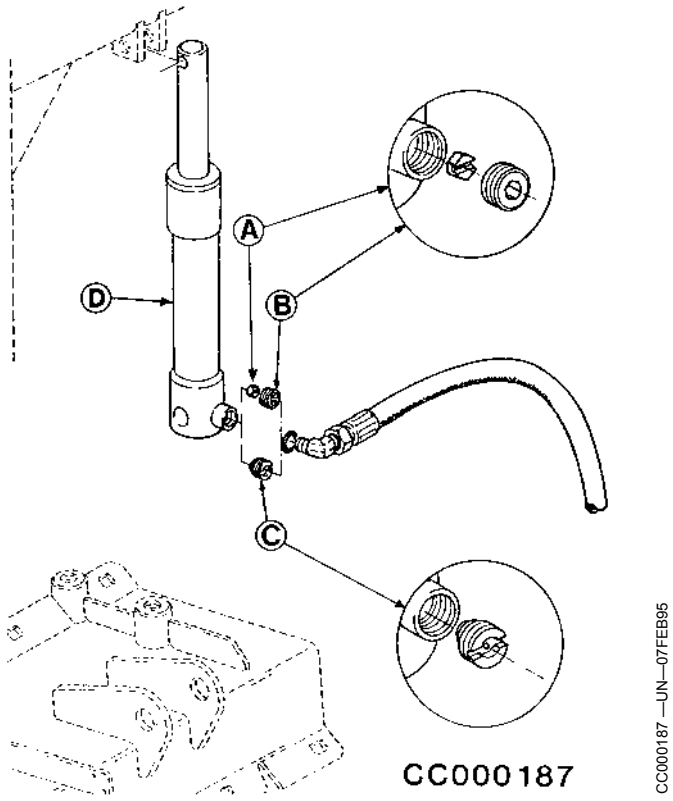
To avoid premature wear of grouper components, raising and lowering time must not be below 1.5 seconds.

When attaching mower-conditioner to the tractor, always carry out a short test by raising and lowering the grouper; check the time taken.

Depending on the tractor hydraulic flow, install either orifice (A) and plate (B), or orifice (C) as shown in port of grouper lift cylinder (D) so that the time taken is over 1.5 seconds.

IMPORTANT: To install orifice (A) and plate (B), proceed as follows: Insert orifice (A) first with notch towards the outside then plate (B). Fully screw on plate (B) then loosen it one turn to allow the orifice (A) to float.

A—Orifice
B—Plate
C—Orifice
D—Lift cylinder



CC000187 —UN—07FEB95

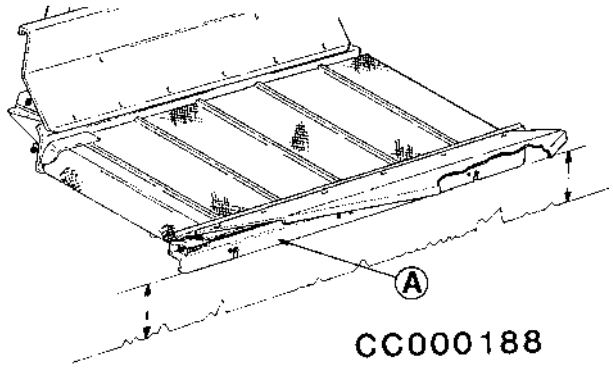
CC,1350MC001909 -19-27AUG94-1/1

Leveling Grouper Canvas Frame

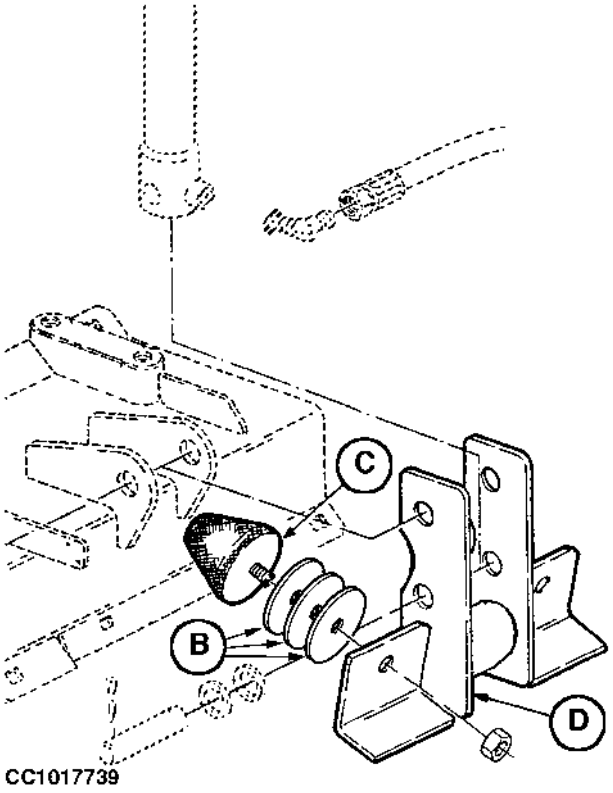
To obtain the best performance, canvas frame front beam (A) should always be parallel to the ground or have its left-hand end higher than the right-hand end.

Adjust canvas frame leveling by adding or removing shims (B) between shock-absorbers (C) and lift cylinder support (D).

A—Front beam
B—Shims
C—Shock absorbers
D—Lift cylinder support



CC000188 —UN—07FEB95



CC1017739 —UN—17MAY00

AG,OUCC006,370 -19-15MAY00-1/1

Storage

After the Season

Store the mower-conditioner in a dry sheltered place.

Thoroughly clean the mower-conditioner and grouper inside and out. Trash and dirt will draw moisture, cause rust and canvas driving problems.

Remove all belts.

Thoroughly clean all belts, but do not use aggressive cleaning agents such as petrol, benzine, turpentine oil or similar cleaning solvents.

It is recommended to use the following:
- A cloth dipped in liquid ammonia
- Soap water
- A 1:10 mixture of glycerine and spirits

NOTE: If a high pressure washer be used for cleaning, do not direct pressurized water on bearings.

Thoroughly lubricate the mower-conditioner and grouper according to “Lubrication and Maintenance” Section.

Grease bare metal surfaces of hydraulic cylinder piston rods well.

Check condition of knives. Turn over as necessary.

Check condition of knife hardware. Replace as necessary.

Check condition of rotor tines and their hardware. Replaced as needed.

Lower mower-conditioner and grouper to prevent thermal expansion of oil and possible damage to hydraulic system due to heat and direct sunlight.

Release slip clutch spring tension on all eight springs.

Release tension from canvas.

Remove canvas and clean it thoroughly.

Store canvas in a cool dry place away from sunlight, oil and grease.

Inspect canvas frame for damage or wear.

Paint all parts from which paint has been worn.

List replacement parts needed and order them early. The dealer can expedite delivery of parts and install them during slack periods, thereby avoiding delays for the next season.

List all service work to be done before the next season and have it carried out in good time. Your John Deere dealer is in a better position to carry out necessary service and repairs during the off season.

CC,1350MC003698 -19-13DEC96-1/1

Before the Season

Before beginning of each season, the mower-conditioner should undergo a thorough check. By ensuring that the machine is in really good condition, breakdown will be avoided.

Reinstall all belts and check belt tension.

Lubricate complete machine. This will force any moisture out of the bearings. See “Lubrication and Maintenance” Section.

Check all hardware for tightness.

Check tire inflation pressure.

Readjust slip clutch springs. Make sure slip clutch has not seized.

Check oil in cutterbar. If necessary, drain and refill with specified amount and quality.

Drain and refill main gear case.

Check that all rotor tines are securely fastened.

Check for proper hitching.

Read the Operator's Manual.

Install grouper canvas and adjust tension (see “Replacing Grouper Rubber Band and Canvas” and “Adjusting Grouper Canvas Tension” in the “Service” Section).

Adjust grouper canvas tracking (see “Adjusting Grouper Canvas Tracking” in the “Service” Section).

Attach mower-conditioner to the tractor and check grouper raising and lowering time. Adjust if necessary. (See “Adjusting Grouper Raising and Lowering Time” in the “Service” Section.)

Afterwards run mower-conditioner at half speed for about an hour. Check all bearings for overheating.

CC,1350MC003699 -19-13DEC96-1/1

Specifications

Specifications for 1355 Mower-Conditioner

Cutterbar

Cutting width	2.50 m (8 ft. 3 in.)
Cutting height	29 to 138 mm (1.14 to 5.4 in.)
Number of disks	5
Number of knives	10 (2 per disk)
Disk speed	2610 rpm
Orbit diameter of knives	610 mm (2 ft.)
Knives	reversible and retractable

Conditioner Impeller

Rotor width	1760 mm (5 ft. 9 in.)
Number of tines	49
Rotor speed	630 or 870 rpm
Orbit diameter of tines	594 mm (1 ft. 11-1/2 in.)
Conditioner adjustment	10 to 120 mm (25/64 to 4-23/32 in.)
Windrow width	0.7 to 1.3 m (2 ft. 3 in. to 4 ft. 3.5 in.)

Transmission

Recommended tractor power	40 kW (55 hp) or more
PTO speed	540 rpm
Drive line	4 universal joints
Slip clutch	multi-disk
Hardware	metric
Tire size	11L-14 (6 PR) or 10.0/75 X 15.3 (8 PR)
Operating speed	6 to 15 km/h (4 to 9 mph)

Dimensions

Length	5.5 m (18 ft.)
Width, transport position	2.5 m (8 ft. 2 in.)
Height, transport position	1.6 m (5 ft. 2 in.)
Weight	2550 kg (5622 lb)
Maximum load at hitch	6000 N (1349 lb force)
Maximum load on axle	1950 kg (4299 lb)

Sound Level

Max. sound level in accordance with EN1553. Measurement method in accordance with directive 98/37 EEC and decrees 94-724 and 96-797. (average value)	86 dB(A)

AG,OUCC006,389 -19-31MAY00-1/1

Specifications for 1365 Mower-Conditioner

Cutterbar

Cutting width	3.00 m (9 ft. 8 in.)
Cutting height	29 to 138 mm (1.14 to 5.4 in.)
Number of disks	6
Number of knives	12 (2 per disk)
Disk speed	2610 rpm
Orbit diameter of knives	610 mm (2 ft.)
Knives	reversible and retractable

Conditioner Impeller

Rotor width	2200 mm (7 ft. 3 in.)
Number of tines	56
Rotor speed	630 or 870 rpm
Orbit diameter of tines	594 mm (1 ft. 11-1/2 in.)
Conditioner adjustment	10 to 120 mm (25/64 to 4-23/32 in.)
Windrow width	0.8 to 1.8 m (2 ft. 7 in. to 5 ft. 10 in.)

Transmission

Recommended tractor power	52 kW (70 hp) or more
PTO speed	540 rpm / 1000 rpm
Drive line	4 universal joints
Slip clutch	multi-disk
Hardware	metric
Tire size	11L-14 (6 PR) or 10.0/75 X 15.3 (8 PR)
Operating speed	6 to 15 km/h (4 to 9 mph)

Dimensions

Length	5.5 m (18 ft.)
Width, transport position	3.05 m (9 ft. 10 in.)
Height, transport position	1.6 m (5 ft. 2 in.)
Weight	2700 kg (5952 lb)
Maximum load at hitch	6000 N (1349 lb force)
Maximum load on axle	2100 kg (4630 lb)

Sound Level

Max. sound level in accordance with EN1553. Measurement method in accordance with directive 98/37 EEC and decrees 94-724 and 96-797. (average value)	86 dB(A)

AG,OUCC006,390 -19-31MAY00-1/1

Specifications for 1465 Mower-Conditioner

Cutterbar

Cutting width	3.00 m (9 ft. 8 in.)
Cutting height	29 to 138 mm (1.14 to 5.4 in.)
Number of disks	6
Number of knives	12 (2 per disk)
Disk speed	2610 rpm
Orbit diameter of knives	610 mm (2 ft.)
Knives	reversible and retractable

Rolls

Width	2200 mm (7 ft. 3 in.)
Roll type	polyurethane with recessed intermittent cleats
Speed	655 rpm
Roll spacing	adjustable
Roll pressure	adjustable
Drive	belt and gearbox
Diameter	254 mm (10 in.)
Windrow width	0.80 to 1.80 m (2 ft. 7 in. to 5 ft. 10 in.)

Transmission

Recommended tractor power	52 kW (70 hp)
PTO speed	540 rpm / 1000 rpm
Drive line	4 universal joints
Slip clutch	multi-disk
Hardware	metric
Tire size	11L-14 (6 PR) or 10.0/75 X 15.3 (8 PR)
Operating speed	6 to 15 km/h (4 to 9 mph)

Dimensions

Length	5.5 m (18 ft.)
Width, transport position	3.05 m (9 ft. 10 in.)
Height, transport position	1.6 m (5 ft. 2 in.)
Weight	2800 kg (6173 lb)
Maximum load at hitch	6000 N (1349 lb force)
Maximum load on axle	2200 kg (4850 lb)

Sound Level

Max. sound level in accordance with EN1553. Measurement method in accordance with directive 98/37 EEC and decrees 94-724 and 96-797. (average value)	86 dB(A)

AG,OUCC006,391 -19-31MAY00-1/1

Specifications for Grouper

Weight	310 kg (683 lb)
Minimum tractor size	59 kW (80 hp) for 1355 Mower-Conditioner 70 kW (95 hp) for 1365 and 1465 Mower-Conditioner
Transport width	Less than the mower-conditioner width
Canvas length	3600 mm (11.81 ft)
Canvas width	737 mm (29 in.)
Controls	Electro-hydraulic lift option Hydraulic lift option Adjustable flow valve for canvas speed

AG,OUCC006,408 -19-16JUN00-1/1

EC Declaration of Conformity

Deere & Company
Moline, Illinois USA

The person named below declares that:

Machine type: Mower-Conditioner

Models: 1355 and 1365

fulfills all relevant provisions and essential requirements of the following directives:

Directive	Number	Certification Method
Machinery Directive	2006/42/EC	Self-certification, per Article 5 of the Directive
Agricultural Machinery - Safety - Part 1: General Requirements	ISO 4254-1	Self-certification
Agricultural Machinery - Safety - Part 12: Rotary Mowers and Flail-Mowers	ISO 4254-12	Self-certification

Name and address of the person in the European Community authorized to compile the technical construction file:

Brigitte Birk
Deere & Company European Office
John Deere Strasse 70
Mannheim, Germany D-68163
EUConformity@JohnDeere.com

Place of declaration: Arc-lès-Gray, France

Date of declaration: 01 September 2011

Manufacturing unit: John Deere Arc-lès-Gray

Name: David KLAS

Title: Manager Product Engineering

DXCE01 —UN—28APR09

CE

VC39598,0000254 -19-08AUG12-1/1

EC Declaration of Conformity

Deere & Company
Moline, Illinois USA

The person named below declares that:

Machine type: Grouper

Model: 2WRA

fulfills all relevant provisions and essential requirements of the following directives:

Directive	Number	Certification Method
Machinery Directive	2006/42/EC	Self-certification, per Article 5 of the Directive
Agricultural Machinery - Safety - Part 1: General Requirements	ISO 4254-1	Self-certification
Agricultural Machinery - Safety - Part 12: Rotary Mowers and Flail-Mowers	ISO 4254-12	Self-certification

Name and address of the person in the European Community authorized to compile the technical construction file:

Brigitte Birk
Deere & Company European Office
John Deere Strasse 70
Mannheim, Germany D-68163
EUConformity@JohnDeere.com

Place of declaration: Arc-lès-Gray, France

Date of declaration: 01 September 2011

Manufacturing unit: John Deere Arc-lès-Gray

Name: David KLAS

Title: Manager Product Engineering

DXCE01 —UN—28APR09

CE

VC39598,0000253 -19-08AUG12-1/1

Customs Union–EAC

This information applies only to machines which bear the EAC mark.

Information for products that bear conformity mark of the Customs Union member states

Manufacturer: Deere & Company
Moline, Illinois U.S.A.

Model: 1355, 1365 and 1465 Mower-Conditioners

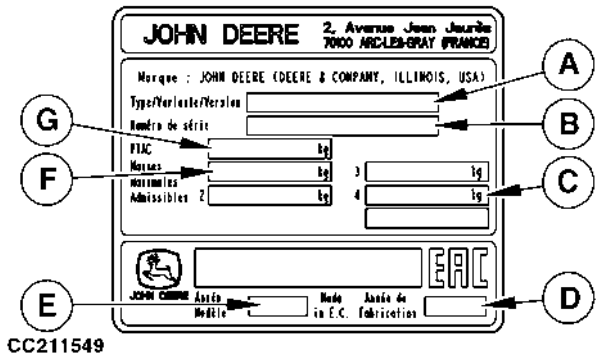
Name and address of the authorized representative in the Customs Union of Russia, Belarus and Kazakhstan:
Limited Liability Company
"John Deere Rus"

Address:
142050, Russia, Moscow region, Domodedovo district, Domodedovo, Beliye Stolbi micro district, vladenye "Warehouse 104," Building 2.

For technical support, please contact your dealer.

Date of manufacture is denoted by the product label.

A—Model Designation
B—Serial Number
C—Maximum Load at Hitch
D—Month and Year of Manufacture (MM/YYYY)
E—Model Year
F—Maximum Load on Axle
G—Maximum Permissible Total Weight



CC211549

CC211549 —UN—01SEP14

Example		
Month of Manufacture	Year of Manufacture	Date of Manufacture
05	2014	May 2014
10	2014	October 2014

JC87117,00001AC -19-13NOV14-1/1

Serial Numbers

Serial Number Plates

Serial numbers identifying the mower-conditioner and grouper are stamped on factory serial number plates.

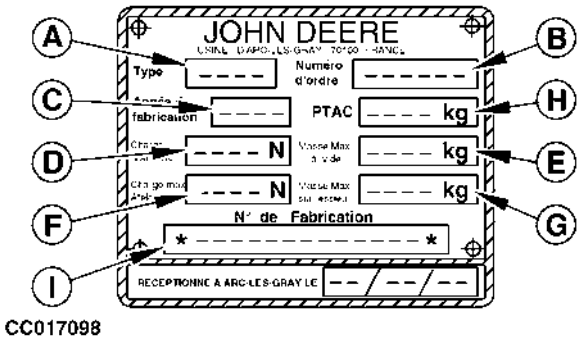
These numbers and letters are required when ordering mower-conditioner or grouper replacement parts.

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

CC,1350MC001917 -19-27AUG94-1/1

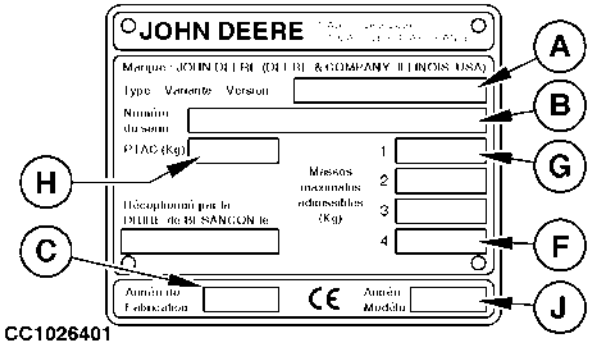
Serial Number Plate Description

A—Model designation
B—Serial number
C—Year of production
D—Nominal load
E—Weight
F—Maximum load at hitch
G—Maximum load on axle
H—Maximum permissible total weight
I— Product identification number
J— Model year



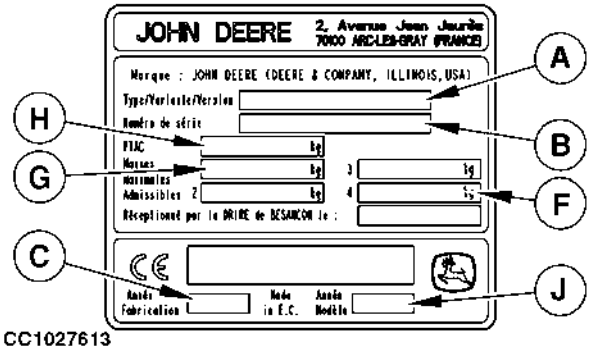
CC017098 —UN—15FEB00

Serial Number Plate (Version 1)



CC1026401 —UN—08OCT04

Serial Number Plate (Version 2)



CC1027613 —UN—19SEP06

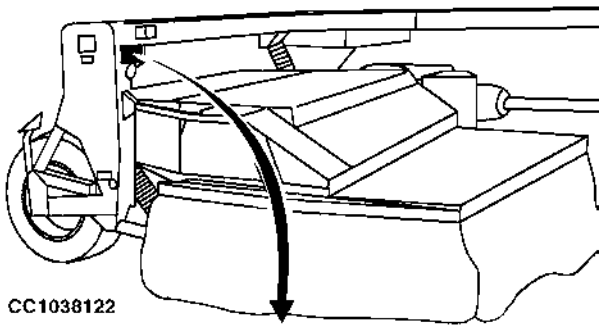
Serial Number Plate (Version 3)

OUCC006,0000F51 -19-25NOV05-1/1

Product Identification Number

The product identification number is located on the left-hand side of the mower-conditioner frame.

Record the serial number in the table below.



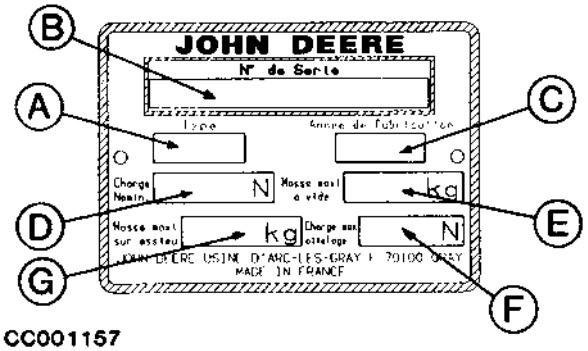
CC1038122 —UN—26JUL12

Serial Number																		
*																		*

VC39598,000029B -19-08AUG12-1/1

Grouper Serial Number Plate

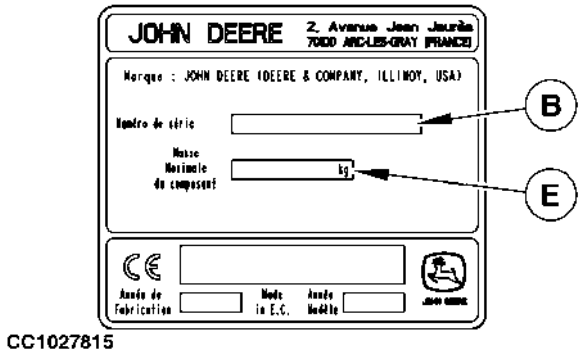
A—Model designation
B—Serial number
C—Year of production
D—Nominal load
E—Weight
F—Maximum load at hitch
G—Maximum load on axle



CC001157

CC001157 —UN—07FEB95

Serial Number Plate (Version 1)



CC1027815

CC1027815 —UN—23NOV05

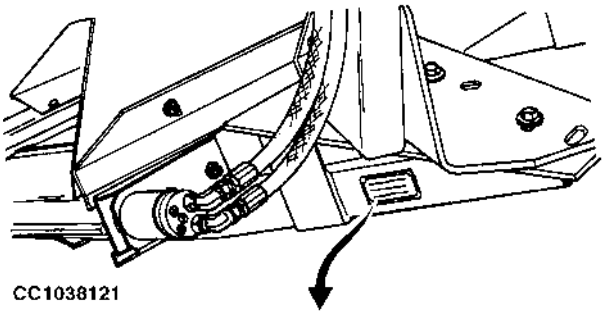
Serial Number Plate (Version 2)

OUCC006,0000FDC -19-25NOV05-1/1

Grouper Serial Number

The serial number is located on the left-hand lower side of canvas frame.

Record the serial number in the table below.



CC1038121 —UN—26JUL12

Serial Number																		
*																		*

VC39598,000029C -19-08AUG12-1/1

Keep Proof of Ownership

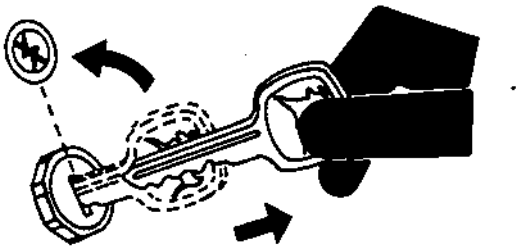
1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your machine with your own numbering system
   - Take color photographs from several angles of each machine

TS1680 —UN—09DEC03

DX,SECURE1 -19-18NOV03-1/1

Keep Machines Secure

1. Install vandal-proof devices.
2. When machine is in storage:
   - Lower equipment to the ground
   - Set wheels to widest position to make loading more difficult
   - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.



TS230 —UN—24MAY89

DX,SECURE2 -19-18NOV03-1/1

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Continued on next page

Continued on next page

John Deere Service Keeps You On The Job

John Deere Parts

We help minimize downtime by putting genuine John Deere parts in your hands in a hurry.

That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.

TS100 —UN—23AUG88

DX,IBC,A -19-04JUN90-1/1

The Right Tools

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly . . . to save you time and money.

TS101 —UN—23AUG88

DX,IBC,B -19-04JUN90-1/1

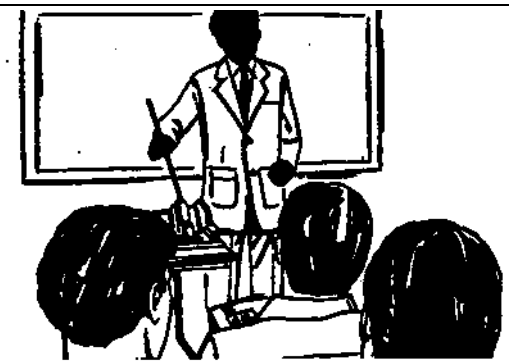
Well-Trained Technicians

School is never out for John Deere service technicians.

Training schools are held regularly to be sure our personnel know your equipment and how to maintain it.

Result?

Experience you can count on!



TS102 —UN—23AUG88

DX,IBC,C -19-04JUN90-1/1

Prompt Service

Our goal is to provide prompt, efficient care when you want it and where you want it.

We can make repairs at your place or at ours, depending on the circumstances: see us, depend on us.

JOHN DEERE SERVICE SUPERIORITY: We'll be around when you need us.

TS103 —UN—23AUG88

DX,IBC,D -19-04JUN90-1/1

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