

Round Bale/Silage Grapple Attachment For 245, 260, 265, and 280 Farm Loaders



JOHN DEERE

OPERATORS MANUAL

Round Bale/Silage Grapple Attachment For 245,
260, 265, and 280 Farm Loaders

OMW38952 Issue F9 English

John Deere Welland Works

OMW38952 Issue F9

(This manual replaces OM-W38952-E8)

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Introduction

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage.

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



THIS MACHINE is of metric design.

Measurements in this manual are metric with the customary U.S. measurement following. Use only metric hardware and tools as specified.

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

WRITE IDENTIFICATION NUMBERS in the space provided in the Specifications 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. If this manual is kept on the machine, also file the identification numbers in a secure place off the machine.

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

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



Checklists

PREDELIVERY

The following list is a reminder of points to inspect. Check off each item as it is found satisfactory or after correction is made.

- ☐ Attachment has been properly assembled.
- ☐ Hydraulic connections do not leak.

- ☐ Hardware is tightened to correct torque.
- ☐ This attachment has been tested and, to the best of my knowledge, is ready for delivery to the customer.

Signature: _____

Date: _____

W01,ATTACH,A -19-23SEP86

DELIVERY

The following list is a reminder of important information that should be explained to the customer.

- ☐ Safe operation and service.
- ☐ Loader controls and operation.

- ☐ Give customer the operator's manual. Encourage the customer to read it.

Signature: _____

Date: _____

W01,ATTACH,B -19-23SEP86

AFTER-SALE

The following items should be checked sometime during the first six months of operation. Check off each item as found satisfactory or correction is made.

- ☐ Check for loose or missing hardware. Hardware is tightened to correct torque.
- ☐ Check for broken or missing parts. Make necessary repairs.

- ☐ Tractor transmission/hydraulic oil level is correct.
- ☐ If possible, operate the attachment. Attachments should respond correctly to controls.
- ☐ All decals are fastened and legible.

Signature: _____

Date: _____

W01,ATTACH,C -19-23SEP86

Checklists

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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.

OMW38952 F9-19-08JAN90

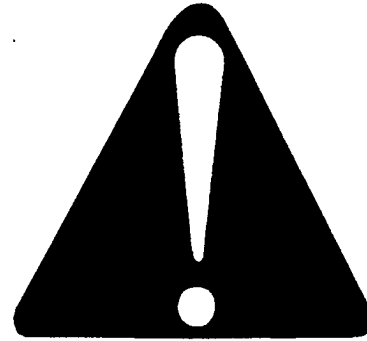
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Safety

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



O53,ALERT -19-16JUN87

T81389 -UN-07DEC88

UNDERSTAND SIGNAL WORDS

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

Safety signs with signal word DANGER or WARNING are typically near specific hazards.

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



O53,SIGNAL -19-07OCT85

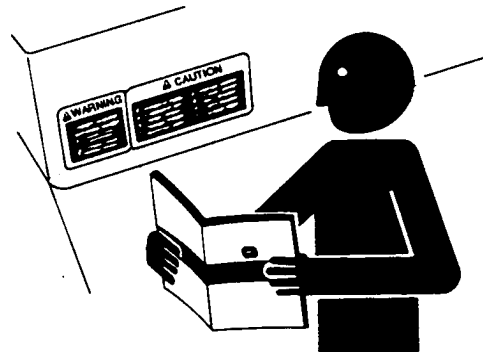
TS187 -19-30SEP88

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs.

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.



O53,READ -19-23APR87

TS201 -UN-23AUG88



HANDLE ROUND BALES SAFELY

To help prevent personal injury, do not handle round bales without approved John Deere Round Bale Handling attachments.

Improper use of loaders to handle round bales can result in serious injury or death to the tractor/loader operator. This could be caused by the bale rolling back down the loader into the operator's station.

To obtain optimum stability and visibility:

- do not handle bales that exceed the bale weight limitations of the loader

- carry the bale slowly and as low as possible to the ground

- operate the loader controls smoothly, avoiding jerky operation

- when handling round bales on a slope, always approach the bale with the tractor facing uphill

- never use the tractor/loader to stop a rolling bale



W12362 -UN-05OCT88



W12364 -UN-05OCT88

W01,13SY,G -19-04OCT86



HANDLING ROUND BALES WITH GRAPPLE

Handling round bales can be hazardous, always use proper equipment. Follow the instructions in the OPERATING THE GRAPPLE section of this manual.

DO NOT handle round bales with a loader unless a specially designed John Deere Round Bale/Silage Grapple is installed. Without a grapple, the bale can fall on the operator when the loader is raised.

To help prevent handling and stability problems:

—DO NOT exceed the following round bale weight limitations:

JD 245	450 kg (1000 lb)
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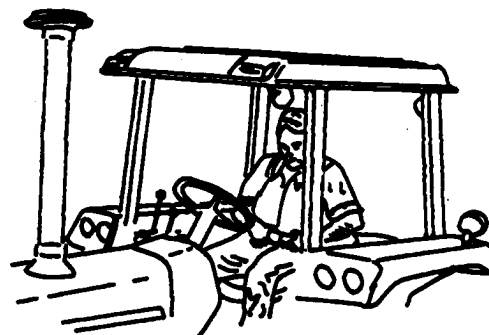
JD 260	900 kg (2000 lb)
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JD 265	
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JD 280	
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—Equip the tractor with a roll-over protective structure (ROPS).

—Adjust rear tread width and add specified rear ballast per wheel. See Selecting Rear Tread and Adding Rear Ballast in Preparing the Tractor section in your loader operator's manual.



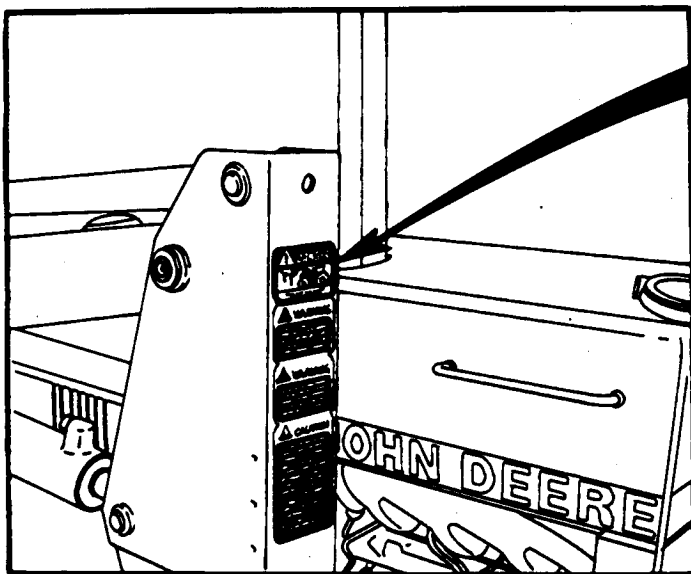
W13130 -UN-05OCT88

W12362 -UN-05OCT88

W01,13SY,C -19-05AUG86



SAFETY SIGN LOCATION



⚠ DANGER



Avoid contact with electric lines.
Serious injury or death can result.

⚠ WARNING

To help prevent bodily injury caused by falling loads:

1. Do not handle round bales unless loader is equipped with approved John Deere bale handling attachment.
2. Do not handle loose or shiftable loads with loader.

⚠ WARNING

To help prevent bodily injury caused by overweight loads which may result in tractor stability problems, do not exceed the load weight limitations stated in the Loader Operator's Manual.

⚠ CAUTION

To help prevent bodily injury:

1. Add recommended wheel ballast or rear weight for stability.
2. Move wheels to widest recommended settings to increase stability.
3. Operate tractor at low speeds.
4. During transport, position loader low to ground.
5. Lower loader to ground when parked.
6. Do not work from or allow anyone on loader or its attachments.
7. Before servicing, adjusting equipment or disconnecting oil lines:
 - a) Lower attachment to ground or support loader boom.
 - b) Shut off engine and relieve hydraulic pressure.
8. Observe safety recommendations in Loader Operator's Manual.

W12669 -19-06/JAN89

WX158,OM,DY -19-21/MAR89

Approved Loaders

APPROVED LOADER APPLICATIONS

The Round Bale/Silage Grapple is approved for handling round bales and silage when mounted on John Deere 245, 260, 265, and 280 Farm Loaders.

Assembly instructions include information to adapt grapple to older materials buckets.



WX,RBSG2,A -19-30MAY89

W12134 -UN-05OCT88

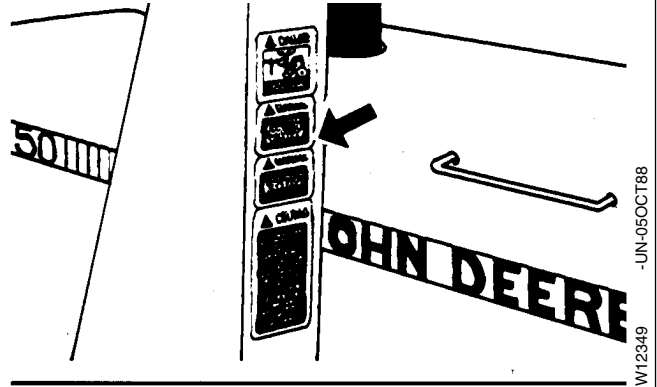
Operating the Grapple

UNDERSTANDING ROUND BALE HANDLING HAZARDS

Understand the hazards of handling round bales.

Read and adhere to all safety signs and messages on loader, grapple, and safety section of this operator's manual.

For safe operation of attachment and loader, use this manual in conjunction with your John Deere Loader Operator's Manual.



WX,RBSG2,B -19-30MAY89

AVOIDING TRACTOR ROLL-OVER WHEN HANDLING ROUND BALES

Even when using proper equipment, handling round bales can be hazardous. A tractor roll-over accident can be caused by instability when the bale is not carried low. Exercise extreme caution.

Jerky operation causes tractor-loader instability. Operate the loader controls smoothly.

Avoid steep slopes and rough terrain.



W01,13OM,R -19-13APR89

CARRYING ROUND BALES

CAUTION: To help prevent personal injury from falling bale, maintain stability by carrying the round bale low at all times. This also provides adequate visibility.

Drive slowly through narrow gates and doors.

Take extra precautions in areas where rear wheel tread or lift clearance is limited.



W01,13OM,S -19-13APR89

LIFT CAPACITY OF LOADER WITH GRAPPLE



CAUTION: To help prevent personal injury or death caused by tractor roll-over, do not exceed maximum bale weight of your loader.

JD 146 450 kg (1000 lb)
JD 245

JD 148 900 kg (2000 lb)
JD 158
JD 260
JD 265
JD 280

WX158,OM,BO -19-21MAR89

PICKING UP A ROUND BALE WITH GRAPPLE



CAUTION: To help prevent personal injury or death, do not handle round bales with a loader unless the specially designed John Deere round bale grapple is installed. Without the grapple, the bale can fall on the operator when loader is raised.

Open the grapple and lower attachment to the ground. Keep attachment level with ground to avoid damaging the round bale. Drive ahead until the bale is on attachment. Close the grapple to grasp the bale, roll back and raise loader just high enough to maintain adequate visibility and provide ground clearance for transport.



W12368 -UN-05OCT88

WX,RBSG2,C -19-30MAY89

HANDLING ROUND BALES ON SLOPES WITH GRAPPLE

When handling round bales on a slope, approach the bale with the tractor facing uphill. Open the grapple and lower attachment to the ground. Keep attachment level with ground to avoid damaging the round bale. Drive ahead until the bale is on attachment. Close the grapple to grasp the bale, roll back, and raise the loader 150 mm (6 in.) to provide ground clearance on the slope. Proceed slowly with extreme caution.

Reduce the tractor ground speed when moving on a slope or turning.

When back on level ground, position the loader just high enough to maintain adequate visibility and ground clearance at all times.



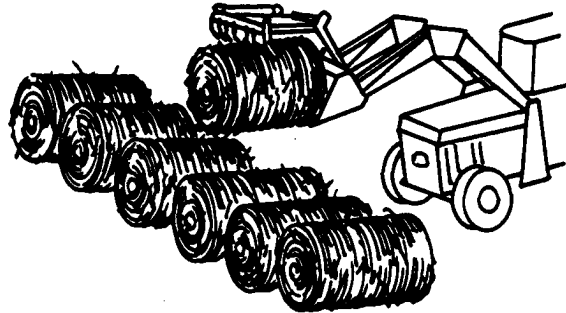
W12364 -UN-05OCT88

WX,RBSG2,D -19-30MAY89

STORING ROUND BALES WITH GRAPPLE

At the storage location, raise the bale to the required height and dump the attachment slightly. Open the grapple and deposit the bale. Back the tractor away, close the grapple, roll back the attachment, and lower the loader for transport.

IMPORTANT: When lowering a round bale, stop the loader gradually to avoid possible tractor or loader damage.

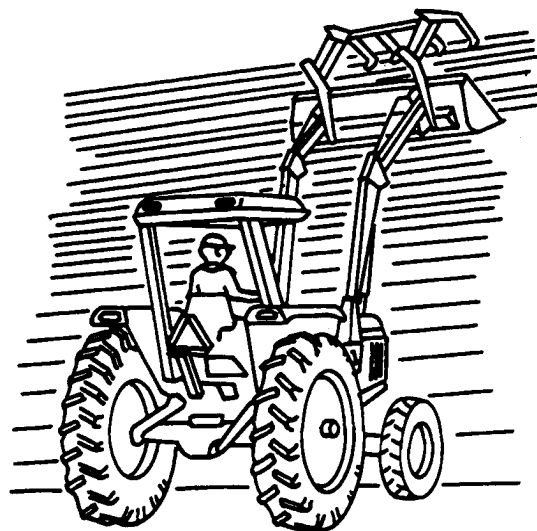


W12369 -UN-05OCT88

WX,RBSG2,E -19-30MAY89

REMOVING MATERIAL FROM A PILE WITH SILAGE GRAPPLE

1. Remove the top of pile first.
2. Drive straight into pile, stop and raise loader about 150 mm (6 in.) to break out material.
3. Lower loader and continue forward motion until bucket is full.
4. Do not overfill bucket. You will lose time due to spillage and slower loader cycle times.



-UN-05OCT88

W12370

WX,RBSG2,F -19-31MAY89

DETACHING THE GRAPPLE

1. Roll back the bucket slightly and position just above ground.
2. Place transmission in "PARK" and shut off engine.

CAUTION: Help prevent personal injury from accidental lowering of loader or bucket. Keep feet away from underside of bucket or loader.

3. Lift and lock pin (A) in raised position.
4. Repeat on opposite side.



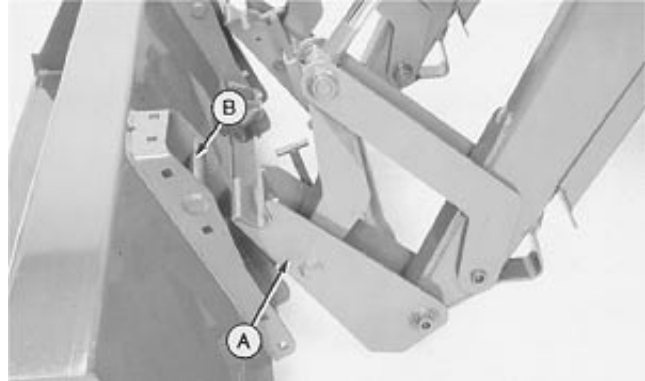
-UN-05OCT88

W12146

WX,RBSG2,G -19-30MAY89

Operating the Grapple

5. Start engine and lower bucket to ground.
6. Dump bucket until carrier (A) is away from bucket.
7. Lower loader until clear of pin (B).



WX,RBSG2,H -19-30MAY89

W12147 -UN-05OCT88

DISCONNECTING GRAPPLE HOSES

1. Place transmission in "PARK" and shut off engine.
2. Relieve hydraulic pressure by moving grapple control lever back and forth several times.
3. Disconnect couplers.
4. Replace plugs and caps, and store hoses on bucket.

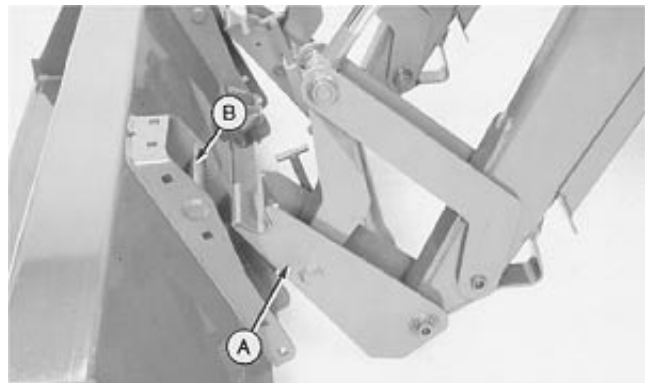


WX,RBSG2,I -19-30MAY89

W12133 -UN-05OCT88

ATTACHING THE GRAPPLE

1. Raise lock pins.
2. Angle carrier (A) towards bucket as shown.
3. Drive forward until carrier fits into bucket below pins (B).



WX,RBSG2,J -19-30MAY89

W12147 -UN-05OCT88

4. Raise loader until bucket is just above ground. Roll back bucket until level.

5. Place transmission in "PARK" and shut off engine.

⚠ CAUTION: Help prevent personal injury from accidental lowering of loader or bucket. Keep feet away from underside of bucket or loader.

6. Lower pin (A). Check pin to be sure it passes all the way through bucket bracket.

7. Repeat on opposite side.



W12146
-UN-05OCT88

WX,RBSG2,K -19-30MAY89

CONNECTING GRAPPLE HOSES

1. Place transmission in "PARK" and shut off engine.

2. Relieve hydraulic pressure by moving grapple control lever back and forth several times.

3. Connect couplers.

4. Install plugs in caps.



W12133
-UN-05OCT88

WX,RBSG2,L -19-30MAY89

Storage

REMOVING THE GRAPPLE

See “Detaching the Grapple” in “Operating the Grapple” section to remove grapple from loader.

WX,RBSG2,M -19-30MAY89

STORING THE GRAPPLE

Clean the grapple thoroughly. Dirt attracts moisture which causes rust.

Paint grapple when needed.

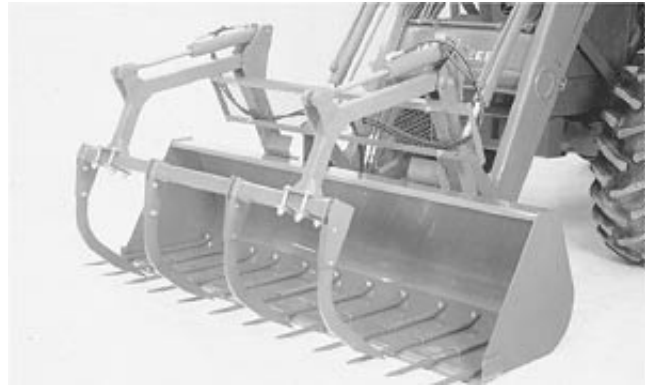
Replace missing or damaged parts including hoses, hardware, and decals.

If possible, store grapple in a dry place.

Coat exposed cylinder rods with grease to prevent rust.

Place caps or plugs on hose ends.

Store hoses on grapple. DO NOT lay them on the ground.

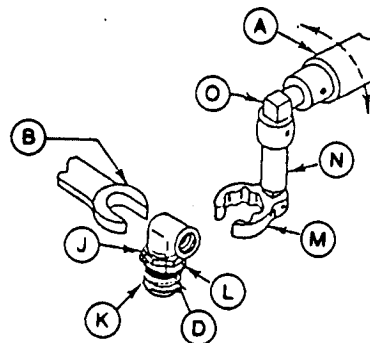
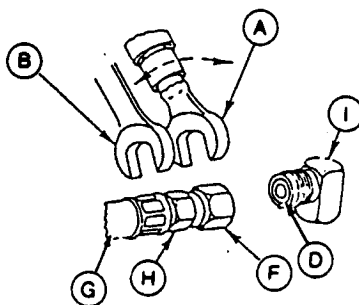
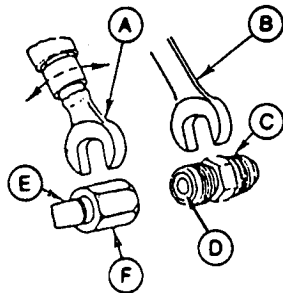


W12134 -JUN-05OCT88

WX,RBSG2,N -19-30MAY89

Assembly

TORQUE PROCEDURE FOR FITTINGS



A—Torque Wrench
B—Open-end Wrench
C—Union
D—O-Ring

E—Metal Line
F—Swivel Nut
G—Hose Connection
H—Back-Up Nut

I—Fitting
J—Jam Nut
K—Angle Fitting
L—Washer

M—Crowfoot
N—Extension
O—Drive

IMPORTANT: Kinking or twisting of hose during installation shortens hose life drastically. Be sure to follow proper procedure.

In the case of a hose, it may be necessary to use three wrenches to prevent twist; one on body, one on nut and one on fitting.

Tighten fitting or nut to torque value shown in charts.
Use one wrench to hold body and one to tighten nut.

W14816 -UN-24JAN89

WX265,PDI,BE -19-04MAY89

TIGHTENING O-RING FITTINGS*

1. Inspect O-ring and seat for dirt or obvious defects.

2. On angle fittings, back the lock nut off until washer bottoms out at top of groove.

3. Hand tighten fitting until backup washer or washer face (if straight fitting) bottoms on face and O-ring is seated.

4. Position angle fittings by unscrewing no more than one turn.

5. Tighten straight fittings to torque shown.

6. Tighten angle fittings to torque shown while holding the body of fitting with a wrench.

Thread Size (in.)	Nut Size Across Flats (in.)	Torque Value* (N-m)	Torque Value* (lb-ft)	Recommended Turns To Tighten (After Finger Tightening) (Flats)	Recommended Turns To Tighten (After Finger Tightening) (Turns)
3/8	1/2	8	6	2	1/3
7/16	9/16	12	9	2	1/3
1/2	5/8	16	12	2	1/3
9/16	11/16	24	18	2	1/3
3/4	7/8	46	34	2	1/3
7/8	1	62	46	1-1/2	1/4
1-1/16	1-1/4	102	75	1	1/6
1-3/16	1-3/8	122	90	1	1/6
1-5/16	1-1/2	142	105	3/4	1/8
1-5/8	1-7/8	190	140	3/4	1/8
1-7/8	2-1/8	217	160	1/2	1/12

*The torque values shown are based on lubricated connections as in reassembly.

W07,2SV,C -19-13APR89

TIGHTENING FLARE TYPE TUBE FITTINGS*

1. Check flare and flare seat for defects that might cause leakage.

2. Align tube with fitting before tightening.

3. Lubricate connection and hand tighten swivel nut until snug.

4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second, tighten the swivel nut to the torque shown in this chart.

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Value* (N-m)	Torque Value* (lb-ft)	Recommended Turns To Tighten (After Finger Tightening) (Flats)	Recommended Turns To Tighten (After Finger Tightening) (Turns)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4	1/8

*The torque values shown are based on lubricated connections as in reassembly.

W07,2SV,D -19-13APR89

TIGHTENING FLARE TYPE HOSE FITTINGS*

1. Check flare and flare seat for defects that might cause leakage.

2. Align tube with fitting before tightening.

3. Lubricate connection and hand-tighten swivel nut until snug.

4. To prevent twisting the hose(s), use three wrenches. Place one on the connector body, one on the body of the hose fitting and with the third, tighten the swivel nut to the torque shown in this chart.

Thread Size (in.)	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
	(N·m)	(lb-ft)	(Flats)	(Turns)
3/8	8	6	1	1/6
7/16	11	8	1	1/6
1/2	14	10	1	1/6
9/16	24	18	1	1/6
3/4	38	28	1	1/6
7/8	54	40	3/4	1/8
1-1/16	75	55	3/4	1/8
1-5/16	92	68	3/4	1/8

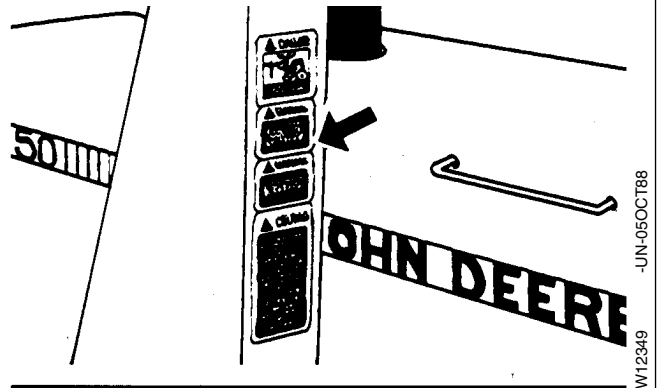
*The torque values shown are based on lubricated connections as in reassembly.

W01,5AS,N -19-13APR89

APPLY SAFETY SIGN

NOTE: Remove grease and/or dirt from area where sign is to be applied.

Apply safety sign over existing sign on left-hand loader mast.



WX,RBSG2,O -19-30MAY89

CONNECTING GRAPPLE HYDRAULICS

Grapple operation requires either an ICV with grapple function or an SCV.

Hydraulic connections for SCV operation are given in this section.

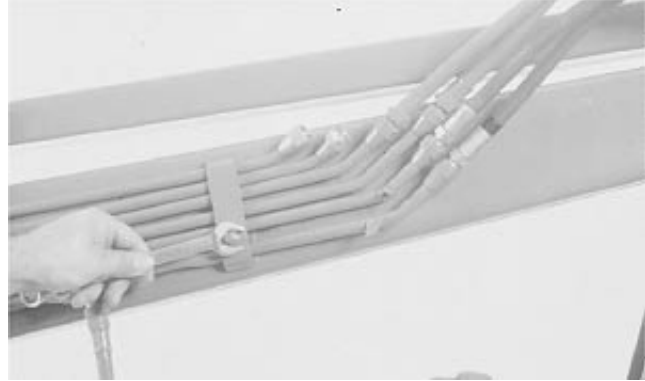
WX,RBSG2,P -19-30MAY89

INSTALL GRAPPLE OIL TUBES 245 LOADER

1. Remove and discard existing clamp. Retain nut.
2. Install two oil tubes above existing tubes.

NOTE: The top oil tube is shorter to the rear of the bend than the second oil tube.

3. Secure to loader using new clamp and nut.



WX,RBSG2,Q -19-30MAY89

W11761 -UN-06OCT88

4. Secure oil tubes with clamp (A) and one M10 x 16 cap screw.

5. On lower tube, assemble O-ring adapter, plug and external half coupler.

6. On upper tube, assemble O-ring adapter, cap and internal half coupler.

NOTE: Keep cap and plug on couplers when not in use.

7. Proceed to "Install Orifice" in this section.



WX,RBSG2,R -19-30MAY89

W11762 -UN-06OCT88

INSTALL GRAPPLE OIL TUBES 260 LOADER

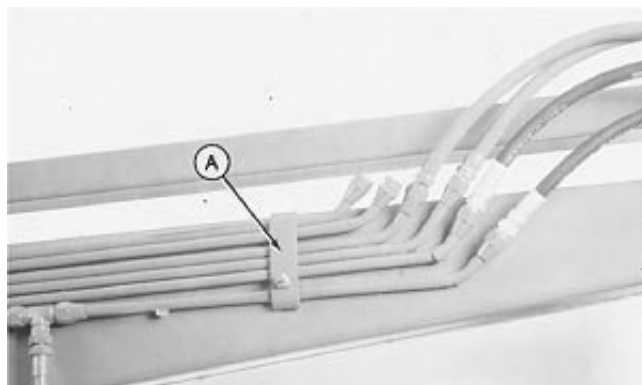
1. Remove and retain oil tube clamps and hardware.
2. Position two oil tubes (A) (shorter tube on top) above existing tubes and secure with long clamp (B) supplied and hex nut.



WX,RBSG2,S -19-30MAY89

W9486 -UN-06OCT88

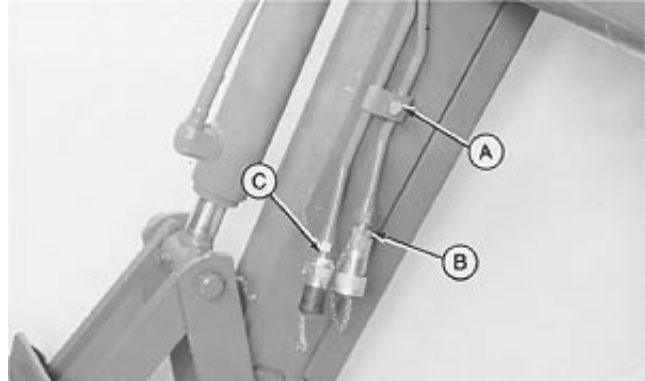
3. Install clamp (A) removed from oil tubes at torque tube and secure with hex nut.



WX,RBSG2,T -19-30MAY89

W9487 -UN-06OCT88

4. Secure oil tubes with clamp (A) and one 10 x 16 mm cap screw.
5. Assemble O-ring adapter, dust plug, and external half coupler onto lower tube (B).
6. Assemble O-ring adapter, dust cap, and internal half coupler onto upper tube (C).
7. Keep dust cap and dust plug on couplers when not in use.
8. For 2840, 2940, 2950, 3130, and 3140 Tractors with fender mounted independent control valve only, external half coupler is assembled to upper tube (C) and internal half coupler is assembled to lower tube (B).
9. Proceed to "Install Orifice" in this section.

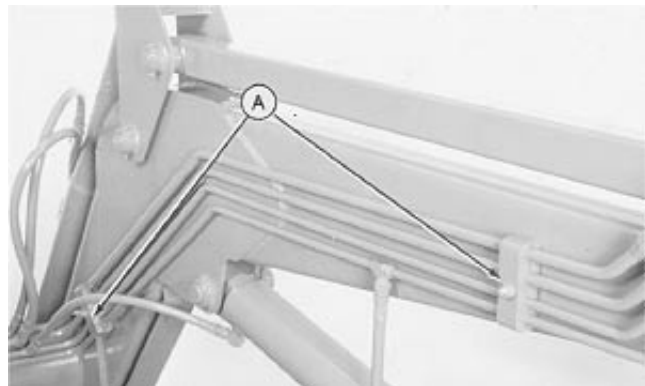


W9488 -UN-06OCT88

WX,RBSG2,U -19-30MAY89

INSTALL GRAPPLE OIL TUBES 265 LOADER

1. Remove and discard clamps (A). Retain hardware.
2. Loosen all other clamps.



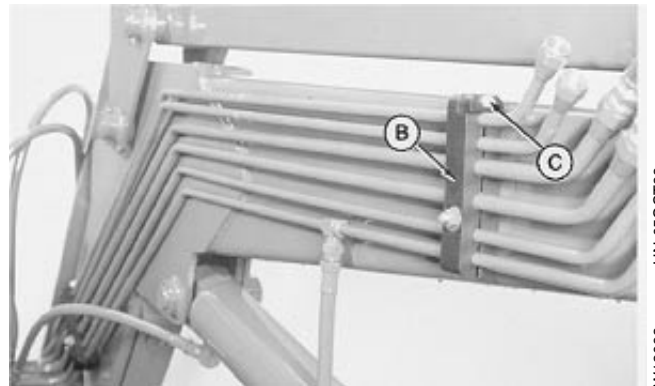
W12092 -UN-05OCT88

WX,RBSG2,V -19-30MAY89

3. Install oil tubes (A) above existing tubes (tube with short bend on top).
4. Using new clamps (B), secure tubes with washer and nut.
5. Secure top of each clamp using M6 x 40 cap screw and lock nut (C).
6. Secure tubes at (D) with clamp and M10 x 16 cap screw.
7. Tighten all clamp hardware to 15 N·m (11 lb-ft).
8. Assemble O-ring adapter, cap, and internal half coupler on top tube.
9. Assemble O-ring adapter, plug, and external half coupler on second tube.
10. Proceed to "Attach Hoses 265 Loader" in this section.



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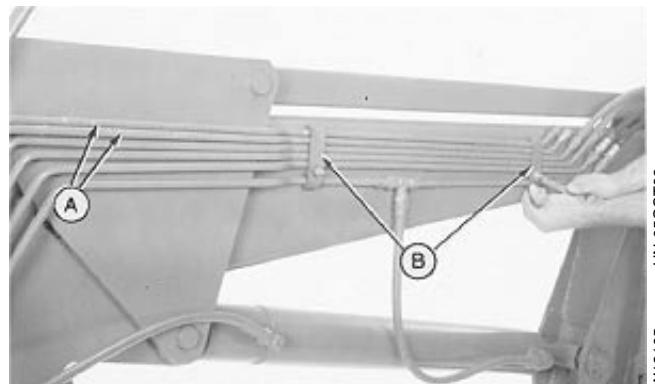


W12093 -UN-05OCT88

WX,RBSG2,W -19-30MAY89

INSTALL GRAPPLE OIL TUBES 280 LOADER

1. Position two oil tubes (A) (shorter tube on top) above existing tubes.
2. Replace existing clamps with new clamps (B) and lock nuts.

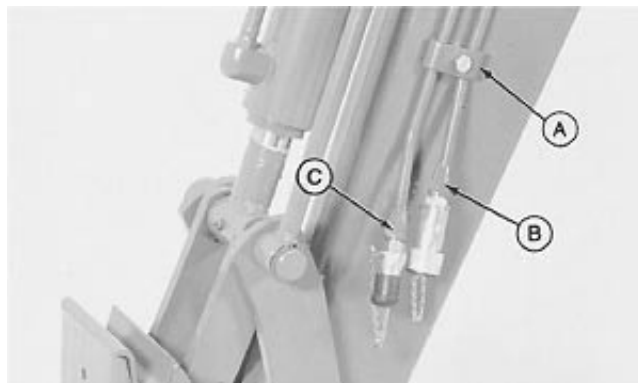


W13165 -UN-05OCT88

WX,RBSG2,X -19-30MAY89

3. Install clamp (A) with an M10 x 16 cap screw.
4. On tube (B), assemble O-ring adapter, plug, and external half coupler.
5. On tube (C), assemble O-ring adapter, cap, and internal half coupler.

NOTE: Keep cap and plug on couplers when not in use.



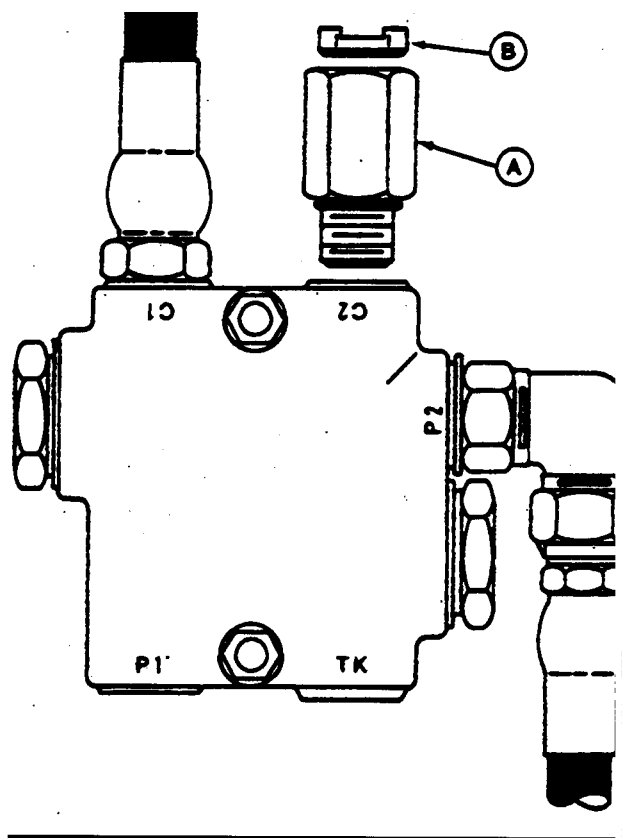
WX,RBSG2,Y -19-30MAY89

W13166 -UN-05OCT88

INSTALL ORIFICE FOR GRAPPLE HYDRAULICS 245, 260, AND 280 LOADERS

An orifice must be installed at the relief valve when operating with grapple. The orifice slows down bucket dumping cycle allowing more control of bucket.

1. Remove hose from port C2.
2. Install adapter fitting (A) with O-ring.
3. Install orifice (B) flat side down into fitting.
4. Attach hose to adapter fitting.



WX,RBSG2,Z -19-30MAY89

W9209 -UN-23FEB89

ATTACH HOSES 245, 260, AND 280 LOADERS

1. On 245 and 260 Loaders, connect two 2100 mm (83 in.) hoses (A).

On 280 Loader, connect two 2625 mm (103 in.) hoses (A).

2. Secure hoses to relief valve using nylon clamp (B), flat washer, and lock nut. Tighten to 15 N·m (11 lb-ft) torque.



W13167 -UN-05OCT88

WX,RBSG2,AA -19-30MAY89

3. Bundle hoses together and secure using hose clamp and pin assembly.

4. Attach hoses to mast using clamp and spring locking pin.



W11764 -UN-06OCT88

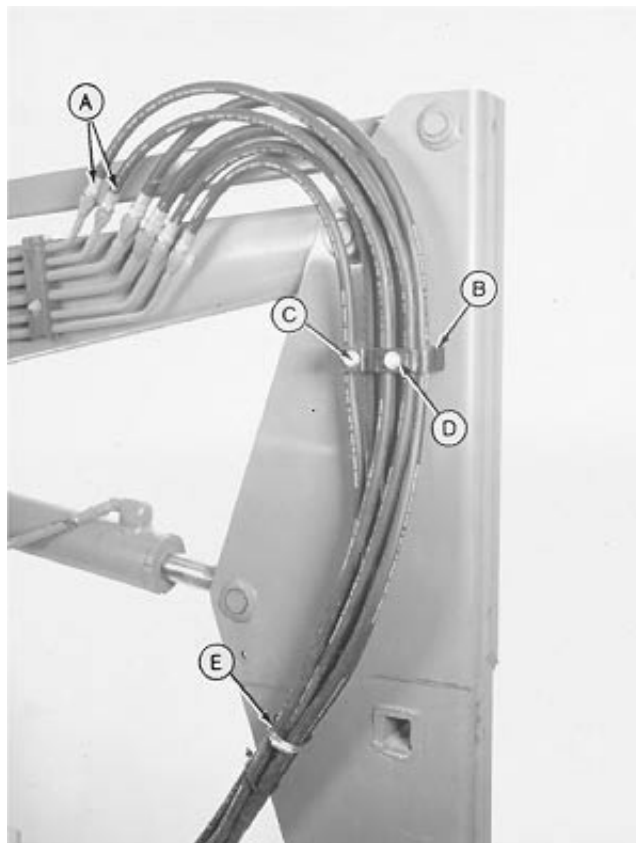


W11512 -UN-06OCT88

WX,RBSG2,AB -19-30MAY89

ATTACH HOSES 265 LOADER

1. Connect two 2625 mm (103 in.) hoses (A).
2. Assemble hose clamps (B) onto hoses using M8 x 90 bolt (C), M8 x 110 bolt (D), washers, and lock nuts.
3. Insert heads of bolts into key slots and tighten hardware to 15 N·m (11 lb-ft).
4. Bundle hoses together and secure using hose clamp and pin assembly (E).



WX,RBSG2,AC -19-30MAY89

W12095 -UN-05OCT88

INSTALL RELIEF VALVE

1. Disconnect hose from oil tube (A).
2. Install tee fitting (B) and reconnect hose.



WX265,PDI,BO -19-04MAY89

W12325 -UN-05OCT88

3. Install 90° elbow (A).
4. Connect 660 mm (26 in.) hose (B).

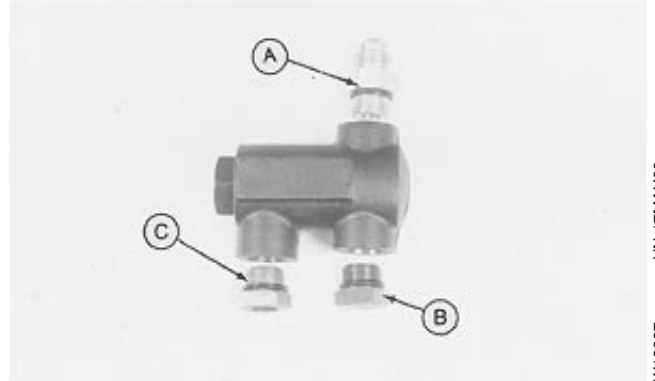


WX265,PDI,BP -19-04MAY89

W12326 -UN-05OCT88

5. Install fittings in valve.

- A—O-Ring to JIC Fitting
- B—Plug
- C—O-Ring to Pipe Fitting

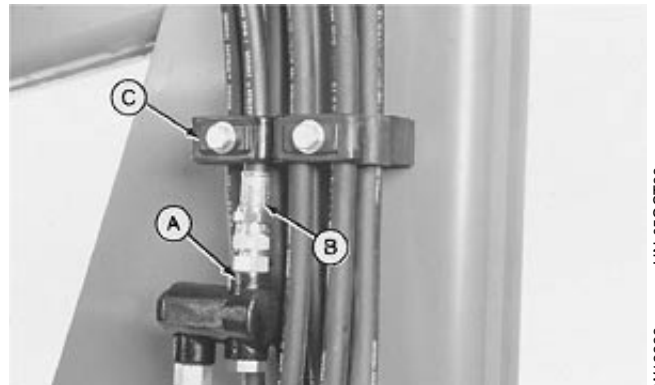


WX265,PDI,BQ -19-04MAY89

W12327 -UN-17MAY89

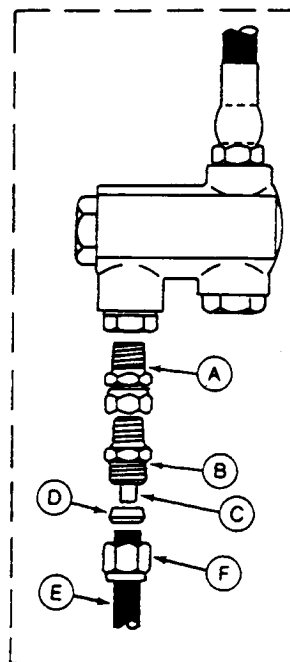
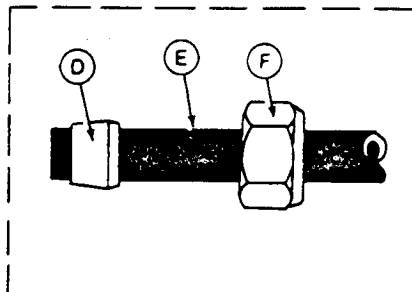
6. Attach relief valve assembly (A) to hose (B). Secure using nylon clamp (C), M8 x 110 mm bolt, flat washer, and lock nut.

NOTE: For routing of relief valve tube for Independent Control Valve operation see 265 Farm Loader Predelivery Instruction.



WX,RBSG2,AD -19-30MAY89

W12328 -UN-05OCT88



NOTE:For ICV operation, cut tube to length required for connection at control valve box. See installing Valves in ICV Utility Tractor and ICV Row-Crop Tractor in the 265 Farm Loader Operator's Manual.

For SCV operation leave tube full length.

7. Cut nylon tube if required, retain remaining portion.

8. Install nut (F) and sleeve (D) onto relief tube (E).

NOTE:Restrictor (A) is used to prevent relief tube from blowing off fitting due to pressure surges when relief valve opens.

9. Install restrictor (A) in relief valve.

10. Install straight fitting (B), slide tube onto tube support (C) and tighten nut (F).



W14917 -UN-30MAY89

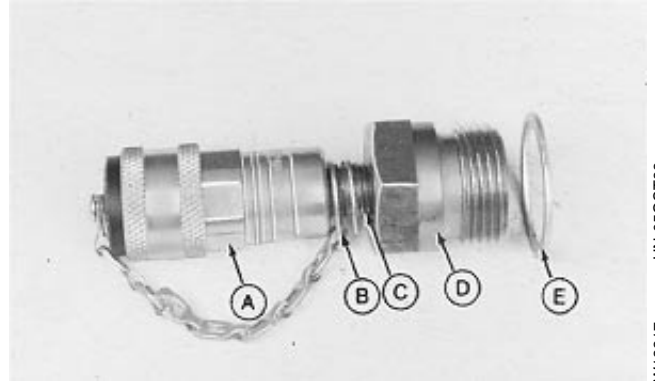
W12330 -UN-17MAY89

WX265,PDI,BS -19-31MAY89

INSTALL NYLON TUBE COUPLER ROW-CROP TRACTOR

1. Assemble coupler (A), ring with plug (B), pipe nipple (C), adapter plug (D), and washer (E).

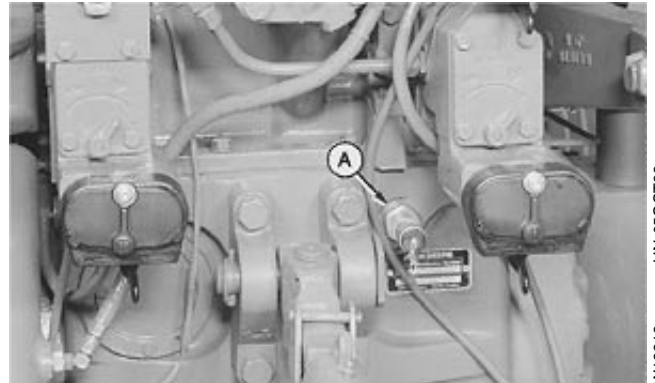
A—Coupler
B—Ring with Plug
C—Pipe Nipple
D—Adapter Plug
E—Washer



WX,RBSG2,AE -19-30MAY89

W13217 -UN-05OCT88

2. Remove plug from tractor and install coupler assembly at (A).



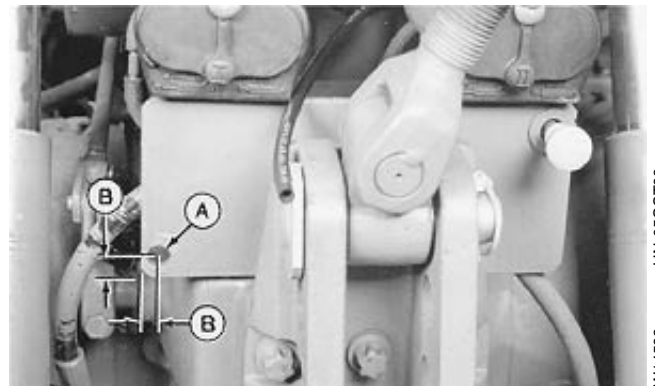
WX,RBSG2,AF -19-30MAY89

W13218 -UN-05OCT88

ATTACH NYLON TUBE TO TRACTOR 3150 AND 3155 TRACTORS

1. Mark and drill 16 mm (0.62 in.) hole (A) using dimension (B).

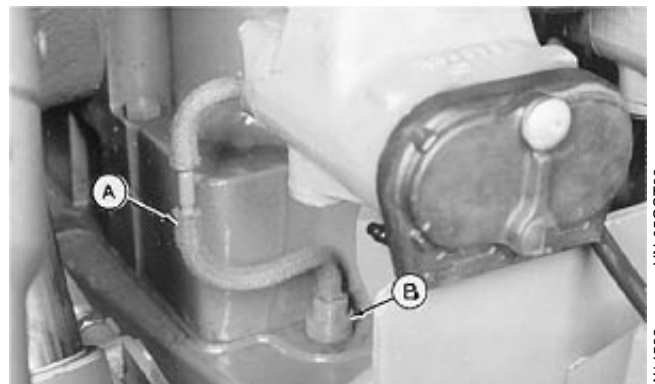
A—16 mm (0.62 in.) Hole
B—12 mm (0.5 in.)



WX,RBSG2,AG -19-31MAY89

W14583 -UN-05OCT88

2. Remove tube (A) and plug (B).

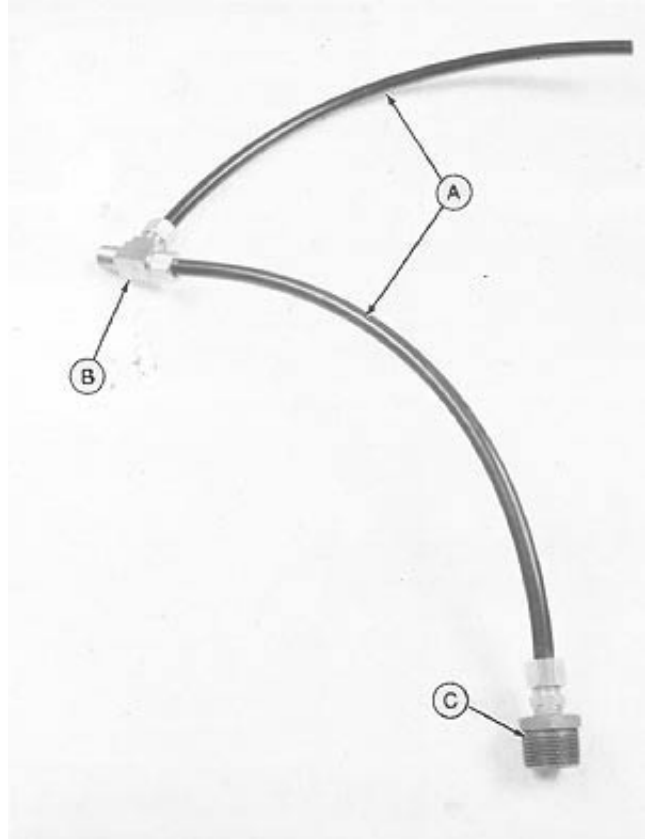


WX,RBSG2,AH -19-30MAY89

W14582 -UN-05OCT88

Assembly

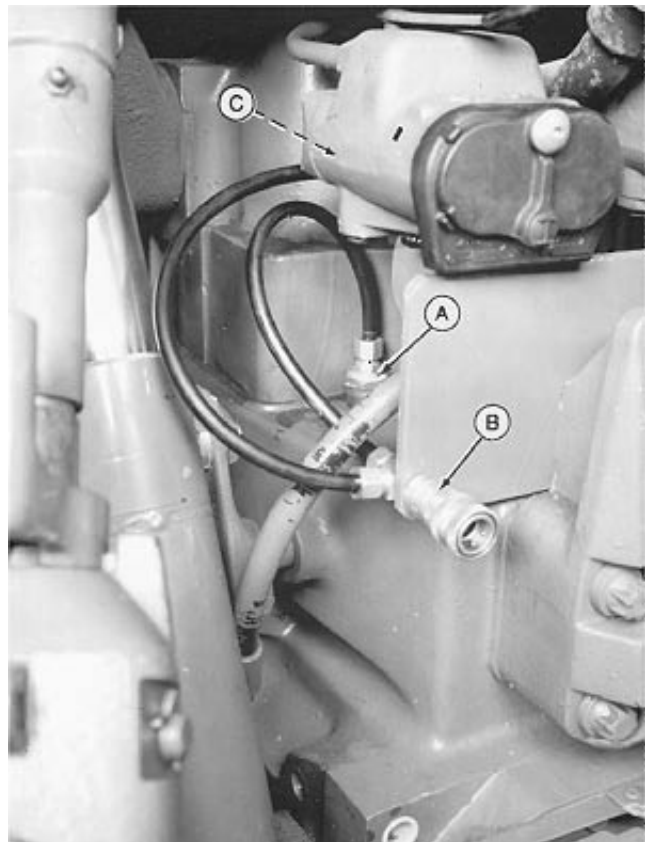
3. Cut two 318 mm (12.5 in.) lengths (A) from end of nylon tube.
4. Attach T-fitting (B) using support, sleeve and nut on each tube.
5. Attach adapter plug (C) using nut, sleeve, support and straight fitting.



WX,RBSG2,AI -19-30MAY89

W14584 -UN-05OCT88

6. Thread adapter plug (A) into tractor.
7. Route T-fitting through plate and install dust plug and internal coupler (B).
8. Attach nylon tube to existing connection at tractor (C).

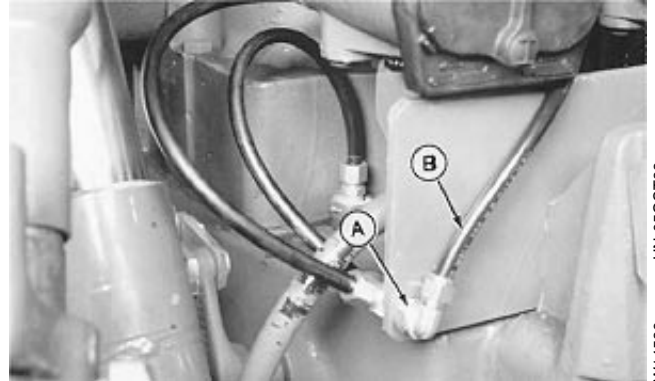


WX,RBSG2,AJ -19-30MAY89

W14585 -UN-05OCT88

9. For ICV control, install 90° fitting (A).

10. Attach hose (B) from ICV to 90° fitting using support, sleeve and nut.



WX,RBSG2,AK -19-30MAY89

W14586
-UN-05OCT88

ATTACH NYLON TUBE TO TRACTOR ALL OTHER UTILITY TRACTORS

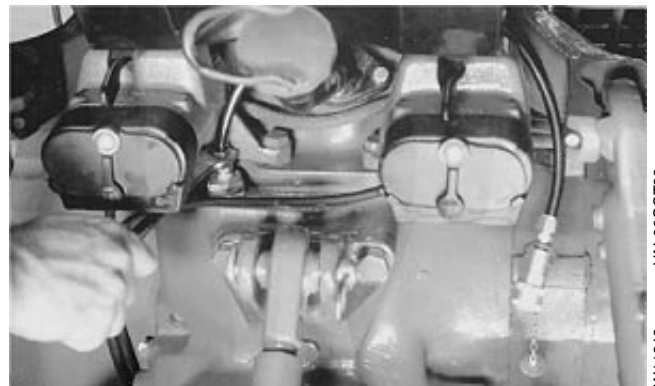
1. Remove plug from rear of tractor.
2. Install adapter plug and straight fitting.



WX,RBSG2,AL -19-31MAY89

W11834
-UN-06OCT88

3. Install sleeve and nut on 500 mm (20 in.) length of tube cut from full length supplied.
4. Assemble plug, coupler, and 90° elbow.
5. Secure to tube at nut and 90° elbow.
6. Attach tube to straight fitting on tractor using sleeve and nut.



WX,RBSG2,AM -19-30MAY89

W11843
-UN-06OCT88

INSTALL COUPLER ON NYLON TUBE

1. Install nut and sleeve on tube from relief valve.
2. Assemble ring with cap, coupler, and 90° elbow.
3. Attach tube to 90° elbow.

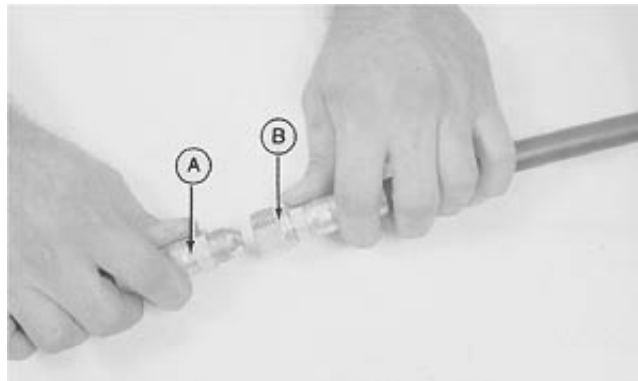


WX,RBSG2,AN -19-30MAY89

W11837
-UN-06OCT88

CONNECT EXTENSION HOSES

1. Connect two 2100 mm (83 in.) hoses (A) to end of hoses (B) from oil tubes.
2. Route hoses over axle to rear of tractor to the inside fender of SOUND-GARD body frame.



WX,RBSG2,AO -19-30MAY89

W11704 -UN-06OCT88

3. Attach 90° fittings, couplers, and caps. Do not tighten.

NOTE: ISO couplers are provided. Obtain John Deere couplers through parts.

4. Connect couplers to tractor:

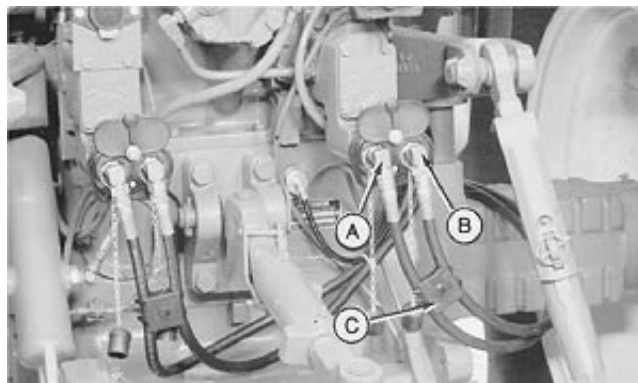
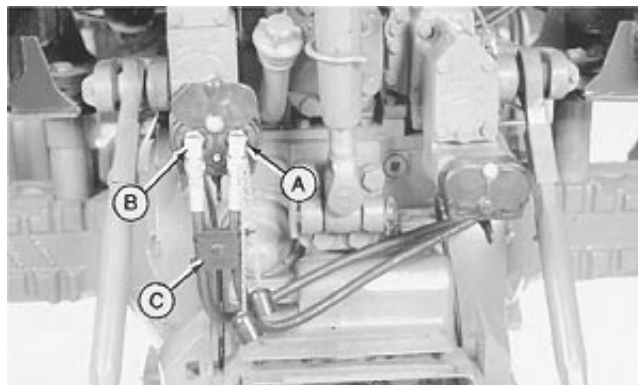
Loader with ICV controls, Utility Tractor, use left-hand SCV.

Loader with ICV controls, Row-Crop Tractor, use right-hand SCV.

Loader with SCV controls, use upper right-hand SCV.

5. Attach identification block (C) with nylon ties.

A—Rod-End Grapple Cylinder
B—Head-End Grapple Cylinder



WX,RBSG2,AP -19-30MAY89

W13096 -UN-06OCT88

W13206 -UN-06OCT88

ATTACH HOSE BRACKET

Attach bracket using existing hardware.

NOTE: Hose bracket is not required on Utility Tractor without SOUND-GARD body.



Utility Tractor w/ SOUND-GARD Body



Row-Crop Tractor

WX,RBSG2,AQ -19-31MAY89

SECURE HOSES

1. Assemble clamp onto hoses.
2. Attach hoses with spring locking pin.
3. Secure hoses together with nylon ties every 460 mm (18 in.).



W13033
-UN-06OCT88

Utility Tractor



W13054
-UN-06OCT88



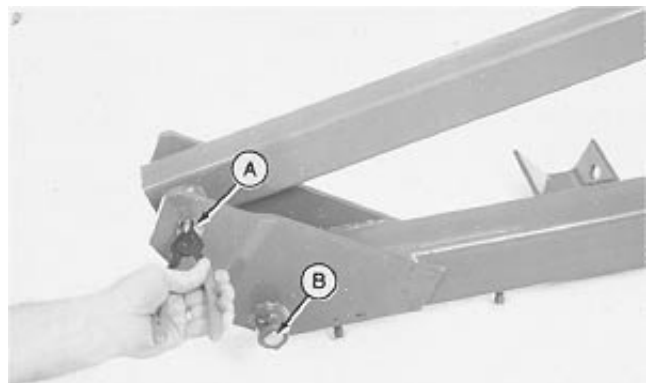
W13055
-UN-06OCT88

Row-Crop Tractor

WX,RBSG2,AR -19-30MAY89

DISASSEMBLE GRAPPLE FRAME

1. Separate bundle and remove all dunnage.
2. Remove and retain snap ring and pin (A).
3. Remove and retain cotter pin and drilled pin from pin (B). Remove pin (B).



W12120
-UN-05OCT88

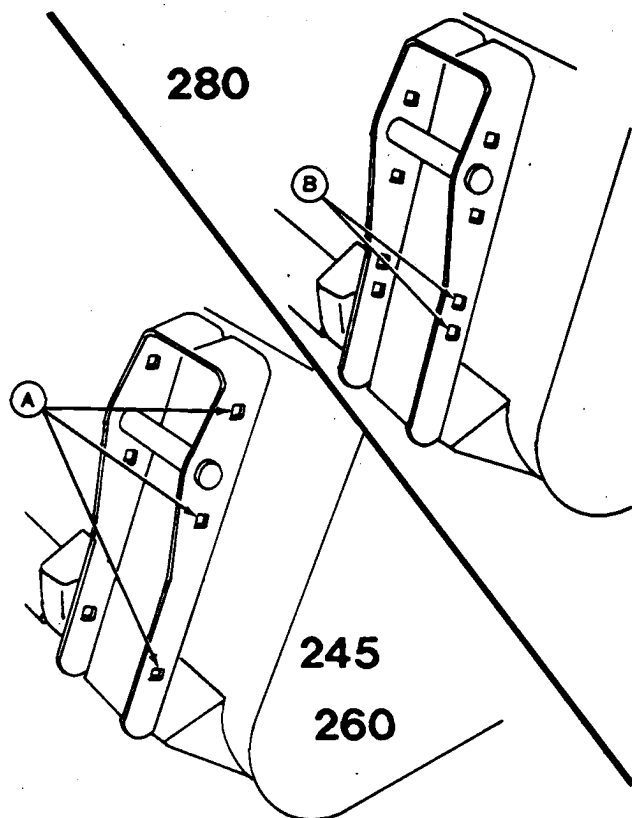
WX,RBSG2,AS -19-30MAY89

MODIFY BUCKET BRACKETS

NOTE: Older 200 Series buckets have to be modified by drilling and filing holes.

1. For 245 and 260 Loaders, attach grapple frame support using holes (A) in buckets.

For 280 Loaders, attach support using holes (B).

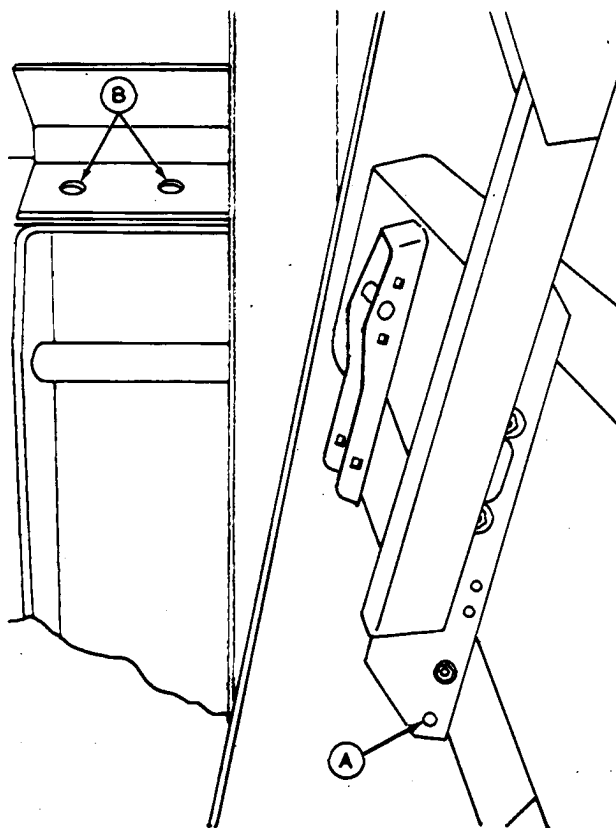


WX,RBSG2,AT -19-30MAY89

W12313 -UN-05OCT88

2. For 245 and 260 Loader, use support as a template and drill three 17 mm (0.67 in.) holes (A) and (B).

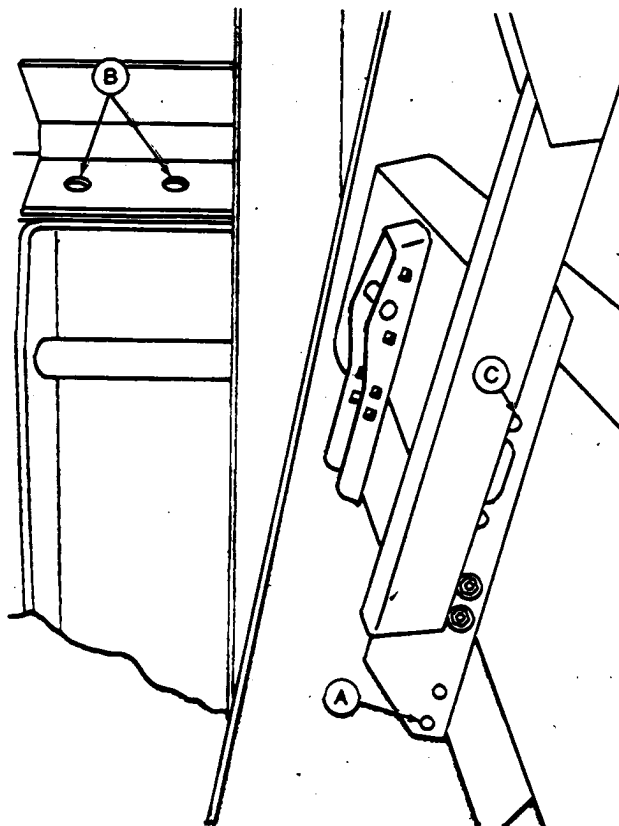
3. Remove support and file holes square.



WX,RBSG2,AU -19-30MAY89

W12314 -UN-05OCT88

4. For 280 Loader, use support as a template and drill three 17 mm (0.67 in.) holes (A) and (B).
5. Using a round file, enlarge hole (C) to match support.
6. Remove support and file all holes square.



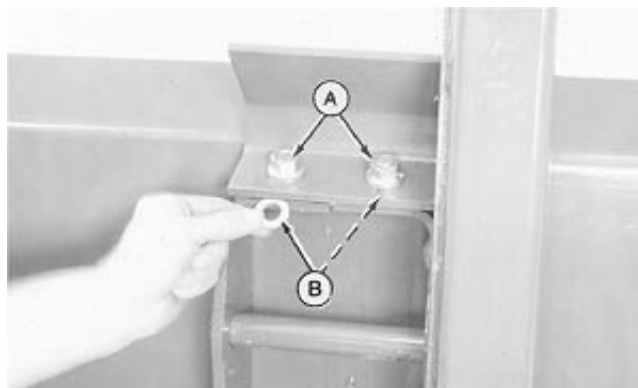
WX,RBSG2,AV -19-30MAY89

W12315 -UN-05OCT88

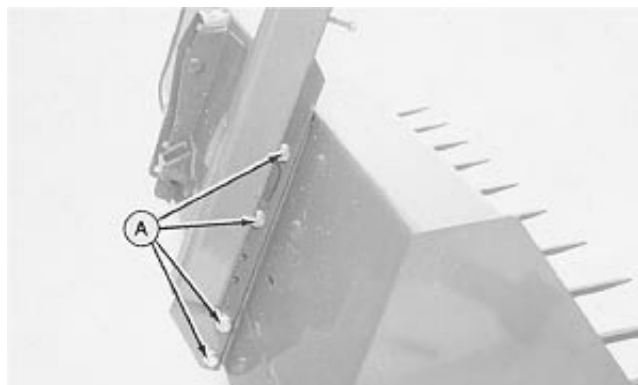
ASSEMBLE GRAPPLE

NOTE: On grapple frame support only, coat nut threads with oil before assembling (A).

1. Attach frame to bracket with six M16 x 50 bolts, hardened washers, and nuts (A).
2. Use flat washers (B) to shim between frame and bracket as required.
3. Repeat on opposite end of bucket.



W12121 -UN-05OCT88



W12122 -UN-05OCT88

WX,RBSG2,AW -19-30MAY89

Assembly

4. Tighten hardware to 353 N·m (260 lb-ft).



WX,RBSG2,AX -19-30MAY89

W12126 -UN-05OCT88

5. Attach support to frame using pin, drilled pin, and cotter pins.



WX,RBSG2,AY -19-30MAY89

W12123 -UN-05OCT88

6. Attach beam to support with two straps, four M16 x 140 cap screws, and flange nuts.
7. Repeat on opposite end.
8. Tighten to 353 N·m (260 lb-ft).



WX,RBSG2,AZ -19-30MAY89

W12124 -UN-05OCT88

9. Attach cylinder to support using two pins and snap rings.
10. Repeat on opposite end.

NOTE: For ease in assembly, use overhead hoist.



WX,RBSG2,BA -19-30MAY89

W12125 -UN-05OCT88

Assembly

11. Attach each tine to beam using two M12 x 60 cap screw and flange nuts. Tighten to 235 N·m (173 lb-ft).



WX,RBSG2,BB -19-30MAY89

W12127 -UN-05OCT88

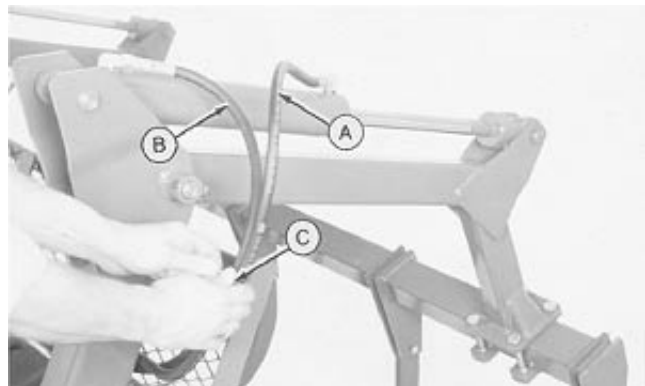
12. Attach guard to frame using two nuts on each end. Tighten to 95 N·m (70 lb-ft).



WX,RBSG2,BC -19-30MAY89

W12128 -UN-05OCT88

13. Install 90° elbow in each cylinder port.
14. Attach 1650 mm (65 in.) hose (A) to 90° elbow in rod-end of cylinder.
15. Attach 1400 mm (55 in.) hose (B) to 90° elbow in head-end of cylinder.
16. Route hoses behind frame and secure with nylon tie (C).
17. Repeat on opposite cylinder.



WX,RBSG2,BD -19-30MAY89

W12129 -UN-05OCT88

18. Route hoses to center of grapple.

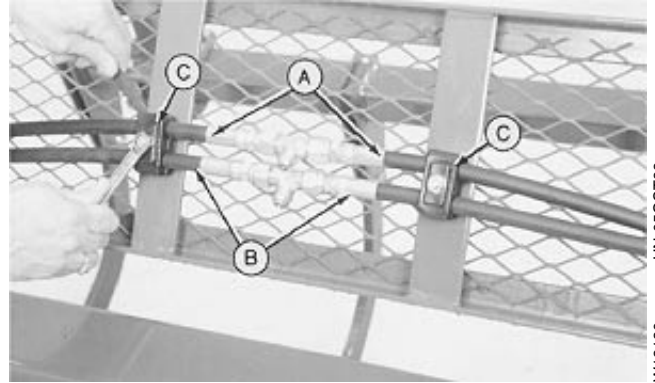
19. Connect hoses (A) from rod-end of cylinders using T-fitting.

20. Connect hoses (B) from head-end of cylinders using T-fitting.

21. Secure hoses to shield with two M8 x 55 cap screws, clamps, and flange nuts (C). Tighten to 15 N-m (11 lb-ft).

22. Assemble cap and plug onto ring and attach ring, adapter, and external half coupler onto 1800 mm (71 in.) hose and connect to T-fitting on hoses (A) rod-end grapple cylinder.

23. Assemble adapter and internal half coupler onto 1800 mm (71 in.) hose and connect to T-fitting on hoses (B) head-end grapple cylinder.



W12130 -UN-05OCT88

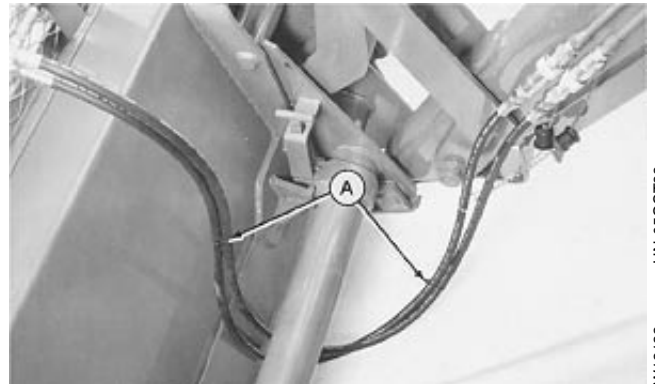


W12131 -UN-05OCT88

WX,RBSG2,BE -19-30MAY89

24. Route hoses under carrier frame, connect couplers, and install plugs in caps.

25. Tie hoses together at (A) using nylon ties.



W12132 -UN-05OCT88

WX,RBSG2,BF -19-30MAY89

CHECK GRAPPLE OPERATION

⚠ CAUTION: Help prevent bodily injury from incorrect movement of grapple. If cylinder response is reversed, extending when it should retract, reverse connections at rear of tractor.

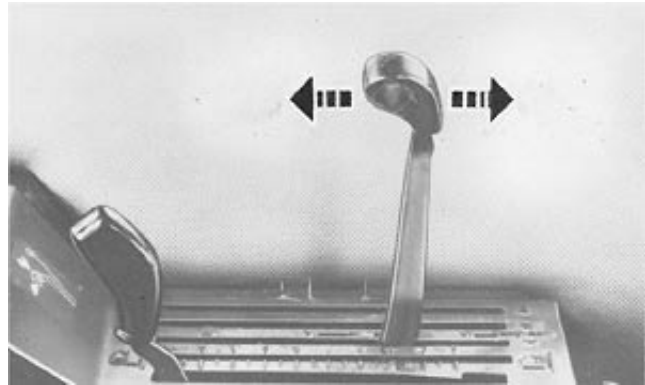
1. Start tractor and operate lever to check grapple function. Slowly move lever forward to close grapple and rearward to open.

NOTE: Be sure to install Grapple Stops, see "Install Grapple Stops" in this section.



-UN-06OCT88

W9323



-UN-05OCT88

W12395

WX,RBSG2,BG -19-31MAY89

INSTALL GRAPPLE STOPS 265 LOADER ONLY

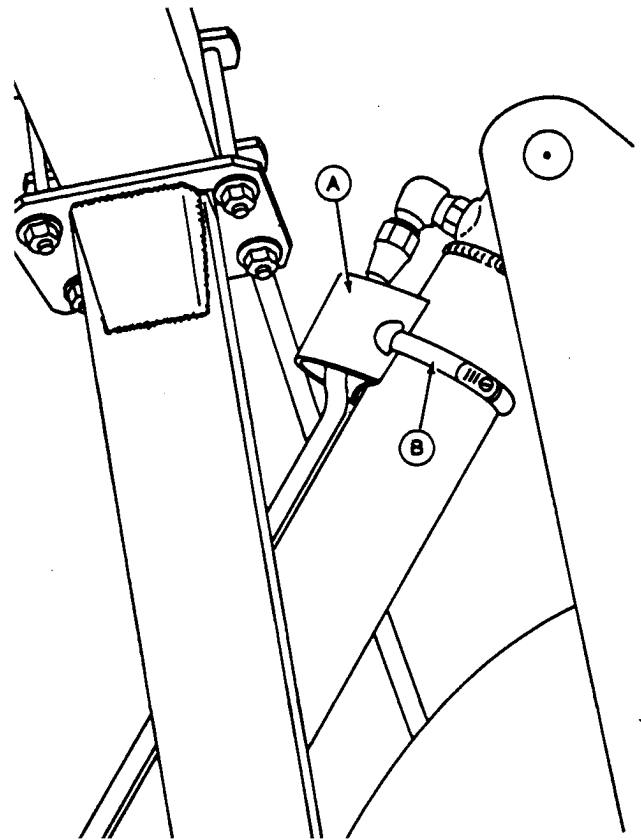
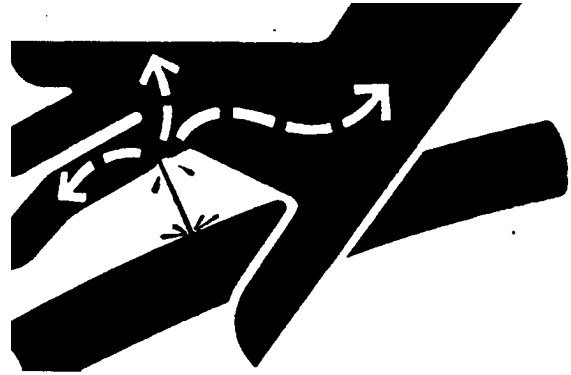
1. Roll back bucket fully, open grapple slowly and mark where grapple frame contacts cylinder tube.



CAUTION: 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 may call the Deere & Company Medical Department in Moline, Illinois, or other knowledgeable medical source.

2. Shut off engine and relieve hydraulic pressure in the system by moving levers back and forth several times.
3. Disconnect oil tube from head-end of cylinder.
4. Install (A) over hydraulic tube central to position marked and fasten using hose clamp (B).
5. Connect hydraulic tube to cylinder and repeat on opposite side.
6. Check both stops for contact and adjust if necessary.
7. Retract all cylinders fully and check tractor transmission/hydraulic oil level. (See your tractor Operator's Manual.)



X9811 -JUN-23AUG88

W14965 -UN-07JUN89

WX,RBSG2,BH -19-31MAY89

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Decal location 05-4

L

Lift capacity of grapple 15-2

John Deere Service Literature Available

PARTS CATALOG

The parts catalog lists service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.



TS189
-UN-17JAN89

O53,PARTS -19-27NOV85

OPERATOR'S MANUAL

The operator's manual provides safety, operating, maintenance, and service information about John Deere machines.

An extra copy of the operator's manual is important if the copy furnished with your machine is misplaced.



TS190
-UN-17JAN89

O53,OM -19-27NOV85

FMO AND FOS MANUALS

These are basic manuals covering most types and makes of machinery. FMO manuals tell you how to OPERATE agricultural machinery; FOS manuals tell you how to SERVICE machine systems. Each manual starts with basic theory and is fully illustrated with colorful diagrams and photographs. Both the "whys" and "hows" of adjustments and repairs are covered in this reference library.



TS195
-UN-02DEC88

O53,FMOFOS -19-27NOV85

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100.00 to 249.99	12.50
250.00 and Over	22.00

Illinois state residents add 6.25%; Iowa residents add 4% for retail occupation tax or show tax exemption number.

Shipping, Handling, & Insurance

Check or money order in U.S.
Dollars enclosed Total (Do not send cash or stamps)

SP-319 Apr-89

WX,W38952,SLIT -19-30MAY89

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.



O53,IBC,A -19-19AUG88

TS100 -UN-23AUG88

THE RIGHT TOOLS

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly . . . to save you time and money.



O53,IBC,B -19-03SEP85

TS101 -UN-23AUG88

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!



O53,IBC,C -19-03SEP85

TS102 -UN-23AUG88

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

O53,IBC,D -19-03SEP85