762B Scraper (S.N. —791763) 862B Scraper (S.N. —793082) Repair

For complete service information also see:

762B and 862B Scrapers
Operation and Tests
Fuel Injection Equipment—
Robert Bosch TM1215
6466 Engine CTM1
6619 Engine CTM9
Radial Piston Pumps CTM7
Alternators and Starting Motors CTM77

John Deere Dubuque Works TM1490 (09FEB99)

LITHO IN U.S.A. ENGLISH

JOHN DEERE DEALERS

IMPORTANT: Please remove this page and route through your service department.

This manual TM1490 supercedes TM1378, 762B and 862B Scraper.

This is a complete revision for TM1378, 762B and 862B Scraper.

Binder from old manual may be saved and used with these bound manuals.

The new pages are dated (Jan-95). Listed below is a brief explanation of "WHAT" was changed and "WHY" it was changed.

This manual was revised:

1. To include repair stories for bowl, sliding floor, and ejector gate cylinders.

2. To include the updated elevator control lever and linkage. Also includes component location drawings for revised plumbing.

3. To include an electrical test for transmission controls.

TX,BC,265 -19-05JAN96

0001

-UN-23AUG88

TS227

-UN-23AUG88

S204

-19-03MAR93

HANDLE FLUIDS SAFELY—AVOID FIRES

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



DX,FLAME -19-29SEP98

DX,SPARKS

PREVENT BATTERY EXPLOSIONS

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

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

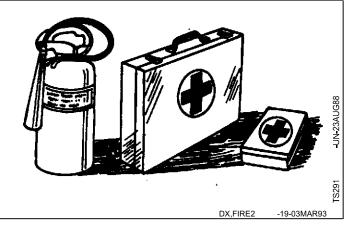
Do not charge a frozen battery; it may explode. Warm battery to $16^{\circ}C$ ($60^{\circ}F$).

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.



PREVENT ACID BURNS

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

Avoid the hazard by:

0001

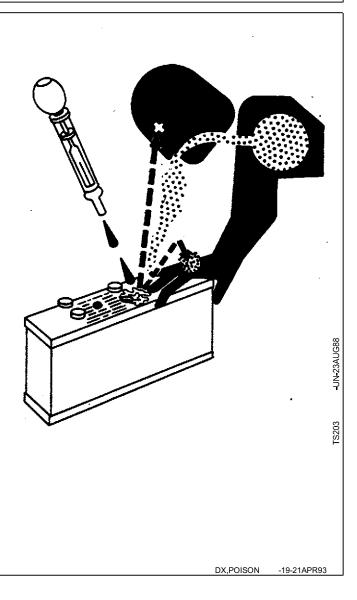
- 1. Filling batteries in a well-ventilated area.
- 2. Wearing eye protection and rubber gloves.
- 3. Avoiding breathing fumes when electrolyte is added.
- 4. Avoiding spilling or dripping electrolyte.
- 5. Use proper jump start procedure.

If you spill acid on yourself:

- 1. Flush your skin with water.
- 2. Apply baking soda or lime to help neutralize the acid.
- 3. Flush your eyes with water for 15—30 minutes. Get medical attention immediately.

If acid is swallowed:

- 1. Do not induce vomiting.
- 2. Drink large amounts of water or milk, but do not exceed 2 L (2 quarts).
- 3. Get medical attention immediately.



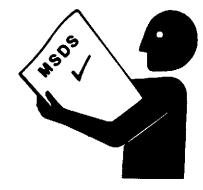
HANDLE CHEMICAL PRODUCTS SAFELY

Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with your machine include such items as lubricants, coolants, paints, and adhesives.

A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques.

Check the MSDS before you start any job using a hazardous chemical. That way you will know exactly what the risks are and how to do the job safely. Then follow procedures and recommended equipment.

See your authorized dealer for MSDS's on chemical products used with your machine.



TS1132

0001

TX,05,DH2500 -19-020CT92

AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.



DX,FLUID -19-03MAR93

NOTE: The tire can be removed without removing the wheel from the scraper.

See John Deere Off-The-Road Tire Maintenance Manual to remove tire from wheel.

CAUTION: Failure to follow proper procedures when demounting a tire from a wheel or rim can produce an explosion which may result in serious bodily injury. DO NOT attempt to demount a tire unless you have the proper equipment and experience to perform the job safely. Have it done by a qualified tire repair service.

1. Before attempting any demounting operation, always completely deflate tire by removing valve core from valve. Check the valve stem by running a probe through it, making sure the valve stem is not plugged. Remove valve nut.

2. Inspect all parts for damage; replace parts as necessary.

CAUTION: Failure to follow proper procedures when mounting a tire on a wheel or rim, can produce an explosion which may result in serious bodily injury. DO NOT attempt to mount a tire unless you have the proper equipment and experience to perform the job safely. Have it done by a qualified tire repair service.

NOTE: See John Deere Off-The-Road Tire Maintenance Manual to mount tire on wheel.

3. Make sure all parts are clean and free from rust or grease before assembly.

4. To prevent slipping of the wheel under load, the inside and outside of wheel must be free of paint,

rust, oil, grease, dirt or other foreign material before installation.

5. Install valve stem in rim base and tighten valve core housing finger tight.

6. Put John Deere non-soap lubricating grease, or an equivalent, on threads of pipe cap.



CAUTION: Serious bodily injury can occur from explosion when mounting and inflating tires if safe procedures are not followed.

7. Before mounting tire on rim, add soap lubricant to beads of the tire and O-ring.

8. Before inflating tire, make sure the bead seat ring fits tight against the base all around the circumference.

9. Clear the area of all persons.

10. Use a pressure-regulating valve with clip-on chuck and extension hose long enough to allow you to stand well to one side and NOT in front of the assembly while inflating.

11. Use only recommended air pressure. Pressure over this limit can cause explosion.

12. Add air until side flange of tire slides out against the bead seat ring.

13. Before completely inflating tire, again make certain the bead seat ring is in its proper groove completely around the rim.

14. Check air pressure in all tires with an accurate gauge having 7 kPa (0.1 bar) (1 psi) graduations. Be sure that tire pressures are equal for all four tires.

TIRE INFLATION CHART

	Tire Size	Pressure	
06	23.5 x 25 26.5 x 25 22 PR E2 26.5 x 25 (all others) 26.5 x 29 29.5 x 25 (radials) 29.5 x 25 22 PR	. 276 kPa (2.8 bar) (40 psi) . 380 kPa (3.8 bar) (55 psi) . 350 kPa (3.5 bar) (50 psi) . 310 kPa (3.1 bar) (45 psi)	

NOTE: Tire inflation pressure give on this chart are recommendations only and do not include all working conditions. For further details, see tire manufacturing specifications.

T47,0110,K8 -19-05SEP95

SPECIAL OR ESSENTIAL TOOLS

NOTE: Order tools according to information given in the U.S. SERVICEGARD™ Catalog or in the European Microfiche Tool Catalog (MTC).

Suspension Axle Bushing KitJDG898Bushing InstallerJDG898-1Bushing ReceiverJDG898-2SpacerJDG898-3Bushing RemoverJDG898-3Forcing ScrewJDG898-4Special NutJDG898-6

To remove and install suspension axle frame end bushings.

JDG898 -19-25AUG94

DX,TOOLS

-19-20JUL95

SERVICE EQUIPMENT AND TOOLS

NOTE: Order tools from your SERVICE-GARD™ Catalog. Some tools may be available from a local supplier.

Name	Use
Low Lift Transmission Jack	To remove and install suspension axle assembly.
110 mm Disk	To remove suspension axle frame bushing sleeve.
27 t (30-Ton) Hydraulic Ram	To remove and install bushings in suspension axle frame ends.
*JT38053 Alignment Tool	To check differential drive shaft alignment.

*Fabricated tool, dealer made. (See Section 99 for instructions to make tool.)

T47,0200,C4 -19-25AUG94

SPECIFICATIONS

Item	Measurement	Specification
762B:		
Axle Housing-to-Differential Case Cap Screws	Torque	338 N·m (250 lb-ft)
Differential-to-Frame Nuts	Torque	945 N·m (685 lb-ft)
Drive Shaft Cap Screws	Torque	163 N·m (120 lb-ft)
Axle and Differential	Weight	934 kg (2059 lb)
Axle	Weight	271 kg (598 lb)
862B:		
Axle Housing-to-Differential Case Cap Screws	Torque	338 N·m (250 lb-ft)
Suspension Axle Frame Bushings	Installed Distance Between Inner Sleeve of Bushings	894 ± 1.5 mm (35.19 ± 0.06 in.)
Stabilizer Bar Outer Race	Distance Below Surface	3.3 ± 0.51 mm (0.13 ± 0.02 in.)
Suspension Axle Frame-to-Axle Nuts (for 559 mm [22 in.] bolts) (8 used)	Torque	271 N·m (200 lb-ft) Continue tightening 5 Flats
Suspension Axle Frame-to-Axle Nuts (for 356 mm [14 in.] bolts) (4 used)	Torque	136 N·m (100 lb-ft) Continue tightening 4 Flats
Suspension Axle Cylinders	Extension Height	102 ± 12 mm (4.0 ± 0.5 in.)
Differential-to-Frame Nuts	Torque	14 214 N·m (1030 lb-ft)
Drive Shaft Cap Screws	Torque	102 N·m (75 lb-ft)
Axle and Differential (Non-Suspension)	Weight	1381 kg (3044 lb)
Axle and Differential (Suspension)	Weight	1641 kg (3617 lb)
Axle	Weight	377 kg (831 lb)

REMOVE AND INSTALL AXLE (NON-SUSPENSION) AND DIFFERENTIAL

NOTE: Axle housing and differential must be removed as an assembly.

Remove bottom guard.

Drain differential.

Oil Capacity Specification

Remove wheels. (See Group 0110.)

Disconnect drive shaft (F).

Disconnect park brake cable (A).

Disconnect lines (B-E).

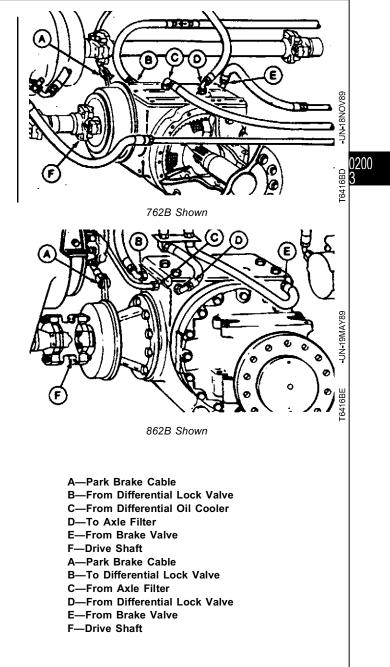
CAUTION: 762B:

Axle and differential assembly weighs approximately 934 kg (2059 lb).

862B:

Axle and differential assembly weighs approximately 1381 kg (3044 lb).

Connect differential-axle assembly to a hoist. Remove six mounting cap screws from each side.



T47,0200,C5 -19-05SEP95



Axle housing weighs approximately 271 kg (598 lb).

862B:

Axle housing weighs approximately 377 kg (831 lb).

0200

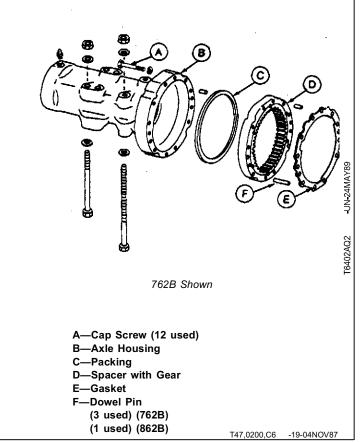
Remove cap screws (A) to remove axle housing. DO NOT let brake backing plate and disk fall.

NOTE: Use a new gasket (E) when assembling axle.

Install dowel pins (F) with small end out, in axle housing.

Assemble axle housing (B) and parts shown to differential case. Make sure brake disk and backing plate stay in place in differential.

Install two cap screws (A) finger tight. Check to make sure axle shaft turns. If it does not, brake disk is assembled incorrectly.



Install differential assembly and mounting cap screws. Tighten cap screws.

AXLE AND DIFFERENTIAL TORQUE SPECIFICATIONS

762B:

Axle housing-to-differential	
case cap screws 3	338 N·m (250 lb-ft)
Differential-to-frame nuts	945 N·m (685 lb-ft)
Drive shaft cap screws1	63 N·m (120 lb-ft)

862B:

/01D1
Axle housing-to-differential
case cap screws
Differential-to-frame
nuts
Drive shaft cap screws 102 N·m (75 lb-ft)

Connect lines, park brake cable, and drive shaft. Tighten drive shaft cap screws.

Fill with correct oil.

Install wheels and bottom guard.

REMOVE SUSPENSION AXLE AND DIFFERENTIAL—862B

NOTE: Suspension axle and differential must be removed as an assembly.

Position two blocks of wood in front of oscillation hitch to prevent scraper from turning.

Raise machine using suspension or bowl hydraulics. Block machine securely under engine frame.

NOTE: Suspension cylinders rely on weight of machine to retract. Cylinders can be manually retracted by pushing leveling valve spool up.



CAUTION: Suspension axle and differential assembly weighs approximately 1641 kg (3617 lb).

Install a low lift transmission jack under differential.

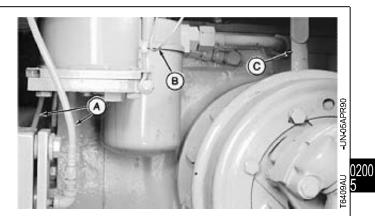
Remove wheels. (See Group 0110.)

If differential is to be removed from axle, drain oil from differential. Capacity is approximately 32 L (8.5 gal).

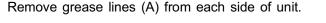
Disconnect axle filter restriction indicator wire (B) from filter housing.

Disconnect two grease lines (A) from both sides of machine.

Disconnect park brake cable lever (C).



T47,0200,C8 -19-05SEP95





Disconnect leveling valve rod at yoke (A).

Remove axle to leveling valve rod.



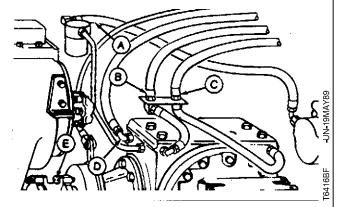
T47,0200,C10 -19-11SEP86

Disconnect hydraulic lines (B and C) at bracket. Remove bracket.

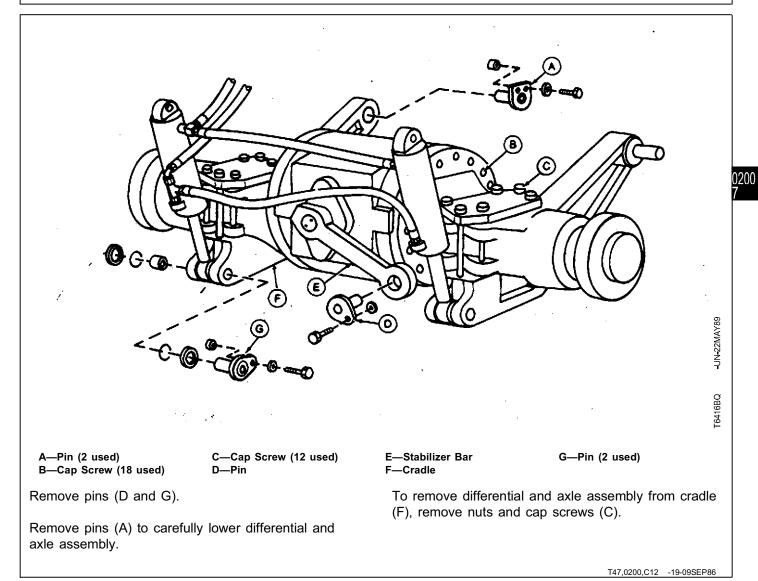
Disconnect lines (A and D).

Disconnect drive shaft (E).

A—From Pump to Filter Differential B—From Differential Lock Valve C—From Brake Valve D-To Differential Lock Valve E—Transmission-to-Differential Drive Shaft



T47,0200,C11 -19-11SEP86



CAUTION: Approximate weight of axle housing is 377 kg (831 lb). Remove cap screws to remove axle housing. DO NOT B let brake backing plate (B) and disk (E) fall. Use new gasket (A) when installing axle housing. C Install dowel pin (C) with small end out. UN-05APR90 Install two cap screws finger tight. Check to make sure axle shaft turns. If it does not, brake disk is assembled incorrectly. If shaft turns, install and tighten rest of cap screws. 16BT AXLE HOUSING TORQUE SPECIFICATIONS F641 Axle Housing-to-Differential A—Gasket **B—Brake Backing Plate** C—Dowel Pin D—Axle Housing E-Brake Disk T47,0200,C13 -19-12SEP94

REMOVE AND INSTALL SUSPENSION AXLE FRAME BUSHINGS—862B

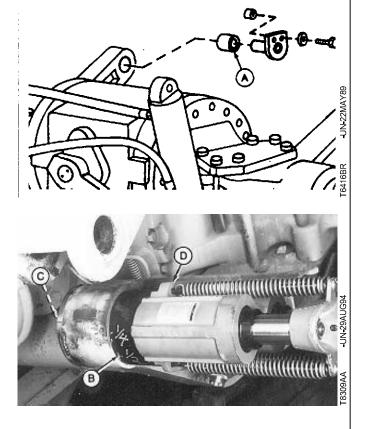
NOTE: Removing the bushing as an assembly causes the rubber insert to swell making removal difficult. To make removal less difficult, remove the inner sleeve first, then the rubber insert and outer sleeve.

1. Remove the inner sleeve of bushing (A) using bushing receiver (B), bushing remover (C), forcing screw, special nut, and 30-ton hydraulic ram (D).

2. Remove the outer sleeve and remaining rubber insert using a 110 mm disk, receiver, screw, nut and hydraulic ram.

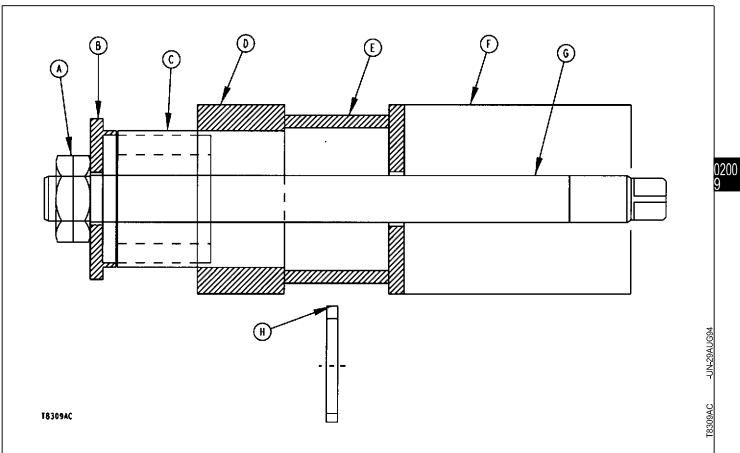
3. Clean bores of any rust and foreign material.

A—Bushing B—JDG898-2 Bushing Receiver C—JDG898-4 Bushing Remover JDG898-5 Forcing Screw JDG898-6 Special Nut D—27 t (30-Ton) Hydraulic Ram



T47,0200,C14 -19-05SEP95

0200



4. Apply soap lubricant to the ends of rubber insert in bushing (A).

5. Push bushing (C) into installer (B) using a press. Outer sleeve must be against the end of installer.

IMPORTANT: The right frame end is narrower than the left frame end. Spacer (H) must be used when installing bushing in the right frame end so it is centered.

6. Pull bushing into the left frame end (wider frame end) using the installer (B), receiver (E), screw (G), nut (A), and hydraulic ram (F). Install bushing so flange on installer is against the side of frame end.

7. Install spacer (H) on the installer. Push bushing into the installer.

8. Pull bushing into the right frame end (narrower frame end) until spacer is against the side of frame end.

9. Check that distance between the inner sleeve of bushings is 894 ± 1.5 mm (35.19 ± 0.06 in.). As necessary, push bushing in right frame end in or out to get dimension.

A-JDG898-6 Special Nut B—JDG898-1 Bushing Installer C—Bushing (2 used) **D**—Suspension Frame E—JDG898-2 Bushing Receiver F-27 t (30-Ton) Hydraulic Ram G—JDG898-5 Forcing Screw H—JDG898-3 Spacer

-UN-02APR90

T6102AF

T47,0200,C15 -19-25AUG94

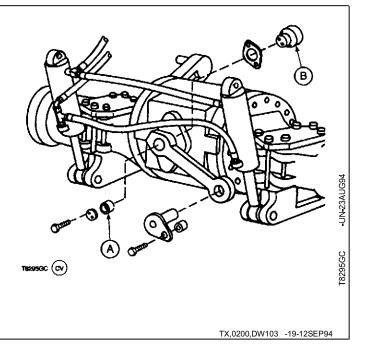
10. Pull pin (B) to remove. Heat differential case around pin to aid removal.

11. Remove old stabilizer bar bushing (A) if replacement is necessary. Install new bushing flush with stabilizer bar. Outer race will be 3.3 ± 0.51 mm (0.13 ± 0.02 in.) below surface. Stake outer race in three places to prevent movement.



12. To install, shrink pin using dry ice, then push pin to bottom of bore in case.

NOTE: Grooves in pin let air escape as pin is pushed into groove.



INSTALL SUSPENSION AXLE AND DIFFERENTIAL—862B

Apply oil to threads of suspension-frame-to-axle bolts.

Suspension axle frame-to-axle nut torque (for 559 mm [22 in.] bolts) (8 used) 271 N·m (200 lb-ft) Continue tightening 5 Flats

Suspension axle frame-to-axle nut torque (for 356 mm [14 in.] bolts) (4 used) 136 N·m (100 lb-ft) Continue tightening 4 Flats

Drive shaft cap screws torque 102 N·m (75 lb-ft)

Install differential and axle assembly using a low lift transmission jack.

Install pins to connect pivots.

Raise axle—differential assembly until stabilizer bar pin can be installed. Install pins to connect cylinder.

Connect hydraulic lines (A-D).

Connect grease lines.

Connect leveling valve rod.

Connect park brake lever.

Connect axle filter restriction indicator wire to filter housing.

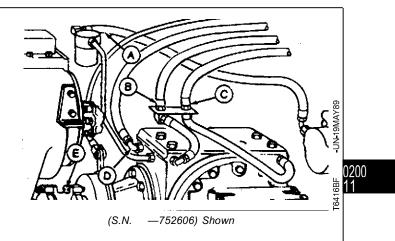
Connect drive shaft (E). Tighten cap screws to specification.

Install wheels on axle. (See Group 0110.)

Check operation of suspension, differential lock, and brakes.

Bleed brakes.

Apply grease to all suspension axle grease fittings.



A—From Pump to Filter B—From Differential Lock Valve C—From Brake Valve D—To Differential Lock Valve E—Transmission-to-Differential Drive Shaft

T47,0200,C18 -19-05SEP95

ADJUST SUSPENSION AXLE HEIGHT—862B

Start engine. Engage park brake and lower bowl to ground.

Move control lever to suspension position.

0200

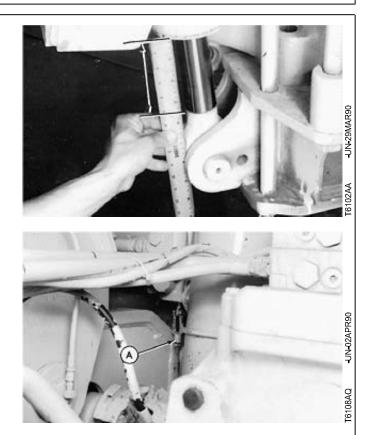
Measure cylinder rod extension of either cylinder.

SUSPENSION CYLINDER EXTENSION SPECIFICATIONS

If extension measurement is not to specifications, adjust yoke (A) on leveling valve spool.

Also check leveling valve spool centering springs to be sure they are not broken.

Recheck measurement several times to assure proper adjustment.



T47,0200,C19 -19-05JAN96

ADJUST SUSPENSION AXLE DIFFERENTIAL DRIVE SHAFT—862B

Park machine so differential yoke is parallel to ground. Engage park brake. Lower bowl to ground. Stop engine.

Remove transmission-to-differential drive shaft. Slide transmission output yoke toward transmission.

Install drive shaft alignment tool* horizontally in differential yoke and hold in place. Slide transmission yoke into gauge and check alignment.

If there is misalignment, loosen transmission-to-main frame hardware and slide transmission using a pry bar for alignment. If necessary, slot holes in main frame to provide alignment.



*Fabricated tool, dealer made. (See JT38053 in Section 99 for instructions to make tool.)

T47,0200,C20 -19-05JAN96

Thank you very much for your reading. Please Click Here. Then Get COMPLETE MANUAL. NO WAITING



NOTE:

If there is no response to click on the link above, please download the PDF document first and then click on it.

ESSENTIAL TOOLS			
NOTE: Order tools from your SERVICE-GARD™ catalog, unless otherwise indicated.			
Number	Name	Use	
JDG-185	Air Test Plug	To check for leakage of differential lock quill.	

R50,50300,972 -19-19SEP84

0210 1

SERVICE EQUIPMENT AND TOOLS			
Name	Use		
Puller	To remove bearing cones and cups.		
Knife Edge Puller	To remove bearing cones.		
Spring Compression Tester	To check springs.		
762B 104 mm Disk 112 mm Disk 129 mm Disk 177 mm Disk	To install bearing cups.		
862B 122 mm Disk 147 mm Disk 180 mm Disk 228 mm Disk	To install bearing cups.		
*JT38000 Differential Lifting Tool	To lift differential from housing.		
*Fabricated tool, dealer made. (See Section 99 for instructions to make tool.)	R50,050300,1685-19-09JAN96		

DIFFERENTIAL SPECIFICATIONS

	Item	Measurement	Specification
	Differential Carrier Bearings	Preload	(762B) 0.05—0.13 mm (0.002—0.005 in.) (862B) 0.05—0.10 mm (0.002—0.004 in.)
		Rolling Drag Torque	2.3—4.5 N·m (20—40 lb-in)
02	Spiral Bevel Gear	Backlash	0.27—0.43 mm (0.011—0.017 in.)
4	Spiral Bevel Gear Cap Screws	Torque	(762B) 298 N·m (220 lb-ft) (862B) 325 N·m (240 lb-ft)
	Oil Passage Bushing (762B only)	Protrude From Housing	7.25—7.75 mm (0.29—0.31 in.)
	Differential Cover Cap Screws	Torque	(762B) 75 N·m (55 lb-ft) (862B) 115 N·m (85 lb-ft)
	Differential Housing Cap Screws	Torque	(762B) 115 N·m (85 lb-ft) (862B) 149 N·m (110 lb-ft)
	Differential Housing Spring Pin	Height	(762B) 12.2 mm (0.48 in.) (862B) 32.5 mm (1.28 in.)
	Differential Quill Cap Screws	Torque	115 N·m (85 lb-ft)
	Lock Line Connectors Line-To-Case Line-To-Quill	-	. ,
	Lock Line Flare Nuts	Torque	13.6 N·m (10 lb-ft)
	Return Line Elbow Jam Nut and Return Line Flare Nut	Torque	13.6 N·m (10 lb-ft)
	Lock Quill Air Test	Leakage	No Leakage at Regulated 100 kPa (1 Bar) (14 psi)
	Differential Lock Circuit Oil		At 4300 ± 100 kPa (625 ± 15 psi) Leakage must not exceed 1.62 L/min. (0.43 GPM)
	DIFFERENTIAL LOCK RELEASE SPRING	:	
	Free Length		(762B) 29.5 mm (1.16 in.) (862B) 45.2 mm (1.78 in.)
	Test Length	•	(762B) 18.8 mm (0.74 in.) at 200—245 N (45—55 lb) (862B) 36.9 mm (1.45 in.) at 214—249 N (48—56 lb)
	Differential Case Cover-to-Case Dowel Pins	Protruding Length	

0210 2

R50,050300,1682-19-05JAN96

DIFFERENTIAL SPECIFICATIONS—CONTINUED

INPUT SHAFT SPECIFICATIONS:

Item	Measurement	Specification	
Quill-to-Case Dowel Pin	Protruding Length	15 mm (0.59 in.)	
Quill Cap Screws	Torque	(762B) 163 N·m (120 lb-ft) (862B) 325 N·m (240 lb-ft)	02 3
Input Shaft Adjustment	Endplay	(762B)0.002—0.06 mm (0.001—0.002 in.) (862B) 0.00—0.08 mm (0.000—0.003 in.)	
	Rolling Drag Torque	Must Not Exceed 0.6 N·m (5 lb-in)	
Input Shaft Nut	Torque (Final)	271—406 N·m (200—300 lb-ft)	
Input Shaft Seal	•	(762B) Flush (862B) 19 mm (0.75 in.) Below End of Seal Bore	

TX,0210,DY108 -19-05JAN96

REMOVE INPUT QUILL AND SHAFT ASSEMBLY



CAUTION: Input quill and bevel pinion shaft assembly (A) weighs approximately: 762B 45 kg (100 lb) 862B 88 kg (194 lb)

