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

For complete service information also see:

762B and 862B Scrapers
Operation and Tests. TM1489
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

HANDLE FLUIDS SAFELY—AVOID FIRES

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

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

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

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

TS227 -UN-23AUG88

DX,FLAME -19-29SEP98

PREVENT BATTERY EXPLOSIONS

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

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

Do not charge a frozen battery; it may explode. Warm battery to 16˚C (60˚F).

TS204 -UN-23AUG88

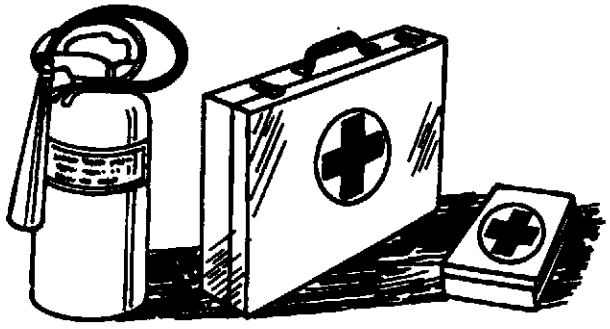
DX,SPARKS -19-03MAR93

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-23AUG88

DX,FIRE2 -19-03MAR93

PREVENT ACID BURNS

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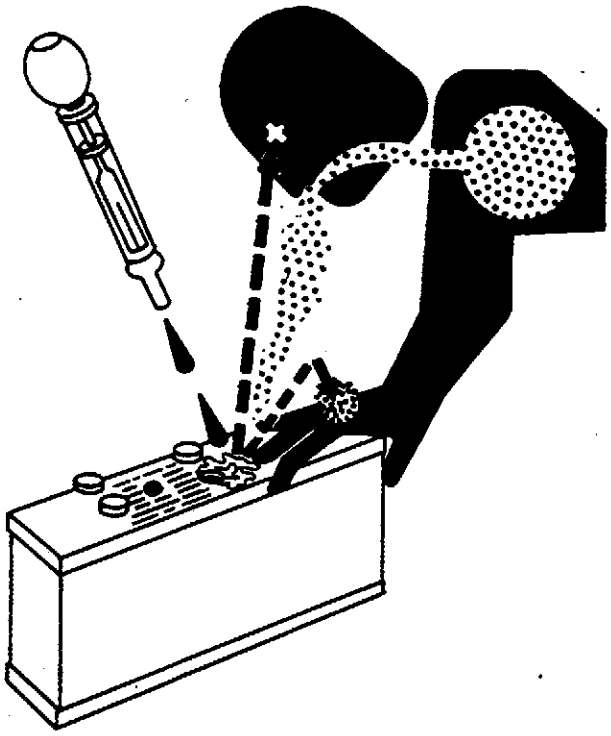
2

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:
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.

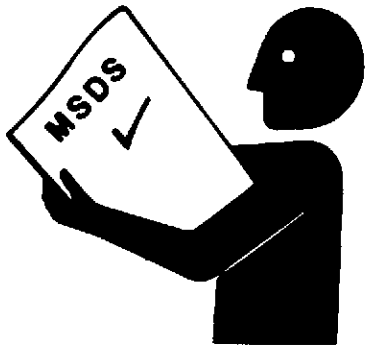
If acid is swallowed:
1. Do not induce vomiting.
2. Drink large amounts of water or milk, but do not exceed 2 L (2 quarts).
3. Get medical attention immediately.



TS203 -UN-23AUG88

DX,POISON -19-21APR93

HANDLE CHEMICAL PRODUCTS SAFELY



TS1132 -UN-26NOV90

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.

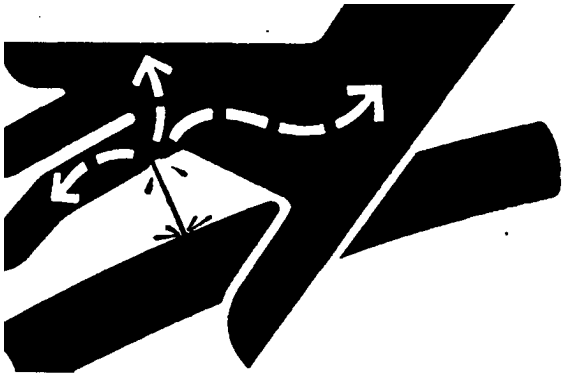
A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques.

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.

TX,05,DH2500 -19-02OCT92

AVOID HIGH-PRESSURE FLUIDS



X9811 -UN-23AUG88

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.

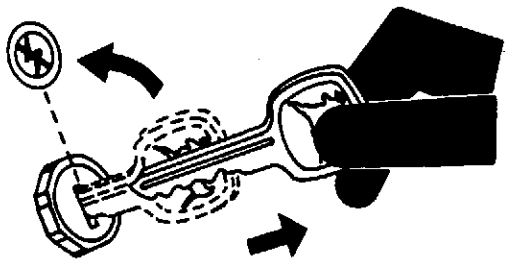
Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

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

PARK MACHINE SAFELY

Before working on the machine:
- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a “DO NOT OPERATE” tag in operator station.



TS230 -UN-24MAY89

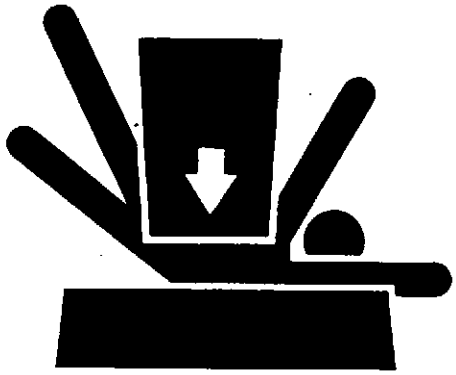
DX,PARK -19-04JUN90

SUPPORT MACHINE PROPERLY

Always lower the attachment or implement to the ground before you work on the machine. If you must work on a lifted machine or attachment, securely support the machine or attachment. 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 tractor, always follow safety precautions listed in the implement operator’s manual.



TS229 -UN-23AUG88

DX,LOWER -19-04FEB99

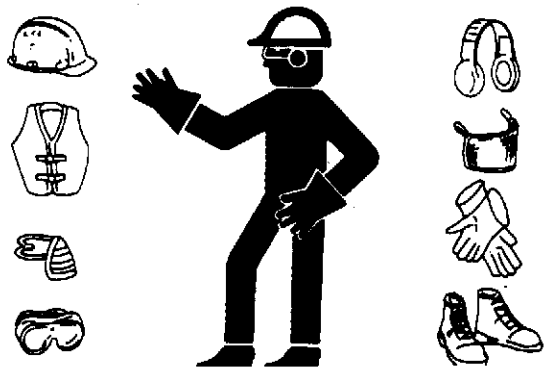
WEAR PROTECTIVE CLOTHING

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.

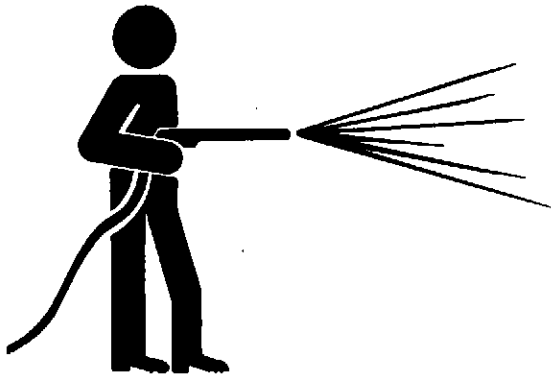


TS206 -UN-23AUG88

DX,WEAR -19-10SEP90

WORK IN CLEAN AREA

Before starting a job:
- Clean work area and machine.
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.



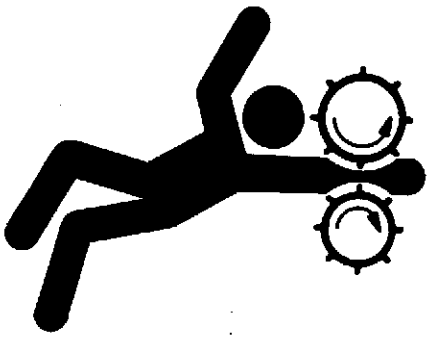
T6642EJ -UN-18OCT88

DX,CLEAN -19-04JUN90

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.



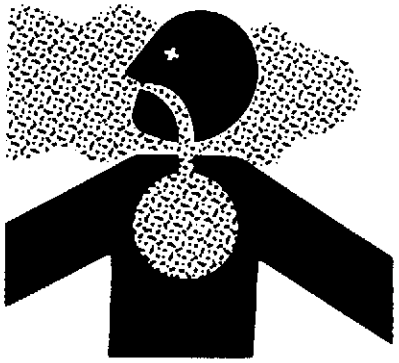
TS228 -UN-23AUG88

DX,LOOSE -19-04JUN90

WORK IN VENTILATED AREA

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.



TS220 -UN-23AUG88

DX,AIR -19-04JUN90

ILLUMINATE WORK AREA SAFELY

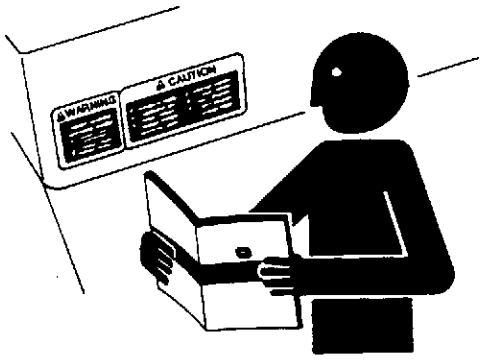
Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.

TS223 -UN-23AUG88

DX,LIGHT -19-04JUN90

REPLACE SAFETY SIGNS

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



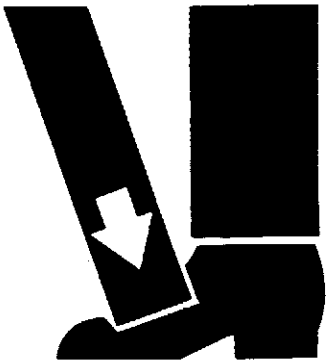
TS201 -UN-23AUG88

DX,SIGNS1 -19-04JUN90

USE PROPER LIFTING EQUIPMENT

Lifting heavy components incorrectly can cause severe injury or machine damage.

Follow recommended procedure for removal and installation of components in the manual.



TS226 -UN-23AUG88

DX,LIFT -19-04JUN90

REMOVE PAINT BEFORE WELDING OR HEATING

Avoid potentially toxic fumes and dust.

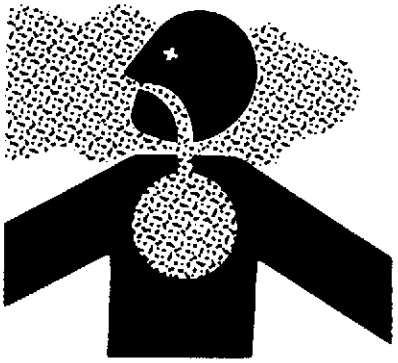
Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Do all work outside or in a well ventilated area. Dispose of paint and solvent properly.

Remove paint before welding or heating:

• If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.

• If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.



TS220 -UN-23AUG88

DX,PAINT -19-03MAR93

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 be accidentally cut when heat goes beyond the immediate flame area.

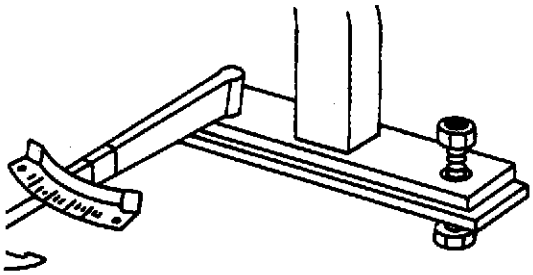
TS953 -UN-15MAY90

DX,TORCH -19-03MAR93

KEEP ROPS INSTALLED PROPERLY

Make certain all parts are reinstalled correctly if the roll-over protective structure (ROPS) is loosened or removed for any reason. Tighten mounting bolts to proper torque.

The protection offered by ROPS will be impaired if ROPS is subjected to structural damage, is involved in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting. A damaged ROPS should be replaced, not reused.



TS212 -UN-23AUG88

DX,ROPS3 -19-03MAR93

SERVICE TIRES SAFELY

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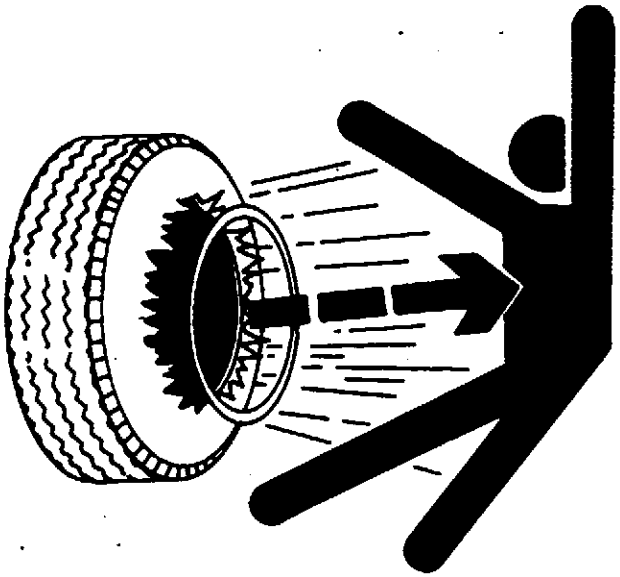
Explosive separation of a tire and rim parts can cause serious injury or death.

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

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

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

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



TS211 -UN-23AUG88

DX,RIM -19-24AUG90

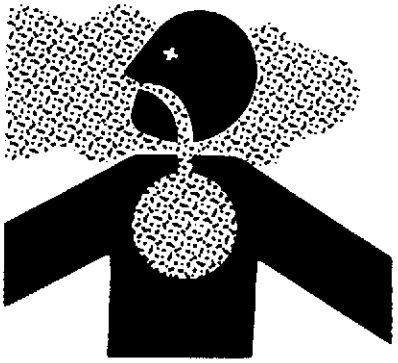
AVOID HARMFUL ASBESTOS DUST

Avoid breathing dust that may be generated when handling components containing asbestos fibers. Inhaled asbestos fibers may cause lung cancer.

Components in products that may contain asbestos fibers are brake pads, brake band and lining assemblies, clutch plates, and some gaskets. The asbestos used in these components is usually found in a resin or sealed in some way. Normal handling is not hazardous as long as airborne dust containing asbestos is not generated.

Avoid creating dust. Never use compressed air for cleaning. Avoid brushing or grinding material containing asbestos. When servicing, wear an approved respirator. A special vacuum cleaner is recommended to clean asbestos. If not available, apply a mist of oil or water on the material containing asbestos.

Keep bystanders away from the area.



TS220 -UN-23AUG88

DX,DUST -19-15MAR91

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.

-UN-23AUG88
TS218

DX,SERV -19-04FEB99

USE PROPER TOOLS

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only service parts meeting John Deere specifications.

-UN-08NOV89
TS779

DX,REPAIR -19-04JUN90

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10

DISPOSE OF WASTE PROPERLY

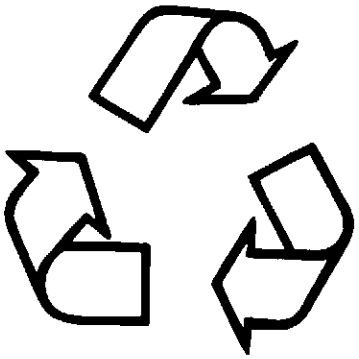
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with your machine include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your authorized dealer.



TS1133 -UN-26NOV90

TX,05,DH2502 -19-26AUG92

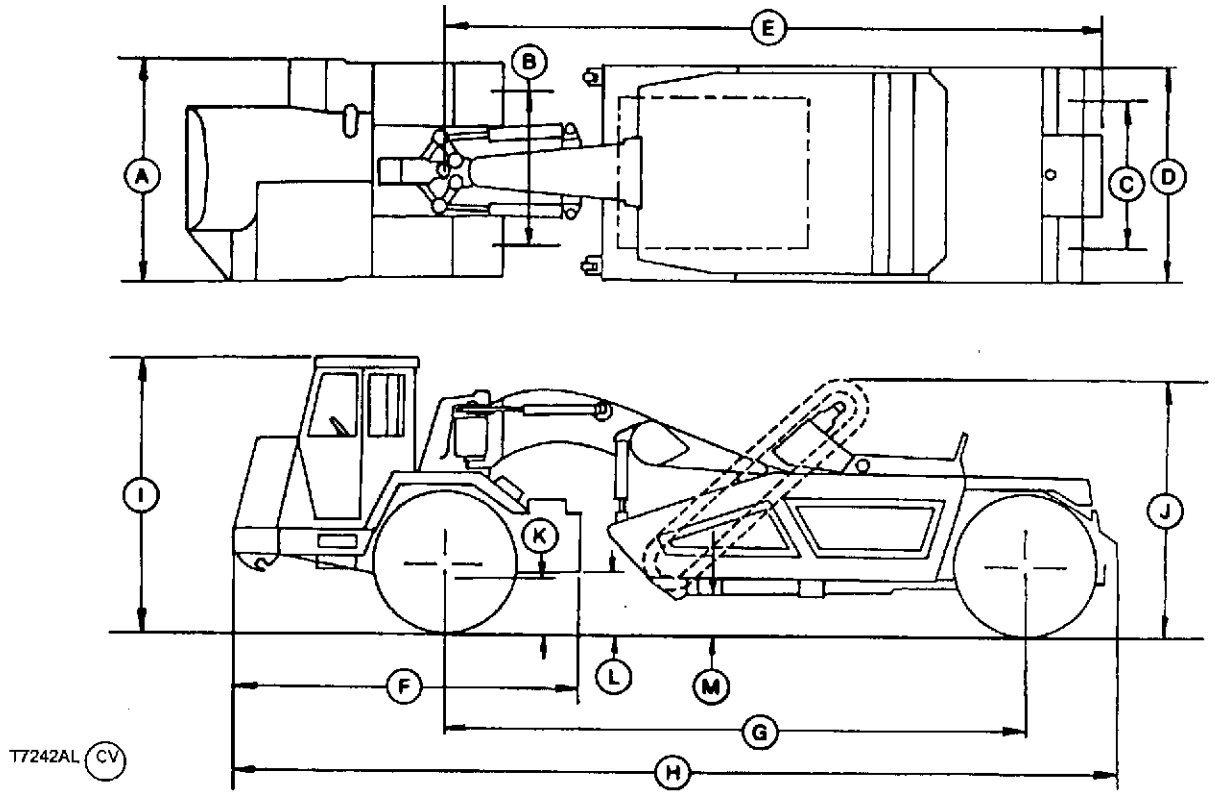
LIVE WITH SAFETY

Before returning machine to customer, make sure machine is functioning properly, especially the safety systems. Install all guards and shields.

TS231 -19-07OCT88

DX,LIVE -19-15APR98

762B



T7242AL -UN-22MAR90

Key	Bowl At Ground Level	Bowl Up	Bowl Level
A	2.44 m (8 ft)	2.44 m (8 ft)	2.44 m (8 ft)
B	1.82 m (5 ft 11.7 in.)	1.82 m (5 ft 11.7 in.)	1.82 m (5 ft 11.7 in.)
C	1.82 m (5 ft 11.7 in.)	1.82 m (5 ft 11.7 in.)	1.82 m (5 ft 11.7 in.)
D	2.44 m (8 ft)	2.44 m (8 ft)	2.44 m (8 ft)
E	6 m (19 ft 8.2 in.)	6 m (19 ft 8.2 in.)	6 m (19 ft 8.2 in.)
F	3.95 m (12 ft 11.5 in.)	3.96 m (13 ft)	3.96 m (13 ft)
G	6.4 m (21 ft 0.3 in.)	6.20 m (20 ft 4.1 in.)	6.25 m (20 ft 7 in.)
H	10 m (32 ft 9.5 in.)	9.81 m 32 ft 2.5 in.)	9.9 m (32 ft 5.4 in.)
I	3 m (9 ft 10 in.)	2.84 m (9 ft 4 in.)	2.90 m (9 ft 6.4 in.)
J	2.62 m (8 ft 7 in.)	2.89 m (9 ft 6 in.)	2.79 m (9 ft 2 in.)
K	470 mm (18.5 in.)	470 mm (18.5 in.)	470 mm (18.5 in.)
L	435 mm (17.1 in.)	556 mm (21.9 in.)	508 mm (20 in.)
M: Without Teeth		438 mm (17.3 in.)	305 mm (12 in.)
With Teeth		394 mm (15.5 in.)	254 mm (10 in.)

Cut below ground level without teeth	279 mm (11.0 in.)
Cut below ground level with teeth	324 mm (12.8 in.)

TX,115,FF1533 -19-03MAY90

862B (SERIAL NO. —780016)

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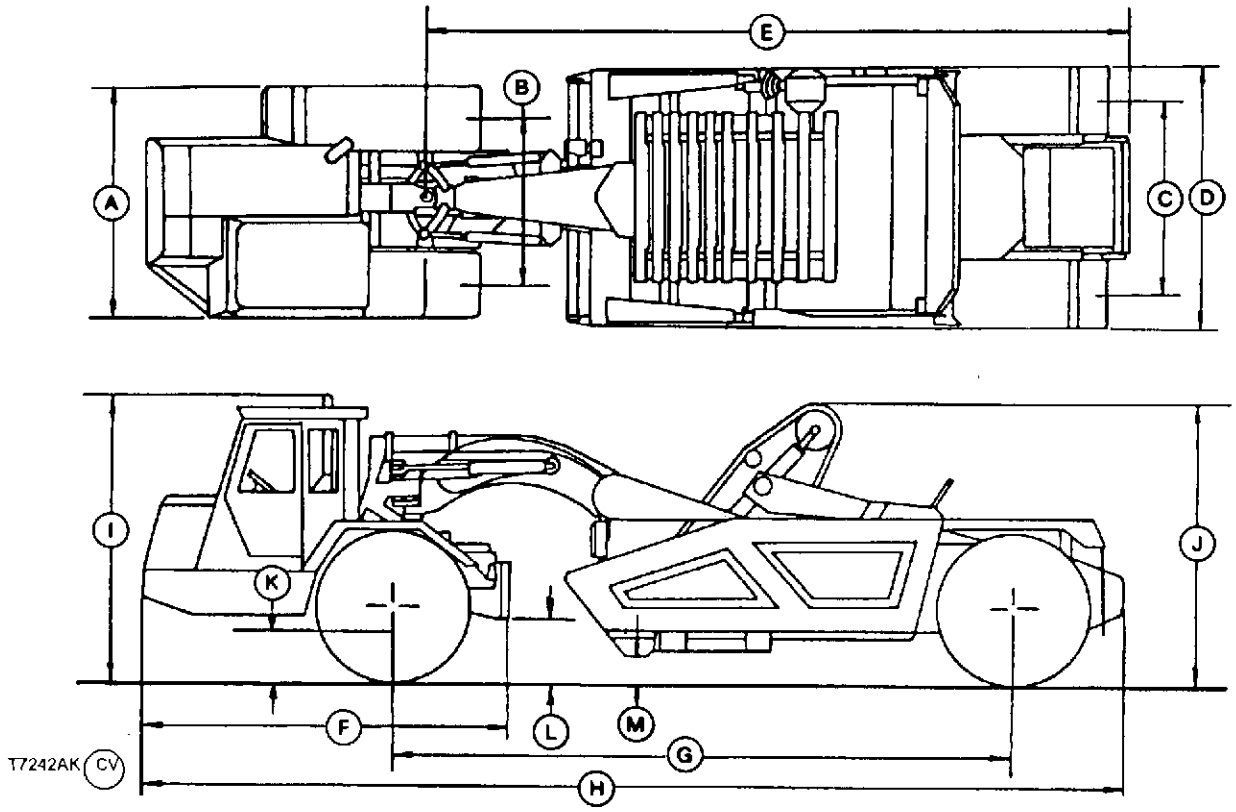


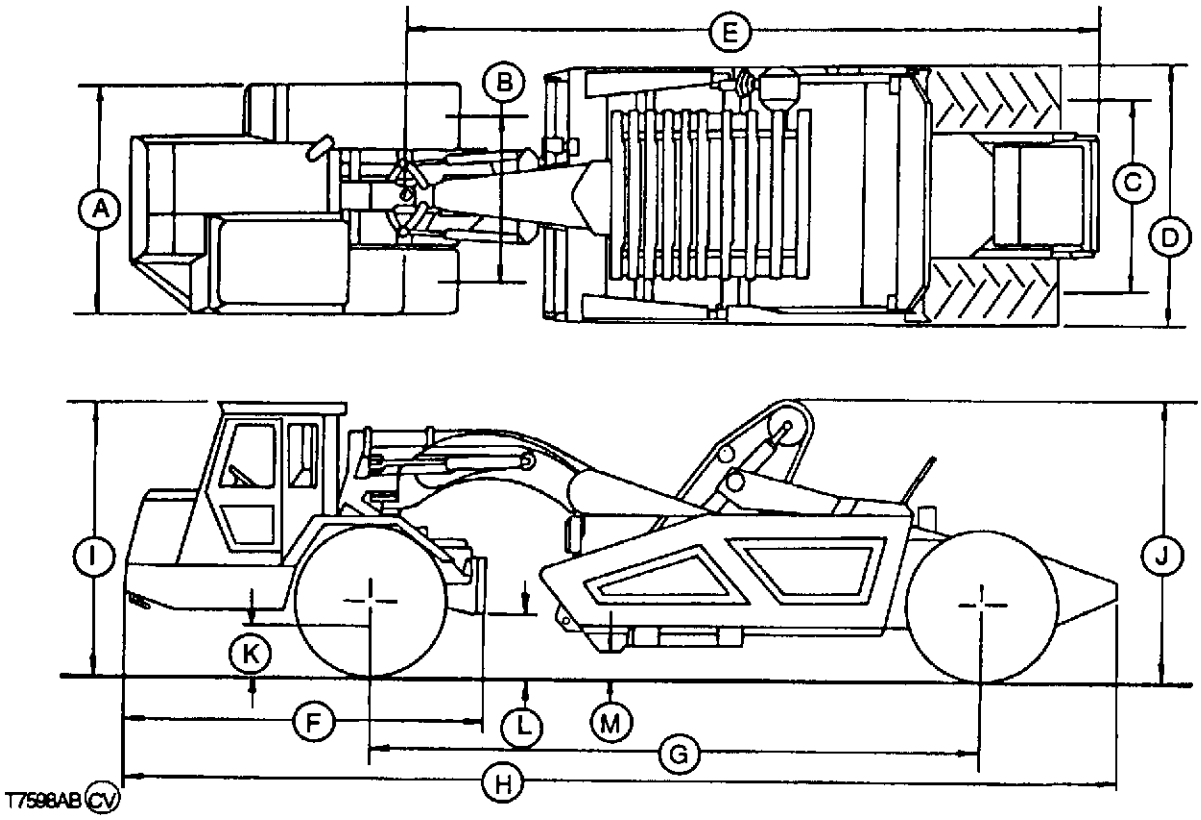
T7242AK -UN-22MAR90

Key	Bowl At Ground Level	Bowl Up	Bowl Level
A	2.64 m (8 ft 8 in.)	2.64 m (8 ft 8 in.)	2.64 m (8 ft 8 in.)
B	1.96 m (6 ft 5 in.)	1.96 m (6 ft 5 in.)	1.96 m (6 ft 5 in.)
C	2.12 m (6 ft 11.3 in.)	2.12 m (6 ft 11.3 in.)	2.12 m (6 ft 11.3 in.)
D	2.9 m (9 ft 6 in.)	2.9 m (9 ft 6 in.)	2.9 m (9 ft 6 in.)
E	7.85 m (25 ft 8.9 in.)	7.85 m (25 ft 8.9 in.)	7.85 m (25 ft 8.9 in.)
F	4.34 m (14 ft 3 in.)	4.34 m (14 ft 3 in.)	4.34 m (14 ft 3 in.)
G	6.99 m (22 ft 11 in.)	6.78 m (22 ft 3 in.)	6.93 m (22 ft 9 in.)
H	11.2 m (36 ft 10.9 in.)	11.0 m (36 ft 2.9 in.)	11.2 m (36 ft 8.9 in.)
I	3.07 m (10 ft 1 in.)	3.02 m (9 ft 11 in.)	3.03 m (9 ft 11.5 in.)
J	3.12 m (10 ft 3 in.)	3.34 m (10 ft 11.4 in.)	3.18 m (10 ft 5 in.)
K	495 mm (19.5 in.)	495 mm (19.5 in.)	495 mm (19.5 in.)
L	523 mm (20.6 in.)	645 mm (25.4 in.)	597 mm (23.5 in.)
M: Without Teeth		485 mm (19 in.)	178 mm (7 in.)
With Teeth		406 mm (16 in.)	102 mm (4 in.)

Cut below ground level without teeth . . . . . 229 mm (9 in.)
Cut below ground level with teeth . . . . . 302 mm (11.9 in.)

TX,115,FF3682 -19-19NOV93

862B (SERIAL NO. 780017—791763)



T7598AB -UN-26SEP91

Key	Bowl At Ground Level	Bowl Up	Bowl Level
A	2.64 m (8 ft 8 in.)	2.64 m (8 ft 8 in.)	2.64 m (8 ft 8 in.)
B	1.96 m (6 ft 5 in.)	1.96 m (6 ft 5 in.)	1.96 m (6 ft 5 in.)
C	2.12 m (6 ft 11 in.)	2.12 m (6 ft 11 in.)	2.12 m (6 ft 11 in.)
D	3.09 m (10 ft 1.5 in.)	3.09 m (10 ft 1.5 in.)	3.09 m (10 ft 1.5 in.)
E	7.85 m (25 ft 9 in.)	7.85 m (25 ft 9 in.)	7.85 m (25 ft 9 in.)
F	4.34 m (14 ft 3 in.)	4.34 m (14 ft 3 in.)	4.34 m (14 ft 3 in.)
G	7.11 m (23 ft 3 in.)	6.84 m (22 ft 4 in.)	6.98 m (22 ft 10 in.)
H	11.31 m (37 ft 1 in.)	11.10 m (36 ft 4 in.)	11.20 m (36 ft 9 in.)
I	3.28 m (10 ft 8 in.)	3.19 m (10 ft 5 in.)	3.21 m (10 ft 6 in.)
J	3.15 m (10 ft 4 in.)	3.46 m (11 ft 4 in.)	3.31 m (10 ft 9 in.)
K	545 mm (21.5 in.)	540 mm (21.3 in.)	540 mm (21.3 in.)
L	585 mm (23.0 in.)	720 mm (28.3 in.)	665 mm (26.1 in.)
M: Without Teeth		485 mm (19 in.)	178 mm (7 in.)
With Teeth		406 mm (16 in.)	102 mm (4 in.)

Cut below ground level without teeth . . . . . 229 mm (9 in.)
Cut below ground level with teeth . . . . . 302 mm (11.9 in.)

TX,115,FF3683 -19-19NOV93

762B DRAIN AND REFILL CAPACITIES

0002
4

	Metric	U.S.
Cooling system	34 L	9 gal
Fuel tank	273 L	72 gal
Engine oil with filter change	23.7 L	6.25 gal
Transmission oil with filter change	49 L	13 gal
Drive axle oil with filter change	21.8 L	5.8 gal
Hydraulic oil with hydraulic and elevator filters change	45.4 L	12 gal
Elevator gearbox oil	12.6 L	3.3 gal

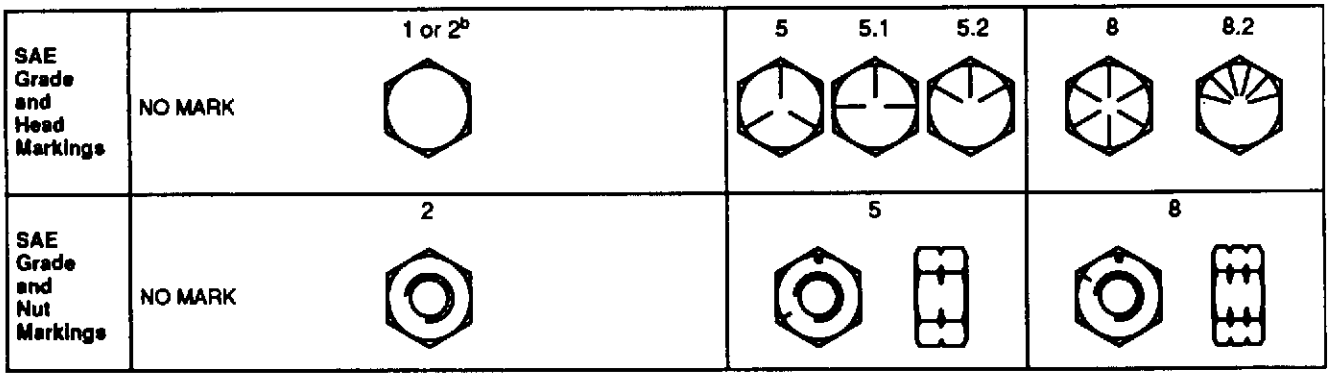
TX,115,FF3681 -19-19NOV93

862B DRAIN AND REFILL CAPACITIES

	Metric	U.S.
Cooling system	49 L	13 gal
Fuel tank	416 L	110 gal
Engine oil with filter change	34 L	9 gal
Transmission oil with filter change	71 L	19 gal
Drive axle oil with filter change	28.4 L	7.5 gal
Hydraulic oil with hydraulic and elevator filters change	90 L	24 gal
Elevator gearbox oil	9.0 L	9.5 qt

TX,115,FF3684 -19-19NOV93

UNIFIED INCH BOLT AND CAP SCREW TORQUE VALUES



TS1162 -19-04MAR91

Size	Grade 1				Grade 2[b]				Grade 5, 5.1, or 5.2				Grade 8 or 8.2			
	Lubricated[a]		Dry[a]		Lubricated[a]		Dry[a]		Lubricated[a]		Dry[a]		Lubricated[a]		Dry[a]	
	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft
1/4	3.7	2.8	4.7	3.5	6	4.5	7.5	5.5	9.5	7	12	9	13.5	10	17	12.5
5/16	7.7	5.5	10	7	12	9	15	11	20	15	25	18	28	21	35	26
3/8	14	10	17	13	22	16	27	20	35	26	44	33	50	36	63	46
7/16	22	16	28	20	35	26	44	32	55	41	70	52	80	58	100	75
1/2	33	25	42	31	53	39	67	50	85	63	110	80	120	90	150	115
9/16	48	36	60	45	75	56	95	70	125	90	155	115	175	130	225	160
5/8	67	50	85	62	105	78	135	100	170	125	215	160	240	175	300	225
3/4	120	87	150	110	190	140	240	175	300	225	375	280	425	310	550	400
7/8	190	140	240	175	190	140	240	175	490	360	625	450	700	500	875	650
1	290	210	360	270	290	210	360	270	725	540	925	675	1050	750	1300	975
1-1/8	400	300	510	375	400	300	510	375	900	675	1150	850	1450	1075	1850	1350
1-1/4	570	425	725	530	570	425	725	530	1300	950	1650	1200	2050	1500	2600	1950
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2150	1550	2700	2000	3400	2550
1-1/2	1000	725	1250	925	990	725	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

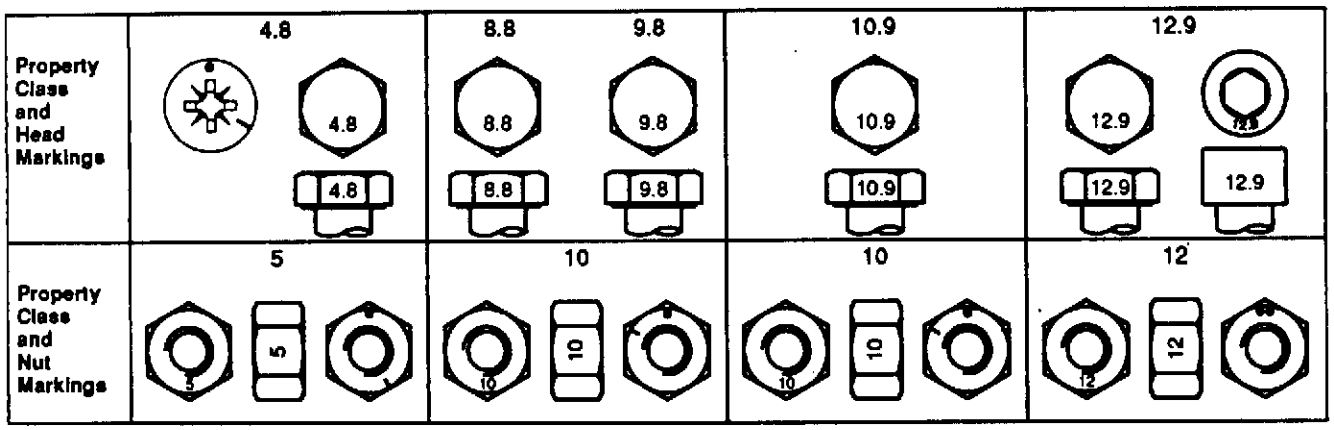
[a] "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

[b] Grade 2 applies for hex cap screws (not hex bolts) up to 152 mm (6-in.) long. Grade 1 applies for hex cap screws over 152 mm (6-in.) long, and for all other types of bolts and screws of any length.

DX,TORQ1 -19-20JUL94

METRIC BOLT AND CAP SCREW TORQUE VALUES

0003
2



TS1163 -19-04MAR91

Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated[a]		Dry[a]		Lubricated[a]		Dry[a]		Lubricated[a]		Dry[a]		Lubricated[a]		Dry[a]	
	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft
M6	4.8	3.5	6	4.5	9	6.5	11	8.5	13	9.5	17	12	15	11.5	19	14.5
M8	12	8.5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70
M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	190
M16	100	73	125	92	190	140	240	175	275	200	350	255	320	240	400	300
M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800
M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1300	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000
M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class.

Fasteners should be replaced with the same or higher property class. If higher property class fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

[a] "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

DX,TORQ2 -19-20JUL94

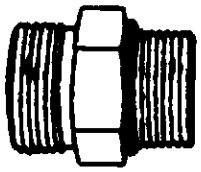
SERVICE RECOMMENDATIONS FOR O-RING BOSS FITTINGS

STRAIGHT FITTING

1. Inspect O-ring boss seat for dirt or defects.

2. Lubricate O-ring with petroleum jelly. Place electrical tape over threads to protect O-ring. Slide O-ring over tape and into O-ring groove of fitting. Remove tape.

3. Tighten fitting to torque value shown on chart.



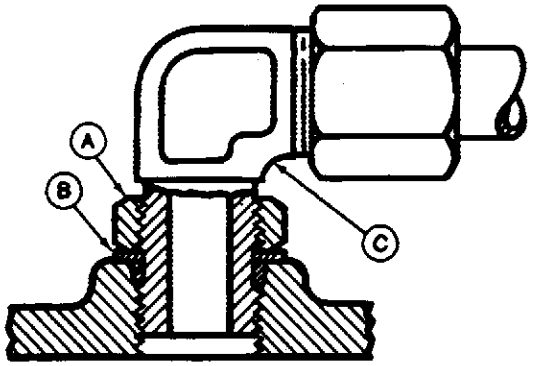
T6243AE -UN-18OCT88

ANGLE FITTING

1. Back-off lock nut (A) and back-up washer (B) completely to head-end (C) of fitting.

2. Turn fitting into threaded boss until back-up washer contacts face of boss.

3. Turn fitting head-end counterclockwise to proper index (maximum of one turn).



T6520AB -UN-18OCT88

NOTE: Do not allow hoses to twist when tightening fittings.

4. Hold fitting head-end with a wrench and tighten locknut and back-up washer to proper torque value.

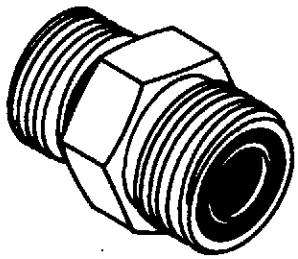
STRAIGHT FITTING OR SPECIAL NUT TORQUE CHART

Thread Size	N·m	lb-ft
3/8-24 UNF	8	6
7/16-20 UNF	12	9
1/2-20 UNF	16	12
9/16-18 UNF	24	18
3/4-16 UNF	46	34
7/8-14 UNF	62	46
1-1/16-12 UN	102	75
1-3/16-12 UN	122	90
1-5/16-12 UN	142	105
1-5/8-12 UN	190	140
1-7/8-12 UN	217	160

NOTE: Torque tolerance is ± 10%.

04T,90,K66 -19-19MAR96

SERVICE RECOMMENDATIONS FOR FLAT FACE O-RING SEAL FITTINGS



T6243AD -UN-18OCT88

1. Inspect the fitting sealing surfaces. They must be free of dirt or defects.

2. Inspect the O-ring. It must be free of damage or defects.

3. Lubricate O-rings and install into groove using petroleum jelly to hold in place.

4. Push O-ring into the groove with plenty of petroleum jelly so O-ring is not displaced during assembly.

5. Index angle fittings and tighten by hand pressing joint together to insure O-ring remains in place.

6. Tighten fitting or nut to torque value shown on the chart per dash size stamped on the fitting. Do not allow hoses to twist when tightening fittings.

FLAT FACE O-RING SEAL FITTING TORQUE

Nominal Tube O.D. mm	Nominal Tube O.D. in.	Dash Size	Thread Size in.	Swivel Nut N·m	Swivel Nut lb-ft	Bulkhead Nut N·m	Bulkhead Nut lb-ft
6.35	0.250	-4	9/16-18	16	12	5.0	3.5
9.52	0.375	-6	11/16-16	24	18	9.0	6.5
12.70	0.500	-8	13/16-16	50	37	17.0	12.5
15.88	0.625	-10	1-14	69	51	17.0	12.5
19.05	0.750	-12	1 3/16-12	102	75	17.0	12.5
22.22	0.875	-14	1 3/16-12	102	75	17.0	12.5
25.40	1.000	-16	1 7/16-12	142	105	17.0	12.5
31.75	1.250	-20	1 11/16-12	190	140	17.0	12.5
38.10	1.500	-24	2-12	217	160	17.0	12.5

NOTE: Torque tolerance is +15 -20%.

04T,90,K67 -19-01AUG94

SERVICE RECOMMENDATIONS FOR 37˚ FLARE AND 30˚ CONE SEAT CONNECTORS

T6234AC -UN-18OCT88

1. Inspect flare and flare seat. They must be free of dirt or obvious defects.

2. Defects in tube flare cannot be repaired. Overtightening a defective flared fitting will not stop leaks.

3. Align tube with fitting before attempting to start nut.

4. Lubricate male threads with hydraulic fluid or petroleum jelly.

5. Index angle fittings and tighten by hand.

6. Tighten fitting or nut to torque value shown on torque chart. Do not allow hoses to twist when tightening fittings.

STRAIGHT FITTING OR SPECIAL NUT TORQUE CHART*

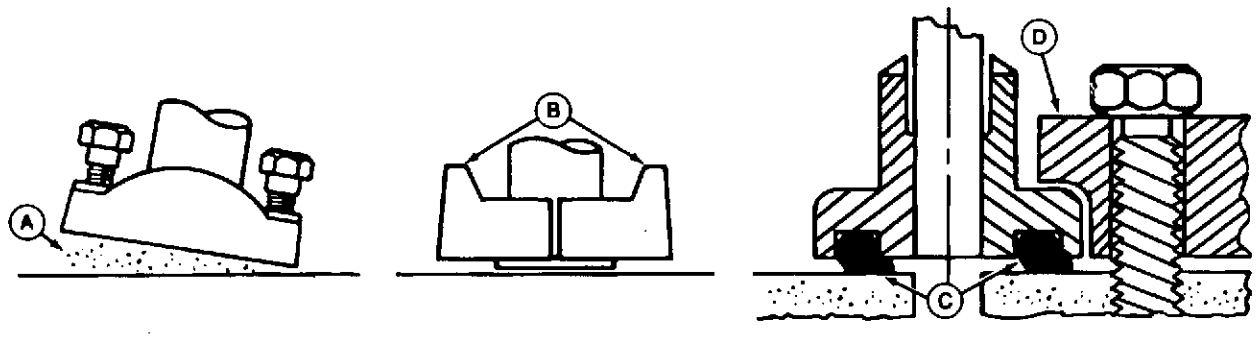
Thread Size	N·m	lb-ft
3/8-24 UNF	8	6
7/16-20 UNF	12	9
1/2-20 UNF	16	12
9/16-18 UNF	24	18
3/4-16 UNF	46	34
7/8-14 UNF	62	46
1-1/16-12 UN	102	75
1-3/16-12 UN	122	90
1-5/16-12 UN	142	105
1-5/8-12 UN	190	140
1-7/8-12 UN	217	160

**Torque tolerance is ± 10%.*

04T,90,C96 -19-21JAN92

SERVICE RECOMMENDATIONS FOR INCH SERIES FOUR BOLT FLANGE FITTINGS

0003
6



T6890BB -UN-01MAR90

A—Sealing Surface **B—Split Flange** **C—Pinched O-Ring** **D—Single Piece Flange**

1. Clean sealing surfaces (A). Inspect. Scratches cause leaks. Roughness causes seal wear. Out-of-flat causes seal extrusion. If defects cannot be polished out, replace component.

2. Install O-ring (and backup washer if required) into groove using petroleum jelly to hold it in place.

3. Split flange: Loosely assemble split flange (B) halves. Make sure split is centrally located and perpendicular to port. Hand tighten cap screws to hold parts in place. Do not pinch O-ring (C).

4. Single piece flange (D): Place hydraulic line in center of flange and install cap screws. Flange must be centrally located on port. Hand tighten cap screws to hold flange in place. Do not pinch O-ring.

5. Tighten one cap screw, then tighten the diagonally opposite cap screw. Tighten two remaining cap screws. Tighten all cap screws as specified in the chart below.

DO NOT use air wrenches. DO NOT tighten one cap screw fully before tightening the others. DO NOT over tighten.

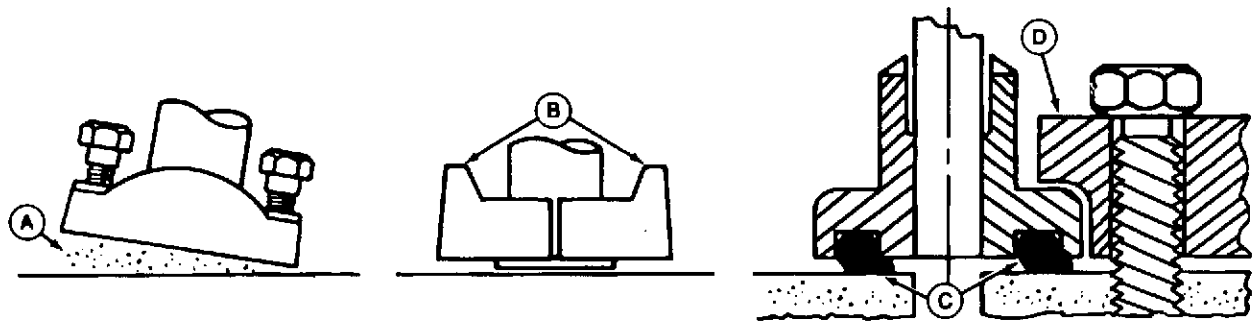
TORQUE CHART*

Nominal Flange Size	Cap Screw Size	N·m Min	N·m Max	lb-ft Min	lb-ft Max
1/2	5/16-18 UNC	20	31	15	23
3/4	3/8-16 UNC	28	54	21	40
1	3/8-16 UNC	37	54	27	40
1-1/4	7/16-14 UNC	47	85	35	63
1-1/2	1/2-13 UNC	62	131	46	97
2	1/2-13 UNC	73	131	54	97
2-1/2	1/2-13 UNC	107	131	79	97
3	5/8-11 UNC	158	264	117	195
3-1/2	5/8-11 UNC	158	264	117	195
4	5/8-11 UNC	158	264	117	195
5	5/8-11 UNC	158	264	117	195

**Tolerance ± 10%. The torques given are enough for the given size connection with the recommended working pressure. Torques can be increased to the maximum shown for each cap screw size if desired. Increasing cap screw torque beyond this maximum will result in flange and cap screw bending and connection failures.*

04T,90,K174 -19-01AUG94

SERVICE RECOMMENDATIONS FOR METRIC SERIES FOUR BOLT FLANGE FITTINGS



T6890BB -UN-01MAR90

A—Sealing Surface **B—Split Flange** **C—Pinched O-Ring** **D—Single Piece Flange**

1. Clean sealing surfaces (A). Inspect. Scratches cause leaks. Roughness causes seal wear. Out-of-flat causes seal extrusion. If defects cannot be polished out, replace component.

2. Install the correct O-ring (and backup washer if required) into groove using petroleum jelly to hold it in place.

3. Split flange: Loosely assemble split flange (B) halves. Make sure split is centrally located and perpendicular to the port. Hand tighten cap screws to hold parts in place. Do not pinch O-ring (C).

4. Single piece flange (D): Place hydraulic line in center of flange and install four cap screws. Flange must be centrally located on port. Hand tighten cap screws to hold flange in place. Do not pinch O-ring.

5. After components are properly positioned and cap screws are hand tightened, tighten one cap screw, then tighten the diagonally opposite cap screw. Tighten two remaining cap screws. Tighten all cap screws as specified in the chart below.

DO NOT use air wrenches. DO NOT tighten one cap screw fully before tightening the others. DO NOT over tighten.

TORQUE CHART*

Thread**	N·m	lb-ft
M6	12	9
M8	30	22
M10	57	42
M12	95	70
M14	157	116
M16	217	160
M18	334	246
M20	421	318

**Tolerance ± 10%. The torques given are enough for the given size connection with the recommended working pressure. Increasing cap screw torque beyond these amounts will result in flange and cap screw bending and connection failures.*

***Metric standard thread.*

04T,90,K175 -19-15MAY96

FUEL SPECIFICATIONS

Use ONLY clean, high-quality fuel.

Use Grade No. 2-D fuel above 4˚C (40˚F).

Use Grade No. 1-D fuel below 4˚C (40˚F).

Use Grade No. 1-D fuel for all temperatures at altitudes above 1500 m (5000 ft).

IMPORTANT: If fuel sulfur content exceeds 0.5 per cent, change the engine oil at 1/2 the normal interval.

Use fuel with less than 1.0 per cent sulfur. If possible, use fuel with less than 0.5 per cent sulfur.

For maximum filter life, sediment and water should not be more than 0.10 per cent.

The cetane number should be 40 minimum. If you operate your machine where air temperatures are normally low or where altitudes are high, you may need fuel with a higher cetane number.

Cloud Point—For cold weather operation, cloud point should be 6˚C (10˚F) below lowest normal air temperature.

TX,45,DH1089 -19-15MAR94

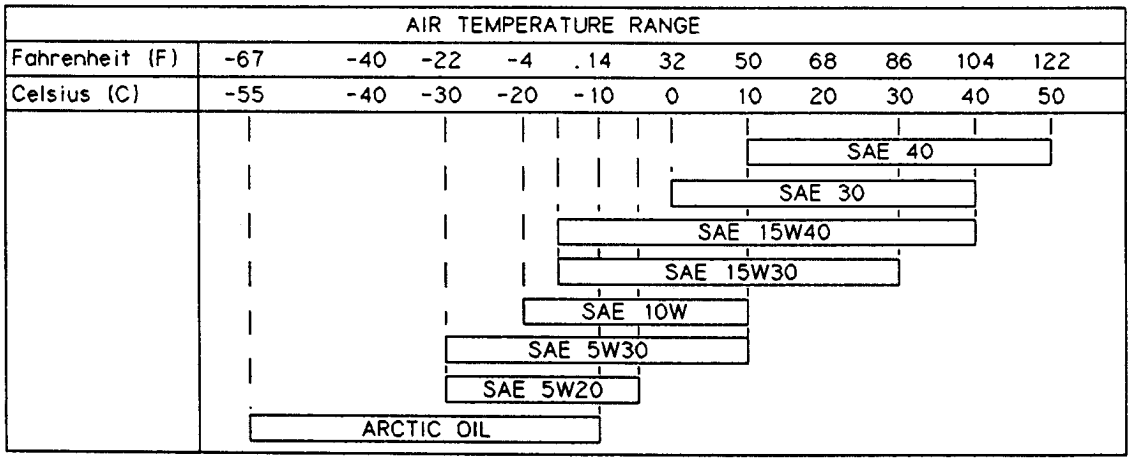
STORING FUEL

If there is a very slow turnover of fuel in the fuel tank or supply tank, it may be necessary to add a fuel conditioner to prevent water condensation. Contact your John Deere dealer for proper service or maintenance recommendations.

DX,FUEL -19-03MAR93

ENGINE OIL

0004
2



Depending upon the expected air temperature range between oil changes, use oil viscosity shown on the temperature chart above.

Additives are not required nor recommended.

John Deere engine oil filters are highly recommended because they are of known high quality and effectiveness.

John Deere TORQ-GARD SUPREME PLUS 50® engine oil is recommended. It is a specifically balanced formulation to provide superior protection against oil thickening, carbon deposits, lacquer, and mechanical wear during high temperature operation.

John Deere TORQ-GARD SUPREME® engine oil is also recommended.

If other oils are used, the required specification is:

API Service Class CE or CD (1)
Military Spec MIL-L-2104D or MIL-L-2104C

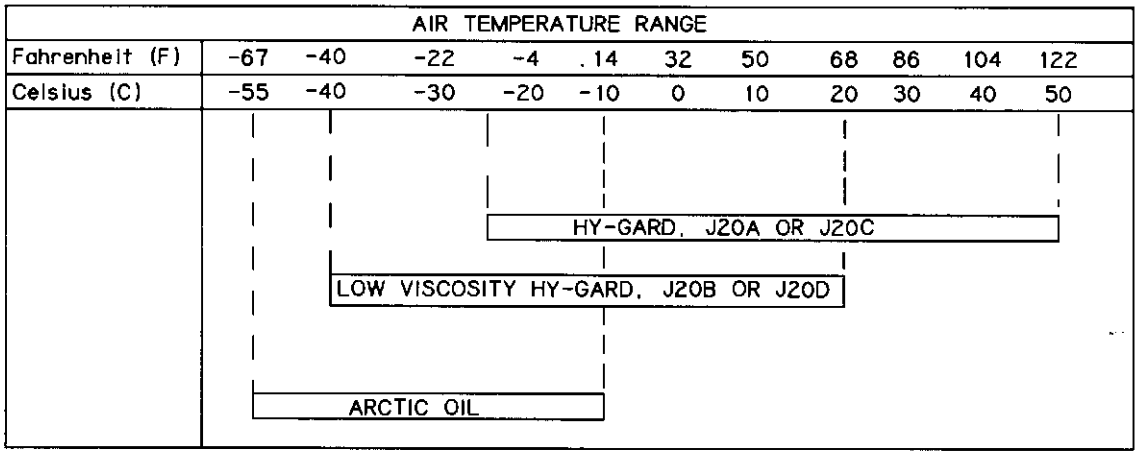
Most oil containers or specifications list several API Service Classes (such as SC, SG, CE, CC) met by the oil. For the oil you use, either CE or CD must be among the classes listed.

NOTE: Oils meeting API Service Classes CE or CD are not always available in viscosity grades SAE 5W20, SAE 5W30, and Arctic Oils. For these viscosity grades only, the following oil specification may be used but the oil and filter change interval must be reduced to 125 hours.

API Service Class CC (MIL-L-46152B)
Military Spec MIL-L-46167A (arctic oil)

TX,45,DH1532 -19-01AUG94

HYDRAULIC, TRANSMISSION, DRIVE AXLE, ELEVATOR GEARBOX, AND UPPER ELEVATOR CROSS SHAFT BEARINGS OILS



T8098AD -19-01OCT93

T8098AD CV

Depending on the expected air temperature range between oil changes, use oil viscosity shown on the chart above.

John Deere HY-GARD® transmission and hydraulic oil is recommended because it is specifically formulated to minimize brake chatter, provide optimum clutch engagement, to provide maximum protection against mechanical wear, rust, corrosion, and foaming.

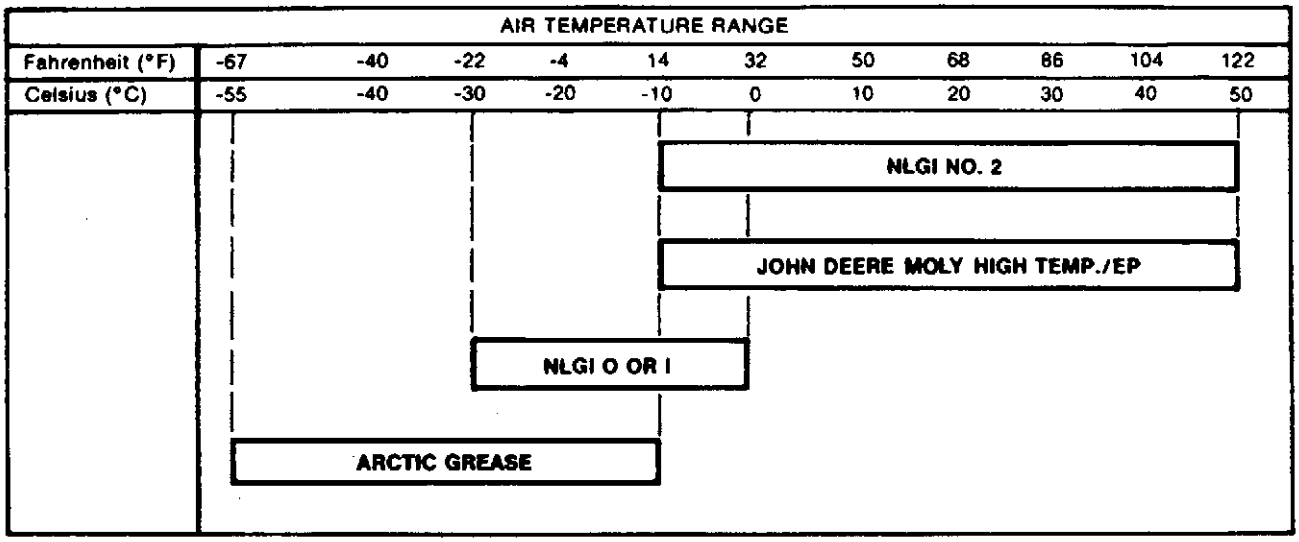
You may also use oils that meet minimum John Deere standards, or other oils meeting John Deere Standard JDM J20A or J20C or J20B or J20D.

Oils meeting MIL-L-46167A may be used as arctic oil.

TX,45,FF3685 -19-19NOV93

GREASE

0004
4



Depending on the expected air temperature range, use grease shown on chart above.

Greases recommended are:

• John Deere Moly High Temperature/EP Grease (Preferred)

• SAE Multipurpose Grease with Extreme Pressure (EP) performance and containing 3 to 5 per cent molybdenum disulfide

• SAE multi-purpose EP Grease

• Grease meeting MIL-G-10924C specifications may be used as arctic grease.

02T,45,C49 -19-01AUG94

SERVICE EQUIPMENT AND TOOLS

NOTE: Order tools from the U.S. SERVICEGARD™ Catalog or from the European Microfiche Tool Catalog (MTC). Some tools may be available from a local supplier.

Name	Use
Heavy Duty Wheel Lift	To remove and install wheels.
Shop Stand	To support the machine while removing wheels.

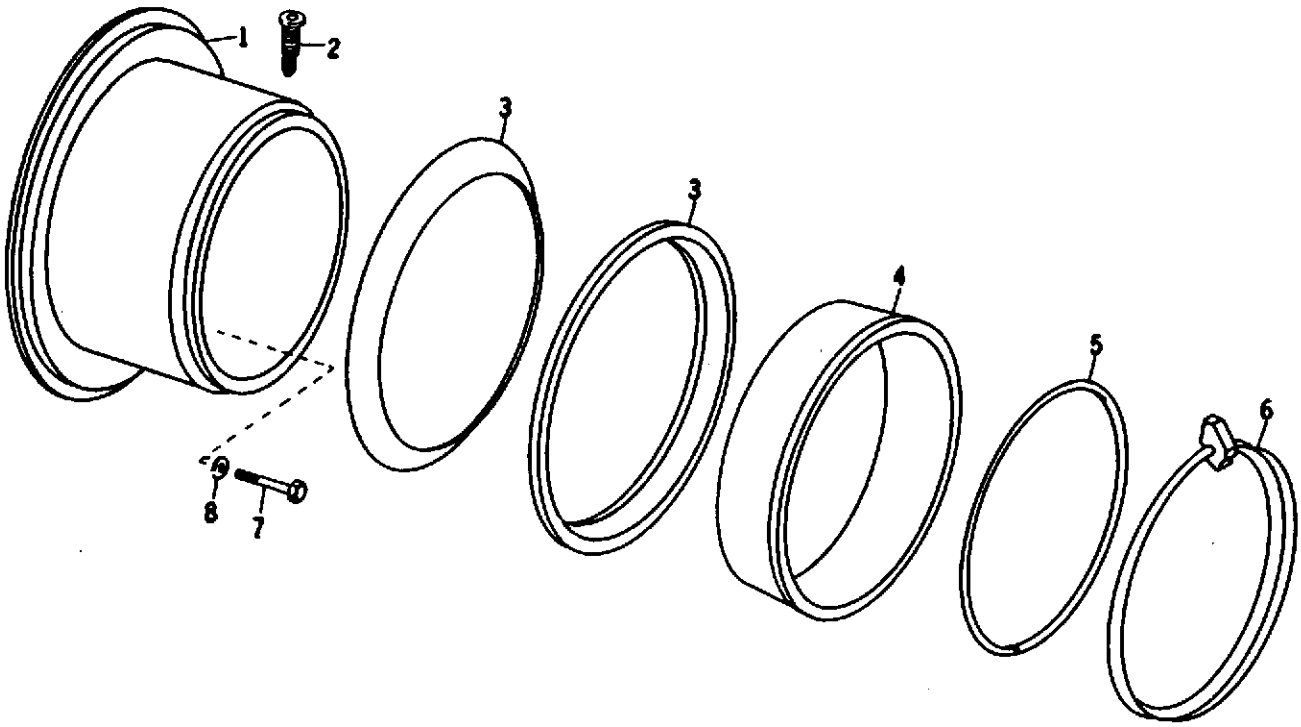
T47,0110,K529 -19-05SEP95

SPECIFICATIONS

Item	Measurement	Specification
Wheel Cap Screws	Torque	542 N·m (400 lb-ft)
Wheel	Weight	795 kg (1750 lb)
Tire	Weight	450 kg (1000 lb)
23.5 x 25	Inflation	380 kPa (3.8 bar) (55 psi)
26.5 x 25 22 PR E2	Inflation	276 kPa (2.8 bar) (40 psi)
26.5 x 25 (All others)	Inflation	380 kPa (3.8 bar) (55 psi)
26.5 x 29	Inflation	350 kPa (3.5 bar) (50 psi)
29.5 x 25 (Radials)	Inflation	310 kPa (3.1 bar) (45 psi)

T47,0110,K2 -19-05SEP95

REMOVE AND INSTALL TIRE



T7636AA -UN-22OCT91

1—Wheel Rim
2—Valve Stem
3—Side Ring (2 used)
4—Bead Seat Ring
5—O-Ring
6—Lock Ring
7—Cap Screws (14 used)
8—Special Washer (14 used)

TX,0110,DT435 -19-09FEB99

0110
4

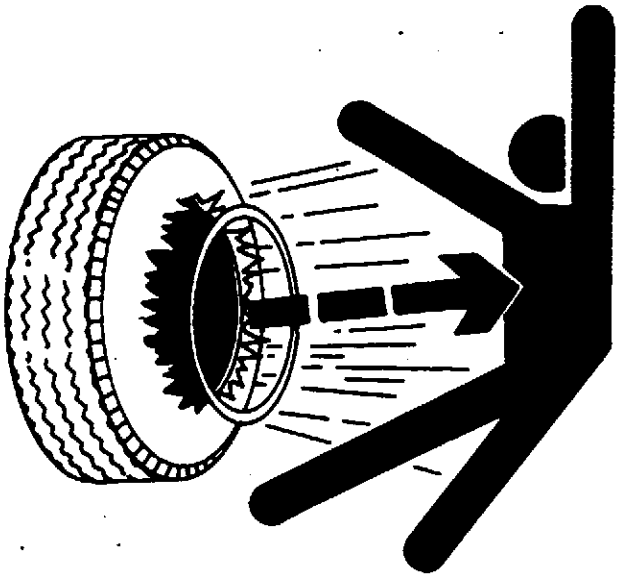
CAUTION: Explosive separation of a tire and rim parts can cause serious injury or death.

Only attempt to mount a tire if you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified repair service.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.

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 or over the tire assembly. Use safety cage if available.

Inspect tires and wheels daily. Do not operate with low pressure, cuts, bubbles, damaged rims or missing lug bolts.



-UN-23AUG88

TS211

TX,0110,DT435A -19-09FEB99

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.

TX,0110,DT436 -19-12SEP94

TIRE INFLATION CHART

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

DX,TOOLS -19-20JUL95

Suspension Axle Bushing Kit JDG898
- Bushing Installer JDG898-1
- Bushing Receiver JDG898-2
- Spacer JDG898-3
- Bushing Remover JDG898-4
- Forcing Screw JDG898-5
- Special Nut JDG898-6

To remove and install suspension axle frame end bushings.

JDG898 -19-25AUG94

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)

TX,0200,DW659 -19-25SEP95

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

762B . . . . . 21.8 L (5.8 gal)
872B . . . . . 32 L (8.5 gal)

Remove wheels. (See Group 0110.)

Disconnect drive shaft (F).

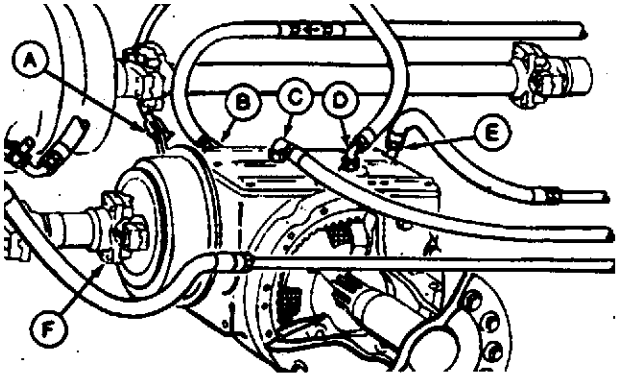
Disconnect park brake cable (A).

Disconnect lines (B—E).

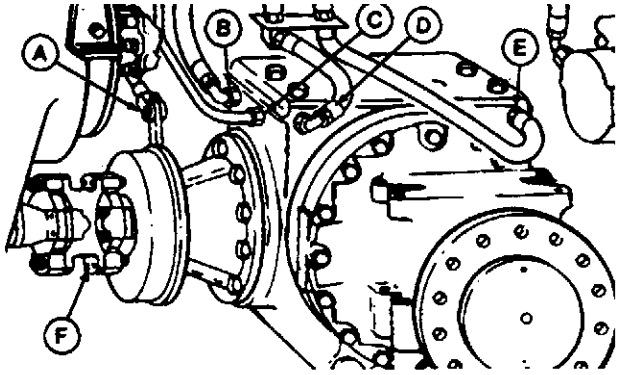
CAUTION:
762B:
Axle and differential assembly weighs approximately 934 kg (2059 lb).

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.



762B Shown



862B Shown

A—Park Brake Cable
B—From Differential Lock Valve
C—From Differential Oil Cooler
D—To Axle Filter
E—From Brake Valve
F—Drive Shaft
A—Park Brake Cable
B—To Differential Lock Valve
C—From Axle Filter
D—From Differential Lock Valve
E—From Brake Valve
F—Drive Shaft

T47,0200,C5 -19-05SEP95

CAUTION:
762B:
Axle housing weighs approximately 271 kg (598 lb).

862B:
Axle housing weighs approximately 377 kg (831 lb).

0200
4

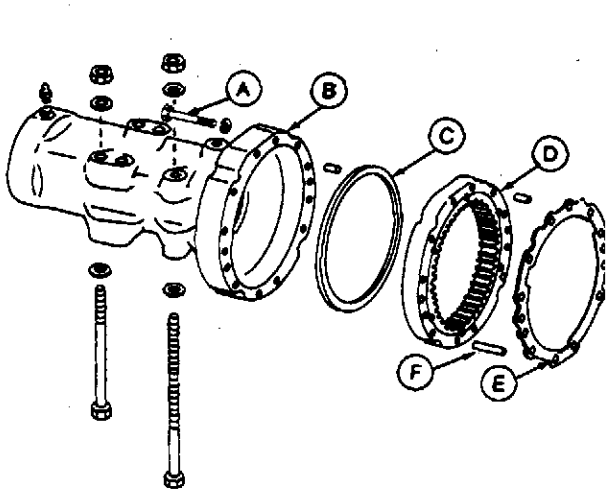
Remove cap screws (A) to remove axle housing. DO NOT let brake backing plate and disk fall.

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.



762B Shown

A—Cap Screw (12 used)
B—Axle Housing
C—Packing
D—Spacer with Gear
E—Gasket
F—Dowel Pin
(3 used) (762B)
(1 used) (862B)

T47,0200,C6 -19-04NOV87

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

AXLE AND DIFFERENTIAL TORQUE SPECIFICATIONS

762B:
Axle housing-to-differential case cap screws . . . . . 338 N·m (250 lb-ft)
Differential-to-frame nuts . . . . . 945 N·m (685 lb-ft)
Drive shaft cap screws . . . . . 163 N·m (120 lb-ft)

862B:
Axle housing-to-differential case cap screws . . . . . 338 N·m (250 lb-ft)
Differential-to-frame nuts . . . . . 14 214 N·m (1030 lb-ft)
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.

T47,0200,C7 -19-05SEP95

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.

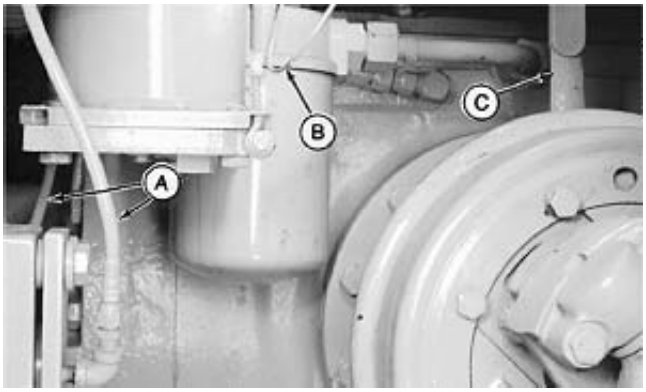
Remove wheels. (See Group 0110.)

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.

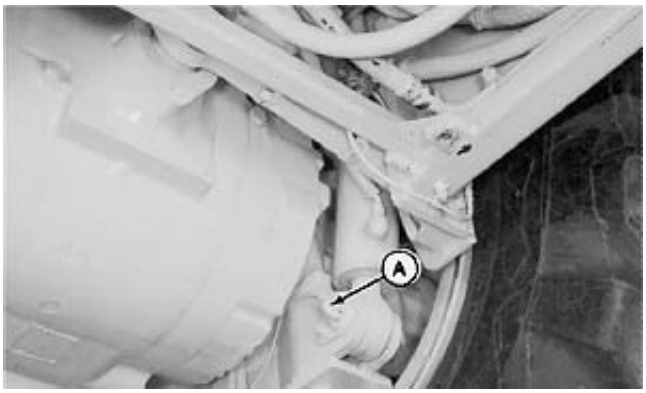
Disconnect park brake cable lever (C).



T6409AU -UN-05APR90

T47,0200,C8 -19-05SEP95

Remove grease lines (A) from each side of unit.



T6414AP -UN-05APR90

T47,0200,C9 -19-03SEP86

Disconnect leveling valve rod at yoke (A).

Remove axle to leveling valve rod.

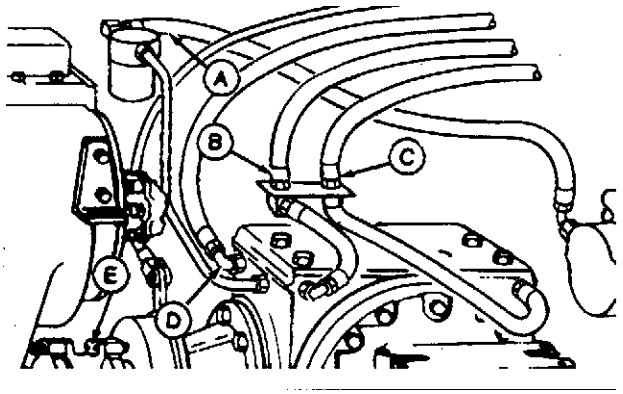
T47,0200,C10 -19-11SEP86

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

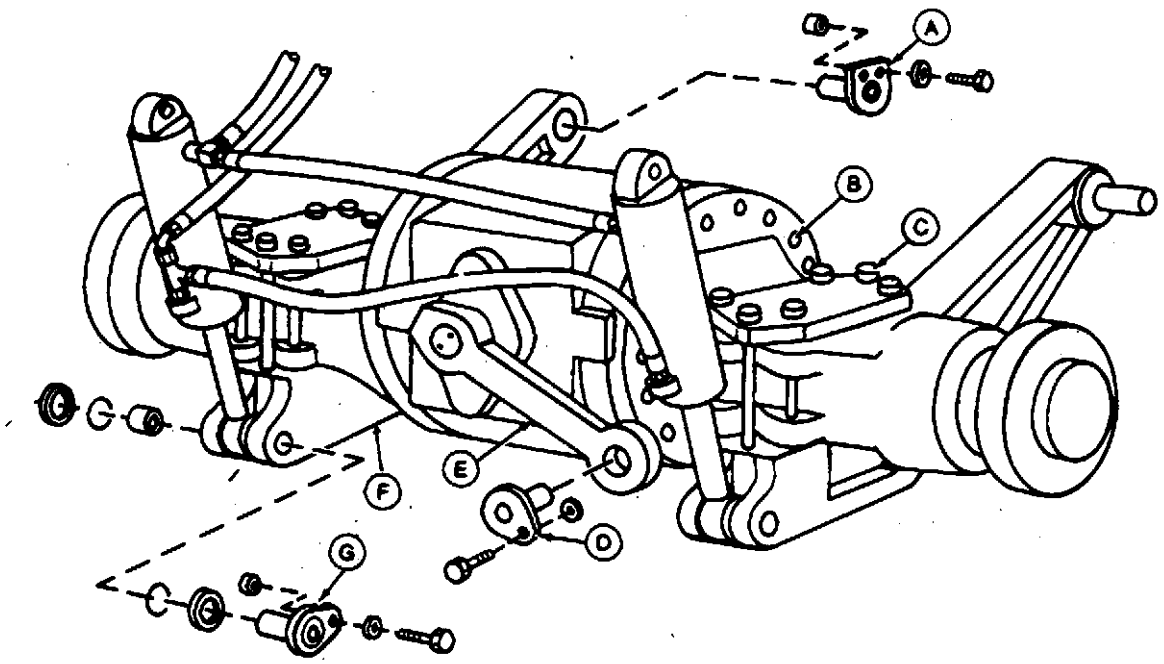
Disconnect lines (A and D).

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



T6416BQ -UN-22MAY89

A—Pin (2 used)
B—Cap Screw (18 used)
C—Cap Screw (12 used)
D—Pin
E—Stabilizer Bar
F—Cradle
G—Pin (2 used)

Remove pins (D and G).

Remove pins (A) to carefully lower differential and axle assembly.

To remove differential and axle assembly from cradle (F), remove nuts and cap screws (C).

T47,0200,C12 -19-09SEP86

CAUTION: Approximate weight of axle housing is 377 kg (831 lb).

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

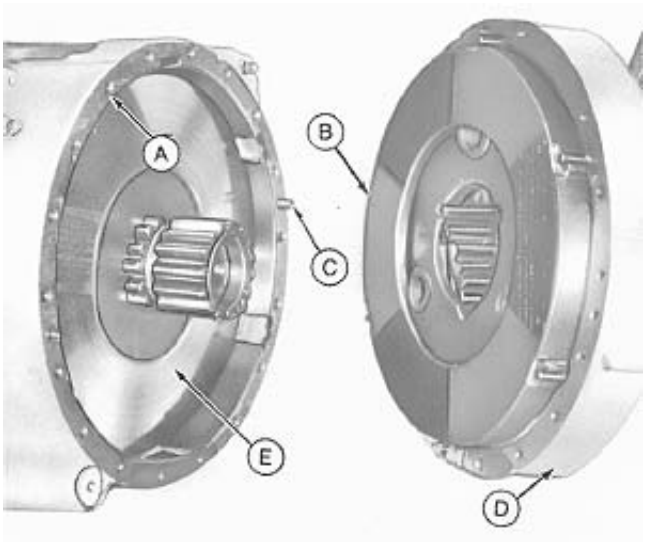
Use new gasket (A) when installing axle housing.

Install dowel pin (C) with small end out.

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.

AXLE HOUSING TORQUE SPECIFICATIONS

Axle Housing-to-Differential
Case Cap Screws . . . . . 338 N·m (249 lb-ft)



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

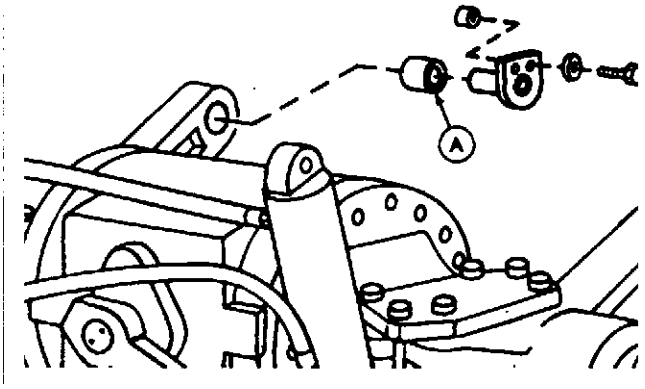
NOTE: Removing the bushing as an assembly causes the rubber insert to swell making removal difficult. To make removal less difficult, remove the inner sleeve first, then the rubber insert and outer sleeve.

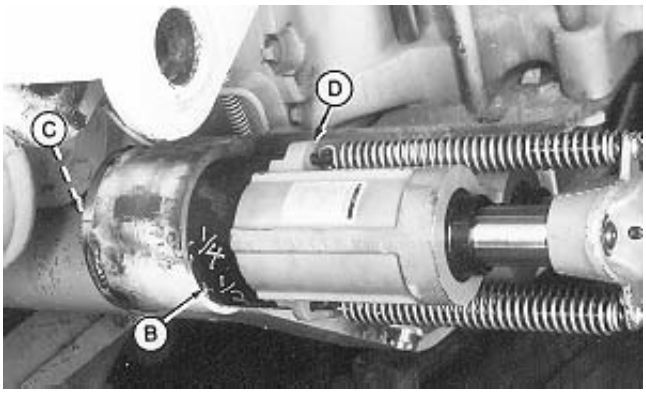
1. Remove the inner sleeve of bushing (A) using bushing receiver (B), bushing remover (C), forcing screw, special nut, and 30-ton hydraulic ram (D).

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

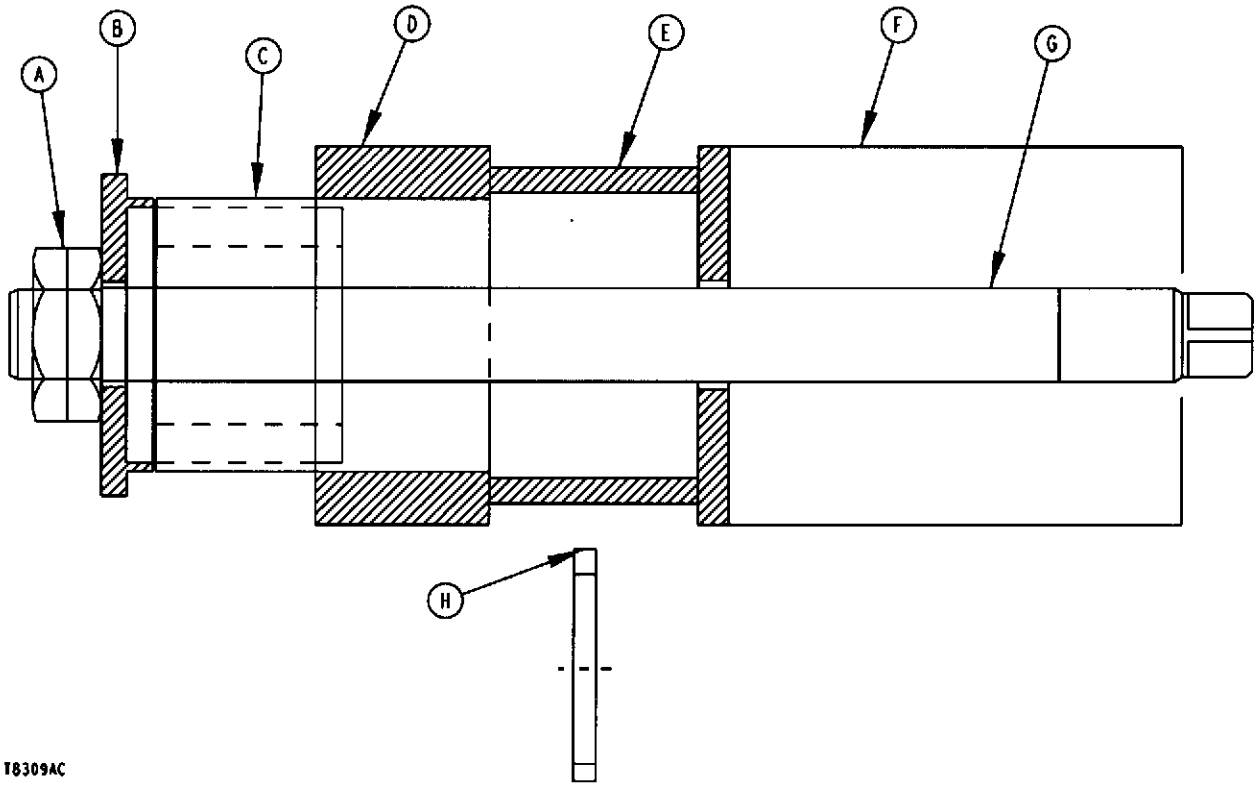
3. Clean bores of any rust and foreign material.

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



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

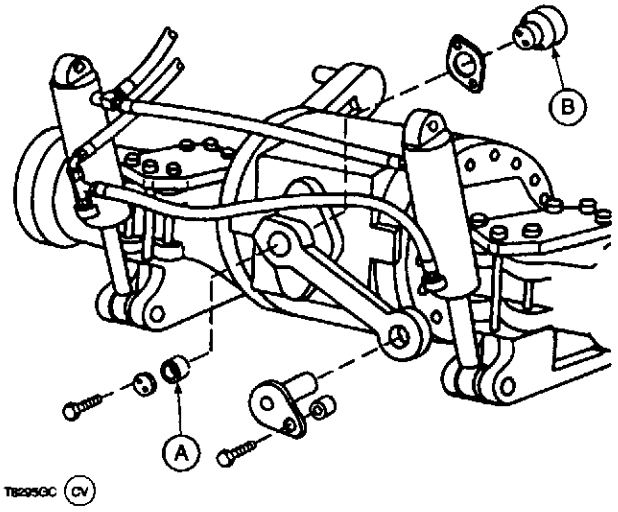
T47,0200,C15 -19-25AUG94

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.



TX,0200,DW103 -19-12SEP94

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.

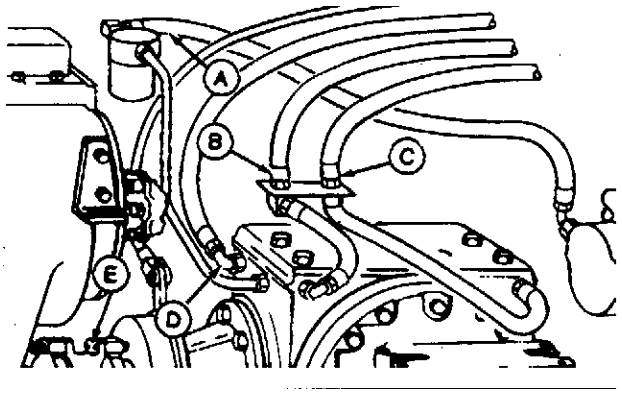
Connect drive shaft (E). Tighten cap screws to specification.

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.



(S.N. —752606) Shown

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