

2250, 2450 and 2650 Tractors

Collar Shift Transmission



DCY

OPERATOR'S MANUAL
2250, 2450 and 2650
Tractors
Collar Shift Transmission
OML60031 Issue E2 (ENGLISH)

John Deere Werke Mannheim

European Version

Printed in U.S.A.



OML60031

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.

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

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

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

SETTING FUEL DELIVERY BEYOND PUBLISHED factory specifications or otherwise overpowering will result in loss of warranty protection for this machine.

BEFORE DELIVERING THIS MACHINE, your dealer performed a predelivery inspection. After operating for the first 100 hours, schedule an after-sale inspection with your dealer to ensure best performance.

THIS TRACTOR IS DESIGNED SOLELY for use in customary agricultural or similar operations ("INTENDED USE").

Use in any other way is considered as contrary to the intended use. The manufacturer accepts no liability for damage or injury resulting from this misuse, and these risks must be borne solely by the user. Compliance with and strict adherence to the conditions of operation, service and repair as specified by the manufacturer also constitute essential elements for the intended use.

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

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

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INHOM-2450CLE-010586

Identification View



L119745

L119745-2250ALE-011188

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.



T 81389

T81389-DX,ALERT-19-04JUN90

UNDERSTAND SIGNAL WORDS

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

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



⚠ WARNING

⚠ CAUTION

TS187-19-DX,SIGNAL-19-04JUN90

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use the controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

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



TS201

TS201-DX,READ-19-04JUN90

CHECK MACHINE SAFETY

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

SAFETY-ESPDAE-260188

PREVENT MACHINE RUNAWAY

Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.



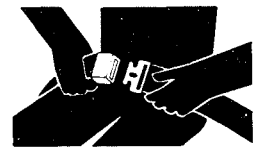
TS177

TS177-DX,BYPAS1-19-04JUN90

USE SEAT BELT PROPERLY

Use a seat belt when you operate with a roll-over protective structure (ROPS) or cab to minimize chance of injury from an accident such as an overturn.

Do not use a seat belt if operating without a ROPS or cab.



TS205

TS205-DX,ROPS1-19-24AUG90

OPERATING THE ENGINE

Never operate the engine in a closed building. Danger of asphyxiation!

When starting the engine, rockshaft control lever must be in "lower" position.



ES 118 711

ES118711-ESPDAE-220688

DRIVING THE TRACTOR

Operate tractor only when all guards are fitted and in their correct position.

Before moving away, always check immediate vicinity of machine (e.g. for children). Ensure adequate visibility.

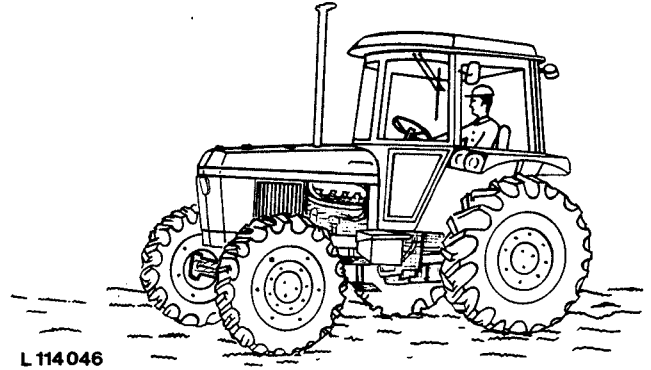
Always adapt your ground speed to meet the ground conditions. Avoid making sharp turns when driving up or down slopes or when driving across the slope. Do not attempt to turn the machine with the differential lock engaged. When driving down slopes, never depress the clutch and change gear!

Attach implements and trailers to the tractor only using the prescribed drawbars or hitches. Attach trailers and implements correctly. Always ensure that trailers and implements cannot roll away.

When making turns with towed or mounted implements, always take into consideration the width and inertia of the implement.

Reduce your ground speed when driving the tractor on slopes or over uneven ground and before making sharp turns. Before descending a steep hill, shift to a lower gear. Never coast downhill!

Avoid holes, ditches and obstructions which may cause the tractor to tip, particularly on hillsides.



L 114 046

L114046-ESPDAE-140388

FRONT WHEEL DRIVE

Front wheel drive greatly increases traction. This means that the tractor can be driven on steeper slopes, increasing the possibility of a tip over. Driving forward out of a ditch or up a steep slope could cause tractor to tip over to the rear. Therefore reverse out of these situations whenever possible.

Never drive near the edge of a gully or steep embankment – it might cave in!



L 114 047

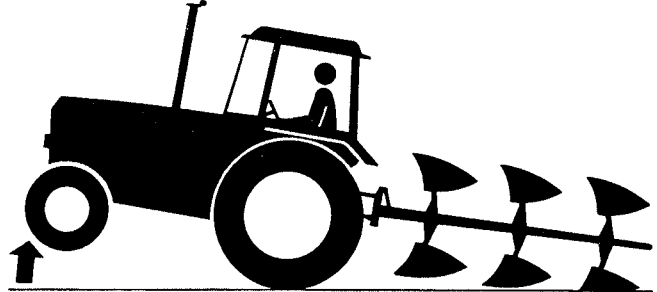
L114047-ESPDAE-140388

BALLASTING FOR SAFE GROUND CONTACT

Operating, steering and braking performance of tractor can be considerably affected by attached implements, trailers or ballast weights.

To maintain the necessary ground contact, ballast the tractor as necessary.

Observe the maximum permissible axle loads and total weights.



ES 114 061

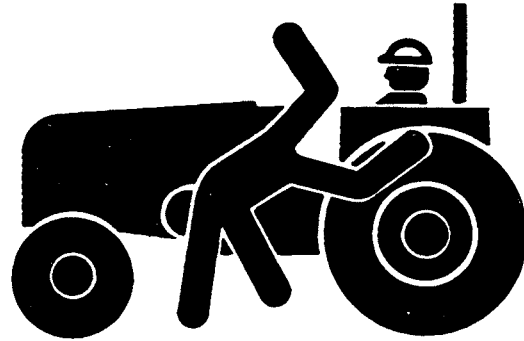
ES114061-ESPDAE-220688

KEEP RIDERS OFF MACHINE

Only allow the operator on the machine.
Keep riders off.

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

On machines equipped with a passenger seat, one rider is permitted.



TS 213

TS213-ESPDAE-140388

HANDLE CHEMICALS PROPERLY

The operator's cab air filters are NOT designed to filter out harmful chemicals. Follow instructions given in the implement operator's manual and those given by chemical manufacturer when using agricultural chemicals.



L114 045

L114045-ESPDAE-140388

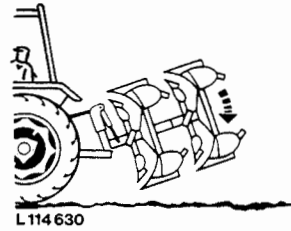
PARKING AND LEAVING THE TRACTOR

Lower mounted implement(s) or equipment to the ground before leaving the tractor.

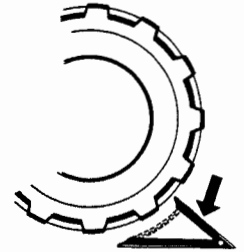
When leaving the tractor and/or implements, shut off engine, engage range and gear shift levers as well as handbrake or parking lock, remove main switch key and lock the operator's cab (when equipped). Position chock blocks.

Never leave tractor unattended as long as engine is still running.

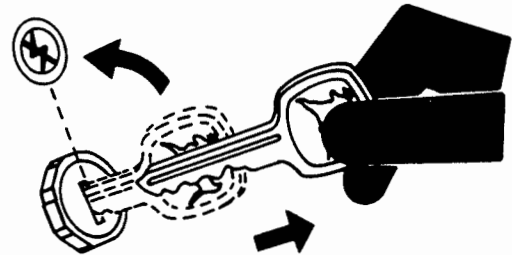
Never leave the operator's platform/cab when driving.



L114 630



L102 637 A



TS 230

L114630,L102637A,TS230-ESPDAE-160288

HANDLE FUEL SAFELY – AVOID FIRES

Handle fuel with care: it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Fill fuel tank outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease and debris. Always clean up spilled fuel.



TS202

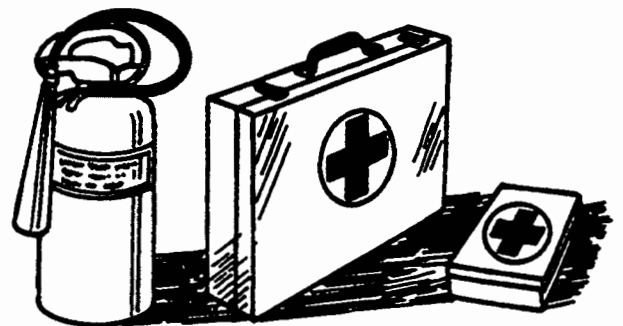
TS202-DX,FIRE1-19-04JUN90

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

TS291-DX,FIRE2-19-04JUN90

HANDLE STARTING FLUID SAFELY

Starting fluid is highly flammable.

Keep all sparks and flames away when using it. Keep starting fluid away from batteries and cables.

To prevent accidental discharge when storing the pressurized can, always keep the cap on the container and store in a cool, protected location.

Do not incinerate or puncture starting fluid containers, even when empty.



TS 6089A

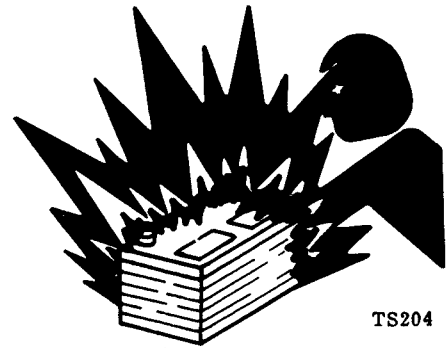
TS6089A-ESPDAE-000388

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 voltmeter or hydrometer.

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



TS204

TS204-DX, SPARKS-19-04JUN90

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-DX,WEAR-19-10SEP90

STAY CLEAR OF ROTATING DRIVELINES

Entanglement in rotating driveline can cause serious injury or death.

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

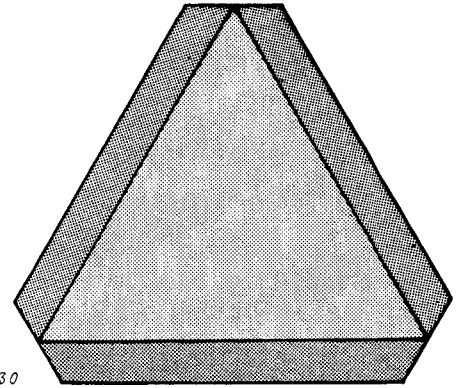
Wear close fitting clothing. Stop the engine and be sure PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.



TS198-DX,PTO-19-04JUN90

OBSERVE ROAD TRAFFIC REGULATIONS

Always observe local road traffic regulations when using public roads.



H28930

H28930-FX,ROAD-19-01MAY91

USE SAFETY LIGHTS AND DEVICES

When transporting your machine on a public road either at night or during the day, use the necessary safety lights. Check local government regulations.

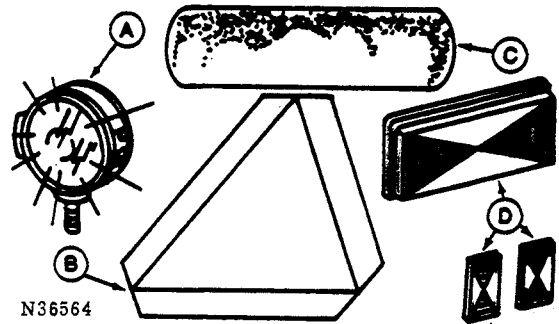
Keep safety items in good condition. Replace missing or damaged items.

A-Lights

B-Slow moving vehicle emblem

C-Reflector tape

D-Reflectors



N36564

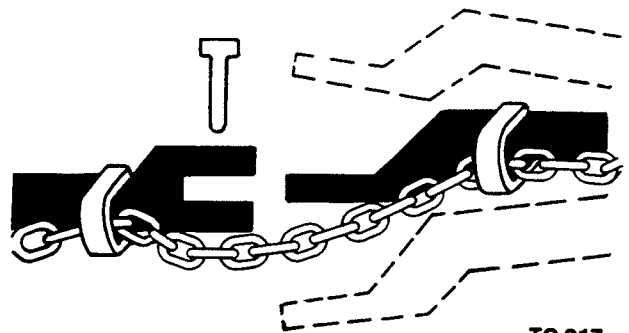
N36564-ESPDAE-260188

USE A SAFETY CHAIN

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

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

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



TS 217

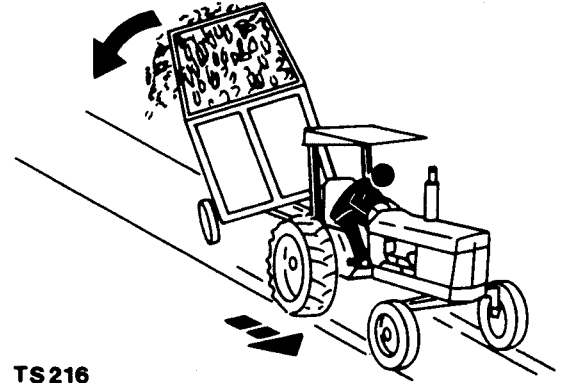
TS217-DX,CHAIN-19-04JUN90

REDUCE SPEED WHEN TOWING LOADS

Braking to stop towed loads from transport speeds can cause the towed load to swerve and upset. Reduce speed if towed load weighs more than the tractor and is not equipped with brakes.

Follow recommended speed-weight ratio guidelines:

- Maximum speed is 32 km/h (20 mph) when towing load equal to or less in weight than the tractor.
- Reduce speed to 16 km/h (10 mph) when towing load up to double the tractor weight.
- Do not tow loads exceeding double the tractor weight.
- Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.



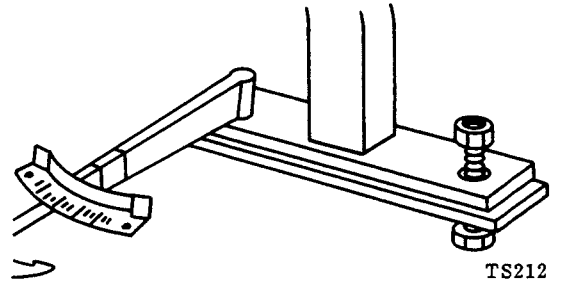
TS 216

TS216-DX,TOW-19-04JUN90

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

TS212-DX,ROPS3-19-04JUN90

PRACTICE SAFE MAINTENANCE

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate or service 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.

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



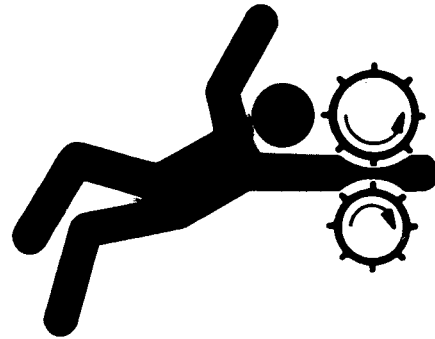
TS 218

TS218-DX,SERV-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.



TS 228

TS228-DX,LOOSE-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.



TS 220

TS220-DX,PAINT-19-04JUN90

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.



TS 953

TS953-DX,TORCH-19-05OCT90

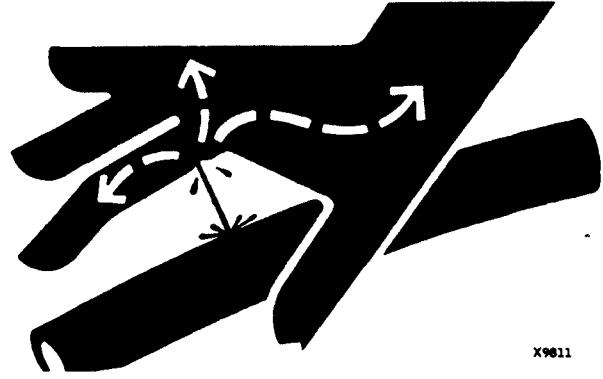
AVOID HIGH-PRESSURE FLUIDS

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.



X9811-DX,FLUID-19-09AUG91

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 of 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.



TS 220

TS220-DX,DUST-19-15MAR91

HANDLE BRAKE FLUID SAFELY

Brake fluid is poisonous. Avoid contact with the skin. Store brake fluid only in its original packing. If you spill brake fluid on yourself, flush your skin thoroughly with water.

BRAKE-ESPDAE-160288

STORE ATTACHMENTS SAFELY

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

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



TS 219

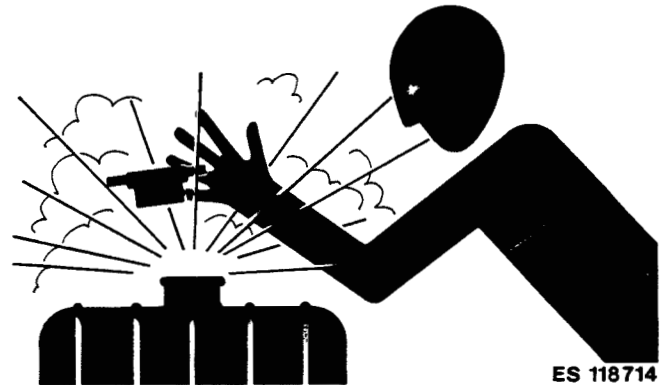
TS219-DX,STORE-19-04JUN90

SERVICE COOLING SYSTEM SAFELY

Danger of scalding!

With the engine shut off, first loosen the radiator cap or expansion tank cap only to the first stop to relieve the pressure before removing the cap completely.

Top up cooling system with coolant only when engine is shut off.

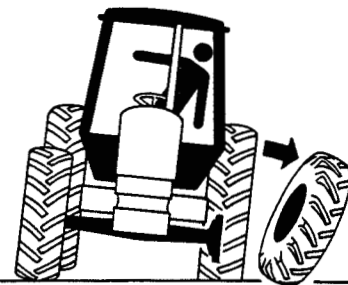


ES 118714

ES118714-ESPDAE-220688

RETIGHTEN WHEEL NUTS

Retighten machine wheel nuts at the intervals specified in section "Break-In Period" and "Service".

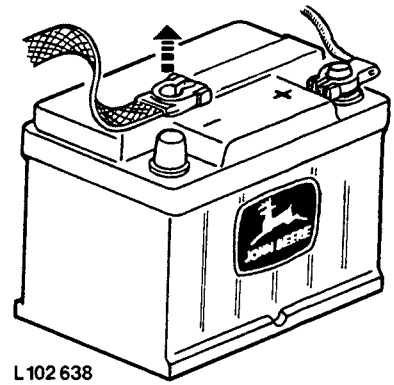


L124 516

L124516-2250ALE-010891

DISCONNECT ELECTRICAL CIRCUIT

Disconnect battery ground strap(s) before carrying out any electrical repairs or welding on the machine. See also under important notes for "Alternator" in section "Service – Electrical System".



L102 638

L102638-ESPDAE-260188

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:

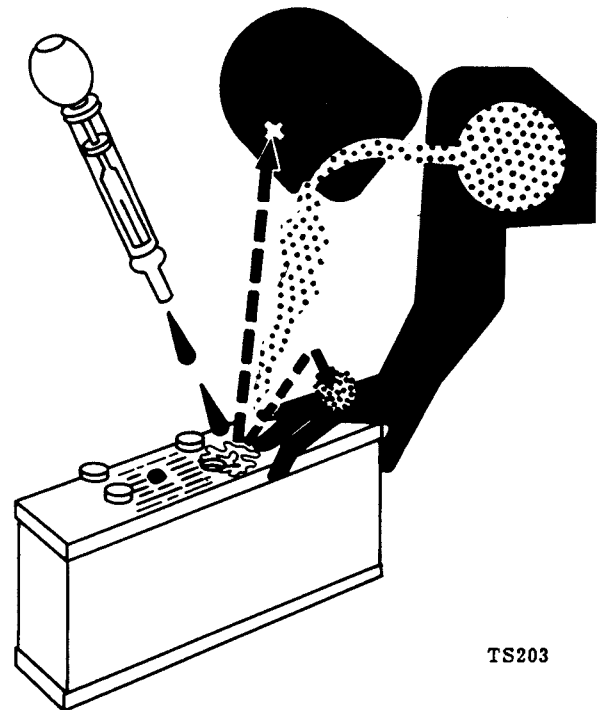
1. Filling the batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Using proper jump start procedure.

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 10 – 15 minutes.
- Get medical attention immediately.

If acid is swallowed:

1. Drink large amounts of water or milk.
2. Then drink milk of magnesia, beaten eggs, or vegetable oil.
3. Get medical attention immediately.



TS203

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