

# **E-GATOR® UTILITY VEHICLE**

## **TECHNICAL MANUAL**

**John Deere  
Worldwide Commercial and  
Consumer Equipment Division**

**TM1766 (31Mar00)  
Replaces TM1766 (22Apr99)**



## **E-GATOR<sup>®</sup> UTILITY VEHICLE**

M99964

This technical manual is written for an experienced technician and contains sections that are specifically for this product. It is a part of a total product support program.

The manual is organized so that all the information on a particular system is kept together. The order of grouping is as follows:

- Table of Contents
- Specifications
- Component Location
- System Schematic
- Theory of Operation
- Troubleshooting Chart
- Diagnostics
- Tests & Adjustments
- Repair

*Note: Depending on the particular section or system being covered, not all of the above groups may be used.*

Each section will be identified with a symbol rather than a number. The groups and pages within a section will be consecutively numbered.

We appreciate your input on this manual. To help, there are postage paid post cards included at the back. If you find any errors or want to comment on the layout of the manual please fill out one of the cards and mail it back to us.

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

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 Horicon, WI  
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**Safety** 

**Specifications and Information** 

**Batteries** 

**Battery Charger** 

**Electric Motor** 

**Electrical System** 

**Power Train** 

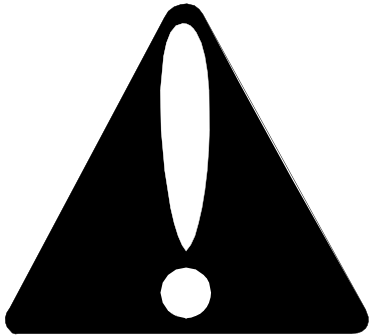
**Steering** 

**Brakes** 

**Miscellaneous** 



**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 servicing practices.

**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.

**REPLACE SAFETY SIGNS**



TS201

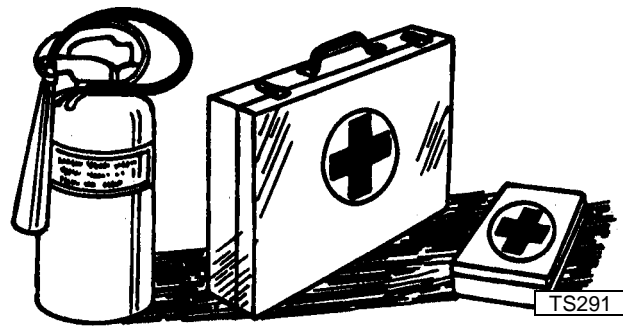
Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.

**HANDLE FLUIDS SAFELY-AVOID FIRES**

**Be Prepared For Emergencies**



TS227



TS291

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

Charge batteries in a well ventilated area.

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

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

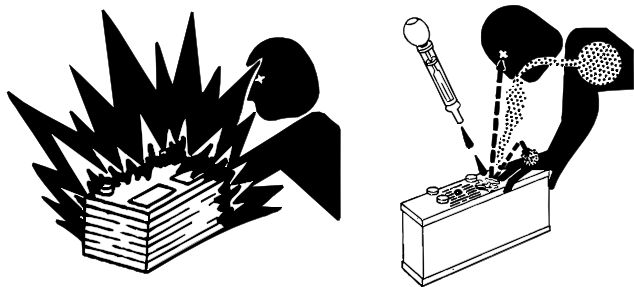
Do not store oily rags; they can ignite and burn spontaneously.

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.

## USE CARE IN HANDLING AND SERVICING BATTERIES



### Prevent Battery Explosions

Batteries contain sulfuric acid and produce explosive mixtures of hydrogen and oxygen. Because self-discharge action generates hydrogen gas even when the battery is not in operation, make sure batteries are stored and serviced in a well ventilated area.

- Always wear proper eye, face and hand protection.
- Keep sparks, lighted matches, and open flame away from the top of battery.
- Remove all jewelry (watches, rings, bracelets, etc.) before servicing the electrical system or batteries.
- Make sure work area is well ventilated.
- Never lean over battery while testing or charging.
- Keep removable vents tight and level except when servicing electrolyte.
- Exercise caution while working with metallic tools or conductors to prevent short circuits and sparks.
- Never check battery charge by placing a metal object across the posts. Use a battery tester, voltmeter or hydrometer.
- Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

### Safe Charging

- Never attempt to charge a battery without first reviewing the instructions for the charger being used.
- Use only the battery charger provided with the utility vehicle. DO NOT use substitutes.
- Always wear proper eye, face and hand protection.
- Keep sparks, lighted matches, and open flame away from the top of battery.
- Make sure work area is well ventilated.
- Never lean over battery while testing or charging.
- Keep removable vents tight and level except when servicing electrolyte.
- To avoid dangerous sparks, Do not disconnect the DC output cord from the battery receptacle when the charger is on. Disconnect the AC power supply cord to turn the charger off before disconnecting the DC output plug.
- Never try to charge a visibly damaged or frozen battery.

- Be sure that the key switch and all electrical accessories are turned off.
- Make sure that the charger leads are not broken, frayed or loose.
- If the battery becomes hot, or if violent gassing or spewing of electrolyte occurs, unplug the charger AC source first before removing the DC plug
- If battery set is on charge, unplug the charger AC plug before disconnecting the charger DC cable plug to avoid dangerous sparks.



### 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.

Use extreme caution when handling electrolyte and keep an acid neutralizing solution - such as baking soda or household ammonia mixed with water - readily available.

#### • Avoid acid burns by:

1. Filling batteries in a well-ventilated area.
2. Wearing eye and face protection a rubber apron and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.

#### • If you spill acid on yourself:

1. Flush area of body that has been exposed with clean water for at least 20 minutes.
2. Remove contaminated clothing.
3. Flush your eyes with clean, cool water for at least 20 minutes.
4. Get medical attention immediately.

#### • If acid is swallowed:

1. Drink large amounts of water or milk. Do not induce vomiting.
2. Then drink milk of magnesia, beaten eggs, or vegetable oil.
3. Get medical attention immediately.



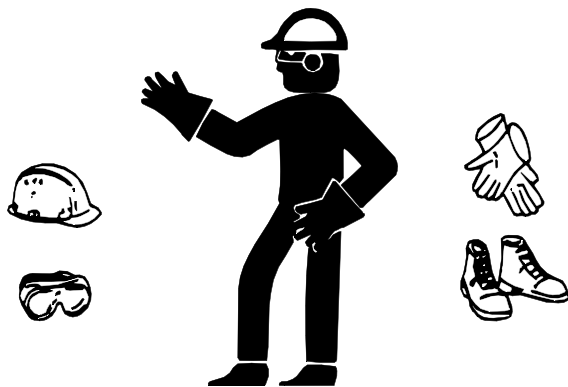
## USE SAFE SERVICE PROCEDURES

### 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.



### 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.

### Use Caution When Servicing Electrical System

Always use extreme caution when servicing this utility vehicle. This utility vehicle is equipped with a 48 volt electrical system capable of passing a high voltage electrical current.

Only persons trained in electrical maintenance should repair or service this utility vehicle.

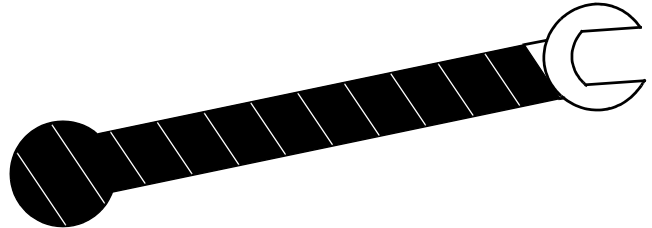
Always move the service/drive switch to the SERVICE position before servicing any part of the electrical system.

Always refer to the battery position/connection diagram when making battery connections to avoid battery explosion. Disconnect the battery set positive (B+) cable before servicing the electrical system.

### Use Proper Tools

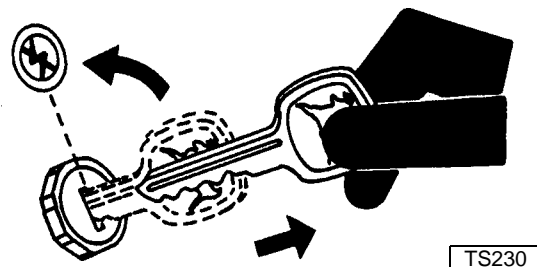
Use tools appropriate to the work.

Use extreme caution when using tools, wires, or metal objects near batteries! A short circuit and/or spark could cause an electrical shock or an explosion. Wrap tools with vinyl tape to prevent shorting out battery(s).



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.

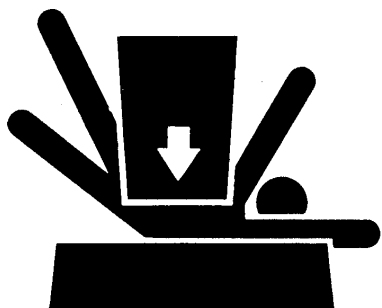
### Park Machine Safely



#### Before working on the machine:

1. Turn key switch to the OFF position and remove the key.
2. Move directional control lever to the NEUTRAL position.
3. Engage the park brake.
4. Raise and tilt operator seat forward. Move the service/drive switch to the SERVICE position.
5. Hang a "DO NOT OPERATE" tag in operator station.

## Support Machine Properly And Use Proper Lifting Equipment



TS229

If you must work on a lifted machine or attachment, securely support the machine or attachment.

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.

Lifting heavy components incorrectly can cause severe injury or machine damage. Follow recommended procedure for removal and installation of components in the manual.

## Work In Clean Area

### Before starting a job:

1. Clean work area and machine.
2. Make sure you have all necessary tools to do your job.
3. Have the right parts on hand.
4. Read all instructions thoroughly; do not attempt shortcuts.

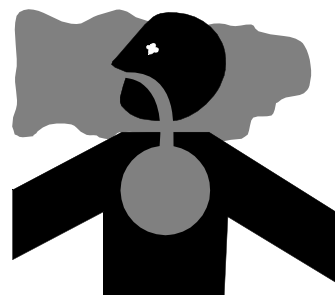
## Using High Pressure Washers

Directing pressurized water at electronic/electrical components or connectors, bearings, or other sensitive parts and components may cause product malfunctions. Reduce pressure and spray at a 45 to 90 degree angle.

## 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 hydrogen gases or spilled fuel or oil.

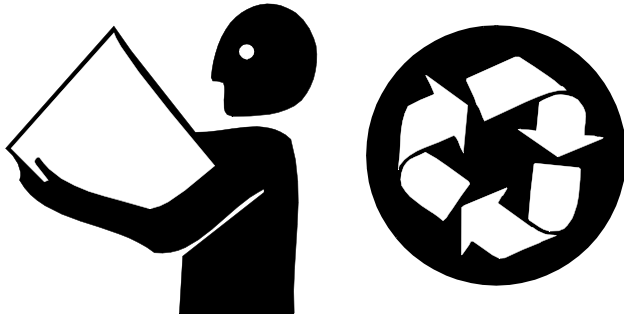
## Work In Ventilated Area



Battery fumes can cause sickness or death. Make sure the work area is well ventilated if it is necessary to charge the batteries in an enclosed area.



## HANDLE CHEMICAL PRODUCTS SAFELY



Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with John Deere equipment 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.

### Dispose of Waste Properly

Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, greases and batteries. Use leakproof containers when draining fluids.

- Waste products such as batteries, can harm the environment and people.
- 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. Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.
- A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques. The seller of the chemical products used with your vehicle is responsible for providing the MSDS for that product.

## LIVE WITH SAFETY



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



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**GENERAL VEHICLE SPECIFICATIONS**

**BATTERIES:**

Type.....Trojan T-105  
 Voltage (Each Battery) ..... 6 VDC  
 Total Voltage (8 Batteries)..... 48 VDC  
 Rating  
 Minutes @ 56 amps ..... 165  
 Approximate weight..... 28.1 kg (62 lbs)

**Optional Type** .....Trojan T-145  
 Voltage (Each Battery) ..... 6 VDC  
 Total Voltage (8 Batteries)..... 48 VDC  
 Rating  
 Minutes @ 56 amps ..... 200  
 Approximate weight..... 32.2 kg (71 lbs)

**MOTOR:**

Type..... Separately Excited D.C. Motor  
 Voltage ..... 48 VDC  
 Insulation Class.....H 180°C

**CONTROLLER:**

Type..... Separately Excited Solid State  
 Nominal Input Voltage.....36-48 VDC  
 Electrical Isolation to Heatsink (minimum) ..... 500 VAC  
 Armature Current Limit ..... 400 Amps

**TRANSAXLE**

Nominal Travel Speed-Forward.....25 km/h (15.5 mph)  
 Nominal Travel Speed-Reverse..... 14.5 km/h (9 mph)  
 Transaxle Capacity ..... 0.4 L (15 oz)

**STEERING and BRAKES**

Steering—Type ..... Rack and Pinion Ackerman-type  
 Brake—Type ..... Dual Rear Wheel Mechanical Drum, Auto Adjusting  
 Suspension  
 Front ..... Independent, Spring Over Shock Single A-Arm Design  
 Rear..... Fixed Position Axle  
 Park Brake..... Three Position, Hand Operated

**DIMENSIONS**

Overall Length..... 266.5 cm (104.9 in.)  
 Overall Width..... 152.5 cm (60 in.)  
 Overall Height ..... 113 cm (44.5 in.)  
 Front tread centers ..... 127 cm (50 in.)  
 Rear tread centers ..... 122 cm (48 in.)  
 Wheelbase ..... 194.0 cm (76.4 in.)  
 Vehicle Weight w/T-105 Batteries ..... 634 kg (1395 lb)



**GROUND CLEARANCE**

Under transaxle . . . . . 196 mm (7.7 in.)  
 Under foot platform . . . . . 215 mm (8.5 in.)  
 Turning clearance circle . . . . . 6.7 m (22 ft)

**CAPACITY**

Seating . . . . . 2 persons  
 Seat type . . . . . Professional high back  
 Payload (total)<sup>2</sup> . . . . . 408 kg (900 lb)  
 Towing . . . . . 272 kg (600 lb)  
 Cargo Box - Volume . . . . . 0.32 m<sup>3</sup> (11.2 cu ft)  
 Cargo Box - Weight . . . . . 227 kg (500 lb)  
 2. Includes 200lb. operator, 200 lb. passenger and maximum box capacity.

**TIRES**

Size-Front . . . . . 22.5 x 10.00 - 8 2PR Hi-Flotation  
 Size-Rear . . . . . 25 x 12.00 - 9 2PR Hi-Flotation

**ELECTRICAL**

Headlights . . . . . Two 48 VDC 27 watt Incandescent (marked SP8)

**Charger - N.A.:**

Type . . . . . Ferro-Resonant Automatic Taper Charge  
 Input Voltage . . . . . 120 VAC 60 hz  
 Input Amperage . . . . . 12 Amps (15 amp breaker max.)  
 Power Factor . . . . . 0.87  
 Output Voltage . . . . . 48 VDC Nominal  
 Output Amperage . . . . . 21 Amps DC Nominal  
 AC Power Cord  
     Plug . . . . . 125 V 15 amp (NEMA Spec 5-15p)  
     Length . . . . . 2.4 m (94 in.)  
 DC Power Cord  
     Length . . . . . 2.8 m (110 in.)








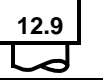












**Charger - Export:**

Type . . . . . Ferro-Resonant Automatic Taper Charge  
 Input Voltage . . . . . 230 VAC 50 hz  
 Input Amperage . . . . . 5.7 Amps (15 amp breaker max.)  
 Power Factor . . . . . 0.95  
 Output Voltage . . . . . 48 VDC Nominal  
 Output Amperage . . . . . 22 Amps DC Nominal  
 AC Power Cord (User Supplied)  
     Length (Maximum) . . . . . 4 m (13 ft)  
 DC Power Cord  
     Length . . . . . 2.8 m (110 in.)

**RECOMMENDED LUBRICANT**

Grease  
 John Deere NON-CLAY HIGH TEMPERATURE EP GREASE®-JDM J13E4, NLGI Grade 2

**METRIC FASTENER TORQUE VALUES**

Property Class and Head Markings	4.8		8.8		9.8		10.9		12.9	
										
Property Class and Nut Markings	5		10		10		10		12	
										

TS1163

SIZE	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated <sup>a</sup>		Dry <sup>a</sup>		Lubricated <sup>a</sup>		Dry <sup>a</sup>		Lubricated <sup>a</sup>		Dry <sup>a</sup>		Lubricated <sup>a</sup>		Dry <sup>a</sup>	
	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	109
M16	100	73	125	92	190	140	240	175	275	200	350	225	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 hand torque values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only and include a ±10% variance factor. Check tightness of fasteners periodically. DO NOT use air powered wrenches.

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

Fasteners should be replaced with the same class. Make sure fastener threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

When bolt and nut combination fasteners are used, torque values should be applied to the **NUT** instead of the bolt head.












Tighten toothed or serrated-type lock nuts to the full torque value.

<sup>a</sup> "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated (yellow dichromate - Specification JDS117) without any lubrication.

Reference: JDS—G200.

INCH FASTENER TORQUE VALUES



SAE Grade and Head Markings	1 or 2 <sup>b</sup> No Marks 	5  5.1  5.2 	8  8.2 
	2 No Marks 	5  	8  

TS1162

SIZE	Grade 1				Grade 2 <sup>b</sup>				Grade 5, 5.1 or 5.2				Grade 8 or 8.2			
	Lubricated <sup>a</sup>		Dry <sup>a</sup>		Lubricated <sup>a</sup>		Dry <sup>a</sup>		Lubricated <sup>a</sup>		Dry <sup>a</sup>		Lubricated <sup>a</sup>		Dry <sup>a</sup>	
	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	215	160	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	470	300	510	375	470	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 hand torque values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only and include a ±10% variance factor. Check tightness of fasteners periodically. DO NOT use air powered wrenches.

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

Fasteners should be replaced with the same grade. Make sure fastener threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

When bolt and nut combination fasteners are used, torque values should be applied to the **NUT** instead of the bolt head.

Tighten toothed or serrated-type lock nuts to the full torque value.

<sup>a</sup> "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated (yellow dichromate - Specification JDS117) without any lubrication.

<sup>b</sup> "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.

Reference: JDS—G200.

## TRANSAXLE OIL-NORTH AMERICA

**IMPORTANT:** DO NOT use engine oil or "Type F" (Red) Automatic Transmission Fluid in this transaxle. DO NOT mix any other oils in this transaxle. DO NOT use BIO-HY-GARD® in this transaxle.

Use recommended oil viscosity based on the expected air temperature range during the service interval.

The following John Deere transmission and hydraulic oil is preferred:

- HY-GARD®—JDM J20C.

Other oils may be used if above recommended John Deere oil is not available, provided they meet the following specification:

- John Deere Standard JDM J20C.

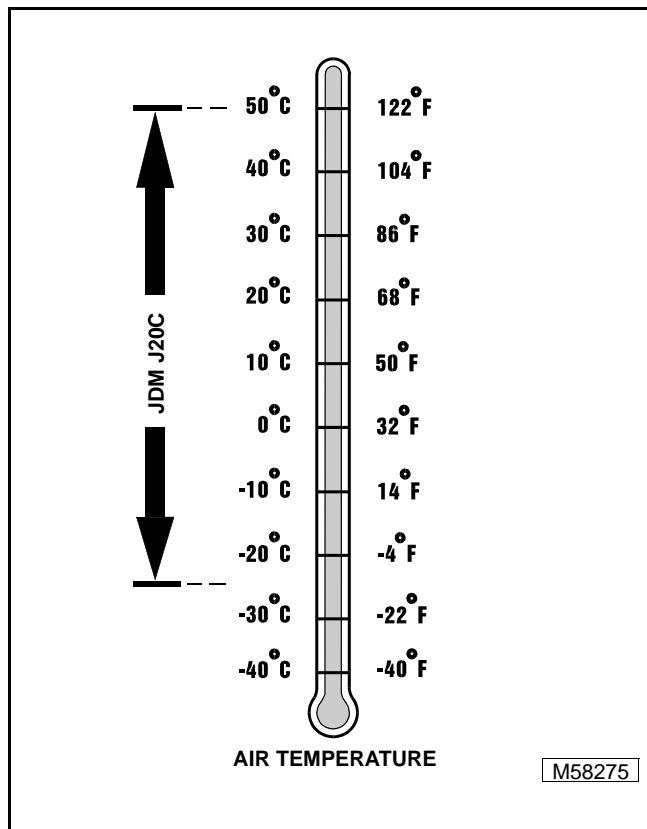
**IMPORTANT:** If minimum air temperature should fall below -25°C (-13°F), the transaxle oil must be heated to at least five degrees above the lower limit before start-up or transaxle may be damaged. For prolonged operation under heavy load in air temperatures above 50°C (122°F) reduce service interval by 50%.

**John Deere Dealers:** You may want to cross-reference the following publications to recommend the proper grease for your customers:

- Module DX,GREA1 in JDS-G135;
- Section 530, Lubricants & Hydraulics, of the John Deere Merchandise Sales Guide;
- Lubrication Sales Manual PI7032.



*NOTE: Disregard the John Deere All Weather Hydrostatic Fluid (JDM J21A) listing - it has been eliminated from the specification.*



## ANTI-CORROSION GREASE

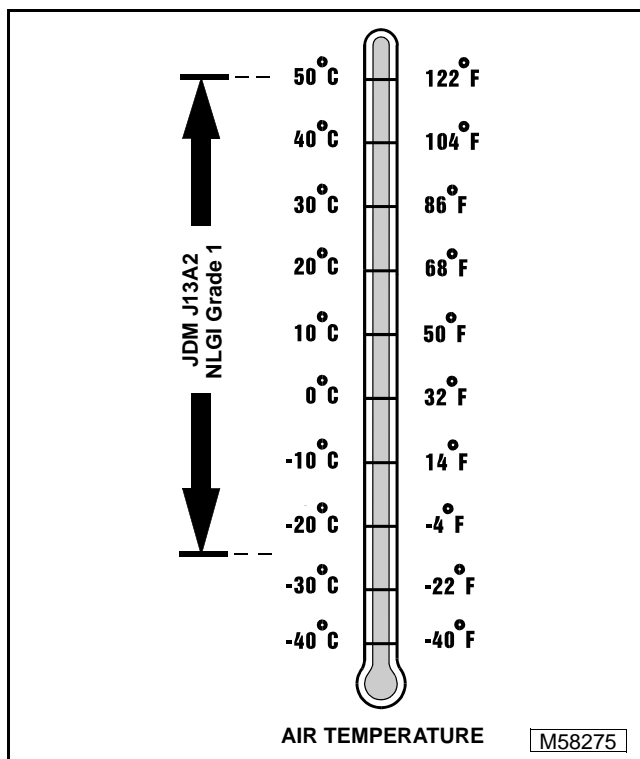
This anti-corrosion grease is formulated to provide the best protection against absorbing moisture, which is one of the major causes of corrosion. This grease is also superior in its resistance to separation and migration.

The following anti-corrosion grease is **PREFERRED**:

- DuBois MPG-2® Multi-Purpose Polymer Grease—M79292.

Other greases may be used if they meet or exceed the following specifications:

- John Deere Standard JDM J13A2, NLGI Grade 1.



**John Deere Dealers:** You may want to cross-reference the following publications to recommend the proper grease for your customers:

- Module DX,GREA1 in JDS–G135;
- Section 530, Lubricants & Hydraulics, of the John Deere Merchandise Sales Guide;
- Lubrication Sales Manual PI7032.

## ALTERNATIVE LUBRICANTS

Conditions in certain geographical areas outside the United States and Canada may require different lubricant recommendations than the ones printed in this technical manual or the operator's manual. Consult with your John Deere Dealer, or Sales Branch, to obtain the alternative lubricant recommendations.

**IMPORTANT: Use of alternative lubricants could cause reduced life of the component.**

If alternative lubricants are to be used, it is recommended that the factory fill be thoroughly removed before switching to any alternative lubricant.

## LUBRICANT STORAGE

All machines operate at top efficiency only when clean lubricants are used. Use clean storage containers to handle all lubricants. Store them in an area protected from dust, moisture, and other contamination. Store drums on their sides. Make sure all containers are properly marked as to their contents. Dispose of all old, used containers and their contents properly.

## MIXING OF LUBRICANTS

In general, avoid mixing different brands or types of lubricants. Manufacturers blend additives in their lubricants to meet certain specifications and performance requirements. Mixing different lubricants can interfere with the proper functioning of these additives and lubricant properties which will downgrade their intended specified performance.



## CHASSIS GREASE—NORTH AMERICA

Use the following grease based on the air temperature range. Operating outside of the recommended grease air temperature range may cause premature failures.

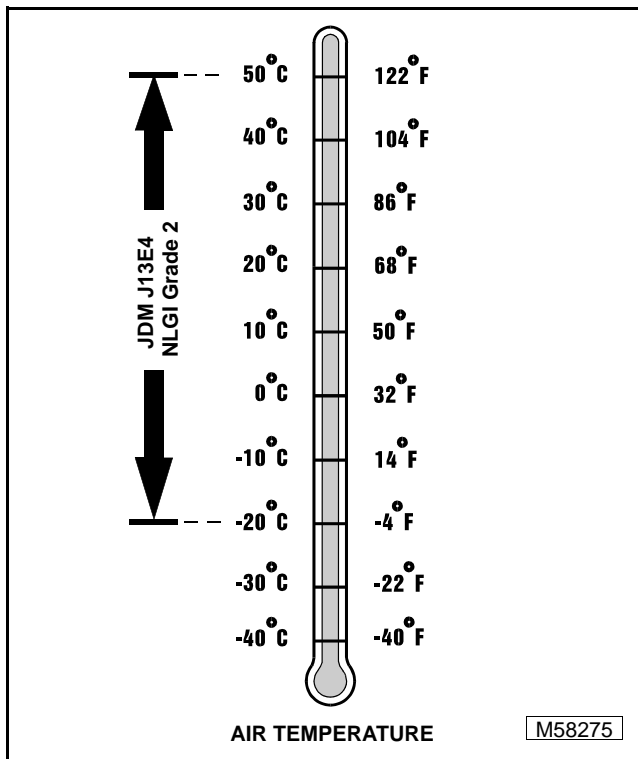
**IMPORTANT:** ONLY use a quality grease in this application. DO NOT mix any other greases in this application. DO NOT use any BIO-GREASE in this application.

The following John Deere grease is **PREFERRED**:

- **NON-CLAY HIGH-TEMPERATURE EP GREASE®—JDM J13E4, NLGI Grade 2.**

Other greases may be used if above preferred John Deere grease is not available, provided they meet the following specification:

- John Deere Standard JDM J13E4, NLGI Grade 2.



**John Deere Dealers:** You may want to cross-reference the following publications to recommend the proper grease for your customers:

- Module DX,GREA1 in JDS-G135;
- Section 530, Lubricants & Hydraulics, of the John Deere Merchandise Sales Guide;
- Lubrication Sales Manual P17032.

**PRODUCT IDENTIFICATION LOCATIONS**

When ordering parts or submitting a warranty claim, it is **IMPORTANT** that you include the product identification number and the component product identification numbers.

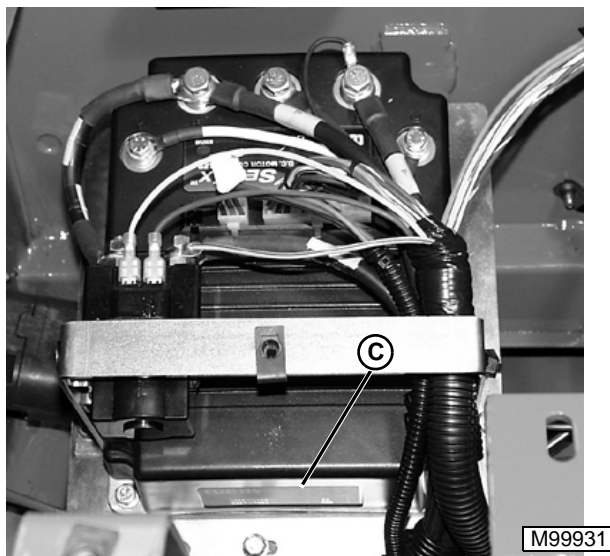
The location of identification numbers and component product identification numbers are shown.

**E GATOR® UTILITY VEHICLE IDENTIFICATION NUMBER**



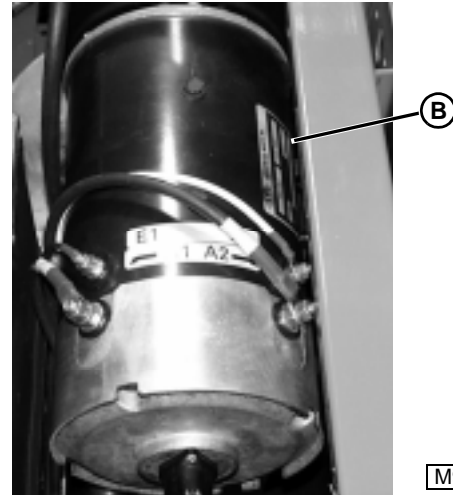
Vehicle identification number plate (A) is located on the frame under the passenger seat.

**MOTOR CONTROLLER IDENTIFICATION NUMBER**



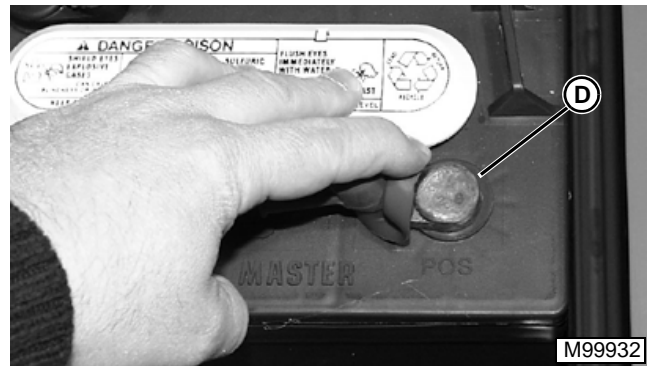
The motor controller serial number (C) is located on a label located on the lower surface of the controller.

**ELECTRIC MOTOR IDENTIFICATION NUMBER**



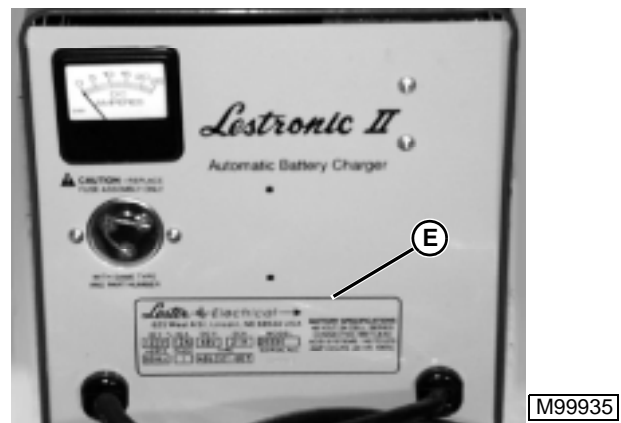
The electric motor serial number sticker (B) is located on the motor at the rear of the vehicle.

**BATTERY IDENTIFICATION DATE CODE**



The battery date codes (D) are stamped into the top surface of both the positive and negative terminal of each battery.

**BATTERY CHARGER IDENTIFICATION NUMBER**



The battery charger serial number (E) is located on the front control panel of the charger.

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