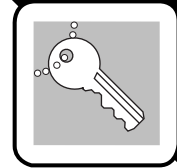


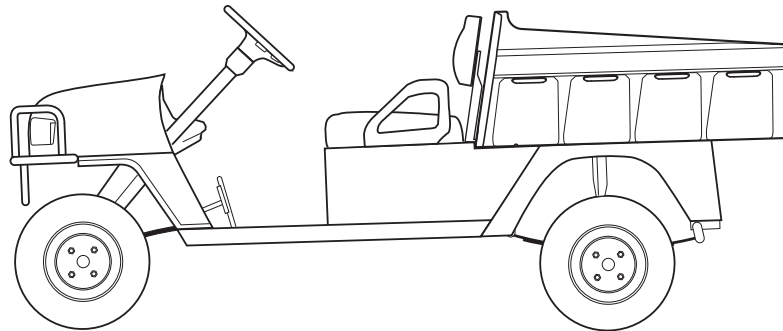
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A Textron Company



# OWNER'S MANUAL AND SERVICE GUIDE



GASOLINE POWERED UTILITY VEHICLES

ISSUED DECEMBER 2006      REVISED FEBRUARY 2010

# SAFETY

For any questions on material contained in this manual, contact an authorized representative for clarification.

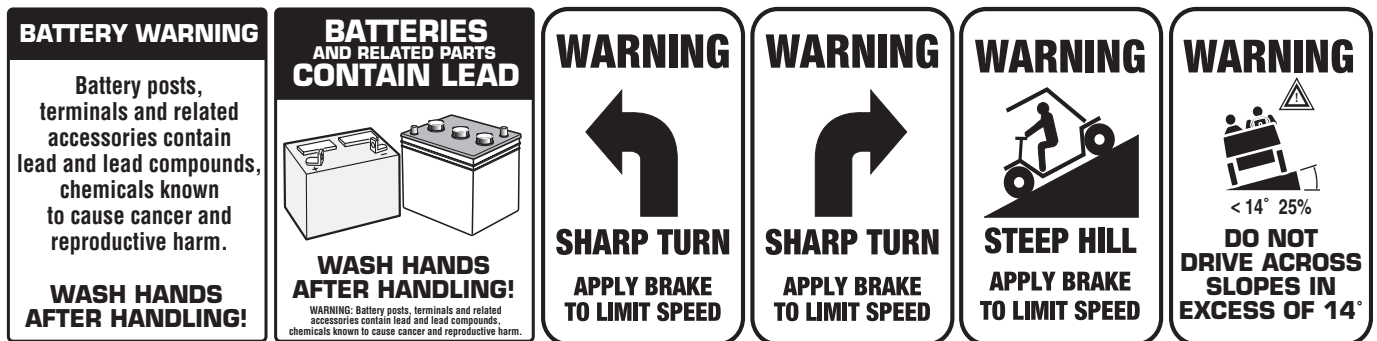
Read and understand all labels located on the vehicle. Always replace any damaged or missing labels.

On steep hills it is possible for vehicles to coast at greater than normal speeds encountered on a flat surface. To prevent loss of vehicle control and possible serious injury, speeds should be limited to no more than the maximum speed on level ground. See GENERAL SPECIFICATIONS. Limit speed by applying the service brake.

Catastrophic damage to the drivetrain components due to excessive speed may result from driving the vehicle above specified speed. Damage caused by excessive speed may cause a loss of vehicle control, is costly, is considered abuse and will not be covered under warranty.

For towing/transporting vehicle, refer to "TRANSPORTING VEHICLE".

Signs similar to the ones illustrated should be used to warn of situations that could result in an unsafe condition.



Be sure that this manual remains as part of the permanent service record should the vehicle be sold.

Throughout this guide **NOTE**, **CAUTION** and **WARNING** will be used.

*cause cancer, birth defects, or other reproductive harm.*

## NOTE

A **NOTE** indicates a condition that should be observed.

## NOTE

The exhaust emissions of this vehicles' engine complies with regulations set forth by the Environmental Protection Agency (EPA) of the United States of America (USA) at time of manufacture. Significant fines could result from modifications or tampering with the engine, fuel, ignition or air intake systems.

## CAUTION

A **CAUTION** indicates a condition that may result in damage to the vehicle.

## WARNING

A **WARNING** indicates a hazardous condition that could result in severe injury or death.

Observe these **NOTES**, **CAUTIONS** and **WARNINGS**; be aware that servicing a vehicle requires mechanical skill and a regard for conditions that could be hazardous. Improper service or repair may damage the vehicle or render it unsafe.

## WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

## NOTE

This spark ignition system meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Ce système d'allumage par étincelle de véhicule respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## WARNING

Engine exhaust from this product contains chemicals known, in certain quantities, to

**(NOTES, CAUTIONS AND WARNINGS CONTINUED ON INSIDE OF BACK COVER)**

# **OWNER'S MANUAL AND SERVICE GUIDE**

## **GASOLINE POWERED UTILITY VEHICLES**

**ST 480**

**Starting Model Year 2007**

E-Z-GO Division of TEXTRON, Inc. reserves the right to make design changes without obligation to make these changes on units previously sold and the information contained in this manual is subject to change without notice.

E-Z-GO Division of TEXTRON, Inc. is not liable for errors in this manual or for incidental or consequential damages that result from the use of the material in this manual.

These are the original instructions as defined by 2006/42/EC.

### **TO CONTACT US**

#### **NORTH AMERICA:**

**TECHNICAL ASSISTANCE & WARRANTY PHONE: 1-800-774-3946, FAX: 1-800-448-8124**

**SERVICE PARTS PHONE: 1-888-GET-EZGO (1-888-438-3946), FAX: 1-800-752-6175**

#### **INTERNATIONAL:**

**PHONE: 001-706-798-4311, FAX: 001-706-771-4609**

**E-Z-GO DIVISION OF TEXTRON, INC., 1451 MARVIN GRIFFIN ROAD, AUGUSTA, GEORGIA USA 30906-3852**

## **GENERAL INFORMATION**

**This vehicle has been designed and manufactured in the United States of America (USA) as a 'World Vehicle'. The Standards and Specifications listed in the following text originate in the USA unless otherwise indicated.**

**The use of non Original Equipment Manufacturer (OEM) approved parts may void the warranty.**

**Overfilling battery may void the warranty.**

**Tampering with or adjusting the governor to permit vehicle to operate at above factory specifications will void the vehicle warranty.**

**When servicing engines, all adjustments and replacement components must be per original vehicle specifications in order to maintain the United States of America Federal and State emission certification applicable at the time of manufacture.**

### **BATTERY PROLONGED STORAGE**

**All batteries will self discharge over time. The rate of self discharge varies depending on the ambient temperature and the age and condition of the batteries.**

**A fully charged battery will not freeze in winter temperatures unless the temperature falls below -75° F (-60° C).**

# TABLE OF CONTENTS

<b>SAFETY</b> .....	<b>Inside covers</b>
<b>GENERAL INFORMATION</b> .....	<b>ii</b>
<b>SAFETY INFORMATION</b> .....	<b>vii</b>
<b>WELCOME</b> .....	<b>1</b>
<b>BEFORE INITIAL USE</b> .....	<b>1</b>
<i>Fig. 1 Initial Service Chart</i> .....	<i>1</i>
<b>PREPARATION OF SEATS FOR SERVICE</b> .....	<b>1</b>
<i>Fig. 2 Safety and Operation Label</i> .....	<i>2</i>
<b>TERRAIN</b> .....	<b>2</b>
<b>VEHICLE CAPACITY</b> .....	<b>2</b>
<b>MODIFICATIONS TO VEHICLE</b> .....	<b>2</b>
<b>DUMP BED</b> .....	<b>2</b>
<i>Fig. 3 Dump Bed Warning Label</i> .....	<i>3</i>
<b>TOP AND WINDSHIELD (IF EQUIPPED)</b> .....	<b>3</b>
<b>COMMON SENSE OPERATION</b> .....	<b>3</b>
<b>ENVIRONMENTAL CONCERNS</b> .....	<b>3</b>
<b>OPTIONAL WINCH</b> .....	<b>4</b>
Operation of the Winch .....	4
<i>Fig. 4 Winch Mounted to Vehicle</i> .....	<i>4</i>
<i>Fig. 5 Winch Remote Control</i> .....	<i>4</i>
<i>Fig. 6 Winch Clutch Knob</i> .....	<i>4</i>
Winch Applications .....	4
<i>Fig. 7 Never Operate Winch with Less Than Five Turns Around Drum</i> .....	<i>5</i>
<i>Fig. 8 Do Not Hook Cable to Itself</i> .....	<i>6</i>
<i>Fig. 9 Use a Nylon Sling and Install a Damper when Winching</i> .....	<i>6</i>
<i>Fig. 10 Do Not Pull at Angle</i> .....	<i>6</i>
<b>TOWING A TRAILER</b> .....	<b>7</b>
<b>POWER CONSUMPTION</b> .....	<b>7</b>
<b>SERIAL NUMBER PLATE AND LOCATION</b> .....	<b>7</b>
<i>Fig. 11 Serial Number Plate and Location</i> .....	<i>7</i>
<b>CONTROLS AND INDICATORS</b> .....	<b>8</b>
Key/Light Switch .....	8
<i>Fig. 12 Key/Light Switch, Low Oil Pressure Light and Fuel Gauge</i> .....	<i>8</i>
Low Oil Pressure Light .....	8
Fuel Gauge .....	8
Direction Selector .....	8
Parking Brake .....	8
Differential Lock .....	8
<i>Fig. 13 Console Controls</i> .....	<i>9</i>
Choke .....	9
Accelerator Pedal .....	9
<i>Fig. 14 Accelerator, Brake and Horn</i> .....	<i>9</i>
Service Brake Pedal .....	9
Horn .....	9
12 Volt Power Outlet .....	9
<i>Fig. 15 12V Power Outlet</i> .....	<i>9</i>
Optional Electric Dump Bed .....	10
<i>Fig. 16 Electric Lift Toggle Switch</i> .....	<i>10</i>
<b>BEFORE ENTERING VEHICLE</b> .....	<b>10</b>
Run-in .....	10
<i>Fig. 17 Check Oil Level on Dipstick</i> .....	<i>10</i>
<b>OPERATING THE VEHICLE</b> .....	<b>10</b>

# TABLE OF CONTENTS

Cold Starting .....	12
Starting the Vehicle on a Hill .....	12
Starting the Vehicle with a Discharged Battery .....	12
<b>COASTING .....</b>	<b>12</b>
<b>FUEL .....</b>	<b>12</b>
<i>Fig. 18 Fuel Tank Location</i> .....	13
<b>TOWING .....</b>	<b>13</b>
<b>SERVICING THE VEHICLE .....</b>	<b>13</b>
Neutral Lock .....	14
<i>Fig. 19 Neutral Lock</i> .....	14
Lifting the Vehicle .....	15
Routine Maintenance .....	15
<i>Fig. 20 Lifting the Vehicle</i> .....	15
<i>Fig. 21 Lubrication Points</i> .....	15
<b>POWERTRAIN MAINTENANCE .....</b>	<b>16</b>
Removing Debris .....	16
<i>Fig. 22 Cleaning Cooling Fins and Air Intake</i> .....	16
Replacing the Fuel Filter .....	16
Oil Capacity .....	16
Oil Recommendations .....	16
<i>Fig. 23 Oil Viscosity Chart</i> .....	17
Checking the Oil Level .....	17
<i>Fig. 24 Oil Fill Cap, Dipstick and Fuel Filter</i> .....	17
<i>Fig. 25 Clean Entire Dipstick</i> .....	17
<i>Fig. 26 Check Oil Level on Dipstick</i> .....	18
Changing the Oil .....	18
<i>Fig. 27 Oil Drain and Filter</i> .....	18
Changing the Oil Filter .....	18
<b>AIR CLEANER MAINTENANCE .....</b>	<b>18</b>
<i>Fig. 28 Air Cleaner</i> .....	19
Pre-Cleaner Service .....	19
Cartridge Service .....	19
<b>REAR AXLE .....</b>	<b>19</b>
Checking the Lubricant Level .....	19
<i>Fig. 29 Add, Check and Drain Rear Axle Lubricant</i> .....	19
<b>STARTER/GENERATOR BELT TENSION .....</b>	<b>20</b>
<i>Fig. 30 Check Belt Tension with Gauge</i> .....	20
<i>Fig. 31 Check Belt Tension with Finger</i> .....	20
Adjusting the Belt .....	20
<b>SPARK PLUGS .....</b>	<b>20</b>
<i>Fig. 32 Adjust Belt Tension</i> .....	20
<i>Fig. 33 Gap Spark Plugs</i> .....	21
<b>BRAKES .....</b>	<b>21</b>
<b>DAILY BRAKE TEST .....</b>	<b>21</b>
<b>TIRES .....</b>	<b>21</b>
Wheel and Tire Service .....	22
<i>Fig. 34 Wheel Installation</i> .....	22
<b>LIGHT BULB AND FUSE REPLACEMENT .....</b>	<b>22</b>
<i>Fig. 35 Headlight Replacement</i> .....	23
<b>PROLONGED STORAGE .....</b>	<b>23</b>
<b>CARE AND CLEANING OF THE VEHICLE .....</b>	<b>23</b>
<b>TRANSPORTING VEHICLE .....</b>	<b>24</b>

# TABLE OF CONTENTS

TOWING .....	24
HAULING .....	24
<b>HARDWARE .....</b>	<b>24</b>
<b>TORQUE SPECIFICATIONS .....</b>	<b>25</b>
<i>Fig. 36 Torque Specifications</i> .....	25
<b>PERIODIC SERVICE SCHEDULE .....</b>	<b>25</b>
<i>Fig. 37 Periodic Service Schedule</i> .....	27
<b>GENERAL SPECIFICATIONS .....</b>	<b>29</b>
ST 480 .....	30
<i>Fig. 38 Vehicle Dimensions</i> .....	31
<i>Fig. 39 Vehicle Dimensions, Incline Specifications and Turning Clearance Diameter</i> .....	32
<b>LABELS AND PICTOGRAMS .....</b>	<b>Appendix A - 1</b>
<b>VEHICLE WARRANTIES .....</b>	<b>Appendix B - 1</b>
DOMESTIC WARRANTY .....	B - 2
FEDERAL EMISSIONS COMPONENT DEFECT WARRANTY .....	B - 3
CALIFORNIA EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT .....	B - 5
<b>DECLARATION OF CONFORMITY (EUROPE ONLY) .....</b>	<b>Appendix C - 1</b>

## TABLE OF CONTENTS

**Notes:**



# SAFETY INFORMATION

This manual has been designed to assist in maintaining the vehicle in accordance with procedures developed by the manufacturer. Adherence to these procedures and troubleshooting tips will ensure the best possible service from the product. To reduce the chance of personal injury or property damage, the following must be carefully observed:



## CAUTION

Certain replacement parts can be used independently and/or in combination with other accessories to modify an E-Z-GO-manufactured vehicle to permit the vehicle to operate at or in excess of 20mph. When an E-Z-GO-manufactured vehicle is modified in any way by the Distributor, Dealer or customer to operate at or in excess of 20mph, UNDER FEDERAL LAW the modified product will be a Low Speed Vehicle (LSV) subject to the strictures and requirements of Federal Motor Vehicle Safety Standard 571.500. In these instances, pursuant to Federal law the Distributor or Dealer MUST equip the product with headlights, rear lights, turn signals, seat belts, top, horn and all other modifications for LSV's mandated in FMVSS 571.500, and affix a Vehicle Identification Number to the product in accordance with the requirements of FMVSS 571.565. Pursuant to FMVSS 571.500, and in accordance with the State laws applicable in the places of sale and use of the product, the Distributor, Dealer or customer modifying the vehicle also will be the Final Vehicle Manufacturer for the LSV, and required to title or register the vehicle as mandated by State law.

E-Z-GO will NOT approve Distributor, Dealer or customer modifications converting E-Z-GO products into LSV's.

The Company, in addition, recommends that all E-Z-GO products sold as personal transportation vehicles BE OPERATED ONLY BY PERSONS WITH VALID DRIVERS LICENSES, AND IN ACCORDANCE WITH APPLICABLE STATE REQUIREMENTS. This restriction is important to the SAFE USE AND OPERATION of the product. On behalf of E-Z-GO, I am directing that E-Z-GO Branch personnel, Distributors and Dealers advise all customers to adhere to this SAFETY RESTRICTION, in connection with the use of all products, new and used, the Distributor or Dealer has reason to believe may be operated in personal transportation applications.

Information on FMVSS 571.500 can be obtained at Title 49 of the Code of Federal Regulations, section 571.500, or through the Internet at the website for the U.S. Department of Transportation - at Dockets and Regulation, then to Title 49 of the Code of Federal Regulations (Transportation).

## GENERAL

Many vehicles are used for a variety of tasks beyond the original intended use of the vehicle; therefore, it is impossible to anticipate and warn against every possible combination of circumstances that may occur. No warnings can take the place of good common sense and prudent driving practices.

Good common sense and prudent driving practices do more to prevent accidents and injury than all of the warnings and instructions combined. The manufacturer strongly suggests that all users and maintenance personnel read this entire manual paying particular attention to the CAUTIONS and WARNINGS contained therein.

If you have any questions regarding this vehicle, contact your closest representative or write to the address on the back cover of this publication, Attention: Product Service Department.

The manufacturer reserves the right to make design changes without obligation to make these changes on units previously sold and the information contained in this manual is subject to change without notice.

The manufacturer is not liable for errors in this manual or for incidental or consequential damages that result from the use of the material in this manual.

This vehicle conforms to the current applicable standard(s) for safety and performance requirements.

# SAFETY INFORMATION

These vehicles are designed and manufactured for off-road use. They do not conform to Federal Motor Vehicle Safety Standards of the United States of America (USA) and are not equipped for operation on public streets. Some communities may permit these vehicles to be operated on their streets on a limited basis and in accordance with local ordinances.

Refer to GENERAL SPECIFICATIONS for vehicle seating capacity.

**Never modify the vehicle in any way that will alter the weight distribution of the vehicle, decrease its stability or increase the speed beyond the factory specification. Such modifications can cause serious personal injury or death.** Modifications that increase the speed and/or weight of the vehicle will extend the stopping distance and may reduce the stability of the vehicle. Do not make any such modifications or changes. The manufacturer prohibits and disclaims responsibility for any such modifications or any other alteration which would adversely affect the safety of the vehicle.

Vehicles that are capable of higher speeds must limit their speed to no more than the speed of other vehicles when used in a golf course environment. Additionally, speed should be further moderated by the environmental conditions, terrain and common sense.

Operation of this vehicle is limited to persons above the height of 59 inches (150 cm).

## GENERAL OPERATION

Always:

- Use the vehicle in a responsible manner and maintain the vehicle in safe operating condition.
- Read and observe all warnings and operation instruction labels affixed to the vehicle.
- Follow all safety rules established in the area where the vehicle is being operated.
- Leave the vehicle when there is a risk of lightning.
- Reduce speed to compensate for poor terrain or conditions.
- Apply service brake to control speed on steep grades.
- Maintain adequate distance between vehicles.
- Reduce speed in wet areas.
- Use extreme caution when approaching sharp or blind turns.
- Use extreme caution when driving over loose terrain.
- Use extreme caution in areas where pedestrians are present.

## MAINTENANCE

Always:

- Maintain the vehicle in accordance with the manufacturer's periodic service schedule.
- Ensure that repairs are performed by those that are trained and qualified to do so.
- Follow the manufacturer's maintenance procedures for the vehicle. Be sure to disable the vehicle before performing any maintenance. Disabling includes removing the key from the key switch and removal of a battery wire.

# SAFETY INFORMATION

- Insulate any tools used within the battery area in order to prevent sparks or battery explosion caused by shorting the battery terminals or associated wiring. Remove the battery or cover exposed terminals with an insulating material.
- Use specified replacement parts. Never use replacement parts of lesser quality.
- Use recommended tools.
- Determine that tools and procedures not specifically recommended by the manufacturer will not compromise the safety of personnel nor jeopardize the safe operation of the vehicle.
- Support the vehicle using wheel chocks and jack stands. Never get under a vehicle that is supported by a jack. Lift the vehicle in accordance with the manufacturer's instructions.
- Empty the fuel tank or plug fuel hoses to prevent fuel leakage.
- Maintain the vehicle in an area away from exposed flame or persons who are smoking.
- Be aware that a vehicle that is not performing as designed is a potential hazard and must not be operated.
- Test drive the vehicle after any repairs or maintenance. All tests must be conducted in a safe area that is free of both vehicular and pedestrian traffic.
- Replace damaged or missing warning, caution or information labels.
- Keep complete records of the maintenance history of the vehicle.

The manufacturer cannot anticipate all situations, therefore people attempting to maintain or repair the vehicle must have the skill and experience to recognize and protect themselves from potential situations that could result in severe personal injury or death and damage to the vehicle. Use extreme caution and, if unsure as to the potential for injury, refer the repair or maintenance to a qualified mechanic.

## VENTILATION

Always store gasoline vehicles in a well ventilated area. Ventilation prevents gasoline fumes from accumulating.

Never fuel a vehicle in an area that is subject to flame or spark. Pay particular attention to natural gas or propane water heaters and furnaces.

Never work around or operate a vehicle in an environment that does not ventilate exhaust gases from the area. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal.

## SAFETY INFORMATION

[illegible]

# SAFETY INFORMATION

## GENERAL

The following text is provided as recommended by part II of ANSI/ITSDF B56.8 - 2006. The manufacturer strongly endorses the contents of this specification.

## 6 GENERAL SAFETY PRACTICES

### 6.1 Introduction

**6.1.1** Like other machines, carriers can cause injury if improperly used or maintained. Part II contains broad safety practices applicable to carrier operation. Before operation, the user shall establish such additional specific safety practices as may reasonably be required for safe operation.

**6.1.2** Premise review — The user shall periodically review their premises, and as conditions warrant, identify areas where carriers should not be operated and to identify possible hazards such as the following examples:

- a) Steep Grade — In areas where steep grades exist, carrier operation should be restricted to the designated vehicle's pathways where possible, and shall be identified with a suitable warning giving the following information: "Warning, steep grade."
- b) Wet Areas — Wet areas could cause a carrier to lose traction and could affect steering, stability and braking.
- c) Sharp Turns, Blind Spots, Bridge Approaches — Sharp turns, blind spots, bridge approaches, and other potentially hazardous areas shall be identified with a suitable warning to the operator of the nature of the hazard and stating the proper precautions to be taken to avoid the hazard.
- d) Loose Terrain — Loose terrain could cause a carrier to lose traction and could affect steering, stability, and braking.

### 6.2 Operation

Experience has shown that carriers, which comply with the provisions, stated in paragraph 9.3.9 are stable when properly operated and when operated in accordance with specific safety rules and practices established to meet actual operating terrain and conditions. However, improper operation, faulty maintenance, or poor housekeeping may contribute to a condition of instability and defeat the purpose of the standard. Some of the conditions which may affect stability are failure of the user to follow safety practices; also, ground and floor conditions, grade, speed, loading, the operation of the carrier with improper loads, battery weight, dynamic and static forces, and the judgment exercised by the carrier operator.

- a) The user shall train carrier operators to adhere strictly to the operating instructions stated in this Standard.
- b) The user shall survey specific operating conditions and environment, and establish and train carrier operators to comply with additional, specific safety practices.

### 6.3 Nameplates, Markings, Capacity, and Modifications

**6.3.1** The user shall maintain in a legible condition all nameplates, warnings, and instructions, which are supplied by the manufacturer.

**6.3.2** Except as provided in 6.3.4, no modifications or alterations to a carrier, which may affect the capacity, stability, or safe operation of the carrier, shall be made without the prior written approval of the original carrier manufacturer or a successor thereof. When the carrier manufacturer or its successor approves a modification or alteration, appropriate changes shall be made to capacity plates, decals, tags, and operation and maintenance manuals

**6.3.3** As required under paragraphs 6.3.1 or 6.3.2, the manufacturer shall be contacted to secure new nameplates, warnings, or instructions, which shall then be affixed in their proper place on the carrier.

**6.3.4** In the event that the carrier manufacturer is no longer in business and there is no successor in interest to the business, the user may arrange for a modification or alteration to a carrier, provided however, the controlling party shall:

# SAFETY INFORMATION

- (1) Arrange for the modification or alteration to be designed, tested, and implemented by an engineer(s) expert in carrier(s) and their safety;
- (2) Maintain a permanent record of the design, test(s), and implementation of the modification or alteration;
- (3) Make appropriate changes to the capacity plate(s), decals, tags, and operation and maintenance manuals;
- (4) Affix a permanent and readily visible label on the carrier stating the manner in which the carrier has been modified or altered together with the date of the modification or alteration, and the name of the organization that accomplished the tasks.

## 6.4 Fuel Handling and Storage

**6.4.1** The user shall supervise the storage and handling of liquid fuels (when used) to be certain that it is in accordance with ANSI/NFPA 505 and ANSI/NFPA 30 or as required by local ordinance.

**6.4.2** Storage and handling of liquefied petroleum gas fuels shall be in accordance with ANSI/NFPA 505 and ANSI/NFPA 58 or as required by local ordinance. If such storage or handling is not in compliance with these standards, the user shall prevent the carrier from being used until such storage and handling is in compliance with these standards.

**6.4.3** Prevent fire and explosion caused by static electric discharge. Use only non-metal, portable fuel containers approved by the Underwriter's Laboratory (U.L.) or the American Society for Testing & Materials (ASTM). If using a funnel, make sure it is plastic and has no screen or filter.

Static electric discharge can ignite gasoline vapors in an ungrounded fuel container. Remove the fuel container from the bed of a carrier or the trunk of a car and place on the ground away from the carrier before filling. Keep nozzle in contact with container opening while filling. When practical, remove equipment from trailers or truck beds and refuel them on the ground. If this is not possible, use a portable, plastic fuel container to refuel equipment on a truck bed or trailer.

## 6.5 Changing and Charging Storage Batteries for Electric Personnel and Burden Carriers

**6.5.1** The user shall require battery changing and charging facilities and procedures to be in accordance with ANSI/NFPA 505 or as required by local ordinance.

**6.5.2** The user shall periodically inspect facilities and review procedures to be certain that ANSI/NFPA 505 or as required by local ordinance, are strictly complied with, and shall familiarize carrier operators with it.

**6.5.3** Maintenance and storage areas for carriers shall be properly ventilated to avoid fire hazards in accordance with applicable fire codes and ordinances.

Ventilation for internal combustion engine powered carriers shall be provided to remove flammable vapors (gases), fumes and other flammable materials. Consult applicable fire codes for specific levels of ventilation.

Ventilation for electric powered carriers shall be provided to remove the accumulation of flammable hydrogen gas emitted during the battery charging process. The amount of hydrogen gas emitted depends upon a number of factors such as the condition of the batteries, the output rate of the battery charger and the amount of time the batteries are on charge. Because of the highly volatile nature of hydrogen gas and its propensity to accumulate in pockets, a minimum number of air changes per hour is required during charging.

Consult applicable fire and safety codes for the specific ventilation levels required as well as the use of explosion proof electrical apparatus. SAE J1718 can be followed to check for hydrogen gas levels.

## 6.6 Hazardous Locations

**6.6.1** The user shall determine the hazard classification of the particular atmosphere or location in which the carrier is to be used in accordance with ANSI/NFPA 505.

**6.6.2** The user shall permit in hazardous areas only those carriers approved and of the type required by ANSI/NFPA 505.

# SAFETY INFORMATION

## 6.7 Lighting for Operating Area

The user, in accordance with his responsibility to survey the environment and operating conditions, shall determine if the carrier requires lights and, if so, shall equip the carrier with appropriate lights.

## 6.8 Control of Noxious Gases and Fumes

When equipment powered by internal combustion engines is used in enclosed areas, the atmosphere shall be maintained within limits specified in the American Conference of Governmental Industrial Hygienists publication, "Threshold Limit Values for Chemical Substances and Physical Agents in the Workroom Environment." This may be accomplished by ventilation maintenance of emission control equipment recommended or provided by the manufacturer of the equipment.

## 6.9 Warning Device(s)

**6.9.1** The user shall make periodic inspections of the carrier to be certain that the sound-producing and/or visual device(s) if so equipped are maintained in good operating condition.

**6.9.2** The user shall determine if operating conditions require the carrier to be equipped with additional sound-producing or visual devices or both and be responsible for providing and maintaining such devices, in accordance with the manufacturer's recommendations.

## 6.10 Safety Interlocks

The user shall make periodic inspections of the carrier to be certain that the safety interlock system, if so equipped, is operating properly.

# 7 OPERATING SAFETY RULES AND PRACTICES

## 7.1 Personnel and Burden Carrier Operator Qualifications

Only persons who are trained in the proper operation of the carrier shall be authorized to operate the carrier. Operators shall be qualified as to visual, auditory, physical, and mental ability to safely operate the equipment according to Section 7, all other applicable parts of this Standard and the operators' manual.

## 7.2 Personnel and Burden Carrier Operators' Training

**7.2.1** The user shall conduct an operators' training program.

**7.2.2** Successful completion of the operators' training program by the operator shall be required before operation of the carrier. The program shall be presented in its entirety to all-new operators and not condensed for those claiming previous experience.

**7.2.3** The user shall include as a minimum in the operators' training program the following.

- a) Instructional material provided by the manufacturer including the operators' manual;
- b) Emphasis on safety of passengers, material loads, carrier operator, and other person(s);
- c) General safety rules contained within this Standard and the additional specific rules determined by the user in accordance with this Standard, and why they were formulated;
- d) Introduction of equipment, control locations of the environment which could affect carrier operation;
- e) Operator competency evaluations.

## 7.3 Personnel and Burden Carrier Operator Responsibility

**7.3.1 General Operator Responsibility**

# SAFETY INFORMATION

**7.3.1.1** Read and follow operators' manual

**7.3.1.2** Do not operate carrier under the influence of drugs and alcohol.

**7.3.1.3** Safeguard the pedestrians at all times. Do not drive carrier in a manner that would endanger other persons.

**7.3.1.4** Riding on the carrier by persons other than the operator is authorized only on personnel seat(s) provided by the manufacturer. All parts of each person's body shall remain within the plan view outline of the carrier.

**7.3.1.5** When a carrier is to be left unattended, stop the carrier, apply the parking brake, stop the engine or turn off power, turn off the control or ignition circuit, and remove the key if provided. Additionally, for the electric carriers, the forward and reverse directional controls, should be neutralized if a means is provided. Block the wheels if the carrier is on an incline.

**7.3.1.6** A carrier is considered unattended when the operator is 7.6m (25 ft.) or more from the carrier which remains in his view, or whenever the operator leaves the carrier and it is not within his view. When the operator is dismounted and within 7.6m (25 ft.) of the carrier still in his view, he still must have controls neutralized, and the parking brake(s) set to prevent movement.

**7.3.1.7** Maintain a safe distance from potential hazards, such as edges of ramps and platforms.

**7.3.1.8** Use only approved carriers in hazardous locations, as defined in the appropriate safety standards.

**7.3.1.9** Report all accidents to the user.

**7.3.1.10** Do not add to, or modify, the carrier.

**7.3.1.11** Carriers shall not be parked or left unattended such that they block or obstruct fire aisles, access to stairways, or fire equipment.

**7.3.1.12** Only operate carrier while within operator's station.

## 7.3.2 Traveling

**7.3.2.1** Observe all traffic regulations, including authorized speed limits. Under normal traffic conditions keep to the right. Maintain a safe distance, based on speed of travel, from a carrier or vehicle ahead, and keep the carrier under control at all times.

**7.3.2.2** Yield the right of way to pedestrians, ambulances, fire trucks, or other carriers or vehicles in emergency situations.

**7.3.2.3** Do not pass another carrier or vehicle traveling in the same direction at intersections, blind spots, or at other dangerous locations.

**7.3.2.4** Keep a clear view of the path of travel, observe other traffic and personnel, and maintain a safe clearance.

**7.3.2.5** Slow down or stop, as conditions dictate, and activate the sound-producing warning device at cross aisles and when visibility is obstructed at other locations.

**7.3.2.6** Ascend or descend grades slowly.

**7.3.2.7** Avoid turning, if possible, and use caution on grades, ramps, or inclines, normally travel straight up and down.

**7.3.2.8** Under all travel conditions the carrier shall be operated at a speed that will permit it to be brought to a stop in a safe manner.

**7.3.2.9** Make starts, stops, turns, or direction reversals in a smooth manner so as not to shift the load, endanger passengers, or lose control of the carrier.

**7.3.2.10** Do not operate carrier in a dangerous manner.

**7.3.2.11** Slow down when approaching, or on, wet or slippery surfaces.

**7.3.2.12** Do not drive carrier onto any elevator unless specifically authorized to do so. Approach elevators slowly, and then enter squarely after the elevator car is properly leveled. Once on the elevator, neutralize the controls, shut off power, and set parking brakes. It is advisable that all other personnel leave the elevator before a carrier is allowed to enter or exit.

**7.3.2.13** Avoid running over loose objects, potholes, and bumps.

**7.3.2.14** Reduce carrier speed to negotiate turns.

**7.3.2.15** Avoid any action verbal or physical by an operator or passenger, which could cause the operator to be distracted.

## 7.3.3 Loading

**7.3.3.1** Refer to operators' manual for loading instruction.



# SAFETY INFORMATION

**7.3.3.2** Handle only stable and safely arranged loads. When handling off-center loads, which cannot be centered, operate with extra caution.

**7.3.3.3** Handle only loads within the capacity of each cargo area of the carrier as specified by the manufacturer.

**7.3.3.4** Avoid material loads exceeding the physical dimensions of the carrier or as specified by the carrier manufacturer.

## **7.3.4 Operator Care of Personnel and Burden Carriers**

**7.3.4.1** Read and follow operators' manual.

**7.3.4.2** At the beginning of each shift during which the carrier will be used, the operator shall check the carrier condition and inspect the tires, warning devices, lights, battery(s), speed and directional controllers, brakes, safety interlocks, and steering mechanism. If the carrier is found to be in need of repair, or in any way unsafe, the matter shall be reported immediately to the user and the carrier shall not be operated until it has been restored to safe operating condition.

**7.3.4.3** If during operation the carrier becomes unsafe in any way, the matter shall be reported immediately to the user, and the carrier shall not be operated until it has been restored to safe operating condition.

**7.3.4.4** Do not make repairs or adjustments unless specifically trained and authorized to do so.

**7.3.4.5** Before refueling, the engine shall be stopped and allowed to cool. The operator and passengers shall leave the carrier before refueling.

**7.3.4.6** Spillage of hazardous materials shall be contained immediately and addressed via appropriate hazardous materials regulations.

**7.3.4.7** Do not operate a carrier with a leak in the fuel system or battery(s). Battery(s) shall be charged and serviced per manufacturer's instructions.

**7.3.4.8** Do not use open flames for checking electrolyte level in storage battery(s) or liquid level in fuel tanks.

## **8 MAINTENANCE PRACTICES**

### **8.1 Introduction**

Carriers may become hazardous if maintenance is neglected. Maintenance facilities, trained personnel, and procedures shall be provided. Such facilities may be on or off the premises.

### **8.2 Maintenance Procedures**

Maintenance and inspection of all carriers shall be performed in conformance with the following practices and should follow the manufacturer's recommendations.

- a) A scheduled preventive maintenance, lubrication, and inspection system shall be followed.
- b) Only trained and authorized personnel shall be permitted to maintain, repair, adjust, and inspect carriers.
- c) Before undertaking maintenance or repair follow the manufacturer's recommendations for immobilizing the carrier.
- d) Chock wheels and support carrier, before working underneath it.
- e) Before disconnecting any part of the engine fuel system, be sure the shutoff valve, if so equipped, is closed and follow carrier manufacturer's recommended practice.
- f) Operation to check performance of the carrier shall be conducted in an authorized area where suitable conditions exist, free of vehicular and pedestrian traffic.
- g) Before returning carrier to service, follow the manufacturer's instructions and recommended procedure.
- h) Avoid fire hazards and have fire protection equipment present in the work area. Do not use an open flame to check level or leakage of fuel, battery electrolyte, or coolant.
- i) Properly ventilate the work area in accordance with applicable regulations or local ordinance.
- j) Handle fuel cylinders with care. Physical damage, such as dents, scrapes, or gouges, may dangerously weaken the tank and make it unsafe for use.

## SAFETY INFORMATION

- k) Brakes, steering mechanisms, speed and directional control mechanisms, warning devices, lights, governors, guards, and safety devices shall be inspected regularly and maintained in accordance with manufacturer's recommendations.
- l) Special carriers or devices designed and approved for hazardous area operation shall be inspected to ensure that maintenance preserves the original approved safe operating features.
- m) Fuel systems shall be checked for leaks and condition of parts. If a leak is found, action shall be taken to prevent the use to the carrier until the cause of the leak has been repaired.
- n) The carrier manufacturer's capacity, operation, and maintenance instruction plated, tags, or decals shall be maintained in legible condition.
- o) Batteries, motors, speed and directional controllers, limit switches, protective devices, electrical conductors/insulators, and connections shall be inspected and maintained per carrier manufacturer's recommendation.
- p) Carriers shall be kept in a clean condition to minimize hazards and facilitate detection of components needing service.
- q) Modifications and additions which affect capacity and safe carrier operation shall not be performed without manufacturer's prior written authorization; where authorized modifications have been made, the user shall ensure that capacity, operation, warning, and maintenance instruction plates, tags, or safety labels are changed accordingly.
- r) Care shall be taken to ensure that all replacement parts are interchangeable with the original parts and of a quality at least equal to that provided in the original equipment.
- s) Disconnect batteries, negative connection(s) first. When reconnecting, connect positive connection first.
- t) Hydraulic systems, if so equipped, shall be checked for leaks, for condition of parts. Keep body and hands away from pin-holes or nozzles that eject fluids under high pressure. Use paper or cardboard, not hands, to check for leaks.

**ANSI/ITSDF B56.8 - 2006**

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

## WELCOME

Thank you for purchasing this Utility Vehicle. This vehicle is equipped with a 480 cc twin cylinder, overhead valve, 4 cycle, air-cooled engine. Before driving the vehicle, we ask you to spend some time reading this Owner's Manual and Service Guide and the Operating and Maintenance Instructions manual provided by the engine manufacturer. These manuals contain the information that will assist you in the safe operation of the vehicle. They will also assist you in maintaining this highly reliable vehicle. Some illustrations show items that may be optional for your vehicle.

Most of the service procedures in this guide can be accomplished by an individual using common automotive hand tools. If you prefer to have service procedures performed on your vehicle, contact your local dealer.

To facilitate maintenance, a Service Parts Manual, a Technician's Repair and Service Manual and an engine Repair Manual is available from a local dealer. When ordering parts or requesting information for your vehicle, provide vehicle model, serial number and manufacture date code.

## BEFORE INITIAL USE

### NOTE

Record the four digit key number and store in a safe place. Individual keys can only be replaced if the key number is known. Without a key number, the entire ignition switch will have to be replaced if keys are lost.

### WARNING

Improper use of this vehicle could result in severe injury or death. The vehicle is a light duty utility vehicle. It is NOT an all terrain vehicle (ATV).

This vehicle is not a toy and using it while engaging in horseplay is dangerous.

Plan carefully before using the vehicle to go significant distances over questionable terrain. Remember that a one hour drive may take many hours to walk out should you run out of fuel or be stranded by becoming stuck on unsuitable terrain.

Hydrogen gas is generated as a natural part of the lead acid battery charging process. A 4%

concentration of hydrogen gas is explosive and could cause severe injury or death. Charging must take place in an area that is adequately ventilated (minimum of 5 air exchanges per hour).

To reduce the chance of battery explosion that could result in severe injury or death, never smoke around or charge batteries in an area that has open flame or electrical equipment that could cause an electrical arc.

Read, understand and follow the **SAFETY AND OPERATION** label located on the center of the instrument panel above the drink holders (Ref Fig. 2 on page 2).

Be sure you understand the vehicle, its equipment and how to use it safely. Although the vehicle has been designed to provide safe and reliable operation, maintaining good performance depends, to a large extent, on the operator.

Before a new vehicle is put into operation, it is recommended that the items shown in the INITIAL SERVICE CHART be performed (Ref Fig. 1 on page 1).

ITEM	SERVICE OPERATION
Battery	Charge battery
Seats	Remove protective plastic covering
Brakes	Check operation and adjust if necessary
	Check hydraulic brake fluid level
	Establish new vehicle braking distance
Tires	Check pressure
Fuel	Fill tank with correct fuel
Engine	Check oil level (Initial change after 5 - 8 hours)
Keys	Record key number and store in safe location

Ref 1sc 3

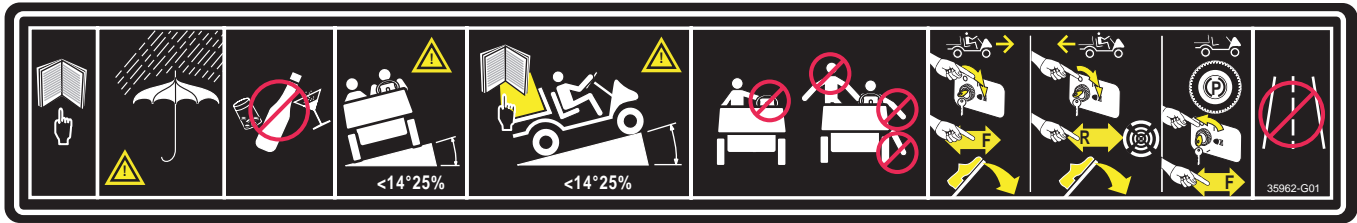
Fig. 1 Initial Service Chart

## PREPARATION OF SEATS FOR SERVICE

Remove the protective plastic coverings from the seats before placing the vehicle in service. The only function of the plastic covering is to protect the seat bottom and back rest during shipping. If the plastic covering is left on the seat and becomes torn, dirt may get under the plastic covering and be ground into the cover material. Water getting under the plastic covering can become trapped and eventually will damage the seat assembly.

## OPERATION AND SERVICE INFORMATION

*Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings*



**Fig. 2 Safety and Operation Label**

## TERRAIN

The vehicle is designed for use on improved roads (but not on public highways). The vehicle may also be used on established trails or open terrain that is free from stumps, large rocks or holes.

The vehicle should not be used to cross water.

*over which could result in injury or death to the operator or passenger.*

Do not modify the vehicle in any manner that will change the weight distribution of the vehicle. Changes to the weight distribution or the center of gravity may make it unstable or prone to roll over which could result in injury or death to the operator or passenger.

## VEHICLE CAPACITY



# WARNING

*Due to the variety of ways the vehicle may be used, it is important that the operator consider any potential hazards before use to prevent serious injury or death.*

The vehicle may be used to transport a **maximum of two people within the operator/passenger compartment** and cargo in the dump bed. **Never carry passengers in the dump bed.** The total payload is 800 lbs. (363 kg).

The weight of the driver and passenger plus any options or accessories must be deducted from the total payload rating to determine the dump bed capacity. Remember that towing a trailer will reduce the payload of the vehicle itself.

Remember that volume of your load can be misleading. Loading the vehicle to its rated capacity with dry sand, fertilizer, sod, etc. can be handled with complete safety. The same load when wet will grossly overload the vehicle and increase the potential for roll over and damage to the vehicle.

## MODIFICATIONS TO VEHICLE



# WARNING

*Changes to the weight distribution or the center of gravity may make it unstable or prone to roll*

## DUMP BED

Be careful when loading the vehicle. Secure loads to prevent shifting. Do not overload vehicle. A dump bed warning label is affixed to the inside of the bed on the front panel (Ref Fig. 3 on page 3).

This label must be understood and observed at all times for safe operation of the vehicle. The dump bed is limited to a maximum load of 500 lbs (228 kg). The load must be positioned in the bed as far forward as possible, its center of gravity must not be higher than 5" (12 cm) above the bed floor, and securely fastened down. Failure to follow these instructions could cause personal injury, damage to the vehicle and/or cause the vehicle to tip over. Operate the vehicle with awareness of the load.

Do not drive the vehicle with the dump bed raised or with the tailgate unsupported.

When using the optional electric dump, be sure to avoid backing up to the edge of a drop off, such as a loading dock or ravine. A misjudgment of distance or an unstable surface could result in the vehicle falling backwards.

Always insure that no one is behind or close to the dump bed while the electric dump mechanism is being operated



# WARNING

*Passengers should never be allowed to ride in the dump bed. Severe injury or death could result if they should fall out or the vehicle is involved in an accident or sudden maneuver.*

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

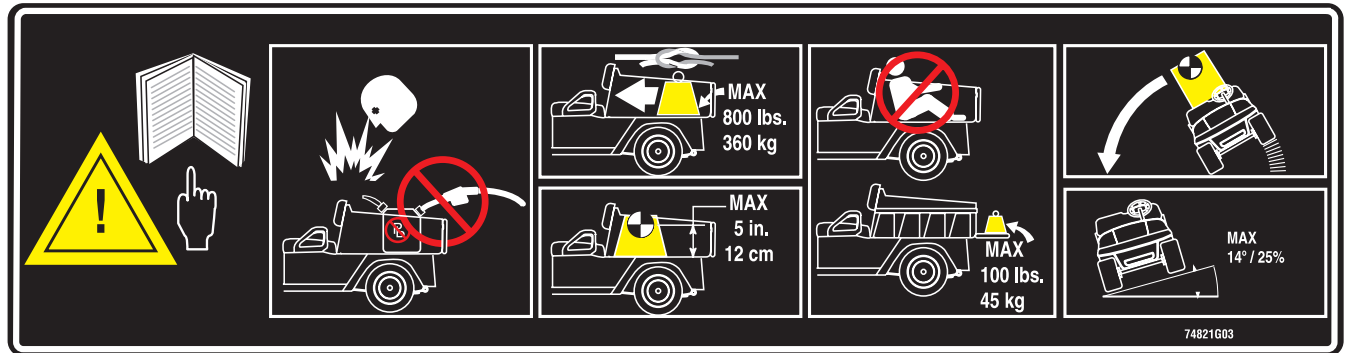


Fig. 3 Dump Bed Warning Label

## TOP AND WINDSHIELD (IF EQUIPPED)

### WARNING

*The top does not provide protection from roll over or falling objects.*

*The windshield does not provide protection from tree limbs or flying objects.*

The top and windshield provide some protection from the elements; however, they will not keep the operator and passenger dry in a downpour. This vehicle is not equipped with seat belts and has not been designed to provide roll over protection.

Clean windshield with lots of water and a clean cloth. Minor scratches may be removed using a commercial plastic polish or Plexus® plastic cleaner available from the service parts department.

## COMMON SENSE OPERATION

**This vehicle is not a toy.** If not operated properly and responsibly, it can cause severe injury or death to the operator, passenger or bystanders. All operators should possess a valid driver's license. Children should not be permitted to operate the vehicle. Children may not have the skill, judgement or strength to operate this or similar vehicles.

Alcohol, drugs and many over the counter medications reduce the ability of the driver to operate the vehicle safely. Always review side effects of any medication with a doctor or pharmacist before operating the vehicle.

Protective clothing and an approved motorcycle helmet are recommended for operator and passengers when operating vehicle in rough or densely wooded terrain.

When driving at full speed on a dirt road, loose surfaces or wet grass, vehicle stopping distance will increase. If the vehicle is fully loaded, it will take longer to stop than with no load. When operating vehicle in wet weather conditions, remember that the brakes may need to be **lightly** applied in order to provide enough friction to dry the brake unit. If wet, the brakes will lose much of their effect.

Slow down when in unfamiliar terrain. Slow down when cresting a hill in an area that you are unfamiliar with.

Some hills are too steep to climb. If you attempt to climb a hill that is too steep or if you are unable to achieve adequate traction, **do not attempt to turn around on the hill. Slowly back straight down the hill using the service brake to control speed.**

## ENVIRONMENTAL CONCERNS

As a responsible user, practice respect for all wildlife and their habitat. Respect private property and comply with all local laws and regulations governing the use of light duty utility vehicles. Do not tamper with the exhaust system or governor. The exhaust system has been tuned to the engine for maximum performance. Removal or modification of the exhaust is annoying to other people and will not improve the performance of the vehicle.

### WARNING

*To prevent severe injury or death while driving, be aware of the following:*

*Environmental hazards such as steep slopes, overhanging limbs, etc.*

*Danger of fire when vehicle is operated over dry combustible organic material.*

# OPERATION AND SERVICE INFORMATION

*Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings*

When driving, be aware of environmental hazards such as steep slopes, overhanging limbs, etc. Be aware of the danger of fire when the vehicle is operated over dry combustible organic material.

## OPTIONAL WINCH

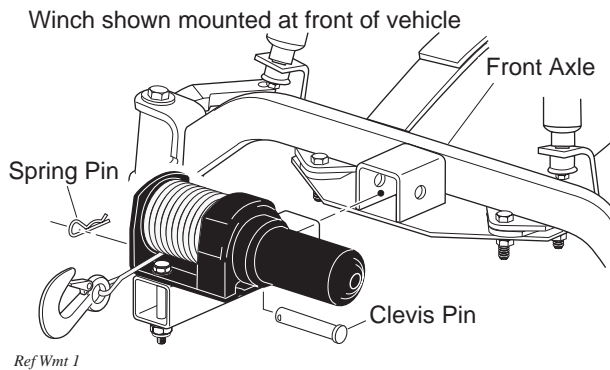
This vehicle may be equipped with an optional winch. Read, understand and follow all of the following information on the operation and use of the winch before attempting to operate it.

### Operation of the Winch

The winch can be mounted at the front or rear of the vehicle and moved to accommodate different situations. At the front, it is mounted under the center of the front cowl to a bracket attached to the front axle as shown (Ref Fig. 4 on page 4). At the rear, the winch is mounted upside down in the hitch receiver.

### NOTE

*If mounting winch at rear of vehicle, the winch must be mounted upside down.*



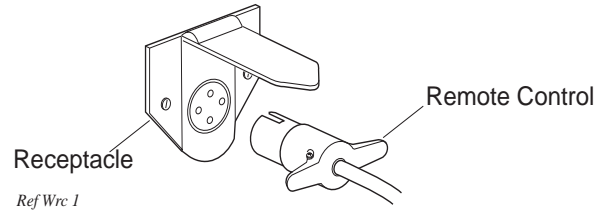
**Fig. 4 Winch Mounted to Vehicle**

Before moving the winch, unplug the winch connector from the wire harness. To move the winch from one end of the vehicle to the other, remove the spring pin, pull out the clevis pin and remove the winch mount tube from the receiver. Move to opposite end of vehicle and install by inserting clevis pin and securing with spring pin. Plug the winch connector into wire harness.

The winch remote control plugs into the receptacle on the driver side of the seat support (Ref Fig. 5 on page 4)

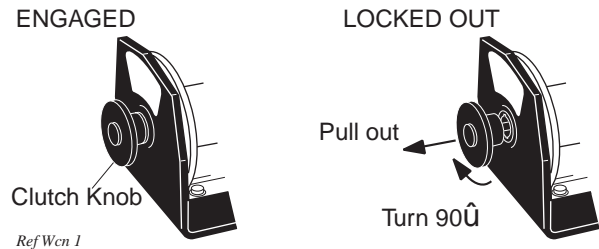
To unwind the cable, locate the clutch knob on the winch. Pull out knob and rotate 90° to lock out. Using handsaver bar, pull cable from winch drum. Leave at least five turns

of cable on drum. Re-engage drum by turning clutch knob 90°, returning it to original position (Ref Fig. 6 on page 4)).



**Fig. 5 Winch Remote Control**

To wind cable, use handsaver bar to keep tension on the cable while activating remote. When winding cable, make sure the cable winds tightly and evenly onto the drum leaving no gaps that could cause premature wear to the cable. When using winch under a load, operate the remote control from as far to the side of the vehicle as possible. Do not operate winch while sitting in passenger seat. Read the following section (Winch Applications) before attempting to operate winch.



**Fig. 6 Winch Clutch Knob**

### Winch Applications

The optional winch may be used for a number of purposes, including pulling the vehicle if it loses traction on unsuitable terrain.

### ! WARNING

*Improper use of the winch could result in a number of conditions that could cause severe injury or death to operator, occupants of vehicle or bystander.*

It is impossible to predict all conditions that the winch could be used, therefore the following warnings should not be considered as complete. Before operating the winch, consider the possible dangers and take precautions to protect yourself, your passenger and any bystanders



## OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

### WARNING

*To prevent severe injury or death to operator, occupants or bystanders, select the object to which the cable is attached with the following considerations:*

*Make sure the object cannot be pulled over or otherwise damaged.*

*The object the winch cable is attached to could fall on the vehicle and it's occupants.*

*If attaching the winch to a dead tree, a section could fall.*

When pulling vehicle with winch, pull straight only. Do not permit the cable to contact the side of the drum.

### WARNING

*Do not pull vehicle at an angle. If the vehicle is pulled at an angle, it could turn over causing severe injury or death to anyone in the area. The winch cable could also become overstressed and break causing severe injury or death to anyone struck by the cable.*

The rear drive axle is equipped with a manually operated locking differential. With the differential unlocked, if one drive wheel loses traction, all available power is transferred to that wheel until it regains traction. In normal driving this is not a problem. However, if the vehicle becomes 'hung up' on an object, the vehicle will stop. With the differential locked, power is distributed to both drive wheels at all times. If both drive wheels lose traction as a result of the vehicle becoming 'hung up' on an object, the vehicle will stop. If the vehicle cannot be pushed off the obstruction, it will have to be pulled off using the winch.

Depending on the location of the obstruction, the vehicle may need to be pulled either forward or backward.

The winch may be installed in either the front or rear receiver and held in place with the locking pin provided

### WARNING

*To prevent severe injury or death, read and understand the following before attempting to use the winch:*

*The winch is not intended to be used in any hoisting operation.*

*The rolling load capacity of the winch decreases with the steepness of the slope.*

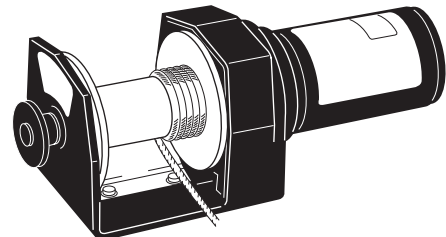
*The winch is designed for intermittent duty only.*

*The electric motor should not be allowed to become excessively hot. If the motor becomes uncomfortably hot to the touch, stop winching and allow the motor to cool.*

*Always wear thick leather gloves when handling the wire cable.*

*Replace frayed wire cable with a direct factory replacement only.*

*Never operate the winch with less than five (5) full turns of cable around the drum (Ref Fig. 7 on page 5).*



**Fig. 7 Never Operate Winch with Less Than Five Turns Around Drum**

*If the winch motor stalls from overloading, do not continue to activate the winch remote control. The wire cable may become overstressed.*

*Do not attempt to pull loads exceeding 1500 lbs. (680 kg).*

*To pull out the cable, the free spool clutch knob must be used. Pull out and rotate the knob. If the cable is under any load the clutch may not release easily. Jog out some of the cable to release the tension and operate clutch. Pull out the desired amount of cable and secure. Engage the drum by rotating the knob until it*

# OPERATION AND SERVICE INFORMATION

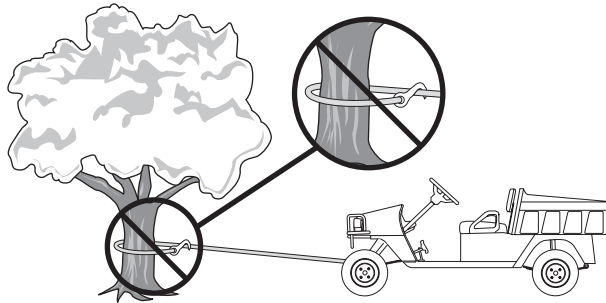
Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

*snaps in place. Never operate the winch unless the clutch is engaged.*

*Have all persons and pets leave the area while operating winch. Never allow anyone to remain in the vehicle.*

*To prevent damage to the wire cable, never hook the cable to itself. Always use a nylon sling (Ref Fig. 8 on page 6) (Ref Fig. 9 on page 6).*

*Stay clear of the winch, the cable and the cable hook. Place a heavy cloth, jacket or blanket over the cable to act as a damper should the cable break when operating the winch (Ref Fig. 9 on page 6).*

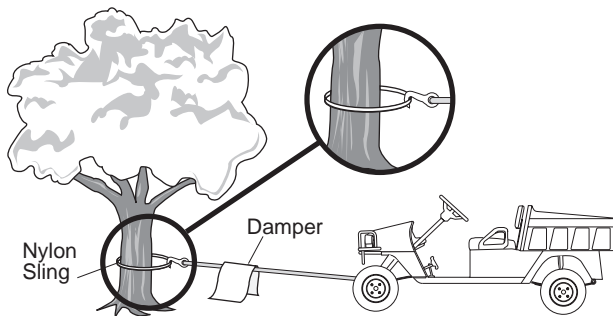


Ref Wca 2

**Fig. 8 Do Not Hook Cable to Itself**

*Remember that the winch operation will drain the battery and may leave insufficient power to start the vehicle.*

*When operating the winch, keep the entire area in view.*



Ref Wcd 2

**Fig. 9 Use a Nylon Sling and Install a Damper when Winching**

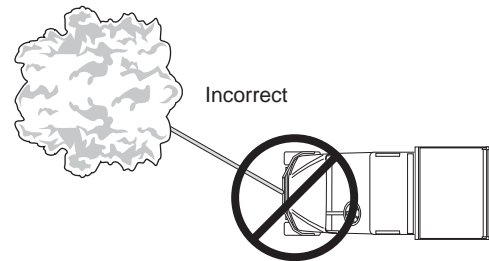
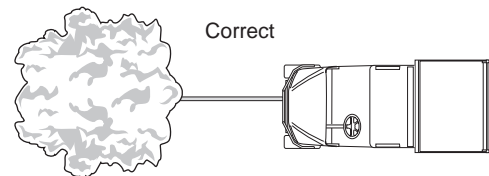
*Never release the free spool clutch while the cable is under load.*

*Never work around the winch drum or the winch cable while it is under tension.*

*Unplug the winch switch before working on the winch drum in order to prevent inadvertent operation.*

*When operating winch, take up slack slowly. Stop winch before cable becomes tight and inspect all winching connections. Check winch attachment, hook attachment, nylon sling (if required) and load attachment.*

*Do not pull at an angle. This will cause the wire cable to pile up on one end of the winch. This may jam the winch causing damage to the cable and/or the winch. Pulling the vehicle at an angle can cause damage to the front suspension and may cause the vehicle to overturn. When pulling vehicle, pull straight only (Ref Fig. 10 on page 6).*



Ref Wps 2

**Fig. 10 Do Not Pull at Angle**

*If the vehicle is being used as an anchor to winch a load, it should have the parking brake set and chocks installed on all wheels.*

*Never use the winch to lift people or other overhead loads.*

*Do not use the winch to secure loads. Use a tie down designed for the job.*

*Do not apply shock loads to the winch.*

*Do not attempt to modify or weld the winch.*



# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

## TOWING A TRAILER

The vehicle is equipped with a receiver that can be fitted with a standard 1 7/8" or 2" ball. The trailer and its load must not exceed 500 lbs (227 kg) and no more than 50 lbs (23 kg) tongue weight may be attached to the hitch. Remember that the overall capacity of the vehicle, operator, passenger, contents of dump bed and accessories must be reduced to compensate for the trailer and load.

The range of motion of the trailer is limited by the ball and hitch. The trailer should not be used on rough trails or over objects such as logs, large rocks, holes, etc.

Never install non-approved baskets or extensions using the hitch receivers (front or rear). Such items will change performance characteristics of the vehicle and result in unsafe handling, possible roll over or vehicle damage.

## POWER CONSUMPTION

The vehicle uses a combination starter/generator to both start the engine and charge the battery. The engine will not idle; therefore, the battery cannot be charged while the vehicle is stopped. Do not operate accessory items (such as accessory lights, radios, winch etc.) excessively while the vehicle is stopped.



## CAUTION

Overuse of accessories may drain the battery and leave insufficient reserve to start the vehicle.

The generator is only capable of supplying 35 amps, therefore, operation of all accessories could result in the discharge of the battery even though the engine is running and the generator operating. Discharging the battery is known as deep cycling. The battery is not a deep cycle model, but is a starting battery. Multiple deep cycling of the battery will result in the premature failure of the battery.

Vehicle battery must be fully charged before initial use.



## WARNING

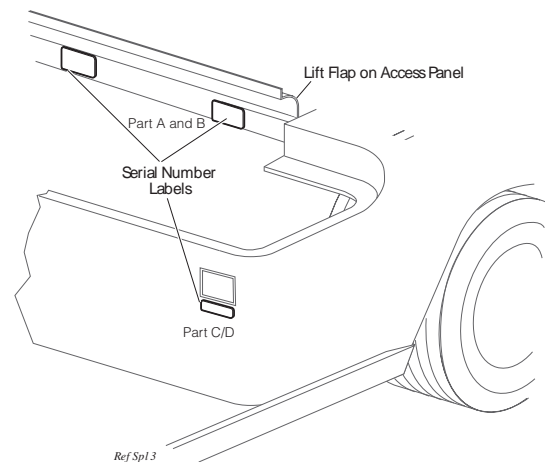
Hydrogen gas is generated as a natural part of the lead acid battery charging process. A 4% concentration of hydrogen gas is explosive and could cause severe injury or death. Charging must take place in an area that is adequately ventilated (minimum of 5 air exchanges per hour).

To reduce the chance of battery explosion that could result in severe injury or death, never smoke around or charge batteries in an area that has open flame or electrical equipment that could cause an electrical arc.

## SERIAL NUMBER PLATE AND LOCATION

The serial number and manufacture date code label are on the vehicle. One is placed on the body below the front, driver side of the seat. The other is located on the chassis under the seat.

Design changes take place on an ongoing basis. In order to obtain correct components for the vehicle, the manufacture date code, serial number and vehicle model must be provided when ordering service parts.



PART A	<b>TEXTRON</b> <small>WALK-BEHIND SPECIALTY PRODUCTS</small>	Augusta Georgia, USA 1 800 241-5855
	MODEL <input type="text"/> DATE CODE <input type="text"/> <b>SERIAL No.</b> <input type="text"/> Bar Code <input type="text"/>	Lb / kg W Batt Nom Power Hp / kw Label No.
PART B	Rated Capacity W/Operator lb/kg / System voltage V Lb/kg W/O Batt / Max Batt lb/kg / Max Draw bar lb/kg /	
	<input type="text"/>	
PART C/D	<b>SERIAL No.</b> <input type="text"/> Bar Code <input type="text"/>	

Fig. 11 Serial Number Plate and Location

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

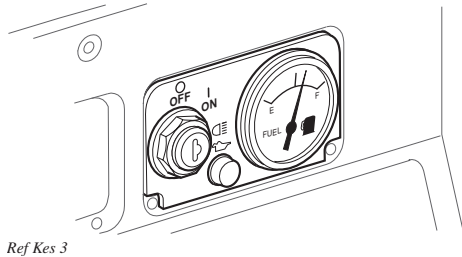
## CONTROLS AND INDICATORS

Vehicle controls and indicators consist of:

- key/light switch
- low oil pressure light
- fuel gauge
- direction selector
- parking brake
- differential lock
- choke
- accelerator pedal
- service brake pedal
- horn
- electric lift switch for operation of the dump bed
- 12 volt power outlet

### Key/Light Switch

Located on the dash panel, this switch enables the basic electrical system of the vehicle to be turned on and off by turning the key. The lights will illuminate only when the key is moved to the light icon (Ref Fig. 12 on page 8).



**Fig. 12 Key/Light Switch, Low Oil Pressure Light and Fuel Gauge**

When the vehicle is left unattended, the key should be removed to prevent inadvertent operation of the vehicle.

### NOTE

If the vehicle is equipped with custom accessories, some accessories may remain operational with the key switch in the 'OFF' position.

### Low Oil Pressure Light

A low oil pressure light is located to the right side of the key/light switch (Ref Fig. 12 on page 8). If oil pressure drops below 1 - 4 psi (.1 - .2 kg/cm<sup>2</sup>), the oil pressure switch will activate the light. Check oil level (Refer to page 16). If oil level is between ADD and FULL mark on dipstick, a mechanical problem exists within the engine and the vehicle must not be driven. Contact your local dealer



## CAUTION

To prevent engine damage, do not operate engine until oil pressure is corrected.

If oil level is below ADD mark on dipstick, add oil to bring level to FULL mark (Refer to page 16). Drive vehicle a short distance and check oil pressure. If oil pressure light does not come on, continue to use vehicle.

### Fuel Gauge

An electric fuel gauge is located to the right side of the key/light switch. It indicates the amount of fuel in the tank (Ref Fig. 12 on page 8).

### Direction Selector

Located on the console between the seats, this lever permits the selection of either forward or reverse (Ref Fig. 13 on page 9). Neutral is the straight up position between forward and reverse. The vehicle should be left in forward when unattended.



## CAUTION

To prevent component damage, the vehicle must be completely stopped before moving the direction selector.

### Parking Brake

The hand operated parking brake is located on the console between the front seats (Ref Fig. 13 on page 9). The brake is engaged when the handle is raised and disengaged when the handle is parallel to the seat bottom.

When leaving the vehicle unattended, engage the parking brake by raising the handle until it locks in place. To release the parking brake, depress the release button in the end of the handle while slightly raising the handle, then lower the parking brake handle.

### Differential Lock

The rear drive axle is equipped with a manually operated locking differential. With the differential unlocked, if one drive wheel loses traction, all available power is transferred to that wheel until it regains traction. With the differential **locked**, power is distributed to both drive wheels at all times.

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

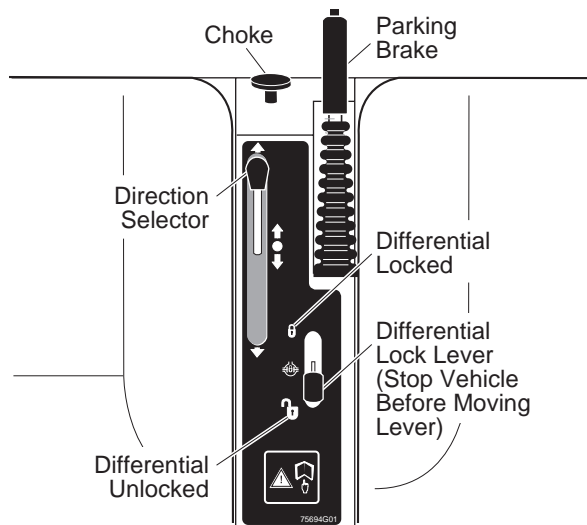


Fig. 13 Console Controls

## NOTE

The differential lock should only be used when additional traction is required. Continued use of the differential lock may cause excessive wear to the rear tires



## CAUTION

The vehicle must be completely stopped before engaging or disengaging the differential lock. Failure to stop will damage the differential.

To engage the differential lock, stop vehicle and push the lock lever forward towards the red 'locked' symbol (Ref Fig. 13 on page 9).

To disengage the differential lock, stop the vehicle and push the differential lock lever backward towards the green 'unlocked' symbol. After unlocking, the differential may remain locked if driving is resumed in a straight line. This is a normal occurrence caused by pressure remaining against the gears and not allowing the locking mechanism to release. To avoid this, simply turn the vehicle as acceleration begins or accelerate in reverse.

## Choke

Located on the console between the front seats (Ref Fig. 13 on page 9), the choke is used to aid cold starting. See 'Cold Starting' (Refer to page 11) for instructions on using the choke properly.

## Accelerator Pedal

Depressing the accelerator pedal starts the engine. When the pedal is released, the engine will stop (Ref Fig. 14 on page 9).

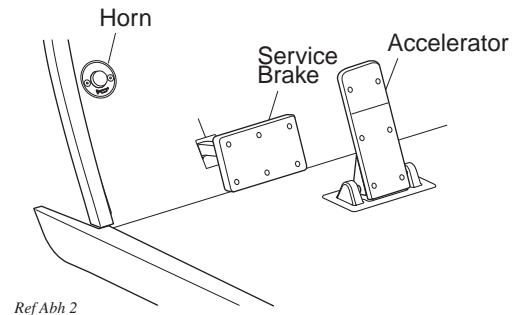


Fig. 14 Accelerator, Brake and Horn

## Service Brake Pedal

Depressing the foot operated service brake pedal activates the wheel brakes, slowing or stopping the vehicle (Ref Fig. 14 on page 9).

## Horn

The horn is an electric powered unit that is activated by a push button located on the upper floorboard to the left of the brake pedal (Ref Fig. 14 on page 9).

## 12 Volt Power Outlet



## CAUTION

Overuse of accessories may drain the battery and leave insufficient reserve to start the vehicle.

A 12 volt power outlet is located to the left side of the key/light switch (Ref Fig. 15 on page 9). It provides constant power for accessories equipped with a 12 volt plug.

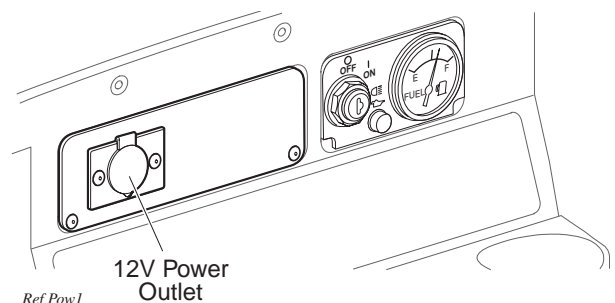


Fig. 15 12V Power Outlet

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

## Optional Electric Dump Bed

### WARNING

*Exercise caution while operating the electric dump bed to insure clothing is not snagged during lifting or lowering. Severe injury could result if body parts are caught on or under bed while moving.*

*Do not back up to a drop off, such as a loading dock or ravine. Misjudgment or an unstable surface could result in the vehicle falling backwards into the drop off.*

The toggle switch is located on the driver side of the front seat panel. Move the electric lift toggle switch up to raise the dump bed and down to lower the dump bed (Ref Fig. 16 on page 10).

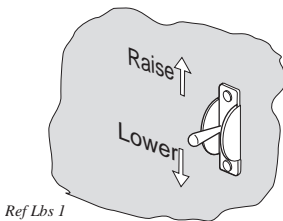


Fig. 16 Electric Lift Toggle Switch

## BEFORE ENTERING VEHICLE

- 1 Check for correct tire inflation. See GENERAL SPECIFICATIONS on page 4-1.
- 2 Inspect for fluid leaks.
- 3 Be sure everything is properly stored and secured.

## Run-in

Check for any oil or fuel leaks that could have developed in shipment from the factory. As in normal driving, avoid full throttle starts and rapid acceleration until the engine has achieved operating temperature.

All engines consume more oil than normal during the first hours of operation. As internal moving parts are run in, oil consumption should gradually decrease until the rate of consumption stabilizes. All engines use some oil even when in perfect condition and properly broken in. During the initial period, check the oil level at least every two (2) operational hours (Refer to page 16). Add oil if the level on dipstick indicates that oil is below safe operating range (Ref Fig. 17 on page 10).

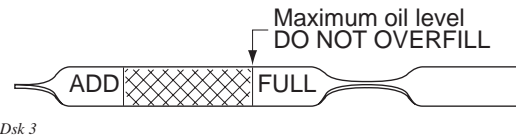


Fig. 17 Check Oil Level on Dipstick

### CAUTION

*Never overfill the engine with oil, foaming may result and oil may enter the breather system.*

### NOTE

*Both the oil dipstick and fill cap must be in place before operating the engine. Failure to install the dipstick and fill cap will result in oil becoming contaminated and/or oil being discharged into the engine compartment.*

The oil should be changed after the first five (5) to eight (8) hours of operation and should be drained while the engine is warm (Refer to page 18).

## OPERATING THE VEHICLE

### CAUTION

*Improper use of vehicle or lack of proper maintenance may result in decreased performance or damage to vehicle.*

### NOTE

*Read and understand the following warnings before attempting to operate the vehicle.*

### WARNING

*To reduce the possibility of severe injury or death resulting from loss of vehicle control, the following warnings must be observed:*

*Drive the vehicle only as fast as terrain and safety considerations allow. Consider the terrain, traffic conditions and the environmental factors which effect the terrain and the ability to control the vehicle.*

## OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

*Use extra care and reduced speed when driving on poor surfaces, such as loose dirt, wet grass, gravel, etc.*

*Stay in areas suitable for a light duty utility vehicle. Avoid rough, unimproved trails, areas with large rocks, stumps or holes and avoid steep slopes.*

*Avoid driving fast downhill. A sudden stop or change of direction may result in loss of control. Use service brake to control speed when traveling down an incline.*

*Slow down before and during turns. All turns should be executed at reduced speed.*

*All travel should be directly up or down hills.*

*Use extra care when driving the vehicle across any incline.*

*When driving the vehicle on unfamiliar terrain, drive the vehicle slowly, especially when cresting a hill.*

*If the vehicle is unable to climb a hill, do NOT attempt to turn it around. Turning the vehicle sideways on a hill could result in the vehicle rolling over. Slowly back down the hill using the service brake to control speed.*

*Check the area behind the vehicle before operating in reverse.*

*When operating the electric dump, do not back up to a drop off, such as a loading dock or ravine. Misjudgment or an unstable surface could cause the vehicle to fall backward into the drop off.*

### **WARNING**

*Stay in designated areas and avoid steep slopes. To reduce the possibility of severe injury or death resulting from improper vehicle operation, the following warnings must be observed:*

*The vehicle is a light duty utility vehicle. It is not an ATV (All Terrain Vehicle).*

*The vehicle is not a toy and engaging in horseplay is dangerous.*

*The vehicle should not be operated on pub-*

*lic highways. It is not designed to comply with any DOT requirements.*

*The vehicle should be operated by persons with a valid driver's license. Children should not operate this vehicle.*

*Vehicle is limited to two (2) occupants.*

*Make sure that the direction selector is in correct position before starting the vehicle.*

*Always remain seated and hold on while the vehicle is in motion. Keep feet, legs, hands and arms inside vehicle at all times.*

*The vehicle is not equipped with seat belts and is not designed with roll over protection. The top and windshield do not provide protection from falling or flying objects.*

*Do not take vehicle out of 'gear' while in motion.*

*Check the area behind the vehicle before operating in reverse.*

*Always bring the vehicle to a complete stop before shifting the direction selector and/or differential lock.*

*Use the parking brake when the vehicle is parked.*

*A motorcycle helmet and protective clothing are recommended for operator and passenger at all times.*

*Do not permit anyone in the dump bed while vehicle is in motion.*

*Use caution when operating the electric dump. Do not allow anyone behind the vehicle when operating the unit.*

*When operating the winch, observe all warnings and safety decals on the vehicle. Read, understand and follow the instructions located in the front part of this manual.*

*Do not winch at an angle. Do not exceed winch capacity.*

*When vehicle is to be left unattended, engage parking brake, move direction selector to 'F' (forward) position, turn key to 'OFF' position and remove key.*



# OPERATION AND SERVICE INFORMATION

*Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings*

Depressing the accelerator pedal energizes the starter and ignition circuits which cause the engine to run. To start the vehicle: Apply the service brake, place the key in the key switch and turn it to the 'ON' position. Move the direction selector to the direction desired. Release the parking brake by pressing the release button in the end of the handle while slightly raising the handle. Then lower the parking brake handle. Slowly depress the accelerator pedal to start the engine while releasing service brake.

## NOTE

*When the direction selector is in the 'R' (reverse) position, a warning signal will sound. This is a device to indicate that the vehicle is ready to run in reverse.*

When the accelerator pedal is released, the ignition circuit is de-energized and the engine stops. To stop the vehicle more quickly, depress the service brake pedal.

When leaving vehicle unattended, turn key to 'OFF' position and remove, engage parking brake and place direction selector in 'FORWARD' position.

## Cold Starting

Starting a cold engine may require use of the choke. Depress the accelerator approximately 1" (2.5 cm) or until the starter just begins to operate.

## CAUTION

*Do not allow the starter to operate continuously for more than 30 seconds. Allow 10 seconds before attempting a second time. If the vehicle does not start on the third attempt, turn the key switch off, engage the parking brake and determine the cause of the problem.*

Pull the choke knob out and hold knob in position until engine starts and runs smoothly. Then push knob in. The choke knob must be pushed in fully once engine has reached operating temperature.

## Starting the Vehicle on a Hill

## CAUTION

*Do not hold vehicle on hill by using the accelerator and engine. This will cause premature and excessive wear to drive train components.*

When starting the vehicle on a hill, it is important to follow the procedure below to prevent excessive roll back and possible permanent damage to the drive train system.

Place left foot on service brake and release parking brake. Place right foot on accelerator. As accelerator is depressed with the right foot, release the service brake.

## Starting the Vehicle with a Discharged Battery

## WARNING

*Do not attempt to 'jump start' a vehicle using another vehicle.*

The vehicle is equipped with a starter/generator. When starting the engine, the starter/generator functions as a starter and with the engine running, it functions as a generator. Since the engine stops when the accelerator is released, **do not attempt jump starting.**

With the running times associated with this kind of vehicle, the generator is more than adequate to maintain the battery charge level. The generator is not designed to charge a discharged battery.

If the vehicle is equipped with additional lights and/or a strobe light that is used when the vehicle is not in motion, the starter/generator may not be adequate to maintain battery charge. If the vehicle battery has become discharged, it must be charged using a 12V charger that is rated at 10 amps or less. Observe all instructions provided by the manufacturer of the charger.

## COASTING

On steep hills, it is possible for the vehicle to coast while in gear at greater than normal speeds encountered on a flat surface. To prevent loss of vehicle control, speeds should be limited to no more than the maximum governed speed on level ground (see GENERAL SPECIFICATIONS). Limit speed by applying the service brake. Severe damage to the drive train components may result due to excessive speed. Damage caused by excessive speed may cause a loss of control, is costly to repair, is considered abuse and will not be covered under warranty.

## FUEL

## WARNING

*To prevent a possible explosion, do not smoke near the fuel tank or refuel near open flame or electrical items which could produce a spark.*

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

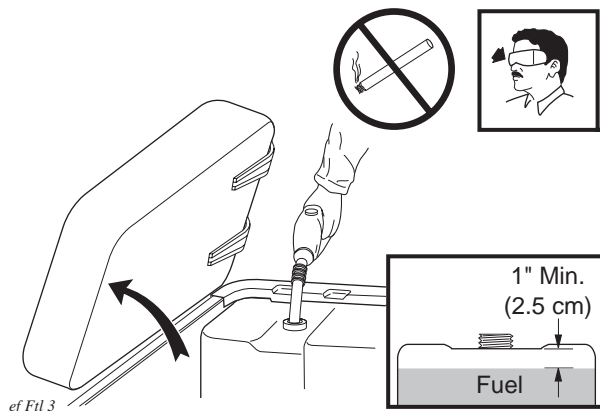
*Always wear safety glasses while refueling to prevent possible eye injury from gasoline or gasoline vapor.*

*When refueling, inspect the fuel cap for leaks or breaks that could result in fuel spillage.*

*Do not handle fuel in an area that is not adequately ventilated. Do not permit anyone to smoke in an area where vehicles are being fueled.*

The fuel tank and cap is located under the passenger seat (Ref Fig. 18 on page 13). Fill the tank with fresh, clean, automotive grade, unleaded, 87 octane (minimum) gasoline. High altitude or heavy use/load applications may benefit from higher octane gasoline.

Do not use gasoline which contains Methanol



**Fig. 18 Fuel Tank Location**

## CAUTION

*Some fuels, called oxygenated or reformulated gasoline, are gasoline blended with alcohols or ethers. Excessive amounts of these blends can damage the fuel system or cause performance problems. If any undesirable operating symptoms occur, use gasoline with a lower percentage of alcohol or ether.*

Do not overfill the fuel tank. Allow adequate space for the expansion of gasoline. Leave at least 1" (2.5 cm) space below bottom of filler neck.

## TOWING

### WARNING

*This vehicle is not designed to be towed.*

It is recommended that the vehicle be moved by placing the entire vehicle on a trailer, flatbed truck or other suitable transport.

## SERVICING THE VEHICLE

### WARNING

*To prevent severe injury or death resulting from improper servicing techniques, observe the following:*

*Do not attempt any type of servicing operations before reading and understanding all notes, cautions and warnings in this manual.*

*Any servicing requiring adjustments to be made to the powertrain while the motor is running must be made with both drive wheels raised.*



*Wear eye protection when working on the vehicle. In particular, use care when working around batteries, or using solvents or compressed air.*

*To reduce the possibility of causing an electrical arc, which could result in a battery explosion, turn off all electrical loads from the batteries before removing any heavy gauge battery wires.*

*To prevent the possibility of powertrain failure, never operate vehicle at full throttle for more than 4 - 5 seconds while vehicle is in a 'no load' condition.*

In the best interest of both vehicle owner and servicing dealer, carefully follow the procedures recommended in this manual. Adequate preventative maintenance, applied at regular intervals, is the best guarantee for keeping the vehicle both dependable and economical.

In any product, components will fail to perform properly as the result of normal use, age, wear or abuse.

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

A vehicle requiring repair indicates the vehicle is no longer functioning as designed and should be considered potentially hazardous. Use extreme care when working on any vehicle. When diagnosing, removing or replacing any components that are not operating properly, consider the safety of yourself and those around you, should the component move unexpectedly.

Some components are heavy, spring loaded, highly corrosive, explosive, may produce amperage or reach high temperatures. Gasoline, carbon monoxide, battery acid and hydrogen gas could result in serious bodily injury to the technician/mechanic and bystanders if not treated with utmost caution. Be careful not to place hands, face, feet or body in a location that could expose them to injury should an unforeseen dangerous situation occur.

## WARNING

To prevent personal injury or death, observe the following:

*Before working on the vehicle, remove all jewelry (rings, watches, necklaces, etc.)*

*Be sure that no loose clothing or hair can contact moving parts.*

*Use care not to touch hot objects.*

*Raise entire vehicle and support on jack stands before attempting to run or adjust powertrain.*

*Hydrogen gas is formed when charging batteries. Do not charge battery without adequate ventilation.*

*Do not permit open flame or anyone to smoke in an area that is being used for charging battery. A concentration of 4% hydrogen gas or more is explosive.*

*Engine exhaust gas (carbon monoxide) is deadly. Carbon monoxide is an odorless, colorless gas that is formed as a natural part of incomplete combustion of hydrocarbon fuels. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal.*

*The following are symptoms of carbon monoxide inhalation:*

- Dizziness
- Vomiting

- Intense headache
- Muscular twitching
- Weakness and sleepiness
- Throbbing in temples

*If any of these symptoms are experienced, get fresh air immediately. Never work around or operate a vehicle in an environment that does not ventilate exhaust gases from the area.*

## Neutral Lock

To prevent the driven clutch from turning the rear wheels during service operations, a neutral lock is located under the passenger side of the console panel (Ref Fig. 19 on page 14). To operate, turn the key switch to 'OFF' and raise the passenger seat. Place the direction selector in the 'F' position. Reach under the passengers side of console panel and rotate the neutral lock lever clockwise until it snaps into the slot in the direction selector bracket as shown. Next, pull the direction selector handle to the rear until it locks in place in the neutral position. When in this position, the direction selector remains locked in the neutral position. To activate the direction selector, pull the neutral lock lever out of the slot and rotate counter-clockwise until it snaps into the detent position in the direction selector bracket.

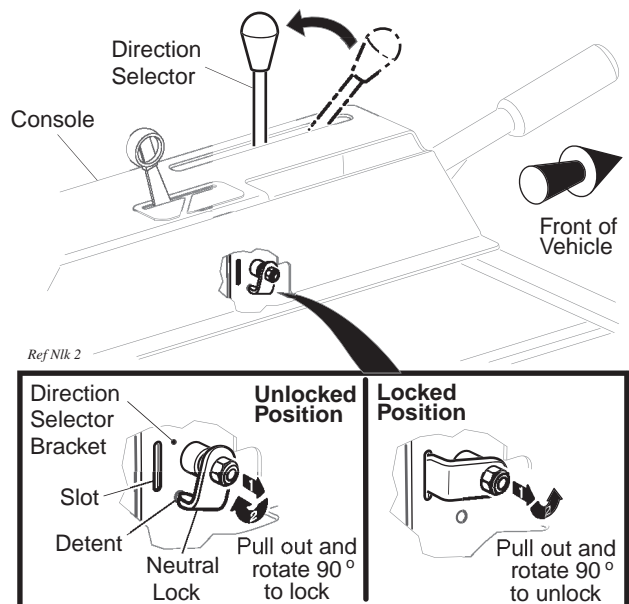


Fig. 19 Neutral Lock



# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

## Lifting the Vehicle

Tool List	Qty. Required
Floor jack .....	1
Jack stands .....	4
Wheel Chocks .....	4

### WARNING

To prevent possible injury or death resulting from a vehicle falling from a jack, be sure the vehicle is on a firm and level surface. Never get under a vehicle while it is supported by a jack. Use jack stands and test the stability of the vehicle on the stands. Always place chocks in front and behind the wheels not being raised. Use extreme care since the vehicle is extremely unstable during the lifting process.

Some servicing operations may require the rear wheels or the entire vehicle be raised.

Install chocks in front and behind each front wheel (Ref Fig. 20 on page 15). Center the jack under the rear bumper. Raise the vehicle and locate a jack stand under the outer end of each rear axle. Lower the jack and test the stability of the vehicle on the two jack stands.

Place the jack at the center of the front axle. Raise the vehicle and position jack stands under the frame cross-member as indicated. Lower the jack and test the stability of the vehicle on the four jack stands.

If only the front or rear of the vehicle is to be raised, place the chocks in front and behind each wheel not being raised in order to stabilize the vehicle.

Lower the vehicle by reversing the lifting sequence.

## Routine Maintenance

This vehicle will give years of satisfactory service, providing it receives regular maintenance. Refer to the Periodic Service Schedule for appropriate service intervals (Ref Fig. 37 on page 27). Refer to Lubrication Points (Ref Fig. 21 on page 15) for lubrication locations

### CAUTION

Do not use more than three (3) pumps of grease in grease fitting at any one time. Excess grease may cause grease seals to fail or grease migration into areas that could damage components.

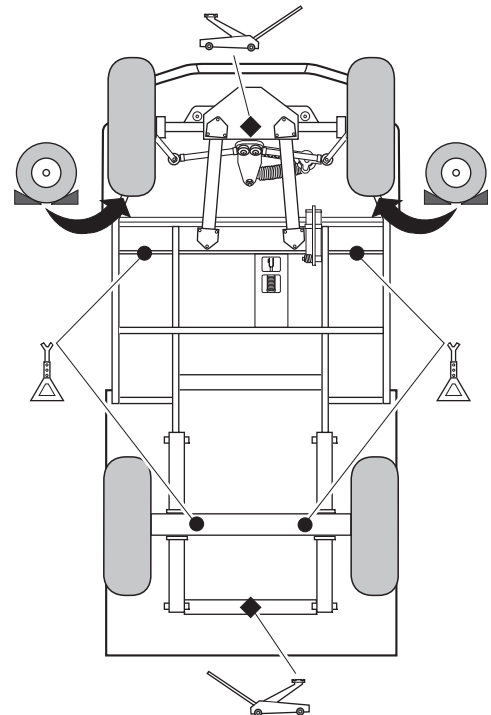


Fig. 20 Lifting the Vehicle

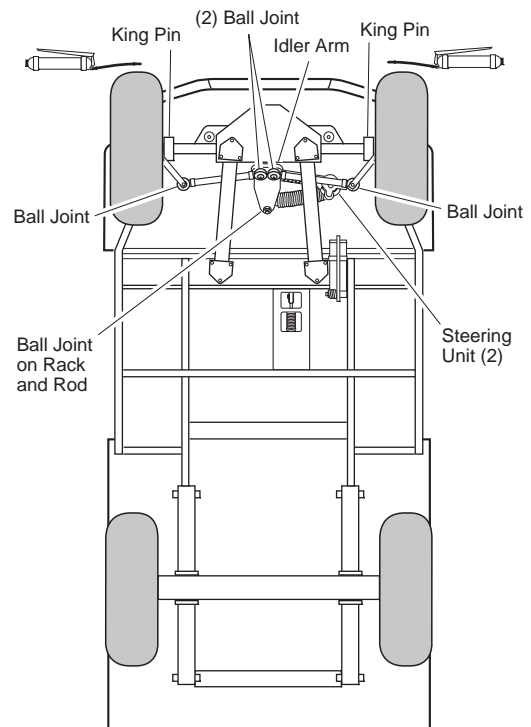


Fig. 21 Lubrication Points

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

## NOTE

Some items must be serviced more frequently on vehicles used under severe driving conditions

## POWERTRAIN MAINTENANCE

Access powertrain by raising or removing the seats and/or dump bed.

## ! WARNING

To prevent severe personal injury or death, observe the following:

*Always install a positive stop to prevent dump bed from unexpectedly falling.*

*Wrap wrenches with vinyl tape to prevent the possibility of a dropped wrench 'shorting out' a battery, which could result in an explosion.*

*Prevent accidental starting by removing and grounding spark plug wires and disconnecting battery at negative terminal before servicing.*

Some service procedures may require the vehicle be lifted. Refer to "Lifting the Vehicle" for proper lifting procedure and safety information.

## Removing Debris

## ! WARNING

*To prevent possible burns, engine parts should be kept clean to reduce risk of overheating and ignition of accumulated debris.*

After every off road use, allow to cool and then check for a build up of dirt and debris in the air intake and cooling fins. Dirt and debris may clog the engine's air cooling system. Clean areas shown to prevent engine damage (Ref Fig. 22 on page 16). Keep linkages, springs and controls clean. Keep area around muffler free of any combustible material.

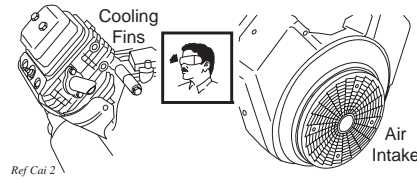


Fig. 22 Cleaning Cooling Fins and Air Intake

## Replacing the Fuel Filter

## ! WARNING

*To prevent a possible explosion, do not smoke near the fuel tank or in an area where gasoline is being handled. Do not perform procedures involving fuel system near open fire or electrical items which could produce a spark.*

*Do not handle gasoline in an area that is not adequately ventilated.*

*Always wear safety glasses to prevent possible eye injury from gasoline or gasoline vapor.*

To replace fuel filter, use a pair of pliers to move clamps off ends of filter and pull filter up higher than the fuel pump to reduce the amount of gas that will spill (Ref Fig. 24 on page 17). Remove hose coming from fuel tank first and plug. Remove filter from hose going to fuel pump and discard.

## NOTE

*Orient direction of new fuel filter according to the FLOW arrow on the side of filter.*

Install new fuel filter and reposition the clamps over the inlet and outlet.

## Oil Capacity

Engine oil capacity is approximately 1 1/2 quarts (1.4 liters) when changing oil and filter.

## Oil Recommendations

The oil must be high quality detergent oil classified 'For Service SF, SG, SH, SJ' or higher. Do not use special additives and do not mix oil with gasoline. The selection of oil viscosity is dependent upon the climate in which the vehicle will be used. Most vehicles require SAE 30 oil; however, vehicles used in cold climates will require a multi-viscosity oil (Ref Fig. 23 on page 17).

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

Synthetic oil meeting ILSAC GF-2, API certification mark and API service symbol with 'SJ/CF ENERGY CONSERVING' or higher, is an acceptable oil at all temperatures. **Use of synthetic oil does not alter required oil change intervals**

## NOTE

Do not use special additives in recommended oil. Do not mix oil with gasoline.



## CAUTION

Air cooled engines run hotter than automotive engines. The use of non synthetic multi-viscosity oils (5W-30, 10W-30, etc.) in temperatures above 40° F (4° C) will result in higher than normal oil consumption. When using a multi-viscosity oil, check oil level more frequently.

SAE 30 oil, if used below 40° F (4° C) will result in hard starting and possible engine bore damage due to inadequate lubrication.

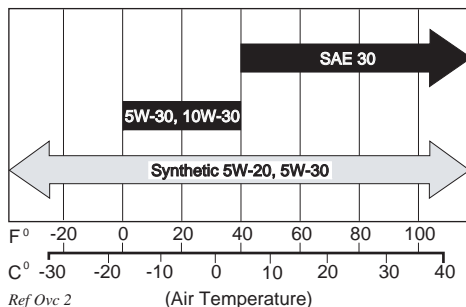


Fig. 23 Oil Viscosity Chart

## Checking the Oil Level

Tool List	Qty. Required
Clean Cloth .....	2

Check oil level daily before starting the engine. The vehicle must be on a level surface with the parking brake engaged. Use a cloth to wipe clean the oil dipstick handle and oil fill cap (Ref Fig. 24 on page 17). This is necessary to prevent debris from falling into the engine

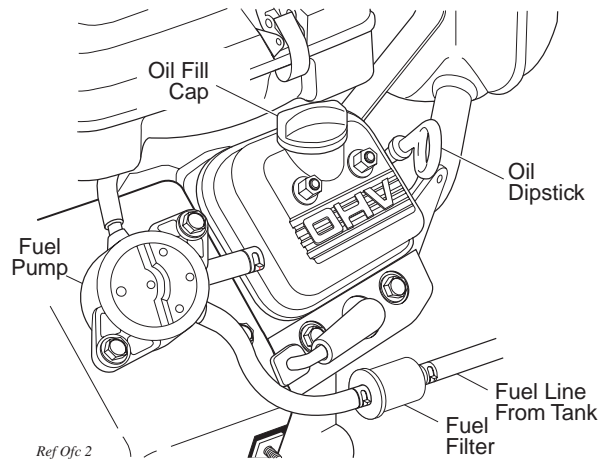


Fig. 24 Oil Fill Cap, Dipstick and Fuel Filter

Remove the dipstick and wipe off the entire area indicated with a clean cloth (Ref Fig. 25 on page 17).

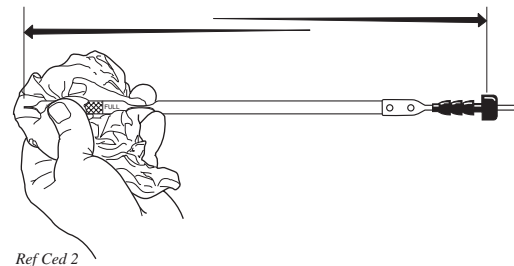


Fig. 25 Clean Entire Dipstick

Insert the dipstick fully into the dipstick tube and remove. Examine the level of oil on the dipstick. Oil should be at the FULL mark (Ref Fig. 26 on page 18).

If oil is required, remove oil fill cap and add oil slowly to bring level to the FULL mark. Do not overfill.

Replace dipstick fully into the dipstick tube and firmly replace the oil fill cap.

## NOTE

When adding oil between oil changes, do not mix brands and viscosity grades of oil.

Both the oil dipstick and fill cap must be in place before operating the engine. Failure to install the dipstick and fill cap will result in oil becoming contaminated and/or oil being discharged into the engine compartment

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

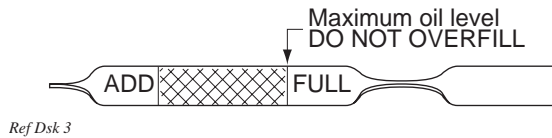


Fig. 26 Check Oil Level on Dipstick

## Changing the Oil

Tool List	Qty. Required
Pliers .....	1
Oil Drain pan .....	1
Clean Cloth .....	2

For maximum performance and longevity, the engine oil should be replaced after the first five (5) to eight (8) hours of operation. After the initial oil change, it should be changed per the Periodic Service Schedule (Ref Fig. 37 on page 27).

## ! WARNING

*Be aware that engine fluids may be hot and contact to the skin may cause severe burns.*

*Wear rubber gloves to protect skin from exposure to the old oil and degreaser.*

The oil should be changed with the engine warm. Park the vehicle on a level surface, engage the parking brake and remove the key. Place a drain pan under the engine. Wipe the oil fill cap clean with a cloth and remove the cap (Ref Fig. 24 on page 17).

Clean the area around the oil drain valve (Ref Fig. 27 on page 18). Open the valve and allow the oil to drain through the hole in the engine mounting plate. Close valve once oil has drained

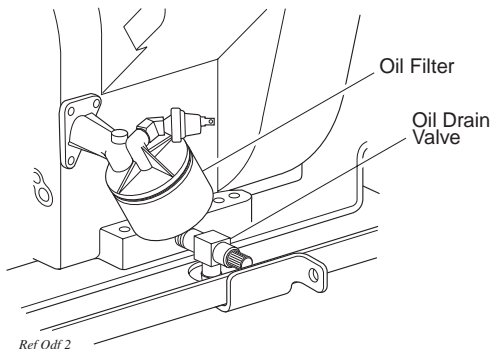


Fig. 27 Oil Drain and Filter

Add 1 quart (1 liter) of oil. Start and drive vehicle at a slow speed for 30 seconds. Stop and turn off vehicle on a level surface and wait 30 seconds for the oil to settle to the bottom of the engine. Check for leaks. Slowly add more oil to bring level to the FULL mark on dipstick. **Do not overfill.**

Replace dipstick **fully** into the dipstick tube and firmly replace the oil fill cap.

## Changing the Oil Filter

Tool List	Qty. Required
Oil filter wrench, to fit 3" (76 mm) oil filter .....	1
Oil Drain pan.....	1
Clean Cloth.....	2

Clean the area around the oil filter and oil drain. Drain engine oil per 'Changing the Oil' and remove oil filter (Ref Fig. 27 on page 18). Make sure the seal came off with filter and is not stuck to the engine.

Wipe around the sealing surface of filter mount with a clean, lint free cloth. Lightly oil the seal on the new filter with fresh, clean oil. Screw filter on by hand until the seal contacts the filter mount. Tighten 1/2 to 3/4 turn more. Refill engine with new oil per 'Changing the Oil'.

## AIR CLEANER MAINTENANCE

The air cleaner is a dual filter cleaner, equipped with a foam pre-cleaner over a conventional paper cartridge. The filters must be serviced per the Periodic Service Schedule (Ref Fig. 37 on page 27) for optimum engine life and performance.

## ! CAUTION

*To prevent engine damage, be careful not to let debris fall into the carburetor when servicing the air cleaner.*

*To prevent water entering air cleaner and causing starting or engine problems, replace air cleaner cover making sure the entire flange around the bottom of the cover fits over the top edge of the air cleaner base. Secure with the spring clips.*

Access the filters by unsnapping the spring clip on each side of the air cleaner and removing the air cleaner cover (Ref Fig. 28 on page 19). If necessary, vacuum or wipe out any loose dirt or trash from the air cleaner base.

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

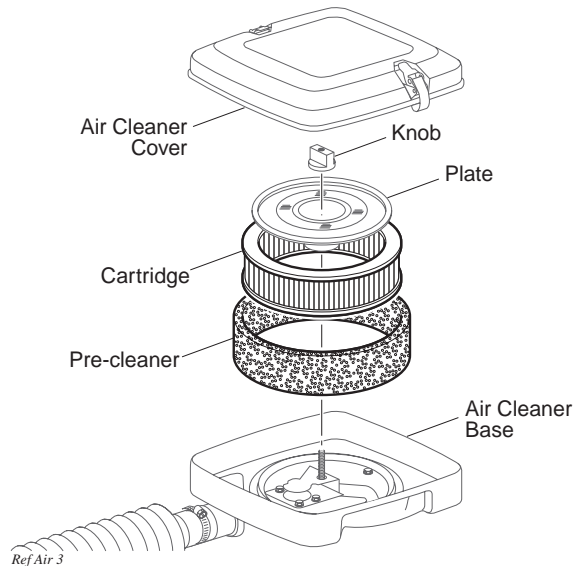


Fig. 28 Air Cleaner

## Pre-Cleaner Service



## CAUTION

To prevent damage to air filter cartridge and reduced engine performance, do not apply oil to the pre-cleaner.

Carefully remove pre-cleaner from cartridge and wash it in liquid detergent and water. Rinse. Dry by squeezing pre-cleaner in a clean cloth. Replace pre-cleaner and air cleaner cover making sure the entire flange around bottom of cover fits over the top edge of the air cleaner base. Secure with the spring clips.

## Cartridge Service

Unscrew the knob securing the cartridge to the air cleaner base and remove plate. Remove cartridge and inspect. Replace if too dirty to clean or at the first sign of filter paper deterioration. Clean cartridge by gently tapping on a flat surface.



## CAUTION

Do not use petroleum solvents, pressurized water, or compressed air to clean cartridge. Doing so will damage the cartridge and will damage the engine.

## NOTE

The paper cartridge is a dry unit. Do not use oil on the cartridge.

Install cartridge, plate, knob, and pre-cleaner.

Replace air cleaner cover making sure that the entire flange around the bottom of the cover fits over the top edge of the air cleaner base. Secure with the spring clips.

## REAR AXLE

The rear axle is provided with a lubricant level check plug located on the driver side at the rear of the housing (Ref Fig. 29 on page 19). Unless leakage is evident, an annual lubricant check is sufficient.

## Checking the Lubricant Level

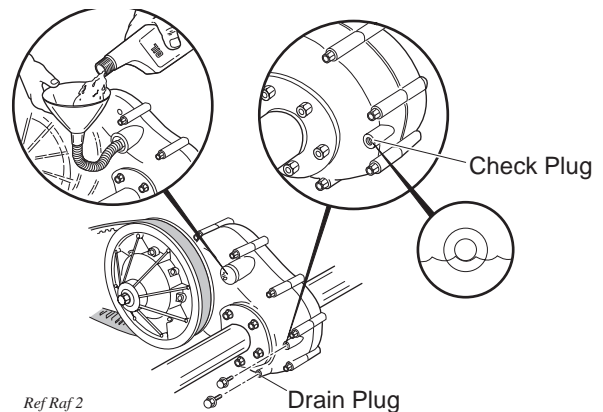


Fig. 29 Add, Check and Drain Rear Axle Lubricant

## Tool List

## Qty. Required

Wrench, 13 mm .....	1
Funnel .....	1

Clean area around check and fill plugs. Remove the check plug. The correct lubricant level is **just** below the bottom of the threaded hole. If lubricant is to be added, remove the fill plug and add lubricant (SAE 30 oil) using a funnel. Add lubricant slowly until lubricant starts to seep from the check plug hole. Install the check plug and the fill plug. In the event that the lubricant is to be replaced, a drain plug is provided at the bottom of the differential housing. Capacity of axle is 48 oz. (1.4 liters).



# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

## STARTER/GENERATOR BELT TENSION

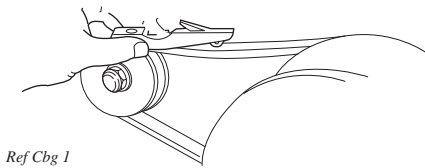
Tool List	Qty. Required
Belt tension gauge .....	1
Wrench, 3/4" .....	1
Wrench, 1/2" .....	2
Socket, 1/4" hex bit, 3/8" drive .....	1
Ratchet, 3/8" drive .....	1
Socket, 3/4", 3/8" drive .....	1
Socket, 1/2", 3/8" drive .....	1
Pry bar .....	1
Torque wrench, 3/8" drive, ft. lbs. ....	1

The starter/generator belt tension should be checked after the first 15-20 hours of operation and set to 75 - 80 lbs. (34 - 36 kg).

### NOTE

A loose belt can cause audible vibration and squeal.

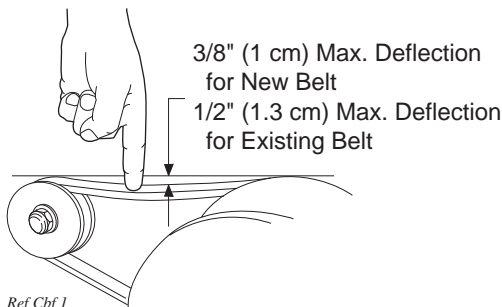
Tighten a new starter/generator belt to 90 - 110 lbs. (41 - 50 kg) tension when a gauge is applied half way between the two pulleys ((Ref Fig. 30 on page 20).



Ref Cbg 1

**Fig. 30 Check Belt Tension with Gauge**

Although not as accurate, the belt may be depressed with a finger. A maximum deflection of 3/8" (1 cm) is acceptable for a new belt (Ref Fig. 31 on page 20).



Ref Cbf 1

**Fig. 31 Check Belt Tension with Finger**

Tighten an **existing** belt to 75 - 80 lbs. (34 - 36 kg) tension using the same technique. A maximum deflection of 1/2" (1.3 cm) is acceptable.

## Adjusting the Belt

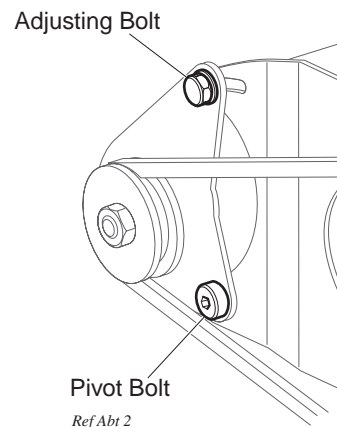
Loosen front and back pivot bolts of starter/generator (Ref Fig. 32 on page 20).

Loosen adjusting bolt. Use pry bar to force starter/generator towards front of vehicle until proper belt tension is achieved. Hold starter/generator in place and tighten adjusting bolt.

Tighten pivot bolts to 25 ft. lbs. (35 Nm) torque

## SPARK PLUGS

Tool List	Qty. Required
Spark plug socket, 5/8", 1/2" drive .....	1
Ratchet, 1/2" drive .....	1
Plug gauge, wire type .....	1
Anti-seize compound .....	AR
Torque wrench, 1/2" drive, ft. lbs. ....	1



Ref Abt 2

**Fig. 32 Adjust Belt Tension**

Remove and inspect the spark plugs per the Periodic Service Schedule (Ref Fig. 37 on page 27). Fouled spark plugs are indicated by a wet, black appearance. This could be caused by a dirty air filter element or other restrictions in the air intake system. Incorrectly adjusted valves, spark plug wires which are in poor condition or poor quality fuel could also contribute to the problem. Clean and gap to .030" (.76 mm). If a plug has been burned beyond .035" (.89 mm) or the porcelain is cracked, it should be replaced (Ref Fig. 33 on page 21).

### NOTE

Do not sand blast spark plugs. They should be cleaned by scraping or wire brushing by hand and washing in a commercial solvent.

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

All new spark plugs should be properly gapped to .030" (.76 mm) (CHAMPION RC12YC), given a light coat of anti-seize compound and tightened to 15 ft. lbs. (20 Nm) torque.



## CAUTION

Use care not to overtighten the plug. Overtightening can damage the aluminum cylinder head threads.

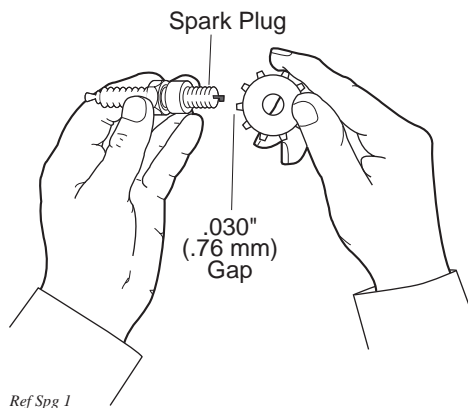


Fig. 33 Gap Spark Plugs

## BRAKES

The master cylinder is located under the driver side seat.

It is important to maintain proper fluid levels in the brake master cylinder. The fill cap for the cylinder is located under the seat. When checking the fluid, wipe off any dirt from the fill cap before removing it to prevent contamination. Fluid level should be maintained at 1/4" (6 mm) below the top of the housing. Use DOT 3 automotive brake fluid.

## DAILY BRAKE TEST

After the vehicle has been put into service, it is recommended that the brakes be checked daily by performing the following test:



## WARNING

To prevent severe injury or death resulting from operating a vehicle with improperly operating brake system, the braking system must be properly maintained. All driving brake tests must be done in a safe location with regard for the safety of all personnel.

Depress the brake pedal. The pedal should have some free travel and then become hard. A brake pedal that has no free travel, excessive free travel or a spongy feel is indicating that a brake inspection is required. A brake pedal that falls after it is applied indicates a leak in the master or wheel cylinders. Check for adequate brake fluid level. Adjust brakes if required and inspect system for fluid leaks.

## TIRES

### NOTE

Standard tires for this vehicle are uni-directional and should never be moved from one side of vehicle to the other.

This vehicle comes standard with uni-directional tires. Left side tires should always remain on the left side of the vehicle. Right side tires should always remain on the right side of the vehicle. Uni-directional tires have an arrow on the sidewall indicating direction of rotation when moving forward. Tire condition should be inspected and inflation pressures checked per the Periodic Service Schedule (Ref Fig. 37 on page 27) when the tires are cool. Be sure to install valve dust cap after checking or inflating.



## WARNING

A tire explosion can cause severe injury or death. Never exceed inflation pressure rating on tire sidewall.

To prevent tire explosion, pressurize tire with small amount of air applied intermittently to seat beads. Never exceed the tire manufacturer's recommendation when seating a bead. Protect face and eyes from escaping air when removing valve core.

Use caution when inflating tires. Due to the low volume of these small tires, overinflation can occur in a matter of seconds. Overinflation could cause the tire to separate from the wheel or cause the tire to explode, either of which could cause personal injury.

Do not use low inflation pressure tires on any E-Z-GO vehicle. Do not use any tire which has a recommended inflation pressure less than the inflation pressure recommended in Owner's Manual.

Tire inflation will depend on the type of tires fitted but

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

under no condition should inflation pressure be higher than recommended on the tire sidewall. Standard and optional tires should be inflated to pressure designated in GENERAL SPECIFICATIONS on page 4-1. If pressure is not designated in GENERAL SPECIFICATIONS, inflate to pressure designated on tire sidewall. **All four tires** should have the same pressure for optimum handling characteristics. Do not overinflate. Due to the low volume of these small tires, overinflation can occur in a matter of seconds. Be sure to install valve dust cap after checking or inflating.

## Wheel and Tire Service

Tool List	Qty. Required
Lug wrench, 3/4" .....	1
Impact socket, 3/4", 1/2" drive .....	1
Impact wrench, 1/2" drive .....	1
Torque wrench, 1/2" drive, ft. lbs .....	1

### ! WARNING

*To prevent injury caused by a broken socket, use only sockets designed for impact wrench use.*

The vehicle is fitted with low pressure tubeless tires mounted on one piece rims. When removing wheels with an impact wrench, use only impact sockets. Regular sockets are not designed for impact pressures exerted by power tools.

Generally, the most cost effective way to repair a flat tire resulting from a puncture in the tread portion of the tire is to use a commercial tire plug.

### NOTE

*Tire plug tools and plugs are available at most automotive parts outlets and have the advantage of not requiring the tire be removed from the wheel.*

If the tire is flat, raise vehicle and remove wheel. Refer to 'Lifting the Vehicle' for proper lifting procedure and safety information. Inflate tire to maximum recommended pressure. Immerse the tire in water to locate the leak and mark with chalk. Insert tire plug in accordance with manufacturer's specifications.

If the tire is to be removed or mounted, the tire changing machine manufacturer's recommendations must be followed in order to minimize the possibility of personal injury. Be sure to position tire on wheel correctly. Arrow on tire indicates rotation when moving forward

### ! WARNING

*To prevent injury, be sure mounting/demounting machine is anchored to floor. Wear OSHA approved safety equipment when mounting/demounting tires.*

Follow all instructions and safety warnings provided by the mounting/demounting machine manufacturer.

### ! CAUTION

*Do not tighten lug nuts to more than 85 ft. lbs. (115 Nm) torque.*

### NOTE

*It is important to follow the 'cross sequence' pattern when installing lug nuts. This will assure even seating of the wheel against the hub.*

With the valve stem to the outside, mount the wheel onto the hub with lug nuts. Be sure to position the wheel on hub correctly with arrow indicating direction of rotation when moving forward. Finger tighten lug nuts in a 'cross sequence' pattern (Ref Fig. 34 on page 22). Then, tighten lug nuts to 50 - 85 ft. lbs. (70 - 115 Nm) torque in 20 ft. lbs. (30 Nm) increments following the same 'cross sequence' pattern.

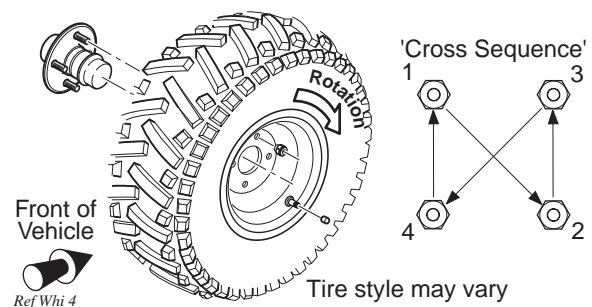


Fig. 34 Wheel Installation

## LIGHT BULB AND FUSE REPLACEMENT

To replace the headlight bulb, locate the two screws on backside of cowl that secure headlight (Ref Fig. 35 on page 23). Remove screws, pull headlight out and disconnect wires. Connect wires to new headlight, install in cowl

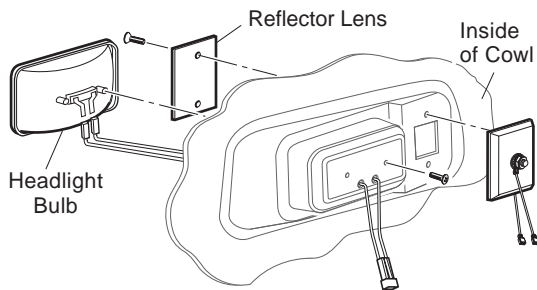


# OPERATION AND SERVICE INFORMATION

*Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings*

and secure with screws previously removed.

To replace the tail and brake light bulb, roll the rubber bezel from around the edge of the taillight and remove lens. Install replacement bulb and replace lens



**Fig. 35 Headlight Replacement**

To replace fuses, locate the fuse block under the driver side seat. Pull out old fuse and replace with a new automotive type fuse of the same amperage.

## PROLONGED STORAGE

### **WARNING**

*To prevent serious injury or death resulting from a possible explosion:*

*Do not handle fuel in an area that is not adequately ventilated. Do not smoke near the fuel tank or refuel near open flame or electrical items which could produce a spark.*

*Store vehicle in a clean, dry area. Do not store in same area as a stove, furnace, water heater, or other appliance that uses a pilot light or has a device that can create a spark.*

*When refueling, inspect the fuel cap for leaks or breaks that could result in fuel spillage.*

*Always wear safety glasses while refueling to prevent possible eye injury from gasoline or gasoline vapor.*

*Keep hands, clothing and jewelry away from moving parts. Use care not to contact hot objects. Raise the rear of the vehicle and support on jack stands before attempting to*

*run the engine.*

Preparing the engine for a prolonged storage period (30 days or more) calls for a few simple steps to prevent a build up of varnish and gum in the carburetor and corrosion in the engine.

- Raise the rear of the vehicle and support on jack stands. Refer to 'Lifting the Vehicle' for proper lifting procedure and safety information.
- If fuel tank contains oxygenated or reformulated gasoline (gasoline blended with an alcohol or ether), remove the passenger side seat bottom and disconnect the fuel hose at the fuel tank. Keep end of hose up near the top of the tank to prevent spilling fuel. With proper ventilation, depress the accelerator pedal and allow engine to run until it stops due to lack of fuel. Reattach fuel line to tank and replace seat bottom.

-or-

If fuel tank contains non-oxygenated or non-reformulated gasoline, add a gasoline additive to the tank in accordance with the manufacturer's recommendations. Drive the vehicle for several minutes to circulate the additive through the carburetor.

- While engine is still warm, change oil (Refer to page 16).
- Remove spark plugs (Refer to page 19) and pour about 1 oz. (30 ml) of engine oil into each cylinder. Replace spark plugs, ground spark plug wires and use starter to turn engine over a few seconds to distribute oil.
- Clean body, chassis and engine of debris, mud, chaff or grass (Refer to page 15).

## CARE AND CLEANING OF THE VEHICLE

### **CAUTION**

*When pressure washing vehicle, do not use pressure in excess of 700 psi. To prevent cosmetic damage, do not use any abrasive or reactive solvents to clean plastic parts.*

It is important that proper techniques and cleaning materials be used.

Normal cleaning of vinyl seats and plastic or rubber trim requires the use of a mild soap solution applied with a sponge or soft brush and wipe with a damp cloth.

Removal of oil, tar, asphalt, shoe polish, etc. will require the use of a commercially available vinyl/rubber cleaner.

The painted surfaces of the vehicle provide attractive

# OPERATION AND SERVICE INFORMATION

*Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings*

appearance and durable protection. Frequent washing with lukewarm or cold water is the best method of preserving the painted surfaces.

Do not use hot water, strong soap or harsh chemical detergents.

Rubber parts should be cleaned with non-abrasive household cleaner.

Occasional cleaning and waxing with non-abrasive products designed for 'clear coat' automotive finishes will enhance the appearance and durability of the painted surfaces.

Corrosive materials can collect on the underbody of the vehicle. These materials will accelerate corrosion of underbody parts. It is recommended that the underbody be flushed occasionally with plain water. Thoroughly clean any areas where mud or other debris can collect. Sediment packed in closed areas should be loosened to ease its removal, taking care not to chip or otherwise damage paint.

## TRANSPORTING VEHICLE

### TOWING



*This vehicle is not designed to be towed.*

It is recommended that the vehicle be moved by placing the entire vehicle on a trailer, flatbed truck or other suitable transport. To prevent the driven clutch from turning the rear wheels a neutral lock is located on the direction selector.

### HAULING

*To reduce the possibility of severe injury or death while transporting vehicle:*

*Secure the vehicle and contents.*

*Never ride on vehicle being transported*

*Always remove windshield before transporting.*

*Maximum speed with sun top installed is 50 m.p.h. (80 kph).*

If the vehicle is to be transported at highway speeds, the sun top must be removed and the seat bottom secured. When transporting vehicle below highway speeds, check for tightness of hardware and cracks in

sun top at mounting points. Always remove windshield when transporting. Always check that the vehicle and contents are adequately secured before transporting. The rated capacity of the trailer or truck must exceed the weight of the vehicle (see GENERAL SPECIFICATION)

## HARDWARE

Periodically, the vehicle should be inspected for loose fasteners. Fasteners should be tightened in accordance with the Torque Specifications table (Ref Fig. 36 on page 25). Use care when tightening fasteners.

Generally, two grades of hardware are used in the vehicle. Grade 5 hardware can be identified by the three marks on the hexagonal head. Unmarked hardware is Grade 2 (Ref Fig. 36 on page 25).

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

## TORQUE SPECIFICATIONS







<b>ALL TORQUE FIGURES ARE IN FT. LBS. (Nm)</b> Unless otherwise noted in text, tighten all hardware in accordance with this chart. This chart specifies 'lubricated' torque figures. Fasteners that are plated or lubricated when installed are considered 'wet' and require approximately 80% of the torque required for 'dry' fasteners.										
BOLT SIZE	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"
Grade 2 	4 (5)	8 (11)	15 (20)	24 (33)	35 (47)	55 (75)	75 (102)	130 (176)	125 (169)	190 (258)
Grade 5 	6 (8)	13 (18)	23 (31)	35 (47)	55 (75)	80 (108)	110 (149)	200 (271)	320 (434)	480 (651)
Grade 8 	6 (8)	18 (24)	35 (47)	55 (75)	80 (108)	110 (149)	170 (230)	280 (380)	460 (624)	680 (922)
BOLT SIZE	M4	M5	M6	M8	M10	M12	M14			
Class 5.8 (Grade 2) 	1 (2)	2 (3)	4 (6)	10 (14)	20 (27)	35 (47)	55 (76.4)			
Class 8.8 (Grade 5) 	2 (3)	4 (6)	7 (10)	18 (24)	35 (47)	61 (83)	97 (131)			
Class 10.9 (Grade 8) 	3 (4)	6 (8)	10 (14)	25 (34)	49 (66)	86 (117)	136 (184)			

Fig. 36 Torque Specifications

## PERIODIC SERVICE SCHEDULE

✓ Check    ♦ Clean, Adjust, etc.    ▲ Replace

**NOTE:** Some maintenance items must be serviced more frequently on vehicles used under severe driving conditions

### 8 HOURS or DAILY

ENGINE	✓ Check oil level (See Note 1 on Page 27)
SERVICE BRAKE	✓ Check brake performance, smooth operation and adjust if required
PARKING BRAKE	✓ Check brake performance and adjust if required
REVERSE WARNING DEVICE	✓ Check operation when direction selector is in reverse
TIRES	✓ Examine for cuts, excessive wear and pressure. See GENERAL SPECIFICATIONS section
WHEELS	✓ Check for bent rims, missing or loose lug nuts
FUEL GAUGE	✓ Check for proper operation (at fueling), and fuel cap vent is free of dirt
BODY	♦ Clean body components as required
COOLING SYSTEM	♦ Clean fins and inside blower housing (See Note 3 on Page 27)

### 25 HOURS (includes items listed in previous tables & the following)

ENGINE	♦ Clean foam pre-cleaner (See Note 3 on Page 27) ✓ Check for unusual noise, vibration, acceleration, oil leaks
BATTERY	♦ Clean battery & terminals with 1/4 cup (60 ml) baking soda to 1 1/2 gallons (6 liters) water solution, rinse with clear water ✓ Check charge condition and all connections

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

WIRING	✓ Check all wiring for loose connections and broken/missing insulation
ACCELERATOR CABLE	✓ Check for smooth movement - DO NOT LUBRICATE CABLE
CHOKE CABLE	✓ Check for smooth movement and adjustment - DO NOT LUBRICATE CABLE
CARBURETOR LINKAGE	✓ Check attachment, adjust as required
DIRECTION SELECTOR	✓ Check for smooth movement and attachment, adjust as required
STARTER/GENERATOR BELT	✓ Check for tension, wear and cracks
STEERING ASSEMBLY	✓ Check for abnormal play, tightness of all hardware
TIE RODS/LINKAGES	✓ Check for excessive play, bent components or loose connections
REAR AXLE	✓ Check for leakage, add SAE 30 oil as required
<b>50 HOURS (includes items listed in previous tables &amp; the following)</b>	
ENGINE	▲ Change oil, DO NOT OVERFILL (See Notes 1 and 2 on page 27) ✓ Check spark plug wires for cracks/loose connections
EXHAUST	✓ Inspect/clean spark arrestor
FRONT AXLE	✓ Check for damage to axle and loose or missing hardware
FRONT SHOCK ABSORBERS	✓ Check for oil leakage and loose fasteners
FRONT SPRINGS	✓ Check for loose hardware, cracks at attachments
FRONT WHEEL ALIGNMENT	✓ Check for unusual tire wear, align as required. See FRONT SUSPENSION AND STEERING section
PARKING BRAKE	✓ Check for binding cables ✓ Check for damage or wear ♦ Lubricate, use light oil. DO NOT LUBRICATE CABLES
HYDRAULIC BRAKE FLUID	✓ Check level, add if required (DOT 3) and check for leakage
REAR SHOCK ABSORBERS	✓ Check for oil leakage, loose mounting hardware
FUEL SYSTEM	✓ Check for leaks at tank, cap, lines, filter, pump and carburetor ✓ Check fuel lines for cracks/deterioration
THROTTLE/GOVERNOR LINKAGE	✓ Check operation and governed speed
<b>100 HOURS (includes items listed in previous tables &amp; the following)</b>	
ENGINE	▲ Change oil filter (See Note 1 on Page 27) ▲ Change air cleaner cartridge if damaged or dirty (See Note 3 on Page 27)
DIRECTION SELECTOR	✓ Check for wear and smooth movement (lubricate shaft with light oil if required) ✓ Check shift cable spring length
KING PINS	✓ Check for excessive play and tightness of retaining nuts ♦ Lubricate, use wheel bearing grease
STEERING ASSEMBLY	♦ Lubricate linkage, use wheel bearing grease
TIE RODS/LINKAGES	♦ Lubricate, use wheel bearing grease
REAR AXLE	✓ Check for unusual noise and loose missing mounting hardware

# OPERATION AND SERVICE INFORMATION

Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings

250-300 HOURS or YEARLY (includes items listed in previous tables & the following)	
ENGINE	<ul style="list-style-type: none"> <li>▲ Replace or clean spark plugs</li> <li>▲ Replace in-line fuel filter</li> <li>✓ Check valve clearance, refer to Briggs &amp; Stratton® Repair Manual (P/N 272144) for VANGUARD™ V-Twin Overhead Valve Engines</li> </ul>
FRONT WHEEL BEARINGS	<ul style="list-style-type: none"> <li>◆ Adjust. See FRONT SUSPENSION AND STEERING section</li> <li>◆ Pack with wheel bearing grease</li> </ul>
REAR AXLE	✓ Check lubricant, if oil seepage is evident, add lubricant (SAE 30) as required
SERVICE BRAKES	<ul style="list-style-type: none"> <li>◆ Clean. See HYDRAULIC BRAKES section</li> <li>✓ Check brake shoe linings, wear limit 0.06" (1.5 mm)</li> </ul>
MUFFLER/EXHAUST	✓ Check mounting hardware; check for leaks at head and muffler gaskets
500 HOURS	
REAR AXLE	▲ Replace lubricant
ENGINE	◆ Clean combustion chamber deposits, refer to Briggs & Stratton® Repair Manual (P/N 272144) for VANGUARD™ V-Twin Overhead Valve Engines

**Fig. 37 Periodic Service Schedule**

**Note 1** - Change oil after first 8 hours, then after every 50 hours.

**Note 2** - Change oil every 25 hours when operating under heavy load or in high temperatures.

**Note 3** - Clean more often under dusty conditions or when airborne debris is present. Clean foam pre-cleaner first and replace paper cartridge if dirty. Replace either if showing signs of damage.

## OPERATION AND SERVICE INFORMATION

*Read all of Manual to become thoroughly familiar with this vehicle. Pay particular attention to all Notes, Cautions and Warnings*

**Notes:** \_\_\_\_\_

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

# **GENERAL SPECIFICATIONS**

# GENERAL SPECIFICATIONS

## ST 480

### STANDARD EQUIPMENT:

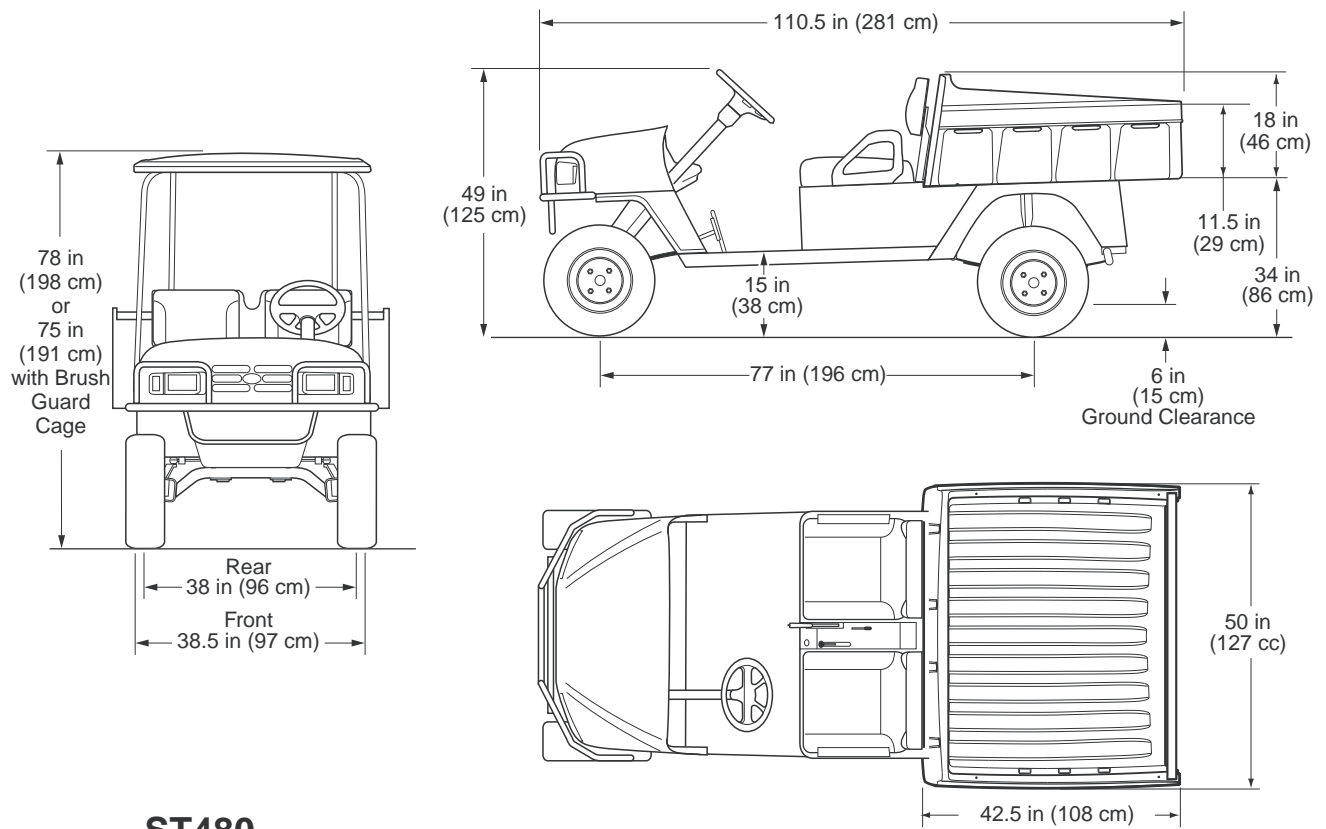
BATTERY	One 12 Volt Maintenance Free (515 CCA, 82 Minute Reserve)
ENGINE	16 H.P. (11.9 kW) 29.2 ci (480 cc) Twin Cylinder, Overhead Valve Pressurized Lubrication with Spin Off Filter Magnetron™ Ignition with Transistor Module Replaceable Dry Cartridge Air Filter with Pre-Filter & Remote Intake Fixed Jet Bowl Carburetor, Pulse Fuel Pump
TRANSAXLE	13.32:1 Helical geared with Differential Lock and Ground Speed Governor
TRANSMISSION	Automatic Continuously Variable Transmission (CVT)
FUEL TANK	6 Gallon (23 Liters) Tank. 36 lbs. (16 kg) Fuel Weight
BRAKES	Dual Rear Wheel, Self-Adjusting Hydraulic Drum Brakes
PARKING BRAKE	Hand Operated Mechanical Parking Brake
FRONT SUSPENSION	Leaf Springs with Hydraulic Shock Absorbers
REAR SUSPENSION	Leaf Springs with Hydraulic Shock Absorbers
STEERING	Single Reduction Rack & Pinion
STEERING WHEEL	Dual Handgrips
SEATING	Cushion Foam/Vinyl Cover Bucket Seats, Hip Restraint/Hand Hold
SEATING CAPACITY	Operator & 1 Passenger
TOTAL LOAD CAPACITY	800lbs.(365kg)IncludingOperator,Passenger,Accessories&Cargo bed 500 lbs. (230 kg) Maximum Bed Load
SPEED	16.5 mph (26.5 kph) Max
CHASSIS	Powder Coated (DuraShield™), Welded Tubular Steel
VEHICLE PROTECTION	Tubular Steel Front Bumper with Brush Guards
BODY	Flexible Impact Resistant DuraShield™ Injection Molded TPE (Thermoplastic Elastomer) with Base Coat/Clear Coat Front Cowl. DuraShield™ Powder Coated Steel Rear Body
STANDARD COLOR(S)	Hunter Green
DASH PANEL	Scuff Resistant Glass Fiber Reinforced Plastic (Thermoplastic Olefin) with 4 Drink Holders
LOAD BED	Rotomolded Cross Link Polyethelene & Electric Dump
LOAD BED FEATURES	Hinged Removable Tailgate
LIGHTING/HORN (Standard)	Dual Halogen Headlights, Horn
TIRES (Standard)	22 x 9 - 10 Stryker 1 <sup>®</sup> (Uni-directional)*
TIRE PRESSURE	12 - 16 psi (85 - 110 kPa)*
WEIGHT (Without Fuel)	1100 lbs (480 kg)
OPERATING CONTROLS & INSTRUMENTATION	Removable Key, 'Deadman' Accelerator Control, Direction Selector, Audible Reverse Warning, Analog Fuel Gauge, Low Oil Pressure Indicator and 12 Volt Power Outlet
NOISE	Sound pressure; continuous A-weighted equal to or less than 70db(A).
VIBRATION, WBV	The highest RMS value of weighted acceleration is: 1.25 m/s <sup>2</sup> .
VIBRATION, HAV	The highest RMS value of weighted acceleration is: less than 2.5 m/s <sup>2</sup> . The uncertainty of measurement is: 0.2 m/s <sup>2</sup> .

Specifications subject to change without notice

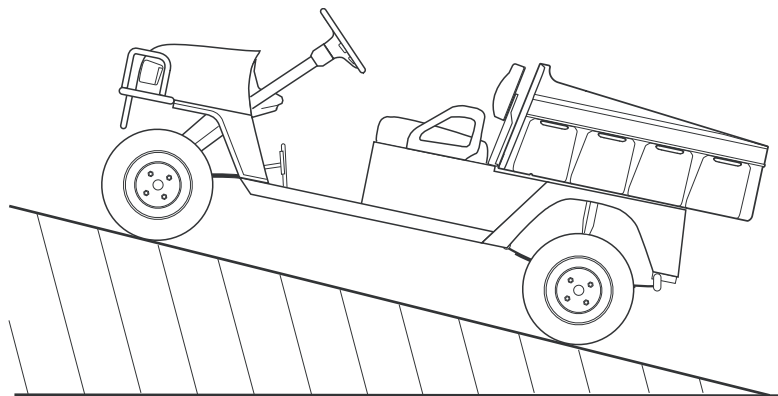
\* Do not use low inflation pressure tires on any E-Z-GO vehicle. Do not use any tire which has a recommended inflation pressure less than the inflation pressure recommended in Owner's Manual.



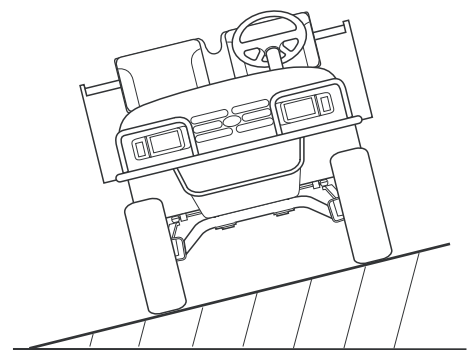
# GENERAL SPECIFICATIONS



**ST480**

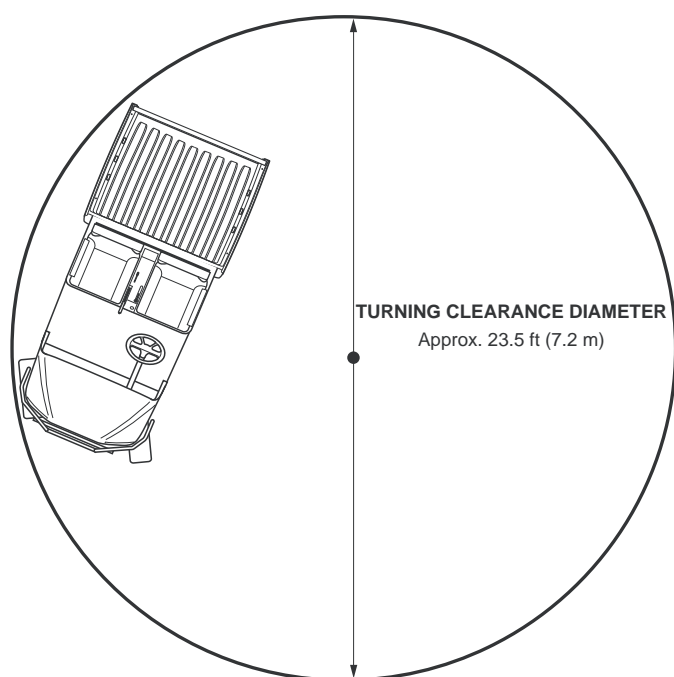


Maximum Recommended Ramp Grade  
25% or 14° Max.



Maximum Recommended Side Tilt  
25% or 14° Max.

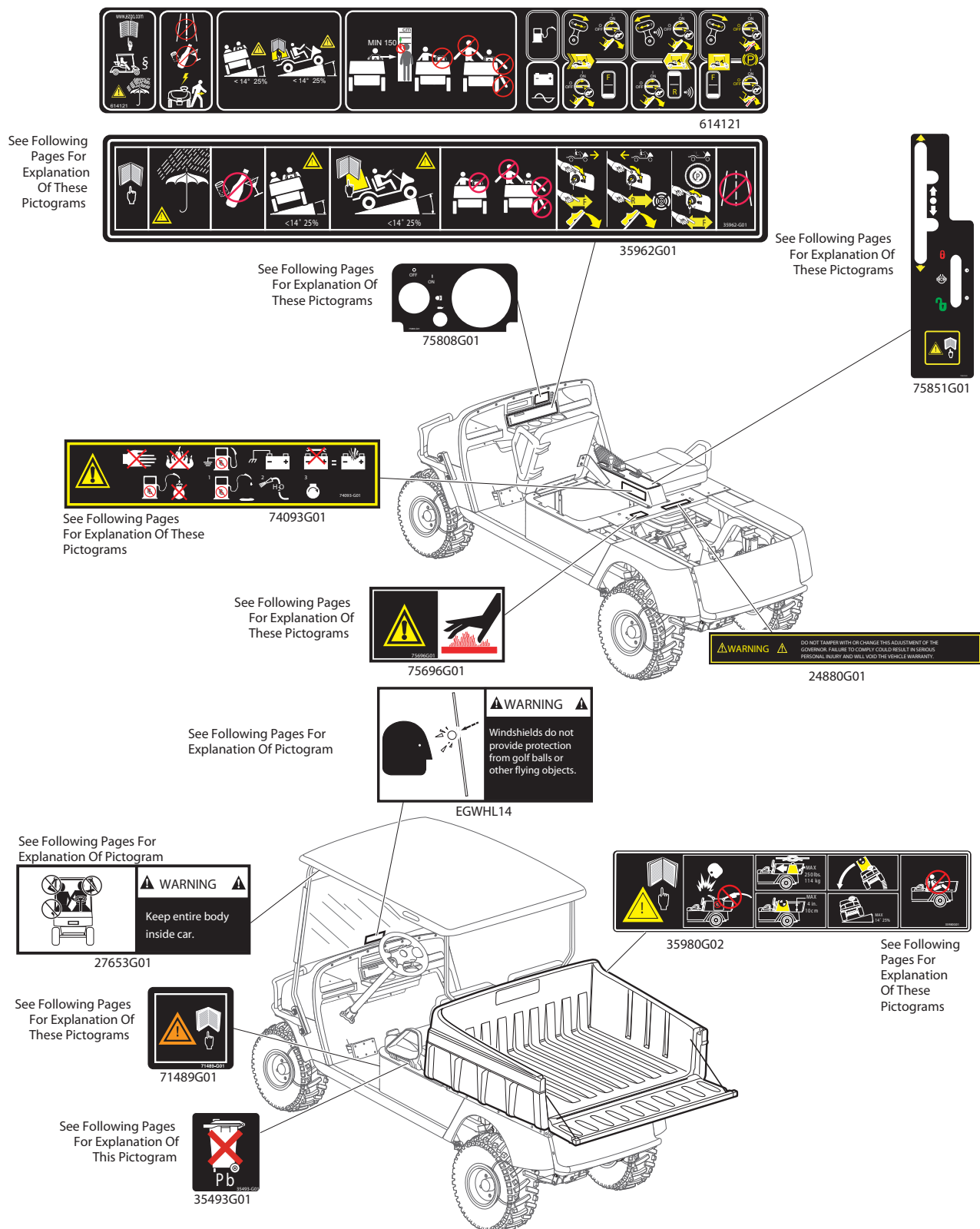
**Fig. 38 Vehicle Dimensions**








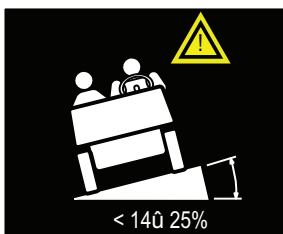

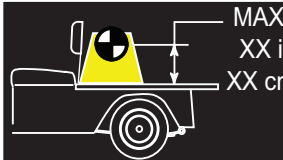
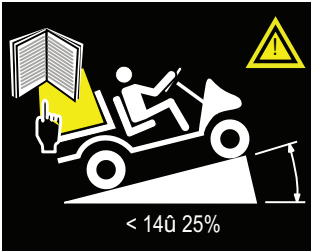
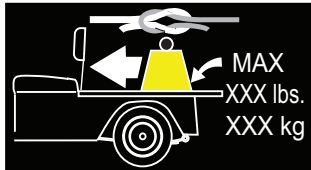


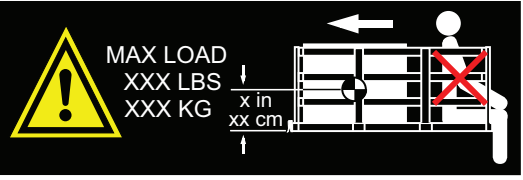
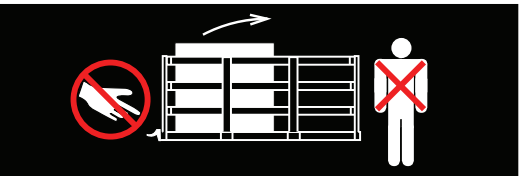
**Fig. 39 Vehicle Dimensions, Incline Specifications and Turning Clearance Diameter**

# **LABELS AND PICTOGRAMS**

# LABELS AND PICTOGRAMS










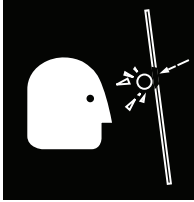













# LABELS AND PICTOGRAMS

1.  WARNING
2.  READ MANUAL
3.  WARNING  
USE CAUTION IN  
INCLEMENT WEATHER
4.  WARNING  
DO NOT OPERATE  
UNDER THE INFLUENCE  
OF DRUGS OR ALCOHOL
5.  MAX  
14°/ 25%  
MAXIMUM  
CROSS HILL/RAMP  
ANGLE AS SPECIFIED
6.  < 14°/ 25%  
WARNING  
MAXIMUM CROSS  
HILL/RAMP ANGLE  
AS SPECIFIED
7.  LOAD WITH  
HIGH CENTER  
OF GRAVITY  
COULD RESULT  
IN TIP OVER
8.  MAX  
XX in.  
XX cm  
LOAD  
CENTER  
OF GRAVITY,  
MAXIMUM  
HEIGHT
9.  < 14°/ 25%  
WARNING  
READ MANUAL  
FOR MAXIMUM  
LOAD BED  
CAPACITY.  
MAXIMUM RAMP/HILL
10.  MAX  
XXX lbs.  
XXX kg  
SECURE LOAD  
AS FAR FORWARD  
AS POSSIBLE.  
MAXIMUM LOAD BED  
CAPACITY
11.  DO NOT RIDE IN  
LOAD BED
12.  DANGER OF EXPLOSION  
DO NOT FILL GAS CAN  
IN LOAD BED
13.  MAX LOAD  
XXX LBS  
XXX KG  
x in  
xx cm  
WARNING  
MAXIMUM LOAD  
& CENTER OF  
GRAVITY.  
KEEP LOAD  
AS FAR  
FORWARD AS  
POSSIBLE.  
DO NOT RIDE  
IN LOAD BED
14.  KEEP HANDS &  
FINGERS AWAY  
FROM DUMP BED.  
DO NOT STAND  
BEHIND DUMP  
BED

NOTE: All Pictograms may not apply to your product

Ref Pic 1-1

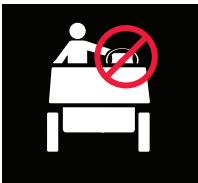



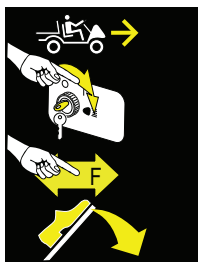

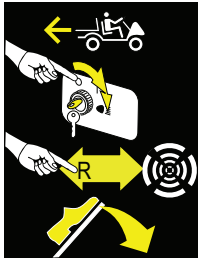

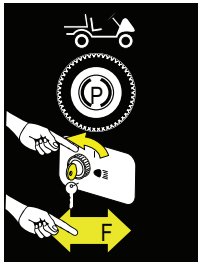

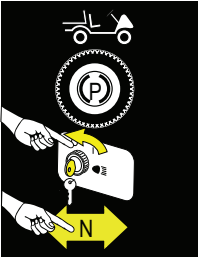

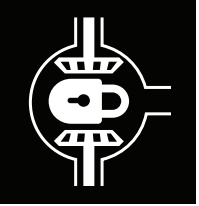


# LABELS AND PICTOGRAMS

- |     |   |  |     |   |   |
|-----|---|--|-----|---|---|
| 15. |    | CLEAN UP GASOLINE SPILLS WITH WATER BEFORE STARTING ENGINE | 27. |    | DO NOT EXPOSE TO FLAME                                    |
| 16. |    | UNLEADED GASOLINE  | 28. |    | DO NOT DISPOSE OF BATTERIES IN LANDFILL                   |
| 17. |    | DO NOT SPILL FUEL ON A HOT ENGINE                          | 29. |    | DO NOT DRIVE ON HIGHWAY                                   |
| 18. |    | GROUND FUEL PUMP   | 30. |    | WINDSHIELDS DO NOT PROVIDE PROTECTION FROM FLYING OBJECTS |
| 19. |    | LOW OIL PRESSURE   | 31. |   | BATTERIES ARE HEAVY. USE CARE LIFTING                     |
| 20. |    | NEGATIVE GROUND BATTERY                                    | 32. |  | USE INSULATED TOOLS                                       |
| 21. |   | DO NOT CONNECT POSITIVE BATTERY TERMINAL TO GROUND         | 33. |  | WEAR EYE PROTECTION                                       |
| 22. |  | SHORTING BATTERY TERMINALS MAY CAUSE EXPLOSION             | 34. |  | NO SMOKING  |
| 23. |  | NO TAMPERING. KEEP HANDS OUT                               | 35. |  | HOT SURFACE   |
| 24. |  | WARNING CORROSIVE  |     |   |   |
| 25. |  | WARNING EXPLOSIVE  |     |   |   |
| 26. |  | WARNING LETHAL VOLTAGE                                     |     |   |   |

NOTE: All Pictograms may not apply to your product

Ref Pic 1-2

## LABELS AND PICTOGRAMS

- |     |   |   |     |   |   |
|-----|---|---|-----|---|---|
| 36. |    | OPERATE FROM DRIVERS SIDE ONLY  | 42. |    | KEEP CLEAR HAND OR FINGERS CAN BE TRAPPED |
| 37. |    | KEEP ARMS AND LEGS WITHIN VEHICLE   | 43. |    | ON POSITION                               |
| 38. |    | TO OPERATE VEHICLE IN FORWARD:<br>TURN KEY TO ON<br>MOVE DIRECTION SELECTOR TO FORWARD<br>DEPRESS ACCELERATOR PEDAL AND ACCELERATE SMOOTHLY                                 | 44. |    | OFF POSITION                              |
| 39. |   | TO OPERATE VEHICLE IN REVERSE:<br>TURN KEY TO ON<br>MOVE DIRECTION SELECTOR TO REVERSE<br>AN AUDIBLE DEVICE WILL SOUND<br>DEPRESS ACCELERATOR PEDAL AND ACCELERATE SMOOTHLY | 45. |    | HEADLIGHTS                                |
| 40. |  | TO LEAVE A GASOLINE POWERED VEHICLE IN PARK:<br>APPLY PARKING BRAKE<br>TURN KEY TO OFF<br>MOVE DIRECTION SELECTOR TO FORWARD  | 46. |    | UNLOCKED                                  |
| 41. |  | TO LEAVE AN ELECTRIC POWERED VEHICLE IN PARK:<br>APPLY PARKING BRAKE<br>TURN KEY TO OFF<br>MOVE DIRECTION SELECTOR TO NEUTRAL   | 47. |   | LOCKED                                    |
|     |   |   | 48. |  | DIFFERENTIAL LOCKED                       |
|     |   |   | 49. |  | WARNING<br>KEEP ENTIRE BODY INSIDE CAR    |
|     |   |   | 50. |  | MAXIMUM TAILGATE LOAD                     |

NOTE: All Pictograms may not apply to your product

Ref Pic 1-3



# LABELS AND PICTOGRAMS

51.



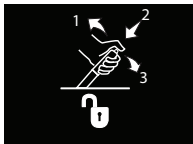
ENGINE CRANKING  
POSITION

52.



PULL HANDLE UP  
TO ENGAGE PARK  
BRAKE

53.



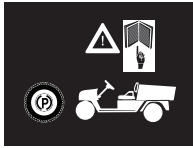
PULL HANDLE UP,  
PUSH BUTTON IN,  
PUSH HANDLE DOWN  
TO RELEASE PARK BRAKE

54.



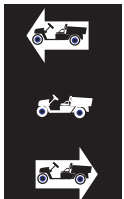
WARNING  
READ OWNER'S MANUAL  
BEFORE OPERATING  
VEHICLE IN FORWARD  
OR REVERSE

55.



WARNING  
READ OWNER'S MANUAL  
BEFORE PARKING  
VEHICLE AND LEAVING  
IT UNATTENDED

56.

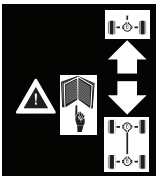


FORWARD

NEUTRAL

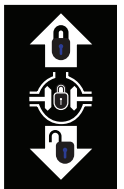
REVERSE

57.



WARNING  
READ OWNER'S MANUAL  
BEFORE ENGAGING TWO  
OR FOUR WHEEL DRIVE

58.



PUSH TOP OF SWITCH  
TO LOCK DIFFERENTIAL

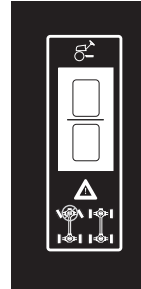
PUSH BOTTOM OF  
SWITCH TO UNLOCK  
DIFFERENTIAL

59.



REAR DIFFERENTIAL  
LOCK SWITCH

60.



FRONT DIFFERENTIAL LOCK SWITCH.  
WARNING  
READ OWNER'S MANUAL BEFORE  
ENGAGING FRONT DIFFERENTIAL  
LOCK.  
DO NOT ENGAGE LOCK WHILE  
FRONT WHEELS ARE TURNED AND  
VEHICLE IS AT SPEED.

61.



PUSH TOP PART OF  
SWITCH TO RAISE LOAD BED

PUSH BOTTOM PART OF  
SWITCH TO LOWER LOAD BED

62.



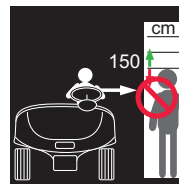
AUXILIARY LIGHTS

63.



HORN BUTTON

63.



MINIMUM HEIGHT TO  
OPERATE VEHICLE IS  
59 INCHES (150 CM)

63.



DO NOT OPERATE  
VEHICLE WHEN  
LIGHTNING IS IN  
THE AREA

NOTE: All Pictograms may not apply to your product

Ref Pic 1-4

# **VEHICLE WARRANTIES**

# VEHICLE WARRANTIES

## DOMESTIC WARRANTY (U.S. AND CANADA)

To obtain a copy of the limited warranty applicable to the vehicle, call or write a local Distributor, authorized Branch or the Warranty Department with vehicle serial number and manufacturer date code.

# VEHICLE WARRANTIES - CALIFORNIA

## CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and E-Z-GO are pleased to explain the evaporative emission control system warranty on your 2010 vehicle. In California, new vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. E-Z-GO must warrant the EECS on your vehicle for the period of time listed below provided there has been no abuse, neglect or improper maintenance of your vehicle.

Your EECS may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter, fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated emission-related components.

Where a warrantable condition exists, E-Z-GO will repair your vehicle at no cost to you including diagnosis, parts and labor.

### MANUFACTURER'S WARRANTY COVERAGE:

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by E-Z-GO.

### OWNER'S WARRANTY RESPONSIBILITIES:

As the vehicle owner, you are responsible for performance of the required maintenance listed in your owner's manual. E-Z-GO recommends that you retain all receipts covering maintenance on your vehicle, but E-Z-GO cannot deny warranty solely for the lack of receipts.

As the vehicle owner, you should however be aware that E-Z-GO may deny you warranty coverage if your vehicle or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.

You are responsible for presenting your vehicle to E-Z-GO Division of Textron Inc. distribution center or service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact your nearest authorized E-Z-GO service center or call the E-Z-GO Warranty Department at 1-800-448-7476

### GENERAL EMISSIONS WARRANTY COVERAGE:

E-Z-GO warrants to the ultimate purchaser and each subsequent purchaser that the vehicle is:

Designed, built and equipped so as to conform with all applicable regulations; and

Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to that part as described in E-Z-GO's application for certification.

The warranty period begins on the date the vehicle is delivered to an ultimate purchaser or first placed into service. The warranty period is two years.

Subject to certain conditions and exclusions as stated below, the warranty on emission-related parts is as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions supplied, is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by E-Z-GO according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period.

(2) Any warranted part that is scheduled only for regular inspection in the written instructions supplied is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.

## VEHICLE WARRANTIES - CALIFORNIA

(3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions supplied is warranted for the period of time before the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part will be repaired or replaced by ABC, Inc. according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.

(4) Repair or replacement of any warranted part under the warranty provisions herein must be performed at a warranty station at no charge to the owner.

(5) Notwithstanding the provisions herein, warranty services or repairs will be provided at all of our distribution centers that are franchised to service the subject engines or equipment.

(6) The vehicle owner will not be charged for diagnostic labor that is directly associated with diagnosis of a defective, emission-related warranted part, provided that such diagnostic work is performed at a warranty station.

(7) E-Z-GO is liable for damages to other engine or equipment components proximately caused by a failure under warranty of any warranted part.

(8) Throughout the vehicle warranty period stated above, E-Z-GO will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.

(9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of E-Z-GO.

(10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts by the ultimate purchaser will be grounds for disallowing a warranty claims. E-Z-GO will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

### WARRANTED PARTS:

The repair or replacement of any warranted part otherwise eligible for warranty coverage may be excluded from such warranty coverage if E-Z-GO demonstrates that the vehicle has been abused, neglected, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for repair or replacement of the part. That notwithstanding, any adjustment of a component that has a factory installed, and properly operating, adjustment limiting device is still eligible for warranty coverage. The following emission warranty parts list are covered:

- (1) Fuel Tank
- (2) Fuel Cap
- (3) Fuel Line
- (4) Fuel Line Fittings
- (5) Clamps
- (6) Pressure Relief Valves
- (7) Control Valves
- (8) Control Solenoids
- (9) Electronic Controls
- (10) Vacuum Control Diaphragms
- (11) Control Cables
- (12) Control Linkages
- (13) Purge Valves
- (14) Vapor Hoses
- (15) Liquid/Vapor Separator
- (16) Carbon Canister
- (17) Canister Mounting Brackets
- (18) Carburetor Purge Port Connector

# VEHICLE WARRANTIES - FEDERAL

## FEDERAL EMISSIONS COMPONENT DEFECT WARRANTY

EMISSIONS COMPONENT DEFECT WARRANTY COVERAGE - This emission warranty is applicable in all States, except the State of California

Kawasaki Heavy Industries Ltd. and E-Z-GO Division of Textron Augusta, Georgia, (herein "E-Z-GO") warrant(s) to the initial retail purchaser and each subsequent owner, that this Non-road engine (herein "engine") has been designed, built, and equipped to conform at the time of initial sale to all applicable regulations of the U.S. Environmental Protection Agency (EPA), and that the engine is free of defects in materials and workmanship which would cause this engine to fail to conform with EPA regulations during its warranty period.

For the components listed under PARTS COVERED, the distributor, dealer, or service provider authorized by E-Z-GO will, at no cost to you, make the necessary diagnosis, repair, or replacement necessary to ensure that the engine complies with applicable U.S. EPA regulations.

### EMISSION COMPONENT DEFECT WARRANTY PERIOD

The warranty period for this engine begins on the date of sale to the initial purchaser and continues for a period of 2 years.

### PARTS COVERED

Listed below are the parts covered by the Emission Components Defect Warranty. Some of the parts listed below may require scheduled maintenance and are warranted up to the first scheduled replacement point for that part.

Fuel Metering System

Carburetor and internal parts (and/or pressure regulator or fuel injection system)

Air/fuel ratio feedback and control system, if applicable.

Cold start enrichment system, if applicable.

Air Induction System

Intake manifold, if applicable

Air filter.

Ignition System

Spark plugs.

Magneto or electronic ignition system.

Spark advance/retard system, if applicable.

Exhaust manifold, if applicable

Miscellaneous Items Used in Above Systems

Electronic controls, if applicable

Hoses, belts, connectors, and assemblies.

### OBTAINING WARRANTY SERVICE

To obtain warranty service, take your engine to the nearest authorized E-Z-GO distributor, dealer, or service provider. Bring your sales receipts indicating date of purchase for this engine. The distributor, dealer, or service provider authorized by E-Z-GO will perform the necessary repairs or adjustments within a reasonable amount of time and furnish you with a copy of the repair order. All parts and accessories replaced under this warranty become the property of E-Z-GO.

### WHAT IS NOT COVERED

Conditions resulting from tampering, misuse, improper adjustment (unless they were made by the distributor, dealer, or service provider authorized by E-Z-GO during a warranty repair), alteration, accident, failure to use the recommended fuel and oil, or not performing required maintenance services.

The replacement parts used for required maintenance services.

Consequential damages such as loss of time, inconvenience, loss of use of the engine or equipment, etc.

Diagnosis and inspection charges that do not result in warranty-eligible service being performed.

Any non-authorized replacement part, or malfunction of authorized parts due to use of non-authorized parts.

### OWNER'S WARRANTY RESPONSIBILITIES

# VEHICLE WARRANTIES

As the engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. E-Z-GO recommends that you retain all receipts covering maintenance on your engine, but E-Z-GO cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the engine owner, you should however be aware that E-Z-GO may deny warranty coverage if your engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your engine to the nearest distributor, dealer, or service provider authorized by E-Z-GO when a problem exists.

If you have any questions regarding your warranty rights and responsibilities, you should contact the E-Z-GO Warranty Department at 1-800-241-5855 for the information.

## THINGS YOU SHOULD KNOW ABOUT THE EMISSION CONTROL SYSTEM WARRANTY

### MAINTENANCE AND REPAIRS

You are responsible for the proper maintenance of the engine. You should keep all receipts and maintenance records covering the performance of regular maintenance in the event questions arise. These receipts and maintenance records should be transferred to each subsequent owner of the engine. E-Z-GO reserves the right to deny warranty coverage if the engine has not been properly maintained. Warranty claims will not be denied, however, solely because of the lack of required maintenance or failure to keep maintenance records.

MAINTENANCE, REPLACEMENT OR REPAIR OF EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY REPAIR ESTABLISHMENT OR INDIVIDUAL; HOWEVER, WARRANTY REPAIRS MUST BE PERFORMED BY A DISTRIBUTOR, DEALER OR, SERVICE PROVIDER AUTHORIZED BY E-Z-GO. THE USE OF PARTS THAT ARE NOT EQUIVALENT IN PERFORMANCE AND DURABILITY TO AUTHORIZED PARTS MAY IMPAIR THE EFFECTIVENESS OF THE EMISSION CONTROL SYSTEM AND MAY HAVE A BEARING ON THE OUTCOME OF A WARRANTY CLAIM.

If other than the parts authorized by E-Z-GO are used for maintenance replacements or for the repair of components affecting emission control, you should assure yourself that such parts are warranted by their manufacturer to be equivalent to the parts authorized by E-Z-GO in their performance and durability.

### HOW TO MAKE A CLAIM

All repair qualifying under this limited warranty must be performed by a distributor, dealer, or service provider authorized by E-Z-GO. In the event that any emission-related part is found to be defective during the warranty period, you shall notify E-Z-GO Warranty Department at 1-800-241-5855 and you will be advised of the appropriate warranty service providers where the warranty repair can be performed.



**DECLARATION OF CONFORMITY  
(EUROPE ONLY)**

# DECLARATION OF CONFORMITY

## DECLARATION OF CONFORMITY • ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ • PROHLÁŠENÍ O SHODĚ • OVERENSSTEMMELSESERKLÆRING • CONFORMITEITSVERKLARING • VASTAVUSDEKLARATSIOON • VAATIMUSTENMUKAISUUSVAKUUTUS • DECLARATION DE CONFORMITE • KONFORMITÄTSEERKLÄRUNG • ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ • MEGFELELŐSÉGI NYILATKOZAT • DICHIARAZIONE DI CONFORMITÀ • ATBILSTĪBAS DEKLARĀCIJA • ATITIKTIES DEKLARACIJA • DIKJARAZZJONI TAL-KONFORMITÀ • DEKLARACJA ZGODNOŚCI • DECLARAÇÃO DE CONFORMIDADE • DECLARAȚIE DE CONFORMITATE • VYHLÁSENIE O ZHODE • IZJAVA O SKLADNOSTI • DECLARACIÓN DE CONFORMIDAD • DEKLARATION OM ÖVERENSSTÄMMELSE • SAMRÆMISYFIRLÝSING • KONFORMITETSERKLÆRING

Business name and full address of the manufacturer • Търговско име и пълен адрес на производителя • Obchodní jméno a plná adresa výrobce • Producentens firmanavn og fulde adresse • Bedrijfsnaam en volledige adres van de fabrikant • Tootja ärinimi ja täielik address • Valmistajan toiminimi ja täydellinen osoite • Nom commercial et adresse complète du fabricant • Firmennamen und vollständige Adresse des Herstellers • Εταιρική και παραγωγική διεύθυνση κατασκευαστή • A gyártó üzleti neve és teljes címe • Ragione sociale e indirizzo completo del fabbricante • Uzņēmuma nosaukums un pilna ražotāja adrese • Verslo pavadinimas ir pilnas gamintojo adresas • Isem kummettjali u indirizz shih tal-fabbrikant • Nazwa firmy i pełny adres producenta • Nome da empresa e endereço completo do fabricante • Denumirea comercială și adresa completă a producătorului • Obchodný názov a úplná adresa výrobcu • Naziv podjetja in polni naslov proizvajalca • Nombre de la empresa y dirección completa del fabricante • Tilverkarens företagsnamn och kompletta adress • Fyrirt ækishielti og fullt heimilisfang framleiðanda • Firmanavn og full adresse for produsenten	E-Z-GO Division of Textron Inc, 1451 Marvin Griffin Road Augusta, GA 30906 USA
Product Code • Код на продукта • Kód výrobku • Produktkode • Productcode • Toote kood • Tuotekoodi • Code produit • Produktcode • Κωδικός προϊόντος • Termékkód • Codice prodotto • Produkta kods • Produktu kods • Kodiği tal-Prodott • Kod produktu • Código do Produto • Cod produs • Kód výrobku • Oznaka proizvoda • Código de producto • Produktkod • Vārūnūmer • Produktkode	605785, 76211, 606697, 605815, 605811, 606688, 605782 When Fitted With CE Kit 614168
Machine Name • Наименование на машината • Název stroje • Maskinnavn • Machinenam • Masina nimi • Laitteen nimi • Nom de la machine • Maschinenbezeichnung • Όνομα μηχανήματος • Gépnév • Denominazione della macchina • Iekārtas nosaukums • Mašīnos pavadinimas • Isem tal-Magna • Nazwa urządzenia • Nome da Máquina • Numele echipamentului • Názov stroja • Naziv stroja • Nombre de la máquina • Maskinens namn • Heiti tækis • Maskinnavn	ST utility vehicle (gasoline models)
Designation • Предназначение • Označení • Betegnelse • Benaming • Nimetus • Tyypimerkintä • Pažymėjimas • Bezeichnung • Χαρακτηρισμός • Megnevezés • Funzione • Apzīmējums • Lihuanian • Denominazzjoni • Oznaczenie • Designação • Specificație • Označenie • Nomen stroja • Descripción • Beteckning • Märking • Konstruksjon	Utility Vehicle
Serial Number • Серийн номер • Sériové číslo • Seriennummer • Seriennummer • Seerianumber • Valmistusnumero • Numéro de série • Seriennummer • Συριακός αριθμός • Sorozatszám • Numero di serie • Sērijas numurs • Sērijas numurs • Numru Serjali • Numer seryjny • Número de Série • Număr de serie • Sériové číslo • Serijska številka • Número de serie • Seriennummer • Račūnūmer • Seriennummer	2696143 to 2800000
Conforms to Directives • В съответствие с директивите • Splňuje podmínky směrníc • Er i overensstemmelse med direktiver • Voldoet aan de richtlijnen • Vastab direktiividele • Direktiivien mukainen • Conforme aux directives • Entspricht Richtlinien • Ακολουθείτε πιστά τις Οδηγίες • Megfelel az irányelveknek • Conforme alle Directive • Atbilst direktīvām • Atbilstka direktīvų reikalavimus • Valutazzjoni tal-Konformità • Dyrektywy związane • Cumpre as Directivas • Respectă Directivele • Je v súlade so smernicami • Skladnost z direktivami • Cuple con las Directivas • Uppfyller direktiv • Samr æmistat tilskilpunum • I samsvær med direktiv	2006/42/EC
Conformity Assessment • Оценка за съответствие • Hodnocení plnění podmínek • Overensstemmelsesvurdering • Conformiteitsbeoordeling • Vastavushindamine • Vaatimustenmukaisuuden arviointi • Evaluation de conformité • Konformitätsbeurteilung • Διαπιστωση Συμμόρφωσης • Megfelelőség-értékelés • Valutazione della conformità • Atbilstības novērtējums • Atitikties įvertinimas • Livell tal-Qawwa tal-Floss Imkejjel • Ocena zgodności • Avaliação de Conformidade • Evaluarea conformității • Vyhodnotenie zhodnosti • Ocena skladnosti • Evaluación de conformidad • Bedömning av överensstämmelse • Samr æmismat • Konformitetsvurdering	2006/42/EC Annex II
Harmonised standards used • Използвани хармонизирани стандарти • Použité harmonizované normy • Brugte harmoniserede standarder • Gebruikte geharmoniseerde standaards • Kasutatud ühlistatud standardid • Käytetyt yhdenmukaistetut standardit • Normes harmonisées utilisées • Angewandte harmonisierte Normen • Εναρμονισμένα πρότυπα που χρησιμοποιήθηκαν • Harmonizált szabványok • Standard armonizzati applicati • Izmantotie saskaņotie standarti • Panaudoti suderinami standartai • Standarts armonizati uzati • Normy spójne powiązane • Normas harmonizadas usadas • Standardele armonizate utilizate • Použité harmonizované normy • Uporabljene usklajeni standardi • Estándares armonizados utilizados • Harmoniserade standarder som används	EN 61000-6-2:2005 EN 61000-6-4:2007 EN ISO 5349:1986 EN ISO 11202
Technical standards and specifications used • Използвани технически стандарти и спецификации • Použité technické normy a specifikace • Brugte tekniske standarder og specifikationer • Gebruikte technische standaards en specificaties • Kasutatud tehnilised standardid ja spetsifikatsioonid • Käytetyt tekniset standardit ja eritelmät • Spécifications et normes techniques utilisées • Angewandte technische Normen und Spezifikationen • Τεχνικά πρότυπα και προδιαγραφές που χρησιμοποιήθηκαν • Műszaki szabványok és specifikációk • Standard tecnici e specifiche applicati • Izmantotie tehniskie standarti un specifikācijas • Panaudoti techniniai standartai ir techninė informacija • Standarts u specifikazzjonijiet tehniski uzati • Normy i specyfikacje techniczne powiązane • Normas técnicas e especificações usadas • Standardele tehnice și specificațiile utilizate • Použité technické normy a špecifikácie • Uporabljene tehnični standardi in specifikacije • Estándares y especificaciones técnicas utilizadas • Tekniska standarder och specifikationer som används • Samr æmdir staðlar sem notaðir eru • Benyttede harmoniserede standarder	ISO 2631-1:1985
The place and date of the declaration • Място и дата на декларацията • Místo a datum prohlášení • Sted og dato for erklæringen • Plaats en datum van de verklaring • Deklaratsiooni väljastamise koht ja kuupäev • Vakautuksen paikka ja päivämäärä • Lieu et date de la déclaration • Ort und Datum der Erklärung • Τόπος και ημερομηνία δηλώσεως • A nyilatkozat kelte (hely és idő) • Luogo e data della dichiarazione • Deklarācijas vieta un datums • Deklaracijos vieta ir data • Il-post u d-data tad-dikjarazzjoni • Miejsce i data wystawienia deklaracji • Local e data da declaração • Local i data declarajei • Miesto a dátum vyhlásenia • Kraj in datum izjave • Lugar y fecha de la declaración • Plats och datum för deklarationen • Tækniðaðlar og tæknilysingar sem notaðar eru • Benyttede tekniske standarder og specifikationer • Staður og dagsetning yfirlýsingar • Sted og dato for erklæringen	E-Z-GO Division of Textron Inc, 1451 Marvin Griffin Road Augusta, GA 30906 USA

# DECLARATION OF CONFORMITY

Signature of the person empowered to draw up the declaration on behalf of the manufacturer, holds the technical documentation and is authorised to compile the technical file, and who is established in the Community.

Подпис на човека, упълномощен да състави декларацията от името на производителя, който поддържа техническата документация и е оторизиран да изготви техническия файл и е регистриран в общността.

Podpis osoby oprávněné sestavit prohlášení jménem výrobce, držet technickou dokumentaci a osoby oprávněné sestavit technické soubory a založené v rámci Evropského společenství.

Underskrift af personen, der har fuldmagt til at udarbejde erklæringen på vegne af producenten, der er indehaver af dokumentationen og er bemyndiget til at udarbejde den tekniske journal, og som er baseret i nærområdet.

Handtekening van de persoon die bevoegd is de verklaring namens de fabrikant te tekenen, de technische documentatie bewaart en bevoegd is om het technische bestand samen te stellen, en die is gevestigd in het Woongebied.

Ohenduse registreerise kantid isku allkirj, kes on vallatud tootja nimel deklaratsiooni koostama, kes omab tehnilist dokumentatsiooni ja keel on õigus koostada tehniline toimet.

Sen henkilöön allekirjoitus, jolla on valmistajan valtuutus vakuutuksen laadintaan, jolla on hallussaan tekniset asiakirjat, joka on valtuutettu laatimaan tekniset asiakirjat ja joka on sijoitautunut yhteisöön.

Signature de la personne habilitée à rédiger la déclaration au nom du fabricant, à détenir la documentation technique, à compiler les fichiers techniques et qui est implantée dans la Communauté.

Unterschrift der Person, die berechtigt ist, die Erklärung im Namen des Herstellers abzugeben, die die technischen Unterlagen aufbewahrt und berechtigt ist, die technischen Unterlagen zusammenzustellen, und die in der Gemeinschaft niedergelassen ist.

Υπογραφή σκόπου εξουσιοδοτούντων για την σύνταξη της δήλωσης εκ μέρους του κατασκευαστή, ο οποίος κατέχει την τεχνική έκθεση και έχει την εξουσιοδότηση να ταξινομήσει τον τεχνικό φάκελο και ο οποίος είναι διαρισμένος στην Κοινότητα.

A gyárló nevén meghatalmazott személy, akinek jogában áll módosítani a nyilatkozatot, a műszaki dokumentációt őrizi, engedélyvel rendelkezik a műszaki fájllal összeállításához, és aki a közösségen letelepedett személy.

Firma della persona autorizzata a redigere la dichiarazione a nome del fabbricante, in possesso della documentazione tecnica ed autorizzata a costituire il fascicolo tecnico, che deve essere stabilita nella Comunità.

Tās personas paraksts, kura ir pilnvarota deklarācijas sastādīšanai ražotāja vārdā, kural ir tehniskā dokumentācija, kura ir pilnvarota sagatavot tehnisko reģistru un kura ir apstiprināta Kopienā.

Asmuo, kuris yra gana žinomas, kuriam gamintojas suteikė įgaliojimus sudaryti šią deklaraciją, ir kuris ja pasirašė, turi visą techninę informaciją ir yra įgaliojamas sudaryti techninės informacijos dokumentą.

Il-firma tal-persuna awtorizzata li fassal id-deklarazzjoni f'isem il-fabbrikant, g' handha d-dokumentazzjoni teknika u hija awtorizzata li f'kompila l-fajl tekniku u li hija stabilita fil-Komunita.

Podpis osoby upowaznionej do sporzadzenia deklaracji w imieniu producenta, przechowujacej dokumentacje techniczna, upowazniona do stworzenia dokumentacji technicznej oraz wyznaczanej ds. wspolnotowych.

Assinatura da pessoa com poderes para emitir a declaração em nome do fabricante, que possui a documentação técnica, que está autorizada a compilar o processo técnico e que está estabelecida na Comunidade.

Semñatura persoanel împuternicită să elaboreze declarația în numele producătorului, care deține documentația tehnică, este autorizată să completeze dosarul tehnic și este stabilită în Comunitate.

Podpis osoby poverenej vystavením vyhlásenia v mene výrobcu, ktorá má technickú dokumentáciu a je oprávnená spracovávať technické podklady a ktorá je umiestnená v Spoločenstve.

Podpis osebe, pooblašene za izdelavo izjave v imenu proizvajalca, ki ima tehnično dokumentacijo in lahko sestavlja spis tehnične dokumentacije, ter ima sedež v Skupnosti.

Firma de la persona responsable de la declaración en nombre del fabricante, que posee la documentación técnica y está autorizada para recopilar el archivo técnico y que está establecido en la Comunidad.

Underskrift av den som bemyndigad att upprätta deklarationen å tillverkarens vägnar, innehar den tekniska dokumentationen och är bemyndigad att sammansätta den tekniska informationen och som är etablerad i gemenskapen.

Undirskrift aðilans sem hefur umboð til að gera yfirlýsinguna fyrir hönd framleiðandans, hefur undir höndum tæknigögnin og hefur leyfi til að taka saman tækniskýrsluna, og er viðurkenndur innan Evrópska efnahagssvæðisins.

Signaturen til personen som har fuldmagt til at udfærdige erklæringen på vegne af producenten, er i besiddelse af den tekniske dokumentationen, har autorisasjon til at uarbejde den tekniske filen og som har tilhold i EU.

2006/42/EC Annex II 1A: 2

Tim Lansdell

Technical Director

20th January 2010

Ransomes Jacobsen

Ltd, West Road, Ransomes Europark,

Ipswich,

England, IP3 9TT



2006/42/EC Annex II 1A: 10

Ronald L. Otten

Vice President of Engineering

E-Z-GO Division of Textron Inc,

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20th January 2010

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## DECLARATION OF CONFORMITY

## NOTES:

This image shows a full page of blank graph paper. The grid consists of thin, light gray horizontal and vertical lines that intersect to form small squares across the entire surface. There are no margins, text, or other markings on the paper.

## NOTE

*Read and understand the following warnings before attempting to operate the vehicle:*

## WARNING

*To prevent personal injury or death, observe the following:*

*When vehicle is to be left unattended, engage parking brake, move direction selector to 'F' (forward) position, turn key to 'OFF' position and remove key.*

*Drive vehicle only as fast as terrain and safety considerations allow. Consider the terrain and traffic conditions. Consider environmental factors which effect the terrain and the ability to control the vehicle.*

*Avoid driving fast down hill. Sudden stops or change of direction may result in a loss of control. Use service brake to control speed when traveling down an incline.*

*Use extra care and reduced speed when driving on poor surfaces, such as loose dirt, wet grass, gravel, etc.*

*All travel should be directly up or down hills.*

*Use extra care when driving the vehicle across an incline.*

*Stay in designated areas and avoid steep slopes. Use the parking brake whenever the vehicle is parked.*

*Keep feet, legs, hands and arms inside vehicle at all times.*

*Avoid extremely rough terrain.*

*Check area behind the vehicle before operating in reverse.*

*Make sure the direction selector is in correct position before attempting to start the vehicle.*

*Slow down before and during turns. All turns should be executed at reduced speed.*

*Always bring vehicle to a complete stop before shifting the direction selector.*

*See GENERAL SPECIFICATIONS for vehicle load and seating capacity.*

## NOTE

*Read and understand the following text and warnings before attempting to service vehicle:*

In any product, components will eventually fail to perform properly as the result of normal use, age, wear or abuse. It is virtually impossible to anticipate all possible component failures or the manner in which each component may fail.

Be aware that a vehicle requiring repair indicates that the vehicle is no longer functioning as designed and there-

fore should be considered potentially hazardous. Use extreme care when working on any vehicle. When diagnosing, removing or replacing any components that are not operating correctly, take time to consider the safety of yourself and others around you should the component move unexpectedly.

Some components are heavy, spring loaded, highly corrosive, explosive or may produce high amperage or reach high temperatures. Gasoline, carbon monoxide, battery acid and hydrogen gas could result in serious bodily injury to the technician/mechanic and bystanders if not treated with the utmost caution. Be careful not to place hands, face, feet or body in a location that could expose them to injury should an unforeseen situation occur.

Always use the appropriate tools listed in the tool list and wear approved safety equipment.

## WARNING

*Before working on the vehicle, remove all jewelry (rings, watches, necklaces, etc.)*

*Be sure that no loose clothing or hair can contact moving parts.*

*Use care not to touch hot objects.*

*Raise rear of vehicle and support on jack stands before attempting to run or adjust powertrain.*

*Wear eye protection when working on or around vehicle. In particular, use care when working around batteries, using solvents or compressed air.*

*Hydrogen gas is formed when charging batteries. Do not charge batteries without adequate ventilation.*

*Do not permit open flame or anyone to smoke in an area that is being used for charging batteries. A concentration of 4% hydrogen gas or more is explosive.*

*Engine exhaust gas (carbon monoxide) is deadly. Carbon monoxide is an odorless, colorless gas that is formed as a natural part of incomplete combustion of hydrocarbon fuels. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal.*

*The following are symptoms of carbon monoxide inhalation:*

- Dizziness
- Vomiting
- Intense headache
- Muscular twitching
- Weakness and sleepiness
- Throbbing in temples

*If any of these symptoms are experienced, get fresh air immediately. Never work around or operate a vehicle in an environment that does not ventilate exhaust gases from the area.*



A Textron Company

E-Z-GO Division Of Textron, Inc.,  
1451 Marvin Griffin Road, Augusta, Georgia USA 30906-3852

**TO CONTACT US**

North America:

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Service Parts Phone: 1-888-GET-EZGO (1-888-438-3946), FAX: 1-800-752-6175

International:

Phone: 001-706-798-4311, FAX: 001-706-771-4609

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