CUSHMAN™

OWNER'S GUIDE

GAS SHUTTLE 2+2

642586

ISSUED JAN 2015

REVISED NOV 2015

WELCOME

Thank you for purchasing this vehicle. Before you drive the vehicle, read this Owner's Guide. This guide contains maintenance and operation information. The illustrations can show items that are optional for your vehicle.

You can do most of the service procedures in this guide with common, automotive hand tools. If necessary, contact your service representative for information about how to service the vehicle as shown in the Periodic Service Schedule.

Repair or replacement parts are available from your E-Z-GO dealer or E-Z-GO Service Parts Department.

When you contact E-Z-GO about service or parts for your vehicle, the information below is needed.

Vehicle Model: _____

PIN, VIN or Serial Number: _____

OWNER'S GUIDE
GAS POWERED VEHICLE

SHUTTLE 2+2

STARTING MODEL YEAR 2015

CALIFORNIA Proposition 65 Warning

WARNING: Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. In addition, certain fluids contained in vehicles and certain products of component wear contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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 specifications. Such modifications can cause serious personal injury or death. E-Z-GO Division of Textron Inc. prohibits and disclaims responsibility for any such modifications or any other alteration which would adversely affect the safety of the vehicle.

E-Z-GO Division of Textron Inc. reserves the right to incorporate engineering and design changes to products in this manual, without obligation to include these changes on units sold previously.

The information contained in this manual may be revised periodically by E-Z-GO, and therefore is subject to change without notice.

E-Z-GO DISCLAIMS LIABILITY FOR ERRORS IN THIS MANUAL, and SPECIFICALLY DISCLAIMS LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES resulting from the use of the information and materials in this Manual.

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

CONTACT US:

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

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

This vehicle was designed and manufactured in the United States of America (USA). The Standards and Specifications listed in the following text originate in the USA unless otherwise indicated.

Use Original Equipment Manufacturer (OEM) approved parts to keep the warranty effective.

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

The batteries discharge over time. The rate of discharge changes according to the ambient temperature, the age and condition of the batteries.

Completely charged batteries will not freeze in winter temperatures unless the temperature is less than -75°F (- 60°C).

BATTERY DISPOSAL

Lead-acid batteries are recyclable. Return discarded batteries to distributor, manufacturer or lead smelter for recycling. For neutralized spills, put residue in acid-resistant containers with absorbent material, sand or earth and discard according to local, state and federal regulations for acid and lead compounds. Contact local or state environmental authorized people for the disposal information.

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Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

SAFETY

GENERAL

For any questions about material in this manual, contact an authorized representative.

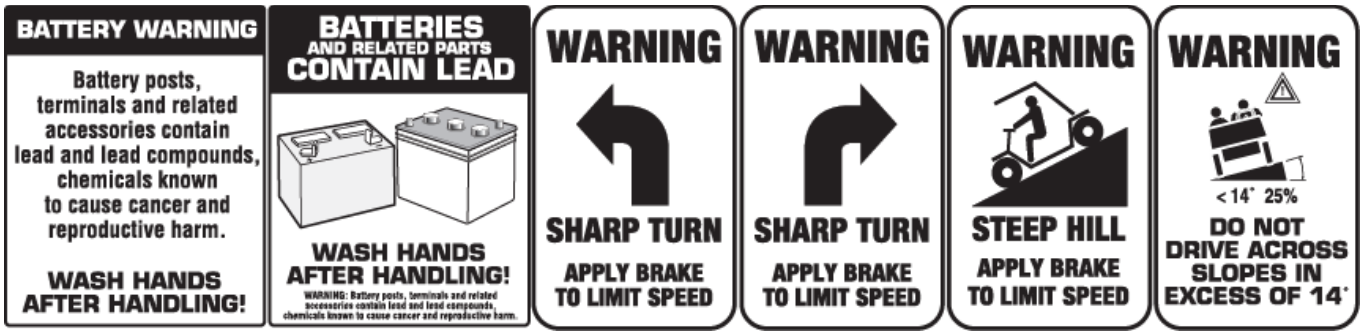
Read and understand all labels on the vehicle. Always replace any damaged or missing labels.

Steep hills allow the vehicle to move at faster speeds than speeds on a flat surface. To prevent the loss of vehicle control and possible injury, speeds must be controlled to the maximum level ground speed indicated in the GENERAL SPECIFICATIONS section. Apply the brake to control the speed.

If you operate the vehicle above the maximum specified speed, you can damage the drivetrain components. The damage caused by speeds more than the maximum specified can cause a loss of vehicle control, is abusive, and will not be covered under the warranty.

Use caution when you tow the vehicle. Towing the vehicle at above the recommended speed can cause personal injury or damage to the vehicle and other property.

If the vehicle is used in a commercial environment, signs must be in position to inform of possible conditions that can be dangerous. Examples shown below.



NOTICES, CAUTIONS, WARNINGS AND DANGERS

Read the **NOTICES, CAUTIONS, WARNINGS** and **DANGERS**. The person who services a vehicle needs the mechanical skill and experience to see possible hazardous conditions. Incorrect service or repairs can cause damage to the vehicle or make the vehicle dangerous to operate.

NOTICE

A NOTICE indicates and describes information not related to personal injury.

⚠ CAUTION

A CAUTION indicates a dangerous condition that can cause injury that is not life threatening.

⚠ WARNING

A WARNING indicates a dangerous condition that can cause death or serious injury.

⚠ DANGER

A DANGER indicates a dangerous condition that will cause death or serious injury.

SAFETY

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

⚠ WARNING

Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.

NOTICE

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.

⚠ WARNING

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

NOTICE

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

This manual contains recommended maintenance procedures from the manufacturer. Follow these procedures and fault isolation information to get the best service from the product. To decrease the risk of personal injury or property damage, obey all the information in this manual.

⚠ 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 20 mph. 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 changes that change an E-Z-GO product into a Low Speed Vehicle (LSV).

Anyone who operates this vehicle must be A LICENSED DRIVER AND OPERATE THE VEHICLE ACCORDING TO APPLICABLE STATE REQUIREMENTS. This rule is important to the SAFE USE AND OPERATION of the product. All customers must obey this SAFETY RULE.

Information on FMVSS 571.500 is found at Title 49 of the Code of Federal Regulations, section 571.500. For information online, go to www.ecfr.gov.

Vehicles are used for different purposes, so it is not possible to know and inform of every possible occurrence. Be careful when you drive to prevent avoidable personal injury or damage to the vehicle. All users must read and obey this manual. Make sure you give special attention to the CAUTIONS, WARNINGS and DANGERS.

For questions about this vehicle, contact your E-Z-GO/CUSHMAN dealer or write to the address on the back cover of this publication, Attention: Customer Care Department.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

E-Z-GO has the right to change the design of the vehicle. There is no responsibility to make the changes on units purchased before changes were made. The information in this manual can change without notice.

E-Z-GO IS NOT LIABLE FOR ERRORS IN THIS MANUAL. E-Z-GO IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE USE OF THE MATERIAL IN THIS MANUAL.

This vehicle meets the current applicable standard for safety and performance requirements.

These vehicles are for off-road use. They DO NOT meet the federal Motor Vehicle Safety Standards of the United States of America (USA) and are not for operation on the public streets. Some areas allow the operation of the vehicles on their streets according to local codes.

Refer to GENERAL SPECIFICATIONS for capacity of the vehicle.

⚠ WARNING

Do not change the vehicle in any manner that changes the weight distribution, decreases stability, increases speed or extends the necessary distance to stop more than the factory specification. Such changes can cause personal injury or death.

Do not change the vehicle in any manner that changes the weight distribution, decreases stability, increases speed or extends the necessary distance to stop more than the factory specification. E-Z-GO is not responsible for changes that cause the vehicle to be dangerous.

Do not let anyone below the height of 59 inches (150 cm) operate the vehicle.

GENERAL OPERATION

Read the following warnings before attempting to operate the vehicle.

⚠ WARNING

When you leave the vehicle, turn the key to the OFF position and remove the key from the vehicle.

Drive the vehicle only as fast as terrain and conditions allow. Consider the terrain and traffic conditions. Consider environmental conditions that change the terrain and your ability to control the vehicle.

Do not drive fast downhill. Sudden stops or change of direction can cause a loss of control. Use the brake to control the speed of the vehicle when you drive down a slope.

When possible, stay in approved areas and do not drive on steep slopes.

Always keep feet, legs, hands and arms inside vehicle.

Do not drive on rough terrain.

Before you drive in the reverse direction, make sure the area behind the vehicle is clear.

Make sure the direction selector is in the correct position before you press the accelerator pedal.

Decrease speed before and during turns.

Make sure you completely stop the vehicle before you move the direction selector.

See GENERAL SPECIFICATIONS for the vehicle load and seat capacity.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

NOTICE

Read the following text and warnings before you service the vehicle.

Normal use, age, wear or abuse can cause some components on the vehicle to fail. The manufacturer can not know all possible component failures or the methods that failures can occur.

A vehicle in need of repair does not operate correctly and can be dangerous.

Be careful when you service the vehicle. Be aware of your safety and the safety of other people in the area.

Some components are heavy, spring loaded, corrosive, explosive, can cause high amperage or get hot. Battery acid and hydrogen gas can cause injury. Do not put your hands, face, feet or body in a location that can expose them to injury if an unexpected situation occurs.

Always use the correct tools shown in the tool list and wear safety equipment.

⚠ WARNING

Remove all jewelry before you service the vehicle.

Do not allow loose clothing or hair to contact the moving parts.

Do not touch hot objects.

When you service the vehicle, always wear eye protection. Be careful when you do work around batteries or you use solvents or compressed air.

ALWAYS:

- Use the vehicle with responsibility and keep the vehicle in safe condition for operation.
- Read and obey all warnings and operation instruction labels on the vehicle.
- Follow all safety rules in the area where the vehicle is operated.
- When there is a risk of lightning, leave the vehicle and look for a safe location to wait until the lightning has stopped.
- Drive the vehicle only as fast as terrain and conditions allow.
- Apply service brake to control the speed on steep grades.
- Keep enough distance between vehicles.
- Decrease speed in wet areas.
- Be careful when you make sharp turns, or turns you are not familiar with.
- Be careful when you drive on loose terrain.
- Be careful when you operate the vehicle around people.

MAINTENANCE

ALWAYS:

- Replace damaged or missing warning, caution or information labels.
- Service the vehicle according to the periodic service schedule in this manual.
- Make sure that approved and qualified personnel do all repairs.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

- Follow the manufacturers maintenance procedures.
- Use insulated tools within the battery area to prevent sparks or battery explosion.
- Use specified replacement parts, DO NOT use replacement parts of less quality.
- Use recommended tools.
- Make sure that tools and procedures not specified by the manufacturer will not be a safety risk to personnel or operation of the vehicle.
- Support the vehicle with wheel chocks and jack stands. NEVER get below a vehicle that is supported by a jack. Lift the vehicle according to the manufacturers instructions.
- Make sure you service the vehicle in an area away from open flame or sparks.
- Know that a vehicle in need of repair does not operate correctly and can be dangerous to operate.
- After you do the repairs or maintenance, test the vehicle in a safe area that is without vehicle and person traffic.
- Make sure you record and keep all of the maintenance history of the vehicle.

Vehicles are used for different purposes, so it is not possible to know and inform of every possible occurrence. Be careful when you drive to prevent avoidable personal injury or damage to the vehicle. All users must read and obey this manual. Make sure you give special attention to the CAUTIONS, WARNINGS and DANGERS.

People who do maintenance or repairs on the vehicle must have skill and experience to identify and prevent conditions that can cause personal injury or death and damage to the vehicle.

VENTILATION

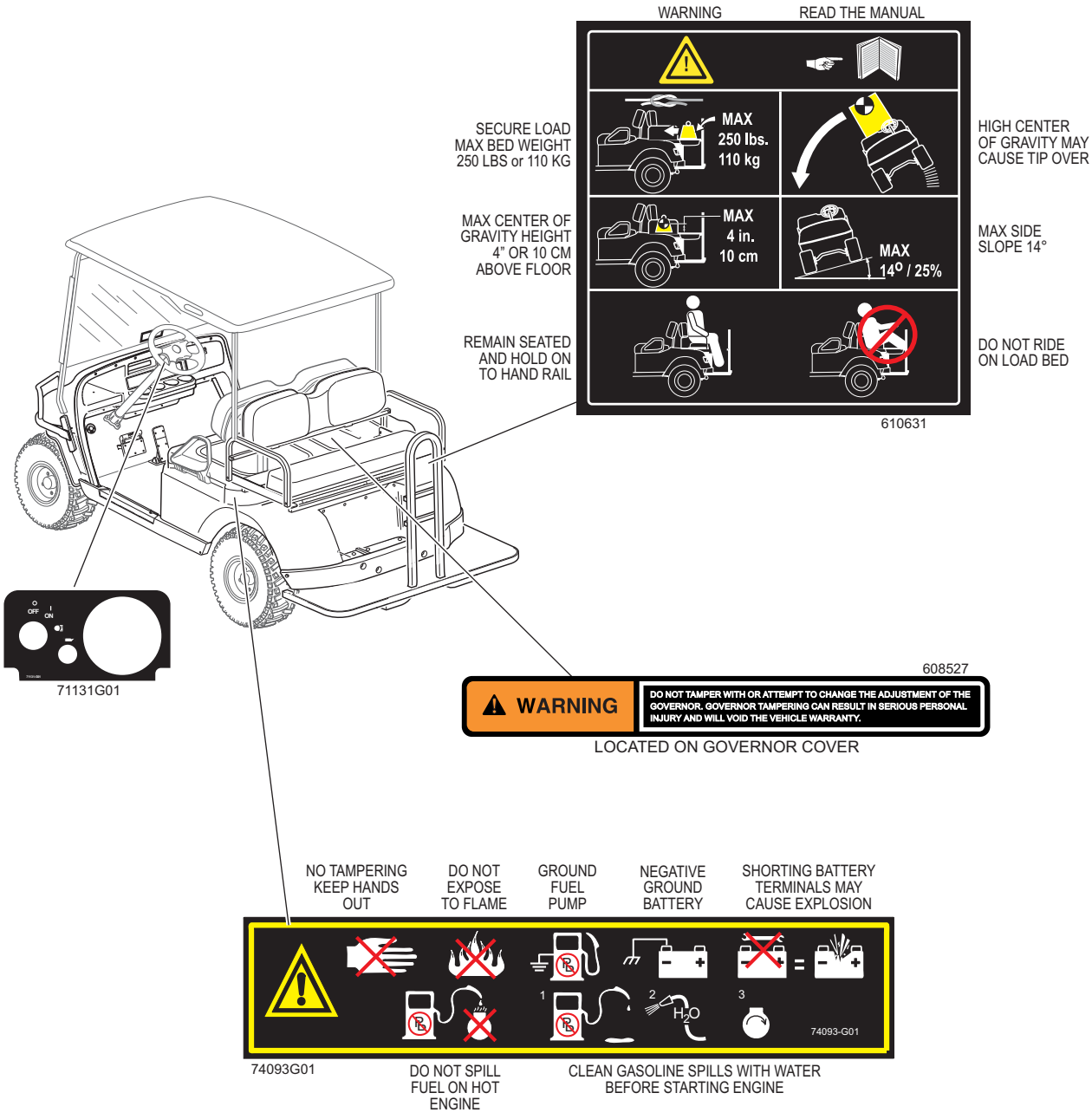
Always store gasoline vehicles in an area with good ventilation. Good ventilation prevents the accumulation of gasoline fumes within an enclosed area.

Never put fuel in 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 allow ventilation of exhaust gases from the area. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

LABELS AND PICTOGRAMS



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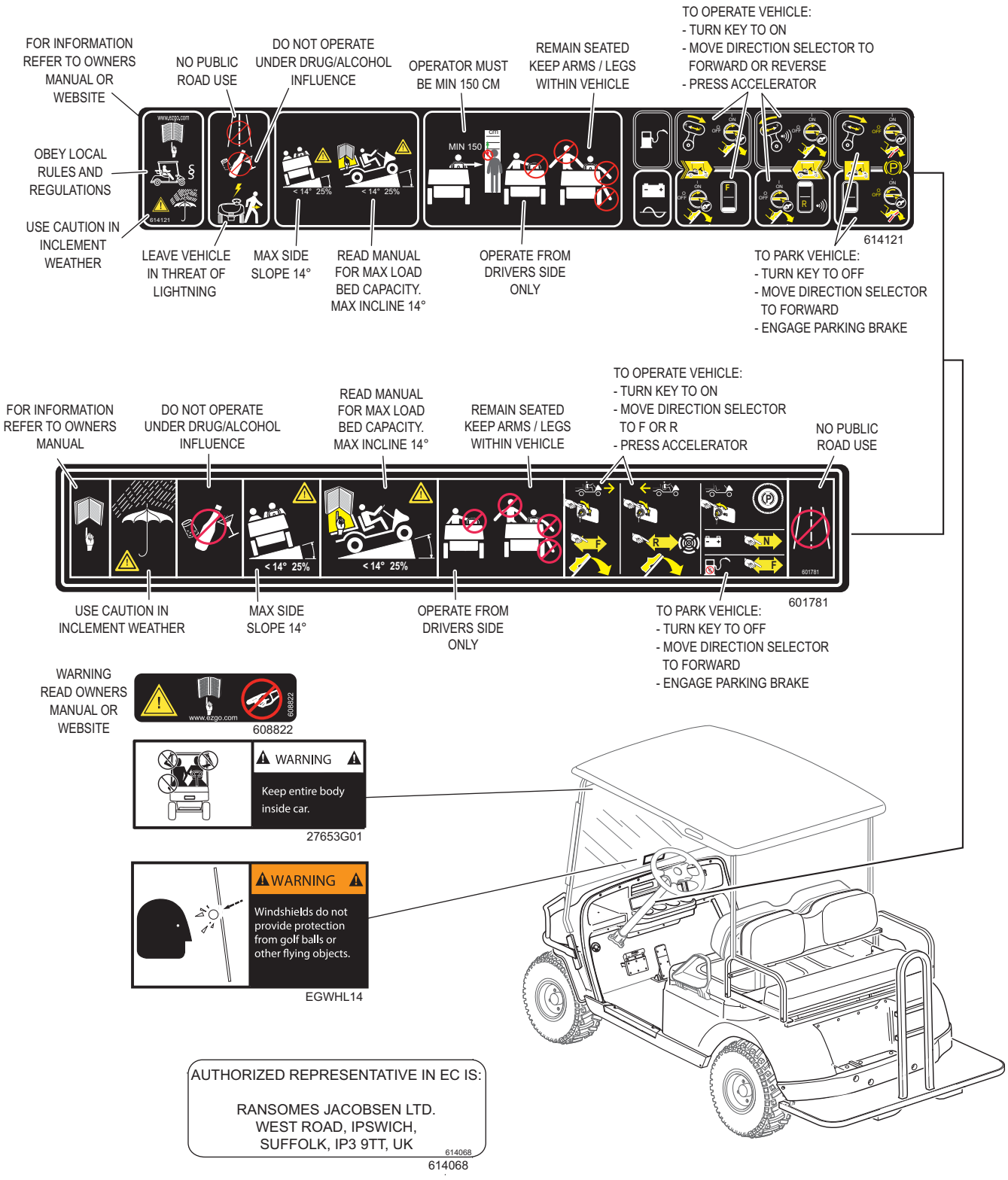

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GENERAL SPECIFICATIONS

CUSHMAN
A Textron Company

MODEL: CUSHMAN SHUTTLE 2+2 G
TYPE: GASOLINE POWERED PERSONNEL CARRIER
MODEL YEAR: 2015
Part No:. 641356

PRODUCT SPECIFICATION

CONFIGURATION HIGHLIGHTS

Engine: 13.5 hp (10.1 kW) Exceeds SAE J1940 Standard, 4 cycle, 24.5 ci (401 cc) single cylinder, air-cooled by Kawasaki

- Valve Train: Overhead valve
- Lubrication: Pressurized oil system, spin-on oil filter
- Balancer: Internal counter rotating balance shaft
- Fuel System: Fixed float bowl with remote pulse fuel pump
- Ignition: Electronic spark/magneto
- Air Cleaner: Replaceable dry cartridge

Electrical: Starter/Generator, solid-state regulator, 12 Volt maintenance free battery (425 CCA, 60 minute reserve)
Drive Train: Automatic, continuously variable transmission (CVT)
Brakes: Dual rear wheel mechanical self-adjusting drum brakes. Automatic single point park brake release with self-compensating system
Transaxle: Differential with helical gears, ground speed governor, forward/reverse
Capacity: Seating for 4 persons. Rear Seat converts to Load Deck

PRODUCT OVERVIEW

Dimensions	
Overall Length	108.5 in (276 cm)
Overall Width	48.5 in (123 cm)
Overall Height (No Canopy)	46.5 in (118 cm) (Top of steering wheel)
Overall Height (w/ Canopy)	77.0 in (196 cm) (Top of Sun Canopy)
Wheel Base	65.5 in (166 cm)
Front Wheel Track	38.0 in (96 cm)
Rear Wheel Track	38.5 in (97 cm)
Gnd Clearance @ Differential	4.5 in (11 cm)
Load Bed Width	40.0 in (102 cm)
Load Bed Length	32.0 in (81 cm)

Vehicle Power	
Power Source	4 Cycle 24.5 cu in (401 cc). Low E
Valve Train	Single Cylinder OHV
Horsepower (kW)	13.5 hp (10.1 kW) Exceeds SAE J1940 Std.
Electrical System	Starter/Generator. Solid State Regulator
Batteries (Qty, Type)	One, 12 Volt Maintenance Free
Key or Pedal Start	Pedal
Air Cleaner	Replaceable Dry Cartridge
Lubrication	Pressurized Oil System
Oil Filter	Spin-On
Cooling System	Air Cooled
Fuel Capacity (Early Prod.)	6.0 Gallon (22.7 L) tank
Fuel Capacity (Late Prod.)	5.6 Gallon (21.4 L) tank
Drive Train	Continuously variable transmission (CVT)
Transaxle	Differential with helical gears
Gear Selection	Forward - Reverse
Rear Axle Ratio	11.42:1 (Forward) 15.78:1 (Reverse)

Performance	
Seating Capacity	4 Persons
Dry Weight	861 lb (391 kg)
Curb Weight	896 lb (406 kg)
Load Capacity (Load Deck)	250 lb (110 kg)
Load Capacity (Vehicle)	800 lb (360 kg)
Outside Clearance Circle	19 ft (5.8 m)
Intersecting Aisle Clearance	N/A
Speed (Level Ground)	14 mph ± 0.5 mph (22.5 kph ± 0.8 kph)
Towing Capacity	N/A

Steering & Suspension	
Steering	Self-compensating rack and pinion
Front Suspension	Leaf springs with hydraulic shock absorbers
Rear Suspension	Leaf springs with hydraulic shock absorbers
Service Brake	Rear wheel mechanical self-adjusting drum
Parking Brake	Self-compensating, single point engagement
Front Tires	Pair of 18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	Pair of 18 x 8.50 - 8 (4 Ply Rated)

Body & Chassis	
Frame	Welded steel with DuraShield™ powder coat
Front Body & Finish	Injection molded TPO
Rear Body & Finish	Injection molded TPO
Standard Color	Patriot Blue

Some items shown may be optional equipment

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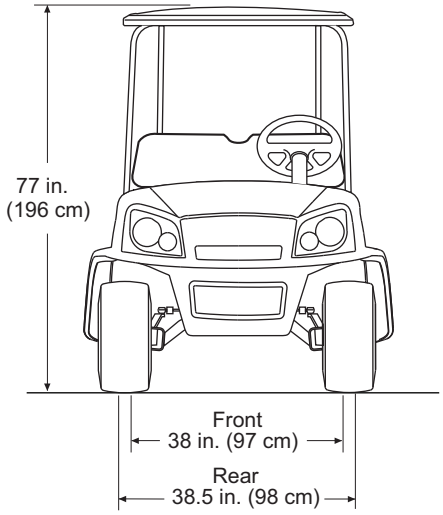
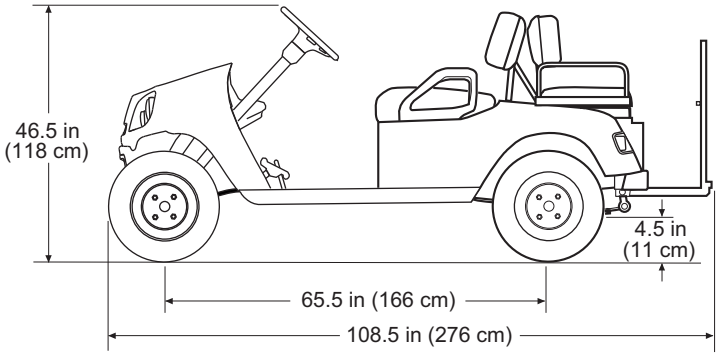
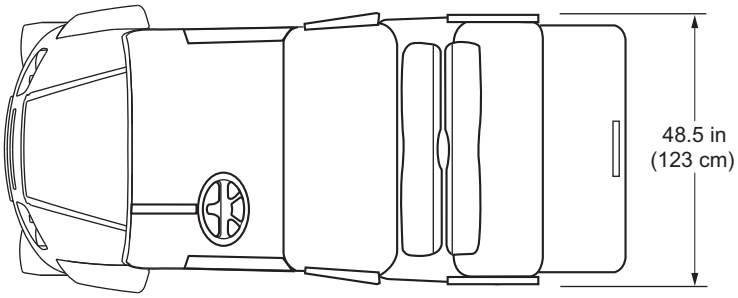
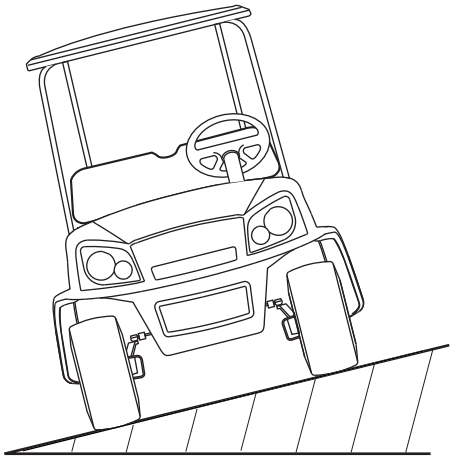
VEHICLE DIMENSIONS

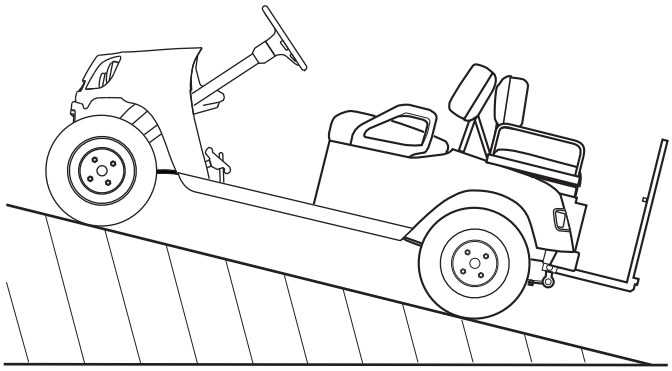








RECOMMENDED MAX SIDE TILT
25% or 14° MAX



RECOMMENDED MAX RAMP GRADE
25% or 14° MAX

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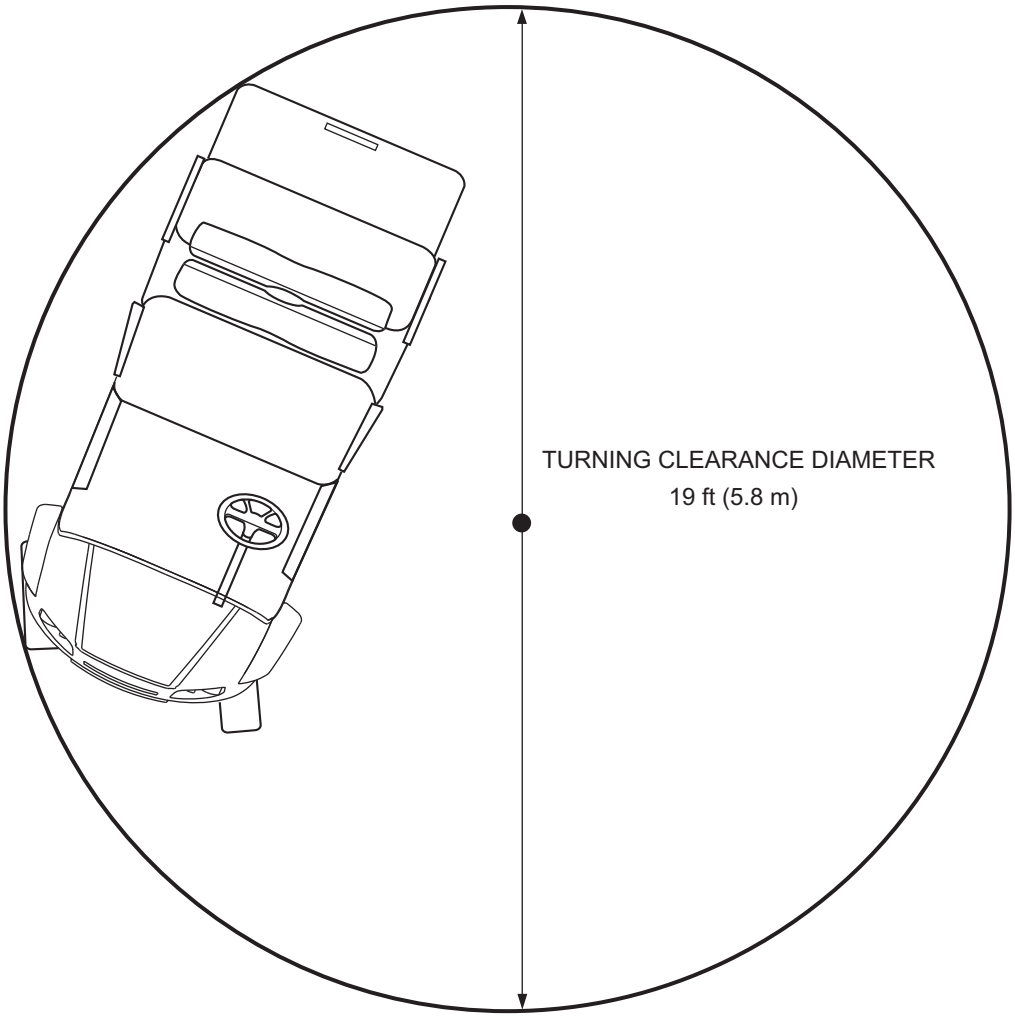
TURNING DIAMETER AND INCLINE INFORMATION



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Notes:

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INTRODUCTION

FEATURES

General Information

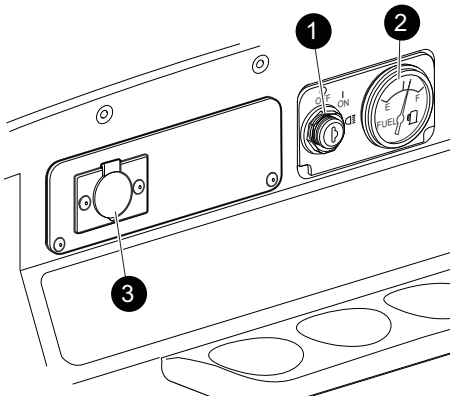
NOTICE

If the vehicle has accessories that were installed at the factory, some accessories continue to operate with the key switch in the OFF position.

1. Key and Light Switch

⚠ CAUTION

To decrease the risk of component damage, stop the vehicle before you move the key switch or the direction selector.



The key and light switch is found on the dash panel. The switch controls the basic electrical system of the vehicle and the lights. To prevent accidental operation of an unattended vehicle, turn the key to the OFF position and remove from the switch.

NOTICE

If the vehicle has accessories that were installed at the factory, some accessories continue to operate with the key switch in the OFF position.

2. Fuel Gauge with Low Oil Pressure Indicator

The fuel gauge indicates the amount of gasoline in the fuel tank. ‘F’ indicates a full tank and ‘E’ indicates an empty fuel tank. The fuel gauge has a low oil pressure indicator. A low engine oil pressure condition is shown with a red indicator light.

The low oil pressure indicator light on early model vehicles is located beside the fuel gauge on the dash, and not part of the fuel gauge.

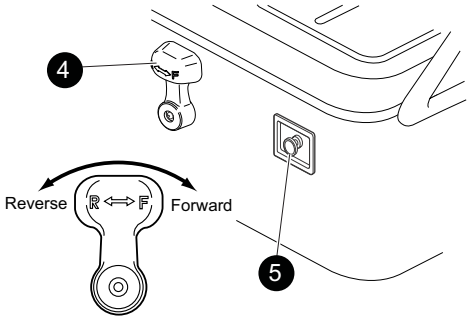
3. 12-Volt Power Outlet

A 12-volt power outlet, with a rating of 15 amps, is found to the left of the key and light switch. The outlet supplies continuous power for any accessories that have a 12-volt plug.

4. Direction Selector

⚠ CAUTION

To reduce the possibility of component damage, the vehicle must be completely stopped before moving the direction selector.



The direction selector is found on the seat panel and allows the operator to select F (forward) or R (reverse). Vehicle should be left in F when unattended.

When you leave the vehicle, put the direction selector in the F position, engage the parking brake, turn the key to OFF position and remove the key.

When the direction selector is moved to the R position, a reverse warning buzzer activates.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

5. Choke

The choke is found on the seat panel below the driver seat. The choke helps start the vehicle when the engine is cold.

Refer to the COLD-START section for operation instructions.

6. Accelerator Pedal

⚠ WARNING

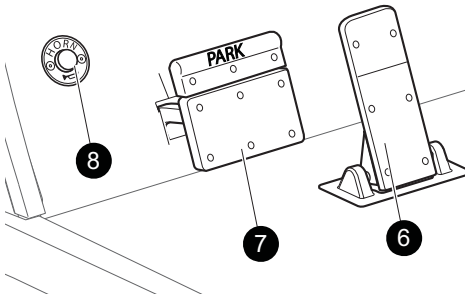
Accidental movement of the accelerator pedal can cause the vehicle to suddenly move and cause severe injury or death.

With the key switch in the ON position, press the accelerator pedal to start the engine. When the pedal is released, the engine will stop. To stop the vehicle immediately, press the brake pedal.

7. Brake and Parking Brake Pedal

The foot operated parking brake is the top part of the brake pedal. To engage the parking brake, press on the upper section of the pedal until it locks in position. Press the lower part of the brake pedal to release the parking brake.

A parking brake that is engaged releases when you press the accelerator pedal. This is a feature to make sure the vehicle is not driven with the parking brake engaged. Pressing the accelerator pedal is not the recommended method to release the parking brake.



8. Horn

The horn button is found on the driver side of the floorboard. Press the button to activate the horn.

9. Turn Signal Switch

The turn signal switch is on steering wheel and controls the operation of the right and left turn signals.

10. Front Seat

The front seat is for two people, one person on each side of the seat.

11. Front Hip Restraint

The front hip restraints help people stay in position if the vehicle changes position suddenly.

12. Glove Box Doors (if equipped)

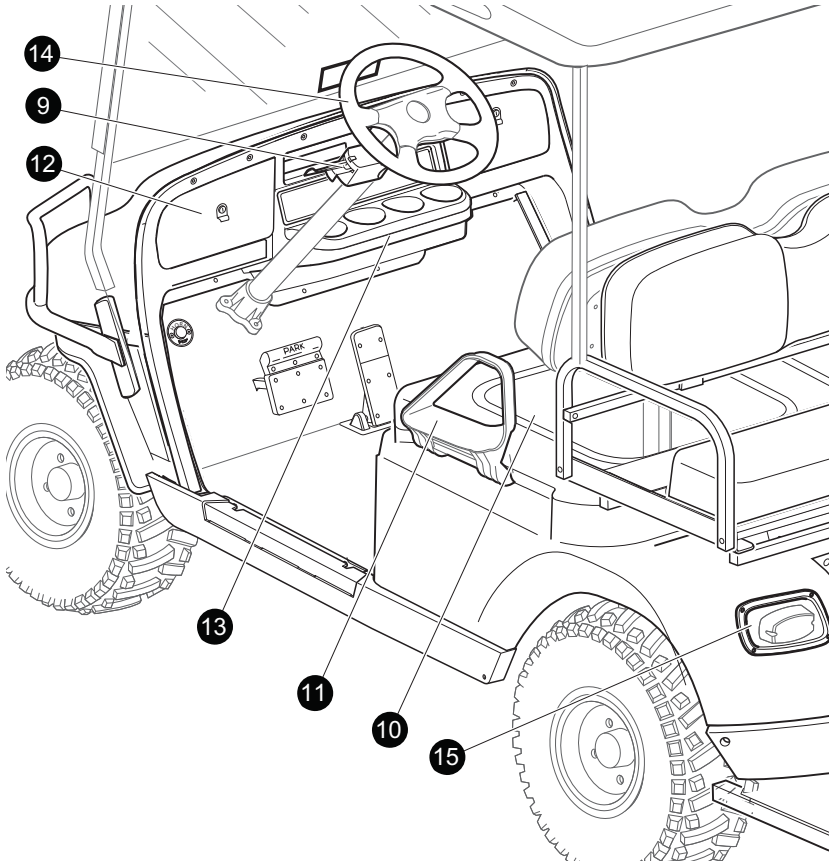
The glove box doors have locks and are found on each side of the instrument panel.

13. Cup Holder

The vehicle has a cup holder for the benefit of both the driver and passenger.

14. Steering Wheel

The steering wheel controls the direction of vehicle travel.



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15. Brake Light and Turn Signal

The brake light and turn signal assemblies are one unit. They are found on the rear fenders.

16. Rear Seat and Cargo Platform

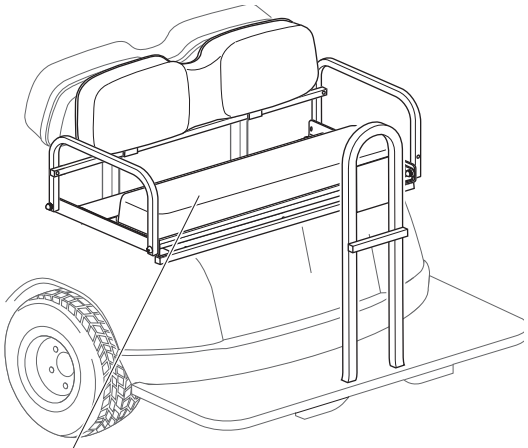
⚠ WARNING

Rear passengers must stay in the seat and hold both the hand rail and rear handle while the vehicle is in motion.

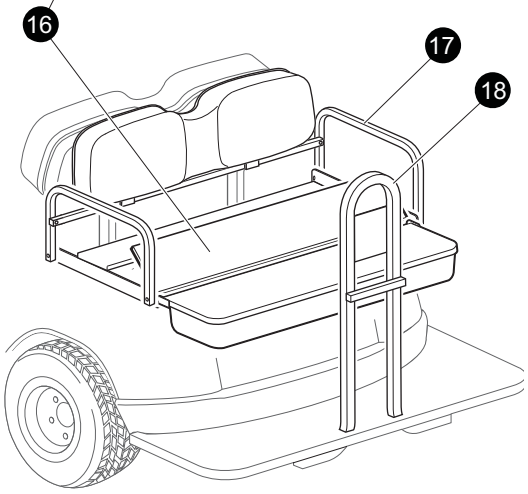
Do not allow passengers to ride on the cargo platform. A sudden move or stop can cause severe injury or death to passengers on the cargo platform.

The vehicle has a feature that functions as a rear seat or a cargo platform.

When in the upright position, it is a rear seat for two passengers. Fold the seat flat for a cargo platform.



REAR SEAT FOLDED UP



REAR SEAT FOLDED DOWN

17. Rear Hand Rail

There is a hand rail on each side of the rear seat to help passengers stay in position when the vehicle is in motion. The passengers must hold the rear hand rail whenever the vehicle is in motion.

18. Rear Handle

The rear handle is found at the far end of the vehicle in the center of the rear seat. The handle helps the passengers stay in position when the vehicle is in motion. The passengers must hold the handle when the vehicle is in motion.

19. Weather Enclosure (if equipped)

A weather enclosure supplies protection from strong weather conditions.

20. Rear View Mirror (if equipped)

The rear view mirror is adjustable for use during the day or night.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Notes:

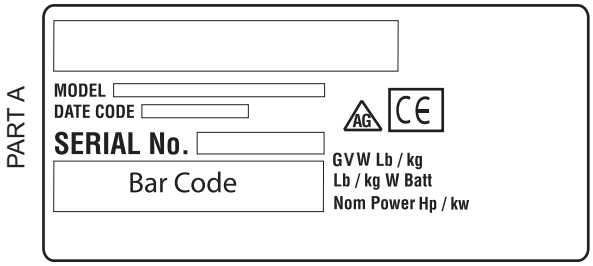
Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

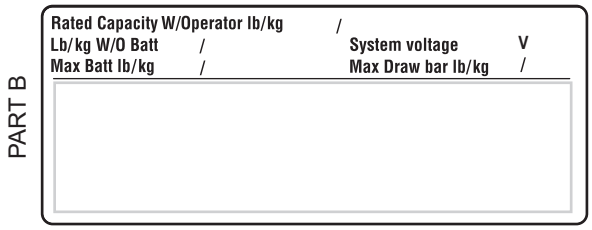
OPERATING PROCEDURES

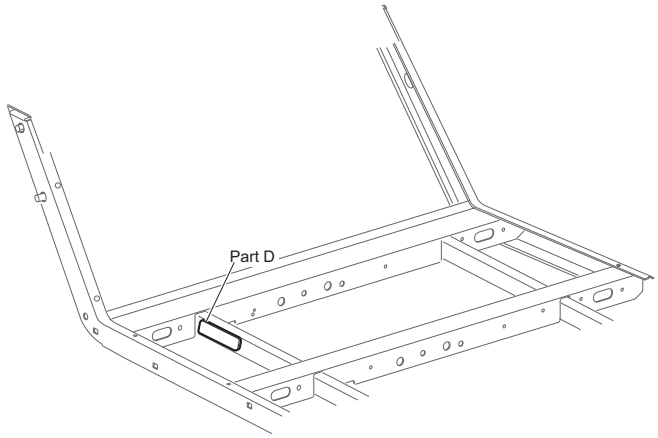
SERIAL NUMBER LOCATION

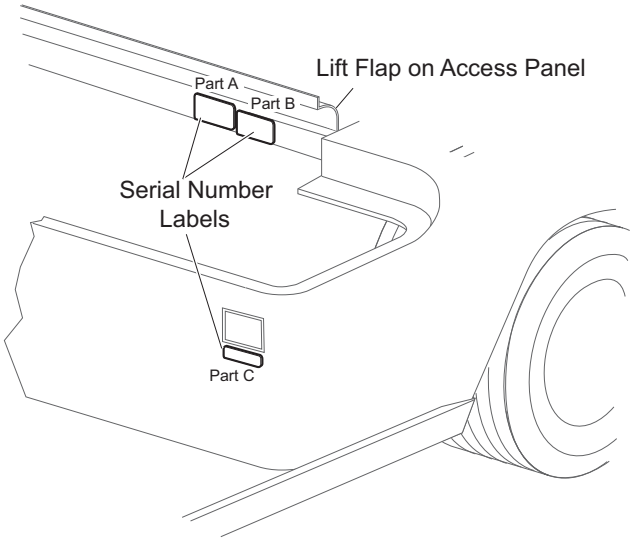
The vehicle has two serial number and manufacture date code plates. PART C label is found on the body panel below the driver seat. PART D is found on the frame tube below the floorboard. The other (PARTS A and B) is found on the frame crossmember below the front seat. Lift the seat and the flap to access PARTS A and B

Design changes occur continuously. When you order service parts, the PIN number, manufacture date code or serial number must be available.









OPERATING PROCEDURES

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

BEFORE INITIAL USE

Read, understand and follow the safety label on the instrument panel. Make sure you understand how to safely operate the vehicle and its equipment.

⚠ WARNING

Reckless use of this vehicle can cause severe injury or death. This vehicle is a light-duty vehicle, NOT an All Terrain Vehicle (ATV).

Do not engage in rough or reckless operation of this vehicle.

If you do not know the terrain, make sure you prepare for unexpected occurrences. If the vehicle gets stuck or the batteries discharge, a one-hour drive can take many hours on foot.

To prevent battery explosion, keep all flammable materials, open flame or sparks away from the battery.

Never charge a vehicle near flammable materials, open flame or sparks. Never charge a vehicle near gas water heaters and furnaces.

Before a new vehicle is put into operation, do the items shown in the ***INITIAL SERVICE CHART***.

INITIAL SERVICE CHART	
Item	**Service Operation**
Seats	Remove the protective plastic cover.
Brakes	Check the operation.
	Calculate the distance necessary to stop the vehicle for the brake performance test.
Tires	Check air pressure (18-22 psi).
Fuel	Fill tank with correct fuel.
Engine	Check oil level.
General	Check for possible leaks that may have developed during shipment.

HOW TO OPERATE THE VEHICLE

⚠ CAUTION

Incorrect use of the vehicle or lack of maintenance can cause damage or decreased performance.

Read the following warnings before you operate the vehicle.

⚠ WARNING

Make sure you know the terrain and traffic conditions. Make sure you know environmental conditions that change the terrain and your ability to control the vehicle. Drive the vehicle only as fast as terrain and conditions allow.

When possible, stay in approved areas and do not drive on steep slopes.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Do not drive fast downhill. Sudden stops or change of direction can cause a loss of control. Use the brake to control the speed of the vehicle when you drive down a slope.

To prevent loss of control, do not move the direction selector while the vehicle is in motion. If you move the selector, the speed will immediately decrease and a warning device activates.

Decrease speed before and during turns.

Do not drive the vehicle up, down, or across a slope that is more than 14° (25% grade).

See GENERAL SPECIFICATIONS for the vehicle load and seat capacity.

When the accelerator pedal is pressed, the foot-operated parking brake releases and can cause accidental or sudden vehicle movement. When the vehicle is parked, make sure the key is in the OFF position.

When you leave the vehicle, turn the key to the OFF position and remove from the switch to prevent accidental operation.

Make sure the direction selector is in correct position before you press the accelerator pedal.

Make sure you completely stop the vehicle before you move the direction selector to a different position.

Do not take vehicle out of gear while in motion.

Before you drive in the reverse direction, make sure the area behind the vehicle is clear.

Driver and passengers must stay in their seats while the vehicle is in motion.

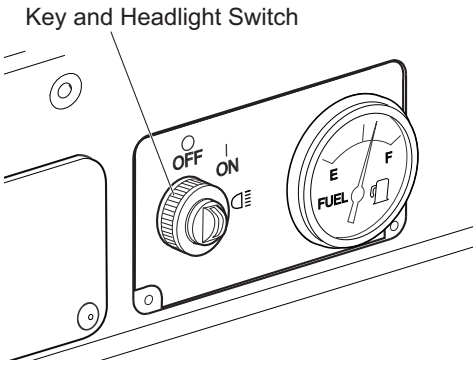
Always keep feet, legs, hands and arms inside vehicle while in motion.

Key and Headlight Switch Operation

⚠ WARNING

When you leave the vehicle, turn the key to the OFF position and remove from the switch to prevent accidental operation.

⚠ CAUTION



To prevent possible damage to the components, stop the vehicle before you move the key switch or the direction selector to a different position.

Turn the key to the right to enable the electrical system of the vehicle. The first stop is ON and supplies power that allows you to drive the vehicle. The second stop has a light icon and activates the lights.

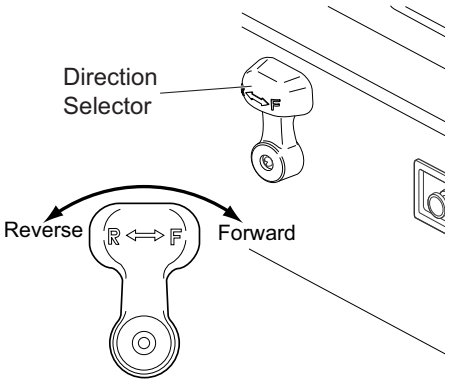
When you leave the vehicle, turn the key to the OFF position and remove the key from the switch.

NOTICE

If the vehicle has accessories that were installed at the factory, some accessories continue to operate with the key switch in the OFF position.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Direction Selector Operation



WARNING

To prevent loss of control, do not move the direction selector to a different position while the vehicle is in motion. If you move the selector, the speed will immediately decrease and a warning device activates.

Move the direction selector to F to move in the forward direction.

Move the direction selector to R to move in the reverse direction. A reverse warning buzzer activates when the direction selector is moved to the R position.

The position between F and R is the neutral position.

When you leave the vehicle, put the direction selector in the forward position, engage the parking brake and remove the key from the switch.

Accelerator Pedal Operation

WARNING

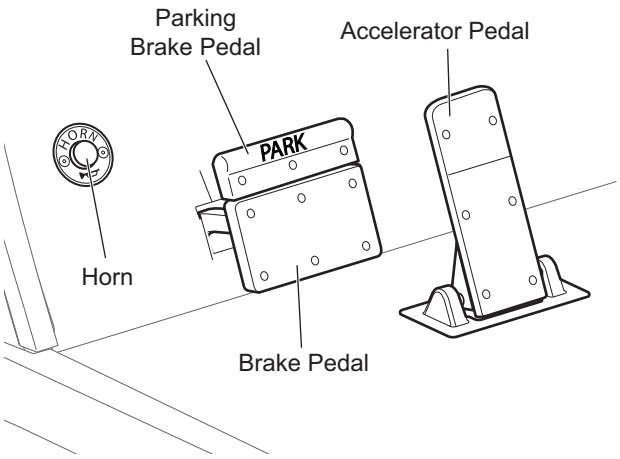
Accidental movement of the accelerator pedal can cause the vehicle to suddenly move and cause severe injury or death.

An engaged parking brake will release when the accelerator pedal is pressed and cause the vehicle to move suddenly. When the vehicle is parked, make sure the key is in the OFF position so that the electrical system is disabled.

When the key switch is in the ON position, press the accelerator pedal start the engine and move the vehicle. Release the pedal to stop the engine.

Press the brake pedal to stop the vehicle quickly.

If the key switch is in the ON position and the parking brake is engaged, the brake releases when you press the accelerator pedal and can cause the vehicle to move suddenly. This is a feature to make sure the vehicle is not driven with the parking brake engaged. Pressing the accelerator pedal is not the recommended method of to release the parking brake.



Brake and Parking Brake Operation

The function of the lower part of the brake pedal is to control speed. Press the lower part of the pedal to decrease speed or stop the vehicle.

To engage the parking brake, press the upper section of the pedal until it locks into position. Press the lower part of the pedal to release the parking brake.

Horn Operation

Press the horn button to activate the horn.

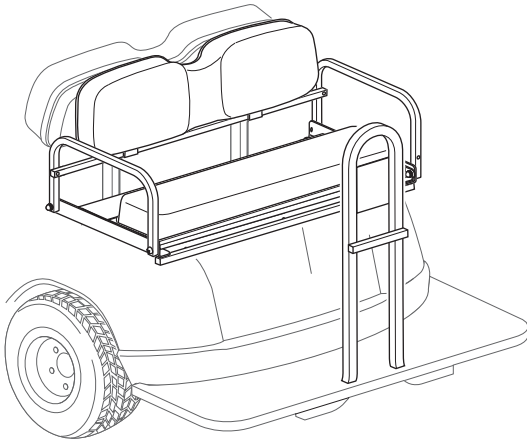
Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Rear Seat and Cargo Platform Operation

CAUTION

To prevent damage to the rear seat, move any accessories that are installed on the hand rail, when you fold the seat.

Fold the seat to the flat position to access the cargo platform.



REAR SEAT FOLDED UP

WARNING

Secure the loads on the platform to prevent movement.

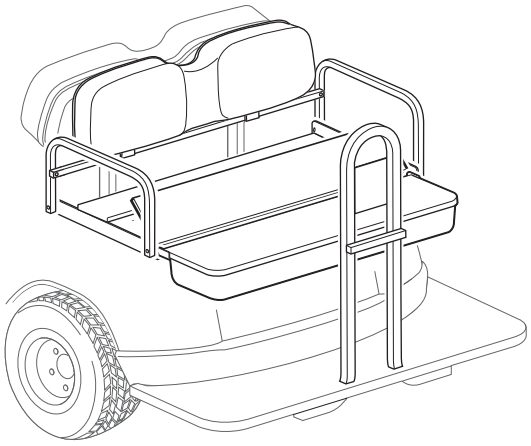
Put the load on the platform as far forward as possible.

The center of gravity of the load must be less than 4 inches (10 cm) above the platform.

Do not put more than the specified capacity on the platform.

Increased loads can change drive properties of the vehicle.

Do not allow passengers to ride on the cargo platform.



REAR SEAT FOLDED DOWN

When you put cargo on the platform, make sure you follow information below to decrease the risk of injury, damage to the vehicle or cause the vehicle to tilt over.

- Put the load on the platform as far forward as possible.
- Secure the loads on the platform to prevent movement.
- The center of gravity of the load must be less than 4 inches (10 cm) above the platform.
- The load capacity of the cargo platform is a maximum of 250 lbs. (115 kg). Do not put more than the specified capacity on the platform.

Increased loads can change the drive properties of the vehicle.

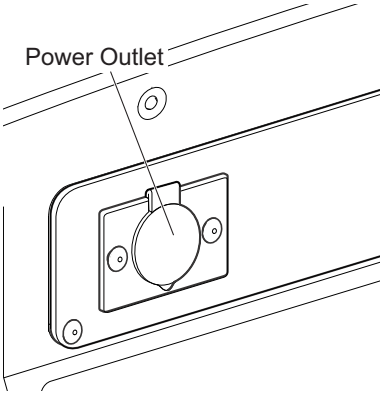
12-Volt Power Outlet

CAUTION

Overuse of accessories can drain the battery and leave insufficient charge to start the vehicle.

Excessive use of accessories that are connected to the outlet can drain the battery.

Lift the cover and insert the 12-volt accessory plug.



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

STARTING AND DRIVING

⚠ WARNING

To decrease the risk of roll-back, do not release the service brake until the engine has started.

To operate the vehicle:

- Apply the service brake, put the key in the key switch and turn to the ON position.
- Move the direction selector to the correct direction.
- Press the service brake to release the parking brake.
- Slowly press the accelerator pedal to start the engine. Release service brake when the engine starts.
- When the accelerator pedal is released, the ignition circuit is de-energizes and the engine stops. To stop the vehicle quickly, press the service brake pedal.

NOTICE

When the direction selector is in the reverse position, a warning signal activates to indicate that the vehicle is ready to run in the reverse direction.

Run-In

Check for possible leaks that may have developed during shipment.

⚠ CAUTION

Avoid full throttle starts and fast acceleration until the engine has reached operating temperature.

All engines use more oil than normal during the first hours of operation. As internal moving parts are run-in, oil use will gradually decrease until the rate of use stabilizes.

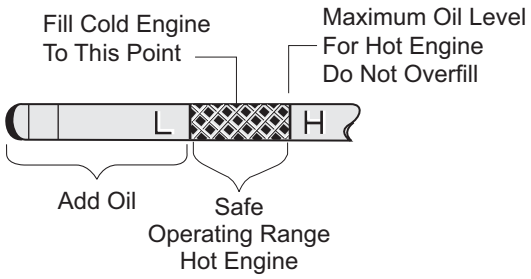
Check the oil level according to the Periodic Service Schedule. Add oil if the level on the dipstick indicates that oil is in the add oil range.

⚠ CAUTION

Do not overfill engine. Too much oil can cause smoke or allow oil to enter the air filter enclosure.

NOTICE

The oil dipstick and fill cap must be in position before engine operation starts. Failure to install the dipstick and fill cap will cause oil becoming contaminated and/or being discharged into the engine compartment.

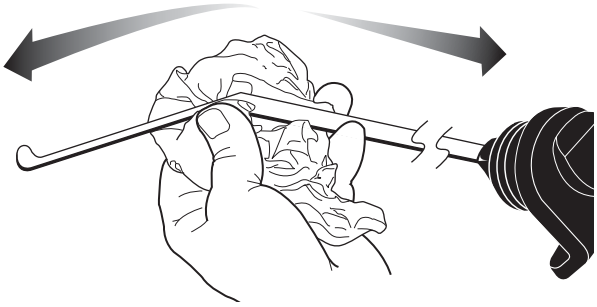


Oil dipsticks are unique to this model vehicle. Do not use a dipstick from another engine.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Change the oil according to the Periodic Service Schedule while the engine is warm..

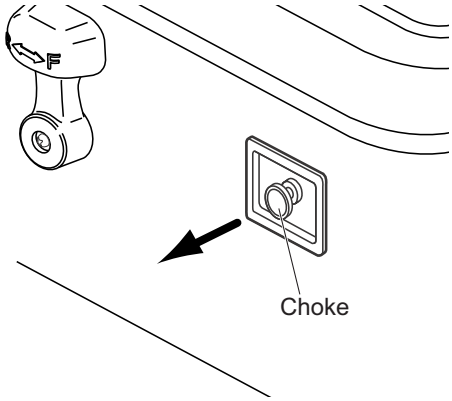
See the Repair and Service Manual for procedures to check the oil level and change the oil.



Cold-Start

The use of a choke may be necessary to start a cold engine.

Press the accelerator 1 inch (2.5 cm) or until the starter starts to operate. Pull the choke out if needed. Press the accelerator slowly and push the choke in completely when the engine is running smoothly.



⚠ CAUTION

Do not allow the starter to operate continuously for more than 10 seconds. Allow 30 seconds between starting tries. If the vehicle does not start on the third try, turn the key to the OFF position, set the parking brake and find the cause of the problem.

If the vehicle had been running and the engine does not start within 10 seconds, use the choke.

Starting Vehicle On A Hill

⚠ WARNING

To decrease the risk of roll-back, do not release the service brake until the engine has started.

⚠ CAUTION

Do not use the accelerator and engine to hold the vehicle on a hill. Doing so will cause early and excessive wear to the drive train components.

To decrease the risk of permanent damage to the drive train, do not allow roll-back when you start the vehicle on a hill.

Put left foot on service brake and release the parking brake. Press the accelerator with right foot and release the service brake.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Coasting

⚠ WARNING

Do not allow the vehicle to coast at above recommended speeds. Control vehicle speed with the service brake.

Steep hills allow the vehicle to move at faster speeds than speeds on a flat surface. To prevent the loss of vehicle control and possible injury, speeds must be controlled to the maximum level ground speed indicated in the GENERAL SPECIFICATIONS section. Apply the brake to control the speed.

FUEL

⚠ WARNING

To decrease the risk of severe injury or death from improper fuel handling:

Do not smoke near the fuel tank.

Do not add fuel near open flame or electrical items that can cause a spark.

Always handle gasoline in a well ventilated area.

Always wear eye protection to protect against splashed fuel and fuel vapors.

Inspect the fuel cap, tank and other components for leaks or damage that can cause a hazardous condition.

⚠ CAUTION

Oxygenated or reformulated gasoline, is mixed with alcohols or ethers. Excessive amounts of these blends can damage the fuel system or cause performance problems. If any operating problems occur, use gasoline with a lower percentage of alcohol or ether.

Use clean regular grade unleaded fuel. The Ethanol blend fuel up to 10% is permitted.

Do not use gasoline that contains methanol.

High altitude or heavy use/load applications can benefit from higher octane gasoline.

FUEL TANK

The fuel tank is found below the seat on the passenger side of the vehicle. Fill the tank with clean, automotive grade gasoline.

Early Production Fuel Tank

⚠ WARNING

Always allow enough space for the expansion of gasoline. Leave at least 1-inch (2.5 cm) of space below bottom of filler neck.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Early production fuel tanks can be identified by the location of the fuel cap which is located in the middle of the top of the tank as shown.

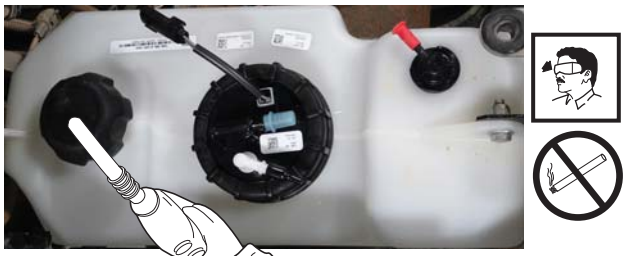
Early production fuel tanks require enough space for the expansion of the gasoline. Leave at least 1-inch (2.5 cm) of space below the bottom of the filler neck.

Early Production Fuel Tank

Late Production Fuel Tank

Late production fuel tanks can be identified by the location of the fuel cap which is located in the rear of the top of the tank as shown.

Late production fuel tanks are designed to allow for fuel expansion and do NOT require space below bottom of filler neck.



Late Production Fuel Tank

BATTERY

⚠ CAUTION

Heavy use of accessories drains the battery which can leave insufficient reserve to start the vehicle.

The vehicle uses a starter/generator to start the engine and charge the battery. The engine will not idle; so the battery does not charge while the vehicle is stopped. Do not operate lights and other accessory items excessively while the vehicle is stopped.

The generator can supply 35 amps; so operation of all accessories can cause the discharge of the battery even if the engine is running and the generator is operating. Discharging the battery is known as deep cycling. The battery is not a deep cycle model. It is a starting battery. Multiple deep cycling causes early failure of the battery.

If the battery has discharged, charge it with a 12-volt charger that is rated at 10 amps or less and according to instructions supplied by the manufacturer of the charger.

LABELS AND PICTOGRAMS

The vehicle can have labels with pictograms to supply information or warnings. Refer to the SAFETY section of this manual for the description of the labels.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

SUN TOP AND WINDSHIELD (IF EQUIPPED)

⚠ WARNING

The sun top does not supply protection from roll-over or falling objects.

The windshield does not supply protection from tree branches or moving objects.

The sun top and windshield supply some protection from the elements, but do not keep the operator and passenger dry in heavy rain.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

MAINTENANCE

VEHICLE CLEANING AND CARE

⚠ WARNING

Read and understand all instructions supplied by the manufacturer of the pressure washer before use.

⚠ CAUTION

When you clean the outside of the vehicle with a pressure washer, do not use more than 700-psi pressure. Keep a minimum distance of 12 inches from the spray nozzle to the painted surface. Do not clean the plastic parts with abrasive solvents.

Make sure you use correct methods and cleaning materials to prevent risk of damage to the outside of the vehicle. The use of more than 700-psi water pressure can cause injury to anyone in the area or damage to vehicle.

Clean the windshield with water and a clean cloth. Remove small scratches with a plastic polish or Plexus® plastic cleaner, available from the service parts department.

Apply a soap and water solution with a sponge or soft brush to clean the vinyl seats and plastic or rubber trim. Dry with a cloth.

Use a commercially available vinyl and rubber cleaner to remove oil, tar, asphalt, shoe polish, etc.

Wash the vehicle frequently with cool water and mild detergent to protect the painted surfaces.

Apply wax that is for clear coat automotive finishes to improve the appearance and protection of the painted surfaces. Do not apply wax to matte finish surfaces.

Materials used as fertilizers or for dust control can collect on the bottom of the vehicle. These materials will cause corrosion of components, unless cleaned with water. Clean areas where mud or dirt can collect. Loosen the sediment that is packed in closed areas to help with removal. Be careful not to damage the paint.

ENVIRONMENTAL CONCERNS

⚠ WARNING

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.

Always be respectful of the environment.

Make sure you are permitted by property owners to operate the vehicle on their property.

There is a risk of fire when the vehicle is operated near combustible material.

Be careful of environmental hazards like steep slopes, tree branches, etc.

Battery Disposal

Return used batteries to the manufacturer or lead smelter for recycling purposes. For neutralized spills, put residue in acid-resistant containers with absorbent material, sand or earth and discard according to state and federal regulations for acid and lead compounds. Contact authorized environmental people for information about disposal.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

LIFTING THE VEHICLE

You must lift the front, the rear or the entire vehicle for some service and maintenance operations.

⚠ WARNING

The vehicle is not stable during the lifting process.

Make sure the vehicle is on a hard and level surface.

Never get below a vehicle that is supported by a jack only.

Make sure a vehicle that is supported on jack stands is stable before you get below the vehicle.

Put wheel chocks in front and behind the wheels that remain on the ground.

Do not allow any person in or on the vehicle being lifted.

⚠ CAUTION

When you lift the vehicle, put the jacks and jack stands at the areas indicated only.

Tool List	Quantity	Tool List	Quantity
Floor Jack	1	Jack Stands	4
Wheel Chocks	4		

Remove payload from vehicle before lifting. No person(s) should be in or on the vehicle while lifting.

How to lift the entire vehicle:

1. Install the wheel chocks in front and behind each front wheel.
2. Put the jack below the center of the rear frame crossmember.
3. Lift the vehicle enough to put jack stands below the outer ends of the rear axle as shown.
4. Lower the jack and test the stability of the vehicle on the two jack stands.
5. Put the jack at the center of the front axle.
6. Lift the vehicle enough to put two jack stands below the front frame crossmember as shown.
7. Lower the jack and test the stability of the vehicle on all four jack stands.

How to lift the rear of the vehicle only:

1. Put the wheel chocks in front and behind each front wheel.
2. Put the jack below the center of the rear frame crossmember.
3. Lift the vehicle enough to put a jack stand below the outer ends of the rear axle as shown.
4. Lower the jack and test the stability of the vehicle on the two jack stands.

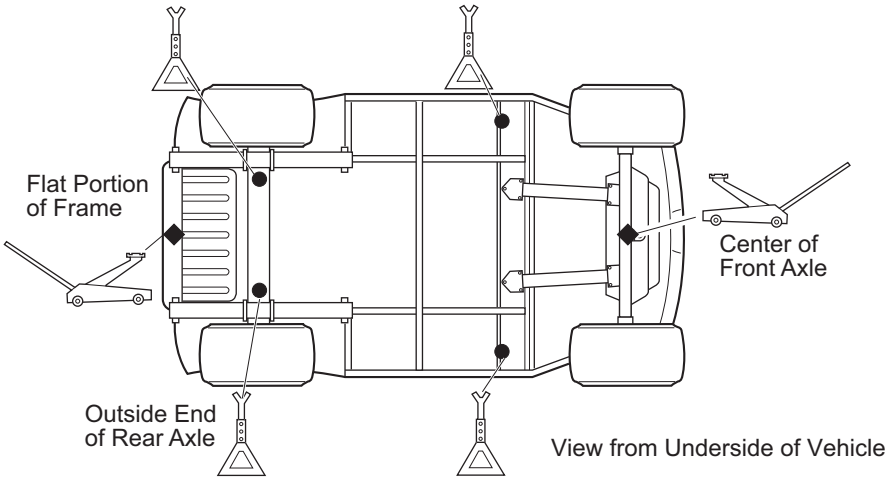
How to lift the front of the vehicle only:

1. Put the wheel chocks in front and behind each rear wheel.
2. Put the jack at the center of the front axle.
3. Lift the vehicle enough to put two jack stands below the front frame crossmember as shown.
4. Lower the jack and test the stability of the vehicle on the two jack stands.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Lower the vehicle:

1. Lift the vehicle enough to remove the jack stands.
2. Carefully lower the vehicle to the ground with the jack.



WHEELS AND TIRES

Recommended tire inflation pressure: 18-22 psi

⚠ WARNING

To decrease the risk of tire explosion, do not exceed the tire inflation pressure rating on the tire sidewall.

To decrease the risk of tire explosion, inflate small amounts of air into the tire at intervals to seat beads. Because of the low volume of the small tires, over inflation can occur in seconds. Never exceed the tire inflation pressure rating on the tire sidewall when seating a bead. Protect the face and eyes when you remove a valve core.

When you remove the wheels, use only sockets made for impact wrenches to decrease the risk of injury by a broken socket.

Do not use tires with low rated pressure. Do not use tires that have a recommended tire inflation pressure less than the tire inflation pressure recommended in the owner's guide.

Do not over inflate the tires. Excess pressure can cause the tire to separate from the wheel or cause a tire explosion.

Tire Repair

Tool List	Quantity	Tool List	Quantity
Lug Wrench, 3/4"	1	Impact Socket, 3/4"	1
Impact Wrench	1	Torque Wrench, ft. lbs.	1

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Use caution when you inflate the tires. Because of the low volume of the small tires, over inflation can occur in seconds. Over inflation can cause the tire to separate from the wheel or cause a tire explosion.

The general recommended tire inflation pressure is 18-22 psi, but know that tire inflation pressure can change according to the condition of the terrain.

For outdoor applications with primary use on areas with grass, consider the following:

- Slightly higher tire inflation pressure is suitable on hard turf
- A lower pressure decreases the risk of tires cutting into a soft turf

For hard surfaces or pavement, tire inflation pressure must be in the higher allowed range, but not more than recommended on the tire sidewall.

All four tires must have the same pressure for best control qualities. Always install the valve stem cap after you check or inflate the tires.

The vehicle has low-pressure tubeless tires, installed on one-piece rims.

Use a tire plug to repair small holes in the tread part of the tire. For large holes and cuts, replace the tire.

NOTICE

Tire plug tools and plugs are available at automotive outlets. The tires do not have to be removed from the wheel to install the tire plugs.

If the tire is flat, remove the wheel and inflate the tire to the recommended maximum pressure for the tire. Submerge the tire in water to find the leak and mark with chalk. Install the tire plug according to manufacturers instructions.

Wheel Installation

⚠ CAUTION

To decrease the risk of component damage, do not tighten lug nuts to more than 85 ft. lbs. (115 Nm) torque.

NOTICE

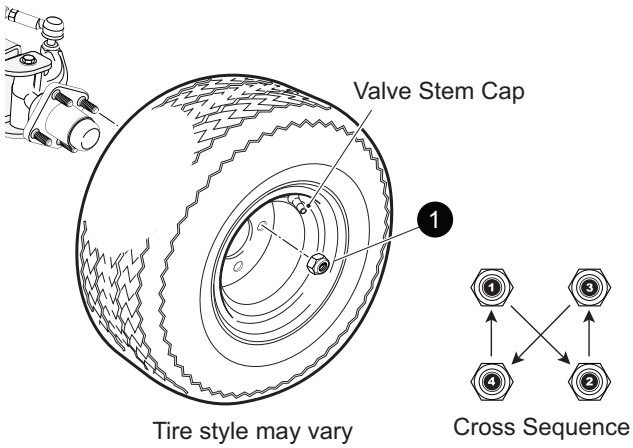
Always follow the cross-sequence pattern when you install the lug nuts to make sure the wheel is evenly seated against the hub.

With the valve stem to the outside of the wheel, install the wheel on the hub with lug nuts.

Tighten the lug nuts (1) with your fingers in the cross-sequence pattern shown.

Tighten the lug nuts to 50 to 85 ft. lbs. (68 to 115 Nm) torque in 20 ft. lbs. (27 Nm) increments.

Continue to follow the cross-sequence pattern until the correct torque is reached.



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

LIGHT BULB REPLACEMENT

⚠ CAUTION

To decrease the risk of premature bulb failure, do not allow your fingers to contact new bulbs. Use clean, dry paper or paper towels to touch the glass part of the bulb.

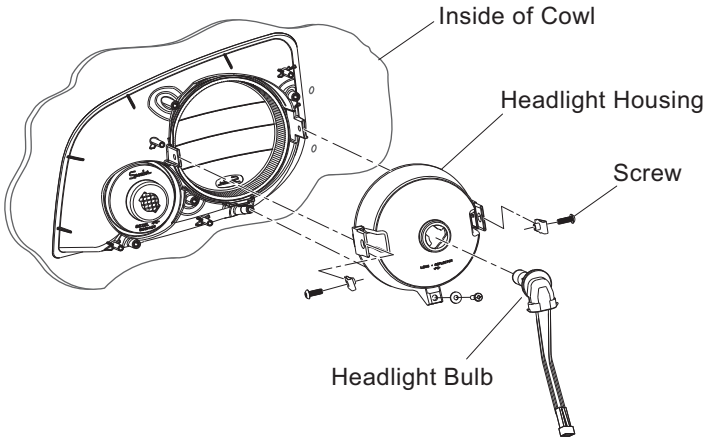
Headlight

⚠ CAUTION

To prevent the bulb from accidentally disconnecting and possibly melting or igniting plastic components, the locking ring MUST be installed again after installation of replacement bulb.

Rotate the bulb socket a quarter turn to the left to unlock. Remove the bulb and socket. Install new bulb and rotate the socket a quarter turn to the right to secure.

Replacement bulbs are available from a local Distributor, an authorized Branch or the Service Parts Department.



Taillight

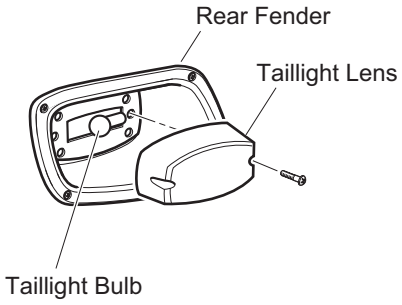
Remove two Phillips head screws that secure the lens.

Pull the lens from the housing to access the taillight bulb.

Remove the light bulb and install a new bulb. Make sure the bulb contacts the socket correctly.

Replace the lens and install the Phillips head screws.

Replacement bulbs are available from a local Distributor, an authorized Branch or the Service Parts Department.



FUSE REPLACEMENT

The fuse block is found below the driver seat. Lift the seat bottom to access the fuses.

Remove the old fuse and replace with a new fuse of the same type and size.

Fuses are available from a local Distributor, an authorized Branch or the Service Parts Department.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

VEHICLE WITH A DISCHARGED BATTERY

⚠ WARNING

To decrease the risk of severe injury or death from accidental movement, do not use a jumper cable to start a vehicle.

The vehicle has a starter/generator and does not idle. When you start the engine, the starter/generator functions as a starter and with the engine running, it functions as a generator.

The generator can keep the battery charged with the short run times with this type of vehicle. The generator will not charge a discharged battery.

When the engine starts, the clutches engage and cause the vehicle to move making 'jump starting' both dangerous and impractical.

If the battery has discharged, charge it with a 12-volt charger that is rated at 10 amps or less and according to instructions supplied by the manufacturer of the charger.

TRANSPORTING VEHICLE

Towing

⚠ WARNING

Do not ride or allow other people on the vehicle being towed.

Do not try to tow the vehicle with ropes, chains or any device different from a tow bar approved by the factory.

Do not tow the vehicle on highways.

Do not tow the vehicle at speeds more than 12 mph (19 kph).

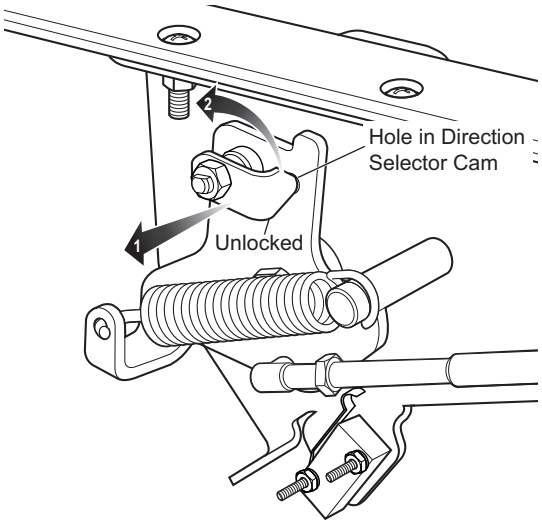
Neutral Lock

To prevent the driven clutch from turning the rear wheels during service operations, a neutral lock is located on the direction selector.

To operate:

Turn key switch to 'OFF' and lift seat. Pull out and rotate the neutral lock pin handle so that the pointed portion of the handle is to the side of the direction selector cam. Move direction selector towards the area between 'F' and 'R'. During that motion the pin will snap into the hole in the direction selector mounting bracket preventing any movement.

When in this position, the direction selector remains locked in the neutral position. To unlock the direction selector, pull the neutral lock pin handle out and rotate until the pointed portion of the handle fits into the hole in the direction selector cam.



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Hauling

⚠ WARNING

Make sure you secure the vehicle and all items before you move a vehicle on a trailer.

Do not allow any people on a vehicle being moved on a trailer.

Remove the windshield before you move a vehicle on a trailer.

Maximum speed with sun top installed is 50 mph (80 kph).

If you move the vehicle on a trailer at highway speeds, the sun top must be removed and the seat bottom secured.

When you move the vehicle on a trailer below highway speeds, check for tight hardware and cracks in sun top at the mounting points.

The rated capacity of the trailer or truck must be more than the weight of the vehicle and load plus 1000 lbs. (454 kg). See GENERAL SPECIFICATIONS for the weight of the vehicle.

Secure the vehicle to the trailer with ratchet tie downs.

SERVICE AND MAINTENANCE

⚠ WARNING

Read all notices, cautions and warnings before any type of service operations.

The drive wheels must be lifted and supported on jack stands before you do any service to the powertrain when the engine is in operation.

To decrease the risk of engine damage, do not operate the vehicle at full throttle for more than 5 seconds with the drive wheels lifted off the ground.

Disconnect the negative battery terminal before you service the vehicle to prevent accidental operation.

Wear eye protection when you service the vehicle. Be careful when you do work around batteries, use solvents or compressed air.

To decrease the risk of electrical arc, which can cause a battery explosion, disable all electrical loads from the battery before you remove the battery wires.

Use wrenches with insulation to decrease the risk of a wrench that falls on a battery to cause a short-circuit. A battery short-circuit can cause an explosion.

The electrolyte in a battery is an acid solution which can cause burns to the skin and eyes. Completely clean all electrolyte spills that contact the body and eyes with clear water. Contact a physician immediately.

Neutralize electrolyte spills with a solution of 2 teaspoons (10 ml) sodium bicarbonate (baking soda) mixed in 1 quart (1 liter) of water. Clean with water.

Be careful when you use the aerosol containers near battery terminals. Use a metal container that has insulation to prevent an explosion.

MAINTENANCE

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

The vehicle owner and service technician must carefully follow the procedures recommended in this manual. The preventative maintenance, applied at recommended intervals, keeps the vehicle dependable and decreases the costs for the repairs. Refer to the Periodic Service Schedule for service and intervals. Refer to Lubrication Points for correct lubrication locations.

ROUTINE MAINTENANCE

⚠ CAUTION

To increase the life of a vehicle that is used in strong conditions, some maintenance must be done more often than recommended in the Periodic Service Schedule. For example: high or low temperatures, high dust and dirt conditions, high use with maximum load.

To access the powertrain for normal maintenance, lift or remove the seat and remove the rear access panel. For major repairs, refer to the applicable Technician's Repair and Service Manual.

Some service procedures make it necessary to lift the vehicle. Refer to LIFTING THE VEHICLE for correct lift procedure and safety information.

Four Cycle Engine

The engine is an air cooled, 4-stroke, OHV, single cylinder gasoline engine. It incorporates a pressure fed lubrication positive displacement oil pump with a cartridge type full flow oil filter and a counter rotating balance shaft.

Engine Specifications

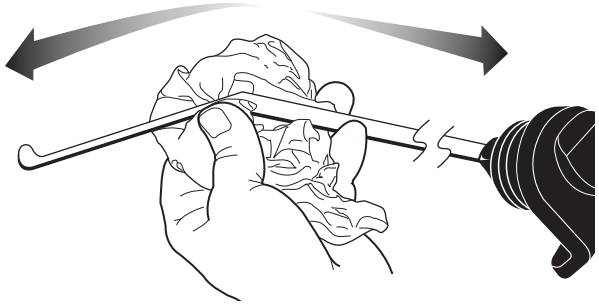
Engine Model FJ400D
Type.....Four cycle, OHV
Number of Cylinders..... 1
Displacement.....401 cc
Rated Horsepower ..... 13 hp
Spark Plug Type ..... NGK BPR2ES
Spark Plug Gap .....028" - .031" (.70 - .80 mm)
Cooling ..... Forced Air Cooled
Oil Filter ..... Cartridge Type Full Flow Filter
Oil Pump..... Positive Displacement Pump

Checking the Oil Level

⚠ CAUTION

Do not overfill engine. Too much oil may cause engine to smoke or cause spark plug fouling.

Do not overfill engine. Too much oil may cause smoking or allow oil to enter the air filter enclosure.



The oil should be checked with the engine warm. The vehicle should be on a level surface with the parking brake engaged. Allow adequate time for oil to drain into the crankcase before checking.

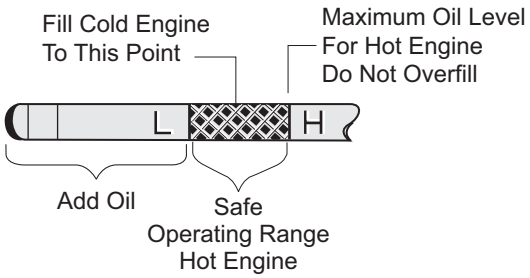
Remove the dipstick and wipe off the entire area with a lint free cloth.

Insert the dipstick **fully** into the dipstick hole and remove. Examine the level of the oil on the dipstick.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

The engine can be operated safely as long as oil is within the safe operating range as indicated on the dip stick. **Do not operate vehicle if oil level is below the safe area indicated on the dipstick.**

Oil should be added to bring the level into the safe operating range. Remember that oil expands as it gets hot, **Do not overfill**. Check that the oil cap is firmly in place.



NOTICE

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

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

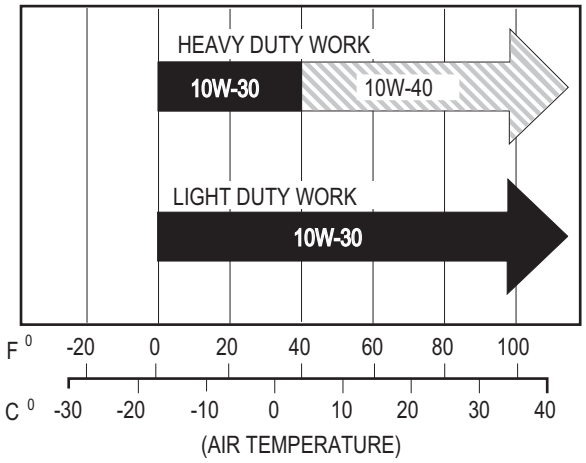
Changing the Oil

Tool List	Quantity
Socket, 19 mm	1
Ratchet	1
Extension, 8"	1

Tool List	Quantity
Oil Filter Wrench	1
Oil Drain Pan	1

For maximum performance and longevity, the engine oil should be replaced after the first 8 hours of operation. After the initial oil change, it should be changed every 125 hours of operation or semi-annually, whichever comes first.

The selection of oil is dependent upon the service that the vehicle will perform. Most vehicles require 10W-30 oil, whereas vehicles used at capacity or near capacity load applications will utilize 10W-40 oil after a break-in period of 100 hours.



NOTICE

If vehicle is to be stored over winter months, it can be stored with old oil left in engine. The oil should be changed as part of spring maintenance to remove any moisture that has accumulated during storage.

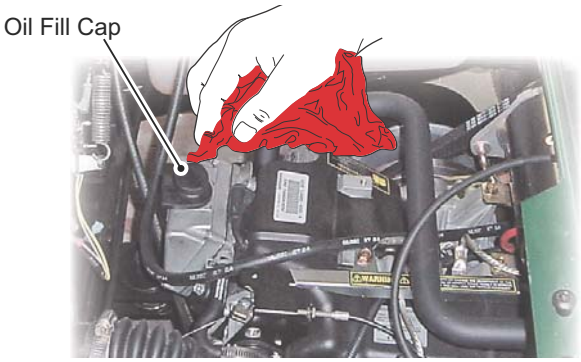
⚠ WARNING

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 engine warm. Park vehicle on a level surface, engage parking brake and remove key.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

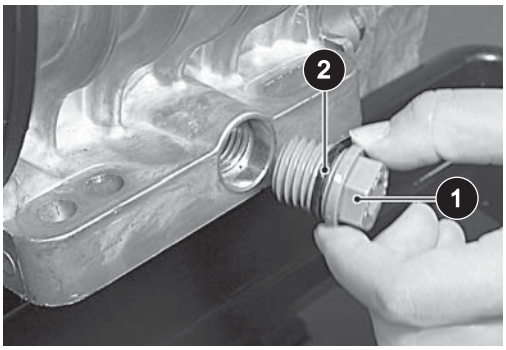
Place a drain pan under engine. Wipe top of the engine clean with a cloth. Remove the oil fill cap.



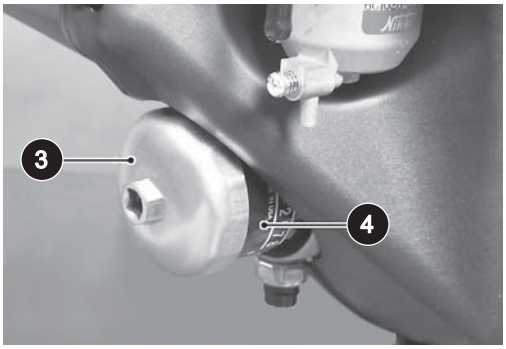
⚠ WARNING

Be careful of hot oil when drained. It may be hot enough to burn you severely

Place the oil drain pan under the oil drain plug (1) found at the rear of the engine base. Remove the drain plug (1), allow the oil to drain into the pan. At the first oil change, **small** metal chips and lint may be found. This is normal, resulting from the break-in period. Inspect the filter at every oil change. The presence of large metal chips could indicate possible damage to the engine. Before installing the drain plug, clean the area around the drain hole with a lint free cloth and inspect the drain plug (1) for damage; replace if necessary. If the O-ring (2) on the drain plug is damaged replace it with a new one. Tighten the drain plug to 62 in. lbs (7 Nm) torque.

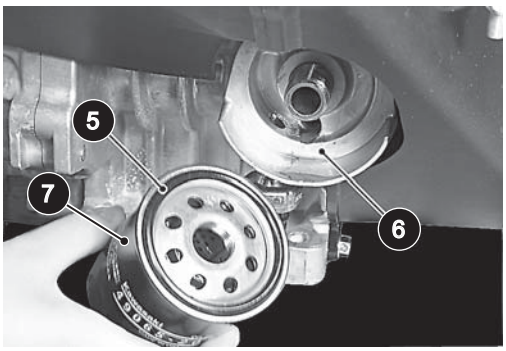


Clean the area around filter. Use a filter wrench (3) to remove the filter (4) from the engine and allow the oil to drain.



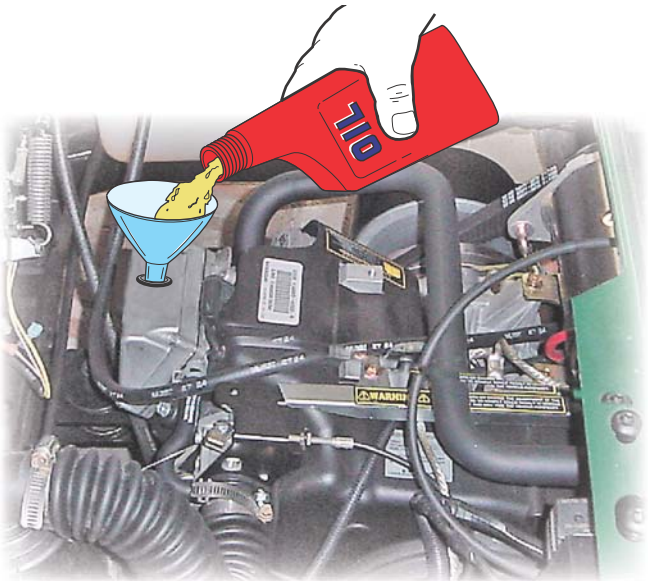
The O-ring (5) may have remained on engine (6) or filter (7). If the O-ring (5) remained on the engine surface (6), remove it and discard with the filter (7).

Inspect the new oil filter for any defects, apply engine oil to the oil filter O-ring (5) and install oil filter onto the engine until the seal contacts mounting surface of the engine. Then turn the filter 2/3 to 3/4 rotations by HAND(S). Pour in the specified type and amount of oil. See “CAPACITIES AND REPLACEMENT PARTS” on page 41.



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Oil capacity is 1 1/3 quarts (1.3 liters). Add slightly less than 1 1/3 quarts (1.3 liters) to allow for possible residual oil left in engine. The oil must be high quality oil that meets or exceeds API SF, SG, CC standards. Check oil level on dipstick. Oil should be slightly below 'H' to allow for expansion. If necessary, continue to add oil slowly and allow time for oil to flow down into engine. Check oil level on dipstick. **Do not overfill.**



⚠ CAUTION

Do not overfill engine. Too much oil may cause smoking or allow oil to enter the air filter enclosure.

NOTICE

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 being discharged into the engine compartment

As a final check, check the oil level again with the vehicle on level ground. Like all liquids, oil increases in volume when warm. The full 'H' mark on the dipstick is calibrated for an engine at operating temperature. When the engine is cold, the oil will be below the full mark. The engine can be operated safely as long as the oil is within the safe operating range as indicated on the dipstick. **Do not operate vehicle if oil level is below the safe area indicated on the dipstick.**

Starter Generator Belt Tension

Tool List	Quantity
Belt Tension Gauge	1
Wrench, 3/4"	1
Wrench, 9/16"	2
Ratchet	1
Socket, 3/4"	1

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

⚠ WARNING

At no time during installation of belt, should the belt tension exceed 160 lbs (73 kg).

⚠ CAUTION

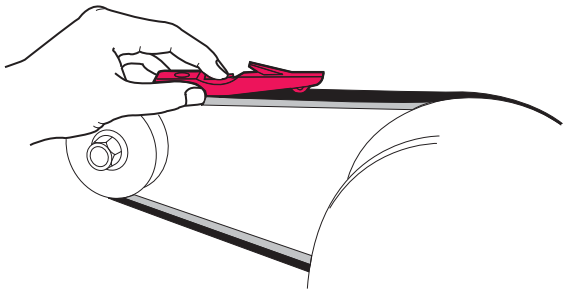
At the time of installation, the belt must not be rolled over the installed edges of the starter/generator or drive clutch pulleys. Excessive stretch in belt may cause cord failure.

NOTICE

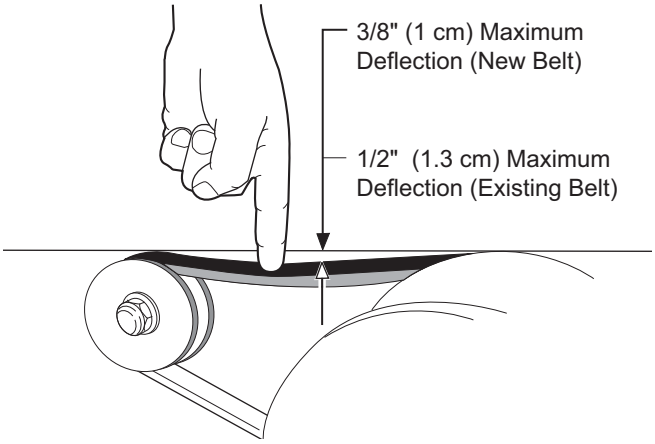
A loose belt can cause audible vibration and squeal.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Tighten a **new** starter/generator belt to 110 - 130 lbs. (50 - 59 kg) tension when a gauge is applied half way between the two pulleys.



A **new** belt may be checked manually. A maximum deflection of 3/8" (10 mm) is acceptable. Tighten an **existing** belt to 75 - 80 lbs. (34 - 36 kg) tension using the same technique and inspect for cracking or wear. A maximum deflection of 1/2" (13 mm) is acceptable.



Adjusting the Belt

Loosen the starter/generator pivot bolt. While holding the lower adjusting nut with a wrench, loosen the upper jam nut with another wrench. Move the lower nut up or down the adjustment bolt until proper belt tension is achieved. Hold the lower nut in place and tighten the upper jam nut against it.

Tighten the starter/generator pivot bolt.

Battery Cleaning

⚠ CAUTION

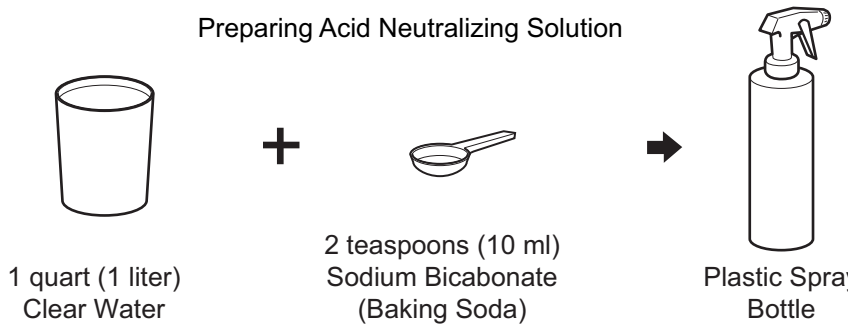
To decrease the risk of damage to vehicle or floor, neutralize acid before you spray the battery with water.

To decrease the risk of damage to the electrical components while cleaning, do not use a pressure washer.

Clean the battery according to the Periodic Service Schedule.

When you clean the battery cases and terminals, do not use a water hose without neutralizing any acid deposits first. The water hose moves the acid from the top of the battery to another area of the vehicle or storage facility, where it can cause damage. After spraying the battery, a conductive residue remains on the battery and contributes to the discharge of the battery

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.



The correct cleaning method is to spray the top and sides of the battery with a solution of baking soda and water. Apply this solution with a plastic spray bottle. The solution is 2 teaspoons (10 ml) sodium bicarbonate (baking soda) mixed with 1 quart (1 liter) of water. Spray the solution on all metal components near the battery also.

Allow the solution to set a minimum of three minutes. Use a soft bristle brush or cloth to clean the top of the battery to remove residue that can cause the discharge of the battery. Clean the area with low pressure clear water.

⚠ WARNING

Be careful when you use the aerosol containers near battery terminals. Use a metal container that has insulation to prevent an explosion.

Clean one time a month or more often in harsh conditions. After the battery is clean and dry, apply a commercially available protectant to the terminals.

TIRE INSPECTION

Inspect the tire condition according to the Periodic Service Schedule. Tire inflation pressures must be checked when the tires are cool. Always install the valve dust cap after you check or inflate the tires.

BRAKES

⚠ WARNING

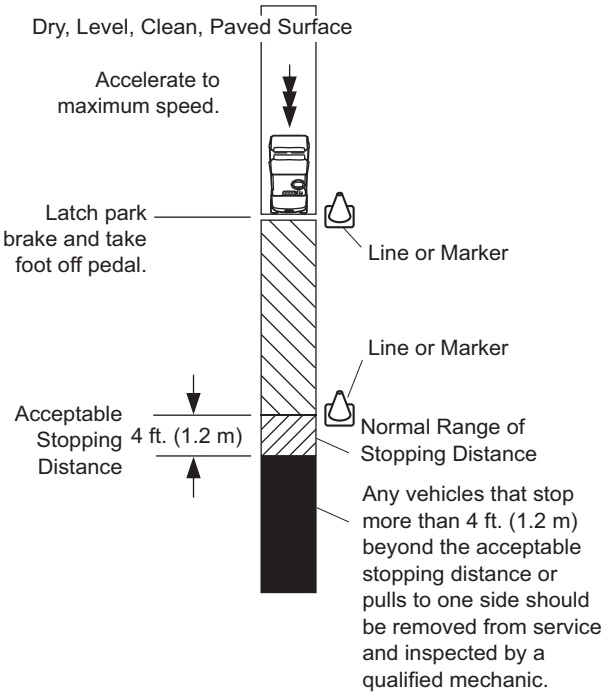
Always inspect the pedal travel before you operate a vehicle to confirm some brake function is found.

Make sure you do all brake tests in a safe location with regard to the safety of all personnel.

NOTICE

A subtle loss of performance can occur over time; therefore, it is important to establish the standard with a new vehicle.

The Periodic Brake Performance Test should be performed regularly as an evaluation of braking system performance. It is useful as a method of identifying subtle loss of performance over time.



Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Periodic Brake Test

This test compares the brake performance of the vehicle to the brake performance of new or 'known to be good' vehicles or to an established acceptable stopping distance. Actual stopping distances are influenced by weather conditions, terrain, road surface condition, actual vehicle weight (accessories installed) and vehicle speed. No specific braking distance can be reliably specified. The test is conducted by latching the park brake to eliminate different pedal pressures and to include the affects of linkage mis-adjustment.

Establish the acceptable stopping distance by testing a new or 'known to be good' vehicle and recording the stopping location or stopping distance. Several vehicles should be tested when new and the range of stopping locations or distances recorded.

NOTICE

Over time, a subtle loss of performance may occur; therefore, it is important to establish the standard with a new vehicle.

Drive the vehicle at maximum speed on a flat, dry, clean, paved surface.

Quickly press the brake pedal to lock the parking brake at the line or marker in the test area and remove foot from pedal. The vehicle must stop fast. The wheel brakes may or may not lock.

Observe the vehicle stopping location or measure the vehicle stopping distance from the point at which the brakes were locked. The vehicle must stop within the 'normal' range of stopping distances. If the vehicle stops more than 4 ft. (1.2 m) beyond the acceptable stopping distance or pulls to one side, the vehicle has failed the test and must be tested again.

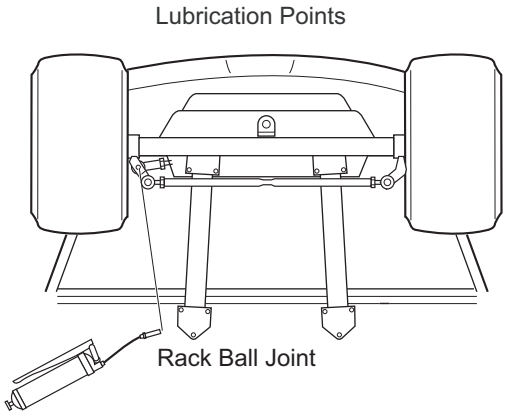
If the vehicle fails the second test, it must **immediately** be removed from service. The vehicle **must** be inspected by a qualified mechanic who should refer to the TROUBLESHOOTING section in the Technician's Repair and Service Manual.

LUBRICATION

⚠ CAUTION

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

Putting more than three pumps of grease in a grease fitting could damage grease seals and cause premature bearing failure.



View from Underside of Vehicle

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

CAPACITIES AND REPLACEMENT PARTS

Fuel (Early Production)	6.0 gal. (22.7 liters)
Fuel (Late Production)	5.6 gal. (21.4 liters)
Rear Axle Oil	12 oz (1.2 liters) 30 WT Engine Oil
Fuse (15 amp)	P/N 18392-G1
Headlight Bulb	P/N 619100
Turn Signal Bulb	P/N 619102
Tail Light Bulb	P/N 21759-G1

HARDWARE

Normally, three classes of standard hardware and three classes of metric hardware are used in the vehicle. Grade 5 hardware is identified by the three marks on the hexagonal head; grade 8 hardware is identified by six marks on the head; grade 2 hardware is not marked. The class specification is marked on metric hardware.

Inspect the vehicle for loose fasteners periodically. The fasteners must be tightened carefully and according to the Torque Specifications table or as specified in the Repair and Service Manual.

ALL TORQUE FIGURES ARE IN FT. LBS. (Nm)
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)			

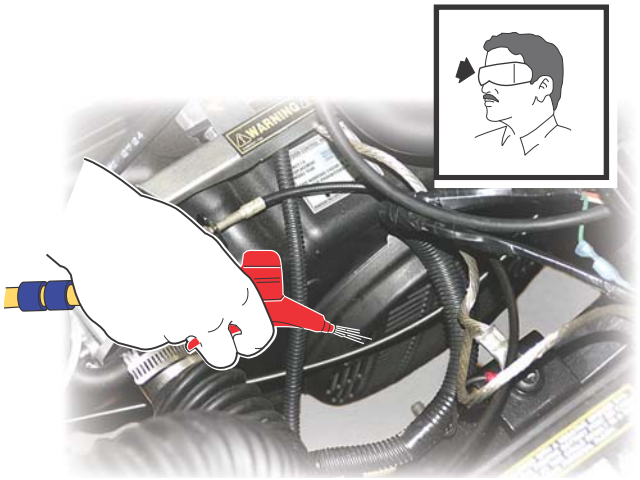
Torque Specifications and Bolt Grades

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

AIR INTAKE AND COOLING FINS

⚠ 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. Keep linkages, springs and controls clean. Keep area around muffler free of any combustible material.



At least once a year, (or more often under adverse conditions) the cooling system should be cleaned. Cleaning will assure an adequate supply of air to the cooling fins. Compressed air may be used for routine cooling system maintenance.

REAR AXLE

The rear axle is provided with a lubricant level check plug located on the driver side at the rear of the housing. Unless leakage of rear axle lubricant is evident, an annual lubricant check is sufficient.

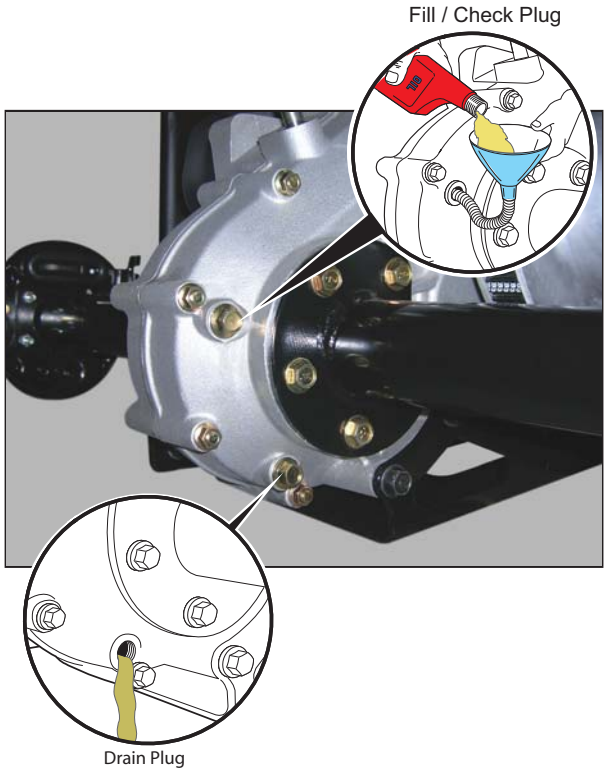
Checking the Lubricant Level

Tool List	Quantity
Socket, 13 mm	1
Ratchet	1
Funnel	1

NOTICE

For vehicles with LSD axle, add 2 ounces of friction modifier during refill.

Clean the area around the 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 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.

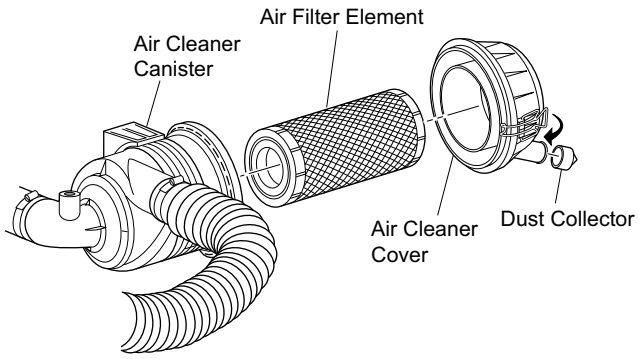


AIR CLEANER INSPECTION AND REPLACEMENT

The air cleaner unit on the vehicle is a dry unit. **Do not** use oil on the filter element or any part of the unit.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Cleaning the Air Filter Element



CAUTION

Do not use compressed air to clean the air filter; doing so will damage the filter which may result in damage to the engine.

The air cleaner element is accessible by unsnapping the clips on the air canister and removing the cover and air filter element. Clean inside of cover, canister and dust collector. Install the element and cover the same way they were removed. Be sure the positioning arrow on cover is pointing upward and all clips are fastened securely.

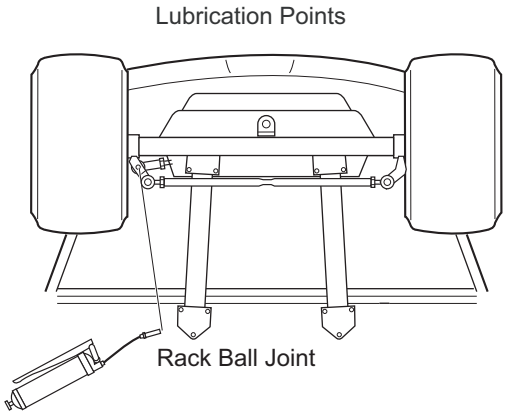
If the element is in acceptable condition, loose dirt may be removed by tapping the filter lightly. Do not use oil on the filter element or any part of the unit.

LUBRICATION

CAUTION

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

Putting more than three pumps of grease in a grease fitting could damage grease seals and cause premature bearing failure.



SPARK PLUGS

Tool List	Quantity
Spark Plug Socket, 13/16"	1
Ratchet	1
Plug Gauge, Wire Type	1

Tool List	Quantity
Anti-Seize Compound	AR
Torque Wrench, ft. lbs.	1

CAUTION

Use care not to over-tighten the plug. Over-tightening can cause damage to the aluminum cylinder head threads.

Remove and inspect the spark plug at intervals indicated in the Periodic Service Schedule. Spark plug should be properly gapped. Tighten to 16 ft. lbs. (22 Nm) torque

Remove and inspect the spark plug at intervals indicated in the Periodic Service Schedule. Spark plug should be properly gapped. Tighten to 16 ft. lbs. (22 Nm) torque.

Fouled spark plug is 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 wire which are in poor condition or poor quality fuel could also contribute to the problem

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

PROLONGED STORAGE

⚠ WARNING

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.

- Turn the Key Switch to OFF position, and leave the Forward/Reverse switch in the NEUTRAL position during storage.
- Perform all required routine maintenance per the Periodic Service Schedule.
- Properly inflate the tires to recommended pressure (psi) stated on sidewall of tires.
- Place the Forward/Reverse handle in the NEUTRAL position engage the neutral lock, see page 5 - 11.
- Turn the fuel shut-off valve to the closed (OFF) position.
- With proper ventilation, run engine until the remaining fuel in carburetor and fuel lines is depleted and the engine stalls.
- Return the neutral lock to the OPERATE position
- Loosen, but do not remove the carburetor drain screw. Drain any fuel remaining in bowl into an approved container and pour the fuel collected into the vehicle fuel tank. Add Sea Foam (4 oz. for a full tank of fuel) to stabilize fuel and install the tank cap securely.
- Tighten the carburetor drain screw.
- Remove spark plug and pour about 1/2 oz. (15 ml) of SAE 10 - 30 weight oil or Fogging oil into the cylinder. Rotate the crankshaft by hand several times, then install the spark plug.
- Do not engage the park brake, but secure the car from rolling
- While engine is still warm, change oil.
- Clean body, chassis and engine of debris, mud, chaff or grass.

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

PERIODIC SERVICE SCHEDULE

PERIODIC SERVICE SCHEDULE

***** - CHECK **C&A** - CHECK & ADJUST **CL** - CLEAN **R** - REPLACE

	Before each use DAILY	WEEKLY	20 hrs MONTHLY	50 hrs QUARTERLY	125 hrs SEMI-ANNUAL	250 - 300 hrs ANNUAL	500 hrs 5 YEARS
Tires - Check pressure and inspect condition of tires & rims.	*	*	*	*	*	*	
Hardware - Check for loose or missing.	*	*	*	*	*	*	
Reverse Warning Indicator	*	*	*	*	*	*	
Brake Pedal - Check for smooth operation	*	*	*	*	*	*	
Parking Brake - Check for correct hold capability.	*	*	C&A	C&A	C&A	C&A	
Accelerator - Check for smooth operation.	*	*	*	*	*	*	
Overall Vehicle Condition	*	*	*	*	*	*	
Tires - Examine for cuts, wear and pressure.		*	*	*	*	*	
Wheels - Check for bent rims, missing or loose lug nuts.		*	*	*	*	*	
Cooling Fan - Check for build-up of dirt inside blower housing and fins; clean if necessary		*	*	*	*	*	
Engine Oil - Check and add if required - DO NOT OVERFILL		*	*	*	*	*	
Starter/Generator Belt		*	*	*	*	*	
Parking Brake - Conduct brake performance test; adjust if required.			C&A	C&A	C&A	C&A	
Controller - Check controller braking force for correct operation.			*	*	*	*	
Wiring - Inspect for loose connections, broken or missing insulation.			*	*	*	*	
Direction Selector - Inspect attachment and mechanism.			C&A	C&A	C&A	C&A	
Steering Assembly - Check for excess play, loose or missing hardware.			*	*	*	*	
Tie Rods - Check for excess play, bent rods, loose or missing hardware.			*	*	*	*	
Choke Cable - Check for smooth movement			*	*	*	*	
Carburetor Linkage - Check attachment; adjust as required.			C&A	C&A	C&A	C&A	
Direction Selector - Check attachment; adjust as required.			C&A	C&A	C&A	C&A	
Engine - Check for unusual noise, vibration, acceleration, oil leaks			*	*	*	*	
Rear Axle - Check for leakage; add SAE 30 oil as required			*	*	*	*	
Throttle/Governor Linkage - Check operation and governed speed				*	*	*	
Fuel System - Check for leaks at tank, cap, lines, filters, pump, carburetor				*	*	*	
Front Axle - Check for damage to axle, loose or missing hardware.				*	*	*	
Parking Brake - Inspect linkage rods, latch arm and catch bracket.				*	*	*	
Parking Brake - Lubricate with light oil. Do not lubricate cables or brake latch.				C&A	C&A	C&A	
Engine Electrical System - Check coil/spark plug wires for cracks/loose connections				*	*	*	
Rear Suspension - Inspect for shock oil leakage, worn bushings, loose or missing hardware.				*	*	*	
Front Suspension - Inspect for strut oil leakage, excessive play in hubs or kingpins, worn bushings, loose or missing hardware.				*	*	*	
Front Wheel Alignment - Check for unusual tire wear; align if required				*	*	*	

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

PERIODIC SERVICE SCHEDULE

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

	Before each use DAILY	WEEKLY	20 hrs MONTHLY	50 hrs QUARTERLY	125 hrs SEMI-ANNUAL	250 - 300 hrs ANNUAL	500 hrs 5 YEARS
Front Wheel Alignment - Inspect for unusual tire wear.				C&A	C&A	C&A	
King Pins - Check for excessive play and tightness of retaining nuts.					*	*	
Rear Axle - Check for unusual noise and loose/missing mounting hardware.					*	*	
Air Filter Element - Check filter element; clean/replace as required.					*	*	
Oil Filter - Replace (at oil change)					R	R	
Engine Oil - Replace with SAE 10W-30 or 10W-40 that meets or exceeds SF, SG, CC oil. DO NOT OVERFILL					R	R	
Drive Belt - Check for cracks, fraying and excessive wear					*	*	
Direction Selector - Check for wear and smooth movement; lubricate shaft with light oil if required.					C&A	C&A	
Steering Assembly - Inspect bellows and pinion seal for damage and leakage.					*	*	
Rack End Ball Joint - Check for noise and loose or missing hardware.					*	*	
Battery - Clean battery and terminals					*	*	
Front Wheel Bearings - Check and adjust as required. See Repair and Service Manual for procedure.						C&A	
Rear Axle - Check lubricant level; add lubricant if required.						*	
Brakes - Clean and adjust. See Repair and Service Manual for procedure.						C&A	
Brakes - Check brake shoe linings. See Repair and Service Manual for procedure.						*	
Fuel Filter - Replace						R	
Spark Plug - Replace and gap new plug.						R	
Muffler/Exhaust - Check mounting hardware. Check for leaks at head and muffler gaskets.						*	
Valves - Check cold (intake/exhaust). See Repair and Service Manual for procedure.						*	
Carburetor - Clean							CL
Cylinder Head and Piston - Remove carbon from cylinder head and piston.							CL
Cylinder Head and Piston - Check valve seats for carbon buildup; clean if required.							CL

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

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Notes:

Read all of SAFETY and this section before attempting any procedure. Pay particular attention to Notices, Cautions, Warnings and Dangers.

Notes:

NOTICE

Read the following warnings before operating vehicle:

⚠ WARNING

When you leave the vehicle, turn the key to the OFF position and remove the key from the vehicle.

Drive the vehicle only as fast as terrain and conditions allow. Consider the terrain and traffic conditions. Consider environmental conditions that change the terrain and your ability to control the vehicle.

Do not drive fast downhill. Sudden stops or change of direction can cause a loss of control. Use the brake to control the speed of the vehicle when you drive down a slope.

When possible, stay in approved areas and do not drive on steep slopes.

Always keep feet, legs, hands and arms inside vehicle.

Do not drive on rough terrain.

Before you drive in the reverse direction, make sure the area behind the vehicle is clear.

Make sure the direction selector is in the correct position before you press the accelerator pedal.

Decrease speed before and during turns.

Make sure you completely stop the vehicle before you move the direction selector.

See GENERAL SPECIFICATIONS for the vehicle load and seat capacity.

NOTICE

Read the following information and warnings before operating vehicle:

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

Normal use, age, wear or abuse can cause some components on the vehicle to fail. The manufacturer can not know all possible component failures or the methods that failures can occur. A vehicle in need of repair does not operate correctly and can be dangerous.

Be careful when you service the vehicle. Be aware of your safety and the safety of other people in the area.

Some components are heavy, spring loaded, corrosive, explosive, can cause high amperage or get hot. Battery acid and hydrogen gas can cause injury. Do not put your hands, face, feet or body in a location that can expose them to injury if an unexpected situation occurs.

Always use the correct tools shown in the tool list and wear safety equipment.

⚠ WARNING

Remove all jewelry before you service the vehicle.

Do not allow loose clothing or hair to contact the moving parts.

Do not touch hot objects.

The drive wheels must be lifted and supported on jack stands before you do any service to the powertrain when the motor is in operation.

When you service the vehicle, always wear eye protection. Be careful when you do work around batteries or you use solvents or compressed air.

Use wrenches with insulation to decrease the risk of a short-circuit if a wrench falls across the battery terminals. A battery short-circuit can cause an explosion.

To prevent the risk of battery explosion, keep all flammable materials, open flames or sparks away from the batteries.

Hydrogen gas is made as batteries are charged. Do not charge batteries without good ventilation.

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

Service Parts Manuals, as well as Repair and Service Manuals
are available from a local Distributor, an authorized Branch,
Genuine E-Z-GO Parts & Accessories Department or at www.shopezgo.com.

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