CUSHMAN®
By Jacobsen

4241725-GB-Rev A

Safety and Operation Manual

Cushman® Turf Truckster®

With Four Post ROPS

84063 – Kubota® D1105-E3B Diesel Engine, MT
84064 – Kubota® D1105-E3B Diesel Engine, MT, EC
84067 – Suzuki® K6 Gas Engine, MT
84068 – Suzuki® K6 Gas Engine, AT
84069 – Suzuki® K6 Gas Engine, RV and Utility

⚠ WARNING

WARNING: If incorrectly used this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust or service the machine.

JACOBSEN®
A Textron Company

When Performance Matters.™

GB
United Kingdom

FOREWORD

This manual contains safety and operating instructions for your new Cushman utility vehicle. This manual should be stored with the equipment for reference during operation.

Before you operate your mower, you and each operator you employ should read the manual carefully in its entirety. By following the safety, operating and maintenance instructions, you will prolong the life of your equipment and maintain its maximum efficiency.

If additional information is needed, contact your Cushman Dealer.

The serial plate is located on the frame rail under the steering wheel.Cushman recommends you record these numbers below for easy reference.

CONTENTS

These are the original instructions verified by Jacobsen A Textron Company

Proposition 65 Warning

This product contains or emits chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Litho In U.S.A. 1-2011

1.1 OPERATING SAFETY

WARNING

EQUIPMENT OPERATED IMPROPERLY OR BY UNTRAINED PERSONNEL CAN BE DANGEROUS.

Familiarize yourself with the location and proper use of all controls. Inexperienced operators should receive instruction from someone familiar with the equipment before being allowed to operate the machine.

1. Safety is dependent upon the awareness, concern and prudence of those who operate or service the equipment. Never allow minors to operate any equipment.
2. It is your responsibility to read this manual and all publications associated with this equipment (Safety & Operation Manual, Engine Manual, accessories, and attachments). If the operator cannot read English it is the owner's responsibility to explain the material contained in this manual to them.
3. Learn the proper use of the machine, the location and purpose of all the controls and gauges before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
4. Never allow anyone to operate or service the machine or its attachments without proper training and instructions or while under the influence of alcohol or drugs.
5. Wear all the necessary protective clothing and personal safety devices to protect your head, eyes, ears, hands, and feet. Operate the machine only in daylight or in good artificial light.
6. Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Cushman.
7. Stay alert for holes in the terrain and other hidden hazards.
8. Inspect the area where the equipment will be used. Pick up all the debris you can find before operating. Beware of overhead obstructions (low tree limbs, electrical wires, etc.) and also underground obstacles (sprinklers, pipes, tree roots, etc.) Enter a new area cautiously. Stay alert for hidden hazards.
9. Never allow anyone near the machine while in operation. The owner/operator can prevent, and is responsible for, injuries inflicted to themselves, to bystanders, and damage to property.
10. Do not carry passengers. Keep bystanders and pets a safe distance away.
11. Never operate equipment that is not in perfect working order or is without decals, guards, shields, or other protective devices securely fastened in place.
12. Never disconnect or bypass any switch.
13. Do not change the engine governor setting or overspeed the engine.
14. Carbon monoxide in the exhaust fumes can be fatal when inhaled. Never operate the engine without proper ventilation or in an enclosed area.
15. Fuel is highly flammable; handle with care.
16. Keep the engine clean. Allow the engine to cool before storing and always remove the ignition key.
17. Place transmission in Neutral, depress clutch and engage parking brake before starting the engine (motor). Start the engine only when sitting in operator's seat never while standing beside the unit.
18. Equipment must comply with the latest federal, state, and local requirements when driven or transported on public roads. Watch out for traffic when crossing or operating on or near roads.
19. Local regulations may restrict the age of the operator.
20. Operate the machine up and down the face of the slopes (vertically) not across the face (horizontally).
21. To prevent tipping or loss of control do not start or stop suddenly on slopes. Reduce speed when making sharp turns. Use caution when changing directions.
22. Always use the seat belt when operating vehicles equipped with a Roll Over Protective Structure (ROPS).

    Never use a seat belt when operating vehicle without a ROPS.

    Accessory ROPS will continue to be offered for all equipment currently covered. This allows for the outfitting of any machines without previous ROPS installations or replacement of damaged structures.
23. Keep legs, arms, and body inside the seating compartment while the vehicle is in motion.
24. Always shift transmission to 1st Gear (Manual Transmission) or Park (Automatic Transmission), engage parking brake, and stop engine before leaving the vehicle.
25. Charge batteries in an open well ventilated area away from spark and flames. Unplug charger before connecting and disconnecting charger from battery. Wear protective clothing and use insulated tools.
26. Disconnect the battery cables before performing any welding operations on this vehicle.

1.2 IMPORTANT SAFETY NOTES

This safety alert symbol is used to alert you to potential hazards.

DANGER - Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING - Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

CAUTION - Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury, and property damage. It may also be used to alert against unsafe practices.

NOTICE - Indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage. It may also be used to alert against unsafe practices.

For pictorial clarity some illustrations in this manual may show shields, guards or plates open or removed. Under no circumstances should this equipment be operated without these devices securely fastened in place.

WARNING

The Interlock System on this vehicle prevents the vehicle from starting unless the clutch pedal is depressed (Manual Transmission) or gear selector is in Park (P) or Neutral (N) (Automatic Transmission).

NEVER operate vehicle unless the Interlock System is working.

WARNING

1. Before leaving the operator's position for any reason:
   a. Remove foot from accelerator pedal.
   b. Slow vehicle using service brake.
   c. Depress clutch and shift transmission to 1st Gear (Manual Transmission, or Park (Automatic Trnasmission).
   d. Engage parking brake.
   e. Stop engine and remove the ignition key.
2. Keep hands, feet, and clothing away from moving parts. Wait for all movement to stop before you clean, adjust or service the machine.
3. Keep the area of operation clear of all bystanders and pets.
4. Never carry passengers unless a seat is provided for them.

By following all instructions in this manual you will prolong the life of your machine and maintain its maximum efficiency. Adjustments and maintenance should always be performed by a qualified technician.

If additional information or service is needed contact your Authorized Cushman Dealer who is kept informed of the latest methods to service this equipment and can provide prompt and efficient service.

2.1 VEHICLE IDENTIFICATION NUMBER

The Vehicle Identification Number (VIN), consisting of the model number, date code, and serial number, is printed on the Nameplate/Identification Decal attached to the cross member under the dash.

The serial number is also stamped on the cross member. It is located to the left of the Nameplate/Identification Decal.

NOTE: *Reference to the Front, Rear, Left, and Right sides of the vehicle are always determined by the operator's seated position.*

Record the Vehicle Identification information below for easy reference.

Model Number: _____

Date Code: _____

Serial Number: _____

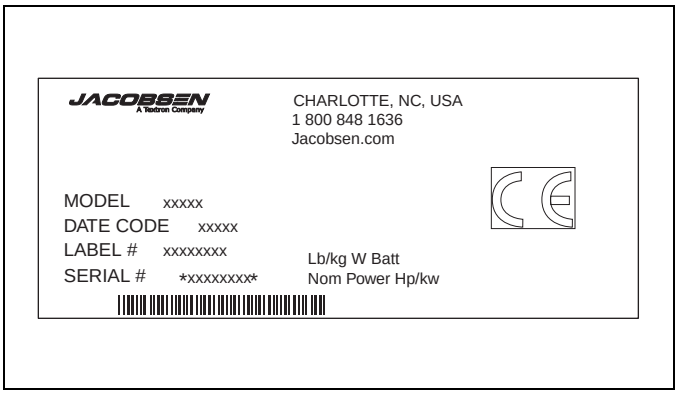


Figure 2A

Always provide the Vehicle Identification Number of the unit when ordering replacement parts or requesting service information. Vehicle Identification Numbers must appear on all correspondence concerning this vehicle.

2.2 ENGINE IDENTIFICATION NUMBERS

The Truckster is equipped with either a Kubota® three cylinder, diesel powered, liquid cooled, four cycle engine or a Suzuki three cylinder gas powered, liquid cooled, four cycle engine.

The Engine Serial Number for the Kubota engine is on a plate located on the valve cover.

The Engine Serial Number for the Suzuki engine is stamped onto the upper engine block on the right side of the engine under the engine mount and may be partially hidden by the electrical harness. The serial number is also hand printed on the fuel rail.

Record the Engine Serial Number below for easy reference.

Engine Serial Number: _____

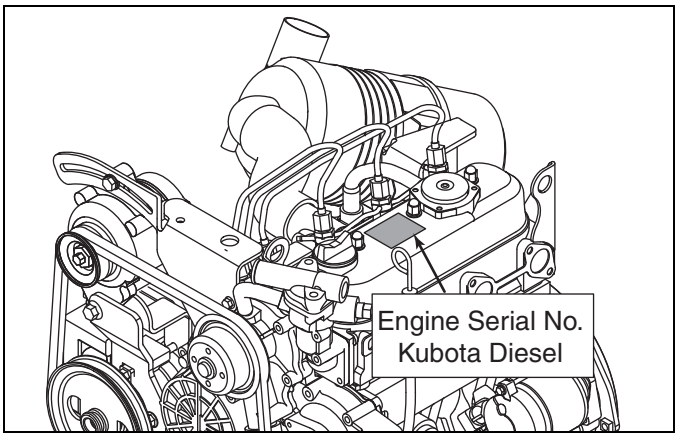
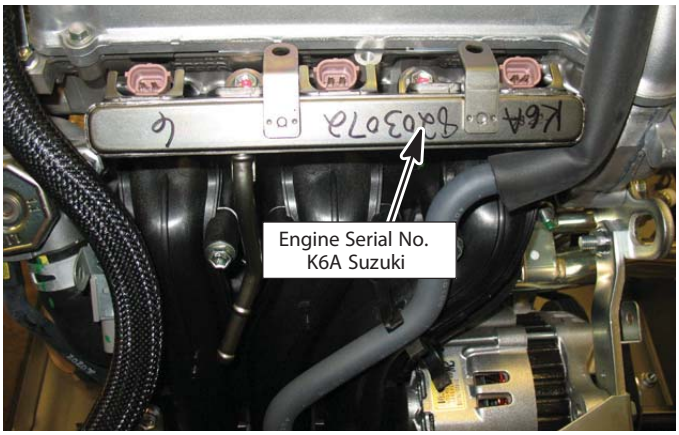
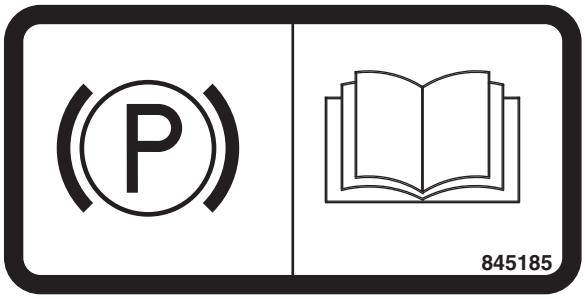


Figure 2B

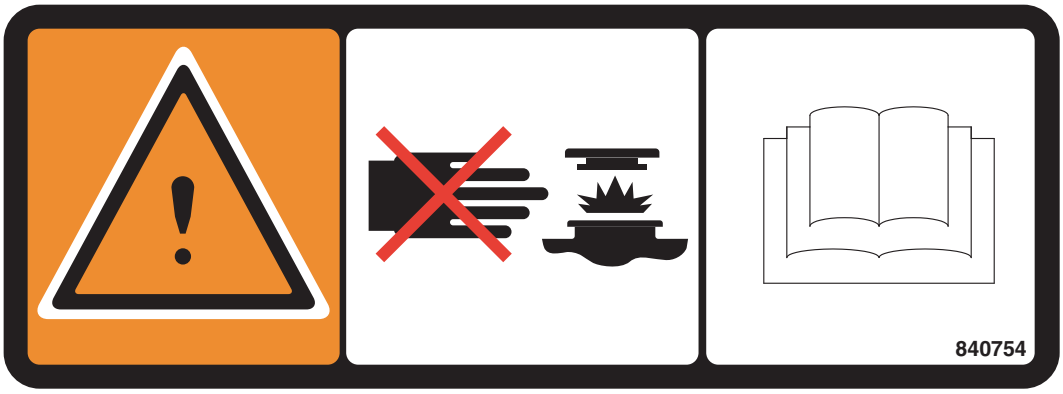


3.1 WARNING DECALS

Familiarize yourself with the following decals. They are critical to the safe operation of the machine. REPLACE DAMAGED DECALS IMMEDIATELY.



Parking brakes are not automatically Applied. Vehicle may move causing personal injury and/or property damage. Always apply hand or foot brakes.



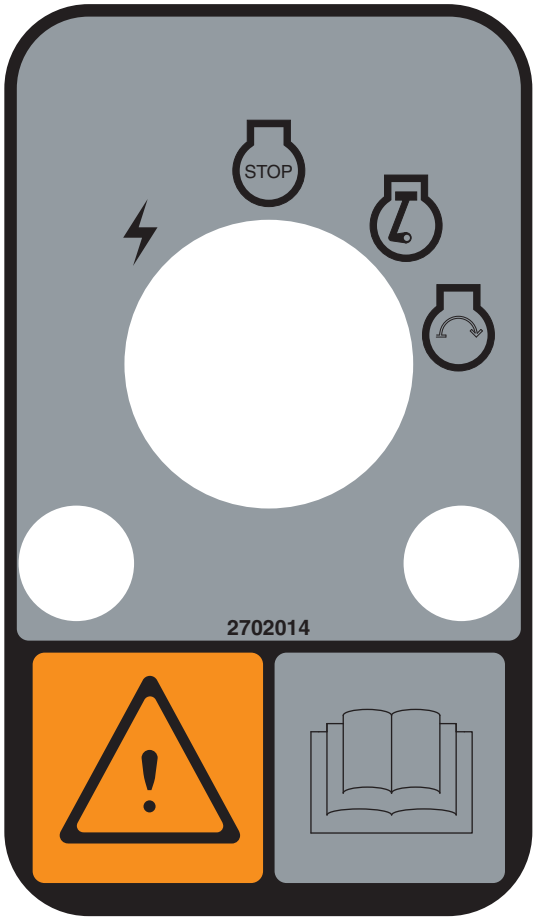
WARNING

To prevent serious bodily injury from hot coolant or steam blow-out, never attempt to remove the radiator cap while the engine is running. Stop the engine and wait several hours until it is cool. Even then, use extreme care when removing the cap.

WARNING

The cooling fan is controlled by a temperature switch and may start at any time coolant temperature is above 150° F (65 ° C), even with the ignition switch in the OFF position. Do not attempt to service the cooling system without first disconnecting the negative battery cable or removing the fan fuse.

Located on Four Post ROPS.



WARNING

Read the vehicle's manuals before attempting to start or operate this vehicle.

NOTICE

THIS CUSHMAN UTILITY VEHICLE DOES NOT COMPLY WITH FEDERAL MOTOR VEHICLE SAFETY STANDARD 571.500 FOR ON-ROAD USE. THIS CUSHMAN UTILITY VEHICLE IS A FIRST STAGE UNIT THAT CAN BE COMPLETED BY FINAL STAGE MANUFACTURES FOR COMPLIANCE WITH FMVSS 571.500. CUSHMAN AND TEXTRON MAKE NO WARRANTY FOR COMPLIANCE OF THIS UTILITY VEHICLE WITH ANY FEDERAL OR STATE MOTOR VEHICLE SAFETY STANDARD.

821071

PART NUMBER: 893146 Meets SAE: J1040 MAY94

Only to be used on Cushman truck models with matching lower structure

Manufactured by *JACOBSEN* a Textron Company
11524 Wilmar Blvd. Charlotte NC 28273

WARNING

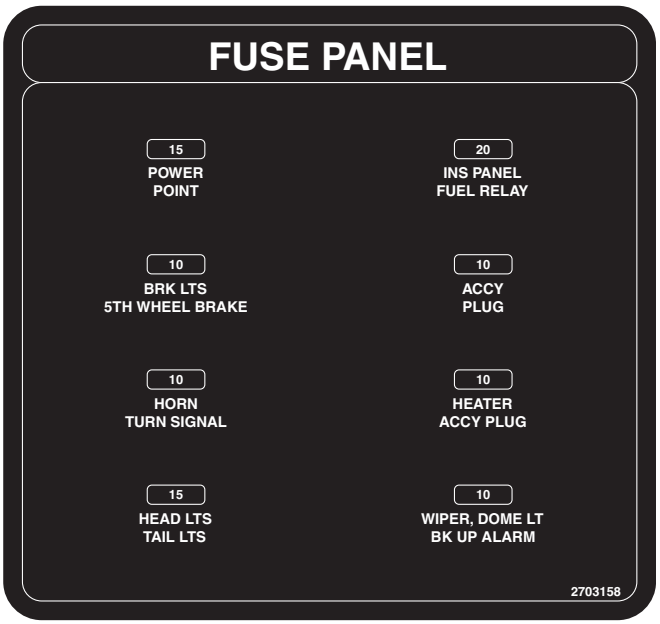
The protection offered by this ROPS will be impaired if it has been subjected to any modification or structural damage. This ROPS must be replaced after a rollover. Seat belts must be worn at all times.

4175340

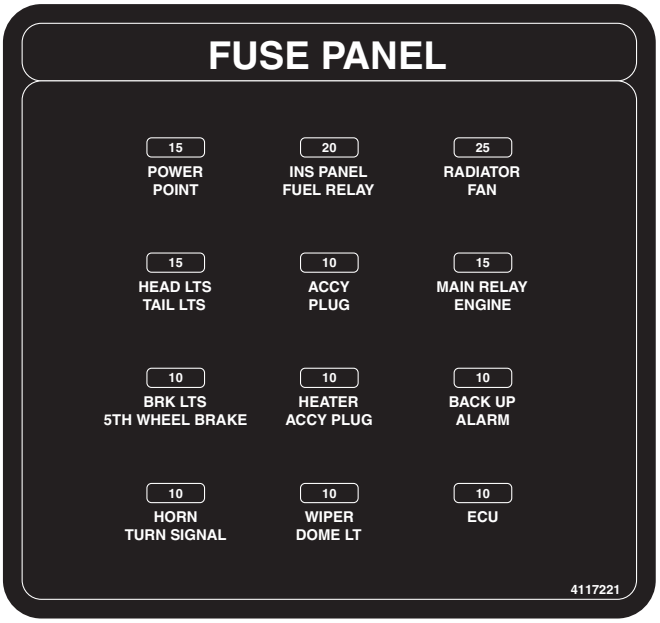
Used only with Upper ROPS installed.

3.2 INFORMATION AND OPERATION DECALS

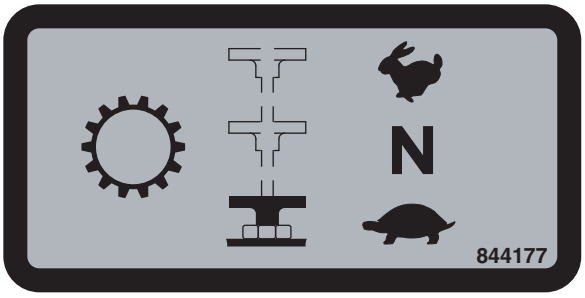
Familiarize yourself with the following decals. They are critical to the safe operation of the machine. REPLACE DAMAGED DECALS IMMEDIATELY.



Diesel Engine Units



Gas Engine Units

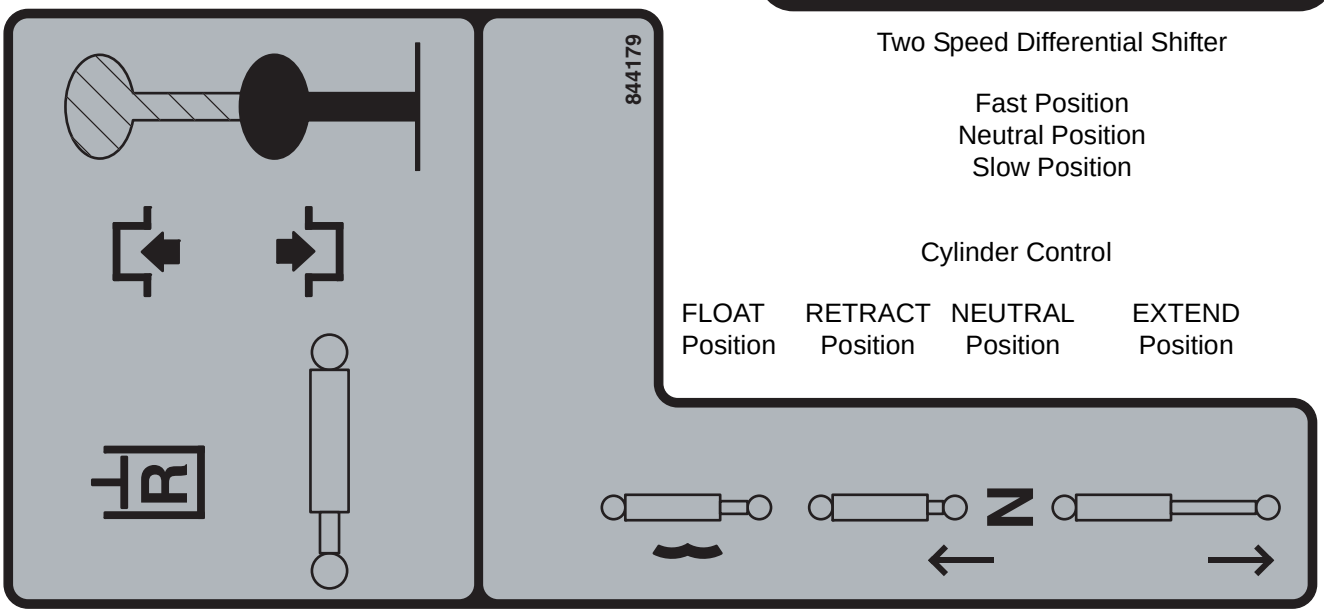


Two Speed Differential Shifter

Fast Position
Neutral Position
Slow Position

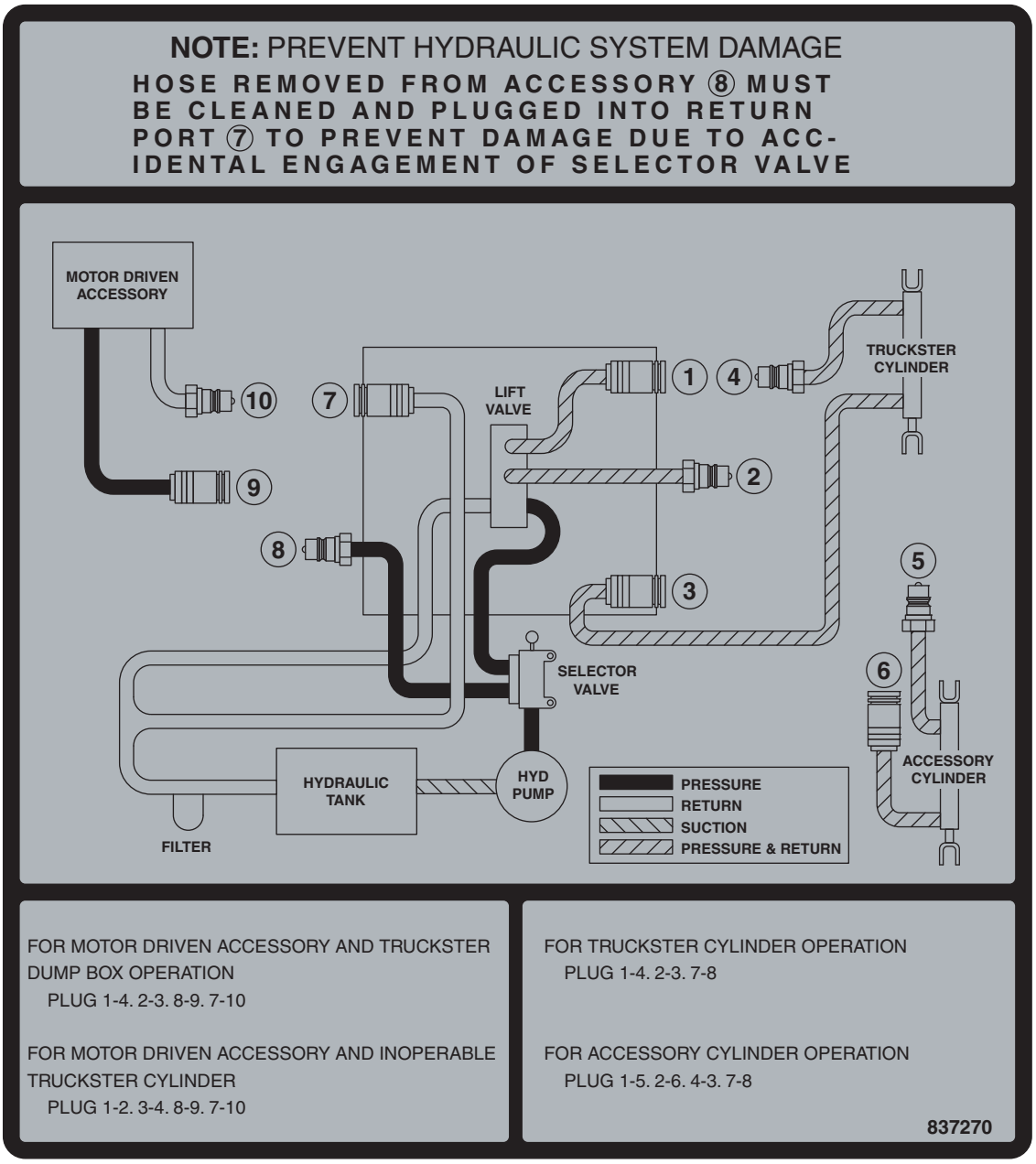
Selector Valve

Remote Hydraulics Lift Hydraulics



Cylinder Control

FLOAT Position
RETRACT Position
NEUTRAL Position
EXTEND Position



Units 84063, 84067, 84068 and 84069

3 DECALS

Familiarize yourself with the following decals. They are critical to the safe operation of the machine. REPLACE DAMAGED DECALS IMMEDIATELY.

Units 84064 Only

Refer to vehicle manuals for hydraulic system connections and operation.

3.3 SPEED CHART DECALS

KPH				KPH					MPH				MPH			
1	2	3	4	1	2	3	4	RPM	1	2	3	4	1	2	3	4
1.4	2.6	3.5	5.1	4.4	8.3	11.3	16.1	1600	0.9	1.6	2.2	3.2	2.8	5.2	7.1	10.0
1.5	2.9	4.0	5.7	5.0	9.3	12.8	18.1	1800	**1.0**	1.8	2.5	3.5	3.1	5.8	7.9	11.3
1.7	3.2	4.4	6.3	5.5	10.4	14.2	20.1	2000	1.1	**2.0**	2.8	3.9	3.4	6.4	8.8	12.5
1.9	**3.5**	**4.9**	**7.0**	**6.1**	**11.4**	15.6	22.1	2200	1.2	2.2	3.0	4.3	3.8	**7.1**	9.7	13.8
2.1	3.9	5.3	7.6	6.6	**12.4**	17.0	24.1	2400	1.3	2.4	3.3	4.7	4.1	**7.7**	10.6	15.0
2.2	4.2	5.8	8.2	7.2	**13.5**	18.4	26.2	2600	1.4	**2.6**	**3.6**	**5.1**	**4.5**	8.4	11.5	16.3
2.4	**4.5**	6.2	**8.9**	7.7	**14.5**	19.9	28.2	2800	**1.5**	2.8	3.9	**5.5**	4.8	**9.0**	12.3	17.5
2.6	4.8	6.6	9.5	8.3	15.5	21.3	30.2	3000	1.6	**3.0**	**4.1**	**5.9**	5.2	9.7	13.2	18.8
2.7	5.1	7.1	**10.1**	8.9	16.6	22.7	32.2	3200	1.7	3.2	4.4	6.3	5.5	10.3	14.1	20.0

RECOMMENDED SPEED SETTINGS

845234

Diesel Engine Units - 84063 and 84064

KPH			KPH				MPH			MPH		
L	2	D	L	2	D	RPM	L	2	D	L	2	D
2.6	4.6	**7.1**	8.4	15.6	22.9	2900	**1.6**	2.9	4.4	5.2	9.7	14.2
2.8	**4.9**	7.6	**9.0**	16.7	24.4	3100	1.7	**3.1**	4.7	5.6	10.4	15.2
3.0	5.3	**8.1**	9.5	17.8	26.0	3300	1.9	3.3	**5.0**	5.9	11.0	16.2
3.2	5.6	8.6	**10.1**	18.9	27.6	3500	**2.0**	**3.5**	5.3	6.3	11.7	17.1
3.3	**5.9**	9.1	10.7	19.9	29.2	3700	2.1	3.7	5.7	6.7	12.4	18.1
3.5	6.2	9.6	**11.3**	21.0	30.7	3900	2.2	3.9	**6.0**	**7.0**	13.1	19.1
3.7	6.5	10.1	**11.9**	22.1	32.3	4100	2.3	**4.1**	6.3	7.4	13.7	20.1
3.9	6.8	10.6	12.4	23.2	33.9	4300	2.4	4.3	6.6	7.7	14.4	21.1
4.3	7.2	11.1	**13.0**	24.2	35.5	4500	**2.5**	**4.5**	6.9	**8.1**	15.1	22.0

RECOMMENDED SPEED SETTINGS

845231

Gas Engine Automatic Transmission Units - 84068

KPH					KPH						MPH					MPH				
1	2	3	4	5	1	2	3	4	5	RPM	1	2	3	4	5	1	2	3	4	5
1.4	2.4	3.8	5.7	7.2	4.5	7.7	12.3	18.3	23.2	2900	0.9	1.5	2.4	3.6	4.5	2.8	4.8	7.6	11.4	14.4
1.5	2.6	4.1	6.1	7.7	4.9	8.2	13.0	19.6	24.8	3100	0.9	1.6	2.5	3.8	4.8	3.0	5.1	8.1	12.2	15.4
1.6	2.7	4.3	6.5	8.2	5.2	8.7	13.8	20.9	26.4	3300	1.0	1.7	2.7	4.1	5.1	3.2	5.4	8.6	13.0	16.4
1.7	2.9	4.6	6.9	8.7	5.5	9.3	14.7	22.1	28.0	3500	1.1	1.8	2.8	4.3	5.4	3.4	5.8	9.1	13.8	17.4
1.8	3.1	4.8	7.3	9.2	5.8	9.8	15.5	23.4	29.6	3700	1.1	1.9	3.0	4.5	5.7	3.6	6.1	9.6	14.5	18.4
1.9	3.2	5.1	7.7	9.7	6.1	10.3	16.3	24.7	31.2	3900	1.2	2.0	3.2	4.8	6.1	3.8	6.4	10.2	15.3	19.4
2.0	3.4	5.4	8.1	10.2	6.4	10.9	17.2	25.9	32.8	4100	1.2	2.1	3.3	5.0	6.4	4.0	6.8	10.7	16.1	20.4
2.1	3.6	5.6	8.5	10.7	6.7	11.4	18.0	27.2	34.4	4300	1.3	2.2	3.5	5.3	6.7	4.2	7.1	11.2	16.9	21.4
2.2	3.7	5.9	8.9	11.2	7.0	11.9	18.9	28.5	36.0	4500	1.4	2.3	3.7	5.5	7.0	4.4	7.4	11.7	17.7	22.4

4147584

Gas Engine Manual Transmission Units - 84067

KPH					KPH						MPH					MPH				
1	2	3	4	5	1	2	3	4	5	RPM	1	2	3	4	5	1	2	3	4	5
1.8	3.1	4.8	7.3	9.2	5.8	9.8	15.5	23.4	29.5	2900	1.1	1.9	3.0	4.5	5.7	3.6	6.1	9.6	14.5	18.3
1.9	3.3	5.2	7.8	9.9	6.2	10.5	16.5	25.0	31.6	3100	1.2	2.0	3.2	4.8	6.1	3.8	6.5	10.3	15.5	19.6
2.1	3.5	5.5	8.3	10.5	6.6	11.1	17.6	26.6	33.6	3300	1.3	2.2	3.4	5.2	6.5	4.1	6.9	10.9	16.5	20.9
2.2	3.7	5.8	8.8	11.1	7.0	11.8	18.7	28.2	35.6	3500	1.4	2.3	3.6	5.5	6.9	4.3	7.3	11.6	17.5	22.1
2.3	3.9	6.2	9.3	11.8	7.4	12.5	19.7	29.8	37.7	3700	1.4	2.4	3.8	5.8	7.3	4.6	7.8	12.3	18.5	23.4
2.4	4.1	6.5	9.8	12.4	7.8	13.2	20.8	31.4	39.7	3900	1.5	2.6	4.0	6.1	7.7	4.8	8.2	12.9	19.5	24.7
2.6	4.3	6.8	10.3	10.2	8.2	13.8	17.2	33.0	41.7	4100	1.6	2.7	4.2	6.4	8.1	5.1	8.6	13.6	20.5	25.9

4147586

Gas Engine RV and Utility Units - 84069

4.1 ICONS

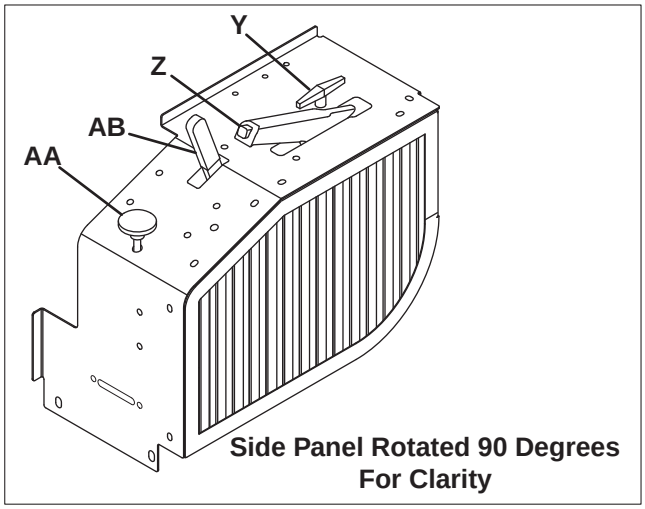
Read Manual 	**Hour Meter** 	**Engine Throttle** High Low 	**Ignition Switch** ACC Off ON Start 
Coolant Temperature 	**Brake** Parking Service 	**Fuel** 	**Governor Control** Throttle Governor 
Glow Plug 	**Turn Indicators** Left Right 	**High Beam** 	**Engine Oil Pressure** 

⚠ WARNING

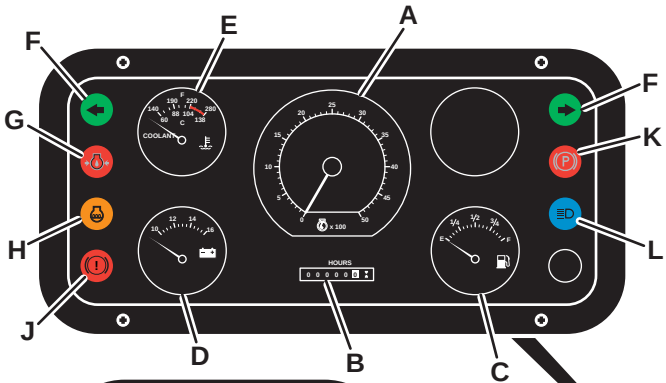
Never attempt to drive this vehicle unless you have read the Safety and Operation Manual and know how to operate all controls correctly.

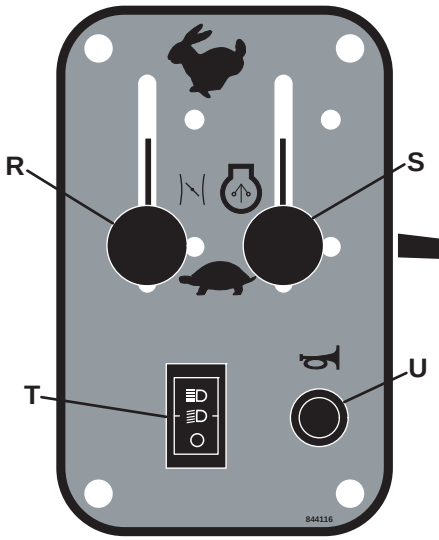
Familiarize yourself with the icons shown above and what they represent. Learn the location and purpose of all the controls and gauges before operating this tractor.

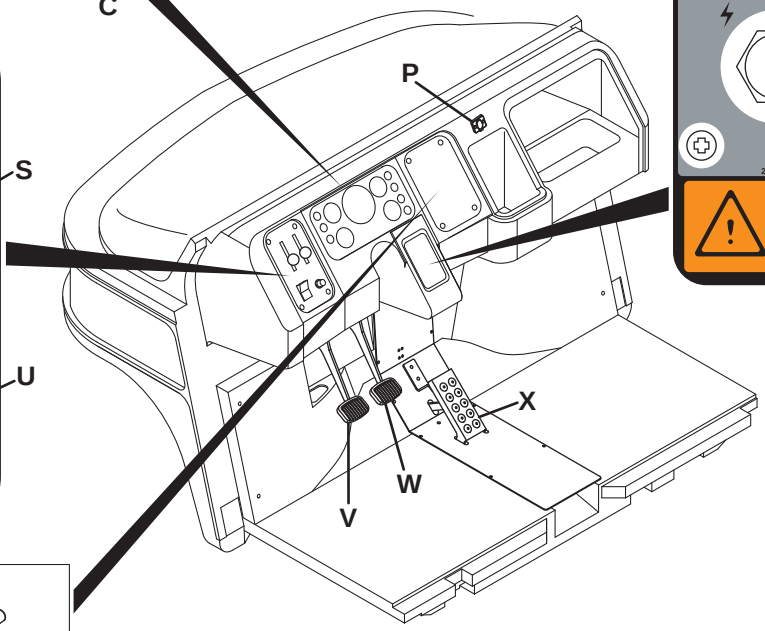
A Tachometer
B Hour Meter
C Fuel Gauge
D Voltmeter
E Temperature Gauge
F Turn Signal Indicator
G Oil Pressure Light
H Glow Plug Light
J Service Brake Fluid Light
K Parking Brake Light
L High Beam Indicator
M Ignition Switch
N Gear Selector
P Accessory Power Plug
R Hand Throttle
S Governor Control
T Light Switch
U Horn Button
V Clutch Pedal
W Service Brake Pedal
X Accelerator Pedal
Y Differential Shift Cable
Z Parking Brake Lever
AA Remote Hydraulics Control
AB Hydraulic Lift Control

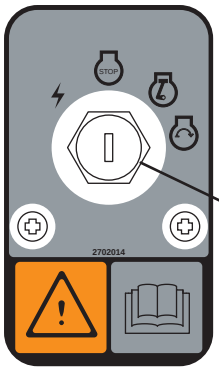


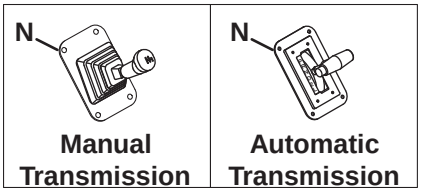
Side Panel Rotated 90 Degrees For Clarity











Manual Transmission
Automatic Transmission

4.2 CONTROL DESCRIPTIONS

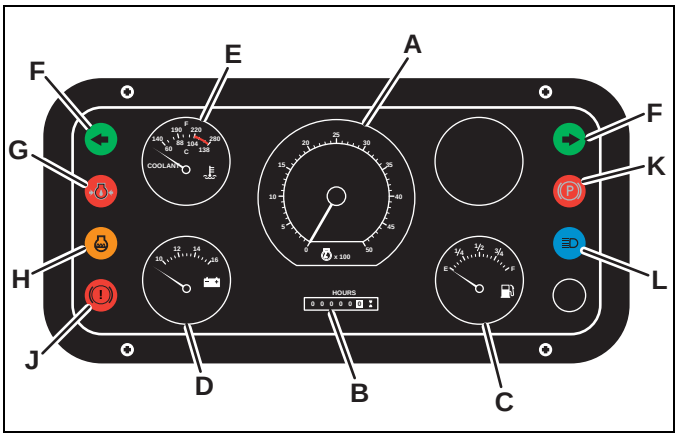


Figure 4A

A. ***Tachometer***
Indicates the engine speed (x 100) in revolutions per minute (RPM).

B. ***Hour Meter***
Records the number of hours the unit has been operated. The hour meter is active when the ignition switch **(M)** is in the ON position.

C. ***Fuel Gauge***
Indicates the amount of fuel remaining in the tank. Do not allow the tank to run dry.

D. ***Voltmeter***
The voltmeter indicates the voltage level of the battery. Under normal operation it should display between 12 and 18 volts. A reading below 12 volts indicates the battery is not charging correctly and is being drained.

E. ***Water Temperature Gauge***
Indicates engine coolant temperature. If temperature rises above 230° F (110° C), a buzzer located under dash will sound.

F. ***Turn Signal Indicators***
Used with optional turn signal kit. Left or right indicators flash when turn signal lever is moved to left or right position. Both indicators will flash when hazard button is pressed.

G. ***Oil Pressure Light***
Light will come on when ignition switch is turned to on position and will go out once engine starts. Do not continue to operate truck if light does not go out, or comes on during operation.

H. ***Glow Plug Light*** - **Diesel Engines Only**
Indicates glow plug timer is active. Timer will operate for approximately 20 seconds while pre-heating glow plugs in engine.

J. ***Service Brake Fluid Light***
Indicates low fluid level in master cylinder reservoir. Fill with clean DOT 3 brake fluid.

K. ***Parking Brake Light***
Indicates parking brake is engaged. Do not drive unit without disengaging parking brake.

L. ***High Beam Indicator***
Indicates light switch **(T)** is in high beam position.

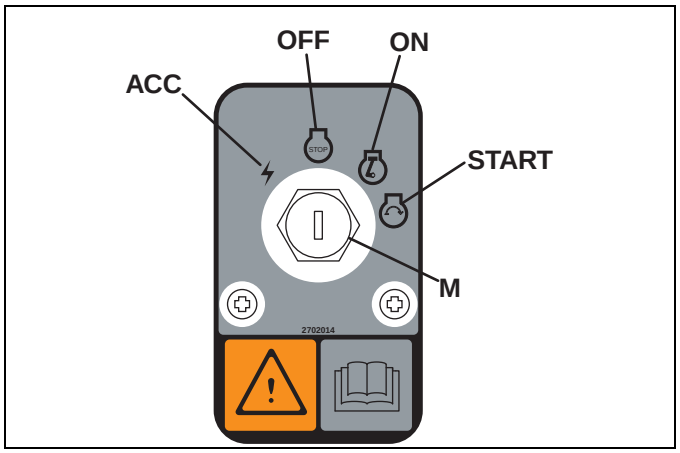


Figure 4B

M. ***Ignition Switch*** - The ignition switch has four positions. **ACC** - **OFF** - **ON** - **START**.
ACC (Accessory) Position - Allows use of various instruments and accessories without causing ignition system damage.

OFF Position - Prevents function of all vehicle electrical power operated features except for the flasher (hazard), lights, and the radiator cooling fan. **Switch must be in OFF position for key removal.**

ON Position - Key is placed in this position for normal engine operation.

START Position - Hold key in start position to engage engine starter. Upon release, key will return to ON position automatically. Key must be returned to the OFF position before the starter can be reactivated.

N. ***Gear Selector***

The gear selector is used to shift transmission into desired gear. Refer to ground speed decal to determine required gear.

Manual Transmission: Gear selector knob has the "H" shift pattern design molded into the top surface.

Figure 4C

Automatic Transmission: Gear selector has six positions, Park (P), Reverse (R), Neutral (N), Drive (D), Second (2) and Low (L). Engine will not start unless selector is in Park (P) or Neutral (N).

Push in selector button when shifting from Park (P), shifting into Neutral (N) or when shifting from Drive (D) to Second (2) or Low (L).

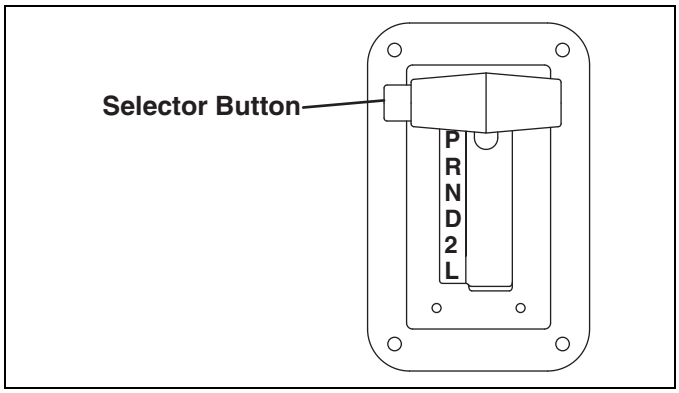


Figure 4D

P. ***Accessory Power Plug***

Allows operation of approved 12 Volt accessories and attachments. To prevent excessive battery drain, only use 12 volt outlet with engine running.

⚠ CAUTION

The 12 Volt Accessory outlet circuit is protected by a 15 Amp fuse. Do not attempt to use attachment(s) with a combined power rating greater than 180 Watts.

To prevent the risk or burns or fire do not replace 15 amp fuse with a higher amperage rating fuse.

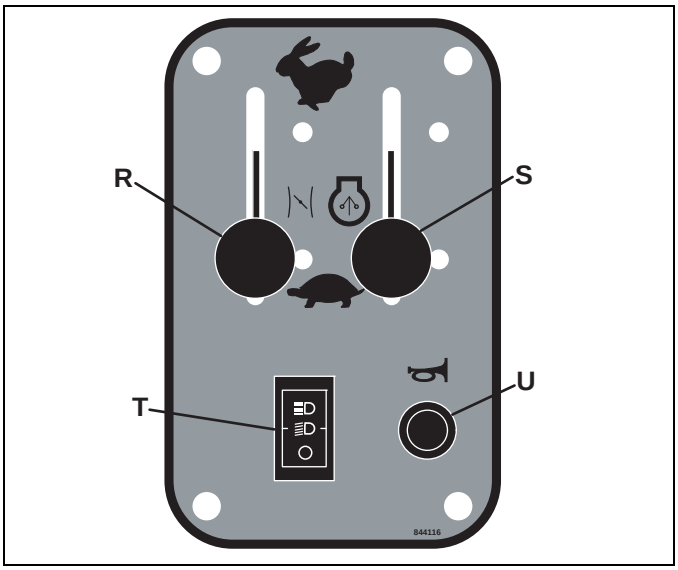


Figure 4E

R. ***Hand Throttle***

Used to set engine speed for remote operations. Increasing hand throttle speed will depress accelerator pedal.

Never attempt to drive the vehicle with the engine speed controlled by hand throttle.

S. ***Governor Control***

Used to lower pre-set governor rpm limits for hand and foot throttle operation.

Push lever all the way up to use pre-set rpm limit. Pull lever down as required to lower maximum rpm.

T. ***Light Switch***

The light switch is used to turn the headlights and taillight on. The switch has three positions, OFF, LOW BEAM, and HIGH BEAM. Push switch up one detent for LOW BEAM or push switch up two detents for HIGH BEAM.

U. ***Horn Button***

The horn button is located to the left of the steering wheel, below the dash panel. Depress to sound horn. Horn will not sound when the ignition switch is in the OFF position.

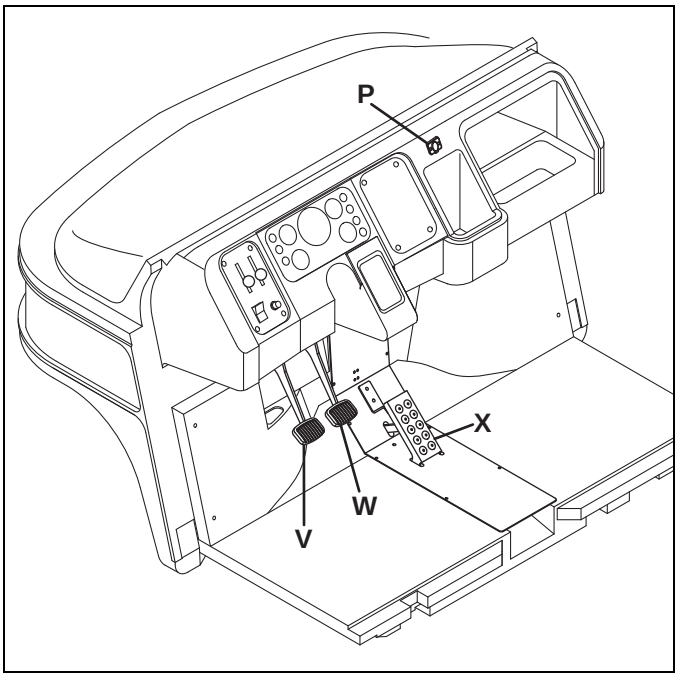


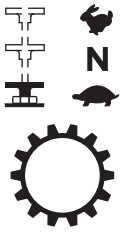
Figure 4F

V. ***Clutch Pedal*** - **Manual Transmission only:** Used to disengage the power output from engine to transmission. This allows shifting of transmission gears. Do not attempt to shift gears without fully depressing clutch pedal.
The clutch pedal is equipped with an interlock switch. This switch prevents the starter from operating unless the clutch is disengaged (the clutch pedal is depressed). See 5.2.

W. ***Service Brake Pedal*** - Depress the pedal to slow or stop the vehicle.
If the brakes DO NOT stop the vehicle properly, the brakes must be adjusted or repaired.

X. ***Accelerator Pedal*** - Push pedal down to open throttle (increase speed), release to return throttle to idle position (decrease speed).

Y. ***Differential Shift Cable***



Used to shift differential from LOW to HIGH speed range. Do not shift differential while vehicle is moving.

Push handle all the way down to shift differential into LOW speed range.

Pull handle up all the way to shift differential into HIGH speed range.

Placing handle in middle detent position places the differential in Neutral. Parking brake must be engaged or service pedal depressed with differential in Neutral to prevent the vehicle moving.

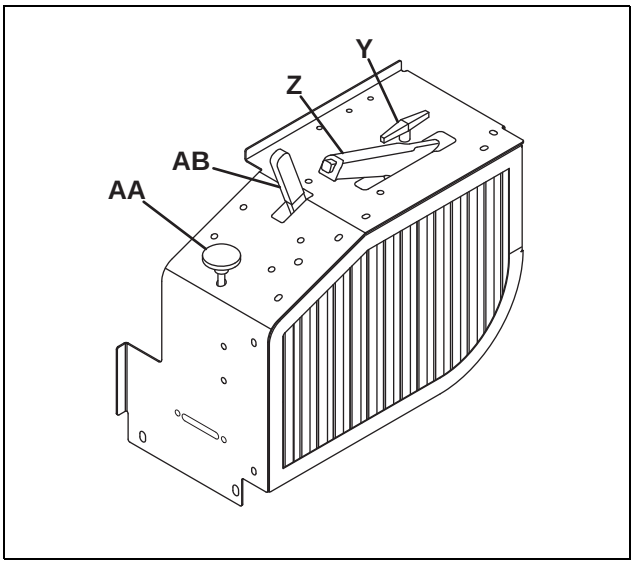


Figure 4G

Z. ***Parking Brake Lever***
The park brake lever is located to the left side of the drivers seat. Whenever using the parking brake, shift transmission to 1st Gear (Manual Transmission) or Park (Automatic Transmission), and shut off engine.

To engage the brake, pull up on the lever until park brake is applied.

To release; while slightly pulling up on the handle, push the button at the end of the lever and while holding the button in, lower the lever to it's original position.

AA.*Remote Hydraulics Control*

Used to engage and disengage remote hydraulic system.

Push knob down to use lift control system and disengage remote hydraulics.

Pull knob up to activate remote hydraulics and disable lift control system.

AB.*Lift Control System*

Used to control hydraulic bed lift. Push Remote hydraulics control knob **(AA)** to activate hydraulic lift system.

Pull back on the lever to extend the cylinder (Raise the dump box).

Push forward on the lever to retract the cylinder (Lower the dump box).

Push forward and to the right to place lever in float position.

5.1 DAILY INSPECTION

⚠ CAUTION

The daily inspection should be performed only when the engine is off and all fluids are cold. Engage the parking brake, stop engine, and remove ignition key.

1. Perform a visual inspection of the entire unit, look for signs of wear, loose hardware, and missing or damaged components. Check for fuel or oil leaks to ensure connections are tight and hoses and tubes are in good condition.
2. Check the fuel supply, radiator coolant level, crankcase oil, and air cleaner indicator. All fluids must be at the full level mark with engine cold.
3. Check tires for proper inflation.
4. Test the Interlock System.

   Note: For more detailed maintenance information, adjustments and maintenance/lube charts, see the **Parts & Maintenance** Manual.

5.2 INTERLOCK SYSTEM

1. The Interlock System prevents the engine from starting unless the clutch pedal (Manual Transmission) is depressed, or shift lever (Automatic Transmission) is in Park (P) or Neutral (N).

   ⚠ WARNING

   Never operate equipment with the Interlock System disconnected or malfunctioning. Do not disconnect or bypass any switch.

   Manual Transmission: Never turn the key to the START position unless the clutch pedal is depressed (pushed down) or the gear selector is in neutral. If the vehicle is in any gear other than neutral, and the clutch pedal is not depressed when the engine is started, the vehicle may lurch forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.

   Automatic Transmission: Never turn the key to the START position unless the gear selector is in Park (P) or Neutral (N). If the vehicle is in any gear other than Park (P) or Neutral (N) when the engine is started, the vehicle may lurch forward or backward depending which gear the vehicle is in. This lurching could cause serious personal injury or death.

2. Perform each of the following two tests to insure the Interlock System is functioning properly. Stop the test and have the vehicle inspected and repaired if truck **fails** either test**.**
   - the engine **does not** start in test 1;
   - the engine **does** start during tests 2;
3. Performed actions described for each test. Shut engine off between each test.

   Manual Transmission:

   Test 1: Represents normal starting procedure. The clutch pedal is depressed. The engine should start.

   Test 2: The engine must not start if the clutch pedal is not depressed.

   Automatic Transmission:

   Test 1: Represents normal starting procedure. the shift lever is in Park (P). The engine should start.

   Test 2: The engine should start if the shift lever is in Neutral (N).

   Test 3: The engine must not start if the shift lever is in Reverse (R).

   Test 4: The engine must not start if the shift lever is in Drive (D).

   Test 5: The engine must not start if the shift lever is in 2nd (2).

   Test 6: The engine must not start if the shift lever is in Low (L).

5.3 OPERATING PROCEDURES

⚠ WARNING

A Rollover Protection Structure (ROPS) for this utility vehicle is included as standard equipment. Seat belts must be worn whenever a ROPS is installed on the vehicle. Always keep seat belt snugly adjusted. **DO NOT** use seat belts on a utility vehicle without a ROPS.

If a ROPS is installed and the vehicle is overturning, hold onto the steering wheel. Do not attempt to jump out or leave the seat.

⚠ CAUTION

To prevent injury, always wear safety glasses, leather work shoes or boots, a hard hat, and ear protection. Wear any protective equipment recommended by the chemical manufacturer.

1. Under no circumstances should the engine be started without the operator seated on the utility vehicle.
2. Do not operate utility vehicle or attachments with loose, damaged, or missing components. Whenever possible operate when grass is dry.
3. Never remove or install the engine cover while the engine is running. The engine cover is a *machinery guard* and its removal exposes you to moving parts. Keep hands, hair, and clothing away from flywheel, radiator cooling fan, alternator fan, engine belts, pulleys, and air intake.

⚠ WARNING

Failure to latch the engine cover properly can result in the engine cover tipping forward causing loss of control of the vehicle and possible personal injury.

4. Study the area to determine the best and safest operating procedure. Consider the type of terrain, and condition of the surface. Each condition will require certain adjustments or precautions.
5. Never direct discharge of material toward bystanders, nor allow anyone near the machine while in operation. The owner/operator is responsible for injuries inflicted to bystanders and/or damage to their property.

⚠ CAUTION

Before operating, pick up all debris such as rocks, toys, and wire which can be thrown by the machine. Enter a new area cautiously. Always operate at speeds that allow you to have complete control of the utility vehicle.

6. Always disengage hydraulic system when not in use.
7. Slow down and look in both directions when crossing paths or roadways. Look out for traffic.
8. Stop and inspect the equipment for damage immediately after striking an obstruction or if the machine begins to vibrate abnormally. Have the equipment repaired before resuming operation.

⚠ WARNING

Before you clean, adjust, or repair this equipment, always disengage hydraulic system, engage parking brake, stop engine, and remove key from ignition switch to prevent injuries.

9. Slow down and use extra care on hillsides. Read Section 5.12. Use caution when operating near drop offs.
10. Look behind and down before backing up to be sure the path is clear. Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
11. Use care when pulling loads or using heavy equipment. Use only approved drawbar hitch points and limit loads to those you can safely control. Do not turn sharply. Use care when reversing. Use counterweights or wheel weights as suggested in accessory manuals.

5.4 STARTING

IMPORTANT: ***Do not use starting assist fluids.*** Use of such fluids in the air intake system may be potentially explosive or cause a “Runaway” engine condition and could result in serious engine damage.

1. Make sure fuel shut off valve is completely open.
2. **Manual Transmission:** Sit in operator’s seat, make sure the parking brake is engaged, and transmission is in Neutral.**[See 4.2]** Depress clutch pedal. **[See 4.2 and 5.2]**

   Automatic Transmission: Sit in operator’s seat, make sure the parking brake is engaged, and transmission is in Park (P)**.**
3. Turn ignition switch **(M)** to ON position.
   a. Engine Oil light **(G)** will come on and will stay on until engine starts.
   b. **Diesel Engine:** Glow plug light **(H)** will come on for up to 20 seconds.
   c. Parking brake light **(K)** will be on when parking brake is engaged.
4. **Diesel Engine:** The diesel engine uses glow plugs to pre-heat the combustion chamber and makes cold starting easier. When starting the vehicle for the first time during the day, or when the engine has cooled, you will need to energize the glow plugs to start the engine. Energizing glow plugs is not necessary when starting a warm engine. When glow plug light **(H)** turns off, turn key **(M)** to START position. Release as soon as engine starts. Do not hold switch in the START position for more than 15 seconds. Make sure engine oil light **(G)** turns off.

   Gas Engine: Turn key **(M)** to START position. Release as soon as engine starts. Do not hold switch in the START position for more than 15 seconds. Make sure engine oil light **(G)** turns off.
5. Allow the engine to become warm and properly lubricated before operating at high RPM.

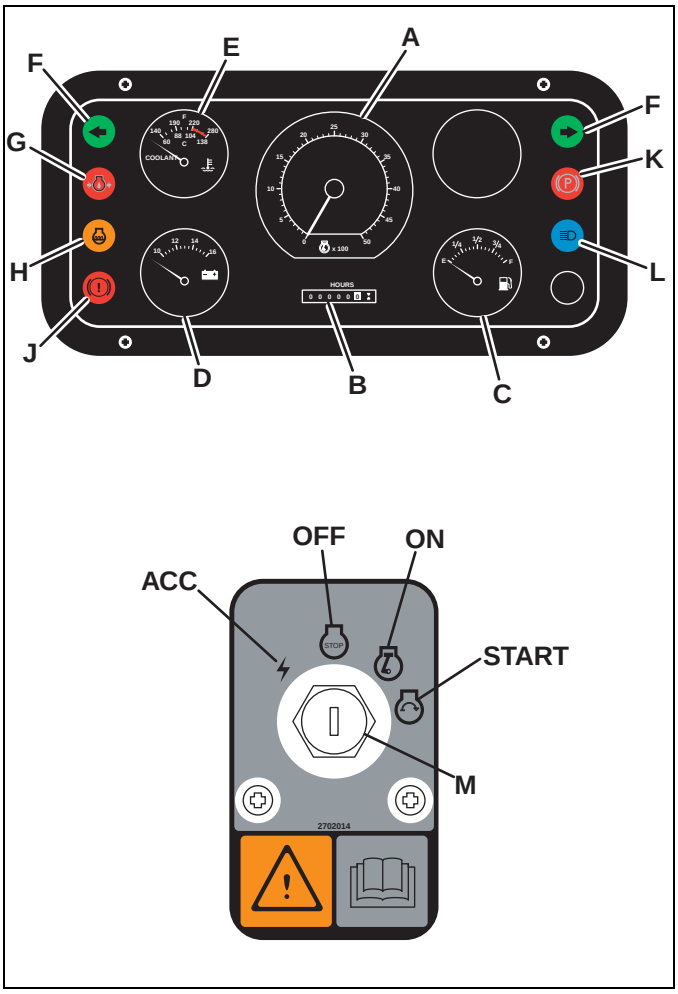


Figure 5A

5.5 TO DRIVE VEHICLE

Read and follow all safety notes contained in this manual when driving vehicle. Refer to Section 5.3 for general operating instructions. When operating in reverse look behind you to ensure you have a clear path.

Important: If this utility vehicle is driven on public roads, it must comply with federal, state, and local ordinances. Contact local authorities for regulations and equipment requirements.

⚠ CAUTION

To prevent tipping or loss of control, travel at reduced speed when making turns.

Manual Transmission:

1. Disengage remove hydraulic system and fully lower the utility vehicle bed when driving to and from the area of operation.
2. Apply service brake and disengage parking brake.
3. The gear selector has an "H" pattern as shown in design molded into the top of the gear selector handle.
4. With the clutch pedal fully depressed, select the appropriate gear (forward or reverse), release the clutch pedal slowly while depressing the throttle pedal. Refer to **Section 5.6** for proper gear based on desired engine rpm and ground speed. Always start in 1st or 2nd gear and shift into higher gears as ground speed increases.

   Do not drive faster than 5-6 mph (8 to 10 kph), or drive long distances in reverse.

NOTE: *As you release the clutch pedal you will notice after the pedal has been partially released the vehicle will begin to move. When the vehicle begins to move, depress the throttle a little more and at the same time keep releasing the clutch pedal.* ***DO NOT drive with the clutch pedal partially depressed.***

5. When the vehicle gains enough speed, depress the clutch pedal and shift to the next higher gear and so on. When you shift gears remember that as you push in the clutch you need to release the throttle pedal. **DO NOT** push in the accelerator at the same time you are pushing in the clutch while shifting to a higher or a lower gear (downshifting).
6. You can down-shift from 4th to 3rd and from 3rd to 2nd and so on while the vehicle is moving and the engine's speed is decreasing.

   If the engine rpm and/or the vehicle speed are not decreased sufficiently and you try to down shift, it is possible to damage the transmission. **DO NOT** force the gear selector to the next lower gear. Slow the engine and vehicle speed until the gear selector can be shifted properly.

NOTE: *Only downshift if the vehicle is at a complete stop or if the engine's speed is decreasing.*

   Remember, before shifting to any gear you have to depress the clutch pedal before you shift to that particular gear.

Automatic Transmission:

1. Disengage remote hydraulic system and fully lower the truck bed when driving to and from the area of operation.
2. Apply service brake and disengage parking brake.

⚠ CAUTION

Vehicle engine speed should *NEVER* be faster than idle speed when shifting from Park or Neutral into Reverse (R), Drive (D), Second (2), or Low (L), as sudden vehicle movement may occur.

3. Depress the button on shifter handle and select the appropriate gear (Forward or Reverse). Refer to **Section 5.6** for proper gear based on desired engine rpm and ground speed.

   Do not drive faster than 5-6 mph (8 to 10 kph), or drive long distances in reverse.

4. Release the service brake and slowly depress the accelerator pedal to reach the desired speed.

NOTE: *Accelerating the engine with the transmission in gear (Reverse (R), Drive (D), Second (2), or Low (L)) while holding the vehicle with the service brake or parking brake may cause transmission damage.*

5. Bring the vehicle to a full and complete stop before moving the gear selector lever to Park (P) or shifting from Drive (D) to Reverse (R) or shifting from Reverse (R) to Drive (D).
6. When driving forward down a steep incline or long grade, the transmission may be shifted to a lower gear (Second (2) or Low (L)) to help slow the vehicle. Excessive or prolonged use of brakes can cause loss of braking efficiency or loss of braking function due to overheating and can cause premature brake wear.

5.6 GROUND SPEED

Refer to **Figure 5B** to determine desired ground speed and engine RPM to select proper gear for operating the vehicle.

The following charts show the vehicle's ground speed in relation to the engine's RPM. Select the proper engine RPM and ground speed combination for the accessory equipment being used.

The decals are applied to each of the appropriate turf models and are shown below with correct model identity. Please replace any decal which may become damaged and/or hard to read. Shaded areas indicate recommended speed settings.

Kubota Diesel

KPH				KPH					MPH				MPH			
1	2	3	4	1	2	3	4	RPM	1	2	3	4	1	2	3	4
1.4	2.6	3.5	5.1	4.4	8.3	11.3	16.1	1600	0.9	1.6	2.2	3.2	2.8	5.2	7.1	10.0
1.5	2.9	4.0	5.7	5.0	9.3	12.8	18.1	1800	**1.0**	1.8	2.5	3.5	3.1	5.8	7.9	11.3
1.7	3.2	4.4	6.3	5.5	10.4	14.2	20.1	2000	1.1	**2.0**	2.8	3.9	3.4	6.4	8.8	12.5
1.9	**3.5**	**4.9**	**7.0**	**6.1**	**11.4**	15.6	22.1	2200	1.2	2.2	3.0	4.3	3.8	**7.1**	9.7	13.8
2.1	3.9	5.3	7.6	6.6	**12.4**	17.0	24.1	2400	1.3	2.4	3.3	4.7	4.1	**7.7**	10.6	15.0
2.2	4.2	5.8	8.2	7.2	**13.5**	18.4	26.2	2600	1.4	**2.6**	**3.6**	**5.1**	**4.5**	8.4	11.5	16.3
2.4	**4.5**	6.2	**8.9**	7.7	**14.5**	19.9	28.2	2800	**1.5**	2.8	3.9	**5.5**	4.8	**9.0**	12.3	17.5
2.6	4.8	6.6	9.5	8.3	15.5	21.3	30.2	3000	1.6	**3.0**	**4.1**	**5.9**	5.2	9.7	13.2	18.8
2.7	5.1	7.1	**10.1**	8.9	16.6	22.7	32.2	3200	1.7	3.2	4.4	6.3	5.5	10.3	14.1	20.0

KPH					KPH						MPH					MPH				
1	2	3	4	5	1	2	3	4	5	RPM	1	2	3	4	5	1	2	3	4	5
1.4	2.4	3.8	5.7	7.2	4.5	7.7	12.3	18.3	23.2	2900	0.9	1.5	2.4	3.6	4.5	2.8	4.8	7.6	11.4	14.4
1.5	2.6	4.1	6.1	7.7	4.9	8.2	13.0	19.6	24.8	3100	0.9	1.6	2.5	3.8	4.8	3.0	5.1	8.1	12.2	15.4
1.6	2.7	4.3	6.5	8.2	5.2	8.7	13.8	20.9	26.4	3300	1.0	1.7	2.7	4.1	5.1	3.2	5.4	8.6	13.0	16.4
1.7	2.9	4.6	6.9	8.7	5.5	9.3	14.7	22.1	28.0	3500	1.1	1.8	2.8	4.3	5.4	3.4	5.8	9.1	13.8	17.4
1.8	3.1	4.8	7.3	9.2	5.8	9.8	15.5	23.4	29.6	3700	1.1	1.9	3.0	4.5	5.7	3.6	6.1	9.6	14.5	18.4
1.9	3.2	5.1	7.7	9.7	6.1	10.3	16.3	24.7	31.2	3900	1.2	2.0	3.2	4.8	6.1	3.8	6.4	10.2	15.3	19.4
2.0	3.4	5.4	8.1	10.2	6.4	10.9	17.2	25.9	32.8	4100	1.2	2.1	3.3	5.0	6.4	4.0	6.8	10.7	16.1	20.4
2.1	3.6	5.6	8.5	10.7	6.7	11.4	18.0	27.2	34.4	4300	1.3	2.2	3.5	5.3	6.7	4.2	7.1	11.2	16.9	21.4
2.2	3.7	5.9	8.9	11.2	7.0	11.9	18.9	28.5	36.0	4500	1.4	2.3	3.7	5.5	7.0	4.4	7.4	11.7	17.7	22.4

Suzuki Gas AT

Suzuki Gas MT 14.21:1 Differential

KPH			KPH				MPH			MPH		
L	2	D	L	2	D	RPM	L	2	D	L	2	D
2.6	4.6	**7.1**	8.4	15.6	22.9	2900	**1.6**	2.9	4.4	5.2	9.7	14.2
2.8	**4.9**	7.6	**9.0**	16.7	24.4	3100	1.7	**3.1**	4.7	5.6	10.4	15.2
3.0	5.3	**8.1**	9.5	17.8	26.0	3300	1.9	3.3	**5.0**	5.9	11.0	16.2
3.2	5.6	8.6	**10.1**	18.9	27.6	3500	**2.0**	**3.5**	5.3	6.3	11.7	17.1
3.3	**5.9**	9.1	10.7	19.9	29.2	3700	2.1	3.7	5.7	6.7	12.4	18.1
3.5	6.2	9.6	**11.3**	21.0	30.7	3900	2.2	3.9	**6.0**	**7.0**	13.1	19.1
3.7	6.5	10.1	**11.9**	22.1	32.3	4100	2.3	**4.1**	6.3	7.4	13.7	20.1
3.9	6.8	10.6	12.4	23.2	33.9	4300	2.4	4.3	6.6	7.7	14.4	21.1
4.3	7.2	11.1	**13.0**	24.2	35.5	4500	**2.5**	**4.5**	6.9	**8.1**	15.1	22.0

Suzuki Gas MT 11:16:1 Differential

KPH					KPH						MPH					MPH				
1	2	3	4	5	1	2	3	4	5	RPM	1	2	3	4	5	1	2	3	4	5
1.8	3.1	4.8	7.3	9.2	5.8	9.8	15.5	23.4	29.5	2900	1.1	1.9	3.0	4.5	5.7	3.6	6.1	9.6	14.5	18.3
1.9	3.3	5.2	7.8	9.9	6.2	10.5	16.5	25.0	31.6	3100	1.2	2.0	3.2	4.8	6.1	3.8	6.5	10.3	15.5	19.6
2.1	3.5	5.5	8.3	10.5	6.6	11.1	17.6	26.6	33.6	3300	1.3	2.2	3.4	5.2	6.5	4.1	6.9	10.9	16.5	20.9
2.2	3.7	5.8	8.8	11.1	7.0	11.8	18.7	28.2	35.6	3500	1.4	2.3	3.6	5.5	6.9	4.3	7.3	11.6	17.5	22.1
2.3	3.9	6.2	9.3	11.8	7.4	12.5	19.7	29.8	37.7	3700	1.4	2.4	3.8	5.8	7.3	4.6	7.8	12.3	18.5	23.4
2.4	4.1	6.5	9.8	12.4	7.8	13.2	20.8	31.4	39.7	3900	1.5	2.6	4.0	6.1	7.7	4.8	8.2	12.9	19.5	24.7
2.6	4.3	6.8	10.3	10.2	8.2	13.8	17.2	33.0	41.7	4100	1.6	2.7	4.2	6.4	8.1	5.1	8.6	13.6	20.5	25.9

Figure 5B

5.7 STOPPING AND PARKING THE VEHICLE

Before you leave the operator's seat, complete these steps in the following order.

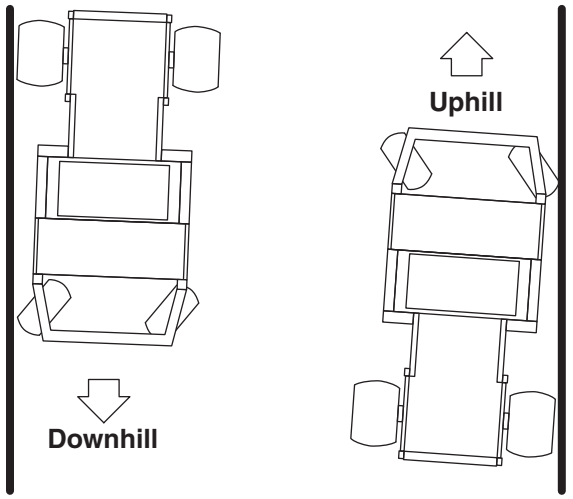
NOTE: *When parking the vehicle on an incline, the front wheels should be "curbed" whenever possible.*

Manual Transmission:

1. Bring the vehicle to a complete stop and hold it in position with the service brake while depressing the clutch pedal (when bringing the vehicle to a stop, apply the brakes until the vehicle has slowed, then push the clutch in and apply the brakes until the vehicle comes to a complete stop.)
2. After the vehicle has come to a complete stop, turn the key switch to the OFF position while holding the clutch and brake pedals down until the engine is completely stopped. Apply the parking brake, place the vehicle in 1st gear, remove your feet from the pedals, and remove the key to prevent unauthorized use of the vehicle.

Automatic Transmission:

1. Remove foot from throttle pedal and bring the vehicle to a complete stop and hold in position with the service brake.
2. Move the gear selector lever to Park (P) position and apply the parking brake remove your foot from the brake pedal, turn the key switch to the OFF position, and remove the key to prevent unauthorized use of the vehicle.



Vehicle parked with front wheels curbed

Figure 5C

5.8 TIRE PRESSURE

Keep tires properly inflated to prolong tire life. Check inflation pressure while the tires are cool. Inspect tread wear.

Lower pressure will help avoid leaving tire marks in soft turf. Higher pressures may be required for heavier loads. Rear tire pressure must be set at 28 psi (1.93 BAR) when operating with a full load. *Never* exceed the maximum pressure indicated on the tire.

Check the pressure with an accurate, low pressure tire gauge. Due to the low volume of air needed, over-inflation may be reached in a matter of two to three seconds.

Keep tires inflated to:

Front - 20 psi - (1.38 BAR)

Rear - Varies, determined by load. (See Chart)

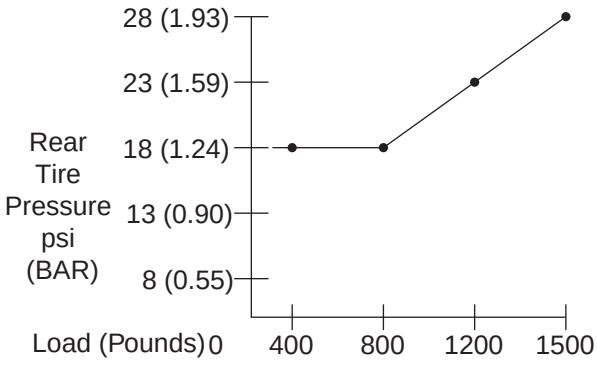


Figure 5D

5.9 HYDRAULIC SYSTEM

The hydraulic system on this vehicle is referred to as a “live” system. This means the hydraulic pump operates whenever the engine is running.

The operation of the hydraulic system is determined by the selector valve. When the selector valve knob **(AA)** is pushed down, the hydraulic lift system is active, and the remote hydraulics are disabled. When the selector valve knob is pulled up, the remote hydraulics are active, and the hydraulic lift system is disabled.

Refer to the decal on the hydraulic connector cover to determine proper accessory connections. Always stop the engine before changing hydraulic connections

Hydraulic Lift System:

When hydraulic lift system is active, the system is controlled by the lift valve. The lift valve includes two check valves and a relief valve. The check valves prevent unwanted movement of the cylinder.

The lift valve has four positions, raise, neutral, lower, and float. The handle **(AB)** will automatically return to the neutral position when released from the raise or lower position. When in the float position, the handle must be pushed forward and to the left before it will return to the neutral position.

1. Pulling back on lift valve handle **(AB)** will extend the cylinder, raising the utility vehicle bed.
2. Pushing forward on lift valve handle **(AB)** retracts the cylinder, lowering the utility vehicle bed.
3. Pushing lift valve handle **(AB)** forward and to the right will place the lift valve into the float position. This position bypasses the check valves, which will allow the accessory to follow the ground contour, even in undulating terrain.

To use the utility vehicle bed cylinder, connect cylinder hose **(4)** to coupler **(1)**, and lift valve hose **(2)** to coupler **(3)**. To use an accessory cylinder, connect accessory cylinder hose **(5)** to coupler **(1)**, lift valve hose **(2)** to accessory cylinder hose **(6),** and utility vehicle bed cylinder hose **(4)** to coupler **(3)**.

Remote Hydraulic System:

The remote hydraulic system is used to operate accessories such as the Hydraulic PTO, Core Harvester, Top Dresser, or remote hydraulic powered hand tools.

To prevent overheating and/or damaging the hydraulic system, always keep the remote hydraulic system connected in a closed loop. Connect hose **(8)** to coupler **(7)** when accessory is not connected.

To use a hydraulic accessory, connect accessory hose **(9)** to hose **(8)**, and accessory hose **(10)** to connector **(7)**. Refer to the instructions that come with the accessory from proper operation

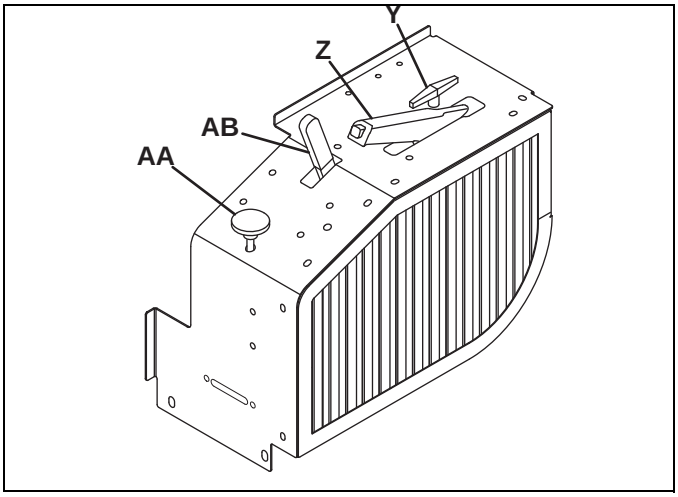


Figure 5E

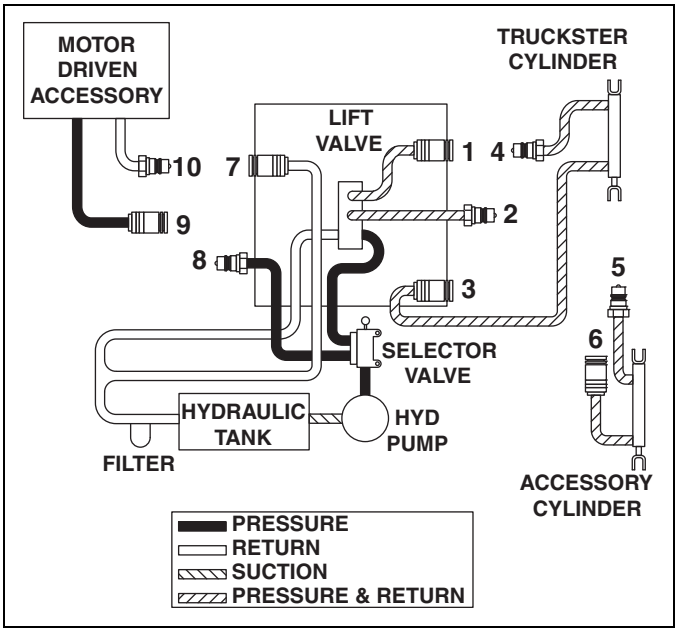


Figure 5F

5.10 ENGINE OVERHEAT PROCEDURE

During vehicle operation, if the water temperature gauge shows 230° F (110° C) or above, and/or the overheat warning buzzer sounds, follow this procedure.

1. ***Stop*** the vehicle. **DO NOT shut the engine off.** Place vehicle in Neutral and engage the parking brake.
2. Immediately disengage any accessories that are operating.
3. Slow the engine speed to a fast idle.
4. Remove any dirt, chaff, debris, etc. from the radiator intake screen located on the right side of the vehicle.

⚠ CAUTION

Be careful when opening the engine access cover or cleaning the intake screen. Metal surfaces near the radiator and engine may be hot to the touch. Use a brush or gloves to clean screen.

Temperature gauge needle should start to go down approximately 30 seconds after the screen is cleaned. If temperature does not go down, STOP the engine and check the following.

1. Check to see if cooling fan is operating. Fan should be turning with coolant above 180° F, even with ignition switch in OFF position.
2. Check engine oil level.
3. Check for a leak in the cooling system. **Do not** open radiator when hot. Check coolant levels after system completely cools.

   Failure to heed the overheat warning and properly maintain the cooling system will cause permanent engine damage.

5.11 TOWING THE VEHICLE

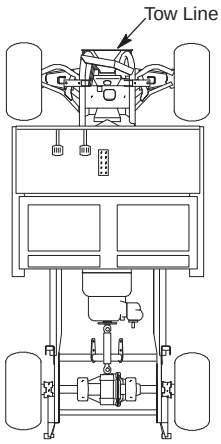
⚠ WARNING

To prevent injury or vehicle damage, the following guidelines should always be followed.

- **Never** accelerate or stop suddenly when towing a vehicle.
- **Never** change the direction of the vehicle abruptly or make sharp turns on an incline when towing a vehicle.
- **Never** tow the vehicle faster than 5 m.p.h. (8 km/h). Towing at excessive speed could cause either vehicle to lose proper steering control.
- Adjust your speed for weather and surface conditions when towing (rain, snow, ice, hills, etc.).

If for any reason the vehicle needs to be towed, follow the procedures below.

1. If towing the vehicle with a tow-rope or chain, an operator is required to steer the vehicle and to control the brakes.
2. Attach a tow-rope only to the front vertical frame member on either side of the vehicle.
3. Shift transmission to Neutral and release parking brake.
4. Slowly drive towing vehicle forward until tow-line is pulled tight.
5. While towing, try to keep the tow light taught at all times. Be careful going down inclines and turning corners.



A Front Bumper Accessory (Part No. 894778) is available for use with the Truckster. If a Front Bumper is mounted to your vehicle, make sure to follow the instructions included with the bumper for proper connection of the chain or tow rope.

Figure 5G

5.12 HILLSIDE OPERATION

⚠ WARNING

To minimize the possibility of overturning, the safest method for operating on hills and terraces is to travel up and down the face of the slope (vertically), not across the face (horizontally). Avoid unnecessary turns, travel at reduced speeds, stay alert for hidden hazards, and drop offs. Material moving inside the utility vehicle bed can cause an unbalanced load that could tip the vehicle. This is heavy equipment that could cause serious injury or death to the operators and/or bystanders if used improperly or overturned.

The utility vehicle has been designed for good traction and stability under normal operating conditions; however, use caution when operating on slopes, especially over rough terrain, or when the grass is wet. Wet grass reduces traction and steering control.

1. If the vehicle tends to slide or the tires begin to “mark” the turf, angle utility vehicle into a less steep grade until traction is regained, or tire marking stops.
2. If vehicle continues to slide or mark the turf, the grade is too steep for safe operation. Do not make another attempt to climb, back down slowly.
3. When descending a steep slope, always lower accessories to the ground to reduce the risk of the utility vehicle overturning.
4. Correct tire pressure is essential for maximum traction. **[See 5.8]**
5. Use caution when changing speeds and/or direction on slopes. Material moving inside the utility vehicle bed can cause an unbalanced load that could tip the vehicle.

5.13 DAILY MAINTENANCE

Important: For more detailed maintenance information, adjustments, and maintenance/lubrication charts, see the **Parts & Maintenance** Manual.

1. Park the utility vehicle on a flat, level surface. Engage parking brake, stop the engine, and remove key from ignition switch. Never allow untrained personnel to service machine.
2. Grease and lubricate all points if required. To prevent fires, wash truck after each use.
   a. Use only fresh water for cleaning your equipment.

   Note: *Use of salt water or effluent water has been known to encourage rust and corrosion of metal parts resulting in premature deterioration or failure. Damage of this nature is not covered by the factory warranty.*

   b. Do not use high pressure spray.
   c. Do not spray water directly at the instrument panel, or any electrical components.
   d. Do not spray water into the cooling air intake or the engine air intake.

   Note: *Do not wash a hot or running engine. Use compressed air to clean the engine and radiator fins.*
3. Fill vehicle’s fuel tank at the end of each operating day to within 1 in., (25 mm) below the filler neck.

   Diesel Engine: Use clean, fresh #2 low or ultra low sulfur diesel fuel. Minimum Cetane Rating 45.

   Gas Engine: Use clean fresh unleaded gasoline. Minimum Octane rating 87.
4. Handle fuel with care - it is highly flammable. Use an approved container, the spout must fit inside the fuel filler neck. Avoid using cans and funnels to transfer fuel.
   a. Never remove the fuel cap from the fuel tank, or add fuel, when the engine is running or while the engine is hot.
   b. Do not smoke when handling fuel. Never fill or drain the tank indoors.
   c. Never overfill or allow the tank to become empty. Do not spill fuel. Clean any spilled fuel immediately.
   d. Never handle or store fuel containers near an open flame or any device that may create sparks and ignite the fuel or fuel vapors.
5. Store fuel according to local, state, or federal ordinances and recommendations from your fuel supplier.
6. Check the engine oil at the start of each day, before starting the engine. If the oil level is low, remove the oil filler cap and add oil as required. Do not overfill.

6 NOTES

World Class Quality, Performance And Support

Equipment from Jacobsen is built to exacting standards ensured by ISO 9001 and ISO 14001 registration at all of our manufacturing locations.

A worldwide dealer network and factory trained technicians backed by Genuine Jacobsen Parts provide reliable, high-quality product support.

JACOBSEN
A Textron Company

When Performance Matters.™

CUSHMAN JACOBSEN RANSOMES

Jacobsen, A Textron Company
11108 Quality Drive, Charlotte,
NC 28273, USA
www.Jacobsen.com
800-848-1636

Ransomes Jacobsen Limited
West Road, Ransomes Europark, Ipswich, IP3 9TT
English Company Registration No. 1070731
www.ransomesjacobsen.com
+44 (0) 1473 270000