

# 2360 WindRower and 160 Platform



## TECHNICAL MANUAL 2360 WindRower and 160 Platform

TM1300 (01JUN85) English

John Deere Welland Works  
TM1300 (01JUN85)

LITHO IN U.S.A.  
ENGLISH





**TM-1300**

**2360 WINDROWER AND 160 PLATFORM  
TECHNICAL MANUAL**

**SECTION AND GROUP CONTENTS**

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| <p><b>SECTION 10—GENERAL</b><br/>GROUP 05—Safety<br/>GROUP 10—Specifications<br/>GROUP 15—Predelivery, Delivery and After-Sale Service<br/>GROUP 20—Tune Up<br/>GROUP 25—Lubrication</p> <p><b>SECTION 15—RADIATOR, FAN, AND ACCESSORY BELTS</b><br/>GROUP 05—Radiator, Fan, and Accessory Belts</p> <p><b>SECTION 20—DIESEL ENGINE REPAIR</b><br/>GROUP 01—Engine Removal and Installation<br/>GROUP 05—Cylinder Head, Valves, Timing Gear Train and Camshaft<br/>GROUP 10—Cylinder Block, Liners, Pistons and Rods<br/>GROUP 15—Crankshaft, Main Bearing and Flywheel<br/>GROUP 20—Lubrication System<br/>GROUP 25—Cooling System</p> <p><b>SECTION 25—GASOLINE ENGINE REPAIR</b><br/>GROUP 05—Engine Removal and Installation<br/>GROUP 10—Basic Engine<br/>GROUP 15—Cylinder Head, Valves, and Camshaft<br/>GROUP 20—Block, Pistons, and Connecting Rods<br/>GROUP 25—Crankshaft and Main Bearings<br/>GROUP 30—Lubrication System<br/>GROUP 25—Cooling System</p> | <p><b>SECTION 30—DIESEL-FUEL AND AIR</b><br/>GROUP 05—Air Intake System<br/>GROUP 10—Diesel Fuel System</p> <p><b>SECTION 35—GASOLINE-FUEL AND AIR</b><br/>GROUP 01—General<br/>GROUP 05—Air Filtering System<br/>GROUP 10—Fuel System<br/>GROUP 15—Carburetor<br/>GROUP 20—Governor<br/>GROUP 25—Throttle Control Linkage</p> <p><b>SECTION 40—ELECTRICAL</b><br/>GROUP 05—Battery<br/>GROUP 10—Starting System Diesel<br/>GROUP 15—Starting System Gasoline<br/>GROUP 20—Ignition System<br/>GROUP 25—Charging System<br/>GROUP 30—Lights, Switches, and Accessories</p> <p><b>SECTION 50—POWER TRAIN</b><br/>GROUP 05—Ground Drive System<br/>GROUP 10—Piston Pump Assembly<br/>GROUP 15—Wheel Motor<br/>GROUP 20—Power Wheel<br/>GROUP 25—Platform Drive System</p> <p><b>SECTION 60—STEERING AND BRAKES</b><br/>GROUP 05—Steering<br/>GROUP 10—Brakes</p> |
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*All information, illustrations and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.*

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## SECTION AND GROUP CONTENTS

### SECTION 70—HYDRAULICS

- GROUP 10—Hydraulic Circuit
- GROUP 15—Double Gear Charge Pump
- GROUP 20—Platform, Deck Shift, and Valves
- GROUP 25—Platform Lift Cylinders
- GROUP 30—Platform Gear Pump

### SECTION 80—MISCELLANEOUS

- GROUP 05—Walking Beam
- GROUP 10—Caster Wheel
- GROUP 15—Caster Wheel/Hub
- GROUP 20—Wheels and Tires

### SECTION 90—OPERATOR STATION

### SECTION 100—DRAPER PLATFORM

- GROUP 05—Specifications
- GROUP 10—Power Train
- GROUP 15—Hydraulics
- GROUP 20—Cutting Components

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## INTRODUCTION

This technical manual is part of a twin concept of service:

### **FOS Manuals—for reference**

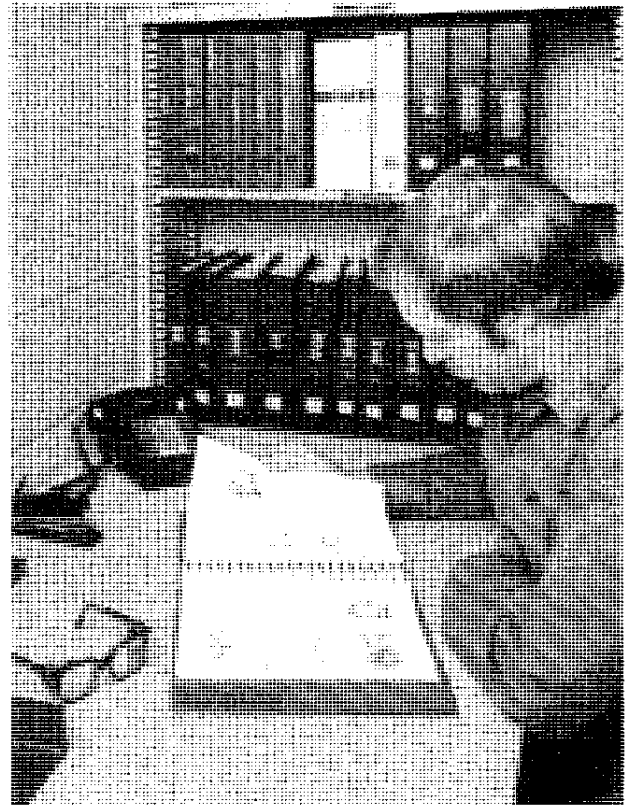
### **Technical Manuals—for actual service**

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

*Fundamentals of Service (FOS) manuals* cover basic theory of operation, fundamentals of trouble shooting, general maintenance, and basic types of failures and their causes. FOS Manuals are for training new people and for reference by experienced technicians.

*Technical Manuals* are concise service guides for a specific machine. Technical Manuals are on-the-job guides containing only vital information needed by an experienced technician.

Using the technical manual as a guide, will reduce error and costly delay. It will also assure you the best in finished service work.

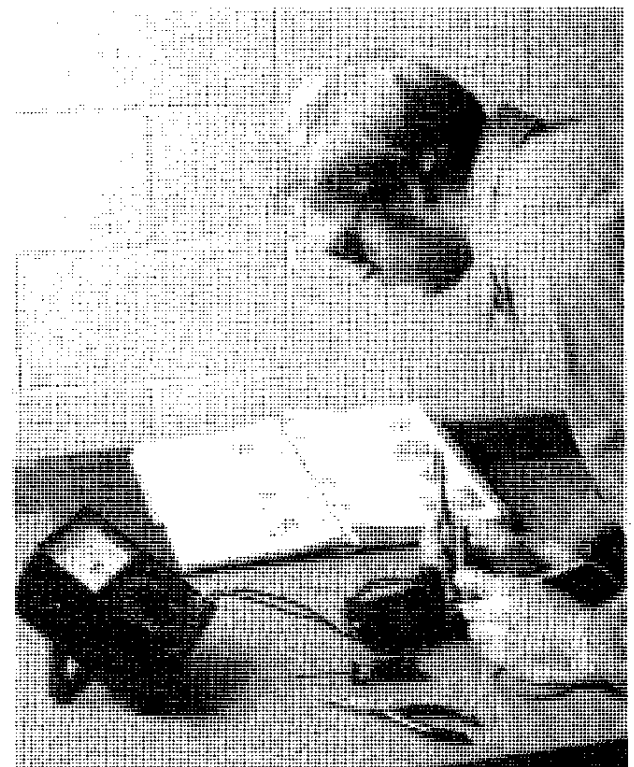


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## FEATURES OF THIS TECHNICAL MANUAL

- **John Deere ILLUSTRATION format emphasizing more detailed pictures and fewer words.**
- **Instructions and illustrations grouped together in easy-to-use modules with exploded views showing parts relationship.**
- **Categorized by two sections: Repair Sections identified by green tabs and Operation and Tests Sections identified by yellow tabs.**
- **Removal and installation groups preceding some repair groups. These groups show how to remove and install components from the machine rather than from major components. They also show how to acquire access to major components of a machine.**

This technical manual was planned and written for you—an experienced technician. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.



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## OBSERVE IMPORTANT MESSAGES

Messages labeled IMPORTANT will appear in this manual and/or on the machine to provide specific instructions for performing adjustments, services, etc. If these instructions are not followed, it could result in damage to the machine.

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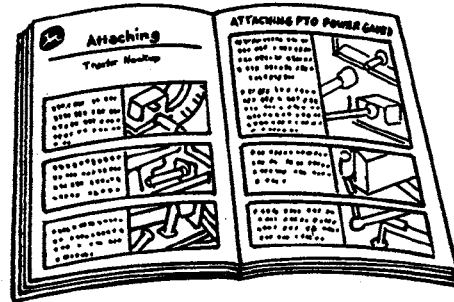
## OBSERVE NOTES

The word NOTE is followed by a statement that identifies a qualification or exception to a previous statement. A NOTE may also identify nice-to-know information pertinent to, but not directly related to the previous statement.

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## OPERATE WINDROWER SAFELY

Refer to the windrower operator's manual for complete operating instructions.



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## METRIC AND ENGLISH DESIGN

The 2360 Windrower, except the diesel engine, is of U.S. customary design. The diesel engine is of metric design. Most hardware is U.S. customary and must be replaced with identical hardware. Measurements in this manual will appear with metric first, followed by U.S. customary equivalents.

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### **DO NOT MODIFY MACHINE**

Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

W01;;125Y H 040485

### **NEW OR REVISED PAGES**

Whenever new or revised pages are provided, insert them into the manual immediately. This way your technical manual will always be up to date and be a valuable asset to your Service Department.

5EA; W02;;0000 E 230484

### **SPECIAL TOOLS**

Special tools required to perform service or adjustment, are found in the beginning of each group throughout the manual.

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*Introduction*

# Section 10 GENERAL

## CONTENTS

	Page
<b>GROUP 05—SAFETY</b>	
Safety . . . . .	10-05-01
<b>GROUP 10—SPECIFICATIONS</b>	
Machine Specifications . . . . .	10-10-01
Torque Specifications . . . . .	10-10-06
<b>GROUP 15—PREDELIVERY, DELIVERY AND AFTER-SALE</b>	
Temporary Storage. . . . .	10-15-01
Predelivery Service. . . . .	10-15-02
Delivery Service. . . . .	10-15-15
After-Sale Service . . . . .	10-15-16
<b>GROUP 20—TUNE-UP</b>	
General . . . . .	10-20-01
Preliminary Engine Testing . . . . .	10-20-01
Engine Tune-Up . . . . .	10-20-02
Miscellaneous Testing . . . . .	10-20-06
<b>GROUP 25—LUBRICATION</b>	
General . . . . .	10-25-01
Engine Lubricating Oils . . . . .	10-25-01
Storing Lubricants . . . . .	10-25-02
Lubricants . . . . .	10-25-02

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*Contents*

## OBSERVE SAFETY SIGNS AND MESSAGES



**CAUTION:** This message is used for general reminders of good safety practices or to direct attention to unsafe practices. The message will appear in your operator's manual and/or the sign will appear on the machine with the color combination of yellow and black.

**WARNING:** This message denotes a specific potential hazard. The sign will be displayed on the machine in areas of potential hazard. The sign will have the color combination of yellow and black.

**DANGER:** This message denotes the most serious specific potential hazard. The sign will be displayed on the machine in areas of potential hazard. The sign will have the color combination of red and white.



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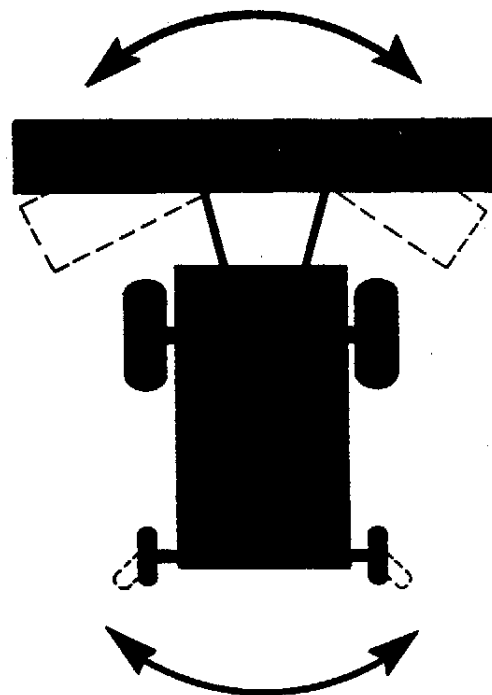
## STAY CLEAR OF MOVING WINDROWER

Be sure everyone is clear of windrower and platform before starting engine or moving steering wheel. Windrower will move if steering wheel is turned even if ground speed control lever is in neutral.

Never try to get on or off a moving windrower.

Before dismounting, place the ground speed control lever in NEUTRAL, engage the parking brake and lower the platform to the ground. Stop the engine and remove the key.

Never attempt to start or operate the Windrower except from operator's station.

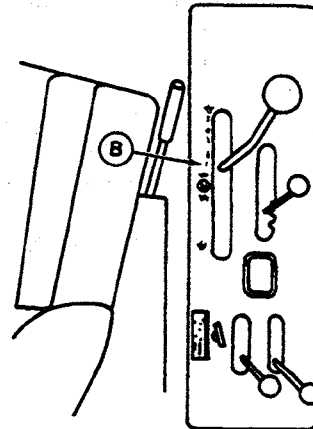
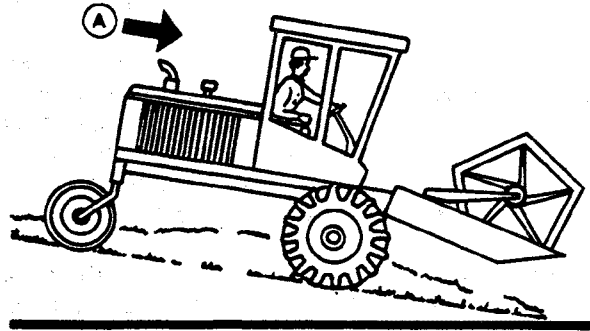


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### TRANSPORT WINDROWER SAFELY DOWNHILL

Use care when driving windrower down steep grades (A). Move ground speed control lever (B) to reduce speed.

Lower platform to maintain stability. Raise completely at bottom of grade.



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### PRACTICE SAFE MAINTENANCE

Know where the first aid kit and fire extinguisher are located and how to use them.

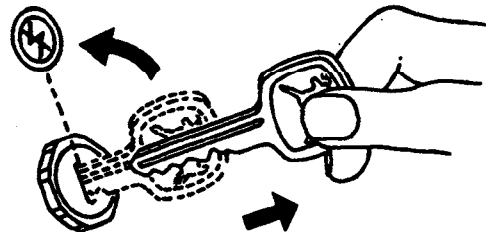
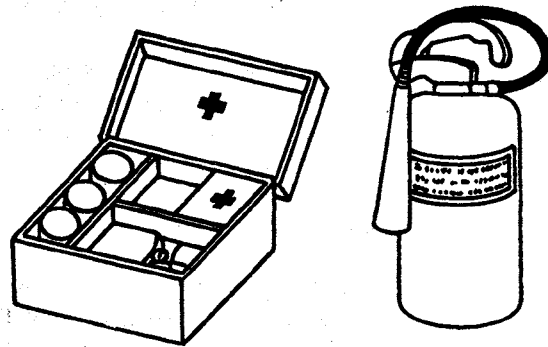
Always park windrower on level ground, shut off engine, engage parking brake, and remove key before servicing.

Use lifting equipment and safety stands having adequate strength for job being performed.

When working on wheels or tires, be sure to place jack and safety stands under axle and block wheels to prevent machine from rolling.

Determine if a mechanism has stored energy before disassembly.

Replace all shields removed for servicing.

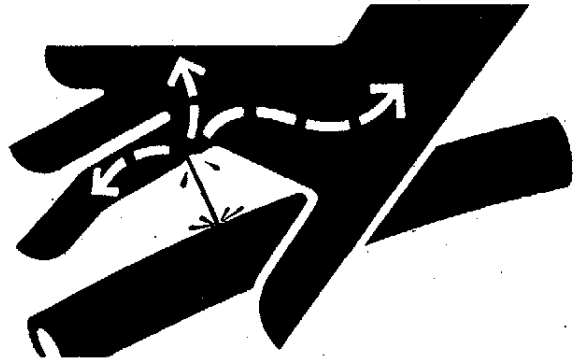


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### AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks.

If ANY fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type injury or gangrene may result.



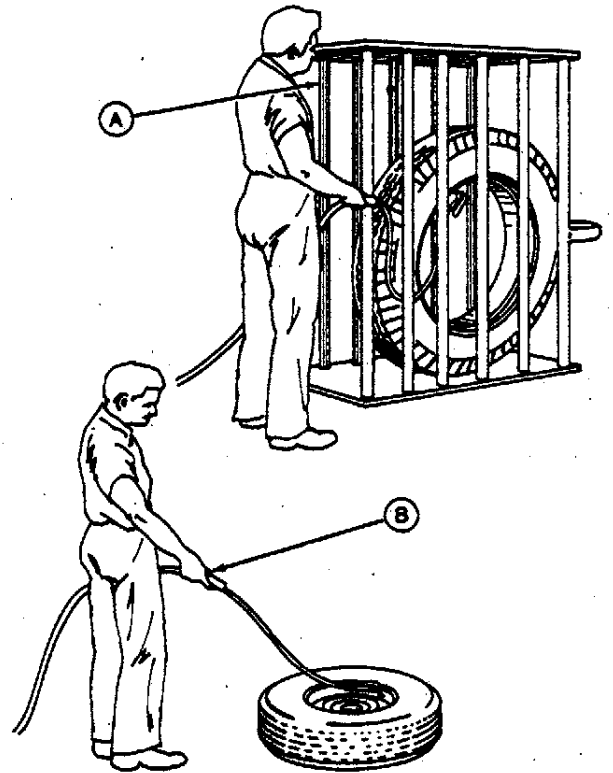
AB6;X9811 053;FLUID 100584

### SERVICE TIRES SAFELY

Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

When sealing tire beads on rims, never exceed 35 psi (241 kPa) (2.4 bar) or maximum inflation pressures specified by tire manufacturers for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead and reinflate.

Detailed tire mounting instructions, including necessary safety precautions, are contained in John Deere Fundamentals of Service (FOS) Manual 55, Tires and Tracks, available through your John Deere dealer. Such information is also available from the Rubber Manufacturers Association and from tire manufacturers.



**A—Use a Safety Cage If Available.**  
**B—Do Not Stand Over Tire. Use a Clip-on Chuck and Extension Hose.**

AB6;TS0123 053;TIRE 100584

### KEEP SERVICE AREA CLEAN

Keep the service area clean and dry; wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment.

Be sure all electrical outlets and tools are properly grounded.

Use adequate light for the job at hand.



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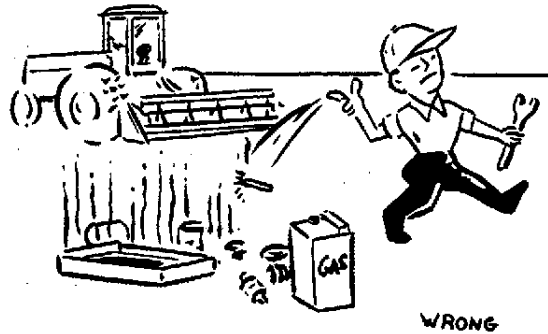
### AVOID EXPLOSIONS OR FIRE

**⚠ CAUTION:** Batteries produce explosive gas. Before using booster batteries, read instructions in Operator's Manual.

Before connecting or disconnecting battery charger, turn the charger off to avoid sparks. See instructions in Operator's Manual.

Be careful with starting fluid or any type of fuel.

Never smoke while handling fuel.



WRONG

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### WEAR PROPER PROTECTIVE EQUIPMENT

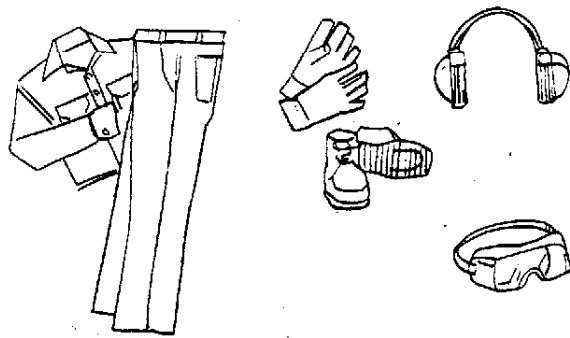
Ear plugs or ear muffs.

Heavy work gloves (when handling sharp objects or parts).

Safety shoes with slip-resistant soles.

Close fitting work clothes.

Safety glasses or goggles.

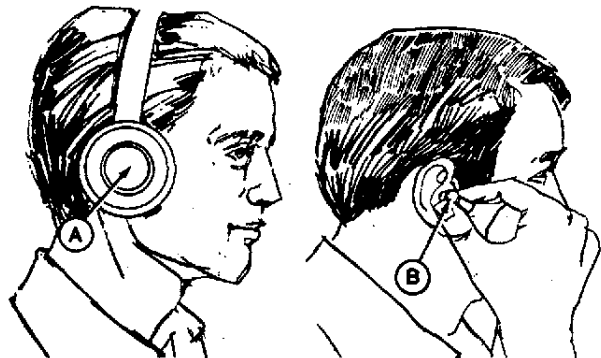


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### PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs (A) or earplugs (B) to protect against objectionable uncomfortable loud noises.



AB6;X7662 053;NOISE 150584

**OBSERVE ELECTRICAL SERVICE  
PRECAUTIONS**

Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive. To avoid sparks, connect ground cable last and disconnect it first. When using a booster battery, follow instruction in OM.

To avoid shocks and burns, disconnect battery ground cable before servicing any part of electrical system.

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*Safety*

## Group 10 SPECIFICATIONS

<b>Engine:</b>	<b>Gasoline:</b>	<b>Diesel:</b>
Make	Chrysler	John Deere
Number of Cylinders	6	4
Type	4-stroke cycle, in-line, valve-in-head	4-stroke cycle, in-line valve-in-head
Horsepower	68 (51 kW) @2250 rpm	71 (53 kW) @2250 rpm
Bore	3.40 in. (86 mm)	4.19 in. (106.5 mm)
Stroke	4.12 in. (105 mm)	4.33 in. (110 mm)
Piston displacement	225 cu. in. (3.7 L)	239 cu. in. (3.9 L)
Compression Ratio	8.2 to 1	16.8 to 1
Compression Pressure	120-150 psi (827-1034 kPa) (8.27-10.3 bar)	300 psi (2100 kPa)(21 bar)
Firing order	1-5-3-6-2-4	1-3-4-2
Recommended maximum speed (no load)	2400 rpm	2400 rpm
Recommended idle speed	800 rpm	800 rpm
Fuel	Gasoline	Diesel
Cooling system	Pressurized	Pressurized
Lubrication system	Force-feed, pressurized with full-flow oil filter	Force-feed, pressurized with full-flow oil filter
Oil Pressure	30-80 psi (207-552 kPa)	30-80 psi (207-552 kPa)
Fuel system	Single barrel, down-draft carburetor, diaphragm-type fuel pump	Direct injection, inlet metering, distributing- type, diaphragm-type fuel pump
Timing	5 deg. BTC at 500 rpm	
Spark Plugs	Champion RBL-11Y	
Spark Plug Gap	0.035 in. (0.89 mm)	
Thermostat	180°F (82°C)	180°F (82°C)
Valve tip clearance at engine operating tempera- ture 180°F (82°C)	0.010 in.(0.25 mm) In-take 0.020 in.(0.50 mm) Exhaust	0.018 in.(0.45 mm) In-take 0.022 in.(0.55 mm) Exhaust

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## Specifications

### Electrical System:

Starter, 90 Amp alternator, lights and accessory voltage . . . . . 12 volts  
 Battery . . . . . 12 volt, 500 CCA at 0°F (-17°C)

Propelling Drive: . . . . . Hydrostatic

### Capacities:

Hydraulic system: . . . . . 12.5 U.S. gal (47 L) (10.4 Imp gal)  
 Fuel tank . . . . . 42 U.S. gal (160 L) (35 Imp gal)  
 Power wheel . . . . . 1 U.S. qt (.93 L) (.8 Imp qt)  
 Cooling system. . . . . 18 U.S. qt (17 L) (15 Imp qt)  
 Engine oil (including filter):  
     (Gasoline) . . . . . 5 U.S. qt (4.8 L)(4.2 Imp qt)  
     (Diesel) . . . . . 7.9 U.S. qt (7.5L)(6.6 Imp qt)

Turning Radius . . . . . zero

### Speed Range:

Forward . . . . . 0-13 mph (0-21 km/h)  
 Reverse . . . . . 0-6 mph (0-10 km/h)

Brake . . . . . Parking, Drum, Lever Actuated

### Weight:

Gasoline . . . . . Approx. 4600 lb (2087 kg)  
 Diesel . . . . . Approx. 5314 lb (2410 kg)

### Cab:

Glass (tinted safety). . . . . 32 sq. ft. (3.0 m<sup>2</sup>)  
 Pressurizer  
     Fan capacity (blower) . . . . . 500 cu-ft/min (14.2 m<sup>3</sup>/min)  
     Filter . . . . . Dry type, reusable

### Air Conditioner:

Capacity . . . . . 24,000 BTU/hr (7 kW)  
 Rotary Compressor . . . . . 10 cu. in./rev (164 cc/rev)  
 Refrigerant . . . . . R-12, dry type, reusable

### Circuit Breakers:

Main . . . . . 50 amp  
 Air Conditioner . . . . . 25 amp  
 Lighting . . . . . 25 amp  
 Instrument Panel . . . . . 6 amp  
 Windshield Wiper . . . . . 6 amp

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*Specifications*

Hydrostatic Transmission . . . . . Cessna-Two piston pumps and one gear pump  
Displacement . . . . . 2.48 cu. in. (40.6 cc)  
Fluid . . . . . SAE 15W30 Classs SF or CC engine oil  
Main system relief pressure . . . . . 5000 psi (34450 kPa)(344.5 bar)

Power Wheels . . . . . Borg Warner  
Type . . . . . Planetary gear drive  
Ratio . . . . . 24.53:1  
Lubricant . . . . . GL-5 Gear Lubricant SAE85W-140  
Drive motor . . . . . Cessna fixed displacement

Tires:	Drive Wheels	Caster Wheels
	16.5 x 14 Bar	7.50 x 14
	18.4 x 14 Bar	8.5L x 14
	21.5 x 14 Field and Turf	

*(Specifications and design are subject to change without notice)*

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