# Walker Rider Lawnmowers

# SUPPLEMENTAL OWNER'S MANUAL

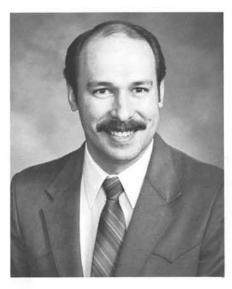
Assembly, Safety, Operating and Maintenance Instructions

Model MDD (16.5-HP Diesel) Model MDG (21.0-HP Gasoline) Model MT (20.0-HP Gasoline)



### Please Read and Save These Instructions

For Safety, Read all Safety and Operation Instructions Prior To Operating Machine



### Foreword

**Thank you...** for purchasing Walker equipment. Every effort has been made to provide you with the most reliable equipment on the market, and we are sure you will be among our many, many satisfied customers. If for any reason this product does not perform to your expectations, please contact us at (303) 221-5614. Your satisfaction is our goal.

Please...read this manual thoroughly! This manual is a supplement to Owner's Manual P/N 5895, and is to be used in conjunction with that manual and the manufacturer's engine manual for the specific engine on the mower model you have purchased. Before you operate your new equipment, please read these manuals in their entirety. Some of the information is crucial for proper operation and maintenance of the equipment – it will help protect your investment and ensure that the equipment performs to your satisfaction. Some of the information is important to your safety, and must be read and understood to help prevent possible injury to the operator or others. If anything in the manuals is confusing or hard to understand, please call our service department, at (303) 221-5614, for clarification before operating or servicing this equipment.

This manual is a Supplement...to Owner's Manual P/N 5895. It covers Model MDD, Model MDG, and Model MT Mowers, with the following engines, respectively: Kubota D600-B 16.5 HP diesel engine (liquid cooled), Kubota WG600-B 21.0 HP gasoline engine (liquid cooled), and Kohler COMMAND 20 HP gasoline engine (air cooled).

All shields and guards must be in place for proper and safe operation of this equipment. Where they are shown removed in this manual, it is for illustration purposes only. Do not operate this equipment unless all shields and guards are in place.

Specifications given are based on the latest information available at the time this manual was produced.

Walker Mfg. Co. is continually striving to improve the design and performance of its products. We reserve the right to make changes in specifications and design without thereby incurring any obligation relative to previously manufactured products.

Sincerely,

WALKER MANUFACTURING COMPANY

Bob Walker, President

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# General Information

#### HIGHLIGHTED INFORMATION

Information of special importance has been highlighted in this manual. **DANGER**, **WARNING** and **CAUTION** identify personal safety related information and are further identified by the safety alert symbol **A**. **IMPORTANT** identifies mechanical information demanding special attention, since it deals with the possibility of damaging a part or parts of the machine. **NOTE** identifies information worthy of special attention.

#### **IDENTIFYING NUMBER LOCATION**

The tractor serial number is located on a serial number plate affixed to the tractor body just below the left rear corner of the seat. See Photo 1-1. The mower deck serial number is located on a serial number plate affixed alongside the angle iron framing on the RH side of the RH blade drive gearbox as shown by Photo 1-2. The model and serial numbers will be helpful for obtaining replacement parts and maintenance assistance. For ready reference, please record these numbers in the space provided on this page.

#### **ENGINE SERIAL NUMBER LOCATION**

Refer to the engine manual that accompanies this Supplement for the location of the engine serial number. For mower models covered by this Supplement, engine manuals are available covering the following engines: Kubota D600-B diesel engine (liquid cooled), Kubota WG600-B gasoline engine (liquid cooled), and Kohler CH20 gasoline engine (air cooled).

# SERVICING OF ENGINE AND DRIVETRAIN COMPONENTS

The detailed servicing and repair of the engine, hydrostatic transmission and gearboxes are not covered in this manual; only routine maintenance and general service instructions are provided. For service of these components during the limited warranty period, it is important to find a local authorized servicing agent of the component manufacturer. Any unauthorized work done on these components during the warranty period may void your warranty. If you have any difficulty finding an authorized outlet or obtaining warranty service, please contact our Service Department for assistance.

Service manuals are available for each of these components from their respective manufacturers as follows:

Kubota Engines Kubota Tractor Corp. 1300 Remington Road

Schaumburg, IL 60173

Kohler Engines Kohler Company Kohler, WI 53044

Hydrostatic Transmissions Eaton Corporation

15151 Highway 5 Eden Prairie, MN 55344

Gearboxes (Deck) Tecumseh Products Co.

900 North Street Grafton, WI 53024

Tractor Model No. \_\_\_\_\_

Tractor Serial No. \_\_\_\_\_

Deck Serial No.

Engine Model No. \_\_\_\_\_\_

Date of Purchase \_\_\_\_\_

Fill In By Purchaser



PHOTO 1-1 Tractor Serial No. Location

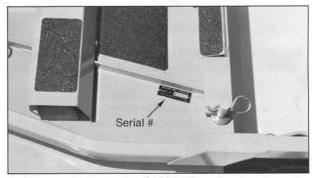


PHOTO 1-2 Deck Serial No. Location

### **SPECIFICATIONS**

MODEL	MDD	MDG	MT
ENGINE SPECIFICATION	DNS		
Manufacturer/Model	Kubota D600-B, 3 Cyl., Diesel (Liquid Cooled)	Kubota WG600-B, 3 Cyl., Gasoline (Liquid Cooled)	Kohler CH20, 2 Cyl., Gasoline (Air Cooled)
Displacement	36.61 Cu. In. (600 cc)	36.61 Cu. In. (600 cc)	38.1 Cu. In. (624 cc)
HP (@ 3600 RPM)	16.5	21.0	20.0
Max. RPM (No Load)	3800	3850	3750
Governed RPM	3600	3600	3600
Max. Torque (FtLbs. @ RPM)	25.5 @ 2600	30.5 @ 2800	32 @ 2500
Idle RPM	1000 ±50	1200 ±50	1200 ±75
Spark Plug Type	NA	NGK BCP4ES-11	Champion RC12YC
Spark Plug Gap	NA	.043" (1.1 mm)	.040" (1.02 mm)
Crankcase Capacity Crankcase Lubricant	3.1 Quarts (2.9 Liters) API CC/CD/CE Grade Oil Only With 10W-30 Viscosity (0r 30W Above 77° F Only)	3.1 Quarts (2.9 Liters) API SF Grade Oil Only With 10W-30 Viscosity (Or 30W Above 77° F Only)	2 Quarts (1.9 Liters) API SF or SG Grade Oil Only With 10W-30 or 10W-40 Viscosity
Fuel Tank Capacity	3.0 U.S. Gallons (11.4 Liters)	3.0 U.S. Gallons (11.4 Liters)	3.0 U.S. Gallons (11.4 Liters)
Fuel	Diesel Fuel Oil 2-D	Regular Grade Unleaded Gasoline (87 Octane)	Regular Grade Unleade Gasoline (87 Octane)
Cooling System Capacity (Approx.)	1.0 U.S. Gallon (3.8 Liters)	1.0 U.S. Gallon (3.8 Liters)	NA
ELECTRICAL SYSTEM			
Battery	12 Volt, 41AH, 340 CCA (Interstate U1-SP40)	12 Volt, 41AH, 340 CCA (Interstate U1-SP40)	12 Volt, 32AH, 240 CCA (Delco U1-240W)
Charging System	12.5 Amp Alternator	12.5 Amp Alternator	15 Amp Alternator
System Polarity	Negative Ground	Negative Ground	<b>Negative Ground</b>
Ignition System	Diesel W/Glow Plugs	Transistorized (No Points)	Electronic Capacitive Discharge
TRANSMISSION			
Type/Model	Dual Hydrostatic Eaton Model 7	Dual Hydrostatic Eaton Model 7	Dual Hydrostatic Eaton Model 7
Final Drive	Gear Drive Axle	Gear Drive Axle	Gear Drive Axle
Service Brake	Dynamic Braking Through Hydrostatic Transmission	Dynamic Braking Through Hydrostatic Transmission	Dynamic Braking Through Hydrostatic Transmission
Parking Brake (Optional)	Mechanical Pin Lock In Transmission Gear	Mechanical Pin Lock In Transmission Gear	Mechanical Pin Lock In Transmission Gear
Ground Travel Speed (MPH)	0-5 Infinitely Variable Forward or Reverse	0-5 Infinitely Variable Forward or Reverse	0-5 Infinitely Variable Forward or Reverse
Blade Drive Clutch And Brake	Manual Belt Tightener Clutch and Band Brake (Stops Blades Within 5 Seconds of Disengagement)	Manual Belt Tightener Clutch and Band Brake (Stops Blades Within 5 Seconds of Disengagement)	Manual Belt Tightener Clutch and Band Brake (Stops Blades Within 5 Seconds of Disengagement)

### **SPECIFICATIONS**

MODEL	MDD	MDG	MT
TIRE SIZE			
Deck Caster Wheel	2.80/2.50-4 Pneumatic (4 Ply)	2.80/2.50-4 Pneumatic (4 Ply)	2.80/2.50-4 Pneumatic (4 Ply)
Drive Tire	18 x 9.50-8 (4 Ply)	18 x 9.50-8 (4 Ply)	18 x 9.50-8 (4 Ply)
Rear Tire (Dual)	13 x 5.00-6 (4 Ply)	13 x 5.00-6 (4 Ply)	13 x 5.00-6 (4 Ply)
TIRE PRESSURE			
Deck Caster Wheel	20 PSI	20 PSI	20 PSI
Drive Tire	15 PSI	15 PSI	15 PSI
Rear Tire	20 PSI	20 PSI	20 PSI
DIMENSIONS*			
Outside Dimensions	44" H x 43" W x 88" L	44" H x 43" W x 88" L	44" H x 43" W x 88" L
Wheel Base (Tractor)	421/4"	421/4"	42¼"
Tread Width (Tractor)	29¾"	293/4"	293/4"
CURB WEIGHT (Appr	oximate)*		
		805 Lb.	715 Lb.
Tractor Only	825 LD.		
Tractor Only Tractor and Mower	825 Lb. 995 Lb.	975 Lb.	885 Lb.
Tractor and Mower	995 Lb.		885 Lb.
•	995 Lb.	975 Lb. 4 x 10 x ¼ Three Blade	4 x 10 x ¼ Three Blade
Tractor and Mower  GHS SYSTEM (Option	995 Lb.  nal) 4 x 10 x 1/4 Three Blade	975 Lb.	4 x 10 x 1/4
Tractor and Mower  GHS SYSTEM (Option  Blower  Grass Catcher  Capacity	995 Lb.  al) 4 x 10 x ¼ Three Blade Paddle Wheel	975 Lb.  4 x 10 x ¼  Three Blade  Paddle Wheel	4 x 10 x ½ Three Blade Paddle Wheel
Tractor and Mower  GHS SYSTEM (Option Blower  Grass Catcher	995 Lb.  al) 4 x 10 x ¼ Three Blade Paddle Wheel	975 Lb.  4 x 10 x ¼  Three Blade  Paddle Wheel	4 x 10 x ½ Three Blade Paddle Wheel
Tractor and Mower  GHS SYSTEM (Option Blower  Grass Catcher Capacity  DRIVE BELTS	995 Lb.  A x 10 x ¼ Three Blade Paddle Wheel 65 Gal./7.0 Bushel  Walker P/N 7230 Special Gates Power Band Gates 3VX335	975 Lb.  4 x 10 x ¼ Three Blade Paddle Wheel 65 Gal./7.0 Bushel  Walker P/N 7230 Special Gates	4 x 10 x ½ Three Blade Paddle Wheel 65 Gal./7.0 Bushe Walker P/N 8230 Special Gates
Tractor and Mower  GHS SYSTEM (Option Blower  Grass Catcher Capacity  DRIVE BELTS Engine PTO	995 Lb.  A x 10 x ¼ Three Blade Paddle Wheel 65 Gal./7.0 Bushel  Walker P/N 7230 Special Gates Power Band	975 Lb.  4 x 10 x ¼ Three Blade Paddle Wheel 65 Gal./7.0 Bushel  Walker P/N 7230 Special Gates Power Band Gates 3VX335	4 x 10 x ¼ Three Blade Paddle Wheel 65 Gal./7.0 Bushe  Walker P/N 8230 Special Gates Power Band Gates 3VX355

tional Tractor, Deck and GHS specifications

<sup>\*</sup> Dimensions and weight shown for 42" GHS Model (typical)

# SECTION 2

# Safety Instructions

This safety alert symbol means CAUTION, WARNING or DANGER concerning personal safety. When you see this symbol read, understand and follow the instructions because it is important for safety. Failure to comply with the instructions may result in personal injury.

The Walker Rider Lawnmower has been designed with many safety features to protect the operator from personal harm or injury. However, it is necessary for the operator to use safe operating practices at all times. Failure to follow the safety instructions contained in this manual may result in personal injury or damage to equipment or property.

If you have any questions concerning set-up operation, maintenance or safety, please contact your authorized Walker Mower Dealer or call Walker Manufacturing Company at (303) 221-5614.

#### **BEFORE OPERATING**

A. Read and understand the contents of this Owner's Manual before starting and operating the machine. Become thoroughly familiar with all controls and how to stop the machine and disengage the controls quickly. A replacement Owner's Manual is available by sending Model and Serial No. to:

#### **Walker Manufacturing Company**

5925 East Harmony Road Fort Collins, CO 80525

- **B.** Never allow children to operate rider mower. Do not allow adults to operate without proper instruction.
- **C.** Clear area to be mowed of foreign objects which may be picked up and thrown by cutter blades. Pick up all sticks, stones, wire and any other debris.
- **D.** Keep everyone, especially children and pets, a safe distance away from area being mowed. Do not mow with bystanders in area.
- **E.** Do not operate machine barefoot or wearing sandals, sneakers, tennis shoes or similar lightweight footwear. Wear substantial protective footwear.

- F. Do not wear loose fitting clothing that could get caught in moving parts. Do not operate machine wearing shorts; always wear adequate protective clothing including long pants. Wearing safety glasses, safety shoes and helmet is advisable and required by some local ordinances and insurance regulations.
- **G.** Prolonged exposure to loud noise can cause impairment or loss of hearing. **Operator hearing protection is recommended;** particularly for continuous operation of GHS Model due to blower noise level. Wear a suitable hearing protective device, such as earmuffs or earplugs.
- **H.** Keep all shields and safety devices in place. If a shield, safety device or decal is damaged, unusable or missing, repair or replace it **before** operating the equipment.
- I. Be sure interlock switches are functioning correctly so engine cannot be started unless Forward Speed Control is in "Neutral" position and PTO clutch is in "Disengage" position. Also engine should stop if the operator lifts off the seat with the PTO clutch in the "Engage" position.
- **J.** Handle gasoline with care; it is highly flammable and its vapors are explosive:
- Use an approved fuel container.
- Never add fuel to a running engine or hot engine (allow hot engine to cool several minutes).
- Keep matches, cigarettes, cigars, pipes, open flames or sparks away from fuel tank and fuel container.
- Fill fuel tank outdoors with extreme care up to about one inch from top of tank. Never fill fuel tank indoors. Use funnel or spout to prevent spilling.
- Replace machine fuel cap and container cap securely and clean up spilled fuel before starting engine.
- **K.** Never attempt to make any adjustments while the engine is running, except where specifically instructed to do so.
- L. Battery for electric system contains sulfuric acid. Avoid contact with skin, eyes and clothing. Keep battery and acid out of reach of children.

#### **OPERATING**

- **A.** Operate mower only in daylight or in good artificial light with visibility of area being mowed.
- **B.** Sit on the seat when starting the engine and operating the machine. Keep feet on deck footrests at all times when the tractor is moving and/or the mower blades are operating.
- C. For beginning operator, learn to steer (maneuver) tractor with slow engine speed before attempting mowing operation. Be aware that with the front mounted mower configuration the back of the tractor swings to the outside during turns.
- **D.** Remember motion of the tractor can always be stopped by pulling the Forward Speed Control into "Neutral-Park" position.
- **E.** Disengage blade clutch (switch on commercial model) and put Forward Speed Control in "**Neutral**" position before starting engine (an ignition interlock switch normally prevents starting if these controls are in "Operating" position).
- **F.** Do not run engine in a confined area without adequate ventilation. Exhaust fumes are hazardous and could be deadly.
- **G.** Do not carry passengers maximum seating capacity is one person.
- **H.** Watch for holes, rocks and roots in the terrain and other hidden hazards. When mowing tall grass, mow higher than desired to expose any hidden obstacles and then clean area and mow to desired height.
- I. Avoid sudden starts or stops. Before backing up, look to rear to be sure no one is behind the machine. Watch carefully for traffic when crossing or working near roadways.
- **J.** Disengage blade drive when transporting across drives, sidewalks, etc. Never raise the mower deck while blades are rotating.
- K. Maximum recommended side slope operating angle is 20 degrees or 33% grade. When operating on a slope, reduce speed and use caution to start, stop and maneuver. Avoid sharp turns or sudden changes in direction on a slope to prevent tipping or loss of control.

- L. Never adjust cutting height with engine running. **Before** adjusting cutting height or servicing, disengage blade drive, stop engine and remove ignition key. Wait for all movement to stop before getting off the seat. (Note: A blade/blower brake should normally stop rotating drive line within 5 seconds of disengaging PTO clutch.)
- **M.** For side discharge mower decks, do not operate with grass deflector chute removed and keep the deflector in the lowest possible position.
- **N.** For GHS Models, do not operate with grass catcher in "Dump" position or with the back door "Open" dangerous projectiles may be thrown.
- **O.** For GHS models, use care when closing the grass catcher door. Keep fingers and hands away from the hinge and pinch points when the door is being closed. Stay clear of the door frame as the door is held closed with springs and the door may slam shut with considerable force.
- **P.** In case of clogging or plugging of mower deck or GHS catching system:
- Disengage PTO clutch and shut engine off before leaving seat.
- Look at the blade drive shaft and blower drive pulley to make sure all movement has stopped before trying to unclog the system.
- Disconnect spark plug wire or fuel valve solenoid plug (Diesel).
- Never place hand under deck or in GHS blower
   use stick or similar tool to remove clogged material.
- Q. If the cutting blades strike a solid object or the machine begins to vibrate abnormally, immediately disengage PTO clutch, stop the engine, wait for all moving parts to stop and disconnect the spark plug wire to prevent accidental starting (gas models). Then, thoroughly inspect the mower for any damage and repair the damage before restarting the engine and operating the mower. Make sure cutter blades are in good condition and blade nuts are tight.
- **R.** Do not touch engine or muffler while engine is running or immediately after stopping since these areas may be hot enough to cause a burn.

- **S.** Never remove radiator pressure cap when engine is hot (hot water may spray and burn).
- **T.** Do not use ether or any starting fluid to assist starting the engine in cold weather.
- **U.** When leaving equipment unattended, disengage the blade drive (PTO), stop engine and remove the key.

#### **MAINTENANCE**

- **A.** Remove key from ignition switch and disconnect spark plug wire (gas models) to prevent accidental starting of engine when servicing or adjusting machine.
- **B.** To reduce fire hazard, keep the engine free of grass, leaves, excessive grease and dirt.
- C. Keep all nuts, bolts and screws tight to be sure machine is in safe working condition. Check blade mounting nuts frequently to be sure they are tight.
- **D.** Perform only the maintenance instructions described in this manual. Unauthorized maintenance operations or modifications to the equipment may result in unsafe operating conditions.
- **E.** If the engine must be running to perform a maintenance adjustment, keep hands, feet and clothing away from moving parts. Do not wear jewelry or loose clothing.
- **F.** Always use the proper engine service manual when working on the engine. Unauthorized maintenance operations or modifications to the engine may result in unsafe operating conditions.
- **G.** Altering the equipment or engine in any manner which adversely affects its operation, performance, durability or use will void the warranty and may cause hazardous conditions.
- **H.** Never attempt to disconnect any safety devices or defeat the purpose of these safety devices.
- I. Do not change the engine governor settings or overspeed the engine. The governor has been factory-set for maximum safe engine operating speed.

- **J.** Use genuine factory replacement parts. Substitute parts may result in product malfunction and possible injury to the operator and/or others.
- **K.** Use care when charging the battery or performing maintenance on the battery and electrical system:
- Make sure battery charger is unplugged before connecting or disconnecting cables to battery.
- Charge battery in a well ventilated space so gases produced while charging can dissipate. Make sure battery vents in caps are open.
- Keep sparks, flame, smoking materials away from battery at all times. Use care in removing battery cables from posts to avoid sparks.
- L. Disconnect both battery cables before unplugging any wiring connectors or making repairs on the electric system.

Keep all applicable manuals immediately accessible to anyone who may operate or service this equipment.

# SAFETY AND INSTRUCTION DECALS

The following decals are found on Model MDD, Model MDG, and Model MT Mowers. If any are missing, replace them before putting the mower into operation. Part numbers are given below for ordering. See Owner's Manual P/N 5895 for mower deck decals.

### **A WARNING**

READ AND UNDERSTAND OWNER'S MANUAL BEFORE OPERATING THIS MACHINE.

KEEP ALL GUARDS IN PLACE.
OPERATOR HEARING

PROTECTION IS RECOMMENDED FOR CONTINUOUS OPERATION OF GHS MODEL.

NOT EQUIPPED WITH AUXILIARY PARKING BRAKE-CHOCK WHEELS IF PARKED ON SLOPE.

PATENT Nos 4.589.249 4.781.665 4.782,650 4.835.951 4.930.981

#7818

**WARNING** Do not disconnect any wiring before first disconnecting both positive and negative cables from the battery.

On Electrical Circuit Control Module (7821)

# **A DANGER**

#### ROTATING BLOWER BLADES

- DO NOT PUT HANDS INTO DISCHARGE CHUTE
   BLADES MAY CONTINUE TO SPIN AFTER
   DISENGAGING CLUTCH
- DO NOT OPERATE MOWER WITH GRASS CATCHER IN DUMP POSITION -- OBJECTS MAY BE THROWN FROM DISCHARGE CHUTE.

#### **DISCHARGE CHUTE**

Adjacent to Blower Discharge Chute through body (5804)

### **IMPORTANT**

WHEN GRASS IS DIRTY AND DAMP (ESPECIALLY SPRINGTIME), INSIDE BLOWER HOUSING MAY ACCUMULATE A DEPOSIT OF DIRT, CAUSING WEAR AND BINDING OF BLOWER WHEEL. UNDER THESE CONDITIONS, CHECK BLOWER WHEEL FREQUENTLY FOR BINDING AND USE PRESSURE WASHER TO CLEAN DEPOSITS-BLOWER WHEEL MUST SPIN FREELY.

Top of Blower Housing (5819)

# BLADE CLUTCH

DO NOT ENGAGE CLUTCH
WITH PTO SHAFT
DISCONNECTED

Near Blade Clutch Control Lever (5806)

#### OIL LEVEL PLUG -

CHECK AND FILL WITH EP 90 GEAR LUBE EVERY 100 HOURS

On Gear Axle (5810-1)



#5805

#### WARNING

BEFORE REMOVING CAP.
CLEAN DIRT FROM RESERVOIR

FOR SERVICING USE TYPE SE 20W MOTOR OIL. FILL TO LOWER LINE.

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION.

> On Hydrostat Oil Reservoir (5810)



DO NOT REMOVE THIS CAP WHEN ENGINE IS HOT. DO NOT USE OR ADD 100% ANTI-FREEZE COOLANT OR SEVERE DAMAGE WILL OCCUR (SEE OWNER'S MANUAL).

Near Radiator Fill Cap (7826)

# **CONTROL & DIRECTION DECALS**

The decals shown on this page are the control and direction decals for Model MD and Model MT Mowers. Make sure that your mower has the proper decals in place (choke decals go on gas models only).





Right side of mower body, below catch release lever for the forward body section (7820)



Front corners of Grass Catcher (7817)



ON

OFF

Left side, below operator's seat, Model MT only (8819)

# PARKING BRAKE

RELEASE ←→ PARK

Right side, below operator's seat, on models with optional Parking Brake (7809)



**FAST** 

IDLE

Left side, below operator's seat (7819)



Instrument Panel Decal (7823)

# Assembly Instructions

#### **SET-UP INSTRUCTIONS**

The Walker Mower is shipped partially assembled. See Owner's Manual P/N 5895, for general mower set-up instructions.

When assembling/installing this equipment, always follow these steps to help ensure satisfactory product performance and operator safety:

- Read all the assembly/installation instructions before you begin, understand them, and follow them completely.
- Assemble parts and make adjustments carefully, and double check for accuracy.
- Test the equipment and make sure it functions properly before you put it into service.

If anything in this manual or in Owner's Manual P/N 5895 is unclear or hard to understand, call your authorized Walker dealer or our service department (303-221-5614) for clarification before proceeding. Your safety or the durability and performance of your equipment may depend on a clear understanding of the information contained in this manual.

#### STEP 1 Tractor Tire Installation

Drive tires are 18 x 9.50-8, 4-ply; rear tires are 13 x 5.00-6, 4-ply. Refer to Owner's Manual P/N 5895 for tire installation instructions.

Tire inflation recommendations: Drive Tires – 15 PSI Rear Tires – 20 PSI

#### STEP 2 Battery Service

Refer to Owner's Manual P/N 5895 for battery service and installation instructions. After servicing, install the battery as shown in Photo 3-1.

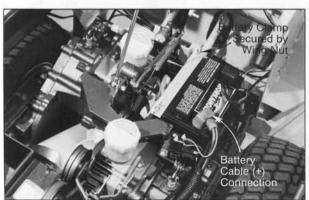


PHOTO 3-1. Battery Installation in MD and MT

#### STEP 3 Mower Deck Assembly/Installation

Refer to Owner's Manual P/N 5895 for mower deck assembly and installation instructions. The mower deck PTO drive shaft assembly connects to the tractor by means of a splined quick-disconnect coupler, which simplifies alignment and installation. Pull the ring back as shown in Photo 3-2 and slide onto spline shaft on the tractor, then release the ring.



PHOTO 3-2 PTO Quick Coupler

**IMPORTANT:** To prevent damage to the mower, make sure the PTO shaft assembly is securely locked on the tractor – with the bearings fully seated in the groove and the ring in the fully forward position shown in Photo 3-3. Try pulling on the shaft after installation as a check for security.



PHOTO 3-3. Coupler Ring "Locked" in Position

#### **PRE-OPERATING CHECKLIST**

Before operating the mower for the first time, and as a routine before daily operations, it is important to make sure that the mower is properly prepared and ready for safe operation. See Owner's Manual P/N 5895, Page 14, for the Pre-Operating Checklist.

For proper fuels and lubricants for your mower model, see Specifications, Page 3 of this Supplement.

The following checklist items are specific to Model DD and Model DG:

☐ FILL FUEL TANK

**IMPORTANT:** For Model DD, clean diesel fuel is required. Contaminated fuel will damage the fuel injectors and injection pump.

**NOTE:** An electric fuel pump makes it unnecessary to bleed (purge out air bubbles) the fuel system on Model DD.

### A WARNING

Gasoline is flammable and vapors are explosive. Use safe refueling procedures:

- Do not fill tank with engine running.
- If engine is hot, allow to cool before refueling.
- Use an approved fuel container.
- Fuel mower outdoors
- Do not smoke.
- Avoid spilling fuel; use funnel or spout.
- Do not overfill tank; fill up to about 1 inch below top of tank

	CHECK AND SERVICE ENGINE A	ΙR
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- Remove air cleaner cover and clean dust cup.
- Check cleanliness and security of air filter element (clean every 100 hours and replace every year or after six cleanings).

#### ☐ CHECK ENGINE COOLING SYSTEM

- Check radiator air intake screen is clean and free of obstruction. Also radiator cooling fins should be inspected and cleaned if any buildup of debris is noted (remove intake screen assembly to inspect and clean).
- Check coolant levels in the radiator and overflow tank.

### **⚠** WARNING

Do not remove radiator pressure cap when the engine is hot.

- If additional coolant is needed, refer to cooling system servicing, Section 5.
- CHECK GEAR AXLE OIL LEVEL. See Section 5 for servicing gear axle oil.
- ☐ CHECK FUNCTION OF INSTRUMENT PANEL WARNING LIGHTS AND HORN.

Turn ignition key to "run", all panel warning lights should light up and the horn sound momentarily, indicating normal function.

# **Operating Instructions**

### A CAUTION!

Before operating the mower, familiarize yourself with the location and function of all of the operator controls. Knowing the location, function and operation of these controls is important for safe and efficient operation of the mower. See Owner's Manual P/N 5895, Page 18 for general beginning recommendations.

#### CONTROL IDENTIFICATION AND FUNCTION

#### Model D Instrument Panel

There are seven gauges, switches and indicators on the Model D instrument panel. Photo 4-1 shows the general arrangement for the instrument panel, and Photo 4-2 shows a detail of the indicator lights and their functions.

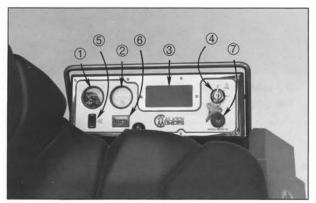
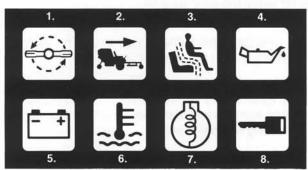


PHOTO 4-1 Model D Instrument Panel



- Blade PTO On When PTO Engaged
   Transmission On When Forward Speed Control Out Of Neutral
   Seat Switch On When Operator Is Off Seat
   Low Oil Pressure On When Oil Pressure Is Below 7 PSI
   Battery Charge On When Battery Not Charging
   High Water Temperature On When Water Temperature Above 220° F
   Glow Plug On During Engine Preheat
   OK To Start On When OK To Start Engine
- PHOTO 4-2 Indicator Lights

#### 1. OIL PRESSURE GAUGE

Monitors engine oil pressure. Oil pressure must be above 7 PSI for safe engine operation. The oil pressure warning light comes on and the warning horn sounds if the oil pressure drops below that level. Pressures registered by the gauge may vary according to ambient air temperature and oil viscosity. It is normal for oil pressure to be higher when the engine is cold than when the engine is at normal operating temperature. Prolonged high speed operation on a hot day will result in somewhat lower oil pressure readings. Readings of 35 to 45 PSI are normal for a warm engine at moderate throttle settings.

NOTE: Continued operation of the engine with low oil pressure indications (gauge, indicator light and horn) can cause serious engine damage.

#### 2. WATER TEMPERATURE GAUGE

Monitors engine cooling system temperature. If coolant temperature exceeds 220°F, an overheat condition exists and the water temperature light will come on and the warning horn sounds.

CAUTION: If cooling system overheating is indicated, continued operation of the engine even for a short time may result in fire and risk of personal injury and severe damage to the equipment.

#### 3. INDICATOR LIGHT PANEL

Contains the indicator lights shown in Photo 4-2.

NOTE: On Model MDG, the glow plug light space is blank and does not function.

#### 4. IGNITION SWITCH

The ignition switch is used to start and stop the engine (and preheat the diesel engine on Model MDD) and has three positions: "O" is the OFF position; "RUN" is the position the key returns to after starting (also the diesel engine glow plugs are activated in the "RUN" position before starting the engine); "S" is the START position. When starting the engine (after the glow plug light goes off on diesel model and the green OK-to-start light comes on), turn the key clockwise to the "S" position. Do not hold the key in start position longer

than 10 seconds. If the engine does not start, return the key to OFF position for at least 60 seconds before a restart attempt is made. Prolonged cranking can damage the starter motor and shorten battery life. Release the key when the engine starts, and it will return to the RUN position. To stop the engine, rotate the key counterclockwise to the "O" position.

#### 5. LIGHT SWITCH (For Optional Lights)

Operates headlights (when installed).

#### 6. HOURMETER

Records elapsed time when the ignition switch is on.

#### 7. WARNING HORN

Sounds to warn operator that an unsafe engine condition is being indicated – when the engine coolant temperature is too high or the engine oil pressure is too low. If the horn sounds, check the indicator lights and gauges and correct problem before further operation.

#### Model T Instrument Panel

There are seven switches and indicators on the Model T instrument panel. Photo 4-3 shows the configuration of the panel:

- 1. OIL PRESSURE WARNING LIGHT
- 2. OIL TEMPERATURE WARNING LIGHT
- 3. IGNITION SWITCH
- 4. VOLTMETER
- 5. LIGHT SWITCH (Optional Lights)
- 6. HOURMETER
- 7. WARNING HORN

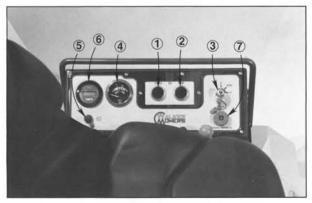


PHOTO 4-3. Model T Instrument Panel

#### 1. OIL PRESSURE WARNING LIGHT

Indicates engine oil pressure is below safe operating level. This light (and warning horn) will come on when the ignition is turned on but should go out after the engine is started. If the light fails to come on with the ignition turns on, it could indicate a burned out bulb. If the light comes on during operation, stop the engine immediately and correct the source of problem before further operation.

**NOTE:** Continued operation of the engine with an illuminated oil pressure light can cause serious engine damage (if a low oil pressure condition exists).

#### 2. OIL TEMPERATURE WARNING LIGHT

Indicates engine oil temperature is above safe operating limit and the engine is overheating. If this light comes on, there may be a problem with:

- Engine cooling system (clogged air intake screen, material packed into cylinder head cooling fins)
- (2) Low oil quantity in crankcase

Stop the engine and correct the source of problem before further operation.

**NOTE:** Continued operation of the engine with the oil temperature warning light illuminated can result in severe engine damage.

#### 3. IGNITION SWITCH

The ignition switch is used to start and stop the engine and has three positions: "O" is the OFF position; "RUN" is the position the key returns to after starting; "S" is the START position. When starting the engine, turn the key clockwise to the "S" position. Do not hold the key in start position longer than 10 seconds. If the engine does not start, return the key to OFF position for at least 60 seconds before a restart attempt is made. Prolonged cranking can damage the starter motor and shorten battery life. Release the key when the engine starts, and it will return to the RUN position. To stop the engine, rotate the key counterclockwise to the "O" position.

#### 4. VOLTMETER

Indicates condition of battery and proper operation of the battery charging system. An indication of low or high voltage (red area) indicates an electrical system failure and cause of the failure should be determined and corrected.

#### 5. LIGHT SWITCH (For Optional Lights)

Operates headlights (when installed).

#### 6. HOURMETER

Records elapsed time when the ignition switch is on.

#### 7. WARNING HORN

Sounds to warn operator that an unsafe engine condition is being indicated – when the engine oil temperature is too high or the engine oil pressure is too low. If the horn sounds, check the warning lights and stop the engine and correct the problem before further operation.

#### **OPERATING CONTROLS**

#### 1. ENGINE CHOKE (Photo 4-4)

Model MDG has a choke control knob located just to the rear of the instrument panel (see Photo 4-4). When the engine is cold, the choke control knob should be pulled up to facilitate starting and adjusted downward for smoothest running as the engine warms up. When the engine is fully warm, the choke control knob should be pushed all the way down.



PHOTO 4-4 Model MDG Choke and Throttle Location

Model MT has a choke lever located at the left side of the operator's seat. When the engine is cold, the choke lever should be moved forward to the ON position, and should be adjusted toward the OFF position as the engine warms. The lever should be in the OFF position when the engine is completely warm.

**IMPORTANT:** Make sure choke is in OFF position during normal engine operations; running with choke on can damage engine.

#### 2. ENGINE THROTTLE (Photo 4-4)

The throttle controls engine speed. Moving the lever forward toward FAST increases engine speed; moving it rearward towards IDLE decreases engine speed.

#### 3. FORWARD SPEED CONTROL (FSC)

The forward speed control (FSC) has two functions: The lever sets maximum forward travel speed, and also establishes NEUTRAL-PARK position. Moving the lever forward increases forward tractor speed proportionally. A friction lock on the FSC secures the lever at any forward speed setting from 0-5 mph – it is not necessary to hold the lever in position. Pulling back on the STEER-ING LEVERS during operation overrides the FSC setting and slows or stops forward travel; releasing the steering levers allows the tractor to resume the speed set by the FSC. To stop and park the machine, the FSC lever is moved rearward to the NEUTRAL-PARK position.



PHOTO 4-5 Operating Controls

**NOTE:** On Model MD, a safety interlock switch system requires the operator to be in the seat before the FSC lever can be moved into gear (otherwise the engine will stop).

#### 4. STEERING LEVERS

Each drive wheel is controlled by its own steering lever, for both steering and FORWARD/REVERSE. The forward speed control (FSC) lever sets maximum forward speed, which automatically also sets the forward position of the steering levers; the steering levers operate only by PULLING backwards on them to slow the drive wheel, stop it, or reverse its direction of travel. Pulling each steering lever all the way back reverses the direction of travel of the drive wheel on that side of the mower. Levers are released to the forward position for "straight-ahead" ground travel.

**NOTE:** Pushing forward on the steering levers has no effect on the machine, because the forward speed setting is controlled by the forward speed control (FSC) lever.

#### 5. BLADE CLUTCH (PTO)

The blade clutch lever has two positions. Pulling up on the lever engages the PTO that drives the mower blades. Pushing the lever down disengages the PTO and engages the blade brake.

#### 6. PARKING BRAKE (Optional)

The optional parking brake operates by locking a pin into the hydrostat pinion gear teeth. Moving the lever forward engages the parking brake; moving the lever rearward releases the brake.

**IMPORTANT:** Since the parking brake is a positive mechanical lock, the tractor should be completely stopped before engaging the parking brake, to avoid internal damage and sudden stoppage (similar to the "park" position on an automotive automatic transmission).

**NOTE:** If pressure on the parking brake pin by the gear teeth makes it impossible to release the parking brake with the parking brake lever, it may be necessary to push the mower gently in an opposite direction to allow the pin to be released.

#### 7. FRONT BODY LATCH RELEASE

The front portion of the tractor body hinges forward for maintenance access and is latched down in the operating position. To raise the body, move the latch release forward. See Photo 4-5.

#### 8. TRANSMISSION UNLOCK

See Owner's Manual P/N 5895, Page 17 and Photo 4-2 for Transmission Unlocking instructions.

#### STARTING THE ENGINE

#### **Gasoline Models**

See Owner's Manual P/N 5895, Page 16 and Photo 4-2 for Transmission Unlocking instructions.

### A CAUTION

On Model MDG, a safety interlock switch system prevents cranking the engine if the operator is not in the seat or with either the forward speed control or clutch out of neutral (refer to Indicator Lights, Photo 4-2.) If the engine cranks otherwise, the safety system is not working and should be repaired or adjusted before operating the mower. Do not disconnect safety switches because they are for the operator's protection.

NOTE: On Model MDG, when the ignition key is initially turned to RUN, the instrument panel will run through a self-test procedure to check operation of the indicator lights and the warning horn. The horn will sound and all indicator lights in the instrument panel will light up when the test is in progress (the indicator light panel is blacked out until the lights come on). If the lights fail to come on or the horn does not sound, the system should be repaired before further operation to prevent possible engine damage or unsafe operations.

#### Diesel Models

**IMPORTANT:** Do not use starting fluids – this will damage the engine.

1. Before attempting to start the engine, make sure the operator is in the seat, the forward speed control is in Neutral-Park position and the blade clutch is disengaged (refer to Indicator Lights, Photo 4-2).

### A CAUTION

On Model MDD, a safety interlock switch system prevents cranking the engine if the operator is not in the seat or with either the forward speed control or clutch out of neutral (refer to Indicator Lights, Photo 4-2. If the engine cranks otherwise, the safety system is not working and should be repaired or adjusted before operating the mower. Do not disconnect safety switches because they are for the operator's protection.

2. Turn the ignition key to RUN to preheat the engine with the glow plugs. The engine preheat cycle is automatic and glow plugs will turn off when the engine is ready to start. The time required is approximately 15-30 seconds, depending on engine temperature. When the engine is sufficiently preheated, the glow plug indicator light in the instrument panel will go out.

NOTE: When the ignition key is initially turned to RUN, the instrument panel will run through a self-test procedure to check operation of the indicator lights and the warning horn. The horn will sound and all indicator lights in the instrument panel will light up when the test is in progress (the indicator light panel is blacked out until the lights come on). If the lights fail to come on or the horn does not sound, the system should be repaired before further operation to prevent possible engine damage or unsafe operations.

**3.** When the green OK-to-Start light comes on in the instrument panel, move the throttle ¼ to ½ open (toward Fast) and turn the ignition switch to "S" to start the engine. Release the key to "RUN" position as soon as the engine starts.

**NOTE:** If the Green OK-to-Start light does not come on, one of the other indicator lights should be on to indicate the problem preventing starting.

**IMPORTANT:** Do not crank the engine continuously for more than 10 seconds at a time. If the engine does not start, turn the key to "O" (the OFF position) and allow a 60 second cool-down period between starting attempts. Failure to follow these guidelines can burn out the starter motor and shorten battery life.

**TROUBLESHOOTING NOTE:** If the engine cranks, but does not start, check the function of two components: (1) make sure fuel shut-off valve is operating, and if not see Checking Procedure Section 5; (2) operation of glow plugs (consult Kubota Service Manual to check glow plugs).

4. After the engine starts, check the indicator lights and make sure the oil pressure light and the battery charge light are off. If they are not, stop the engine immediately and find the cause; if the lights are off, warm up the engine at medium speed. Make sure the oil pressure light is off prior to engaging the blades and beginning operation.

#### MODEL MD OPERATING NOTES

IMPORTANT: Operate the engine at full speed when mowing, to allow the engine to produce full horsepower and to increase efficiency of the engine cooling system.



### CAUTION

A safety interlock switch (seat switch) requires the operator to be in the seat to start the engine, move the forward speed control (FSC) out of Neutral-Park or engage the blade clutch. The function of this switch should be checked periodically by the operator raising off the seat with the FSC out of neutral and/or the blades engaged; the engine should stop. If the switch is not working, it should be repaired or replaced before operating the mower. Do not disconnect safety switches because they are for the operator's protection.

For the following procedures and operations, refer to Owner's Manual P/N 5895:

#### Operation/Procedure Page Adjusting Ground Speed and Steering \_\_\_\_ 17-18 Engaging Mower \_\_\_\_\_\_\_ 19 Stopping \_ Adjusting Cutting Height \_\_\_\_\_\_\_20 Transmission Unlock \_\_\_\_\_ Recommendations for Mowing \_\_\_\_\_\_ 20 GHS (Grass Handling System) \_\_\_\_ 20-24 Operation \_

In addition to the general operation of the Walker GHS grass handling system covered in the operator's manual, Model MD and Model MT mowers incorporate a safety catch on the door hinging mechanism (see Photo 4-6). This safety catch must be depressed before the door can be closed from a fully opened position.



#### WARNING

When lowering the door on the GHS grass catcher, you must depress the safety catch on the side of the catcher. Be VERY CARE-FUL to keep hands, fingers, etc. out of the hinging mechanism and away from the edge of the catcher as the door closes - the springs that hold the door closed during operation are very powerful, and the door can slam shut with considerable force.



PHOTO 4-6 GHS Door Safety Catch

# IMPORTANT TIPS FOR CARE OF THE KUBOTA ENGINE

#### **Fuel System**

- Fuel must be clean free from water, dirt and organic material. Fuel contamination will greatly shorten the life of the fuel injection pump and injectors (Model DD).
- Change fuel filters (2) on a regular basis and when contamination is suspected or found in the fuel.
- Walker Model D is equipped with an electric fuel pump, and it is normally unnecessary to bleed air out of the fuel system (after running out of fuel or fuel system maintenance).
- When checking and bleeding the fuel system on Model DD, use the air vent plug on the fuel filter and the injector pump. Do not attempt to bleed the system by loosening fuel lines on the fuel injection pump as this could damage the pump.

#### Starting

- Do not use ether or any starting fluid in the air intake. This will damage the engine.
- Walker Model DD has an automatic preheat cycle for the glow plugs. It is essential this system is functioning and the engine is preheated to start properly.
- Start engine with throttle advanced off idle (¼ to ½ throttle). This will aid starting especially in cold weather.
- Keep the battery fully charged (for Model DD the starter is cranking an engine that has a 23:1 compression ratio).
- Match crankcase oil viscosity to the ambient temperature, allowing engine to crank faster and start easier. In cold weather, use Walker "cold start" kit to release engine drive belts when starting.

#### **Cooling System**

• Fill the cooling system with a pre-mixed solution of 50/50 antifreeze (ethylene glycol) and distilled water.

**IMPORTANT:** Solution must be pre-mixed before putting it in the engine (adding pure antifreeze into the radiator may cause damage to the engine by causing overheating).

• Maintain proper fluid levels in the radiator and overflow tank. • Operate the engine at full speed when mowing. This will allow the engine to produce full horsepower and move more cooling air through the radiator.

#### Air Cleaner

- Use only Kubota air cleaner elements. Aftermarket elements may not seal in the air cleaner housing allowing dirt to enter the engine. Also aftermarket filters often skimp on the filtration media which requires more frequent cleaning and replacement (see below).
- Do not overservice or frequently "disturb" the air filter. A dirty air filter actually cleans better than a new one. Changing and cleaning the filter too often can actually reduce filter efficiency and increase the opportunity for traces of dust to enter the engine. Wait until the element really needs servicing as indicated by loss of engine power.
- Do frequently check and empty the dust cup (check every day in dusty conditions) but do not disturb the air filter element.
- When the air filter element is removed or replaced, make sure all dust is cleaned out of the air cleaner housing and hose. Use a damp cloth and wipe interior of canister and hose clean (a little dirt left here will be sucked into the engine and reduce engine life). When the filter is reinstalled, make sure the element is held tight and straight in the canister for proper seating and sealing. A light coating of grease on the element seal and wing nut rubber washer is recommended to enhance sealing action in these areas.
- Periodically check air intake hose for cuts, nicks, etc. and the tightness of hose clamps.

#### Oil

- For Walker Model DD, use any top quality oil with an API classification of CD or greater. Do not use oil that is rated for gasoline engines only (API SE/SF) as this will cause problems in a diesel engine.
- Single viscosity or multi-viscosity oils may be used with the viscosity matching ambient temperatures for the engine operating conditions. This will aid starting in cold weather and assure proper lubrication in hot weather.
- Use only Kubota oil filters. Aftermarket filters may not seal properly and/or have the incorrect pressure relief valve for proper lubrication.

# SECTION 5

## Maintenance

Service Item	Daily	25 Hours	100 Hours	200 Hours	400 Hours	Yearly	Every Two Years	Ref. Page
Check Crankcase Oil Level	×	10000000			THE CHARLEST AND ADDRESS OF THE PARTY OF THE			21
Check Coolant Level in Radiator & Overflow Tank	×							26
Clean Radiator Screen and Cooling Fins*	x							25
Clean Air Cleaner Dust Cup*	X							23
Check Security of Air Filter Element	X							26
Clean Grass Buildup Under Deck	Х							26
Clean GHS Blower*	X							26
Service Mower Blades	X							27
Check Function of Instrument Panel Warning Lights and Horn	х							13
Lubricate Grease Fittings & Oil Points*		X						22
Check Battery Electrolyte Level		X						26
Check Hydrostatic Transmission Fluid		X						22
Check Tire Pressure		X						27
Check Drive Belts (Engine, PTO, Ground Drive)		x						27
Check Gearbox Oil Seals		X						27
Clean Air Filter Element	1		X					24
Change Engine Crankcase Oil**	A		X					21
Change Engine Oil Filter	- 1		Х					21
Check Fan Belt Tension		E-E-E-E	Х					26
Check Oil Level in Gear Axle			Х					22
Check Radiator Hoses & Clamps				Х				27
Check Fuel Lines & Clamps				Х				27
Check Spark Plugs (MDG)					Х			27
Replace Fuel Filter (MDD)	44 100				Х			29
Replace Air Filter Element***						X		24
Replace Fuel Filter (MDG)						Х		30
Flush Radiator and Change Coolant						Х		25
Service Battery						Х		27
Check Engine Valve Clearance****						Х		27
Check Fuel Injection Nozzle Pressure (MDD)						×		28
Check Blade Brake Action						Х		27
Check/Adjust FSC Friction Lock						X		27
Change Gear Axle Oil*****							Х	22
Change Hydrostatic Transmission Fluid*****			-				×	22
Replace Radiator Hoses & Clamps							×	27
Replace Fuel Lines & Clamps		1000					X	27
Replace Ignition Wires (MDG)							X	27

<sup>\*</sup> More often in extremely dusty or dirty conditions (see notes about air cleaner element under "Important Tips For \*\*\*\* Change every year or 800 hours

\*\*\*\*\*\* Change every 2 years or 1000 hours

Service Item	Daily	25 Hours	100 Hours	Yearly	Every Two Years	Ref. Page
Check Crankcase Oil Level	X					21
Clean Engine Air Cooling System*	X					26
Check Security of Air Filter Element	X					26
Clean Grass Buildup Under Deck	X					26
Clean GHS Blower*	X					26
Service Mower Blades	X					27
Service Air Cleaner Precleaner Element*		X				23
Lubricate Grease Fittings & Oil Points*		Х				22
Check Battery Electrolyte Level		Х				26
Check Hydrostatic Transmission Fluid		X				22
Check Tire Pressure		X				27
Check Drive Belts (Engine, PTO, Ground Drive)		X				27
Check Gearbox Oil Seals		Х				27
Check Air Filter Element*			Х			24
Change Engine Crankcase Oil**			Х			21
Change Engine Oil Filter			Х			21
Check Spark Plugs			Х			27
Clean Engine Cooling Fins			Х			25
Check Oil Level in Gear Axle			Х			22
Replace Air Filter Element*		- A		X		24
Check Fuel Lines & Clamps				Х		27
Replace Fuel Filter		-		Х		30
Service Battery				X	And the first	27
Check Blade Brake Action				Х		27
Check/Adjust FSC Friction Lock				Х		27
Change Gear Axle Oil***					Х	22
Change Hydrostatic Transmission Fluid***					Х	22
Replace Fuel Lines & Clamps					X	27

<sup>\*</sup> More often in extremely dusty or dirty conditions

\*\* Change engine oil and filter after first 5 hours of operation of a new engine (break-in period)

\*\*\* Change every two years or 1000 hours

#### LUBRICATION

#### A. Engine Break-In Oil

No special break-in oil is required. Engine is serviced with 10W-30, Service Class CD oil from factory. The oil should be changed after the initial engine break-in period (35 hours on MD and 5 hours on MT). Thereafter, change oil after every 100 hours of operation.

#### B. Check Engine Crankcase Oil Level

When checking oil level, park mower on level surface. Check oil level with the engine cold (before starting or wait at least five minutes after stopping the engine).

**IMPORTANT:** Never check or add oil with the engine running.

- 1. Clean area around dipstick before removing it to keep dirt and debris out of engine.
- 2. Remove the dipstick, wipe off with clean rag, then reinsert dipstick making sure it is pushed all the way into the engine. Remove the dipstick and carefully check the oil level. Oil level should be within the safe range (within "A" range on Kubota dipstick and between "F" and "L" marks on Kohler).
- 3. If additional oil is needed, refer to engine specifications (Section 1) for proper crankcase lubricant and fill to full mark (never above the mark).

**IMPORTANT:** Do not operate engine with oil level below the low mark or above the full mark on the dipstick. To prevent extensive engine wear or damage, always maintain the proper oil level in the crankcase.

#### C. Change Engine Crankcase Oil/Oil Filter (See Photos 5-1 and 5-2)

Change engine crankcase oil and oil filter after every 100 hours of operation. Refer to the engine manual for the proper procedure for changing the oil and oil filter. Refer to engine specifications (Section 1) for the proper crankcase lubricant for the engine and use recommended oil viscosity for expected ambient temperature. Oil with the correct viscosity will aid starting in cold weather and assure proper lubrication in hot weather.

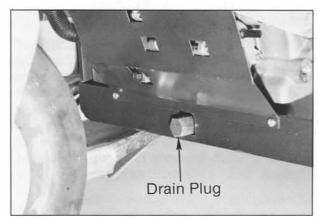


PHOTO 5-1 Oil Drain Location Model MT

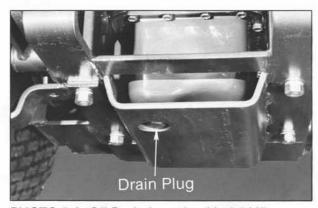


PHOTO 5-2 Oil Drain Location Model MD

**IMPORTANT:** Use only oil filters from the engine manufacturer (Kubota 15841-32439 or Kohler 12-050-01). Aftermarket filters may not seal properly and/or have the incorrect pressure relief valve for proper lubrication.

**IMPORTANT:** For Walker Model DD, do not use oil that is rated for gasoline engines only (API SE/SF) as this will cause problems with the diesel engine.

#### D. Lubricate Grease Fittings & Oil Points

Lubricate grease fittings and oil points after every 25 hours of operation, more often when operating in dusty or dirty conditions. Use SAE general purpose lithium or molybdenum base grease for grease fittings and light machine oil (SAE 10) to lubricate oil points. Lubricate the locations shown in Figure 5-3.

**NOTE:** PTO universal joints (on the deck and tractor) require routine lubrication after every 8 hours of running time.

#### E. Gearbox Lubrication

See Owner's Manual P/N 5895, Page 27 for lubrication of mower deck gearboxes.

The tractor PTO gearbox (Walker P/N 7050) is oil filled and sealed. No scheduled oil change is required; however, changing the oil after the first 100 hours break-in period will extend gearbox life and is recommended. Also, the gearbox oil seals should be checked every 25 hours for indication of oil leaks. If an oil leak is noted, the gearbox will need to be rebuilt (return to factory). The gearbox oil is changed (or checked) as follows:

- 1. Remove drain plug in bottom of gearcase.
- 2. Refill through breather pipe with 7 to 8 fluid ounces (21 to 24 cl) SAE E.P. (extreme pressure) 90W gear lube.

**3.** Check oil level with dipstick through breather pipe; proper oil level is 1.4 to 1.6 inches (3.5 to 4.0 cm). Do not overfill.

#### F. Gear Axle Lubrication

Axle lubrication is SAE 80W-90 (API GL-5) gear lube.

Check the axle oil level after every 100 hours operation by removing the oil level plug. If additional oil is needed, remove the breather vent on top of axle and fill until oil is at the level plug.

Change axle oil every 1000 hours or two years.

#### G. Hydrostatic Transmission Fluid

See Owner's Manual P/N 5895, Pages 27 and 28 for checking and changing the hydrostatic transmission fluid.

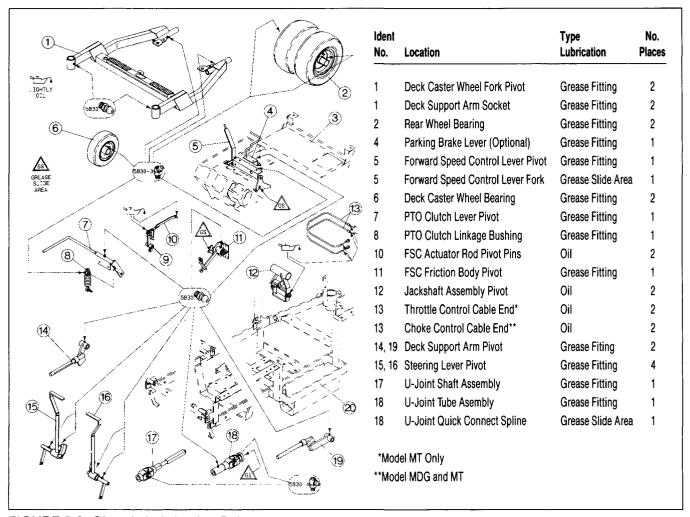


FIGURE 5-3. Chassis Lubrication Points

#### CLEANING

- A. Clean Air Cleaner Dust Cup (MD)
- 1. Remove and clean the Kubota air cleaner dust cup daily or more frequently in extremely dusty conditions (dust cup should be cleaned before it becomes half full of dust).
- 2. With the dust cup removed, check the filter element for security and tightness of the wing bolt mounting the filter. Do not disturb the filter element until cleaning or changing is required (usually every 100 hours).
- 3. Reinstall the dust cup with the word "top" properly oriented to top of canister.

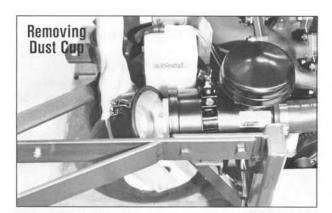


PHOTO 5-4 Air Cleaner Dust Cup - MD

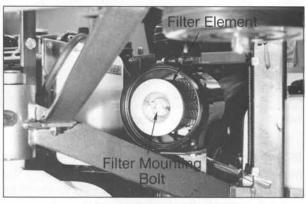


PHOTO 5-5 Air Filter Element - MD

#### B. Service Precleaner Element (MT)

An oiled foam precleaner surrounds the paper element on the Kohler engine. Clean and re-oil the foam precleaner every 25 hours, more often in dusty/dirty conditions.

- **1.** Remove the air cleaner cover and remove foam precleaner by sliding it off the paper element.
- 2. Wash the precleaner in warm water with detergent. Rinse thoroughly and squeeze out excess water (do not wring). Allow the precleaner to air dry.
- **3.** Saturate the foam in clean engine oil. Squeeze foam to distribute and remove excess oil.
- 4. Reinstall the precleaner over the paper element.
- 5. Check security of air cleaner element making sure element is sealed tightly against element cover and base plate and that the mounting nut is tight.
- 6. Reinstall air cleaner cover.

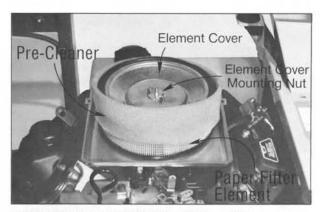


PHOTO 5-6 Precleaner Location - MT

#### C. Clean/Replace Air Filter Element (MD)

**IMPORTANT:** The Kubota engine uses a dry paper type element. Never apply oil to the paper element.

Clean and inspect the paper element every 100 hours and replace yearly or after 6 cleanings (or when dirty or damaged). Service the air filter as follows:

1. Remove filter element and clean using low pressure compressed air (less than 100 psi). Blow out filter from inside while turning the element.

**NOTE:** Washing the element in water or cleaning solution is not recommended. Replace the element if it does not clean up with compressed air.

- 2. Inspect element for damage and replace with a new element if damage is noted.
- Use a bright light inside the element and check very carefully for pin holes or other damage that will allow dirt to leak through the paper media.
- Check condition and resilience of filter gasket. Replace filter if gasket has hardened or cracked or there is evidence of not seating evenly.

**IMPORTANT:** Use only Kubota air filter elements for replacement (Kubota 70000-11221) – aftermarket filters may not seal properly or filter efficiently.

- 3. Use a clean, damp cloth and wipe interior of air cleaner canister clean (including filter seating area and hose inlet).
- **4.** Reinstall element, making sure it is held tight and straight in the canister for proper seating and sealing. Tighten wing-head bolt finger tight; do not over-tighten.

**NOTE:** A light coating of grease on the filter gasket and mounting bolt washer is recommended to enhance sealing and prevent dust leaks at these points.

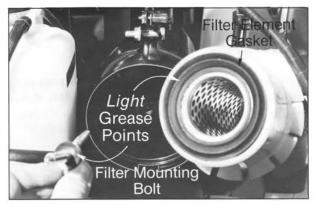


PHOTO 5-7 Air Filter Reinstallation - MD

**5.** Check air intake hose for cuts, nicks, etc. and tightness of hose clamps.

#### D. Clean/Replace Air Filter Element (MT)

Every 100 hours (more often in extremely dusty conditions), check the air filter paper element. Replace the element if it is dirty, bent or damaged with a genuine Kohler element (Kohler #47-083-03). Paper element is located under foam.



PHOTO 5-8 Air Filter Element - MT

**NOTE:** Kohler does not recommend cleaning the paper element and reinstalling. Do not wash the paper element or use pressurized air to clean as this will damage the element. Do not oil the paper element.

When reinstalling the filter element, observe the following:

- 1. Check air cleaner base. Make sure it is secure and not bent or damaged. Also check that the air filter element sealing surfaces and element cover are not damaged, bent or fitting improperly. Replace any damaged air cleaner components.
- 2. Reinstall the paper element and tighten the mounting nut securely, ½ to 1 turn after contacting cover, but do not over-tighten. Make sure element is sealed tightly against the element cover and base plate.

#### **CLEAN ENGINE COOLING SYSTEM (MD)**

#### A. Clean Radiator Screen and Cooling Fins

To prevent engine overheating and possible engine damage, clean grass clippings, chaff and dirt from the fine mesh radiator intake screen daily. In certain mowing conditions (dry grass, leaves, tree "cotton", etc.), it may be necessary to check and clean the screen several times each day to prevent engine overheating.

- 1. Unlatch and remove screen and wash or blow with compressed air to clean.
- 2. Inspect radiator cooling fins for material packed in this area which would prevent cooling airflow. Use pressurized air or water to clean. Do not use any kind of tool like a screwdriver or knife to clean material out of fins as this may damage the cooling fins.

**NOTE:** Directing pressurized air or water from the fan side of the radiator outward is recommended to dislodge material packed on the outside of the cooling fins.



The radiator and engine parts can become extremely hot during operation. Wear gloves and avoid touching hot parts while cleaning the radiator screen and cleaning packed debris away from the engine and cooling system.

#### B. Flush Radiator and Change Coolant

Change engine coolant every year. Drain coolant from engine and radiator: (1) remove radiator cap and (2) open drain cocks on engine block and radiator (see Kubota Owner's Manual for location of drain cocks). Also drain the coolant recovery tank. If there is indication of deposits or scaling inside the radiator, use a commercial scale remover and flush the system thoroughly before adding fresh coolant.

Use a pre-mixed 50/50 solution of antifreeze (ethylene glycol) and distilled water to refill the cooling system.

**IMPORTANT:** The solution of antifreeze and water must be thoroughly pre-mixed before putting it in the engine (adding pure antifreeze into the radiator may cause damage to the engine by causing overheating).

**IMPORTANT:** Maintain proper coolant level in radiator and coolant recovery tank. Coolant level should be maintained between "full" and "low" marks on the coolant recovery tank. Recheck coolant level after the first time the engine is operated after filling the coolant system (it would be normal to add a little coolant after initial operation).

#### CLEAN ENGINE COOLING SYSTEM (MT)

To prevent engine overheating and possible engine damage, clean grass clippings, chaff and dirt from the rotating engine air intake screen every 8 hours of operation. An engine screen guard attached to the chassis frame should also be cleared and kept free of obstruction. Also visually check inside the cylinder head shrouds and between cylinder head cooling fins for material packed in this area which would prevent cooling airflow; remove shroud and clean as required.

**IMPORTANT:** Yearly or every 100 hours (more often under extremely dusty, dirty conditions), remove the blower housing and other cooling shrouds and clean cylinder head cooling fins to prevent overheating. Make sure cooling shrouds are properly reinstalled.

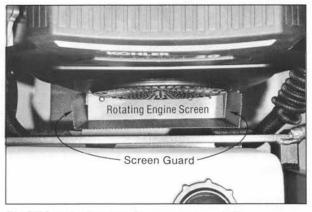


PHOTO 5-9 Engine Screen Area - MT

#### A. Clean Mower Housing Grass Buildup

See Owner's Manual P/N 5895, Page 29 for proper procedures.

#### B. Clean GHS Blower

See Owner's Manual P/N 5895, Page 30 for this procedure. GHS blower drive belt is released by unhooking the belt tension spring (hooked on post above blower pulley).

#### CHECKING/SERVICING

#### A. Check Coolant Level (MD)



#### WARNING

Never remove the radiator pressure cap when the engine is hot – hot water may spray and burn if the cap is taken off too soon.

Check the coolant level in the "see through" coolant recovery tank and maintain coolant between the "full" and "low" marks. When the engine is cold, the coolant level should be at or slightly above the "low" mark.

If the coolant level is low, remove the radiator cap and fill to overflow port level and then fill the recovery tank above the "low" mark. Use a pre-mixed 50/50 solution of antifreeze (ethylene glycol) and distilled water to fill the cooling system.

**IMPORTANT:** The coolant solution of antifreeze and distilled water must be thoroughly pre-mixed before putting it in the engine (adding pure antifreeze into the radiator may cause damage to the engine by causing overheating).

#### B. Check Fan Belt Tension (MD)

Check and adjust fan belt tension to avoid engine overheating and insufficient battery charging. Push on the belt in the middle of the span between the alternator and crankshaft. If properly tensioned, it should deflect about 0.4 in. (10 mm). Also check the belt for cracks or deterioration.

#### C. Check Security of Air Filter Element

The security of the air filter element is checked daily in conjunction with cleaning the dust cup on Model MD (Page 23) and servicing the precleaner on Model MT (Page 23). Refer to those instructions.

#### D. Check Battery Electrolyte Level

See Owner's Manual P/N 5895, Page 30 for checking the battery electrolyte level.

#### E. Service Battery

See Owner's Manual P/N 5895, Page 30 for battery service procedures.

#### F. Check Tire Pressure

See Owner's Manual P/N 5895, Page 31 for proper tire pressures.

#### G. Check/Sharpen Mower Blades

See Owner's Manual P/N 5895, Page 31 for mower blade service and sharpening instructions.

#### H. Check Drive Belts

Raise body and inspect condition of four drive belts (3 belts on SD models) every 25 hours of operation – engine PTO, engine ground drive, ground drive, GHS blower. If the belts show signs of cracking or deteriorating, the belts should be replaced. See "Replacing Drive Belt" instructions in this section (Page 29).

#### I. Check Blade Drive Gearbox Oil Seal

See Owner's Manual P/N 5895, Page 32 for the instructions to check blade drive gearbox oil seals.

#### J. Check/Replace Spark Plug (MDG/MT)

Every 400 hours for Model MDG or every 100 hours for Model MT, remove the spark plugs, inspect, clean and reset gap or replace with a new plug. Clean the spark plug with a wire brush and check the spark plug gap with a wire-type feeler gauge. If the plug electrodes are burned short or pitted, replace the plug. Specifications are as follows:

Model MDG Spark Plug Type NGK BCP4ES-11 Gap .043" (1.1 mm)

Model MT Spark Plug Type Champion RC12YC Gap .040" (1.02 mm) Installing Torque 18-22 ft-lbs (24.4-29.8 N•m)

Good preventive maintenance calls for complete replacement of spark plug wires every two years.

#### K. Check Breaker Points

Both gasoline engines used in these models are equipped with electronic ignition, and there is no breaker point adjustment required. See your authorized engine dealer in case of ignition failure.

#### L. Check Blade Brake Action

For the procedure used to check blade brake action, see Owner's Manual P/N 5895, Page 32. Blade brake adjustment and repair is described in the adjustment section of this supplement (Page 30).

#### M. Check/Adjust Friction Lock

See Owner's Manual P/N 5895, Page 40 for checking and adjusting the forward speed control (FSC) friction.

#### N. Check/Replace Fuel Lines and Clamps

For Model MD every 200 hours, inspect the fuel supply line from the tank to engine for deterioration or damage and also the tightness of the fuel line clamps. This procedure is of special importance for the diesel engine (Model MDD) due to poor performance when air is injected with the fuel. Good preventive maintenance calls for complete replacement of fuel lines and clamps every two years.

For Model MT, inspect fuel lines and clamps yearly and replace every 2 years.

# O. Check/Replace Radiator Hoses and Clamps (MD)

For Model MD every 200 hours, inspect the radiator hoses for deterioration or damage and also the tightness of the hose clamps. Good preventive maintenance calls for complete replacement of the radiator hoses and clamps every two years.

#### P. Check Engine Valve Clearance (MD)

Check and adjust Kubota engine valve clearance every 800 hours. Refer to the Kubota Engine Owner's Manual and Workshop Manual for specifications and procedure to check valve clearance. For engine servicing, contact your Kubota engine dealer or a trained engine technician.

#### Q. Check Fuel Injection Nozzle Pressure (MDD)

Check and adjust the Kubota diesel engine fuel injection nozzle pressure yearly or every 1000 hours (or in case of low power). Refer to the Kubota Workshop Manual for specification and procedure to check nozzle pressure. For engine servicing, contact your Kubota engine dealer or a trained engine technician.

#### R. Check Fuel Shut-Off Valve (MDD)

The starting and stopping of the diesel engine is controlled by the fuel shut-off valve. If the engine cranks, but does not start or does not stop when the ignition switch is turned off, the operation of the fuel valve is the first thing to check.

Raise the mower body and locate the fuel valve on the engine (see Photo 5-10). The valve is operated by an electric solenoid which is controlled by the ignition switch – the valve is open when the ignition key is moved to the "S" start position, and the valve is closed when the ignition key is moved to the "O" off position. If the valve is not operating properly, the problem may be isolated by first checking the operation of the solenoid as follows:

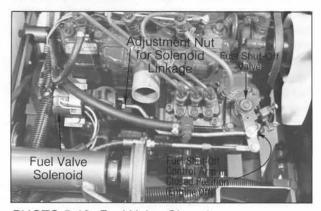


PHOTO 5-10 Fuel Valve Closed (Engine Shut-Off Position) - MDD

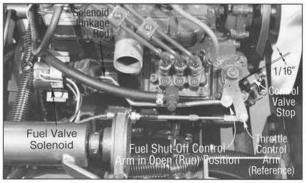


PHOTO 5-11 Fuel Valve Open (Run Position) - MDD

- **1.** Disconnect fuel valve solenoid wire plug from wire harness.
- **2.** Move jumper wire connections from solenoid to battery:
  - a. Black wire to positive terminal (+)Red wire to ground (-)
  - b. Touch white wire to ground (-) and the solenoid should pull closed (open the fuel valve)
  - c. Remove both white and red wires from ground
     (-) and the solenoid should open (shut off the fuel valve)

Replace the solenoid if it doesn't operate properly by the above test, and if it does operate, the problem is in the electrical system which may be checked by the wiring diagram (see Electrical System this section).

#### REPLACEMENT/REPAIR INSTRUCTIONS

#### A. Replacing Drive Belts

Each of four (4) individual belts on GHS models or three (3) belts on SD models may be removed as follows:

Belt	Action
Engine Ground Drive	Lift spring loaded idler to relax belt and slide off pulleys.
Engine PTO (3 Groove Power Band)	1) Remove engine ground drive belt as noted by Photo 5-12. 2) Remove engine ground drive idler arm assembly by unhooking tension spring and removing pivot bolt (Photo 5-13). 3) Loosen blade brake band to allow PTO idler pulley to drop down against frame (Photo 5-16). 4) Work power band belt off one groove at a time. 5) Reverse procedure to install and adjust blade brake per instructions in adjustment section (Page 30).
Ground Drive	<ol> <li>Remove engine ground drive belt as noted above.</li> <li>Slide belt off pulleys.</li> <li>Install new belt referring to Fig. 5-14.</li> </ol>
Blower (GHS Model)	Unhook tension spring from post above blower pulley to relax belt and slide off pulleys.

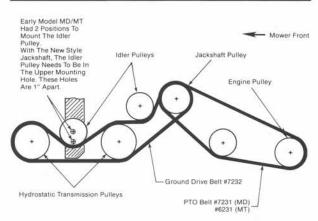


FIGURE 5-14

Ground Drive Belt Layout, Model MD/MT

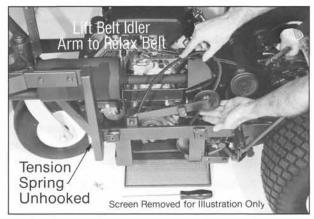


PHOTO 5-12 Changing Engine Ground Drive Belt

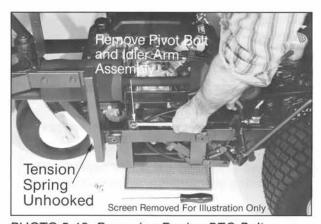


PHOTO 5-13 Removing Engine PTO Belt

#### B. Replacing Fuel Filter (MDD)

Model MDD has two fuel filters as shown in Photo 5-15. Replace both the in-line filter and Kubota filter element every 400 hours of operation as follows:

**IMPORTANT:** Replace fuel filters only in a clean area where the fuel line and connections will not be contaminated by dust and dirt.

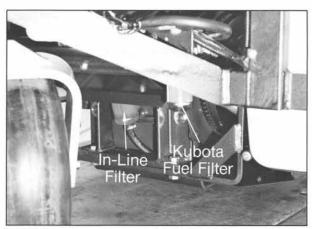


PHOTO 5-15 Fuel Filter Location - MD

- 1. Close the fuel tank shut-off valve and the Kubota fuel filter cock.
- 2. Remove and replace in-line filter as noted in C. for gasoline models.
- 3. Loosen ring screw on Kubota filter assembly. remove filter pot and filter element.
- 4. Clean filter pot and reassemble filter assembly with a new filter element (use only a Kubota replacement filter #15231-43560).
- 5. Open the fuel filter cock and fuel tank valve.
- C. Replacing Fuel Filter (MDG/MT)

Models MDG and MT are equipped with an in-line fuel filter. Replace the filter yearly.



### WARNING

Gasoline is extremely flammable and can be highly explosive. To minimize the danger:

Always use an approved container for gasoline.

Do not allow open flames or sparks while performing maintenance or refueling.

Wipe up spilled gasoline immediately and completely.

**IMPORTANT:** Replace fuel filter only in a clean area where the fuel line and connections will not be contaminated by dust and dirt.

- 1. Close fuel tank shut-off valve.
- 2. Expand and slide clamps on either side of filter away from filter and pull lines off filter.
- 3. Replace filter.
- D. Replacing Blade Shear Bolts

See Owner's Manual P/N 5895, Page 33 for this procedure.

E. Replacing Mower Blades

See Owner's Manual P/N 5895, Page 34 for this procedure.

F. Replacing GHS Blower Assembly

See Owner's Manual P/N 5895, Page 36 for this procedure.

#### ADJUSTMENT

#### A. PTO Clutch/Brake Action



PHOTO 5-16 Blade Brake Band

There is no adjustment on the clutching action of the PTO belt tightener; it is spring loaded. However, the declutched or disengaged position of the blade clutch idler pulley is adjustable and is set to give belt release without excessive slack and to apply the blade brake (the blade brake is activated by linkage to the clutch idler pulley mechanism). An adjustment nut on the brake band (see Photo 5-16) sets the position of the idler pulley in the declutched position. Adjust the declutched pulley position to give 1/2" (1.3 cm) pulley travel from "clutch engaged" to "clutch disengaged." To check and adjust pulley travel, first engage the clutch, then measure the distance the pulley moves down as the clutch is disengaged.

After the pulley travel is adjusted, check for a minimum of 1/8" to 1/4" clearance between the idler pulley and motor mount when the pulley is in the declutched position. If there is no clearance and the idler pulley rests on the motor mount, the blade brake will not be applied when the clutch is disengaged.

If the idler pulley adjustment is correct and the blade brake does not stop the blades within 5 seconds (see checking procedure), either or both the brake band and the drive pulley (which includes the brake drum) are worn and need to be replaced.



#### WARNING

It is important to check and maintain blade brake action for safe operation of this equipment.

#### B. Carburetor (MDG/MT)

Carburetor adjustments are required to compensate for differences in altitude, temperature and fuel. Once the carburetor has been set, no further adjustments should be required. However, if the engine exhibits any of the following symptoms, the carburetor adjustment should be checked: black sooty exhaust smoke, lack of power, engine miss or backfire, hard to start, rough running or idle.

**NOTE:** Also refer to Engine Owner's Manual for detailed carburetor adjustment information.

**NOTE:** The air cleaner must be assembled to carburetor when adjusting carburetion.

The carburetor main jet on both Model MDG and MT is fixed (non-adjustable). For operation above 5000 ft. ASL, the carburetor main jet should be changed for best fuel economy and power. Contact local engine dealer to change the carburetor main jet.

To adjust the carburetor for engine idle, the following procedure is used (see Photo 5-17 and 5-18 for location of adjustment screws on Model MDG and MT respectively):

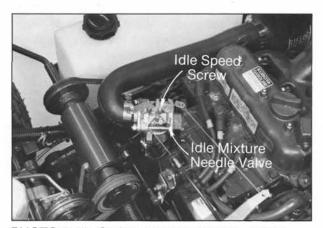


PHOTO 5-17 Carburetor Adjustment - MDG

1. Gently close idle mixture needle valve screw by turning clockwise until it bottoms lightly.

**IMPORTANT:** The needle valve and carburetor seat may be damaged by turning the adjustment screw too tight.

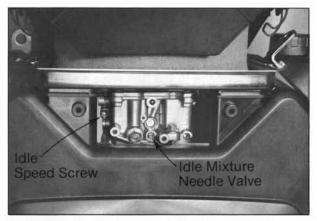


PHOTO 5-18 Carburetor Adjustment - MT

2. Preliminary Setting: Turn the adjustment needle out (counterclockwise) 1-1/2 turns from the closed position. This initial adjustment will allow the engine to be started and warmed up prior to final adjustment.



#### DANGER

Engine must be running to adjust carburetor for engine idle. To guard against injury, keep hands, feet, face and other parts of body away from muffler/exhaust pipe, other hot parts of engine and moving or rotating parts of engine.

- 3. Start engine, allow to warm up (approximately 5 minutes).
- **4.** Move throttle to "idle" position. Adjust idle speed for 1200 RPM by adjusting the idle stop screw on carburetor butterfly valve (throttle). Check idle speed using a tachometer.
- 5. With engine idling, adjust idle mixture by turning needle valve in until the engine slows (clockwise lean mixture). Then turn out past smooth operating point until engine slows again (counterclockwise rich mixture). Now turn needle valve to midpoint between rich and lean mixture. Check engine acceleration from idle. If the engine will not accelerate properly, the idle mixture should be readjusted, usually to a slightly richer mixture (open valve).

6. Recheck idle speed after final idle mixture adjustment.

#### C. Fuel Shut-Off Valve (MDD)

To prevent damage to the fuel valve solenoid, the linkage to the engine must be adjusted so the solenoid bottoms out before the control arm on the engine contacts its stop (when the engine is running). It is particularly important to check this adjustment any time the solenoid is replaced. A solenoid that does not bottom out when the engine is running will become overloaded and burn out.

Check and adjust the solenoid linkage as follows:

1. Manually pull the fuel valve open and check the gap between the control arm on the injector pump and the stop (see Photo 5-19). The required gap is approximately 1/16".

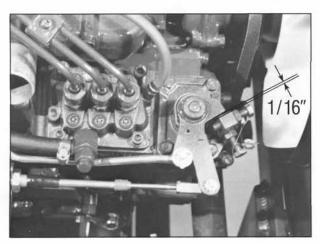


PHOTO 5-19. Fuel Shut-Off Linkage Adjustment - MDD

2. If the gap is incorrect, adjust the linkage by loosening the jam nut at the solenoid, removing the cotter pin and washer from the connection to the fuel valve control arm, screwing the linkage rod in or out of the solenoid as required. (See Photos 5-10, 5-11).

- **3.** After adjusting the linkage for the proper gap, turn the ignition key on and check the gap by operating the solenoid.
- D. Transmission Control Adjustment Procedure

See Owner's Manual P/N 5895, Page 38 for the transmission control adjustment procedure.

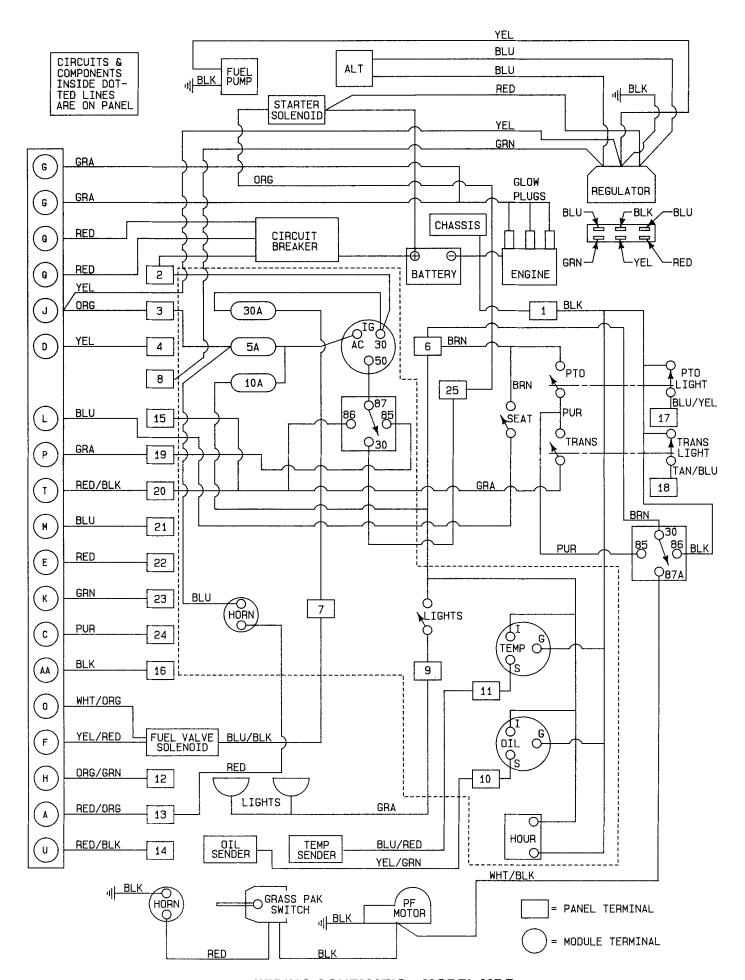
#### E. GHS Full Signal Adjustment

See Owner's Manual P/N 5895, Page 42 for troubleshooting and adjusting GHS full signal (use instructions listed under "GHS6.7 with Grass-Pak Switch").

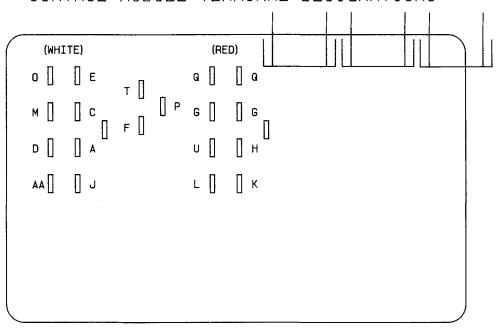
#### **ELECTRICAL SYSTEM**

#### **NOTES**

- 1. For troubleshooting, see wiring schematic in parts manual for either Model MD or Model MT.
- 2. Disconnect both battery cables before unplugging any wiring connections or making repairs on the electrical system. For Model MD, it is particularly important to disconnect the battery cables before unplugging the control module otherwise the control module may be damaged.
- 3. Disconnect battery cables in this order: negative (-) first; then positive (+).
- **4.** Disconnect battery cables before connecting to a battery charger.



### CONTROL MODULE TERMINAL DESIGNATIONS

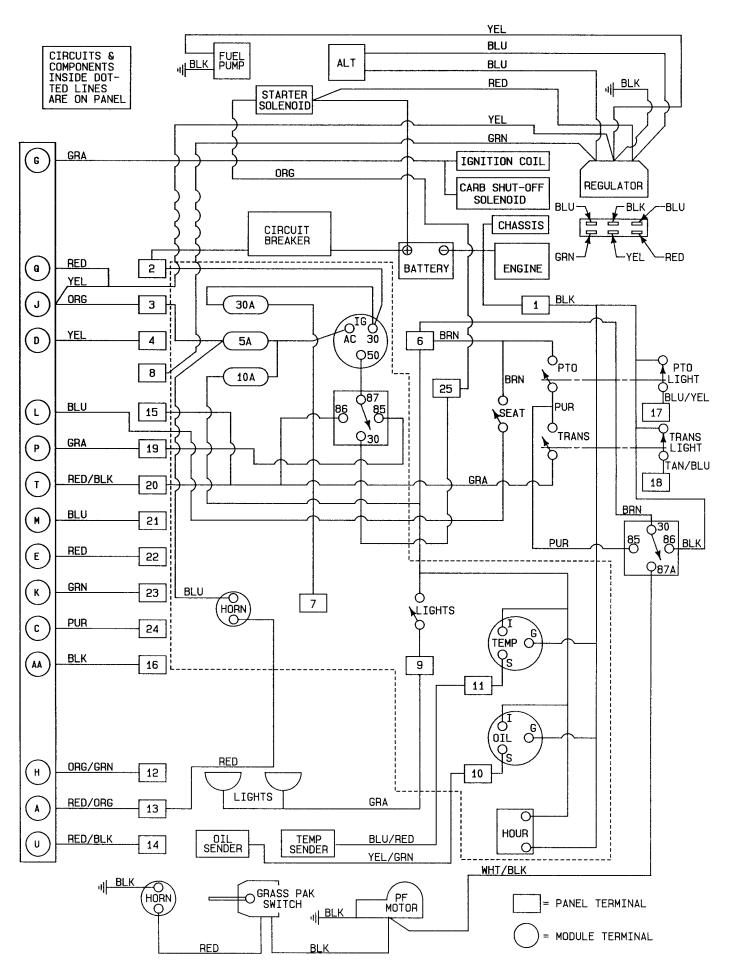


### CONTROL PANEL TERMINAL DESIGNATIONS

VIEWED FROM OPERATOR'S SEAT

- 1 -BATTERY NEGATIVE
- 2 BATTERY POSITIVE
- 3 MODULE TERMINAL J
- 4 MODULE TERMINAL D
- 6 PTO, TRANS, SEAT & RELAY SWITCH 18 TRANSMISSION LIGHT SWITCH
- 7 FUEL SOLENOID COMMON
- 8 ALTERNATOR REGULATOR LIGHT 20 MODULE TERMINAL T
- 9 LIGHTS
- 10 OIL PRESSURE SENSOR
- 11 WATER TEMP SENSOR
- 12-MODULE TERMINAL H
- 13 MODULE TERMINAL A

- 14 MODULE TERMINAL U
- 15 TRANSMISSION SWITCH
- 16 MODULE TERMINAL AA
- 17 PTO LIGHT SWITCH
- 19 MODULE TERMINAL P
- 21 MODULE TERMINAL M
- 22 MODULE TERMINAL E
- 23-MODULE TERMINAL K 24 - MODULE TERMINAL C
  - 25 STARTER CONTROL



### CONTROL MODULE TERMINAL DESIGNATIONS

### CONTROL PANEL TERMINAL DESIGNATIONS

VIEWED FROM OPERATOR'S SEAT

- 1 -BATTERY NEGATIVE
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- 6 PTO, TRANS, SEAT & RELAY SWITCH 18-TRANSMISSION LIGHT SWITCH
- 7 OPEN
- 8 ALTERNATOR REGULATOR LIGHT
- 9 LIGHTS
- 10 OIL PRESSURE SENSOR
- 11 WATER TEMP SENSOR
- 12 MODULE TERMINAL H
- 13 MODULE TERMINAL A

- 14 MODULE TERMINAL U
- 15-TRANSMISSION SWITCH
- 16 MODULE TERMINAL AA
- 17-PTO LIGHT SWITCH
- 19 MODULE TERMINAL P
- 20 MODULE TERMINAL T
- 21-MODULE TERMINAL M
- 22 MODULE TERMINAL E
- 23 MODULE TERMINAL K
- 24-MODULE TERMINAL C
- 25 STARTER CONTROL

## WARRANTY

Walker Manufacturing company will, at its option, repair or replace, without charge, any part covered by this warranty which is found to be defective in material and/or workmanship within one (1) year\* after date of sale to the original purchaser unless the product is used for rental purposes, in which case this warranty is limited to ninety (90) days. At Walker's request, customer will make the defective part available for inspection by Walker and/or return the defective part to Walker, transportation charges prepaid. All parts and components of the Walker Mower MDD, MDG, and MT are covered by this warranty except the following components, which are warranted separately by their respective manufacturers.

Kubota Engine Kohler Engine Eaton Hydraulic Transmission Peerless Gearboxes Battery Tires

The available warranties covering these items are furnished with each mower. Walker does not assume any warranty obligation, liability or modification exceeding the stated warranty of the respective manufacturers stated above.

This warranty does not cover defects caused by depreciation or damage caused by normal wear, accidents, improper maintenance, improper use or abuse of the product, alterations or failure to follow the instructions contained in the Owner's Manual for operation and maintenance.

The customer shall pay any charges for making service calls and/or for transporting the mower to and from the place where the inspection and/or warranty work is performed.

Warranty service can be arranged by contacting the dealer where you purchased the mower or by contacting Walker Manufacturing Company, 5925 East Harmony Road, Fort Collins, CO 80525.

There is no other express warranty. Any warranty that may be implied from this purchase including merchantability and fitness for a particular purpose is hereby limited to the duration of this warranty and to the extent permitted by law any and all implied warranties are excluded. Walker will not be liable for any incidental, consequential or special damages and/or expenses. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to you.

Only the warranty expressed in this limited warranty shall apply and no dealer, distributor or individual is authorized to amend, modify or extend this warranty in any way.

\*An extended three (3) year warranty is offered on the Walker P/N 6200 gear axle assembly.

