

# Safety Instructions & Operator's Manual for **SNAPPER**<sup>®</sup>

## MID MOUNT Z-RIDER ZERO TURNING HYDRO DRIVE SERIES 2



<b>MODELS</b>
NZMJ23522KH
NZMJ25612KH

MODEL NUMBER EXPLANATION						
N	Z	MJ	23	52	2	KH
MODEL DESIGNATION	DRIVE SYSTEM TYPE	MOWER ORIENTATION	ENGINE HP *	POWER UNIT	SERIES DESIGNATION	ENGINE TYPE
N – Model Designation	Z – Zero Turning – Hydro Drive	M – Mid Mount Mower	23 – Engine Horse Power	25 – Engine Horse Power	2 – Series Designation	KH – Kohler Engine
J – Joystick Control			52 – 52" Mower Width	61 – 61" Mower Width		

Thank you for buying a SNAPPER Product! Before operating your machine, read this manual carefully and pay particular attention to the "IMPORTANT SAFETY INSTRUCTIONS" on Pages 2 - 4. Remember that all power equipment can be dangerous if used improperly. Also keep in mind that SAFETY requires careful use in accordance with the operating instructions and common sense!

NOTE: Specifications are correct at time of printing and are subject to change without notice.

\* Actual sustained equipment horsepower will likely be lower due to operating limitations and environmental factors.

**SNAPPER** McDonough, GA., 30253 U.S.A.

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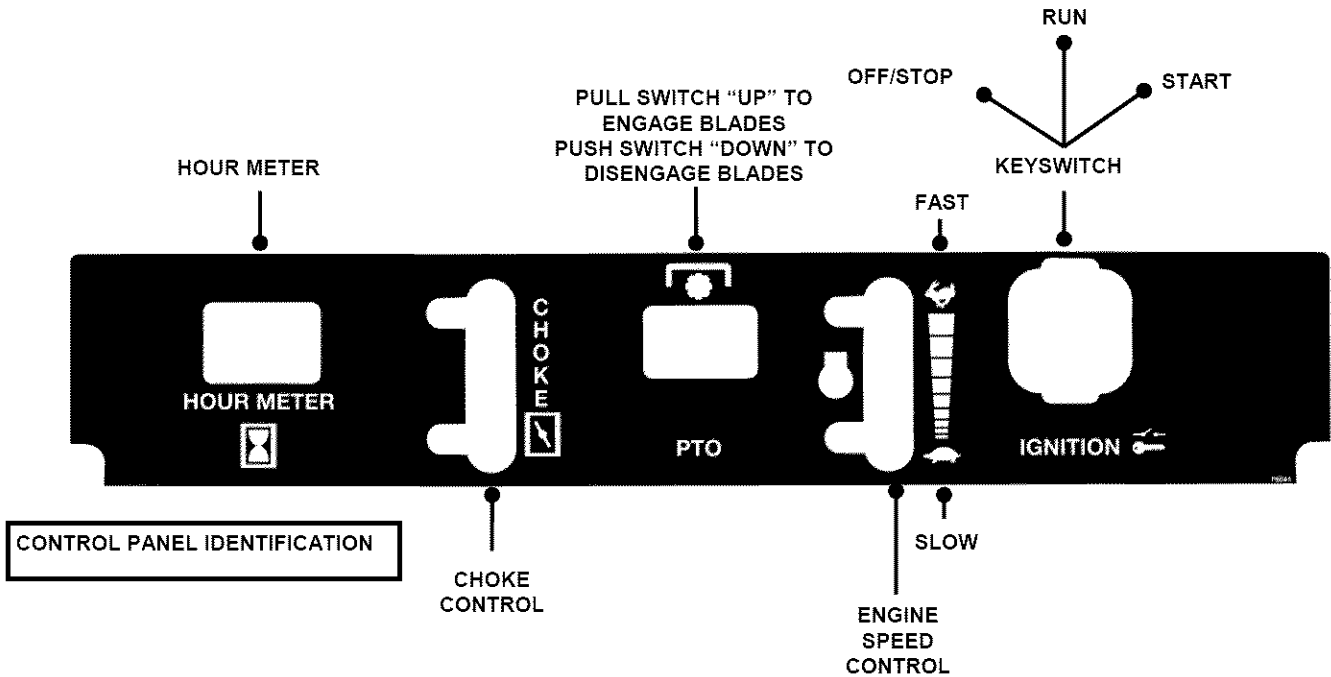
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## IMPORTANT

NOTICE: Operator Protective Structures are available as optional kits for the Mid-Mount and Out-Front Z-Rider machines. These structures, when installed and used properly can offer additional security to the operator against serious injury in the event of a tip over accident. Operator Protective Structures may be required by local ordinances. Discuss your mowing application and ordinances with your local Snapper Dealer.

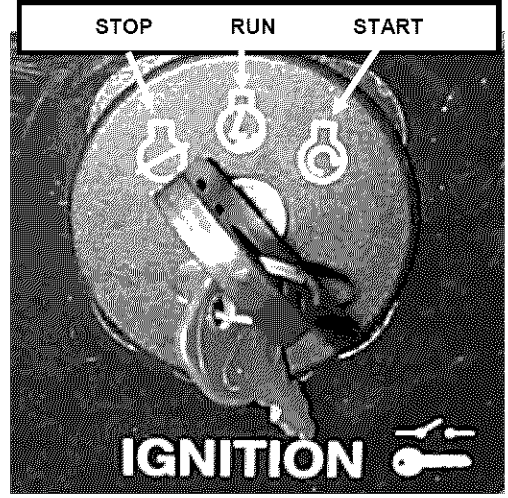
# Section 2 – SAFETY MESSAGES AND SYMBOLS



DANGER! ROTATING BLADES  
 KEEP CHILDREN AND OTHERS OUT OF MOWING AREA



DANGER! ROTATING BLADES



IGNITION SWITCH

## Section 3 - OPERATING INSTRUCTIONS

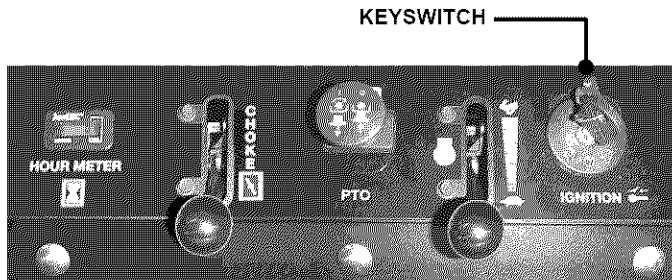
### 3.2.1. STARTING ENGINE

**NOTE:** If after 5 seconds of cranking the engine does not start, release the key. Attempt starting again after waiting for approximately 20 seconds.

7. After engine starts, move the choke control to the "OFF" or no choke position. Allow a brief warm-up until engine runs smooth.

### 3.2.2. STOPPING ENGINE

1. Stop engine by turning key to "STOP" position. Move engine speed to the Turtle "SLOW" position and turn key to "STOP". See Figure 3.6.



SHOWN FROM OPERATOR'S VIEW POINT

FIGURE 3.6

### 3.2.5. PARKING BRAKE

1. Engage parking brake by pulling the parking brake lever back to the engaged position. See Figure 3.7.

**NOTE:** To engage the parking brake, the joystick control must first be placed in the center neutral position.

2. Release parking brake by pushing parking brake lever forward to the released position. See Figure 3.8.

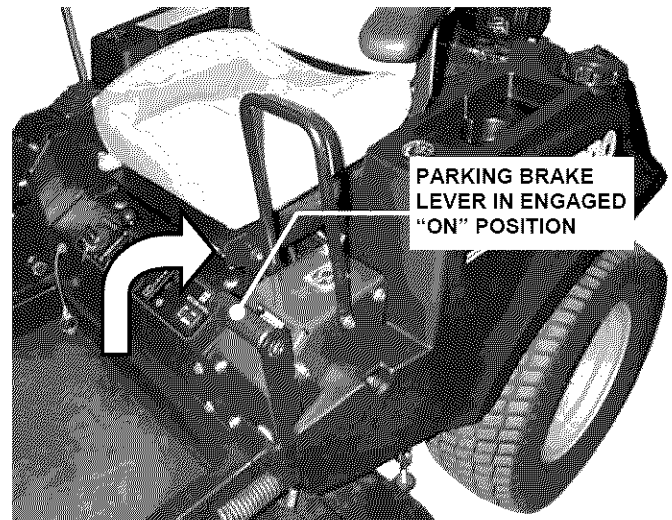


FIGURE 3.7

**WARNING**  
DO NOT operate blades in reverse. STOP blades. LOOK and SEE behind and down for children, pets, and hazards before and while backing.

### 3.2.3. STARTING MOWER BLADES

1. Start engine and set engine speed control to the Rabbit "FAST" position. See Figure 3.5.

2. Pull the Blade Switch up to the "ON" position to engage or turn "ON" the mower blades. See Figure 3.2.

### 3.2.4. STOPPING MOWER BLADES

1. Push Blade Switch down to "OFF" position to disengage or turn "OFF" the blades.

2. Move engine speed control to the Turtle "SLOW" position. Turn key to "STOP" position.

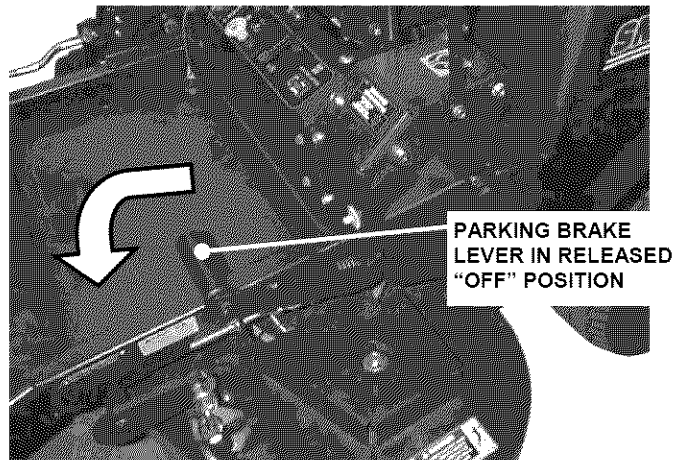


FIGURE 3.8

**WARNING**  
Once blades are disengaged, they should come to a complete stop in 7 seconds. If the blades continue to rotate after 7 seconds, the electric clutch should be checked. Adjustment or replacement of electric clutch may be necessary. Return the machine to an authorized Snapper dealer for replacement. DO NOT CONTINUE to operate mower if blades fail to stop in 7 seconds.

**WARNING**  
DO NOT park the machine on slopes. DO NOT leave machine with engine running. Stop engine. Stop blades. Engage parking brake. Remove key.

# Section 5 - ADJUSTMENTS & REPAIR

## 5.1 NEUTRAL POSITION ADJUSTMENTS (Continued From Previous Page)

12. Move motion control lever to the neutral position and engage the parking brake, See Figure 3.7, hold connecting rod up to the activation assembly and check length of rod. Tie rod end bolt must align with the activation assembly. If bolt is not aligned with the activation assembly, adjust tie rod. Loosen jam nut that secures tie rod. Rotate tie rod in or out to align with hole in activation assembly. Repeat step for other hydro pump. See Figure 5.4.

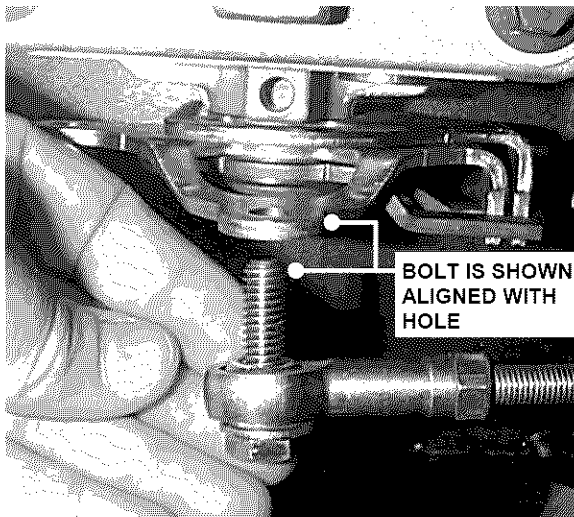
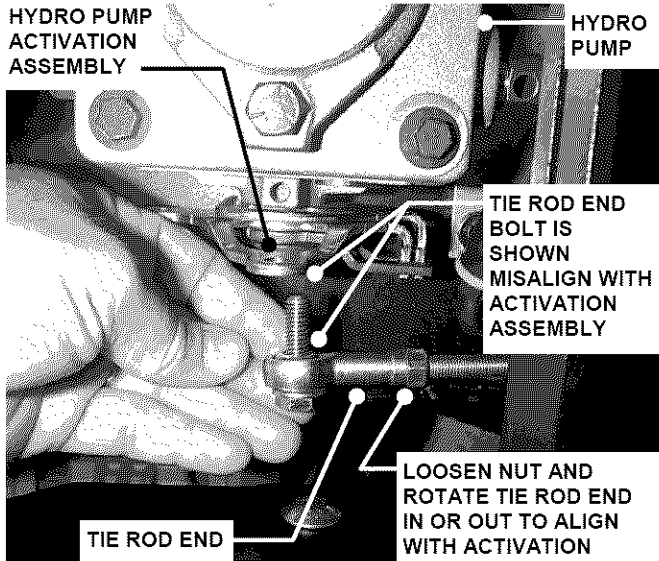


FIGURE 5.4

13. Once tie rod end bolt is aligned with activation assembly insert into hole and reinstall washers and nut that secure bolt to assembly. Tighten securely. Tighten tie rod jam nut securely.

14. Start engine, disengage parking brake, and check rotation of the rear wheels.

15. Reinstall both hydro pump fans. Reinstall washer and bolt. Tighten bolt securely.

16. Reinstall screen and tighten retaining hardware securely.

## 5.2 MOWER DECK & COMPONENT ADJUSTMENTS

The leveling procedures for the 61 deck differ from the 48 and 52 decks. The 61 deck replaces the two rear eyebolts with slotted brackets, and uses 1 1/4" leveling blocks in place of the 1" blocks. Follow and complete each step carefully.

### 5.2.1. MOWER DECK ADJUSTMENT (LEVELNESS) SIDE to SIDE and FRONT to REAR

Before making deck leveling adjustments, inflate rear tires to 12 PSI and front tires to 25 PSI. When adjusted correctly, the deck will be level side to side within 1/8", have a low cut setting of approximately 1" (1 1/4" for 61 deck) and the blades pitched approximately 3/16" higher at the rear.

1. Place machine on a smooth level surface.
2. Check side to side level by rotating blades until tips are pointing to the sides of the deck. Check the measurement of outside blade tips to the ground on both blades. The measurement of each of the outside blade tips should be within 1/8" of each other. If measurement of the blade tips is not within 1/8", adjustment should be made.
3. Move deck lift lever and set the mower deck to the highest cutting position.
4. Relieve tension on deck lift assist spring by loosening nut on eyebolt. Refer to Section "Removing Deck".
5. Place 1" blocks (1 1/4" for 61 deck) under the front and rear edge of the mower deck.
6. Move deck lift lever and set the mower deck to the lowest cutting position.
6. Loosen the nuts and bolts that secure both front deck support chains. Adjust chains until tight and retighten bolts and nuts. Torque to 70 ft. lbs. See Figure 5.5.

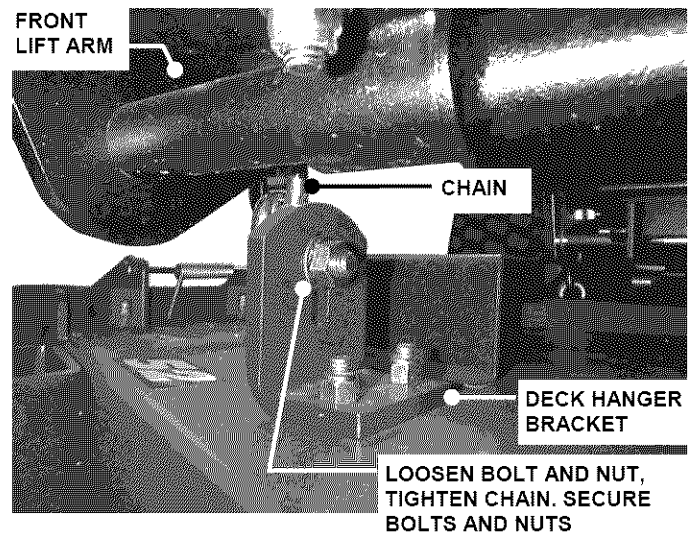


FIGURE 5.5

## Section 5 - ADJUSTMENTS & REPAIR

**WARNING**

DO NOT attempt any maintenance, adjustments or service with engine running. STOP engine. STOP blades. Set brake. Remove key. Remove spark plug wires and secure away from spark plugs. Engine and components are HOT. Avoid serious burns, allow sufficient time for all parts to cool.

### 5.3 TRACTION BELT TENSION

The traction drive belt tension does not require adjustment. If the belts are slipping, they will have to be replaced.

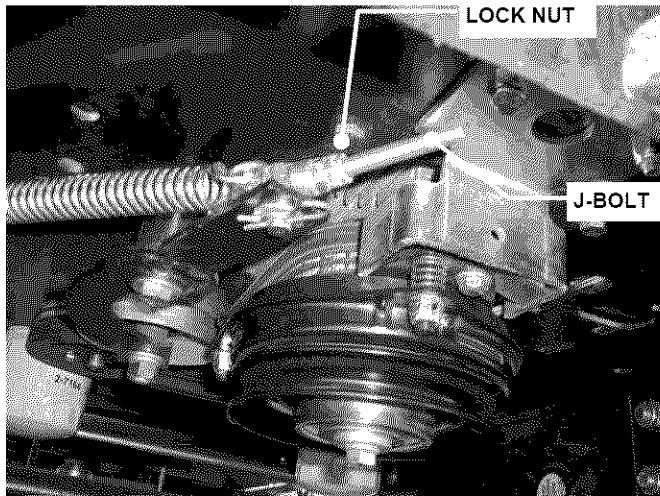


FIGURE 5.9

### 5.4 TRACTION BELT REPLACEMENT

1. Remove clutch to deck belt. See Figure 5.10
2. Turn lock nut out to the end of J-Bolt, reducing spring tension. Unhook traction idler spring from bolt in frame. See Figure 5.9
3. Remove anti-rotation bracket. See Figure 5.10
4. Disconnect the electric clutch from main wire harness.
5. Remove traction belts from around engine pulley and hydro pumps.
6. Install new belts and route around engine pulley and hydro pump pulleys.
7. Reconnect electric clutch to main wire harness.
8. Reinstall anti-rotation bracket and tighten nuts securely.
9. Reattach traction idler spring. Run lock nut all the way to the end of the threads on the J-Bolt. Tighten jam nut securely. See Figure 5.10.
10. Reinstall electric clutch to deck belt.

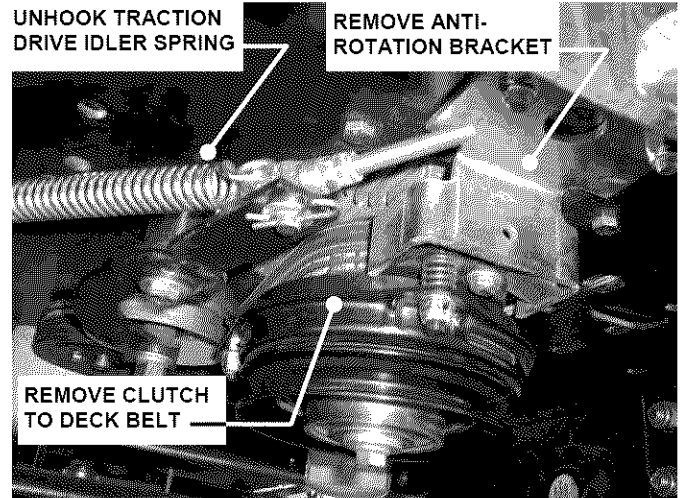


FIGURE 5.10

### 5.5 BLADE BRAKE/ELECTRIC CLUTCH ADJUSTMENT

The blade switch engages the electric clutch when pulled out to the "ON" position. When the blade switch is in the "ON" position the cutting blade(s) are engaged. The blade switch disengages the electric clutch when the blade switch is pushed in to the "OFF" position. When the blade switch is in the "OFF" position the cutting blade(s) are disengaged. The electric clutch is adjustable. The blades should stop rotation in 7 seconds or less. If the electric clutch fails to stop the blades rotation in 7 seconds, adjustment is necessary.

1. Insert a feeler gauge into the three slots on the electric clutch.
2. Check gap through all three slots in the side of the clutch. The gap should be set at .015.
3. If gap is incorrect rotate nuts in or out to achieve the correct gap. See Figure 5.11.

**NOTE:** Electric Clutch is shown removed from the machine. Removal is not necessary for adjustment.

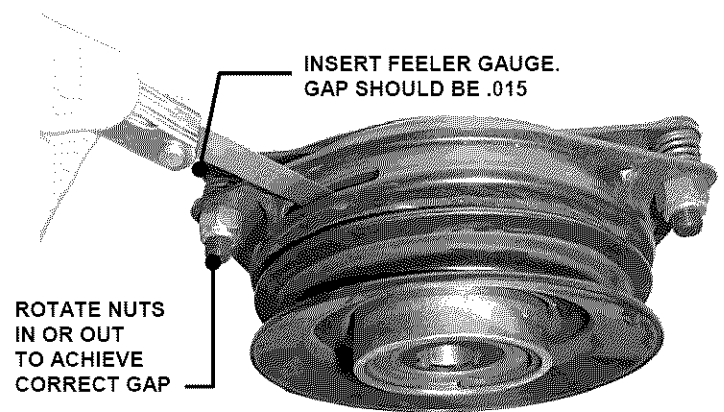


FIGURE 5.11

## Section 5 - ADJUSTMENTS & REPAIR

**WARNING**

Shield the positive terminal with terminal cover located on battery harness. This prevents metal from touching the positive terminal, which could cause sparks. Cables must be connected to battery terminals in the proper position. RED (Positive) cable must go to the (+) terminal. BLACK (Negative) cable must go to the (-) terminal. If battery is removed, DO NOT operate engine without insulating Positive + battery cable terminal with electrical tape, or sparking from the battery cables can result.

### 5.9 BATTERY

#### 5.9.1. BATTERY REMOVAL

1. Remove battery retainer. See Figure 5.17.
2. Slide terminal cover away from positive terminal.
3. Observe and note cable positions on battery. Disconnect cables from battery terminals, disconnecting BLACK (Negative) cable first and RED (Positive) last. Retain mounting bolts and nuts. See Figure 5.17.

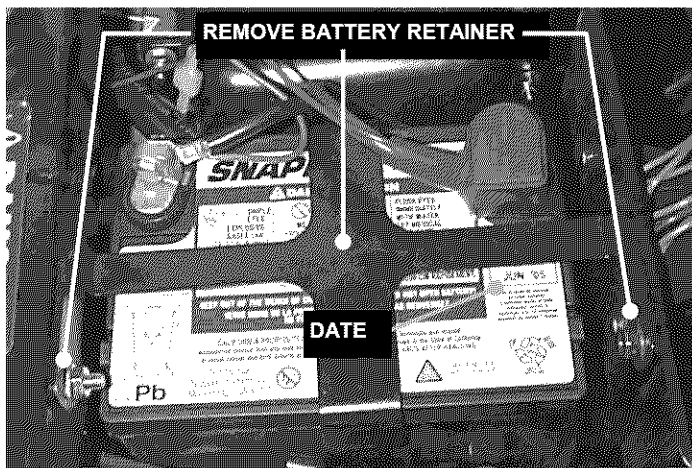


FIGURE 5.17

#### 5.9.2. BATTERY INSTALLATION

1. Position battery into battery compartment.
2. Connect cables to battery terminals. Connect RED (Positive) cable first. Connect BLACK (Negative) cable last. See Figure 5.18.
3. Reinstall battery retainer and positive terminal cover. See Figure 5.17.

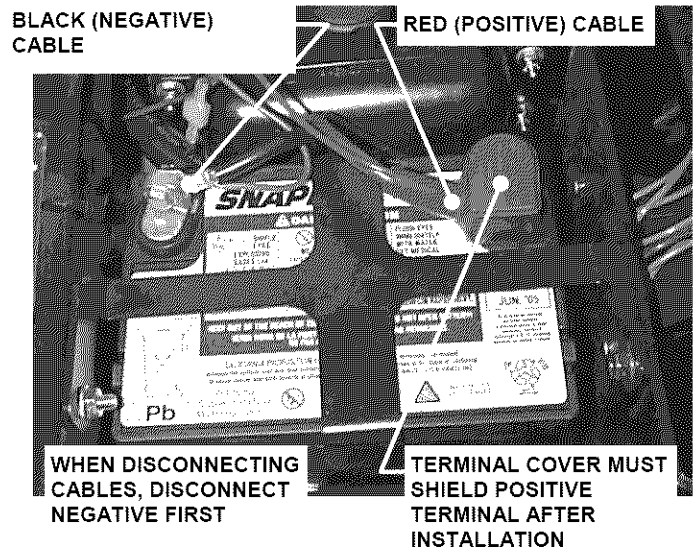


FIGURE 5.18

#### 5.9.3. BATTERY CHARGING

**NOTE:** The battery in this machine is maintenance-free. It has been filled to the proper level with acid and is sealed. Do not attempt to open battery.

1. Remove battery.
2. Place battery in a well-ventilated area on a level, non-concrete surface.
3. Connect battery charger to battery terminals. RED to positive (+) terminal and BLACK to negative (-) terminal.
4. Slow charge battery at 6-10 amps for 1 hour.
5. If battery will not accept charge or is partially charged after 1 hour of charging, replace with new battery.

**WARNING**

Keep all sparks, flame and fire away from area when charging battery.