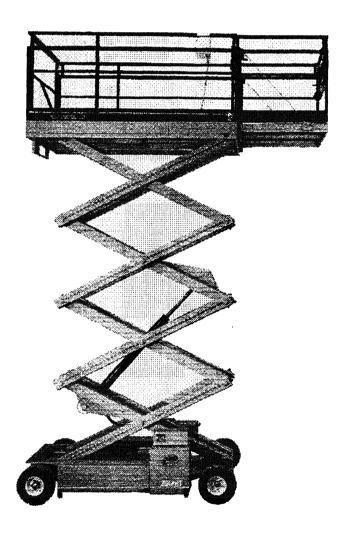
Hite-Master Series

1948, 1948HT, 2548, 2548HT, 1958, 1958HT, 2558, 2558HT, 1958D, 2558D





Mayville Engineering Company, Inc.

An Employee Owned Company

Aerial Work Platforms

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Table Of Contents

Section 1: Safety	
Use of Notes, Cautions and Warnings	2
General Opaerating Rules, Safety and Limitations	2
Operator Qualifications	2
Safety Features	
Maintenance Locks	2
Section 2: Introduction	
Description	5
Specifications	6
Section 3: Operation	
Preliminary Installations	
Controls Identification-Pre 1992 Models	
Operating Instructions-Pre 1992 Models	
Controls Identification & Operating Instructions-	
1992 and Later Models	
Joystick Control Operation	
Extending Platform	
Section 4: Maintenance	
Inspection and Lubrication	17
Servicing, Replacement & Adjustments	



DO NOT perform preliminary installations, operate, service, replace, adjust or maintain equipment on this machine until you have thoroughly read and understood the Safety section of this manual, and have read and understood all the sections of this manual that apply to the job you are doing on this machine.

Failing to heed all warnings posted on this machine and written in this manual, could cause death, serious injury or property damage.

1. SAFETY

USE OF NOTES, CAUTIONS AND WARNINGS

NOTE - Additional information to further explain instructions.

CAUTION - Failure to follow instruction could cause damage to equipment.

WARNING - Failure to follow instruction could cause death, personal injury and property damage.

DANGER - Failure to follow instruction will cause death, personal injury and property damage.

GENERAL OPERATING RULES, SAFETY AND LIMITATIONS

MEC designs Hite-Master work platforms to be safe and reliable. They are rugged and maneuverable but must be used only for purposes and ways intended. That is to raise personnel and tools to overhead work areas.

Respect your machine; do not neglect or misuse it.

Inspect machine before using. Do not use machine if it is not working properly in any way.

Check job site for unsafe working conditions. **Do not** operate on uneven or soft terrain. **Do not** raise platform if machine is on an incline.

Use machine only for purposes for which it was designed.

Never take chances. Do not use machine if your physical condition is uncertain in any way.

Do not exceed the load capacity of platform.

Do not smoke while charging LPG tanks or filling gasoline tank.

Do not enter or exit platform while in motion.

An operator of any type of work platform is subject to certain hazards that cannot be protected by mechanical means. It is therefore essential that operators be competent, careful, physically and mentally fit and thoroughly trained in safe operation of this machine.

A DANGER

DO NOT operate machine near power lines. Platform and enclosures are not insulated.

Failure to follow this warning will cause death or personal injury.

OPERATOR QUALIFICATIONS

Hite-Master is to be operated and maintained by qualified personnel only!

To qualify for operation and maintenance of this unit, an individual must read and thoroughly understand this manual. If a proposed operator or maintenance man fails to understand any segment of this manual, his Supervisor can clarify the misunderstanding through written correspondence or a phone call to:

Mayville Engineering Company Aerial Work Platforms Division of Mayville Engineering Co., Inc. 210 Corporate Drive Beaver Dam, Wisconsin 53916 (920) 887-2518

SAFETY FEATURES

1. Automatic Parking Brake

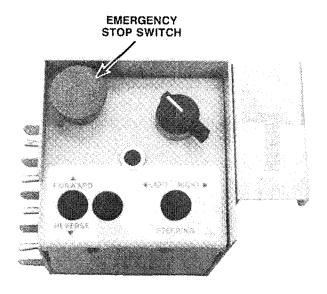
The Automatic Parking Brake is a spring actuated system. The brake is released during drive by hydraulic pressure built up in the drive circuit. A brake valve is used to maintain release during drive and an orifice is used to control the braking function.

2. Emergency Stop

The Emergency Stop is located on the control console. Depress red knob as indicated and all functions of machine will be de-energized. Pull up on knob to reactivate circuits (Figure 1).

3. Emergency Down

The Emergency Down control is located in center of lower beam weldment above the front axle. Pull handle on cable to allow platform to descend back to the stowed position (Figure 2).



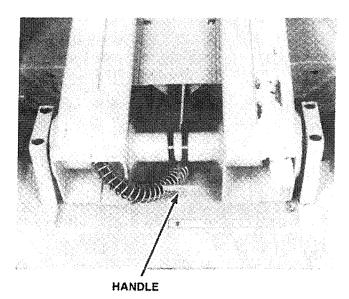


Figure 1. Control Console Emergency Stop Switch.

Figure 2. Emergency Down Control.

AWARNING

MAINTENANCE LOCKS MUST BE INSTALLED when maintaining or servicing machine with platform fully or partially extended.

Working through beams on scissors lifting device creates a hazardous situation which could cause death or personal injury.

FOLLOW MAINTENANCE LOCKS PROCEDURE!

- Remove load from platform.
- 2. Raise platform as high as necessary to engage maintenance locks.
- 3. Maintenance locks are located at the front and rear of the unit between the inside beam assemblies. With machine raised part way, lift maintenance locks and lower machine so that pivot pins are resting on maintenance locks (Figures 3 and 4).
- 4. Do not allow maintenance lock on the front end (drive wheel end) to hand down, as it may damage the wire harness.

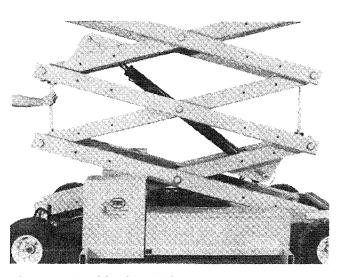


Figure 3. Positioning Maintenance Locks.

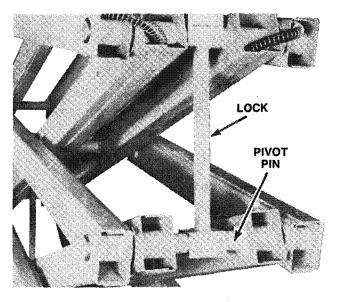


Figure 4. Maintenance Locks in Place.

A WARNING

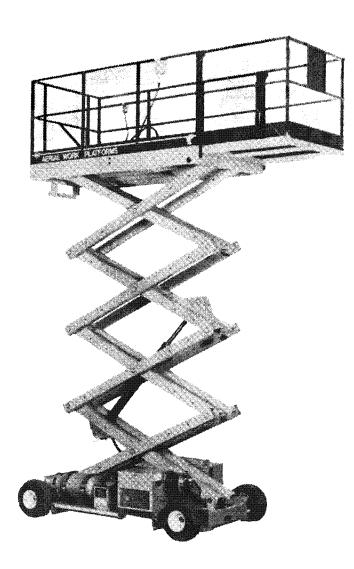
DO NOT SERVICE EXTENDED OR PARTIALLY EXTENDED MACHINE UNTIL THE ABOVE PROCEDURE IS FOLLOWED.

2. INTRODUCTION

DESCRIPTION

Hite-Master Aerial Work Platforms are electrically or fuel driven, hydraulically operated units. The platform is raised and lowered by a scissors mechanism. All units are steered by a hydraulic cylinder, which is controlled from the control console on the platform. Emergency lowering, auxiliary lift controls and auxiliary engine controls (Dual Fuel Series) are located at the base of the machine.





Electric Series

Dual Fuel Series

Figure 5. Hite-Master Aerial Work Platforms.

HITE-MASTER SPECIFICATIONS

Through our constant efforts to improve our products, specifications may change without notice.

MEASUREMENTS

MODEL NO.	PLAT. HT.	WORK HT.	STOW.	LIFT CAP.	POWER	O/A LENGTH	O/A WIDTH	GRND. CLEAR	INSIDE TURN RAD. "A"	OUTSIDE TURN RAD. "B"	APPROX. WT.*
1948	19'	25'	37°	1500 lbs.	36 vdc	104°	48°	4*	3'4*	11'3 *	3680 lbs.
	(5.79m)	(7.6m)	(94cm)	(681.8kg)	Batt.	(2.64m)	(1.2m)	(10.2cm)	(1m)	(3.43m)	(1650kg)
1948HT	19'	25'	37°	1500 lbs.	36 vdc	104*	48*	4*	3'4"	11'3"	3680 lbs.
	(5.79m)	(7.6m)	(94cm)	(681.8kg)	Batt.	(2.64cm)	(1.2m)	(10.2cm)	(1m)	(3.43m)	(1650kg)
2548	24' 9"	30'9*	42°	1000 lbs.	36 vdc	104°	48*	4*	3'4"	11'3"	3950 lbs.
	(7.54m)	(9.37m)	(106.7cm)	(454.5kg)	Batt.	(2.64m)	(1.2m)	(10.2cm)	(1m)	(3.43m)	(1786kg)
2548HT	24' 9"	30'9°	42*	1000 lbs.	36 vdc	104°	48°	4*	3'4"	11'3"	4000 lbs.
	(7.54m)	(9.37m)	(107cm)	(454.5kg)	Batt.	(2.64m)	(1.2m)	(10.2cm)	(1m)	(3.43m)	(1818kg)
1958	19'	25 [,]	37°	1750 lbs.	36 vdc	104°	58*	4"	3'4°	11'3"	4050 lbs.
	(5.79m)	(7.6m)	(94cm)	(759kg)	Batt.	(2.64m)	(1.5m)	(10.2cm)	(1m)	(3.43m)	(1841kg)
1958HT	19'	25'	37°	1750 lbs.	36 vdc	104"	58*	4*	4'5"	11'3"	4100 lbs.
	(5.79m)	(7.6m)	(94cm)	(759kg)	Batt.	(2.64m)	(1.5m)	(10.2cm)	(1.35m)	(3.43m)	(1864kg)
1958	19'	25'	37°	1750 lbs.	18 HP	104°	64*	4*	4'5"	11'3"	4100 lbs.
(Dual Fuel)	(5.79m)	(7.6m)	(94cm)	(759kg)	4 cycle	(2.64m)	(1.63m)	(10.2cm)	(1.35m)	(3.43m)	(1864kg)
2558	24'9°	30'9°	42°	1250 lbs.	36 vdc	104"	58°	4*	4'5"	11'3"	4320 lbs.
	(7.54m)	(9.37m)	(106.7cm)	(568.2kg)	Batt.	(2.64m)	(1.5m)	(10.2cm)	(1.35m)	(3.43m)	(1964kg)
2558HT	24'9'	30'9*	42°	1250 lbs.	36 vdc	104*	58"	4"	4'5"	11'3"	4370 lbs.
	(7.54m)	(9.37m)	(106.7cm)	(568.2kg)	Batt.	(2.64cm)	(1.5m)	(10.2cm)	(1.35m)	(3.43m)	(1987kg)
2558	24'9'	30'9"	42"	1250 lbs.	18 HP	104°	64°	4"	4'5°	11'3*	4370 lbs.
(Dual Fuel)	(7.54m)	(9.37m)	(106.7cm)	(568.2kg)	4 cycle	(2.64m)	(1.63m)	(10.2cm)	(1.35m)	(3.43m)	(1987kg)

Hite-Master weights include 150 lb. (68kg) skid.

Hydraulic Reservoir Capacity - Standard 5 gals. Dual Fuel 13 gals. Std. 10W Hydraulic Oil, Non-Detergent

Lift Time - Standard 45 sec. High Torque - 25 sec.

Descent Time - 35 sec.

Tires on Hite-Master machines must be replaced with manufacturer's replacement tires to maintain stability factor of the machine. **LUG NUTS TO BE TORQUED TO 75-85 FT. LBS. AND CHECKED WEEKLY.**

Tire Size - Standard Models 18" dia., 6" wide Dual Fuel 18.5" dia., 8.5" wide (foam filled).

Torque Specs

Hydraulic Valve: Valve to manifold - 12 ft. lbs. Valve nut to valve - 5 in. lbs.

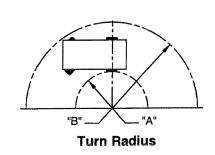
Hydraulic Drive Motor Castle Nut: 300 ft. lbs. then next slot on castle nut and install cotter pin.

Recommended Fuels (Dual Fuel Series)

LPG: Natural Gas Processors Assn. specification HD 5.

Gasoline: Normal unleaded or leaded gasoline.

Bolts	Grade 2	Grade 5	Grade 8
1/4-20	49 in. lbs.	76 in. lbs.	9 ft. lbs.
5/16-18	8 ft. lbs.	13 ft. lbs.	18 ft. lbs.
3/8-16	15 ft. lbs.	23 ft. lbs.	33 ft. lbs.
7/16-14	24 ft. lbs.	37 ft. lbs.	52 ft. lbs.
1/2-13	37 ft. lbs.	57 ft. lbs.	80 ft. lbs.



^{**} Rails removed.

3. OPERATION

AWARNING

Before operating this machine, operator MUST carefully read the Safety section at the beginning of this manual. Failure to follow safety precautions may result in death or serious injury.

PRELIMINARY INSTALLATIONS

- 1. Remove all packing materials and inspect for possible damage during shipment. Report any damage immediately to the person delivering the equipment.
- If side railings are not installed, install now in sockets on each side of the platform (Figure 6). Side railings
 may require rubber mallet, or hammer and block of wood to force fit. Bolt front and rear rails to the sides
 with bolts provided. When assembled, the entry gate must swing freely.

NOTE

To install extending platform, refer to the Extending Platform illustration in the Parts Catalog in this manual, page 85 or 86.

3. Install provided **carrying capacity warning decal** to front rail (Figure 6). Make sure decal states correct capacity for your machine.

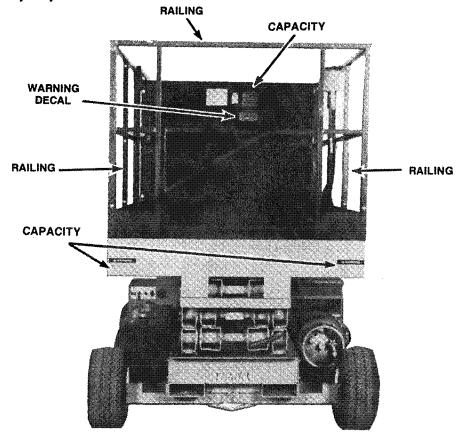


Figure 6. Platform Railings and Warning Decal.

PRELIMINARY INSTALLATIONS - DUAL FUEL SERIES

- 1. If not assembled before shipment, connect cable to control console (Figure 7) provided and install console on platform railing. Pull emergency stop button up if it has been pushed down.
- 2. If wheels have not been installed, install them (bolt holes flared side out).
- 3. Check that fuses on lower control station have been installed and are in proper working condition. Install or replace if necessary (Figure 7).
- 4. Check engine oil level (Figure 8). Inspect engine dipstick and fill to proper level following instructions in engine manufacturer's operating manual.
- 5. Inspect oil level in hydraulic reservoir by unscrewing reservoir filler cap. Oil level should be 2 inches below the top of the tank (Figure 7). Top off if necessary.

NOTE

Machine fuel tanks are shipped empty. Fill gasoline tank, or install LPG tank (follow instructions on page 20) before starting engine.

- 6. Check proper fuel line shut-off valve. Turn valve to the ON position (Figures 7 and 8).
- 7. Remove keys from the Parts, Service & Maintenance pouch. Insert key into lower control station (Figure 7).
- 8. Turn **KEY** switch on the lower control station to the **ON** position (Figure 7).
- 9. Place ENGINE CONTROL PLATFORM/BASE switch in the BASE position (Figure 8).
- 10. Start engine by holding base **ENGINE CONTROL START/STOP** switch in the **START** position until the engine starts (Figure 8).

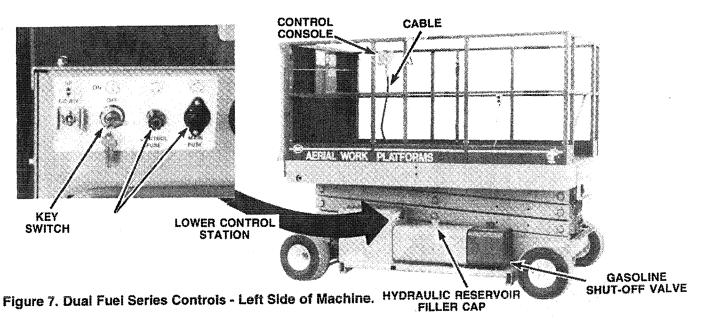
NOTE

FUEL SELECTION switch on base must be in either the LPG or GAS position when starting engine.

11. Using the **UP/DOWN** switch on the lower control station (Figure 7), raise platform high enough to engage maintenance safety locks according to procedure on page 4.

Move the **UP/DOWN** switch to the **UP** position to raise. To stop platform movement, release the switch.

Move the **UP/DOWN** switch to the **DOWN** position to lower. To stop platform movement, release the switch.



A WARNING

MAINTENANCE LOCKS MUST BE INSTALLED when maintaining or servicing machine with platform fully or partially extended.

Working through beams on scissors lifting device creates a hazardous situation which could cause death or personal injury.

FOLLOW MAINTENANCE LOCKS PROCEDURE ON PAGE 4 OF THIS MANUAL.

- 12. Lower platform so that maintenance locks are resting on pivot pins.
- 13. While engine is running, inspect hydraulic system for any leaks.

AWARNING

Never inspect hydraulic hoses with hands. Escaping fluids under pressure can cause serious injury. Use a piece of cardboard or other material to inspect for leaks. Escaping fluids under pressure can be invisible and can penetrate the skin and cause serious injury. If any fluid is injected into your skin, see a doctor at once! Injected fluid must be surgically removed by a doctor familiar with this type of injury or gangrene may result.

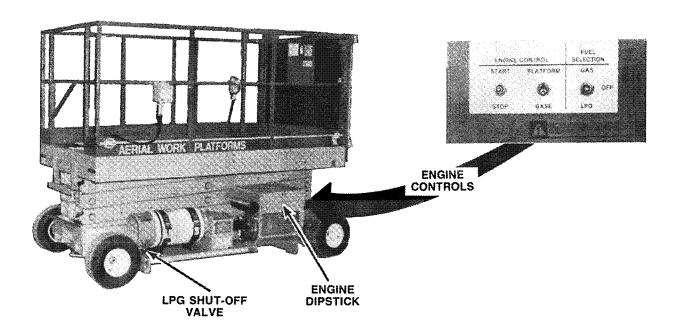


Figure 8. Dual Fuel Series Controls - Right Side of Machine.

PRELIMINARY INSTALLATIONS - ELECTRIC SERIES

- 1. If not assembled before shipment, connect cable to control console (Figure 7) provided and install console on platform railing. Pull emergency stop button up if it has been pushed down.
- 2. If wheels have not been installed, install them (bolt holes flared side out).
- 3. Check that fuses on lower control station have been installed and are in proper working condition. Install or replace if necessary (Figure 7).
- Turn KEY switch on lower control station to ON.
- 5. Check oil level in hydraulic reservoir.
 - a. Inspect machine for leaking hydraulic oil. If a serious leak is apparent, the machine should not be used until the leak is serviced.
 - b. Using the **UP/DOWN** switch on the lower control station (Figure 9), raise platform high enough to engage maintenance locks.

Move the **UP/DOWN** switch to the **UP** position to raise. To stop platform movement, release the switch.

Move the **UP/DOWN** switch to the **DOWN** position to lower. To stop platform movement, release the switch.

A WARNING

MAINTENANCE LOCKS MUST BE INSTALLED when maintaining or servicing machine with platform fully or partially extended.

Working through beams on scissors lifting device creates a hazardous situation which could cause death or personal injury.

FOLLOW MAINTENANCE LOCKS PROCEDURE ON PAGE 4 OF THIS MANUAL.

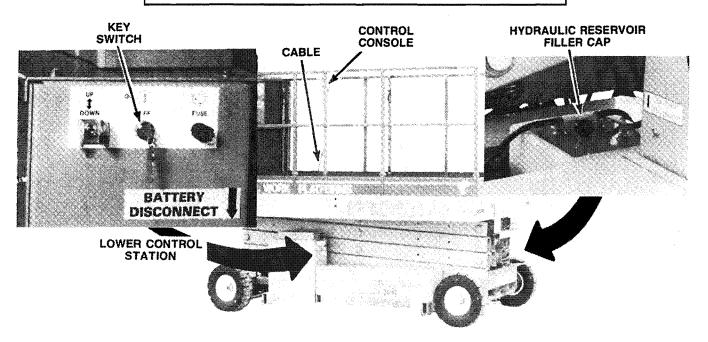


Figure 9. Electric Series Controls.

- c. Lower platform so that maintenance locks are resting on pivot pins. Check fluid in reservoir by removing filler cap (Figure 9). Fill to proper level. (Dip stick gauged with platform stowed.)
- d. Replace filler cap.
- e. Raise platform slightly and retract maintenance locks.
- 6. Inspect hydraulic system for any leaks.

▲ WARNING

Never inspect hydraulic hoses with hands. Escaping fluids under pressure can cause serious injury. Use a piece of cardboard or other material to inspect for leaks. Escaping fluid under pressure can be invisible and can penetrate the skin and cause serious injury. If any fluid is injected into your skin, see a doctor at once! Injected fluid must be surgically removed by a doctor familiar with this type of injury or gangrene may result.

CONTROLS IDENTIFICATION

NOTE

Standard and optional controls for all pre 1992 Hite-Master models are identified and described below. Not all controls may be on your machine.

1. Lower Control Station (All Series Models) (Figures 7 and 9):

This station is used for initial start-up of the machine and for raising and lowering the platform.

- a. **ON/OFF KEY Switch.** When turned to the **ON** position, this switch supplies electric power to the control circuit, enabling the electric motors to run or the engine to start on dual fuel models.
- b. **UP/DOWN Switch**. This toggle switch raises or lowers the platform at the lower control station.
- 2. Platform Control Console Controls (Figure 10):

This console is used to control the machine while walking alongside, and also to control the machine from the platform.

NOTE

The electric series console shown in Figure 10 is used on pre 1992 models only. The platform control consoles (toggle switch and joystick types) used on 1992 and later electric models are covered in a later topic.

EMERGENCY STOP Switch.

This switch cuts all control circuit power when it is pushed down. Power will remain off until the switch is pulled up.

FORWARD/REVERSE Drive Switch.

Controls the forward and reverse travel of the machine.

SLOW/FAST Switch.

Controls travel speed.

STEERING Switch.

Controls the direction the machine turns (left/right) while traveling.

UP/DOWN Switch.

Used to raise and lower the platform.

SECONDARY DRIVE Switch (High Torque Models).

This toggle switch is used at the same time as the FORWARD/REVERSE Drive switch for SPEED or POWER mode or the UP/DOWN switch for high-speed lift.

POWER/SPEED Switch (High Torque Models).

This toggle switch is used to control the speed the machine can travel. When switched to **POWER**, the machine has more power to climb hills. When switched to **SPEED**, the machine travels at its highest speed.

RUN Switch (Dual Fuel Series).

This 3-position switch starts and stops the gas engine.

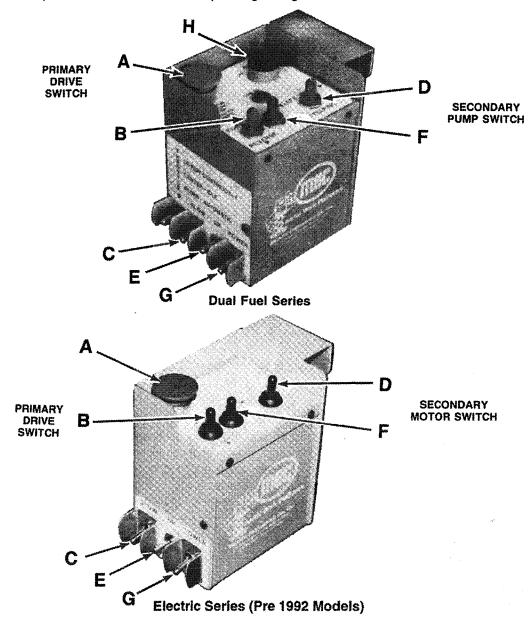


Figure 10. Platform Control Consoles - Pre 1992 Models.

OPERATING INSTRUCTIONS - ALL DUAL FUEL MODELS AND PRE 1992 ELECTRIC MODELS

- 1. Start Engine (Dual Fuel Series)
 - a. Turn KEY switch on lower control station (Figure 7) to ON.
 - b. Check proper fuel line shut-off valve. Turn valve to the ON position (Figures 7 and 8).

NOTE

Dual fuel switch on base ENGINE CONTROL station must be in either the LPG or GAS position when starting platform. When changing from one fuel to another, place switch in the OFF position while the engine is running. When the engine starts to hesitate, switch to the alternate fuel position.

- c. Position base ENGINE CONTROL PLATFORM/BASE switch to BASE.
- d. Start engine by holding base **ENGINE CONTROL** switch in the **START** position until the engine is running (Figure 8). To stop engine, move switch down to **STOP** position.
- e. Option: Position base ENGINE CONTROL PLATFORM/BASE switch to PLATFORM. Turn control console RUN switch to the START position and return to RUN position when engine is running (Figure 10). To stop engine, turn switch to OFF position.

NOTE

When starting dual fuel engine from control console, LOW OIL light will come on and warning buzzer will sound, indicating engine has not yet developed enough oil pressure. Once engine is running, LOW OIL light will go out and buzzer will stop. If engine runs and LOW OIL light stays on and buzzer continues to sound, shut off engine and check engine oil dipstick. Refer to engine operation manual if oil is needed.

NOTE

KEY switch on lower control station (Figure 7) must be turned to the ON position to start engine.

- f. THROTTLE control:
 - (1) **RUN CONTINUOUSLY** supplies high rpm to engine. Use when full power is required to move machine, lift platform or power generator.
 - (2) IDLE slows engine speed. Use to run machine functions at low speed.
 - (3) **AUTOMATIC** supplies full power to engine when the machine needs power and will slow engine to idle after a period (approximately 10 seconds) when a machine function is not in use.

NOTE

THROTTLE control must be set to RUN CONTINUOUSLY if the auxiliary generator is in use.

- 2. Raise/Lower Platform From Base (All Series Models)
 - a. Move the **UP/DOWN** switch to the **UP** position to raise. To stop platform movement, release switch.
 - Move the UP/DOWN switch to the DOWN position to lower. To stop platform movement, release the switch.

NOTE

The machine will operate in slow speed drive when the platform is raised above four feet.

3. High Torque Models

- a. To Travel (Slow Speed 1 mph)
 Position SLOW/FAST switch to SLOW position. Activate PRIMARY DRIVE switch (Figure 10) in direction desired. One power source (primary) will propel drive wheels in a series circuit at a reduced speed. (Automatically engaged when platform is elevated beyond four feet.)
- b. To Travel (Regular Speed 2 mph)
 Position SLOW/FAST switch to FAST position. Activate PRIMARY DRIVE switch in direction desired. One power source (primary) will propel drive wheels in a series circuit. (Only available when platform is below four feet in elevation.)
- c. To Travel (High Speed 3 mph) Position SLOW/FAST switch to FAST position. Position POWER/SPEED switch to SPEED position. Activate PRIMARY DRIVE switch and SECONDARY MOTOR switch simultaneously in direction desired. Both power sources will propel drive wheels in a series circuit at increased speed. (Only available when platform is below four feet in elevation.)
- d. To Travel (Power Mode Slow Speed 1 mph) Position SLOW/FAST switch to SLOW position. Position POWER/SPEED switch to POWER position. Activate PRIMARY DRIVE switch and SECONDARY MOTOR switch simultaneously in direction desired. The primary power source will propel one drive wheel, and the secondary power source will propel the other drive wheel, in a parallel circuit at a reduced speed.
- e. To Travel (Power Mode Regular Speed 2 mph)
 Position SLOW/FAST switch to FAST position. Position POWER/SPEED switch to POWER position.
 Activate PRIMARY DRIVE switch and SECONDARY MOTOR switch simultaneously in direction desired. The primary power source will propel one drive wheel, and the secondary power source will propel the other drive wheel, in a parallel circuit. (Only available when platform is below four feet in elevation.)
- f. To Raise Platform (Normal Speed)
 Activate the UP/DOWN switch to UP position. To stop platform movement, release switch.)
- g. **To Raise Platform** (High Speed)
 Activate the **UP/DOWN** switch to **UP** position and the **SECONDARY MOTOR** switch simultaneously.
 To stop platform movement, release switch.
- h. **To Lower Platform**Activate the **UP/DOWN** switch to **DOWN** position. To stop platform movement, release switch.

CONTROLS IDENTIFICATION AND OPERATING INSTRUCTIONS - 1992 AND LATER ELECTRIC MODELS

NOTE

Standard and optional controls for all Hite-Master, 1992 and later electric models are identified and described below. Not all controls may be on your machine. Later dual fuel models have the same platform control consoles as the earlier dual fuel models.

1. Lower Control Station (Figures 7 and 9):

This station is used for initial start-up of the machine and for raising and lowering the platform.

- a. RUN KEY Switch. When turned to the ON position, this switch supplies electric power to the control switches.
- b. **UP/DOWN Switch.** This toggle switch raises or lowers the platform at the lower control station.

2. Platform Toggle Switch Control Consoles (Figure 11):

This console is used to control the machine while walking alongside, and also to control the machine from the platform.

EMERGENCY STOP Switch.

The **EMERGENCY STOP** is a toggle switch protected with a flip cap guard. For normal operation, lift the flip cap to its upright position and push the toggle switch toward the cap. This will supply power to the electrical circuit for normal operation. When the flip cap is pushed, it will toggle the switch to the **OFF** position, cutting the supply of power to the normal electrical circuits.

MOTION Switch.

The **MOTION** switch is a two position on/off switch with spring return to off position. This switch must be toggled and held (either direction) in order to activate either the Drive, Steering, or Lift/Lower function.

Drive Switch (FORWARD/REVERSE).

With the control box in the normal operation location (see decal on the top surface of the rail assembly), toggle the drive switch **FORWARD** to drive forward while holding the **MOTION** switch "on" at the same time. To stop, release (either or both) the **MOTION** and drive switches. For reverse, toggle the drive and **MOTION** switches to **REVERSE** and release to stop.

STEERING Switch (LEFT/RIGHT).

With the control box in the normal operating location (see decal on the top surface of the rail assembly), toggle the STEERING switch LEFT to turn left while holding the MOTION switch at the same time. For right turn, toggle the STEERING switch to the RIGHT while holding the MOTION switch. Release the STEERING switch to stop turning. The wheels will stay at the angle turned to until turned back to a straight position. The steering function can be operated while stationary or while driving.

UP/DOWN Switch.

While holding the MOTION switch in either position, toggle the UP/DOWN switch UP to raise the platform. To lower the platform, toggle the UP/DOWN switch DOWN while holding the MOTION switch in either position. Release (either or both) to stop.

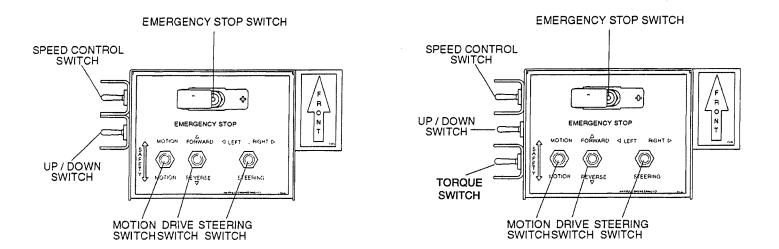
SPEED CONTROL Switch.

The SPEED CONTROL switch affects both the drive and platform lift/lower functions. Placing this switch in the SLOW DRIVE (down) position will limit travel speed to 1 mph (1/2 mph optional); in the MEDIUM DRIVE (center) position to 2 mph*; in the FAST DRIVE/LIFT (up) position (HT models only) the machine can travel at a speed of 3 mph.** With the SPEED CONTROL in the FAST DRIVE/LIFT (up) position, the platform will raise to full extension in approximately 20 seconds. (This will not allow more lifting capacity, only faster lifting!)

TORQUE ON/OFF Switch (HT Models Only)

The **TORQUE ON/OFF** switch, depending on the model, in **OFF** position permits travel at 1-2-3 mph with 10%-15% gradeability and in **ON** position permits travel at 1-2 mph with 20%-25% gradeability. A 3 mph travel speed is only possible with this switch **OFF**.

- * With the platform raised you will be limited to slow speed regardless of the speed control position.
- ** The **TORQUE ON/OFF** switch must be in the **OFF** position to obtain 3 mph.



STANDARD SERIES

HIGH TORQUE SERIES

Figure 11. Platform Toggle Switch Type Control Console - 1992 and Later Electric Models.

3. Platform Joystick Control Console (Figure 12)

A. EMERGENCY STOP

The **EMERGENCY STOP** is a toggle switch protected by a flip cap guard. For normal operation lift the flip cap to its upright position and push the toggle switch toward the cap. This supplies power to the electrical circuits for normal operation. When the flip cap is pushed, it will toggle the switch to the off position cutting the supply of power to the normal electrical circuits.

B. Joystick Enable Bar

The enable bar actuates a push button on/off switch which must be held closed while performing a drive or steering function. When pushed in, the motor will run, but no platform motion will occur until the joystick controls are operated.

C. Joystick Handle

The joystick handle permits control of both drive and steering with the use of one hand.

i. Drive - Forward

Position the control box on the top guard rail in the front right corner of the platform. Grip the joystick so as to depress the enable bar.

Push the joystick forward to drive forward. As the handle is pushed forward you will feel three notches or steps corresponding to the three travel speeds.

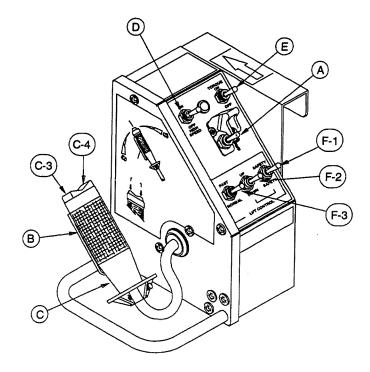
Holding the joystick handle in the first step allows the machine to travel at approximately 1 mph (standard) or 1/2 mph (optional).

NOTE

With the platform elevated, travel speed is limited to slow (1 mph) speed.

Moving to the second step increases travel speed to 2 mph. The **TORQUE ON/OFF** switch must be in the **OFF** position.

Continuing on to the third step will only produce a change in drive speed if the **HIGH SPEED ON/OFF** switch is in the **ON** position and the **TORQUE ON/OFF** switch is in the **OFF** position. This step will then allow the machine to travel at approximately 3 mph.



ART-218

Figure 12. Platform Joystick Control Console.

ii. Drive - Reverse

To operate the machine in reverse, simply pull back on the joystick handle and follow all the same steps as forward.

C-3. Steering

C-4. While holding the enable bar, press the rocker switch on the top end of the joystick handle to the left or right position as desired. Release the steering rocker switch to stop turning.

NOTE

The wheels will stay at the position turned to until another steering function is initiated. The steering function can be operated while stationary or while driving.

D. HIGH SPEED ON/OFF Switch (High Torque Models Only)

Turn the **HIGH SPEED ON/OFF** switch to **ON** to allow for travel at 3 mph when the joystick handle is positioned in the third step of either forward or reverse. With the high speed switch in the **OFF** position the third step of the joystick will not change speed.

E. TORQUE ON/OFF Switch (High Torque Models Only)

The **TORQUE ON/OFF** switch in the **OFF** position permits travel at 1, 2, or 3 mph (**HIGH SPEED ON/OFF** switch **ON**) with 10% - 15% gradeability.

In the **ON** position the **TORQUE ON/OFF** switch enables you to travel at 1 or 2 mph with 20% - 25% gradeability during the drive function. 3 mph travel speed is disabled with **TORQUE ON/OFF** switch in **ON** position.

F. LIFT CONTROL

F1. SAFETY Switch

The **SAFETY** switch is a two position on/off switch with spring return to off position. This switch must be toggled and held (either direction) while activating the **UP/DOWN** switch.

F2. UP/DOWN Switch

While holding the **SAFETY** switch in either position, toggle the **UP/DOWN** switch **UP** to raise the platform, or **DOWN** to lower the platform. To stop, release either one or both switches.

F3. FAST/NORMAL Switch (High Torque Models Only)

With this switch held in the **NORMAL** position, the platform can be raised from stowed position to full extension in approximately 37 seconds. With the lift speed switch in the fast position, the platform will raise to full extension in approximately 20 seconds.

NOTE

This will not increase lifting capacity, only the platform lift speed.

EXTENDING PLATFORM

1. Extend Platform

- a. Lower the platform deck by lifting latch pin on right hand side and pushing platform forward.
- b. Lift front lock handles and push rail assembly forward to full extension.
- c. Lift back lock handle and lock in full extended position.

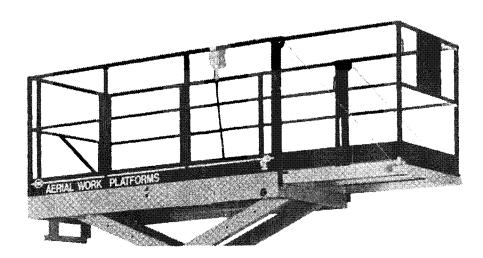


Figure 13. Extending Platform.

A WARNING

Do not use extending platform without railings fully extended.

2. Retract Platform

- a. Lift rear lock handles and pull rail assembly to stowed position.
- b. Lift front lock handles to lock rails in stowed position.

NOTE

Rail assembly must be fully retracted and locked before extending platform can be retracted.

c. Retract platform deck by pulling support cable. Be sure lock is fully engaged.

A WARNING

FLAMMABLE LIQUIDS

When changing over from LP-Gas to gasoline, be sure no gasoline has spilled from the carburetor float system.

- 1. Position FUEL SELECTION switch in the OFF position.
- 2. Start engine and run until fuel line is purged of all fuel and the engine stops.
- 3. Turn FUEL SELECTION switch to GAS or LPG, as desired (Figure 14).
- 4. Start engine.

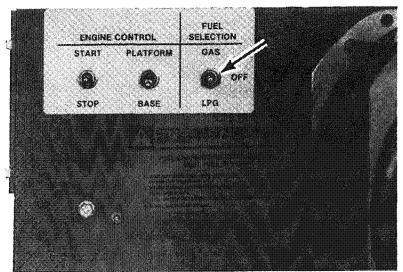


Figure 14. Fuel Selection Switch.

LPG TANK CHANGING

A WARNING

Do not smoke or use other combustibles while changing LPG tanks. Do not change tanks near flames or sparks. Escaping fumes could cause explosion if ignited by flame or spark.

- Close shut-off valve.
- 2. Start engine and run until engine stops to purge fuel line.
- 3. Disconnect fuel hose from tank.
- 4. Release latches on tank straps (Figure 15). Remove tank.

NOTE

Replacement tank should contain recommended fuel manufactured to Natural Gas Processors Association Specification HD-5.

- 5. Mount new tank so that holes in tank collar fit on pins in tank mounting bracket.
- 6. Close tank strap latches.
- 7. Connect fuel hose to tank.
- 8. Open valve and check for leaks. (Repair leaks immediately.)

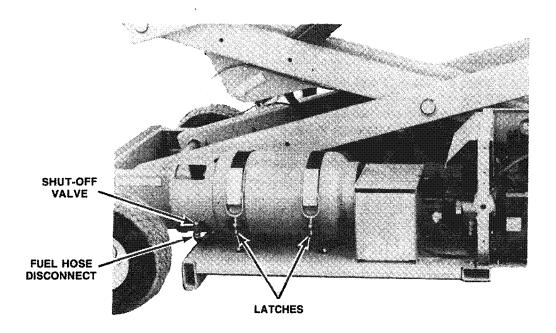


Figure 15. LPG Tank.

GENERATOR OPERATION

Refer to GENERATOR MANUAL.

4. MAINTENANCE

INSPECTION AND LUBRICATION

1. Structural Inspection

- a. Check machine for bent structural members. (Beams, main frame, platform, pivot pins, etc.)

 Machines which have been overloaded could have bent members and fatigued pivot pins. Replace all bent members and pins to insure a safe operating machine.
- b. Check bushings in scissor beams for broken or cracked welds. Replace beams if bushing welds are cracked or bushings elongated.

2. Lubrication

AWARNING

All pivot areas of scissors and lift cylinder must be checked for wear. A loud scraping noise means the D.U. bearings are damaged and need replacing. Failure to do so will result in extensive damage to structural members and bushings which would create a hazardous condition and could result in injury or death to personnel.

- a. The Hite-Master series scissor lift is almost lubrication free. All pivot pins or rollers come with D.U. bearings which do not require any kind of lubrication.
- b. The only areas that need lubrication (EP 90 or equivalent) are the steering cylinder on both pivot pins and the brake linkage (Figures 16 and 17), and rear axle spindle (grease).

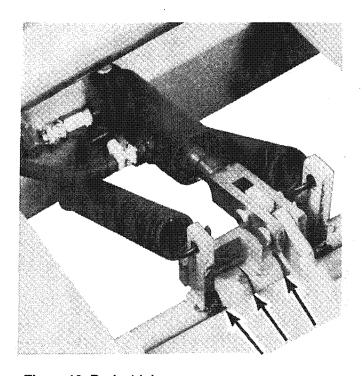


Figure 16. Brake Linkage.

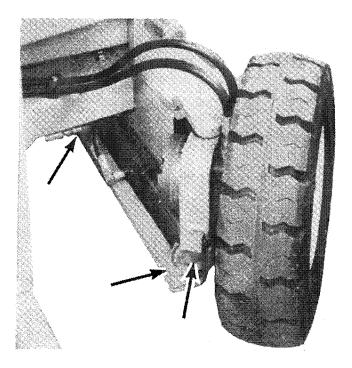


Figure 17. Steering Linkage.

TABLE 1. INSPECTION AND LUBRICATION SCHEDULE.

	TIME INTERVAL													
COMPONENT	DAILY	WEEKLY	6 MONTHS	1 YEAR										
Battery 1. Check Wiring 2. Check Fluid Level 3. Clean Battery Connections 4. Coat Terminals	×	××		X X X										
Hydraulic System 1. Check for Leaks 2. Check Fluid Level 3. Inspect Commutator and Brushes 4. Check Hoses 5. Check Fittings 6. Oil Filter (Replace)	x x	x x	х	X X X X										
Scissor System 1. Check for Damage	X			×										
Drive and Lift Mechanism 1. Oil Steering Pivot Points 2. Oil Brake Pivot Points 3. Grease Rear Spindles			X X X	X X X										
Main Frame 1. Check Structure 2. Check Pivot Pins 3. Check All Fasteners	×	х		X X X										
Control System 1. Check Terminal and Plugs 2. Check Cords		X X		X X										
Safety Decals* 1. Check if missing Add if necessary 2. Check if legible Replace if necessary	x x			x x										
Platform 1. Entry Gate 2. Railing Secure in Pockets 3. All Fasteners Secure	X X X			X X X										
Fuel System 1. Check for Leaks (LPG or Gasoline) 2. Check Hoses	X X			X X										

^{*}See page 71 or 72 for safety decals and locations.

A WARNING

ELECTRIC SERIES MACHINES SPECIAL MAINTENANCE CONCERNS

To minimize the risk of fire, electric shock or explosion, the following maintenance procedures and inspections are particularly important for electrically powered machines:

- 1. Keep machine clear of lubricants and other combustible material.
- 2. Inspect wiring regularly for frayed or deteriorated insulation. Immediately replace or repair a wire harness, or individual wire, that has frayed or deteriorated insulation.
- 3. Check brakes at the recommended intervals, and make adjustments when required.

Battery

TABLE 2. INSPECTION AND LUBRICATION DAILY LOG.

- 1. Check Wiring
- 2. Check Fluid Level

Hydraulic System

- 1. Check for Leaks
- 2. Check Hoses

Scissor System

- 1. Check for Damage
- 2. Check Snap Rings

Platform

- 1. Entry Gate
- 2. Pivot Bar and Roller
- 3. Railings Secure in Pockets
- 4. Safety Decals

Keep log as follows:

1. Inspect components

2. Check boxes if components OK

Make repairs

3. Initial boxes

Key:

B = Battery

H = Hydraulic System

S = Scissor System

P = Platform

MONTH	Τ			Τ	Π	Τ																	·	
DAY		Т		Π		T	7	Т	Π				14				21					28		
INIT.	1	T					Т	Π	П		Π													
B-1		T				Ī			T	Π			Π											
2	Τ	T	T	\top			Т			Π														
H-1			1	1		T						Π												
2	Π		T		Г			Т		Г	П													
S-1	T	T	Τ					Π	Π															
2		T																						
P-1	Π	T	Π																					
2									Π															
3					П	П																		
4						Π																		
5																								
MONTH																								Ш
DAY		Π					7						14				21					28		
INIT.																					<u> </u>			Ш
B-1																					<u> </u>			
2														<u> </u>				L		<u> </u>				
H-1																								
2																							_	
S-1																					_			
2													L											
P-1															6677.180MM				Marine Marine					
2																							Ш	
3																								
4																								
5																								
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DAY							7						14				21					 28	***************************************	***************************************
INIT.																							Ш	
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3		- SERVICE STATE										MINEG												
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TABLE 3. INSPECTION AND LUBRICATION WEEKLY LOG.

COMPONENT

Check and Initial Every 15 Hours of USE, or Weekly

								, 							
MONTH		$oldsymbol{\perp}$	<u> </u>												
DAY															
INITIAL															
Battery															
1. Clean Battery															
2. Coat Terminals															
Hydraulic System															
1. Check Fluid Level															
2. Inspect Commutator and Brushes*	Date Last Checked														
3. Check Fittings															
Scissor System															
1. Check for Damage															
Drive and Lift Mechanisms															
1. Oil Steering Pivot Points															
2. Oil Brake Pivot Points															
3. Check All Fasteners															
Main Frame							•								
1. Check Structure															
Control System															
1. Check Terminal and Plugs															
2. Check Cords															

^{*} Check every 6 months

SERVICING, REPLACEMENT & ADJUSTMENTS

This section contains three basic maintenance functions:

SERVICING describes items to be checked and serviced when necessary, on a daily basis, or prior to using the unit after it has been out of service for a period of time.

REPLACEMENT describes the proper method for removal and installation of replaceable components in case of failure.

ADJUSTMENT describes any adjustments necessary to ensure proper operation of the unit or adjustments required after the replacement of components, if necessary.

NOTE

CAPSCREW REPLACEMENT: Any capscrew replacement should be of same grade or greater than original. Any questions, call the factory for verification.

Grade markings for Capscrews grades 2, 5, and 8 are based on SAE J429. Markings may be raised or depressed (Manufacturer's opinion).

Grade 2



Grade 5



Grade 8



1. Battery (Electric Series)

AWARNING

NEVER SMOKE OR USE OTHER COMBUSTIBLES NEAR BATTERY WHILE SERVICING BATTERY OR OTHER COMPONENTS. PROVIDE PLENTY OF VENTILATION. PRESENCE OF HYDROGEN FUMES COULD LEAD TO EXPLOSION!

Hite-Master battery models are supplied with heavy-duty deep-cycle batteries. The care and maintenance of your batteries has much to do with how well your Hite-Master functions. Battery wiring and water level should be checked daily. After using Hite-Master continuously for a period of time, it is recommended that the batteries be brought to a full charge as soon as possible. If the batteries are allowed to remain discharged, the lead plates will harden and become sulfated. This will shorten their life as much as over-charging. In this sulfated condition the battery fails to deliver its rated capacity or come up to a full charge. Several long, slow charges and fast discharges are then necessary to correct the sulfation and hardened plates. It is recommended that once a month the batteries be given an equalizing charge of 25% over the regular charge. The equalizing charge must always be given at a low rate to eliminate excessive gassing. Whenever battery temperature reaches 120° F (48.4° C), the charging rate should be reduced or the battery taken off charge and allowed to cool to room temperature.

Do not overfill. When the cells are filled too full, the battery fluid will expand as it becomes warm from charging causing fluid to seep out. Each time this happens, the solution weakens by adding water. Loss of ampere hour capacity will result. Do not run battery dead. Put battery on charge when approximately 80% discharged. (Hydrometer reading of 1.100 at 80° F or 26.4° C.)

A WARNING

NEVER SMOKE OR USE OTHER COMBUSTIBLES NEAR BATTERY. MAKE SURE THERE IS PLENTY OF VENTILATION. HYDROGEN FUMES COULD LEAD TO EXPLOSION.

- a. Charging Battery Packs. The Hite-Master has removable battery packs. A different battery pack can be used by removing the existing case and installing a different pack. Be sure to change both packs when a new power supply is needed.
- b. To Change Battery Packs
 - (1) Lower platform completely.
 - (2) Disconnect battery packs' power supply.
 - (3) Lift cover and remove mounting bolts on both sides (Figure 18).
 - (4) Lift off battery pack (Figure 19) and install new pack (Figure 18) in reverse order.
 - (5) Reconnect power supply.
- c. Checking and Filling (Electric Series) (Every 15 hours of use or when recharging)
 - (1) Lower platform completely.
 - (2) Lift battery tray cover.
 - (3) If there is any dirt or corrosion on battery, wash with solution of 5 teaspoons baking soda per quart of warm water. (Do not get any of this solution in battery cells.)
 - (4) Remove battery caps and check fluid.
 - (5) Fill, if needed, as follows (use distilled water):
 - (a) Before charging, fluid must be above plates in battery.
 - (b) After charging, fill to split ring.

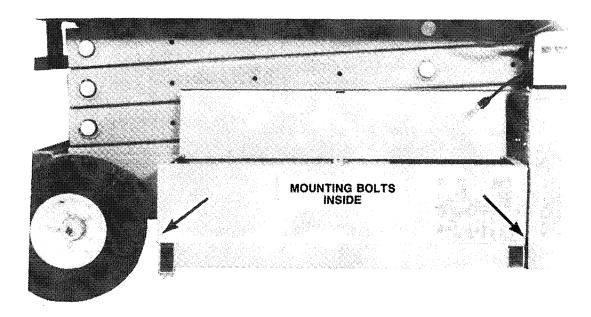


Figure 18. Remove Mounting Bolts.

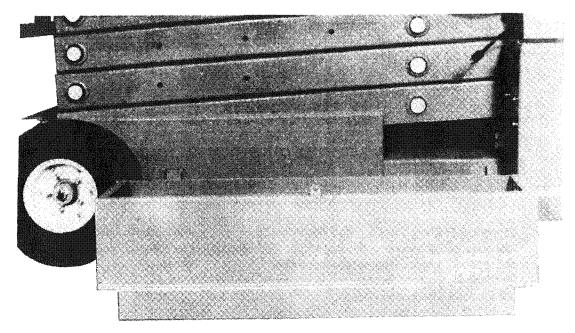


Figure 19. Lift Battery Pack Off.

A CAUTION

Do not overfill. Fluid will expand as it becomes warm from charging and seep out of the battery. When water is then added, the solution is weakened and a loss of ampere hour capacity results.

Never add acid to battery. The solution is at its proper strength when the battery is manufactured. Use distilled water and keep fluid up to proper level. When required, water should be added to battery *after* charging, unless water level is below the top of the plates.

- (6) Coat terminals with petroleum jelly or equivalent coating.
- d. Charging Notes (Electric Series)
 - (1) The surrounding temperature has a great effect on the power reserve in a battery.
 - (a) A battery 100% charged at 80° F (26.4° C):
 - -- drops to 65% at 32° F (0° C).
 - -- drops to 40% at 0° F (-17.6° C).
 - (b) A battery 46% charged at 80° F (26.4° C):
 - -- drops to 32% at 31° F (-0.6° C).
 - -- drops to 21% at 0° F (-17.6° C).
 - (2) When battery temperature reaches 125° F (51.2° C), battery should be taken off charge and cooled to room temperature or the charging rate should be lowered.
 - (3) Battery should be brought to full charge as soon as possible after continuous use. (Hydrometer reading of 1.265 at 80° F or 26.4° C.)

Lead plates in discharged batteries become hardened and sulfated. The battery eventually will not deliver its rated capacity or come up to a full charge. Several long slow charges and quick discharges must be given.

e. Charging (Electric Series)

A WARNING

Charge battery in an open well ventilated area free of flame, smoking, spark or fire.

- (1) Lower platform completely.
- (2) Open battery tray cover.
- (3) Remove caps, check fluid level and, if needed, fill to cover plates.
- (4) Reinstall caps before charging.
- (5) Plug charger into 120 VAC, 60 Hz power source.
- (6) Turn timer clockwise to ON position.
- (7) Charge until meter reads in finish area or near zero (0). (Charger will turn off automatically when timer runs out.)
- (8) Unplug charger.

NOTE:

After Charging, fill to split rings.

- (9) Check fluid level and reinstall caps.
- f. Battery Replacement (Electric Series)
 - (1) Completely lower unit.
 - (2) Lift battery tray cover.
 - (3) Remove nuts from battery hold-down and remove.
 - (4) Remove battery cables.
 - (5) Remove battery.
 - (6) Reverse procedure.

2. Hydraulic System

a. Hydraulic System Bleeding

The Hite Master hydraulic system is self-bleeding. After the system has been drained, such as during the replacement of a hydraulic system component, actuate the platform full up and down for six cycles and recheck the reservoir fluid level between each cycle. Fill as required.

b. Spin-On Oil Filter Replacement

The spin-on oil filter in the hydraulic system should be changed yearly. Replace with filter part (#6156) only (Figures 20 and 21).

c. Hydraulic Pump Motor Servicing (Electric Series)

Common maintenance on DC motors is brush replacement. It is recommended that brushes be checked and replaced if necessary, along with commutator inspection, approximately every six months. The time ielement will greatly vary depending on how the machine is being used and the condition of the battery. It is to your advantage to keep the batteries fully charged and in top condition to eliminate service problems in general, and to extend the life of the motor and brushes. (See Battery Servicing.)

d. Check and Fill Hydraulic Reservoir (Dual Fuel Series)

Inspect oil level in hydraulic reservoir by unscrewing reservoir filler cap (Figure 22). Oil level should be 2 inches below the top of the tank. Fill reservoir with hydraulic fluid conforming to MIL. SPEC. 0-5606.

- e. Check and Fill Hydraulic Reservoir (Electric Series)
 - (1) Lower platform completely.
 - (2) Remove load from platform.
 - (3) Raise platform high enough to engage maintenance locks. (See page 4.)

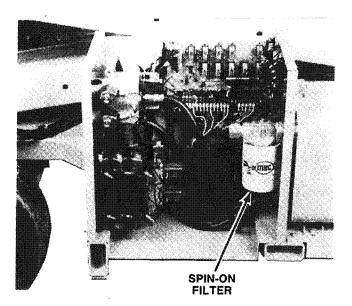


Figure 20. Oil Filter.

Dual Fuel Series

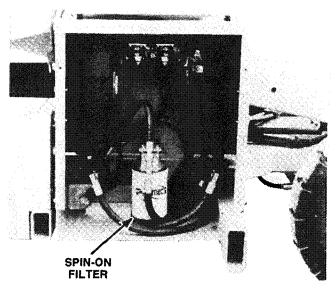
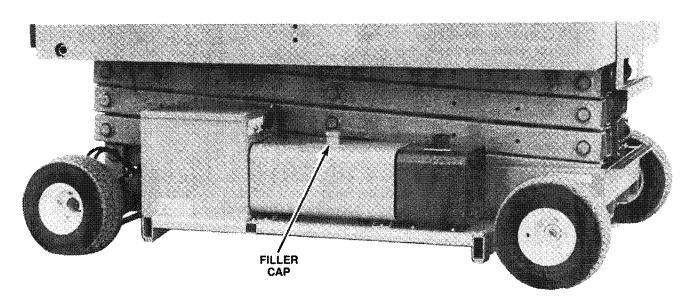


Figure 21. Oil Filter.
Electric Series



A WARNING

MAINTENANCE LOCKS MUST BE INSTALLED when maintaining or servicing machine with platform fully or partially extended.

Working through beams on scissors lifting device creates a hazardous situation which could cause death or personal injury.

FOLLOW MAINTENANCE LOCKS PROCEDURE ON PAGE 4 OF THIS MANUAL.

- (4) Lower platform so that maintenance locks rest on pivot pins.
- (5) Remove fluid in reservoir by removing filler cap (Figure 23).
- (6) Fill to proper level.
- (7) Replace cap.
- (8) Raise platform slightly and retract maintenance locks.
- f. Hydraulic Pump Replacement (Dual Fuel Series)
 - (1) Remove hydraulic hoses from pump.

NOTE

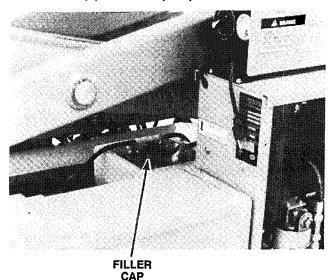
In the following step, the high pressure hydraulic line may still be under pressure and fluid will squirt out when line is disconnected. Do not reuse fluid, as it may become contaminated.

- (2) Remove capscrews securing pump to engine (Figure 24).
- (3) Remove pump from engine.

NOTE

When reinstalling pump, grease spline with a high pressure grease.

(4) Reinstall pump and hoses.



HOSES CAPSCREWS

Figure 23. Hydraulic Oil Fill Cap. Electric Series

Figure 24. Pump.

Dual Fuel Series

g. Hydraulic Pump and Motor Replacement (Electric Series)

- (1) Disconnect positive and negative battery cables by separating quick disconnect connector located behind both battery trays.
- (2) Tag and remove wires from hydraulic pump and motor assembly (Figure 25).
- (3) Remove hydraulic hoses from pump. NOTE: The inlet port of the pump is to the inside and the outlet port is to the outside on the pumps.

NOTE

In step 3, the high pressure hydraulic line may still be under pressure and fluid will squirt out when line is disconnected. Do not reuse fluid, as it may become contaminated.

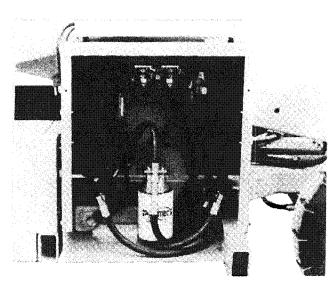


Figure 25. Pump and Motor. Electric Series

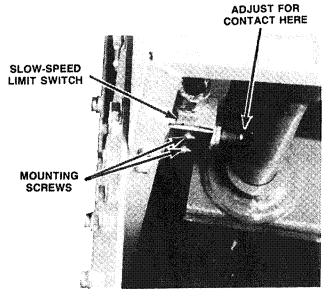


Figure 26. Slow Speed Limit Switch.

3. Slow-Speed Switch Adjustment

- a. Raise platform approximately four (4) feet. (Switch is located at right-rear underside of platform.)
- b. Adjust switch in or out to activate circuit at this height (Figure 26). Slow-speed valve will then be energized when platform reaches this height, allowing machine to travel in slow speed only.

4. Brake Adjustment

NOTE

Adjust brakes so that parking brake holds machine on an incline which it is capable of climbing. The machine is designed to have the brake on whenever it is not being driven.

- a. Release tension frombrake rod by pulling brake manual release ring out or by activating the drive or steering and lifting bar until bar locks in base (Figures 27 and 28).
- b. Raise rear of machine enough that tires are not touching floor. NOTE: Both rear wheel brakes are independently applied. Both have to be adjusted the same.

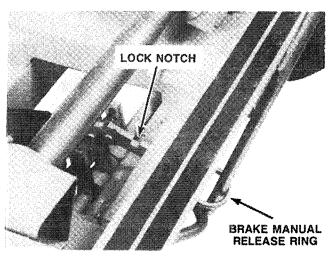


Figure 27. Brake Locked.

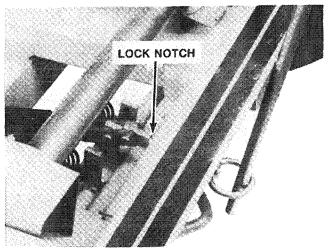


Figure 28. Brake Released.

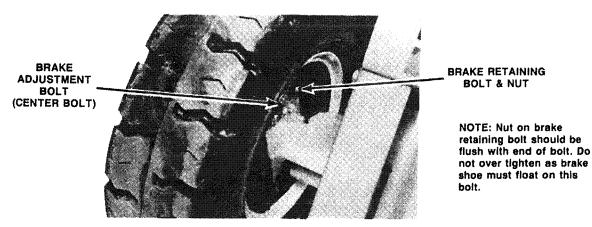


Figure 29. Brake Adjustment.

- c. Loosen lock nut from brake adjustment bolt (Figure 29). If wheel turns freely, move adjustment bolt toward inside of mounting bracket until wheel becomes tight.
- d. Back off on adjustment bolt until wheel turns with some amount of drag
- e. Retighten adjustment lock nut and check if wheel turns the same. (Do this to both sides.)
- f. Lower machine to floor and test by driving to see if brakes are adjusted correctly. (See NOTE, preceding step a.)

5. Hydraulic Lift Cylinder Replacement

WARNING

MAINTENANCE LOCKS MUST BE INSTALLED when maintaining or servicing machine with platform fully or partially extended.

Working through beams on scissors lifting device creates a hazardous situation which could cause death or personal injury.

FOLLOW MAINTENANCE LOCKS PROCEDURE ON PAGE 4 OF THIS MANUAL.

- a. Raise platform.
- b. Engage maintenance locks (Figure 30).
- c. Lower platform until beam assemblies touch maintenance locks.
- d. Remove cylinder pin retainer plates on both sides of cylinder mounting (top and bottom) (Figure 30).
- e. Wrap a self-tightening strap around center of the cylinder (Figure 31).
- f. With the help of a lifting device apply upward pressure.
- g. Remove low-pressure hoses and high-pressure hose from lower end of cylinder and emergency down assembly.
- h. Remove top cylinder pin and bottom cylinder pin.
- i. Raise cylinder up and out of machine.
- j. Replace cylinder and reassemble in reverse order.
- k. Bleed air from system by raising and lowering platform 6 times. (Full height)
- I. Recheck fluid level in down position. (See page 29)

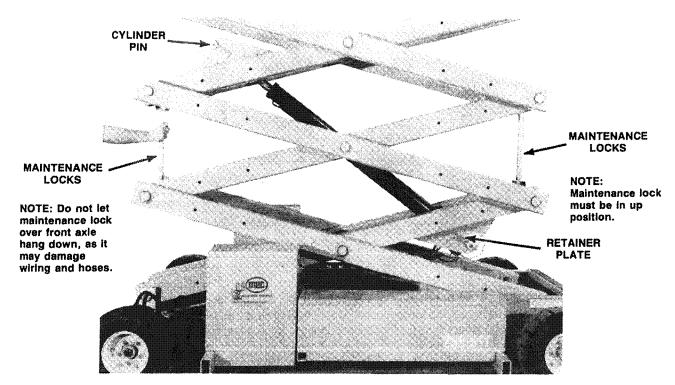


Figure 30. Removing Lift Cylinder Pins and Retainers.

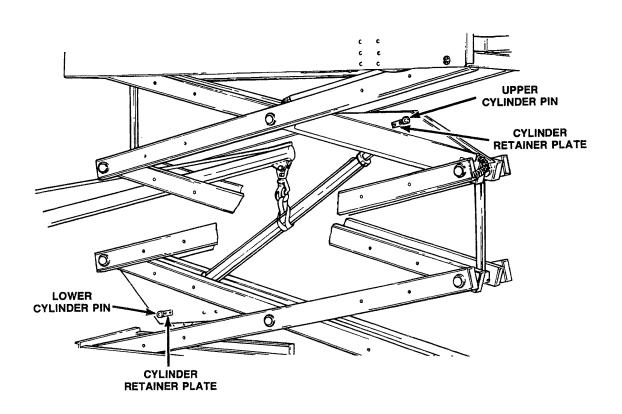


Figure 31. Removing Lift Cylinder.

6. Outer Beams and Inner Beam Assembly Replacement

NOTE

When replacing damaged or worn scissor lift beams, care must be taken to assemble beams so that outer beam washer reinforcements face toward inner beam assemblies (Figure 32).

- a. The inner beam assembly to which the upper end of the lift cylinder is attached has a diamond shaped reinforcing plate at the center pivot shaft. The outer beams having a similar reinforcement at the center pivot must be assembled to this inner beam. Be sure reinforcement faces toward inner beam (Figure 33).
- b. The outer beams are made with steel of two different thicknesses. One thickness is 7 ga. (0.179 in.), the other is 10 ga. (0.134 in.). Assemble the outer beams as shown (Figure 34).

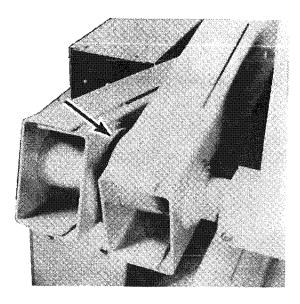


Figure 32. Washer Reinforcing.

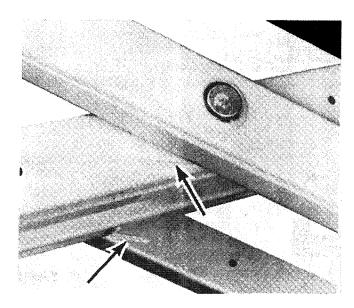


Figure 33. Reinforcing Plates.

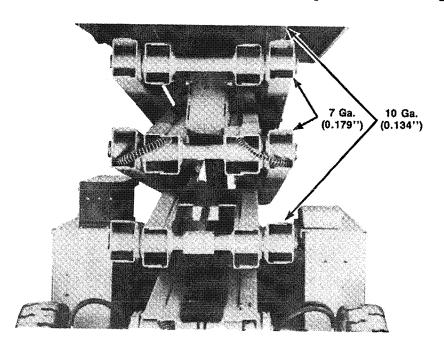


Figure 34. Beam Replacement.

7. Electric Generator (Dual Fuel Series)

a. Belt Replacement (Figure 35)

- (1) Loosen idler bracket bolts.
- (2) Run belt off pulleys.
- (3) Replace belt part #6879.
- (4) Tighten idler pulley so that belt can be depressed 1/2" between generator pulley and engine pulley.
- (5) Tighten idler bracket bolts.

b. Belt Tightness Adjustment (Figure 35)

- (1) Loosen idler bracket bolts.
- (2) Tighten idler pulley so that belt can be depressed 1/2" between generator pulley and engine pulley.
- (3) Tighten idler bracket bolts.
- (4) Inspect pulley alignment.

c. Pulley Alignment (Figure 35)

- (1) Loosen idler bracket bolts.
- (2) Loosen setscrew on pulley(s) that is out of alignment.
- (3) Slide pulley(s) on shaft until it is aligned with idler pulley.
- (4) Tighten setscrew(s).
- (5) Tighten idler pulley so that belt can be depressed 1/2" between generator pulley and engine pulley.
- (6) Tighten idler bracket bolts.
- (7) Recheck alignment.

d. Generator Service and Adjustment

Refer to GENERATOR OPERATING MANUAL.

e. Generator Replacement (Figure 35)

- (1) Loosen idler bracket bolts and run belt off pulleys.
- (2) Loosen generator pulley setscrew and remove pulley.
- (3) Remove nut and bolt from generator support bracket.
- (4) Remove four bolts on *inside* of motor housing from generator mounting rods.
- (5) Remove generator from motor housing.
- (6) Reverse procedure to reinstall generator. Check pulley alignment and adjust if necessary.

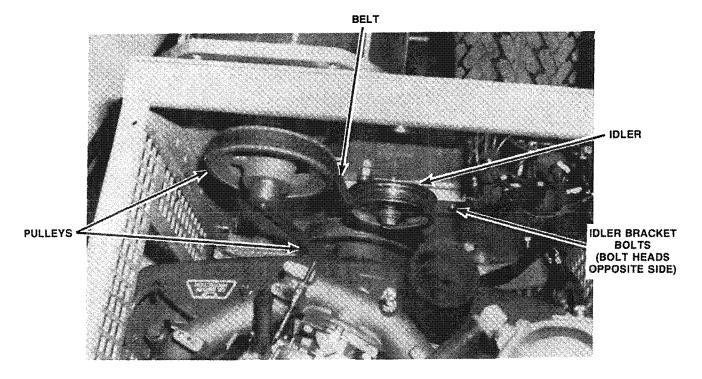


Figure 35. Generator Belt, Idler and Pulleys.

Limited Owner Warranty

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Mayville Engineering Company, Inc. (MEC) warrants its equipment to the original purchaser against defects in material and/or workmanship under normal use and service for one (1) year from date of registered sale or date the unit left the factory if not registered.

MEC further warrants the structural weldments of the main frame and scissor arms as defined in MEC's current Warranty Policy & Procedures, to be free from defects in material or workmanship for five (5) years from date of registered sale or date unit left the factory if not registered. Excluded from such warranty is the battery(s) which carries a ninety (90) day warranty from described purchase date and prorated thereafter up to one (1) year.

Warranty claims within such warranty period shall be limited to repair or replacement, at MEC's option, of the defective part in question and labor to perform the necessary repair or replacement based on MEC's then current flat rate, provided the defective part in question is shipped prepaid to MEC and is found upon inspection by MEC to be defective in material and/or workmanship.

Mayville Engineering Company, Inc. shall not be liable for any consequential, incidental or contingent damages whatsoever. Use of other than factory authorized parts; misuse, improper maintenance, or modification of the equipment voids this warranty.

The foregoing warranty is exclusive and in lieu of all other warranties, express or implied. All such other warranties, including implied warranties of merchantability and of fitness for a particular purpose, are hereby excluded.

No Dealer, Sales Representative, or other person purporting to act on behalf of MEC is authorized to alter the terms of this warranty, or in any manner assume on behalf of MEC any liability or obligation which exceeds MEC's obligations under this warranty.





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