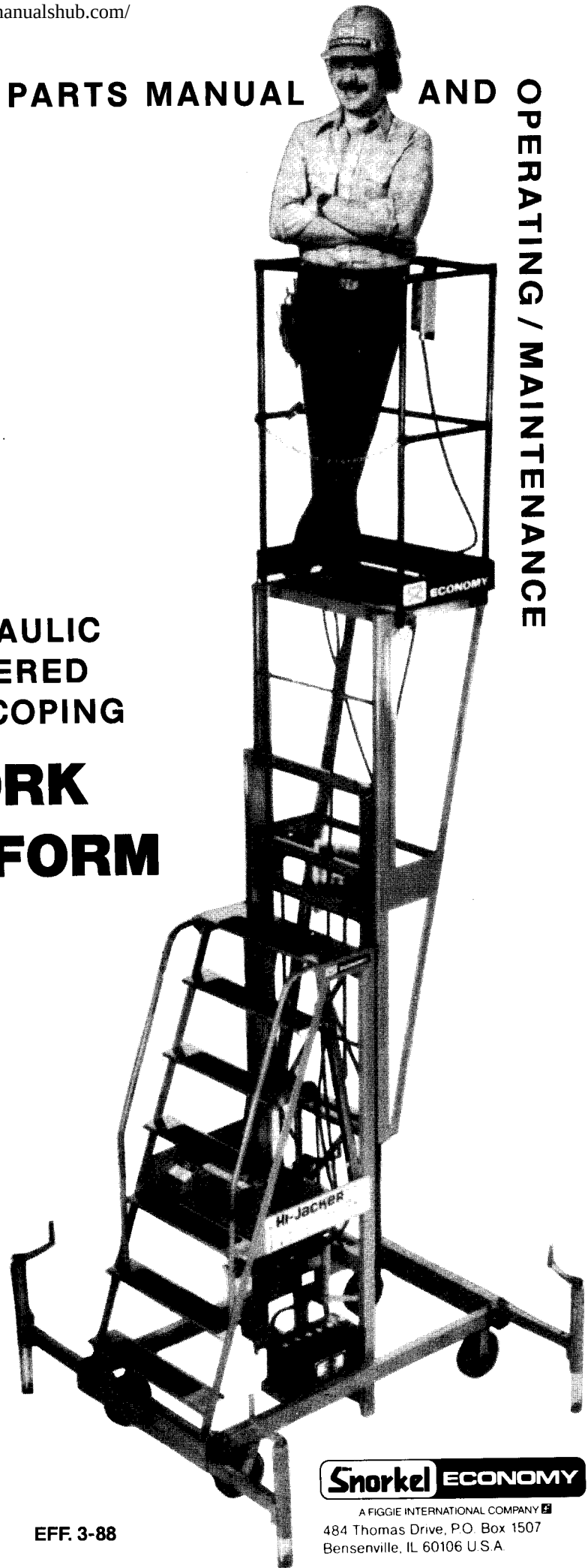


HJ15-B / HJ15-E PARTS MANUAL AND OPERATING / MAINTENANCE

HYDRAULIC POWERED TELESCOPING **WORK PLATFORM**



Patent Pending

Parts List No. 43950

EFF. 3-88

Snorkel **ECONOMY**

A FIGGIE INTERNATIONAL COMPANY
484 Thomas Drive, P.O. Box 1507
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WARRANTY

Economy Engineering Company ("Manufacturer") warrants each new product manufactured by it to be free of defective parts and workmanship for one year from the date of initial sale, lease or rental by Manufacturer's authorized distributor. Any parts found to be defective by Manufacturer during the first six months of the warranty period will be repaired or replaced without charge by Manufacturer's local distributor. For the second six months of the warranty period any new parts will be supplied to the customer at no cost but all labor charges will be the customer's responsibility.

For this warranty, to apply a claim must be made in writing to Economy Engineering Company, P.O. Box 1507, 484 Thomas Drive, Bensenville, Illinois, 60106 and the warranty card must be completed and on file with Manufacturer's Service Department. Misuse or neglect in operation, lack of normal maintenance, alteration or accident also will void this warranty.

Parts not manufactured by Economy Engineering Company are not covered by this warranty and are subject only to the terms and conditions of the original manufacturer's warranty. This warranty does not apply to Manufacturer's shop lifter (R) tables which have a 10-year warranty and to Shov-L-Trucks (R) which have a lifetime warranty.

This warranty constitutes the entire and exclusive warranty of Economy Engineering Company and ANY AND ALL OTHER WARRANTIES OF ANY KIND WHATSOEVER, INCLUDING BUT NOT LIMITED TO EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PURPOSES SOLD, AND DESCRIPTION OR QUALITY OF THE PRODUCT ARE EXPRESSLY DISCLAIMED.

Under no circumstances will Economy Engineering Company be liable for any consequential or special damages which the customer or those claiming under it may suffer or claim to suffer as a result of any alleged defects in the products covered by this warranty. "Consequential" or "special" damages as used herein includes but is not limited to lost sales, lost orders, lost profits, lost income, increased overhead, labor or material costs, costs of manufacturing variance and costs of operational inefficiencies.

NOTE

Economy is continuously improving and expanding product features on its equipment; therefore, specifications and dimensions are subject to change without notice.

OPERATOR SAFETY REMINDERS

The National Safety Council reminds us that most accidents are caused by the failure of some individuals to follow simple and fundamental safety rules and precautions. Common sense dictates the use of protective clothing when working on or near machinery. Use appropriate safety devices to protect your eyes, ears, hands, feet and body.

You, as a careful operator, are the best insurance against an accident. Therefore, proper usage of this work platform is mandatory. The context of this manual should be read and understood completely before operating the work platform. Any modifications from the original design are strictly forbidden without written permission from Economy Engineering Company.

SECTION I INTRODUCTION

PURPOSE OF EQUIPMENT

The Economy HJ-15B or HJ-15E Work Platform designed to raise men and materials to overhead work areas. The Hydraulic Work Platform (figure 1) (hereafter referred to as work platform) is a rugged and highly maneuverable, mobile work station.

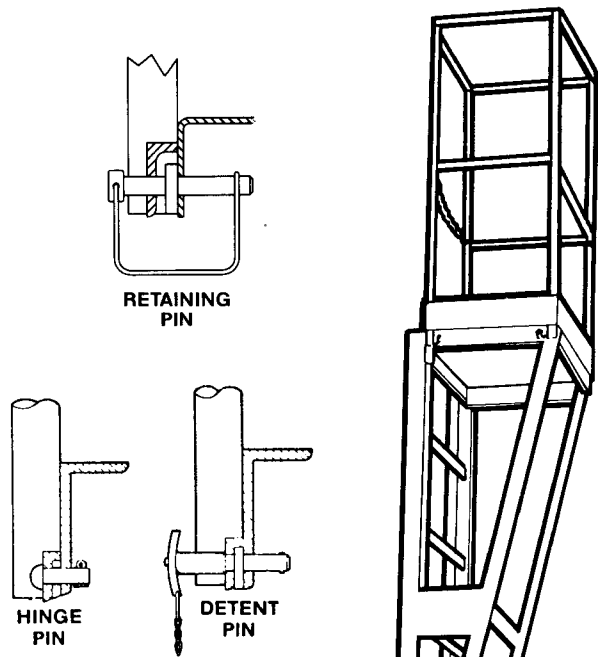
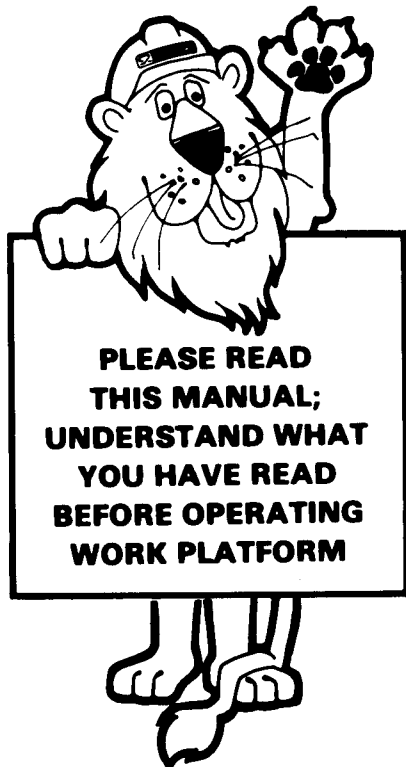


Figure 1-A

LIMITATIONS AND WARNINGS

For use by trained authorized personnel only. DEATH OR SERIOUS INJURY can result if work platform is not kept in good working order and used carefully. Read and understand instruction manual before using. Wear safety shoes.

For your Safety:

- Do not use if work platform is not working properly or if any part is damaged or worn.
- Do not use without extended and locked outriggers.
- Do not use without railings locked into upright position with the two detent pins and two hinge pins secured with properly spread cotter pins. (See fig. 1-A)
- Do not use without fastening mid rail chain.
- Do not move work platform when platform is raised.
- Do not use within 10 feet of high voltage lines.
- Do not overload.
- Do not use on ramp or incline.
- Do not use near moving vehicles or cranes.
- Do not use on soft or uneven surfaces.

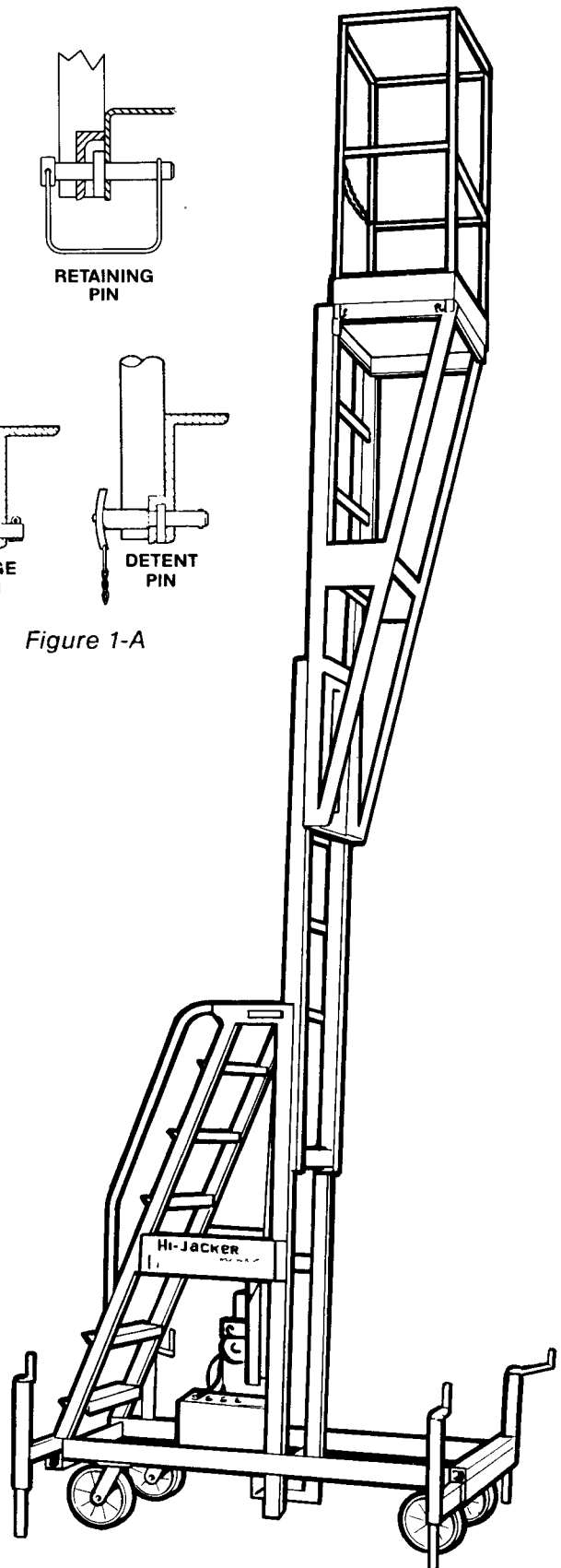


Figure 1. Work Platform

OPERATOR QUALIFICATIONS

Only trained and authorized persons should use this work platform. Safe use of this work platform requires the operator to understand the limitations and warnings, operating procedures and operator's responsibility for maintenance. Accordingly, the operator must understand and be familiar with this instruction manual. The operator also must understand all warnings and instructions on the work platform and operator's control box. Operator also must be familiar with employer's work rules and related government regulations.

DESCRIPTION

The work platform (figure 1) consists of rail-enclosed work platform composed of a three-section structural steel mast-type system which is supported by a mobile base. The mobile base has two swivel casters, two rigid casters, leveling screw outriggers. Also included are: motor driven hydraulic pump and reservoir package, lifting cylinder and chain assemblies, as well as control box conveniently located on the platform top railing.

PLATFORM. The platform is equipped with skid-resistant safety treads and is enclosed by 42-inch high railings (with mid-rail) with a chain type entrance gate to afford optimum protection for personnel working aboard the platform. Further, a 4-inch toe panel is provided around the platform to prevent objects from falling and incurring damage as well as to protect personnel below the platform from injury.

PLATFORM ELEVATION SECTION. The platform is elevated by an electrically controlled hydraulic system. It consists of a motor, hydraulic pump equipped with relief and check valves, hydraulic cylinder with related pulleys and lifting chains. The cylinder in the hydraulic loop is equipped with a close-coupled flow regulator to effect safe lowering speed of the platform during normal conditions, or if a hydraulic line failure occurs.

BASE. The mobile base, constructed of heavy-duty reinforced steel, is equipped with locking type stabilizing outriggers which are employed when the work platform is raised, and can easily be modified to include an optional flashing light for alerting floor traffic to overhead work. The base is used to house the battery, battery charger, and hydraulic D.C. motor and pump, or A.C. motor, hydraulic pump and motor control panel package.

OPERATOR'S CONTROL. This control box mounted on the work platform contains the controls to operate the work platform. The function of each control is explained in the Operation Section of this manual.

OPTIONAL ACCESSORIES. The work platform was designed to accept optional accessories and are listed on the following page.

NOTE

See the detailed specifications, limitations and warning for each option.

**CONTINUE ONLY
IF YOU UNDERSTAND
WHAT YOU HAVE
JUST READ**



Table 1. Specifications

Description	Models	
	HJ-15-B	HJ-15-E
Working Height	21'	21'
Platform Height	15'	15'
Retracted Height	6'8"	6'8"
Platform Capacity	500 lbs.	500 lbs.
Base Dimensions	30-1/2" x 64"	30-1/2" x 64"
Safety Railing Height	42"	42"
Platform Size	20" x 30"	20" x 30"
Wheels	Size: 8" x 2" with rubber tread. Two fixed, two swivel casters.	
Shipping Weight	585 lbs.	765 lbs.
Lifting Speed	30 F.P.M.	24 F.P.M.
Cube	Cube 95	Cube 95
Power Source	12 V. 105 A/H Battery	115 V. 1 PH. 60 HZ.

STANDARD FEATURES

- Minimum 4-to-1 safety factor - primary structural.
- Pollution free operation
- Push button controls
- 42" railing heights (mid-rail and 4" toe boards included)
- Flow regulator controls lowering if hydraulic line fails
- Relief valve prevents overloading
- Sturdy hand rails and full width non-skid treads on access ladder
- Energy saving. Motor runs only when lifting
- 4 outriggers with leveling jacks provide required stability
- Easy rolling 8" casters, 2 fixed, 2 swivel for better maneuverability
- Retracts to a compact 6' 8"
- Meets ANSI&OSHA standards
- 115 volt receptacle on platform (Std. on HJ-15-E)

OPTIONAL ACCESSORIES

- 4' Vertical steel extension (removable) provides 19' platform height-steel
- 4' Vertical aluminum extension (removable) provides 19' platform height
- 3' Horizontal extension (folds down for storage) complete with railing and counter weight. Capacity 300 lbs.
- Texite Wheels - 8"
- Metal Wheels - 8"
- Polyurethane Wheels - 8"
- Pneumatics - 10" min. Hgt. Increases 2½"
- Fluorescent tube caddy holds two 11" x 7" x 48" boxes)
- Flashing Warning Light
- Fiberglass bucket to replace standard platform & railings
- Key operated lockout on base frame
- 220-3-60 operation (A/C models only)

SECTION II OPERATION

CAUTION

No personnel or materials are to be on the platform during preparation for use and testing.

SET UP PROCEDURE

Each work platform has been thoroughly inspected and tested prior to shipment. Due to possible damage in transit the following procedures must be performed before the equipment is used.

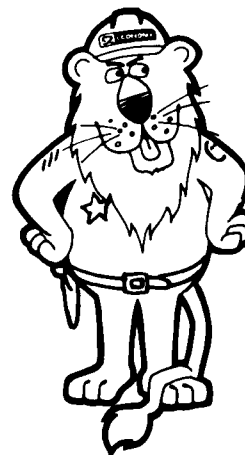
1. Remove all packing materials and inspect for damage incurred in transit. REPORT ANY DAMAGE TO THE DELIVERING CARRIER IMMEDIATELY.
2. Inspect work platform thoroughly and remove any foreign objects.
3. Connect battery cables making certain that connections are tight. Do not put excessive pressure on terminal posts or pound cables with a hammer.
4. Check water level in battery. If all plates are not covered, add distilled water only.

WARNING

The gases issuing from a charging battery are a mixture of hydrogen and oxygen gases and will explode with great violence and spraying of acid if a spark or flame is brought too near them. The gases are not dangerous when diluted sufficiently with air but a room or compartment in which charging batteries are confined should be ventilated. Four percent hydrogen in the atmosphere is said to be dangerous. Do not bring a flame or sparks near vent openings until gases have cleared from cells by blowing air into them gently. It must be assumed that hydrogen gas may be present within the cells at all times. A torch, match flame, lighted cigarette or sparks from metal tools accidentally laid across the terminals might cause ignition of hydrogen.

FIRST AID

If for any reason electrolyte acid should be spattered into the eyes, use plenty of cold water to wash them. Seek medical help if discomfort and pain continues.



5. Connect battery charger plug to 115 volt-A.C. external power. When batteries are fully charged, check specified gravity reading. Reading should be 1.260 to 1.275.
6. Disconnect charger plug from 115 volt-A.C. external power source after batteries are charged, and secure cord on the hooks on battery charger.
7. Check oil level in hydraulic reservoir. (If filling is necessary use oil with viscosity of 136 to 165 ssu @ 100° F.).

NOTE

Work platform must be in the lowered position when checking oil level or filling reservoir.

8. Remove pipe plug on the hydraulic oil reservoir and replace with the breather cap attached in cloth bag.
9. Check lifting chains. When platform is completely lowered all 4 chains should be in tension. If loose, take up slack on chain anchor bolts and retighten lock nuts.
10. Move work platform to level, clear area for test and operator familiarization period.
11. Secure outriggers to front and rear outrigger housings.

CAUTION

When auxiliary platform is supplied the capacity is reduced to 300 lbs. Do not raise or lower load on any part of overhanging platform.

OPERATING CONTROLS

MAIN POWER SWITCH (A.C.)

Plug in 115V. power cord, press start button

MAIN POWER SWITCH (D.C.)

The main switch is located under the unit cover.
In order to use the machine it must be turned on.

OPERATOR'S CONTROL BOX

This is the box mounted on the railing at the front of the platform. It consists of the following:

UP/DOWN BUTTONS. These buttons, when depressed, operate the raising and lowering of the platform. Hold button in until desired height is reached, then release; platform will stop automatically.

EMERG. STOP. This button is designed to enable the operator to strike it quickly in the event of an emergency. When struck, the button will stay in. To release, turn button clockwise and it will pop out.

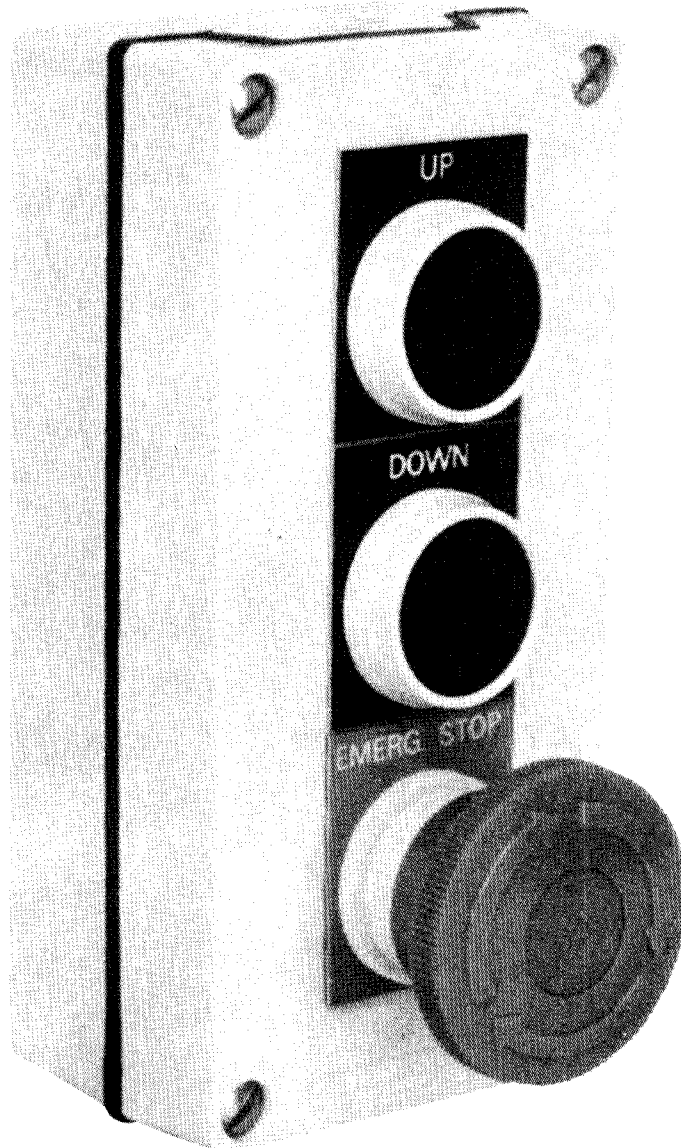


Figure 2. Operator's Control Box



WHEN ARE YOU AUTHORIZED AND QUALIFIED TO OPERATE THE WORK PLATFORM?

OPERATING PROCEDURE

Carefully read and understand the instructions of this manual and all warning and instruction labels on the machine.

PRESTART CHECKS (A.C. MODELS)

1. Connect electrical cord to 115 volt-1 phase 60 hertz grounded outlet.
2. Check Emergency STOP Button, it should be in the RELEASED position. To release, turn red mushroom head button clockwise.
3. Press reset button on relay enclosure START.
4. Check overhead clearance.

PRESTART CHECK (D.C. MODELS)

1. Be sure batteries are fully charged. Disconnect battery charger plug.
2. Turn battery disconnect switch to ON position.
3. Check Emergency STOP Button, it should be in the RELEASED position. To release, turn red mushroom head button clockwise.
4. Check overhead clearance.

START AND OPERATION

1. The work platform is to be used on hard level surfaces only. It must be kept in good working order and used carefully, otherwise serious injury or death can result.

For your Safety:

- Do not use if work platform is not working properly or if any part is damaged or worn.
- Do not use without extended and locked outriggers.
- Do not use without railings locked into upright position with the two detent pins and two hinge pins secured with properly spread cotter pins.
(See fig. 1-A)

- Do not use without fastening mid rail chain.
- Do not move work platform when platform is raised.
- Do not use within 10 feet of high voltage lines.
- Do not overload.
- Do not use on ramp or incline.
- Do not use near moving vehicles or cranes.
- Do not use on soft or uneven surfaces.

2. Turn on main power switch.
3. To raise platform: press and hold UP button on operator's control. Release to stop.
4. To lower platform: press and hold DOWN button. Release to stop.

NOTE

Push EMERGENCY STOP only if platform continues to raise or lower after releasing UP or DOWN button.

SHUTDOWN PROCEDURE

1. Completely lower the platform.
2. Turn Main Power Switch to OFF.
3. On A.C. Models, disconnect electrical cord from outlet.
4. On D.C. Models, check battery water level and place batteries on charge, if needed.

NOTE

In the event of a power failure, manually lower the platform by having someone at ground level open the Emergency lowering valve on the base.

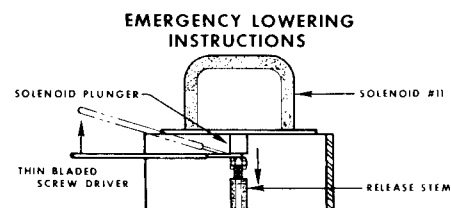


Figure 3.

SECTION III SYSTEMS OPERATION

ELECTRICAL

The electrical system of the HJ-15B and HJ-15E, illustrated in figure 3 and 4, is powered by a 115 volt 1-phase, 60 hertz circuit, or a 12V. D.C. circuit. This power is routed to the operator's control box to initiate the operating modes of the work platform (up & down).

POWER SOURCE (A.C.)

When the main power pushbutton is pushed, power is applied through the fuse to the Start button on the control box. 115V A.C. current is directed to the Emergency Reset Coil holding in the Emergency Stop Relay. The Emergency Reset Coil is held in by the current now being fed through the power contacts on the Emergency Stop contactor, through the Arm Cord Ass'y., through the Platform Stop button, to the Emergency Reset Coil, and to the power contacts of the pump motor contactor.

POWER SOURCE (D.C.)

When main power switch is closed, power is applied to the contacts of the pump motor contactor. The main power switch also routes 12 volts to the UP/DOWN pushbuttons.

UP/DOWN MODES OF OPERATION

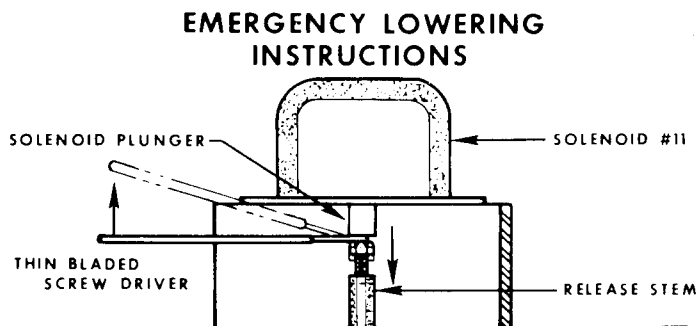
The operation of the work platform is controlled by the UP/DOWN buttons on the operator's control.

The UP position applies current to the UP coil.

When in the DOWN position, current is now energizing the down valve coil.

EMERGENCY LOWERING VALVE

The emergency lowering valve is used only to lower the platform when performing maintenance, repairs or testing. The valve permits lowering of the platform without electrical power. Open valve by lifting actuator rod. When rod is released valve will close.



PARTS LIST

ELECTRIC PARTS LIST A.C.

SW1 - 45744-6	Switch P/B Station Up-Down-Stop	(1)
RC1 - 10619-6	Rectifier	(1)
RC2 - 10619-6	Rectifier	(1)
R1 - 10693-6	Potter Brumfield Relay	(1)
R2 - 46031-6	Contact	(1)
CB -	Circuit Breaker	(1)
S2 - 41313-6	Switch P.B.	(1)
M - 43959-6	Motor 115v-1-60	(1)

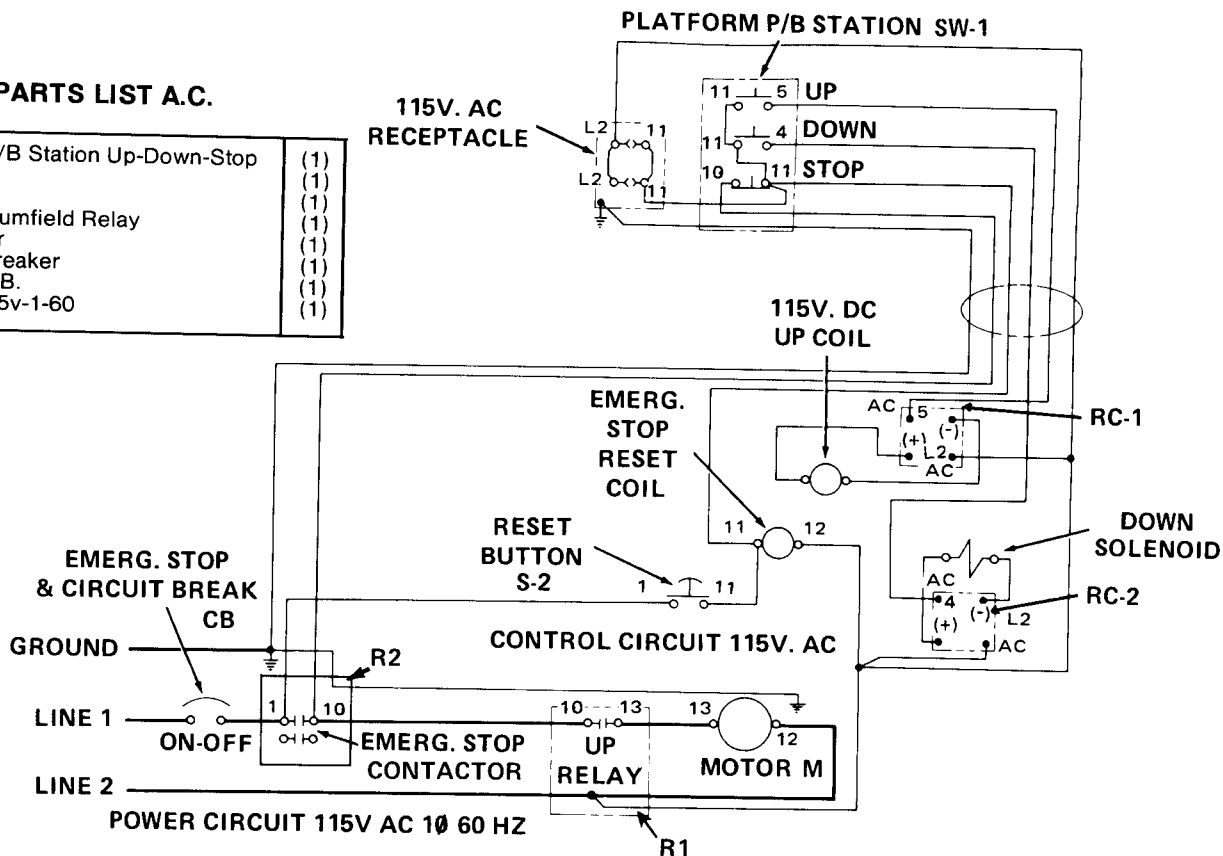


Figure 3. Electrical Schematic 115V. 1-PH., 60 HZ.

PARTS LIST

ELECTRIC PARTS LIST D.C.

SW1 - 45744-6	Switch P/B Station Up-Down-Stop	(1)
CR5 - 24039-6	Pump Motor Contactor	(1)
CV-5 - 11995-6	12V. Axial Solenoid	(1)
DS-4 - 11995-6	12V. Axial Solenoid	(1)
SW-2 - 45204-6	Switch, Main Power	(1)
M - 10731-6	Motor	(1)
B - 10614-6	Battery 16LF 160A/H	(1)

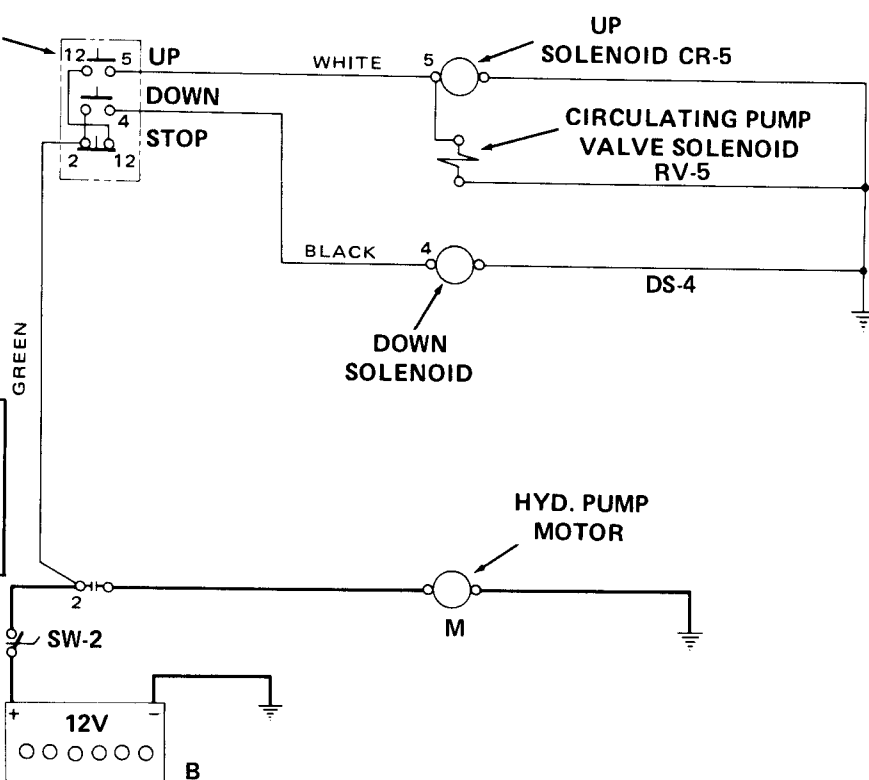


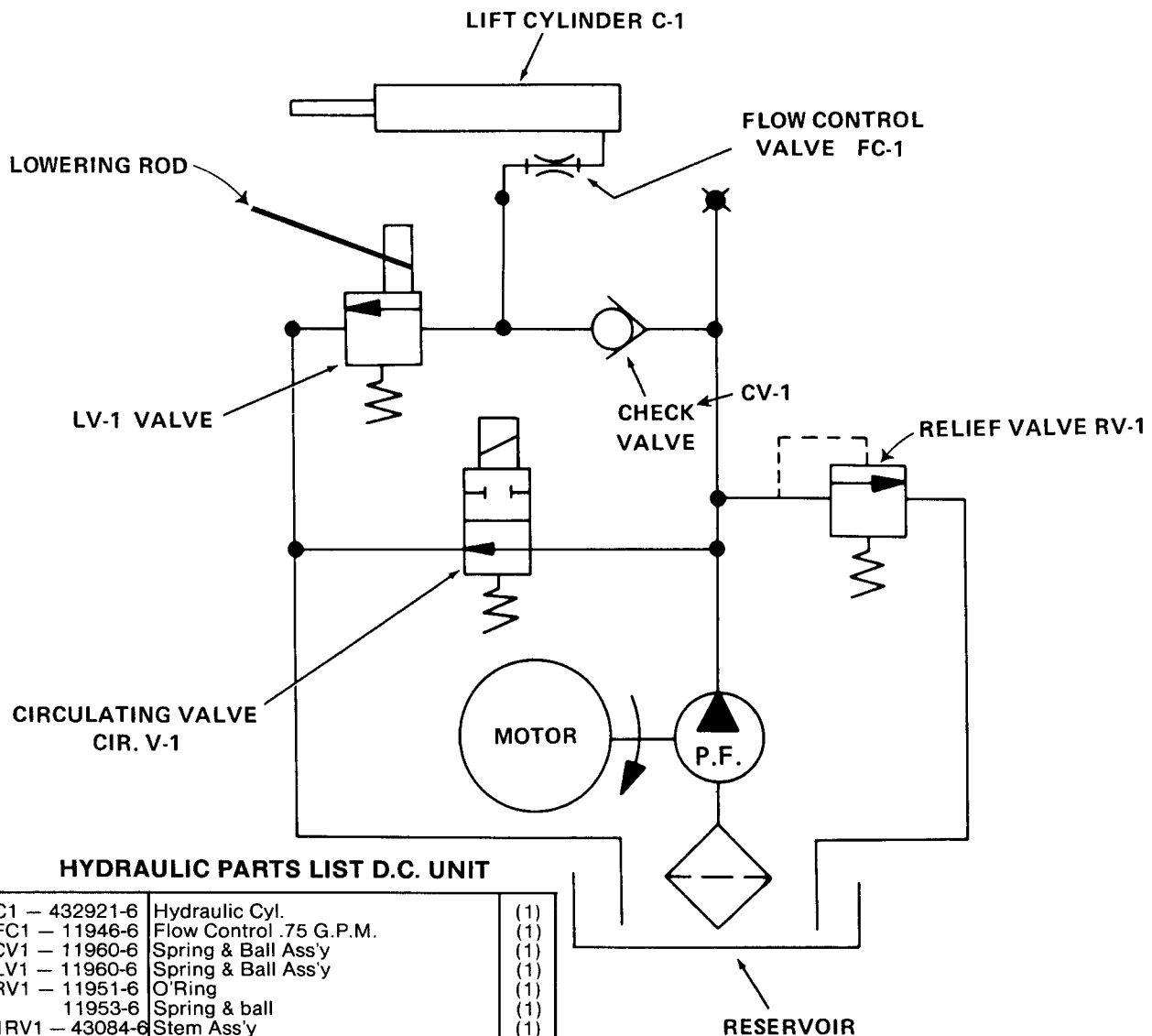
Figure 4. Electrical Schematic 12V. D.C.

HYDRAULIC D.C. MODELS

The hydraulic system illustrated in Figure 5 is powered by a fixed clearance positive displacement gear pump. It is directly driven by a motor which is electrically activated from the operator's control box. The motor is operative when selecting the up mode of operation. The Lift Relief valve limits the hydraulic system pressure to a maximum of 2000 P.S.I. When this pressure is exceeded the System

Relief valve opens and returns the fluid to the reservoir.

UP MODE. When in the UP mode, hydraulic fluid is directed from the up valve through to the lift relief valve; and to the lift cylinder. The unit has a built-in check valve which prevents fluid leakage of the lift system. The lift relief valve provides protection from platform overloading.



HYDRAULIC PARTS LIST D.C. UNIT

C1 - 432921-6	Hydraulic Cyl.	(1)
FC1 - 11946-6	Flow Control .75 G.P.M.	(1)
*CV1 - 11960-6	Spring & Ball Ass'y	(1)
*LV1 - 11960-6	Spring & Ball Ass'y	(1)
RV1 - 11951-6	O'Ring	(1)
11953-6	Spring & ball	(1)
C1RV1 - 43084-6	Stem Ass'y	(1)
45384-6	Seat	(1)
PF - 45387-6	Pump	(1)

*These parts are one. The Check Ball at one end, & the Release Ball at the other.

Figure 5. Hydraulic Schematic
D.C.

A.C. MODELS

The hydraulic system illustrated in Figure 6 is powered by a fixed clearance positive displacement gear pump. It is directly driven by a motor which is electrically activated from the operator's control box. The motor is operative when selecting the up mode of operation. The Lift Relief valve limits the hydraulic system pressure to a maximum of 2000 P.S.I. When this pressure is exceeded the System

Relief valve opens and returns the fluid to the reservoir.

UP MODE. When in the UP mode, hydraulic fluid is directed from the up valve through to the lift relief valve; and to the lift cyl. hyd. The unit has a built-in check valve which prevents fluid leakage of the lift system. The lift relief valve provides protection from platform overloading.

HYDRAULIC PARTS LIST A.C. UNIT

C1 - 432921-6	Hydraulic Cyl.	(1)
FC1 - 11946-6	Flow Control .75	(1)
*CV1 - 11954-6	Spring & Ball Ass'y	(1)
*LV1 - 11954-6	Spring & Ball Ass'y	(1)
RV1 - 11951-6	O'Ring	(1)
- 11953-6	Spring & ball	(1)
VF -	Velocity Fuse	(1)
PF51-02656621-01	Pump	(1)
F1 T3-1001-00	Filter	(1)

*These parts are one. The Check Ball at one end, & the Release Ball at the other.

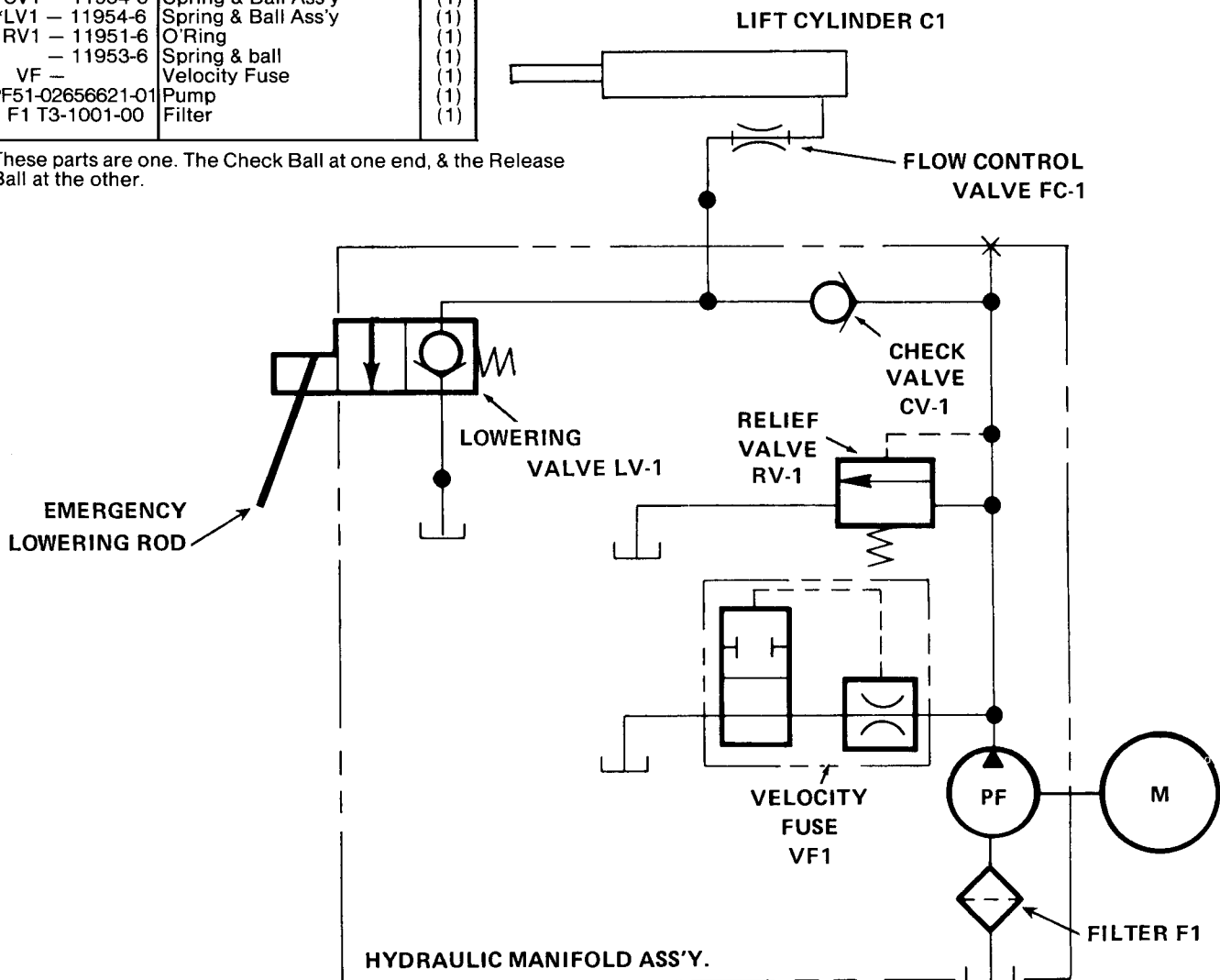
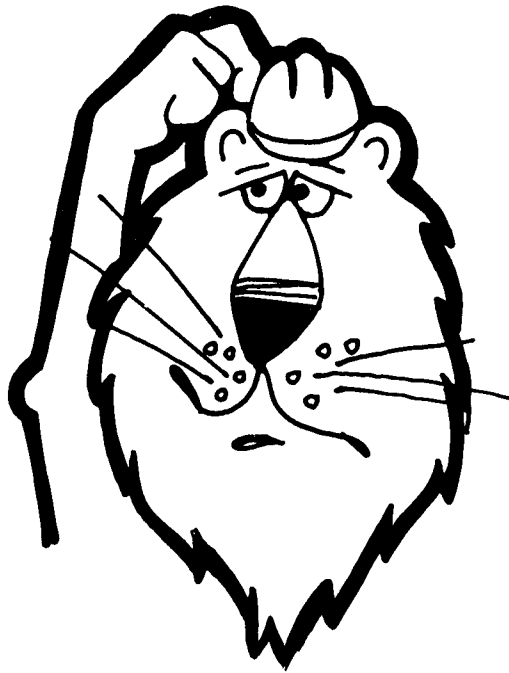


Figure 6. Hydraulic Schematic
115V. - Unit

SECTION IV MAINTENANCE



FAITHFUL INSPECTIONS REDUCE MAJOR PROBLEMS

OPERATOR'S RESPONSIBILITY FOR MAINTENANCE

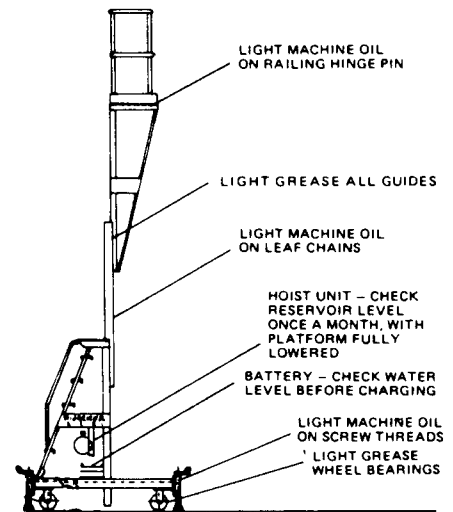
Death or serious injury can result if work platform is not kept in good working order. Inspection and maintenance should be performed by competent personnel who are familiar with mechanical procedures. An operating, maintenance and parts manual has been provided in a plastic envelope attached to the work platform.

The operator should be assured that the work platform is being properly maintained before using it. The maintenance portion of the manual, referred to above, includes information on lubrication, troubleshooting, and inspection points that must be performed daily, weekly, and monthly.

Even if the operator is not responsible for the maintenance of this work platform, the operator should perform the daily inspections found in the maintenance schedule on page 14.

GENERAL MAINTENANCE HINTS

Before attempting any repair work, set MAIN POWER switches to off position and disconnect charger cable from 115 volt AC source. Disconnect battery plug to prevent accidental "shorts". The hydraulic system has been designed for long life and trouble-free operation. The hydraulic oil needs no routine inspection except



if it should be unusually dirty (very dark in color) or the reservoir level is low because of line leaks. When adding or replacing oil, ensure it is clean. Use oil with viscosity of 135 to 165 ssu @ 100°F.

NOTE

Replace all worn or damaged parts discovered during inspection.

MAINTENANCE SCHEDULE

A good preventive maintenance program assures trouble-free machine operation. Routine inspection, lubrication and adjustment schedules must be established and followed. The Maintenance Schedule and Record Log Sheet provided can facilitate checking off each preventive maintenance item as it is performed. This sheet then can be signed and dated to serve as an accurate record.

Table 2. Maintenance Schedule

NOTE

Use Maintenance Schedule and Record Log sheet, located at the rear of this manual, when performing checks.

INSPECTION POINTS		DAILY	WEEKLY	MONTHLY
MECHANICAL	STRUCTURAL DAMAGE (1)	✓		
	WELDS (1)	✓		
	RUST (1)			✓
	CASTERS (1) (2)	✓		
	WHEEL BEARINGS (2)			✓
	OUTRIGGERS (2)	✓		
	GUIDES/ROLLERS (1)	✓		
	HINGE PINS/RAILING CHAINS (1)	✓		
	BOLTS/FASTENERS (3)		✓	
	SAFETY DEVICE (2)		✓	
ELECTRICAL	BATTERY WATER LEVEL (1)	✓		
	SPECIFIC GRAVITY READING (4)		✓	
	BATTERY TERMINALS (1) (3)		✓	
	BATTERY CHARGER (2)		✓	
	RECEPTACLE (2)		✓	
	CONTROL SWITCHES (1) (2)	✓		
	CORDS/WIRING (1)	✓		
	TERMINALS/PLUGS (3)		✓	
HYDRAULIC	HYDRAULIC FLUID LEVEL (1)	✓		
	LIFT SPEED (5)		✓	
	LOWERING SPEED (6)		✓	
	LIFT CAPACITY (7)			✓
	HYDRAULIC LEAKS (1)	✓		
	CYLINDER CHAINS (2)		✓	
	EMERGENCY LOWERING (2)		✓	

(1) Visually Inspect

(2) Check Operation

(3) Check Tightness

(4) A fully charged Battery should read 1.275.

(5) Empty Lift Speed should be 17 sec.

(6) Empty Down Speed should be 23 sec.

(7) Check if Platform can lift maximum load. (See Table 1. Specifications; capacity)

TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
HYDRAULIC SYSTEM		
A. PLATFORM DRIFTS DOWN	1. Worn, nicked or defective cylinder packing	1. Check transparent breather line while platform is being raised. Presence of fluid in this line indicates that packing is worn, nicked or cut — install new packing.
	2. Leaking release valve and/or check valve	2. Push DOWN button and hold. Actuate UP button, the high oil flow recirculating to reservoir will wash dirt off the balls and/or seat areas in most cases.
	3. Leaking release valve	3. Remove release cap assembly and spring and ball assembly from pump. Clean and inspect spring and ball assembly and seat area for wear — replace if defective. Inspect O-rings for nicks or cuts — replace defective parts. Reassemble — check operation.
	4. Leaking check valve	4. Remove check cap assembly and spring and ball assembly from pump. Clean and inspect spring and ball assembly and seat area for wear — replace if defective. Inspect O-rings for nicks or cuts — replace defective parts. Reassemble — check operation.
	5. Leaking relief valve	5. Remove hex cap, O-ring, adjusting screw and spring and ball assembly from pump. Clean and inspect spring and ball assembly and seat area for wear — replace spring and ball assembly if defective. Re-seat spring and ball assembly by inserting a 3/16" diameter rod into spring and rapping ball against the seat with a hammer. Reassemble relief valve — do not reset valve in excess of 2000 PSI.
B. PLATFORM DOES NOT LIFT (Motor and Pump runs)	1. Breather cap dirty or defective	1. Clean and inspect — replace if required.
	2. Hydraulic fluid level low	2. Oil level should be 1/2" below top of tank when platform is in down position. Add oil — with a viscosity of 136 to 165 ssu @ 100° F. (Do not use brake or transmission fluid.) Use clean oil only. Do not filter oil through a cloth as this may add lint particles to the system (the most common cause for system failure is dirt and contaminants).
	3. Overload condition	3. Excessive load on platform — correct. Check for obstructions in guide system — remove. Check for dry guides and guide shoes — clean and lubricate. Check chain adjustment, unequal chain adjustment will cause excessive binding.
	4. Relief valve clogged or defective	4. See A-5.
	5. Leaking check and/or release valve	5. See A-2, 3, 4 and 5.

TROUBLESHOOTING (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
HYDRAULIC SYSTEM (Cont.)		
C. PLATFORM WILL NOT LOWER	6. Broken gear and/or shear pin	6. Return to factory.
	7. Clogged filter	7. Remove filter. Clean and inspect — replace if required. Reassemble and test.
	8. Defective valve	8. Check valve or solenoid. Repair or replace.
	1. Obstruction in flow regulator	1. Shore up platform and sliding frame. Remove flow regulator. Clean and inspect — replace if required.
	2. Obstruction in guide system	2. Clean and inspect.
	3. Dry guides and guide shoes	3. Clean and inspect. Lubricate with a light coat of grease.
ELECTRICAL SYSTEM — 115V AC		
A. ALL SWITCHES INOPERATIVE	1. Improper voltage 2. Power cord continuity 3. Fuse, 15 amp 4. Check L.V.P. 5. Terminal connection on 120V relay	1. Check 115V. receptacle for proper voltage — correct. 2. Check — if defective replace. 3. If defective replace. 4. Press start button. 5. If terminals are tight and relay is inoperative — continue to step B. If relay is inoperative — check the continuity from terminal no. 10 on pushbutton switch to terminal no. 10 on emergency stop contactor — tighten connector if loose.
B. UP CIRCUIT ONLY IN-OPERATIVE (Up relay clicks)	1. Inoperative switches 2. Up Relay 3. Motor fails to run	1. Check items per steps A-1 to A-5 inclusive. 2. Tighten loose terminals. Place jumper between line 1 and motor lead no. 13 if motor runs — check contacts on up relay. 3. Check motor brushes and/or other defects — replace motor if beyond repair.
C. UP CIRCUIT ONLY IN-OPERATIVE (Solenoid does not click)	1. Inoperative switches 2. Magnetic switch no. 10, Figure A 3. Continuity 4. Fuses blow when UP button is pressed 5. Em. Stop Relay defective or inoperative	1. Check items per steps A-1 to A-5 inclusive. 2. Tighten loose terminals. Place jumper wire between terminal no. 11 and no. 5 on magnetic switch no. 10. If click is not audible — replace magnetic switch, or check L.V.P. If click is audible and platform moves up — check UP switch. 3. Check continuity from terminal no. 5 on UP button to terminal no. 5 on magnetic switch no. 10 — correct if required. 4. Check 115V. DC rectifier, replace if defective. 5. Place jumper from LI — to term. no. 10 If motor runs, replace emergency stop contact.

TROUBLESHOOTING (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM – 115V AC (Cont.)		
D. DOWN SWITCH ONLY IN-OPERATIVE (Solenoid no. 1 clicks)	1. Inoperative switches 2. Loose solenoid	1. Check items per steps A-1 to A-5 inclusive. 2. Tighten.
E. DOWN SWITCH ONLY IN-OPERATIVE (Solenoid no. 1 does not click)	1. Loose terminals 2. Solenoid 3. Down switch 4. Continuity 5. Circuit breaker blows when DOWN button is pressed.	1. Tighten. 2. Place one end of jumper terminal no. 10 of up relay Place opposite end to terminal no. 4 on lowering solenoid. If solenoid does not click – replace solenoid. If solenoid clicks proceed with step no. 3. 3. Check – replace if defective. 4. Check continuity from terminal no. 4 on DOWN switch to terminal no. 4 on rectifier. Tighten loose connector plugs, terminals – replace defective conductor cords. 5. Check 115V. DC rectifier, replace if defective.
F. PLATFORM DOES NOT LOWER AFTER REACHING MAXIMUM LIFT	1. Lowering solenoid out of adjustment	1. Raise and hold the solenoid plunger to the maximum UP position, and set gap between plunger and adjusting screw at .040" using feeler gauge to determine setting. Solenoid plunger when released will reset on top of the adjusting screw.
ELECTRICAL SYSTEM – 12V DC		
A. ALL SWITCHES INOPERATIVE	1. Battery condition 2. Corroded terminals 3. Loose ground wire 4. Loose battery connecting cables 5. Defective connecting cables 6. Continuity 7. RESET button on em. stop open if applicable	1. Check each cell – reading should be at specific gravity of 1.275 (when fully charged). 2. Clean. 3. Tighten. 4. Tighten. 5. Replace. 6. Check the continuity from terminal no. 2 on P.B. Switch to terminal no. 2 on magnetic switch. Tighten connectors if loose. Replace defective cords or connectors. 7. Reset.
B. UP CIRCUIT ONLY IN-OPERATIVE (Solenoid no. 11 clicks)	1. Battery condition 2. Magnetic switch no. 11 3. Motor 4. Defective solenoid	1. Check items per steps A-1 to A-7 inclusive. 2. Tighten loose terminals. Place jumper between large terminals – if motor runs – replace magnetic switch. 3. If motor fails to run – check out motor brushes and/or other defects – replace motor if beyond repair. 4. Check solenoid. If defective replace.

TROUBLESHOOTING (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM – 12V DC (Cont.)		
C. UP CIRCUIT ONLY IN-OPERATIVE (Solenoid no. 11 does not click)	1. Battery condition 2. Magnetic switch no. 11	1. Check items per steps A-1 to A-7 inclusive. 2. Tighten loose terminals. Place jumper wire between terminal no. 2 and no. 5 on magnetic switch no. 11. If click is not audible – replace magnetic switch. If click is audible and platform moves up – check UP button. 3. Check continuity from terminal no. 5 on P.B. station to terminal no. 5 on magnetic switch no. 11.
D. DOWN SWITCH ONLY IN-OPERATIVE (Solenoid no. 9 clicks)	1. Battery condition 2. Loose solenoid	1. Check items per steps A-1 to A-7 inclusive. 2. Tighten hold down screws.
E. DOWN SWITCH ONLY INOPERATIVE (Solenoid no. 9 does not click)	1. Loose terminals 2. Magnetic switch no. 11	1. Tighten. 2. Place one end of jumper on terminal no. 2. Place opposite end on terminal no. 4 of solenoid no. 9. If solenoid does not click – replace solenoid. If solenoid clicks proceed with step no. 3. 3. Check down switch for continuity – replace if defective. Check continuity from terminal no. 4 on down switch to terminal no. 4 on solenoid no. 9. Tighten loose connector plugs, terminals – replace defective conductor cords.
F. PLATFORM DOES NOT LOWER AFTER REACHING MAXIMUM LIFT	1. Lowering solenoid out of adjustment	1. Raise and hold the solenoid plunger to the maximum up position, and set gap between plunger and adjusting screw at .040" using feeler gauge to determine setting. Solenoid plunger when released will rest on top of the adjusting screw.

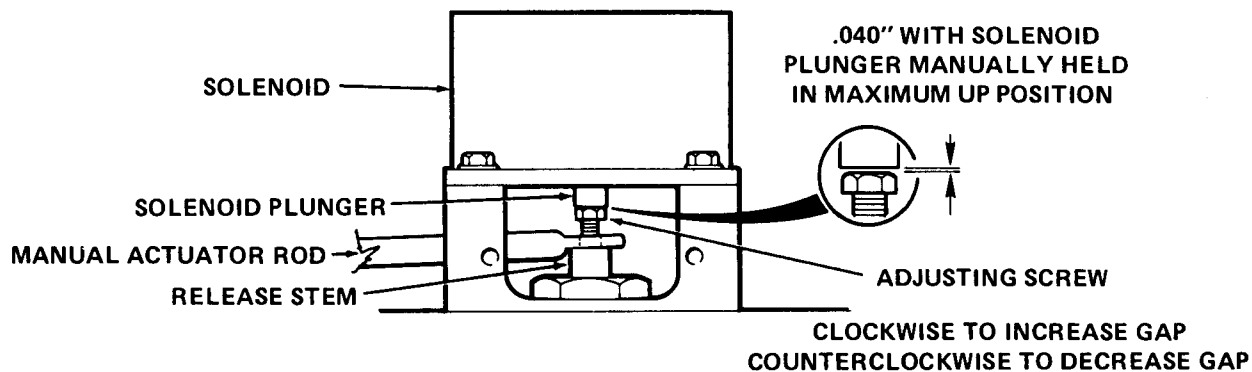


Figure 7. Adjusting Solenoid Gap

SECTION V

PARTS LIST

GENERAL

The information contained in this section is intended to aid the user in locating and identifying replacement parts. Component parts of the various assemblies and subassemblies comprising the work platform are illustrated and accompanied by a descriptive parts list. Exploded drawings are used to show relative location of the component parts in disassembly order. If a part can not be found in this section, order by machine model number and serial number giving a complete description of the part.

ORDER INFORMATION

When ordering replacement parts, the complete part number and description should be used to ensure proper identification and delivery of the desired item. This complete identification should also be used when requesting equipment information.

PARTS LIST

METHOD OF LISTING. Parts are listed in order according to the reference number shown in the il-

lustration, followed by a full description based upon the "noun first" method — i.e., the noun name of the part is listed first then the modifying description information which serves to specifically identify the item. For example: VALVE, Flow divider.

QUANTITIES. The quantity of each individual part follows its description. Where no quantity is shown, it is understood to mean that only one (1) is used.

HARDWARE. Standard screws, washers, nuts, etc. are not identified by a reference number. These parts are known as COMMON HARDWARE items and appear indented under the major items with which they are used. They should be ordered as listed, since they are not component parts of the pieces they attach.

HOW TO ORDER REPAIR PARTS

1. Address all orders either to your local Economy dealer.
2. Specify model and serial number of the equipment which is shown on the unit.
3. List the quantity needed.
4. List the part number and description as shown in this manual for each item.
5. Show billing and shipping address and name of individual if possible.
6. Suggest best routing.
7. Minimum Order \$25.00.

CUSTOMER _____

DEALER _____

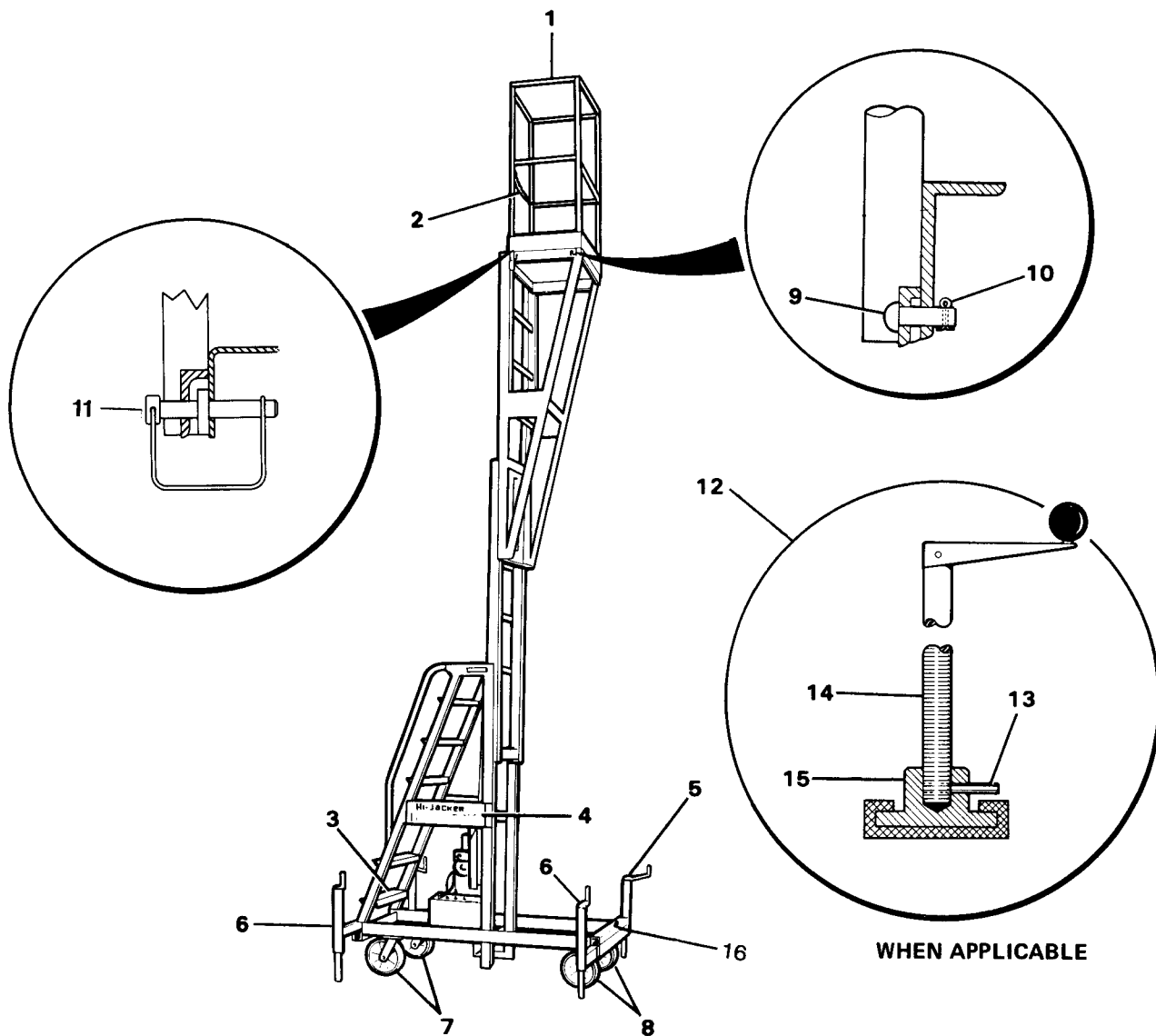
MODEL NO. _____

SERIAL NO. _____

DATE PURCHASED _____

FRAME ASSEMBLY

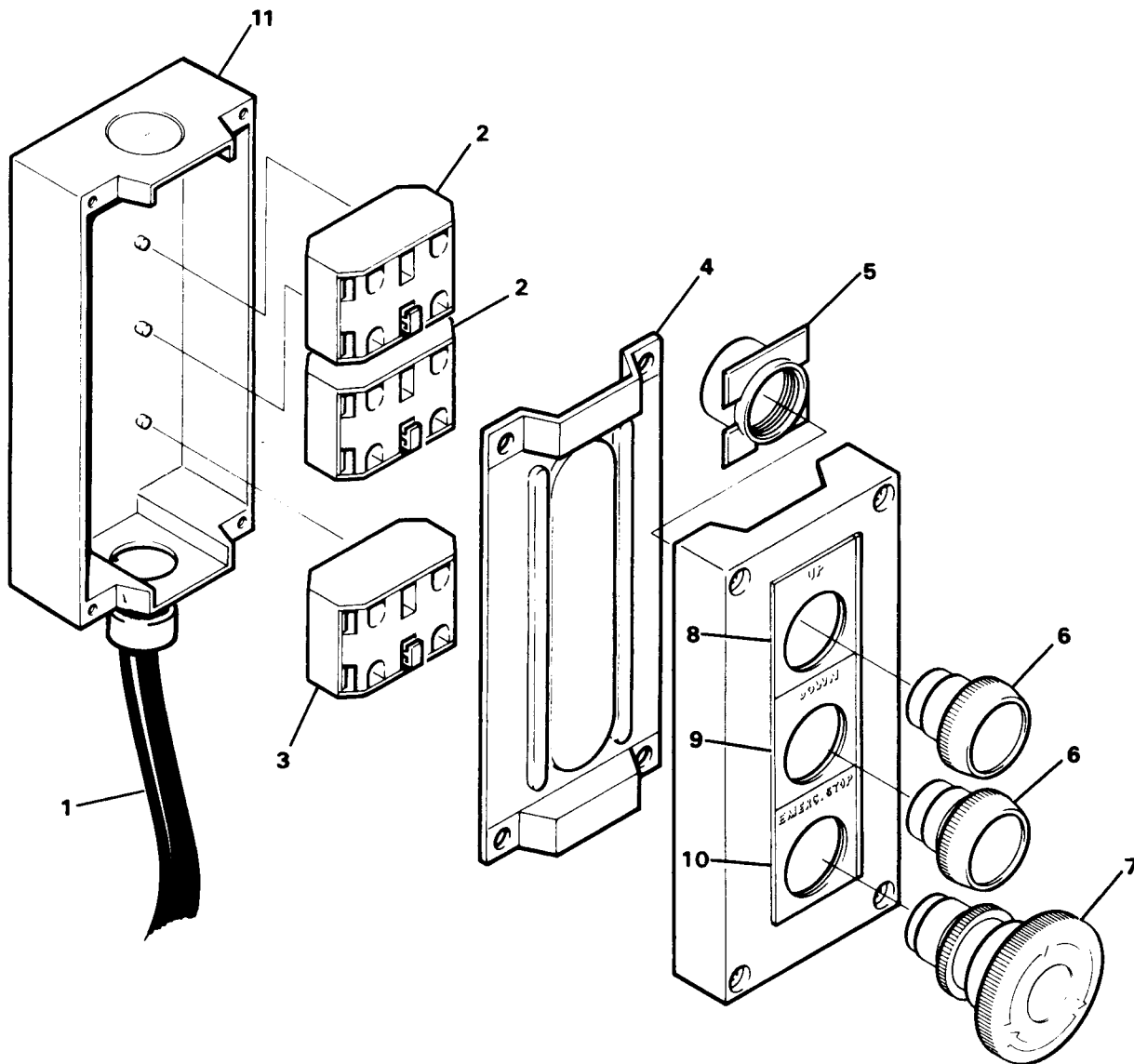
REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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1	44 084-4	RAILING ASS'Y.	8	43 037-6	CASTER, 8" rigid (2)
2	43 867-6	CHAIN, midrail		44 042-6	CASTER 10" x 2" PNEU. rigid
3	43 829-6	TREAD, non skid (10)	9	40 831-4	PIN, railing hinge (2)
4	44 088-4	KIT, HJ-15-E decal	10	98 817-9	PIN, cotter (2)
4	44 087-4	KIT, HJ-15-B decal	11	46 724-4	PIN ASS'Y., detent (2) (Replaces 43 865-4)
5	42 472-4	OUTRIGGER, Upper (2)	12		SCREW ASS'Y., leveling (4)
	43 078-6	HANDLE KIT	13	98 950-9	PIN, roll (2)
6	42 474-4	OUTRIGGER, Lower (2)	14	43 965-4	SCREW AND HANDLE ASS'Y.
	43 078-6	HANDLE KIT	15	43 960-4	GRIP, floor
7	43 036-6	CASTER, 8" swivel (2)	16	44 025-4	PIN, outrigger locking (4)
7A	44 041-6	CASTER, 10" x 2" PNEU. SW. (2)			

OPERATOR'S CONTROL BOX

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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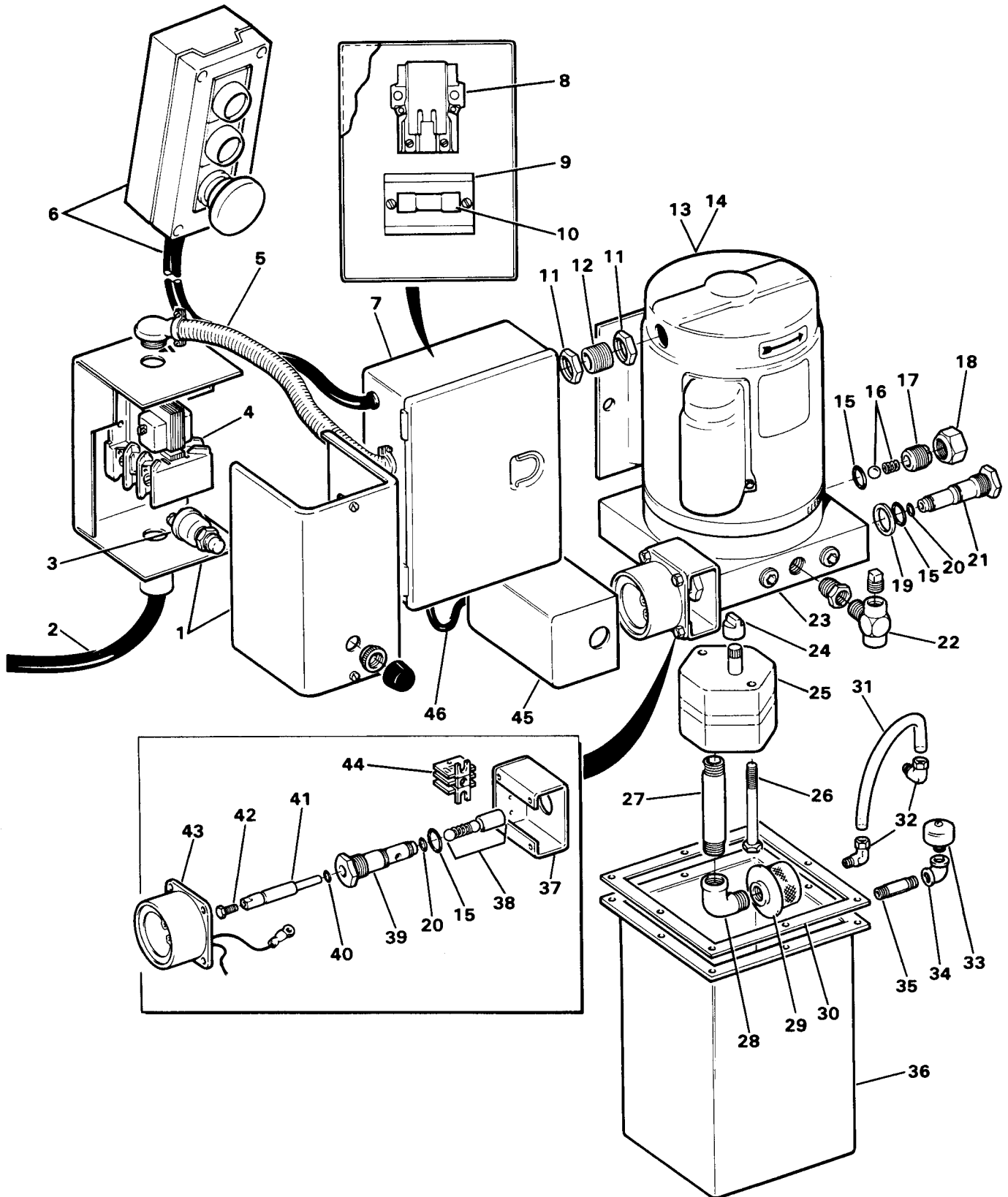


43 952-4	PUSHBUTTON ASSY. W/CORD, 96 426-6 (For use with Model HJ-15-E)	5	@	NUT, button retaining
44 078-4	PUSHBUTTON ASSY. W/CORD, 96 426-6 (For use with Model HJ-15-B)	6	45 910-6 (46 587-6)	BUTTON ASSEMBLY W/NUT, Black (2)
1	96 426-6 CORD, 302" long	7	45 911-6 (46 588-6)	BUTTON ASSEMBLY W/NUT, Red
*	45 744-6 (46 594-6) BOX ASSY., pushbutton (Includes the following parts —	8	45 912-6 (46 589-6)	NAMEPLATE, up
2	45 906-6 (46 592-6) CONTACT BLOCK (N.O.) (2)	9	45 913-6 (46 590-6)	NAMEPLATE, down
3	45 907-6 (46 593-6) CONTACT BLOCK (N.C.)	10	45 914-6 (46 591-6)	NAMEPLATE, emerg. stop
4	45 909-6 GASKET, rubber	11	45 908-6 (46 586-6)	ENCLOSURE W/COVER

* — Machines equipped with XAL 803 Pushbutton station
Use Part No.'s in parenthesis.

@ — Order BUTTON ASSY., 45 910-6, 45 911-6,
46 587-6, or 46 588-6

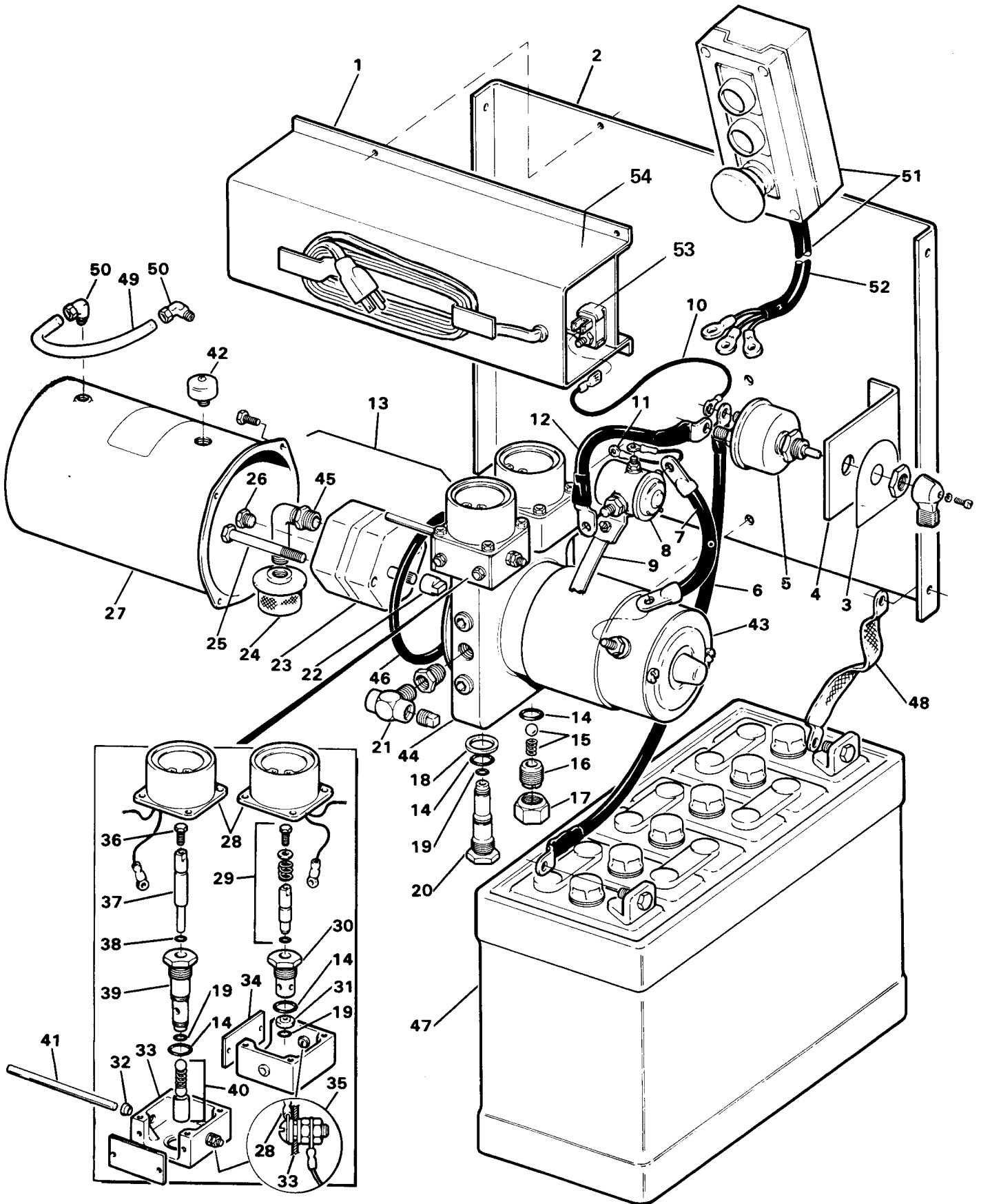
A.C. ELECTRICAL/HYDRAULIC UNIT ASSEMBLY



A.C. ELECTRICAL/HYDRAULIC UNIT ASSEMBLY

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
2	96 420-9	CORD, electrical, 25'-0" lg.	29	T3 1001-00	FILTER (@)
3	41 313-6	SWITCH, pushbutton	30	42 378-6	GASKET (@)
4	40 620-4	CONTACTOR & ENCLOSURE ASS'Y.	31	23 121-6	TUBE, polyflow
4A	42 441-6	CONTACTOR ONLY	32	23 115-6	ELBOW
5		CONDUIT	33	42 379-6	BREATHER
6	43 952-4	CONTROL BOX W/CORD & RECEPTACLE	34	23 092-6	ELBOW, 3/8
	96 426-9	CORD 302" lg.	35		NIPPLE, 3/8 pipe
7	F6 3000-02	BOX, outlet	36	45 873-6	RESERVOIR (@)
8	10 694-6	RELAY	37	H4 1001-00	BRACKET, solenoid mtg. (@)
9		BLOCK, fuse	38	11 954-6	SPRING AND BALL ASS'Y. (@)
10		FUSE, 15 amp	39	11 956-6	RELEASE CAP ASS'Y. (@)
11		NUT, conduit lock (2)	40	11 949-6	O-RING (@)
12		NIPPLE	41	11 952-6	RELEASE STEM ASS'Y. (@)
13	10 614-6	UNIT ASS'Y., A.C. hydraulic	42	11 948-6	SCREW, adj. release (@)
14	43 959-6	MOTOR (@)	43	10 617-6	SOLENOID (@)
15	11 951-6	O-RING (@) (3)	44	10 619-6	RECTIFIER
16	11 953-6	SPRING AND BALL (@)	45	K3 1012-00	COVER, solenoid
17	11 965-6	SCREW, relief adjust (@)	46		CORD, electrical
18	11 957-6	CAP, hex (@)			
19	11 959-6	RING, seal (@)			
20	11 950-6	O-RING (@) (2)			
21	11 955-6	CHECK CAP ASS'Y. (@)			
22	41 625-6	FITTING, tee			
23	N8 0026-01	ADAPTER, motor (@)			
24	11 963-6	COUPLING (@)			
25	42 407-6	PUMP ASS'Y. (@)			
26	F1 1022-75	BOLT, pump mtg. (@) (2)			
27	T1 1006-06	NIPPLE, 3/8 pipe (@)			
28	T1 1011-00	ELBOW, 3/8 (@)			

D.C. ELECTRICAL/HYDRAULIC UNIT ASSEMBLY



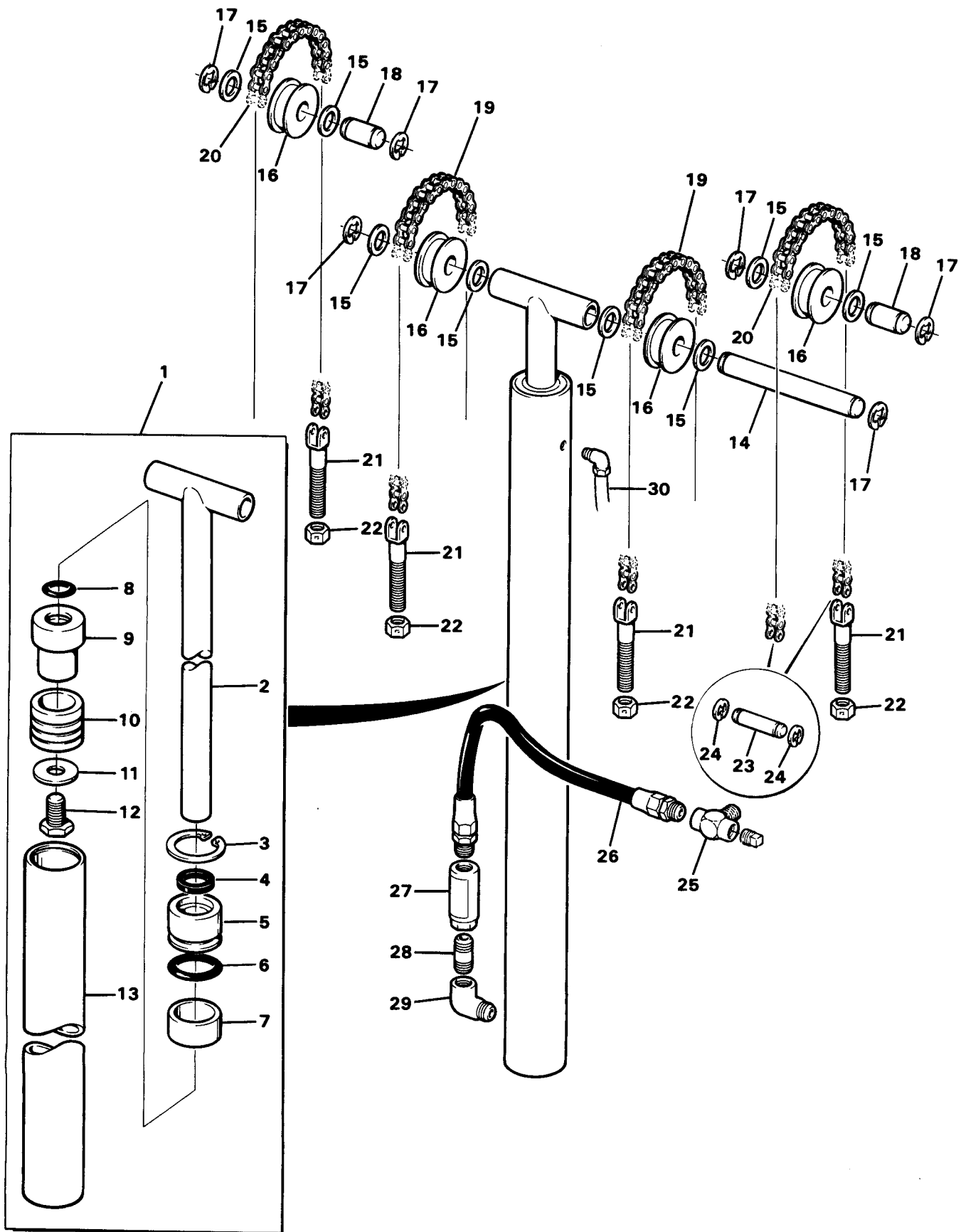
D.C. ELECTRICAL/HYDRAULIC UNIT ASSEMBLY

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
1	11 994-6	CHARGER, 8 amp battery	27		RESERVOIR (@)
	97 468-9	SCREW, 10—24 x 3/4 (2)	28	11 995-6	SOLENOID (@) (2)
	98 708-9	WASHER, 3/16 lock (2)	29	43 084-6	STEM ASS'Y., (N.O.) (@)
	98 404-9	NUT, 10—24 (2)	30	45 386-6	CAP (N.O.) (@)
	23 267-6	CIRCUIT BREAKER	31	45 384-6	SEAT, valve (@)
	11 221-6	TRANSFORMER	32	\$	BUSHING
	12001-6	RECTIFIER, SCHUMACHER	33	S9 6001-12	BRACKET, solenoid (@) (2)
2	44091-4	PLATE, mounting	34	H6-2000-01	COVER, bracket (@) (2)
3	44 081-6	DECAL	35	E5-3001-00	TERMINAL (@) (2)
4	44 079-4	BRACKET, switch support	36	11 948-6	SCREW, adj. release (@)
	97 508-9	SCREW, 1/4—20 x 3/4 (2)	37	11 952-6	RELEASE STEM ASS'Y. (@)
	98 709-9	WASHER, 1/4 lock (2)	38	11 949-6	O-RING (@)
	98 406-9	NUT, 1/4—20 (2)	39	11 956-6	RELEASE CAP ASS'Y. (@)
5	45 204-6	SWITCH, battery	40	11 960-6	SPRING AND BALL ASS'Y. (@)
6	10 771-6	CABLE, battery to switch	41	45 385-6	ROD, emerg. lower (@)
7	45513-6	CABLE, motor to solenoid (@)	42	42 379-6	BREATHER
8	24 039-6	SWITCH, solenoid (@)	43	43 083-6	MOTOR, 12 volt D.C. (@)
9	S9 100-00	STRAP, switch mtg. (@)	44	44 595-6	BRUSH
10	96 440-9	WIRE, #14 black	45	45 507-4	HYD. FITTING ASS'Y. (@)
11	96 450-9	WIRE, #16 black		41 625-6	TEE, male
12	45 513-6	CABLE, solenoid to switch		41 697-6	ELBOW, 90° male
13	44 077-6	UNIT, 12 volt D.C. hydraulic	46	11 967-6	O-RING, reservoir (@)
14	11 951-6	O-RING (@) (4)	47	11 921-6	BATTERY, 95 Amp, 12 volt D.C.
15	11 953-6	SPRING AND BALL ASS'Y. (Relief) (@)		10 416-6	160 amp (optional)
16	11965-6	SCREW, relief adjustment (@)	48	10 440-6	STRAP, ground
17	11 957-6	CAP, hex (@)	49	23 115-6	TUBE, polyflow 26" lg.
18	11 959-6	RING, seal (@)	50	23 115-6	ELBOW (2)
19	11 950-6	O-RING (@) (3)	51	44 078-4	P.B. & CORD ASS'Y.
20	11 955-6	CHECK CAP ASS'Y. (@)	52	96 426-6	CORD ASS'Y., 298" lg.
21	41 625-6	FITTING, tee	53	23 267-6	CIRCUIT BREAKER
22	*45 747-6	COUPLING (@)	54	11 221-6	TRANSFORMER
23	45 387-6	PUMP ASS'Y. (@)			
24	11 964-6	FILTER (@)			
25	F1 1022-75	BOLT, pump mtg. (@) (2)			
26	T1 1002-03	PLUG, 3/8 pipe (@)			

* On earlier units
11963-6 COUPLING was used

(@) — Also part of HYDRAULIC UNIT,
50-01040232-00

HYDRAULIC CYLINDER ASSEMBLY



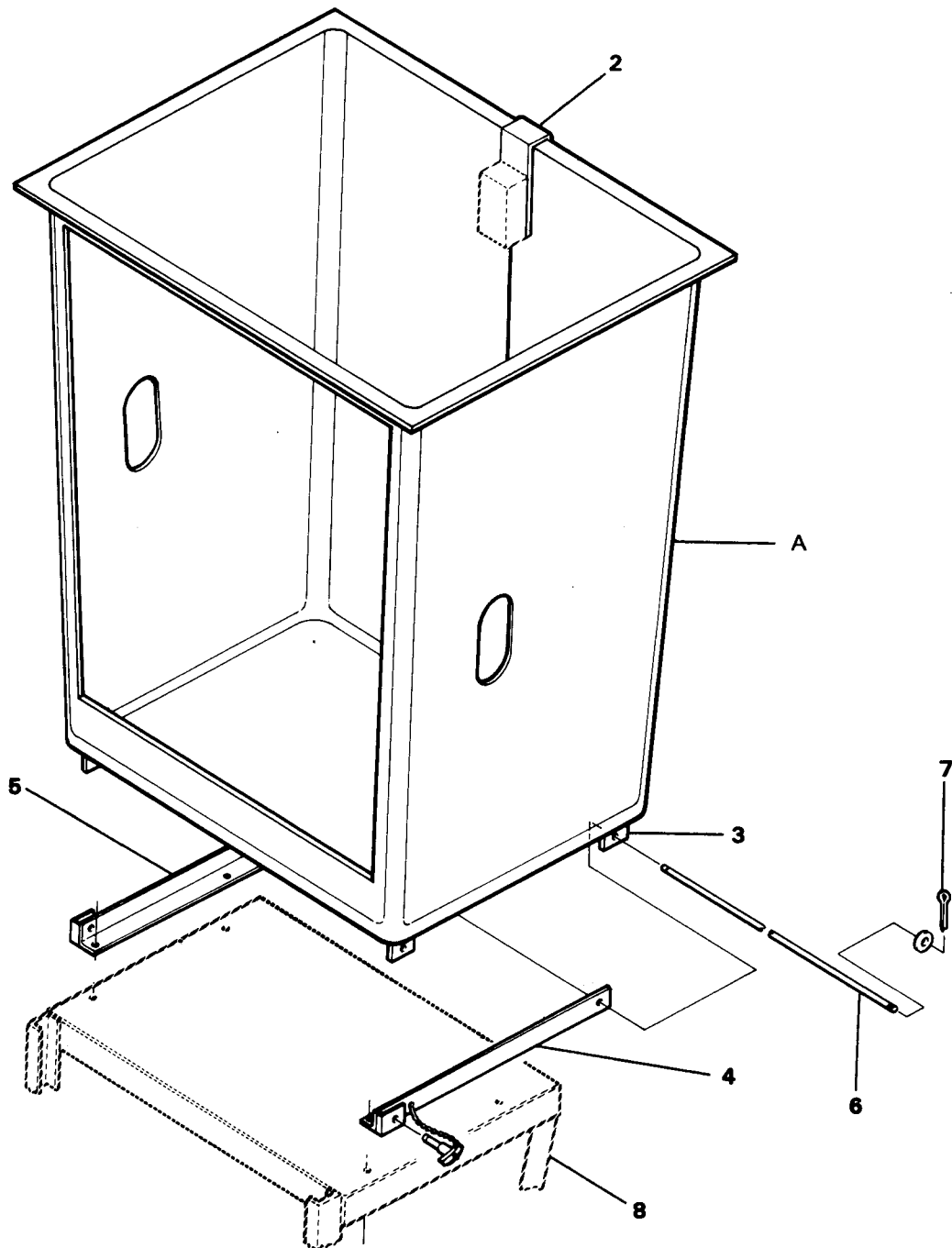
HYDRAULIC CYLINDER ASSEMBLY

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
1	10 578-4	CYLINDER ASS'Y., Hydraulic lift	17	10 127-6	RING, snap (6)
2	10 576-4	ROD, cylinder	18	10 106-6	PIN, SHEAVE (2)
* 3	96 838-9	RING, retaining	19	43 956-6	CHAIN, 40-1/2" long leaf (2)
* 4	11 227-6	WIPER, rod	20	44 134-6	CHAIN, 60-1/2" long leaf (2)
5	10 567-4	HEAD, cylinder	21	10 221-4	ANCHOR, chain (4)
* 6	11 240-6	O-RING	22	98 495-9	NUT, 1/2-13 lock (4)
7	10 564-4	TUBE, stop	23	10 217-6	PIN, connecting (8)
* 8	11 224-6	O-RING	24	96 562-9	CLIP, pin (16)
9	10 568-4	PISTON	25		FITTING, tee (Refer to Electrical/ Hydraulic Assembly)
*10	11 234-6	PACKING	26	23 281-6	HOSE
11	98 605-9	WASHER	27	11 946-6	VALVE, flow control
12	97 107-9	SCREW	28	96 691-9	NIPPLE
13	10 577-4	BODY, cylinder	29	23 092-6	ELBOW
14	23 088-4	PIN, sheave	30		HOSE, Polyflow (Refer to Electrical/Hydraulic Assembly)
15	98 655-9	WASHER			
16	10 124-6	SHEAVE, chain (4)			

* — Kit, packing for Power H.J. & SA 44 000-4

FIBERGLASS BASKET ASSEMBLY

REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
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A	43 987-4	FIBRE GLASS BASKET ASS'Y.	5	43 992-4 97 042-6 98 411-6	BRACKET, L.H. basket SCREW, 3/8—16 x 7/8 (2) NUT, 3/8—16 lock (2)
2	43 999-4	HANGER, pushbutton control	6	43 993-4 98 603-9	HINGE, basket WASHER, 3/8 flat (2)
3	43 997-4	BRACKET, basket mtg.	7	98 816-9	PIN, cotter (2)
4	43 991-4 97 042-6 98 411-6	BRACKET, R.H. basket SCREW, 3/8—16 x 7/8 (2) NUT, 3/8—16 lock (2)	8	\$	PLATFORM, hi-jacker

AUXILIARY PLATFORM ASSEMBLY

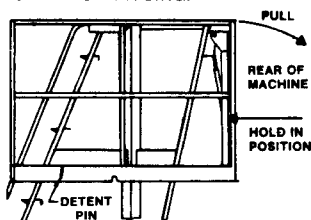
REF. NO.	PART NUMBER	DESCRIPTION	REF. NO.	PART NUMBER	DESCRIPTION
	43 202-4	A.P. PLAT. INSTALL. H.J.B.			
	43 203-4	A.P. PLAT. INSTALL. H.J.E.			
1	43 207-4	RAILING	7	43 212-4	BRACE
2	43 210-4	HINGE (2)	8	43 213-4	PIN, 3/8 x 2-1/4" (2)
	97 024-9	SCREW, 5/16--18 x 7/8" (12)		98 603-9	WASHER, 3/8 flat (6)
	98 602-9	WASHER, 5/16 flat (12)	9	98 808-9	PIN, 3/32 x 3/4" cotter (6)
	98 497-9	NUT, 5/16--18 lock (12)	10	43 829-6	SAFT TREAD (6)
3	43 206-4	PLATFORM	11	43 247-6	DECAL OPER INST. (1) @
4	47 232-6	PIN, 1/2" clevis (2)	12	43 248-6	DECAL WARNING GUARD RAIL (2) @
	98 605-9	WASHER, 1/2" flat (4)	13	43 246-6	DECAL CAUTION GAS SPRING (2) @
5	98 817-9	PIN, 1/8 x 1" cotter (2)	14	46 724-4	PIN & CHAIN ASSY.
6	43 237-6	SPRING, standard gas (2)	15	43 865-4	RAILING LOCK ASSY. (2)
	98 710-9	WASHER, 5/16 lock (4)			
	98 408-9	NUT, 5/16-18 (4)			

@ Refer to page 30.

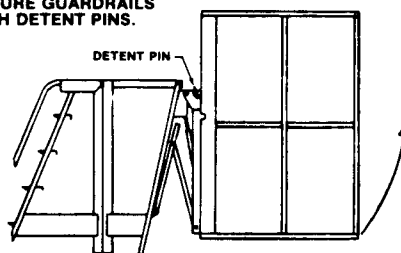


CAUTION: WATCH HAND PLACEMENT WHEN ERECTING GUARDRAILS AND PLATFORM. ERECT GUARDRAILS AND PLATFORM FROM REAR OF MACHINE ONLY. TO LOWER PLATFORM AND GUARDRAILS, FOLLOW ALL INSTRUCTIONS IN REVERSE ORDER. INSPECT ALL ELEMENTS OF MACHINE BEFORE USING. CHECK ALL PINS AND LOCKING DEVICES FOR DAMAGES AND PROPER OPERATION. CORRECT ANY AND ALL DEFECTS BEFORE PROCEEDING.

1. RELEASE DETENT PINS AND ROTATE GUARDRAILS INTO POSITION BY PLACING ONE HAND ON REAR TOP GUARDRAIL AND PULLING OUTWARD WHILE PLACING THE OTHER HAND ON PLATFORM TO PREVENT PLATFORM FROM RAISING.

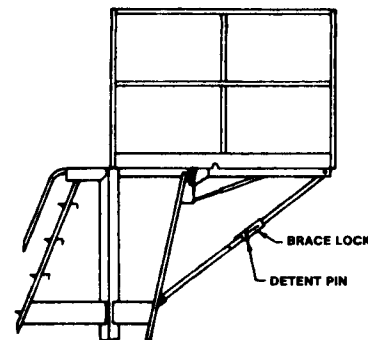


2. SECURE GUARDRAILS WITH DETENT PINS.



3. ROTATE PLATFORM WITH GUARDRAILS TO RAISED POSITION.

4. SLIDE BRACE LOCK INTO POSITION AND SECURE WITH DETENT PIN.



11



WARNING

DO NOT ERECT GUARDRAILS FROM SIDES OR SERIOUS INJURY MAY RESULT. SEE INSTRUCTIONS ON REAR TOEBOARD.

12



CAUTION: GAS SPRINGS ARE PRESSURIZED AND EXERT A FORCE OF 150 LBS. WHEN COMPRESSED. GAS SPRINGS ARE TO ASSIST RAISING PLATFORM ONLY AND WILL NOT SUPPORT IT. SHOULD SERVICE BE REQUIRED, REMOVE ONLY IN EXTENDED POSITION OR SERIOUS INJURY COULD RESULT.

13

MAINTENANCE SCHEDULE AND RECORD LOG SHEET

MONTH/YEAR /
SERIAL NO.

Fill in date and initial boxes when each check is made.

		S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
MECHANICAL	STRUCTURAL DAMAGE (1)																						
	WELDS (1)																						
	RUST (1)																						
	CASTERS (1) (2)																						
	WHEEL BEARINGS (2)																						
	OUTRIGGERS (2)																						
	GUIDES/ROLLERS (1)																						
	HINGE PINS/RAILING CHAINS (1)																						
	BOLTS/FASTENERS (3)																						
	SAFETY DEVICE (2)																						
ELECTRICAL	BATTERY WATER LEVEL (1)																						
	SPECIFIC GRAVITY READING (4)																						
	BATTERY TERMINALS (1) (3)																						
	BATTERY CHARGER (2)																						
	RECEPTACLE (2)																						
	CONTROL SWITCHES (1) (2)																						
HYDRAULIC	CORDS/WIRING (1)																						
	TERMINALS/PLUGS (3)																						
	HYDRAULIC FLUID LEVEL (1)																						
	LIFT SPEED (5)																						
	LOWERING SPEED (6)																						
	LIFT CAPACITY (7)																						
	HYDRAULIC LEAKS (1)																						
CYLINDER CHAINS (2)																							
EMERGENCY LOWERING (2)																							

(1) Visually Inspect
(2) Check Operation
(3) Check Tightness
(4) A fully charged Battery should read 1.275.
(5) Empty Lift Speed should be 17 sec.
(6) Empty Down Speed should be 23 sec.
(7) Check if Platform can lift maximum load.
(See Table 1. Specifications; capacity)

