



# THIS SAFETY ALERT SYMBOL MEANS ATTENTION TO A HAZARD! YOUR SAFETY IS INVOLVED BE ALERT.



Red Danger Labels are used to indicate the presence of a hazard that **will** cause death or serious injury.



Orange Warning Labels are used to indicate the presence of a hazard that **may** cause death or serious injury.



Yellow Caution Labels are used to indicate the presence of a hazard that **will** or **may** cause serious personal injury or damage to the machine.

#### OPERATOR QUALIFICATIONS

Only authorized people who have been trained should use this work platform. Safe use of this work platform requires the operator to understand operating procedures, operators responsibility for maintenance, and limitations and warnings. The operator must understand and be familiar with this manual, its warnings, and all warnings and instructions on the work platform. Operators must also be familiar with employers work rules and related government regulations and be able to demonstrate his/her ability to understand and operate this make and model work platform in the presence of a qualified person.

#### **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 proper safety devices to protect eyes, ears, hands, and feet.

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

#### PLATFORM WARNING LABELS



#### Figure 1. Platform Labels



### (UNRESTRICTED-EVENLY DISTRIBUTED)

MAXIMUM NUMBER OF PERSONS 2-NOT TO EXCEED 550 LBS.(250KG.) MAXIMUM WEIGHT OF PERSONS AND EQUIPMENT 550 LBS.(250KG.)

## 550LBS.(250KG.)

ISR-403-ISR-602

**ISR 700** 

491-0000146

# PLATFORM CAPACITY

(UNRESTRICTED-EVENLY DISTRIBUTED)

MAXIMUM NUMBER OF PERSONS 2-NOT TO EXCEED 440 LBS.(200KG.) MAXIMUM WEIGHT OF PERSONS AND EQUIPMENT 440 LBS.(200KG.)

## 440LBS.(200KG.)

491-0000147

Figure 1-A Platform Labels

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### !\ WARNING

You are required by ANSI/SIA A92.5 1990 to read and understand YOUR RESPONSIBILITIES in the OPERATORS MANUAL before you use or operate this work platform. The Operators Manual must always be attached to the work platform.

**FAILURE TO COMPLY** with your **REQUIRED RESPONSIBILITIES** in the use and operation of the work platform could result in **DEATH OR SERIOUS INJURY.** 

<u>!\</u> DANGER

#### ELECTROCUTION HAZARD

#### FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY!

THIS MACHINE IS NOT INSULATED. MAINTAIN SAFE CLEARANCES FROM ELECTRICAL POWER LINES AND APPARATUS. YOU MUST ALLOW FOR PLATFORM SWAY, ROCK, OR SAG. THIS WORK PLATFORM DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.

VOLTAGE RANGE	MINIMUM SAFE APPROACH DISTANCE			
(PHASE TO PHASE)	(FEET)	(METERS)		
0 TO 300V	AVOID CONTACT			
OVER 300V TO 50KV	10	3.05		
OVER 50KV TO 200KV	15	4.6		
OVER 200KV TO 350KV	20	6.1		
OVER 350KV TO 500KV	25	7.62		
OVER 500KV TO 750KV	35	10.67		
OVER 750KV TO 1000KV	45	13.72		

## SPECIFICATIONS

Model		SR-123J	ISR-403J				
Weight	Overall weight			8,600 kgf	18,960 lbs		
	Max. ground contact pressure			0.74 kgf / cm <sup>2</sup>	11 PSI		
Engine Model				A-4JB1-PAA17	<		
	Total displacement		Υ.	2,771 cc	169 in <sup>3</sup>		
	Output power			56.4 PS / 2,200 rpm	41.5kw / 2,200 rpm		
	Output torque			19.4 kgf-m /1,800 rpm	140 ft-lb / 1,800rpm		
	Engine oil capacity			6.6 liters	1.74 gallons		
	Cooling water capac	ncity		11.0 liters	2.91 gallons		
	Fuel tank capacity			108 liters	28.5 gallons		
	Engine speed			1,200~2,300 rpm	<		
	Battery			DC12v / 70AH×2	<		
Platform	Rated load			250 kgf or 2 persons + Tools ( 90 kgf )	550 lbs or 2 persons + Tools ( 200 lbs )		
	Max. allowable side force			41 kgf ( 400N )	90 lbs		
	Inner dimensions			1,800×750×1,100 mm	5.9×2.46×3.6 ft		
	Rotation angle			180°	←		
	Maximum floor height			12.0 meters	39 ft 4 in		
	Maximum working	g radius		11.5 meters	37 ft 8 in		
loom	Boom length			5.0~9.96 meters	32 ft 8 in		
Boom angle Fly jib angle				$-20\sim70$ degrees	←───		
				$-44 \sim 70$ degrees	<		
	Rotation angle			360° continuously	<del>&lt;</del>		
Operational	Elevation	UP		$45\pm 6$ seconds / stroke	$35\pm6$ seconds /stroke		
opeed		DOWN		$55\pm 6$ seconds / stroke	$35\pm6$ seconds /stroke		
	Extension	OUT		$22\pm4$ seconds / stroke	<		
		IN		$22\pm4$ seconds / stroke	<		
	Rotation	C.W.		$120\pm15$ seconds / 1 turn	$60\pm5$ seconds / 1 turn		
		C.C.W.		$120\pm15$ seconds / 1 turn	$60\pm5$ seconds / 1 turn		
	Travelling	High speed	Forward	$24\pm3$ seconds / 10 m	22±3 seconds / 10 yards		
			Reverse	$24\pm3$ seconds / 10 m	22±3 seconds / 10 yards		
		Low speed	Forward	$51\pm8$ seconds / 10m	47±7 seconds / 10 yards		
			Reverse	$51\pm8$ seconds / 10m	47±7 seconds / 10 yards		
	Platform rotation	Right		$20\pm4$ seconds / stroke	<		
		Left		$20\pm4$ seconds / stroke	<		
	Fly jib Up Down			$20\pm4$ seconds / stroke	←		
			$15\pm3$ seconds / stroke	← ───			



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## WORKING RANGE CHART



#### NOTE;

The travelling is disabled when the platform is positioned within the area shown in the above chart and the machine tilts over 5 degrees.

### SECTION 1 INTRODUCTION

#### PURPOSE OF EQUIPMENT

Aichi Work Platforms are designed to transport and raise personnel and tools to overhead work areas.

#### **USE OF EQUIPMENT**

The crawler type work platform (Figure 2) (hereafter referred to as work platform) is a rugged and highly maneuverable, mobile work station. The work platform is designed for slab and rough terrain applications. Lifting and driving these models MUST be on a flat, level, compacted surface.

#### WARNINGS

Before operating the work platform the operator must read and understand all warnings in this manual and on the work platform. Compare work platform labels, with labels found throughout this manual. Replace any damaged or missing labels before operating the work platform.

#### DESCRIPTION

The work platform has four major assemblies, the platform basket assembly, boom assembly, turret and crawler drive chassis. Platform controls include operator's control console and a footswitch that brings power to the control console. Auxiliary controls and emergency controls are located on the turret and platform.

**PLATFORM** - The platform basket assembly is constructed with a skid resistant deck surface, steel railing system, midrails and toeboards. The entrance has a midrail that swings in for easy entry. The platform can rotate 90° to the right or left of center. A work light is mounted to the platform railing.Platform controls control motion and emergency stopping of the work platform.

**BOOM ASSEMBLY** - The three section boom is mounted on the turret and operated by hydraulic cylinders, holding valves and four wire ropes.

**TURRET** - The turret houses base controls, hydraulic manifold, hydraulic valves, emergency pump/motor assembly, hydraulic pump, engine, hydraulic reservoir, fuel tank and batteries. All components are accessable through doors on the turret cover.

**CRAWLER DRIVE CHASIS** - The crawler drive chasis is made up of a one piece steel weldment, crawler treads and hydraulics.



Figure 2. Crawler Work Platform

### SECTION 2 OPERATION

#### **OPERATOR QUALIFICATIONS**

Only authorized people who have been trained should use this work platform. Safe use of this work platform requires the operator to understand operating procedures, operators responsibility for maintenance, limitations and warnings. The operator must understand and be familiar with this manual, its warnings, and all warnings and instructions on the work platform. Operator also MUST be familiar with employer's work rules and related government regulations and be able to demonstrate his/her ability to understand and operate THIS make and model work platform in the presence of a qualified person.

#### **OPERATING CONTROL IDENTIFICATION**

The description in Figure 4 is for identification, explanation and locating purposes only. A qualified operator MUST read and completely understand these controls before operating this work platform. **"OPERATING PROCEDURES"** for operating this work platform are covered in the operating procedure section, on Pages 16 through 20.



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CONTINUE ONLY IF YOU UNDERSTAND WHAT YOU HAVE JUST READ

#### LOWER CONTROL PANEL



Figure 4. Lower Control Panel

- 1. HOUR METER
- 2. REMOTE CONTROL SOCKET FOR TRAVEL FROM BASE (OPTION)
- 3. BASE/PLATFORM CONTROL SELECTOR SWITCH
- 4. BOOM ELEVATION/LOWERING SWITCH
- 5. EMERGENCY PUMP SWITCH
- 6. BOOM EXTENSION/RETRACTION SWITCH
- 7. HIGH THROTTLE SWITCH
- 8. BOOM ROTATION SWITCH
- 9. EMERGENCY STOP BUTTON
- 10. CHARGE INDICATOR LAMP
- 11. WATER TEMPERATURE LAMP
- 12. ENGINE OIL PRESSURE LAMP
- 13. GLOW PLUG LAMP
- 14. ENGINE START/STOP KEY SWITCH
- 15. POWER LAMP
- 16. FUSE HOLDER

#### LOWER CONTROL PANEL

- 1. HOUR METER Activated when the engine is started, measures engine run time.
- 2. **REMOTE CONTROL SOCKET FOR TRAVEL FROM BASE (OPTION) -** This option is used to move the work platform from the ground position.
- 3. **BASE/PLATFORM CONTROL SELECTOR SWITCH** This switch is used to switch power from the base control to platform controls. When this switch is placed in the "on position", it shuts off platform controls and activates the base control panel.
- 4. **BOOM ELEVATION SWITCH** This switch controls the up down movement of the boom section. When this switch is placed in the "boom up position" the boom raises. When this switch is placed in the "boom down position" the boom lowers.

5. **EMERGENCY PUMP SWITCH** - This switch operates the emergency pump motor assembly. In the event of a pump or engine failure this control is used to bring the boom down. The emergency pump runs only when the switch is held in the "on" position. Select the desired function, and place the "emergency pump switch" in the "on" position. Hold the switch on for thirty seconds, then off for thirty seconds until the work platform is fully lowered.



## CONTINUOUS OPERATION OF THE EMERGENCY PUMP UNIT COULD CAUSE DAMAGE TO THE D.C. MOTOR.

- 6. **BOOM EXTENSION SWITCH** This switch is used to "extend" and "retract" the boom. To extend the boom, select and hold the boom "extend" switch in the "extend" position until the desired position is reached. Release the switch to stop. To retract the boom select and hold the boom "retract" switch in the "retract" position until the desired position is reached. Release the switch to stop.
- 7. **HIGH THROTTLE SWITCH** -Use the accelerator switch to increase engine R.P.M. by selecting "high". Select "low" to decrease engine R.P.M.
- 8. **BOOM ROTATION SWITCH** This switch is used to rotate the boom clockwise or counter clockwise. To "rotate" the boom select "left" or "right" with the "boom rotate switch" hold until the desired position is reached. To stop release switch.
- 9. EMERGENCY STOP BUTTON SWITCH This switch disconnects power when pushed. When pressed this push button switch disconnects power to the upper and lower controls and stops the engine. To restore power pull the "emergency stop button" out, step on the "foot switch, and the "power lamp" will glow.
- 10. CHARGE INDICATOR LAMP This lamp will shut off when the engine is running. If this lamp is glowing when the engine is running, shut the engine down and check for the problem.
- 11. WATER TEMPERATURE LAMP This lamp will shut off when the engine is running. If this lamp is glowing when the engine is running, shut the engine down and check for the problem.
- 12. **ENGINE OIL PRESSURE LAMP** This lamp will shut off when the engine is running. If this lamp is glowing when the engine is running, shut the engine down and check for the problem.

#### LOWER CONTROL PANEL (continued)

- 13. **GLOW PLUG LAMP** This lamp will tell the operator when it is safe to start the engine. Turn the "engine start/stop key switch" to the "H" position until the lamp glows, then start the engine.
- 14. ENGINE START/STOP KEY SWITCH This switch is used to turn power on for the work platform, and heat the "glow plug" for the engine. Turning this switch to the off position disconnects power to the control circuit. Turning this switch to the "start position" starts the engine. Turning this switch to the "H" position heats the "glow plugs" to start cold engines.
- 15. **POWER LAMP** This lamp will glow when the "key switch" is turned on and the "emergency stop switch" is in the operating position.



16. FUSE HOLDER - This holder houses fuses for the work platform

Figure 5. Platform Leveling Valves

#### 1. PLATFORM LEVELING SYSTEM (BASE CONTROL IF EQUIPPED)

This system keeps the platform level by using an upper and lower leveling cylinder, double pilot operated check valve and combination valve for adjustment.



## UPPER CONTROL BOX







#### PLATFORM CONTROLS





Foot Switch

- 1. FOOT SWITCH
- 2. HIGH THROTTLE SWITCH
- 3. FORWARD/REVERSE TRAVEL CONTROL LEVERS
- 4. LEFT TRACK CONTROL
- 5. ENGINE START SWITCH
- 6. POWER LAMP
- 7. RIGHT TRACK CONTROL
- 8. BOOM ELEVATION/LOWERING CONTROL LEVER
- 9. BOOM ROTATION CONTROL LEVER
- 10. BOOM EXTENSION/RETRACTION LEVER
- 11. PLATFORM ROTATION SWITCH
- 12. EMERGENCY STOP SWITCH
- 13. EMERGENCY PUMP SWITCH
- 14. HORN ALARM BUTTON
- 15. WORK LIGHT SWITCH
- 16. PLATFORM LEVEL SWITCH

#### PLATFORM OPERATING CONTROLS

- 1. FOOT SWITCH All controls except emergency stop, horn and the working lights are interrupted through this switch. During normal operation, when the foot switch is depressed, it provides power to the platform controls and locks out operation of the base controls until it is released.
- 2. HIGH THROTTLE SWITCH The accelerator switch is used to increase and lower engine R.P.M..
  - A. With the switch in the low position engine R.P.M. is 1200 R.P.M.
  - B. With the switch in the high position engine R.P.M. is 2300 R.P.M.

C. With the switch in the auto position engine R.P.M. is 1800 R.P.M. (if equipped)

3. FORWARD/REVERSE TRAVEL CONTROL LEVERS - These two levers are used to move the work platform in forward or reverse directions, and to steer the machine right and left.

- 4. LEFT TRACK CONTROL Pushing forward will cause the left track to go forward. Pulling it back will cause the left track to go in reverse.
- 5. ENGINE START SWITCH- When power lamp is on pushing the engine start switch will start the engine.
- 6. POWER LAMP- Indicates power is on to operate upper controls.



#### PLATFORM OPERATING CONTROLS (continued)

- 7. **RIGHT TRACK CONTROL** Pushing forward will cause the right track to go forward. Pulling it back will cause the right track to go in reverse.
- 8. **BOOM ELEVATION/LOWERING CONTROL LEVER SWITCH** This switch is used to raise and lower the boom.
- 9. BOOM ROTATION CONTROL LEVER This switch is used to rotate the boom left or right.
- 10. BOOM EXTENSION/RETRACTION LEVER This lever is used to extend or retract the boom.
- 11. PLATFORM ROTATION SWITCH This switch is used to rotate the platform left or right.
- 12. EMERGENCY STOP SWITCH This switch is used to cut power to all controls on the work platform.
- 13. **EMERGENCY PUMP SWITCH** This switch operates a DC power unit so the boom can be brought down if the engine or main pump fails.
- 14. HORN ALARM BUTTON This button sounds a horn on the work platform.
- 15. WORK LIGHT SWITCH This switch operates the work light located on the platform railing.
- 16. PLATFORM LEVEL SWITCH This switch enables the operator to level the platform if adjustment is necessary. SAFETY DEVICES

DECODIDION	
DESCRIPTION	FUNCTION OF VALVES AND SWITCHES
RELIEF VALVE	PROTECT HYDRAULIC EQUIPMENT IF WORK PLATFORM IS OVERLOADED.
BOOM	PREVENT BOOM DECENT IF HOSE IS BROKEN OR DAMAGED.
ELE VATION	· ·
HOLDING VALVE	
BOOM	PREVENT BOOM RETRACTION IF HOSE IS BROKEN OR DAMAGED.
EX ENSION	
DEVICE	
OPERATION	
WARNING	ALANIM SOONDS WHEN ANT FONCTION ON THE WORK FLATFORM IS BEING OPERATED.
DEVICE	
FOOT SWITCH	INTERBUPTS ALL FUNCTIONS OPERATED FROM THE PLATFORM CONTROLS. MUST BE
	DEPRESSED WITH FOOT BEFORE ANY PLATFORM CONTROL WILL WORK
STOP BUTTON	STOPS ALL OPERATING FUNCTIONS IN THE BASKET WHEN DEPRESSED.
SLOPE WARNING	WHEN THE WORK PLATFORM REACHES A 3° ANGLE, A WARNING ALARM SOUNDS WARN-
DEVICE	ING THE OPERATOR.
EMERGENCY	AUXILIARY D. C. PUMP/MOTOR ASSEMBLY CAN BE USED IN THE EVENT OF MAIN PUMP OR
PUMP	ENGINE FAILURE.
WARNING HORN	HORN USED TO WARN PEOPLE IN WORK AREA.
FOOT SWITCH	WHEN FOOT SWITCH IS DEPRESSED. PLATFORM CONTROLS CAN BE OPERATED AND BASE
INTERLOCK	CONTROLS CAN'T BE USED UNTIL FOOT IS REMOVED FROM FOOT SWITCH.
TRAVEL SPEED	BOOM MUST BE LOWERED BELOW HOBIZONTAL AND FULLY BETRACTED TO ACHIVE
CONTROL	HIGH SPEED.

#### Table 2. Safety Devices

#### **OPERATING PROCEDURES**



- 1. Only qualified operators who have read and understand this manual should operate this machine.
- 2. Protective clothing should be worn before using the work platform.
- 3. Only qualified operators can train operators in the operation of this work platform.
- 4. Operators must be familiar with employers work rules, and related government regulations.
- 5. Keep fuel, oil, and combustible materials away from fire.



6. Do not operate under the influence of alcohol or drugs.



- 7. Do not operate in bad weather.
  - A. Strong or gusting winds
  - B. Heavy rain
  - C. Thunder or lightening.
- 8. Any modification to the equipment, from its original design is strictly forbidden without written permission from the manufacturer.
- 9. Protect all electrical components when power washing the work platform.
- 10. Start engine, allow to warm up at low idle before use.



11. Do not operate on any public street, road, highway, or railroad right of way.



- 12. DANGER ELECTROCUTION HAZARD. FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY ! THIS MACHINE IS NOT INSULATED. MAINTAIN SAFE CLEARANCES FROM ELECTRICAL POWER LINES AND APPARATUS. YOU MUST ALLOW FOR PLATFORM SWAY, ROCK, OR SAG. THIS WORK PLATFORM DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.
- 13. Before driving work platform check arrow plate on base of work platform. Arrow indicates forward direction.

#### **OPERATING PROCEDURES (CONT.)**

### !\ DANGER

- 14. Danger tip over hazards
  - A. Do not elevate or drive elevated on soft or uneven surfaces. Note: Maximum contact
  - pressure is 9.4 PSI on ISR-403, 11 PSI on ISR-602, and 13 PSI on ISR-700.
  - B. Do not pull or push against any object
  - C. Do not lift or lower objects with rope, cable, or chain attached to basket.
  - D. Do not overload, check capacity before using.

## !\ DANGER

15. Do not elevate on more than a 5° slope. When work platform exceeds more than 3° an alarm sounds. If this alarm sounds immediately retract and lower the boom and drive it to a level position.



16. Always wear a safety harness thats fastened properly and secured with a lanyard that is attached to the platform.



- 17. Pay special attention when rotating boom. Do not place you hand between handrail of platform and any obstacle. When operating the work platform in any direction always return to the off position and stop before going into the opposite direction.
- 18. Do not operate work platform without both feet on the platform floor.



21. When arc welding or using acetylene make sure work platform is protected from hot sparks or hot material from falling on the battery, hydraulic hoses or electrical cables.



22. Avoid the following .

- A. Do not hit the work platform basket or boom while elevating, rotating, or extending.
- B. Do not hit the work platform basket while traveling forward or reverse.
- C. Do not use the crawler in water.



23. Inadvertent boom extension or retraction.

A. If the hydraulic oil temperature is high, and the boom is left extended, the boom may extend or retract inadvertently. This is caused by oil temperature change, and is normal.

Note: In order to prevent boom extension or retraction, do not operate at high oil temperatures. Operate extension and retraction at regular intervals.

#### START AND OPERATION

- 1. Pull the Emergency Stop Button out.
- 2. Select platform on the Base/Platform control selector switch.
- 3. Enter the platform by swinging the midrail entry bar in (if equipped), or raising the midrail entry bar.
- 4. Attach harness and lanyards of each occupant to the lanyard anchors.
- 5. Depress and hold the Footswitch.





Figure 7 Foot Switch

Figure 7A Foot Switch Label

- 6. **FOOT SWITCH** All controls except emergency stop, horn and the working lights are interrupted through this switch. During normal operation, when the foot switch is depressed, it provides power to the platform controls and locks out operation of the base controls until it is released.
- 7. HIGH THROTTLE SWITCH- The accelerator switch is used to increase and lower engine R.P.M..
  - A. With the switch in the low position engine R.P.M. is 1200 R.P.M.
  - B. With the switch in the high position engine R.P.M. is 2300 R.P.M.
  - C. With the switch in the auto position engine R.P.M. is 1800 R.P.M. (if equipped)

NOTE: When elevating, rotating or extending, speed automatically shifts to 1800 R.P.M. When driving forward/reverse control speed automatically shifts to 2300 R.P.M.

8. **FORWARD/REVERSE TRAVEL CONTROL LEVERS** - To travel forward use the two travel levers. The farther you push them forward the faster you travel. To travel in reverse pull the two levers in reverse. The farther you pull them in reverse the faster you travel.



When the turn table is rotated 180 degrees the control levers operate in the opposite direction of travel. Always check the arrow on the base, it indicates "FORWARD" direction. Avoid sudden direction changes.

9. LEFT TURN (Reverse stopped) - With the "right" lever in the stop position, pull the "left" lever into reverse.

10. LEFT TURN (Forward stopped) - With the "left" lever in the stop position, push the "right" lever forward.

11. RIGHT TURN (Reverse stopped) - With the "left" lever in the stop position, pull the "right" lever into reverse.

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#### START AND OPERATION (continued)

- 12. RIGHT TURN (Forward stopped) With the "right" lever in the stop position, push the "left" lever forward.
- 13. LEFT TURN (Spin stopped) Pull the "left" lever to reverse and push the "right" lever forward.
- 14. RIGHT TURN (Spin stopped) Pull the "right" lever to reverse and push the "left" lever forward.
- 15. BOOM ELEVATION/LOWERING CONTROL LEVER To raise the boom push the "Elevation Control Lever" to the "up" position. When the desired height is reached return the lever to the stop position. To lower the boom pull the "Elevation Control Lever" to the "down" position. When the desired position is reached return the lever to the stop position.
- 16. **BOOM ROTATION CONTROL LEVER** To rotate the boom select "right" or "left" direction. Return the lever to stop when the desired position is reached.



Before rotating the boom check for people and obstructions in the work area.

- BOOM EXTENSION/RETRACTION LEVER To extend the boom, move the lever to "out" position until the desired position is reached. Return the lever to the stop position.
  To retract the boom move the lever to the "in" position until the desired position is reached. Return the lever to the stop position.
- 18. PLATFORM ROTATION To rotate the platform select "left" or "right" with the rotation lever and hold until the desired position is reached. Return the lever to stop position.



When driving in forward or reverse always place the platform in the forward direction as designated by the direction arrow on the base of the work platform.

- 19. **EMERGENCY STOP** When pressed, this push-button switch disconnects power to the upper and lower controls and stops the engine. To restore power pull the emergency stop button out, so it is in the operating mode.
- 20. EMERGENCY PUMP OPERATION In the event of a main pump or engine failure this control is used to bring the boom down. The emergency pump runs only when the switch is held in the "on" position. Select the desired function and place the Emergency Pump Swich" in the on position. Hold the switch on for thirty (30) seconds, then off for thirty (30) seconds until the work platform is fully lowered.



Continuous operation of the "Emergency Pump Unit" could cause damage to the D.C. motor.

21. HORN ALARM OPTION - Press Horn Button to sound horn.



Sound horn before operation to warn personnel in the work area.

22. WORK LIGHT OPERATION - Moving this switch to the "on" postion turns on the work light.

Always turn off light after use.

#### WORK PLATFORM SHUT DOWN PROCEDURE

- 1. Completely retract the boom and lower the platform.
- 2. Push the Emergency Stop Button, turn the Key Switch to the off position and remove the key.
- 3. Remove all tools and materials from the work platform.

#### LOADING AND TIE DOWN PROCEDURE



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### SECTION 3 MAINTENANCE AND SERVICE

#### **OPERATORS RESPONSIBILITY FOR MAINTENANCE**

Death or serious injury can result if the work platform is not inspected or maintained. Inspection and maintenance should be performed by qualified people in conformance with the manufactures recommendations. The operator should always check to see that the work platform has been inspected and maintained before using it.

The operator should perform all the daily inspections found in Table 3, Maintenance and Inspection Schedule. Any damaged parts, missing parts, decals, labels, or equipment malfunctions discovered during this inspection must be replaced or repaired before using the work platform.

#### MAINTENANCE AND INSPECTION

The environment in which the work platform operates governs the use of the Maintenance and Inspection Schedule Table 3. This table indicates what areas are to be inspected, maintained, and at what intervals they are to be performed.

#### OWNERS ANNUAL INSPECTION

It is the responsibility of the owner of the aerial work platform to cause an annual inspection. This inspection must be performed no later than thirteen months from the date of the prior annual inspection. Daily, weekly, monthly, and annual inspections are found in Table 3. A Record of Annual Inspection Figure 8, is to be used for recording the owners name, person responsible for the inspection, and the date the inspection was performed.



When working under the platform or boom, use a safety support. The support must be strong enough to support the total weight of the platform and boom.

#### GENERAL MAINTENANCE

- \* Before attempting any repair work, disconnect the battery.
- \* Block and tie down the boom with a support strong enough to support it, if working under the platform.
- \* Always perform preventive maintenance.

#### WIRE ROPE INSPECTION AND MAINTENANCE

- \* Clean the wire rope with compressed air and a brush.
- \* Check the wire rope ends for damage or wear.
- \* Check all four wire ropes for reduction in diameter, worn abraided, broken or corroded wires. Also check for marks of mechanical abuse such as deterioration, striations, or crushing.
- \* Extend and retract booms fully and check for jerky movement caused by loose or stretched wire ropes. If wire ropes are loose adjust per instructions in the service manual.



- \* Wire ropes should be replaced on a regular basis. Internal damage or deterioration may not be detected with a visual inspection.
- \* To lubricate, clean the wire rope as listed above, and lubricate with a spray wire rope lubricant.

#### MAINTENANCE AND SERVICE (continued)

#### HYDRAULIC SYSTEM AND COMPONENT MAINTENANCE AND REPAIR

The points listed below should be kept in mind when working on the hydraulic system or any component.

- 1. To prevent failure of structual parts or hydraulic components, relief valves which limit pressure to safe operating values are included in the hydraulic circuits.
- 2. Small amounts of dirt or foreign materials in the system can cause wear or damage to the components, and affect operation of the hydraulic system. Care must be taken to keep hydraulic oil clean.
- 3. Two quarts of hydraulic oil should be drawn from the system every six months. The samples must be drawn from oil warmed through normal operation of the system. These samples should be sent out to be analyzed to see if they are suitable for further use. The enviornment in which the work platform operates governs when oil should be checked or changed. Every attempt should be made to keep oil clean.
- 4. If a hydraulic component fails, the system must be checked for metal particles or foreign materials. If contamination is found, drain and flush the entire system, replace the oil, and the oil filters.
- 5. Only use oil and lubricants that are listed in Table 4, in this manual.
- 6. All containers and utensils used in handling hydraulic oil must be clean when filling the reservoir. Never use a cloth to filter oil when filling a reservoir, it could introduce contamination into the system.
- 7. When any hydraulic component is removed all ports should be capped and all hoses marked.
- 8. All disassembled components must be worked on in a clean area. When disassembling make sure to keep track of how the component came apart. Clean all internal parts and passages with clean mineral oil solvent, and blow dry with compressed air. Be sure to completely inspect parts before reassembly.
- 9. After overhauling hydraulics, replace all o-rings and seals. All parts should be lubricated with hydraulic oil before reassembly.
- 10. Always check hydraulic oil levels when completing the repair or replacement of any component.
- 11. After repairs, insure all fittings are tight to prevent oil leaks and air to be drawn into the system.
- NOTE: Routine maintenance is the best way to prevent premature failures of hydraulic equipment. Be sure to follow these three steps:
  - 1. Keep oil levels in the reservior at correct levels, with clean proper oil.
  - 2. Replace filters at proper intervals.
  - 3. Insure all connections are tight.

WARNING								
DO NOT OPERATE OR USE THIS WORK PLATFORM IF A RECORDED INSPECTION HAS NOT BEEN								
	PERFC	DRMED WITH	IIN 13 MONT	HS OF THE	LAST INSPEC	CTION.		
MODEL NU	MODEL NUMBER SERIAL NUMBER							
RECORDING YEAR RECORDING DATE	1	2	3	4	5	6	7	8
OWNERS NAME								
ВУ								
USE OR OPERATION OF AN UNINSPECTED WORK PLATFORM COULD CAUSE DEATH OR SERIOUS INJURY! 491-0000166								

Figure 8. Record of Annual Inspection Label