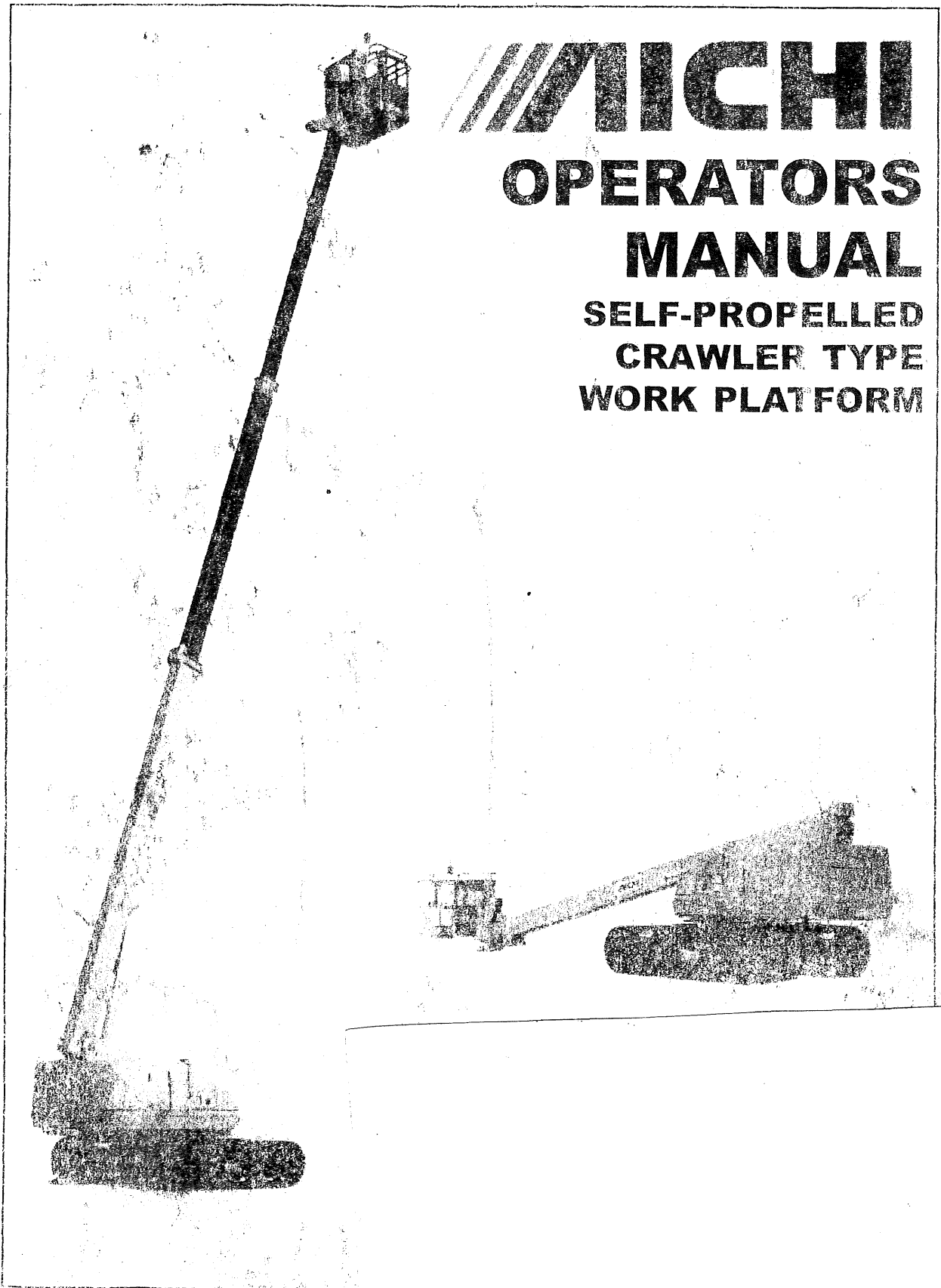
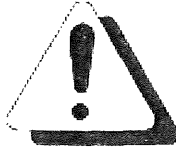




EFFECTIVE DATE 01/05/98



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

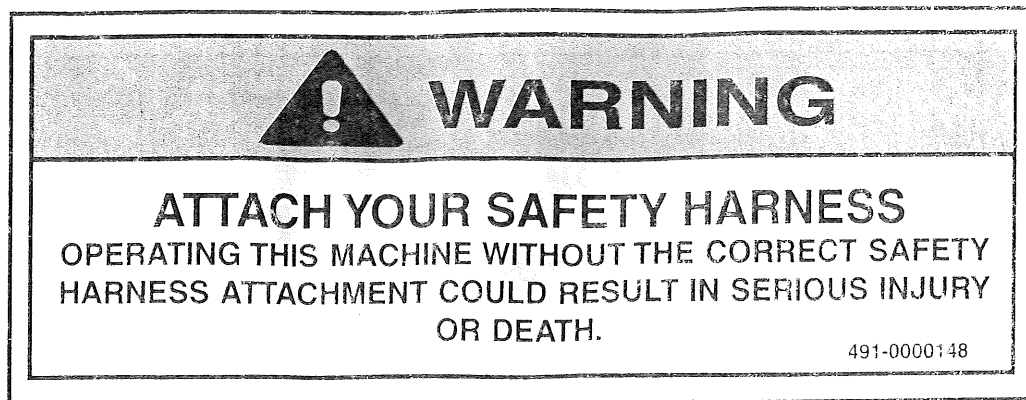
Only authorized people who have been trained should use this work platform. Safe use of this work platform requires the operator to understand operating procedures, operators responsibility for maintenance, and limitations and warnings. The operator must understand and be familiar with this manual, its 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



NOTE

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



Figure 1. Platform Labels



WARNING

OTHER HAZARDS

1. DO NOT EXCEED RATED LOAD.
2. DO NOT USE IF WORK PLATFORM IS NOT WORKING PROPERLY OR IF ANY PART IS DAMAGED, MISSING, OR WORN.
3. DO NOT USE NEAR MOVING VEHICLES OR CRANES.
4. DO NOT USE WITHOUT GUARDRAILS, MIDRAILS, ENTRY GATE, OR MIDRAIL BAR IN PLACE.
5. DO NOT USE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.
6. DO NOT SIT OR STAND ON THE GUARDRAILS.
7. DO NOT BYPASS OR OVERRIDE SAFETY DEVICES.
8. DO NOT RAISE THE PLATFORM WHILE THE WORK PLATFORM IS ON A TRUCK, FORKLIFT, OTHER DEVICE OR VEHICLE.
9. DO NOT USE A LADDER, SCAFFOLDING, OR OTHER DEVICES TO INCREASE THE SIZE OR WORKING HEIGHT OF THE WORK PLATFORM.
10. DO NOT ATTACH CHAINS, ROPES, OR CABLES TO THE PLATFORM OR RAILINGS OR USE AS A CRANE.
11. DO NOT LEAVE THE WORK PLATFORM UNATTENDED WITH THE KEY IN THE KEY SWITCH.

**FAILURE TO AVOID THESE HAZARDS MAY RESULT
IN DEATH OR SERIOUS INJURY!**

491-0000151

PLATFORM CAPACITY

(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

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.)

ISR 700

491-0000147

Figure 1-A Platform Labels

! 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.**

! 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.**

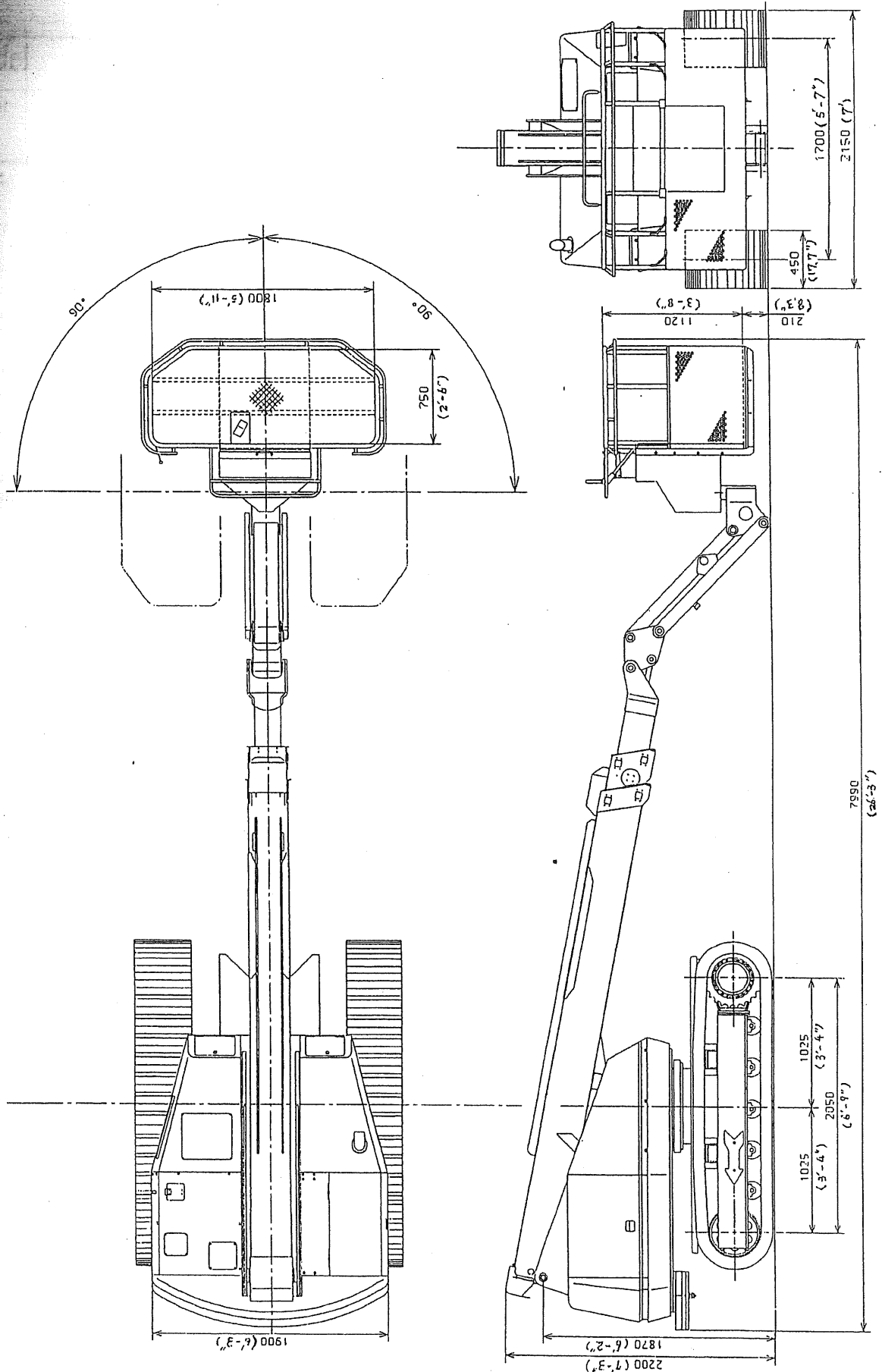
VOLTAGE RANGE (PHASE TO PHASE)	MINIMUM SAFE APPROACH DISTANCE	
	(FEET)	(METERS)
0 TO 300V	AVOID CONTACT	
OVER 300V TO 50KV	10	3.05
OVER 50KV TO 200KV	15	4.6
OVER 200KV TO 350KV	20	6.1
OVER 350KV TO 500KV	25	7.62
OVER 500KV TO 750KV	35	10.67
OVER 750KV TO 1000KV	45	13.72

SPECIFICATIONS

Model				SR-123J	ISR-403J
Weight	Overall weight			8,600 kgf	18,960 lbs
	Max. ground contact pressure			0.74 kgf / cm ²	11 PSI
Engine	Model			A-4JB1-PAA17	←
	Total displacement			2,771 cc	169 in ³
	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 capacity			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 radius			11.5 meters	37 ft 8 in
Boom	Boom length			5.0~9.96 meters	32 ft 8 in
	Boom angle			-20~70 degrees	←
	Fly jib angle			-44~70 degrees	←
	Rotation angle			360° continuously	←
Operational Speed	Elevation	UP		45±6 seconds / stroke	35±6 seconds /stroke
		DOWN		55±6 seconds / stroke	35±6 seconds /stroke
	Extension	OUT		22±4 seconds / stroke	←
		IN		22±4 seconds / stroke	←
	Rotation	C.W.		120±15 seconds / 1 turn	60±5 seconds / 1 turn
		C.C.W.		120±15 seconds / 1 turn	60±5 seconds / 1 turn
	Travelling	High speed	Forward	24±3 seconds / 10 m	22±3 seconds / 10 yards
			Reverse	24±3 seconds / 10 m	22±3 seconds / 10 yards
		Low speed	Forward	51±8 seconds / 10m	47±7 seconds / 10 yards
			Reverse	51±8 seconds / 10m	47±7 seconds / 10 yards
	Platform rotation	Right		20±4 seconds / stroke	←
		Left		20±4 seconds / stroke	←
	Fly jib	Up		20±4 seconds / stroke	←
		Down		15±3 seconds / stroke	←

OVERALL DIMENSION

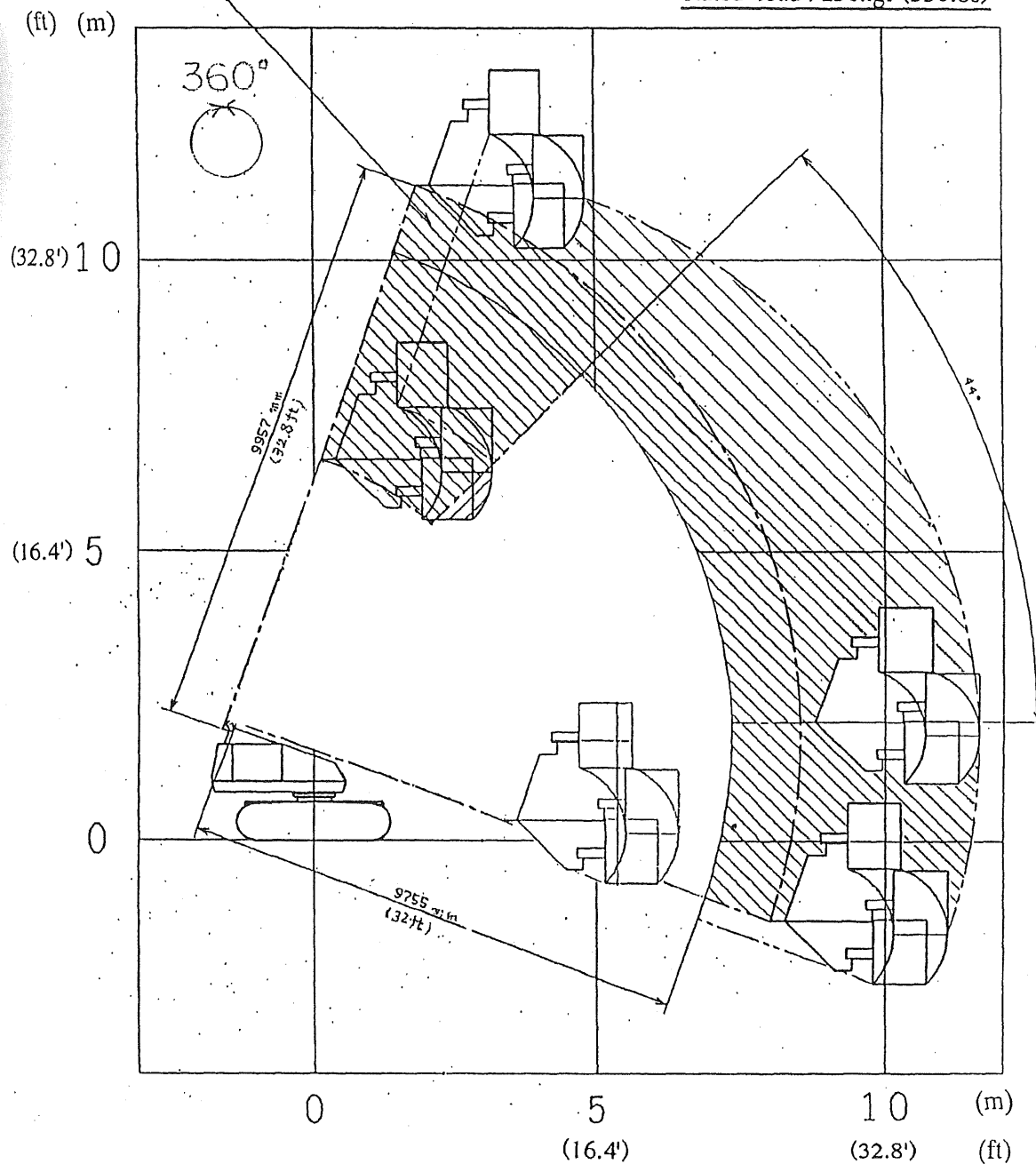
600-09655



WORKING RANGE CHART

Travelling restriction areas

Rated load : 250kgf (550lbs)



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 accessible 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.

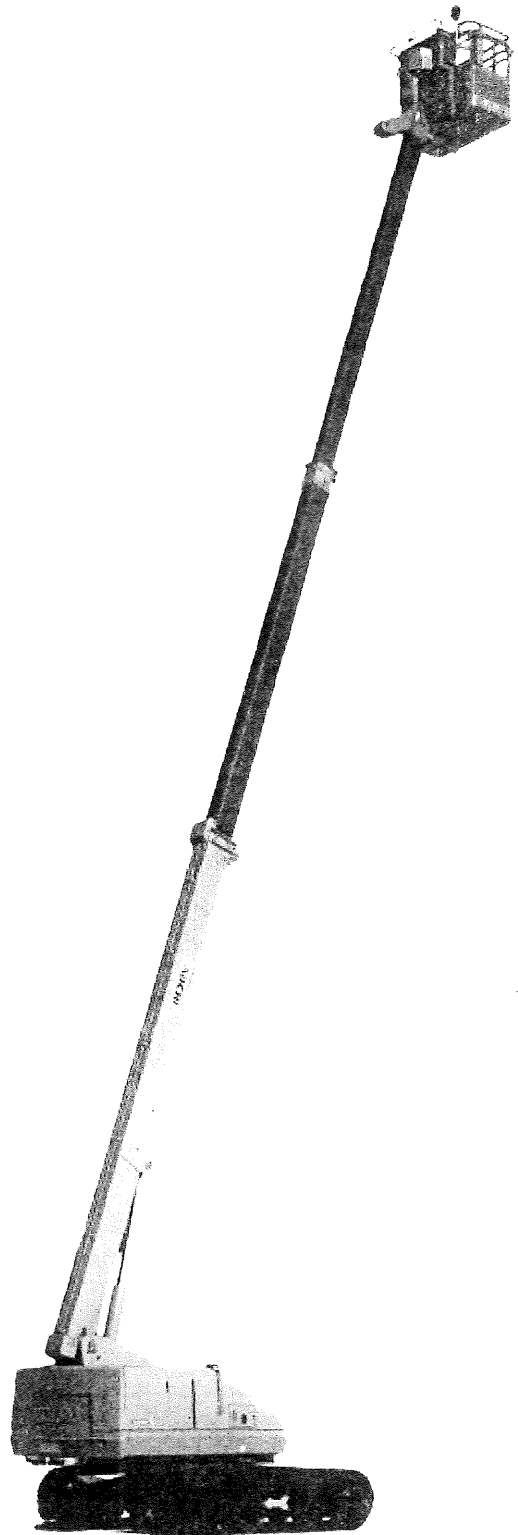


Figure 2. Crawler Work Platform

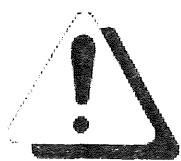
SECTION 2 OPERATION

OPERATOR QUALIFICATIONS

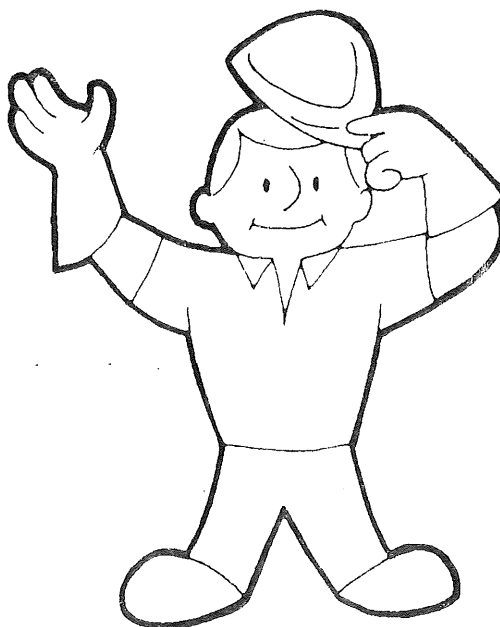
Only authorized people who have been trained should use this work platform. Safe use of this work platform requires the operator to understand operating procedures, operators responsibility for maintenance, limitations and warnings. The operator must understand and be familiar with this manual, its warnings, 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.



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



LOWER CONTROL PANEL

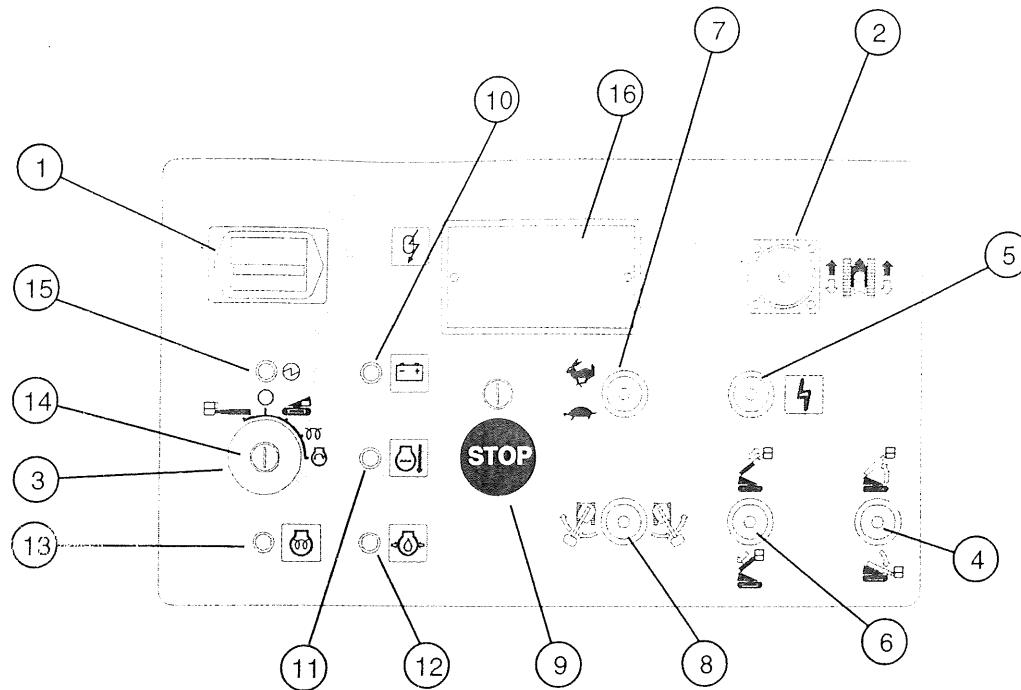


Figure 4. Lower Control Panel

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. **HOOR 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.

 **DANGER**

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

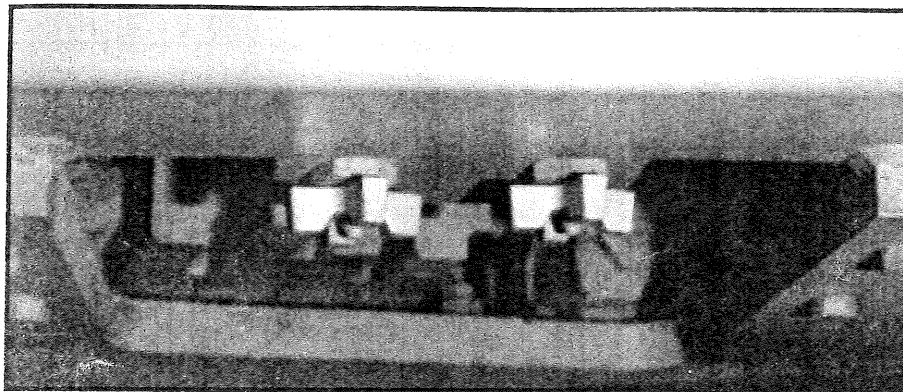


Figure 5. Platform Leveling Valves

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.



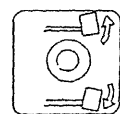
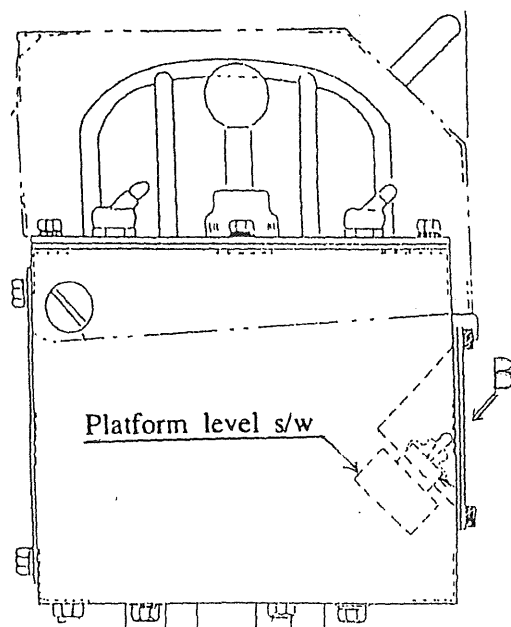
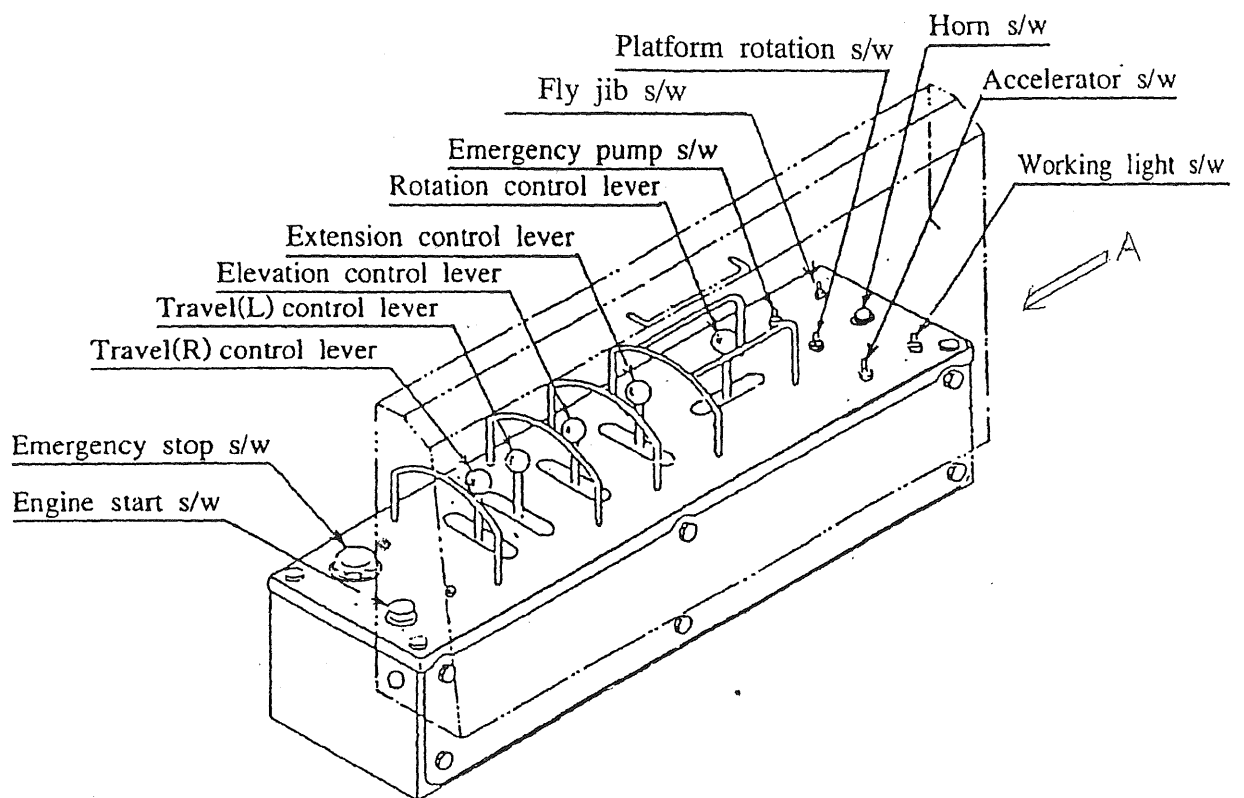
DANGER

Before using the work platform make sure the platform is level. If the platform is more than three (3°) degrees out of level, it must be adjusted. The work platform must be on firm level surface with nothing in the basket when this adjustment is made.

1. Adjustment is performed at the lower control box.
2. Turn the two (2) valves on the turntable counter clockwise and open fully.
3. If the platform is tilted forward, operate the "Boom Retraction Switch" until the platform is level, then fully close both valves by turning clockwise.
4. If the platform is tilted backwards, operate the "Boom Extension Switch" until the platform is level, then fully close both valves by turning clockwise.
5. Raise the platform from the base controls several times to make sure the platform remains level.
6. If the platform doesn't remain level after the adjustment is made there may be air in the system. To bleed the air, open the two (2) valves on the turntable by turning counter clockwise. Operate the "Boom Extension Switch" to fully extend and fully retract the boom three or four times. Again level the platform per instructions in step 1 thru 5. Raise the boom several times to make sure the platform remains level.

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UPPER CONTROL BOX



B view

PLATFORM CONTROLS

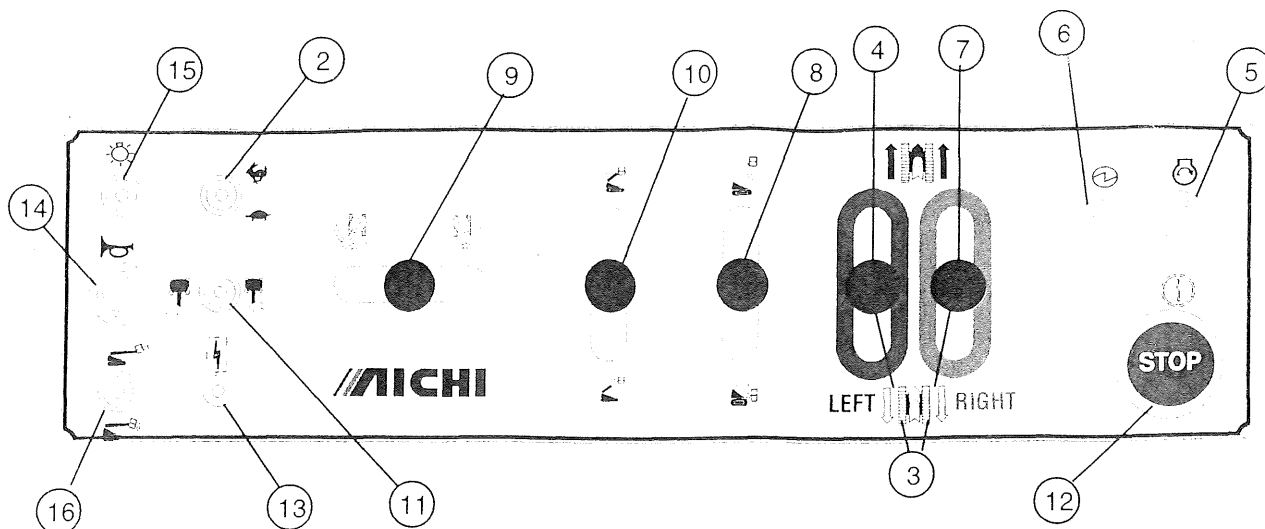
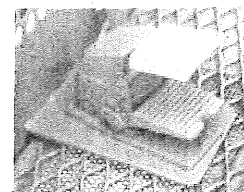


Figure 6. Platform Controls

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



Foot Switch

1

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)

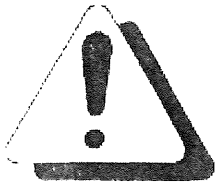
7. **RIGHT TRACK CONTROL** - Pushing forward will cause the right track to go forward. Pulling it back will cause the right track to go in reverse.
8. **BOOM ELEVATION/LOWERING CONTROL LEVER SWITCH** - This switch is used to raise and lower the boom.
9. **BOOM ROTATION CONTROL LEVER** - This switch is 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

DESCRIPTION	FUNCTION OF VALVES AND SWITCHES
RELIEF VALVE	PROTECT HYDRAULIC EQUIPMENT IF WORK PLATFORM IS OVERLOADED.
BOOM ELEVATION HOLDING VALVE	PREVENT BOOM DECENT IF HOSE IS BROKEN OR DAMAGED.
BOOM EXTENSION DOUBLE HOLDING VALVE	PREVENT BOOM RETRACTION IF HOSE IS BROKEN OR DAMAGED.
PLATFORM LEVELING DEVICE	KEEPS PLATFORM LEVELED
OPERATION WARNING DEVICE	ALARM SOUNDS WHEN ANY FUNCTION ON THE WORK PLATFORM IS BEING OPERATED.
FOOT SWITCH	INTERRUPTS 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 DEVICE	WHEN THE WORK PLATFORM REACHES A 3° ANGLE, A WARNING ALARM SOUNDS WARNING THE OPERATOR.
EMERGENCY PUMP	AUXILIARY D. C. PUMP/MOTOR ASSEMBLY CAN BE USED IN THE EVENT OF MAIN PUMP OR ENGINE FAILURE.
WARNING HORN	HORN USED TO WARN PEOPLE IN WORK AREA.
FOOT SWITCH INTERLOCK	WHEN FOOT SWITCH IS DEPRESSED, PLATFORM CONTROLS CAN BE OPERATED AND BASE CONTROLS CAN'T BE USED UNTIL FOOT IS REMOVED FROM FOOT SWITCH.
TRAVEL SPEED CONTROL	BOOM MUST BE LOWERED BELOW HORIZONTAL AND FULLY RETRACTED TO ACHIVE HIGH SPEED.

Table 2. Safety Devices

OPERATING PROCEDURES



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

READ AND UNDERSTAND OPERATOR
QUALIFICATIONS



WARNING

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.

DANGER

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

DANGER

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.

DANGER

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

DANGER

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.

 DANGER

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

 DANGER

17. Pay special attention when rotating boom. Do not place your 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.

 DANGER

19. Do not use a ladder in the work platform basket.

 DANGER

20. Do not use flammable material in the work platform basket.

 DANGER

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.

 WARNING

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.

 CAUTION

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.

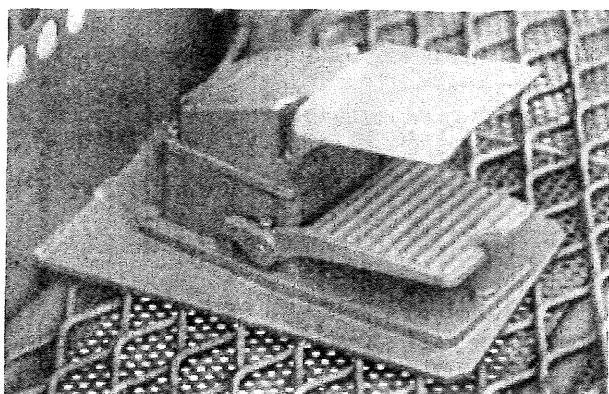


Figure 7 Foot Switch

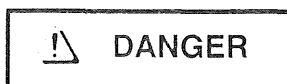


Figure 7A Foot Switch Label

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.

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.

 **DANGER**

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

17. **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.

 **DANGER**

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 Switch 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.

 **DANGER**

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.

 **CAUTION**

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

22. **WORK LIGHT OPERATION** - Moving this switch to the "on" position 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



DANGER

NOTE: THE FOLLOWING INSTRUCTIONS ARE INTENDED TO AID IN THE LOADING AND UNLOADING OF THE WORK PLATFORM FROM A TRUCK BED. SINCE CONDITIONS VARY, THE OPERATOR MUST DECIDE IN WHAT MANNER LOADING OR UNLOADING IS TO BE SAFELY HANDLED. USE OF A WINCH AND ANOTHER PERSON MAY BE NECESSARY.

LOADING AND TIE DOWN PROCEDURE

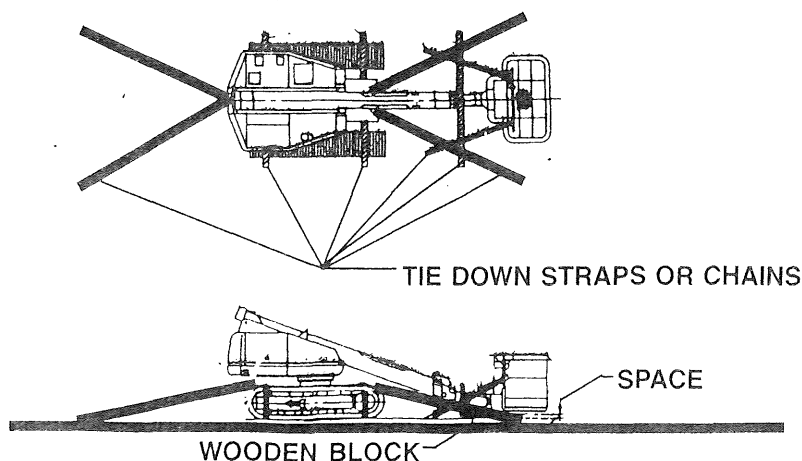
1. Fully retract the boom. The transport truck must be on firm level surface, blocked and secured to avoid rolling, and be free of ice and snow, on the truck bed.
2. Align the work platform tracks with the back of the transport carrier.
3. Drive the work platform onto the transport carrier in low speed in the forward position.

Have someone guide the work platform onto the transport carrier. Carefully watch the person guiding the work platform until it is in place on the transport carrier.

4. Place a block under the boom and tie the work platform down to the transport carrier.
5. Tie the platform down, not allowing it to turn right or left. Be sure the platform is not in contact with the transport carrier floor.

Do not over tighten tie down straps or chains on the platform, damage could occur.

6. Tie down crawler and boom securely.



491-0000162

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.

 **DANGER**
CRUSHING HAZARD

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 abraded, 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.

 **DANGER**

- * 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 structural 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 environment 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 reservoir 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 PERFORMED WITHIN 13 MONTHS OF THE LAST INSPECTION.								
MODEL NUMBER				SERIAL NUMBER				
RECORDING YEAR	1	2	3	4	5	6	7	8
RECORDING DATE								
OWNERS NAME								
INSPECTED BY								
USE OR OPERATION OF AN UNINSPECTED WORK PLATFORM COULD CAUSE DEATH OR SERIOUS INJURY!								
491-0000166								

Figure 8. Record of Annual Inspection Label