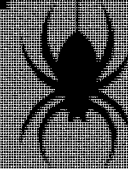

SPIDER CLIMBER TRACTION HOIST

Spider[®]



A Division of SafeWorks, LLC

OPERATING INSTRUCTION MANUAL
MODELS SC-30 AND SC-40

PATENTS PENDING

BSA APPROVED

CLASSIFIED BY UNDERWRITERS LABORATORIES

All persons operating this equipment must read and understand this manual. Any operation in violation of these instructions may result in bodily injury or death.

Spider, a division of SafeWorks, LLC, reserves the right to make changes/modifications to their hoists. Users of this equipment should request current operating information prior to using this equipment. Call your local branch at 1-877-774-3370.

Every year some workers on awing stages are injured, become disabled, or are killed as a result of carelessness or because they didn't understand how to properly operate this equipment. Don't become one of them. Know how to use the equipment and prevent accidents.

Keep this manual with the Hoist at all times.

Printed in U.S.A. 1100

TUKWILA OPERATIONS CENTER
365 UPLAND DR., TUKWILA, WA 98188 (206) 575-6445
SERVICE BRANCHES

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TABLE OF CONTENTS

	Page
1. Safety Summary	1
2. Rigging Essentials	4
3. Wire Rope	9
4. Hoist Instructions	
Specifications	11
Descriptions	11
Set-Up and Reeving	12
Operation	16
Dereeving	17
5. Daily Test Requirements	18
6. Daily Inspection and Maintenance	21
7. Troubleshooting At The Job Site	22
8. Model SC-30 Air Powered Hoist	24
9. Code of Safe Practices (SIA)	27
10. Inspection and Safety Checklist	Back Cover

The SC-30 and SC-40

Call Spider Toll Free **1-877-774-3370**
for information on maintenance contracts.

PREVENT ACCIDENTS

SAFETY SUMMARY

EVERY YEAR SOME WORKERS ON SWING STAGES ARE CARELESS AND TRY TO OPERATE EQUIPMENT THAT THEY DON'T UNDERSTAND. THIS MAY CAUSE ACCIDENTS RESULTING IN INJURY OR DEATH TO OCCUPANTS OR BYSTANDERS.

These instructions are not all inclusive. It is impossible to know, review, and instruct on every possible way this equipment may be used, and of all possible hazardous situations. Therefore, it is very important that anyone who uses this equipment in a way not covered by these instructions satisfy himself that it will not jeopardize the safety of himself or others, or cause damage to the surroundings or the equipment. Call your local Spider Staging Branch Office if in doubt.

1. **BEFORE** using this equipment, read and understand this manual.
2. **ALWAYS** use the troubleshooting guide in this manual to solve problems that may develop with the hoist. Understand the problem before attempting repairs. Repairs must **ONLY** be made by people trained and authorized to do so. **NEVER** do maintenance or make repairs while the unit is suspended.
3. **CARE** must be used when using the hoist in freezing temperatures where water or moisture can enter the hoist's overspeed brake or traction assembly. (See CAUTION on page 16.)
4. **DO NOT** change, remove, or substitute any hoist parts.
5. **USE ONLY** approved wire rope, Crosby fist grips of proper size to fit the wire rope, thimbles, and other hardware recommended for this equipment. **TIGHTEN AND RE-TIGHTEN WIRE ROPE FIST GRIPS AFTER INITIAL LOADING AND PRIOR TO SUSPENDING LIVE LOAD AT THE START OF EACH WORK SHIFT.** Manufacturer recommended torque: 30 ft.-lbs. for 5/16" and 45 ft.-lbs. for 3/8" grips.
6. **USE ONLY** solid counterweights designed for the beams being used. **NEVER** use sandbags, liquid filled containers, or any other kind of free flowing material as counterweight.
7. **MAKE CERTAIN** the roof, parapet, or cornice you plan to use will support the load of the rigging and suspended platform with a Safety Factor of at least 4:1 over the rated capacity of the hoist being used. Do not attach to a weak or questionable structure. If in any doubt at all, have a qualified engineer certify that the structure is capable of supporting the load.
8. **DO NOT** overload the hoists, platforms, or rigging. **DO NOT** exceed the rated capacity of any component.
9. **ALWAYS** use rigging tie backs. **BE SURE** that roof rigging tiebacks are as strong as the hoisting ropes, are installed without slack at right angles to the face of the building, and are secured to a structural member of the building.


PREVENT ACCIDENTS

10. **DO NOT** use visibly worn, kinked, bird caged, undersized, or damaged wire rope. **PROTECT** wire rope from sharp or abrasive edges of building. **DO NOT** use wire rope that has been exposed to fire, excessive wear, corrosive atmosphere, chemicals, passage of electric current, or temperatures above 200 degrees Fahrenheit.
11. **INSPECT** the wire rope before rigging. Handle, inspect, and maintain wire rope carefully during and after each job. Lubricate the wire rope according to the manufacturer's recommendations.
12. **PROVIDE** proper electrical grounding. Avoid arcing when using electrical equipment. Whenever welding, insulate wire rope with a split and taped rubber hose about five feet above and below the hoist. When arc welding, provide separate grounding wire capable of handling welding current and use an insulated rigging device for the wire rope.
13. **ALWAYS CHECK** the soundness of all rigging before using this equipment. Go UP and DOWN a few inches several times near ground level to check operation of the equipment.
14. **NEVER** operate an electric hoist in an explosive atmosphere such as around refineries, chemical plants, grain elevators, coal mines, coal handling equipment, or around organic vapors or dusts that are explosive.
15. **WORK** from the deck of the work cage or platform **ONLY**. **DO NOT** stand on stirrups, guardrails, toeboards, or other objects on the platform. **DO NOT** use ladders or boxes to get to higher elevations. **DO NOT** lean over the hoist or the railings, or stand outside of the hoist at the end of the platform unless end rails are in place.
16. **NEVER** operate a work cage or platform without guardrails, midrails, and toeboards in place, and using all personal safety equipment.
17. **NEVER USE** aluminum platforms around caustic materials, acids, or acid fumes. Use approved corrosion resistant platforms when corrosive materials are present.
18. **MAINTAIN CAUTION** while using hoist. Maintain clearances and make sure there are no obstructions that interfere with unobstructed vertical travel.
19. **AVOID POWER LINES.** Be certain that the platform or hand tools cannot swing or be blown within 10 ft. of a power line. **NEVER**, under any circumstances, rig a platform above electrical powerlines.
20. **MAKE CERTAIN** the electrical cord is long enough to permit full travel of the suspended equipment. Use electrical cable restraining devices (Kellum Grips) to protect connections from tension.
21. **ONLY** use the operating switch by hand. **DO NOT** block or lock the operating switch in a running position.


PREVENT ACCIDENTS

RIGGING ESSENTIALS

22. When not in use, store hoist and stage beyond reach. Protect from unauthorized use. Cover the hoist if possible. Always unplug power cord.
23. **KEEP** all people from under suspended equipment. If necessary, provide protection below the suspended equipment to prevent injury to people from falling objects. Use lanyards to secure tools and materials from falling on personnel below.
24. **APPROVED SAFETY** harnesses, lanyards, rope grabs, and independent lifelines must be used at all times. **ATTACH** the lifelines to a structural member of the building, **NEVER** to a part of the rigging.
25. **ALWAYS OPERATE** the platform in a **LEVEL** position.
26. **NEVER** work alone on a suspended platform.
27. **HARD HATS** must be worn at all times when servicing, erecting, disassembling, or using this equipment.
28. **COMPLY** with all Local, State, and Federal safety codes and regulations that pertain to suspended powered scaffold equipment.
29. **ONLY** authorized, properly trained, and physically fit personnel shall operate this hoist. Operator must not be subject to seizures or loss of control, and must not be under the influence of alcohol or drugs.
30. If you hear any strange noises such as "grinding" or if the hoist does not appear to work normally, **STOP** immediately. **DO NOT** continue to use the equipment until it is repaired.

 **WARNING:** If the hoist is suspended in the air and the motor runs but the wire rope does not move through the hoist, **STOP** the hoist immediately! Damaged wire rope may be jammed inside the hoist. Any attempt to move the hoist up or down could result in damage to the equipment and/or injury or death to yourself or others.

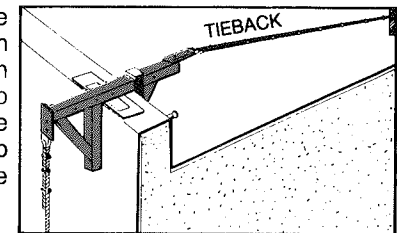
PREVENT ACCIDENTS

 **WARNING:** Rigging is the responsibility of the user. Do not attempt to rig a job unless you know how to do it properly. Contact your Spider Staging Branch Office, State Safety inspector or a professional rigger for rigging requirements and to answer any rigging questions you may have.

USE TIE BACKS AT ALL TIMES AND BE CERTAIN THAT THE CAPACITY OF THE RIGGING SYSTEM IS AT LEAST FOUR TIMES THE HOIST'S RATED CAPACITY. FAILURE TO RIG PROPERLY COULD RESULT IN SERIOUS INJURY OR DEATH.

1. **BEFORE** selecting and installing a rigging system make sure the cornice, parapet wall, or roof structure will support the weight of both the suspended load and rigging equipment, with a safety factor of at least 4:1. If in doubt, have a qualified rigging company install the system. Make sure the suspension wire rope remains vertical and that the suspension points are directly above the hoist entry guides or lead-in devices of the hoist at all times.
2. **SPIDER STAGING** recommends the use of two wire ropes with each hoist. The second wire rope must be attached to a structural member of the building and protected from sharp edges.
3. You must provide a separate lifeline for each man that will be on the platform. The lifeline and tie off point must hold 5400 lbs. **THE TIE OFF POINT MUST BE A STRUCTURAL MEMBER OF THE BUILDING, NOT ANY PART OF THE RIGGING.** The lifeline must not be in contact with rough or sharp edges.
4. Use only properly engineered parapet clamps and follow manufacturers instructions.

Never attach to a parapet or similar type structure without a complete inspection and investigation of its structural strength by a qualified professional engineer. Do not attach to a weak or questionable structure. Always tie the parapet clamp back to a structural member of the building.

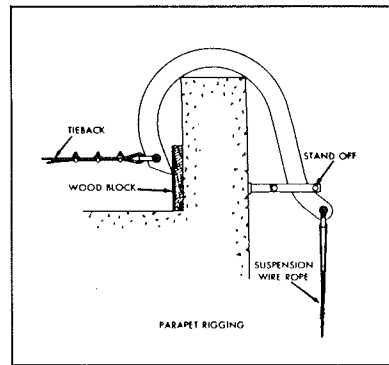
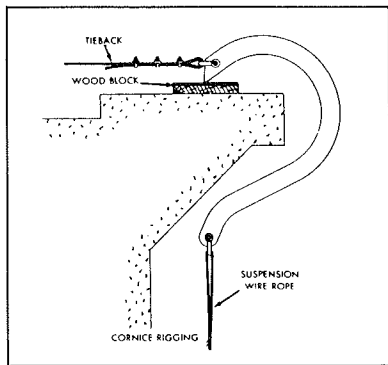


5. **CORNICE HOOK SA-1086 AND SA-1087**
These devices are intended support for the vertically hung suspension wire rope of a staging from a cornice or a parapet wall of a building. The model SA-1086 will fit over a parapet or cornice with a thickness of up to 12 inches. The model SA-1087 can be used on wall thicknesses of up to 20 inches. Both models have a maximum rated working load of 1,000 pounds, and it is important that the parapet or cornice be capable of sustaining the maximum rated load with a safety factor of at least 4:1.

CORNICE HOOK ASSEMBLY INSTRUCTIONS

1. The hook fits over the cornice or parapet wall with a block of wood planking between the point of the hook and the wall.
2. The suspension wire rope should be shackled to the hook and held out away from the wall far enough to allow it to pass straight through the wire rope guide of the staging. It might be necessary to use a stand-off attachment on the hook to do this. The stand-off bracket is supplied with your Spider Staging cornice hook and clamps to the cornice hook to hold the shackle away from the wall.
3. Tiebacks having strength equivalent to the hoisting ropes shall be installed without slack at right angles to the building and be firmly secured to a structurally sound portion of the structure. This structure shall have the capability of supporting the maximum suspended load with a safety factor of not less than 4:1 over the rated capacity of the hoist. In the event that the tieback cannot be installed at right angles to the structure face, two tiebacks shall be attached without slack to each rope supporting device to prevent movement in any direction.

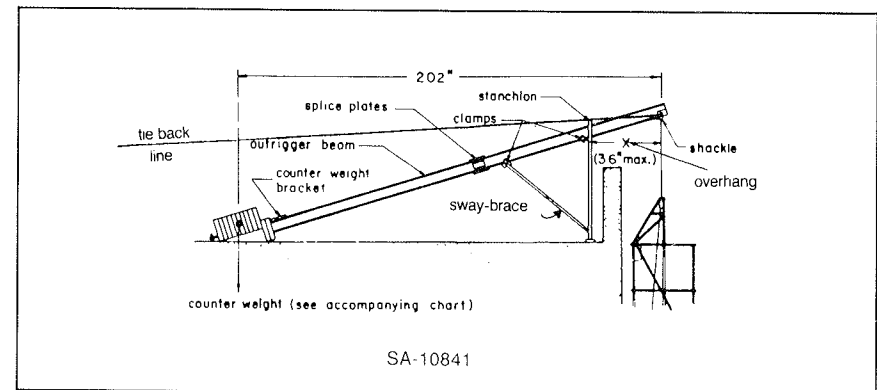
WARNING: Rated capacity of the parapet clamp or roof hook must be at least equal to the rated capacity of the hoist.



6. PORTABLE ROOF OUTRIGGER, SA-10841 AND SA-1088
This rigging device will support a vertically hung suspended wire rope of a staging from a flat roof of a building. When properly counterweighted this device has a rated capacity of 1,000 pounds. Care should be taken to ensure that the building structure is capable of supporting the rated load plus the weight of the outrigger and counterweights with a safety factor of at least 4:1.

ASSEMBLY INSTRUCTIONS FOR 16-FOOT SPLIT OUTRIGGER SA-10841

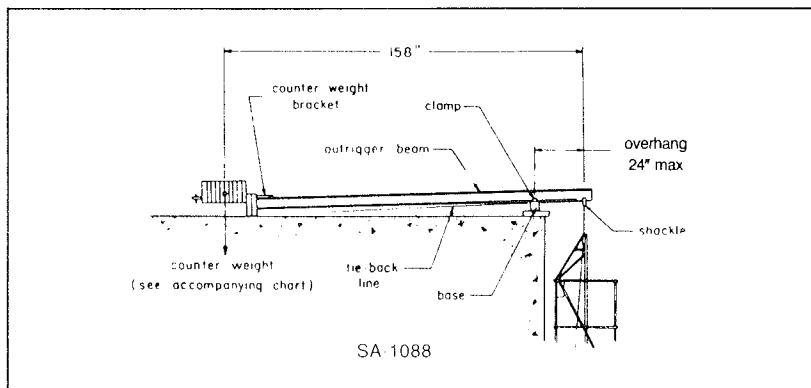
1. Connect the two sections of the outrigger beam with all the 1/2-16 X 1-1/2" bolts required by the splice plates. The counterweight bracket goes up on one end and the 5/8" safety shackle hangs down on the other end.
2. If a stanchion is used, place it as close to the parapet wall as possible. The beam goes through the lowest position possible. The outrigger distance from the shackle to the stanchion should be kept as short as possible. Avoid cable guide pull-in. DO NOT EXCEED 36 INCHES OF OVERHANG.
3. Tighten the clamps on the stanchion and the sway brace.
4. Determine the proper number of counterweights from counterweight chart decal. Place the first two counterweights down to support the end of the beam. The rest of the counterweights can be installed in the up position. Place the bolt and nut in the hole in the end of the bracket to ensure the counterweights do not accidentally slip off.
5. The suspension wire rope is installed on the safety shackle. Be sure the safety shackle is installed in the hole provided at the end of the beam, the pin is tightened, and the nut is secured with a cotter pin.
6. Tiebacks having strength equivalent to the hoisting ropes shall be installed without slack at right angles to the building and be firmly secured to a structurally sound portion of the structure. This structure shall have the capability of supporting the maximum suspended load with a safety factor of not less than 4:1. In the event that the tieback cannot be installed at right angles to the structure face, two tiebacks shall be attached without slack to each rope supporting device to prevent movement in any direction.



MANUFACTURED BY SPIDER STAGING CORPORATION, SEATTLE, WASHINGTON

ASSEMBLY INSTRUCTIONS FOR 12-FOOT OUTRIGGER SA-1088

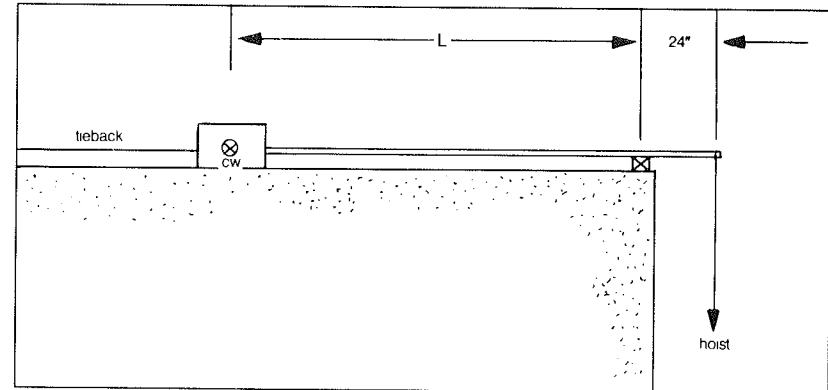
1. The wood block is clamped in place on the beam so there is enough overhang to allow the wire rope to pass straight through the hoist cable inlet guide. **DO NOT** exceed 24 inches of overhang. The block should be placed about 2 inches back from the edge of the structure being rigged. If used on a building parapet wall, be sure the beam is supported by the block and not by the inside edge of the wall.
2. With the beam in place, obtain the proper number of 50-pound counterweights from the counterweight chart. The first two counterweights should be threaded onto the bracket so they support the end of the beam. The rest of the weights can be threaded onto the bracket so they are up off the deck. When all the weights are installed, replace the nut and bolt on the end of the bracket so the weights cannot accidentally slip off.
3. The suspension wire rope is installed on the safety shackle. Be sure the safety shackle is installed in the hole provided at the end of the beam, and the nut is tightened and secured with a cotter pin.
4. Tiebacks having strength equivalent to the hoisting ropes shall be installed without slack at right angles to the building and be firmly secured to a structurally sound portion of the structure. This structure shall have the capability of supporting the maximum suspended load with a safety factor of not less than 4:1. In the event that the tieback cannot be installed at right angles to the structure face, two tiebacks shall be attached without slack to each rope supporting device to prevent movement in any direction.
7. **OUTRIGGERS** not specifically engineered and manufactured must be checked by a professional engineer to provide a safety factor of at least 4:1 over the rated capacity of the hoist.
8. Many other rigging devices are on the market, and most can be provided through Spider Staging. All such devices must be designed or checked by a professional engineer, and must be used in accordance with manufacturer's or engineer's instructions.



MANUFACTURED BY SPIDER STAGING CORPORATION SEATTLE WASHINGTON

A. Distance vs. Weight Chart:

- A. Measure overhang distance. **OVERHANG MUST NOT EXCEED TWO FEET!** Use chart below for correct counterweights.
- B. Counterweights must be attached to the outrigger beam. Removal should be prevented by a padlock or similar device.
- C. Never use sandbags, liquid-filled drums, or other flowable material as counterweights.
- D. Measure the length L of the beam from the pivot point (outer support) to the center of the counterweights. (See diagram.) For lengths of L between figures on the chart, use the next higher weight.
- E. If you are using a specially manufactured outrigger, you must follow the manufacturer's instructions.



WEIGHT CHART:

The chart below is based on a 1,000 LB. rated capacity hoist, a TWO-FOOT OVERHANG, a 4:1 safety factor, and shows the weights required for EACH beam. (See diagram.)

L(ft.)	4	5	6	7	8	9	10	11	12	13	14
COUNTERWEIGHTS (LB.)	2,000	1,600	1,350	1,150	1,000	900	800	750	700	650	600

NOTE: For smaller overhangs (measured in feet), or other capacity hoists, the pounds of counterweight may be calculated using the following:

$$\text{COUNTERWEIGHT} = \frac{4 \times \text{HOIST RATED CAPACITY} \times \text{OVERHANG}}{L}$$

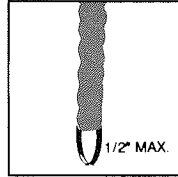
(Use hoist rated capacity in pounds, and overhang and L in feet.)

Always check the rigging before using the equipment. Be sure fist grips are properly tightened. Place a load equal to the weight of all men and equipment, that will be used on the stage, on one end of the platform and run the hoist up and down a few inches near ground level. Run the same test with the same load at the other end of the stage. Then retighten all fist grips while the wire ropes are under tension.

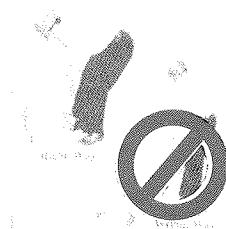
WIRE ROPE

1. Use only 5/16" through 3/8" 6X19 Seale, right regular lay, improved plow steel, preformed, IWRC, bright or galvanized finish. Wire rope requires lubrication. Under normal conditions, lightly lubricate the wire rope with a wire rope lubricant monthly or more often if necessary. Stainless steel wire rope may be used for corrosive environments.

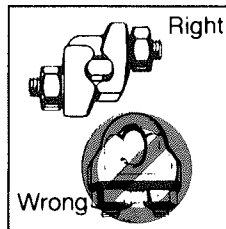
2. Prepare the end of the wire rope for insertion into the HOIST. If using IWRC wire rope, cut back the steel center at least 2" to allow for independent movement of the core. Braze and rough shape the end of the wire rope to form a smooth, tapered, bullet shape, 1/2" long. If the bullet is too long, the end will be stiff and reeving difficult. DO NOT cool the end of hot wire rope in water or oil. This makes the end brittle and may result in the bullet breaking off. Oil the bullet end after it is cool to prevent rusting.



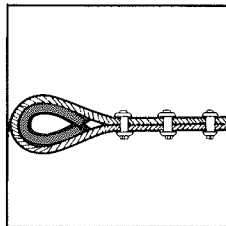
3. Always uncoil and carefully examine the wire rope before use. Kinked, bird caged, worn, or damaged wire rope cannot be repaired. It must be replaced. The proper method of uncoiling wire rope is shown.



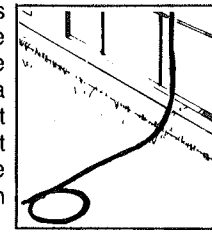
4. Use only proper diameter Crosby wire rope fist grips. Do not use "U" type wire rope clamps which crush the wires and damage the rope. Tighten 5/16" fist grips to 30 ft.-lbs. and 3/8" fist grips to 45 ft.-lbs.



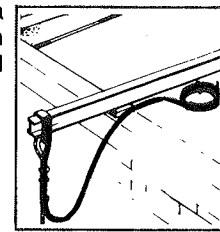
5. Use a heavy-duty thimble and three fist grip wire rope clamps on all attachments, including tie-backs. With the wire rope looped around the thimble, attach the first clamp as close as possible. Leave the nuts loose. Attach the second clamp approximately 7" from the thimble. Tighten moderately. Install a third clamp midway between the other two clamps. Slide the first clamp against the thimble and take up the slack in the rope. Tighten all nuts evenly to torque value recommended by clamp manufacturer. (See #4 above.) Spider Staging recommends use of a fixed swagged thimble eye splice rather than using fist grips on a suspension wire rope.



6. Be sure there is enough wire rope to have three feet extra on the lowest possible point to which the platform can travel.



7. Store extra wire rope on roof, coiled and tied.



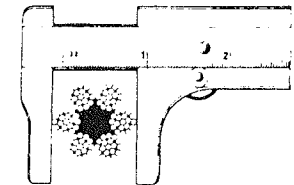
WARNING: Because wire rope stretches when a load is suspended from it, the diameter is reduced and the fist grips may loosen. Therefore, always retighten nuts on all clamps once a load has been applied and at the start of each work shift.

7. If hoist travel is originated from above (near the suspension points like from a bridge or over a manhole) and it is not possible to safely lower the platform to the lowest possible level, secure the tail line to prevent the platform from running off the suspension ropes. This is done by forming a thimble eye with Crosby clips and securing the tail end to the stirrup.

Before rigging in such an area, consult a safety professional. Additional safety equipment may be required.

8. Wire rope begins to wear the moment it is put into use. Wire rope which is left in use beyond its useful life endangers people and property. Therefore, wire rope must be regularly inspected to be sure it is in good condition. Wire rope MUST be taken out of service when ANY of the following occurs:

- A. Four (randomly distributed) broken wires in three lays, or two broken wires, in one strand in three lays.
- B. More than one valley break (broken wire). A wire break in the valleys between strands indicates an abnormal condition, possibly fatigue, and other broken wires may not be visible.
- C. Kinked, crushed, bird caged wire rope, or any other damage resulting in distortion of the rope structure.
- D. Evidence of exposure to temperatures above 200 degrees Fahrenheit.
- E. Noticeable rusting, corrosion, pitting, or more than two broken wires in the vicinity of end attachments.
- F. Evidence of core failure (lengthening of a rope lay and a reduction in rope diameter).
- G. Reduction of wire rope diameter to 0.290" for 5/16" diameter rope and 0.352 for 3/8" diameter rope. Measure the diameter across the outer limits of the strands, not the valleys, when the rope is under load.

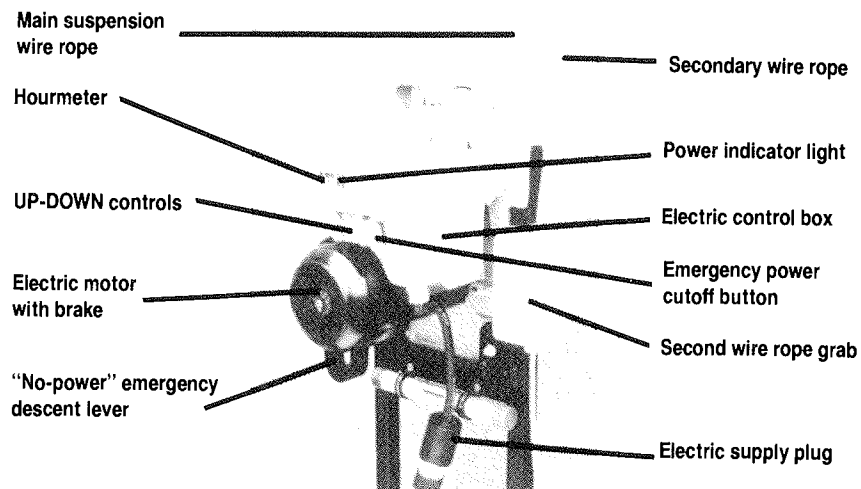


Correct Measuring Diameter

NOTE: Exposure of the wire rope to fire, temperatures above 200 degrees Fahrenheit, passage of electrical current, or to corrosive atmospheres or chemicals may render the rope unsafe for use. Acids will corrode and reduce the strength of both the inner and outer strands. When using corrosive chemicals, use stainless steel wire rope and discard after completing the project, or if any damage is evident. Do not save wire rope which has been in contact with corrosives. When in doubt, replace the wire rope.

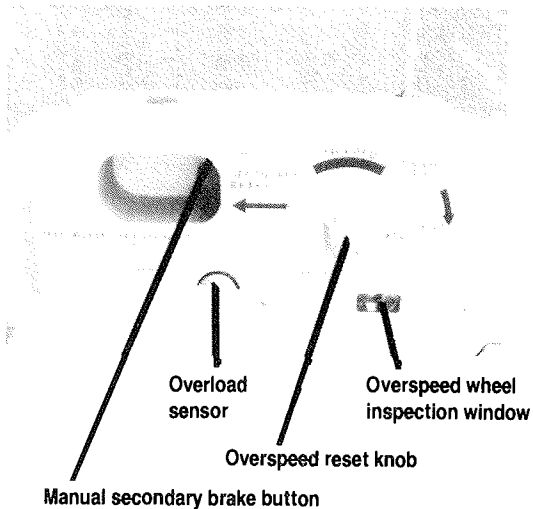
HOIST DESCRIPTION

The HOIST is a self reeving scaffold hoist. It uses a single wrap traction sheave and traction rollers to lift the load. The amount of traction is load dependent — the heavier the load, the more traction. Different sizes of steel wire rope can be used. Power is supplied by an electric motor through an efficient, double reduction, Quadrant gear drive. In the event of power loss, slow and controlled descent is provided by manually operating the "no power" Emergency Descent Lever.



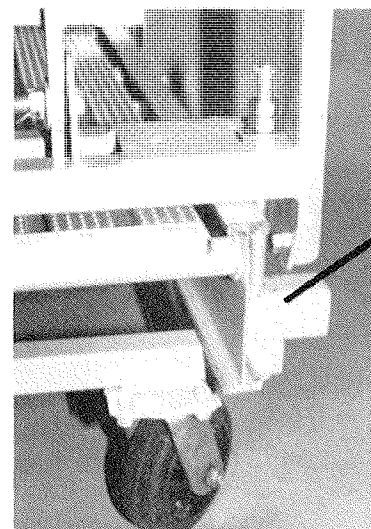
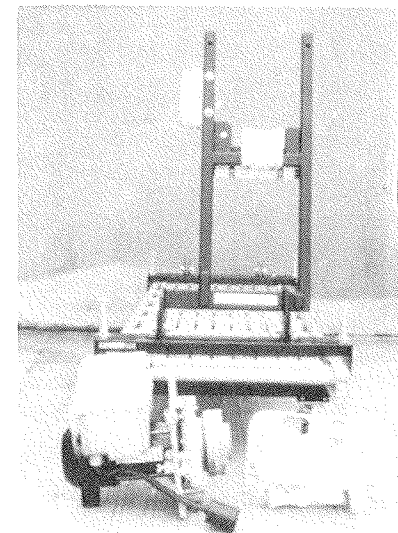
SPECIFICATIONS

Capacity: 1000 lbs.
 Speed: 35 FT/MIN
 Weight: 110 Lbs.*
 Voltage: 220 VAC**
 Current: 8 Amps
 Circuit 20 Amp
 breaker
 required
 (2 hoists)
 * Without Stirrup
 ** Must be within $\pm 10\%$
 of motor rating with
 motor(s) running UP



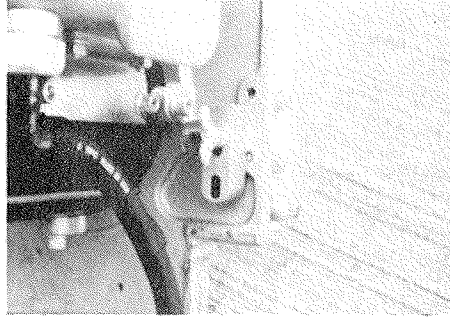
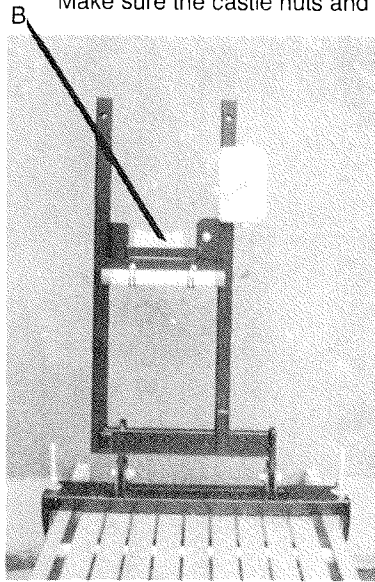
SET UP AND REEVING

1. Inspect the various parts of the hoist and make sure they are in proper working order and that all bolts are Grade 5 bolts.

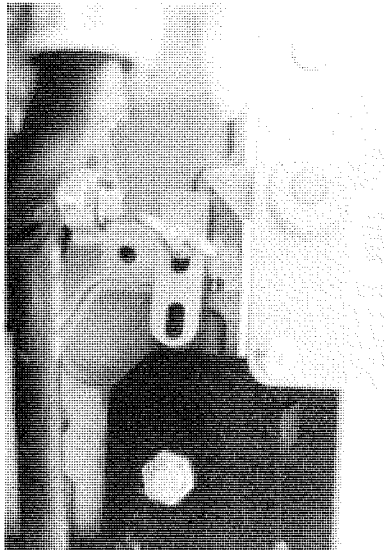


2. Attach the stirrup cross beam assembly to the platform. Place the spacers (A) between the upper and lower frame members when attaching to a Spider sectional platform. Rotate them inward for 24-inch ladder-type platforms. Rotate them outward for the 28-inch platform. Make sure jam nuts and cotter pins are properly installed.

3. Fasten the stirrup frame to the stirrup cross beam assembly using Grade 5 bolts. Note that the gearbox guard (B) is towards the outer end of the platform. Make sure the castle nuts and cotter pins are properly installed.

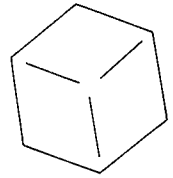
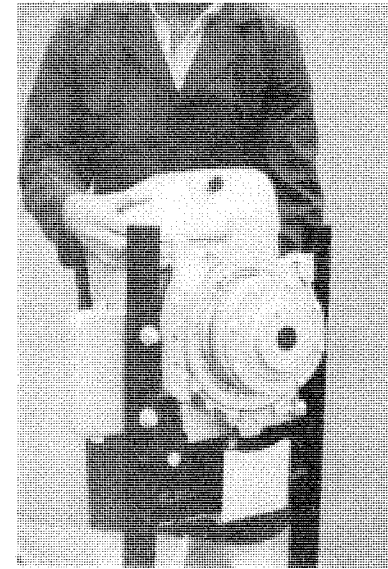


4. Before installing the motor/gearbox assembly, loosen the wingnut on the secondary brake trigger arm and let it hang straight down. After the motor assembly is in place, move the trigger arm over the rollpin and tighten the wingnut. Leave approximately 1/16" clearance from the second wire rope grab housing.



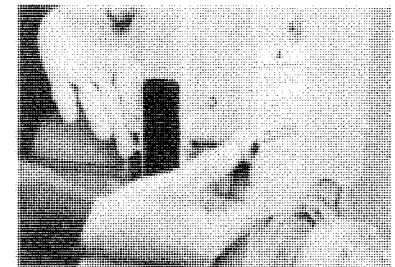
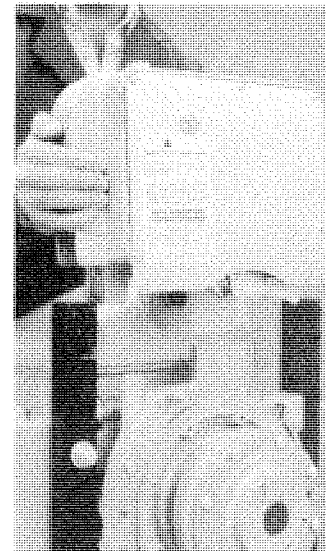
5. Install the motor/gearbox assembly into the stirrup frame.

CAUTION: Be careful to avoid any pinch points when you slide the gearbox into the stirrup frame.



Grade 5 bolt head

6. Install the traction housing assembly on top of the motor/gearbox assembly. Fasten in place with Grade 5 bolts and locknuts. (See diagram above). Tighten until nuts are approximately 1/32 inches from the casting. DO NOT tighten or the aluminum housing may crack. Replace worn locknuts.



7. Connect the hoist to the power supply. All electric hoists have a twist lock plug. The pilot light will indicate when the hoist is receiving power. The electrical supply must have sufficient capacity and the circuit breakers or fuse must be properly rated. The minimum circuit breaker ratings and electric motor voltage requirements at the hoist are listed in the specifications on page 11.

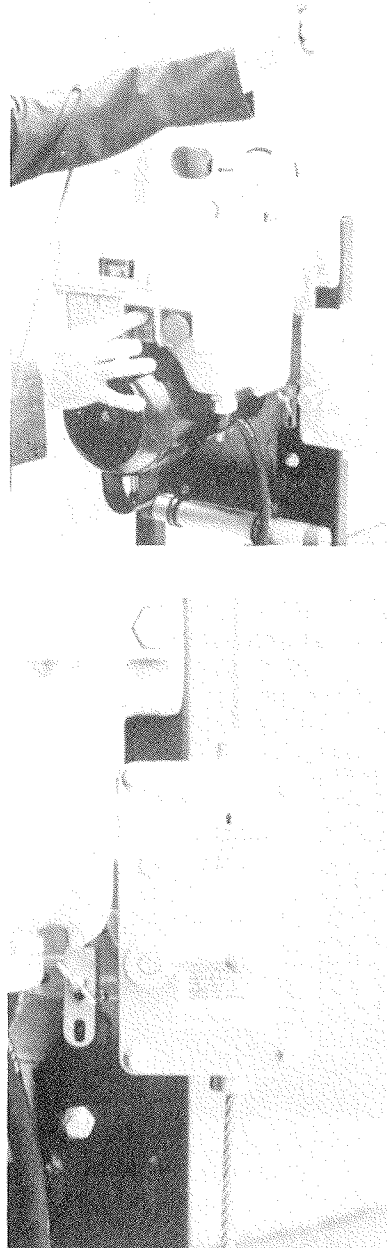
Compensate for voltage drop by using a booster transformer. Each 100 feet of cord will drop the voltage at the motor approximately 2 volts if used with one hoist and 4 volts if used with two hoists. If start-up is sluggish, check that the voltage at the motors while running UP is 210V to 230V. When running two motors on one cord, avoid starting both hoists at exactly the same time.

8. Check that the overspeed rope grab is reset by turning the reset knob clockwise and slowly releasing knob. Reeve the hoist main suspension wire rope "bullet" end into the hoist approximately 15 inches. Operate the hoist in the UP direction while pushing the rope into the hoist. The hoist will self-reeve the wire rope.

9. With a load on the primary rope, insert the secondary wire rope into the inlet guide of the slack wire rope housing. Pull the rope through and suspend a 25 lb. weight from the end to keep tension on the rope, or use a storage spool which provides approximately 25 pounds of wire rope tension.

The secondary wire rope housing has an arm that can be rotated clockwise to release the jaws in case you need to remove the wire rope while the primary wire rope is slack.

10. Carry out ALL daily tests as listed on page 18 to ensure correct operation.
11. Complete installation of midrails, handrails, toeboards, and end rails.



OPERATION

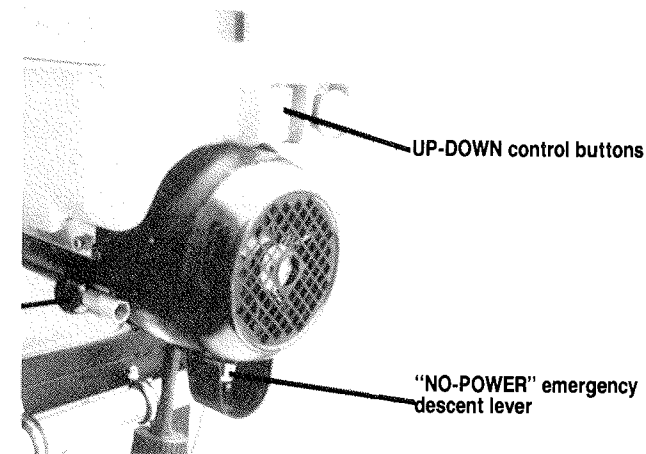
! WARNING: BEFORE you operate this hoist you must read and understand this manual and follow its instructions. Do not operate this hoist unless you are properly trained, are physically fit, and are authorized to do so. Failure to comply with these instructions could result in serious injury or death.

DO NOT operate hoist if you hear any unusual noise, if adjustments or repairs seem necessary, or if any warning, operating, or capacity instructions are unclear, or damaged. Report any problems to your supervisor and also notify the next operator when changing shifts.

NEVER operate an electric hoist or any other electrical equipment in an explosive atmosphere such as around refineries, chemical plants, grain elevators, or coal mines or coal handling equipment.

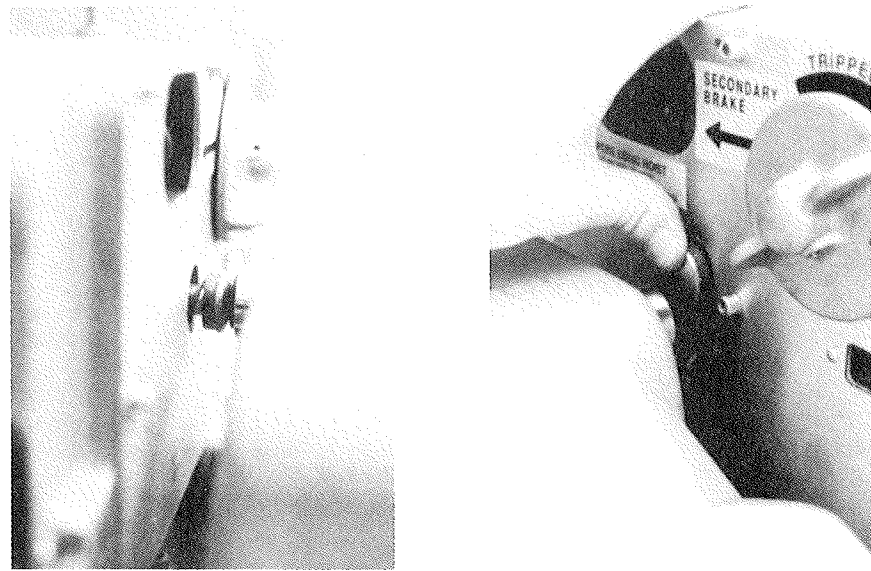
For normal UP or DOWN motion of the electric powered hoist, push the UP or DOWN control button. The buttons are spring loaded and return to the OFF position when pressure is released. This makes the brake go on. If the hoist does not stop right away, press the manual secondary brake button.

For "NO POWER" emergency descent, carefully release the primary brake by pulling the "no power" emergency descent lever slowly towards the end of the motor. The hoist should descend at a slow, controlled speed. TO STOP the hoist, LET GO of the "no power" emergency descent lever. Using the emergency descent for long drops causes wear on the brake. USE ONLY IN CASE OF EMERGENCY.



CAUTION: Extreme CARE must be used when the hoist is used in freezing temperatures where water or moisture can enter the hoist's overspeed brake or traction assembly. The emergency overspeed brake must be checked frequently when operating in these conditions. (See #2 on page 18).

! WARNING: Always allow the hoist to come to a complete stop before changing direction of travel. Failure to do so could result in serious injury or property damage.



In case the overload safety sensor trips, determine the cause, take corrective action, and reset the safety by depressing it with your thumb. The Hoist must be lowered to the ground to reset the overload safety.

DEREEVING

1. **SECOND WIRE ROPE:** To remove the second wire rope, the jaws in the slack rope brake must be held open. The easiest method is to remove the second rope while the HOIST is still suspended just above the ground (before the main suspension rope is dereeved).

The jaws can also be held open by turning the slack rope lever clockwise against the spring pressure.

2. **MAIN SUSPENSION WIRE ROPE:** When dereeving the HOIST, the wire rope will normally wind out of the HOIST when the machine is run in DOWN direction. The last 15 inches of rope must be helped out. Grab the wire above the entry guide, hold the overspeed reset knob in the reset position and slowly pull the suspension wire out.
3. Make sure the stage is properly supported on a stable surface before slackening the hoisting rope or it can tip over and cause injury.

DAILY TEST REQUIREMENTS

The following tests must be performed at the start of each work shift. If the hoist fails any of them, DO NOT USE until it is repaired.

1. OVERSPEED ROPE GRAB:

While powering the HOIST UP and DOWN approximately 3 feet, look through the window to see that the flywheel is moving freely. This flywheel rotation must be checked under load and must turn smoothly.

TEST THE OVERSPEED SAFETY BY:

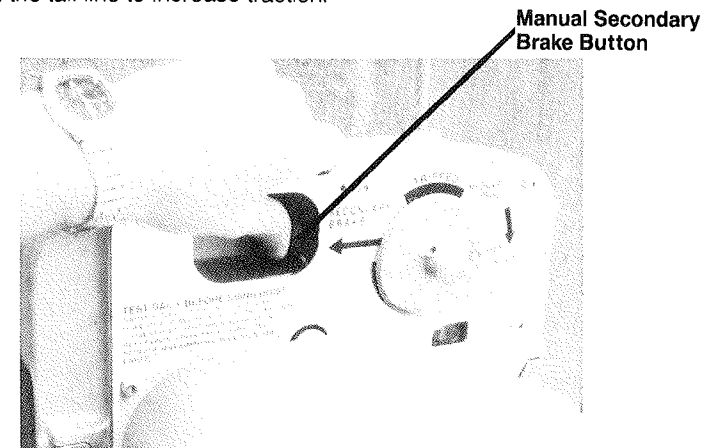
- A). Dereeving the wire rope.
- B). Reinserting the rope about 12 inches into the hoist.
- C). Pulling the wire rope out with a quick motion to trigger the activation of the overspeed.

If the overspeed fails to lock on the rope do not use the hoist until it is repaired and retested. To reset the overspeed safety, turn the reset knob clockwise.

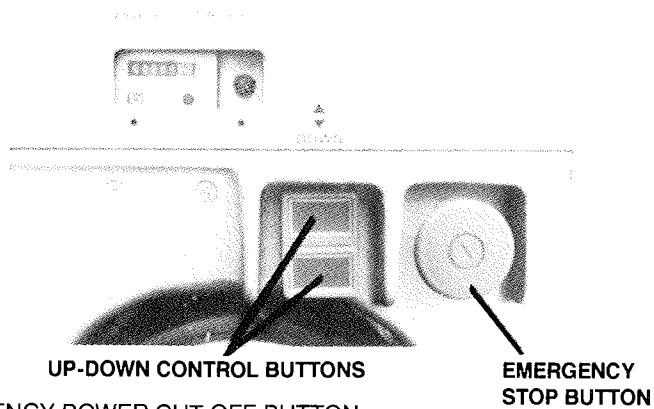
2. EMERGENCY OVERSPEED BRAKE:

Push the UP control button and raise the platform approximately three feet. While powering down, push the manual secondary brake button. The hoist should stop quickly. Now release the "no power" emergency descent lever to make sure that the overspeed safety has locked onto the suspension rope.

TO RESET the emergency overspeed brake, power UP a few inches and simultaneously turn the reset knob clockwise until the reset lever engages. If there is not enough traction to raise the motor/gearbox assembly, pull downward on the tail line to increase traction.



NOTE: Damage to reset knob can occur if you (the operator) force the knob past the end of travel. If knob does not reset, repeat instructions.



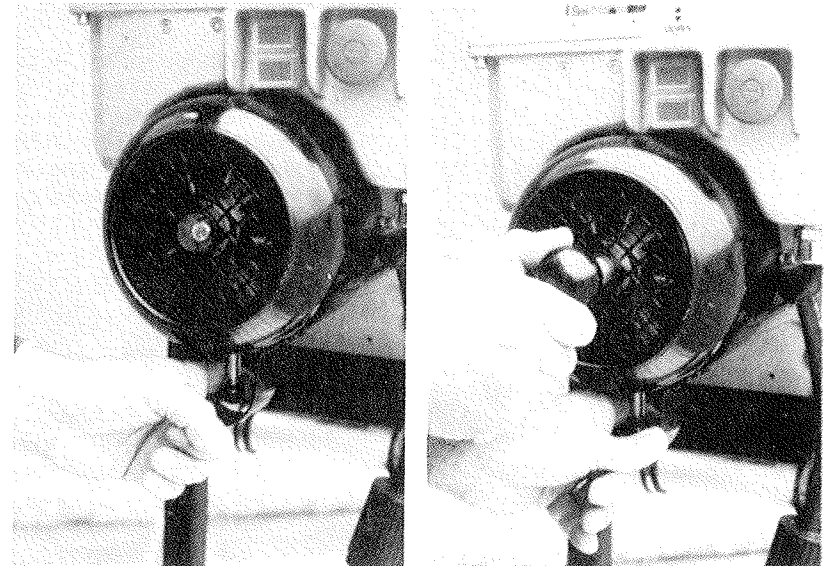
3. EMERGENCY POWER CUT-OFF BUTTON:

While running the hoist in either direction, press the red emergency power cut off button. The hoist should stop right away and should not run in either direction. To reset, pull the knob out.

4. "NO POWER" EMERGENCY DESCENT:

Raise hoist approximately 3 feet. Disconnect power supply. During this test or when actually using the emergency descent, CAREFULLY pull the "NO POWER" emergency descent lever. Hoist should descend at a slow, controlled speed.

Any overspeed indicates that the emergency descent system is not working properly and should not be used.



5. SECOND WIRE ROPE GRAB:

Lower platform to ground level to slacken the main suspension rope. Pull on second suspension rope to ensure that grab jaws are locked onto it. Jaws should release when main suspension rope becomes tight enough to raise the motor/gearbox assembly.

DAILY INSPECTION & MAINTENANCE REQUIREMENTS

CAUTION: Never attempt any maintenance or repair while unit is suspended in the air.

Inspect the wire rope, power supply, rigging, platform, and machine to assure they are not damaged, are in proper working order, and that bolts, nuts, and clamps are tight and well secured.

Check that the overspeed safety assembly and stirrup frame are secured with Grade 5 hardware and all nuts and cotter pins are properly installed.

Run the machine up and down about 3 feet several times near the ground. When wire rope is in the machine, it must be moving whenever the hoist is running. If rope doesn't move, STOP machine immediately. The rope may be blocked or jammed. The problem must be corrected or severe damage to the wire rope or hoist may result.

Push black emergency stop button to ensure that it grabs the wire rope when activated and stops downward travel.

NOTE: When using hoist in dirty environments such as epoxy, paint, cement, sand blasting, or in a corrosive environment, inspect the operation of the overspeed device frequently during each day. Protective covers are recommended for use in such environments. Contact your local Spider Staging Branch Office.

TROUBLESHOOTING AT THE JOB SITE

1. NO POWER TO THE PLATFORM (HOIST POWER INDICATOR LIGHT NOT ON) COULD MEAN:
 - A. Power at junction box is off.
 - B. Circuit breakers in the building tripped or fuses blown.
 - C. Plug and receptacle connectors unplugged (on hoist, yoke, or extension cord).
 - D. Electrical cord is damaged.
 - E. Emergency power cut-off button is not reset.
 - F. Power indicator light bulb burned out.
2. HOIST DOES NOT RUN (HOIST POWER INDICATOR LIGHT ON):
 - A. Check that the red emergency stop switch is reset by pulling the knob upward.
 - B. If electric motor is hot, it is likely that the thermal overload switch has tripped. This may be caused by too high or too low voltage (see Specifications on Page 11). Overheating may also be caused by long, continuous running periods with frequent stops/starts, high outside temperature, or the primary brake dragging. The electric motor must be allowed to cool down before the thermal overload device resets automatically. Depending upon the conditions, this may take thirty minutes or more.
3. WIRE ROPE WILL NOT REEVE THROUGH MACHINE: CONSIDER:
 - A. Increased hand pressure while powering up.
 - B. Take the wire rope out, turn it and put it back into the machine, power up.
 - C. Poor bullet on end of wire rope. Prepare a new end on the rope.
 - D. End of wire rope is bent or kinked. Straighten or replace.
 - E. Dirt or other material in the hoist. Clean drive mechanism by blowing out with air or flushing with water. Be sure to wear proper personal protective equipment.
4. HOIST MOTOR RUNS FREELY BUT HOIST WILL NOT LIFT, THEN:
 - A. Check to see that the tail line is free to move out of the hoist.
 - B. Check the wire rope for damage or wear. Replace if necessary. (See #8 on page 10.)
 - C. Wire rope may be jammed within the drive mechanism. This can be caused by kinks or damaged wire rope. If a rope jam has occurred, DO NOT OPERATE HOIST. Call the supplier service department for assistance.
 - D. Check for any blockage of free up-down movement of the motor gearbox in the stirrup frame.
 - E. If the motor/gearbox fails to raise, pull downward on the tail line to increase traction.
 - F. Check to see if the emergency overspeed brake is tripped. If it is, then turn the reset knob clockwise while simultaneously pressing the up switch.
 - G. Drive mechanism may be worn out. Contact Spider Staging Service Department.

SC-30 AIR POWERED HOIST

SPECIFICATIONS:

Wire Rope Size:	5/16" or 8 mm	3/8" or 10 mm
Air Pressure:	100 PSIG	120 PSIG
Capacity:	1000 Lbs.	1250 Lbs.
Speed:	UP TO 35 FT/MIN	UP TO 35 FT/MIN
Weight:	105 Lbs.*	105 Lbs.*
Air Consumption:	75 SCFM	75 SCFM

*Without Stirrup.

Recommended Air Line Filter and Lubricator for Single Hoist Operation: Norgren M4D-460-M3DA with Bracket 18-001-987

For Unregulated Air Supply: Norgren M4J-460-M3DA (Includes Regulator)

For Two Hoist Operation From a Single Incoming Air Line: Norgren M8D-660-M3DA with Bracket 18-001-978

Maximum Rated Operating Conditions:

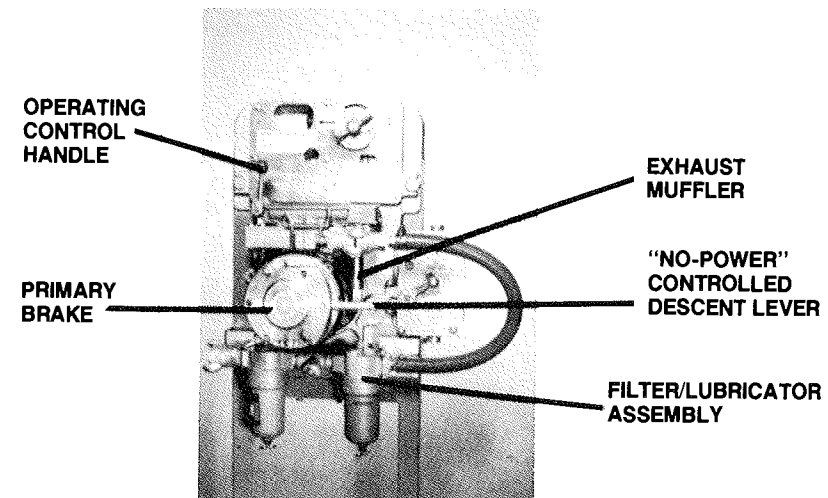
Pressure: 120 PSIG

Temperature: 175°F (79°C)

! WARNING: These units are intended for use with industrial compressed air systems only. They must not be used where pressure or temperature may exceed maximum operating conditions. Serious injury may result from doing so.

BE SURE TO READ THE COMPLETE OPERATING INSTRUCTION MANUAL AS WELL AS THIS SECTION BEFORE USING YOUR SC-30 HOIST.

Keep the manual with the hoist at all times.



5. **HOIST HUMS, STARTS SLOWLY, STALLS, OR IS SLUGGISH, THEN:**
Check for proper voltage at hoist when running (See Specifications on Page 11). If voltage is too low:
- Run independent electrical cords to each hoist.
 - Use a shorter electric power cord if possible.
 - Use an electrical cable with larger conductors.
 - Add a booster transformer at the building electric plug to increase supply voltage.
 - Wire rope may be jammed inside the drive mechanism. This condition can be caused by damaged or kinked wire rope. If a rope jam has occurred, **DO NOT OPERATE HOIST** under any circumstances.

6. **OVERSPEED GRAB FLYWHEEL IS NOT TURNING WHEN HOIST IS OPERATED:**

IF THE HOIST IS SUSPENDED IN THE AIR, PUSH THE EMERGENCY OVERSPEED STOP BUTTON AND WAIT TO BE RESCUED.

If hoist is on the ground:

- Main suspension wire rope may be worn smooth. If so, replace wire rope as soon as possible.
- Parts in the hoist may be worn. Contact the Spider Staging Service Department.

7. **OVERSPEED SAFETY KNOB CANNOT BE RESET:**

If wire rope is reeved through the hoist, you must move the hoist upward first to take the load off the cam lock. Then reset by turning the reset knob clockwise.

8. **SECOND WIRE ROPE GRAB NOT OPERATING PROPERLY (ON SECOND WIRE):**

Contact Spider Staging Service Department.

9. **HOIST DOES NOT STOP IMMEDIATELY WHEN "DOWN" KNOB IS RELEASED:**

Brake needs repair. If the hoist is suspended in the air, travel downward to a safe level and have brake repaired by supplier service department.

10. **GRINDING NOISE, SQUEALING, OR OTHER UNUSUAL SOUNDS.**

IF THE HOIST IS SUSPENDED IN THE AIR, PUSH THE EMERGENCY OVERSPEED STOP BUTTON AND WAIT TO BE RESCUED.

If hoist is on the ground:

- Check for damaged wire rope inside hoist. Replace wire rope.
- Check for dirt on the wire rope. Clean and lubricate wire rope.
- Check the motor fan for cracks or broken blades.
- Gearbox may be inadequately lubricated or have internal damage. Call Spider Staging Service Department.
- Check pressure and rim rollers for damaged or worn bearings.

SC-30 AIR POWERED HOIST

MECHANICAL OPERATION


The mechanical operation of the air hoist is the same as the electric hoist. The transmission, traction sheave, safety devices and secondary brakes work exactly the same.

The differences between the air and electric hoist include the motor, control system and primary brake operation.

AIR LINE CONNECTION: The air line from the compressor is connected to the hoist at the Filter side of the Filter/Lubricator assembly. An air line connects the lubricator to the air inlet on the hoist. Secure the air line to stage or work cage so that it cannot fall away or put a strain on the connecting fittings if it should become accidentally disconnected.

FILTER/LUBRICATOR: The air is passed through the filter to remove liquid and solid particles from the compressed air. At the bottom of the filter bowl is a bleeder valve to allow collected liquids to be bled off. This should be done on a daily basis or more frequently if necessary to maintain a dry air supply. The filter bowl should be removed and the filter screen examined for dirt. Clean the screen in a cleaning solution with a brush when necessary.

The lubricator deposits a small amount of clean oil into the compressed air supply in order to lubricate the motor. Too much or too little oil could adversely affect the operation of the hoist. The oil level should be inspected frequently and the bowl filled with any 5 or 10 weight SAE, or Almo #525 motor oil when needed. The oil flow rate should be inspected whenever the bowl is filled. The recommended drip rate in the sight tube is 6 drops per minute with the hoist running. Turn the adjustment knob clockwise to decrease rate and counterclockwise to increase.

 **WARNING:** Maximum inlet air pressure using a metal bowl is 120 PSIG. Maximum temperature is 175 degrees F.

CONTROL VALVE: The air from the lubricator is fed into the control valve. Moving the handle in the up or down direction according to the instruction label will correspondingly operate the hoist. The handle is spring loaded so that it will automatically return to the off position when released.

AIR MOTOR: The air motor is a 4 hp vane type motor equipped with a muffler on the exhaust.

PRIMARY BRAKE/CONTROLLED DESCENT: The primary brake is a disc type brake that is automatically released by air pressure for normal up and down hoist operation. The brake is spring applied when the control valve is in the off position. For controlled descent operation of the hoist, the primary brake is manually held open.

SC-30 AIR POWERED HOIST

ADDITIONAL DAILY INSPECTION & MAINTENANCE REQUIREMENTS

Inspect the air compressor and hose line for leaks, kinks, blockages or other damage.

Inspect the hoses, fittings and valves on the hoist for leaks or damage.

Inspect the lubricator for oil.

Inspect the filter bleeder valve to drain water.

ADDITIONAL TROUBLE SHOOTING

If the hoist will not operate, check the following:

1. Compressor is providing adequate supply of air at the proper pressure.
2. Blocked, leaking, or damaged air lines, hoses or fittings.
3. Clogged muffler. The muffler can become clogged with dirt, or ice created by water in the air supply that freezes when exhausted from the motor. Remove the muffler and clean.
4. Sluggish air motor. Flush the air motor with a non-flammable, non-toxic industrial cleaning solvent in a well ventilated area. (Recommended solvents are Loctite Safety Solvent, Inhibisol Safety Solvent, and Dow Chemical Chlorothane.) Disconnect the air line and add several teaspoons of solvent to the motor. Rotate the shaft by hand in both directions. Connect the air line and apply pressure slowly until all solvents are exhausted from the motor.

If the vanes of the motor need to be replaced or the motor disassembled, only an experienced air motor mechanic should do the work. Contact your nearest Spider Staging Service Department.

LONG TERM STORAGE:

If the hoist is not going to be used for several weeks, it is recommended that the inlet and outlet hoses be removed from the air motor. Seal both the motor ports and air lines so no air or water can get in. Put the entire hoist into a large plastic bag and seal tightly.

After long term storage run some solvent through the motor as described in the TROUBLE SHOOTING section, above.

SUSPENDED POWERED SCAFFOLDS
DEVELOPED FOR INDUSTRY BY THE
Scaffold Industry Association, Inc. (SIA) and the
Scaffold, Shoring & Forming Institute (SSFI)

It shall be the responsibility of all users to read and comply with the following common sense guidelines which are designed to promote safety in the erecting, dismantling and use of Suspended Powered Scaffolds. These guidelines do not purport to be all-inclusive nor to supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If these guidelines in any way conflict with any state, local, provincial, federal or other government statute or regulation, said statute or regulation shall supersede these guidelines and it shall be the responsibility of each user to comply therewith.

I. GENERAL GUIDELINES

- A. POST THESE SAFETY GUIDELINES** in a conspicuous place and be sure that all persons who erect, use, locate, or dismantle suspended scaffold systems are fully aware of them and also use them in tool box safety meetings.
- B. FOLLOW ALL EQUIPMENT MANUFACTURERS' RECOMMENDATIONS** as well as all state, local and federal codes, ordinances and regulations relating to suspended powered scaffolding.
- C. SURVEY THE JOBSITE.** A survey shall be made of the jobsite by a competent person for hazards such as exposed electrical wires, obstructions that could overload or tip the suspended powered scaffold when it is raised or lowered, unguarded roof edges or openings, inadequate or missing tiebacks. Those conditions should be corrected before installing or using suspended powered scaffold systems.
- D. INSPECT ALL EQUIPMENT BEFORE EACH USE.** Never use any equipment that is damaged or defective in any way mark it or tag it as damaged or defective equipment and remove it from the jobsite.
- E. ERECT AND DISMANTLE SUSPENDED POWERED SCAFFOLD EQUIPMENT** in accordance with design and/or manufacturer's recommendations.
- F. DO NOT ERECT, DISMANTLE, OR ALTER SUSPENDED POWERED SCAFFOLD SYSTEMS** unless under the supervision of a competent person.
- G. DO NOT ABUSE OR MISUSE SUSPENDED POWERED SCAFFOLD EQUIPMENT.** Never overload platforms or hoists.
- H. ERECTED SUSPENDED POWERED SCAFFOLDS SHOULD BE CONTINUOUSLY INSPECTED** by the user to ensure that they are maintained in a safe condition. Report any unsafe condition to your supervisor.
- I. NEVER TAKE CHANCES! IF IN DOUBT REGARDING THE SAFETY OR USE OF SUSPENDED SCAFFOLDS, CONSULT YOUR SCAFFOLD SUPPLIER.**
- J. NEVER USE SUSPENDED SCAFFOLD EQUIPMENT FOR PURPOSES OR IN WAYS FOR WHICH IT WAS NOT INTENDED.**
- K. CARE SHOULD BE TAKEN WHEN OPERATING AND STORING EQUIPMENT DURING WINDY CONDITIONS.**
- L. SUSPENDED POWERED SCAFFOLD SYSTEMS** should be installed and used in accordance with the manufacturer's recommended procedures. Do not alter components in the field.
- M. SUSPENDED POWERED PLATFORMS MUST NEVER BE OPERATED NEAR LIVE POWER LINES** unless proper precautions are taken. Consult the power service company for advice.
- N. ALWAYS ATTACH FALL ARREST EQUIPMENT** when working on suspended powered scaffolds.
- O. DO NOT WORK ON OR INSTALL SUSPENDED POWERED SCAFFOLDS** if your physical condition is such that you feel dizzy or unsteady in any way.
- P. DO NOT WORK ON SUSPENDED POWERED SCAFFOLDS** when under the influence of alcohol or illegal drugs.

II. GUIDELINES FOR ERECTION AND USE OF SUSPENDED SCAFFOLD SYSTEMS.

A. RIGGING:

- 1. WEAR FALL PREVENTION EQUIPMENT** when rigging on exposed roofs or floors.
- 2. ROOF HOOKS, PARAPET CLAMPS, OUTRIGGER BEAMS, OR OTHER SUPPORTING DEVICES** must be capable of supporting the hoist machine rated load with a factor of safety of 4.
- 3. VERIFY THAT THE BUILDING OR STRUCTURE WILL SUPPORT** the suspended loads with a factor of safety of 4.
- 4. ALL OVERHEAD RIGGING** must be secured from movement in any direction.
- 5. COUNTERWEIGHTS USED WITH OUTRIGGER BEAMS** must be of a non-flowable material and must be secured to the beam to prevent accidental displacement.
- 6. OUTRIGGER BEAMS THAT DO NOT USE COUNTERWEIGHTS** must be installed and secured on the roof structure with devices specifically designed for that purpose. Direct connections shall be evaluated by a competent person.
- 7. TIE BACK ALL TRANSPORTABLE RIGGING DEVICES.** Tiebacks shall be equivalent in strength to suspension ropes.
- 8. INSTALL TIEBACKS AT RIGHT ANGLES TO THE FACE OF THE BUILDING** and secure, without slack, to a structurally sound portion of the structure, capable of supporting the hoisting machine rated load with a safety factor of 4, **IN THE EVENT TIEBACKS CANNOT BE INSTALLED AT RIGHT ANGLES**, two tiebacks at opposing angles must be used to prevent movement.

- 9. RIG AND USE HOISTING MACHINES DIRECTLY UNDER THEIR SUSPENSION POINTS.**
- B. WIRE ROPE AND HARDWARE:**
- 1. USE ONLY WIRE ROPE AND ATTACHMENTS** as specified by the hoisting machine manufacturer.
 - 2. ASSURE THAT WIRE ROPE IS LONG ENOUGH** to reach to the lowest possible landing.
 - 3. CLEAN AND LUBRICATE WIRE ROPE** in accordance with the wire rope manufacturer's instructions.
 - 4. HANDLE WIRE ROPE WITH CARE.**
 - 5. COIL AND UNCOIL WIRE ROPE** in accordance with the wire rope manufacturer's instructions in order to avoid kinks or damage.
 - 6. TIGHTEN WIRE ROPE CLAMPS** in accordance with the clamp manufacturer's instructions.
 - 7. DO NOT USE WIRE ROPE THAT IS KINKED, BIRDCAGED, CORRODED, UNDERSIZED, OR DAMAGED IN ANY WAY.** Do not expose wire rope to fire, undue heat, corrosive atmosphere, electricity, chemicals, or damage by tool handling.
 - 8. USE THIMBLES AND SHACKLES AT ALL WIRE ROPE SUSPENSION TERMINATIONS.**
 - 9. USE J-TYPE CLAMPS OR SWEDGE FITTINGS.** Do not use U-bolts. Retighten J Clamps under load and retighten daily.
 - 10. WIRE ROPES USED WITH TRACTION HOIST MUST HAVE PREPARED ENDS.** Follow manufacturer's recommendations.
- C. POWER SUPPLY:**
- 1. GROUND ALL ELECTRICAL POWER SOURCES AND POWER CORD CONNECTIONS** and protect them with circuit breakers.
 - 2. USE POWER CORDS OF THE PROPER WIRE SIZE THAT ARE LONG ENOUGH** for the job.
 - 3. POWER CORD CONNECTIONS MUST BE RESTRAINED** to prevent their separation.
 - 4. USE STRAIN RELIEF DEVICES TO ATTACH POWER CORDS TO THE SUSPENDED SCAFFOLD** to prevent them from falling.
 - 5. PROTECT POWER CORDS AT SHARP EDGES.**
 - 6. USE GFI WITH POWER TOOLS.**
- D. FALL ARREST EQUIPMENT:**
- 1. EACH PERSON ON A SUSPENDED POWERED SCAFFOLD** must be attached to a separate fall arrest system unless the installation was specifically designed not to require one.
 - 2. EACH LIFELINE MUST BE FASTENED** to a separate anchorage capable of holding a minimum of 5000 pounds.
 - 3. DO NOT WRAP LIFELINES AROUND STRUCTURAL MEMBERS** unless lifelines are protected and a suitable anchorage connection is used.
 - 4. PROTECT LIFELINES AT SHARP CORNERS** to prevent chafing.
 - 5. RIG FALL ARREST SYSTEMS** to prevent free fall in excess of six feet.
 - 6. SUSPEND LIFELINES FREELY** without contact with structural members or building facade.
 - 7. USE LIFELINES OF SIZE AND CONSTRUCTION** that are compatible with the rope grab used.
 - 8. ASSURE A PROPERLY ATTACHED ROPE GRAB IS INSTALLED ON EACH LIFE LINE.** Install in accordance with the manufacturer's recommendations.
 - 9. KEEP FALL ARREST DEVICE POSITIONED ABOVE YOUR HEAD LEVEL.**
 - 10. USE ONLY FULL BODY HARNESSES** of the proper size and that are tightly fastened.
 - 11. ASSURE FULL BODY HARNESS HAS LANYARD attachment** with D-ring at the center of your back.
 - 12. CONSULT FALL PROTECTION SUPPLIER FOR INSPECTION PROCEDURE, INSPECT FALL PROTECTION ANCHORAGE/EQUIPMENT BEFORE EACH USE.**
 - 13. WHEN A SECONDARY WIRE ROPE SYSTEM IS USED,** a horizontal lifeline secured to two or more structural members of the scaffold may be used in lieu of vertical lifelines.
- E. DURING USE:**
- 1. USE ALL EQUIPMENT AND ALL DEVICES** in accordance with the manufacturer's instructions.
 - 2. DO NOT OVERLOAD, MODIFY, OR SUBSTITUTE EQUIPMENT.**
 - 3. BEFORE COMMENCING WORK OPERATIONS** preload wire rope and equipment with the maximum working load, then retighten wire rope rigging clamps and recheck rigging to manufacturer's recommendations.
 - 4. INSPECT ALL RIGGING EQUIPMENT AND SUSPENDED POWER SCAFFOLD SYSTEMS DAILY.**
 - 5. INSPECT WIRE ROPE DURING EACH ASCENT OR DESCENT FOR DAMAGE.**
 - 6. USE CARE TO PREVENT DAMAGE TO EQUIPMENT** by corrosive or other damaging substances.
 - 7. CLEAN AND SERVICE EQUIPMENT REGULARLY.**
 - 8. ALWAYS MAINTAIN AT LEAST (4) FOUR WRAPS OR WIRE ROPE ON DRUM TYPE HOISTS.**
 - 9. DO NOT JOIN PLATFORMS** unless the installation was designed for that purpose.
 - 10. ONLY MOVE SUSPENDED SCAFFOLDS HORIZONTALLY WHEN NOT OCCUPIED.**
 - 11. WHEN RIGGING FOR ANOTHER DROP** assure sufficient wire rope is available before moving the suspended scaffold system horizontally.
 - 12. WHEN WELDING FROM SUSPENDED POWERED SCAFFOLDS:**
 - a. Assure platform is grounded** to structure.
 - b. Insulate wire rope** above and below the platform.
 - c. Insulate wire rope** at suspension point and assure wire rope does not contact structure along its entire length.
 - d. Prevent the bitter end** from touching the ground.

SUSPENDED SCAFFOLD CHECK-OFF LIST

TO PROPERLY OPERATE THIS HOIST, YOU MUST BE ABLE TO ANSWER "YES" TO EVERYTHING ON THIS CHECK LIST. DON'T USE THE SCAFFOLD UNTIL YOU KNOW HOW.

GENERAL

Read and Understand

- (1) The Manufacturer's Operating and Instruction Manual
- (2) The Scaffold Industry Association Safety Rules
- (3) OSHA and all other federal, state, and local safety standards, requirements, and ordinances pertaining to your job.

ROOF SUPPORT SYSTEM

The pascal and other building parts are strong enough.

A qualified, responsible person has determined how many counterweights are needed for a 4:1 safety margin. The right number of weights are bolted to the beam and can't come off.

Roof beams, clamps, or hooks are fast back to strong, safe parts of the building.

Roof beams meet safety requirements and are assembled correctly.

If sockets and davits are used, they are installed correctly.

SCAFFOLD PLATFORM

All parts (straps, deck, rungs, rails, bumper rollers, wheels and connectors, toe boards, and guardrails) are sound and properly secured.

The load you are lifting is LESS than the ratings marked on the platform, hoist, and roofbeams.

The straps are exactly under the roof supports and the wire ropes hang straight down.

HOIST OPERATION

A copy of the manufacturer's operating instructions is on the stage. You have read it and you understand it.

The hoists have been properly maintained and serviced. The instruction labels and signs on the hoists are clear and readable. You have read and you understand these instruction labels.

Both wire ropes have been inspected and found to be in good condition. They are long enough to reach the ground and are clamped tight at the top. Any extra rope is coiled at the top to protect it from damage.

As you first lift the load a few feet, make sure the hoist acts and sounds normal. Recheck all bolts and wire rope clamps.

The electric cable is sound and strain relief devices have been used at the connections. The power cord is of adequate size and voltage supplied to the motor is correct.

FALL ARREST SYSTEM

NOTE: Be certain that before anyone steps onto the scaffold, he is properly attached to his lifelines.

Each person on the scaffold has a separate lifeline system.

Lifelines are inspected and are attached to a structural member of the building other than the rigging. Lines are protected from sharp corners such as roof edges.

Rope grabs are the proper size for the lifelines being used, are tested, and operate as they should.

Harnesses are inspected. Lanyards are attached correctly to the rope grabs and to the "D" rings at the center of the operator's back.

ADDITIONAL CHECKS

The scaffold, rigging, lifelines, wire ropes, or work tools are at all times more than 10 feet away from power lines.

Use the equipment only in low winds and good weather with the platform secured to reduce sway. Inspect the rigging every day and before it is used after moving it.

Load the platform, hoist, or rigging to the rated capacity only. The platform should remain level as you go up and down.

The equipment moves normally, making no strange noises. If not, stop where you are and wait for help.

FAILURE TO FOLLOW ALL RULES, SAFETY CODES, AND PRACTICES MAY RESULT IN ACCIDENTS WITH INJURY OR DEATH TO OPERATORS AND BYSTANDERS.