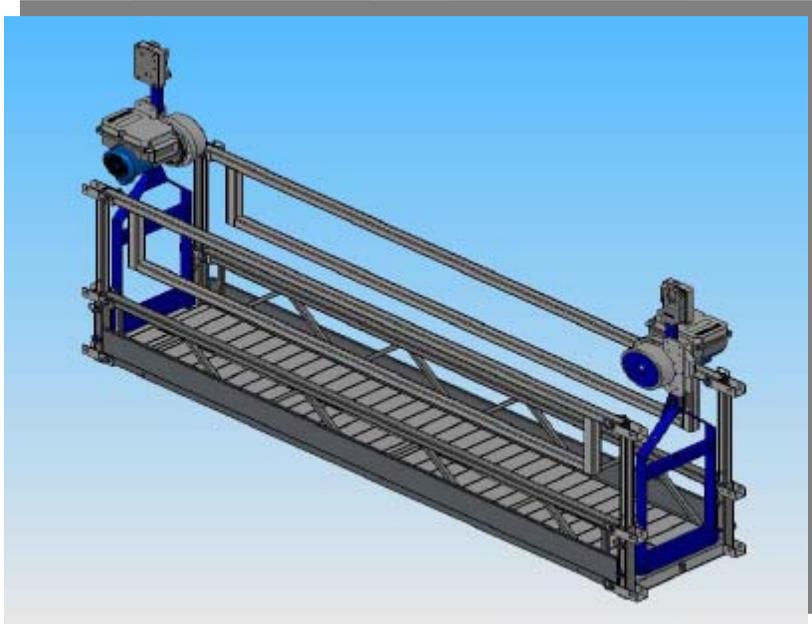




"Access Innovations Since 1955"

SKY STAGE ULTRA BOILER PLATFORM *USER MANUAL*



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**Sky Stage Ultra Boiler Platform
User Manual**

UM-36-BOILER.00A ¹
October,
2007

FOREWORD



Welcome to Sky Climber®.

Congratulations on your new Sky Climber® product. All Sky Climber® products are designed and certified to the highest worldwide industry standards. Our continuous quality control ensures this product is manufactured to the relevant codes. Nonetheless, all of this work and effort can be and is nullified by improper use.

It is vitally important that you and each and every person who is to utilize the Sky Climber® product, take the time to learn the proper and safe methods relating to utilization of the Sky Climber® product. Safety begins with a familiarization with the functions and limitations of the Sky Climber® equipment. It is your responsibility to READ AND UNDERSTAND the contents of this manual. If you have any questions whatsoever, contact your dealer or Sky Climber® customer service. It is our desire and intention to provide answers to your question regarding the proper use of Sky Climber® products. Sky Climber® cannot and will not under any circumstances be responsible in any way for injuries or damage sustained as a result of misuse or misapplication of the product. Please consult your sales materials to determine other applicable limitations of liability.

Sky Climber® “user manual “ will guide you through installation and operation procedures.

Sky Climber® reserves the right to continually improve its products. Every effort has been made to make this manual as accurate as possible at the time of publication; however, there may be product changes which are not detailed in the manual. Please contact your dealer or Sky Climber® customer service on a regular basis to obtain follow up information and materials.

We remind you to always wear personal fall protection equipment and to make sure that all persons utilizing the product are fully familiar with its features, including safety features and limitations, such as weight limitations.

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Safety Guidelines

Operator Safety

- All persons who service, install, dismantle or use suspended access equipment must fully comprehend and act in accordance with this manual and all appropriate regulations. A competent person is a designated person, suitably trained, qualified by knowledge and practical experience to carry out the required task safely. Training, manuals and other documentation are available at Sky Climber®. Do not hesitate to contact us for more details.
- Operators must be emotionally and physically able to withstand the stress of working at elevations. Do not work at elevations if subject to seizures or loss of physical control. Operators must be safety conscious, responsible and not under the influence of alcohol, drugs or other substances.
- All persons using suspended access systems must at all times wear safety harnesses attached by lanyards and rope grabs to independent lifelines. Use short lanyards and attach the rope grabs as high on the lifeline as practically possible. Lifelines shall be fastened to a fixed anchorage other than the rigging systems. Do not disconnect or remove harnesses or lanyards until safely on the ground or until completely disembarked from suspension system to a safe location.
- Safety helmets should be worn at all times when servicing, disassembling or using the equipment.
- Provide protection for operators from collision with overhead obstacles and falling objects.
- Provide adequate protection below the suspended system to prevent injury to persons from falling objects. Keep all persons from beneath suspended platforms.
- Maintain contact with your supervisor at all times.
- Make a copy of this manual available to every person using, erecting and assembling this equipment.

Safety Guidelines (continued)



Operation Safety

- All suspended access equipment must be handled with care: during handling of equipment, installation and use (place loads gently on platform).
- Inspect and test the equipment before use, rigging, re-rigging, after de-rigging and at regular intervals to make sure that it is maintained in a safe workable condition. The supervisor should assign a competent person for inspection purposes. In case of equipment failures or difficulties noticed during testing and inspection prior to use, contact your nearest Sky Climber® representative and do not use the equipment until it is repaired or replaced. Only use Sky Climber® spare parts. Do not alter any equipment. Maintenance may only be carried out by Sky Climber® representatives.
- Verify if all decals and nameplates are properly affixed and legible. If they are obscured or missing, replacements are available from Sky Climber®.
- Always verify if a platform is properly counterweighted: check the rigging systems prior to each shift.
- Never load the platform above the indicated safe working load.
- In case of an emergency during operation press the red emergency stop button on the hoist or control unit. The platform will halt immediately (power is cut off, brakes are activated). Solve the problem first, prior to further use.
- Do not use hoists in conjunction with cableless control systems.
- Never use suspended access systems for transportation of passengers from one level to another.
- Keep the vertical travel zone of the platform free of obstructions. When running into an obstruction immediately stop the platform. Inspect the platform and the obstruction for possible damage and/or hang-up. Proceed in a safe direction. Take care not to overload the system or get in slack rope situations when running into an obstacle.
- Beware of obstacles when there is too small of a clearance between platform and façade. Use long-handled tools when working at large distances between platform and façade.

Safety Guidelines

Operation Safety (continued)

- Do not handle suspended loads in conjunction with suspended platforms.
- When leaving a suspended platform (in mid-air) first secure the platform to the face of the structure in order to keep it from moving away. Do not forget to disconnect the platform from the structure before lifting or raising, otherwise serious injuries and/or damage can occur.
- Hazardous situations occur when it is not possible to lower platform to a safe position, over water and public roads.
- Never alter equipment once the platform is suspended. Keep all equipment out of reach of unauthorized persons.

Group	Category	Condition	Temp	Application	Inspection
1	-	Normal	>0C/32F	Inspections, light maintenance, window washing.	Prior to each work shift.
2	A	Contaminated	>0C/32F	Abrasive materials; sand grit, dust, welding.	Prior to each work shift.
	B	Contaminated	>0C/32F	Caustic materials; corrosive chemicals	Service Every 3 months
	C	Contaminated	>0C/32F	Adhesive materials; cement, plaster, paint, caulking, compound	Service Every 3 months
3	-	Freezing	0C/32F	All	Prior to each work shift. Every hour.

- Do not use suspended access equipment in severe conditions: extreme environmental conditions, corrosive environment, strong magnetic fields, explosive atmospheres.
- Do not use suspended access equipment when handling loads could lead to dangerous situations: molten metal, acids/bases, radioactive materials, brittle loads.

Wind Speeds

- Use adequate restraints when lifting height exceeds 40m (131') with wind speeds above 50km/h = 14m/s (31mph).
- Do not use suspended access equipment when hazards could arise from wind pressure acting on loads having a surface area in excess of 2m² (21.5 SQFT).
- With the occurrence of high winds the platform should either be lowered to the ground or raised to the roof top and secured.
- Do not use suspended access equipment when wind speed exceeds 50km/hour

High Voltage Power-lines

- Refer to regulations, federal, state and local codes when working in the vicinity of electrical overhead power-lines. Consult the local power company for safe operating procedures.
- The minimum separation between live power lines and platform is 3m (10').
- Touching live power-lines may result in death or serious injury.

Welding

- During welding, the electrocution hazard and the risk of the welding current passing through the steel wire ropes shall be eliminated by taking the following precautions:
- Use insulated thimbles at each suspension point. Insulate surplus steel wire rope stored on roof to prevent grounding or, terminate steel wire rope at insulated thimble.
- Cover steel wire rope above hoist and Sky Lock for a distance of $\pm 1.2\text{m}$ (4') with insulating material: rubber hose taped in place. Insulate tail line below hoist: extend downward sufficiently to prevent contact with platform. The portion of tail line hanging free below platform must be guided and/or retained so that it does not become grounded.
- Cover each hoist, Sky Lock and wire winder with protective covers made out of insulating material.
- Connect a ground conductor from platform to work piece. The size of this conductor shall be equal to or greater than the size of the stinger lead. It must be a secondary conductor and shall not be in series with the primary conductor between welder and work piece.

Marine Environment

- Salty environments may deteriorate aluminum & steel components. Frequently inspect equipment.
- Excess material accumulation Make sure that excess material does not clutter up the hoist, Sky Lock or platform.

Assembly Instructions

Sky Stage Ultra Boiler Platform ®

Sky Stage Ultra Boiler Platform ® is a modular work platform. All components are welded out of high quality aluminum. The platform length can vary between 1 and 9 meters configurations. A section consists of 2 side panels, a floor panel and 2 top rails. A rigid structure is formed by attaching sections to connecting frames with connecting pins. Top rails are telescopic on both sides of the stage. Wall rollers and casters are optional.

Assembly Instructions (continued)

Step 1. Assemble platform by placing 2-side panels vertically facing each other; secure in a connecting frame/post with locking pin to each side panel. Repeat this step for one to three sections, placing connecting frames, pins and posts in between each section.

Step 2. Place the standard end stirrup at opposite ends of the platform. Use the connecting frame to attached the stirrup to the platform with pins.

Step 3. Place the folding floor between the two side panels.

Step 4. Place the wall roller on the side panel, one each toward opposite ends.

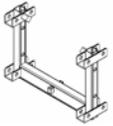
Step 5. Place the top rails in the posts with pins.

Step 6. Reverse the assembly instructions for disassemble of the platform.

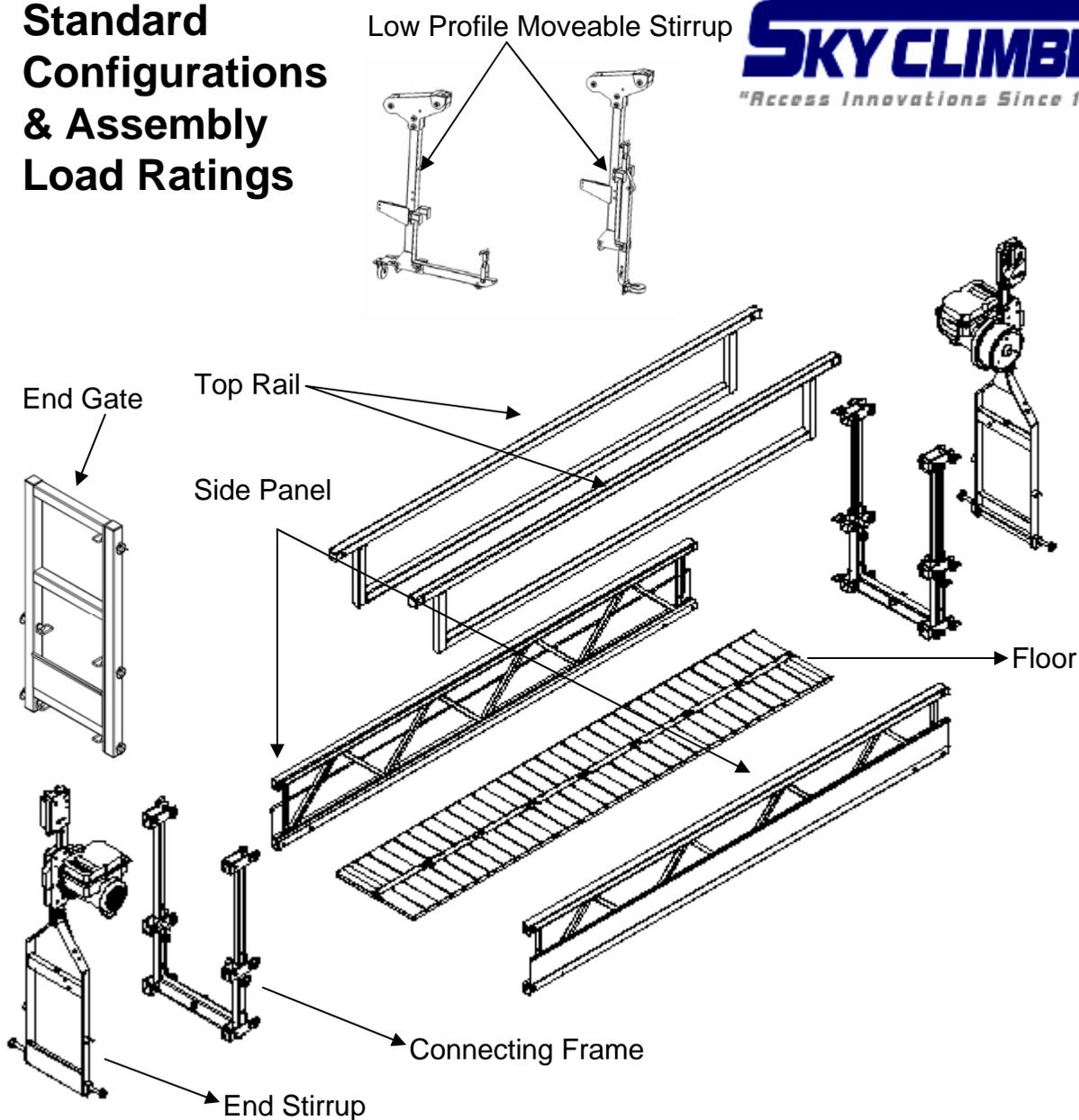
See specific Hoist Operator's Manual for instructions on mounting hoist and sky lock to the platform stirrups.

Repositioning platform

1. Remove all load from the platform.
2. De-reeve hoists.
3. Reposition platform underneath new position of rigging

361019 3m side panel boiler		361010 3m top rail boiler	
361023 2m side panel boiler		361022 2m top rail boiler	
361027 1m side panel boiler		361026 1m top rail boiler	
361021 3m folding floor boiler		360111 wall roller assembly	
361025 2m folding floor boiler		360019 safety pin assembly	
361026 1m folding floor boiler		361014 telescoping post boiler	
361911 end stirrup assembly boiler		361030 low profile walk by stirrup	
361051 end gate boiler		361054 low profile 2nd leg (required for work cage)	
361015 connecting frame boiler			

Standard Configurations & Assembly Load Ratings



361019	3m side panel boiler	361010	3m top rail boiler
361023	2m side panel boiler	361022	2m top rail boiler
361027	1m side panel boiler	361026	1m top rail boiler
361021	3m folding floor boiler	361014	telescoping post (not pictured)
361025	2m folding floor boiler	361015	connecting frame
361026	1m folding floor boiler		
361911	end stirrup assembly boiler	361051	end gate boiler
361030	low profile moveable stirrup		
361054	low profile moveable stirrup - 2nd leg (required on all SSU work cages)		

Platform Length	Components						Side Panel			Floor Panel			Top Rail			Caster Assembly	Wall Roller Assembly	Load Rating
	End Stirrup	Rod (part of end stirrup)	Locking Clip (part of end stirrup)	Connecting Frame	Telescopic Post	Connecting Pin Assembly	1m	2m	3m	1m	2m	3m	1m	2m	3m			
1m 3'9"	2	2	4	2	4	16	2			1			2			0*	2	560 kg 1250 lbs.
2m 6'9"	2	2	4	2	4	16		2			1			2		0*	2	560 kg 1250 lbs.
3m 9'9"	2	2	4	2	4	2			2			1			2	0*	2	560 kg 1250 lbs.
4m 13'6"	2	2	4	3	6	30		4			2			4		0*	2	560 kg 1250 lbs.
5m 16'6"	2	2	4	3	6	30	2	2		1	1			2	2	0*	2	560 kg 1250 lbs.
6m 19'6"	2	2	4	3	6	30	4			2					4	0*	2	560 kg 1250 lbs.
7m 23'3"	2	2	4	4	8	44	2	4			2	1		4	2	0*	2	450 kg 1000 lbs.
8m 26'3"	2	2	4	4	8	44	6	2			1	2		2	6	0*	2	450 kg 1000 lbs.
9m 29'3"	2	2	4	4	8	44			6			4			6	0*	2	450 kg 1000 lbs.

SKY STAGE ULTRA BOILER SAFE WORKING LOAD ONLY FOR CONFIGURATIONS WITH END STIRRUPS

Max. Safe Working Load (uniformly distributed)	Suspension Distance	Self-weight	Configuration	Configuration	Self-weight	Suspension Distance	Max. Safe Working Load (uniformly distributed)
1250 lbs 560 kgs	3' 9" (1m)	175 lbs (80 kg)			512 lbs (232 kg)	23' 3" (7m)	1000 lbs 450 kgs
	6' 9" (2m)	248 lbs (113 kg)			548 lbs (248 kg)	26' 3" (8m)	
	9' 9" (3m)	285 lbs (129 kg)			584 lbs (265 kg)	29' 3" (9m)	
	13' 6" (4m)	363 lbs (164 kg)					
	16' 6" (5m)	399 lbs (181 kg)					
	19' 6" (6m)	435 lbs (197 kg)					

Read "Installation Instructions" prior to assembling.

Instructions for actual safe working load:
Add working load limit of hoists. Compare working load limit of hoist with max. safe working load of platform.

The LOWEST rating is the ACTUAL SAFE WORKING LOAD.

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Safe Working Load

1. Determine working load limit (WLL) of hoist.
2. Add WLL's of hoists used.
3. Compare total WLL of hoists less the self weight of platform with load rating (LR) of platform.
4. Use lowest value as the Safe Working Load (SWL).

•Do not concentrate all loads but equally distribute over total length of platform.

•If loads are concentrated on one half of a platform then the SWL equals the WLL of 1 hoist less half the self-weight of the platform (never exceed floor rating).

•The load on the floor panels must not exceed the floor rating: maximum 180kg per meter platform or 120lbs per foot platform.

SKY STAGE ULTRA BOILER SAFE WORKING LOAD ONLY FOR CONFIGURATIONS WITH END STIRRUPS									
Max. Safe Working Load (uniformly distributed)	Suspension Distance	Self-weight	Configuration	Configuration	Self-weight	Suspension Distance	Max. Safe Working Load (uniformly distributed)		
1250 lbs 560 kgs	3' 9" (1m)	175 lbs (80 kg)			512 lbs (232 kg)	23' 3" (7m)	1000 lbs 450 kgs		
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	19' 6" (6m)	435 lbs (197 kg)							

Note: Read 'Installation Instructions' prior to assembling.

Instructions for actual safe working load:
Add working load limit of hoists. Compare working load limit of hoist with max. safe working load of platform.
The LOWEST rating is the ACTUAL SAFE WORKING LOAD.

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Check Lists

Inspect prior to installation

- Operating instructions are kept with stage at all times
- Reject & replace parts when the following failures are noticed:
- Cracked or torn welds.
- Cracked or torn material.
- Deformations that could endanger the structural strength.
- Deformations that would not allow normal installation.
- Deformed or cracked connecting holes.
- Damaged, missing or illegible decals indicating load ratings, configurations etc.

Check components prior to shipment

- Use table 'Standard configurations & Assembly Parts' in this user manual to verify the correct amount of parts prior to shipment. Ensure all decals and/or nameplates are in place and legible.

Inspection after installation

- Inspect the platform assembly after installation and prior to each work shift:
- Verify load rating per this manual or decals and verify this load will not be exceeded
- Verify if all connections have a Connecting Pin assembly:

Side Panel:	4 Connecting Pin assy's
Top Rail:	2 Connecting Pin assy's
Telescopic Post:	1 Connecting Pin assy's
- Verify if each Connecting Pin is secured with a Locking Clip.

Side Panel:	4 Connecting Pin assy's
Top Rail:	2 Connecting Pin assy's
Telescopic Post:	1 Connecting Pin assy's

Verify if each End Stirrup has 2 secured Locking Clips or connecting Rod.

- Verify if Wall Roller assemblies are tightened.
- Verify if all warning decals and rating labels are in place and legible
- Verify if provisions are made to protect workers from falling objects above and below equipment.
- Verify if stirrups are in line with the roof supports.

Logbook

Instruction to the owner

Owner must keep a logbook which contains the following:

Name of the competent person in charge.

Date and name of operator (s).

Serial number of hoist (s) and secondary device (s).

Number of hours equipment in service.

Specification of wire rope.

Number of hours wire rope in use.

Record of any incident and action taken.

Dates of periodic inspection and record of outcome.

Maintenance and repair records shall be kept in logbook.