



ISO 9001 REGISTERED

&

CE CERTIFIED



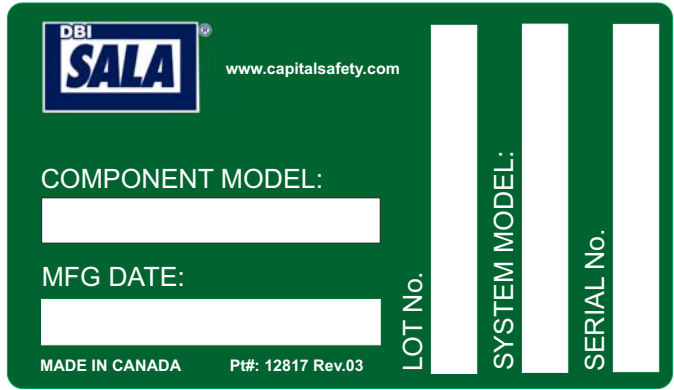
**MAN RATED
FALL PROTECTION SYSTEMS
ADJUSTABLE FREESTANDING HORIZONTAL RAIL SYSTEM**

OPERATOR'S MANUAL

SERIAL NUMBER LOCATION

Always give your dealer or distributor the serial number of your **UCL Advanced FSHRS** when ordering parts or requesting service or other information.

The serial number plate is located where indicated. Please mark the number in the space provided for easy reference.



SERIAL NUMBER LABEL

Model _____

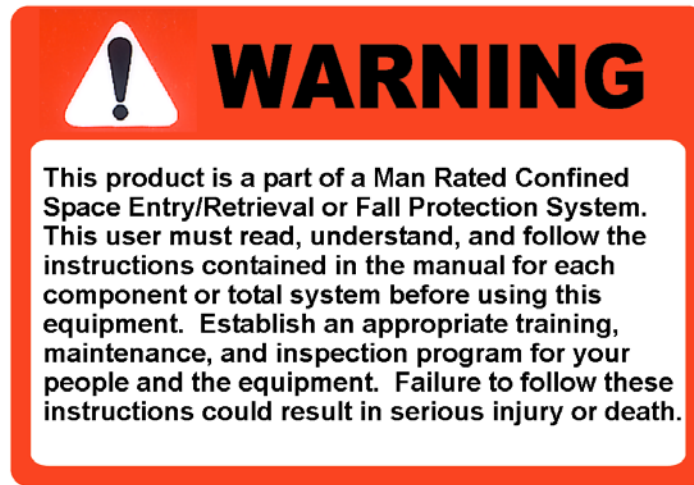
Serial Number _____

1 INTRODUCTION

Congratulations on your choice of a Unique Concepts Man Rated Adjustable Freestanding Horizontal Rail Fall-Arrest System (**FSHRS**) to compliment your fall arrest applications. This equipment has been designed and manufactured to meet the needs of a discriminating operator for the efficient access and egress from working heights while incorporating fall protection.

Safe, efficient and trouble free operation and maintenance for your component or system requires that you or anyone else who will be operating, maintaining or inspecting the equipment, read, understand and follow all the Safety, Installation, Operation, Maintenance and Inspection instructions contained in this manual, and in any related manuals referenced in this manual and/or supplied with the system.

This manual covers the FSHRS manufactured by Unique Concepts.



Keep this manual handy for frequent reference and to pass to new operators. Establish a regular training program for experienced and new operators per these instructions. Establish a regular maintenance and inspection program to keep the equipment in top condition.

Modular components are labeled with the capacities and rating to which they were designed, tested, and manufactured. The rating of any system is considered to be the rating of the lowest rated component contained in the system.

Do not use the equipment if rating stickers are damaged or illegible. New stickers are available from the manufacturer. When ordering replacement stickers be sure to include:

- 1) The part number from the bottom right hand corner of the sticker, when available.
- 2) The serial number of the unit.
- 3) The part (item) number of the component (consult the appropriate section of this manual).
- 4) Any other numbers stamped on the components.

2 SAFETY

SAFETY ALERT SYMBOL

This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

The Safety Alert symbol identifies important safety messages on your equipment and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.



Why is SAFETY important to you?

3 Big Reasons

Accidents Disable and Kill
Accidents Cost You Money
Accidents Can Be Avoided

SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guide-lines:

DANGER - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations, or for hidden or unseen hazards.

WARNING - Indicates a potentially hazardous situation that if not avoided, could result in death or serious injury, and includes obvious and hidden hazards. It may also be used to alert against unsafe practices.

CAUTION - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

SAFETY

YOU are responsible of the **SAFE** operation, maintenance and inspection of your Unique Concepts Man Rated FSHRS. **YOU** must ensure that you and anyone else who is going to operate, maintain, inspect or work around the equipment be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety and operating practices while using the equipment.

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the procedures recommended and follows safety precautions. Remember, most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Owners must give operating instructions to operators or employees before allowing them to use the equipment, and at least annually thereafter.
- The most important safety device on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow these. All accidents can be avoided.
- A person who has not read, been trained in using and understood all operating and safety instructions is not qualified to operate this equipment. An untrained operator exposes himself and others to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think **SAFETY!** Work **SAFELY!**

2.1 GENERAL SAFETY

1. Read, understand and follow the User Manual and all safety signs before using, maintaining or inspecting the equipment.
2. Refer to and follow applicable **ANSI, OSHA, CE** or other Standards and local regulations. Comply with requirements of local regulations for your applications.
3. Establish an equipment–use training program for experienced employees. Only trained, competent persons shall use the equipment. An untrained operator is not qualified to operate the system.



4. Have a first-aid kit available for use should the need arise and know how to use it.
5. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
6. Install and properly secure all guards and shields before operating.
7. Wear appropriate protective gear. This list includes but is not limited to:



- A hard hat
- Safety glasses
- Protective shoes with slip resistant soles
- Heavy gloves
- Protective clothing
- Face protection



8. Review and follow the Pre-Operation Inspection before using a component in the system or the system itself.
9. Establish a regular Maintenance and Inspection program with your equipment and maintain detailed records.
10. Review safety related items and operating instructions with all personal on a regular basis.
11. Be aware of your environmental surroundings; be sure not to use the equipment during an electrical storm. (this equipment is conductive)
12. When using our winch, the noise level does not exceed 70 dba.

2.2 OPERATING SAFETY

1. Read, understand and follow the Operator's Manual and signs on the equipment before using, maintaining or inspecting the equipment.
2. Train all operators before allowing them to use the equipment. An untrained operator exposes themselves, bystanders and workers to possible serious injury or death.
3. Visually inspect the equipment and all auxiliary components and equipment before using. Correct any problems before using the equipment.
4. Securely anchor the winch/SRL before using, where applicable.
5. Use only certified anchor and connector components in your system.
6. Use only an approved full body harness for the workers.
7. Always work in teams.
8. If applicable, do not use the winch when the brake wear indicators display in the red or 5 years. Return winch to manufacturer for service.
9. Do not exceed 310lbs. (141 kg) during operation.
10. Establish a regular training program for new and experienced workers.
11. Establish a detailed inspection program for your equipment and document the findings. Return the equipment to the manufacturer for rework if any problems are found.
12. Plan your work program before starting. Have the required people, equipment and procedures available to do the job.
13. Establish a rescue plan before using the equipment. Failure to achieve rapid rescue may result in death due to suspension trauma.

13. Do not use the equipment around physical or environmental hazards. This list includes but is not limited to:
 - a. Corrosion that may affect the structural integrity of the life line or other components
 - b. Chemicals which can degrade components and not be visible.
 - c. Toxic gases: Rescuers or workers can be killed in toxic environments.
 - d. Heat or elevated temperatures.
 - e. Moving machinery: Workers or auxiliary equipment can be contacted by or pulled into moving components.
 - f. Sharp edges: Workers or the equipment can be injured or damaged by sharp edges or components.
 - g. Electrical hazards: Stay away from power lines or components carrying electrical power.
 - h. Overload: Do not exceed 310 lbs. (141 kg) during operation.
 - i. Follow confined space regulations in Standards.
 - j. Noise: wear appropriate noise protection where necessary.
 - k. Environmental hazards: do not operate equipment during electrical storms.

2.3 MAINTAINANCE/ INSPECTION SAFETY

1. Read, understand and follow the User Manual and signs on the equipment before using, maintaining or inspecting the equipment.
2. **ANSI, OSHA & CE** requires a regular inspection program for all Confined Space Entry/Retrieval Equipment and to maintain documented results of these inspections. Follow the inspection procedure contained in this manual and use the inspection form to document the results.
3. Keep instructional and safety signs clean and legible at all times. Clean or replace as required.
4. Lubricate equipment as per instructions in the applicable operator's manual.
5. Remove the equipment from service if a problem is found during the inspection. Return to an authorized repair depot or the factory for service.

3 OPERATING, NEW OPERATOR OR OWNERS

The **UCL ADVANCED FSHRS** is designed to attach to a person working at a height to provide protection against injuries resulting from a fall. Various accessories address a variety of fall-arrest requirements and rescue needs. Every new operator must read, understand and follow the instructions in all applicable manuals. No one should be allowed to use the equipment without training. The training should be reviewed with experienced operators on a regular basis. At regular intervals perform a detailed inspection of the equipment and document the results. Remove from service if deficiencies are found. Alterations or misuse of this equipment or failure to follow instructions, may result in serious injury or death.

It is the responsibility of the owner's organization or operator to read this manual and to train all other operators before they start working with the equipment. Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the work site. Untrained operators are not qualified to operate the equipment.

Many features incorporated into this equipment are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the equipment safely and how to set it to perform as intended. By following the operating instructions in conjunction with a good maintenance program, your equipment will provide many years of trouble-free service.



OPERATING SAFETY

1. Read, understand and follow the User Manual and signs on the equipment before using, maintaining or inspecting the equipment.
2. Train all operators before allowing them to use the equipment. An untrained operator exposes themselves, bystanders and workers to possible serious injury or death.
3. Visually inspect the equipment and all auxiliary components and equipment before using. Correct any problems before using the equipment.
4. Securely anchor the winch before using.
5. Use only certified anchor and connector components in your system.
6. All anchor points, or mounting/setup locations for permanent or portable systems must be approved to local standards by a qualified engineer.
7. Use only an approved body harness for the workers.
8. Always work in teams.
9. If applicable, do not use the equipment when the winch brake wear indicators display in the red or 5 years in service (which ever comes first). Return equipment to manufacturer for service.
10. Do not exceed 310lbs. (141 kg) on the line during operation
11. Use only retractable lifelines or shock absorber with a maximum arrest force (MAF) equal to or lower than the lowest rated component of your system.
12. Establish a regular training program for new and experienced workers.
13. Establish a detailed inspection program for your equipment and document the findings. Return the equipment to the manufacturer for rework if any problems are found.
14. Plan your work program before starting. Have the required people, equipment and procedures available to do the job.
15. Do not use the equipment around physical or environmental hazards. This list includes but is not limited to:
 - a. Corrosion that may affect the structural integrity of the life line or other components .
 - b. Chemicals which can degrade components and not be visible.
 - c. Toxic gases: Rescuers or workers can be killed in toxic environments.
 - d. Heat or elevated temperatures.
 - e. Moving machinery: Workers or auxiliary equipment can be contacted by or pulled into moving components.
 - f. Sharp edges: Workers or the rescue equipment can be injured by or damaged by sharp edges or components.
 - g. Electrical hazards: Stay away from power lines or components carrying electrical power.
 - h. Overload: Do not exceed 310 lbs. (141 kg) during operation.
 - i. Follow regulations in Standards in your jurisdiction.
 - j. Noise: wear appropriate noise protection where necessary.
 - k. Environmental hazards: do not operate equipment during electrical storms.

STEPS 1 & 2

Step 1: Move the unit 1 to 3 feet (0.3-1m) away from work area/object.

Step 2: Adjust rail height 5 to 9 feet (1.5- 3m) above the work area by cranking the drive handle.

Step 3a: Push the unit into position so that the rail is close to the center of the work area to maximize the safe work area and reduce the chances of a potential fall.

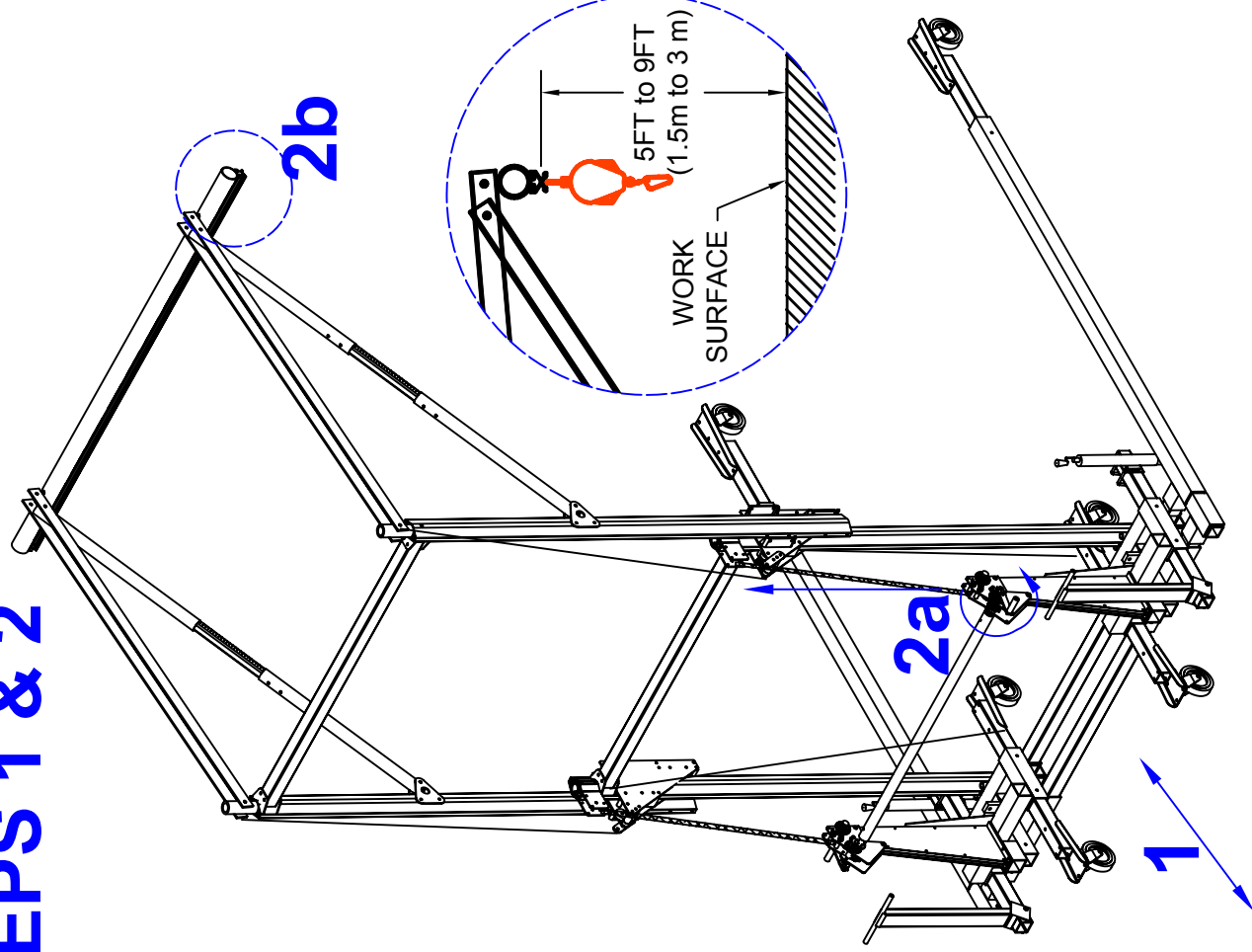
Step 3b: Lower the jacks down and apply light pressure by just contacting the surface. Lock any wheels if applicable.

Step 4: If applicable, pull down the tag line to connect to the SRL (not provided) using a full body harness to safely access the work area. Note: The SRL line must not drag or bend over a leading edge while accessing the work area. To eliminate that problem reposition the unit. Follow SRL manufacturer instruction carefully.

Step 5: IMPORTANT, follow the safe working area instruction carefully. If using an SRL more than 10 feet in length carefully follow the safe working area guidelines as shown.

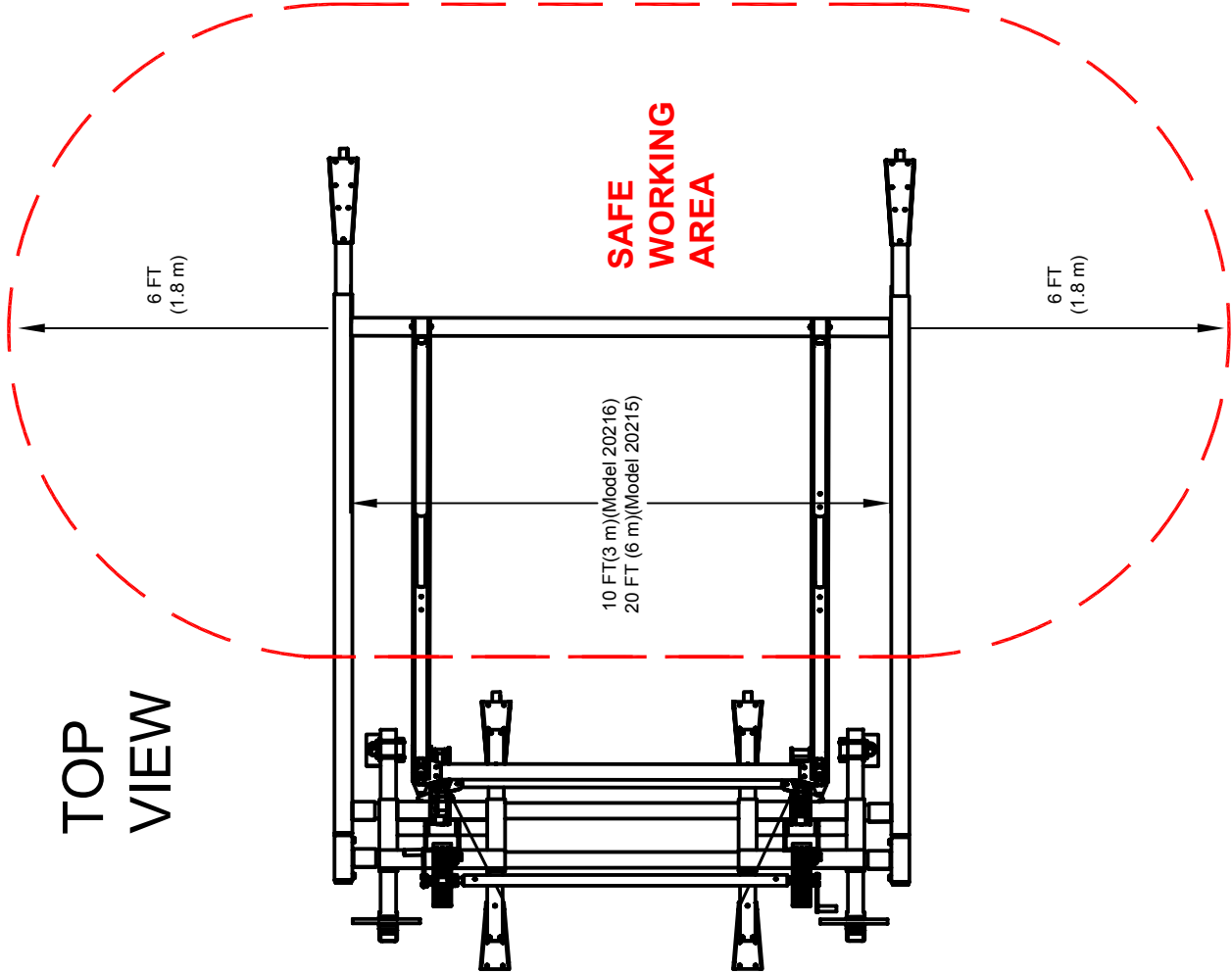
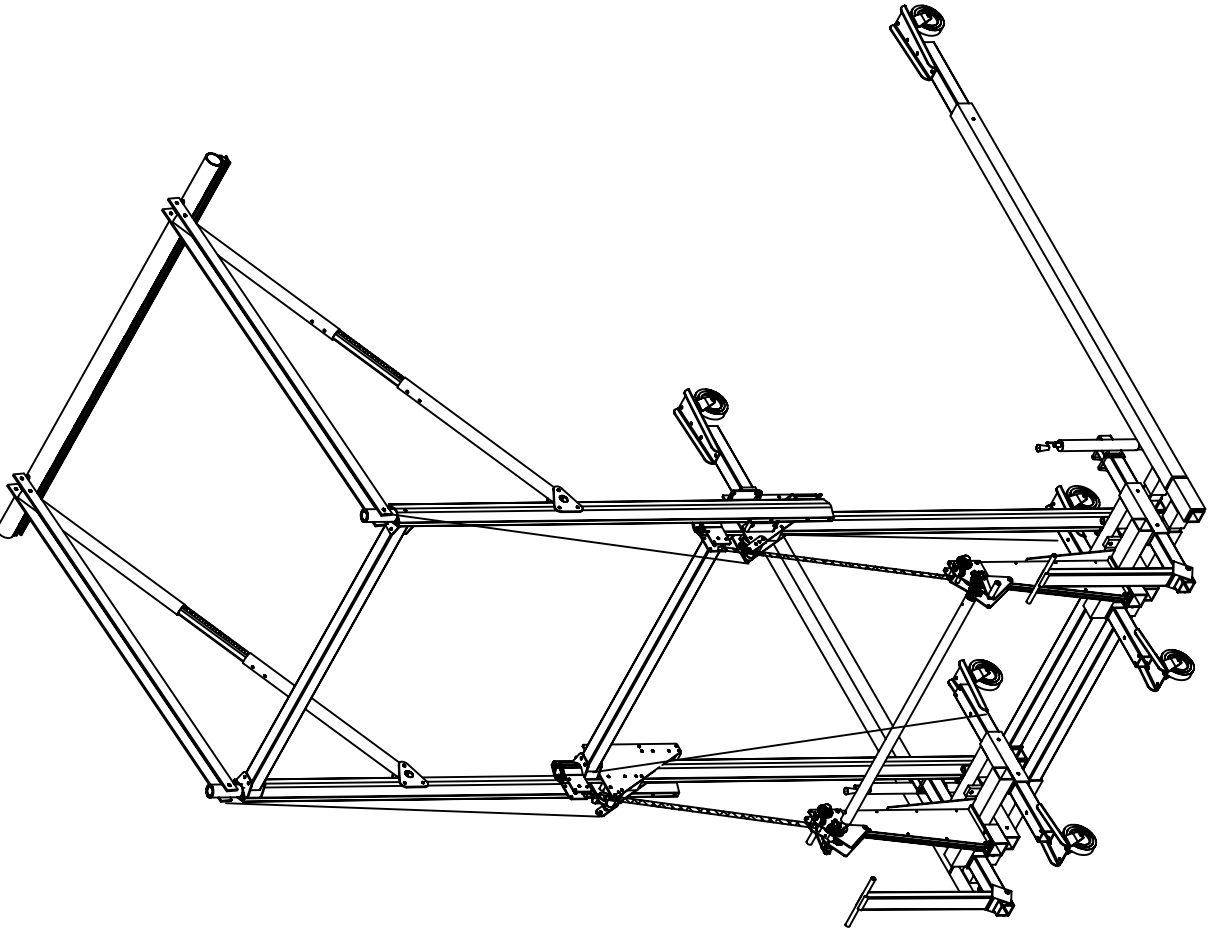
Step 6: If applicable, transfer tagged lifeline SRL connection to SRL on the working anchor point trolley. Follow guidelines for the safe working area carefully, do not exceed the safe working area under any circumstances.

Step 7: Maximum of two operators' can be attached to the unit, each using an individual trolley. No more than one person can be attached to a single trolley at anytime.



STEP 5

TOP
VIEW



4 MAINTENANCE AND INSPECTION



MAINTENANCE/INSPECTION SAFETY

1. Read, understand and follow the User Manual and signs on the equipment before using, maintaining or inspecting the equipment.
2. ANSI and OSHA requires a regular inspection program for all Safety Equipment and to maintain documented results of these inspections. Follow the inspection procedure contained in this of any other applicable the manual and use the inspection form(s) to document the results.
3. Keep instructional and safety labels clean and legible at all times. Clean or replace as required. See Section 5 for label information and part numbers.
4. Lubricate winch as per instructions in Winch Operator's Manual. (if applicable)
5. Remove the equipment from service if a problem is found during the inspection. Return to an authorized repair depot or the factory for service.

4.1 Maintenance

4.1.1 Maintenance Intervals

Daily

1. Visual Inspection

Perform a complete visual inspection. Refer to Section 4.2.1 excluding .2. Refer to quarter year inspection for 4.2.1.2. Remove from service if a defect is found.

Weekly

1. Functional Inspection

Perform a functional inspection. Refer to Section 4.2.2. Record results and keep documentation.

2. Lubricate

Perform a unit lubrication interval. See Section 4.1.2.

Annually or As Required

1. Clean FSHRS System

Thoroughly clean the FSHRS System using mild soap on the body and labels. Be sure the labels are legible. Refer to Section 5 for information on ordering replacement labels if any are damaged or become illegible.

2. Complete Inspection

Perform a complete inspection. Refer to Section 4.2 & 4.3. Record results and keep documentation.

3. Torque Fasteners

Critical fasteners are to be checked. Inspection areas are indicated in Section/Figure 4.2.1.2.

4.2 Inspection

4.2.1 Visual Inspection

A complete visual inspection should be performed on the FSHRS System equipment you are using prior to the operation. The following items should be checked; and the results recorded on the "Inspection Log" sheet (see Section 4.3).

1. Labels

Check that all labels are clean and legible. Clean the labels if any are dirty using a mild soap and a damp cloth. Replace if any are illegible (Refer to Section 5 for a listing of all labels). See Figure 4.2.1.1.

2. Fasteners

Fasteners must be checked and tightened to the specified torques in Figure 4.2.1.2.

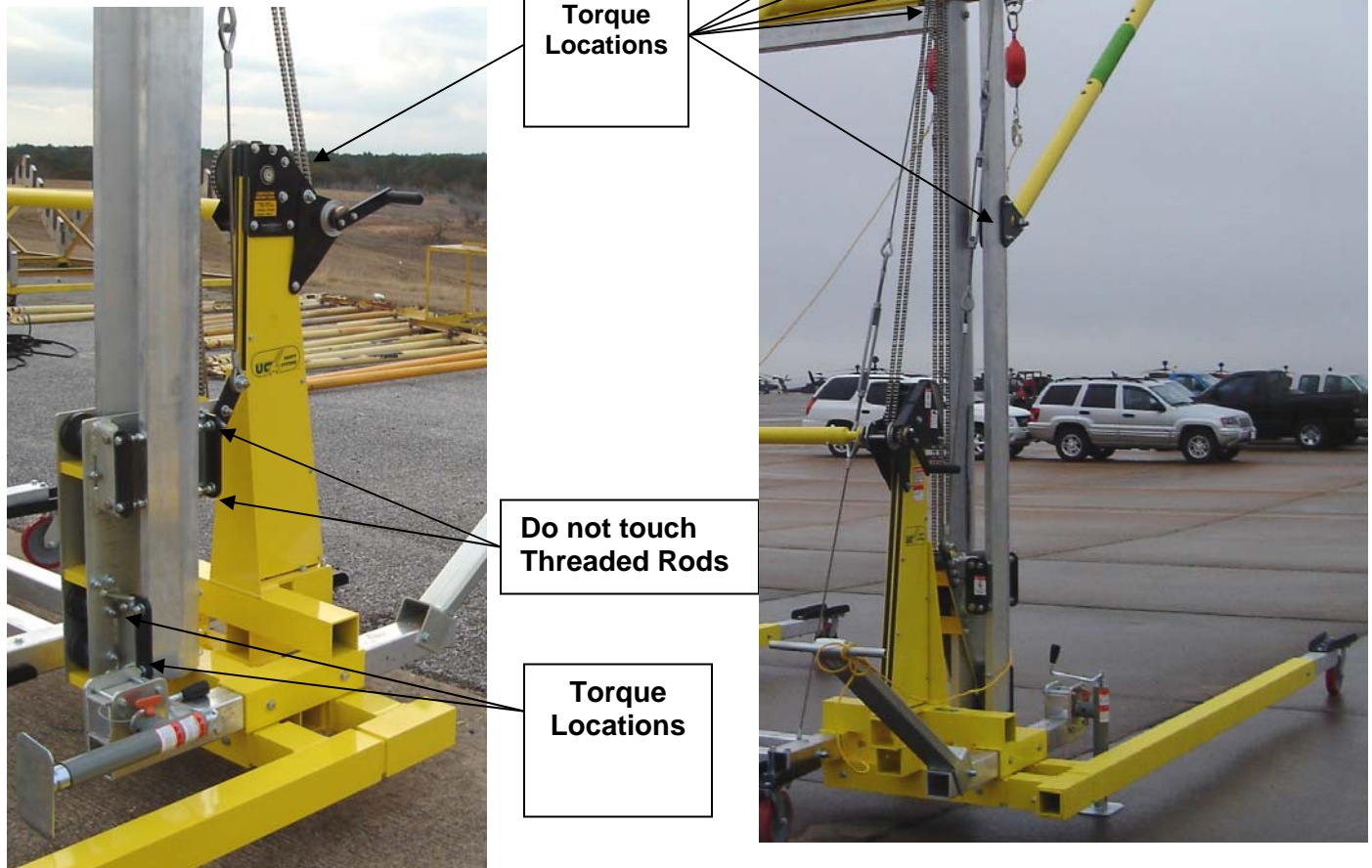
Bolt Size & Grade	Torque Setting
½ in., Grade 5	30-35 ft.lbs (40-48 N.m)
½ in., Grade 8	35-40 ft.lbs (48-54 N.m)
5/8in., Grade 8	35-40 ft.lbs (48-54 N.m)

Contact your local dealer or UCL manufacturer for any replacement fasteners that may be required.



Figure 4.2.1.1

Figure 4.2.1.2



Fasteners con't

Pneumatic wheel torque locations

All bolts holding the wheel to the structure must be a torque setting of 20 ft.lbs (27 N.m). Figure 4.1.2.2.

3. Cable Tie-Backs

Check the cable tie-backs on the structure. The cables must be tight to apply slight pressure on the unit, Figure 4.2.1.3. DO NOT OVERTIGHTEN.

4. Overload Detection Gusset

This gusset is an indicator of a previous fall or misuse/abuse. These gussets are located on each end of the rail supporting the rail from the vertical stanchion as shown in Figure 4.2.1.4. Inspect the gussets visually for straightness and there is no visible deformation or bend indicating an incident. Please ensure the proper M.A.F. device is used for this product and read all labels (see Section 5) prior to use.

This gusset not only provides visual indication of a fall or misuse but also provides better protection against the rest of the rail components from becoming damaged and reduces costly repairs to the unit.

5. Structural Components

Check the components for cracks, dents, bends, or breaks. Minor cosmetic damage in the component body will not affect the function of the FSHRS System. However if there are major dents or any other structural damage, the unit should be removed from service and returned to the manufacturer for service.

6. Corrosion

Check all components for damage from corrosion. Although all components resist corrosion, working in corrosive environments can lead to damage. Inspect all structural components and fasteners for signs of damage. If corrosion damage is found, remove from service and return to the manufacturer for service.



Figure 4.1.2.2



Figure 4.2.1.3

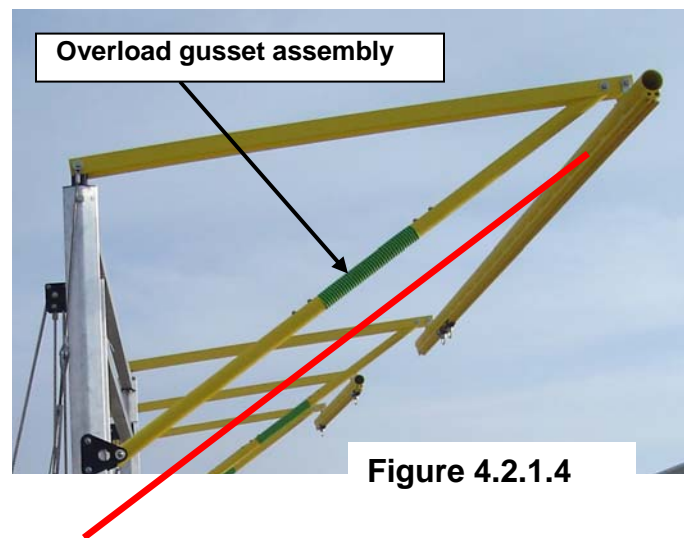


Figure 4.2.1.4

6. Brake wear Indicator

Check the brake wear indicator while lowering the unit. If the indicator shows into the red, remove from service and contact the manufacturer. See Figure 4.2.1.6.



Figure 4.2.1.6

7. Synchronizing Drive Connector

If the synchronizing drive connector is removed for any reason including maintenance it is very important **NOT** to crank the individual drives. This will cause imbalanced height of trolley rail which can cause serious injury or death. See Figure 4.2.1.7.



Figure 4.2.1.7

4.2.2 Functional Inspection

A functional check should be performed on the FSHRS prior to every use. The following functional tests should be done; and the results recorded on the "Inspection Log" sheet (Section 4.3).

1. System Operation and Adjustments

The FSHRS contains operational parts that may include pulleys and /or rollers. These parts must be carefully checked for chips, cracks, or worn areas that can cause malfunction during operation of the system.

Make sure that all the adjustment points are in full functional condition. This may include parts that contain pins, bolts, tri-screws, and adjusting screws. There are also mechanical adjustments which may include, adjustable legs, sleeves, adjustable sliding blocks, and brackets. These areas must be kept clean from debris and corrosion for proper functional use. If any part of the system that includes all listed items above becomes damaged contact your local dealer or manufacturer for parts and/or service.

2. SRL and other Accessory Inspection

Refer to the manufacture's operator's manual or instructional material for proper functional inspection procedures for SRL's and accessories not covered by this manual.

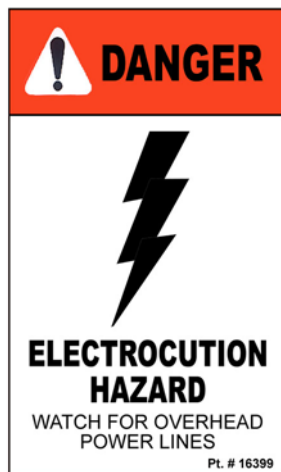
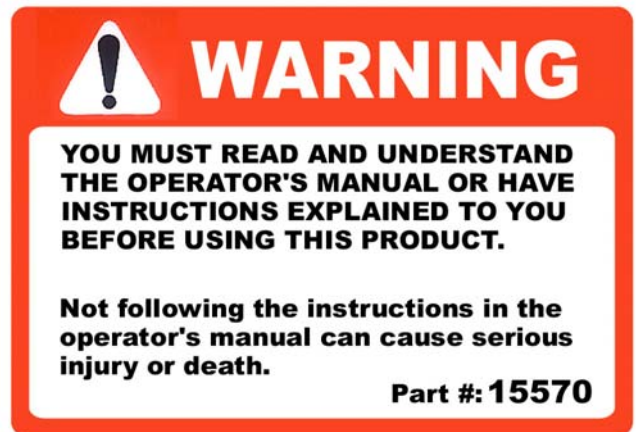
5 LABELS

5.1 Warning Labels

The **UCL ADVANCED FSHRS** uses a label rating system that is attached to all components on the system.

The operator and/or entrant must establish the local standards by a qualified engineer and only then, a decision can be made by the rating labels as to which is the lowest rated component and if it meets or exceeds local standards.

Proper maintenance of the labels must be established by the operator/entrant to keep system use safe. If labels are damaged the operator/entrant must enforce a lock-out/tag-out procedure. New labels are available from the local dealer or UCL manufacturer.



6 SPECIFICATION SHEETS

6.1 General

These specification sheets contain information necessary for the proper installation and use of the equipment mentioned in this manual. These specifications contain application specific ratings and mounting requirements determined through design and testing.

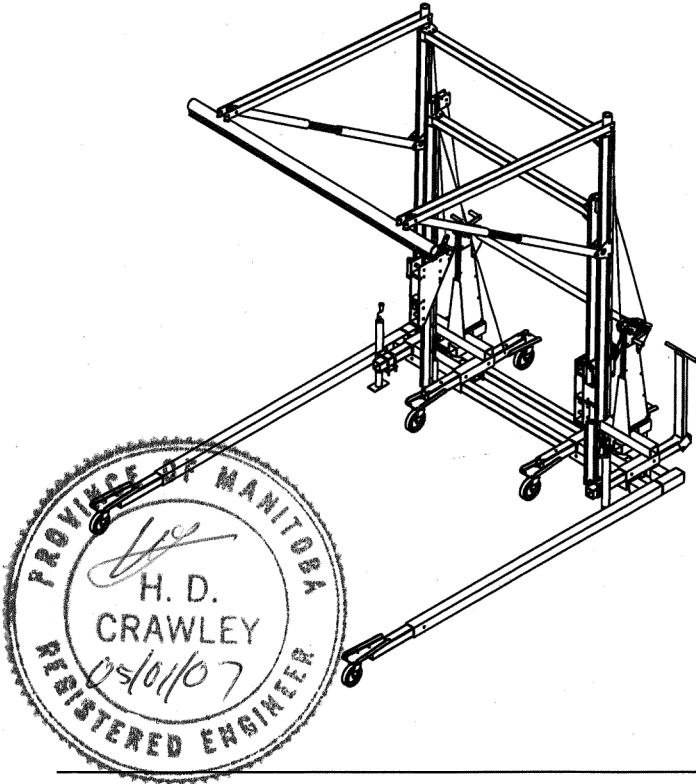
Please read and follow these specification sheets carefully to ensure the proper installation of each item.

Model 8520216/8520215 includes the following

Item	Part #	Description
1	8520216	UCL Free Standing 10 foot Horizontal Rail System
2	8520215	UCL Free Standing 20 foot Horizontal Rail System

DESCRIPTION

UCL Adjustable Free Standing Horizontal Rail System (FSHRS) is for use with long working areas that are performed at substantial height. Application examples are aerospace, aircraft maintenance and trucking industries. Adjustable in height the horizontal rigid rail system covers many applications and is rated for maximum 2 persons fall protection. Available in 10 or 20 foot (3 or 6 m) widths as shown above.



General Specifications:

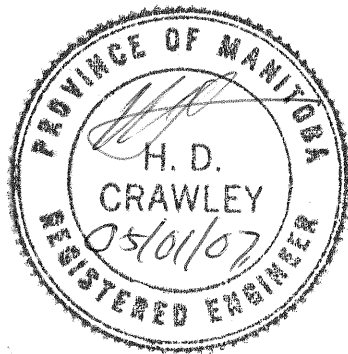
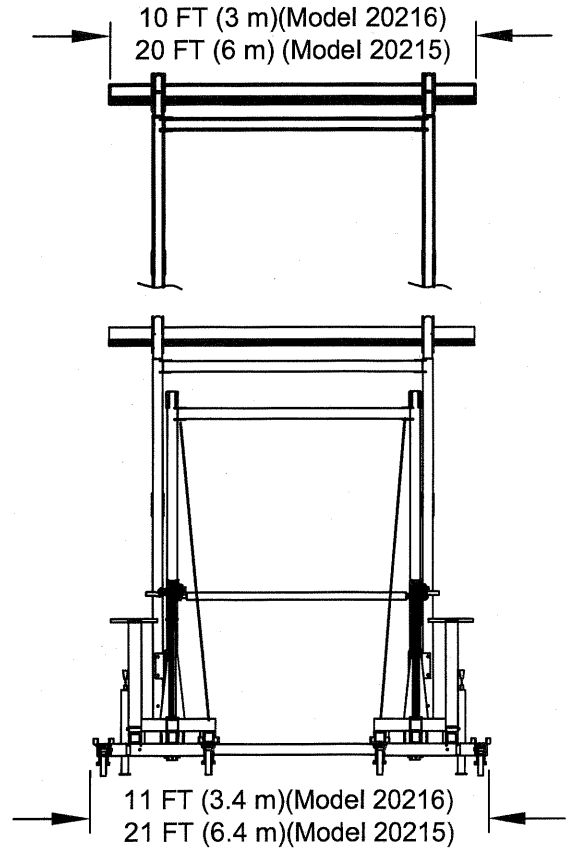
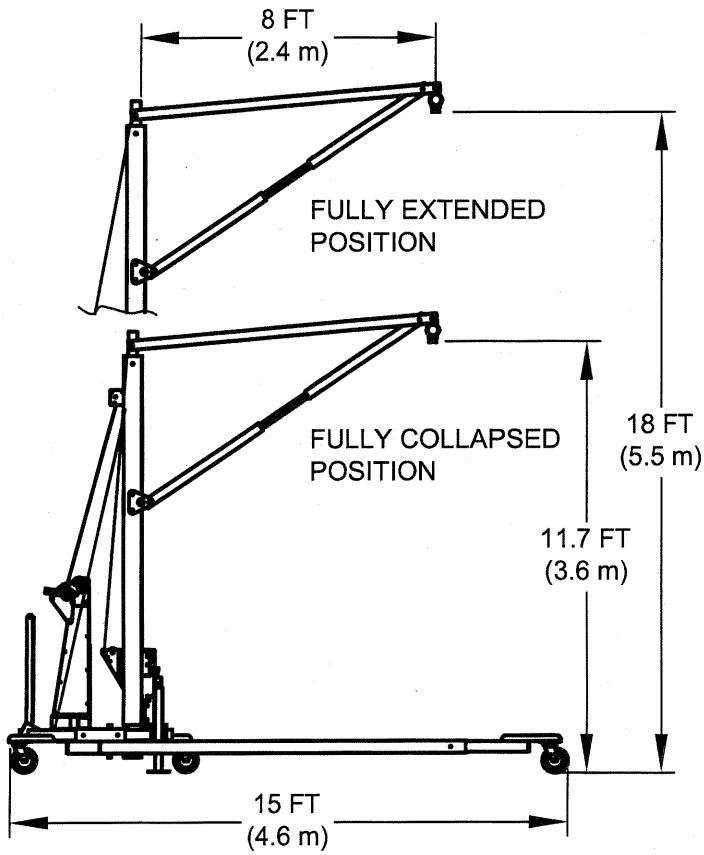
Working Load	Maximum 2 workers(310 Lb/141 kg each) each using 900 Lb/ 4kN M.A.F. SRL's
Design Factor	Minimum 2:1, Dependant on System Accessories
Proof Load (with Deformatin)	3600 Lbs (16 kN)
Proof Test Numbers(s)	UCT 420, UCT - 488, UCT - 490, UCT - 491, UCT - 492

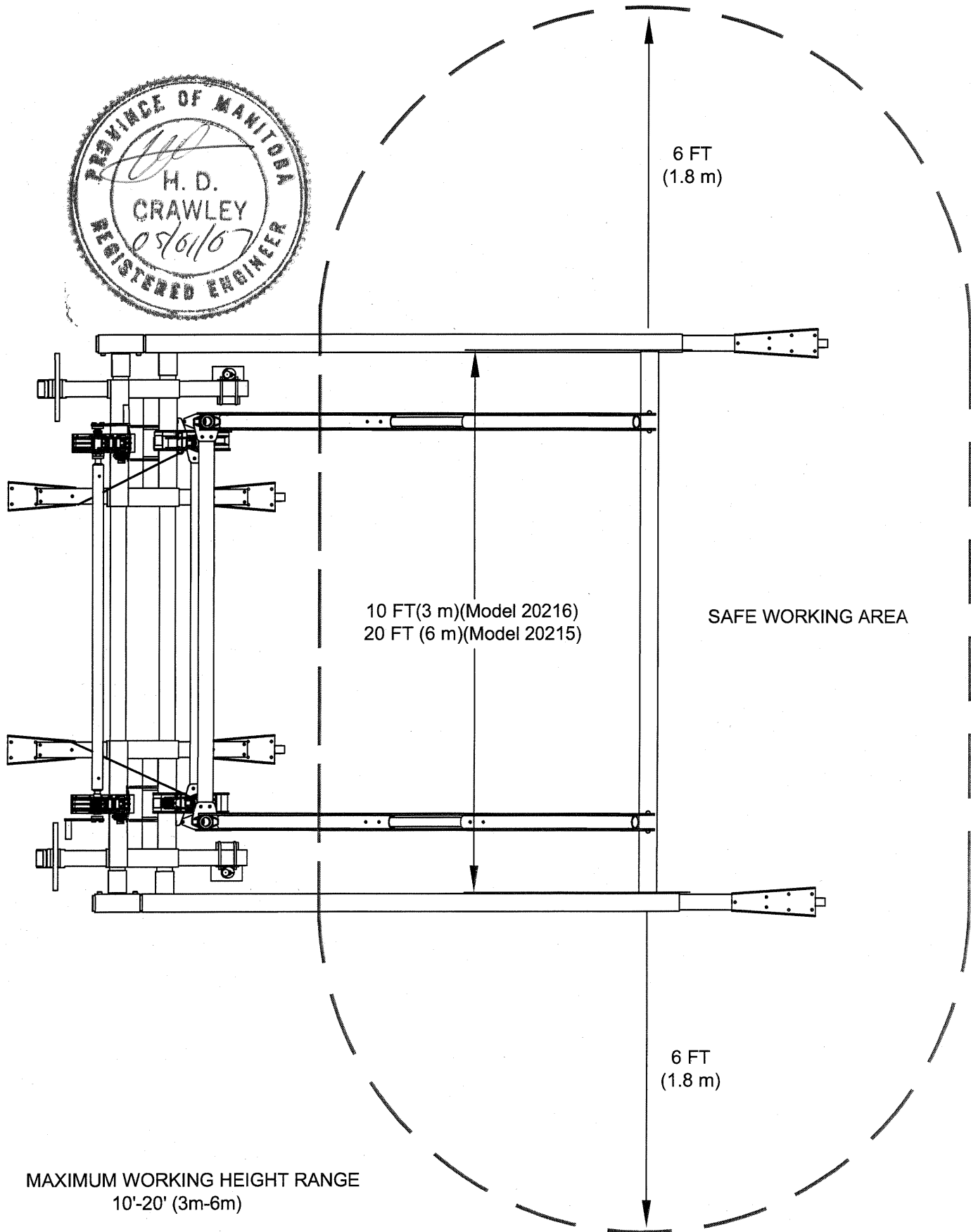
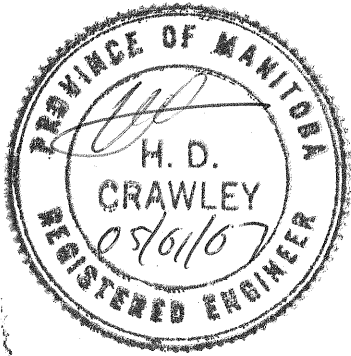
Materials & Construction:

General Construction	Welded Steel / Aluminum
Weld Certification	Canadian Welding Bureau (CWB-47.1, CWB-47.2)
Material (Aluminum)	6061-T6, 5053-H32
Material (Steel)	Hot Rolled Steel Plate, Bar, Minimum A-36
Finish (Steel)	Zinc Plate and/or powder coat
Finish (Aluminum)	Safety yellow Powder Coat, Mill Finish
Hardware	Minimum Grade 5-Zinc Plated
Plating Specification	ASTM Designation B633-85, Type II, SC2 CS - 500 Leachant/Sealant Process

Application Restrictions

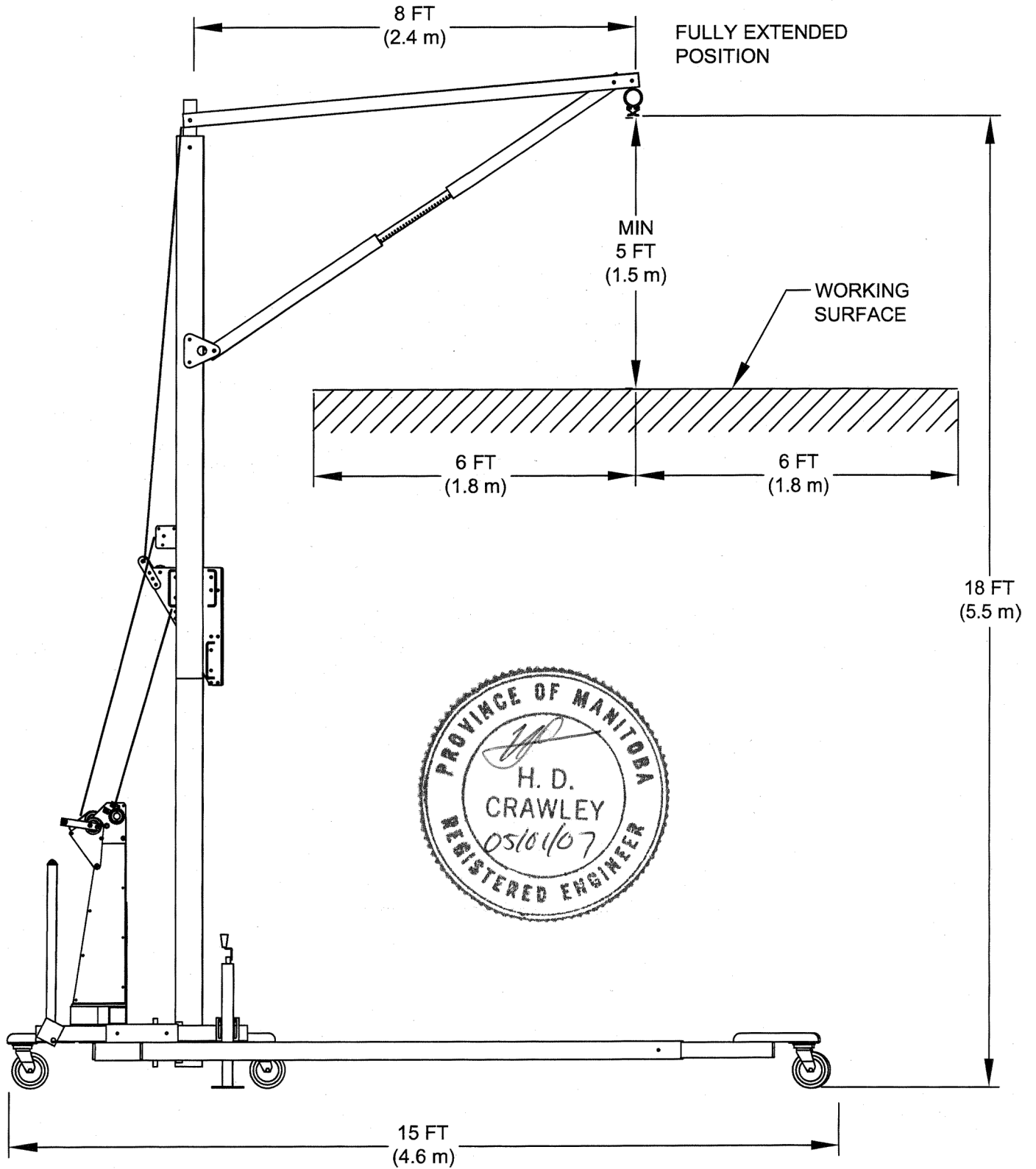
1. This device is intended for use with equipment and accessories manufactured or approved by Unique Concepts Ltd. Accessories must be selected, installed, and used subject to all application restrictions outlined in this and any other applicable Product Specification Sheets or manufacturer's literature.
2. User is responsible for determining the suitability of this equipment and any accessories prior to commencing work on any job.
3. SRL's selected for use with this device must have a maximum Arrest Force (MAF) Rating of 900 Lb (4 kN) or less.
4. SRL's **MUST BE** selected and rigged by a competent person with due regard to the prescribed safe working area and swing fall hazards.
5. SRL's must be maintained and used in accordance with manufacturers instructions.
6. Where required by regulation, each installation **MUST BE** approved to local standards by a qualified engineer.
7. All equipment **MUST BE** set up and operated under the supervision of a competent person according to the manufacturer's instructions.





MAXIMUM WORKING HEIGHT RANGE
10'-20' (3m-6m)





8. SERVICE CENTERS

8.1 General

This list provides a general list of the manufacturer(s) as well as certified service centres in different countries.

If you require assistance in finding the closest service centre please call the manufacturer(s) directly.

Manufacturer(s)

CANADA

Capital Safety - Canada
260 Export Boulevard
Mississauga, ON L5S 1Y9
Phone: 905.795.9333
Toll-Free: 800.387.7484
sales.ca@capitalsafety.com

USA

Capital Safety
3833 SALA Way
Red Wing, MN 55066-5005
Phone: 651.388.8282
Toll-Free (US): 800.328.6146
solutions@capitalsafety.com

ASIA

Capital Safety Group Asia Pte Ltd.
No. 6, Tuas Avenue 18
Singapore 638 892
Phone: 65 6558 7758
inquiry@capitalsafety.com

AUSTRALIA / NEW ZEALAND

Capital Safety Australia Ltd.
20 Fariola Street
Silverwater
Sydney NSW 2128
Australia
Toll Free: 1 800 245 002 (Australia)
Toll Free: 0800 212 505 (New Zealand)

EUROPE / MIDDLE EAST / AFRICA

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Le Broc Center– Z.I. 1ère Avenue
5600 M B.P. 15 06510
Carros Le Broc Cedex
France
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information@capitalsafety.com

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