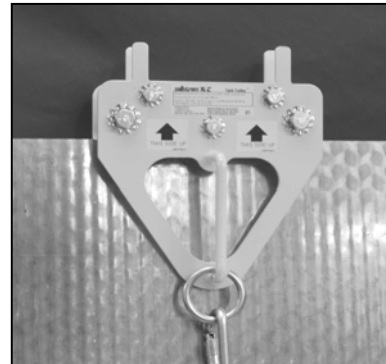


# Sellstrom/RTC<sup>®</sup> Tank Trolley™

## Installation Operation and Maintenance Instructions

Instruction: INST-TT  
Effective: 1/2004  
Expiration: 1/2014

The SM/RTC Tank Trolley is a mobile anchorage connector that rolls along the top ridge of fill erected storage tanks or other similar surfaces. The trolley contains two bearings that roll along the top of the tank. A forged steel O-ring provides a convenient anchorage connection for fall protection equipment.



### WARNINGS

#### Under Penalty of Law:

These instructions are not to be removed except by the user of this equipment. Current instructions must always be available to any potential user. Note: Because of continuous developments in the application and use of SM/RTC equipment and our desire to serve your best interests, these instructions are invalid 10 years after the effective date on these instructions. If you purchase a product, and these instructions are out of date, call SM/RTC Customer Service and request current instructions. Dial toll free (800) 323-7402 (U.S. and Canada) or (847) 358-2000.

If you have difficulty or experience any problem with SM/RTC equipment or the instructions, call the above toll-free number or (847) 358-2000 immediately and ask the Customer Service department for assistance.

Use this equipment as a part of a complete fall protection system. Inspect and maintain regularly.

You must read and fully understand or have the following instructions explained to you before using this equipment. Failure to do so could result in serious or fatal injury.

Atencion: Si usted no puede leer el ingles o si usted no comprende estas instrucciones, favor de consultar su director de seguridad o su supervisor.

Attention: Si vous ne pouvez pas lire l'anglais ou si vous ne comprenez pas les instructions, consultez votre directeur de securite ou votre superviseur.

Achtung: Wenn Sie nicht Englisch lesen können und diese Anweisungen nicht verstehen, dann fragen Sie bitte Ihren Sicherheitsdirektor oder Ihren Aufselher.

Attenzione: Se non leggere l'inglese o non capite queste istruzioni, per favore rivolgete Vi al Vostro Direttore, responsabile della "Sicurezza sul Lavoro" o al Vostro diretto superiore.

You assume complete liability if you fail to follow these instructions and are injured. Use this equipment only as instructed.

Warning: All SM/RTC equipment should be as part of a complete SM/RTC fall protection or emergency rescue system. If the buyer or user chooses to disregard this warning, he is solely responsible for the safety of the entire system and all users.

Before replacing or adding components to a fall protection or emergency escape system, consult the original manufacturer. Federal OSHA states that any unauthorized substitution or change to a system by the buyer should be fully evaluated or tested by a qualified person before the new system is put into use (see OSHA 1926.500).

All potential users of this equipment and user's management must read and understand all instructions fully; failure to do so could result in serious or fatal injury.

No fall arrest system can guarantee that you will not sustain injuries if a fall occurs. The most you can expect is that injuries will be substantially reduced. Improper use of this equipment will vastly increase your chances of serious injury or death because misuse builds false security. To achieve the maximum level of safety that this equipment is capable of providing, all instructions must be followed diligently. This means careful planning of your application and work method.

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### Complete System Components

A complete fall protection system consists of the following components that are arranged to fit the specific work task and control the elevated fall hazard(s):

- Anchorage

An anchorage is a secure means of attachment to which the personal fall arrest system is connected. (ANSI Z359.1)

- Body Support

A body support is the component of a personal fall protection system that is worn on or around the body. Full body harnesses must be used for all fall arrest systems.

- Connecting Means

A connecting means is the link between the body support and anchorage. It can be a shock-absorbing lanyard, rope grab, self-retracting lanyard or retrieval system. Connecting means will vary depending on the application.

The user must also have a rescue plan and the means at hand to implement it in the event of a fall.

Note: For continuous protection, more than one system may be needed.

### **WARNING!**

No other applications or methods of use are allowed without prior written approval. Failure to comply with these guidelines may result in serious injury or death.

### 1.0 Application

- 1.1 The SM/RTC Tank Trolley is a mobile anchorage connector that rolls along the top ridge of fill erected storage tanks or other similar surfaces. The trolley contains two bearings that roll along the top of the tank. A vertical connection bar provides a convenient anchorage connection for fall protection equipment. The trolley can be used horizontally at waist height or overhead. Several trolleys (one per worker) can be used on one tank, as long as the anchorage requirements below have been satisfied. The SM/RTC Tank Trolley is approved for use only in combination with a SM/RTC full body harness and shock-absorbing lanyard or self-retracting lanyard.
- 1.2 Anchorage Strength: All anchorages (tanks) must be capable of supporting a minimum of 3,600 lb. when certification exists, or 5,000 lb. in the absence of certification. (See ANSI Z359.1 for definition of certification.) When more than one personal fall arrest system is attached to an anchorage, the anchorage's strengths above shall be multiplied by the number of personal fall arrest systems attached to the anchorage. This requirement is consistent with OSHA requirements which read, "Anchorages used for attachment of personal fall arrest systems shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 lb. per user attached, or be designed, installed and used as part of a complete personal fall arrest system which maintains a safety factor of at least two and is supervised by a qualified person."
- 1.3 Other Applications: There may be other applications that are inappropriate for this unit. In case of doubt about an application, call SM/RTC.

### **WARNING!**

- **Do not use with a body belt or chest harness. The Tank Trolley must be used with an SM/RTC Full Body Harness.**
- **The deceleration device must be attached to the Tank Trolley on the side that the user will be working, and NEVER attach the deceleration device to the opposite side of the Tank Trolley.**

### 2.0 Performance Data and Material Specification

- 2.1 Designed Working Load: 75-310 lb. or one person. Do not use for material handling.
- 2.2 Maximum Arresting Force must be limited to 1800 lb. or less. Use only approved fall protection equipment.
- 2.3 Materials of Construction: Plain carbon steel frame, stainless steel hardware.
- 2.4 Minimum load requirement for riding surface is 3600 lb. w/ certification, 5000 lb. without.
- 2.5 Maximum support thickness: 1.0 in.
- 2.6 Minimum tank diameter: 10 ft.
- 2.7 The Tank Trolley system meets OSHA 1910.66, 1926.500, ANSI A10.14 and Z359.1 standards.

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### 3.0 Installation

- 3.1 Anchorage Structure: Confirm that the anchorage structure (tank) meets strength requirements listed in section 1.0.
- 3.2 Inspect trolley as instructed in the inspection section. Attach Tank Trolley as shown. Make sure that the bearings roll smoothly along the top of the structure and that the 4 prongs are pointing up. Do not expose yourself to a fall hazard during attachment or detachment. Never attach the Tank Trolley in any other manner.
- 3.3 Connect fall protection deceleration device to the O-ring using a double locking snap hook or carabiner.
- 3.4 Clearance: Determine the necessary clearance needed below the walking or working surface and confirm that adequate clear space is available. Read instructions provided with the fall protection deceleration device you will be using for clearance information



### WARNING!

- **Do not attach more than one snap hook or carabiner to the O-ring.**
- **Do not attach more than one person to a trolley.**
- **Connect only to the side of the trolley that you are working on. Never work on the opposite side of the trolley.**

### 4.0 Operation Instructions

- 4.1 You must follow these instructions carefully to allow this system to provide you with needed fall protection during the job. If you have any concerns regarding the condition of the system or experience any problems, notify your supervisor or the safety department immediately. Never take any chances.
- 4.2 Visually inspect the Tank Trolley, deceleration device (lanyard or self-retracting lifeline), harness, and the anchor point (refer to the inspection section of this instruction for details). Check the inspection log before each use. If the log does not show that a formal inspection has been performed within the last 6 months, remove the Tank Trolley from use and mark it "DO NOT USE" until a formal inspection is done by a qualified person.
- 4.3 Adjust your harness to fit very snugly (refer to SM/RTC instruction #569 for details). A proper, snug and secure fit can help reduce the chances of falling out of your harness.
- 4.4 Attach the deceleration device (lanyard or self-retracting lanyard) to your back harness D-ring using the SM/RTC locking snap hook or carabiner. The snap hook must be attached to the back D-ring that is located between the shoulder blades. Do not use any other D-ring. Attach while at ground or grade level before you are exposed to a fall hazard. Make sure the snap hook closes and locks completely. Any harness used must be in good condition and meet federal OSHA requirements. Check with your supervisor or the safety department if you are not sure. No other linkage or method of attachment is allowed. Never connect the Tank Trolley to more than one person. The Tank Trolley is a one-person device. **The deceleration device must be attached to the Tank Trolley on the side that the user will be working, and NEVER attach the deceleration device to the opposite side of the Tank Trolley.**
- 4.5 After you are connected, work normally with smooth movements. Do not jump across floor openings or fall hazards.
- 4.6 The Tank Trolley should be overhead when you are working. Make sure that the trolley follows as you move. Do not work away from the tank or structure. You must not work in a position where a swing fall could lead to an injury. Do not expose yourself to any unnecessary fall hazard or swing fall hazard. For example, never reach out while using the Tank Trolley, which can expose you to a dangerous swing if you fall.
- 4.7 Important: If you fall, immediately report what happened to your supervisor or the safety department. Remove the item from service, replace it and call SM/RTC Customer Service for recertification or repair. A qualified person must check the entire system to make sure it will provide the proper protection for the next person who might fall. Do not delay; it could be you.
- 4.8 In the event of a fall, remove the Tank Trolley and all personal fall protection equipment from service. Mark, "DO NOT USE" until the equipment can be inspected by a qualified person. Refer to the inspection section. Contact SM/RTC Customer Service for advice.



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### 5.0 Inspection

The user must inspect all equipment visually before each use. We suggest a formal inspection at least every 6 months by a competent person other than the user. We list this time interval because it is the most stringent of all the national consensus standards for fall protection:

- *ANSI A10.14, American National Standard for Constructions and Demolition Operations - Requirements For Safety Belts, Harnesses, Lanyards and Lifelines for Construction And Demolition Use* requires a formal inspection by a competent person every six months.
- *ANSI Z359.1* requires inspection by a competent person once every month for self-retracting lanyards, once a year for all other equipment.
- *OSHA 1910.66 and 1926.500* requires no formal inspection period; only inspection by the user before each use.

Because ANSI A10.14 and Z359.1 are national consensus standards, and compliance is not required by law, your company has the discretion to determine if the standards are applicable to your workplace. Equipment used in harsh environments requires more frequent formal inspection.

Corrective Action: If damage is found as described below, remove the item from service immediately and replace it. If any damage or questionable conditions are apparent that are not described below, remove the item from service, mark "DO NOT USE", replace it and call SM/RTC Customer Service for advice. Failure to remove damaged or questionable equipment could lead to serious or fatal injury.

- 5.1 A detailed record of inspection dates must be maintained. An inspection chart is provided at the end of these instructions for your convenience.
- 5.2 Anchor Point and Attachment: Make sure the attachment to the anchor point is secure. The structure to which the Tank Trolley is attached must be checked. Make sure it is secure and free from distortion, cracks or other visible signs of damage.
- 5.3 Trolley: The Tank Trolley should be examined for cracks, dents, distortion, corrosion, abrasion, rough or sharp edges or other visible signs of damage. Fasteners should be secure.
- 5.4 Bearings: Inspect the Tank Trolley before each use to ensure smooth operation on the rail. Ensure the rollers rotate freely for smooth operation
- 5.5 Labels: Labels must be secure and legible.
- 5.6 Additional Equipment: Inspect all fall protection equipment used with the system as directed in the instructions for each piece of equipment.
- 5.7 If a fall occurs, a qualified engineer should inspect the rail and determine if the trolley or anchorage structure have been structurally weakened.
- 5.8 Never adjust, repair, or substitute any parts of a SM/RTC system.

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### 6.0 Maintenance

- 6.1 Personal protection equipment should be maintained regularly to help make sure that the equipment will operate properly when needed. Failure to maintain and store equipment carefully can result in poor operation that could lead to serious or fatal injury.
- 6.2 Frequency: All equipment should be part of a periodic maintenance program that includes detailed records of inspection and maintenance. An inspection every 6 months is suggested or more frequently if the equipment is heavily used.
- 6.3 Repairs: Never make any adjustments or repairs to or substitute any parts of the SM/RTC system. Call SM/RTC Customer Service for advice. You must return the unit for factory inspection and maintenance within two years of manufacture date and every two years thereafter.
- 6.4 Storage: The Tank Trolley should be stored with the other components of the confined entry system. It should be kept out of the weather and in a manner to prevent damage from bending, crushing or breaking.
- 6.5 Cleaning: The Tank Trolley can be wiped down with a clean cloth to remove any dust or dirt. Lubricate after cleaning.
- 6.6 Lubrication: The Tank Trolley may be lubricated periodically with a dry silicone-based spray at pivot points. Do not use oil or grease that will attract dirt or grit. Do not grease, oil, or lubricate the anchorage structure or fuel tank.
- 6.7 Reconditioning and Repair: There are no user serviceable parts in the Tank Trolley. All repairs must be made by SM/RTC.
- 6.8 Call SM/RTC Customer Service before returning a Tank Trolley to SM/RTC for inspection or repair.

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### **7.0 Training Guidelines**

All training must be conducted under careful and competent supervision. Live hands-on training for all users is essential to help understand the capabilities and limitations of their personal protective equipment. Training also helps promote confidence and should be conducted as an initial introduction, as well as periodically for review and additional practice. Also, this instruction booklet should be stored where users can easily review it whenever necessary. Training should be site specific.

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### **8.0 Warnings**

- 8.1 Failure to observe the warnings below, follow all instructions in this booklet, or seek qualified assistance when needed can lead to serious or fatal injury.
  - 8.2 Do not exceed maximum weight capacity of 310 lb., including tools.
  - 8.3 Never substitute parts of the SM/RTC Tank Trolley.
  - 8.4 Do not use this equipment in violation of any applicable company, state, or federal standard or requirement.
  - 8.5 All users must be in good mental and physical health and not under the influence of drugs or alcohol.
  - 8.6 Anyone who has a history of back or neck problems that could be aggravated or complicated by using fall protection equipment should not do so. Pregnant women and minors should not use this equipment. If there is any reason why you may not be physically able to safely absorb the forces subjected in the event of a fall arrest, consult your doctor.
  - 8.7 Never attempt to make any repairs, alterations, or adjustments to SM/RTC equipment. All problems or concerns must be reported to SM/RTC Customer Service.
  - 8.8 Use caution when working near electrical hazards.
  - 8.9 In salt and other corrosive environments, stainless steel cable models should be used. Consult SM/RTC for advice on exposure to any chemical or environment that may cause corrosion.
  - 8.10 Do not use the SM/RTC Tank Trolley for load arresting applications.
  - 8.11 Never connect the Tank Trolley to more than one person. The Tank Trolley is a one-person device.
  - 8.12 Use caution when working around moving machinery.
  - 8.13 Swing Fall Hazard: Do not use where a swing fall hazard may occur. Always check for obstructions below your working area to make sure your potential fall path is clear. Work directly under the anchorage point at all times. Swing falls can be controlled in at least two ways. First, an engineered fall protection system can be used to help maintain the attachment point overhead, thereby allowing the fall arrest to occur in a vertical plane. Second, the height of the anchor point can be raised, thereby reducing the angle of the arc and force of the swing. Important: Carefully review the mobility needed to complete the required work task, including travel to and from the workstation. For continuous and complete fall protection, more than one SM/RTC system may be required.
  - 8.14 Never use a Tank Trolley on any tank edge that is not horizontal and smooth enough for the trolley to roll freely.
  - 8.15 Never install or use the Tank Trolley upside down or partially fitted to the rail, because fall arrest forces and swing motion could cause a serious or fatal fall.
  - 8.16 Never attach a material load to the Tank Trolley device for material handling use.
  - 8.17 Never attach more than one person to a trolley.
  - 8.18 The deceleration device must be attached to the Tank Trolley on the side that the user will be working, and NEVER attach the deceleration device to the opposite side of the Tank Trolley.
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### **9.0 Questions**

If you have any question or need additional explanation or clarification about the use of any SM/RTC equipment, call SM/RTC customer service toll-free 800-323-7402 (U.S. and Canada) or 847-358-2000 in Illinois or outside the Continental United States.

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Inspection Records:

Model Number													
Serial Number													
Inspection Date													
Inspector													
Body													
Bolts													
Spacers													
Bearings													
Connection Arms													
Labels													
Disposition													

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