

# A7320 Swivel Anchor Instruction Manual

# Swivel Anchor INSTRUCTION MANUAL

These instructions apply to the following models:

A7320 - Swivel Anchor

Manual Revision Code: MD-CASUIM072622

A copy of this manual must be available to users at all times. Visit www.MaltaDynamics.com for the latest user instruction manual based upon date of manufacture.



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### **UNDER PENALTY OF LAW**

This manual must be read and understood in its entirety, and used as part of a fall protection training program, as required by OSHA or any state/local regulatory agencies. This instruction manual is intended to meet industry standards required by ANSI Z359.18-2017 and should be used as part of an Employee Fall Safety Training Program as required by OSHA. User must read and fully understand the limitations and proper use of the equipment. All users must be properly trained by their employer prior to use, per OSHA 29 CFR 1910.66, 29 CFR 1926.503, and applicable local standards.

**NOTE:** This *User Instruction Manual* is not to be removed except by the equipment user. Current *User Instruction Manuals* must always be available to the user. Read and understand these instructions before using equipment. *Do not discard these instructions.* 



Misuse or failure to follow warnings, instructions, and limitations on the use of this equipment may result in serious personal injury or death. For further instructions about proper use, refer to supervisor or contact Malta Dynamics at 1-800-494-1840.

### **MATERIALS AND CONSTRUCTION**

• Hardware: Plated alloy steel, 5000 lbs. minimum breaking strength

### **PURPOSE**

The A7320 is an anchorage connector designed to function as an interace between the anchorage and a fall protection, work positioning, rope access, or rescue system for the purpose of coupling the system of the anchorage. Any references to "anchorage connector" in this manual include, and apply to, the A7320 used with 5,000-lbf anchorage connectors.

### **INSTRUCTIONS FOR USE**



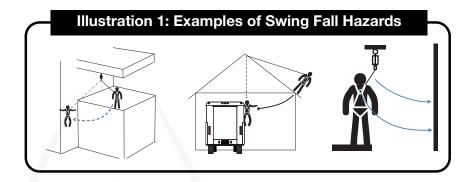
Do not alter or intentionally misuse this equipment.

#### **USE REQUIREMENTS:**

- A user must be of sound mind and body to properly and safely use this equipment in normal and emergency situations. Users must have a physician ensure they are clear of any medical conditions that may affect the proper and safe use of this equipment in normal and emergency situations.
- 2. Before using a personal fall arrest system, user must be trained in accordance with the requirements of OSHA 29 CFR 1910.66 in the safe use of the system and its components.
- 3. Use only with ANSI/OSHA compliant personal fall arrest or restraint systems. The anchorage must have the strength capable of supporting a static load, applied in the directions permitted by the system, of at least 5,000-lbf (22.2kN) in the absence of certification.
- 4. The user shall be equipped with a means of limiting the maximum dynamic forces exerted on the user during the arrest of a fall to a maximum of 8kN (1800-lbf).
- 5. Use of this product must be approved by an engineer or other qualified person to be compatible with any and all sturctural & operational characteristics of the selected installation location and system to be connected to this anchorage connector.
- The anchorage connector must be inspected prior to each use for wear, damage, and other deterioration. If defective components are found the anchorage connector must be immediately removed from service, in accordance with requirements of OSHA 29 CFR 1910.66 and 1926.502.
- 7. The complete fall protection system must be planned (including all components, calculating fall clearance, and swing fall) before using.
- 8. A rescue plan, and the means at hand to implement it, must be in place that provides the prompt rescue of users in the event of a fall, or assures that users are able to resue themselves.
- 9. After a fall occurs, anchorage connector must be removed from service and destroyed immediately.

#### WARNINGS REGARDING THE SWIVEL ANCHOR:

- Before use, all users must understand the instructions, operation, limitations, and consequences of improper use of device.
- Before use, all users must be properly trained in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.503 or applicable local standards in the safe use of the fall arrest system and its components.
- Before use, thoroughly inspect the swivel anchor as indicated in Section 6.
- Only use the swivel anchor with ANSI/OSHA compliant personal fall arrest or restraint systems.
- In the absence of certification, the anchorage must be capable of supporting a static load, applied in the directions permitted by the system, of at least 10,000-lbf (44.4 kN) for N-8232100, and 5,000-lbf (22.3 kN) for N-8232050.
- The maximum dynamic forces exerted on the user during a fall arrest must be limited to a maximum of 8kN (1800 lbf). In the EU, these forces must be limited to 6 kN (1,350-lbf) for N-8232100.
- A competent engineer or other qualified person must approve that the
  use of swivel anchor is compatible with all structural and operational
  characteristics of the selected installation location and system that it will
  relate to.
- Prior to each use, the must be inspected for wear, damage, and other deterioration. The swivel anchor must immediately be removed from service (in accordance with OSHA 29 CFR 1910.66 and 1926.502) if it does not pass inspection.
- Before use, ensure that the complete fall protection system (including components, fall clearance, and swing fall) are planned and established correctly.
- Position the swivel anchor in such a way to minimize the potential for falls, and the fall distance during use.
- Before use, establish a rescue plan that provides either: prompt rescue
  of users in the event of a fall, or assures users can rescue themselves.
  Also confirm that the means to implement said rescue plan are at hand
  and easily accessible.
- After a fall, the anchorage connector must be removed from service and destroyed immediately.
- Swing Falls occur when the anchorage point is not directly above the
  point of a fall. The force of striking an object in a swing may cause
  serious injury or death. Minimize potential for swing falls by working
  as close to the anchorage point as possible. Do not permit a swing fall
  if injury could occur. Swing falls significantly increase the amount of
  clearance required. See Illustration 1.



### LIMITATIONS FOR USE

#### WARNINGS REGARDING USE LIMITATIONS:

- This device must not be used outside its limitations, or for any purpose other than for which it is intended.
- User capacity: single user only, with weight up to 310 lbs (140 kg), including tools, clothing, etc.
- The anchorage connector must only be loaded in the directions shown in the LOADING ORIENTATION DIAGRAM.
- User environment temperature range: -30°F to +130°F (-34°C to +54°C).
- Do not expose the swivel anchor to chemicals or harsh solutions which may negatively affect its performance.
- Do not alter or modify this product in any way.
- Exercise caution when using any component of a fall protection system near hazards such as: moving machinery, electricity, sharp edges, and abrasive surfaces. Failure to do so may result in equipment failure, personal injury or death.
- All individuals must be trained by a "competent person" (as defined by OSHA 29 CFR 1926.32(f)) before using this equipment
- Do not remove product labels.
- Depending on anchorage type / type of fastening used for installation, there may be additional requirements or limitations. Before installation, all placements must be approved by an engineer or other qualified person.
- The 5K swivel anchors are only to be used as part of a horizontal lifeline that has been designed and approved for use with 5,000lbf anchorage connectors.
- The 10K swivel anchors are only to be used as part of a horizontal lifeline that has been designed and approved for use with 10,000lbf anchorage connectors.
- The anchorage connector should only be used for personal fall protection (not lifting).

- Only couple the anchorage connector to compatible connectors. Per OSHA 29 CFR 1926.502, snaphooks are prohibited from engaging with objects unless: it is a locking type of snap hook, and it is "designed for" making such a connection. "Designed for" indicates that the manufacturer of the snaphook specifically designed it to be used to connect to the equipment listed.
- According to ANSI Z359.0-2007, rollout is when a snaphook or carabiner unintentionally disengages from the object to which it is coupled. When a non-locking carabiner is used, the following connections could result in rollout:

Rollout may result in equipment failure, personal injury or death.

- ° Direct connection of a snaphook to horizontal lifeline.
- ° Two (or more) snaphooks connected to one D-ring.
- ° Two snaphooks connected to each other.
- ° A snaphook connected back on its integral lanyard.
- ° A snaphook connected to a webbing loop or webbing lanyard.
- o Improper dimensions of the D-ring, rebar, or other connection point in relation to the snaphook dimensions that would allow the snaphook keeper to be depressed by a turning motion of the snaphook.

In accordance with ANSI Z359.18-2017, anchorage selected for **Personal Fall Arrest Systems must meet all** anchorage strength requirements.

- Personal Fall Arrest: Anchorages used for PFAS must be capable of sustaining static loads in the direction permitted by the PFAS of at least: 3,600 lbs. with certification of a qualified person; or 5,000 lbs. without certification. When more than one PFAS is attached to an anchorage, the strengths stated above must be met independently at and for each anchorage location.
- Work Positioning: The structure to which the work positioning system is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000 lbs., or twice the potential impact load, whichever is greater. See OSHA 1926.502. When more than one work positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.
- Restraint: Anchorages selected for rescue systems must be capable
  of sustaining static loads of at least: 1,100 lbs. When more than one
  restraint and travel restraint system is attached to an anchorage, the
  strengths stated above must be multiplied by the number of work
  positioning systems attached to the anchorage.
- Rescue: The structure to which rescue system is attached must sustain static loads applied in the directions permitted by the work positioning system of at least 3,000 lbs., or five times the potential impact load, whichever is greater. See OSHA1926.502. When more than one work

positioning system is attached to an anchorage, the strengths stated above must be multiplied by the number of work positioning systems attached to the anchorage.

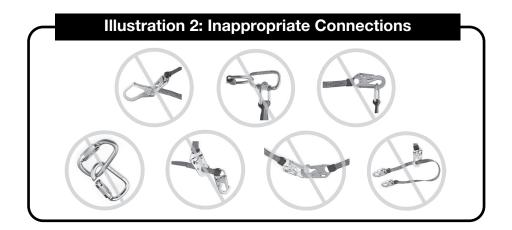
Fall Arrest	Non-Certified Anchorage	5,000 lbs. (22.2kN)	Multiple Systems: When	
Fall Affest	Certified Anchorage	3,600 lbs. (16.1kN)	more than one of the defined	
	Non-Certified Anchorage	1,100 lbs. (22.2kN)	systems is attached to an anchorage, the strength defined shall be multiplied by the number of systems attached to the anchorage.	
Restraint	Certified Anchorage	≥ 2Times the Maximum Potential Impact Load		
	Non-Ce <mark>rtifi</mark> ed Anchorage	3,000 lbs. (22.2kN)	Certified Anchorage: An	
Work Positioning	Certified Anchorage	≥ 2Times the Maximum Potential Impact Load	anchorage for Personal Fall Arrest, Work Positioning, Restraint or Rescue systems that a qualified person certified to be capable of	
	Non-Certified Anchorage	3,000 lbs. (22.2kN)	supporting the potential fall or that meets the criteria for a	
Rescue	Certified Anchorage	≥ 5 Times the Maximum Potential Impact Load	certified anchorage point, as prescribed by relevant ANSI and OSHA standards.	

### CONNECTOR COMPATIBILITY LIMITATIONS

All anchor connectors must only be coupled only to compatible connectors. OSHA 29 CFR 1926.502 prohibits snaphooks from being engaged to certain objects unless two requirements are met: it must be a locking type snaphook, and it must be "designed for" making such a connection. "Designed for" means that the manufacturer of the snaphook specifically designed the snaphook to be used to connect to the equipment listed. The following connections must be avoided, because they can result in rollout\* when a nonlocking snaphook is used:

- Direct connection of a snaphook to horizontal lifeline.
- Two (or more) snaphooks connected to one D-ring.
- Two snaphooks connected to each other.
- A snaphook connected back on its integral lanyard.
- A snaphook connected to a webbing loop or webbing lanyard.
- Improper dimensions of the D-ring, rebar, or other connection point in relation to the snaphook dimensions that would allow the snaphook keeper to be depressed by a turning motion of the snaphook.

\*Rollout: A process by which a snaphook or carabiner unintentionally disengages from another connector or object to which it is coupled. (ANSI Z359.0-2007)



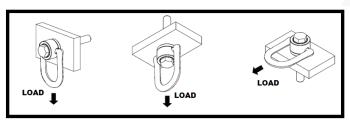
#### System:

- A Competent Person must ensure the compatibility of all connections and that of the system.
- Do not use the system if any component in the system does not operate properly.
- Do not use if any part of the system appears to be damaged.
- Do not use a body belt for fall arrest applications.
- Do not use this system if it has been used to arrest a fall. If it has been used to arrest a fall, it must be removed from service immediately.

#### SPECIFICATIONS:

Version	Minimum Breaking Strength (MBS)	Working Load	Regulatory Compliance	Material
10K	10,000-lbf (44.5 kN)	2,000-lbf (907 kg)	Meets or exceeds ANSI Z359.18 Type A,	Zinc Plated Steel
5K	5,000-lbf (22.3 kN)	1,000-lbf (454 kg)	ANSI Z359.7-2011 OSHA 1926.502	

#### LOADING ORIENTATION DIAGRAM:





**ACCEPTABLE** 

**IMPROPER** 

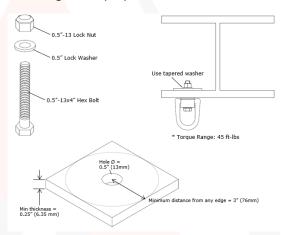
### **INSTALLATION:**

#### STEEL MOUNTING:

 Using a proper drill and bit for steel, drill a Ø hole no less than D deep and L away from any edge.

	Ø	D	L
A-7320	1/2" (13mm)	1/4" (6.35 mm)	3" (76 mm)

• The hole must be straight and perpendicular to surface and be free of debris.

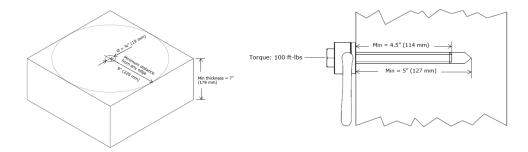


**IMPORTANT:** Use a grade 10.9, grade 12.9 (or equivalent) bolt no shorter than 4" (100mm) with a locking nut and washer in steel applications. When installed, the swivel anchor must be flush with the steel surface.

#### CONCRETE MOUNTING:

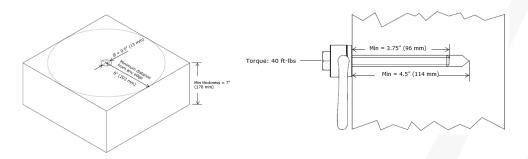
#### 10K Version:

- Using a proper drill and bit for concrete (SDS drill bit), drill a .75" (19 mm) hole no less than 5" (127 mm) deep 9" (229 mm) away from any edge.
- The hole must be straight & perpendicular to surface, and free of debris.
- Concrete strength must be at least 3000 psi (20.7 MPa) and no less than 7" (178 mm) thick.

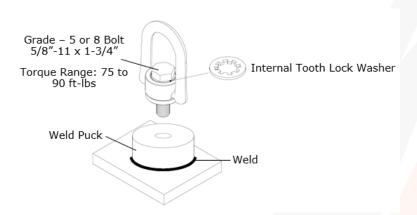


#### 5K Version:

- Using a proper drill and bit for concrete (SDS drill bit), drill a .5" (13 mm) hole no less than 4.5" (114 mm) deep 8" (203 mm) away from any edge.
- The hole must be straight & perpendicular to surface, and free of debris.
- Concrete strength must be at least 3000 psi (20.7 MPa) and no less than 7" (178 mm) thick.



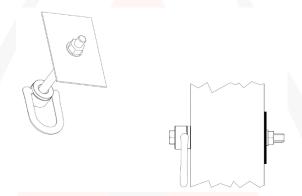
#### **WELD-ON MOUNTING:**



**IMPORTANT:** Before installation and use, the welding procedure must be approved by a competent engineer or other qualified person. Specifically, that the welding procedure is compatible with any and all structural & operational characteristic of the selected installation location.

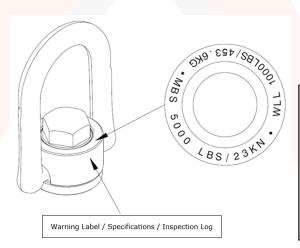
#### **BACK PLATE MOUNTING:**

- Back plate to be used with 5/8" (16 mm) bolts or all thread.
- Drill hole perpendicular into surface so bolt can pass freely through the substrate.
- Nuts must be fully threaded on the bolt to insure maximum strength ratings and integrity of anchor.



**NOTE:** Bolt or All-thread and nut are not included with Back Plate.

### **PRODUCT LABELS**



warning: It is important and necessary to the safety of the end user that the seller of this device include all instructions pertaining to the proper use, maintenance, and inspection of the device in the language of the country/region in which the device is to be sold.

### INSPECTION

**PRE-USE:** Before each use, ensure each unit is in good working condition through inspecting as per instructions indicated in Table 1 below. Record results of inspection using the Inspection Record in Appendix A. Remove the unit from service if the unit exhibits damage, defects, inadequate maintenance, or any other unsatisfactory results during inspection.

Table 1 - Guidelines for Swivel anchor Inspection		
Inspection	Pass	Fail
Ensure all labeling is present and affixed to the unit.		
Inspect anchoring system for signs of damage or wear.		
Ensure the unit can rotate 360° and the D-ring can flip from side to side.		
If are reusing a previously drilled hole, inspect it for debris or wallowing.		
Ensure the unit is flush with mounting surface.		
Record final inspection results in the Inspection Record in Appendix A.		

#### INSPECTION FREQUENCY:

- Units must be inspected by a competent person at regular intervals, as required by the type of use and working environment. The competent person must use inspection criteria indicated in Table 1.
- An official periodic inspection performed by a qualified person (other than the intended user) must be performed at least semiannually.
   Inspections should be carried out more frequently if parts are exposed to severe weather or harsh conditions.
- All inspection results must be recorded in the Inspection Record.
- It is recommended to mark the anchor with the date of the next or last inspection.

## **INSPECTION LOG:**

Date of Manufacture:	
Model Name/Number:	
Serial:	
Date of First Use:	

Inspection Date	Items Noted	Corrective Action	Approved By

### **MAINTENANCE & CLEANING**

#### MAINTENANCE AND CLEANING:

- Periodic cleanings will prolong the life of this product. Cleaning frequency should be determined based on inspection and severity of the environment.
- Clean the device with compressed air and/or a stiff brush using water or a mild soap and water solution.
- Do not clean the swivel anchor with corrosive chemicals, as these may damage the product.
- After cleaning, wipe all surfaces with a clean, dry cloth and hang unit to dry or use compressed air.

#### STORAGE:

- When not in use, store the device in a clean, dry, and cool environment, out of direct sunlight and free of corrosive or other degrading elements.
- Position the device in such a way that excess water is allowed to drain out.
- Avoid exposing device to chemical or caustic vapors.
- After a prolonged period of storage, thoroughly inspect the device.

#### SERVICE:

The swivel anchor is not user repairable. If the swivel anchor does not pass preuse inspection, tag as "UNUSABLE" and either (a) dispose of it, or (b) contact an authorized service center of Malta Dynamics.

### WARRANTY

THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES OR CONDITIONS. EXPRESS OR IMPLIED. INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Equipment offered by Malta Dynamics is warranted against factory defects in workmanship and materials for a period of one year from date of installation or first use by the original owner. LIMITED REMEDY: Upon notice in writing, Malta Dynamics will repair or replace all defective items at Malta Dynamics's sole discretion. Malta Dynamics reserves the right to require that the defective item be returned to its plant for inspection before determining the appropriate course of action. Warranty does not cover equipment damage resulting from wear, abuse, damage in transit, failure to maintain the product or other damage beyond the control of Malta Dynamics. Malta Dynamics shall be the sole judge of product condition and warranty options. This warranty applies only to original purchaser and is the only warranty applicable to this product. Please contact Malta Dynamics customer service department at 800-494-1840 for assistance, LIMITATION OF LIABILITY: IN NO EVENT WILL MALTA DYNAMICS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, IN ANY WAY RELATED TO THE PRODUCTS REGARDLESS OF THE LEGAL THEORY ASSERTED.



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