



WINSAFE CORP.



GM 121 – CONTAINER END LOCK ANCHOR WAND OPERATING INSTRUCTIONS AND MAINTENANCE

	US Patent No. 6834745
0321	This equipment conforms to
	EN795:1996

Winsafe Corp.

One Valleywood Drive, Unit # 1

Markham, Ontario – L3R 5L9

Tel: 905-474-9340 Fax: 905-474-9341

Email: info@winsafe.com

www.winsafe.com

Table of Contents

No.	Topic	Page
1	General Specifications	4
2	Description	5
3	Operating Instructions	6
4	Troubleshooting / F.A.Q	8
5	Maintenance / Servicing Procedures	9
6	Cleaning & Lubrication	11
7	Check List	11

WARNING

It shall be the responsibility of all employers and users to read and comply with the following common sense guidelines which are designed to promote safety in the use of the GM-121-Container End Lock Anchor Wand. These guidelines are not all-inclusive nor do they supplant or replace other additional safety and precautionary measures to cover the usual or unusual conditions. If these guidelines conflict in any way with any state, local or federal statute or government regulation, said statute or regulation shall supersede these guidelines and it shall be the responsibility of each employer and user to comply therewith and also to be knowledgeable and understand the pertaining state, local or federal statutes of governmental regulations.

If GM121-Container End Lock Anchor Wand is resold outside the country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in the language of the country in which the product is to be sold.

General

- Do not make any alternations or additions to this equipment without the prior written consent of Winsafe Corp. Any repair shall be carried out in accordance with Winsafe Corp. procedures.
- Serious injury or death can result from improper use of this equipment. Understand all instructions before using them. If in doubt regarding safe use of this equipment consult Winsafe Corp.

- Before using the Anchor Wand, the worker must be trained in the use and application limits of the equipment, proper hookup, anchoring and tie-off techniques, methods of use and proper methods of inspection and storage.
- The Anchor Wands are designed for use on Container (Corner) Casting only. Do not abuse, misuse or use the equipment for purposes or in ways for which it was not intended.
- Anchor Wands subjected to impact loading or fall arrest must be immediately withdrawn from service and sent to Winsafe Corp. for inspection and service.
- The Anchor Wand, Harness and the SRL must be inspected before each use. Any defective components shall be removed from service. Never use any equipment that is damaged or displays excessive wear.
- Check whether the product markings on the Anchor Wand are legible.
- Maintain a Record Card for each Anchor Wand (See Page 12).
- For replacement parts contact Winsafe Corp.

Fall Arrest System:- Harness & SRL

- The worker must be secured to the Anchor Wand at all times by a proper Fall Arrest System consisting of a full body harness and a light weight web SRL (self retracting lanyard) with a built in shock absorber.
- The SRL must limit the fall arresting force (M.A.F) to 900 lbs (4 KN) or less.
- Length of the SRL must be carefully selected so that the falling worker cannot contact any lower level stowage, vessel structure etc. in the event of a fall.
- The connectors of the Harness, SRL must be selected to prevent accidental disengagement from each other and the Anchor Wand.
- When in doubt regarding the selection of Harness / SRL; consult Winsafe Corp.

Operation & Use

- Always follow the operating instructions and procedures recommended by the manufacturers of all associated equipment i.e. Harness and SRL.
- Before each use of the Anchor Wand, carefully inspect it according to the Check List (Section 6).
- Only 1 worker can be secured to the Anchor Wand.
- Do not use this equipment when in doubt of your fitness to safely absorb shocks from fall arrest. Age and fitness seriously affect the worker ability to withstand falls. Pregnant women or minors must not use the Anchor Wand.

- Anchorage: The Corner Casting must be properly secured to the Container, free from any damage and must be capable of supporting at least 5,000 lbs.
- Avoid movement which may entangle the Life Line onto the Anchor Wand or the worker. Do not allow the Life Line to pass under arms or between legs.
- Swing Falls occur when the Anchorage is not directly above the point where the fall occurs. The total vertical fall distance in a Swing Fall is greater than a direct free fall. Select the length of the SRL so that the falling worker cannot contact any lower level stowage, vessel structure etc. in the event of a fall.
- The Employer must have a rescue plan and the ability to rescue the worker in the event of a fall.

Periodic Examination & Maintenance

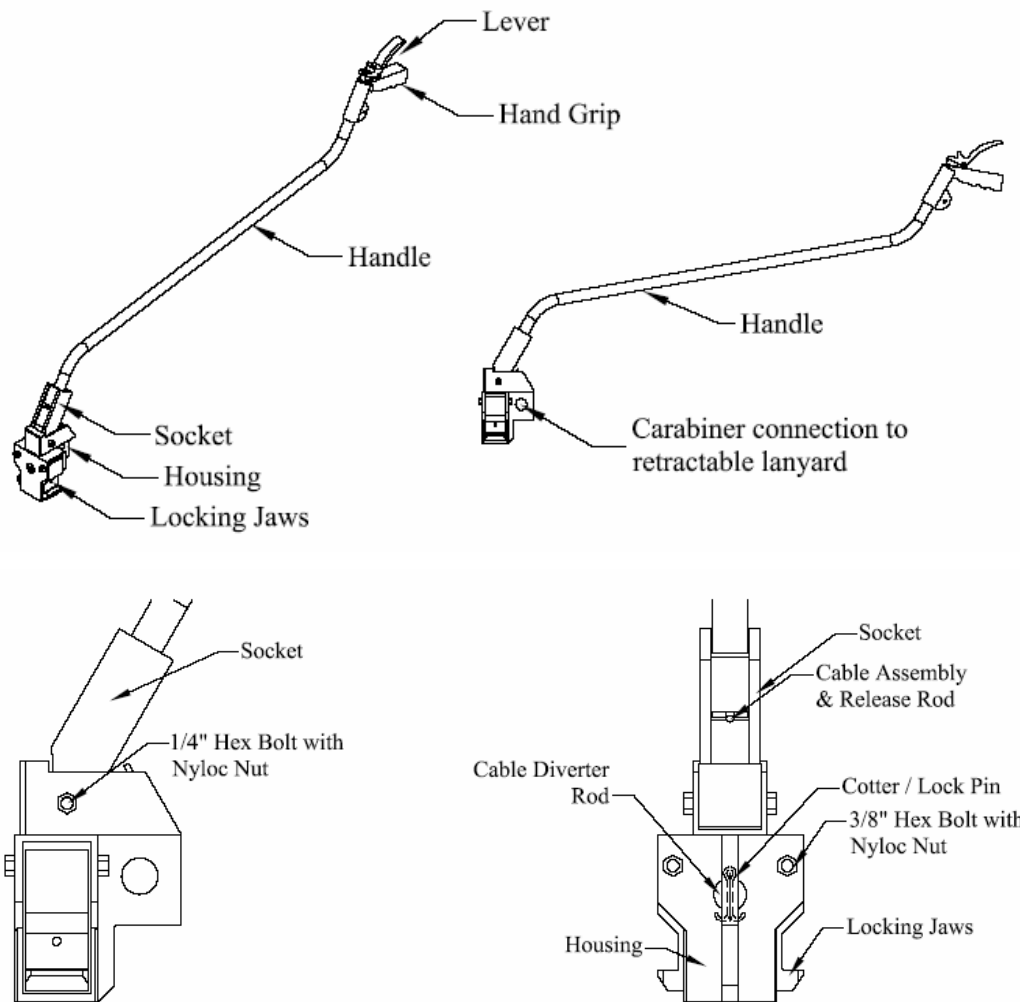
- The safety of the users depends upon the continued efficiency and durability of the Anchor Wand.
- Due to the complexity and safety critical knowledge required in the dismantling, reassembly or assessment of the Anchor Wand after a fall; periodic examination shall be only conducted by Winsafe Corp. or by a competent person authorized by Winsafe Corp. strictly in accordance with Winsafe Corp. periodic examination procedures.
- Establish a periodic examination schedule conforming to the legislation, frequency of use, and environmental conditions. It is recommended that the periodic examination frequency be at least every 6 months.

1. GENERAL SPECIFICATIONS

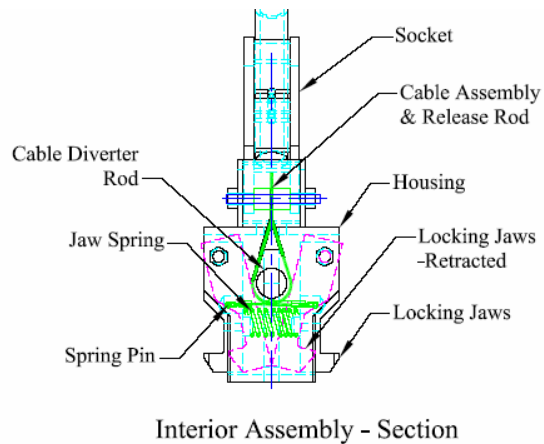
- Hand held portable anchorage connector automatically locks into end hole of the Container Casting even when the twist lock is in place
- Maximum working load : 350 lbs (158 kg).
- Maximum M.A.F. rating of retractable SRL used is 900 lbs. (4 kn).
- Weight: 5 lbs, (2.3 kg).
- General Construction: Aluminum; Hardware: 18-8 Stainless Steel.
- Finish: Powder coated deep red
- Meets all requirements of fall protection systems in 29 CFR-OSHA 1918.85 (k).
- Conforms to EN795:1996

2. DESCRIPTION

The End Lock Wand System utilizes an engagement head which secures to the end openings of the Container Casting. This engagement head provides a means for securing a retractable lanyard which is connected to the worker's safety harness. Anchorage relies on the engagement of the End Lock Anchor Wand engagement head with the Container Casting. This engagement is designed to arrest motion in all directions withstanding resultant pull out force as well as torsional and angular loads.



Exterior Assembly

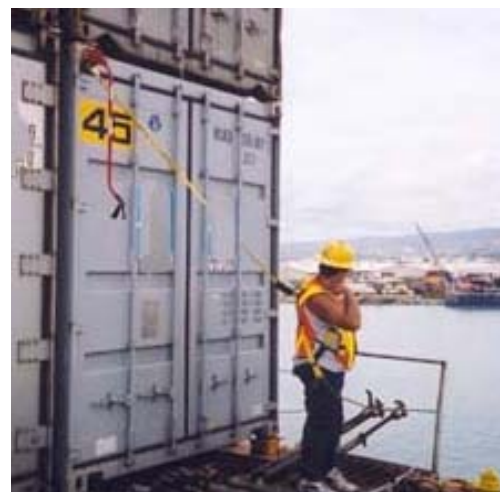


The housing encloses the mechanism i.e. a pair of opposed locking jaws pivotally mounted at the upper end of the housing by two pivot pins. The locking jaws are retractable with their lower ends normally extending outwardly from the open ends of the housing. The jaws pivot to enter the corner casting and when once engaged they are held apart by a spring. Small cables are attached to each jaw which is in turn attached to the hand lever. The housing is designed to slide into the corner casting.

To secure the anchor wand onto the corner casting, the front part of the engagement head is pushed into the corner casting so that the projecting locking jaws are pressed towards each other until they clear, pivot inward and lock onto the interior of the corner casting. The loads are shared by the housing and the locking mechanism.

3. OPERATING INSTRUCTIONS

When using the anchor wand at the end of containers for the protection of lashers, the worker shall wear a full body harness and have an approved, self-retracting web lanyard attached between the back D ring of the body harness and the anchor eye on the housing of the wand. The SRL shall be connected at the back D ring of the harness, and the web double lock snap shall be connected to the anchor eye on the head of the wand.



Before approaching the corner casting, the worker shall pull out sufficient web lifeline to enable him to reach out a full arm's length with the wand. The correct method of insertion into the corner casting

is to squeeze the release handle first (pulling the locking jaws into the housing) and then reaching up and inserting the housing into the corner casting opening. The squeeze handle is then released, and the wand should be firmly locked into position. The handle shall be maneuvered to assure the head is locked into the casting. The wand is to be locked into the inside top corner casting i.e. the corner casting away from the leading edge of the working deck.

At no time is the worker to be closer than 3 feet (0.9 meters) from a leading edge unless the wand is engaged. Once the wand is locked into position, the worker may move and perform the required task. Upon completion, the worker shall step back and disengage the wand by squeezing the handle and pulling the wand out of the casting.

The GM121 wand may also be used to protect mechanics when working on reefer units as shown



CAUTION:

- Always inspect the Anchor Wand before each use to ensure that it is not damaged, worn or otherwise failing to function properly. Do not use this device if in other than full safe operating condition.
- To ensure safety after the Anchor Wand is inserted into the Corner Casting, pull the wand handle without squeezing the release handle to check whether the Locking Jaws are locked into the casting.
- Fasten the retractable safety line onto the tie off anchor plate on the engagement head prior to engagement with the corner casting.
- Store in a dry environment.

4. TROUBLESHOOTING / F.A.Q

Any specific enquiry must be sent to Winsafe Corp. Refer to Section 5 for maintenance / servicing procedures. Items marked (##) are considered factory service repairs requiring the device be returned to Winsafe Corp.

a. Hand grip is loose

Cause	Remedy
Fasteners are not secured	Tighten the fasteners properly
Hand Grip is damaged	Replace GM 520 Hand Grip

b. Socket is loose

Cause	Remedy
Fasteners are not secured	Tighten the fasteners properly
Socket is damaged	Replace GM 399 Socket (Handle Base)----- (##)

c. Housing pops out of the corner casting when pulled

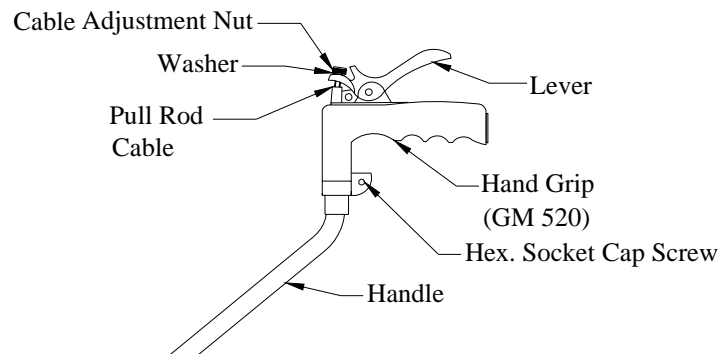
Cause	Remedy
Locking Jaws are not engaging properly in the Corner Casting	Jaw Springs may be damaged. Replace GM 121 Jaw Springs ----- (##) Replace GM 348 Locking Jaw (if required) ----- (##)
Housing obstructs the motion of the Locking Jaw	Replace GM 347 Housing ----- (##)
Locking Jaws require calibration	Calibrate the Jaw movement (see Section 5)

d. Locking Jaws do not retract when the lever is operated

Cause	Remedy
Lever of the Hand Grip is broken	Replace GM 520 Hand Grip
Cable adjustment nut is missing / damaged (located on top of the handle)	Replace Cable Adjustment Nut (No. 8 Nyloc Nut)
Cable Guide Roller is damaged	Replace GM332 Cable Guide Roller ----- (##)
Cable is cut / damaged	Replace GM 367 Release Rod Cable Assembly ----- (##)
Spring Pins are bent / broken / missing	Replace 1/8" x 1 1/2" Long Spring Pin for Cables--- (##)
Locking Jaws require calibration	Calibrate the Jaw movement (see Section 5)
Cable Diverter Rod is bent or broken	Replace GM 366 Cable Diverter Rod ----- (##)

e. Locking jaws do not push out when the lever is released

Cause	Remedy
Housing obstructs the motion of the Locking Jaw	Check Housing for Damage. Replace GM 347 Housing ----- (##)
Locking Jaws require calibration	Calibrate the Jaw movement (see Section 5)
Jaw Spring is missing or broken	Replace GM 121 Jaw Spring ----- (##)
Cable Diverter Rod is bent / broken / missing	Replace GM 366 Cable Diverter Rod ----- (##) Replace Cotter Pin on Cable Diverter Rod

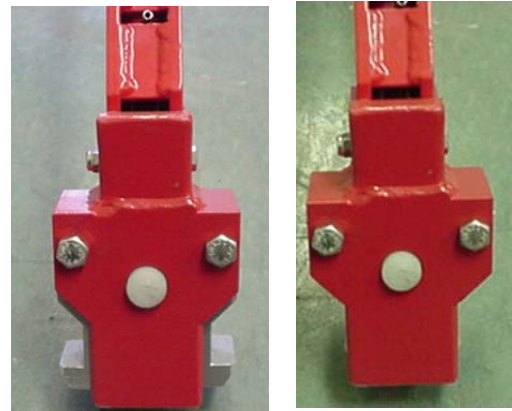
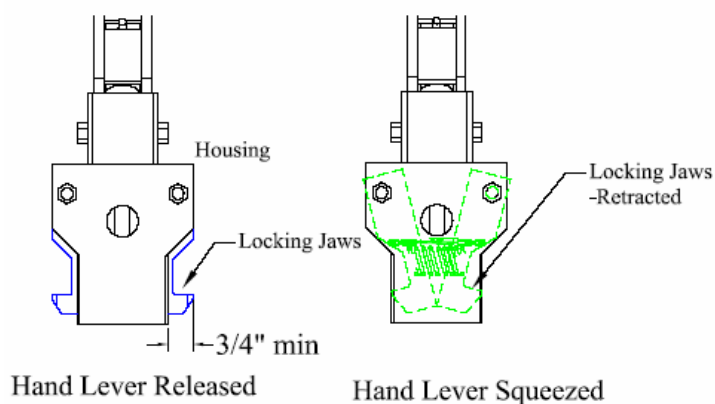
5. MAINTENANCE / SERVICING PROCEDURES**1. Replacement of GM 520 -Hand Grip**

- a. Unlock the Cable Adjustment Nut & washer to disengage the Cable from the Hand Grip / Lever.
- b. Disengage the No. 8 Hex Socket Cap Screw & Nyloc Nut. The Cable is now inside the Hand Grip / Handle.
- c. Pull out the Hand Grip from the Handle.
- d. Pass the Cable through the replacement Hand Grip.
- e. Secure the Cable onto the Hand Grip by installing the Cable Adjustment Nut & washer onto the Lever.
- f. Insert and Secure the Hand Grip to the Handle using No. 8 Hex Cap Screw & Nyloc Nut.
- g. Recalibrate the Locking Jaws (see Section 3).

3. Calibration of the Locking Jaw

Important Notes:

- a. The Locking Jaws are calibrated by:
 - ✓ Operating the Cable Adjustment Nut on the Hand Grip.
 - ✓ Relocating the Hand Grip on the Handle (1/4" maximum).
- b. Clockwise rotation of the Cable Adjustment Nut pulls the Locking Jaws further into the Housing.
- c. Anti-clockwise rotation of the Cable Adjustment Nut allows the Locking Jaws to project further out of the Housing.
- d. Relocation of the Hand Grip away from the Handle pulls the Locking Jaws further into the Housing.
- e. Relocation of the Hand Grip towards the Handle allows the Locking Jaws to project out of the Housing.
- f. The Hand Grip must have a minimum of 3/4" engagement on the Handle and must be properly secured.
- g. Before you calibrate, insure that the Jaw Springs, Cable Diverter Rod & Cable Guide Roller are working and free from any damage.



Procedure:

- a. Squeeze and Release the Hand Lever.
- b. The Locking Jaws should project beyond the housing as shown above.
- c. If the Jaws do not extend sufficiently or extend too far, reset the Cable Adjustment Nut or Relocate the Hand Grip as required.

Note: When adjusting the Cable Adjustment Nut it will be necessary to use a pair of vice grips to hold the pull rod while the nut is being turned.

- d. For optimum clamping, the Locking Jaws must project beyond the housing so that the full jaw step protrudes.

Note: Squeeze the Hand Lever. Check whether the Locking Jaws retract completely into the Housing.

6. CLEANING & LUBRICATION

- ✓ The Anchor Wand will function better and last longer if its kept clean and well lubricated
- ✓ Wash down the Anchor Wand with fresh water every week. When dry, spray WD40 lubricant or equivalent at:
 - all pivot points.
 - all joints.
 - the location where wire rope runs over the guide roller.
 - the Locking Jaws.
- ✓ Do not force dry with heat.

7. CHECKLIST

It is the responsibility of the user / operator of this equipment to inspect all components of the Anchor Wand before each use. Never use the Anchor Wand if it's damaged or displays excessive wear. Any questions regarding operation, maintenance or loading conditions contact Winsafe Corp.

Before Each Use

- ✓ Proper Fall Arrest System components are required using a full body harness and shock absorbing web SRL (self retracting lanyard) with a maximum arrest force (M.A.F) of 900 lbs or lower.
- ✓ Inspect all welds on the Anchor Wand for cracks.
- ✓ Check whether all fasteners are secured properly.
- ✓ Inspect whether the Hand Grip is secured and functioning properly.
- ✓ Check the Locking Jaws to verify that they extend properly and retract fully when the Lever (Hand Grip) is squeezed.
- ✓ Check whether the Tie off Anchor Plate is free from damage (bent down from original position).

RECORD CARD

PRODUCT **GM121 - CONTAINER END LOCK ANCHOR WAND**
MANUFACTURER **WINSAFE CORP**
 ONE VALLEYWOOD DR. UNIT #1
 MARKHAM, ON, CANADA

SERIAL / BATCH # :

YEAR OF MANUFACTURE :

DATE OF PURCHASE :

DATE FIRST PUT INTO SERVICE :

PERIODIC EXAMINATION AND REPAIR HISTORY

Date	Reason for Entry (Examination or repair)	Defects noted, Repair carried out	Signature of competent person	Next due date for Periodic Examination