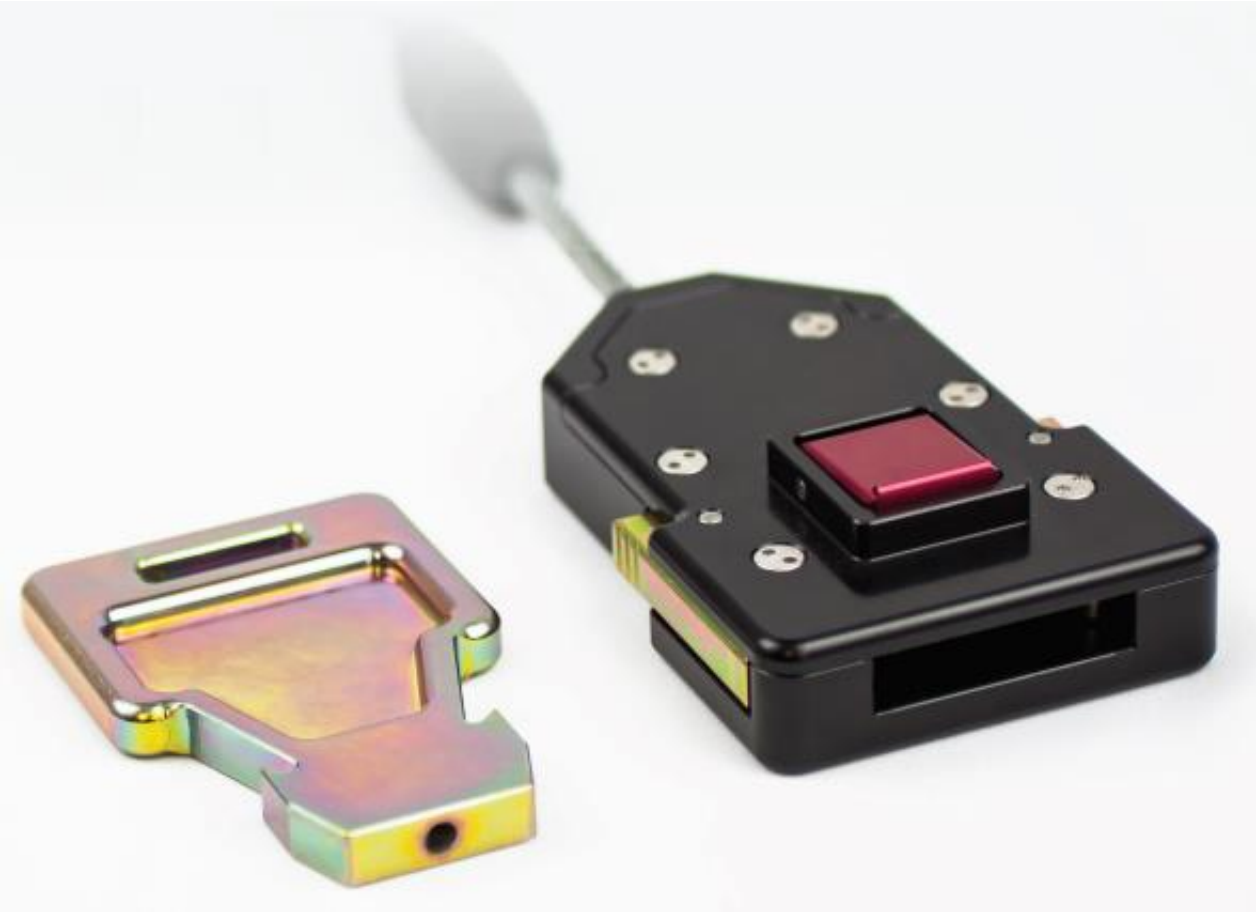
PRIANHA LOX SAFETY SYSTEM

Intelligent Fall Protection System

PRIANHA LOX Operator's Manual



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Control Dynamics Inc.

MADE IN USA

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Control Dynamics PRIANHA LOX

Operator's Manual

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Table of Contents

Overview

ABOUT PIRANHA LOX

PIRANHA LOX® is the first of its kind, patent pending intelligent fall protection system that dramatically reduces operating safety concerns. The Piranha Lox true interlocking system communicates with all MEWP (mobile elevated work platforms) such as boom and scissors lifts, with the use of Bluetooth® technology, or by being hard wired directly to the foot switch or E-Stop operator. The Piranha Lox system is the only fall protection product that identifies the proper and safe connection of a worker to an approved anchor point, before allowing the operation of the MEWP.

AWARD WINING

In partnership with The Boeing Company, the Piranha Lox was the Recipient of the 2017 National Safety Green Cross Award for Innovation.

Piranha Lox is approved for use by major OEM's of mobile work platforms.

Secure Connection

With our patent pending technology, The Piranha Lox is the only fall protection system in the world that is designed to prevent the operation of a MEWP without a proper connection.

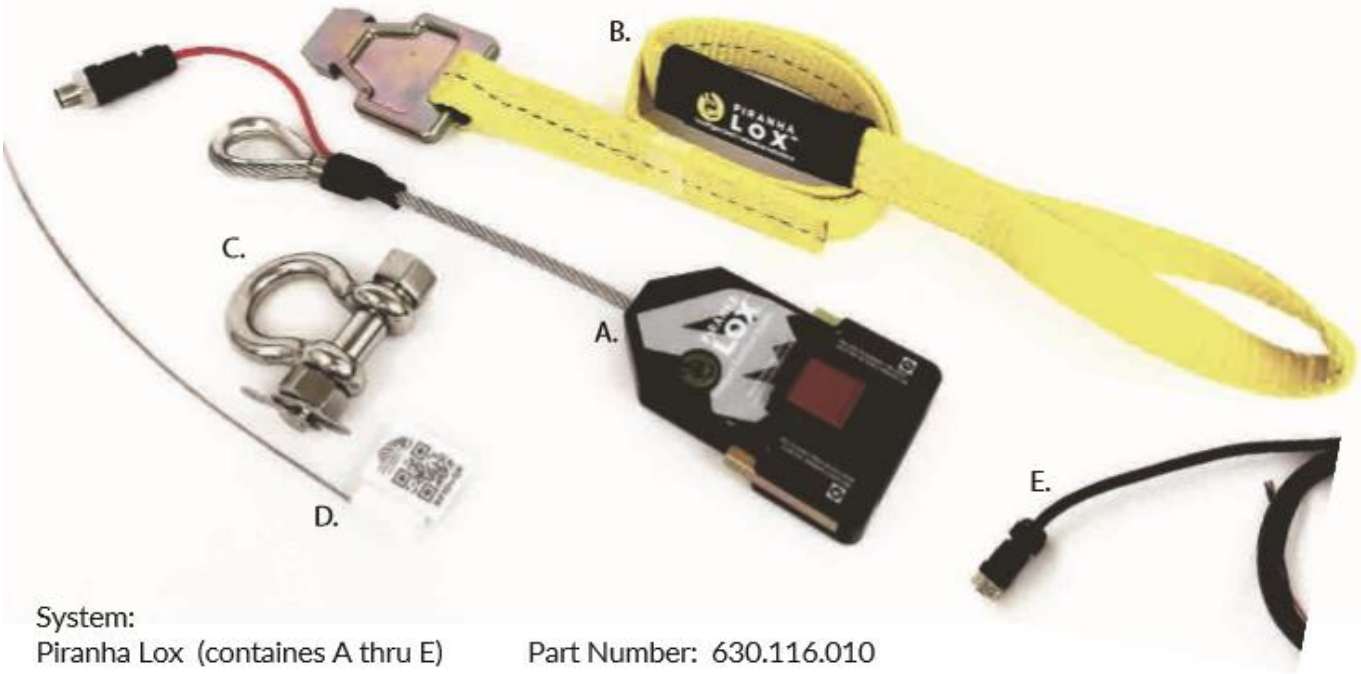
Intelligent System

Quickly convert a boom or scissor lift into a safer elevated work platform by easily attaching either our Hardwired or Bluetooth Piranha Lox system.

Piranha Lox Safety Device will be installed, inspected and approved for use by a Qualified Personnel based on the Installation Guide.

Please familiarize yourself with the components to be referenced in this Manual.

System and Componets



System:
Piranha Lox (containes A thru E) Part Number: 630.116.010

Components:

A. Intelligent Anchor	Part Number: 630.000.000
B. 42" Intelligent Lanyard	Part Number: 600.116.000
C. Bow Shackel	Part Number: 48253
D. RFID/QR Tool Tracker	Part Number: 48256
E. 36" Wire Whip	Part Number: 6000.000.010

NOTE: Approved fall protection must be worn with Piranha Lox™ Safety System

Operation

Operation of the Piranha Lox Intelligent PFPE system is very simple.

“Imagine if you had to lock all of the seatbelts in your car before the ignition would turn on? That is how Piranha Lox works, it needs all the safety tie off points accounted for if being used by a worker, before we allow the MEWP to be powered and utilized.”

Once installed – You click the Intelligent Lanyard into the Intelligent Anchor. This confirms the operator has safely completed the system.

* Piranha Lox

Operation con't

Connect Piranha-Lox Lanyard using the following steps:

A. Insert Piranha-Lox connector lanyard insert into connector anchor until resistance is met

B. Depress the red gate on top of connector and push insert the rest of the way into connector.

C. Check side gates to ensure that they are fully retracted into the connector body. A red dot will be visible on the side gates if they are not fully retracted.

D. Pull on connector insert to verify that it is fully seated in the connector.

To disconnect from the Piranha Blox connector perform the following steps:

A. Depress red gate on top of connector.

B. While keeping red gate depressed, use other hand to depress the two side gates.

C. Pull insert out of connector while all 3 gates are still depressed.

For two operator's system in the work basket:

If there are two anchor points in the basket, there will be two Piranha Lox Anchor points and one "ONP" (operator not present) key**.**

When only having one operator available:

The ONP acts just like closing the seatbelt of the passenger seat without them sitting in it. But there will always be one Piranha Lox waiting for the operator to lock into before operation is allowed. The operator is the captain and is responsible for the passengers if they decide to bypass the system as there are no current methods to detect workers in basket.

For Boom lifts:

Most boom lifts incorporate a foot switch or other dead-man type of protection. In this case, the Piranha Lox is wired is series with the foot switch wiring. The Piranha Lox system is a simple two wire normally open switch that acts like another dead-man switch. This wiring is typically done inside the control console by simply connecting the Piranha Lox two wire switch in series with the foot switch.

Ground controls are always left functioning at all times for rescue!

For Scissor lifts:

Most Scissor lifts use a dead-man hand squeeze switch to allow functioning of the scissor. In this case, Piranha Lox will be wired so that it disrupts the control power to the upper controls or the basket controls. As you see in the video with the Genie 19/30, when the key switch on the chassis controls is switched to upper or basket position, the power to the controls is blocked by the Piranha Lox normally open switch contacts, until a worker has tied in to the lift with their fall protection. When the Piranha Lox system has been properly attached to the worker, the controls in the basket power up and allow use of the scissor as normal.

Ground controls are always left functioning at all times for rescue!

Accessories

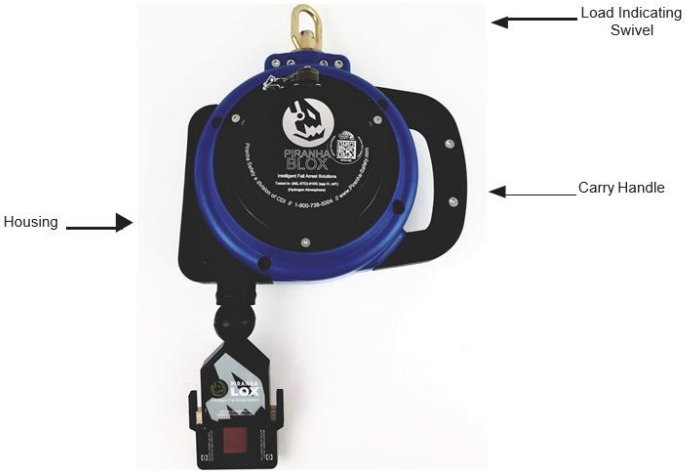
Available Accessories that can complete your safety sy stem.

Piranha Blox™

Innovation not Imitation

Piranha Safety in partnership with Reliance Fall Protection has developed the industry first intelligent self retracting lifeline. The Piranha Blox was developed to provide greater mobility while eliminating the chance that a worker can operate a powered platform without utilizing their fall arrest equipment.

Identifying Components of Piranha Blox™ Self Retracting Lifelines



- Quickly attaches to any powered platform
- Class I, Div I tested by the U.S. Army in accordance with MILSTD 810G
- Class A, Z359.14 Compliant Self Retracting Lifeline, arresting fall within 24 inches.
- Tested by a 3rd Party 17025 accredited laboratory
- Meets OSHA 1910 and 1926 standards
- 310lbs rating
- Patent pending
- Available from to 8ft to 75ft lengths
- Custom sizes available

Make the use of powered platforms safer by using Piranha Blox. Until the Piranha Blox, workers could use a powered platform without being properly tied off. The Piranha Blox eliminates that exposure and is the ultimate in protection of unauthorized or improper use of the equipment.

Appendix A

Patent

US010238184B2

(12) **United States Patent**
Moran

(10) **Patent No.: US 10,238,184 B2**
(45) **Date of Patent: Mar. 26, 2019**

(54) **LOCKING MECHANISM WITH ONE AND TWO-STAGE LOCKING VERIFICATION**

(71) Applicant: **Control Dynamics, Inc.**, Everett, WA (US)

(72) Inventor: **Eric M. Moran**, Camano Island, WA (US)

(73) Assignee: **Control Dynamics Inc.**, Everett, WA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 251 days.

(21) Appl. No.: **15/065,582**

(22) Filed: **Mar. 9, 2016**

(65) **Prior Publication Data**

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Related U.S. Application Data

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A44B 11/25 (2006.01)
A44B 11/26 (2006.01)
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(52) **U.S. Cl.**
CPC ***A44B 11/26*** (2013.01); ***A44B 11/2519*** (2013.01); ***A44B 11/2569*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC A44B 11/2519; A44B 11/2573; A44B 11/263; A44B 11/2569; A44B 11/266;
(Continued)

(56) **References Cited**

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(Continued)

Primary Examiner — Jack W Lavinder
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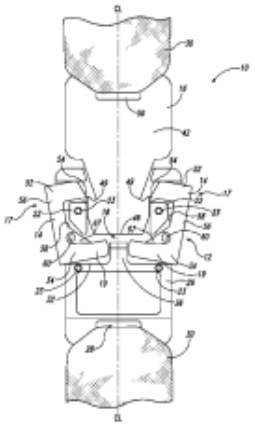
(57) **ABSTRACT**

Apparatus and method of locking two devices to each other through a receiver base, a pair of pivoting locking tabs, each having first and second arms extending out from a pivot point, and an insert that is partially engaged within a cavity formed by the receiver base and locking tabs. The receiver base is configured to be engageable with a first device. The insert is configured to be engageable with a second device. An optional push button assembly that has a retractable lip is engageable with the receiver base to block rotational movement of the locking tabs unless the lip of the push button is retracted. The apparatus may also include magnetic actuators and corresponding electronic switches that provide two stage locking and, optionally, provide contact state signaling to an external controller and computer to verify locked/unlocked status of the insert relative to the receiver base cavity and locking tabs.

13 Claims, 16 Drawing Sheets



Appendix B

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