

Offshore Safe Weather Conditions for Personnel Transfer

We do not have a specific adverse Weather Policy for offshore crane transfer. There are several reasons for this.

1. Many of the operators and contractors using personnel transfer devices have different tolerances and procedures for their transfer operating envelopes. We try not to place our own limits about sea states and weather conditions in that this may conflict with those policies implemented by said companies.
2. There are so many variables in determining a safe working envelope for offshore crane transfers. These variables make it difficult to give a "cut and dried" number for wind and sea states.

Examples:

What is the size of the vessel involved? Transferring to or from a 300 ft supply boat in heavy seas is a much different operation than performing the same transfer on a small crew boat.

- What is the training and experience of the personnel being transferred?
- What is the size and condition of the landing area?
- What is the training, experience and certification of the crane operator?
- Is the transfer taking place on the windward or lee side?
- What is the visibility for the crane operator?
- Does the vessel(s) have DP capability?

- Does the crew being transferred, the boat captain and the crane operator agree (at their pre-lift meeting) that this transfer can be done safely? In our opinion, this is the most critical factor in a rough sea, bad weather transfer decisions.

As an example, a major oil company recently had to perform an extremely large number of crane transfers here in the Gulf. Their operating window was 30 knots maximum. I have seen this number (30 knots) many times as it coincides with general crane operating maximum working conditions in many areas of the world. What this major operator found was that they were slightly exceeding 30 knots in a large percentage of days. What they also found was that (because they had good equipment, big DP vessels, well trained crews and operators and a good transfer system) they could safely increase the envelope to 35 knots. Things went extremely well, they transferred over 47,000 personnel during this phase of the operation and there were zero incidents. If we had recommended a 30 knot maximum in our procedures, it would have been in conflict with their (very safe and well thought) out transfer operation.

In another scenario (small boat, no DP, inexperienced crew etc.) a 35 knot wind would not be a safe envelope. In fact, a 30 knot wind would probably not be a safe transfer condition. In this second scenario, if we were to state in our policy that "30 knots is the maximum"- these transfers might be performed because they fit within the envelope we suggested and that might have created a hazardous condition.



Work Order: 4380011
 Last Visit Date: XX-XXX-2020
 Vendor PO Number: XXXX
 Survey Location: Corpus Christi

Equipment Certification Report

Asset Type Personnel Safety Equipment
 Customer Name BILLY PUGH CO., INC.
 WCN of Customer 485252
 Location Corpus Christi

This is to certify that the undersigned Surveyors to this Bureau did at the request of BILLY PUGH CO., INC., from to XX-XXX-2020, carry out the following Survey and report as follows:

Client Asset Name Quantity

X-904-4 Transfer Basket 1

Name Plate Data

ABS Label	Manufacturer	Purchaser	Designer	Destination Vessel
X-904-4 Transfer Basket	BILLY PUGH CO., INC.	XXXXXXXXXXXXXXXX	BILLY PUGH CO., INC.	-

Basic Identification Data

Serial Number	Model Number	Owner Tag Number
904-XXXX-20	X-904-4	-

Design Details

Design state	Drawing Number	Reviewing Organization
Type Approved	20-1988124-PDA	Houston OED - Equipment

Statement of Work - Classification Service - Certification -

- All parts of the machinery/equipment satisfactorily complied with the approved drawings. Amendments, if any, verified to be rectified and considered satisfactory.
- Asbestos-free declaration verified and supporting documentation reviewed.
- The principal data has been verified in accordance with the applicable Rules/specifications and applicable approved plans, and confirmed to be within acceptable tolerances.
- All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.
- Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.
- Traceability of materials used on this project has been verified.
- Welding plans, procedures & welder qualifications have been reviewed as required by Rule/Specifications.

Report Findings

Statement/Observation

Finding No	Asset	Survey Task	Date Created
336.0	X-904-4Transfer Basket	Certification - X-904-4 Transfer Basket	XX-XXX-2020



Work Order: 4380011
Last Visit Date: XX-XXX-2020
Vendor PO Number: XXXX
Survey Location: Corpus Christi

Found

At the request of Billy Pugh Co. Inc, WCN 485252, ABS did review the manufacturing documentation for the subject serial numbers. This unit is considered to be a unit certified transfer device based on manufacturing documentation provided. The assembled units as indicated herein were tested in facility by static load testing to 125% rated load.

Closing Paragraph:

The component/equipment was surveyed in accordance with the Rules, specifications, and approved drawings, as applicable, and is eligible for installation on board an ABS classed vessel subject to satisfactory installation and testing, as necessary.

Attending Surveyor(s):

XXXXX XXXX

EXAMPLE



Refurbishment of your X-904

A note to our end users.

We are pleased that you chose the X-904 for your operations and we want you to have the best and safest possible program for the offshore transfer of your most important asset, your people.

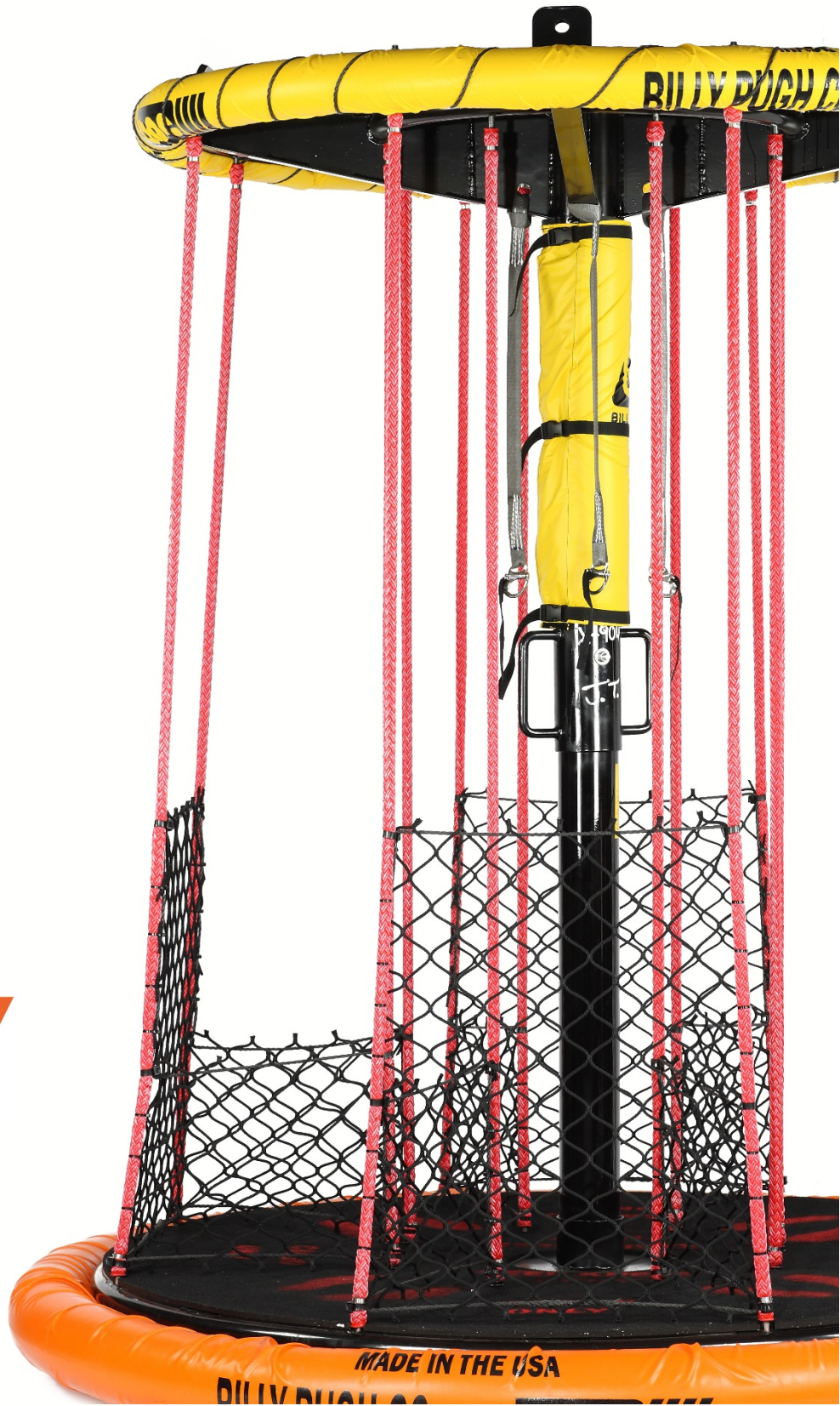
When it's time for your X-904 to be refurbished, please refer only to a Billy Pugh Co. certified organization. We have them strategically located all over the world and they are specifically trained to perform this critical service. We have provided a listing of those companies certified to maintain your X-904 here on our website www.billypugh.com. If you have any questions or concerns about getting your X-904 refurbishment, please e-mail us at bpc@billypugh.com.



User Manual

Rev 2023.3

December 13, 2023



Welcome

Thank you for your purchase of the Billy Pugh Co. X-904 Personnel Transfer Device. Please record the Purchase Date, Distributor's Name, Model Number & Serial Number in the space provided below.

Purchase Date: _____

Purchased from: _____

Model No. _____

Serial Number: _____

IMPORTANT: The Purchase Date combined with the Distributor is key to retain any documentation or certifications that may be lost in the future. Please reference these when contacting our customer support.

WARNING:

We have tried to make this manual as complete as possible and hope you find it useful. BPC reserves the right to make changes, without notice or obligation, in prices, specifications, colors, and material, and to change or discontinue models.

Please see our website for the most current manual
www.billypugh.com



Introduction

As the leadership of Billy Pugh Company, we would like to thank you for your purchase of our X-904 Personnel Transfer Device. With over 15 years of safe service to the industry, the X-904 has literally performed millions of transfers safely, gaining the confidence of riders throughout the world over. It is this great safety record that has led the X-904 to become the market leader in safe personnel transfers to both the Oil and Gas and Ship-to-Ship markets.

At Billy Pugh Company we like to say that our Research and Development Department is the offshore workforce itself. Our business model is to regularly engage with our customers to learn what safety features they want to see inherent in the design of our products. The X-904 is an excellent case study in product development through close collaboration with the end user. While the X-904 is still the industry leader, in late 2022 we launched a project to design our next-generation Personnel Transfer Device, which we will call the X-1000. Like the X-904 project, 15 years ago, this new design will be the result of in-depth customer engagement to learn what safety features the customer truly values. We are now in the prototype phase and will be rolling out the X-1000 in early 2024.

2023 was an exciting year for Billy Pugh Company. Beyond the X-1000, we have added several other new safety products to our portfolio of products. With a nod to our rich 65+ year history, each of these new products is the result of engaging and listening to our customers. Whether it's the product idea itself or the structural engineers running strength calculations, our products are designed and manufactured by people who have experience in the oil and gas and offshore marine environments. We feel this is the key to delivering a safe reliable product to you, our loyal and valued customers. We will continue to leverage our industry friendships to develop new innovative safety products for the industries we serve.

Mike Cadigan

Mike Cadigan
President
Billy Pugh Company



Paul W. Liberato

Paul Liberato
Executive Chairman
Billy Pugh Company



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Specifications

Dimensions

Model	Imperial			Metric		
	Base Width	Total Length	Height of Device	Base Width	Total Length	Height of Device
X-904-4	85 in.	33 ft.	96 in.	215 cm	1006 cm	243 cm
X-904-6	100 in.	33 ft.	96 in.	254 cm	1006 cm	243 cm
X-904-8	100 in.	33 ft.	96 in.	254 cm	1006 cm	243 cm
X-904-10	111 in.	33 ft.	96 in.	281 cm	1006 cm	243 cm
X-904-12	118 in.	33 ft.	96 in.	299 cm	1006 cm	243 cm

Capacity

Model	Passenger Capacity	Imperial	Metric
X-904-4	4	1200 lbs.	544 kg
X-904-6	6	1800 lbs.	816 kg
X-904-8	8	2400 lbs.	1088 kg
X-904-10	10	3000 lbs.	1360 kg
X-904-12	12	3600 lbs.	1632 kg



What is included

X-904 Parts List:

- **Basket.** Top and bottom platform. These two halves are attached with the ropes and already includes the netting and safety lanyards.
- **Upper center pole.** Top threaded vertical pole for connecting the top half of the platform to the bottom.
- **Lower center pole.** Bottom threaded vertical pole for connecting the bottom half of the platform to the top.
- **Tightening Boards.** Two (2) 904P-23 boards for tightening center pole.
- **Center pole cover.** 904P-4 Yellow PVC/nylon 13oz center pole cover pad.
- **Teflon bearing.** 904P-17, 4" OD X ¼" Teflon vertical center pole bearing.
- **Coupling.** The 904P-27 coupling is used to join the top and bottom center poles.
- **Fasteners.** 904P-39 ½" x 6" SS bolt with ½" locknut and two (2) ½" washers.
- **Tagline.** 15' PTL-1 tag line with ½" safety shackle.

Every X-904 is shipped with the following accessories:

- **Training Flash Drive.** Use our training Flash Drive to learn how to operate and ride the X-904. If you need additional training, Billy Pugh Company offers a variety of training materials for our customers. Visit www.bilypugh.com for more information.
- **Certification package.** Manufacturer Certificate. Optional ABS Certification report or ABS Type Approval.
- **User Manual.** This user manual is included. In the back of this manual you can also find daily and monthly inspection cards.



Assembly Instructions

Each X-904 is shipped to our customers disassembled. Before you can enjoy riding the X-904, you must assemble the transfer device.

1 – Unpacking

- Carefully untie or cut rope that secures the basket for shipping.
- Remove these items from inside the basket and set aside for now.
- Verify that all the items mentioned in the parts list (page 5) are present.

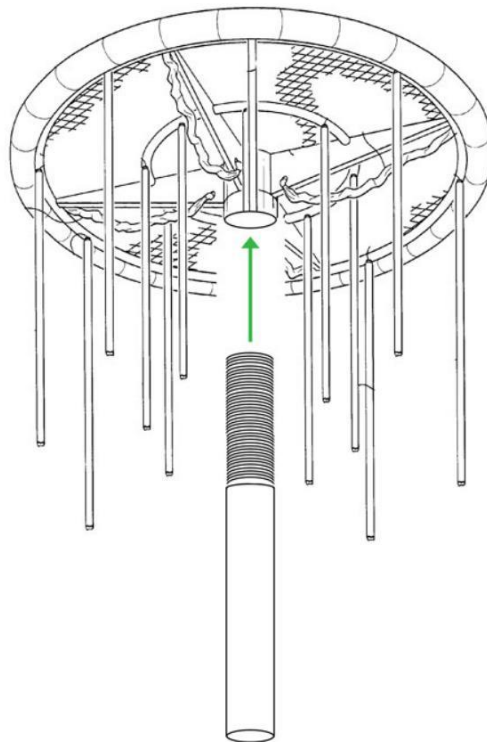
2 – Set up the basket for assembly.

With crane: attach top of basket to crane hook and lift until grab lines become tight.

Without crane: carefully lay top of basket on side.

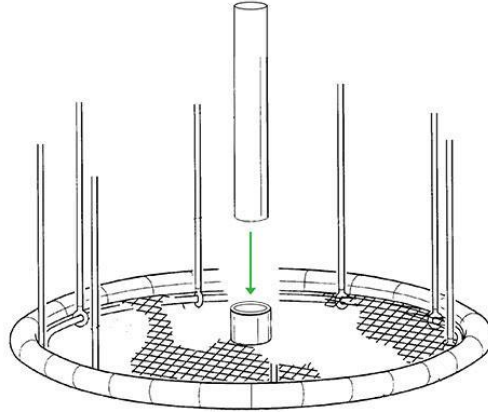
3 - Attach threaded pole to roof of basket

Insert the threaded pole into the top section and screw the pole all the way until threads bottom out.



4 – Installing the bottom pole

Insert the bottom pole into the receiver on the bottom frame of the basket.

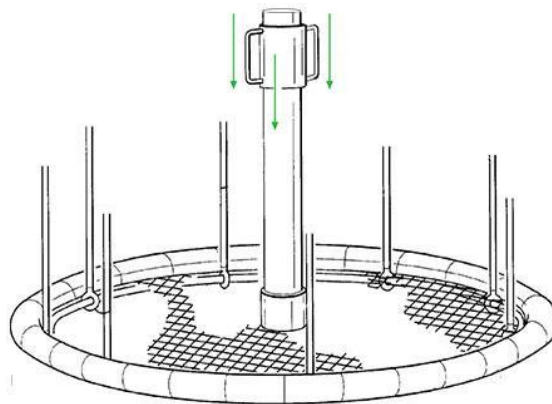


5 – Install Teflon bearing

Place the Teflon bearing on top of the bottom center pole from step 4.

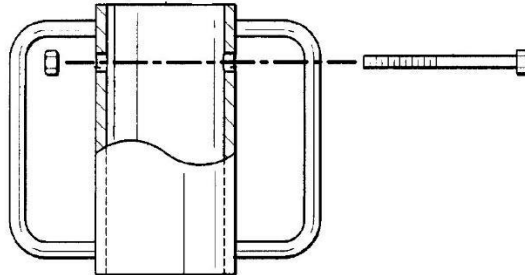
6 – Install Coupling.

- Place the coupling over the bottom pole from step 5.
- Slide the coupling carefully down to the bottom of pole. Be careful not to damage the coupling.



7 – Joining the top and bottom assemblies

- Join the top and bottom poles by lifting the top assembly and placing the top pole on the bottom pole with the Teflon bearing between them.
- Slide the coupling over the seam created by both the top and bottom poles.
- Insert the supplied bolt, nut and washer.
- Tighten the bolt until snug. **Do not over tighten.**



8 – Finishing up

Important note: Your X-904 is shipped with “number of turns” markings. This number is set by Billy Pugh Company engineers during assembly and is required for safe operation of the device.

number of turns = The number of “counter clockwise” turns the center pole needs to remove the grab line “slack” required during assembly.

This number is set by Billy Pugh Company before leaving the facility.

1. Starting by hand, twist the center pole counter clockwise until tight. Take note of the number of turns.
2. Finish tightening coupling with boards until prescribed number of turns is achieved as indicated on top of frame.

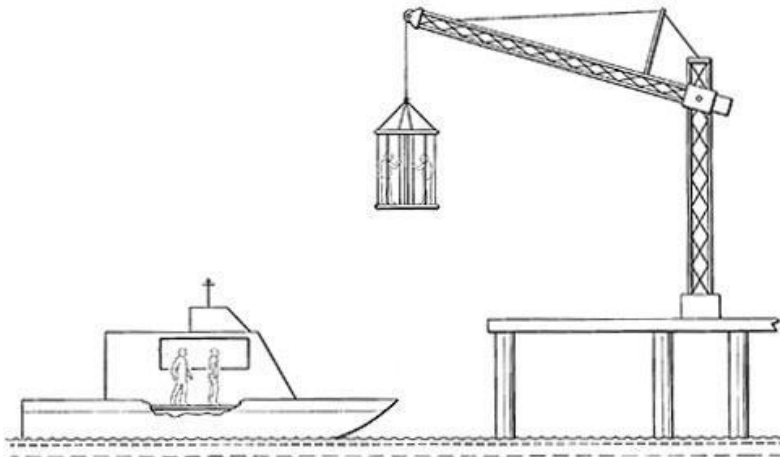
Operations

Prior to each use, a visual inspection should be undertaken by a qualified person. Particular attention should be paid to load bearing lines, hardware, fall restraint lanyard, covers and flotation (See the “Maintenance” section included in this manual).

Personnel Carrier Rigging Configurations

The following rigging configurations are recommended for all crane assisted personnel carrier devices:

- **Double load lines.** Billy Pugh personnel nets as well as the X-904 have a backup fiber rope safety line contained within the stabilizer unit.
- **Snag Resistant Tag Line.** We recommend that the BPC semi-rigid, snag resistant tag line should be affixed to all of our personnel transfer devices. Tag lines should have a minimum length of 10' (3.05m). Tag line should be attached to either the center deck lashing point, or the outside bottom platform ring in such a manner that minimizes tag line damage when carrier is resting on a surface and attach with a minimum 1/2" (12.70 mm) bolt type anchor shackle. Personnel transfer device tag lines should be identified by a high visibility color. These tag lines can be obtained by specifying “Billy Pugh Tag Line” followed by the length. A normal length for these units is 15 ft. This recommendation is consistent with API-RP 2D (Annex C). Our tag lines (PTL product code) conforms to API specification and work well with all slung loads as well as personnel transfer devices.
 - We have two lashing points built in the new units.



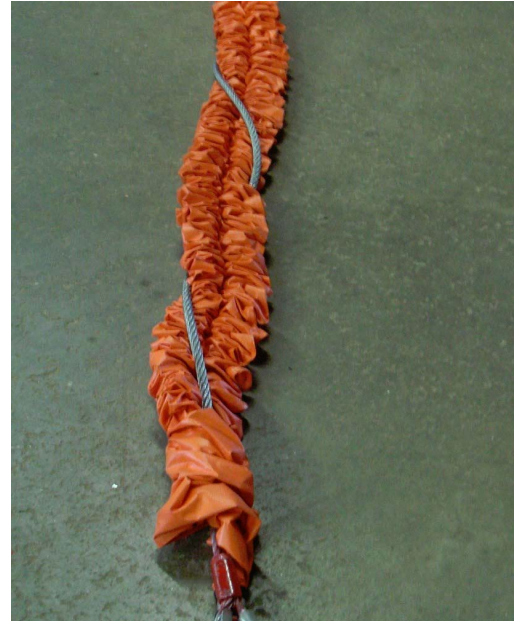
Billy Pugh - Stabilizer for X-800 and X-904

Important checks to maintain the life of the stabilizer.

If you see twists in the stabilizer (the rubber “bungee” attached above the four-part sling next to the load line) get these twists out before the next lift.

Inside the canvas bag that holds the rubber bungee there is also a safety load line that backs up the main wire rope load line. If there are twists where the wire rope load line is wrapped around the bag (holding the line and the rubber) when the lift is made it can break or damage the rubber bungee inside. This WILL NOT cause any safety issues as the rubber bands in no way are load bearing, but to maintain the best performance of X-800/X-904.

There have been some questions about the stabilizer and safety line in terms of its purpose on the X-800/X-904. First of all, the safety line is made from $\frac{3}{4}$ " 12-strand rope with a tensile strength of 22,050 lbs. This line is made slightly longer than the wire rope load line and is intended only to serve as a backup in the event of separation or failure of the main load line. It does not carry any of the load on normal lifts. The 12-strand rope is not deteriorated by UV, due to its protection from the orange cover.

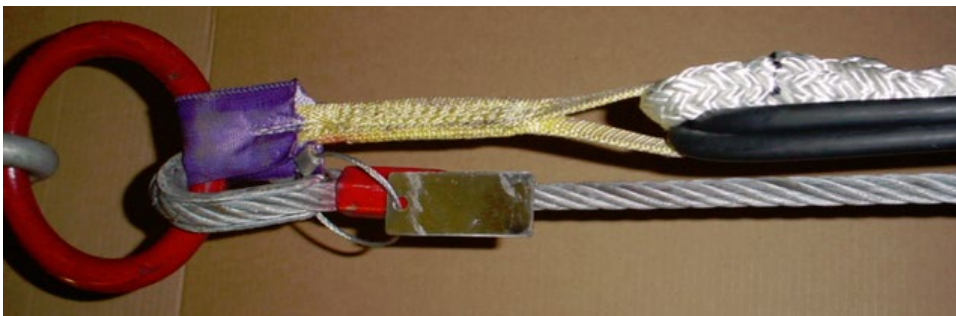


For the X-800: The stabilizer will usually last the life of the device with the above care. It also helps keep tension on the net to hold it up while loading and unloading.

For the X-904: At the two-year refurbishment a new stabilizer assembly comes with the refurb kit and is replaced at this time.

The rubber bungee also serves to assist the crane operator in keeping the rigging in the proper position when slacking off.

With proper care the Stabilizer will last 1-2 years. Change yearly if used regularly or wear or damage is observed.



Safe Loading and Unloading Procedures

The X-904 Personnel Transfer Device should only be used in conjunction with equipment which is adequate and suitable for the transfer of personnel. It is important that special attention is given to local conditions such as wind, visibility and sea state. All Personnel Transfer jobs should be well planned and a risk assessment done if required.

It is important that all operators and riders of the X-904 are fully briefed on its use, this can be done verbally by a competent person or using the manufacturers short introduction video.

1. Approach the basket and place any hand luggage in the netted area provided. Grab the outer rigging cables and step in. Position feet as indicated and clip on safety lanyard.
2. During transfer, riders should keep their knees bent, hold on to the center ropes of the X-904 and keep the lanyard on the double action snap hook in one hand
3. At the end of the transfer, pull the quick release lanyard and step away from the device.

Training

You've bought the best available offshore transfer device, now what? Help is on hand to guide you on how to operate and maintain your device. All X-904's come with the Moxie Media produced training Flash Drive. This Flash Drive includes information on assembly, maintenance and operation of the X-904. Any additional questions can be emailed to us using our www.billypugh.com website. We'll be right back to you.

Find out more online at www.billypugh.com

or call us at (361) 884-9351



Stretcher Procedures

Please Note: this pertains to the 4-man, 6-man, and 8-man (X-904-4, X-904-6, and X-904-8, respectively) models only. Stretchers that will fit are 81 3/4" long x 22 7/8" wide.

1. Placing the stretcher inside the X-904.
 - a. With X-904 in the working position, carry one end of the stretcher in through any opening and out through the adjacent opening. With the center of the stretcher inside the X-904, lower the stretcher to the floor.
 - b. Vertical grab lines will expand to accommodate the width of the stretcher.
2. Secure the stretcher.
 - a. Tie off stretcher using the X-904's outer vertical grab lines.
3. Boarding with stretcher
 - a. Riders may accompany patient either as passengers (in the standing position) or as attendants (in the kneeling position).

Recommended Practices

The following minimum lifting practices are recommended for all crane assisted personnel transfer net devices:

- Any offshore facility making personnel transfers with a personnel carrier should have a written procedure for this task.
- A pre-use inspection should be conducted prior to any personnel carrier transfer.
- Cranes assigned to personnel lifting duties should be suitable for this purpose per relevant API spec.
- Crane operators assigned to personnel lifting duties should be certified and competent to perform this task.
- A snag resistant tag line should be affixed to all personnel carriers.
- Crane hooks used for personnel transfers must have a positive locking latch.
- Only approved personnel carriers should be used for lifting personnel per API specifications. Personnel carriers should not be used as a workbasket or cargo net.
- Personnel carriers should be legibly marked with the maximum number of passengers.
- The X-904 is equipped with areas designed for light luggage. Luggage should be stowed before the lift is made and easily accessible for debarkation. No large or heavy items (bigger than the storage area) should be allowed on the X-904. Large or heavy items should be sent up via cargo basket.

- Personnel carriers should not be utilized in weather, wind, or sea conditions that the qualified person considers to be unsafe.
- Before any attempt is made to lift personnel with a carrier, clear instructions should be given to all persons involved.
- No person suffering from acute seasickness or vertigo shall be transported by personnel carrier. If the transfer is necessary, the affected person should be put inside stokes stretcher and the stretcher shackled to the rigging in the area provided inside the unit. (Someone should ride up with this individual on the transfer as well).
- Any individual has the right to refuse transfer by a personnel basket.
- All personnel riding on a personnel carrier should wear an approved life vest or life preserver. An approved Type I illuminated PFD maybe required for all transfers conducted at night (depending on operator/contractor policy). Many contractors incorporate Type I as well for rough sea/bad weather transfers.
- All personnel riding the X-904 carrier should stand on the inside of the unit and grasp the inner rigging. Passenger forearms should be interlocked.
- If crane operator's view of the primary signalman is obstructed, the personnel carrier should not be moved until alternative communication or signal devices are placed in service.
- A designated primary landing zone should be marked in a safe area as determined by a Job Hazard Analysis (JHA). This area should, at minimum, be twice the diameter of the transfer device.
- When transferring personnel, the personnel carrier should be lifted only high enough to clear obstructions. Is should then be gently lowered to the deck.
- A loaded personnel carrier should not be raised or lowered directly over a vessel.
- The crane operator may refuse to lift any person who does not comply with the operator's instructions.
- An experienced escort should be provided for persons who are not confident performing a personnel carrier transfer.
- Injured, ill, or unconfident persons may ride in a sitting position, on the inside of the personnel carrier, with a qualified person as an escort.
- NOTE: Depending on company policies, attaching the man positioning lanyard to the riders' PFDs may be optional during transfers on the X-904. Billy Pugh Company encourages the use of this lanyard but is not a requirement to meet this recommended practice.

Maintenance

Inspection Procedures

All inspections should be performed by a qualified person and should always incorporate an operator's pre-use inspection. The following includes the inspection procedures for the X-904.

The X-904 is a three-piece unit. This includes the center pole, the bottom ring and the top ring. The top ring is the most critical area of these three pieces due to its critical role in the load bearing component of the X-904. Particular attention should be paid to the pad eyes making sure that the holes are not elongated and that the angle of the pad eyes are consistent and not bent or distorted in any way. If any of the four pad eyes are damaged or do not conform then the X-904 should be taken out of service.

Need a refurbishment?

Do you need more information on the refurbishment process? Or do you need to find a certified refurbishment company? Visit us on our website for a complete list of companies and more information.

Visit us online at www.billypugh.com

or call us at (361) 884-9351



X-904 Pre-Use Inspection

Serial No.	
Date	
Inspected by	
Signature	

Item No.	Description	Pass	Fail
1.	General Damage		
2.	Safety Load Line		
3.	4-Part Sling		
4.	Stabilizer <small>Ensure orange stabilizer is not wrapped around the load line (Ref. page 11)</small>		
5.	Crane Hook		
6.	Top & Bottom Ring		
7.	Rigging Lines		
8.	Center Pole		
9.	Quick Release Hook		

Notes

X-904 Pre-Use Inspection Instructions

All inspections should be performed by a qualified person and should always incorporate an operator's pre-use inspection. The following includes the inspection procedures for the X-904.

Line Instructions for the X-904 Pre-Use Inspection form:

1. General Damage – Check for any damage or defect on all parts of the unit.
2. Safety Load Line – Visually inspect safety load line when attaching the X-904 to the crane hook.
3. 4-part Sling – Visually inspect the 4-part sling and all hardware as well as the load line.
4. Stabilizer – Visually inspect the fabric covered stabilizer. Look for crimps, broken wires or excessive wear or rust. If any of these problems exist, take the unit out of service immediately and replace the stabilizer.
5. Crane Hook – Inspect crane hook positive locking device for function and physical condition.
6. Top & Bottom Ring – Visually inspect all the load bearing areas of the X-904 for excessive wear or damage,
7. Rigging Lines - Visually inspect the rigging lines (inner and outer).
8. Center Pole – Visually inspect the aluminum center section for damage, cracks, or excessive wear.
9. Quick Release Hook – Inspect the stainless quick release hooks. Regularly spray with a lubricant (i.e. WD-40) to protect from corrosion.

If any load bearing area of the X-904 is worn or defective in any way, take the unit out of service immediately.

We recommend a JHA or JSA be completed before personnel transfer operations commence.

API definition of *Qualified Person* – A person designated by the employer who has the experience and formalized training to safely operate the crane, rigging, and associated lifting devices assigned at the work location.



X-904 6-Month Inspection

Serial No.	
Inspection date	
Cert expiration date	
Inspected by	
Signature	

Item No.	Description	Pass	Fail
1.	General Damage		
2.	Safety Load Line		
3.	4-Part Sling		
4.	Stabilizer		
5.	Rigging Ropes		
6.	Top & Bottom Frame		
7.	Center Pole		
8.	Flotation Ring Covers		
9.	Rubber Feet		
10.	Non-OEM components of modifications		
11.	Pad Eyes		

Notes

X-904 6-Month Inspection Instructions

All 6-month inspections should be performed by a qualified inspector. The following includes the 6-month inspection procedures for the X-904.

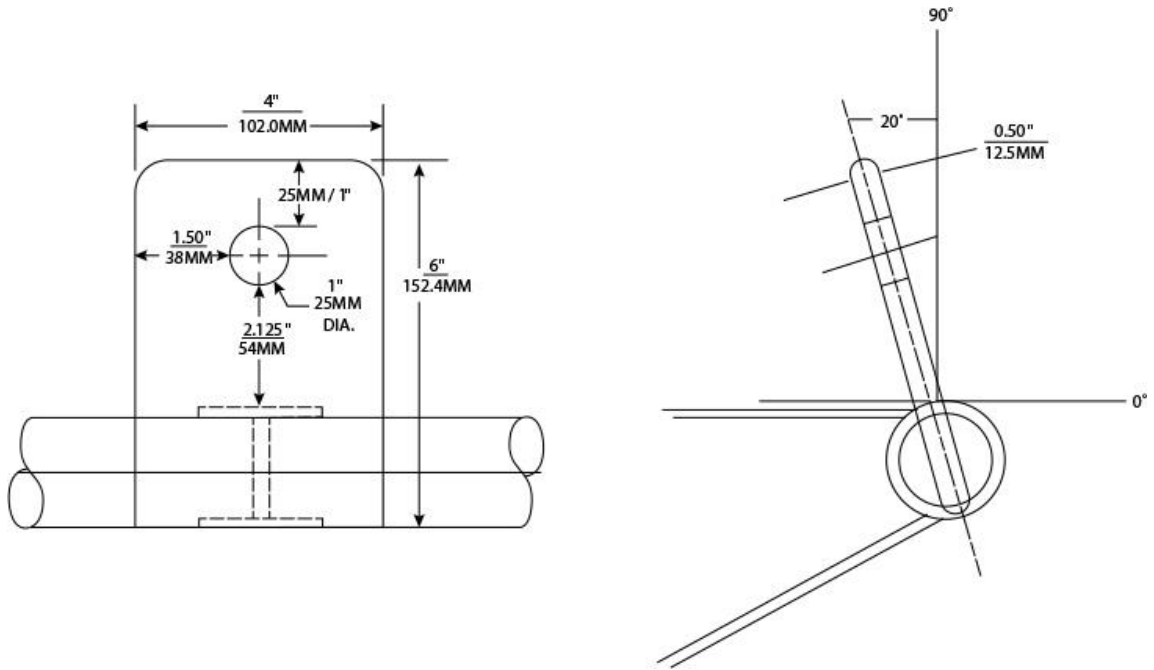
Line Instructions for the X-904 6-Month Inspection form:

1. General Damage – Check for any damage or defect on all parts of the unit.
2. Safety Load Line – Visually inspect safety load line when attaching the X-904 to the crane hook.
3. 4-part Sling – Visually inspect the 4-part sling and all hardware (paying close attention to broken wires, flattened sections, crimps, rust, etc.).
4. Stabilizer – Visually inspect the fabric covered stabilizer for tears or excessive wear. Replace inner rubbers if damage, broken, or have lost elasticity.
5. Rigging Ropes – Visually inspect the vertical rigging ropes and the nuts and bolts that hold them for sufficient and consistent tension.
6. Top & Bottom Frame – Inspect the top and bottom of powder coated aluminum frame including top and bottom ring, expanded metal top and center pole. Look for excessive wear, cracks, or corrosion.
7. Center Pole – Turn center pole (at least 3 full turns) loosening and then tightening. Swab the threads with lubricant to prevent seizing.
8. Flotation Ring Covers – Inspect top and bottom outer flotation ring covers for damage.
9. Rubber Feet – Inspect the rubber feet on the bottom frame for deterioration, damage, or missing feet.
10. Non-OEM components or modifications – Inspect for modifications or non-OEM supplied components. Non-OEM components or modifications should be removed.
11. Pad Eyes – Inspect the pad eyes on the upper ring of the X-904. There should be no cracks or damage to the welds. The hole in the pad eye should still be round and not elongated by more than 5%. The angle of the pad eye from the upper ring should be 20 degrees inside of vertical (see drawing). Some wear of the coating is expected and acceptable but there should not be excessive wear of metal.

Defective or worn parts should be replaced by a qualified individual as required.

API definition of “Qualified Inspector” – A person so designated by the employer who by reason of an appropriate experience and training, in addition to meeting requirements of a qualified person, has attended formal training in inspection, maintenance, and troubleshooting of cranes, rigging, and lifting devices.





900 Series Transfer Net Pad Eyes Specifications

How to get the In-Service Date

In the event the In-Service Date was not noted when unwrapped, you can use the following dates for your records.

1. In-Service date – This is the date the device was unwrapped. If you do not have this date the goods receiving date will apply.
2. Goods Receiving date (GRN date) – This is the date the customer received the goods from their forwarding agent. If you do not have this date then the invoice date will apply.
3. Invoice date (From Distributor to Customer) or Delivery Order date (From Distributor to Customer) from a DO or Invoice. If you do not have this date then the purchase order date will apply.
4. Purchase Order date (Customer PO to Distributor), This is the date the Purchase order was made. If you do not have this date then the distributor receiving date will apply.
5. Distributor Receiving date from Billy Pugh. If you do not have this date then the manufacturing date will apply.
6. Manufacturing date

X-904 Service Record

Serial No	
Company	
Location	
In Service Date	

1st 2 - Year Service				
6 month	Date	Inspected by	Pass	Fail
1				
2				
3				
4				

2nd 2 - Year Service				
6 month	Date	Inspected by	Pass	Fail
1				
2				
3				
4				

* Note: Refurbishments occur on the highlighted rows every 2 years.

X-904 Service Record

Serial No	
Company	
Location	
In Service Date	

3rd 2 - Year Service				
6 month	Date	Inspected by	Pass	Fail
1				
2				
3				
4				

4th 2 - Year Service				
6 month	Date	Inspected by	Pass	Fail
1				
2				
3				
4				

* Note: Refurbishments occur on the highlighted rows every 2 years.

X-904 Disassembly (break down) Instructions

1. Attach the X-904 sling to the crane hook, davit hook, or any other device that will safely support the top frame assembly.
2. Grab the coupling on the center pole and turn clockwise until there is slack in all the red grab lines.
3. Remove the bolt that passes thru the coupling making sure to hold the coupling as to not allow it to fall to the bottom of the pole. ****Failing to do so could cause damage to the coupling.****
4. Slide the coupling up off the pole and set aside.
5. Pull the bottom pole from the bottom frame assembly.
6. Turn the top pole counterclockwise to remove.
7. Safely lower to top frame assembly.

Responsibilities

It is the responsibility of the offshore employer to ensure this recommended practice is applied appropriately within their organizations. Management of offshore personnel transfer safety should be an integral component of the employers existing Safety and Environmental Management Plan (SEMP).

A systematic management process used to identify and control safety and environmental hazards in design, construction, start-up, operation, inspection, and maintenance as promulgated in API RP-75.

Definitions

In Service Date

The date the X-904 is unwrapped is the “In Service Date”. That date will be noted on the X-904 certificate and the yellow sticker attached to the center pole. The “In Service Date” is used as the date for aging the device for inspections and replacement. If during inspection it is found that there is not an “In Service Date” recorded, then see page 20 for more info on how to find the “In Service Date”.

Rigging

Load lines, master links, safety slings, and hardware that attach the personnel carrier to the crane hook or block device.

Qualified Person

A person designated by the employer who has the experience and formalized training to safely operate the crane, rigging, and associated lifting devices assigned at the work location.

Qualified Inspector

A person so designated by the employer who by reason of appropriate experience and training, in addition to meeting the requirements of a qualified person, has attended formal training in inspection, maintenance, and troubleshooting of cranes, rigging, and lifting devices.

References

American Petroleum Institute (API) – “API RP-2D Recommended Practice for Operation & Maintenance of Offshore Cranes”

International Association of Drilling Contractors (North Sea Chapter)- IMCA SEL 08/01 “Transfer of Personnel by Basket on the UK Continental Shelf”

Moxie Media Corporation – “Personnel Basket Safety Video Training Series” June 27, 2001 Issue 1 Rev 0 7

International Marine Contractors Association (IMCA) – “Task Risk Assessment Study 8/2000”

National Research Council, Assembly of Engineering Marine Board – “Committee on Assessment of Safety of OCS Activities”

Billy Pugh company, Inc. – “Procedures for Maintenance & Inspection of Personnel Baskets”

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Department of the Interior, Minerals Management Service – “Safety Alert No. 190-1/22/00 & Safety Alert No. 193-2/28/01”

Global Drilling Leadership Initiative – “Recommended Practice #6”

ABS Certification

ABS Type Approved Manufacturer

In terms of personnel transfer devices, we do charge an additional fee for ABS to offset our costs associated with this service. ABS is not required in all parts of the world for personnel transfer devices so we only charge those companies that choose this option.

ABS Type Approval Program

In the Type Approval Program, ABS certifies that enrolled manufacturers are capable of consistently producing a product in compliance with product specifications. Each product is tested to verify that it will perform reliably in the marine and offshore environment.

The ABS Type Approval process provides design verification and manufacturing assessment that confirms products meet applicable quality industry standards and class requirements.

To find out about the ABS Type Approval process visit www.eagle.org.

How Can I Tell if My Billy Pugh Personnel Transfer Device is ABS Type Approved?

Not all Billy Pugh Co. Personnel Transfer Devices are ABS Type approved. The X-904 series does not have a serial number that designates type approval. The last 2 numbers of the serial number are the year of manufacture. All X-904's ABS approval are marked with the ABS Badging and includes a special ABS certificate.



ABS Quality Evaluations

Certificate Of Conformance

This is to certify that the Quality Management System of:

Billy Pugh Company

5878 Agnes St.

Corpus Christi, TX 78406

U.S.A.

has been assessed by ABS Quality Evaluations, Inc. and found to be in conformance with the requirements set forth by:

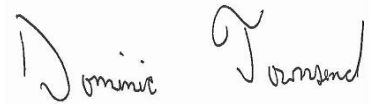
ISO 9001:2015

The Quality Management System is applicable to:

MANUFACTURING OF (800 SERIES), TRANSFER NETS AND (900 SERIES) PERSONNEL TRANSFER DEVICES FOR THE OFFSHORE INDUSTRY

This certificate may be found on the ABS QE Website (www.abs-qe.com). For certificates issued in the People's Republic of China information may also be verified on the CNCA website (www.cnca.gov.cn).

Certificate No: 49869
Certification Date: 24 September 2014
Effective Date: 08 September 2023
Expiration Date: 23 September 2026
Revision Date: 08 September 2023



Dominic Townsend, President



Validity of this certificate is based on the successful completion of the periodic surveillance audits of the management system defined by the above scope and is contingent upon prompt, written notification to ABS Quality Evaluations, Inc. of significant changes to the management system or components thereof.

ABS Quality Evaluations, Inc. 1701 City Plaza Drive, Spring, TX 77389, U.S.A.
Validity of this certificate may be confirmed at www.abs-qe.com/cert_validation.

Thank you

Thank you for purchasing the X-904 personnel transfer device, the safest and most advanced transfer device on the market today. This manual contains information for operating, maintaining and storing your X-904 personnel transfer device.

For more information on training and questions about your X-904, please visit Billy Pugh Company online at www.billypugh.com or contact us using the information below:

Billy Pugh Co., Inc.
P.O. Box 802
Corpus Christi, TX 78403

Tel (361) 884-9351
Fax (361) 888-5806

The X-904 is a transfer device used to quickly and effectively transport personnel offshore. Three important features set the X-904 apart from other devices: overhead protection, side impact protection, and a unique man positioning system.

For more information.

Visit us online at www.billypugh.com

or call us at (361) 884-9351





www.bilypugh.com



BILLY PUGH Co., Inc.

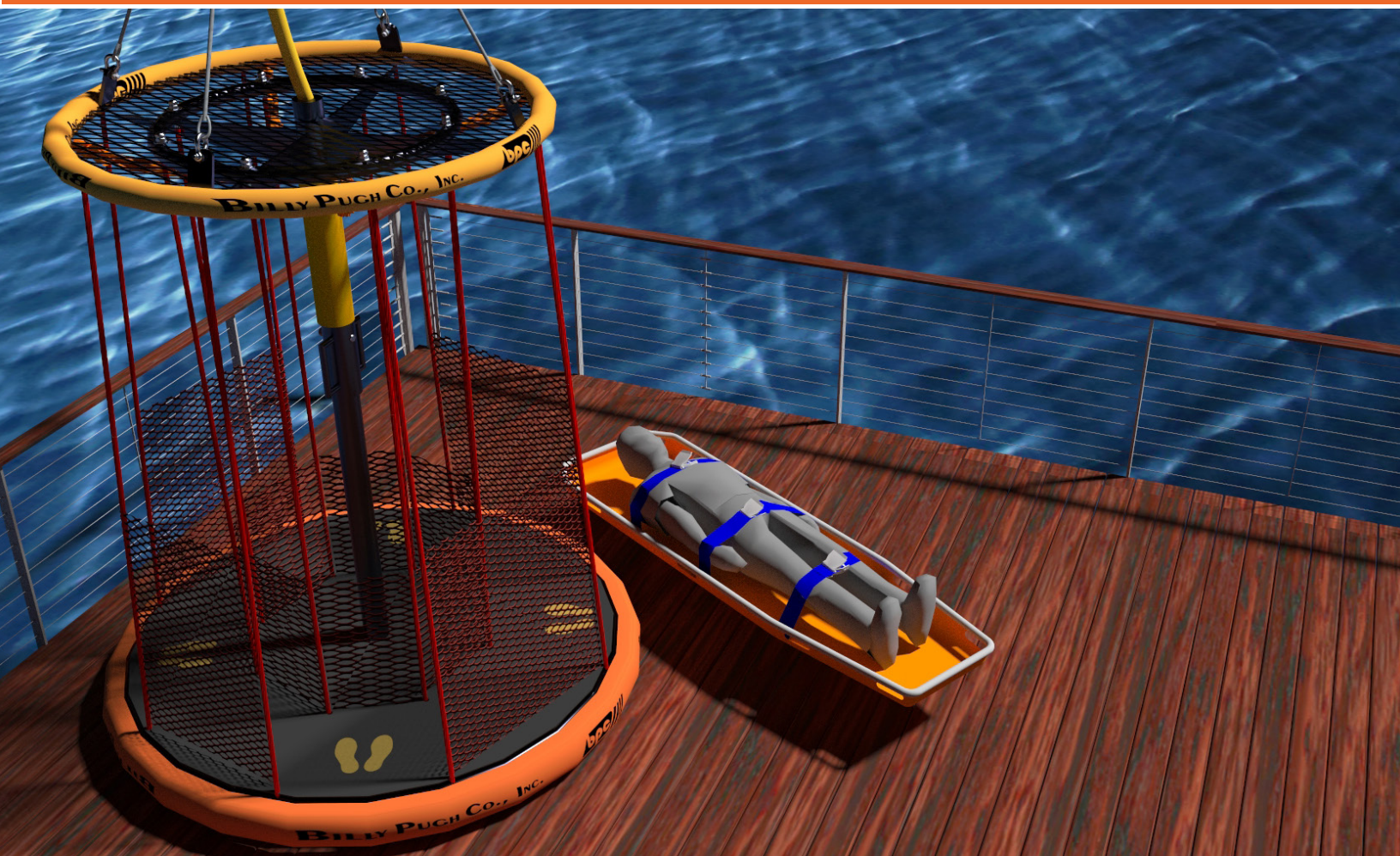
X-904

(4, 6 or 8 man)

Stretcher Procedures

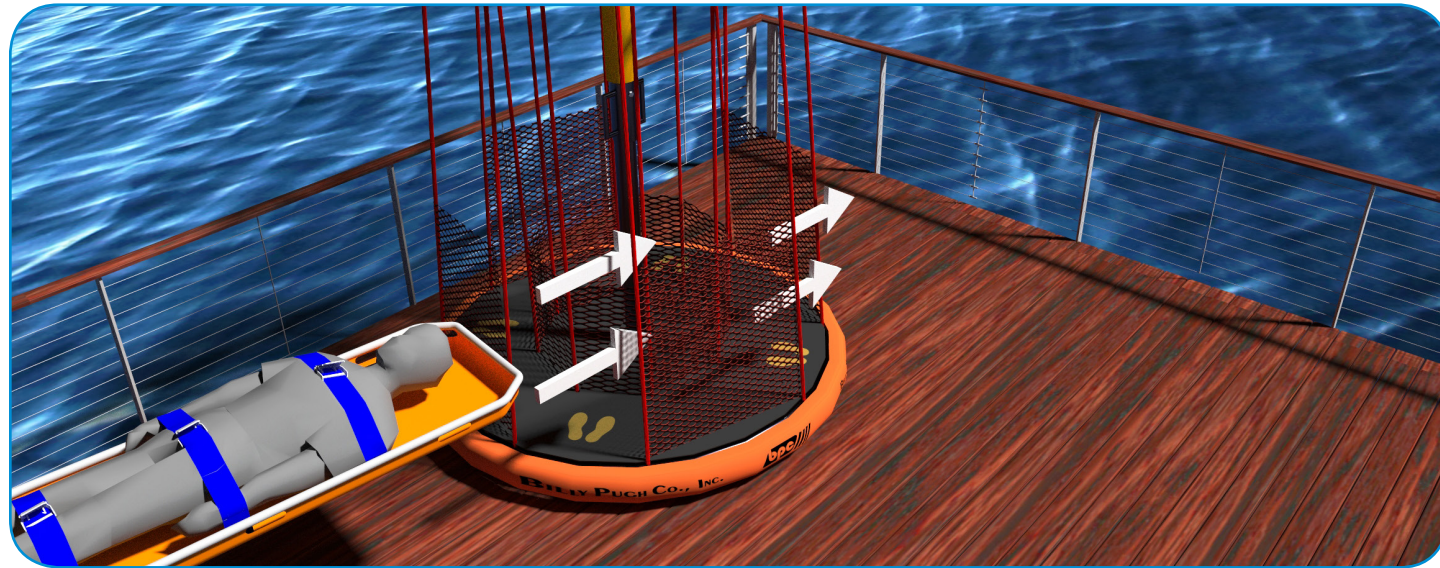
www.billypugh.com

Excellence in offshore personnel safety

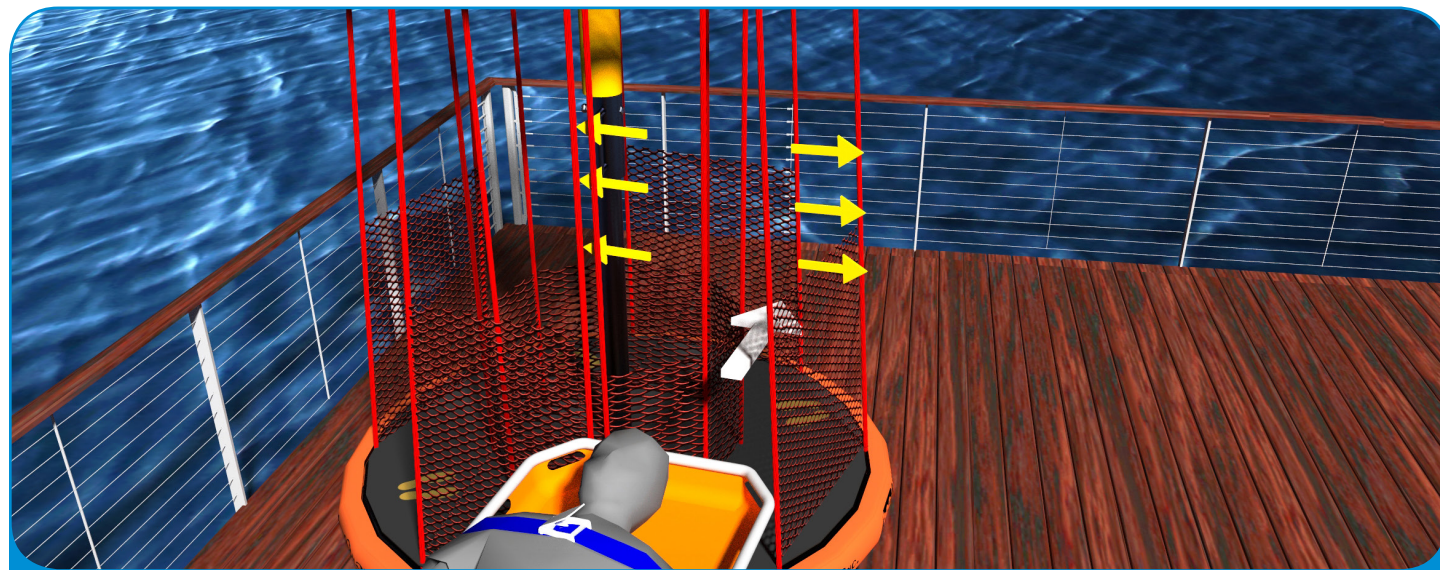


Step #1 – Placing the stretcher inside the X-904.

1. With X-904 in the working position, carry one end of the stretcher in through any opening and out through the adjacent opening. With the center of the stretcher inside the X-904, lower the stretcher to the floor.



2. Vertical grab lines will expand to accommodate the width of the stretcher.



Vertical grab lines expand when stretcher is carried through opening

Step #2 – Secure the stretcher.

1. Tie off stretcher using the X-904's outer vertical grab lines.



Stretcher tie off positions



Example using shackle

Step #3 – Boarding with stretcher.

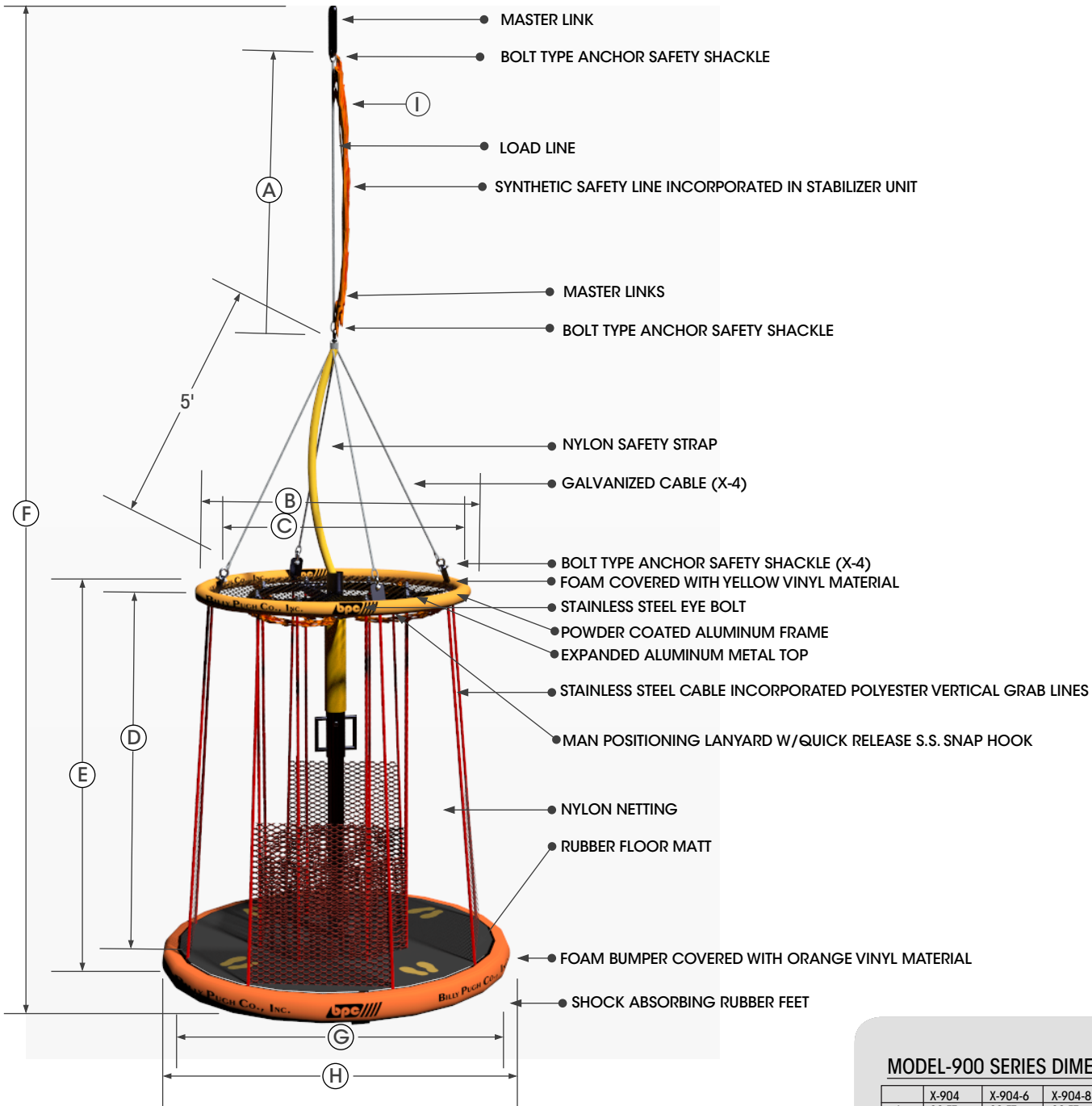
1. Riders may accompany patient either as passengers (in the standing position) or as attendants (in the kneeling position).



Passengers



Attendants



MODEL-900 SERIES DIMENSIONS

	X-904	X-904-6	X-904-8	X-904-10	X-904-12
A	20 FT.	20 FT.	20 FT.	b.20 FT.	b.20 FT.
B	67 INS.	79.5 INS.	79.5 INS.		
C	62 INS.	74.5 INS.	74.5 INS.	83 INS.	90 INS.
D	7 FT.	7 FT.	7 FT.	7 FT.	7 FT.
E	8 FT.	8 FT.	8 FT.	8 FT.	8 FT.
F	33 FT.	33 FT.	33 FT.	33 FT.	33 FT.
G	74 INS.	89 INS.	89 INS.	100 INS.	107 INS.
H	85INS.	100 INS.	100 INS.	111 INS.	118 INS.
I	d. 11 FT.	d. 11 FT.	d. 11 FT.	d. 11 FT.	d. 11 FT.

NOTES: NET WT 530 LBS.
THE 900 SERIES PERSONNEL TRANSFERS
ARE POWDER COATED

Recommended Practice for Crane Suspended X -904 Offshore Personnel Transfers

Purpose

This recommended practice is intended to assist all offshore employers in the development of safe work practices relative to the task of transferring personnel to-and-from offshore facilities utilizing a Billy Pugh Co. X-904 personnel transfer device. This recommended practice addresses the minimum requirements promulgated by both regulation, industry, and refined for the use of this unit. Each offshore employer is encouraged to follow these recommendations and to proactively modify or supplement them with additional beneficial practices or equipment, or environmental conditions.

Scope

This recommended practice is intended for application by offshore employers working in a marine offshore environment who transfer, move, or transport their workforce by Billy Pugh X-904 personnel carrier. The elements of this recommended practice should be applied as appropriate with due consideration made for any additional special hazards identified by the employer as a result of a thorough Job Hazard Analysis (JHA).

Responsibilities

It is the responsibility of the offshore employer to ensure this recommended practice is applied appropriately within their organizations. Management of offshore personnel transfer safety should be an integral component of the employers existing Safety and Environmental Management Plan (SEMP).

A systematic management process used to identify and control safety and environmental hazards in design, construction, start-up, operation, inspection, and maintenance as promulgated in API RP-75

Definitions

*In Service Date: The date the X-904 is unwrapped is the "In Service Date".

That date will be noted on the X-904 certificate and the yellow sticker attached to the center pole.

The "In Service Date" is used as the date for aging the device for inspections and replacement. If during inspection it is found that there is not an "In Service Date" recorded, then the "In Service Date" will defer back to the "Manufacturing Date" which is noted on tags and paperwork.



Rigging

- Load lines, master links, safety slings, and hardware that attach the personnel carrier to the crane hook or block device.

Qualified Person

- A person designated by the employer who has the experience and formalized training to safely operate the crane, rigging, and associated lifting devices assigned at the work location

Qualified Inspector

- A person so designated by the employer who by reason of appropriate experience and training, in addition to meeting the requirements of a qualified person, has attended formal training in inspection, maintenance, and troubleshooting of cranes, rigging, and lifting devices.

Case for Action

Analysis of available accident/injury data reveals that offshore personnel transfers are not involved in high rates of accidents relative to the number of transfers carried out worldwide. But due to the sheer number of personnel basket transfers, the potential does exist for incidents to occur. Safe and consistent methods need to be incorporated into the procedures of those utilizing “crane assisted” transfer devices. A safety system, which addresses the specific areas of effective management relative to offshore personnel transfers, will be required so that industry can sustain and maximize overall safety performance while showing a process of continuous improvement. The X-904 is the next step in this continual improvement in boat to rig crane transfers.

Safety System Elements

The following are considered to be key elements of an effective safety system for management of crane suspended offshore personnel transfers.

ELEMENT 1: Minimum Training Requirements

An on-site competency based orientation & JSA on the safe use of personnel carrier devices should be administered by a qualified person before employees or visitors unfamiliar with the device are loaded or lifted. At a minimum the following elements should be included in this orientation curriculum:

- Safe loading & unloading procedures.
- Crane actions, movements, and signals.
- Body positions, pinch points, and personal stability.
- Personnel baggage loading procedures.
- Personnel protective equipment requirements.
- Exceptions or anomalies to any of the above.

In addition to the training elements, the qualified person should ascertain whether any persons are feeling ill, suffering from vertigo, or have any anxiety regarding the transfer. These individuals should be discouraged from using this form of personnel transfer. The exception would be using the X-904 stretcher capability as described in the safety CD provided with the unit.

ELEMENT 2: Personnel Carrier Rigging Configurations

The following rigging configurations are recommended for all crane assisted personnel carrier devices:

- **Double load lines:**
*Billy Pugh personnel nets as well as the X-904 have a backup fiber rope safety line contained within the stabilizer unit.
- **Snag Resistant Tag Line**
We recommend that the BPC semi-rigid, snag resistant tag line should be affixed to all of our personnel transfer devices. Tag lines should have a minimum length of 10 '(3.05m). Tag line should be attached to either the center deck lashing pint, or the outside bottom platform ring in such a manner that minimizes tag line damage when carrier is resting on a surface and attach with a minimum 5/8" {190 mm) bolt type anchor shackle. Personnel transfer device tag lines should be identified by a high visibility color. These tag lines can be obtained by specifying “Billy Pugh Tag Line” followed by the length. A normal length for these units is 15 ft. This recommendation is consistent with API-RP 2D (Annex C). Our tag lines (PTL and STL product codes) both conform to this API specification and work well with all slung loads as well as personnel transfer devices.



ELEMENT 3: Inspection Procedures

All inspections should be performed by a qualified person and should always incorporate an operator’s pre-use inspection. The next two pages of the “Best Practices” include both the daily and the semi-annual inspection procedures for the X-904. Plastic laminated versions have also been included with this booklet for your convenience.

ELEMENT 4: Operational/Administrative Practices

The following minimum lifting practices are recommended for all crane assisted personnel transfer net devices:

- Any offshore facility making personnel transfers with a personnel carrier should have a written procedure for this task.
- A pre-use inspection should be conducted prior to any personnel carrier transfer.
- Cranes assigned to personnel lifting duties should be suitable for this purpose per relevant API spec.

- Crane operators assigned to personnel lifting duties should be certified and competent to perform this task.
- A snag resistant tag line should be affixed to all personnel carriers.
- Crane hooks used for personnel transfers must have a positive locking latch.
- Only approved personnel carriers should be used for lifting personnel per API specifications. Personnel carriers should not be used as a workbasket or cargo net.
- Personnel carriers should be legibly marked with the maximum number of passengers.
- The X-904 is equipped with areas designed for light luggage. Luggage should be stowed before the lift is made and easily accessible for debarkation. No large or heavy items (bigger than the storage area) should be allowed on the X-904. Large or heavy items should be sent up via cargo basket.
- Personnel carriers should not be utilized in weather, wind, or sea conditions that the qualified person considers to be unsafe.

- Before any attempt is made to lift personnel with a carrier, clear instructions should be given to all persons involved.
- No person suffering from acute seasickness or vertigo shall be transported by personnel carrier. If the transfer is necessary, the affected person should be put inside stokes stretcher and the stretcher shackled to the rigging in the area provided inside the unit. (Someone should ride up with this individual on the transfer as well).
- Any individual has the right to refuse transfer by a personnel basket.
- All personnel riding on a personnel carrier should wear an approved life vest or life preserver. An approved Type I illuminated PFD maybe required for all transfers conducted at night (depending on operator/contractor policy). Many contractors incorporate Type I as well for rough sea/bad weather transfers.
- All personnel riding the X-904 carrier should stand on the inside of the unit and grasp the inner rigging. Passenger forearms should be interlocked.
- If crane operator's view of the primary signalman is obstructed, the personnel carrier should not be moved until alternative communication or signal devices are placed in service.
- A designated primary landing zone should be marked in a safe area as determined by a Job Hazard Analysis (JHA).
- When transferring personnel, the personnel carrier should be lifted only high enough to clear obstructions. It should then be gently

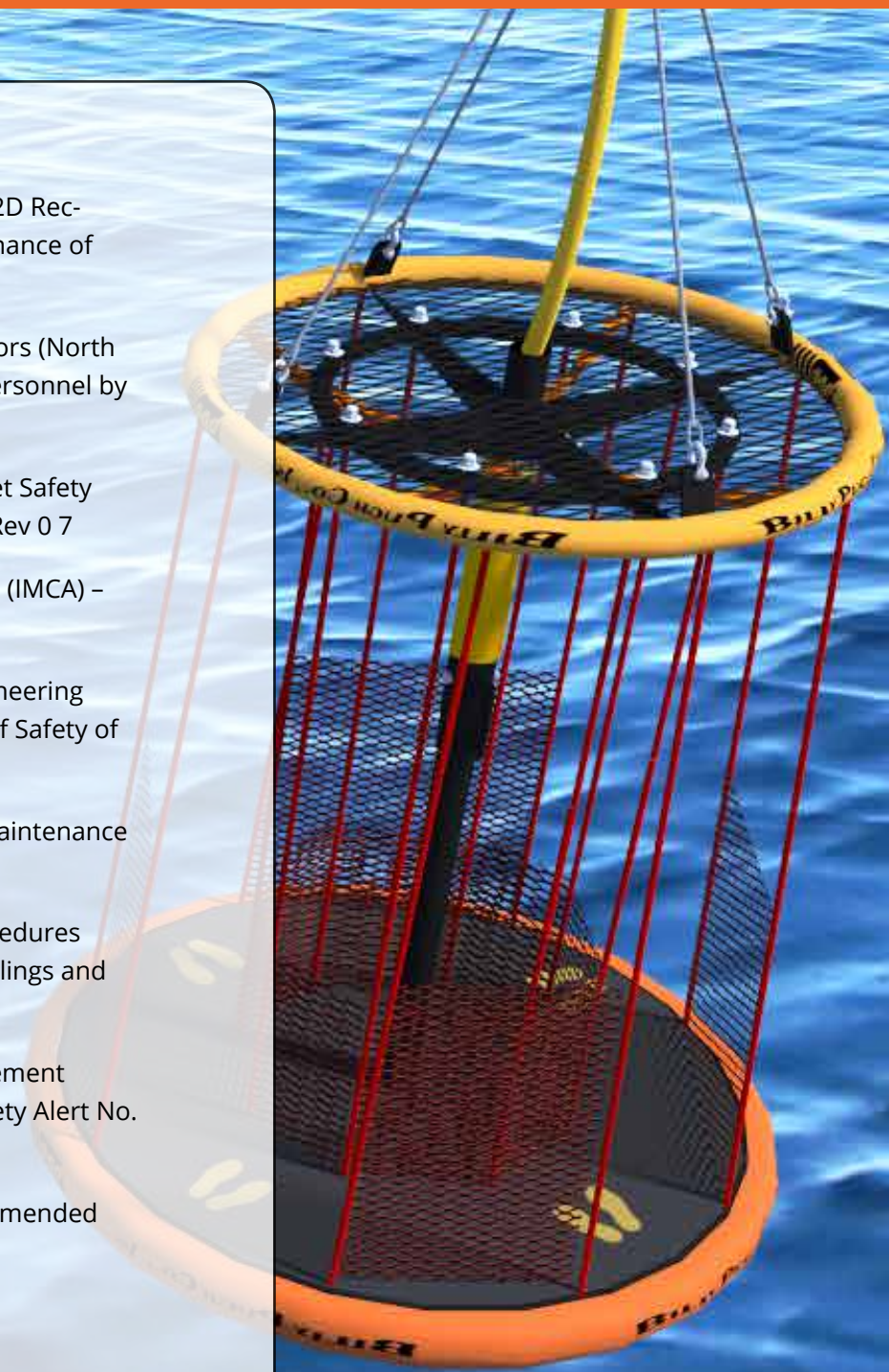
lowered to the deck.

- A loaded personnel carrier should not be raised or lowered directly over a vessel.
- The crane operator may refuse to lift any person who does not comply with the operator's instructions.
- An experienced escort should be provided for persons who are not confident performing a personnel carrier transfer.
- Injured, ill, or unconfident persons may ride in a sitting position, on the inside of the personnel carrier, with a qualified person as an escort.

NOTE: Depending on company policies, attaching the man positioning lanyard to the riders' PFDs may be optional during transfers on the X-904. Billy Pugh Company encourages the use of this lanyard but is not a requirement to meet this recommended practice.

References

- American Petroleum Institute (API) –“API RP-2D Recommended Practice for Operation & Maintenance of Offshore Cranes”
- International Association of Drilling Contractors (North Sea Chapter)- IMCA SEL 08/01 “Transfer of Personnel by Basket on the UK Continental Shelf”
- Moxie Media Corporation – “Personnel Basket Safety Video Training Series” June 27, 2001 Issue 1 Rev 0 7
- International Marine Contractors Association (IMCA) – “Task Risk Assessment Study 8/2000”
- National Research Council, Assembly of Engineering Marine Board –“Committee on Assessment of Safety of OCS Activities”
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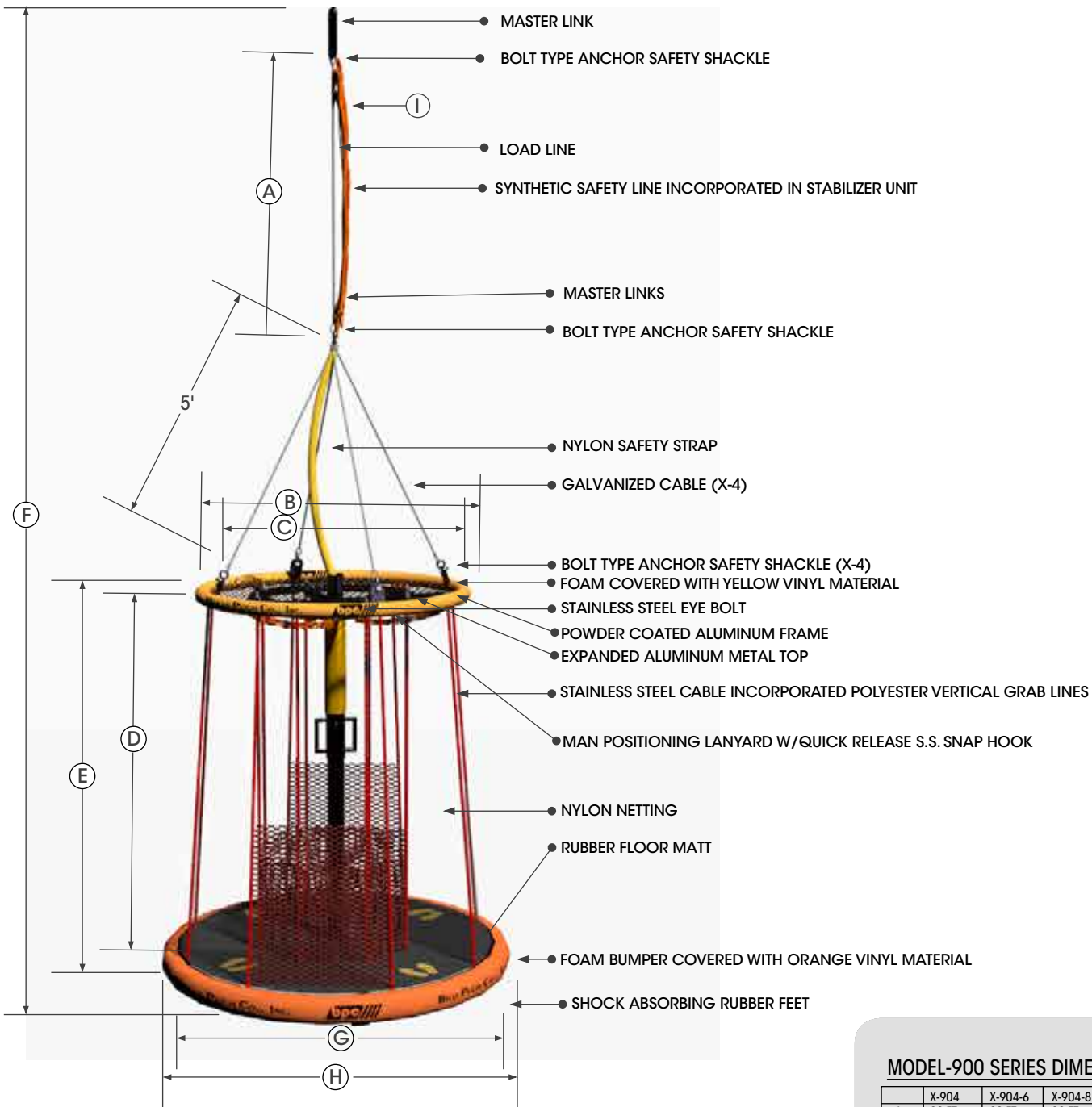


Figure 1.0

MODEL-900 SERIES DIMENSIONS

	X-904	X-904-6	X-904-8	X-904-10	X-904-12
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