

X-904 RECOMMENDED PRACTICE AND INSPECTION

X-904 Series Personnel Transfer Device · BPC-RP-X904

TIER 2 · RECOMMENDED PRACTICE · GOVERNING DOCUMENT

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Document owner	Quality & Safety Coordinator	Approved by	Chief Operating Officer

This is the governing document for the use, inspection and maintenance of the X-904 Series Personnel Transfer Device. BPC-GUI-X904 (Inspection, Refurbishment and Service Life) and BPC-GUI-X904U (X-904 Safe Use and Care) summarize it. Where any other Billy Pugh document differs from this one, this one governs.



1. INTRODUCTION

1.1 Purpose

This recommended practice helps offshore employers develop safe work practices for transferring personnel to and from offshore facilities with a Billy Pugh X-904 Series Personnel Transfer Device, and states what Billy Pugh Company requires for its inspection, refurbishment and replacement through its service life.

1.2 Scope

It applies to employers in the marine and offshore environment who transfer their workforce with an X-904. Apply it as appropriate, with due consideration for any additional hazards the employer identifies in a thorough job safety analysis (JSA) or job hazard analysis (JHA).

1.3 Responsibilities

The offshore employer is responsible for applying this recommended practice within its organization. Personnel transfer safety should be part of the employer's safety management system (SMS). Employers are encouraged to follow these recommendations and to supplement them with additional practices, equipment or controls

suited to their operations. Billy Pugh recommends that end users adopt procedures that meet or exceed these requirements.

2. ACRONYMS, DEFINITIONS AND REFERENCES

2.1 Acronyms

Acronym	Meaning
ABS	American Bureau of Shipping
API	American Petroleum Institute
JSA / JHA	Job safety analysis / job hazard analysis
PFD	Personal flotation device
PTD	Personnel transfer device
SES	Suspended emergency seat
SMS	Safety management system
WLL	Working load limit

2.2 Definitions

In Service Date. The date the X-904 is unwrapped. It is recorded on the unit's certificate, on the yellow sticker attached to the center pole, and with Billy Pugh Company when the device is registered. Every inspection interval and the service life run from it. Where no In Service Date has been recorded, it defers in this order: goods receiving date; invoice or delivery order date from distributor to customer; customer purchase order date; distributor receiving date; date of manufacture.

Operator. The person using the device. The Operator carries out the pre-use check (section 5.2). No designation or training by Billy Pugh Company is required.

Qualified Person. A person designated by the end user or operator from its own personnel, who has the experience and formalized training to safely operate the crane, rigging and associated lifting devices at the work location. The Qualified Person carries out the six-month inspection (section 5.3) and examines any finding from a pre-use check. Billy Pugh Company does not appoint or certify Qualified Persons.

Authorized Refurbishment Technician. A person who has completed Billy Pugh refurbishment technician training, has been assessed against the Billy Pugh assessment standard, and holds a current authorization issued by Billy Pugh Company. Carries out the 24-month refurbishment (section 5.4).

Authorized Service Center. An organization authorized by Billy Pugh Company to refurbish the X-904. Authorization is granted to both the service center and the individual technician, and either may be withdrawn.

Rigging. The load line, master links, safety sling and hardware that attach the X-904 to the crane hook or block.

2.3 Third party approval

The X-904-4, X-904-6 and X-904-8 hold American Bureau of Shipping Type Approval under Product Design Assessment 25-0173880-1-PDA, at Tier 4, enrolled in the ABS Product Quality Assurance program. The associated plant certificates are Product Quality Assurance 25-7036066-PQA and Recognized Quality System 26-7710443, both valid to July 1st, 2030. Current validity can be verified in the ABS Type Approval database at eagle.org.

A type approval addresses the design of the product: intended service, ratings, service restrictions, welding and non-destructive testing at manufacture, and nameplate marking. The service life in section 6 is set by Billy Pugh Company as manufacturer and is outside the scope of a type approval. Not every X-904 is supplied with ABS certification; it is chosen at the time of order. To confirm the approval scope or certification of a specific unit, contact bpc@billypugh.com quoting the model and serial number.

2.4 References

- API RP 2D, Operation and Maintenance of Offshore Cranes
- IMCA SEL 08/01, Transfer of Personnel by Basket on the UK Continental Shelf
- OCIMF, Transfer of Personnel by Crane Between Vessels
- BPC-GUI-X904, Inspection, Refurbishment and Service Life
- BPC-GUI-X904U, X-904 Safe Use and Care
- BPC-POL-X904SL, X-904 Service Life and Refurbishment Policy
- BPC-GUI-PTW, Offshore Safe Weather Conditions for Personnel Transfer
- BPC-RP-X904S, X-904 Stretcher Procedure
- BPC-PRO-REG, Product Registration Procedure
- X9044-100, X-904-4 General Arrangement Drawing

3. PRODUCT DESCRIPTION

3.1 Models and ratings

Model	Riders	Working load limit	Base width
X-904-4	4	1,200 lbs (544 kg)	85 in (215 cm)
X-904-6	6	1,800 lbs (816 kg)	100 in (254 cm)
X-904-8	8	2,400 lbs (1,088 kg)	100 in (254 cm)

All three: 96 in (243 cm) device height; 33 ft (10.06 m) overall length with rigging. The ratings on the unit's nameplate and certificate govern. For other X-904 configurations, the unit's own certificate states its ratings.

3.2 Standard features

- Aluminum frame with overhead protection; riders stand on the outside of the frame, protected by tensioned grab lines.
- Quick release safety lanyards, giving the rider security without confinement.
- Expanded metal floor grating in the center, so riders can keep their inward orientation and still see the deck approaching at landing (standard on current production).
- Fabric covered stabilizer with an internal safety load line (section 3.3).
- Snag resistant tag line: 15 ft PTL-1 supplied with the X-904-4, -6 and -8.
- Stretcher accommodation on the X-904-4, -6 and -8 (BPC-RP-X904S).
- Light luggage storage on the X-904-4 only (section 4.2).

3.3 Stabilizer and safety load line

Inside the fabric covered stabilizer is a rubber shock cord and a safety load line that backs up the main wire rope load line. The safety line is made slightly longer than the wire rope load line and carries no load on a normal lift;

it is there only in case the main load line separates or fails. The orange cover protects it from UV. The shock cord is not load bearing; it helps the crane operator keep the rigging in position when slacking off.

If you see twists in the stabilizer, remove them before the next lift. Twists where the wire rope load line wraps around the stabilizer can damage the shock cord inside. The stabilizer assembly is replaced at every 24-month refurbishment.



Stabilizer

3.4 Options

Option	Description
Individual landing cushions	1" nitrile foam with a non-skid surface on the standing areas, with high-visibility foot placement graphics, for a softer landing.
SES-1 suspended emergency seat	A hanging seat that clamps to the upper frame, for a rider who cannot stand because of sickness or minor injury, or a medic sitting beside a stretcher. Not for everyday transfers. A rider in the seat keeps the quick release lanyard by moving it to a pole coupling handle, or by using a longer lanyard at the standard attachment. Ratings are stated on the SES-1 documentation.
Grab line cushions	Padding wrapped around the grab line at the rider's height and secured with hook-and-loop fastening.



Landing cushions



SES-1 suspended emergency seat

4. RECOMMENDED PRACTICES

4.1 Controls

Carry out personnel transfers under strict controls. At a minimum, complete a JSA or JHA before the task (a sample is BPC-FRM-JSA). Establish communication between the crane operator and the banksman or signalman before the transfer, by radio or hand signals, and keep it throughout. All equipment involved in a personnel transfer must hold current certification and pass its pre-use check.

4.2 Practices for every crane personnel transfer

- A facility conducting personnel transfers with a PTD has a written procedure for the activity.
- The pre-use check (section 5.2) is completed before every transfer.
- Cranes assigned to personnel lifting are suitable for that purpose, and crane operators are certified and competent for it.
- Crane hooks used for personnel transfers have a positive locking latch.
- A snag resistant tag line is fitted.

- Only devices approved for lifting personnel are used, and a PTD is never used as a work basket or cargo net.
- The device is legibly marked with the maximum number of riders.
- Only the X-904-4 has areas designed for light luggage. Stow luggage before the lift, where it is easy to reach on landing. Send large or heavy items separately in a cargo basket.
- No transfer in weather, wind or sea conditions the Qualified Person considers unsafe (BPC-GUI-PTW).
- Clear instructions are given to everyone involved before any attempt to lift.
- No person with acute seasickness or vertigo is transported standing. If the transfer is necessary, transport the person in a stretcher secured in the device (BPC-RP-X904S), with a qualified escort.
- Anyone may refuse a transfer by PTD.
- Every rider wears an approved life vest or life preserver. An approved Type I illuminated PFD may be required at night, in rough seas or in bad weather, depending on operator or contractor policy.
- Riders stand on the standing areas with their feet on the marked positions, hold the grab lines, and keep their forearms interlocked.
- If the crane operator's view of the primary signalman is obstructed, the device is not moved until alternative communication or signals are in place.
- A primary landing zone, at least twice the diameter of the device, is marked in a safe area as determined by the JSA or JHA.
- The device is lifted only high enough to clear obstructions, and a loaded device is raised or lowered only over water, never over a vessel or hard surface.
- The crane operator may refuse to lift anyone who does not follow instructions.
- An experienced escort accompanies anyone not confident riding a PTD. Injured, seasick or unconfident persons may ride seated inside the device with a qualified escort.

Depending on company policy, attaching the quick release lanyard to the rider's PFD may be optional. Billy Pugh Company encourages its use; it is not a requirement of this recommended practice.

5. INSPECTION, REFURBISHMENT AND RECORDS

5.1 Intervals

Stage	Interval	Performed by	Record
Pre-use check	Before each use	Operator	None
Scheduled inspection	Every 6 months	Qualified Person	BPC-FRM-6MX904, kept by the end user
Scheduled refurbishment	Every 24 months	Authorized Refurbishment Technician at an Authorized Service Center	BPC-FRM-2YX904; Certificate of Refurbishment issued by the service center; refurbishment registered with Billy Pugh
Replacement	8 years	End user or Authorized Service Center	X-904 Retirement Record issued by Billy Pugh

All intervals run from the In Service Date. When inspecting any safety equipment, err on the side of caution: the cost of a new device is very small compared with the consequences of putting an unsafe one into service.

5.2 Pre-use check, before each use

A visual check by the person about to use the device. It produces no record. The printable checklist is appendix A. Check:

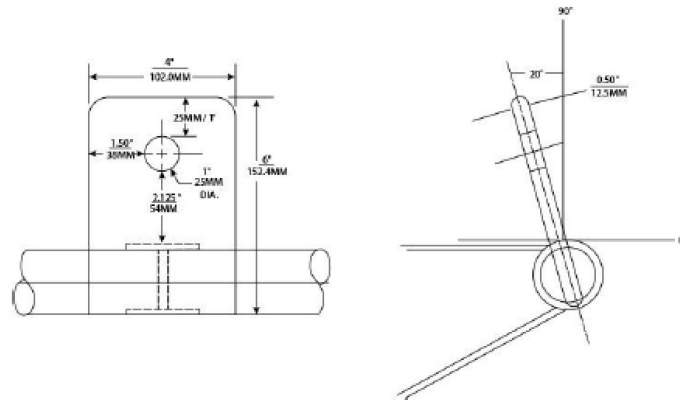
1. General damage: any damage or defect on any part of the device.
2. The safety load line, when attaching the device to the crane hook.
3. The four-part sling and its hardware, and the load line.
4. The fabric covered stabilizer, for tears or excessive wear, and that it is not wrapped around the load line.
5. The crane hook's positive locking device, for function and condition.
6. The top and bottom rings and all load bearing areas, for excessive wear or damage.
7. The inner and outer rigging lines.
8. The aluminum center pole, for damage, cracks, deformation or excessive wear.
9. The stainless steel quick release hooks. Spray them regularly with a lubricant to protect against corrosion.

Findings. If the check finds anything, the device does not go into service until a Qualified Person has examined it. The Operator does not decide whether a finding is acceptable.

5.3 Scheduled inspection, every 6 months

A visual inspection by a Qualified Person, incorporating the whole pre-use check. Disassembly is not required unless the visual inspection identifies a potential issue. The record is BPC-FRM-6MX904, kept by the end user. In addition to the pre-use scope, inspect:

1. The stabilizer: replace the inner shock cord if it is damaged, broken or has lost elasticity.
2. The vertical rigging ropes and the nuts and bolts that hold them, for sufficient and consistent tension.
3. The top and bottom powder coated aluminum frames, including the top and bottom rings, expanded metal top and center pole, for excessive wear, cracks or corrosion. Some wear of the coating is expected; excessive wear of the metal is not.
4. The center pole: turn it at least three full turns, loosening then tightening, and swab the threads with lubricant to prevent seizing.
5. The top and bottom outer flotation ring covers, for damage.
6. The rubber feet on the bottom frame, for deterioration, damage or missing feet.
7. The pad eyes on the upper ring: no cracks or damage to the welds; the hole round and not elongated by more than 5%; the pad eye at 20 degrees inside of vertical (figure below).
8. Modifications or components not supplied by Billy Pugh Company.



Pad eye specification

A device carrying a modification or a component not supplied by Billy Pugh Company is withdrawn from service, and is not returned until an Authorized Refurbishment Technician has removed it and made the device good. Report the finding to Billy Pugh Company.

An operator's own periodic examination regime satisfies this requirement, provided it runs at intervals of no more than six months, covers the scope above, and is documented and retained.

5.4 Scheduled refurbishment, every 24 months

A full strip-down, replacement and rebuild at a Billy Pugh Authorized Service Center, by an Authorized Refurbishment Technician working to Billy Pugh's documented procedure (BPC-PRO-X904R). The device is examined against BPC-FRM-2YX904.

- Replaced at every refurbishment, by interval and not by condition: every wire rope and textile load-bearing element (the complete sling assembly including the load line, the grab lines, the safety sling, the stabilizer and the tag line) and every wearing component, as listed on the kit contents and traceability record supplied with the kit.
- Carried forward and examined against the acceptance criteria in section 5.3: the aluminum frames, the center pole and its coupling, and the rubber deck mat.

The Authorized Service Center issues a Certificate of Refurbishment in its own name, identifying the technician, the kit and the components fitted, and carrying both the device serial number and the kit serial number. It sends the refurbishment record and the kit traceability record to Billy Pugh Company within 30 days of the device returning to service, and Billy Pugh registers the refurbishment against the device serial number. The Authorized Service Center performs and certifies the work and is responsible for it. Billy Pugh Company supplies the procedure and the components, records the refurbishment and confirms that record on request.

Before releasing a unit for refurbishment, confirm with Billy Pugh Company that the organization and the technician are currently authorized for your device.

5.5 When a unit does not pass

A replaceable component that does not meet the criteria is replaced and the refurbishment continues. Where the powder coated aluminum structure (the top or bottom ring, the expanded metal top, the center pole, or the pad eyes and their welds) does not meet the acceptance criteria, the device is withdrawn from service. It is not repaired, straightened, welded or painted. The finding is reported to Billy Pugh Company within two working days, with photographs and the serial number, and Billy Pugh issues an X-904 Retirement Record. A finding that

cannot be judged against the acceptance criteria is referred to Billy Pugh Company, and the device does not return to service in the meantime.

5.6 Registration

Register the device when it is unwrapped, at bpc.myfleet360.net/registrations (BPC-PRO-REG). A distributor or service center may register on the end user's behalf, but the registration must record the end user and where the device is in service. An unregistered device gets no refurbishment scheduling, no notice before it reaches end of life, and cannot be reached if a safety notice is ever issued.

6. SERVICE LIFE

The X-904 service life is eight years from the In Service Date. The device receives three refurbishments, at 24, 48 and 72 months, and is replaced at the end of its eighth year. The aluminum frame keeps the device as light as possible, which matters if it strikes someone on deck, but aluminum loses strength as it cycles; the frame, which is not renewed at refurbishment, governs the service life. Most units still have life left when they retire: the last lift a device makes should not be the last one it is capable of making.

Billy Pugh Company does not supply a refurbishment kit, or register a refurbishment, for a device more than eight years from its In Service Date. There is no extension. Replacement is notified to Billy Pugh Company and recorded on an X-904 Retirement Record. A retired serial number will not be registered, refurbished or supported.

7. ASSEMBLY, DISASSEMBLY AND STORAGE

Each X-904 ships disassembled with its certificate package and the user documentation, including the pre-use and six-month inspection checklists.

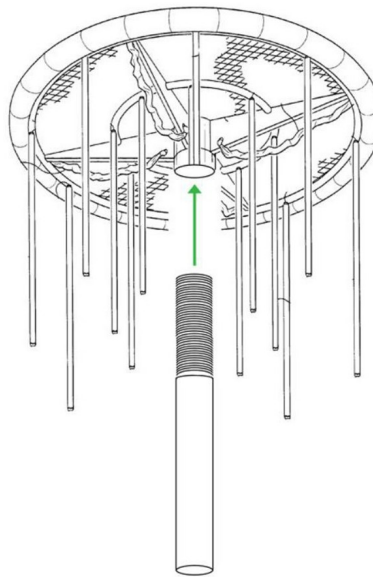
7.1 Contents

- Basket: top and bottom platforms joined by the ropes, with netting and safety lanyards fitted.
- Upper and lower center poles (threaded).
- Two 904P-23 tightening boards.
- Center pole cover pad, 904P-4, yellow PVC/nylon 13 oz.
- Teflon bearing, 4" OD x 1/4" (P17 on the general arrangement drawing).
- Coupling joining the two center poles (P27).
- Fasteners (P39): one 1/2" x 6" stainless steel bolt, one 1/2" locknut, two 1/2" stainless steel washers.
- Tag line: PTL-1, 15 ft, with 1/2" safety shackle, for the X-904-4, -6 and -8.

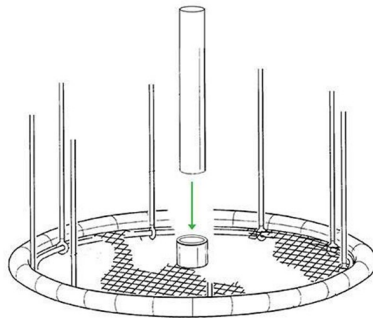
7.2 Assembly

1. Unpack: untie or cut the rope securing the shipping basket, remove all items, and check every item in section 7.1 is present.
2. Set up: attach the top of the basket to the crane hook and lift until the grab lines become tight. If no crane is available, carefully lay the top of the basket on its side.
3. Fit the upper pole: insert the threaded pole into the top section and screw it in until the threads bottom out.
4. Fit the lower pole: insert the bottom pole into the receiver on the bottom frame.

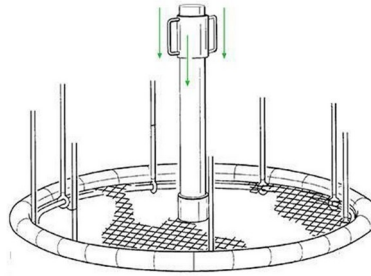
5. Fit the Teflon bearing on top of the bottom pole.
6. Fit the coupling over the bottom pole and slide it carefully to the bottom, without damaging it.
7. Join the assemblies: lift the top assembly and place the top pole on the bottom pole with the Teflon bearing between them; slide the coupling over the joint; fit the bolt, washers and nut and tighten until snug. Do not overtighten.
8. Tension the red vertical grab lines. Every X-904 ships with a "number of turns" marking, set by Billy Pugh during assembly and required for safe operation: the number of counterclockwise turns of the center pole needed to remove the grab line slack. Turn the center pole counterclockwise by hand until tight, counting the turns, then finish with the tightening boards until the prescribed number of turns marked on the top of the frame is reached.



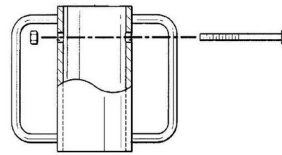
Fitting the upper pole



Fitting the lower pole



Fitting the coupling



Coupling bolt

7.3 Disassembly

1. Attach the X-904 sling to a crane hook, davit hook or other device that will safely support the top frame assembly.
2. Turn the coupling on the center pole clockwise until there is slack in all the red grab lines.
3. Remove the bolt through the coupling, holding the coupling so it cannot fall to the bottom of the pole and be damaged.
4. Slide the coupling up and off the pole and set it aside.
5. Pull the bottom pole from the frame assembly.
6. Turn the top pole counterclockwise to remove it from the upper frame.
7. Lower the top frame assembly safely.

7.4 Storage

Protect the X-904 from sunlight and weather when it is not in use for extended periods. Store it indoors where possible. Billy Pugh offers a vinyl cover for an assembled X-904 (904P-31 for the X-904-4; 906P-31 for the X-904-6 and -8), a vinyl cover for an unassembled X-904 (904P-30; 906P-30), and an all-weather storage box for an unassembled X-904 (904 B-4; 904 B-6/8).



All-weather storage box

8. APPENDIX A: PRE-USE CHECKLIST

Optional record of the pre-use check in section 5.2. The pre-use check itself requires no record. Copy as needed.

Record		Entry	
Model and serial number			
In Service Date			
Date			
Checked by			

No.	Item	Pass	Fail
1	General damage		
2	Safety load line		
3	Four-part sling, hardware and load line		
4	Stabilizer (not wrapped around the load line)		
5	Crane hook positive locking device		
6	Top and bottom rings and load bearing areas		
7	Inner and outer rigging lines		
8	Aluminum center pole		
9	Quick release hooks		

9. APPENDIX B: SERVICE RECORD

Record		Entry	
Model and serial number			
Owner and location			
In Service Date			

Due	Event	Date done	By
6 months	6-month inspection		
12 months	6-month inspection		
18 months	6-month inspection		
24 months	Refurbishment		
30 months	6-month inspection		
36 months	6-month inspection		
42 months	6-month inspection		
48 months	Refurbishment		
54 months	6-month inspection		
60 months	6-month inspection		
66 months	6-month inspection		
72 months	Refurbishment		
78 months	6-month inspection		
84 months	6-month inspection		
90 months	6-month inspection		
96 months	Replacement		

10. REVISION HISTORY

Rev.	Date	Description of change	Issued by
0a-Of	20-NOV-2024 to	Drafts. Not issued under a controlled number.	Billy Pugh Company

Rev.	Date	Description of change	Issued by
	05-JAN-2025		
1	29-OCT-2026	First controlled issue, reconciled with BPC-GUI-X904 Rev 2 and BPC-GUI-X904U Rev 0. "Qualified Inspector" removed: the pre-use check is the Operator's, the six-month inspection the Qualified Person's, refurbishment the Authorized Refurbishment Technician's. Replacement at 8 years with no extension, structural findings, the Certificate of Refurbishment and registration stated. Design basis restated as the ABS type approval of the X-904-4, -6 and -8; the ASME B30.23 and ABS Chapter 7 "designed to" statements, the claim that every X-904 carries ABS badging, the "millions of safe transfers" statement, the X-1000 upgrade section, the stabilizer safety line tensile figure, the SES-1 ratings and the reference to "40+ certified companies" removed. Weather and stretcher appendices replaced by BPC-GUI-PTW and BPC-RP-X904S; registration appendix by BPC-PRO-REG. Specifications limited to the X-904-4, -6 and -8. Service record extended to the replacement at 8 years.	R. Siqueira, CEO

11. APPROVAL

	Name and title	Signature or record	Date
Prepared by	Rodrigo Siqueira, Chief Executive Officer		29-OCT-2026
Approved by	Ray Coleman, Chief Operating Officer	Approved verbally to the CEO	29-OCT-2026