

# 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 debarcation. 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

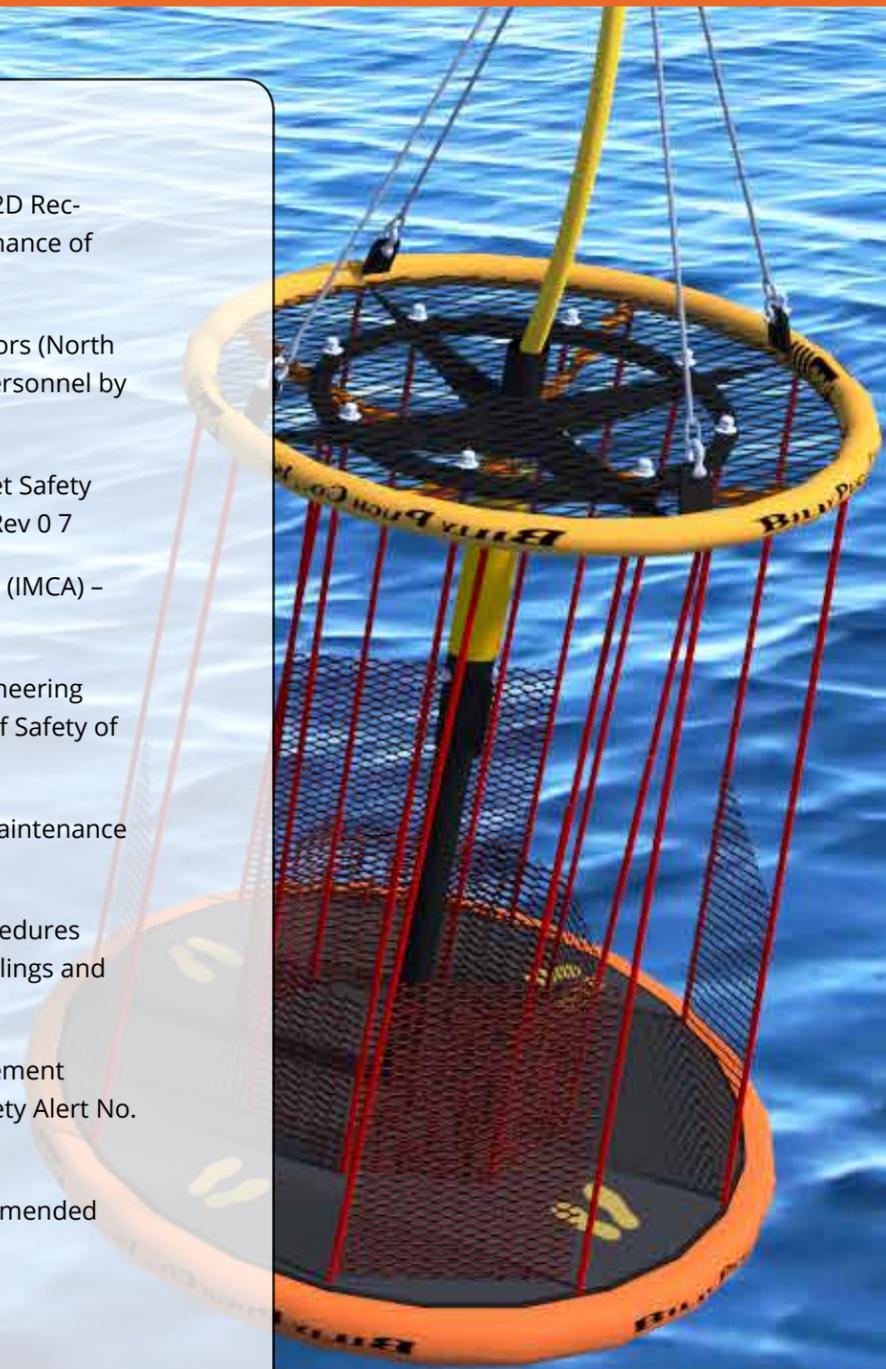
lowered to the deck.

- 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”
- Billy Pugh company, Inc. – “Procedures for Maintenance & Inspection of Personnel Baskets”
- Kennedy Wire Rope & Sling Company – “Procedures for Inspection & Maintenance of Wire Rope Slings and Rigging”
- 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



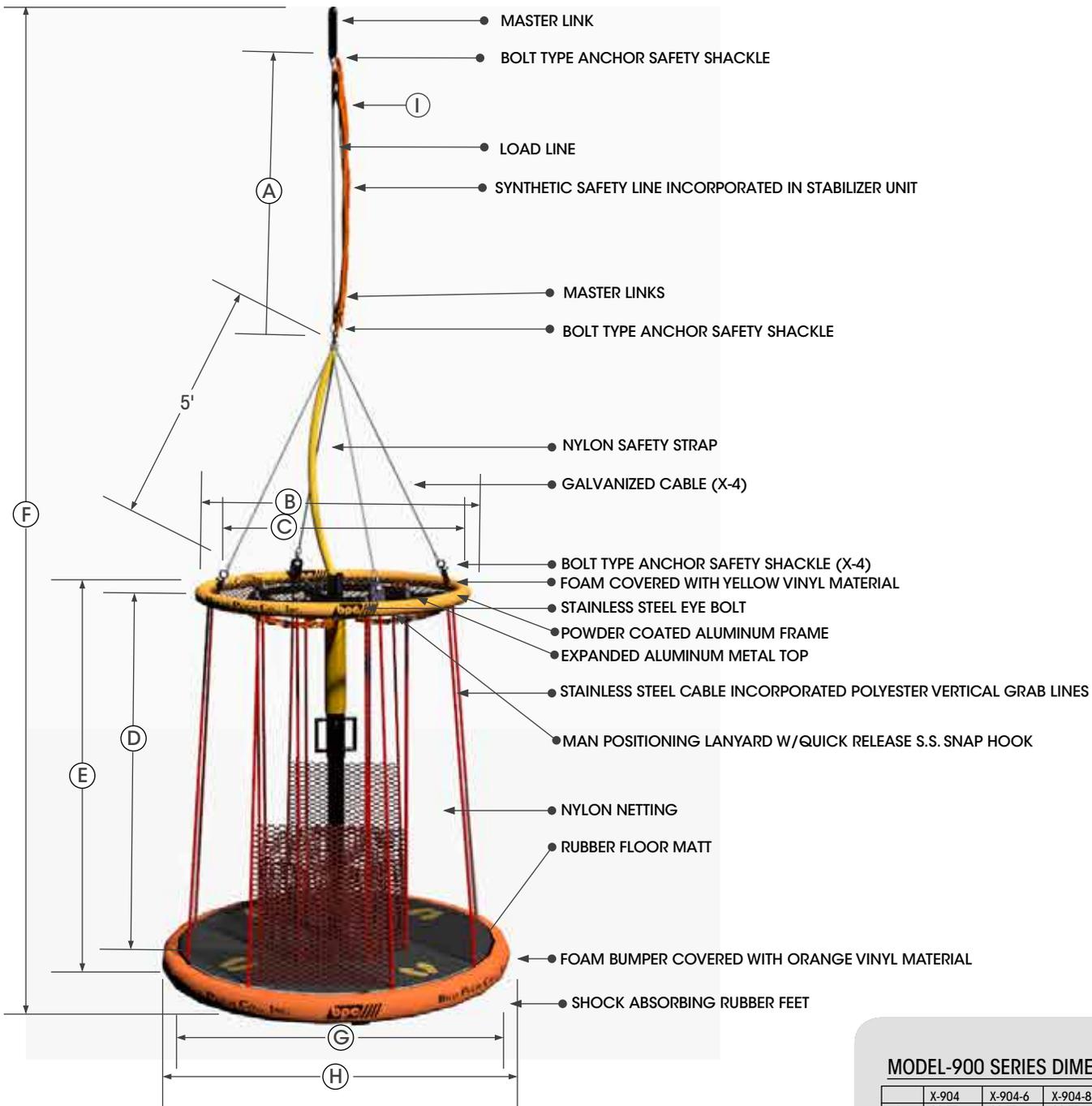


Figure 1.0

**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.		
D	7 FT.	7 FT.	7 FT.	83 INS.	90 INS.
E	8 FT.	8 FT.	8 FT.	7 FT.	7 FT.
F	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.				

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