



Transfers By Personnel Basket

The transfer of personnel between vessels and installations using personnel baskets has been common practice in the offshore oil and gas industry for many years and the hazards are well known. However, seafarers on cargo vessels are less likely to participate in such transfers and may not be familiar with this activity or the potential hazards. With an increasing number of tankers being requested to conduct personnel transfers by basket during Ship to Ship (STS) operations and at offshore terminals, it is important that seafarers recognise the risks involved.

This Bulletin is intended to provide seafarers with an understanding of personnel basket transfers and the precautionary measures that should be taken to reduce the risk of incidents. The details may also be used as an aide memoire by seafarers working on vessels in the offshore industry and as a reference tool by companies when drafting appropriate procedures for the Safety Management System (SMS). In addition, flag states, local authorities, the industry sector, industry associations and charterers may have specific requirements regarding personnel basket transfers which should also be taken into account.

Vessels that may conduct personnel transfers by basket should be guided by suitable SMS procedures covering all aspects of the operation.

Risk Assessment

To ensure the operation can be carried out safely, a risk assessment should be conducted beforehand. The advice set out in this Bulletin may be used to assist this process.

During the risk assessment the movement of the other vessel should be evaluated, bearing in mind that small service craft may roll and pitch considerably more than the vessel on which the transfer crane is situated. Similarly, the ability of the other vessel to maintain station in the prevailing weather conditions should also be considered.

Transfers by personnel basket should only take place with the prior approval of the company and the master.

Crane Specification

If a ship's crane is likely to be used for personnel transfers, certification for man-riding should be obtained from the vessel's classification society. Many hose-handling cranes on tankers are not designed for man-riding and should not be used unless adapted and certified for this purpose.

In order for a crane to be made suitable for man-riding, a



Photo courtesy of: Billy Pugh Co Inc.

Personnel basket transfers need to be carefully managed

number of enhancements are generally required. Typical modifications may include:

- A key-operated personnel transfer mode.
- An emergency stop for use by the crane operator.
- Soft acceleration and deceleration of the hoist winch, including a reduced maximum speed.
- Winch brakes that apply progressively in order to avoid snatch loads.
- A secondary winch braking system or another means of preventing the wire from paying out in the event of brake failure.
- Winch brakes that fail to the "on" position in the event of a power failure.
- A manual system for lowering the jib and crane hook to enable personnel to vacate the basket safely in the event of crane problems or power failure.
- A facility for connecting the crane to the vessel's emergency power supply.
- Fitting crane hooks with a locking latch device.
- An increased factor of safety for all loose gear (eg a Safe Working Load (SWL) equating to one tenth of the Breaking Load).



Photo courtesy of: Billy Pugh Co Inc.



Billy Pugh 8 passenger soft rope basket

- Marking the crane conspicuously as “Suitable for Man-Riding” or similar, and displaying its lifting capacity in terms of both “Maximum Persons” and SWL.
- Arranging for the crane to be inspected and tested by class during annual, intermediate and special surveys.

The crane hook should be equipped with a pennant (or stinger) of sufficient length to keep the hook and block well clear of the basket. The pennant itself should be fitted with closed securing devices (eg masterlink, locking hook or similar).

Deck Preparations

A deck landing area should be designated for personnel baskets, ensuring that it is free from obstructions (eg sounding pipes, vents, tank lids, pipelines, mooring equipment). The deck itself should be clean, clearly marked and coated or covered with anti-slip material. One or more lifebuoys should be readily available in the vicinity of the crane.

Basket transfers should ideally take place in daylight. However, if it is necessary to conduct a transfer at night, the deck should be illuminated by lighting suitably positioned so that the crane driver is not dazzled.

A briefing meeting or tool box talk involving all personnel should be held prior to the operation commencing.

Crane Operation

Crane drivers should be fully trained and experienced in transferring personnel by basket. Ideally a system of performance monitoring should also be in place to ensure that high levels of proficiency are maintained.

Before each transfer operation the crane and all associated fixtures and fittings, particularly the attachment arrangements between the hook and the basket, should be inspected visually and the crane should be switched to personnel transfer mode.

Baskets with personnel on board should only be lifted high enough to clear deck obstructions safely. Hoisting the basket excessively over the water and other vessels should be avoided.

So far as safe and practicable, the crane driver should optimise the length of the hoist wire, crane hook radius and jib head height to minimise hook movements caused by the motion of the vessel.

Weather Conditions

Basket transfer procedures should include instructions on the limiting weather conditions beyond which transfers should not take place. The maximum permitted wind speed and sea/swell height, and the minimum visibility should be stated. These should not be contrary to any man-riding restrictions specified by the crane manufacturer or imposed as part of the crane certification.

Even if the weather conditions are within permitted limits it may not be deemed safe to conduct the transfer due to the movement of one or both vessels. In such circumstances the transfer operation should be postponed until conditions improve.

The weather forecast should be checked regularly to verify that there will be a suitable weather window to complete the planned operation safely, including sufficient time to allow for possible contingencies.

When conducting transfers with a service craft, the service craft should preferably remain on the leeward (ie downwind/down weather) side of the vessel.

Deck Personnel

Personnel on deck tending baskets should wear suitable personal protective equipment (PPE) in accordance with the requirements of the vessel’s SMS. Such PPE should include a hard hat with chin strap and, on the open decks of offshore vessels, a securely fitted working life vest.

Communications between the bridge, the crane driver, the other vessel, deck personnel and all



SAFETRANSFER 4 passenger basket

Photo courtesy of: West-Marine AS

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other parties involved should be agreed and tested beforehand. If a banksman (ie signaller) is used, this person should be clearly identifiable to the crane driver, perhaps wearing a high visibility vest of a different colour which may be marked with the word “Banksman” or similar. All hand signals should comply with international standards. Only the banksman should signal to the crane driver except in an emergency when anyone involved in the operation should intervene. This should be made clear during the briefing meeting.

Personnel tending the basket should stand in a position of safety at all times, enabling them to move clear quickly if the need arises.

Those not involved in the basket transfer should keep clear of the operation, passing on the inboard side of the crane and avoiding both the basket landing area and the path of the suspended load.

Personnel Baskets

There are several different types of personnel basket in use and the three most common designs are described below. In practice, the type of basket used will often depend on regulatory requirements, the industry sector, the companies involved and the region.

Billy Pugh Basket

The standard collapsible soft rope Billy Pugh basket is used extensively world-wide, probably more than any other type of basket. It consists of a solid foam ring at the base and a smaller, rigid upper ring at the top. The lower ring, upper ring and the lifting point above are joined by sections of rope netting. The base of the lower ring is netted and covered with plastic or canvas. Billy Pugh baskets have a capacity of between 4 and 12 persons according to the model. Many first time users assume incorrectly that they should climb inside the basket. However, the correct method is to stand on the rigid bottom ring facing inwards, weaving each arm through the rope netting before holding on.

Use of the standard Billy Pugh type basket is not permitted by some companies.

SAFETRANSFER Basket (formerly known as the ESVAGT Basket)

The SAFETRANSFER basket consists of a lower ring and an upper ring connected by a rigid metal frame. Personnel stand inside the basket on an anti-slip floor facing outwards. The frame is covered with rope netting providing additional security for passengers. The lower ring extends beyond the metal frame to protect against side impact, and the underside is fitted with large floats to provide a softer landing. Further floats are fitted to the upper ring. As an additional safeguard the access openings in the netting can be closed and secured. The SAFETRANSFER basket is available in two models with capacities of 4 and 8 persons.



Frog 4 passenger basket

Photo courtesy of: Reflex Marine Ltd

FROG/TORO Basket

These are specialised “capsule” type baskets with a low centre of gravity to provide more stability during the transfer. The design includes a metal frame, moulded buoyancy and shock absorption, and the capsule is able to self-right in the water. Personnel sit on seats inside the capsule and wear quick release, four point harnesses. Two different designs are in use, the FROG and the TORO, but they are more likely to be encountered in the offshore industry. The FROG is available with capacities of between 4 and 10 persons. The TORO is limited to 4 persons and is intended for use in benign environments.

Working With Personnel Baskets

Baskets should have a valid certificate of test and inspection, and should undergo a visual examination prior to each use.

To guard against failure of the main lifting pennant, baskets are usually equipped with an additional shock absorbing pennant fitted between the basket and crane hook.

A tag line is generally secured to each side of the base to help control the basket. The length of the tag lines should not be excessive, and the loose ends should be whipped or secured to prevent them from fraying. Tag lines should also be free from



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knots, loops, eyes and anything else that may snag on fixtures and fittings during transfers.

Personnel due to be transferred should be directed where to stand by the deck crew tending the basket. Care should be taken to ensure that their weights are distributed evenly around the basket and that the base will be as horizontal as possible when lifted. The SWL and maximum person capacity of the basket must never be exceeded.

Any baggage should be placed inside the basket so that it cannot move or slide out. Hands should not be used to hold anything other than the basket itself.

If a vessel has its own personnel basket, it should be inspected, maintained, stored and serviced in accordance with the manufacturer's recommendations, incorporating such routines into the SMS and Planned Maintenance System (PMS) as appropriate. The basket should only be used for transferring personnel and should not be used as a work basket, for transferring stores or for any other purpose.

When not in use, transfer baskets and all associated equipment should be stored out of direct sunlight and clear of the deck.

Personnel Using Baskets

Personnel standing on the outside of baskets are at greater risk of falling, and of being struck if the basket hits an object during a transfer operation. Regardless of the type of basket, personnel may also be exposed to the possibility of shock impact if the basket lands heavily, and immersion in water if things go wrong.

All personnel due to be transferred should consent to using the basket, and no one should be forced to do so against their will. Personnel who are being transferred by basket for the first time should be accompanied by someone more experienced.

Personnel due to be transferred should be briefed on how to use the basket correctly, actions in the event of an emergency, communications and the possible risks. As a minimum they should wear a hard hat with chin strap, a working life vest fitted with retro-reflective tape, a whistle, a light and, if possible, a Personal Locator Beacon (PLB). Everyone should be clothed to suit the prevailing conditions, and in certain circumstances it may be necessary to wear an immersion suit. Sufficient time should be allowed for personnel to don their life vests, ensuring that all straps are fastened and properly adjusted for a good fit prior to boarding the basket.

When using a collapsible soft rope Billy Pugh basket, personnel should be warned that the top of the basket may move independently from the base, particularly before a transfer between two vessels due to their relative movements.



Photo courtesy of: Reflex Marine Ltd

Toro 4 passenger basket

Ideally personnel should place one foot on deck for reference and balance until the lift commences. For the same reason personnel should again place one foot on deck at the earliest safe opportunity on landing, moving clear of the basket as soon as possible thereafter.

Personnel should be reminded to grasp the basket with both hands at all times. Many falls have occurred due to personnel holding on with one hand and signalling to the crane driver or deck crew with the other and then losing their footing.

All loose tools and objects in pockets or tucked into belts should be secured to prevent them from being dropped during the transfer.

Other Considerations

In the event of unforeseen safety issues arising, the transfer or further transfers should be suspended and another risk assessment should be carried out taking the new developments into consideration. Operations should not start or resume until the risk has been reduced to an acceptable level.

Members requiring further guidance should contact the [Loss Prevention department](#).