

SHIPLIFT SYSTEMS



5,000 tonne Shiplift with longitudinal and side transfer system



Linear Chain Jack rated for 260 tonne lift capacity



Chain Shiplift Systems – The difference between safe and sorry



1,800 tonne Shiplift

## Experience

**Bardex Corporation** has an extensive history supplying shipyards around the world. Our shiplifts are designed according to customer specifications and the requirements of classification agencies such as Lloyd Register of Shipping. Bardex shiplifts have shown their dependability and a perfect safety record over 45 years of operational history. In addition to supplying shiplifts in a range from about 1,500 tonnes to over 12,000 tonnes lift capacity, we also design and supply other complementary systems for:

- Ship extrusion
- Vessel Load-out and Recovery
- Jacket Load-out and Launch
- Jacket Leveling
- Wheeled Bogie Transfer
- Vessel Skidding

## Shiplift Systems

The lifting mechanism in the shiplift system is the Bardex patented Linear Chain Jack. The principal advantages of using chain jacks as distinct from rotary wireline winches are dependability and reliability. Due to the inherent nature of wireline corroding from the inside, where it cannot be seen, there is a constant need for annual testing of the wirelines. A wireline failure could lead to a catastrophic dropping of the shiplift platform.

Civil work in preparing the piers can be minimised since the Bardex Chain Jacks apply a linear reaction only to their foundations. With no torque to react, piling costs are minimised through smaller or fewer piles and the piers themselves can be narrower.

Bardex typically designs a rigid platform structure to provide for a better load carrying capability. It is usual for Bardex to design the shiplift platform and provide the high-level fabrication drawings for the shipyard to fabricate the platform themselves.

The **BARDEX Chain Jack** is a simple, rugged and dependable linear lifting device. Two stud-link chains attached to a load equalizer on the Bardex-designed shiplift platform are lifted or lowered by each Chain Jack in a four-step cycle.

The lift sequence starts with the lower locking pins disengaged and with the chains supported on the upper locking pins.

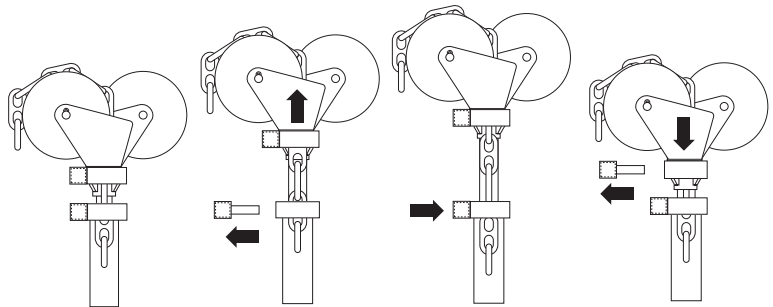
The jacking ram is energised and raises the platform load one stroke length. At the end of the stroke, the lower locking pins are engaged and as the jacking ram is lowered, ready to start the lift cycle once more, the platform load will automatically transfer from upper to lower support pins.

At all times, even in the unlikely event of a general power or hydraulic failure, the platform load is fully supported by either the upper or the lower locking pins. Each chain is sized to react the entire Chain Jack rated lift capacity so the use of two chains provides added safety by way of 100% redundancy.

Bardex shiplift Chain Jacks are synchronised so all will operate at the same time to raise or lower the shiplift platform one stroke length per cycle, regardless of platform load. The controls continuously check for correct chain jack functions throughout the lift/lower cycle and provide the operator with feedback as to the elevation of the shiplift platform, its position in the jacking cycle, the individual chain jack loadings and all pre-defined alerts.

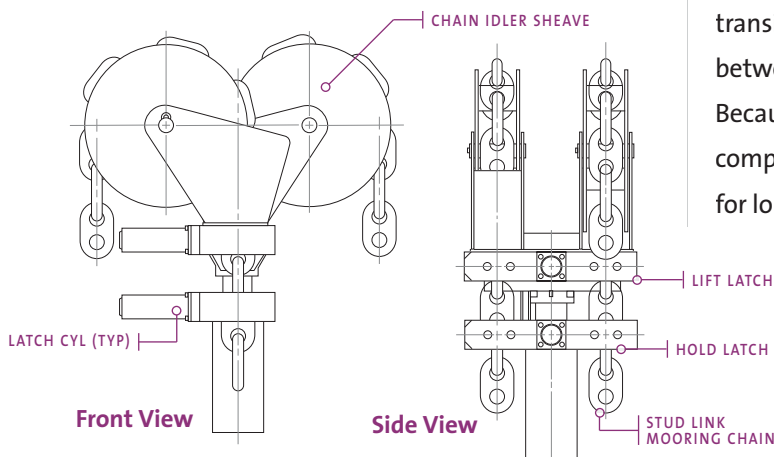
In the fully raised position, the Bardex rigid shiplift platform is locked to the seawall or pier to

## Bardex Shiplift Chain Jacks



Lift Sequence

assure proper alignment and a smooth transition of the ship as it is transferred between shiplift platform and the yard. Because Bardex Chain Jacks are so compact, Bardex shiplifts can be designed for longitudinal or lateral transfer.



[www.bardex.com](http://www.bardex.com)



Bardex has been a leading OEM supplier to the offshore industry since 1963

# SHIPLIFT SYSTEMS



A 4,200 tonne capacity Bardex shiplift with side and longitudinal transfer system

Corporate headquarters, engineering and principal manufacturing in Goleta, California. Engineering and sales offices in Houston, Texas and the United Kingdom. Sales representatives around the world. Immediate service worldwide.



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