

DLR10 DYNAMIC LOAD REDUCER

The TENSA Dynamic Load Reducer (DLR) is used for offshore lifts to reduce the dynamic loads associated with lifts from moving vessels. The DLR can also be used in applications such as pile driving where unexpected large loads can be applied to the crane if the pile self penetrates whilst driving.

The DLR is a damped air spring with spring rate, energy absorption and damping tailored to absorb the energy from a moving load and bring it gracefully to rest with minimal recoil. With the DLR, the dynamic load factor for boat lifts can be significantly reduced, allowing the crane capacity to be increased by up to 50% depending on the sea state and load. The benefit can be determined once the specific crane design and operating parameters, load and seastate have been agreed.

Design is in accordance with API spec 2C Specification for Offshore Cranes as well as other relevant API and AS codes covering the mechanical construction. Purchasers may request design and fabrication approval from ABS, LR, DnV, or other recognized certification organization.

The TENSA DLR is rugged and simple to set up and use.

The TENSA DLR series are modular and can be adapted quickly to different strokes and operating conditions. 2 units can be used in parallel to double the capacity. Additional accumulators can be added to further improve the operating performance for extreme conditions.

The DLR10 has extra energy absorption that allows the dynamic factor to be reduced to the minimum allowable value of 1.33. This results in a significant increase in crane capacity. The unit is ideal for whiplines and for typical 5 -10t cranes on unmanned wellhead platforms.



Dir10 v1

SPECIFICATIONS:

SWL for on platform lifts: 10 tonnes (Cv=1.4)

Testing: Load test at 14t

Operating Stroke: 1.2m

Hydraulic Fluid: Mineral oil based

Overall Dimensions:

DLR 10 2110 long x 230 diam (retracted)

End Connections: to suit 12Te shackle

Weight: approx 330 kg

Surface Treatment: Marine coating

Operating Temperature: 0° C-+50° C (-10° C opt)

Typical Crane Capacity Increase:

The DLR changes the crane's dynamic factor (Cv). Typically it can be reduced from 2.4 to 1.33. The DLR has maximum effect in large seastates. Typical capacity increase seen on common rig cranes in normal sea states is 80%.