

DLR100 and DLR100L 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. The design has been certified by Lloyds Register. 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 DLR100L has extra energy absorption needed for demanding applications such as piling operations. This is achieved by increasing the length and stroke which allows it to absorb more energy.



DLR100& DLR100Lv4

SPECIFICATIONS:

SWL for on platform lifts: 100 tonnes (Cv=1.4)

Testing: Load test at 140t

Operating Stroke: 1m DLR100, 1.5m DLR100L

Hydraulic Fluid: Mineral oil based

Overall Dimensions:

DLR100 2345 long x 480 diam (retracted)

DLR100L 2845 long x 480 diam (retracted)

End Connections: to suit 120Te shackle

Weight: approx 1450 kg (DLR100), 1850 kg (DLR100L)

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 1.7 or less. The DLR has maximum effect in large seastates. Typical capacity increase seen on common rig cranes in normal sea states is 35 % to 40%.