



MODEL HRT4 DYNAMOMETER

PART NUMBER: DYNHRT4

Description

The LSI-Robway HRT-4 Dynamometer (also known as Line-rider or Tensiometer) is a load sensor comprising of three (3) matching sheaves within a pair of side plates. This concept of load sensing provides for a wide range of installation opportunities. The HRT Dynamometer can be mounted anywhere over the hoist rope that will not interfere with the hoist operation.

A shear beam type load cell is mounted on the rocker box underneath the centre sheave assembly. When a load is lifted, the tension on the hoist rope causes the centre sheave to exert a downward force onto the beam cell which is proportional to the tension of the rope. This force is then converted into an electrical signal and sent to the RCI Control Unit for processing and converting into hook load weight.

Maximum Rope Diameter and Line-pull Capacity

The HRT-4 Dynamometer can be fitted with hoist ropes of up to 38mm diameter with maximum single rope line-pull of 24 metric tonnes.

Structure

The housing assembly or frame is made of high quality structural grade steel AS3678-250 plate, zinc plated powder coated Sheave shafts/pins are manufactured from Grade-316 stainless steel.

Sheaves

The sheaves are made of high quality zinc-plated, grey passivated round steel bar to Australian Standard AS3679-250 hardened to Rockwell C58-C60, case depth of 0.75 mm, grooved to suit various rope diameters and fitted with two sealed ball bearings.

Beam Cell Specifications

Linearity:	0.03% nominal
Repeatability:	>0.03%
Hysteresis:	<0.03%
Creep:	<0.03%
Zero Balance:	±1%
Output:	3mV/V
Excitation:	4-5VDC
Overload:	200% (No Electrical Damage) >400% (Ultimate)
Temperature Effects:	<0.005% / °C (On Zero) <0.005% / °C (On Span)
Compensated Range:	-10 to +70°C
Sealing:	IP67 Fully Encapsulated