

Manual Double Drum Winch

WATER FLOW

General Description

HyQuest Solutions' Barossa winch is a **hand-operated double drum winch** capable of handling gauging weights up to 70 kg (154 lb). The design shows two main advantages: Firstly, it enables the operator to **change from sounding mode to traversing mode very quickly** by engaging the drive gears on each drum. Secondly, the double drum concept **eases traversing**, as the forces exerted by the gauging weight are largely cancelled out. The winch can be used on small travellerways up to 60 m (200 ft) span.

The winch is designed for ease of operation and serviceability in the field: **robust, compact, portable, and operated easily and safely by one person.**

Special attention is paid to **safety**: An automatic Weston Brake locks the drum if the handle is released. This holds the load in any position - for **safe and smooth sounding operation.**

HyQuest Solutions' winches are equipped with Amergraph cables. **The special construction combines two purposes:** They permit the suspension in the stream of the current meter and heavy Columbus weights and at the same time they are the medium for carrying the meter signals to a counting device. The winches' counters are protected within the frame and can be ordered to display either **metric or imperial counts.**

Use with current meter

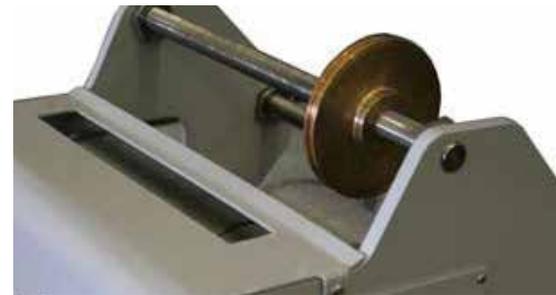
Some elaborate features support current metering: A silver-plated slip ring conducts the signal from the sounding drum to the current meter counter. The counter can be installed at the winch itself, i.e. close to the winch operator instead of deep in the water at the current meter. The single layer of the signal cable on the drum prevents damage of the internal conductor and premature replacement.

Applications

The Barossa winch enables current meter observations and sediment samples in streams of moderate widths. It is used for the vertical positioning of suitable hydro-metric equipment, amongst others in the areas of hydrometry, hydrology, water quality analysis, sediment sampling, and discharge measurement.

Features

- Type: double drum winch (single drum version available on request)
- Safety: Weston Brake
- Adjustable manual drum handle
- Portable (allows for use on multiple sites with the reduced risk of vandalism)
- Low-maintenance
- Counters housed within the frames, protected from external damage



Technical Specifications

Load Capacity	Designed for weights up to 70 kg (154 lb)
Sounding Drum	<ul style="list-style-type: none"> ■ Cast aluminium, 600 mm circumference ■ Silver plated slipping ■ Sounding counter: mechanical, five digit resettable, registering metric (1 centimeter resolution) or optional: registering imperial (1/10 of a foot resolution) ■ Capacity: <ul style="list-style-type: none"> - 55 m (180 ft) for 3.2 mm (1/8") Amergraph cable - 70 m (229 ft) for 2.5 mm (1/10") Amergraph cable
Traversing Drum	<ul style="list-style-type: none"> ■ Cast aluminium, 600 mm circumference ■ Traverse counter: mechanical, five digit resettable, registering metric (either in centimeters (10 mm resolution) or decimeters (100 mm resolution)) or optional registering imperial (resolutions of either 1 ft or 0.1 ft), detachable ■ Capacity <ul style="list-style-type: none"> - 43 m (141 ft) for 4.0 mm (5/32") wire rope - 55 m (180 ft) for 3.2 mm (1/8") wire rope - 70 m (229 ft) for 2.5 mm (1/10") wire rope
Frame	Robust aluminium, powder coated, stainless steel shaft components, corrosion resist. fasteners
Scope of Delivery	Barossa winch with <ul style="list-style-type: none"> ■ Traveller block to suit up 32 mm (1 1/4") main cable ■ Banana style connections to suit most current meter counters ■ Winch to counter connecting lead ■ 4 x 10 mm mounting bolts ■ Not included (opt. avail.): head sheave assembly for operating side post and far side post
Dimensions and Mass	<ul style="list-style-type: none"> ■ L x W x H: 600 mm (24") x 560 mm (22") x 470 mm (18.5"); weight: 36 kg (79.4 lb) ■ Packed: 0.3 m³, 64 kg (141 lb)

Accessories



Current Meter Counters (various models):
Features: waterproof enclosures, simple button controlled menus, embedded LCDs and beepers to make counts audible. Pre-set

or manually stopped sampling period. Improved accuracy due to signal conditioning. Bluetooth interfaces for use with HydroTab Stream Gauging Computer available.



Current Meters: HyQuest Solutions offers various models, e.g. OSSB1 (universal device for open and closed channels), and Red Back (cup-type device with advanced contact switching system that allows the measurement of water flow in streams, open canals, pressure pipes, lakes and seas to a fine degree of accuracy and repeatability.)



Gauging Weights:
Columbus weights with

hanger bar and nose mounted ground feeler weights with optional carrying case available. The weight positions the current meter correctly in fast flowing water, protects it against heavy debris damage, streamlined shape reduces resistance to flowing water.



Sediment Samplers: HyQuest Solutions offers modular equipment (choice of samplers and accessories) for sediment sampling.

Please ask for details.