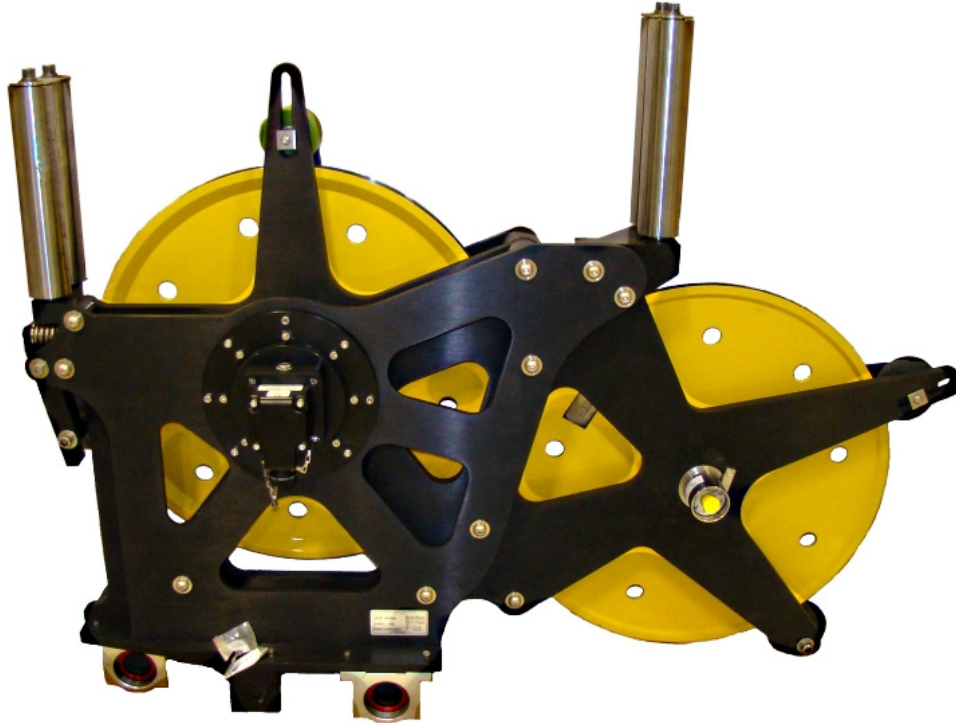


# MAKO MEASURING HEAD - SLICKLINE/BRAIDED LINE



## PRODUCT DESCRIPTION

The "MAKO" Slickline/Braided Line Measuring Device is a heavy duty two wheeled device which accurately measures both wireline depth and tension.

Tension is measured from a load pin which also serves as the axle for the tension wheel. Since the two wheels are opposite each other, the wire completely wraps around both wheels. This creates a relatively high signal at the load pin which provides a very accurate tension measurement. This electronic signal is transmitted via an electrical cable to the hoistman's panel and/or logging computer representing wireline tension. A calibration resistor is included in the load pin to send out a signal to calibrate the computer system.

The measuring wheel is coupled to an optical encoder that transmits electrical signals via an electrical cable to the hoistman's panel and/or logging computer representing cable depth and speed.

This measuring head is unique from previous versions in that the wireline can be removed from the side of the measuring head without cutting off the cable head. The guide rollers are slotted so they can be slid out of the way to remove the wireline.

Spooling rollers and pressure wheels are provided to keep the wire in the wheels at low or no tension. Wire abrasion and fatigue are minimized by using a non reverse bend configuration.

The device is designed to be mounted in front of the wireline drum on a spooling mechanism. Linear bearings in the mount allow it to slide back and forth in front of the drum so the wire can be spooled evenly. An optional "turn table" is available which allows the head to be pivoted 90 degrees for shipping protection.

With the BenchMark Winchman's Panel, depth can be accurately measured on different size lines without changing wheels. This is done electronically by the panel using the depth information provided by an encoder. Changes in wire size are accounted for by the panel software. Wire stretch can also be automatically calculated by the panel.

## PRODUCT FEATURES

- Cable sizes .092 to .160 slickline & 3/16" to 5/16 e-line/braided line
- Tension load axle & amplifier can be configured to different outputs
- Can measure wireline tensions up to 15,000 pounds – 6,803 kg
- 2 fully independent depth measurements - optical encoder and magnetic pickup
- Backup depth system – reduces drag on measuring wheel by eliminating mechanical drive cable
- Line removal from the side without cutting off Cable Head
- Minimizes wire abrasion & fatigue by using non-reverse bend configuration
- Wires run side-by-side across top of measuring wheel to prevent wire rub
- Large diameter wheel radius minimize wire fatigue
- Spooling rollers and pressure wheels keep wire in wheel at low/no tension
- Spring pressure wheel keeps wire turning with wheel even with sudden direction change or jarring action
- Pivots 90 degrees for easy storage
- Encoder & tension amplifier certified for Zone II area use available
- Anodized aluminum frame

# MAKO MEASURING HEAD - SLICKLINE/BRAIDED LINE

## GENERAL SPECIFICATIONS

Height:	36.4"	.924 m
Length	47.9"	1.216 m
Width (base):	12"	.305 m
Width (overall):	12.8"	.325 m
Weight:	132 lbs	60 kg
Measuring Wheel		
Circumference	5.33 feet	1.624 meters
Diameter	20 inches	.508 meters
Maximum Tension:	15,000 lbs	6,800 kg
Line Sizes:	.092" to 5/16"	2.3 mm to 7.94 mm
Operating Temperature:	-40°C to +65°C	-40°F to +149°F
Encoder:	1,200 PPR, others available	
Backup Counter:	4 PPR Quadrature	
Load Pin:	Passive low voltage, Differential voltage, 4-20ma current loop	

