



Access Equipments

Total Material Handling Equipments

(An ISO 9001 : 2008 Certified Company)



An ISO 9001:2015, ISO 14001:2015
& ISO 45001:2018 Certified

15T

Cable Pulling Capstan Winch

15 Ton Cap Hydraulic Operated



Technical Specifications and Details about the Machine

General Details

The Unit is called a Cable Pulling Capstan Winch – Hydraulically Operated to be primarily used for underground cable pulling, the unit has a pulling capability of 15 tons and is designed to pull a length of 1000 mts. It is powered by a turbo charged diesel engine.

Basic Working Principle of the Equipment

The unit is a Cable Pulling Capstan Winch which has a Rope Drum having designated length and diameter wire rope on it and this rope is taken out through double capstan unit and is guided out to the target through pulleys. This unit is powered by Diesel Engine which drives a Closed Loop Hydraulic Pump, which in turn develops oil pressure and supplies this oil to the Hydro Motor which drives the Double Capstan via a Gear Box, thereby pulling wire rope.



Performance Details

Capacity of the Unit in terms of Pulling Load	10 tons
Capacity of the Unit in terms of Pulling Length	250-1000 mts
Maximum Speed on Full Load	10 mts/min
Maximum Speed on No Load	18 mts/min
Wire Rope Diameter	18 mm

Silent Features of the Equipment

Engine Used in the unit	Yanmar – Japan
Hydraulic Pump used in the unit	Bondioli Pavesi – Itlay
Hydraulic Motor Used	Intermolt – Italy
Hydraulic Oil Cooler Used	Bondioli Pavesi - Italy
Gear Box Used	Bonfiglioli – Italy
Load Cell Used	I P A – Bangalore
PLC Cum HMI	Horner - USA



Operational Features

- Hand Operated Servo Control System for Varying the Speed during Pay In and Pay Out.
- Continues Display of the Length of the Cable being pulled.
- Facility to record the name of the Project, Cable Details and Cable Size.
- Facility to take a print out of the load and speed of pulling as per your convenience.
- Ease of setting the cut off Load Value in Kgs and Speed Value in Mts/min using a user friendly Human Machine Interface unit.
- User Friendly Control Panel with all functions like Reset, Emergency Stop, Engine Start & Stop and Engine Performance Details displayed.

Broad Technical Specifications

Dimensions of the Unit	4100mm(L)x2100mm(W)x1750mm(H)
Type of Power Source	Three Cylinder Turbo Charged Diesel Engine
Power of the Diesel Engine	69 hp at 1500 RPM
Make of the Diesel Engine	Yanmar/Mahindra/Mitsubishi
Type of Cooling	Water Cooled
Rated Fuel Consumption	10 lit/hr at 1500 rpm
Min Fuel Consumption	5 lit/hr at 1500 rpm
Electrical Control Voltage	12 V
Method of Oil Cooling	Special Heat Exchanger Provided
No. of Wheels Provided	4 nos
Canopy for the Total Unit	Provided
Rope Guide Unit for Drum	Provided
Working Pressure of Hydraulic	Max 225 Bar
Type of Hydraulic Pump used	Closed Loop Unit with Manual Servo Control
Capstan Diameter	300 mm
Type of Capstan	Double

Safety Devices Incorporated

- Emergency Stop Button on the Control Panel with a Possibility to By-Pass the Hydraulic Circuit in order to release the line pull in case of emergency.
- Emergency Stop Button with the above features in the Operator Console with 5 mts cable
- Auto Cut off of the Hydraulic Unit when the load on the machine exceeds the set load on the HMI
- Auto Cut off of the Hydraulic Unit when the speed of the wire rope exceeds the set speed on the HMI
- Resetting Button can only be operated as per the designated procedure.
- Two Sets of Anchoring Jacks are Provided on the side of the machine
- Complete Rope Guiding Mechanism Provided between Rope Drum and the Output Guide
- The Unit is Totally Covered for Safety Purpose
- Guiding Rollers Provided in front of the Pull Line to avoid higher angular Pull

