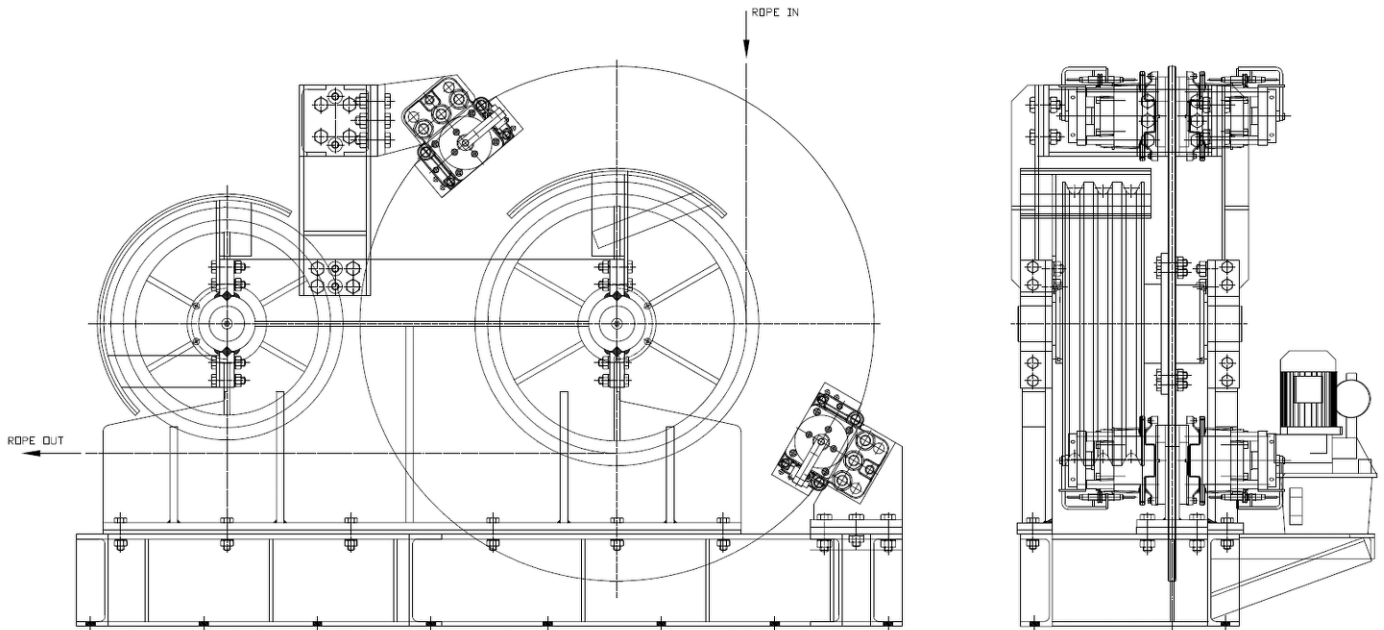


BRAKED CAPSTANS



GENERAL INFORMATION

The Braked Capstan is developed to work in conjunction with a Horizontal Gravity Take-Up system. The purpose of the braked capstan in a conveyor tensioning rope system is to prevent the shock loads, caused by power failure or emergency stops, from pulling excessive rope from the system and causing the counterweight to hit the top of the tower.

This is achieved by wrapping the rope through a braked and grooved bull wheel system. The hydraulically released calliper disc brakes are held in a normally off position and fail to safe in the event of a power loss. This is controlled by a hydraulic power pack. An electric control panel is supplied to control the power pack or a junction box can be supplied where the mine's PLC controls the power pack.

The rope force then has to drive the bull wheel through the preset brake torque with a resultant loss of energy. With the brakes off the bull wheels are free to turn and the gravity system will tension the belt in the normal way.

In the event of a conveyor power failure or emergency stop, the power supply to the power pack is lost and the calliper brakes close (Power Off – Brake On). The momentary shock load arising from the conveyor will be absorbed by the capstan brake and will not pass through to the take-up tower.

An additional hydraulic hand pump is available if required. This is to release the brakes manually if no power is available.

SPECIFICATIONS

TYPE / MODEL	ITEM NR	QTY BRAKE CALLIPER(S)	MAX TENSION	MAX BRAKE CAPACITY	ROPE Ø	POWER PACK MOTOR	ROPE REEVING
100 kN	4728	1	150 kN	100 kN	26 mm	0.75 kW	Figure 8
150 kN	4610D	2	240 kN	150 kN	32 mm	0.75 kW	Figure 8
150 kN	4656A	2	362 kN	150 kN	44 mm	0.75 kW	Figure 8

NOTE: These are DYMOT standard products, specials available on request.