

# ROPE ATTACHMENTS

- Safety detaching hooksets for drum winders
- Koepe winder rope attachment sets
- Rope handling and maintenance equipment
- Guide rope attachments
- Maintenance and refurbishment of existing rope attachment sets
- Compensating sheave wheels

## ROPE ATTACHMENTS

**Becker Mining South Africa is the leading supplier of mine winding and guide rope attachments to the South African mining industry.**

**The company's product range includes safety detaching hooks and components, friction winder attachments, cappels, clamps, compensating gear and a variety of miscellaneous equipment.**

All rope attachments comply with government mining regulations and meet or exceed South African mining house specifications. Tests are performed at various critical stages of production to ensure that the company's own high standards, as well as those of the mining houses, are met.

At its modern factory in Johannesburg, Becker Mining South Africa employs a complete design and engineering facility, manned by highly trained staff. It has also made substantial investments in technology, including:

- A fully integrated CAD/CAM system in the design office and factory.
- A modern CNC machine shop.
- A quality assurance system which complies with ISO 9001 and SA mining industry regulations.
- Highly sophisticated test and repair equipment to meet the specialised quality requirements of its customers.



## ROPE ATTACHMENTS

### WIRE ROPE SOCKET

Rope sockets are used for the capping of winding ropes or balance ropes. The socket comprises of a cone shaped body, suitably machined to accommodate the rope end to be resin or white metal capped. The preferred method is using the Wirelock resin kit. The socket is supplied with a threaded pin with nut and split pin.



### ROCKET SAFETY DETACHING HOOK

The Rocket Safety Detaching Hook fulfils a vital function in drum winding installations. Their purpose is to detach the winding rope from the conveyance in the event of an overwind, and to catch and suspend the conveyance in the headframe. The device prevents injury to personnel and extensive damage to equipment should an overwind occur. The hook can be reset to the normal closed position and released from the catch plate by a lowering shackle or links.



### WINDING ROPE CAPPELS (THIMBLE TYPE)

Thimble type cappelles are used in multirope friction winder systems. They provide a reliable and safe method of terminating the rope and also allow for adjustment of rope lengths, the rope can be pulled in through the cappel. When used in conjunction with hydraulic compensators the thimble cappel allows for coarse adjustment of rope lengths.



### HYDRAULIC ADJUSTING LINKAGES

Headropes fitted to a multirope friction winder require a means of adjusting their lengths to maintain equality between the loads applied to each rope attached to the conveyances. The HAL type hydraulic linkages are length-tension compensating devices widely used and preferred for final and service equalisation settings in a multi-rope system.



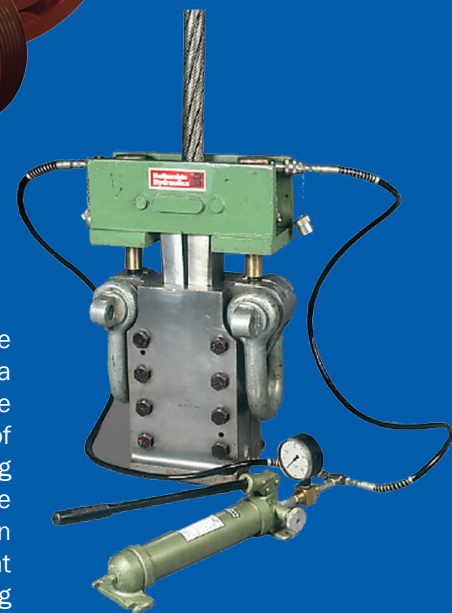
### COMPENSATING SHEAVE WHEELS

These devices can be fitted to a Blair multi rope winder and can rotate freely to equalise the tensions between the two ropes thus sharing the rope load equally between the two ropes.



### WRC ROPE CLAMPS

WRC wedge type rope clamps provide a convenient, positive and fail safe method of anchoring, suspending or manoeuvring wire ropes. The clamps can be used for permanent anchoring, tensioning or suspending guide ropes in a mine shaft or for manoeuvring or pre-tensioning ropes during installation and maintenance. The clamp can be supplied with a hydraulic wedge extractor which is used to smoothly extract the wedges from the casing by means of a hydraulic jacking system.



## DESIGN CRITERIA:

All rope attachments are designed in accordance with the British National Coal Board Specification and will meet all statutory requirements.

All safety critical load bearing components are designed for static and fatigue conditions and incorporate a minimum static safety factor in excess of 10:1

## MATERIAL SPECIFICATIONS

All safety critical load bearing components are manufactured from 1.5% manganese steel to BS2772 Part 2 (1989) Group 2 150M19 in the hardened and tempered condition.

Material test piece sets in accordance with the BS2772 specification consisting of one tensile and three Charpy V Notch impact tests per cast per furnace load are provided.

## PROOF LOAD TESTING

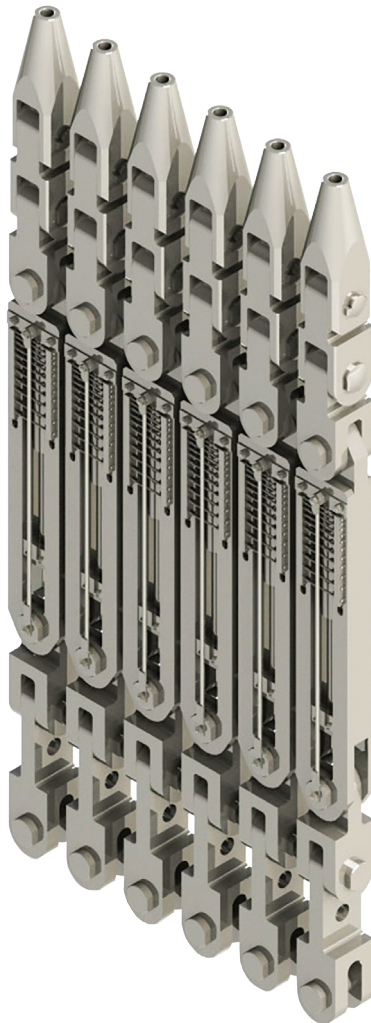
All safety critical load bearing rope attachments are proof load tested to 250% of the components rated safe working load

## NON DESTRUCTIVE TESTING

All rope attachments are subjected to full magnetic particle and ultrasonic non destructive testing.

## SIZE RANGE

Rope attachments are designed in a range to suit various safe working loads from one ton to 45 Ton safe working loads.



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