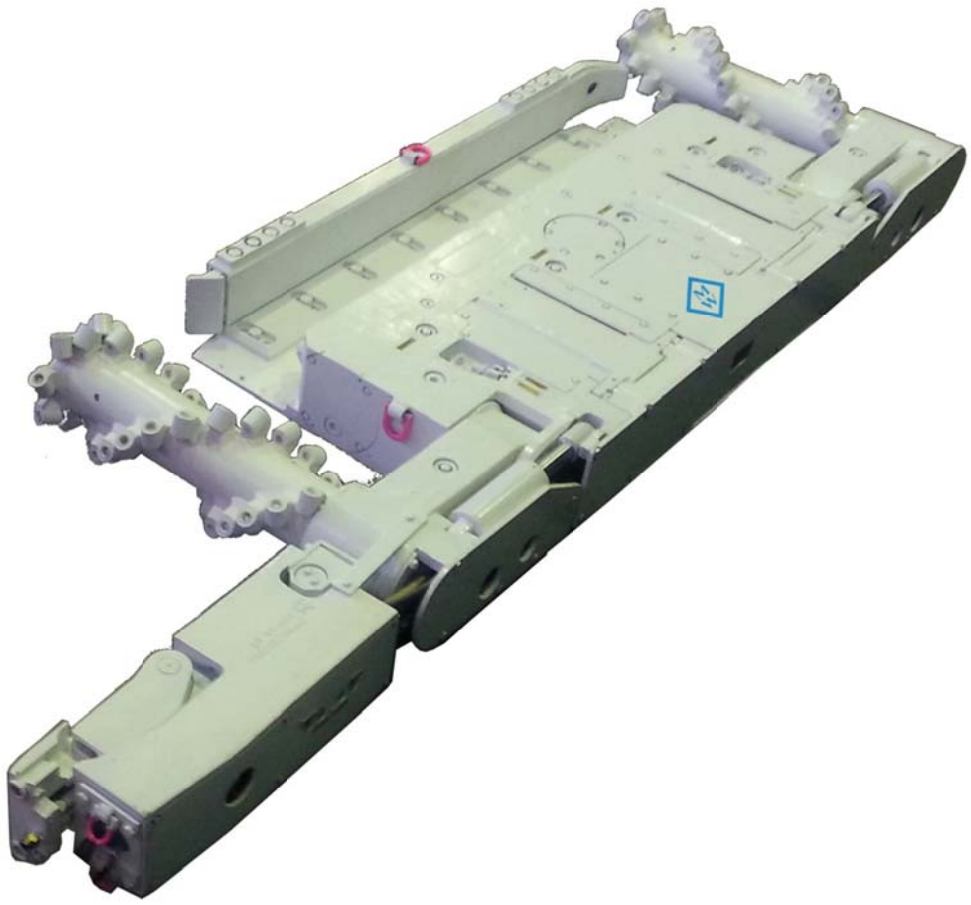
MACKINA - WESTFALIA

Product description

SHEARER ON FLOOR
RPB60

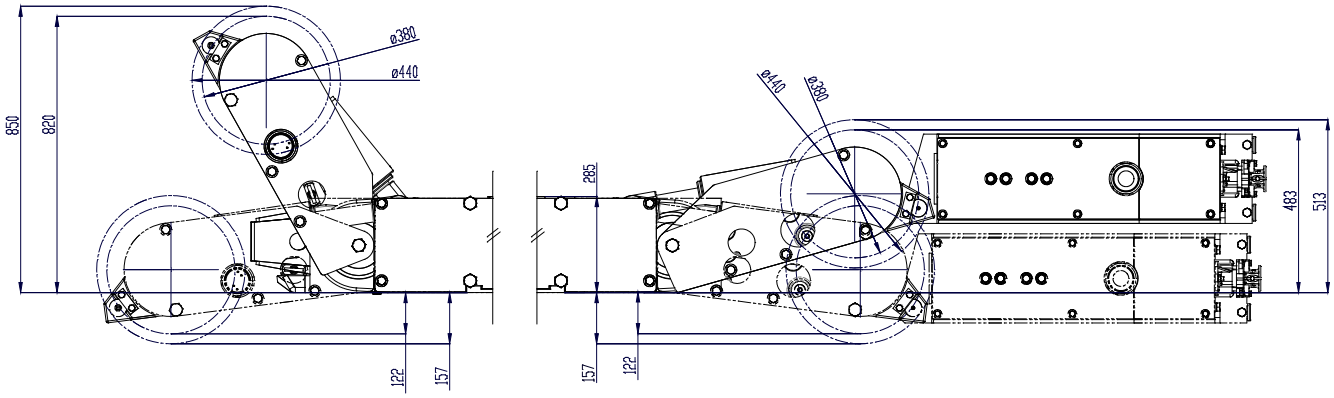


DESCRIPTION

The narrow web cutter loader RPB60 is designed to work in low and steeply sloping seam of 0.38-0.85 m height and 35-85º dip angle
RPB60 can be used in potentially explosive atmosphere as Group I category M2 equipment and fulfill all the relevant requirements of Explosive Atmospheres Directive 94/9/EC(ATEX)

RPB60 working conditions and specification are summarized in the following table:

Drum diameter , mm	440	380
Thickness of the seam, m.	0,44 – 0,85	0,38-0,82
Dip angle of the seam, º	35 - 85	35 - 85
Maximum Coal strength, Kg/cm²	300	300
Maximum Longwall panel length	160	160
Supporting method	Individual props or roof supports	Individual props or roof supports
Coal loading	Gravity	Gravity



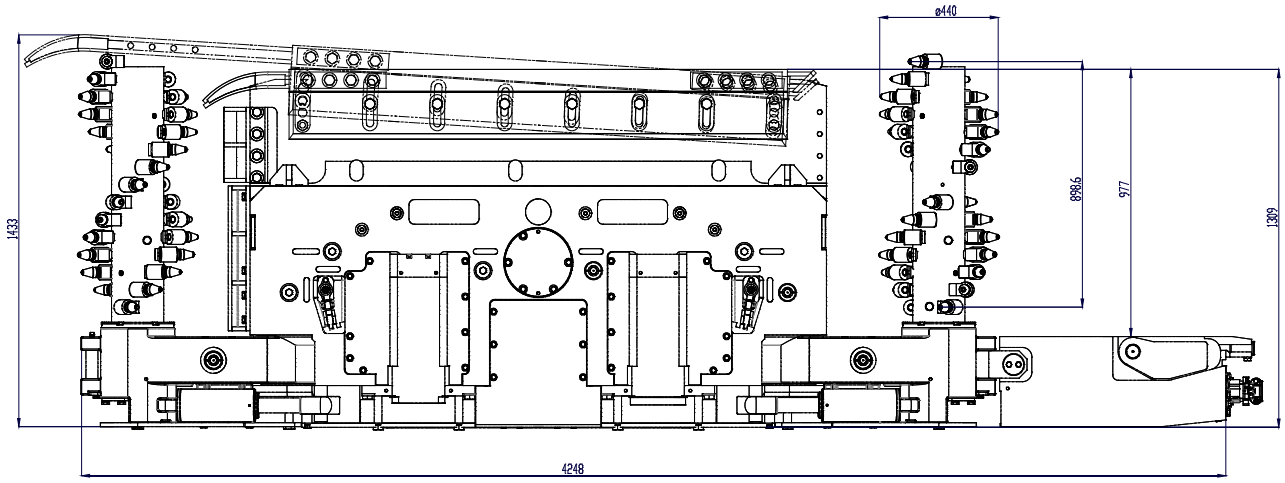
TECHNICAL DATA

Drum diameter , mm	440	380
Rear drum minimun height , mm	288	258
Rear drum maximun height, mm	850	820
Cut height under the floor , mm	157	122
Cutting depth, mm.	960	960
Speed rate examples with shearer winch CEHTR20 (medium layer) m/min Cutting speed Feed rate	 2,5 5,5	 2,5 5,5
Pulling force , kN	90	90
Power, kW	2x30	2x30
Supply voltage, V.	3x	3x
Rate capacity, t/min.	0,6	0,6
Overall dimensions Length, mm. Width, mm. Height, mm. Weight, Kg.	 4.248 1.310 285 3.838	 4.248 1.310 285 3.838

WORKING DETAILS

The main parts of the RPB60 are:

- Electric motor (2 units.),
- Gearbox,
- Right arm,
- Left arm,
- Right drum,
- Left drum,
- Frame,
- Pulling arm,

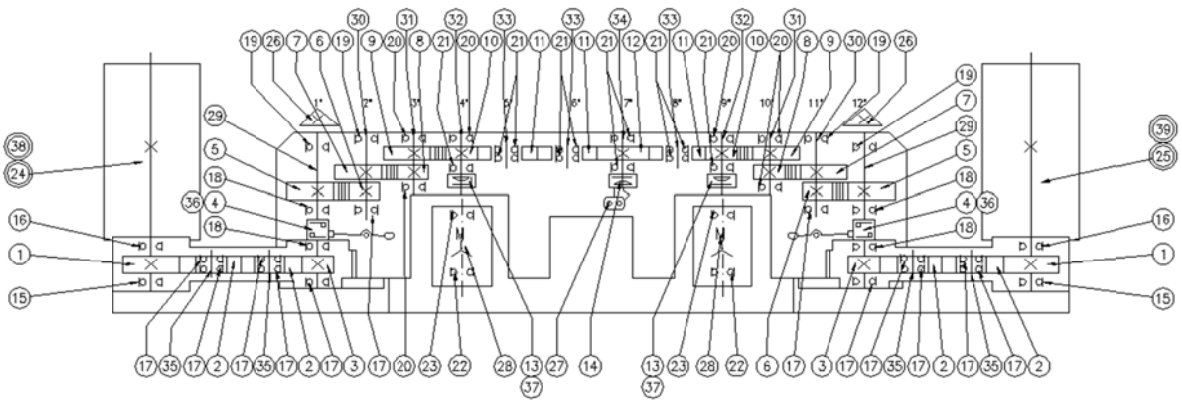


The RPB60 has powered by two electric motors which drive the gear transmission throw the drums located in both sides of the frame

Performance dust suppression system is integrated into the drums.

Changing the hand of the longwall panel could be done easily. There is no need of supplementary parts.

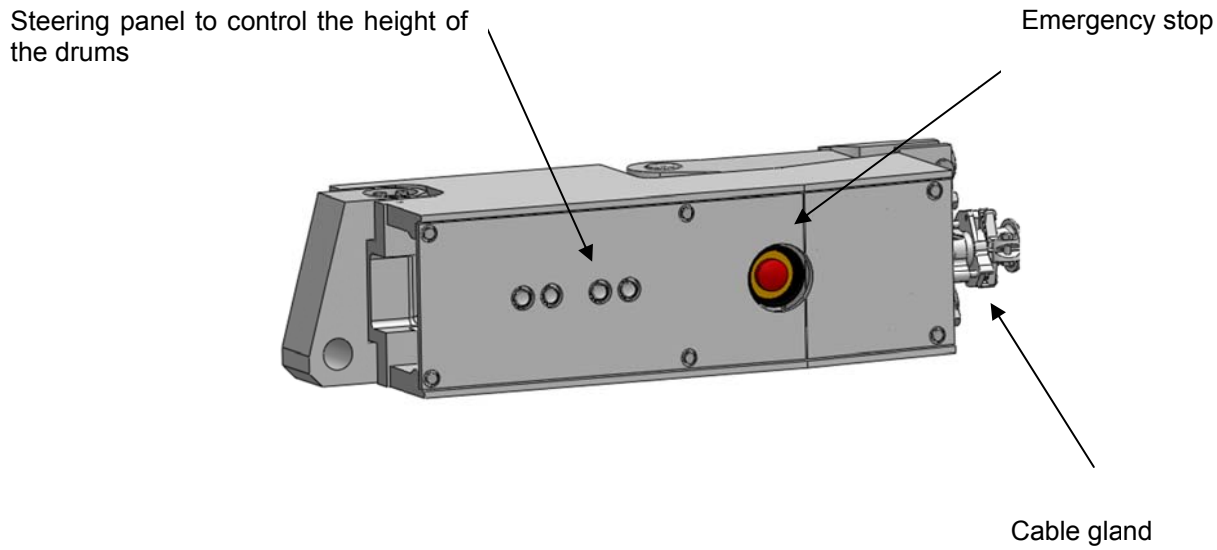
The following drawing represents the kinematic diagram.



The lubrication of the gearbox is made by immersion and pulverization.

The displacement of the RPB60 along the longwall panel is made by the shearer winch located in the head gallery. The working and safety wires are fixed to the shearer in the front by the Pulling arm.

In the Pulling arm it could be find the steering panel to control the height of the drums and the emergency stop



The support system help to stand the RPB60 to the coal face and also to help the coal to go down to the base gallery.

The hydraulic system helps to steer the height of the drum. Double effect cylinders are placed in the arms with different stroke.

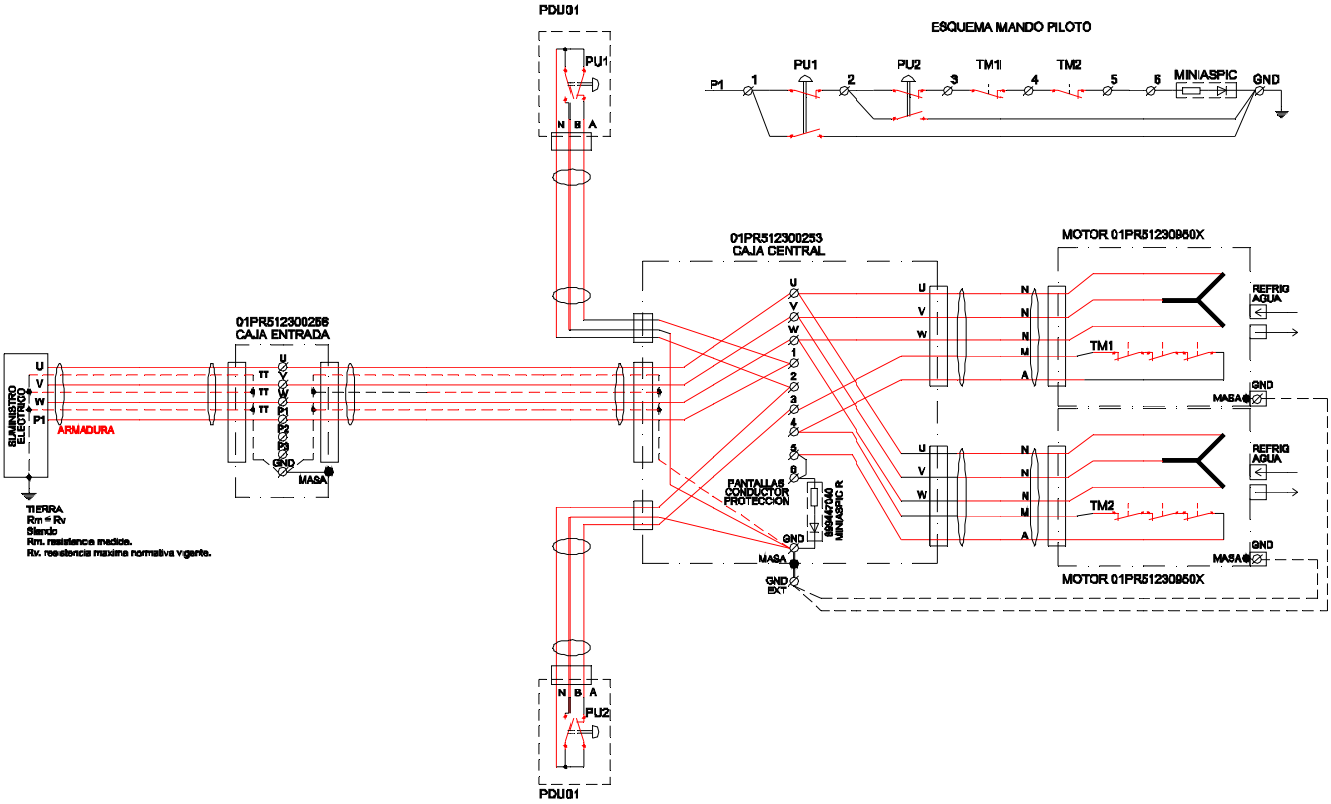
The water circuit has two main functions:

- Cooling down the electric motors.
- Dust suppression system

Water fitting is made in the Pulling arm and have two independent circuit for cooling the electric motor and dust suppression.

Electric equipment

The electric equipment is shown in the following diagram



The electric control of the shearer is made from the explosion proof enclosure on the head gallery. The enclosures display the information needed to control the shearer and has the following features:

- Methane detectors
- On/off switches
- Emergency stop.
- Acoustic alarm

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