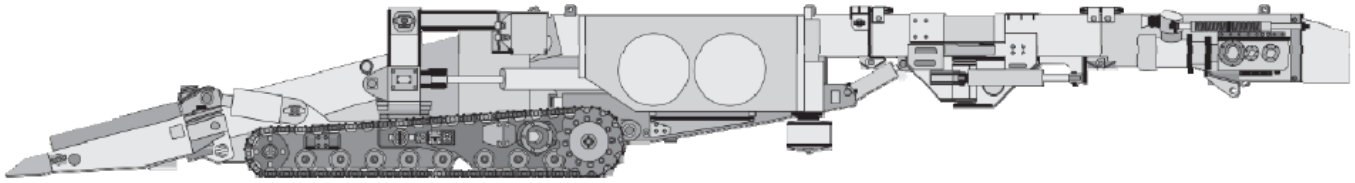


## Technical characteristics

### **Sinking equipment Machines for coal extraction and conveying**

#### LOADER MII-2



The loader MII-2 with gathering arms is designed for the mechanization of the process of rock mass loading into trucks and onto the conveyor with the rock hardness ratio of up to  $f=12$  according to the scale of Professor M.M. Protodyakonov, which is loosened by the drill-and-fire method, with the size of the pieces in the largest dimension not more than 500 mm.

The machine is used when carrying out horizontal and inclined up to  $\pm 12^\circ$  mine workings with the finished cross-section of 5.4 m<sup>2</sup> or more in mines hazardous by gas and dust, as well as for rock mass loading in stopping chambers, on the surface and in coal-storage areas.

Climatic version of the Y5 machine is in accordance with GOST 15150-69. The air temperature ranges during operation is from  $+5^\circ$  to  $+35^\circ$  C.

#### **Loader structure**

The loader is a self-propelled crawler machine equipped with the feeder with gathering arms and the chain-and-flight conveyor.

The design of the feeder ensures its rise to the height of 2 m, which allows to use it as a stage for lining setting in the gateway.

The undercarriage consists of two crawler trucks with an individual hydraulic drive.

The conveyor is designed for rock mass transportation from the feeder to mine transportation devices.

It consists of welded grooved sections: receiving, lifting-and-turning and driving.

Due to the presence of the lifting-and-turning section of the conveyor, the rock mass is loaded onto any mine transportation devices.

The conveyor drive consists of two gearboxes and two electric motors.

The electrical equipment is designed for the machine electric drives control, provides lighting, interlocking, warning alarms as well as the necessary types of protection stipulated by the current "Safety rules for coal and slate mines", the "Operating rules for coal and slate mines".

The electrical equipment of the machine is made in the mine "PB" explosion-proof version, meets the requirements of the "Safety regulations for bottom-hole machines, complexes and units", which makes possible to use the machine in mines hazardous by gas and dust.

The machine is recommended to be supplied with electricity from a transformer substation of TCBII630 6/0.69 with the rated voltage of 6000/660V through the automatic circuit breaker and magnetic starter with the flexible shielded cable with the length of no more than 800 m from the substation to the machine.

The hydraulic system of the machine consists of the oil-pumping station, the hydraulic control panel, hydraulic cylinders, which are used to raise and lower the feeder, to raise, lower and rotate the conveyor, to raise the frame with the feeder, to actuate the gathering arms of the feeder, and also to transport the machine.

The irrigation system is designed for the dust suppression in the face during the machine operation.

The machine feeder is used to be as the stage for the lining mounting.

The drilling equipment is possible to be installed, which modifies the machine into the drill-loader.

The high degree of unification with the road headers produced by NKMZ allows to improve the service and to supply the spare parts.

Technical characteristics

Parameter name	Value
Technical performance, not less than, m <sup>3</sup> /min	4,2
Web width, mm	2100, 2600
Size of the loaded rock pieces, mm, not more than	500
Inclination angle of the workings	± 12°
Rock hardness ratio according to the scale of M.M.Protodyakonov	12
Overall dimensions in transport position, mm, not more than	
- width	2100
- height	1650
- length	10020
Angle of the conveyor boom swing in the plan	± 30°
Total power of electric motors, kW	77
Weight, t, not more than	20
Feeder	
Type - non-rotating, with gathering arms	
- width without reamers	2100
- width with reamers	2600
Arms rotation frequency, rpm	26
Feeder penetration beneath the machine supporting surface, mm	230
Feeder hoisting above the level of the machine supporting surface, mm	160
Undercarriage	
Type - crawler track, self-propelled with individual hydraulic drive of left and right trucks	
Width of track chain, mm	550
Travel speed, m/min.	
- working	3
- travelling	9
Conveyor	
Type - chain-and-flight	
Trough width, mm	535
Flight chain travel speed, m/s	1.0
Hydraulic system	
Working fluid - industrial oil И-40А GOST20799-80	
Working pressure, MPa	14
Capacity of hydraulic system, l	500