Mine + Tunnel Constructions

12CM30 CONTINUOUS MINER

Plant Number: MOB-017

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EQUIPMENT SPECIFICATIONS

1. General

Machine Serial Number:		6650
Last Rebuild/Code:		May 2017
(a)	Overall Length:	10500 mm
(b)	Chassis Width:	2900 mm
(c)	Chassis Height:	1080 mm
(d)	Bumper to Face Length:	7289 mm
(e)	Ground Clearance:	300 mm
(f)	Ground Pressure:	204 kPa
(g)	Machine Mass:	85 tonnes approx
(h)	Maneuverability radius:	6400 mm approx

2. Conveyor:

The main conveyor chain comprises a single strand centre flight design driven by 2 water cooled electric motors mounted in gathering shovel. These supply drive to the chain via a sprocket and shaft assembly. The conveyor is adjustable and is spring loaded to hold tension on the chain when the conveyor is swung, raised or lowered.

(a)	Discharge Width	762 mm
(b)	Nominal Depth	300 mm
(c)	Conveyor Chain Pitch	67 mm
(d)	Speed	145 m / min

3. Conveyor Discharge:

(a)	Min height above ground:	880 mm approx
(b)	Max height above ground:	2340 mm approx.

4. Gathering Head:

(a)	Max gathering head undercut:	52 mm
(b)	Max gathering head lift:	506 mm
(c)	Extended Gathering Head Width:	5400 mm
(d)	Retracted Gathering Head Width:	4600 mm

5. Cutter Drums

(a) Torque at cutter drive shaft: 132,300 Nm

(b) Bit tip speed: 2.8m/s

(c) Cutter drum lacing: 76mm – double scroll

(d) Cutting Width 4800 to 5400 mm

(e) Cutting Height 2500 mm to 3600 mm

(f) Maximum Undercut 203 mm

6. Electrical

(a) Pempek Machine Control System to AS4240-2009. The internal levels of electronic redundancy, the system incorporates additional layers of protection with electrical redundancy, via the isolation Contactor and hydraulic redundancy, via the isolation Spool. Accordingly, these LOPS mitigate combined system risk to acceptable levels that allow the designer to claim a maximum qualitative low demand SIL2 for the identified functions where applicable

(b) 300A receptacle on drivers side

(c) Gasguard methane system with alarm at 1% methane, trip the cutter head at 1.25% methane and trip the pilot circuit at 2% methane. 2x methane sensors, 1 in general body and one close to the cutter head.

(d) 3 remotes to be supplied

(e) L.E.D machine and area lighting

(f) Motors

(i)	Cutting	2@	155 HP (130kW) (Voltage 950)
(ii)	Pump	1@	155 HP (130 kW) (Voltage 950)
(iii)	Gathering	2@	50 HP (37 kW) (Voltage 950)
(iv)	Traction	2@	35 HP (26 kW) (Voltage 250)
		Total	635 HP (474 kW)

7. Hydraulics

(a) Hose ends - JIC female fittings, pressed on

(b) Rexroth A11VLO190 load sense type pump

(c) Return line filtration

(d) Venturi power fill oil tank

(e) Oil tank capacity – 510 Lt

(f) Header tank capacity – 400 Lt

(g) Wash down hose valve and connection.

(h) Stabilizer Jack

(i) All hoses manufactured to MDG.41 Guidelines

8. SAFETY FEATURES

(a) Fire suppression water sprays

(b) Gasguard Methane Monitor

(c) Approved face and area lighting.

(d) MSHA Spec. Load Locking Valves (Conveyor & Cutter Boom)

(e) Bumper mounting plates fitted to rear of machine.

(f) Dust suppression sprays to be fitted to cutter head, apron and conveyor

(g) TRS to be fitted with retract interlock.

9. BOLTING CONFIGURATION

8.1 Roof bolters

(a) 2 x Joy HFX 310 roof drill rigs with Hydraulogic Logibolter controls

(b) HDR32 single speed drill heads

(c) Traversing slide roof bolter indexing

(d) Rigs are configured to achieve the Mine's bolting pattern

8.2 Rib Bolters

(a) 2 x Joy HFX 190 rib drill rigs with Hydraulogic Logibolter controls

(b) HDR32 single speed drill head

(c) Raise lower function on rib bolter

10. MATERIALS HANDLING SYSTEM

Roof mesh is to be stored in a ramp style mesh carrier in the centre of the machine

11. OTHER SPECIFICATION REQUIREMENTS

Mechanical locking device to be fitted for cutter boom, tail and conveyor

Location and decals to show location of technical components

12. PLATFORMS

The bolting platform to have extend, retract and raise lower on rib protector

Platforms to be full length of continuous miner

Centre and rear platforms to have ability to fold up for flitting

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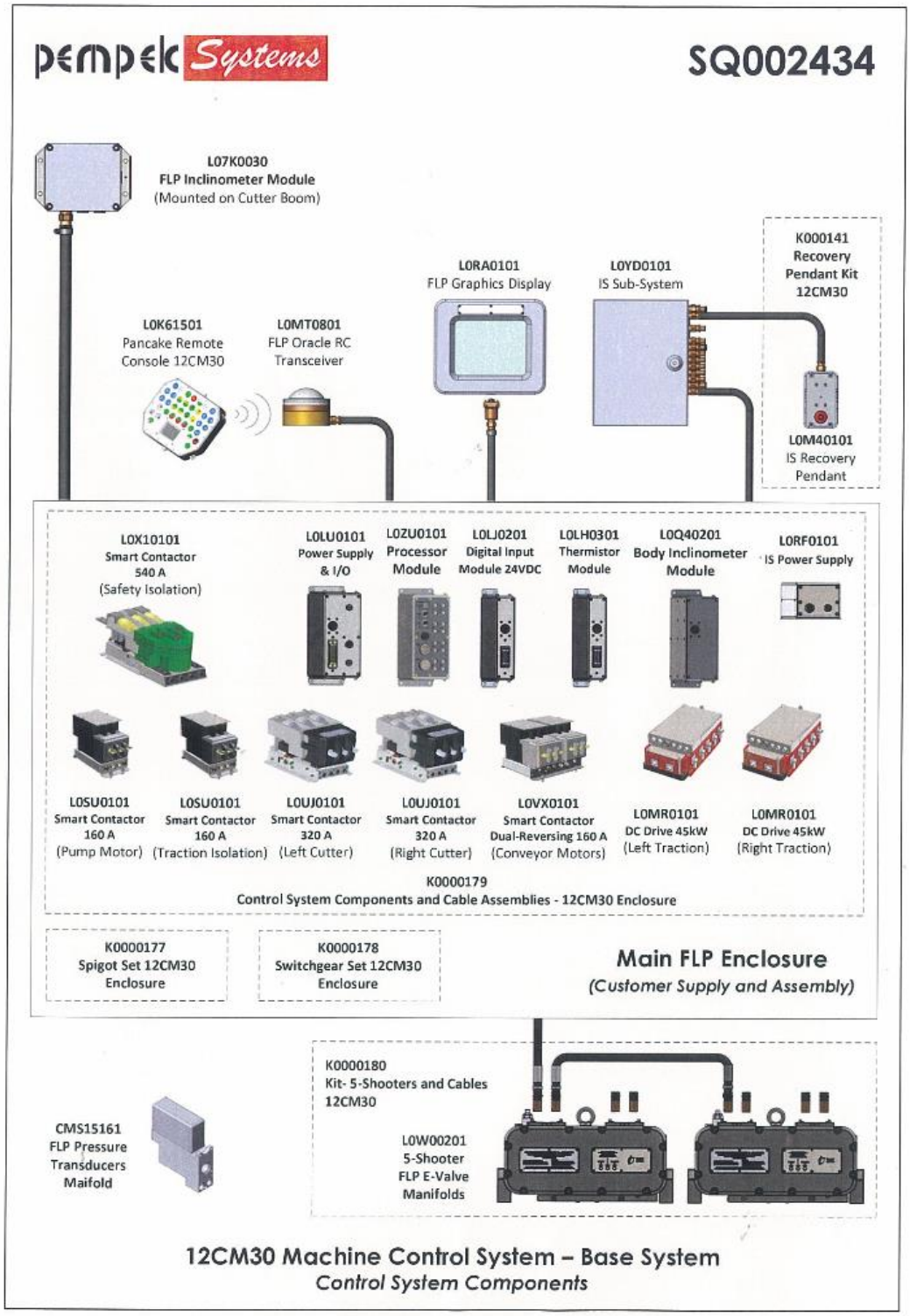
MACHINE CONTROL SYSTEM



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