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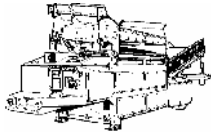
INTRODUCING THE

Powergrid 1200

With Long Folding Conveyor



All specifications subject to change without prior notice.



Technical Specification



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FEATURES

- | | |
|----------------------|---|
| • Total weight | 17,300kg (19.07 US Tonnes) |
| • Width (transport) | 2.47m (8' 1") |
| • Length (transport) | 11.160m (36' 7") |
| • Height (transport) | 4.000m (13' 1.5") |
| • Screenunit | 2 deck 2 bearing 3.048m x 2.134m (10' x 7") |
| • Powerunit | 4 cylinder Diesel 74 Hp (55.2kW) |

Weight on axle:11.86Tonne

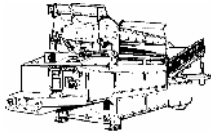
Weight on kingpin:5.6T

ADVANTAGES

- High capacity up to 600 TPH, (depending on mesh sizes and material type).
- Quick set up time typically under 5 minutes.
- Maximum mobility with fifth wheel, jacking legs, road wheels, springs, brakes and mudguards.
- High performance hydraulic system.
- Angle adjustable screenbox
- Hydraulically folding main conveyor with 3.680m (12') stockpile.

APPLICATIONS

- Sand and gravel
- Topsoil
- Coal
- Crushed stone
- Recycling
- Demolition



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The Powerscreen Powergrid is a high capacity heavy duty mobile scalping and conveying unit and has replaced the original MK2 since its introduction in 1993.

Built to withstand the rigours of handling materials like rip-rock or demolition concrete, this machine is equally at home when fine screening down to 1/4" product size.

The product design allows the machine to operate in very confined spaces and the high mobility factor eliminates set up time.

In 1999 the Powergrid is upgraded to include a larger stockpile capacity with a hydraulically folding main conveyor.

This means: Drive onto a level site, switch on the machine and produce graded material in under 2 minutes.

Scalping Unit:

The scalping unit is constructed from heavy duty plate and box sections having two screening surfaces 10' x 7' long each.

Scalping action is provided by out of balance flywheels and an eccentric screenshaft in a conventional 2 bearing screen arrangement.

An fixed loading plate is standard equipment. A range of mesh sizes from 4" to 1/4" are available and are end tension design to facilitate replacement. A bofor steel grizzly bar reject grid is fitted to the top deck.

The screening angle may be adjusted from 12 to 25 degrees by means of two hydraulic rams.

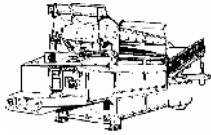
Wear plates for screenbox sides and loading plate are optionally available.

Powerunit:

Power is provided by a 55.5kW(74 Hp) turbo diesel hydraulic unit developing 48.5kW(65 Hp) at 2300 rpm. The Powerunit including engine, hydraulic tank, pump, control valves, starter panel; and battery is enclosed in a vandal proof cabinet mounted directly on top of the front chassis assembly. This allows much easier access for operation and maintenance purposes.

Hopper and Conveyor:

A steel plate hopper mounted under the screen directs the material onto the conveyor and rubber skirting eliminates spillage. The conveyor is 1500mm (5') wide and discharges at a height of 3.680m (12' - 0"). The belt is a 3 ply heavy duty with vulcanised joint and fitted with self adjusting belt cleaner. The conveyor is fully skirted to prevent material spillage, and folds hydraulically for transport.



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Transport:

The Powergrid is fitted with super single road wheels and hydraulic jacking legs to facilitate portability.

The 5th wheel kingpin is standard and is part of the overall chassis of the machine.

Operation:

Output of up to 600 tonnes per hour are achievable with a competent shovel operator loading material evenly onto the screen.

There are many different applications and the variables within these can affect tonnage's achieved

OPTIONS

Transport:

The Powergrid is offered with a number of transport options including spring suspension, brakes and lights to EEC specification and full TUV specification.

Top deck Screens:

The Powergrid screenbox has a number of different of screen types apart from conventional wire meshes. A heavy duty Bofor grid is available featuring a tapered opening from 90mm to 110mm (3.5" to 4.3") nominal aperture. Punched plate screens are available with a range of opening sizes up to 152mm (6") (hexagonal). A heavy duty solid steel plate finger screen is available with a range of apertures.

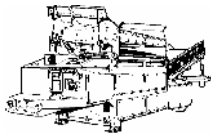
Bottom deck Screens:

The Powergrid also has the option of finger screens on the bottom deck instead of conventional wire meshes.

Hydraulics:

An optional Hydraulic fan assisted oil cooler is available.
(Electric/Hydraulic option)

Variable speed control of main belt is available.



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DIESEL / HYDRAULIC DRIVE

Engine:

55.5kW(74 Hp) developing 48.5kW (65 Hp) at 2300 rpm.

HYDRAULICS

Hydraulic Pump:

QR 4045/4032 clockwise tandem pump, driving two deck screen on one circuit and main conveyor on the other circuit. The screen circuit having a flow rate of 70 litres (15.5 gals) minute and the conveyor circuit having a flow rate of 99 litres (21.8 gals) per minute.

Hydraulic Motors:

Screen Motor	MCC 2208	(58cc per rev)
Conveyor Motors	2 x OMV800	(800cc per rev)

Control Valves:

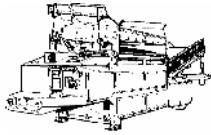
Screen Circuit	K18 Set at 190 Bar (2700 psi)
Conveyor Circuit	K18 Set at 190 Bar (2700 psi)
Auxiliary Circuit 1	CV302
Auxiliary Circuit 2	CV301
Pressure Relief Valve	Set at 190 Bar (2700 psi)

Recommended Hydraulic Oil:

0c to 30c Ambient temp	Shell Tellus 46 (or equivalent)
+30c Ambient temp	Shell Tellus 100 (or equivalent)

Hydraulic System Capacity:

340 litres (75 gals)



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Typical Operating Pressures:

(i) Screen		
Empty or full:-	42 Bar	(600 psi)
(ii) Conveyor		
Empty:-	56 Bar	(800 psi)
600 Tonne per hour:-	150 Bar	(2150 psi)

Screen Shaft Speed:

Empty:-	1150 rpm
Full:-	1100 rpm

Main Conveyor:

Conveyor belt:-	3 ply x 1500mm (60") wide
Drive Drum outside diameter:-	425mm (16.73")
Tail Drum outside diameter:-	320mm (12.59")
Drum centres:-	10.200m (33' - 5")
Drum speed empty:-	85 rpm
Conveyor belt speed empty:-	113 m/min (370 ft/min)
Conveyor belt speed full:-	79 m/min (259 ft/min)

Wheels:

Size:-	285 / 70 / R19.5
Pressure:-	8.5 Bar (120 psi)
Wheel stud torque:-	745 Nm (550 lbs ft)
Total machine weight	17,300kg (19.07 US Tonne) approx

ELECTRIC / HYDRAULIC DRIVE

Motor:

Electric motor running at 1470 rpm developing 45 KW (60 Hp)

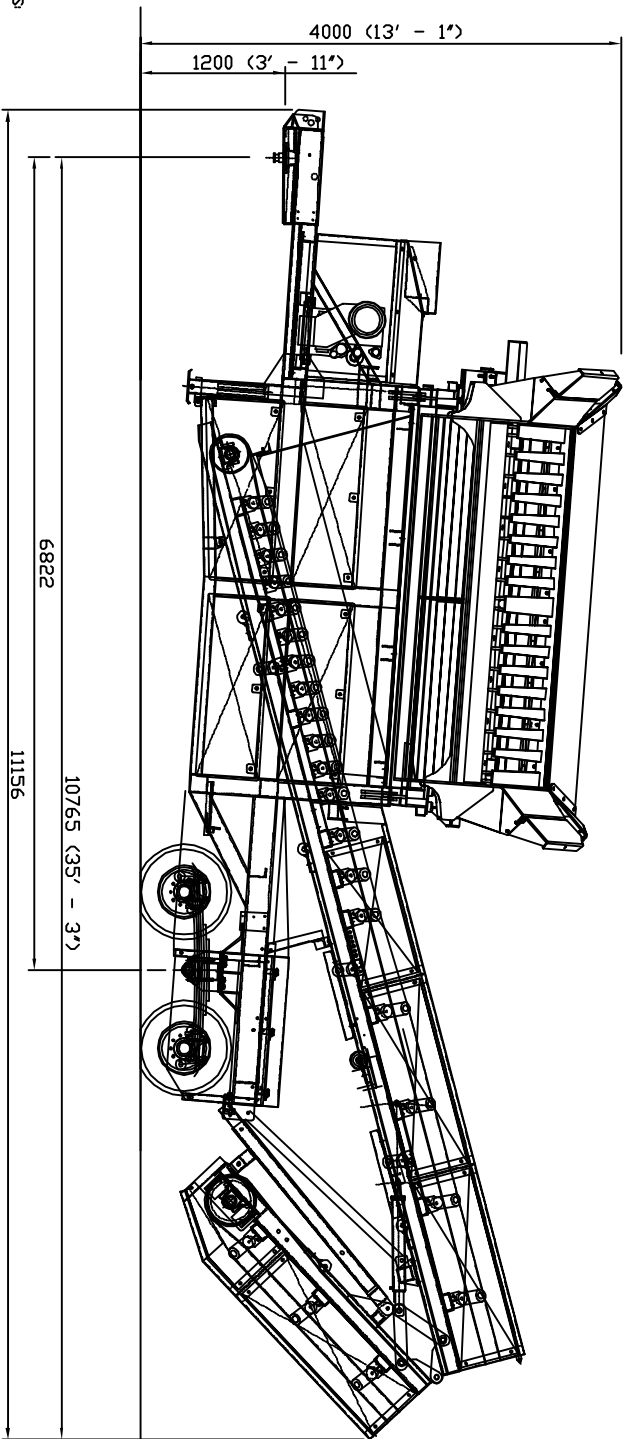
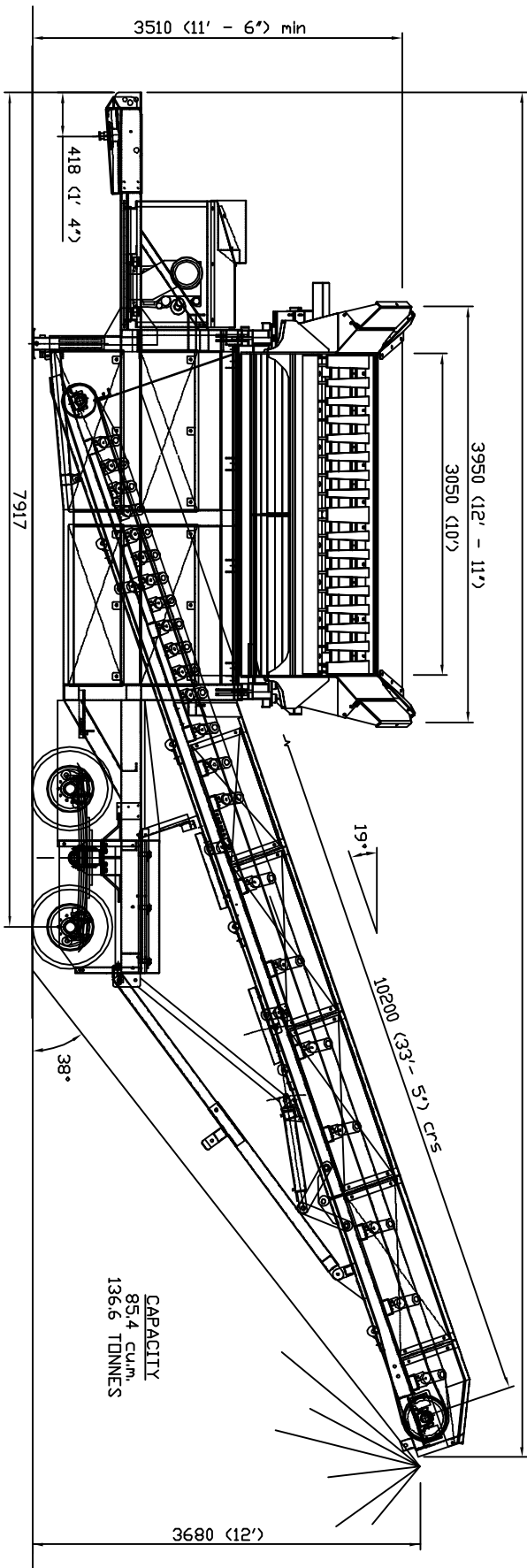
HYDRAULICS

Hydraulic Pump:

3PL180/3PL150 clockwise tandem pump, driving two deck screen on one circuit and main conveyor on the other circuit. The screen circuit having a flow rate of 69 litres (15.1 gals) per minute and the conveyor circuit having a flow rate of 94 litres (20.6 gals) per minute.

The remaining hydraulic motors stay the same as for Diesel Hydraulic machine.

12950 (42' 5")



MODIFICATIONS

PUMP IS DAVID BROWN 04032 / 4045 - (40% INCREASE IN FLOW)
CONVEYOR DRIVE MOTOR IS EX-DAVID-BROWN 04032 - (100% INCREASE)
CONVEYOR DRUM CENTRES IS 10200mm - (322 INCREASE)
ANGLE IS 19° - (27% INC.)
DRIVE DRUM IS 16' 10" DIA. - (27% INCREASE IN SURFACE AREA)
STOCKPILE HEIGHT IS 3680mm - (46% INCREASE)
TALE MOVES BACK 650mm - (TALE WEIGHT DROPS TO 9 TONNES APPROX)
CONVEYOR SPEED IS 64.7rpm, BELT SPEED IS 86.5m/min (12% DECREASE)

SCALE	DRAWN	DATE	CHECKED	DATE
1:20	NS	5/5/99		
DRAWING NO.	DRAWING TITLE			
\RAD\	POWERGRID MK4 C/V FOLDING CONVEYOR			

ISSUE	DATE	BY	REVISION



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