

POWERSCREEN® CHIEFTAIN 1700X

2 DECK INCLINE SCREEN



TECHNICAL SPECIFICATION - REV 4 01/04/2024





CHIEFTAIN 1700X 2 DECK



OVERVIEW

SPECIFICATION

	14ft Hopper (with grid)
Total weight	27,660kg (60,980lbs)
Transport	Length 16.6m (54' 6")
	Width 3m (9' 10")
	Height 3.44m (11' 3")
Working	Length 17.2m (56' 5")
	Width 17.3m (56' 9")
	Height 5.89m (19' 4")
Screenbox	4.8m x 1.5m (16' x 5')
Power Unit	Diesel / Hydraulic
Plant Colour	RAL 5021, RAL 7024 & RAL 9005

(Weight & dimensions are approximate base unit values)

FEATURES & BENEFITS

- High capacity up to 500 tph / 551 US tph (depending on media sizes & material type)
- Maximum feed size 150mm (6")
- Ability to easily change between 2 and 4 bearings using patent pending drive system
- Engine protection shutdown system
- Power unit featuring a transverse engine arrangement to aid access & serviceability
- Heavy duty single shaft incline screenbox with adjustable stroke, angle & speed
- Hydraulic screen tensioning
- Screen mesh access system for quicker mesh changes
- Maximum mobility with heavy duty, low ground pressure tracks
- Removable heavy duty pendant remote control system
- Quick set up time
- High performance hydraulic system - cast iron pumps & motors complete with hydraulic cooler
- Low profile double deck vibrating grid option with radio remote control tipping grid, angle adjustable & fully riveted construction
- Hydraulically folding conveyors for transport
- Fines conveyor drop down facility to aid bottom deck mesh access
- Hydraulic raise / lower of head section for mesh access
- Powerscreen Pulse telemetry as standard

APPLICATIONS



Aggregate

Sand & gravel
Blasted rock
River rock



Recycling

Top soil
C&D waste
Composted materials
Wood by-products
Overburden
Foundry waste



Mining

Processed ores
Processed minerals



CHIEFTAIN 1700X 2 DECK



HOPPER & GRID

Target area: 4.75m (15' 7") long x 1.99m (6' 5") wide

Grid aperture: 108mm (4.3")

Hopper capacity with grid: 6.7m³ (8.75 cu. yd.)

Hopper capacity without grid: 4.67m³ (6.1 cu. yd.)

Feed in height rear with grid: 3.7m (12' 2")

Feed in height rear without grid: 2.62m (8' 7")

Adjustable angle tipping grid with integral loading and wing plates





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SCREENBOX

4.8m x 1.5m (16' x 5') 2 deck incline screen

Highly aggressive screen drive

Grease filled 2 or 4 bearing screenbox (leaves the factory as 4 bearing)

4.8m x 1.5m (16' x 5') top deck

4.12m x 1.52m (14' x 5') bottom deck

4 of media sections (side tension) top deck

2 of media sections (end tension) bottom deck

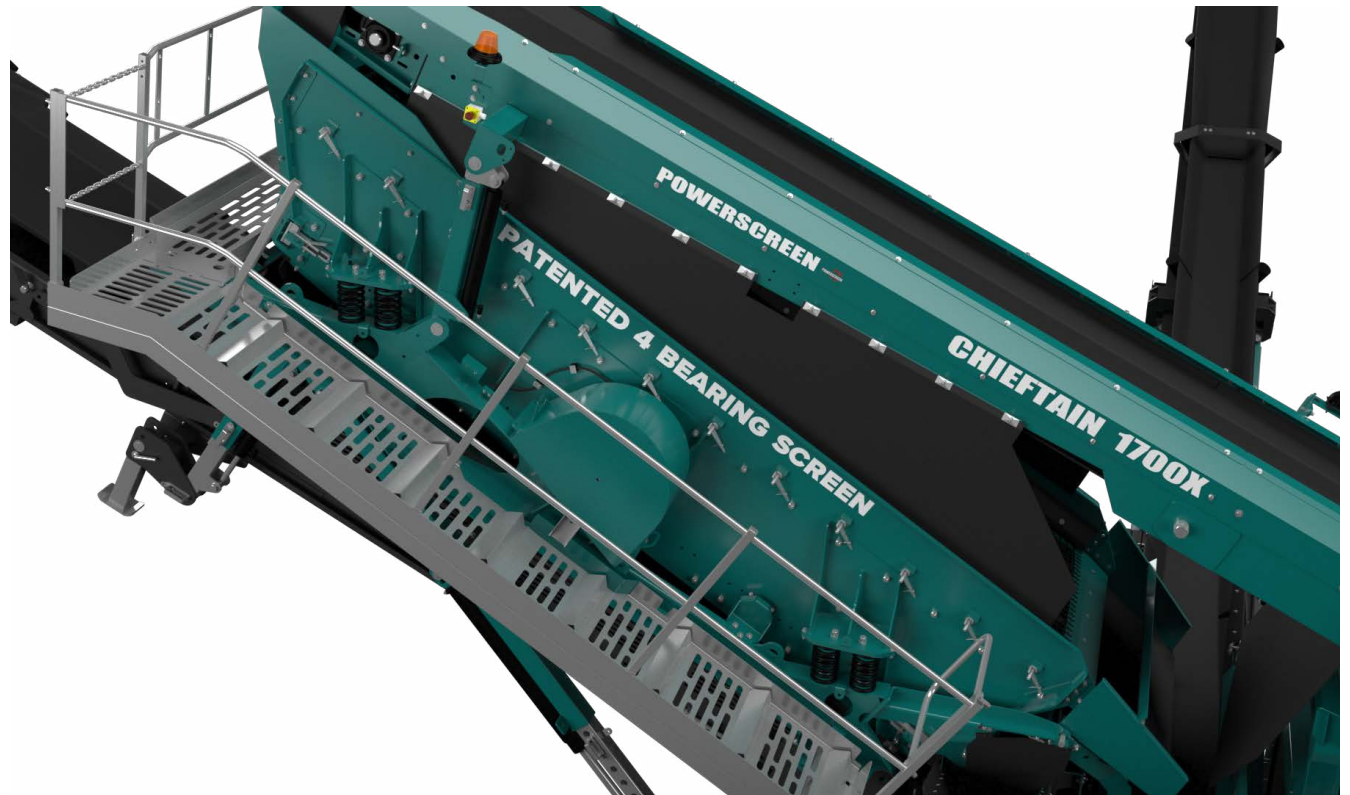
Hydraulic screen angle adjustment 20° - 34°

Hydraulic screen tensioning on bottom deck

Galvanised walkways on 3 sides of the screenbox

Speed: 1150rpm (standard)

Throw: 6.25mm (standard)





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CONVEYORS

FEED CONVEYOR

1050mm (42") wide feed conveyor with direct drive system & hydraulic variable speed control

4.11m (13' 6") drum centres

350mm (13.7") drum diameter (drive)

320mm (12.6") drum diameter (tail)

Feeder stop / start comes as standard

MAIN CONVEYOR

1050mm (42") 3 ply plain belt

9.89m (32' 5") drum centres

286mm (11.3") drum diameter (drive)

270mm (10.6") drum diameter (tail)

Hydraulically adjustable conveyor, fully skirted & sealed





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CONVEYORS

FINESIZE - TAIL CONVEYOR

1200mm (48") wide 3 ply plain belt

6.88m (22' 7") drum centres

286mm (11.3") drum diameter (drive)

270mm (10.6") drum diameter (tail)

4.23m (13' 10") stockpile height

112m³ (147 cu. yd.) stockpile volume

Fixed speed

Hydraulically folding

Chevron belt as option

Angle adjustment: 8° - 28.5°





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CONVEYORS

MID-FINESIZE & MID-OVERSIZING - SIDE CONVEYORS

650mm (26") wide 3 ply chevron belt
9.67m (31' 9") drum centres
286mm (11.3") drum diameter (drive)
270mm (10.6") drum diameter (tail)

4.72m (15' 6") stockpile height
154m³ (201 cu. yd.) stockpile volume

Variable speed control on each conveyor
Hydraulically folding
Fixed angle: 24°





CHIEFTAIN 1700X 2 DECK



POWER UNIT & HYDRAULICS

Engine Tier 3:

CAT C4.4

Performance:

77 kW (104hp) @ 1800rpm

Engine Tier 4F / Stage IV:

CAT C3.6

Performance:

82 kW (110hp) @ 1800rpm

Engine Stage V:

CAT C3.6

Performance:

82 kW (110hp) @ 1800rpm

Tank Capacities:

Fuel: 336L (88 US Gal)

Hydraulic oil Tier 3: 564L (149 US Gal)

Hydraulic oil Tier 4/Stage V: 450L (118 US Gal)

Pumps:

Flywheel pump: Cast iron triple 63/41/41cc/rev

PTO pump A: Cast iron triple 23/23/14cc/rev

Motors:

Belt feeder: Cast iron 160cc/rev

Main conveyor: Cast iron 630cc/rev

Tail conveyor: Cast iron 500cc/rev

Side conveyors: Cast iron 315cc/rev

Screen motor: Cast iron 80cc/rev





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↓ TRACKS

Track width:	400mm (1' 4")
Sprocket centres:	3295mm (10' 9")
Gradability degrees:	27.15°
Gearbox ratio:	1:154
Hydraulic motor:	50.9cc/rev
Approximate speed:	0.9kph (0.56mph)
Total flow per track:	69 Lpm (approx.)

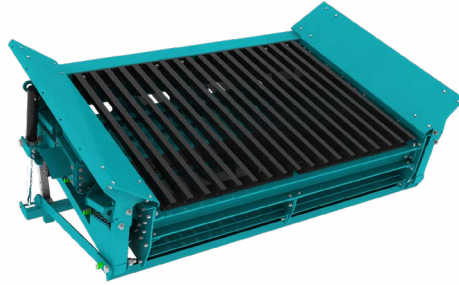




CHIEFTAIN 1700X 2 DECK



↓ OPTIONS



DOUBLE DECK VIBRATING GRID

Target area:

3.91m (12' 10") long x 2.42m (7' 11") wide

Bottom deck screen size:

2 of 1.9m (6' 3") x 1.5m (4' 11")

Working angle: 10° - 20° (hydraulically adjustable)

Tip angle: 45° max

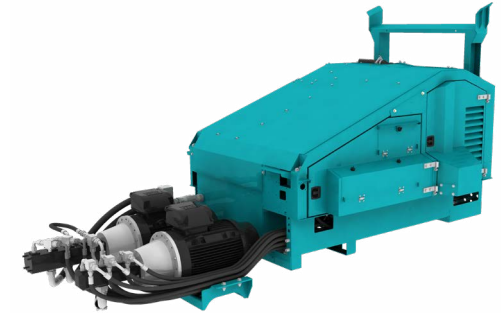
Motor: 56cc/rev

Circuit: Coupled to main conveyor circuit.

Minimum feed in height with grid (rear): 3.8m (12' 6")

Increase in transport height: +75mm (3")

Increase in machine weight: +3750kg (8,267lbs)



DUAL POWER

Dual Power System:

2 of electric motors; 37 kW (50hp) & 30 kW (40hp) Diesel engine
Integrated control system

This controls either diesel-hydraulic or electric-hydraulic functions

Note: This option may alter transport dimensions and feed access.
For further details please contact engineering for detailed drawings and dimensions.



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↓ OPTIONS

OTHER OPTIONS

- Custom colour machine
- Auto lubrication system
- Anti rollback on main conveyor
- Quick release wedge tensioning for top deck
- Vibrating grid discharge chute
- Crusher feed chute (when double deck vibrating grid is selected)
- Radio controlled tracking
- Grid aperture: 152mm (6")
- Adjustable hopper door
- Hopper wear plates
- Extra coupling facility
- Screenbox reverse
- Fuel save option
- Bottom deck self cleaning flexi mesh
- Wear resistant lined spreader plate
- Hydraulic oil grade 68
- Hydraulic folding walkway
- Hydraulic jacking legs





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POWERSCREEN PULSE

RECORD, DISPLAY AND ANALYSE DATA:

HIGH EFFICIENCY THROUGH PRECISE INFORMATION

Available online anywhere and at any time: comprehensive information on the GPS location, start and stop times, fuel consumption, tonnages, cone settings, wear ratings, operating hours, maintenance status, and much more.




**AVAILABLE
ANYWHERE
AND AT ANY TIME**


**DASHBOARD
DISPLAY**


**FLEET
OVERVIEW**


**WEEKLY REPORT
DIRECT TO YOUR
INBOX**


**GPS: MACHINE
TRACKING**


**REPORTING
UTILISATION, PERFORMANCE
& PART SPECIFIC**





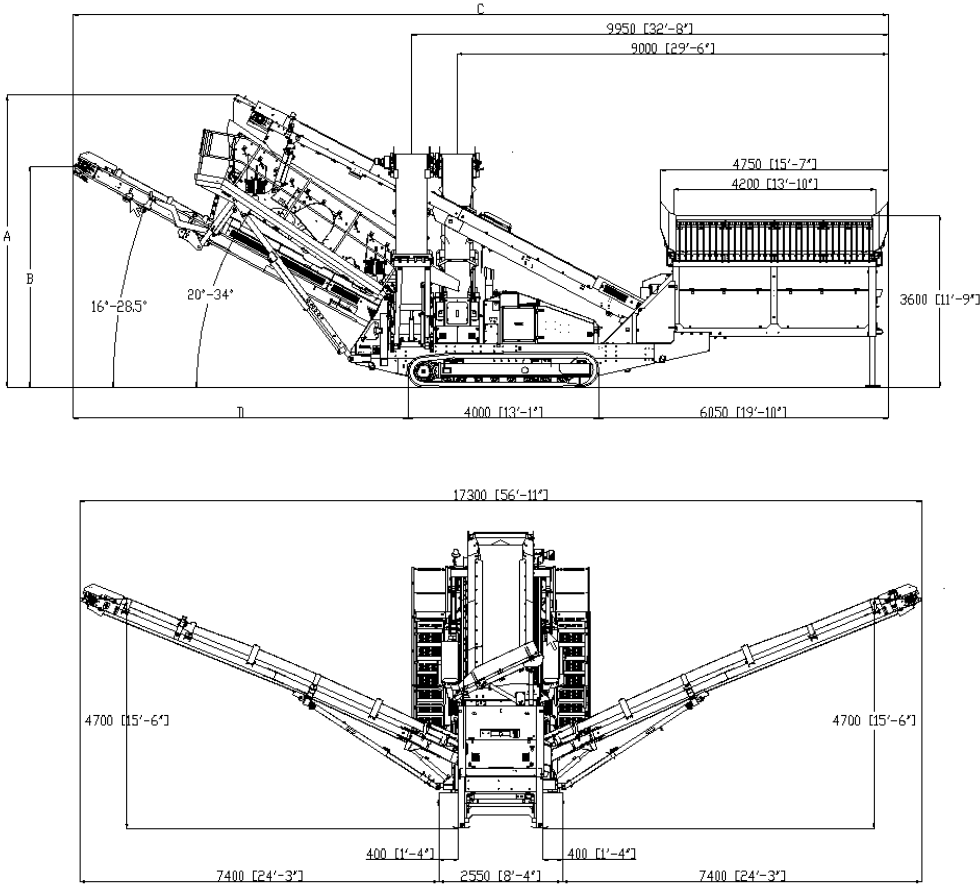
CHIEFTAIN 1700X 2 DECK



DIMENSIONS

DIMENSION (MM)	SCREENBOX WORKING ANGLES (DEGREES)					
	20 DEG	24 DEG	28 DEG	30 DEG	32 DEG	34 DEG
A	5403	5611	5809	5886	5993	6098
B	3157	3587	4009	4216	4417	4617
C	17592	17461	17302	17212	17114	17013
D	7358	7215	7045	6950	6850	6742

Figure 1: Chieftain 1700X 2 Deck
Working Position



MORE DIMENSIONS OVERLEAF

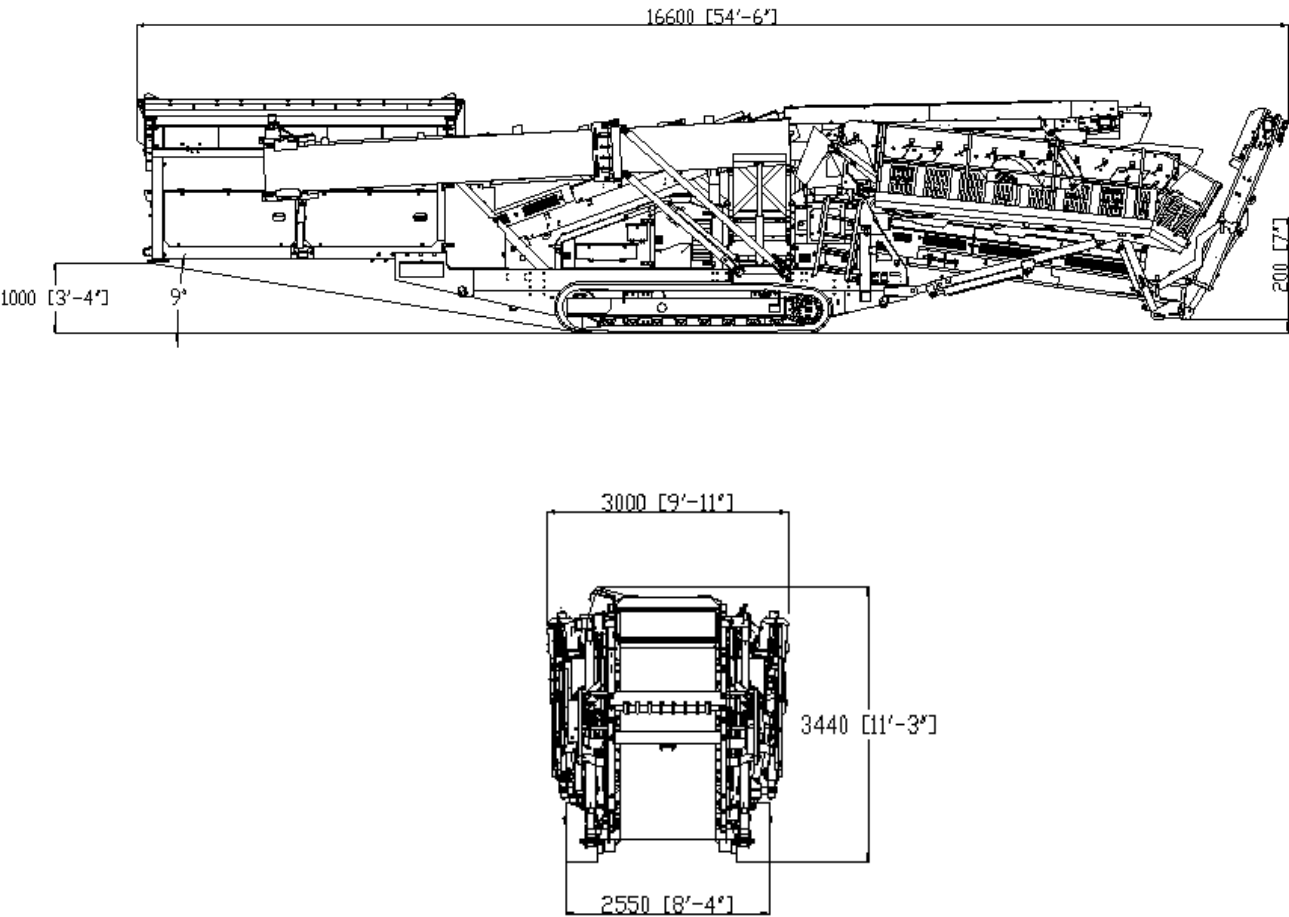


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DIMENSIONS

Figure 2: Chieftain 1700X 2 Deck
Transport Position



MORE DIMENSIONS OVERLEAF



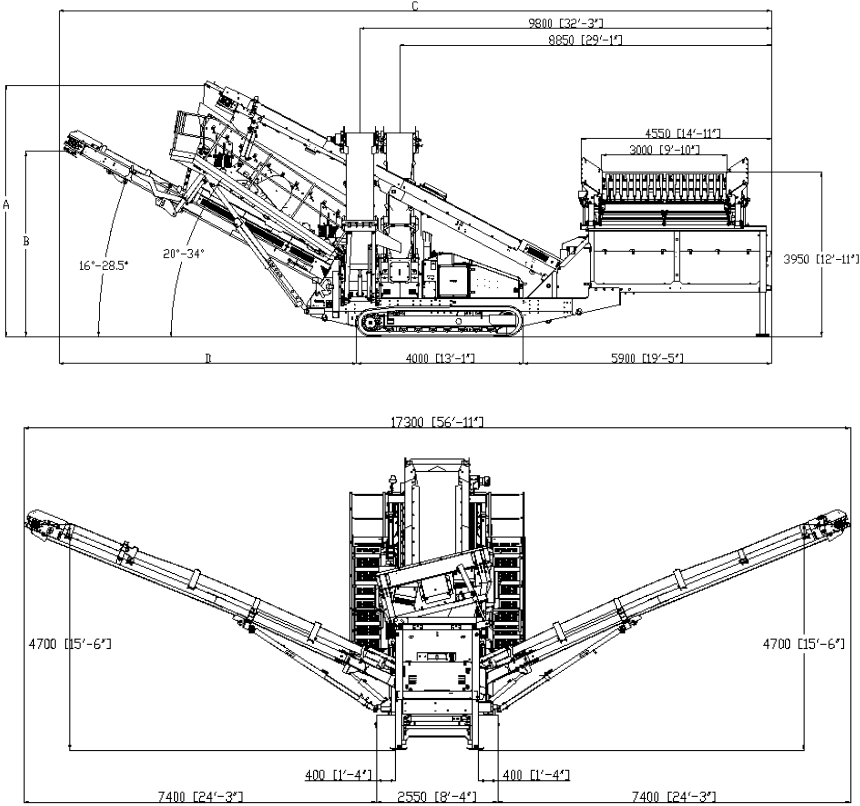
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DIMENSION (MM)	SCREENBOX WORKING ANGLES (DEGREES)					
	20 DEG	24 DEG	28 DEG	30 DEG	32 DEG	34 DEG
A	5403	5611	5809	5886	5993	6098
B	3157	3587	4009	4216	4417	4617
C	17471	17340	17181	17091	16996	16892
D	7358	7215	7045	6950	6850	6742

Figure 3: Chieftain 1700X 2 Deck
Double Deck Vibrating Grid
Working Position



MORE DIMENSIONS OVERLEAF

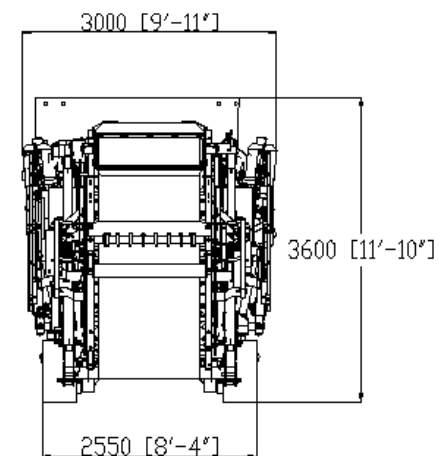
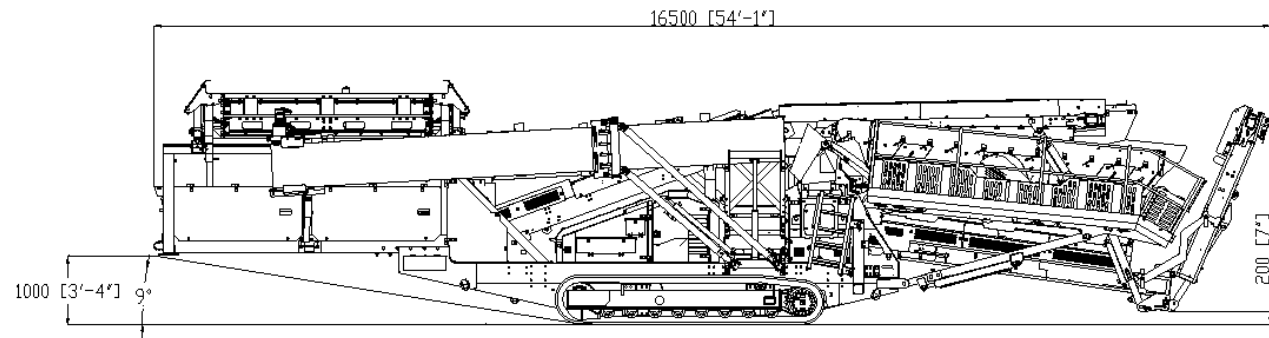


CHIEFTAIN 1700X 2 DECK



DIMENSIONS

Figure 4: Chieftain 1700X 2 Deck
Double Deck Vibrating Grid
Transport Position





Powerscreen equipment complies with CE requirements.

Please consult Powerscreen if you have any other specific requirements in respect of guarding, noise or vibration levels, dust emissions, or any other factors relevant to health and safety measures or environmental protection needs. On receipt of specific requests, we will endeavour to ascertain the need for additional equipment and, if appropriate, quote extra to contract prices.

All reasonable steps have been taken to ensure the accuracy of this publication, however due to a policy of continual product development we reserve the right to change specifications without notice.

It is the importers' responsibility to check that all equipment supplied complies with local legislation regulatory requirements.

Plant performance figures given in this brochure are for illustration purposes only and will vary depending upon various factors, including feed material gradings and characteristics. Information relating to capacity or performance contained within this publication is not intended to be, nor will be, legally binding.

GET IN TOUCH

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APPENDIX 1 - ENGINE OPTIONS – Powerunit options that may be fitted in place of technical specification offering subject to availability

Screens – Tier 4 Final

CAT C4.4 82kW (110hp) @ 2200rpm as per Chieftain 1400, Chieftain 1500, Chieftain 2100X 2 deck, Chieftain 2200 2 deck and Warrior 1800

Option 1.) CAT C3.6 82kW (110hp) @ 2200rpm

Option 2.) CAT C4.4 102kW (137hp) @ 2200rpm

CAT C4.4 98kW (131hp) @ 2200rpm as per Chieftain 2100X 3 deck and Chieftain 2200 3 deck

Option 1.) CAT C4.4 102kW (137hp) @ 2200rpm

CAT C4.4 82kW (110hp) @ 1800rpm as per Chieftain 1700X and Warrior 1400X

Option 1.) CAT C3.6 82kW (110hp) @ 1800rpm

Option 2.) CAT C4.4 98kW (131hp) @ 1800rpm

Screens – Stage V

CAT C4.4 102kW (137hp) @ 2200rpm as per Chieftain 1400, Chieftain 1500, Chieftain 2100X, Chieftain 2200 and Warrior 1800

Option 1.) CAT C3.6 82kW (110hp) @ 2200rpm

Option 2.) JCB 4.8 81kW (109hp) @ 2200rpm

Option 3.) JCB 4.8 97kW (130hp) @ 2200rpm

Option 4.) Deutz TD3.6 100kW (134hp) @ 2200rpm

CAT C4.4 98kW (131hp) @ 1800rpm as per Chieftain 1700X, Warrior 1400X and Warrior 2100

Option 1.) CAT C3.6 82kW (110hp) @ 1800rpm

Option 2.) CAT C4.4 98kW (131hp) @ 1800rpm

Option 3.) JCB 4.8 80kW (108hp) @ 1800rpm

Option 4.) Deutz TD3.6 92kW (123hp) @ 1800rpm

