

POWERSCREEN® PREMIERTRAK 420E

HYBRID JAW CRUSHER



TECHNICAL SPECIFICATION - REV 0 01/09/2020





PREMIERTRAK 420E



OVERVIEW

SPECIFICATION

Total Weight 54,300kg (119,711lbs) - without bypass conveyor and magnet
56,500kg (124,561lbs) - with bypass conveyor and magnet

Transport

Length	14.5m (47' 8")
Height	3.5m (11' 6")
Width	2.9m (9' 6")

Working

Length	15.7m (51' 8")
Height	3.95m (12' 1")
Width	6.2m (20' 4") with bypass conveyor

Crusher Type: Single toggle jaw, feed opening 1070mm x 760mm (42"x 30")
Power Unit Scania DC09 257kW (350hp), or Scania DC09 273kW (365hp)
Plant Colour RAL 5021, RAL 7024, RAL 9005

FEATURES & BENEFITS

The Powerscreen® Premiertrak 420E hybrid jaw crusher offers operators the flexibility to power the plant via either mains electricity or the on-board genset power-pack. Either option presents the operator with significant power, servicing and maintenance cost savings when compared to a diesel / hydraulic solution.

The plant incorporates the robust Terex® JW42 high performance, electrically driven single toggle jaw chamber and a heavy duty VGF feeder to provide optimal throughput in quarrying, mining, demolition and recycling applications. Additional benefits include rapid set up time, ease of maintenance, high reduction ratio, high output capacity and an advanced electronic control system.

- Output potential of up to 420tph / 463 US tph - depending on material type and crusher settings
- The electrically driven power systems provide significant cost savings.
- Superior performance in dusty applications and in high altitude environments.
- High powered electric drive ensures precise chamber control and reverse functionality for clearing blockages and proving advantageous in recycling or demolition applications.

APPLICATIONS



Aggregate

Sand & gravel
Blasted rock
River rock



Recycling

C&D waste
Overburden
Foundry waste



Mining

Processed ores
Processed minerals



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JAW CRUSHER

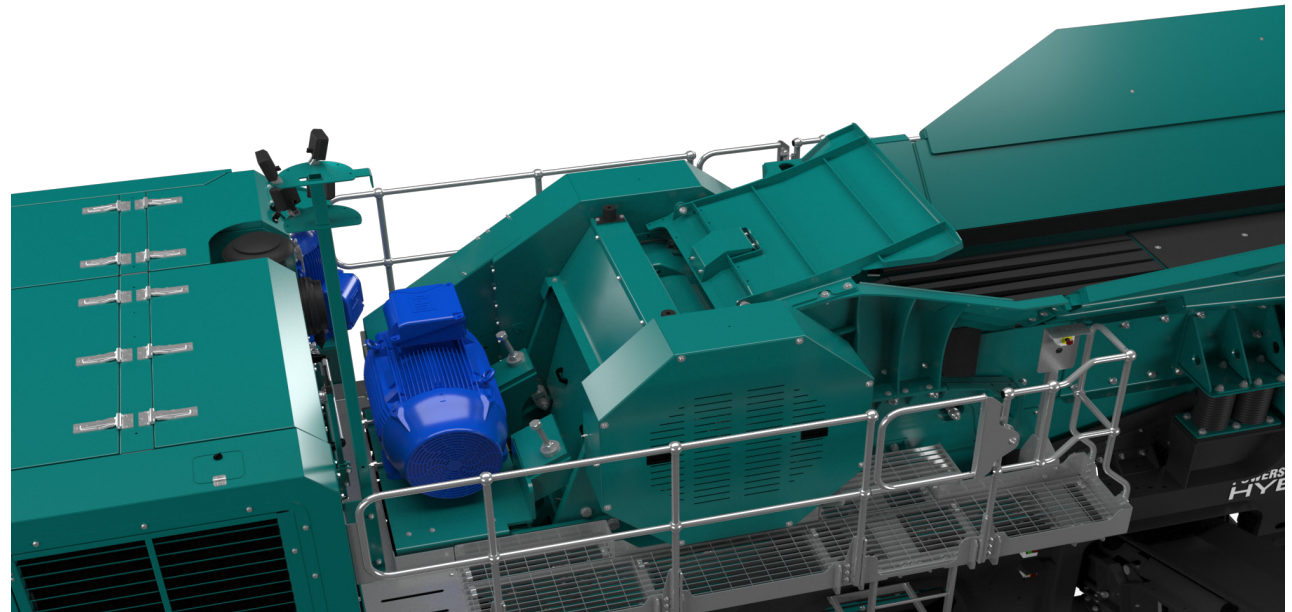
Crusher type:	Terex JW42 chamber - single toggle jaw
Feed opening:	1070mm x 760mm (42" x 30")
Under Jaw Clearance:	460mm nominal (1' 6")
Lubrication:	Grease
Drive:	Electric
Max CSS:	145mm (5 ^{3/4} ") - subject to toggle selection
Min CSS:	45mm (1 ^{3/4} ") - demolition & recycling 75 mm (3") - hard rock quarry applications 60mm (2 ^{1/2} ") - soft rock quarry applications

Reverse action for clearing blockages - also advantageous in recycling applications.

Full hydraulic closed side setting adjust.

S-Tooth (18% Manganese) fitted as standard.

Standard toggle selection is 590mm (23")





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HOPPER

Feed height VGF:	3.98m (12' 11")
Feed height Pre-Screen:	4.12m (13' 6")
Hopper capacity:	Standard 9m ³ (11.7 cu. yd.)
Hopper capacity (extensions):	Standard 11m ³ (14.4 cu. yd.)
Feed width rear VGF:	2.67m (8' 9")
Feed width rear Pre-Screen:	2.65m (8' 8")
Hopper body:	12mm thick wear resistant steel plate
Manual locking mechanism.	
Hydraulically folding sides and rear.	



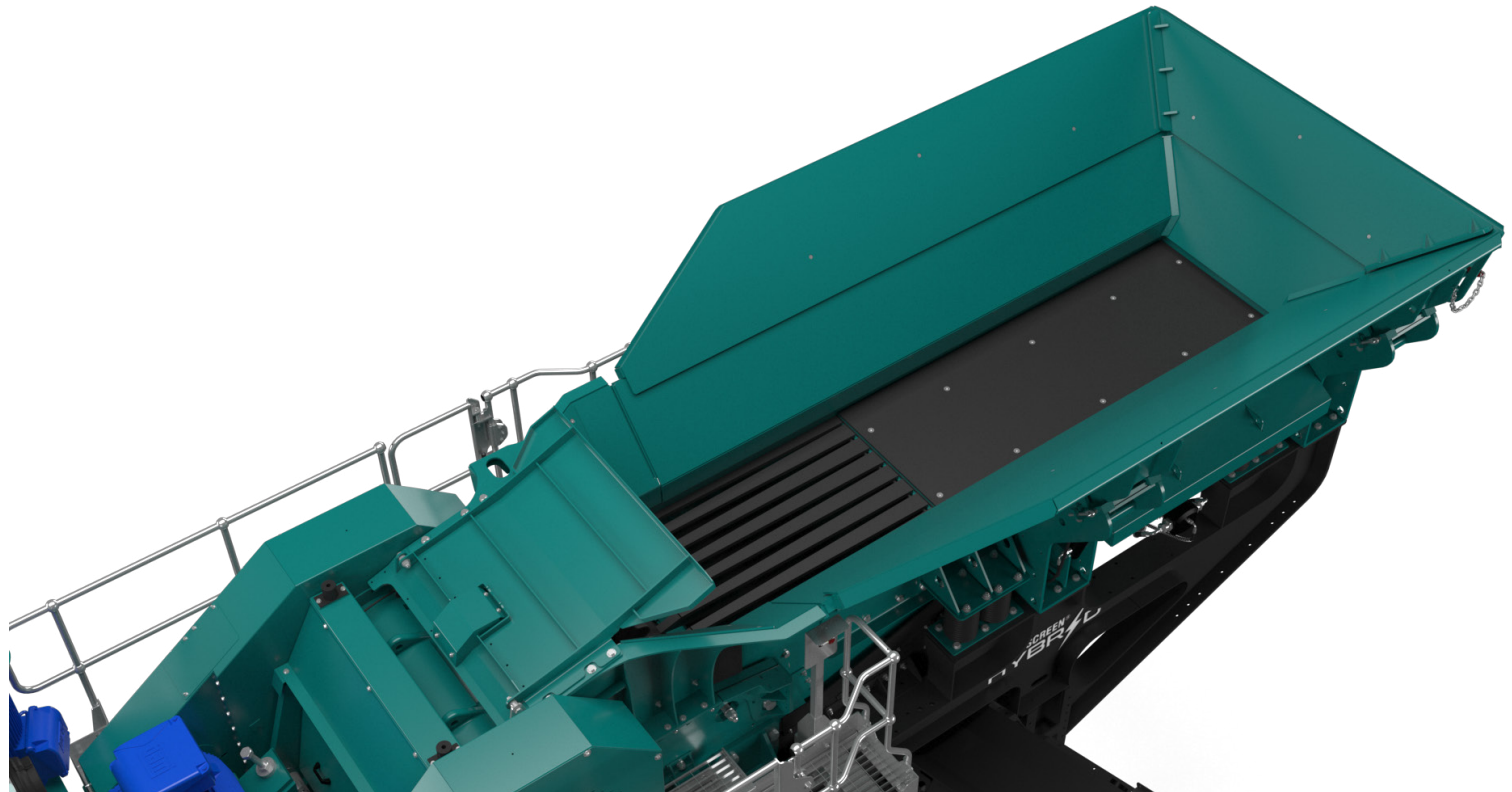


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VIBRATING GRIZZLY FEEDER

Length:	4.25m (13' 11")
Width:	1.05m (3' 5")
Grizzly:	75mm (3") - 50mm(2"), 100mm (4") or 125mm (5") available
Underscreen:	VGF wire mesh aperture 38mm (1.5") - other options available.
Speed:	Variable: 450 - 850rpm





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PRODUCT CONVEYOR

Conveyor type:	Troughed belt conveyor
Belt type:	Plain
Belt width:	1000mm (40")
Discharge height:	3.6m (11' 10")
Stockpile volume:	70m ³ (91 cu. yd.)
Discharge height ext:	4m (13' 2")
Stockpile volume ext:	95m ³ (125 cu. yd.)
Angle:	22°
Speed:	100m/min nominal

When extended conveyor option is selected the head section will fold for transport.

Optional conveyor raise / lower.

Impact bars and wear resistant liners at feed point.

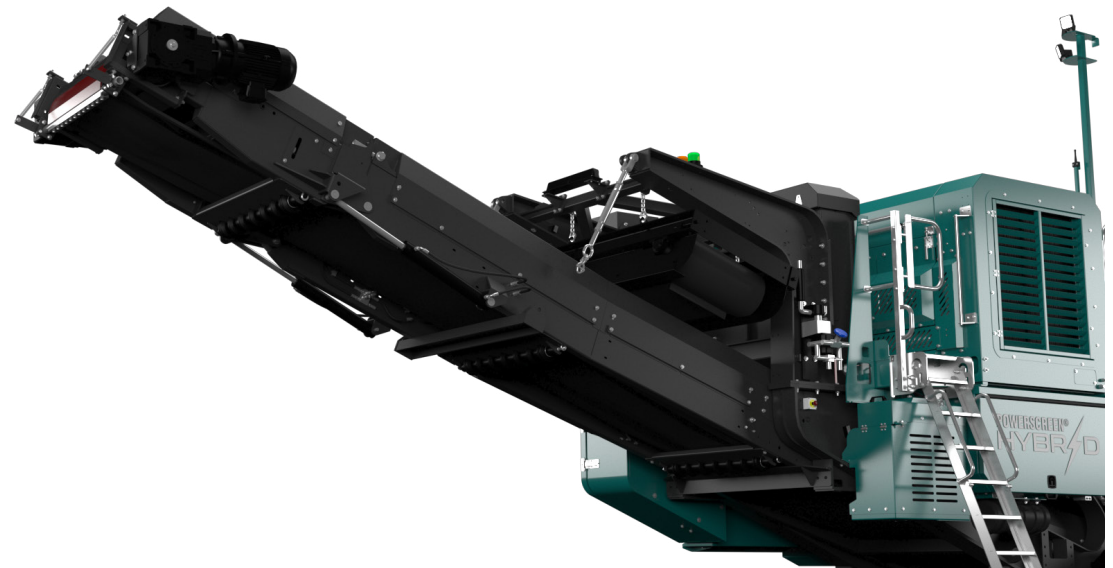
High spec scraper at head drum.

Tail section rises hydraulically when tracking.

DUST SUPPRESSION SYSTEM

Sprays bars with atomiser nozzles mounted over crusher mouth, product conveyor feed & discharge points. Piped to an inlet manifold for client's pressured water supply.

Type:	Clean water multi atomising nozzles
Inlet:	Single filtered inlet point on chassis
Pressure:	2.8 bar (42 psi)
Frost protection:	Via system drain valves
Pump:	Optional extra





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POWER UNIT & HYDRAULICS

Tier 2 / Stage II Equivalent:	Scania DC09	Stage V:	Scania DC09
Engine Power:	257kW (350hp)	Engine Power:	257kW (350hp)
Engine Speed:	1500rpm (1800rpm USA)	Engine Speed:	1500rpm (1800rpm USA)
Stage IIIA (Tier 3) Constant Speed:	Scania DC09	Hydraulic Tank Capacity:	390L (103 US GAL)
Engine Power:	273kW (365hp)	Fuel Tank Capacity:	430L (114 US GAL)
Engine Speed:	1500rpm	Urea Tank Capacity:	60L (16 US GAL)
Tier 4F / Stage IV:	Scania DC09		
Engine Power:	257kW (350hp)		
Engine Speed:	1500rpm (1800rpm USA)		





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TRACKS

Type:	Heavy duty tracks
Sprocket centres:	3.78mm (12'5")
Track width:	500 mm (1' 8")
Gradeability:	25° maximum
High Speed:	1.1kph (0.68mph)
Drive:	Hydraulic motors
Tensioning:	Hydraulic adjuster, grease tensioned





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PLANT CONTROLS & OTHER

CHUTES

Heavy duty inlet chute with bolt-up construction and liner plates.

Bypass chute with selectable discharge flop gate, to either the bypass conveyor or product conveyor.

PLATFORMS

Catwalk access on both sides of the machine with access to both sides of the powerunit.

Compact folding for transport.

PLANT CONTROLS

Advanced CANBUS compliant system large display screen (IP65 Rated). Four simple operating modes with menu driven graphic user interface:

- Track mode: for moving machine.
 - Automatic mode: for automatically starting the machine in pre-determined sequence.
 - Set up mode: for folding / setting up machine
 - Configuration mode: for testing / setting individual components.
- Choice of pre-set parameters to suit crushing applications:
- Hard rock
 - Soft rock
 - Demolition and Recycling

User friendly incremental selection of feeder and crusher speed enables the operator to achieve the optimal throughput.

Detachable umbilical cord for tracking.

Optional radio remote control.

Integrated machine and engine control panel.

Lockable compartment.

Auto regulating feeder selectable for improved throughput control.

TOOLBOX

Mounted lockable toolbox.

Tool kit, flogging spanners, grease gun & manuals included.

ELECTRICAL SPECIFICATION

Main conveyor: 2 x 7.5kW motors

Magnet: 1.5kW motor

Bypass conveyor: 4kW motor

Main hydraulic pump: 55kW motor (tracking, pre-screen. feeder, folding).

Crusher motor: 110kW controlled via VSD (Speed control, ability to run in reverse & unblock feature).

ALTERNATOR

330kVA / 264kW with standard auxiliary drive capable of driving an additional 100kVA.

ELECTRICAL

Emergency stops.

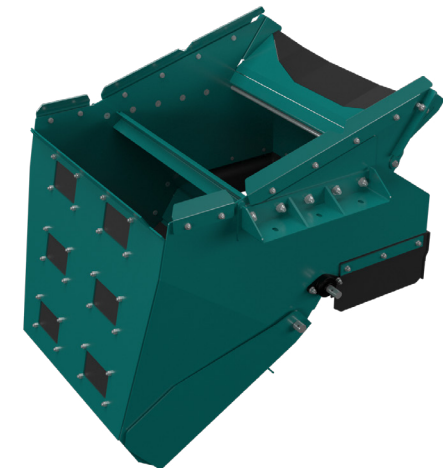
Hand held track control set with connection lead.

OTHER

Safety guards in compliance with machinery directive.

Seperate central operators panel.

Piped for dust suppression complete with spray bars.





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↓ OPTIONS 1

PAN FEEDER & PRE-SCREEN

Type: Independant pre-screen

Pan Speed: Variable: 450 – 850rpm

Comes with extended bypass conveyor
75mm (3'') cassette spacing – other options available
38mm (1.5'') mesh – other options available

BYPASS CONVEYOR

Belt width: 650mm (26'')

Discharge height: 2.1m (7')

Stockpile volume: 13.8m³ (18 cu.yd.)

Drive: Direct drive hydraulic motor

Working Angle: 22°

Hydraulically folds for transport.

EXTENDED BYPASS CONVEYOR

Belt width: 650mm (26'')

Discharge height: 2.9m (9' 6'')

Stockpile volume: 36.3m³ (47.5 cu. yd.)

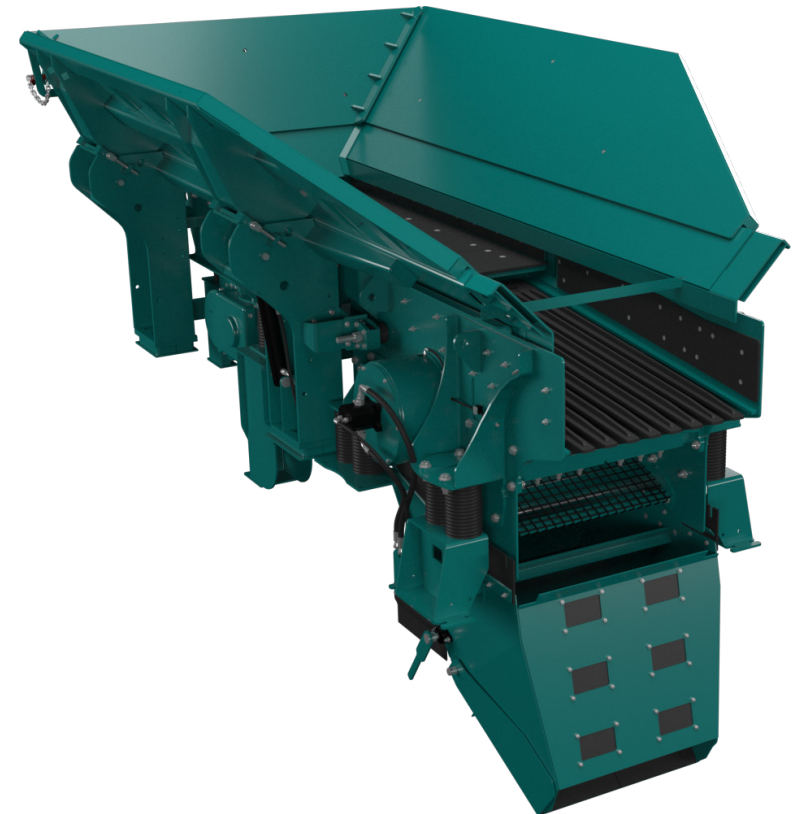
RADIO REMOTE CONTROL

Full function radio remote control.
Machine can be switched from crushing mode into track mode, moved and then switched back into operating mode from remote control unit.
Feeder stop / start.

MAGNET

Options: Sngle pole (S.P)
Twin pole (T.P)

Belt width: 750mm (2' 6'')
Centres: 1700mm (5' 7'')





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↓ OPTIONS 2

CONTROL PANEL POSITIVE PRESSURISATION

An additional unit designed to reduce dust particles within the control panel. A continuous flow of clean air is passed through the cabinet whilst the unit simultaneously filters out any particulate laden air.

BELT WEIGHER

Type: Roller scale & display unit
Accuracy: $\pm 1.0 \pm 0.5\%$
Display: Separate read out near control panel

HOT/COLD CLIMATE OILS

Cold climate oils - (recommended for ambient temperatures between -20 to $+30^{\circ}\text{C}$) - Hydraulic & lubrication oils only. Other component modifications may be required for low temperature operations. Please contact the Powerscreen sales & applications department with any queries

Hot climate oils - (recommended for ambient temperatures between $+15$ to $+50^{\circ}\text{C}$)

OPTIONAL EXTRAS

- Deflector plate
- Jaw liner options
- Toggle option: 570mm (22 $\frac{1}{2}$ "') for increased CSS
- Toggle option: 610mm (24"') for min recommended CSS
- Extended hopper flares
- Optional grizzly spacing
- Independent pre-screen
- Belt weigher
- Product conveyor raise / lower
- Dust cover on product conveyor
- Ripstop belt on product conveyor
- Extended product conveyor
- Bypass conveyor
- Extended bypass conveyor
- Magnet options
- Hot & cold climate oils
- Electrically driven water pump
- Radio remote system
- Powerscreen Pulse





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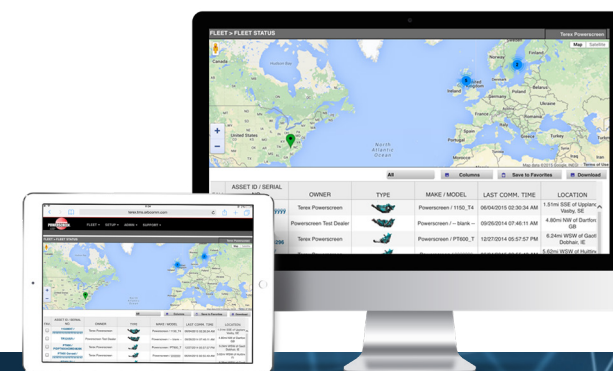


↓ POWERSCREEN PULSE

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**



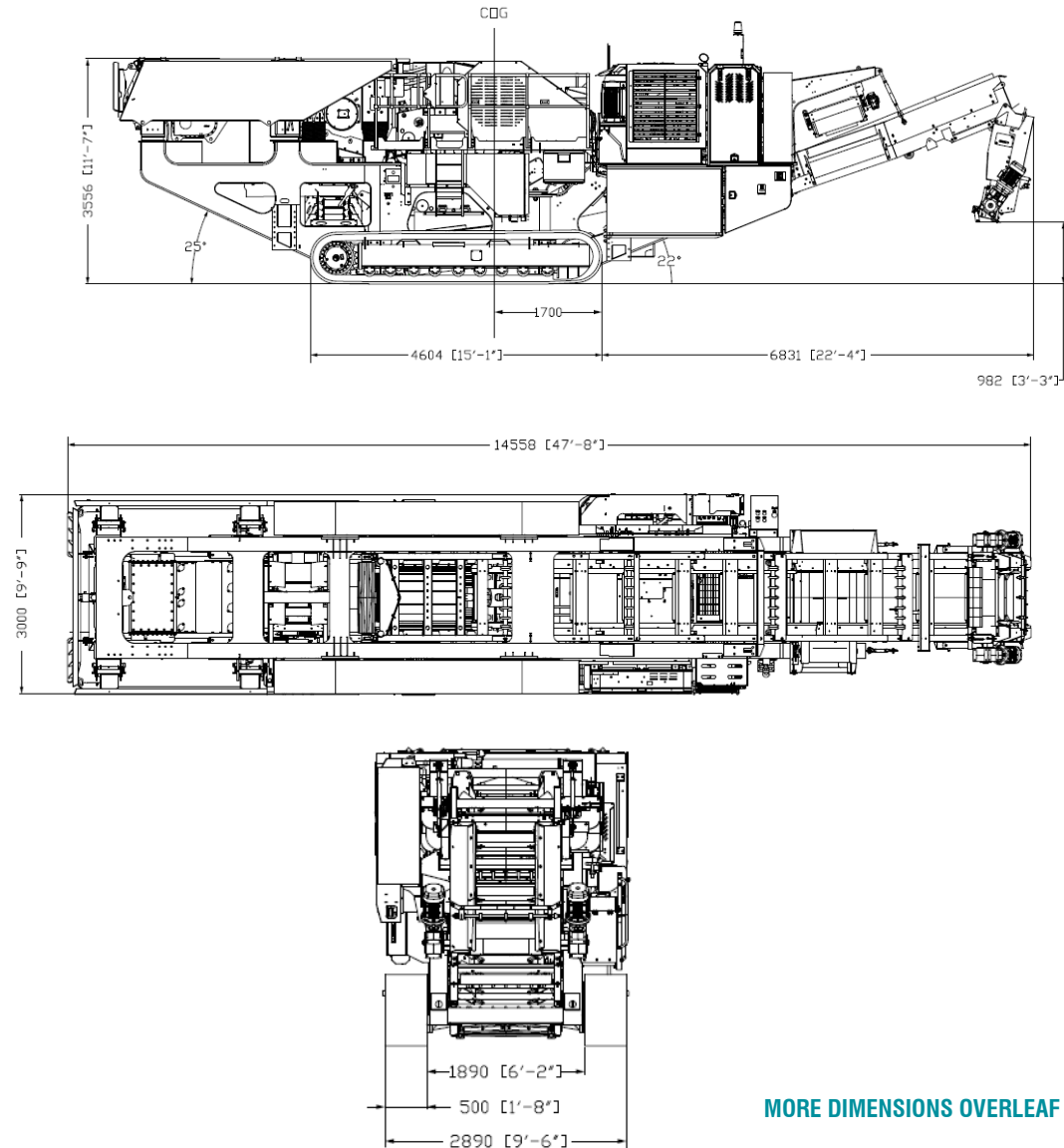


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DIMENSIONS

Figure 1: Premiertrak 420E
Transport Position



MORE DIMENSIONS OVERLEAF

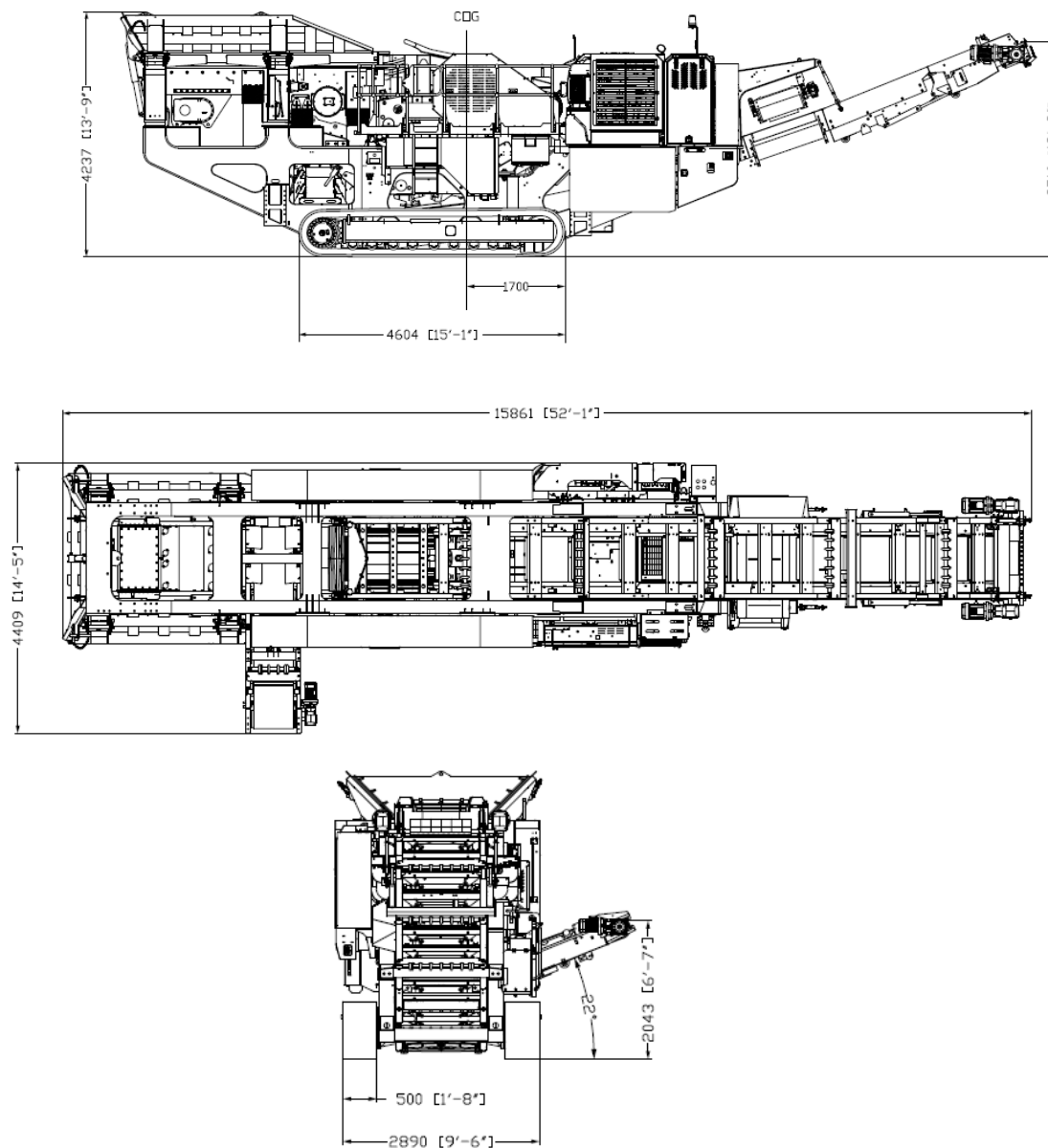


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DIMENSIONS

Figure 2: Premiertrak 420E
Working 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.

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