



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

December 16, 2016

West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Attn: Beverly McKeone, P.E.

Ref: G40-C Permit Application
Independence Excavation, Inc.
Lone Oak Compressor Station
13460 Waynesburg Pike
Cameron, WV 26033

Dear Beverly:

Please see attached an original G40-C Permit Application and two CDs for review and approval. A check for \$1,500.00 is also included to cover the fees.

If you have any questions or need additional information, please call.

Sincerely,

Scott E. Schroeder
Project Manager
Independence Excavating, Inc.



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

Independence Excavating, Inc.
Lone Oak Compressor Station
13460 Waynesburg Pike
Cameron, WV 26033

G40-C Permit Application

1. Air Permit Application
2. State Of West Virginia Certificate of Authorization – Attachment ‘A’
3. Process Description – Attachment ‘B’
4. Description of Fugitive Emissions – Attachment ‘C’
5. Process Flow Diagram – Attachment ‘D’
6. Plot Plan – Attachment ‘E’
7. Area Map – Attachment ‘F’
8. Equipment Data Sheets – Attachment ‘G’
9. Emission Calculations – Attachment ‘I’
10. Class 1 Legal Advertisement – Attachment ‘J’
11. Electronic Submittal – Attachment ‘K’
12. General Permit Registration Application Fee – Attachment ‘L’
13. Material Safety Data Sheets (MSDS) – Attachment ‘N’
14. Emissions Summary Sheets – Attachment ‘O’
15. Monitoring and Recordkeeping – Attachment ‘P’



WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF AIR QUALITY
 601 57th Street, SE
 Charleston, WV 25304
 Phone: (304) 926-0475 • www.dep.wv.gov/daq

APPLICATION FOR GENERAL PERMIT REGISTRATION
 CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE
 A STATIONARY SOURCE OF AIR POLLUTANTS

CONSTRUCTION 9 MODIFICATION 9 RELOCATION 9 CLASS I ADMINISTRATIVE UPDATE
 9 CLASS II ADMINISTRATIVE UPDATE

CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:

- | | |
|--|---|
| <input type="checkbox"/> G10-D – Coal Preparation and Handling | <input checked="" type="checkbox"/> G40-C – Nonmetallic Minerals Processing |
| <input type="checkbox"/> G20-B – Hot Mix Asphalt | <input type="checkbox"/> G50-B – Concrete Batch |
| <input type="checkbox"/> G30-D – Natural Gas Compressor Stations | <input type="checkbox"/> G60-C – Class II Emergency Generator |
| <input type="checkbox"/> G33-A – Spark Ignition Internal Combustion Engines | <input type="checkbox"/> G65-C – Class I Emergency Generator |
| <input type="checkbox"/> G35-A – Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) | <input type="checkbox"/> G70-A – Class II Oil and Natural Gas Production Facility |

SECTION I. GENERAL INFORMATION

1. Name of applicant (as registered with the WV Secretary of State's Office): Independence Excavating, Inc.		2. Federal Employer ID No. (FEIN): 340938274	
3. Applicant's mailing address: 5720 Schaaf Road Independence, Ohio 44131		4. Applicant's physical address: 5720 Schaaf Road Independence, Ohio 44131	
5. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
6. WV BUSINESS REGISTRATION. Is the applicant a resident of the State of West Virginia? 9 YES 9 NO			
<input type="checkbox"/> IF YES, provide a copy of the Certificate of Incorporation/ Organization / Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A. <input checked="" type="checkbox"/> IF NO, provide a copy of the Certificate of Authority / Authority of LLC / Registration (one page) including any name change amendments or other Business Certificate as Attachment A.			

SECTION II. FACILITY INFORMATION

7. Type of plant or facility (stationary source) to be constructed, modified, relocated or administratively updated (e.g., coal preparation plant, primary crusher, etc.): Portable rock crushing plant.	8a. Standard Industrial Classification Classification (SIC) code: 1429	AND	8b. North American Industry System (NAICS) code: 212319
9. DAQ Plant ID No. (for existing facilities only): N/A	10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): N/A		

14B. — For **Modifications or Administrative Updates** at an existing facility, please provide directions to the present location of the facility from the nearest state road;

— For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a **MAP as Attachment F.**

15B. Nearest city or town:	16B. County:	17B. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
18B. Briefly describe the proposed new operation or change (s) to the facility:		19B. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____

C: 2ND ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits):

11C. Name of 2 nd alternate operating site: N/A _____	12C. Address of 2 nd alternate operating site: Mailing: _____ Physical: _____
---	---

13C. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? 9 YES 9 NO

— IF YES, please explain: _____

— IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.

14C. — For **Modifications or Administrative Updates** at an existing facility, please provide directions to the present location of the facility from the nearest state road;

— For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a **MAP as Attachment F.**

15C. Nearest city or town:	16C. County:	17C. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
18C. Briefly describe the proposed new operation or change (s) to the facility:		19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____

<p>20. Provide the date of anticipated installation or change:</p> <p style="text-align: center;">_ 2 _ / _ 1 _ / _ 17 _</p> <p><input type="checkbox"/> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: :</p> <p style="text-align: center;">_ / _ / _</p>	<p>21. Date of anticipated Start-up if registration is granted:</p> <p style="text-align: center;">_ 2 _ / _ 1 _ / _ 17 _</p>
<p>22. Provide maximum projected Operating Schedule of activity/activities outlined in this application if other than 8760 hours/year. (Note: anything other than 24/7/52 may result in a restriction to the facility's operation).</p> <p>Hours per day ___10___ Days per week ___5___ Weeks per year ___52___ Percentage of operation ___90___</p>	

SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

<p>23. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).</p>
<p>24. Include a Table of Contents as the first page of your application package.</p>
<p>All of the required forms and additional information can be found under the Permitting Section (General Permits) of DAQ's website, or requested by phone.</p>
<p>25. Please check all attachments included with this permit application. Please refer to the appropriate reference document for an explanation of the attachments listed below.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ATTACHMENT A : CURRENT BUSINESS CERTIFICATE <input checked="" type="checkbox"/> ATTACHMENT B: PROCESS DESCRIPTION <input checked="" type="checkbox"/> ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS <input checked="" type="checkbox"/> ATTACHMENT D: PROCESS FLOW DIAGRAM <input checked="" type="checkbox"/> ATTACHMENT E: PLOT PLAN <input checked="" type="checkbox"/> ATTACHMENT F: AREA MAP <input checked="" type="checkbox"/> ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM <input type="checkbox"/> ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS <input checked="" type="checkbox"/> ATTACHMENT I: EMISSIONS CALCULATIONS <input checked="" type="checkbox"/> ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT <input checked="" type="checkbox"/> ATTACHMENT K: ELECTRONIC SUBMITTAL <input checked="" type="checkbox"/> ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE <input type="checkbox"/> ATTACHMENT M: SITING CRITERIA WAIVER <input checked="" type="checkbox"/> ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS) <input checked="" type="checkbox"/> ATTACHMENT O: EMISSIONS SUMMARY SHEETS <input type="checkbox"/> OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.) <p>Please mail an original and two copies of the complete General Permit Registration Application with the signature(s) to the DAQ Permitting Section, at the address shown on the front page of this application. Please DO NOT fax permit applications. For questions regarding applications or West Virginia Air Pollution Rules and Regulations, please refer to the website shown on the front page of the application or call the phone number also provided on the front page of the application.</p>

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation

FOR A PARTNERSHIP

I certify that I am a General Partner

FOR A LIMITED LIABILITY COMPANY

I certify that I am a General Partner or General Manager

FOR AN ASSOCIATION

I certify that I am the President or a member of the Board of Directors

FOR A JOINT VENTURE

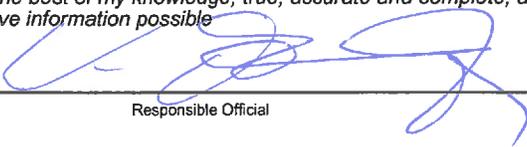
I certify that I am the President, General Partner or General Manager

FOR A SOLE PROPRIETORSHIP

I certify that I am the Owner and Proprietor

I hereby certify that (please print or type) Victor DiGeronimo, Jr. is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Office of Air Quality immediately, and/or,

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible

Signature  12/16/16
(please use blue ink) Responsible Official Date

Name & Title Victor DiGeronimo, Jr.
(please print or type)

Signature _____
(please use blue ink) Authorized Representative (if applicable) Date

Applicant's Name _____

Phone & Fax 216-524-1700 216-524-1701
Phone Fax

Email vdigeronimo@indexc.com sschroeder@indrec.com



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'A'

State of WV Certificate of Authorization

Attachment 'A'

State of West Virginia



Certificate

*I, Natalie E. Tennant, Secretary of State of the
State of West Virginia, hereby certify that*

INDEPENDENCE EXCAVATING, INC.

a corporation formed under the laws of Ohio filed an application to be registered as a foreign corporation authorizing it to transact business in West Virginia. The application was found to conform to law and a "Certificate of Authority" was issued by the West Virginia Secretary of State on May 08, 1995.

I further certify that the corporation has not been revoked by the State of West Virginia nor has a Certificate of Withdrawal been issued to the corporation by the West Virginia Secretary of State.

Accordingly, I hereby issue this

CERTIFICATE OF AUTHORIZATION

Validation ID:5WV7F_MXH9W



*Given under my hand and the
Great Seal of the State of
West Virginia on this day of
November 28, 2016*

Natalie E. Tennant

Secretary of State



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'B'

Process Description



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'B'

Process Description

Independence Excavating, Inc. is proposing the construction and operation of a portable rock crushing plant that will produce 5" minus and 2" minus materials. The proposed crusher (2) is a Powerscreen XH500 Horizontal Impact Crusher, manufactured in 2014. The maximum processing rate of the crusher (2) shall be 250 tons per hour. The proposed crusher (4) is a Powerscreen Premiertrak 400 Jaw Crusher, Manufactured in 2016. The maximum processing rate of the crusher (4) shall be 250 tons per hour.

The proposed facility shall consist of that equipment described in table 1- Source List. Water spray systems have been proposed for the purpose of controlling particulate emissions throughout the process.



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

Table 1 – Source List

Source ID	Description	Pollution ID	Control Device	Emission Point
01s	Material Loader	WS	Water Spray	Fugitive
CR-2	Track Impact Crusher	WS	Water Spray	Fugitive
S-1	Track Screen Plant	WS	Water Spray	Fugitive
CR-1	Track Jaw Crusher	WS	Water Spray	Fugitive
BC-1	Track Stacker #1	WS	Water Spray	Fugitive
BC-2	Track Stacker #2	WS	Water Spray	Fugitive
BC-3	Track Stacker #3	WS	Water Spray	Fugitive
02s	Haul roads	WS	Water Spray	Fugitive
OS	Material Stockpiles	WS	Water Spray	Fugitive

Material is loaded into the crusher hoppers of (CR-1) and (CR-2) by a loader (01s). The material is then vibrated into the crushers where the material is crushed into smaller pieces. The material drops through the bottom of the crushers where the material is transferred on to the screen (S-1) from the impact crusher. After running through the screen plant, the material



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

either goes on stacker conveyor (BC-1) to the 2” minus material stockpile (OS-1) or on stacker conveyor (BC-2) to the 5” minus material stockpile (OS-2). For the material that is crushed by (CR-1), it will go on to the track stacker (BC-3) to the 5” minus material stockpile (OS-2).



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'C'

Description of Fugitive Emissions



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'C'

Description of Fugitive Emissions

Fugitive emissions will be generated from the crushing operations, but water spray bars will be located on the plants to control these emissions. The crushers will be placed against the rock cut so no material will be hauled to the crusher. The haul road from the crusher stock pile will be less than 200' to the compressor pad fill area. The finished stock piles will be kept to a minimum because the material will be hauled to the pad daily and compacted into place.



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

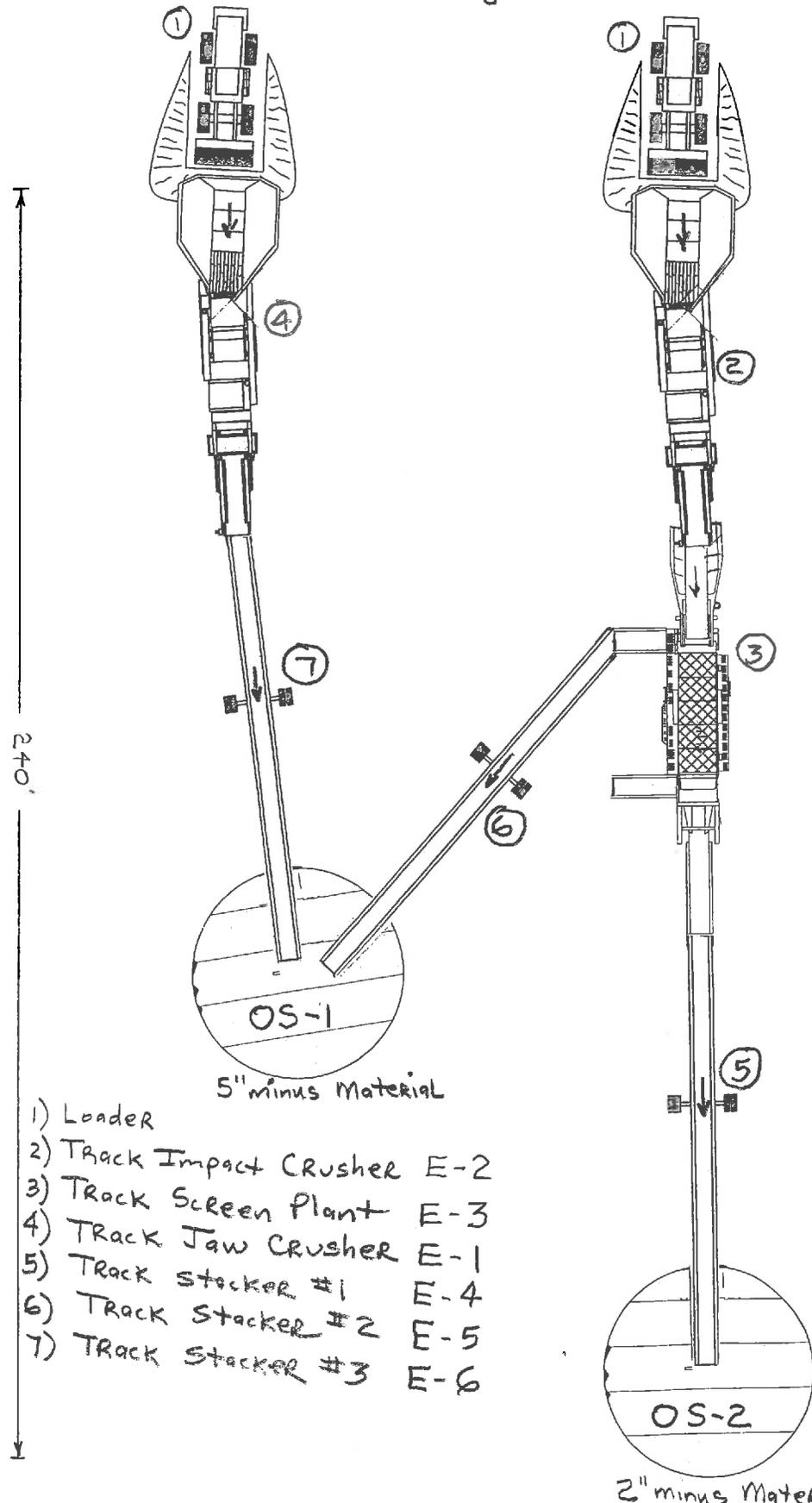
Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'D'

Process Flow Diagram

Independence Excavating, Inc.
 Cameron, WV
 Process Flow Diagram



- 1) Loader
 - 2) Track Impact Crusher E-2
 - 3) Track Screen Plant E-3
 - 4) Track Jaw Crusher E-1
 - 5) Track stacker #1 E-4
 - 6) Track stacker #2 E-5
 - 7) Track stacker #3 E-6
- CR-2
 S-1
 CR-1
 BC-1
 BC-2
 BC-3

OS-1
 5" minus Material

OS-2
 2" minus Material

Scale: 1"=30'

110'

240'



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'D'

Process Description

Independence Excavating, Inc. is proposing the construction and operation of a portable rock crushing plant that will produce 5" minus and 2" minus materials. The proposed crusher (2) is a Powerscreen XH500 Horizontal Impact Crusher, manufactured in 2014. The maximum processing rate of the crusher (2) shall be 250 tons per hour. The proposed crusher (4) is a Powerscreen Premiertrak 400 Jaw Crusher, Manufactured in 2016. The maximum processing rate of the crusher (4) shall be 250 tons per hour.

The proposed facility shall consist of that equipment described in table 1- Source List. Water spray systems have been proposed for the purpose of controlling particulate emissions throughout the process.



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

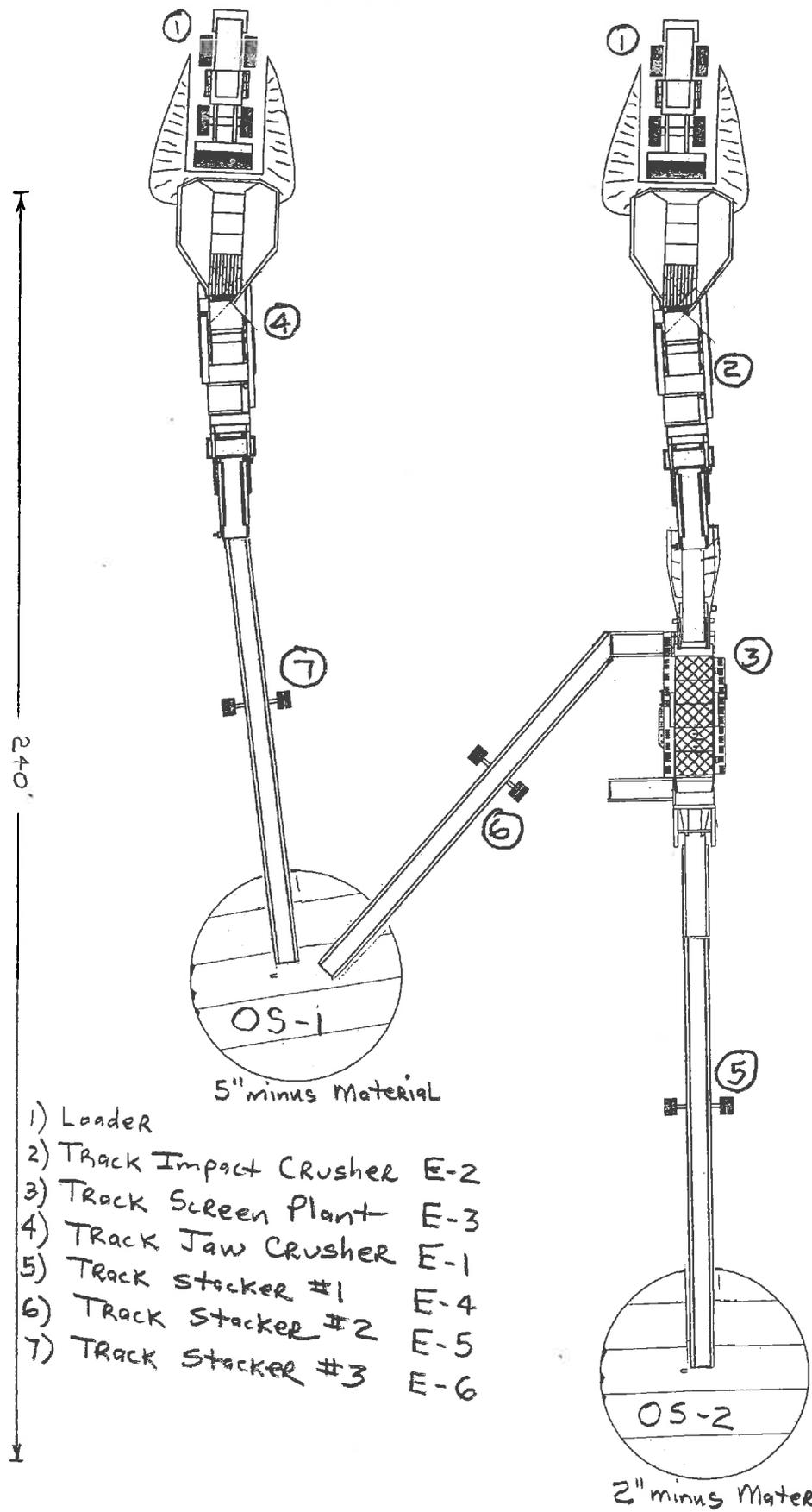
Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'E'

Plot Plan

Independence Excavating, Inc.
 Cameron, WV
 Plot Plan Detail



- 1) Loader
 - 2) Track Impact Crusher E-2
 - 3) Track Screen Plant E-3
 - 4) Track Jaw Crusher E-1
 - 5) Track Stacker #1 E-4
 - 6) Track Stacker #2 E-5
 - 7) Track Stacker #3 E-6
- CR-2
 S-1
 CR-1
 BC-1
 BC-2
 BC-3

240'

110'

Scale: 1"=30'



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

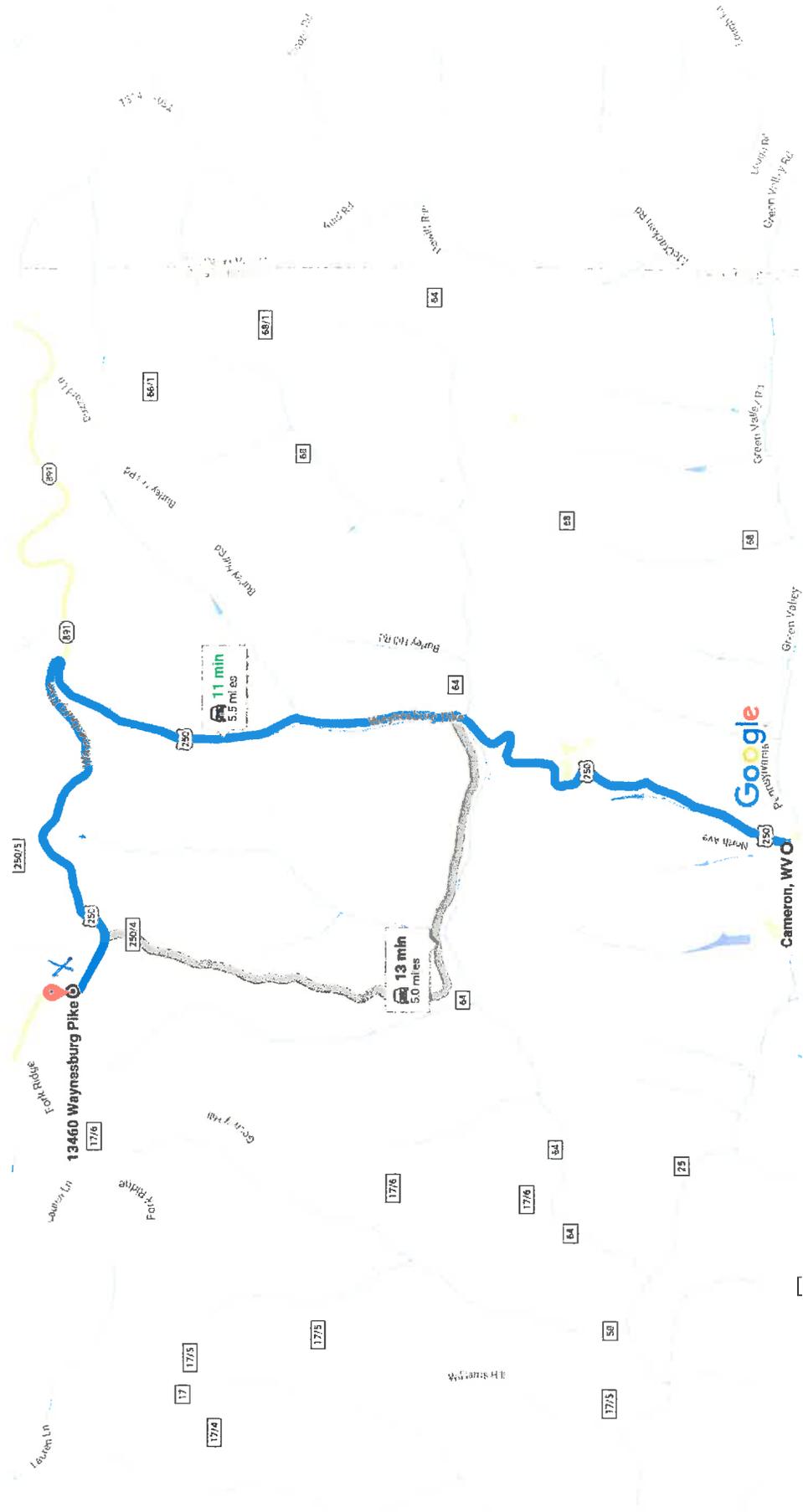
www.indexc.com

ATTACHMENT 'F'

Area Maps

Google Maps Cameron, WV to 13460 Waynesburg Pike, Cameron, WV 26033

Drive 5.5 miles, 11 min



Map data ©2016 Google 2000 ft

Attachment 'F'

Google Maps Cameron, WV to 13460 Waynesburg Pike, Cameron, WV 26033

Drive 5.5 miles, 11 min

Cameron, WV

- ↑ 1. Head east on Main St toward Waynesburg Pike
- ↩ 2. Turn left onto US-250 N/Waynesburg Pike
 - 📍 Destination will be on the right

148 ft

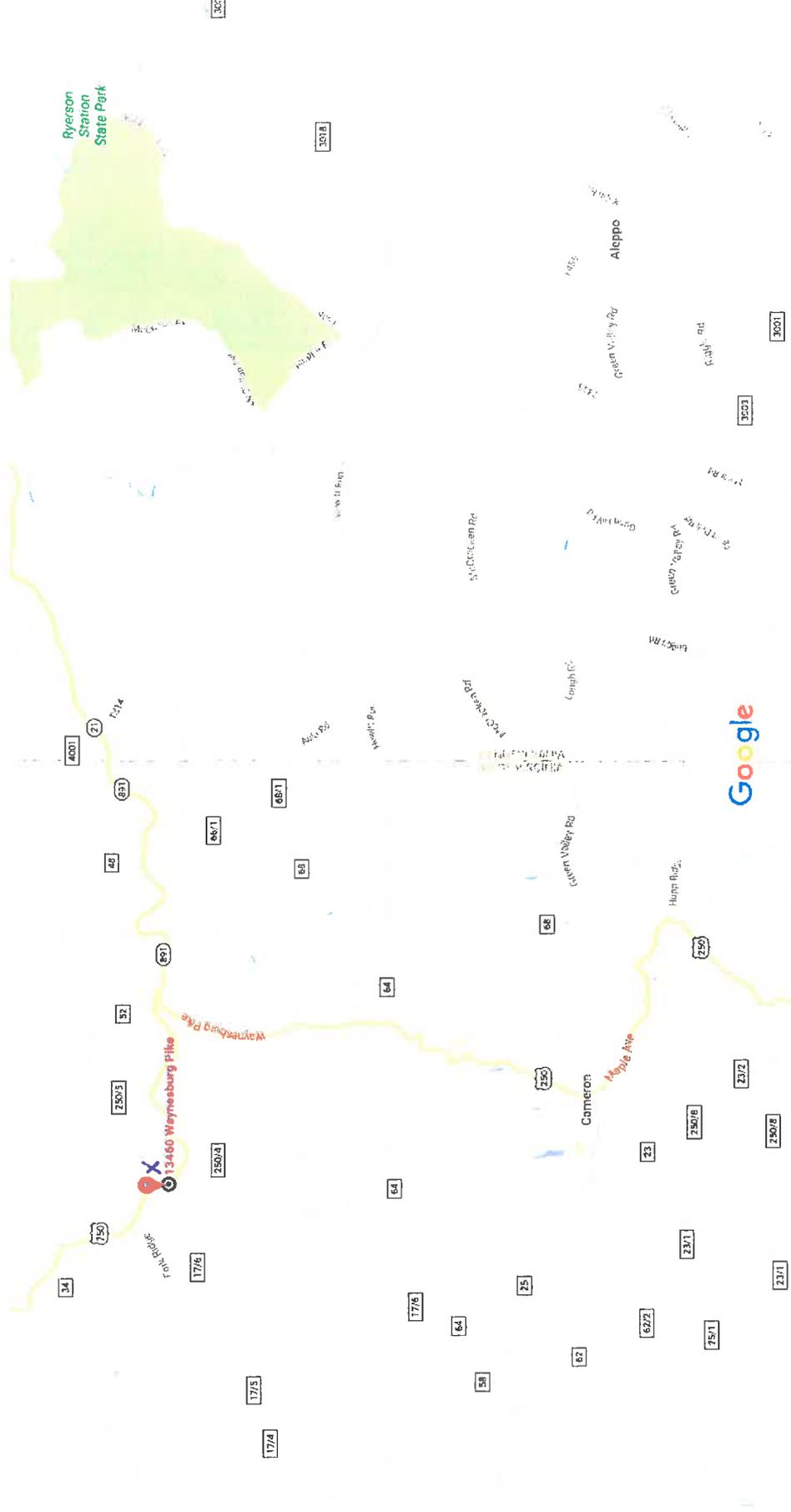
5.5mi

13460 Waynesburg Pike

Cameron, WV 26033

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Attachment 'F'



Attachment 'F'

Google Maps 13460 Waynesburg Pike



Attachment 'F'



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

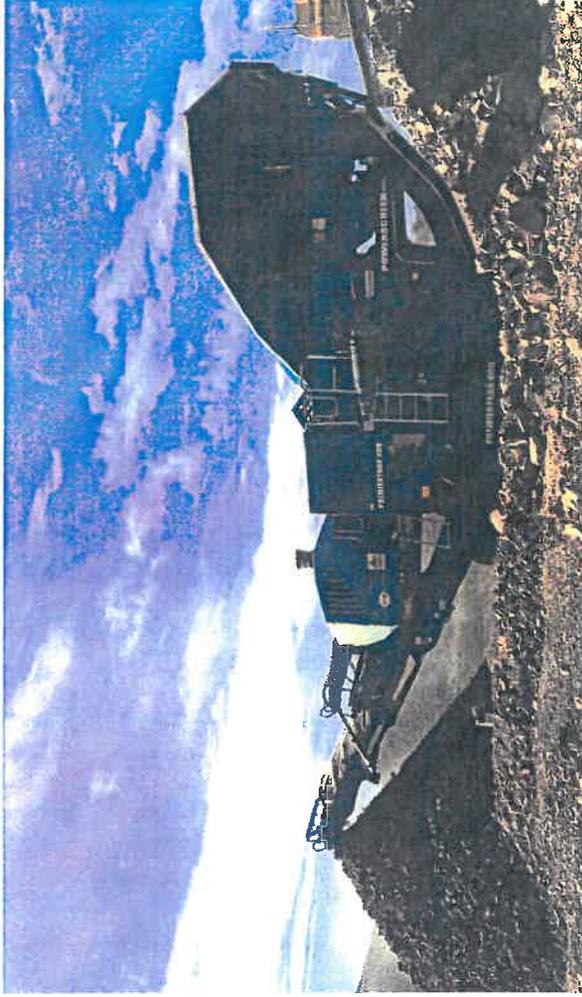
www.indexc.com

ATTACHMENT 'G'

Equipment Data Sheets

Powerscreen® Premiertrak 400 & R400 Jaw Crusher

SPECIFICATION - Rev 7. 01/01/2016



POWERSCREEN
DELIVERING THE BEST
OF POWER ZINK

50



Powerscreen® Premiertrak 400 & R400

Specification Premiertrak 400

Total weight	Tier 3: 45,260kg (99,781lbs) including magnet & side conveyor Tier 4F: 46,000kg (101,412lbs) including side conveyor & magnet	
Transport	Length	15.37m (49' 11")
	Width	2.8m (9' 2"), 4.3m (14' 1") including side conveyor
	Height	3.4m (11' 2")
Working	Length	14.9m (48' 9")
	Width	4.4m (14' 2") with side conveyor
	Height	4.1m (13' 6")
Crusher type:	Single toggle jaw, feed opening 1100mm x 700mm (44"x28")	
Power unit:	Caterpillar C9 ACERT 194kW (260hp)/Scania DC9 080A 202kW (275hp)	
Paint colour:	Blue RAL 5021, Grey RAL 7024, Black RAL 9005	

Features & Benefits

The Powerscreen® Premiertrak 400 range of high performance primary jaw crushing plants are designed for medium scale operators in quarrying, demolition, recycling & mining applications.

The range includes the Premiertrak 400 with hydraulic adjust & the Premiertrak R400 with hydraulic release. User benefits include track mobility for a quick set-up time, hydraulic crusher setting adjustment for total control of product size & crusher overload protection to prevent damage by un-crushable objects.

- Output potential up to 400tph (440 US tph)
- Hydraulic folding feed hopper with wedge fixing system
- Heavy duty wear resistant feed hopper
- Stepped self-cleaning grizzly feeder with under feeder screen option
- Deep fines chute to reduce material blockages
- Aggressive crushing action with high swing jaw encouraging material entry into crushing chamber
- Hydraulic crusher setting adjustment
- Improved manganese liner retention, protects jaw supports on both swing & fixed jaws
- Excellent under crusher access for removal of wire with hydraulic raise lower product conveyor
- Angle adjustable product conveyor, 3.9m discharge height, lowers for transport
- Low fuel consumption due to highly efficient direct drive system
- Easy access power unit canopy
- PLC control system with auto start facility
- Remote control via umbilical
- Dust suppression system

Aggregate

- Sand & gravel
- Blasted rock
- River rock

Recycling

- C&D waste
- Overburden
- Foundry waste

Mining

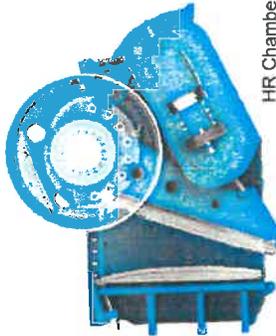
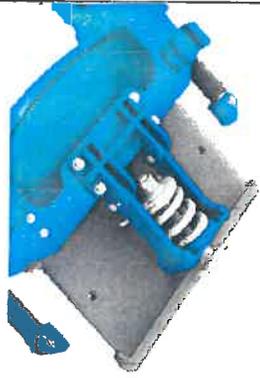
- Processed ores
- Processed minerals

POWERSCREEN
CELEBRATING 50 YEARS
OF POWER 2016



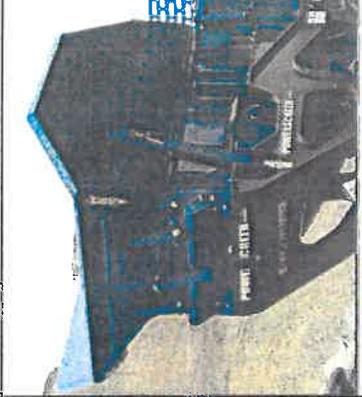
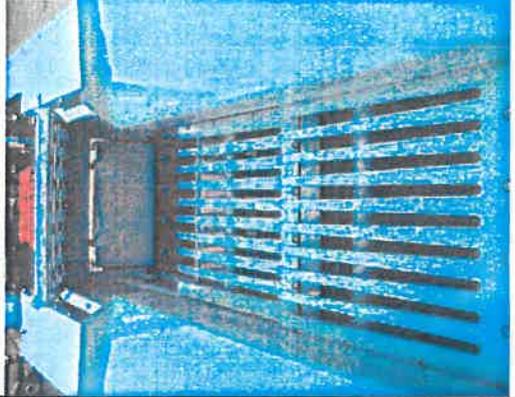
All specifications subject to change without prior notice

Powerscreen® Premiertrak 400 & R400

<p>Jaw Crusher</p> <p>Crusher type: Single toggle Jaw with hydraulic setting adjustment</p> <p>Feed opening: 1100mm x 700mm (44" x 28")</p> <p>Bearings: Self aligning spherical roller</p> <p>Lubrication: Grease</p> <p>Drive: V belts with screw tension adjustment on engine</p> <p>Pre-set: 75mm (3") closed side setting (CSS)</p> <p>Minimum setting: 50mm (2") CSS recycling 75 mm (3") CSS quarry</p> <p>All setting measured from root to tip & subject to suitability of feed material. This plant has been designed for both quarry & recycling applications where appropriate</p> <p>For maximum material strength of 390kN 10% Fines, 240MPa Compressive Strength as per other M-Series Jaws</p> <p>If in doubt please contact your dealer or Powerscreen</p> <p>Maximum setting: 150mm (6") CSS standard jaws</p> <p>Hydraulic adjustment: Hydraulically adjusted C.S.S set by placing equal small shims into each side of the crusher</p>	 <p>HA Chamber</p>  <p>HR Chamber</p>  <p>HR Chamber</p> 
<p>Chamber Features</p> <ul style="list-style-type: none"> ▪ Quick & easy setting adjustment ▪ Drawback rod adjustments not required during setting changes ▪ Jawstock supported on both sides, even stress distribution ▪ Strong frame construction, no welding in critical areas ▪ Cylinders mounted in line with side plates ▪ Cartridge type bearings ▪ Overlap jaw protects tip of jawstock / pitman ▪ One piece fixed jaw support ▪ Proven manganese liner retention 	

Powerscreen® Premiertrak 400 & R400

SPECIFICATION Rev 7. 01/01/2016

<p>Hopper</p> <p>Hopper type: Boltless hydraulic folding hopper, over centre struts & wedge lock</p> <p>Hopper length: 4.9m (16' 1")</p> <p>Hopper width: 2.4m (7' 9")</p> <p>Hopper capacity: Standard: 10m³ (13 cu. yd.) Optional: 11.03m³ (14.4 cu. yd.)</p> <p>Hopper body: 15mm thick wear resistant steel plate, mild steel reinforcing ribs</p> <p>Control: Variable speed control through a proportional flow control valve</p>	
<p>Vibrating Grizzly Feeder</p> <p>Type: Spring mounted vibrating pan & grizzly feeder</p> <p>Vibrating Unit: Twin heavy-duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end</p> <p>Drive: Flange mounted hydraulic motor</p> <p>Feeder length: 4.08m (13' 5")</p> <p>Feeder width: 1.06m (3' 6")</p> <p>Grizzly: 2 replaceable 1.6m long stepped cartridge type grizzlies 50mm nominal aperture, self cleaning</p> <p>Grizzly length: 2.12m (7')</p> <p>Under-screen: Rubber blanking mat fitted as standard. Can be substituted for optional wire meshes, use in conjunction with optional side conveyor.</p>	
<p>Plant Chute-work</p> <p>Crusher feed chute: One piece fabrication with 12mm thick mild steel plate sides with 20mm thick bottom plate</p> <p>Grizzly fines/ bypass chute: 2 Way dirt chute provided to discharge to product conveyor or optional side conveyor when fitted. Fabricated from 8mm mild steel, complete with hand operated flap door to direct grizzly fines to either</p>	

POWERSCREEN
CELEBRATING 50 YEARS
OF EXCELLENCE

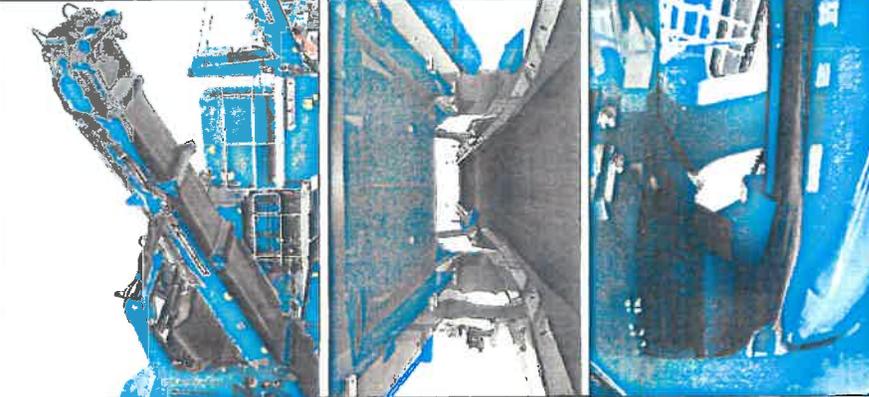


All specifications subject to change without prior notice

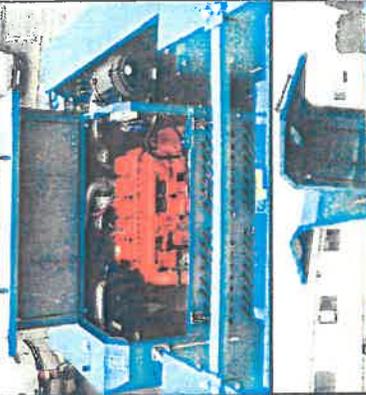
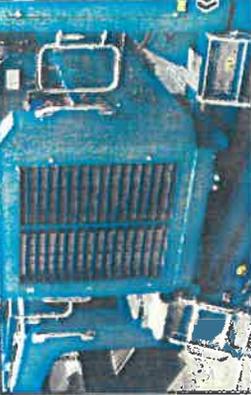
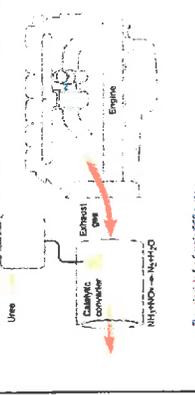


Powerscreen® Premiertrak 400 & R400

SPECIFICATION Rev 7. 01/01/2016

<p>Product Conveyor Conveyor type: Troughed belt conveyor</p> <p>Design: Hydraulic raise & lower facility to aid rebar removal & transportation. Can be raised or lowered whilst crushing. Fully removable modular unit to aid access & maintenance</p> <p>Belt type: EP630/4 with 6mm top & 2mm bottom cover, vulcanised</p> <p>Belt width: 1000mm (39")</p> <p>Discharge height: 3.9m (12' 9")</p> <p>Stockpile volume: 89m³ (116 cu. yd.)</p> <p>Max. clearance: 472mm (jaw to belt - lowered) 747mm (engine to belt - lowered)</p> <p>Drive: Direct drive hydraulic motor</p> <p>Tunnel: Conveyor fitted with tunnel & side covers to minimise rebar snagging</p> <p>Feedboot: Mild steel plate with abrasion resistant steel liners at feed point</p> <p>Belt adjustment: Screw adjusters at head drum</p> <p>Belt covers: Canvas type removable dust covers fitted to head section beyond magnet</p> <p>Belt scraper: SCS high performance scraper as standard</p> <p>Lubrication: Remote head drum grease points located under shedder plate</p> <p>Skirting: Wear resistant rubber skirts along</p>	
<p>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</p> <p>Type: Clean water multi atomising nozzles</p> <p>Inlet: Single filtered inlet point on chassis</p> <p>Pressure: 2.8 bar (42 psi)</p> <p>Frost protection: Via system drain valves</p> <p>Pump: Optional extra</p>	

Powerscreen® Premiertrak 400 & R400

<p>Power unit</p> <p>EU Stage IIIA / US Tier 3: Caterpillar C9 ACERT, 6 cylinder, direct injection 194kW (260hp) at 1600rpm *</p> <p>Operating conditions: Ambient temp. +30°C & -5°C (86°F & 23°F) altitudes up to 1000m (3281ft) above sea level</p> <p>Operating rpm range: 1600rpm</p> <p>Plant drive: High quality pumps driven via belts</p> <p>Fuel tank capacity: 410 L (108 US G) - sufficient for a 12 hour shift</p> <p>Hydraulic tank capacity: 340 L (116 US G)</p>	
<p>Tier 4E / Stage IV: Scania DC9 84A 5 cylinder, turbo, 202kW (275hp) at 1600rpm</p> <p>Operating conditions: Ambient temperature +30°C & -5°C (86°F & 23°F) at altitudes up to 1000m (3281ft) above sea level #</p> <p>Operating rpm range: 1600rpm</p> <p>Emission control technique: Selective Catalytic Reduction (SCR)</p> <p>Reductant tank size: 60 L (16 US G)</p> <p>Plant drive: High quality pumps driven via engine PTO's</p> <p>Fuel tank capacity: 450 L (119 US G) - sufficient for a 12 hour shift</p> <p>Hydraulic tank capacity: 445 L (117 US G)</p>	
<p>Clutch type: Highly efficient, self-adjusting HPTO 12 dry plate clutch with electro hydraulic operation</p> <p>Crusher drive: Direct drive via wedge belts, Clutch pulley diameter 212mm (8.3") Crusher pulley diameter 1260mm (4' 2")</p> <p>Drive tensioning: Manual screw tensioners located beside power unit</p> <p># For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected</p>	
<p>Scania Stage IV / Tier 4 Final Technology</p> <p>Scania industrial engines meet the requirements of Stage IV and Tier 4 Final without the need for a particulate filter. With only EGR and SCR technology, the installation will be unaffected. Scania-developed systems for engine management and emission control ensure an attractive blend of performance and operating economy. The function of the SCR system is based on the injection of a urea solution (AdBlue or DEF, Diesel Exhaust Fluid) into the after-treatment system. With EGR, a small amount of exhaust gases is returned to the intake of the engine, diluting the intake air and reducing the oxygen concentration. This will reduce the combustion temperature and further reduce emissions.</p>	 <p>The artwork for Scania SCR system</p>

Powerscreen® Premiertrak 400 & R400

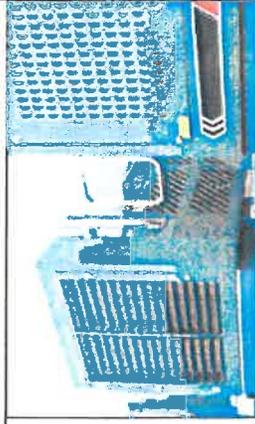
Crawler Tracks

Type: Heavy-duty tracks
 Pitch: 190mm
 Longitudinal centers: 3715mm
 Track width: 500 mm
 Climbing grade: 25' maximum
 Speed: 0.9kph (0.56mph)
 Drive: Hydraulic motors
 Tensioning: Hydraulic adjuster, grease tensioner



Guarding

Wire mesh or sheet metal guards are provided for all drives, flywheels, pulleys & couplings
 The guards provided are designed & manufactured to meet CE & ANSI standards
 Hinged access guards are provided on the top, side & both ends of the engine



Platforms

A detachable access ladder is provided to gain access to each side of the power unit (Tier 4 variant only)
 A maintenance platform is provided on one side of the feeder with double row handrails & access ladders.
 A platform is also included to gain access between the crusher & the power unit.



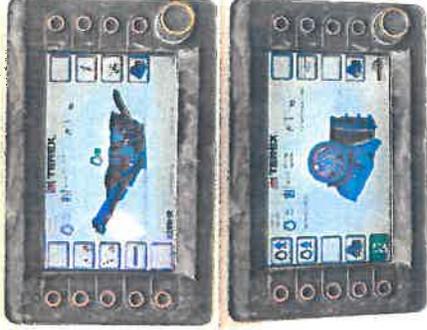
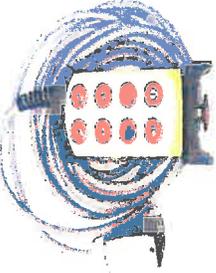
POWERSCREEN
 CONSTRUCTION EQUIPMENT
 100, HUNTERS ROAD
 BRISBANE, QLD 4000

50

All specifications subject to change without prior notice

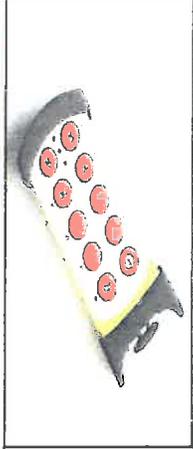


Powerscreen® Premiertrak 400 & R400

<p>Plant Controls</p> <p>Full PLC control panel</p> <p>Full system diagnostics</p> <p>Controls fitted to the plant include:</p> <p>Sequential start up</p> <ul style="list-style-type: none"> • Engine (start/stop/speed) • Crusher (start/stop) • Optional side conveyor (start/stop) • Product conveyor (start/stop & raise/lower) • Feeder (start/stop/speed) controls, located on the side of the plant 	
<p>Umbilical Control</p> <p>An umbilical control unit is also supplied as standard with the plant</p> <p>Controls tracking function & has a stop button for the plant.</p>	
<p>Chassis</p> <p>Heavy duty I-section welded construction, provides maximum strength & accessibility</p>	
<p>Optional Extras</p> <ul style="list-style-type: none"> • Extended hopper • Wire mesh for underscreen • Super tooth or multi tooth jaw plates • Deflector plate under crusher • Side conveyor • Magnet prepared 	<ul style="list-style-type: none"> • Single pole overband magnetic separator • Twin pole overband magnetic separator • Belt weigher • Electric refuelling pump • Hydraulic water pump • Radio remote control • Powerscreen Pulse <p>(For pricing please refer to your local dealer)</p>

Powerscreen® Premiertrak 400 & R400

SPECIFICATION - Rev 7. 01/01/2016

<p>Side Conveyor Conveyor type: Troughed belt conveyor, folds hydraulically for transport</p> <p>Width: 600mm (23.6")</p> <p>Discharge height: 2.2m (7'2")</p> <p>Stockpile volume: 17m³ (22.2 cu. yd.)</p> <p>Drive: Direct drive hydraulic motor</p> <p>Position: Discharge on RHS of plant</p>	
<p>Magnet Options: Magnet prepared Terex CP020—100 single pole (S.P.) Terex TP020—100 twin pole (T.P.)</p> <p>Belt width: 750mm (30") Centres: 1700mm (67")</p> <p>Drive / Control: Direct drive hydraulic motor, pre-set variable speed</p> <p>Discharge: LHS via stainless shedder plate</p> <p>Weight: S.P. 1000kg (2204lbs) T.P. 1500kg (3306lbs)</p>	
<p>Radio Remote Control Complete with integrated tracking functions & plant stop button. NB - Only available in certain countries where type approval has been obtained</p> <p>Remote can also be used to:</p> <ul style="list-style-type: none"> Feeder (start/stop) 	
<p>Belt Weigher Type: Modular scale with stainless load cells, single idler speed wheel & display unit</p> <p>Accuracy: ± 1.0 + 0.5%</p> <p>Load cells: 2 temperature compensated parallelogram-style, stainless steel</p> <p>Display: Separate read out near control panel</p>	

Powerscreen® Premiertrak 400 & R400

Hot/Cold Climate Oils

Cold climate oils - (Recommended for ambient temperatures between -20 to +30°C)

Hot climate oils - (Recommended for ambient temperatures between +15 to +50°C)



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.



Powerscreen Pulse

Powerscreen Pulse is a system which allows the machine to relay performance and production data via phone networks, or by satellite when there's no cellular signal, to any device with a web browser, such as a PC, tablet or Smartphone.

POWERSCREEN® PULSE



POWERSCREEN
EQUIPMENT DIVISION
OF POWERSHOCK

50

All specifications subject to change without prior notice



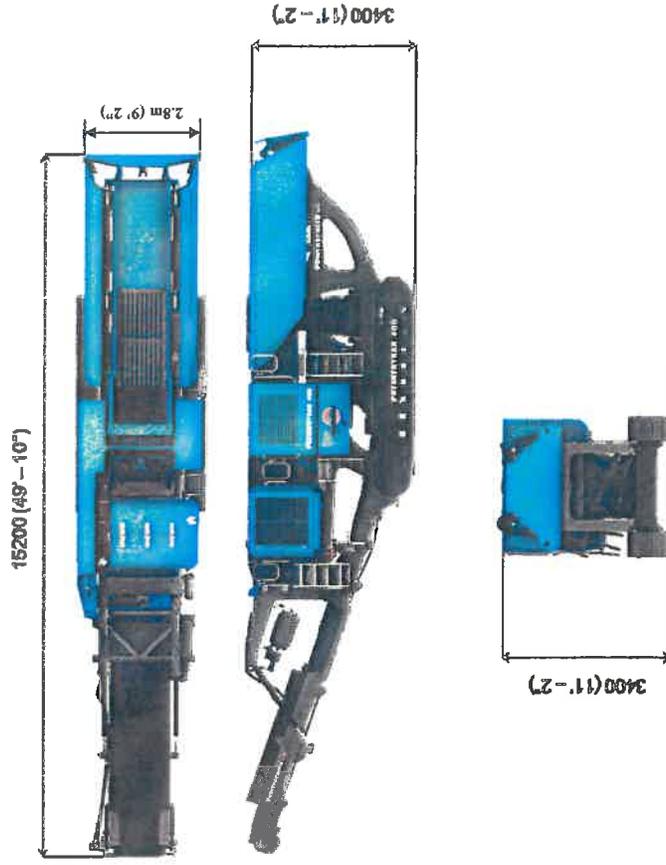
Powerscreen® Premiertrak 400 & R400

SPECIFICATION Rev 7. 01/01/2016

Approximate Plant Weight & Dimensions

Transport length:	15.2m (49' 10")
Transport width:	2.8m (9' 2")
Transport height:	3.4m (11' 2")
Total plant weight:	Tier 3: 45,260kg (99,781lbs) including magnet & side conveyor Tier 4F: 46,000kg (101,412lbs) including magnet & side conveyor

Premiertrak 400 & R400 Transport Dimensions



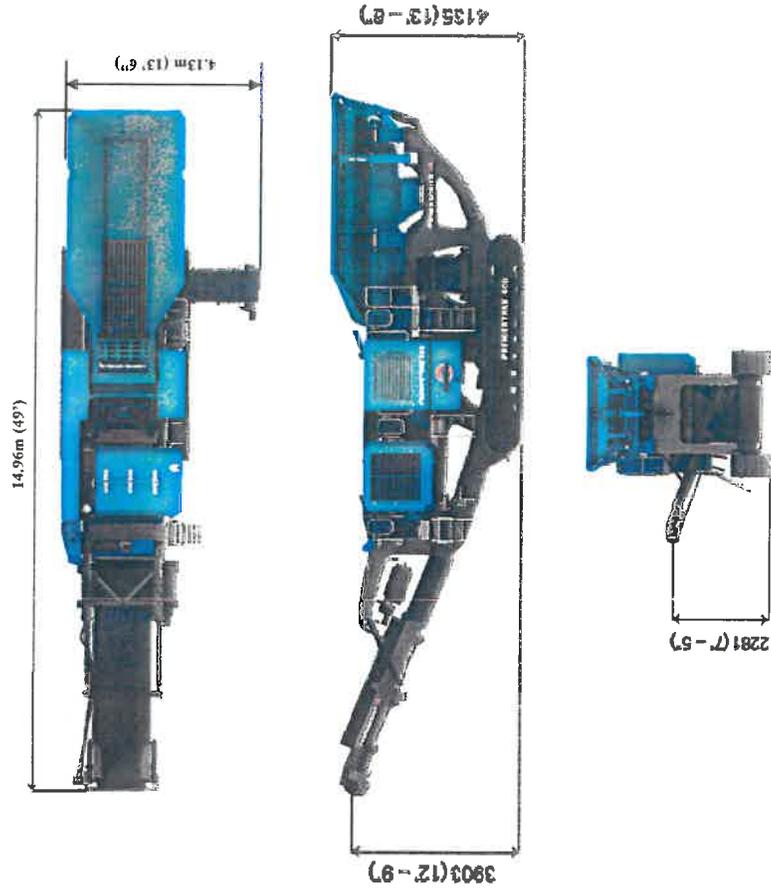
Powerscreen® Premiertrak 400 & R400

SPECIFICATION Rev 7. 01/01/2016

Approximate Plant Weight & Dimensions

Working length:	14.96m	(49' 0")
Working height:	4.13m	(13' 6")
Working width:	2.8m	(9' 2")
	4.3m	(14' 1") including side conveyor

Premiertrak 400 & R400 Working Dimensions



Powerscreen® Premiertrak 400 & R400

SPECIFICATION Rev 7. 01/01/2016

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.

Terex GB Ltd
200 Coalfield Road
Dungannon
Co. Tyrone
Northern Ireland
BT74 4DR

Tel: +44(0) 28 8774 0701
Fax: +44(0) 28 8774 6666
E-Mail: sales@powerscreen.com
Web: www.powerscreen.com

Terex is a registered trademark of Terex Corporation in the United States of America and many other countries.
Powerscreen is a registered trademark of Terex GB Ltd in the United States of America and many other countries.

Copyright Terex Corporation 2016

POWERSCREEN
CELEBRATING 50 YEARS
OF SUCCESS



All specifications subject to change without prior notice

Powerscreen® XH500

Horizontal Impactor

SPECIFICATION - Rev 5. 01-01-2012



POWERSCREEN®
A TEREX
BRAND

Specification		XH500 Standard
Total weight		56,000kg (123,500lbs) including dirt conveyor & magnet
Transport	Length	17.3m (56' 8")
	Width	3.0m (9' 10")
	Height	3.8m (12' 6")
Working	Length	17.0m (56')
	Width	3.0m (9' 10") 7.0m (23') with side conveyor deployed
	Height	4.1m (13' 6")
Crusher type:		Twin apron 4 bar impact crusher, feed opening 1360mm x 800mm (54" x 32")
Powerunit:		Caterpillar C13 328kW (440hp) or Scania DC13 331kW (450hp)
Paint colour:		RAL 5021

Features & Benefits

The Powerscreen® XH500 horizontal shaft impactor is designed for processing soft to medium-hard primary & secondary materials such as natural rock & construction derived materials like asphalt, recycling & demolition waste.

Material is fed into the large feed hopper, common on both vibrating grizzly feeder & live pre-screen versions, both feature a selectable crusher bypass facility & optional fines discharge conveyor. Load sensing, ensures the wide crusher inlet opening receives a continuous feed of pre-screened material, avoiding unnecessary crusher wear.

The Powerscreen® XH500's robust impact chamber features a twin apron, 4 bar rotor design, with hydraulic release aprons, hydraulic setting adjustment, hydraulic crusher overload & is driven directly off the engine via a HFO clutch for optimum fuel economy. Next crushed material passes; either over the independent under pan feeder & modular product conveyor, or directly onto the full length conveyor, both conveyors feature a raise/lower facility to aid clearance of rebar in the event of a blockage.

Where high volumes of finished end product are required, an optional single deck sizing screen with fines conveyor & oversize recirculation facility can be specified, this can be uncoupled quickly, lowers for maintenance & remains on the plant during transportation. Oversize material is returned to the crusher via the wide on-board recirculation conveyor which hydraulically folds for transport.

With its highly modular design construction, compact transport footprint (much shorter than many competitors) the Powerscreen® XH500 can be tailored to suit the needs of all customers & makes it an ideal contract machine due to its impressive design features & high productivity.

- ▣ Output potential up to 500 tph (550 US tph)
- ▣ Suitable for a variety of feed materials, ideal for recycling, demolition & quarry applications
- ▣ Double deck grizzly feeder with under screen
- ▣ Load management system to control feeder speed
- ▣ Proven impact crusher with hydraulic overload protection, 4 bar rotor & twin apron design
- ▣ Fully independent under crusher vibrating pan feeder as standard
- ▣ Modular conveyor with raise/lower facility to aid clearance of rebar
- ▣ Latest generation power units that meet EU Stage IIIB / US Tier 4i & EU Stage IIIA / US Tier 3
- ▣ Chamber drive via clutch & highly fuel efficient direct drive system
- ▣ Crusher speed variation through user friendly PLC control system
- ▣ Live pre-screen & optional single deck 16' x 5' post-screen (SR)

Applications

Aggregate

- ▣ Blasted rock
- ▣ River rock

Recycling

- ▣ C & D waste
- ▣ Foundry waste

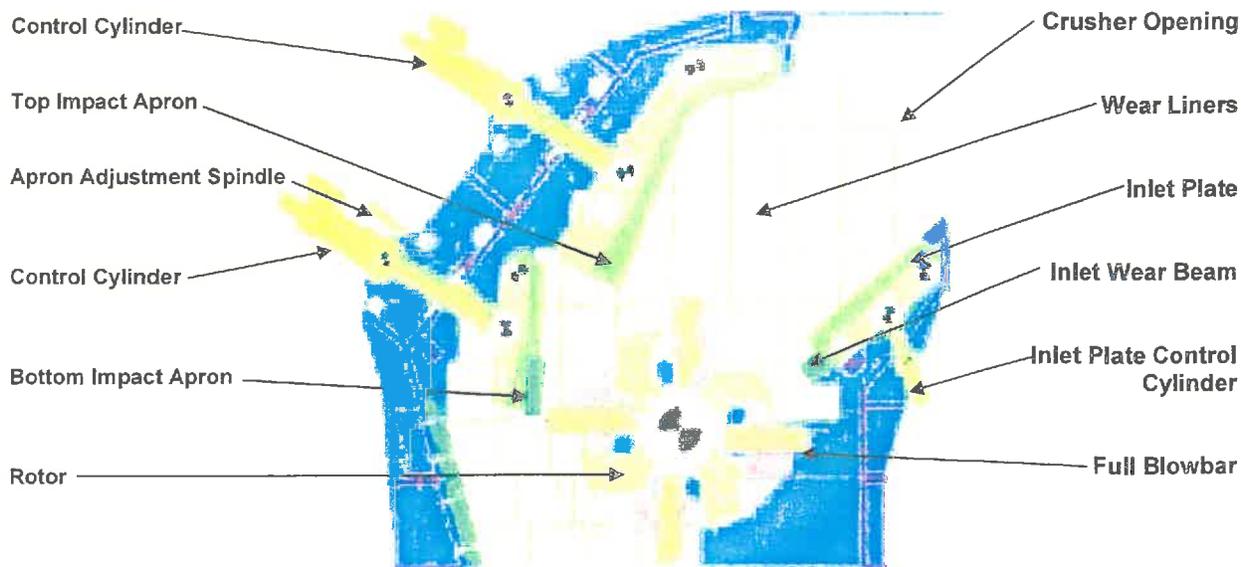
Mining

- ▣ Processed ores
- ▣ Processed minerals

Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012

Principal Components of the Powerscreen® XH500 Impact Crusher



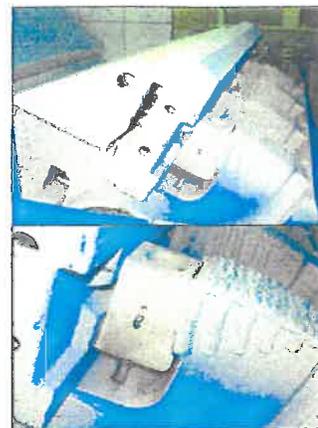
Principles of Operation

Material enters via the crusher opening & slides down the inlet chute where it is struck by the blowbar which is held within the rotor. This initial impact breaks the material which is then accelerated onto the top apron where more reduction takes place on impact. This material then falls back into the blowbars & the cycle repeated until the material is small enough to pass between the apron & the blowbar. Once through this gap, further reduction occurs on the bottom apron until the material can again pass through the gap & discharge from the underside of the crusher.

Any un-crushable material entering the chamber will relieve the overload cylinders & allow the material to pass. The cylinders will then return to the pre-set crushing position. The pre-set gap is adjusted by turning the adjustment spindle whilst the weight of the apron is held on the cylinder (hydraulic assist).

Crusher Specification

- Feed opening: 1360mm x 800mm (54" x 32")
- Max lump size* 500mm³ (20in³) / 860mm (34") diagonally / 1000x1000x200mm (39x39x8") slab
* depending on material & blowbar spec
- Rotor width: 1340mm (53")
- Rotor diameter: 1200mm (47")
- Number of aprons: 2
- Maximum clearance: 273mm (11") on both aprons
- Maximum OSS setting: 200mm (8") upper apron, 100mm (4") lower apron
- Minimum CSS setting: 75mm (3") upper apron, 35mm (1.4") lower apron
- Number of blowbars: 4
- Blowbar removal: Vertically
- Blowbar configuration: 2 full & 2 half (optional 4 full)
- Setting adjustment: Hydraulic assist
- Overload protection: Hydraulic
- Rotor speeds: 540 - 630rpm (34 - 40m/s) (111 - 131ft/s)
- Applications: Demolition / recycling / quarry
- Crusher weight: 14,855kg (32,750lbs)
- Full blowbar weight: 410kg (904lbs)
- Side Liners: 20mm thick, abrasive resistant steel

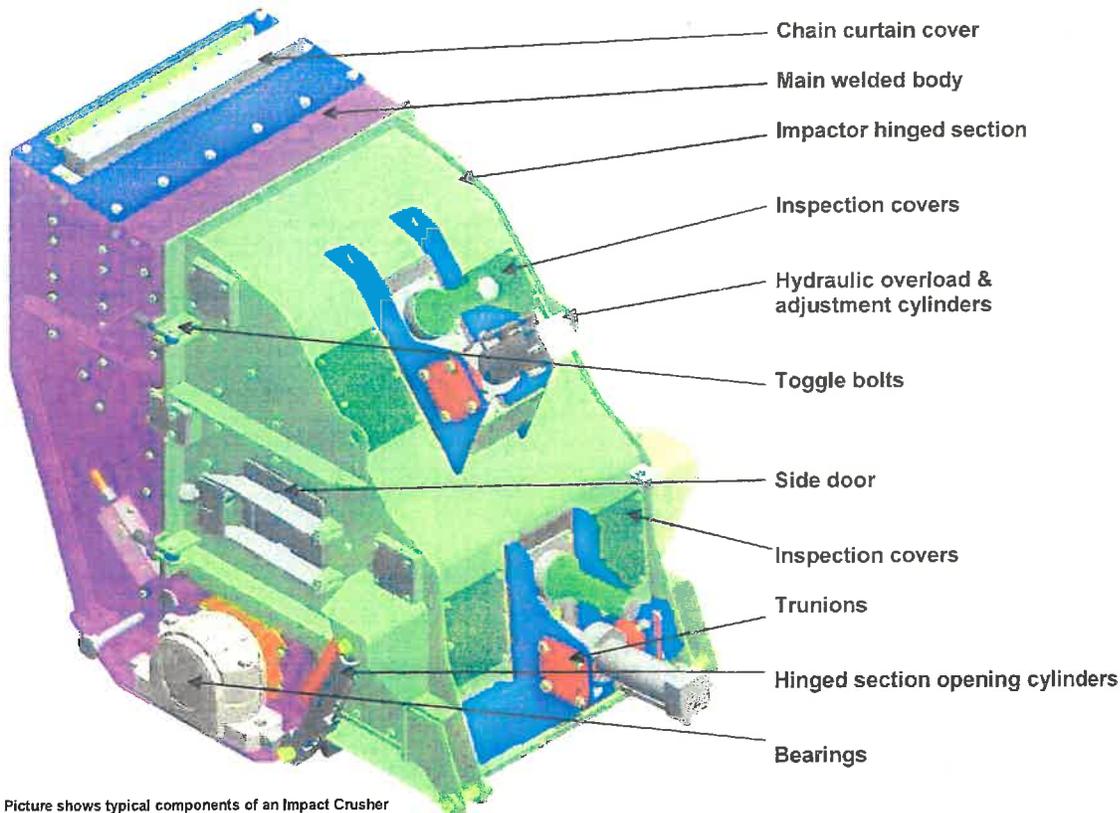


Views from inside the XH500 Impact Crusher, showing blowbars, wedges & rotor

All specifications subject to change without prior notice



Powerscreen® XH500 - Impact Crusher



Picture shows typical components of an Impact Crusher

Main Features

- Crusher body:** Fabricated from steel plate & fully lined with replaceable abrasion resistant liner plates. Hinged side door allows access to apron tips & rotor for gap measurements & inspection. Complete hinged section opens hydraulically to allow blowbar removal & replacement, apron & liner replacement or major maintenance
- Rotor:** Cast steel & fitted with 4 reversible & replaceable blowbars
- Bearings:** Double row self aligning spherical roller bearing fitted each end of rotor
- Aprons:** Cast steel aprons with replaceable abrasion resistant wear plate on tip of bottom apron
- Drive:** Direct through wedge belts with tensioning system on the powerunit
- Lubrication:** Rotor bearings are greased & fitted with inner & outer labyrinth seals
- Blowbars:** Standard blowbar is martensitic steel, options available in high chrome & ceramic

This plant is designed for both demolition & quarrying applications. When fitted with martensitic or ceramic blow bars the crusher will tolerate small quantities of steel reinforcing bar in the feed. However, the machine is not designed to accept large pieces of steel or other uncrushable objects, & the feed material should be assessed / inspected for suitability prior to crushing. It is vitally important that large pieces of steel or similar un-crushable objects are not allowed to enter the crushing chamber as severe damage & injury may occur. When high chrome bars are fitted, all steel should be removed from the feed material & the machine should only be used on quarry applications, or clean materials such as asphalt.

Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012

Hopper

Hydraulic folding hopper with over centre struts & wedgelock system

Hopper length: 4.96m (16' 3")

Hopper width: 2.62m (8' 7")

Hopper capacity: 7m³ (9.2 cu. yd.)

Body: 15mm thick abrasion resistant steel plate



Vibrating Grizzly Feeder

Type: Spring mounted vibrating

Vibrating unit: Twin heavy-duty cast eccentric shafts running in spherical roller bearings. Gears coupled at drive end.

Length: 4260mm (14')

Width: 1380mm (4' 6")

Pan: 12mm (0.5") thick abrasion resistant steel base plate liners

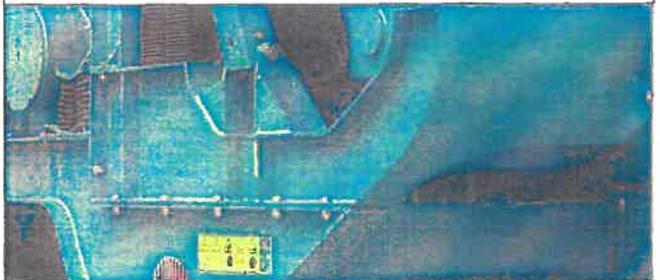
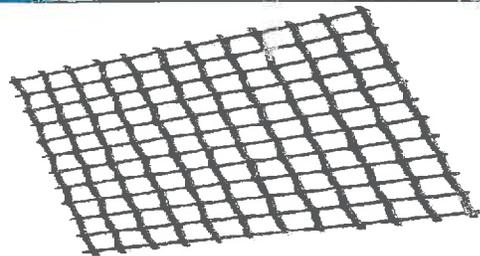
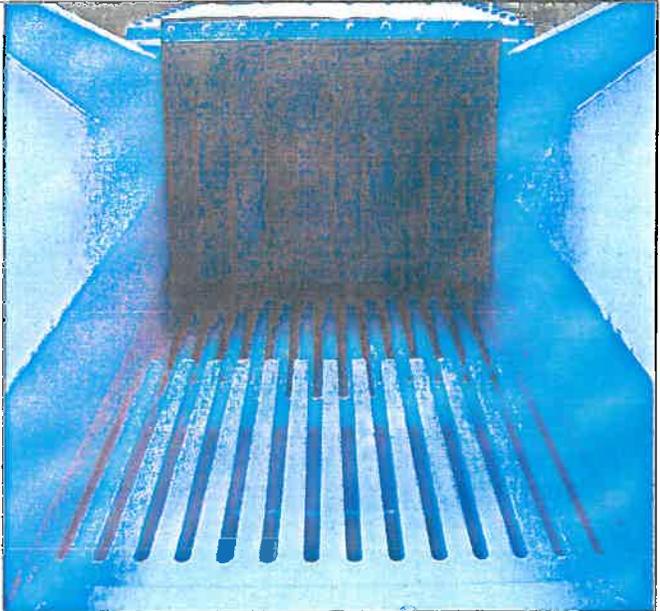
Drive: Flange mounted hydraulic motor

Grizzly: 2000mm (79") long double section of welded tapered finger bars at 34mm (1.3") nominal spaces fabricated in 20mm thick abrasion resistant steel. 50mm (2") nominal spacing also available.

Mesh: Blanking mat standard, under screen mesh in sizes 25mm, (1"), 38mm (1.5") & 50mm (2") available.

Chute: Plant is fitted with a bypass chute, with an internal two way flap door to control direction of fines, either forward onto the product belt or down onto the optional dirt conveyor, (if blanking mat is fitted).

Modular section: Hopper & feeder mounted on a removable modular sub frame

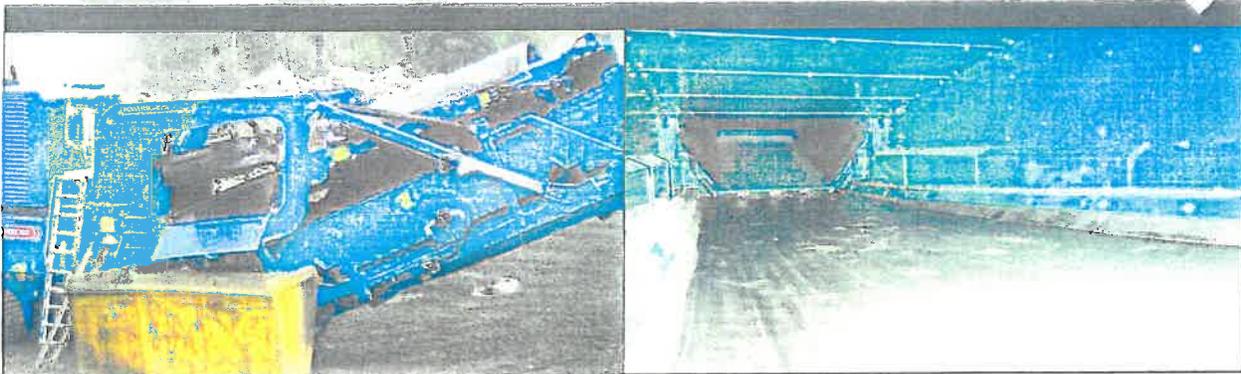


All specifications subject to change without prior notice



Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012



Product Conveyor

Conveyor type:	Fully removable modular unit with hydraulic raise & lower facility to increase clearance & simplify rebar removal. Can be operated whilst crushing. Shallow troughed with winged rollers & fully tunnelled with minimal snag areas.
Belt type:	EP630/4 with 6mm top & 2mm bottom heavy duty rubber covers & vulcanised joint
Belt width:	1200mm (47")
Discharge height:	Standard 4.16m (13' 9") when fully raised (same on SR with post screen removed)
Stockpile volume:	107m ³ (140 cu. yd.)
Feedboot:	Fabricated steel with abrasion resistant steel liners
Impact area:	Under crusher pan feeder
Skirting:	Fully skirted in wear resistant rubber up to magnet discharge area
Drive:	Dual hydraulic motor direct to head drum
Lubrication:	Centralised grease points for lubrication of shaft bearings
Belt covers:	Canvas type removable dust covers, fitted over exposed sections of conveyor

Dust Suppression System

Spray bars with atomiser nozzles mounted over product conveyor & final conveyor discharge, piped to an inlet manifold for customer water supply or optional pump

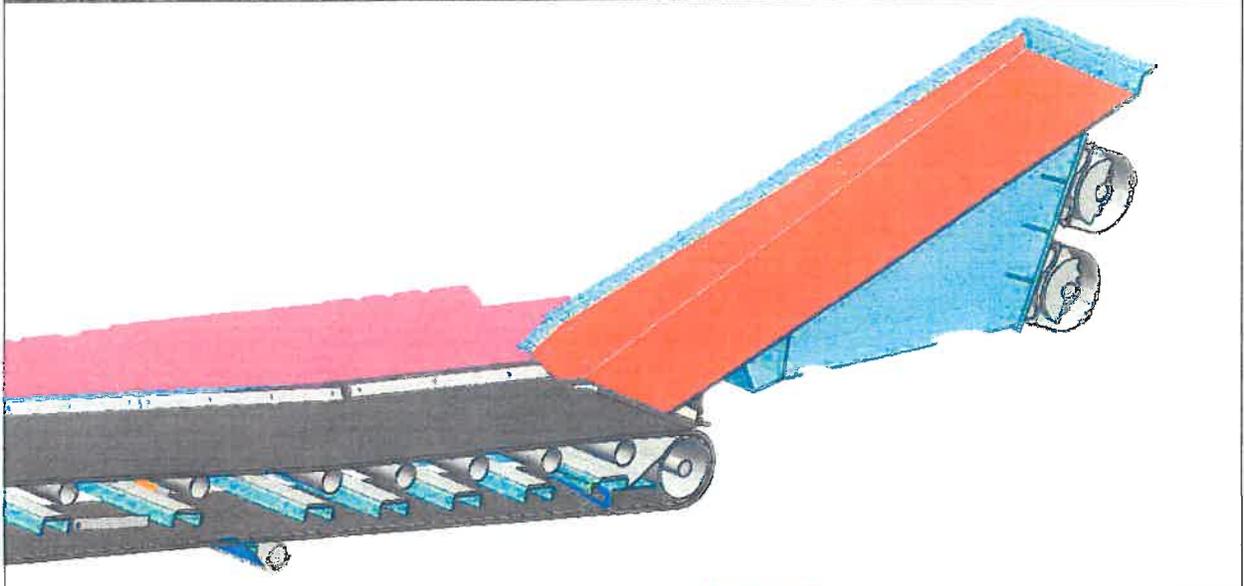
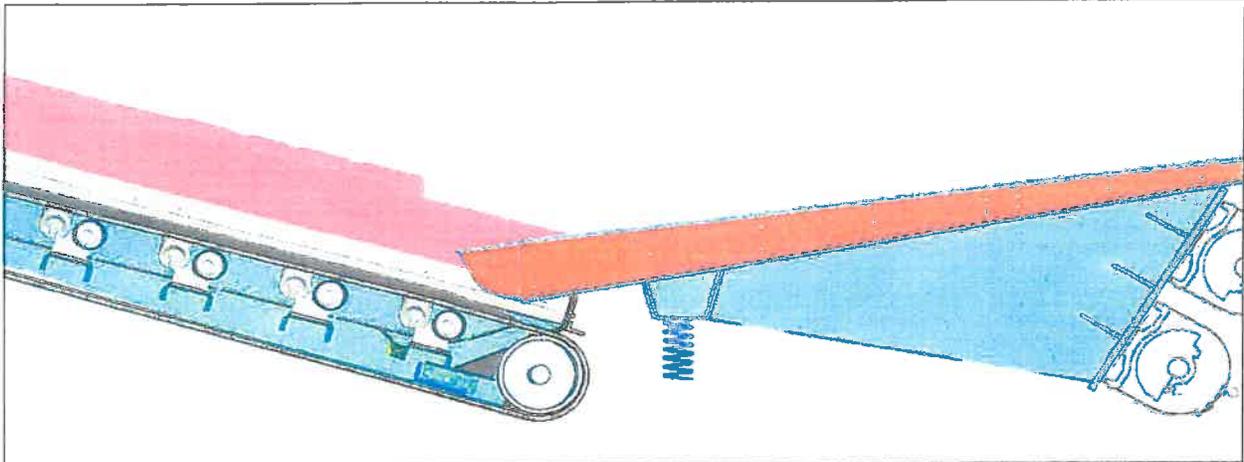
Type:	Clean water multi atomising nozzles
Inlet:	Single point
Inlet pressure:	3 BAR (44 psi)
Water supply:	24 litres (6.3 g) per minute min
Frost protection:	Via system main valves
Pump:	Optional



All specifications subject to change without prior notice



Product Conveyor & Pan Feeder Interface



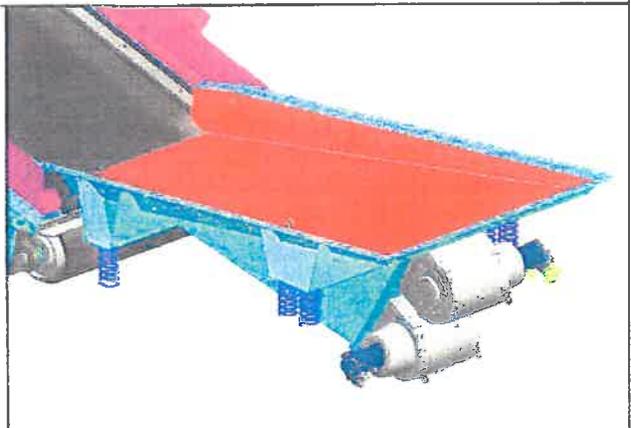
Vibrating Pan Feeder

Type: Steel bodied vibrating feeder fitted with stainless steel liners, mounted under the crusher & designed to prevent any impact damage to the product conveyor

Width: Rear - 1360mm (53")
Front - 1250mm (49")

Length: 2600mm (103")

Drive: Twin hydraulic driven out of balance vibrator units



Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012

Powerunits

Tier 3 / Stage 3A:

Caterpillar C-13 ACERT, 6 cylinder, 328 kW (440hp) at 1800rpm

Operating conditions: Ambient temp. +40°C & -12°C (104°F & 10°F)
altitudes up to 1000m (3281ft) above sea level. #

Operating rpm range: 1800 - 2100rpm

Emission control technique: Not Applicable

Typical fuel consumption: Non SR configuration 50-65 L/hr (13-17 US Gal/hr)
SR configuration 65-80 L/hr (17-21 US Gal/hr)

Plant drive: High quality pumps driven via belt drive

Clutch type: Highly efficient, self-adjusting HPTO 12 dry plate



Tier 4i /Stage 3B:

Scania DC13 083A 6 cylinder, turbo, 331kW (450hp) at 2100rpm

Operating conditions: Ambient temp. +40°C & -12°C (104°F & 10°F)
altitudes up to 1000m (3281ft) above sea level. #

Operating rpm range: 1800 - 2100rpm

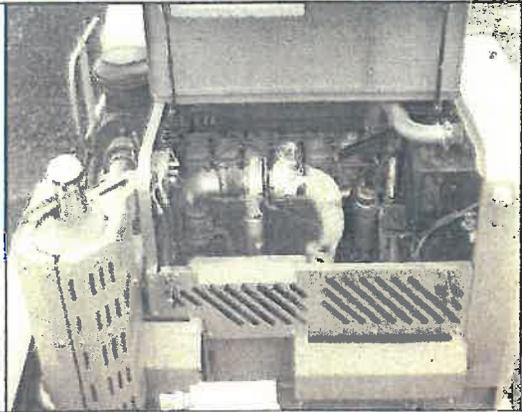
Typical fuel consumption: N/A

Emission control technique: Selective Catalytic Reduction (SCR)

Reductant tank size: 60 L (16.8 US Gal)

Plant drive: High quality pumps driven via engine PTO's

Clutch type: HPTO 12 wet clutch, electro hydraulic operation



Fuel tank capacity: 700 L (185 US Gal)

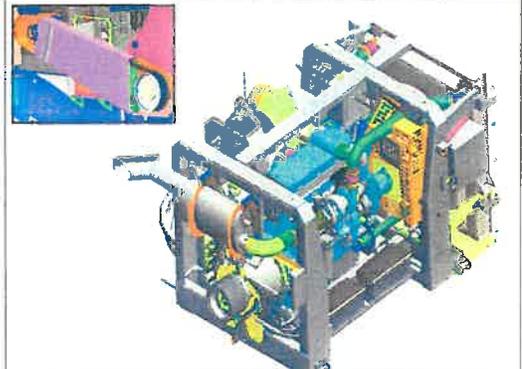
Hydraulic tank capacity: 540 L (140 US Gal)

Crusher drive: Direct drive via wedge belts,
Clutch pulley diameter 300mm (12"),
Crusher pulley diameter 1000mm (39").

Crushing performance can be tuned, by changing engine speed between 1800 - 2100rpm on the PLC without significant loss of engine performance

Crusher drive tensioning: Manually adjustable tensioners beside powerunit

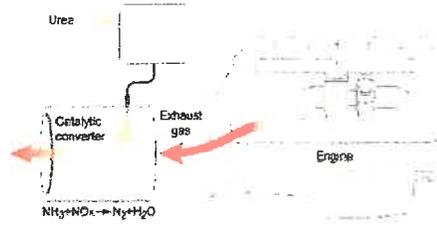
For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected.



Selective Catalytic Reduction (SCR)

SCR technology is used for Stage IIIB & Tier 4i to reduce the NOX content in the exhaust gases. A chemical process is started by injecting reductant, a urea & water mixture, into the exhaust gas stream. During injection the water evaporates & the urea breaks down to form ammonia. The ammonia then reacts with the nitrogen gases in the catalytic converter & forms harmless products such as nitrogen gas & water.

Through the use of SCR the exhaust gases are purged of poisonous levels of NOX in the best possible way. The reductant tank holds 60 litres & is heated by the engine's cooling system in order to avoid freezing of the urea solution, urea freezes at -11°C.



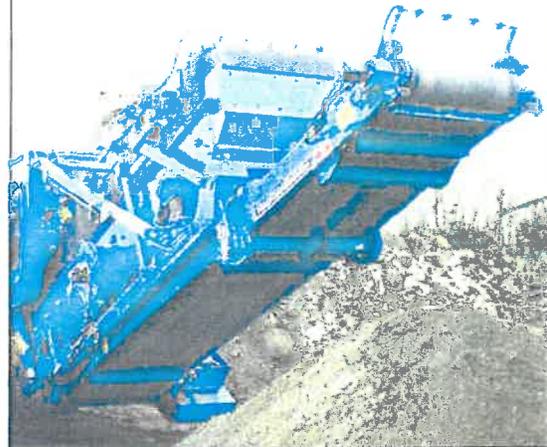
The principle for Scania SCR system

All specifications subject to change without prior notice



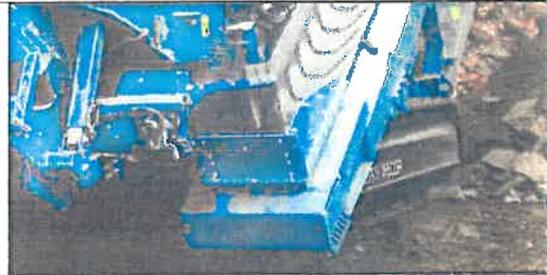
After Screen & Fines Conveyor

Type:	16' x 5' single deck 2 bearing screen, side tension media
Drive:	Direct hydraulic motor (S + F)
Screen speed:	920rpm
Angle:	25°
Belt width:	1200mm (47")
Belt type:	EP400/3 4+2 covers
Discharge height:	3.84m (12' 7")
Stockpile volume:	84m ³ (110 cu. yd.)
Detach:	Quick detach fitted as standard



Cross Conveyor

Type:	Flat belt EP400/3 4+2 covers
Width:	650mm (26")
Drive:	Direct hydraulic motor
Transport:	Hydraulic retraction



Hydraulic Folding Recirculation Conveyor

Type:	Chevron belt EP315/3 3+1.5 covers
Width:	650mm (26")
Chevron:	25mm (1")
Drive:	Direct hydraulic motor
Stockpile:	From under cross conveyor, or via feed chute
Conveyor discharges into a feed chute mounted on the hopper which folds hydraulically for transport	



Transport

Retract cross conveyor, lower & retract after screen, lower product conveyor head section, this is all carried out by using manual hydraulic functions.

The recirculation conveyor hydraulically folds upward against the machine to reduce width during transportation.

The plant is now a one load transport which complies with required transport legislation.

The hydraulic folding recirculation conveyor is not designed for stockpiling, an additional stockpiler (not supplied) needs to be installed under the cross conveyor.



Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012

Crawler Tracks

Type:	Heavy duty tracks, bolted to chassis on pads & pins
Track centres:	3.78m (12' 5") - Standard Version 4.2m (13' 9") - SR Version
Track width:	500mm (20")
Climbing grade:	30° maximum
High speed:	0.9kph (0.56 mph)
Low speed:	0.3kph (0.2 mph)
Drive:	Two integral hydraulic motors
Tensioning:	Hydraulic adjuster, grease tension



Guarding

Wire mesh or sheet metal guards are provided for all drives, flywheels, pulleys & couplings

The guards provided are designed & manufactured to CE & ANSI standards



Platforms

Platforms are provided for maintenance on one side of the feeder & impactor, these are fitted with double row handrails & access ladders.

Platforms are also provided to gain access to the rear of the crusher & powerunit



Chassis

Heavy duty I-section of welded construction provides maximum strength & accessibility



All specifications subject to change without prior notice



Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012

Plant Controls

Full PLC control system
Full colour backlit screen
Complete pictorial user controls
Multi-function backlit menu buttons
Full system diagnostics
Sequential auto start up

Main controls

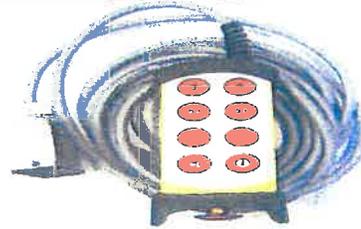
- Engine/crusher speed
- Feeder (start/stop/speed)
- Product conveyor + pan feeder (start/stop)
- Screen/fines/cross/recirc (SR only)
- Product conveyor raise/lower
- Dirt conveyor
- Crusher control/screen setup



Umbilical controls

An umbilical control unit is supplied with the plant

This is used to control the tracking function & is also fitted with a stop button for the plant



Optional Extras

- 2 deck live pre-screen
- Grizzly decks 38, 50, 63 & 75mm
- Punch plates cartridges 38, 50, 63 & 75mm
- Pre-screen meshes 25-75mm (1" - 3")
- Pre-screen & VGF blanking mats
- Side dirt conveyor
- High chrome blowbars
- Ceramic blowbars
- 4 full size blowbars in lieu of 2 full 2 half Blowbars
- Full length conveyor "under belt version"
- Single pole or twin pole over-band magnets
- Magnet prepared
- Blow bar crane
- Blow bar lifting cradle (Standard)
- Post-screen meshes (sizes on request)
- Plant lighting
- Radio remote control
- Electric refuelling pump
- Optical belt weigher kits
- Hydraulic water pump for dust suppression

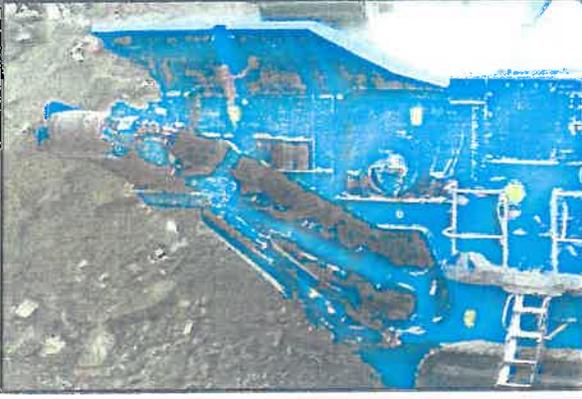
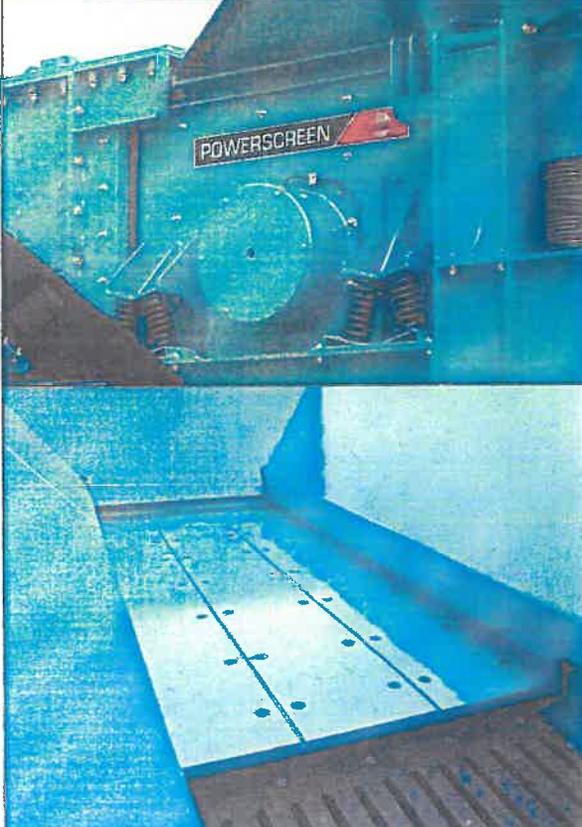
(For prices please refer to your dealer)

All specifications subject to change without prior notice



Powerscreen® XH500 Options

SPECIFICATION - Rev 5. 01-01-2012

<p>Dirt Conveyor</p> <p>Conveyor type: Troughed EP500/3 5+1.5 covers hydraulically folding</p> <p>Width: 800mm (31.5") Discharge height: 3.6m (11' 10") Stockpile volume: 107m³ (140 cu. yd.)</p> <p>Drive: Direct hydraulic motor Lubrication: Grease nipples on bearings</p> <p>Position: RHS only</p>	
<p>Pan Feeder & Live Pre-screen</p> <p>Vibrating pan feeder with 2 deck live pre-screen</p> <p>Pan type: Sprung vibrating pan.</p> <p>Vibrating unit: Twin heavy duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end, flange mounted hydraulic motor</p> <p>Dimensions: Length: 3.27m (10' 9") Width: 800mm (31.5")</p> <p>Pan: 10mm thick fully welded base plate with 10mm thick abrasion resistant liners</p>	
<p>Pre-screen: Sprung vibrating unit with stepped finger bofor deck</p> <p>Vibrating unit: Single shaft, out of balance weights, flange mounted hydraulic motor</p> <p>Dimensions: Length: 2.1m (6' 11") Width: 1.35m (53")</p> <p>Bofor deck: 2 stepped bolt in cartridges with 1m (39") long self cleaning fingers 38mm (1.5") nominal spacing</p> <p>Control: Variable speed control though control panel & (radio remote optional)</p> <p>Chute: Bypass chute with internal 2 way flap door fitted, to control direction of fines, either forward onto the product belt or onto the optional side conveyor (if blanking mat is fitted)</p> <p>Modular section: Hopper & feeder mounted on removable modular sub frame</p>	

All specifications subject to change without prior notice



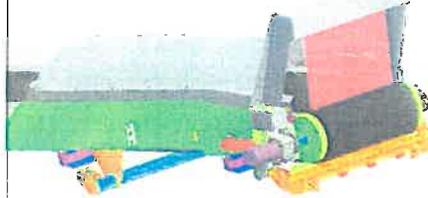
Powerscreen® XH500 Options

SPECIFICATION - Rev 5. 01-01-2012

Optical Belt Weigher

Optical belt scale, monitors material volume, can be converted into mass & downloaded to hand held PDA unit via Bluetooth.

PDA unit included in kit



Single Pole & Twin Pole Magnets

Magnet type: Suspended self cleaning over band with endless belt

Magnet block: 836 x 530mm (33" x 21")

Drive: Direct drive hydraulic motor

Control: Pre-set variable speed

Discharge: Via stainless steel shedder plate

Magnet prepared: Also available



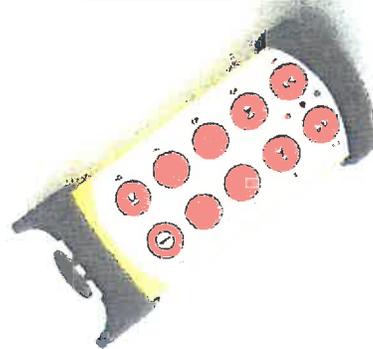
Radio Remote Control

Complete with integrated tracking functions & plant stop button.

NB— Only available in certain countries where type approval has been obtained

Remote can also be used to:

- Feeder (start/stop/speed)
- Product conveyor (raise/lower)
- Open top apron



Blow Bars

Standard blowbars supplied with plant are 2 full & 2 half martensitic steel. 2 further options are available:

High chrome: Suitable for medium to hard rock applications where no steel is present in the feed material. Good wear characteristics

Ceramic: Suitable for applications with limited steel in feed. Improved wear characteristics over standard martensitic blowbars

4 full blowbars: Available in all options



All specifications subject to change without prior notice



Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012

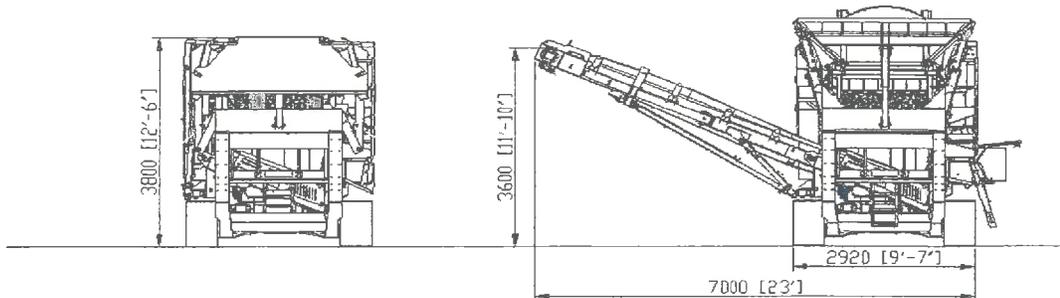
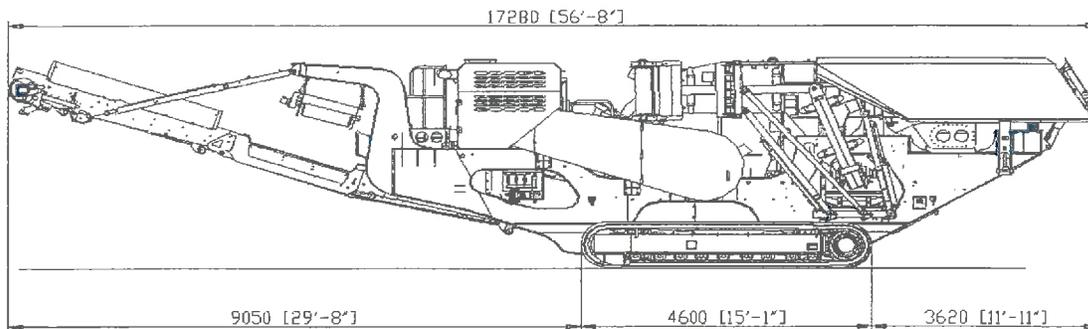
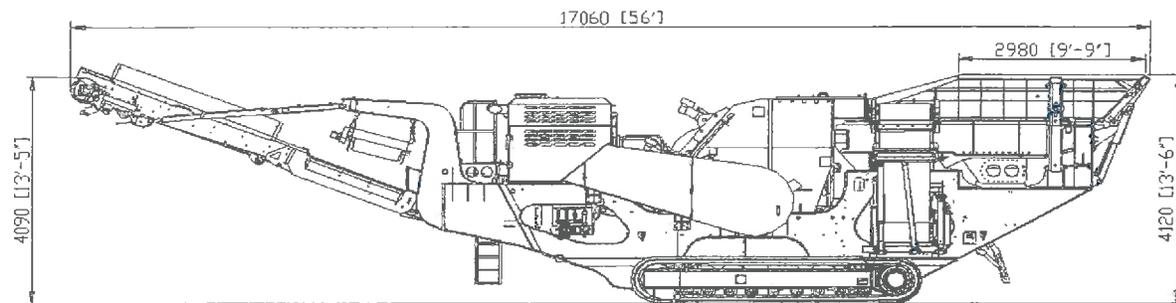
Approximate Plant Weights & Dimensions

Working length: 17.0m (56')
 Working height: 4.1m (13' 6")
 Working width: 7.0m (23') with side conveyor deployed

Transport length: 17.3m (56' 8")
 Transport height: 3.8m (12' 6")
 Transport width: 3.0m (9' 10")

Total plant weight: 56,000kg (123,500lbs) including dirt conveyor & standard magnet
 Paint colour: RAL 5021

XH500 Vibrating Grizzly Feeder, LHS Dirt Conveyor Transport & Working Dimensions



All specifications subject to change without prior notice



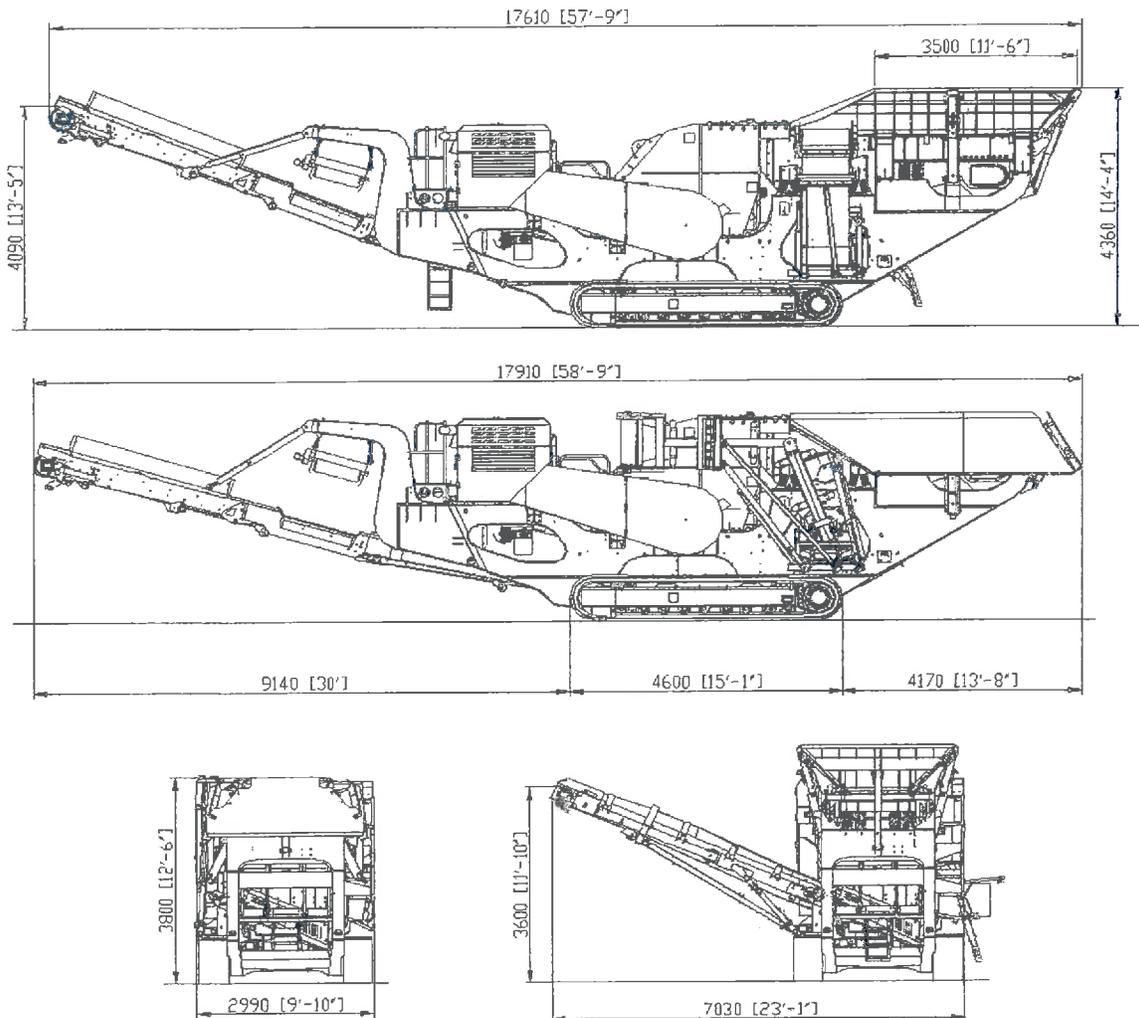
Powerscreen® XH500

SPECIFICATION - Rev 5. 01-01-2012

Approximate Plant Weights & Dimensions

Working length:	17.6m	(57' 9")
Working height:	4.36m	(14' 4")
Working width:	7.0m	(22' 11") with side conveyor deployed
Transport length:	17.9m	(58' 8")
Transport height:	3.8m	(12' 6")
Transport width:	3.0m	(9' 10")
Total plant weight:	56,000kg (123,500lbs) including dirt conveyor & standard magnet	
Paint colour:	RAL 5021	

XH500, Live Pre-screen, LHS Dirt Conveyor Transport & Working Dimensions



All specifications subject to change without prior notice



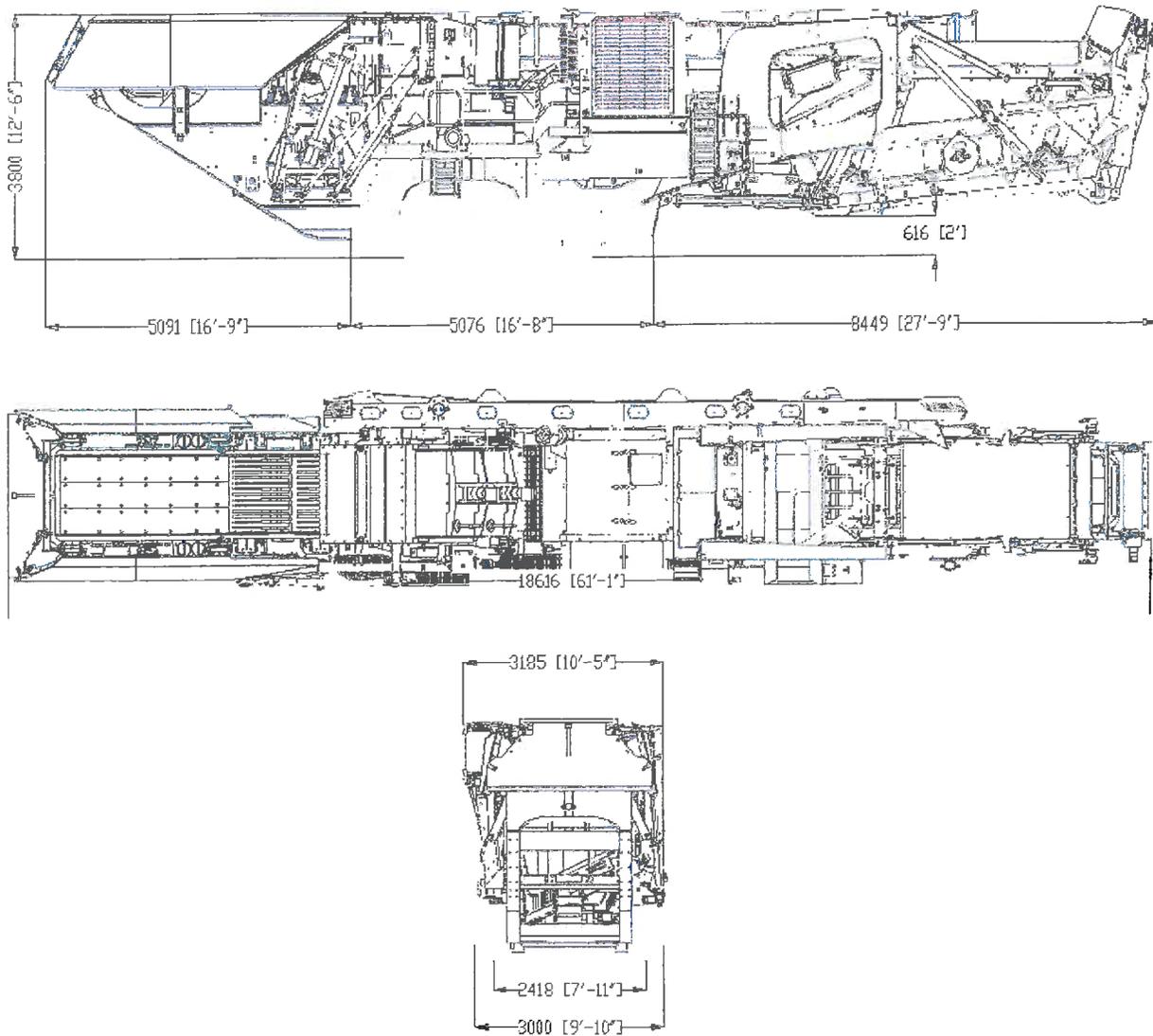
Powerscreen® XH500SR

SPECIFICATION - Rev 5. 01-01-2012

Approximate Plant Weights & Dimensions

Transport length:	18.6m	(61' 1")
Transport height:	3.8m	(12' 6")
Transport width:	3.18m	(10' 5")
Total plant weight:	67,000kg	(147,710lbs) without dirt conveyor or magnet
Paint colour:	RAL 5021	

XH500SR Live Pre-screen, RHS Dirt Conveyor, Post Screen & Hydraulic Folding Recirculation Conveyor, Transport Dimensions



All specifications subject to change without prior notice



Powerscreen® XH500SR

SPECIFICATION - Rev 5. 01-01-2012

Approximate Plant Weights & Dimensions

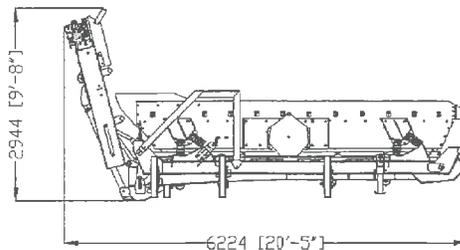
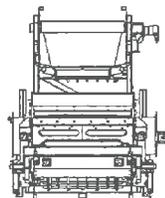
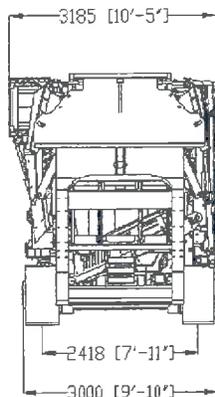
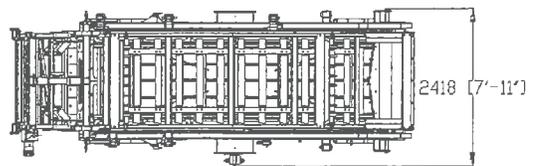
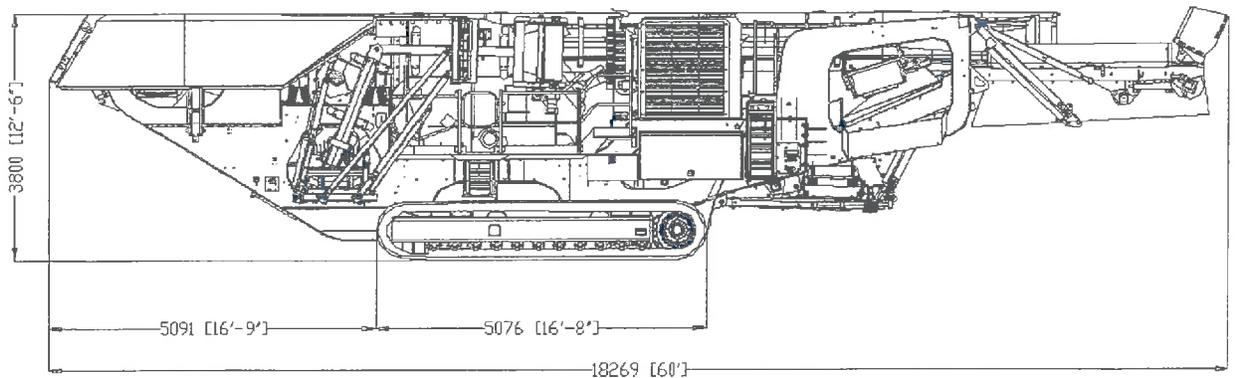
Plant (Less After Screen & Fines Conveyor), Load 1

Transport length:	18.3m	(60')	Post Screen & Fines Conveyor Removed
Transport height:	3.8m	(12' 6")	
Transport width:	3.2m	(10' 5")	
Est. weight:	62,000kg	(136,686lbs)	without dirt conveyor or magnet

Post Screen & Fines Conveyor, Load 2

Transport length:	6.3m	(20' 5")	
Transport height:	3.0m	(9' 8")	
Transport width:	2.5m	(7' 11")	
Est. weight:	6,000kg	(13,227lbs)	

XH500SR Live Pre-screen, RHS Dirt Conveyor, Post Screen & Hydraulic Folding Recirculation Conveyor Transported as 2 Loads



All specifications subject to change without prior notice



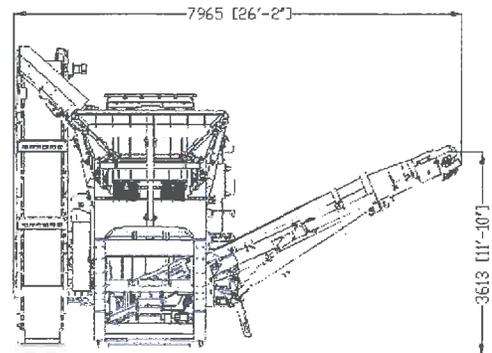
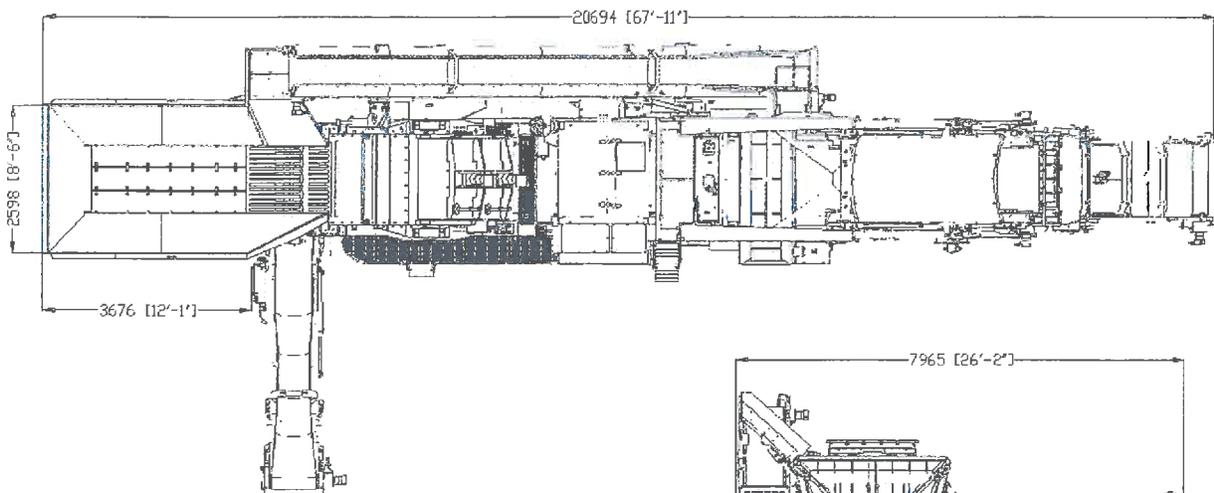
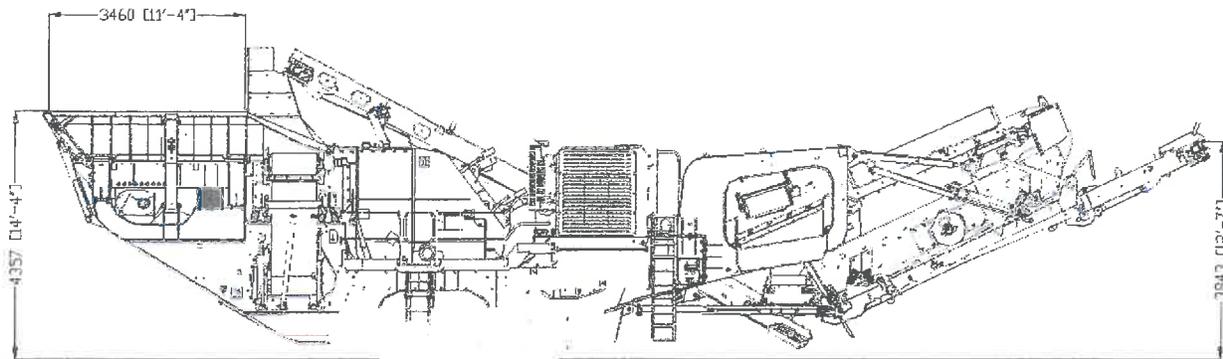
Powerscreen® XH500SR

SPECIFICATION - Rev 5. 01-01-2012

Approximate Plant Weights & Dimensions

Working length:	20.7m	(67' 11")
Working height:	5.47m	(17' 11") - 4.36m (14' 4") over hopper sides
Working width:	7.1m	(23' 4") with side conveyor deployed
Total plant weight:	67,000kg	(147,710lbs) without dirt conveyor or magnet
Paint colour:	RAL 5021	

XH500SR Working, Live Pre-screen, RHS Dirt Conveyor, Post Screen & Hydraulic Folding Recirculation Conveyor, Working Dimensions



All specifications subject to change without prior notice



Powerscreen® XH500SR

SPECIFICATION - Rev 5. 01-01-2012

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.

Terex GB Ltd.
200 Coalisland Road
Dungannon
Co. Tyrone
Northern Ireland
BT71 4DR

Tel: +44(0) 28 8774 0701
Fax: +44(0) 28 8774 6569

E-Mail: sales@powerscreen.com
Web: www.powerscreen.com

Terex is a registered trademark of Terex Corporation in the United States of America and many other countries.
Powerscreen is a registered trademark of Terex GB Ltd in the United States of America and many other countries.

Copyright Terex Corporation 20112

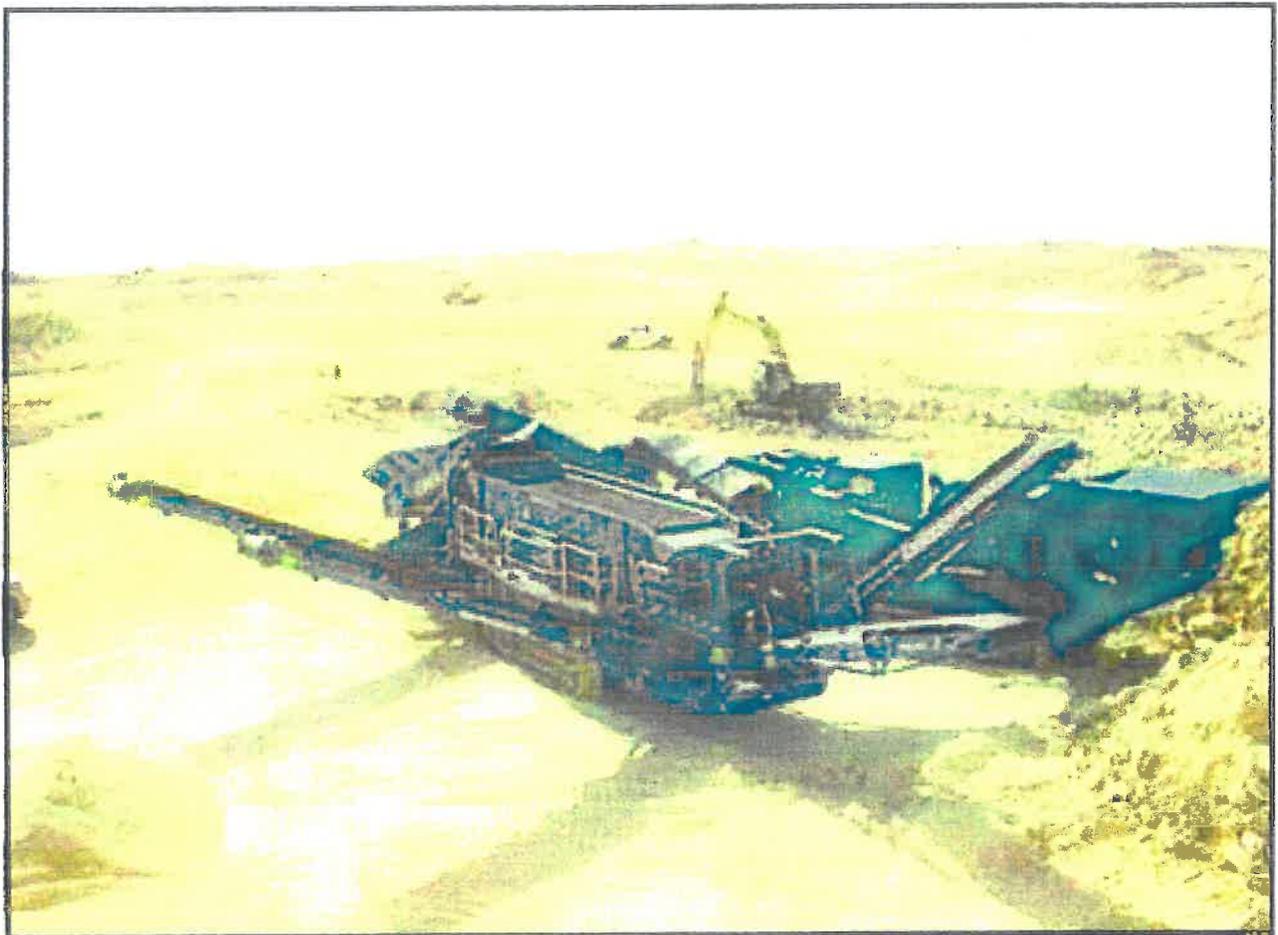
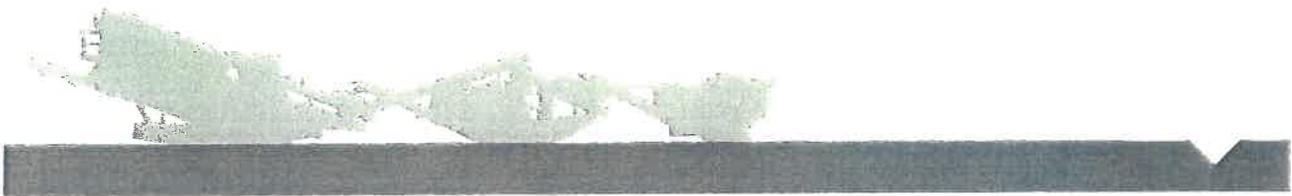
All specifications subject to change without prior notice



Powerscreen® H6203R

3 Deck Horizontal Screen

Specification - Rev 3. 25/01/2012



Specification

		Belt Feeder
Total weight		45,550kg (100,420lbs)*
Transport	Length	18.99m (62' 4")
	Width	3.2m (10' 6")
	Height	3.6m (11' 10")
Working	Length	21.3m (69' 11")
	Width	16.27m (53' 4")
	Height	4.7m (15' 5")
Screenunit		6.1m x 1.93m (20' x 6' 4")
Powerunit		Diesel / Hydraulic
Plant Colour		RAL 5021

Features & Benefits

- High capacity up to 800 tph (depending on feed size, mesh size & material type)
- Maximum feed size 250mm
- Quick set-up time
- Maximum mobility with heavy duty, low ground pressure crawler tracks
- Removable heavy duty pendant remote control system
- Optional radio control system available if required
- High performance hydraulics system
- Galvanised maintenance platforms on both sides of screen
- Hydraulically folding for transport
- Heavy duty triple shaft horizontal screenbox with adjustable stroke, angle & speed
- Direct feed hopper with impact bars and rollers
- Recirculating oversize capacity tailored for crushing applications
- Roll-in chute system

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

Abbreviations: T=Track, W=Wheel, Std= Standard, Hyd= Hydraulic, W/O= Without, C/W= Complete with
 EXT= Extended, DDVG= Double deck vibrating grid, Inc= Including, Aux= Auxiliary,
 Conv= Conveyor, *= depending on machine specification

All specifications subject to change without prior notice



Powerscreen® H6203R

Specification - Rev 3. 01/01/2012

Hopper

Target area: 5.8m (19') long x 2.55m (8' 4") wide

Hopper capacity: 4.33m³ (5.67 cu. yd.)

Feed in height: 2.82m (9' 3")

Replaceable wear resistant steel panel liners



Belt Feeder

1300mm (51") 4 ply plain trough belt

5.67m (18' 7") drum centres

350mm (14") drum diameter (drive)

320mm (13") drum diameter (tail)

Direct drive system with twin direct gearboxes

Variable speed control

Impact bars at inlet impact section



Screenbox

6.1m x 1.93m (20' x 6' 4")

3 deck triple shaft horizontal screenbox

Oval stroke adjustable up to maximum of 19mm

Oval stroke angle adjustable from 30° - 60°

Breaker-box with wear resistant steel replaceable wearplate

Hi-torque screen motor mounted direct to screenbox

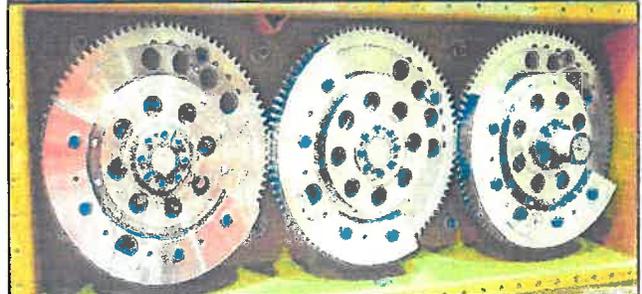
Marshmallow springs

Wear plates on pipeunits

Side tensioned all decks

Quick release wedge tensioning system (optional depending on screen media)

Roll-in chute system with removable panels offering blending options between upper mid size & lower mid size



All specifications subject to change without prior notice



Powerunit & Hydraulics

Engine:

Tier 3 / Stage 3A - CAT C6.6 ACERT - 6 cylinder engine

Performance:

151 kW (202hp) @ 2200rpm

Tank Capacities:

Fuel: 597 L (158 US Gal)

Hydraulic Oil: 780 L (206 US Gal)

Pumps:

Flywheel pump: David Brown 63/63/33/33

PTO pump: David Brown 5029/5029

Motors:

Belt feeder: 80cc/rev x 2

Under screen conveyor: 630cc/rev

Fine size conveyor : 500cc/rev

Lower mid size conveyor: 500cc/rev

Upper mid size conveyor : 500cc/rev

Oversize conveyor: 500cc/rev

Oversize cross conveyor: 400cc/rev

Auxiliary conveyor: 500cc/rev

Screen: 93cc/rev bent axis

Optional Diesel Engine:

Tier 4i / Stage 3B - CAT C7.1 6 cylinder engine developing 151kW @ 2200rpm



Crawler Track Data

Track width: 500mm

Gradability degrees: 26°

Two Speed Tracks: High 1.1kph (0.68 mph)
Low: 0.55kph (0.34 mph)

Output Torque: 46,000 Nm

Flow rate: 134 Lpm



Underscreen conveyor

1500mm (59") 3 ply plain belt
6.25m (20' 6") drum centres
280mm (11") drum diameter (drive)
270mm (10") drum diameter (tail)
Direct drive system
Variable speed control

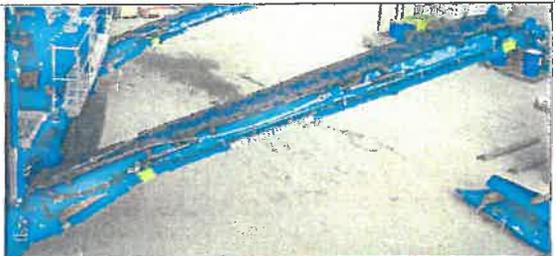


Finesize - Side Conveyor

900mm (36") 3 ply plain belt
9.5m (31' 2") drum centres
280mm (11") drum diameter (drive)
203mm (8") drum diameter (tail)

14° - 25° angle adjustment
4.3m (14' 2") stockpile height (measured to drum crown)
119m³ (156 cu. yd.) stockpile capacity

Hydraulically folding
Impact bars under feedboot
Direct drive system
Variable speed control



Mid-finesize - Side Conveyor

900mm (36") 3 ply plain belt
8.92m (29' 3") drum centres
280mm (11") drum diameter (drive)
203mm (8") drum diameter (tail)

14° - 25° angle adjustment
4.4m (14' 5") stockpile height (measured to drum crown)
127m³ (166 cu. yd.) stockpile capacity

Hydraulically folding
Impact bars under feedboot
Direct drive system
Variable speed control

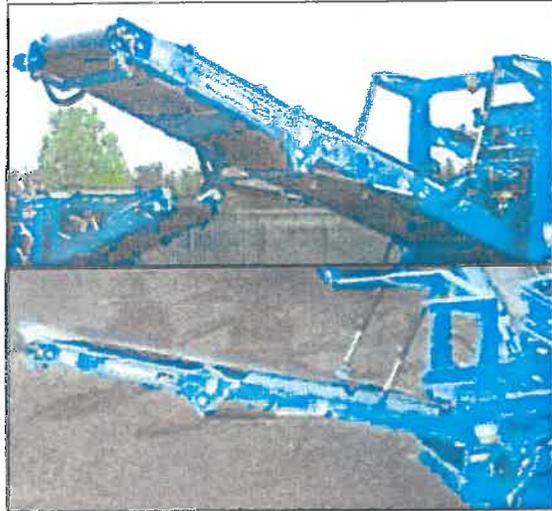


Mid-oversize - Tail Conveyor

900mm (36") 3 ply plain belt
7.17m (23' 6") drum centres
280mm (11") drum diameter (drive)
270mm (10") drum diameter (tail)

14° - 25° angle adjustment
4.41m (14' 6") stockpile height (measured to drum crown)
128m³ (167 cu. yd.) stockpile capacity

Hydraulically folding
Direct drive system
Variable speed control



Oversize - Side Conveyor

900mm (36") 3 ply chevron belt
6.9m (22' 8") drum centres
280mm (11") drum diameter (drive)
270mm (11") drum diameter (tail)

14° - 25° angle adjustment
4.4m (14' 5") stockpile height (measured to drum crown)
127m³ (166 cu. yd.) stockpile capacity

Wear resistant steel lined feed chute
Direct drive system
Variable speed control
Hydraulically folding
Impact bars under feedboot



Oversize Cross Conveyor

800mm (32") 3 ply plain trough belt
1.92m (6' 4") drum centres
223mm (9") drum diameter (drive)
203mm (8") drum diameter (tail)

Hydraulic slide to enable screen mesh access
Variable speed control



Oversize - Recirculating Conveyor

900mm (36") 3 ply chevron belt
5.83m (19' 2") drum centres
280mm (11") drum diameter (drive)
270mm (10") drum diameter (tail)

Used to transfer return product from recirculating crusher back to feeder

Mounted directly to chassis, site mobile

Swivel mounting to suit variety of crushers and enable tracking on site

Direct drive system

Variable speed control



Other Options

Different coloured machine

Auto lubrication system

Radio controlled tracking

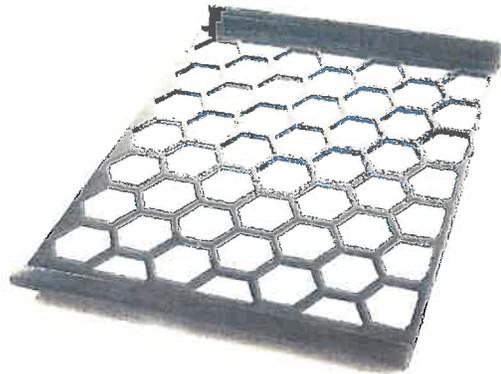
Wear resistant or mild steel punch plate screens

Roll-in bogie transport system

Hinged chute system offering blending options between lower mid size & fines

Tier 4i / Stage 3B - CAT C7.1 - 6 cylinder engine developing 151kW (202hp) @2200rpm

Dual Power System c/w 4.2m track, IE2 Electric motors 75kW (100hp) and 55kW (73hp), diesel engine and integrated control system controlling either diesel-hydraulic or electric-hydraulic functions.



Powerscreen® H6203R

Specification - Rev 3. 01/01/2012

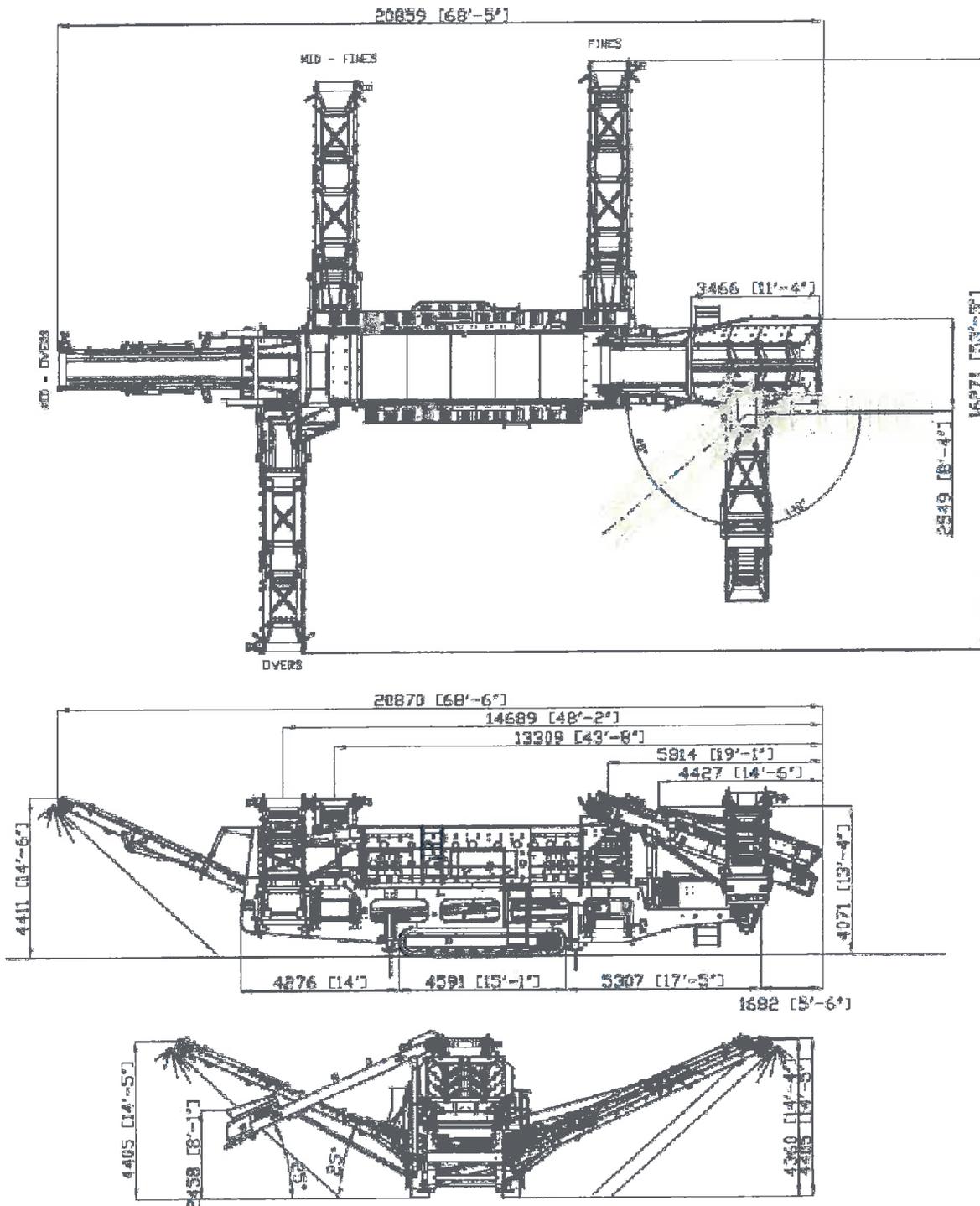


Figure 1: H6203R 3 Deck Track Working Position

All specifications subject to change without prior notice



Powerscreen® H6203R

Specification - Rev 3. 01/01/2012

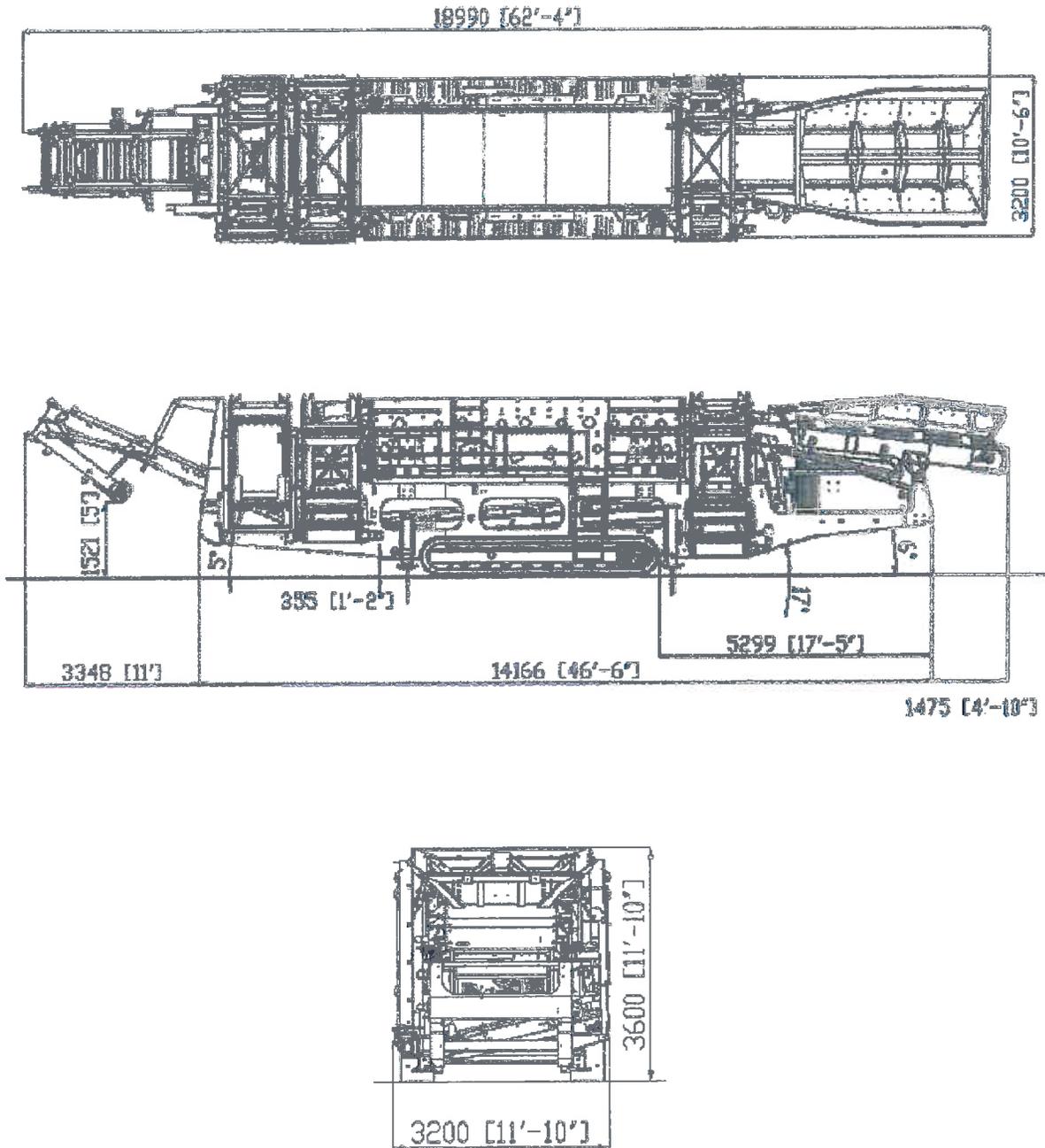


Figure 2: H6203R 3 Deck Track Transport Position

All specifications subject to change without prior notice



Powerscreen® H6203R

Specification - Rev 3. 01/01/2012

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.

Terex GB Ltd.
200 Coalisland Road
Dungannon
Co. Tyrone
Northern Ireland
BT71 4DR

Tel: +44(0) 28 8774 0701
Fax: +44(0) 28 8774 6569

E-Mail: sales@powerscreen.com
Web: www.powerscreen.com

Terex is a registered trademark of Terex Corporation in the United States of America and many other countries.
Powerscreen is a registered trademark of Terex GB Ltd in the United States of America and many other countries.

Copyright Terex Corporation 2011.

TC 421 Track Conveyor



SPECIFICATION

- 3metre Tracks for site movement
- 1000mm (40") Belting.
- Optional 1050mm (42") Belting
- 21.9m (71ft) Long conveyor
- Discharge height up to 11m (36ft)
- Hydraulic folding head section

ADVANTAGES

- Reduce fuel consumption by up to 80%
- Eliminate / reduce need for wheel loader
- Eliminate material double handling
- Reduce noise, dust and emissions
- Higher quality end product
- Easy to transport / relocate



Deutz 3 Cylinder D 2011 28.75Kw (38HP)



Tracks 3m Centre x 400 shoe (10ft x 20")

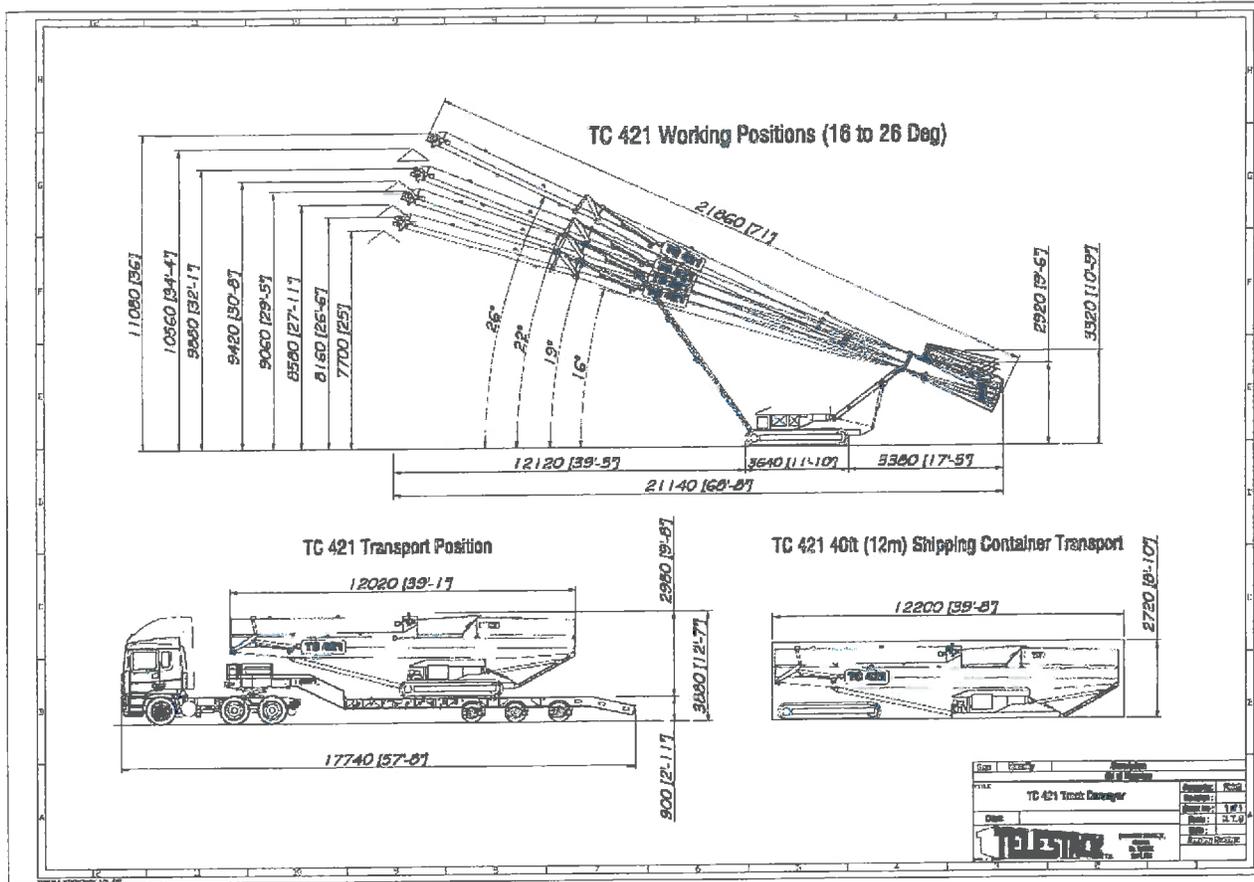


Optional Dual Power or All Electric Conveyor

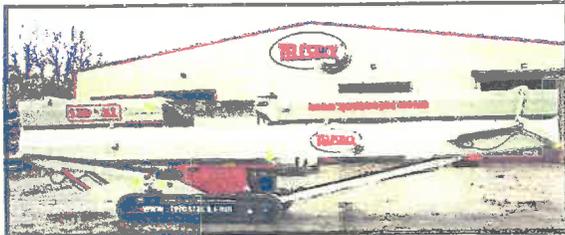


Heavy Duty Mid section for large lump size

TC 421 Track Conveyor



STOCKPILE CAPACITIES



Angle	Discharge (m)	Discharge (ft)	Capacity (m³)	Capacity Tonne	Capacity (Yards³)	Capacity (Ton)
16°	8.16	26ft 6"	842	1350	1100	1488
19°	9.06	29ft 5"	1132	1812	1480	2000
22°	9.88	32ft 1"	1530	2450	2000	2700
26°	11.08	36ft 0"	1790	2863	2340	3150

Transport on 1 x Low Loader (Ro Ro)

Transport Dimensions

Length	12.02m	(39ft 1")
Width	2.70m	(8FT 10")
Height	2.98m	(9ft 8")
Weight	12600kg	27800lbs

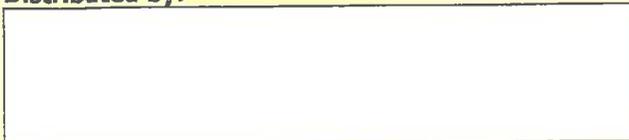
Tonnage based on 1.6 Tonnes/m³

Typical Maximum single cone stockpile at 26°

1790m³ or 2340yards
 2863 Tonnes or 3150 Ton (USA)

Conveyor can be repositioned to build multiple stockpiles.

Distributed by:



For Further Information contact:

Telestack Limited

www.telestack.com

Tel: +44 (0) 2882 251100

Email: info@telestack.com



'Past Success is the best indicator of future performance'



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'I'

Emission Calculations

G40-C REGISTRATION APPLICATION FORMS

General Permit G40-C Registration Section Applicability Form

General Permit G40-C allows qualified registrants to seek registration for a variety of sources. These sources include nonmetallic mineral processing plants which include crushers, screens, transfer points (loading, unloading, etc.), open stockpiles, bins, haulroads, reciprocating internal combustion engine driven compressors, emergency standby generators, and tanks. All registered facilities will be subject to Sections 1.0, 1.1, 2.0, 3.0 and 4.0.

General Permit G40-C allows the registrant to choose which sections of the permit that they wish to seek registration under. Therefore, please mark which sections that you are applying for registration under. Please keep in mind, that if this registration is approved, the issued registration will state which sections will apply to your affected facility.

- | | | |
|------------------------|--|-------------------------------------|
| Section 5 ¹ | Nonmetallic Mineral Processing Operations | <input checked="" type="checkbox"/> |
| Section 6 | Standards of Performance for Nonmetallic Mineral Processing Plants that Commenced Construction, Reconstruction or Modification after August 31, 1983 but before April 22, 2008 (40CFR60 Subpart OOO) | <input type="checkbox"/> |
| Section 7 | Standards of Performance for Nonmetallic Mineral Processing Plants that Commenced Construction, Reconstruction or Modification on or after April 22, 2008. (40CFR60 Subpart OOO) | <input checked="" type="checkbox"/> |
| Section 8 ² | Reciprocating Internal Combustion Engines (R.I.C.E.) | <input checked="" type="checkbox"/> |
| Section 9 | Tanks | <input checked="" type="checkbox"/> |
| Section 10 | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII) | <input type="checkbox"/> |
| Section 11 | Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ) | <input type="checkbox"/> |

1 Affected facilities that are subject to Section 5 may also be subject to Sections 6 and 7. Therefore, if the applicant is seeking registration under multiple sections, they will need to select all applicable sections.

2 Affected facilities that are subject to Section 8 may also be subject to Sections 10 or 11. Therefore, if the applicant is seeking registration under multiple sections, they will need to select all applicable sections.

CRUSHING AND SCREENING AFFECTED SOURCE SHEET

Source Identification Number ¹		CR-1	CR-2	S-1		
Type of Crusher or Screen ²		JC	OT, Impact	TD		
Make, Model No., Serial No. ³		Powerscreen Permiertrack PIDPR400EO MGB4446	Powerscreen XH500 RRA07366	Powerscreen H6203R PD00125ED GE48491		
Date of Construction, Reconstruction, or Modification (Month/Year) ⁴		Jan 2016	Jan 2014	Jan 2014		
Maximum Throughput ⁵	tons/hour	400	500	800		
	tons/year	3,504,000	4,380,000	7,008,000		
Material sized from/to: ⁶		5"-	5"-, 2"-	2"-		
Average Moisture Content (%) ⁷		0.7	0.7	0.7		
Control Device ID Number ⁸		CS-WS	CS-WS	CS-WS		
Baghouse Stack Parameters ⁹	height (ft)					
	diameter (ft)					
	volume (ACFM)					
	exit temp (F)					
	UTM Coordinates					
Maximum Operating Schedule ¹⁰	hours/day	10	10	10		
	days/year	5	5	5		
	hours/year	2600	2600	2600		

1. Enter the appropriate Source Identification Number for each crusher and screen. For example, in the case of an operation which incorporates multiple crushers, the crushers should be designated CR-1, CR-2, CR-3 etc. beginning with the breaker or primary crusher. Multiple screens should be designated S-1, S-2, S-3 etc.
2. Describe types of crushers and screens using the following codes:

HM	Hammermill	SS	Stationary Screen	DR	Double Roll Crusher
SD	Single Deck Screen	BM	Ball Mill	DD	Double-Deck Screen
RB	Rotary Breaker	TD	Triple Deck Screen	JC	Jaw Crusher
GC	Gyratory Crusher	OT	Other		
3. Enter the make, model number, and serial number of the crusher/screen.
4. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
5. Enter the maximum throughput for each crusher and screen in tons per hour and tons per year.
6. Describe the nominal material size reduction (e.g. +2" / -3/8").
7. Enter the average percent moisture content of the material processed.
8. Enter the appropriate Control Device Identification Number for each crusher and screen. Refer to Table A - *Control Device Listing and Control Device Identification Number Instructions* in the *Reference Document* for Control Device ID prefixes and numbering.
9. Enter the appropriate stack parameters if a baghouse control device is used.
10. Enter the maximum operating schedule for each crusher and screen in hours per day, days per year and hours per year.

STORAGE ACTIVITY AFFECTED SOURCE SHEET

Source Identification Number ¹	OS-1	OS-2				
Type of Material Stored ²	5"-	2"-				
Average Moisture Content (%) ³	0.7	0.7				
Maximum Yearly Storage Throughput (tons) ⁴	4,380,000	4,380,000				
Maximum Storage Capacity (tons) ⁵	500	500				
Maximum Base Area (ft ²) ⁶	2,500	2,500				
Maximum Pile Height (ft) ⁷	35	35				
Method of Material Load-in ⁸	MC	MC				
Load-in Control Device Identification Number ⁹	SL-WS	SL-WS				
Storage Control Device Identification Number ⁹	SW-WS	SW-WS				
Method of Material Load-out ⁸	OT	OT				
Load-out Control Device Identification Number ⁹	LO-WS	LO-WS				

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS Bin or Storage Silo (full enclosure)	E3 Enclosure (three sided enclosure)
OS Open Stockpile	SB Storage Building (full enclosure)
SF Stockpiles with wind fences	OT Other
2. Describe the type of material stored or stockpiled. (e.g. sized material, raw material, refuse, etc).
3. Enter the average percent moisture content of the stored material.
4. Enter the maximum yearly storage throughput for each storage activity.
5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
6. For stockpiles, enter the maximum stockpile base area.
7. For stockpiles, enter the maximum stockpile height.
8. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS Clamshell	SS Stationary Conveyor/Stacker
FC Fixed Height Chute from Bins	ST Stacking Tube
FE Front Endloader	TC Telescoping Chute from Bins
MC Mobile Conveyor/Stacker	TD Truck Dump
UC Under-pile or Under-Bin Reclaim Conveyor	PC Pneumatic Conveyor/Stacker
RC Rake or Bucket Reclaim Conveyor	OT Other
9. Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - Control Device Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.

HAULROAD EMISSIONS

Include G40-C Emission Calculation Spreadsheet indicating haulroad emissions, or submit calculations indicating assumptions made to substantiate emission values.

Emission Source	Uncontrolled Emissions		Controlled Emissions	
	Hourly (lb/hr)	Annual (tpy)	Hourly (lb/hr)	Annual (tpy)
Haul Road PM	22.22	8.50	13.09	5.005
Haul Road PM10	6.56	2.45	3.86	1.45

BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number:
2. Manufacturer's name and model identification:
3. Number of compartments in baghouse:
4. Number of compartments online during normal operation and conditions:
5. Gas flow rate into baghouse: _____ ACFM @ _____ °F and _____ PSIA
6. Total cloth area: _____ ft²
7. Operating air to cloth ratio: _____ ft/min
8. Filter media type:
9. Stabilized static pressure drop across baghouse: _____ inches H₂O
10. Baghouse operation is:
 Continuous Automatic Intermittent
11. Method used to clean bags:
 Shaker Pulse jet Reverse jet Other
12. Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:
Entering baghouse: _____ lb/hr and _____ grains/ACF
Exiting baghouse: _____ lb/hr and _____ grains/ACF
13. Guaranteed minimum baghouse collection efficiency: _____ %
14. Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:
15. Describe the method of disposal for the collected material:

Air Pollution Control Device Sheet
 (WET COLLECTING SYSTEM-SCRUBBER)

Control Device ID No. (must match Emission Units Table):

Equipment Information

1. Manufacturer: Model No.	2. Method: <table style="display: inline-table; vertical-align: top; margin-left: 10px;"> <tr> <td><input type="checkbox"/> Packed Bed</td> <td><input type="checkbox"/> Venturi</td> </tr> <tr> <td><input type="checkbox"/> Spray Tower</td> <td><input type="checkbox"/> Cyclone</td> </tr> <tr> <td><input type="checkbox"/> Mechanical</td> <td><input type="checkbox"/> Orifice</td> </tr> <tr> <td><input type="checkbox"/> Other, specify</td> <td></td> </tr> </table>	<input type="checkbox"/> Packed Bed	<input type="checkbox"/> Venturi	<input type="checkbox"/> Spray Tower	<input type="checkbox"/> Cyclone	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Orifice	<input type="checkbox"/> Other, specify	
<input type="checkbox"/> Packed Bed	<input type="checkbox"/> Venturi								
<input type="checkbox"/> Spray Tower	<input type="checkbox"/> Cyclone								
<input type="checkbox"/> Mechanical	<input type="checkbox"/> Orifice								
<input type="checkbox"/> Other, specify									
3. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.									
4. Provide a scale diagram of the scrubber showing internal construction. Please include packing type and size, spray configurations, baffle plates, and mist eliminators.									
5. What type of liquid entrainment eliminators or system will be used? Submit a schematic diagram showing thickness, mesh, and material of construction.									
6. Describe the scrubber's construction material:									
7. What will be the power requirements of the collector? <table style="width:100%; margin-top: 10px;"> <tr> <td style="text-align: center;">Fan</td> <td style="text-align: center;">HP</td> <td style="text-align: center;">Inlet scrubbing liquid pump:</td> </tr> </table>		Fan	HP	Inlet scrubbing liquid pump:					
Fan	HP	Inlet scrubbing liquid pump:							
8. What type of fan(s) will be used? <table style="width:100%; margin-top: 10px;"> <tr> <td style="width:33%;">Type of fan blade:</td> <td style="width:33%;">Number of blades:</td> <td style="width:33%;">Diameter of blade:</td> </tr> <tr> <td style="text-align: center;">in.</td> <td></td> <td></td> </tr> </table> Also supply a fan curve for each fan to be used.		Type of fan blade:	Number of blades:	Diameter of blade:	in.				
Type of fan blade:	Number of blades:	Diameter of blade:							
in.									
9. Estimated gas pressure drop at maximum flow rate: _____ inches H ₂ O									

Scrubbing Liquor Characteristics

10. Scrubbing Liquor <table style="width:100%; margin-top: 5px;"> <thead> <tr> <th style="width:50%;">Composition</th> <th style="width:50%;">Weight %</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">1</td><td></td></tr> <tr><td style="text-align: center;">2</td><td></td></tr> <tr><td style="text-align: center;">3</td><td></td></tr> <tr><td style="text-align: center;">4</td><td></td></tr> </tbody> </table>	Composition	Weight %	1		2		3		4		11. Scrubbing liquor losses (evaporation, etc.): gal/1000 ACF gas
Composition	Weight %										
1											
2											
3											
4											
	12. Liquor pressure to scrubber: _____ PSIA										
	13. Pressure drop through scrubber: _____ in. H ₂ O										
14. Source of liquor (explain):	15. Liquor flow rates to scrubber: <table style="margin-left: 20px; margin-top: 5px;"> <tr> <td>Design maximum:</td> <td style="text-align: right;">gal/min</td> </tr> <tr> <td>Average expected:</td> <td style="text-align: right;">gal/min</td> </tr> </table>	Design maximum:	gal/min	Average expected:	gal/min						
Design maximum:	gal/min										
Average expected:	gal/min										
16. Describe system to be used to supply liquor to collector:											

17. Give the expected solids content of the liquor:

18. If the liquor is to be recirculated, describe any treatment performed:

19. Data for Venturi Scrubber: Throat Dimensions: (Specify Units) Throat Velocity: ft/sec	20. Data for Packed Towers: Type of Packing: Superficial Gas Velocity through Bed:
---	--

Gas Stream Characteristics

21. Gas flow into the collector: <div style="display: flex; justify-content: space-around;"> ACF @ °F and PSIA </div>	22. Gas stream temperature: Inlet: °F
---	---

23. Gas flow rate: Design Maximum: ACFM Average Expected: ACFM	24. Particulate Grain Loading in grains/scf: Inlet: Outlet:
--	---

25. Emission rate of each pollutant (specify) into and out of collector:

Pollutant	IN		OUT		Guaranteed Minimum Collection Efficiency
	lb/hr	grains/acf	lb/hr	grains/acf	
A					
B					
C					
D					
E					

26. Type of pollutant(s) controlled: SO_x Odor
 Particulate (type): Other:

27. By what method were the uncontrolled emissions calculated? Material Balance Stack Test
 Pilot Test Other:

28. Dimensions of stack: Height ft. Diameter ft

29. Supply an equilibrium curve and/or solubility data (at various temperatures) for the proposed system.

30. Supply a curve showing proposed collection efficiency versus gas volume from 25 to 100 percent of design rating of collector.

Particulate Distribution

31. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):

32. Describe the collection material disposal system:

33. Have you included *Wet Collecting (Scrubber) Control Device* in the Emissions Points Data Summary Sheet?

34. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING:

RECORDKEEPING:

REPORTING:

TESTING:

MONITORING:	Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.
RECORDKEEPING:	Please describe the proposed recordkeeping that will accompany the monitoring.
REPORTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.
TESTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.

35. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.

36. Manufacturer's Guaranteed Control Efficiency for each air pollutant.

37. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

ENGINE DATA SHEET

Source Identification Number ¹		E-1 for CR-1 Tier 4		E-2 for CR-2 Tier 3		E-3 for S-1 Tier 3	
Engine Manufacturer and Model		Scania DC9 84A		Caterpillar C-13 ACERT		Caterpillar C6.6 ACERT	
Manufacturer's Rated bhp/rpm		275hp/ 1600rpm		440hp/1800rpm		202hp/2200rpm	
Source Status ²		NS		NS		NS	
Date Installed/Modified/Removed (Month/Year) ³		February 2017		February 2017		February 2017	
Engine Manufactured/Reconstruction Date ⁴		1/21/16		1/26/14		1/17/14	
Is this a Certified Stationary Compression Ignition Engine according to 40CFR60 Subpart III? (Yes or No) ⁵		No		No		NO	
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart JJJJ? (Yes or No) ⁶		NA		NA		NA	
Engine, Fuel and Combustion Data	Engine Type ⁷	Diesel		Diesel		Diesel	
	APCD Type ⁸	SCR		SCR		SCR	
	Fuel Type ⁹	2FO		2FO		2FO	
	H ₂ S (gr/100 scf)	NA		NA		NA	
	Operating bhp/rpm	275/1600		440hp/1800rpm		202hp/2200rpm	
	BSFC (Btu/bhp-hr)	7,000		7,000		7,000	
	Fuel throughput (ft ³ /hr)	14.1 gallons per hour		22.6 gallons per hour		10.4	
	Fuel throughput (MMft ³ /yr)	NA		NA		NA	
	Operation (hrs/yr)	2600		2600		2600	
Reference ¹⁰	Potential Emissions ¹¹	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
AP OT	NO _x	0.25	0.33	13.59	17.67	6.24	8.12
AP OT	CO	2.13	3.00	3.40	4.42	1.56	2.03
AP	VOC	0.70	0.91	1.11	1.45	0.51	0.67
AP	SO ₂	0.56	0.73	0.90	1.17	0.42	0.55
AP	PM ₁₀	0.60	0.78	0.96	1.25	0.44	0.58
AP	Formaldehyde	2.27E-03	2.95E-03	3.63E-03	4.72E-03	1.67E-03	2.17E-03
AP	Acenaphthene	3.78E-07	4.91E-07	4.37E-06	4.91E-07	2.01E-06	4.91E-07
AP	Acenaphthylene	1.35E-06	1.75E-06	1.56E-05	1.75E-06	7.15E-06	1.75E-06
AP	Acetaldehyde	2.04E-04	2.65E-04	2.36E-03	2.65E-04	1.08E-03	2.65E-04
AP	Acrolein	2.46E-05	3.20E-05	2.85E-04	3.20E-05	1.31E-04	3.20E-05
AP	Anthracene	4.97E-07	6.47E-07	5.76E-06	6.47E-07	2.64E-06	6.47E-07
AP	Benzene	2.48E-04	3.23E-04	2.87E-03	3.23E-04	1.32E-03	3.23E-04

Source Identification Number ¹		E-1 for CR-1 Tier 4		E-2 for CR-2 Tier 3		E-3 for S-1 Tier 3	
Engine Manufacturer and Model		Scania DC9 84A		Caterpillar C-13 ACERT		Caterpillar C6.6 ACERT	
Manufacturer's Rated bhp/rpm		275hp/ 1600rpm		440hp/1800rpm		202hp/2200rpm	
Source Status ²		NS		NS		NS	
Date Installed/Modified/Removed (Month/Year) ³		February 2017		February 2017		February 2017	
AP	Benzo(a)anthracene	4.47E-07	5.81E-07	5.17E-06	5.81E-07	2.38E-06	5.81E-07
AP	Benzo(a)pyrene	5.00E-08	6.50E-08	5.79E-07	6.50E-08	2.66E-07	6.50E-08
AP	Benzo(b)fluoranthene	2.64E-08	3.43E-08	3.05E-07	3.43E-08	1.40E-07	3.43E-08
AP	Benzo(g,h,i)perylene	1.30E-07	1.69E-07	1.51E-06	1.69E-07	6.91E-07	1.69E-07
AP	Benzo(k)fluoroanthene	4.12E-08	5.36E-08	4.77E-07	5.36E-08	2.19E-07	5.36E-08
AP	1,3-Butadiene	1.04E-05	1.35E-05	1.20E-04	1.35E-05	5.53E-05	1.35E-05
AP	Chrysene	9.39E-08	1.22E-07	1.09E-06	1.22E-07	4.99E-07	1.22E-07
AP	Dibenzo(a,h)anthracene	1.55E-07	2.02E-07	1.80E-06	2.02E-07	8.24E-07	2.02E-07
AP	Fluoranthene	2.02E-06	2.63E-06	2.34E-05	2.63E-06	1.08E-05	2.63E-06
AP	Fluorene	7.77E-06	1.01E-05	8.99E-05	1.01E-05	4.13E-05	1.01E-05
AP	Indeno(1,2,3,c,d)pyrene	7.22E-07	9.38E-07	1.16E-06	1.50E-06	5.30E-07	6.89E-07
AP	Naphthalene	1.63E-04	2.12E-04	2.61E-04	3.40E-04	1.20E-04	1.56E-04
AP	Phenanthrene	5.66E-05	7.36E-05	9.06E-05	1.18E-04	4.16E-05	5.40E-05
AP	Propylene	4.97E-03	6.46E-03	7.95E-03	1.03E-02	3.65E-03	4.74E-03
AP	Pyrene	9.20E-06	1.20E-05	1.47E-05	1.91E-05	6.76E-06	8.79E-06
AP	Toluene	7.87E-04	1.02E-03	1.26E-03	1.64E-03	5.78E-04	7.52E-04
AP	Xylenes (mixed isomers)	5.49E-04	7.13E-04	8.78E-04	1.14E-03	4.03E-04	5.24E-04

Source Identification Number ¹	E-4 for BC-1 Tier 2	E-5 for BC-2 Tier 2	E-6 for BC-3 Tier 2
Engine Manufacturer and Model	Deutz D 2011	Deutz D 2011	Deutz D 2011
Manufacturer's Rated bhp/rpm	38hp/ 1600rpm	38hp/ 1600rpm	38hp/ 1600rpm
Source Status ²	NS	NS	NS
Date Installed/Modified/Removed (Month/Year) ³	February 2017	February 2017	February 2017
Engine Manufactured/Reconstruction Date ⁴	2014	2014	2014
Is this a Certified Stationary Compression Ignition Engine according to 40CFR60 Subpart IIII? (Yes or No) ⁵	No	No	No
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart JJJJ? (Yes or No) ⁶	NA	NA	NA

Source Identification Number ¹		E-4 for BC-1 Tier 2		E-5 for BC-2 Tier 2		E-6 for BC-3 Tier 2	
Engine Manufacturer and Model		Deutz D 2011		Deutz D 2011		Deutz D 2011	
Manufacturer's Rated bhp/rpm		38hp/ 1600rpm		38hp/ 1600rpm		38hp/ 1600rpm	
Source Status ²		NS		NS		NS	
Date Installed/Modified/Removed (Month/Year) ³		February 2017		February 2017		February 2017	
Engine, Fuel and Combustion Data	Engine Type ⁷	Diesel		Diesel		Diesel	
	APCD Type ⁸	A/F		A/F		A/F	
	Fuel Type ⁹	2FO		2FO		2FO	
	H ₂ S (gr/100 scf)	NA		NA		NA	
	Operating bhp/rpm	38hp/1600rpm		38hp/1600rpm		38hp/1600rpm	
	BSFC (Btu/bhp-hr)	7,000		7,000		7,000	
	Fuel throughput (ft ³ /hr)	2.0 gallons per hour		2.0 gallons per hour		2.0 gallons per hour	
	Fuel throughput (MMft ³ /yr)	NA		NA		NA	
	Operation (hrs/yr)	2600		2600		2600	
Reference ¹⁰	Potential Emissions ¹¹	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
AP OT	NO _x	1.18	1.54	1.18	1.54	1.18	1.54
AP OT	CO	0.35	0.46	0.35	0.46	0.35	0.46
AP	VOC	0.10	0.13	0.10	0.13	0.1	0.13
AP	SO ₂	0.08	0.11	0.08	0.11	0.08	0.11
AP	PM ₁₀	0.09	0.12	0.09	0.12	0.09	0.12
AP	Formaldehyde	3.14E-04	4.08E-04	3.14E-04	4.08E-04	3.14E-04	3.14E-04
AP	Acenaphthene	3.78E-07	4.91E-07	3.78E-07	4.91E-07	3.78E-07	4.91E-07
AP	Acenaphthylene	1.35E-06	1.75E-06	1.35E-06	1.75E-06	1.35E-06	1.75E-06
AP	Acetaldehyde	2.04E-04	2.65E-04	2.04E-04	2.65E-04	2.04E-04	2.65E-04
AP	Acrolein	2.46E-05	3.20E-05	2.46E-05	3.20E-05	2.46E-05	3.20E-05
AP	Anthracene	4.97E-07	6.47E-07	4.97E-07	6.47E-07	4.97E-07	6.47E-07
AP	Benzene	2.48E-04	3.23E-04	2.48E-04	3.23E-04	2.48E-04	3.23E-04
AP	Benzo(a)anthracene	4.47E-07	5.81E-07	4.47E-07	5.81E-07	4.47E-07	5.81E-07
AP	Benzo(a)pyrene	5.00E-08	6.50E-08	5.00E-08	6.50E-08	5.00E-08	6.50E-08
AP	Benzo(b)fluoranthene	2.64E-08	3.43E-08	2.64E-08	3.43E-08	2.64E-08	3.43E-08
AP	Benzo(g,h,i)perylene	1.30E-07	1.69E-07	1.30E-07	1.69E-07	1.30E-07	1.69E-07
AP	Benzo(k)fluoroanthene	4.12E-08	5.36E-08	4.12E-08	5.36E-08	4.12E-08	5.36E-08
AP	1,3-Butadiene	1.04E-05	1.35E-05	1.04E-05	1.35E-05	1.04E-05	1.35E-05
AP	Chrysene	9.39E-08	1.22E-07	9.39E-08	1.22E-07	9.39E-08	1.22E-07

Source Identification Number ¹		E-4 for BC-1 Tier 2		E-5 for BC-2 Tier 2		E-6 for BC-3 Tier 2	
Engine Manufacturer and Model		Deutz D 2011		Deutz D 2011		Deutz D 2011	
Manufacturer's Rated bhp/rpm		38hp/ 1600rpm		38hp/ 1600rpm		38hp/ 1600rpm	
Source Status ²		NS		NS		NS	
Date Installed/Modified/Removed (Month/Year) ³		February 2017		February 2017		February 2017	
AP	Dibenzo(a,h)anthracene	1.55E-07	2.02E-07	1.55E-07	2.02E-07	1.55E-07	2.02E-07
AP	Fluoranthene	2.02E-06	2.63E-06	2.02E-06	2.63E-06	2.02E-06	2.63E-06
AP	Fluorene	7.77E-06	1.01E-05	7.77E-06	1.01E-05	7.77E-06	1.01E-05
AP	Indeno(1,2,3,c,d)pyrene	9.98E-08	1.30E-07	9.98E-08	1.30E-07	9.98E-08	1.30E-07
AP	Naphthalene	2.26E-05	2.93E-05	2.26E-05	2.93E-05	2.26E-05	2.93E-05
AP	Phenanthrene	7.82E-06	1.02E-05	7.82E-06	1.02E-05	7.82E-06	1.02E-05
AP	Propylene	6.86E-04	8.92E-04	6.86E-04	8.92E-04	6.86E-04	8.92E-04
AP	Pyrene	1.27E-06	1.65E-06	1.27E-06	1.65E-06	1.27E-06	1.65E-06
AP	Toluene	1.09E-04	1.41E-04	1.09E-04	1.41E-04	1.09E-04	1.41E-04
AP	Xylenes (mixed isomers)	7.58E-05	9.86E-05	7.58E-05	9.86E-05	7.58E-05	9.86E-05

1. Enter the appropriate Source Identification Number for each reciprocating internal combustion compressor/generator engine located at the facility. Multiple compressor engines should be designated CE-1, CE-2, CE-3 etc. Emergency Generator engines should be designated EG-1, EG-2, EG-3 etc. If more than three (3) engines exist, please use additional sheets.
2. Enter the Source Status using the following codes:
 NS Construction of New Source (installation) ES Existing Source
 MS Modification of Existing Source RS Removal of Source
3. Enter the date (or anticipated date) of the engine's installation (construction of source), modification or removal.
4. Enter the date that the engine was manufactured, modified or reconstructed.
5. Is the engine a certified stationary compression ignition internal combustion engine according to 40CFR60 Subpart IIII. If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to 40CFR§60.4210 as appropriate.

Provide a manufacturer's data sheet for all engines being registered.

6. Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart JJJJ. If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to 40CFR§60.4243a(2)(i) through (iii), as appropriate.

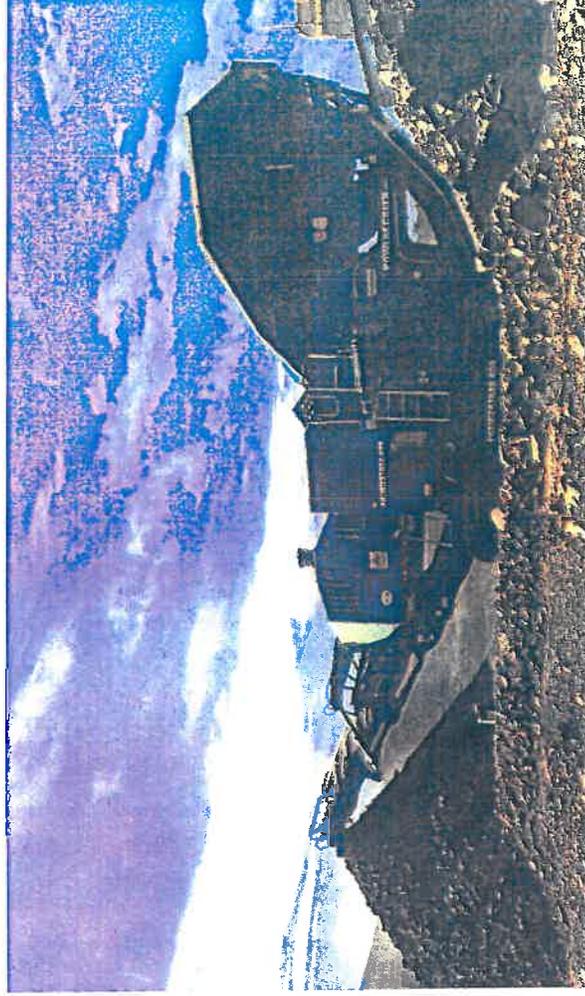
Provide a manufacturer's data sheet for all engines being registered.

7. Enter the Engine Type designation(s) using the following codes:
 LB2S Lean Burn Two Stroke RB4S Rich Burn Four Stroke
 LB4S Lean Burn Four Stroke



Powerscreen® Premiertrak 400 & R400 Jaw Crusher

SPECIFICATION - Rev 7. 01/01/2016



POWERSCREEN
CELEBRATING 50 YEARS
OF POWER CRUSHING

50





DC09 084A. 202 kW (275 hp)

EU Stage IV, US Tier 4f



The industrial engines from Scania are based on a robust design with a strength optimised cylinder block containing wet cylinder liners that can easily be exchanged. Individual cylinder heads with 4 valves per cylinder promotes reparability and fuel economy.

The engine is equipped with a Scania developed Engine Management System, EMS, in order to ensure the control of all aspects related to engine performance. The injection system is Scania's XPI (Extra High Pressure Injection), a common rail system that in combination with SCR (Selective Catalytic Reduction) and EGR (Exhaust Gas Recirculation) gives low exhaust emissions with good fuel economy and a high torque. The engine can be fitted with many accessories such as air cleaners, silencers, PTOs and flywheels in order to suit a variety of installations.

	Rating	Engine speed (rpm)			
		1200	1500	1800	2100
Gross power (kW)	ICFN	195	202	202	202
Gross power (hp, metric)	ICFN	265	275	275	275
Gross torque (Nm)	ICFN	1552	1286	1072	919
Spec fuel consumption, Full load (g/kWh)		198	201	211	227
Spec fuel consumption, 3/4 load (g/kWh)		200	209	224	246
Spec fuel consumption, 1/2 load (g/kWh)		207	221	253	282
Reductant consumption, Full load (g/kWh)		7	6	9	12

ICFN – Continuous service: Rated output available 1/1 h.
Unlimited h/year service time at a load factor of 100%.

Note!

The fuel consumption values are valid when the engine uses fully warm after treatment system and in warm conditions. Fuel efficiency will be reduced during warm up and with colder ambient temperature, especially in combination with un-efficient thermal insulation of after treatment system.

Standard equipment

- Scania Engine Management System, EMS
- Extra high pressure fuel injection system, XPI
- Turbocharger (VGT)
- Fuel filter and extra pre-filter with water separator
- Fuel heater
- Oil filter, full flow
- Centrifugal oil cleaner
- Oil cooler, integrated in block
- Oil filter, in valve cover
- Deep front oil sump
- Oil dipstick, in block
- Magnetic drain plug for oil draining
- Starter, 1-pole 6.0 kW
- Alternator, 1-pole 100A
- Flywheel, for use with friction clutch
- Silumin flywheel housing, SAE 1 Range
- Front-mounted engine brackets
- SCR system
- EGR system
- Open crankcase ventilation
- Operator's manual

Optional equipment

- Cooling package
- Puller and pusher fans
- Fan ring with sealing
- Hydraulic pump
- Air compressor
- AC compressor
- Side-mounted PTO
- Front-mounted PTO
- Exhaust connections
- Electrical base system
- Control and instrument panels
- Accelerator position sensor
- Engine heater
- Flywheels: SAE11.5, SAE14, DANA15/16, DANA17 Reaplate, ZF WG260
- Stiff rubber engine suspension
- Air cleaner
- Closed crankcase ventilation
- Studs in flywheel housing
- External thermostat for extra oil cooler
- Low coolant level reaction
- Variable idle speed setting
- Low oil sump
- Oil level sensor

This specification may be revised without notice.



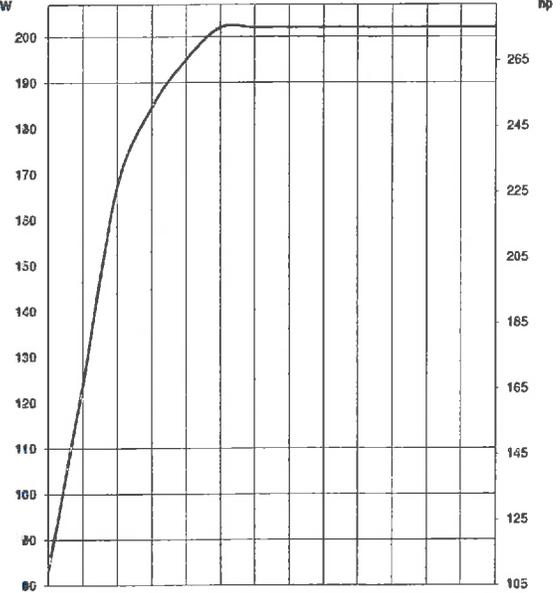
DC09 084A. 202 kW (275 hp)

EU Stage IV, US Tier 4f

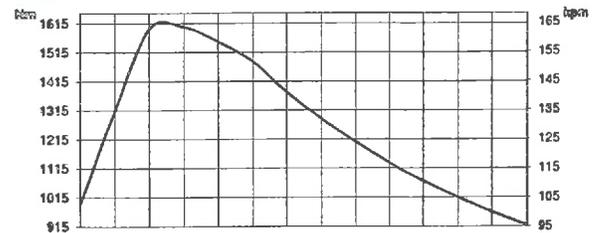
Engine description

No of cylinders	5 in-line
Working principle	4-stroke
Firing order	1 - 2 - 4 - 5 - 3
Displacement	9.3 litres
Bore x stroke	130 x 140 mm
Compression ratio	16:1
Weight	975 kg (excl oil and coolant)
Piston speed at 1500 rpm	7.0 m/s
Piston speed at 1800 rpm	8.4 m/s
Camshaft	High position alloy steel
Pistons	Aluminium pistons
Connection rods	I-section press forgings of alloy steel
Crankshaft	Alloy steel with hardened and polished bearing surfaces
Oil capacity	32-33 dm ³
Electrical system	1-pole 24V

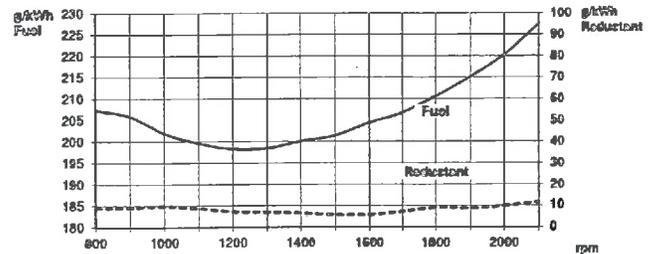
Output kW



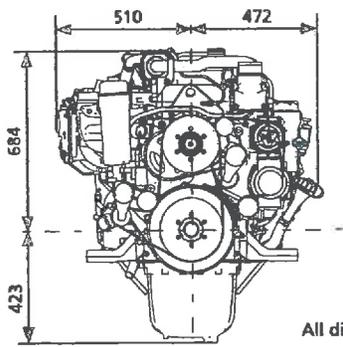
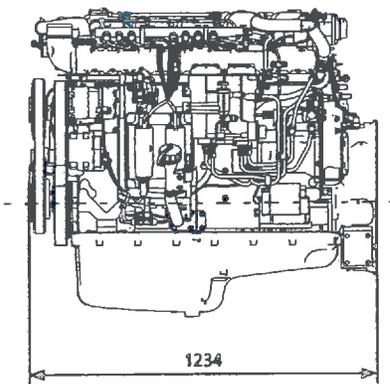
Torque



Spec fuel and reductant consumption



Test conditions Air temperature +25°C, Barometric pressure 100 kPa (750 mmHg), Humidity 30%. Diesel fuel acc. to ECE R 24 Annex 6. Density of fuel 0.840 kg/dm³. Viscosity of fuel 3.0 cSt at 40°C. Energy value 42700 kJ/kg. Power test code ISO 3046. Power and fuel values +/−3%.

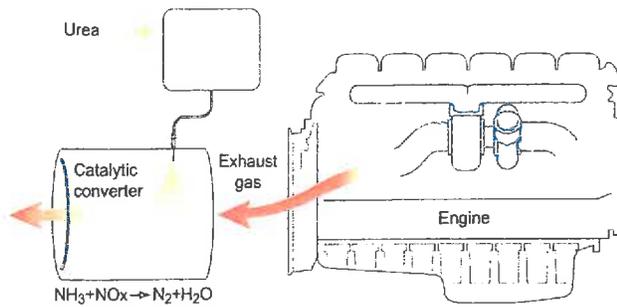


All dimensions in mm



SCR system

EU Stage IV, US Tier 4f

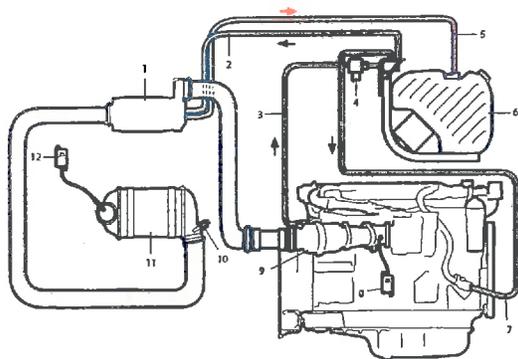


The principle for Scania SCR system

SCR (Selective Catalytic Reduction) technology is used on Scania's engines for EU Stage IV and US Tier 4f to reduce the NO_x content in the exhaust gases. A chemical process is started by injecting reductant, an urea and water mixture, into the exhaust gas stream. During injection the water evaporates and the urea breaks down to form ammonia. The ammonia then reacts with the nitrogen gases in the catalytic converter and forms harmless products such as nitrogen gas and water. Through the use of SCR the exhaust gases are purged of poisonous levels of NO_x in the best possible way. Scania is making use of a system that is carefully developed and tested in our own laboratory.

The reductant tank is available in different sizes and is heated by the engine's cooling system in order to avoid freezing of the urea solution; urea freezes at -11°C. The tank and a pump module are delivered as a unit which is fitted to brackets for an easy installation. The Scania system contains all mechanical and electrical parts needed except from the exhaust piping which is to be adapted according to the customers installation.

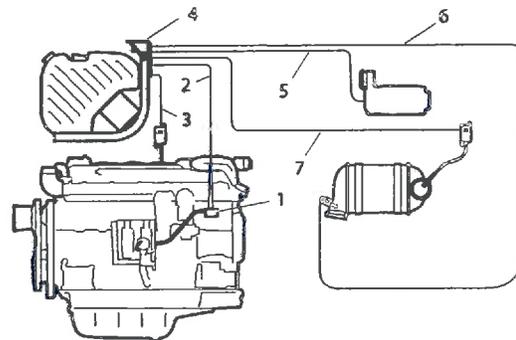
Mechanical system



	Standard	Optional
1 Evaporator module	✓	-
2 Reductant pressure line	2.5 m	4 m, 5 m, 6.5 m
3 Coolant hose for tank and pump heating	-	-
4 Coolant valve	✓	-
5 Reductant fluid return line	2.5 m	4 m, 5 m, 6.5 m
6 Reductant tank	38 l	45 l, 60 l, 63 l, 70 l
7 Coolant hose, return from tank and pump heating	-	-
8 NO _x sensor with control unit	✓	-
9 Oxidation catalytic converter ¹⁾	Engine-mounted	Separately
10 Temperature sensor	✓	-
11 SCR catalyst	✓	-
12 NO _x sensor with control unit	✓	-

1) Not DC13 085A or DC16.

Electric system

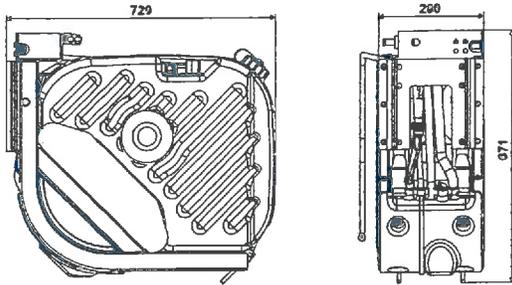


	Standard	Optional
1 Customer interface, SCR system	✓	-
2 between engine and SCR control unit	3 m	4.5 m, 6 m
3 NO _x sensor electrical cable	3 m	4.5 m, 6 m
4 Electrical interface, SCR system	✓	-
5 Reductant doser electrical cable	3 m	4.5 m, 6 m
6 Temperature sensor electrical cable	3 m	4.5 m, 6 m, 9 m
7 NO _x sensor electrical cable	3 m	4.5 m, 6 m, 9 m

SCR system

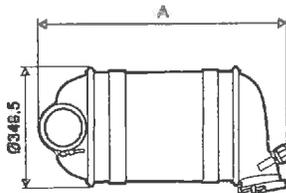
EU Stage IV, US Tier 4f

Reductant tank - 38 litres
 Total volume: 50 litres
 Filling volume: 38 litres



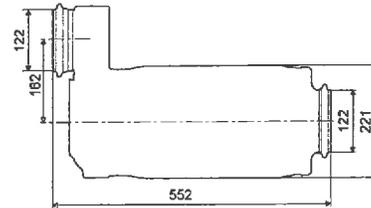
Other available sizes: 45 litres (total volume 62 litres)
 60 litres (total volume 75 litres)
 63 litres (total volume 80 litres)
 70 litres (total volume 88 litres)

SCR catalyst

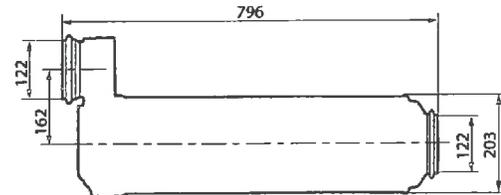


Engine	Dimensions A (mm)
DC09 (202 kW - 257 kW)	786
DC09 (276 kW - 294 kW)	900
DC13 (257 kW - 331 kW)	900
DC13 (368 kW - 405 kW)	970
DC16	970

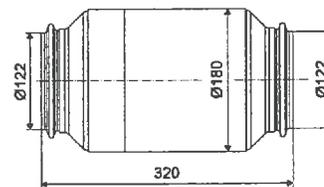
Evaporator module (DC9 and DC13)



Evaporator module (DC16)



Oxidation catalytic converter (not DC13 085A or DC16)



Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2016	GY9XL09.3DAA	9.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation, Engine Control Module, Diesel Oxidation Catalyst, Smoke Puff Limiter, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Crane, Loader, Tractor, Pump, Dozer, Compressor, Generator	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

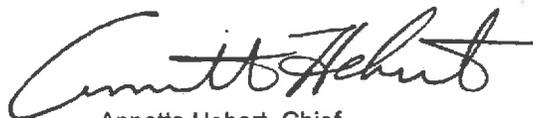
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ KW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	0.39	--	0.2	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 22 day of January 2016.



Annette Hebert, Chief
 Emissions Compliance, Automotive Regulations and Science Division

ATTACHMENT 1 OF 1

Engine ModelsEZ

UR-024-0028

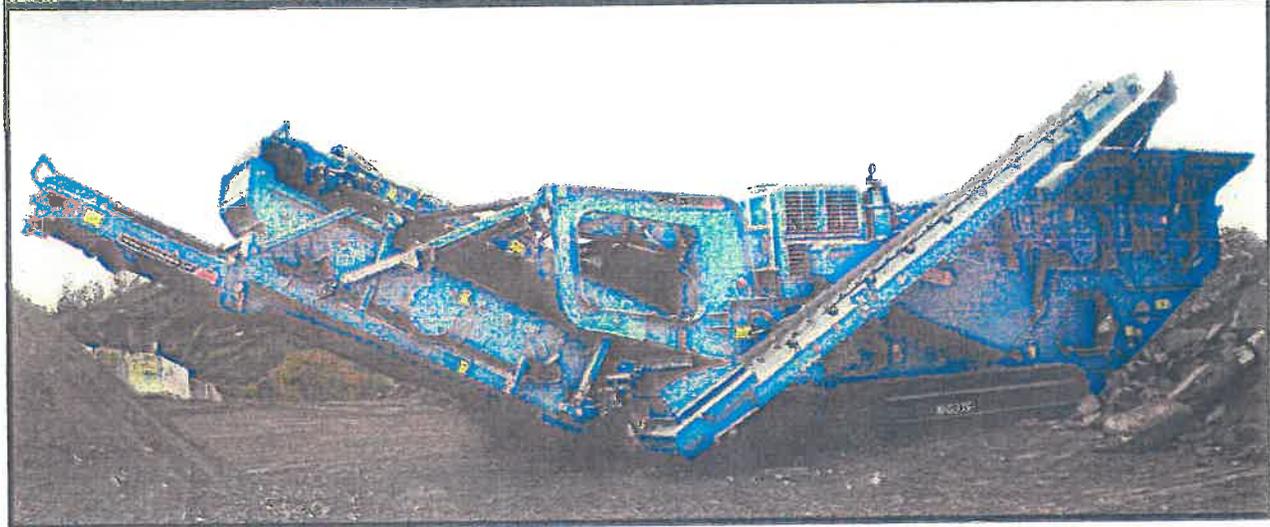
1/21/2016

Engine Family	1.Engine Code	2.Engine Model	3.Dis- placement	4.Power kW @RPM	5.Fuel Rate: mm/stroke @ peak HP	6.Fuel Rate: (lbs/hr) @ peak HP	7.Torque Nm @ RPM	8.Fuel Rate: mm/stroke@ peak torque	9.Fuel Rate: (lbs/hr)@ peak torque	10.Emission Control Device
GY9XL09.3DAA	DC09 084A	2133492	9.3	202 @2100	162	95	1552 @ 1200	266	90	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 085A	2133493	9.3	232 @2100	185	109	1711 @ 1200	294	99	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 085A	2133494	9.3	243 @2100	193	114	1751 @ 1200	285	96	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 085A	2133495	9.3	257 @2100	205	121	1800 @ 1300	297	108	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 086A	2133496	9.3	276 @2100	219	129	1873 @ 1300	308	112	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 086A	2133497	9.3	294 @2100	233	138	1876 @ 1400	312	123	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 087A	2245949	9.3	202 @1800	178	90	1275 @ 1200	216	73	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 089A	2245951	9.3	202 @1800	178	90	1275 @ 1200	216	73	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 089A	2245952	9.3	237 @1800	209	105	1321 @ 1350	219	83	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
GY9XL09.3DAA	DC09 092A	2265830	9.3	202 @1800	178	90	1275 @ 1200	216	73	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX

Powerscreen® XH500

Horizontal Impactor

SPECIFICATION - Rev 5. 01-01-2012





NEW INDUSTRIAL

C13 ACERT™

[< Back](#)

REQUEST A QUOTE

FINANCING & INSURANCE

[See our Current Offers](#)

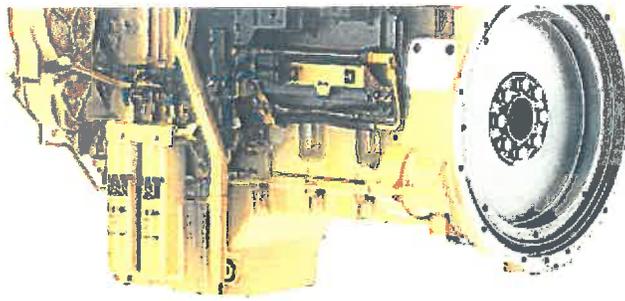
TECHNICAL INFORMATION

FIND YOUR DEALER

COMPARE MODELS

BUY USED ENGINES





C13 ACERT Tier 4 Diesel Engines - Highly Regulated

PHOTO **VIDEOS** **360 VIEW**



SPECIFICATIONS

BENEFITS & FEATURES

EQUIPMENT

OVERVIEW

The Cat® C13 ACERT™ Industrial Diesel Engine is offered in ratings ranging from 287-388 bkW (385-520 bhp) @ 1800-2100 rpm. Industries and applications powered by C13 ACERT engines include: Agriculture, Ag Tractors, Aircraft Ground Support, Bore/Drill Rigs, Chippers/Grinders, Combines/Harvesters, Compactors/Rollers, Compressors, Construction, Cranes, Crushers, Dredgers, Forestry, General Industrial, Hydraulic Power Units, Irrigation Equipment, Loaders/Forwarders, Material Handling, Mining, Mobile Earthmoving Equipment, Paving Equipment, Pumps, Shovels/Drillines, Specialty Ag Equipment, Surface Hauling Equipment, Trenchers and Underground Mining Equipment.

POWER RATING

UNITS: US METRIC

Minimum Power	385.0 bhp
Maximum Power	520.0 bhp

Rated Speed	1800-2100 rpm
-------------	---------------

EMISSION STANDARDS

Emissions	U.S. EPA Tier 4 Final Nonroad, EU Stage IV Nonroad, U.S. EPA Tier 4 Interim Nonroad Equivalent (Not Currently EPA Certified) and EU Stage IIIB Nonroad Equivalent (Non-Current for EU) Emission Standards. Designed to meet proposed EU Stage V Nonroad Emission Standards
-----------	--

GENERAL

Engine Configuration	In-Line 6, 4-Stroke-Cycle Diesel
----------------------	----------------------------------

Bore	130 mm (5.1 in)
------	-----------------

Stroke	157 mm (6.2 in)
--------	-----------------

Displacement	12.5 L (762.8 in ³)
--------------	---------------------------------

Aspiration	Turbocharged-Aftercooled (TA)
------------	-------------------------------

Compression Ratio	17.0:1
-------------------	--------

Combustion System	Direct Injection
-------------------	------------------

Rotation (from flywheel end)	Counterclockwise
------------------------------	------------------

Cooling System Capacity	18.7 L (19.8 qt)
-------------------------	------------------

Lube System (refill)	34 L (35.9 qt)
----------------------	----------------

ENGINE DIMENSIONS (APPROXIMATE. FINAL DIMENSIONS DEPENDENT ON SELECTED

OPTIONS)

Length	1203-1272 mm (47.2-50.1 in)
Width	933-996 mm (36.74-39.2 in)
Height	1132-1186 mm (44.6-46.7 in)
Weight - Net Dry (Basic Operating Engine Without Optional Attachments)	1143-1350 kg (2520-2976 lb)

CAT REGENERATION SYSTEM AFTERTREATMENT DIMENSIONS (APPROXIMATE. FINAL DIMENSIONS DEPENDENT ON SELECTED OPTIONS)

Length	1053-1077 mm (41.5-42.4 in)
Width	779.8-1069 mm (30.7-42.1 in)
Height	451.3-654 mm (17.8-25.7 in)
Weight	248-259 kg (547-571 lb)
Diameter	330.2 mm (13 in)

PETU DIMENSIONS (TIER 4 FINAL, STAGE IV ONLY)

Length	854 mm (33.6 in)
Width	287 mm (11.3 in)
Volume Capacity	48.4 L (51.1 qt)
Weight	19.42 kg (42.8 lb)

Height	551 mm (21.7 in)
--------	------------------

PASSIVE REGENERATION SYSTEM AFTERTREATMENT DIMENSIONS (APPROXIMATE. FINAL DIMENSIONS DEPENDENT ON SELECTED OPTIONS)

Length	974.8 mm (38.4 in)
--------	--------------------

Width	958.3 mm (37.7 in)
-------	--------------------

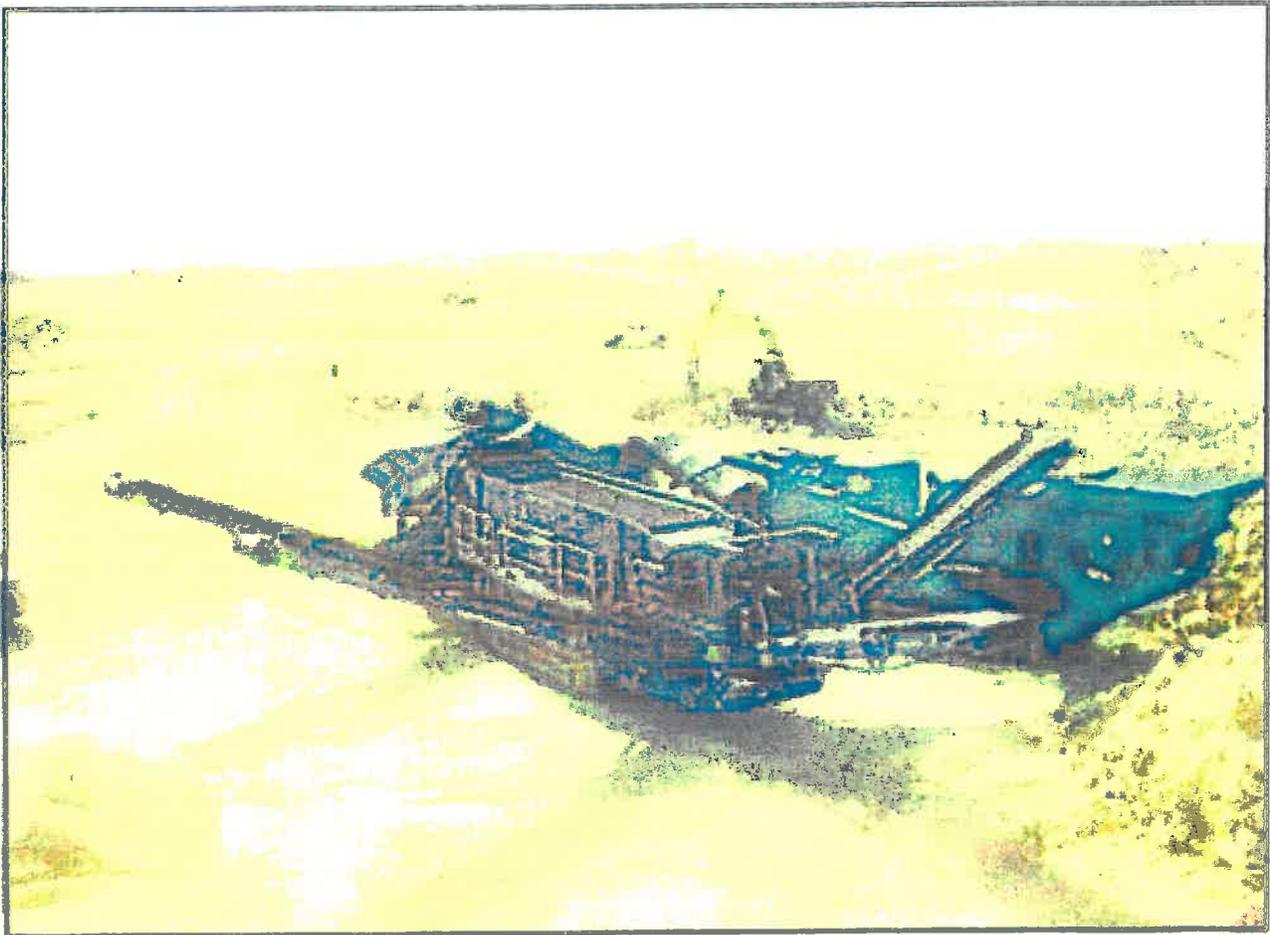
Height	547.2 mm (21.5 in)
--------	--------------------

Weight	140 kg (308.6 lb)
--------	-------------------

Powerscreen® H6203R

3 Deck Horizontal Screen

Specification - Rev 3. 25/01/2012





NEW INDUSTRIAL

C6.6 ACERT™

[< Back](#)

REQUEST A QUOTE

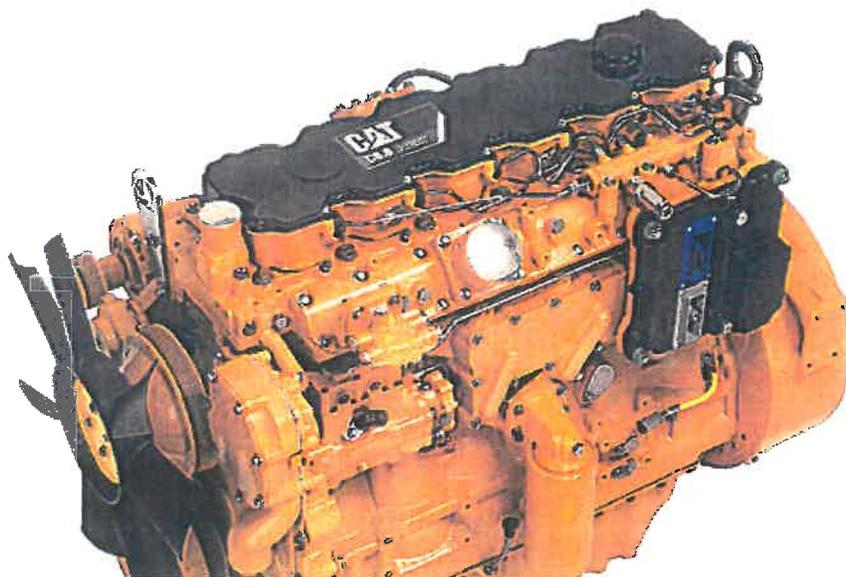
FINANCING & INSURANCE

See our Current Offers

TECHNICAL INFORMATION

FIND YOUR DEALER

COMPARE MODELS





C6.6 ACERT LRC Diesel Engines - Lesser Regulated & Non-Regulated

PHOTO



SPECIFICATIONS

BENEFITS & FEATURES

EQUIPMENT

OVERVIEW

Cat[®] C6.6 ACERT Industrial Diesel Engines offer the perfect balance of durability, fuel efficiency and low emissions. Extensively tested on the job, these engines use a range of Common Rail fuel systems and advanced control systems to deliver maximum uptime in the harshest environment. They have proven they can handle the toughest applications and deliver superior performance that exceeds the expectations of the most demanding users. Industries and applications powered by C6.6 ACERT engines include: Agriculture, Ag Tractors, Aircraft Ground Support, Bore/Drill Rigs, Chippers/Grinders, Combines/Harvesters, Compactors/Rollers, Compressors, Construction, Cranes, Crushers, Feller Bunchers, Forestry, Forklifts, General Industrial, Harvesters, Hydraulic Power Units, Irrigation Equipment, Loaders/Forwarders, Material Handling, Mining, Mobile Earthmoving Equipment, Mobile Sweepers, Paving Equipment, Pumps, Skidders, Specialty Ag Equipment, Sprayers, Trenchers and Underground Mining Equipment. C6.6 ACERT engines, with ratings: 89-205 bkW (119-275 bhp) @ 2200-2500 rpm, meet U.S. EPA Tier 3 equivalent, EU Stage IIIA equivalent emission standards. They are available using U.S. EPA and EU Flexibility, and for other regulated and non-regulated areas.

POWER RATING

UNITS:

US	METRIC
----	--------

Minimum Power	119.0 bhp
Maximum Power	275.0 bhp
Rated Speed	2200-2500 rpm

EMISSION STANDARDS

Emissions	U.S. EPA Tier 3 Equivalent, EU Stage IIIA Equivalent
-----------	--

GENERAL

Engine Configuration	Inline 6, 4-Stroke-Cycle Diesel
Bore	105 mm (4.13 in)
Stroke	127 mm (5.0 in)
Displacement	6.6 L (402.8 in ³)
Aspiration	Turbocharged Aftercooled (TA)
Compression Ratio	16.2:1
Combustion System	Direct Injection
Rotation (from flywheel end)	Counterclockwise

ENGINE DIMENSIONS (APPROXIMATE. FINAL DIMENSIONS DEPENDENT ON SELECTED OPTIONS)

Length	929 mm (36.6 in)
Width	668 mm (26.3 in)
Height	797 mm (31.4 in)
Weight, Net Dry (Basic Operating Engine Without Optional Attachments)	506 kg (1116 lb)

TC 421 Track Conveyor
(71ft x 40")



SPECIFICATION

- 3metre Tracks for site movement
- 1000mm (40") Belting.
- Optional 1050mm (42") Belting
- 21.9m (71ft) Long conveyor
- Discharge height up to 11m (36ft)

ADVANTAGES

- Reduce fuel consumption by up to 80%
- Eliminate / reduce need for wheel loader
- Eliminate material double handling
- Reduce noise, dust and emissions
- Higher quality end product
- Easy to transport / relocate



Deutz 3 Cylinder D 2011 28.75Kw (38HP)



Tracks 3m Centre x 400 shoe (10ft x 20")



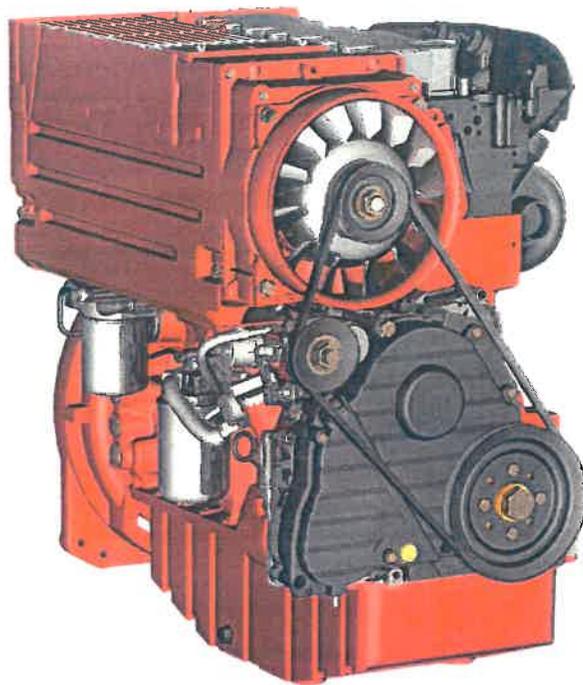
Optional Dual Power or All Electric Conveyor



Heavy Duty Mid section for large lump size

TD 2011

The Construction Equipment Engine. 23-56 kW | 31-75 hp at 1600-2800 rpm



The engine company.



Your benefits

- Compact dimensions. Takes up less space and reduces installation costs.
- The 2011 model series offers an outstanding power-to-weight ratio.
- Low exhaust emissions for a clean environment. Compliance with 2004/26/EU level III A and EPA TIER III for mobile equipment.
- High reliability combined with long maintenance intervals and low wear.
- Low noise emission eliminates the need for costly noise-reducing soundproofing measures.

Characteristics

Compact dimensions | Naturally-aspirated 2-, 3- and 4-cylinder in-line engines | Turbocharging also for 4-cylinder engines | With integrated cooling system | Power take-offs for driving hydraulic pumps up to 28 kW/2800 rpm | All service points located on one side of the engine

TIER III/level III A performance for mobile working machines ¹⁾

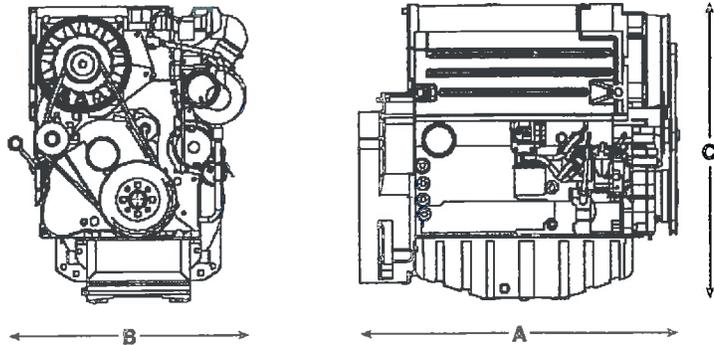
Engine model		D 2011 L2 i	D 2011 L3 i	D 2011 L4 i	TD 2011 L4 i
Number of cylinders		2	3	4	4
Bore/stroke	mm inch	94/112 3.7/4.4	94/112 3.7/4.4	96/125 3.8/5.0	96/125 3.8/5.0
Swept volume	l cu inch	1.55 95	2.33 142	3.62 221	3.62 221
Compression ratio		1 : 19	1 : 19	1 : 19	1 : 18
Max. rated speed	rpm	2800	2800	2600	2600
Mean piston speed	m/s ft/sec	10.5 34.4	10.5 34.4	10.5 34.4	10.5 34.4

Performance for mobile working machines ¹⁾

Output according to ISO 14396	kW hp	23 31	35.8 48	46 62	56 75
At engine speed	rpm	2800	2800	2600	2600
At mean, effective pressure	bar lb/inch	6.3 91	6.6 96	6.1 88	7.4 107
Max. torque	Nm lb/ft	90 66	137 101	190 140	250 184
At engine speed	rpm	1700	1700	1700	1600
Minimum idle speed	rpm	900	900	900	900
Specific fuel consumption ²⁾	g/kWh lb/hp-hr	225 0.37	225 0.37	230 0.38	230 0.38
Weight according to DIN 70020, Part 7A ³⁾	kg lb	175 386	217 478	270 595	267 589

Dimensions

in mm inch	A	B	C
D 2011 L2 i	487 19.2	451 17.8	683 26.9
D 2011 L3 i	599 23.6	451 17.8	678 26.9
D 2011 L4 i	710 28.0	467 18.4	713 28.1
TD 2011 L4 i	710 28.0	530 20.9	713 28.1



1) Gross flywheel output data including integrated cooling system.

2) At best point. Specific fuel consumption with reference to diesel fuel with a density of 0.835 kg/dm³ at 15 °C (6.96 lb/US gallon at 60 °F).

3) Including integrated cooling system, flywheel and SAE housing, but without starter motor, alternator and fluids.

The values specified in this datasheet are for information purposes only and are not binding.

The information given in the quotation is decisive.

8. Enter the Air Pollution Control Device (APCD) type designation(s) using the following codes:

- | | | | |
|------|---|------|---|
| A/F | Air/Fuel Ratio | IR | Ignition Retard |
| HEIS | High Energy Ignition System | SIPC | Screw-in Precombustion Chambers |
| PSC | Prestratified Charge | LEC | Low Emission Combustion |
| NSCR | Rich Burn & Non-Selective Catalytic Reduction | SCR | Lean Burn & Selective Catalytic Reduction |

9. Enter the Fuel Type using the following codes:

- | | | | |
|-----|------------------------------|-----|--------------------|
| PQ | Pipeline Quality Natural Gas | RG | Raw Natural Gas |
| 2FO | #2 Fuel Oil | LPG | Liquid Propane Gas |

10. Enter the Potential Emissions Data Reference designation using the following codes. Attach all referenced data to this *Compressor/Generator Data Sheet(s)*.

- | | | | |
|----|---------------------|----|-------|
| MD | Manufacturer's Data | AP | AP-42 |
| GR | GRI-HAPCalc™ | OT | Other |

<https://www.dieselnet.com/standards/us/nonroad.php#tier3> and tier4 _____ (please list)

11. Enter each engine's Potential to Emit (PTE) for the listed regulated pollutants in pounds per hour and tons per year. PTE shall be calculated at manufacturer's rated brake horsepower and may reflect reduction efficiencies of listed Air Pollution Control Devices. Emergency generator engines may use 500 hours of operation when calculating PTE. PTE data from this data sheet shall be incorporated in the *Emissions Summary Sheet*.

STORAGE TANK DATA SHEET

Source ID # ¹	Status ²	Content ³	Volume ⁴	Dia ⁵	Throughput ⁶	Orientation ⁷	Liquid Height ⁸
None							

1. Enter the appropriate Source Identification Numbers (Source ID #) for each storage tank located at the facility. Tanks should be designated T01, T02, T03, etc.

2. Enter storage tank Status using the following:

- | | | | |
|-------|--------------------|-----|-------------------------------|
| EXIST | Existing Equipment | NEW | Installation of New Equipment |
| REM | Equipment Removed | | |

3. Enter storage tank content such as condensate, pipeline liquids, glycol (DEG or TEG), lube oil, etc.

4. Enter storage tank volume in gallons.

5. Enter storage tank diameter in feet.

6. Enter storage tank throughput in gallons per year.

7. Enter storage tank orientation using the following:

- | | | | |
|------|---------------|------|-----------------|
| VERT | Vertical Tank | HORZ | Horizontal Tank |
|------|---------------|------|-----------------|

8. Enter storage tank average liquid height in feet.

EMISSION SUMMARY SHEET FOR CRITERIA POLLUTANTS

		Registration Number (Agency Use) <u>G40-C</u>									
		Potential Emissions (lbs/hr)					Potential Emissions (tons/yr)				
Source ID No.	NOx	CO	VOC	SO ₂	PM ₁₀	NOx	CO	VOC	SO ₂	PM ₁₀	
CR-1					1.2						
CR-2					1.2						
S-1					4.35						
BC-1					0.55						
BC-2					0.55						
BC-3					0.55						
E-1	0.25	2.13	0.56	0.56	0.60						
E-2	13.59	3.40	1.11	0.90	0.96						
E-3	6.24	1.56	0.51	0.42	0.44						
E-4	1.18	0.35	0.10	0.08	0.09						
E-5	1.18	0.35	0.10	0.08	0.09						
E-6	1.18	0.35	0.10	0.08	0.09						
Haul Roads					6.56						
Stockpiles					3.77						
Total	23.62	8.14	2.48	2.12	17.23						

EMISSION SUMMARY SHEET FOR HAZARDOUS/TOXIC POLLUTANTS												
												Registration Number (Agency Use) <u>G40-C</u>
Source ID No.	Potential Emissions (lbs/hr)						Potential Emissions (tons/yr)					
	Benzene	Ethylbenzene	Toluene	Xylenes	n-Hexane	Formaldehyde	Benzene	Ethylbenzene	Toluene	Xylenes	n-Hexane	Formaldehyde
E-1	1.80E-03	NA	7.87E-04	5.49E-04	NA	2.27E-03						
E-2	2.87E-03	NA	1.26E-03	8.78E-04	NA	3.63E-03						
E-3	1.32E-03	NA	5.78E-04	4.03E-04	NA	1.67E-03						
E-4	2.48E-04	NA	1.09E-04	7.58E-05	NA	3.14E-04						
E-5	2.48E-04	NA	1.09E-04	7.58E-05	NA	3.14E-04						
E-6	2.48E-04	NA	1.09E-04	7.58E-05	NA	3.14E-04						
Total	6.73E-03		2.95E-03	2.06E-03		8.20E-03						

General Permit Levels Construction, Modification, Relocation, Administrative Update

Class II General Permits – G10-D (Coal Preparation and Handling), G20-B (Hot Mix Asphalt), G30-D (Natural Gas Compressor Stations), G35-A (Natural Gas Compressor Stations with Flares/Glycol Dehydration Units), G40-C (Nonmetallic Minerals Processing), G50-B (Concrete Batch Plant), G60-C (Emergency Generators)

Class I General Permit – G33-A (Spark Ignition Internal Combustion Engines 25 HP-500 HP), G65-C (Emergency Generators)

General Permit	Public Notice	Review Period as per 45CSR13	Application Fee	Criteria	Application Type
Class II General Permit (Construction)	30 days (applicant)	45 days	\$500 + applicable NSPS fees	6 lb/hr and 10 tpy of any regulated air pollutant OR 144 lb/day of any regulated air pollutant, OR 2 lb/hr of any hazardous air pollutant OR 5 tpy of aggregated HAP OR 45CSR27 TAP (10% increase if above BAT triggers or increase to BAT triggers) or subject to applicable standard or rule, but subject to specific eligibility requirements	Registration Application
Class II General Permit (Modification)	30 days (applicant)	45 days	\$500 + applicable NSPS fees	Same as Class II General Permit (Construction) but subject to specific eligibility requirements	Registration Application
Administrative Update (Class I)	None	60 days	None	Decrease in emissions or permanent removal of equipment OR more stringent requirements or change in MRR that is equivalent or superior	Registration Application or Written Request
Administrative Update (Class II)	30 days (applicant)	60 days	\$300 + applicable NSPS fees	No change in emissions or an increase less than Class II Modification levels	Registration Application
Relocation	30 days (applicant)	45 days	\$500 + applicable NSPS fees	No emissions increase or change in facility design or equipment	Registration Application
Class I General Permit	None	45 days	\$250	Same as Class II General Permit (Construction) but subject to specific eligibility requirements	Registration Application

SN-07 Storage Piles			
E = k (0.0032) * (U/5) ^{1.3} / (M/2) ^{1.4} lbs/ton		PM	0.015946
PM Emmisions		PM10	0.007542
k = 0.74 (particle size multiplier)	PM Hourly	7.9730206	
U = 7.0 (mean wind speed mph)			
U = 15.0 (mean wind speed mph)	PM Annual	1.1959531	
M = 0.7 (moisture content)			
PM10 Emmissoin	PM10 Hourly	3.7710233	
k = 0.35 (particle size multiplier)	PM 10 Annual	0.5656535	

AP 42 Chapter 13.2.2 Unpaved Roads

$$E = k (s/12)^a (W/3)^b$$

Where

- E = size-specific emission factor,
- s = surface material silt content (%),
- W = mean vehicle weight (tons),

Particle size multiplier [k] (from Table 13.2.2-2)

Particle size multiplier [a] (from Table 13.2.2-2)

Particle size multiplier [b] (from Table 13.2.2-2)

- 0.15 lb/VMT- PM2.5
- 1.5 lb/VMT –PM10
- 4.9 lb/VMT-PM
- 0.9- PM, 0.9- PM10, PM2.5
- 0.45 - PM, PM10, PM2.5

PM₁₀

$$E = 1.5(10/12)^{0.9}(57.144/3)^{0.45} \quad \mathbf{4.79 \text{ lb/VMT}}$$

Miles from new pit to Portable Plant 0.15
 Total Miles loaded 0.15
 Total Miles Road Trip 0.3

Raw Rock Miles E	0
Raw Rock Miles F	0
Raw Rock Empty Weight	0
Raw Rock Full Weight	0
Sold Rock Miles E	0.057
Sold Rock Miles F	0.057
Sold Rock Empty Weight	72400
Sold Rock Full Weight	156176
Loader Miles E	0
Loader Miles F	0
Loader Empty Weight	664120
Loader Full Weight	88920
WA	114288

/2000
57.144Tons

PM₁₀

$$E = 1.5(10/12)^{0.9}(57.144/3)^{0.45} \quad \mathbf{4.79 \text{ lb/VMT}}$$

Large Haul Trucks	Large Hall Trucks		
Empty weight a	79000	Loaded Weight a	156176
Empty weight b	79000	Loaded Weight b	156176
Avg EW	79000	Avg LW	156176

Maximum Loads per Hour provide by the operator

12loads *0.114 1.368

2799.944 total loads

9177.68*0.114 total miles per load

1046.256 annual miles traveled.

PM₁₀

4.79lb/VMT * 41.52 miles/ hr

6.56 lb/hr

(4.79lb/VMT *31754.77 miles travel/per year)/2000

2.45 TPY

Number of Days Annually with at least 0.01 in of precipitation

AP-42 Equation Addition $E_{ext} = E [(365-P)/365]$

P = Number of days (150)

PM₁₀ 3.863599 lb/hr

1.445194 TPY

Facility Name:
(City, State)

AFM:
(Date)

Criteria Pollutants and Hazardous Air Pollutants from Diesel Industrial Engines (AP-42 Chapter 8.3)

Foot note c in AP-42 Table 3.3-1
Foot note e in AP-42 Table 3.3-1
AP-42 Appendix A Miscellaneous Data and Conversion Factor Densities of Selected Substances

Note
BSFC = Brake-specific fuel consumption. According to foot note a in AP-42 Table 3.3-1, 7000 Btu/hp-hr was used to convert from lb/MMBtu to lb/hp-hr
kWic HP = (Eng kW) x 1.341
[Eng HP] = (Eng kW) x 1.341
gal/hr to hp = (Usage gal/hr) x (Density 7.05 lb/gal) x (1/7000 BSFC hp-hr/Btu)

Sources Description	Source No.	Size (Hp)	Size (kW)	Fuel Heating Value Density	BSFC (Btu/hp-hr)		Criteria Pollutant		Tier 4	Criteria Pollutant	Tier 3	Criteria Pollutant	Tier 2	Criteria Pollutant	Tier 1	Criteria Pollutant
					Gal/hr	lb/hr	PM10	SOx								
Jaw Crusher CR-1	275	205	14.3	27.6	2.600	PM10	0.0013228	PM10	4.40524E-05	PM10	0.06	PM10	0.06	PM10	0.02	PM10
Impact Crusher CR-2	440	328	22.6	26.0	2.600	PM10	0.0013228	PM10	4.40524E-05	PM10	0.06	PM10	0.06	PM10	0.02	PM10
Screen S-1	202	151	10.4	26.0	2.600	SOx	0.0013228	SOx	4.40524E-05	SOx	0.06	SOx	0.06	SOx	0.02	SOx
Trackstacker BC-1	38	28	2.0	26.0	2.600	VOC	0.0013228	VOC	4.40524E-05	VOC	0.06	VOC	0.06	VOC	0.02	VOC
Trackstacker BC-2	38	28	2.0	26.0	2.600	CO	0.0013228	CO	4.40524E-05	CO	0.06	CO	0.06	CO	0.02	CO
Trackstacker BC-3	38	28	2.0	26.0	2.600	NOx	0.0013228	NOx	4.40524E-05	NOx	0.06	NOx	0.06	NOx	0.02	NOx

Criteria Pollutant	Emission Factor** (lb/MMBtu)		CR-1E		CR-2E		CR-3E		S-1E		BC-1E		BC-2E		BC-3E		Total	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
PM10	0.31	2.73E-06	0.02	0.18E-06	0.06	0.51E-06	0.04	0.34E-06										
SOx	0.36	3.12E-06	0.78	6.78E-06	1.25	1.08E-05	0.44	3.84E-06	0.58	5.04E-06	0.06	0.51E-06	0.06	0.51E-06	0.06	0.51E-06	0.06	0.51E-06
VOC	0.36	3.12E-06	0.91	7.91E-06	1.17	1.02E-05	0.42	3.67E-06	0.55	4.77E-06	0.11	0.95E-06	0.11	0.95E-06	0.11	0.95E-06	0.11	0.95E-06
CO	0.35	3.05E-06	3.00	2.60E-05	3.40	2.96E-05	1.45	1.26E-04	2.03	1.77E-04	0.46	4.01E-05	0.46	4.01E-05	0.46	4.01E-05	0.46	4.01E-05
NOx	4.41	3.85E-05	0.33	2.87E-06	13.59	1.18E-04	8.12	7.04E-05	8.12	7.04E-05	1.18	1.03E-04	1.18	1.03E-04	1.18	1.03E-04	1.18	1.03E-04

g to lb Conversion factor 0.0022046

Organic Compound	Emission Factor**1 (lb/MMBtu)		CR-1E		CR-2E		CR-3E		S-1E		BC-1E		BC-2E		BC-3E		Total	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Acetophenone	83-32-9	1.42E-06	7.73E-06	6.73E-06	4.37E-06	3.79E-06	5.85E-06	5.09E-06	2.01E-06	1.75E-06	1.78E-07	1.53E-06	3.7772E-07	4.51038E-07	4.51038E-07	1.02E-06	8.92E-06	
Acetophenone	203-86-8	5.06E-06	9.74E-06	1.27E-05	1.96E-05	2.03E-05	7.15E-06	7.15E-06	7.15E-06	7.15E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	
Acetaldehyde	75-07-0	1.07E-04	1.48E-04	2.91E-04	2.85E-04	1.08E-03	1.08E-03	1.08E-03	1.08E-03	1.08E-03	2.04E-04	2.04E-04	2.04E-04	2.04E-04	2.04E-04	2.04E-04	2.04E-04	
Aniline	107-02-8	1.87E-06	3.69E-06	4.8E-06	7.8E-06	7.8E-06	7.8E-06	7.8E-06	7.8E-06	7.8E-06	4.97E-07	4.97E-07	4.97E-07	4.97E-07	4.97E-07	4.97E-07	4.97E-07	
Benzene	71-43-2	9.33E-04	1.89E-03	2.33E-03	2.07E-03	1.32E-03	1.71E-03	1.48E-03	3.28E-04	3.28E-04	4.47E-07	4.47E-07	4.47E-07	4.47E-07	4.47E-07	4.47E-07	4.47E-07	
Benzofuran	54-55-3	1.48E-06	2.23E-06	4.29E-06	5.17E-06	6.21E-06	2.38E-06	2.89E-06	4.47E-07	4.47E-07	5.81E-07	5.81E-07	5.81E-07	5.81E-07	5.81E-07	5.81E-07	5.81E-07	
Benzofuran	50-32-8	1.88E-07	3.61E-07	4.78E-07	5.78E-07	7.53E-07	2.68E-07	3.29E-07	5.09E-08	5.09E-08	6.95E-08	6.95E-08	6.95E-08	6.95E-08	6.95E-08	6.95E-08	6.95E-08	
Benzofuran	205-99-2	9.91E-08	1.91E-07	2.48E-07	3.05E-07	3.97E-07	1.46E-07	1.82E-07	2.64E-08	2.64E-08	3.61E-08	3.61E-08	3.61E-08	3.61E-08	3.61E-08	3.61E-08	3.61E-08	
Benzofuran	191-24-2	4.89E-07	9.41E-07	1.23E-06	1.51E-06	1.96E-06	6.91E-07	8.99E-07	1.30E-07	1.30E-07	1.69E-07	1.69E-07	1.69E-07	1.69E-07	1.69E-07	1.69E-07	1.69E-07	
Benzofuran	205-82-3	1.55E-07	3.08E-07	4.07E-07	5.21E-07	6.78E-07	2.58E-07	3.35E-07	4.52E-08	4.52E-08	6.15E-08	6.15E-08	6.15E-08	6.15E-08	6.15E-08	6.15E-08	6.15E-08	
Benzofuran	106-99-0	3.91E-05	7.53E-05	9.8E-05	1.26E-04	1.64E-04	5.19E-05	6.69E-05	8.9E-05	8.9E-05	1.22E-07	1.22E-07	1.22E-07	1.22E-07	1.22E-07	1.22E-07	1.22E-07	
Benzofuran	218-01-9	6.89E-07	1.32E-06	1.73E-06	2.22E-06	2.89E-06	1.09E-06	1.41E-06	1.98E-07	1.98E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	2.69E-07	
Benzofuran	55-70-3	1.46E-05	2.84E-05	3.68E-05	4.74E-05	6.16E-05	2.34E-05	3.04E-05	4.01E-05	4.01E-05	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	
Benzofuran	205-44-0	7.61E-06	1.48E-05	1.92E-05	2.48E-05	3.24E-05	1.19E-05	1.55E-05	2.04E-05	2.04E-05	2.72E-07	2.72E-07	2.72E-07	2.72E-07	2.72E-07	2.72E-07	2.72E-07	
Benzofuran	86-73-7	2.97E-05	5.62E-05	7.31E-05	9.48E-05	1.24E-04	4.63E-05	6.04E-05	7.97E-05	7.97E-05	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	1.05E-07	
Benzofuran	50-00-0	1.18E-03	2.27E-03	2.95E-03	3.85E-03	5.01E-03	1.77E-03	2.31E-03	3.04E-03	3.04E-03	3.98E-05	3.98E-05	3.98E-05	3.98E-05	3.98E-05	3.98E-05	3.98E-05	
Benzofuran	193-59-5	8.75E-07	1.68E-06	2.21E-06	2.87E-06	3.76E-06	1.39E-06	1.82E-06	2.39E-06	2.39E-06	3.14E-06	3.14E-06	3.14E-06	3.14E-06	3.14E-06	3.14E-06	3.14E-06	
Benzofuran	91-20-3	2.94E-05	5.66E-05	7.42E-05	9.69E-05	1.26E-04	4.59E-05	6.01E-05	7.92E-05	7.92E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	
Benzofuran	115-01-4	4.97E-03	9.49E-03	1.24E-02	1.61E-02	2.09E-02	7.49E-03	9.81E-03	1.28E-02	1.28E-02	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	
Benzofuran	124-02-0	9.29E-06	1.80E-05	2.37E-05	3.10E-05	4.01E-05	1.47E-05	1.92E-05	2.52E-05	2.52E-05	3.28E-07	3.28E-07	3.28E-07	3.28E-07	3.28E-07	3.28E-07	3.28E-07	
Benzofuran	108-88-3	4.78E-04	9.29E-04	1.22E-03	1.58E-03	2.05E-03	7.49E-04	9.81E-04	1.28E-03	1.28E-03	1.66E-05	1.66E-05	1.66E-05	1.66E-05	1.66E-05	1.66E-05	1.66E-05	
Benzofuran	1330-20-7	2.85E-04	5.49E-04	7.13E-04	9.28E-04	1.21E-03	4.03E-04	5.24E-04	6.88E-04	6.88E-04	8.92E-05	8.92E-05	8.92E-05	8.92E-05	8.92E-05	8.92E-05	8.92E-05	

** Not a HAP as defined by Section 112 of the CAA.



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'J'

Class 1 Legal Advertisement



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'J'

Class 1 Legal Advertisement

The following legal advertisement will be published in a local Moundsville, WV newspaper, The Moundsville Echo Newspaper. The Affidavit of Publication will be forwarded to the Division of Air Quality upon receipt from the newspaper.

NOTICE IS HEREBY GIVEN pursuant to 45CSR13 of the West Virginia Department of Environmental Protection, Division of Air Quality, that Independence Excavating, Inc., a Corporation, has at this date made application to the West Virginia Department of Environmental Protection, Division of Air Quality, for a General Permit to construct and operate a portable rock crushing and screening plant located at 13460 Waynesburg Pike, Cameron, West Virginia, 26033, in Marshall County. The latitude is 39.880233 and the longitude is -80.585397.

The applicant has estimated that the operation(s) covered by said permit application have been determined to have the increased potential to discharge into the atmosphere the following Regulated Air Pollutants and associated amounts: 17.23 pounds/hour and 22.40 tons/year of Particulate Matter less than 10 microns in diameter (PM10), 23.62 pounds/hour and 30.71 tons/year of Nitrogen Oxides (NOx), 8.14 pounds/hour and 10.58 tons/year of Carbon Monoxide, 2.12 pounds/hour and 2.76 tons/year of Sulfur Dioxide (SO₂), 2.48 pounds/hour and 3.22 tons/year of Volatile Organic Compounds (VOC).

Startup of operation is planned to begin on or about the 1st day of February 2017. Written comments on this application will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 – 57th Street SE, Charleston, West Virginia, 25304, for a period of at least 30 calendar days from the date of publication of this notice. Any questions regarding this permit application should be directed to the Division of Air Quality at (304) 926-0499 extension 1250, during normal business hours.

Dated this the 19th day of December, 2016.

Independence Excavating, Inc.
By: Scott Schroeder
Project Manager
5720 Schaaf Road
Independence, Ohio 44131



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'K'

Electronic Submittal

See attached 2ea CDs.



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'L'

General Permit Registration Application Fee

See attached check for \$1,500.00



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'N'

Material Safety Data Sheets

The process shall be limited to the crushing of rock materials into crushed stone. This process shall be limited to particulate matter emissions only. As a result, there are no material safety data sheets associated with the operation.



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'O'

Emission Summary Sheets

EMISSION SUMMARY SHEET FOR CRITERIA POLLUTANTS

		Registration Number (Agency Use) <u>G40-C</u>										
Source ID No.	Potential Emissions (lbs/hr)							Potential Emissions (tons/yr)				
	NOx	CO	VOC	SO ₂	PM ₁₀	NOx	CO	VOC	SO ₂	PM ₁₀		
CR-1					1.2							
CR-2					1.2							
S-1					4.35							
BC-1					0.55							
BC-2					0.55							
BC-3					0.55							
E-1	0.25	2.13	0.56	0.56	0.60							
E-2	13.59	3.40	1.11	0.90	0.96							
E-3	6.24	1.56	0.51	0.42	0.44							
E-4	1.18	0.35	0.10	0.08	0.09							
E-5	1.18	0.35	0.10	0.08	0.09							
E-6	1.18	0.35	0.10	0.08	0.09							
Haul Roads					6.56							
Stockpiles					3.77							
Total	23.62	8.14	2.48	2.12	17.23							

EMISSION SUMMARY SHEET FOR HAZARDOUS/TOXIC POLLUTANTS												
										Registration Number (Agency Use) G40-C		
Source ID No.	Potential Emissions (lbs/hr)						Potential Emissions (tons/yr)					
	Benzene	Ethylbenzene	Toluene	Xylenes	n-Hexane	Formaldehyde	Benzene	Ethylbenzene	Toluene	Xylenes	n-Hexane	Formaldehyde
E-1	1.80E-03	NA	7.87E-04	5.49E-04	NA	2.27E-03						
E-2	2.87E-03	NA	1.26E-03	8.78E-04	NA	3.63E-03						
E-3	1.32E-03	NA	5.78E-04	4.03E-04	NA	1.67E-03						
E-4	2.48E-04	NA	1.09E-04	7.58E-05	NA	3.14E-04						
E-5	2.48E-04	NA	1.09E-04	7.58E-05	NA	3.14E-04						
E-6	2.48E-04	NA	1.09E-04	7.58E-05	NA	3.14E-04						
Total	6.73E-03		2.95E-03	2.06E-03		8.20E-03						



INDEPENDENCE EXCAVATING, INC.
5720 Schaaf Road
Independence, Ohio 44131

Phone: 216-524-1700
Fax: 216-524-1701

www.indexc.com

ATTACHMENT 'P'

Monitoring and Recordkeeping

"Operation and Production Records"

Month _____ Year _____

Day	Plant Operating Schedule		Material Throughput (tons)	
	Time Start - Stop	Total Daily Operations (hours)	Material Processed (tons)	Average Hourly Rate (tons/hour)
1	-			
2	-			
3	-			
4	-			
5	-			
6	-			
7	-			
8	-			
9	-			
10	-			
11	-			
12	-			
13	-			
14	-			
15	-			
16	-			
17	-			
18	-			
19	-			
20	-			
21	-			
22	-			
23	-			
24	-			
25	-			
26	-			
27	-			
28	-			
29	-			
30	-			
31	-			
Monthly Total -		hours	tons	tons/hour
Rolling Annual Total -		hours	tons	tons/hour
Permitted Total -				

The data shall be completed and signed by a Responsible Official or Authorized representative after the end of the calendar month. These certified records shall be maintained on-site for a period of five (5) years and be made available to the Director or his or her representative upon request.

"Record of Water Spray Usage"

Month _____ Year _____

Day	Water Spray Source		Maintenance and Repair Records
	Fixed Water Spray System (gallons)	Water Truck (gallons)	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

The data shall be completed and signed by a Responsible Official or Authorized representative after the end of the calendar month. These certified records shall be maintained on-site for a period of five (5) years and be made available to the Director or his or her representative upon request.