

Sandvik Mining and Construction Mobile Crushers and Screens

Features and Benefits Presentation **QA440 Mobile Screen**



Hopper & Feeder

Screen Box

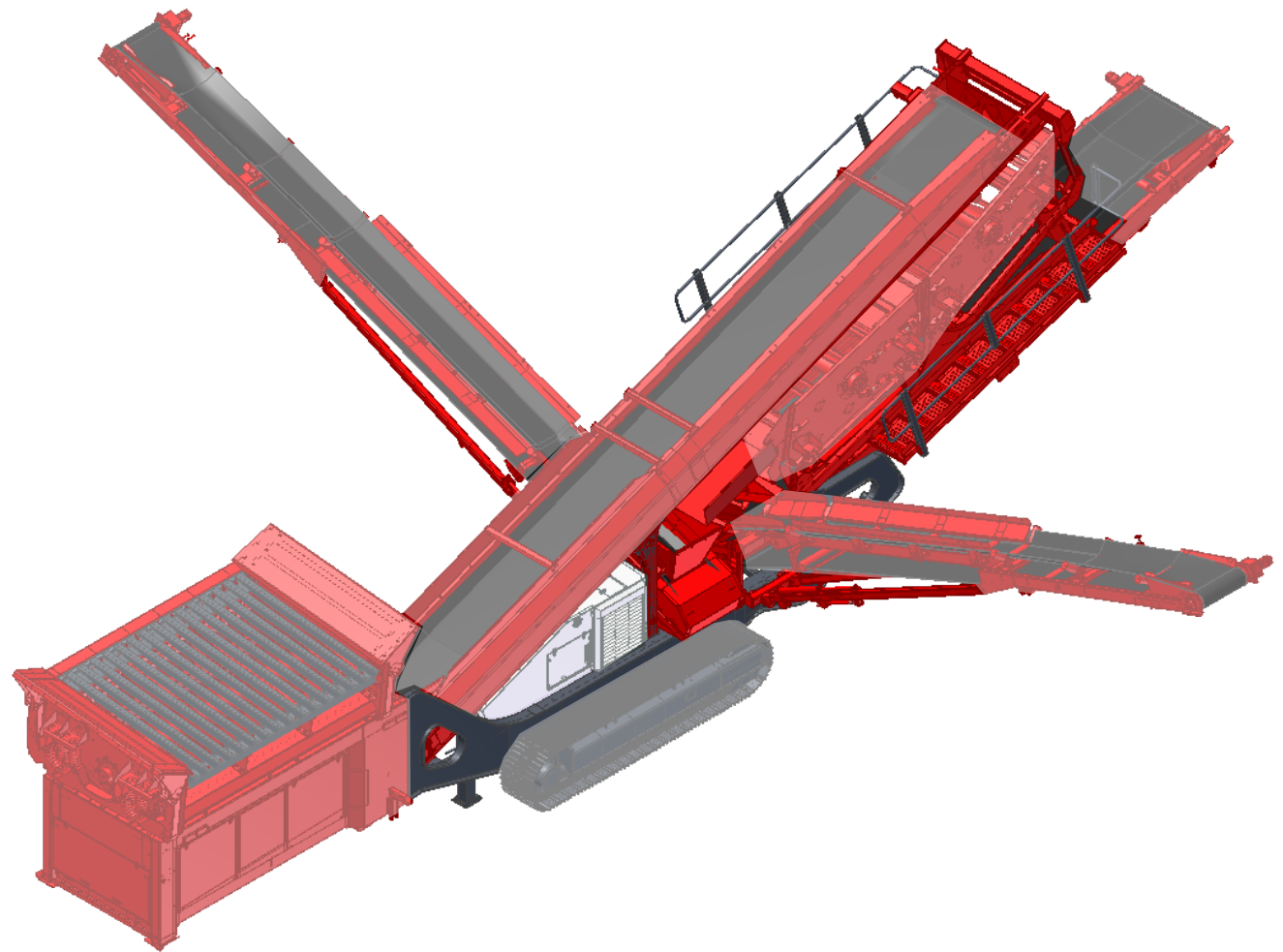
Stockpiling Conveyors

Powerpack & Controls

Tracks

General

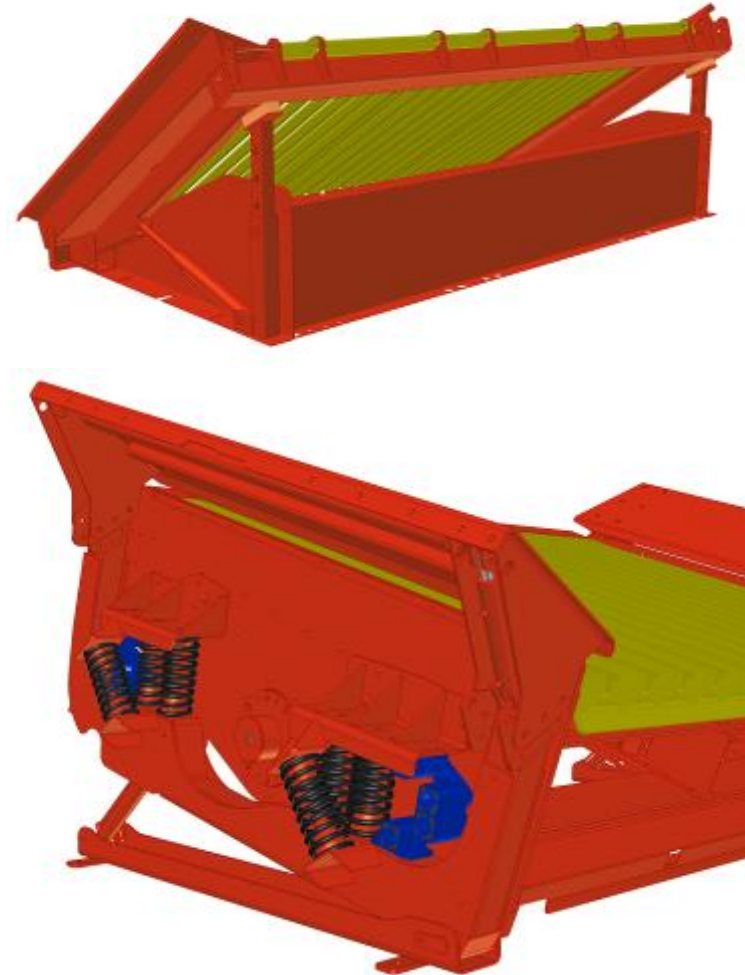
Options



Features and Benefits

Feed Hopper

- Heavy duty hydraulically operated Hopper
- Enables quick set-up time
- Heaped Hopper Capacity 11.33m³
- Vibrating 2 deck grid
optional



Features and Benefits

Feed Hopper

- Free swinging fingers
- Build in three identical section
- The aperture between the fingers is 160mm standard
- Aperture options
110,130,140,170,180,240,280mm
- The grid area is 7.92m² (2.2 x 3.6m)
- With the side doors raised the total area is 9.68m² (2.2 x 4.4m)



Features and Benefits

Tipping Grid

- Radio control for raising and lowering the tipping grid
- A timer is also available for raising and lowering the grid
- Tip angle of 96° on a standard grid
- Tip Angle of 34° on a vibrating grid



Features and Benefits

Feed Hopper

- Recessed hopper design
- This prevents large material damaging the side of the hopper when falling to the ground
- Large access door for maintenance of the feed conveyor



Features and Benefits

Hopper Jacking Legs

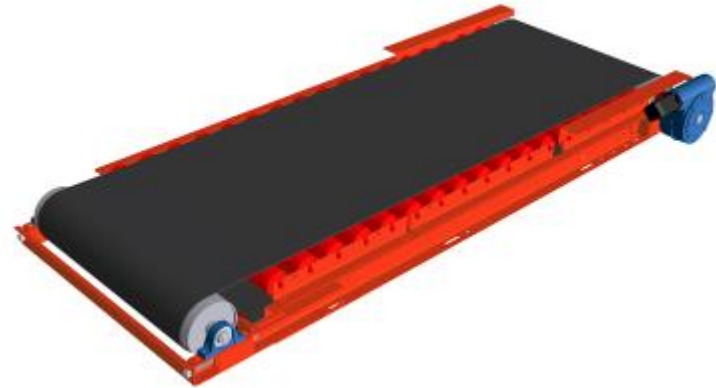
- The hopper sits on 4 hydraulically operated jacking legs
- These jacking legs have a large surface area on each foot, this helps with
 - Loading with dense/heavy material
 - Setting up on soft ground
- Made from 10mm thick steel plate



Features and Benefits

Feeder Cassette

- Driven from flange mounted hydraulic motor & gear box assembly
- Heavy duty bed rollers Which prolongs the life of the belt
- 1200mm belt width
- large hopper discharge plates, which prevents spillage when running high capacities



Features and Benefits

Screen Box



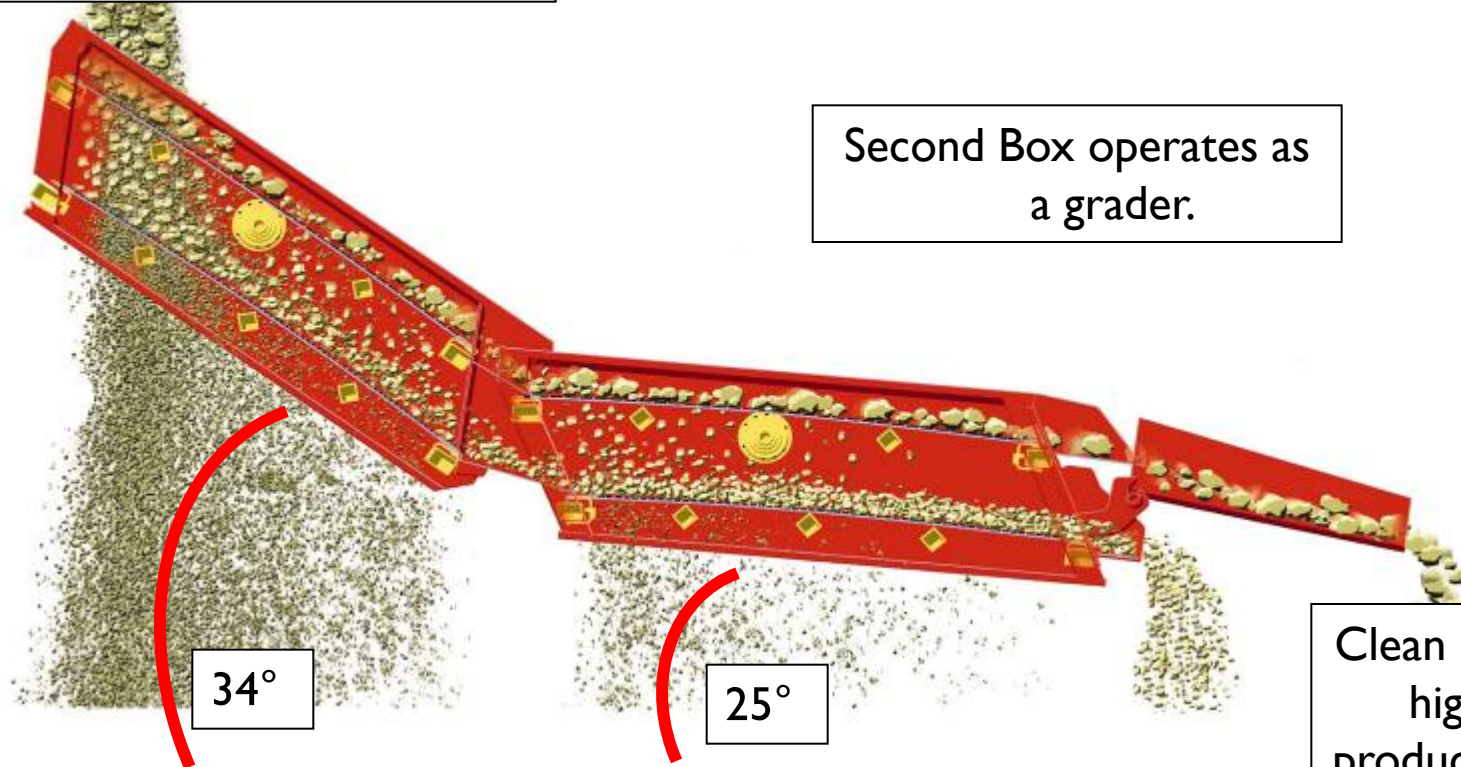
- 2 bearing screen box
- Double deck screen
- Made from 11mm plate bolted together
- Deck size on the first screen 3048 x 1524mm
- Deck size on the second screen 3048 x 1524mm
- Heavy duty screen box with uniquely high throw and speed
- 1200rpm shaft speed,
- 7mm throw

Features and Benefits

Double Screen Design

First screen box is used as a fines extractor

Second Box operates as a grader.

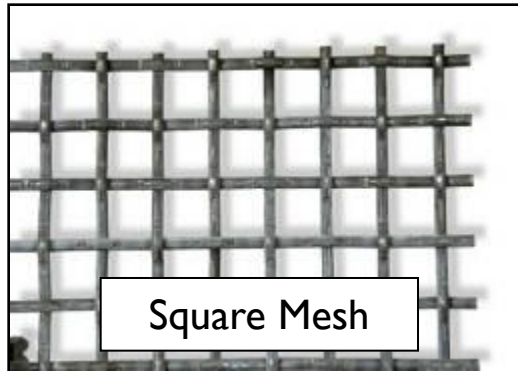


Clean Gradings at very high output are produced as material is exposed to a very large screening area

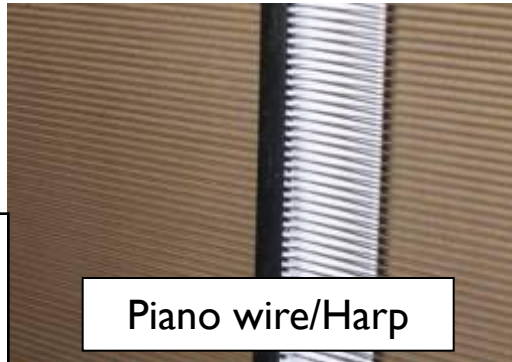
The majority of the undersize is removed during initial impact

Features and Benefits

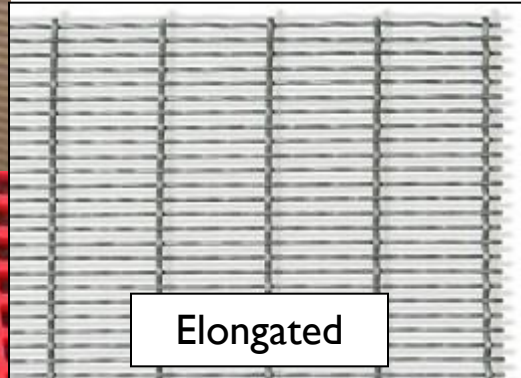
Screen Mesh



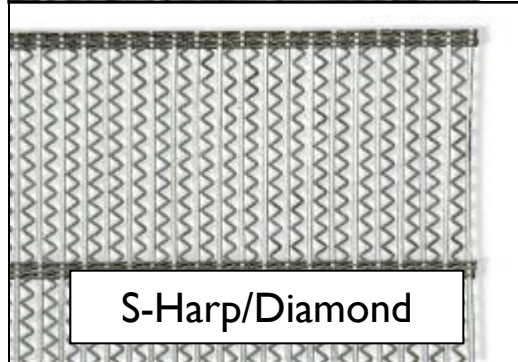
Square Mesh



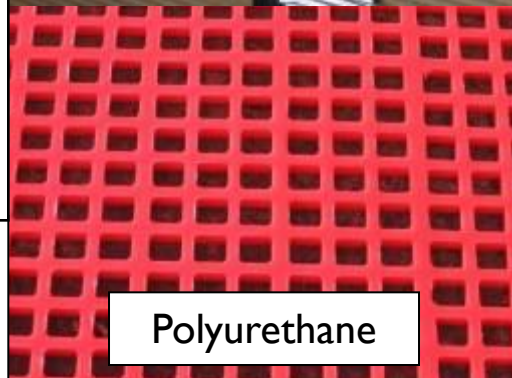
Piano wire/Harp



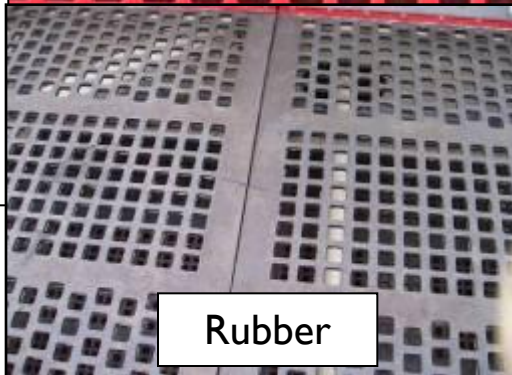
Elongated



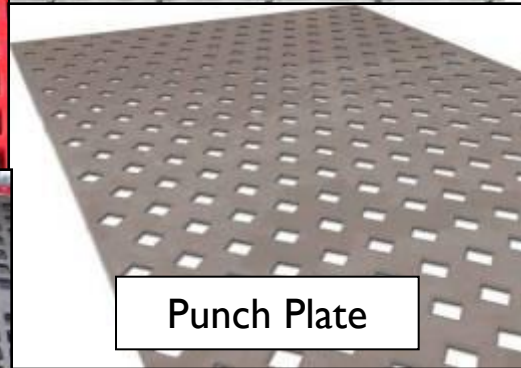
S-Harp/Diamond



Polyurethane



Rubber



Punch Plate

Features and Benefits

Drive

- The screen is driven directly by heavy duty flange mounted hydraulic motor
- With spiral wrap protected hoses



Features and Benefits

Screen Supports

- The Screen box is mounted independently from the chassis
- On a set of springs
- These absorb the screens vibrations and stops any strain travelling through the main chassis.



Features and Benefits

Mesh Tensioning System

- The top and bottom screen decks have a quick tensioning ratchet system.
- For quick screen mesh tension and removal



Features and Benefits

Maintenance Platforms

- Hydraulically folding maintenance platform either side of the screen box
- None slip perforated walkway



Features and Benefits

Chute

- Over size discharge chute
- This has a rubber drape hanging over it, this is attached to the screen so as the screen vibrates so does the drape
- This prevents any material build up on sticky applications
- Rubber protection on the hopper sides



Features and Benefits

Main Conveyor

- Rubber curtain to stop material bouncing back down the belt
- High rise walls stop spillage when running high capacity's
- Wing rollers along the length for tracking the belt



Features and Benefits

Main Conveyor

- The main conveyor raises up away from the screen box for maintenance
- This enables quick & easy screen mesh change



Features and Benefits

Fines Conveyor

- Heavy duty belt
- 1200mm wide
- Discharge height of 4770mm
- Hydraulically folding for transport



Features and Benefits

Other Grading Size Conveyors

- Heavy duty chevron belt
- 700mm wide
- Discharge height of 5000mm
- Hydraulically folding for transport
- Each side conveyor had a variable speed control from 0-120m/min



Features and Benefits

Side Conveyor

- The whole length of the side conveyors we use steel hydraulic pipes
 - These acts as a heat dissipater
 - None flexing
- High anti spillage boards, which are excellent on large stone applications



Features and Benefits

Manual Control levers

- Simple user friendly manual control levers for setup and operation
- Each function is clearly marked for ease of use
- The manual levers shown start and stop all the conveyors and screen box
- Easy access to all consumables in one location
- Fault finding hydraulic test point all in one location



Features and Benefits

System Display

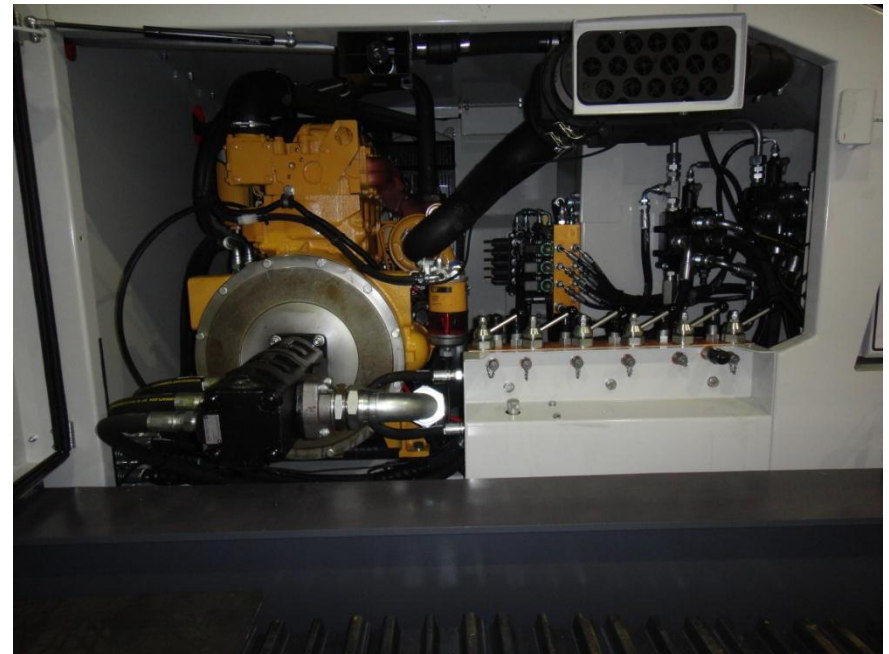


- Engine fault monitoring of
 - Coolant Temperature
 - Coolant level
 - Engine Run
 - Battery Voltage
 - Oil Pressure
 - Emergency Stop
 - Radio Stop
 - Water and Fuel Sensor

Features and Benefits

Engine

- The QA440 is powered by a CAT C4.4 engine developing 100HP (75 KW) @ 2200 rpm.
- The engine complies with all current emission laws
- The average fuel consumption is 10-14 L/H / 2.5-3.5 USG/H
- Easy access for maintenance via three canopy doors



Features and Benefits

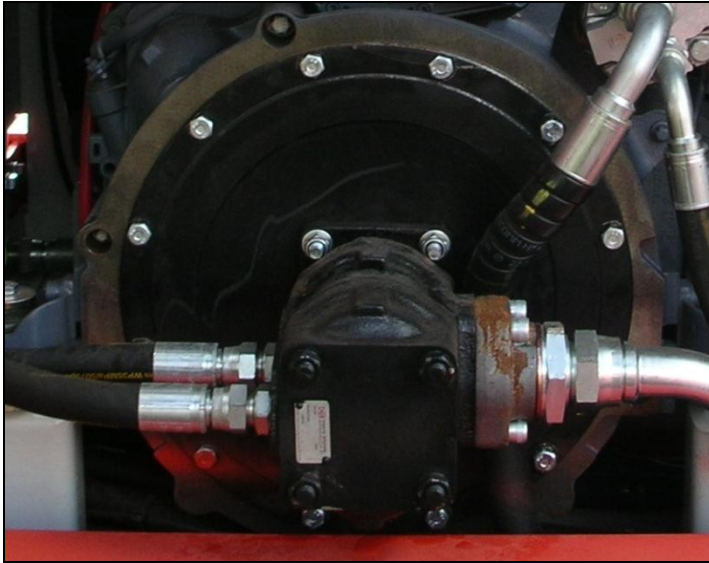
Hydraulic Tank

- 370 litre hydraulic tank
- Multi stage filtration system to ensure all debris is removed on every cycle
- Filters located at the top of the unit for easy of maintenance
- Level gauge with in build temperature gauge



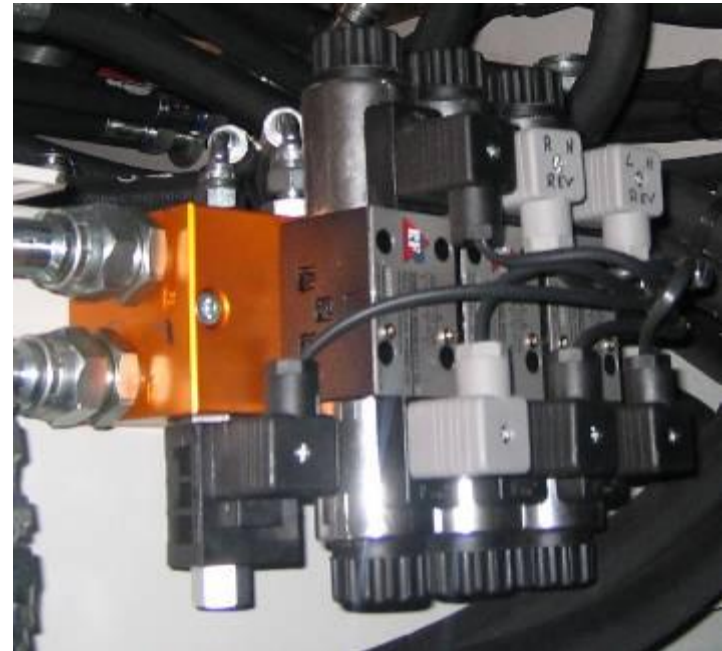
Features and Benefits

Hydraulic Components



- Direct driven high power and torque hydraulic pumps
- Powering the Screen & Track Drives

- Simple On/Off type hydraulic control blocks
- Easy access for maintenance



Features and Benefits

Maintenance

- Easy engine maintenance access doors
- Access to
 - Hydraulic filter
 - Hydraulic tank top up
 - Coolant level
 - Engine oil



Features and Benefits

Tracks

- Hydraulically driven crawler track mounted for full site mobility.
- The full power of the engine is available for driving the tracks when needed.
- Length of 3800mm.
- Track Shoe Width 500mm.



Features and Benefits

Tracking

- Tracking is possible by either
 - Wireless Radio Controller
 - Wired Umbilical
- Each track can be operated independently for full site flexibility .



Radio Controller



Umbilical Controller



Features and Benefits

Fuel Tank

- 290 litre Diesel Tank
- Optical diesel level gauge
- Heavy duty industrial size lockable filler cap



Features and Benefits

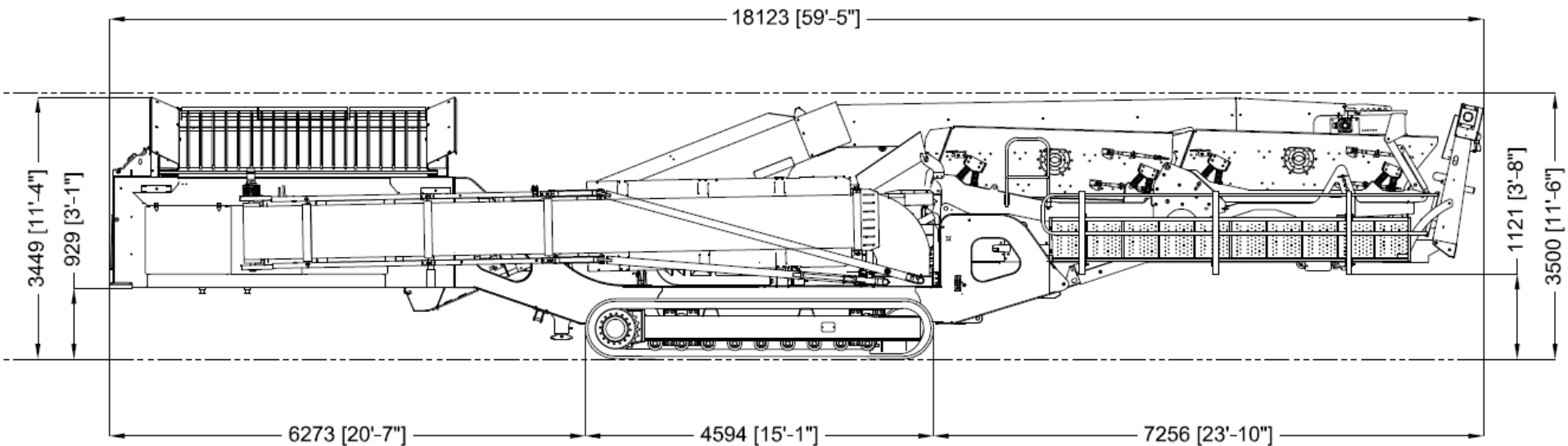
Chassis



- Heavy duty “I” beam designed chassis
- With finite element analysis design

Features and Benefits

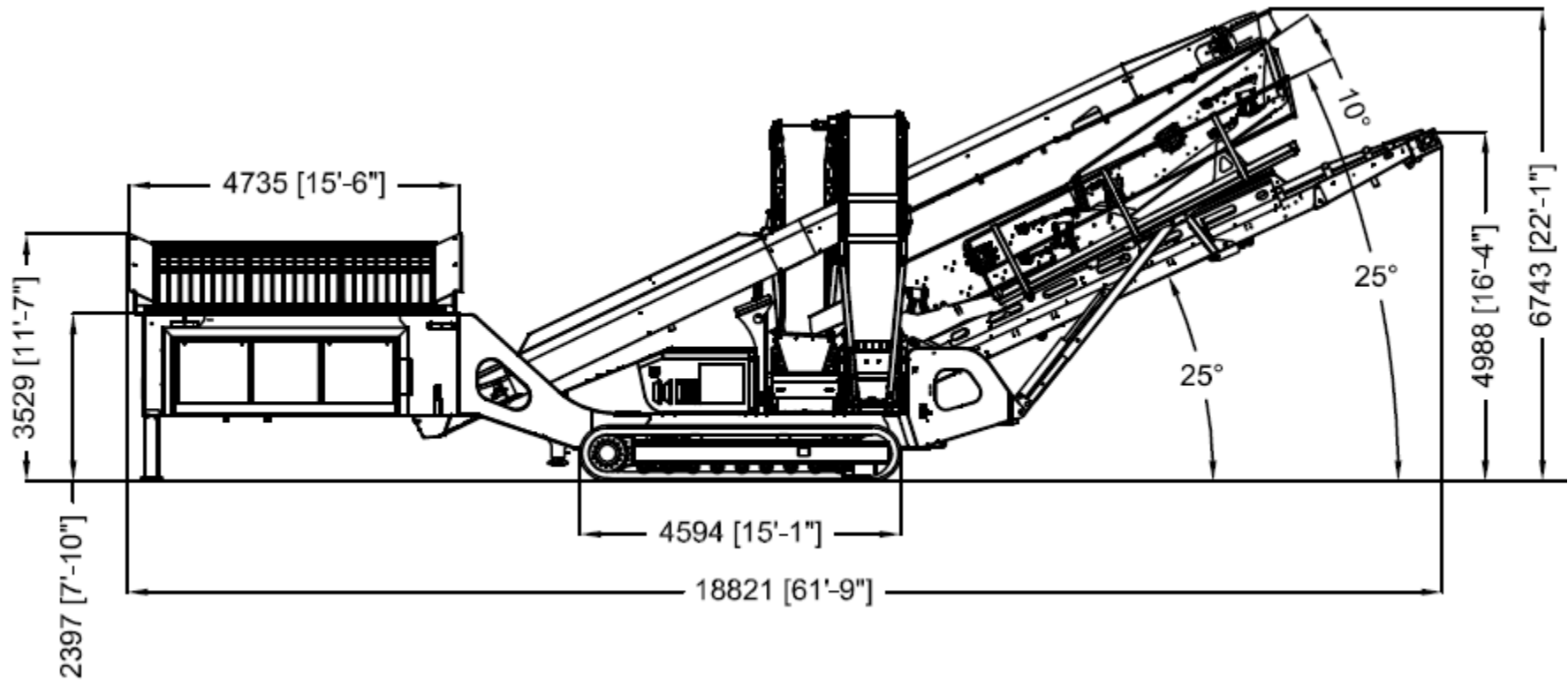
Transport Dimensions



Standard machine Total weight
30,000Kg

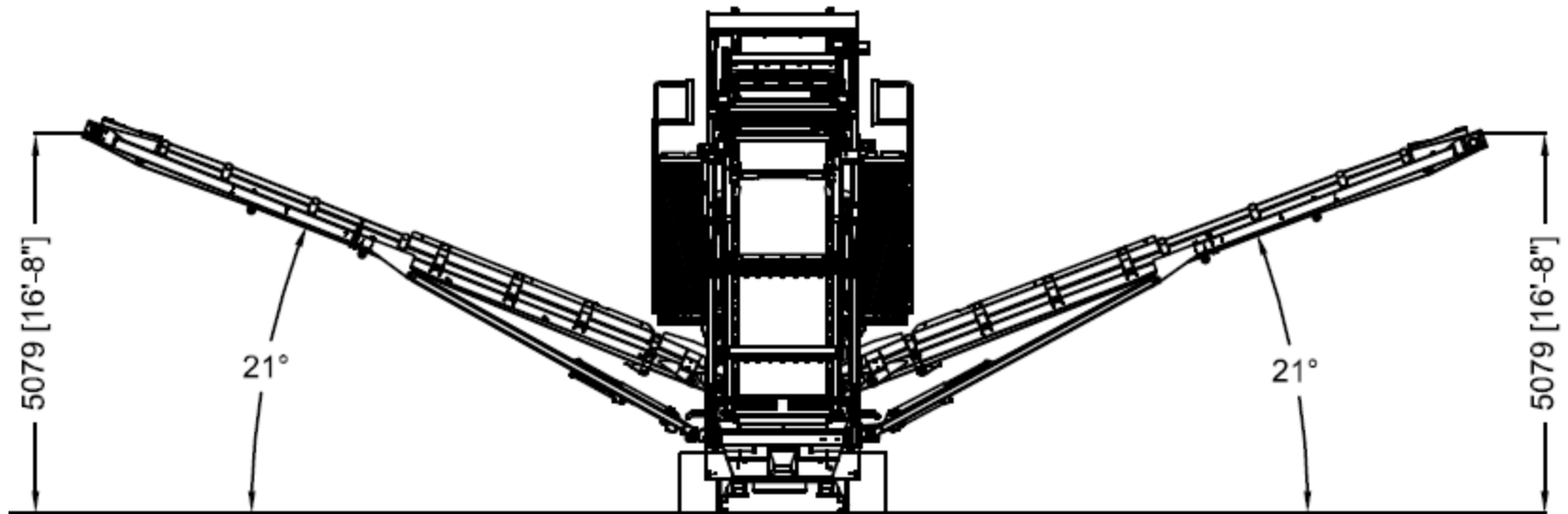
Features and Benefits

Working Dimensions



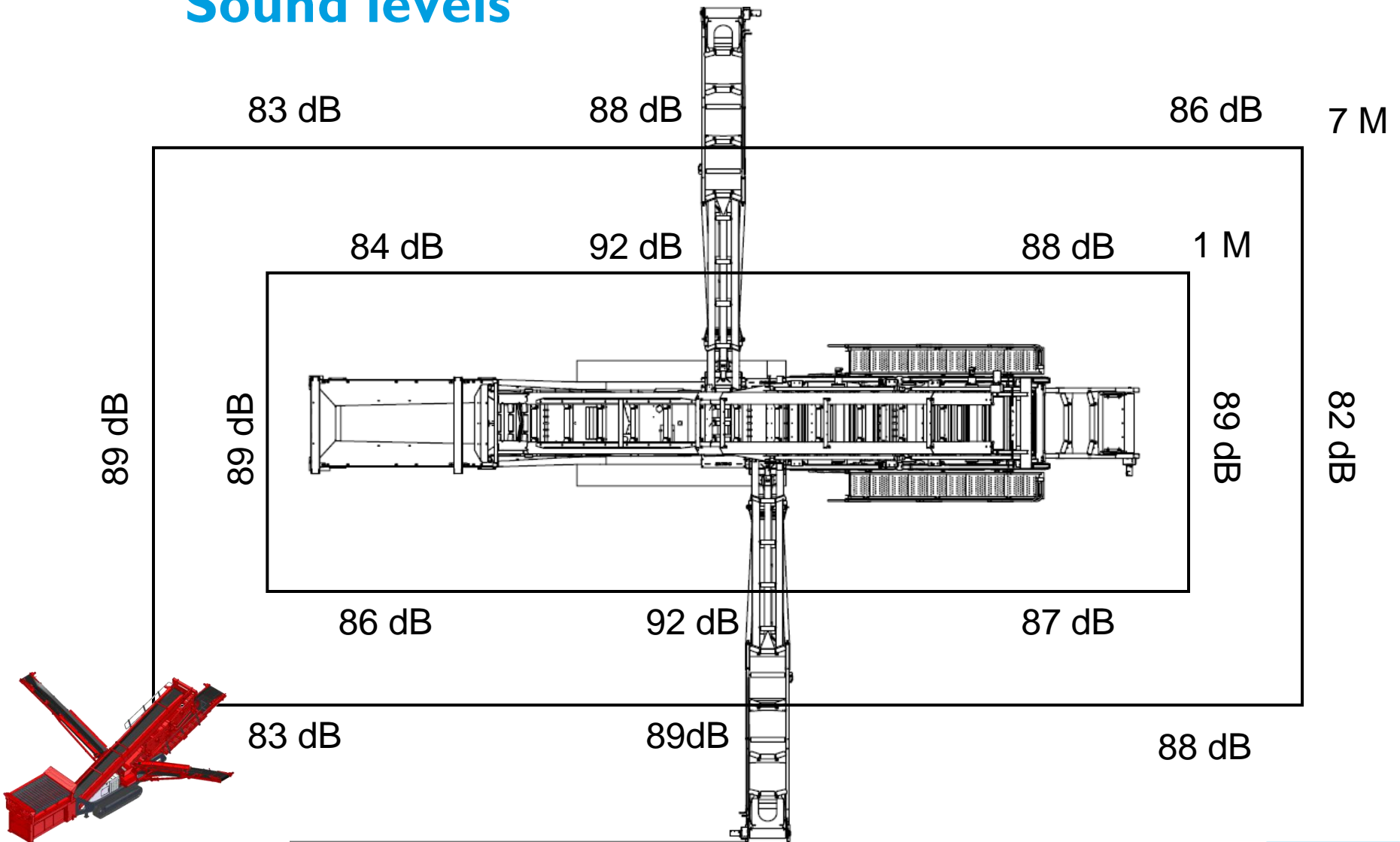
Features and Benefits

Working Dimensions



Features and Benefits

Sound levels

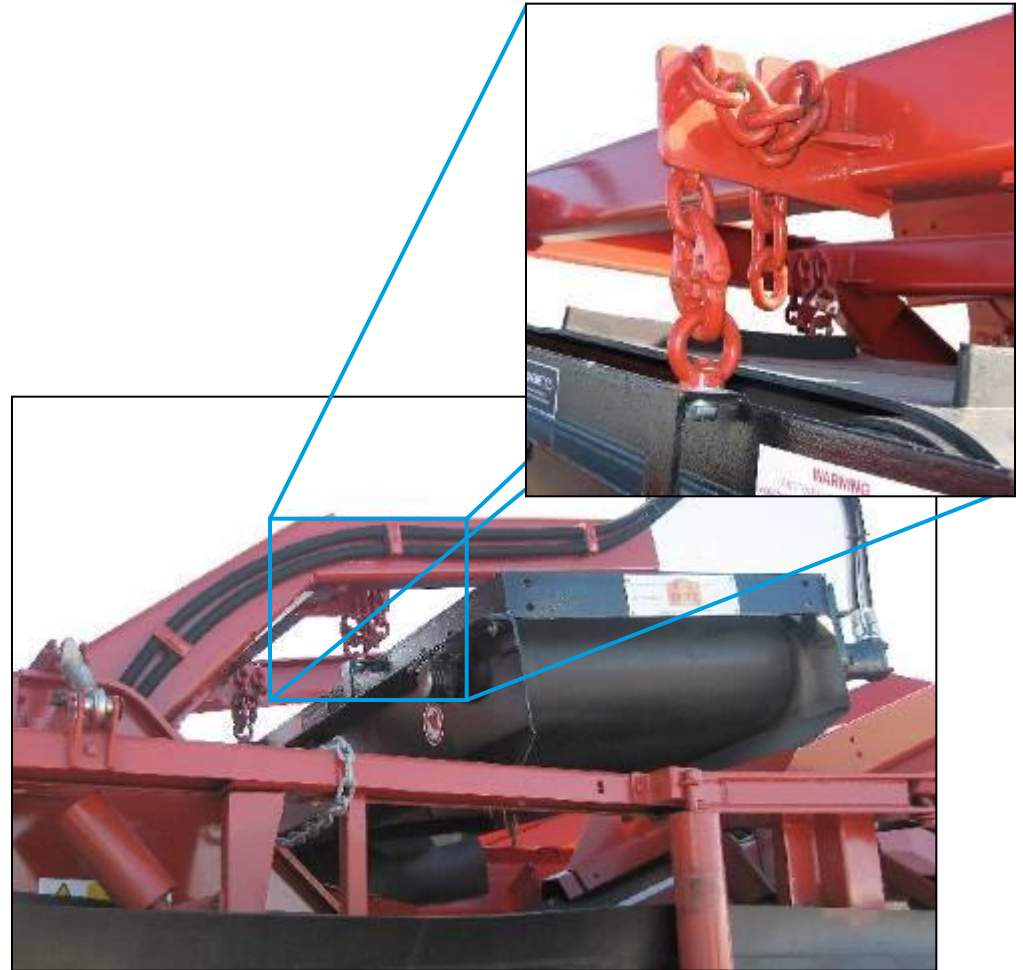


Options

Features and Benefits

Magnet

- The magnet is designed to separate the steel from the feed material and then discharge it away from the machine.
- Variable Speed Belt.
- The Magnet can be lowered or raised to suit the application.



Features and Benefits

Summary

- Standard features
 - Hopper C/W Hydraulic Tipping Grid
 - 2 Double Deck 10'x5' Screen boxes
 - Screen Tensioning system
 - Three Discharge Conveyors
 - CAT Engine
 - Radio Controlled 500mm wide Tracks
 - 1200mm Wide Variable Speed Feed Conveyor
 - 1000mm Wide Main Conveyor
- Available Options
 - Double Deck Vibrating grid
 - Pull Cords on Conveyors
 - Vibrating Grid Wing Extensions
 - Overband Magnet & Support Frame
 - Canvas covers & Brackets
 - Lighting Mast
 - Wheeled dolly & Sundries
 - Remote diesel pump
 - Water pump
 - 13ft Tipping Grid & Crusher Feedbox
 - Arctic package -20°C
 - Arctic package -30°C
 - Tropical Package
 - Central Autolube system
 - Magnet and Support frame

Features and Benefits

Main selling Features

- Large 6.95m³ hopper capacity
- High production screen
- CAT Engine
- Raising of main conveyor above screen for access

