

C-1540RS Cone Crusher



SPECIFICATION:

Cone Head Diameter:	1000mm (40")
Net Engine Power:	Tier 3 / Stage 3A: CAT C13 Acert 328kW (440hp) Tier 4i / Stage 3B: Scania DC13 70A 331kW (450hp)
Portability:	Tracked
Operating Weight:	43,800kg (96,563lbs) <i>(without options)</i> 45,600kg (100,531lbs) <i>(with optional pre-screen)</i> 49,000kg (108,027lbs) <i>(with optional pre-screen, mid-grade transfer & mid-grade stockpiling conveyor)</i>

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SPECIFICATION

CONE CHAMBER

Terex 1000mm (40") cone chamber

Long throw fitted on standard configuration

Medium coarse concave fitted on standard configuration –max. feed size 160mm

Direct hydrostatic cone drive with electronic speed control system

Speed sensor fitted to cone input drive shaft, observes and maintains crusher speed and protects the crusher unit from overloading

Five cone head speed control settings for producing a quality aggregate

'On the fly' hydraulically adjustable closed side setting with monitoring system

Mantle/concave wear indicator

Hydraulic overload protection with automatic reset. This allows the upper frame to lift up, to permit the passage of tramp iron and other un-crushable material. The system then automatically returns the upper frame to its original position

Unrestricted feed opening reduces blockages, bridging and maximizes output

Independent cone oil lubrication tank with separate oil cooler

Level sensor fitted over inlet feed optimum choke feed condition hence reduction and manganese life

Dust suppression fitted at cone inlet and outlet

MAIN CONVEYOR

Fixed speed hydraulically driven

Impact bars fitted directly under cone discharge point

Polyurethane scraper at head drum

Full length skirting to head drum

Discharge height: 3.3m (10' 10")

Speed wheel fitted to monitor conveyor speed

Low level greasing to all bearings

Dust Covers

Dust suppression fitted at head drum

Main Conveyor Belt: Width 0.9m (3')

Type Plain

Speed 100 – 110 m/min (328 – 361 ft/min)

Incline 20°

HOPPER AND FEEDER

Crash bar fitted to reduce impact load on feed conveyor

Rubber covered impact rollers fitted

Wear resistant liner plates (10mm) fitted to hopper

Drop down rear door for auxiliary crusher feed

Hydraulic retraction system for ease of movement between transport and working modes

Full length skirting to head drum

Low level greasing to all bearings

HOPPER AND FEEDER CONTINUED

Heavy duty, high torque hydraulically driven feed belt

Large diameter, rubber lagged drive drum to prevent belt slippage

Automatic variable speed conveyor ensures maximum output from plant

Metal detection system with 'auto-stop' feature is suitable for detecting steel and manganese steel contained in the feed material

Controllable discharge system to purge metal contaminants. This feature allows the operator to clear metal from the feed conveyor when it is detected. The contaminated material is dumped to the side of the machine. This can be done on the main control panel or remotely via the optional radio remote

Hopper:

Length 3.4m (11' 2")

Width 2.45m (8')

Capacity 5m³ (6.5yd³)

Feed Conveyor Belt:

Width 1.05m (3' 6")

Type Plain

Speed 0 – 30 m/min (0 – 98 ft/min)

Incline 21° (Direct feed)

24° (Pre-screen feed)

POWERUNITS AND HYDRAULICS

Tier 3 / Stage 3A: CAT C13 Acert 328kW (440hp) at 1900 rpm

Tier 4i / Stage 3B: Scania DC13 70A 331kW (450hp) at 1900 rpm

Closed loop Linde hydrostatic transmission for crusher drive

Two fixed displacement gear pumps provide power to drive all conveyors, tracks, screen and hydraulic cylinders. They also provide power to the crusher lubricating oil pump and supplies the crusher hydraulic setting and adjustment system

Full catwalk access on both sides

Removable access panels for engine maintenance

Hydraulic tank suction filters easily accessible from the top without draining tank

Two hydraulic oil coolers fitted - one electric powered & one hydraulic powered

Fuel tank volume 600 litres (158 US gal)

Hydraulic tank volume 720 litres (190 US gal)

Urea tank volume 60 litres (15 US gal)

UNDERCARRIAGE

Bolt on tracks

Single speed tracks with soft start

Hydraulic grease tensioning

Length 3.78m (12' 5") (Sprocket centres)

Width 500mm (1' 8") (Shoe)

Gradability 25°

TOOL BOX

Mounted lockable toolbox

Tool kit supplied

Two grease guns supplied – one for machine, one for cone

REMOTE CONTROL UNIT (OPTION)

Operates both machine movement and operation

Machine can be switched from operating mode into track mode, moved, and switched back to operating mode from the remote control unit

CONTROL SYSTEM

Advanced CANBUS compliant system

Large colour display screen

Main menu consists of eight modes:

Manual mode:	For manually starting machine
Automatic mode:	For automatically starting the machine in a set sequence
Track mode:	For moving machine
Feeder mode:	For positioning the feed conveyor
Cone setup mode:	For testing / setting of cone
Language mode:	For setting languages
Engine mode:	For monitoring engine performance and faults
Configuration mode:	For testing / setting individual components

User friendly incremental selection of feeder and crusher speed, enable the operator to achieve the optimal throughput and product shape

The main control panel is mounted to the side of the machine in a lockable compartment

Detachable dog-lead control for tracking

DUST SUPPRESSION

Three spray bars with nozzles are mounted as standard:

Cone feed

Cone discharge

Main conveyor discharge

All spray bars are piped to a common manifold at side of machine. Pressurized clean water can be connected to manifold if required

Water pump can be fitted (option)

CHUTES

Cone chamber feed box fabricated in 6mm mild steel plate

Cone chamber discharge chute fabricated in 5mm mild steel plate with 15mm wear resistant plate fitted at impact point

Contamination chute fabricated in 6mm mild steel plate

Re-circulating conveyor discharge chute fabricated in 5mm mild steel with 6mm wear resistant plate fitted at impact point

PLATFORMS

Maintenance / access platforms are provided for all key areas around the cone chamber, pre-screen module and engine compartment. The catwalks are accessible from left-hand side of the machine. They are made from steel flooring with steel toe boards, double row hand rails, self closing gates and access ladders. All catwalks are galvanised

PRE-SCREEN MODULE (OPTION)

Consisting of transfer conveyor, screen, mounting frame, dust cover and chute

Material passes through screen mesh via a chute onto main conveyor

By-pass facility – Pre-screen can be by-passed to feed directly into cone if required

Complete entity folds hydraulically for transport

The pre-screen module will maximise production through the cone by removing as much fine material as possible before it enters the cone chamber. This will also reduce wear within the cone chamber

A) Transfer Conveyor

Fixed speed hydraulically driven

Two centralised grease points for bearings

Full length skirting to head drum

Dust cover

Can be raised hydraulically to aid screen mesh changing

Belt:	Width	1.0m (3' 4")
	Type	Plain

B) Screen

Two bearing single deck screen

Large Amplitude with high g-force

Hydraulic drive fixed speed

Side tensioned Quick wedge mesh tensioning

Screen:	Length	1.83m (6')
	Width	1.22m (4')
	Incline	25°

RE-CIRCULATING SYSTEM

The Re-circulating system consists of a mounting frame, two deck screen, oversize transfer conveyor, recirculating conveyor and fines conveyor.

The system is supplied with quick detach screen and fines conveyor as standard. This will allow the machine to be more versatile if re-circulating is not required

A) Screen

Screen type:	Two deck, two bearing screen.
Top deck screen length:	3.66m (12')
Bottom deck screen length:	3.05m (10')
Screen Width:	1.52m (5')
Top deck mesh tensioning:	3 no. side tensioned mesh panels. Standard mesh aperture 40mm unless specified otherwise.
Bottom deck mesh tensioning:	No mesh fitted. Middle-grade blanking chute fitted.
Screen Angle :	19° - 22°
Access:	Screen can be lowered to a horizontal position for mesh changing and general service access.

B) Oversize Transfer Conveyor

Belt type:	Plain
Belt width:	500mm (1' 8")
Skirting:	Fully rubber lined to head drum.
Lubrication:	Ground level greasing access for all bearings.
Folding:	Hydraulically folds for transport

C) Re-circulating Conveyor

Belt type:	Chevron
Chevron:	15mm cleat
Belt width:	500mm(1' 8")
Lubrication:	Ground level greasing access for all
Folding:	Hydraulically folds for transport.

D) Fines Conveyor

Belt type:	Plain
Belt width:	1400mm (4' 7")
Discharge height:	3.0m (9' 10")
Lubrication:	Ground level greasing access for all bearings.
Folding:	Hydraulically folds for transport

MIDDLE-GRADE TRANSFER CONVEYOR AND CHUTE (OPTION):

This conveyor moves the middle-grade product from the re-circulating screen onto the optional middle-grade stockpiling conveyor or customer's own stockpiling conveyor

Belt type:	Plain
Belt width:	500mm (1'8")
Skirting:	Fully rubber lined to head drum.
Lubrication:	Ground level greasing access for all bearings

Note:- When this option is selected the following option must also be selected:

- Bottom deck meshes & tensioner brackets for two deck re-circulating screen

MIDDLE-GRADE STOCKPILE CONVEYOR (OPTION):

This conveyor stockpiles the middle grade product from the re-circulating screen

Conveyor can be transported with machine

Belt type:	Chevron
Chevron:	15mm cleat
Belt width:	500mm (1' 8")
Discharge height:	3.2m (10' 6")

Lubrication: Ground level greasing access for all bearings

When this option is selected the following two options must also be selected:-

- Bottom deck meshes & tensioner brackets for two deck re-circulating screen

- Middle-grade Transfer Conveyor and chute

STANDARD FEATURES

ENGINE:

Tier 3 / Stage 3A: CAT C13 Acert 328kW (440hp)

Tier 4i / Stage 3B: Scania DC13 70A 331kW (450hp)

FEEDER CONVEYOR/HOPPER:

Hopper capacity: 5m³ (6.5yd³)

Belt width: 1050mm (42")

Metal detector

Metal contaminants purge system

Wear resistant liner plates

CONE:

Terex 1000 Cone chamber, Head diameter: 1000mm (40")

Long throw eccentric, medium coarse concave (max feed size 160mm)

Hydrostatic cone drive

MAIN CONVEYOR:

Belt width: 900mm (36")

High spec scraper at head drum

Wear resistant liners at crusher discharge point

Dust Covers

RE-CIRCULATING SYSTEM:

Two deck screen: 3.66m x 1.52m (12' x 5')

Top deck mesh fitted to screen - 40mm aperture fitted unless specified otherwise

Oversize transfer conveyor, re-circulating conveyor and fines conveyor fitted as standard

Quick detach screen and fines conveyor

Note:- Middle grade transfer conveyor is not fitted, this is only an option

GENERAL:

Galvanised catwalk c/w handrail, kick board and access ladders

Heavy duty track unit, sprocket centres 3.8m, pad width 500mm

Hand held track control set with connection lead

Single speed tracking

Safety guards in compliance to machinery directive

One auxiliary drive

Emergency stops

Piped for dust suppression c/w spraybars

High specification oil cooler

Piped for dust suppression c/w spraybars

High specification oil cooler

OPTIONAL EQUIPMENT

Pre-screen system - 1.83m x 1.22m (6' x 4') single deck screen with 1000mm (40") transfer conveyor and dust cover. 16mm mesh fitted, unless specified otherwise. Requires 1 nr auxiliary drive ¹

Hydraulically driven water pump. Requires 1 nr auxiliary drive ¹

Electric pump refuelling kit

Special paint colour (if different from Terex White Colour RAL 1013 or Finlay Orange RAL 2002) . RAL must be specified on order

Manual extensions for feed hopper (total capacity 8m³/10.4yd³)

Radio remote system

Belt weigher for main conveyor

Lighting mast

Hot climate lubrication kit (For above +30°C ambient)

Cold climate lubrication kit (For below -10°C ambient)

Portable urea filling pump c/w nozzle (Tier 4 models only)

Extra coarse concave - max feed size 195mm (check leadtime)

Coarse concave - max feed size 175mm (check leadtime)

Sand concave - max feed size 63mm (check leadtime) NOTE:- MUST ALSO TAKE SHORT THROW ECCENTRIC OPTION BELOW

Short throw eccentric (check leadtime)

Bottom deck meshes and tensioner brackets (For re-circulating system) - 20mm aperture mesh fitted unless specified otherwise

Middle grade transfer conveyor and chute (For re-circulating system) c/w bottom deck meshes and tensioner bracket option

Middle grade stockpiling conveyor - (For re-circulating system) c/w Bottom deck meshes and tensioner brackets and middle grade transfer conveyor

1) Only 1 nr auxiliary drives are available

C-1540RS

TRANSPORT DIMENSIONS



WORKING DIMENSIONS



MACHINE WEIGHT: **43,800kg (96,563lbs)**

Without options.

45,600kg (100,531lbs)

With optional pre-screen.

49,000kg (108,027lbs)

With optional pre-screen, mid-grade transfer & mid-grade stockpiling conveyor.