

# TEREX | FINLAY



## C-1540

# DUAL POWER

## C-1540

# CONE CRUSHER

### SPECIFICATION:

|                     |                            |                                   |
|---------------------|----------------------------|-----------------------------------|
| Cone Head Diameter: |                            | 1000mm (40")                      |
| Net Engine Power:   | Tier 2 Equivalent:         | Scania DC09 257kW (350hp)         |
|                     | Stage IIIA Constant Speed: | Scania DC09 273kW (365hp)         |
|                     | Tier 4F / Stage IV:        | Scania DC09 257kW (350hp)         |
|                     | Stage V:                   | Scania DC09 257kW (350hp)         |
| Portability:        |                            | Tracked                           |
| Operating Weight:   |                            | 45,320kg (99,914lbs)*             |
|                     |                            | <i>(With optional pre-screen)</i> |



# SPECIFICATION

## HOPPER / FEEDER

Hopper capacity: 5m<sup>3</sup> (6.5yd<sup>3</sup>)

Feed height: 2.93m (9' 7") (Pre-screen position), 2.8m (9' 2") (Direct feed position)

Feed height with optional hopper extensions: 3.33m (10' 11") (Pre-screen position), 3.2m (10' 6") (Direct feed position)

Hopper fabricated in 10mm mild steel plate with 10mm wear resistant steel liners at impact point

Hopper Width at rear: 2.45m (8')

Hopper Width at rear with optional hopper extensions: 3.7m (12' 2")

Belt Spec: Plain

Belt Width: 1.05m (42")

Speed range: Variable, 0 – 31 m/min (0 – 101 ft/min)

Working Angle: 24° (Pre-screen feed), 21° (Direct feed)

Drive: Hydraulic variable speed drive via gearbox

Drop down rear door for auxiliary crusher feed

Crash bar fitted to reduce impact load on feed conveyor

Rubber covered impact rollers fitted

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

Full length skirting to head drum

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

## CONE CHAMBER

Terex 1000mm (40") cone chamber

Cone Counter Shaft Speed: 900 rpm or 990 rpm (Depending on electric setup)

Long throw fitted on standard configuration

Drive arrangement: Direct electric cone drive

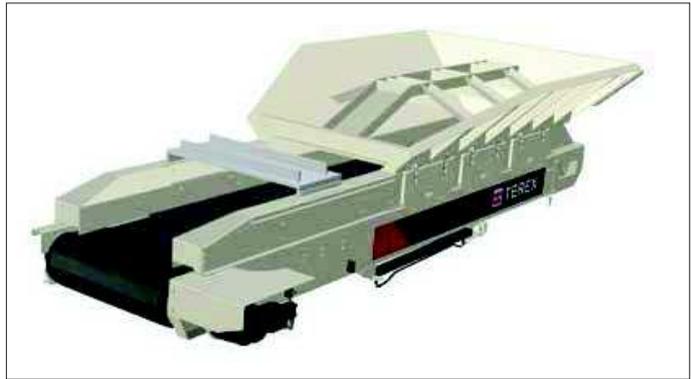
'On the fly' hydraulically adjustable closed side setting with monitoring system

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



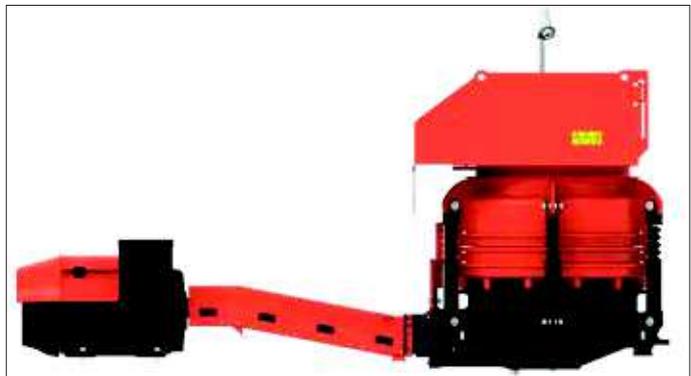
Hopper and Feeder



Hopper and Feeder



Feed conveyor and pre-screen in working mode



Cone Chamber drive

## CONE CHAMBER continued

Unrestricted feed opening reduces blockages, bridging and maximizes output

Independent cone oil lubrication tank with separate oil cooler

Level sensor fitted over inlet feed box maintains the optimum choke feed condition hence maximizing the reduction and manganese life

Dust suppression fitted at cone inlet and outlet

| Concave       | Maximum Feed Size | Maximum CSS    | Minimum Recommended CSS |
|---------------|-------------------|----------------|-------------------------|
| Medium Coarse | 160mm (6 5/16")   | 36mm (1 7/16") | 19mm (3/4")             |
| Coarse        | 175mm (6 7/8")    | 36mm (1 7/16") | 19mm (3/4")             |
| Extra Coarse  | 195mm (7 11/16")  | 36mm (1 7/16") | 22mm (7/8")             |
| Sand          | 63mm (2 1/2")     | 32mm (1 1/4")  | 13mm (1/2")             |

\*Note: Minimum Recommended CSS subject to feed conditions

## MAIN CONVEYOR

Drive: Twin electric motor / gearbox combination

Belt Width: 900mm (36")

Belt Spec: Plain

Working Angle: 21°

Speed: 95 – 105 m/min (312 – 344 ft/min)

Discharge Height: 3.3m (10' 10")

Impact bars and wear resistant liners at feed point

High spec scraper at head drum

Dust suppression: fitted with hose and spraybars as standard (no pump supplied)

Full length skirting to head drum

Dust covers

Standard Stockpile capacity: 53.5m<sup>3</sup> (70yds<sup>3</sup>) @ 40°

## POWERPACK

Tier 2 Equivalent: Scania DC09

Engine Power: 257kW (350hp)

Engine Speed: 1500 rpm

Stage IIIA Constant Speed: Scania DC09

Engine Power: 273kW (365hp)

Engine Speed: 1500 rpm

Tier 4F / Stage IV: Scania DC09

Engine Power: 257kW (350hp)

Engine Speed: 1500 rpm (EU) / 1800 rpm (US)

Stage V: Scania DC09

Engine Power: 257kW (350hp)

Engine Speed: 1500 rpm (EU)

## TANK CAPACITIES

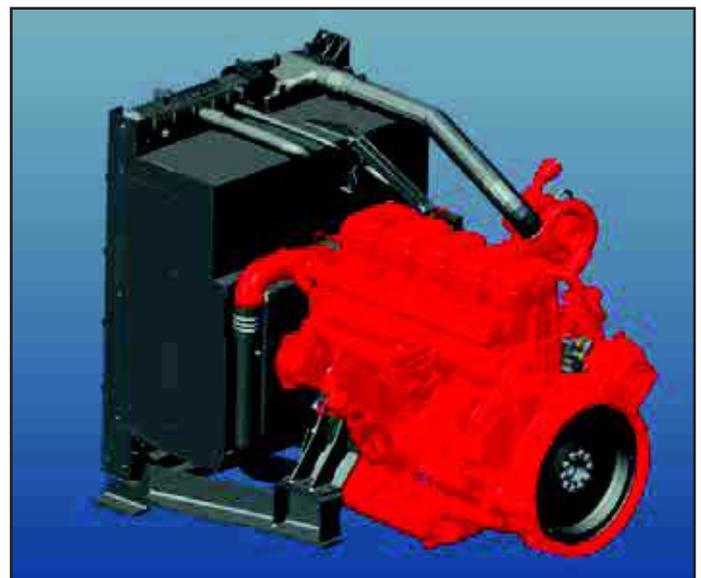
Hydraulic Tank: 480 litres / 105 UK gal / 126 US gal

Fuel Tank: 720 litres / 158 UK gal / 190 US gal

Urea Tank: 60 litres / 13 UK gal / 15 US gal



Main Conveyor



Tier 2 / Stage II Equivalent: Scania DC09 350hp (257kW)

## PRE-SCREEN MODULE (OPTIONAL)

### A) Screen

Top deck: 1.83m x 1.22m (6' x 4')

Total screening area: 2.23m<sup>2</sup> (24ft<sup>2</sup>)

Tensioning top deck: side

Drive: hydraulic with heavy duty bearing

Screen Angle: 25°

Screen Speed: 1200 rpm

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

Pre-screen can be by-passed and material feed directly into cone if required

Hydraulically folds for transport

### B) Transfer Conveyor

Belt Width: 1m (40")

Belt Spec: Plain

Working Angle: 23°

Speed: 71 – 81 m/min (232 – 265 ft/min)

Hydraulically folds for transport along with pre-screen

Can be raised hydraulically to aid screen mesh changing

Dust cover

Full length skirting to head drum



Pre-screen module in working mode



Pre-screen module in working mode

## PRE-SCREEN SIDE CONVEYOR (OPTIONAL)

Belt Width: 650mm (26")

Belt Spec: Plain

Working Angle: 23°

Speed: 85 - 100 m/min (278 - 328 ft/min)

Conveyor has to be manually lifted off for transport & is transported with the plant

Discharge Height: 3.65m (12')

Stockpile capacity: 69.4m<sup>3</sup> (90.8yd<sup>3</sup>) @ 40°



Pre-screen side Conveyor



Pre-screen side Conveyor

## UNDERCARRIAGE

Shoe Width: 500mm (20")

Sprocket Centres: 3.80m (12' 6")

Tracking Speed: 1.0 km/h

Gradeability: 25°

## TOOL BOX

Mounted lockable toolbox

Tool kit supplied

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

## CHUTES

Quick release cone feed box for cone wear part changes

Cone chamber feed box fabricated in 6mm mild steel plate

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

Contamination chute fabricated in 6mm mild steel plate

## CONTROL SYSTEM

Advanced CANBUS compliant system

Large colour display screen

Main menu consists of five modes:

Automatic mode: For automatically starting the machine in a set sequence

Track mode: For moving machine

Setup mode: For folding / setting up machine

Cone setup mode: For testing / setting of cone

Configuration mode: For testing / setting individual components / monitoring engine performance and faults / monitoring machine faults

User friendly incremental selection of feeder speed, enables the operator to achieve the optimal throughput

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

Detachable umbilical control for tracking

## ELECTRICAL SPECIFICATION

Main Conveyor: 2 x 5.5kW Motors

Lube Oil Heaters: 2 x 1.5kW

Hydraulic Pump: 55kW (Tracking, Pre-Screen module, Feed conveyor, Folding)

Crusher Motor: 185kW

## PLATFORMS

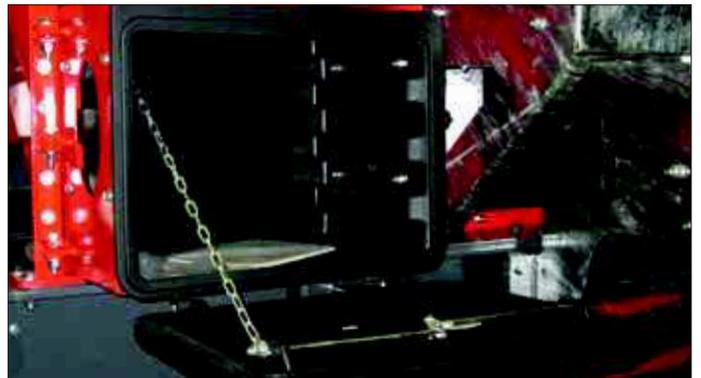
Galvanised catwalks and ladders for full maintenance and service access

Catwalks on both sides of the machine

Compact folding for transport



Undercarriage



Tool Box



Chutes

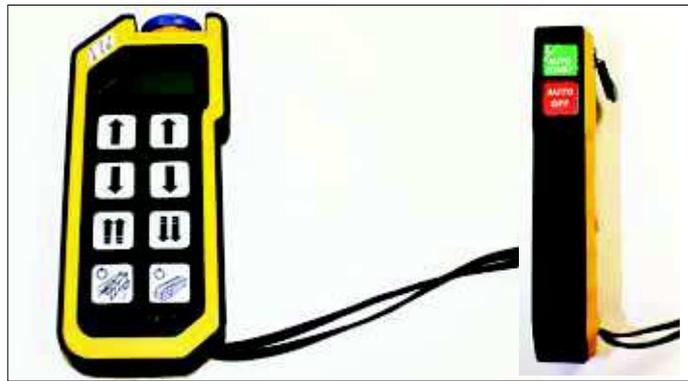


Control System

## REMOTE CONTROL UNIT (OPTIONAL)

Full function radio remote unit:

- Auto start / stop
- Feed conveyor start / stop
- Metal purge sequence
- Tracking



Remote Control Unit (Optional)

## STANDARD FEATURES

### ENGINE:

Tier 2 Equivalent: Scania DC09 257kW (350hp) & IE2 Electrical Motors

Stage IIIA Constant Speed: Scania DC09 273kW (365hp) & IE3 Crusher Drive Electrical Motors

### ALTERNATOR:

330kVA / 264kW

STD voltage supply: 380V - 500v @ 50Hz or 60Hz(Contact the factory if any local requirements are different from standard offering”

### CONE CHAMBER:

Terex TC1000

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

Direct cone drive via electric motor

### HOPPER / FEEDER:

Fixed hopper c/w wear resistant liner plates

Belt width: 1.05m (42”)

Metal detector & Metal contaminants purge system

### MAIN CONVEYOR:

Belt width: 900mm (36”)

Dust covers

### CLIMATE SPEC:

Standard oils (Recommended for ambient temperatures between -5 to +30°C)

### DUST SUPPRESSION:

Piped for dust suppression c/w spraybars

### ELECTRICAL:

Emergency stops

Hand held track control set with connection lead

T-Link Telemetry System fitted c/w 3 years data subscription

Electrical cabinets positive air supply

### GENERAL:

Safety guards in compliance to machinery directive

One auxiliary drive (NOTE - IF PRE-SCREEN OPTION TAKEN THIS IS NOT AVAILABLE)

## OPTIONAL EQUIPMENT

Tier 4 Final / Stage IV: Scania DC09 257kW (350hp) & IE3 Electrical Motors

Stage V: Scania DC09 257kW (350hp) & IE3 Electrical Motors

Extra coarse concave - max feed size 195mm (check lead time) <sup>1</sup> (NOTE - NOT RECOMMENDED TO BE USED WITH PRE-SCREEN SYSTEM)

Coarse concave - max feed size 175mm (check lead time) <sup>1</sup>

Sand concave - max feed size 63mm (check lead-time) <sup>1</sup> (RECOMMENDED TO TAKE SHORT THROW ECCENTRIC OPTION)

Short throw eccentric (check lead time) <sup>1</sup>

Manual hopper extensions

Belt weigher

### PRE-SCREEN:

- 1.83m x 1.22m (6' x 4') single deck screen. 16mm aperture mesh fitted, unless specified otherwise. Max feed size 160mm. Requires 1 auxiliary drive
- Side conveyor

Hot climate lubrication kit (Recommended for ambient temperatures between +15 to +50°C)

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

Hot climate cooler pack c/w hot climate lubrication kit (Recommended for ambient temperatures > +35°C)

Electric driven water pump

Electric Re-fuelling pump

Radio remote system

Lighting mast



**TEREX** | FINLAY

### Main conveyor

- ▶ Drive: Twin electric motor / gearbox combination
- ▶ Belt width: 900mm (36")
- ▶ Belt Spec: Plain
- ▶ Working Angle: 21°
- ▶ Discharge Height: 3.3m (10' 10")
- ▶ Impact bars and wear resistant liners at feed point
- ▶ Dust suppression: fitted with hose and spraybars as standard (no pump supplied)
- ▶ Standard Stockpile capacity: 53.5m<sup>3</sup> (70yds<sup>3</sup>) @ 40°

### Pre-screen system (optional)

- ▶ Top deck: 1.83m x 1.22m (6' x 4')
- ▶ Screen Angle: 25°
- ▶ Screen speed: 1200 rpm
- ▶ 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

### Metal Detector



### Cone chamber

- ▶ Terex 1000mm (40") cone chamber
- ▶ Cone Counter Shaft Speed: 900 rpm or 990 rpm (Depending on electric supply)
- ▶ Drive arrangement: Direct electric cone drive
- ▶ 'On the fly' hydraulically adjustable closed side setting with monitoring system

### Metal purge chute

### Undercarriage

- ▶ Shoe Width: 500mm (20")
- ▶ Sprocket Centres: 3.80m (12' 6")
- ▶ Tracking Speed: 1.0km/h
- ▶ Gradeability: 25°

### Hopper / Feeder

- ▶ Hopper capacity: 5m<sup>3</sup> (6.5yd<sup>3</sup>)
- ▶ Hopper fabricated in 10mm mild steel plate with 10mm wear resistant steel liners at input point
- ▶ Hopper width at rear: 2.45m (8')
- ▶ Belt Spec: Plain
- ▶ Belt Width: 1.05m (42")
- ▶ Speed range: variable, 0 – 31 m/min (0 – 101 ft/min)
- ▶ Working Angle: 24° (Pre-screen feed), 21° (Direct feed)
- ▶ Drop down rear door for auxiliary crusher feed
- ▶ Crash bar fitted to reduce impact load on feed conveyor

### Powerpack

- ▶ Tier 2 Equivalent: Scania DC09  
Engine Power: 257kW (350hp)  
Engine Speed: 1500 rpm
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Engine Power: 273kW (365hp)  
Engine Speed: 1500 rpm
- ▶ Tier 4F / Stage IV: Scania DC09  
Engine Power: 257kW (350hp)  
Engine Speed: 1500 rpm (EU) / 1800 rpm (USA)
- ▶ Stage V: Scania DC09  
Engine Power: 257kW (350hp)  
Engine Speed: 1500 rpm (EU)

## TRANSPORT DIMENSIONS



## WORKING DIMENSIONS



**MACHINE WEIGHT: 45,320kg (99,914lbs)**  
with optional pre-screen

For further information on specific machine weight configurations please consult Terex Finlay

