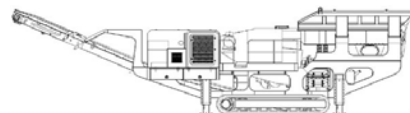


SPECIFICATIONS



McCloskey ***J50***



DESCRIPTION

Heavy duty track mounted Crusher with following features:

- 1270 (50") x 660 (26") single toggle jaw.
- 350Hp C9 Cat engine.
- Track or Track c/w Wheel bogie.
- Integrated hydraulic folding hopper.
- Integrated hydraulic folding stockpiling conveyors.
- I-beam plate fabricated chassis construction.
- Large gap between crusher discharge and main conveyor feedboot
- Open chassis design for ease of maintenance
- Fast setup time

DIMENSIONS AND WEIGHTS

Length - working all models	16.33m (53' - 7")
Length - transport all models	14.50m (47' - 7")
Width - transport all models	2.9m (9' - 6")
Height - transport track	3.4m (11' - 2")
Weight - track	48,200 Kgs (106,260 lbs) inc magnet

CAPACITIES

Diesel tank capacity	800 L (211 US gal)
Hydraulic tank capacity	1800 L (475 US Gals)

CRUSHING CHAMBER

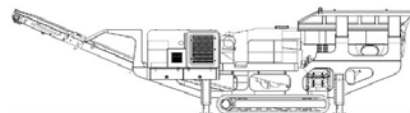
Feed opening	1270 (50") x 660 (26")
Crusher speed	280 rpm
Crusher Drive	Hydraulic – V-Belts
Min. opening	51mm (2") *Note Applications
Max. opening	165mm (6.5")
Jaw weight	14,970kg (33,000 lbs)
Closed side setting adjustment option 1	Single hydraulic ram replaces toggle plate with automated adjust, relief and reset control system.
Closed side setting adjustment option 2	Replaceable toggle plate with twin wedges and rams utilizes simple manual mechanical adjustment system.
Motor	Kawasaki axial piston 530cc/rev
Flow rate	440 Lpm (116.2 US gpm)
Level sensor	Ultrasonic
Load sensor	Hydraulic

Model 2650 capacity table

	2.5		3		3.5		4		5		6		7	
	low	high	low	high	low	high	low	high	low	high	low	high	low	high
US	160	260	180	295	200	320	220	360	250	405	295	485	330	555
Metric	145	236	164	268	182	291	200	327	227	368	268	441	300	505

Note:

Capacity may vary as much as 25%, depending on material type.

**GRIZZLY FEEDER**

Feeder width	1180mm (46.5")
Feeder length	4300mm (169")
Drive	Hydraulic
Grizzly section opening	Tapered 40-61mm (1.5" – 2.5")
Grizzly section length	1650mm (65")
Motor	David Brown MCC 2210 70.1cc/rev
Flow rate	68.4 Lpm (18.1 US gpm)
Adjustable speed	Yes – via mechanical Flow Control
Variable speed	Yes – via electrical proportional
Maximum speed	975rpm

HOPPER

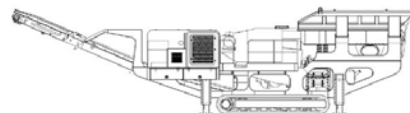
Length	4770mm (15' - 8")
Width	2535mm (8' - 4")
Volume	6.8m ³ (8.9yd ³)
Material	10mm Hardox sides
Locking system	Wedge type and toggle

SIDE CONVEYOR

Stockpile height	2584mm (8' – 6")
Belt width	650mm (26")
Belt spec	EP 400/3 3+1.5
Drive drum dia.	220mm (8.6")
Tail drum dia.	220mm (8.6") - spoked
Motor	OMT400
Flow rate	43.7 Lpm (11.5 US gpm)
Adjustable speed	YES
Maximum speed	109.3 rpm

MAIN CONVEYOR

Stockpile height	4210mm (13' – 10")
Belt width	1050mm (42")
Belt spec	Plain 500/3 8+2
Drive drum dia.	350mm (13.7")
Tail drum dia.	270mm (10.6") - spoked
Motor	OMV630
Flow rate	87.4 Lpm (23.1 US gpm)
Maximum speed	138.7 rpm
Angle adjustable	YES
Quick release	YES

**POWERUNIT AND HYDRAULICS**

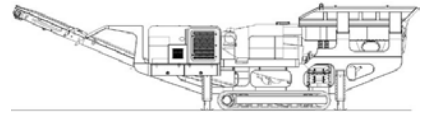
Engine	CAT C9
Engine power	261 kW (350 HP)
Engine speed	1900 rpm
Flywheel Pump 1	Kawasaki K3V140DT
LH PTO Pump 2	David Brown 5036 5023
Front PTO Pump 3	David Brown 5046 2SPA11
Total system flow	660.4 Lpm (174.5 US Gpm)
Hydraulic tank capacity	1800 L (475 US Gals)
Hydraulic tank ratio	2.73 : 1
Hydraulic Oil cooler	YES

ELECTRICS

Emergency stops	4 off, 2 feeder, 2 powerunit
Chassis cabling	Armored cable
Start Siren	YES - 10 sec delay
Control panel	Plus 1 Danfoss colour screen
Engine shutdowns:	Low oil pressure High water temp Air filter blockage (selectable) Fuel contamination Low hydraulic tank level High hydraulic oil temperature
Radio control tracks	OPTION - Hetronic system
Pendant track control	YES - plugged in control cabinet

TRACKS

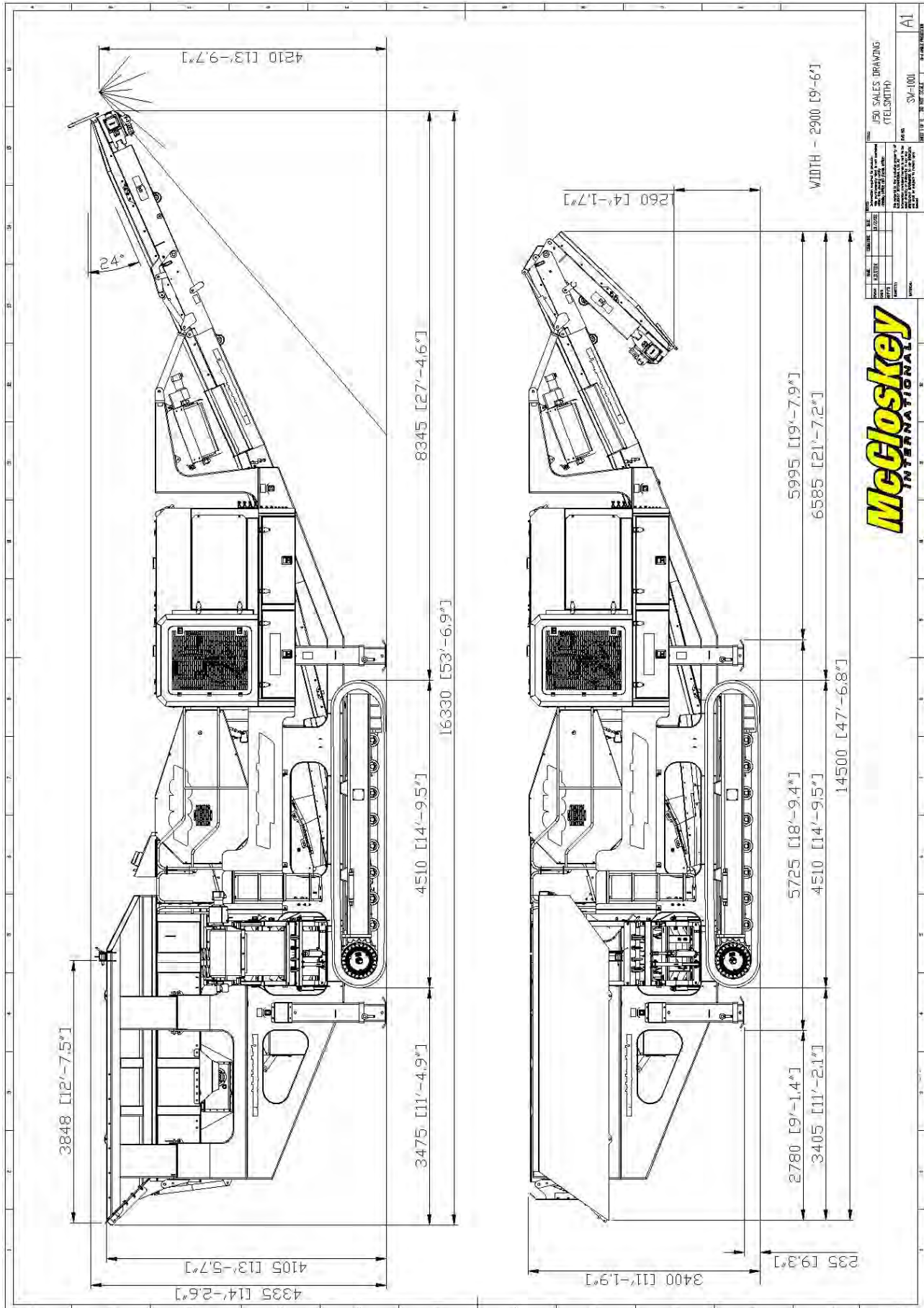
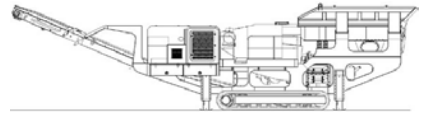
Width	500mm (19.7")
Length	3800mm (12' - 6") crs
Height	798mm (31.4")
Gearbox	Bonfiglioli 711
Ratio	153:1
Motor	Rexroth 90
Speed max	1.50 Kph (0.93 Mph)
Flow rate	138 Lpm (36.45 US gpm)
Multiple speeds	Three speed system selectable at control panel with smooth start / stop.
Attachment to chassis	Bolt On for quick change

**OPTIONS**

Roll-in bogie system
Main conveyor variable speed control
Interlock system
Hopper Extensions
Overband magnet
Water Pump and dust suppression system
Quarry or recycling jaw dies
Crusher Deflector Plate – (Belt Protection) STANDARD
Work lights
Belt Scale
Automated hydraulic toggle ram system
Mechanical wedge adjust with toggle plate

SAFETY FEATURES

External belt alignment points
External grease points
Engine safety shutdown systems
Full safety guarding for nip points



McCloskey
INTERNATIONAL

J50 SALES DRAWING
(TELSMITH)
REV. 006
DATE: 04/20/11
BY: J. SMITH
CHECKED: J. SMITH
APPROVED: J. SMITH
SCALE: 3/4"=1'-0"
SHEET NO. 01 OF 01

A1

TD516R TROMMEL SCREEN

COMPLETE WITH LIFT BARS AND
SELF CLEANING DRUM



TD516R TROMMEL SCREEN

THE ANACONDA TD516R TROMMEL SCREEN HAS BEEN DESIGNED TO RETAIN THE MAXIMUM FINE IN THE FIRST PASSING OF THE SCREEN.

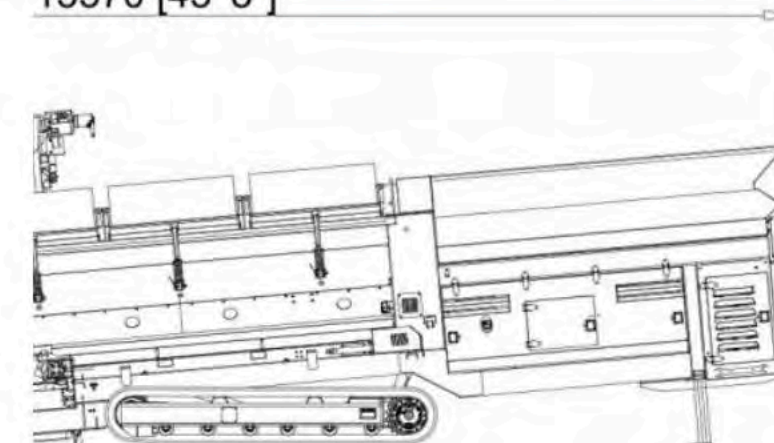
The TD516R Trommel Screen is a well established screen within the organic recycling industry due to its ability to ensure optimum levels of productivity every time. Complete with a 5.15m long screening drum with a diameter of 1.37m this organic screener ensures that you are able to get the most fines from your given application as possible. The screen is fitted with two hydraulic powered conveyors in order to easily separate and stockpile the product for the user.

Here at Anaconda we are always thinking in terms of the end user and how to make life easier when putting the trust in us to power your operation. For the trommel screen range we had to look at problems posed by the material such as balling of wet clay or soil which would affect the screen's performance. To counteract such issues we have designed systems to eliminate this issue such as a self-cleaning drum to avoid the build-up of material and keep your mesh clear for passage.

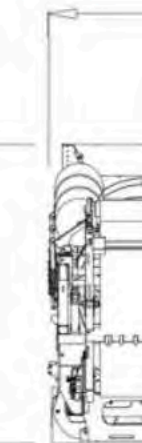
With organic and recycling material there is always that issue of absorbing moisture and therefore binding together, within the TD516R we have added a lift bar system in order to lift and cut material as it is passed through the trommel. Ensuring your material takes the beating required to free it up and retain those precious fines. It is additions to design such as these that allows the TD516R to deal with a capacity of 150TPH!



13370 [43' 8"]



3150 [10' 3"]



Techspan Design Criteria

11th August 2020

To whom it may concern,

All Techspan buildings are designed in accordance with relevant Australian standards and building codes. All buildings are assessed by an independent Engineer and issued with a design certificate nominating what standards apply and what design criteria has been adopted.

Sample review certificate below:

This review has been carried out in accordance with the following SAI Codes of Practice:

- AS 3600 Concrete Structures Code
- AS 4100 Steel Structures Code
- AS/NZS 4600 Cold-formed Steel Structures Code

Accordingly, the structure shown would be sufficient to carry the relevant loads specified in AS/NZS 1170, SAI Structural Design Actions Codes (Parts 0, 1 and 2).

Note the following design criteria have been adopted:

- Design based on an enclosed building with openings (as defined in AS/NZS 1170.2), any additional cladding to the walls must not be added without reference to the engineer;
- Structure Importance level 2 (normal structure), in accordance with the BCA;
- Super-imposed dead load to roof = 0.20kPa, and live load to roof = 0.25kPa;
- Wind region A3 (non-cyclonic), with a terrain category of 2.0 (open terrain) in accordance with AS/NZS 1170.2, and a regional wind speed of VR,500 = 45m/s (Ms = 1.00, Mt = 1.00, and Md, Mz, cat in accordance with AS/NZS 1170.2);
- Site reactivity classification = 'M' (in accordance with AS 2870); and
- Soil bearing pressure = 150kPa.

*Yours faithfully,
[Consulting Engineer]*

Yours faithfully,

The Techspan Management Team

We're missing getting to meet everyone at field days this year, so we're hosting our own virtual field day. We have special deals on farm sheds, a contest, and free virtual field day consultations. Visit our virtual field day page to learn more.

CASE STUDY

Purpose-Built Distribution Warehouse in Gunnedah, NSW

[HOME](#) » [INDUSTRIAL](#) » [CASE STUDIES](#) » [PURPOSE-BUILT DISTRIBUTION WAREHOUSE IN GUNNEDAH, NSW](#)

Expressway Spares was expanding into the Gunnedah region and needed a purpose-built facility to stock and distribute their large range of mining equipment spares. TechSpan designed and manufacture a custom warehouse that was **structured to work**.

The Brief

Expressway Spares needed a large, 36 x 40m, warehouse to facilitate their expansion into the Gunnedah region. Expressway Spares specialises in mining equipment spares and needed a local facility to stock and distribute the parts in the Gunnedah area.

Project Overview

Manufacture Time:	6 weeks
Price Range:	\$200-300K
Site Erection Time:	4 weeks
Purpose:	Warehouse
Client:	Expressway Spares
Location:	Gunnedah, NSW

Project Features

SIZE & STRUCTURE

36 (W) X 40 (L) X 8 (H)
PORTAL FRAME

MATERIALS

Structural Steel

FEATURES

36m clearspan provides spacious configurations

Mezzanine storage over offices

Column mounted swing arm crane

Cantilever awning over the doorway for weather protection

Our Innovative Solution

TechSpan's innovative solution was a large 36 m clearspan structure, to allow for plenty of space inside. The design also included a mezzanine floor over offices in the building to expand the storage capacity and make the use of space more efficient. This also gives the client the option of creating double-storey offices as their needs change.

To make moving the larger parts more efficient, the design also included a column-mounted swing arm crane.

On the exterior, the design also included a large cantilever awning over the doorway for added weather protection.

Need a purpose-built warehouse solution that is structured to work?

The team at TechSpan Building Systems can help you can get a custom-designed warehouse building that is structured to work for your needs.

Contact us now for your free design consultation.

Request A Free Design Consultation

Fields marked with an * are required

Name *

Email

Phone *

SHED TYPE

Please Select One

STATE

Please Select One

SUBMIT

SHARE THIS

Our Projects

- HAY SHEDS
- AIRCRAFT HANGARS
- DAIRY SHEDS
- GRAIN SHEDS
- HORSE ARENAS
- INDUSTRIAL & COMMERCIAL SHEDS
- MACHINERY SHED
- MINING SHEDS
- SCHOOL COLAS, GYMS & COVERS
- STOCKYARD COVERS
- WORKSHOP SHEDS

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- SMART BUILD SYSTEM
- SHED OPTIONS
- RESOURCES
- CONTACT US
- ARTICLES
- TAMWORTH SHEDS
- TOOWOOMBA SHEDS

Connect With Us

CONTACT

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87 Seaton St,
Armidale, NSW, 2350,
Australia

Ph: 1800 350 450

E: sales@techspanbuilding.com.au



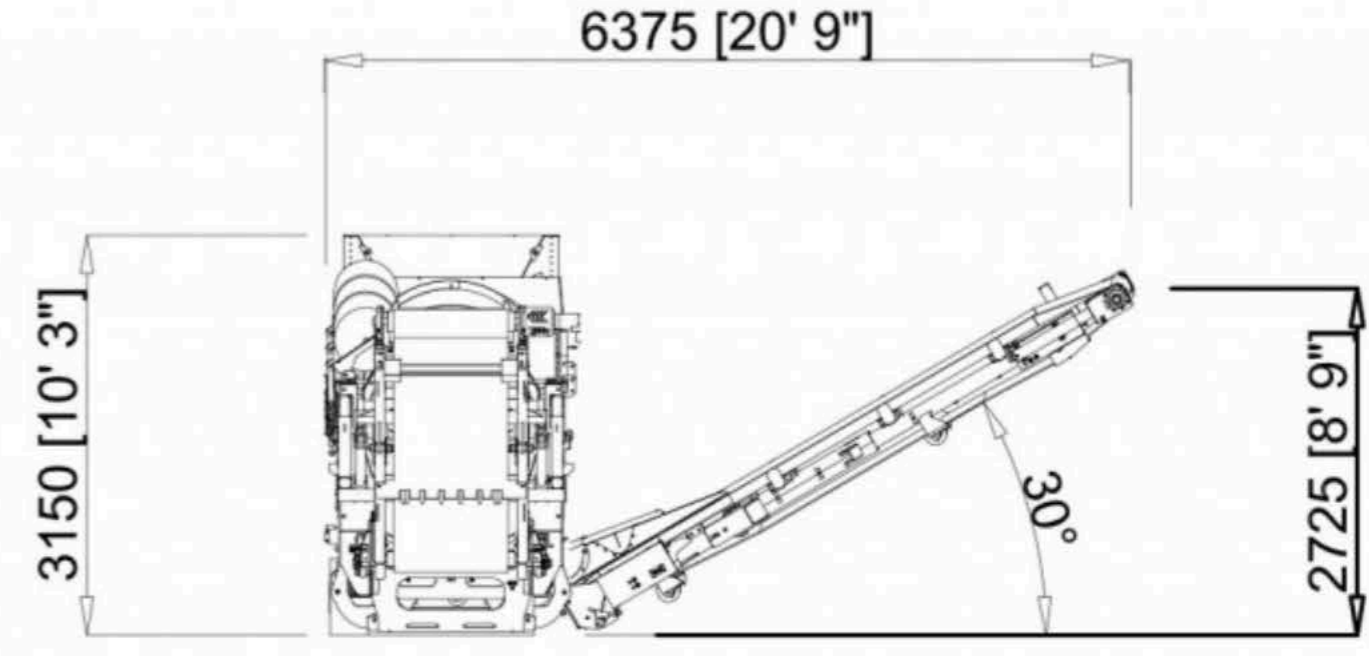
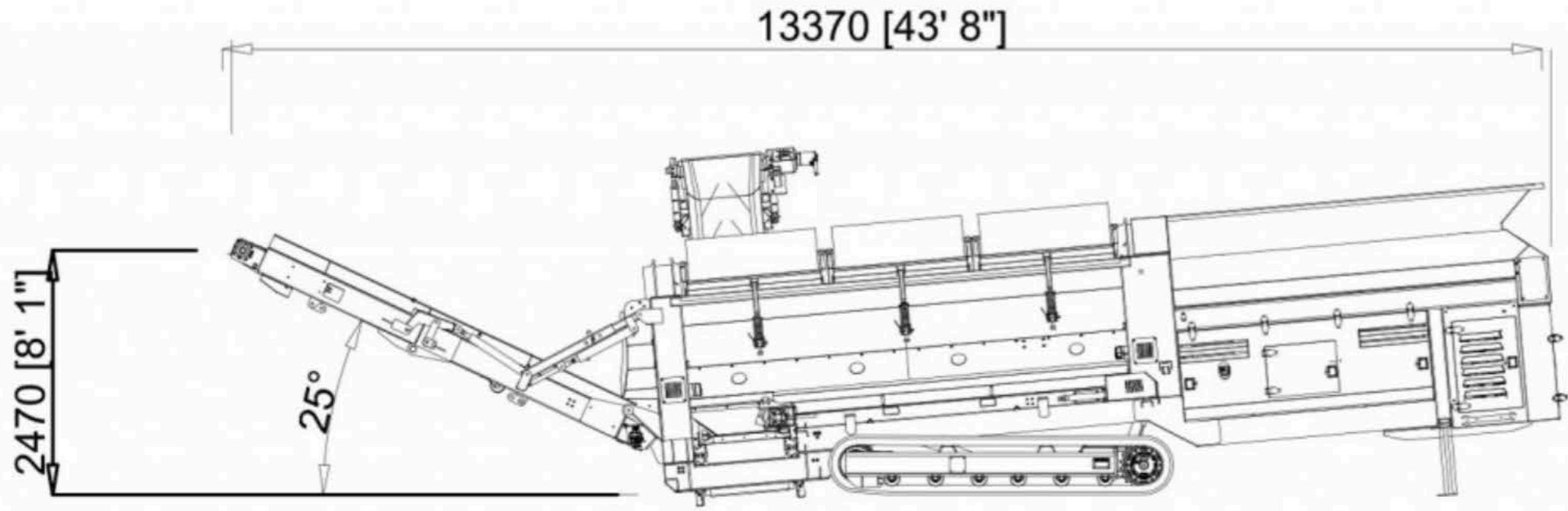
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Hello! Is there anything we can help you with?

.ems



MEDIUM WHEEL LOADERS 972M BEST IN CLASS LOADER PERFORMANCE

NET POWER - ISO 9249
220 kW
OPERATING WEIGHT
8970 kg
BUCKET CAPACITIES
10-9.94 m³ (4.19-13 yd³)

OVERVIEW

The Cat® 972M Wheel Loader offers significant fuel savings while lowering long-term costs. This machine meets emission standards and is designed to improve fuel economy without interrupting performance. The reliability, durability, and versatility results in a machine that is better built to meet your needs.

UP TO 30% MORE PRODUCTIVITY

Lock-up clutch transmission and increased engine power result in improved machine performance, response and fuel efficiency. Machine is equipped with easy to load buckets and a PAYLOAD system.

DESIGNED FOR OPERATORS

Equipped with a next generation adjustable seat and a revolutionary suspension system. Controls are easy to use, intuitive, and user-friendly. Excellent visibility provides great operator view.

UP TO 15% LOWER MAINTENANCE COSTS

Extended service intervals save you time, money, and energy. Access to maintenance points is fast and easy.

FEATURES AT A GLANCE

RELIABILITY YOU CAN COUNT ON	LONG TERM VALUE AND DURABILITY	BUILT TO PERFORM
DESIGNED FOR OPERATORS	SAFELY HOME EVERY DAY	DO MORE WITH LESS FUEL
TECHNOLOGY THAT GETS WORK DONE	PURPOSE BUILT SPECIALTY MODELS	SAVE ON SERVICE AND MAINTENANCE



- Cat C9.3 engine offers increased power density with a combination of proven electronic fuel and air systems.

- Equipped with automatic Cat regeneration system, Cat clean emissions module (CEM) with Diesel Particulate Filter (DPF), and Diesel Exhaust Fluid (DEF) tank and pump (Tier 4 Final, Stage IV, and Stage V only).
- Features an electric fuel priming pump and a fuel/water separator.
- Thorough component design and machine validation processes result in unmatched reliability and uptime.

PRODUCT SPECIFICATIONS FOR 972M

ENGINE

Net Power - ISO 9249	222 kW
Emissions	Tier 3/Stage IIIA
Maximum Power - 1,800 rpm - ISO 14396 - Metric	242 kW
Maximum Power - 1,800 rpm - SAE J1995	246 kW
Engine Model	Cat C9.3
Displacement	9.3 l
Maximum Power - 1,800 rpm - ISO 14396	242 kW
Maximum Net Power - 1,700 rpm - SAE J1349 - Metric	222 kW
Maximum Power - 1,800 rpm - SAE J1995 - Metric	246 kW
Maximum Net Power - 1,700 rpm - SAE J1349	222 kW
Maximum Net Power - 1,700 rpm - ISO 9249	222 kW
Maximum Net Power - 1,700 rpm - ISO 9249 - Metric	222 kW
Maximum Net Torque - 1,000 rpm	1632 N·m
Peak Gross Torque - 1,200 rpm - SAE J1995	1728 N·m
Peak Gross Torque - 1,200 rpm - ISO 14396	1710 N·m

WEIGHTS

Operating Weight	24897 kg
Note	Weight based on a machine configuration with Michelin 26.5R25 XHA2 L3 radial tire fluids, operator, standard counterweight, cold start, roading fenders, Product Link™, manual diff lock/open axles (front/rear), power train guard, secondary steering, sound suppression and a 4.8 m³ (6.28 yd³) general purpose bucket with BOCE.

BUCKETS

Bucket Capacities	3.20-9.94 m³ (4.19-13 yd³)
--------------------------	----------------------------

OPERATING SPECIFICATIONS

Breakout Force	196 kN
Static Tipping Load - Full 37° Turn - No Tire Deflection	17421 kg
Static Tipping Load - Full 37° Turn - With Tire Deflection	16164 kg
Note (1)	For a machine configuration as defined under "Weight."
Note (2)	Full compliance to ISO 143971:2007 Sections 1 thru 6, which requires 2% verification between calculations and testing.

TRANSMISSION

Reverse - 2	15 km/h
Forward - 1	6.7 km/h
Reverse - 1	7.6 km/h
Forward - 4	39.5 km/h
Forward - 3	23.2 km/h
Forward - 2	13.1 km/h
Reverse - 3	26.5 km/h
Reverse - 4	39.5 km/h
Note	Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 826 mm (32.5 in) roll radius.

HYDRAULIC SYSTEM

Implement System - Maximum Operating Pressure	31000 kPa
Hydraulic Cycle Time - Total	10.7 s
Implement Pump Type	Variable Displacement Piston
Implement System - Maximum Pump Output at 2,200 rpm	360 l/min

SERVICE REFILL CAPACITIES

Differential - Final Drives - Rear	57 l
Transmission	58.5 l
Cooling System	71.6 l
Crankcase	24.5 l
Hydraulic Tank	125 l
Differential - Final Drives - Front	57 l
Fuel Tank	302 l

SOUND

With Cooling Fan Speed at Maximum Value - Exterior Sound Power Level (ISO 6395:2008)	109 dB(A)
With Cooling Fan Speed at Maximum Value - Exterior Sound Pressure Level (SAE J88:2013)	76 dB(A)*
Note	*Distance of 15 m (49.2 ft), moving forward in second gear ratio.
With Cooling Fan Speed at Maximum Value - Operator Sound Pressure Level (ISO 6396:2008)	70 dB(A)

DIMENSIONS - STANDARD LIFT

Tread Width	2230 mm
Centerline of Rear Axle to Hitch	1775 mm
Hinge Pin Height at Carry	680 mm
Height - Top of ROPS	3587 mm
Ground Clearance	434 mm
Rack Back at Ground	41 degrees
Height - Top of Exhaust Pipe	3522 mm
Hinge Pin Height at Maximum Lift	4458 mm
Centerline of Rear Axle to Edge of Counterweight	2500 mm
Note	All dimensions are approximate and based on L3 XHA2 tires.
Wheel Base	3550 mm
Rack Back - Maximum Lift	56 degrees
Maximum Width over Tires	3009 mm
Lift Arm Clearance at Maximum Lift	3843 mm
Overall Length - Without Bucket	7774 mm
Rack Back - Carry Height	50 degrees
Height - Top of Hood	2818 mm

DIMENSIONS - HIGH LIFT

Height - Top of Hood	2818 mm
Overall Length - Without Bucket	8109 mm
Centerline of Rear Axle to Edge of Counterweight	2500 mm
Wheel Base	3550 mm

Maximum Width over Tires	3009 mm
Note	All dimensions are approximate and based on L3 XHA2 tires.
Ground Clearance	434 mm
Hinge Pin Height at Carry	778 mm
Rack Back - Carry Height	49 degrees
Tread Width	2230 mm
Rack Back at Ground	39 degrees
Hinge Pin Height at Maximum Lift	4793 mm
Centerline of Rear Axle to Hitch	1775 mm
Rack Back - Maximum Lift	71 degrees
Lift Arm Clearance at Maximum Lift	4140 mm
Height - Top of Exhaust Pipe	3522 mm
Height - Top of ROPS	3587 mm

ENGINE - TIER 3/STAGE IIIA EQUIVALENT

Emissions	Tier 3/Stage IIIA
------------------	-------------------

BUCKET CAPACITIES

Bucket Range	3.20-9.94 m ³ (4.19-13 yd ³)
---------------------	---

972M STANDARD EQUIPMENT

NOTE

- Standard and optional equipment may vary. Consult your Cat dealer for details.

POWER TRAIN

- Engine, Cat C9.3 meets Tier 3/Stage IIIA equivalent or Tier 4 Final/Stage IV emission standards
- Cat Clean Emissions Module (CEM) with Diesel Particulate Filter (DPF) and Diesel Exhaust Fluid (DEF) tank and pump (Tier 4 Final/Stage IV models)
- Fuel priming pump (electric)
- Fuel/water separator
- Precleaner, engine air intake
- Economy Mode (selectable)
- Transmission, automatic planetary power shift (4F/4R)

- Torque converter, locking clutch with free wheel stator

OPERATOR ENVIRONMENT

- Cab, pressurized and sound suppressed (ROPS/FOPS)
- Viscous mounts
- Multi-function 18 cm (7 in) color touch-screen display for rear vision camera, clock and machine parameters
- EH controls, SAL (single axis lever) lift and tilt function
- Steering, EH joystick, speed sensing with force feedback
- Radio ready (entertainment) includes antenna, speakers and converter (12V, 10-amp)
- Air conditioner, heater, and defroster (auto temp and fan)
- EH parking brake
- Beverage holders (2) with storage compartment for cell phone/MP3 player
- Bucket/work tool function lockout
- Coat hook (2)
- Cab air filter
- Ergonomic cab access ladders and handrails
- Horn, electric
- Light, two dome (cab)
- Mirrors, rearview external with integrated spot mirrors
- Post mounted membrane 16 switch keypad
- 2 receptacles, 12V
- Seat, Cat Comfort (cloth) air suspension
- Seat belt, 51 mm (2 in) retractable, with indicator
- Sun visor, front
- Wet-arm wipers/washers front and rear, intermittent front wiper
- Window, sliding (left and right sides)
- Cab tie-off

COMPUTERIZED MONITORING SYSTEM

- With following gauges: Speedometer/tacometer; Digital gear range indicator; Diesel Exhaust Fluid (DEF) level (Tier 4 Final/Stage IV models); Temperature: engine coolant, hydraulic oil, transmission oil; Fuel level
- With following warning indicators: Regeneration; Temperature: axle oil, engine intake manifold; Pressure: engine oil, fuel pressure hi/low, primary steering c service brake oil; Battery voltage hi/low; Engine air filter restriction; Hydraulic oil filter restriction; Hydraulic oil low; Parking brake; DEF low level (Tier 4 Final/Stage IV models); Transmission filter bypass

ELECTRICAL AND LIGHTING

- Batteries (2), maintenance free 1,400 CCA
- Ignition key; start/stop switch
- Starter, electric, heavy duty
- Starting and charging system (24V)
- Lighting system: Four halogen work lights (cab mounted); Two halogen roading lights (with signals); Two halogen rear vision lights (hood mounted)
- Alarm, back-up
- Alternator, 145-amp brushed
- Main disconnect switch
- Receptacle start (cables no included)

CAT CONNECT TECHNOLOGIES

- Link technologies: Product Link
- Detect technologies: rear vision camera

LINKAGE

- Linkage, Z-bar, cast crosstube/tile lever
- Kickout, lift and tilt, automatic

HYDRAULICS

- Hydraulic system, load sensing
- Steering, load sensing
- Ride control, 2V
- Remote diagnostic pressure taps
- Hoses, Cat XT™
- Oil sampling valves

FLUIDS

- Premixed extended life coolant with freeze protection to -34° C (-29° F)

OTHER STANDARD EQUIPMENT

- Hood, non-metallic power tilting
- Service centers (electrical and hydraulic)
- Platform, window washing
- Auto idle shutdown
- Fenders, front with mud-flap/rear with extension
- Ecology drains for engine, transmission, and hydraulics
- Ether aid ready

- Grill, airborne debris
- Filters: fuel, engine air, engine oil, hydraulic oil, transmission
- Fuel cooler
- Grease zerks
- Hitch, drawbar with pin
- Precleaner rain cap
- Sight gauges: engine coolant, hydraulic oil, and transmission oil level
- Toolbox
- Vandalism protection caplocks

972M OPTIONAL EQUIPMENT

NOTE

- Standard and optional equipment may vary. Consult your Cat dealer for details.

POWER TRAIN

- Axles: Automatic front/rear differential locks; Axle oil cooler; Extreme temperature seals; Seal guards
- Fan, VPF (variable pitch fan), automatic and manual control
- Radiator, high debris with wider fin spacing

OPERATOR ENVIRONMENT

- Door, remote opening system
- Cover, HVAC metallic
- EH controls, SAL 3rd function - Additional roller switch for 4th function
- EH controls, joystick lift and tilt - Additional integrated roller switches for 3rd and 4th functions
- Filter, carbon fresh air
- Mirrors, heated rearview external with integrated spot mirrors
- Precleaner, HVAC
- Precleaner, HVAC (RESPA)
- Radio, AM/FM/CD/USB/MP3 Bluetooth with Satellite Sirius and XM
- Radio, CB ready
- Seat, heated air suspension
- Seat belt, 76 mm (3 in) retractable, with indicator
- Steering, EH wheel with directional FNR shifter and gear selector - Additional FNR with implement controls
- Roof, metallic

- Steering, secondary
- Sun visor, rear
- Windows, rubber mounted
- Windows, with front guard
- Windows, with heavy duty front guard
- Windows, with full guards front, rear and sides

ELECTRICAL AND LIGHTING

- Four additional auxiliary halogen cab mounted work lights or
- Two additional auxiliary front HI LED and two additional auxiliary rear LED cab mounted work lights with 2 LED work lights in the radiator grill and LED front signals also includes replacement of the standard four halogen cab mounted work lights with four LED work lights (the standard offering and only roading light available is the halogen roading light)
- Warning amber strobe beacon
- Reversing strobes
- External seat belt indicator light
- Speed limiter - 20 km/h (Europe only)

STARTERS, BATTERIES, AND ALTERNATORS

- Cold start - 120V
- Cold start - 240V

CAT CONNECT TECHNOLOGIES

- Link technologies: VIMS™
- Payload technologies: Advanced Productivity subscription; Cat Production Measurement 2.0; Printer; Aggregate Autodig
- Detect technologies: Cat Rear Object Detection
- Machine Security System

LINKAGE

- High lift
- Extended capacity
- Quick coupler ready

WORK TOOLS

- Performance Series buckets
- Fusion quick coupler
- Forks, pallet
- Forks, logging

HYDRAULICS

- 3rd function with Ride Control: Standard linkage; High lift linkage; Forestry linkage

- 4th function with Ride Control: Standard linkage; High lift linkage; Forestry linkage

FLUIDS

- Premixed extended life coolant with freeze protection to -50° C (-58° F)

OTHER OPTIONAL EQUIPMENT

- Cat Autolube System
- Fenders, roading
- Guard, power train
- Oil change, high speed engine
- Precleaner, turbine
- Precleaner, trash
- Wheel clocks

OPTIONAL APPLICATION SPECIFIC CONFIGURATIONS

- Aggregate Handler
- Industrial and Waste Handler
- Steel Mill
- Corrosion Resistance

SEE HOW 972M COMPARES AGAINST FREQUENTLY COMPARED PRODUCTS.

**WHEEL LOADERS
972M**



NET POWER - ISO 9249
222 kW

OPERATING WEIGHT
24897 kg

BUCKET CAPACITIES
3.20-9.94 m³ (4.19-13 yd³)

**WHEEL LOADERS
966M**



NET POWER - ISO 9249
207 kW

OPERATING WEIGHT
23220 kg

BUCKET CAPACITIES
3.20-7.40 m³ (4.19-9.68 yd³)

**WHEEL LOADERS
972M XE**



NET POWER - ISO 9249
232 kW

OPERATING WEIGHT
24896 kg

BUCKET CAPACITIES
3.20-9.94 m³ (4.19-13.00 yd³)

TOOLS AND EXPERT HELP AT EVERY TURN



PAYMENT CALCULATOR



CURRENT OFFERS



RENTAL OPTIONS



USED OPTIONS



FIND DEALER

THREE AXLE ARTICULATED TRUCKS 745 MAXIMIZE PRODUCTIVITY

ENGINE MODEL
Cat C18
NETTED PAYLOAD
12.2 t
1:1 RATIO (SAE 2:1)
12.7 yd³

OVERVIEW

The Cat® 745 features a world-class cab design, re-engineered using global operator feedback to advance comfort and ease of operation. Enhancements include new controls, transmission-protection features, hoist-assist system, advanced automatic traction control system, stability-assist machine rollover warning system, and a fuel saving ECO mode.

UP TO 50% LESS OPERATOR INPUT

Uniquely combined hoist and transmission lever allows for easy operation which suits a wide range of operator experience

IMPROVED OPERATOR COMFORT

Quieter, more spacious cab with improved visibility helps operators work more productively throughout the day

UNMATCHED SAFETY

Safety features help increase operator confidence by providing a safer operation - prevention of cab and body roll-over and safer cab entry

FEATURES AT A GLANCE

MAXIMIZE PERFORMANCE	AUTOMATIC CONTROLS	HEAVY DUTY CONSTRUCTION
OPERATOR COMFORT AND CONTROL	BUILT TO PERFORM	TECHNOLOGY THAT GETS WORK DONE
BECAUSE UPTIME COUNTS	MORE SUSTAINABLE FUTURE	BUILT-IN SAFETY FEATURES



- Every Tier 4 Final/Stage IV and EU Stage V Cat engine is equipped with a combination of proven electronic, fuel, air and

aftertreatment components.

- Maximized uptime and reduced cost with world-class support from the Cat dealer network.
- Minimized impact of emission systems: designed to be transparent to the operator without requiring interaction.
- Delivering better fuel economy with minimized maintenance costs while providing the same great power and response.
- Advanced MEUI-C injector platforms deliver increased injection pressures and more precise fuel rates. These durable injectors enhance responsiveness while controlling soot.
- All Cat engines feature innovative air-management systems that optimize airflow and enhance power, efficiency and reliability.
- The Cat NOx Reduction System (NRS) captures and cools a small quantity of exhaust gas, then routes it back into the combustion chamber where it drives down combustion temperatures and reduces NOx emissions.
- Cat engines equipped with a Selective Catalytic Reduction (SCR) system inject Diesel Exhaust Fluid (DEF) into the exhaust to reduce NOx emissions. DEF is a precisely mixed solution of 32.5 percent high purity chemical grade urea and 67.5 percent de-ionized water.

PRODUCT SPECIFICATIONS FOR 745

ENGINE

Engine Model	Cat C18
Bore	5.7 in
Stroke	7.2 in
Displacement	1106 in ³
Net Power - ISO 14396	504 HP
Net Power - SAE J1349	496 HP
Gross Power - SAE J1995	511 HP
Engine Model - U.S. EPA Tier 4 Final, EU Stage V, Japan 2014 (Tier 4 Final), Korea Tier 4 Final	Cat® C18
Note (4)	DEF used in Cat SCR systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241-1. ISO 22241-1 requirement met by many brands of DEF, including those that carry the AdBlue or API certification.
Note (1)	The power ratings apply at rated speed of 1,700 rpm when tested under the conditions of the specified standard.
No Engine De-rating Required Below	10000 ft
Note (2)	The net power advertised is the power available at the flywheel when the engine is equipped with alternator, air cleaner, muffler and fan at minimum speed.
Note (3)	Net power when the fan is at maximum speed is 348 kW (467 hp) per the SAE reference conditions.
Peak Engine Torque Gross (SAE J1995)	1931 ft-lbf
Peak Engine Torque Speed	1200 r/min
Peak Engine Torque Net (SAE J1349)	1887 ft-lbf
Emissions	The 745 meets Tier 4 Final and Stage V emission standards.

WEIGHTS

Rated Payload	45.2 t
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BODY CAPACITIES

Heaped (SAE 2:1)	32.7 yd ³
Struck	24.2 yd ³
Tailgate Heaped SAE 2:1	34.7 yd ³
Tailgate Struck	25.5 yd ³

TRANSMISSION

Forward - 1	3.8 mile/h
Forward - 2	5 mile/h
Forward - 3	7 mile/h
Forward - 4	8.8 mile/h
Forward - 5	11.6 mile/h
Forward - 6	14.2 mile/h
Forward - 7	19.6 mile/h
Forward - 8	23.5 mile/h
Reverse - 1	4 mile/h
Reverse - 2	9.1 mile/h
Forward - 9	34 mile/h

SOUND LEVELS

Interior Cab	72 dB(A)
Note (1)	The operator sound exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 76 dB(A), for the cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.
Note (2)	Hearing protection may be needed when operating with an open operator station (when not properly maintained or doors/windows open) for extended periods or in noisy environments.

OPERATING WEIGHTS

Rear Axle - Rated Load	38691 lb
Front Axle - Empty	43515 lb
Total - Loaded	163942 lb
Rear Axle - Empty	14731 lb

Rear Axle - Loaded	53422 lb
Total - Rated Load	90390 lb
Front Axle - Rated Load	13007 lb
Center Axle - Rated Load	38691 lb
Total - Empty	73553 lb
Front Axle - Loaded	56522 lb
Center Axle - Loaded	54000 lb
Center Axle - Empty	15309 lb

BODY PLATE

Type	High Strength Brinell HB450 Wear Resistant Steel
Base	0.55 in
Chute	0.55 in
Side	0.43 in
Front	0.28 in

SERVICE REFILL CAPACITIES

Fuel Tank	145.3 gal (US)
Cooling System	23.7 gal (US)
Engine Crankcase	13.7 gal (US)
Steering/Hoist Hydraulic System	36.9 gal (US)
Transmission - OTG	19.8 gal (US)
DEF Tank	5.3 gal (US)
Final Drive - Each	1.3 gal (US)
Axles - Each	15.8 gal (US)
Brake Cooling Tank	17.69 gal (US)

BODY HOIST

Raise (automatic)	13 s
Raise (manual)	12 s
Lower (automatic)	10 s
Lower (manual)	10 s

STEERING

Lock to Lock	4.8 seconds @ 60 rpm
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STANDARDS

Brakes	ISO 3450 – 2011
Cab - FOPS	ISO 3449 Level II – 2005
Cab - ROPS	ISO 3471 – 2008
Steering	ISO 5010 – 2007

TURNING CIRCLE

Turning Dimensions - Aisle Width	233 in
Turning Dimensions - Inside Radius	174 in
Turning Dimensions - Clearance Radius	356 in
Turning Dimensions - SAE Turning Radius	340 in
Note	Dimensions are for machines equipped with 29.5R25 tires.
Turning Dimensions - Steer Angle - Left/Right	45 deg

OPTIMAL LOADER/TRUCK PASS MATCHING

Hydraulic Excavator: 390 - Passes	4
Wheel Loader: 982 - Passes	4
Wheel Loader: 972 - Passes	43926
Hydraulic Excavator: 374 - Passes	5
Note	An optimum system match gives you a major productivity advantage. Having match loading and hauling tools results in increased production and lower system costs per volume moved.
Wheel Loader: 980 - Passes	43926

745 STANDARD EQUIPMENT

NOTE

- Standard and optional equipment may vary. Consult your Cat dealer for details.

OPERATOR ENVIRONMENT

- Machine operation monitoring system includes:

- Action lamp
 - Engine oil pressure
 - Primary steering system
 - Left and right turn signal
 - High beam
 - Coolant temperature
 - Tachometer
 - Parking brake
 - Fuel level
 - Transmission oil temperature
 - Brake system
 - Transmission hold
 - Hoist control
 - Hydraulic system
 - Charging system
 - Retarder
 - Transmission fault
 - Traction control system
 - Check engine lamp
- Two seat belts, operator's retractable
- Sun visor
- Window blinds
- Glass windows:
 - Front, laminated and tinted
 - Sides and rear, toughened and tinted
- Combined gear selection and hoist control lever
- Windshield wiper and washer, two speed, intermittent (front)
- Storage:
 - Cup holder
 - Flask receptacle
 - Under seat storage
 - Door pocket
 - Behind seat storage
 - Coat hook
- Windshield wiper and washer, two speed (rear)
- Adjustable air vents
- Seats:
 - Fully adjustable, air suspension, heated/cooled
 - Padded trainer with lap belt
- Liquid Crystal Display (LCD):
 - Alert indicator
 - Selected gear and direction
 - Speed or auto shift
 - Review Operation and Maintenance Manual (OMM)
 - Primary steering failure
 - Seat belt warning
 - Secondary steering failure
 - Diesel Particulate Filter (DPF) regeneration filter
 - Machine Security System (MSS)
 - Secondary steering energy source engaged
 - Hour meter
 - Retarder active
- Tilt and telescopic steering wheel
- Secondary steering – electro hydraulic
- Touch screen display incorporating the rearview camera video feed
- Air conditioning with R134A refrigerant

- Windows opening side, tinted
- Mirrors: extensive arrangement for improved visibility
- Heater and defroster with four-speed fan

CAT TECHNOLOGIES

- Product Link: PL631 or PL641 dependent on location and licensing agreement
- Cat Detect with Stability Assist

ELECTRICAL AND LIGHTING

- Batteries (two) maintenance free
- Electrical system: 24-volt, 5A 24- to 12-volt converter
- Horn
- Lighting systems:
 - Cab interior
 - Two head lamps
 - Two width marker
 - Two reversing
 - Work light
 - Two stop/tail lights
 - Front and rear direction indicators
- Main disconnect switch
- Remote starting receptacle (cables not included)

POWER TRAIN

- Auto shift nine-speed forward and two reverse transmission
- Cat C18 engine
- Cat Clean Emission Module (CEM) and exhaust aftertreatment package
- Differentials: standard with automatic clutched inter and cross-axle differential locks
- Dual circuit oil immersed, enclosed brakes – all wheels
- Retarder: engine compression brake
- Three axle, six-wheel drive

SAFETY

- Reverse alarm
- Rearview camera
- ROPS/FOPS cab

GUARDS

- Rear window
- Radiator
- Crankcase

- Axle
- Front dump body spill guard, integral part of fabricated body

OTHER STANDARD EQUIPMENT

- Mud flaps: wheel arch and body mounted with transportation tiebacks
- S·O·S sampling valves
- Tires, six 29.5R25, radial
- Vandalism protection: lockable caps for fuel tank and hydraulic oil tank

745 OPTIONAL EQUIPMENT

NOTE

- Standard and optional equipment may vary. Consult your Cat dealer for details.

OPTIONAL EQUIPMENT

- Auto lube installation for automatic greasing of bearings
- Bare chassis (no body) standard wheel base
- Bare chassis (no body) long wheel base
- Body liners
- Bluetooth radio stereo system
- Cat Production Measurement payload monitoring system
- Cold weather coolant -51°C (-60°F)
- Cold weather start attachment
- Engine block heater
- Ether start
- Exhaust heated body
- Fast fuel fill
- Fender extension
- Flashing LED beacon
- Four-point seat belt
- Fuel additive – anti-waxing
- Heated rearview motorized mirrors
- Machine Security System (MSS)
- Product Link Elite: PLE631 (satellite), PLE641 (cellular)
- Roof mounted High Intensity Discharge (HID) work lights

- Scissor tailgate
- Sound suppression
- 875/65 R29 wide tires

SEE HOW 745 COMPARES AGAINST FREQUENTLY COMPARED PRODUCTS.

ARTICULATED TRUCKS

745

745

ENGINE MODEL

Cat C18

RATED PAYLOAD

45.2 t

HEAPED (SAE 2:1)

32.7 yd³

ARTICULATED TRUCKS

740 GC

740 GC

ENGINE MODEL

Cat C15

RATED PAYLOAD

40 ton (US)

HEAPED (SAE 2:1)

29.7 yd³

ARTICULATED TRUCKS

740 EJ

740 EJ

ENGINE MODEL

Cat C18

RATED PAYLOAD

42 ton (US)

HEAPED (SAE 2:1)

30.1 yd³

TOOLS AND EXPERT HELP AT EVERY TURN



PAYMENT CALCULATOR



CURRENT OFFERS



RENTAL OPTIONS



USED OPTIONS



FIND DEALER

GREAT PROTECTION + GREAT RATE = GREAT TIME TO BUY

COMPATIBLE TECHNOLOGY AND SERVICES

Leverage Caterpillar connected data and security principles to improve efficiencies, increase productivity and make your business more profitable.

DETECT

LINK

PAYLOAD

CAT DETECT WITH STABILITY ASSIST

Cat Detect with Stability Assist increases awareness of machine stability during operation by warning operator if machine is approaching an un-safe angle, ultimately resulting in machine safety and uptime.

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CHECK OUT CURRENT OFFERS FOR THE 745

