

# 963 Track Loader

# **Technical Specifications**

Heavy Duty Waste Handler.......15

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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# **963 Track Loader Specifications**

Engine		
Engine Model	Cat® C7.1	
Emissions	U.S. EPA Tie EU Stage V/. Korea Tier 4	Japan 2014/
Build Number	12A	
Net Power – ISO 9249:2007/ SAE J1349:2011	151 kW	202 hp
Net Power – ISO 9249:2007/ SAE J1349:2011 (DIN)	204 mhp	
Gross Power SAE J1995:2014	170 kW	228 hp
Engine Power ISO 14396:2002	168 kW	225 hp
Engine Power ISO 14396:2002 (DIN)	227 mhp	
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in <sup>3</sup>

- Engine power at 1,800 rpm.
- Inline six-cylinder diesel engine with twin turbos, charged with ATAAC and engine mounted aftertreatment.
- No derating required up to 3000 m (9,842 ft) altitude.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan running up to maximum speed, alternator, air cleaner and aftertreatment.
- All non-road Tier 4 Interim and Final, Stage IIIB, IV and V, Japan 2014 (Tier 4 Final) and Korea Tier 4 Final diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm EPA/10 ppm EU (mg/kg) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214). Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your OMM for further machine specific fuel recommendations.
- Diesel Exhaust Fluid (DEF) used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.

### **Air Conditioning**

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.1 kg of refrigerant which has a  $CO_2$  equivalent of 1.573 metric tons.

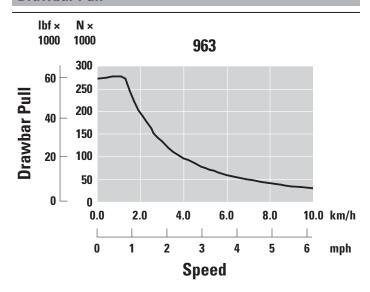
Drive System	
Description	Electronically controlled Hydrostatic drive with two variable displacement bent axis motors and two variable displacement slipper-type axial piston pumps
Travel Speed	Infinite variable speed from 0 to 10 km/h (0 to 6.2 mph)
Relief Valve Setting	47 500 kPa 6,890 psi
Implement System	
Description	Load sensing, variable displacement piston pump

Description	Load sensing, variable	
	displacement piston pump	
Maximum Continuous Flow	256 L/min 56.3 gal/min	
	at 1,800 rpm at 1,800 rpm	
Maximum Pressure	28 000 kPa 4,061 psi	
Filter System	Implement return filter	
Camina Datill Camanitian		

<b>Service Refill Capacities</b>		
Fuel Tank	320 L	84.5 gal
DEF Tank	16 L	4.2 gal
Cooling System	32 L	8.5 gal
Crankcase (with filter)	16.5 L	4.4 gal
Final Drive (each)	15 L	4.0 gal
Hydraulic Tank	90 L	23.7 gal
Pivot Shaft	1.8 L	0.5 gal

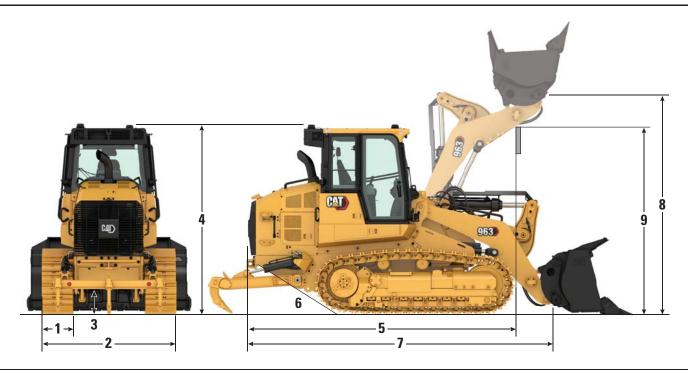
### **Drawbar Pull**

Drive System



# **963 Track Loader Specifications**

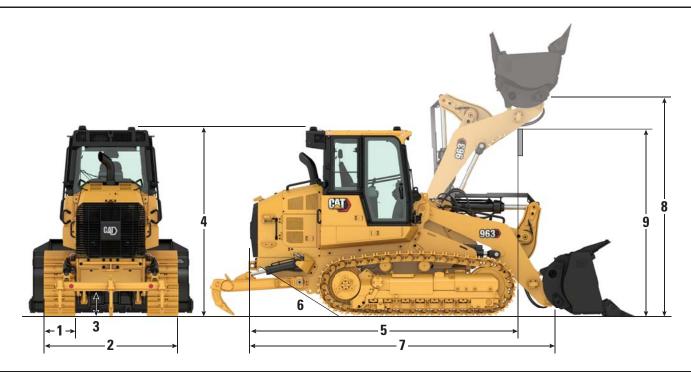
## **Weights and Dimensions**



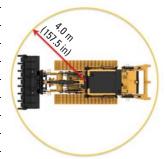
	Stand	dard	Low Ground P	ressure (LGP)
Operating Weight <sup>1</sup>	20 358 kg	44,881 lb	22 762 kg	50,181 lb
Shipping Weight	18 468 kg	40,715 lb	20 440 kg	45,062 lb
1 Track Shoe Width:				
Standard <sup>2</sup>	550 mm	22 in	_	
LGP		_	800 mm	31 in
Narrow <sup>2</sup>	450 mm	18 in	_	
Track Rollers – Each Side	Ţ.	7	-	7
Number of Shoes – Each Side	3	8	3	8
Track on Ground	2542 mm	100 in	2542 mm	100 in
Ground Pressure:				
Standard Shoes	63.0 kPa	9.1 psi	48.5 kPa	7.0 psi
Narrow Shoes	77.0 kPa	11.2 psi	_	

<sup>&</sup>lt;sup>1</sup>Operating weight: machine with construction package, general purpose bucket with teeth and segments, lubricants, 100% fuel tank and 75 kg (165 lb) operator. <sup>2</sup>Single or double grouser, with or without center holes.

## Weights and Dimensions (continued)



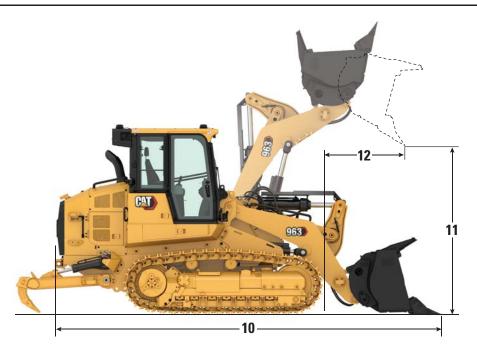
2 Overall Machine Width (without bucket):		
Minimum: Standard Gauge (450 mm/17.7 in shoes)	2300 mm	90.5 in
Maximum: Wide Gauge (800 mm/31.5 in shoes)	2900 mm	114.2 in
3 Ground Clearance	471 mm	18.5 in
4 Machine Height to Top of Cab	3325 mm	130.9 in
5 Machine Length to Front of Tracks (including rear bumper)	4943 mm	194.6 in
with Ripper, Add	586 mm	23.0 in
6 Ramp Angle	29°	•
7 Overall Shipping Length (without bucket)	5841 mm	230 in
8 Hinge Pin Height at Maximum Lift	3940 mm	155.1 in
9 Lift Arm Clearance at Maximum Lift	3590 mm	141.3 in
Turning Radius	4.0 m	157.5 in



Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

# **963 Track Loader Specifications**

### **Buckets**



### The Right Tool for the Job

All buckets can be used for digging, stump removal, loading, carrying, leveling, etc. Some buckets are more specialized:

Performance Buckets – optimized for loading and carrying

Multi-Purpose (MP) – grabbing material and grading with the clamp open

Flat Floor Buckets – Leveling, loose material handling

For maximum versatility, the Fusion™ coupler is compatible with a range of buckets, forks, rakes, material handling arm and more. Consult with your Cat dealer for compatibility.

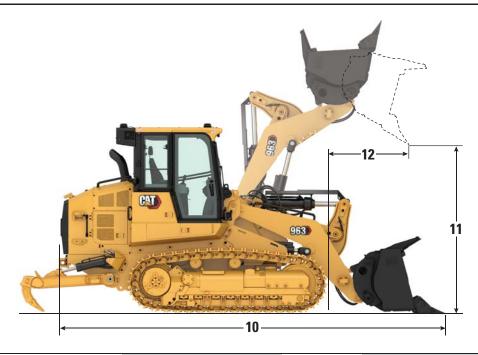
Fusion™ Quick Coupler Buckets		Fusion	Buckets	
Cutting Edge Type	Long Teeth	& Segments	Wide Long Tee	eth & Segments
Bucket Weight	1742 kg	3,840 lb	2036 kg	4,488 lb
Bucket Width	2571 mm	101.2 in	2998 mm	118.1 in
Rated Capacity at 100% Fill Factor <sup>1</sup>	2.3 m <sup>3</sup>	3.0 yd³	2.7 m³	3.5 yd³
Rated Operating Capacity <sup>2</sup>	4638 kg	10,463 lb	4632 kg	10,211 lb
Static Tipping Load <sup>3</sup>	13 250 kg	29,895 lb	13 233 kg	29,173 lb
<b>10</b> Overall Machine Length (bucket on the ground)	6956 mm	273.9 in	6956 mm	273.9 in
11 Dump Clearance at Maximum Lift and 45° Discharge	3045 mm	119.9 in	3045 mm	119.9 in
12 Reach at Maximum Lift and 45° Discharge	1193 mm	47 in	1193 mm	47 in
Breakout Force	180 114 N	40,191 lbf	178 201 N	40,061 lbf

<sup>&</sup>lt;sup>1</sup>Volumetric bucket capacity as per ISO 7546:1983.

Rated Operating Capacity should be considered with 35% Static Tipping Load as required by ISO 14397-1:2007.

<sup>&</sup>lt;sup>3</sup>Machine equipped with standard and additional counterweights.

## **Buckets**



Pin-On Buckets	General Purp	ose Buckets*	Performance Bucket**	Flat Floor	Buckets*	Multi-Purpose Bucket**
Cutting Edge Type	Long Teeth & Segments	Bolt-On Full Edge	Long Teeth & Segments	Welded Flush Adapters, Long Teeth	Wide – Welded Flush Adapters, Long Teeth	Long Teeth & Segments
Bucket Weight	1890 kg	1739 kg	1950 kg	1596 kg	1857 kg	2200 kg
	(4,167 lb)	(3,834 lb)	(4,299 lb)	(3,519 lb)	(4,094 lb)	(4,850 lb)
Bucket Width	2571 mm	2571 mm	2671 mm	2583 mm	2998 mm	2575 mm
	(101.2 in)	(101.2 in)	(105.2 in)	(101.6 in)	(118.1 in)	(101,3 in)
Rated Capacity at 100% Fill Factor <sup>1</sup>	2.5 m <sup>3</sup>	2.5 m <sup>3</sup>	2.8 m <sup>3</sup>	2.3 m <sup>3</sup>	2.7 m <sup>3</sup>	2.0 m <sup>3</sup>
	(3.2 yd <sup>3</sup> )	(3.2 yd <sup>3</sup> )	(3.7 yd <sup>3</sup> )	(3.0 yd <sup>3</sup> )	(3.5 yd <sup>3</sup> )	(2.6 yd <sup>3</sup> )
Rated Capacity at 110% Fill Factor			3.1 m <sup>3</sup> (4.0 yd <sup>3</sup> )			
Rated Operating Capacity <sup>2</sup>	4731 kg	4808 kg	5015 kg	4853 kg	4761 kg	4612 kg
	(10,431 lb)	(10,599 lb)	(11,057 lb)	(10,698 lb)	(10,496 lb)	(10,169 lb)
Static Tipping Load	13 518 kg	13 736 kg	14 329 kg	13 865 kg	13 603 kg	13 178 kg
	(29,802 lb)	(30,283 lb)	(31,590 lb)	(30,566 lb)	(29,989 lb)	(29,053 lb)
10 Overall Machine Length (bucket on the ground)	6831 mm	6613 mm	6925 mm	6839 mm	6839 mm	6897 mm
	(268.9 in)	(260.3 in)	(272.7 in)	(269.2 in)	(269.2 in)	(271.5 in)
11 Dump Clearance at Maximum Lift and 45° Discharge	3079 mm	3080 mm	2988 mm	3145 mm	3145 mm	2926 mm
	(121.2 in)	(121.2 in)	(117.7 in)	(123.8 in)	(123.8 in)	(115.2 in)
<b>12</b> Reach at Maximum Lift and 45° Discharge	1231 mm	1230 mm	1281 mm	1182 m	1182 mm	1077 mm
	(48.5 in)	(48.4 in)	(50.5 in)	(46.5 in)	(46.5 in)	(42.4 in)
Breakout Force	181 064 N	183 150 N	163 503 N	198 144 N	197 064 N	175 418 N
	(40,705 lbf)	(41,174 lbf)	(36,757 lbf)	(44,545 lbf)	(44,302 lbf)	(39,436 lbf)

 $<sup>{\</sup>bf *Machine\ equipped\ with\ no\ counterweight}.$ 

<sup>\*\*</sup>Machine equipped with standard and additional counterweights.

<sup>&</sup>lt;sup>1</sup>Volumetric bucket capacity as per ISO 7546:1983.

<sup>&</sup>lt;sup>2</sup>Rated Operating Capacity should be considered with 35% Static Tipping Load as required by ISO 14397-1:2007.

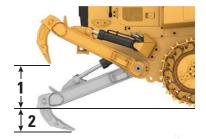
# **963 Track Loader Specifications**

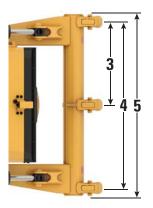
# Track

Track Shoe Width	Grousers	Features
Heavy Duty Sealed and Lubricated		
450 mm (18 in)	Double	_
450 mm (18 in)	Double	Center Hole
460 mm (18 in)	Single	Center Hole
550 mm (22 in)	Double	_
550 mm (22 in)	Double	Center Hole
560 mm (22 in)	Single	Extreme Service
7897 mm (31 in)	Double	Wide Gauge
Cat Abrasion		
450 mm (18 in)	Double	Narrow
550 mm (22 in)	Double	_

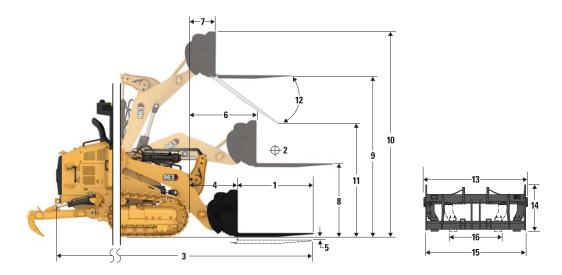
# Ripper

Туре	Rad	ial
Weight	795 kg	1,753 lb
1 Maximum Clearance Raised (shank tip)	873 mm	34.4 in
2 Maximum Penetration	274 mm	10.8 in
3 Pocket Spacing	896 mm	35.3 in
4 Shank Gauge	1792 mm	70.6 in
5 Overall Ripping Width	1955 mm	77.0 in
Beam Cross Section	203 mm × 165 mm	$8.0 \text{ in} \times 6.5 \text{ in}$
Maximum Penetration Force	176 kN	39,646 lbf
Maximum Pry Out Force	85 kN	19,038 lbf





## **Operating Specifications with Pallet Forks**



963 Track Loader*	48-i	n Tines	60-i	n Tines	72-iı	n Tines	84-iı	n Tines	96-iı	n Tines
	mm	in								
1 Tine Length	1219	48.0	1524	60.0	1829	72.0	2134	84.0	2438	96.0
2 Load Center	609	24.0	762	30.0	914	36.0	1067	42.0	1219	48.0
3 Maximum Overall Length	7186	282.9	7492	295.0	7796	306.9	8101	318.9	8406	330.9
4 Reach with Forks at Ground Level	1182	46.5	1182	46.5	1182	46.5	1182	46.5	1182	46.5
5 Dig Depth	-57	-2.2	-57	-2.2	-57	-2.2	-57	-2.2	-57	-2.2
6 Reach with Arms Horizontal and Fork Level	1709	67.3	1709	67.3	1709	67.3	1709	67.3	1709	67.3
7 Reach with Fork at Maximum Height	907	35.7	907	35.7	907	35.7	907	35.7	907	35.7
<b>8</b> Ground to Top of Tine with Arms Horizontal and Fork Level	1772	69.7	1772	69.7	1772	69.7	1772	69.7	1772	69.7
<b>9</b> Ground to Top of Tine at Maximum Height and Fork Level	3791	149.3	3791	149.3	3791	149.3	3791	149.3	3791	149.3
10 Overall Height of Fork at Full Lift (top of carriage to ground)	4831	190.2	4831	190.2	4831	190.2	4831	190.2	4831	190.2
11 Clearance at Full Lift and Maximum Dump	2505	98.6	2259	88.9	2014	79.3	1768	69.6	1523	59.9
12 Maximum Discharge Angle from Horizontal	-	-54°	_	54°	_	54°	_	54°	_	54°
13 Overall Carriage Width	2528	99.5	2528	99.5	2528	99.5	2528	99.5	2528	99.5
14 Overall Carriage Height	1130	44.5	1130	44.5	1130	44.5	1130	44.5	1130	44.5
<b>15</b> Outside Tine Width (maximum spread)	2178	85.7	2178	85.7	2178	85.7	2178	85.7	2178	85.7
<b>16</b> Outside Tine Width (minimum spread)	576	22.7	576	22.7	576	22.7	576	22.7	576	22.7
Tine Width (single tine)	180	7.1	180	7.1	180	7.1	180	7.1	180	7.1
Tine Thickness	90.0	3.5	90.0	3.5	90.0	3.5	90.0	3.5	90.0	3.5
	kg	lb								
Tine Load Capacity (Per Pair)	22 200	48,942.6	17 800	39,242.3	14 800	32,628.4	12 700	27,998.7	11 300	24,912.2
Static Tipping Load Arm Horizontal and Fork Level	9011	19,866.9	8501	18,740.5	8017	17,674.9	7573	16,695.4	7204	15,882.5
Static Lifting Capacity Arm Horizontal and Fork Level	11 748	25,899.7	11 627	25,632.4	10 867	23,958.5	9692	21,366.4	8738	19,264.0
Rated Load (SAE J1197) **	3154	6,953.4	2975	6,559.2	2806	6,186.2	2651	5,843.4	2521	5,558.9

<sup>\*</sup>Construction configuration with 450 mm (22 in) heavy duty tracks, standard counterweight (320 kg/705 lb) and additional counterweight (310 kg/683 lb).

<sup>\*\*</sup>For crawler loaders, 35% of the tipping load or 100% of the lifting capacity, whichever is less. (SAE J1197:2011, EN-474-3:2010, ISO 14397-1:2007).

# **963 Standard and Optional Equipment**

## **Standard and Optional Equipment**

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

	Standard	Optional
POWER TRAIN		
Cat C7.1 diesel engine, turbocharged with Air-To-Air After Cooler (ATAAC)	✓	
Engine-mounted aftertreatment to meet U.S. EPA Tier 4 Final, EU Stage V, Japan 2014, Korea Tier 4 Final emission standards	✓	
Modular cooling system for engine air intake, oil and water	✓	
Hydraulic demand fan – electronically controlled, temperature sensing	✓	
Hydraulic fan, non-reversing		✓
Hydraulic fan, reversing		✓
Electro Hydrostatic Control (EHC) for transmission	✓	
Engine idle shutdown	✓	
Auto engine speed control	✓	
Electric fuel pump	✓	
Water separator	✓	
Glow plug starting aid	✓	
Engine air cleaner		✓
Engine air precleaner		✓
UNDERCARRIAGE		
Heavy duty undercarriage and tracks (38 sections), 1850 mm (72.8 in) track gauge	✓	
Cat Abrasion undercarriage		✓
Oscillating track roller frames	✓	
Track guiding guards, end section	✓	
Hydraulic track adjuster	✓	
Sprocket rims with replaceable bolt-on tough steel segments	✓	
Sprocket guards	✓	
Seven track rollers per side, with two upper carrier rollers, lifetime lubricated	✓	
Idlers, conventional type, lifetime lubricated	✓	

ioi details.		
	Standard	Optional
ELECTRICAL		
Ground Level Service Center	✓	
24 volt heavy-duty alternator	✓	
Backup alarm	✓	
Two horns	✓	
Two heavy-duty batteries, high output, maintenance free, 1,120 CCA	✓	
Main disconnect switch	✓	
Electric starter (heavy-duty, 24 volt)	✓	
Extra lighting – two additional LED lights at the bottom of cab facing forward plus 1 underhood light		✓
LED flashing beacon		<b>√</b>
OPERATOR ENVIRONMENT		
Pressurized, sound suppressed, ROPS/ FOPS Cab with tinted glass and right side sliding window	<b>√</b>	
Cab package with one sliding side window and four halogen lights: two facing forward, roof mounted, two facing rearward, integrated in the air conditioner unit		<b>√</b>
Deluxe cab package with two sliding side windows and eight LED lights: four roof-mounted facing forward, two facing rearward and two facing side integrated in the air conditioner unit		✓
Deluxe high back seat – heated, with adjustable shock control		<b>√</b>
Premium Plus high back seat – heated and cooled, lockable side-side isolator		✓
Adjustable armrests	✓	
Electro-Hydraulic, seat mounted control levers with faster processing	✓	
V-pattern and pedal steering controls		✓
Joystick steering controls		✓
Joystick implement control		✓
Two-lever implement control		✓
Seat belt, retractable, with buckling indicator on dash	✓	
Four-point restraint ready seat	✓	
Air conditioning and heating	✓	
Heater/defroster with automatic temperature control and automatic blower control	✓	
Cab air powered precleaner		✓
Rearview mirror, inside, adjustable	$\checkmark$	

# **963 Standard and Optional Equipment**

## Standard and Optional Equipment (continued)

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

	Standard	Optional
OPERATOR ENVIRONMENT (continued)		
Radio ready. Includes speakers, antenna and 12 V power outlet and 5 V USB port	✓	
Radio – FM Ready Kit		✓
Radio – Bluetooth® & Aux & Mic		✓
Radio – Bluetooth & Aux & Mic – Dab+		✓
Radio – Bluetooth & Aux & Mic – Sirius		✓
Parking brake switch and "brake-on" indicator light	✓	
Implement lock-out switch	✓	
High Definition rearview camera	✓	
254 mm (10 in) color touchscreen display with integrated rear camera display and machine slope indicator	✓	
Three selectable working modes (Auto, Power, Eco)	✓	
Operator programmable lift and tilt kickouts	✓	
Machine Pitch and Roll indicate	✓	
Bucket shake	✓	
Remote services (Troubleshoot/Remote Flash)		✓
Heavy-duty rubber floor mat	✓	
Windshield washers and wipers, multiple speed, front and rear	✓	
Durable metal roof	✓	
Coat hook	✓	
Storage compartments under left armrest	✓	
Document holder on right console	✓	
OTHER STANDARD EQUIPMENT		
Durable metal fender	✓	
Exterior sound suppression	✓	
Load sensing implement pump with variable displacement	✓	
Z-bar loader linkage	✓	
Implement cylinders with sensors	✓	
Engine enclosure with lockable doors	✓	
Debris resistant radiator core (six fins-per-inch)	<b>√</b>	
Hinged radiator guard and swing out fan	✓	
$4 \times 2$ easy tie-down points on chassis	✓	

	Standard	Optional
FEATURE PACKAGES		_
Construction Package with Heavy Duty undercarriage		✓
Construction Package with Cat Abrasion undercarriage		✓
Low Ground Pressure (LGP) Arrangement		✓
Heavy Duty Waste Package		✓
Heavy Duty Extreme Service Waste Package		✓
Heavy Duty Enhanced Cleaning Waste Package		✓
Ship Hold Package		✓
Partial Steel Mill Package		✓
GUARDING		
Full bottom guards	✓	
Idler guard (none)		$\checkmark$
Idler guard		✓
Idler guard – ship hold		✓
Front light guard		✓
Windshield guard		✓
Lift cylinder guard		✓
Tilt cylinder guard		✓
Two-piece final drive guard		✓
Three-piece final drive guard		✓
Final drive bottom guard		✓
Track roller guard		<b>√</b>

# **963 Standard and Optional Equipment**

## Standard and Optional Equipment (continued)

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

	Standard	Optional
BUCKETS*		
General purpose $-2.5 \text{ m}^3 (3.25 \text{ yd}^3)$		✓
General purpose with welded flush adaptor – 2.3 m³ (3.0 yd³)		✓
Heavy-duty general purpose – 2.5 m³ (3.25 yd³)		✓
Multi-purpose – 2.0 m <sup>3</sup> (2.6 yd <sup>3</sup> )		✓
Heavy-duty multi-purpose – 2.0 m³ (2.6 yd³)		✓
General purpose with full bolted cutting edge – 2.5 m <sup>3</sup> (3.25 yd <sup>3</sup> )		✓
Performance general purpose – 2.8 m³ (3.7 yd³)		✓
Wide flush general purpose – 2.9 m³ (3.8 yd³)		✓
Quick coupler, general purpose – 2.3 m³ (3.0 yd³)		✓
Quick coupler, general purpose LGP – 2.7 m³ (3.5 yd³)		✓
Heavy-duty landfill bucket – 3.1 m³ (4.0 yd³)		✓
Multi-purpose heavy-duty landfill bucket – 2.7 m³ (3.5 yd³)		✓
No bucket		✓
HYDRAULICS		
Two-valve hydraulics, two-lever		✓
Two-valve hydraulics, joystick		✓
Three-valve hydraulics, front, joystick		✓
Three-valve hydraulics, rear, joystick		✓
Three-valve hydraulics, rear, two-lever		✓
Four-valve hydraulics, front and rear, joystick		✓
Standard hydraulic lines		✓
Quick coupler hydraulic lines		✓

<sup>\*</sup>Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

	Standard	Optional
MAINTENANCE		
Standard lubricant		✓
Bio lubricant		✓
Ecosafe lubricant (steel mill)		✓
Cat extended life coolant	✓	
Service package		✓
Extended service package – manual hydraulic system enabling cab tilt and lock at 30 degrees safely in the field, shovel holder bracket (shovel not included)		✓
High speed oil change		✓
Ecology drains on hydraulic oil tank	✓	
Oil sampling valves	✓	
Cat XT <sup>TM</sup> hoses	✓	
HYDO™ Advanced 10	✓	
Implement oil return filter in hydraulic tank	✓	
REAR ATTACHMENTS		
Bumper		✓
Ripper		✓
No bumper		✓
Ripper hitch		✓
Striker bars		✓
FUEL TANK		
Fuel tank	✓	
Fast Fill fuel tank		✓
Fuel tank refilling pump		✓
Sediment hand pump		✓
OTHER EQUIPMENT		
Access package		<b>√</b>
Jacket water heater (110 V) and ether starting aid		<b>√</b>
Jacket water heater (240 V) and ether starting aid		✓
Fusion Quick Coupler		✓
TECHNOLOGY PRODUCTS		
Product Link <sup>TM</sup> Ready	✓	
Product Link – Satellite		✓
Product Link – Dual Satellite and Cellula	r	✓
No Product Link		✓
Grade Control mast		✓
COUNTERWEIGHTS		
Light counterweight 320 kg (705 lb)		✓



# 963 Track Loader Waste Handler/Demolition

A Waste Handler can take on a variety of tasks in a landfill or transfer station. Use it for pushing, shredding and pre-compacting waste. For added versatility, track loaders are also ideal for creating and maintaining access, digging cells and digging/carrying/spreading cover material.

### **Top Performer**

- 963 uses up to 10% less fuel per hour than the previous model.
- Smoother implement and steering response, and improved steering performance provide more controllability.
- Updated cab offers more comfort and an intuitive 10-inch (254 mm) touchscreen dash display.
- Standard High Definition rearview camera shows prominently in the main display.
- Excellent visibility to the bucket and all around the machine enhances safety and helps operators work more confidently.

### **Heavy Duty Waste Handler**

- Specialized guarding, and seals help protect the machine and components from impact and airborne debris.
- Final Drive guarding helps prevent wrapping and damage.
- High debris cooling system with reversing demand fan radiator fan folds out for easy cleanout access.
- Specialized air handling features help deliver cleaner air to the machine.
- Choice of buckets and track shoes allow you to further optimize the machine for greater performance and service life.

### **Heavy Duty Enhanced Cleaning Waste Handler**

- Helps reduce your clean-out time while adding ground pressure for more compaction.
- Wide gauge undercarriage equipped with a standard track width allows more space for debris to pass between the track roller frame, tracks and chassis.
- · With less debris build-up, you spend less time cleaning.
- Helps reduce damage caused by debris carried on the tracks.
- Heavier waste configuration combined with narrower track shoes increases ground pressure for greater compaction.

### **Extreme Service Waste Handler or Demolition**

- A tough, compact solution, ideal for transfer stations or demolition job sites.
- Added guarding, beyond the Heavy Duty package, on lift and tilt cylinders.
- Screen helps protect windshield and operator from breakage and debris.
- · Heavy duty bumper and hitch.
- · Striker bars.
- Powered cab air precleaner.

Engine		
Engine Model	Cat C7.1	
Emissions	U.S. EPA Tie EU Stage V/. Korea Tier 4	Japan 2014/
Build Number	12A	
Net Power – ISO 9249:2007/ SAE J1349:2011	151 kW	202 hp
Net Power – ISO 9249:2007/ SAE J1349:2011 (DIN)	204 mhp	
Gross Power SAE J1995:2014	170 kW	228 hp
Engine Power ISO 14396:2002	168 kW	225 hp
Engine Power ISO 14396:2002 (DIN)	227 mhp	
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in <sup>3</sup>

- Engine power at 1,800 rpm.
- Inline six-cylinder diesel engine with twin turbos, charged with ATAAC and engine mounted aftertreatment.
- No derating required up to 3000 m (9,842 ft) altitude.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan running up to maximum speed, alternator, air cleaner and aftertreatment.
- All non-road Tier 4 Interim and Final, Stage IIIB, IV and V, Japan 2014 (Tier 4 Final) and Korea Tier 4 Final diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm EPA/10 ppm EU (mg/kg) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214). Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your OMM for further machine specific fuel recommendations.
- Diesel Exhaust Fluid (DEF) used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.

### **Air Conditioning**

Pivot Shaft

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.1 kg of refrigerant which has a  $CO_2$  equivalent of 1.573 metric tons.

<b>Drive System</b>		
Description	bent axis mo	drive with displacement stors and displacement axial
Travel Speed	Infinite variation from 0 to 10 (0 to 6.2 mpl	ible speed km/h
Relief Valve Setting	47 500 kPa	6,890 psi
Implement System		
Description	Load sensing	g, variable t piston pump
Maximum Continuous Flow	256 L/min at 1,800 rpm	56.3 gal/min at 1,800 rpm
Maximum Pressure	28 000 kPa	4,061 psi
Filter System	Implement r	eturn filter
<b>Service Refill Capacities</b>		
Fuel Tank	320 L	84.5 gal
DEF Tank	16 L	4.2 gal
Cooling System	32 L	8.5 gal
Crankcase (with filter)	16.5 L	4.4 gal
Final Drive (each)	15 L	4.0 gal
Hydraulic Tank	90 L	23.7 gal

1.8 L

0.5 gal

<b>Heavy Duty Waste Handler</b>		
Operating Weight <sup>1</sup>	20 661 kg	45,549 lb
Shipping Weight	18 771 kg	41,383 lb
Track Shoe Width – Standard <sup>2</sup>	550 mm	22.0 in
Track Shoe Width – Narrow <sup>2</sup>	450 mm	18.0 in
Track Rollers – Each Side		7
Number of Shoes – Each Side		38
Track on Ground	2542 mm	100.0 in
Ground Pressure – Standard Shoes	63.9 kPa	9.3 psi
Ground Pressure – Narrow Shoes	78.1 kPa	11.3 psi

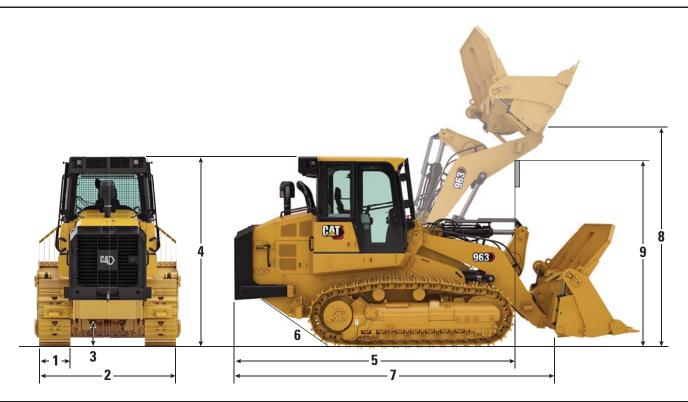
<b>Heavy Duty Enhanced Cleani</b>	ng Waste H	landler
Operating Weight <sup>1</sup>	21 374 kg	47,122 lb
Shipping Weight	19 484 kg	42,955 lb
Track Shoe Width – Standard <sup>2</sup>	550 mm	22.0 in
Track Shoe Width – Narrow <sup>2</sup>	450 mm	22.0 in
Track Rollers – Each Side		7
Number of Shoes – Each Side		38
Track on Ground	2542 mm	100.0 in
Ground Pressure – Standard Shoes	66.1 kPa	9.6 psi
Ground Pressure – Narrow Shoes	80.8 kPa	11.7 psi

<b>Extreme Service Waste Hand</b>	dler or Dem	olition
Operating Weight <sup>1</sup>	21 366 kg	47,104 lb
Shipping Weight	19 476 kg	42,937 lb
Track Shoe Width – Standard <sup>2</sup>	550 mm	22.0 in
Track Shoe Width – Narrow <sup>2</sup>	450 mm	22.0 in
Track Rollers – Each Side		7
Number of Shoes – Each Side		38
Track on Ground	2542 mm	100.0 in
Ground Pressure – Standard Shoes	66.1 kPa	9.6 psi
Ground Pressure – Narrow Shoes	80.8 kPa	11.7 psi

 $<sup>^{\</sup>rm l}$  Operating weight: machine with construction package, general purpose landfill bucket with teeth and segments, lubricants, 100% fuel tank and 75 kg (165 lb) operator

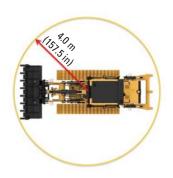
<sup>&</sup>lt;sup>2</sup>Single or double grouser, with or without center holes

## **Dimensions**

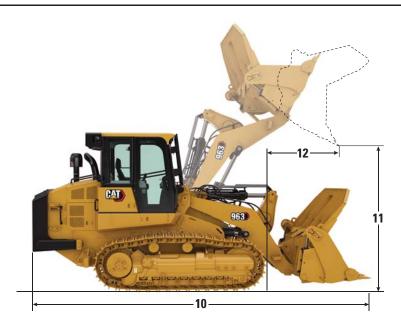


	Heavy	Duty	Heavy Duty Clear		Extreme S Demol	
1 Standard Track Shoe Width	550 mm	22.0 in	550 mm	22.0 in	550 mm	22.0 in
2 Overall Machine Width (without bucket)						
Minimum: Standard Gauge (450 mm/17.7 in shoes)	2300 mm	90.5 in	2550 mm	100.4 in	2300 mm	90.5 in
Maximum: Wide Gauge (550 mm/21.7 in shoes)	2400 mm	94.5 in	2650 mm	104.3 in	2400 mm	94.5 in
3 Ground Clearance	471 mm	18.5 in	471 mm	18.5 in	471 mm	18.5 in
4 Machine Height to Top of Cab	3325 mm	130.9 in	3325 mm	130.9 in	3325 mm	130.9 in
5 Machine Length to Front of Tracks	4943 mm	194.6 in	4943 mm	194.6 in	5009 mm	197.2 in
with Ripper, Add	586 mm	23.0 in	586 mm	23 in		
6 Ramp Angle	29	)°	29	)°	29	)°
7 Overall Length (without bucket)	5841 mm	230 in	5841 mm	230 in	5907 mm	232.6 in
8 Hinge Pin Height at Maximum Lift	3940 mm	155.1 in	3940 mm	155.1 in	3940 mm	155.1 in
9 Lift Arm Clearance at Maximum Lift	3590 mm	141.3 in	3590 mm	141.3 in	3590 mm	141.3 in
Turning Radius	4.0 m	157.5 in	4.1 m	160.0 in	4.0 m	157.5 in

 $\label{lem:bucket} \textbf{Bucket} \ \textbf{and} \ \textbf{attachment} \ \textbf{offerings} \ \textbf{may} \ \textbf{vary}. \ \textbf{Please} \ \textbf{consult} \ \textbf{your} \ \textbf{Cat} \ \textbf{dealer} \ \textbf{for} \ \textbf{availability}.$ 



### **Buckets**



Pin-On Buckets	General Puri	oose Bucket*	Landfill Bucket**	Performance Bucket**	Flat Floo	r Bucket*	Multi- Purpose Bucket**	Multi- Purpose Bucket** Landfill
Cutting Edge Type	Long Teeth & Segments	Bolt-On Full Edge	Long Teeth & Segments	Long Teeth & Segments	Welded Flush Adapters, Long Teeth	Wide – Welded Flush Adapters, Long Teeth	Long Teeth	Long Teeth & Segments
Bucket Weight	1890 kg	1739 kg	2039 kg	1950 kg	1596 kg	1857 kg	2200 kg	2458 kg
	(4,167 lb)	(3,834 lb)	(4,491 lb)	(4,299 lb)	(3,519 lb)	(4,094 lb)	(4,850 lb)	(5,419 lb)
Bucket Width	2571 mm	2571 mm	2571 mm	2671 mm	2583 mm	2998 mm	2575 mm	2575 mm
	(101.2 in)	(101.2 in)	(101.2 in)	(105.2 in)	(101.6 in)	(118.1 in)	( 101,3 in)	(101,3 in)
Rated Capacity at 100% Fill Factor <sup>1</sup>	2.5 m <sup>3</sup> (3.2 yd <sup>3</sup> )	2.5 m <sup>3</sup> (3.2 yd <sup>3</sup> )	3.1 m <sup>3</sup> (4.1 yd <sup>3</sup> )	2.8 m <sup>3</sup> (3.7 yd <sup>3</sup> )	2.3 m <sup>3</sup> (3.0 yd <sup>3</sup> )	2.7 m <sup>3</sup> (3.5 yd <sup>3</sup> )	2.0 m <sup>3</sup> (2.6 yd <sup>3</sup> )	2.7 m <sup>3</sup> (3.5 yd <sup>3</sup> )
Rated Capacity at 110% Fill Factor				3.1 m <sup>3</sup> (4.0 yd <sup>3</sup> )				
Rated Operating Capacity <sup>2</sup>	4731 kg	4808 kg	4682 kg	5030 kg	4853 kg	4761 kg	4612 kg	4603 kg
	(10,431 lb)	(10,599 lb)	(10,322 lb)	(11,090 lb)	(10,698 lb)	(10,496 lb)	(10,168 lb)	(10,147 lb)
Static Tipping Load	13 518 kg	13 736 kg	13 377 kg	14 372 kg	13 865 kg	13 603 kg	13 178 kg	13 150 kg
	(29,802 lb)	(30,283 lb)	(29,491 lb)	(31,684 lb)	(30,567 lb)	(29,989 lb)	(29,053 lb)	(28,992 lb)
<b>10</b> Overall Machine Length (bucket on the ground)	6831 mm	6831 mm	6831 mm	6925 mm	6839 mm	6839 mm	6897 mm	6897 mm
	(268.9 in)	(268.9 in)	(268.9 in)	(272.7 in)	(269.2 in)	(269.2 in)	(271.5 in)	(271.5 in)
11 Dump Clearance at Maximum Lift and 45° Discharge	3079 mm	3079 mm	3076 mm	2988 mm	3145 mm	3145 mm	2926 mm	2936 mm
	(121.2 in)	(121.2 in)	(121.1 in)	(117.7 in)	(123.8 in)	(123.8 in)	(115.2 in)	(115.2 in)
12 Reach at Maximum Lift and 45° Discharge	1231 mm	1231 mm	1227 mm	1281 mm	1182 mm	1182 mm	1077 mm	1077 mm
	(48.5 in)	(48.5 in)	(48.3 in)	(50.5 in)	(46.5 in)	(46.5 in)	(42.4 in)	(42.4 in)
Breakout Force	181 064 N	183 150 N	179 166 N	163 503 N	198 144 N	197 064 N	175 418 N	173 902 N
	(40,705 lbf)	(41,174 lbf)	(40,278 lbf)	(36,757 lbf)	(30,566 lbf)	(44,302 lbf)	(39,436 lbf)	(39,095 lbf)

Note: General construction buckets are compatible with the Waste Handler configuration. Additional buckets and work tool attachments are available. Please consult your Cat dealer for details.

<sup>\*</sup>Machine equipped with no counterweight.

<sup>\*\*</sup>Machine equipped with standard and additional counterweights.

<sup>&</sup>lt;sup>1</sup>Volumetric bucket capacity as per ISO 7546:1983.

<sup>&</sup>lt;sup>2</sup>Rated Operating Capacity should be considered with 35% Static Tipping Load as required by ISO 14397-1:2007.

## Track

Track Shoe Width	Grousers	Features
Heavy Duty Sealed and Lubricated		
450 mm (18 in)	Double	
450 mm (18 in)	Double	Center Hole
460 mm (18 in)	Single	Center Hole
550 mm (22 in)	Double	
550 mm (22 in)	Double	Center Hole
560 mm (22 in)	Single	Extreme Service, Center Hole
800 mm (31 in)	Double	Wide Gauge

#### **Grouser Selection**

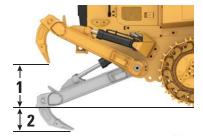
Single Grouser – maximizes shredding effect

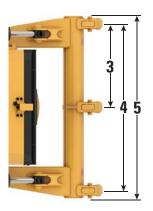
Double Grouser – best balance of traction and maneuverability

Center Holes – Helps reject material, helping to reduce build-up and added track tension.

## Ripper

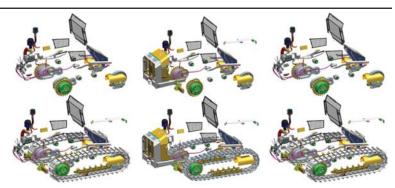
Туре	Rad	ial
Weight	795 kg	1,753 lb
1 Maximum Clearance Raised (shank tip)	873 mm	34.4 in
2 Maximum Penetration	274 mm	10.8 in
3 Pocket Spacing	896 mm	35.3 in
4 Shank Gauge	1792 mm	70.6 in
5 Overall Ripping Width	1955 mm	77.0 in
Beam Cross Section	203 mm × 165 mm	8.0 in × 6.5 in
Maximum Penetration Force	176 kN	39,646 lbf
Maximum Pry Out Force	85 kN	19,038 lbf





## **Waste Handler Features**

- ✓ Included
- ★ Recommended
- Compatible



Feature	Heavy Duty	Heavy Duty Enhanced Cleaning	Extreme Service/ Demolition
Windshield Protection	•	✓	✓
Idler Guard	✓	✓	✓
Lift Cylinder Guard	✓	✓	✓
Tilt Cylinder Guard	*	*	✓
Final Drive Duo Cone Seal Guard to protect against wire wrapping	✓	✓	✓
Final Drive Bottom Guard	*	*	
Final Drive Top and Bottom Guard	*	*	✓
Full Length Guard	•	*	*
Striker Bars	•	*	✓
Programmable Reversing Fan (Frequency and Duration) with fixed blade pitch and reversed rotation	✓	✓	✓
Dual-Stage Engine Air Pre-Cleaner with Turbine	✓	✓	✓
Cab Air Precleaner With Powered Turbine to eject debris	*	✓	✓
450 mm (18 in) or 550 mm (22 in) Heavy Duty Tracks with Center Holes	*	*	*
Ripper	•	•	
Light Counterweight	•	•	
Additional Counterweight	•	•	
Latches on Rear Guard	✓	✓	✓
Heavy-duty Bumper			✓
Quick Coupler Lines	•	•	•
Additional Lights – two additional LED lights at bottom of cab, underhood light	•	•	•

# 963 Waste Handler/Demolition Standard and Optional Equipment

## **Standard and Optional Equipment**

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

	Standard	Optional
POWER TRAIN		
Cat C7.1 diesel engine, turbocharged with Air-To-Air After Cooler (ATAAC)	✓	
Engine-mounted aftertreatment to meet U.S. EPA Tier 4 Final, EU Stage V, Japan 2014, Korea Tier 4 Final emission standards	✓	
Modular cooling system for engine air intake, oil and water	✓	
Hydraulic demand fan – electronically controlled, temperature sensing	✓	
Hydraulic fan, reversing	✓	
Electro Hydrostatic Control (EHC) for transmission	✓	
Engine idle shutdown	✓	
Auto engine speed control	✓	
Electric fuel pump	✓	
Water separator	✓	
Glow plug starting aid	✓	
Engine air cleaner		✓
Engine air precleaner		✓
UNDERCARRIAGE		
Heavy duty undercarriage and tracks (38 sections), 1850 mm (72.8 in) track gauge	✓	
Oscillating track roller frames	✓	
Track guiding guards, end section	✓	
Hydraulic track adjuster	✓	
Sprocket rims with replaceable bolt-on tough steel segments	✓	
Sprocket guards	✓	
Seven track rollers per side, with two upper carrier rollers, lifetime lubricated	✓	
Idlers, conventional type, lifetime lubricated	✓	

r details.		
	Standard	Optional
ELECTRICAL		
Ground Level Service Center	✓	
24 volt heavy-duty alternator	✓	
Backup alarm	✓	
Two horns	✓	
Two heavy-duty batteries, high output, maintenance free, 1,120 CCA	✓	
Main disconnect switch	✓	
Electric starter (heavy-duty, 24 volt)	✓	
Extra lighting. Two additional LED lights at the bottom of cab facing forward plus one underhood light		✓
LED flashing beacon		✓
OPERATOR ENVIRONMENT		
Pressurized, sound suppressed, ROPS/ FOPS Cab with tinted glass and right side sliding window	✓	
Cab package with one sliding side window and four halogen lights: two facing forward, roof mounted, two facing rearward, integrated in the air conditioner unit		✓
Deluxe cab package with two sliding side windows and eight LED lights: four roof-mounted facing forward, two facing rearward and two facing side integrated in the air conditioner unit		<b>√</b>
Deluxe high back seat – heated, with adjustable shock control		✓
Premium Plus high back seat – heated and cooled, lockable side-side isolator		✓
Adjustable armrests	✓	
Electro Hydraulic, seat mounted control levers with faster processing	✓	
V-pattern and pedal steering controls		✓
Joystick steering controls		$\checkmark$
Joystick implement control		✓
Two-lever implement control		✓
Seat belt, retractable, with buckling indicator on dash	✓	
Four-point restraint ready seat	✓	
Air conditioning and heating	✓	
Heater/defroster with automatic temperature control and automatic blower control	✓	
Cab air powered precleaner		✓
Rearview mirror, inside, adjustable	✓	

# 963 Waste Handler/Demolition Standard and Optional Equipment

## Standard and Optional Equipment (continued)

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

	Standard	Optional
OPERATOR ENVIRONMENT (continued)		
Radio ready. Includes speakers, antenna and 12 V power outlet and 5 V USB port	✓	
Radio – FM Ready Kit		✓
Radio – Bluetooth & Aux & Mic		✓
Radio – Bluetooth & Aux & Mic – Dab+		✓
Radio – Bluetooth & Aux & Mic – Sirius		✓
Parking brake switch and "brake-on" indicator light	✓	
Implement lock-out switch	✓	
High Definition rearview camera	✓	
254 mm (10 in) color touchscreen display with integrated rear camera display and machine slope indicator	✓	
Three selectable working modes (Auto, Power, Eco)	✓	
Operator programmable lift and tilt kickouts	✓	
Machine Pitch and Roll indicate	✓	
Bucket shake	✓	
Remote services (Troubleshoot/Remote Flash)		✓
Heavy-duty rubber floor mat	✓	
Windshield washers and wipers, multiple speed, front and rear	✓	
Durable metal roof	✓	
Coat hook	✓	
Storage compartments under left armrest	✓	
Document holder on right console	✓	

	Standard	Optional
OTHER STANDARD EQUIPMENT	Stalluaru	Optional
Durable metal fender	-/	
Exterior sound suppression		
11		
Load sensing implement pump with variable displacement	<b>v</b>	
Z-bar loader linkage	✓	
Implement cylinders with sensors	$\checkmark$	
Engine enclosure with lockable doors	✓	
Debris resistant radiator core (six fins-per-inch)	✓	
Hinged radiator guard with latch and swing out fan	✓	
4 × 2 easy tie-down points on chassis	✓	
EATURE PACKAGES		
Heavy Duty Waste Package		✓
Heavy Duty Extreme Service Waste Package		✓
Heavy Duty Enhance Cleaning Waste Package		<b>√</b>
GUARDING		
Full bottom guards	✓	
Idler guard (none)		✓
Idler guard		✓
Idler guard – ship hold		✓
Front light guard		✓
Windshield guard		✓
Lift cylinder guard		✓
Tilt cylinder guard		✓
Final drive duo cone seal guard	✓	
Two-piece final drive guard		✓
Three-piece final drive guard		✓
Final drive bottom guard		✓
Track roller guard		✓

# 963 Waste Handler/Demolition Standard and Optional Equipment

## Standard and Optional Equipment (continued)

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

	Standard	Optional
BUCKETS*		
Heavy-duty landfill bucket – 3.1 m³ (4.0 yd³)		✓
Multi-purpose heavy-duty landfill bucket – 2.7 m³ (3.5 yd³)		✓
General purpose $-2.5 \text{ m}^3 (3.25 \text{ yd}^3)$		✓
General purpose with welded flush adaptor – 2.3 m³ (3.0 yd³)		✓
Heavy-duty general purpose – 2.5 m³ (3.25 yd³)		✓
Multi-purpose – 2.0 m <sup>3</sup> (2.6 yd <sup>3</sup> )		✓
Heavy-duty multi-purpose – 2.0 m <sup>3</sup> (2.6 yd <sup>3</sup> )		✓
General purpose with full bolted cutting edge – 2.5 m <sup>3</sup> (3.25 yd <sup>3</sup> )		✓
Performance general purpose – 2.8 m³ (3.7 yd³)		✓
Wide flush general purpose – 2.9 m³ (3.8 yd³)		✓
Quick coupler, general purpose – 2.3 m³ (3.0 yd³)		✓
Quick coupler, general purpose LGP – 2.7 m³ (3.5 yd³)		✓
No bucket		✓
HYDRAULICS		
Two-valve hydraulics, two-lever		✓
Two-valve hydraulics, joystick		✓
Three-valve hydraulics, front, joystick		✓
Three-valve hydraulics, rear, joystick		✓
Three-valve hydraulics, rear, two-lever		✓
Four-valve hydraulics, front and rear, joystick		✓
Standard hydraulic lines		<b>√</b>
Quick coupler hydraulic lines		<b>√</b>

<sup>\*</sup>Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

	Otan dand	0
BAAINITTNIANOT	Standard	Optional
MAINTENANCE Standard Jubricant		
Bio lubricant		
		· · · · · · · · · · · · · · · · · · ·
Cat extended life coolant	· · · · · · · · · · · · · · · · · · ·	
Service package		
Extended service package – manual hydraulic system enabling cab tilt and		✓
lock at 30 degrees safely in the field,		
shovel holder bracket (shovel not		
included)		
High speed oil change		✓
Ecology drains on hydraulic oil tank	✓	
Oil sampling valves	✓	
Cat XT hoses	✓	
HYDO Advanced 10	✓	
Implement oil return filter	$\checkmark$	
in hydraulic tank		
REAR ATTACHMENTS		
Bumper		
Ripper		
No bumper		<b>√</b>
Ripper hitch		<b>√</b>
Striker bars		<b>✓</b>
FUEL TANK		
Fuel tank	<b>√</b>	
Fast Fill fuel tank		<b>√</b>
Fuel tank refilling pump		<b>√</b>
Sediment hand pump		<b>√</b>
OTHER EQUIPMENT		
Access package		<b>√</b>
Jacket water heater (110 V)		<b>√</b>
Jacket water heater (240 V)		<b>√</b>
Fusion Quick Coupler		<b>√</b>
TECHNOLOGY PRODUCTS		
Product Link Ready	<b>√</b>	
Product Link – Satellite		<b>√</b>
Product Link – Dual Satellite and Cellular		✓
No Product Link		<b>√</b>
Grade control mast		<b>√</b>
COUNTERWEIGHTS		
Light counterweight 320 kg (705 lb)		✓
Light counterweight, additional 310 kg (683 lb)		✓



# 963 Track Loader Ship Hold

Traction, balance and agility are among the key characteristics that make track loaders ideal for ship hold work. Add in speed, reach, visibility and capability to use a variety of attachments, and track loaders become the top choice for unloading bulk carriers.

### **Track Loader Advantages**

- Machine balance
- Maneuverability, especially in tight spaces
- · Smooth, responsive controls
- · Ability to work on slopes
- Undercarriage provides excellent traction and smooth ride over rough, loose or uneven surfaces
- · Low ground pressure
- Excellent visibility, now with rear vision camera
- · Quiet, sound suppressed cab
- · Adjustable, air suspension seat for operator comfort
- · Ease of maintenance and cooling system cleanout
- · High reach for scraping down walls or loading
- Attachment versatility

Please consult with your Cat dealer regarding Ship Hold package availability.

### **Ship Hold Features**

- A set of durable lifting eyes designed and validated with ISO 15818 provide fast and safe loading into the hold.
- Widely spaced lifting eyes provide stability during the lift.
- Steps for easy access to the cab from the front and the rear
- · stability during the lift.
- Guarding helps protect the tilt cylinder rod from debris and impact.
- Thicker hydraulic tank guards.
- Optional center hole shoes reduce track packing and track chain tightening which extends undercarriage life.

### **Attachment Versatility**

- Trim blade or two-way dozer
- General purpose buckets
- Multi-purpose buckets
- Fusion™ Quick Coupler option lets you make fast attachment changes with a wide range of tools like forks, buckets, etc. from wheel loaders and other Fusion compatible machines.

Engine			
Engine Model	Cat C7.1		
Emissions	U.S. EPA Tier 4 Final/ EU Stage V/Japan 2014/ Korea Tier 4 Final		
Build Number	12A		
Net Power – ISO 9249:2007/ SAE J1349:2011	151 kW	202 hp	
Net Power – ISO 9249:2007/ SAE J1349:2011 (DIN)	204 mhp		
Gross Power SAE J1995:2014	170 kW	228 hp	
Engine Power ISO 14396:2002	168 kW	225 hp	
Engine Power ISO 14396:2002 (DIN)	227 mhp		
Bore	105 mm	4.1 in	
Stroke	135 mm	5.3 in	
Displacement	7.01 L	427.8 in <sup>3</sup>	

- Engine power at 1,800 rpm.
- Inline six-cylinder diesel engine with twin turbos, charged with ATAAC and engine mounted aftertreatment.
- No derating required up to 3000 m (9,842 ft) altitude.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan running up to maximum speed, alternator, air cleaner and aftertreatment.
- All non-road Tier 4 Interim and Final, Stage IIIB, IV and V, Japan 2014 (Tier 4 Final) and Korea Tier 4 Final diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm EPA/10 ppm EU (mg/kg) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214). Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your OMM for further machine specific fuel recommendations.
- Diesel Exhaust Fluid (DEF) used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.

### **Air Conditioning**

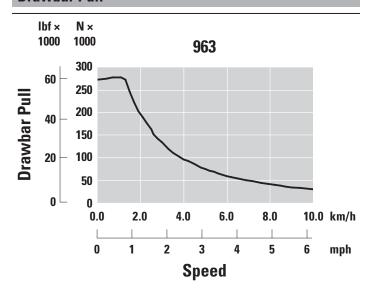
The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.1 kg of refrigerant which has a  $CO_2$  equivalent of 1.573 metric tons.

Drive System	
Description	Electronically controlled Hydrostatic drive with two variable displacement bent axis motors and two variable displacement slipper-type axial piston pumps
Travel Speed	Infinite variable speed from 0 to 10 km/h (0 to 6.2 mph)
Relief Valve Setting	47 500 kPa 6,890 psi
Implement System	

Implement System	
Description	Load sensing, variable displacement piston pump
Maximum Continuous Flow	256 L/min 56.3 gal/min at 1,800 rpm at 1,800 rpm
Maximum Pressure	28 000 kPa 4,061 psi
Filter System	Implement return filter

<b>Service Refill Capacities</b>		
Fuel Tank	320 L	84.5 gal
DEF Tank	16 L	4.2 gal
Cooling System	32 L	8.5 gal
Crankcase (with filter)	16.5 L	4.4 gal
Final Drive (each)	15 L	4.0 gal
Hydraulic Tank	90 L	23.7 gal
Pivot Shaft	1.8 L	0.5 gal

### **Drawbar Pull**



## Track

Track Shoe Width	Grousers	Features
Heavy Duty Sealed and Lubricated		
450 mm (18 in)	Double	
450 mm (18 in)	Double	Center Hole
460 mm (18 in)	Single	Center Hole
550 mm (22 in)	Double	
550 mm (22 in)	Double	Center Hole
560 mm (22 in)	Single	Extreme Service, Center Hole

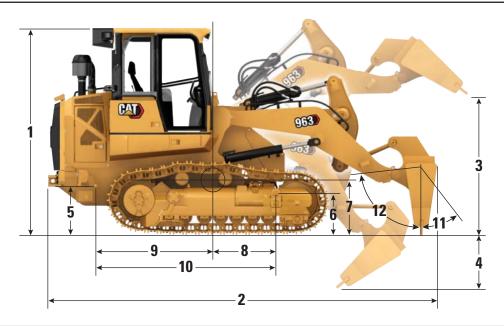
## **Weights and Dimensions**

	Ship	Hold
Operating Weight <sup>1</sup>	22 040 kg	48,590 lb
Shipping Weight	18 822 kg	41,495 lb
Track Shoe Width – Standard <sup>2</sup>	550 mm	22 in
Track Shoe Width – Narrow <sup>2</sup>	450 mm	18 in
Track Rollers – Each Side	7	1
Number of Shoes – Each Side	33	8
Track on Ground	2542 mm	100 in
Ground Pressure – Standard Shoes	68.2 kPa	9.9 psi
Ground Pressure – Narrow Shoes	83.3 kPa	12.1 psi

Operating weight: machine with construction package, Trim blade, lubricants, 100% fuel tank and 75 kg (165 lb) operator.

<sup>&</sup>lt;sup>2</sup>Single or double grouser, with or without center holes.

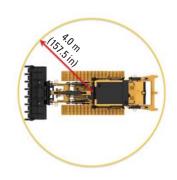
## **Dimensions**



Dimensions (without rear bumper)	Pin-On Co	al Blade	Pin-On Iron	Ore Blade	Fusion Coupler	
1 Overall Height	3323 mm	130.8 in	3323 mm	130.8 in	3323 mm	130.8 in
2 Overall Length	6655 mm	262.0 in	6614 mm	260.4 in	6759 mm	266.1 in
3 Work Tool Cutting Edge Height Fully Raised	4399 mm	173.2 in	4391 mm	172.9 in	4451 mm	175.2 in
4 Digging Depth – Fully Tilted Fully Retracted	1082 mm	42.6 in	910 mm	35.8 in	1113 mm	43.8 in
4 Digging Depth – Blade Vertical	1145 mm	45.1 in	907 mm	35.7 in	1212 mm	47.7 in
Overall Width – with 450 mm (18 in) shoes	2300 mm	90.6 in	2300 mm	90.6 in	2300 mm	90.6 in
Overall Width – with 550 mm (21 in) shoes	2400 mm	94.5 in	2400 mm	94.5 in	2400 mm	94.5 in
Blade Width	3158 mm	124.3 in	3178 mm	125.0 in	3108 mm	122.4 in
5 Rear Lifting Eye Height	848 mm	33.4 in	848 mm	33.4 in	848 mm	33.4 in
6 Front Lifting Eye Height	673 mm	26.5 in	673 mm	26.5 in	673 mm	26.5 in
Center of Gravity Dimensions						
7 Center of Gravity Height	786.7 mm	31.0 in	765 mm	30.1 in	814 mm	32.0 in
8 Center of Gravity to Front Eye	689 mm	27.1 in	700 mm	27.6 in	589 mm	23.2 in
<b>9</b> Center of Gravity to Rear Eye	2514 mm	99.0 in	2502 mm	98.5 in	2613 mm	102.9 in
10 Distance from Rear to Front Lifting Eyes	3202 mm	126.1 in	3202 mm	126.1 in	3202 mm	126.1 in
11 Trim Blade Pitch – Forward	87	87°		84°		7°
12 Trim Blade Pitch – Rearward	23	23° 23°		30°		
Turning Radius	4.0 m	157.5 in	4.0 m	157.5 in	4.0 m	157.5 in

## **Blades**

Trim Blades	Pin-On C	oal Blade	Pin-On Iron Ore		Fusion Couple	
Blade Weight	2908 kg	6,411 lb	2900 kg	6,393 lb	2927 kg	6,453 lb
Blade Width	3158 mm	124 in	3178 mm	125 in	3108 mm	122 in
Blade Height	1397 mm	54.2 in	1195 mm	47.0 in	1397 mm	54.2 in
Blade Surface	4.4 m <sup>2</sup>	47.5 ft <sup>2</sup>	3.8 m <sup>2</sup>	40.9 ft <sup>2</sup>	4.3 m <sup>2</sup>	46.7 ft <sup>2</sup>



### **Buckets**

Pin-On Buckets	General Purp	ose Bucket*	Performance Bucket**	Flat Floor	Buckets*	Multi- Purpose Bucket**
Cutting Edge Type	Long Teeth & Segments	Bolt-On Full Edge	Long Teeth & Segments	Welded Flush Adapters, Long Teeth	Wide – Welded Flush Adapters, Long Teeth	Long Teeth & Segments
Bucket Weight	1890 kg	1739 kg	1950 kg	1596 kg	1857 kg	2200 kg
	(4,167 lb)	(3,834 lb)	(4,299 lb)	(3,519 lb)	(4,094 lb)	(4,850 lb)
Bucket Width	2571 mm	2571 mm	2671 mm	2583 mm	2998 mm	2575 mm
	(101.2 in)	(101.2 in)	(105.2 in)	(101.6 in)	(118.1 in)	(101.3 in)
Rated Capacity at 100% Fill Factor <sup>1</sup>	2.5 m <sup>3</sup> (3.2 yd <sup>3</sup> )	2.5 m <sup>3</sup> (3.2 yd <sup>3</sup> )	2.8 m <sup>3</sup> (3.7 yd <sup>3</sup> )	2.3 m <sup>3</sup> (3.0 yd <sup>3</sup> )	2.7 m <sup>3</sup> (3.5 yd <sup>3</sup> )	$2.0 \text{ m}^3$ $(2.6 \text{ yd}^3)$
Rated Capacity at 110% Fill Factor			3.1 m <sup>3</sup> (4.0 yd <sup>3</sup> )			
Rated Operating Capacity <sup>2</sup>	4731 kg	4808 kg	5015 kg	4853 kg	4761 kg	4612 kg
	(10,431 lb)	(10,599 lb)	(11,057 lb)	(10,698 lb)	(10,496 lb)	(10,169 lb)
Static Tipping Load	13 518 kg	13 736 kg	14 372 kg	13 865 kg	13 603 kg	13 178 kg
	(29,802 lb)	(30,283 lb)	(31,684 lb)	(30,567 lb)	(29,989 lb)	(29,053 lb)
Overall Machine Length (bucket on the ground)	6831 mm	6831 mm	6925 mm	6839 mm	6839 mm	6897 mm
	(268.9 in)	(268.9 in)	(272.7 in)	(269.2 in)	(269.2 in)	(271.5 in)
Dump Clearance at Maximum Lift and 45° Discharge	3079 mm	3079 mm	2988 mm	3145 mm	3145 mm	2926 mm
	(121.2 in)	(121.2 in)	(117.7 in)	(123.8 in)	(123.8 in)	(115.2 in)
Reach at Maximum Lift and 45° Discharge	1231 mm	1231 mm	1281 mm	1182 mm	1182 mm	1077 mm
	(48.5 in)	(48.5 in)	(50.5 in)	(46.5 in)	(46.5 in)	(42.4 in)
Breakout Force	181 064 N	183 150 N	163 503 N	198 144 N	197 064 N	175 418 N
	(40,705 lbf)	(41,174 lbf)	(36,757 lbf)	(30,566 lb)	(44,302 lb)	(39,436 lbf)

Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

Fusion Quick Coupler Buckets	Buckets				
Cutting Edge Type	Long Teeth	& Segments	Wide, Long Teeth & Segmer		
Bucket Weight	1742 kg	3,840 lb	2036 kg	4,488 lb	
Bucket Width	2571 mm	101.2 in	2998 mm	118.1 in	
Rated Capacity at 100% Fill Factor <sup>1</sup>	2.3 m <sup>3</sup>	3.0 yd³	2.7 m <sup>3</sup>	3.5 yd <sup>3</sup>	
Rated Operating Capacity <sup>2</sup>	4638 kg	10,225 lb	4632 kg	10,211 lb	
Static Tipping Load <sup>3</sup>	13 250 kg	29,895 lb	13 233 kg	29,173 lb	
Overall Machine Length (bucket on the ground)	6956 mm	273.9 in	6956 mm	273.9 in	
Dump Clearance at Maximum Lift and 45° Discharge	3045 mm	119.9 in	3045 mm	119.9 in	
Reach at Maximum Lift and 45° Discharge	1193 mm	47 in	1193 mm	47 in	
Breakout Force	180 114 N	40,191 lbf	178 201 N	40,061 lbf	

For maximum versatility, the Fusion coupler is compatible with a range of buckets, forks, rakes, material handling arm and more. Consult with your Cat dealer for compatibility.

<sup>\*</sup>Machine equipped with no counterweight.

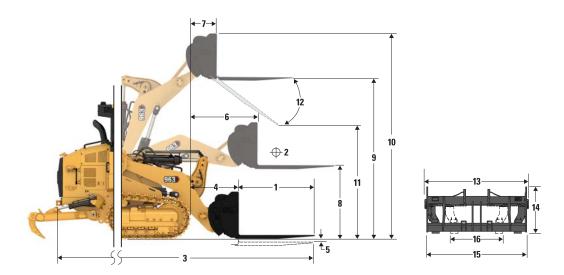
<sup>\*\*</sup>Machine equipped with standard and additional counterweights.

<sup>&</sup>lt;sup>1</sup>Volumetric bucket capacity as per ISO 7546:1983.

<sup>&</sup>lt;sup>2</sup>Rated Operating Capacity should be considered with 35% Static Tipping Load as required by ISO 14397-1:2007.

<sup>&</sup>lt;sup>3</sup>Machine equipped with standard and additional counterweights.

## **Operating Specifications with Pallet Forks**



963 Track Loader*	48-i	n Tines	60-iı	n Tines	72-iı	Tines	84-iı	n Tines	96-iı	1 Tines
	mm	in								
1 Tine Length	1219	48.0	1524	60.0	1829	72.0	2134	84.0	2438	96.0
2 Load Center	609	24.0	762	30.0	914	36.0	1067	42.0	1219	48.0
3 Maximum Overall Length	7186	282.9	7492	295.0	7796	306.9	8101	318.9	8406	330.9
4 Reach with Forks at Ground Level	1182	46.5	1182	46.5	1182	46.5	1182	46.5	1182	46.5
5 Dig Depth	-57	-2.2	-57	-2.2	-57	-2.2	-57	-2.2	-57	-2.2
6 Reach with Arms Horizontal and Fork Level	1709	67.3	1709	67.3	1709	67.3	1709	67.3	1709	67.3
7 Reach with Fork at Maximum Height	907	35.7	907	35.7	907	35.7	907	35.7	907	35.7
<b>8</b> Ground to Top of Tine with Arms Horizontal and Fork Level	1772	69.7	1772	69.7	1772	69.7	1772	69.7	1772	69.7
<b>9</b> Ground to Top of Tine at Maximum Height and Fork Level	3791	149.3	3791	149.3	3791	149.3	3791	149.3	3791	149.3
10 Overall Height of Fork at Full Lift (top of carriage to ground)	4831	190.2	4831	190.2	4831	190.2	4831	190.2	4831	190.2
11 Clearance at Full Lift and Maximum Dump	2505	98.6	2259	88.9	2014	79.3	1768	69.6	1523	59.9
12 Maximum Discharge Angle from Horizontal	_	54°	_	54°	_	54°	_	54°	_	54°
13 Overall Carriage Width	2528	99.5	2528	99.5	2528	99.5	2528	99.5	2528	99.5
14 Overall Carriage Height	1130	44.5	1130	44.5	1130	44.5	1130	44.5	1130	44.5
<b>15</b> Outside Tine Width (maximum spread)	2178	85.7	2178	85.7	2178	85.7	2178	85.7	2178	85.7
<b>16</b> Outside Tine Width (minimum spread)	576	22.7	576	22.7	576	22.7	576	22.7	576	22.7
Tine Width (single tine)	180	7.1	180	7.1	180	7.1	180	7.1	180	7.1
Tine Thickness	90.0	3.5	90.0	3.5	90.0	3.5	90.0	3.5	90.0	3.5
	kg	lb								
Tine Load Capacity (Per Pair)	22 200	48,942.6	17 800	39,242.3	14 800	32,628.4	12 700	27,998.7	11 300	24,912.2
Static Tipping Load Arm Horizontal and Fork Level	9011	19,866.9	8501	18,740.5	8017	17,674.9	7573	16,695.4	7204	15,882.5
Static Lifting Capacity Arm Horizontal and Fork Level	11 748	25,899.7	11 627	25,632.4	10 867	23,958.5	9692	21,366.4	8738	19,264.0
Rated Load (SAE J1197) **	3154	6,953.4	2975	6,559.2	2806	6,186.2	2651	5843.4	2521	5,558.9

<sup>\*</sup>Construction configuration with 450 mm (22 in) heavy duty tracks, standard counterweight (320 kg/705 lb) and additional counterweight (310 kg/683 lb).

<sup>\*\*</sup>For crawler loaders, 35% of the tipping load or 100% of the lifting capacity, whichever is less. (SAE J1197:2011, EN-474-3:2010, ISO 14397-1:2007). Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

# **963 Ship Hold Standard and Optional Equipment**

## **Standard and Optional Equipment**

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

	Standard	Optional
POWER TRAIN		
Cat C7.1 diesel engine, turbocharged with Air-To-Air After Cooler (ATAAC)	✓	
Engine-mounted aftertreatment to meet U.S. EPA Tier 4 Final, EU Stage V, Japan 2014, Korea Tier 4 Final emission standards	✓	
Modular cooling system for engine air intake, oil and water	✓	
Hydraulic demand fan – electronically controlled, temperature sensing	✓	
Hydraulic fan, reversing	✓	
Electro Hydrostatic Control (EHC) for transmission	✓	
Engine idle shutdown	✓	
Auto engine speed control	✓	
Electric fuel pump	✓	
Water separator	✓	
Glow plug starting aid	✓	
Engine air cleaner		✓
Engine air precleaner		✓
UNDERCARRIAGE		
Heavy duty undercarriage and tracks (38 sections), 1850 mm (72.8 in) track gauge	✓	
Oscillating track roller frames	✓	
Track guiding guards, end section	✓	
Hydraulic track adjuster	✓	
Sprocket rims with replaceable bolt-on tough steel segments	✓	
Sprocket guards	✓	
Seven track rollers per side, with two upper carrier rollers, lifetime lubricated	✓	
Idlers, conventional type, lifetime lubricated	✓	

Standard	Optional
$\checkmark$	
✓	
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Four-point restraint ready seat

# 963 Ship Hold Standard and Optional Equipment

## Standard and Optional Equipment (continued)

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

	Standard	Optional
OPERATOR ENVIRONMENT (continued)		
Air conditioning and heating	✓	
Heater/defroster with automatic temperature control and automatic blower control	✓	
Cab air powered precleaner		✓
Rearview mirror, inside, adjustable	✓	
Radio ready. Includes speakers, antenna and 12 V power outlet and 5 V USB port	✓	
Radio – FM Ready Kit		✓
Radio – Bluetooth & Aux & Mic		✓
Radio – Bluetooth & Aux & Mic – Dab+		✓
Radio – Bluetooth & Aux & Mic – Sirius		✓
Parking brake switch and "brake-on" indicator light	✓	
Implement lock-out switch	✓	
High Definition rearview camera	✓	
254 mm (10 in) color touchscreen display with integrated rear camera display and machine slope indicator	✓	
Three selectable working modes (Auto, Power, Eco)	✓	
Operator programmable lift and tilt kickouts	✓	
Machine Pitch and Roll indicate	✓	
Bucket shake	✓	
Remote services (Troubleshoot/Remote Flash)		✓
Heavy-duty rubber floor mat	✓	
Windshield washers and wipers, multiple speed, front and rear	✓	
Durable metal roof	✓	
Coat hook	✓	
Storage compartments under left armrest	✓	
Document holder on right console	✓	

	Standard	Optional
OTHER STANDARD EQUIPMENT		
Rear and front lifting device	✓	
Durable metal fender	✓	
Exterior sound suppression	✓	
Load sensing implement pump with variable displacement	✓	
Z-bar loader linkage	✓	
Implement cylinders with sensors	✓	
Engine enclosure with lockable doors	✓	
Debris resistant radiator core (six fins-per-inch)	✓	
Hinged radiator guard and swing out fan	✓	
4 × 2 easy tie-down points on chassis	✓	
GUARDING		
Full bottom guards	✓	
Idler guard (none)		✓
Idler guard		✓
Idler guard – ship hold		✓
Front light guard		✓
Windshield guard		✓
Lift cylinder guard	✓	
Tilt cylinder guard	✓	
Two-piece final drive guard		✓
Three-piece final drive guard		✓
Final drive bottom guard		✓
Track roller guard		✓

# **963 Ship Hold Standard and Optional Equipment**

## Standard and Optional Equipment (continued)

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

	Standard	Optional
BUCKETS*		
General purpose – 2.5 m <sup>3</sup> (3.25 yd <sup>3</sup> )		✓
General purpose with welded flush adaptor – 2.3 m³ (3.0 yd³)		✓
Heavy-duty general purpose – 2.5 m³ (3.25 yd³)		✓
Multi-purpose – 2.0 m <sup>3</sup> (2.6 yd <sup>3</sup> )		✓
Heavy-duty multi-purpose – 2.0 m³ (2.6 yd³)		✓
General purpose with full bolted cutting edge – 2.5 m³ (3.25 yd³)		✓
Performance general purpose – 2.8 m³ (3.7 yd³)		✓
Wide flush general purpose – 2.9 m³ (3.8 yd³)		✓
Quick coupler, general purpose – 2.3 m³ (3.0 yd³)		✓
Quick coupler, general purpose LGP – 2.7 m³ (3.5 yd³)		✓
Heavy-duty landfill bucket – 3.1 m³ (4.0 yd³)		✓
Multi-purpose heavy-duty landfill bucket – 2.7 m³ (3.5 yd³)		✓
No bucket		✓
BLADES*		
Trim Blade – Coal – 3158 mm (124 in)		✓
Trim Blade – Iron Ore – 3178 mm (125 in)		✓
Trim Blade – Fusion Quick Coupler – 3108 mm (122 in)		✓
HYDRAULICS		
Two-valve hydraulics, two-lever		✓
Two-valve hydraulics, joystick		✓
Three-valve hydraulics, front, joystick		✓
Three-valve hydraulics, rear, joystick		✓
Three-valve hydraulics, rear, two-lever		✓
Four-valve hydraulics, front and rear, joystick		✓
Standard hydraulic lines		✓
Quick coupler hydraulic lines		✓

<sup>\*</sup>Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

	04	0
BASINTEN ANOT	Standard	Optional
MAINTENANCE		
Standard lubricant		<b>√</b>
Bio lubricant		<b>√</b>
Cat extended life coolant	✓	
Service package		<b>√</b>
Extended service package – manual hydraulic system enabling cab tilt and lock at 30 degrees safely in the field, shovel holder bracket (shovel not included)		<b>√</b>
High speed oil change		✓
Ecology drains on hydraulic oil tank	✓	
Oil sampling valves	✓	
Cat XT hoses	✓	
HYDO Advanced 10	✓	
Implement oil return filter in hydraulic tank	✓	
REAR ATTACHMENTS		
Bumper	✓	
FUEL TANK		
Fuel tank	✓	
Fast Fill fuel tank		✓
Fuel tank refilling pump		✓
Sediment hand pump		✓
OTHER EQUIPMENT		
Access package		✓
Jacket water heater (110 V)		✓
Jacket water heater (240 V)		✓
Fusion Quick Coupler		✓
TECHNOLOGY PRODUCTS		
Product Link Ready	✓	
Product Link – Satellite		✓
Product Link – Dual Satellite and Cellular		✓
No Product Link		✓

# 963 Track Loader Partial Steel Mill

Track loaders provide a rugged, agile option for steel mill and other high temperature work. Specialized features are available from the factory to equip your track loader to perform in these especially harsh conditions.

### **High Temperature Undercarriage**

- Purpose-built undercarriage includes high temperature seals in rollers, idlers, pivot shafts and final drives.
- Steel bar welded on the bottom of the track roller frame helps prevent heat distortion.
- Duo-cone™ seal guards on the final drives.
- Optional track roller guard protects against abrasion.

### **Steel Mill Cab**

- Various heat shields inside lower doors, underneath the operator station, around air ducts and air conditioning lines.
- · Heat resistant floor mat.
- Double laminated windshield 18 mm/0.7 in thick.
- Front windshield grill and thermal net against slag projections.
- · Cab windows silicone sealed.
- Cab door glazing designed to protect windows against slag splatter from tracks.
- Additional metallic roof protection.
- Eight wide flood lights (four front, two rear, two sides) heat resistant, equipped with silicone sleeves.
- · Metallic door handles and roof act as a heat shield.
- Air conditioning vents on both sides of operator seat post.

#### Additional Protective Features

- · Fire retardant oil.
- · Heavy-duty front and rear machine guards.
- Sealed track link with no lubrication fluid.
- · Double grouser or triple grouser shoes.
- · Slag bucket.



### **Important Notice:**

This package DOES NOT feature all the other modifications required to allow the machine to run on hot slag. Examples: steel fuel tank, heat insulation for harnesses, hydraulic hoses, water, heater and air lines as well as heat shields for the tanks.

Please consult with your Cat dealer regarding Steel Mill package availability.

# 963 Track Loader – Partial Steel Mill Specifications

Engine		
Engine Model	Cat C7.1	
Emissions	U.S. EPA Tier 4 Final/ EU Stage V/Japan 2014/ Korea Tier 4 Final	
Build Number	12A	
Net Power – ISO 9249:2007/ SAE J1349:2011	151 kW	202 hp
Net Power – ISO 9249:2007/ SAE J1349:2011 (DIN)	204 mhp	
Gross Power SAE J1995:2014	170 kW	228 hp
Engine Power ISO 14396:2002	168 kW	225 hp
Engine Power ISO 14396:2002 (DIN)	227 mhp	
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in <sup>3</sup>

- Engine power at 1,800 rpm.
- Inline six-cylinder diesel engine with twin turbos, charged with ATAAC and engine mounted aftertreatment.
- No derating required up to 3000 m (9,842 ft) altitude.
- The net power advertised is the power available at the flywheel when the engine is equipped with fan running up to maximum speed, alternator, air cleaner and aftertreatment.
- All non-road Tier 4 Interim and Final, Stage IIIB, IV and V, Japan 2014 (Tier 4 Final) and Korea Tier 4 Final diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm EPA/10 ppm EU (mg/kg) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214). Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your OMM for further machine specific fuel recommendations.
- Diesel Exhaust Fluid (DEF) used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.

### **Air Conditioning**

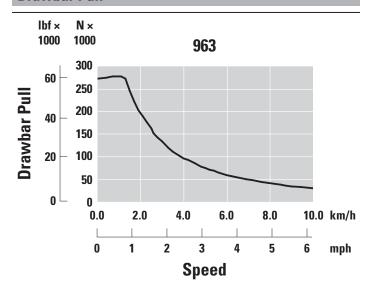
The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.1 kg of refrigerant which has a  $CO_2$  equivalent of 1.573 metric tons.

<b>Drive System</b>	
Description	Electronically controlled Hydrostatic drive with two variable displacement bent axis motors and two variable displacement slipper-type axial piston pumps
Travel Speed	Infinite variable speed from 0 to 10 km/h (0 to 6.2 mph)
Relief Valve Setting  Implement System	47 500 kPa 6,890 psi
Description	Load sensing, variable

implement System		
Description	Load sensing, variable displacement piston pump	
Maximum Continuous Flow	256 L/min 56.3 gal/min at 1,800 rpm at 1,800 rpm	
Maximum Pressure	28 000 kPa 4,061 psi	
Filter System	Implement return filter	

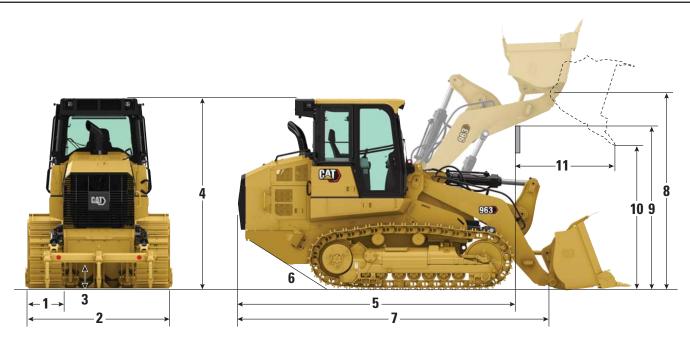
<b>Service Refill Capacities</b>		
Fuel Tank	320 L	84.5 gal
DEF Tank	16 L	4.2 gal
Cooling System	32 L	8.5 gal
Crankcase (with filter)	16.5 L	4.4 gal
Final Drive (each)	15 L	4.0 gal
Hydraulic Tank	90 L	23.7 gal
Pivot Shaft	1.8 L	0.5 gal

### **Drawbar Pull**



# 963 Track Loader – Partial Steel Mill Specifications

## **Weights and Dimensions**



Construction configuration shown.

	Partial St	eel Mill
Operating Weight <sup>1</sup>	22 004 kg	48,510 lb
Shipping Weight	18 815 kg	41,480 lb
1 Track Shoe Width		
Triple Grouser	430 mm	17 in
Double Grouser	450 mm	18 in
Track Rollers – Each Side	7	1
Number of Shoes – Each Side	3:	8
Track on Ground	2542 mm	100.0 in
Ground Pressure		
430 mm (17 in) triple grouser shoes	87.0 kPa	12.6 psi
450 mm (18 in) double grouser shoes	83.2 kPa	12.1 psi
2 Overall Machine Width with Slag Bucket	2566 mm	101 in
3 Ground Clearance	471 mm	18.5 in
4 Machine Height to Top of Cab	3366 mm	132.5 in
<b>5</b> Machine Length to Front of Tracks	4843 mm	194.6 in
6 Ramp Angle	29	)°
7 Overall Machine Length with Slag Bucket	6851 mm	269.7 in
8 Hinge Pin Height at Maximum Lift	3940 mm	155.1 in
9 Lift Arm Clearance at Maximum Lift	3590 mm	141.3 in
<b>10</b> Dump Clearance at Maximum Lift and 45° Discharge	2913 mm	114.7 in
11 Reach at Maximum Lift and 45° Discharge	1155 mm	45.5 in
Turning Radius	4.0 m	157.5 in

<sup>&</sup>lt;sup>1</sup>Operating weight: machine with partial steel mill package, Slag bucket with teeth and segments, lubricants, 100% fuel tank and 75 kg (165 lb) operator. Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

# 963 Track Loader – Partial Steel Mill Specifications

## **Buckets**

Pin-On Buckets – Standard Linkage	Slag B	ucket
Cutting Edge Type	Long teeth a	nd segment
Bucket Weight	2872 kg	6,332 lb
Bucket Width	2564 mm	101.0 in
Rated Capacity at 100% Fill Factor <sup>1</sup>	2.3 m³	3.0 yd³
Rated Operating Capacity <sup>2</sup>	4983 kg	10,985 lb
Static Tipping Load <sup>3</sup>	14 236 kg	31,386 lb
Breakout Force	163 944 N	36,856 lbf

<sup>&</sup>lt;sup>1</sup>Volumetric bucket capacity as per ISO 7546:1983.

<sup>&</sup>lt;sup>2</sup>Rated Operating Capacity should be considered with 35% Static Tipping Load as required by ISO 14397-1:2007.

<sup>&</sup>lt;sup>3</sup>Machine equipped with standard and additional counterweights.

# 963 Partial Steel Mill Standard and Optional Equipment

## **Standard and Optional Equipment**

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

	Standard	Optional
POWER TRAIN		
Cat C7.1 diesel engine, turbocharged with Air-To-Air After Cooler (ATAAC)	✓	
Engine-mounted aftertreatment to meet U.S. EPA Tier 4 Final, EU Stage V, Japan 2014, Korea Tier 4 Final emission standards	✓	
Modular cooling system for engine air intake, oil and water	✓	
Hydraulic demand fan – electronically controlled, temperature sensing	✓	
Hydraulic fan, reversing	✓	
Electro Hydrostatic Control (EHC) for transmission	✓	
Engine idle shutdown	✓	
Auto engine speed control	✓	
Electric fuel pump	✓	
Water separator	✓	
Glow plug starting aid	✓	
Engine air cleaner		✓
Engine air precleaner		✓
UNDERCARRIAGE		
Heavy duty undercarriage and tracks (38 sections), 1850 mm (72.8 in) track gauge	✓	
Sealed Heavy Duty Tracks		✓
430 mm (17 in) High Temperature Heavy Duty Sealed Track – Triple Grousers		✓
450 mm (18 in) High Temperature Heavy Duty Sealed Track – Double		✓
Oscillating track roller frames	✓	
Track guiding guards, end section	✓	
Hydraulic track adjuster	✓	
Sprocket rims with replaceable bolt-on tough steel segments	✓	
Sprocket guards	✓	
Seven track rollers per side, with two upper carrier rollers, lifetime lubricated	✓	
Idlers, conventional type, lifetime lubricated	✓	

	Standard	Optional
ELECTRICAL		
Ground Level Service Center	✓	
24 volt heavy-duty alternator	✓	
Backup alarm	✓	
Two horns	✓	
Two heavy-duty batteries, high output, maintenance free, 1,120 CCA	✓	
Main disconnect switch	✓	
Electric starter (heavy-duty, 24 volt)	✓	
LED flashing beacon		✓
OPERATOR ENVIRONMENT		
Steel mill cab – pressurized, sound suppressed, ROPS/FOPS cab, with silicone sealed glass and heavy-duty laminated windshield glass	✓	
Deluxe high back seat – heated, with adjustable shock control		✓
Premium Plus high back seat – heated and cooled, lockable side-side isolator		✓
Adjustable armrests	✓	
Electro Hydraulic, seat mounted control levers with faster processing	✓	
V-pattern and pedal steering controls		✓
Joystick steering controls		✓
Joystick implement control		✓
Two-lever implement control		✓
Seat belt, retractable, with buckling indicator on dash	✓	
Four-point restraint ready seat	✓	
Air conditioning and heating	✓	

# 963 Partial Steel Mill Standard and Optional Equipment

## Standard and Optional Equipment (continued)

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

	Standard	Optional
OPERATOR ENVIRONMENT (continued)		
Heater/defroster with automatic temperature control and automatic blower control	✓	
Rearview mirror, inside, adjustable	✓	
Radio ready. Includes speakers, antenna and 12 V power outlet and 5 V USB port	✓	
Radio – FM Ready Kit		✓
Radio – Bluetooth & Aux & Mic		✓
Parking brake switch and "brake-on" indicator light	✓	
Implement lock-out switch	✓	
High Definition rearview camera	✓	
254 mm (10 in) color touchscreen display with integrated rear camera display and machine slope indicator	✓	
Three selectable working modes (Auto, Power, Eco)	✓	
Operator programmable lift and tilt kickouts	✓	
Machine Pitch and Roll indicate	✓	
Bucket shake	✓	
Remote services (Troubleshoot/Remote Flash)		✓
Heavy-duty rubber floor mat	✓	
Windshield washers and silicone wipers, multiple speed, front and rear	✓	
Durable metal roof	✓	
Coat hook	✓	
Storage compartments under left armrest	✓	
Document holder on right console	✓	

	Standard	Optional
OTHER STANDARD EQUIPMENT		
Durable metal fender	✓	
Exterior sound suppression	✓	
Load sensing implement pump with variable displacement	✓	
Z-bar loader linkage	✓	
Implement cylinders with sensors	✓	
Engine enclosure with lockable doors	✓	
Debris resistant radiator core (six fins-per-inch)	✓	
Hinged radiator guard and swing out fan	✓	
4 × 2 easy tie-down points on chassis	✓	
GUARDING		
Heavy-duty front guard	✓	
Windshield guard with metallic screen	✓	
Full bottom guards	✓	
Idler guard (none)		✓
Idler guard		✓
Idler guard – ship hold		✓
Front light guard		✓
Windshield guard		✓
Lift cylinder guard	✓	
Tilt cylinder guard	✓	
Two-piece final drive guard		✓
Three-piece final drive guard		✓
Final drive bottom guard		✓
Track roller guard		✓

# 963 Partial Steel Mill Standard and Optional Equipment

## Standard and Optional Equipment (continued)

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

	Standard	Optional
BUCKETS*		
Slag bucket – 2.3 m <sup>3</sup> (3.0 yd <sup>3</sup> )		✓
General purpose – 2.5 m <sup>3</sup> (3.25 yd <sup>3</sup> )		✓
General purpose with welded flush adaptor – 2.3 m³ (3.0 yd³)		✓
Heavy-duty general purpose – 2.5 m³ (3.25 yd³)		✓
General purpose with full bolted cutting edge – 2.5 m³ (3.25 yd³)		✓
Performance general purpose – 2.8 m³ (3.7 yd³)		✓
Wide flush general purpose – 2.9 m³ (3.8 yd³)		✓
No bucket		✓
HYDRAULICS		
Two-valve hydraulics, two-lever		✓
Two-valve hydraulics, joystick		✓
Standard hydraulic lines	✓	
MAINTENANCE		
Standard lubricant		✓
Bio lubricant		✓
Ecosafe lubricant (steel mill)	✓	
Cat extended life coolant	✓	
Extended service package – manual hydraulic system enabling cab tilt and lock at 30 degrees safely in the field, shovel holder bracket (shovel not included)	✓	
High speed oil change		✓
Ecology drains on hydraulic oil tank	✓	
Oil sampling valves	✓	
Cat XT hoses	✓	
HYDO Advanced 10	✓	
Implement oil return filter in hydraulic tank	✓	

<sup>\*</sup>Bucket and attachment offerings may vary. Please consult your Cat dealer for availability.

	Standard	Optional
REAR ATTACHMENTS		
Bumper		✓
Striker bars		✓
<b>FUEL TANK</b>		
Fuel tank	$\checkmark$	
Fast Fill fuel tank		✓
Sediment hand pump		✓
OTHER EQUIPMENT		
Access package		✓
TECHNOLOGY PRODUCTS		
Product Link Ready	✓	
Product Link – Satellite		✓
Product Link – Dual Satellite		✓
and Cellular		
No Product Link		✓
COUNTERWEIGHTS		
Light counterweight 320 kg (705 lb)		✓
Light counterweight, additional 310 kg (683 lb)		<b>√</b>



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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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