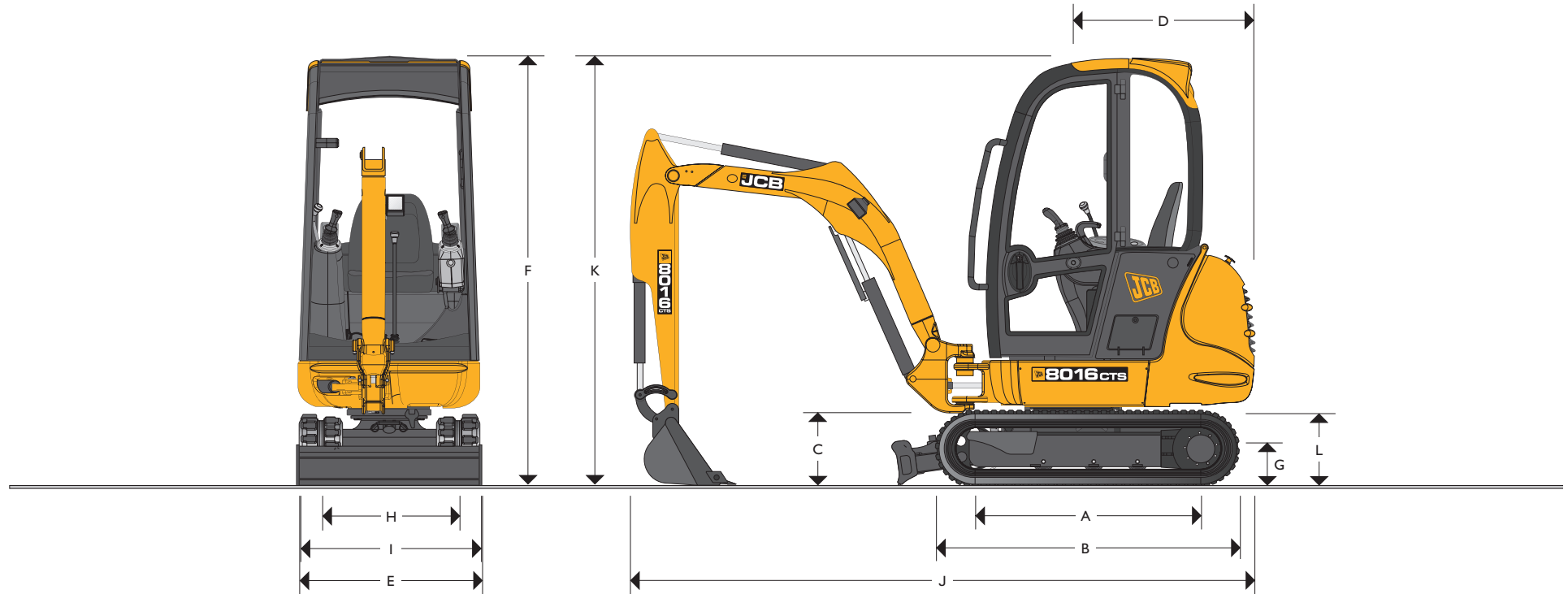




OPERATING WEIGHT: 1564 kg (3448 lbs) / 1590 kg (3505 lbs) / 1662 kg (3664 lbs) / 2060 kg (4542 lbs) NETT ENGINE POWER: 14.2 kW (19hp)



STATIC DIMENSIONS

Machine model	8014 CTS	8016 CTS	8020 CTS
	mm (ft-in)	mm (ft-in)	mm (ft-in)
A Sprocket idler centres	1027 (3-4)	1127 (3-8)	1362 (4-5½)
B Undercarriage overall length	1384 (4-7)	1484 (5-10)	1724 (5-8)
C Kingpost clearance	376 (1-3)	376 (1-3)	376 (1-2¼)
D Tailswing radius	1028 (3-4½)	1028 (3-4½)	1127 (3-8½)
E Overall width of superstructure	980 (3-2½)	980 (3-2½)	980 (3-2½)
F Height over cab	2318 (7-7)	2318 (7-7)	2318 (7-7¼)
G Ground clearance	158 (0-6)	158 (0-6)	148 (5½)
H Track gauge	742 (2-5)	742 (2-5)	752 to 1112 (2-5½ to 3-7¼)

Machine model	8014 CTS	8016 CTS	8020 CTS
	mm (ft-in)	mm (ft-in)	mm (ft-in)
I Width over tracks (retracted)	972 (3-2)	972 (3-2)	1002 (3-3½)
Width over tracks (extended)	N/A	N/A	1362 (4-5½)
J Transport length – Standard dipper	3346 (10-11¾)	3346 (10-11¾)	3656 (12-0)
J Transport length – Long dipper	N/A	3261 (10-8¼)	N/A
J Transport length – Gravemaster dipper	N/A	N/A	N/A
K Transport height with FOGS guard	2318 (7-7)	2318 (7-7)	2318 (7-7¼)
K Transport height without FOGS guard	2304 (7-6½)	2304 (7-6½)	2304 (7-6¾)
L Track height	366 (1-2)	366 (1-2)	366 (1-2½)



**ENGINE**

Machine Model	8014 / 8016 / 8020 CTS	
Model	403D-11 Tier III	
Fuel	Diesel	
Cooling	Water cooled	
Gross power ISO 14396	kW (hp) @ 2200 rpm	14.7 (19.7)
Nett power	kW (hp) @ 2200 rpm	14.2 (19)
Gross torque ISO 14396	Nm (lb ft) @ 1600 rpm	66.8 (49.27)
Nett torque	Nm (lb ft) @ 1600 rpm	64.2 (47.35)
Displacement	cc / litres	1131 / 1.131
Gradeability	degrees	35
Starter motor	kW (hp)	1.1 (1.48)
Battery	volt / Ah	12v / 60
Alternator	amps	40

**UNDERCARRIAGE**

Machine model	8014 CTS	8016 CTS	8020 CTS
No of bottom rollers	3	3	4
Track width	mm (in)	230 (9)	230 (9)
Ground bearing pressure	kg/cm <sup>2</sup> (lb/in <sup>2</sup> )	0.33 (4.69)	0.3 (4.27)
Ground clearance	mm (in)	158 (6)	158 (6)
Track tensioning		Screw	Grease
Travel speed – low	kph (mph)	2 (1.24)	2 (1.24)
Travel speed – high	kph (mph)	N/A	3.8 (2.36)
Tractive effort	kN (lbf)	11.08 (2491)	11.3 (2540)

**HYDRAULIC SYSTEM – 8014 CTS**

	Standard gear pump
Pump	Triple section Gear
Nominal output	lpm
Nominal output	US gal/min
Excavator/track main relief	bar (psi)
Slew main relief	bar (psi)
Auxiliary hydraulic flow	lpm (US gal/min)
Hydraulic motors	Piston

**HYDRAULIC SYSTEM – 8016 CTS**

	Standard gear pump	Optional variable pump
Pump	Triple section Gear	1 Variable (2 Ports) / 1 Gear
Nominal output	lpm	
Nominal output	US gal/min	
Excavator/track main relief	bar (psi)	
Slew main relief	bar (psi)	
Auxiliary hydraulic flow	lpm (US gal)	
Hydraulic motors	Piston	Piston

**HYDRAULIC SYSTEM – 8020 CTS**

	Standard variable pump
Pump	1 Variable (2 Ports) / 1 Gear
Nominal output	lpm
Nominal output	US gal/min
Excavator/track main relief	bar (psi)
Slew main relief	bar (psi)
Auxiliary hydraulic flow	lpm (US gal/min)
Hydraulic motors	Piston



STANDARD EQUIPMENT – 8014 CTS

ROPS & TOPS certified canopy, full audio/visual warning systems, slew travel lock, control isolator, external lockable toolbox, 12v power socket, lifting points, rubber tracks, ISO servo controls, vinyl static seat, boom worklight, boom ram protection, dozer blade, 1161mm (3ft-10in) dipper.

OPTIONAL EQUIPMENT – 8014 CTS

ROPS & TOPS certified fully glazed cab (includes heater, interior light, cigar lighter, door holdback latch with internal/external release, gas strut assisted front screen), dual pattern controls (ISO/SAE change-over), double-acting auxiliary circuit, cab/canopy mounted worklights, engine fan guard kit, FOPS roof guard, yellow roof moulding, 9 digging buckets (160mm to 760mm (6in to 30in)), 2 ditching/grading buckets (900mm & 1000mm (35in and 39in)), hydraulic breakers, earthdrills, mechanical quickhitch, hydraulic kerb-lifter, bushed kingpost, rotating or strobe beacon, toolkit and greasegun, heavy duty track tension, JCB impact protection front screen.

STANDARD EQUIPMENT – 8016 CTS

ROPS & TOPS certified canopy, full audio/visual warning systems, slew travel lock, control isolator, external lockable toolbox, 12v power socket, lifting points, rubber tracks, ISO servo controls, static seat, boom worklight, double acting auxiliary circuit, boom ram protection, triple section gear pump, dozer blade, 1161mm (3ft-10in) dipper.

OPTIONAL EQUIPMENT – 8016 CTS

ROPS & TOPS certified fully glazed cab (includes heater, interior light, cigar lighter, door holdback latch with internal/external release, gas strut assisted front screen), suspension seat, dual pattern controls (ISO/SAE change-over), cab/canopy mounted worklights, 1261mm (4ft-2in) long dipper, 2 speed auto-shift tracking, long dozer blade, dipper pipework, hand held tool circuit, variable displacement pump, engine fan guard kit, FOPS roof guard, mirror, track pedals, radio, biodegradeable hydraulic oil, fire extinguisher, sunblind (cab builds), battery isolator, travel alarm, immobiliser, rotating or strobe beacon, toolkit and greasegun, heavy-duty track tension, JCB impact protection front screen, bushed kingpost, yellow roof moulding, 9 digging buckets 160mm to 760mm (6in to 30in)), 2 ditching/grading buckets (900mm & 1000mm (35in and 39in)), hydraulic breakers, earthdrills, mechanical quickhitch, hydraulic kerb-lifter.

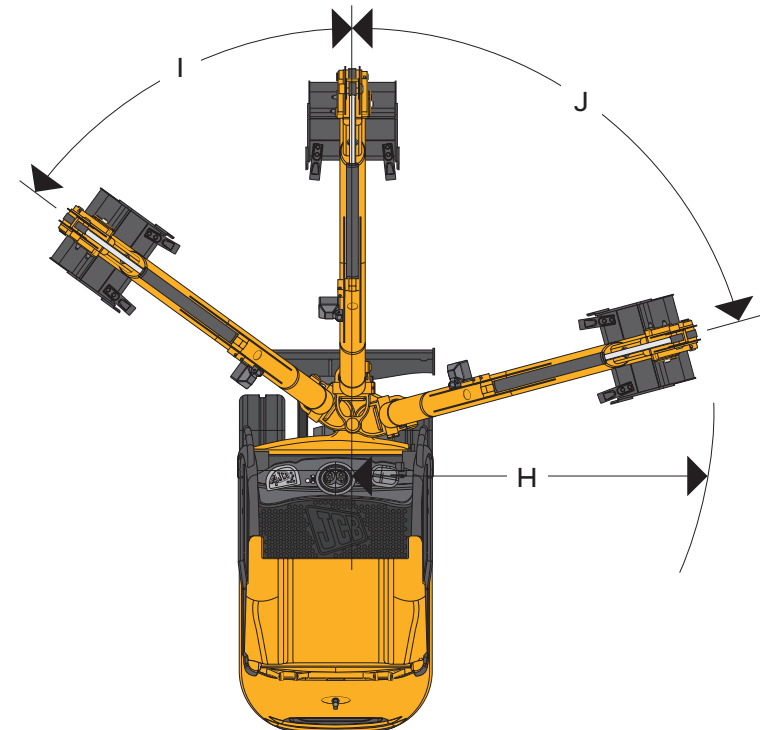
STANDARD EQUIPMENT – 8020 CTS

ROPS & TOPS certified canopy, full audio/visual warning systems, slew travel lock, control isolator, external lockable toolbox, 12v power socket, lifting points, rubber tracks, 2-speed auto-shift tracking, hydraulically extending undercarriage, ISO servo, variable gear pump, unit spring tensioner, bushed kingpost.

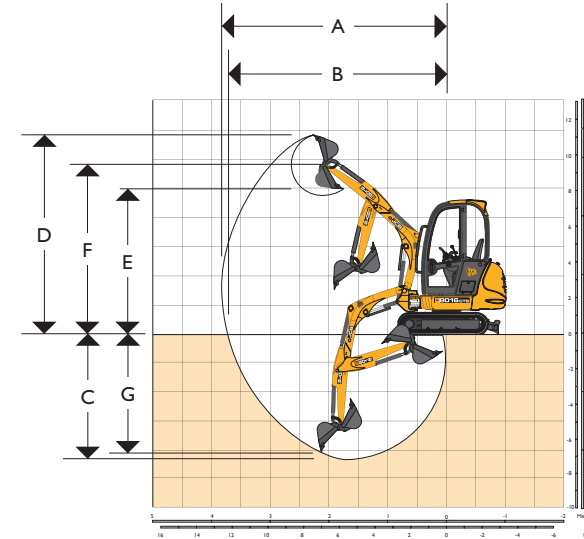
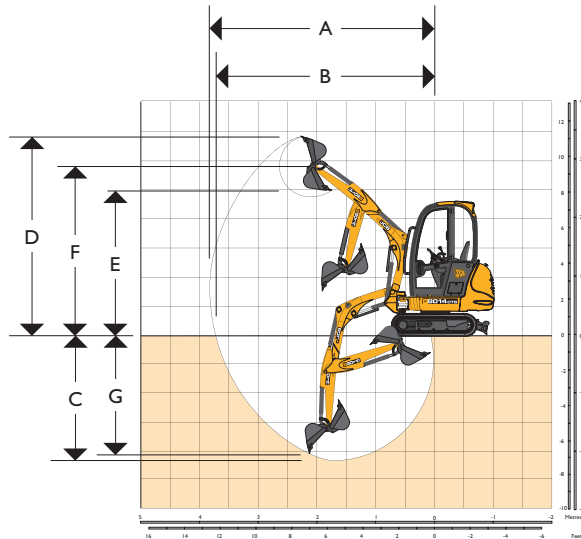
OPTIONAL EQUIPMENT – 8020 CTS

ROPS & TOPS certified fully glazed cab (includes heater, interior light, cigar lighter, door holdback latch with internal/external release, gas-strut-assisted front screen), suspension seat, dual pattern controls (ISO/SAE change-over), cab/canopy mounted worklights, handheld tool circuit, engine fan guard kit, FOPS roof guard, mirror, track pedals, toolkit, radio, biodegradeable hydraulic oil, fire extinguisher, sunblind (cab builds), battery isolator, travel alarm, immobiliser, yellow roof moulding, 9 digging buckets (160mm to 760mm), 2 ditching/grading buckets (900mm & 1000mm), hydraulic breakers, earthdrills, mechanical quickhitch, hydraulic kerb-lifter, rotating or strobe beacon, toolkit and greasegun, heavy duty track tension, JCB impact protection front screen.

WORKING RANGE



## WORKING RANGE



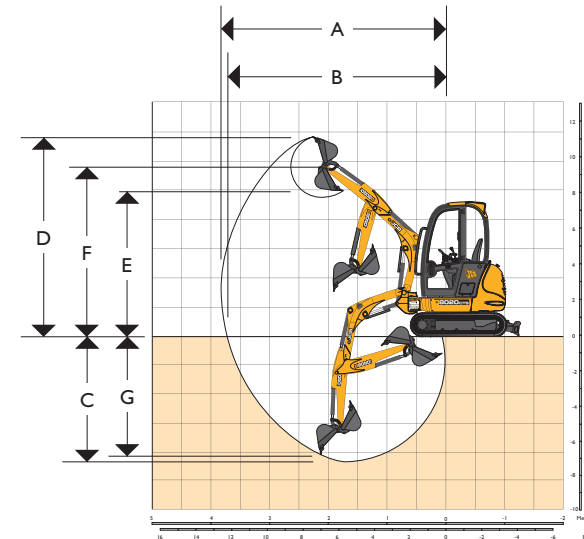
## WORKING RANGE

Machine model		8014 CTS
Boom length	mm (ft-in)	1560 (5-2)
Dipper length	mm (ft-in)	1161 (3-10)
A Max digging reach	mm (ft-in)	3837 (12-7)
B Max digging reach on ground	mm (ft-in)	3764 (12-4)
C Max digging depth – dozer up	mm (ft-in)	2044 (6-8½)
Max digging depth – dozer down	mm (ft-in)	2357 (7-9)
D Max digging height	mm (ft-in)	3393 (11-2)
E Max dump height	mm (ft-in)	2501 (8-2½)
F Max height to dipper nose pivot pin	mm (ft-in)	2921 (9-7)
G Max vertical wallcut depth	mm (ft-in)	1659 (5-5)
H Min. front swing radius (no offset)	mm (ft-in)	1641 (5-4½)
Min. front swing radius (fully offset)	mm (ft-in)	1457 (4-9)
I Boom swing left	degrees	55
J Boom swing right	degrees	75
Bucket rotation	degrees	198
Dipper rotation	degrees	112
Bucket tearout	kN (lbf)	13.5 (3035)
Dipper tearout	kN (lbf)	8 (1798)
Slew speed	rpm	10

## WORKING RANGE

Machine model		8016 CTS	
Boom length	mm (ft-in)	1560 (5-2)	1560 (5-2)
Dipper length	mm (ft-in)	1161 (3-10)	1261 (4-2)
A Max digging reach	mm (ft-in)	3837 (12-7)	3933 (12-11)
B Max digging reach on ground	mm (ft-in)	3764 (12-4)	3847 (12-7½)
C Max digging depth – dozer up	mm (ft-in)	2044 (6-8½)	2144 (7-0½)
Max digging depth – dozer down	mm (ft-in)	2357 (7-9)	2457 (8-1)
D Max digging height	mm (ft-in)	3393 (11-2)	3454 (11-4)
E Max dump height	mm (ft-in)	2501 (8-2½)	2559 (8-5)
F Max height to dipper nose pivot pin	mm (ft-in)	2921 (9-7)	2965 (9-9)
G Max vertical wallcut depth	mm (ft-in)	1659 (5-5)	1754 (5-9)
H Min. front swing radius (no offset)	mm (ft-in)	1641 (5-4½)	1665 (5-6)
Min. front swing radius (fully offset)	mm (ft-in)	1457 (4-9)	1481 (4-10)
I Boom swing left	degrees	55	55
J Boom swing right	degrees	75	75
Bucket rotation	degrees	198	198
Dipper rotation	degrees	112	112
Bucket tearout	kN (lbf)	16.2 (3642)	16.2 (3642)
Dipper tearout	kN (lbf)	8 (1798)	7.25 (1630)
Slew speed	rpm	10	10

## WORKING RANGE



## WORKING RANGE

Machine model		8020 CTS
Boom length	mm (ft-in)	1792 (5-8)
Dipper length	mm (ft-in)	1261 (4-2)
A Max digging reach	mm (ft-in)	4158 (13-7¾)
B Max digging reach on ground	mm (ft-in)	4065 (13-4)
C Max digging depth – dozer up	mm (ft-in)	2430 (7-11¾)
Max digging depth – dozer down	mm (ft-in)	2621 (8-7¼)
D Max digging height	mm (ft-in)	3665 (12¼)
E Max dump height	mm (ft-in)	2772 (9-1)
F Max height to dipper nose pivot pin	mm (ft-in)	3178 (10-5)
G Max vertical wallcut depth	mm (ft-in)	1921 (6-3½)
H Min. front swing radius (no offset)	mm (ft-in)	1842 (6½)
Min. front swing radius (fully offset)	mm (ft-in)	1049 (3-5¼)
I Boom swing left	degrees	55
J Boom swing right	degrees	75
Bucket rotation	degrees	198
Dipper rotation	degrees	112
Bucket tearout	kN (lbf)	19.0* (3214.77)
Dipper tearout	kN (lbf)	9.3 (2090.7)
Slew speed	rpm	9.6

**8014 CTS LIFT CAPACITIES – 230mm (9in) Rubber Tracks, 1161mm (3ft 10in) dipper, No bucket.**

Load Point	Reach from slew centre															
	1.2m (3ft 11in)			1.5m (4ft 11in)			2m (6ft 7in)			2.5m (8ft 2½in)			Capacity at maximum reach			
Height	Dozer up	Dozer down		Dozer up	Dozer down		Dozer up	Dozer down		Dozer up	Dozer down		Dozer up	Dozer down		
m (ft-in)	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
1.5 (4-11)										228*	238*	224*	172	252*	136	3240 (10-7½)
1 (3-3)				492*	506*	434*	304*	350*	303*	284*	298*	194	152	271*	115	3300 (10-10)
0.5 (1-8)				465	744*	359	312	479*	248	224	376*	188	142	288*	115	3300 (10-10)
Ground Level	368	914*	416	344	845*	315	240	532*	206	158	384*	166	135	296*	116	3150 (10-4)
- 0.5 – (1-8)	353	966*	386	315	809*	273	210	548*	212	150	400*	158	124	322*	127	3000 (9-10)
- 1 – (3-3)	308	853*	436	374	679*	300	270	535*	206	210	394*	154	195	349*	139	2650 (8-8)

**8016 CTS LIFT CAPACITIES – Standard Dozer, 230mm (9in) Rubber Tracks, 1161mm (3ft 10in) dipper, No bucket.**

Load Point	Reach from slew centre															
	1.2m (3ft 11in)			1.5m (4ft 11in)			2m (6ft 7in)			2.5m (8ft 2½in)			Capacity at maximum reach			
Height	Dozer up	Dozer down		Dozer up	Dozer down		Dozer up	Dozer down		Dozer up	Dozer down		Dozer up	Dozer down		
m (ft-in)	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
1.5 (4-11)										242*	252*	247*	188	266*	161	3240 (10-7½)
1 (3-3)				499*	532*	499*	360*	370*	240	297*	314*	196	168	289*	177	3300 (10-10)
0.5 (1-8)				505	819*	392	338	526*	241	247	388*	200	167	314*	149	3300 (10-10)
Ground Level	593	1029*	495	449	857*	378	319	567*	266	249	439*	217	167	342*	183	3150 (10-4)
- 0.5 – (1-8)	581	1062*	502	443	879*	351	317	615*	258	246	462*	215	204	370*	173	3000 (9-10)
- 1 – (3-3)	566	1037*	574	407	758*	409	308	566*	244	236	398*	200	224	349*	161	2650 (8-8)



Lift capacity front and rear.



Lift capacity full circle.

- Notes:**
- Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked\* are based on hydraulic capacity.
  - Lift capacities assume that the machine is on firm, level ground and equipped with an approved lifting point.
  - A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
  - Lift capacities may be limited by local regulations. Please refer to your dealer.

**8020 CTS LIFT CAPACITIES – Standard Dozer, 230mm (9in) Rubber Tracks, 1261mm (3ft 10in) dipper, No bucket.**

Load Point	Reach from slew centre															
	1.75m (5ft 9in)			2.0m (6ft 6in)			2.5m (8ft 2in)			3.0m (9ft 10in)			Capacity at maximum reach			
Height	Dozer up	Dozer down	90°	Dozer up	Dozer down	90°	Dozer up	Dozer down	90°	Dozer up	Dozer down	90°	Dozer up	Dozer down	90°	
m (ft-in)	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m (ft-in)
2.0 (6-6)										211.4	211.4	216.6	243.6	243.6	245.3	3.4 (11-2)
1.5 (4-11)							241.8	250.5	243.6	245.3	2505	249.6	261.8	272.3	267.0	3.5 (11-6)
1.0 (3-3)	488.9	434.2*	468.0	405.4	418.4	388.8	327.1	328.8	311.4	280.1	287.9	281.0	266.2	279.2	275.7	3.6 (11-10)
0.5 (1-8)	740.3	680.2*	756.6	632.4	589.8	573.3	414.1	433.2	408.9	333.2	348.0	342.7	277.5	301.8*	250.5*	3.58 (11-9)
Ground level	751.5*	1049.2	795.7*	555.0*	682.9	553.5*	416.2*	507.2	434.2*	339.0*	413.2	337.5*	263.2*	339.3*	261.7*	3.5 (11-6)
-0.5 (-1-8)	763.5*	1041.3	857.2*	543.7*	750.8	546.0*	401.2*	555.0	406.5*	302.2*	416.7	326.2*	260.2*	364.5*	275.2*	3.3 (10-10)
-1.0 (-3-3)	722.2*	1083.1	836.2	491.1*	715.1	522.7*	367.5*	539.4	408.8*	286.5*	388.8	317.2*	286.5*	388.8*	317.2*	3.0 (9-10)



Lift capacity front and rear.



Lift capacity full circle.

- Notes:**
- Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked\* are based on hydraulic capacity.
  - Lift capacities assume that the machine is on firm, level ground and equipped with an approved lifting point.
  - A bucket must be fitted when lifting, the weight of this bucket must be deducted from the above lift capacities.
  - Lift capacities may be limited by local regulations. Please refer to your dealer.



## OPERATOR ENVIRONMENT

		External	Internal
Cab/canopy height with FOGS guard	mm (ft-in)	2318 (7-7)	2269 (7-5)
Cab/canopy height no FOGS guard	mm (ft-in)	2304 (7-6½)	2269 (7-5)
Cab/canopy length	mm (ft-in)	1171 (3-11)	1073 (3-6)
Cab/canopy width	mm (ft-in)	974 (3-2)	888 (2-11)
Distance from seat base to roof	mm (ft-in)	1223 (4-0)	
Door aperture width	mm (ft-in)	624 (2-0½)	

## SERVICE CAPACITIES

Machine model		8014 CTS	8016 CTS	8020 CTS
Fuel tank	litres (US gal)	23.5 (6.2)	23.5 (6.2)	23.5 (6.2)
Engine coolant	litres (US gal)	5 (1.3)	5 (1.3)	5 (1.3)
Engine oil	litres (US gal)	4 (1.0)	4 (1.0)	4 (1.0)
Hydraulic system	litres (US gal)	28 (7.4)	28 (7.4)	30 (7.9)
Hydraulic tank	litres (US gal)	25 (6.6)	25 (6.6)	25 (6.6)

## MACHINE WEIGHTS

Machine model		8014 CTS	8016 CTS	8020 CTS
Operating weight*	kg (lb)	1564 (3448)	1590 (3505)	1999 (4407)
Transport weight	kg (lb)	1489 (3283)	1515 (3340)	1924 (4241)
With canopy	kg (lb)	-80 (-176)	-80 (-176)	-80 (-176)
With FOGS guard	kg (lb)	+25 (+55)	+25 (+55)	+25 (+55)
With long dipper	kg (lb)	N/A	+2 (+4½)	N/A
With Gravemaster dipper	kg (lb)	N/A	N/A	N/A

\*Operating weight to ISO 6016 including cab, rubber tracks, standard dipper, 460mm (18in) bucket, full tanks and a 75kg (165lb) operator.

## DOZER BLADE

Machine model		8014 CTS	8016 CTS	
		Standard	Standard	Long
Max height (above ground)	mm (ft-in)	178 (0-7)	178 (0-7)	270 (0-10½)
Dig depth (below ground)	mm (ft-in)	292 (0-11½)	292 (0-11½)	438 (1-5¼)
Approach angle	degrees	26.5	26.5	22.5
Width	mm (ft-in)	1000 (3-3)	1000 (3-3)	1000 (3-3)
Width (extended)	mm (ft-in)	N/A	N/A	N/A
Height	mm (ft-in)	225 (0-9)	225 (0-9)	273 (0-10¾)
Reach in front of tracks	mm (ft-in)	202 (0-8)	202 (0-8)	442 (1-5½)

## DOZER BLADE

Machine model		8020 CTS
		Long as standard
Max height (above ground)	mm (ft-in)	270 (0-10½)
Dig depth (below ground)	mm (ft-in)	438 (1-5¼)
Approach angle	degrees	22.5
Width	mm (ft-in)	1000 (3-3)
Width (extended)	mm (ft-in)	1380 (4-6¼)
Height	mm (ft-in)	273 (0-10¾)
Reach in front of tracks	mm (ft-in)	442 (1-5½)

## EEC NOISE LEVELS (95/27/EC DYNAMIC)

Machine model		8014 CTS	8016 CTS	8020 CTS
Cab external sound	dB (LwA)	93	93	93
Cab internal sound	dB (LpA)	76	77	79

