

988K XE

Wheel Loader

Technical Specifications

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

Table of Contents

Specifications	2
Engine	Operator Cab
Transmission	Service Refill Capacities
Operating Specifications2	Sound Performance – Tier 4 Final/Stage V
Hydraulic System – Lift/Tilt	Dimensions
Hydraulic Cycle Time2	Bucket Capacity/Material Density Selection Guide
Hydraulic System – Steering	Aggregate Package Operating Specifications – Standard Lift6
Air Conditioning System	Aggregate Package Operating Specifications – High Lift7
Axles	Operating Specifications – Standard Lift
Brakes	Operating Specifications – High Lift
Standard and Optional Equipment	
988K XE Environmental Declaration	12
988K XE Millyard Configuration	
Key Features and Benefits	Axles
Engine	Brakes
Transmission14	Operator Cab
Operating Specifications14	Service Refill Capacities
Hydraulic System – Lift/Tilt	Sound Performance – Tier 4 Final/Stage V15
Hydraulic Cycle Time14	Dimensions
Hydraulic System – Steering	Forks and Buckets17
Air Conditioning System	
Standard and Ontional Equipment	10



Engine		
Engine Model	Cat® C18	
Rated Speed	1,700 rpm	
Peak Power Speed	1,500 rpm	
Engine (ISO 14396:2002)	432 kW	580 hp
Gross (SAE J1995:2014)	439 kW	588 hp
Net Power (SAE J1349:2011)	401 kW	538 hp
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 in ³
Peak Torque (1,200 rpm) (SAE J1995:2014)	3023 N·m	2,230 lbf-ft
Torque Rise	58%	

- Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan at minimum speed, air intake system, exhaust system, and alternator.

Transmission		
Transmission Type	Cat switched electric drive	
Forward 1 (virtual)	7.0 km/h	4.3 mph
Forward 2 (virtual)	11.3 km/h	7.0 mph
Forward 3 (virtual)	22.2 km/h	13.8 mph
Forward 4 (virtual)	32.1 km/h	20.0 mph
Reverse 1 (virtual)	7.0 km/h	4.3 mph
Reverse 2 (virtual)	11.3 km/h	7.0 mph
Reverse 3 (virtual)	28.2 km/h	17.5 mph

52 781 kg	116,362 lb	
11.3 tonnes	12.5 tons	
14.5 tonnes	16.0 tons	
4.7-13.0 m ³	6.2-17.0 yd ²	
EH-Positive I	Flow Control,	
Variable displacement piston		
580 L/min	153 gal/min	
32 800 kpa	4,757 psi	
210 mm	8.7 in	
1050 mm	41.3 in	
266 mm	8.7 in	
685 mm	27.0 in	
4.5 seconds		
8.0 seconds		
2.2 seconds		
3.5 seconds		
	11.3 tonnes 14.5 tonnes 4.7-13.0 m³ EH-Positive Flow Sharing Variable disp piston 580 L/min 32 800 kpa 210 mm 1050 mm 266 mm 685 mm 4.5 seconds 8.0 seconds 2.2 seconds	

18.2 seconds

Total Hydraulic Cycle Time

Hydraulic System – Steering			
Steering System – Circuit	Pilot, load se	ensing	
Steering System – Pump	Variable displacement piston		
Maximum Flow @ × 1,400-1,600 rpm	270 L/min	71.3 gal/min	
Steering Cut Off Pressure	30,000 kPa	4,351 psi	
Total Steering Angle	86°		
Steering Cycle Time (high idle)	3.4 seconds		
Steering Cycle Time (low idle)	5.6 seconds		

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.8 kg of refrigerant which has a CO_2 equivalent of 2.574 metric tonnes.

Axles	
Front	Fixed
Rear	Trunnion
Oscillation Angle	13°
Brakes	
Brakes	ISO 3450:2011
Operator Cab	
ROPS/FOPS	ROPS/FOPS meet
	ISO 3471:2008 and
	ISO 3449:2005 Level II

standards

Service Refill Capacities		
Fuel Tank	555 L	147.0 gal
Cooling System (jacket water)	112 L	30.0 gal
Cooling Systems (power train)	30 L	8.0 gal
Engine Crankcase	60 L	16.0 gal
Diesel Exhaust Fluid Tank	33 L	8.7 gal
Transmission	60 L	16.0 gal
Differentials and Final Drives – front	186 L	49.0 gal
Differentials and Final Drives – rear	186 L	49.0 gal
Hydraulic System – implement/steering	475 L	126.0 gal

- All nonroad Tier 4 Final/Stage V diesel engines are required to use:
- The machine has the flexibillity to run on either ultra-low-sulfur diesel fuel (ULSD with 15 ppm of sulfur or less).
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

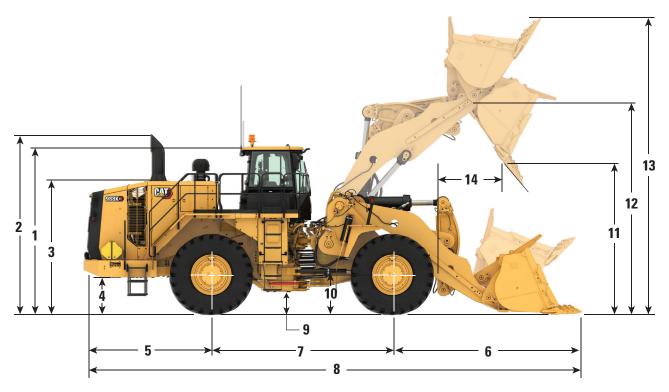
- *Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.
- Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specifications are required.
- Only use DEF that meets ISO 22241-1 standards.

Sound Performance – Tier 4 Final/Stage V Operator Sound Level (ISO 6396:2008) 72 dB(A) Machine Sound Level (ISO 6395:2008) 109 dB(A)*

- The operator sound pressure level was measured according to the test procedures and conditions specified in ISO 6396:2008.
 The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.
- The machine sound power level was measured according to the test procedures and conditions specified in ISO 6395:2008.
 The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- * For machines in European Union countries and in countries that adopt the European Union Directive 2000/14/EC as amended by 2005/88/EC.

Dimensions

All dimensions are approximate.



	Standar	d Lift	High	Lift
1 Ground to Top of ROPS	4202 mm	13.8 ft	4202 mm	13.8 ft
2 Ground to Top of Exhaust Stacks	4521 mm	14.8 ft	4521 mm	14.8 ft
3 Ground to Top of Hood	3334 mm	10.9 ft	3334 mm	10.9 ft
4 Ground to Bumper Clearance	933 mm	3.1 ft	933 mm	3.1 ft
5 Rear Axle Center Line to Bumper	3187 mm	10.5 ft	3187 mm	10.5 ft
6 Front Axle Center Line to Bucket Tip	4254 mm	14.0 ft	4661 mm	15.3 ft
7 Wheel Base	4550 mm	14.9 ft	4550 mm	14.9 ft
8 Maximum Overall Length	11 991 mm	39.3 ft	12 398 mm	40.7 ft
9 Ground to Lower Hitch Clearance	568 mm	1.9 ft	568 mm	1.9 ft
10 Ground to Center of Axles	978 mm	3.2 ft	978 mm	3.2 ft
11 Clearance at Maximum Lift (45° Dump)	3641 mm	11.9 ft	4043 mm	13.3 ft
12 B-Pin Height at Maximum Lift	5491 mm	18.0 ft	5887 mm	19.3 ft
13 Maximum Overall Height – Bucket Raised	7455 mm	24.5 ft	7849 mm	25.8 ft
14 Reach at Maximum Lift (45° Dump)	1981 mm	6.5 ft	2062 mm	6.8 ft

 $Note: Specifications \ are \ calculated \ with \ 6.9 \ m^3 \ (9.0 \ yd^3) \ rock \ bucket \ and \ Michelin \ XLDD2 \ with \ 978 \ mm \ (3.2 \ ft) \ centerline \ of \ rear \ axle \ height.$

Bucket Capacity/Material Density Selection Guide

Standard Lift/High Lift Rated Payload (Quarry Face) – 11.3 tonnes/12.5 tons

Material Density				Bucket Volume		
kg/m³	lb/yd³	tonnes/m³	tons/yd³	m³	yd³	
1468-1614	2,500-2,750	1.47-1.61	1.25-1.38	7.6	10.00	
1638-1801	2,778-3,056	1.64-1.80	1.39-1.53	6.9	9.00	
1766-1942	3,001-3,300	1.77-1.94	1.50-1.65	6.4	8.33	

Standard Lift/High Lift

Rated Payload (Loose Material) – 14.5 tonnes/16 tons

	Material	Density		Bucket	Volume
kg/m³	lb/yd³	tonnes/m³	tons/yd³	m³	yd³
1510-1667	2,560-2,816	1.51-1.67	1.28-1.41	9.6	12.5
1726-1905	2,909-3,200	1.73-1.90	1.45-1.60	8.4	11.0
1908-2105	3,200-3,520	1.91-2.11	1.60-1.76	7.6	10.0

Note: Rated Payload is the material weight in the bucket that the loader is designed to carry, excluding the weight of the bucket, GET, and wear material. Rated Payloads are published at 100 percent, even though Caterpillar does allow 110 percent. These values are given in terms of mass. There is no consideration to loose density weights of various materials since they are so diverse. Refer to the Large Wheel Loader Payload Policy.

Aggregate Package Operating Specifications – Standard Lift

988K XE Std Lift Agg Pkg Tires: 35/65 R3 PN: 399-4568 SLR: 978					XLDD2,
Bucket Type			General	Purpose	
Ground Engaging Tool			Segn	nents	
Cutting Edge Type				ight	
Bucket Part Number		472-0120	435-4029	347-4990	347-4980
Struck Capacity	m^3	8.0	7.0	6.0	5.5
	yd^3	10.5	9.2	7.8	7.2
Heaped Capacity (Rated)	m^3	9.6	8.4	7.6	6.9
	yd^3	12.5	11.0	10.0	9.0
Bucket Width	mm	3897	3897	3897	3897
	ft	12.8	12.8	12.8	12.8
Dump Clearance at Full Lift and 45° Discharge (Bare)	mm	3642	3741	3818	3902
	ft	11.9	12.3	12.5	12.8
Reach at Lift and 45° Discharge (Bare)	mm	1898	1787	1722	1645
	ft	6.2	5.9	5.7	5.4
Reach with Lift Arms Horizontal and Bucket Level (Teeth)	mm	3917	3768	3668	3554
	ft	12.9	12.4	12.0	11.7
Digging Depth (Segment)	mm	200	208	200	195
	in	7.9	8.2	7.9	7.7
Overall Length (Bucket Level Ground)	mm	11 965	11 822	11 716	11 598
	ft	39.3	38.8	38.4	38.1
Overall Height with Bucket at Full Raise	mm	7830	7688	7591	7487
T 1 01 T 1 01 1 (01 T 0 1 1 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ft	25.7	25.2	24.9	24.6
Loader Clearance Turning Circle (SAE Carry with Teeth)	mm	17 406	17 325	17 261	17 192
E 11 D A 1	ft	57.1	56.8	56.6	56.4
Full Dump Angle	degrees	50	50	50	50
Static Tipping Load Straight (Rigid Tire)*	kg	41 081	41 549	41 949	42 351
G' .T' .' . I I. (100) /T' . G 1)*	<u>lb</u>	90,567	91,600	92,481	93,367
Static Tipping Load Straight (ISO) (Tire Squash)*	kg lb	38 427 84,718	38 947 85,863	39 358 86,769	39 783 87,707
Static Tipping Load – Full Turn (Articulated 35°) (Rigid Tire)*		36 700	37 152	37 543	37,707
Static Tipping Load – Fun Turn (Articulated 55) (Rigid Tile).	kg lb	80,909	81,906	82,768	83,624
Static Tipping Load – Full Turn (Articulated 35°) (ISO)		32 635	33 158	33 565	33 987
(Tire Squash)*	kg lb	71,948	73,100	73,998	74,928
Static Tipping Load – Full Turn (Articulated 43°) (Rigid Tire)*		34 573	35 017	35 404	35 786
Static Tipping Load – Full Turn (Articulated 45) (Rigid Tile).	kg lb	76,220	77,200	78,053	78,894
Static Tipping Load – Full Turn (Articulated 43°) (ISO)	kg	30 105	30 624	31 026	31 441
(Tire Squash)*	lb	66,370	67,514	68,401	69,316
Breakout Force**	kN	381	413	437	468
Dicarout Force	lb	85,649	92,746	98,315	105,297
Operating Weight	kg	55 533	55 257	54 969	54 729
operating weight	lb	122,428	121,822	121,186	120,656
Weight Distribution at SAE Carry (Unloaded)		, -	, -	,	.,
Front	kg	28 451	27 973	27 481	27 064
	lb	62,724	61,671	60,585	59,665
Rear	kg	27 081	27 284	27 488	27 665
	lb	59,704	60,151	60,602	60,992
Weight Distribution at SAE Carry (Loaded)			· · · · · · · · · · · · · · · · · · ·		
			71 102	50.050	#0.061
Front	kg	51 999	51 403	50 859	50 361
Front	kg lb	51 999 114,639	51 403 113,325	50 859 112,125	50 361 111,026
Front Rear		51 999 114,639 18 048	113,325 18 369	112,125 18 625	50 361 111,026 18 883

^{*}Static tipping loads and operating weights include full fluids and 80 kg (176 lb) operator.

**Measured 100 mm (4") behind tip of cutting edge with bucket hinge pin as pivot point in accordance with ISO 14397-2:2007.

Full compliance to ISO 14397-1:2007.

Aggregate Package Operating Specifications – High Lift

988K XE High Lift Agg Pkg Tires: 35/65 R PN: 399-4568 SLR: 978					XLDD2,
Bucket Type			General	Purpose	
Ground Engaging Tool			Segn		
Cutting Edge Type				ight	
Bucket Part Number		472-0120	435-4029	347-4990	347-4980
Struck Capacity	m^3	8.0	7.0	6.0	5.5
Struck Capacity	yd^3	10.5	9.2	7.8	7.2
Heaped Capacity (Rated)	m^3	9.6	8.4	7.6	6.9
	yd^3	12.5	11.0	10.0	9.0
Bucket Width	mm	3897	3897	3897	3897
	ft	12.8	12.8	12.8	12.8
Dump Clearance at Full Lift and 45° Discharge (Bare)	mm	4035	4135	4211	4296
	ft	13.2	13.6	13.8	14.1
Reach at Lift and 45° Discharge (Bare)	mm	1987	1876	1811	1734
	ft	6.5	6.2	5.9	5.7
Reach with Lift Arms Horizontal and Bucket Level (Teeth)	mm	4256	4107	4007	3893
	ft	14.0	13.5	13.1	12.8
Digging Depth (Segment)	mm	219	227	219	214
	in	8.6	8.9	8.6	8.4
Overall Length (Bucket Level Ground)	mm	12 371	12 227	12 122	12 005
	ft	40.6	40.1	39.8	39.4
Overall Height with Bucket at Full Raise	mm	8224	8082	7985	7881
T 1 (2) T 1 (2) T (2) T (3) T (4) T (4)	ft	27.0	26.5	26.2	25.9
Loader Clearance Turning Circle (SAE Carry with Teeth)	mm	17 741	17 660	17 595	17 525
F 11 D A 1	ft	58.2	57.9	57.7	57.5
Full Dump Angle	degrees	50	50	50	50
Static Tipping Load Straight (Rigid Tire)*	kg lb	41 325	41 734	42 110	42 474
G: T: : I 10. : 1. (ICO) (T: C 1)*		91,106	92,008	92,837	93,638
Static Tipping Load Straight (ISO) (Tire Squash)*	kg lb	32 825 85,594	39 289 86,616	39 678 87,475	40 068 88,334
Static Tipping Load – Full Turn (Articulated 35°) (Rigid Tire)*	kg	36 750	37 149	37 518	37 871
Static Tipping Load – Pun Turn (Articulated 33) (Rigid Tile)	lb	81,020	81,899	82,713	83,491
Static Tipping Load – Full Turn (Articulated 35°) (ISO)	kg	32 691	33 166	33 554	33 944
(Tire Squash)*	lb	72,072	73,118	73,973	74,833
Static Tipping Load – Full Turn (Articulated 43°) (Rigid Tire)*	kg	34 529	34 923	35 289	35 636
Static Tipping Load - I till Turn (Articulated +3) (Rigid Tile)	lb	76,124	76,991	77,798	78,565
Static Tipping Load – Full Turn (Articulated 43°) (ISO)	kg	30 027	30 502	30 888	31 276
(Tire Squash)*	lb	66,198	67,245	68,096	68,951
Breakout Force**	kN	350	380	403	431
Dieukout i oree	lb	78,782	85,375	90,534	97,000
Operating Weight	kg	58 463	58 187	57 899	57 659
- F	lb	128,888	128,281	127,646	127,116
Weight Distribution at SAE Carry (Unloaded)		·	·		•
Front	kg	28 499	28 001	27 486	27 051
	lb	62,830	61,731	60,597	59,638
Rear	kg	29 963	30 187	30 413	30 608
	lb	66,058	66,551	67,049	67,478
Weight Distribution at SAE Carry (Loaded)					
Front	kg	53 223	52 622	52 063	51 558
	lb	117,335	116,013	114,779	113,665
Rear	kg	19 755	20 080	20 351	20 616
	lb	43,552	44,269	44,867	45,451

^{*}Static tipping loads and operating weights include full fluids and 80 kg (176 lb) operator.

**Measured 100 mm (4") behind tip of cutting edge with bucket hinge pin as pivot point in accordance with ISO 14397-2:2007.

Full compliance to ISO 14397-1:2007.

Operating Specifications – Standard Lift

		988K X	E Std Lift Ti	res: 35/65 F	33 XLDD2,	PN: 399-456	8 SLR: 978
Bucket Type			Purpose		Rock		HD Rock
Ground Engaging Tool		Adapters	or BOCE	X130	X130	X130	X130
Cutting Edge Type		Straight	Straight	Spade	Spade	Spade	Spade
Bucket Part Number		347-4990	347-4980	498-9992	498-9990	498-9988	498-9994
Struck Capacity	m³ yd³	6.0 7.8	5.5 7.2	6.5 8.5	5.5 7.2	5.0 6.5	5.0 6.5
Heaped Capacity (Rated)	m ³ yd ³	7.6 10.0	6.9 9.0	7.6 10.0	6.9 9.0	6.4 8.3	6.4 8.3
Bucket Width	mm	3897	3897	4020	4020	4020	4080
Dump Clearance at Full Lift and 45° Discharge (Bare)	ft mm	12.8 3818	12.8 3902	13.2 3603	13.2 3681	13.2 3736	13.4 3722
Dump Clearance at Full Lift and 45° Discharge (with Teeth)	ft mm	12.5	12.8	11.8 3414	12.1 3492	12.3 3547	12.2 3520
Reach at Lift and 45° Discharge (Bare)	ft	1722	1645	11.2	11.5 1858	11.6	11.5 1816
	mm ft	5.7	5.4	6.4	6.1	5.9	6.0
Reach at Lift and 45° Discharge (with Teeth)	mm ft	_	_	2117 6.9	2040 6.7	1984 6.5	1989 6.5
Reach with Lift Arms Horizontal and Bucket Level (Teeth)	mm ft	3668 12.0	3554 11.7	4233 13.9	4123 13.5	4045 13.3	4067 13.3
Digging Depth (Segment)	mm in	200 7.9	195 7.7	201 7.9	201 7.9	201 7.9	201 7.9
Overall Length (Bucket Level Ground)	mm	11 716	11 598	12 281	12 171	12 093	12 115
Overall Height with Bucket at Full Raise	ft mm	38.4 7591	38.1 7488	40.3 7557	39.9 7455	39.7 7381	39.7 7384
Loader Clearance Turning Circle (SAE Carry with Teeth)	ft mm	24.9 17 261	24.6 17 192	24.8 17 429	24.5 17 366	24.2 17 321	24.2 17 344
	ft	56.6	56.4	57.2	57.0	56.8	56.9
Full Dump Angle	degrees	49.8	49.8	49.8	49.8	49.8	50
Static Tipping Load Straight (Rigid Tire)*	kg lb	36 029 79,430	36 412 80,276	35 067 77,309	35 604 78,494	35 651 78,597	34 592 76,262
Static Tipping Load Straight (ISO) (Tire Squash)*	kg lb	33 859 74,646	34 261 75,533	32 922 72,580	33 477 73,804	33 543 73,949	32 494 71,636
Static Tipping Load – Full Turn (Articulated 35°) (Rigid Tire)*	kg lb	32 325 71,263	32 697 72,084	31 377 69,175	31 906 70,340	31 946 70,430	30 888 68,097
Static Tipping Load – Full Turn (Articulated 35°) (ISO)	kg	29 081	29 478	28 164	28 716	28 783	27 738
(Tire Squash)* Static Tipping Load – Full Turn (Articulated 43°) (Rigid Tire)*	lb kg	64,112 30 526	64,989 30 893	62,090 29 586	63,309 30 110	63,455 30 148	61,152 29 090
Static Tipping Load – Full Turn (Articulated 43°) (ISO)	lb kg	67,299 26 961	68,108 27 355	65,225 26 053	66,381 26 603	66,465 26 668	64,133 25 626
(Tire Squash)*	lb	59,439	60,308	57,437	58,650	58,793	56,495
Breakout Force**	kN lb	437 98,315	468 105,297	371 83,329	394 88,591	410 92,170	402 90,383
Operating Weight	kg lb	52 334 115,377	52 094 114,847	52 902 116,628	52 559 115,872	52 531 115,810	53 510 117,969
Weight Distribution at SAE Carry (Unloaded)		110,011	11.,017	110,020	110,072	110,010	11,,,,,,,,
Front	kg	28 687	28 270	29 779	29 144	29 118	30 717
Rear	lb kg	63,245 23 647	62,325 23 824	65,652 23 122	64,252 23 414	64,194 23 413	67,719 22 793
Weight Distribution at SAE Carry (Loaded)	lb	52,132	52,523	50,976	51,619	51,616	50,250
Front	kg lb	46 947 103,501	46 467 102,441	48 073 105,984	47 382 104,460	47 317 104,317	48 922 107,854
Rear	kg	16 727	16 967	16 168	16 516	16 553	15 928
	lb	36,877	37,406	35,645	36,412	36,493	35,115

^{*}Static tipping loads and operating weights include full fluids and 80 kg (176 lb) operator.

**Measured 100 mm (4") behind tip of cutting edge with bucket hinge pin as pivot point in accordance with ISO 14397-2:2007. Full compliance to ISO 14397-1:2007.

Operating Specifications – High Lift

Cutting Edge Type					ires: 35/65	R33 XLDD2	, PN: 399-45	68 SLR: 978
String S	Bucket Type			<u> </u>				
Struck Capacity Mar Mar	Ground Engaging Tool		Adapters	or BOCE	X130	X130	X130	X130
Struck Capacity m	Cutting Edge Type		Straight	Straight	Spade	Spade	Spade	Spade
Map	Bucket Part Number		347-4990		498-9992	498-9990	498-9988	498-9994
Heaped Capacity (Rated)	Struck Capacity							
Bucket Width	TI 10 P P							
Bucket Width	Heaped Capacity (Rated)							
Dump Clearance at Full Lift and 45° Discharge (Bare) mm 4211 4296 3997 4074 4130 4116 411	Bucket Width							
Mathematical Health Mathematical Health	Bucket Width							
Dump Clearance at Full Lift and 45° Discharge (with Teeth) mm th	Dump Clearance at Full Lift and 45° Discharge (Bare)							
Reach at Lift and 45° Discharge (Bare)								
Reach at Lift and 45° Discharge (Bare)	Dump Clearance at Full Lift and 45° Discharge (with Teeth)							
Reach at Lift and 45° Discharge (with Teeth) mm — — — 2206 2128 2073 2077 Reach at Lift and 45° Discharge (with Teeth) mm — — 2206 2128 2073 2077 Reach with Lift Arms Horizontal and Bucket Level (Teeth) ft 13.1 12.8 15.0 14.6 14.4 14.5 14.5 14.5 15.0 14.6 14.4 14.5 14.5 15.0 14.6 14.4 14.5 14.5 15.0 14.6 14.4 14.5 14.5 15.0 14.6 14.4 14.5 14.5 15.0 14.6 14.4 14.5 14.5 15.0 14.6 14.4 14.5 15.0	Reach at Lift and 45° Discharge (Bare)							
Reach with Lift Arms Horizontal and Bucket Level (Teeth) mm 4007 3893 4572 4462 4384 4406 ft 13.1 12.8 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.4 14.5 15.0 14.6 14.3 14.0 14.1 14.5 15.0 14.5 1	reach at Ent and 13 Bischarge (Bure)							
Reach with Lift Arms Horizontal and Bucket Level (Teeth) ft 13.1 12.8 15.0 14.6 14.4 14.5	Reach at Lift and 45° Discharge (with Teeth)	mm		_			2073	2077
Properties		ft						
Digging Depth (Segment) mm 219 214 220 220 220 220 8.7	Reach with Lift Arms Horizontal and Bucket Level (Teeth)							
Second S	D: : D 4 (0)							
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Rear kg 16 628 16 878 16 025 16 391 16 423 15 712	110110							
1b 36,659 37,210 35,328 36,137 36,207 34,640	Rear	kg		16 878	16 025	16 391	16 423	15 712
		lb	36,659	37,210	35,328	36,137	36,207	34,640

^{*}Static tipping loads and operating weights include full fluids and 80 kg (176 lb) operator.

**Measured 100 mm (4") behind tip of cutting edge with bucket hinge pin as pivot point in accordance with ISO 14397-2:2007.

Full compliance to ISO 14397-1:2007.

988K XE Wheel Loader Standard and Optional Equipment

Standard and Optional Equipment

	Standard	Optional
ELECTRICAL		
Alarm, back-up	✓	
Alternator, single 150 amp	✓	
Batteries, dry	✓	
Converter, 10/15 amp, 24V to 12V	✓	
Hazardous voltage lamp	✓	
Lighting system (halogen, work lights, access and service platform lighting)	✓	
Starting and charging system, 24V	✓	
Starter emergency start receptacle	✓	
Starter lockout in bumper	✓	
Transmission lockout in bumper	✓	
OPERATOR ENVIRONMENT		
Air conditioner	✓	
Cat Detect, object detection system		√
Cat Production Measurement		<u>√</u>
Cat Production Measurement ready		
Cat Vision, rear-vision camera system		
Cab precleaner		
Cab, sound suppressed and pressurized, integrated rollover protective structure (ROPS/FOPS) radio ready for entertainment, includes antenna, speakers and converter (12-volt 5-amp) and power port	•	
Controls, lift and tilt function	√	
Graphical information display, displays real time operating information, performs calibrations and customizes operator settings	✓	
Handrail mounted mirrors		√
Heater, defroster	√	
Horn, electric	√	
Instrumentation, gauges: coolant temperature, engine hour meter, hydraulic oil temperature, power train oil temperature	✓	
LED warning strobe		✓
Light, cab, dome	✓	
Lights, directional	✓	
Lights, HID or LED		✓
Lunchbox, beverage holders	✓	
Mirrors, heated		✓
Mirrors, rearview (externally mounted)	✓	
Radio, AM/FM/CD/MP3 Bluetooth® with Satellite Sirius		✓

	Standard	Optional
OPERATOR ENVIRONMENT (CONTINUED)		
Radio, CB ready	✓	
Rimpull Control System (RCS)	✓	
Seat, Premium Plus containing forced air heating and cooling, 2-way thigh adjustment, power lumbar and back bolster adjustment, ride stiffness, dynamic end dampening and leather finish	√	
Seat belt minder	✓	
Seat belt, retractable, 76 mm (3 in) wide	✓	
Steering and Transmission Integrated Control (STIC TM) System	√	
UV glass	✓	
Virtual gear indicator	✓	
Vital Information Management System (VIMS™) with graphical information display: external data port, customizable operator profiles, cycle timer, integrated payload control system	√	
Wet-arm wipers/washers (front and rear) – intermittent front and rear wipers	√	
Window pull-down visor		\checkmark
POWER TRAIN		
Antifreeze -50°C (-58°F)		✓
Automatic retarding controls	✓	
Brakes, oil-cooled, multi-disc, service/secondary	✓	
Case drain screens	✓	
Cat Integrated Powered Electronics	✓	
Cat SR drive motor	✓	
Cat SR generator/pump drive	✓	
Crankcase guard		✓
Electro hydraulic parking brake	✓	
Engine block heater 120V or 240V		✓
Engine brake, SEA		✓
Engine, C18 MEUI TM diesel, turbocharged/aftercooled	✓	
Engine oil change system, high speed, Wiggins		✓
Ground-level engine shutoff	✓	
High ambient cooling – software		✓
Turbine precleaner, engine air intake	✓	
Radiator, Aluminum Modular Radiator (AMR)	✓	
Starting aid, ether, automatic	✓	
Throttle lock, electronic	✓	
Manual switch and automatic fuel priming	√	

988K XE Wheel Loader Standard and Optional Equipment

Standard and Optional Equipment

	Standard	Optional
ADDITIONAL EQUIPMENT		
Autodig TM feature, Tire Slip Prevention	✓	
Autodig features, Auto Set Tires & Lift Stall Prevention		✓
Autolube with Auto shutoff		✓
Automatic bucket lift kickout/positioner	✓	
Base machine price includes a rim allowance	✓	
Cat Clean Emission Module (CEM)	✓	
Cold weather starting (extra starter plus two batteries)		✓
Couplings, Cat O-ring face seals	✓	
Doors, service access (locking)	✓	
Ecology drains for engine, radiator, hydraulic tank	✓	
EZ Clean cooling system		✓
Fast fill fuel system (Shaw-Aero)		✓
Front and rear roading fenders		✓
Fuel tank, 555 L (147 gal)	✓	
Hitch, drawbar with pin	✓	
Hoses, Cat XT TM	✓	
Hydraulic, steering and brake filtration/ screening system	√	

	Standard	Optional
ADDITIONAL EQUIPMENT (CONTINUED)		
Hydraulically driven demand fan	✓	
Load and carry counterweight		✓
Oil sampling valves	✓	
Operator coaching		✓
Premixed 50% concentration of extended life coolant with freeze protection to -34°C (-29°F)	✓	
Rear access to cab and service platform	✓	
Steering, load sensing	✓	
Tire Pressure Monitoring System		✓
Toe kicks	✓	
Transmission brake	✓	
Vandalism protection caplocks	✓	
Wheel chocks		✓
OTHER OPTIONAL CONFIGURATIONS		
Aggregate Handler		✓
Load and Carry		✓
Millyard		✓

988K XE Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit https://www.caterpillar.com/en/company/sustainability.

Engine

- The Cat[®] C18 engine meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.

Air Conditioning System

• The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.8 kg (3.9 lb) of refrigerant which has a CO2 equivalent of 2.574 metric tonnes (2.837 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
- Barium < 0.01%
- Cadmium < 0.01%
- Chromium < 0.01%
- Lead < 0.01%

Sound Performance

Operator Sound Level (ISO 6396:2008) 72 dB(A)

Machine Sound Level (ISO 6395:2008) 109 dB(A)*

- The measurements listed above were conducted at 70 percent of the maximum engine cooling fan speed.
- Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.
- * For machines in European Union countries and in countries that adopt the European Union Directive 2000/14/EC as amended by 2005/88/EC.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
- Up to 25% better fuel efficiency overall, up to 49% in truck loading applications
- ECO mode minimizes fuel consumption for light applications
- Increased hydraulic speed and faster cycle times for decreased idle, decreased fuel burn, and increased efficiency
- Reduce fuel burn while idling with engine idle shutdown
- Extended maintenance intervals reduce fluid and filter consumption
- Boost productivity with optional technologies like Operator Coaching and new AutoDig features including Tire Slip Prevention and Auto Set Tires

Recycling

 The materials included in machines are categorized as below with approximate weight percentage. Because of variations of product configurations, the following values in the table may vary.

Material Type	Weight Percentage
Steel	73.32%
Iron	3.21%
Nonferrous Metal	1.39%
Mixed Metal	0.00%
Mixed-Metal and Nonmetal	4.59%
Plastic	0.13%
Rubber	0.12%
Mixed Nonmetallic	0.00%
Fluid	0.25%
Other	2.35%
Uncategorized	14.64%
Total	100%

A machine with higher recyclability rate will ensure more efficient
usage of valuable natural resources and enhance End-of-Life value
of the product. According to ISO 16714 (Earthmoving machinery

– Recyclability and recoverability – Terminology and calculation
method), recyclability rate is defined as percentage by mass
(mass fraction in percent) of the new machine potentially able to
be recycled, reused, or both.

All parts in the bill of material are first evaluated by component type based on a list of components defined by the ISO 16714 and Japan CEMA (Construction Equipment Manufacturers Association) standards. Remaining parts are further evaluated for recyclability based on material type.

Because of variations of product configurations, the following value in the table may vary.

Recyclability - 96%



988K XE

Millyard

Millyard applications demand the additional performance, productivity, and safety that Cat Forestry Wheel Loaders deliver.

Proven Reliability

- With 20 years of electric-drive experience, the 988K XE combines the simple and robust switched reluctance technology with proven machine design.
- More than 90 percent identical to the 988K Millyard.
- Fewer moving parts than traditional torque converter and mechanical transmission systems.
- Solid-state, fully sealed, and liquid-cooled powered electronics maximize durability in extreme conditions.
- Cat C18 engine is built and tested to meet your most demanding applications.
- Advanced filtration system for extended performance and reliability of the hydraulic system.

Durability

- Achieves longer engine life and improved fuel efficiency with reduced rated speed.
- · Automatic retarder controls maintain speed on grade.
- One-piece castings provide enhanced strength in key pin areas.
- Full box section rear frame resists torsional shock and twisting forces.
- Durable construction withstands the toughest loading conditions and multiple life cycles.

Achieve Greater Productivity

- Unload a typical full-length log truck in a single pass with the larger lift and tilt cylinders and a unique tilt lever to maximize linkage force. Up to 20% more lift capacity and 26% more tilt capacity over the standard 988K.
- Electric-drive system eliminates shifting and simplifies operator control, accelerating the learning curve of new operators.
- Superior acceleration, smoother directional shifts, and reduced travel times.
- Maximum responsiveness with Steering and Integrated Control (STIC™).
- Convenient, responsive electro-hydraulic controls increase operator productivity.
- Purpose-built lift arm with lowered cross member to increase visibility to the tips of the forks helping to increase the speed when lining up the load and reduce operator movements to see the forks.

Superior Fuel Efficiency

- Continuously variable speed control up to maximum ground speed.
- Positive Flow Control (PFC) hydraulic system increases efficiency and attachment responsiveness with consistent performance.
- Economy mode for reduced rated engine speed and reduced fuel consumption.
- $\bullet\,$ Fully integrated electronic engine controls make your fuel go farther.
- Engine idle shutdown for less fuel used while idling.
- Flow sharing hydraulics for full-flow at reduced engine rpm.
- Increased hydraulic speed and faster cycle times for decreased idle, decreased fuel burn, and increased efficiency.

Safety Features

- Hazardous voltage lamp assures electric drive system is de-energized and machine is safe to work on.
- Achieve precise positioning for easy loading in tight areas with 43 degrees of steering articulation.
- Precise machine control by load-sensing hydraulic steering system.
- Reduced stairway angles and standard stairway lighting provide reduced risk of slips, trips, and falls due to better visbility of the steps and stairway.
- · Left- and right-hand stairs with 45-degree angle.
- Computerized monitoring system with warning indicators.
- Standard Cat Vision enhances visibility behind the machine, helping you work safely and confidently.
- Pressurized cabin with filtered air and reduced sound levels.

Reduced Maintenance Time and Costs

- Electric-drive system maximizes consumable life, reducing oil and filter waste. Enables two times the life for power train oil and four times the life for filters.
- Longer life, rebuildability, and high resale value with 10 percent lower maintenance costs.
- Grouped service points and swing-out engine compartment service doors provide easy access to critical daily service checks.
- · Ecology drains to prevent spilled contaminants.
- Reduced waste with maintenance-free batteries.
- Operators can now check tire pressure during operation with any change sending a fault code to VisionLink®, preventing premature tire failure.
- Swing out fan radiator design for easier service in high-debris millyard applications reducing maintenance and service down time. Auto reversing fan system to help dislodge debris and keep air flowing across the radiator cores.

Easy, Comfortable Operator Environment

- Best-in-class operator comfort and ergonomics.
- Comfort Series III seats with extra thick, contoured cushions provide total comfort throughout the workday.
- Easy-to-reach levers and seat-mounted implement pod to reduce fatigue.
- Reduced vibrations from isolated cab mounts and seat air suspension.

Engine		
Engine Model	Cat C18	
Rated Speed	1,700 rpm	
Peak Power Speed	1,500 rpm	
Engine (ISO 14396:2002)	432 kW	580 hp
Gross (SAE J1995:2014)	439 kW	588 hp
Net Power (SAE J1349:2011)	401 kW	538 hp
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 in ³
Peak Torque (1,200 rpm) (SAE J1995:2014)	3023 N·m	2,230 lbf-ft
Torque Rise	58%	

- Meets U.S. EPA Tier 4 Final, EU Stage V, and Japan 2014 emission standards.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan at minimum speed, air intake system, exhaust system, and alternator.

Transmission		
Transmission Type	Cat switched electric drive	
Forward 1 (virtual)	7.0 km/h	4.3 mph
Forward 2 (virtual)	11.3 km/h	7.0 mph
Forward 3 (virtual)	22.2 km/h	13.8 mph
Forward 4 (virtual)	32.1 km/h	20.0 mph
Reverse 1 (virtual)	7.0 km/h	4.3 mph
Reverse 2 (virtual)	11.3 km/h	7.0 mph
Reverse 3 (virtual)	28.2 km/h	17.5 mph

Operating Specifications		
Operating Weight	52 781 kg	116,362 lb
Rated Payload – Quarry Face	11.3 tonnes	12.5 tons
Rated Payload – Loose Material	14.5 tonnes	16.0 tons
Bucket Capacity Range	4.7-13.0 m ³	6.2-17.0 yd ³
Hydraulic System – Lift/Tilt		
Lift/Tilt System – Circuit	EH-Positive l Flow Sharing	Flow Control,
Lift/Tilt System Pumps	Variable disp piston	lacement
Maximum Flow at 1,400-1,600 rpm	580 L/min	153 gal/min
Relief Valve Setting – Lift/Tilt	32 800 kpa	4,757 psi
Lift Cylinder – Bore	210 mm	8.7 in
Lift Cylinder – Stroke	1050 mm	41.3 in
Tilt Cylinder – Bore	266 mm	8.7 in
Tilt Cylinder – Stroke	685 mm	27.0 in
Hydraulic Cycle Time		
Rackback	4.5 seconds	
Raise	8.0 seconds	
Dump	2.2 seconds	
Lower Float Down	3.5 seconds	
Total Hydraulic Cycle Time	18.2 seconds	

Hydraulic System – Steering		
Steering System – Circuit	Pilot, load se	ensing
Steering System – Pump	Variable disp piston	olacement
Maximum Flow @ × 1,400-1,600 rpm	270 L/min	71.3 gal/min
Steering Cut Off Pressure	30,000 kPa	4,351 psi
Total Steering Angle	86°	
Steering Cycle Time (high idle)	3.4 seconds	
Steering Cycle Time (low idle)	5.6 seconds	

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.8 kg of refrigerant which has a $\rm CO_2$ equivalent of 2.574 metric tonnes.

Axles	
Front	Fixed
Rear	Trunnion
Oscillation Angle	13°
Brakes	
Brakes	ISO 3450:2011
Operator Cab	
ROPS/FOPS	ROPS/FOPS meet
	ISO 3471:2008 and
	ISO 3449:2005 Level II
	standards

Service Refill Capacities		
Fuel Tank	555 L	147.0 gal
Cooling System (jacket water)	112 L	30.0 gal
Cooling Systems (power train)	30 L	8.0 gal
Engine Crankcase	60 L	16.0 gal
Diesel Exhaust Fluid Tank	33 L	8.7 gal
Transmission	60 L	16.0 gal
Differentials and Final Drives – front	186 L	49.0 gal
Differentials and Final Drives – rear	186 L	49.0 gal
Hydraulic System – implement/steering	475 L	126.0 gal

- All nonroad Tier 4 Final/Stage V diesel engines are required to use:
- The machine has the flexibillity to run on either ultra-low-sulfur diesel fuel (ULSD with 15 ppm of sulfur or less).
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
 - ✓ 100% renewable diesel, HVO (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

- *Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.
- Cat DEO-ULS or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specifications are required.
- Only use DEF that meets ISO 22241-1 standards.

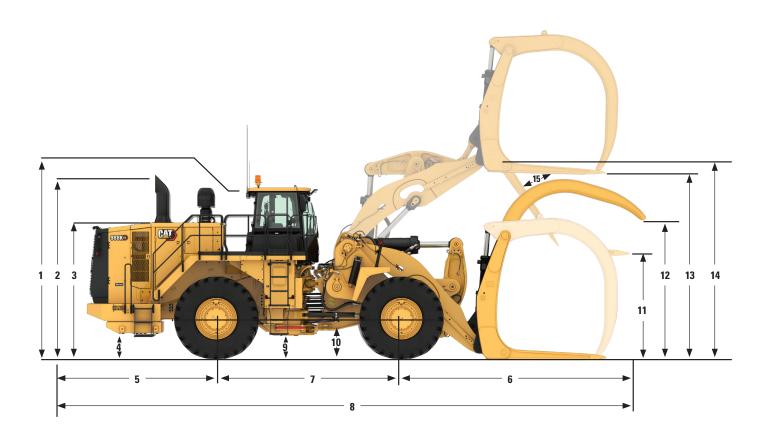
Sound Performance – Tier 4 Final/Stage V

Operator Sound Level (ISO 6396:2008)	72 dB(A)
Machine Sound Level (ISO 6395:2008)	109 dB(A)*

- The operator sound pressure level was measured according to the test procedures and conditions specified in ISO 6396:2008.
 The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
- Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.
- The machine sound power level was measured according to the test procedures and conditions specified in ISO 6395:2008. The measurement was conducted at 70 percent of the maximum engine cooling fan speed.
 - * For machines in European Union countries and in countries that adopt the European Union Directive 2000/14/EC as amended by 2005/88/EC.

Dimensions

All dimensions are approximate.

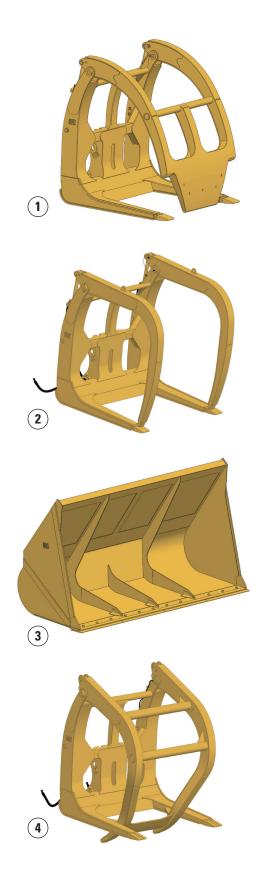


	Millyard L	inkage
1 Ground to Top of ROPS	4221 mm	13.8 ft
2 Ground to Top of Exhaust Stack	4214 mm	13.8 ft
3 Ground to Top of Hood	3334 mm	10.9 ft
4 Ground to Bumper Clearance	933 mm	3.1 ft
5 Rear Axle Center Line to Bumper	3187 mm	10.5 ft
6 Front Axle Center Line to Fork Tip	5023 mm	16.5 ft
7 Wheelbase	4550 mm	14.9 ft
8 Maximum Overall Length	12 761 mm	41.9 ft
9 Ground to Lower Hitch Clearance	568 mm	1.9 ft
10 Ground to Center of Front Axle	978 mm	3.2 ft
11 Fork Height with Level Arms	2474 mm	8.1 ft
12 Fork Top Clamp Opening	4006 mm	13.1 ft
13 Fork Height at Maximum Lift	5242 mm	17.2 ft
14 Hinge Pin Height at Maximum Lift	4918 mm	16.1 ft

15 Dump Angle at Maximum Lift

-39.4 degrees

Forks and Buckets



Forks and Buckets

Millyard and Logging Forks are designed to move wood in the millyard. Woodchip Buckets are designed with performance characteristics to bring productivity and fuel efficiency to load-and-carry work in the yard.

- 1 Millyard Forks: A single top clamp closes down between the tines, allowing individual logs to be picked and placed with ease. An open, high-visibility design allows operators to see the job at hand and work faster and more efficiently.
- 2 Logging Forks: Dual top clamps close down to the tine tips; their curvature maximizes carry capacity. Built to match the task of unloading trucks. An open, high-visibility design allows operators to see the job at hand and work faster and more efficiently.
- Woodchip Buckets: Extra capacity and loading characteristics make this bucket style perfect for handling woodchips. Available in direct pin on models or for use with the Cat Quick Coupler System.
- **Cat Full Width Forks:** Dual top clamps are connected to allow maximum capacity while still closing between the tines allowing partial loads to be handled.

988K XE Millyard Standard and Optional Equipment

Standard and Optional Equipment

	Standard	Optional
ELECTRICAL		
Alarm, back-up	✓	
Alternator, single 150 amp	✓	
Batteries, dry	✓	
Converter, 10/15 amp, 24V to 12V	✓	
Hazardous voltage lamp	✓	
Lighting system (halogen, work lights, access and service platform lighting)	✓	
Starting and charging system, 24V	✓	
Starter emergency start receptacle	✓	
Starter lockout in bumper	✓	
Transmission lockout in bumper	✓	
OPERATOR ENVIRONMENT		
Air conditioner	√	
Cat Detect, object detection system		
Cat Production Measurement		
Cat Production Measurement ready		
-		
Cat Vision, rear-vision camera system	· · · · · · · · · · · · · · · · · · ·	
Cab precleaner		
Cab, sound suppressed and pressurized, integrated rollover protective structure (ROPS/FOPS) radio ready for entertainment, includes antenna, speakers and converter (12-volt 5-amp) and power port	v	
Controls, lift and tilt function	✓	
Graphical information display, displays real time operating information, performs calibrations and customizes operator settings	✓	
Handrail mounted mirrors		✓
Heater, defroster	✓	
Horn, electric	✓	
Instrumentation, gauges: coolant temperature, engine hour meter, hydraulic oil temperature, power train oil temperature	✓	
LED warning strobe		√
Light, cab, dome	√	
Lights, directional	√	
Lights, HID or LED		✓
Lunchbox, beverage holders	✓	
Mirrors, heated		√
Mirrors, rearview (externally mounted)	✓	
Radio, AM/FM/CD/MP3 Bluetooth® with Satellite Sirius		✓

	Standard	Optional
OPERATOR ENVIRONMENT (CONTINUED)		
Radio, CB ready	✓	
Rimpull Control System (RCS)	✓	
Seat, Premium Plus containing forced air	✓	
heating and cooling, 2-way thigh adjustment,		
power lumbar and back bolster adjustment,		
ride stiffness, dynamic end dampening and		
leather finish		
Seat belt minder		
Seat belt, retractable, 76 mm (3 in) wide	· · · · · · · · · · · · · · · · · · ·	
STIC System	· · ·	
UV glass	_	
Virtual gear indicator	√	
Vital Information Management System (VIMS) with graphical information display: external data	✓	
port, customizable operator profiles, cycle timer,		
integrated payload control system		
Wet-arm wipers/washers (front and rear) –	√	
intermittent front and rear wipers		
Window pull-down visor		✓
POWER TRAIN		
Antifreeze -50°C (-58°F)		✓
Automatic retarding controls	✓	
Brakes, oil-cooled, multi-disc, service/secondary	✓	
Case drain screens	✓	
Cat Integrated Powered Electronics	✓	
Cat SR drive motor	✓	
Cat SR generator/pump drive	✓	
Crankcase guard		✓
Electro hydraulic parking brake	✓	
Engine block heater 120V or 240V		✓
Engine brake, SEA		✓
Engine, C18 MEUI diesel, turbocharged/	✓	
aftercooled		
Engine oil change system, high speed, Wiggins		✓
Ground-level engine shutoff	✓	
High ambient cooling – software		✓
Turbine precleaner, engine air intake	✓	
Radiator, Aluminum Modular	✓	
Radiator (AMR)		
Starting aid, ether, automatic	√	
Throttle lock, electronic	√	
Manual switch and automatic fuel priming	\checkmark	

988K XE Millyard Standard and Optional Equipment

Standard and Optional Equipment

	Standard	Optional
ADDITIONAL EQUIPMENT		
Autodig feature, Tire Slip Prevention	✓	
Autodig features, Auto Set Tires & Lift Stall Prevention		✓
Autolube with Auto shutoff		✓
Automatic bucket lift kickout/positioner	✓	
Base machine price includes a rim allowance	✓	
Cat Clean Emission Module (CEM)	✓	
Cold weather starting (extra starter plus two batteries)		✓
Couplings, Cat O-ring face seals	✓	
Doors, service access (locking)	✓	
Ecology drains for engine, radiator, hydraulic tank	✓	
EZ Clean cooling system		✓
Fast fill fuel system (Shaw-Aero)		✓
Front and rear roading fenders		✓
Fuel tank, 555 L (147 gal)	✓	
Hitch, drawbar with pin	✓	
Hoses, Cat XT	✓	

	Standard	Optional
ADDITIONAL EQUIPMENT (CONTINUED)		
Hydraulic, steering and brake filtration/	✓	
screening system		
Hydraulically driven demand fan	✓	
Load and carry counterweight		✓
Oil sampling valves	✓	
Premixed 50% concentration of extended	✓	
life coolant with freeze protection to		
-34°C (-29°F)		
Rear access to cab and service platform	√	
Steering, load sensing	✓	
Tire Pressure Monitoring System		✓
Toe kicks	✓	
Transmission brake	✓	
Vandalism protection caplocks	✓	
Wheel chocks	✓	✓
OTHER OPTIONAL CONFIGURATIONS		
Aggregate Handler		✓
Load and Carry		✓



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