

MEMO 24-12

TO: Frank Schulte, City Administrator
FROM: James Kowalski, Director of Public Services *J.K.*
DATE: February 23, 2024
SUBJECT: Purchase – Cat 420 XE Backhoe Loader

The Department of Public Works currently uses a 2018 JCB Backhoe Loader for repair of all water main breaks and sewer repairs. This piece of equipment needs to be ready in a moment's notice, usually in the middle of the night, for unpredictable water main repairs. Last year the City had 21 water main breaks and six significant sewer repairs. Although the current machine is only six years old, it is no longer dependable and has undergone \$18,000.00 in repairs in this past fiscal year alone, and \$40,000.00 in the last four fiscal years. The major component failures (electrical shorts and internal computer shut downs) has rendered this machine unreliable for critical repairs. The purchase of the new Cat 420 XE Backhoe Loader and its attachments will help to avoid any down time, additional costs of renting a machine, or outsourcing a repair.

Michigan CAT has provided a quote to purchase one new Cat 420 XE Backhoe Loader through the MIDEAL program for \$184,689.48. The MIDEAL program is a cooperative purchasing program for state and government agencies and the City can take advantage of the government pricing offered. I do not believe any benefit will accrue to the City by seeking further competitive bids.

Therefore, I recommend that we purchase one Cat 420 XE Backhoe Loader from Michigan CAT, 24800 Novi Rd., Novi, MI 48375 in the amount of \$184,689.48.

This is not a budgeted item in the Fiscal Year 2023/2024 budget and would require a budget amendment and transfers from the water/sewer fund balance account no. 592-000-692.000 into the Capital Equipment – Public Works account no. 661-901-977.594 in the amount of \$184,689.48.

If you have any questions concerning this matter please contact me.

I do not believe any benefit will accrue to the City by seeking further bids. Approved for Council consideration.



Frank Schulte, City Administrator

2-23-24

Date

Fund Certification:

Account numbers and amounts have been verified as presented.



Steven Schmidt, Acting Treasurer/Comptroller

2-23-24

Date

RECEIVED
FEB 23 2024
CITY OF GROSSE POINTE WOODS
CLERK'S DEPARTMENT



February 1, 2024

CITY OF GROSSE POINTE WOODS
 20025 MACK PLZ
 Grosse Pointe Woods, Michigan 48236

Dear ,

Thank you for this opportunity to quote a solution from Michigan CAT for your business needs. We are pleased to submit the following for your purchase consideration.

One (1) New CATERPILLAR Model: 420XE AMPRI Backhoe Loader with the following factory and dealer options included below:

STOCK NUMBER: 88343X **SERIAL NUMBER:** H9X03309 **YEAR:** 2024 **SMU:** 4

MACHINE

BUCKET, HOE, (NONE)	175-7877	
BELT, SEAT, 2" SUSPENSION	206-1747	
SERIALIZED TECHNICAL MEDIA KIT	421-8926	
SHIPPING/STORAGE PROTECTION	461-6839	
RUST PREVENTATIVE APPLICATOR	462-1033	
TIRES, 340 80-18/500 70-24, MX	533-0488	
ENGINE, 74.5KW, C3.6 DITA, T4F	541-9540	
INSTRUCTIONS, ANSI	559-0872	
420 XE 07A BACKHOE LOADER CFG1	563-5593	
FENDERS, FRONT 4WD	563-6098	
TRIM PACKAGE 3	621-4249	
STABILIZER PADS, FLIP-OVER	9R-6007	
420 LANE 2 ZCON	626-9389	
COUPLER, PIN LOCK, BL F	5441901	
THUMB, HYDRAULIC, NO TINE, BHL	2825409	
BUCKET-MP, 1.4 YD3, IT	2168840	
BUCKET-HD, 24", 7.3 FT3, PL	2471950	
BEACON, MAGNETIC MOUNT, STROBE	4330154	
HAMMER, H65S	5612552	
LINES, H65, BHL-F	3134791	
BRACKET, BHL 45-50MM, LG	5679320	
SELL PRICE		\$170,148.30
EXT WARRANTY		Included
TOTAL NET PURCHASE PRICE		\$170,148.30

WARRANTY

Standard Warranty:

Michigan CAT 12 Month, Unlimited Hour Standard Full Machine
 Warranty Service Agreement with 6 Months Mileage



February 1, 2024

CITY OF GROSSE POINTE WOODS
20025 MACK PLZ
Grosse Pointe Woods, Michigan 48236

Dear ,

Thank you for this opportunity to quote a solution from Michigan CAT for your business needs. We are pleased to submit the following for your purchase consideration.

One (1) New CATERPILLAR Model: Manual Used - Other with the following factory and dealer options included below:

STOCK NUMBER: **SERIAL NUMBER:** **YEAR:** **SMU:**

MACHINE

Tink Inc C520 1.2CYD Claw

SELL PRICE

\$14,541.18

TOTAL NET PURCHASE PRICE

\$14,541.18

WARRANTY

Standard Warranty:

AS-IS, WHERE-IS

F.O.B/TERMS: Corporate

We believe the equipment as quoted will exceed your expectations. On behalf of Michigan CAT, thank you for the opportunity to supply Caterpillar machinery. This quotation is subject to machine availability and valid for 30 days, after which time we reserve the right to update the quote. If there are any questions, please do not hesitate to contact me.

Sincerely,

Nathan May

Account Representative

nathan.may@michigancat.com

248-416-4737



Cat[®] 420 XE

BACKHOE LOADER

The Cat[®] 420 XE Backhoe Loaders delivers exceptional performance, increased fuel efficiency, superior hydraulic system, versatility and an updated operator station. The 420 XE feature the following:

- **Ergonomic Operator Station** – Adjustable Seat Mounted Controls improve ergonomics by increasing operator comfort and legroom. Operators have Loader and Backhoe Controls in the palm of their hands, whether they are facing the Loader, the Backhoe, or sitting off set for better visibility. The new Spring Applied Hydraulically Released (SAHR) Parking Brake is controlled by simply pressing a button.
- **Load Sensing Hydraulics** – The Cat Backhoe Loader's load sensing piston pump provides full hydraulic lifting and digging forces at any engine speed. Variable flow pump matches hydraulic power to work demands.
- **Machine Performance** – The Cat C3.6 engine delivers solid performance and meets U.S. EPA Tier 4 Final/EU Stage V emission standards by utilizing Selective Catalytic Reduction technology with a Diesel Oxidation Catalyst. The system allows the operator to disconnect the machine, even while the diesel exhaust fluid is being purged from the system.
- **Machine Versatility** – The all new Integrated Tool Carrier (IT Coupler) for Single Tilt Loader Arm configurations are available from the factory or for simple field installation. The Cat Backhoe Loader with Integrated Tool Carrier (IT Coupler) will be the most versatile machine on the job site providing quick connection to a variety of Cat Attachments.
- **Cat Attachments** – A large portfolio of Backhoe Loader Attachments, including but not limited to, Quick Couplers, Thumbs, assorted Buckets, and Brooms are available from the factory or for field installation. Cat Backhoe Loaders will be "Dirt Ready" upon delivery.
- **Powershift Transmission** – A Four Speed Powershift Transmission is standard to make shifting gears smooth and as simple as twisting the Powershuttle Lever.
- **Lift Performance** – The redesigned boom cylinder increases lift performance by 15%.

Specifications

Engine

Engine	C3.6 74.5 kW (100 hp) Electronic Turbo Intercooled	
Ratings at 2,200 rpm		
Gross Power SAE J1995	76 kW	102 hp
Gross Power ISO 14396	74 kW	100 hp
Net Power Rating at 2,200 rpm		
SAE J1349	68 kW	92 hp
ISO 9249	68 kW	91 hp
Net Peak Power Rating@ 1,800 rpm		
SAE J1349	79 kW	105 hp
ISO 9249	78 kW	105 hp
Dimensions		
Bore	98 mm	3.86 in
Stroke	120 mm	4.72 in
Displacement	3.6 L	220 in ³
Torque Rise (net) at 1,400 rpm	47%	
SAE J1349 Net	436 N·m	322 lb·ft
Power Rating Conditions		
No de-rating required up to	3048 m	10,000 ft

- Engine meets Tier 4 Final/Stage V emission standards.

Weights*

Operating Weight (estimated)	7834 kg	17,271 lb
Operating Weight (maximum) (ROPS capacity)	11 000 kg	24,251 lb
Operating Weight (minimum)	7384 kg	16,279 lb
Cab, ROPS/FOPS	145 kg	320 lb
Power-Shift Transmission	STD	STD
Ride Control	15 kg	33 lb
Air Conditioning	45 kg	99 lb
All-Wheel Drive	STD	STD
MP bucket (0.96 m ³ /1.25 yd ³)		
with fold-over forks	915 kg	2,017 lb
without fold-over forks	745 kg	1,642 lb
Loader QC	245 kg	540 lb
Extendible Stick (excludes ft. counterweight)	270 kg	595 lb
Counterweights, base	115 kg	256 lb
Stackable, one	240 kg	529 lb
Maximum	460 kg	1,014 lb

*Machine configuration: standard stick hoe, OROPS canopy, AWD power shift transmission, 0.96 m³ (1.25 yd³) GP (General Purpose) loader bucket, 610 mm (24 in) standard duty hoe bucket, front 340/80-18 and rear 500/70-24 tires, 240 kg (530 lb) counterweight, 80 kg (176 lb) operator, full fuel tank.



420 XE Backhoe Loader

Transmission*

Power Shift Transmission – Standard

Forward – 1st	5.9 km/h	3.7 mph
2nd	9.4 km/h	5.8 mph
3rd	20 km/h	12 mph
4th	41 km/h	25 mph
Reverse – 1st	5.9 km/h	3.7 mph
2nd	12.4 km/h	7.7 mph
3rd	27 km/h	17 mph

	Power-Shift Transmission – Optional		Power-Shift Transmission with LTC – Optional	
Forward – 1st	5.9 km/h	3.7 mph	5.9 km/h	3.7 mph
2nd	9.4 km/h	5.8 mph	9.4 km/h	5.8 mph
3rd	12 km/h	8 mph	12 km/h	8 mph
4th	20 km/h	12 mph	20 km/h	12 mph
5th	27 km/h	17 mph	27 km/h	17 mph
5th LTC	—	—	29 km/h	18 mph
6th	41 km/h	25 mph	41 km/h	25 mph
6th LTC**	—	—	40 km/h	25 mph
Reverse – 1st	5.9 km/h	3.7 mph	5.9 km/h	3.7 mph
2nd	12 km/h	7.7 mph	12 km/h	7.7 mph
3rd	27 km/h	17 mph	27 km/h	17 mph

*Travel speeds of two wheel drive backhoe loader at full throttle, when equipped with 500/70-24 rear tires.

**Limited by engine speed to 40 km/h (25 mph).

Axle Ratings

Front Axle, AWD

Static	23 500 kg	51,808 lb
Dynamic	9000 kg	19,841 lb
Rear Axle		
Static	26 500 kg	58,422 lb
Dynamic	10 000 kg	22,046 lb

Hydraulic System

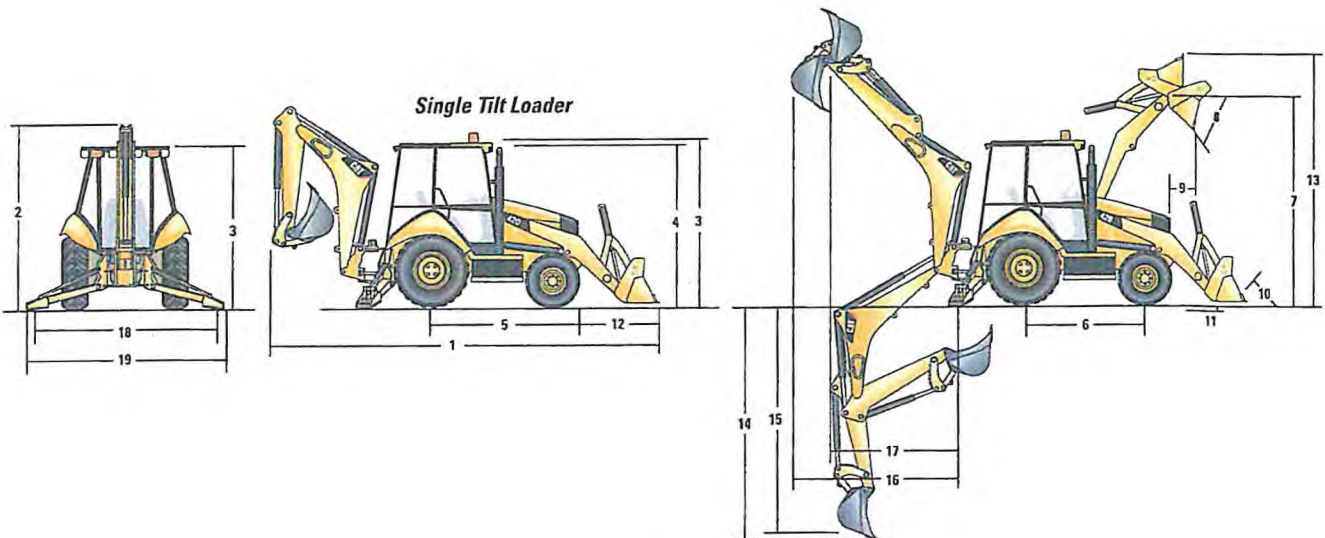
Type	Closed Center	
Pump Type	Variable-flow, Axial Piston	
Pump Capacity @ 2,200 rpm	187 L/min	49.4 gal/min
System Pressure		
Backhoe	25 000 kPa	3,626 psi
Loader	25 000 kPa	3,626 psi

Steering

Type	Front Wheel Steering	
Power Steering	Hydrostatic	
One Double-Acting Cylinder		
Bore	65 mm	2.6 in
Stroke	106 mm	4.2 in
Rod Diameter	40 mm	1.6 in
Axle Oscillation	11°	
Turning Circle – (inner wheel not braked)		
Outside front wheels	8.205 m	26'11"
Outside widest loader bucket	10.745 m	35'3"

Service Refill Capacities

Cooling System with Air Conditioning	18.0 L	4.8 gal
Fuel Tank	160.0 L	42.3 gal
Engine Oil with Filter	9.0 L	2.4 gal
Diesel Exhaust Fluid (DEF)	19.0 L	5.0 gal
Transmission – Power shuttle		
AWD	18.0 L	4.8 gal
Transmission – Power Shift		
AWD	19.0 L	5.0 gal
Rear Axle	16.0 L	4.2 gal
Planetaries	1.7 L	0.4 gal
Front Axle (AWD)	11.0 L	2.9 gal
Planetaries	0.7 L	0.2 gal
Hydraulic System	95.0 L	25.1 gal
Hydraulic Tank	42.0 L	11.1 gal



420 XE Backhoe Loader

Dimensions

Machine configuration: standard stick hoe, OROPS canopy, AWD power shift transmission, 0.96 m³ (1.25 yd³) GP loader bucket, 610 mm (24 in) standard duty hoe bucket, 340/80-18 and rear 500/70-24 tires, 240 kg (530 lb) counterweight, 80 kg (176 lb) operator, full fuel tank.

Loader Bucket Dimensions and Performance

	Single Tilt Loader with Pin-On Buckets											
	0.96 m ³ (1.25 yd ³) GP		1.0 m ³ (1.31 yd ³) GP		1.07 m ³ (1.40 yd ³) GP		1.15 m ³ (1.50 yd ³) GP		1.0 m ³ (1.31 yd ³) MP		1.07 m ³ (1.40 yd ³) MP	
Capacity (SAE rated) – m ³ (yd ³)	0.96	(1.26)	1.00	(1.31)	1.07	(1.40)	1.15	(1.50)	1.00	(1.31)	1.07	(1.40)
Overall Bucket Width – mm (in)	2262	(89)	2406	(95)	2262	(89)	2406	(95)	2279	(90)	2425	(95)
Lift Capacity at Maximum Height – kg (lb)	3280	(7,230)	3286	(7,245)	3213	(7,084)	3192	(7,038)	3059	(6,745)	3047	(6,717)
Lift Breakout Force – N (lbf)	50 179	(11,280)	50 941	(11,452)	49 644	(11,160)	49 467	(11,120)	49 114	(11,041)	49 017	(11,019)
Tilt Breakout Force – N (lbf)	49 891	(11,216)	53 037	(11,923)	50 945	(11,452)	50 834	(11,428)	56 242	(12,643)	56 166	(12,626)
Tipping Load at Breakout Point – kg (lb)	6663	(14,689)	6821	(15,038)	6562	(14,467)	6545	(14,430)	6699	(14,769)	6690	(14,748)
7 Maximum Hinge Pin Height – mm (ft/in)	3488	(11'5")	3488	(11'5")	3488	(11'5")	3488	(11'5")	3488	(11'5")	3488	(11'5")
8 Dump Angle at Full Height – degrees	44°		44°		44°		44°		44°		44°	
Dump Height at Maximum Angle – mm (ft/in)	2758	(9'1")	2790	(9'2")	2736	(9'0")	2736	(9'0")	2803	(9'2")	2803	(9'2")
9 Dump Reach at Maximum Angle – mm (ft/in)	807	(2'8")	774	(2'6")	773	(2'6")	773	(2'6")	722	(2'4")	722	(2'4")
10 Maximum Bucket Rollback at Ground Level – degrees	36°		36°		37°		37°		37°		37°	
11 Digging Depth – mm (ft/in)	70	(0'3")	70	(0'3")	110	(0'4")	110	(0'4")	97	(0'4")	97	(0'4")
Maximum Grading Angle – degrees	113°		114°		114°		114°		116°		116°	
Width of Dozer Cutting Edge – mm (ft/in)	N/A		N/A		N/A		N/A		2262 (7'5")		2406 (7'11")	
12 Grill to Bucket Cutting Edge, Carry Position – mm (ft/in)	1480	(4'10")	1447	(4'9")	1518	(5'0")	1517	(5'0")	1447	(4'9")	1447	(4'9")
13 Maximum Operating Height – mm (ft/in)	4356	(14'3")	4354	(14'3")	4366	(14'4")	4397	(14'5")	4378	(14'4")	4407	(14'6")
Jaw Opening Maximum – mm (ft/in)	N/A		N/A		N/A		N/A		843 (2'9")		843 (2'9")	
Bucket Jaw Clamping Force – N (lbf)	N/A		N/A		N/A		N/A		40 160 (9,028)		40 261 (9,051)	
Weight (does not include teeth or forks) – kg (lb)	451	(994)	462	(1,019)	473	(1,043)	493	(1,087)	745	(1,642)	774	(1,706)

	Single Tilt Loader with Quick Coupler									
	0.96 m ³ (1.25 yd ³) GP		1.0 m ³ (1.31 yd ³) GP		1.15 m ³ (1.50 yd ³) GP		1.0 m ³ (1.31 yd ³) MP		1.07 m ³ (1.40 yd ³) MP	
Capacity (SAE rated) – m ³ (yd ³)	0.96	(1.26)	1.00	(1.31)	1.15	(1.50)	1.00	(1.31)	1.07	(1.40)
Overall Bucket Width – mm (in)	2262	(89)	2406	(95)	2406	(95)	2279	(90)	2425	(95)
Lift Capacity at Maximum Height – kg (lb)	3361	(7410)	3364	(7416)	3328	(7336)	3245	(7153)	3207	(7069)
Lift Breakout Force – N (lbf)	51 954	(11,679)	52 665	(11,839)	51 662	(11,614)	51 690	(11,620)	51 431	(11,562)
Tilt Breakout Force – N (lbf)	51 516	(11,581)	54 168	(12,177)	51 227	(11,516)	55 471	(12,470)	55 300	(12,431)
Tipping Load at Breakout Point – kg (lb)	5883	(12,971)	6007	(13,243)	5858	(12,915)	5982	(13,187)	5957	(13,132)
7 Maximum Hinge Pin Height – mm (ft/in)	3488	(11'5")	3488	(11'5")	3488	(11'5")	3488	(11'5")	3488	(11'5")
8 Dump Angle at Full Height – degrees	44°		44°		44°		44°		44°	
Dump Height at Maximum Angle – mm (ft/in)	2623	(8'7")	2654	(8'9")	2625	(8'7")	2690	(8'10")	2690	(8'10")
9 Dump Reach at Maximum Angle – mm (ft/in)	887	(2'11")	855	(2'10")	886	(2'11")	832	(2'9")	832	(2'9")
10 Maximum Bucket Rollback at Ground Level – degrees	37°		37°		37°		37°		37°	
11 Digging Depth – mm (ft/in)	111	(0'4")	111	(0'4")	110	(0'4")	101	(0'4")	101	(0'4")
Maximum Grading Angle – degrees	109°		110°		109°		111°		111°	
Width of Dozer Cutting Edge – mm (ft/in)	N/A		N/A		N/A		2262 (7'5")		2406 (7'11")	
12 Grill to Bucket Cutting Edge, Carry Position – mm (ft/in)	1607	(5'3")	1573	(5'2")	1605	(5'3")	1535	(5'0")	1535	(5'0")
13 Maximum Operating Height – mm (ft/in)	4439	(14'7")	4406	(14'5")	4484	(14'9")	4476	(14'8")	4531	(14'10")
Jaw Opening Maximum – mm (ft/in)	N/A		N/A		N/A		843 (2'9")		843 (2'9")	
Bucket Jaw Clamping Force – N (lbf)	N/A		N/A		N/A		40 185 (9,034)		40 286 (9,056)	
Weight (does not include teeth or forks) – kg (lb)	447	(985)	457	(1,008)	481	(1,060)	724	(1,596)	753	(1,660)

420 XE Backhoe Loader

Dimensions

Machine configuration: standard stick hoe, OROPS canopy, AWD power shift transmission, 0.96 m³ (1.25 yd³) GP loader bucket, 610 mm (24 in) standard duty hoe bucket, 340/80-18 and rear 500/70-24 tires, 240 kg (530 lb) counterweight, 80 kg (176 lb) operator, full fuel tank.

Backhoe Dimensions and Performance

	Standard Stick		E-Stick Retracted		E-Stick Extended	
14 Digging Depth, SAE (max.) – mm (ft/in)	4278	(14'0")	4319	(14'2")	5372	(17'7")
15 Digging Depth, 2440 mm (8 ft) Flat Bottom – mm (ft/in)	3900	(12'10")	3944	(12'11")	5074	(16'8")
Digging Depth, 610 mm (2 ft) Flat Bottom – mm (ft/in)	4240	(13'11")	4280	(14'1")	5335	(17'6")
Reach from Rear Axle Centerline at Ground Line – mm (ft/in)	6690	(21'11")	6726	(22'1")	7731	(25'4")
16 Reach from Swing Pivot at Ground Line – mm (ft/in)	5600	(18'4")	5636	(18'6")	6641	(21'9")
Maximum Operating Height – mm (ft/in)	5598	(18'4")	5622	(18'5")	6364	(20'11")
Loading Height – mm (ft/in)	3709	(12'2")	3666	(12'0")	4237	(13'11")
17 Loading Reach – mm (ft/in)	1845	(6'1")	1932	(6'4")	2850	(9'4")
Swing Arc	180°		180°		180°	
Bucket Rotation	205°		204°		204°	
18 Stabilizer Spread, Operating Position (center) – mm (ft/in)	3310	(10'10")	3310	(10'10")	3310	(10'10")
Stabilizer Spread, Operating Position (outside) – mm (ft/in)	3770	(12'4")	3770	(12'4")	3770	(12'4")
Stabilizer Spread, Transport Position – mm (ft/in)	2322	(7'7")	2322	(7'7")	2322	(7'7")
Bucket Dig Force – N (lbf)	64 193	(14,431)	63 292	(14,229)	63 292	(14,229)
Stick Dig Force – N (lbf)	43 529	(9,786)	43 395	(9,756)	31 684	(7,123)

Dimensions with Forks/Material Handling Arm

Fork Tine Length	1070 mm (3'6")		1220 mm (4'0")		1370 mm (4'10")	
Operating Load (SAE J1197) – kg (lb)	2295	(5,060)	2221	(4,897)	2135	(4,708)
SAE Load Center – mm (in)	535	(1'9")	610	(2'0")	685	(2'3")
Operating Load (CEN 474-4) – kg (lb)	2352	(5,186)	2337	(5,151)	2320	(5,115)
CEN Load Center – mm (ft/in)	500	(1'8")	500	(1'8")	500	(1'8")
Overall Length (A) (forks on ground) – mm (ft/in)	7648	(25'1")	7798	(25'7")	7948	(26'1")
Reach at Ground (from grill to heel of fork) – mm (ft/in)	939	(3'1")	939	(3'1")	938	(3'1")
Maximum Reach (from grill to heel of fork) – mm (ft/in)	1524	(5'0")	1524	(5'0")	1524	(5'0")
Fork Height at Maximum Reach – mm (ft/in)	1619	(5'4")	1619	(5'4")	1619	(5'4")
Reach at Maximum Height (from grill to heel of fork) – mm (ft/in)	749	(2'5")	749	(2'5")	749	(2'5")
Maximum Fork Height – mm (ft/in)	3418	(11'3")	3418	(11'3")	3418	(11'3")
Maximum Fork Depth (below ground level) – mm (ft/in)	-38	(-1'11")	-38	(-1'10")	-39	(-1'10")

Material Handling Arm Position	Retracted		Mid-Position		Extended	
Operating Load (SAE J1197 and CEN 474-4) – kg (lb)*	1524	(3,360)	1030	(2,271)	758	(1,671)
Overall Length, Maximum – mm (ft/in)	8904	(29'3")	9904	(32'6")	10 902	(35'9")
Reach at Maximum Depth (from machine nose) – mm (ft/in)	544	(1'9")	550	(1'10")	557	(1'10")
Maximum Depth – mm (ft/in)	2618	(8'7")	3618	(11'10")	4616	(15'2")
Maximum Reach (from machine nose) – mm (ft/in)	3221	(10'7")	4221	(13'10")	5219	(17'1")
Height at Maximum Reach – mm (ft/in)	1118	(3'8")	1124	(3'8")	1130	(3'8")
Reach at Maximum Height (from machine nose) – mm (ft/in)	1783	(5'10")	2473	(8'1")	3161	(10'4")
Maximum Height – mm (ft/in)	4445	(14'7")	5169	(16'11")	5891	(19'4")

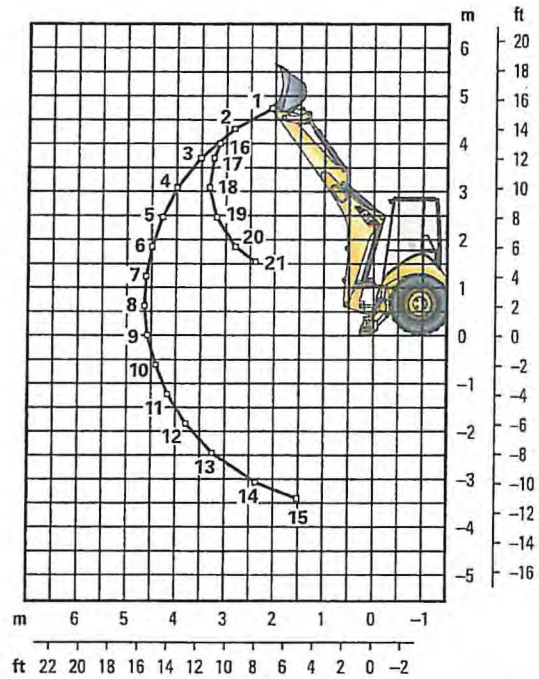
*These numbers are hydraulically limited.

420 XE Backhoe Loader

Backhoe Lift Capacity

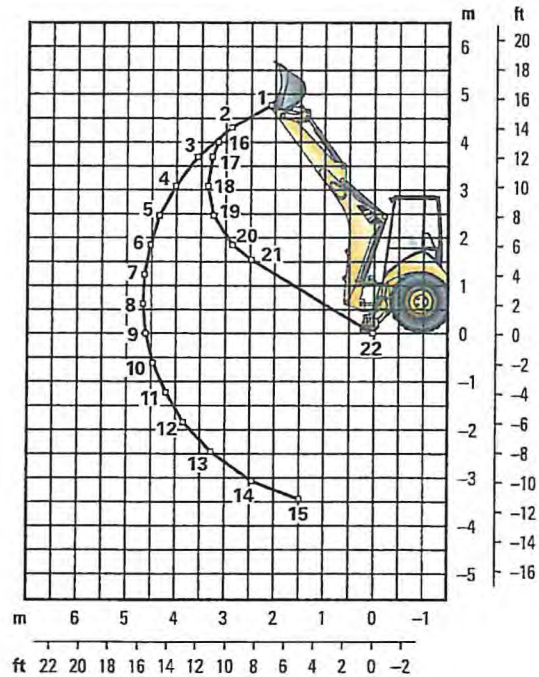
Cat 420 XE Standard Stick

Boom Lifting		kg	lb
	1	1842	4,060
	2	2009	4,429
	3	2008	4,427
	4	1951	4,301
	5	1880	4,145
	6	1808	3,986
	7	1739	3,833
	8	1673	3,689
	9	1613	3,556
	10	1558	3,435
	11	1509	3,327
	12	1468	3,237
	13	1441	3,176
	14	1455	3,208
	15	1590	3,506
Stick Lifting			
	16	2170	4,785
	17	2642	5,823
	18	2933	6,465
	19	3069	6,767
	20	3626	7,994
	21	4441	9,790



Cat 420 XE Extendible Stick – Retracted

Boom Lifting		kg	lb
	1	1658	3,656
	2	1814	3,999
	3	1806	3,982
	4	1748	3,853
	5	1677	3,696
	6	1604	3,536
	7	1534	3,382
	8	1468	3,236
	9	1407	3,101
	10	1350	2,976
	11	1299	2,864
	12	1255	2,766
	13	1221	2,692
	14	1219	2,687
	15	1333	2,938
Stick Lifting			
	16	2019	4,451
	17	2467	5,438
	18	2729	6,016
	19	2854	6,292
	20	3359	7,405
	21	4057	8,944
	22	0	0



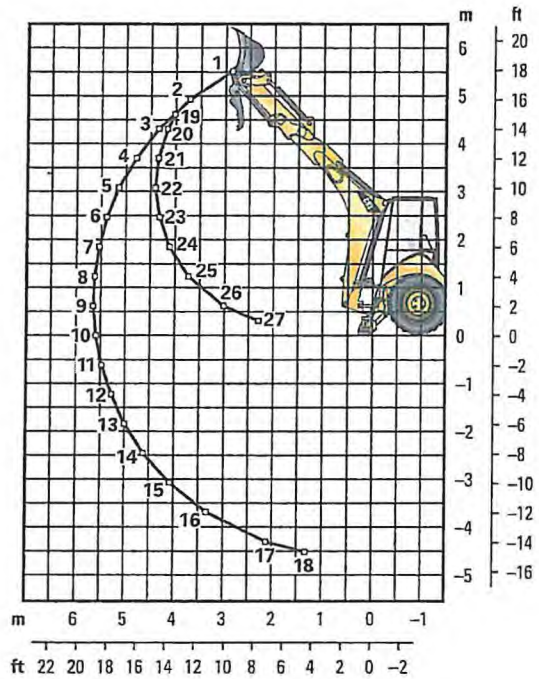
Lift capacities are over-end values calculated according to SAE J31. Values are 87% of the maximum lift force available. Machine equipped with AWD, OROPS, 0.96 m³ (1.25 yd³) general purpose bucket and and 240 kg (530 lb) counterweight. Extendible stick includes 460 kg (1,015 lb) counterweight.

420 XE Backhoe Loader

Backhoe Lift Capacity

Cat 420 XE Extendible Stick – Extended

Boom Lifting	kg	lb
1	984	2,169
2	1191	2,625
3	1216	2,681
4	1119	2,467
5	1065	2,347
6	1039	2,290
7	1036	2,283
8	1052	2,320
9	1090	2,403
10	1105	2,436
11	1079	2,379
12	1056	2,328
13	1037	2,287
14	1026	2,261
15	1027	2,263
16	1058	2,332
17	1243	2,740
18	1694	3,734
Stick Lifting		
19	928	2,046
20	1159	2,555
21	1485	3,273
22	1715	3,782
23	1912	4,216
24	2052	4,525
25	2343	5,165
26	3105	6,845
27	4455	9,821



Lift capacities are over-end values calculated according to SAE J31. Values are 87% of the maximum lift force available. Machine equipped with AWD, OROPS, 0.96 m³ (1.25 yd³) general purpose bucket and 240 kg (530 lb) counterweight. Extendible stick includes 460 kg (1,015 lb) counterweight.