

COMPACT WHEEL LOADERS

W50C ZB | W50C TC | W80C HS



Take on more jobs with more confidence.

New Holland C Series compact wheel loaders are the right tools for the tough jobs you do every day. While compact in size, these loaders deliver big power, high performance and outstanding stability, letting you handle everything from lifting heavy loads of pavers and scooping buckets of snow to rough scraping and precision grading.

MODEL	Net HP (kW)	STANDARD BUCKET CAPACITY cu yd (m ³)	Lift Linkage
W50C ZB	55 (41)	1.0 (0.76)	Z-Bar
W50C TC	55 (41)	1.0 (0.76)	Parallel
W80C HS	70 (52)	1.4 (1.07)	Z-Bar





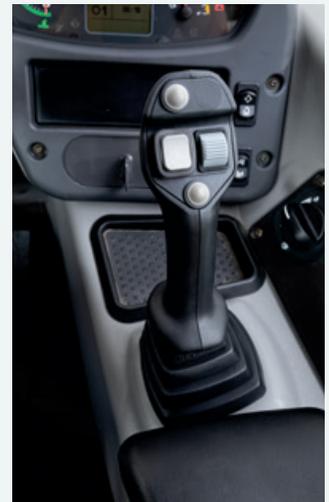
Featuring reduced machine length and width and lower overall height, New Holland compact wheel loaders give you exceptional maneuverability and a tighter turning radius—essential for small jobsites and constricted spaces—plus easier clearance into barns or storage buildings.

Achieve maximum productivity

With 55 to 70 net HP and up to nearly 14,000 lbs. of breakout force on hand, New Holland compact wheel loaders—models W50C ZB, W50C TC and W80C HS—help you work faster and more productively. Their Tier 4 engines are powerful enough for challenging jobs, yet maximize fuel efficiency and reduce emissions.

Comfort and control when you need it most

Whether you choose a compact wheel loader with a comfortable cab or an economical ROPS platform, you'll enjoy electro-hydraulic controls that increase bucket and boom control and provide easy vehicle-inching capability. The inch and brake pedal allows constant engine rpm power to be diverted to the loader's hydraulics without disconnecting the drive. The hydrostatic transmission provides precise speed control with minimum shifting, so you can focus on the task at hand.



Fast loading is just the beginning.

New Holland C Series compact wheel loaders do more than load. Dependable engine and hydraulic power and a wide range of buckets and attachments (see pg. 8) give you all the tools to efficiently scrape, grade, push, rake and haul, too. These machines are ready to work when you are.

Break out tough piles

New Holland Z-Bar linkage on models W50C ZB and W80C HS provides maximum breakout force and digging and lifting power. This rugged, simple design is ideal for high-production load-and-carry applications, like moving and setting drainage pipe or stacking landscape timbers.



It does the leveling for you

On the model W50C TC tool carrier, New Holland parallel linkage provides a precise, parallel lift path that eliminates manual correction, allowing your operator to focus on load placement instead of leveling. The result: faster job completion, especially when using a forklift.





Electro-Hydraulic convenience

Electro-hydraulic controls on cab and ROPS platform models provide more loader control, letting you:

- Increase control of the bucket and boom, whether separately or in combined movement.
- Take more control over bucket-shake performance.
- Adjust and fine-tune operation to the way you work and increase operator comfort in all jobs.
- Improve control of the machine during inching, making it easier to get into optimum position on the jobsite.
- Take advantage of electro-hydraulic lift/tilt for even more operation proficiency.
- Optimize vehicle-direction inversion (smoothness vs. quickness).

Efficient, maintenance-free Tier 4 engines

New Holland compact wheel loaders offer a maintenance-free Tier 4 final solution. No maintenance means no regeneration, no expensive replacement filters, no extreme exhaust temperatures and no after-treatment fluids.



Faster servicing, less downtime

A tilt-up hood, ground-level access to maintenance points and long service intervals reduce the time your operators spend on routine maintenance tasks. Radiator, filters, hydraulics, oil cooler, engine—they're all easily accessible.

Cab or ROPS, you'll work in greater comfort.

The cab on a C Series compact wheel loader packs more comfort and ease of operation into every inch. Its design incorporates spacious dimensions with natural, ergonomic controls to keep you working comfortably and productively all day long. Wide steps provide easy entry and exit. The seat, steering column and armrest are adjustable, and the standard LCD display puts information just where you want it. A high-performance heater/defroster is standard. Add optional air-conditioning for operator comfort on the hottest days.



More stability on the job

All New Holland compact wheel loaders are designed to deliver greater stability, letting you lift and move bigger loads, operate with more confidence, and travel more smoothly even in tough conditions. When moving material from stockpiles to trucks or around the jobsite, the Auto Ride control option provides a more comfortable ride on rough ground with less load spilling and wear and tear. It engages automatically when ground speed reaches 2.5 mph and automatically disengages at slower speeds for loading and unloading. Ideal for tasks such as plowing snow and cold planing, the high-flow option with creep speed provides maximum hydraulic flow at a constant speed up to 3.4 mph (5.5 km/h). For greater control and performance, optional creep speed allows the operator to set the engine's rpm independent of ground speed. Complete the package with a front electrical socket and case drain. The return-to-dig option quickly returns the bucket to the dig position after dumping, so you're always ready for the next operation.



An economical ROPS version with a canopy is also available, and provides all the room and comfort features that make the cab model a standout performer.

More tools to handle more jobs.

C Series compact wheel loaders are compatible with a full line of buckets, attachments and accessories available from New Holland and numerous third-party manufacturers. Whether you need a broom for landscaping, a dozer blade to move snow, or a bucket for concrete work, your New Holland dealer can help you source the right tool. [See our full line at newholland.com](http://newholland.com)



Silage Defacer



Log Grapple



Snow Blade



Rock Bucket



Snow Bucket



Bale Handler



Bale Spear



Pallet Forks



Dozer Blade



Manure Fork with Grapple



Side Discharge Bucket



Farm Grapple



Brush Grapple



Concrete Claw



Auger

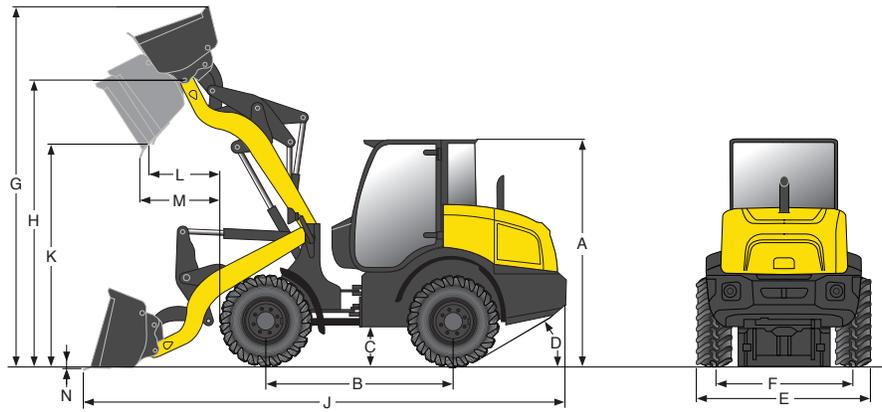


Tree Spade



INTEGRATED HYDRAULIC QUICK-COUPLER

Avoid the elements and downtime by quickly switching attachments from the comfort of the cab, thanks to an integrated hydraulic quick-coupler.



W50C ZB

W50C TC

W80C HS

DIMENSIONS

			W50C ZB	W50C TC	W80C HS
A.	Cab height	in (mm)	97" [2458]	97" [2458]	106" [2680]
B.	Wheelbase	in (mm)	82" [2075]	82" [2075]	88" [2225]
C.	Ground clearance under shaft	in (mm)	17" [444]	17" [444]	19" [493]
C.	Ground clearance under axles	in (mm)	13" [321]	13" [321]	15" [370]
D.	Angle of departure	in (mm)	28°	28°	32°
E.	Overall width without bucket	in (mm)	69" [1740]	69" [1740]	73" [1860]
F.	Tread width	in (mm)	55" [1400]	55" [1400]	59" [1500]
G.	Operating height - fully raised with spillguard	in (mm)	154" [1400]	154" [1400]	169" [4322]
H.	Hinge pin height - fully raised	in (mm)	122" [3136]	121" [3113]	132" [3395]
J.	Overall length - bucket level on ground	in (mm)	206" [5283]	204" [5219]	222" [5684]
K.	Dump height - fully raised, 45° dump	in (mm)	97" [2490]	93" [2396]	105" [2687]
L.	Bucket reach - fully raised, 45° dump	in (mm)	30" [766]	26" [668]	33" [845]
M.	Bucket reach - 7 ft 0 (2.13m), 45° dump	in (mm)	43" [1102]	37" [948]	52" [1323]
N.	Dig Depth	in (mm)	3" [73]	5" [126]	3" [84]
	Turning radius: outside	in (mm)	146" [3721]	146" [3721]	157" [3987]
	Turning angle:				
	From center	degrees	40	40	40
	Total angle	degrees	80	80	80
	Rear axle oscillation, total	degrees	18	18	20

W50C ZB

W50C TC

W80C HS

ELECTRICAL

			W50C ZB	W50C TC	W80C HS
Voltage	volts		12	12	12
Alternator	amps		120	120	120
Batteries			95 AHR, 900 CCA	95 AHR, 900 CCA	95 AHR, 900 CCA

W50C ZB

W50C TC

W80C HS

HYDRAULICS

			W50C ZB	W50C TC	W80C HS
Pump (steering/implement)			Open-centered pressure/flow compensated. Fixed gear pump		
Loader control valve			Open-center, Hydraulic Loader Control with single lever includes: Forward/Neutral/Reverse switch, Floating switch, Low/High Travel mode switch, Auxiliary Function Roller		
Loader auxiliary steering			Hydraulic orbital center-pivot articulating w/on-demand oil flow		
Filtration			15-micron, full flow replaceable cartridges on return line		
Flow at 2500 rpm	gpm (lpm)		18 (67)	18 (67)	22 (85)
Main relief pressure	psi (bar)		3335 (230)	3335 (230)	3335 (230)

W50C ZB

W50C TC

W80C HS

HIGH FLOW

			W50C ZB	W50C TC	W80C HS
Pump			Additional HF pump	Additional HF pump	Additional HF pump
Flow at 2500 rpm	gpm (lpm)		NA	NA	34 (130)
Pressure	psi (bar)		NA	NA	2900 (200)

W50C ZB

W50C TC

W80C HS

CYLINDERS

			W50C ZB	W50C TC	W80C HS
Lift cylinder(s)			two	one	two
Bore diameter	in (mm)		3 (70)	4 (102)	3 (84)
Rod diameter	in (mm)		2 (51)	2 (51)	2 (51)
Stroke	in (mm)		29 (728)	24 (600)	30 (751)
Dump cylinder					
Bore diameter	in (mm)		3 (83)	3 (83)	3 (89)
Rod diameter	in (mm)		2 (44)	2 (51)	2 (57)
Stroke	in (mm)		19 (492)	15 (391)	20 (507)

		W50C ZB	W50C TC	W80C HS
ENGINE				
Model		F5HFL463B*F001	F5HFL463B*F001	F5HFL463A*F004
Type		4-stroke	4-stroke	4-stroke
Cylinders		4 cylinders	4 cylinders	4 cylinders
Fuel injection		High pressure common rail injection		
Fuel		Diesel	Diesel	Diesel
Fuel Filter		Replaceable, full flow	Replaceable, full flow	Replaceable, full flow
Air filter		Dry type element w/ warning restriction indicator		
Radiator Core type		Staggered	Staggered	Staggered
Fan		Direct drive	Direct drive	Direct drive
Lubrication/cooling oil pump		Integral	Integral	Integral
Engine oil		SAE 10W40 CJ-4 Diesel SAE 0W40 CJ-4 Diesel		
Pump		Deep sump plate cooler with pressurized under-piston nozzles		
Bore	in. (mm)	3.898 (99)	3.898 (99)	3.898 (99)
Stroke	in. (mm)	4.33 (110)	4.33 (110)	4.33 (110)
Displacement	liters	3.4	3.4	3.4
Pump operating angles				
Side-to-side	degrees	Rated 35	Rated 35	Rated 35
Fore and aft	degrees	Rated 35	Rated 35	Rated 35
Oil filtration		Replaceable, full flow	Replaceable, full flow	Replaceable, full flow
Engine speed				
Rated speed, full load	rpm	2500	2500	2500
Low idle, rpm		950	950	950
High idle, no load	rpm	2500	2500	2500
Horsepower @ 2500 rpm				
Gross	hp (kW)	58 (43)	58 (43)	74 (55)
Net	hp (kW)	55 (41)	55 (41)	70 (52)
Peak torque @ 1400 rpm				
Gross	lb. ft. (N-m)	181 (245)	181 (245)	233 (316)
Net	lb. ft. (N-m)	185 (251)	185 (251)	227 (308)

		W50C ZB	W50C TC	W80C HS
DRIVETRAIN				
Transmission		Hydrostatic transmission	Hydrostatic transmission	Hydrostatic transmission
Planetaries		Outboard	Outboard	Outboard
Pump relief	psi (kPa)	6 (42)	6 (42)	6 (42)
Pump flow @ 2500 rpm	gpm (L/min)	26 (100)	26 (100)	37 (140)
Differential		Open or LSD	Open or LSD	Open Diff or LSD or 100% Diff Lock
Front axle				
Differential ratio		3.67	3.67	3.67
Planetary ratio		6	6	6
Final axle ratio		22	22	22
Gear box				
1st ratio		1.85	1.85	2.75
2nd ratio		NA	NA	1.163
Service brakes		Single pedal. Not assisted, Hydraulic Brake pump with control of the "Inching" function. Auto refill system with auxiliary fluid tank. Caliper on front axle		
Parking brake		Mechanical control lever, Single dry disk on input of the front axle, Mechanical Caliper with no auto wear adjustment		

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TRAVEL SPEEDS				
Turtle				
Forward	mph (km/h)	3 (5)	3 (5)	3 (5)
Reverse	mph (km/h)	3 (5)	3 (5)	3 (5)
Rabbit				
Forward	mph (km/h)	12 (20)	12 (20)	9 (14)
Reverse	mph (km/h)	12 (20)	12 (20)	9 (14)
High speed - Turtle				
Forward	mph (km/h)	NA	NA	3 (5)
Reverse	mph (km/h)	NA	NA	3 (5)
High speed - Rabbit				
Forward	mph (km/h)	NA	NA	21 (33)
Reverse	mph (km/h)	NA	NA	21 (33)

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SERVICE CAPACITIES				
Fuel tank	gal. (l)	23 (87)	23 (87)	23 (87)
Hydraulic system				
Total	gal. (l)	15 (57)	15 (57)	15 (57)
Reservoir	gal. (l)	11 (40)	11 (40)	11 (40)
Front Axle	gal. (l)	2 (9)	2 (9)	2 (9)
Rear Axle	gal. (l)	3 (12)	3 (12)	3 (12)
Engine oil w/ filter	gal. (l)	2 (7)	2 (7)	2 (7)
Cooling	gal. (l)	3 (13)	3 (13)	3 (13)

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OPERATING WEIGHTS				
Reference configuration		Unit Equipped with ROPS/FOPS cab with heater, standard counterweight, front and rear fenders, full fuel, 165 (75 kg) operator		
Reference tires		12.5-18 PRMPT Dunlop Tires	12.5-18 PRMPT Dunlop Tires	365/80 R20 Dunlop Tires
Reference bucket		0.9 yd ³ (0.7 m ³) general purpose bucket w/ Bolt-on-Edge		1.4 yd ³ (1.0 m ³) general purpose bucket w/ Bolt-on-Edge
Operating weights	lb. (kg)	11,111 (5040)	10,913 (4950)	13,184 (5980)
With optional counterweight	lb. (kg)	NA	NA	13,514 (6130)

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FORKS				
Fork weight with V type Coupler	lb. (kg)	772 (350)	745 (338)	761 (345)
Forks length	in. (mm)	47 (1200)	47 (1200)	47 (1200)
Fork load center	in. (mm)	20 (500)	20 (500)	20 (500)
Max height below forks	in. (mm)	114 (2903)	116 (2959)	128 (3239)
Ground-Fork Clearance @ max Reach	in. (mm)	50 (1266)	53 (1344)	55 (1398)
Payload (80% of FTTL - EN 474-3)	lb. (kg)	4004 (1816)	4524 (2052)	5011 (2273)
Tipping load - straight	lb. (kg)	6019 (2730)	6539 (2966)	7372 (3344)
Tipping load - 40° turn	lb. (kg)	5004 (2270)	5655 (2565)	6266 (2842)
Payload (80% of FTTL - EN 474-3) w/ add cwt	lb. (kg)	NA	NA	5344 (2424)
Tipping load with add cwt- straight	lb. (kg)	NA	NA	7950 (3606)
Tipping load with add cwt - 40° turn	lb. (kg)	NA	NA	6680 (3030)

		W50C ZB	W50C TC	W80C HS
STD BUCKET				
Dump angle - fully raised	degrees	45	45	45
Max. rollback: Ground	degrees	39	37	40
Max. rollback: Carry Position	degrees	47	44	45
Max. rollback: @ Maximum reach	degrees	69	53	55
Max. rollback: @ Full height	degrees	73	55	55
Maximum back dragging angle	degrees	42	72	61
ISO bucket capacity - Struck	yd ³ (m ³)	0.7 (0.5)	0.7 (0.5)	1.2 (0.8)
Heaped	yd ³ (m ³)	1.0 (0.7)	1.0 (0.7)	1.4 (1.0)
Bucket width - outside	in. (mm)	74 (1900)	74 (1900)	82 (2100)
Bucket weight (incl. Coupler and components)	lb. (kg)	805 (365)	844 (383)	926 (420)
Operating load - ISO	lb. (kg)	3538 (1605)	3598 (1632)	3962 (1797)
Maximum material density - ISO	lb/yd ³ (kg/m ³)	3865 (2293)	3930 (2331)	3029 (1797)
Tipping load - ISO: Straight	lb. (kg)	8534 (3871)	8322 (3775)	9517 (4317)
Tipping load - ISO: 40° turn	lb. (kg)	7077 (3210)	7194 (3263)	7921 (3593)
Tipping load - ISO: Straight with add cwt		NA	NA	10,031 (4550)
Tipping load - ISO: 40° turn with add cwt		NA	NA	8510 (3860)
Operating load with add cwt - ISO		NA	NA	4006 (1817)
Maximum material density with add cwt - ISO		NA	NA	3147 (1867)
Lift Capacity: Full height	lb. (kg)	7227 (3278)	5542 (2514)	8424 (3821)
Lift Capacity: Maximum reach	lb. (kg)	9200 (4173)	6140 (2785)	10,644 (4828)
Lift Capacity: Ground	lb. (kg)	11,669 (5293)	6614 (3000)	13,746 (6235)
Breakout force with tilt cylinder	lbf. (kgF)	13,356 (6058)	9048 (4104)	13,927 (6317)
Loader clearance circle	in. (mm)	335 (8596)	331 (8498)	362 (9294)

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Safety begins with a thorough understanding of the equipment. Always make sure you and your operators read the Operator's Manual before using the equipment. Pay close attention to all safety and operating decals and never operate machinery without all shields, protective devices and structures in place. This is a one-person machine. Never allow riders in the cab, outside the machine, or in/on any bucket or attachment.

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