



W50C ZB

W50C TC

W80C HS

**DIMENSIONS**

		W50C ZB	W50C TC	W80C HS	
<b>A.</b>	Cab height	in (mm)	97" (2458)	97" (2458)	106" (2680)
<b>B.</b>	Wheelbase	in (mm)	82" (2075)	82" (2075)	88" (2225)
<b>C.</b>	Ground clearance under shaft	in (mm)	17" (444)	17" (444)	19" (493)
<b>C.</b>	Ground clearance under axles	in (mm)	13" (321)	13" (321)	15" (370)
<b>D.</b>	Angle of departure	in (mm)	28°	28°	32°
<b>E.</b>	Overall width without bucket	in (mm)	69" (1740)	69" (1740)	73" (1860)
<b>F.</b>	Tread width	in (mm)	55" (1400)	55" (1400)	59" (1500)
<b>G.</b>	Operating height - fully raised with spillguard	in (mm)	154" (1400)	154" (1400)	169" (4322)
<b>H.</b>	Hinge pin height - fully raised	in (mm)	122" (3136)	121" (3113)	132" (3395)
<b>J.</b>	Overall length - bucket level on ground	in (mm)	206" (5283)	204" (5219)	222" (5684)
<b>K.</b>	Dump height - fully raised, 45° dump	in (mm)	97" (2490)	93" (2396)	105" (2687)
<b>L.</b>	Bucket reach - fully raised, 45° dump	in (mm)	30" (766)	26" (668)	33" (845)
<b>M.</b>	Bucket reach - 7 ft 0 (2.13m), 45° dump	in (mm)	43" (1102)	37" (948)	52" (1323)
<b>N.</b>	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

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**ELECTRICAL**

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Voltage	volts	12	12	12
Alternator	amps	120	120	120
Batteries		95 AHR, 900 CCA	95 AHR, 900 CCA	95 AHR, 900 CCA

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**HYDRAULICS**

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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)

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**HIGH FLOW**

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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)

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**CYLINDERS**

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<b>Lift cylinder(s)</b>		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)
<b>Dump cylinder</b>				
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)

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<b>ENGINE</b>			
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)
Stroke	in. (mm)	4.33 (110)	4.33 (110)
Displacement	liters	3.4	3.4
<b>Pump operating angles</b>			
Side-to-side	degrees	Rated 35	Rated 35
Fore and aft	degrees	Rated 35	Rated 35
Oil filtration		Replaceable, full flow	Replaceable, full flow
<b>Engine speed</b>			
Rated speed, full load	rpm	2500	2500
Low idle, rpm		950	950
High idle, no load	rpm	2500	2500
<b>Horsepower @ 2500 rpm</b>			
Gross	hp (kW)	58 (43)	74 (55)
Net	hp (kW)	55 (41)	70 (52)
<b>Peak torque @ 1400 rpm</b>			
Gross	lb. ft. (N-m)	181 (245)	233 (316)
Net	lb. ft. (N-m)	185 (251)	227 (308)

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<b>DRIVETRAIN</b>			
Transmission	Hydrostatic transmission	Hydrostatic transmission	Hydrostatic transmission
Planetaries	Outboard	Outboard	Outboard
Pump relief	psi (kPa)	6 (42)	6 (42)
Pump flow @ 2500 rpm	gpm (L/min)	26 (100)	37 (140)
Differential	Open or LSD	Open or LSD	Open Diff or LSD or 100% Diff Lock
<b>Front axle</b>			
Differential ratio	3.67	3.67	3.67
Planetary ratio	6	6	6
Final axle ratio	22	22	22
<b>Gear box</b>			
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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<b>TRAVEL SPEEDS</b>			
<b>Turtle</b>			
Forward	mph (km/h)	3 (5)	3 (5)
Reverse	mph (km/h)	3 (5)	3 (5)
<b>Rabbit</b>			
Forward	mph (km/h)	12 (20)	9 (14)
Reverse	mph (km/h)	12 (20)	9 (14)
<b>High speed - Turtle</b>			
Forward	mph (km/h)	NA	3 (5)
Reverse	mph (km/h)	NA	3 (5)
<b>High speed - Rabbit</b>			
Forward	mph (km/h)	NA	21 (33)
Reverse	mph (km/h)	NA	21 (33)

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<b>SERVICE CAPACITIES</b>				
Fuel tank	gal. (l)	23 (87)	23 (87)	23 (87)
<b>Hydraulic system</b>				
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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<b>OPERATING WEIGHTS</b>				
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 <sup>3</sup> (0.7 m <sup>3</sup> ) general purpose bucket w/ Bolt-on-Edge		1.4 yd <sup>3</sup> (1.0 m <sup>3</sup> ) 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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<b>FORKS</b>				
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)

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<b>STD BUCKET</b>				
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 <sup>3</sup> (m <sup>3</sup> )	0.7 (0.5)	0.7 (0.5)	1.2 (0.8)
Heaped	yd <sup>3</sup> (m <sup>3</sup> )	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 <sup>3</sup> (kg/m <sup>3</sup> )	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)