



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

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

HYDRAULICS	W50C ZB	W50C TC	W80C	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)	22 (85)
Main relief pressure, psi (bar)	3335 (230)	3335 (230)	3335 (230)	3335 (230)

HIGH FLOW	W50C ZB	W50C TC	W80C	W80C HS
Pump	Additional HF pump	Additional HF pump	Additional HF pump	Additional HF pump
Flow at 2500 rpm, gpm (lpm)	N/A	N/A	34 (130)	34 (130)
Pressure, psi (bar)	N/A	N/A	2900 (200)	2900 (200)

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

ENGINE	W50C ZB	W50C TC	W80C	W80C HS
Model	F5HFL463B*F001	F5HFL463B*F001	F5HFL463A*F004	F5HFL463A*F004
Type	4-stroke	4-stroke	4-stroke	4-stroke
Cylinders	4 cylinders	4 cylinders	4 cylinders	4 cylinders
Fuel injection	High pressure common rail injection			
Fuel	Diesel	Diesel	Diesel	Diesel
Fuel Filter	Replaceable, full flow	Replaceable, full flow	Replaceable, full flow	Replaceable, full flow
Air filter	Dry type element w/ warning restriction indicator			
Radiator Core type	Staggered	Staggered	Staggered	Staggered
Fan	Direct drive	Direct drive	Direct drive	Direct drive
Lubrication/cooling oil pump	integral	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)	3.898 (99)
Stroke, in. (mm)	4.33 (110)	4.33 (110)	4.33 (110)	4.33 (110)
Displacement, liters	3	3	3	3
Pump operating angles				
Side-to-side	Rated 35°	Rated 35°	Rated 35°	Rated 35°
Fore and aft	Rated 35°	Rated 35°	Rated 35°	Rated 35°
Oil filtration	Replaceable, full flow	Replaceable, full flow	Replaceable, full flow	Replaceable, full flow
Engine speed				
Rated speed, full load, rpm	2500	2500	2500	2500
Low idle, rpm	950	950	950	950
High idle, no load, rpm	2500	2500	2500	2500
Horsepower - @ 2500 rpm				
Gross, hp (kW)	58 (43)	58 (43)	74 (55)	74 (55)
Net, hp (kW)	55 (41)	55 (41)	70 (52)	70 (52)
Peak torque @ 1400 rpm				
Gross, lb ft (N·m)	181 (245)	181 (245)	233 (316)	233 (316)
Net, lb ft (N·m)	185 (251)	185 (251)	227 (308)	227 (308)

DRIVETRAIN	W50C ZB	W50C TC	W80C	W80C HS
Transmission	Hydrostatic transmission			
Planetaries	Outboard	Outboard	Outboard	Outboard
Pump relief, psi (kPa)	6 (42)	6 (42)	6 (42)	6 (42)
Pump flow @ 2500 rpm, gpm (L/min)	26 (100)	26 (100)	37 (140)	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	3.67
Planetary ratio	6	6	6	6
Final axle ratio	22	22	22	22
Gear box				
1st ratio	1.85	1.85	2.75	2.75
2nd ratio	N/A	N/A	1.163	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			

TRAVEL SPEEDS, mph (km/h)	W50C ZB	W50C TC	W80C	W80C HS
Turtle				
Forward	3 (5)	3 (5)	3 (5)	3 (5)
Reverse	3 (5)	3 (5)	3 (5)	3 (5)
Rabbit				
Forward	12 (20)	12 (20)	9 (14)	9 (14)
Reverse	12 (20)	12 (20)	9 (14)	9 (14)
High speed - Turtle				
Forward	N/A	N/A	N/A	3 (5)
Reverse	N/A	N/A	N/A	3 (5)
High speed - Rabbit				
Forward	N/A	N/A	N/A	21 (33)
Reverse	N/A	N/A	N/A	21 (33)

SERVICE CAPACITIES	W50C ZB	W50C TC	W80C	W80C HS
Fuel tank, gal (l)	23 (87)	23 (87)	23 (87)	23 (87)
Hydraulic system				
Total, gal (l)	15 (57)	15 (57)	15 (57)	15 (57)
Reservoir, gal (l)	11 (40)	11 (40)	11 (40)	11 (40)
Front Axle, gal (l)	2 (9)	2 (9)	2 (9)	2 (9)
Rear Axle, gal (l)	3 (12)	3 (12)	3 (12)	3 (12)
Engine oil w/ filter, gal (l)	2 (7)	2 (7)	2 (7)	2 (7)
Cooling, gal (l)	3 (13)	3 (13)	3 (13)	3 (13)

OPERATING WEIGHTS	W50C ZB	W50C TC	W80C	W80C HS
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		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)	13,184 (5980)
With optional counterweight, lb (kg)	N/A	N/A	13,514 (6130)	13,514 (6130)

FORKS	W50C ZB	W50C TC	W80C	W80C HS
Fork weight with V type Coupler, lb (kg)	772 (350)	745 (338)	761 (345)	761 (345)
Forks length, in (mm)	47 (1200)	47 (1200)	47 (1200)	47 (1200)
Fork load center, in (mm)	20 (500)	20 (500)	20 (500)	20 (500)
Max height below forks, in (mm)	114 (2903)	116 (2959)	128 (3239)	128 (3239)
Ground-Fork Clearance @ max Reach, in (mm)	50 (1266)	53 (1344)	55 (1398)	55 (1398)
Payload (80% of FTTL - EN 474-3), lb (kg)	4004 (1816)	4524 (2052)	5011 (2273)	5011 (2273)
Tipping load - straight, lb (kg)	6019 (2730)	6539 (2966)	7372 (3344)	7372 (3344)
Tipping load - 40° turn, lb (kg)	5004 (2270)	5655 (2565)	6266 (2842)	6266 (2842)
Payload (80% of FTTL - EN 474-3) w/ add cwt, lb (kg)	N/A	N/A	5344 (2424)	5344 (2424)
Tipping load with add cwt- straight, lb (kg)	N/A	N/A	7950 (3606)	7950 (3606)
Tipping load with add cwt - 40° turn, lb (kg)	N/A	N/A	6680 (3030)	6680 (3030)

STD BUCKET	W50C ZB	W50C TC	W80C	W80C HS
Description	1,0 yd ³ (0.7 m ³) GP bucket Naked	1,0 yd ³ (0.7 m ³) GP bucket Naked	1.4 yd ³ (1,0 m ³) GP bucket Naked	1.4 yd ³ (1,0 m ³) GP bucket Naked
Dump angle - fully raised	45°	45°	45°	45°
Max. rollback: Ground	39°	37°	40°	40°
Max. rollback: Carry Position	47°	44°	45°	45°
Max. rollback: @ Maximum reach	69°	53°	55°	55°
Max. rollback: @ Full height	73°	55°	55°	55°
Maximum back dragging angle	42°	72°	61°	61°
ISO bucket capacity - Struck, yd ³ (m ³)	0.7 (0.5)	0.7 (0.5)	1.2 (0.8)	1.2 (0.8)
Heaped, cu. yd. (m ³)	1.0 (0.7)	1.0 (0.7)	1.4 (1.0)	1.4 (1.0)
Bucket width - outside, in (mm)	74 (1900)	74 (1900)	82 (2100)	82 (2100)
Bucket weight (incl. Coupler and components), lb (kg)	805 (365)	844 (383)	926 (420)	926 (420)
Operating load - ISO, lb (kg)	3538 (1605)	3598 (1632)	3962 (1797)	3962 (1797)
Maximum material density - ISO, lb/yd ³ (kg/m ³)	3865 (2293)	3930 (2331)	3029 (1797)	3029 (1797)
Tipping load - ISO: Straight, lb (kg)	8534 (3871)	8322 (3775)	9517 (4317)	9517 (4317)
Tipping load - ISO: 40° turn, lb (kg)	7077 (3210)	7194 (3263)	7921 (3593)	7921 (3593)
Tipping load - ISO: Straight with add cwt	N/A	N/A	10,031 (4550)	10,031 (4550)
Tipping load - ISO: 40° turn with add cwt	N/A	N/A	8510 (3860)	8510 (3860)
Operating load with add cwt - ISO	N/A	N/A	4006 (1817)	4006 (1817)
Maximum material density with add cwt - ISO	N/A	N/A	3147 (1867)	3147 (1867)
Lift Capacity: Full height, lb (kg)	7227 (3278)	5542 (2514)	8424 (3821)	8424 (3821)
Lift Capacity: Maximum reach, lb (kg)	9200 (4173)	6140 (2785)	10,644 (4828)	10,644 (4828)
Lift Capacity: Ground, lb (kg)	11669 (5293)	6614 (3000)	13,746 (6235)	13,746 (6235)
Breakout force with tilt cylinder, lb (kgF)	13320 (6042)	9048 (4104)	13,927 (6317)	13,927 (6317)
Loader clearance circle, in (mm)	335 (8596)	331 (8498)	362 (9294)	362 (9294)