ENGINE

John Deere engineered and manufactured. Replaceable wet type cylinder liners provide superior heat dissipation, longer life. High strength alloy heads have replaceable valve inserts. The forged steel, 7-main bearing crankshaft is statically and dynamically balanced for smooth operation. Cast aluminum pistons provide good heat transfer and pistons are sprayed with cooling oil for longer life.

Engine: John Deere 6068T – Turbocharged
Rated power at 2200 rpm.....145 SAE net hp (108 kW)
.....150 SAE gross hp (112 kW)
Cylinders 6
Displacement .....414 cu. in. (6.785 L)
Fuel consumption, typical .....2.6 to 4.8 gal./hr. (9.8 to 18.2 L/h)
Maximum net torque at 1300 rpm .....456 lb.-ft. (618 Nm)
Air cleaner.....dual stage dry type with restriction indicator
Electrical system .....12 volt with 95-amp alternator
Battery (one 12 volt)
25 amps at 80°F (27°C) .....reserve capacity 160 min.
BCI group 27 cold cranking capacity
at 0°F (–18°C).....625 amps

TRANSMISSION

The transmission provides smooth shift at full power through a torque convertor, countershaft transmission. A single shift lever controls direction and speed ranges. In 4th range the transmission shifts automatically. A quick shift button on the hydraulic control lever allows the operator to downshift and return to the prior gear.

TRAVEL SPEEDS

	Forward		Reverse	
Gear	mph	(km/h)	mph	(km/h)
1	4.5	7.3	4.5	7.3
2	7.2	11.6	7.2	11.6
3	15.2	24.5	15.2	24.5
4	23.0	37.3		

FINAL DRIVES

Large, heavy-duty, planetary final drive gears are mounted inboard where size is not restricted by wheel diameter. They distribute axle shock loads evenly over three gears and run in a cooling oil bath for long life and trouble-free service.

DIFFERENTIALS

Conventional front and rear differentials are standard. John Deere's exclusive hydraulic differential lock is the superior traction alternative. It can be ordered on the front, with a conventional differential in the rear. Or you can order the hydraulic lock front and rear. In either case the operator is in complete control, engaging and disengaging the differential lock as needed. When engaged the affected wheels are 100 percent locked up; turning at the same speed, giving maximum traction for faster loading, pulling you through slippery spots. Differentials available:

Conventional front and rear .....standard
Hydraulic lock front, conventional rear .....optional
NoSPIN front, conventional rear .....optional
Hydraulic lock front and rear .....optional
Front axle disconnect .....optional

BRAKES

Hydraulic actuated, wet disk brakes are mounted inboard. They are bathed in cooling oil for long life, self-adjusting, self-equalizing, and require no periodic service. The spring-applied, hydraulically-released parking brake is a disc and caliper type attached to the transmission output shaft. An optional front axle disconnect is available for loaders that might be driven long distances.

STEERING

The steering system in the 624G provides low effort, smooth control at any engine rpm. High torque steering cylinder geometry and large cylinders permit full power steering at all speeds through the 80 degree steering arc (40 degrees each direction).

Turning radius .....16 ft. 10.5 in. (5.14 m)
(measured to centerline of outside tire)
Rear axle oscillation .....26 degrees, stop to stop
Vertical travel at center of tire .....32.8 in. (833 mm)

HYDRAULICS

Loader functions and steering:
A gear pump delivers 61 gpm (231 L/min.) at 600 psi (4137 kPa) and 2200 engine rpm. The loader function relief valve pressure setting is 2800 psi (19 306 kPa). The maximum steering pressure is 2650 psi (18 270 kPa).
Controls:
Dual hydraulic valves with one or two levers. An optional triple valve is available for forks and attachments.
Brakes and pilot system:
The axial-piston pump delivers 7.6 gpm (28 L/min.) at 600 psi (4137 kPa) and 2200 engine rpm. Maximum system pressure is 2450 psi (16 893 kPa).
Ride control:
This option helps dampen loader hydraulics during transport for a smoother ride.
Loader operating cycle times at full throttle with rated load in the bucket:
Raise .....5.8 sec.
Dump.....1.7 sec.
Lower .....3.5 sec. (float)/3.5 sec. (power)
Maximum lift capacity with 2.63 cu. yd. (2.0 m³) excavating bucket for 624G Loader:
Maximum height.....14,143 lb. (6414 kg)
Ground level.....26,938 lb. (12 217 kg)
Maximum lift capacity with 2.63 cu. yd. (2.0 m³) excavating bucket for 624G Loader with Coupler:
Maximum height.....13,817 lb. (6266 kg)
Ground level.....25,589 lb. (11 605 kg)

TIRES

Choice of:
17.5-25, 12 PR L2
17.5-25, 12 PR L3
17.5-25, Radial, One Star, L2 equivalent
17.5-25, Radial, One Star, L3 equivalent
20.5-25, 12 PR L2
20.5-25, 12 PR L3
20.5-25, 16 PR L3
20.5-25, Radial, One Star, L2 equivalent
20.5-25, Radial, One Star, L3 equivalent

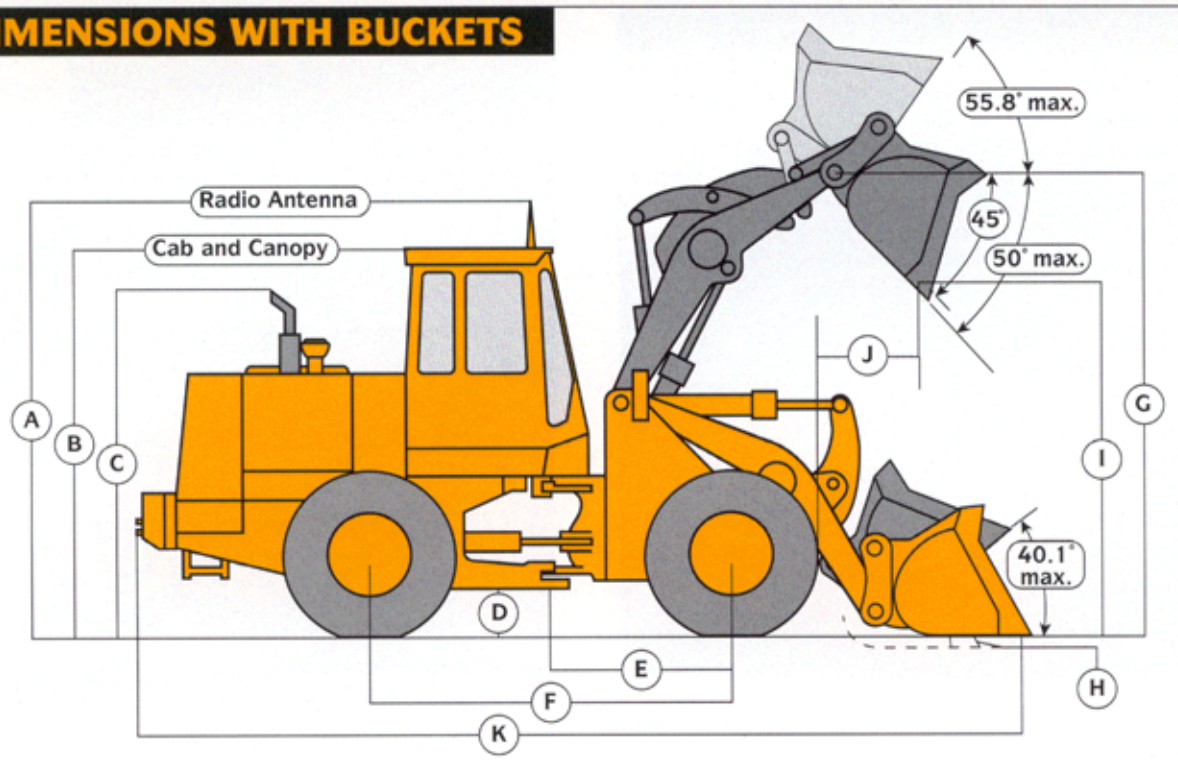
CAPACITIES

	U.S.
Fuel tank	65.7 gal. (249 L)
Cooling system	26 qt. (25 L)
Crankcase	18 qt. (17 L)
Crankcase, including filter	20 qt. (19 L)
Transmission case and filters	12 qt. (11 L)
Front differential	30 qt. (28 L)
Rear differential	20 qt. (19 L)
Loader hydraulic sump	108 qt. (102 L)

OPERATING WEIGHT

See 624G Loader Operating Information and various charts.

DIMENSIONS WITH BUCKETS

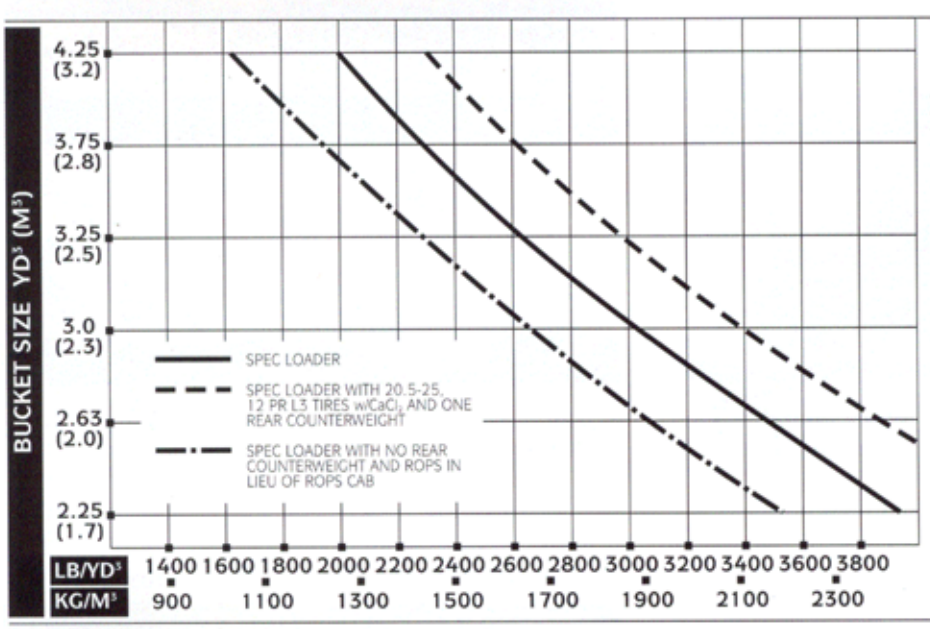


Key:

A	Overall height	11 ft. 10.4 in. (3.62 m)
B	Height to top of cab and canopy	10 ft. 9.9 in. (3.30 m)
C	Height to top of exhaust	9 ft. 7.9 in. (2.94 m)
D	Ground clearance	17 in. (433 mm)
E	Length from centerline to front axle	59.65 in. (1515 mm)
F	Wheelbase	119.3 in. (3030 mm)
G	Height to hinge pin – fully raised	12 ft. 9.3 in. (3.89 m)
H	Digging depth	2 in. (52 mm)
I	Dump height	See Operating Information ▲
J	Reach bucket fully raised	See Operating Information ▲
K	Overall length	See Operating Information ▲

TIRES	**17.5-25**	**20.5-25**
Tread width	81.1 in. (2060 mm)	77.2 in. (1960 mm)
Width over tires	100.3 in. (2549 mm)	99.3 in. (2522 mm)
Change in vertical height	– 2.36 in. (60 mm)	0

BUCKET SELECTION GUIDE*



MATERIAL (Loose weight)	lb/yd³	kg/m³
Caliche	2100	1250
Cinders	1000	590
Clay, natural bed	2800	1600
Clay, dry	2500	1480
Clay, wet	2800	1660
Clay and gravel, dry	2400	1420
Clay and gravel, wet	2600	1540
Coal, anthracite, broken	1850	1100
Coal, bituminous, broken	1400	830
Earth, dry, packed	2550	1510
Earth, wet, excavated	2700	1600
Earth, loam	2100	1250
Granite, broken or large crushed	2800	1660
Gravel, dry	2550	1510
Gravel, pit run (graveled sand)	3250	1930
Gravel, dry 1/2" to 2" (13 to 50 mm)	2850	1690
Gravel, wet 1/2" to 2" (13 to 50 mm)	3400	2020
Gypsum, crushed	2700	1600
Limestone, broken or crushed	2600	1540
Magnetite, iron ore	4700	2790
Pyrite, iron ore	4350	2580
Phosphate rock	2160	1280
Sand, dry	2400	1420
Sand, wet	3100	1840
Sand and gravel, dry	2900	1720
Sand and gravel, wet	3400	2020
Sandstone, broken	2550	1510
Shale	2100	1250
Slag, broken	2950	1750
Stone, crushed	2700	1600
Topsoil	1600	950

*This guide, representing bucket sizes not necessarily manufactured by Deere, will help in selecting the proper bucket size for material density and loader configuration. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment.

624G LOADER OPERATING INFORMATION (WITH BUCKETS)

OPERATING INFORMATION	Bucket Type/Size	Stockpiling and General Purpose				Excavating				Multi-purpose**
		Stockpiling w/o Bolt-on Edge	Stockpiling w/Bolt-on Edge	Stockpiling w/Auxiliary Spillguard*	Stockpiling w/Edge + Spillguard*	Excavating w/o Bolt-on Edge	Excavating w/Bolt-on Edge	Excavating w/Auxiliary Spillguard*	Excavating w/Edge + Spillguard*	
Capacity, heaped, SAE	cu. yd. m^3	3.0 2.3	3.25 2.5	3.12 2.4	3.38 2.6	2.63 2.0	2.75 2.1	2.75 2.1	3.0 2.3	2.38 1.8
Capacity, struck, SAE	cu. yd. m^3	2.63 2.0	2.75 2.1	2.88 2.2	3.0 2.3	2.25 1.7	2.38 1.8	2.5 1.9	2.63 2.0	2.0 1.5
Bucket width	in. m	101.8 2.58	101.8 2.58	101.8 2.58	101.8 2.58	101.8 2.58	101.8 2.58	101.8 2.58	101.8 2.58	101.8 2.58
Breakout force, SAE J732C	lb. kN	29,404 130.8	26,708 118.8	29,238 130.0	26,494 117.8	32,202 143.2	29,047 129.2	32,109 142.8	28,925 128.6	32,471 144.4
Tipping load, straight	lb. kg	21,205 9617	20,484 9290	21,157 9595	20,401 9252	21,497 9749	20,758 9414	21,459 9732	20,707 9391	20,013 9079
Tipping load, 40-deg. full turn, SAE	lb. kg	18,001 8164	17,329 7859	17,951 8141	17,241 7819	18,262 8282	17,572 7969	18,220 8263	17,514 7943	16,908 7668
Reach, 45 deg. dump, 7 ft. (2.13 m) clearance	in. mm	59.8 1520	60.5 1536	59.8 1520	60.5 1536	58.5 1485	59.2 1503	58.5 1485	59.2 1503	49.8 1265
Reach, 45 deg. dump, full height ▲	in. mm	38.0 966	40.4 1027	38.0 966	40.4 1027	35.3 896	37.6 956	35.3 896	37.6 956	28.6 726
Dump clearance, 45 deg., full height ▲	in. mm	112.9 2868	109.6 2784	112.9 2868	109.6 2784	115.7 2938	112.4 2854	115.7 2938	112.4 2854	111.8 2839
Overall length ▲	ft.-in. m	24-3.7 7.41	24-8.3 7.52	24-3.7 7.41	24-8.3 7.52	23-11.5 7.3	24-4.2 7.42	23-11.5 7.3	24-4.2 7.42	24-0.9 7.34
Loader clearance circle, bucket in carry position	ft.-in. m	39-2.8 11.96	39-5.6 12.03	39-2.8 11.96	39-5.6 12.03	39-0 11.9	39-3.2 11.97	39-0 11.9	39-3.2 11.97	39-1.7 11.93
Operating weight	lb. kg	27,435 12 442	27,854 12 632	27,554 12 496	27,973 12 686	27,338 12 398	27,756 12 588	27,456 12 452	27,876 12 642	28,103 12 745

*Auxiliary spillguard is dealer installed. The spillguard is primarily intended to prevent spillage of loose material. However, it does increase bucket capacity which can be utilized in loose materials.

**Allied equipment ordered through John Deere dealer.

Loader operating information is based on machine with all standard equipment, 20.5-25, 12 PR L2 tires, one rear counterwieght, ROPS cab, full fuel tank, 175-lb. (79 kg) operator. Operating information is affected by tire size, ballast and attachments. For selected items, add or subtract the following:

Adjustments to operating weights and tipping load for 2.63 cu. yd. (2.0 m^3) excavating bucket.

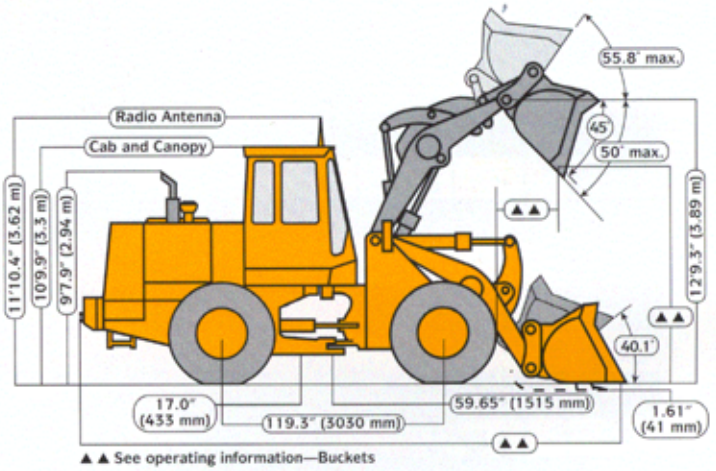
ADJUSTMENTS TO OPERATING WEIGHTS (WITH BUCKETS)

Add (+) or deduct (–) lb. (kg) as indicated for loaders with:		Operating Weight	Tipping Load Straight	Tipping Load 40 Deg. Full Turn, SAE
17.5-25, 12 PR L2 tires w/o $CaCl_2$	lb. kg	– 794 – 360	– 560 – 254	– 483 – 219
17.5-25, 12 PR L2 tires w/$CaCl_2$	lb. kg	+ 386 + 175	+ 1100 + 499	+ 950 + 431
17.5-25, 12 PR L3 tires w/o $CaCl_2$	lb. kg	– 661 – 300	– 467 – 212	– 403 – 183
17.5-25, 12 PR L3 tires w/$CaCl_2$	lb. kg	+ 518 + 235	+ 1193 + 541	+ 1030 + 467
17.5-25, R25 One Star L2 equivalent tires w/o $CaCl_2$	lb. kg	– 414 – 188	– 293 – 133	– 251 – 114
17.5-25, R25 One Star L2 equivalent tires w/$CaCl_2$	lb. kg	+ 765 + 347	+ 1367 + 620	+1179 + 535
20.5-25, 12 PR L2 tires w/$CaCl_2$	lb. kg	+ 1820 + 826	+2560 +1161	+ 2211 + 1003
20.5-25, 12 PR L3 tires w/o $CaCl_2$	lb. kg	+ 291 + 132	+ 205 + 93	+ 179 + 81
20.5-25, 12 PR L3 tires w/$CaCl_2$	lb. kg	+ 2112 + 958	+ 2765 + 1254	+ 2388 + 1083
20.5-25, R25 One Star L2 equivalent w/o $CaCl_2$	lb. kg	+ 467 + 212	+ 331 + 150	+ 287 + 130
20.5-25, R25 One Star L2 equivalent w/$CaCl_2$	lb. kg	+ 2288 + 1038	+ 2888 + 1310	+ 2493 + 1131
ROPS canopy in lieu of ROPS cab	lb. kg	– 320 – 145	– 299 – 136	– 241 – 109
Bucket teeth	lb. kg	+ 240 + 109	– 298 – 135	– 291 – 132
Deduct one rear counterweight	lb. kg	– 946 – 429	– 2134 – 968	– 1753 – 795
*Add second rear counterweight	lb. kg	+ 1169 + 530	+ 2677 + 1214	+ 2196 + 996

*Not to be used with $CaCl_2$.

DIMENSIONS WITH TOOL CARRIER (COUPLER AND ATTACHMENTS)

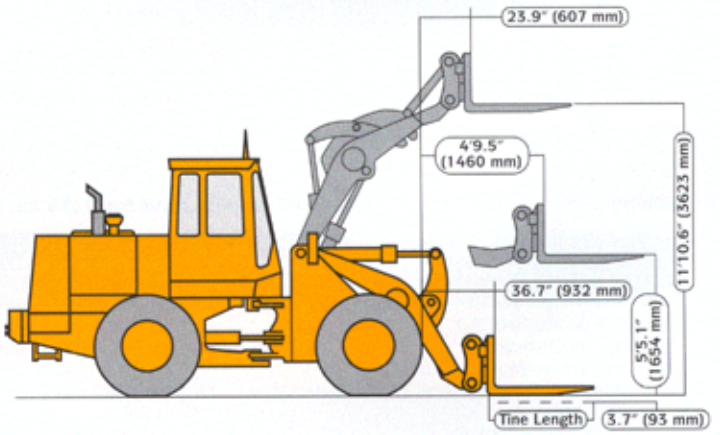
Size		TIRES	
		17.5-25	20.5-25
Tread width	in. mm	81.1 2060	77.2 1960
Width over tires	in. mm	100.3 2549	99.3 2522
Change in vertical height	in. mm	– 2.36 – 60	0 0



▲▲ See operating information—Buckets

PALLET FORK*

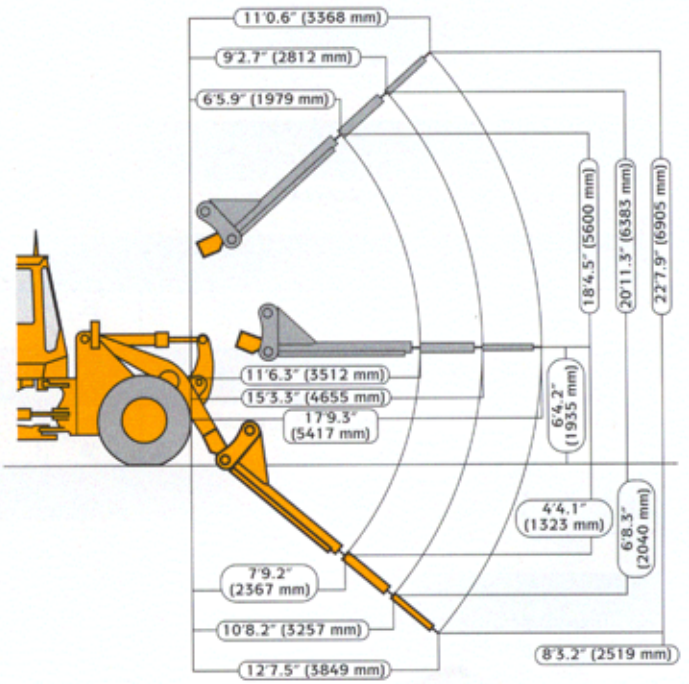
Tine length	in. mm	48 1219	54 1372	60 1524
Ground to top of tine clearance	ft.-in. mm	11-10.6 3623	11-10.6 3623	11-10.6 3623
Max. reach with fork level	ft.-in. mm	4-9.5 1460	4-9.5 1460	4-9.5 1460
Overall length	ft.-in. mm	25-8 7823	26-2 7975	26-8 8128
Tipping load, straight (fork level, load centered on tine)	lb. kg	15,222 6903	14,790 6707	14,380 6522
Tipping load, 40-deg. full turn (fork level, load centered on tine)	lb. kg	12,930 5864	12,560 5696	12,205 5535
Operating weight	lb. kg	27,190 12 331	27,232 12 350	27,271 12 368



MATERIAL HANDLING ARM*

Boom Position		Retracted	Mid-Position	Extended
Operating load	lb. kg	4271 1937	3354 1521	2573 1167
Tipping load, straight	lb. kg	10,059 4562	7903 3584	5956 2701
Tipping load, 40-deg. full turn	lb. kg	8542 3874	6708 3042	5164 2334
Operating weight	lb. kg	26,996 12 243	26,996 12 243	26,996 12 243

*Allied equipment ordered through John Deere dealer.



624G LOADER OPERATING INFORMATION (WITH TOOL CARRIER)

OPERATING INFORMATION	Bucket Type/Size	GENERAL PURPOSE BUCKETS		
Capacity, heaped, SAE	cu. yd. m^3	3.0 2.3	2.63 2.0	2.25 1.7
Capacity, struck, SAE	cu. yd. m^3	2.63 2.0	2.25 1.7	1.88 1.44
Bucket width	in. m	101.8 2.59	101.8 2.59	100.4 2.55
Breakout force, SAE J732C	lb. kN	27,280 121.3	29,770 132.4	32,696 145.4
Tipping load, straight	lb. kg	20,107 9119	20,184 9154	21,058 9550
Tipping load, 40-deg. full turn, SAE	lb. kg	17,016 7717	17,098 7754	17,882 8110
Reach, 45-deg. dump, 7 ft. (2.13 m) clearance	in. mm	59.9 1522	58.6 1489	58.2 1478
Reach, 45-deg. dump, full height ▲▲	in. mm	39.6 1007	36.8 936	34.8 884
Dump clearance, 45-deg., full height ▲▲	in. mm	100 2795	112.8 2865	116 2946
Overall length ▲▲	ft.-in. m	24-9.5 7.56	24-5.3 7.45	24-0.8 7.34
Loader clearance circle, bucket in carry position	ft.-in. m	39-5.2 12.02	39-2.8 11.96	38-10.8 11.86
Operating weight	lb. kg	27,880 12 644	27,796 12 606	27,432 12 441

All information is based on machine with all standard equipment, 20.5-25, 12 PR L2 tires, one rear counterweight, ROPS cab, full fuel tank and 175-lb. (79 kg) operator. Operating information is affected by tire size, ballast and attachments. For selected items, add or subtract the following:

Adjustments to operating weights and tipping loads for 2.63 cu. yd. (2.0 m^3) general purpose bucket and 54-in. (1372 mm) pallet fork.

ADJUSTMENTS TO OPERATING WEIGHTS (WITH TOOL CARRIER)

Add (+) or deduct (–) lb. (kg) as indicated for machines with:		Operating Weight	Bucket*		Fork*	
			Straight	Full Turn	Straight	Full Turn
17.5-25, 12 PR L2 tires without $CaCl_2$	lb. kg	– 794 – 360	– 536 – 243	– 461 – 209	– 386 – 175	– 335 – 152
17.5-25, 12 PR L2 tires with $CaCl_2$	lb. kg	+ 386 + 175	+ 1054 + 478	+ 911 + 413	+ 763 + 346	+ 657 + 298
17.5-25, 12 PR L3 tires without $CaCl_2$	lb. kg	– 661 – 300	– 448 – 203	– 384 – 174	– 320 – 145	– 280 – 127
17.5-25, 12 PR L3 tires with $CaCl_2$	lb. kg	+ 518 + 235	+ 1142 + 518	+ 988 + 448	+ 829 + 376	+ 714 + 324
17.5 R25, One Star, L2 equivalent tires without $CaCl_2$	lb. kg	– 414 – 188	– 280 – 127	– 240 – 109	– 201 – 91	– 174 – 79
17.5 R25, One Star, L2 equivalent tires with $CaCl_2$	lb. kg	+ 765 + 347	+ 1310 + 594	+ 1131 + 513	+ 948 + 430	+ 816 + 370
20.5-25, 12 PR L2 tires with $CaCl_2$	lb. kg	+ 1820 + 826	+ 2452 + 1112	+ 2119 + 961	+ 1777 + 806	+ 1532 + 695
20.5-25, 12 PR L3 tires without $CaCl_2$	lb. kg	+ 291 + 132	+ 196 + 89	+ 170 + 77	+ 143 + 65	+ 123 + 56
20.5-25, 12 PR L3 tires with $CaCl_2$	lb. kg	+ 2112 + 958	+ 2646 + 1200	+ 2286 + 1037	+ 1918 + 870	+ 1654 + 750
20.5 R25, One Star, L2 equivalent tires without $CaCl_2$	lb. kg	+ 467 + 212	+ 315 + 143	+ 271 + 123	+ 229 + 104	+ 196 + 89
20.5 R25, One Star, L2 equivalent tires with $CaCl_2$	lb. kg	+ 2288 + 1038	+ 2765 + 1254	+ 2390 + 1084	+ 2004 + 909	+ 1728 + 784
ROPS canopy in lieu of ROPS cab	lb. kg	– 320 – 145	– 286 – 130	– 264 – 120	– 223 – 101	– 210 – 95
Deduct one rear counterweight	lb. kg	– 946 – 429	– 2044 – 927	– 1678 – 761	– 1471 – 667	– 1211 – 549
**Add second rear counterweight	lb. kg	+ 1169 + 530	+ 2564 + 1163	+ 2101 + 953	+ 1850 + 839	+ 1517 + 688

*Allied equipment ordered through John Deere dealer.
**Not to be used with $CaCl_2$.