

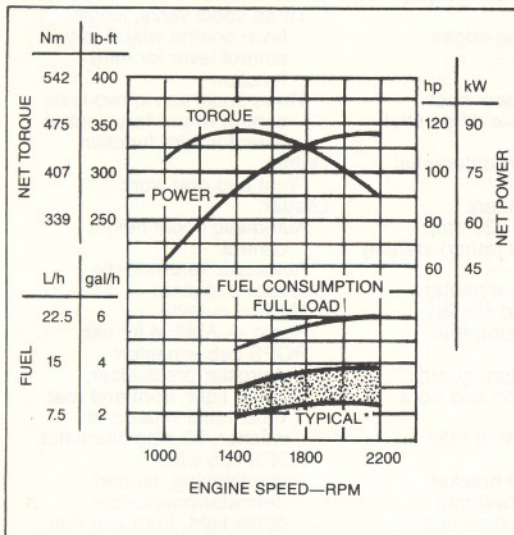


# 544E TC TOOL CARRIER



Model shown includes optional and allied equipment

## ENGINE PERFORMANCE



\*Depending on operating variables

## FEATURES

- 115 SAE net hp (86 kW) John Deere turbocharged diesel engine
- Four-wheel drive
- Bucket capacities to 2.88 cu. yd. (2.2 m<sup>3</sup>)
- Operating weights to 26,301 lb. (11 930 kg)
- Single phase, single stage torque converter with countershaft, power shift transmission. 4 speeds forward, 3 reverse
- Power steering. Articulated frame
- Four-wheel wet-disk power brakes and parking brake
- Inboard planetary final drives
- Single-lever or optional two-lever control w/ optional automatic return-to-dig and optional boom height control
- Optional front axle hydraulic differential lock or NoSPIN front differential
- Optional vandal protection
- Hydraulic quick coupler
- Rollover protective structure (ROPS) with canopy. Meets criteria of SAE J394a, SAE J1040 APR88, OSHA 1926.1001 and ISO 3471. Also meets FOPS (falling object protective structure) criteria SAE J231 JAN81 and ISO 3449

## ADD VERSATILITY WITH:

- Pallet forks
- Material handling arm
- Blades
- Log and lumber forks
- Multipurpose buckets
- Side-dump bucket
- Snow blowers
- Snow plows, vee and angle
- Sweepers
- Special buckets



# 544E TC TOOL CARRIER SPECIFICATIONS

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE Standards. Except where otherwise noted, specifications are based on a machine with all standard equipment, 17.5-25, 12 PR, L2 tires, two rear counterweights, ROPS cab, full fuel tank, and 175-lb. (80 kg) operator.

<b>Rated Power @ 2200 engine rpm:</b>	<b>SAE</b>	<b>DIN 70 020</b>
Net .....	115 hp (86 kW)	86 kW
Gross .....	120 hp (90 kW)	

Net engine power is with standard equipment including air cleaner, exhaust system, alternator and cooling fan, at standard conditions per SAE J1349 and DIN 70 020, using No. 2-D fuel @ 35 API gravity. No derating is required up to 10,000 feet (3050 m) altitude. Gross power is without cooling fan.

**Engine:** John Deere 6359T

Type .....	4-stroke cycle, turbocharged diesel
Bore and stroke .....	4.19 x 4.33 in. (106.5 x 110 mm)
No. of cylinders .....	6
Displacement .....	359 cu. in. (5.884 L)
Maximum net torque @ 1500 rpm .....	343 lb-ft (465 Nm) (47.4 kg-m)
Cooling fan .....	Blower
Air cleaner w/restriction indicator .....	Dry type
Electrical system .....	12 volt w/65-amp alternator
Batteries (one 12 volt)	
25 amps at 80°F (27°C) .....	Reserve capacity: 170 min. each
BCI group 31 cold cranking capacity at 0°F (-18°C) .....	625 amp

**Torque Converter:**

Type .....	Single phase, single stage
Torque multiplication .....	2.91 to 1

**Transmission** .....

Countershaft, Power Shift

**Forward Speeds:**

	mph (max.)	km/h (max.)
1 .....	4.5	7.3
2 .....	7.6	12.2
3 .....	17.2	27.7
4 .....	24.6	39.5

**Reverse Speeds:**

1 .....	4.5	7.3
2 .....	7.6	12.2
3 .....	17.2	27.7

**Differentials — choice of:**

- Front and rear conventional
- Front hydraulic differential lock and rear conventional
- Front NoSPIN and rear conventional

**Drive Axles** .....

Inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22-degrees total (28.6 in. [727 mm] vertical travel at center of tire).

**Steering** .....

Full power steering. Frame articulated 80 degrees by two hydraulic cylinders.

Turning radius (measured to centerline of outside tire) .....	16 ft. 3 in. (4.95 m)
Cylinder size: Stroke .....	19.29 in. (490 mm)
Bore .....	2.76 in. (70 mm)
Rod diameter .....	1.57 in. (40 mm)

**Brakes:**

Service .....

Power-actuated, 4-wheel inboard-mounted, wet disk. Foot-operated by either pedal.

Parking .....

9.84 x 2.36 in. (250 x 60 mm) expanding shoe on transmission output shaft, foot-operated. Includes transmission disconnect with two-level monitor warning.

**Hydraulic Systems:**

Steering and loader functions .....

An engine-driven gear-type pump delivers 46.3 gpm (175 L/min) at 600 psi (4137 kPa) (42.2 kg/cm<sup>2</sup>) and 2200 engine rpm. Loader function relief valve pressure setting is 2750 psi (18 961 kPa) (193.4 kg/cm<sup>2</sup>). Maximum steering pressure is 2600 psi (17 927 kPa) (182.7 kg/cm<sup>2</sup>).

Control .....

Single-lever or optional two-lever, dual hydraulic valve. Optional triple hydraulic valve for fork or multi-purpose bucket.

Brakes .....

Engine-driven axial piston pump delivers 8.1 gpm (31 L/min) at 2200 engine rpm and 600 psi (4137 kPa) (42.2 kg/cm<sup>2</sup>). Maximum system pressure is 2300 psi (15 859 kPa) (161.7 kg/cm<sup>2</sup>).

Quick coupler .....

Pushbutton activation of locking pin cylinders

Loader hydraulic operating cycle times at full throttle:

Raise .....	5.8 sec.
Dump .....	1.9 sec.
Lowering: float .....	3.2 sec.
power .....	3.9 sec.

Maximum lift capacity with 2.25 cu. yd. (1.7 m<sup>3</sup>) excavating bucket:

Maximum height .....	11,365 lb. (5154 kg)
Ground level .....	20,035 lb. (9086 kg)

**Hydraulic Cylinders:**

	Bore	Stroke
Boom, two .....	4.92 in. (125 mm)	30.71 in. (780 mm)
Bucket, one .....	5.51 in. (140 mm)	21.57 in. (548 mm)
Cylinder rods .....	Ground, heat-treated, chrome-nickel-plated, polished	
Boom cylinder rods .....	2.48 in. (63 mm) dia.	
Bucket cylinder rod .....	2.48 in. (63 mm) dia.	

**Tires — choice of:**

- 14.00-24, 10 PR, grader tread, G2
- 15.5-25, 12 PR, loader tread, L2
- 15.5 R25, One Star, L2 equivalent
- 17.5-25, 12 PR, loader tread, L2
- 17.5-25, 12 PR, rock tread, L3
- 17.5 R25, One Star, L2 equivalent
- 20.5-25, 12 PR, loader tread, L2

**Capacities:**

	U.S.	Liters
Fuel tank .....	55 gal.	208
Cooling system .....	25 qt.	24
Crankcase .....	18 qt.	17
Crankcase, including filter .....	20 qt.	19
Transmission case and filters .....	10 qt.	9.5
Front differential .....	17 qt.	16
Rear differential .....	17 qt.	16
Loader hydraulic sump .....	80 qt.	76

**Additional Standard Equipment:**

- Coupler, hydraulic quick
- Differential, conventional, front and rear
- Engine:
  - Antifreeze
  - Fan guard
  - Fuel filter
  - Muffler
  - Precleaner and dry-type air cleaner
- Frames:
  - Articulation transport lock
  - Drawbar
  - Lockable engine side shields and rear grille
  - Rear bottom guard
  - Service steps, left-hand rear
- Hydraulic oil cooler
- Lights:
  - Driving w/guard
  - Flashing and turn signal
  - Stop and tail
- Operator's station:
  - Adjustable, deluxe vinyl seat
  - Cigarette lighter w/ashtray
  - Dual inside rearview mirrors
  - Dual level monitor system:
    - Two level warnings:
      - Parking brake on
- Single-level warnings:
  - Air filter restricted
  - Engine coolant temperature
  - Hydraulic filter restricted
  - Low brake pressure
  - Low electrical voltage
  - Low engine oil pressure
  - Low transmission oil pressure
  - Secondary steering (optional)
- Indicator only:
  - Turn signals
- Floormat
- Handgrips
- Horn
- Instruments:
  - Electric hourmeter
  - Fuel gauge
  - Transmission oil temperature gauge
- Key switch
- ROPS canopy
- Two-inch (51 mm) seat belt w/retractor
- Reverse warning alarm
- Transmission clutch disconnect
- Transmission oil cooler

**Optional or Special Equipment:**

- Buckets:
  - Bolt-on cutting edges
  - Bucket teeth
- Differentials:
  - Front axle disconnect
  - Front hydraulic differential lock
  - Front NoSPIN differential
- Engine:
  - Additional battery
  - Alternator — 130 amp
  - Cold weather (ether) starting aid
  - Engine coolant heater
  - Radiator sand shield
  - Water separator, fuel
- Frames:
  - Auxiliary bottom guards, transmission and front frame
  - Fenders, front or rear
  - Lift hooks
  - License plate bracket
  - Rear counterweights
  - Steps, frame mounted w/access platform
  - SMV emblem
  - Transmission side frame guards
- Hydraulics:
  - Two spool valve w/single-lever control
  - Two spool valve w/two-lever control
- Three spool valve, single-lever control w/auxiliary control lever for third function
- Three spool valve, two-lever control w/auxiliary control lever for third function
- Lights:
  - Front and rear work
- Loader:
  - Automatic boom height control
  - Automatic return-to-dig
- Operator's station:
  - Mirrors, outside
  - Radio — AM/FM for cab
  - ROPS cab w/heater/defroster/pressurizer, dome light, front and rear windshield wiper and washer, 90-amp alternator
  - ROPS cab w/air conditioning, heater/defroster/pressurizer, dome light, front and rear windshield wiper and washer, 90-amp alternator
- Seats:
  - Adjustable deluxe suspension vinyl seat w/armrests
  - Adjustable deluxe suspension cloth seat w/armrests for cab
- Secondary steering
- Three-inch (76 mm) seat belt w/o retractor



544E TC TOOL CARRIER OPERATING INFORMATION — BUCKETS

GENERAL PURPOSE BUCKETS						
Type Bucket	2.25 cu. yd. (1.7 m <sup>3</sup> )	2.25 cu. yd. (1.7 m <sup>3</sup> ) w/Bolt-on Edge	2.5 cu. yd. (1.9 m <sup>3</sup> )	2.25 cu. yd. (1.9 m <sup>3</sup> ) w/Bolt-on Edge	2.75 cu. yd. (2.1 m <sup>3</sup> )	2.75 cu. yd. (2.2 m <sup>3</sup> ) w/Bolt-on Edge
Capacity, heaped, SAE	2.25 cu. yd.* (1.7 m <sup>3</sup> )	2.5 cu. yd.* (1.9 m <sup>3</sup> )	2.5 cu. yd.* (1.9 m <sup>3</sup> )	2.63 cu. yd.* (2.0 m <sup>3</sup> )	2.75 cu. yd.* (2.1 m <sup>3</sup> )	2.88 cu. yd.* (2.2 m <sup>3</sup> )
Capacity, struck, SAE	2.1 cu. yd. (1.6 m <sup>3</sup> )	2.23 cu. yd. (1.7 m <sup>3</sup> )	2.3 cu. yd. (1.76 m <sup>3</sup> )	2.43 cu. yd. (1.85 m <sup>3</sup> )	2.5 cu. yd. (1.9 m <sup>3</sup> )	2.64 cu. yd. (2.0 m <sup>3</sup> )
Bucket width	100.5 in. (2.55 m)	100.5 in. (2.55 m)	100.5 in. (2.55 m)	100.5 in. (2.55 m)	100.5 in. (2.55 m)	100.5 in. (2.55 m)
Breakout force SAE J732C	20,843 lb. (92.7 kN) (9454 kg)	19,645 lb. (87.4 kN) (8911 kg)	20,787 lb. (87.4 kN) (9429 kg)	19,590 lb. (87.1 kN) (8886 kg)	19,588 lb. (87.1 kN) (8885 kg)	18,519 lb. (82.4 kN) (8400 kg)
Tipping load, straight	16,943 lb. (7685 kg)	16,779 lb. (7611 kg)	16,815 lb. (7627 kg)	16,649 lb. (7552 kg)	16,671 lb. (7562 kg)	16,504 lb. (7486 kg)
Tipping load, 40 deg. full turn, SAE	14,407 lb. (6535 kg)	14,246 lb. (6462 kg)	14,288 lb. (6481 kg)	14,127 lb. (6408 kg)	14,156 lb. (6421 kg)	13,993 lb. (6347 kg)
Reach at 45-deg. dump 7 ft. (2.13 m) clearance	61.93 in. (1573 mm)	62.05 in. (1576 mm)	61.93 in. (1573 mm)	62.05 in. (1576 mm)	62.99 in. (1600 mm)	63.03 in. (1601 mm)
Reach at 45-deg. dump full height	41.85 in. (1063 mm)	43.31 in. (1100 mm)	41.85 in. (1063 mm)	43.31 in. (1100 mm)	43.78 in. (1112 mm)	45.20 in. (1148 mm)
Dump clearance at 45 deg. dump, full height	110.9 in. (2816 mm)	108.3 in. (2750 mm)	110.9 in. (2816 mm)	108.3 in. (2750 mm)	109.25 in. (2775 mm)	106.73 in. (2711 mm)
Overall length	23 ft. 3.4 in. (7.10 m)	23 ft. 7 in. (7.19 m)	23 ft. 3.4 in. (7.10 m)	23 ft. 7 in. (7.19 m)	23 ft. 5.9 in. (7.16 m)	23 ft. 9.5 in. (7.25 m)
Loader clearance circle bucket in carry position	37 ft. 6.1 in. (11.43 m)	37 ft. 8.1 in. (11.48 m)	37 ft. 6.1 in. (11.43 m)	37 ft. 8.1 in. (11.48 m)	37 ft. 7.3 in. (11.46 m)	37 ft. 9.3 in. (11.51 m)
Operating weight	24,621 lb. (11 168 kg)	24,811 lb. (11 254 kg)	24,692 lb. (11 200 kg)	24,705 lb. (11 206 kg)	24,780 lb. (11 240 kg)	24,972 lb. (11 327 kg)

\*Allied equipment ordered through John Deere dealer

All information is based on machine with all standard equipment, 17.5-25, 12 PR, L2 tires, two rear counterweights, ROPS cab, full fuel tank and 175-lb. (80 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 2.25 cu. yd. (1.7 m<sup>3</sup>) general purpose bucket and 48-in. (1219 mm) pallet fork.

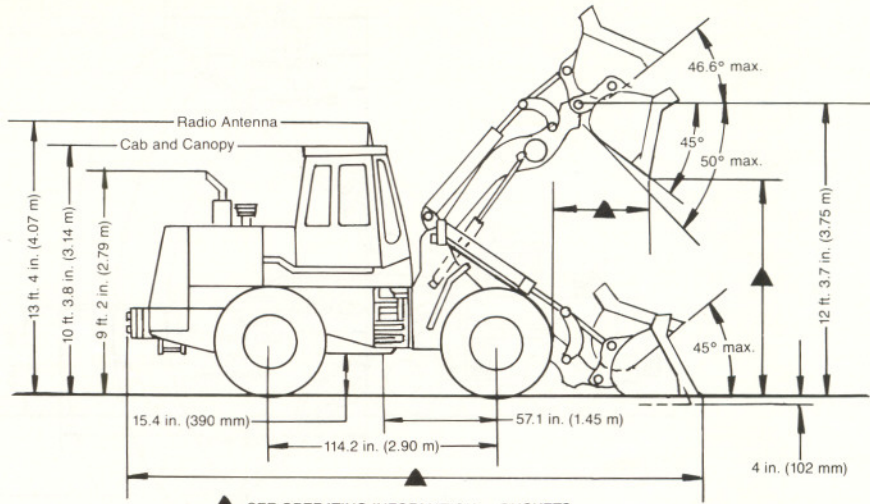
Add (+) or deduct (-) lb. (kg) as indicated for machines with:	Loader Operating Weight	Bucket*		Fork*	
		Straight	Full Turn	Straight	Full Turn
15.5-25, 12 PR, L2 w/o CaCl <sub>2</sub>	- 194 lb. (88 kg)	- 123 lb. (56 kg)	- 108 lb. (49 kg)	- 93 lb. (42 kg)	- 79 lb. (36 kg)
15.5-25, 12 PR, L2 w/CaCl <sub>2</sub> **	+ 745 lb. (338 kg)	+ 1078 lb. (489 kg)	+ 930 lb. (422 kg)	+ 800 lb. (363 kg)	+ 692 lb. (314 kg)
15.5 R25, One Star, L2 equivalent, w/o CaCl <sub>2</sub>	+ 97 lb. (44 kg)	+ 64 lb. (29 kg)	+ 53 lb. (24 kg)	+ 46 lb. (21 kg)	+ 40 lb. (18 kg)
15.5 R25, One Star, L2 equivalent, w/CaCl <sub>2</sub> **	+ 1036 lb. (470 kg)	+ 1263 lb. (573 kg)	+ 1089 lb. (494 kg)	+ 939 lb. (426 kg)	+ 811 lb. (368 kg)
17.5-25, 12 PR, L2 w/CaCl <sub>2</sub> **	+ 1179 lb. (535 kg)	+ 1508 lb. (684 kg)	+ 1303 lb. (591 kg)	+ 1122 lb. (509 kg)	+ 970 lb. (440 kg)
17.5-25, 12 PR, L3 w/o CaCl <sub>2</sub>	+ 132 lb. (60 kg)	+ 86 lb. (39 kg)	+ 73 lb. (33 kg)	+ 64 lb. (29 kg)	+ 55 lb. (25 kg)
17.5-25, 12 PR, L3 w/CaCl <sub>2</sub> **	+ 1312 lb. (595 kg)	+ 1592 lb. (722 kg)	+ 1376 lb. (684 kg)	+ 1184 lb. (537 kg)	+ 1025 lb. (465 kg)
17.5 R25, One Star, L2 equivalent, w/o CaCl <sub>2</sub>	+ 379 lb. (172 kg)	+ 243 lb. (110 kg)	+ 209 lb. (95 kg)	+ 181 lb. (82 kg)	+ 157 lb. (71 kg)
17.5 R25, One Star, L2 equivalent, w/CaCl <sub>2</sub> **	+ 1559 lb. (707 kg)	+ 1750 lb. (794 kg)	+ 1512 lb. (686 kg)	+ 1301 lb. (590 kg)	+ 1127 lb. (511 kg)
20.5-25, 12 PR, L2 w/o CaCl <sub>2</sub>	+ 794 lb. (360 kg)	+ 509 lb. (231 kg)	+ 439 lb. (199 kg)	+ 379 lb. (172 kg)	+ 326 lb. (148 kg)
20.5-25, 12 PR, L2 w/CaCl <sub>2</sub> **	+ 2615 lb. (1186 kg)	+ 2835 lb. (1286 kg)	+ 2449 lb. (1111 kg)	+ 2110 lb. (957 kg)	+ 1823 lb. (827 kg)
20.5-25, 12 PR, L3 w/o CaCl <sub>2</sub>	+ 1085 lb. (492 kg)	+ 694 lb. (315 kg)	+ 597 lb. (271 kg)	+ 516 lb. (234 kg)	+ 445 lb. (202 kg)
20.5-25, 12 PR, L3 w/CaCl <sub>2</sub> **	+ 2906 lb. (1318 kg)	+ 3020 lb. (1370 kg)	+ 2608 lb. (1183 kg)	+ 2249 lb. (1020 kg)	+ 1942 lb. (881 kg)
ROPS canopy in lieu of ROPS cab	- 320 lb. (145 kg)	- 275 lb. (125 kg)	- 222 lb. (101 kg)	- 204 lb. (93 kg)	- 165 lb. (75 kg)
No counterweight in lieu of 1st and 2nd optional counterweight	- 1724 lb. (782 kg)	- 3497 lb. (1586 kg)	- 2875 lb. (1304 kg)	- 2604 lb. (1181 kg)	- 2138 lb. (970 kg)
1st optional counterweight in lieu of 1st and 2nd optional counterweight	- 935 lb. (424 kg)	- 1907 lb. (865 kg)	- 1567 lb. (711 kg)	- 1420 lb. (644 kg)	- 1166 lb. (529 kg)

\*Allied equipment ordered through John Deere dealer

\*\*Not to be used with second optional counterweight

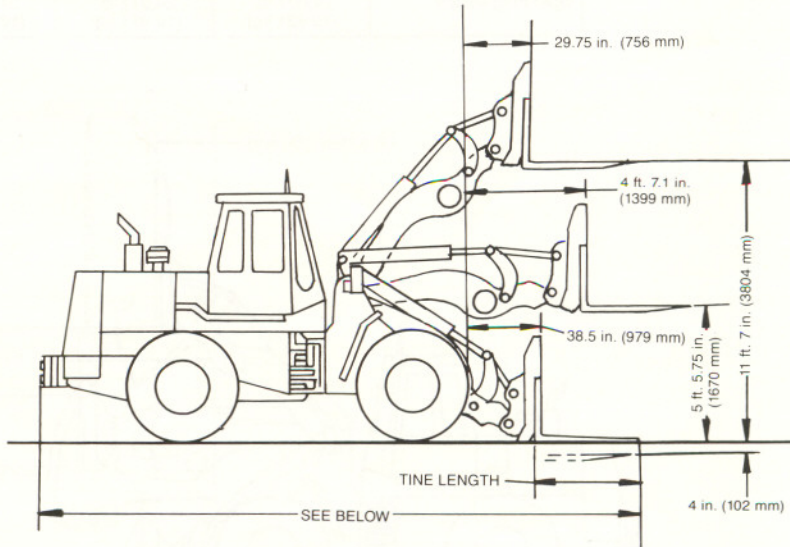


# 544E TC TOOL CARRIER DIMENSIONS



▲ SEE OPERATING INFORMATION — BUCKETS

	TIRES		
	15.5-25	17.5-25	20.5-25
Tread width	76.38 in. (1940 mm)	76.38 in. (1940 mm)	74.80 in. (1900 mm)
Width over tires	93.11 in. (2365 mm)	95.28 in. (2420 mm)	96.93 in. (2462 mm)
Change in vertical height	- 1.57 in. (40 mm)	0	+ 2.60 in. (66 mm)
Change in reach	+ 1.38 in. (35 mm)	0	- 2.83 in. (72 mm)

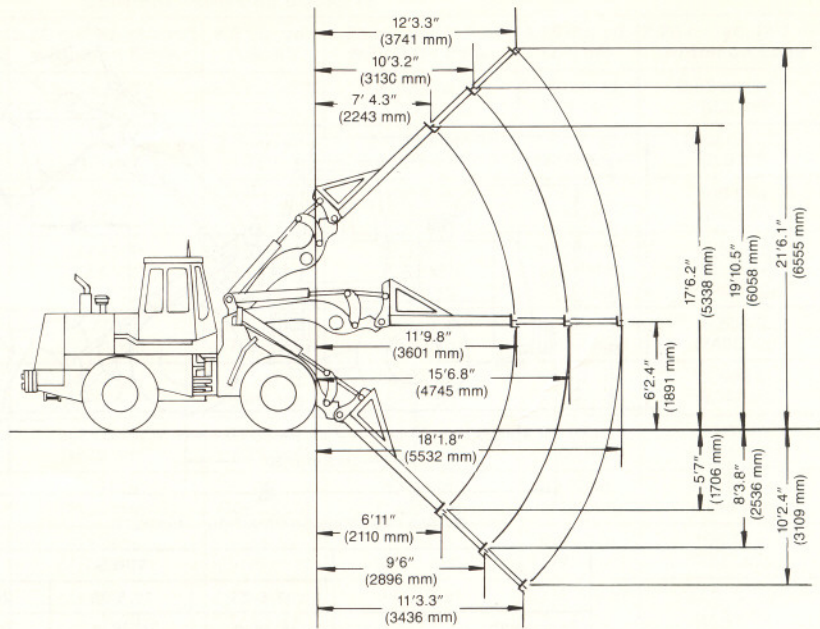


## OPERATING INFORMATION — PALLET FORK\*

Tine length	48 in. (1219 mm)	54 in. (1372 mm)	60 in. (1524 mm)
Ground to top of tine clearance	11 ft. 7 in. (3804 mm)	11 ft. 7 in. (3804 mm)	11 ft. 7 in. (3804 mm)
Max. reach, fork level	4 ft. 7.1 in. (1399 mm)	4 ft. 7.1 in. (1399 mm)	4 ft. 7.1 in. (1399 mm)
Overall length	25 ft. 0.4 in. (7.63 m)	25 ft. 6.4 in. (7.78 m)	26 ft. 0.4 in. (7.94 m)
Tipping load, straight (fork level, load centered on tine)	12,879 lb. (5842 kg)	12,509 lb. (5674 kg)	12,163 lb. (5517 kg)
Tipping load, 40-deg. full turn (fork level, load centered on tine)	10,986 lb. (4983 kg)	10,666 lb. (4838 kg)	10,364 lb. (4701 kg)
Operating weight	24,023 lb. (10 897 kg)	24,066 lb. (10 916 kg)	24,105 lb. (10 934 kg)

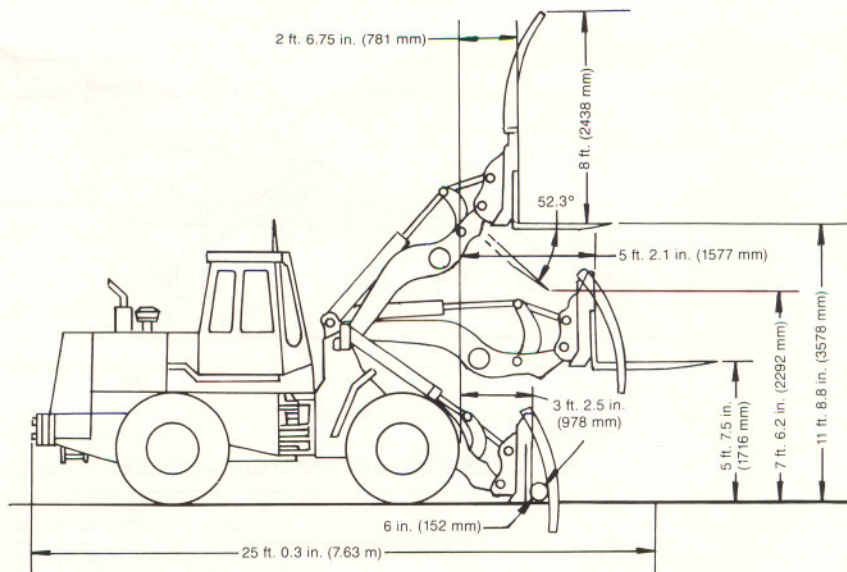
\*Allied equipment ordered through John Deere dealer.

# 544E TC TOOL CARRIER DIMENSIONS



## OPERATING INFORMATION — MATERIAL HANDLING ARM\*

Boom position	Retracted	Mid-position	Extended
Operating load	3,534 lb. (1603 kg)	2,761 lb. (1252 kg)	2,404 lb. (1090 kg)
Tipping load, straight	8,318 lb. (3773 kg)	6,508 lb. (2952 kg)	5,670 lb. (2572 kg)
Tipping load, 40-deg. full turn	7,068 lb. (3206 kg)	5,523 lb. (2505 kg)	4,808 lb. (2181 kg)
Operating weight	24,077 lb. (10 921 kg)	24,077 lb. (10 921 kg)	24,077 lb. (10 921 kg)



## OPERATING INFORMATION — LOG AND LUMBER FORK\*

Full tine length	48 in. (1219 mm)
Ground to top of clamp clearance	19 ft. 8.8 in. (6015 mm)
Max. reach with fork level	5 ft. 2.1 in. (1577 mm)
Overall length	25 ft. 0.3 in. (7.63 m)
Tipping load, 40-deg. full turn, fork level, load centered on tine	9,793 lb. (4442 kg)
Operating weight	25,560 lb. (11 594 kg)

\*Allied equipment ordered through John Deere dealer.