

DIESEL ENGINE

Manufacturer & type	Deutz-BF4M 2012 C
Design	4-cylinder, turbocharged
Engine output	112 HP (84 kW)
Nominal speed	2,000 rpm
Displacement	244 cb in (4 l)
Cooling system	Water and charge air cooling (temperature controlled fan speed)
Emission standards	COM II/TIER II
Air filter design	Two-stage filter with safety valve.
Fuel tank	79 US gal (300 l)

ELECTRICAL SYSTEM

Operating voltage	24 V
Batteries	2 x 12 V / 100 Ah/760 A (to EN)
Lighting	2 uppercarriage-mounted headlamps, 1 dipperstick-mounted working floodlight.
Option	Magnet system 9 kW

TRAVEL DRIVE

- Hydrostatic transmission through variable displacement motor with directly mounted travel brake valve. 2-speed transmission.

Travel speed / max. gradeability	12.4 mp/h (0-20 km/h) / 55 %
Turning radius	23' (7.0 m)

OPERATING WEIGHTS

Basic machine including work equipment and 4-pt. stabilizers (including 0.52 yd ³ /0.4 m ³ cactus grab)	
Reach 31' (9.5 m)	41,900 lbs (19,000 kg)
Basic machine including work equipment and 2-pt. stabilizers with support blade (including 0.52 yd ³ /0.4 m ³ cactus grab)	
Reach 27' (8.2 m)	41,900 lbs (19,000 kg)

SWING SYSTEM

Ring gear Drive	Internally toothed ring gear. 2-stage planetary gear with integrated multi-disc brake.
Uppercarriage swing speed	0 - 8 rpm

UNDERCARRIAGE

- Front axle: Planetary axle with integrated drum brake, rigidly mounted. Max. steering angle 30°.
- Rear axle: Planetary axle with integrated drum brake, oscillating, with oscillating axle lock to be engaged if required.

Stabilizers	4-point stabilizers and 2-point stabilizers with support blade.
Twin tires	Solid rubber, elastic tires 9.00 - 20

BRAKES

Service brake	Hydraulic single-circuit braking system acting on all four wheel pairs.
Parking brake	Hydraulic disc brake on transmission.

HYDRAULIC SYSTEM

- Single circuit hydraulic system with load-sensing function and torque control valve for torque-controlled swing drive – independent from other consumers.
- Separate oil cooler with large cooling surface, temperature controlled revolutions of fan.
- Hydraulic filter element incorporated in oil tank.
- Central lubrication system as standard.

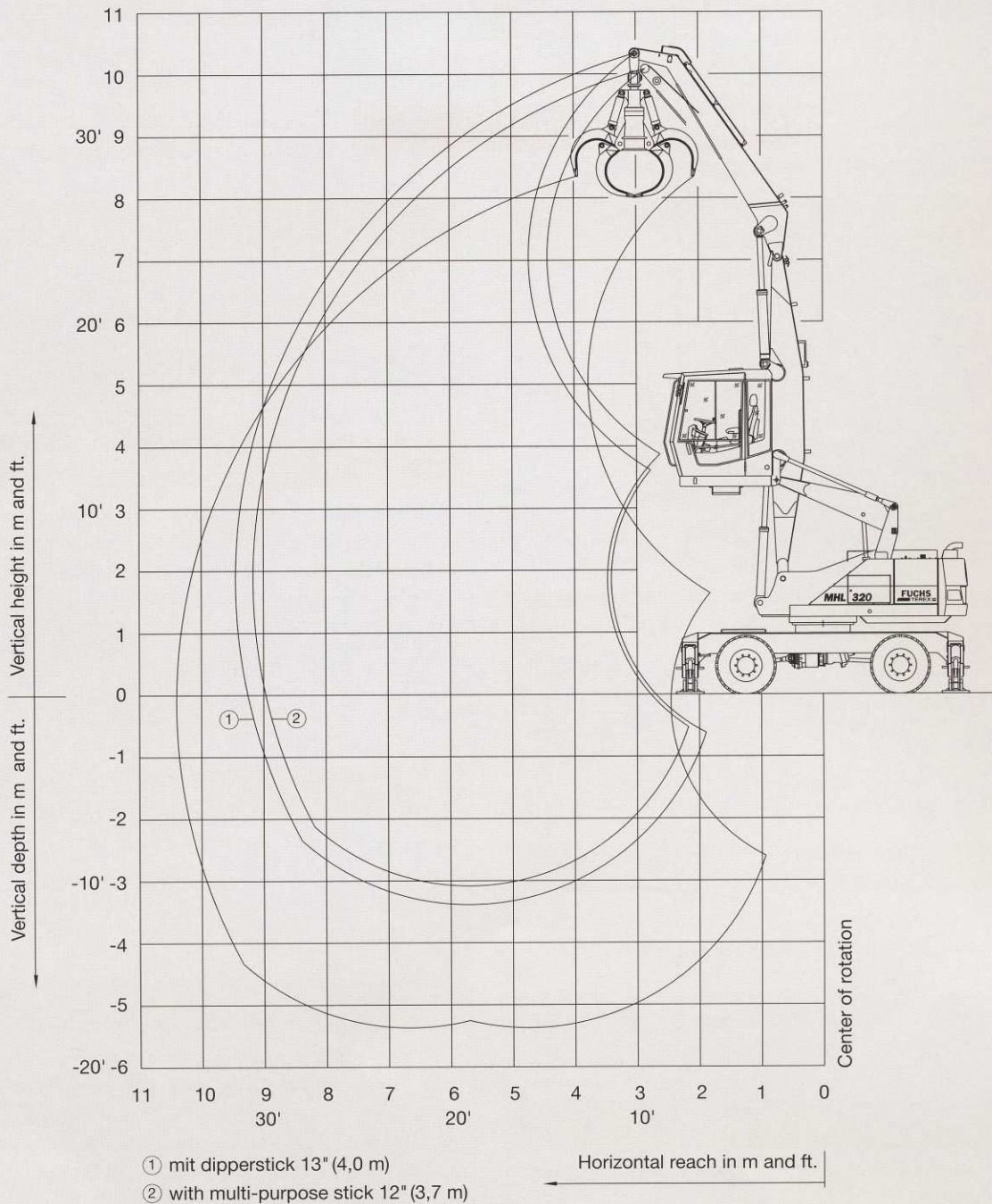
Max. pump capacity	77 US gal/min. (at 2,000 rpm) (290 l/min)
Max. operating pressure	5220 psi (360 bar)
Hydraulic oil tank	72.6 US (gal 275 l)



WORKING DIAGRAM

MHL 320 (reach 9.5 m/31').

- Work equipment: box-type boom 5.2 m/17', dipperstick 4.0 m/13' or multi-purpose stick 3.7 m/12'



LIFTING CAPACITY

MHL 320 (reach 31/9.5 m).

- Work equipment: box-type boom 17/5.2 m, dipperstick 13/4.0 m or multi-purpose stick 12/3.7 m.

Height in ft.	Undercarriage stabilizers	Reach in ft.				
		10	15	20	25	30
30	non supported		(14,110*)			
	4-pt. supported		14,110* (14,110*)			
	2-pt. blade-supported		14,110* (14,110*)			
25	non supported		(13,890*)	(9,260)		
	4-pt. supported		13,890* (13,890*)	11,240* (11,240*)		
	2-pt. blade-supported		13,890* (13,890*)	11,240* (11,240*)		
20	non supported		(13,890*)	(9,040)	(6,600)	
	4-pt. supported		13,890* (13,890*)	11,240 (11,240*)	9,900* (9,900)	
	2-pt. blade-supported		13,890* (13,890*)	11,240* (11,240*)	8,150 (9,900*)	
15	non supported		(13,890*)	(8,820)	(6,400)	(4,850)
	4-pt. supported		14,770* (14,770*)	11,910* (11,910*)	9,920* (9,920*)	7,500 (8,157*)
	2-pt. blade-supported		14,770* (14,770*)	11,460* (11,910*)	8,160 (9,920*)	6,170 (8,157*)
10	non supported		(13,230)	(8,600)	(6,170)	(4,850)
	4-pt. supported		16,980* (16,980*)	12,790* (12,790*)	9,920 (10,140*)	7,500 (8,157*)
	2-pt. blade-supported		16,980* (16,980*)	11,020 (12,790*)	7,930 (10,140*)	6,170 (8,157*)
5	non supported		(12,350)	(8,160)	(5,950)	(4,630)
	4-pt. supported		18,740* (18,740*)	13,230* (13,230*)	9,700 (10,140*)	7,500 (7,710*)
	2-pt. blade-supported		16,310* (18,740*)	10,800 (13,230*)	7,700 (10,140*)	5,950 (7,710*)
0	non supported		(11,690)	(7,900)	(5,950)	(4,630)
	4-pt. supported		18,080* (18,080*)	12,790* (12,790*)	9,480* (9,480*)	6,830* (6,830*)
	2-pt. blade-supported		15,870 (18,080*)	10,360 (12,790*)	7,710 (9,480*)	5,950 (6,830*)
-5	non supported		(11,460)	(7,700)	(5,730)	
	4-pt. supported		15,210* (15,210*)	11,020* (11,020*)	7,930* (7,930)	
	2-pt. blade-supported		15,210* (15,210*)	10,360 (11,020*)	7,500 (7,930*)	
-10	non supported		(10,140*)	(7,500)		
	4-pt. supported		12,340* (12,340*)	7,500* (7,500*)		
	2-pt. blade-supported		12,340* (12,340*)	7,500* (7,500*)		

Height in m	Undercarriage stabilizers	Reach in m				
		3	4.5	6	7.5	9
9	non supported		(6.4*)			
	4-pt. supported		6.4* (6.4*)			
	2-pt. blade-supported		6.4* (6.4*)			
7.5	non supported		(6.3*)	(4.2)		
	4-pt. supported		6.3* (6.3*)	5.1* (5.1*)		
	2-pt. blade-supported		6.3* (6.3*)	5.1* (5.1*)		
6	non supported		(6.3*)	(4.1)	(3.0)	
	4-pt. supported		6.3* (6.3*)	5.1* (5.1*)	4.5* (4.5*)	
	2-pt. blade-supported		6.3* (6.3*)	5.1* (5.1*)	3.7 (4.5*)	
4.5	non supported		(6.3)	(4.0)	(2.9)	(2.2)
	4-pt. supported		6.7* (6.7*)	5.4* (5.4*)	4.5* (4.5*)	3.4 (3.7*)
	2-pt. blade-supported		6.7* (6.7*)	5.2 (5.4*)	3.7 (4.5*)	2.8 (3.7*)
3	non supported		(6.0)	(3.9)	(2.8)	(2.2)
	4-pt. supported		7.7* (7.7*)	5.8* (5.8*)	4.5 (4.6*)	3.4 (3.7*)
	2-pt. blade-supported		7.7* (7.7*)	5.0 (5.8*)	3.6 (4.6*)	2.8 (3.7*)
1.5	non supported		(5.6)	(3.7)	(2.7)	(2.1)
	4-pt. supported		8.5* (8.5*)	6.0* (6.0*)	4.4 (4.6*)	3.4 (3.5*)
	2-pt. blade-supported		7.4* (8.5*)	4.9 (6.0*)	3.5 (4.6*)	2.7 (3.5*)
0	non supported		(5.3)	(3.6)	(2.7)	(2.1)
	4-pt. supported		8.2* (8.2*)	5.8* (5.8*)	4.3* (4.3*)	3.1* (3.1*)
	2-pt. blade-supported		7.2 (8.2*)	4.7 (5.8*)	3.5 (4.3*)	2.7 (3.1*)
-1.5	non supported		(5.2)	(3.5)	(2.6)	
	4-pt. supported		6.9* (6.9*)	5.0* (5.0*)	3.6* (3.6*)	
	2-pt. blade-supported		6.9* (6.9*)	4.7 (5.0*)	3.4* (3.6*)	
-3	non supported		(4.6*)	(3.4)		
	4-pt. supported		5.6* (5.6*)	3.4* (3.4*)		
	2-pt. blade-supported		5.6* (5.6*)	3.4* (3.4*)		

Values are valid for working diagram on page 2.

only reachable with dipperstick

only reachable with multi-purpose stick

REMARKS

The values are stated in lbs or tons (t). The pump pressure for this table is 5220 psi (360 bar). The values amount to 75 % of the static tipping load or 87 % of the hydraulic lifting force (marked *). When the machine is standing on solid and level ground, these values apply to slewing operations through 360°. The values in brackets apply in the lengthwise direction of the undercarriage. The values specified "non-supported" only apply when the load is hoisted above the front or rear axle.

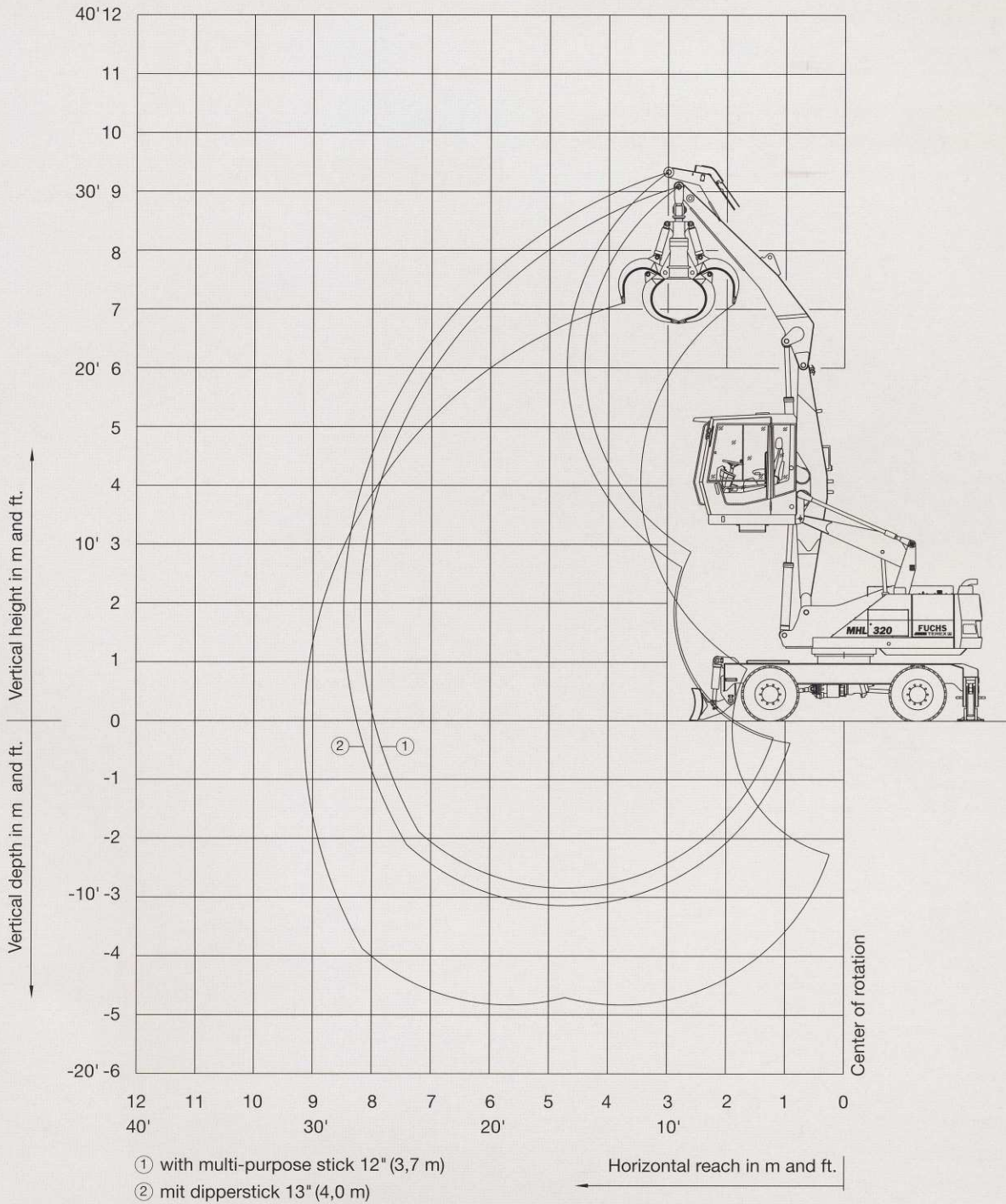
The weight of the attached load hoisting implement (grab, magnet, load hook, linkage, bucket cylinder, etc.) must be deducted from the carrying capacity values. The weight for the linkage and bucket cylinder is 440 lbs (200 kg).



WORKING DIAGRAM

MHL 320 (reach 27/8.2 m).

- Work equipment: box-type boom 14/4.2 m, multi-purpose stick 12/3.7 m or dipperstick 13/4.0 m.





LIFTING CAPACITY

MHL 320 (reach 27/8.2 m).

- Work equipment: box-type boom 14/4.2 m, multi-purpose stick 12/3.7 m or dipperstick 13/4.0 m.

Height in ft.	Undercarriage stabilizers	Reach in ft.				
		10	15	20	25	30
30	non supported					
	4-pt. supported					
	2-pt. blade-supported					
25	non supported		(13,670*)	(9,000)		
	4-pt. supported		13,670* (13,670*)	9,920* (9,920*)		
	2-pt. blade-supported		13,670* (13,670*)	9,920* (9,920*)		
20	non supported		(13,670*)	(9,000)		
	4-pt. supported		13,670* (13,670*)	11,900* (11,905*)		
	2-pt. blade-supported		13,670* (13,670*)	11,900* (11,905*)		
15	non supported		(13,670*)	(9,000)	(6,400)	
	4-pt. supported		13,670* (13,670*)	12,120* (12,125*)	10,140 (10,580*)	
	2-pt. blade-supported		13,670* (13,670*)	11,900* (12,125*)	8,160 (10,580*)	
10	non supported	(20,280*)	(13,670)	(8,820)	(6,400)	
	4-pt. supported	20,280* (20,280*)	15,870* (15,870*)	12,790* (12,787*)	9,920 (10,580*)	
	2-pt. blade-supported	20,280* (20,280*)	15,870* (15,870*)	11,470 (12,787*)	8,160 (10,580*)	
5	non supported	(24,250)	(13,000)	(8,600)	(6,170)	
	4-pt. supported	29,760* (29,760*)	18,520* (18,520*)	13,670* (13,670*)	9,920 (10,360*)	
	2-pt. blade-supported	29,760* (29,760*)	17,200* (18,520*)	11,000 (13,670*)	7,940 (10,360*)	
0	non supported	(11,000)	(12,350)	(8,380)	(6,170)	
	4-pt. supported	18,740* (18,740*)	19,200* (19,200*)	13,450* (13,450*)	9,700* (9,700*)	
	2-pt. blade-supported	18,740* (18,740*)	16,535 (19,180*)	10,800 (13,450*)	7,940 (9,700*)	
-5	non supported	(17,640*)	(12,125)	(8,160)	(6,170)	
	4-pt. supported	17,640* (17,640*)	16,755* (16,755*)	11,460* (11,470*)	7,050* (7,050*)	
	2-pt. blade-supported	17,640* (17,640*)	16,314* (16,755*)	10,800 (11,470*)	7,050* (7,050*)	
-10	non supported		(10,582*)			
	4-pt. supported		10,582* (17,196*)			
	2-pt. blade-supported		10,582* (10,582*)			

Height in m	Undercarriage stabilizers	Reach in m				
		3	4.5	6	7.5	9
9	non supported					
	4-pt. supported					
	2-pt. blade-supported					
7.5	non supported		(6.2*)	(4.1)		
	4-pt. supported		6.2* (6.2*)	4.5* (4.5*)		
	2-pt. blade-supported		6.2* (6.2*)	4.5* (4.5*)		
6	non supported		(6.2*)	(4.1)		
	4-pt. supported		6.2* (6.2*)	5.4* (5.4*)		
	2-pt. blade-supported		6.2* (6.2*)	5.4* (5.4*)		
4.5	non supported		(6.2*)	(4.1)	(2.9)	
	4-pt. supported		6.2* (6.2*)	5.5* (5.5*)	4.6 (4.8*)	
	2-pt. blade-supported		6.2* (6.2*)	5.4* (5.5*)	3.7 (4.8*)	
3	non supported	(9.2*)	(6.2)	(4.0)	(2.9)	
	4-pt. supported	9.2* (9.2*)	7.2* (7.2*)	5.8* (5.8*)	4.5 (4.8*)	
	2-pt. blade-supported	9.2* (9.2*)	7.2* (7.2*)	5.2 (5.8*)	3.7 (4.8*)	
1.5	non supported	(11.0)	(5.9)	(3.9)	(2.8)	
	4-pt. supported	13.5* (13.5*)	8.4* (8.4*)	6.2* (6.2*)	4.5 (4.7*)	
	2-pt. blade-supported	13.5* (13.5*)	7.8 (8.4*)	5.0 (6.2*)	3.6 (4.7*)	
0	non supported	(5.0)	(5.6)	(3.8)	(2.8)	
	4-pt. supported	8.5* (8.5*)	8.7* (8.7*)	6.1* (6.1*)	4.4* (4.4*)	
	2-pt. blade-supported	8.5* (8.5*)	7.5 (8.7*)	4.9 (6.1*)	3.6 (4.4*)	
-1.5	non supported	(8.0*)	(5.5)	(3.7)	(2.8)	
	4-pt. supported	8.0* (8.0*)	7.6* (7.6*)	5.2* (5.2*)	3.2* (3.2*)	
	2-pt. blade-supported	8.0* (8.0*)	7.4* (7.6*)	4.9 (5.2*)	3.2* (3.2*)	
-3	non supported		(4.8*)			
	4-pt. supported		4.8* (4.8*)			
	2-pt. blade-supported		4.8* (4.8*)			

Values are valid for working diagram on page 3.

only reachable with multi-purpose stick

only reachable with dipperstick

REMARKS

The values are stated in lbs or tons (t). The pump pressure for this table is 5220 psi (360 bar). The values amount to 75 % of the static tipping load or 87 % of the hydraulic lifting force (marked *). When the machine is standing on solid and level ground, these values apply to slewing operations through 360°. The values in brackets apply in the lengthwise direction of the undercarriage. The values specified "non-supported" only apply when the load is hoisted above the front or rear axle.

The weight of the attached load hoisting implement (grab, magnet, load hook, linkage, bucket cylinder, etc.) must be deducted from the carrying capacity values. The weight for the linkage and bucket cylinder is 440 lbs (200 kg).

CAB

- Cab: ergonomically shaped driver's cab with functional design and good all-round visibility; infinitely variable, hydraulically height-adjustable cab with max. eye level of 4.8 m (15'9").
- Driver's seat: mechanically cushioned comfort seat with seat belt, multi-adjustable to suit any driver.
- Heating: infinitely variable hotwater heating with 3-speed fan.
- Air conditioning as standard.
- Option: air cushioned comfort seat with integrated headrest.
- Sound power level (guaranteed) $LW(A) = 102 \text{ dB(A)}$.

OFFICIAL HOMOLOGATION

- Certification according to CE-regulations.

TRANSPORT DIMENSIONS

Dimension in./mm	4-pt. stabilizers (box-type boom 17'5.2 m)	2-pt. stabilizers with support blade (box-type boom 14'4.2 m)
A	325"/8250mm	283"/7200mm
B	128"/3250mm	138"/3500mm
C	124"/3145mm	124"/3145mm
D	49"/1250mm	49"/1250mm
E	49"/1250mm	49"/1250mm

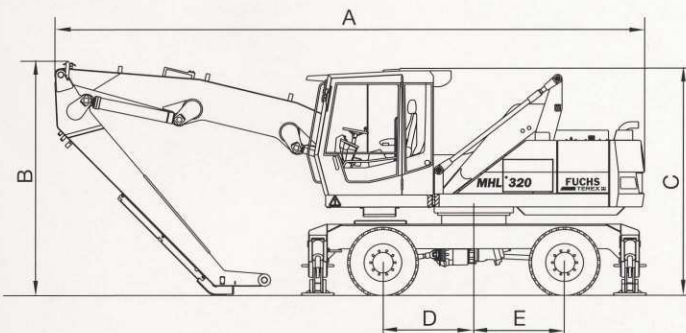
GRABS

- 0.52 yd³ (0.4 m³) - 0.8 yd³ (0.6 m³) cactus grabs (option) with cast central case and enclosed swing drive, grab jaws with wear-resistant grab liners and tips.

OPTION: REVERSABLE FAN

- Reversible intake direction; advantage: longer machine operating time in dusty environments.

Transport dimensions on a flat-bed trailer
4-pt. stabilizers (box-type boom 17'5.2 m)



Transport dimensions on a flat-bed trailer
2-pt. stabilizers with support blade (box-type boom 14'4.2 m)

