

320C MH

Material Handler



The Cat® 320C Material Handler is specifically designed for the scrap and material handling customer. This machine uses the most sophisticated manufacturing technology to ensure the highest level of manufacturing quality. This quality, with high Cat design standards, means that the 320C Material Handler will deliver the reliability and productivity you demand from Caterpillar.

Cat® 3066T Diesel Engine	103 kW	138 hp
Operating Weight	25 530 kg	56,283 lb
Drawbar Pull	236 kN	53,055 lb
Maximum Travel Speed	4.3/2.6 km/h	2.7/1.6 mph
Cat Two-Piece Material Handler		
Linkage Arrangement	12.4 m	40'8"
Cat Cab Riser	1.2 m	4'0"

The Caterpillar® 320C Material Handler

Tough, dependable, and loaded with performance-improving features.

The 320C MH arrangement is available with the following features:

15 kW hydraulically driven generator set can power magnets up to 1214 mm (48 in.) in diameter. A Caterpillar patented state-of-the-art electronic magnet controller and generator are linked to provide trouble free service. The new controller completely eliminates traditional contactor maintenance and it is supported and warranted through your Cat dealer.

A cab mounted magnet system monitor/control provides system information through a series of indicators, lights and a rotary selector switch. The indicator lights provide the following information:

- **Magnet "On":** Magnet is turned on.
- **Generator "Hot":** Generator is over heated and must be cooled down. The generator should be run under "no load" until the indicator turns off.
- **Voltage Fault:** Voltage too high or too low. May indicate service is required.
- **Ground Fault:** The magnet, generator or cable is grounded. Service is required.
- **Over 75% Duty Cycle:** The "magnet on" time exceeds 7.5 minutes in a ten minute time frame indicating the operator technique needs to be adjusted.

Rotary selector switch allows the operator to optimize the magnet performance for different grades of scrap from within the cab.

Caterpillar designed and built 1.2 m (4'0") cab riser gets your operator to an operating height with excellent visibility for loading or unloading your processing equipment, trucks and rail cars. Access to the cab is provided by a ladder up the side of the riser. The cab riser can also be manually tilted forward 90° for shipping.



Cat Material Handler hydraulic systems are specifically designed to meet your hydraulic attachment requirements.

The grapple open/close circuit works with the other implement circuits to deliver smooth, simultaneous, multi-function control. The rotate circuit provides a separate 304 L/min (8 gpm) gear pump and fully adjustable control valve, which allows this configuration to meet various grapple manufacturer's flow requirements. A separate fixed displacement gear pump is used to provide the hydraulic power to run a 15 kW generator system.

Cat two-piece fronts meet your material handling needs with excellent lift performance and working range, both in close and at full reach.

The 320C MH two-piece front offers a maximum horizontal reach of 12.4 m (40'8") from swing center and a maximum vertical pin height of 13.7 m (44'11"). The two-piece fronts are an excellent match for a 0.57 m³ (0.75 yd³) scrap grapple.

Booms and sticks are built for performance and long service life.

- **Efficient design of welded box-section structures** with thick, multi-plate fabrications in high stress areas allows structures to flex, dissipating stresses and maximizing strength.
- **Stress relieving booms and sticks** maximize strength and minimize structure weight.
- **Wide 2590 mm (8'6") track gauge** provides the over-the-side stability required to handle heavy loads and improve productivity.

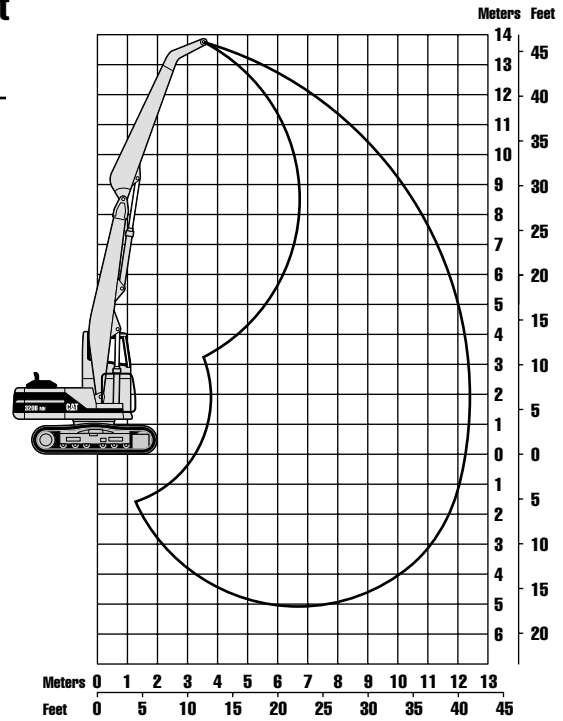
The 320C MH is equipped with a swing out oil cooler to provide easy cleaning and maximum cooling capacity.



Working Range/Lift Chart – Two-Piece Front

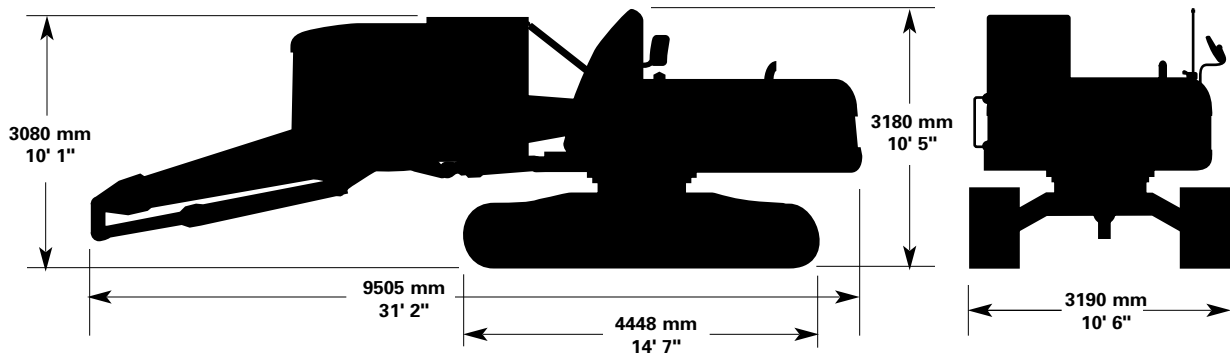
Machine equipped with 12.4 m (40'8") Cat two-piece MH front.

Maximum horizontal reach	12.4 m	40'8"
Maximum height at 9.75 m (32')	13.7 m	44'11"



Shipping Dimensions

All dimensions are approximate.



Track

Purpose built, track-type undercarriage unique to material handlers.

Number of shoes, each side	49
Number of rollers, each side	8
Overall track length	4455 mm (14'7")
Gauge	2590 mm (8'6")
Track shoes	
Triple grouser	600 mm (24")
Ground clearance	630 mm (25")

Features

- robot-welded, pentagonal track roller frames with hydraulic adjusters
- sealed and lubricated rollers and idlers
- sealed track with triple-grouser shoes

Weights

	kg	lb
Operating weight	25 530	56,280
Counterweight	5820	12,800
Stick	1020	2,250
Boom*	2650	5,835

* Includes boom and stick cylinders

Performance*

	km/h	mph
Low range travel speed	0-2.6	0-1.6
High range travel speed	0-4.3	0-2.7
		kN
Drawbar pull	236	53,055

*Values at maximum pump displacement

320C Material Handler

Lift Capacities



Load at
Maximum Reach



Load Radius
Over Front



Load Radius
Over Side

Load Point Height		1.5 m/5.0 ft		3.0 m/10.0 ft		4.5 m/15.0 ft		6.0 m/20.0 ft		7.5 m/25.0 ft		9.0 m/30.0 ft		10.5 m/35.0 ft		12.0 m/40.0 ft		m ft		
		kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	
10.5 m	kg									*6000	5500							*3900	*3900	8.96
35.0 ft	lb									*13,250	11,700							*8650	*8650	28.84
9.0 m	kg									*5800	5550	*5350	4100					*3500	3250	10.20
30.0 ft	lb									*12,700	11,900	*11,750	8800					*7750	7300	33.14
7.5 m	kg									*5800	5550	*5300	4150	4400	3150			*3300	2850	11.11
25.0 ft	lb									*12,650	11,900	*11,600	8850	9400	6750			*7250	6300	36.23
6.0 m	kg							*6700	*6700	*6000	5450	*5400	4050	4400	3150			*3200	2600	11.75
20.0 ft	lb							*14,550	*14,550	*13,000	11,700	*11,750	8750	9400	6750			*7000	5700	38.43
4.5 m	kg							*7300	*7300	*6300	5250	5500	3950	4350	3100	3500	2500	*3150	2400	12.17
15.0 ft	lb							*15,850	*15,850	*13,700	11,350	11,850	8500	9300	6650	7700	5450	*6900	5300	39.88
3.0 m	kg					*10 250	*10 250	*8050	7050	*6700	5050	5400	3850	4250	3050	3450	2450	*3150	2300	12.40
10.0 ft	lb					*22,200	*22,200	*17,450	15,150	*14,500	10,850	11,550	8250	9150	6500	7450	5250	*6900	5100	40.66
1.5 m	kg					*11,700	10 100	*8750	6650	6850	4800	5250	3700	4200	2950	3450	2400	*3200	2300	12.44
5.0 ft	lb					*25,300	21,750	*18,900	14,250	14,700	10,350	11,250	7950	8950	6350	7350	5150	*7050	5000	40.81
Ground Line	kg					*12,250	9400	*9000	6250	6600	4600	5100	3600	4100	2900	3400	2400	*3200	2300	12.30
	lb					*26,550	20,250	*19,500	13,500	14,200	9900	10,950	7700	8800	6200	7300	5100	*7000	5050	40.34
-1.5 m	kg	*1850	*1850	*3750	*3750	*9600	9050	*8750	6000	6450	4450	5000	3500	4050	2850			*2800	2400	11.96
-5.0 ft	lb	*4100	*4100	*8550	*8550	*22,300	19,400	*18,900	12,950	13,850	9600	10,750	7500	8700	6100			*6100	5250	39.22
-3.0 m	kg			*4900	*4900	*9400	8900	*7800	5900	*6150	4350	*4800	3450	*3500	2800			*2900	2650	11.03
-10.0 ft	lb			*11,000	*11,000	*21,600	19,100	*16,850	12,700	*13,200	9400	*10,250	7400	*7250	6050			*6400	5850	36.05
-4.5 m	kg					*6200	5900	*4850	4350									*3700	3550	8.84
-15.0 ft	lb					*13,250	12,700	*10,300	9400									*8400	8000	28.37

* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

www.CAT.com

© 2000, 2001 Caterpillar

Printed in U.S.A.

AEHQ5384-01 (08-01)

Materials and specifications subject to change without notice.

CATERPILLAR®