

V O L V O



Volvo Excavators 26.5 t 90 kW

EW240 ELECTRIC MATERIAL HANDLER

Volvo Construction Equipment

EW240 ELECTRIC MATERIAL HANDLER

With zero exhaust emissions and near silent operation, this is the perfect solution for noise sensitive areas, low carbon zones and to take a step ahead in upcoming regulations.



The power of electric

A cable connection makes this the perfect choice to lower operating costs in static applications. With no need to stop work to refuel or recharge you can also increase your productivity. The electric-powered material handler gives operators the same performance and control as provided by conventional machines, but with added comfort.



Comfort

- Hydraulic elevated cab with double damped mounts
- Boom dampening
- Less vibrations
- User-friendly Volvo display



Serviceability

- Maintenance-free electric motor
- No engine-related components and maintenance requirements
- Ground-level service access
- Newly designed electric control cabinet



A clean, smart choice

- A zero-emission, quiet power source that can work in low carbon zones
- Ability to work indoor and in noise sensitive areas
- No need to refuel or recharge



Visibility and safety

- Flat machine right hand side hood
- One-piece front window
- Rear and side view camera
- FOPS and FOG-protected cab
- Arm in limitation
- Height limitation



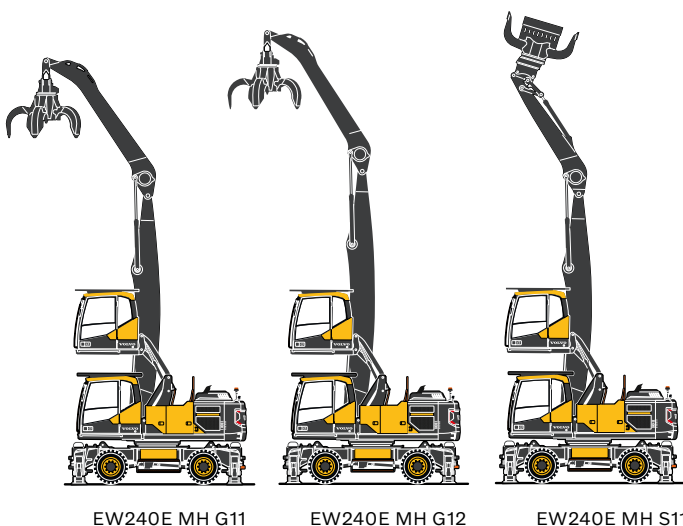
Cable connected facts

- 90 kW electric motor
- Electrical grid - AC 400V
- IP55-compliant system
- Cable positioned on the undercarriage through the swivel joint

Volvo EW240 Electric Material Handler in detail

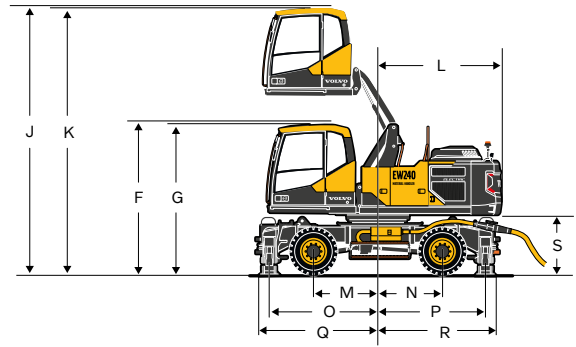
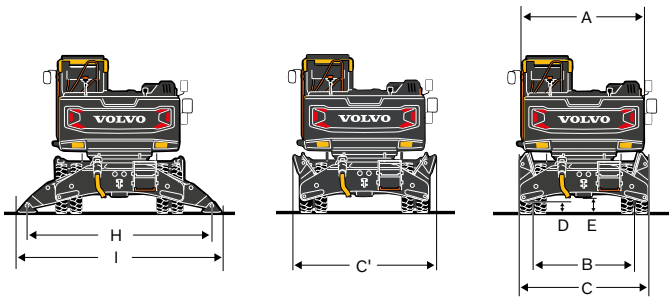
Motor		
Fixed motor rpm	r/min	1 500
Rate power	kW	90
	hp	122
Max. torque	Nm	577
Max. starting current (for 2-3 sec)	A	500
Adjustable soft start		Standard
Electrical system		
Battery voltage	V	2 x 12
Battery capacity	Ah	55
Electric power supply, TT, TN, IT:		
Voltage	V	400
Fuse capacity	A	250
Frequency	Hz	50
Swing system		
The superstructure is slewed by the means of a axial motor with reduction gear box. Automatic slew holding brake and anti-rebound valve are standard.		
Max. slew speed	r/min	8
Max. slew torque	kNm	54
Undercarriage		
Oscillation	± °	4.5
Twin wheels	type	10-20 / 11-20
Tractive force (net)	kN	121
Travel speed, creep	km/h	3.2
Min. turning radius	m	8.1
Cab		
Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO ₂ -eq.		
Brake system		
Service brakes: servo-hydraulically manoeuvred self-adjusting wet multidiscs with two separate brake circuits.		
Parking brake: negative wet disc in gear housing, spring applied and pressure released.		
Digging brake: service brake with mechanical lock system.		
Security system: The 2-circuit travel brakes are supplied with two accumulators in the event of failure in the service brake system.		

Hydraulic system		
Closed-centre load sensing hydraulic system with pressure compensated valves. Load independence of movements. Flow sharing feature, combined with a high flow pump (power regulation). The system gives superior manoeuvrability and fast movements, for optimal working result and economy.		
Main pump (type low noise axial piston pump)		
Max. flow	l/min	300
Brake + steering pump (type low noise gear pump)		
Max. flow	l/min	30
Servo pump (type low noise gear pump)		
Max. flow	l/min	10
Max. pressure		
Implement	MPa	35
Travel system	MPa	35
Slew system	MPa	23
Pilot system	MPa	3.5
Total Machine Weights		
With straight boom, with gooseneck arm 5 m, with solideal twin tyres 10-20, with grapple (600 l / 1 714 kg)		
With front and rear outriggers	kg	26 200
With straight boom, with sorting arm 4 m, with solideal twin tyres 10-20, with sorting grap with Quick coupler (650 l / 1 480 kg)		
With front and rear outriggers	kg	26 100
Service Refill		
Hydraulic system, total	l	340
Hydraulic tank	l	170
Transmission	l	2.5
Axle differential:		
Front axle	l	16
Rear axle	l	20



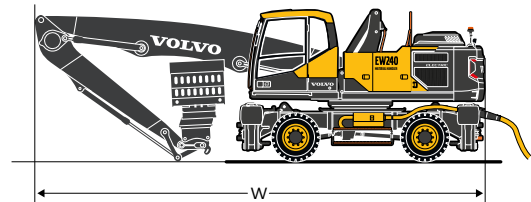
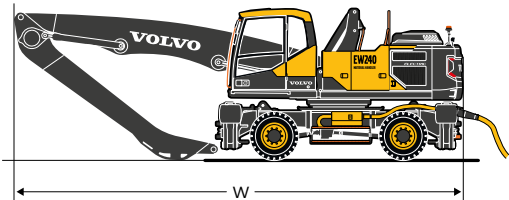
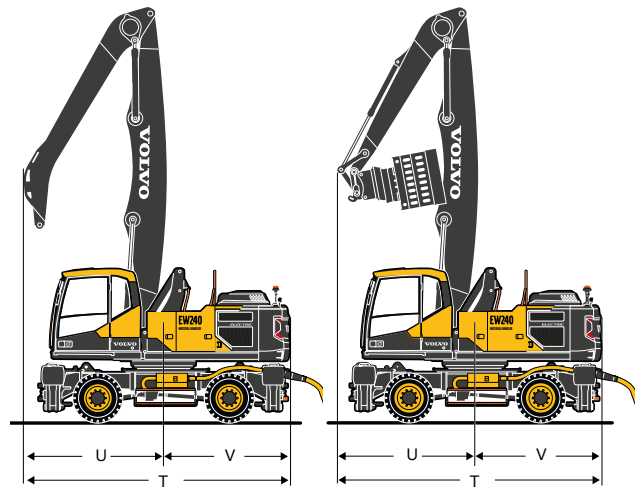
Machine selector			
Boom	Goose neck arm	Reach	Name
m	m	mm	
6.5	5.0	11 200	EW240E MH G11
7.25	5.0	12 000	EW240E MH G12
Boom	Sorting arm	Reach	Name
m	m	mm	
6.5	4.0	10 500	EW240E MH S11

Specifications

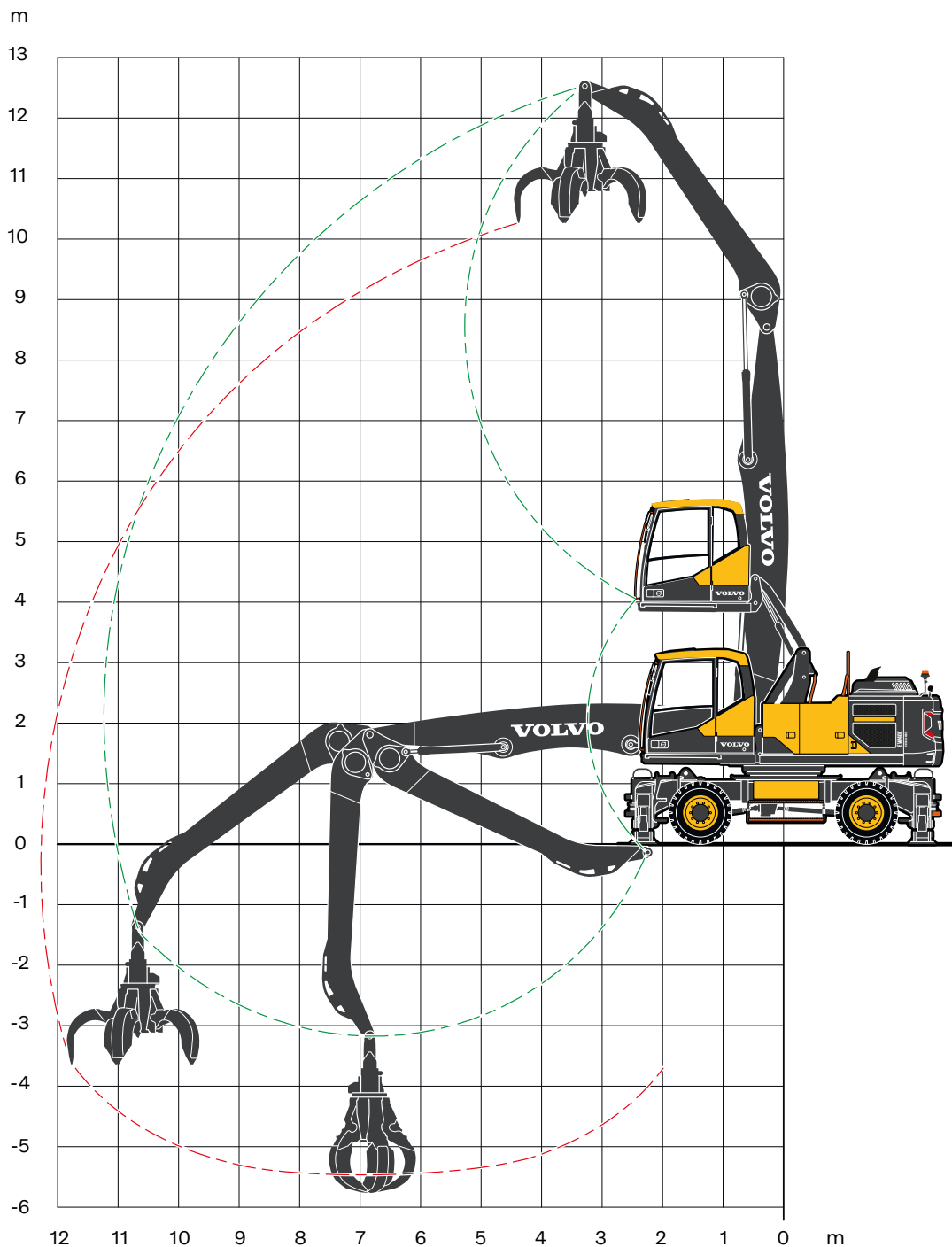


DIMENSIONS

Model		EW240 Electric	
A	mm	2 540	
B	mm	2 114	
C	mm	2 700	
C'	mm	2 950	
D	mm	250	
E	mm	351	
F (with FOPS)	mm	3 354	
G	mm	3 304	
H	mm	3 860	
I	mm	4 260	
J (with FOPS)	mm	5 853	
K	mm	5 803	
L	mm	2 620	
M	mm	1 375	
N	mm	1 375	
O	mm	2 310	
P	mm	2 290	
Q	mm	2 535	
R	mm	2 515	
S	mm	1 390	
		Straight boom 6.5 m	
		Gooseneck arm 5.0 m G11	Sorting arm 4.0 m S11
T	mm	5 430	5 480
U	mm	2 800	2 850
V	mm	2 620	2 620
W	mm	9 550	9 550
		Straight boom 7.25 m	
		Gooseneck arm 5.0 m G12	
T	mm	5 590	
U	mm	2 960	
V	mm	2 620	
W	mm	10 280	



Specifications



ORANGE PEEL GRAPPLE/POLY GRAB EW240 Electric MH G11

With poly grapple on gooseneck arm

Width (closed)	mm	1520
Opening width	mm	2130
Height (closed)	mm	2580
Volume	l	600

RECOMMENDED ATTACHMENTS

ORANGE PEEL GRAPPLE/POLY GRAB

EW240 Electric MH with 6.50 m boom: Lifting capacity at maximum reach with support down according ISO 10567: 3 400 kg

Volume	Weight (grapple only)	Max. load capacity	Weight including H-Suspension	Maximum material density
l	kg	kg	kg	t/m ³
450	970	7 000	1 100	2.4
600*	1 600	7 000*	1 700*	2.8*
800	1 560	7 000	1 700	2.1

Note: The sizes and weights marked with an asterisk (*) are recommended for EW240 Electric MH .

LIFTING CAPACITY EW240 Electric MATERIAL HANDLER

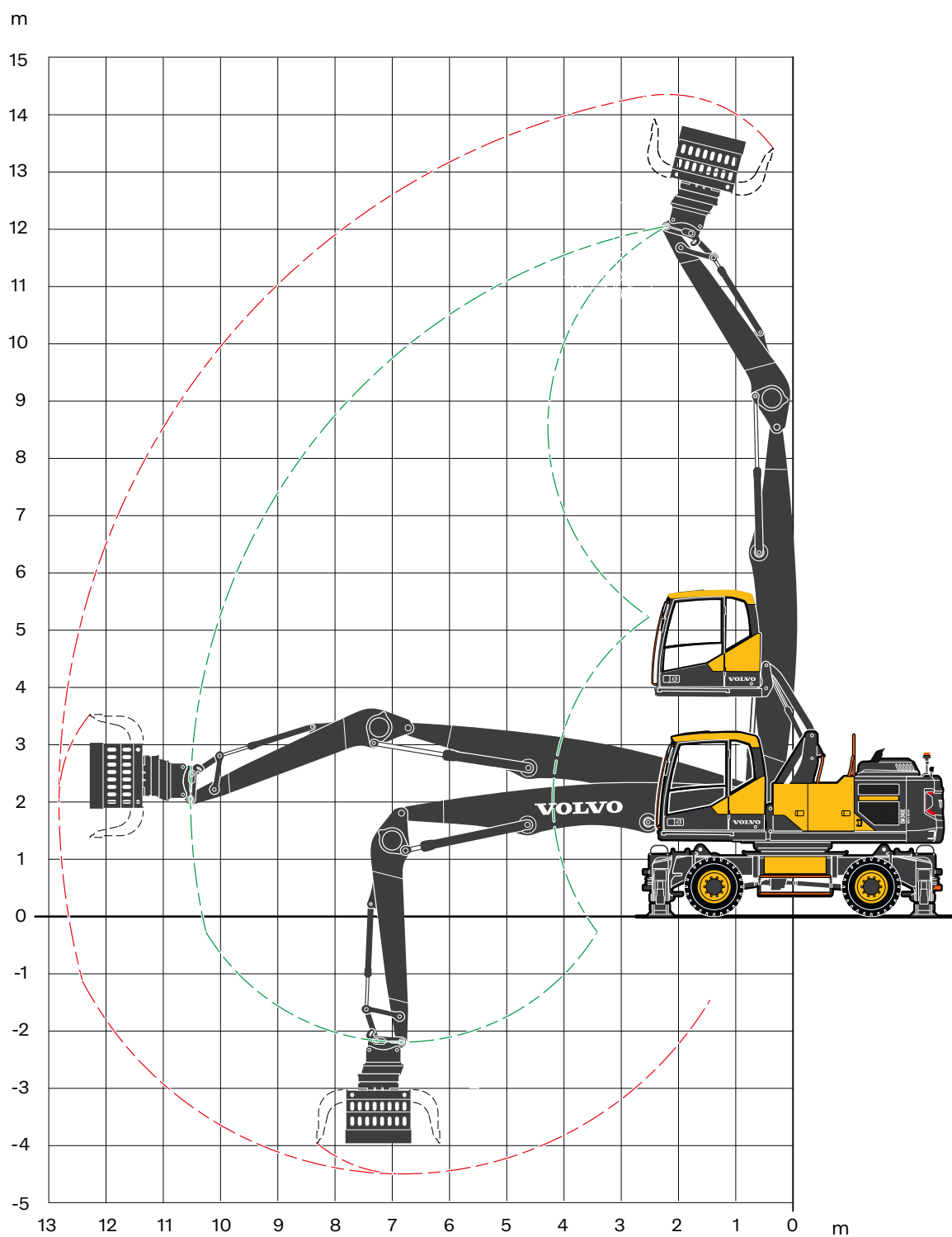
At the arm end without grapple. For lifting capacity including grapple, simply subtract actual weight of this part from the following values.

Unit: 1 000kg

Notes: 1. Working pressure = 35 MPa. 2. The above values are in compliance with ISO standard 10 567. They do not exceed 87 % of hydraulic lifting capacity or 75 % of tipping load, with the machine on firm, level ground. 3. Load capacities marked with an asterisk (*) are limited by machine's hydraulic lifting capacity rather than tipping load.

Lifting point	Reach from machine centre (u = support up/d = support down)																	
	3.0 m				4.5 m				6.0 m									
	Across UC		Along UC		Across UC		Along UC		Across UC		Along UC							
m	u	d	u	d	u	d	u	d	u	d	u	d						
12.0	-	-	-	-	6.8*	6.8*	6.8*	6.8*	-	-	-	-						
10.5	-	-	-	-	-	-	-	-	5.0	6.3*	6.3*	6.3*						
9.0	-	-	-	-	-	-	-	-	5.1	6.0	6.0	6.0						
7.5	-	-	-	-	-	-	-	-	5.0	6.1	6.1	6.1						
6.0	-	-	-	-	-	-	-	-	4.9	6.4	6.4	6.4						
4.5	-	-	-	-	7.2	8.7	8.7	8.7	4.6	7.0	6.2	7.0						
3.0	-	-	-	-	6.4	10.1	9.0	10.1	4.3	7.7	5.9	7.7						
1.5	-	-	-	-	5.8	11.3	8.3	11.3	3.9	8.2	5.5	8.2						
0.0	3.4	3.4	3.4	3.4	5.3	10.4	7.8	10.4	3.7	8.2	5.2	8.3						
-1.5	-	-	-	-	5.1	9.1	7.6	9.1	3.5	7.9	5.1	7.9						
-3.0	-	-	-	-	-	-	-	-	3.5	6.8	5.0	6.8						
Straight boom 6.5 m Gooseneck arm 5.0 m Front and rear outriggers	7.5 m				9.0 m				10.5 m				Max.					
	Across UC		Along UC		Across UC		Along UC		Across UC		Along UC		Across UC		Along UC		Max.	
	m	u	d	u	d	u	d	u	d	u	d	u	d	u	d	u	d	m
12.0	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4*	6.4*	6.4*	6.4*	4.7
10.5	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	5.2*	4.9	5.2*	7.2
9.0	3.5	5.5	4.7	5.5	-	-	-	-	-	-	-	-	-	2.7	4.7	3.6	4.7	8.7
7.5	3.5	5.5	4.7	5.5	2.6	5.0	3.4	5.0	-	-	-	-	2.2	4.4	3.0	4.5	9.8	
6.0	3.4	5.6	4.6	5.6	2.5	5.0	3.4	5.0	-	-	-	-	1.9	3.9	2.6	4.4	10.5	
4.5	3.3	5.9	4.4	5.9	2.4	4.9	3.3	5.2	1.9	3.8	2.6	4.5	1.7	3.6	2.4	4.3	10.9	
3.0	3.1	6.3	4.2	6.3	2.3	4.8	3.2	5.3	1.8	3.8	2.5	4.5	1.6	3.4	2.3	4.2	11.2	
1.5	2.9	6.1	4.0	6.5	2.2	4.7	3.1	5.4	1.8	3.7	2.5	4.4	1.6	3.4	2.3	4.0	11.2	
0.0	2.7	5.9	3.9	6.5	2.1	4.6	3.0	5.2	1.7	3.7	2.4	4.2	1.6	3.4	2.3	3.8	11.0	
-1.5	2.6	5.8	3.8	6.1	2.1	4.5	3.0	4.9	-	-	-	-	1.7	3.6	2.4	3.6	10.5	
-3.0	2.6	5.3	3.7	5.3	-	-	-	-	-	-	-	-	2.5	5.0	3.5	5.0	7.8	

Specifications



SORTING GRAB EW240 Electric MH S11

With sorting grab on sorting arm

Opening width	mm	2 150
Height, max	mm	1 890
Height, min	mm	1 690
Volume	l	800

RECOMMENDED ATTACHMENTS

SORTING GRAB

EW240 Electric MH with 6.50 m boom :Lifting capacity at maximum reach with support down according ISO 10567: 3 700 kg

Quick coupler S60, weight: 140 kg

Volume	Weight (grapple only)	Max. load capacity	Maximum material density			
			Direct Fit		S60	
			Weight	Density	Weight	Density
l	kg	kg	kg	t/m ³	kg	t/m ³
300	650	4 000	750	-2.6	770	2.6
450	1 120	5 000	1 370	3.1	1 285	2.9
650*	1 170*	5 000*	1 420*	2.2*	1 310*	2.0*
800	1 600	6 000	1 845	-2.3	1 740	2.2

Note: The sizes and weights marked with an asterisk (*) are recommended for EW240 Electric MH.

LIFTING CAPACITY EW240 Electric MATERIAL HANDLER

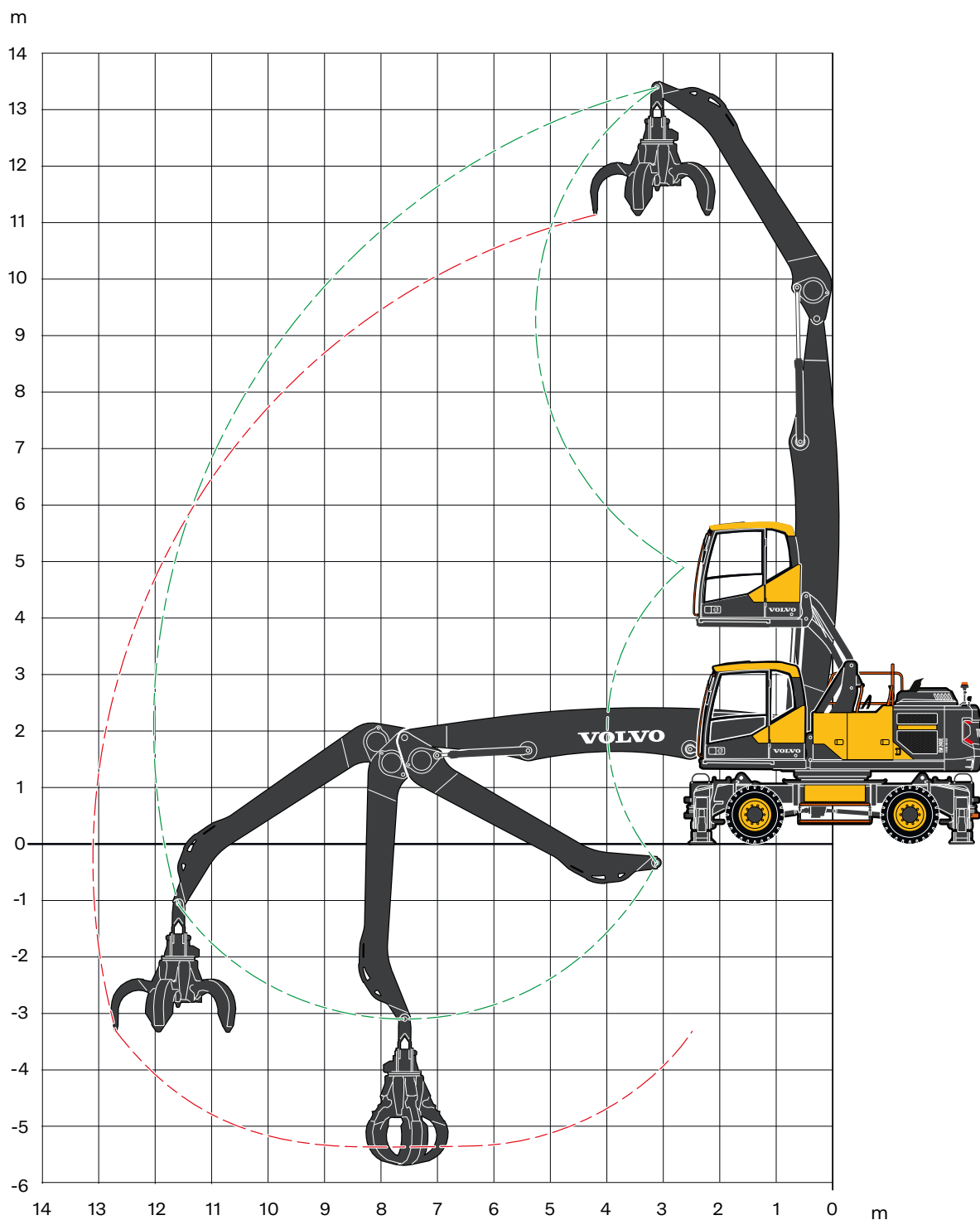
At the arm end without grapple. For lifting capacity including grapple, simply subtract actual weight of this part from the following values.

Unit: 1 000kg

Notes: 1. Working pressure = 35 MPa. 2. The above values are in compliance with ISO standard 10 567. They do not exceed 87 % of hydraulic lifting capacity or 75 % of tipping load, with the machine on firm, level ground. 3. Load capacities marked with an asterisk (*) are limited by machine's hydraulic lifting capacity rather than tipping load.

	Lifting point	Reach from machine centre (u = support up/d = support down)														Max.							
		4.5 m				6.0 m				7.5 m				9.0 m				Across UC		Along UC		Max.	
		Across UC		Along UC		Across UC		Along UC		Across UC		Along UC		Across UC		Along UC							
		u	d	u	d	u	d	u	d	u	d	u	d	u	d	u	d	u	d	m			
Straight boom 6.5 m Sorting arm 4.0 m Front and rear outriggers	12.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.4	11.4	11.4	11.4	2.5
	10.5	7.3	8.3	8.3	8.3	4.6	7.1	6.2	7.1	-	-	-	-	-	-	-	-	-	4.6	7.1	6.2	7.1	6.0
	9.0	7.5	7.8	7.8	7.8	4.7	6.7	6.4	6.7	3.2	6.0	4.4	6.0	-	-	-	-	-	3.0	5.9	4.1	5.9	7.8
	7.5	7.4	7.9	7.9	7.9	4.7	6.7	6.3	6.7	3.3	5.9	4.4	5.9	-	-	-	-	-	2.4	4.9	3.3	5.3	8.9
	6.0	7.1	8.5	8.5	8.5	4.6	7.0	6.2	7.0	3.2	6.0	4.4	6.0	2.4	4.8	3.3	5.3	2.1	4.2	2.9	4.9	9.7	
	4.5	6.7	9.7	9.3	9.7	4.3	7.5	5.9	7.5	3.1	6.2	4.2	6.2	2.3	4.7	3.2	5.3	1.9	3.9	2.6	4.7	10.2	
	3.0	6.0	11.0	8.6	11.0	4.0	8.1	5.6	8.1	2.9	6.1	4.1	6.5	2.2	4.7	3.1	5.4	1.8	3.7	2.5	4.4	10.5	
	1.5	5.5	8.6	8.0	8.6	3.8	8.3	5.3	8.4	2.8	6.0	3.9	6.6	2.2	4.6	3.0	5.3	1.7	3.7	2.4	4.1	10.5	
0.0	5.3	6.9	6.9	6.9	3.6	8.1	5.2	8.2	2.7	5.8	3.8	6.4	2.1	4.5	3.0	5.0	1.8	3.8	2.5	3.8	10.3		
-1.5	-	-	-	-	3.6	7.3	5.1	7.3	2.7	5.7	3.8	5.7	-	-	-	-	-	2.1	4.4	3.0	4.4	9.0	

Specifications



ORANGE PEEL GRAPPLE/POLY GRAB EW240 Electric MH G12

With poly grapple on gooseneck arm

Width (closed)	mm	1520
Opening width	mm	2130
Height (closed)	mm	2580
Volume	l	600

LIFTING CAPACITY EW240 Electric MATERIAL HANDLER

At the arm end without grapple. For lifting capacity including grapple, simply subtract actual weight of this part from the following values.
Unit: 1 000kg

Notes: 1. Working pressure = 35 MPa. 2. The above values are in compliance with ISO standard 10 567. They do not exceed 87 % of hydraulic lifting capacity or 75 % of tipping load, with the machine on firm, level ground. 3. Load capacities marked with an asterisk (*) are limited by machine's hydraulic lifting capacity rather than tipping load.

Lifting point	Reach from machine centre (u = support up/d = support down)																	
	4.5 m				6.0 m				7.5 m									
	Across UC		Along UC		Across UC		Along UC		Across UC		Along UC							
m	u	d	u	d	u	d	u	d	u	d	u	d						
12.0	7.5*	7.5*	7.5*	7.5*	4.8	6.0*	6.0*	6.0*	-	-	-	-						
10.5	-	-	-	-	5.0	6.1*	6.1*	6.1*	3.5	5.4*	4.6	5.4*						
9.0	-	-	-	-	5.1	6.0*	6.0*	6.0*	3.5	5.3*	4.7	5.3*						
7.5	-	-	-	-	5.0	6.1*	6.1*	6.1*	3.5	5.3*	4.6	5.3*						
6.0	7.5	8.0*	8.0*	8.0*	4.7	6.5*	6.4	6.5*	3.3	5.6*	4.5	5.6*						
4.5	6.8	9.1*	9.1*	9.1*	4.4	7.1*	6.0	7.1*	3.1	5.8*	4.3	5.8*						
3.0	5.9	10.4*	8.5	10.4*	4.0	7.7*	5.6	7.7*	2.9	6.1	4.0	6.1*						
1.5	5.2	8.1*	7.7	8.1*	3.6	8.0*	5.2	8.0*	2.7	5.9	3.8	6.3*						
0.0	4.8*	5.9*	5.9*	5.9*	3.4	7.8	4.9	8.0*	2.5	5.7	3.6	6.3*						
-1.5	4.7	6.2*	6.2*	6.2*	3.2	7.4*	4.8	7.4*	2.4	5.6	3.5	5.9*						
-3.0	-	-	-	-	-	-	-	-	2.4	5.1*	3.5	5.1*						
Boom 7.25 m Gooseneck arm 5.0 m Front and rear outriggers	9.0 m				10.5 m				12.0 m				Max.					
	Across UC		Along UC		Across UC		Along UC		Across UC		Along UC		Across UC		Along UC		Max.	
	m	u	d	u	d	u	d	u	d	u	d	u	d	u	d	m		
	12.0	-	-	-	-	-	-	-	-	-	-	-	-	4.3	5.3*	5.3*	5.3*	6.5
	10.5	-	-	-	-	-	-	-	-	-	-	-	-	2.8	4.7*	3.8	4.7*	8.4
	9.0	2.5	4.8*	3.4	4.8*	-	-	-	-	-	-	-	-	2.2	4.3*	3.0	4.3*	9.7
	7.5	2.5	4.8*	3.4	4.8*	1.9	3.9	2.6	4.3*	-	-	-	-	1.8	3.7	2.5	4.2*	10.7
	6.0	2.5	4.9*	3.3	4.9*	1.9	3.8	2.6	4.3*	-	-	-	-	1.6	3.4	2.2	4.0*	11.3
	4.5	2.3	4.8	3.2	5.0*	1.8	3.8	2.5	4.4*	-	-	-	-	1.4	3.1	2.1	3.9*	11.8
	3.0	2.2	4.7	3.1	5.1*	1.7	3.7	2.4	4.4*	-	-	-	-	1.4	3.0	2.0	3.7*	12.0
	1.5	2.1	4.5	3.0	5.2*	1.6	3.6	2.4	4.3*	1.3	3.0	1.9	3.5*	1.3	3.0	1.9	3.5*	12.0
	0.0	2.0	4.4	2.9	5.1*	1.6	3.5	2.3	4.2*	-	-	-	-	1.3	3.0	2.0	3.3*	11.8
	-1.5	1.9	4.3	2.8	4.7*	1.6	3.5	2.3	3.7*	-	-	-	-	1.4	3.2	2.1	3.2*	11.3
-3.0	-	-	-	-	-	-	-	-	-	-	-	-	2.0	4.3*	2.9	4.3*	8.7	

Equipment

STANDARD EQUIPMENT

Motor

Electric Motor, 90 kW

Electric / Electronic control system

Contronics-computerized monitoring and diagnostic system

Travel alarm

Engine stop button in right console

Adjustable monitor

Safety stop / start function and master electrical disconnect switch

Joystick Controlled Support (blade / outrigger function on LH joystick)

Halogen Front and LED rear driving lights for left hand driving

Volvo Co-Pilot display

Batteries, 2 x 12 V / 55 Ah

Soft start function

230 V / 10 A socket integrated in electrical cabinet

Service light integrated in electrical cabinet

Electrical cabinet with filtered cooling/ ventilation

CareTrack via GSM or satellite

Rear view camera

Side view camera right hand side

Superstructure

Reinforced upper frame and modified position of boom and boom cylinders - tailor-made for material handling application

Service walkway with anti-slip grating

Centralised lubricating point for slew bearing

Undercarriage

Longer, wider, stiffer undercarriage for higher rigidity and durability in handling applications

With 4 reinforced outriggers with enlarged outrigger pads

Main switch box integrated in undercarriage

2.75 m wide axles

1 creep speed transmission up to 3.2 km/h

Oscillating front axle $\pm 4.5\%$

2-circuit travel brakes

Extended axle lock (EAL)

Steps on outrigger (front and rear) for easier access

Hydraulic system

Load sensing hydraulic system

Boom float function

Pressure relief system (servo accumulator)

Proportional controlled electrical cooling dual- fan, reversible

Hose rupture valve for boom and arm

Hydraulic long life oil ISO VG46

Boom dampening system

Soft swing function

Arm in limitation function

STANDARD EQUIPMENT

Cab and interior

Volvo hydraulic elevated Care Cab with fixed roof hatch

Heater & air-conditioner, automatic

Hydraulic dampening cab mounts

Adjustable operator seat and joystick control console

Adjustable steering column

Hydraulic safety lock lever

L8 control joystick, with 5 roller switches

Cab, all-weather sound suppressed, includes:

Cup holder

Door locks

Safety glass, light tinted

Floor mat

Horn

Large storage area

Pull-up type front window

Removable lower windshield

2 inch retractable seat belt

Windshield wiper with washer and intermittent feature

Sun shield, front, roof & rear

Master ignition key

Lower wiper

Handling equipment

Centralised lubrication point

OPTIONAL EQUIPMENT
Engine
Micro- mesh and sealing for cooling compartment
Electric / Electronic control system
Remote controlled welcome light
24 channel electric centre passage
Luxury LED work lights package (11) - includes:
a) remote controlled welcome lights
b) boom-mounted (2)
c) rear cab (1) and counterweight mounted (1)
d) cab front (4)
e) arm mounted (2)
f) LED light for side camera
Electric plug/ socket connection
Rotating beacon on cab and counterweight
Undercarriage
Twin tires 10.00 – 20
Stone protection rings
Standard toolbox or Drawer type toolbox on right side
2.7 m wide axels
Hydraulic system
Hydraulic oil, biodegradable ISO VG32
Hydraulic oil, biodegradable ISO VG46
Hydraulic long life oil ISO VG32
Hydraulic long life oil ISO VG68
Hydraulic equipment for attachments : peel grapple and sorting grab
Height limitation function
Flow and pressure control
Cab and interior
Falling object guard (FOG)
Cab mounted falling object protective structures (FOPS)
Rain shield, front
Sunlight protection, roof hatch (steel)
Safety net for front window
One-piece polycarbonate window
Anti-vandalism kit
Radio with CD player and MP3 input
Ashtray
Lighter
3 inch retractable seat belt
Fabric seat, with heater
Fabric seat, with heater and air suspension
Luxury operator seat

OPTIONAL EQUIPMENT
Handling equipment
6.5 m or 7.25 m straight boom
Gooseneck arm 5.0 m
Sorting arm 4.0 m
Arm hoses protection
Service
Wheel chocks
Tool kit, daily maintenance
Attachments
Sorting grabs
Poly grapples
Other missing options available by our partner.

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.





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