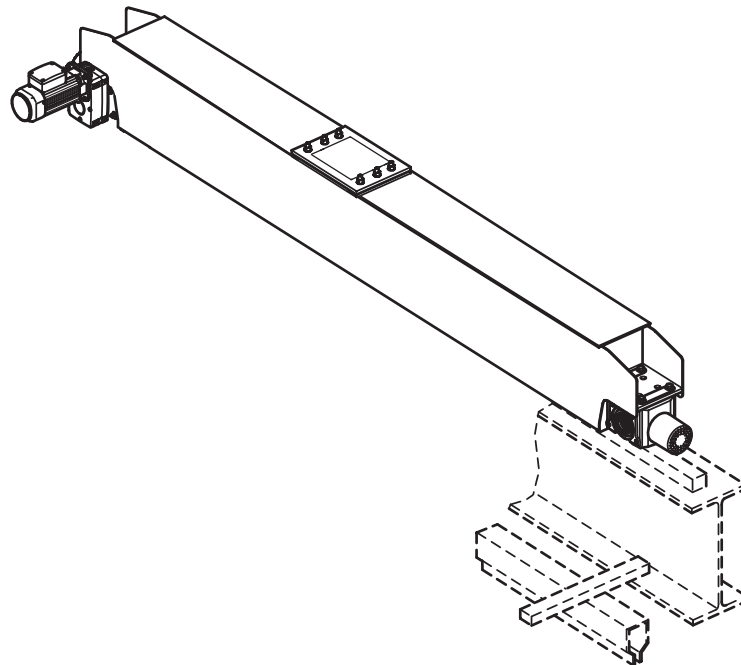


# Technical data

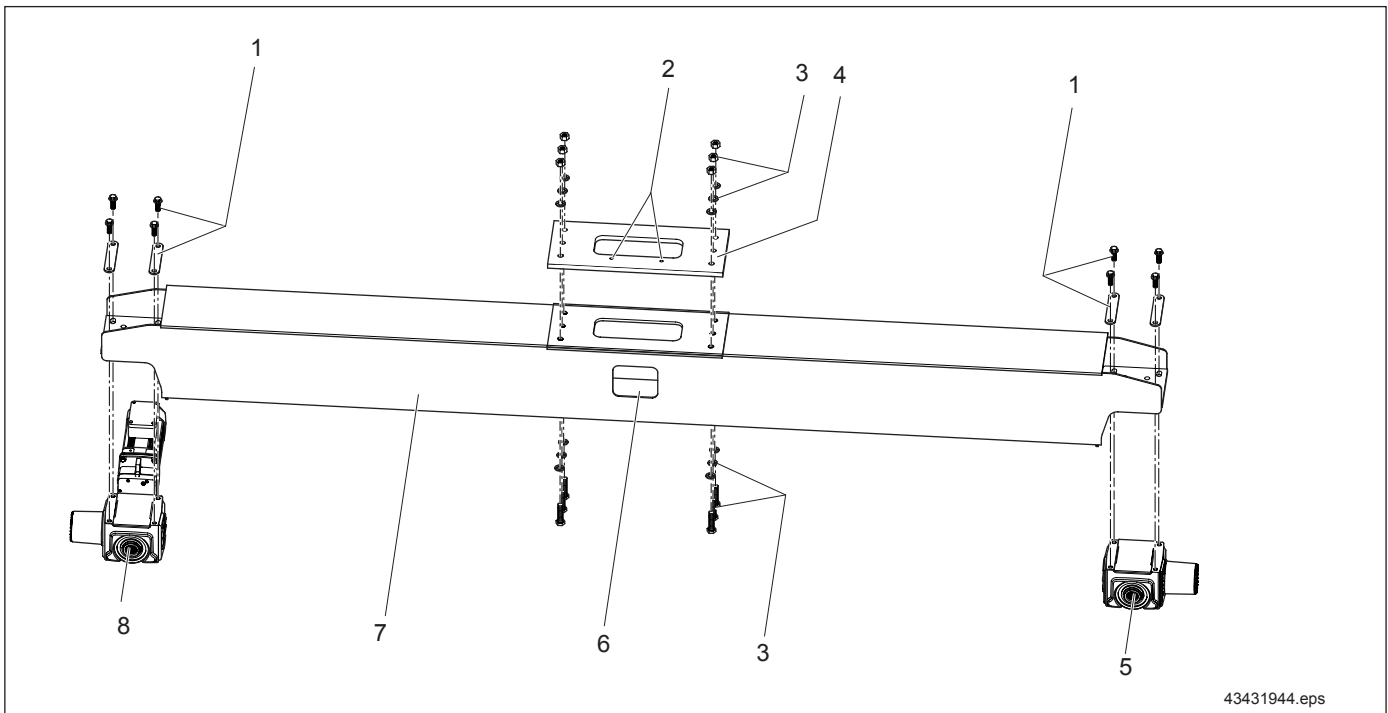
DFW-Bas L-E endtrucks  
with WS-Bas 125 to 200



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# Contents

<b>1</b>	<b>Product description</b>	<b>3</b>
1.1	Application	3
1.2	Modular endtruck system	3
1.3	Anti-corrosion protection and paint finish	3
1.4	Documentation	3
<b>2</b>	<b>Design and mounting information</b>	<b>4</b>
2.1	Steel structure	4
2.2	Types of connection	4
2.3	WS-Bas wheel block	5
2.4	Track gauge change	6
2.5	Derailment protection	6
<b>3</b>	<b>Type code</b>	<b>7</b>
3.1	Type designation	7
3.2	Ordering information	7
<b>4</b>	<b>Data and dimensions</b>	<b>8</b>
4.1	DFW-Bas L-E endtruck	8
4.2	Mounting	10
<b>5</b>	<b>DFW-Bas L-E endtruck attachments</b>	<b>11</b>
5.1	Mounting plate for DFW-Bas L-E	11
5.2	Torque brackets	11
5.3	Bumpers and spacers	11
<b>6</b>	<b>Order form for DFW-Bas L-E endtrucks</b>	<b>12</b>



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1	Mounting material for wheel block
2	Bore holes for alignment
3	Mounting material for the top connection
4	Mounting plate

5	Wheel block, non-driven
6	Installation opening
7	Endtruck
8	Wheel block, driven

# 1 Product description

## 1.1 Application

The DFW-Bas L-E endtruck is used to transport steel structures of crane and hoisting technology as well as structures of similar types of mechanical engineering.

## 1.2 Modular travel unit system

DFW-Bas L-E endtruck is a compact, self-propelled rail bound traveling mechanism that can be directly connected to load-bearing structures. In addition to the steel component and a torsionally rigid box section, the travel unit features a driven wheel block to which a gearbox and motor are fitted, as well as an optional wheel block to be driven.

The endtruck, designed according to the latest findings in the field of steel support structures, has excellent handling characteristics, even with high loads due to the narrow tolerances such as tracking errors, skewing and alignment. Specially aligned motors guarantee smooth starting of the travel unit, whether with or without a load, for favorable speed/torque characteristics.

### **We offer the following attachment combinations to meet your design needs:**

#### Connection

- Endtrucks with a crane girder connection on the top (standard)

#### Drive unit / travel wheel

- WS-Bas wheel block, 125, 160 and 200 mm (4.92, 6.30 and 7.87 in.)
- Maximum wheel loads up to 10,000 kg (22,000 lbs)
- Wheel bases, 1500, 2000, 2500, 3150, 4000 mm (59.05, 78.74, 98.5, 124 and 157.5 in.)

#### Travel drive (drives optionally fitted to the right or left-hand side)

- TG-Bas offset gearbox
- Bas travel motor
- Torque bracket

#### Bumper

- DPZ cellulose plastic bumpers

## 1.3 Anti-corrosion protection and paint finish

### **Anti-corrosion protection**

- Pre-treatment of steel structures in a steel shot descaling system (cleanliness grade Sa2 according to DIN 55 928).
- Rust protection by means of a primer coat RAL 1004 golden yellow (60 µm layer thickness )
- Other anti-corrosion protection measures upon request.

### **Paint finish**

- Upon request, even a top coat of RAL 1007 chrome yellow or others on request.

## 1.4 Documentation

### **Travel unit**

- Assembly instructions 229 344 49

### **WS-Bas wheel blocks, TG-Bas gearboxes and-Bas travel motors**

- WS-Bas assembly instructions 229 340 49
- TG-Bas assembly instructions 229 339 49
- Bas Travel Motor assembly instructions 229 341 49

## 2 Design and mounting information

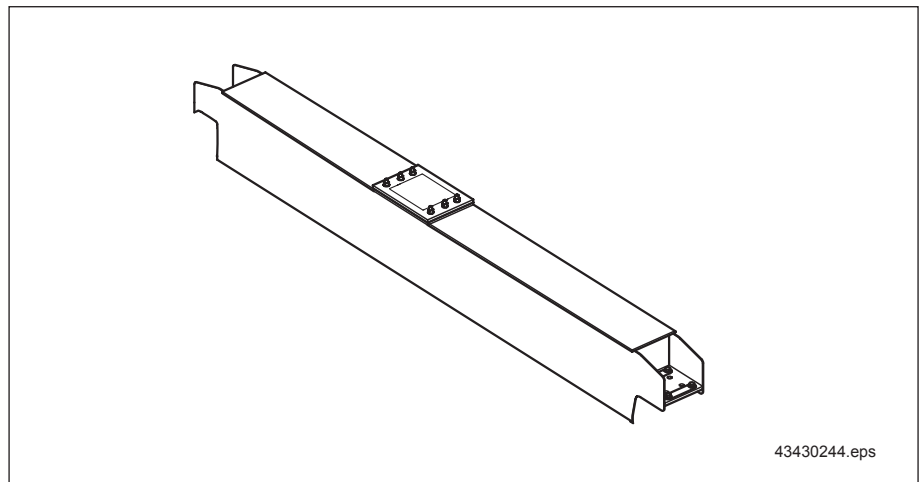
### 2.1 Steel structure

The steel structure is designed according to DIN 15018 hoisting class H2, stress group B3.

Steel structure features:

- Rugged design thanks to rigid, enclosed box girder profile. Precisely welded diaphragm plates reinforce the connection area.
- Easy assembly and accessibility. Detachable and bolted connection with the connecting structure.
- Optimum travel characteristics and, if required, reliable replacement thanks to the accuracy of the connection geometry. Fine tolerances for tracking gauge errors, and diagonal wheel position and misalignment are met as a result of the precise alignment and machining of the connection surfaces.

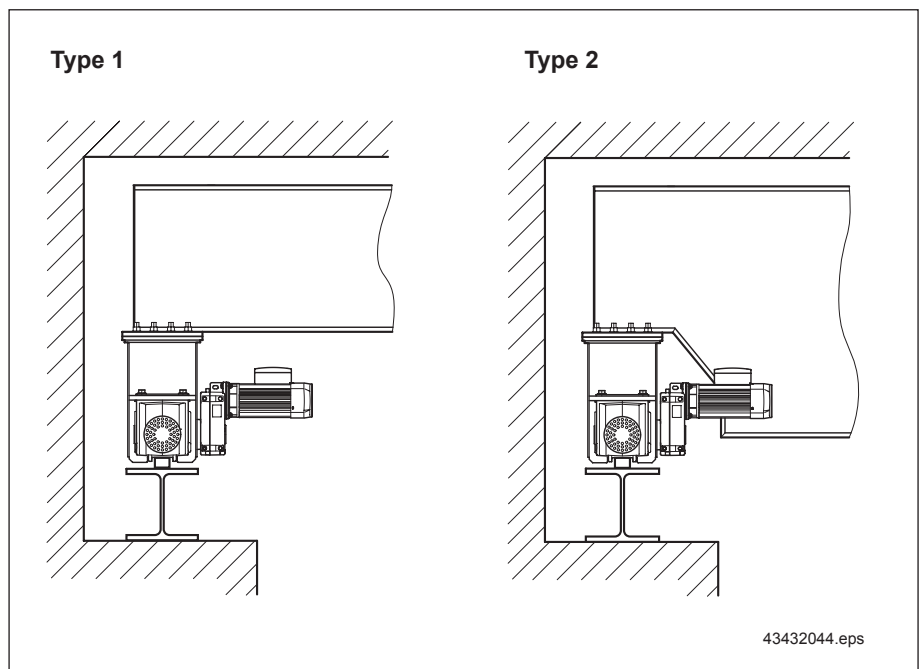
Steel superstructure with crane girder connection on the top



### 2.2 Types of connections

The crane girder is placed on the endtruck and fastened to the top connection there.

Types

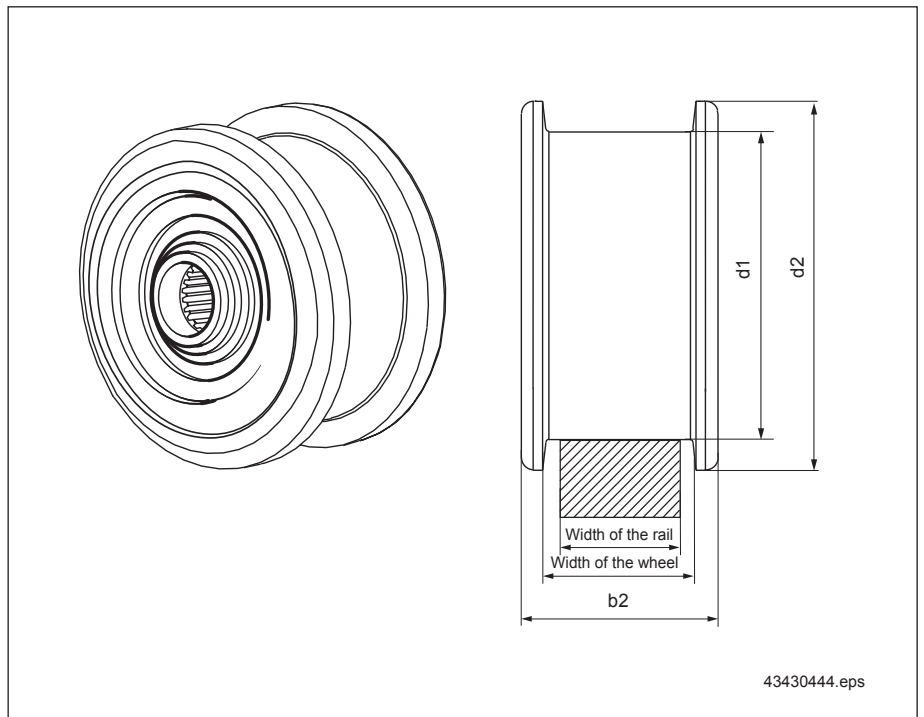


## 2.3 WS-Bas wheel block

Wheel blocks feature:

- Positive travel wheel/shaft connection resulting from the splined shaft section.
- Simple, fast assembly and replacement with commercially available tools.
- High wheel loads, long service life due to dust-proof anti-friction bearings lubricated for life.
- Simple adjustment of wheel centers by re-arranging spacer elements between the wheel block and the inside of the endtruck girder.
- Greatly reduced wear on travel wheels and track rails as a result of the self-lubricating effect of spheroidal graphite cast iron compared with steel.
- Silent running due to self-damping properties of the travel wheel material.

### Travel wheel profile



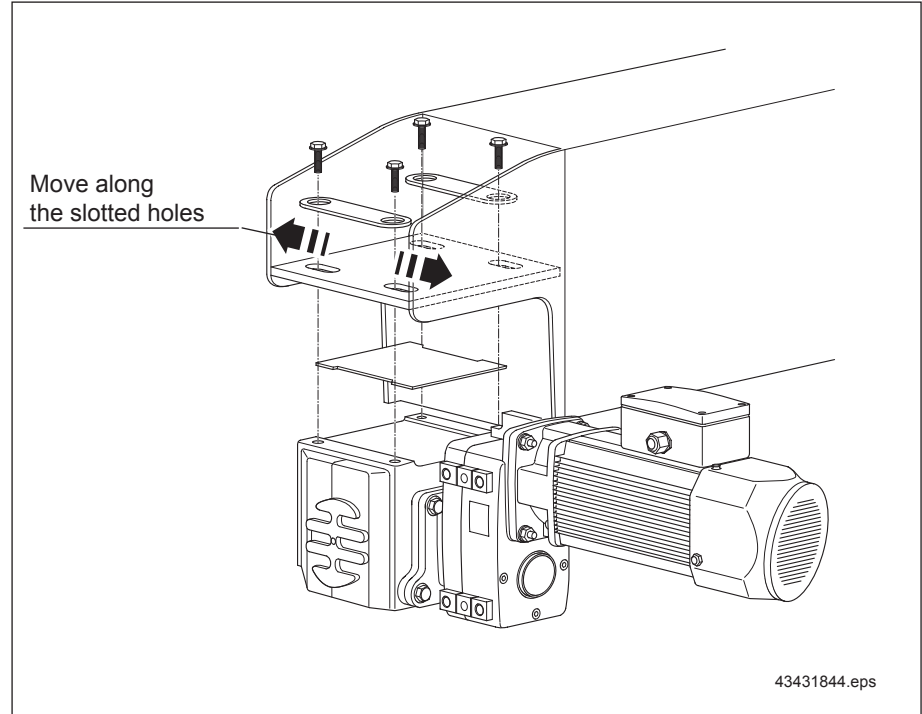
Dimensions in mm (in.)						Max. wheel loads 2)
d1	d2	Width of the rail	Max. wheel width	Standard wheel width 1)	b2	[kg] (lbs)
125 (4.92)	150 (5.90)	Width of the rail	90 (3.54)	55 (2.16), 65 (2.55), 75 (2.95)	120 (4.72)	5,000 (11,000)
160 (6.30)	190 (7.48)				120 (4.72)	7,000 (15,400)
200 (7.87)	235 (9.25)				122 (4.80)	10,000 (22,000)

1) Other treads on request

2) max. wheel loads for linear contact (flat rail to DIN 1014 of A-rail to DIN 536) depending on the FEM group, useful rail width and long travel speed. See catalogue 203 325 44, sections 2.1.5 to 2.1.8

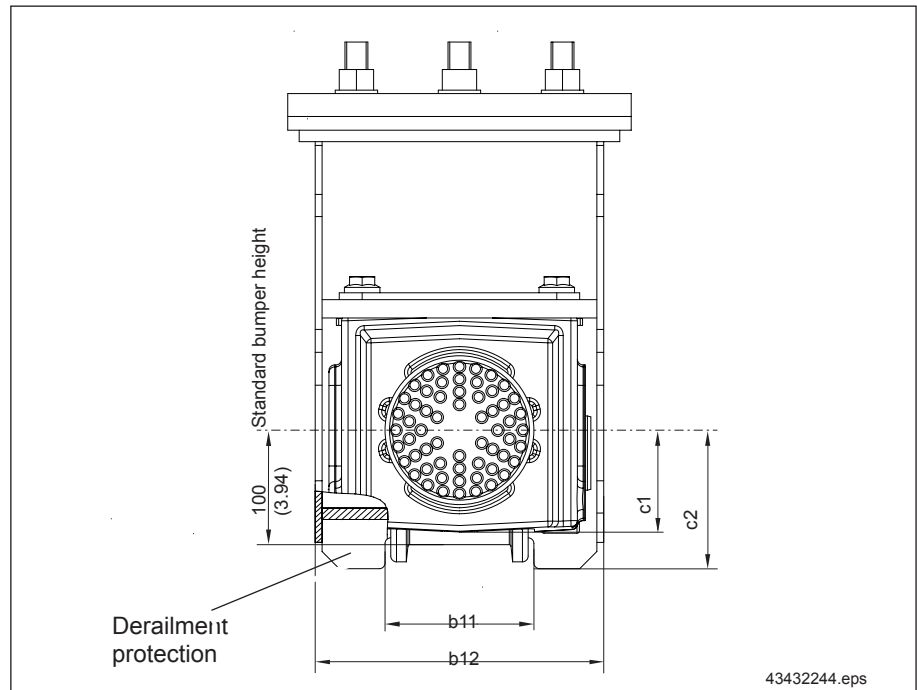
## 2.4 Track gauge change

The track gauge can be changed by adjusting the screws.  
Max. adjusting range  $\pm 10$  mm. (0.39 in)



## 2.5 Derailment protection

The derailment protection is already realized in the standard.



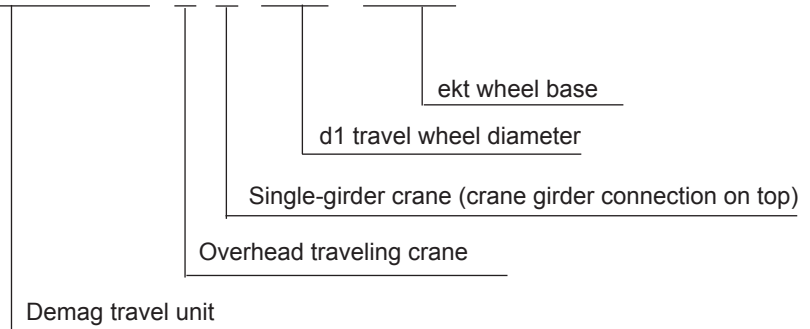
Dimensions in mm (in.)

DFW-Bas L-E	b11	b12	c1	c2
125 (4.92)	130 (5.11)	252 (9.92)	92 (3.62)	120 (4.72)
160 (6.30)		252 (9.92)	89 (3.50)	121 (4.76)
200 (7.87)		302 (11.88)	92 (3.62)	122 (4.80)

### 3 Type code

#### 3.1 Type designation

#### DFW-Bas L-E 125 / 2000



#### 3.2 Ordering information

The following information is required:

- Type of travel unit: E - Single-girder crane
- Travel wheel diameter or wheel block size/Wheel base - Dimensions in mm (in):
 

125	/	1500 (59.05), 2000 (78.74), 2500 (98.5), 3150 (124), 4000 (157.5)
160	/	1500 (59.05), 2000 (78.74), 2500 (98.5), 3150 (124), 4000 (157.5)
200	/	— , 2000 (78.74), 2500 (98.5), 3150 (124), 4000 (157.5).

Other wheel bases upon request)

- Screw spacing: Ax = 400mm (15.75 in) or 500 mm (19.68 in)
- Crane girder connection: O - top
- Travel wheel tread: See section 2.3
- Travel wheel type: A - flange on both sides
- Drive type: possible on each wheel block
- Number of drives per travel unit:
 

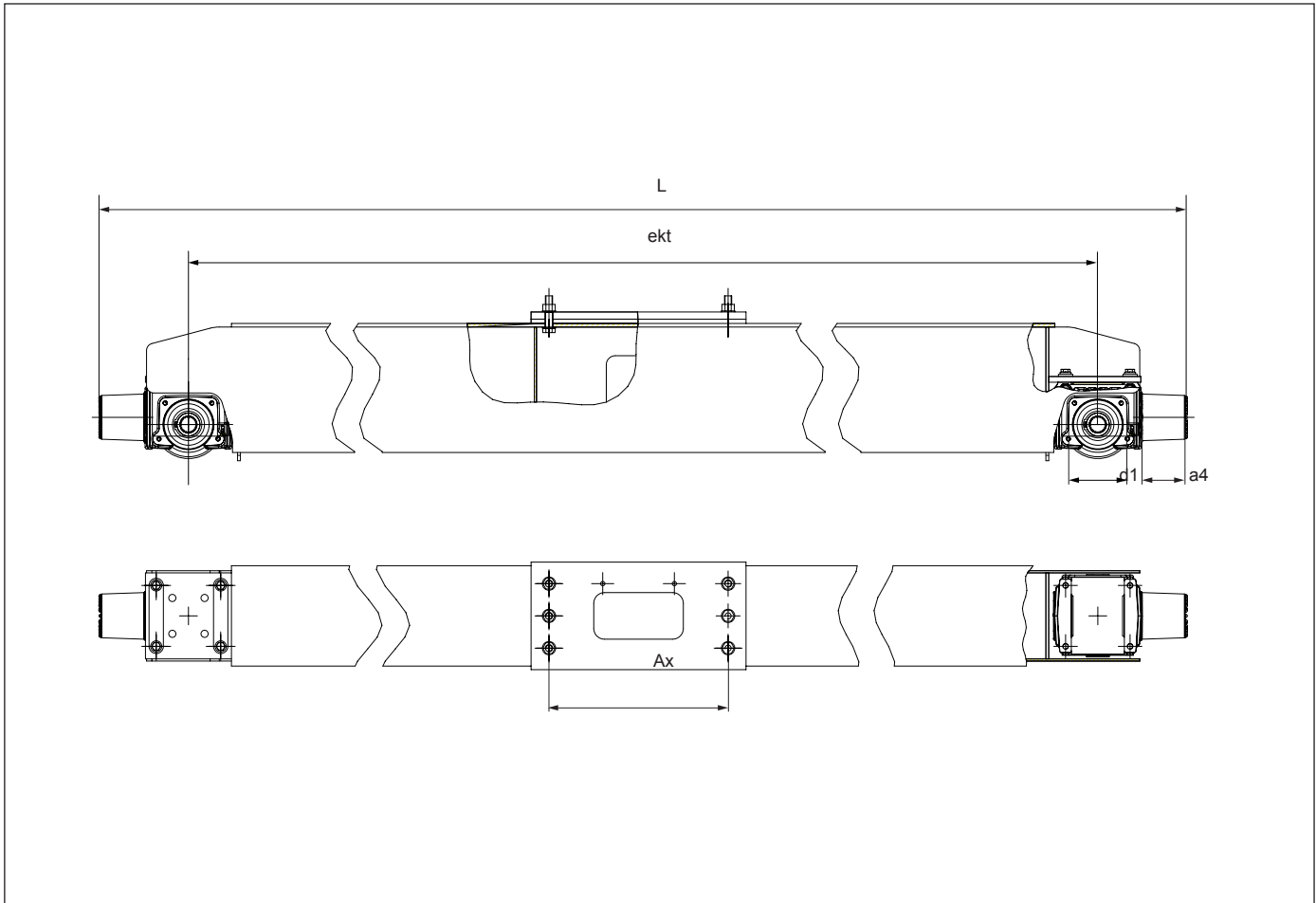
1 - one drive
2 - two drives
- Drive shaft diameter or gearbox size: 35, 45 or 50
- DPZ bumper: 70, 100, 130, 160
- Anti-derailment guard: See section 2.5
- DFW-Bas L-E mounting plate : Connecting plate, see section 5.1

The scope of delivery of a DFW-Bas L-E endtrucks includes

- Travel unit
- Connecting plate with fastening bolts
- Bumper.

## 4 Data and dimensions

### 4.1 DFW-Bas L-E endtruck



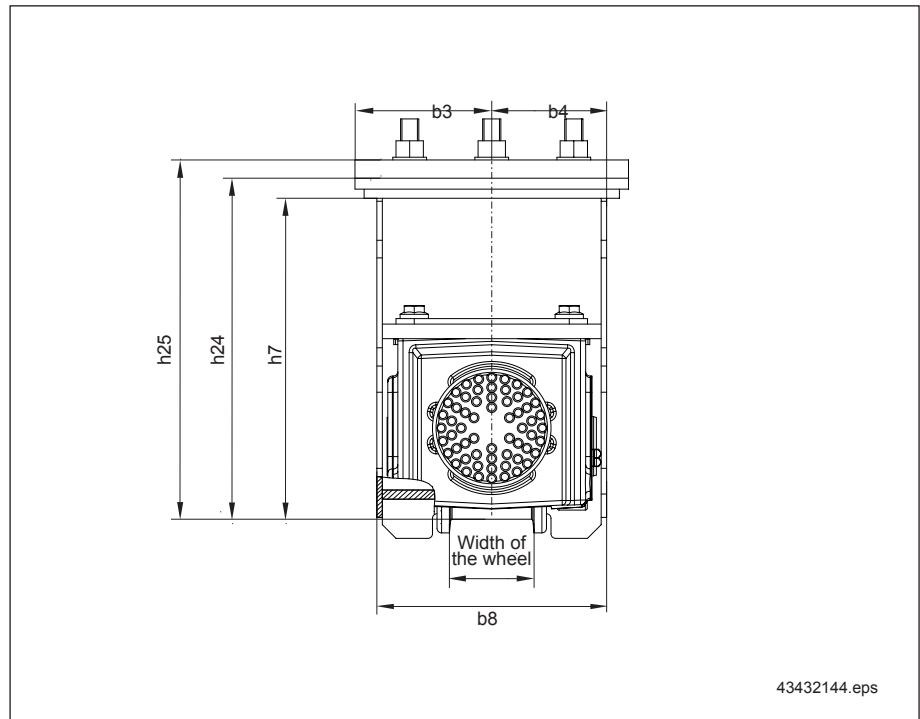
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**Dimensions in mm (in.)**

d1	ekt	Gearbox	L total				Ax	Weight in kg 1) (lbs)
			DPZ 70 a4 = 70 (2.75)	DPZ 100 a4 = 106 (4.17)	DPZ 130 a4 = 126 (4.96)	DPZ 160 a4 = 158 (6.22)		
125 (4.92)	1500 (59.05)	TG-Bas 20	1846 (72.68)	1918 (75.52)	—	—	400 (15.74)	185 (408)
	2000 (78.74)		2346 (92.37)	2418 (95.20)	—	—	400 (15.74)	211 (466)
							500 (19.68)	215 (474)
	2500 (98.5)		2846 (112.05)	2918 (114.88)	—	—	400 (15.74)	242 (534)
							500 (19.68)	246 (543)
3150 (124)	3496 (137.64)	3568 (140.48)	—	—	400 (15.74)	295 651)		
					500 (19.68)	299 (660)		
4000 (157.5)	4346 (171.11)	4418 (173.94)	—	—	400 (15.74)	388 (856)		
					500 (19.68)	393 (867)		
160 (6.30)	1500 (59.05)	TG-Bas 30	1888 (74.33)	1960 (77.17)	2000 (78.50)	—	400 (15.74)	222 (490)
	2000 (78.74)		2388 (94.02)	2460 (96.85)	2500 (98.43)	—	400 (15.74)	251 (554)
							500 (19.68)	255 (563)
	2500 (98.5)		2888 (113.70)	2960 (116.54)	3000 (118.12)	—	400 (15.74)	296 (653)
							500 (19.68)	300 (662)
3150 (124)	3538 (139.30)	3610 (142.13)	3650 (143.71)	—	400 (15.74)	369 (814)		
					500 (19.68)	374 (825)		
4000 (157.5)	4388 (172.76)	4460 (175.60)	4500 (177.17)	—	400 (15.74)	490 (1081)		
					500 (19.68)	495 (1092)		
200 (7.87)	2000 (78.74)	TG-Bas 40	2436 (95.91)	2508 (98.75)	2548 (100.32)	2612 (102.84)	400 (15.74)	371 (818)
							500 (19.68)	376 (827)
	2500 (98.5)		2936 (115.60)	3008 (118.43)	3048 (120)	3112 (122.52)	400 (15.74)	428 (944)
							500 (19.68)	433 (955)
3150 (124)	3586 (141.19)	3658 (144.02)	3698 (145.60)	3762 (148.12)	400 (15.74)	500 (1103)		
					500 (19.68)	505 (1114)		
4000 (157.5)	4436 (174.65)	4508 (177.50)	4548 (179.06)	4612 (181.58)	400 (15.74)	609 (1343)		
					500 (19.68)	614 (1354)		

## 4.2 Mounting

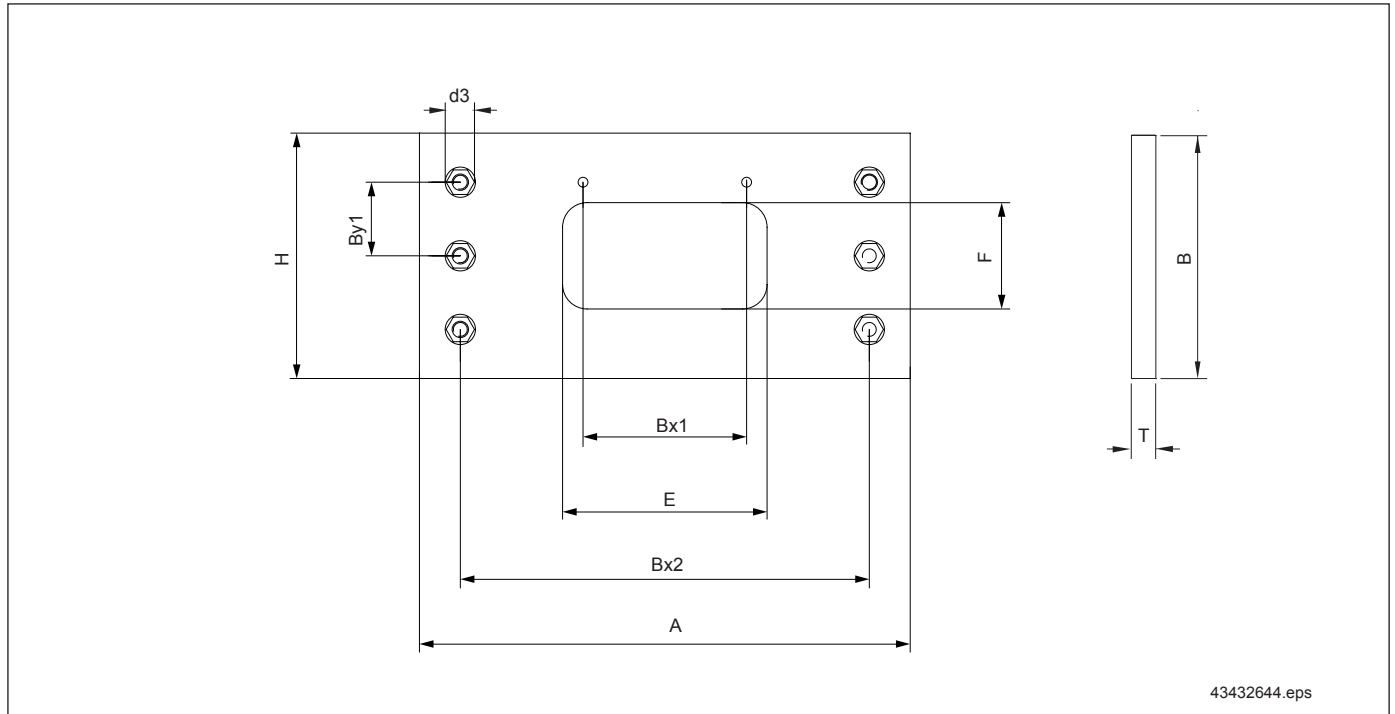


		Dimensions in mm (in.)						Width of the wheel	
WS-Bas type	ekt	h7	h24	h25	b3	b4	b8		
125 (4.92)	1500	282	300	320	150 (5.91)	126 (4.96)	252	max. 90 (3.54)	
	(59.05)	(11.10)	(11.81)	(12.60)			(9.92)		
	2000	282	300	320	150 (5.91)	126 (4.96)	252		
	(78.75)	(11.10)	(11.81)	(12.60)			(9.92)		
	2500	302	320	340			252		
(98.5)	(11.89)	(12.60)	(13.39)	(9.92)					
3150	352	370	390						
(124)	(13.86)	(14.56)	(15.36)						
160 (6.30)	1500	302	322	342	150 (5.91)	126 (4.96)	252		
	(59.05)	(11.89)	(12.68)	(13.46)			(9.92)		
	2000	302	322	342	150 (5.91)	126 (4.96)	252		
	(78.75)	(11.89)	(12.68)	(13.46)			(9.92)		
	2500	302	322	342			252		
(98.5)	(11.89)	(12.68)	(13.46)	(9.92)					
3150	352	374	394						
(124)	(13.86)	(14.72)	(15.51)						
200 (7.87)	2000	452	474	494	175 (6.89)	151 (5.94)	302		
	(59.05)	(17.80)	(18.66)	(19.45)			(11.89)		
	2500	452	476	496					
	(98.5)	(17.80)	(18.74)	(19.53)					
	3150	502	526	546			302		
(124)	(19.76)	(20.71)	(21.50)			(11.89)			
4000	502	528	548						
(157.5)	(19.76)	(20.79)	(21.57)						

Width of the wheel: For standard travel wheel treads, see section 2.3.  
Other travel wheel treads by request.

## 5 DFW-Bas L-E endtruck attachments

### 5.1 Mounting plate for DFW-Bas L-E



DFW	Bu 1) in mm	Dimensions in mm (in.)										Weight in kg (lbs)
		Bx1	Bx2	By1	E	F	H	T	A	B	d3	
125 (4.92)	300 (11.81)	200 (7.87)	400 (15.75)	90 (3.54)	150 (5.90)	130 (5.11)	300 (11.81)	20 (0.78)	500 (19.69)	300 (11.81)	20 (0.78)	20.4 (45)
	400 (15.75)		500 (19.69)		250 (9.84)				600 (23.62)			23.1 (51)
160 (6.30)	300 (11.81)		400 (15.75)	90 (3.54)	150 (5.90)	130 (5.11)	300 (11.81)		500 (19.69)	300 (11.81)		20.4 (45)
	400 (15.75)		500 (19.69)	250 (9.84)	600 (23.62)	23.1 (51)						
200 (7.87)	300 (11.81)		400 (15.75)	75 (2.95)	150 (5.90)	170 (6.69)	350 (13.78)		500 (19.69)	350 (13.78)		23.4 (52)
	400 (15.75)		500 (19.69)		250 (9.84)				600 (23.62)			26.2 (58)

### 5.2 Torque brackets

In the standard crane, the torque brackets are used in conjunction with the TG-Bas offset gearbox, Bas travel motor and WS-Bas wheel block with a top connection.

Data, dimensions and ordering

- Torque bracket data, dimensions
- TG-Bas offset gearbox
- Bas travel motors

See brochure 213 699 44

### 5.3 Bumpers and spacers

Bumpers with high bumping forces are required to avoid hazardous deformations of the supporting structure in the event of end carriage collisions or when running against the end stop at the runway end.

For data, dimensions and ordering, see

- Technical data for cellulose buffer:

202 607 44

1) Bu: Width of the crane girder flange on the bottom

# 6 Order form for DFW-Bas L-E endtrucks



From the company: \_\_\_\_\_  
Ms./Mr.: \_\_\_\_\_  
Department: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
\_\_\_\_\_

## Order data

- Wheel block size:  125  160  200
- Wheel base:  1500  2000  2500  3150  4000
- Crane girder connection:  O
- Ax screw spacing:  400  500
- Wheel tread  
Standard:  55  60  70  80  90  
Special:  65  75  85
- Travel wheel type:  A-flange on both sides
- Drive type:  L-left  R-right  RL-right/left
- Number of drives:  1  2
- Drive shaft diameter:  35  45  50
- Anti-derailment guard:  yes
- Bumper:  70  100  130  160
- DFW-Bas L-Z / O  
mounting plate:  Connecting plate
- Anti-corrosion protection:  RAL1004 golden yellow  other: \_\_\_\_\_
- Paint finish:  RAL1007 chrome yellow  other: \_\_\_\_\_
- Classification:  H2 B3 (indoor operation)

## Demag Cranes and Components Corp.

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Cleveland, Ohio 44139  
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Fax: (440) 248-3086  
Internet: <http://www.demag-us.com>