
Tiltrotators Tilt units with accessories

TR 20B / TR 25

LiTiU 33 / LiTiU 48

PB 20

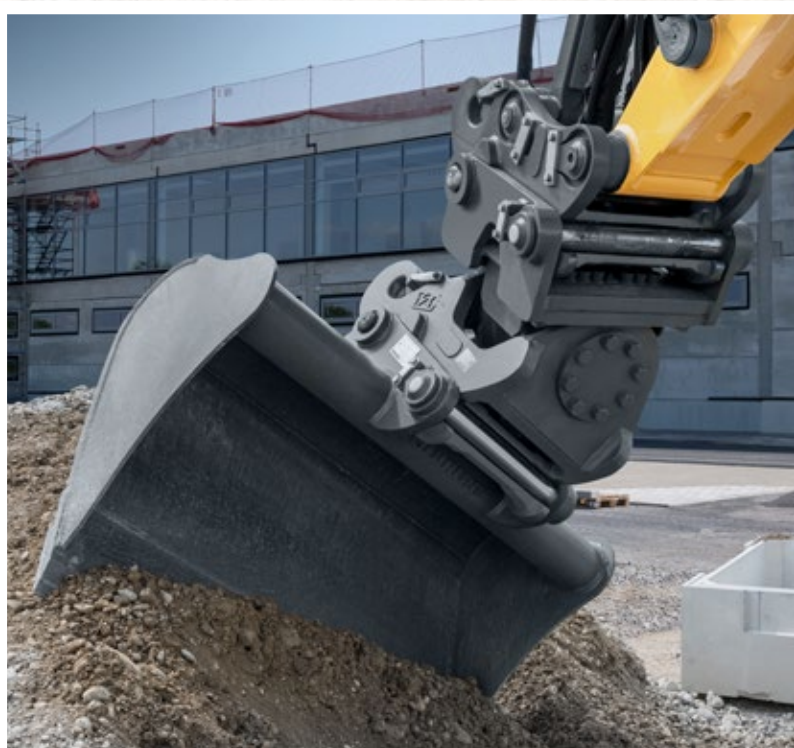
PL 02 / PL 03 / PL 04

PG SWA 33 FEM II / PG SWA 48 FEM II

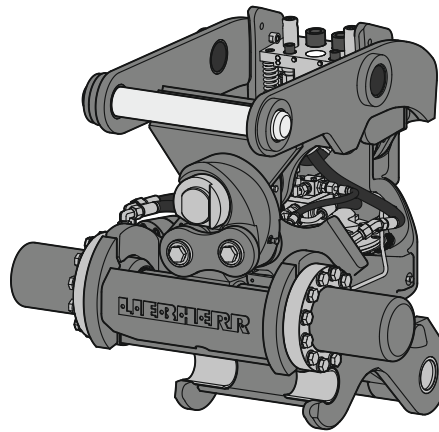
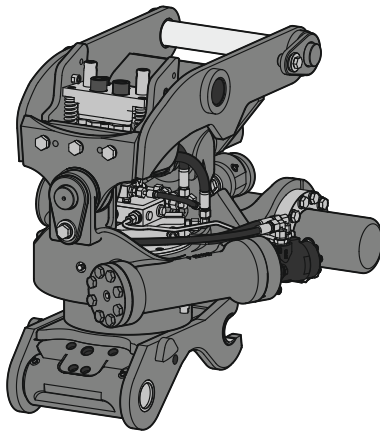
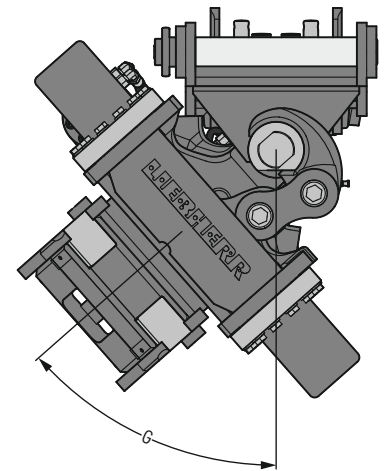
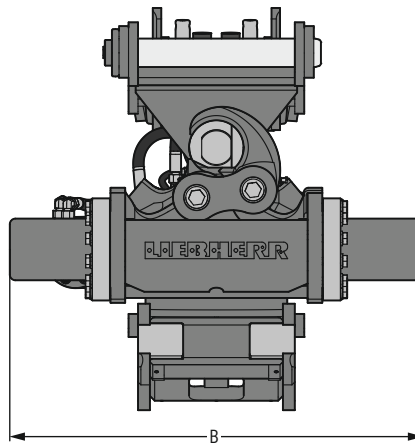
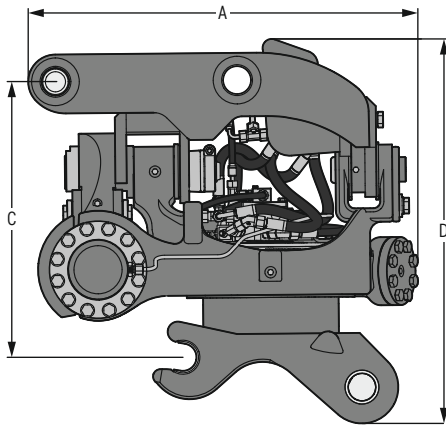
PG SWA 33 FEM III / PG SWA 48 FEM III

LIEBHERR

Attachments



Tiltrotator TR 20B



Machine range

Liebherr machines	
Wheeled excavator – Compact	A 913 Compact – A 918 Compact
Wheeled excavator	A 914 – A 918
Crawler excavator – Compact	R 914 Compact
Railroad excavator	A 922 Rail, A 924 Rail

Other machine makes	
Weight class	approx. 14–18 t
(see operating manual for exact specification)	

Dimensions¹⁾ / weights¹⁾

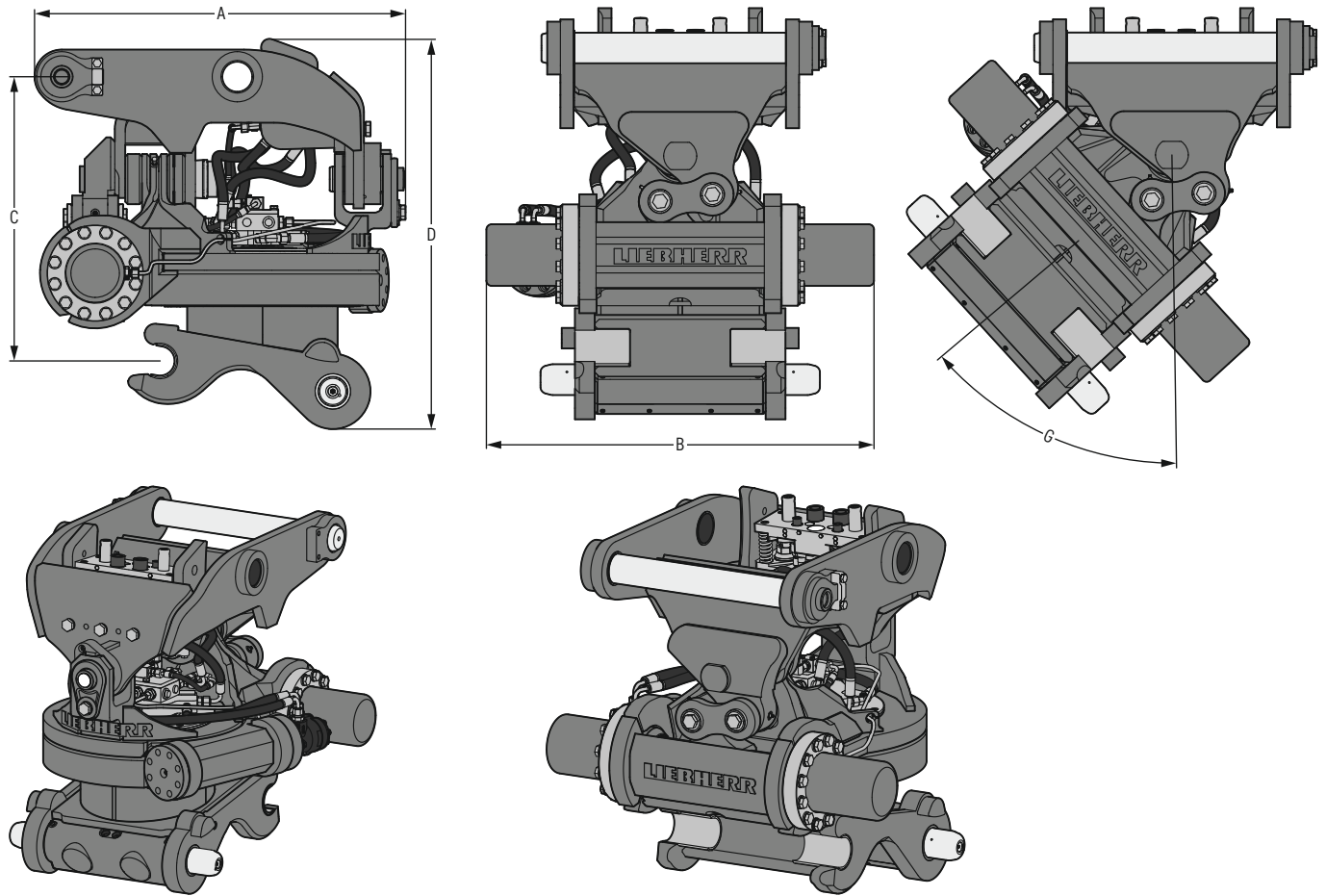
A	B	C	D	G	Weight
Length	Width	Pin to pin height	Height	Tilt angle	
855 mm	870 mm	600 mm	845 mm	2 x 50°	641 kg

¹⁾ based on standard tiltrotator TR 20B with mounting SWA 33 Solidlink machine side and mounting SWA 33 hydraulic on the underside tiltrotator

Technical data

Rotary drive		Tilting drive	
Hydraulic pressure max.	Flow rate max.	Hydraulic pressure max.	Flow rate max.
17 MPa / 170 bar	50 l/min.	35 MPa / 350 bar	200 l/min.

Tiltrotator TR 25



Machine range

Liebherr machines

Wheeled excavator - Compact	A 918 Compact
Wheeled excavator	A 916 - A 924 Heavy Lift
Crawler excavator - Compact	R 920 Compact - R 926 Compact
Crawler excavator	R 918 - R 924
Railroad excavator	A 922 Rail, A 924 Rail

Other machine makes

Weight class (see operating manual for exact specification)	approx. 18-24 t
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Dimensions¹⁾ / weights¹⁾

A	B	C	D	G	Weight
Length	Width	Pin to pin height	Height	Tilt angle	
885 mm	880 mm	680 mm	940 mm	2 x 50°	787 kg

¹⁾ based on standard tiltrotator TR 25 with mounting SWA 48 Solidlink machine side and mounting SWA 48 hydraulic on the underside tiltrotator

Technical data

Hydraulic pressure max.	Rotary drive		Hydraulic pressure max.	Tilting drive	
	Flow rate max.			Flow rate max.	
17 MPa/170 bar		50 l/min.	35 MPa/350 bar		200 l/min.

Tiltrotator overview of functions and equipment

Hydraulic excavator equipment options	Description	Movement possibilities
<ul style="list-style-type: none"> - Medium pressure circuit (rotary drive) - Liebherr quick coupler (mechanical or hydraulic) 	<ul style="list-style-type: none"> - Tiltrotator for installation on stick on mechanical or hydraulic Liebherr quick coupler - Rotating and tilting switchable 	<ul style="list-style-type: none"> - Rotating or tilting (controlled by rocker switch in joystick)
<ul style="list-style-type: none"> - Medium pressure circuit (rotary drive) - High pressure circuit (AHS) - Liebherr quick coupler (mechanical or hydraulic) 	<ul style="list-style-type: none"> - Tiltrotator for installation on stick on mechanical or hydraulic Liebherr quick coupler - Rotating and tilting simultaneously 	<ul style="list-style-type: none"> - Rotating and tilting simultaneously
<ul style="list-style-type: none"> - Medium pressure circuit (rotary drive) - High pressure circuit (AHS) - Solidlink 	<ul style="list-style-type: none"> - Tiltrotator for installation on Solidlink attached to stick - Rotating and tilting simultaneously 	<ul style="list-style-type: none"> - Rotating and tilting simultaneously¹⁾
<ul style="list-style-type: none"> - Medium pressure circuit - Quick coupler from other manufacturers 	<ul style="list-style-type: none"> - Tiltrotator for installation on the quick coupler from other manufacturers (universal mounting) - Universal mounting on bottom side of tiltrotator - Rotating and tilting switchable 	<ul style="list-style-type: none"> - Rotating or tilting (controlled by rocker switch in joystick)
<ul style="list-style-type: none"> - Medium pressure circuit - High pressure circuit - Quick coupler from other manufacturers (consultation with Liebherr-Hydraulikbagger GmbH required) 	<ul style="list-style-type: none"> - Tiltrotator for installation on the quick coupler from other manufacturers (universal mounting) - Universal mounting on bottom side of tiltrotator - Rotating and tilting simultaneously 	<ul style="list-style-type: none"> - Rotating and tilting simultaneously

¹⁾ when combined with a hydraulic quick coupler on the underside of the tiltrotator, a 14-pin signal contact strip and the control unit for the second quick coupler adapter are always required on the machine side

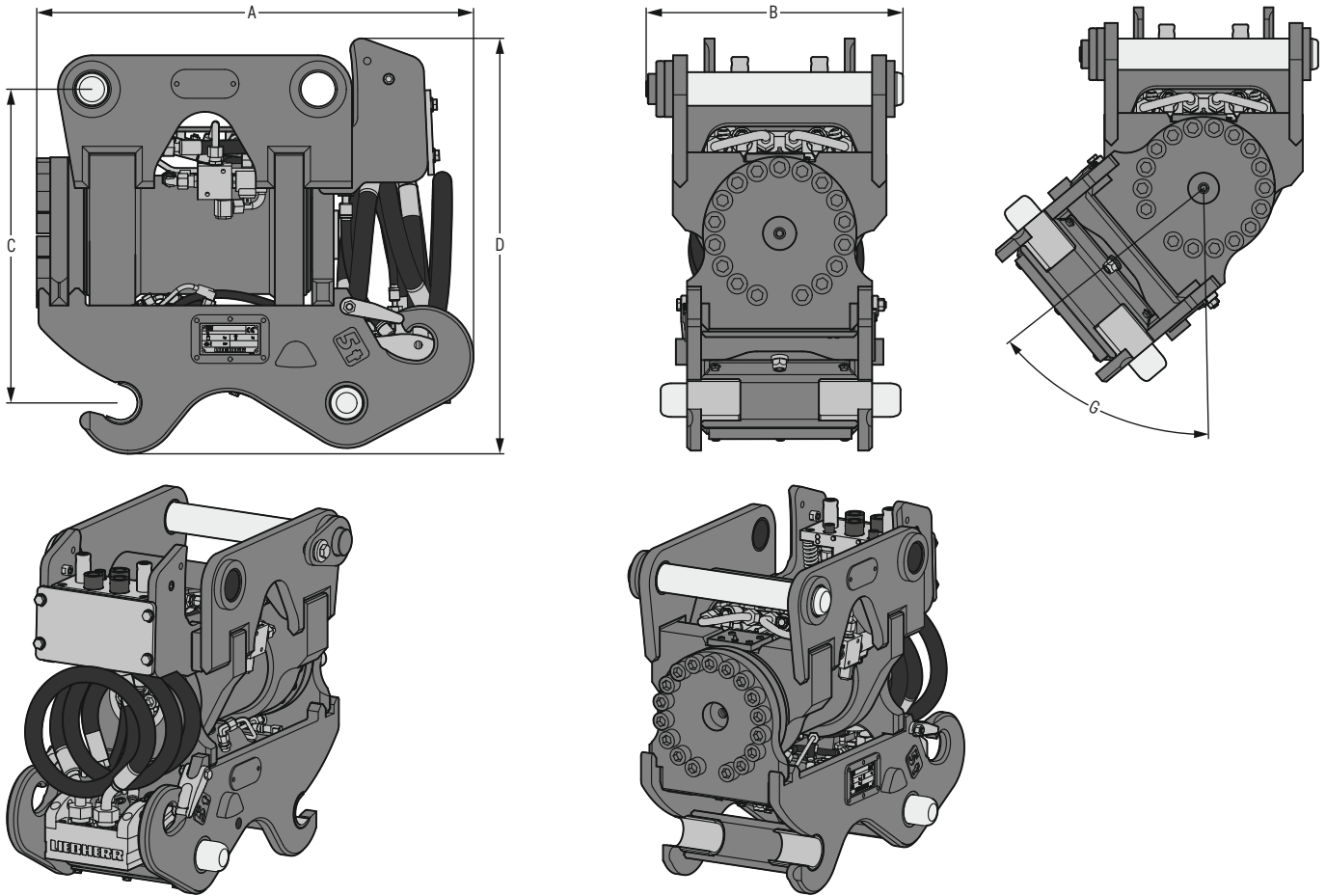


Control unit for second quick coupler adapter



14-pin signal contact strip

Tilt unit LiTiU 33



Machine range

Liebherr machines	
Wheeled excavator - Compact	A 914 Compact - A 918 Compact
Wheeled excavator	A 914 - A 918
Crawler excavator - Compact	R 914 Compact - R 920 Compact
Railroad excavator	A 922 Rail, A 924 Rail

Other machine makes	
Weight class (see operating manual for exact specification)	approx. 14-18 t

Dimensions¹⁾ / weights¹⁾

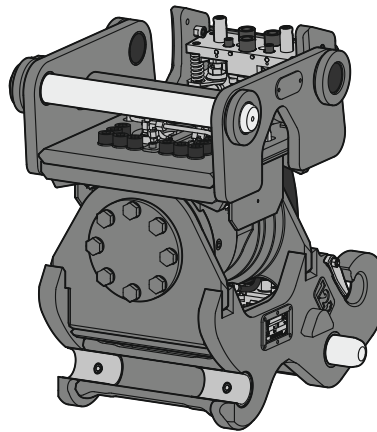
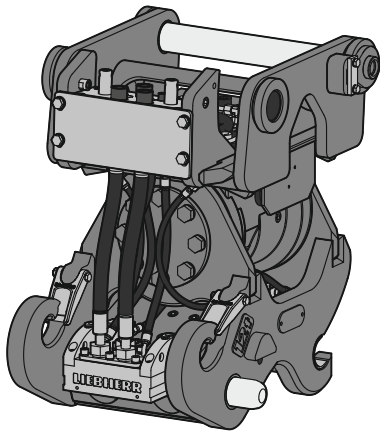
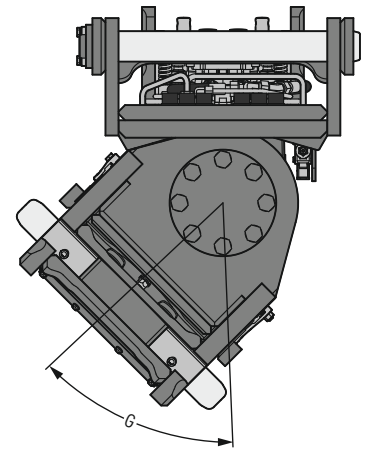
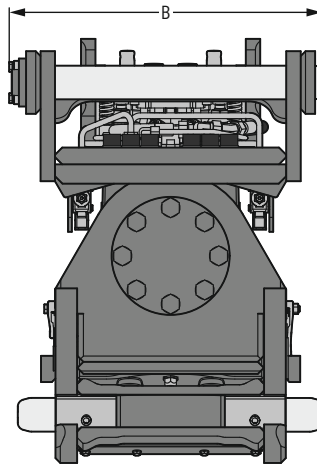
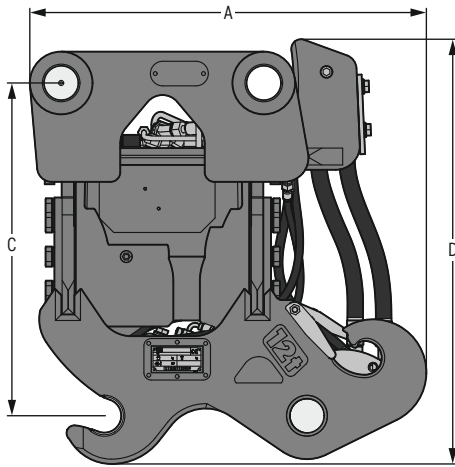
A Length	B Width	C Pin to pin height	D Height	G Tilt angle	Weight
773 mm	458 mm	555 mm	735 mm	50°	410 kg

¹⁾ based on standard tilt unit LiTiU 33 with both side SWA 33 Solidlink (underside of tilt unit and machine side mounting)

Technical data

Bolt diameter	Torque	Holding torque	Standard operating pressure	Operating pressure max. (secured by pressure relief valve)	Displacement
60 mm	13,300 Nm (at 207 bar)	40,725 Nm (at 207 bar)	150 bar	224 bar	approx. 14.5 cm ³ / angular degree

Tilt unit LiTiU 48



Machine range

Liebherr machines

Wheeled excavator - Compact	A 916 Compact - A 918 Compact
Wheeled excavator	A 916 - A 924 Heavy Lift
Crawler excavator - Compact	R 920 Compact - R 926 Compact
Crawler excavator	R 918 - R 926
Railroad excavator	A 922 Rail, A 924 Rail

Other machine makes

Weight class (see operating manual for exact specification)	approx. 18-24 t
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Dimensions¹⁾ / weights¹⁾

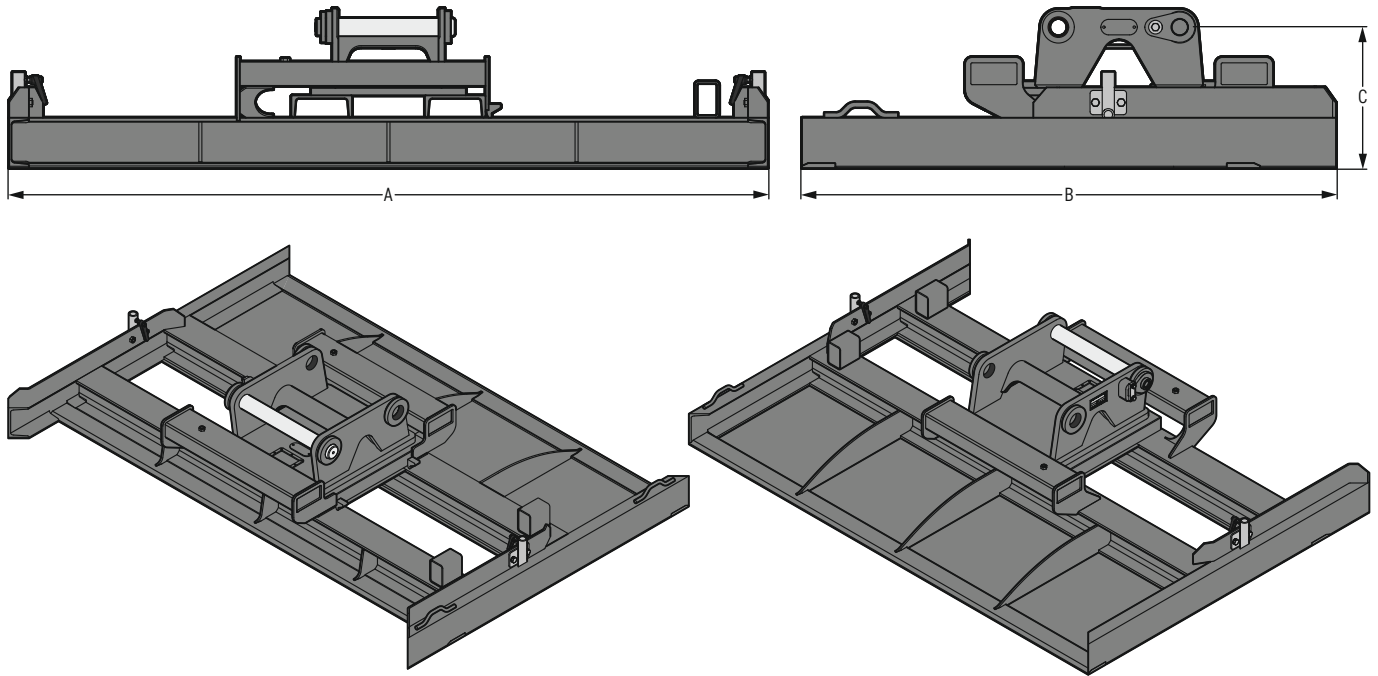
A Length	B Width	C Pin to pin height	D Height	G Tilt angle	Weight
822 mm	650 mm	690 mm	881 mm	45°	740 kg

¹⁾ based on standard tilt unit LiTiU 48 with both side SWA 48 Solidlink (underside of tilt unit and machine side mounting)

Technical data

Bolt diameter	Torque	Holding torque	Standard operating pressure	Operating pressure max.	Displacement
70 mm	16,000 Nm (at 150 bar)	30,000 Nm (at 150 bar)	150 bar	180 bar (secured by pressure relief valve)	25 cm ³ / angular degree

Grading beam PB 20



Machine range

Liebherr machines

Wheeled excavator - Compact	A 918 Compact
Wheeled excavator	A 918 - A 920
Crawler excavator - Compact	R 920 Compact
Railroad excavator	A 922 Rail, A 924 Rail

Other machine makes

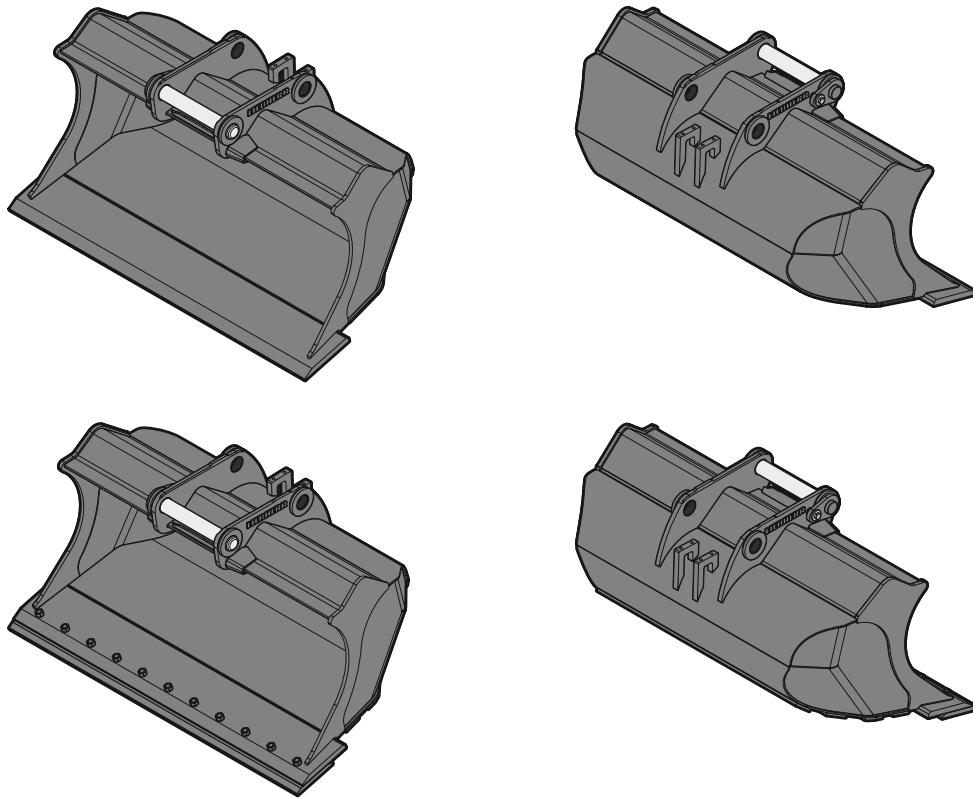
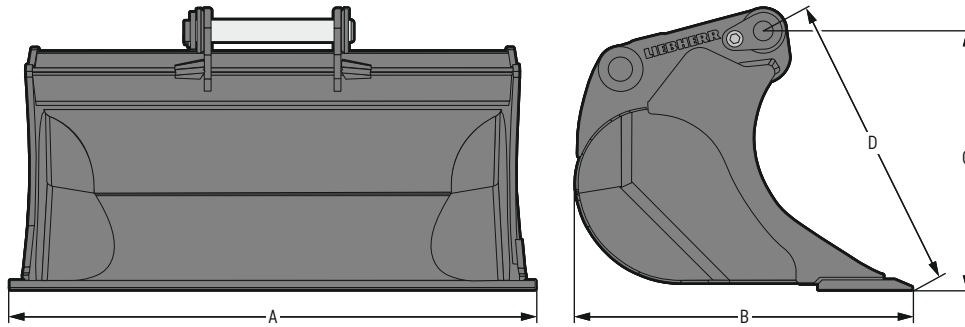
Weight class (see operating manual for exact specification)	approx. 18-22t
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Dimensions¹⁾ / weights¹⁾

A	B	C	Weight
Cutting width 2.500 mm	Depth 1.760 mm	Height 470 mm	627 kg

¹⁾ based on standard grading beam with SWA 33 quick coupler mounting

Grading bucket PL 02



Machine range

Liebherr machines

Wheeled excavator - Compact	A 909 Compact - A 914 Compact
Wheeled excavator	A 914
Crawler excavator - Compact	R 914 Compact

Other machine makes

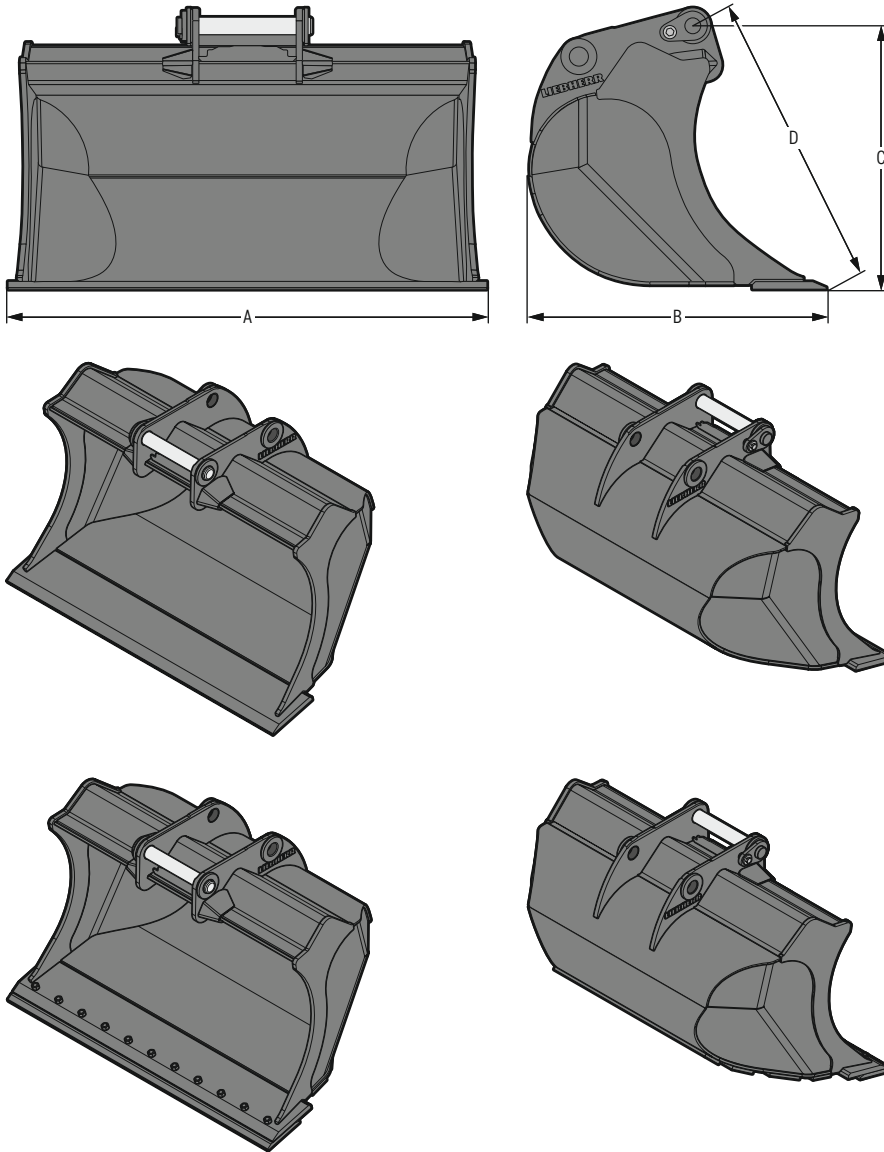
Weight class (see operating manual for exact specification)	approx. 8-15t
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Dimensions¹⁾ / weights¹⁾

Capacity m ³	A Cutting width mm	B Depth mm	C Height mm	D Bolt-in point to cutting edge mm	Weight kg
0.40	1,400	904	699	800	285
0.50	1,600	904	699	800	315

¹⁾ based on standard grading bucket with SWA 33 quick coupler mounting

Grading bucket PL 03



Machine range

Liebherr machines

Wheeled excavator - Compact	A 916 Compact - A 918 Compact
Wheeled excavator	A 916 - A 918
Crawler excavator - Compact	R 920 Compact
Railroad excavator	A 922 Rail, A 924 Rail

Other machine makes

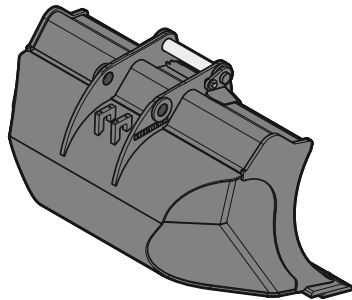
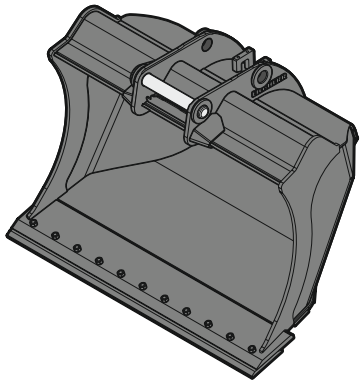
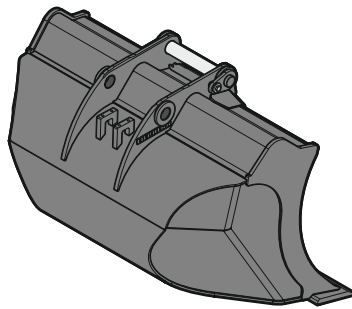
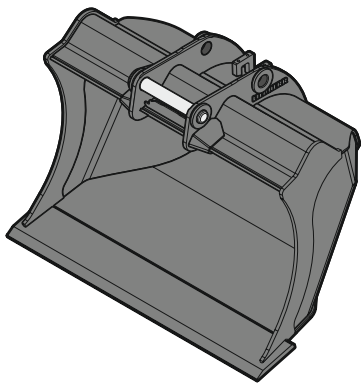
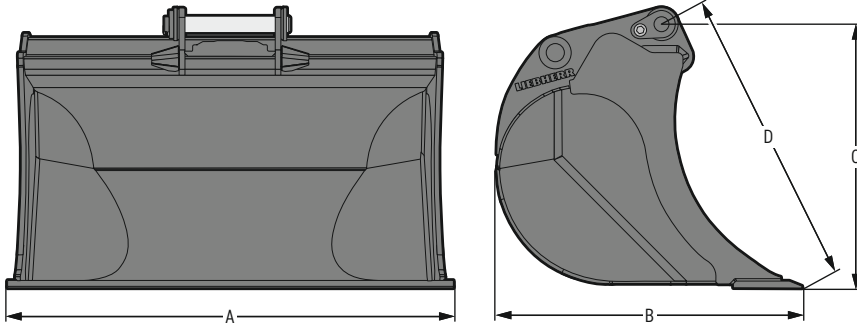
Weight class	approx. 15-20t
(see operating manual for exact specification)	

Dimensions¹⁾ / weights¹⁾

Capacity m ³	A Cutting width mm	B Depth mm	C Height mm	D Bolt-in point to cutting edge mm	Weight kg
0.65	1,400	1,006	891	994	350
0.75	1,600	1,006	891	994	405

¹⁾ based on standard grading bucket with SWA 33 quick coupler mounting

Grading bucket PL 04



Machine range

Liebherr machines

Wheeled excavator	A 920 - A 924
Crawler excavator - Compact	R 926 Compact
Crawler excavator	R 918

Other machine makes

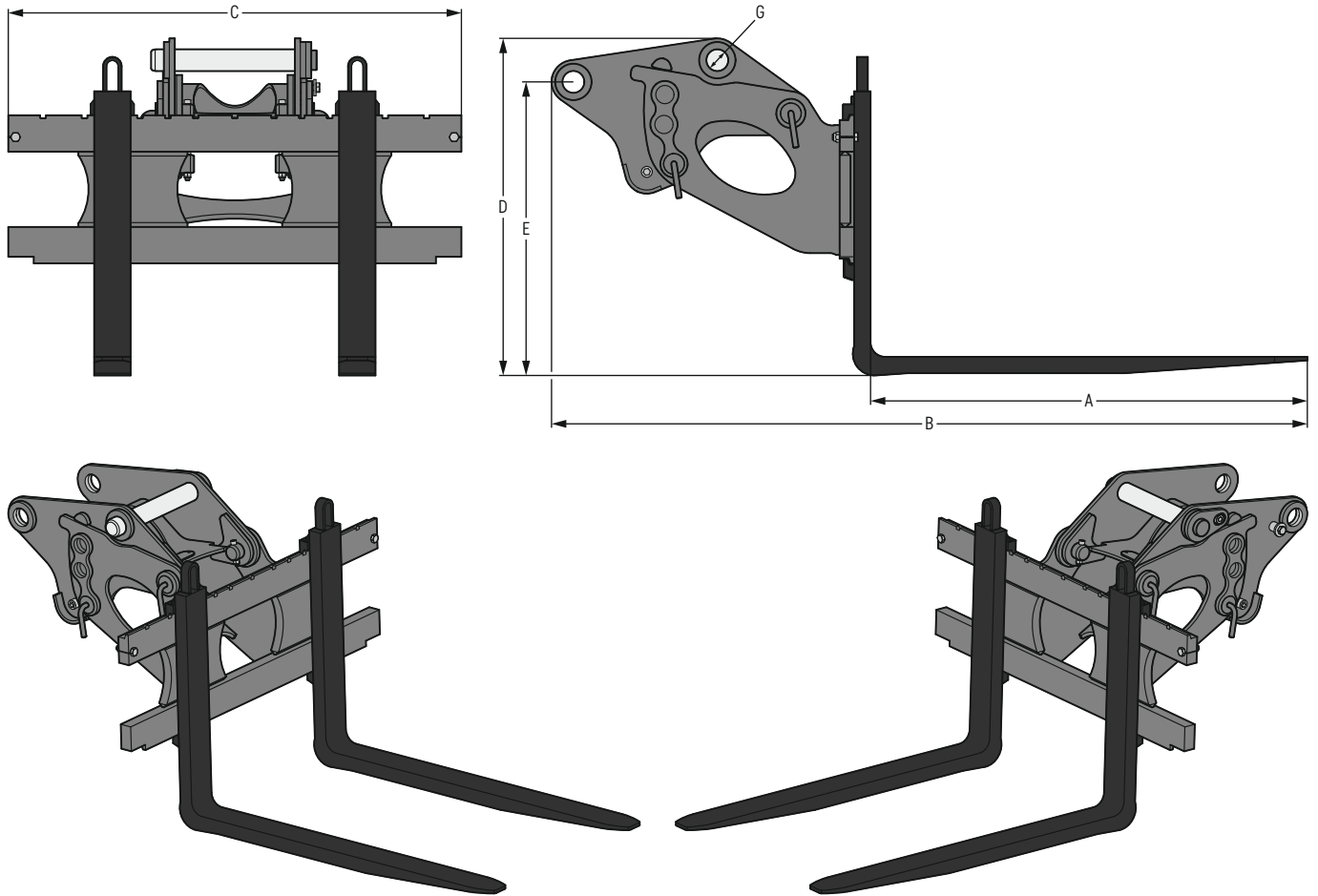
Weight class	approx. 20-25 t
(see operating manual for exact specification)	

Dimensions¹⁾ / weights¹⁾

Capacity	A Cutting width	B Depth	C Height	D Bolt-in point to cutting edge	Weight
0,90 m ³	1,600 mm	1,110 mm	959 mm	1,082 mm	510 kg

¹⁾ based on standard grading bucket with SWA 48 quick coupler mounting

Pallet fork PG SWA 33 FEM II



Machine range

Liebherr machines

Wheeled excavator - Compact	A 909 Compact - A 918 Compact
Wheeled excavator	A 914 - A 920
Crawler excavator - Compact	R 914 Compact
Crawler excavator	R 918
Railroad excavator	A 922 Rail, A 924 Rail

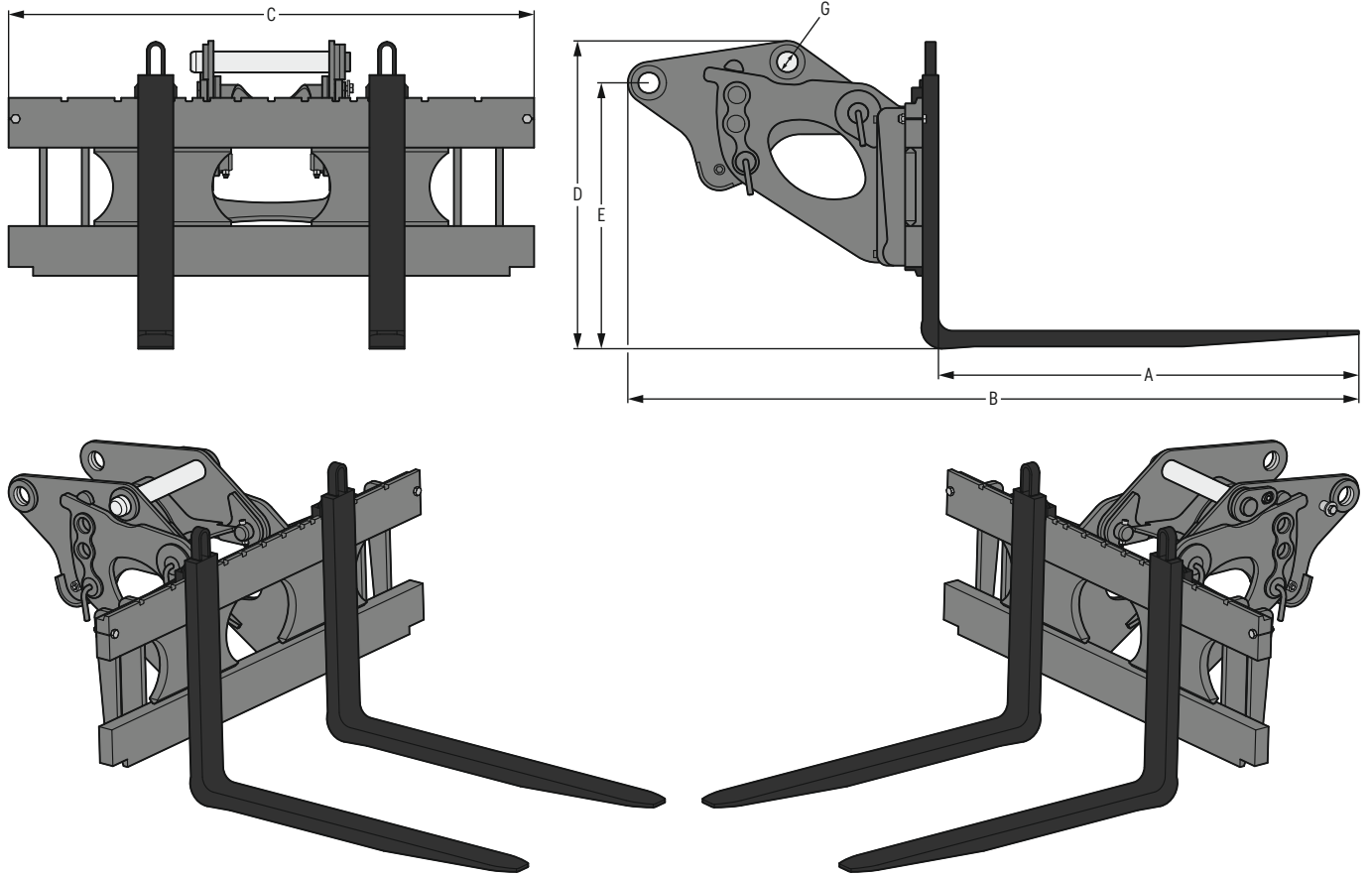
Other machine makes

Weight class	approx. 9-24 t
(see operating manual for exact specification)	

Dimensions¹⁾ / weights¹⁾

A	B	C	D	E	G	Lift capacity	Weight
Fork length	Length	Width	Height	Structure height	Bolt diameter	kg	kg
mm	mm	mm	mm	mm	mm		
1,200	2,077	1,245	927	807	60	2,500	330
1,400	2,077	1,245	927	807	60	2,500	363

Pallet fork PG SWA 33 FEM III



Machine range

Liebherr machines

Wheeled excavator - Compact	A 913 Compact - A 918 Compact
Wheeled excavator	A 914 - A 920
Crawler excavator - Compact	R 914 Compact, R 920 Compact
Crawler excavator	R 918
Railroad excavator	A 922 Rail, A 924 Rail

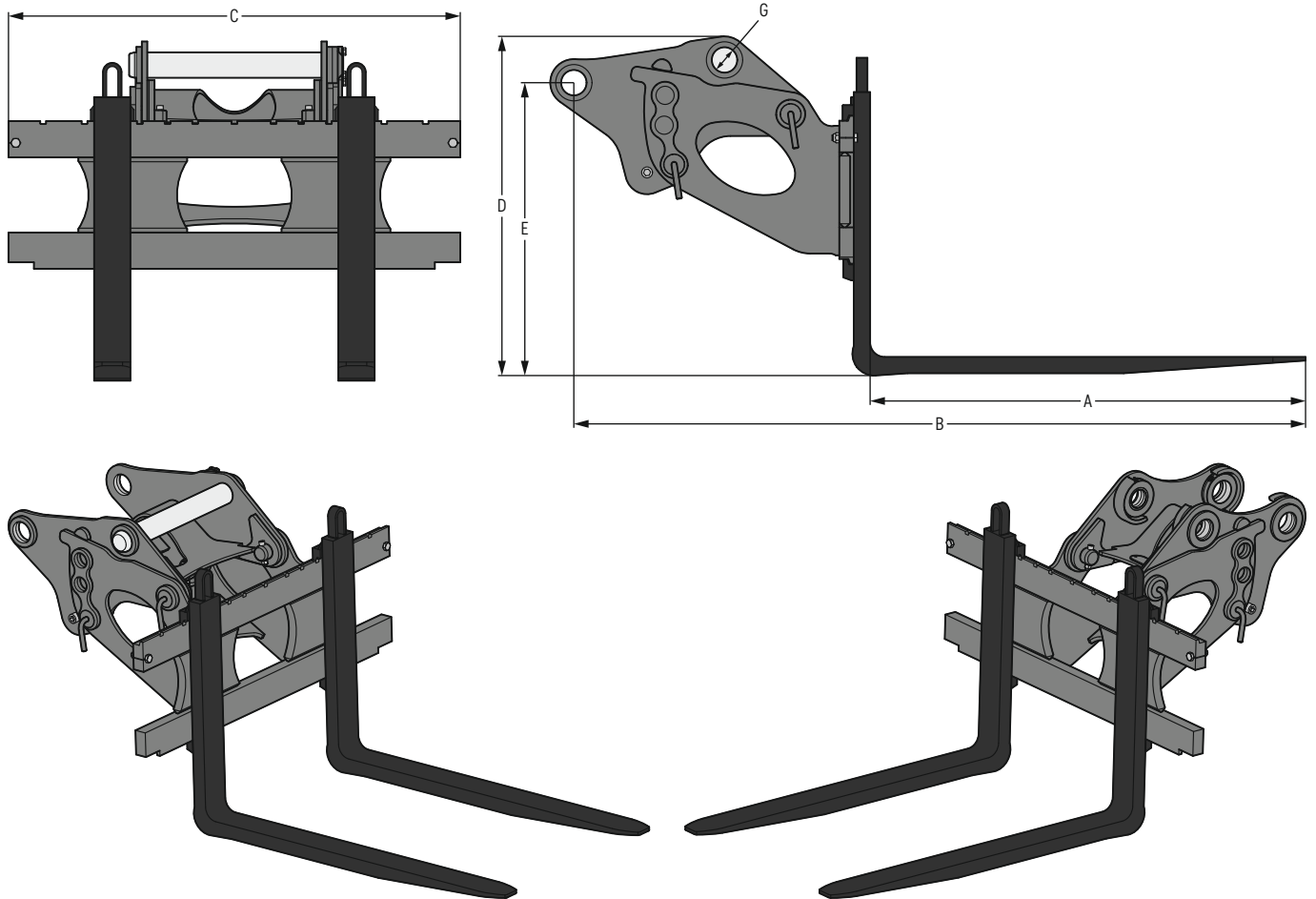
Other machine makes

Weight class	approx. 13-24 t
(see operating manual for exact specification)	

Dimensions¹⁾ / weights¹⁾

A	B	C	D	E	G	Lift capacity	Weight
Fork length	Length	Width	Height	Structure height	Bolt diameter	kg	kg
mm	mm	mm	mm	mm	mm		
1,200	2,087	1,500	879	759	60	5,000	579
1,500	2,087	1,500	879	759	60	5,000	620

Pallet fork PG SWA 48 FEM II



Machine range

Liebherr machines

Wheeled excavator - Compact	A 913 Compact - A 918 Compact
Wheeled excavator	A 914 - A 924 Heavy Lift
Crawler excavator - Compact	R 914 Compact - R 936 Compact
Crawler excavator	R 918 - R 936
Railroad excavator	A 922 Rail, A 924 Rail

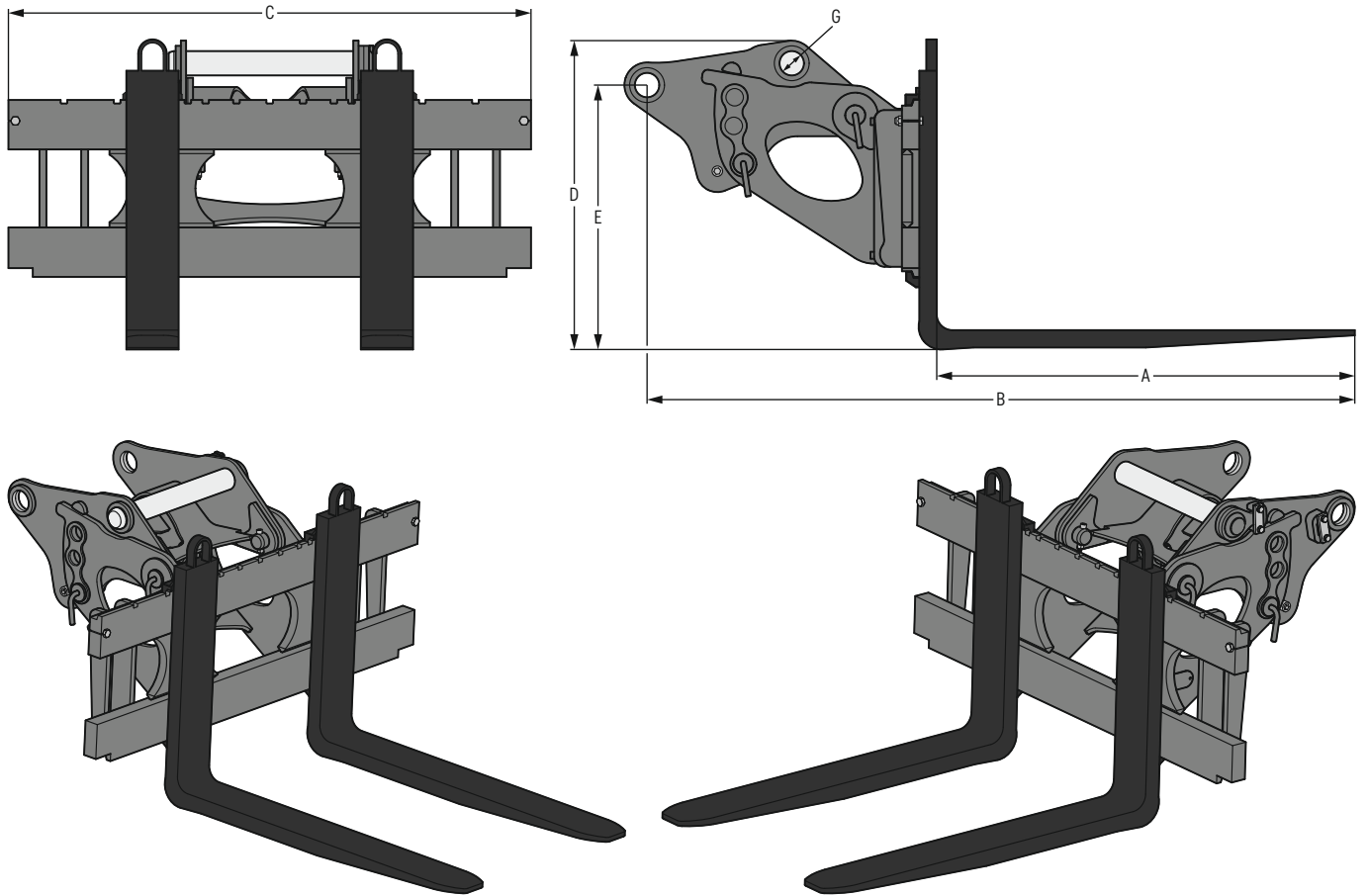
Other machine makes

Weight class	approx. 13-38 t
(see operating manual for exact specification)	

Dimensions¹⁾ / weights¹⁾

A	B	C	D	E	G	Lift capacity	Weight
Fork length	Length	Width	Height	Structure height	Bolt diameter	kg	kg
mm	mm	mm	mm	mm	mm		
1,200	2,017	1,245	935	807	70	2,500	345
1,400	2,017	1,245	935	807	70	2,500	378

Pallet fork PG SWA 48 FEM III



Machine range

Liebherr machines

Wheeled excavator - Compact	A 918 Compact
Wheeled excavator	A 918 - A 924 Heavy Lift
Crawler excavator - Compact	R 920 Compact - R 936 Compact
Crawler excavator	R 918 - R 936
Railroad excavator	A 922 Rail, A 924 Rail

Other machine makes

Weight class (see operating manual for exact specification)	approx. 18-38 t
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Dimensions¹⁾ / weights¹⁾

A	B	C	D	E	G	Lift capacity	Weight
Fork length	Length	Width	Height	Structure height	Bolt diameter	kg	kg
mm	mm	mm	mm	mm	mm	kg	kg
1,200	2,032	1,500	887	759	70	5,000	585
1,500	2,032	1,500	887	759	70	5,000	626

Equipment

	TR 20B	TR 25	LiTiU 33 ¹⁾²⁾	LiTiU 48 ¹⁾²⁾	PB 20	PL 02	PL 03	PL 04	PG SWA 33 FEM II	PG SWA 33 FEM III	PG SWA 48 FEM II	PG SWA 48 FEM III
Mounting machine side												
Screw couplings	+	+										
SW stick mechanical	+	+										
SWA 33 mechanical	+	+			+	●	+	+	+	+		
SWA 33 hydraulic	+	+			+	+	+	+	+	+		
SWA 33 Solidlink	●	+	●		+	+	+	+	●	●		
SWA 48 mechanical	+	+			●	+	●	●			+	+
SWA 48 hydraulic	+	+			+	+	+	+			+	+
SWA 48 Solidlink	+	●		●	+	+	+	+			●	●
Oilquick OQ 45/5						+						
Oilquick OQ 60/5						+						
Oilquick OQ Rail						+	+	+				
Oilquick OQ 65						+	+	+				
Oilquick OQ 70							+	+				
Oilquick OQ 70/55							+	+				
Open-S 45 mechanical						+						
Open-S 60 mechanical						+						
Open-S 65 mechanical						+	+	+				
Open-S 70 mechanical							+	+				
Open-S 70/55 mechanical							+	+				
Universal mounting	+	+				+	+	+				

Mounting attachment side

Screw couplings	+	+										
SW stick mechanical	+	+										
SWA 33 mechanical	●	+										
SWA 33 hydraulic	●	+	+									
SWA 33 Solidlink			●									
SWA 48 mechanical	+	●										
SWA 48 hydraulic	+	●										
SWA 48 Solidlink				+								
Universal mounting	+	+										

Equipment / Options

Protection guard Solidlink				+								
Sensor machine control system (Leica)	+	+										
Sensor machine control system (Trimble) ³⁾	+	+										
Dismount device					+							
Height-limitation device					+							
HD version						+	+	+				
Bolt-on cutting edge						+	+	+				

¹⁾ on the machine side, a 14-pin signal contact strip is always required; switching takes place between tilting the LiTiU and the grab rotation circle for the attachment

²⁾ on the machine side, the control unit for the second quick coupler is always required

³⁾ tilt sensor not included in the scope of delivery

● = Standard, + = Option

The Liebherr Group



Global and independent: more than 70 years of success

Liebherr was founded in 1949 when, with the development of the world's first mobile tower crane, Hans Liebherr laid the foundations for a family-run company which now has more than 50,000 employees and comprises over 150 companies across every continent. The holding company of the Group is Liebherr-International AG in Bulle, Switzerland, whose shareholders are exclusively members of the Liebherr family.

Technology leadership and pioneering spirit

Liebherr is a pioneer and its forward-looking approach has seen it make important contributions to technology history over a wide variety of industries. Employees throughout the world continue to share the courage of the company founder, sharing a passion to produce innovative products and a determination to provide world-leading equipment and machinery.

Diversified product programme

Liebherr is one of the world's biggest construction machine manufacturers and provides high-quality, user-oriented products and services. Its product programme includes earthmoving machinery, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels.

Customised solutions and maximum customer value

Liebherr solutions are characterised by precision, implementation and longevity. The company is committed to technological excellence and to providing customers with solutions that match their needs exactly. For Liebherr, customer focus does not end with delivery of a product but continues through a comprehensive range of back-up and support services.

www.liebherr.com

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