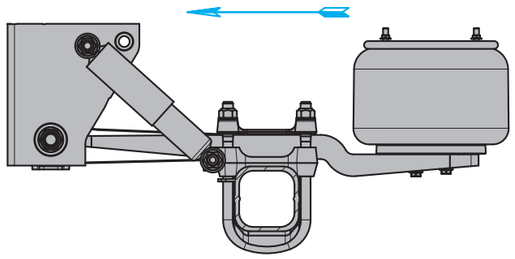
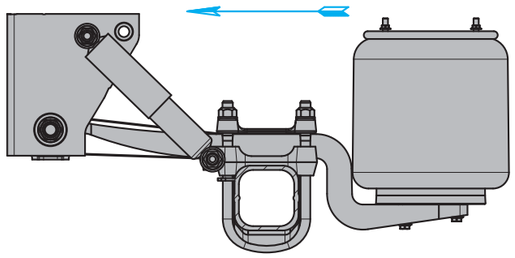
Series	Air suspension axles and suspensions		Axle load	Trailing arm 100 mm wide	Air bag	Axle type with disc brake TSB 4312	Ride height FH (mm)	to drawing
SLO		Air suspension axles	12t	Single leaf 1x57	36K / 36	SHSF... SHZF...	415 - 560	Sheet 1a
				Double leaf 2x43			445 - 585	Sheet 2a
		Two-sided lifting device	12t					Sheet 7
SLM		Air suspension axles	12t	Single leaf 1x57	36K / 36	SHSF... SHZF...	345 - 500	Sheet 8a
				Double leaf 2x43			350 - 500	Sheet 9a
		Two-sided lifting device	12t					Sheet 14
SLU	**on demand**							

Rev. 2 (6)	16.11.2016
Subject to change without notice.	

Date	Modification
02.05.2018	Sheet Ia added - Change history
	Sheet IV: adjustable hanger btrackets and spring bolt assembly added
	Sheet V added - Required equipment features
	Sheet VI added - Feasible combinations trailing arm / axle beam
	Sheet 1a, 2a: Headline corrected
30.05.2018	Sheet 2a, line 3: adjustable ride height corrected
	Sheet 7, line 6: adjustable ride height corrected

Date	Modification

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Series	to drawing	Line	Weight of air suspension parts	Weight of axle mounting	SP 1820 / FM 900	SP 1880 / FM 980	SP 2000 / FM 1100	SP 2040 / FM 1160
			Weight variations are within the permitted DIN tolerances for the production process, given in kg.					
SLO	Sheet 1a	1	151	25	364	368	378	381
		2	153					
		3	157					
	Sheet 2a	1	170	22	364	368	378	381
		2	172					
		3	176					
SLM	Sheet 8a	1	146	25	364	368	378	381
		2	157					
		3	158					
		4	158					
	Sheet 9a	1	170	22	364	368	378	381
		2	180					
		3	180					
		4	180					
Lifting	Sheet 7, 14				Two-sided lifting device			39

Determining the total weight

	Air suspension parts
+	Axle mounting
+	Axle
+	Additional weight
=	**Total weight**

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Series	to drawing	Trailing arm				Axle load kg	Height of centre of gravity max.			
							Spring centre FM			
		05.082..	Thickness	L1	L2		900	980	1100	1160
SLO	Sheet 1a	..13.75.1	1x57	500	380 / 405	10000	2400	2550	2800	2950
						12000	2050	2150	2350	2450
	Sheet 2a	..12.68.0	2x43	500	355 / 380	10000	2500	2600	2850	3000
						12000	2050	2200	2400	2500
SLM	Sheet 8a	..13.83.1	1x57	500	380 / 405	10000	2400	2550	2800	2950
						12000	2050	2150	2350	2450
	Sheet 9a	13.33.0	2x43	500	355 / 380	10000	2500	2600	2850	3000
						12000	2050	2200	2400	2500

Determining the heights of centre of gravity for axle units with steered axles.

$$\frac{\text{Heights of centre of gravity of rigid axles + Heights of centre of gravity of steering axles}}{\text{Number of axles}} = \text{Height of centre of gravity}$$

Example

$$\frac{2500 + 2500 + 2200}{3} = 2400$$

Calculation reference:
0,4 g transverse acceleration lateral body tilt approx. 3.5 degrees
without taking into consideration the tilt limit and the tyre deflection.

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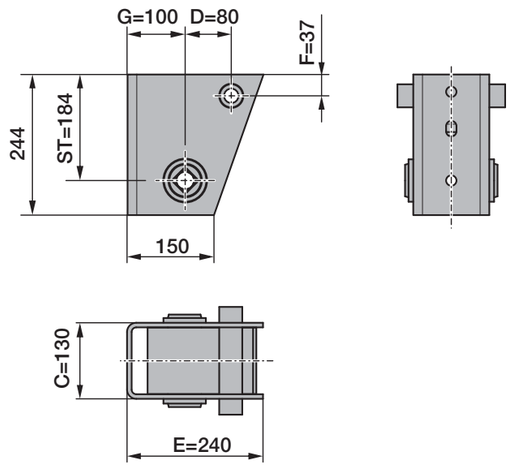
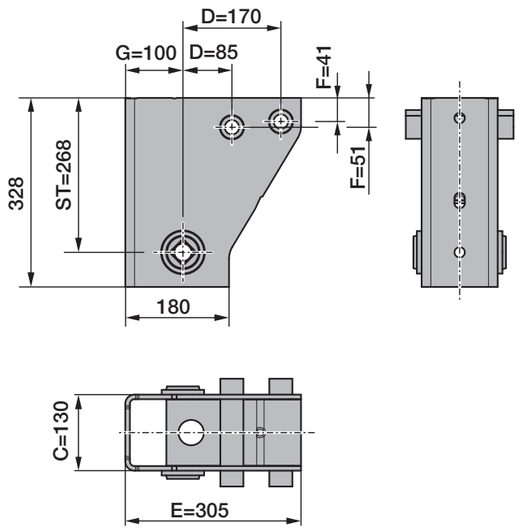
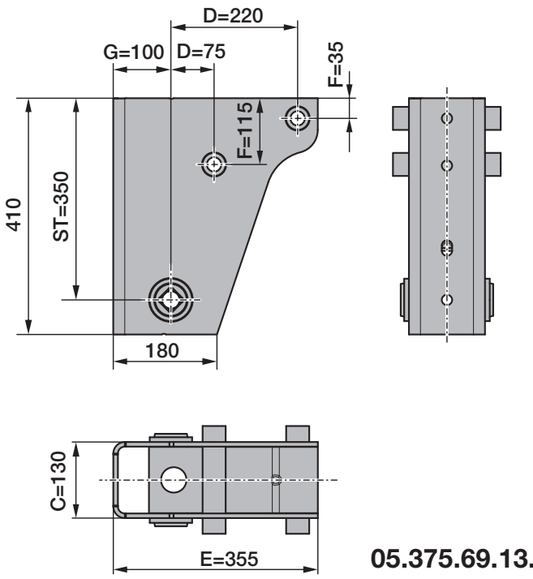
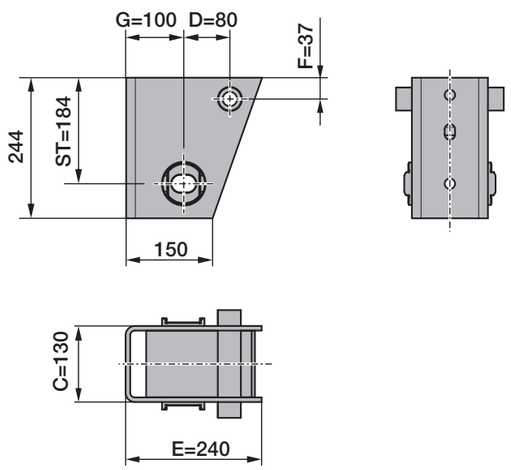
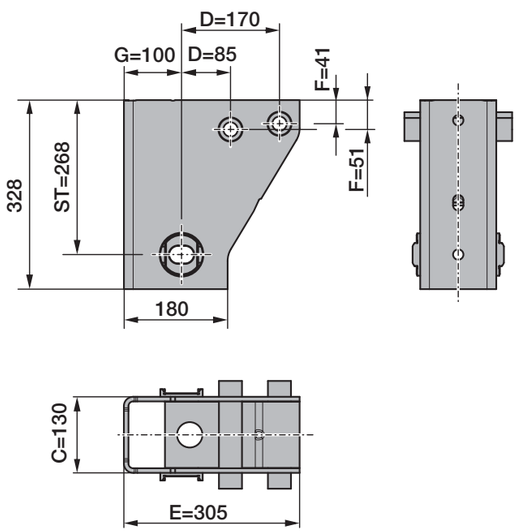
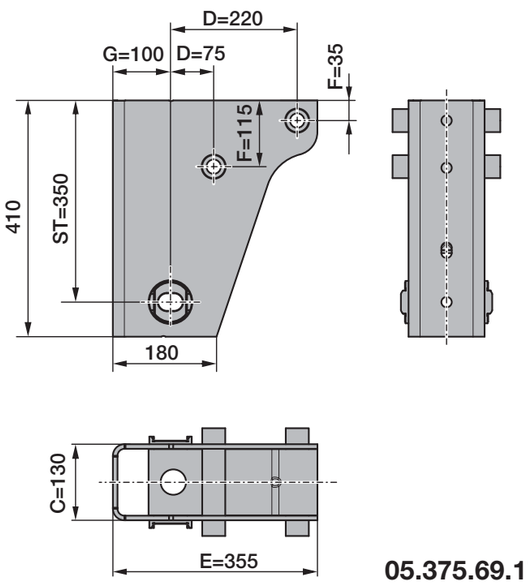
	Hanger bracket height ST=184	Hanger bracket height ST=268	Hanger bracket height ST=350
Rigid Version Spring bolt assembly : 05.857.00.54.0	 05.375.68.88.0	 05.375.68.89.0	 05.375.69.13.0
Adjustabe Version Spring bolt assembly : 05.857.00.55.0	 05.375.68.52.0	 05.375.68.51.0	 05.375.69.17.0

Note:

The hanger brackets and the frame must be reinforced so that the forces applied can be absorbed. See the current BPW installation instructions.

Rev. 3	(6)	01.02.2018
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Advice	Conditions	Axle load	Air suspension series	Tyre S = Single tyres Z = Twin tyres	Spring centre	Trailing arm 70 mm	Trailing arm 100 mm	Shock absorber	Air bag	Axle beam	Axle connection	Comments
1	On-Road use	9 t	EAC	S	≥ 1200	Guide link		Standard	Ø 300 / Ø 360	120 x 10	Clamped	For container and coil carrier trailers, the use of air bag stroke limitation is necessary.
2			AL II			1 x 56						
3				Z	< 1200	1 x 62				120 x 15		
4		10 t		S / Z	≥ 1100				Ø 360			
5				Z	< 1100	1 x 65					Welded	
6		11.8 t (only with SN 4220)		S / Z						120 x 17		
7	Off-Road use	9 t	EAC HD	S	≥ 1200	Guide link		HD	Ø 300 / Ø 360 with reinforced airbag plate	120 x 10	Clamped	Tipper trailers require the use of a lowering device or stroke limitation.
8			AL II			1 x 62		Standard / HD		120 x 15		
9				S / Z		1 x 65			Ø 360 with reinforced airbag plate		Welded	Heavy off-road use: such as mining or logging operations on unpaved ground, which can only be used with all-wheel drive machines. For higher speed the use of the HD shock absorbers are necessary.
10		10 t								120 x 17		
11		10 t - 12 t	SL				1 x 57 / 2 x 43			150 x 16		

Observations:

1. Deviations from the required features may affect the ECO-Plus warranty. Your BPW contact is at your disposal for further information and personal advice.
2. The data sheets of the BPW air suspension must be observed for the exact specification of the air spring modules according to the application areas and the possible combinatorial function of the components mentioned (incl. TE-3075.0).
3. Disc cover plate for disc brakes

   On-road: Generall, no cover plate is necessary for on-road use.

   Rugged conditions: Cover plates are recommended for use in rugged conditions. Rugged conditions are the off-road use as well as difficult on-road conditions (e.g. high amounts of dirt, ice or snow).

Rev. 0 (6) 01.02.2018
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TE-3075.0
(V1, 22.06.2017)

axle seats	axle beam cross section 120x10	120x15	120x17	120 massiv	150x16	150x20	150x24	150 massiv
clamped	ok	ok	ok					
welded		ok	ok	ok	ok	ok	ok	ok

trailing arm		axle beam cross section 120x10	120x15	120x17	120 massiv	150x16	150x20	150x24	150 massiv
70x56 70x62	L1=500 L1=550	⬡✓	✓						
70x62	L1=500	⬡✓ 1)	✓	✓	■✓				
70x65	L1=500		✓	■✓	■✓				
70x62/65 (3D)	L1=500		✓	✓	■✓				
70x62	L1=620 2)	⬡✓	⬡✓						
2x 70x56	L1=690		■✓	■✓	■✓				
2x 70x48	L1=550		✓	■✓	■✓				
2x70x52	L1=500		✓	■✓	■✓				
100x57	L1=500					■✓	■✓		
2x100x43	L1=500					■✓	■✓		
2x100x51	L1=550					■✓	■✓	■✓	■✓

	combination not feasible / not permitted
⬡✓	only clamped axle seat arrangement
✓	clamped and welded axle seat arrangement possible consider axle load and spring centre acc. to CoG heights
■✓	only welded axle seat arrangement
1)	only if spring centre is between 980 and 1100, difference track / spring centre max. 850
2)	difference track / spring centre similar to welded axle seat arrangement

feasible centre of gravity heights see TE-1312.0

deviations have to be discussed with BPW technical department

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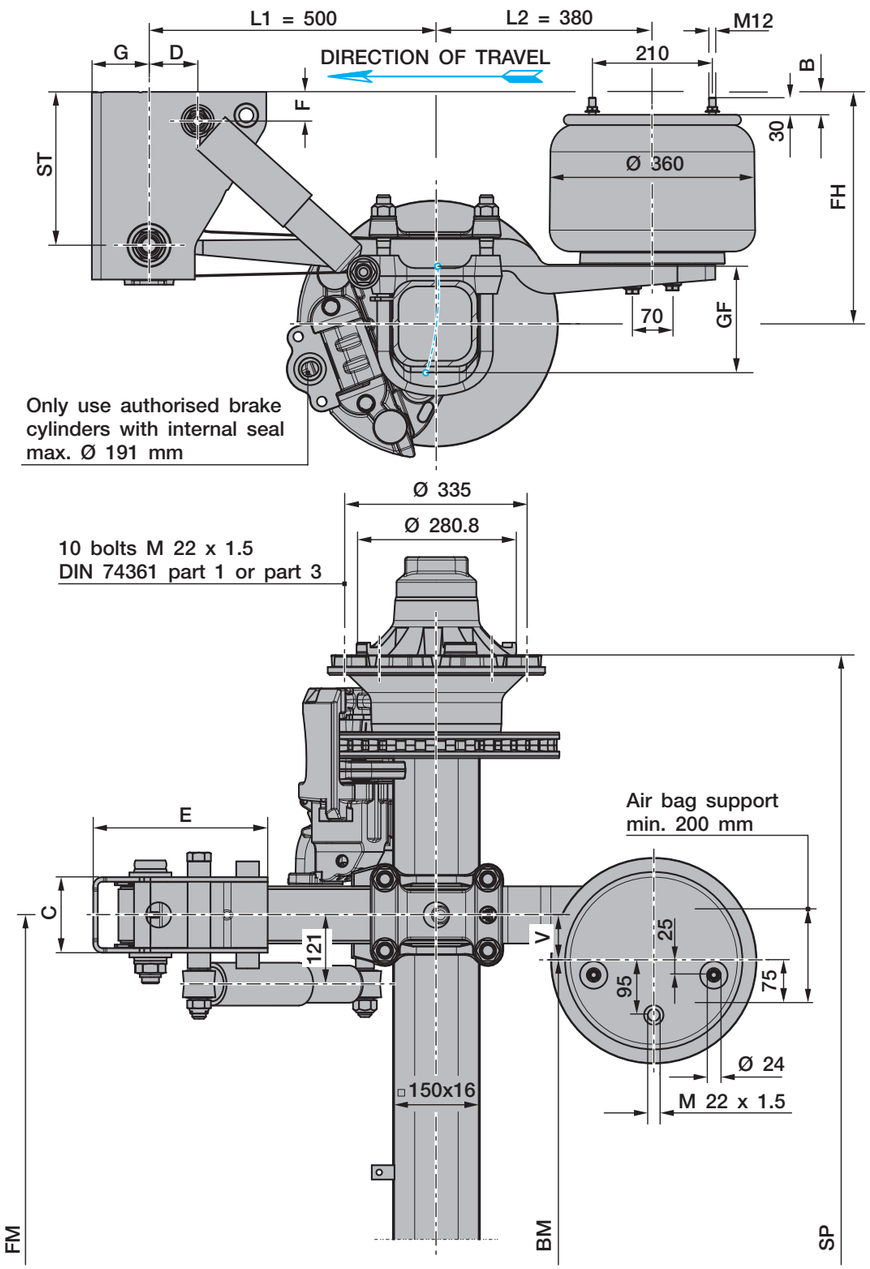


Line	Series	adjustable ride height FH					Total spring travel GF [1]	Air bag type BPW	Shock absorber 02.37...	Hanger bracket				Shock absorber mounting		Packer [2] B
		for single axles	for axle units	min. FH with axle raised	empty without air	loaded without air				ST	C	E	G	D	F	
1	SLO	415 - 455	425 - 455	455	355	340	190	36K	...22.83.02	268	130	305	100	85	51	---
2	SLO	445 - 500	455 - 500	485	385	370	220	36	...22.83.02	268	130	305	100	85	51	---
3	SLO	510 - 560	520 - 560	550	450	435	220	36	...22.88.02	350	130	355	100	75	115	60

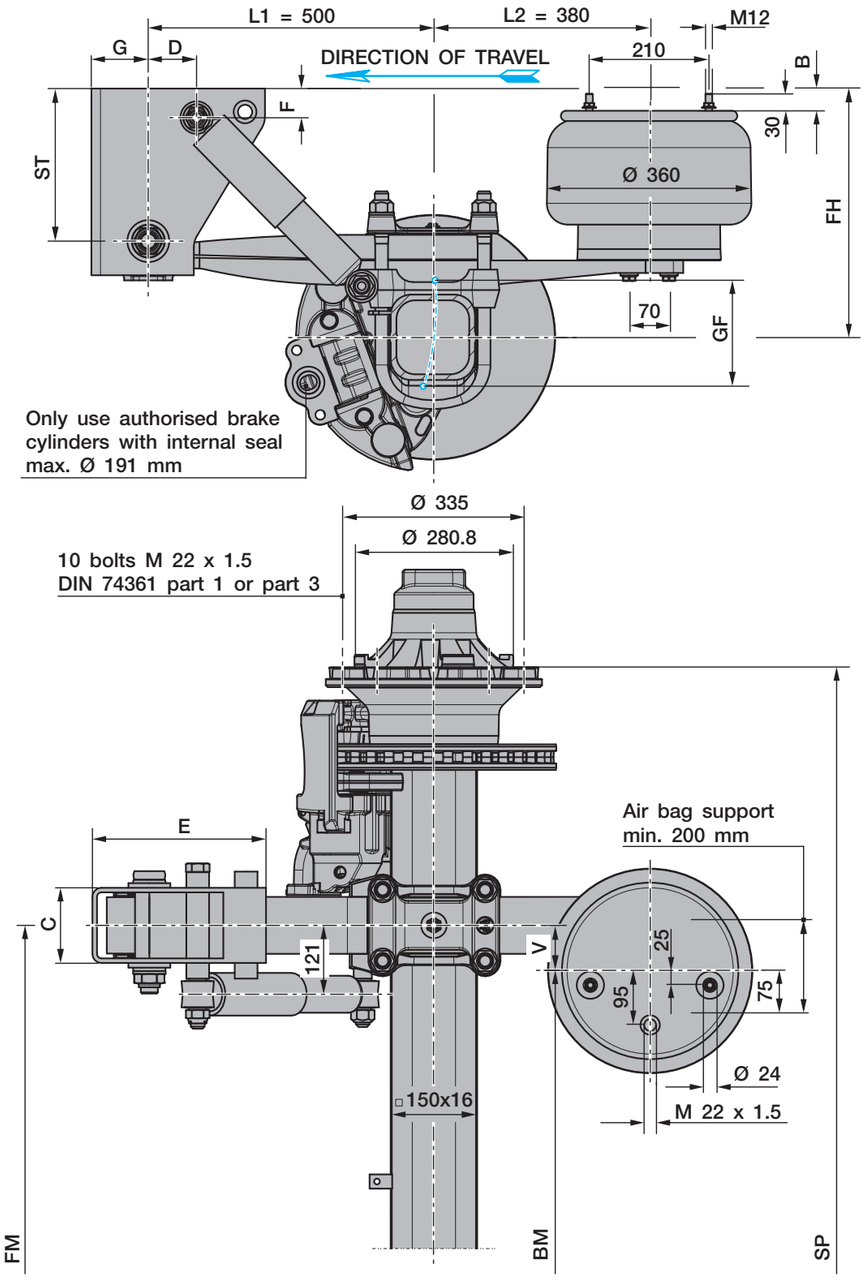
[1] Lifting heights acc. to TD-1242.0
[2] The packer is not included in supplied package.

Axle type	Track SP	Spring centre FM	Air bag centre BM V=80	Tyres recommended [3]
SHSFSLO 12010	2000	1100	940	425/65 R22,5 445/65 R22,5
	2040	1160	1000	
SHZFSLO 12010	1820	900	740	275/70 R22,5 295/80 R22,5 [4]
	1880	980	820	

[3] The load rating of the tyre entered in the drawing is unrelated to the axle load capacity. It is dependent on the information from the tyre manufacturer.
[4] Tyre 295/80 R 22.5 only possible with track=1820, spring centre=900

- Recommended use for BPW chassis and suspensions: As specified in current BPW warrenty documents.
- Max. inclination angle of the semitrailer under full load and lowest adjustable ride height ±1°
- With trailing arm L1=500 / L2=380, bag pressures acc. to TE-1188.0 sheet 11
- The hanger brackets, air bag supports and the frame must be reinforced so that the forces applied can be absorbed. See the current BPW installation instructions.

Rev. 4 (6) 01.02.2018
Subject to change without notice.



Line	Series	adjustable ride height FH					Total spring travel GF [1]	Air bag type BPW	Shock absorber 02.37...	Hanger bracket				Shock absorber mounting		Packer [2] B
		for single axles	for axle units	min. FH with axle raised	empty without air	loaded without air				ST	C	E	G	D	F	
1	SLO	445 - 490	455 - 490	485	385	370	190	36K	...22.83.02	268	130	305	100	170	41	---
2	SLO	475 - 520	485 - 520	515	415	400	220	36	...22.83.02	268	130	305	100	170	41	---
3	SLO	540 - 600	550 - 600	580	480	465	220	36	...22.88.02	350	130	355	100	75	115	60

[1] Lifting heights acc. to TD-1242.0
[2] The packer is not included in supplied package.

Axle type	Track SP	Spring centre FM	Air bag centre BM V=80	Tyres recommended [3]
SHSFSLO 12010	2000	1100	940	425/65 R22,5 445/65 R22,5
	2040	1160	1000	
SHZFSLO 12010	1820	900	740	275/70 R22,5 295/80 R22,5 [4]
	1880	980	820	

[3] The load rating of the tyre entered in the drawing is unrelated to the axle load capacity. It is dependent on the information from the tyre manufacturer.
[4] Tyre 295/80 R 22.5 only possible with track=1820, spring centre=900

- Recommended use for BPW chassis and suspensions: As specified in current BPW warrenty documents.
- Max. inclination angle of the semitrailer under full load and lowest adjustable ride height ±1°
- With trailing arm L1=500 / L2=380, bag pressures acc. to TE-1188.0 sheet 11
- The hanger brackets, air bag supports and the frame must be reinforced so that the forces applied can be absorbed. See the current BPW installation instructions.

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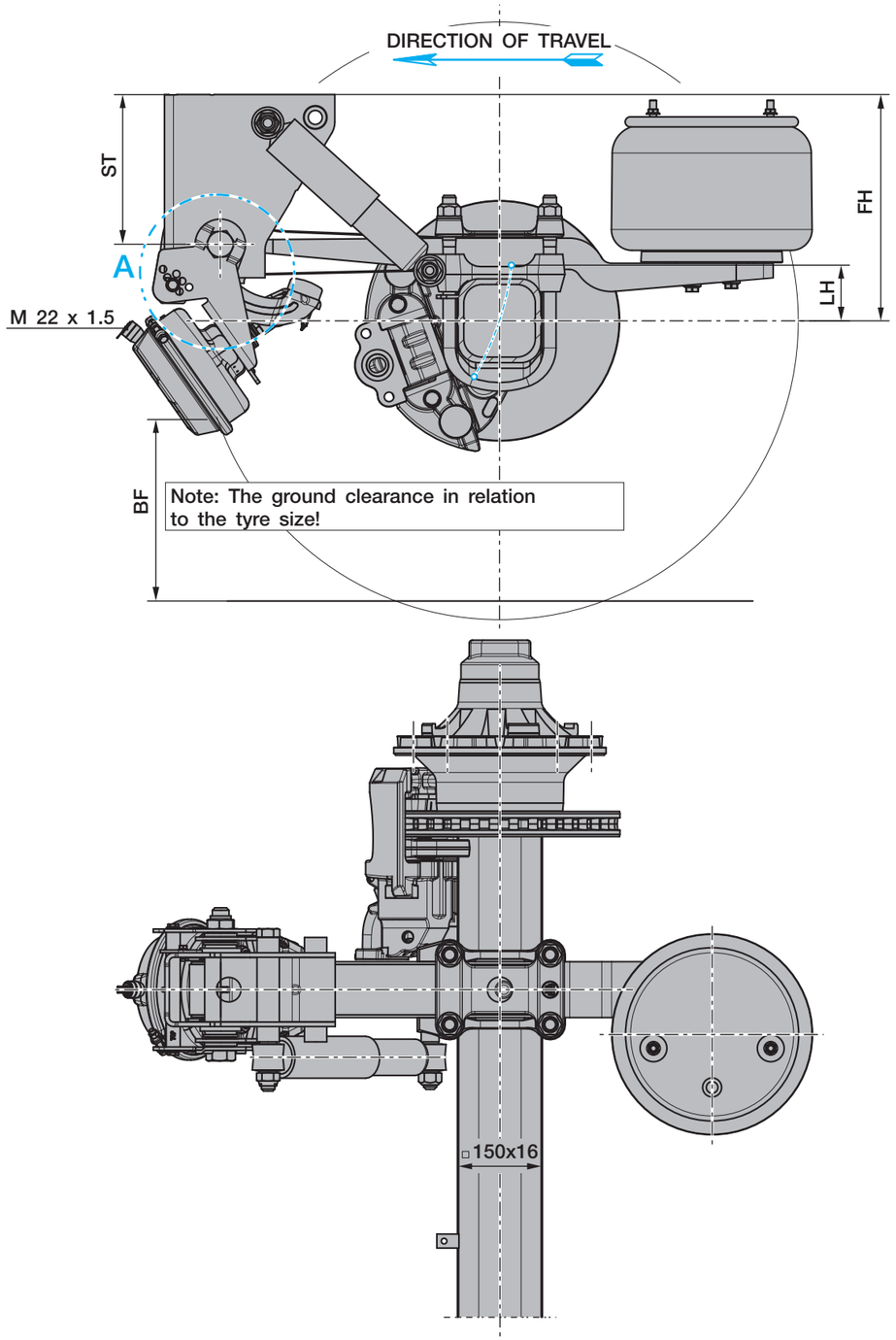
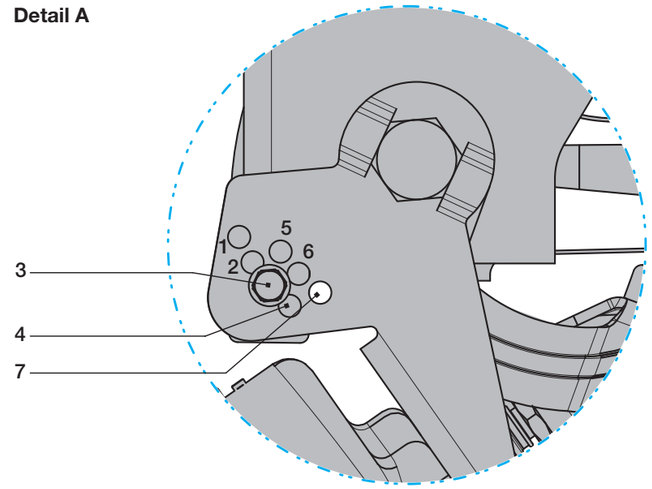


to drawing	adjustable ride height FH		min. lifting stroke LH	Hanger bracket height ST	Ground clearance BF [1]	Position lift stop	BPW no. 05.828...
	for axle units	min. FH with axle raised					
Sheet 1a	425 - 455	455	100	268	379	3	...31.76.0
	455 - 500	485	100	268	409	7	
	520 - 560	550	100	350	394	7	
Sheet 2a	455 - 490	485	100	268	409	7	
	485 - 520	515	100	268	444	4	
	550 - 600	580	100	350	411	4	

[1] Ground clearance in relation to the set minimum ride height with the axle raised.
* Tyre 445/65 R 22.5 ($r_{stat.}$ = 535)
In the case of smaller tyres, it is necessary to check whether the doublesided axle lift can be used, according to the application.

Detail A



- In the lifting and lowering version, the total spring travel must be limited by a shutoff valve.
- Minimum air pressure for lifting the axle approx. 6 bar.
- The hanger brackets, air bag supports and the frame must be reinforced so that the forces applied can be absorbed. See the current BPW installation instructions.

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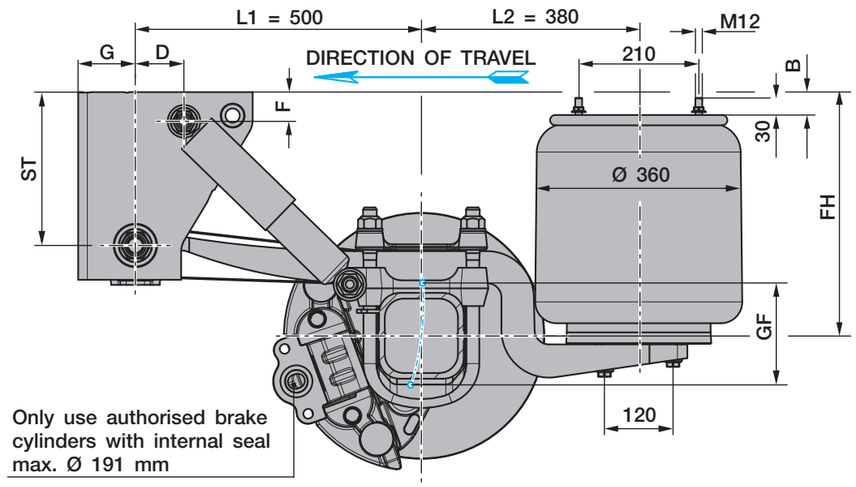
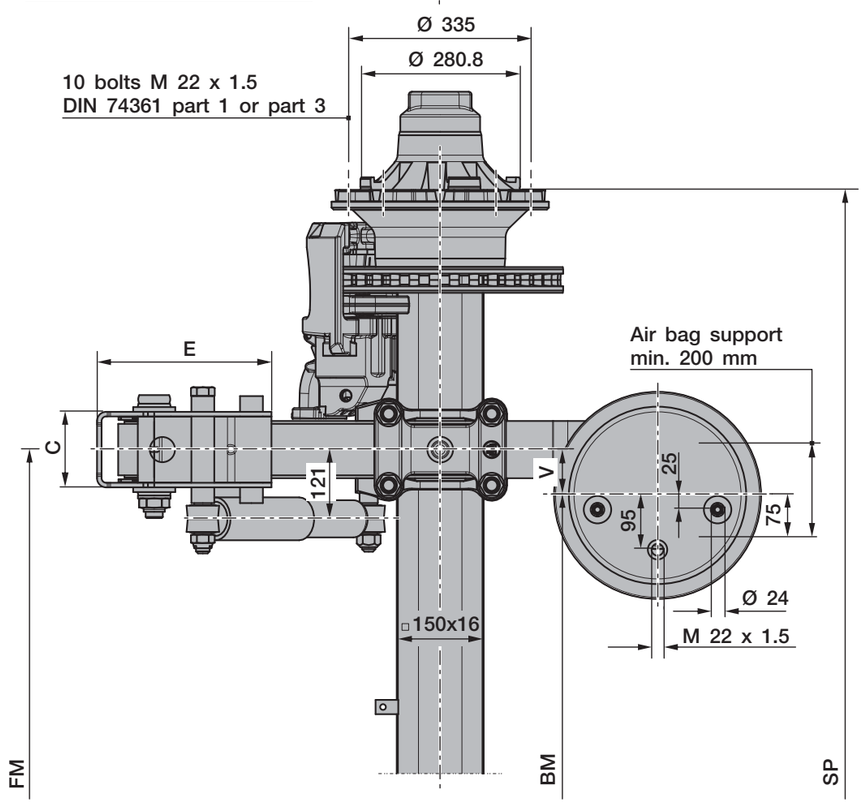




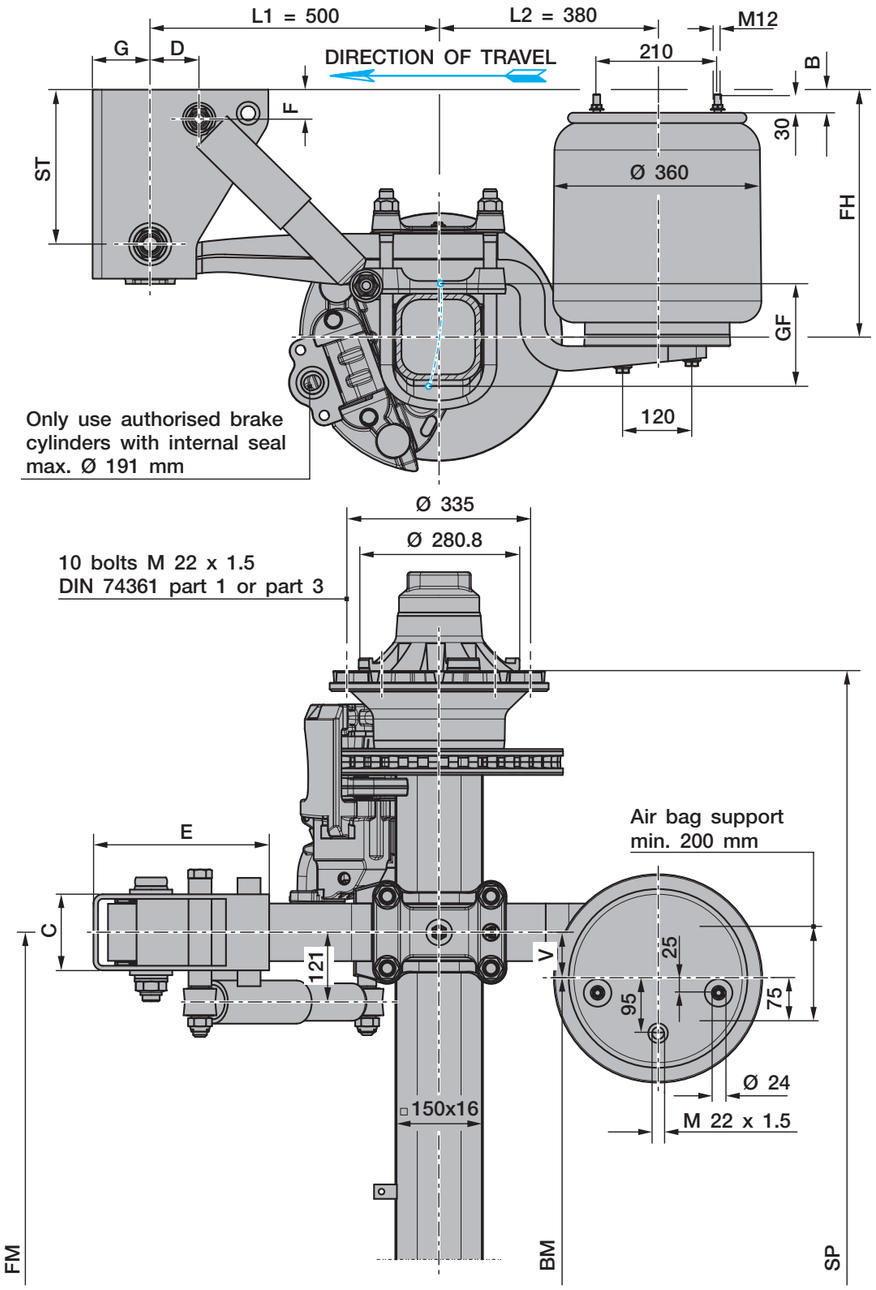
Line	Series	adjustable ride height FH: for single axles	for axle units	min. FH with axle raised	empty without air	loaded without air	Total spring travel GF [1]	Air bag type BPW	Shock absorber 02.37...	Hanger bracket: ST	C	E	G	Shock absorber mounting: D	F	Packer [2] B
1 [3]	SLM	345 - 415	355 - 415	385	285	270	220	36	...22.83.02	184	130	236	100	80	37	---
2	SLM	375 - 445	385 - 445	415	315	300	220	36	...22.83.02	268	130	305	100	85	51	---
3	SLM	410 - 460	420 - 460	450	350	335	220	36	...22.83.02	268	130	305	100	85	51	60
4	SLM	435 - 500	445 - 500	475	375	360	220	36	...22.83.02	268	130	305	100	85	51	100

[1] Lifting heights acc. to TD-1242.0
[2] The packer is not included in supplied package.
[3] Only suitable for semitrailer / centre axle drawbar trailer

Axle type	Track SP	Spring centre FM	Air bag centre BM V=80	Tyres recommended [4]
SHSFSLM 12010	2000	1100	940	425/65 R22,5 445/65 R22,5
	2040	1160	1000	
SHZFSLM 12010	1820	900	740	275/70 R22,5 295/80 R22,5 [5]
	1880	980	820	

[3] The load rating of the tyre entered in the drawing is unrelated to the axle load capacity. It is dependent on the information from the tyre manufacturer.
[4] Tyre 295/80 R 22.5 only possible with track=1820, spring centre=900

- Recommended use for BPW chassis and suspensions: As specified in current BPW warrenty documents.
- Max. inclination angle of the semitrailer under full load and lowest adjustable ride height ±1°
- With trailing arm L1=500 / L2=380, bag pressures acc. to TE-1188.0 sheet 11
- The hanger brackets, air bag supports and the frame must be reinforced so that the forces applied can be absorbed. See the current BPW installation instructions.



Line	Series	adjustable ride height FH: for single axles	for axle units	min. FH with axle raised	empty without air	loaded without air	Total spring travel GF [1]	Air bag type BPW	Shock absorber 02.37...	Hanger bracket: ST	C	E	G	Shock absorber mounting: D	F	Packer [2] B
1[3]	SLM	350 - 410	360 - 410	390	290	275	220	36	...22.83.02	184	130	236	100	80	37	---
2	SLM	380 - 440	390 - 440	420	320	305	220	36	...22.83.02	268	130	305	100	85	51	---
3	SLM	410 - 460	420 - 460	450	350	335	220	36	...22.83.02	268	130	305	100	85	51	60
4	SLM	440 - 500	450 - 500	480	380	365	220	36	...22.83.02	268	130	305	100	85	51	100

[1] Lifting heights acc. to TD-1242.0
[2] The packer is not included in supplied package.
[3] Only suitable for semitrailer / centre axle drawbar trailer

Axle type	Track SP	Spring centre FM	Air bag centre BM V=80	Tyres recommended [4]
SHSFSLM 12010	2000	1100	940	425/65 R22,5 445/65 R22,5
	2040	1160	1000	
SHZFSLM 12010	1820	900	740	275/70 R22,5 295/80 R22,5 [5]
	1880	980	820	

[3] The load rating of the tyre entered in the drawing is unrelated to the axle load capacity. It is dependent on the information from the tyre manufacturer.
[4] Tyre 295/80 R 22.5 only possible with track=1820, spring centre=900

- Recommended use for BPW chassis and suspensions: As specified in current BPW warrenty documents.
- Max. inclination angle of the semitrailer under full load and lowest adjustable ride height ±1°
- With trailing arm L1=500 / L2=380, bag pressures acc. to TE-1188.0 sheet 11
- The hanger brackets, air bag supports and the frame must be reinforced so that the forces applied can be absorbed. See the current BPW installation instructions.

Rev. 2 (6) 16.11.2016
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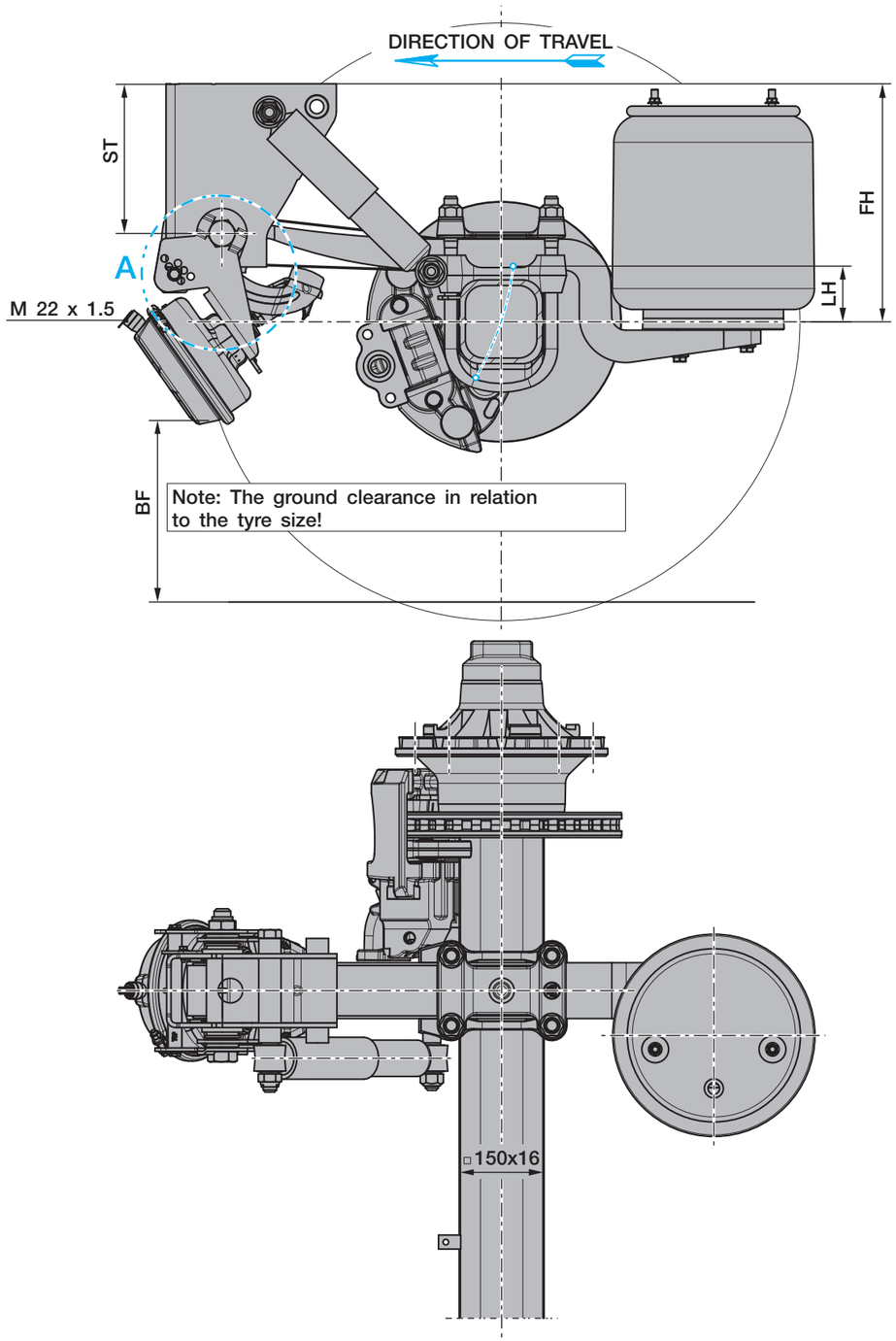
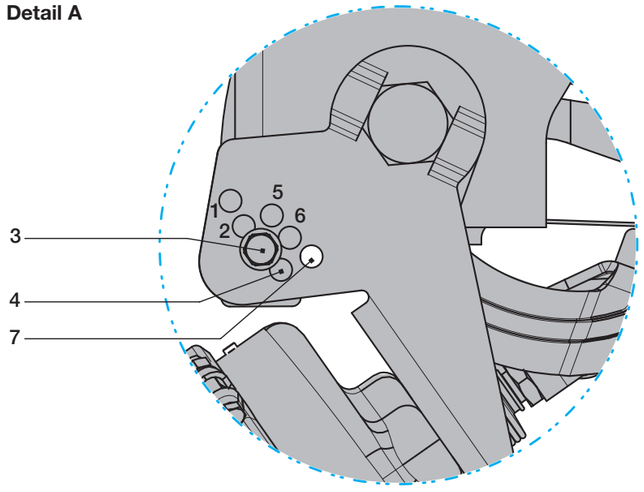


to drawing	adjustable ride height FH		min. lifting stroke LH	Hanger bracket height ST	Ground clearance BF [1]	Position lift stop	BPW no. 05.828...
	for axle units	min. FH with axle raised					
Sheet 8a	355 - 415	385	100	184	404	7	...31.76.0
	385 - 445	415	100	268	344	3	
	420 - 460	450	100	268	379	7	
	445 - 500	475	100	268	404	4	
Sheet 9a	360 - 410	390	100	184	404	4	
	390 - 440	420	100	268	344	7	
	420 - 460	450	100	268	379	4	
	450 - 500	480	100	268	409	4	

[1] Ground clearance in relation to the set minimum ride height with the axle raised.
* Tyre 445/65 R 22.5 ($r_{stat.}$ = 535)
In the case of smaller tyres, it is necessary to check whether the doublesided axle lift can be used, according to the application.

Detail A



- In the lifting and lowering version, the total spring travel must be limited by a shutoff valve.
- Minimum air pressure for lifting the axle approx. 6 bar.
- The hanger brackets, air bag supports and the frame must be reinforced so that the forces applied can be absorbed. See the current BPW installation instructions.

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