

Trailer Lowering Systems

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KNOTT GROUP
BRAKE AND TRAILER TECHNOLOGY

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Applications



**Commercial Trailers
be level with your customer!**



Applications



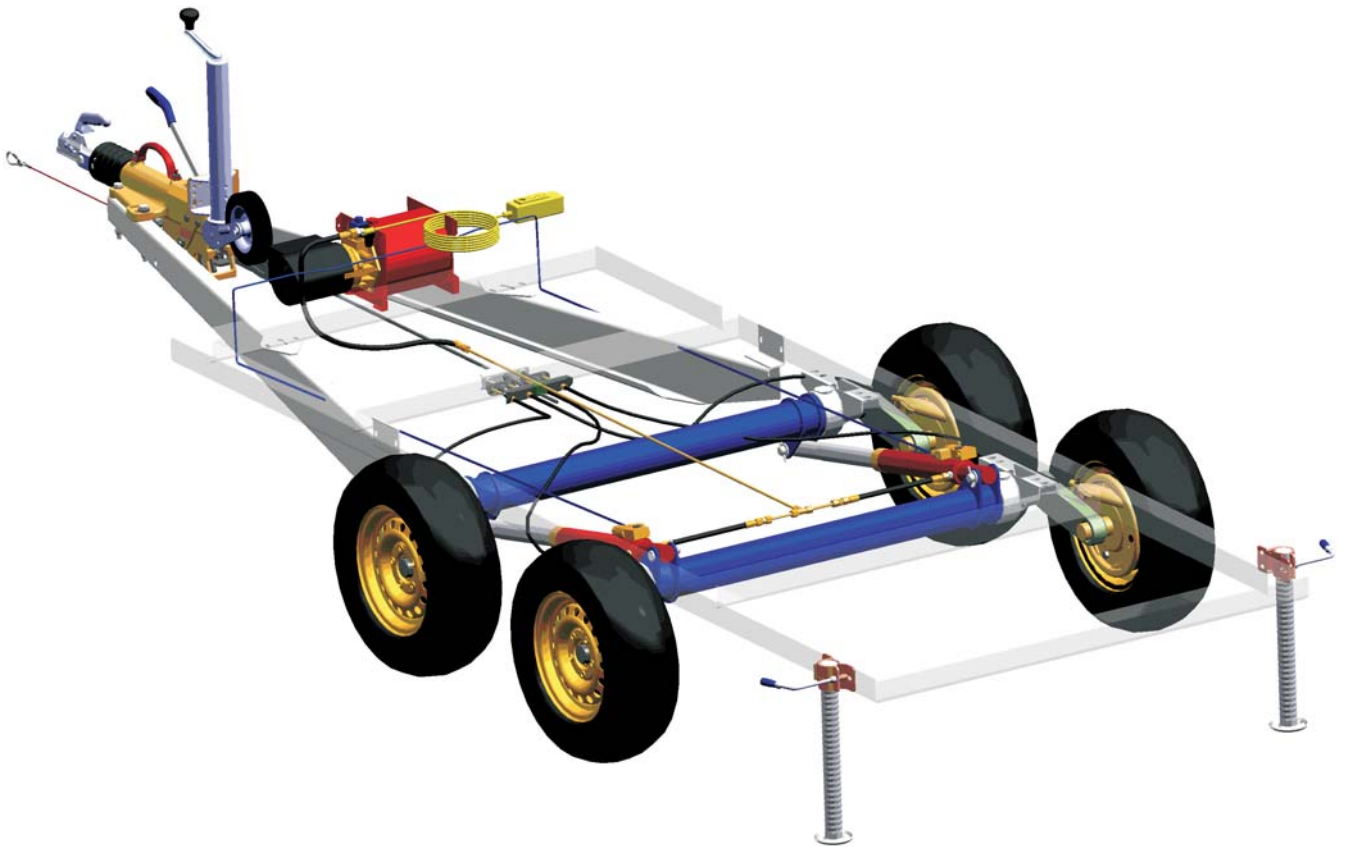
Motorbike Trailers - simple loading and unloading!



Box Trailers - low loading level!

Plant Trailers - low approach angle!





Chassis Component Kit Electric Pump Series

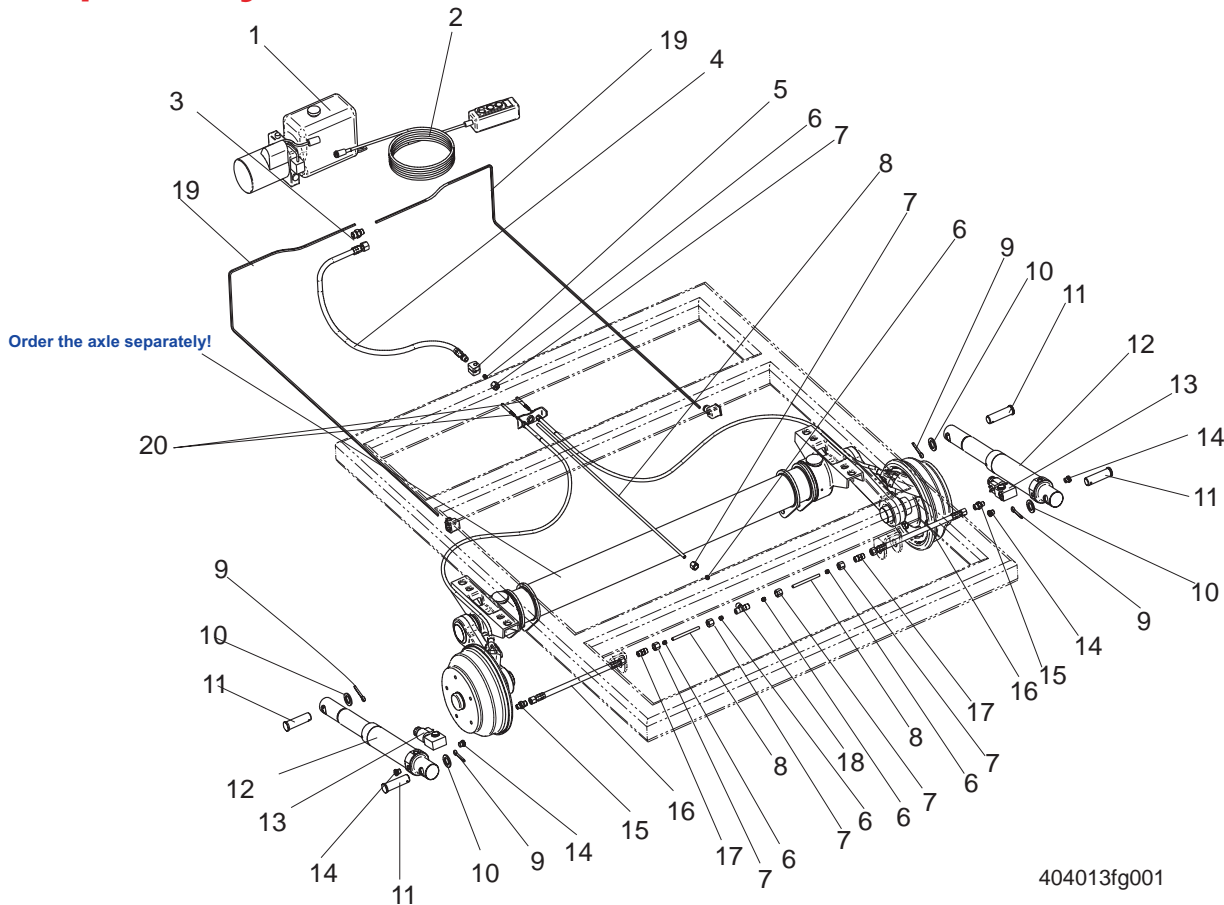
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Single Lowering Axle Electric Pump Series

Complete Hydraulic Kit Part N°: 404158.001

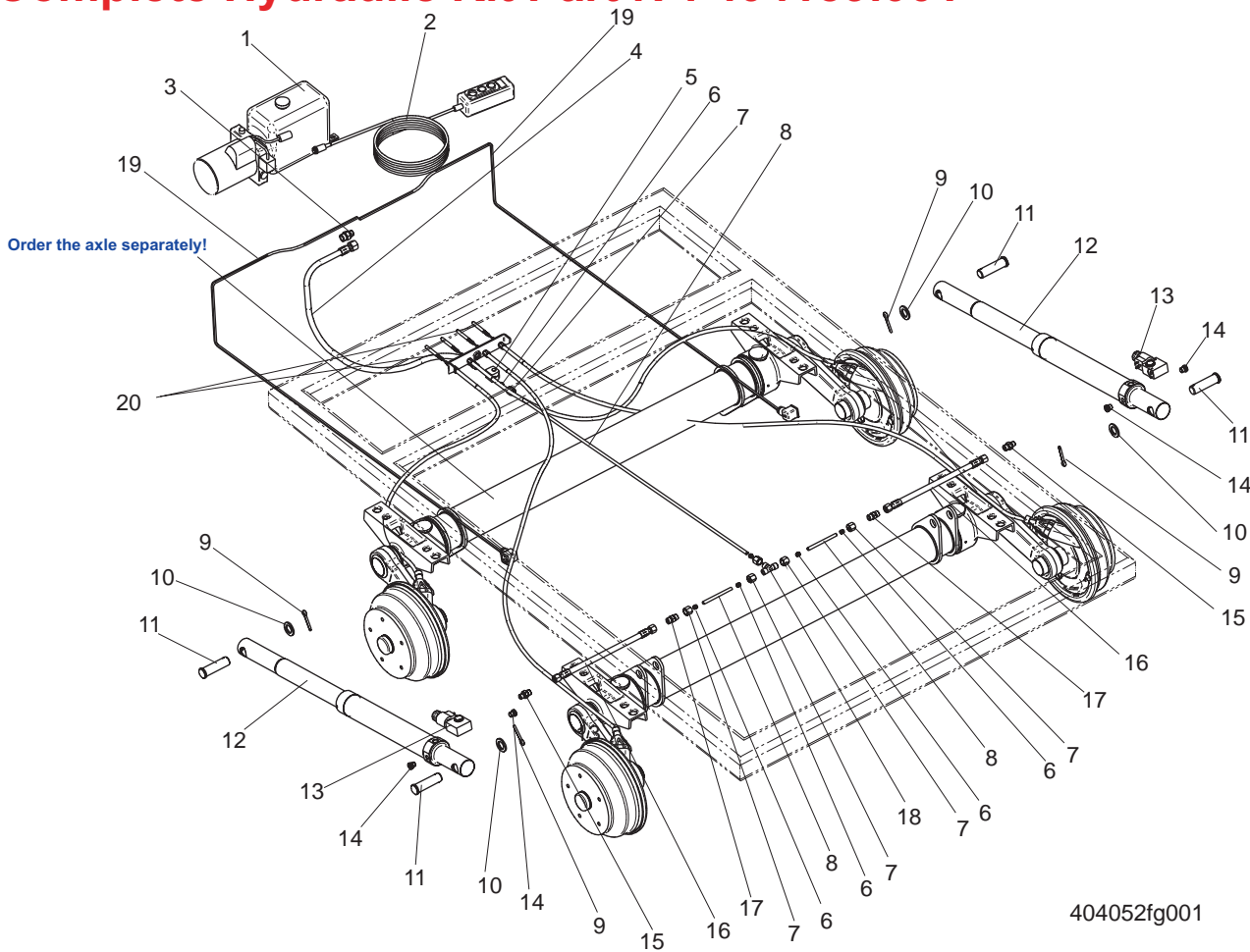


Pos	Description	Part N°
	Component Parts List	
1	Hydro compact unit	404053.001
2	Operating switch with cable	404245.001
3	Straight connector G3/8"A	404033.001
4	Short hydraulic hose	404079.001
5	Tube bracket	404175.001
6	Sleeve	403998.001
7	Clamping nut	403999.001
8	Hydraulic pipe (not part of kit, order separately)	404137.XXX
9	Split pin	D94.017
10	Washer 25	D1440.003
11	Bolt Ø 25-85/75	D1434.003
12	Knott hydraulic cylinder KHZ1-50/145	404176.001
13	Return valve, electrically unlockable	403954.001
14	Plug cap G1/4"	403896.001
15	Straight connector G1/4"A	403887.001
16	Hydraulic hose	403997.060
17	Straight connector M16 x 1.5	403891.001
18	"T" connector	403892.001
19	Electric cabling	404122.001
20	Cable (not part of kit, order separately)	33921-1.XX

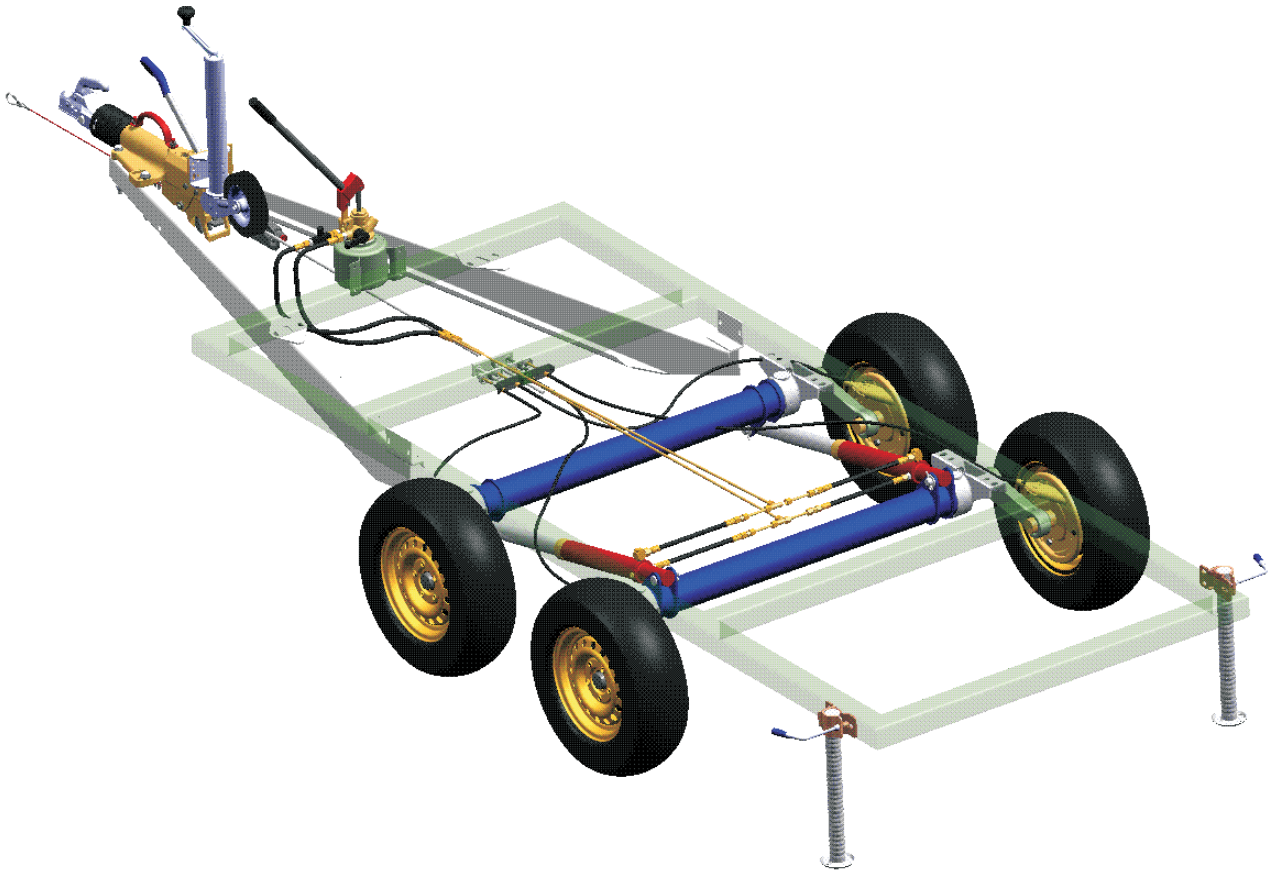
Other specifications available on request!
We reserve the right to make amendments!

Tandem Lowering Axles Electric Pump Series

Complete Hydraulic Kit Part N°: 404159.001



Pos	Description	Part N°
Component Parts List		
1	Hydro compact unit	404053.001
2	Operating switch with cable	404247.001
3	Straight connector G3/8"A	404033.001
4	Short hydraulic hose	404079.001
5	Tube bracket	404175.001
6	Sleeve	403998.001
7	Clamping nut	403999.001
8	Hydraulic pipe (not part of kit, order separately)	404137.XXX
9	Split pin	D94.017
10	Washer 25	D1440.003
11	Bolt Ø 25-85/75	D1434.003
12	Knott hydraulic cylinder KHZ1-50/280	404177.001
13	Return valve, electrically unlockable	403954.001
14	Plug cap G1/4"	403896.001
15	Straight connector G1/4"A	403887.001
16	Hydraulic hose	403997.060
17	Straight connector M16 x 1.5	403891.001
18	"T" connector	403892.001
19	Electric cabling	404122.001
20	Cable (not part of kit, order separately)	33921-1.XX



Chassis Component Kit Hand Pump Series

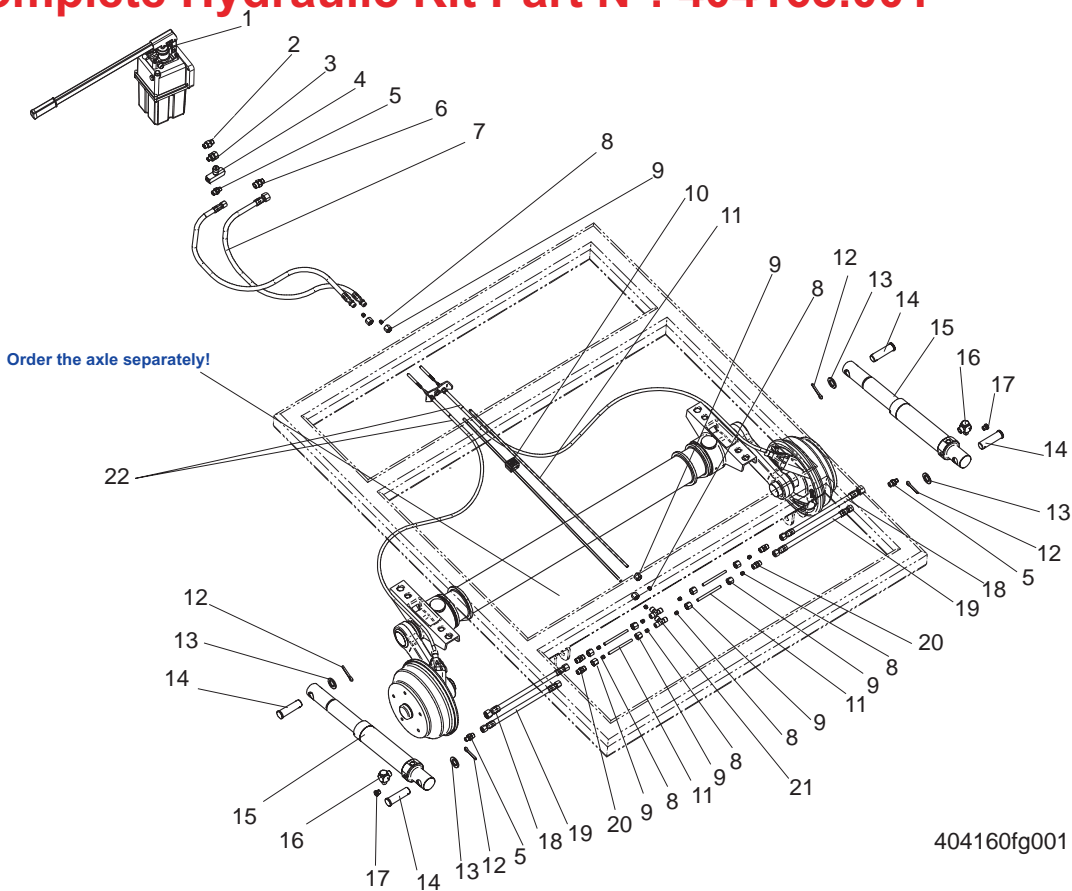
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Single Lowering Axle Hand Pump Series

Complete Hydraulic Kit Part N°: 404163.001



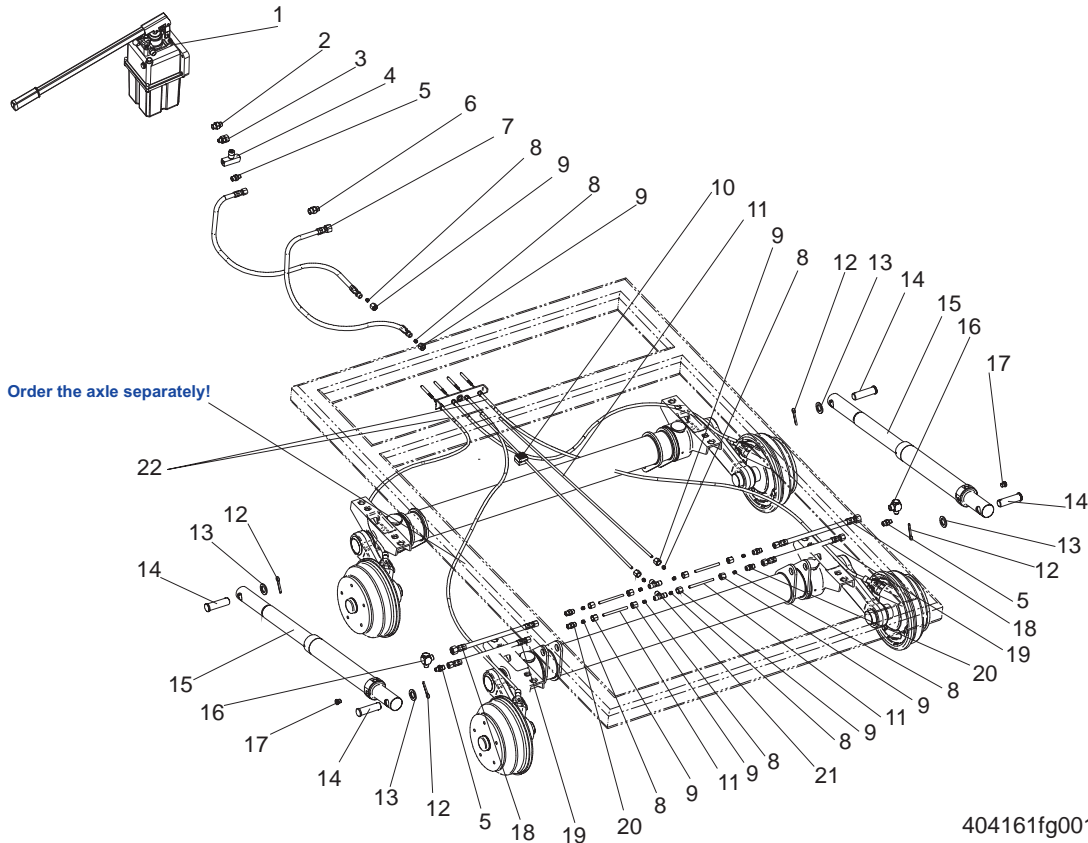
404160fg001

Pos	Description	Part N°
Component Parts List		
1	Hand pump assembly	404030.001
2	Straight connector G3/8"A / M16 x 1.5	404082.001
3	Straight connector with conical seal G1/4"A	404083.001
4	Throttle return valve	404066.001
5	Straight connector G1/4"A	403887.001
6	Straight connector G3/8"A	404033.001
7	Short hydraulic hose	404079.030
8	Sleeve	403998.001
9	Clamping nut	403999.001
10	Tube bracket	403996.001
11	Hydraulic pipe (not part of kit, order separately)	404137.XXX
12	Split pin	D94.017
13	Washer 25	D1440.003
14	Bolt Ø 25-85/75	D1434.003
15	Knott hydraulic cylinder KHZ1-50/145 with return valve	403862.001
16	Cranked connector G3/8"A	404034.001
17	Plug cap G1/4"	403896.001
18	Hydraulic hose	404085.060
19	Hydraulic hose	403997.060
20	Straight connector M16 x 1.5	403891.001
21	"T" connector	403892.001
22	Cable (not part of kit, order separately)	33921-1.XX

Other specifications available on request!
We reserve the right to make amendments!

Tandem Lowering Axle Hand Pump Series

Complete Hydraulic Kit Part N°: 404162.001



Pos	Description	Part N°
Component Parts List		
1	Hand pump assembly	404030.001
2	Straight connector G3/8"A / M16 x 1.5	404082.001
3	Straight connector with conical seal G1/4"A	404083.001
4	Throttle return valve	404066.001
5	Straight connector G1/4"A	403887.001
6	Straight connector G3/8"A	404033.001
7	Short hydraulic hose	404079.030
8	Sleeve	403998.001
9	Clamping nut	403999.001
10	Tube bracket	403996.001
11	Hydraulic pipe (not part of kit, order separately)	404137.XXX
12	Split pin	D94.017
13	Washer 25	D1440.003
14	Bolt Ø 25-85/75	D1434.003
15	Knott hydraulic cylinder KHZ1-50/280 with return valve	404143.001
16	Cranked joint G3/8"A	404034.001
17	Plug cap G1/4"	403896.001
18	Hydraulic hose	404085.060
19	Hydraulic hose	403997.060
20	Straight connector M16 x 1.5	403891.001
21	"T" connector	403892.001
22	Cable (not part of kit, order separately)	33921-1.XX

Other specifications available on request!
We reserve the right to make amendments!

Single Lowering Rubber Torsion Axle GBA-MV

200x50 Auto Reverse Spreadlever Brake to 1500kg

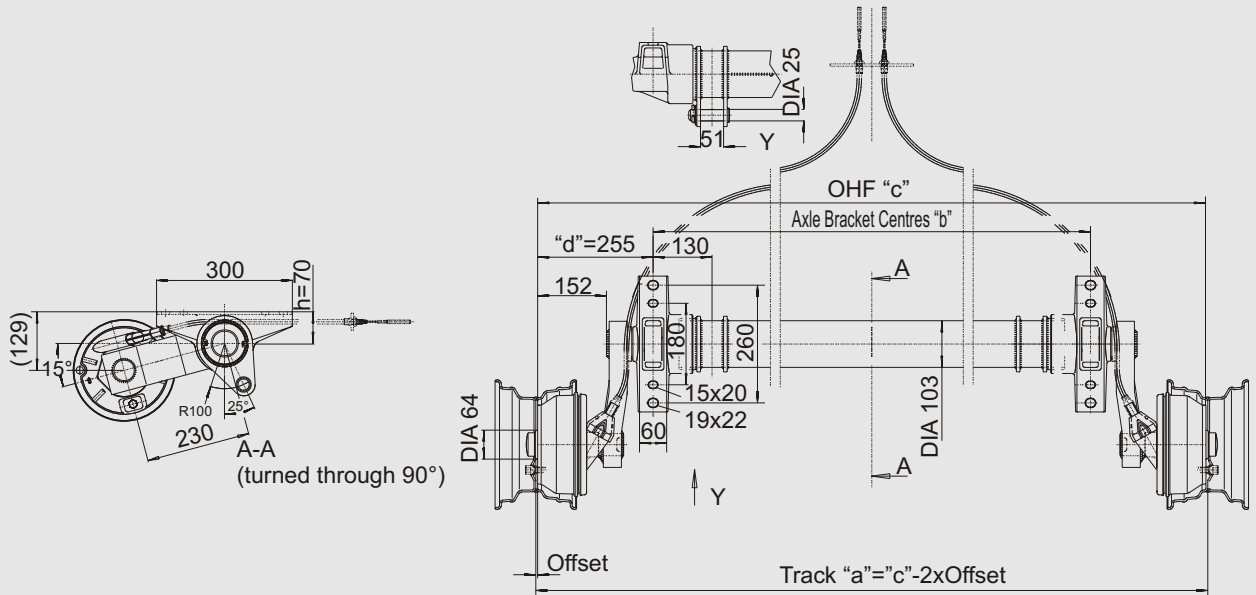
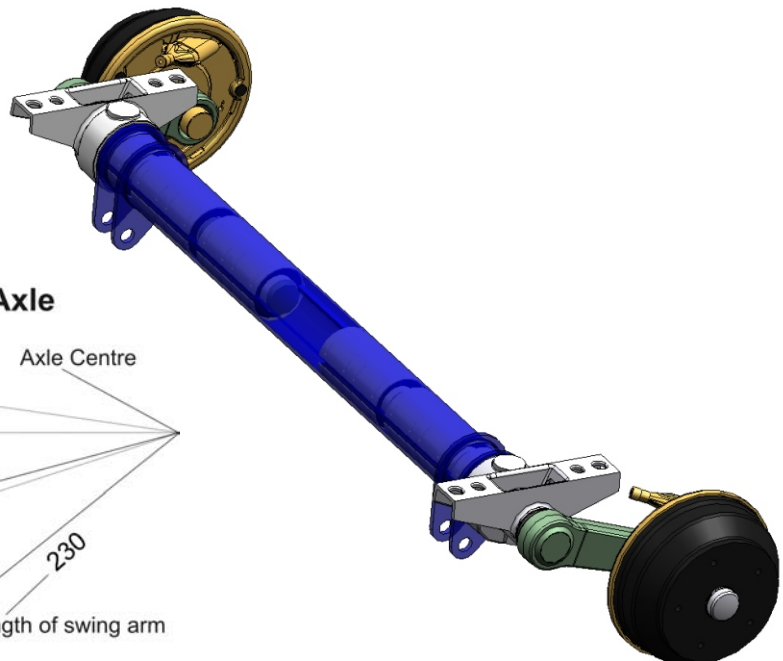
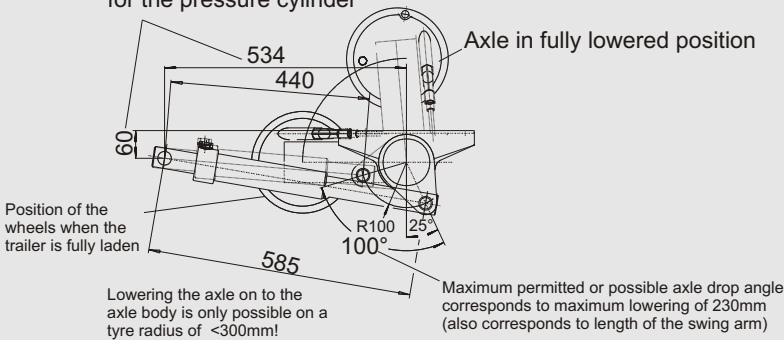


Diagram: 47423

Recommended position for the pressure cylinder



Spring Diagram for Standard Axle

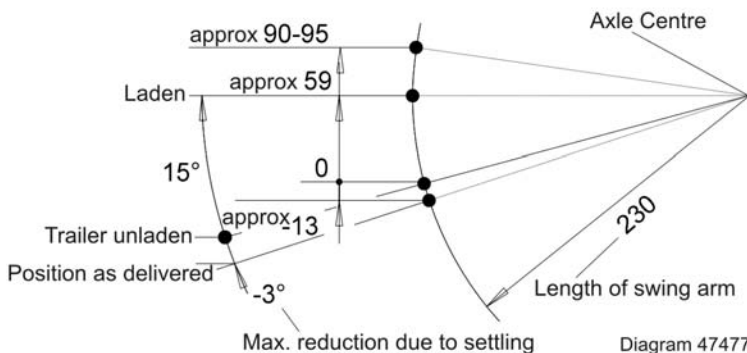


Diagram 47477

Other specifications available on request!
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Single Lowering Rubber Torsion Axle GBA-MV

200x50 Auto Reverse Spreadlever brake to 1500kg



Part N°	Axle Type	Axle Load							Recommendation		Weight [kg]
		Single [kg]	Twin [kg]	"c"	"b"	"d"	In/Offset	PCD	Smallest Possible Wheel	Tyre	
400116.001	GBA13-MV	1350	2700	1510	1000	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	100
400116.002	GBA13-MV	1350	2700	1610	1100	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	102
400116.003	GBA13-MV	1350	2700	1710	1200	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	104
400116.004	GBA13-MV	1350	2700	1810	1300	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	106
400116.005	GBA13-MV	1350	2700	1910	1400	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	108
400116.006	GBA13-MV	1350	2700	2010	1500	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	110
400116.007	GBA13-MV	1350	2700	2110	1600	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	112
400116.008	GBA13-MV	1350	2700	2210	1700	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	114
400116.009	GBA13-MV	1350	2700	2310	1800	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	116
400116.010	GBA15-MV	1500	3000	1510	1000	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	100
400116.011	GBA15-MV	1500	3000	1610	1100	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	102
400116.012	GBA15-MV	1500	3000	1710	1200	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	104
400116.013	GBA15-MV	1500	3000	1810	1300	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	106
400116.014	GBA15-MV	1500	3000	1910	1400	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	108
400116.015	GBA15-MV	1500	3000	2010	1500	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	110
400116.016	GBA15-MV	1500	3000	2110	1600	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	112
400116.017	GBA15-MV	1500	3000	2210	1700	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	114
400116.018	GBA15-MV	1500	3000	2310	1800	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	116

Hydraulic Equipment:

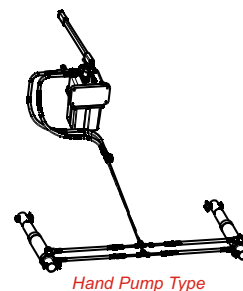
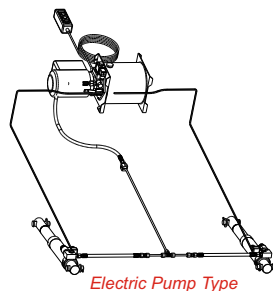
Part N°:

404158.001 Hydraulic cylinder with electric unit and connection, see page 6

404163.001 Hydraulic cylinder with hand pump and connection, see page 9

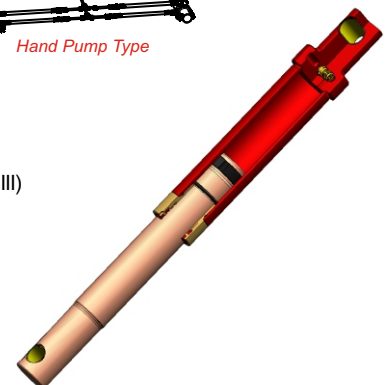
Rubber Torsion Axle Data:

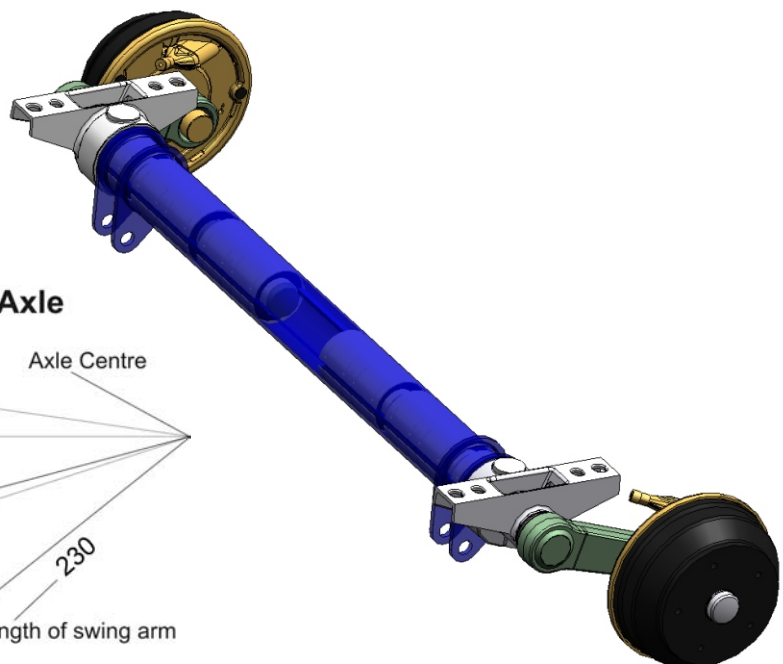
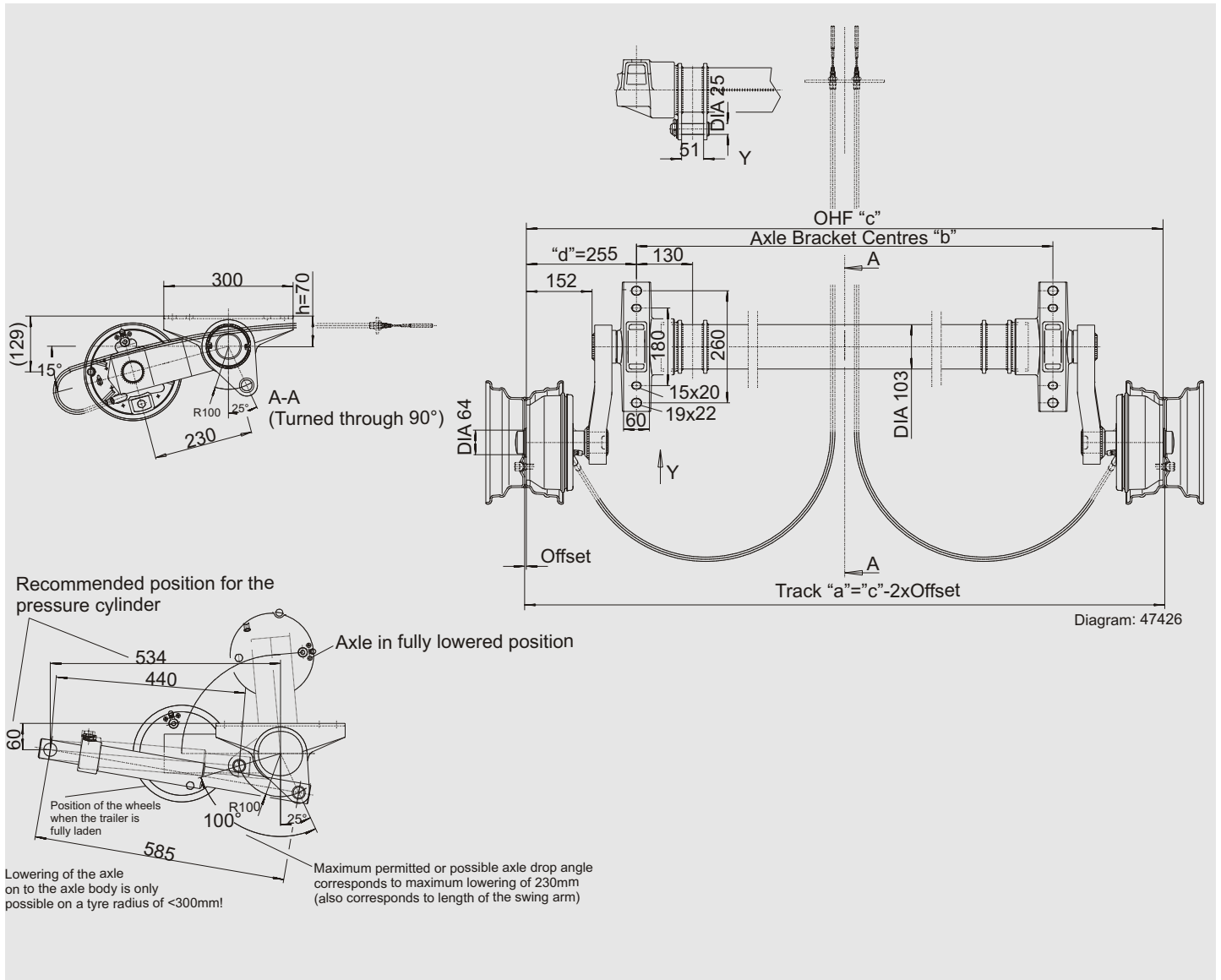
Axle type	GBA-MV
Axle tube	painted
Backplate / Brake drum	plated / painted
Speed	Upto 140km/h
Max. axle load	1000-1500kg
Dim "d"	Fix dim 225
Wheel bolts	Depending on disc
Cable	33921-1.XX



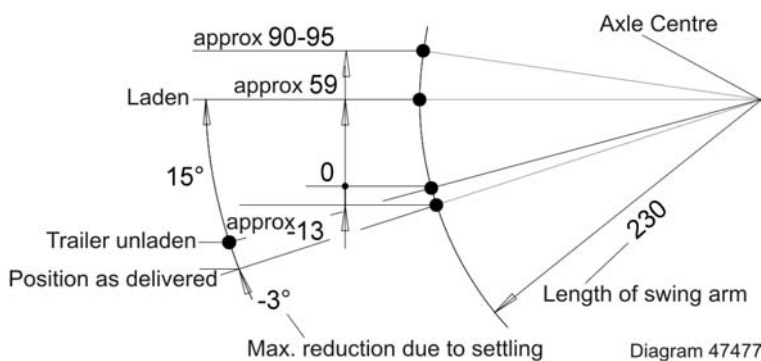
Brake Data:

EU Approval number	361-311-83	(according to guideline RL 71/720/EWG, Appendix VIII)	
Brake type	20-2425/1		
	Var. A	Var. B	Var. C
Class of vehicle	O	O	O
Speed	> 25km/h	> 25km/h	> 25km/h
Max. brake load	750kg	750kg	800kg
Rdyn min	0.253m	0.253m	0.600m
Rdyn max	0.360m	0.216m	0.644m





Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Part N°	Axle Type	Axle Load		Recommendation					Weight [kg]		
		Single [kg]	Twin [kg]	"c"	"b"	"d"	In/Offset	PCD		Smallest Possible Wheel	Tyre
400117.001	GBA13-MV	1350	2700	1510	1000	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	100.0
400117.002	GBA13-MV	1350	2700	1610	1100	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	102.0
400117.003	GBA13-MV	1350	2700	1710	1200	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	104.0
400117.004	GBA13-MV	1350	2700	1810	1300	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	106.0
400117.005	GBA13-MV	1350	2700	1910	1400	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	108.0
400117.006	GBA13-MV	1350	2700	2010	1500	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	110.0
400117.007	GBA13-MV	1350	2700	2110	1600	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	112.0
400117.008	GBA13-MV	1350	2700	2210	1700	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	114.0
400117.009	GBA13-MV	1350	2700	2310	1800	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	116.0
400117.010	GBA15-MV	1500	3000	1510	1000	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	100.0
400117.011	GBA15-MV	1500	3000	1610	1100	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	102.0
400117.012	GBA15-MV	1500	3000	1710	1200	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	104.0
400117.013	GBA15-MV	1500	3000	1810	1300	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	106.0
400117.014	GBA15-MV	1500	3000	1910	1400	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	108.0
400117.015	GBA15-MV	1500	3000	2010	1500	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	110.0
400117.016	GBA15-MV	1500	3000	2110	1600	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	112.0
400117.017	GBA15-MV	1500	3000	2210	1700	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	114.0
400117.018	GBA15-MV	1500	3000	2310	1800	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	116.0

Hydraulic Equipment:

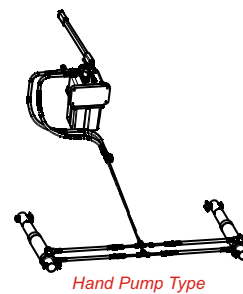
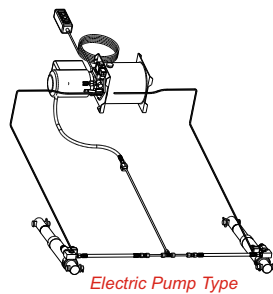
Part N°:

404158.001 Hydraulic cylinder with electrical unit and connection, see page 6

404163.001 Hydraulic cylinder with hand pump and connection, see page 9

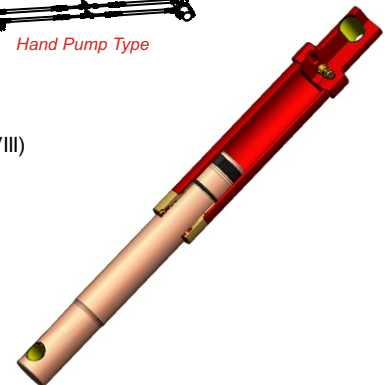
Rubber Torsion Axle Data:

Axle type	GBA-MV
Axle tube	painted
Backplate / Brake drum	plated / painted
Speed	Upto 140km/h
Max axle load	1000-1500kg
Dim "d"	Fix dim 225
Wheel bolts	Depending on disc
Cable	980055.XX



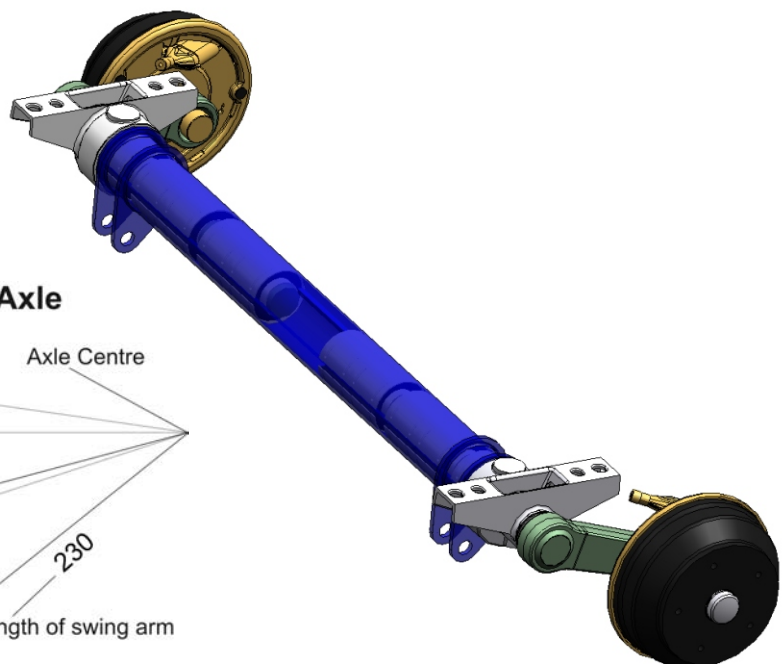
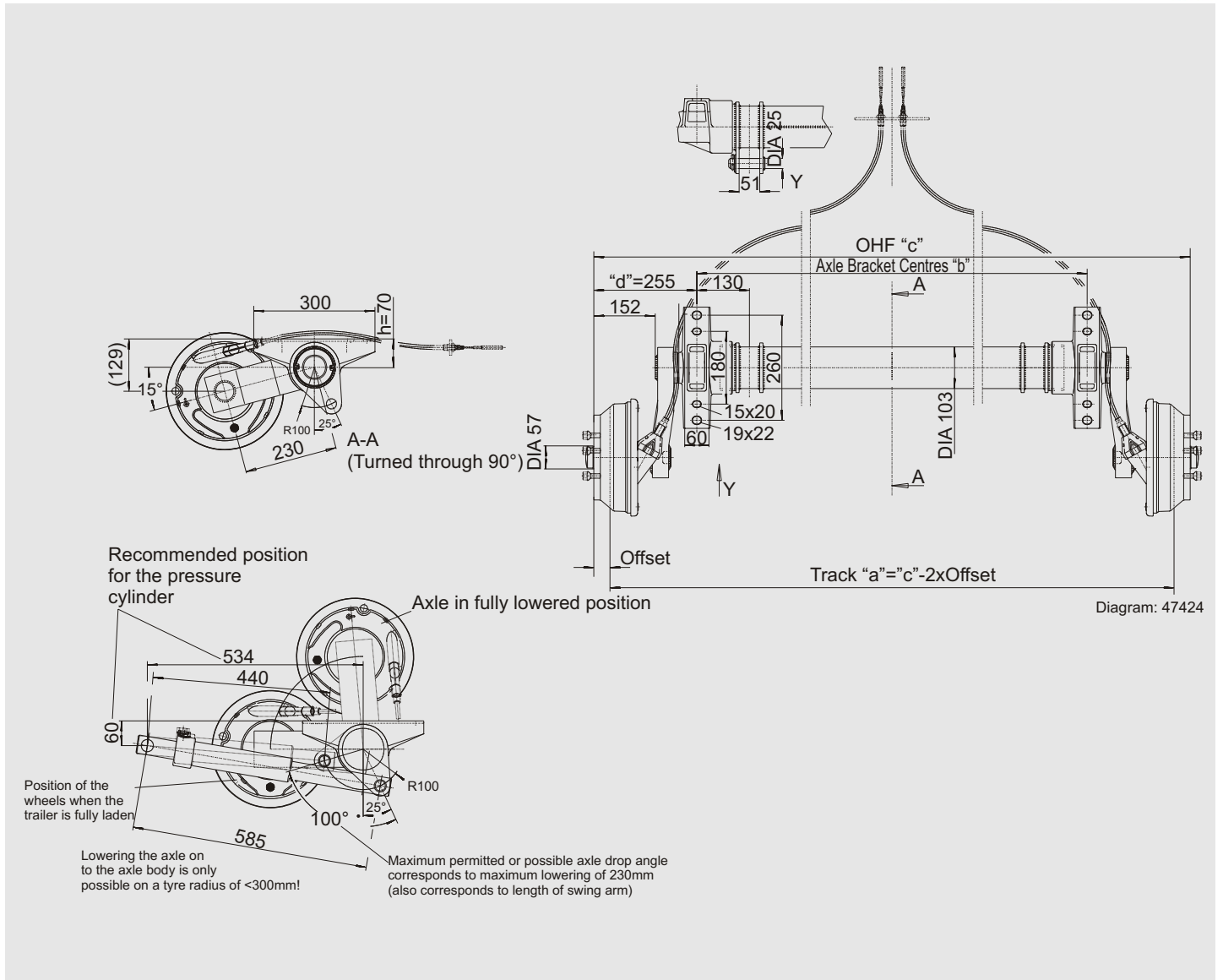
Brake Data:

EU Approval N°	361-416-84	(according to guideline RL 71/720/EWG, Appendix VIII)
Brake type	20-2710	
	Var. A	Var. B
Class of vehicle	O	O
Speed	> 25km/h	> 25km/h
Max. brake load	750kg	750kg
Rdyn min	0.216m	0.253m
Rdyn max	0.253m	0.360m

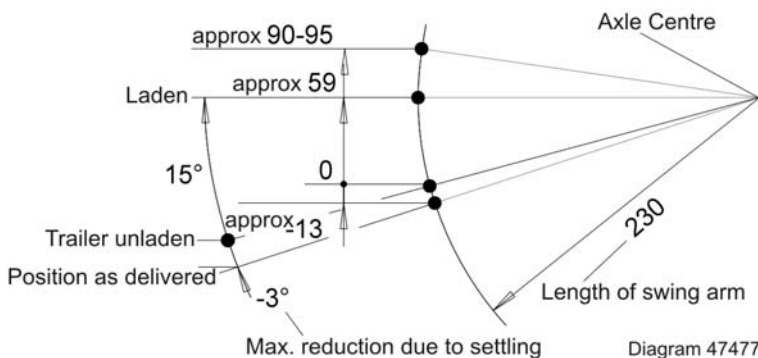


Single Lowering Rubber Torsion Axle GBA-MV

250x40 Auto Reverse Spreadlever Brake to 1800kg



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Single Lowering Rubber Torsion Axle GBA-MV

250x40 Auto Reverse Spreadlever Brake to 1800kg



Part N°	Axle Type	Axle Load		Recommendation					Weight [kg]		
		Single [kg]	Twin [kg]	"c"	"b"	"d"	In/Offset	PCD		Smallest Possible Wheel	Tyre
400118.001	GBA16-MV	1600	3200	1510	1000	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	107.0
400118.002	GBA16-MV	1600	3200	1610	1100	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	109.0
400118.003	GBA16-MV	1600	3200	1710	1200	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	111.0
400118.004	GBA16-MV	1600	3200	1810	1300	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	113.0
400118.005	GBA16-MV	1600	3200	1910	1400	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	115.0
400118.006	GBA16-MV	1600	3200	2010	1500	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	117.0
400118.007	GBA16-MV	1600	3200	2110	1600	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	119.0
400118.008	GBA16-MV	1600	3200	2210	1700	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	121.0
400118.009	GBA16-MV	1600	3200	2310	1800	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	123.0
400118.010	GBA18-MV	1800	3500	1510	1000	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	110.0
400118.011	GBA18-MV	1800	3500	1610	1100	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	112.0
400118.012	GBA18-MV	1800	3500	1710	1200	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	114.0
400118.013	GBA18-MV	1800	3500	1810	1300	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	116.0
400118.014	GBA18-MV	1800	3500	1910	1400	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	118.0
400118.015	GBA18-MV	1800	3500	2010	1500	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	120.0
400118.016	GBA18-MV	1800	3500	2110	1600	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	122.0
400118.017	GBA18-MV	1800	3500	2210	1700	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	124.0
400118.018	GBA18-MV	1800	3500	2310	1800	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	126.0

Hydraulic Equipment:

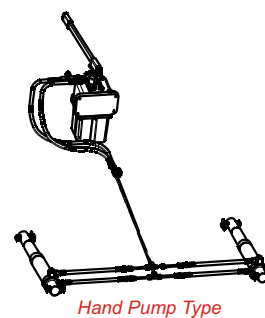
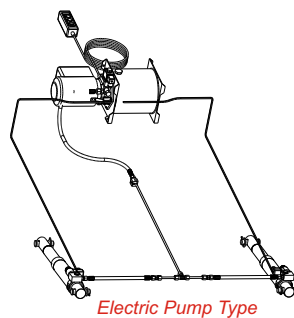
Part N°:

404158.001 Hydraulic cylinder with electrical unit and connection, see page 6

404163.001 Hydraulic cylinder with hand pump and connection, see page 9

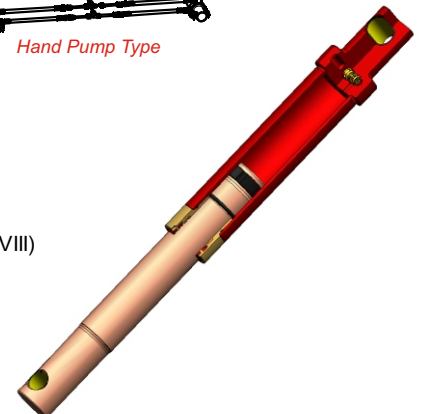
Rubber Torsion Axle Data:

Axle Type	GBA-MV
Axle Tube	painted
Backplate / Brake Drum	plated / painted
Speed	Upto 140km/h
Max. Axle Load	1500-1800kg
Dim "d"	Fix dim. 255
Wheel Bolts	Depending on disc
Cable	33921-1.XX



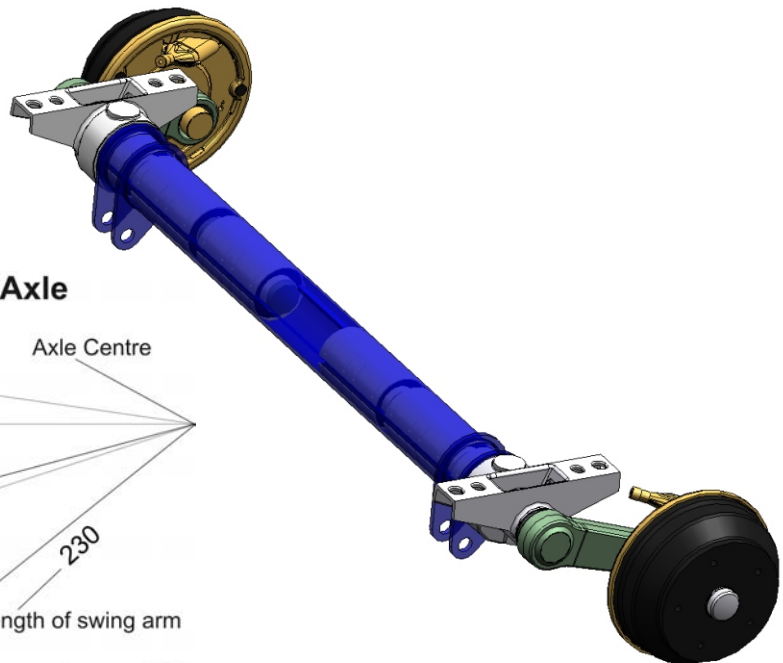
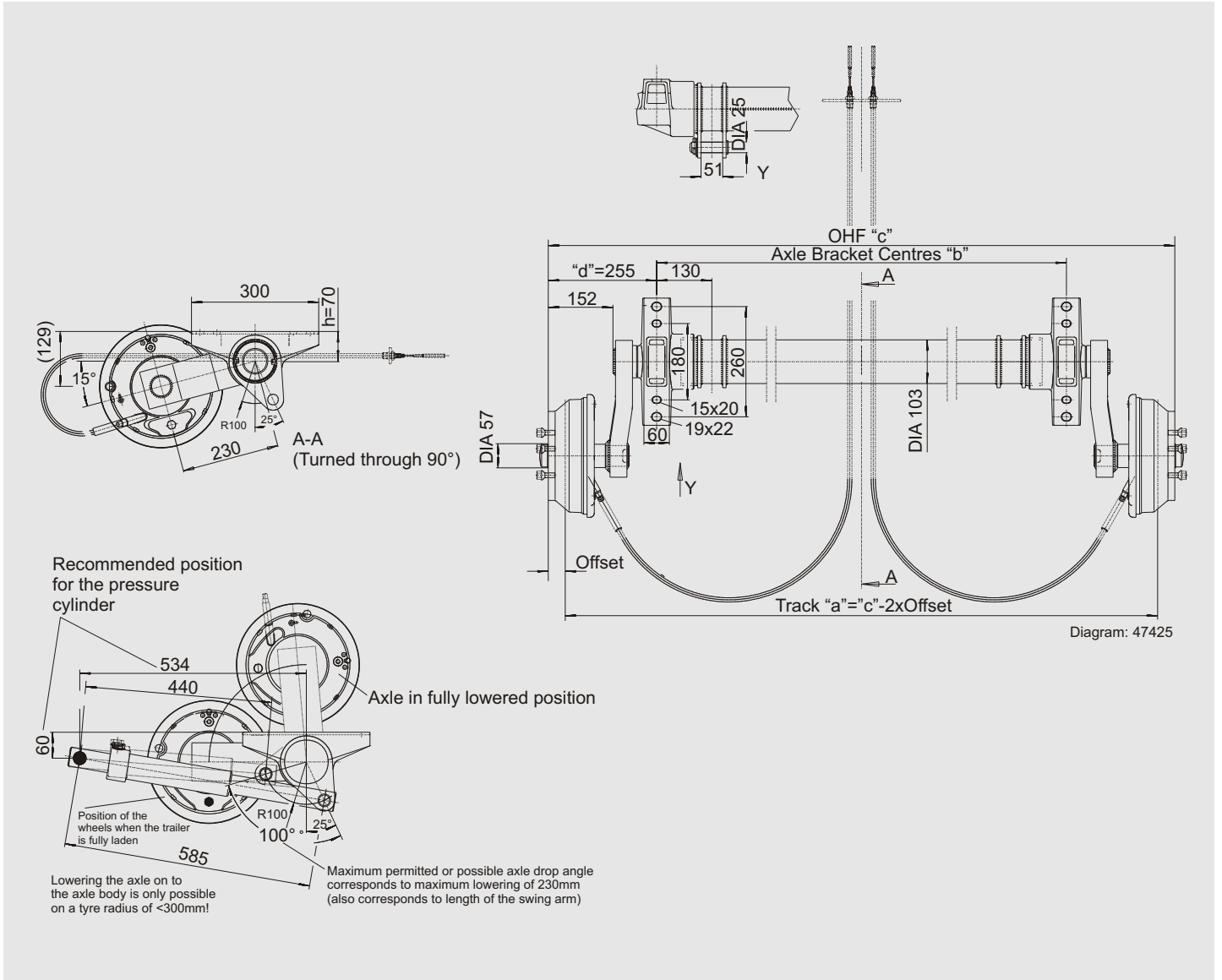
Brake Data:

EU Approval N°	361-311-83	(according to guideline RL 71/720/EWG, Appendix VIII)
Brake Type:	25-2025	
Class of Vehicle	O	
Speed	> 25km/h	
Max. Brake Load	900kg	
Rdyn min	0.253m	
Rdyn max	0.360m	

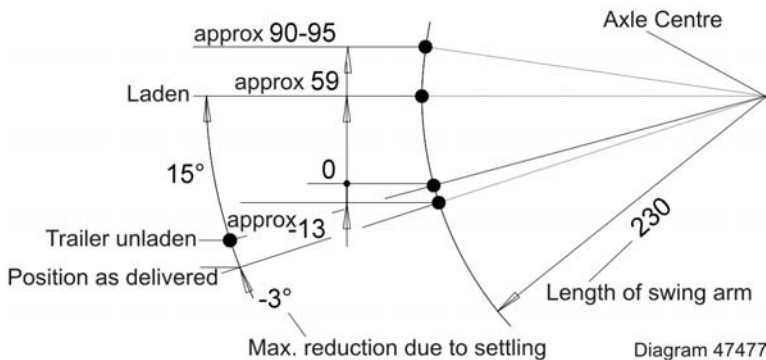


Single Lowering Rubber Torsion Axle GBA-MV

250x40 Auto Reverse Hydraulic Brake to 1800kg



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Single Lowering Rubber Torsion Axle GBA-MV

250x40 Auto Reverse Hydraulic Brake to 1800kg



Part N°	Axle Type	Axle Load							Recommendation		Weight [kg]
		Single [kg]	Twin [kg]	"c"	"b"	"d"	In / Offset	PCD	Smallest Possible Wheel	Tyre	
400119.001	GBA16-MV	1600	3200	1510	1000	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	107.0
400119.002	GBA16-MV	1600	3200	1610	1100	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	109.0
400119.003	GBA16-MV	1600	3200	1710	1200	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	111.0
400119.004	GBA16-MV	1600	3200	1810	1300	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	113.0
400119.005	GBA16-MV	1600	3200	1910	1400	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	115.0
400119.006	GBA16-MV	1600	3200	2010	1500	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	117.0
400119.007	GBA16-MV	1600	3200	2110	1600	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	119.0
400119.008	GBA16-MV	1600	3200	2210	1700	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	121.0
400119.009	GBA16-MV	1600	3200	2310	1800	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	123.0
400119.010	GBA18-MV	1800	3500	1510	1000	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	110.0
400119.011	GBA18-MV	1800	3500	1610	1100	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	112.0
400119.012	GBA18-MV	1800	3500	1710	1200	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	114.0
400119.013	GBA18-MV	1800	3500	1810	1300	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	116.0
400119.014	GBA18-MV	1800	3500	1910	1400	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	118.0
400119.015	GBA18-MV	1800	3500	2010	1500	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	120.0
400119.016	GBA18-MV	1800	3500	2110	1600	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	122.0
400119.017	GBA18-MV	1800	3500	2210	1700	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	124.0
400119.018	GBA18-MV	1800	3500	2310	1800	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	126.0

Hydraulic Equipment:

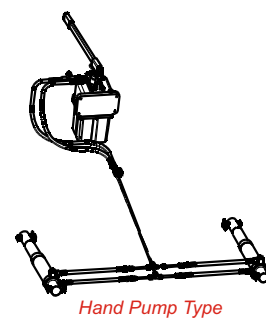
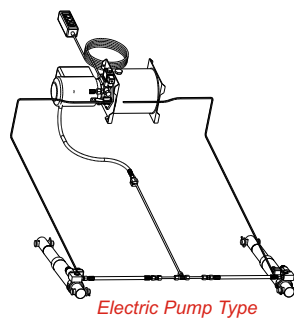
Part N°:

404158.001 Hydraulic cylinder with electrical unit and connection, see page 6

404163.001 Hydraulic cylinder with hand pump and connection, see page 9

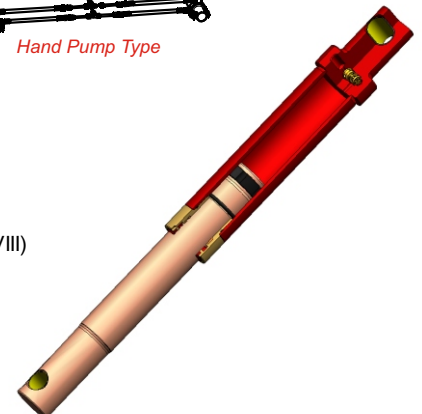
Rubber Torsion Axle Data:

Axle Type	GBA-MV
Axle Tube	painted
Backplate / Brake Drum	plated / painted
Speed	Upto 140km/h
Max. Axle Load	1500-1800kg
Dim "d"	Fix dim 255
Wheel Bolts	Depending on disc
Cable	980055.XX



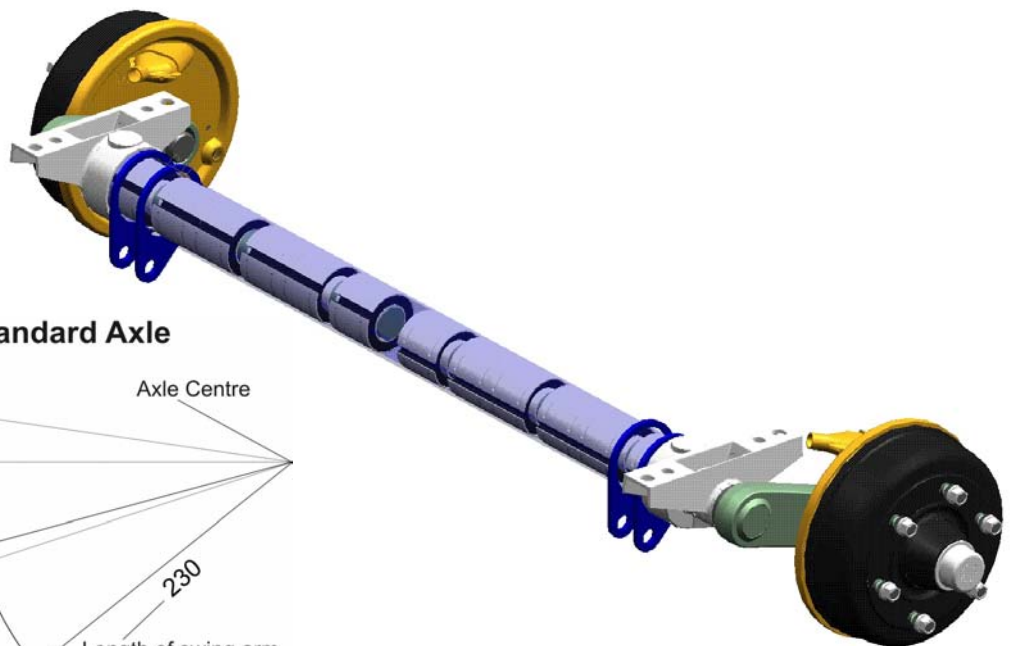
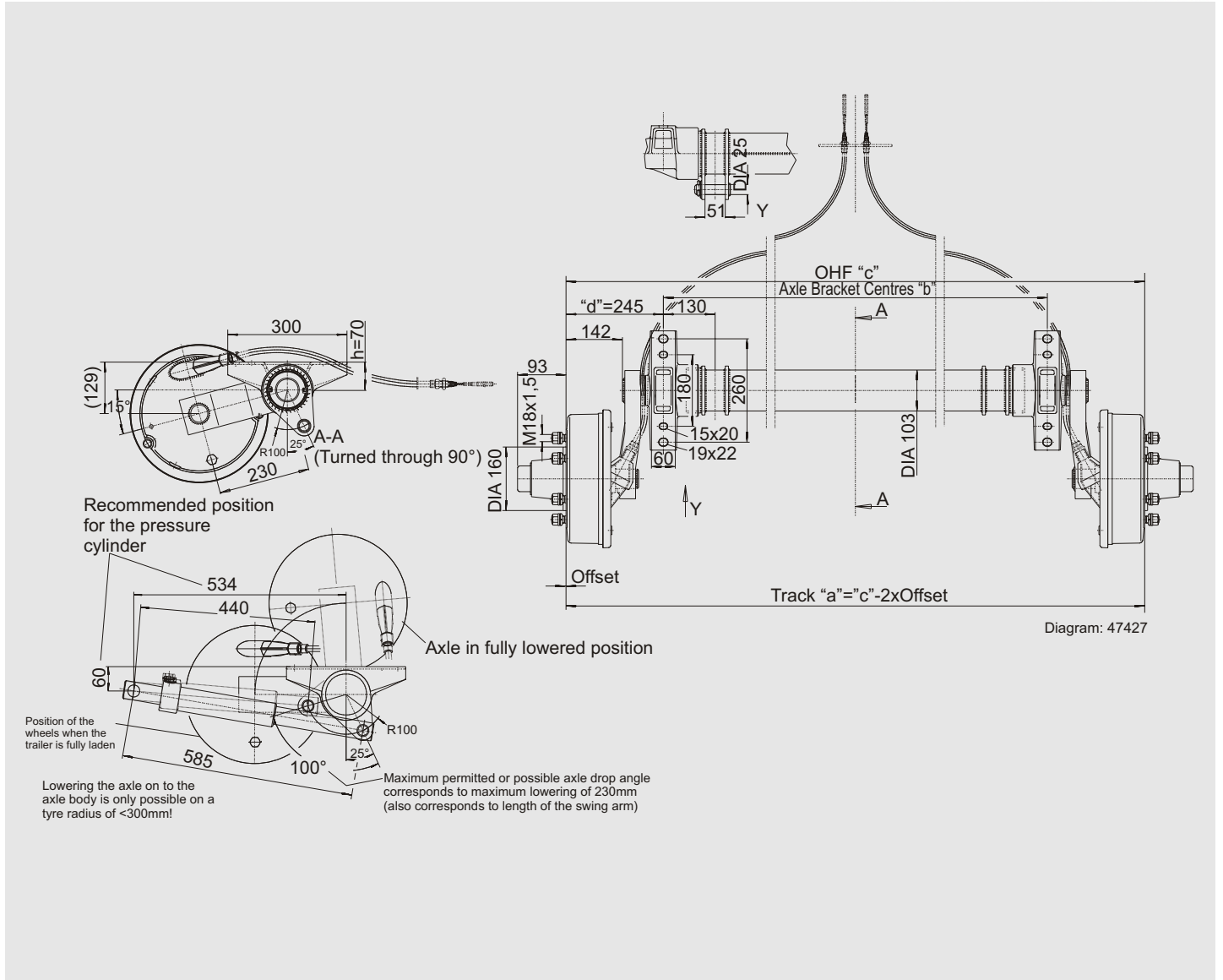
Brake Data:

EU Approval N°	361-056-93	(according to guideline RL 71/720/EWG, Appendix VIII)
Brake Type	25-4066	
Class of Vehicle	O	
Speed	> 25km/h	
Max. Brake Load	900kg	
Rdyn min	0.253m	
Rdyn max	0.360m	

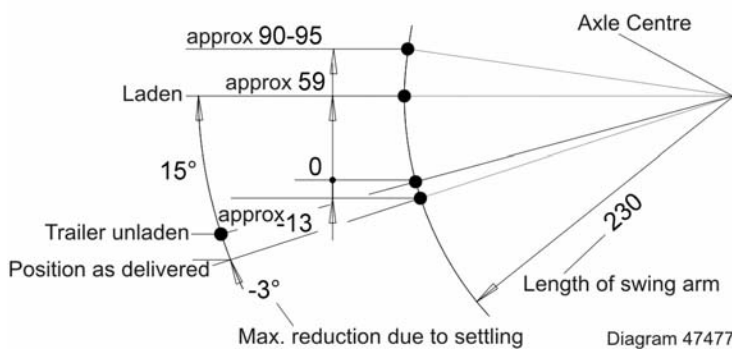


Single Lowering Rubber Torsion Axle GBA-MV

300x60 Auto Reverse Spreadlever Brake to 3000kg



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Single Lowering Rubber Torsion Axle GBA-MV

300x60 Auto Reverse Spreadlever Brake to 3000kg



Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In / Offset	PCD	Recommendation		Weight [kg]
		Single [kg]	Twin [kg]						Smallest Possible Wheel	Tyre	
400120.001	GBA20-S	2000	----	1490	1000	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	120.0
400120.002	GBA20-S	2000	----	1590	1100	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	121.0
400120.003	GBA20-S	2000	----	1690	1200	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	122.0
400120.004	GBA20-S	2000	----	1790	1300	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	123.0
400120.005	GBA20-S	2000	----	1890	1400	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	124.0
400120.006	GBA20-S	2000	----	1990	1500	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	125.0
400120.007	GBA20-S	2000	----	2090	1600	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	126.0
400120.008	GBA20-S	2000	----	2190	1700	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	127.0
400120.009	GBA20-S	2000	----	2290	1800	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	128.0
400120.010	GBA25-S	2500	----	1490	1000	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	138.0
400120.011	GBA25-S	2500	----	1590	1100	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	139.0
400120.012	GBA25-S	2500	----	1690	1200	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	140.0
400120.013	GBA25-S	2500	----	1790	1300	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	141.0
400120.014	GBA25-S	2500	----	1890	1400	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	142.0
400120.015	GBA25-S	2500	----	1990	1500	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	143.0
400120.016	GBA25-S	2500	----	2090	1600	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	144.0
400120.017	GBA25-S	2500	----	2190	1700	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	145.0
400120.018	GBA25-S	2500	----	2290	1800	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	146.0
400120.019	GBA30-S	3000	----	1490	1000	245	0 to -6	205x6	5,5-14	195 R 14 C	156.0
400120.020	GBA30-S	3000	----	1590	1100	245	0 to -6	205x6	5,5-14	195 R 14 C	158.0
400120.021	GBA30-S	3000	----	1690	1200	245	0 to -6	205x6	5,5-14	195 R 14 C	160.0
400120.022	GBA30-S	3000	----	1790	1300	245	0 to -6	205x6	5,5-14	195 R 14 C	162.0
400120.023	GBA30-S	3000	----	1890	1400	245	0 to -6	205x6	5,5-14	195 R 14 C	164.0
400120.024	GBA30-S	3000	----	1990	1500	245	0 to -6	205x6	5,5-14	195 R 14 C	166.0
400120.025	GBA30-S	3000	----	2090	1600	245	0 to -6	205x6	5,5-14	195 R 14 C	168.0
400120.026	GBA30-S	3000	----	2190	1700	245	0 to -6	205x6	5,5-14	195 R 14 C	170.0
400120.027	GBA30-S	3000	----	2290	1800	245	0 to -6	205x6	5,5-14	195 R 14 C	172.0

Hydraulic Equipment:

Part N°:

404158.001 Hydraulic cylinder with electrical unit and connection, see page 6

404163.001 Hydraulic cylinder with hand pump and connection, see page 9

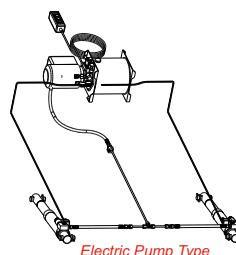
Rubber Torsion Axle Data:

Axle Type	GBA-S
Axle Tube	painted
Backplate / Brake Drum	painted / painted
Speed	Upto 100km/h
Max. Axle Load	2000-3000kg
Dim "d"	Fix dim 245
Wheel Bolts	M18x1.5
Cable	33983-1.XX

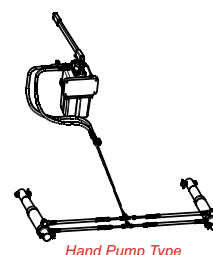
Brake Data:

EU Approval N°	361-283-83
Brake Type	30-2261
Speed	> 25km/h
Max. Brake Load	1500kg
Rdyn min	0.330m
Rdyn max	0.450m

(according to guideline RL 71/720/EWG, Appendix V/III)



Electric Pump Type

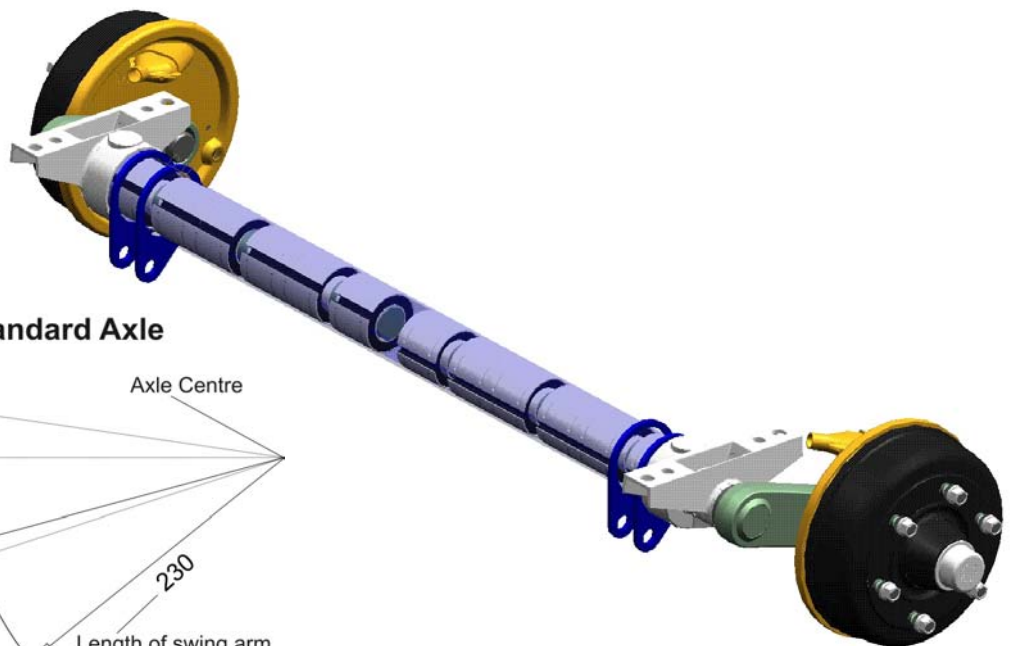
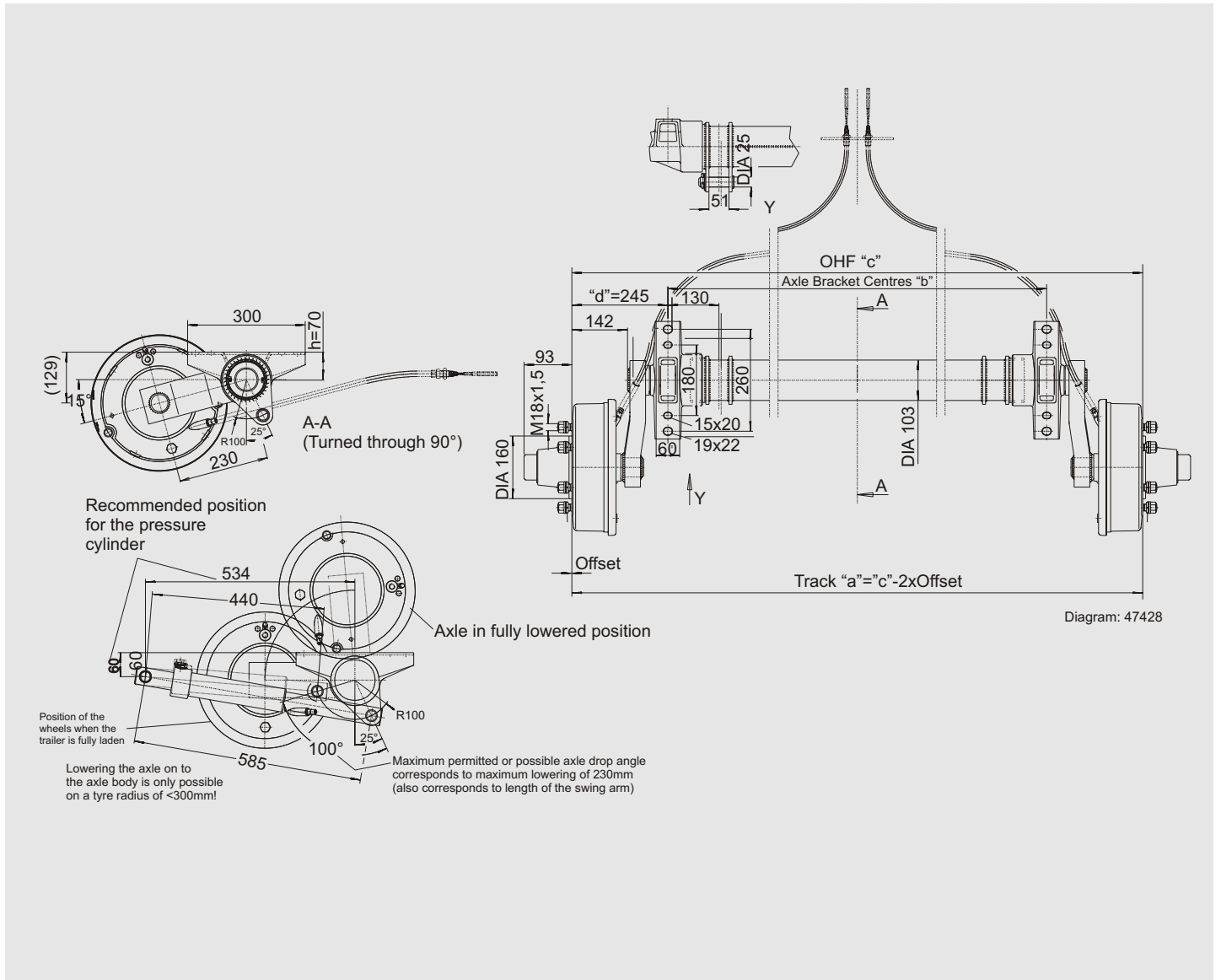


Hand Pump Type

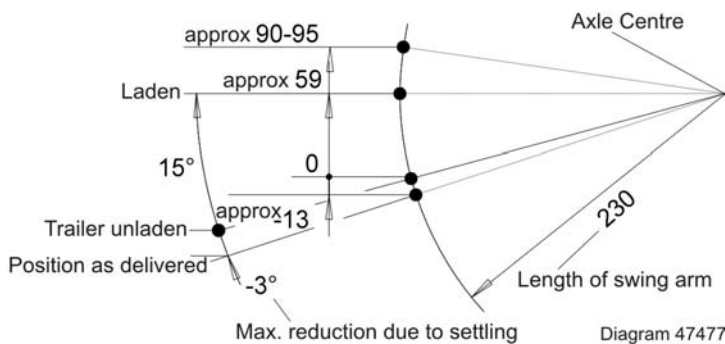


Single Lowering Rubber Torsion Axle GBA-S

300x60 Hydraulic Simplex Brake to 3000kg



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Single Lowering Rubber Torsion Axle GBA-S

300x60 Hydraulic Simplex Brake to 3000kg



Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In / Offset	PCD	Recommendation		Weight [kg]
		Single [kg]	Twin [kg]						Smallest Possible Wheel	Tyre	
400121.001	GBA20-S	2000	4000	1490	1000	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	120.0
400121.002	GBA20-S	2000	4000	1590	1100	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	121.0
400121.003	GBA20-S	2000	4000	1690	1200	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	122.0
400121.004	GBA20-S	2000	4000	1790	1300	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	123.0
400121.005	GBA20-S	2000	4000	1890	1400	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	124.0
400121.006	GBA20-S	2000	4000	1990	1500	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	125.0
400121.007	GBA20-S	2000	4000	2090	1600	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	126.0
400121.008	GBA20-S	2000	4000	2190	1700	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	127.0
400121.009	GBA20-S	2000	4000	2290	1800	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	128.0
400121.010	GBA25-S	2500	5000	1490	1000	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	138.0
400121.011	GBA25-S	2500	5000	1590	1100	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	139.0
400121.012	GBA25-S	2500	5000	1690	1200	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	140.0
400121.013	GBA25-S	2500	5000	1790	1300	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	141.0
400121.014	GBA25-S	2500	5000	1890	1400	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	142.0
400121.015	GBA25-S	2500	5000	1990	1500	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	143.0
400121.016	GBA25-S	2500	5000	2090	1600	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	144.0
400121.017	GBA25-S	2500	5000	2190	1700	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	145.0
400121.018	GBA25-S	2500	5000	2290	1800	245	0 to -6	205x6	6 1/2Jx14H2	215R14C	146.0
400121.019	GBA30-S	3000	6000	1490	1000	245	0 to -6	205x6	5,5-14	195 R 14 C	156.0
400121.020	GBA30-S	3000	6000	1590	1100	245	0 to -6	205x6	5,5-14	195 R 14 C	158.0
400121.021	GBA30-S	3000	6000	1690	1200	245	0 to -6	205x6	5,5-14	195 R 14 C	160.0
400121.022	GBA30-S	3000	6000	1790	1300	245	0 to -6	205x6	5,5-14	195 R 14 C	162.0
400121.023	GBA30-S	3000	6000	1890	1400	245	0 to -6	205x6	5,5-14	195 R 14 C	164.0
400121.024	GBA30-S	3000	6000	1990	1500	245	0 to -6	205x6	5,5-14	195 R 14 C	166.0
400121.025	GBA30-S	3000	6000	2090	1600	245	0 to -6	205x6	5,5-14	195 R 14 C	168.0
400121.026	GBA30-S	3000	6000	2190	1700	245	0 to -6	205x6	5,5-14	195 R 14 C	170.0
400121.027	GBA30-S	3000	6000	2290	1800	245	0 to -6	205x6	5,5-14	195 R 14 C	172.0

Hydraulic Equipment:

Part N°:

404158.001 Hydraulic cylinder with electrical unit and connection, see page 6

404163.001 Hydraulic cylinder with hand pump and connection, see page 9

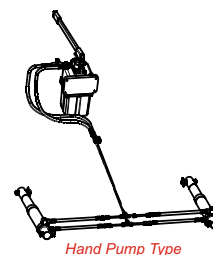
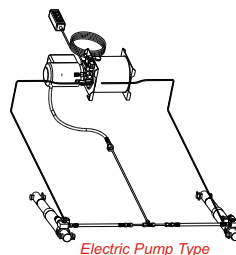
Rubber Torsion Axle Data:

Axle Type	GBA-S
Axle Tube	painted
Backplate / Brake Drum	painted / painted
Speed	Upto 140km/h
Max. Axle Load	1500-1800kg
Dim "d"	Fix dim 245
Wheel Bolts	M18x1.5
Cable	980055.XX

Brake Data:

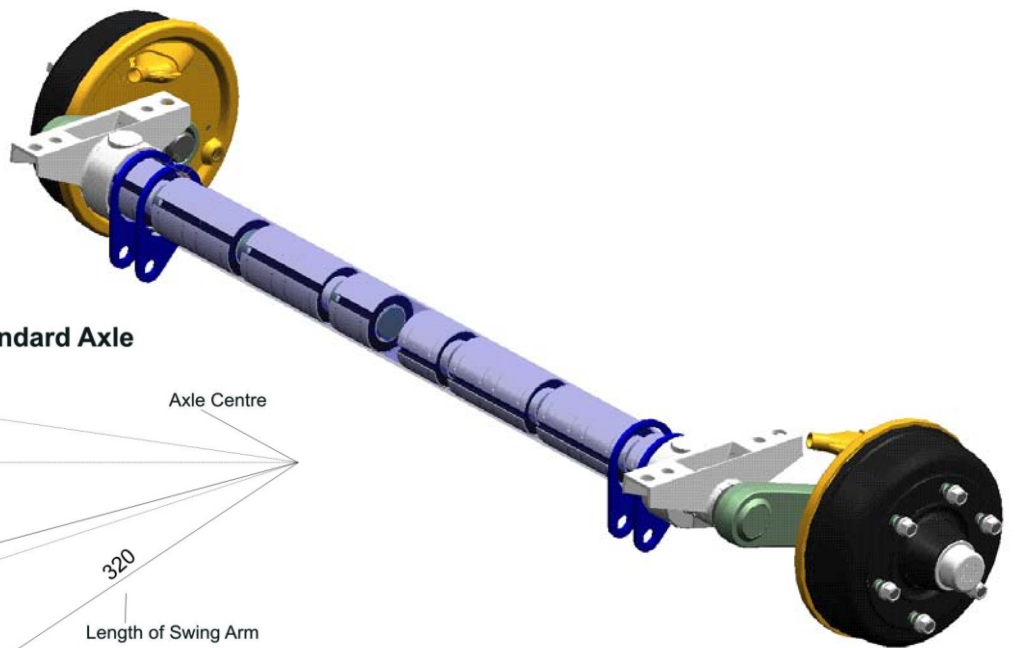
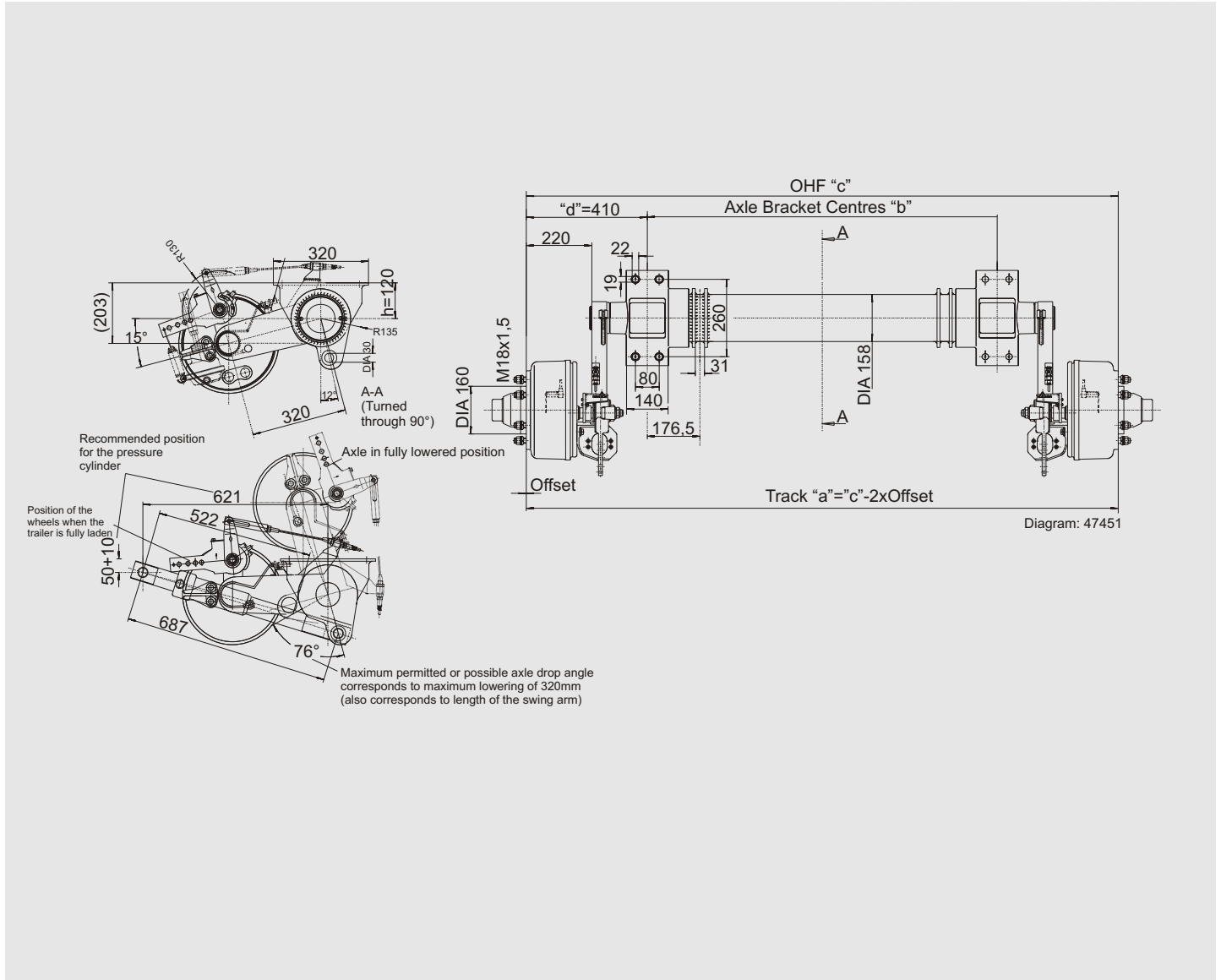
EU Approval N°	361-0032-95	(according to guideline RL 71/720/EWG appendix VII)
Brake Type	30-4302	
Class of Vehicle	O2 and O3	O2 and O3
Speed	> 25km/h	> 25km/h
Max. Brake Load	1250kg*	1500kg*
Rdyn min		
Rdyn max	0.337m	0.372m

* May be limited by the diameter of the cylinder or the radius of the tyre

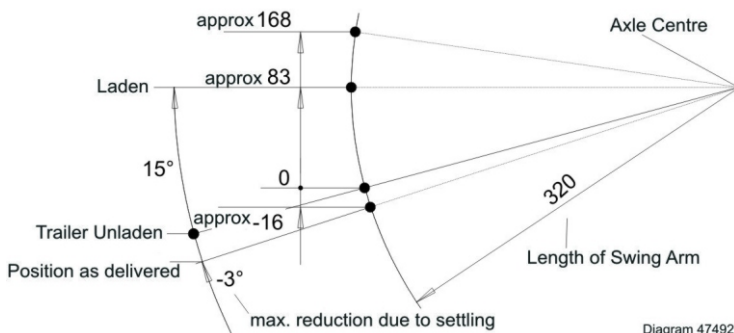


Single Lowering Rubber Torsion Axle GBA-TS

300x120 Cam Brake to 4500kg



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments

Single Lowering Rubber Torsion Axle GBA-TS

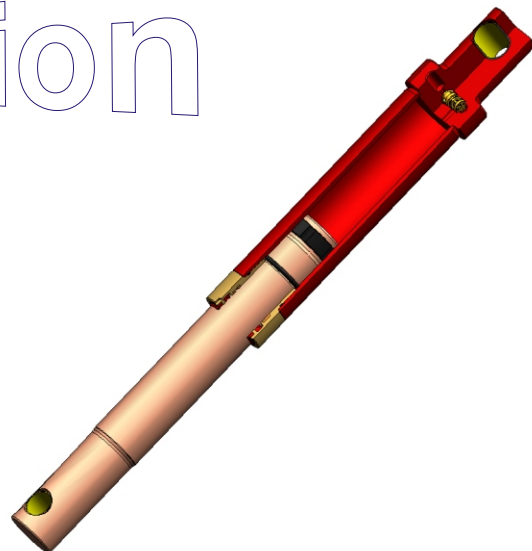
300x120 Cam Brake to 4500kg



Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In / Offset	PCD	Recommendation		Weight [kg]
		Single [kg]	Twin [kg]						Smallest Possible Wheel	Tyre	
400122.001	GBA30-TS	3000	6000	1920	1100	410	0 to -6	205x6	5.5-15	205/80R15	166.0
400122.002	GBA30-TS	3000	6000	2020	1200	410	0 to -6	205x6	5.5-15	205/80R15	170.0
400122.003	GBA30-TS	3000	6000	2120	1300	410	0 to -6	205x6	5.5-15	205/80R15	174.0
400122.004	GBA30-TS	3000	6000	2220	1400	410	0 to -6	205x6	5.5-15	205/80R15	178.0
400122.005	GBA35-TS	3500	7000	1920	1100	410	0 to -6	205x6	6.0-15	7.5R15	168.0
400122.006	GBA35-TS	3500	7000	2020	1200	410	0 to -6	205x6	6.0-15	7.5R15	172.0
400122.007	GBA35-TS	3500	7000	2120	1300	410	0 to -6	205x6	6.0-15	7.5R15	176.0
400122.008	GBA35-TS	3500	7000	2220	1400	410	0 to -6	205x6	6.0-15	7.5R15	180.0
400122.009	GBA40-S	4000	8000	1920	1100	410	0 to -6	205x6	6.0-15	7.5R15	172.0
400122.010	GBA40-S	4000	8000	2020	1200	410	0 to -6	205x6	6.0-15	7.5R15	176.0
400122.011	GBA40-S	4000	8000	2120	1300	410	0 to -6	205x6	6.0-15	7.5R15	180.0
400122.012	GBA40-S	4000	8000	2220	1400	410	0 to -6	205x6	6.0-15	7.5R15	184.0
400122.013	GBA45-S	4500	9000	1920	1100	410	0 to -6	205x6	6.0-15	7.5R15	176.0
400122.014	GBA45-S	4500	9000	2020	1200	410	0 to -6	205x6	6.0-15	7.5R15	180.0
400122.015	GBA45-S	4500	9000	2120	1300	410	0 to -6	205x6	6.0-15	7.5R15	184.0
400122.016	GBA45-S	4500	9000	2220	1400	410	0 to -6	205x6	6.0-15	7.5R15	188.0

Hydraulic Equipment:

Under Construction

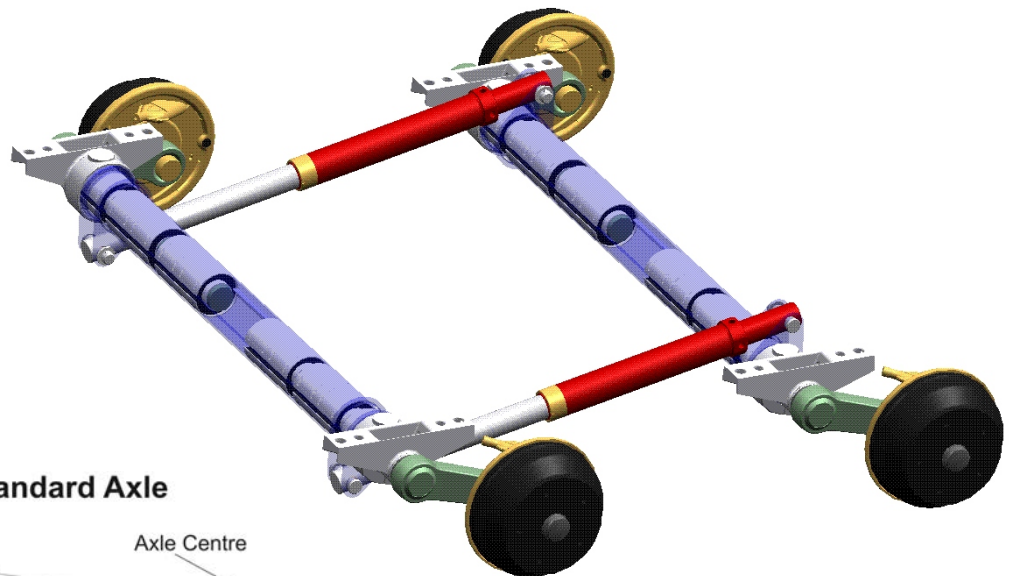
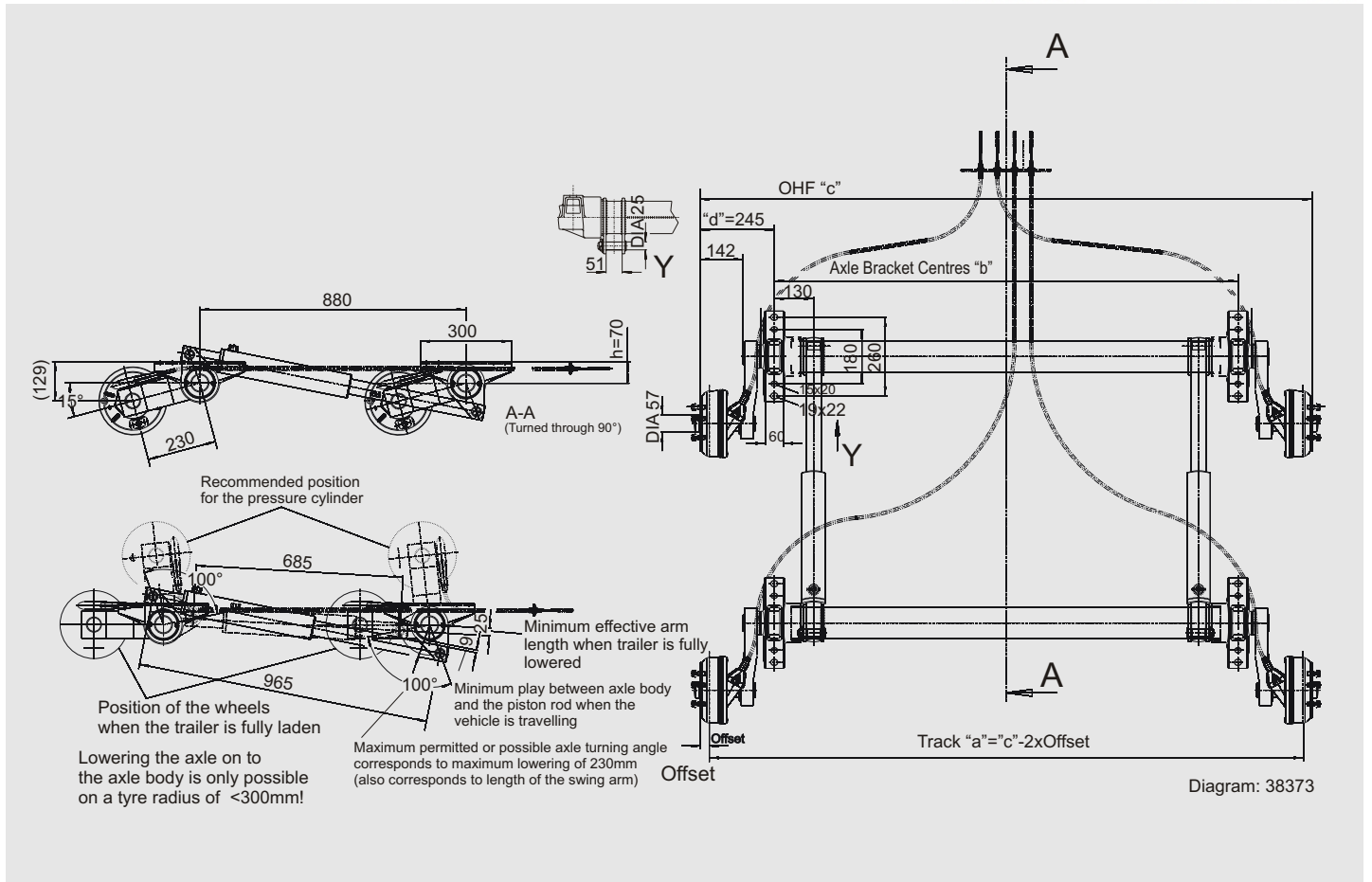


Rubber Torsion Axle Data:

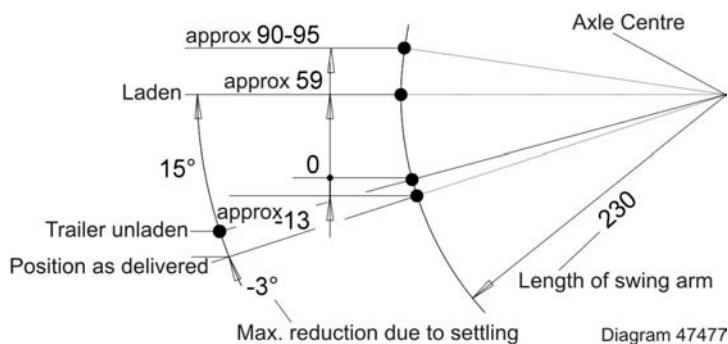
Axle Type	GBA-TS
Axle Tube	painted
Backplate / Brake Drum	painted / painted
Speed	Upto 100km/h
Max. Axle Load	5000kg
Dim "d"	Fix dim 410
Wheel Bolts	M18x1.5
Cable	33586.10

Brake Data:

EU Approval N°	361-0068-04-FBKV	(according to guideline RL 71/720/EWG, Appendix VII)
Brake Type	30-4307	
Speed	> 25km/h	
Max. Brake Load	2725kg	
Rdyn min	0.345m	
Rdyn max	0.395m	



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Tandem Lowering Rubber Torsion Axle GTBA-MV

200x50 Auto Reverse Spreadlever Brake to 2500kg



Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In / Offset	PCD	Recommendation		Weight [kg]
		Single [kg]	Twin [kg]						Smallest possible wheel	Tyre	
404251.001	GTBA20-MV	1000	2000	1490	1000	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	208.0
404251.002	GTBA20-MV	1000	2000	1590	1100	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	212.0
404251.003	GTBA20-MV	1000	2000	1690	1200	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	216.0
404251.004	GTBA20-MV	1000	2000	1790	1300	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	220.0
404251.005	GTBA20-MV	1000	2000	1890	1400	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	224.0
404251.006	GTBA20-MV	1000	2000	1990	1500	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	228.0
404251.007	GTBA20-MV	1000	2000	2090	1600	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	232.0
404251.008	GTBA20-MV	1000	2000	2190	1700	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	236.0
404251.009	GTBA20-MV	1000	2000	2290	1800	245	25 to 35	112x5	4 1/2Jx12H2	155/70R12	240.0
404251.010	GTBA25-MV	1250	2500	1490	1000	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	213.0
404251.011	GTBA25-MV	1250	2500	1590	1100	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	217.0
404251.012	GTBA25-MV	1250	2500	1690	1200	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	221.0
404251.013	GTBA25-MV	1250	2500	1790	1300	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	225.0
404251.014	GTBA25-MV	1250	2500	1890	1400	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	229.0
404251.015	GTBA25-MV	1250	2500	1990	1500	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	233.0
404251.016	GTBA25-MV	1250	2500	2090	1600	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	237.0
404251.017	GTBA25-MV	1250	2500	2190	1700	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	241.0
404251.018	GTBA25-MV	1250	2500	2290	1800	245	25 to 35	112x5	4 1/2Jx13H2	155 R 13 C	245.0

Hydraulic Equipment:

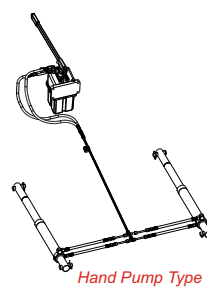
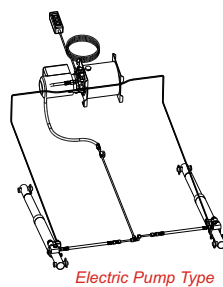
Part N°:

404159.001 Hydraulic cylinder with electrical unit and connection, see page 7

404162.001 Hydraulic cylinder with hand pump and connection, see page 10

Rubber Torsion Axle Data:

Axle Type	GTBA-MV
Axle Tube	painted
Backplate / Brake Drum	plated / painted
Speed	Upto 140 km/h
Max. Axle Load	2500-3500kg
Dim "d"	Fix dim 225
Wheel Bolts	Depending on disc
Cable	33921-1.XX

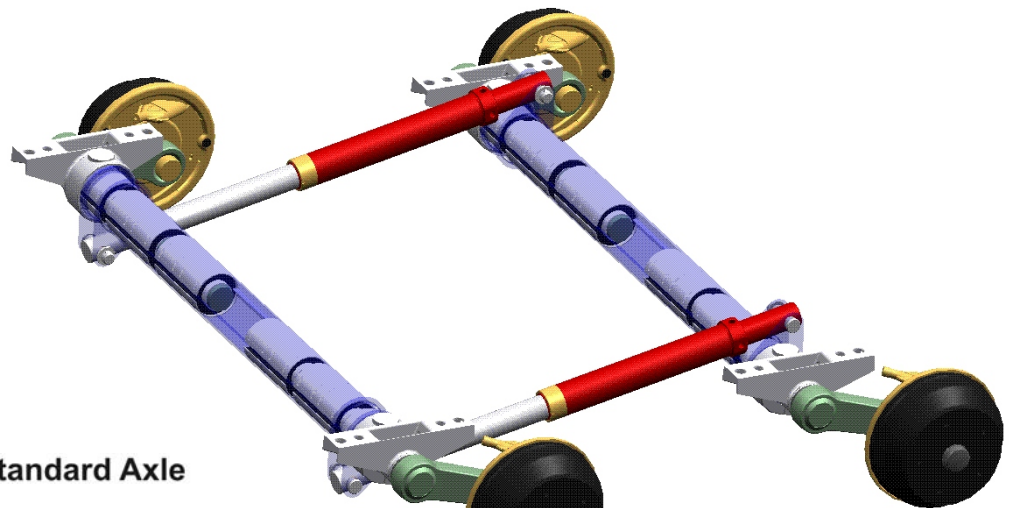
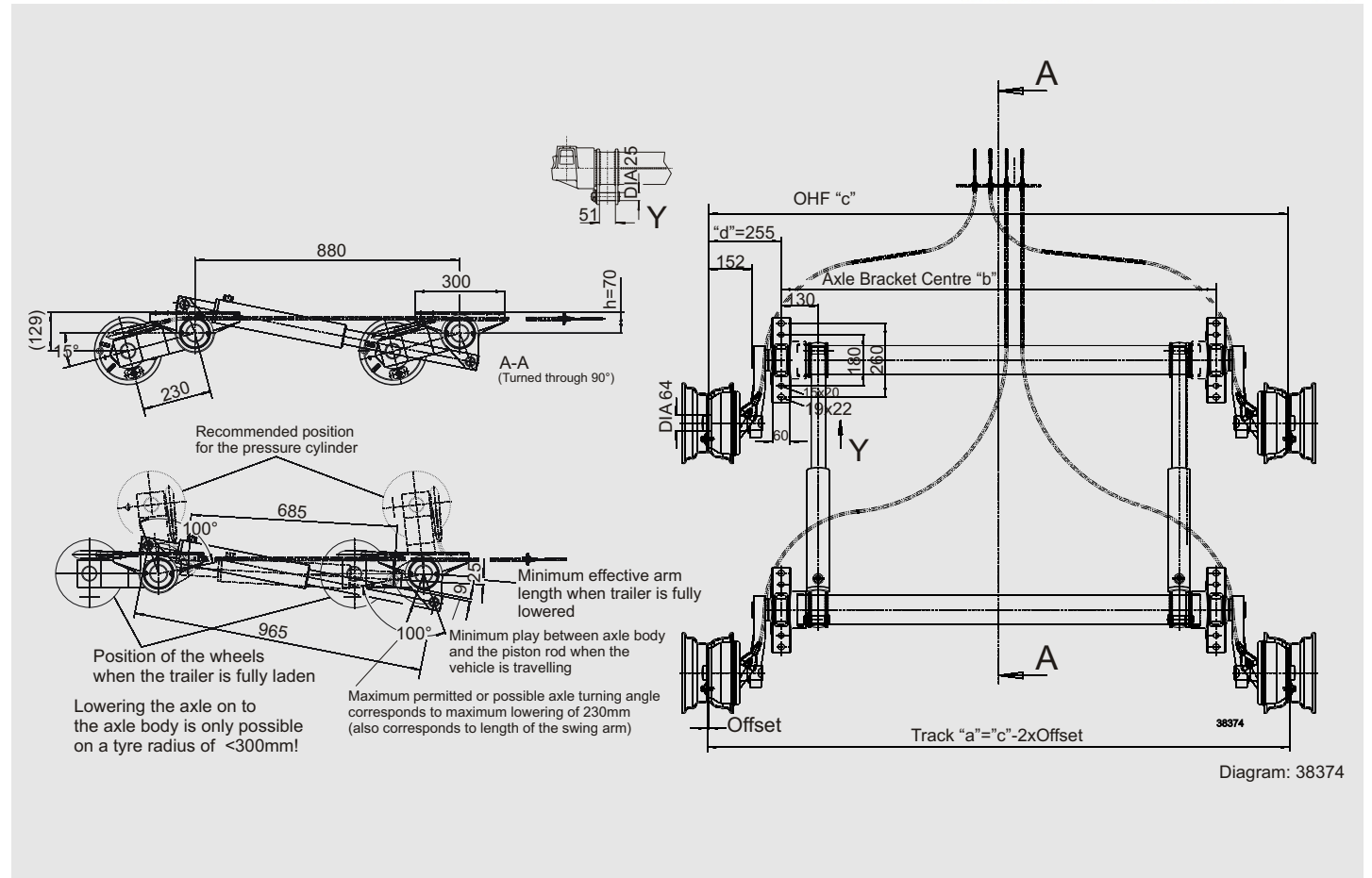


Brake Data:

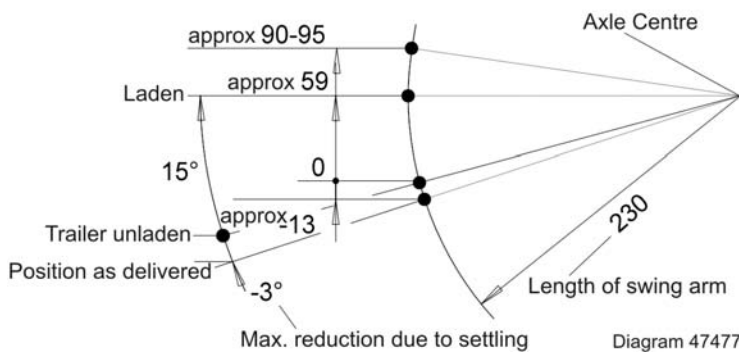
EU Approval N°	361-311-83	(according to guideline RL 71/720/EWG, Appendix VIII)	
Brake Type	20-2425/1		
	Var. A	Var. B	Var. C
Class of Vehicle	O	O	O
Speed	> 25km/h	> 25km/h	> 25km/h
Max. Brake Load	750kg	750kg	800kg
Rdyn min	0,253m	0,253m	0,600m
Rdyn max	0,360m	0,216m	0,644m

Tandem Lowering Rubber Torsion Axle GTBA-MV

200x50 Auto Reverse Spreadlever Brake to 3000kg



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Tandem Lowering Rubber Torsion Axle GTBA-MV 200x50 Auto Reverse Spreadlever Brake to 3000kg



Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In/Offset	PCD	Recommendation		Weight [kg]
		Single [kg]	Twin [kg]						Smallest possible wheel	Tyre	
404252.001	GTBA27-MV	1350	2700	1510	1000	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	210.0
404252.002	GTBA27-MV	1350	2700	1610	1100	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	214.0
404252.003	GTBA27-MV	1350	2700	1710	1200	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	218.0
404252.004	GTBA27-MV	1350	2700	1810	1300	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	222.0
404252.005	GTBA27-MV	1350	2700	1910	1400	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	226.0
404252.006	GTBA27-MV	1350	2700	2010	1500	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	230.0
404252.007	GTBA27-MV	1350	2700	2110	1600	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	234.0
404252.008	GTBA27-MV	1350	2700	2210	1700	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	238.0
404252.009	GTBA27-MV	1350	2700	2310	1800	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	242.0
404252.010	GTBA30-MV	1500	3000	1510	1000	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	215.0
404252.011	GTBA30-MV	1500	3000	1610	1100	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	219.0
404252.012	GTBA30-MV	1500	3000	1710	1200	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	223.0
404252.013	GTBA30-MV	1500	3000	1810	1300	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	227.0
404252.014	GTBA30-MV	1500	3000	1910	1400	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	231.0
404252.015	GTBA30-MV	1500	3000	2010	1500	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	235.0
404252.016	GTBA30-MV	1500	3000	2110	1600	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	239.0
404252.017	GTBA30-MV	1500	3000	2210	1700	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	243.0
404252.018	GTBA30-MV	1500	3000	2310	1800	255	-5 to 35	112x5	6.00lx10 H2	195/50 B-10 98	247.0

Hydraulic Equipment:

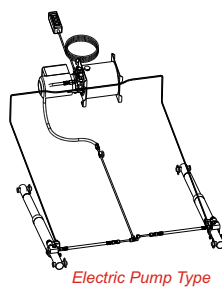
Part N°:

404159.001 Hydraulic cylinder with electrical unit and connection, see page 7

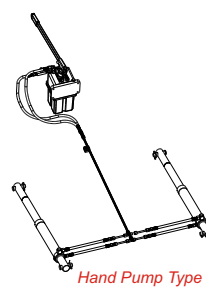
404162.001 Hydraulic cylinder with hand pump and connection, see page 10

Rubber Torsion Axle Data:

Axle Type	GTBA-MV
Axle Tube	painted
Backplate / Brake Drum	plated / painted
Speed	Upto 140km/h
Max. Axle Load	2500-3500kg
Dim "d"	Fix dim 255
Wheel Bolts	Depending on disc
Cable	33921-1.XX



Electric Pump Type

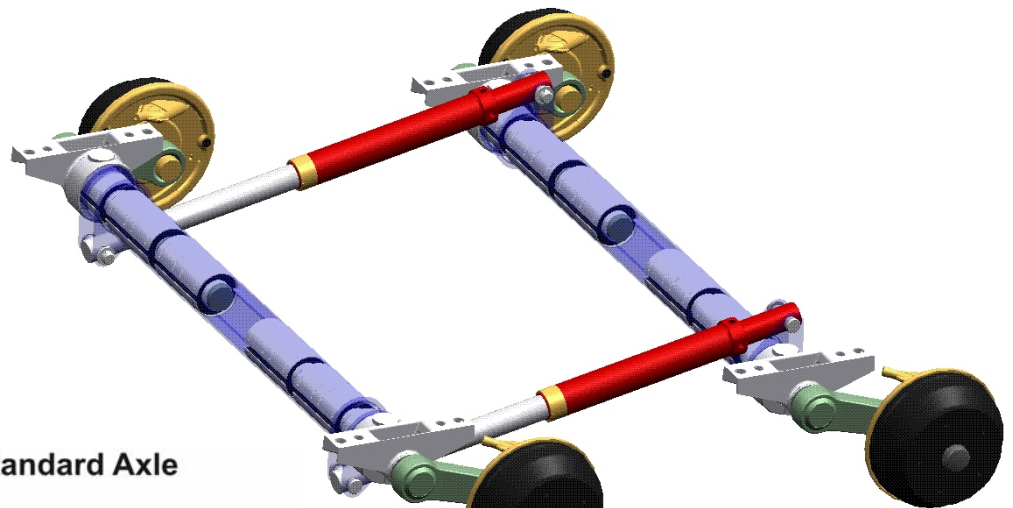
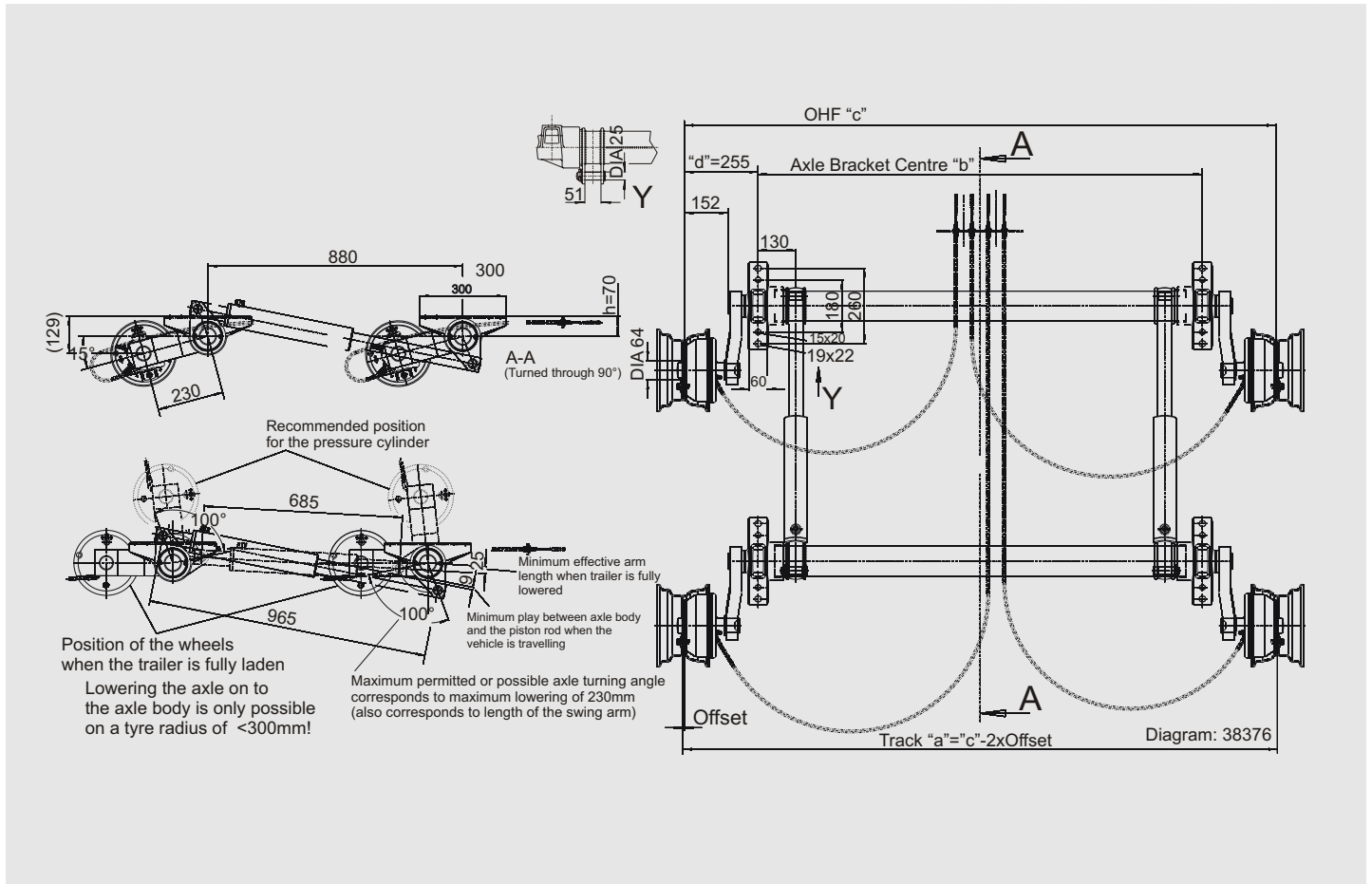


Hand Pump Type

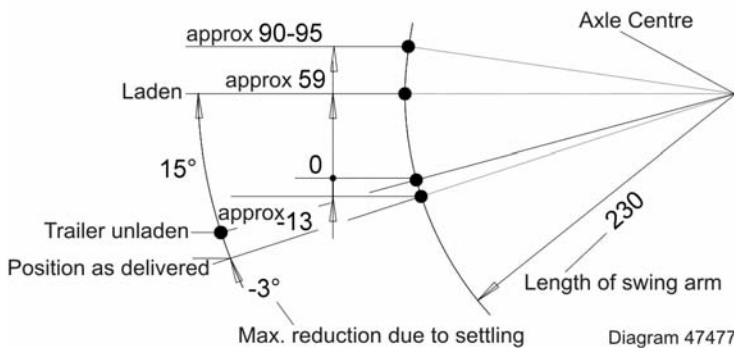


Brake Data:

EU Approval N°	361-311-83	(according to guideline RL 71/720/EWG, Appendix VIII)	
Brake Type	20-2425/1		
	Var. A	Var. B	Var. C
Class of Vehicle	O	O	O
Speed	> 25km/h	> 25km/h	> 25km/h
Max. Brake Load	750kg	750kg	800kg
Rdyn min	0.253m	0.253m	0.600m
Rdyn max	0.360m	0.216m	0.644m



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Tandem Lowering Rubber Torsion Axle GTBA-MV

200x50 Auto Reverse Hydraulic Brake to 3000kg



Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In/Offset	PCD	Recommendation		Weight [kg]
		Single [kg]	Twin [kg]						Smallest possible wheel	Tyre	
404254.001	GTBA27-MV	1350	2700	1510	1000	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	210.0
404254.002	GTBA27-MV	1350	2700	1610	1100	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	214.0
404254.003	GTBA27-MV	1350	2700	1710	1200	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	218.0
404254.004	GTBA27-MV	1350	2700	1810	1300	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	222.0
404254.005	GTBA27-MV	1350	2700	1910	1400	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	226.0
404254.006	GTBA27-MV	1350	2700	2010	1500	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	230.0
404254.007	GTBA27-MV	1350	2700	2110	1600	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	234.0
404254.008	GTBA27-MV	1350	2700	2210	1700	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	238.0
404254.009	GTBA27-MV	1350	2700	2310	1800	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	242.0
404254.010	GTBA30-MV	1500	3000	1510	1000	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	215.0
404254.011	GTBA30-MV	1500	3000	1610	1100	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	219.0
404254.012	GTBA30-MV	1500	3000	1710	1200	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	223.0
404254.013	GTBA30-MV	1500	3000	1810	1300	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	227.0
404254.014	GTBA30-MV	1500	3000	1910	1400	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	231.0
404254.015	GTBA30-MV	1500	3000	2010	1500	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	235.0
404254.016	GTBA30-MV	1500	3000	2110	1600	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	239.0
404254.017	GTBA30-MV	1500	3000	2210	1700	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	243.0
404254.018	GTBA30-MV	1500	3000	2310	1800	255	-5 to 35	112x5	6.00x10 H2	195/50 B-10 98	247.0

Hydraulic Equipment:

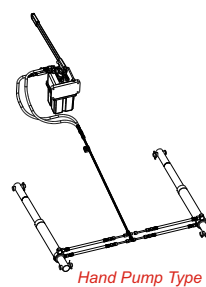
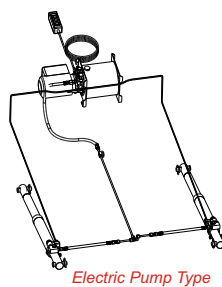
Part N°:

404159.001 Hydraulic cylinder with electrical unit and connection, see page 7

404162.001 Hydraulic cylinder with hand pump and connection, see page 10

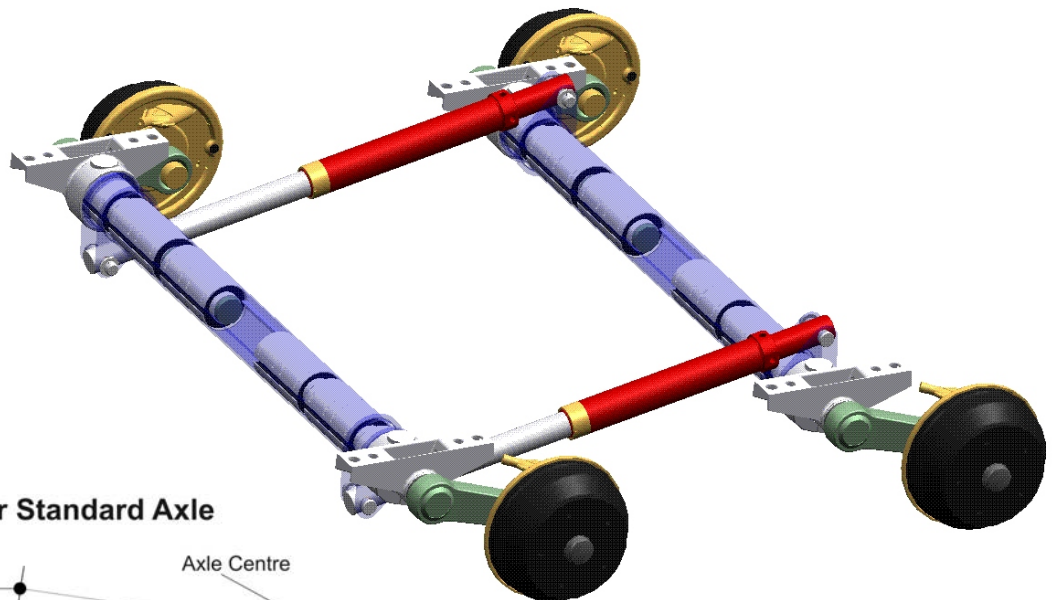
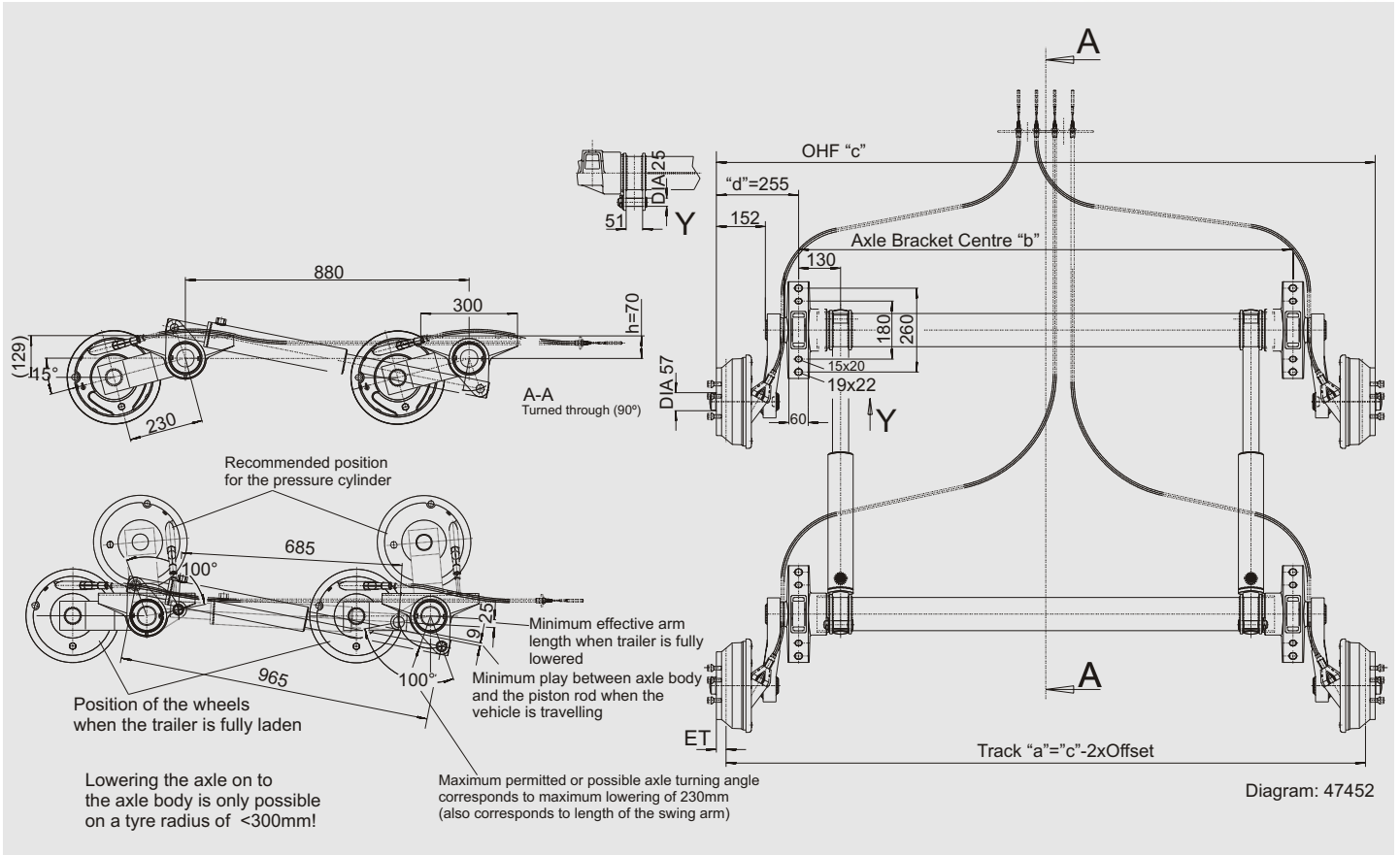
Rubber Torsion Axle Data:

Axle Type	GTBA-MV
Axle Tube	painted
Backplate / Brake Drum	plated / painted
Speed	Upto 140km/h
Max. Axle Load	2500-3500kg
Dim "d"	Fix dim 255
Wheel Bolts	Depending on disc
Cable	980055.XX

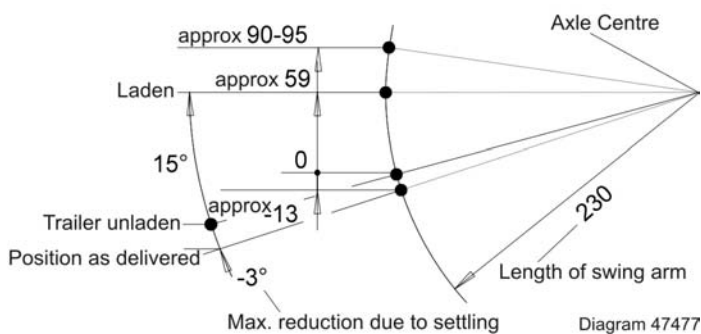


Brake Data

EU Approval N°	361-416-84	(according to guideline RL 71/720/EWG, Appendix VIII)
Brake type	20-2710	
	Var. A	Var. B
Class of Vehicle	O	O
Speed	> 25km/h	> 25km/h
Max. Brake Load	750kg	750kg
Rdyn min	0.216m	0.253m
Rdyn max	0.253m	0.360m



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Tandem Lowering Rubber Torsion Axle GTBA-MV

250x40 Auto Reverse Spreadlever Brake to 3500kg



Part N°	Axle Type	Axle Load							Recommendation		Weight [kg]
		Single [kg]	Twin [kg]	"c"	"b"	"d"	In/Offset	PCD	Smallest possible wheel	Tyre	
400130.019	GTBA30-MV	1500	3000	1510	1000	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	223.0
400130.020	GTBA30-MV	1500	3000	1610	1100	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	227.0
400130.021	GTBA30-MV	1500	3000	1710	1200	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	231.0
400130.022	GTBA30-MV	1500	3000	1810	1300	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	235.0
400130.023	GTBA30-MV	1500	3000	1910	1400	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	239.0
400130.024	GTBA30-MV	1500	3000	2010	1500	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	243.0
400130.025	GTBA30-MV	1500	3000	2110	1600	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	247.0
400130.026	GTBA30-MV	1500	3000	2210	1700	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	251.0
400130.027	GTBA30-MV	1500	3000	2310	1800	255	25 to 35	112x5	5 1/2Jx14H2	185 R 14 C	255.0
400130.028	GTBA35-MV	1750	3500	1510	1000	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	227.0
400130.029	GTBA35-MV	1750	3500	1610	1100	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	231.0
400130.030	GTBA35-MV	1750	3500	1710	1200	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	235.0
400130.031	GTBA35-MV	1750	3500	1810	1300	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	239.0
400130.032	GTBA35-MV	1750	3500	1910	1400	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	243.0
400130.033	GTBA35-MV	1750	3500	2010	1500	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	247.0
400130.034	GTBA35-MV	1750	3500	2110	1600	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	251.0
400130.035	GTBA35-MV	1750	3500	2210	1700	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	255.0
400130.036	GTBA35-MV	1750	3500	2310	1800	255	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	259.0

Hydraulic Equipment:

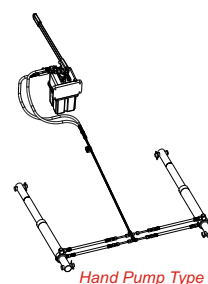
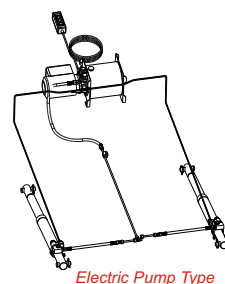
Part N°:

404159.001 Hydraulic cylinder with electrical unit and connection, see page 7

404162.001 Hydraulic cylinder with hand pump and connection, see page 10

Rubber Torsion Axle Data

Axle Type	GTBA-MV
Axle Tube	painted
Backplate / Brake Drum	plated / painted
Speed	Upto 140km/h
Max. Axle Load	2500-3500kg
Dim "d"	Fix dim 255
Wheel Bolts	Depending on disc
Cable	33921-1.XX

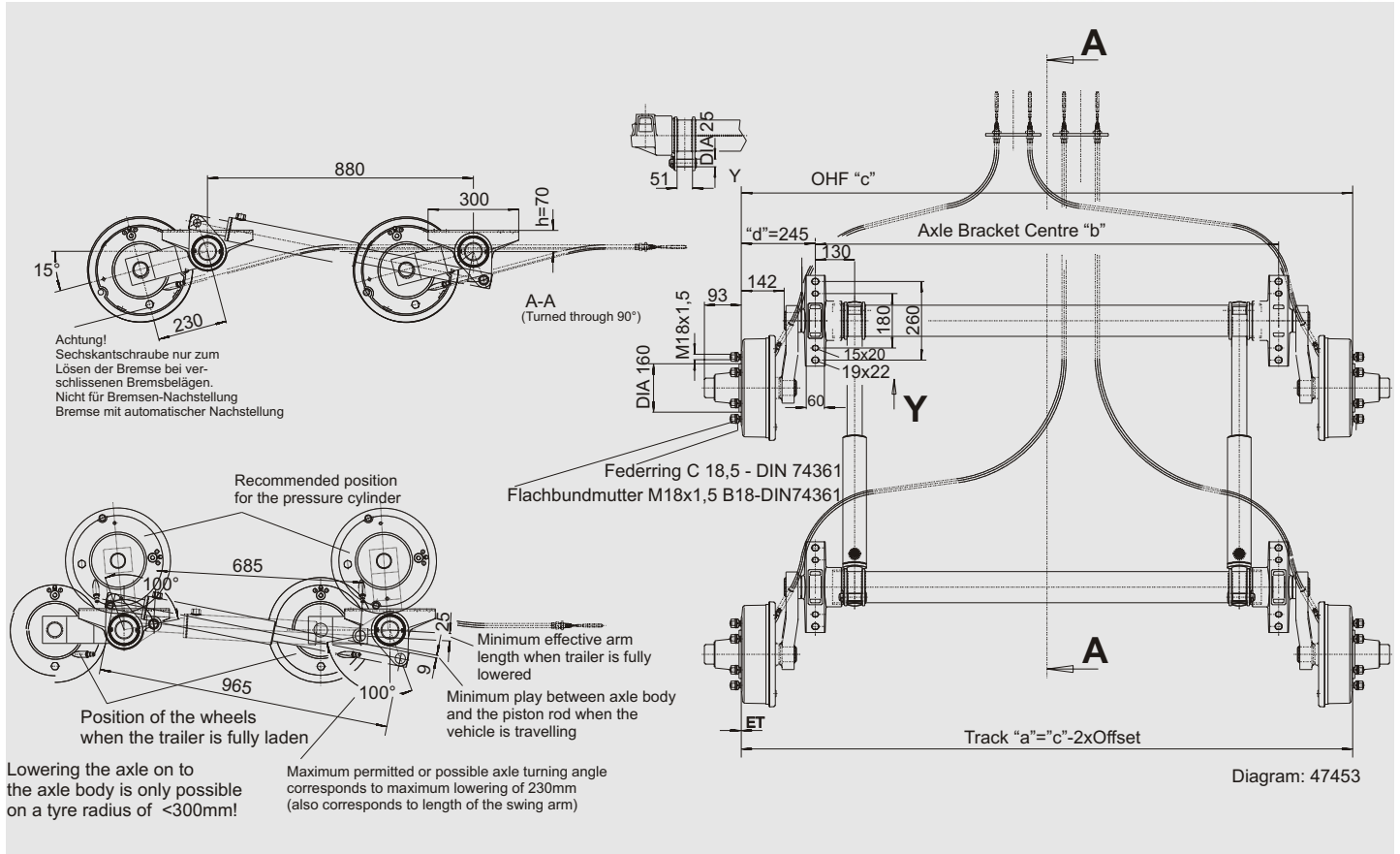


Brake Data:

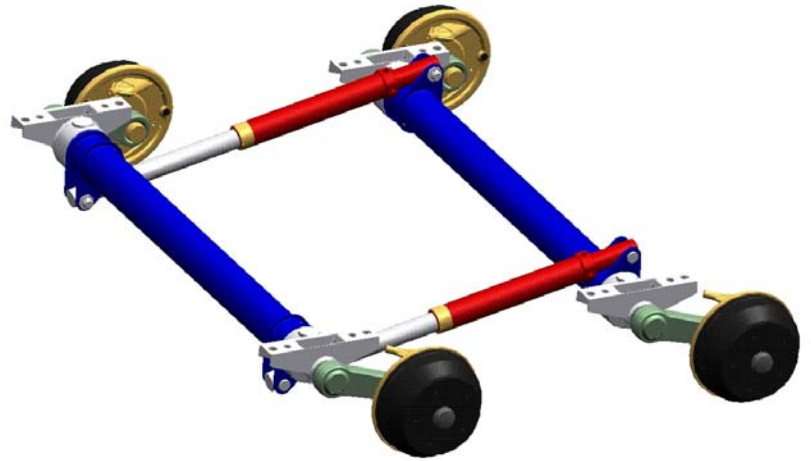
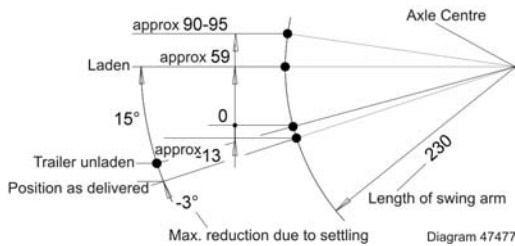
EU Approval N°	361-311-83	(according to guideline RL 71/720/EWG, Appendix VIII)
Brake Type	25-2025	
Class of Vehicle	O	
Speed	> 25km/h	
Max. Brake Load	900kg	
Rdyn min	0.253m	
Rdyn max	0.360m	

Tandem Lowering Rubber Torsion Axle GTBA-S

300x60 Hydro Simplex Brake to 6000kg



Spring Diagram for Standard Axle



Rubber Torsion Axle Data:

Axle Type	GTBA-S
Axle Tube	painted
Backplate / Brake Drum	painted / painted
Speed	Upto 140km/h
Max. Axle Load	4000-6000kg
Dim "d"	Fix dim 245
Wheel Bolts	M18x1.5
Cable	980055.XX

Brake Data

EU Approval N°	361-0032-95	(according to guideline RL 71/720/EWG, Appendix VII)
Brake Type	30-4302	
Vehicle Type	O2 and O3	O2 and O3
Speed	> 25km/h	> 25km/h
Max. Brake Load	1250kg*	1500kg*
Rdyn min		
Rdyn max	0.337m	0.372m

* May be limited by wheel cylinder diameter or wheel radius

Other specifications available on request!
We reserve the right to make amendments!

**GTBA-S is also available with
an ABS 300x60 S-Cam brake
with auto slack adjuster**

Tandem Lowering Rubber Torsion Axle GTBA-S 300x60 Hydro Simplex Brake to 6000kg



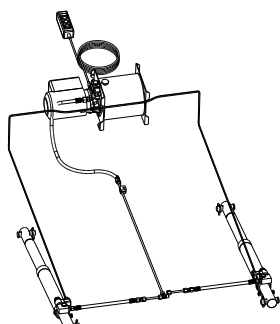
Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In/Offset	PCD	Recommendation		weight [kg]
		Single [kg]	Twin [kg]						Smallest possible wheel	Tyre	
400131.001	GTBA40-S	2000	4000	1490	1000	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	319.0
400131.002	GTBA40-S	2000	4000	1590	1100	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	321.0
400131.003	GTBA40-S	2000	4000	1690	1200	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	323.0
400131.004	GTBA40-S	2000	4000	1790	1300	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	325.0
400131.005	GTBA40-S	2000	4000	1890	1400	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	327.0
400131.006	GTBA40-S	2000	4000	1990	1500	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	329.0
400131.007	GTBA40-S	2000	4000	2090	1600	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	331.0
400131.008	GTBA40-S	2000	4000	2190	1700	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	333.0
400131.009	GTBA40-S	2000	4000	2290	1800	245	0 to -6	205x6	6 1/2Jx14H2	185 R 14 C	335.0
400131.010	GTBA50-S	2500	5000	1490	1000	245	0 to -6	205x6	5.5-15	205/80 R15	327.0
400131.011	GTBA50-S	2500	5000	1590	1100	245	0 to -6	205x6	5.5-15	205/80 R15	329.0
400131.012	GTBA50-S	2500	5000	1690	1200	245	0 to -6	205x6	5.5-15	205/80 R15	331.0
400131.013	GTBA50-S	2500	5000	1790	1300	245	0 to -6	205x6	5.5-15	205/80 R15	333.0
400131.014	GTBA50-S	2500	5000	1890	1400	245	0 to -6	205x6	5.5-15	205/80 R15	335.0
400131.015	GTBA50-S	2500	5000	1990	1500	245	0 to -6	205x6	5.5-15	205/80 R15	337.0
400131.016	GTBA50-S	2500	5000	2090	1600	245	0 to -6	205x6	5.5-15	205/80 R15	339.0
400131.017	GTBA50-S	2500	5000	2190	1700	245	0 to -6	205x6	5.5-15	205/80 R15	341.0
400131.018	GTBA50-S	2500	5000	2290	1800	245	0 to -6	205x6	5.5-15	205/80 R15	343.0
400131.019	GTBA60-S	3000	6000	1490	1000	245	0 to -6	205x6	5.5-15	205/80 R15	335.0
400131.020	GTBA60-S	3000	6000	1590	1100	245	0 to -6	205x6	5.5-15	205/80 R15	337.0
400131.021	GTBA60-S	3000	6000	1690	1200	245	0 to -6	205x6	5.5-15	205/80 R15	339.0
400131.022	GTBA60-S	3000	6000	1790	1300	245	0 to -6	205x6	5.5-15	205/80 R15	341.0
400131.023	GTBA60-S	3000	6000	1890	1400	245	0 to -6	205x6	5.5-15	205/80 R15	343.0
400131.024	GTBA60-S	3000	6000	1990	1500	245	0 to -6	205x6	5.5-15	205/80 R15	345.0
400131.025	GTBA60-S	3000	6000	2090	1600	245	0 to -6	205x6	5.5-15	205/80 R15	347.0
400131.026	GTBA60-S	3000	6000	2190	1700	245	0 to -6	205x6	5.5-15	205/80 R15	349.0
400131.027	GTBA60-S	3000	6000	2290	1800	245	0 to -6	205x6	5.5-15	205/80 R15	351.0

Hydraulic Equipment:

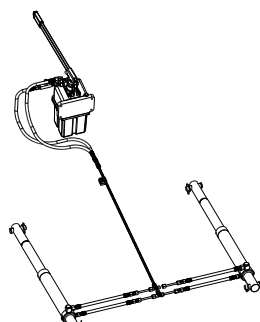
Part N°:

404159.001 Hydraulic cylinder with electrical unit and connection, see page 7

404162.001 Hydraulic cylinder with hand pump and connection, see page 10



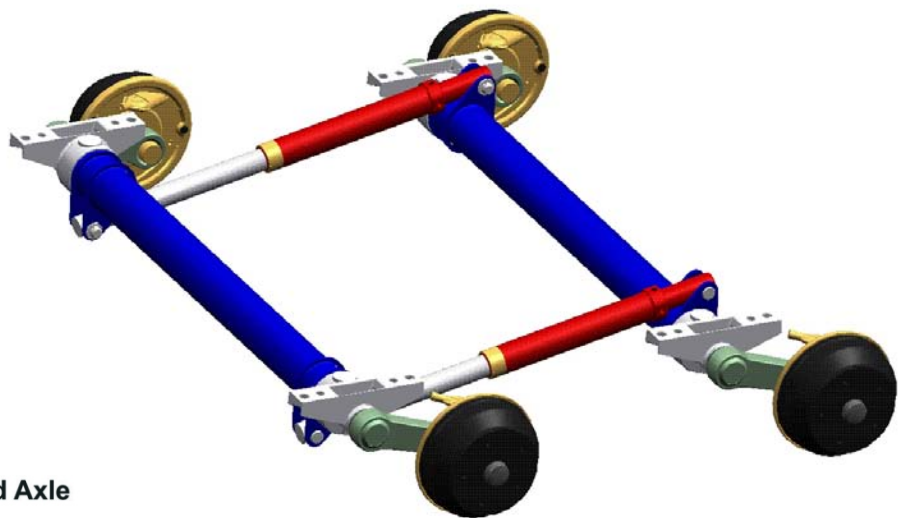
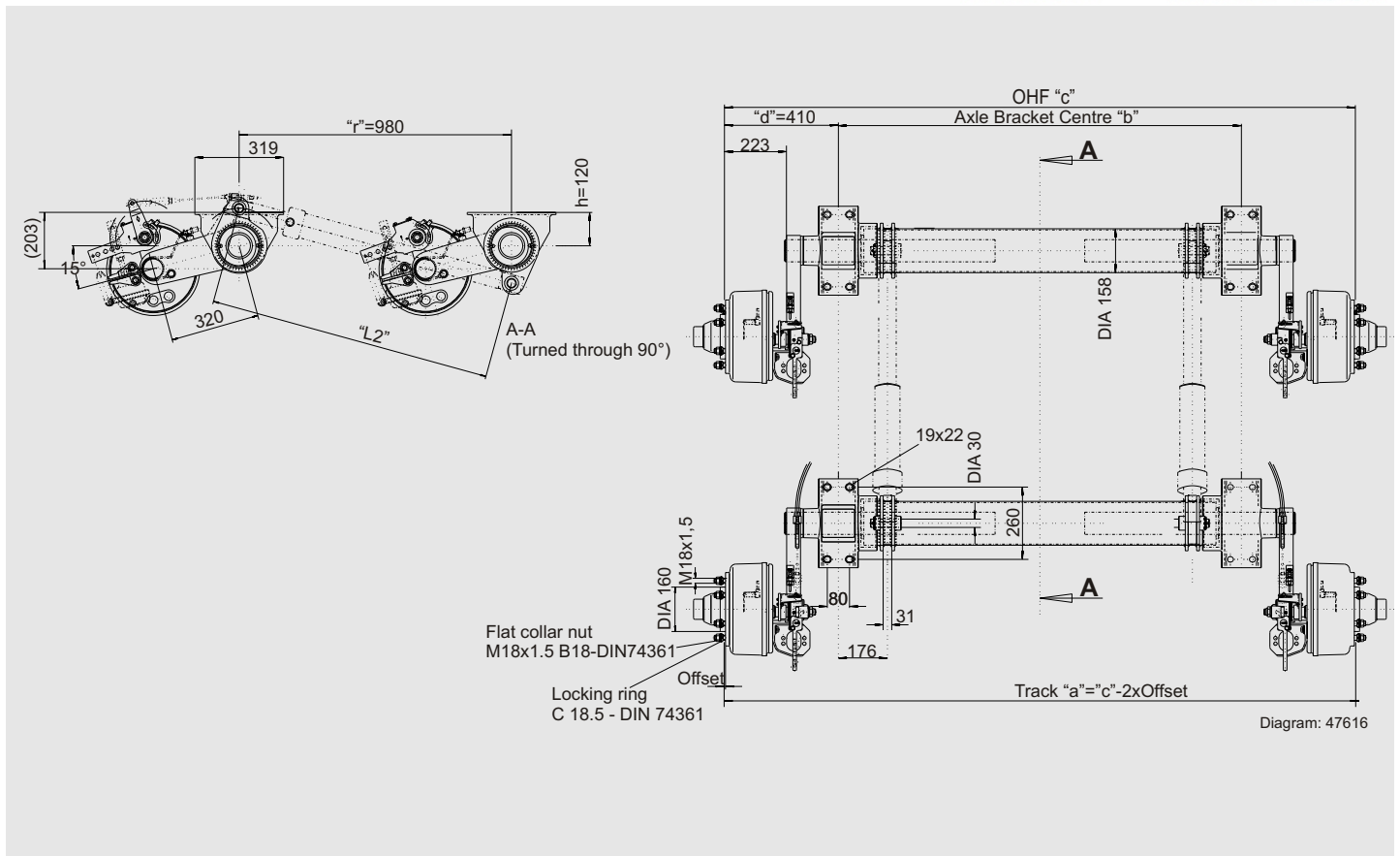
Electric Pump Type



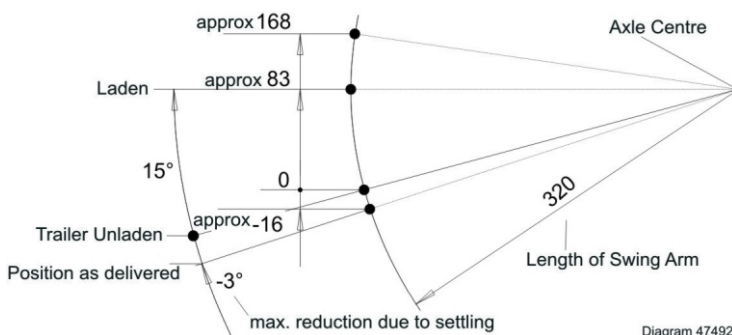
Hand Pump Type



Tandem Lowering Rubber Torsion Axle GTBA-TS
300x120 S-Cam Brake to 9000kg



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

Tandem Lowering Rubber Torsion Axle GTBA-TS

300x120 S-Cam Brake to 9000kg



Part N°	Axle Type	Axle Load		"c"	"b"	"d"	In/Offset	PCD	Recommendation		Weight [kg]
		Single [kg]	Twin [kg]						Smallest possible wheel	Tyre	
400179.001	GTBA60-TS	3000	6000	1920	1100	410	0 to -6	205x6	5.5-15	205/80R15	332.0
400179.002	GTBA60-TS	3000	6000	2020	1200	410	0 to -6	205x6	5.5-15	205/80R15	340.0
400179.003	GTBA60-TS	3000	6000	2120	1300	410	0 to -6	205x6	5.5-15	205/80R15	348.0
400179.004	GTBA60-TS	3000	6000	2220	1400	410	0 to -6	205x6	5.5-15	205/80R15	356.0
400179.005	GTBA70-TS	3500	7000	1920	1100	410	0 to -6	205x6	6.0-15	7.50 R 15	336.0
400179.006	GTBA70-TS	3500	7000	2020	1200	410	0 to -6	205x6	6.0-15	7.50 R 15	344.0
400179.007	GTBA70-TS	3500	7000	2120	1300	410	0 to -6	205x6	6.0-15	7.50 R 15	352.0
400179.008	GTBA70-TS	3500	7000	2220	1400	410	0 to -6	205x6	6.0-15	7.50 R 15	360.0
400179.009	GTBA80-TS	4000	8000	1920	1100	410	0 to -6	205x6	6.0-15	7.50 R 15	344.0
400179.010	GTBA80-TS	4000	8000	2020	1200	410	0 to -6	205x6	6.0-15	7.50 R 15	352.0
400179.011	GTBA80-TS	4000	8000	2120	1300	410	0 to -6	205x6	6.0-15	7.50 R 15	360.0
400179.012	GTBA80-TS	4000	8000	2220	1400	410	0 to -6	205x6	6.0-15	7.50 R 15	368.0
400179.013	GTBA90-TS	4500	9000	1920	1100	410	0 to -6	205x6	6.5-15	8.25 R 15	352.0
400179.014	GTBA90-TS	4500	9000	2020	1200	410	0 to -6	205x6	6.5-15	8.25 R 15	360.0
400179.015	GTBA90-TS	4500	9000	2120	1300	410	0 to -6	205x6	6.5-15	8.25 R 15	368.0
400179.016	GTBA90-TS	4500	9000	2220	1400	410	0 to -6	205x6	6.5-15	8.25 R 15	376.0

Hydraulic Equipment:

Under Construction

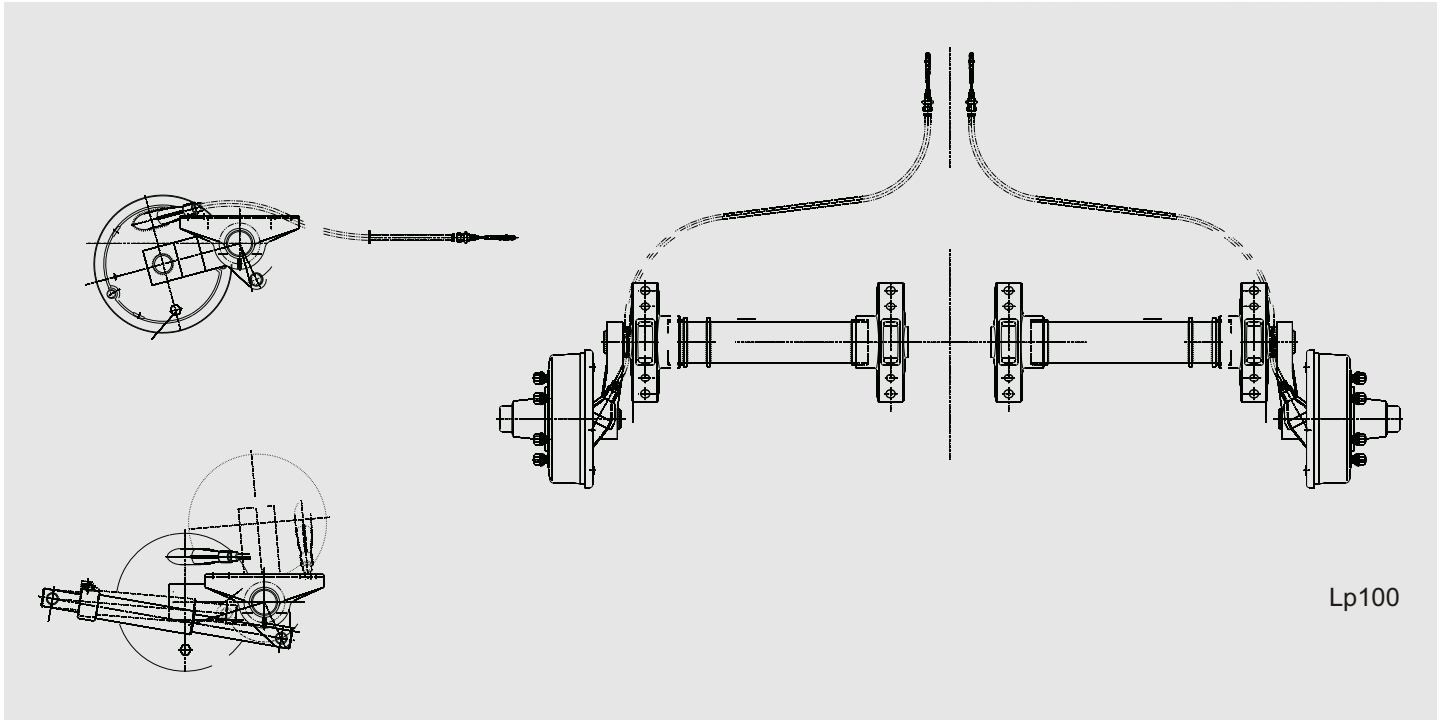
Rubber Torsion Axle Data:

Axle Type	GTBA-TS
Axle Tube	painted
Backplate / Brake Drum	plated / painted
Speed	Upto 100km/h
Max. Axle Load	6000-9000kg
Dim "d"	Fix dim 410
Wheel Bolts	M18x1.5
Cable	33586.10

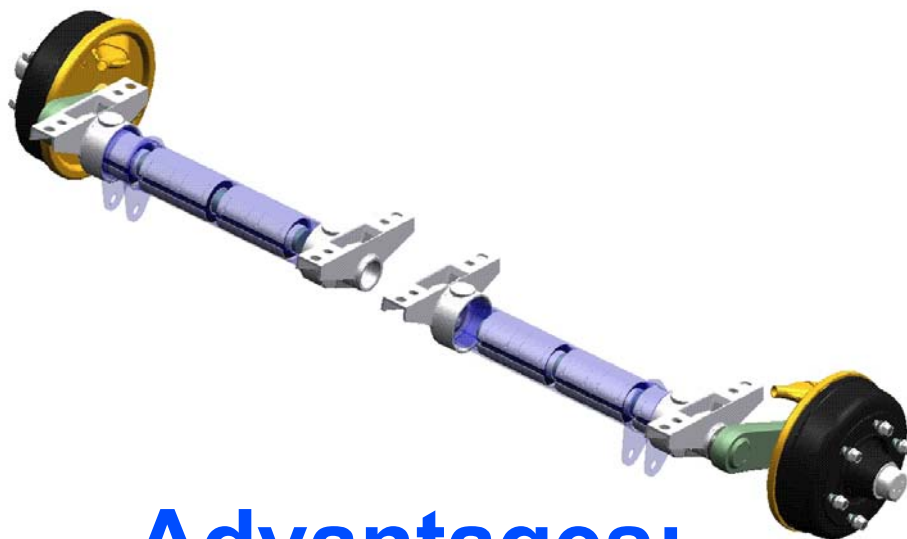
Brake Data:

EU Approval N°	361-0068-04-FBKV	(according to guideline RL 71/720/EWG, Appendix VII)
Brake Type	30-4307	
Speed	> 25km/h	
Max. Brake Load	2725kg	
Rdyn min	0.345m	
Rdyn max	0.395m	





The KNOTT lowering rubber torsion axle is also available as half axles.



Advantages:

One or both sides can be lowered

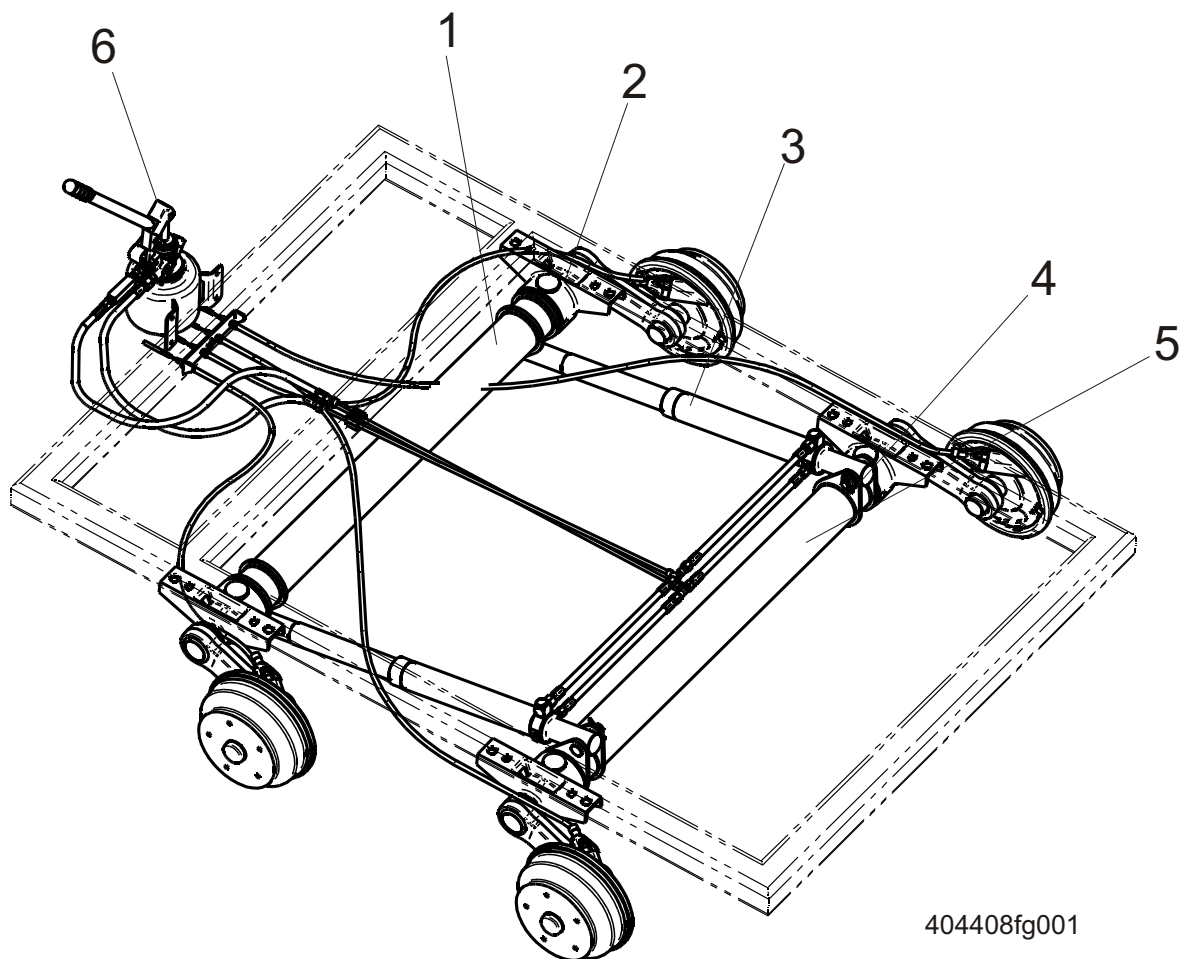
The trailer can be kept horizontal on uneven surfaces

Axle tube does not span the width of the trailer

1.1.1 Construction:

The system is made up of the following main components (twin axle specification):

- Front Axle [1]
- Rear Axle [5]
- Balance Lever [4]
- Mounting Bracket [2]
- Hydraulic Cylinder [3]
- Hydraulic Pump [6]



Picture 2: KNOTT-Rubber Torsion Axle GTBA-MV

1. Technical Information

1.1.2 Specifications:

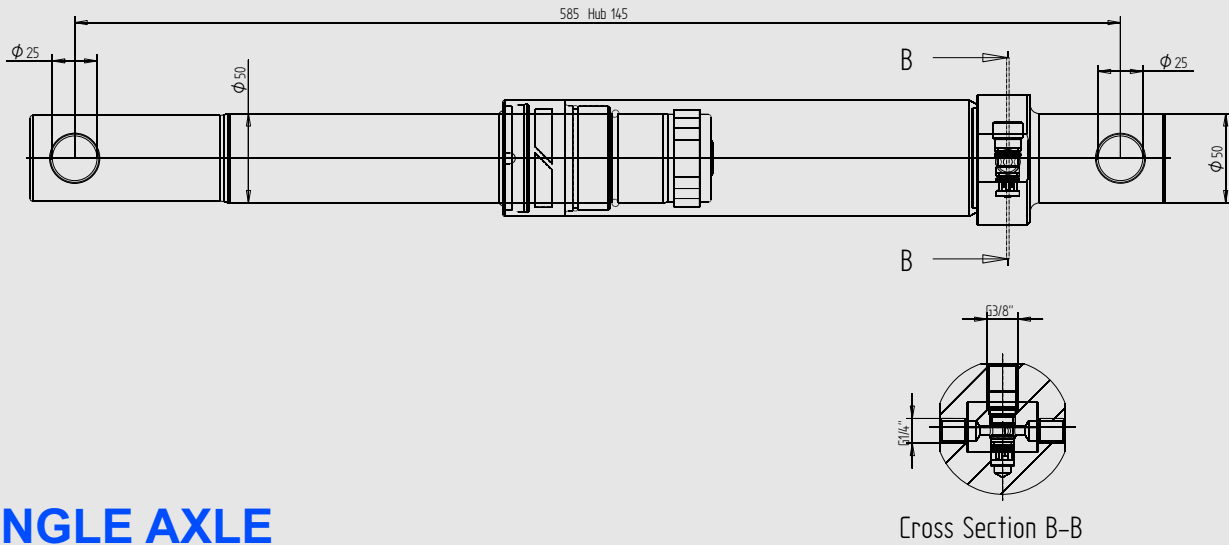
We manufacture the following types of KNOTT lowering rubber torsion axles:

GBA-MV	-	Lowering Single Axle	1000-1800kg
GBA-S	-	Lowering Single Axle	2000-3000kg
GBA-TS	-	Lowering Single Axle	3000-4500kg
GBHA-MV	-	Lowering Half Axle	1000-1800kg
GBHA-S	-	Lowering Half Axle	1900-3000kg
GTBA-MV	-	Lowering Twin Axle with Balance Bar	2000-3500kg
GTBA-S	-	Lowering Twin Axle with Balance Bar	4000-6000kg
GTBA-TS	-	Lowering Twin Axle with Balance Bar	6000-9000kg

1.1.3 Operation and function of the lowering rubber torsion axle:

The axle tubes are positioned in the mounting brackets [2] so that they are able to turn. The twin axle unit is constructed in such a way that the weight can be shared evenly over both axles. When the trailer is towed the hydraulic cylinder [3] is the compensator link. As the chassis is lowered (after the hydraulic cylinder [3] has been released) under its own weight, the required lifting force on the axle [1+5] must be produced either using a hand pump [6] or an electric pump.

The suspension movement comes from the rubber elements in the rubber torsion axles [1+5]. On half axles each side can be lowered separately.



SINGLE AXLE

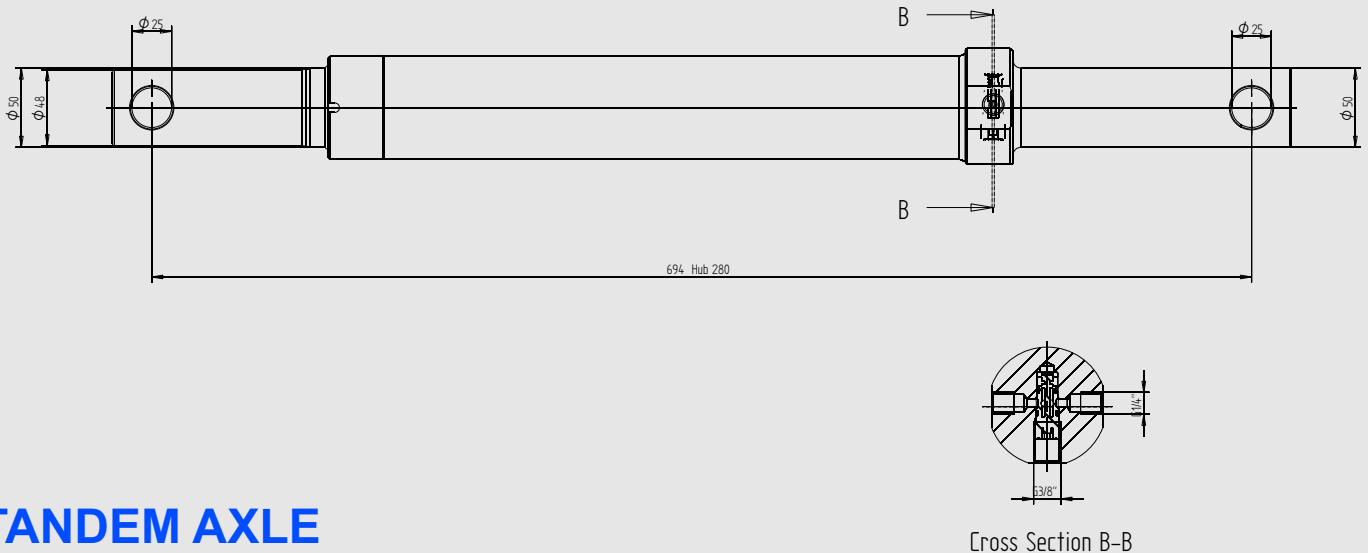
Part N°:

403862.001 KNOTT Hydraulic cylinder KHZ1-50/145 with return valve

404176.001 KNOTT Hydraulic cylinder KHZ1-50/145

400080.001 Return valve, hydraulic lockable

403954.001 Return valve, electrically lockable



TANDEM AXLE

Part N°:

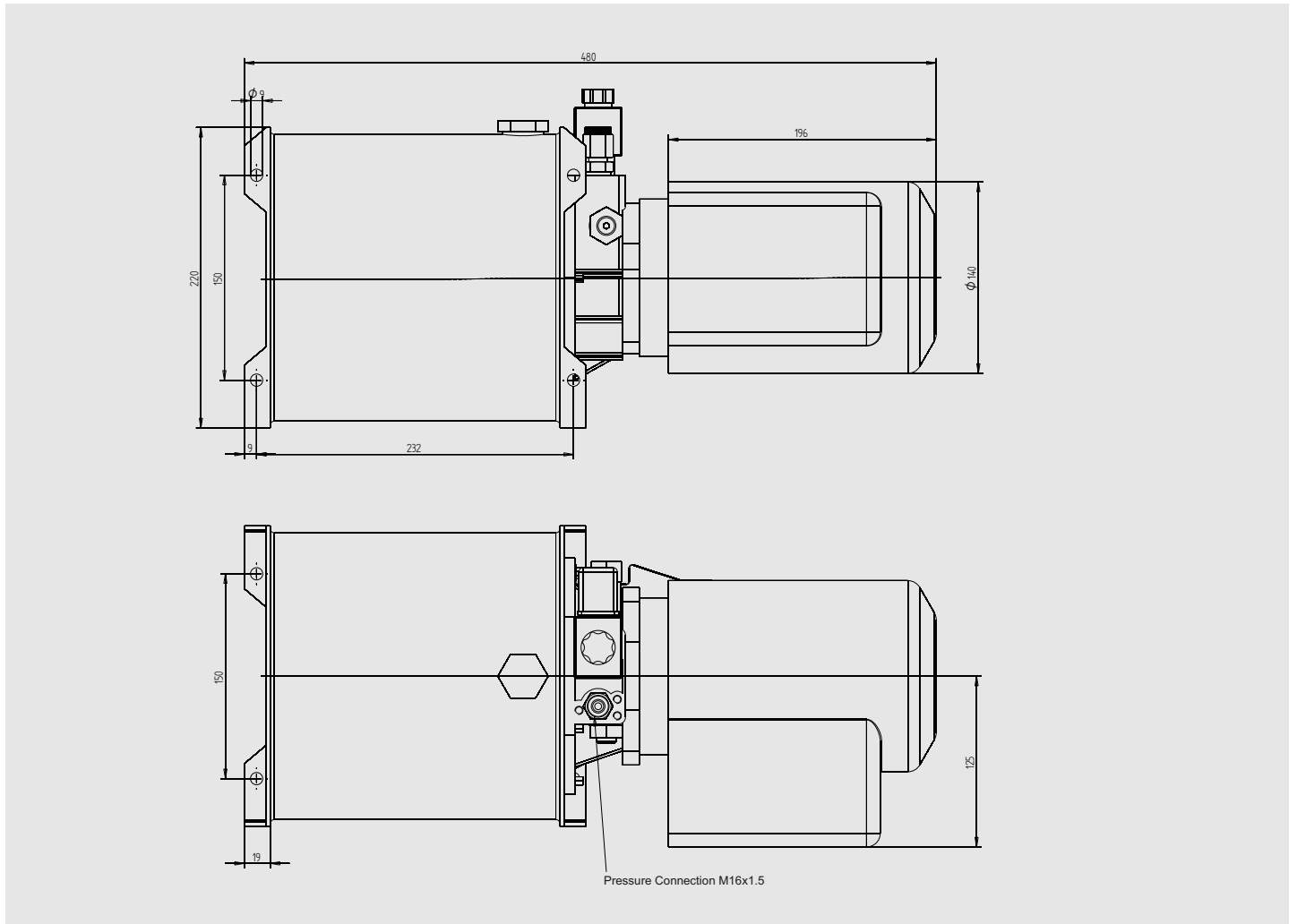
404143.001 KNOTT Hydraulic cylinder KHZ1-50/280 with return valve

404177.001 KNOTT Hydraulic cylinder KHZ1-50/280

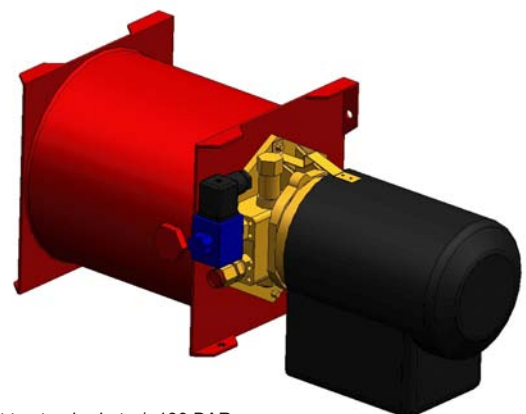
400080.001 Return valve, hydraulic lockable

403954.001 Return valve, electrically lockable

Other specifications available on request!
We reserve the right to make amendments!



Part N°:
403053.001 Electric Pump
404247.001 Operating Switch with Cable



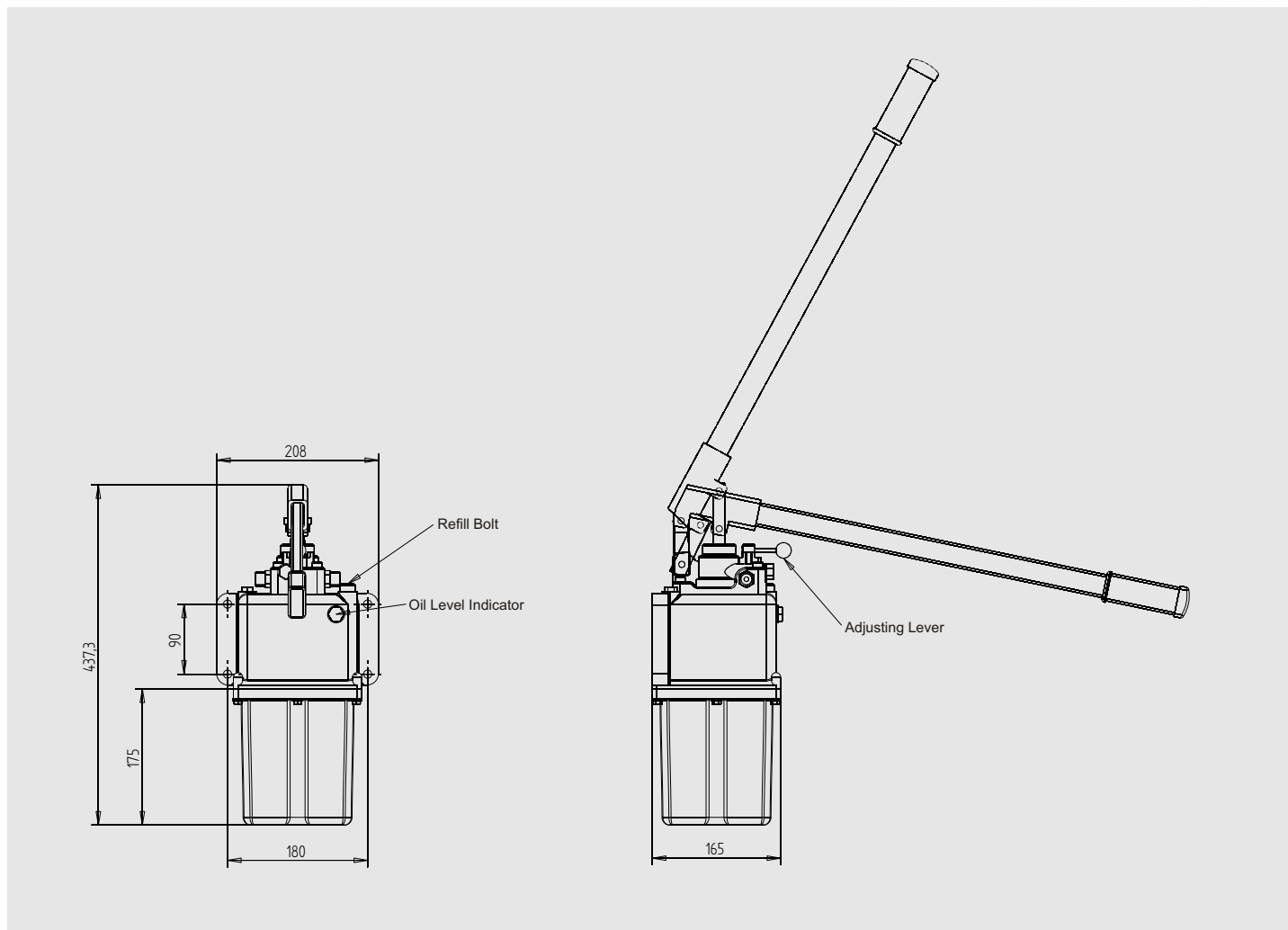
Technical Data:

Flow volume 4L/min
 Tank volume 4L
 Motor 12V - 2kW

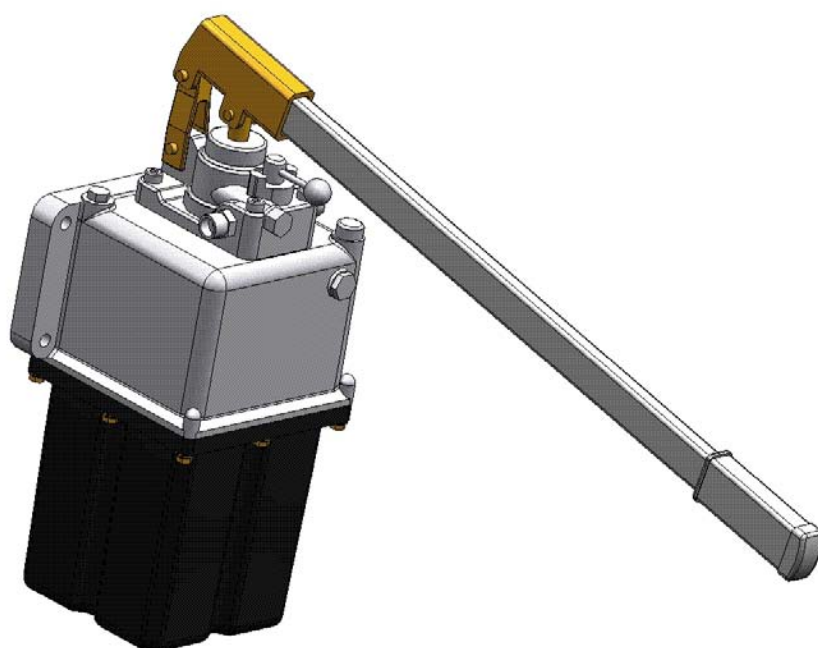
- Independently adjustable over pressure valve, set to standard at +/- 130 BAR
- Electrically operated release valve
- Recommended battery: 12V - 60A
- Recommended oil: ATF
- Recommended hydraulic hose diameter: 3/8" (9.5mm)

Specification:
 Solid, stain resistant, steel tank
 Protected from water spray by a plastic cover

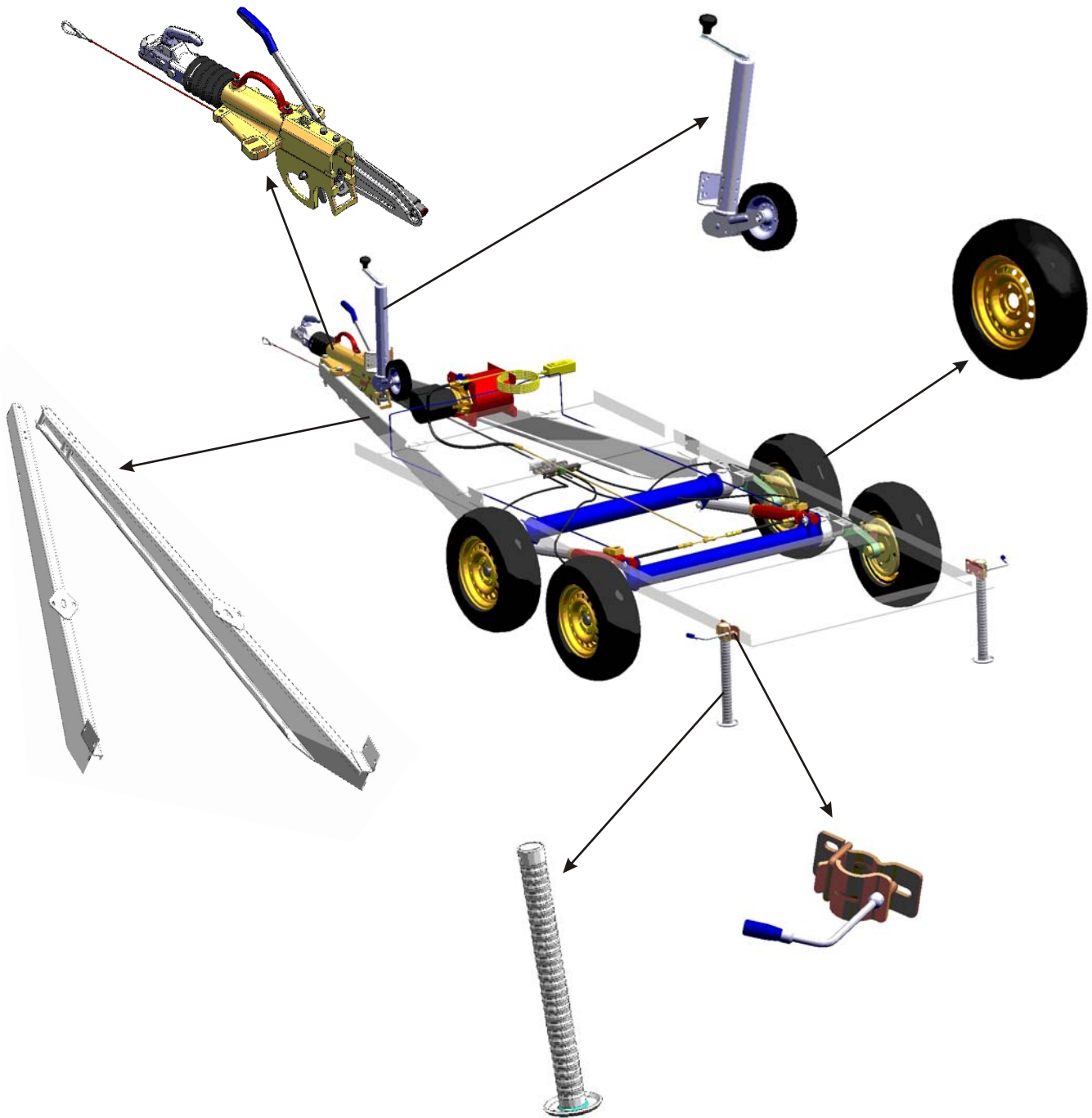
Other specifications available on request!
 We reserve the right to make amendments!



- Part N°:**
403247.001 Hand pump assembly with lever
404030.001 Hand pump
404029.001 Lever

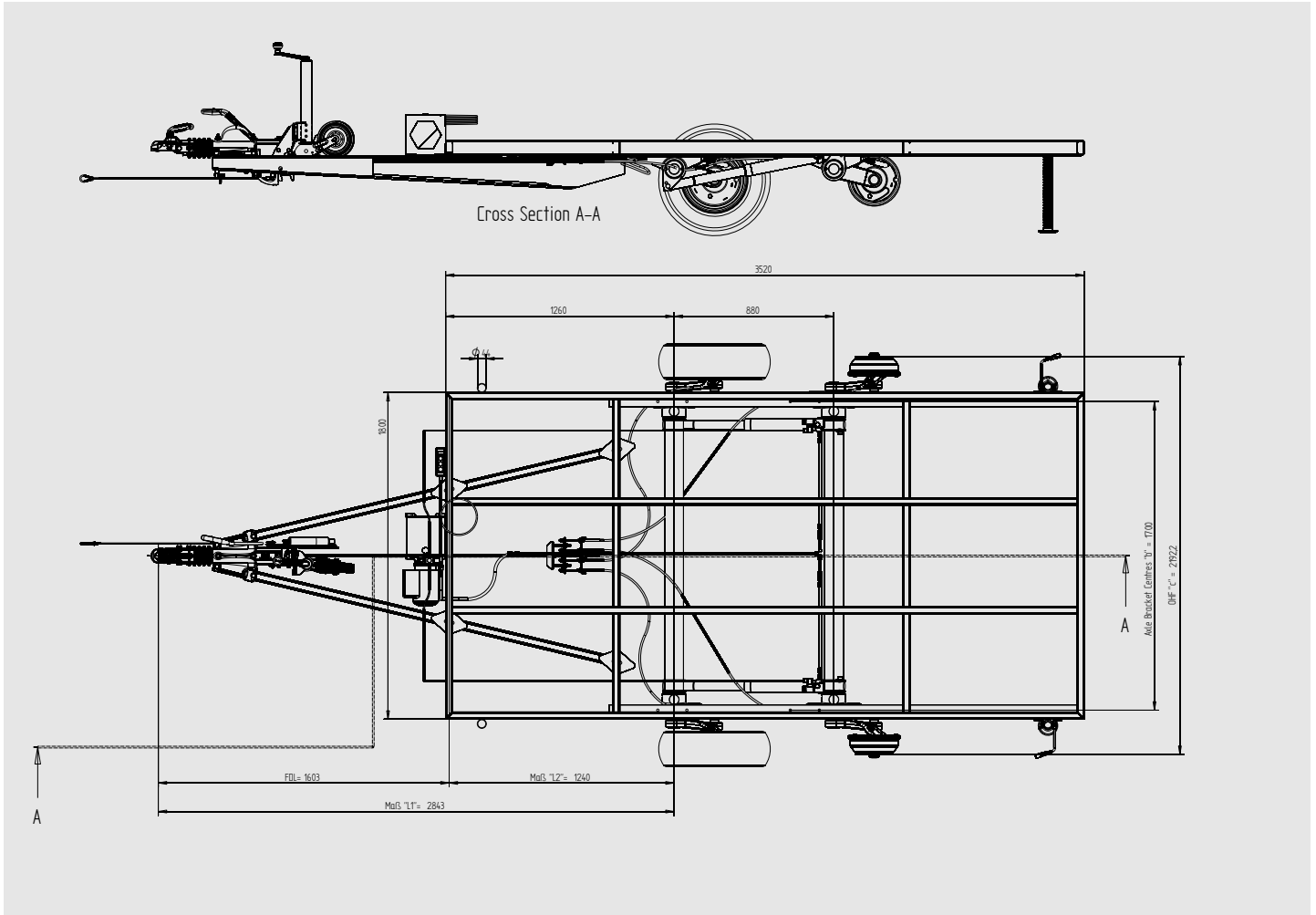


Other specifications available on request!
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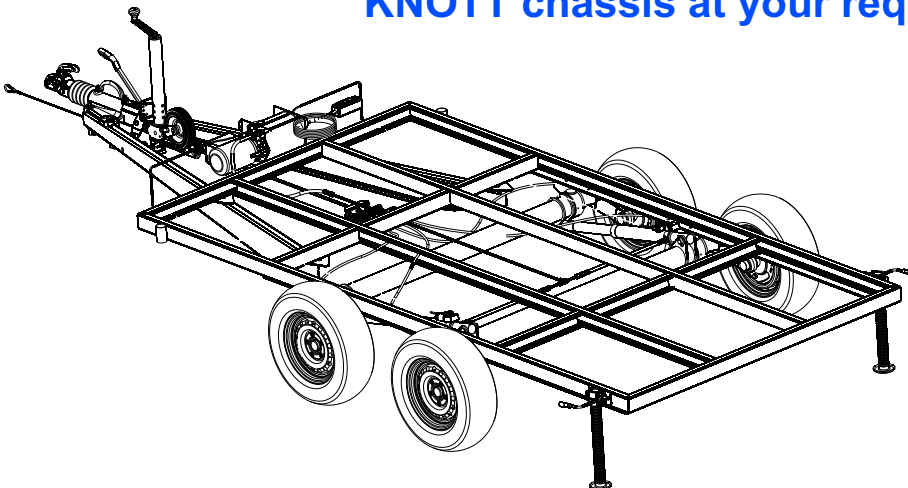
Additional chassis components, mechanical or hydraulic overrun couplings, adjustable height drawbars, A-frames, jockey wheels, propstands, mudguards, wheels, axles and lighting components can be found in our **“Trailer Components”** catalogue

Assembled Chassis Upto 3500kg

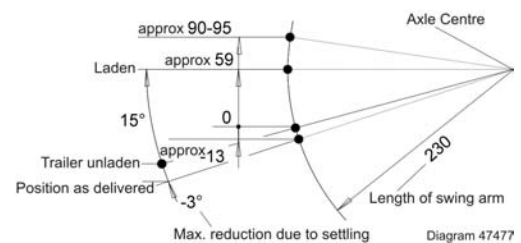


Part N°	Chassis Type	Axle Type	Axle Load		"c"	"b"	In/Offset	PCD	Recommendation		Weight [kg]
			Single [kg]	Twin [kg]					Smallest possible wheel	Tyre	
404260.001	FVT35-MV	GTBA35-MV	1750	3500	1510	1700	25 to 35	112x5	5 1/2Jx14H2	195 R 14 C	----

We can deliver fully assembled KNOTT chassis at your request!



Spring Diagram for Standard Axle



Other specifications available on request!
We reserve the right to make amendments!

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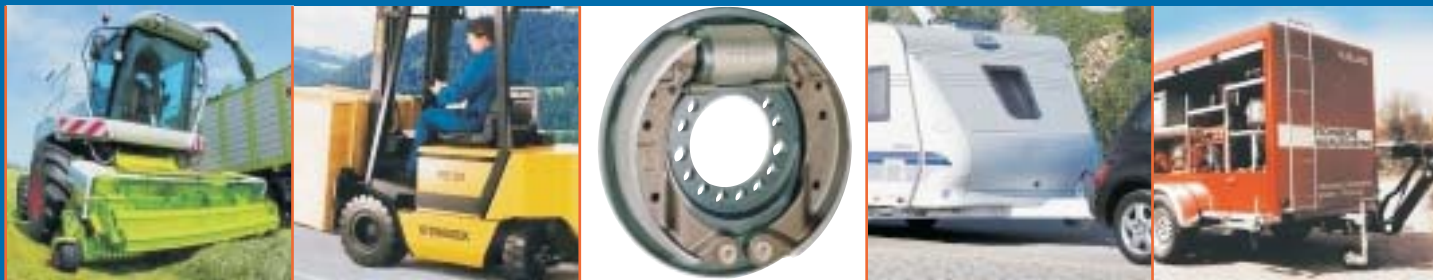
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