

# VEHICLE CONSTRUCTION SYSTEMS

**COMPLETE PRODUCT RANGE**



AGRICULTURE | EARTH MOVEMENT | TRUCKS | SMALL VEHICLES



# WE MOVE PROFESSIONALS

We are your strong partner for tyres, wheels and vehicle construction -  
for professional use. **Competent. Reliable. Nearby.**

# We are your partner for vehicle components for agricultural trailers and working machines!

Our product range includes tyres, wheels, rims, tubes and vehicle components for almost every machine and every application.

Please feel free to ask for further product overviews. Phone +421 (0) 33 64 86 - 100 for SK, CZ, HU  
Polska Phone Tel.: +48 (0) 22 307 23 02 · info@bohenkamp.com

A horizontal banner featuring a close-up of a large, treaded agricultural tyre on the right. On the left, there is a product brochure with a cover image of a tyre tread and the text 'AGRO KOMPLETNÝ SORTIMENT'. The background shows a green field under a blue sky.

Complete product range  
**AGRICULTURE**

A horizontal banner featuring a close-up of a truck tyre on the right. On the left, there is a product brochure with a cover image of two truck tyres and the text 'NAKLADNÉ VOZIDLA A PREPRAVA KOMPLETNÝ SORTIMENT'. The background shows a landscape with rolling hills and a cloudy sky.

Complete product range  
**TRUCK & TRANSPORT**

A horizontal banner featuring a close-up of a heavy-duty industrial tyre on the right. On the left, there is a product brochure with a cover image of a truck and the text 'ZEMNÍ PRÁCE PRÍSTAV | PRÍEMYSEL CELÝ SORTIMENT'. The background shows a rocky quarry or construction site.

Complete product range  
**EARTHMOVING/INDUSTRIAL**

A horizontal banner featuring a close-up of a tyre with a tread pattern suitable for soft ground on the right. On the left, there is a product brochure with a cover image of a tyre and the text 'MALE PNEUMATIKY KOMPLETNÝ SORTIMENT'. The background shows a green field.

Complete product range  
**LANDSCAPE CONSERVATION, FARM & LEISURE**





# STRONG BRANDS FOR VEHICLE CONSTRUCTION SYSTEMS

AGRICULTURAL TRAILERS AND WORKING MACHINES

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# VEHICLE CONSTRUCTION

**WITH STRONG SERVICE FOR YOUR SUCCESS**

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- ✓ **One of the largest axle warehouses in Europe**
- ✓ **Maximum availability**
- ✓ **Aftersales service on site**
- ✓ **Free shipping even for small quantities**
- ✓ **Online shop & app for 24-hour orders**
- ✓ **Day-to-Day delivery service**



## Your contact partner

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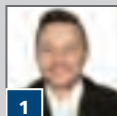
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## Your on-site contact persons

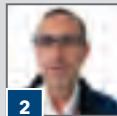


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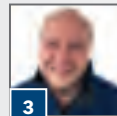


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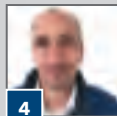


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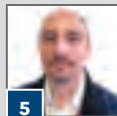


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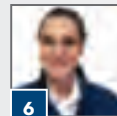


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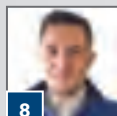


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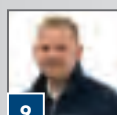


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# EASY AND MOBILE

## BOHNENKAMP DIGITAL



### ONLINE SHOP



- Direct access to our complete product range
- All stock and prices at a glance
- Own layout on request
- Many helpful service tools



### SHOP APP



- The complete online shop for tablet and mobile phone
- Use without Internet connection also possible
- Login by fingerprint
- Available for Android and Apple



# Shipping and Freight Costs

Shipping and delivery tailored to your needs

## Haulage:



### Order acceptance:

Mon - Friday 14.00:

Next business day delivery\*

### Freight charges:

less than 99 EUR order value:

Freight cost share **9 EUR**

From 100 EUR  
Carriage paid

## Parcel service:



### Order acceptance:

Mon - Friday 15.00:

Next business day delivery\*

### Freight charges:

less than 99 EUR order value:

Freight cost share **9 EUR**

From 100 EUR  
Carriage paid

You can find our terms of delivery and payment at: [www.bohnenkamp.com](http://www.bohnenkamp.com)

\* According to the standard term of the contracted service provider

Errors excepted





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Management System  
ISO 9001:2015  
www.tuv.com  
ID 9108627969

### All Bohnenkamp sites are ISO certified

Note: This product overview has been compiled with great care. Nevertheless, we cannot assume any liability for possible errors in the product description or in the technical data. We reserve the right to make changes in design or technical developments. Otherwise, our terms of sale, delivery and payment shall apply.



**14** **Running stub axles**

**14** **Running axles**

**16** **Brake axles**

**22** **Steering axles**

**24** **Backmatic axles**

**26** **Brake information**

## **Stub axles and axles**






**Service-plus by Bohnenkamp:**

Get direct access  
to our online shop






# Stub axles and axles

## Running stub axles

Item no.	Round [mm] ∅	Square [mm] ▧	Axle load 40 km/h			Connection dimensions			Stub length	
			 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]	L [mm]	C [mm]
404.51.410	32		900	1050	750	4x M12x1.5	57	100	130	155
404.51.023	40		825	975	725	5x M14x1.5	66	112	160	200
404.51.485		40	825	975	725	5x M14x1.5	66	112	130	165
404.51.520		50	1350	1600	1200	6x M18x1.5	160	205	253	300
404.51.490		55	1750	2050	1500	6x M18x1.5	160	205	204	250
404.51.500		55	1750	2050	1500	6x M18x1.5	160	205	300	350
404.51.530		60	1750	2050	1500	6x M18x1.5	160	205	650	700
404.51.469*		60	2000	2500	1750	6x M18x1.5	160	205	230	290
404.51.510		60	4000	5000	3500	6x M18x1.5	160	205	255	300
404.51.539		70	2550	2550	2150	6x M18x1.5	160	205	752	800
404.51.540		80	2000	2500	1750	6x M18x1.5	160	205	698	750
404.51.542		80	3500	4000	3250	6x M18x1.5	160	205	682	750
404.51.544		80	4600	5000	4250	6x M18x1.5	160	205	674	750
404.51.546		90	4500	5250	4250	10x M22x1.5	280	335	740	830

\* = Version for tillage, special seal and grease nipple

## Running axles

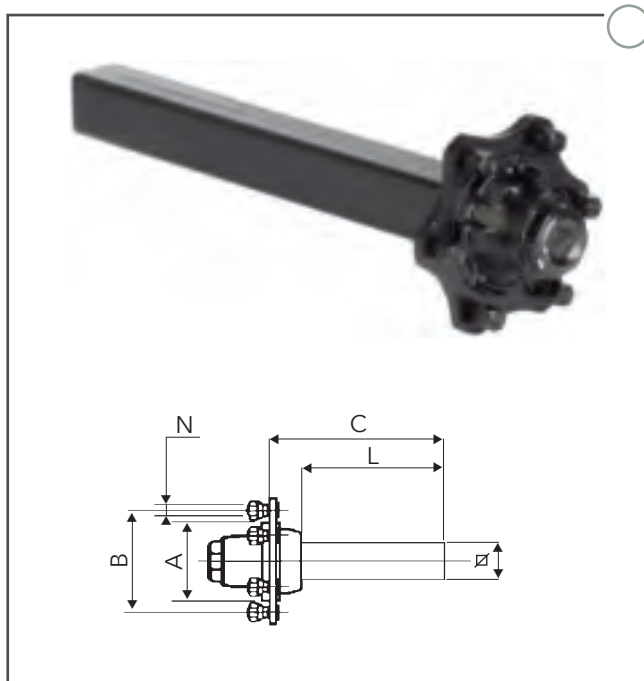
Item no.	Square [mm] ▧	Axle load 40 km/h			Connection dimensions			Track C [mm]
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]	
404.60.004	40	900	1050	750	4x M12x1.5	57	100	1000
404.60.003	40	1750	1950	1600	5x M14x1.5	66	112	1500
404.60.006	40	1650	1950	1450	5x M14x1.5	66	112	1580
404.60.015	45	1650	1950	1450	5x M14x1.5	66	112	1100
404.60.020	45	1650	1950	1450	5x M14x1.5	66	112	1330
404.60.030	45	1650	1950	1450	5x M14x1.5	66	112	1440
404.60.048	45	1750	1950	1600	5x M14x1.5	66	112	1500
404.60.040	45	1750	1950	1600	5x M14x1.5	66	112	1580
404.60.050	45	1750	1950	1600	5x M14x1.5	66	112	1780
404.60.052	45	1750	1950	1600	5x M14x1.5	66	112	1850
404.60.056	45	1750	1950	1600	5x M14x1.5	66	112	2000
404.60.074	50	2800	2800	2500	5x M16x1.5	94	140	1800
404.60.100	55	3500	4100	3000	6x M18x1.5	160	205	1500
404.60.090	55	3500	4100	3000	6x M18x1.5	160	205	1700
404.60.095	55	3500	4100	3000	6x M18x1.5	160	205	1800



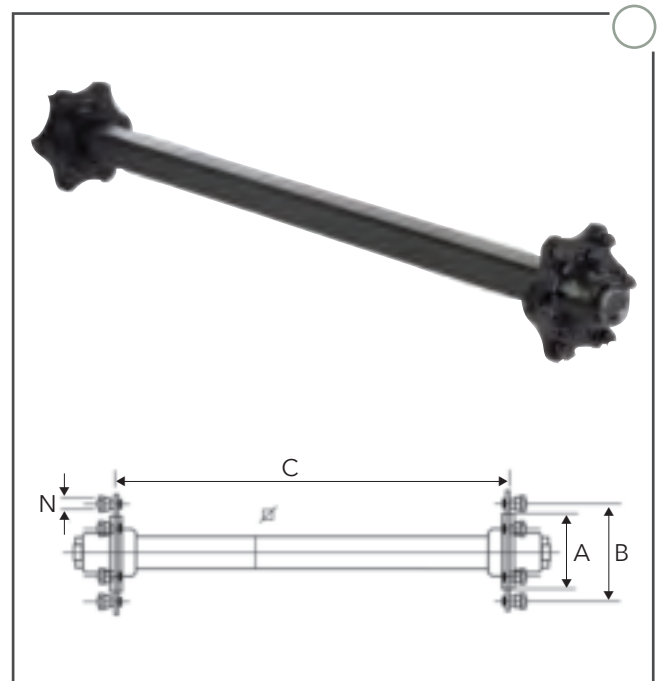
## Running axles

Item no.	Square [mm] ∅	Axle load 40 km/h			Connection dimensions			Track C [mm]
		[kg]	[kg]	[kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]	
404.60.112	55	3500	4100	3000	6x M18x1.5	160	205	2150
404.60.120	60	3500	4100	3000	6x M18x1.5	160	205	1360
404.60.130	60	4000	5000	3500	6x M18x1.5	160	205	1500
404.60.160	60	4000	5000	3500	6x M18x1.5	160	205	1600
404.60.170	60	4000	5000	3500	6x M18x1,5	160	205	1650
404.60.200	60	4000	5000	3500	6x M18x1.5	160	205	1700
404.60.202	60	4000	5000	3500	6x M18x1.5	160	205	1800
404.60.180	60	4200	5000	3800	6x M18x1.5	160	205	2000
404.60.210	70	5000	6000	4000	6x M18x1.5	160	205	1500
404.60.220	70	5100	5800	4300	6x M18x1.5	160	205	1700
404.60.250	70	5100	6000	4300	6x M18x1.5	160	205	2200
404.60.225	70	6500	7500	6000	6x M18x1.5	160	205	1900
404.60.227	70	6500	7500	6000	6x M18x1.5	160	205	2000
404.60.215	80	6500	7500	6000	6x M18x1.5	160	205	1800
404.60.230	80	6500	7500	6000	6x M18x1.5	160	205	2200
404.60.236	80	8000	9000	7500	8x M20x1.5	220	275	1750
404.60.241	90	9000	10500	8500	10x M22x1.5	280	335	1900
404.60.053	90	6700	7500	6000	6x M18x1.5	160	205	1950
404.60.060	100	13000	14000	11500	10x M22x1.5	176	225	2100

We reserve the right to make dimensional changes in the interest of technical progress






Running stub axles



Running axles




# Stub axles and axles

## Brake axle brake 140 x 30\*

Item no.	Square [mm] ☒	Axle load 40 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.70.008	40	750	950	650	4x M12x1.5	60	100




\* = no TÜV - approval

## Brake axle brake 250 x 40\*




Item no.	Square [mm] ☒	Axle load 40 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.70.030	45	1650	1950	1450	5x M14x1.5	66	112
404.70.038	45	1750	1950	1600	5x M14x1.5	66	112

\* = no TÜV approval

## Brake axle brake 250 x 60

Item no.	Square [mm] ☒	Axle load 40 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.70.061	50	2700	3200	2400	6x M18x1.5	160	205

## Brake axle brake 300 x 60

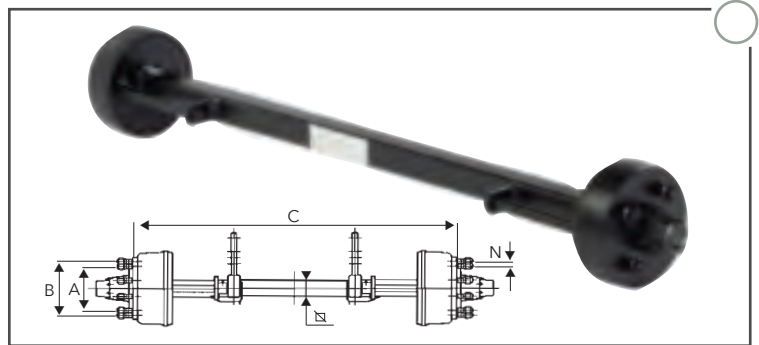
Item no.	Square [mm] ☒	Axle load 40 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.70.069	50	2700	3200	2400	6x M18x1.5	160	205
404.70.127	60	4000	5000	3500	6x M18x1.5	160	205
404.70.125	60	4000	5000	3500	6x M18x1.5	160	205
404.70.126	60	4000	5000	3500	6x M18x1.5	160	205
404.70.100	70	4200	4800	3800	6x M18x1.5	160	205
404.70.325	90	8000	9000	7500	6x M18x1.5	160	205

We reserve the right to make dimensional changes in the interest of technical progress



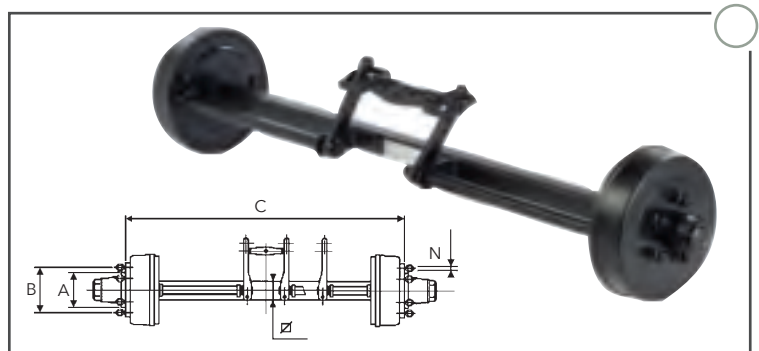
# Stub axles and Axles

	Track c [mm]	Brake lever
	1000	centered (534 mm)



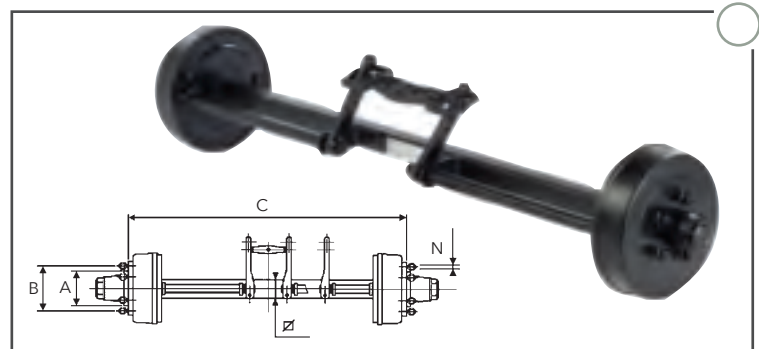
Brake 140 x 30

	Track C [mm]	Brake lever
	1440	centered
	1500	centered



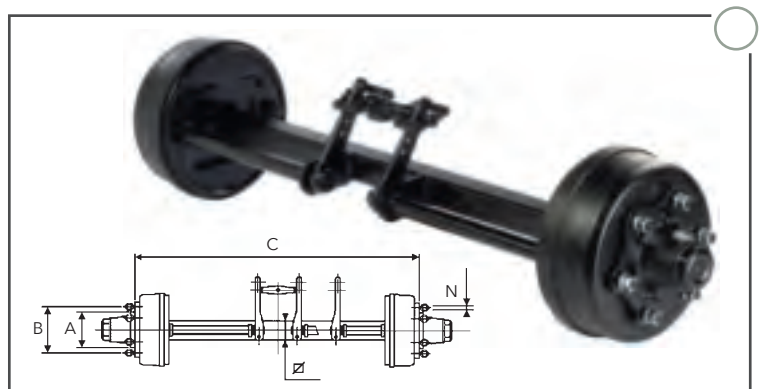
Brake 250 x 40

	Track C [mm]	Brake lever
	1360	centered



Brake 250 x 60




	Track C [mm]	Brake lever
	1700	centered
	1500	200 mm left
	1700	centered
	1800	centered
	2200	centered
	2200	centered






Brake 300 x 60

# Stub axles and axles

## Brake axle brake 300 x 90

Item no.	Square [mm] ☒	Axle load 40 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.70.150	60	4000	5000	3500	6x M18x1.5	160	205
404.70.080	60	4000	5000	3500	6x M18x1.5	160	205
404.70.090	60	4000	5000	3500	6x M18x1.5	160	205
404.70.170	60	4000	5000	3500	6x M18x1.5	160	205
404.70.175	70	6500	7500	6000	6x M18x1.5	160	205
404.70.190	70	6500	7500	6000	6x M18x1.5	160	205
404.70.200	70	6500	7500	6000	6x M18x1.5	160	205
404.70.210	70	6500	7500	6000	6x M18x1.5	160	205
404.70.220	70	6500	7500	6000	6x M18x1.5	160	205
404.70.222	70	6700	7400	6000	6x M18x1.5	160	205
404.70.245	70	6500	7500	6000	6x M18x1.5	160	205
404.70.225	80	8000	9000	7500	8x M20x1.5	220	275
404.75.034	90	8000	9000	7500	6x M18x1.5 twin	160	205
404.70.236	90	8000	9000	7500	8x M18x1.5 twin	220	275
404.70.237	90	8000	9000	7500	8x M18x1.5	220	275

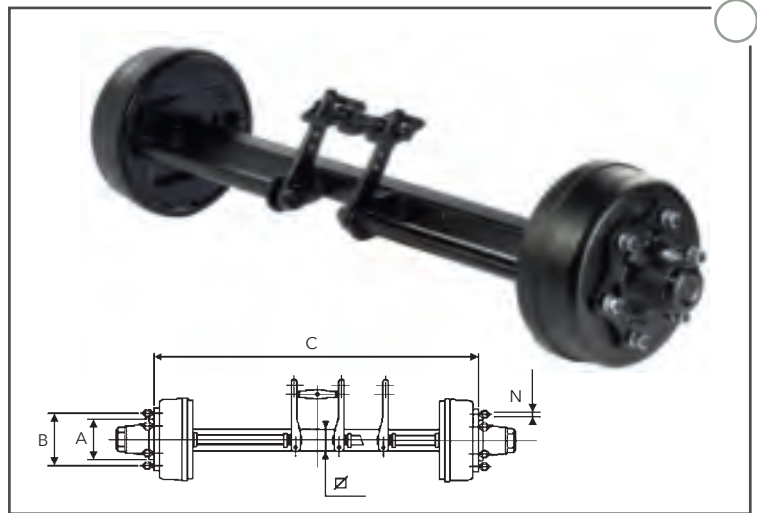
## Brake axle brake 300 x 135

Item no.	Square [mm] ☒	Axle load 40 km/h			Connection dimensions			Track C [mm]
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]	
404.76.040	80	7000	8000	6100	6x M18x1.5	160	205	2000
404.76.045	80	9200	10000	8500	6x M18x1.5	160	205	2000
404.76.022	80	9200	10000	8500	6x M18x1.5	160	205	1800
404.76.015	120	13000	14000	11500	8x M20x1.5	220	275	1900

We reserve the right to make dimensional changes in the interest of technical progress



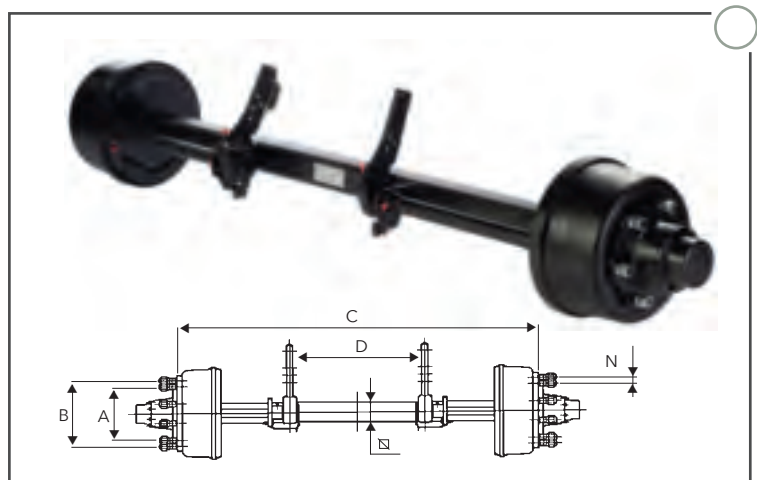
	Track C [mm]	Brake lever
	1360	centered
	1500	150 mm left
	1500	centered
	1700	centered
	1360	centered
	1600	centered
	1600	200 mm left
	1700	centered
	1700	200 mm left
	1900	centered
	2150	centered
	1900	centered
	1850	275 mm left
	2000	centered
	2100	centered



Brake 300 x 90

Brake lever	ABS	AGS	MGS	D [mm]
centered		x		476
centered	x	x		476
centered			x	222
centered			x	1214




ABS = Anti-lock brake system  
 AGS = automatic slack adjuster  
 MGS = mechanical slack adjuster









Brake 300 x 135

# Stub axles and axles







## Brake axle brake 400 x 80

Item no.	Square [mm]	Axle load 40 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.75.017	80	8000	9000	7500	8x M20x1.5	220	275
404.75.019	80	8000	9000	7500	8x M20x1.5	220	275
404.75.020	90	8000	9000	7500	8x M18x1.5	220	275
404.75.025	90	8000	9000	7500	8x M18x1.5	220	275
404.75.040	90	9000	10500	8500	8x M20x1.5	220	275
404.75.030	100	13000	14000	11500	10x M22x1.5	280	335

## Brake axle brake 406 x 120

Item no.	Square [mm]	Axle load 40 km/h			Axle load 60 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.76.101	100	13000	14200	11800	11800	13000	11000	10x M22x1.5	280	335
404.75.056	100	13000	14200	11800	11800	13000	11000	10x M22x1.5	280	335
404.76.195	100	13000	14200	11800	11800	13000	11000	10x M22x1.5	280	335
404.76.190	110	13000	14200	11800	12000	13000	11000	10x M22x1.5	280	335
404.76.193	110	12500	14000	11000	11000	13000	10000	10x M22x1.5	280	335
404.76.503	130	13000	14000	11500	12000	13000	11000	8x M20x1.5	220	275

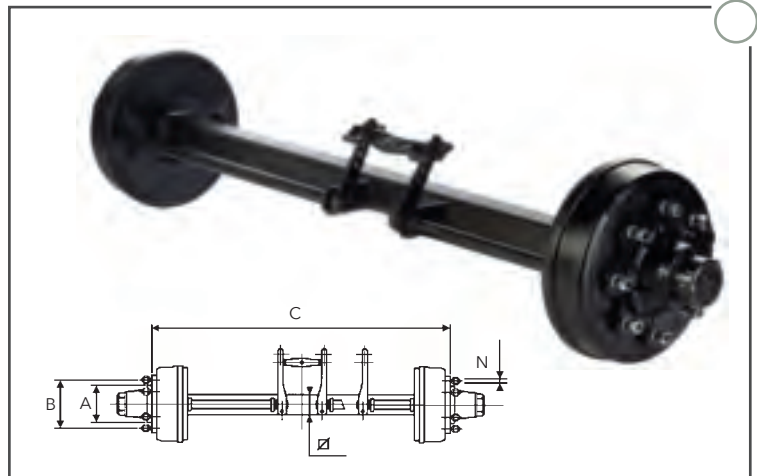
## Brake axle brake 406 x 140

Item no.	Square [mm]	Axle load 40 km/h			Axle load 60 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.76.201	110	15000	16000	14000	14000	15000	13000	10x M22x1.5	280	335

We reserve the right to make dimensional changes in the interest of technical progress

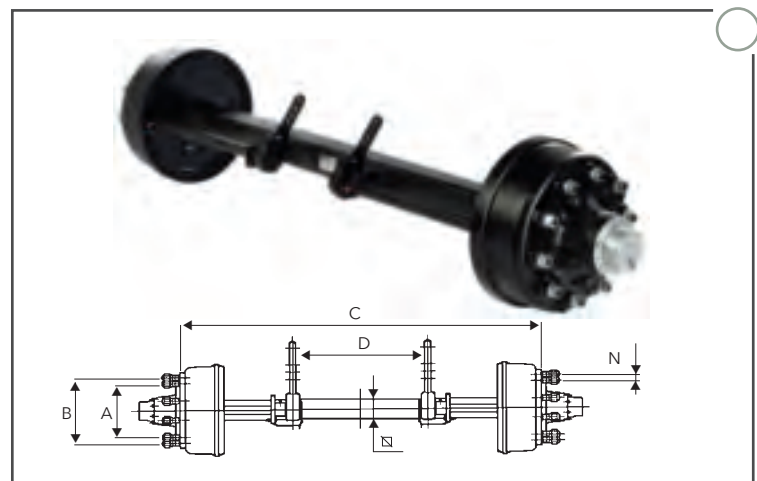


	Track C [mm]	Brake lever
	1650	200 mm left
	2020	175 mm left
	1900	200 mm left
	1900	centered
	1800	centered
	2000	centered



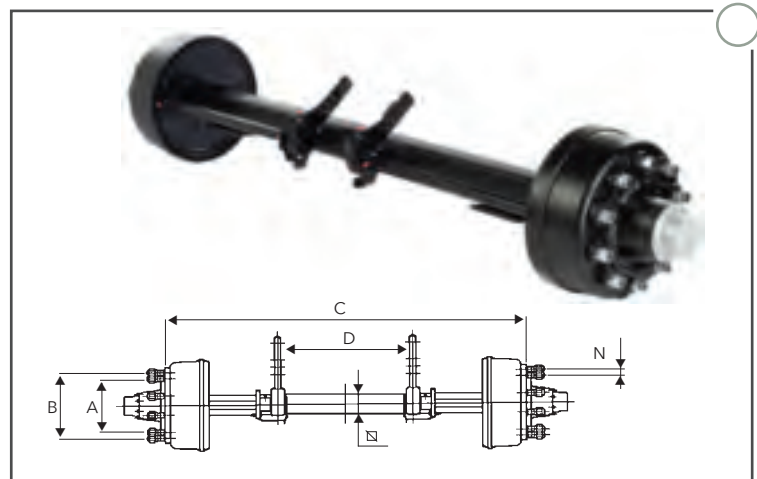
Brake 400 x 80

	Track C [mm]	D [mm]	AGS	ABS
	1900	330	no	no
	2000	334	yes	yes
	2000	534	no	no
	1800	434	no	no
	1900	432	no	no
	1800	332	no	no



Brake 406 x 120

	Track C [mm]	D [mm]	AGS	ABS
	2000	314	no	no









Brake 406 x 140

ABS = Anti-lock brake system  
AGS = automatic slack adjuster



# Stub axles and axles

## Brake axle brake 420 x 180



Item no.	Square [mm]	Axle load 40 km/h			Axle load 60 km/h			Connection dimensions		
		 [kg]	 [kg]	 [kg]	 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.76.236	130 tube	14500	14500	13500	13100	13100	12100	10x M22x1.5	280	335
404.76.615	150 tube	14000	14000	13000	13000	14000	12000	10x M22x1.5	280	335
404.76.600*	150 tube	14000	14000	13000	13000	14000	12000	10x M22x1.5	280	335
404.76.610	150 tube	14000	14000	13000	13000	14000	12000	10x M22x1.5	280	335
404.76.840*	150 tube	15500	17000	14200	14200	15500	13000	10x M22x1.5	280	335

\* = diaphragm cylinder base plate welded on

## Forced steering axle brake 420 x 180

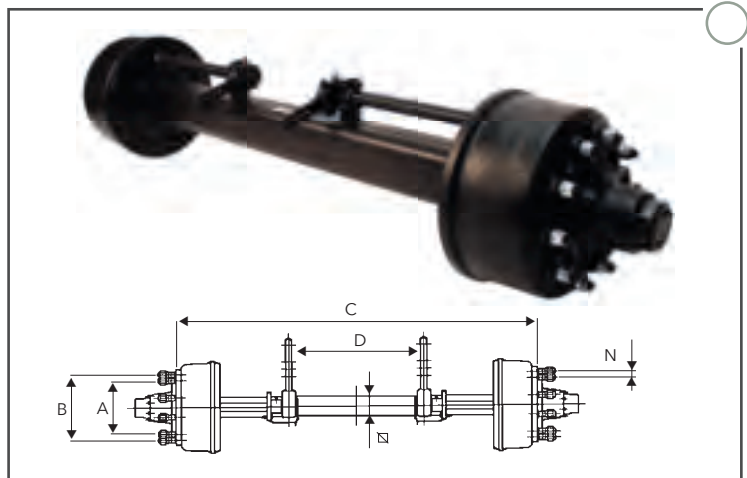
Item no.	Square [mm]	Axle load 40 km/h	Axle load 60 km/h	Connection dimensions		
		 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.60.356	150 tube	14200	13000	10x M22x1.5	280	335
404.60.357	150 tube	14200	13000	10x M22x1.5	280	335
404.60.358	150 tube	14200	13000	10x M22x1.5	280	335

## Rear steering axle brake 420 x 180

Item no.	Square [mm]	Axle load 40 km/h	Axle load 60 km/h	Connection dimensions		
		 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]
404.60.353	150 tube	14200	13000	10x M22x1.5	280	335
404.60.354	150 tube	14200	13000	10x M22x1.5	280	335
404.60.355	150 tube	14200	13000	10x M22x1.5	280	335

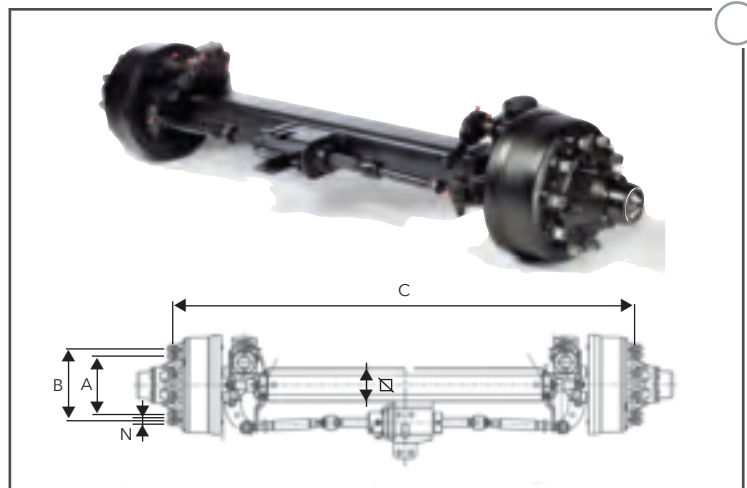
We reserve the right to make dimensional changes in the interest of technical progress

	Track C [mm]	D [mm]	AGS	ABS
	2050	422	no	no
	1950	518	no	no
	2050	648	no	no
	2050	418	no	no
	2150	320	no	no



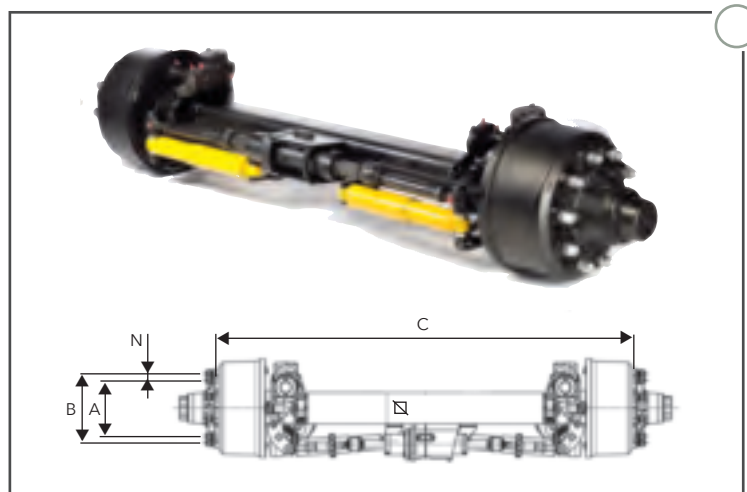
Brake 420 x 180

	Track C [mm]	AGS	ABS
	1950	no	no
	2050	no	no
	2150	no	no



Forced steering axle brake 420 x 180

	Track C [mm]	AGS	ABS
	1950	no	no
	2050	no	no
	2150	no	no






Rear steering axle brake 420 x 180

ABS = Anti-lock brake system  
AGS = automatic slack adjuster






# Stub axles and axles

## Brake axles Backmatic brake 300 x 90

Item no.	Square [mm] ∅	Axle load 40 km/h			Connection dimensions			Track C [mm]
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]	
404.70.311	70	5100	6000	4300	6x M18x1.5	160	205	1500
404.70.317	70	5100	6000	4300	6x M18x1.5	160	205	2150
404.70.324	70	5000	6000	4000	6x M18x1.5	160	205	2230
404.70.327	70	5100	6000	4300	6x M18x1.5	160	205	1700
404.70.331	70	6700	7500	6000	6x M18x1.5	160	205	1600
404.70.332	70	6700	7500	6000	6x M18x1.5	160	205	1700
404.70.314	70	6700	7500	6000	6x M18x1.5	160	205	1700
404.70.320	70	6700	7500	6000	6x M18x1.5	160	205	1750
404.70.329	70	6700	6700	6000	6x M18x1.5	160	205	1900
404.70.328	70	6700	7500	6000	6x M18x1.5	160	205	2150
404.72.006	80	9200	10000	8500	8x M18x1,5	220	275	1800
404.72.007	80	9200	10000	8500	8x M18x1.5	220	275	1900
404.72.011	90	9200	10000	8500	8x M18x1.5	220	275	1900

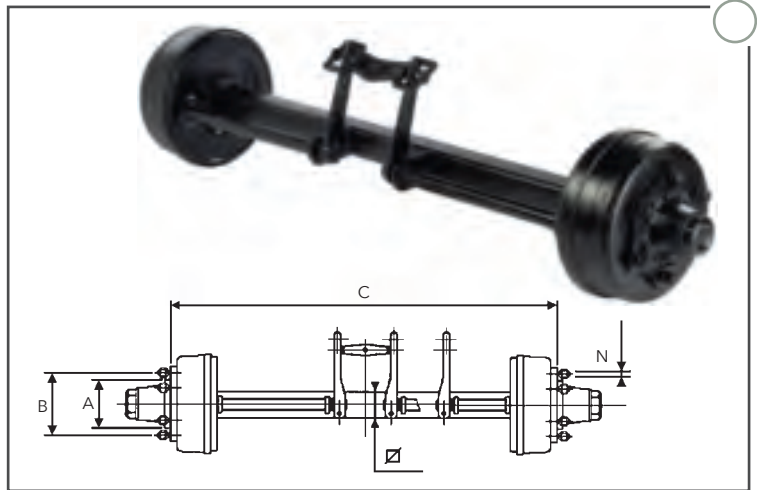
## Brake axles Backmatic brake 350 x 90

Item no.	Square [mm] ∅	Axle load 40 km/h			Connection dimensions			Track C [mm]
		 [kg]	 [kg]	 [kg]	Bolt N	Hub A [mm]	Bolt circle B [mm]	
404.72.021	90	9200	10000	8500	8x M20x1.5	220	275	1900
404.72.031	100	11000	12000	10000	8x M20x1.5	220	275	1900

We reserve the right to make dimensional changes in the interest of technical progress

## Brake lever

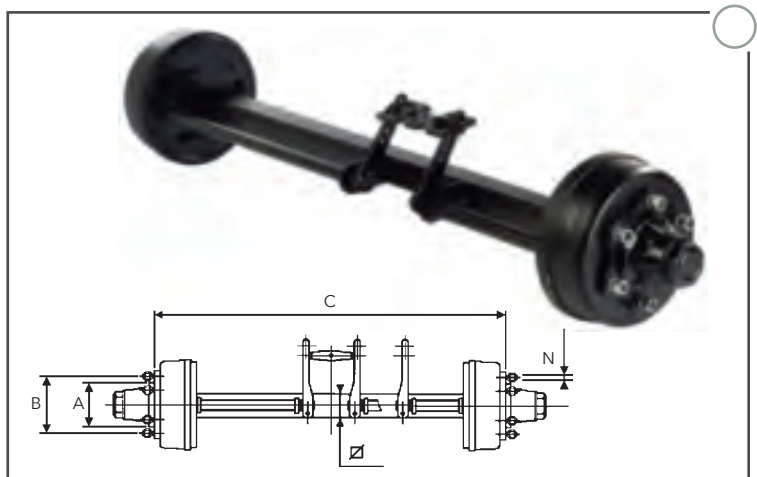
- centered
- 300 mm offset left
- 300 mm offset left
- centered
- 200 mm offset left
- 150 mm offset left
- centered
- centered
- centered
- centered
- 200 mm offset left
- 200 mm offset left
- 200 mm offset left



Backmatic brake 300 x 90

## Brake lever

- 200 mm offset left
- 200 mm offset left



Backmatic brake 350 x 90

# Brake information

Wheel brake	Type	smallest wheel [Inch]	Speed [km/h]	Stat. radius of the wheel [mm]	Brake load per axle [kg]
250x60	256E	13	25	270	5330
			25	380	3790
			40	270	3600
			40	390	2560
			CE	360	2400
300x60	306E	15	25	330	7810
			25	470	5490
			40	330	4840
			40	470	3400
			CE	397	3300
300x90	309E	15	25	350	11860
			25	600	6920
			40	350	8890
			40	520	5990
			CE	437	5400
300x135	314E (KB)	15	25	350	14570
			25	600	8500
			40	350	10490
			40	570	6450
			CE	380	8000
300x135	314E (KF)	15	40	350	10490
			40	520	7070
			CE	388	8000
400x80	408E	19.5	40	421	9450
			40	700	5690
			CE	560	7000
406x120	412E	20.5	40	430	16930
			40	740	9840
			CE	560	11500
406x140	414E	20.5	40	430	19340
			40	740	11250
			CE	560	12000
420x180	4218E	20.5	40	420	19330
			40	560	14500
			CE	560	13000



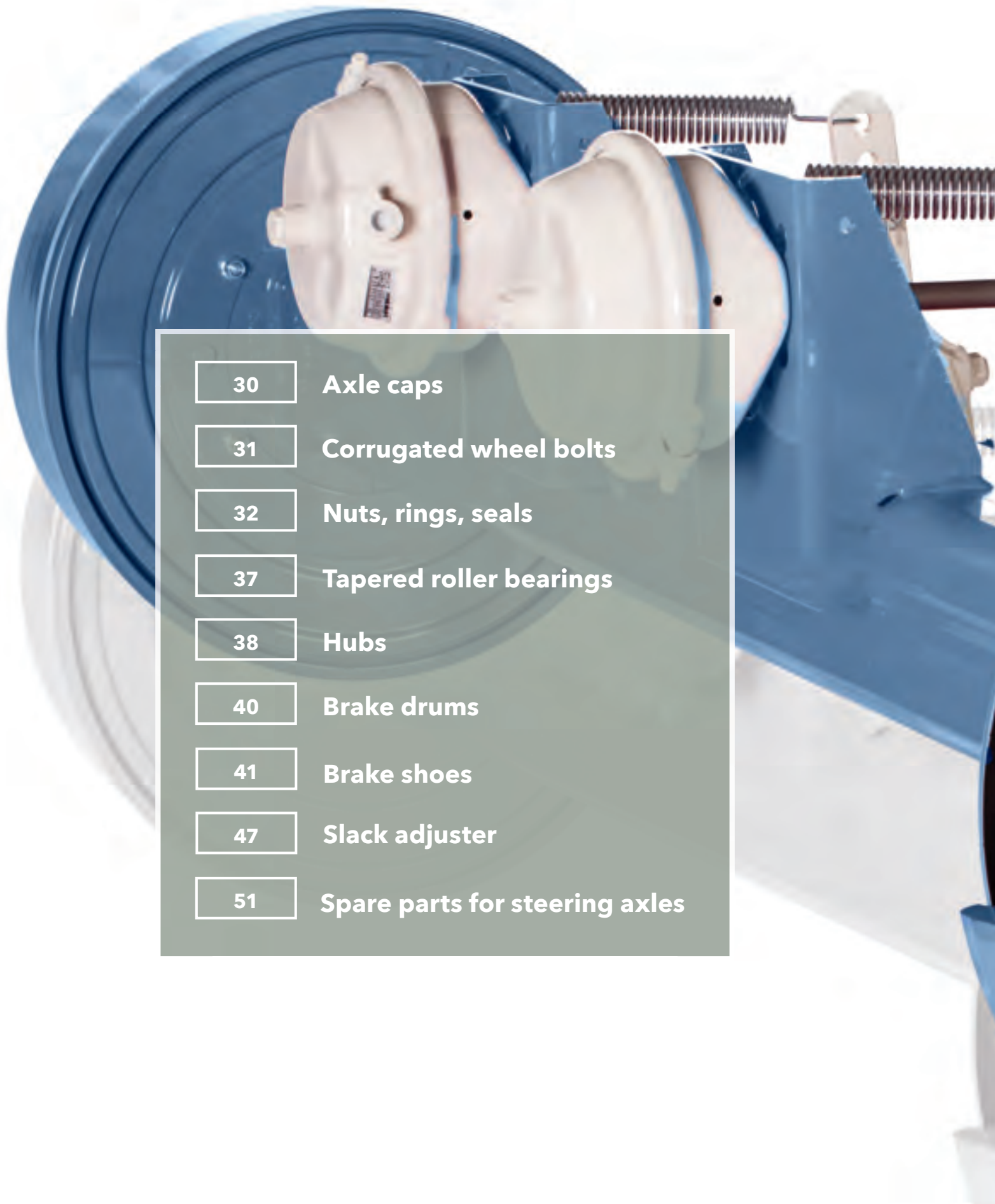
# Stub axles and Axles

Wheel brake	Type	smallest wheel [Inch]	Speed [km/h]	Stat. radius of the wheel [mm]	Brake load per axle [kg]
420x200	4220E	20.5	40	490	19530
			40	660	14500
			CE	546	13500
300x90	309R	15	25	400	11600
			25	580	8000
			40	380	7579
			40	480	6000
			40	481	6497
			40	625	5000
			CE	400	5000
CE	500	4000			

All specifications correspond to the brake assessments published by the manufacturer. We reserve the right to make technical changes without notice.

Payload not equal to brake load.





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**Axle caps**

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**Corrugated wheel bolts**

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**Nuts, rings, seals**

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**Tapered roller bearings**

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**Hubs**

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**Brake drums**

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**Brake shoes**

47

**Slack adjuster**

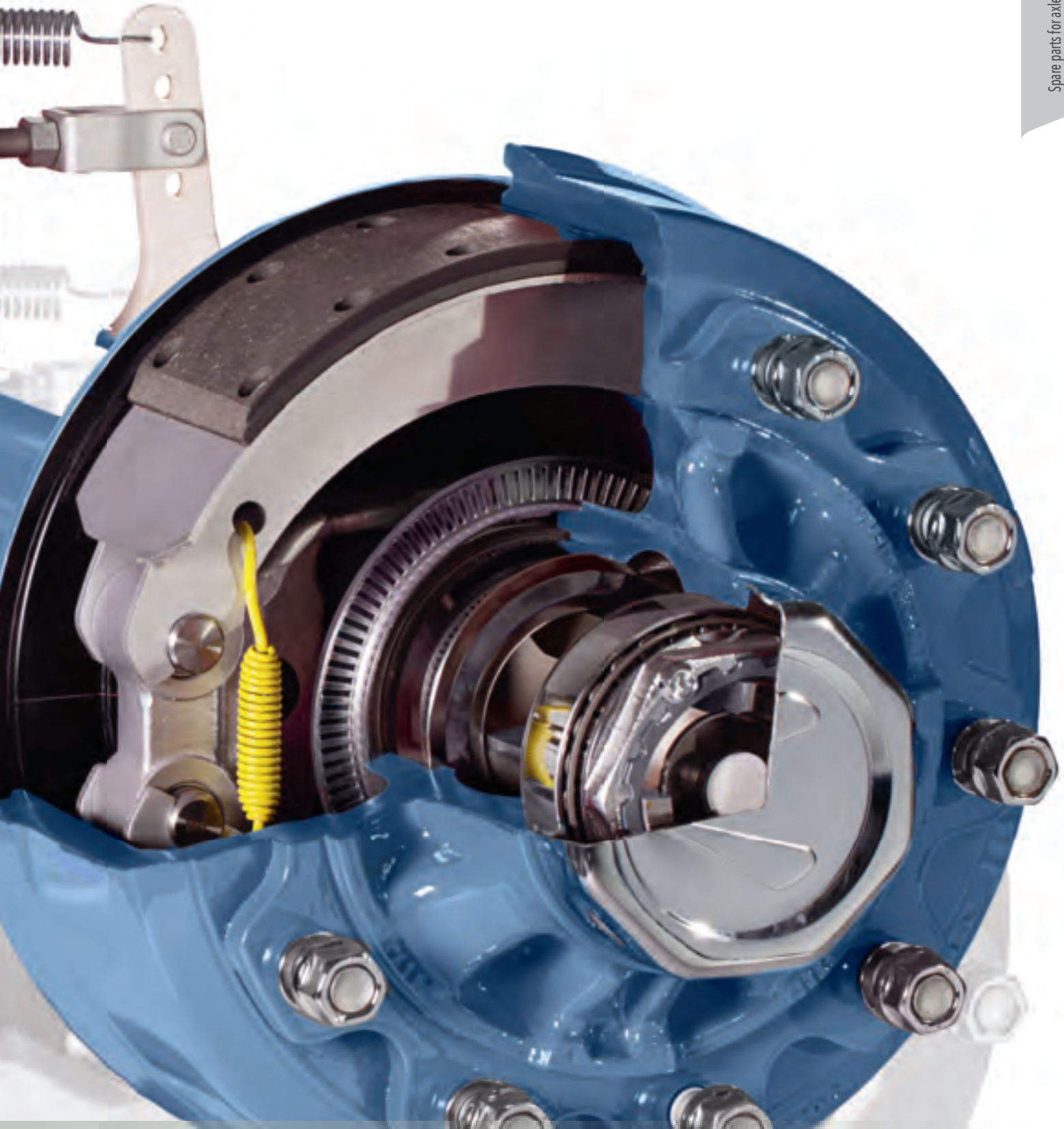
51

**Spare parts for steering axles**

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## Axle caps for hammering in

Item no.	ADR reference number	Ø [mm]	Height [mm]	SW [mm]
405.01.100	912T47 / 56104703	47	25	44
405.01.120	912T52 / 56105203	52	27	49
405.01.140	912T62 / 56106203	62	31	58
405.01.160	912T72 / 56107203	72	34	70
405.01.180	912T80 / 56108003	80	40	77
405.01.200	912T90 / 56109003	90	47	85
405.01.220	912T100 / 56110002	100	50	95
405.01.240	912T110	110	33	100
405.01.260	912T120	120	37	113

## Axle caps for screwing forwards

incl. cap sealing ring and fixing screws

Item no.	ADR reference number	Bolt circle Ø [mm]	Height [mm]	Screws
405.01.267	56111028	124	58.5	6 x M8 x 1.25
405.01.280	912T125AC / 56112518	139	61.5	6 x M8 x 1.25
405.01.295	56113018	144	80.0	6 x M8 x 1.25
405.01.298	56115003	164	86.5	6 x M8 x 1.25

## Axle caps for screwing in

with internal thread

Item no.	ADR reference number	Internal threads [mm]	Height [mm]
405.01.296	56312002	M135 x 2.0	69



Axle cap for Hammering in



Axle cap for Screwing forwards



Axle cap for screwing in

## Corrugated wheel bolts

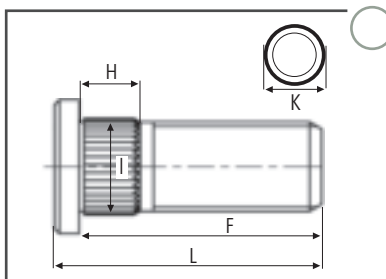
Item no.	ADR reference number	Thread	Dimension H [mm]	Dimension I [mm]	Dimension F [mm]	Dimension L [mm]	Dimension K [mm]	Version
405.01.700	57112B1 / 903C12	M12 x 1.5	7.0	13.5	36	40	16	A
405.01.720	57114B1 / 903C14	M14 x 1.5	9.0	15.5	41	45	18	A
405.01.730	57116B1 / 903C16	M16 x 1.5	10.5	17.0	45	50	20	A
405.01.740	57118B1 / 903C18	M18 x 1.5	11.0	19.5	49	54	27	A
405.01.741	57118B10 (geomet)	M18 x 1.5	11.0	19.5	49	54	27	A
405.01.760	57118B2 / 903C16/01	M18 x 1.5	11.0	19.5	49	54	27*	A
405.01.765	57118B15	M18 x 1.5	13.0	21.5	49	55	30	A
405.01.770	57118B3 / 903C18L	M18 x 1.5	13.0	19.5	60	65	27*	A
405.01.771	57118B11 (geomet)	M18 x 1.5	13.0	19.5	60	65	27*	A
405.01.780	57118B4 / 903C18L1	M18 x 1.5	24.0	19.5	61	67	30*	B
405.01.790	57118B5 / 903C18L2	M18 x 1.5	24.0	19.5	75	81	30*	B
405.01.800	57120B1 / 903C20	M20 x 1.5	13.0	21.5	59	65	30*	A
405.01.820	57120B4 / 903C20L1	M20 x 1.5	27.0	21.5	74	80	30*	B
405.01.830	57120B5 / 903C20L02	M20 x 1.5	27.0	21.5	87	93	30*	B
405.01.840	57122B2 / 903C22	M22 x 1.5	14.0	24.1	71	77	33	A
405.01.825	57122B15	M22 x 1.5	31.0	24.1	80	89	32,4*	B
405.01.860	57122B16 (replaces 57122B4)	M22 x 1.5	29.0	24.1	93	102	33*	B
405.01.870**	57122B5	M22 x 1.5	34.5	21.5	80	90.5	32	B
405.01.880	57122B1	M22 x 1.5	14.0	24.1	84	90	33	A
405.01.862	57124B6	M24 x 1.5	47.0	25.0	123	133	35*	B

geomet = zinc-aluminium lamellae coating

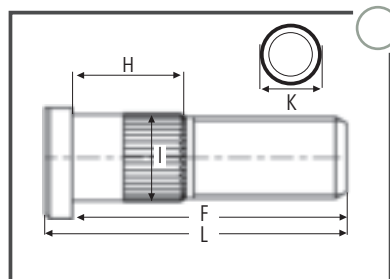
\* flattened  
\*\* = coarse corrugation



Corrugated wheel bolts



Version A



Version B

# Spare parts for ADR axles



## Wheel nuts

Item no.	Designation	Thread	Wrench size [mm]	Height [mm]	Surface
404.81.030	Ball collar nut	M14 x 1.5	19	20	galvanized
404.81.120	Flat collar nut	M14 x 1.5	19	15	black
404.81.050	Ball collar nut	M18 x 1.5	24	25	dacrometised
404.81.055	Ball collar nut	M18 x 1.5	24	25	galvanized
404.81.140	Flat collar nut	M18 x 1.5	24	18	black
404.81.300	Flat collar nut with pressure plate	M18 x 1.5	27	25	black
405.01.407*	Flat collar nut	M18 x 1.5	24	18	galvanized
404.81.059	Ball collar nut	M20 x 1.5	27	27	black
404.81.150	Flat collar nut	M20 x 1.5	27	20	black
404.81.310	Flat collar nut with pressure plate	M20 x 1.5	30	26	black
405.01.405*	Flat collar nut	M20 x 1.5	30	20	galvanized
404.81.160	Flat collar nut	M22 x 1.5	27	22	black
404.81.170	Flat collar nut	M22 x 1.5	30	22	black
404.81.315	Flat collar nut with pressure plate	M22 x 1.5	32	26	geometricized
405.01.408*	Flat collar nut	M22 x 1.5	30	22	galvanized

\* original ADR item

dacrometised = zinc-aluminium chromate compound  
geometricized = zinc-aluminium lamellae coating

## Limit rings/centering rings

Item no.	Designation	Inner/ Outer Ø [mm]	Height [mm]	Surface
404.81.720	Limit ring	16.5 / 27	7	black
404.81.730	Limit ring	18.5 / 29	8	black
404.81.760*	Centering ring	18.5 / 29	3.4	galvanized
404.81.761*	Limit ring	18.5 / 29	7	galvanized
404.81.860	Reducing ring**	18.5 / 31	8	galvanized

\* original ADR item

\*\* for reduction of 27mm bolt holes to 21.5mm (M22 ->M18)



Flat collar nut



Flat collar nut with pressure plate



Ball collar nut



Limit ring



Centering ring



Reducing ring



## Limit rings/centering rings

Item no.	Designation	Inner/outer Ø [mm]	Height [mm]	Surface
404.81.830	Centering ring	20.2 / 32	6	black
404.81.740	Limit ring	20.5 / 34	8	black
404.81.835	Centering ring	22.2 / 32	5.5	black
404.81.750	Limit ring	22.5 / 34	8	black
404.81.762*	Limit ring	22.5 / 34	8	galvanized
404.81.800*	Centering ring	22.5 / 34	6	galvanized

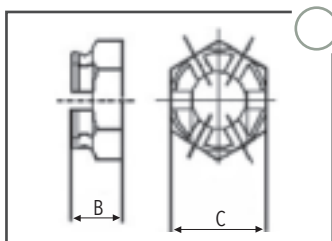
\* original ADR article

## Castle nuts

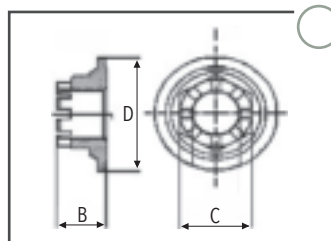
Item no.	ADR Reference number	Thread	Dimension B [mm]	SW C [mm]	Dimension D [mm]	Figure
405.01.400	57518B1 / 908DF18E	M18 x 1.5	16	27		A
405.01.410	57520B1 / 908DF20E	M20 x 1.5	17	32		A
405.01.415	57524B2 / 908DF24	M24 x 1.5	26	38		A
405.01.420	57527B1 / 908DF27E	M27 x 1.5	20	41		A
405.01.440	57530B1 / 908DF30	M30 x 1.5	23	41		A
405.01.460	57530B2 / 908DF30E	M30 x 1.5	23	46		A
405.01.480	57539B1 / 908DF39/50	M39 x 1.5	28	50		A
405.01.500	57539B2 / 908DF39/60	M39 x 1.5	30	60		A
405.01.520	57548B5 / 908DF48/70	M48 x 1.5	38	65	96	B
405.01.560	57548B6 / 908DF48/80 / 908DF48/65	M48 x 1.5	44	65	108	B
405.01.582	57552D1	M52 x 2.0	34	70	79	A
405.01.583	57558B1	M58 x 1.5	40	80	100	B
405.01.580	57570D1 / 908DF70/90	M70 x 2.0	55	90	116	B
405.01.581	57590D3	M90 x 2.0	53	120	146	B



Crown nut



Crown nut version A



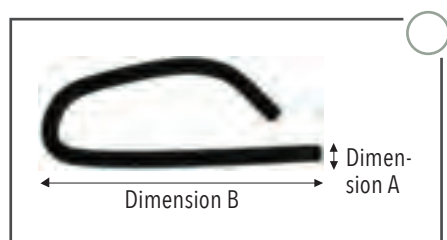
Crown nut version B

## Spring split pins for crown nut

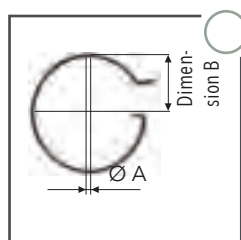
Item no.	ADR reference number	Dimension A [mm]	Dimension B [mm]	for Crown nut	Figure
405.02.600	58201 / 914C18E	2	34	405.01.400	A
405.02.610	58202 / 914C20E	2.5	38	405.01.410	A
405.02.615	58203 / 914C24E	3.5	50	405.01.415	A
405.02.620	58204 / 914C27E	3	50	405.01.420	A
405.02.630	58205 / 914C39E	4	64	405.01.480	A
405.02.640	58209 / 914C48E	5	58	405.01.520	A
405.02.645	58212	5	70	405.01.583	A
405.02.650	58207 / 914C70E	7	106	405.01.580	A
405.02.660	58108	8	36	405.01.580	B

## Seals

Item no.	ADR reference number	Inner Ø [mm]	Outer Ø [mm]	Height [mm]	Figure
405.00.700	5410521 / 915PG26	25	52	4	1
405.00.720	5410471 / 915PG20	20	47	4	1
405.00.740	5410621 / 915PG30	30	62	4	1
405.00.760	5410721 / 915PG35	35	72	4	1
405.00.770	5490722 / 915PGL3572F	37	74	12	2
405.00.780	5410801 / 915PG40	40	80	4	1
405.00.800	5410851 / 915PG45	45	85	4	1
405.00.820	5410901 / 915PG50	50	90	4	1
405.00.840	5411001 / 915PG55	55	100	4	1
405.00.860	5411002 / 915PG65	65	100	4	1



Spring split pin - Version A



Spring split pin - Version B



Seal Fig. 1



Seal Fig. 2

## Seals

Item no.	ADR reference number	Inner Ø [mm]	Outer Ø [mm]	Height [mm]	Figure
405.00.880	5411201 / 915PG65	65	120	4	1
405.00.900	5411251	70	125	5	1
405.00.920	5411301	75	130	10	3
405.00.940	5411401	80	140	4	1
405.00.942	5471403	82	160	19	5
405.00.943	5441251	72	125	10	2
405.00.945	5441301	77	130	10	3
405.00.947	5451302	77	130	10	4
405.00.949	5441402	92	140	10	3
405.00.950	5441502	92	150	12	4
405.00.951	5441503	102	150	12	4
405.00.952	5441501	87	150	12	4
405.00.956	5441561	96.5	156.5	23	2
405.00.960*	915PGTG125	125	145	10	4
405.00.979	5451002	56	100	10	2
405.00.980*	915PGTG140	140	160	12	4
405.00.988	5451001	56	100	10	2
405.01.350	5441401	82	140	10	3

\* Gasket set consisting of metal ring + rubber gasket



Seal Fig. 1



Seal Fig. 2



Seal Fig. 3



Seal Fig. 4



Seal Fig. 5

## Nilos rings

Item no.	ADR reference number	for bearings	Inner Ø mm	Outer Ø mm	Figure
405.01.300	5510521 / 915 N 30205	30205	27	52	2
405.01.303	5510621 / 915 N 30206	30206	33	62	2
405.01.302	5510721 / 915 N 30207	30207	42	72	2
405.00.998	5510801 / 915 N 30208	30208	45	80	2
405.01.305	5510851 / 915 N 30209	30209	45	85	2
405.01.340	57B4802	for bearing pair "UA" 33114/33018	48	90	3
405.01.352	530801 / 915PA 52	32210	52	80	4
405.01.306	5510901 / 915 N 30210	30210	52.5	90	1
405.01.341	57B5301	for bearing pair "XL/XJ" 33213/33118	53	165	3
405.01.351	5530891 / 915 PA 57	32211	57	89	4
405.00.995	5511001 / 915 N 30211	30211	58	100	1
405.00.991	5530991 / 915 - PA 62	32212	62	99	4
405.01.310	5511302	33116	62	99	2
405.01.342	5531091	33213	67	109	4
405.00.999	5510991 / 915 N 32013	32013	70	100	2
405.00.990	5531141 / 915 - PA 72	32214	72	114	4
405.01.307	5531092	33114	72	109	3
405.01.309	5511201 / 915 N 30213	30213	74.5	120	1
405.01.315	5511251 / 915 N 32214	32214	76.5	125	1
405.00.992	5531191 / 915 - PA 77	33215	77	118	4
405.00.993	5511301 / 915 N 32215	32215	80	130	1
405.01.320	5511401 / 915 N 32216	32216	87	140	1
405.01.325	5511402	33018	90	140	1
405.01.361	5531391	33118	91	139	4
405.00.994	5511502 / 915 N 32217	32217	92	149	1
405.00.996	5511451 / 915 N JM 718	JM718	95	145	1
405.01.343	5511503	33118	95	150	1
405.01.330	5511501 / 915 N 33020	33020	104	150	1
405.01.360	5511801	33122	115	180	1
405.01.344	58506	for bearing pair "XL/XJ" 33213/33118	148	165	5



Nilos ring Fig. 1



Nilos ring Fig. 2



Nilos locking ring Fig. 3



Nilos ring Fig. 4

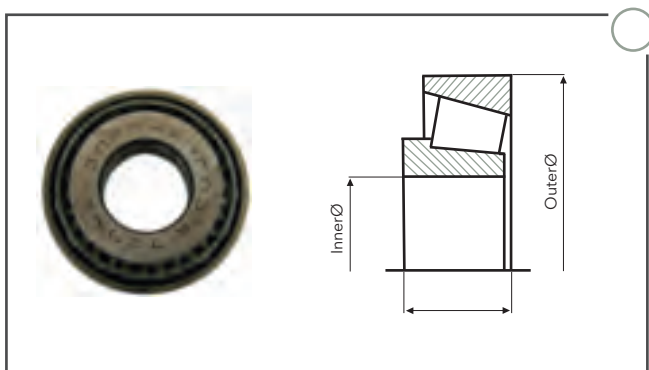


Nilos fixing ring Fig. 5



## Tapered roller bearings

Item no.	ADR reference number	Type	Inner Ø [mm]	Outer Ø [mm]	Height [mm]
405.06.000	59130204 / 902CC30204	30204	20	47	15.25
405.06.010	59130205 / 902U30205	30205	25	52	16.25
405.06.020	59130206 / 902CC30206	30206	30	62	17.25
405.06.030	59130207 / 902CC30207	30207	35	72	17.25
405.06.040	59130208 / 902CC30208	30208	40	80	19.75
405.06.050	59130209 / 902CC30209	30209	45	85	20.75
405.06.060	59130210 / 902CC30210	30210	50	90	21.75
405.06.110	59132210 / 902CC32210	32210	50	90	24.75
405.06.070	59130211 / 902CC30211	30211	55	100	22.75
405.06.120	59132211 / 902CC32211	32211	55	100	26.75
405.06.130	59132212 / 902CC32212	32212	60	110	29.75
405.06.090	59130213 / 902CC30213	30213	65	120	24.75
405.06.100	59132013 / 902CC32013	32013	65	100	23.00
405.06.140	59132213 / 902CC32213	32213	65	120	32.75
405.06.145	59133213 / 902CC33213	33213	65	120	41.00
405.06.150	59132214 / 902CC32214	32214	70	125	33.25
405.06.210	59133114	33114	70	120	37.00
405.06.160	59132215 / 902CC32215	32215	75	130	33.25
405.06.240	59133215	33215	75	130	41.00
405.06.170	59132216	32216	80	140	35.25
405.06.180	59132217 / 902CC32217	32217	85	150	38.50
405.06.190	59133018	33018	90	140	39.00
405.06.215	59133118	33118	90	150	45.00
405.06.230	902 CC 18149/110	JM 718	90	145	35.00
405.06.200	59133020 / 902CC33020	33020	100	150	39.00
405.06.220	59133122	33122	110	180	56.00



Tapered roller bearings

# Spare parts for ADR axles



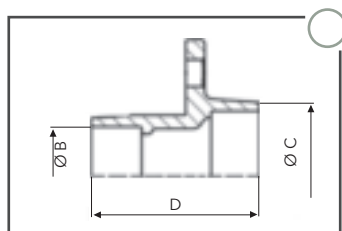
## Hubs

Item no.	ADR reference number	Wheel connection	Bearing pair	Bearing seat Ø outer B [mm]	Bearing seat Ø inner C [mm]	Height D [mm]	Version Axle cap
405.02.405	61L06072090150 / 61L6KA004	6/161/205, M18 x 1.5	30210/30207	72	90	106	Hammer in
405.02.300	61L06080100150 / 61L6LA001	6/161/205, M18 x 1.5	30211/30208	80	100	118	Hammer in
405.02.301	61L06090120150 / 61L6LA019	6/161/205, M18 x 1.5	30211/30208	80	100	118	Hammer in
405.02.320	61L06090120150 / 61L6NA002	6/161/205, M18 x 1.5	30211/30208	90	120	148	Hammer in
405.02.340	904L890/120 / 61L8NA003	8/220/275, M20 x 1.5	32212/32215	90	120	148	Hammer in
405.02.322	61L06110130350 / 61L6RD002	6/161/205, M18 x 1.5	32215/32212	110	130	155	Screw forwards
405.02.323	61L06110130250 / 61L6RD009	6/161/205, M18 x 1.5	32215/32212	110	130	155	Hammer in
405.02.325	61L06110130250 / 61L6RD001	6/161/205, M18 x 1.5	32215/32212	110	130	176	Hammer in
405.02.399	61L08110130360 / 61L8RD002	8/220/275, M20 x 1.5	32212/32215	110	130	155	Screw forwards
405.02.401	61L08110130250	8/220/275, M18 1,5	32215/32212	110	130	176	Hammer in
405.02.402	61L10110130470	10/280/335, M22 x 1.5	32212/32215	110	130	181	Hammer in
405.02.342	61L08120140360	8/220/275, M18 x 1.5	32213/32216	120	140	160	Screw forwards
405.02.504	61L10120140270	10/280/335, M22 x 1.5	32213/32216	120	140	177	Hammer in
405.02.506	61L1TD002	10/280/335, M22 x 1.5	32213/32216	120	140	160	Hammer in
405.02.508*	61L1UA004	10/280/335, M22 x 1.5	33114/33018	120	140	198	Screw forwards
405.02.542	61L8UA002	8/220/275, M20 x 1.5	33114/33018	120	140	198	Screw forwards
405.02.543	61L1UA003	10/280/335, M22 x 1.5	33114/33018	120	140	198	screw forwards
405.02.547	61L1XL004	10/280/335, M22 x 1.5	33118/32313	120	150	206	screw up
405.02.548	61L1XL002	10/280/335, M22 x 1.5	33118/32313	120	150	191	screw forwards
405.02.520	61L08125150160	8/220/275, M20 x 1.5	32214/32217	125	150	167	screw forwards
405.02.540	61L10125150170 / 61L8UI002	10/280/335, M22 x 1.5	32214/32217	125	150	167	screw forwards
405.02.541	61LRUI001	10/176/225, M22 x 1.5	32214/32217	125	150	167	screw forwards
405.02.465	61L10130145170	10/280/335, M22 x 1.5	32215/JM718149	130	145	170	screw forwards
405.02.466	61L1013014517C	10/280/335, M22 x 1.5	32215/JM718149	130	145	170	screw forwards
405.02.545	61L10130150170 / 61L1VI001	10/280/335, M22 x 1.5	33215/33020	130	150	204	screw forwards
405.02.525	61L1WA001	10/280/335, M24 x 1.5	33122/32226	180	230	270	screw forwards

\* with grease nipple



Hub



Hubs - Drawing

## Drum hubs

Item no.	ADR reference number	Wheel connection	Bearing pair	Bearing seat Ø outer B [mm]	Bearing seat Ø inner C [mm]	Brake size	Height [mm]
405.00.010	65LF08010010650 / 65L6LA06	6/161/205 M18 x 1.5	30208/30211	100	80	300x60	158
405.00.012	65LF09012010650 / 65L6NA02	6/161/205 M18 x 1.5	32210/30213	120	90	300x60	176

## Cover plates for brake drums

Item no.	ADR reference number	Brake size	Brake type	Axle beam VKT [mm]	Year of construction	Mounting- side	Figure
405.05.010	9RM0002	300x100, 300x135	310S, 314S	all	-	-	1
405.05.005	9RM0004-110	300x100, 300x135, 300x160	310E, 314E, 316	110	-	-	2
405.05.006	9RM0004-100	300x100, 300x135, 300x160	310E, 314E, 316	100	-	-	2
405.05.007	9RM0004-90	300x100, 300x135, 300x160	310E, 314E, 316	90	-	-	2
405.05.008	9RM0004-80	300x100, 300x135, 300x160	310E, 314E, 316	80	-	-	2
405.05.009	9RM0004-70	300x100, 300x135, 300x160	310E, 314E, 316	70	-	-	2
405.04.998	9RM0006-140	406x120, 406x140	406A, 412S, 414S	140	until 2002	-	3
405.05.001	9RM0006-120	406x120, 406x140	406A, 412S, 414S	120	until 2002	-	3
405.05.002	9RM0006-110	406x120, 406x140	406A, 412S, 414S	110	until 2002	-	3
405.05.003	9RM0006-100	406x120, 406x140	406A, 412S, 414S	100	until 2002	-	3
405.05.011	9RM003	406x120, 406x140	406A, 412S, 414S	90	until 2002	-	4
405.05.012	9RM004	406x120, 406x140	406A, 412S, 414S	100	until 2002	-	4
405.05.013	9RM005	406x120, 406x140	406A, 412S, 414S	110	until 2002	-	4
405.05.014	9RM006	406x120, 406x140	406A, 412S, 414S	120	until 2002	-	4
405.05.015	9RM008	406x120, 406x140	406A, 412S, 414S	140	until 2002	-	4
405.05.034	9RM042	406x120	412E	130	-	-	4
405.05.035	9RM044	406x120	412E	150	-	-	4
405.05.036	9RM054	406x140	414E	130	-	-	4
405.05.037	9RM056	406x140	414E	150	-	-	4
405.05.020	9RM0012	420x180, 420x200	4218S, 4220S	150	-	right	2
405.05.021	9RM0014	420x180, 420x200	4218S, 4220S	150	-	left	2
405.05.025	9RM018	420x180	4218E	150	-	-	4
405.05.027	9RM030	420x200	4220E	150	-	-	4

Quantity: 1 set each for 1 brake drum



Drum hub



Cover plate  
Fig. 1



Cover plate  
Fig. 2



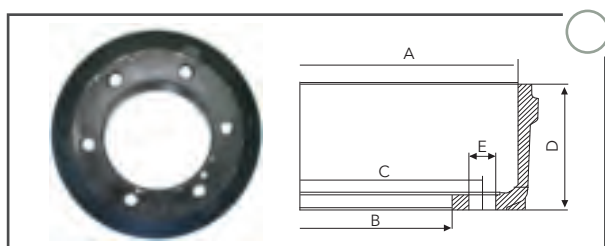
Cover plate  
Fig. 3



Cover plate  
Fig. 4

## Brake drums

Item no.	ADR reference number	Brake size	Dimension A [mm]	Dimension B [mm]	Dimension C [mm]	Dimension D [mm]	Dimension E [mm]
405.00.020	66LF0630 / 66LFG0602	300x60	300	160	205	90	6x20
405.00.040	66LJ0603 / 66LJB0602	300x90, 300x100	300	160	205	132	6x20
405.00.060	66LJ0840 / 66LJB0801	300x135, 300x100	300	220	275	128	8x20
405.00.080	66LK0630 / 66LKB0601	300x135	300	160	205	176	6x20
405.00.100	66LK0840 / 66LKB0802	300x135	300	220	275	175	8x22
405.00.105	66LK1R50 / 66LKB1R01	300x135	300	185	225	176	10x22
405.00.110	66LP1R50 / 66LPA1R01	300x160	300	176	225	203	10x25
405.00.120	906TL350608 / 66LNF0803	350x60	350	220	275	92	8x22
405.00.130	66LT0630 / 66LTG0630	400x80	400	160	205	119	6x20
405.00.160	66LT0840 / 66LTG0801	400x80	400	220	275	119	8x22
405.00.180	66LT1050 / 66LTG1001	400x80	400	280	335	118	10x25
405.00.200	66LV0840 / 66LVA0801	406x120	406	220	275	162	8x22
405.00.201	66LVA1006	406x120 (412E)	406	280	335	165	10x22
405.00.202	66LVA1008	406x120 (412E)	406	290	335	165	10x22
405.00.220	66LV1050 / 66LVA1001	406x120	406	280	335	162	10x25
405.00.240	66LW0840 / 66LWA0801	406x140	406	220	275	178	8x22
405.00.260	66LW1050 / 66LWA1050	406x140	406	280	335	177	10x25
405.00.270	66LXA1002	420x180 (4218E)	420	280	335	227	10x25
405.00.271	66LXA1001	420x180 (4218E/S)	420	290	335	227	10x23
405.00.280	66LYA1002	420x200	420	290	335	259	10x23



Brake drum



## Brake shoes 300 x 60

Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Dimension B [mm]	Scope of delivery	Reversing automatic	Compressed air	Figure
405.00.400	9FCA300Z0 / 731FD01	30G/306E*	236	-	1 set = 2 pieces with springs		x	1
405.00.430	9FC30GRMAP/9FC30GRMAA	30GA	170	177	1 set = 2 pieces	x		2

Note: The enclosed adapter for the mounting bolt must be used for the old type 30G wheel brakes. The adapter is not required for brake 306E.

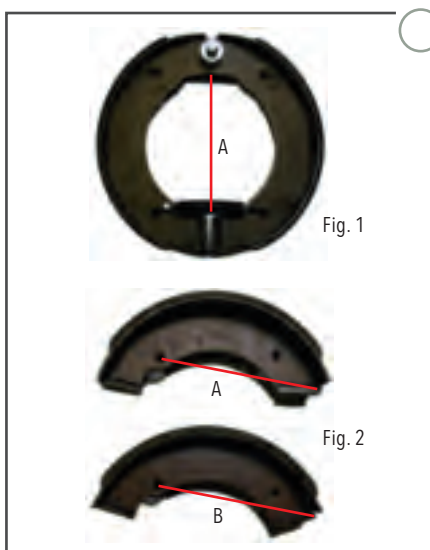
## Brake shoes 300 x 90

Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Dimension B [mm]	Scope of delivery	Reversing automatic	Compressed air	Figure
405.00.462	731IC01 + 921B309E30S	30S/309E*	240	-	1 set = 2 pieces with springs		x	1
405.00.510	9FC30SRMAA + 9FC30SRMAP	30 SA	170	175	1 set = 2 pieces	x		2
405.00.502	9FC309A / 732IT01	309R	220	-	Single shoe	x		3

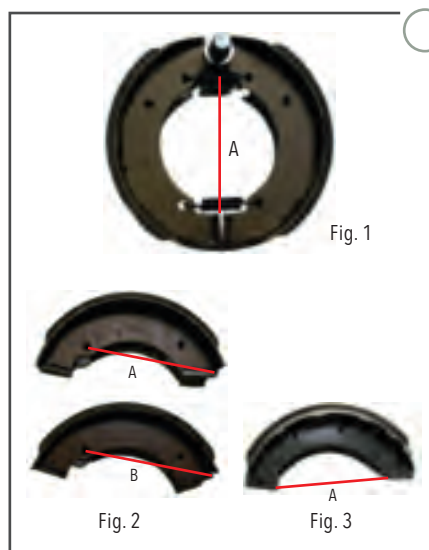
Note: The enclosed adapter for the mounting bolt must be used for the old type 30G wheel brakes. The adapter is not required for brake 309E.

## Brake shoes 300 x 135

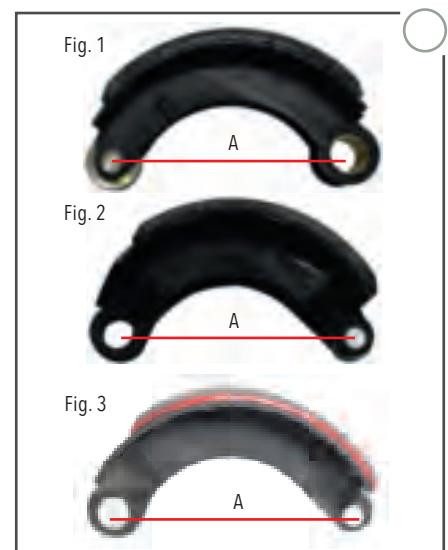
Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Dimension B [mm]	Figure
405.00.520	9FC314N	314S	215		1
405.00.522	9FC314E / 732KB01	314E (KB)	225		2
405.00.524	732KF01	314E (KF)	225		3



Brake shoe 300 x 60



Brake shoe 300 x 90



Brake shoe 300 x 135

# Spare parts for ADR axles



## Brake shoes 300 x 160

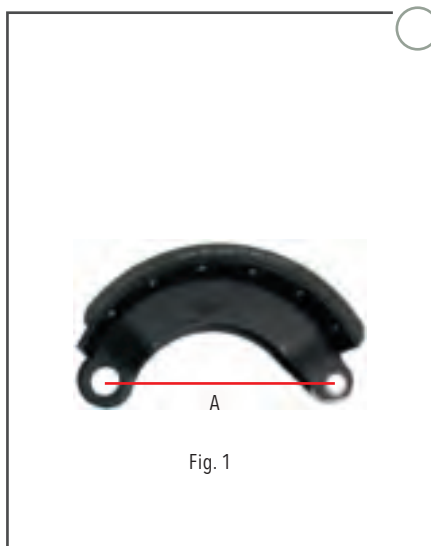
Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Scope of delivery	Figure
405.00.530	9RE0028	316	224	1 set = 2 pieces with springs	1

## Brake shoes 350 x 60

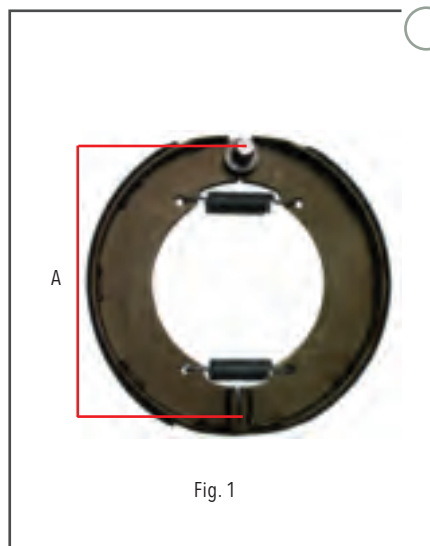
Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Scope of delivery	Figure
405.00.540	73NF01 / 9FC350ZO	35 G	285	1 set = 2 pieces with springs	1

## Brake shoes 400 x 80

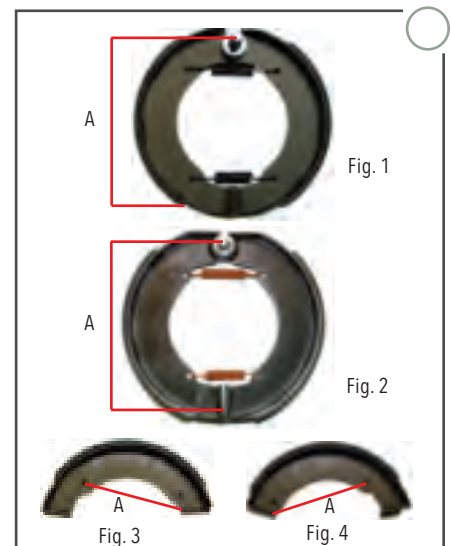
Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Scope of delivery	Reversing automatic	Compressed air	Figure
405.00.561	731TG01 / 921B408E40G	408E	320	1 set = 2 pieces with springs		x	1
405.00.570	9FCI400ZO	A61	310	1 set = 2 pieces with springs		x	2
405.00.600	9FCI40GRMA	40GA	265	Single shoe, primary	x		3
405.00.610	9FCI40GRMP	40GA	260	Single shoe, secondary	x		4



Brake shoe 300 x 160



Brake shoe 350 x 60



Brake shoe 400 x 80

## Brake shoes 406 x 120

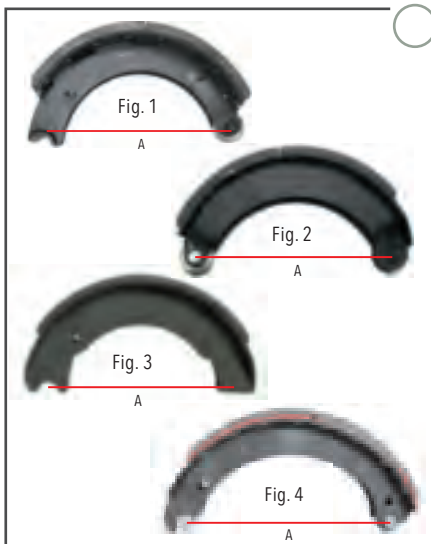
Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Scope of delivery	Figure
405.00.580	732VZ01 / 9FCI406	A910S	320	Single shoe	1
405.00.585	732VA01 / 9FC412	412S	314	Single shoe	2
405.00.587	732VC03	412E	315	Single shoe	4

## Brake shoes 406 x 140

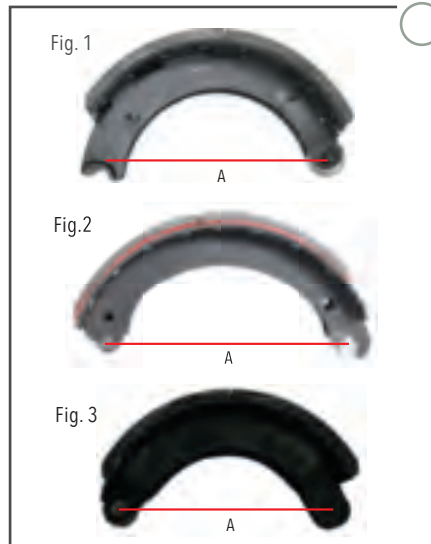
Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Scope of delivery	Figure
405.00.590	9FCI40614	940S	320	Single shoe	1
405.00.592	732WC03	414E	310	Single shoe	2
405.00.595	732WA01 / 9FC414	414S	312	Single shoe	3

## Brake shoes 420 x 180

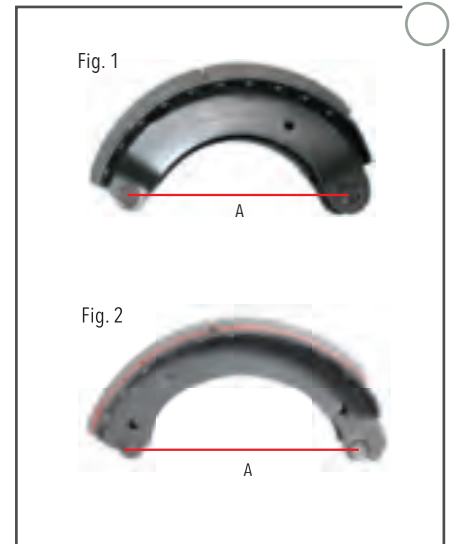
Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Scope of delivery	Figure
405.00.620	732XA01	4218S	320	Single shoe	1
405.00.625	732XC03	4218E	310	Single shoe	2



Brake shoe 406 x 120



Brake shoe 406 x 140



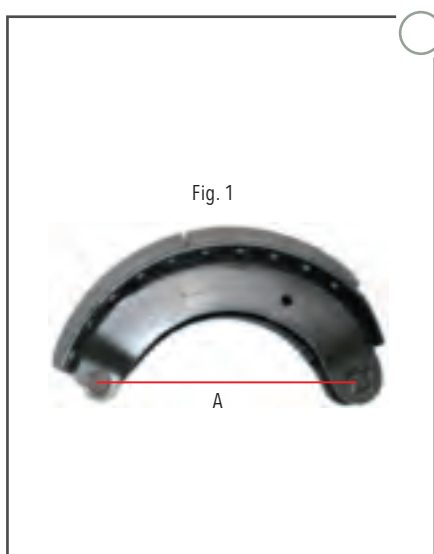
Brake shoe 420 x 180

# Spare parts for ADR axles

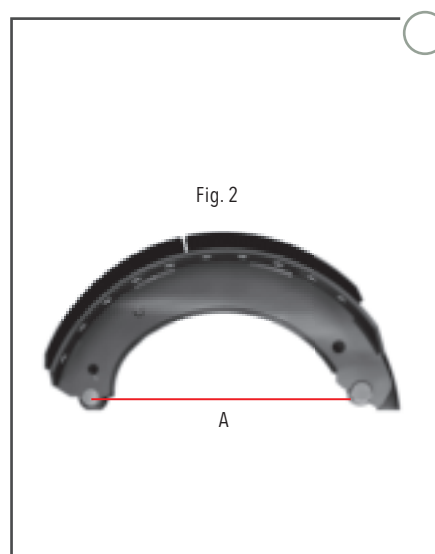


## Brake shoes 420 x 200

Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Scope of delivery	Figure
405.00.630	732YA01	4220S	320	Single shoe	1
405.00.632	732YC02	4220E	310	Single shoe	2



Brake shoe 420 x 200



Brake shoe 420 x 200



## Brake shoe springs

Item no.	ADR reference number	Wheel brake	Dimension A [mm]	Dimension B [mm]	Dimension C [mm]	Dimension D [mm]	Figure
405.02.000	738108	30G, 306E	80	175	4.5	19.5	2
405.02.040	738106	30S, 309E	55	100	4.0	17.0	4
405.02.060	738104 / 914M300/15	30S, 309E	47	80	3.0	15.0	4
405.02.070	738111 / 914M309A/15	309R	65	115	3.0	15.0	6
405.02.072	738112 / 914M309A/20	309R	175	77	3.0	20.0	9
405.02.080	738110 / 914M300/23	35G, 356E	68	122	4.0	23.0	4
405.02.100	738117 / 914M400/25	40G, 40GA, 408E, 406A	75	170	4.5	25.0	4
405.02.120	738109	30SA, 30GA, 40GA	58	175	2.0	18.0	4
405.02.140	738116 / 914M314/26	310S, 310E, 314S, 314E, 316	40	180	4.0	26.5	3
405.02.160	738120 / 914M406/29	A910S - A940S	44	220	3.0	24.0	3
405.02.180	914M40627	A910S - A940S	80	150	3.0	20.0	4
405.02.190	738119 / 914M 412/30	412S, 414S	56	107	5.0	30.0	7
405.02.192	738118 / 914M406/17	406A	45	115	3.5	17.0	4
405.02.195	738124	4128S, 4220S	55	106	55.0	32.0	8
405.02.197	738129	412E, 414E, 4218E, 4220E, 5218E	60	105	5.0	18.0	5
405.02.198	738128	412E, 414E, 4218E, 4220E, 5218E	51	112	5.0	32.0	8



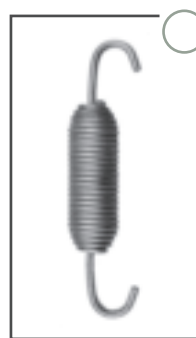
Brake shoe spring 2



Brake shoe spring 3



Brake shoe spring 4



Brake shoe spring 5



Brake shoe spring 6



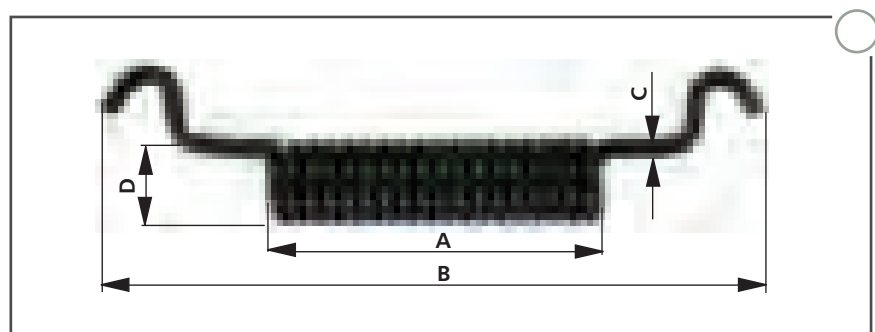
Brake shoe spring 7



Brake shoe spring 8



Brake shoe spring 9



Dimensions

# Spare parts for ADR axles

## Spring compressor (Twist Lock)

Item no.	ADR reference number	Wheel brake	Hole Ø [mm]	Length [mm]	Figure
405.02.832	736WA01	412S, 414S	10	80.0	1
405.02.834	736YA01	4218S, 4220S	10	93.5	2
405.02.835	736XC02	412E, 414E, 4218E, 4220E, 5218E	10	65.0	2

## Brake linings

Item no.	ADR reference number	Wheel brake	Material thickness [mm]	Dimension A [mm]	Dimension B [mm]	Rivet	ben. Quantity per axle [Piece]	Figure
405.00.350*	9RH0006	314E	11	55	90	8x15	4	2
405.00.351*	9RH0020	314S	11	55	90	8x15	4	2
405.00.355	734JB01	310E	11	55	70	8x15	4	2
405.00.360	734VA01 / 9FCI406-GUARN	406A, 406E, 412S, 910S	11	50	88	8x15	8	1
405.00.361	734VC02	412E	15	55	88	8x15	8	1
405.00.363	9FCI 40614-GUARN	940S	15	55	100	8x15	8	1
405.00.364	734WC02	414 E	15	55	100	8x15	8	1
405.00.365	734WA01 / 9FCI414-GUARN	414S	15	55	100	8x15	8	1
405.00.370**	734XA01	4218S, 4218E	11 outer / 17.8 inner	42	130	8x15	8	2
405.00.380	734YA01	4220S, 4220E	11 outer / 17.8 inner	40	150	8x15	8	2

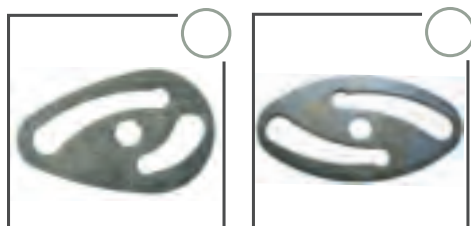
\* 1 set = 2 pieces, incl. rivets and springs \*\* Oversized linings must be turned to size

## Rivets for brake linings

Item no.	Size [mm]	Contents
404.83.070	8 x 15	1 package = 100 pieces

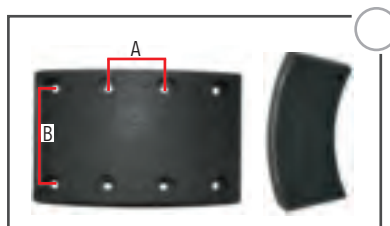


Rivets for brake linings

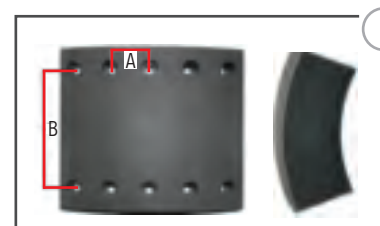


Spring compressors (Twist Lock) 1

Spring compressors (Twist Lock) 2



Brake linings version 1



Brake linings version 2

## Brake lever

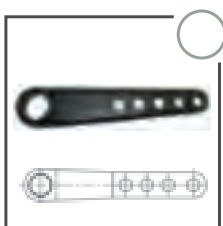
Item no.	Reference number ADR	Teeth	Hole pattern Centre-centre [mm]	Wheel brake	Mounting side
405.56.200	7611503	32	100-125-150-175-200 mm	306A, 309R, 309E, 356E, 408E	all-purpose

## Mechanical slack adjuster

Item no.	Reference number ADR	Teeth	Wheel brake	Mounting side	Hole pattern [mm]
405.56.105	7621603	10	310E, 314E, 316, 3020S, 412S, 412E, 414S, 414E, 4218S, 4218E, 4220S, 4220E, 5218E	Universal, straight	127/152/178/203
405.56.106	7622601	10	310E, 314E, 316, 3020S, 412S, 412E, 414S, 414E, 4218S, 4218E, 4220S, 4220E, 5218E	Left, 30mm cranked	152/178/203
405.56.107	7622602	10	310E, 314E, 316, 3020S, 412S, 412E, 414S, 414E, 4218S, 4218E, 4220S, 4220E, 5218E	Right, 30mm cranked	152/178/203
405.56.108	7623602	10	310E, 314E, 316, 3020S, 412S, 412E, 414S, 414E, 4218S, 4218E, 4220S, 4220E, 5218E	Right, 60mm cranked	152/178/203
405.56.109	7623601	10	310E, 314E, 316, 3020S, 412S, 412E, 414S, 414E, 4218S, 4218E, 4220S, 4220E, 5218E	Left, 60mm cranked	152/178/203
405.56.160	7621501	32	309E, 310S, 314S, 356E, 359E, 406A, 406E, 408E	Universal, straight	100/125/150/175/200

## Automatic slack adjuster (for high-speed machines)

Item no.	ADR reference number	Teeth	Wheel brakes	Mounting side	Hole pattern [mm]
405.56.110	7631502	32	310S, 314S, A910S, A940S	Universal, straight	120/135/150/165/180/225



Brake lever



Slack adjuster straight



Slack adjuster cranked



Automatic Slack adjuster

# Spare parts for ADR axles

## Automatic slack adjuster (for high-speed machines)

Item no.	Teeth	Wheel brake	Scope of delivery	Hole pattern [mm]
405.56.120	10	310E, 314E, 316, 3020S, 412S, 412E, 414S, 414E, 4218S, 4218E, 4220S, 4220E, 5218E	1 set = 2 pieces	120/135/150/165/180/250

## Mounting plate for slack adjuster (automatic)

Item no.	ADR reference number	Wheel brake	Quantity per AGS
405.56.121	76A013	310E, 314E, 316, 412S, 414S	1 piece

## Return springs for brake lever/slack adjuster

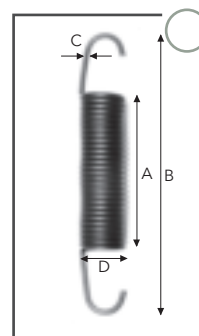
Item no.	Reference number ADR	Wheel brake	Version	Dim. A [mm]	Dim. B [mm]	Dim. C [mm]	Dim. D [mm]	Figure
405.02.200	914MR30 / 738201	310S/310E/314S/314E/316/412S/414S	mechanical slack adjuster	100	180	3.5	30	1
405.02.240	914MR28 / 738203	310S/310E/314S/314E/316/412S/414S	automatic slack adjuster	75	148	2.8	26	2



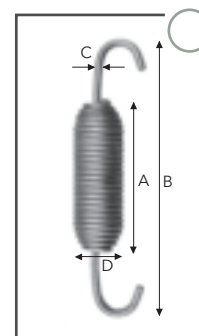
Automatic Slack adjuster set



Mounting plate for slack adjuster



Return spring 1



Return spring 2

## Repair kits for camshaft

Item no.	Reference number ADR	Wheel brake	Scope of delivery	includes	storage
405.04.000	9RL0008	314S	for 1 camshaft	1x O-ring, 2x large bush, 1x small bush, 1x retaining ring, 1x rubber cover, 2x grease nipples	inner + outer
405.04.001	9RL0010	314E,316,412S,414S	for 2 camshafts	2x O-ring, 4x large bush, 2x small bush, 2x retaining ring, 2x rubber cover, 4x grease nipple, 4x U washer	inner + outer
405.04.002	9RL0002	310S, 314S	for 2 camshafts	2x O-ring, 4x large bush, 2x small bush, 2x retaining ring, 2x rubber cover, 4x grease nipple	inner + outer
405.04.006*	9RL010	412E,414E,41218E,4220E	for 1 camshaft	1x bush, 2x housing, 2x rubber cover, 2x bracket, 1x grease nipple, 6x screw, 6x U washer, 6x lock washer, 6x nut	inner
405.05.016	9RL0014	4218S,4220S	for 1 camshaft	2x O-ring, 1x bush, 2x washer, 2x retaining ring, 1x grease nipple, 1x rubber cover, 1x bracket	outer
405.05.017	9RL0020	4218S,4220S	for 1 camshaft	1x bush, 2x housing, 2x rubber cover, 2x clamp, 1x grease nipple, 6x screw, 6x U washer, 6x lock washer, 6x nut	inner
405.05.019	9RL0026	412E,414E,4218E,4220E,5218E	for 1 camshaft	1x large bush, 2x small bush, 2x seal, 2x U washer, 1x retaining ring, 1x bracket, 1x rubber cover, 1x grease nipple	outer
405.05.030*	9RL001	412E,414E,4218S,4218E, 4220S,4220E	for 1 camshaft	1x bush, 2x housing, 2x rubber cover, 2x clamp, 1x grease nipple, 6x screw, 6x U washer, 6x lock washer, 6x nut	inner

\* for axles up to Bj. 2013



# Spare parts for ADR axles



## Base plate for diaphragm cylinder

Item no.	ADR reference number	Application	Mounting side	Figure
405.20.519	46106305 / 914P330	Rigid axles	all-purpose	A
405.20.522	468252	Steering axles	left	B
405.20.523	468251	Steering axles	right	B

\* = Item must be customized if necessary

## Hydraulic brake cylinder

Item no.	ADR reference number	Outer Ø mm	Length [mm]
405.02.742	813201 / 917 PIST	50	270

## ABS sensor

Item no.	ADR reference number	Version	Wheel brake
405.04.100	9194410329000 / 73A08	straight	314E, 316, 41218E

## ABS retrofit kit (1 set per drum)

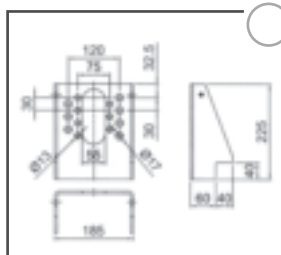
Item no.	ADR reference number	Wheel brake	Bearing pair	Teeth- pole wheel
405.04.101	9RT002	412S / 414S	UI + VF + VI	100
405.04.103	9RT006	412S / 414S	TN + TF + TE + TG + UA + UF	100
405.04.104	9RT010	4218E	UF	100
405.04.106	9RT005	314E / 316	RM + RF + TN + TF + TG + UA + UF + TE + 1H	80
405.04.107	9RT014	314E / 316	UI + 1P + 1R	80
405.04.110	9RT011	4218E	VF + 1R + 1T + 1V	100
405.04.112	9RT018	412E/414E	UF	100



Base plate  
Diaphragm cylinder  
Fig. B - left



Base plate  
Diaphragm cylinder  
Fig. B - right



Base plate diaphragm cylinder  
Technical drawing Fig. A



Hydraulic brake  
cylinder



ABS sensor

## Spare parts for steering axles - Type E, 914 AS

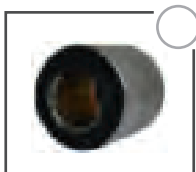
Item no.	ADR reference number	Designation	Position	required quantity per axle	Outer Ø [mm]	Inner Ø [mm]	Length [mm]	Thickness [mm]
405.02.840	920PA60	Steering pin	1	2	60		250	
405.02.760	921BB70/60	Steering bush	2	4	70	60.2		5
405.02.780	915RP61	Spacer washer	3	2	100	61		4.5
405.02.800	915RWS60	Spacer washer	4	4	85	60		1.75
405.02.820	915RP60 PLASTIC	Spacer washer	5	2	85	60		7.5
405.02.700	8218301 / 917PIST83	Shock absorbers	6	2	80	70	635	
405.02.720	8223801 / 921SB20/38	Silent block for tie rod	8	2	38	20		

## Spare parts for steering axles type XE, YA, YE, ST, BT, BJ, BA, BB

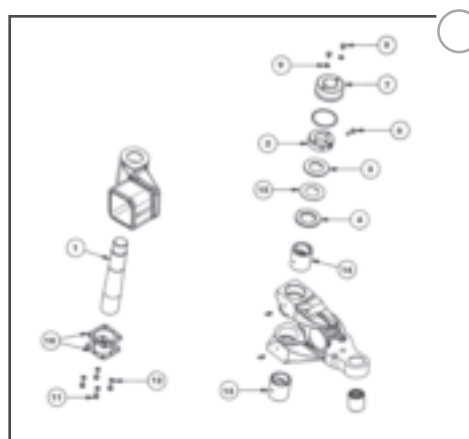
Item no.	ADR reference number	Designation	Position	Scope of delivery Set	Outer Ø [mm]	Inner Ø [mm]	Length [mm]	Thickness [mm]
405.03.962	80Z101 / 80Z104 / 9RST06	Steering arm repair kit consisting of						
		Steering pin	1	1	55-60		313	
		Ring	2	1	89	46		33
		Spacer ring metal	3	1	89	55		8
		Spacer ring plastic	4	1	89.5	50		3.5
		Pin	5	1				
		Screw	6	1		M10		
		Cap	7	1				
		Screw for cap	8	2		M10		
		Ring for cap screw	9	2				
		Lower sealing cap with sealing ring	10	1		105		
		Screw for lower cap	11	3		M10		
		Ring for lower cap screw	12	3				
	57D02 / 9A6740030403	Spacer washer plastic	15	2	89	50		3
405.03.958	772606501 / 9A6740030402	Lower bush	13	2	65	60	65	3
405.03.960	772556501 / 9A6740030403	Upper bush	14	2	60	55	65	2.5
405.02.700	8218301 / 917PIST83	Shock absorbers	16	2	80	70	635	



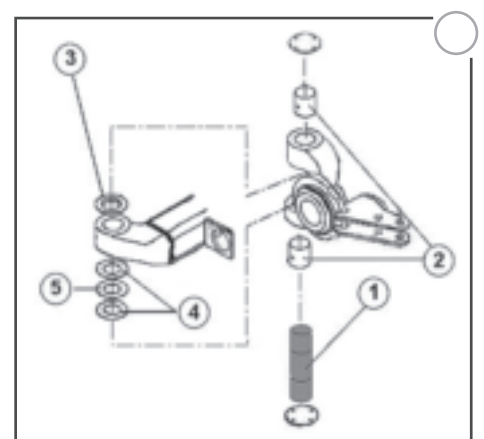
Shock absorber for steering axle



Silent block for tie rod



Spare parts for steering axles - type XE...



Spare parts for steering axles - Type E...

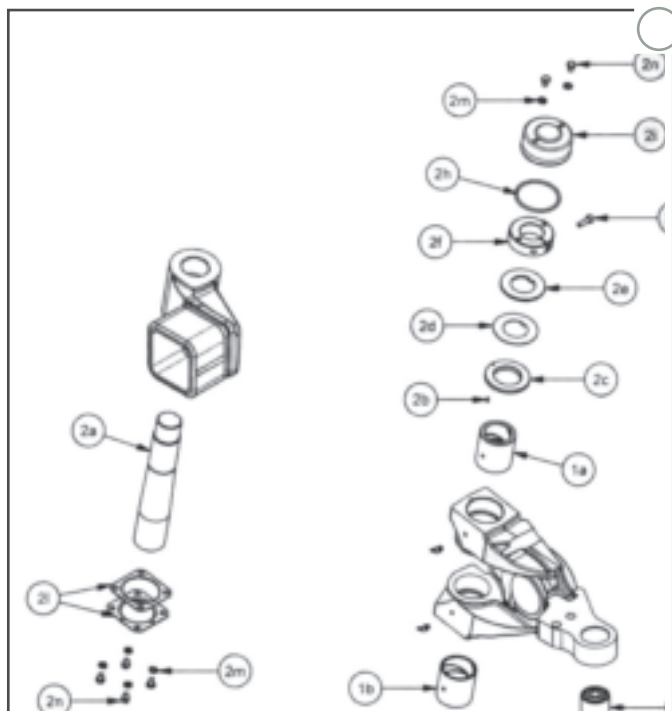
# Spare parts for ADR axles

## Spare parts for steering axles type SW, H, BY, BW, BX

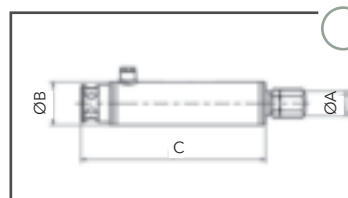
Item no.	ADR reference number	Designation	Position
405.03.964	9RSW02	Repair kit for steering arm	2a-n
405.03.965	771608501	Bush, $\varnothing = 60/80\text{mm}$ , L = 85 mm	1a
405.03.966	771698501	Bush, $\varnothing = 69/80\text{mm}$ , L = 85 mm	1b
405.02.730	8226301	Silent block for tie rod, $\varnothing=22/63$ , L=73	4a

## Hydraulic cylinder for steering axles

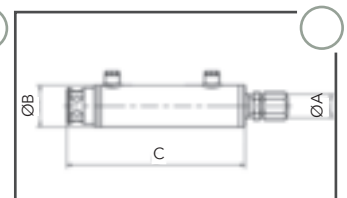
Item no.	ADR reference number	Dimension A [mm]	Dimension B [mm]	Dimension C [mm]	Version	Steering	Position
405.02.740	8116010001 (Type SM, STN, SW)	40	70	302	Single-acting	Trailing steering	1
405.02.746	8126010002 (Type SM, STN, SW)	40	70	302	Double-acting	Trailing steering	2
405.02.747	8127010002 (Type SM, STN, SW)	50	85	280	Double-acting	Trailing steering	2
405.50.000	8128521503 (Type SWB, SWQ)	40	99	342	Double-acting	Forced steering	3
405.50.010	8128520503 (Type SWA, SWP)	45	99	397	Double-acting	Trailing steering	4



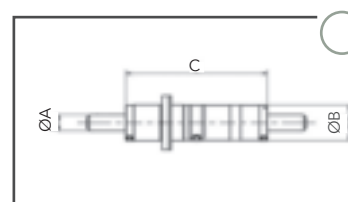
Spare parts for steering axles type SW, ...



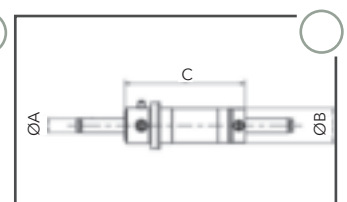
Hydraulic cylinder Pos.1



Hydraulic cylinder Pos.2



Hydraulic cylinder Pos.3



Hydraulic cylinder Pos.4

## Seal kits for hydraulic cylinders

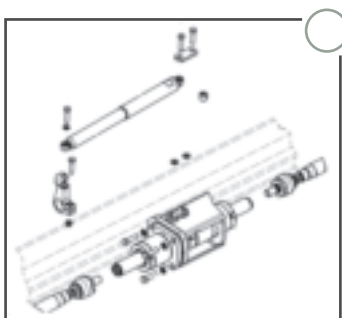
Item no.	ADR reference number	suitable for	comment
405.02.751	9RU0005	405.02.747	
405.02.752	9RU0002	405.02.746	
405.02.753	9RU001	405.02.740	
405.02.755	9RU0021	405.02.748	from 2011
405.02.756	9RU0004	405.02.748	until 2011

## Conversion kit from forced steering to trailing steering

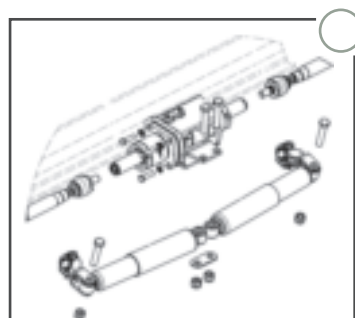
Item no.	ADR reference number	Hydraulic cylinder	Shock absorbers
405.04.131	9RSB09	8128520503	Single shock absorber 8214501 with bracket
405.04.132	9RSB16	8128520503	Single shock absorber 8215501 with bracket
405.04.133	9RSB20	8128520503	Double shock absorber 8218301 with bracket

## Master cylinder for forced steering

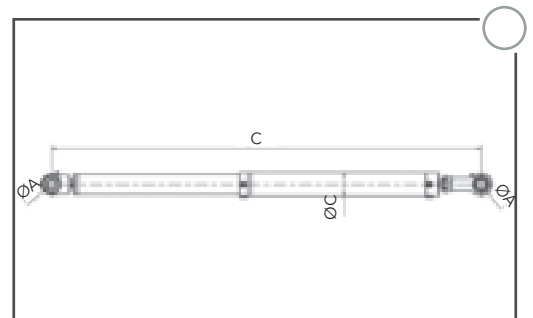
Item no.	ADR reference number	Dimension A [mm]	Dimension B (retracted) [mm]	Dimension C [mm]
405.02.739	8125550002	30	1394	70
405.02.748	8126035002	30	1090	75
405.02.749	8126050002	30	1394	75



Conversion kit  
Single shock absorber



Conversion kit  
Double shock absorber



Master cylinder for forced steering

# Spare parts for ADR axles



## Tie rods for steering axles

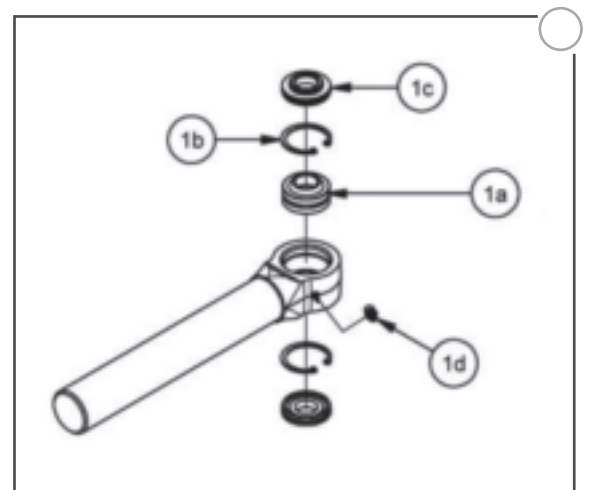
Item no.	ADR reference number	adjustable length [mm]	Version
405.02.705	80B003	1150-1389	2 x rod end bearing Ø 20.2 bolts
405.02.706	80B004	1390-1639	2 x rod end bearing Ø 20.2 bolts

## Repair kit for tie rod

Item no.	ADR reference number	Scope of delivery	Contents
405.02.725	9RG003	Bearing	2
		Retaining ring	4
		Spacer ring	4
		Grease nipple	2



Tie rods for steering axles



Repair kit for tie rod



## Tie rod ends and accessories

Item no.	Reference number ADR	Designation	Thread	Length [mm]	Version
405.02.709	98930F10	Tie rod end	M30x3	130	for type STA, STB, STJ, SWA, SWB
405.02.711	98930F11	Tie rod end	M30x3	140	for type STA, STB, STJ, SWA, SWB
405.02.712	80BG20	Threaded sleeve	M28x1.5 / M30x3	155	
405.02.713	80BG49	Threaded sleeve	M28x1.5 / M30x3	100	

## Bracket for shock absorber - reinforced version

Item no.	ADR reference number	Version
405.03.948	9RS102	Shock absorber 8218301, 8215501, 8215502



Tie rod end



Threaded sleeve



Bracket for shock absorber

## Return spring for slack adjuster

Item no.	ADR reference number	Dimension A [mm]	Dimension B [mm]	Dimension C [mm]
404.87.100	05.397.26.02.0	235	22.5	2.5

## Axle caps for hammering in

Item no.	ADR reference number	Ø [mm]	Height [mm]
404.84.010	03.211.01.11.0	50	30
404.84.020	03.211.03.05.0	60	30
404.84.030	03.211.05.06.0	72	30
404.84.040	03.211.05.07.0	80	50
404.84.050	03.211.07.03.0	90	55
404.84.060	03.211.08.03.0	120	30



Return spring for slack adjuster

## Brake linings

Item no.	WVA Number	Wheel brake	Holes	Material thickness [mm]	Rivet
404.82.010	15004	300 x 60	16 x parallel	5	4x10
404.82.035	15044	350 x 60	10 x offset	6	6x10
404.82.055	15826	310 x 80	16 x parallel	8	6x12
404.82.060	15247	400 x 80	10 x offset	8	8x12

## Rivets for brake linings

Item no.	Size [mm]	Contents
404.83.020	4 x 10	1 package = 100 pieces
404.83.060	6 x 12	1 package = 100 pieces
404.83.070	8 x 15	1 package = 100 pieces



Brake lining



Rivets for brake linings

A close-up photograph of a blue metal spring assembly, likely a parabolic spring set, with a white text box overlay. The assembly features a central axle with multiple curved spring leaves. A white text box is positioned in the center, containing a list of product categories. The background is a blurred view of the same assembly.

60

**Parabolic spring sets**

61

**Parabolic spring tandem units**

63

**Parabolic spring tridem units**

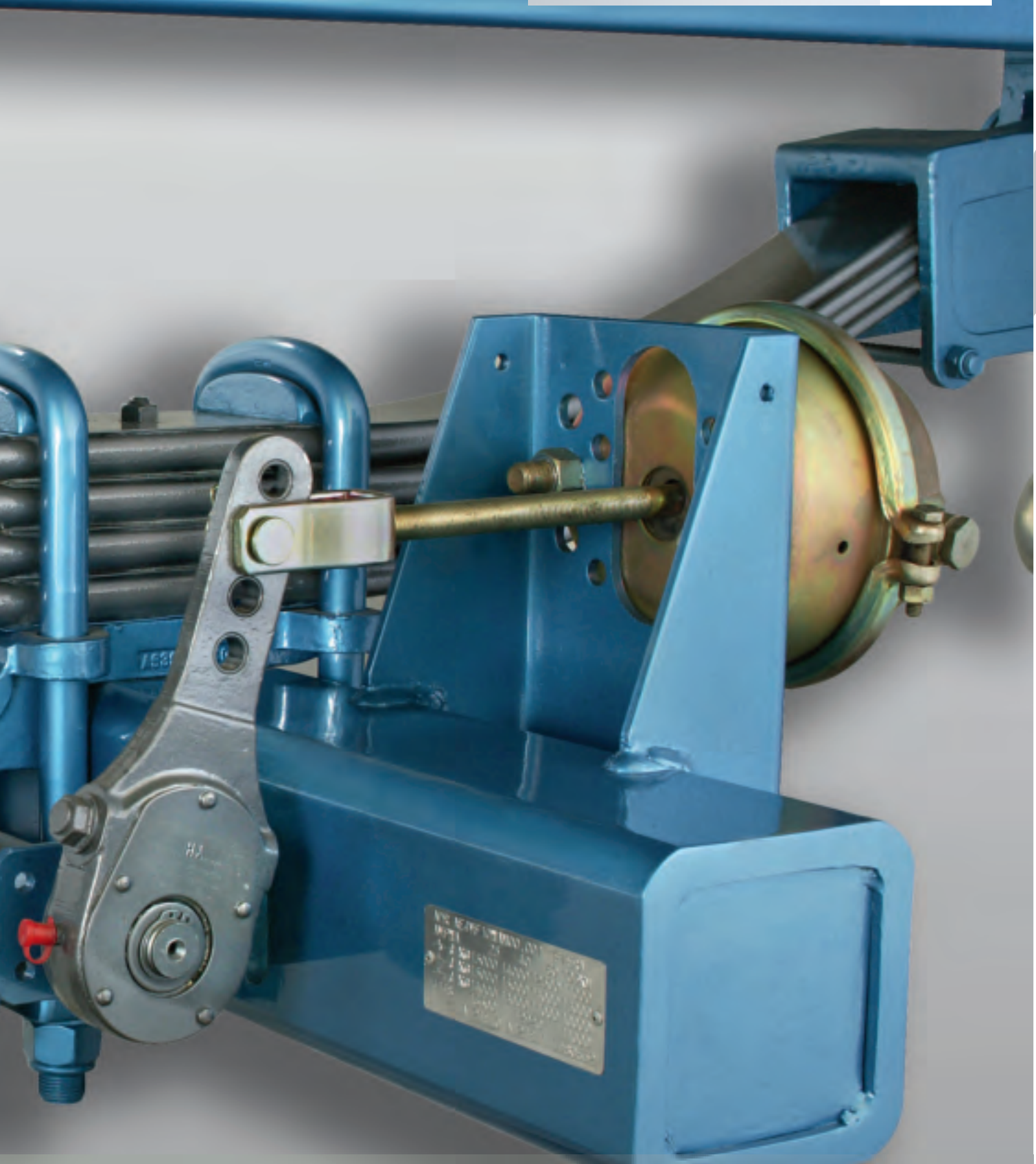
64

**Leaf spring assemblies and accessories**

**Spring assemblies and accessories**

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Accessories

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# Spring assemblies and accessories

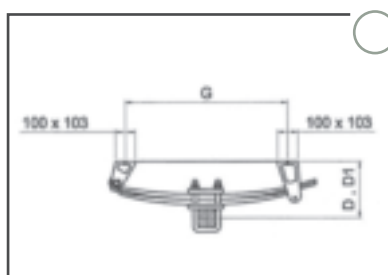
## Parabolic spring sets with axle connection

Item no.	Aggregate load [kg]	Connection for square [mm]	Spring width [mm]	Span G [mm]	Overall height min. D1 [mm]	Overall height max. D [mm]
424.20.100	5000	70	80	600	250	265
424.20.105	5000	70	80	810	253	275
424.20.106*	7000	80	80	810	97	118
424.20.110	6000	80	80	600	252	270
424.20.120	10500	100	100	870	325	352
424.20.125	10500	120	100	870	340	367

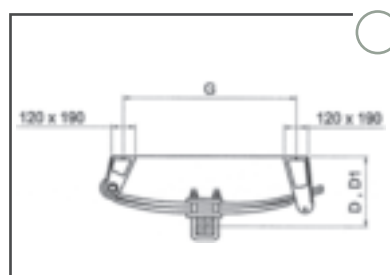
\* = Low loader version

## Parabolic spring sets with axle connection and brake load compensation

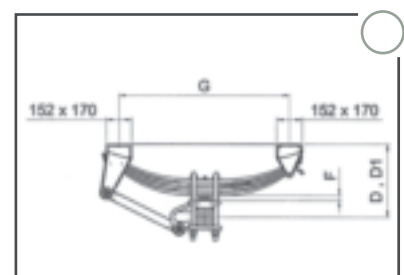
Item no.	Aggregate load [kg]	Connection for square [mm]	Spring width [mm]	Span G [mm]	Overall height min. D1 [mm]	Overall height max. D [mm]
424.20.130	10000	120	76	1030	337	370



Parabolic spring sets with Axle connection 80 mm Spring



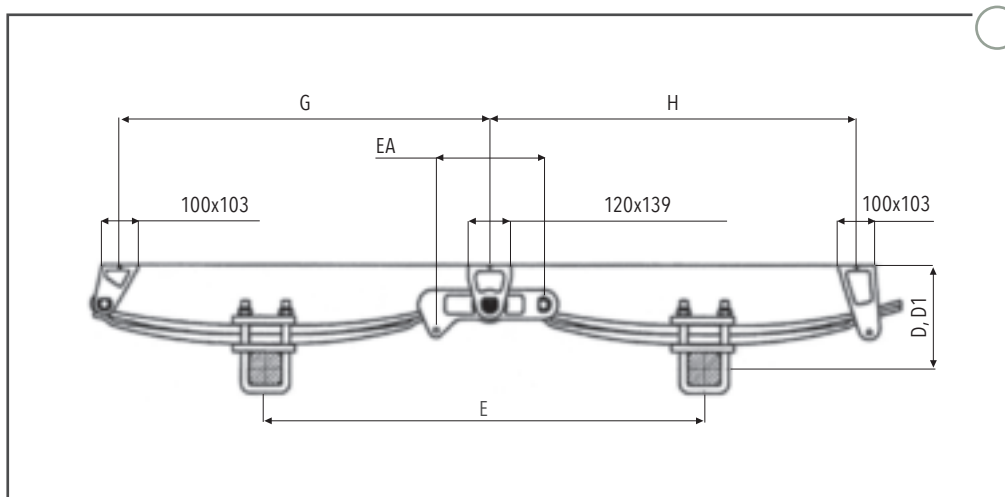
Parabolic spring sets with Axle connection 100 mm Spring



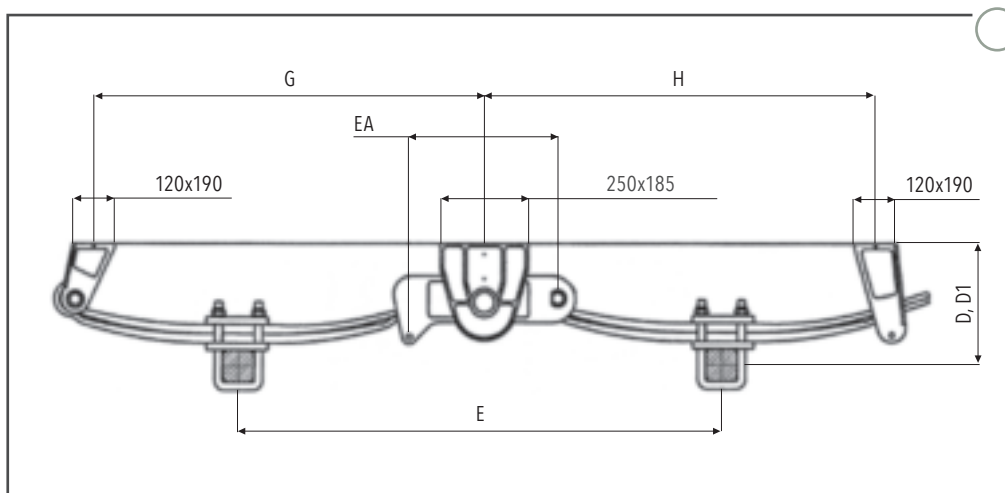
Parabolic spring sets with Axle connection and brake load compensation

## Parabolic spring tandem units with axle integration

Item no.	Aggregate load [kg]	Connection for square [mm]	Centre-to-centre distance E [mm]	Spring width [mm]	Dimension G [mm]	Dimension H [mm]	Dimension EA [mm]	Overall height min. D1 [mm]	Overall height max. D [mm]
424.20.200	10000	70	990	80	797	805	310	250	265
424.20.205	10000	70	1200	80	1007	1015	310	253	275
424.20.220	12000	80	1200	80	1007	1015	310	253	280
424.20.227	16000	100	1200	80	1077	1085	470	269	290
424.20.228	21000	90	1350	100	1087	1100	420	146	166
424.20.230	21000	100	1350	100	1087	1100	420	325	352
424.20.240	21000	100	1480	100	1152	1165	550	325	352
424.20.250	21000	110	1350	100	1087	1100	420	330	357
424.20.255	21000	110	1480	100	1152	1165	550	330	357



Parabolic spring tandem units with axle connection 80 mm spring



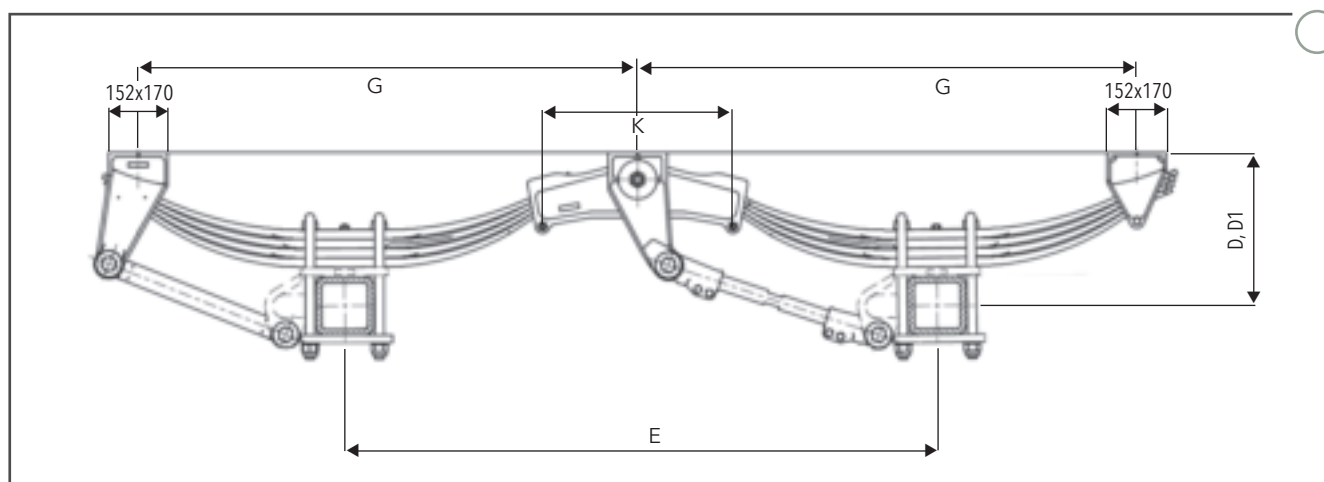
Parabolic spring tandem units with axle connection 100 mm spring

# Spring assemblies and accessories

## Parabolic spring tandem units with Axle connection and brake load compensation

Item no.	Aggregate load [kg]	Connection for square [mm]	Centre-to-centre distance E [mm]	Spring width [mm]	Dimension G [mm]	Dimension K [mm]	Overall height min. D1 [mm]	Overall height max. D [mm]
424.20.274	24000	110	1810	100	1194	412	360	395
424.20.281	24000	150	1360	100	1205	328	345	395
424.20.286	24000	150	1810	100	1194	435	360	395

We reserve the right to make dimensional changes in the interest of technical progress

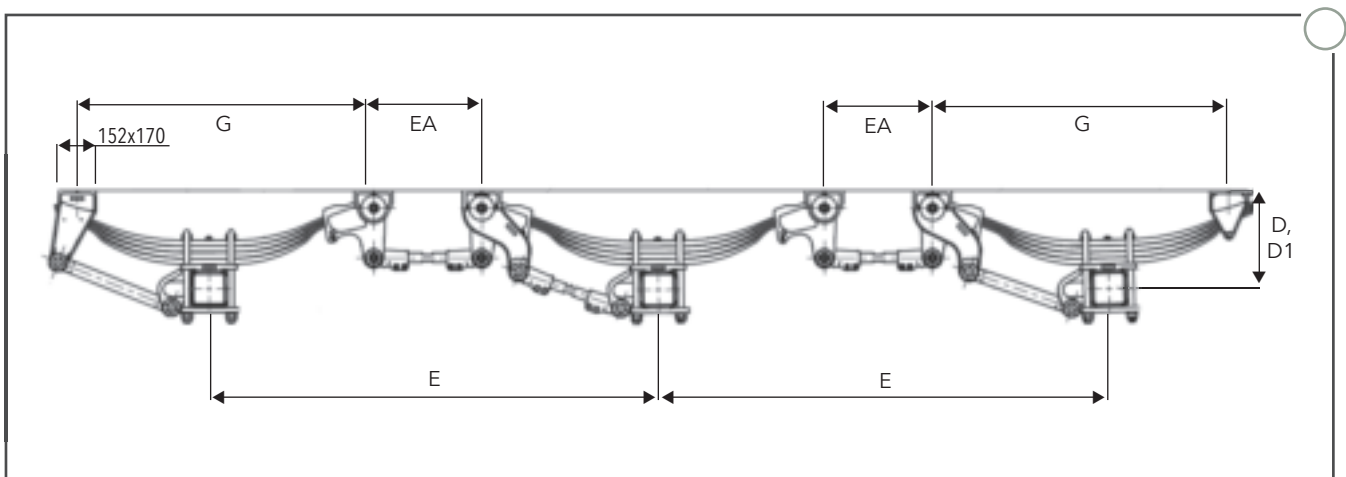


Parabolic spring tandem units complete with axle connection and brake load compensation

## Parabolic spring tridem units complete with axle connection and brake load compensation

Item no.	Aggregate load [kg]	Connection for square [mm]	Centre-to-centre distance E [mm]	Spring width [mm]	Dimension G [mm]	Dimension EA [mm]	Overall height min. D1 [mm]	Overall height max. D [mm]
424.20.325	36000	150	1810	100	1194	435	360	395

We reserve the right to make dimensional changes in the interest of technical progress



Parabolic spring tridem units complete with axle connection and brake load compensation

# Leaf spring assemblies and accessories

## Complete tandem units

Item no.	Axle load [kg]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Overall height min. h [mm]	Overall height max. h [mm]	Spring
424.10.100	4000	901	1021	70	89	112	218	248	424.11.000
424.10.300	6000	871	992	80	97	124	218	248	424.11.200
424.10.805	8000	1210	1330	80	97	124	268	346	424.20.500
424.10.800 *	8000	1250	1410	80	97	124	268	346	424.20.500

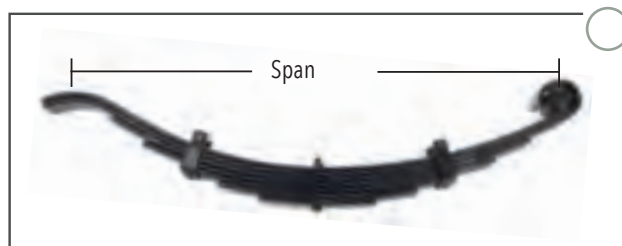
\*Center rocker extended 80 mm

## Tandem units without springs

Item no.	Axle load [kg]	Version	Scope of delivery
424.10.150	4000	Center rocker standard	1 x center rocker right+left, 2 x spring shoes, 2 x slide shoes
424.10.350	6000	Center rocker standard	1 x centre rocker right+left, 2 x spring shoes, 2 x slide shoes
424.10.450	8000	Center rocker extended by 80 mm	1 x centre rocker right+left, 2 x spring shoes, 2 x slide shoes

## Springs for tandem units

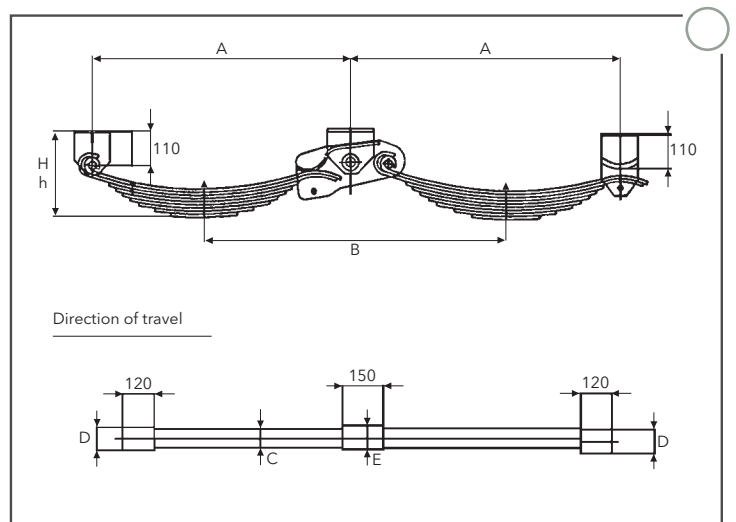
Item no.	Axle load [kg]	Number of blades	Spring width [mm]	Span [mm]	Blade thickness [mm]	Bore Ø [mm]	Spring bolt
424.11.000	4000	7	70	750	9	26	E3
424.11.200	6000	7	80	750	10	28	E5
424.11.300	6000	10	80	900	10	28	E5
424.20.500	8000	14	80	1090	10	28	E5



Trailer springs for tandem units



Tandem units, without springs



Tandem units with standard center rockers



## Spring shoes for tandem units

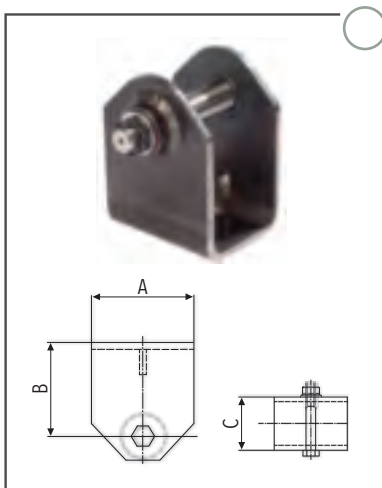
Item no.	Spring width [mm]	A [mm]	B [mm]	C [mm]	Spring bolt
424.40.030	70	120	110	88	E3
424.40.055	80	120	110	98	E5

## Middle rockers for tandem units

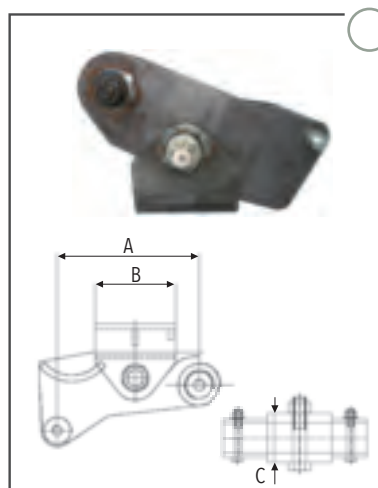
Item no.	Spring width [mm]	A [mm]	B [mm]	C [mm]	Spring bolt	Version
424.80.300	70	278	150	114	E3	right
424.80.400	70	278	150	114	E3	left
424.80.100	80	278	150	124	E5	right
424.80.200	80	278	150	124	E5	left
424.80.120	80	325	150	124	E5	right (80 mm extended)
424.80.220	80	325	150	124	E5	left (80 mm extended)

## Sliding shoes for tandem units

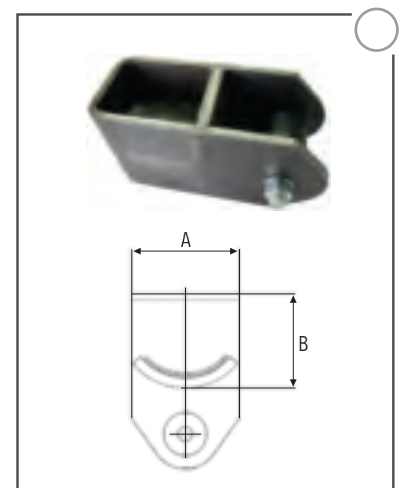
Item no.	Spring width [mm]	A [mm]	B [mm]	Screw
424.35.350	70	120	110	M16 x 110
424.35.450	80	120	110	M16 x 120



Spring shoe for Tandem units



Center rocker for Tandem units



Sliding shoe for Tandem units

# Leaf spring assemblies and accessories

## Welding neck shoes

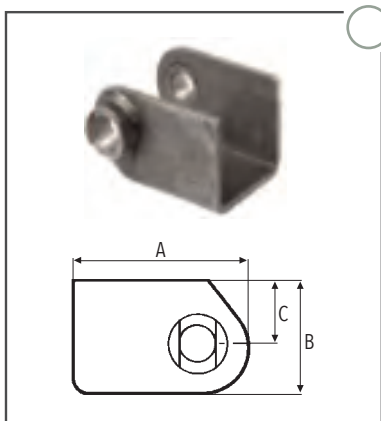
Item no.	Spring width [mm]	A [mm]	B [mm]	C [mm]	Material thickness [mm]	Bush Ø [mm]	Version
424.50.100	60	90	75	45	6	24/20	right
424.50.110	60	90	75	45	6	24/20	left
424.50.200	70	90	75	45	6	26/22	right
424.50.210	70	90	75	45	6	26/22	left

## Sliding shoes

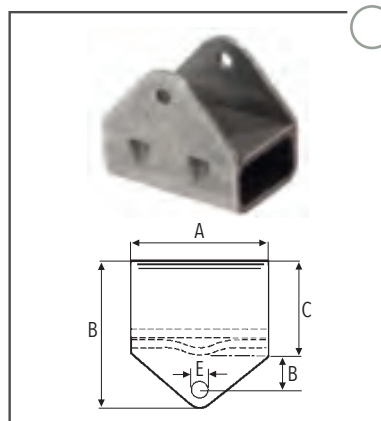
Item no.	Spring width [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Material thickness [mm]
424.35.200	70	130	110	50	45	12	6
424.35.300	70	130	150	90	40	17	8
424.35.400	80	150	190	120	50	17	10

## Low spring shoes

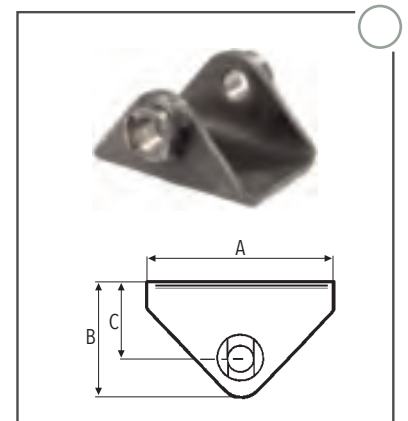
Item no.	Spring width [mm]	A [mm]	B [mm]	C [mm]	Material thickness [mm]	Bush Ø [mm]
424.40.200	70	130	73	45	6	26/22
424.40.300	70	130	90	60	8	26/22
424.40.400	80	150	100	60	10	28/24



Welding neck shoe



Sliding shoe



Low spring shoe

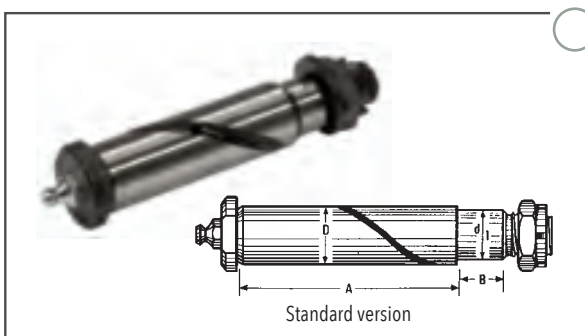
## Spring bolt

Item no.	Type	D [mm]	d1 [mm]	A [mm]	B [mm]	Thread	for clamp width [mm]
424.25.100	E 1	24	20	77.5	14.5	M16x1.5	60
424.25.200	E 1 extended	24	20	88.5	14.5	M16x1.5	70
424.25.300	E 3	26	22	92.5	19.5	M20x1.5	70
424.25.351	HW80	26	26	143.0	-	M20x1.5	80
424.25.400	E 5	28	24	107.5	24.5	M22x1.5	80
424.25.500	E 11	30	26	131.5	28.5	M24x1.5	100

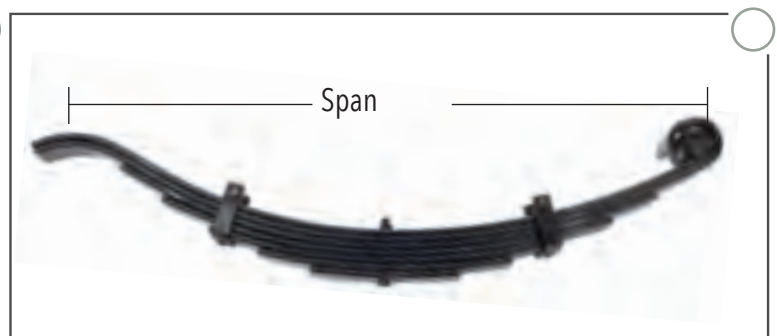
## Leaf springs

Item no.	Axle load [kg]	Number of blades	Spring width [mm]	Span [mm]	Blade thickness [mm]	Bore Ø [mm]	Spring bolt
424.17.200 *	2750	8	80	1450	10	26	E3
424.15.800	4000	8	70	900	9	26	E3
424.15.900	4000	9	70	1000	10	26	E3
424.17.000 *	4000	8	80	1450	12	26	E3
424.20.500	7350	14	80	1090	10	28	E5
424.20.702	10000	15	80	1090	7/10 + 8/12	28	E5

\* = HW-80



Spring bolt



Leaf springs

70

**Coupling heads & accessories**

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**Diaphragm cylinder**

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**Combination cylinder**

82

**Screw fittings & sealing rings**

## **Compressed air components**



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Compressed air  
components

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# Compressed air components

## Coupling heads (dual line)

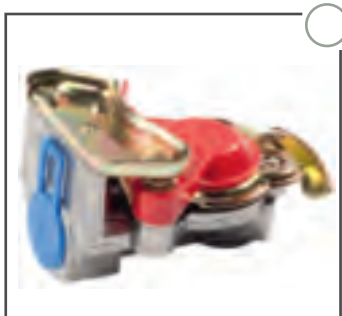
Item no.	Connection	Lid color	Usage
412.20.670	M16 x 1,5	red	Stock
412.20.680	M16 x 1,5	yellow	Brake
412.20.630	M22 x 1.5	red	Stock
412.20.640	M22 x 1.5	yellow	Brake

## Coupling heads with integrated pipeline filter

Item no.	Connections	Color	Usage	Comment
412.20.635	M22 x 1.5	red	Stock	with integrated pipeline filter
412.20.636	M16 x 1.5 / M24 x 1.5	red	Stock	with integrated pipeline filter + rubber membrane
412.20.645	M22 x 1.5	yellow	Brake	with integrated pipeline filter
412.20.646	M16 x 1.5 / M24 x 1.5	yellow	Brake	with integrated pipeline filter + rubber membrane

## Sealing rings for coupling heads

Item no.	Designation
412.20.790	Sealing ring for coupling head dual line



Coupling head (dual line)



Coupling head with integr. pipeline filter



Coupling head with integr. pipeline filters and rubber membrane



Sealing ring for coupling head

## Coupling heads (automatic)

Item no.	Connection	Lid colour	Usage	Comment
412.20.650	M16 x 1,5	red	Stock	automatic, for trucks, sheet metal lids
412.20.660	M16 x 1.5	yellow	Brake	automatic, for trucks, sheet metal lids
412.20.610	M22 x 1.5	red	Stock	automatic, for trucks, sheet metal lids
412.20.620	M22 x 1.5	yellow	Brake	automatic, for trucks, sheet metal lids

## Dummy couplings

Item no.	Version
412.21.100	For 2-line coupling head

### Technical note

The empty coupling is used to lock and hold the coupling heads on tractor units and trailer vehicles so that the flexible coupling lines can be suspended when uncoupled. This protects them against damage and the brake system against soiling.

## Pipeline filter

Item no.	Connection
412.20.580	2 x M22 x 1.5



Coupling head (automatic)



Dummy coupling



Pipeline filter

# Compressed air components

## Air coil / Airflex

Item no.	Number of coils	Length [mm]	Connection	Color
412.20.010	16	3300-5200	M22 x 1.5	red
412.20.015	23	4500-7300	M22 x 1.5	red
412.20.020	16	3300-5200	M22 x 1.5	yellow
412.20.025	23	4500-7300	M22 x 1.5	yellow

## Brake hoses

Item no.	Hose diameter [mm]	Comment
412.21.120	11 x 3.5	1 ring = 40 m
412.21.130	13 x 6.0	1 ring = 40 m

## Hose clamps for brake hoses

Item no.	Version
412.21.110	for brake hose 11 x 3.5
492.08.050	for brake hose 13 x 6,0



Brake hose



Hose clamp for  
Brake hose



Air coil / Airflex

## Galvanized oil / air pipes

Item no.	Pipe Ø [mm]	Length
456.01.230	15 x 1.5 mm	6 m rod

## Pipe clamps, rubberized

Item no.	for pipe diameter [mm]	Width [mm]	Fixed. Hole [mm]
492.08.045	25	20	8

## Plastic pipes

Item no.	Pipe diameter [mm]	Comment
412.21.210	8 x 1.0	1 ring = 25 m
412.21.230	12 x 1.5	1 ring = 25 m
412.21.240	15 x 1.5	1 ring = 25 m

## Support sleeves

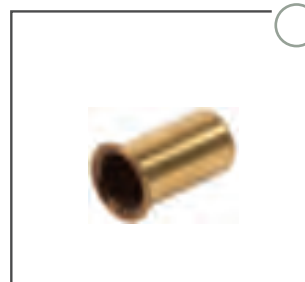
Item no.	for pipe diameter [mm]	Length [mm]
412.20.070	10 x 1.0	15
412.20.040	15 x 1.5	15



Plastic pipe



Pipe clamp, rubberized



Support sleeve

# Compressed air components

## Trailer brake valves (inlet)

Item no.	Connection	Haldex reference number	Wabco reference number
412.20.270	4x M22 x 1.5	350020201	471 003 5300

## Trailer brake valves (dual line) with brake force regulator

Item no.	Version	Connection	Haldex reference number	Wabco reference number
412.20.100	with lead	5x M22 x 1.5	351008022	971 002 1100/971 002 1500
412.20.120	with lead and release valve	4x M22 x 1.5 / 1x 16 x 1.5	350026102	971002530
412.20.122	with lead and release valve	5x M22 x 1.5	350026002	

## Trailer brake valves (dual line)

Item no.	Version	Connection	Reference number Haldex	Wabco reference number
a) 412.20.310	with lead and brake force regulator	5x M22 x 1.5	350027002	971 002 5700
b) 412.20.280	with lead, release valve and brake force regulator	4x M22 x 1,5 / 1x M16 x 1,5	350028101	971 002 6100 / 971 002 6200



Item no. 412.20.270  
Trailer brake valve with brake force regulator



Item no. 412.20.100  
Trailer brake valve with lead



Item no. 412.20.120  
Item no. 412.20.122  
Trailer brake valve with lead and release valve



Item no. 412.20.310  
Trailer brake valve with lead and brake force regulator

## Brake force regulator, mechanical (4 positions)

Item no.	Braking system	Connection	Operating pressure [bar]	vacuous [bar]	1 / 2 [bar]	Full load	Haldex Reference number	Reference number Wabco
412.20.095	Dual line	M22 x 1.5	7.35	2.0 / 2.5	4.0 / 4.5	Tank pressure	352011102	475 601 001 0 / 475 604 011 0

### Technical note

The brake force regulator limits the brake pressure depending on the manually adjustable load status in the trailer vehicle's brake cylinder.

## Brake force regulator, automatic - load dependent (mechanical)

Item no.	Connection	Lever length [mm]	Installation height min. [mm] max. [mm]	Comment	Haldex reference number
412.20.096	2x M16 x 1.5	25-50	140 - 1045	automatic, with spring & plate, 2 x M16 x 1.5	601002021
412.20.099	2x M16 x 1.5	50-130	120 - 1025	automatic, with spring & plate, 2 x M16 x 1.5	601013011

### Technical note

The automatic, load-dependent brake force regulator is used for the automatic adjustment of the compressed air brake cylinders' braking force. Depending on the loading status, the valve is mechanically controlled by changing the spring deflection.

## Brake force regulator, automatic - load-dependent (pneumatic)

Item no.	Designation	Haldex reference number
412.20.098	4x M16 x 1.5	602005001

### Technical note

The automatic, pneumatically controlled, load-dependent brake force regulator (ALB), is installed in vehicles (motor vehicles, trailers and semi-trailers) with pneumatic suspension. The brake pressure and thus the braking force is controlled according to the static load status of the respective vehicle.



Item no. 412.20.280  
Trailer brake valve with lead, release valve and brake force regulator



Item no. 412.20.095  
Pressure relief valve (Brake force regulator)



Item no. 412.20.096  
Item no. 412.20.099  
Brake force regulator automatic, load-dependent



Item no. 412.20.098  
Pressure relief valve  
Brake force regulator Pneumatic



# Compressed air components

## Block spring / linkage for automatic brake force regulator

Item no.	Haldex reference number
412.20.774	003 480 209

## Information plate for automatic brake force regulator

Item no.	Haldex reference number
412.20.094	028 027 909

## Adjustment valve / control valve

Item no.	Connection	Pressure setting	Haldex reference number	Wabco reference number
412.20.412	2x M22 x 1.5	4.0 bar	356 005 102	975 002 001 0

### Technical note

The control valve is used to adjust the brake pressure to the dynamic axle load shift and to quickly vent the brake cylinders. The pressure adjustment is infinitely variable from approx.  $p_e = 1.8$  to 4.5 bar.

## Release valves

Item no.	Connection	Color of the button	Shape of the button	Comment	Reference number Haldex
412.20.414	2x M16 x 1.5	blue	round	with dust bellows	352 018 011
412.20.405	2x M22 x 1.5	black	round	with dust bellows	352 007 401

### Technical note

This valve is used to release the trailer brake when manoeuvring. When coupling the connecting lines, the valve automatically switches the trailer brake valve to operation.



Adjustment valve / control valve



Control valve with rapid ventilation



Information sign for Brake force regulator



Release valve



Release valve



Block spring / linkage

## Quick release valves

Item no.	Connection	Haldex reference number
412.20.420	3x M22 x 1.5	356 006 011

### Technical note

With the quick release valve, compressed air cylinders and lines can be vented more quickly.

## Double release valves

Item no.	Connection	Color of buttons	Comment	Haldex reference number
412.20.435	4x M16 x 1.5	black/red	manual, without spring	352044001

## Relay valves

Item no.	Connection	Attachment	Haldex reference number
412.20.413 *	3x M22 x 1.5	with stud bolt	355 018 011

\* fast and finely graded aeration and ventilation = shortening of response, release and threshold duration



Quick release valve



Double release valve



Relay valve

# Compressed air components

## Pressure reducing valves

Item no.	Connection	Operating pressure [bar]	adjustable pressure [bar]	adjusted pressure [bar]	Haldex reference number	Wabco reference number
412.20.445	2x M22 x 1.5	12	0 - 8,5	5	357 012 031	475 010 0010 / 475 010 0030 475 010 0080

### Technical note

The pressure reducing valve is used in compressed air systems to limit the outlet pressure, even when the inlet pressure is changed but higher.  
Change pressure setting!

## Air tank - EN286 (black)

Item no.	Nominal capacity [l]	Ø [mm]	Length [mm]	Connection
412.00.610	10	206	330	4x M22 x 1.5
412.00.620	20	206	660	4x M22 x 1.5
412.00.625	20	246	500	4x M22 x 1.5
412.00.630	30	246	700	4x M22 x 1.5
412.00.635	30	276	600	4x M22 x 1.5
412.00.640	40	276	745	4x M22 x 1.5
412.00.645	40	310	602	4x M22 x 1.5
412.00.660	60	310	880	4x M22 x 1.5
412.00.680	80	396	750	4x M22 x 1.5

Euronorm EN 286, min. 10 bar



Pressure reducing valve



Air tank

## Mounting brackets (for air reservoir)

Item no.	Mounting bracket Ømm
412.10.050	206
412.10.200	246
412.10.300	276
412.10.450	310
412.10.500	396

## Diaphragm cylinder (without fork joint)

Item no.	Type	Connection	Piston-rod thread	Stroke [mm]
412.20.509*	9	M16 x 1.5	M16 x 1.5	56
412.20.512	12	M16 x 1.5	M16 x 1.5	57
412.20.514	16	M16 x 1.5	M16 x 1.5	75
412.20.515	20	M16 x 1.5	M16 x 1.5	75
412.20.516	24	M16 x 1.5	M16 x 1.5	75
412.20.517	30	M16 x 1.5	M16 x 1.5	75
412.20.535	36	M16 x 1.5	M16 x 1,5	76

\* = with bellows



Mounting bracket



Diaphragm cylinder (without fork joint)

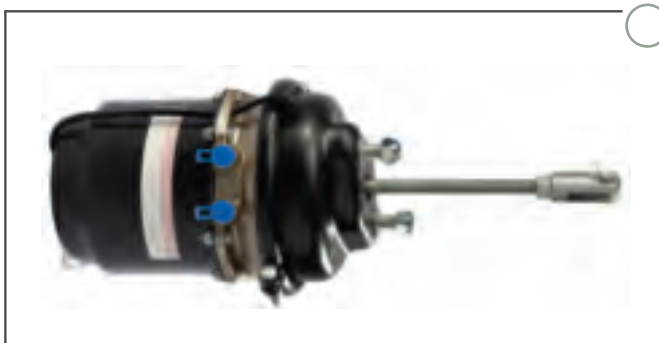
# Compressed air components

## Combination cylinder / Spring-loaded cylinder

Item no.	Type	Connection
412.20.483	16/24	M16 x 1.5
412.20.482	20/30	M16 x 1.5
412.20.495	24/30	M16 x 1.5
412.20.490	30/30	M16 x 1.5
412.20.480	36/30	M16 x 1.5

## Combination cylinder oil/air

Item no.	Type	Ø Hydraulic part [mm]	Air
405.20.525	20/30	30	20"
405.20.526	24/35	24	35"



Combination cylinder



Combination cylinder oil/air

## Fork heads for diaphragm cylinders

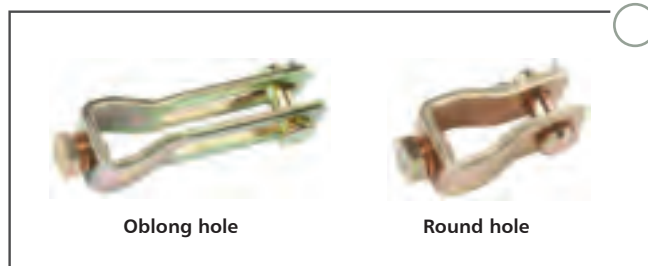
Item no.	Version	Thread
412.20.750	Oblong hole	M16 x 1.5
412.20.752	Round hole	M16 x 1.5

## Piston cylinder

Item no.	Piston Ø [mm]	Lift [mm]	Connection
412.20.190	65	105	M22 x 1.5
412.20.200	80	105	M22 x 1.5
412.20.210	100	135	M22 x 1.5
412.20.220	125	135	M22 x 1.5
412.20.240	150	155	M22 x 1.5

## Bellows

Item no.	Ø [mm]	suitable for piston cylinders [mm]
412.20.510	Ø 15/45	65, 80, 100, 125
412.20.508	Ø 15/70	140, 150



Fork head for diaphragm cylinder



Piston cylinder



Bellows



# Compressed air components

## T fitting with test connection

Item no.	D [mm]	SW [mm]
412.21.050	15	27

## Straight through fitting with test connection

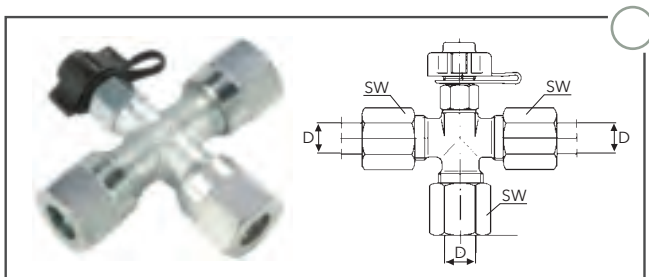
Item no.	D [mm]	SW [mm]
412.21.165	15	27

## Elbow fitting with test connection

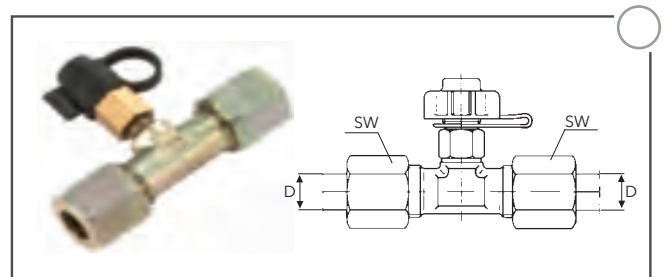
Item no.	G	D [mm]	SW [mm]
412.21.065	M22 x 1.5	15	27

## Straight hose fitting with test connection

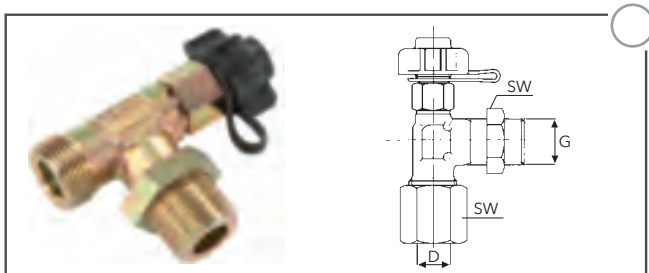
Item no.	G	SW 1 [mm]	SW 2 [mm]	SW 3 [mm]	for hose Ø
412.21.145	M22 x 1.5	27	27	27	13 x 6



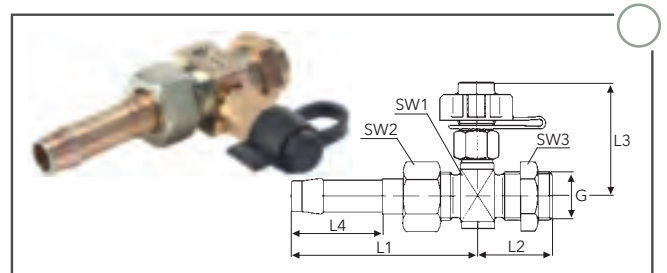
T fitting with test connection



Straight through fitting with test connection



Elbow fitting with test connection



Straight hose fitting with test connection

## Banjo bolts with test connection/screw connection

Item no.	G	SW [mm]
412.21.033	M16 x 1.5	22
412.21.032	M22 x 1.5	27

## Hose nozzle

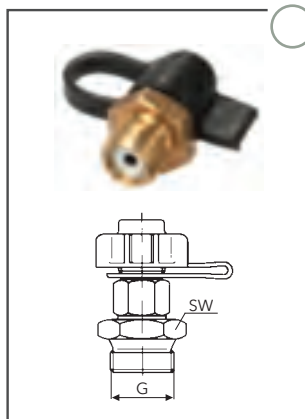
Item no.	for hose Ø [mm]	C	L [mm]	SW [mm]
412.20.690	11 x 4	M16 x 1.5	60	22
412.20.710	11 x 4	M22 x 1.5	60	27
412.20.700	13 x 6	M16 x 1.5	57	22
412.20.930	13 x 6	M22 x 1.5	60	27

## Hose nozzle - Plug-in sleeve

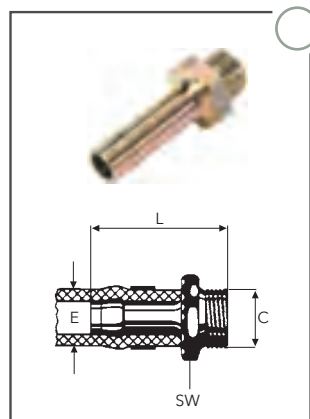
Item no.	for hose Ø [mm]	B [mm]	L mm]
412.20.688	11 x 3.5	20	55
412.20.940	13 x 6.0	20	55

## Swivel nut for hose nozzle

Item no.	A	L [mm]	SW [mm]
412.20.950	M22 x 1.5	16	27



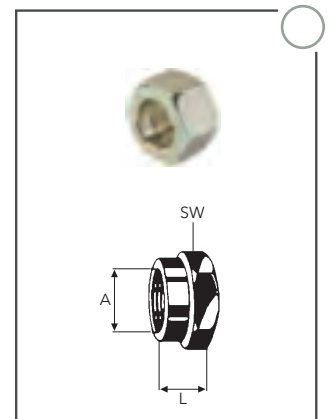
Banjo bolt with test connection/  
Screw connection



Hose nozzle



Hose nozzle - Plug-in sleeve



Swivel nut for  
Hose nozzle

# Compressed air components

## Straight hose fitting

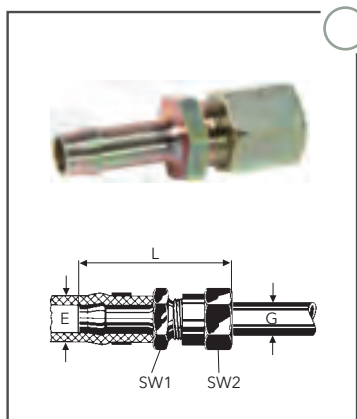
Item no.	for hose Ø [mm]	C [mm]	L [mm]	SW 1 [mm]	SW 2 [mm]
412.21.140	13 x 6	15	80	27	27

## T through-screw fitting

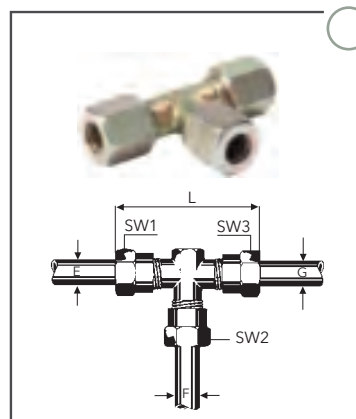
Item no.	E [mm]	F [mm]	G [mm]	L [mm]	SW 1 [mm]	SW 2 [mm]	SW 3 [mm]
412.20.910	15	15	15	100	27	27	27

## T screw-in fitting

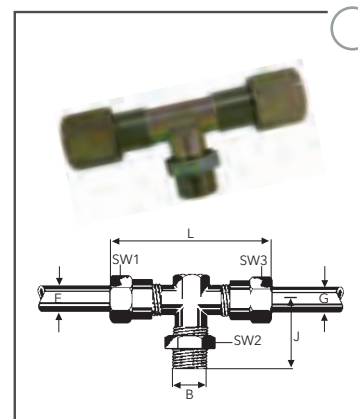
Item no.	E	F [mm]	G [mm]	J [mm]	L [mm]	SW 1 [mm]	SW 2 [mm]	SW 3 [mm]
412.20.920	M22 x 1.5	15	15	42	128	27	27	27



Straight hose fitting



T through-screw fitting



T screw-in fitting

## Elbow screw-in fittings

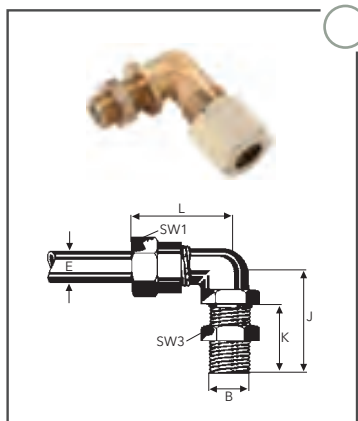
Item no.	B	E [mm]	J [mm]	K [mm]	L [mm]	SW 1 [mm]	SW 3 [mm]
412.20.875	M16 x 1.5	15	45	25	55	27	22
412.20.878	M16 x 1.5	10	45	25	32	19	22
412.20.880	M22 x 1.5	15	45	25	55	27	27
412.21.020	M22 x 1.5	10	45	25	40	19	27

## Elbow screw-in connection

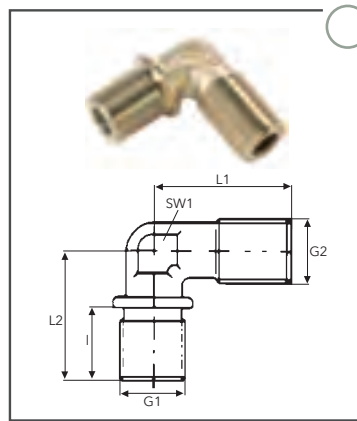
Item no.	Thread 1	Thread 2	SW [mm]	L 1 [mm]	L 2 [mm]	L [mm]
412.20.887	M22 x 1.5	M22 x 1.5	19	45	45	25

## Elbow with locknut

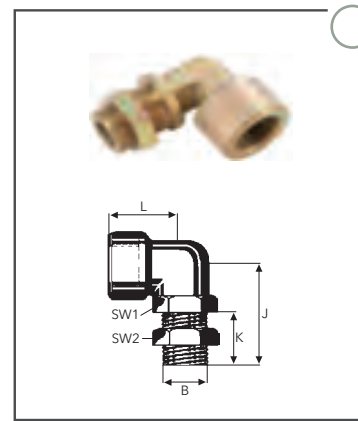
Item no.	A	B	J [mm]	K [mm]	L [mm]	SW 1 [mm]	SW 2 [mm]
412.20.890	M22 x 1.5	M22 x 1.5	48	25	36	27	27



Elbow screw-in fitting



Elbow screw-in connection



Elbow with locknut

# Compressed air components

## Locknut

Item no.	A	L [mm]	SW [mm]
412.20.980	M22 x 1.5	8	27

## Adapter piece/sleeve

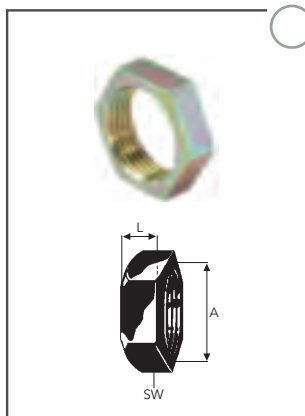
Item no.	A	C	L [mm]	SW [mm]
412.20.780	M22 x 1.5	M22 x 1.5	38	27

## Adapter fitting

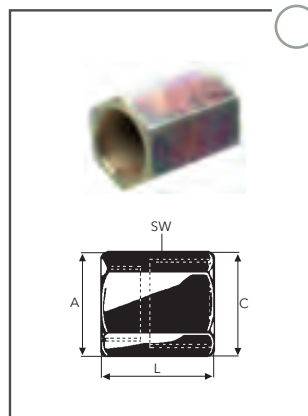
Item no.	A	C	L [mm]	SW [mm]
412.20.782	M16 x 1,5	M22 x 1.5	30	27

## Straight through bulkhead fitting

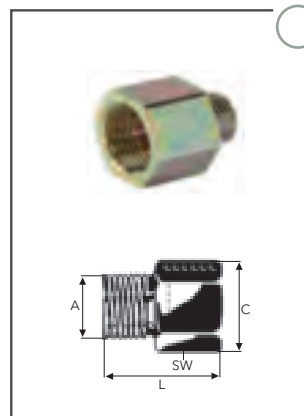
Item no.	A	G [mm]	L [mm]	SW 1 [mm]	SW 2 [mm]	SW 3 [mm]
412.20.872	M22 x 1.5	10	62	27	22	19



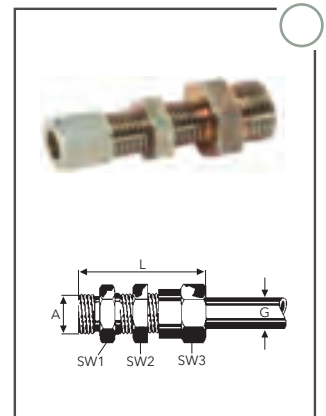
Locknut



Adapter piece/sleeve



Adapter fitting



Straight-through bulkhead Fitting

## Straight screw-in fittings

Item no.	A	G [mm]	L [mm]	SW 1 [mm]	SW 2 [mm]
412.20.860	M22 x 1.5	15	52	27	27
412.20.862	M16 x 1.5	15	48	24	27
412.20.865	M16 x 1.5	10	37	22	13

## Double nozzle

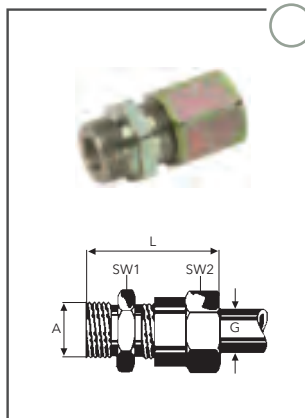
Item no.	A	C	L [mm]	M [mm]	N [mm]	SW [mm]
412.20.900	M22 x 1.5	M 22 x 1.5	30	12	12	27

## Double nozzle with locknut

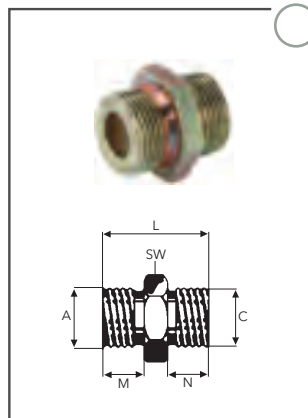
Item no.	A	C	L [mm]	N [mm]	SW 1 [mm]	SW 2 [mm]
412.20.960	M22 x 1.5	M22 x 1.5	54	34	27	27
412.20.850	M16 x 1.5	M22 x 1.5	54	34	27	27

## Locking screw

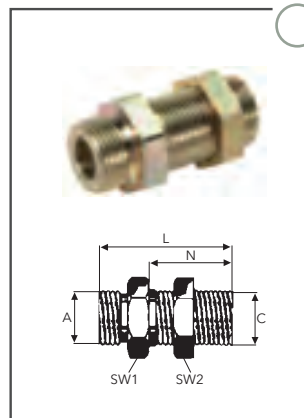
Item no.	A	L [mm]	SW [mm]	Comment
412.20.990	M22 x 1.5	19	27	with 3 mm cross bore



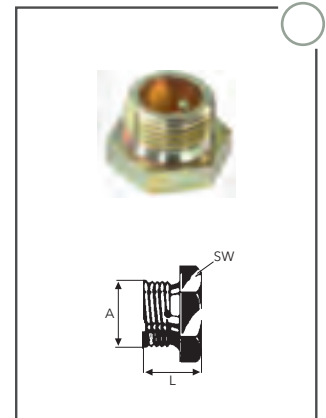
Straight screw-in fitting



Double nozzle



Double nozzle with Locknut



Locking screw



# Compressed air components

## Swivel nut

Item no.	A	for pipe Ø [mm]	L [mm]	SW [mm]
412.20.970	M22 x 1.5	15	27	27

## Fiber sealing ring

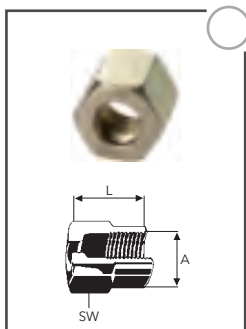
Item no.	Outer diameter [mm]	Inner diameter [mm]	Material thickness [mm]
412.21.090	19	12	1.5

## Thrust collar

Item no.	for pipe Ø [mm]	L [mm]
412.21.080	15	9

## Drain valve

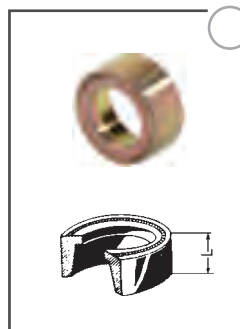
Item no.	Thread	Comment
412.21.070	M22 x 1.5	with ring for venting and draining the compressed air tank



Swivel nut



Fiber sealing ring



Thrust collar



Drain valve

## Brass sealing rings

Item no.	Designation	Outer diameter [mm]	Inner diameter [mm]	Material thickness [mm]
412.21.012	for thread M16 x 1.5	22	16	2.5
412.20.830	for thread M22 x 1.5	27	22	2.5

## Rubber sealing rings

Item no.	Designation	Inner diameter [mm]	Material thickness [mm]
412.21.010	for thread M16 x 1.5	15	2
412.20.840	for thread M22 x 1.5	20	2.5

## Pulleys

Item no.	Ø [mm]	Bore Ø [mm]	Width [mm]	Comment
480.00.310	80	10	20	Loose rope pulley
480.00.330	60	8	20	Rope pulley with welding bracket
480.00.340	80	10	20	Rope pulley with welding bracket

## Parking brakes with turning handle

Item no.	Comment
408.59.140	without pulley
408.59.145	with 60 mm rope pulley



Brass sealing ring



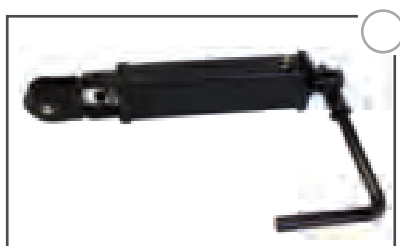
Rubber sealing ring



Rope pulley, loose-primed



Cable pulley, with welding bracket



Parking brake with turning handle, 60 mm rope pulley



Parking brake with turning handle

A close-up photograph of a complex mechanical assembly, likely a part of a vehicle's drivetrain or suspension system. The image is dominated by dark, metallic components, including rods, bolts, and a gear. The lighting is a deep, cool blue, creating strong highlights and deep shadows that emphasize the textures and forms of the metal parts. The background is blurred, focusing attention on the foreground machinery.

**92**

**Overrun devices  
without automatic reverse drive**

**94**

**Overrun devices  
with automatic reverse drive**

**95**

**transmission device**

**96**

**Bowden cables and sheaths**

**97**

**Drawbars**

**Overrun brakes and drawbars**

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Overrun brakes  
and Drawbars

**Bohnenkamp**

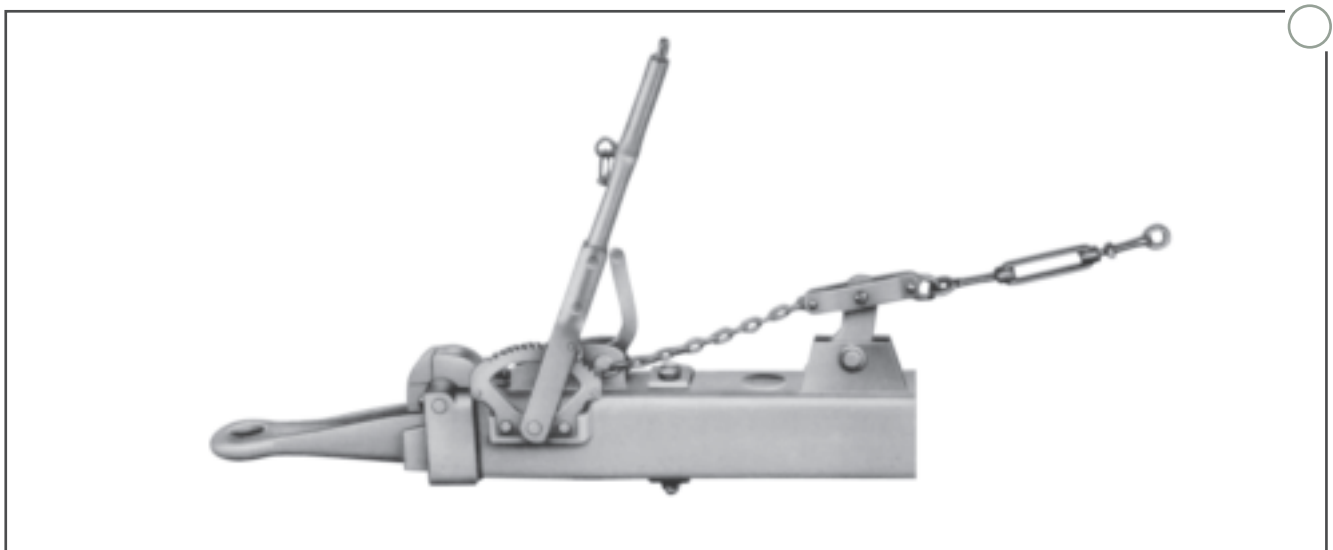
 Moving Professionals



## Overrun devices for single-axis and tandem trailers - without automatic reverse drive

Item no.	Type	Position Reversing lever	Bearing load with 25 km/h [kg]	Perm. Total weight 25 km/h [kg]	Length [mm]	Attachment
408.56.100	AVE 57	bottom left	1000	2670 - 5700	855	Weld on
408.56.160	AVE 57	bottom left	1000	2670 - 5700	855	Screw on, 135x145x21
408.56.420	AVE 80	top left	1000	4670 - 8000	855	Screw on, 135x145x21
408.56.461	AVE 80	bottom right	1000	4670 - 8000	855	Weld on
408.56.480	AVE 80	top left	1000	4670 - 8000	855	Screw on, 135x145x21
408.57.100	AVE H 80	top left	1600	6033 - 8000	855	Screw on, 160x170x25

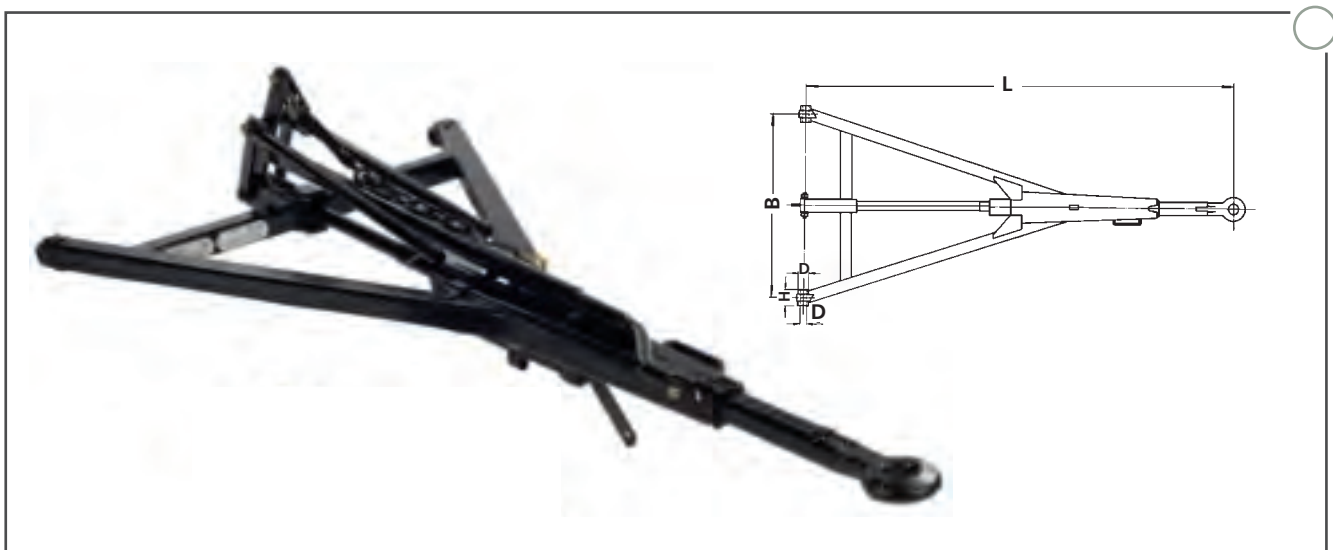
Note: incl. individual TÜV approval



Overrun device for single-axle and tandem trailers - without automatic reverse drive (for welding on)

## Run-up devices for two-way trailers - without automatic reverse drive

Item no.	Type	Perm. Total weight at 25 km/h [kg]	Fork width B [mm]	Clamp H [mm]	Bolt D [mm]	Length L [mm]	Handbrake lever Position
408.52.050	AVM/E 44	2667 - 4400	750	60	24	1660	perpendicular
408.52.100	AVM/E 44	2667 - 4400	860	60	24	1660	perpendicular
408.52.200	AVM/E 44	2667 - 4400	1000	60	24	1810	perpendicular
408.53.000	AVM/E 80	3833 - 8000	860	60	24	1810	perpendicular
408.53.010	AVM/E 80	3833 - 8000	860	70	26	1810	perpendicular
408.53.100	AVM/E 80	3833 - 8000	910	60	24	1810	perpendicular
408.53.200	AVM/E 80	3833 - 8000	910	70	26	1810	perpendicular
408.53.251	AVM/E 80	3833 - 8000	940	60	24	1810	perpendicular
408.53.300	AVM/E 80	3833 - 8000	1000	60	24	1810	perpendicular
408.53.400	AVM/E 80	3833 - 8000	1000	70	24	1810	perpendicular
408.53.500	AVM/E 80	3833 - 8000	1000	70	26	1810	perpendicular
408.53.550	AVM/E 80	3833 - 8000	1100	70	26	1810	perpendicular



Overrun device for two-axle trailer - without automatic reverse drive



# Overrun devices

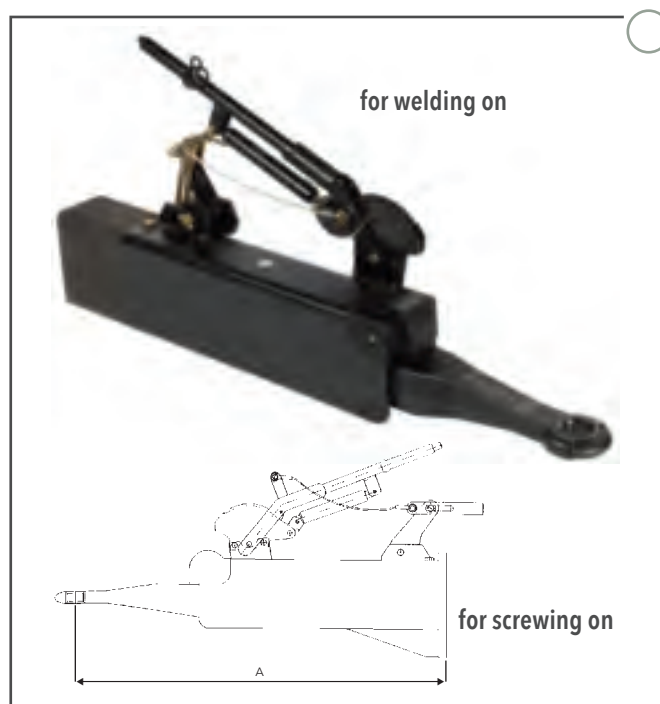
## Overrun devices for single-axle and tandem trailers - with automatic reverse drive

Item no.	Type/version	Reversing lever	Bearing load at 25 km/h [kg]	Perm. Total weight at 25 km/h [kg]	Bearing load at 40 km/h [kg]	Perm. Total weight at 40 km/h [kg]	Length A [mm]	Attachment
408.57.121	AVE 2000 AV/BHV 62	top left	1600	5557 - 8000	1000	4920 - 8000	1057	Weld on
408.57.125	AVE 2000 BNP 121	top center	840	3242 - 5600	840	3242 - 5600	917	Screw on, 170x200x21
408.57.130	AVE 2000 AP/BHP 121	top center	1600	5557 - 8000	1000	4920 - 8000	917	Screw on, 170x200x21
408.57.140	AVE 2000/BHP 122	top left	1600	5557 - 8000	1000	4920 - 8000	917	Screw on, 170x200x21
408.57.145	AVE 2000/BHV 122	top left	1600	5557 - 8000	1000	4920 - 8000	1057	Weld on

Note: The types AV 62 and AP 62 can be used as replacements for the old types AER 80 and AER / H 80. AER 80 and AER / H 80 are no longer produced!

## Accessories for overrun devices for single-axle and tandem trailers

Item no.	Type	Version	Hole pattern [mm]
408.57.300	Flange plate	BPW AVE2000 + ADR TRRM8	170 x 200



Overrun device for single-axle and tandem trailers - with automatic reverse drive



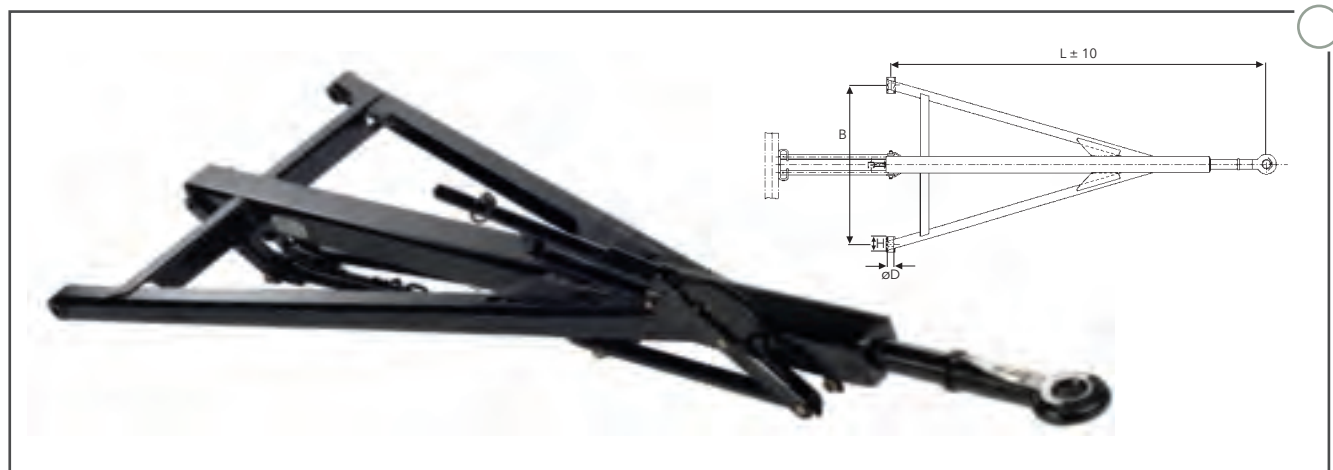
Flange plate

## Overrun devices for two-axle trailers - with automatic reverse drive

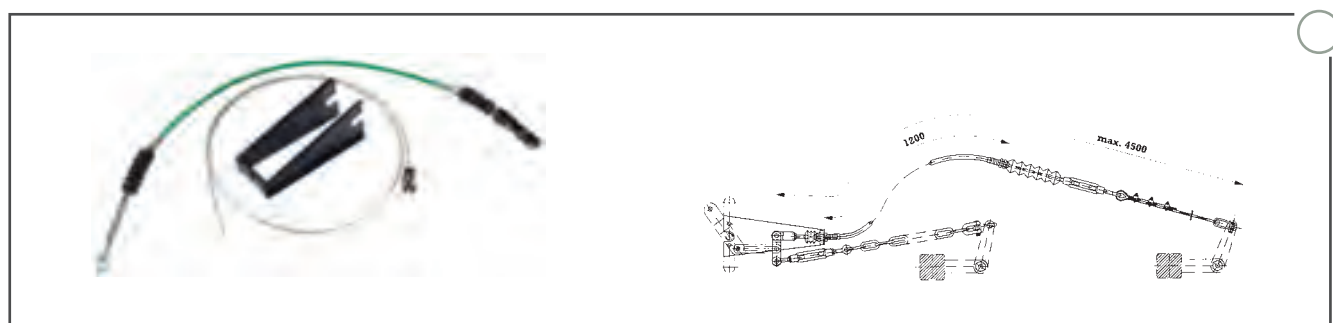
Item no.	Type	Perm. Total weight at 25 km/h [kg]	Fork width B [mm]	Clamp H [mm]	Bolt D [mm]	Length L [mm]	Handbrake lever Position
408.54.105	AM 2000 AK12	3264 - 8000	750	60	24	1960	perpendicular
408.54.110	AM 2000 AK12	3264 - 8000	1000	70	26	1960	perpendicular
408.54.115	AM 2000 AK14	3264 - 8000	1000	60	24	1960	perpendicular
408.54.135	AM 2000 AK12	3264 - 8000	1100	70	26	1960	perpendicular
408.54.120	AM 2000 AK14	3264 - 8000	1000	70	26	1960	perpendicular
408.54.140	AM 2000 AK14	3264 - 8000	1100	70	26	1960	perpendicular

## transmission device

Item no.	Designation
408.54.170	4-wheel transmission for overrun brake AM 2000



Overrun device for two-axle trailers - with automatic reverse drive



transmission device

# Overrun devices

## Loose Bowden cable sleeves

Item no.	Length [mm]	Fittings
408.58.120	950	2 x M 16 x 1.5
408.58.130	1800	2 x M 16 x 1.5

## Loose Bowden tow cable

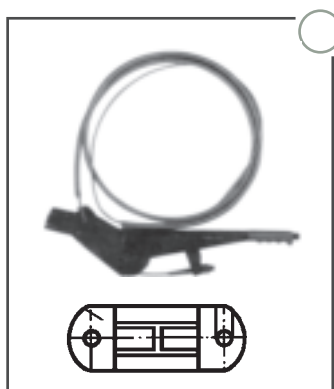
Item no.	Length [mm]	Cable Ø [mm]	Version
408.58.140	4500	6.4	Drawbar eye Ø 17.5 mm pressed

## Brake cables T 64 / C complete

Item no.	Lever length [mm]	Sleeve length [mm]	Rope length [mm]	Version
408.59.100	385	2300	5150	incl. 1 x insert pocket
408.59.110	385	3800	6900	incl. 1 x insert pocket

## Height adjustments GHE

Item no.	Designation
412.90.600	Height adjustment GHE
412.90.705	Spring support 80 tread



Brake cable T 64 / C complete



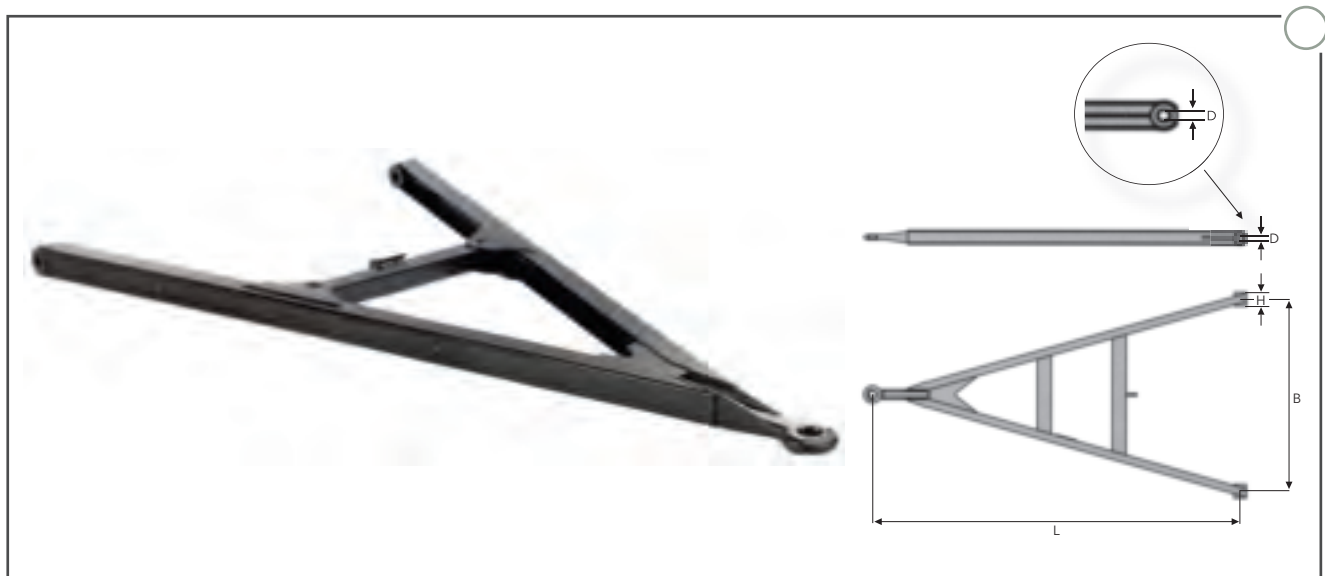
Height adjustment GHE



Spring support

## Drawbars

Item No.	Permissible Total weight [t]	Length L [mm]	Installation width B [mm]	Clamp H [mm]	Bolt D [mm]	Tread
408.60.400	12	1800	1000	70	26	ULP
408.60.410	12	1900	1100	70	26	ULP
408.60.000	27	2200	1100	80	26	80
408.60.003	26	1800	1100	80	26	80
408.60.009	27	1900	1200	80	28	80
408.60.010	26	1800	1100	80	26	80
408.60.012	27	1900	1100	100	30	80
408.60.014	27	2000	1000	70	26	80
408.60.015	27	2100	1100	100	30	80
408.60.016	27	2100	1100	80	28	80
408.60.147	27	1800	1100	80	28	80
408.60.150	27	1900	1200	100	30	80
408.60.151	27	2100	1200	100	30	80
408.60.153	27	2100	1200	70	26	80
408.60.155	27	1800	1300	100	30	80



Drawbars

**100**

**Overrun brake AVE 57**

**102**

**Overrun brake AVE 80**

**104**

**Overrun brake AVE H 80**

**106**

**Overrun brake AVM/D**

**106**

**Height adjustment device**

**108**

**Overrun brake AVM/E**

**110**

**Overrun brake AVE 2000**

**111**

**Overrun brake AM 2000**

**Spare parts for overrun brakes**



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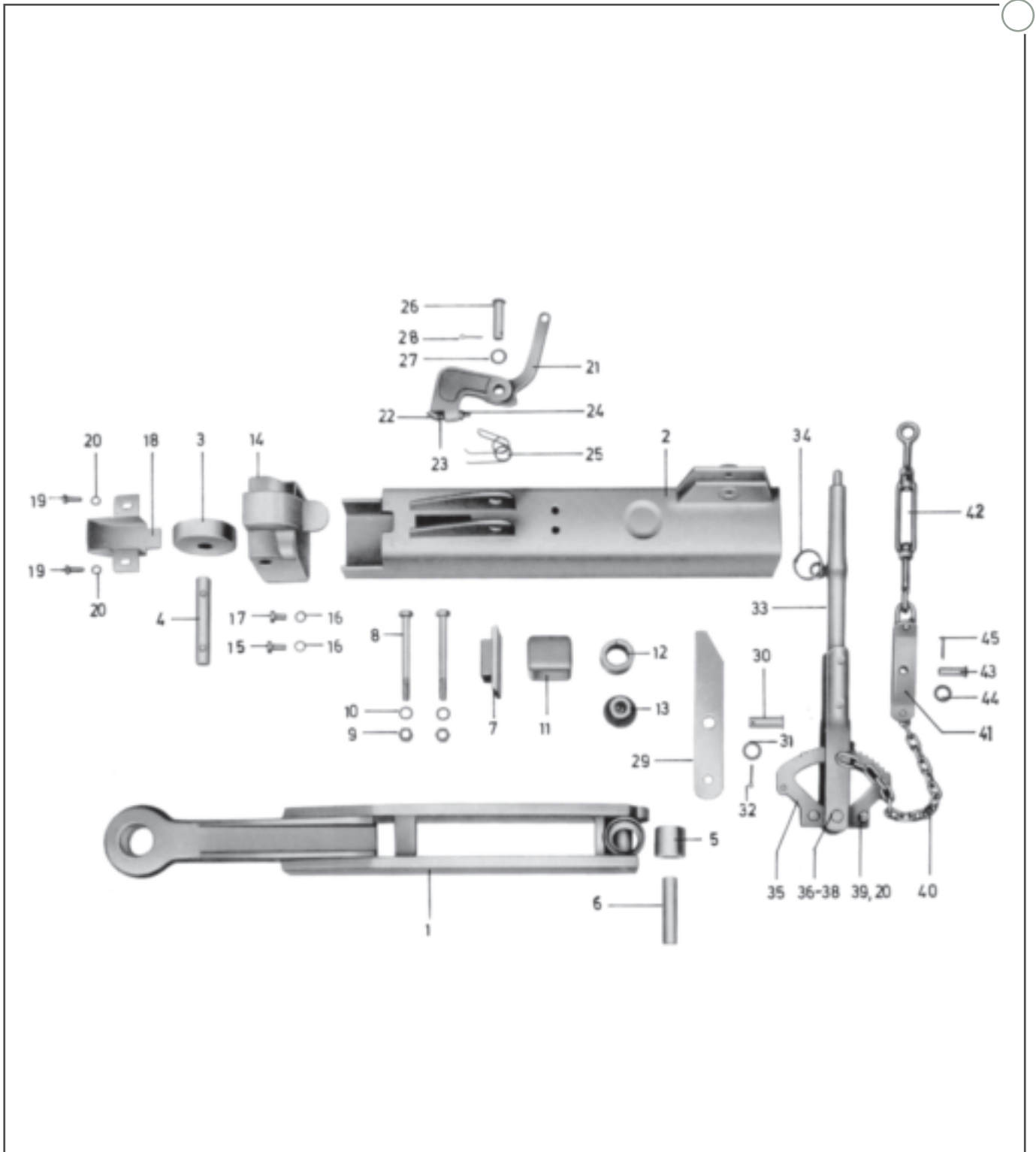
# Spare parts for overrun brakes

## Overrun brake AVE 57 - Spare parts

Item no.	Position	Designation	Contents
408.96.100	1	Drawbar eye DIN 74054, with 2 side rails, up to 25 km/h, from year of manufacture 1985, output top, bottom	1
**	2	Complete housing (only on request)	1
408.96.130	3	Support roller	1
408.96.140	4	Bolt for supporting roller	1
408.96.150	5	Track roller	1
408.96.170	6	Bolt for track roller	1
408.96.180	7	Print profile	1
**	8	Hexagon nut DIN 931 M 12 x 130	2
**	9	Hexagon nut DIN 934 M 12	2
**	10	Lock washer DIN 127 B 12	2
408.96.230	11	Tension absorber	1
408.96.240	12	Compression spring	1
408.96.250	13	Thrust piece	1
**	14	Bearing for supporting roller (with grease nipple)	1
**	15	Hexagon screw DIN 933 M 10 x 20	1
**	16	Lock washer DIN 127 B 10	2
**	17	Hexagon screw DIN 933 M 10 x 16	1
408.96.310	18	Protective cap	1
**	19	Hexagon screw DIN 933 M 8 x 20	2
**	20	Lock washer DIN 127 B 8	2
408.96.400	21	Complete reversing lock (Pos. 21-28)	1
408.91.265	22	Complete latch bolt	1
408.91.280	23	Catch spring	1
**	24	Hexagon nut	1
408.96.360	25	Leg spring	1
**	26	Bolt Ø 16 x 57 x 52	1
**	27	Washer Ø 27/16.8 x 0.8	1
**	28	Split pin DIN 94 4 x 25	1
408.96.410	29	Revering lever for version A, B and D	1
408.96.470	33	Hand brake lever compl. with Pos. 33-39	1
**	34	Tear-off ring	1
408.91.050	35	Toothed segment	1
**	36	Bolt DIN 1434 Ø 12	1
**	39	Hexagon screw DIN 601 M 8 x 25	2
**	40	Chain with fixing bracket Pos. 40 + 41	1

\*\* = no stock items

# Spare parts for Overrun brakes



Overrun brake AVE 57 - Spare parts

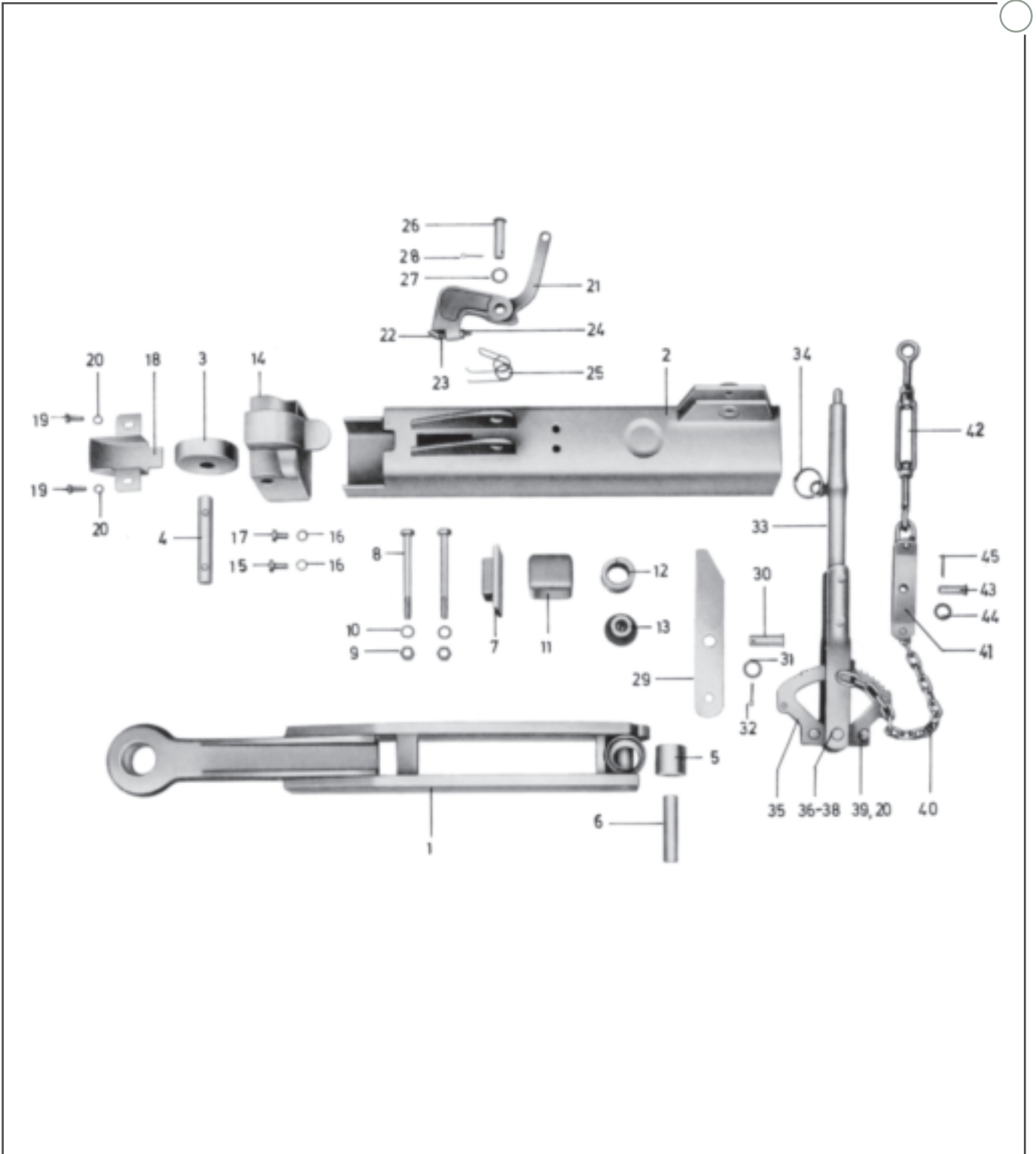
# Spare parts for overrun brakes

## Overrun brake AVE 80 - Spare parts

Item no.	Position	Designation	Contents
**	1	Drawbar eye with 2 side rails, up to 25 km/h, from year of manufacture. 1985, output top, bottom	1
**	1 / 1	Drawbar eye with 2 side rails, up to 25 km/h, from year of manufacture. 1985, lateral output	1
**	2	Complete housing version A (only on request)	1
408.96.130	3	Support roller	1
408.96.140	4	Bolt for support roller	1
408.96.150	5	Track roller	1
408.96.170	6	Bolt for track roller	1
408.96.760	7	Print profile	1
**	8	Hexagon screw DIN 931 M 12 x 130	2
**	9	Hexagon nut DIN 934 M 12	2
**	10	Lock washer DIN 127 B 12	2
408.96.230	11	Tension absorber	1
408.96.240	12	Compression spring	1
408.96.250	13	Thrust piece	1
408.96.830	14	Bearing for support roller (with grease nipple)	1
**	15	Hexagon screw DIN 933 M 10 x 16	1
**	16	Lock washer DIN 127 B 10	2
**	17	Hexagon screw DIN 933 M 10 x 16	1
408.96.310	18	Protective cap	1
408.96.400	21	Complete reversing lock, complete (Pos. 21-28)	1
408.91.265	22	Latch bolt, complete	1
408.91.280	23	Catch spring	1
**	24	Hexagon nut DIN 985 M 8	1
408.96.360	25	Leg spring	1
**	26	Bolt Ø 16 x 57 x 52	1
408.96.410	29	Reversing lever for version A, B, D	1
408.96.470	33	Handbrake lever complete with Pos. 33-39	1
**	34	Tear-off ring	1
408.91.050	35	Toothed segment	1
**	36	Bolt DIN 1434 Ø 12	1
**	38	Washer DIN 125 Ø 13/24 x 2.5	1
**	39	Hexagon screw DIN 601 Ø 8 x 25	2
**	40	Chain with fixing bracket (Pos. 40 + 41)	1

\*\* = no stock items

# Spare parts for Overrun brakes



Spare parts for  
Overrun brakes

Overrun brake AVE 80 - Spare parts

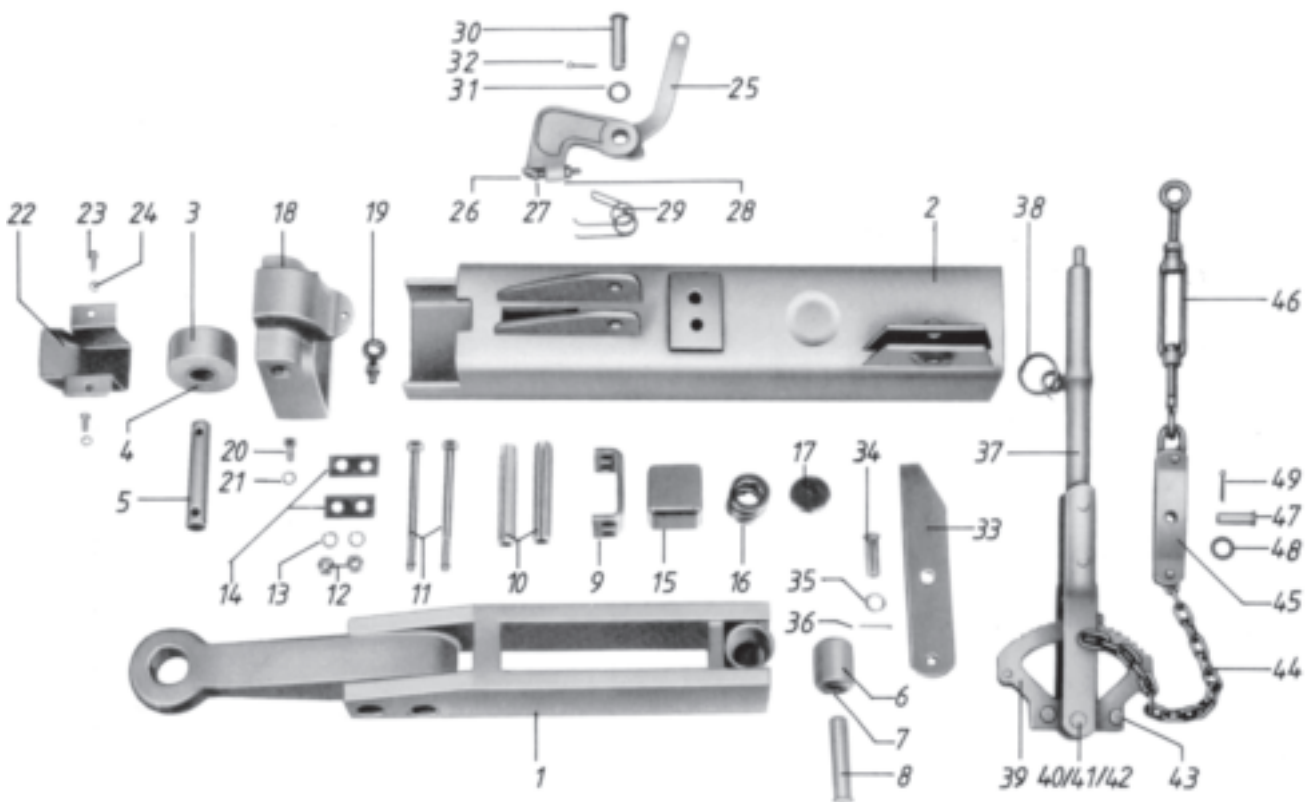
# Spare parts for overrun brakes

## Overrun brake AVE H 80 - Spare parts

Item no.	Position	Designation	Contents
**	1	Drawbar eye DIN 74054 with 2 side rails, up to 25 km/h, from year of manufacture 1985	1
**	2	Complete housing version (on request)	1
**	3	Support roller	1
**	4	Needle roller bearing with inner ring	1
408.97.240	5	Bolt for support roller	1
408.97.250	6	Track roller	1
**	7	Needle roller bearing with inner ring	2
408.97.260	8	Bolt for track roller	1
408.96.760	9	Print profile	1
408.97.810	10	Clamping sleeve DIN 1481 21 x 125	2
**	11	Hexagon screw DIN 931 M 12 x 155	2
**	13	Lock washer DIN 127 B 12	2
**	14	Washer	2
408.96.230	15	Tension absorber	1
408.96.240	16	Compression spring	1
408.96.250	17	Thrust piece	1
408.96.400	25-32	Reversing lock, complete	1
408.97.340	18	Bearing for support roller	1
**	19	Hexagon screw M 10 x 25	1
**	20	Hexagon screw DIN 933 M 10 x 20	1
**	21	Lock washer DIN 127 B 10	1
**	22	Protective cap	1
**	23	Hexagon screw DIN 933 M 8 x 20	2
**	24	Lock washer DIN 127 B 8	2
408.91.265	26	Latch bolt, complete	1
408.91.280	27	Catch spring	1
**	28	Hexagon nut DIN 985 M 8	1
408.96.360	29	Leg spring	1
**	33	Reversing lever	1
408.96.470	37	Handbrake lever, complete with Pos. Pages 37-43	1
**	38	Tear-off ring	1
408.91.050	39	Toothed segment	1
**	43	Hexagon screw DIN 601 M 8 x 25	1
**	44	Chain with fixing bracket Pos. 44 + 45	1

\*\* = no stock items

# Spare parts for Overrun brakes



Overrun brake AVE H 80 - Spare parts



# Spare parts for overrun brakes

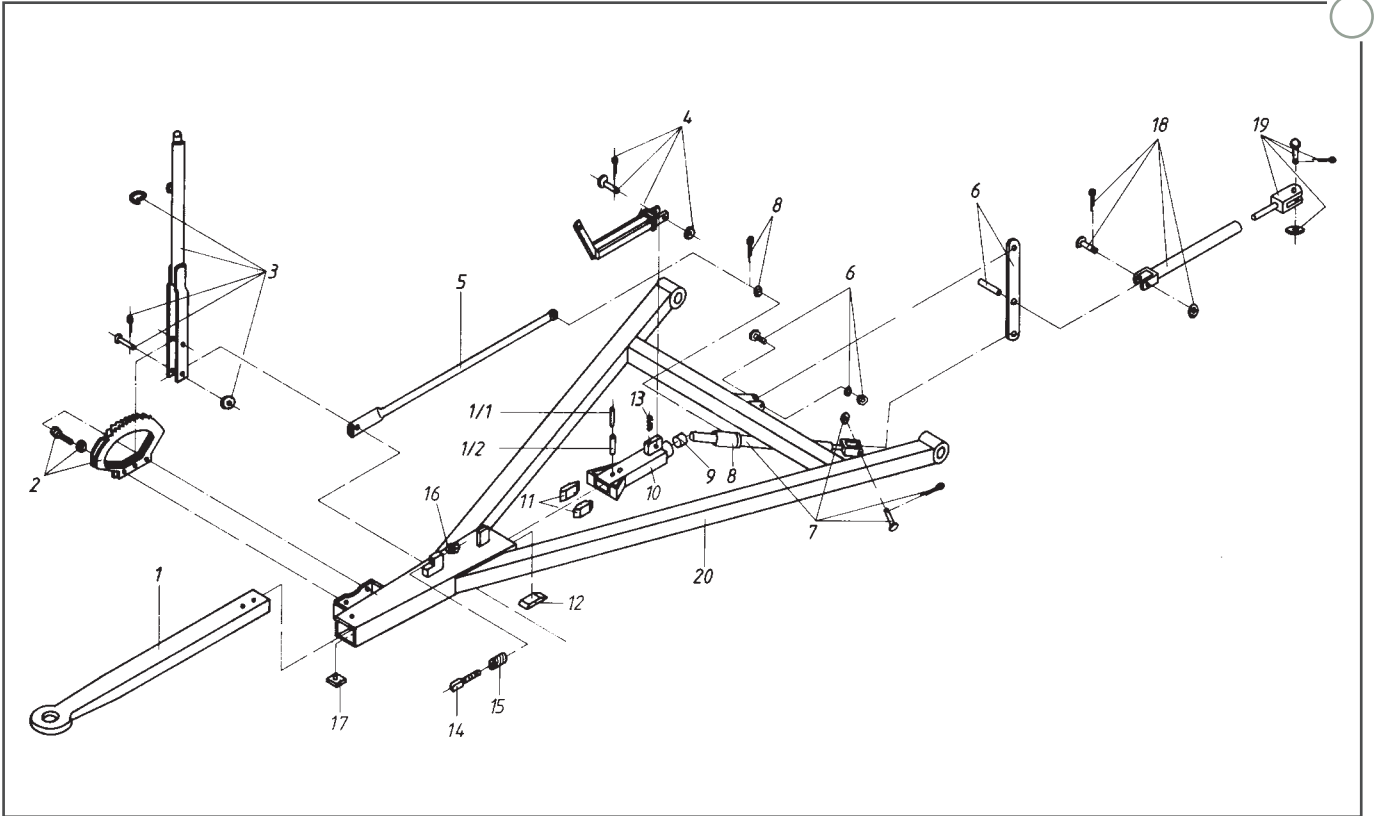
## Overrun brake AVM/D - Spare parts

Item no.	Position	Designation	Contents	AVM 44/D	AVM 80/D
408.91.010	1	Tie rod with 2 clamping sleeves DIN 1481, 36 x 40 mm VKT, Ø 7 x 55 and 2 clamping sleeves Ø 12 x 55	1	x	
408.91.510	1	Tie rod with 2 clamping sleeves DIN 1481, 40 x 55 mm VKT, Ø 7 x 55 and 2 clamping sleeves Ø 12 x 55	1		x
408.91.030	1 / 1	Clamping sleeve DIN 1481 Ø 7 x 55	2	x	x
408.91.040	1 / 2	Clamping sleeve DIN 1481 Ø 12 x 55	2	x	x
408.91.050	2	Toothed segment with hexagon screw DIN 601 M 8 x 25 and lock washer DIN 127 A8	1	x	x
408.91.060	3	Handbrake lever complete with toothed segment	1	x	x
408.91.070	4	Reversing lock with bolt DIN 1434 Ø 12 x 40	1	x	x
408.92.090	5	Handbrake linkage	1	x	x
**	6	Reversing lever with spacer bushing, hex. bolt DIN 993	1	x	x
408.92.130	7	Pressure linkage with bolt DIN 1434 Ø 14 x 35, washer Ø 15/25 x 1 and split pin DIN 94, 4 x 25	1	x	
408.92.650	7	Pressure linkage with bolt DIN 1434 Ø 14 x 35, washer Ø 15/2 x 1 and split pin DIN 94, 4 x 25, 750 mm long, outer tube 645	1		x
408.92.660	8	Sliding tube with washer Ø 17/27 x 1 and split pin DIN 94, 4 x 25	1	x	x
408.91.220	9	Damper disc	1	x	x
408.91.230	10	Connector	1	x	x
408.91.240	11	Start-up fumes	2	x	x
408.91.250	12	Thrust piece	1	x	x
408.91.260	13	Compression spring for reversing lock	1	x	x
408.91.265	14	Latch bolt, complete	1	x	x
408.91.280	15	Catch spring	1	x	x
408.91.300	17	Slide plate	2	x	x
**	18	Connecting rod (770 mm) with bolt DIN 1434 Ø 14 x 35, washer Ø 15/25 x 1 and split pin DIN 94, 4 x 25	1	x	x
**	19	Connection bolt with bolt DIN 1434 Ø 14 x 35, washer Ø 17/27 x 1 and split pin DIN 94, 4 x 25	1	x	x

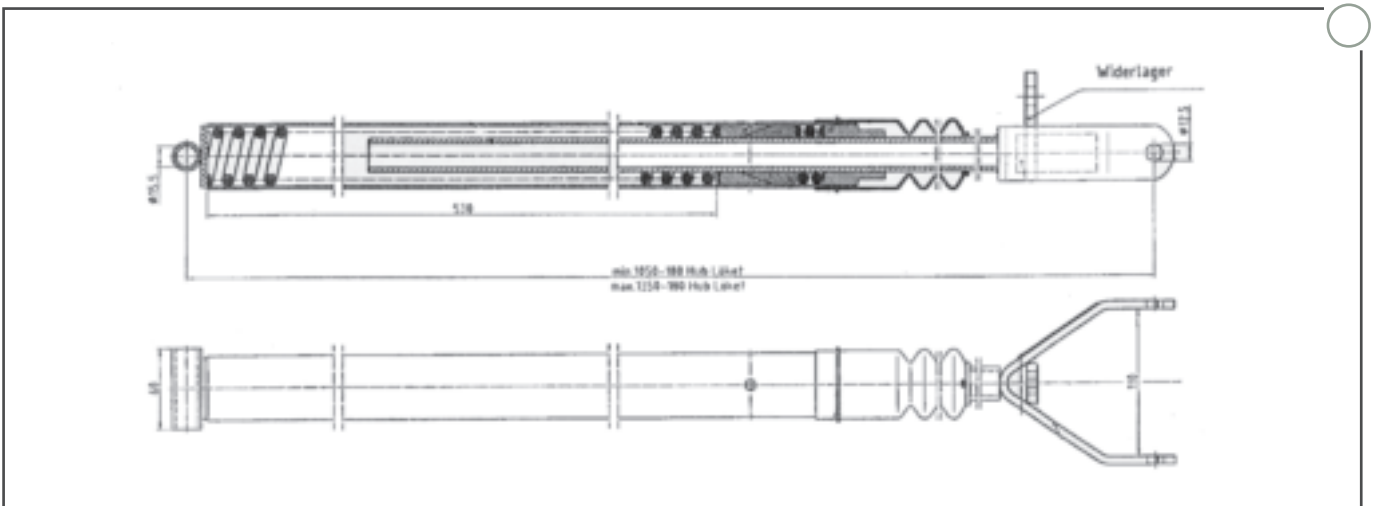
\*\* = no stock items

## Height adjustment device

Item no.	Position	Designation	Overrun travel
408.60.550	40	Klemmfix 2000 without counter bearing (handbrake with linkage)	120 mm
408.60.560	40	Klemmfix 2000 with counter bearing (handbrake with cable pull)	140 mm



Overrun brake AVM/D - Spare parts



Height adjustment device

# Spare parts for overrun brakes

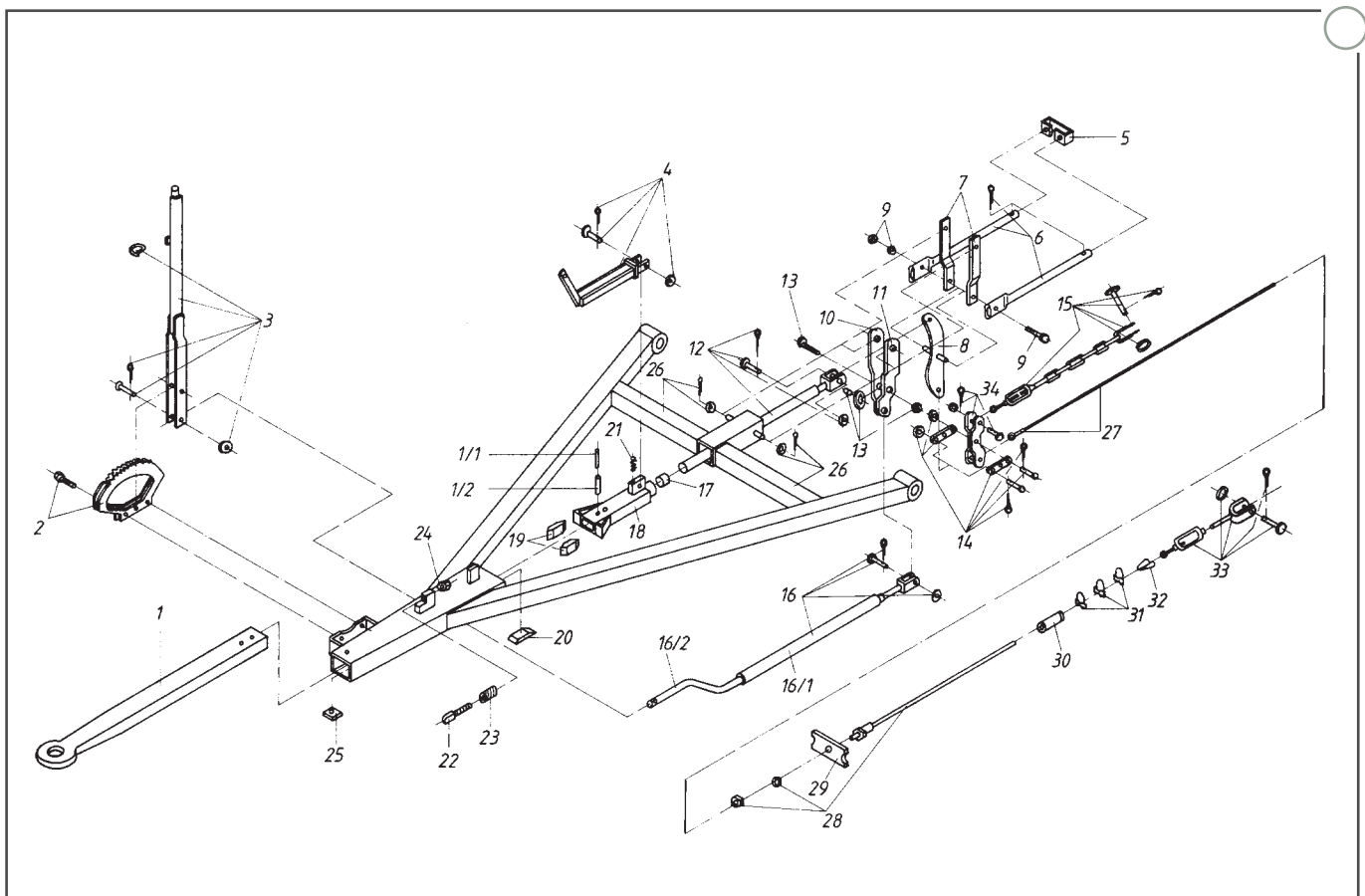
## Overrun brake AVM/E - Spare parts

Item no.	Position	Designation	Contents	AVM/E 44	AVM/E 80
408.91.010	1	Tie rod with 2 clamping sleeves DIN 1481, 36 x 40 mm VKT, Ø 7 x 55 and 2 clamping sleeves Ø 12 x 55	1	x	
408.91.510	1	Tie rod with 2 clamping sleeves DIN 1481, 40 x 55 mm VKT, Ø 7 x 55 and 2 clamping sleeves Ø 12 x 55	1		x
408.91.030	1/1	Clamping sleeve DIN 1481 Ø 7 x 55	2	x	x
408.91.040	1/2	Clamping sleeve DIN 1481 Ø 12 x 55	2	x	x
408.91.050	2	Toothed segment with hexagon screw DIN 601 M 8 x 25 and lock washer DIN 127 A8	1	x	x
408.91.060	3	Handbrake lever compl. with toothed segment	1	x	x
408.91.070	4	Reversing lock with bolt DIN 1434 Ø 12 x 40	1	x	x
408.91.071	4	Complete reversing lock, from year of construction 1990	1	x	x
**	5	Support	1	x	x
408.91.090	6	Support tube with split pin DIN 84, 5 x 40	1	x	x
**	7	Supporting bracket (right and left)	2	x	x
**	8	Reversing lever	1	x	x
**	10	Bracket, right	1	x	x
**	11	Bracket, left	1	x	x
408.91.650	12	Pressure linkage with bolt DIN 1434, Ø 14 x 35, washer Ø 15/14 x 1 and split pin DIN 94, 4 x 25, 870 mm long, outer tube 745	1		x
408.91.652	12	Pressure linkage with bolt DIN 1434, Ø 14 x 35, washer Ø 15/14 x 1 and split pin DIN 94, 4 x 25, brake force limiter, new version, 840 mm long, outer tube 720	1		x
**	12	Pressure linkage with bolt DIN 1434, Ø 14 x 35, washer Ø 15/25 x 1 and split pin DIN 94, 4 x 25, version EL, (specify length), 950 or 1110 mm long	1		
408.91.660	13	Roller, Ø 50/18 x 15 with bush Ø 18 x 2.9 x 15, hexagon screw DIN 933, M 12 x 40 and hex. nut DIN 954 M 12	1	x	x
**		Latch with bolt DIN 1434, Ø 14 x 35, washer Ø 15/25 x 1 and split pin DIN 94, 4 x 25	2	x	x
**		Turnbuckle with chain, bolt DIN 1434, Ø 14 x 45, washer Ø 15/25 x 1, Split pin DIN 94, 4 x 25, eye bolt and connector	1	x	x
408.91.690	16	Fall brake linkage with bolt DIN 1434, Ø 14 x 35, washer Ø 15/25 x 1 and split pin DIN 94, 4 x 25	1	x	
408.91.200	16/1	Fall brake linkage I, with bolt, washer and split pin	1	x	
408.91.210	16/2	Fall brake linkage II	1	x	
408.91.220	17	Damper disc	1	x	x
408.91.230	18	Connector up to year of construction 1989	1	x	x
408.91.231	18	Connector from year of construction 1990	1	x	x
408.91.240	19	Tension absorber	2	x	x
408.91.250	20	Thrust piece	1	x	x
408.91.260	21	Compression spring for reversing lock	1	x	x
408.91.265	22	Latch bolt, complete	1	x	x
408.91.280	23	Catch spring	1	x	x
408.91.300	25	Slide plate	2	x	x
408.96.360		Leg spring for reversing lock from manufacturing year 1990	1	x	x

## For 4-wheel-braked trailers, the following positions are added:

Item no.	Position	Designation	Contents
408.58.140	27	Bowden tow cable, 4500 mm long, with connection	1
408.58.120	28	Bowden cable sleeve, 950 mm long, with lock washer DIN 127 A 16 and hex nut, or:	1
408.58.130	28	Bowden cable sleeve, 1800 mm long	1
**	29	Web plate (counter bearing)	1
408.92.880	30	End piece	1
**	31	Cable clip 6.5 mm	3
**	32	Rope thimble 6 mm	1
**	33	Turnbuckle with eye bolt, fork with bolt 15/25 x 1 and split pin DIN 94 4 x 25	1
**	34	Equalizing lever with bolt DIN 1434 Ø14 x 45, washer Ø 15/25 x 1, split pin DIN 94, 4 x 25	1
**		Claw for Bowden cable with bolt, washer and split pin, 85 mm long, cranked	1

\*\* = no stock items



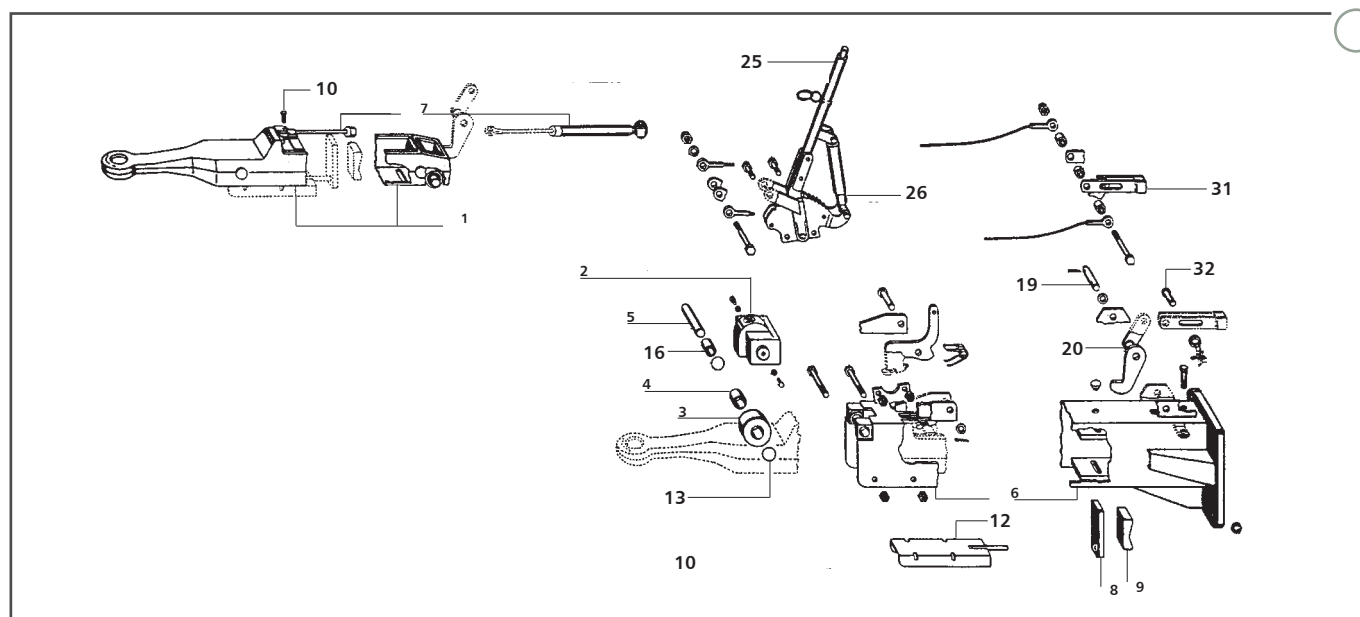
Overrun brake AVM/E - Spare parts

# Spare parts for overrun brakes

## Overrun brake AVE 2000 - spare parts Automatic reverse drive

Item no.	Position	Designation	Contents
**	1	Drawbar eye for overrun travel 100 mm, centric version	1
**	1	Drawbar eye for overrun travel 120 mm, centric version	1
408.97.510	2	Protective cap	1
408.95.020	3	Support roller complete with bearing, seal and bolt	1
**	4	Needle roller bearing	2
**	5	Bolt	1
**	6	Housing	1
408.91.525	7	Shock absorbers	1
408.95.030	8	End stop	1
408.95.010	9	Tension absorbers	1
**	10	Bolt	1
**	12	Support profile	1
**	13	O-RING	2
**	16	Inner ring	2
**	19	Bolt	1
**	20	Reversing lever	1
**	25	Handbrake lever	1
408.91.540	26	Shock absorbers	1
408.93.032	31	Handbrake cable	1
**	32	Bolt	1

\*\* = no stock items

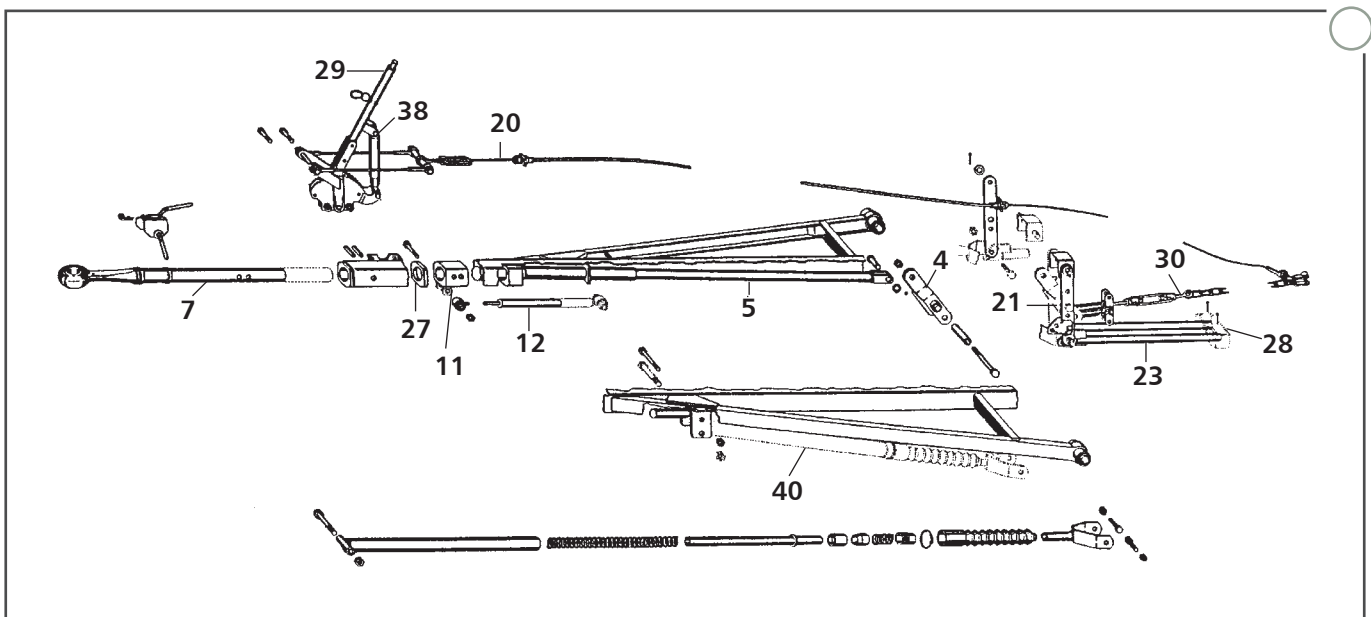


Overrun brake AVE 2000 - Spare parts - Automatic reverse drive

## Overrun brake AM 2000 - Spare parts Automatic reverse drive

Item no.	Position	Designation	Contents
**	4	Reversing lever	1
**	5	Pressure linkage (specify version)	1
**	7	Tie rod for overrun travel 120 mm, 690 mm long, incl. adjusting ring	1
**	7	Tie rod for overrun travel 120 mm, 780 mm long, incl. adjusting ring	1
408.93.044	7	Tie rod for overrun travel 140 mm, 690 mm long, incl. adjusting ring	1
**	7	Tie rod for overrun travel 140 mm, 780 mm long, incl. adjusting ring	1
**	11	Adjusting ring	1
408.91.530	12	Shock absorbers	1
408.93.030	20	Handbrake cable	1
**	21	Mounting bracket	2
**	23	Support tube	2
408.93.015	27	Tension absorbers	1
**	28	Support	1
408.93.025	29	Handbrake lever for linkage, version AK 6/12	1
408.93.027	29	Handbrake lever for cable pull, version AK 14	1
**	30	Chain with turnbuckle	1
408.91.540	38	Shock absorbers	1
408.60.560	40	Klemmfix	1
408.93.032	31	Handbrake cable	1
**	32	Bolt	1

\*\* = no stock items



Overrun brake AM 2000 - Spare parts - Automatic reverse drive





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Ball steering rings

**Ball steering rings**

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Ball steering rings

# Ball steering rings

## Ball steering rings series L and N - unbored

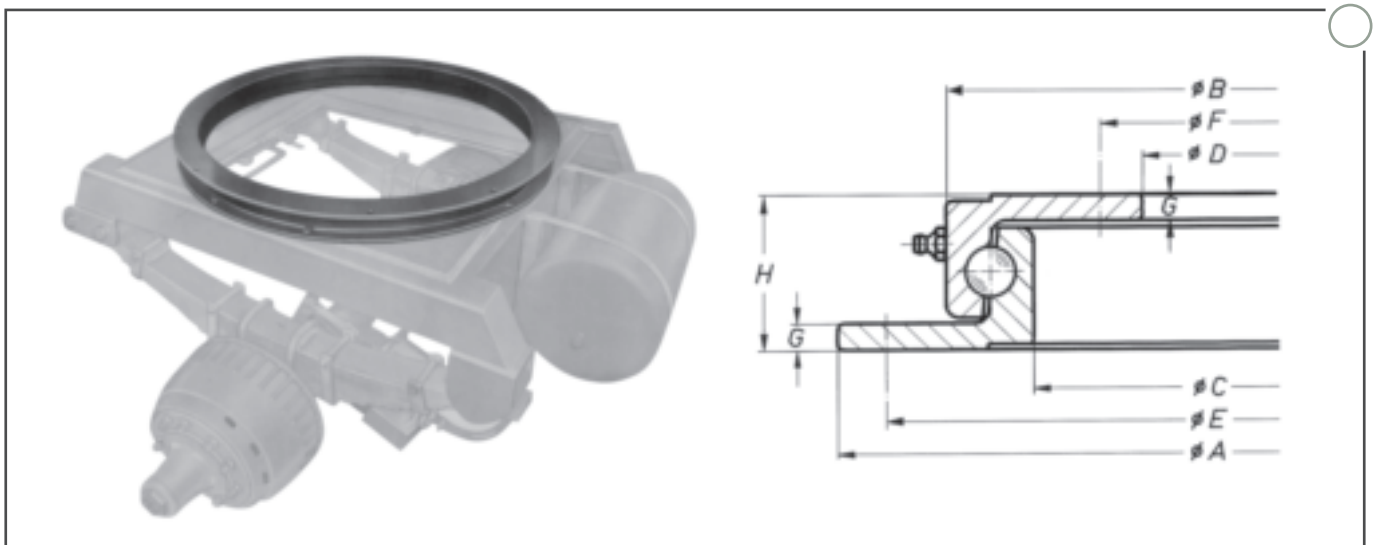
Item no.	Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	Axial load [kg]
444.00.100	400L	400	342	292	230	375	260	8	45	750
444.00.200	500L	500	442	392	330	475	360	8	45	900
444.00.300	650L	650	592	542	480	625	510	8	45	1500
444.00.400	750L	750	692	642	580	725	610	8	45	1800
444.00.500	850L	850	792	742	680	825	710	8	45	2500
444.00.600	950L	950	892	842	780	925	810	8	45	3000
444.00.700	1050L	1050	992	942	880	1025	910	8	45	3500
444.01.000	500N	500	437	384	315	475	340	8	52	1800
444.01.100	650N	650	587	534	465	625	490	8	52	2500
444.01.200	750N	750	687	634	565	725	590	8	52	3000
444.01.300	850N	850	787	734	665	825	690	8	52	3500
444.01.400	950N	950	887	834	765	925	790	8	52	4000
444.01.500	1050N	1050	987	934	865	1025	890	8	52	4500

L for agricultural trailers and transport equipment with a speed of up to 25 km/h.

N for agricultural trailers and light truck trailers over 25 km/h.

For the N series, the permissible axial load is increased by 30 - 50 % at a speed of less than 25 km/h.

# JOST



Ball steering ring series L and N

## Ball steering rings series HE / HE-L

Item no.	Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	Axial load [kg]
444.02.000	HE 4	650	700	588	567	657	671	9	80	3000
444.02.200	HE6-1000	1000	1015	903	882	792	986	9	80	6000
444.02.350 *	HE12L	1100	1111	986	959	1060	1074	10	90	8000
444.02.360 **	HE12L	1100	1111	986	959	1060	1074	10	90	8000
444.02.710	HE1100-22W	1100	1108	977	946	1060	1074	10	90	12000
444.02.800	HE1200-22	1200	1211	1086	1059	1160	1174	10	90	13000
444.02.850	1100-24	1095	1108	979	952	1060	1074	10	90	16000

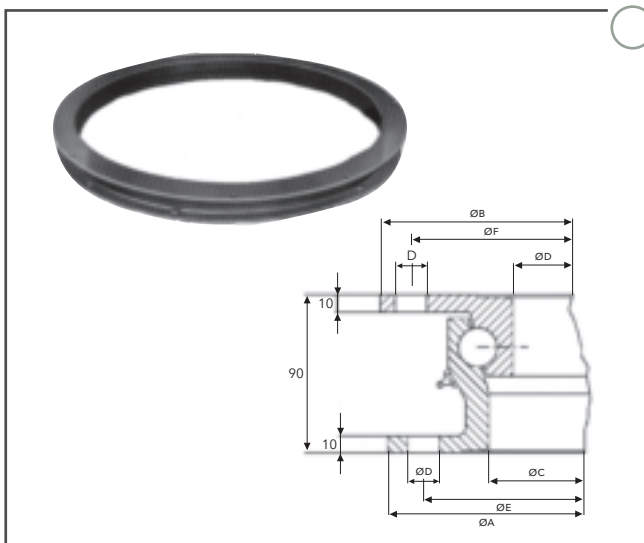
\* = Agriculture only

\*\* = not drilled

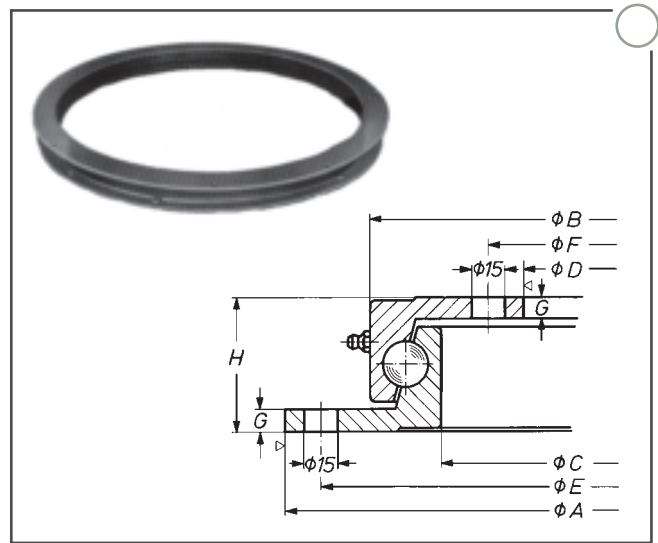
## Ball steering rings ND series

Item no.	Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	Axial load [kg]
444.02.950	1100ND	1102	1027	963	890	1070	920	10	60	7000

# JOST



Ball steering ring HE - L series



Ball steering ring ND series





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**Trailer hitches**

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**Drawbar eyes**

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**Ball couplings**

123

**Accessories for pulling devices**

**Trailer hitches and pulling devices**

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Trailer hitches  
and pulling devices



# Trailer hitches

## Compact coupling for industrial trucks and their trailers (EC tested)

Item no.	Rockinger reference number	D value [KN]	DC value [KN]	V value [KN]	Support load [kg]	Hole pattern [mm]	Mounting holes Ø [mm]
448.01.941	RO244A35002	42	30	12	250	120 x 55	15

## Manual trailer hitch

Item no.	Reference number Rockinger	D value [KN]	Tongue load [kg]	Hole pattern [mm]	Mounting holes Ø [mm]
448.01.952	RO805B3000C	60.4	650	120 x 55	15
448.01.945	RO805B4000C	78.5	1000	140 x 80	15

with Bearing loadmax. 40 km/h

## Automatic trailer hitches for 40 mm drawbar eyes according to DIN 74051

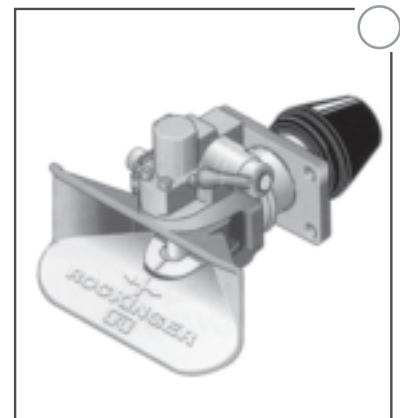
Item no.	Rockinger reference number	D value [KN]	Bearing load[kg]	DC value [KN]	V value [KN]	Hole pattern [mm]	Mounting holes Ø [mm]	Version	Figure
448.01.955	RO40LB4500C	90	500	80	25	140 x 80	17	Hand lever downwards	1
448.01.965	RO40LA4500C	90	500	80	25	140 x 80	17	Hand lever upwards	1
448.01.970	RO846B4030C	100	1000	64	23	140 x 80	17	Hand lever upwards	2



Compact coupling for floor conveyors vehicles and their trailers



Manual Trailer hitch



Automatic trailer hitch R040

## Trailer hitch K80 for drawbar eyes according to DIN 75054

Item no.	Trailer load [kg]	Top speed km / h	Hole pattern [mm]	Figure
448.00.020	8000	40	150 x 110	1

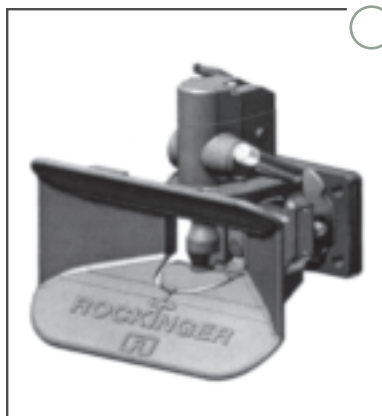
## Accessories for trailer hitch K80

Item no.	Designation	Figure
448.00.030	Bush pin	2
448.00.040	Nib	3

## Towing coupling

Item no.	Reference number Rockinger	Trailer [kg]	TRUCK [kg]	Hole pattern [mm]	Bolt Ø [mm]
448.01.930*	RO230B35000	25.000	50.000	120 x 55	32

\* Towing couplings are not subject to type approval.  
 Intended use: Towing of inoperable vehicles and in exceptional cases suitable for shunting purposes.  
 Use for trailer operation is not permitted



Automatic trailer hitch  
RO 846B



Trailer hitch K80



Towing coupling

# Pulling devices

## Angled drawbar eyes

Item no.	Bernhofer Reference number	Eye Ø [mm]	Length [mm]	Support load [kg]	Bore Ø [mm]	Comment
448.05.400	Z-021.2	40	242	500	21	without bush
448.05.410	Z-021.5	50	242	500	21	without bush

## Drawbar eyes for welding on

Item no.	Bernhofer reference number / bpt	Eye Ø [mm]	Length [mm]	Shank [mm]	Bearing load [kg] up to 25 km/h over 25 km/h	Permissible total weight [kg]	Version	
448.05.090	Z-012	40	270	40 x 40	360	180	1800	light, without bush
448.05.110	PT-30150	40	310	50 x 50	1000	500	5000	light, without bush
448.05.200	Z-016.1	40	340	56 x 65	1350	1000	7000	heavy, with bush
448.05.300	PT-30155	40	310	55 x 65	1350	-	7000	heavy, without bush

## Drawbar eye HITCH ISO-Norm 5692

Item no.	Reference number bpt	Eye Ø [mm]	Length [mm]	Support load [kg]	Shank Ø [mm]	permissible total weight [kg]
448.05.210	PT-35001	52	380	3000	82	17000

## Bush for drawbar eyes (slotted)

Item no.	Reference number Bernhofer	Inner Ø [mm]	Outer Ø [mm]	Height [mm]
448.05.610	L-021	40	48	31.5



Angled drawbar eye



Drawbar eye for welding on



Drawbar eye HITCH  
ISO-Norm 5692



Bush for drawbar eye

## Flange towing eye DIN 74054-40D

Item no.	Bernhofer reference number	Eye Ø [mm]	Length [mm]	Bearing load [kg] up to 25 km/h over 25 km/h		Permissible total weight [kg]	D-value [KN]
448.03.400	Z-041.1 - Type 75	40	250	2000	1000	14000	125

## Flange towing eye DIN 11026-40B

Item no.	Bernhofer reference number	Eye Ø [mm]	Length [mm]	Bearing load [kg] up to 40 km/h over 40 km/h		Permissible total weight [kg]	D value [KN]
448.03.420	Z-039 - Type 86	40	240	2500	2000	24000	130

## Flange towing eye DIN 74053-50D

Item no.	Bernhofer reference number	Eye Ø [mm]	Length [mm]	Bearing load [kg] up to 40 km/h over 40 km/h		Permissible total weight [kg] up to 40 km/h over 40 km/h		D-value [KN]
448.03.410	Z-042.2 - Type 80	50	250	2000 - 27000	2500 - 25000	3000 - 23000	2000 - 23000	190

## Flange towing eye RO 57284

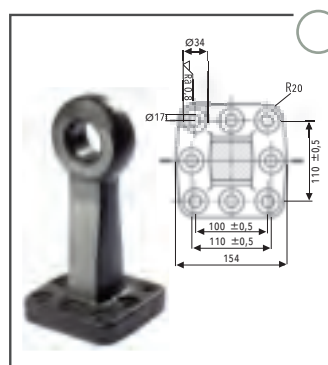
Item no.	Rockinger reference number	Eye Ø [mm]	Length [mm]	Bearing load [kg]		permissible trailer load [kg]		D value [KN]
				for V value 43.2 KN	for V value 90 KN	for V value 43.2 KN	for V value 90.0 CN	
448.03.210	ROE57284	50	250	3000	1000	21000	26000	250



Pulling device DIN 74054-40D



Pulling device DIN 11026-40B



Pulling device DIN 74053-50D



Pulling device RO 57284

# Pulling devices

## Ball couplings 80 mm for agriculture and forestry

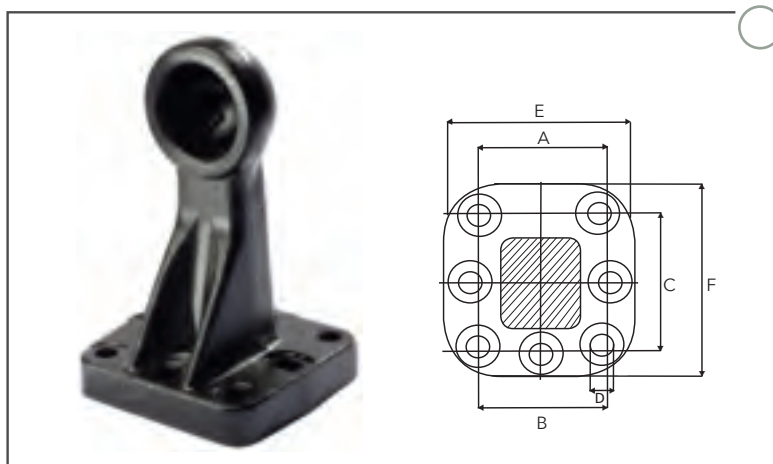
Item no.	Reference number Rockinger	DC value [kN]	Total tensile load [kg]	Bearing load [kg]	Permissible axle load [kg]
448.02.300	59344	89.3	*	2.500	*
448.02.310	59347	89.3	*	2.500	*
448.02.340	57L013	97.1	*	4.500*	*

\* = Depending on the approval of the tractor manufacturer

## Dimensions

Item no.	Rockinger reference number	Flange	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]
448.02.300	59344	6-hole	100	-	110	17	154	154
448.02.310	59347	8-hole	100	110	110	17	154	154
448.02.340	59343	8-hole	145	145/160	145	21	205	195

- Optimum driving comfort due to minimal clearance, especially with fast runners
- High bearing load, depending on design up to 4 tons
- Larger axial and vertical swivel angles than with Piton Fix and Pin couplings
- Low wear and long service life
- High operating comfort due to innovative locking system
- Easy maintenance due to easily replaceable ball
- Can be retrofitted for towing brackets with different installation dimensions



Ball couplings ball system 80 mm

### Weld-on plates

Item no.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]
448.03.310	100	110	100	M16 x 1.5	162	162
448.03.315	145	160	145	M20 x 1.5	210	210

### Allen screw ISO 4762, galvanized

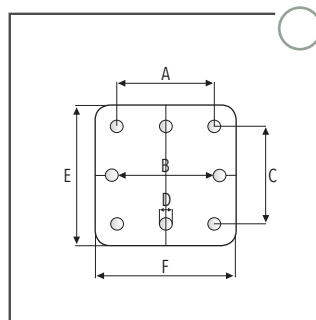
Item no.	Length [mm]	Thread	Strength
448.03.332	55	M16 x 1.5	12.9

### Ball head for tractor linkage drawbar

Item no.	A [mm]	B [mm]	C [mm]	Bearing load [kg]	Trailer load [kg]	Thread	Comment
448.07.000	63	128	50	150	2000	M 20 x 1.5	with washer and self-locking nut



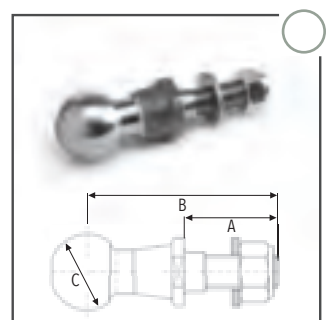
Weld-on plate



Weld-on plate



Allen screw ISO 4762



Ball head for tractor linkage drawbar



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**Support devices**

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**Support devices and support feet**

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**Spare parts list for  
support devices  
(internal gear)**

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**Spare parts list for  
support devices  
(external gear)**

**Supporting devices and  
Support legs**

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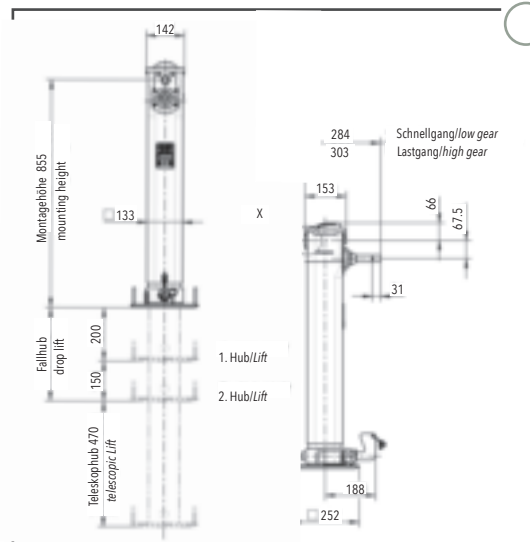
# Support devices and support wheels

## Supporting devices with telescopic foot incl. crank with load and overdrive

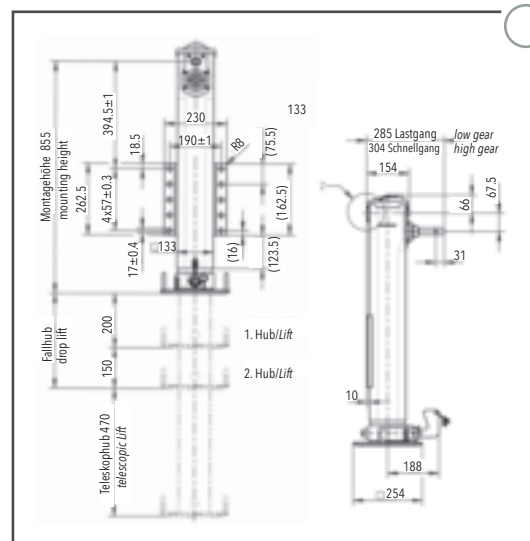
Item no.	Lifting capacity [kg]	Bearing load [kg]	Version
408.66.947	10000	12000	without mounting plate
408.66.948	10000	12000	reduced mounting plate
408.66.949	10000	12000	Standard mounting plate



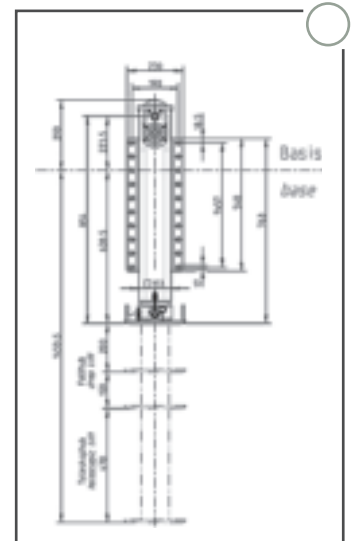
Support device



without mounting plate



reduced mounting plate



Standard mounting plate

## Support wheels primed with steel wheel

Item no.	Version	Wheel size [mm]	Tube length [mm]	Tube Ø [mm]	Boring length [mm]	Folding stroke [mm]	Bearing load [kg]
408.58.020	with spring	275 x 70	460	70	300	330	1000
408.58.022	with spring	275 x 70	600	70	350	300	1000
408.58.030	with footrest	310 x 90	460	70	240	440	1500
408.58.040	with footrest	300 x 90	700	70	400	440	1500
408.58.075	with spring	310 x 90	500	90	300	380	1500

## Primed support foot, with angular gear

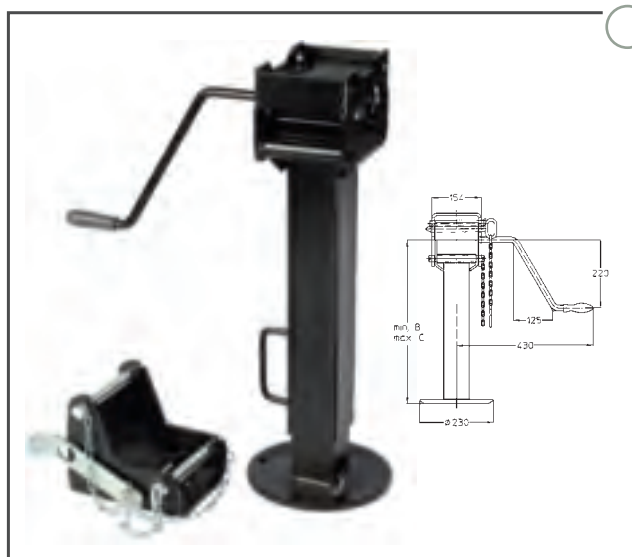
Item no.	Foot Ø [mm]	Tube length [mm]	Tube Ø [mm]	Boring length [mm]	Bearing load [kg]
408.66.940	220	500	80	310	4000

## Primed support foot, foldable

Item no.	Foot Ø [mm]	Tube length [mm]	Tube Ø [mm]	Boring length [mm]	Bearing load [kg]
408.66.946	220	560	80	300	4000



Support foot version with angular gear



Primed support foot, foldable

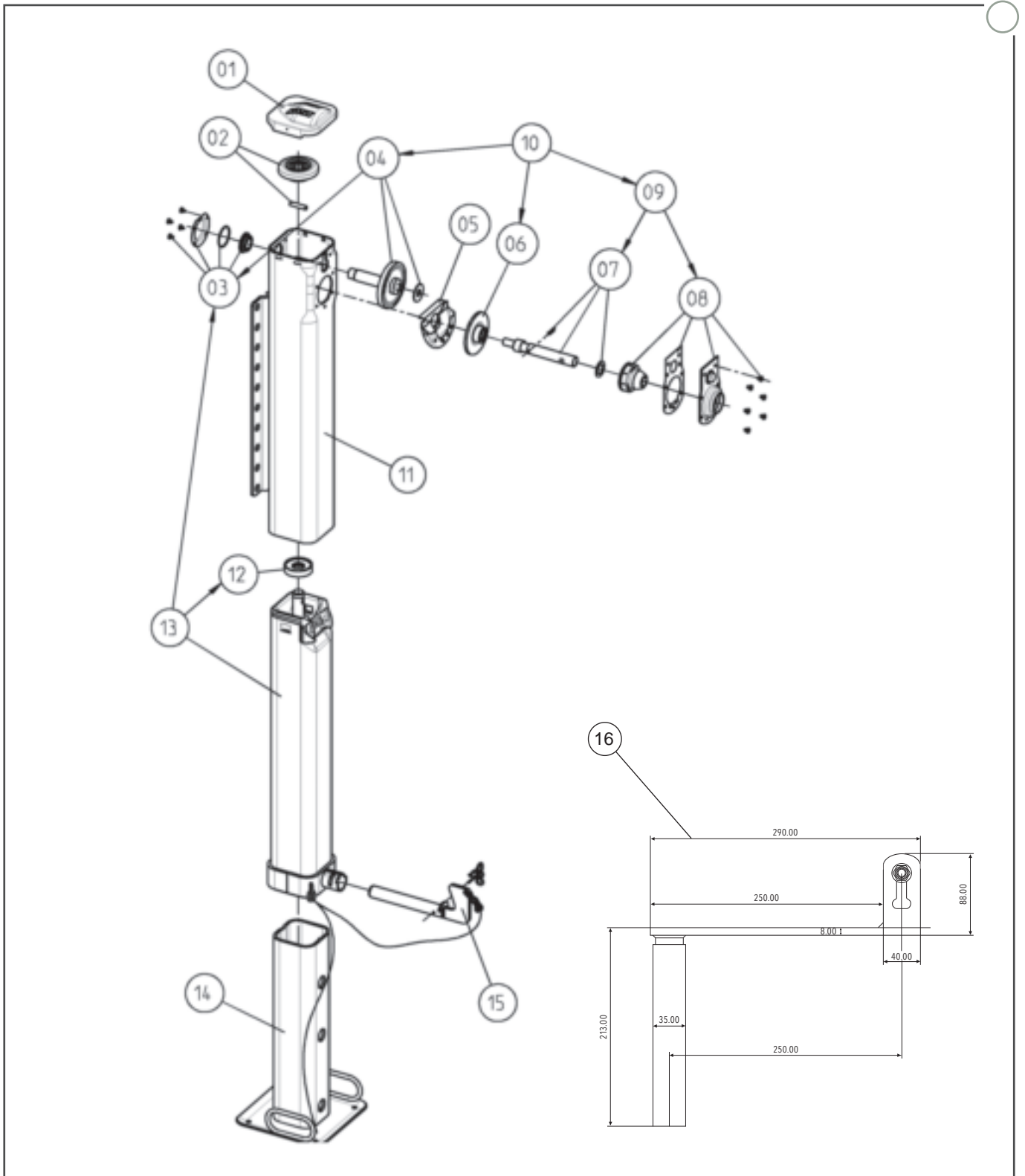


Support wheel

# Support devices and support wheels

## Spare parts list for support devices (internal gear)

Item no.	Pos.	Designation	Jost reference number
408.67.047	1	Plastic lids	JS E0046300
408.67.051	2	Bevel gear with pin	JS E0058600
408.67.052	3	Cover complete with bearing	JS E0083900
408.67.053	4	Shaft with bearing	JS E0084100
408.67.054	5	Grease trough	JS E0002000
408.67.055	6	Cog	JS E0055800
408.67.056	7	Crankshaft cpl.	JS E0046500
408.67.057	8	Bearing holder cpl.	JS E0058800
	9	consists of Pos. 7+8	JS E0056600
	10	consists of Pos. 4+6+9	JS E0084300
on request	11	Shank	JS E0103701
408.67.058	12	Axial bearing	JS E0066401
on request	13	Inner tube with spindle and bearing	JS E1070808
on request	14	Downpipe with chain	JS E0086901
408.67.059	15	Forelock	JS E0075000
408.67.035	16	Hand crank	JS 1118-0274K



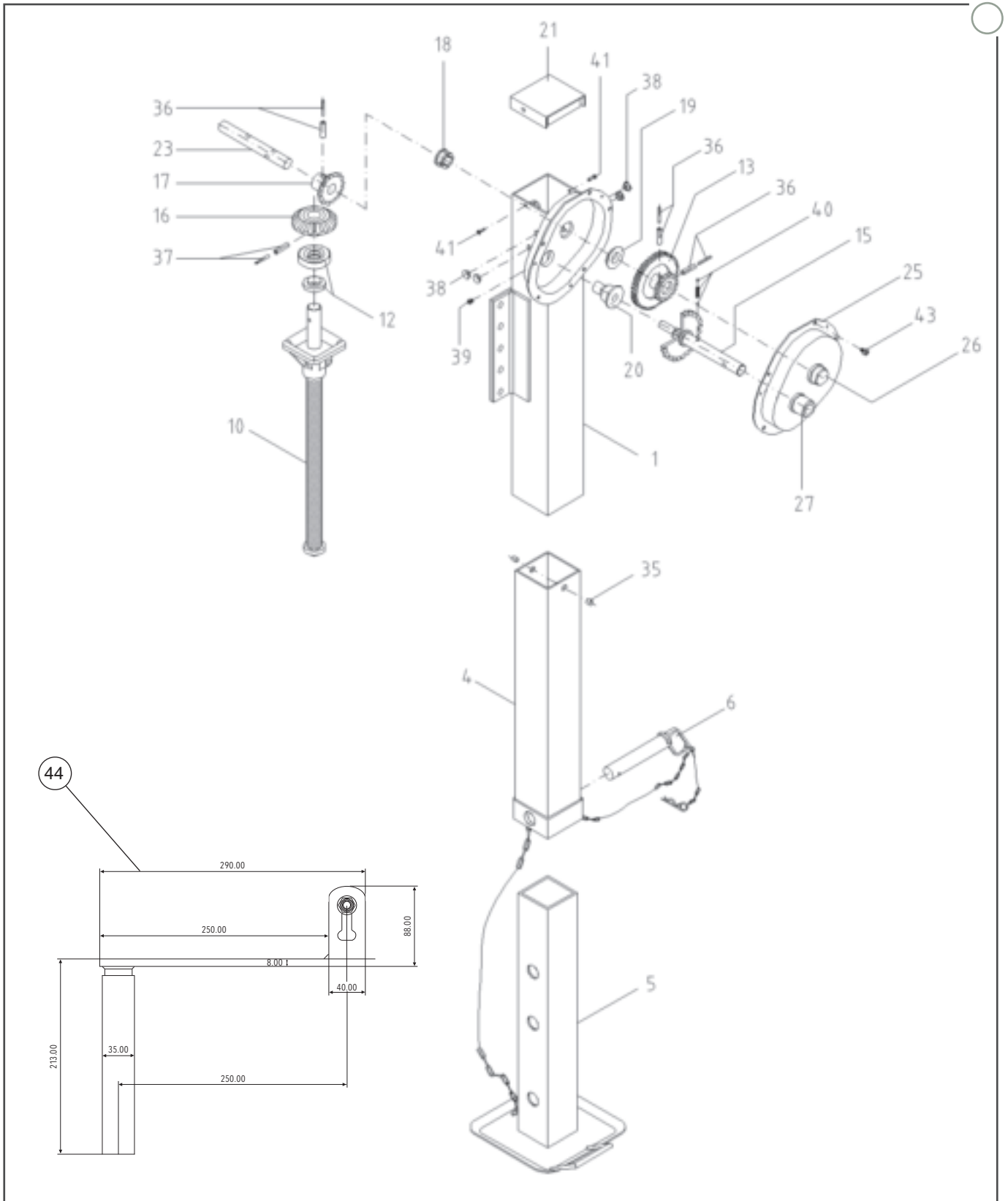
Spare parts for supporting devices



# Support devices and support wheels

## Spare parts list for support devices (external gear)

Item no.	Pos.	Designation	Jost reference number
on request	1	Shank, right	JS3311-0066
on request	1	Shank, right	JS1111-0435
on request	4	Support tube, complete	JS3318-0025
on request	5	Downpipe, complete	JS3318-0069
on request	5	Support tube, complete	JS1112-0259
on request	6	Forelock	JS3112-0055
408.67.010	10	Spindle, right, complete with position 12	JS1114-0001
408.67.012	12	Thrust bearing	JS1101-0160
408.67.041	13	Gear set, large, with clamping sleeves 36	JS1118-0005
408.67.014	15	Crank drive, with balls and compression spring	JS1118-0275
408.67.034	15	Crank drive, with balls and compression spring	JS1118-0006
408.67.036	16	Bevel gear, large, with clamping sleeves 36	JS1118-0014
408.67.037	17	Bevel gear, small, with clamping sleeves 36	JS1118-0015
on request	18	Bearing cup, with O-ring	JS1118-0273
408.67.038	19	Bearings	JS1101-0007
408.67.016	20	Bearings	JS1101-0009
on request	21	Lid	JS1101-0003
on request	22	Drive shaft	JS1114-0061
408.67.018	25	Front housing side	JS7111-0001
408.67.020	26	Bearings	JS1101-0008
408.67.022	27	Locking bearing	JS1101-0010
408.67.042	33	Crank holder	JS1101-0017
408.67.024	35	Dowel pin	JS1120-0007
408.67.044	36	Clamping sleeves	JS1118-0008
on request	37	Clamping sleeves	JS1118-0006
408.67.026	38	Sealing plugs	JS1101-0012
on request	39	Conical grease nipple	JS1120-0021
408.67.028	40	Pressure spring with balls	JS1118-0004
on request	41	Screw	JS1120-0021
on request	42	Screw with nut	JS1118-0116
on request	42	Screw with nut and washer	JS1118-0010
408.67.030	43	Spiral-shaped screw	JS1120-0073
408.67.035	44	Hand crank	JS1118-0274K



Spare parts for supporting devices



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**Vehicle fittings and  
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# Tilting cylinders and accessories

## Tilting cylinder for 2-sided tipping system

Item no.	Lift [mm]	Steps Ø [mm]	Lifting force at 220 bar [KN]
440.00.010	493	45/60	32
440.00.020	500	60/75	53

### Technical data

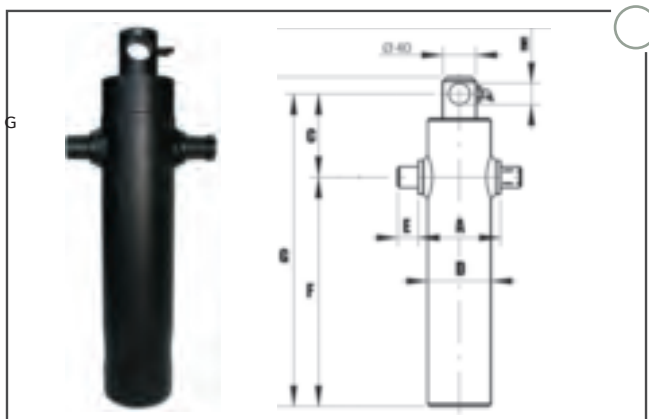
Item no.	A [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]
440.00.010	98	100	76	25	275	375	25.5
440.00.020	120	100	95	35	275	375	25.5

## Tilting cylinder for 3-sided tipping system

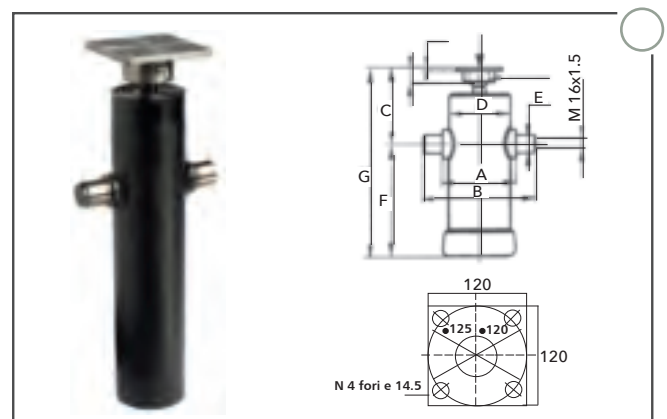
Item no.	Lift [mm]	Steps Ø [mm]	Lifting force at 200 bar [KN]
440.01.100	1410	75/90/105	94
440.06.110	1964	90/105/120/135	135

### Technical data

Item no.	A [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]
440.01.100	148	228	181	125	40	451
440.06.110	192	282	244	158	50	444



Tilting cylinder for 2-sided tipping system



Tilting cylinder for 3-sided tipping system

## Gimbal rings for tilting cylinders

Item no.	for tilting cylinders
440.06.117	440.00.010
440.00.021	440.00.020/440.00.200
440.06.301	440.00.700/440.01.100/440.06.305/440.06.310
440.06.101	440.06.100
440.06.111	440.06.110

### Technical data

Item no.	A [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]
440.06.117	100	115	25	25	22.5	22	55
440.00.021	125	165	36.5	35	37.5	27	76
440.06.301	150	185	40	40	40	27	105
440.06.101	167	215	45	45	40	30	115
440.06.111	194	240	50	50	45	50	155

## Hydraulic hand pump - single acting

Item no.	Tank capacity [l]	Nominal pressure [bar]
440.05.000	5	180

## Lift limiter

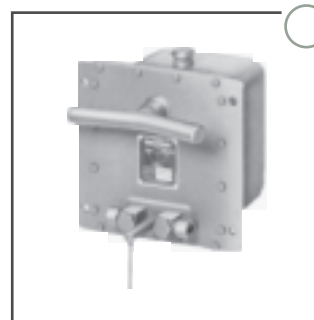
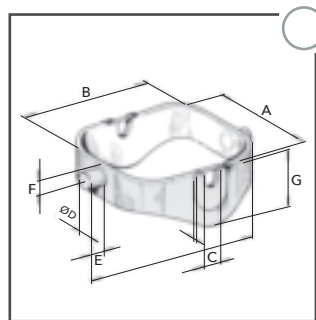
Item no.	Designation	Nominal width
456.01.100	HBKH 12 L	DN10
456.01.120	HBKH 15 L	DN13

### Technical information:

For hydraulic tipping systems with high flow rates, a hydraulic lift limiter should be provided. This is installed in the pipeline in front of the telescopic cylinder. Actuation is via cable pull and spring when the tipper body is at an appropriate angle. The oil flow is shut off before the cylinder end stop.



Gimbal ring for tilting cylinder



Hydraulic hand pump



Lift limiter



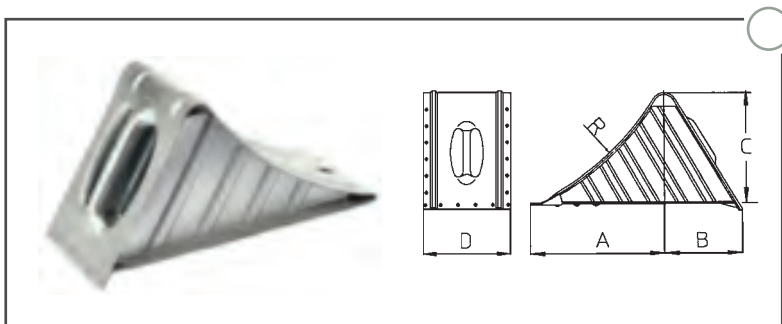
# Stop blocks and holders

## Stop block - steel

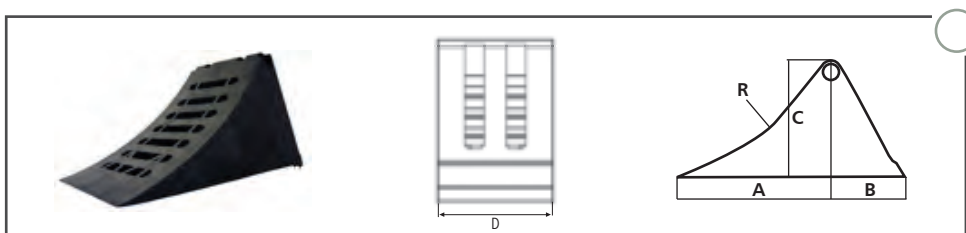
Item no.	Type	A [mm]	B [mm]	C [mm]	D [mm]	R [mm]	Wheel load [KN]	Surface treatment
492.00.710	NG 36	220	102	150	120	360	15	galvanized

## Stop blocks - plastic

Item no.	Type	A [mm]	B [mm]	C [mm]	D [mm]	R [mm]	Wheel load [KN]	Color
492.00.735	NG 46	260	120	190	160	460	35	black, RAL 9005
492.00.775	NG 53	320	150	230	200	560	65	black, RAL 9005



Stop blocks- steel



Stop blocks - plastic

## Stop block holder - steel

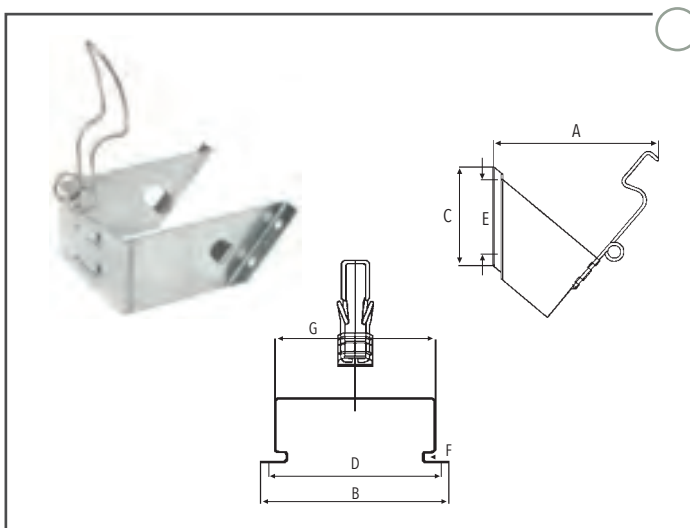
Item no.	Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Surface treatment
492.00.510	NG 36	225	164	70	144	40	8.5	124	galvanized
492.00.530	NG 46	250	215	85	185	60	8.5	164	primed
492.00.540	NG 46	250	215	85	185	60	8.5	164	galvanized
492.00.541	NG 46	250	215	85	185	60	8.5	164	powder coated (black)
492.00.545	NG 53	290	257	120	230	80	8.5	206	primed
492.00.550	NG 53	290	257	120	230	80	8.5	206	galvanized

## Car stop block - plastic

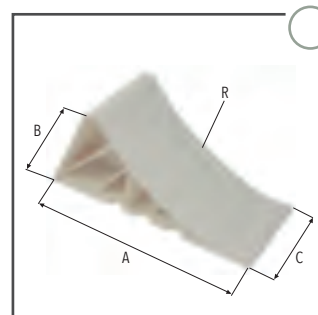
Item no.	A [mm]	B [mm]	C [mm]	R [mm]	Wheel load [KN]	Color
492.00.820	224	100	90	200	10	white

## Holder for car stop block- plastic

Item no.	Color
492.00.500	white



Holder for stop block



Car stop block



Holder for car stop block

# Vehicle fittings and underride protection

## Galvanised underride protection

Item no.	Width [mm]	Height [mm]	Depth [mm]
492.03.610	2300	255	90

## End caps for underride protection

Item no.	Type
492.03.612	Plastic with side reflector

## Eccentric lock

Item no.	Type	Surface treatment
484.00.340	to screw on, adjustable	galvanized

## Counterholder for eccentric lock

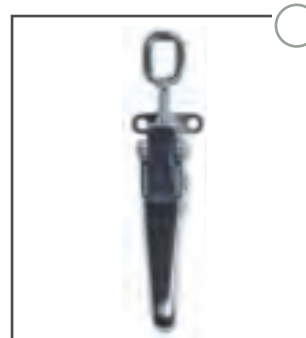
Item no.	Surface treatment
484.00.342	galvanized



Galvanised underride protection



End caps



Eccentric lock



Counterholder for eccentric lock

## Hinged closures HW60/80

Item no.	Mounting side	Surface treatment
424.25.360	right	red primed
424.25.370	left	red primed



Hinged closure HW60/80 - left and right

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