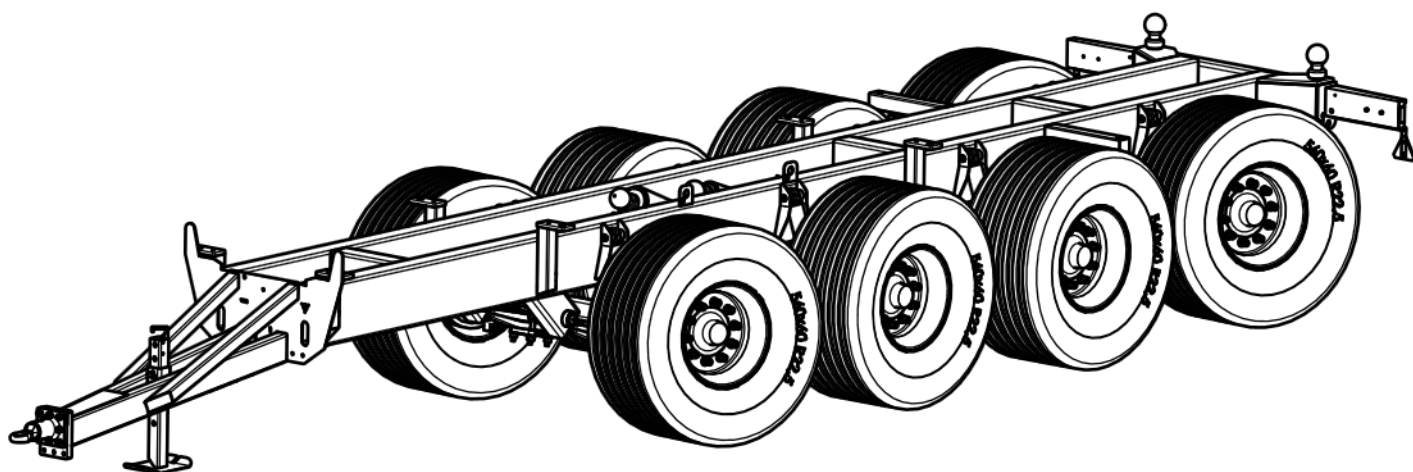
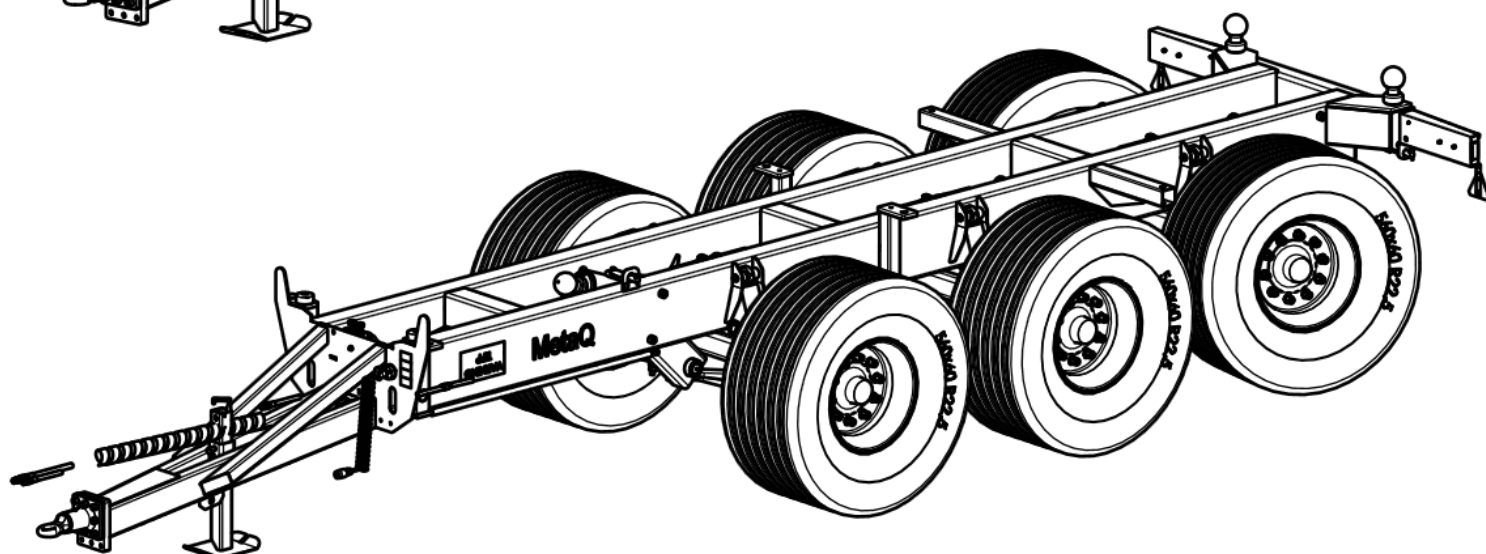
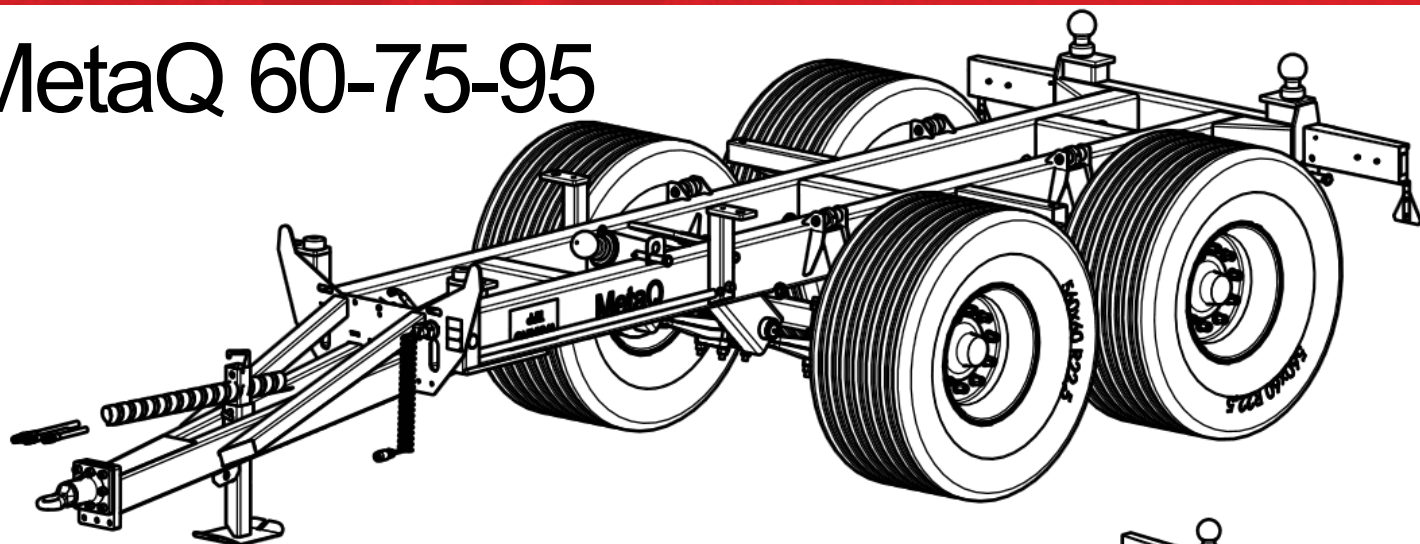




METSJÖ

Ivarssons i Metsjö AB

MetaQ 60-75-95



User manual

Introduction

This trailer is built by "Ivarssons i Mestjö AB"

Before you begin to use the trailer, you should be familiar with its functions and operations. This is done by carefully reading throughout this user's manual and at the same time practically seeing where on the trailer the future settings and adjustments will be made.

For your ease and to avoid future mistakes in connection with maintenance and spare parts questions, we advise you to write down the type of the trailer, its serial number and manufacturing year. This information you can also find on the manufacturer's plate which is placed on the left side of chassis frame.

Serial number

Manufacturing year.....

"Ivarssons i Mestjö AB" keep the right to make changes in the construction and specification of the trailer.

EG-Conformity declaration CE

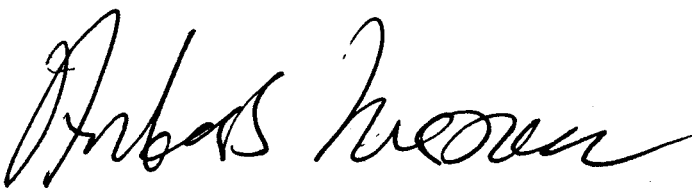
Manufacture Ivarssons i Mestjö AB 58592 Linköping 013-59310

This machine is built according the following standards

89/392 EG 91/368/EEG.

harmonised norms

Bosch el.System.Hydraul. System PRN 982.



Anders Ivarsson

Driving instructions

The tractor should be chosen according to the terrain

Recommended tractor: MQ60 180 Hp, MQ75 210Hp

A loaded trailer should always be connected to the tractor

Connect always:

- The brake hose 1/4 hose
- The tipping hose 3/4 hose
- The axle-lift/ steering lock hose 1/4 hose
- The lightning system

The driver should be careful that the hoses are not placed somewhere where they can be squeezed by the frame during the shifting process. The driver can adjust the weight transferred to the tractor by moving the adjustable shifting arm front and backwards. The arm can be adjusted 900mm.

The maximum approved payload on the tractor is 3 tons.

Disconnecting from the tractor

1. The disconnection of the trailer should always take place on a flat and solid ground
2. Place the wheel wedges on the front and rear axle
3. Lower the support leg until it reaches the ground
4. Dismount the electrical connections and the hydraulic hoses, which should NOT be under pressure.
5. Release the hitch hook

Warning: The trailer is not equipped with a negative braking system

Tipping

1. Check if the hitch hook or drawbar is locked to avoid negative suspension
2. Assure yourself that the weight of the load is evenly divided over the trailer
3. Check if the tailgate is opened (hydraulic/mechanical tailgate)
4. Tipping should take place on a flat and solid surface
5. Secure area while tipping: 15 meters in radius
6. The tractor must always be connected to the trailer during tipping
7. Never drive with a container which is up-tipped
8. Always tip with the maximum length of the tipping cylinder
9. The system is NOT equipped with a chock valve (Attention!: Lowering a loaded container while tipping, can cause a hydraulic pressure that is over 230 bars)
10. Check if the brakes are released while driving the trailer

ATTENTION: While working under a container, the ball valve that is on the tipping cylinder must ALWAYS be closed. Alternativ tipping support

- Hydraulic system for 230 bars
- Maximum load on the rear coupler: Vertical 1 ton, Horizontal 23 000 kg

General information

Never overload the axles, brakes and chassis

- Do not overload the trailer in violation of applicable regulations so that the permitted total weight of the vehicle is exceeded.
- Regularly check the tire pressure. The right value you can find on our web-page or on the manufacturer's homepage
- Do not exceed the permitted load on the braking system
- Do not overload the trailer unilateral with uneven stowing of the load
- Do not mounted tires and rims which are not approved for the trailer. Please check all the features of the standard tires before changing them
- Avoid overloading by using rims with side impact or with unauthorised offset.
- Do not exceed the maximum speed.
- Assure yourself before every usauge that the brakes and the brake system work correctly
- Assure yourself before every usauge that the axles are in the right postion (axle lift, steering axle, axle suspension and lock)
- The warranty does not cover wearing down through usage and unauthorised changes which are done on the trailer

In order to maintain the operating and traffic safety of the trailer, it should be serviced according the specified intervals. The relevant operational and service requirements of the trailers manufacturer, respectively from other part suppliers should be considered. Warranty claims and parts which are worn out, should only be changed in Ivarssons i Metsjö's workshop or other AUTHORISED work-shops by people who have the necessary training and technical background.

Only original Metsjö spare parts must be used.

Metsjö takes product responsibility for these parts.

Metsjö cannot assure that the trailer would not be a security risk if any other spare parts than the original are mounted. This is valid even if the repairs are done by an authorised workshop.

The warranty expires when using spare parts other than genuine parts from Metsjö

Axle system with communicating vessels

The axle rests on two hydraulic cylinders

The hydraulic hoses are connected per side

The whole trailer can be adjusted in height

Oil type ATF (works also with the tractor's hydraulics) - the trailer is pumped with the tractor's pump to the required height. Cylinder length 350mm

There is a requirement of around min. 80mm for driving in different terrains

The height adjustment should always take place on a flat and solid ground

Step by step:

1. Open the ball valve (2 pcs. per side)
2. Adjust the height
3. Close the ball valve



Working position 80-120mm between frame and axle

Axle-lift

A dA double-acting cylinder+ the oil divides between the active cylinders-the axle is lifted

Lift power-25% of the load that rests on the axles

The system has a release valve set at 250 bar drained by the free return

It is very important that the hydraulic function is in "floating" position when we are driving the trailer

We can have multiple axles that can be lifted, but we can drive with only one lifted axle

Steering axle

The axle is hydraulically and automatically lock while reversing

Axle locked - single acting system, steering axle - in floating position

If driving faster than 40km/h the axle should be locked

The axle can be locked in any position

While driving in tough terrains and ice the axle must be locked

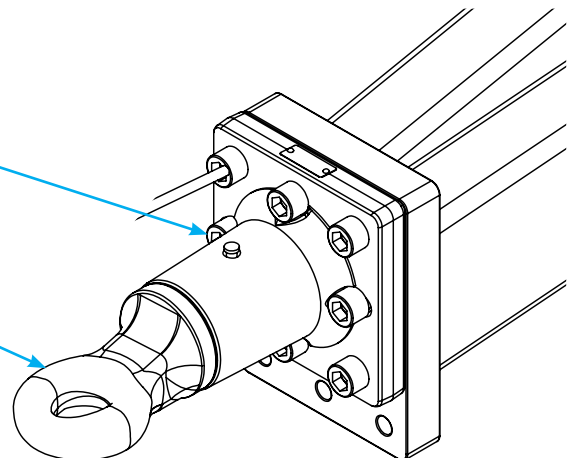
Maintenance and care

- Tighten the wheel bolts every 10-50 work-hours and also after 150 use-hours (560 NM).
- The axel suspension bolts (4 pcs. per side of the axle) should also be tightened after the first 10-50 work-hours and also after 150 use-hours (Moment 750 NM crosswise).



- Check the air pressure of the tires regularly
 - Check the brakes regularly
 - Standard tires 560/60x22,5R Rim connection 280-335/10-27
 - Check the condition of the drawbar - if it damaged or worn out
- The bolts must be correctly tightened.

Drawbar inner diam. 50.



Mounting and dismounting a forage harvester unit

The mounting is done on even ground and the trailer has to be emptied before the process. Secure work area -15 meters in radius. The chassis and the drawbar must be connect. Do not stand under the chassis during this coupling process. The usage of wheel wedges is highly recommended. Move away/secure all cables and hydr. hoses to the outer side of the forage harvester in order to avoid damage to them during the process.

1. Attach the forage harvester to the tractor and connect all the hoses and cables
2. Drive backwards because the coupling points are under the chassis. Aim to the rear ball couplers.
3. Mount the hydraulic hoses for the height and lateral control
4. Open the ball valve on the hydraulic block und adjust the chassis to the highest position
5. Mount the supporting legs on the container. Attention: ONLY the front legs
6. Then sink the axles so that the rear couplers are in line with the connection balls
7. Mount the sprints which hold together the connection balls with the coupler.
8. Sink the chassis so that the front couplers can be connected and secured with sprints
9. Raise the trailer again to the highest position
10. Secure that the transport tires of the harvester are not in the way
11. Dismount the supporting legs on the container
12. Adjust the axles to working position (80-120mm between axles and frame)
13. Close the ball valve on the hydraulic block.
14. Connect all the hoses and cables between the chassis and forage harvester.

In order to dismount the harvester do the steps backwards



Risk evaluation during docking - IMPORTANT!

Mounting and dismounting a standard drawbar (optional equipment)

The mounting is done on even ground and the trailer has to be emptied before the process. Secure work area -15 meters in radius. The chassis and the drawbar must be connect. Do not stand under the chassis during this coupling process. The usage of wheel wedges is highly recommended. Move away/secure all cables and hydr. hoses to the outer side of the forage harvester in order to avoid damage to them during the process.



1. Open the ball valve on the hydraulic block and adjust the chassis to the highest position
2. Use a front loader or something similar to lift the drawbar.
3. Dismount the springs
4. Free the ball connections by lowering the drawbar.
5. Drive forwards , so that the drawbar freed

In order to mount the drawbar do the steps backwards



Risk evaluation during docking - IMPORTANT!



Automatic forced steering B-3177.06

There are 3 different axle positions: forced steered, locked, and self-steering. All these positions can be controlled from the driver's seat from the control panel. It is also possible to manually force steer the trailer

Forced steering

In this position, the axles are automatically steered according to how much the drawbar is steered. The steering is speed related. The faster the speed is the less sensitive the steering is.

If the axle does steer with the drawbar, it reprogrammed automatically to a self-steering axle after 10 seconds (for example if a hose is discounted or bent and etc). In order to adjust the auto steering after that, it is needed only to change to some of the other position and then back to forced steering

When the maximum steering angle is reached, is the axle programmed to a self-steering axle. When the angle is back to normal again , the forced steering is automatically switched on again.

Locked position

The axle is not steerable

Self-steering axle

The axles follows the movement of the tractor. This is also the standard position, if the power is disconnected (or if there is a problem with the forced steering)

2 or 3 axles

Each axle has its own oil supply (proportional valve)
Each axle can be set that it has its own steering angle

Troubleshooting:

Connection between the tractor and trailer
LS connection
Steering arm mounted according drawing
Power supply 12/24 V

Konstruktör Av	LH	Skapad Datum	2012-02-07	Godkänd Av	AI	Skala	1:5	Rev	2 (2)
Titel / Beskrivning	komplett Givare enhet autostyrning		112973	Godkänd					
Version	LH	Version	4	METSJÖ					
<p>METSJÖ Inverkaner i METSJÖ AB</p>									

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Titel / Beskrivning	Givarenhet drag monterad		114835	Godkänd					
Version	LH	Version	3	METSJÖ					
<p>METSJÖ Inverkaner i METSJÖ AB</p>									

Pos. Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	120166	120166	Givare nus och fäste	2
2	112960	112960	Givare axel Autostyrning	
3	114930	114930	Vinkelgivar (3Kohm 100), IP65 Rostfriaxel	
4	112962	112962	Lock givarenhet Autostyrning	
5	112966	112966	M12 panel kontakt (fäste M16)	
6	113145	113145	komplett styrarm Autostyrning	
7	100446	10400122.1	Bussning WB 702 30, 307/34x15	0.03
8	109828	9338080201	Bult M8x20 F7B Heilgönga	
9	109869	84050161	Spårskruv M5x16 F7B	
10	109884	BR800531	Bricka 5,3x10x1 F7B	
11	120183		Stoppsskruv M5	
12	120185	120185	Stoppsskruv	
13	109212	10400164	Smörjnippl M6x1 rak	

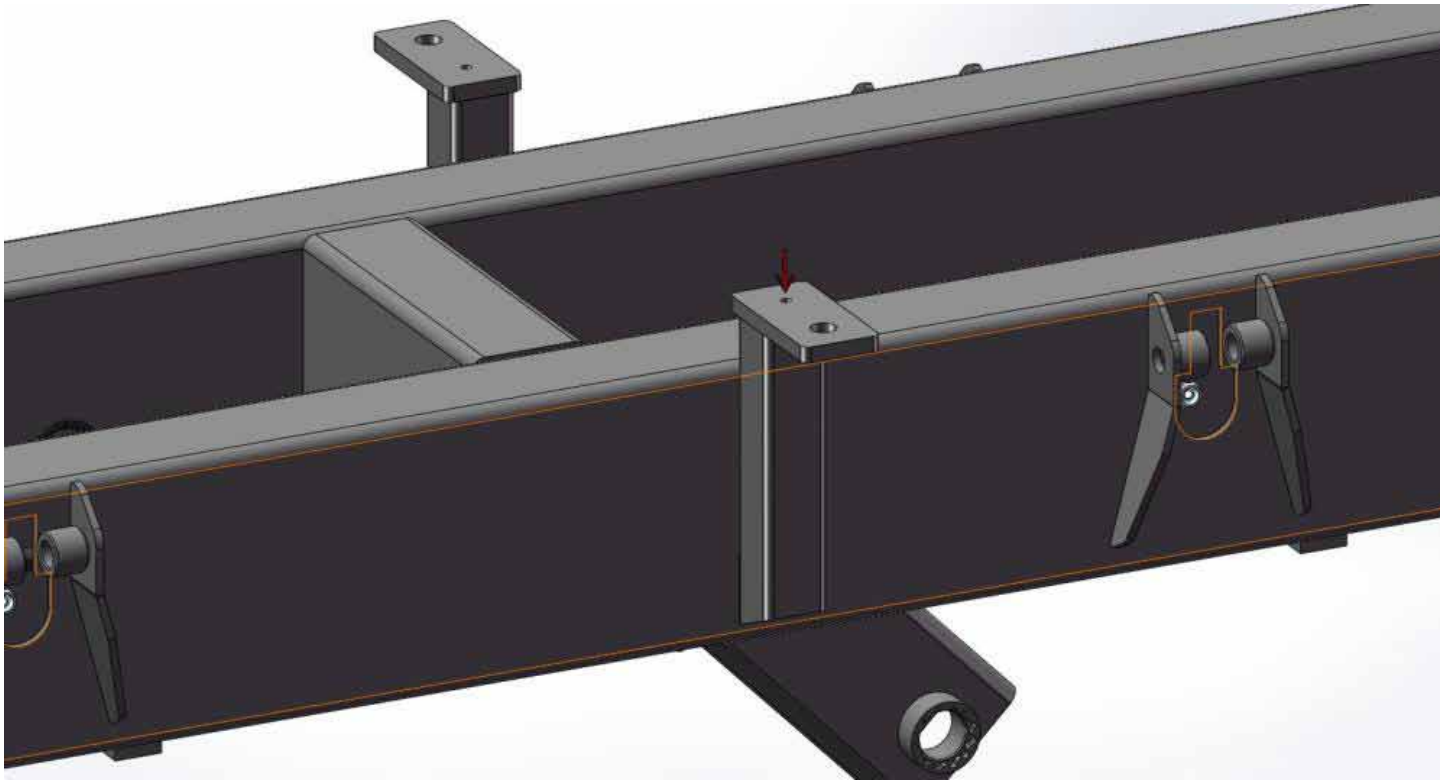
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Titel / Beskrivning	komplett Givare enhet autostyrning		112973	Godkänd					
Version	LH	Version	3	METSJÖ					
<p>METSJÖ Inverkaner i METSJÖ AB</p>									

Konstruktör Av	LH	Skapad Datum	2013-01-14	Godkänd Av	LH	Skala	1:2	Rev	1 (1)
Titel / Beskrivning	Givarenhet drag monterad		114835	Godkänd					
Version	LH	Version	3	METSJÖ					
<p>METSJÖ Inverkaner i METSJÖ AB</p>									

Pos. nr.	Antal	Modellbeskrivning	Beställning	Referens
LH	1	114835	114835	114835
LH	1	114835	114835	114835

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Axle suspension lock while Tipping



The sensor is mounted as shown on the picture. Works while tipping or shifting containers

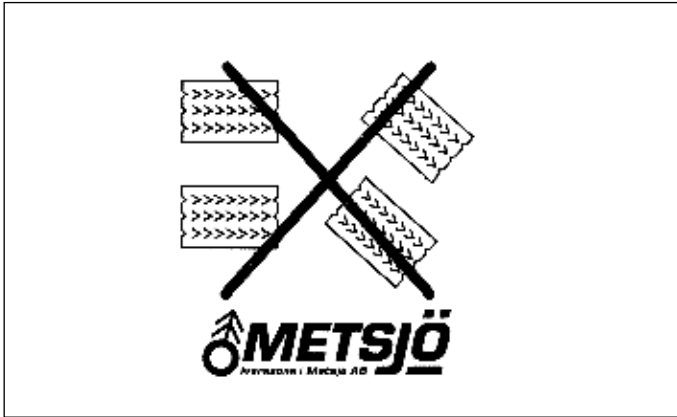
Functions:

While tipping a container, a number of valves are activated through the sensor. This closes the oil amount that is in the rear axle. This makes the trailer more stable while tipping / shifting - prevents negative forces on the tractor. When the oil is locked you cannot use the height and lateral control of the trailer. If you raise the trailer the last axle does not follow with the other axles. If you sink the machine a lot of pressure comes on the chassis when the container is lowered down.

It is possible to avoid this through mounting a metal plate on the sensor, but one has to be very careful while doing this.

ATTENTION: It is very important that driver is noticed that this feature is out of order

Symbol description



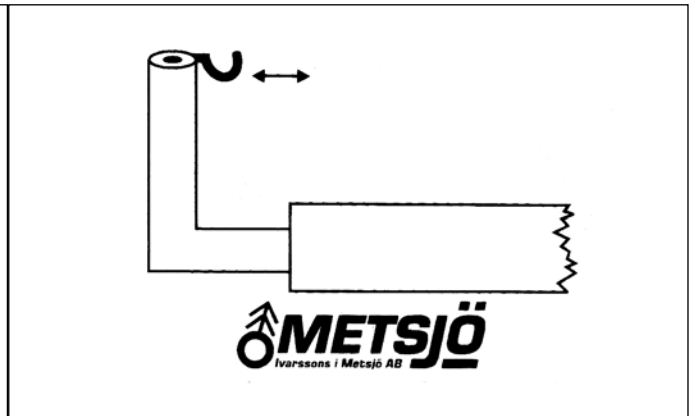
Lock self-steering axle - yellow



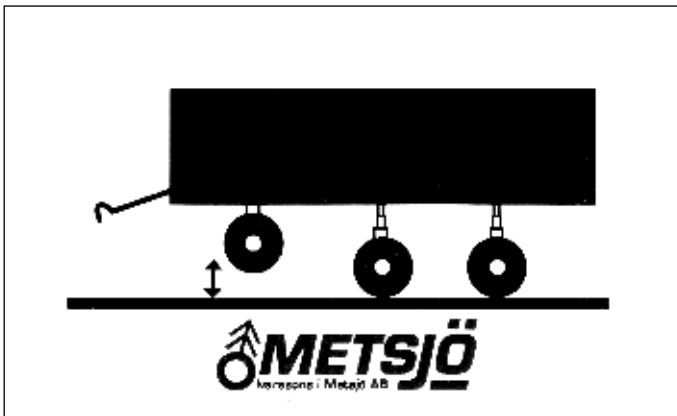
Unloading auger



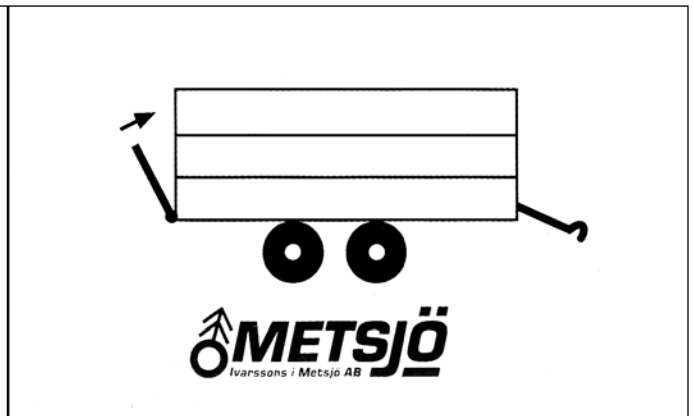
Hydr.socket on the hook-lift arm - red



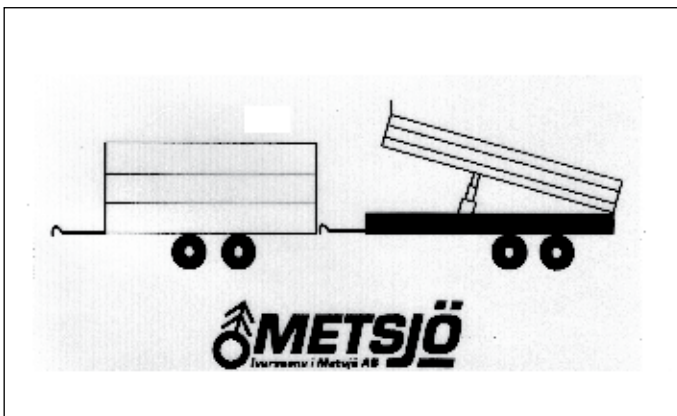
Adjustment of the hook-lift arm - red



Axle lift - green



Hydraulic tailgate- orange

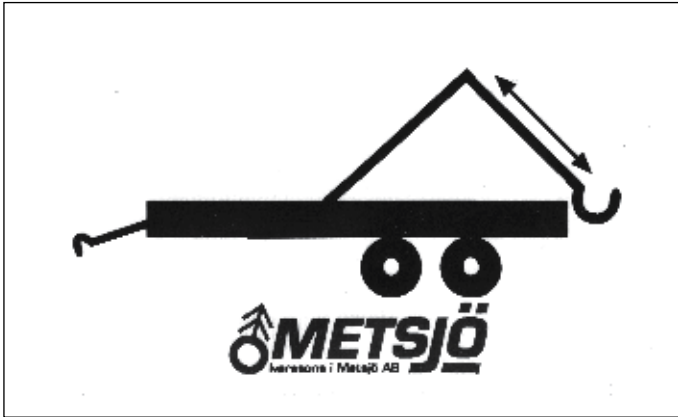


Tipping second trailer- red



Quick sinking of the tipping cylinder

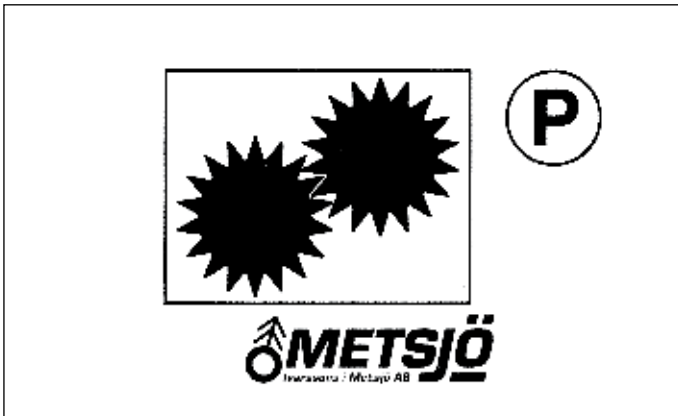
Symbol description



Shifting containers - blue



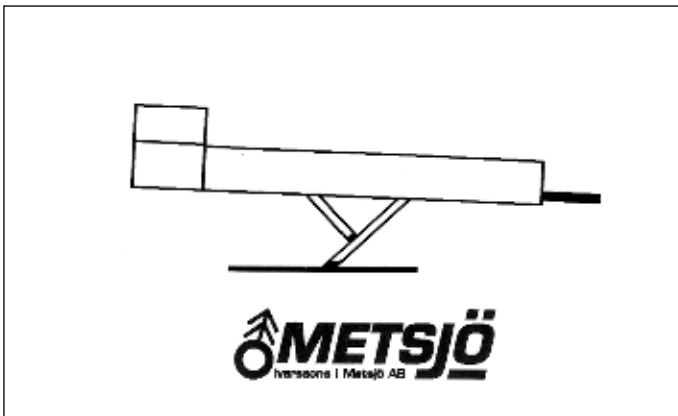
High tipping - blue



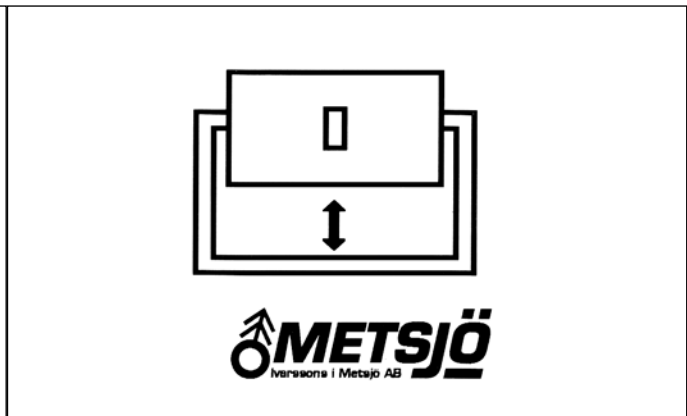
Hydraulic assist drive



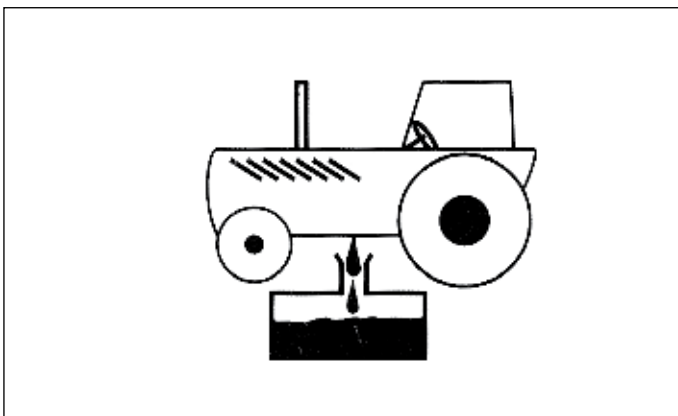
Hydraulic brakes



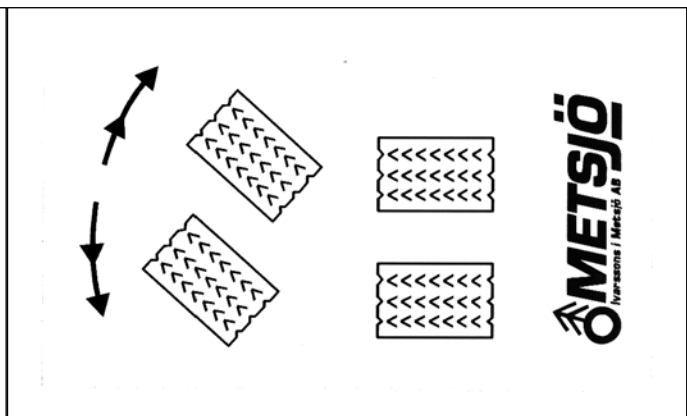
Hydraulic jack



Hydraulic grain shutter

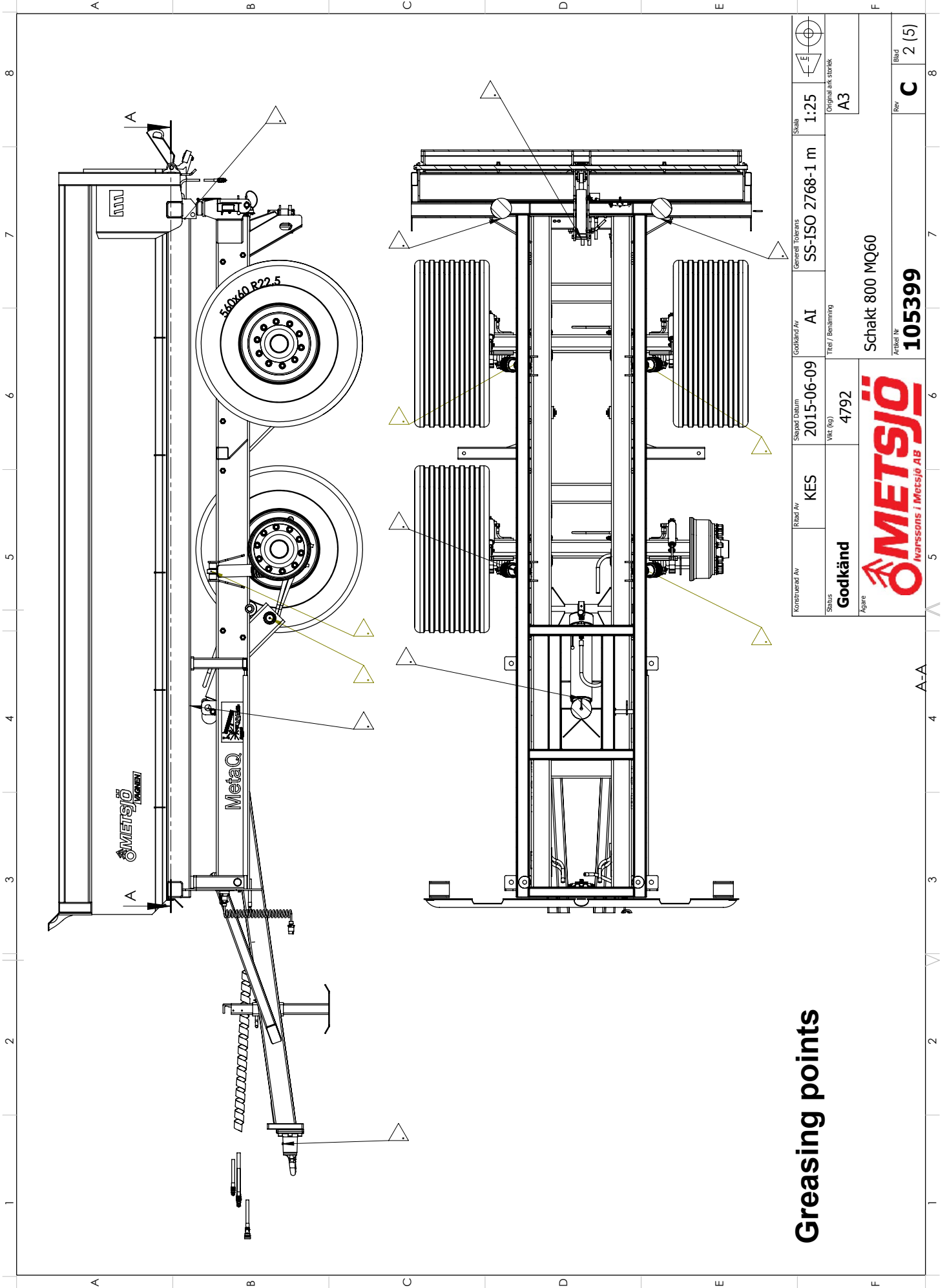


Free return - black




Forced steering

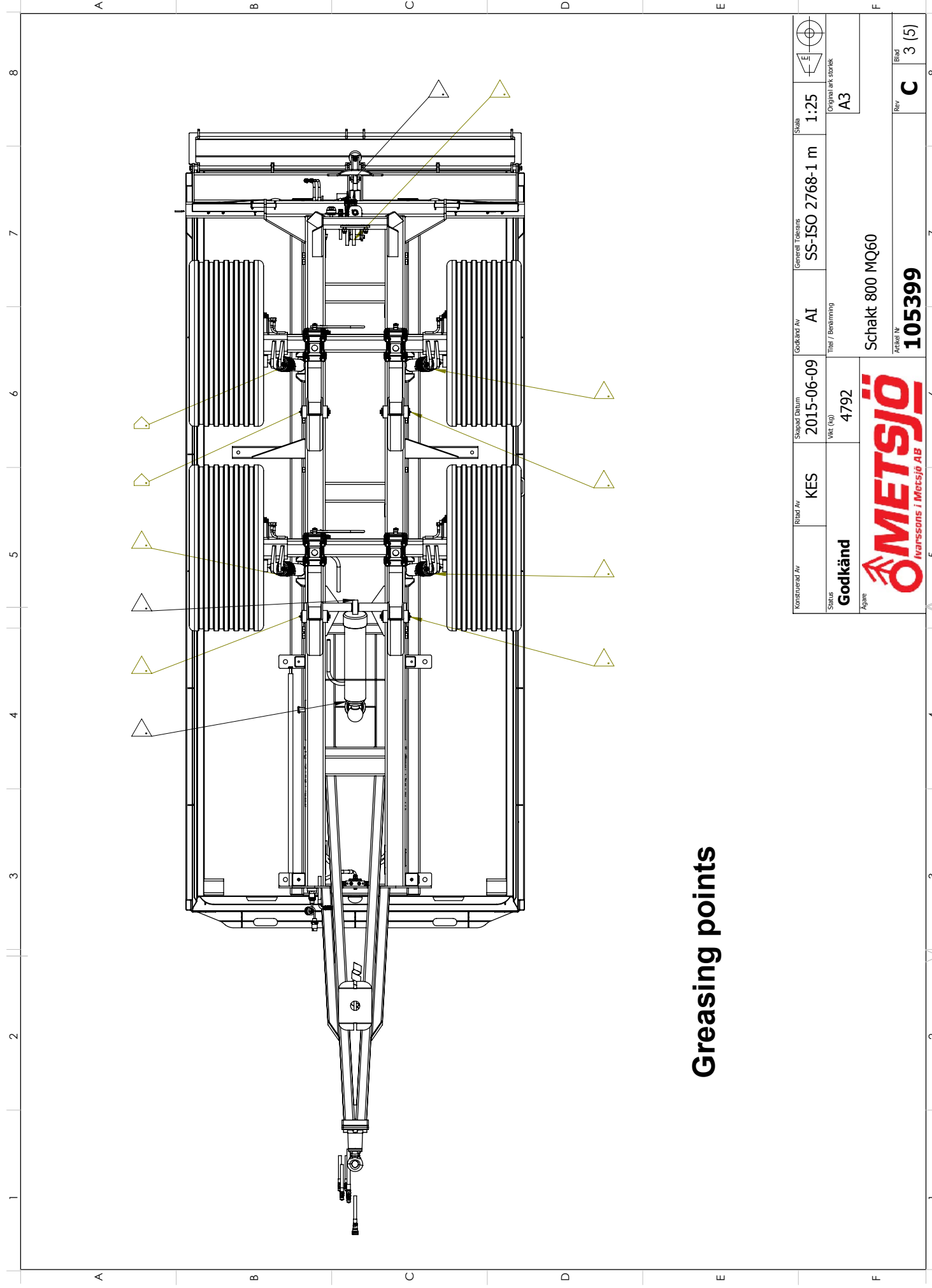
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Greasing points

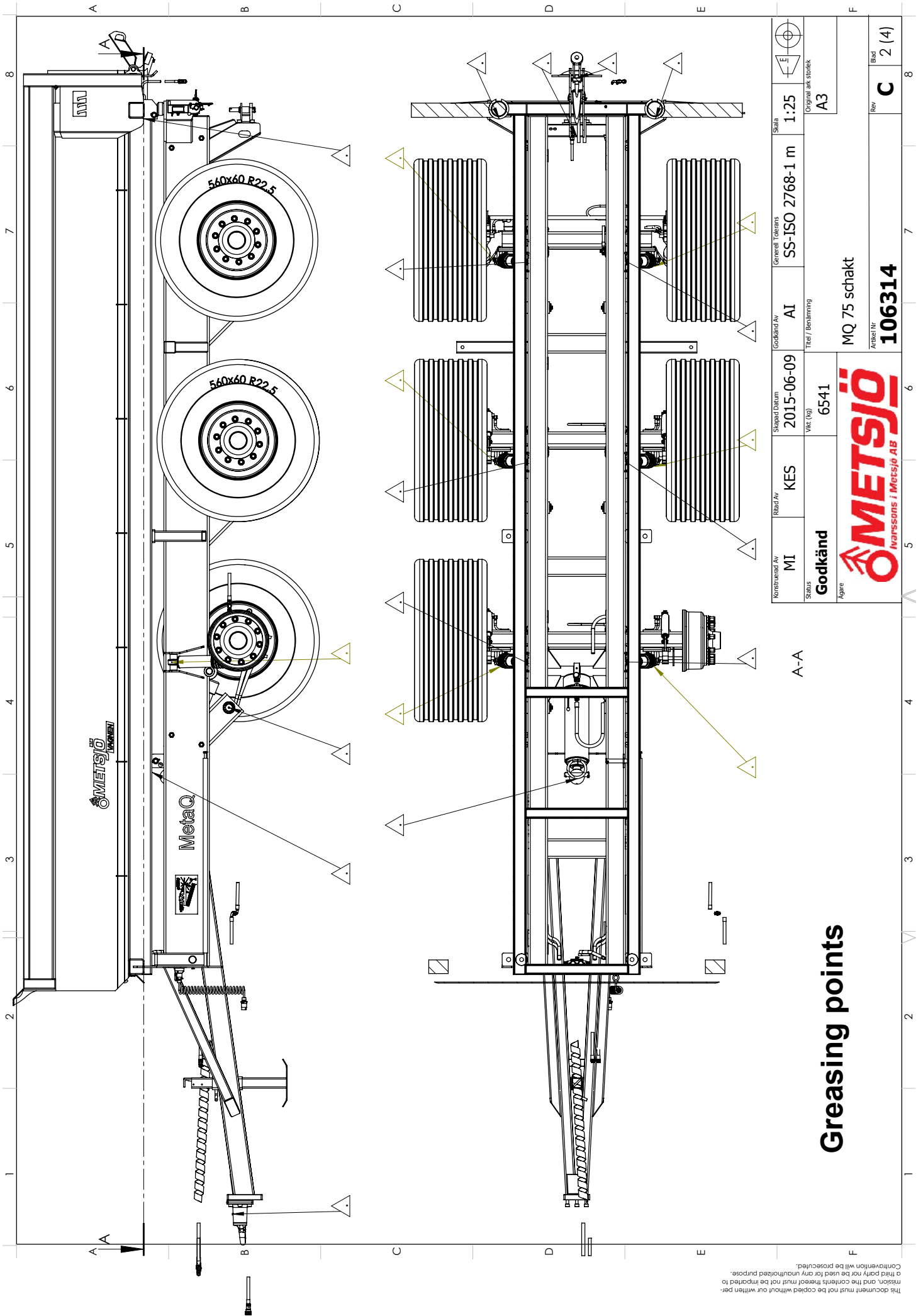
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	KES	2015-06-09	AI	SS-ISO 2768-1 m	1:25	A3
Status		Vikt (kg)	Titel / Benämning			
Godkänd		4792	Schakt 800 MQ60			
Ägare			Artikel Nr		Rev	
 METSJÖ Ivarssons i Metsjö AB			105399		C	
			Blad		2 (5)	

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Greasing points

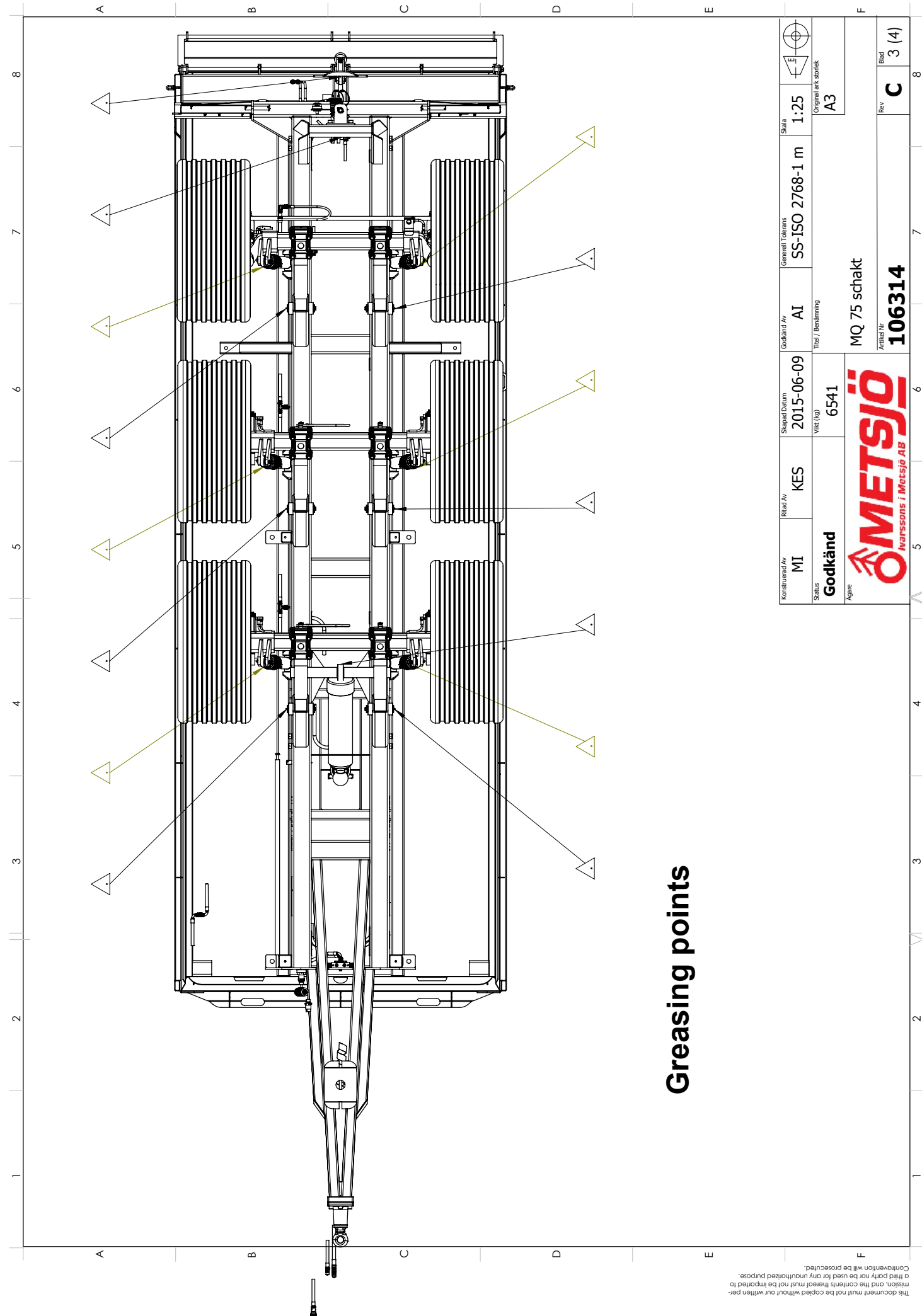
Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	Original ark. storlek
Godkänd	KES	2015-06-09	AI	SS-ISO 2768-1 m	1:25	A3
Status	Vikt (kg)	Titel / Bestämning	Original ark. storlek			
4792	Schakt 800 MQ60	A3				
Aggre	Arbets Nr	Rev				
	105399	Blad				
		C				
		3 (5)				



Konstruktör Av MI	Ritad Av KES	Skapad Datum 2015-06-09	Godkänd Av AI	General Tolerans SS-ISO 2768-1 m	Skala 1:25	Original ark storlek A3
Status Godkänd	Agare	Vikt (kg) 6541	Titel / Benämning MQ 75 skacht			
Zusatz Nr. 106314			Rev C	Blad 2 (4)		

Greasing points

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Greasing points

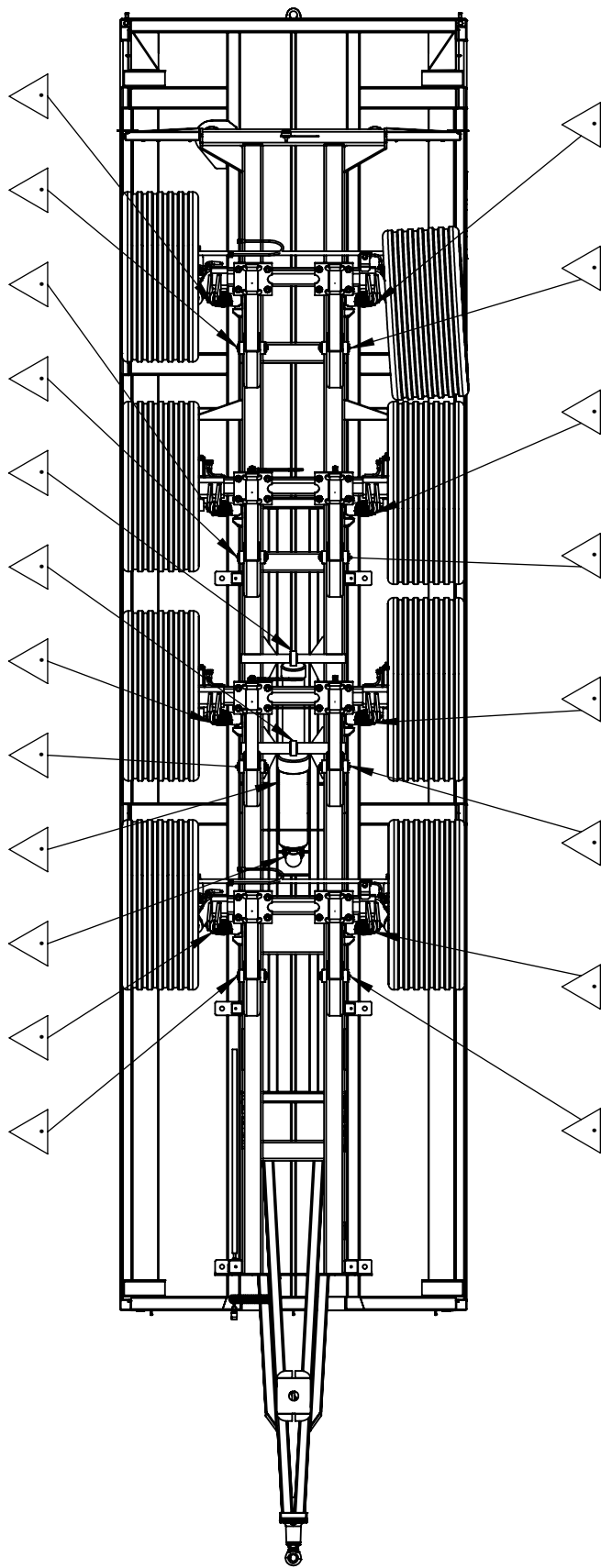
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Status Godkänd	Vikt (kg) 6541	Generell Tolerans SS-ISO 2768-1 m	Titel / Benämning MQ 75 schakt		
Agire		Artikel Nr 106314		Rev C	Blad 3 (4)
		METSJÖ Ivarssons i Metsjö AB			

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


N:r	Ändring	Datum 2013-10-24	Godk av
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Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala 1:50	
Status Godkänd		Vikt (kg) 9896	Titel / Benämning MQ95 Eucon Höjd 2500		Hall	Plats
Ägare		 Ivarsson's i Metsjö AB		Rev A	Blad 1 (3)	

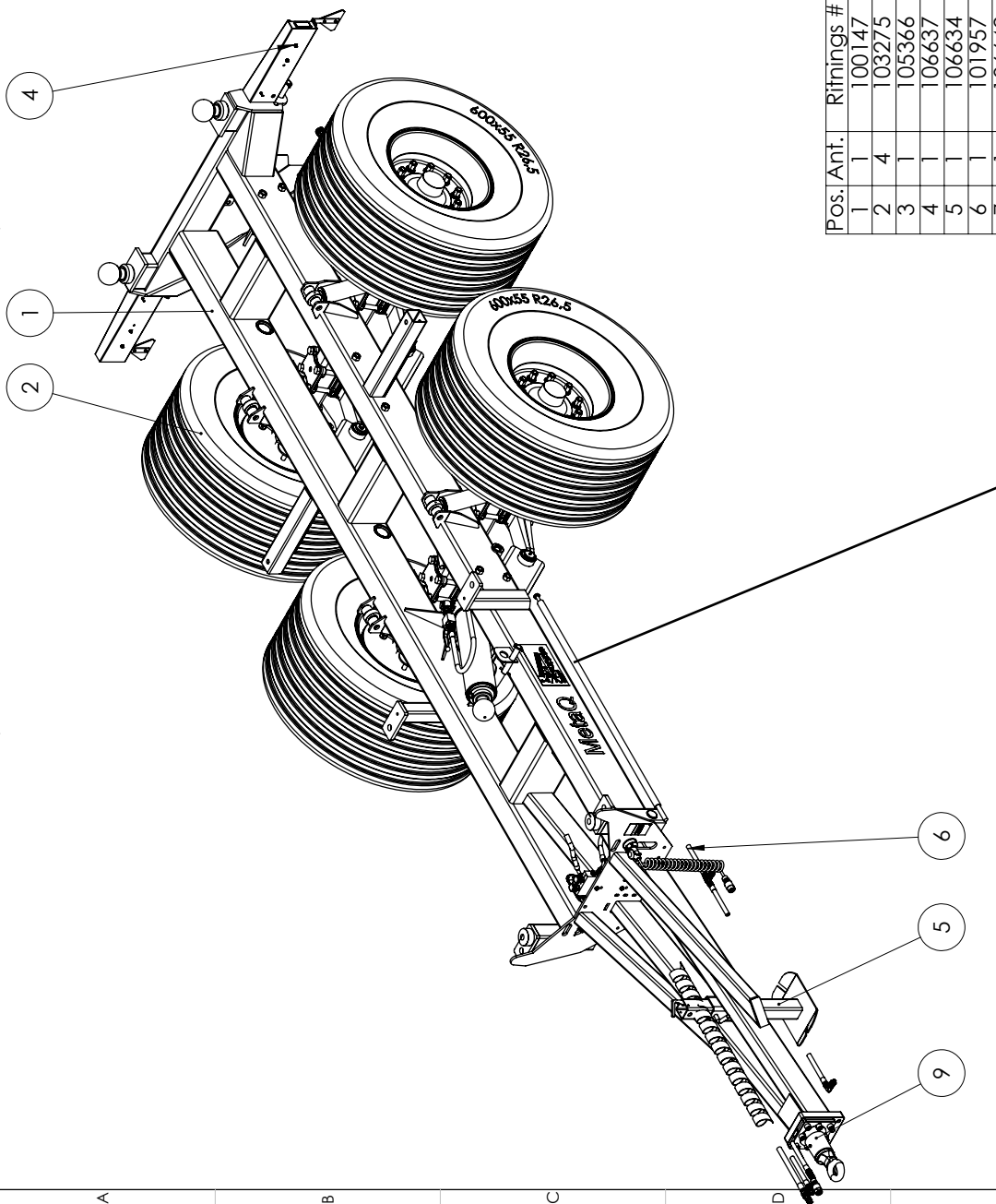
Greasing points



Greasing points

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	 
Status Godkänd	Vikt (kg) 9896	Titel / Benämning MQ95 Eucon Höjd 2500		Häll	1:50	
Agare	 METSJÖ Ivarssons i Metsjö AB		Plats		Rev	Blad
			Artikel Nr 105690		A	2 (3)

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Standard tippcyllinder Art: 10180005

MQ 60 Tippcyl 160/75 2830s KL40

Packningssats till standardcyllinder Art: 10191654

Artikelnummer på tillvalet av HD-tippcyllinder Art: 10180049

MQ 60 HD Cyl 161-60 -6 slag 3354sLk40

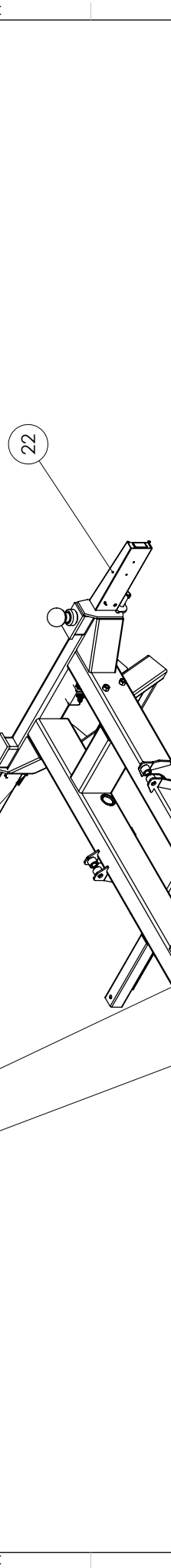
detta ger extra tippvinkel.

Packningssats till HD-cyllinder Art: 10191254 packning 160/60RD

Nr	Ändring	Datum	Godk av
F		2013-10-23	
G		2013-10-23	
H		2015-02-13	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100147		Chassie MQ 60	1137,23
2	4	103275		Hjul 10 bult	178,48
3	1	105366		Bakdrag kit.. Käffdrag	9
4	1	106637		Bakljus Std	2,04
5	1	106634	106634	Stödben Std komp	13
6	1	101957		komplett broms kit MQ	1,38
7	1	106642		Bromsuttag bak	0
8	1	106643		Hydrauluttag bakNo,Mid,Mx, MQ 60-75-95	0
9	1	107880	107880	Dragögla 50 Scharm.	25
10	2	116931		Axel MQ stel. Nya fjäderblad	493
Konstruerad Av		Ritad Av	Skapad Datum	Godkänd Av	Skala
					1:25
Status		Titel / Benämning		Höjd	
Godkänd		Mq60 Chassi		Plåts	
Vikt (kg)		2888		Rev	
Ägare		METSJÖ		Blad	
		Ivarssonssons I Metsjö AB		F	
		Artikel Nr		1 (3)	
		110140		F	

Nr	Ändring	Datum	Godkav
D		2013-02-27	
E		2013-04-08	
F		2013-06-14	



Pos. Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	107371	107371-Grå	MQ 60 Chassie 1540	1032
2	101799	SRB310521	Koivspetts bricka	0.02
3	101981	472040	Segerskrining för inv.mont. 40 axel SGH40	
4	101497		Sprint tippcyl MQ60-olympia nedre	7.39
5	101011	10400468	Tillverkarskylf Ivarsson i Metsjö "NITBAR"	0.04
6	101810	DS020064	Nif (skylfrnit) 2x6,4 FNB	0.00
7	101971	10250052	Reflex orange själv häft 60 mm	0.01
8	101666	10400470.09	Dekal hydraulluftag bromsliang	0.00
9	101667	10400470.19	Dekal hydraulluftag tippcylinder	0.00
10	101668	10400470.33	Dekal hydraulluftag höj och sänkning chassi	0.00
11	101250	10400467	Utskuren text MetaQ	0.00
12	101346	10180005	MQ 60 Cyl 16075 KL 2830s LL40	
13	101081	10400469	Dekal varning tipp (gul) bredd 300mm höjd 170mm	0.01
14	101079	10400021.1	Dämpblock 90x45	0.54
15	101800		blå klister lapp slang märkning	0.00
16	101802		gul klister lapp slang märkning	0.00
17	101797	101797-Grå	Koivspett Meta Q 60-75-95	3.98
18	101110	6140001-7	7-polig spiral kabel	0.55
19	111815		Hyd MQ60-95	9
20	102742	416007	Kantskydd 15x12 6-8 PVC Svart	0.03
21	103291	416007	Kantskydd 15x12 6-8 PVC Svart	0.01
22	106638	106638	bakljus konsoler	10.41
23	112844		Tippedsprint MQ 190/30	1
24	109791	M10NYIOCKNIK ladd	Mutter M10 FZB nylock	
25	109838	M10X40Std	Bult M10x40 FZB Heligänga	
OK		Ränd Av	Godkänd Av	
LH		Skapad Datum	AI	
2011-10-25		Titel / Benämning	1:25	
Godkänd		Vikt (kg)	Häll	
1149,43		Räls		
Agjäre		Chassie MQ 60		
METSJÖ		Artikel Nr		
Ivarssons i Metsjö AB		100147		
		Rev		
		M		
		1 (3)		

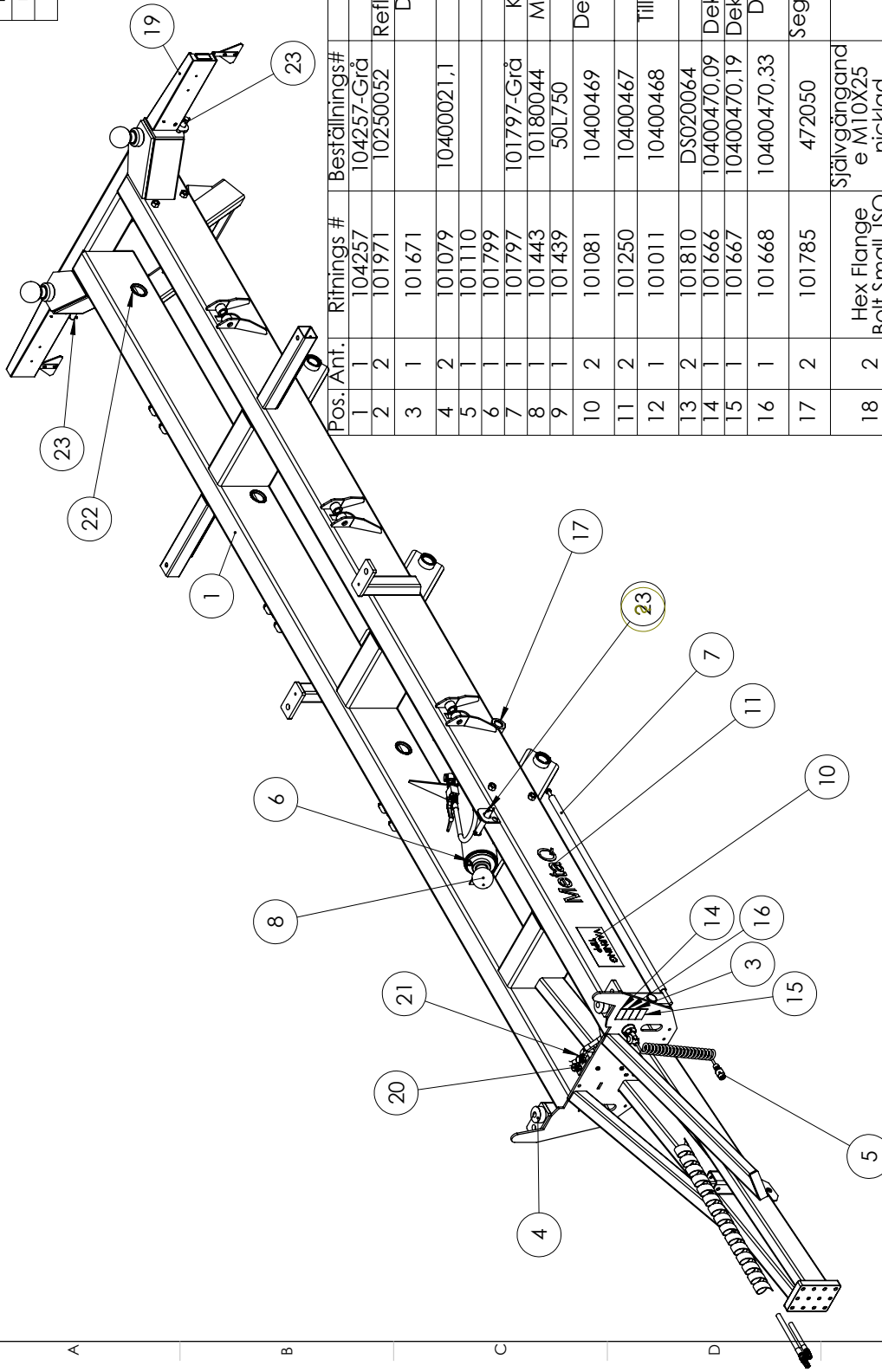
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Standard tippcylinder Art: 10180044
 MQ75 Tippcy 185/60 3837 KL50
 Packningssats till standardcylinder Art: 10181044
 Artikelnummer på tillvalet av HD-tippcylinder Art: 10180042, 1
 MQ75 Tippcy HD 210/60-4382s KL50 (116)(50)
 detta ger extra tippvinkel.
 Packningssats till HD-cylinder Art:0646118401 packning 210/60

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100155	100155	Chassi MQ75	1558.58
2	6	103275		Hjul 10 bult	178.48
3	1	105366		Bakdrag kit.. Käfftdrag	9
4	2	116931		Axel MQ stel. Nya fjäderblad	493
5	1	117152		Axel MQ styr. Nya fjäderblad	599
6	1	106643		Hydrauluttag bakNo.Mid,MX, MQ 60-75-95	0
7	1	106642		Bromsuttag bak	0
8	1	106637		Bakljus Stå	2.04
9	1	106634	106634	Stödben Stå komp	13
10	1	107880	107880	Dragögla 50 Scharm.	25
11	1	101548		Hyd broms kit MQ75	1.67

Konstruktör Av	Ritar Av	Skapat Datum	Godkänd Av	Skala	1:25
Status			Titel / Benämning		
Godkänd			MQ75 chassi Road 1540		
Agare			Rev		
METSJÖ			110188		
Intrassons i Metsjö AB			Blad		
			E		
			1 (3)		

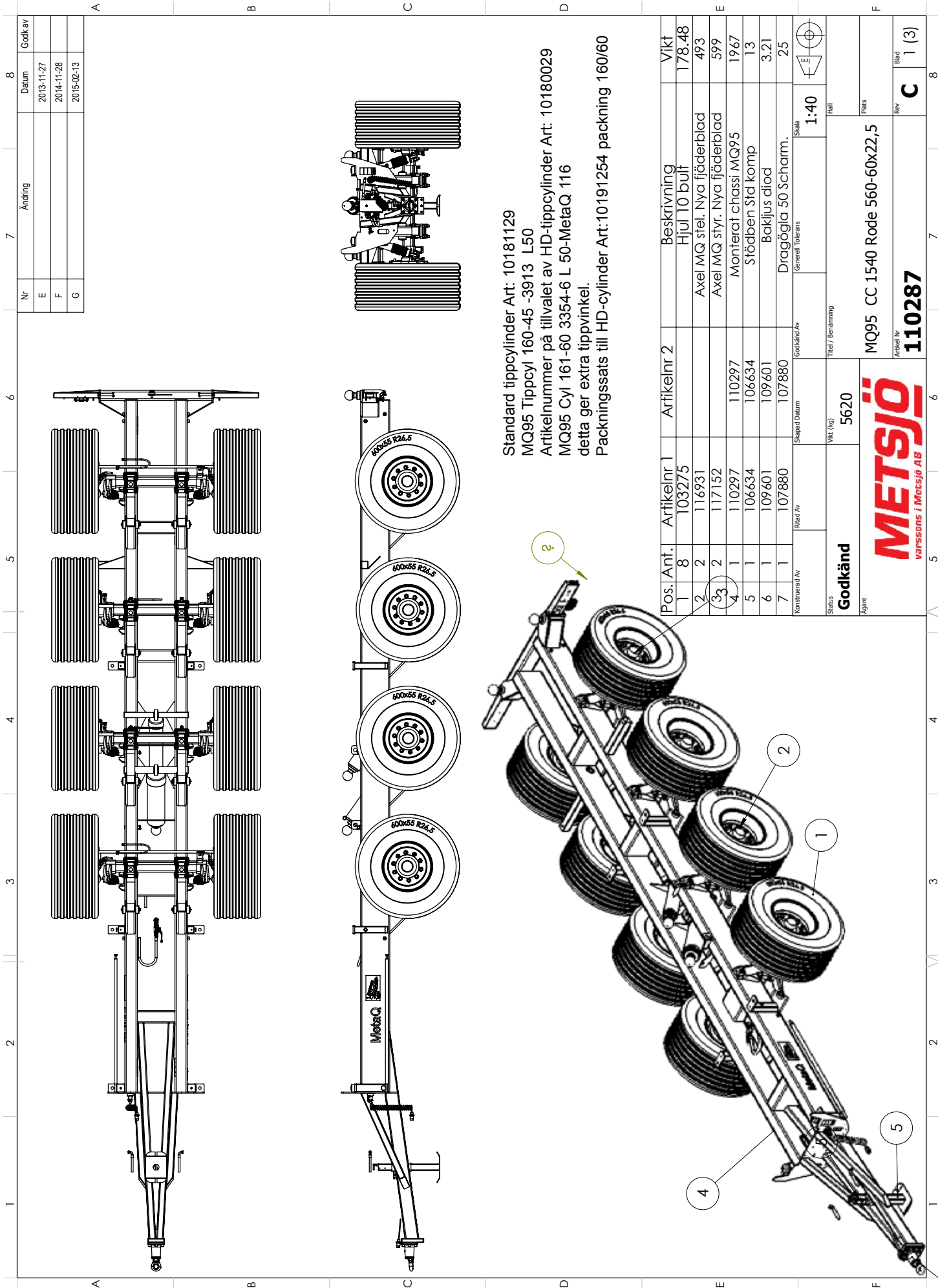
Nr	Ändring	Datum	Godk av
D		2011-12-01	
E		2012-01-20	
F		2013-02-26	



Pos./Ant.	Rifnings #	Beställnings#	Beskrivning	VIKT
1	104257	104257-Grå	Svetsat chassi MQ75	1401
2	101971	10250052	Reflex orange själv häft 60 mm	0.01
3	101671		Dekal hydraullufttag tåsnings styrbar axel	0.00
4	101079	10400021,1	Dämpblock 90x45	0.54
5	101110		7-polig spiral kabel	0.55
6	101799		kolvspejts bricka	0.02
7	101797	101797-Grå	Kolvspett Meta Q 60-75-95	3.98
8	101443	10180044	MQ 75 Cyl 185X60 3837 LL 50	
9	101439	50L750	Sprint tippcyl. MQ75	11.56
10	101081	10400469	Dekal varning tipp (gul) bredd 300mm höjd 170mm	0.00
11	101250	10400467	Ufskuren text MetaQ	0.00
12	101011	10400468	Tillverkskylt Ivarsson i Metsjö "NITBAR"	0.04
13	101810	DS020064	Nit (skylt) 2x6,4 FNB	0.00
14	101666	10400470,09	Dekal hydraullufttag broms slang	0.00
15	101667	10400470,19	Dekal hydraullufttag tippcylinder	0.00
16	101668	10400470,33	Dekal hydraullufttag hög och sänkning chassi	0.00
17	101785	472050	Segersättning SGH 50 Din 472, för invändig montering	
18	2	Hex Flange Bolt Small_SO	Självgängande M10X25 nicklad nyckelgrepp	
19	1	106638	bakljus konsoler	10.34
20	1	111815	Hyd MQ60-95	10
21	3	102742	Kantsydd 15x12 6-8 PVC Svart	0.03
22	4	103291	Kantsydd 15x12 6-8 PVC Svart	0.01
23	3	112844	tippedsprint MQ 190/30	1
Konstruktör/Av		OK	Godkänd Av	AI
Ritad Av		LH	Skapad Datum	2011-12-01
Status		Godkänd	Titel / Benämning	100155
Ägare			Vikt (kg)	1562.32
			Chassi MQ75	
			Katalog Nr	100155
			Rev	L 1 (2)



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Standard tippcyllinder Art: 10181129
 MQ95 Tippcyll 160-45 -3913 L50
 Artikelnummer på tillvalet av HD-tippcyllinder Art: 10180029
 MQ95 Cyl 161-60 3354-6 L 50-MetaQ 116
 detta ger extra tippvinkel.
 Packningsatts till HD-cylinder Art:10191254 packning 160/60

Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	8	103275		Hjul 10 bult	178,48
2	2	116931		Axel MQ stel. Nya fjäderblad	493
3	2	117152		Axel MQ styr. Nya fjäderblad	599
4	1	110297		Monterat chassi MQ95	1967
5	1	106634		Stödben sid komp	13
6	1	109601		Bakljus diod	3,21
7	1	107880		Dragögla 50 Scharm.	25

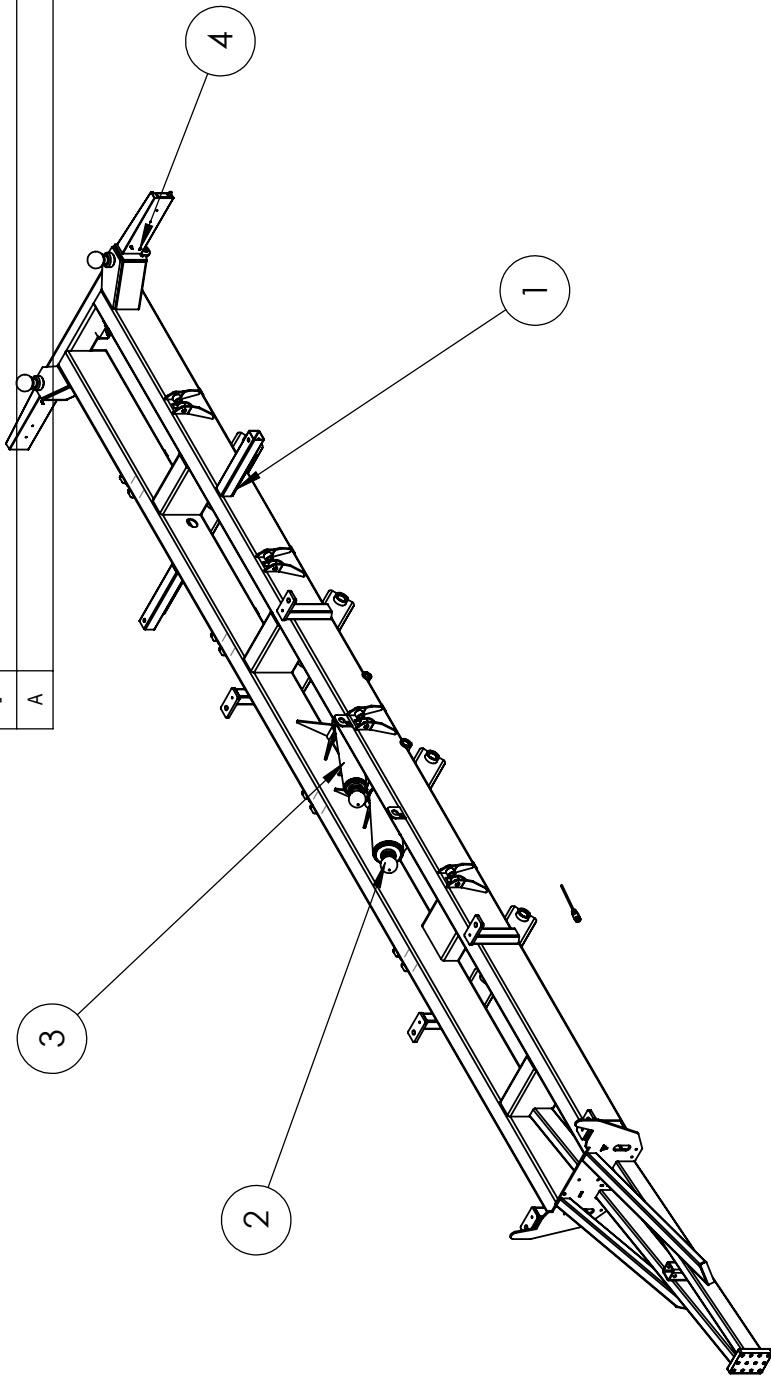
Konstruerad Av	Skapad Datum	Godkänd Av	Skala
			1:40
Status	Vikt (kg)	Titel / Benämning	Häll
Godkänd	5620		
<p>MQ95 CC.1540 Rode 560-60x22,5</p>			
<p>Artikel nr 110287</p>			
Rev	Blad	Påsk	
C	1 (3)		



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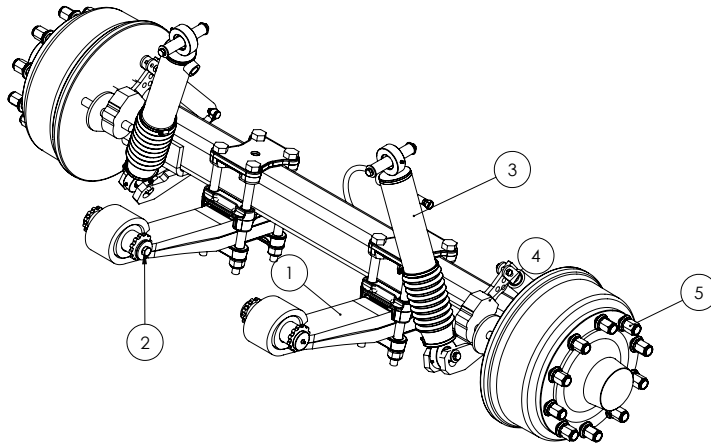
Nr	Ändring		Godk av
-		Datum	
A		2012-11-27	
		2013-10-23	



Pos. Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	105662	105662	Svetsat MQ 95 chassi	1668
2	101594	10180042.1	MQ75 HD Cyl KL210/60-4382s(116)(50)	
3	101592	10181129	MQ95 Cyl T60-45 -3913 L 50	
4	106638	106638	bakljus konsoler	10.41
Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Skala
IK	IK	2012-11-27	AI	1:200
Status	Vikt (kg)		Generell Tolerans	
Godkänd	1919		SS-ISO 2768-1 m	Hall
Ägare	Titel / Benämning		Plats	
	110297		Monterat chassi MQ95	
	Artikel Nr		Rev	Blad
	110297		A	1 (1)



Nr	Ändring	Datum	Godk av
-		2012-12-20	
A		2013-02-26	
B		2013-02-27	

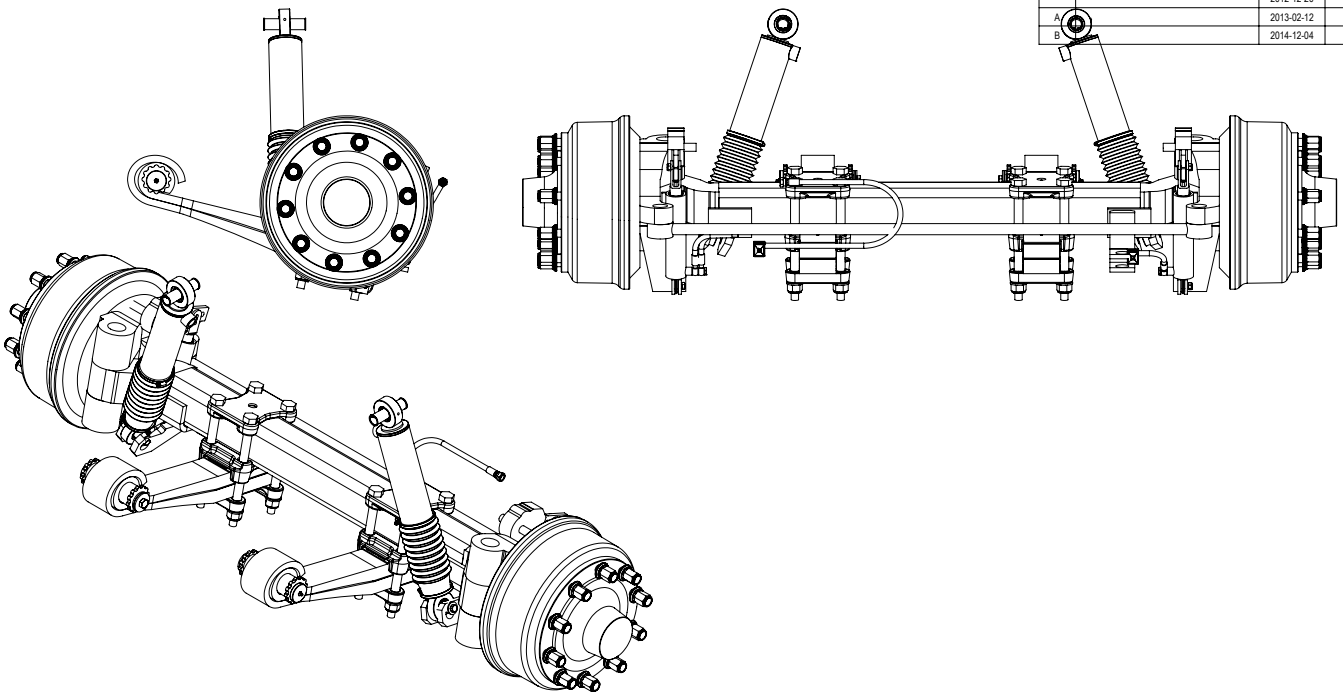


Pos.	QTY.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	1	117159	117159	Axel stel.	471
2	1	109264		Sprintar led axel	7
3	1	109217		Cylindrar komunicerande kär	32
4	1	109192		Broms hydraulisk stel axel	7
5	20	101289	410121160	Hjulmutter M22x1,5	0,28

Konstruerad Av	Revid Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	1:10	
Status	Vikt (kg)		Titel / Benämning		Titel		
Godkänd	522		Axel MQ stel. Nya fjäderblad		Plats		
Ägare			Artikel nr		Rev	Blad	
			116931		B	1 (2)	

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Nr	Ändring	Datum	Godk av
-		2012-12-20	
A		2013-02-12	
B		2014-12-04	

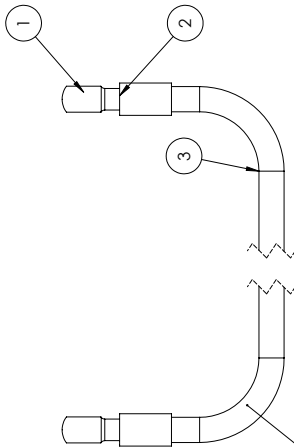


Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	117162		Axel styr	549
2	1	109217		Cylindrar komunicerande kär	32
3	1	109390		Broms hydraulisk styrbar axel	7
4	1	109264		Sprintar led axel	7
5	20	101289	410121160	Hjulmutter M22x1,5	0,28

Konstruerad Av	Revid Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	1:10	
Status	Vikt (kg)		Titel / Benämning		Titel		
Godkänd	599		Axel MQ styr. Nya fjäderblad		Plats		
Ägare			Artikel nr		Rev	Blad	
			117152		B	1 (1)	

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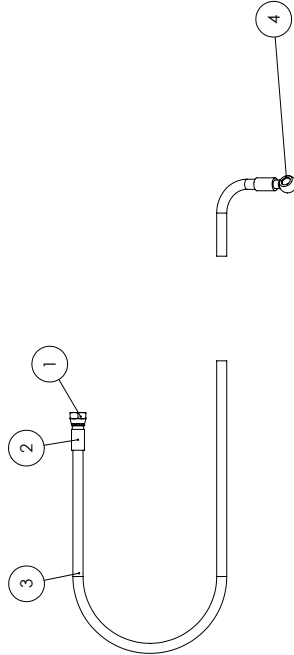
Nr	Ändring	Datum	Godk av
-		2011-05-10	
A		2012-12-03	
B	Juveländ slanglängd	2014-08-11	



Slanglängd 1400mm

Pos./Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	101088	A502910404	Banjo 1/4" - stolpe 1/4"	0.02
2	101037	1100000404	Hylsa 1/4" 1W	0.02
3	101566	241B04	Hydraulslang 1/4"	
Kontrollerad Av: LH MI 2011-05-10				SS-ISO 2768-1 m
SÄKES: 0				1:2
Godkänd				109522
METSJÖ				
Slang broms stel axel				
Godkänd				B
METSJÖ				1 (1)

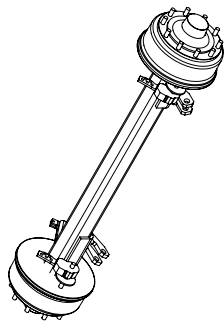
Nr	Ändring	Datum	Godk av
B		2012-12-03	
C		2013-08-09	
D	Juveländ slanglängd	2014-08-11	



Pos./Ant.	Artikelnr	Beställingsnr	Beskrivning	Vikt
1	101789	A500010604	Stolpe 1/4" - INV R 3/8"	
2	101037	1100000404	Hylsa 1/4" 1W	0.02
3	101518	241B04	Hydraulslang 1/4"	0.10
4	101088	A502910404	Banjo 1/4" - stolpe 1/4"	
5	101566	241B04	Hydraulslang 1/4"	0.02
Kontrollerad Av: LH MI 2011-04-15				AI
SÄKES: 0.21				1:5
Godkänd				101519
METSJÖ				
komplett bromslang ram axel				
Godkänd				D
METSJÖ				1 (1)

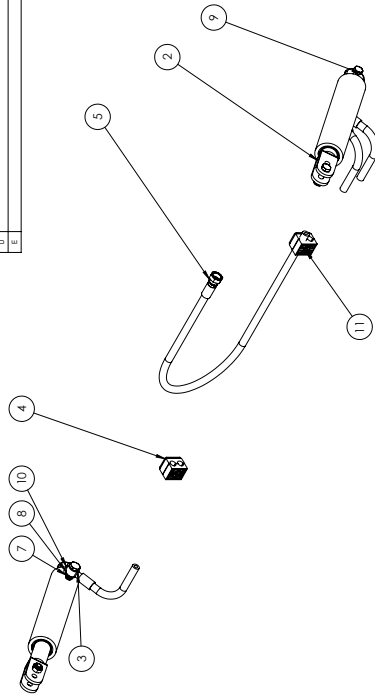
Model/pos	Slanglängd
stel axel	1100mm
styrbar axel	1300mm

Nr	Ändring	Datum	Godk av
-		2011-05-10	
A		2011-05-20	
B		2013-02-12	



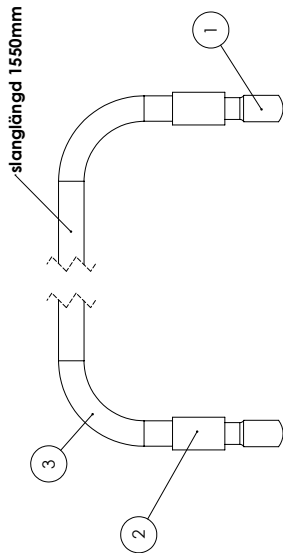
Pos./Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	105064	410121090	Axel 120x120. 10 Buft	320
Kontrollerad Av: MI				AI
SÄKES: 2011-05-20				SS-ISO 2768-1 m
SÄKES: 320				1:20
Godkänd				B
METSJÖ				1 (1)
Axel stel				
Godkänd				B
METSJÖ				1 (1)

Nr	Ändring	Datum	Godk av
B		2013-03-27	
C		2013-11-28	
E		2013-03-28	



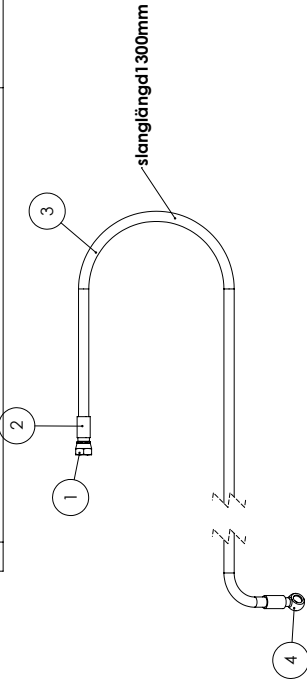
Pos./Ant.	Ritnings #	Beställings#	Beskrivning	Vikt
2	101301	101301	Bromsvindlar 47/32 mb. 32x131	3.13
3	109322	109322	Slang Broms stel axel	0
4	109524	109524	Komplett broms 1/2 kommer	0.05
5	101519	101519	Komplett bromslang ram axel	0.21
6	104392	688110	Banjobuitt 1/4" dubbel	
7	101088	685100	Banjobuitt 1/4" enkel	
8	101087	450100	Buitt M10x47x28 Högslängd	
9	109338		Mutter M10 28 tvärs	
10	109791		Buitt M6x35 F28 Högslängd	
11	109325		Buitt M6x35 F28 Högslängd	
SÄKES: OK MI 2011-05-10				AI
SÄKES: 0.21				1:5
Godkänd				B
METSJÖ				1 (1)
Broms hydraulisk stel axel				
Godkänd				C
METSJÖ				109192

Nr	Ändring	Datum	Code av
-		2011-05-10	
A	Juärend stängång	2014-06-13	



Pos./Ant.	ArtikeInr 1	ArtikeInr 2	Beskrivning	Vikt
1	101088	A502910404	Banjo 1/4" - stolpe 1/4"	0.02
2	101037	1100000404	Hylsa 1/4" LW	0.02
3	101566	241804	Hydraulslang 1/4"	
Godkänd				
SÄLVA				
LH 2011-05-10 AI				1:2
Godkänd				
broms slang BPW styraxel mellan cy				
ArtikeInr 109531				
SÄLVA				
LH 2011-05-10 AI				1:1

Nr	Ändring	Datum	Code av
-		2011-05-10	
A	Juärend stängång	2014-06-13	



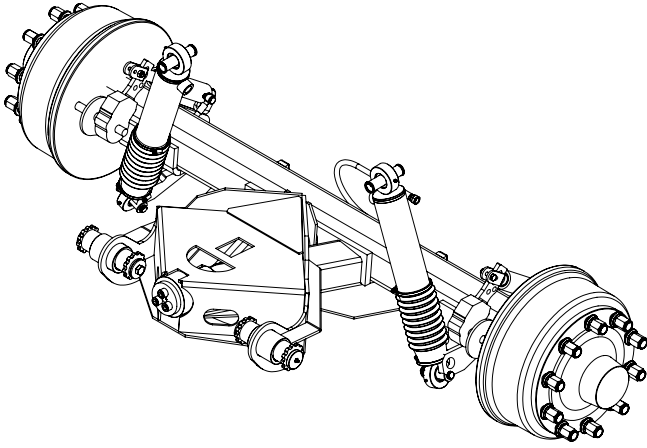
Pos./Ant.	ArtikeInr 1	ArtikeInr 2	Beskrivning	Vikt
1	101789	A500010604	Stolpe 1/4" - INV R 3/8"	0.02
2	101037	1100000404	Hylsa 1/4" LW	0.02
3	101518	241804	Hydraulslang 1/4"	0.10
4	101088	A502910404	Banjo 1/4" - stolpe 1/4"	
Godkänd				
SÄLVA				
LH 2011-05-10 AI				1:5
Godkänd				
Broms slang BPW styraxel ram-axel				
ArtikeInr 109534				
SÄLVA				
LH 2011-05-10 AI				1:1

Pos./Ant.	ArtikeInr 1	ArtikeInr 2	Beskrivning	Vikt
1	2011-05-20	AI	SS-ISO 2768-1 m 1:10	
Godkänd				
ArtikeInr 109400				
SÄLVA				
LH 2011-05-20 AI				1:1

Pos./Ant.	ArtikeInr 1	ArtikeInr 2	Beskrivning	Vikt
1	101301	101301	Bromsbyrå 457,52, inb. 320 sl	3.13
2	109388	M10x40x3	Bult M10x40 FZB Högdragga	
3	109791	M10x40x3	Mutter M10 FZB nyllock	
4	109531	USA	Broms slang BPW styraxel mellan cy	0
5	109534	0	Broms slang BPW styraxel ram-	0.17
6	101559	268100	Banjobutt 1/4" enkel	
7	101067	450100	Leadsbricka 1/4"	
8	104392	268110	Banjobutt 1/4" dubbel	
9	109825	9338100700	Kolvskåp 1/2 kg/meter	0.05
10	109825	9338100700	Öljetätningsring 1/2 kg/meter	
Godkänd				
LH 2011-05-20 AI				1:6
Godkänd				
Broms hydraulisk styrbar axel				
ArtikeInr 109390				
SÄLVA				
LH 2011-05-20 AI				1:1

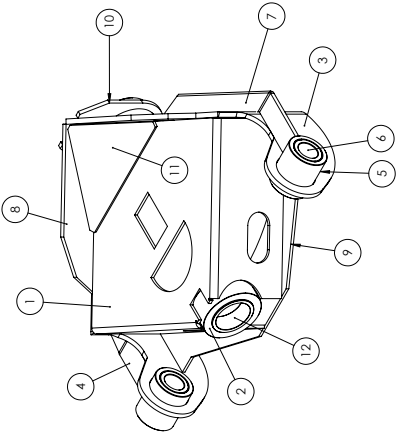
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Nr	Ändring	Datum	Godkänn
-		2013-04-05	



Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	118654			65
2	1	109191		Axel stel	320
3	1	109264		Sprinter led axel	7
4	1	109217		Cylindrar komunicerande kär	32
5	1	109192		Broms hydraulisk stel axel	7
6	20	101289	410121160	Hjulmutter M22x1,5	0.28
7	6	117900		Bult M16x50 Insex 12.9 fzb	
8	2	100491	10400162	Smörjnippl M10x1 rak	
9	2	117701		Låsbricka	

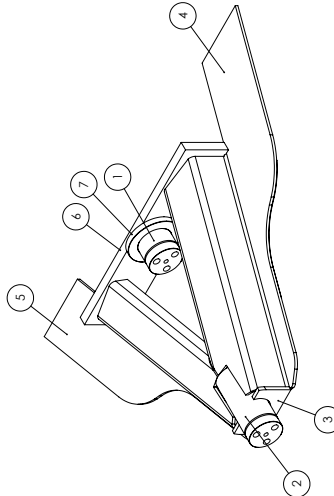
Konstruerad Av	Risad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	1:10	
Sektor		Vikt (kg)	Fäst / Benämning		Fäst		
Godkänd		438	Axel #120 stel hyd.b terängboggi 2013				
Ågare				Artikel Nr			Blad
				118659			1 (1)



POS.	ANT.	ARTIKELNR 1	ARTIKELNR 2	BESKRIVNING	VIKT
1	1	117630		Pilöt terängboggi chassidél	
2	2	117642		Hydro ledstift	
3	1	117642		Pilöt	
4	1	117739		Hydra	
5	2	117645		Busning huvudboggiäder	1,03
6	2	100306		Pilöt	
7	1	117739		Pilöt	
8	1	117756		Pilöt	
9	1	117756		Pilöt	
10	1	118084		Pilöt	
11	1	118089		Pilöt	
12	2	118106		WB 700 Homsbusning 73x/0x35	

Godkänd	36	Terängboggi chassidél	117633	B	1 (2)

Nr	Ändring	Datum	Godkänn
-		2013-03-21	
A		2013-12-02	
B		2014-04-01	

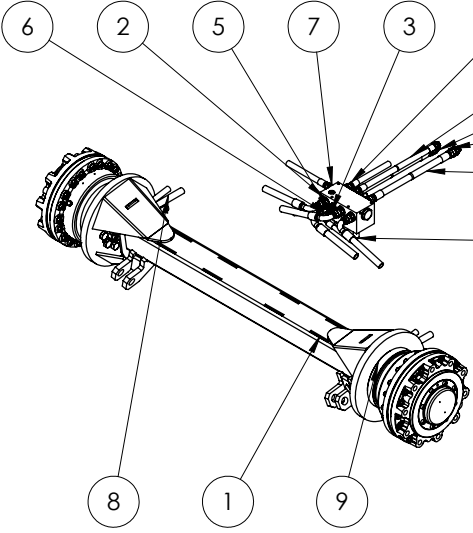


POS.	ANT.	ARTIKELNR 1	ARTIKELNR 2	BESKRIVNING	VIKT
1	1	117628		Ledaxel bak terängboggi	
2	1	117712		Ledaxel fram terängboggi	
3	2	117715		Pilöt	
4	1	117727		Pilöt terräng axel	
5	1	117749		Pilötstift H-BOGGI	
6	1	117749		Pilötstift H-BOGGI	
7	1	121012		Låstämring	
8	2	123764		Pilöt f-boggi	



Godkänd	30	Terängboggi Axeltel	117732	E	1 (2)

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Nr	Ändring	Datum	Godk av
		2013-10-31	
		2013-11-01	

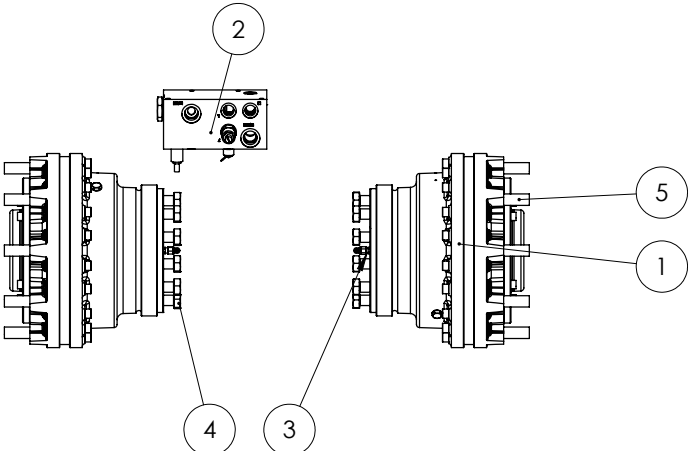


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	114083		MQ Drivaxel	122.37
2	6	101477	450105	Tredo-bricka 3/4"	
3	2	103440	450102	Tredo-bricka 3/8"	
4	6	101007	450103	Tredo-bricka 1/2"	
5	2	104539	70020606	Adapter 3/8" UTV-3/8"UTV	
6	6	103333	60001212	Adapter 3/4"UTV-3/4"UTV	
7	3	102987	60000808	Adapter 1/2"UTV-1/2"UTV	
8	4	120725	120725	Slang	1
9	2	120731	120731	Slang	0
10	2	120732	120732	Slang	0
11	1	120733	120733	Slang	0
12	2	120734	120734	Slang	0
13	2	103340	60001208	Adapter 3/4"UTV-1/2"UTV	
14	2	120747	70150812	R1/2"UF SAE0 3/4"UF	
15	2	120746	70150407	R1/4" UF SAE0 7/16 UF	
16	2	108248	40700604	Adapter 1/4" INV-3/8" UTV	
17	2	101087	450100	Tredo-bricka 1/4"	
18	1	120094	120094	Assistans drift enl ritn 23728	337



Konstruerad Av LH	Ritad Av LH	Skapad Datum 2013-10-30	Godkänd Av AI	Generell Tolerans	Skala 1:20	
Status Godkänd		Vikt (kg) 467	Titel / Benämning Monterad assistans drift		Hall	
Ägare 			Artikel Nr 120718	Rev B	Blad 1 (1)	

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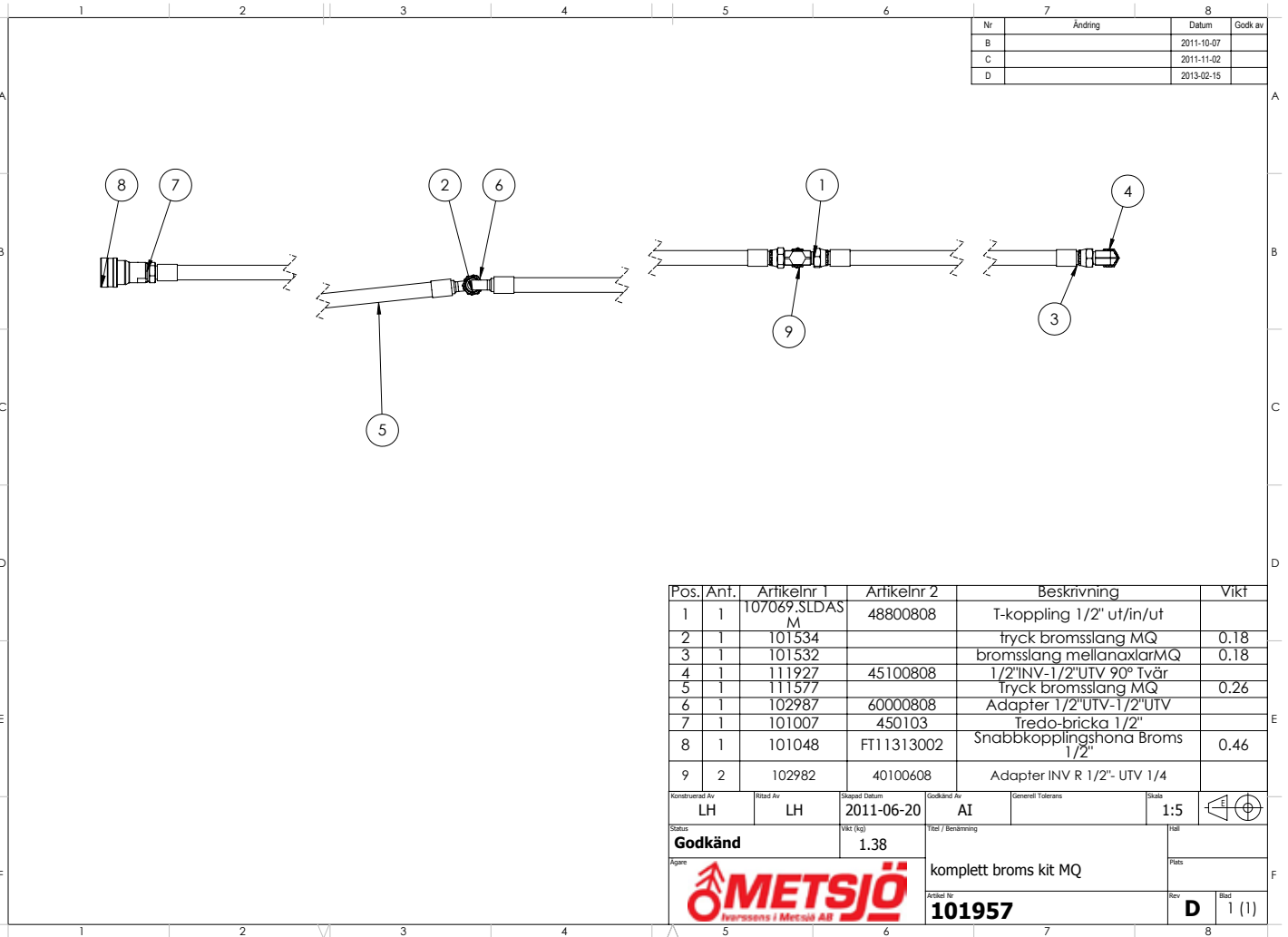
Nr	Ändring	Datum	Godk av
A		2013-11-01	
B		2013-11-05	
C		2014-11-17	



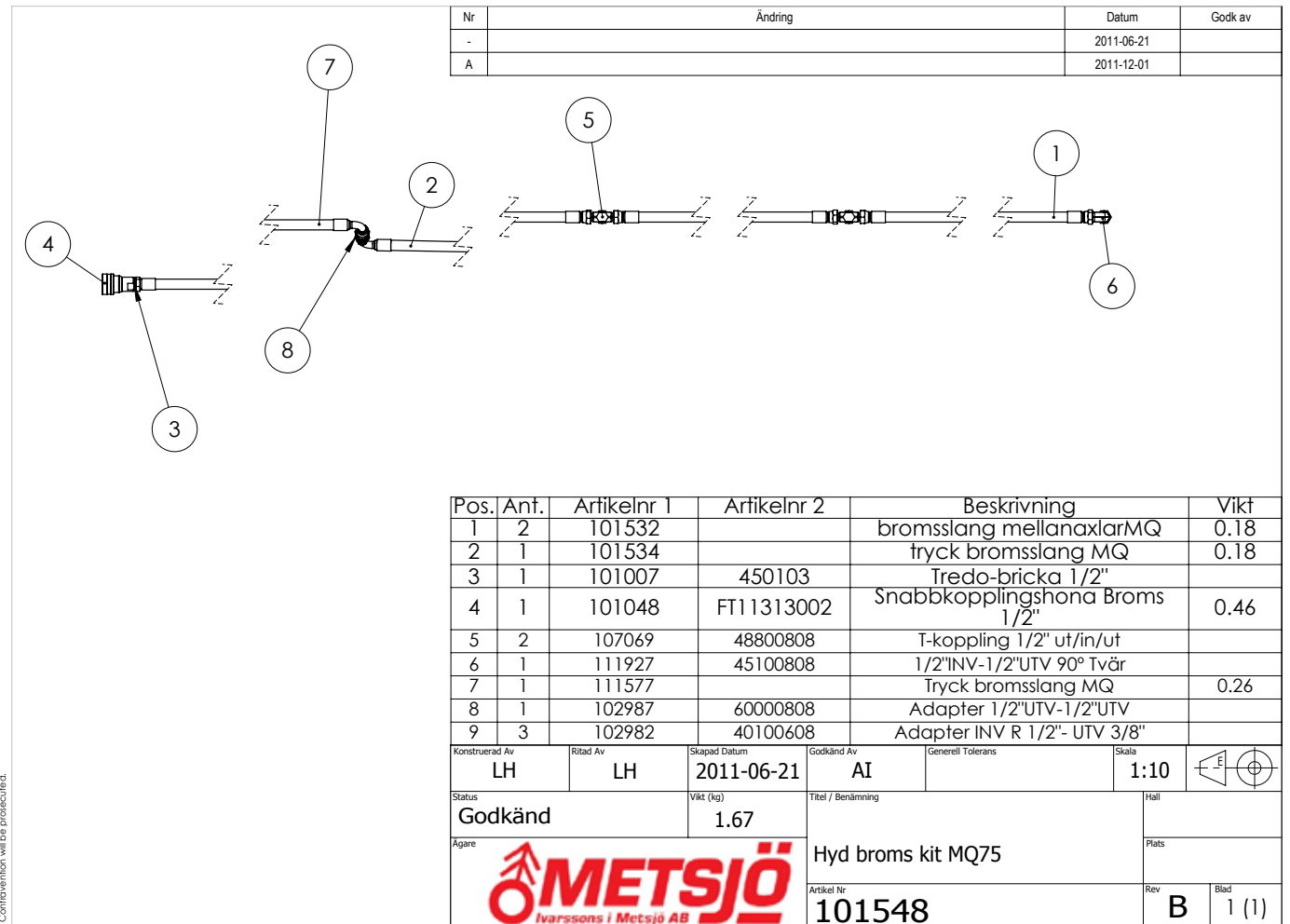
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	117077		Hjulmotor BBC05	
2	1	120079	120079	Diffspärr och frihjul block assistans drift	5
3	4	120754		Förlängare med direktanslutning	
4	24	117209		Bult M20x1,5x45	
5	20	117214	SH1409111900	Hjulbult 22x1,5 x89,5	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2013-09-16	Godkänd Av	Generell Tolerans	Skala 1:10	
Status Godkänd		Vikt (kg) 342	Titel / Benämning 120094		Hall	
Ägare 			Assistans drift enl ritn 23728		Plats	
			Artikel Nr 120094	Rev D	Blad 1 (1)	

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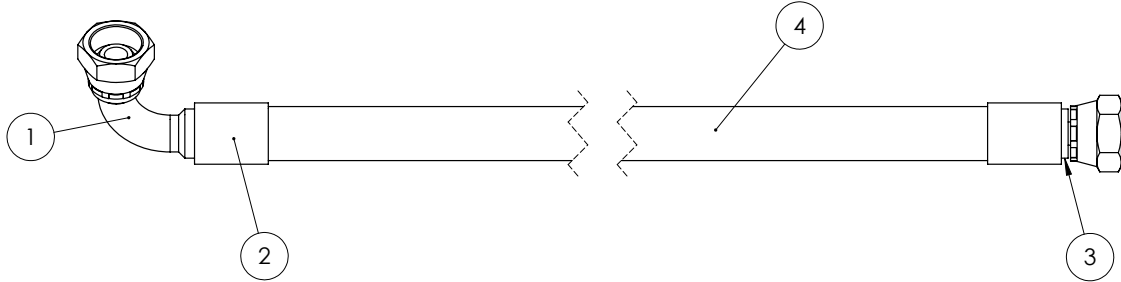
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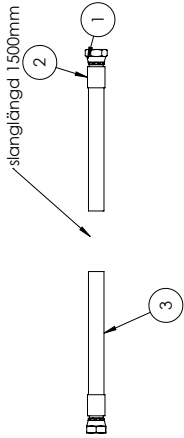
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vagns typ	slanglängd	Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
MetaQ 60	2800mm	1	1	103836	A500510808	Stolpe 1/2" - 90°	
MetaQ 75	2800mm	2	2	101013	1100000808	Hylsa 1/2" 1W	0.03
MetaQ 95		3	1	107919	A500010808	Stolpe 1/2"- INV R 1/2"	
Meta dump 5,2	2300mm	4	1	101012	241B08	Hydraulslang 1/2"	0.05
Meta dump 6,2							

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2011-10-07	AI		1:2	
Status	Vikt (kg)		Titel / Benämning		Hall	
Godkänd	0.18		tryck bromssläng MQ			
Ägare			Artikel Nr		Rev	
			101534		C	
					Blad	1 (1)



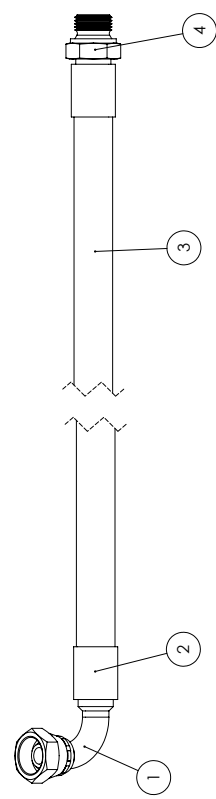
Nr	Ändring	Datum	Godk. av
-		2011-08-20	
A		2011-11-02	



Pos.	Ant.	Artikelnr	Beställingsnr	Beskrivning	Vikt
1	2	107919	A500010808	Stolpe 1/2" - INV R 1/2"	0.03
2	2	101013	1100000808	Hylsa 1/2" 1W	0.05
3	1	101012	241B08	Hydraulslang 1/2"	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2011-12-01	AI		1:2	
Status	Vikt (kg)		Titel / Benämning		Hall	
Godkänd	0.18		bromssläng mellanaxlarMQ			
Ägare			Artikel Nr		Rev	
			101532		B	
					Blad	1 (1)

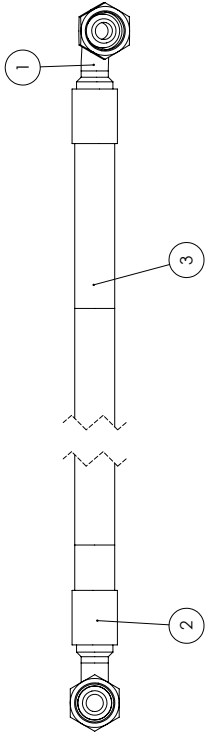
Nr	Ändring	Datum	Godk. av
-		2011-12-01	
A		2012-08-19	



Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	103836	A500510808	Stolpe 1/2" - 90°	
2	2	101013	1100000808	Hylsa 1/2" 1W	0.03
3	1	101012	241B08	Hydraulslang 1/2"	0.05
4	1	101014	5001200808	Stolpe 1/2" - UVV 1/2"	

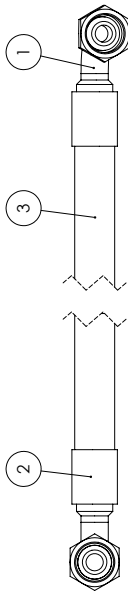
Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2011-12-01	AI		1:2	
Status	Vikt (kg)		Titel / Benämning		Hall	
Godkänd	0.26		Tryck bromssläng MQ			
Ägare			Artikel Nr		Rev	
			111577		B	
					Blad	1 (1)

Nr	Ändring	Datum	Godk av
-		2011-10-25	
A		2011-11-30	
B		2012-11-14	



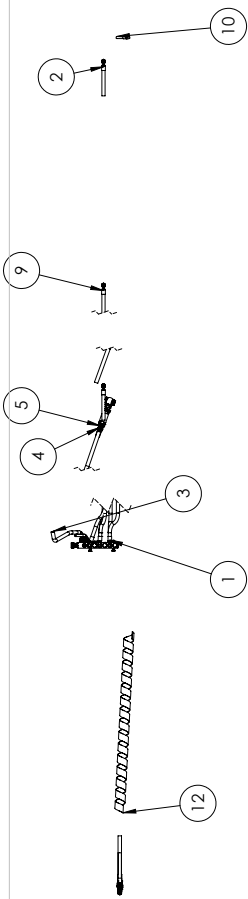
Slanglängd	Pos./Ant.	Artikelnr. 1	Artikelnr. 2	Beskrivning	Vikt
2400mm	1	103836	A500510808	Stolpe 1/2" - 90°	0.03
2400mm	2	101013	1100000808	Hyfsa 1/2" LW	0.05
	3	101012	241808	Hydraculislang 1/2"	
Normalkomponenter		Pos./Ant.	Godkänn. Nr.	Slag	
LH		LH	2011-10-25	AI	1:2
Vikt		0.22			
Godkänd					
METSJÖ					
MQ60-95 komkärli slang första axel					
Artikelnr: 111816					
Godkänn. Nr. A					

Nr	Ändring	Datum	Godk av
-		2011-10-25	
A		2011-11-30	
B		2012-11-14	



vagns typ	slanglängd	Pos./Ant.	Artikelnr. 1	Artikelnr. 2	Beskrivning	Vikt
MQ60	3950mm	1	103836	A500510808	Stolpe 1/2" - 90°	0.03
MQ75	5550mm	2	101013	1100000808	Hyfsa 1/2" LW	0.05
MQ95		3	101012	241808	Hydraculislang 1/2"	
Normalkomponenter		Pos./Ant.	Godkänn. Nr.	Slag		
LH		LH	2011-10-25	AI	1:2	
Vikt		0.22				
Godkänd						
METSJÖ						
MQ60-95 komkärli slang sista axel						
Artikelnr: 111817						
Godkänn. Nr. A						

Pos.	MQ75/QTY.	Artikelnr. 1	Artikelnr. 2	Beskrivning	Vikt
1	2	111816		MQ60-95 komkärli slang första axel	0.22
2	2	111817		MQ60-95 komkärli slang sista axel	0.22
3	1	111820		På fyllnings slang komkärli MQ	0
4	1	101705		MQ60 tips slang	0.52
5	1	101478		komplett 3/4 kran med 1" banjo	1.02
6	2	101007	450103	Tredobricka 1/2"	
7	1	103340	60001208	Adapter 3/4 UUV-1/2 UUV	
8	2	101016	5C105956205	Snabbkoppling Hane 1/2"	
9	2	112322		MQ75 komkärli slang mitten axel	0.22
10	1	121507		Stylfås slang MQ60-95	0
11	1	127178		samlingsblock 3-axlar	6
12	1	552410050		65SKydatspindel 54-48 Gul 1m	0.47
Normalkomponenter		Pos./Ant.	Godkänn. Nr.	Slag	
LH		LH	2011-10-25	AI	1:25
Vikt		10			
Godkänd					
METSJÖ					
Hyd MQ60-95					
Artikelnr: 111815					
Godkänn. Nr. G					



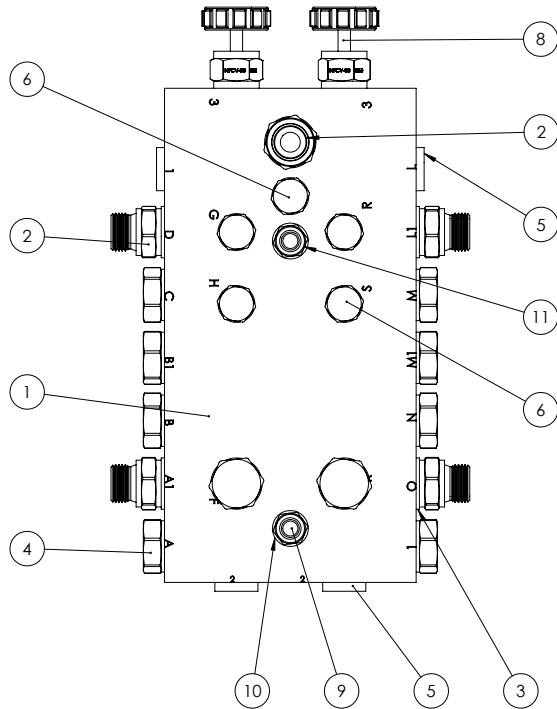
Nr	Ändring	Datum	Godk av
-		2011-10-25	
A		2011-11-30	
B		2012-11-14	

Pos./Ant.	Artikelnr. 1	Artikelnr. 2	Beskrivning	Vikt	
1	1	101470	471205	Kuvventill 3/4"	0.19
2	2	101477	450105	Tredobricka 3/4"	
3	1	101489	688106	Ringslutt 1" Eriks	
4	1	101841	4010216	Adaptör 1/2" UUV-3/4"	0.27
5	1	101484	4010216	Adaptör 1/2" UUV-3/4"	
6	2	101490	450106	Tredobricka 1"	
7	1	103333	62001212	Adapter 3/4 UUV-3/4 UUV	
Normalkomponenter		Pos./Ant.	Godkänn. Nr.	Slag	
LH		LH	2011-05-10	AI	1:2
Vikt		1.02			
Godkänd					
METSJÖ					
Komplett 3/4 kran med 1" banjo					
Artikelnr: 101478					
Godkänn. Nr. A					

Nr	Ändring	Datum	Godk av
C		2013-12-04	
D		2014-01-10	
E		2015-04-28	

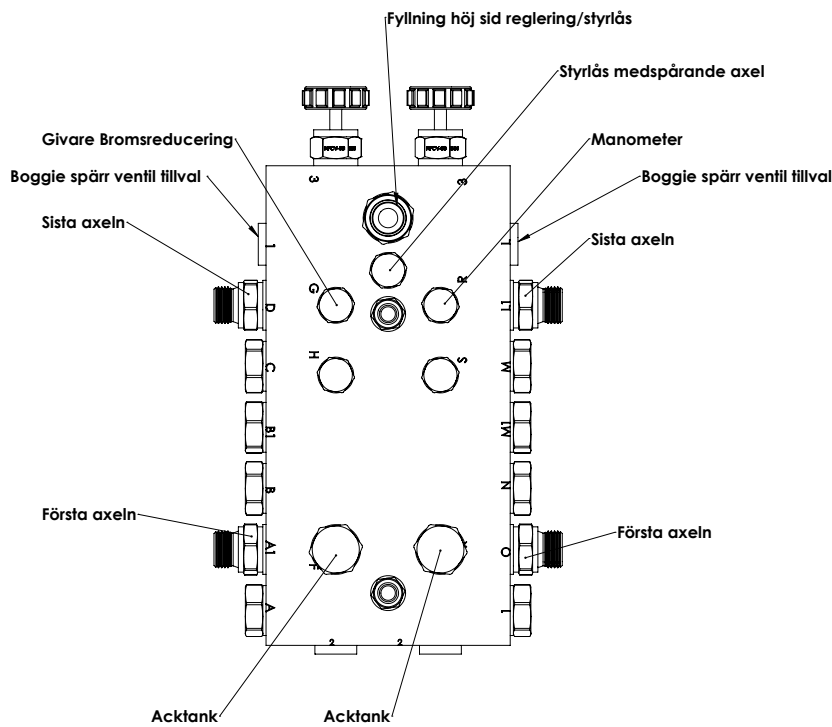
Height and lateral control:

1. Open the ball valve (2 pcs. per side)
2. Adjust the height
3. Close the ball valve



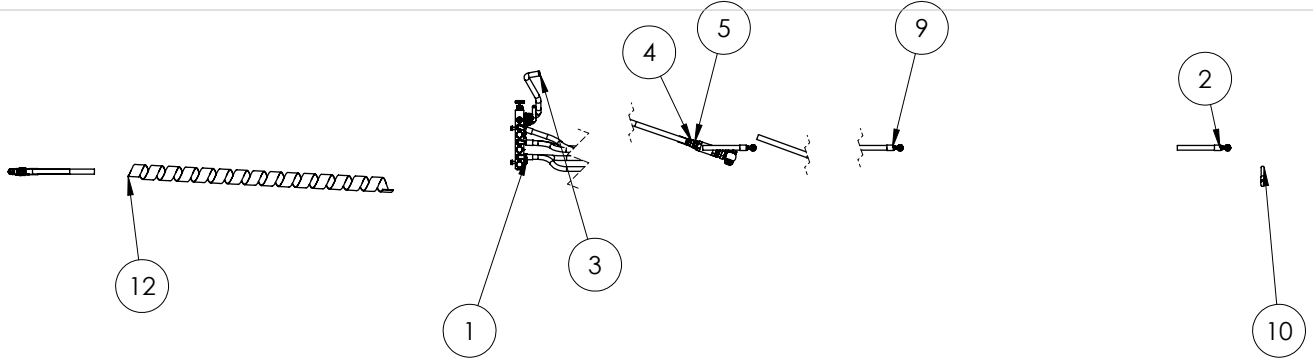
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	103190	103190	Samplingsblock VB200701	
2	5	102987	60000808	Adapter 1/2"UTV-1/2"UTV	
3	15	101007	450103	Tredo-bricka 1/2"	
4	10	101557	Propp08	Propp 08-1/2"	
5	4	106342	106342	Insexplugg 3/4" UNF till samplingsblock	
6	5	103078	Propp04	Propp 04-1/4"	
7	5	101087	450100	Tredo-bricka 1/4"	
8	2	108021	108021	Avstängningskran Höj sid regNFCV-08	0
9	2	ISO 4017 - M10 x 70-N	M10x25Std		
10	4	109899	1251051	Bricka 10,5x20x2 FZB	
11	2	109791	M10NylockNik lod	Mutter M10 FZB nylock	

Konstruerad Av LH	Rebad Av LH	Skapad Datum 2011-10-10	Godkänd Av AI	Generell Tolerans	Skala 1:2	
Status Godkänd	Vikt (kg) 6	Titel / Benämning samlingsblock 2-axlar		Plats	Rev G	
Agens				Actuel Nr 103900	Blad 1 (3)	



Konstruerad Av LH	Rebad Av LH	Skapad Datum 2011-10-10	Godkänd Av AI	Generell Tolerans	Skala 1:2	
Status Godkänd	Vikt (kg) 6	Titel / Benämning samlingsblock 2-axlar		Plats	Rev G	
Agens				Actuel Nr 103900	Blad 2 (3)	

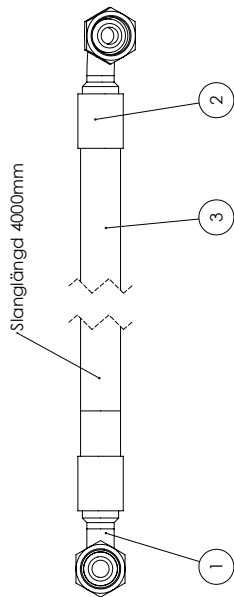
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Pos.	MQ75/QTY.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	2	111816		MQ60-95 komkärsl slang första axel	0.22
2	2	111817		MQ60-95 komkärsl slang sista axel	0.22
3	1	111820		På fyllningsslang komkärsl MQ	0
4	1	101705		MQ60 tipp slang	0.52
5	1	101478		komplett 3/4 kran med 1" banjo	1.02
6	2	101007	450103	Tredo-bricka 1/2"	
7	1	103340	60001208	Adapter 3/4"UTV-1/2"UTV	
8	2	101016	5C105956205	Snabbkoppling Hane 1/2"	
9	2	112322		MQ75 komkärsl slang mitten axel	0.22
10	1	111825		Styrslas slang MQ60-95	0
11	1	121507		samlingsblock 3-axlar	6
12	1	127178	552410050	65Skyddsspiral 54-48 Gul 1m	0.47

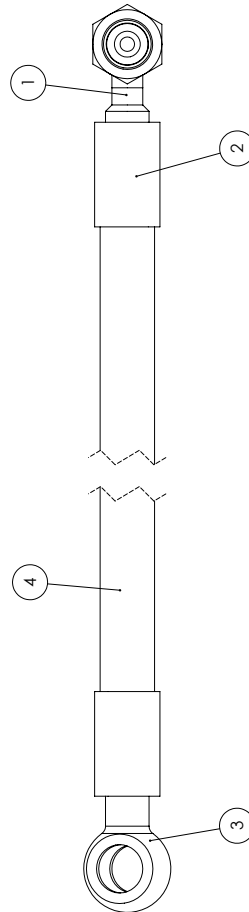
Konstruerad Av LH	Ritad Av LH	Skapad Datum 2011-10-25	Godkänd Av AI	Generell Tolerans	Skala 1:25	
Status Godkänd	Vikt (kg) 10	Titel / Benämning Hyd MQ60-95		Häll		
Agare 			Artikel Nr 111815	Plats		Rev G
						Blad 2 (3)

Nr	-	Datum	2011-11-30	Godk av	
Ändring					



Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	103836	A500510808	Stolpe 1/2" - 90°	0.03
2	101013	1100000808	Hylsa 1/2" 1W	0.05
3	101012	241B08	Hydraulslang 1/2"	0.05
Konstruerad Av LH				Skala 1:2
Godkänd				Häll
Agare 				Plats
Titel / Benämning MQ75 komkärsl slang mitten axel				Rev -
Artikel Nr 112322				Blad 1 (1)

Nr	-	Datum	2011-11-30	Godk av	
Ändring					

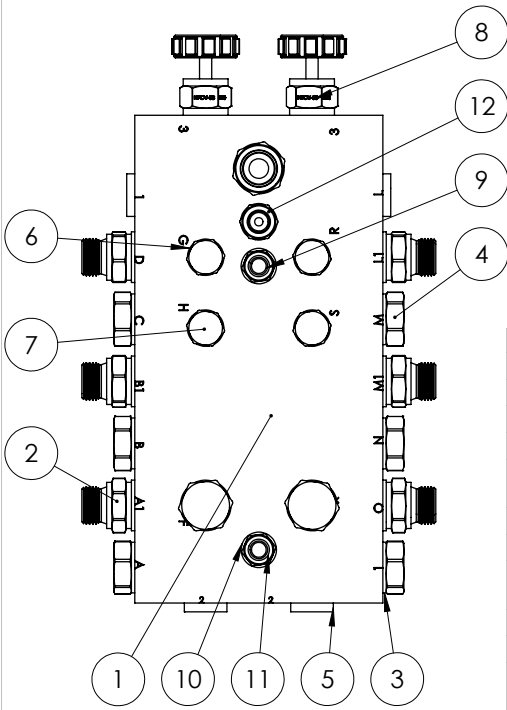


Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	104252	A500510404	Stolpe 1/4" - 90°	0.02
2	101037	1100000404	Hylsa 1/4" 1W	0.02
3	101088	A502910404	Banjo 1/4" - stolpe 1/4"	0.01
4	107197	241B04	Hydraulslang 1/4"	0.01
Konstruerad Av LH				Skala 1:1
Godkänd				Häll
Agare 				Plats
Titel / Benämning Styrslas slang MQ60-95				Rev -
Artikel Nr 111825				Blad 1 (1)

Nr	Ändring	Datum	Godk av
-		2014-01-10	
A		2014-01-16	

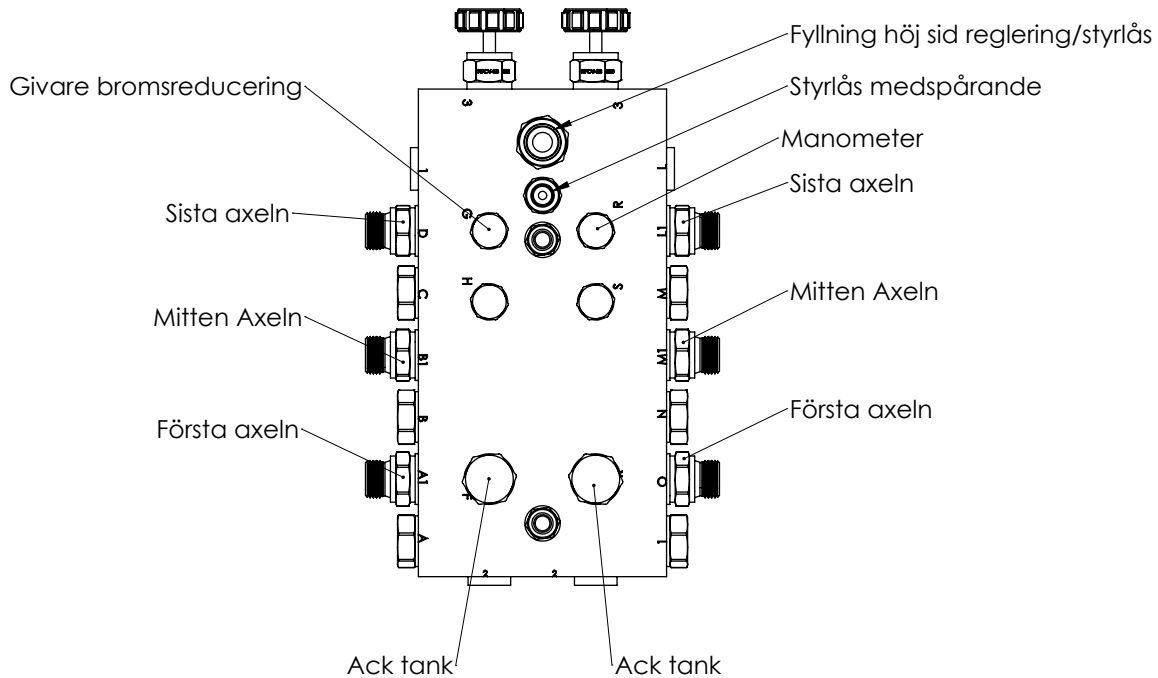
Height and lateral control:

1. Open the ball valve (2 pcs. per side)
2. Adjust the height
3. Close the ball valve



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	103190	103190	Samlingsblock VB200701	
2	7	102987	60000808	Adapter 1/2"UTV-1/2"UTV	
3	15	101007	450103	Tredo-bricka 1/2"	
4	8	101557	Propp08	Propp 08-1/2"	
5	4	106342	106342	Insexplugg 3/4" UNF fill samlingsblock	
6	5	101087	450100	Tredo-bricka 1/4"	
7	4	103078	Propp04	Propp 04-1/4"	
8	2	108021	108021	Avstängnings kran Hög sid regNFCV-08	0
9	2	9338100701	9338100701	M10x70FZB	
10	4	1251051	1251051	10,5x20x2FZB	
11	2	109791	M10NylockNiklad	Mutter M10 FZB nylock	
12	1	101406	60000404	Adapter 1/4"UTV-1/4"UTV	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2014-01-10	Godkänd Av	Generell Tolerans	Skala 1:3	
Status Godkänd		Vikt (kg) 6	Titel / Benämning		Hall	
Ägare 		samlingsblock 3-axlar		Plats		
		Artikel Nr 121507	Rev A	Blad 1 (3)		

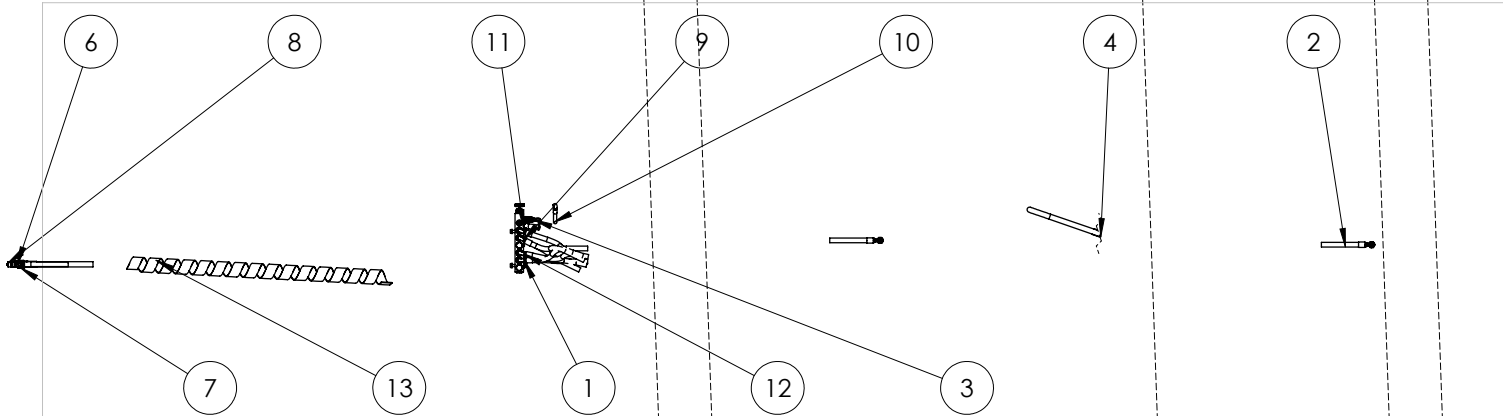


Konstruerad Av LH	Ritad Av LH	Skapad Datum 2014-01-10	Godkänd Av	Generell Tolerans	Skala 1:3	
Status Godkänd		Vikt (kg) 6	Titel / Benämning		Hall	
Ägare 		samlingsblock 3-axlar		Plats		
		Artikel Nr 121507	Rev A	Blad 2 (3)		

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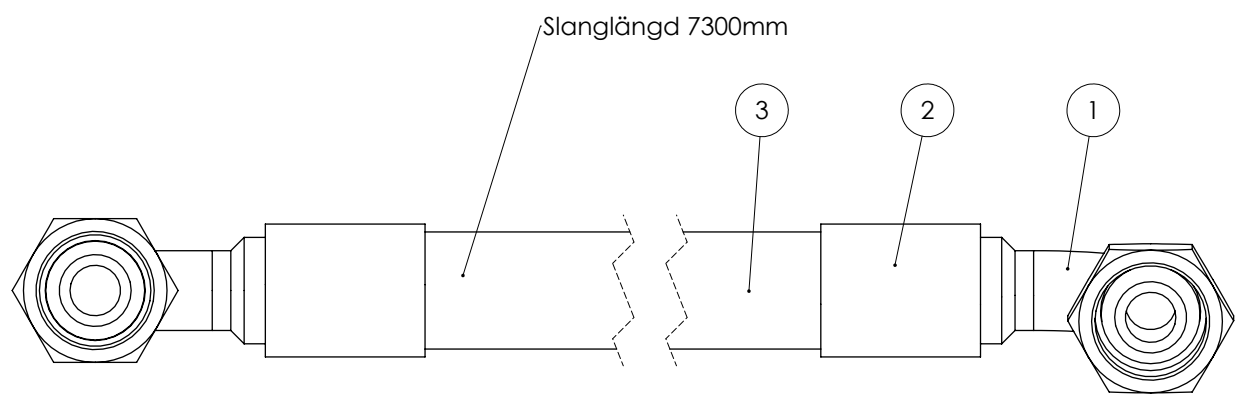
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Pos.	MQ95/QTY.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	111816		MQ60-95 komkärsl slang första axel	0,22
2	2	111817		MQ60-95 komkärsl slang sista axel	0,22
3	1	111820		På fyllningsslang komkärsl MQ	0
4	1	101705		MQ60 tipp slang	0.52
5	1	101478		komplett 3/4 kran med 1" banjo	1.02
6	2	101007	450103	Tredo-bricka 1/2"	
7	1	103340	60001208	Adapter 3/4"UTV-1/2"UTV	
8	2	101016	5C105956205	Snabbkoppling Hane 1/2"	
9	2	112322		MQ75 komkärsl slang mitten axel	0.22
10	1	111825		Styrlås slang MQ60-95	0
11	1	121548		samlingsblock 4-axlar	6
12	2	121582		MQ95 komkärsl slang axel	0.22
13	1	127178	552410050	65Skydds spiral 54-48 Gul 1m	0.47

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2011-10-25	Godkänd Av AI	Generell Tolerans	Skala 1:25	
Status Godkänd	Vikt (kg)	Titel / Benämning		Hall		
Ägare 		Hyd MQ60-95		Plats		
		Artikel Nr 111815		Rev G	Blad 3 / 31	
Nr	Ändring	Datum	Godk av			
-		2014-01-15				
A		2014-01-16				



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	103836	A500510808	Stolpe 1/2" - 90°	
2	2	101013	1100000808	Hylsa 1/2" 1W	0.03
3	1	101012	241B08	Hydraulslang 1/2"	0.05

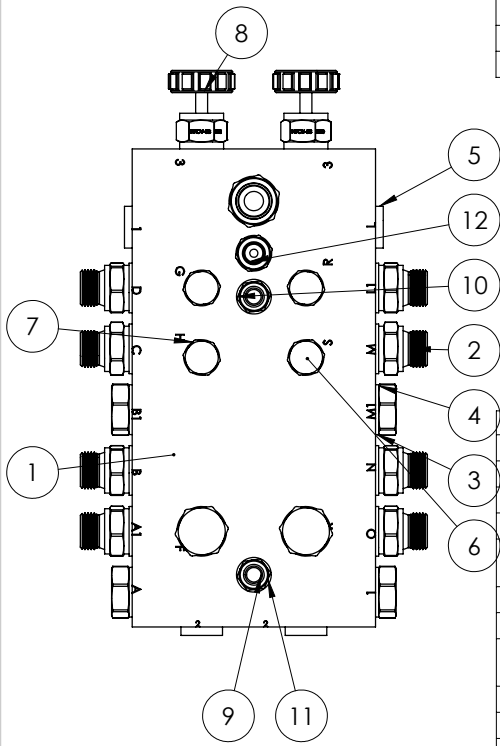
Konstruerad Av LH	Ritad Av LH	Skapad Datum 2014-01-15	Godkänd Av	Generell Tolerans	Skala 1:1	
Status Godkänd	Vikt (kg) 0.22	Titel / Benämning		Hall		
Ägare 		MQ95 komkärsl slang axel		Plats		
		Artikel Nr 121582		Rev -	Blad 1 (1)	

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Nr	Ändring	Datum	Godk av
-		2014-01-14	
A		2014-01-15	

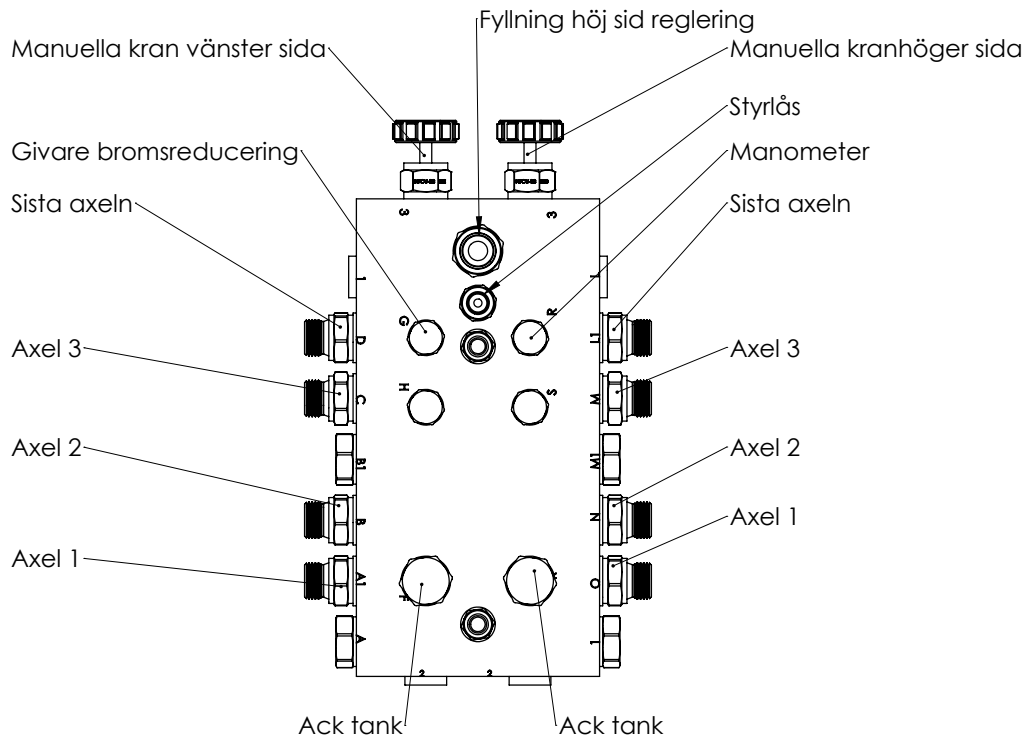
Height and lateral control:

1. Open the ball valve (2 pcs. per side)
2. Adjust the height
3. Close the ball valve



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	103190	103190	Samlingsblock VB200701	
2	9	102987	60000808	Adapter 1/2"UTV-1/2"UTV	
3	15	101007	450103	Tredo-bricka 1/2"	
4	6	101557	Propp08	Propp 08-1/2"	
5	4	106342	106342	Insexplugg 3/4" UNF till samlingsblock	
6	4	103078	Propp04	Propp 04-1/4"	
7	5	101087	450100	Tredo-bricka 1/4"	
8	2	108021	108021	Avstängnings kran Höj sid regNFCV-08	0
9	2	9338100701	9338100701	M10x70FZB	
10	4	1251051	1251051	10,5x20x2FZB	
11	2	109791	M10NylockNik lad	Mutter M10 FZB nylock	
12	1	101406	60000404	Adapter 1/4"UTV-1/4"UTV	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2014-01-14			1:3	
Status	Vikt (kg)		Titel / Benämning		Häll	
Godkänd	6		samlingsblock 4-axlar		Plats	
Ägare			Artikel Nr		Rev	Blad
			121548		A	1 (2)

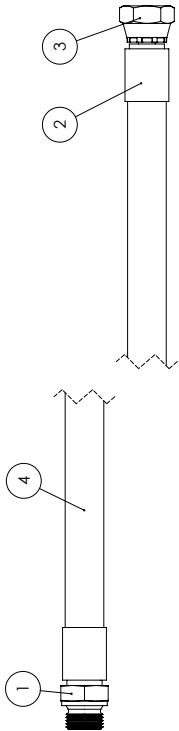


Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2014-01-14			1:3	
Status	Vikt (kg)		Titel / Benämning		Häll	
Godkänd	6		samlingsblock 4-axlar		Plats	
Ägare			Artikel Nr		Rev	Blad
			121548		A	2 (2)

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Nr	Ändring	Datum	Godk. av
C	Justerad slanglängd	2013-03-18	
D		2013-11-08	
E		2014-09-03	

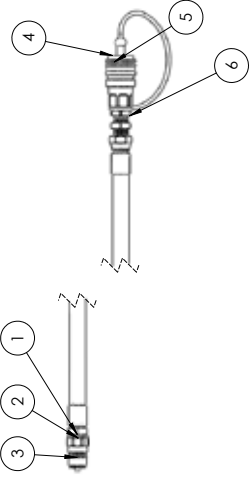


Vagns model	Slanglängd	Pos. Ant.	Artikelnr	Beställningsnr	Beskrivning	Vikt
NO	6250mm	1	101014	5007200808	Stolpe 1/2" - UVV 1/2"	
Mid	6250mm	2	101013	1100000808	Hysg 1/2" 1W	0.03
MX	7350mm	3	107919	A500010808	Stolpe 1/2" - INV R 1/2"	
MQ 60	8400mm	4	101012	241B08	Hydraulslang 1/2"	0.05
MQ 75	10000mm					
MQ 95	11111					

Godkänd: LH, M (LH)
 Godkänd: 0
 Slang uttag bak
106930
METSJÖ
 Hydraulslang 1/2"

Vikt: 1 (1)
 Godk. av: C

Nr	Ändring	Datum	Godk. av
-		2010-02-14	
A		2011-01-14	

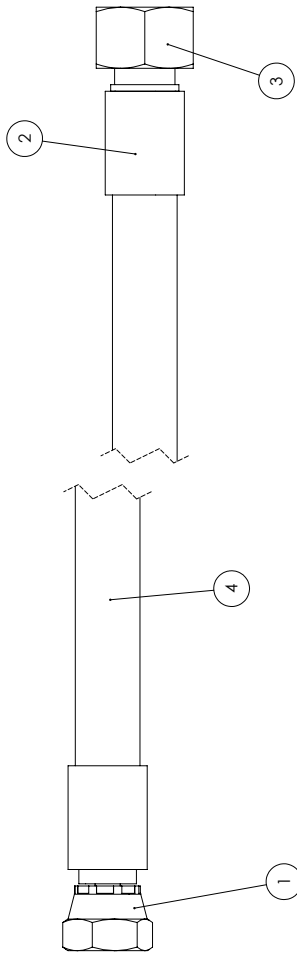


Pos. Ant.	Artikelnr	Beställningsnr	Beskrivning	Vikt
1	106930	0	slang bakuttag MQ MF	0
2	101007	450103	Tredobricka 1/2"	
3	101016	471004	Snabbkoppling Hane 1/2"	
4	103358	471015	Dammskydd Hona	0.0
5	103270	471005	Snabbkoppling Hona 1/2"	
6	103285	40800808	Skoffgenömgång 1/2"	

Godkänd: LH, M (LH)
 Godkänd: 0
 Hydrauluttag bakNo, Mid, Mx, MQ 60/75-95
106643
METSJÖ
 Hydrauluttag bakNo, Mid, Mx, MQ 60/75-95

Vikt: 1 (1)
 Godk. av: C

Nr	Ändring	Datum	Godk. av
A	Justerad slanglängd	2012-12-13	
B	Justerad Slanglängd	2014-08-12	
C		2014-09-03	

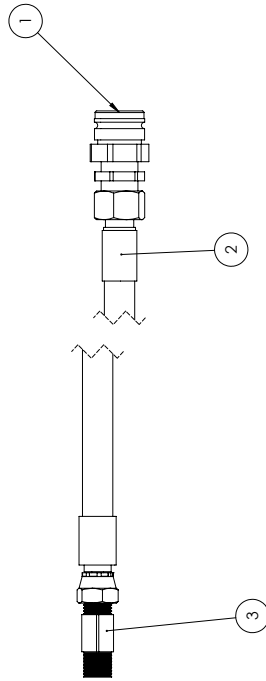


Vagns model	Slanglängd	Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
Mid	1300mm	1	101516	A500010606	Stolpe 3/8" - INV R 3/8"	
Metax		2	102555	1100000606	Hysg 3/8" 1W	0.03
MF 11		3	117027	5014900806	Stolpe 3/8" - RØR 15L	
MF 18	850mm	4	101036	241B06	Hydraulslang 3/8"	0.03

Godkänd: LH, M (LH)
 Godkänd: 0
 Broms slang uttag bak
111824
METSJÖ
 Broms slang uttag bak

Vikt: 1 (1)
 Godk. av: B

Nr	Ändring	Datum	Godk. av
-		2011-09-06	
A		2012-12-13	

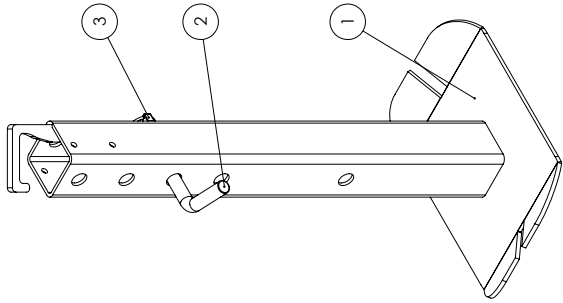


Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	106641	FI31322503	Snabbkopplingshane Broms 0.24	0.24
2	111824		Broms slang uttag bak	0
3	101517	48500606	T-koppling 3/8" ut/ut/ut	0.06

Godkänd: LH, M (LH)
 Godkänd: 0
 Bromsuttag bak
106642
METSJÖ
 Bromsuttag bak

Vikt: 1 (1)
 Godk. av: B

Nr	Ändring	Datum	Godk av
-		2012-11-01	
A		2013-02-14	
B		2013-06-11	

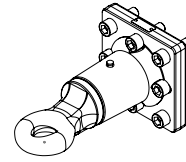


Pos. Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	100538	100538-Grå	Sveitsat stöben	12,30
2	100323	100323	Sprint stöben	0,54
3	100333	10400040,2	Ringsprint 10m-40 nick parm	0,04

Material: Stålmålning
 Mått: 1:5
 Skala: 1:5
 Typ: C
 Godkänd: 13
 Mått: 106634
 Beskrivning: Stöben Std komp
 Partinr: 106634



Nr	Ändring	Datum	Godk av
-		2011-05-30	
A		2011-06-01	

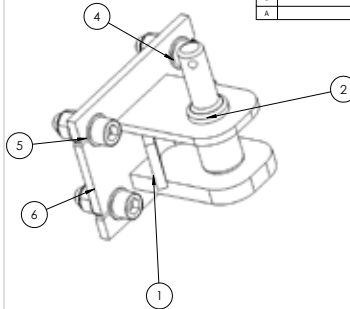


Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	101059	654430	Dragögla 50 Schärmuller	
2	109859		M20x65 Insex 12,9	

Mått: 25
 Godkänd: 25
 Mått: 1:5
 Typ: A
 Godkänd: 107880
 Beskrivning: Dragögla 50 Scharm.
 Partinr: 107880



Nr	Ändring	Datum	Godk av
-		2010-10-05	
A		2013-06-11	

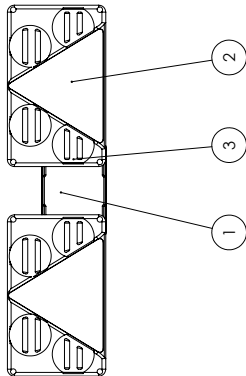


Pos. Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	100203	100203-GRÅ	Bullbart bakdrag	7,25
2	102198	102198	Dragsprint	1,72
3	100333	10400040,2	Ringsprint 10m-40 nick parm	0,04
4	109858	9121220040	Bult M20x60 Insex 12,9	
5	109905	BRB2101	Bricka 21x36x3 FZB	
6	109794	982001	Mutter M20 FZB nylock	

Mått: 9
 Godkänd: 9
 Mått: 1:3
 Typ: B
 Godkänd: 105366
 Beskrivning: Bakdrag kit.. Käfftradrag
 Partinr: 105366



Nr	Ändring	Datum	Godk av
-		2013-02-28	
C		2014-03-17	
D		2014-02-28	
E			



Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	122471		Kopplingsbox 8-pol	0
2	106440	106440	Bakbelysning med reflex par v&h	3
3	109869		Spårskav M5x1,6 FZB	
4	115997	24186225	Kabelkor A 2507 FLS hona blå	

Mått: 2,76
 Godkänd: 109601
 Beskrivning: Bakljus diod
 Partinr: 109601
 Mått: 1:5
 Typ: N
 Godkänd: 109601

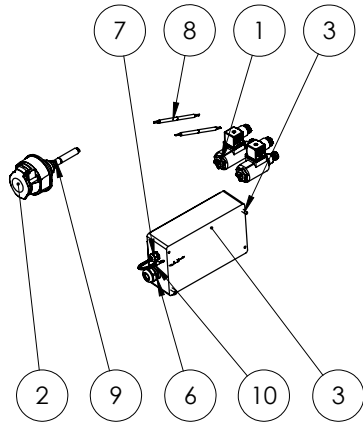


Pos. Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	100510	100510-GRÅ	Lykthalare	4,88
2	100512	100512-GRÅ	Lykthalare	4,88
3	100640	100640	Bakljus konsol	0,03
4	100642	58102016	Gummilådorner 16 mm	
5	107745	13865010	Borskarv 5,5x24x32	
6	102096	102096	Slipvagnsaktort 7 pol svart	0,08
7	101082	20500003	Gummiskydd till 7, 13-pol	0,02
8	101127	10250055,3	7 led kabel	0,06
9	101112	10250060	Slipvagnsaktort 7 pol svart	0,06
10	109855	933820451	Bult M20x65 FZB dragögla	
11	117885	84030301	Spårskav M 8x30 FZB	
12	117885	84030301	Spårskav M 8x30 FZB	

Mått: 10,15
 Godkänd: 106638
 Beskrivning: bakljus konsoler
 Partinr: 106638
 Mått: 1:10
 Typ: J
 Godkänd: 106638



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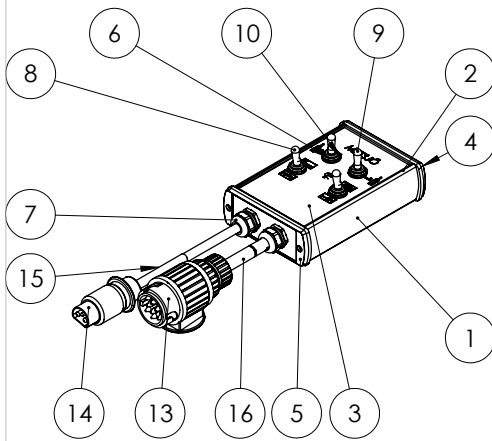
Nr	Ändring	Datum	Godk av
B		2013-02-18	
C		2014-05-06	
D		2016-01-19	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	103218	10400045	Ventil Norm STÄNGD båda rikt 12 V 27W	0.25
2	1	116773	20501301	Släpvagnskontakt 13-polig plast, hona	0
3	1	113930	113930	Kopplingslåda, mellan 200x120x100mm	0
4	1	112893	112893	Dinskana	
5	6	112894	112894	Våningsplint	
6	1	113987	5501747	Kabelgenomföring PG 16	
7	3	113983	5501945	kabel genomföring PG7	
8	2	117380	10250056,3	Kabel 2 ledare x 1,5 svart	0
9	1	116875	5573241	Kabel 12G1,5 gr	0
10	1	115121		Dummy 2-led Jord kabel	0
11	3	118087	5502018	Kontramutter för kabelförskruv. i plast PG 7	
12	1	118086	118086	Kontramutter för kabelförskruv. i plast PG16	

POS	Art nr	Längd
8	117380	1200mm
9	116875	600mm

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2013-01-22	Godkänd Av	Generell Tolerans	Skala 1:10	
Status Godkänd	Vikt (kg)	Titel / Benämning Höjd och sidreglering chassi el		Hall	Plats	
Ägare 		Artikel Nr 117377		Rev G	Blad 1 (4)	

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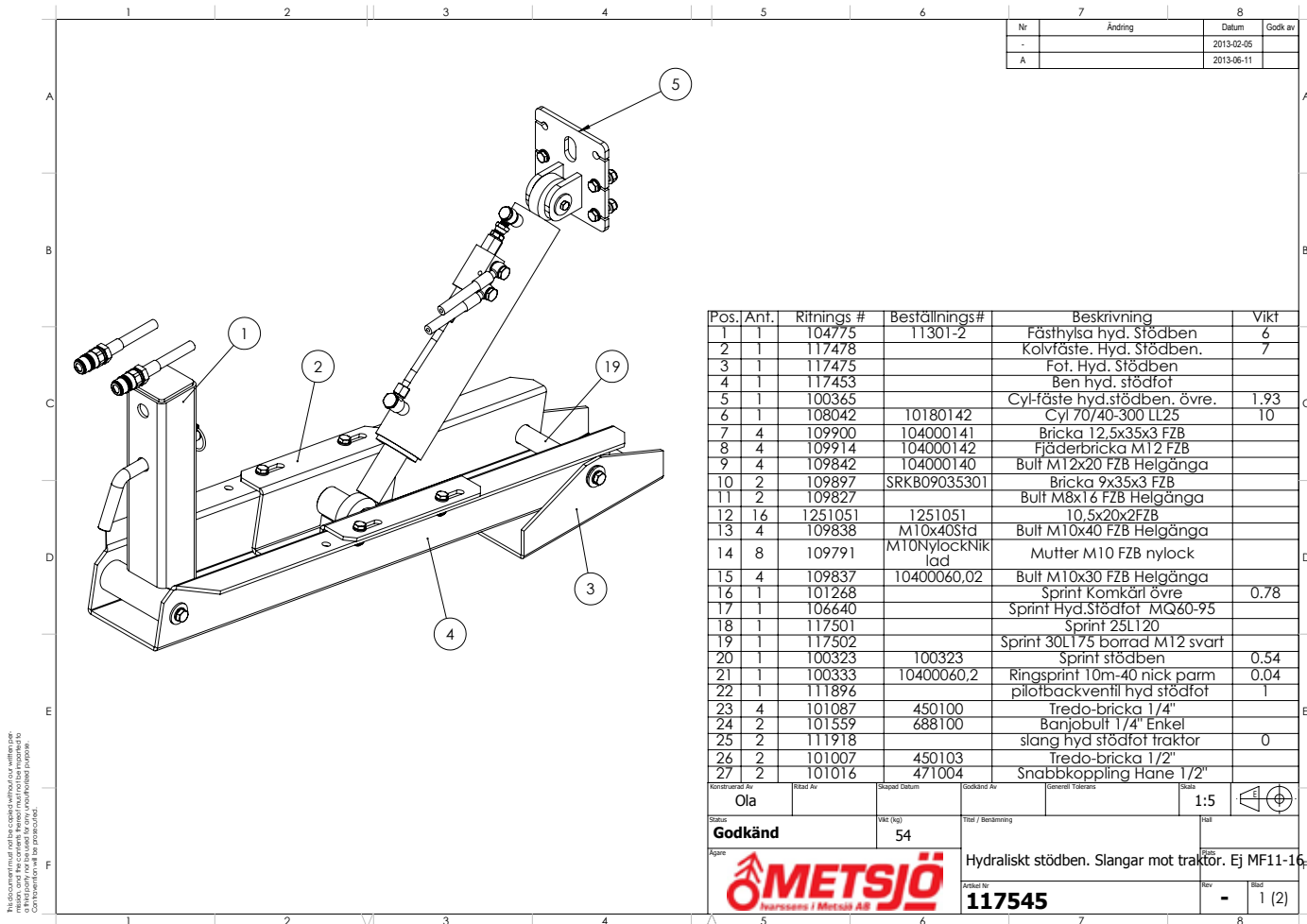


POS	Art nr	Längd
16	116875	5100mm
15	116002	1600mm

Nr	Ändring	Datum	Godk av
-		2012-10-15	
A		2013-01-24	
B		2013-04-09	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	111505	50-80916	Lådprofil aluminiumhus	
2	1	111506	50813-10	front till lådprofil	
3	1	114664	10400470,40	Dekal elbox, Flex 18 - 30	
4	1	111504	5081104	Gavel ABD1040	
5	1	111504	5081104	Gavel ABD1040	
6	4	111516	3519840	Häfta av neoprengummi	
7	2	113985	5501960	Kabelgenomföring PG 11	
8	2	112823	3523818	Vippströmställare Till - Från (Metsjö)	
9	2	114124	3523858	Vippströmställare (Till) - Från- (Till) (Metsjö)	
10	4	115974	3519865	Tätningbricka 12 mm	
11	1	115996	24185015	Kabelskor A 1507 FLS röd hona	
12	2	115997	24186225	Kabelskor A 2507 FLS hona blå	
13	1	116804	20511301	Släpvagnskontakt 13-polig plast, hane	0
14	1	111527	10250063	Erokontakt 3 pol (vagnsdel Hane), "Gristryne"	
15	1	116002	10250055,3	Kabel 7x1,5 svart	0
16	1	116875	5573241	Kabel 12G1,5 gr	0
17	1	115983	24187260	Kabelskor A 4652 SK gul skarv	
18	2	118085	5502034	Kontramutter för kabelförskruv. i plast PG11	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2012-10-15	Godkänd Av AI	Generell Tolerans	Skala 1:5	
Status Godkänd	Vikt (kg) 1	Titel / Benämning Manöverbox MF MQ		Hall	Plats	
Ägare 		Artikel Nr 115973		Rev A	Blad 1 (3)	



Nr	Ändring	Datum	Godk av
-		2013-02-05	
A		2013-06-11	

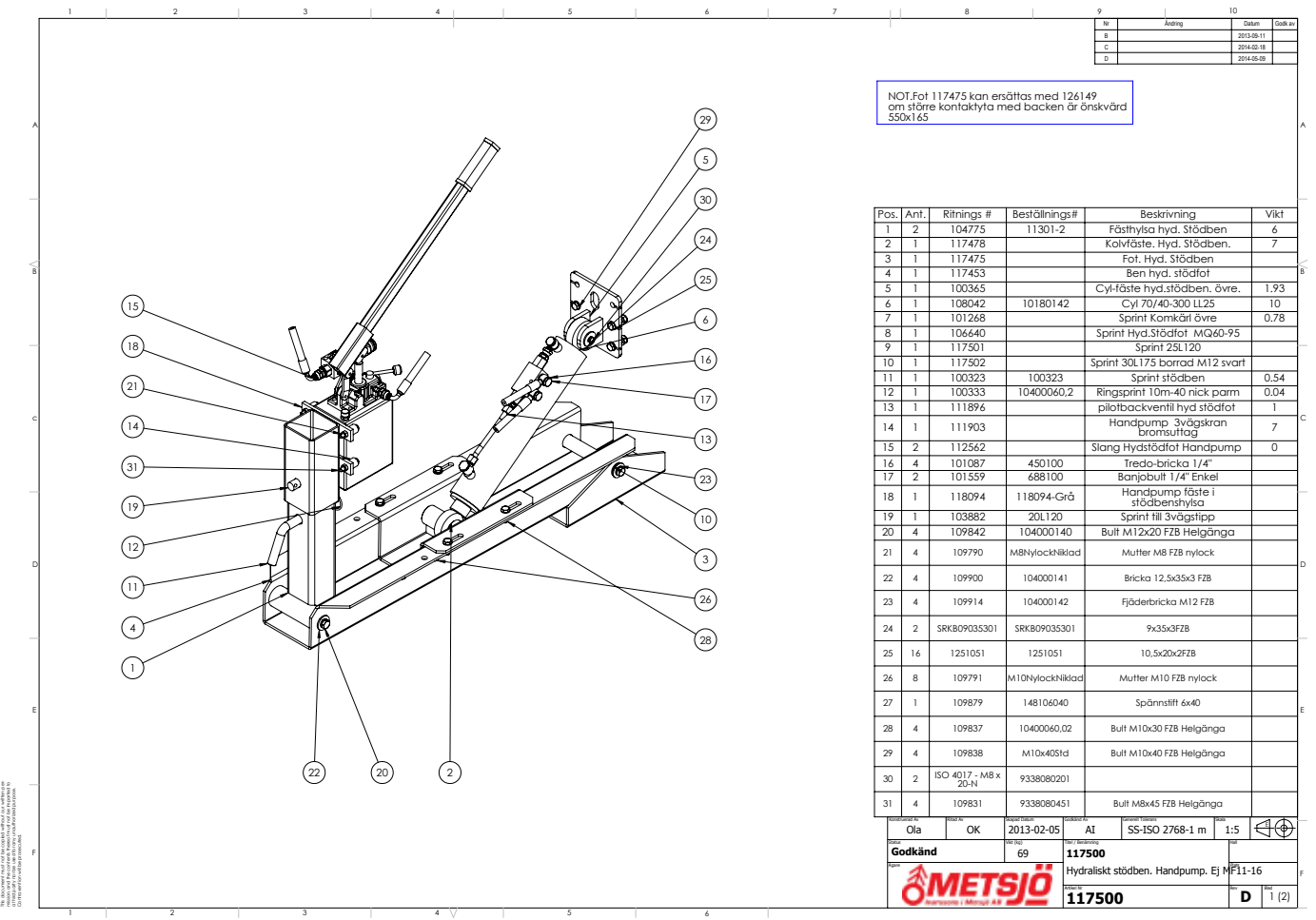
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	104775	11301-2	Fästhylsa hyd. Stödben	6
2	1	117478		Kolvfäste, Hyd. Stödben.	7
3	1	117475		Fot. Hyd. Stödben	
4	1	117453		Ben hyd. stödfot	
5	1	100365		Cyl-fäste hyd.stödben, övre.	1,93
6	1	108042	10180142	Cyl 70/40-300 LL25	10
7	4	109900	104000141	Bricka 12,5x35x3 FZB	
8	4	109914	104000142	Fjäderbricka M12 FZB	
9	4	109842	104000140	Bult M12x20 FZB Helgänga	
10	2	109897	SRKB09035301	Bricka 9x35x3 FZB	
11	2	109827		Bult M8x16 FZB Helgänga	
12	16	1251051	1251051	10,5x20x2FZB	
13	4	109838	M10x40Std	Bult M10x40 FZB Helgänga	
14	8	109791	M10NylockNik lad	Mutter M10 FZB nylock	
15	4	109837	10400060,02	Bult M10x30 FZB Helgänga	
16	1	101268		Sprint Komkärl övre	0,78
17	1	106640		Sprint Hyd.Stödfot MQ60-95	
18	1	117501		Sprint 25L120	
19	1	117502		Sprint 30L175 borråd M12 svart	
20	1	100323	100323	Sprint stödben	0,54
21	1	100333	10400060,2	Ringsprint 10m-40 nick parm	0,04
22	1	111896		pilotbackventil hyd stödfot	1
23	4	101087	450100	Tredo-bricka 1/4"	
24	2	101559	688100	Banjobult 1/4" Enkel	
25	2	111918		slang hyd stödfot fraktor	0
26	2	101007	450103	Tredo-bricka 1/2"	
27	2	101016	471004	Snabbkoppling Hane 1/2"	

Konstruktör Av: Ola Skapat Datum: Godkänd Av: Generellt Toleras: Skala: 1:5

Status: Godkänd Vikt (kg): 54 Titel / Beskrivning: Hydrauliskt stödben. Slangar mot traktor. Ej MF11-16.

Agens: **METSJÖ** Hydrauliska i Metsjö AB. Artikel Nr: **117545** Rev: - Bild: 1 (2)

Bilden avser endast en illustration och ska inte användas som grund för konstruktion eller tillverkning utan att först ha kontaktat Metsjö AB för tekniska råd.



Nr	Ändring	Datum	Godk av
B		2013-06-11	
C		2014-02-18	
D		2014-05-09	

NOT: Fot 117475 kan ersättas med 126149 om större kontaktyta med backen är önskvärd 550x165

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	104775	11301-2	Fästhylsa hyd. Stödben	6
2	1	117478		Kolvfäste, Hyd. Stödben.	7
3	1	117475		Fot. Hyd. Stödben	
4	1	117453		Ben hyd. stödfot	
5	1	100365		Cyl-fäste hyd.stödben, övre.	1,93
6	1	108042	10180142	Cyl 70/40-300 LL25	10
7	1	101268		Sprint Komkärl övre	0,78
8	1	106640		Sprint Hyd.Stödfot MQ60-95	
9	1	117501		Sprint 25L120	
10	1	117502		Sprint 30L175 borråd M12 svart	
11	1	100323	100323	Sprint stödben	0,54
12	1	100333	10400060,2	Ringsprint 10m-40 nick parm	0,04
13	1	111896		pilotbackventil hyd stödfot	1
14	1	111903		Handpump 3vägskran bromsullag	7
15	2	112542		Slang Hyd.stödfot Handpump	0
16	4	101087	450100	Tredo-bricka 1/4"	
17	2	101559	688100	Banjobult 1/4" Enkel	
18	1	118094	118094-Grå	Handpump fäste i stödbenshylsa	
19	1	103882	20L120	Sprint till 3vägstipp	
20	4	109842	104000140	Bult M12x20 FZB Helgänga	
21	4	109790	M8NylockNiklad	Mutter M8 FZB nylock	
22	4	109900	104000141	Bricka 12,5x35x3 FZB	
23	4	109914	104000142	Fjäderbricka M12 FZB	
24	2	SRKB09035301	SRKB09035301	9x35x3FZB	
25	16	1251051	1251051	10,5x20x2FZB	
26	8	109791	M10NylockNiklad	Mutter M10 FZB nylock	
27	1	109879	14810640	Spännstift 6x40	
28	4	109837	10400060,02	Bult M10x30 FZB Helgänga	
29	4	109838	M10x40Std	Bult M10x40 FZB Helgänga	
30	2	ISO 4017 - M8 x 20-N	9338080201		
31	4	109831	9338080451	Bult M8x45 FZB Helgänga	

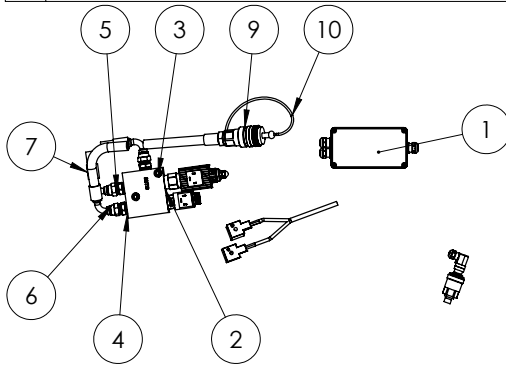
Konstruktör Av: Ola Skapat Datum: 2013-02-05 Godkänd Av: AT Skala: 1:5

Status: Godkänd Vikt (kg): 69 Titel / Beskrivning: Hydrauliskt stödben. Handpump. Ej MF11-16.

Agens: **METSJÖ** Hydrauliska i Metsjö AB. Artikel Nr: **117500** Rev: - Bild: 1 (2)

Bilden avser endast en illustration och ska inte användas som grund för konstruktion eller tillverkning utan att först ha kontaktat Metsjö AB för tekniska råd.

Nr	Ändring	Datum	Godk av
C		2013-01-31	
D		2013-08-09	
E		2013-09-13	

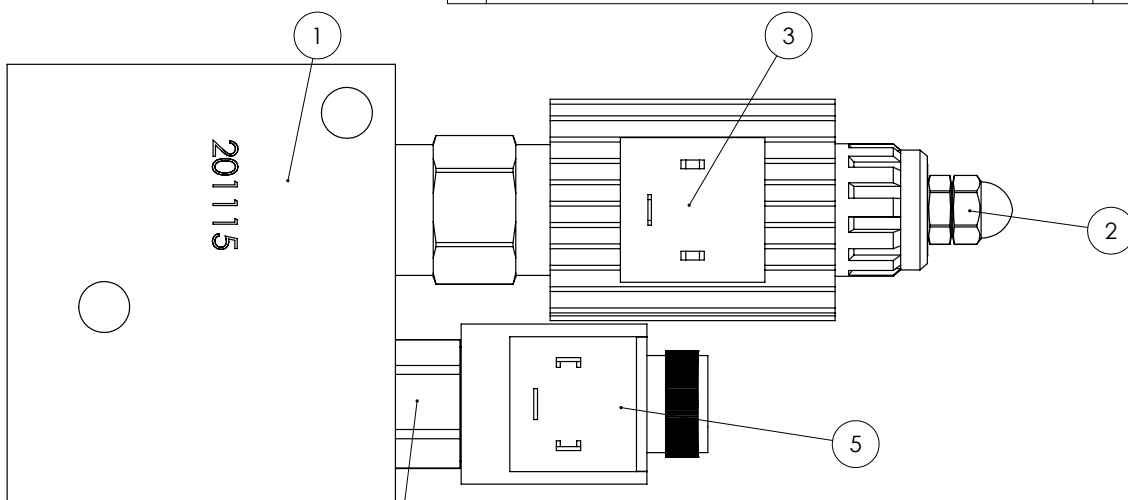


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	111392	ELSATS-B-512901-E01	Bromsreducering till kommuniserande kärl (givare)	
2	1	111360	VBESH-B-5129.00	Ventilblock kpl. för prop. broms system 12V	2
3	2	101056	I33650-5	Borrskruv 5,5X66	
4	3	101087	450100	Tredo-bricka 1/4"	
5	3	105498	70020406	Adapter 3/8" UTV-1/4"UTV	
6	1	111521		Retur slang broms reducering	0
7	2	111540		dammy standard broms slang	0
8	1	101007	450103	Tredo-bricka 1/2"	
9	1	103270	471005	Snabbkoppling Hona 1/2"	
10	1	103358	471015	Dammskydd Hona	0.0

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2011-10-07	Godkänd Av AI	Generell Tolerans	Skala 1:10	
Status Godkänd	Vikt (kg) 3502.38	Titel / Benämning Bromsreducering komkärl lastavkännande Elstyrd		Hall	Plats	
Agare 		Artikel Nr 111339		Rev D	Blad 1 (2)	

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Nr	Ändring	Datum	Godk av
-		2011-10-06	
A		2013-02-04	



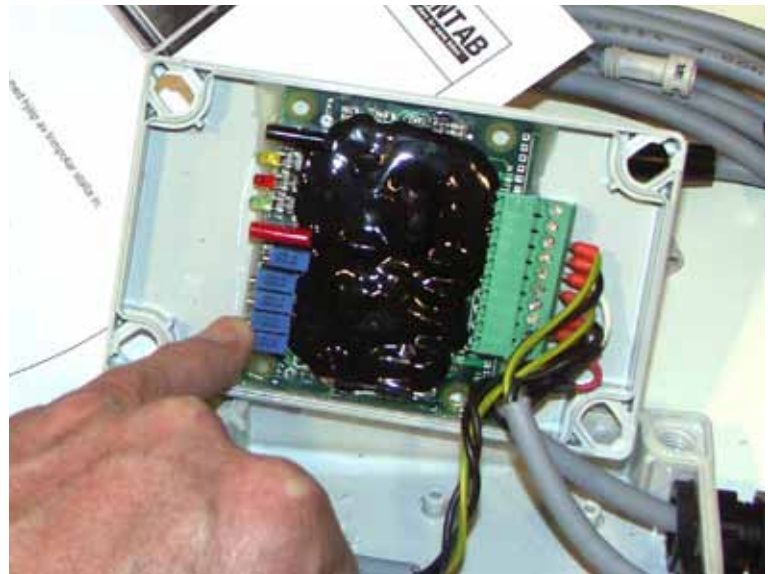
Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	108692		block el bromsreducering	
2	1	105475	EPRS-10 N-30-0	Prop tryckreducerings ventil	
3	1	105476		Magnet Ccc	
4	1	111341		2-vägs ventil CT 05621	
5	1	111348	0940010000	magnet spole NEM	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2011-10-05	Godkänd Av AI	Generell Tolerans	Skala 1:1	
Status Godkänd	Vikt (kg) 2	Titel / Benämning VBESH-B-5129.00		Hall	Plats	
Agare 		Artikel Nr 111360		Rev B	Blad 1 (1)	

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PROPSTYRNING B-5094.00

Styrning av 1 propventil + 1 el flera on/off ventiler.
12-24V, 50-250Hz, 0-5s ramp, max 2.5A



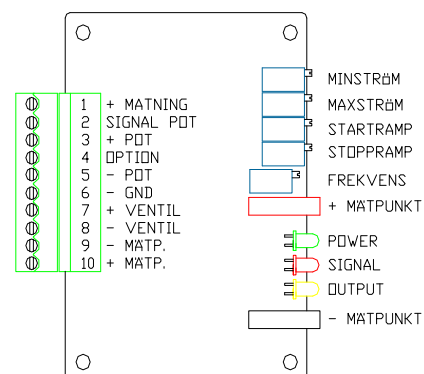
Mått: 120x85mm

Kablage och kontakter kan anpassas efter behov.

Med en liten skruvmejsel kan man öppna gaveln på lådan och med hjälp av trimpotar ställa in:

- minström
- maxström
- startramp
- stoppramp
- frekvens

Öppna gaveln



För att justera minströmmen gör följande:

Vrid ned ratten på lådan till ca 5% av utsyrningen (kl.20). Vrid på trimpoten för minström för att ändra strömmen. Medsols ökar strömmen, motsols minskar strömmen.

För att justera maxströmmen gör följande:

Vrid upp ratten på lådan till max av utsyrningen (kl. 5). Justera trimpoten för maxström för att ändra strömmen. Medsols ökar strömmen, motsols minskar strömmen.

Start och stoppramp är grundinställd på 0 sek och kan ökas upp till 5 sekunder.

Frekvensen är grundinställd till 120Hz.

I mät punkt + & - kan man ansluta en voltmeter och mäta strömmen som åtgår till proportionalventilen.

1V på mätinstrumentet motsvarar 1A till ventilen.

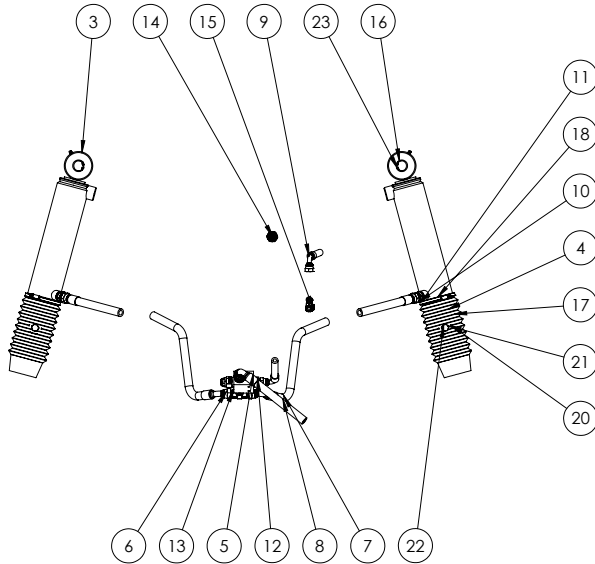
Lysdioden för power aktiveras när kretskortet är aktiverat.

Lysdioden för signal lyser steglöst och följer ratten.

Lysdioden för output lyser steglöst och följer ventilens utstyrning.

Nr	Ändring	Datum	Godk av
B		2013-08-09	
C		2014-01-16	
D		2014-01-16	

A double-acting cylinder+ the oil divides between the active cylinders-the axle is lifted
 Lift power-25% of the load that rests on the axles.
 The system has a release valve set at 300 bar drained by the free return. It is very important that the hydraulic function is in "floating" position when we are driving the trailer
 We can have multiple axles that can be lifted, but we can drive with only one lifted axle

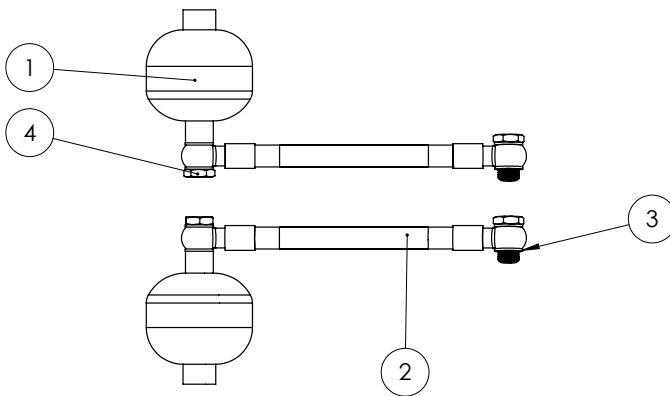


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
3	1	106722	10180037.1HÖ	Komkärll dubbelverkande Hö 80/40-250	12
4	1	106725	10180037.1VÄ	Komkärll dubbelverkande VA 80/40-250	12
5	1	111952	10250020	Överströmningsventil & block	1
6	1	111959		Boggie lifv slang MF 18-24	1
7	1	111959		Boggie lifv slang MF 18-24	1
8	1	111957		Fyllslang boggie lifv	0
9	1	111956		Retur slang boggie lifv	0
10	4	102987	60000808	Adapter 1/2"UTV-1/2"UTV	
11	6	101007	450103	Tredo-bricka 1/2"	
12	1	103438	40100608	Adapter INV R 1/2"- UTV 3/8"	
13	1	107069	48800808	T-koppling 1/2" ut/in/ut	
14	1	101016	5C105956205	Snabbkoppling Hane 1/2"	
15	1	104237	48900606	f-koppling 3/8 ut/ut/in	
16	2	117457		Sprint komkärll övre. L=112	
17	2	101290	10400138	Dammask komkärll slag 250	0.09
18	2	101293	NORMA80100	Slangklammer 80-100/12WIS	
19	2	100136	30L85	Sprint Komkärll nedre	0.43
20	4	109900	104000141	Bricka 12,5x35x3 FZB	
21	4	109914	104000142	Fjäderbricka M12 FZB	
22	4	109842	104000140	Bult M12x20 FZB Helgänga	
23	4	109911	472031	Låsring SGH 31	

Konstruerad Av	Ritad Av	Skapat Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2013-01-31			1:10	
Status	Vikt (kg)	Titel / Benämning		Hall		
Godkänd	29	Boggie lifv MF18 MQ				
Agare			Artikel Nr	Rev	Blad	
			107137	D	1 (2)	

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Nr	Ändring	Datum	Godk av
A		2013-01-31	



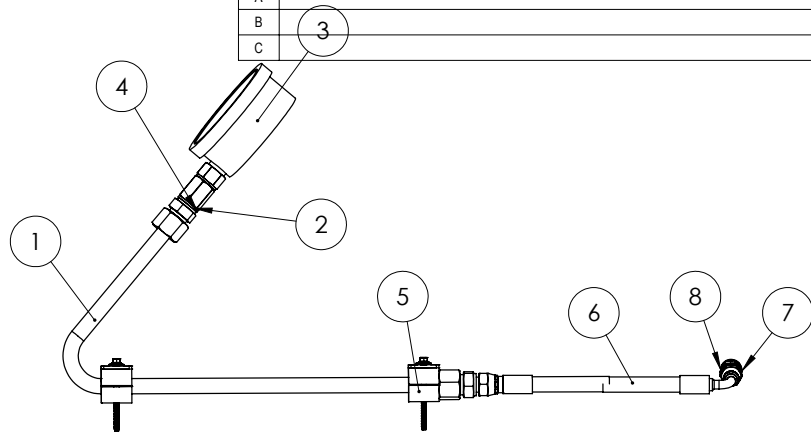
Pos.	Default/QTY.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	2	103193	122050001	Membran ackumulatortank dia 107	0.68
2	2	111943		Slang acktank aktivfjädring	0
3	8	101007	450103	Tredo-bricka 1/2"	
4	4	101005	688103	Banjobult 1/2" Enkel	

Konstruerad Av	Ritad Av	Skapat Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2013-01-31			1:5	
Status	Vikt (kg)	Titel / Benämning		Hall		
Godkänd	2	10714				
Agare			Aktiv fjädring ack tank	Plats		
			Artikel Nr	Rev	Blad	
			107136	-	1 (1)	

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Nr	Ändring	Datum	Godk av
A		2013-01-31	
B		2013-08-09	
C		2014-04-23	

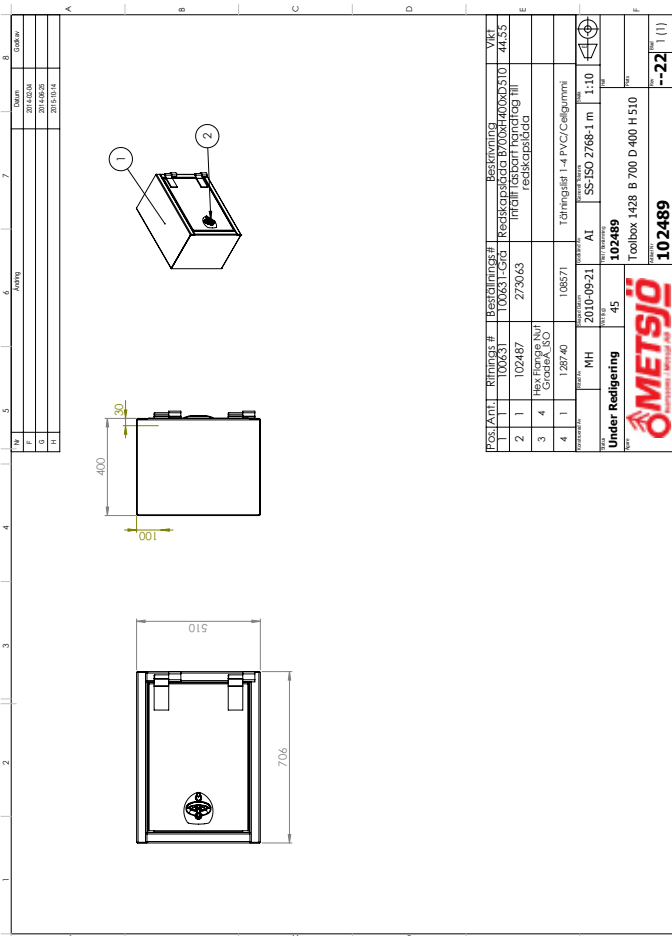


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	111966		komplett rör manometer	1
2	1	111932	70110606	Muff R3/8"IF R 3/8"IF	
3	1	111934	AG100-250	Manometer dia 100 0-250bar	
4	2	103440	450102	Tredo-bricka 3/8"	
5	2	102732	RAPE-215SV	klamma enkel 15 rör	0.09
6	1	111940		Slang till manometer-samlingsblock	0
7	1	101406	60000404	Adapter 1/4"UTV-1/4"UTV	
8	1	101087	450100	Tredo-bricka 1/4"	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala
LH	LH	2011-11-04	AI		1:5

Status	Vikt (kg)	Titel / Benämning	Hall
Godkänd	3	107138	

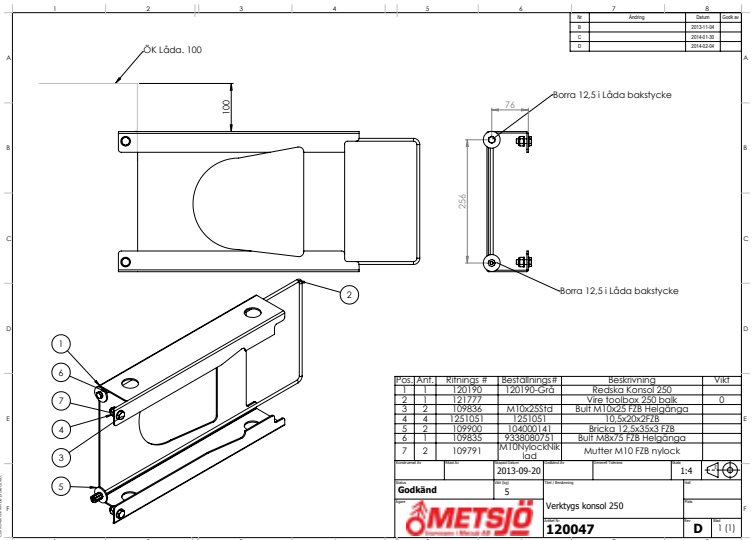
Agare	Artikel Nr	Rev	Blad
METSJÖ Ivarssons i Metsjö AB	107138	E	1 (1)



Pos./Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	100631	120190-Gra	Redska konsol 250	44,55
2	102487	273063	Virre för box 250 bakå	
3	102487	273063	Virre för box 350 bakå	
4	102487	273063	Virre för box 450 bakå	

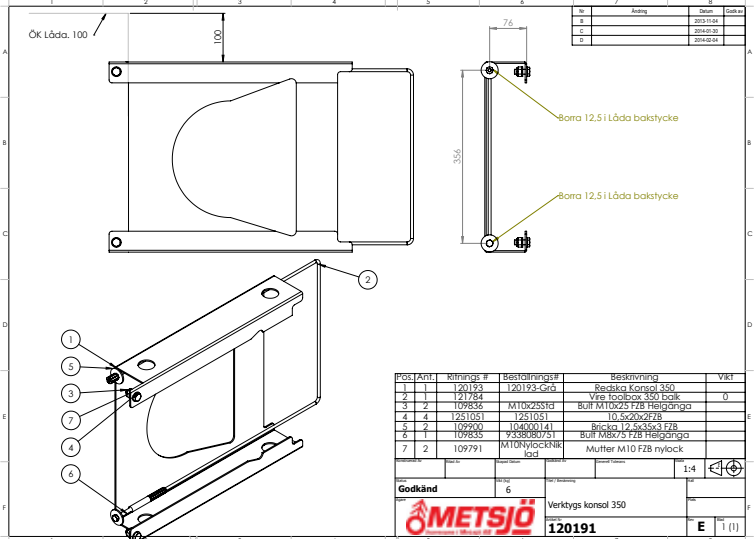
Material	Material	Material	Material
108571	108571	108571	108571
Tätningssätt 1 - PVC/Cellogumm	Tätningssätt 1 - PVC/Cellogumm	Tätningssätt 1 - PVC/Cellogumm	Tätningssätt 1 - PVC/Cellogumm
SS-ISO 2768-1 m	SS-ISO 2768-1 m	SS-ISO 2768-1 m	SS-ISO 2768-1 m
1:10	1:10	1:10	1:10

Under Redigering	102489	102489
Toolbox 1428 B 700 D 400 H 510	Toolbox 1428 B 700 D 400 H 510	Toolbox 1428 B 700 D 400 H 510



Pos./Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	120190	120190-Gra	Redska konsol 250	
2	121777		Virre för box 250 bakå	0
3	109856	M10x25SS12	Bult M10x25 F28 Heländaga	
4	1251051	1251051	IO skruv 2x7,8	
5	109910	104001141	Bricka 1/2 skruv 3 F28	
6	109835	9338080751	Bult M8x3 F28 Heländaga	
7	109791	M10NYLOCKNR	Mutter M10 F28 nylock	

Godkänd	5	Verktys konsol 250	D	1 (1)
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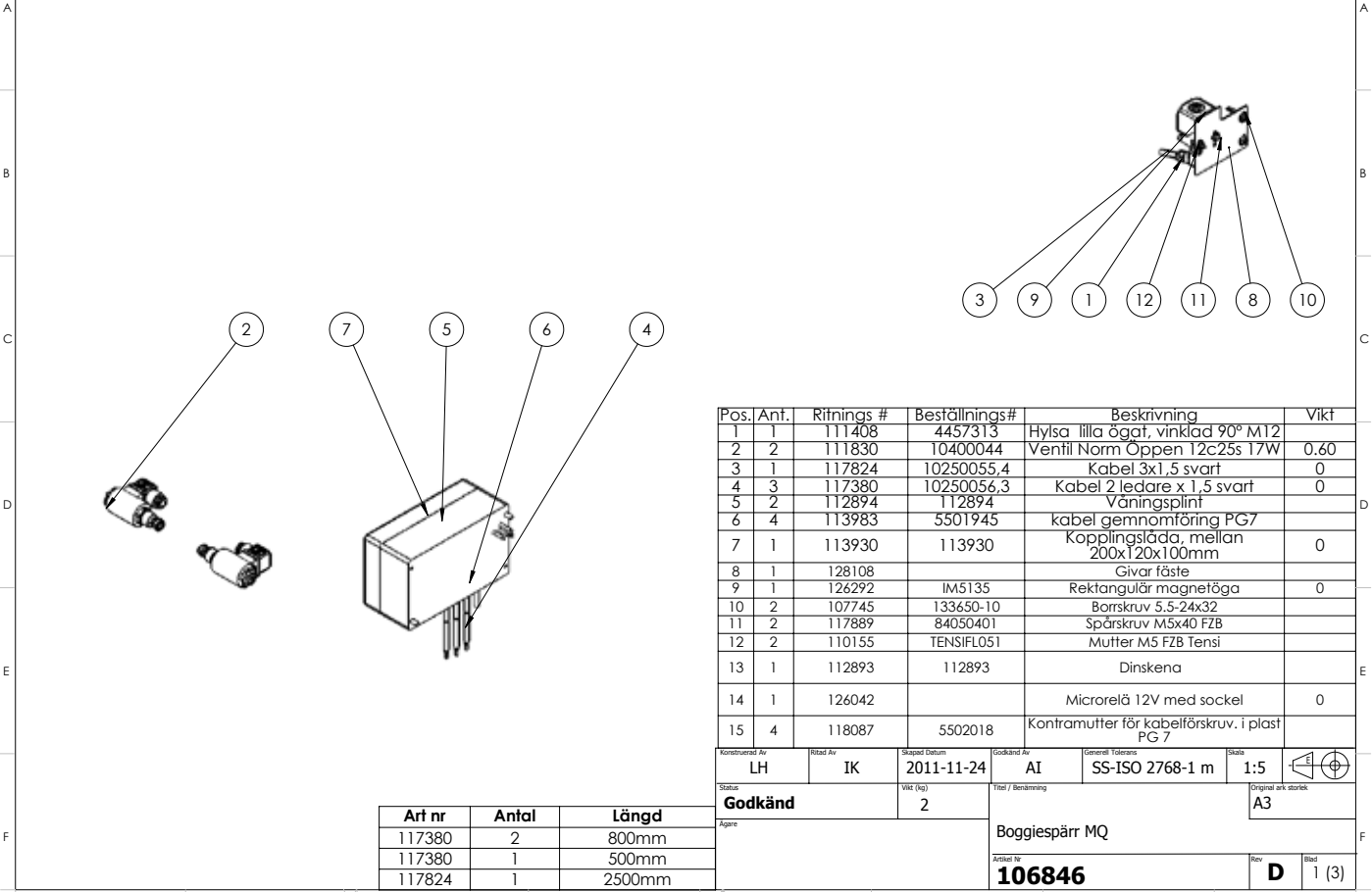


Pos./Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	120193	120193-Gra	Redska konsol 350	
2	121784		Virre för box 350 bakå	0
3	109856	M10x25SS12	Bult M10x25 F28 Heländaga	
4	1251051	1251051	IO skruv 2x7,8	
5	109910	104001141	Bricka 1/2 skruv 3 F28	
6	109835	9338080751	Bult M8x3 F28 Heländaga	
7	109791	M10NYLOCKNR	Mutter M10 F28 nylock	

Godkänd	5	Verktys konsol 350	E	1 (1)
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Nr	Ändring	Datum	Godk av
E		2013-08-09	
F		2015-09-07	
G		2015-10-15	

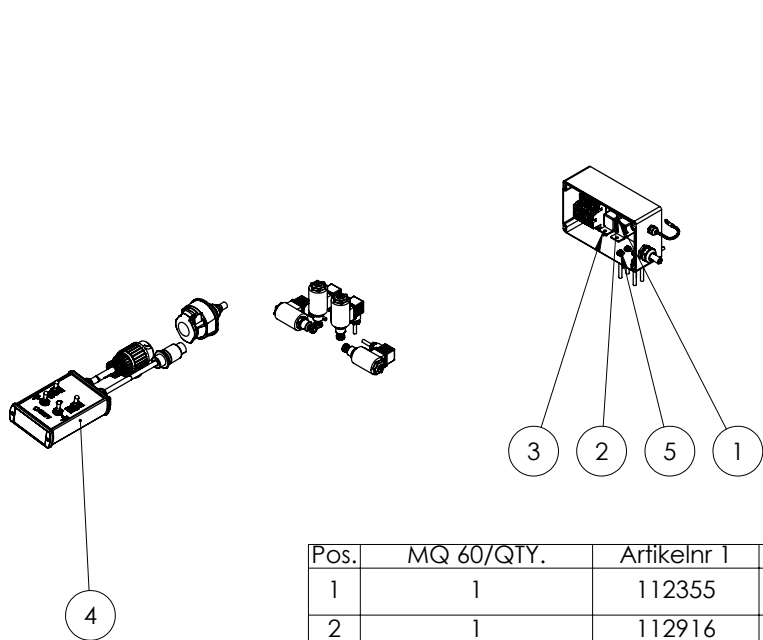


Pos.	Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	1	111408	4457313	Hylsa lilla ögat, vinklad 90° M12	
2	2	111830	10400044	Ventil Norm Öppen 12c25s 17W	0,60
3	1	117824	10250055,4	Kabel 3x1,5 svart	0
4	3	117380	10250056,3	Kabel 2 ledare x 1,5 svart	0
5	2	112894	112894	Väningsplint	
6	4	113983	5501945	kabel genomföring PG7	
7	1	113930	113930	Kopplingslåda, mellan 200x120x100mm	0
8	1	128108		Givrar fäste	
9	1	126292	IM5135	Rektangulär magnetöga	0
10	2	107745	133650-10	Borrskruv 5,5-24x32	
11	2	117889	84050401	Spårskruv M5x40 FZB	
12	2	110155	TENSIFLO51	Mutter M5 FZB Tensi	
13	1	112893	112893	Dinskena	
14	1	126042		Microrelä 12V med sockel	0
15	4	118087	5502018	Kontramutter för kabelförskruv, i plast PG 7	

Art nr	Antal	Längd
117380	2	800mm
117380	1	500mm
117824	1	2500mm

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	Original ark storlek
LH	IK	2011-11-24	AI	SS-ISO 2768-1 m	1:5	A3
Status	Vikt (kg)	Titel / Benämning		Original ark storlek		
Godkänd	2	Boggispärr MQ		A3		
Ägare		Artikel Nr	Rev	Blad		
		106846	D	1 (3)		

Nr	Ändring	Datum	Godk av
-		2013-02-18	

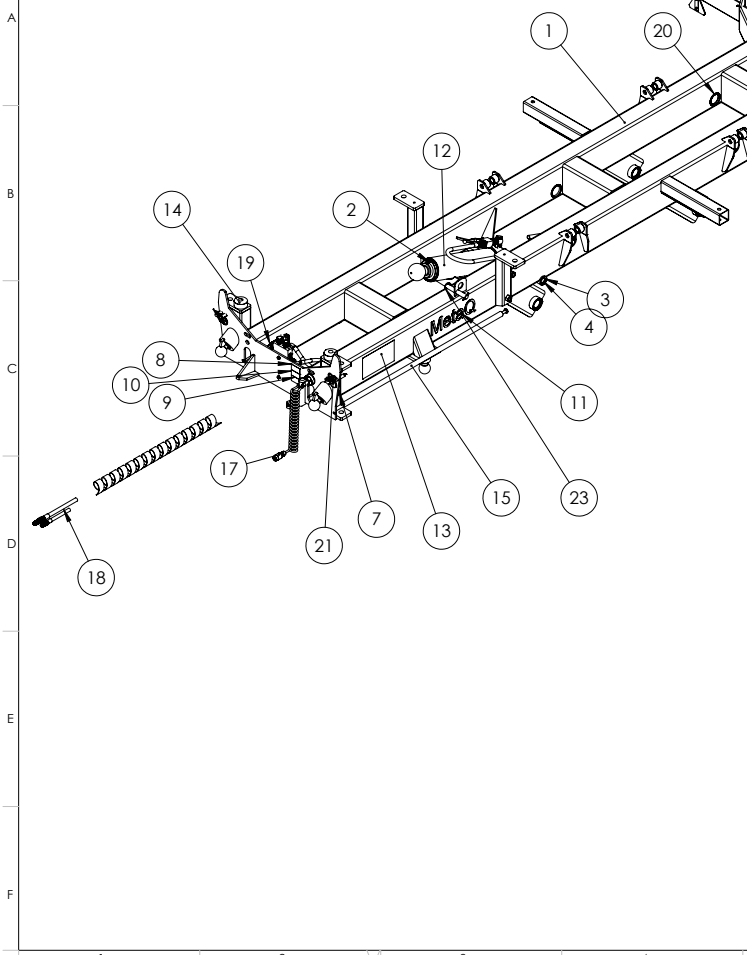


Pos.	MQ 60/QTY.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	112355	3700754	Relä (vagnar) TR93F-12VDC-SC-C	
2	1	112916	42-315	Reläsockel	
3	2	110493	7018005	By 255 Diod 3A 1300V	
4	1	117381		Höjd och sidreglering av chassi via elbrytare	2
5	1	106846		Boggispärr med höjd sid reglering. MQ	2

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	Original ark storlek
LH	LH	2013-02-15			1:10	A3
Status	Vikt (kg)	Titel / Benämning		Original ark storlek		
Godkänd	4	Boggispärr med höjd sid reglering. MQ		A3		
Ägare		Artikel Nr	Rev	Blad		
		117751	-	1 (3)		

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Nr	Ändring	Datum	Godk av
A		2012-01-02	
B		2012-01-02	
C		2012-02-21	

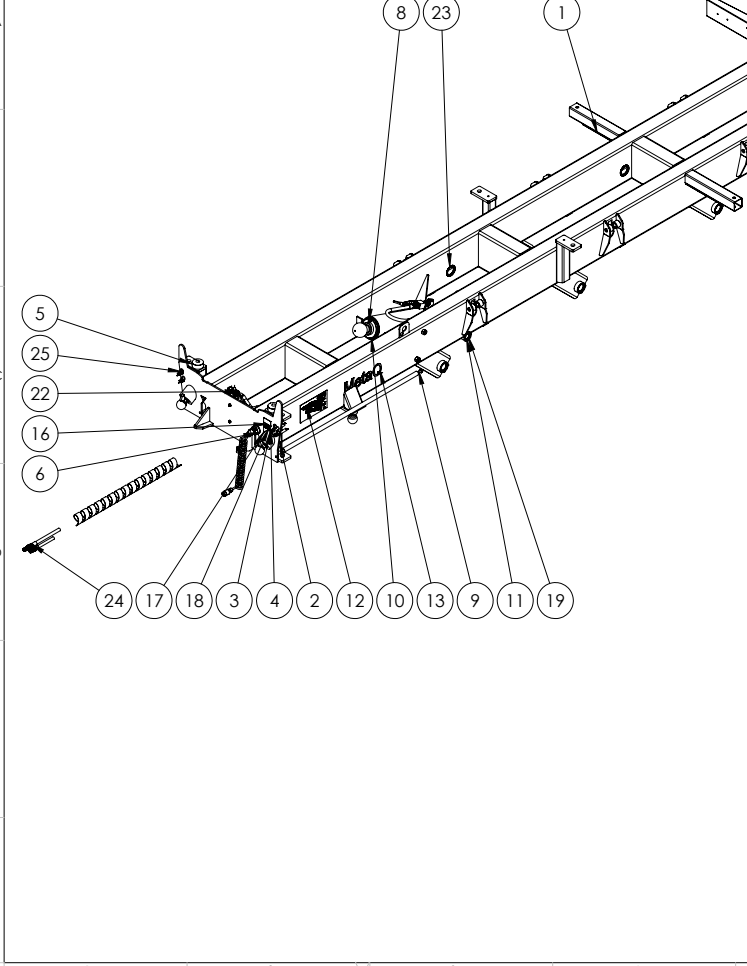


Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	106929		kolvspetts bricka	920
2	1	101799		Segersäkning för inv.mon. 40 axel SGH40	0.02
3	2	101981	472040	MQ60 Sprint för tippcylinder	7.40
4	1	101982	40L750	Tillverkarskylt Ivarsson i Metsjö "NITBAR"	0.04
5	1	101011	10400468	Nit (skyltnit) 2x6,4 FNB	0.00
6	2	101810	DS020064	Reflex orange själv häft 60 mm	0.01
7	2	101971	10250052	Dekal hydraulufftag bromsslang	0.00
8	1	101666	10400470,09	Dekal hydraulufftag tippcylinder	0.00
9	1	101667	10400470,19	Dekal hydraulufftag höj och sänkning chassi	0.00
10	1	101668	10400470,33	Utskuren text MetaQ	0.00
11	2	101250	10400467	MQ 60 Cyl 160/75 KL 28305 LL40	0.01
12	1	101346	10180005	Dekal varning tipp (gul) bredd 300mm höjd 170mm	0.01
13	2	101081	10400469	Dämpblock 90x45	0.54
14	2	101079	10400021,1	7-polig spiral kabel	0.55
15	1	101797	C10400061,16	Hyd MQ60-95	9
16	1	106638		Kantskydd 15x12 6-8 PVC Svart	0.03
17	1	101110		Kantskydd 15x12 6-8 PVC Svart	0.01
18	1	111815		Reflex vit själv häft 60 mm häf	0.02
19	3	102742	416007	Tippeds sprint 116kulla MQ	1.03
20	3	103291	416007	Ringsprint 8mm nick	0.03
21	2	102551	10250053	M6SZ100301	
22	3	101476		Spännstiff 8x60	
23	3	108700	10400060.1	Tippedsprint 20-120 komplet	0

Konstruerad Av	Risad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala
OK					1:25
Status	Vikt (kg)	Titel / Benämning		Häll	
Godkänd	1038.22	Chassie MQ 60 Multi			
Agare			Artikelnr	Rev	Blad
			C		1 (2)

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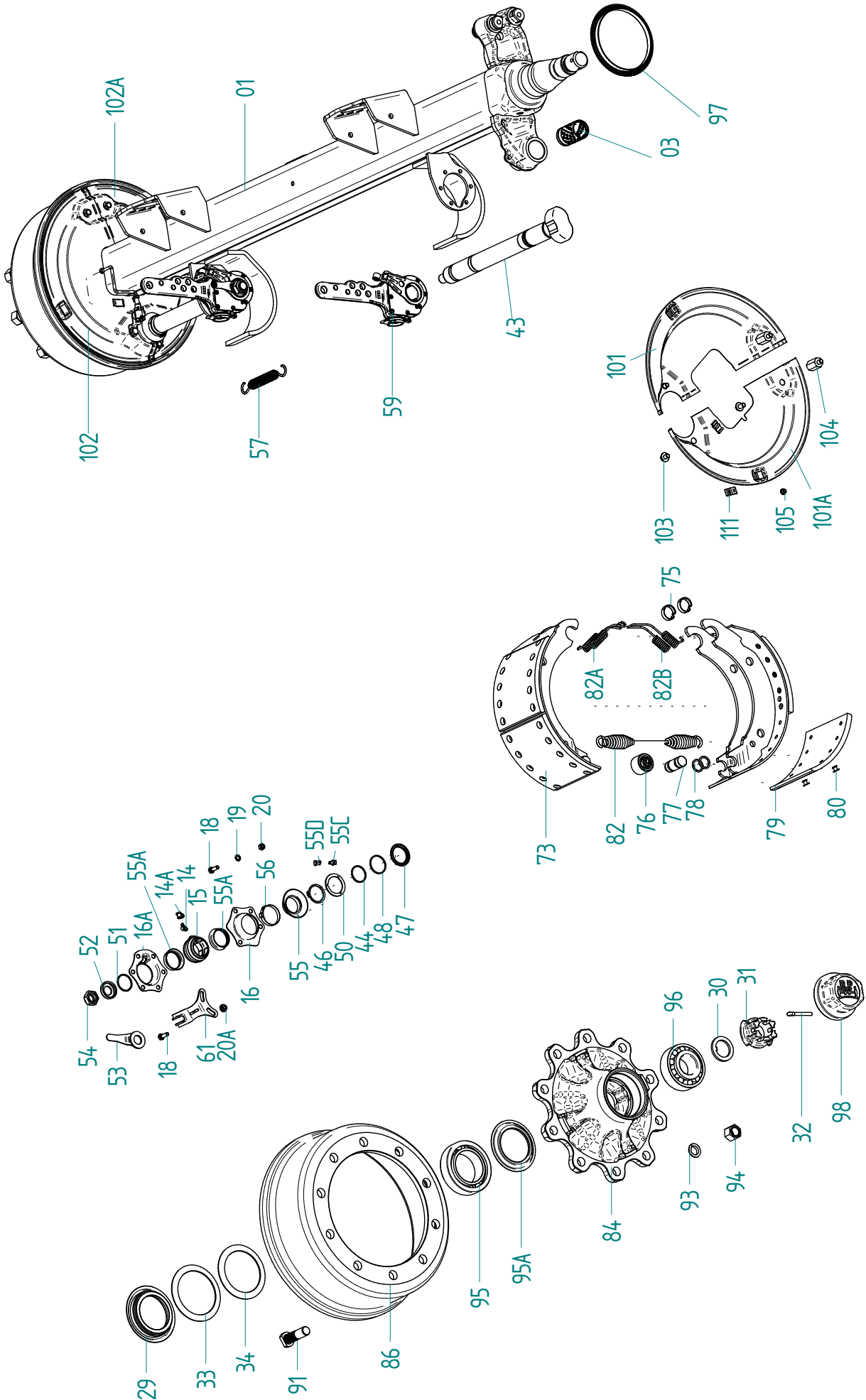
Nr	Ändring	Datum	Godk av
B		2012-01-25	
C		2012-02-27	
D		2013-10-23	



Pos.	Ant.	Riftnings #	Beställnings#	Beskrivning	Vikt
1	1	104262		Svetsat chassi MQ75 multidrag	1295
2	2	101971	10250052	Reflex orange själv häft 60 mm	0.01
3	1	101802		gul klister lapp slang märkning	0.00
4	1	101671		Dekal hydraulufftag lösning styrbar axel	0.00
5	2	101079	10400021,1	Dämpblock 90x45	0.54
6	1	101110	6140001-7	7-polig spiral kabel	0.55
7	1	101800		blå klister lapp slang märkning	0.00
8	1	101799	SRB310521	kolvspetts bricka	0.02
9	1	101797	101797-Grä	Kolvspett Meta Q 60-75-95	3.95
10	1	101443	10180044	MQ 75 Cyl 185X60 383/ LL 50	11.55
11	1	101439	50L750	Sprint tippcyl. MQ75	11.55
12	2	101081	10400469	Dekal varning tipp (gul) bredd 300mm höjd 170mm	0.01
13	2	101250	10400467	Utskuren text MetaQ	0.00
14	1	101011	10400468	Tillverkarskylt Ivarsson i Metsjö "NITBAR"	0.04
15	2	101810	DS020064	Nit (skyltnit) 2x6,4 FNB	0.00
16	1	101666	10400470,09	Dekal hydraulufftag bromsslang	0.00
17	1	101667	10400470,19	Dekal hydraulufftag tippcylinder	0.00
18	1	101668	10400470,33	Dekal hydraulufftag höj och sänkning chassi	0.00
19	2	101785	472050	Segersäkning SGH 50 Din 472, för invändig montering	
20	2	ISO 4162 - M10 x 40 x 40-N			
21	1	106638	106638	bakljus konsoler	10.41
22	3	102742	416007	Kantskydd 15x12 6-8 PVC Svart	0.03
23	3	103291	416007	Kantskydd 15x12 6-8 PVC Svart	0.01
24	1	111815		Hyd MQ60-95	10
25	4	113339	113339	Tippedsprint 20-120 komplet	0

Konstruerad Av	Risad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala
OK					1:30
Status	Vikt (kg)	Titel / Benämning		Häll	
Godkänd	1454.21	3605620			
Agare			Artikelnr	Rev	Blad
			106926		E 1 (1)

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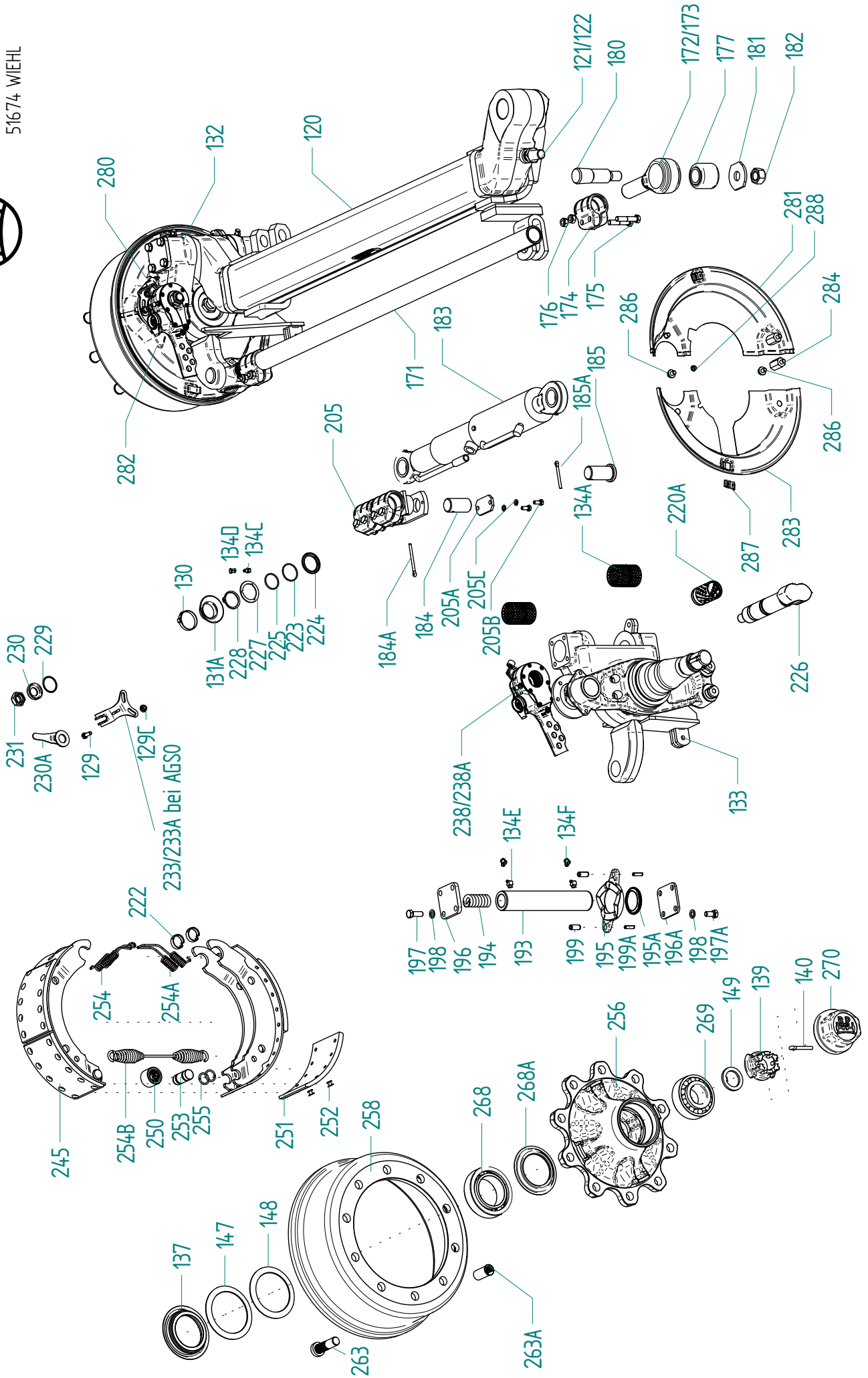
SPARE PARTS LIST

55.88.460.441

ITEM	PART	MEASUREMENT	SERIAL-NO	PER UNIT
1	AXLE BEAM (EINSCHL.POS. 3,)		05.531.70.51.0	1
3	BUSH	42/46X72.6	03.112.44.34.0	2
14	GREASE NIPPLE	BS8X1	02.6850.02.02	2
14A	COVER		02.3505.20.00	2
15	BUSH		03.113.14.04.0	2
16	BEARING BOX		03.229.02.19.0	2
16A	BEARING BOX		03.229.02.18.0	2
18	HEXAGON SCREW	M8X25/933	02.5025.30.82	8
19	LOCK WASHER	B 8/137	02.5403.08.92	4
20	HEXAGON NUT	M8/934	02.5202.12.82	4
20A	HEXAGON NUT	M8	02.5273.32.82	4
28	ASSEMBLY KIT (POS.29-34,95-96)	KIT	09.803.67.25.0	1
29	THRUST WASHER	D 80/104/115/142x22	05.370.06.48.0	2
30	DISC	D 43 / 61 x 5,8	03.320.73.13.0	2
31	CASTLE NUT	M 42 x 2 / SW 65	03.262.16.15.0	2
32	SPLIT PIN	8X50/ISO 1234	02.6201.82.01	2
33	RING	D 104 / 136 x 2,5	03.310.97.32.0	2
34	RING	D 110 / 141 x 2,5	03.310.97.31.0	2
43	CAM SHAFT	L 270 / A 151,5	05.097.27.20.3	2
44	O-RING	37X2,6	02.5677.37.42	2
46	LOCK RING	42X2,5/471-FST	02.5676.01.00	4
47	RING	42/46/55x7	03.310.12.24.0	2
48	O-RING	40X2,5	02.5679.23.00	2
50	SEAL	42/586x2	03.120.42.02.0	2
51	CIRCLIP	SW 40	02.5659.40.71	2
52	DISC	22,5/42x10,5	03.320.11.16.1	2
54	HEXAGON NUT	M22X1.5X15	05.260.14.12.0	2
55A	SEAL	42x15	03.120.42.09.0	4
55C	GREASE NIPPLE	AM10X1/71412	02.6802.03.50	2
55D	COVER	GPN 985 / 0201	02.3505.20.00	2
59	AGS	120-180	05.174.83.15.3	2
61	FORMBLECH	LI	03.165.25.15.0	1
61A	FORMBLECH	RE	03.165.25.16.0	1
72	ASSEMBLY KIT (POS.73-75,82-82B)	KIT FL4112	09.803.62.09.0	1
73	BRAKE SHOE ASSEMBLY (EINSCHL.POS. 75-78,79,80)		05.091.30.04.0	4
75	LOCKING RING	33/32,5x10	03.188.02.02.0	8
76	ROLLER	26/45x33,5	05.331.44.02.0	4
77	PIN	26x58,5	03.084.75.24.0	4
78	RING	24/31x3,5	03.310.70.15.0	8
79	BRAKE LINING		03.092.29.61.0	8
80	RIVET	B8X15/7338	02.5805.80.35	80
82	RETURN SPRING	34,5/5,5x274	05.397.58.03.0	2
82A	RETURN SPRING	16,2/3,2x36	03.397.33.12.0	2
82B	RETURN SPRING	16,2/3,2x36	03.397.33.13.0	2
84	HUB		03.271.54.90.0	2
86	BRAKE DRUM		03.106.91.10.0	2
91	WHEEL STUD	M22X1,5X80	03.296.33.11.1	20
93	COVER		02.3515.36.00	20
95	SPRING WASHER	33116/720	02.6408.80.00	2
95A	COVER		03.010.93.33.0	2
96	ROLLER BEARING	32310/720	02.6406.50.00	2
98	HUB CAP	M 115x2/H62/SW95/BPW	03.212.23.09.0	2
101	DUST COVER		03.010.91.33.0	1
101A	DUST COVER		03.010.91.34.0	1
102	DUST COVER		03.115.50.54.0	1
102A	DUST COVER		03.010.91.32.0	1
103	SCREW	M 10 x 15 / SW 13	02.5071.22.00	4
103A	SCREW	M 10 x 12 / SW 15	02.5070.60.02	4
104	THREAD BOLT	M 10 / SW 22 x 47	03.177.61.01.0	4
105	PLUG	GPN300 F5	02.3704.33.00	2
111	PLUG		03.379.00.23.0	6



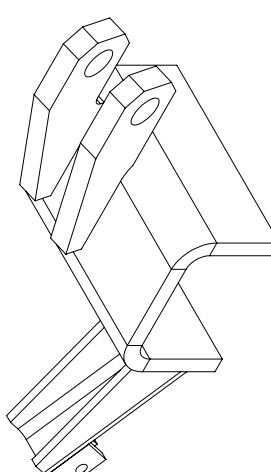
Pos. 120,132 und 133 sind schematische Darstellungen,können bei den einzelnen Artikeln unterschiedlich sein!



ITEM	PART	MEASUREMENT	SERIAL-NO	PER UNI'
120	STEERING AXLE BEAM		05.236.40.76.0	1
121	CYLINDER CAP SCREW	M24X60	03.340.50.12.0	2
122	HEXAGON NUT	M24/936	02.5205.31.24	2
129	Lock nut	M8X25/933	02.5025.30.82	4
129C	Lock nut	M8/	02.5273.32.82	4
130	Circlip		03.350.30.01.0	2
131A	Sealing ring		03.120.43.14.0	2
132	STEERING PIVOT ASSEMBLY	LEFT	09.414.08.50.0	1
133	STEERING PIVOT ASSEMBLY	RIGHT	09.414.08.51.0	1
134A	BEARING BUSH	55/50X70	03.113.60.28.0	4
134C	GREASE NIPPLE	A M10X1/71412	02.6802.03.50	4
134D	COVER		02.3505.20.00	4
134E	GREASE NIPPLE	B M10X1/71412	02.6802.06.50	4
134F	COVER	GPN 980 0201	02.3505.20.00	4
136	Repair kit bearing (EINSCHL.POS.137-149,268-269)	KIT	09.803.67.25.0	1
137	Thrust washer		05.370.06.48.0	2
139	CASTLE NUT	M45X2	03.262.16.15.0	2
140	SPLIT PIN	8X50/ISO 1234	02.6201.82.01	2
147	RING	AUSSEN	03.310.97.32.0	2
148	RING	INNEN	03.310.97.31.0	2
149	WASHER	43/61X5.8	03.320.73.13.0	2
170	DRAGLINK (EINSCHL.POS.170A,175,176,205)	KOMPLETT with support	05.363.52.56.0	1
170A	DRAGLINK (EINSCHL.POS.:171-177)	KPL.	05.246.43.05.0	1
171	TUBE	L1320	03.179.06.05.0	1
172	DRAGLINK (EINSCHL.POS.177)		05.353.68.26.0	1
173	DRAGLINK (EINSCHL.POS.177)		05.353.68.27.0	1
174	CLAMP		02.3507.25.00	2
175	HEXAGON SCREW	M12X1,5X60/960	02.5029.35.80	8
176	LOCK NUT	VM12X1,5/980	02.5220.15.82	8
177	BUSH		05.113.92.04.0	2
180	BOLT		03.178.51.80.0	2
181	WASHER		03.320.24.05.0	2
182	LOCK NUT	VM24 /980	02.5220.74.12	2
183	Cylinder		02.4905.37.00	1
184	BOLT	D=35 L=68	03.086.50.38.0	1
184A	SPLIT PIN	6.3X71/1234	02.6201.64.01	1
185	BOLT	D=35 L=73 SO	03.086.50.31.0	1
185A	SPLIT PIN	6.3X56/1234	02.6201.65.01	1
193	STEERING PIVOT		03.240.60.05.0	2
194	PRESSURE SPRING		03.125.50.06.0	2
195	PRESS SWITCH	UNTEN	03.128.05.06.0	2
195A	SEALING RING		02.5685.02.00	2
196	COVER PLATE	OBEN	03.115.50.05.0	2
196A	COVER PLATE	UNTEN	03.115.50.10.0	1
197	HEXAGON SCREW	M12X35/933	02.5025.85.82	8
197A	HEXAGON SCREW	M12X25/933	02.5025.79.82	8
198	LOCK WASHER	A12/128	02.5601.12.90	16
199	ADAPTER SLEEVE	12X28/ISO 8752	02.6006.95.90	4
199A	ADAPTER SLEEVE	7X28/ISO 8752	02.6016.01.90	4
205	SUPPORT	UNTEN	05.189.52.32.0	1
205A	PLATE		03.294.53.21.0	1
205B	HEXAGON SCREW		02.5025.28.82	2
205C	SPRING WASHER		02.5601.08.92	2
220A	BUSH		03.112.44.34.0	2
222	Hooked spring ring		03.188.02.02.0	8
223	O-RING	40X2,5	02.5679.23.00	2
224	RING		03.310.12.24.0	2
225	O-RING	37X2.6	02.5677.37.42	2
226	Camshaft	L=260 A=141.5	05.097.27.64.3	2
227	Sealing ring		03.120.42.02.0	2
228	Locking ring	42X2,5/471-FST	02.5676.01.00	4
229	Circlip	SW 40	02.5659.40.71	2
230	WASHER		03.320.11.16.1	2
230A	Lever		03.190.14.07.1	2

231	Lock nut	M22X1,5	05.260.14.12.0	2
233	Shaped plate	LI	03.165.25.15.0	1
233A	Shaped plate	RE	03.165.25.16.0	1
238	AGS	120-180	05.174.83.15.3	2
244	Brake shoe kit (EINSCHL.POS.222,245,254-255)	KIT	09.803.62.09.0	1
245	Brake shoe assembly (EINSCHL.POS. 251,252)	FL 4112	05.091.30.04.0	4
250	ROLL	WITH BOLT	05.331.44.02.0	4
251	Brake lining		03.092.29.65.0	4
252	RIVET	B8X15/7338-ST	02.5805.80.35	80
253	BOLT		03.084.75.24.0	4
254	Return spring		03.397.33.12.0	2
254A	Return spring		03.397.33.13.0	2
254B	Return spring		05.397.58.03.0	2
255	RING		03.310.70.15.0	8
256	HUB		03.271.54.90.0	2
258	Brake drum		03.106.91.10.0	2
263	Wheel stud	M22X1.5X80	03.296.33.11.1	20
263A	Cover		02.3515.36.00	20
268	Roller bearing	33116/720	02.6408.80.00	2
268A	Dust cover	D=129/84X8.5 ECO T	03.010.93.33.0	2
269	Roller bearing	32310/720	02.6406.50.00	2
270	Hub cap	BPW 115X2	03.212.23.09.0	2
280	Cover plate	LH	03.115.50.20.0	1
281	Cover plate	RH	03.115.50.21.0	1
282	Cover plate	LV	03.115.50.80.0	1
283	Cover plate	RV	03.115.50.81.0	1
284	Thread bolt		03.177.61.01.0	4
286	Lock wheel	M10X12	02.5070.60.02	8
287	Plug		03.379.00.23.0	4
288	Plug		02.3704.33.00	2

Nr	Ändring	Datum	Ändrad av
-		2016-01-15	
A		2016-05-12	

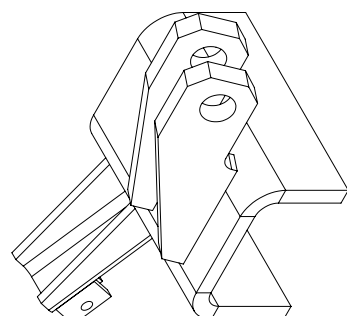


Konstruktör Av	KES	Skapad Datum	2016-01-15	Godkänd Av	AI	Skapad Översikt	SS-ISO 2768-1 m	Skala	1:3	Öppningsförhållande	A4
Titel	Godkänd	Version	12	Titel / Beskrivning	Inköp 09.189.74.90.0		Hydraulbensfäste vänster				
Ämne				Ämne Nr		Ämne Nr		Rev	A	Rev	1 (1)

METSJÖ
Hydraulsystem i Metall och AB

Nr	Ändring	Datum	Ändrad av
-		2016-01-15	
A		2016-05-12	

Nr	Ändring	Datum	Ändrad av
-		2016-01-15	
A		2016-05-12	



Konstruktör Av	KES	Skapad Datum	2016-01-15	Godkänd Av	AI	Skapad Översikt	SS-ISO 2768-1 m	Skala	1:3	Öppningsförhållande	A4
Titel	Godkänd	Version	12	Titel / Beskrivning	Inköp 09.189.74.91.0		Hydraulbensfäste höger				
Ämne				Ämne Nr		Ämne Nr		Rev	A	Rev	1 (1)

METSJÖ
Hydraulsystem i Metall och AB

Nr	Ändring	Datum	Ändrad av
-		2016-01-15	
A		2016-05-12	

Maintenance and care of the axles

Technical data: Axles and brakes:

Obtaining spare parts:

When spare parts are needed, the model numbers and codes for the axles and chassis parts will greatly assist your BPW parts dealer or BPW service facility in quickly and accurately determining the appropriate spare part.

You are therefore recommended to fill in the following technical data from the details on the manufacturer's name plates, so that they will be available should you need them.

The manufacturer's name plate can be found on the axle beam, the drawbar or the overrun mechanism.

Enter the details below

Trailer Manufacturer	_____		
Type of trailer	_____		
Works number / chassis number	_____ / _____		
Maximum laden weight	_____		kg
Maximum speed	_____		km/h
Nose weight	_____		kg

Maximum axle load (for tandem axles, axle load front/rear)	front	_____	kg
	rear	_____	kg
Axle model numbers (for tandem axles, front/rear)	front	_____	
	rear	_____	
Axle codes (for tandem axles, front/rear)	front	_____	
	rear	_____	

Wheel brake type			
Internal diameter of brake drum	_____		mm
Brake shoe width	_____		mm
<input type="checkbox"/> Wedge-type brake	<input type="checkbox"/> Wedge-type brake with RAZG / RASK reverser		
<input type="checkbox"/> Butterfly cam brake	<input type="checkbox"/> Backmat cam brake		

Type or make of the drawbar / overrun hitch	_____		
Model number / model code	_____		
Maximum load (the difference between unladen weight and maximum laden weight)	_____		kg

Fundamental rules

Never overload axles, brakes or chassis!

Consequently:

- Do not overload the vehicle in contravention of regulations, by exceeding the maximum laden weight.
- Do not exceed the maximum permitted braking loads.
- Avoid one-sided overload resulting from incorrect loading or driving over kerbs etc.
- Do not fit unauthorised wheels or tyres. The maximum distance between the track and the spring centre must be adhered to.
- Avoid excessive strain resulting from the use of offset wheels or unauthorised wheel offsets.
- Do not exceed the maximum top speed.
- Each time before using the vehicle, check to ensure that the brakes and brake systems are correctly adjusted and in good working order.
- Wear and tear and any unauthorised alterations are not covered by guarantee.

Maintenance work should be carried out at the prescribed intervals in order to maintain the safe operation of the vehicle. The relevant operating and servicing instructions of the vehicle manufacturer and of the manufacturers of the other vehicle components must be observed.

All repair and maintenance work should only be carried out by a BPW approved Service Station unless the vehicle owner has staff fully trained to BPW standards and a workshop suitably equipped to undertake such work.

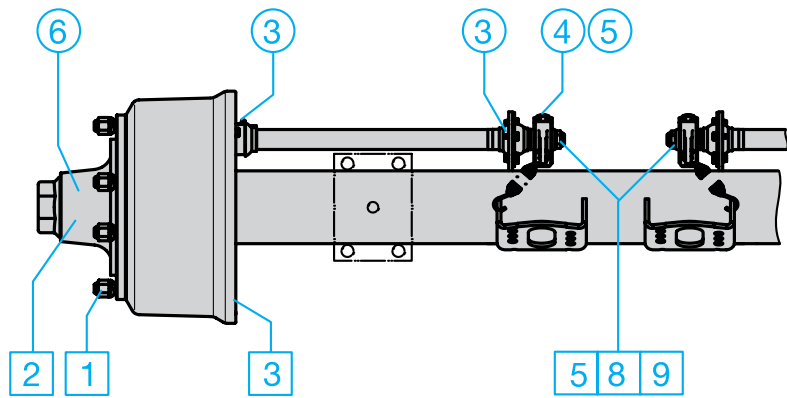
When fitting replacement parts you are strongly recommended to use only genuine BPW parts. BPW subjects all its components to regular testing to ensure they comply with safety and quality standards and in so doing guarantees their performance.

BPW cannot offer any guarantee regarding products produced by other companies. This applies even if an official testing organisation has approved the product.

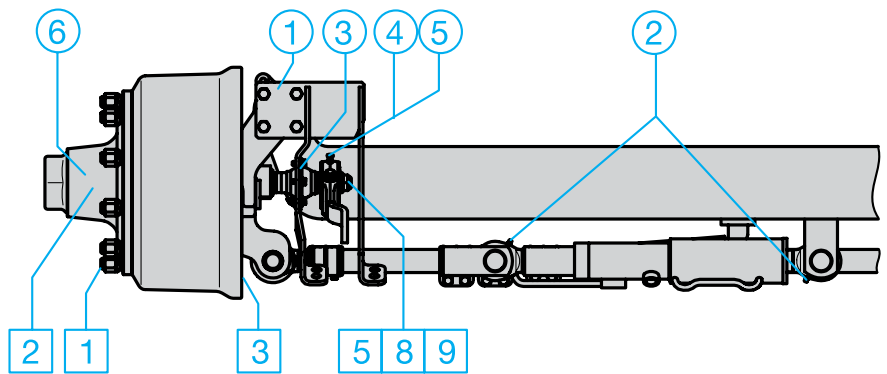
Our guarantee becomes invalid if spare parts other than genuine BPW parts are used.

<p>Lubrication and maintenance works</p> <p>Summary</p> <p>Detailed description on pages 8 - 18</p> <p><input type="radio"/> Lubrication</p> <p><input type="checkbox"/> Maintenance works</p>	After the first laden journey	Every 40 hours in operation	Every 200 hours in operation	Every 500 hours in operation (annually)	Every 1000 hours in operation (annually)
<p>Lubrication</p> <p>with BPW special longlife grease (ECO-Li 91)</p> <p>① Steering pivot bearings, top and bottom</p> <p>② Locking cylinder ends on steering axles</p> <p>③ Outer and inner brake camshaft bearings</p> <p>④ Slack adjuster</p> <p>⑤ ECO-Master automatic slack adjuster</p> <p>⑥ Change grease in wheel hub bearings, check taper roller bearings for wear</p> <p>Maintenance work</p> <p>① Check that wheel nuts are tight, retighten if necessary.</p> <p>② Check hubs for bearing play, adjust if necessary.</p> <p>③ Check brake linings.</p> <p>④ Check the brake adjustment on the brake lever, adjust if necessary.</p> <p>⑤ Check the brake adjustment on the slack adjuster, adjust if necessary.</p> <p>⑥ Check brake adjustment on wedge-type brakes, adjust if necessary.</p> <p>⑦ Check brake adjustment on Backmat cam brakes, adjust if necessary.</p> <p>⑧ Check brake adjustment on the automatic slack adjuster, adjust if necessary.</p> <p>⑨ Check the operation of the automatic slack adjuster.</p>	<p><input type="checkbox"/></p>	<p><input type="radio"/></p>	<p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p>	<p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="radio"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="radio"/></p>

BPW trailer axle
with butterfly cam brakes



BPW trailing steering axle

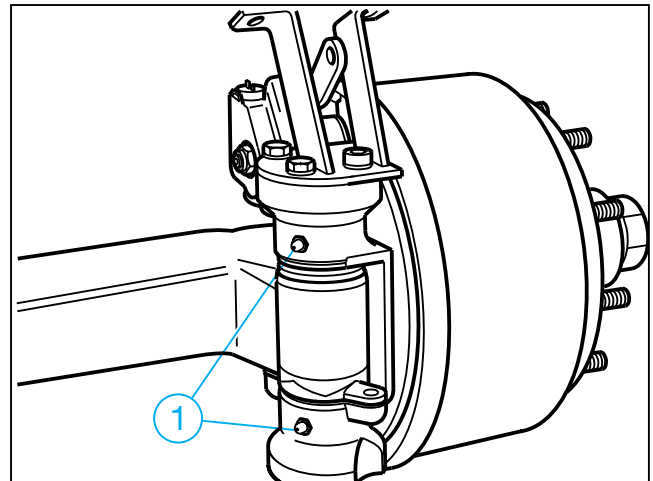


Note: All the lubrication points should be re-lubricated with grease after the vehicle has been cleaned with a high-pressure washer.

① Top and bottom steering pivot bearings

– every 40 hours in operation –

Lubricate via the grease nipples with BPW special longlife grease (ECO-Li 91), until clean grease emerges from the bearing/cam plate.

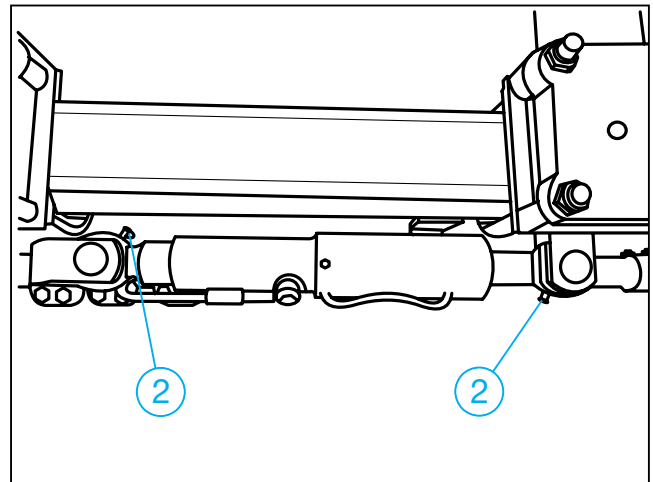


② Locking cylinder ends on steering axles

– every 200 hours in operation –

Lubricate via the grease nipples with BPW special longlife grease (ECO-Li 91), until clean grease emerges from the bearings.

While carrying out this lubrication, ensure that the locking cylinder and the pipe contain no air at any time.



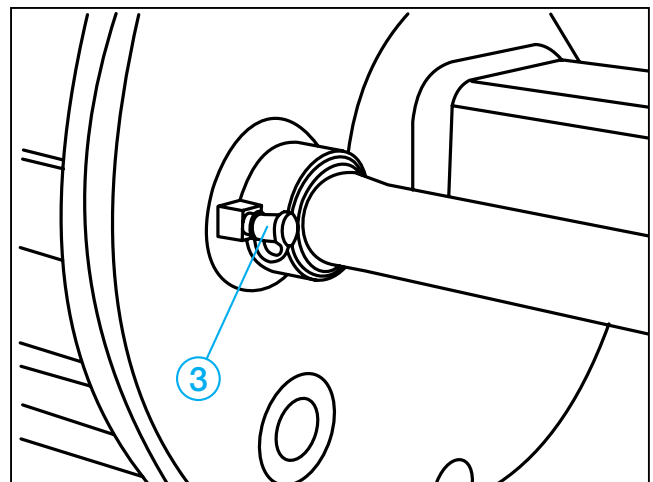
③ Outer and inner brake camshaft bearings

– every 200 hours in operation –
(and before use after a long period of inactivity)

Lubricate via the grease nipples with BPW special longlife grease (BPW ECO-Li 91), until clean grease emerges from the bearings.

Caution. Do not allow grease or oil to get into the brake. Depending on the series, the cam bearings to the brake may not be sealed.

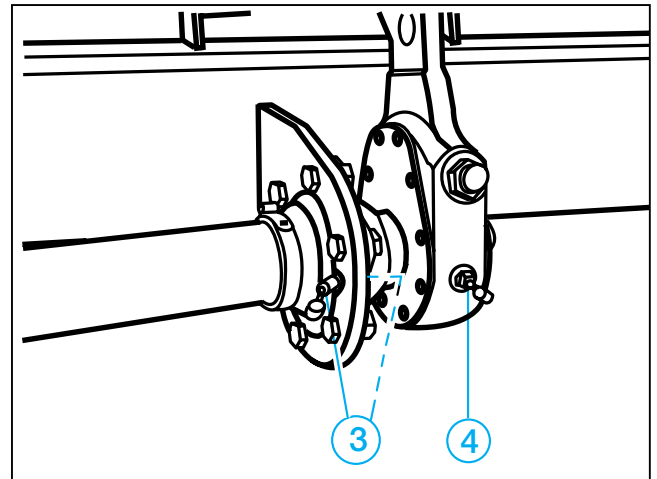
Use only lithium-based grease with a drop point above 190 °C.



④ Slack adjusters

- every 500 hours in operation, at least once a year –

Lubricate the grease nipples with BPW special longlife grease (ECO-Li 91), until fresh grease emerges.



⑤ Automatic slack adjuster ECO-Master

- each time the brake shoes are replaced –
- every 500 hours in operation, at least once a year –

Remove the rubber cap.

Lubricate with BPW special longlife grease (ECO-Li 91) (80 g) until sufficient clean grease emerges from the adjusting bolt.

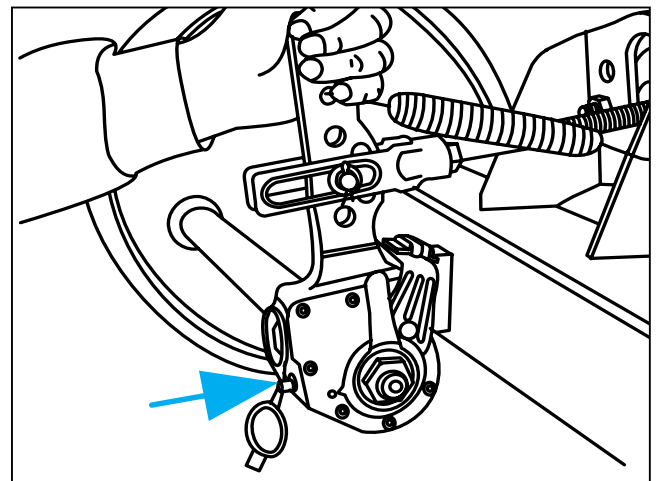
Undo the adjusting bolt by approximately one turn with a ring spanner. Operate the brake lever by hand several times.

In doing so, the automatic adjustment must operate smoothly.

Repeat several times, if necessary.

Refit the cap.

Regrease with BPW special longlife grease (ECO-Li 91).



⑥ Changing the grease in the wheel hub bearings

– every 1,000 hours in operation (latest annually) –

Jack up and secure the vehicle, and release the brakes.
Remove the wheels and bearing caps.

Remove the split pin and unscrew the axle nut.

Using a suitable retractor, withdraw the wheel hub with the brake drum, the roller bearings and the sealing elements from the axle stub.

Label or mark the wheel hubs and bearing cages so that they do not become mixed up during re-assembly.

Clean the brake, check for wear, make sure that it is intact and operates correctly, and replace any worn parts.

The inside of the brake must be kept free of grease and dirt.

Clean the wheel hubs thoroughly on the inside and the outside, removing every trace of old grease.

Clean the bearings and seals thoroughly (diesel oil) and check to ensure that they are suitable for re-use.

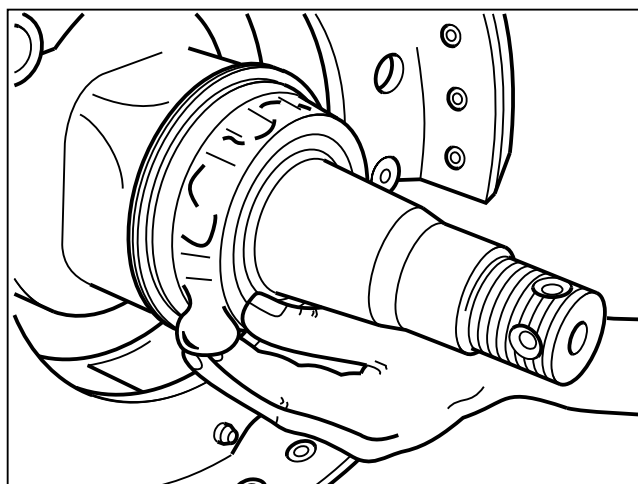
Lightly grease the bearing seats before fitting the bearings, and then assemble all the parts in the reverse order.

Carefully drive the parts into place on the bearing shells, without tilting or damaging them.

Coat the bearings, the wheel hub cavity between the bearings and the bearing cap with grease before re-assembly.

The quantity of grease should fill approximately a quarter to a third of the space in the assembled hub.

Fit the axle nut, and adjust the bearings

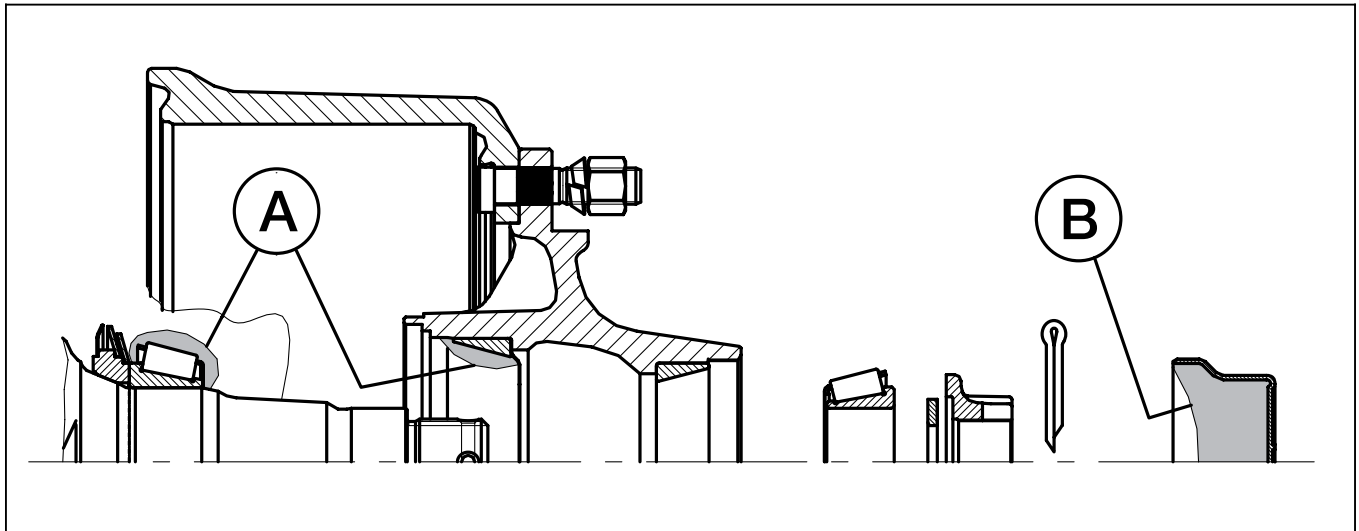


and the brake.

Finally, check that everything is in working order and carry out a suitable test drive, correcting any faults that you may discover.

The wheel hubs must only be lubricated with BPW special longlife grease (ECO Li 91) with a drop point above 190 °C.

Using the wrong grease or excessive quantities may lead to damage. Damage can be caused by the mixing of lithium-based grease with sodium-based grease, because of incompatibility.

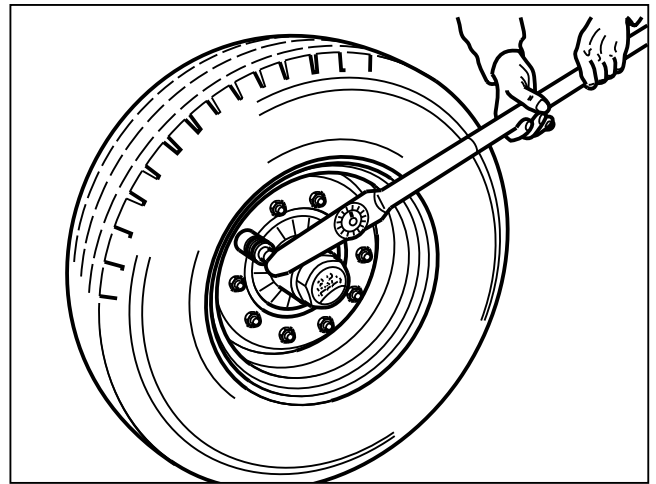


Wheel hub	BPW special longlife grease (ECO-Li 91), quantity per tapered roller bearing	
	Inner A	Outer B
GS 5506	40 g	80 g
GS 7006 GS 7008	50 g	210 g
GS 8008-1 GS 8010-1	90 g	230 g
GS 11008-1 GS 11010-1	170 g	290 g
GS 12008 GS 12010	180 g	320 g
	Work grease into the space between the tapered rollers and the races. Apply remainder to outer race of the hub.	The grease for the outer tapered roller bearing is pressed into the bearing as the hub cap filled with grease is screwed on.

1 Check that the wheel nuts are tight

– after the first laden journey, likewise after each wheel change and every 500 hours in operation or annually –

Use a torque wrench to tighten the wheel nuts to the correct torque setting, as shown in the table.



Torque settings for wheel nuts

Thread	Spanner size mm	Number of bolts per hub piece	Maximum torque setting		
			black	Dacromet	galvanised
M 12 x 1.5	19	4/5	95 Nm (90 - 100 Nm)	--	95 Nm (90 - 100 Nm)
M 14 x 1.5	22	5	125 Nm (120 - 130 Nm)	--	125 Nm (120 - 130 Nm)
M 18 x 1.5	24	6	290 Nm (275 - 305 Nm)	270 Nm (250 - 290 Nm)	320 Nm (300 - 340 Nm)
M 20 x 1.5	27	8	380 Nm (360 - 400 Nm)	380 Nm (360 - 400 Nm)	420 Nm (400 - 440 Nm)
M 22 x 1.5	32	8/10	510 Nm (485 - 535 Nm)	510 Nm (485 - 535 Nm)	560 Nm (535 - 585 Nm)
M 22 x 2	32	10	460 Nm (435 - 485 Nm)	--	505 Nm (480 - 530 Nm)

2 Check the bearing play in the wheel hub

– every 200 hours in operation –

To check the bearing play in the wheel hub, raise the axle until the tyres are clear of the ground.

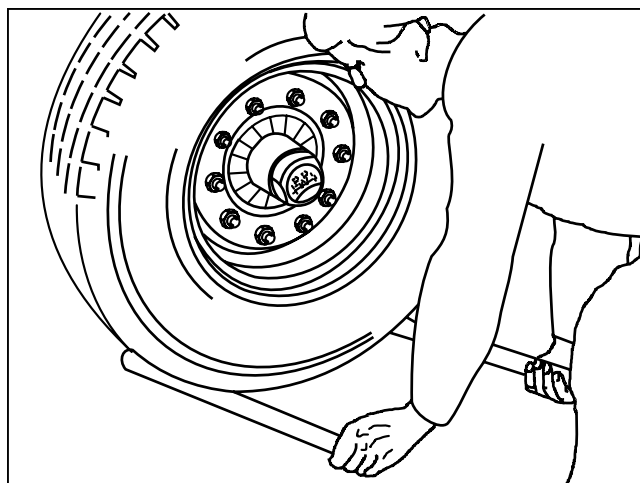
Release the brake, place a lever between the tyre and the ground, and check for play.

If you can feel play in the bearing:

Adjusting the bearing play

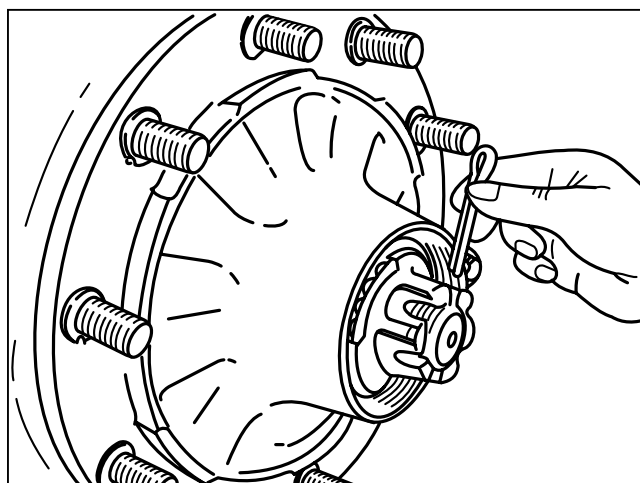
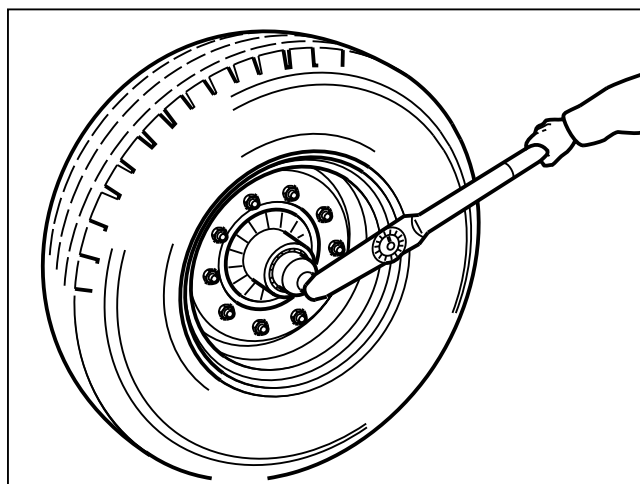
Standard hub bearing

1. Remove the bearing cap, or hub end-cap.
2. Remove the split pin from the wheel nut.
3. Tighten the wheel nut while turning the wheel, until the turning of the hub is slightly impeded.
4. Turn back the axle nut to the nearest possible split pin hole. If already in line, turn back to the next hole (maximum of 30°).
5. Insert the split pin and gently bend it over.
6. Refill the bearing cap with a little BPW special longlife grease (ECO-Li 91) and tap or screw it back into the wheel hub.



Whel hub bearing on BPW axles type GS 11008-1, GS 11010-1, GS 12008, GS 12010

1. Unscrew the hub cap.
2. Remove the split pin from the castle nut.
3. Tighten the axle nut using a torque wrench to 150 Nm while simultaneously turning the wheel hub.
 - Using a normal castle nut spanner (vehicle tool kit), tighten the castle nut until the wheel hub race is slightly braked.
4. Turn back the castle nut to the next possible split pin hole. Should they be in line turn back to the next hole (30° at the maximum).
5. Insert the split pin and bend upwards slightly.
6. Refill the hub cap with BPW special longlife grease (ECO-Li 91).
7. Greased thread of hub cap all round with BPW special longlife grease (ECO-Li 91) and tighten to the specified torque of 500 Nm.



3 Brake lining check

– every 200 hours in operation –

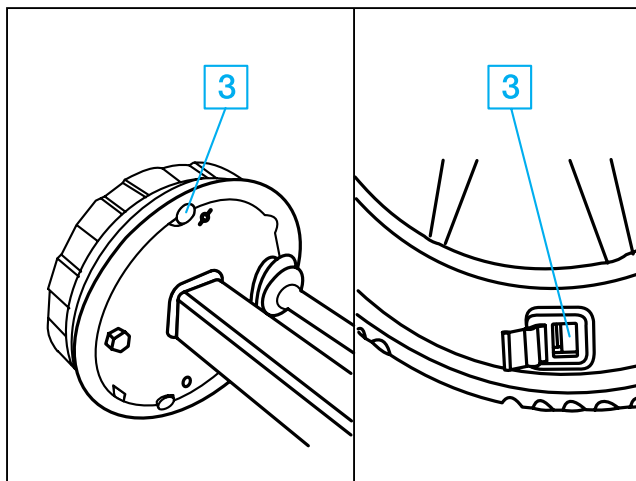
Open the inspection hole by removing the rubber bung (if present).

If the remaining thickness of the brake lining is

a: for riveted linings, 5 mm
(N 2504) 3 mm

b: for bonded linings 2 mm
the brake lining must be replaced.

Re-insert the rubber bung.



Brake adjustment

Depending on the nature and extent of operation, the brakes should be checked regularly and adjusted, if necessary.

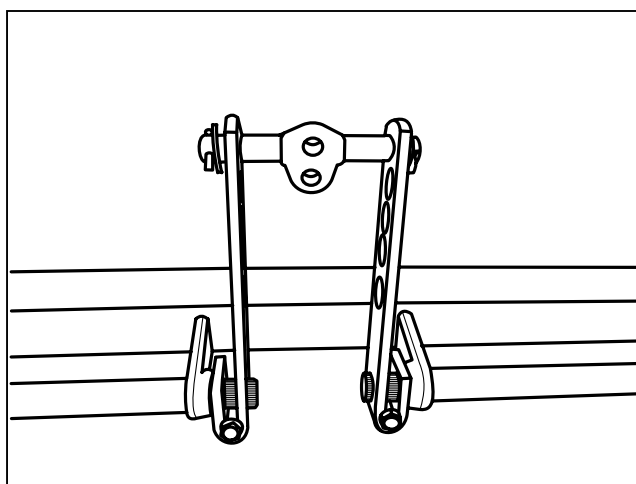
Adjustment is necessary when approx. 2/3 of the maximum cylinder stroke is used under heavy braking. For this purpose, jack up the axle and secure the vehicle against accidental movement.

4 Adjustment of the brake lever

– every 200 hours in operation –

Undo the hexagonal nuts, remove the bolts. Bend open the slot in the brake levers a little. The brake levers can now be withdrawn.

Turn the brake camshafts until the linings start to rub against the brake drums. Push the brake levers onto the brake camshafts in the correct position until they are fully home. Insert the bolts and fit the nuts.



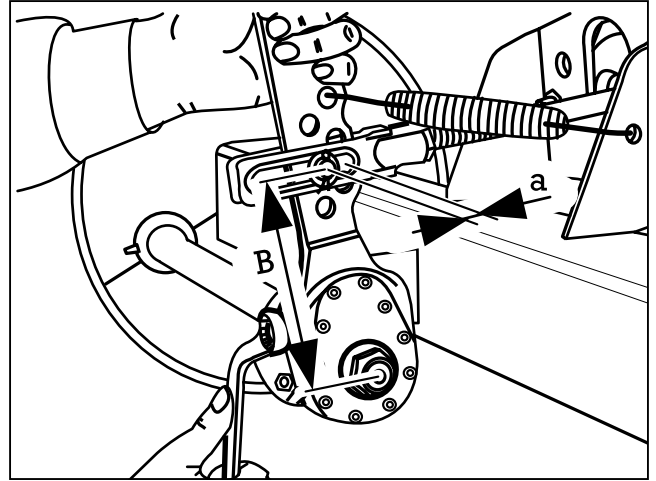
5 Adjustment of the slack adjuster

– every 200 hours in operation –

Move the slack adjuster by hand in the direction of brake application. If there is a maximum free play on the long-stroke diaphragm cylinder of 35 mm, the wheel brake must be adjusted.

Adjust the free play "a" to 10-12 % of the length (B) of the brake lever connected to it.

E.g. for a lever length of 150 mm, the free play is 15-18 mm.



6 Adjustment of wedge-type brakes

– every 200 hours in operation –

S 3006-7 RAZG:

Secure the trailer to prevent it moving and jack it up. Disconnect the pull rods from the overrun hitch and the handbrake lever.

Lock the swivel cam on the wheel brake with the help of special tool A (< 4 mm diameter pin) by inserting it through the positioning hole (at least 50 mm into the hole).

Tighten the adjusting nuts (item C) on the wheel brakes with a spanner, with the help of the adjusting bolt (item B), until the wheel will not turn in the direction of travel.

Turn back the adjusting bolt until no braking effect can be felt when the wheel is turned in a forward direction.

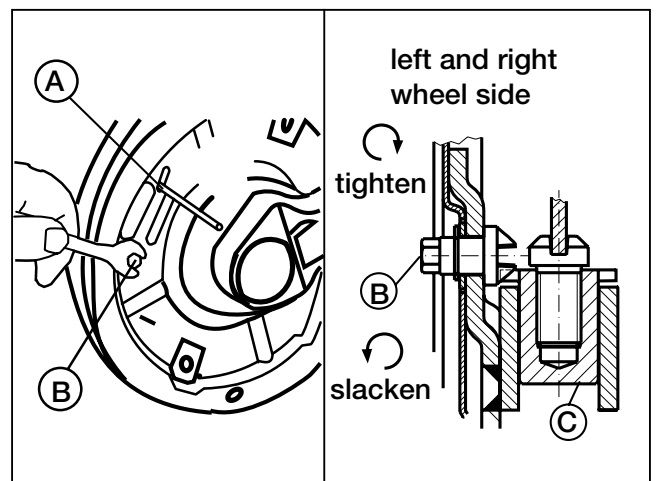
Caution:

The wheel brake must only be adjusted by means of the adjusting bolt.

Reconnect the pull rods to the overrun hitch and adjust so that there is no free play.

For this purpose, the drawbar of the overrun mechanism must be completely extended and the reversing must lever rest on the drawbar.

As a test, apply the parking brake slightly



and check that the braking effect (in the direction of travel) on the wheels is the same on both sides. Check that the individual brakes take effect at the same time.

Caution:

Remove the locking device (< 4 mm diameter pin) from the swivel cams.

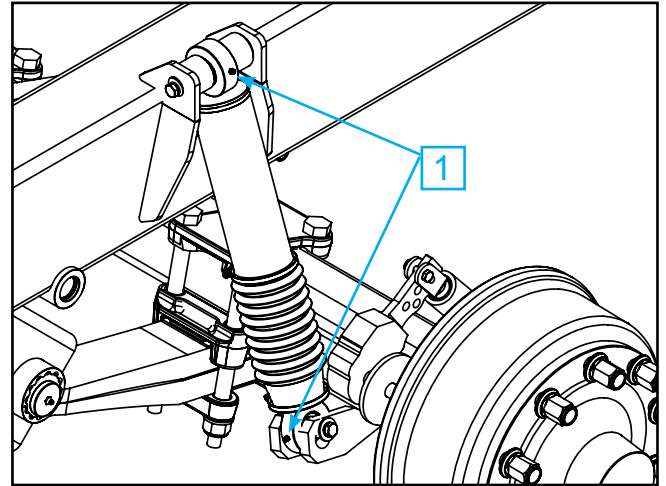
Hydraulic Suspension

① Damping cylinders, top and bottom

– every 200 hours in operation –

Lubricate via the grease nipples with BPW special longlife grease (ECO-Li 91) until fresh grease emerges from the bearing points.

As well as performing these lubrication jobs, make sure that the cylinder and the supply line are always vented.



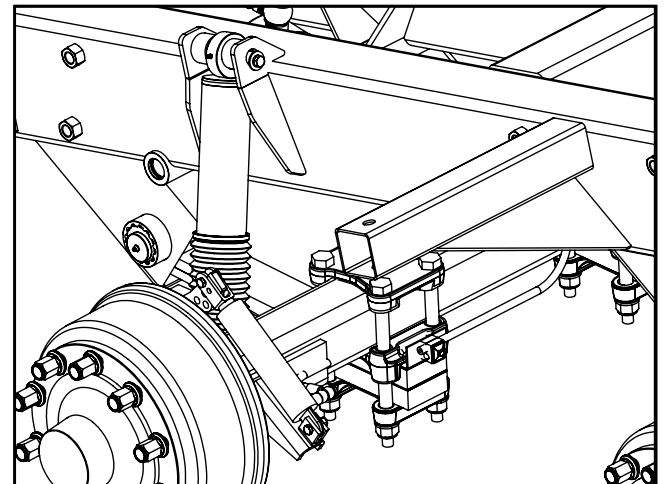
- Visual inspection

– every 200 hours in operation –

Check all components for damage and wear.

① Check the condition of the damping cylinders and check them for leaks

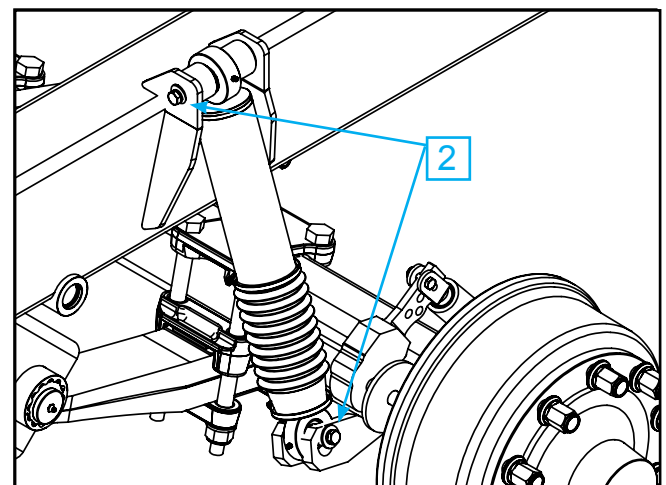
– every 500 hours in operation,
latest annually –



② Check damping cylinders attachment

– every 500 hours in operation, at least
once a year –

Check the damping cylinders are firmly attached and check for wear.

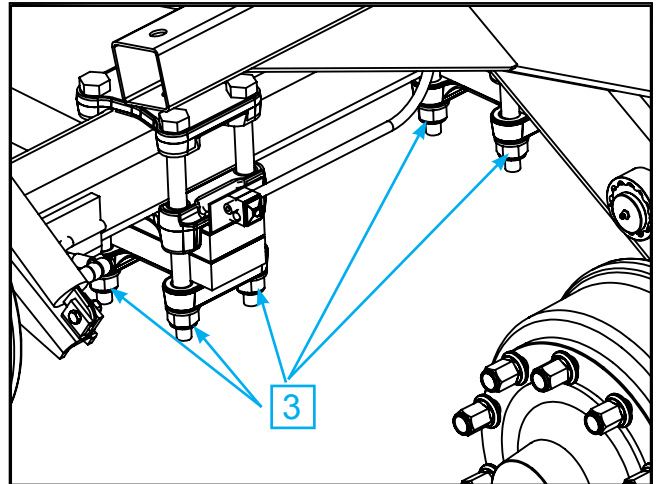


3 Spring mounting kit

- every 200 hours in operation, initially after the **first** laden journey -

Check that the lock nuts are tight on the U-bolts. If they are loose, tighten the nuts alternately in stages. Do not weld the trailing arm! Torque setting with a torque wrench:

M 24 M =750 Nm (700 - 800 Nm)



4 Spring bolts

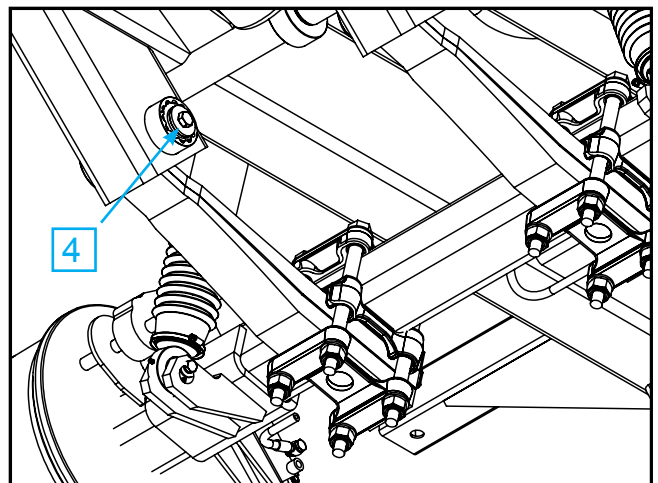
- every 500 hours in operation, latest annually, initially after the **first** laden journey -

Check the bushes, moving the vehicle slightly backwards and forwards with the brake applied, or moving the spring eyes with a lever. There must be no play in the spring eye. If not attached properly the spring bolt may be damaged.

- Check that the M16 lock nut on the spring bolts is tight.

Torque settings with a torque wrench:

M16 220 Nm (200 - 250 Nm)





METSJÖ *Ivarssons i Metsjö AB*

Production takes place at Metsjö Norrgård which is located outside Linköping Sweden.

Except trailers we also produce machinery halls and mobile storages.

Ivarsson's i Metsjö AB reserve the right to change technical specifications.

Data and illustrations are to be considered approximate and also include special accessories that are not part of the scope of standard supply.

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