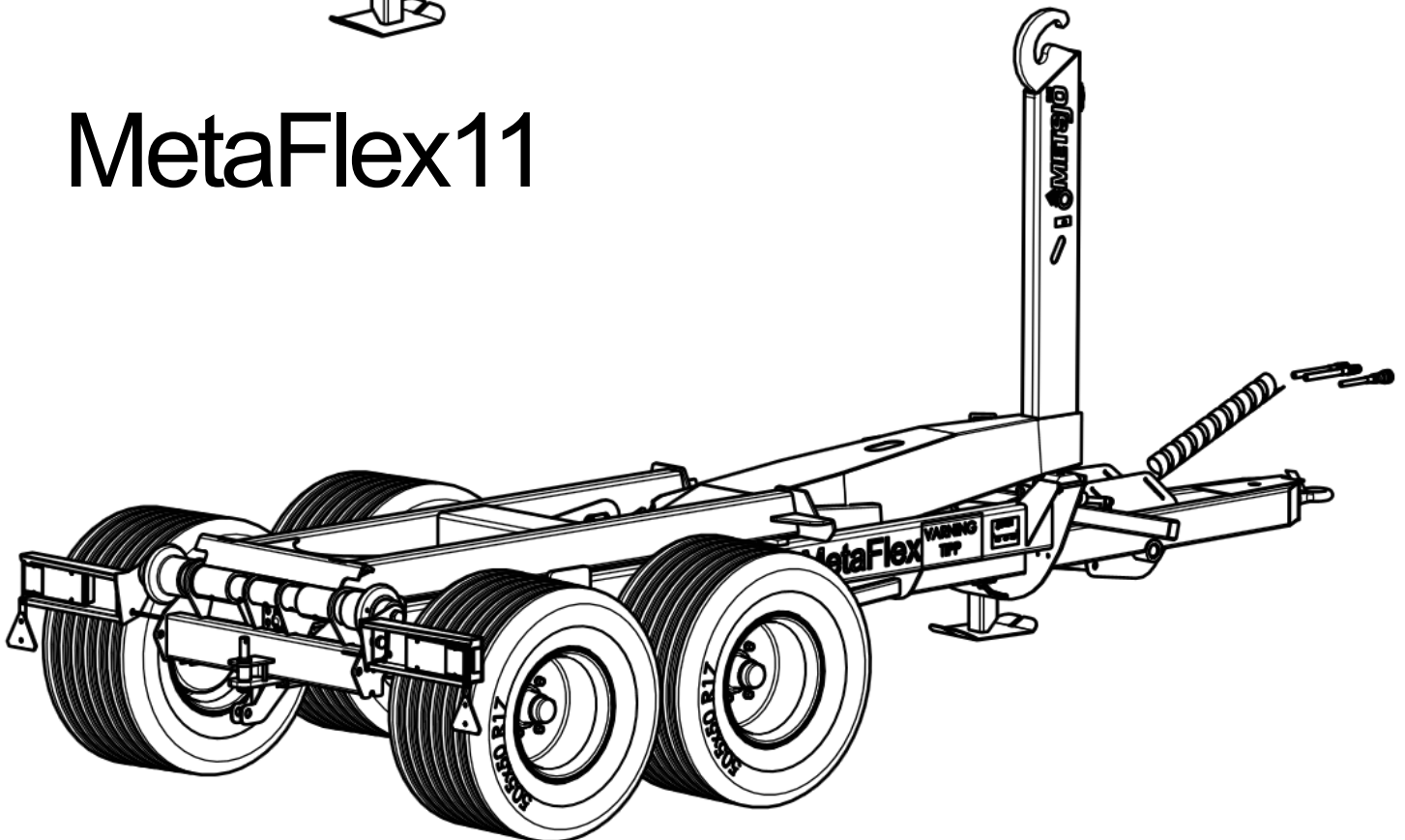


MetaFlex11



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 you 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 manufactures 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

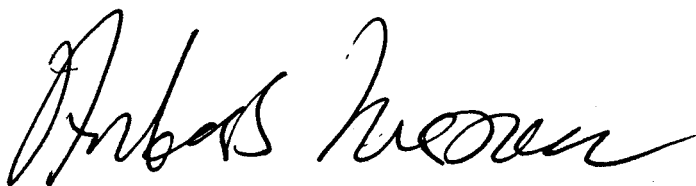
Manufacture Ivarssons i Mestjö AB 58592 Linköping 013-59310

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: 110 Hp

A loaded trailer should always be connected to the tractor.

Connect always:

- The brake hose 3/8 hose
- The tipping/shifting 1/2 hose double acting 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 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

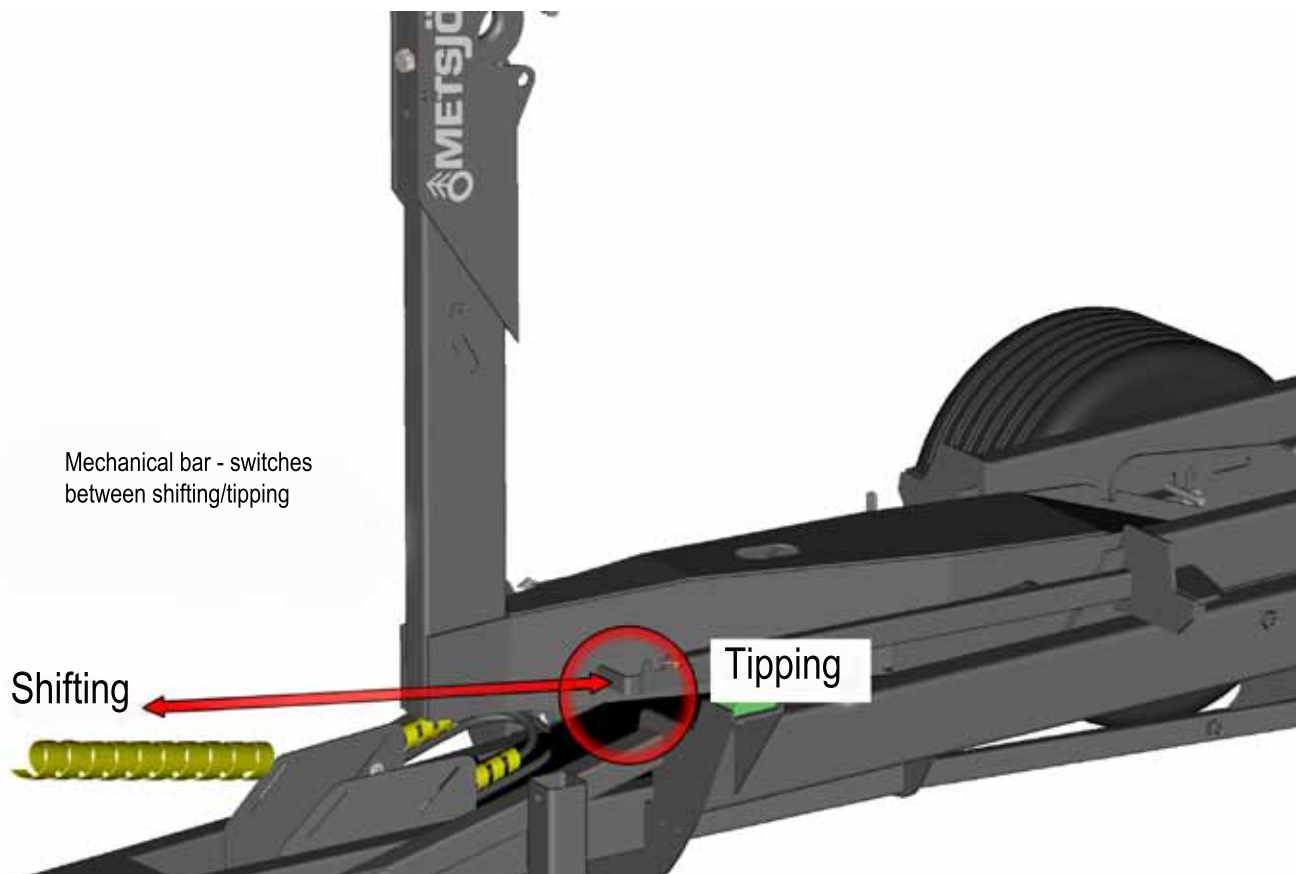
1. Check if the hitch hook or drawbar is locked to avoid negative suspension
2. Assure yourself that the weight of the load is evenly divided over the trailer
3. Check if the tailgate is opened (hydraulic/mechanical tailgate)
4. Tipping should take place on a flat and solid surface
5. Secure area while 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
- Hydraulic system for 230 bars
- Maximum load on the rear coupler: Vertical 1 ton, Horizontal 23 000 kg
- Tighten the wheel studs after the first 10-50 work hours, as well as every 150 work hours (320 NM)
- Controll if the hitch is not worn out (inner diameter 50mm)

Shifting containers

- Place the mechanical switch bar into position "shifting"
- Put pressure on the hydraulics and the shifting-arm will begin its cycle
- Make sure that the hook is correctly connected to the container
- Now the shifting process can begin
- The tractor can be unbraked
- The frame of the hook-lift container must rest over the rollers of the trailer



Attention:

Do not shift and tip containers, if:

- The hitch hook or drawbar is not locked to avoid negative suspension
- The load is not evenly divided over the trailer and container
- The trailer and the body are not in the same line
- There is load which can fall of the body during the shifting process
- The hydraulic and electrical hoses are incorrectly connected

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

Optional equipment:

Switching between tipping/ shifting from driver's seat, 10926

Bogie lift/pressure axle 1-2, 108746

Requires 1 double acting hydr. connection. In floating position when active

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

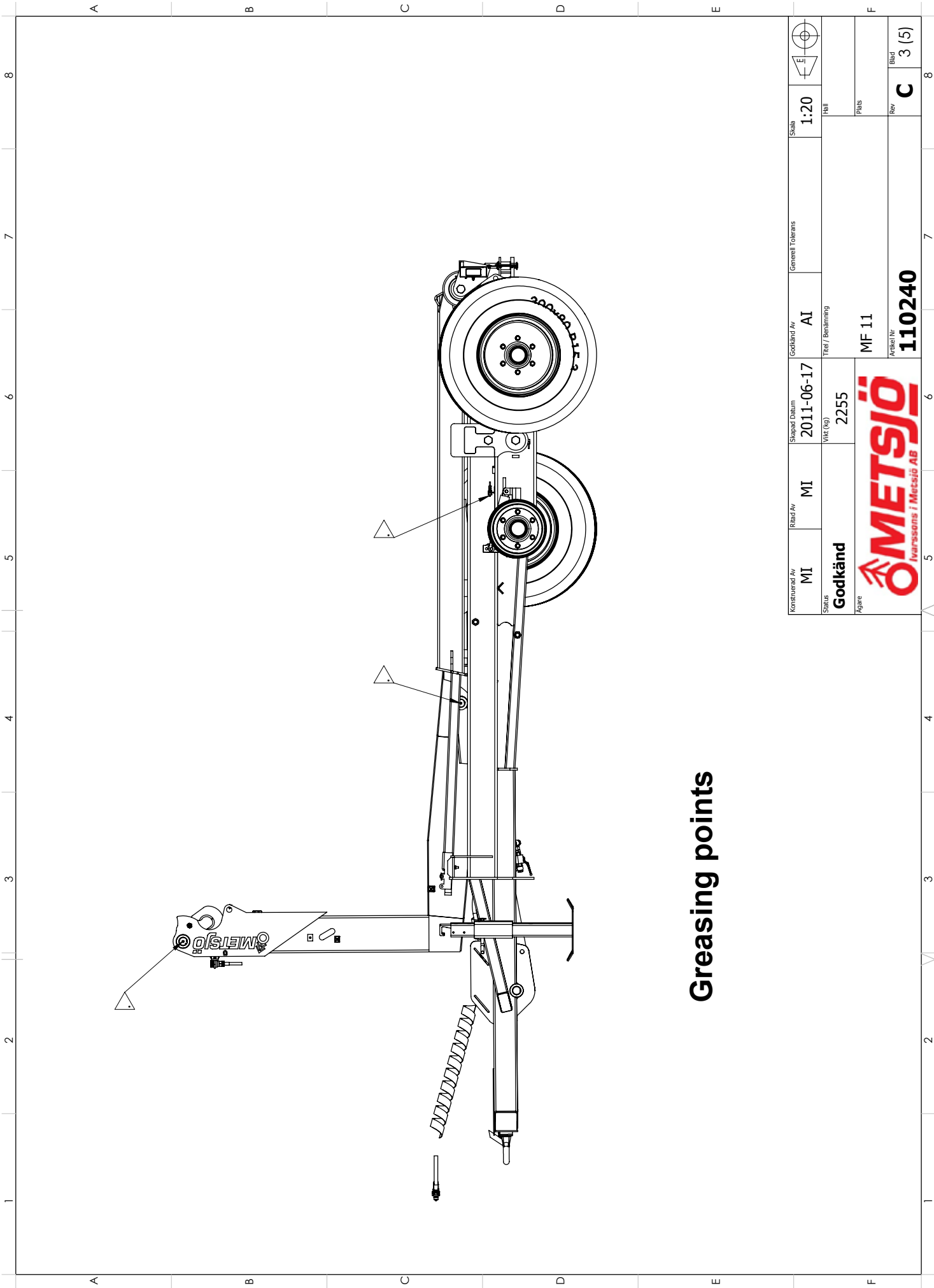
In order to maintain the operating and traffic safety of the trailer, it should be serviced according the specified intervals. The relevant operational and service requirements of the trailers manufacturer, respectively from other part suppliers should be considered. Warranty claims and parts which are 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

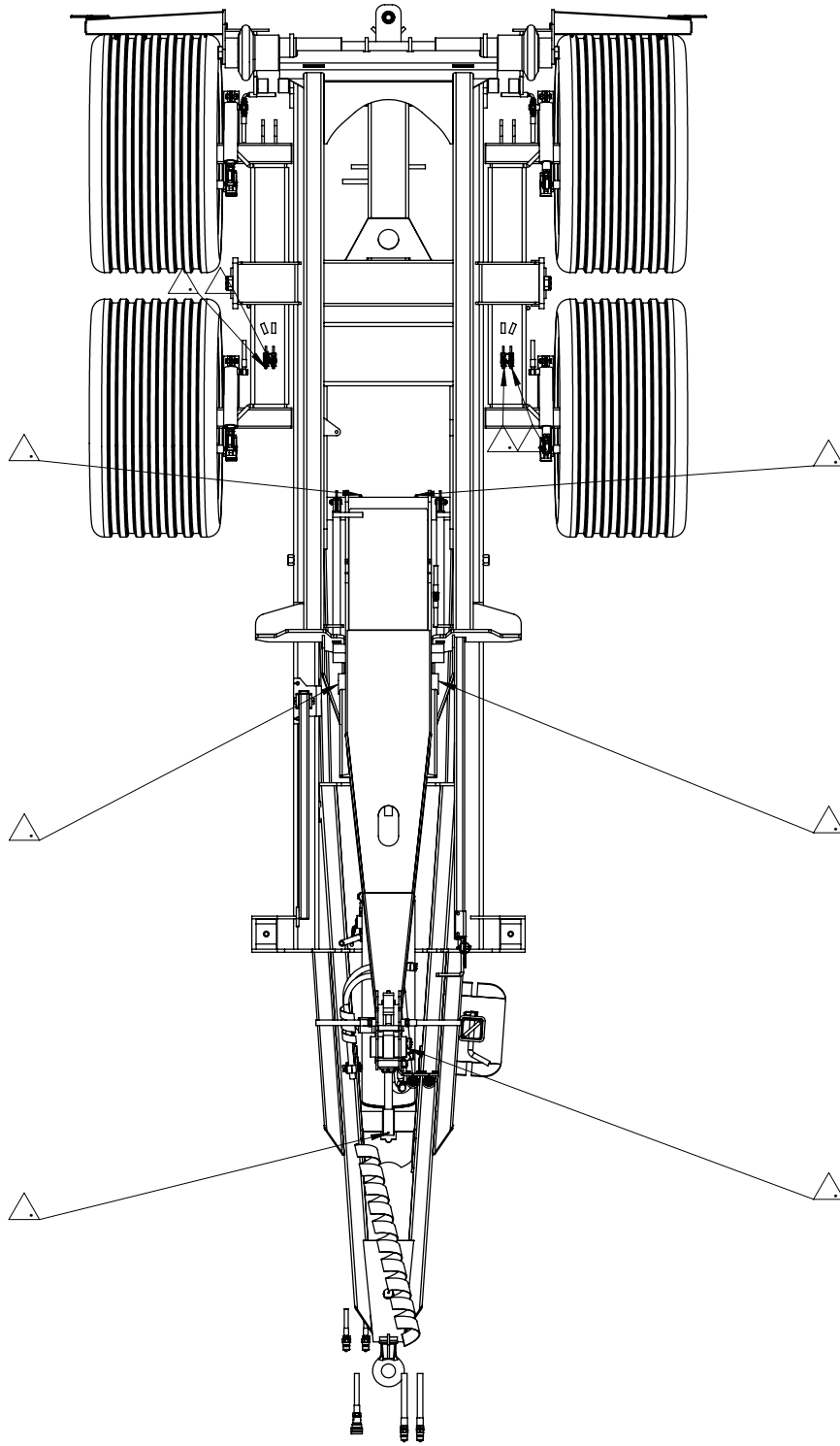


Greasing points

Konstruerad Av MI	Revid Av MI	Skapad Datum 2011-06-17	Godkänd Av AI	Skala 1:20	Generell Tolerans H8/f8
Status Godkänd		Virt (kg) 2255	Titel / Benämning MF 11	Plats	
Ägare METSJÖ Ivarsson's / Metsjö AB			Artikel Nr 110240	Rev C	Blad 3 (5)

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Greasing points

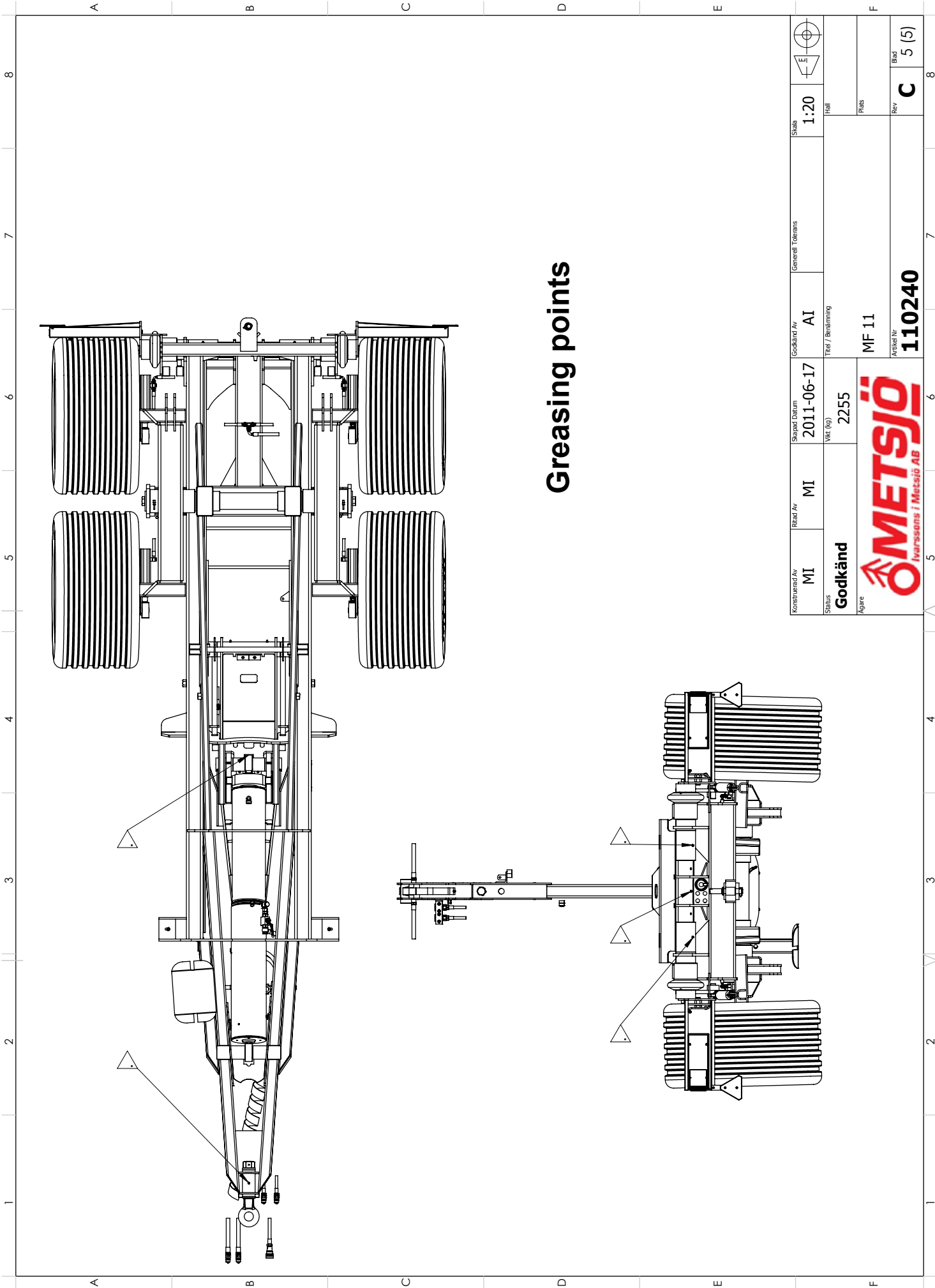


Konstruktör Av MI	Riad Av MI	Skapad Datum 2011-06-17	Godkänd Av AI	Generell Tolernans	Skala 1:20	
Status Godkänd		Vkt (kg) 2255	Titel / Benämning MF 11		Häll	
Ägare					Plats	
			Artikel Nr 110240		Rev C	Blad 4 (5)



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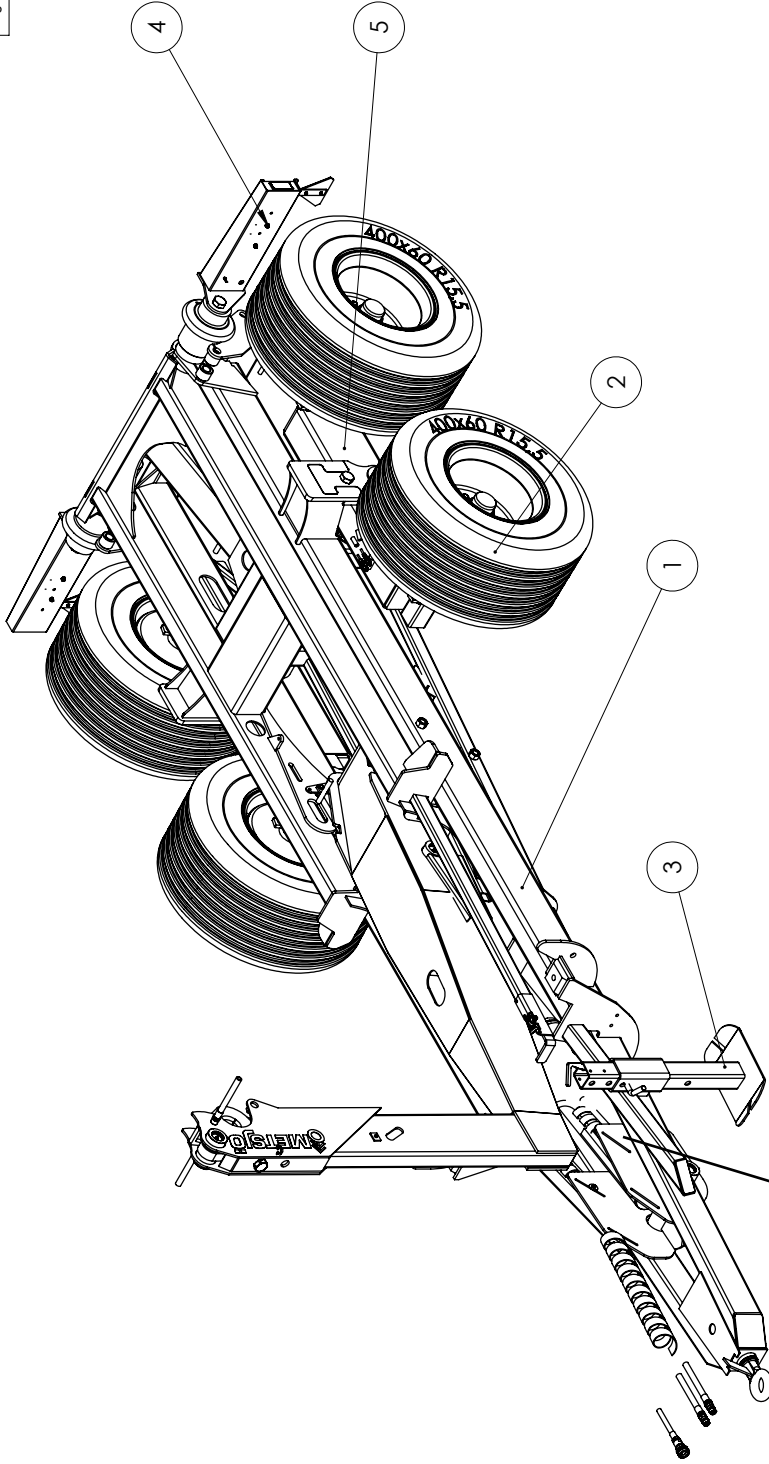
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Greasing points

Konstruktör Av MI	Ritad Av MI	Skapad Datum 2011-06-17	Godkänd Av AI	Generell Tolerans	Skala 1:20	
Status Godkänd	Titel / Beskrivning MF 11	Wrt (kg) 2255			Häll	
Ägare METSJÖ Ivarssons i Metsjö AB					Plåts	
					Rev	C
					Blad	5 (5)
					Artikelnr 110240	

Nr	Ändring	Datum	Godk av
A		2012-09-20	
B		2013-08-07	
C		2013-08-07	



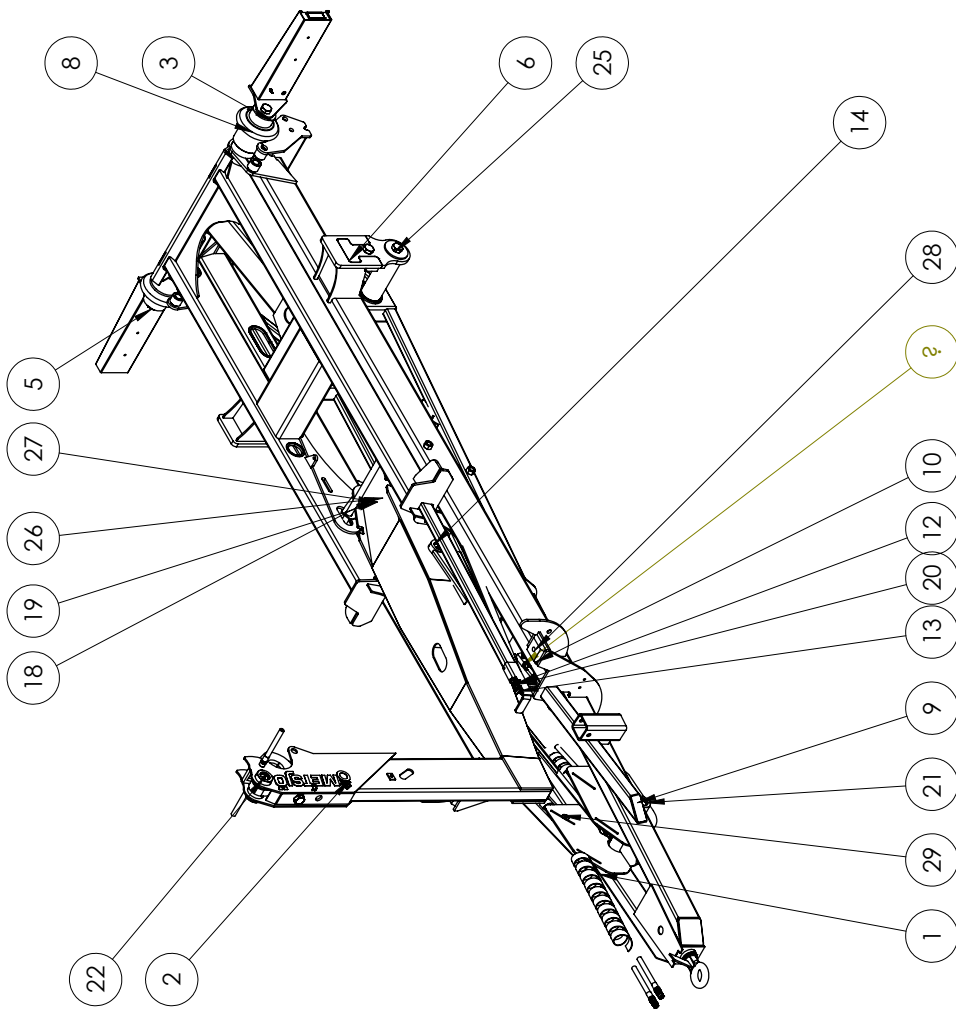
Standard tipping cylinder Art: 10181321,1
 Flex 11 Cyl LL200/100/60 telescopic double acting chrome
 Art. 119407
 Telescopic cylinder sealings MF11 Cylinder LL 200/100/60
 (10180132,1)

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	102886	MF11	Grundmonterad	1366
2	4	104383		Hjul 6 bult	74.32
3	1	106634	106634	Stödben Std komp	13
4	1	106637		Bakljus Std	2.04
5	1	110311	110311	Boggi MF 11 Hyd Broms	458
Konstruktör Av		Riad Av	Skapad Datum	Godkänd Av	Skala
MI					1:20
Status		Vikt (kg)	Titel / Benämning		Hjul
Godkänd		2136			
Ägare		MF 11 400x15,5 BAS			Plats
		Artikel nr			Rev
		110320			A
					Blad
					1 (1)



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Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	102858	102858-Grå	Chassie MF 11	652.56
2	1	102885		MF11 Torn-lippram-tornhatt	465.09
3	1	100508	100508-Grå	Belysningsfäste VA	5.12
4	1	101278		Tippbelysningsaxel F11-30	38.26
5	1	100509	100509-Grå	Belysningsfäste Hö	5.10
6	2	100271	100271-Grå	Boggiås mid metax	6.93
7	1	106638	106638	bakljus konsoler	10.06
8	2	100504	100504-Grå	Rulle tipped	20.47
9	1	104564	104564	Sprint tippkolv nedre MF11 - MF 16 50L365	
10	2	101918	45499BN06	Grön amid slitplatta 120x80x30	0.24
11	1	102198	102198	Dragsprint	1.72
12	2	100333	10400060.2	Ringsprint 10m-40 nick parm	0.04
13	1	110968	110968-Grå	Låsbeslag MF11	
14	1	102735		501368 övre kolvaxel MF 11	5.54
15	1	100562	100562-Grå	Kolvkrok MF 11-16 HO	8.67
16	1	100561	100561-Grå	Kolvkrok MF 11-16 Vå	8.67
17	1	105734		Sprint tornied MF11	
18	1	104959	104959-Grå	Tornläs F11	5
19	2	110128	110128-Grå	Tipppläs MF11	4
20	1	110965	110965-Grå	Reglage F11	
21	4	101785	472050	Segersäkning SGH 50 Din 472, för invändig montering	
22	8	100491	10400162	Smörjnippe M10x1 rak	
23	2	109866	914120161	Stoppskruv M12x16 Insex	
24	2	109868	91412025	Stoppskruv M12x25 Insex	
25	8	109855	10191757	Bult M30x60 FZB Heigänga	
26	2	109838	M10x40Std	Bult M10x40 FZB Heigänga	
27	4	109791	M10NYLOCKNIK lad	Mutter M10 FZB nylock	
28	2	109839	9338100451	Bult M10x45 FZB Heigänga	
29	1	111794		STD Hydraulik MF11	3
30	1	122843	10180132.1	CyF11 200/100/60 LL50 1762- 4130	
31	2	102742	416007	Kantskydd 15x12 6-8 PVC Svart	0.03
32	2	102742	416007	Kantskydd 15x12 6-8 PVC Svart	0.01

Konstruerad Av	Ritad Av	MI	Skapad Datum	2011-09-23	Godkänd Av	AI
Status	Godkänd		Vikt (kg)	1490	Skala	1:25
Agens	METSJÖ		MF11 Grundmonterad		Generell Tolerans	SS-ISO 2768-1 m
			Artikel Nr		102886	
			Rev		K 1 (1)	

Nr	Ändring	Datum	Godk av
C		2012-10-09	
D		2013-08-07	
E		2014-09-09	

A

A

B

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D

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E

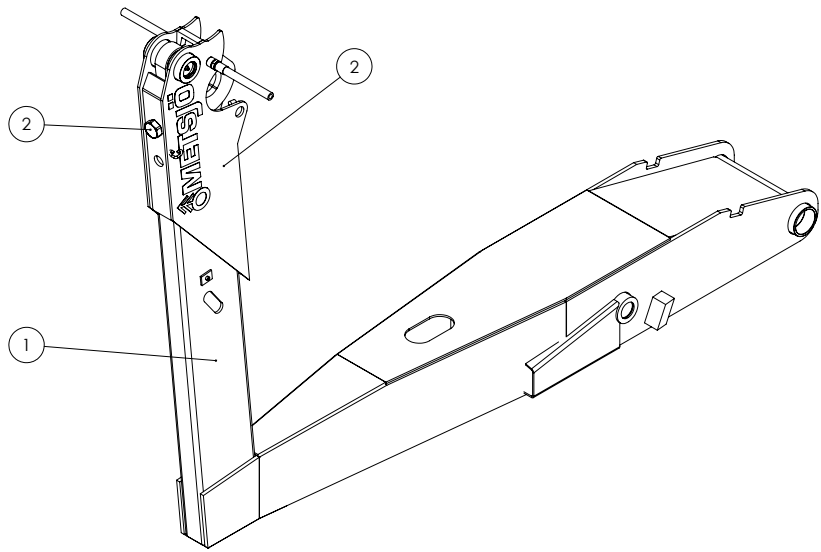
F

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8

8

Nr	Ändring	Datum	Godk av
-		2012-05-16	
A		2012-11-14	
B		2013-08-07	

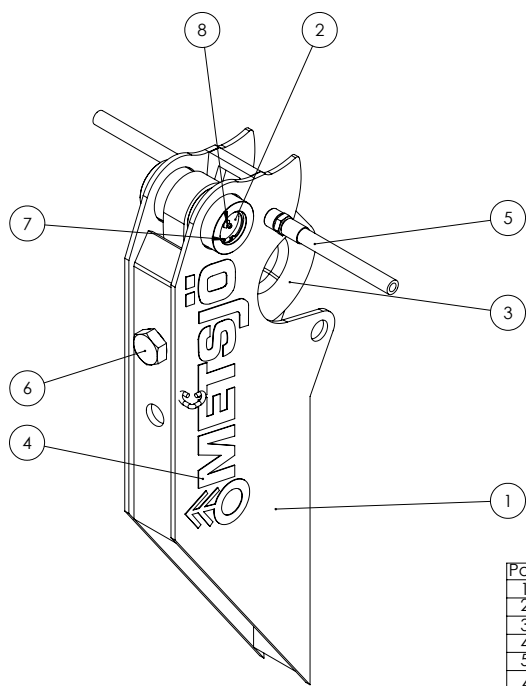


Pos.	Anf.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	104606		Svetsat torn MF11	211.60
2	1	100494		Torn hatt	46.02
3	2	ISO 4017 - M30 x 60-N	10191757		

Konstruktör Av	Risör Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	1:10	
Status	Vikt (kg)	Titel / Benämning		Hall			
Godkänd	257.77	Monterat torn F11					
Ägare			Artikel Nr	Rev	Blad		
			104598	F	1 (1)		

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Nr	Ändring	Datum	Godk av
E		2012-12-05	
F		2013-08-07	
G		2013-08-28	



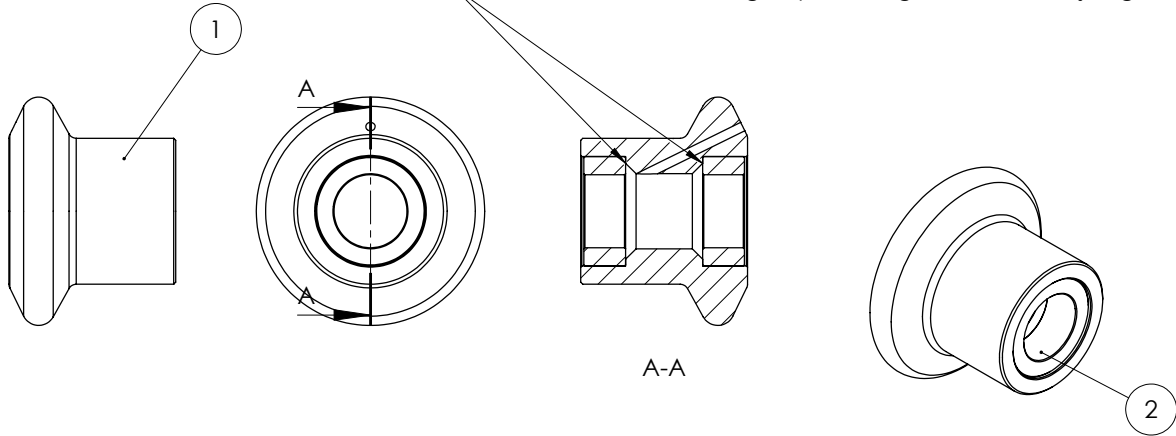
Pos.	T1-16/QTY.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100478		Torn hatt	33.05
2	1	101091		Sprint växelkrok	1.81
3	1	0093	0093	Växlarkrok	10.62
4	2	105447	10400476	Dekal METSJÖ	
5	2	103918		krok slang	0
6	2	109855	10191757	Bult M30x60 FZB Helgänga	
7	2	109916	472050	Låsring SGH 50	
8	1	100491	10400162	Smörjnippel M10x1 rak	

Konstruktör Av	Risör Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	1:5	
OK	RB	2009-12-17	AI	SS-ISO 2768-1 m			
Status	Vikt (kg)	Titel / Benämning		Hall			
Godkänd	46.02	Torn hatt		Montering			
Ägare			Artikel Nr	Rev	Blad		
			100494	J	1 (2)		

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Nr	Ändring	Datum	Godk av
C		2012-07-02	
D		2013-02-14	
E		2013-08-07	

Peta bort den inre fätningen på ledlagret så att smörjningen fungerar



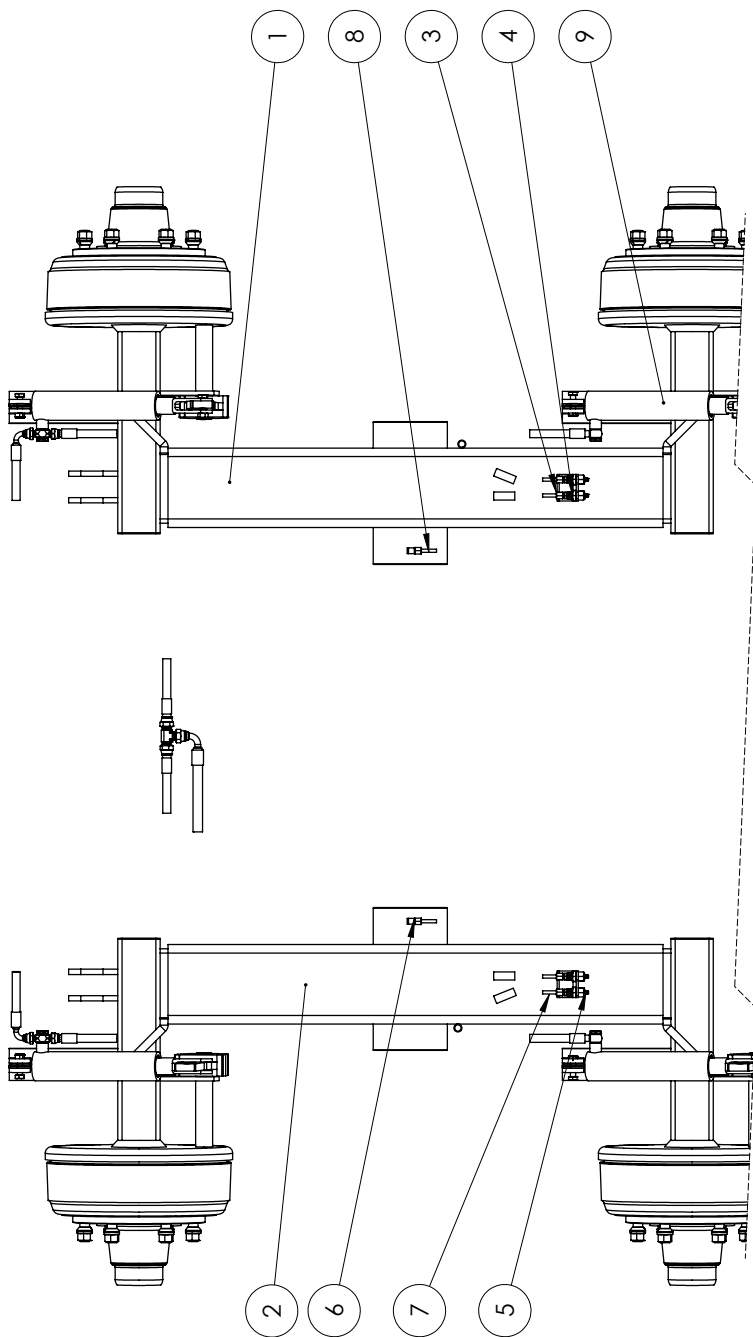
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt		
1	1	100502		Flakväxelrulle	17.46		
2	2	100503	10180055	Ledlager 70x105 L43	1.51		
Konstruerad Av		Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
OK		OK	2011-03-15	AI	SS-ISO 2768-1 f	1:5	
Status			Vikt (kg)	Titel / Benämning		Hall	
Godkänd			20.47	100504-Grå			
Ägare			Rulle tipplad		Plats		
			Artikel Nr		Rev	Blad	
			100504		B	1 (1)	

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1	1	0219	0219	Kolvkrok	6.28																																																																														
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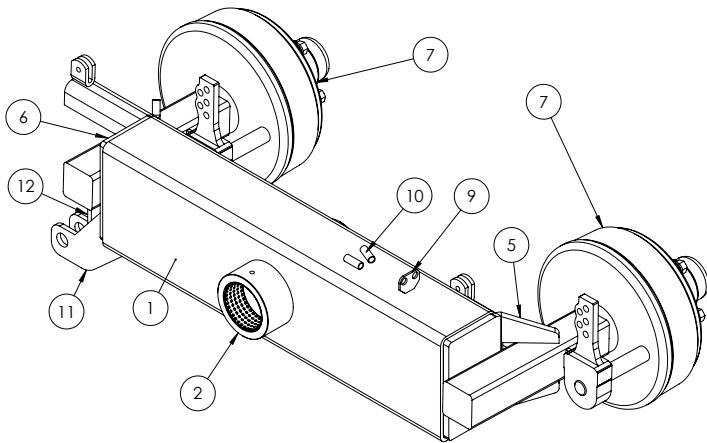
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Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt	
1	1	104894	104894-Grä	Pendelboggi MF11 Vänster	221.59	
2	1	104901	104901-Grä	Pendelboggi MF11 höger	221.59	
3	4	101100	10400160	Rak LL6M	0.02	
4	4	101099	10400161	M14 Skoffgenömgång-muffar smöj	0.04	
5	4	100491	10400162	Smörjnippel M10x1 rak		
6	3	101094	10400150	Vinkel 1/8 R LL6R		
7	2	109613	10400140	Smörjslang 6-2 utsida mid boggjelåda	0	
8	2	109615	10400140	Smörjslang 6-2 mid insida boggjelåda	0	
9	1	120311	120311	Hydbröms MF 11	14	
Konstruerad Av		Ritad Av	Skapad Datum	Godkänd Av	Skala	
		LH	2011-10-31	AI	1:10	
Status		Titel / Beskrivning		Hjäll		
Godkänd		Vikt (kg)		Påds		
		457		110311		
Agare		Boggi MF 11 Hyd Bröms				Rev
		Arbets Nr				D
		110311				1 (1)

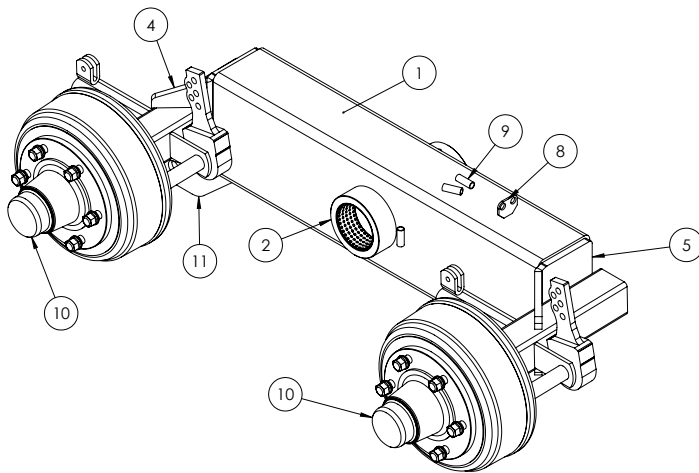


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Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100493		Balk MetaMid bogglåda	41.95
2	1	100274	410120067BH	Boggihysa	14.85
3	4	0010	0010	Förstärkningsplåt Bogglåda	0.81
4	2	0011	0011	Förstärkningsplåt Bogglåda	2.34
5	1	0564	0564	Boggielock MetaMid	5.42
6	1	0564	0564	Boggielock MetaMid	5.42
7	2	107656	410120070VA	Komplett axeltapp MetaMid	71
8	2	100301	10400110	Wb 702 Bussning	0.27
9	1	101095	101095	Hållare smörjslang pendelboggi	0.05
10	3	101092	101092	Rör till slang bogglåda	0.02
11	2	0263		Boggielyff MF11	1.4
12	1	104899	104899	Förstärkning bogglåda F11	

Konstruktör Av	Revid Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala
AI	MT	2009-11-27	AI	SS-ISO 2768-1 m	1:7
Status	Vikt (kg)	Färd / Benämning	Ställ		
Godkänd	221.54	104894-Grå	15		
Agens		Pendelboggi MF11 Vänster	Plats		
			Ute		
		Artikelnr	Rev	Blad	
		104894	D	1 (3)	



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100493		Balk MetaMid bogglåda	41.95
2	1	100274	410120067BH	Boggihysa	14.85
3	2	100301	10400110	Wb 702 Bussning	0.27
4	1	0564	0564	Boggielock MetaMid	5.42
5	1	0564	0564	Boggielock MetaMid	5.42
6	4	0010	0010	Förstärkningsplåt Bogglåda	0.81
7	2	0011	0011	Förstärkningsplåt Bogglåda	2.34
8	1	101095	101095	Hållare smörjslang pendelboggi	0.05
9	3	101092	101092	Rör till slang bogglåda	0.02
10	2	107657	410120070HO	Komp axeltapp 80 broms BPW	71
11	2	0263		Boggielyff MF11	1.4
12	1	104899	104899	Förstärkning bogglåda F11	

Konstruktör Av	Revid Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala
AI	IK	2013-08-07	AI	SS-ISO 2768-1 m	1:7
Status	Vikt (kg)	Färd / Benämning	Ställ		
Godkänd	221.54	104901-Grå	A3		
Agens		Pendelboggi MF11 höger	Plats		
			Ute		
		Artikelnr	Rev	Blad	
		104901	D	1 (3)	

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Nr	Andring	Datum	Godkav
-		2013-09-25	
A	Justerad slänglängd	2014-09-03	

Pos./Ant.	Ritnings #	Beställnings #	Beskrivning	Vikt
1 4	101301	101301	Bromscylinder 43/32 inb.320 si	3.13
2 7	109838	M10x40ST	Bult M10x40 FZB Heilganga	
3 7	109791	M10NYLOCKNIK	Mutter M10 FZB nylock	
4 2	111848		Bromssläng	0
5 2	111849		Bromssläng	0
6 1	101517	48500406	T-koppling 3/8" ut/ut/ut	0.08
7 1	111882		Bromssläng	0
8 4	101559	688100	Banjobult 1/4" Enkel	
9 8	101087	450100	Tredo-bricka 1/4"	
10 2	102295	48900404	T-koppling ut/ut/inv R 1/4"	
11 2	102314	461300	Banio 1/4" - 1/4" UTV	
12 1	101007	450103	Tredo-bricka 1/2"	
13 1	101048	FT11313002	Snabbkopplingsmon Broms	0.46
14 1	104539	70020606	Adapter 3/8" UTV-3/8" UTV	
15 1	124025	111882	Bromssläng ram MF11	0

Normerings Av: Godkänn Av: Skala: 1:15
 Serie: 2013-09-25
 Typ / Beskrivning: 14
Godkänd 120311
 Namn: Hydbroms MF 11
METSJÖ
 120311

Nr	Andring	Datum	Godkav
-		2011-10-31	
A	Justerad slänglängd	2013-04-05	

Silanglängd 950mm

Pos./Ant.	ArtikeIntr 1	ArtikeIntr 2	Beskrivning	Vikt
1 1	101088	A502910404	Banio 1/4" - stolpe 1/4"	
2 2	101037	1100000404	Hylsa 1/4" 1W	0.02
3 1	107197	241804	Hydrulsilang 1/4"	0.01
4 1	101962	A500010404	Stolpe 1/4" - INV R 1/4"	

Normerings Av: Godkänn Av: Skala: 1:1
 Serie: 2011-10-31
 Typ / Beskrivning: 0
Godkänd
 Namn: Bromssläng
METSJÖ
 111848

Nr	Andring	Datum	Godkav
-		2011-10-31	
A	Justerad slänglängd	2013-04-05	

Silanglängd 750mm

Pos./Ant.	ArtikeIntr 1	ArtikeIntr 2	Beskrivning	Vikt
1 1	104252	A500510404	Stolpe 1/4" - 90°	
2 2	101037	1100000404	Hylsa 1/4" 1W	0.02
3 1	107197	241804	Hydrulsilang 1/4"	0.01
4 1	101789	A500010604	Stolpe 1/4" - INV R 3/8"	

Normerings Av: Godkänn Av: Skala: 1:1
 Serie: 2011-10-31
 Typ / Beskrivning: 0
Godkänd 111849
 Namn: Bromssläng
METSJÖ
 111849

Nr	Andring	Datum	Godkav
-		2011-10-31	
A	Justerad slänglängd	2013-04-05	
B	Justerad slänglängd	2014-09-03	

Silanglängd 2900mm

Pos./Ant.	ArtikeIntr 1	ArtikeIntr 2	Beskrivning	Vikt
1 1	103339	A500510606	Stolpe 3/8" - 90°	
2 2	102555	1100000406	Hylsa 3/8" 1W	0.03
3 1	101036	241806	Hydrulsilang 3/8"	0.03
4 1	102553	5001200806	Stolpe 3/8" - UTV 1/2"	

Normerings Av: Godkänn Av: Skala: 1:1
 Serie: 2011-10-31
 Typ / Beskrivning: 0
Godkänd 111882
 Namn: Bromssläng
METSJÖ
 111882

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Nr	Ändring			Datum	Godk av		
-				2011-10-27			
A				2013-08-07			
B				2015-05-04			

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	101009		komplett 1/2 kran	0.86
2	1	111808		Tipp slang till kulventil MF11	0
3	6	101007	450103	Tredo-bricka 1/2"	
4	2	101005	688103	Banjobult 1/2" Enkel	
5	1	111795		Tippslang nedre MF11	0
6	2	108806	RBP-320SV	klammer Dubbel 20 rör	0
7	2	101016	5C105956205	Snabbkoppling Hane 1/2"	0.04
8	2	109227	552450032	Skyddsspiral 32-26 Gul	0.08
9	1	100563	AP-B3	Svetsplatta D20	
10	1	109833		Bult M8x65 FZB Helgänga	
11	1	109832	9338080501	Bult M8x50 FZB Helgänga	
12	1	109790	M8NylöckNiklad	Mutter M8 FZB nylöck	
13	1	109897	SRKB09035301	Bricka 9x35x3 FZB	
14	1	127178	552410050	65Skyddsspiral 54-48 Gul 1m	0.31

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	Original ark storlek
LH	LH	2011-10-26	AI		1:5	
Status	Vikt (kg)		Titel / Benämning		Original ark storlek	
Godkänd	3		STD Hydraulik MF11		A3	
Ägare			Artikel Nr		Rev	Blad
			111794		A	1 (1)

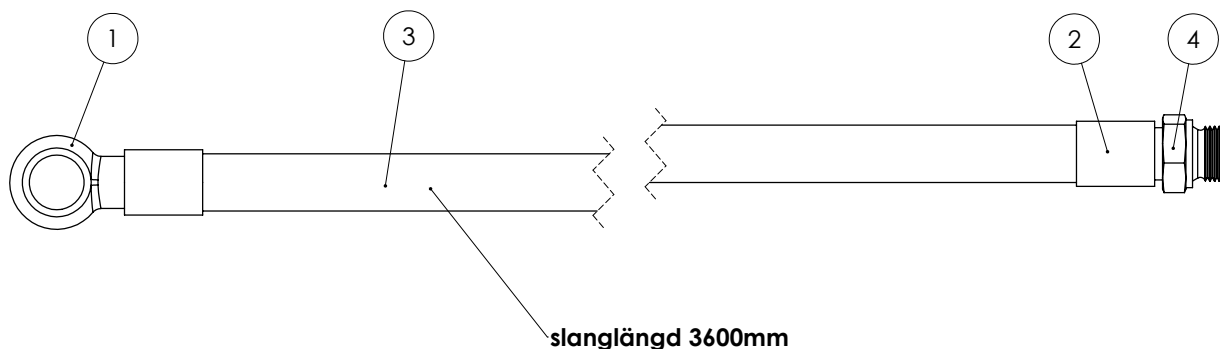
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Nr	Ändring			Datum	Godk av		
A				2012-11-01			
B	Justerad			2013-03-18			
C				2013-08-07			

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	101002	471603	Kulventil 1/2"	0.65
2	1	101003	461333	Banjo 1/2 - UF 1/2	0.08
3	1	101005	688103	Banjobult 1/2" Enkel	
4	3	101007	450103	Tredo-bricka 1/2"	
5	1	101008	40100808	Adapter INV R 1/2 - UTV 1/2"	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	Original ark storlek
LH	LH	2011-05-06	AI		1:1	
Status	Vikt (kg)		Titel / Benämning		Häll	
Godkänd	0.86		komplett 1/2 kran		Montering	
Ägare			Artikel Nr		Rev	Blad
			101009		-	1 (1)

Nr	Ändring	Datum	Godk av
-		2011-10-31	
A	Justerad slanglängd	2013-04-05	

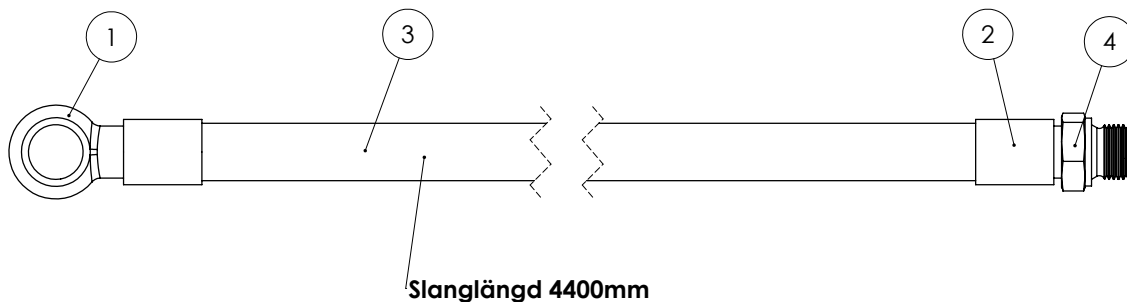


Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	108363	A502910808	Banjo 1/2" - stolpe 1/2"	
2	2	101013	1100000808	Hylsa 1/2" 1W	0.03
3	2	101012	241B08	Hydraulslang 1/2"	0.05
4	1	101014	5001200808	Stolpe 1/2" - UTV 1/2"	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
	LH	2011-10-31	AI		1:2	
Status	Vikt (kg)		Titel / Benämning		Hall	
Godkänd	0		Tipp slang till kulventil MF11		Plats	
Agare			Artikel Nr	Rev	Blad	
			111808	-	1 (1)	

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Nr	Ändring	Datum	Godk av
-		2011-10-31	
A	Justerad slanglängd	2013-04-05	

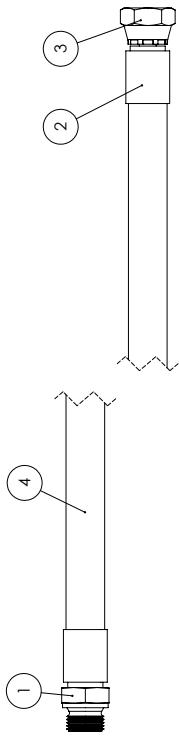


Pos.	Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	108363	A502910808	Banjo 1/2" - stolpe 1/2"	
2	2	101013	1100000808	Hylsa 1/2" 1W	0.03
3	1	101012	241B08	Hydraulslang 1/2"	0.05
4	1	101014	5001200808	Stolpe 1/2" - UTV 1/2"	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2011-10-31	AI		1:2	
Status	Vikt (kg)		Titel / Benämning		Hall	
Godkänd	0		Tippslang nedre MF11		Plats	
Agare			Artikel Nr	Rev	Blad	
			111795	-	1 (1)	

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

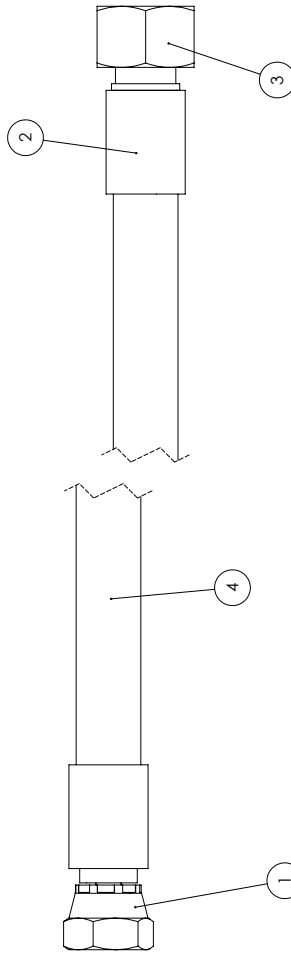


Vagns model	Slanglängd	Pos./Ant.	Artikelnr	Beställingsnr	Beskrivning	Vikt
NO	6250mm	1	101014	5001200808	Stolpe 1/2" - INV 1/2"	
Justerad		2	101013	1100000808	Hylsa 1/2" 1W	0.03
MX	7350mm	3	107919	A500010808	Stolpe 1/2" - INV R 1/2"	
MQ 40	8400mm	4	101012	241808	Hydraulslang 1/2"	0.05
MQ 75	10000mm					
MQ 95	mm					

Modellanvändning: LH
 Skala: LH
 Godkänd
 Godkänningsnr: 106930
 Typ: Slang
 Vagn: Godkänd
 Vagn nr: 106930
 Beskrivning: Slang uttag bak
 Vagn nr: 106930
 Vagn nr: 106930

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Nr	Ändring	Datum	Godk av
A		2011-12-13	
B	Justerad slanglängd	2014-09-12	
C	Justerad Slanglängd	2014-09-03	

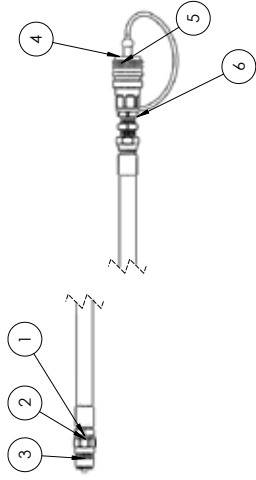


Vagns model	Slanglängd	Pos./Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
Mtd	1300mm	1	101516	A500010606	Stolpe 3/8" - INV R 3/8"	
Metax		2	102555	1100000606	Hylsa 3/8" 1W	0.03
MF 11		3	117027	5016900806	Stolpe 3/8" - ROP 1.5L	
MF18	850mm	4	101036	241806	Hydraulslang 3/8"	0.03
MF24						
MQ 60						
MQ75						
MQ95						

Modellanvändning: LH
 Skala: LH
 Godkänd
 Godkänningsnr: 2011-10-26
 Typ: Slang
 Vagn: Godkänd
 Vagn nr: 111824
 Beskrivning: Broms slang uttag bak
 Vagn nr: 111824

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Nr	Ändring	Datum	Godk av
-		2010-12-14	
A		2011-01-14	

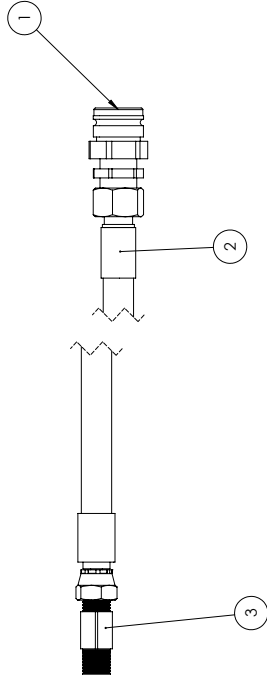


Pos./Ant.	Artikelnr	Beställingsnr	Beskrivning	Vikt
1	106930		slang bakuttag MQ MF	0
2	101007	450103	Tredö-bricka 1/2"	
3	101016	471004	Snabbkoppling Hona 1/2"	
4	103358	471015	Dammskydd Hona	0.0
5	103270	471005	Snabbkoppling Hona 1/2"	
6	103285	40800808	Skottfästmöngång 1/2"	

Modellanvändning: LH
 Skala: LH
 Godkänd
 Godkänningsnr: 2013-01-24
 Typ: Slang
 Vagn: Godkänd
 Vagn nr: 106643
 Beskrivning: Hydrauluttag bakNo, Mid, Mx, MQ 60 75-95
 Vagn nr: 106643

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Nr	Ändring	Datum	Godk av
-		2011-02-26	
A		2012-12-13	

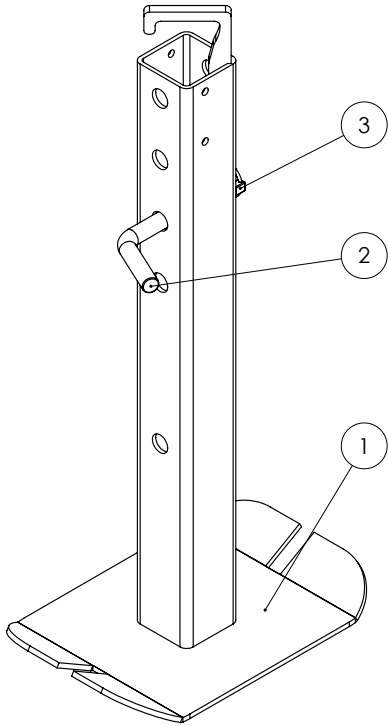


Pos./Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	106641	F131322503	Snabbkopplingshona Broms	0.24
2	111824		Broms slang uttag bak	0
3	101517	48500606	1-koppling 3/8" ut/ut	0.08

Modellanvändning: LH
 Skala: LH
 Godkänd
 Godkänningsnr: 2011-06-21
 Typ: Slang
 Vagn: Godkänd
 Vagn nr: 106642
 Beskrivning: Bromsuttag bak
 Vagn nr: 106642

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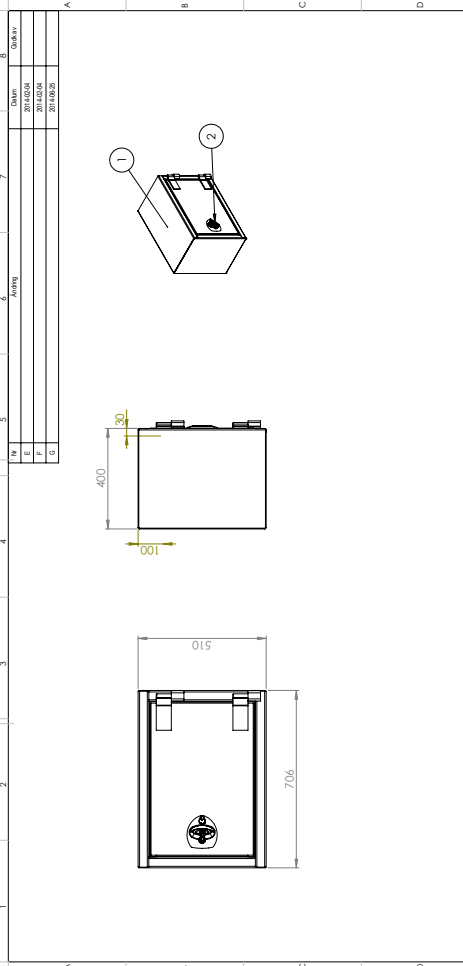
Nr	Ändring	Datum	Godk av
-		2012-11-01	
A		2013-02-14	
B		2013-06-11	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100538	100538-Grå	Svetsat stödben	12.30
2	1	100323	100323	Sprint stödben	0.54
3	1	100333	10400060,2	Ringsprint 10m-40 nick parm	0.04

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala
	AI	2013-02-18	AI		1:5

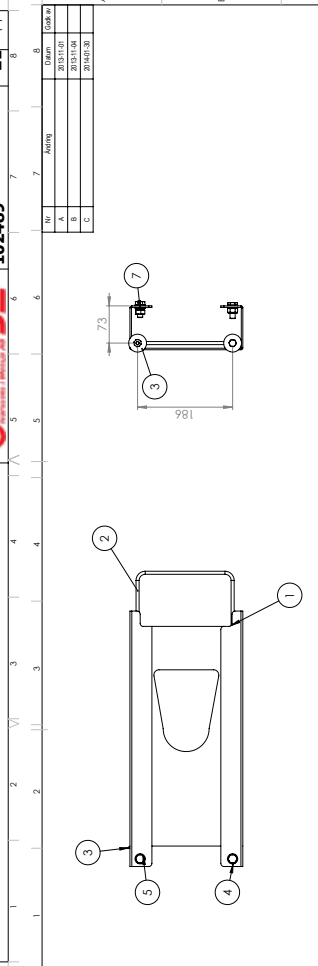
Status	Vikt (kg)	Titel / Benämning	Hall
Godkänd	13	106634	

Agare	Plats	Rev	Blad
METSJÖ Ivarssons i Metsjö AB	Stödben Std komp	C	1 (1)



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	102487	102487	Infälligt löslöst handtag till redskapslåda	44.55
2	1	123690	108421	D-låst 14x121 L365	
3	4	123689	108421	D-låst 14x121 L390	
4	2	123689	108421	D-låst 14x121 L390	
5	2	123689	108421	D-låst 14x121 L390	

Material	MH	Art. nr	2010-09-21	AI	102489
Under Redigering		Toolbox 1428 B 700 D 400 H 510			

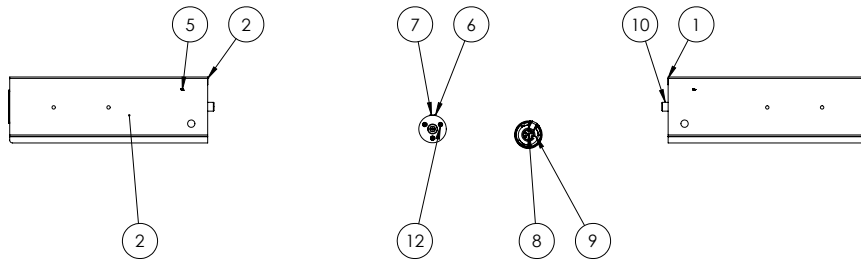


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	120187	120187-Grå	Redskaps kassett 180	0
2	1	121634		Vire toolbox 180 bolk	
3	2	109900	10400041	Blicke 12.5x35x3 FZB	
4	4	1231051	1231051	10.5x20x2 FZB	
5	2	109834	M10x25Hd	Bult M10x25 FZB Hegghåga	
6	1	109835	938880751	Bult M8x75 FZB Hegghåga	
7	2	109791	M10NFGS3R6G	Muffar M10 FZB Nyöck	

Material	MH	Art. nr	120187	AI	120189
Godkänd		vertygs kassett 180			

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Nr	Ändring	Datum	Godk av
E		2013-11-08	
F		2014-03-27	
G		2015-05-04	

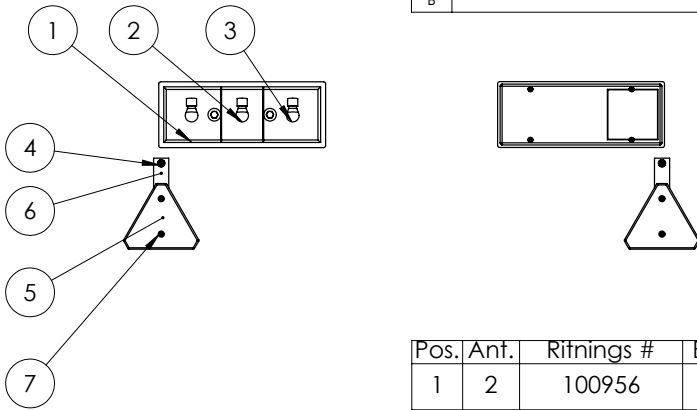


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100510	100510-Grå	Lykthållare	4.88
2	1	100512	100512-GRÅ	Lykthållare	4.88
3	2	100982	1223214010	Reflex 40x90mm gul	0.03
4	2	100961	58102016	Gummiklammer 16 mm	
5	2	107745	133650-10	Borrskruv 5.5-24x32	
6	2	102096	10250061	Släpavagnskontakt 7 pol Svart Hona	0.08
7	2	101082	20500003	Gummiskydd till 7, 13-pol	0.01
8	1	101127	10250055.3	7 led kabel	0.02
9	1	101112	10250060	Släpavagnskontakt 7 pol Svart plast Hane	0.06
10	2	109853	9338240451	Bult M24x45 FZB Helgänga	
11	6	117885	84050301	Spårskruv M5x30 FZB	
12	6	Hex Flange Nut Grade A, ISO			

106638	106638-1
MQ	MF11
MF18-24	MF16
MF50-60,60-75	Mid
Olympia	Mx

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH	LH	2011-05-18	AI		1:10	
Status	Vikt (kg)	Titel / Benämning		Plats	Blad	
Godkänd	10.15	106638		Mont		
Agare	balkjus konsoler		Rev	J	1 (3)	
		Artikel Nr	106638			

Nr	Ändring	Datum	Godk av
-		2012-11-01	
A		2013-04-09	
B		2013-04-11	



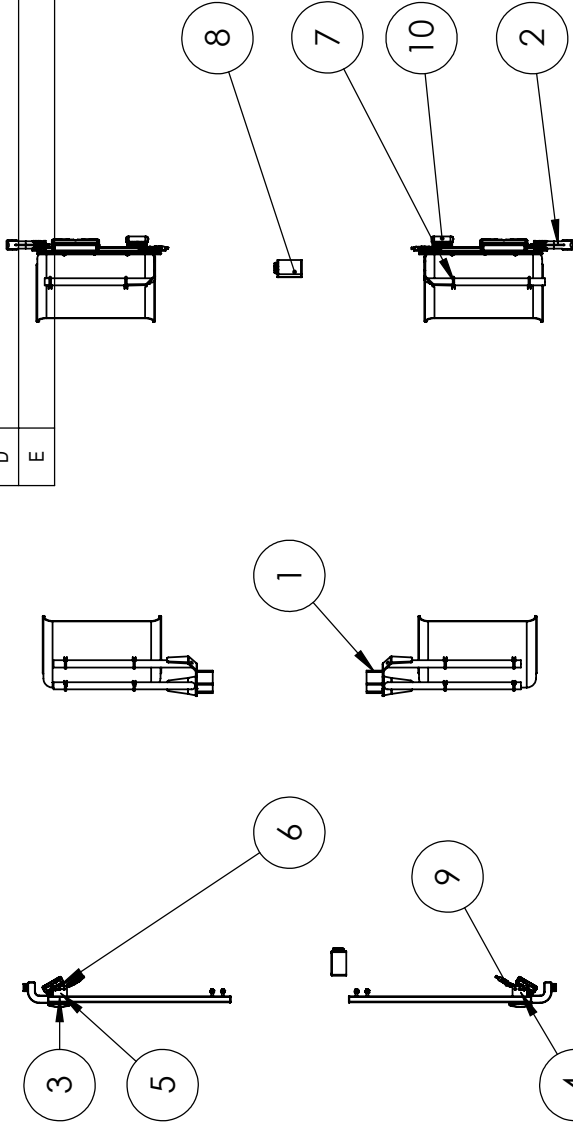
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	100956	10250049	Baklykta 1217 falnu mått 320X120 inkl. armaturglas	0.87
2	2	100948	10250047	Glödlampa baklyse 12V 10W	0.01
3	4	100954	10250046	Glödlampa bromsljus/blinkers 12V 21W	0.01
4	2	107745	133650-10	Borrskruv 5.5-24x32	
5	2	100980	10250050	Reflex röd, trekantig, skruvas 128301-100	0.08
6	2	100958	30x3L170	Plastbit hållare till triangelreflex	0.02
7	4	109869	84050161	Spårskruv M5x16 FZB	
8	4	Hexagon Flange Nut ISO - 4161 - M5 - N	TENSIFL051		
9	1	116004	10250055.2	Kabel 5 ledare x 1,5 svart	0

Art nummer	Längd
116004	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
LH					1:10	
Status	Vikt (kg)	Titel / Benämning		Plats	Blad	
Godkänd	2.04	Balkjus Std		Mont		
Agare			Artikel Nr	106637		
		Rev	F	Blad	1 (1)	

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Nr	Ändring	Datum	Godk av
C		2013-04-23	
D		2013-08-07	
E		2013-11-08	

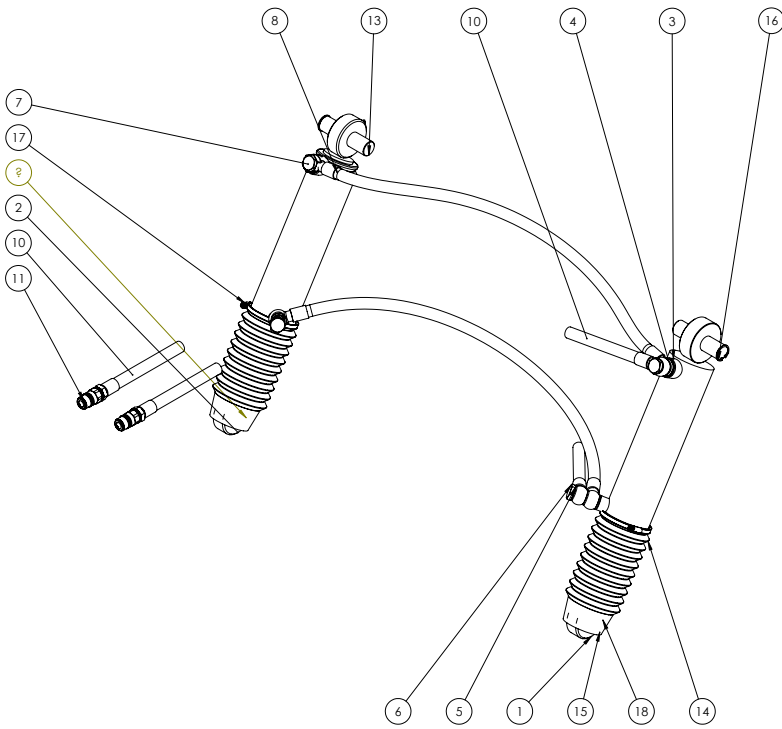


Pos.	Antal	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	117100	117100	Skärm Fram MF11	17.57
2	1	103041	103041	Sidmarkering fram o bak	5.51
3	2	106487	591086	Klämbricka L50	
4	2	109837	10400060,02	Bult M10x30 FZB Helgänga	
5	2	109791	M10NylockNikla d	Mutter M10 FZB nylock	
6	2	108790		Fäste belysning	
7	1	117102		Skärm Bak MF 11	10.78
8	1	109601	109601	Bakljus diod	2.84
9	2	118052		Arbets ljus +ADR kabel	0
10	2	118052		Arbets ljus +ADR kabel	0

Konstruerad Av	Ritad Av	LH	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	1:35	
LH	LH		2013-01-09					
Status	Godkänd		Vikt (kg)	Titel / Benämning		Häll		
Agare			38	Paket1 h-skärm F o B. diod. belys MF11				
			Ivarssons i Metsjö AB					
			Artikel Nr			Rev		
			117098			E		
						Blad		
						1 (2)		

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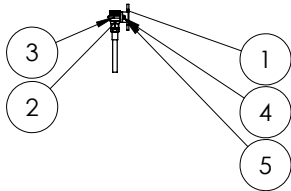
Nr	Ändring	Datum	Godk av
B		2013-03-20	
C		2014-01-08	
D		2014-01-09	



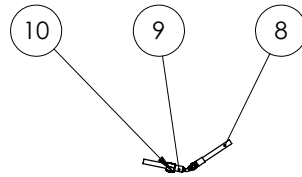
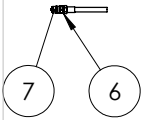
Pos.	Default/QTY.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	1	106722	AM 80/40-250VH	Komkärn dubbelverkande HÖ	12
2	1	106725	10180037.1VÄ	Komkärn dubbelverkande VA	12
3	2	111779	70101208A	Adapter 1/2" INV-3/4" UTV	
4	2	101477	450105	Tredo-bricka 3/4"	
5	12	101007	450103	Tredo-bricka 1/2"	
6	2	108713	688113	Banjobult 1/2" Dubbel	
7	2	101005	688103	Banjobult 1/2" Enkel	
8	1	117505	117505	Boggi lift slang mid övre	0
9	1	108744	108744	Boggi lift slang mid undre	0
10	2	108745	108745	Boggi lift tryckslang	0
11	2	101016	5C105956205	Snabbkoppling Hane 1/2"	
12	2	110163	110163	Boggi lift sprint nedre	
13	2	115324	115324	Sprint 30 L=118 B-lyft Mid	
14	2	101290	10400138	Dammask komkärn slag 250	0,09
15	4	109900	104000141	Bricka 12,5x35x3 FZB	
16	2	109911	472031	Låsring SGH 31	
17	2	101293	NORMA80100	Slangklammer 80-100/12W1S	
18	4	109914	104000142	Fjäderbricka M12 FZB	

Godkänd
METSJÖ
 Ivarssons i Metsjö AB
 108746
 Boggi lift Mid
 108746
 D 1 (1)

Detta dokument är ett tekniskt teckning och är skyddad av patent och/eller andra rättsliga skydd. Alla rättigheter förbehålls.



Nr	Ändring	Datum	Godk av
C		2013-03-20	
D		2014-01-08	
E		2014-01-09	



Pos.	Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	1	0315	0315	Hydraluttag torn	
2	2	105453	TIA5010P	Snabbkopplings hona 1/2" IF (Push & Pull)	
3	2	105629		Övre del avgasklammer 35	
4	4	NB08161		8x16x1,5FZB	
5	4	109790	M8NylockNikl ad	Mutter M8 FZB nylock	
6	4	101007	450103	Tredo-bricka 1/2"	
7	2	101016	5C105956205	Snabbkoppling Hane 1/2"	
8	2	112404		tryck slang uttag torn	0
9	2	118294		Uttag torn MF11-16	0
10	1	108740	RBP-215SV	Dubbel 15 rör klammer	0

Konstruerad Av: LH, Ritad Av: LH, Skapad Datum: 2011-12-02, Godkänd Av: AI, Generell Tolerans: 1:20
 Status: Godkänd, Vikt (kg): 2, Titel / Benämning: Uttag Torn MF 11
 Agare: **METSJÖ** Ivarssons i Metsjö AB, Artikel Nr: **110310**, Rev: E, Blad: 1 (1)

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Nr	Ändring	Datum	Godk av
		2011-10-24	
A		2011-11-02	
B		2013-08-07	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	110771		Hydral. stödfot F16	19
2	1	111713		30L255	
3	1	111716		25L110 sprint	
4	1	105497	105497	25180 sprint till schaktkolv o tippstötta norge	
5	1	108042	10180142	Cyl 70/40-300 LL25	10
6	1	110784		Stödfot F16	5
7	2	109853	9338240451	Bult M24x45 FZB Helgänga	
8	2	109795	9852401	Mutter M24 FZB nylock	
9	2	109900	104000141	Bricka 12,5x35x3 FZB	
10	2	109842	104000140	Bult M12x20 FZB Helgänga	
11	4	109879	148106040	Spännstiff 6x40	
12	1	111896		pilotbackventil hyd stödfot	1
13	1	111921		Slang Hyd stödfot handpump	0
14	1	111913		Slang Hyd stödfod Handpump	0
15	1	111903		Handpump 3vägskran bromsuttag	6
16	2	101559	688100	Banjobult 1/4" Enkel	
17	4	101087	450100	Tredo-bricka 1/4"	

Konstruerad Av Ola/ai	Ritad Av LH	Skapad Datum 2011-11-02	Godkänd Av AI	Generell Tolerans	Skala 1:10	
Status Godkänd		Vikt (kg) 44	Titel / Benämning		Hall	
Agare METSJÖ Ivarssons i Metsjö AB			Hydrauliskt stödben Flex 16 3-vägs-handpump-bromsut		Plats	
Artikel Nr 111812			Rev A	Blad 1 (2)		

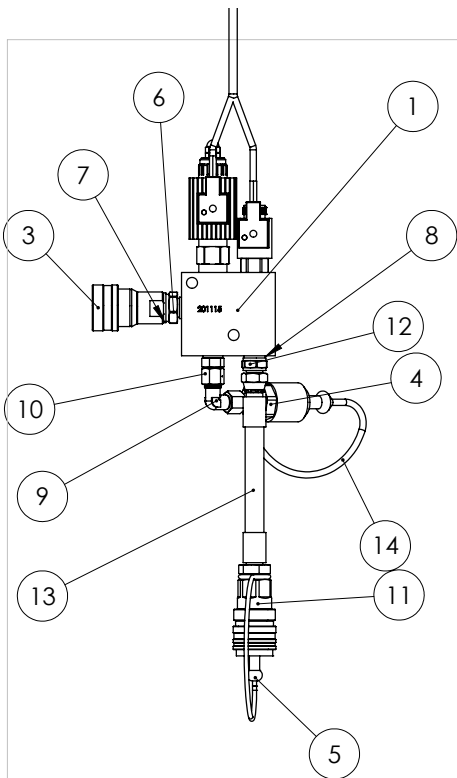
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Nr	Ändring	Datum	Godk av
		2011-11-02	
		2012-02-09	
		2013-08-07	

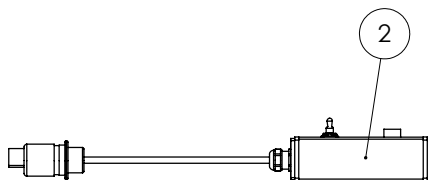
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	110771		Hydral. stödfot F16	19
2	1	111713		30L255	
3	1	111716		25L110 sprint	
4	1	105497	105497	25180 sprint till schaktkolv o tippstötta norge	
5	1	110784		Stödfot F16	5
6	2	109853	9338240451	Bult M24x45 FZB Helgänga	
7	2	109795	9852401	Mutter M24 FZB nylock	
8	2	109900	104000141	Bricka 12,5x35x3 FZB	
9	2	109842	104000140	Bult M12x20 FZB Helgänga	
10	4	109879	148106040	Spännstiff 6x40	
11	1	108042	10180142	Cyl 70/40-300 LL25	10
12	1	111896		pilotbackventil hyd stödfot	1
13	2	111918		slang hyd stödfot traktor	0
14	2	101559	688100	Banjobult 1/4" Enkel	
15	4	101087	450100	Tredo-bricka 1/4"	
16	2	101016	5C105956205	Snabbkoppling Hane 1/2"	
17	2	101007	450103	Tredo-bricka 1/2"	
18	1	108203_skl		skelett	

Konstruerad Av Ola	Ritad Av Ola	Skapad Datum 2011-10-18	Godkänd Av	Generell Tolerans	Skala 1:8	
Status Godkänd		Vikt (kg) 38	Titel / Benämning		Hall	
Agare METSJÖ Ivarssons i Metsjö AB			Monterad hydral. stödfot F16		Plats	
Artikel Nr 111724			Rev C	Blad 1 (1)		

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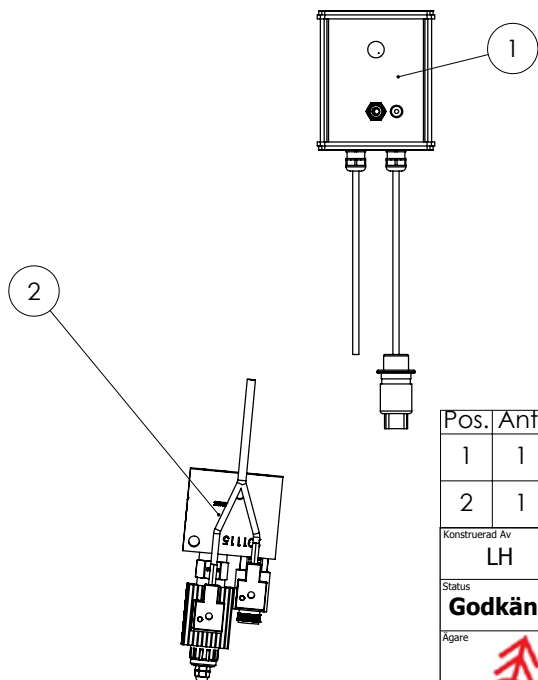
Nr	Ändring	Datum	Godk av
-		2012-01-13	
A		2013-06-11	



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	111360	VBESH-B-5129.00	Ventilblock kpl. för prop. broms system 12V	2
2	1	111513	ELSATS-B-512901-E00	Bromsreducering till pendelboggi (POT)	1
3	1	101048	FT11313002	Snabbkopplingshona Broms 1/2"	0.46
4	1	111897	10250033	Snabbkopplingshane broms 10L-rör	0.22
5	1	103358	471015	Dammskydd Hona	0.0
6	1	102982	60000408	Adapter 1/4"UTV-1/2"UTV	
7	2	101007	450103	Tredo-bricka 1/2"	
8	2	101087	450100	Tredo-bricka 1/4"	
9	1	112802	0158122007	EVW 10-PL 90°	
10	1	111902	60901004	Adapter rör 10 - utv 1/4"	
11	1	103270	471005	Snabbkoppling Hona 1/2"	
12	1	105498	70020406	Adapter 3/8" UTV-1/4 "UTV	
13	1	112817		Returslang bomsreduc fraktor monterad	0
14	1	112820	55510412	Dammskydd för bromskoppling M16	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2012-01-13	Godkänd Av AI	Generell Tolerans	Skala 1:5	
Status Godkänd		Vikt (kg) 4	Titel / Benämning		Hall	
Ägare 		Broms reducering pendel boggi traktor monterad		Plats		
		Artikel Nr 112772	Rev -	Blad 1 (1)		

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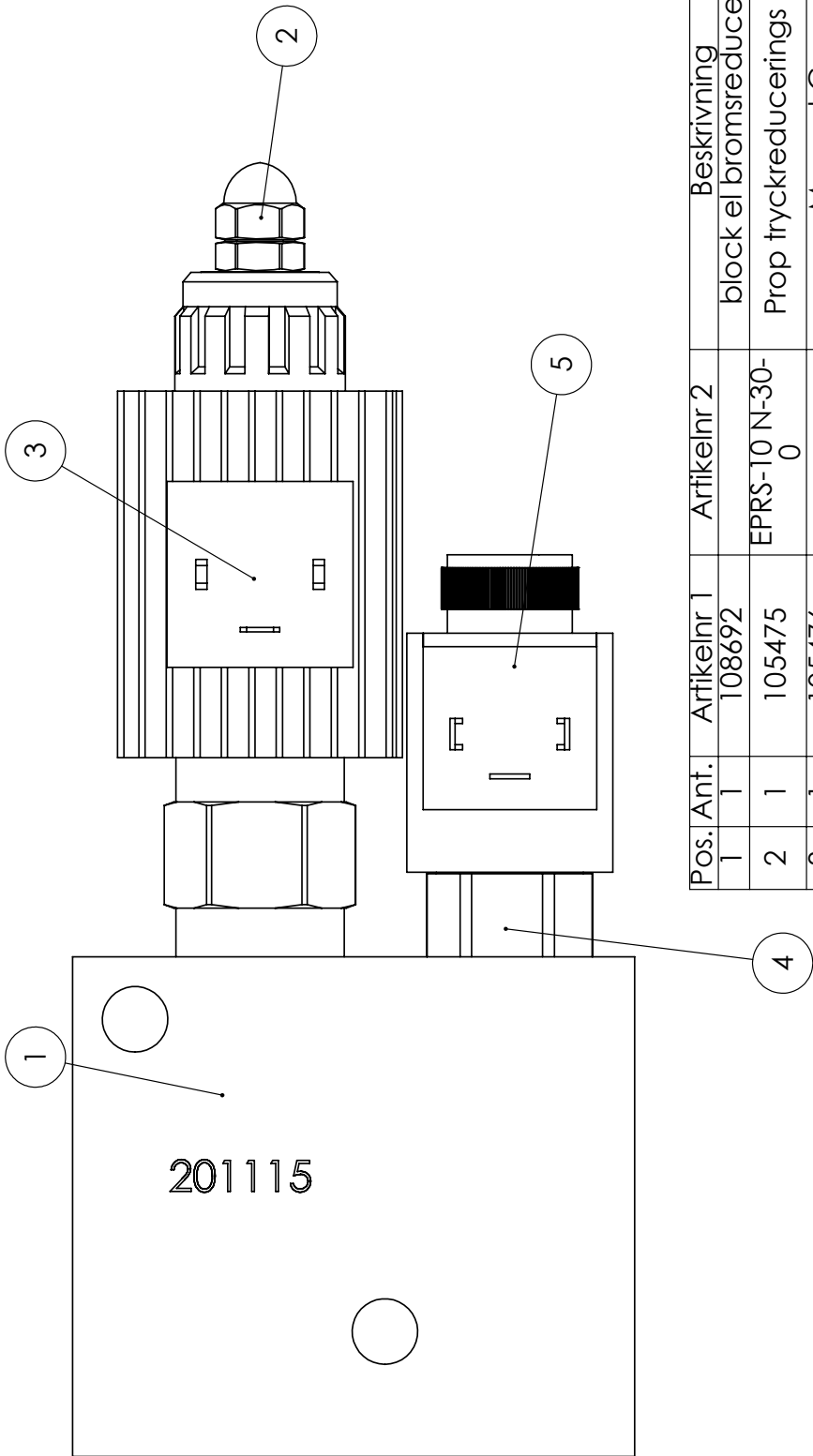
Nr	Ändring	Datum	Godk av
-		2011-11-09	
A		2013-06-11	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	111513	ELSATS-B-512901-E00	Bromsreducering till pendelboggi (POT)	1
2	1	111360	VBESH-B-5129.00	Ventilblock kpl. för prop. broms system 12V	2

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2011-11-08	Godkänd Av AI	Generell Tolerans	Skala 1:5	
Status Godkänd		Vikt (kg) 3	Titel / Benämning 111338		Hall	
Ägare 		Bromsreduc pendel hyd broms		Plats		
		Artikel Nr 111338	Rev A	Blad 1 (1)		

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

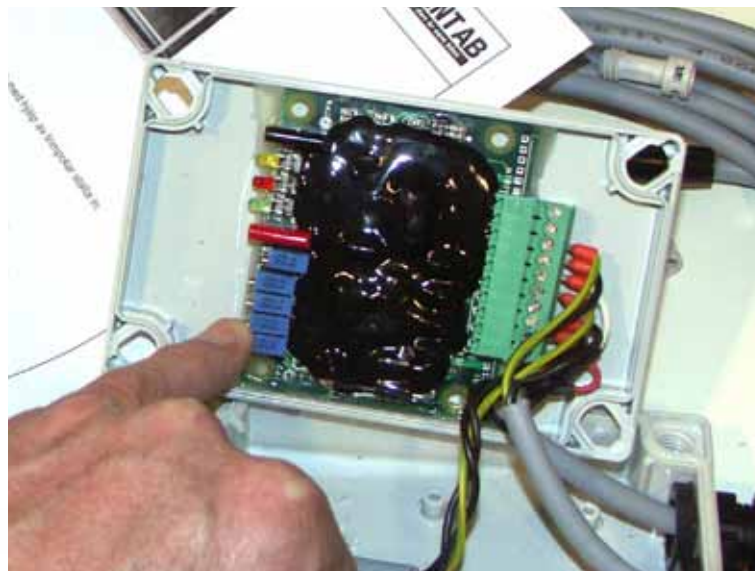


Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	108692		block el bromsreducering	
2	105475	EPRS-10 N-30-0	Prop tryckreducerings ventil	
3	105476		Magnet Ccc	
4	111341		2-vägs ventil CT 05621	
5	111348	0940010000	magnet spole NEM	
Konstruerad Av	Ritad Av	Skapad datum	Godkänd Av	Skala
LH	LH	2011-10-05	AI	1:1
Status	Vikt (kg)		Häll	
Godkänd	2		VBESH-B-5129.00	
Ägare:	Ventilblock kpl. för prop. broms system 12V			
Artikel Nr	111360			Blad
Rev	B			1 (1)



PROPSTYRNING B-5094.00

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



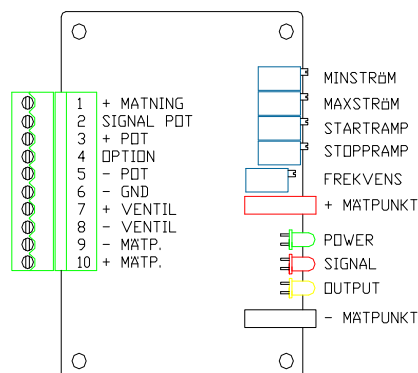
Mått: 120x85mm

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

1V på mätinstrumentet motsvarar 1A till ventilen.

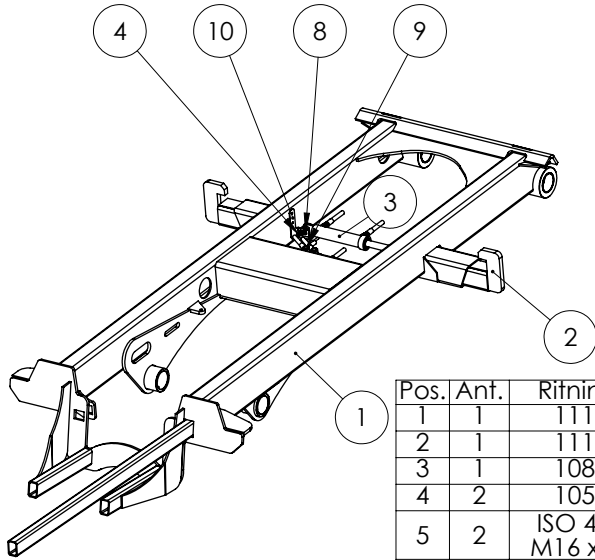
Lysdioden för power aktiveras när kretskortet är aktiverat.

Lysdioden för signal lyser steglöst och följer ratten.

Lysdioden för output lyser steglöst och följer ventilens utstyrning.

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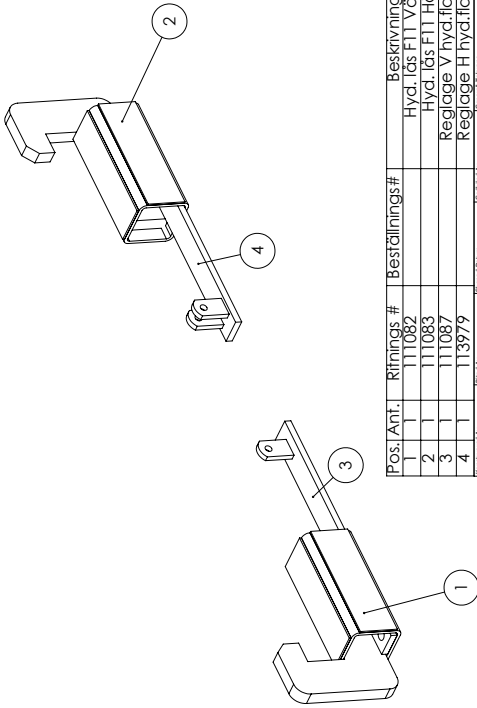
Nr	Ändring	Datum	Godk av
D		2012-05-29	
E		2013-08-07	
F		2013-10-29	



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	111095		Tippram för Hyd. Flakläs F11	215.45
2	1	111084		Hyd. Flakläs F11	15
3	1	108031	10180129	Cyl 35/25-160 Gaffel-öra dv	2
4	2	105865	3757523	Lilla magnetögat	
5	2	ISO 4017 - M16 x 40-N	9338160401		
6	2	109793	9851601	Mutter M16 FZB nylock	
7	2	109838	M10x40Std	Bult M10x40 FZB Helgång	
8	2	109791	M10NylockNiklad	Mutter M10 FZB nylock	
9	1	114018		Hydraulik hyd flakläs MF11	2
10	2	112172		Fäste öga flakläs	

Konstruerad Av Ola	Ritad Av Ola	Skapad Datum 2011-08-29	Godkänd Av	Generell Toleras 1:20	Skala 1:20	
Status Godkänd	Vikt (kg) 235	Titel / Benämning Tippram med monterat Hyd. flakläs F11		Hall		
Agare 	Artikel Nr 111097		Rev F	Blad 1 (2)		

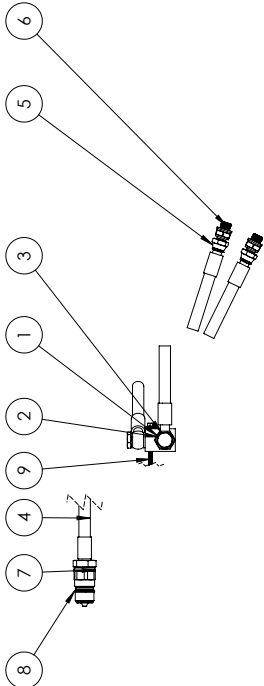
Nr	Ändring	Datum	Godk av
C		2012-04-06	
D		2012-09-11	
E		2013-08-07	



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	111082		Hyd. Iås F11 Västanter	6
2	1	111083		Hyd. Iås F11 Höger	6
3	1	111087		Reglage V hyd.flakläs F11	
4	1	113979		Reglage H hyd.flakläs F11	

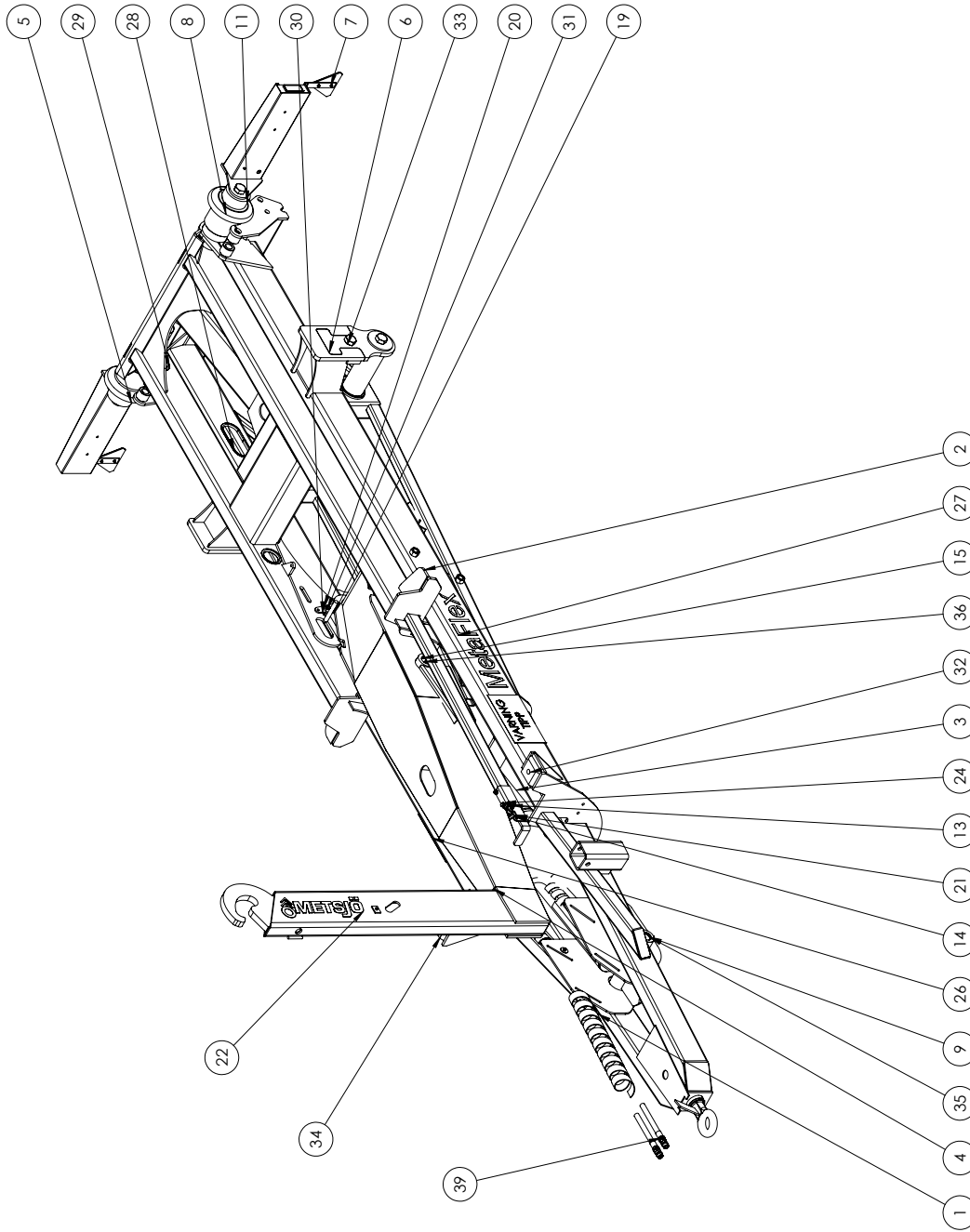
Konstruerad Av Ola	Ritad Av Ola	Skapad Datum 2011-08-26	Godkänd Av	Generell Toleras 1:5	Skala 1:5	
Status Godkänd	Vikt (kg) 15	Titel / Benämning Hyd. Flakläs F11		Hall		
Agare 	Artikel Nr 111084		Rev D	Blad 1 (1)		

Nr	Ändring	Datum	Godk av
-		2012-04-10	



Pos.	Ant.	ArtikeInr	ArtikeInr 2	Beskrivning	Vikt
1	1	103375	10250016	Hydraulisk 1/4"-1/4" (pilöbackventil) (VRDE-01F)	0.7
2	4	101559	888100	Banjobult 1/4" Enkel	
3	10	101087	450100	Tredo-bricka 1/4"	
4	2	112159		Flakläs tryck slang	0
5	2	114019		Flakläs cyl slang	0
6	2	101406	60000404	Adapter 1/4"UTV-1/4"UTV	
7	2	101007	450103	Tredo-bricka 1/2"	
8	2	101016	471004	Snabbkoppling Hane 1/2"	
9	1	101056	133650-5	Bontskruv 5.5X66	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2012-04-10	Godkänd Av	Generell Toleras 1:5	Skala 1:5	
Status Godkänd	Vikt (kg) 2	Titel / Benämning Hydraulik hyd flakläs MF11		Hall		
Agare 	Artikel Nr 114018		Rev -	Blad 1 (1)		

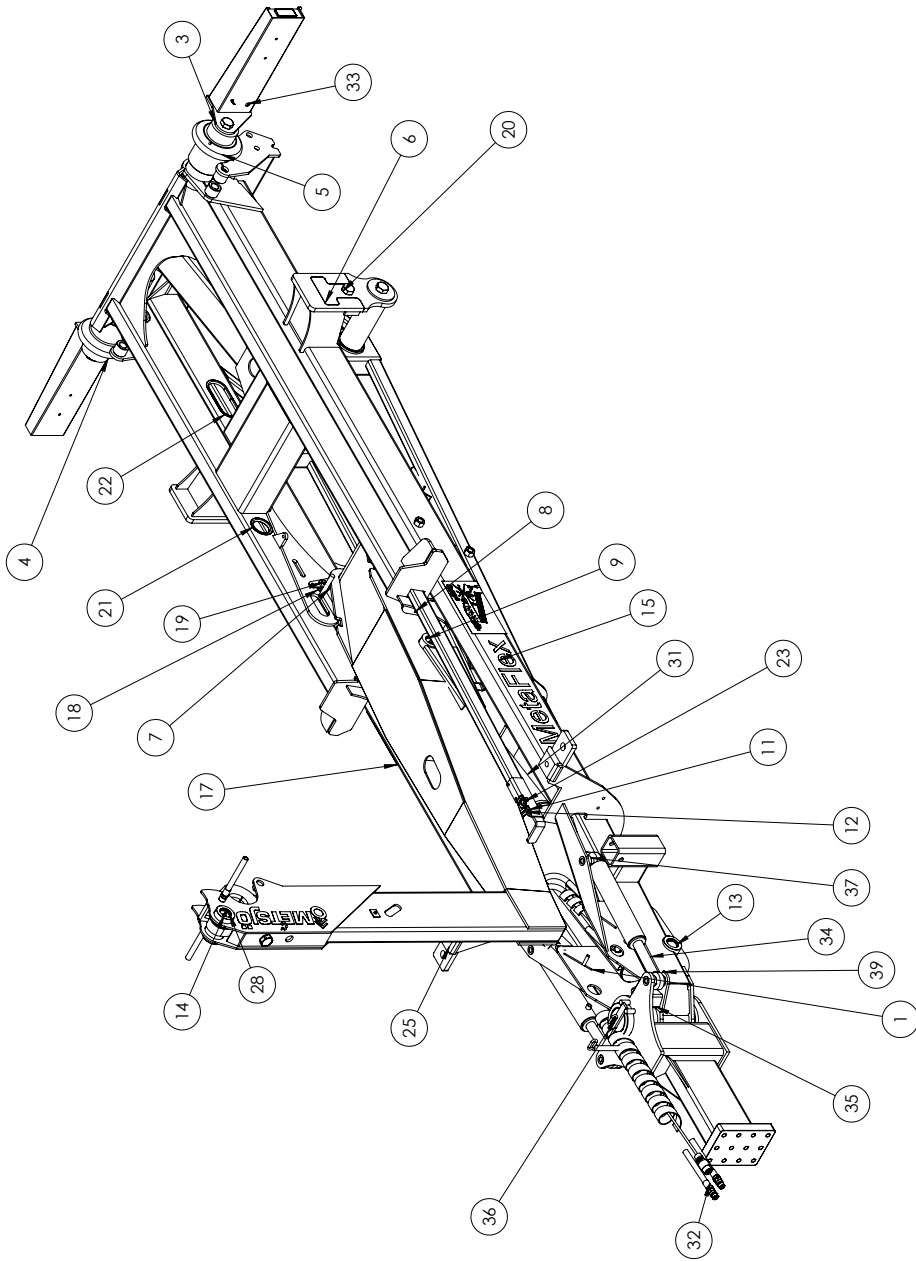


Pos.	Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	1	102858	102858-Grå	Chassie MF 11	646,36
2	1	102881	102881-Grå	Tippram F11	207,69
3	1	117835	10180132,1	Cyl F11 200/100/60 LL50 1762-4130	
4	1	117682	117682-Grå	Sveitsaforn MF11 H-1450	219,87
5	1	100509	100509-Grå	Bevsningsfäste H0	5,12
6	2	100271	100271-Grå	Bogdågs mid metax	6,93
7	1	106438		Bogdågs konsoler	10,32
8	2	100504	100504-Grå	Rulle tipped	20,47
9	1	104564	104564	Sprint lippkolv medre MF11 - MF16 50L365	
10	1	101278		Tippledsaxel F11-30	38,26
11	1	100508	100508-Grå	Bevsningsfäste VA	5,12
12	1	102198		Dragsprint	1,72
13	2	100333	10400060,2	Ringsprint 100m-40 nick pairm	0,04
14	1	110968	110968-Grå	Låsbeslag MF11	
15	1	102735		50368 övrekolvaxel MF 11	5,54
16	1	100562		Kolvkrok MF 11-16 HO	8,67
17	1	100561		Kolvkrok MF 11-16 VG	8,67
18	1	105734		Sprint forntied MF11	
19	1	104959		Tornlås F11	5
20	2	10128		lppålgas MF11	4
21	1	10965		Reglage F11	
22	2	105447	10400476	Dekal METSJO	
23	2	100980	10250050	Reflex rocc, trekantig, skruvas 12830 L-100	0,08
24	2	109909		Bult M 10x30 Ståvgänga	
25	1	101011	10400468	Tillverkskyft Ivarsson i Metsjö "NIFBAR"	0,04
26	2	101081	10400469	Dekal varning tipp (gul) bredd 300mm höjd 170mm	0,00
27	2	103046	10400472	Dekal Metaflex utskuren text	0,00
28	2	102742	416007	Kantskydd 1,5x12,6-8 PVC Svart	0,03
29	2	103291	416007	Kantskydd 1,5x12,6-8 PVC Svart	0,01
30	4	109791		Mutter M10 FZB nylon	
31	2	109838		Bult M10x40 FZB Hejdgänga	
32	2	109839		Bult M 10x45 FZB Hejdgänga	
33	6	109855		Bult M30x60 FZB Hejdgänga	
34	2	101918	45499BN06	Amider grön släpplatta 120x80x30	0,24
35	4	101785	472050	Segerskring SGH 50 Din 472, för invändig montering	
36	7	100491	10400162	Smörjlippe M10xi rack	
37	2	109866		Stoppskruv M12x16 Insex	
38	2	109868		Stoppskruv M12x25 Insex	
39	1	111794		STID Hydraulik MF11	3

Skapad av	117724	Skapad datum	1322	Godkänd av	117724	Skala	1:15
Reviderad av		Reviderad datum		Reviderad av		Reviderad datum	
Titel / benämning	117724	WEL-Id	1322	Titel / benämning	117724	WEL-Id	1322
Ämne	MFL1 H-1450 Grundmonterad	Ämne	MFL1 H-1450 Grundmonterad	Ämne	MFL1 H-1450 Grundmonterad	Ämne	MFL1 H-1450 Grundmonterad
Proj. nr	117724	Proj. nr	117724	Proj. nr	117724	Proj. nr	117724
Rev.	B	Rev.	B	Rev.	B	Rev.	B



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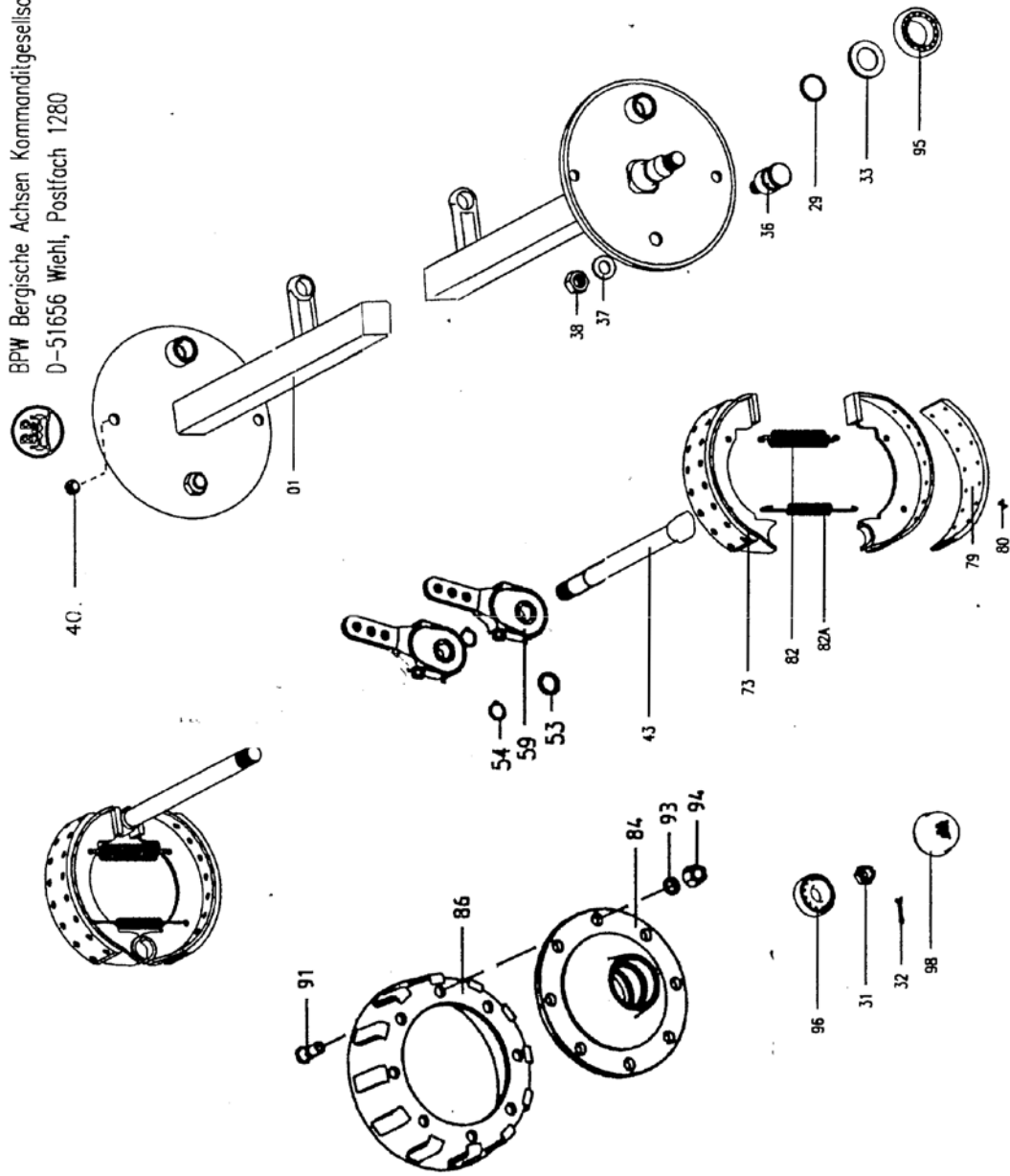
Posi. Ant.	Rifnings- #	Beställnings#	Beskrivning	Vikt
1	10443		MF11 sveitsat ramstyvt chassi	643.92
2	102885		MF11 Tom-lippam-omhått	465.37
3	100508		Belysningsfäste VA	5.12
4	100509		Belysningsfäste HB	5.10
5	100504		Rulle lippad	20.47
6	100271		Boggilas mid metax	6.93
7	104959		Tornlös F11	5
8	10128		lippglas MF11	4
9	102735		50368 Övrekoaxel MF11	5.54
10	101278		lippleaxel FT1-30	38.26
11	110965		Reglage F11	
12	110968		Låsbeslag MF11	
13	104564		Sprint fippkölv nedre MF11 - MF16 50L365	
14	100491		Smörjnipel M10x1 rak	
15	103046		Dekal Metaflex utskuren text	0.00
16	101011		lilvelkarstyvt beslag i Metall "NITBAR"	0.04
17	101081		Dekal varning nipp (gul) bredd 300mm höjd 170mm	0.01
18	109791		M10nylockNIK lsd	
19	109838		M10x40Std	
20	109855		M10x60 FZB Helgång	
21	103291		Kantskydd 1.5x12.6-8 PVC Svart	0.01
22	102742		Kantskydd 1.5x12.6-8 PVC Svart	0.03
23	1040060.2		Ringsprint 10m-40 nick parm	0.04
24	102198		Dragsprint	1.72
25	101918		Amider grön slitplatta 120x80x30	0.24
26	914120161		M12x16Stopp	
27	109868		Stoppskruv M12x25 Insex	
28	109916		Låsring SGH 50	
29	100561		Kolvkrök MF11-16 Vå	8.67
30	100562		Kolvkrök MF11-16 HO	8.67
31	100544		Cyl F16 210/T00745 LL50 T762-4692	
32	111794		STD Hydraulik MF11	3
33	106638		baklås konsoler	10.41
34	108042		Cyl 70/40-300 LL25	10
35	110442		Ramstyrning F11 dragdel	81
36	113507		Ramstyrning spindelbit L=396	25
37	113053		Sprint med flans 25L105	0
38	105734		Sprint tornled MF11	
39	109879		Spännstiff 6x40	

Godkänd	Ola	2012-03-08	1486
År	2012-03-08	1:15	
Grundmonterad ramstyrd MF11			
113539			



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BPW Bergische Achsen Kommanditgesellschaft
 D-51656 Wiehl, Postfach 1280



Anhängerachse, Baureihe: GS Bild Nr.: 20.056

Bremse: N 3108-3



5867454504.txt

ERSATZTEILLISTE

58.67.454.504

23.09.05

BPW ANHAENGERSTUMMEL GS-ST 7006 RE
BREMSE N 3108-3
MASS VON FLANSCH: 530 MM
ACHSKOERPER 80 MM VK
MIT BREMSHEBEL
RADBOLZEN M18X1,5 MIT FLACHBUNDMUTTER UND FEDERRING

BILD NR.: 20.056/P/3

POS.	GEGENSTAND	ABMESSUNG	BESTELL-NR.	EINHEIT
1	ACHSKOERPER-GRP. (EINSCHL. POS.: 36-38)		05.059.67.11.5	1
29	STOSSRING	32014X	03.370.05.14.0	1
31	KRONENMUTTER	M36X1,5	03.262.16.11.0	1
32	SPLINT	6,3X63/ISO 1234	02.6201.63.01	1
33	DICHTRING	73/110X14,5	05.120.26.08.0	1
34	RING	66/37X5	03.310.23.09.0	1
36	GEWINDEBOLZEN	M24X1,5X36	03.177.14.35.0	1
37	FEDERSCHEIBE	B24/137	02.5403.24.90	1
38	SICHERUNGSMUTTER	VM24X1,5/980	02.5220.75.82	1
40B	STOPFEN	GNP300 F19 D20,7	02.3704.56.00	2
43	BREMNOCKENWELLE	L 253 / A 166	05.097.36.95.5	1
53	PASSSCHEIBE	42/34X4	03.311.50.13.0	1
54	SICHERUNGSRING	29X1,5/471	02.5603.29.90	1
59	GSK	120-180	05.174.40.16.0	1
73	BREMSBACKEN-GRP. (EINSCHL. POS. 79,80)	BIS 40 KM/H	05.091.15.21.0	2
79	BREMSBELAG	BIS 40 KM/H	03.092.19.50.0	2
80	NIET	B6X13/7338	02.5805.61.01	32
82	ZUGFEDER	D=3.8 L=144	03.397.32.14.0	1
82A	ZUGFEDER	D=4 LO=174	03.397.44.08.0	1
84	NABE		03.272.09.56.0	1
86	BREMSTROMMEL		03.105.14.26.0	1
91	RADBOLZEN	M18X1.5X64	03.296.01.20.1	6
93	FEDERRING	C18,5/74361	02.5615.18.94	6
94	FLACHBUNDMUTTER	B18/74361	02.5213.12.83	6
95	KEGELROLLENLAGER	32014X/720	02.6404.70.00	1
96	KEGELROLLENLAGER	30210 /720 SKF	02.6401.50.00s	1
98	KAPPE	D=90,1	03.211.07.03.0	1



5867454503.txt

ERSATZTEILLISTE

58.67.454.503

23.09.05

BPW ANHAENGERSTUMMEL GS-ST 7006 LI
BREMSE N 3108-3
MASS VON FLANSCH: 530 MM
ACHSKOERPER 80 MM VK
MIT BREMSHEBEL
RADBOLZEN M18X1,5 MIT FLACHBUNDMUTTER UND FEDERRING

BILD NR.: 20.056/P/3

POS.	GEGENSTAND	ABMESSUNG	BESTELL-NR.	EINHEIT
1	ACHSKOERPER-GRP. (EINSCHL. POS.: 36-38)		05.059.67.10.5	1
29	STOSSRING	32014X	03.370.05.14.0	1
31	KRONENMUTTER	M36X1,5	03.262.16.11.0	1
32	SPLINT	6,3X63/ISO 1234	02.6201.63.01	1
33	DICHTRING	73/110X14,5	05.120.26.08.0	1
34	RING	66/37X5	03.310.23.09.0	1
36	GEWINDEBOLZEN	M24X1,5X36	03.177.14.35.0	1
37	FEDERSCHEIBE	B24/137	02.5403.24.90	1
38	SICHERUNGSMUTTER	VM24X1,5/980	02.5220.75.82	1
40B	STOPFEN	GNP300 F19 D20,7	02.3704.56.00	2
43	BREMSNOCKENWELLE	L 253 / A 166	05.097.36.95.5	1
53	PASSSCHEIBE	42/34X4	03.311.50.13.0	1
54	SICHERUNGSRING	29X1,5/471	02.5603.29.90	1
59	GSK	120-180	05.174.40.16.0	1
73	BREMSBACKEN-GRP. (EINSCHL. POS. 79,80)	BIS 40 KM/H	05.091.15.21.0	2
79	BREMSBELAG	BIS 40 KM/H	03.092.19.50.0	2
80	NIET	B6X13/7338	02.5805.61.01	32
82	ZUGFEDER	D=3.8 L=144	03.397.32.14.0	1
82A	ZUGFEDER	D=4 LO=174	03.397.44.08.0	1
84	NABE		03.272.09.56.0	1
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96	KEGELROLLENLAGER	30210 /720 SKF	02.6401.50.00s	1
98	KAPPE	D=90,1	03.211.07.03.0	1

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.

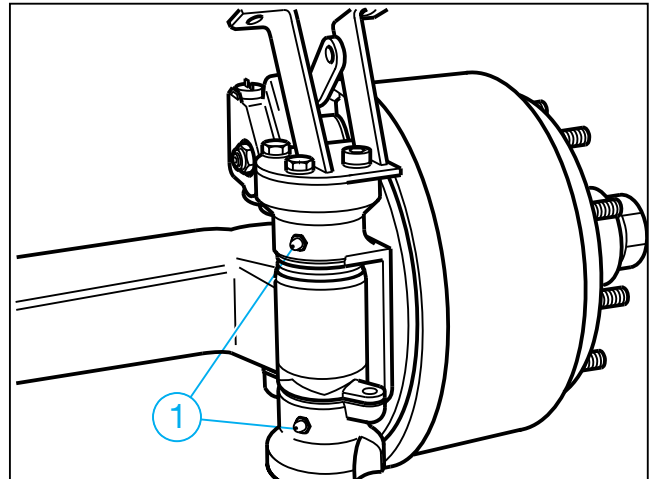
<p>Lubrication and maintenance works</p> <p>Summary</p> <p>Detailed description on pages 8 - 18</p> <p><input type="radio"/> Lubrication</p> <p><input type="checkbox"/> Maintenance works</p>	After the first laden journey	Every 40 hours in operation	Every 200 hours in operation	Every 500 hours in operation (annually)	Every 1000 hours in operation (annually)
<p>Lubrication 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>○</p>	<p>○</p> <p>○</p> <p>○</p>	<p>○</p> <p>○</p> <p>○</p> <p>○</p> <p>○</p> <p>○</p> <p>○</p> <p>○</p>	<p>○</p>

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.

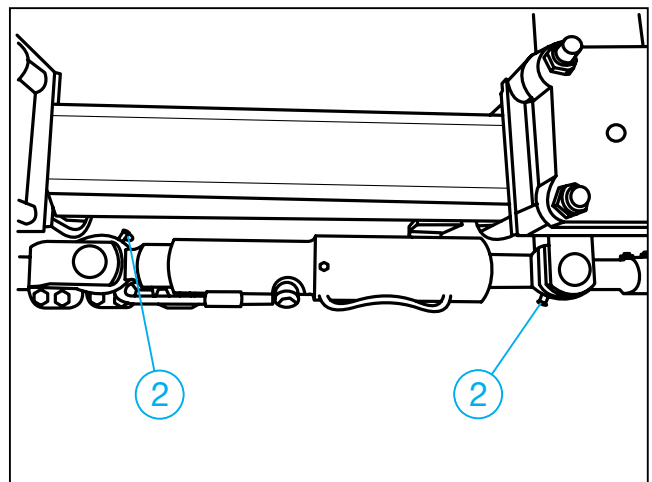


② Locking cylinder ends on steering axles

– 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.



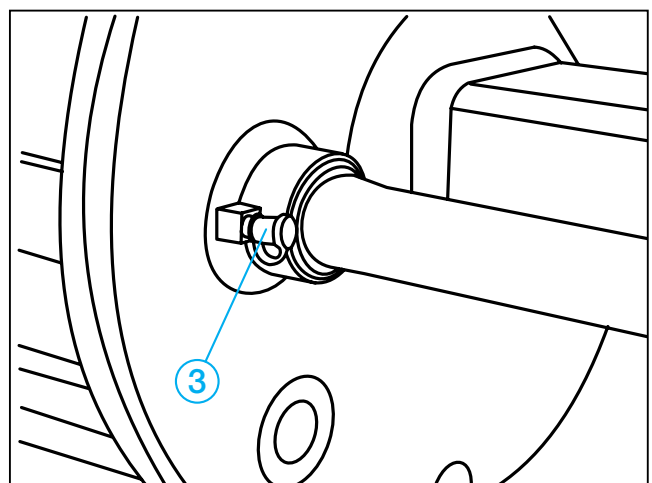
③ Outer and inner brake camshaft bearings

– 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.

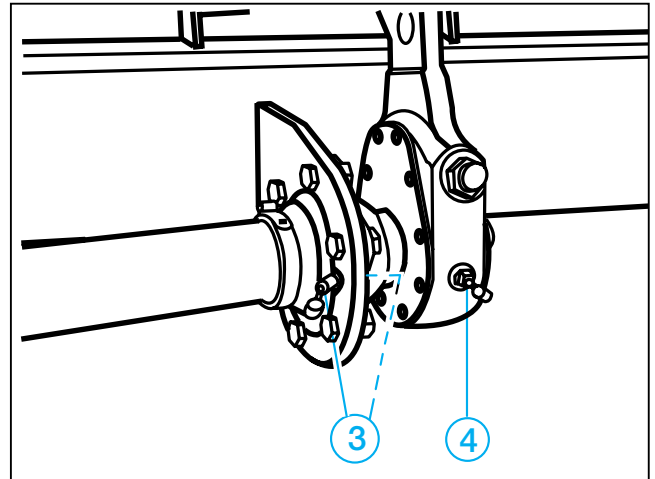
Use only lithium-based grease with a drop point above 190 °C.



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.



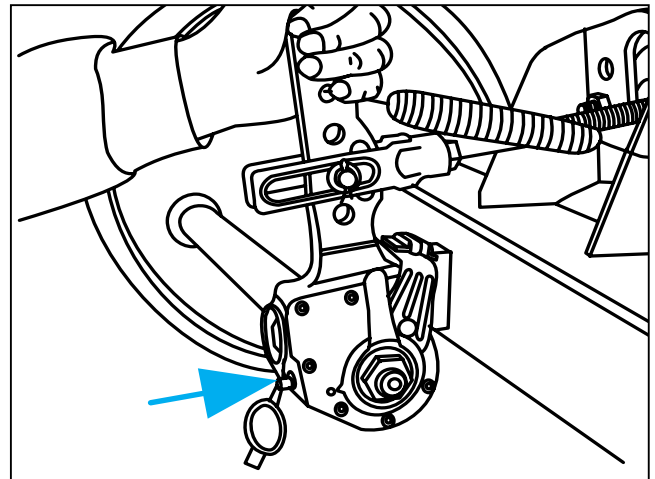
⑤ Automatic slack adjuster ECO-Master

- 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.

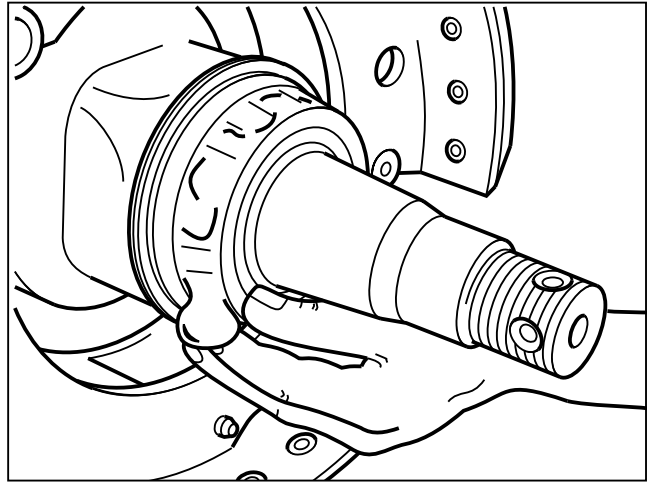
Lightly grease the bearing seats before fitting the bearings, and then assemble all the parts in the reverse order.

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

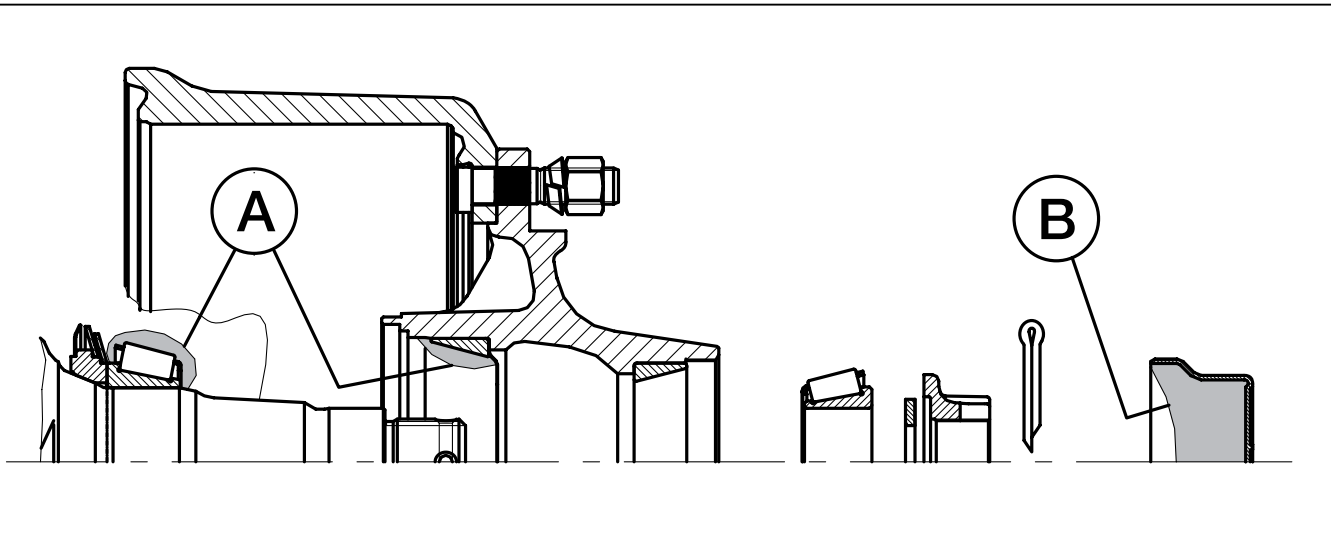


and the brake.

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.

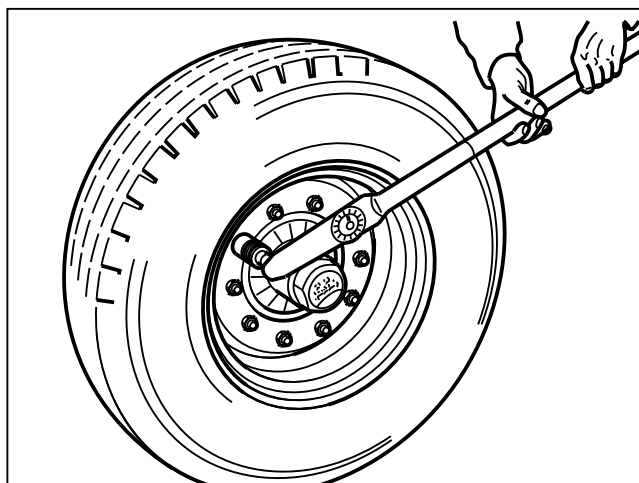


Wheel hub	BPW special longlife grease (ECO-Li 91), quantity per tapered roller bearing	
	Inner A	Outer B
GS 5506	40 g	80 g
GS 7006 GS 7008	50 g	210 g
GS 8008-1 GS 8010-1	90 g	230 g
GS 11008-1 GS 11010-1	170 g	290 g
GS 12008 GS 12010	180 g	320 g
	Work grease into the space between the tapered rollers 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.

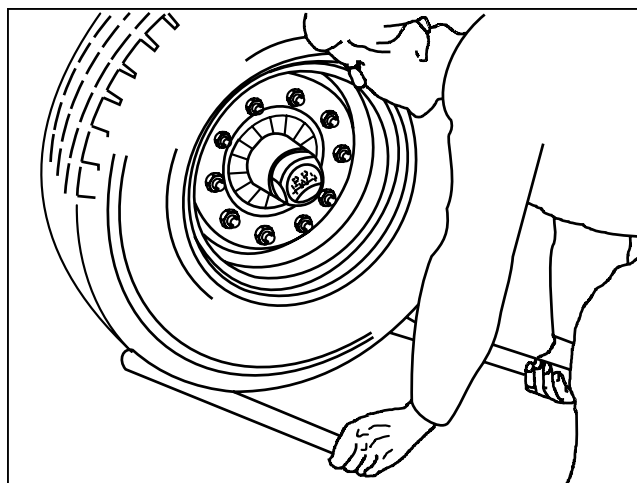
Release the brake, place a lever between the tyre and the ground, and check for play.

If you can feel play in the bearing:

Adjusting the bearing play

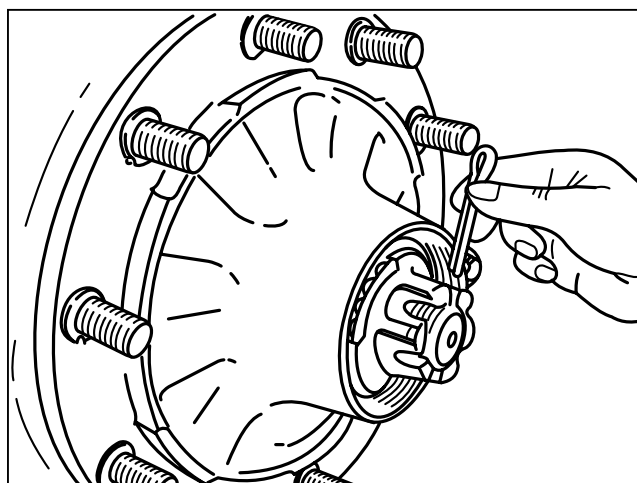
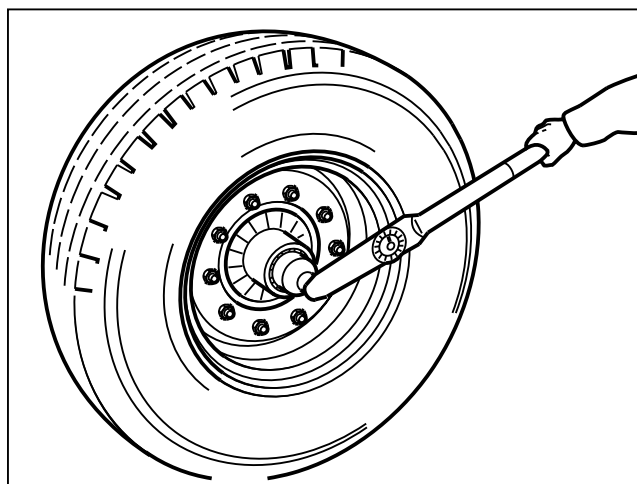
Standard hub bearing

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 –

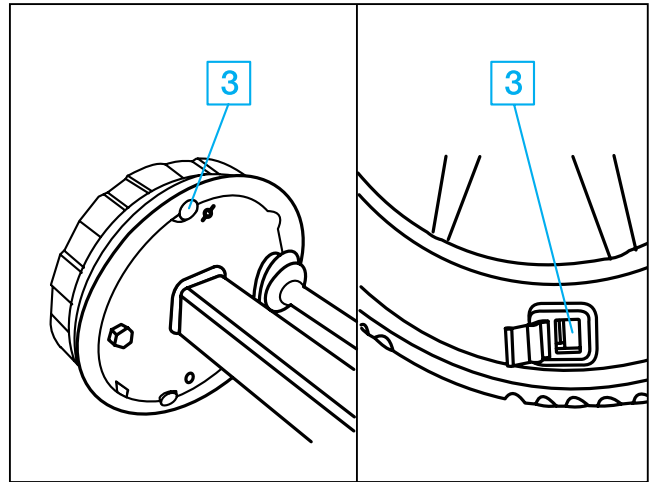
Open the inspection hole by removing the rubber bung (if present).

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.

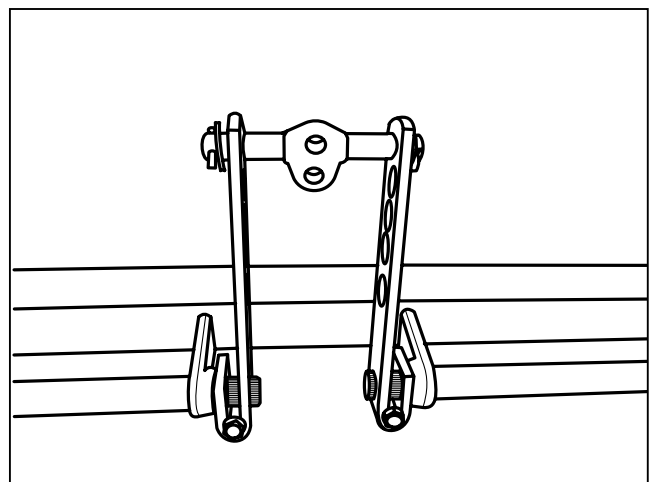
2/3 of the maximum cylinder stroke is used under heavy braking. For this purpose, jack up the axle and secure the vehicle against accidental movement.

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.



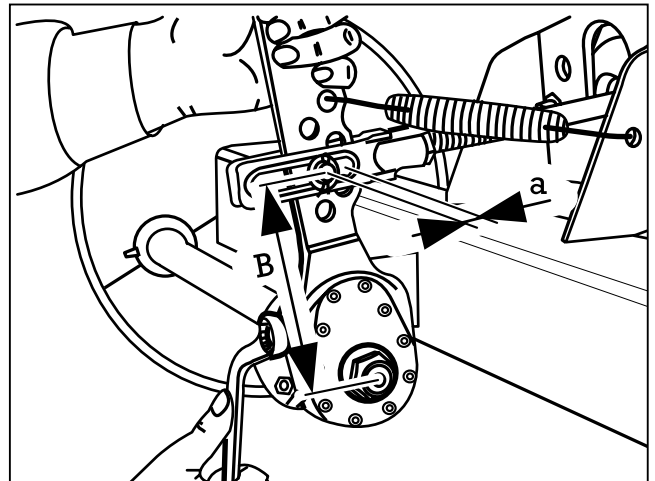
5 Adjustment of the slack adjuster

– 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.

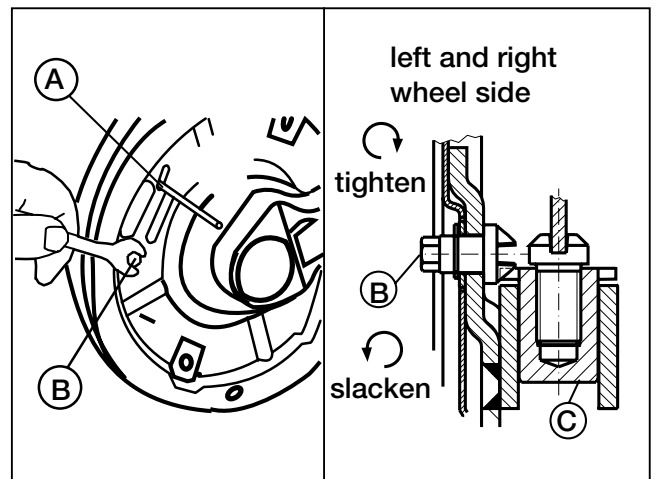
Caution:

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.



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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