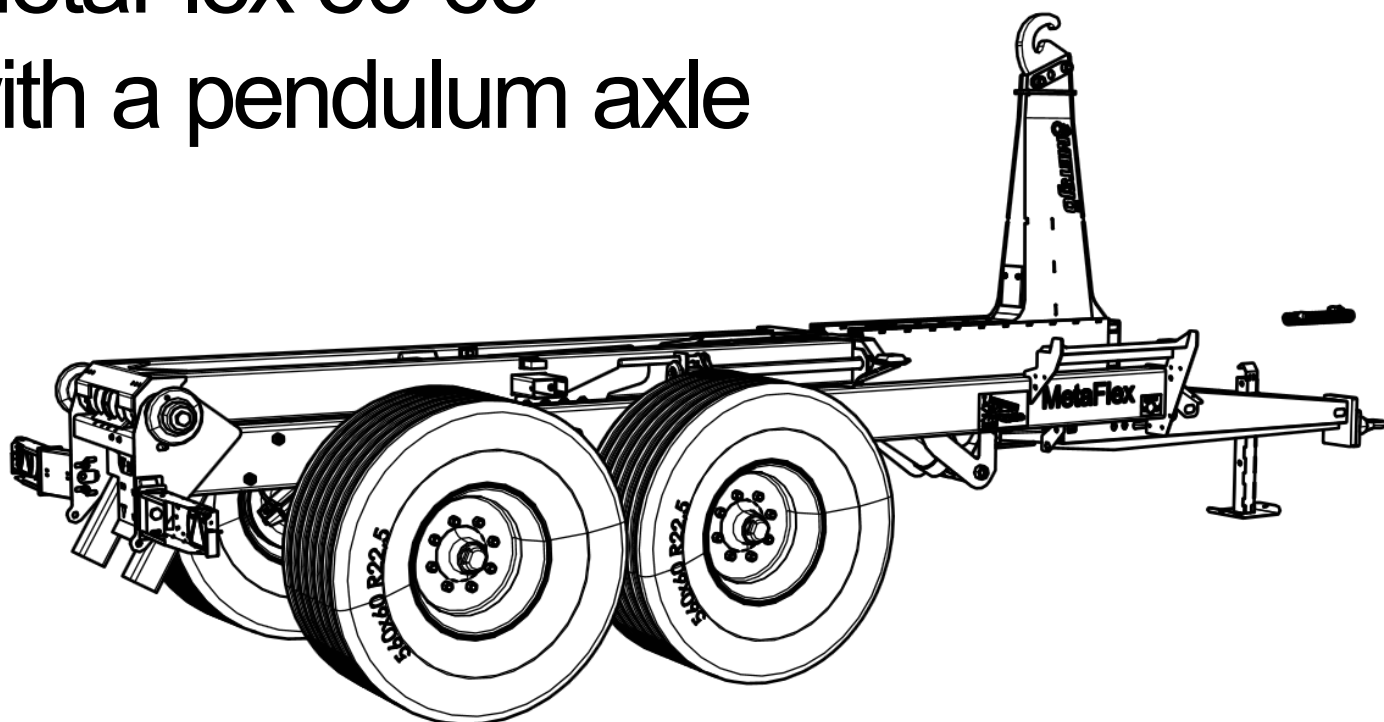


MetaFlex 50-65 with a pendulum axle



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

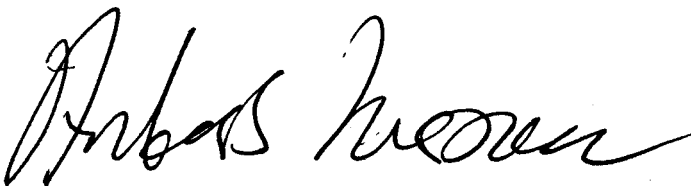
Manufacture Ivarssons i Mestjö AB 58592 Linköping 013-59310

This machine is built according to 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: 150 Hp

A loaded trailer should always be connected to the tractor.

Connect always:

- The brake hose 3/8 hose
- The tipping/shifting hose 1/2-1/2 blue hose
- The shifting arm hose 1/2-1/2 red hose
- Free return 3/4 hose
- The lightning system
- Power for control of the trailers hydraulic and electrical functions

Inductive sensor: Green light = power is on; Yellow light = active sensor

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

In transport position without container the shifting arm should be in tipping position

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. Check if the mechanical handle is moved to tipping mode
6. Secure area while tipping: 15 meters in radius
7. The tractor must always be connected to the trailer during tipping
8. Never drive with a container which is up-tipped (While parked the tipp should be in normal postion)
9. Always tip with the maximum length of the tipping cylinder
10. 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)
11. Check if the brakes are released while driving the trailer
12. Check if the hydraulic rear ground support bar is raised
13. Check if the suspension has the right amount of hydr.oil according to the terrain
14. Check if while driving the axle lock is disconnected

Shifting containers

- Adjust the rear support bar until it reaches the ground
- In order to adjust the trailer under the hook-lift container, the bar must be slightly lifted in order to release the brakes
- The hydraulic rear ground support bar has a hydraulic lock
- The biggest pressure on the trailer is usually when the hook-lift container reaches the rear rollers of the trailer. It is not common to adjust the trailers position during this process and that is when the bar comes in use and is handy against the negative load which occurs on the tractor
- Now the shifting process can begin
- The shifting and the moving of the shifting arm must be done parallel in order to achieve the best shifting angle
- The tractor can be unbraked
- The frame of the hook-lift container must rest over the rollers of the trailer
- When the container is on the trailer, the shifting arm must be moved at least 150mm so that the frame is in tipping position.
- The rear ground support bar can now be lifted

Attention:

Do not shift and tip containers, if:

- Reasure that the lamp is switched off
- 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
- The ball valve/security handle should NOT be closed when sifting containers

ATTENTION: While working under a container, he ball valve/security handle 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

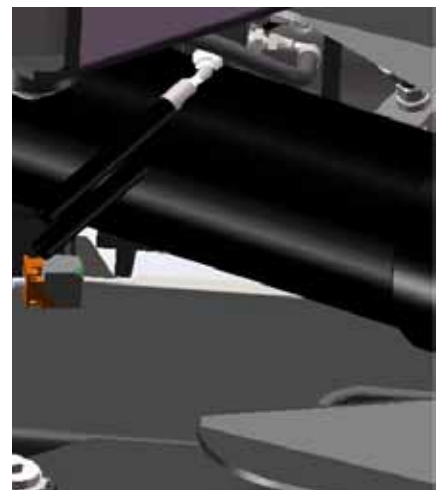
Position of the inductice Sensor (view from underneath the trailer)

Power for control of the trailers hydraulic/electrical functions

Inductive sensor:

Green light = power is on

Yellow light = active sensor



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.

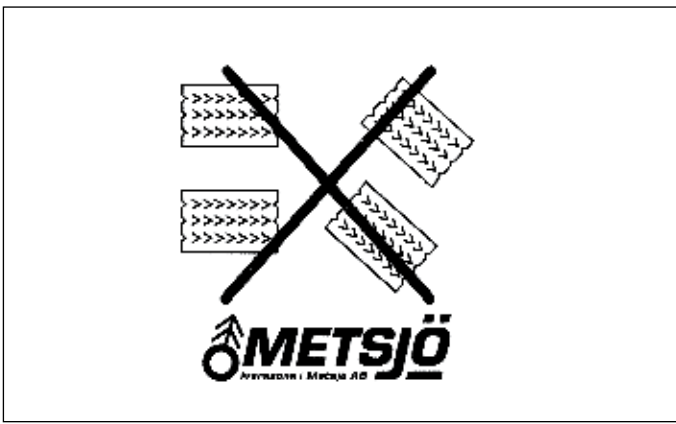
Only original Metsjö spare parts must be used.

Metsjö takes product responsibility for these parts.

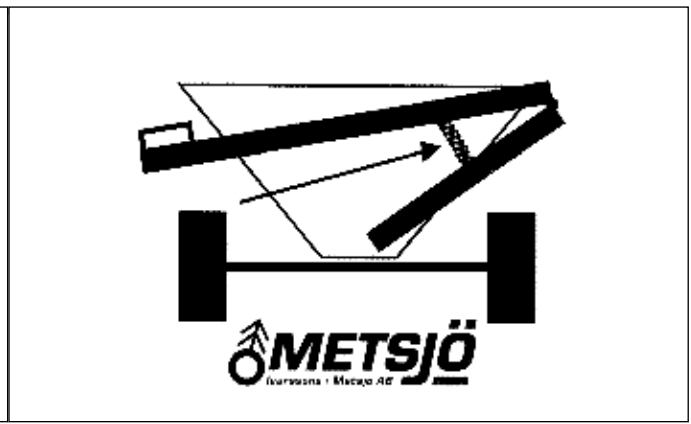
Metsjö cannot assure that the trailer would not be a security risk if any other spare parts than the original are mounted. This is valid even if the repairs are done by an authorised workshop.

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

Symbol description



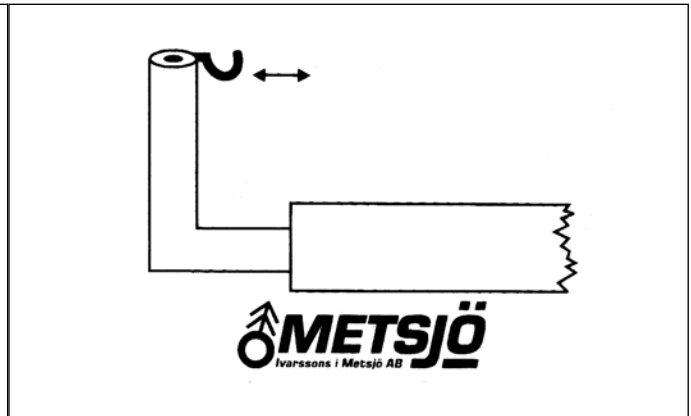
Lock self-steering axle - yellow



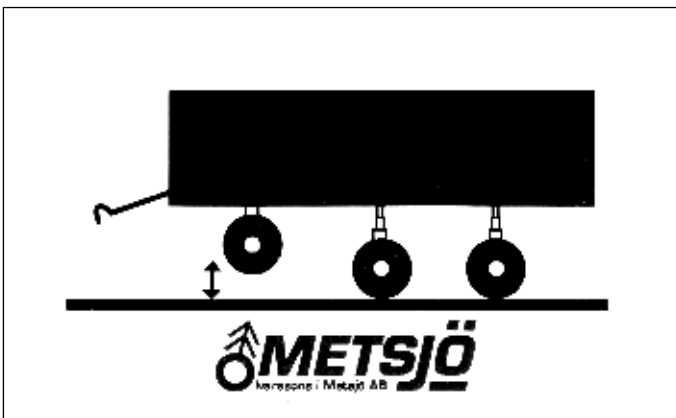
Unloading auger



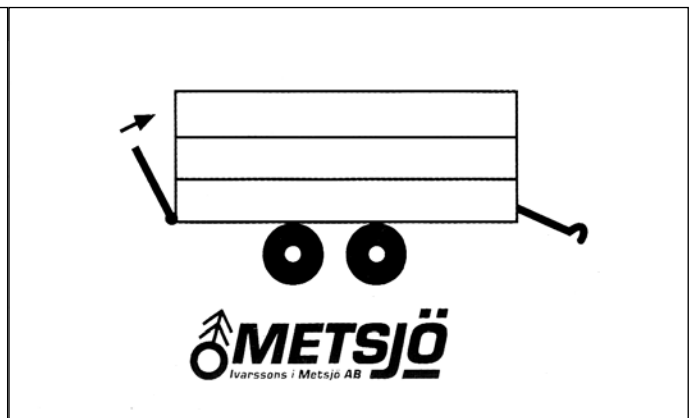
Hydr.socket on the hook-lift arm - red



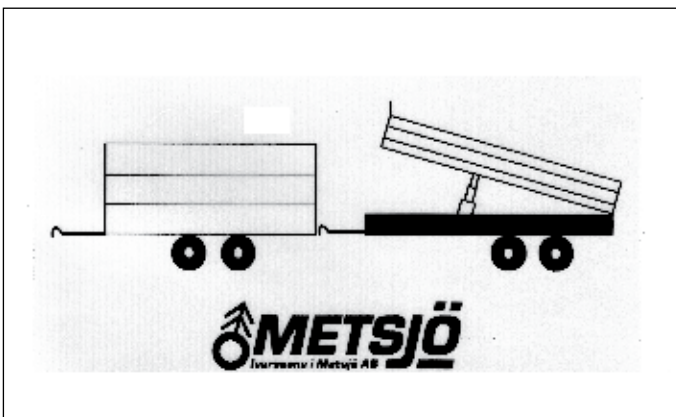
Adjustment of the hook-lift arm - red



Axle lift - green



Hydraulic tailgate- orange



Tipping second trailer- red



Quick sinking of the tipping cylinder

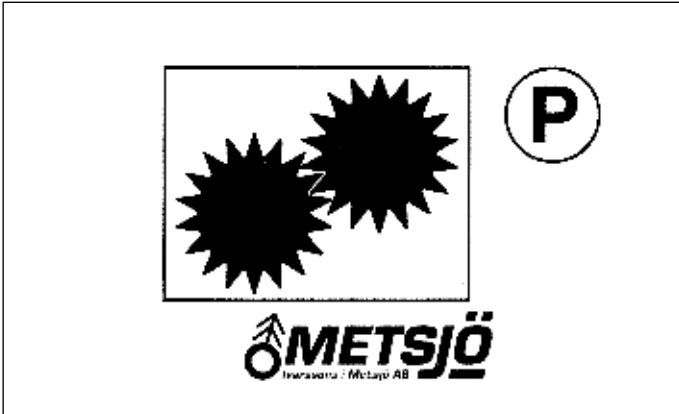
Symbol description



Shifting containers - blue



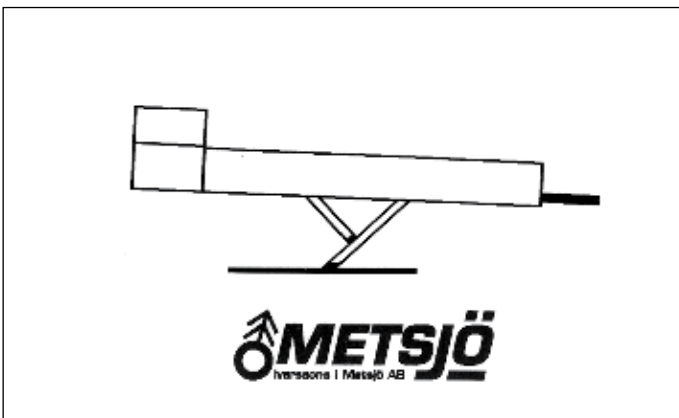
High tipping - blue



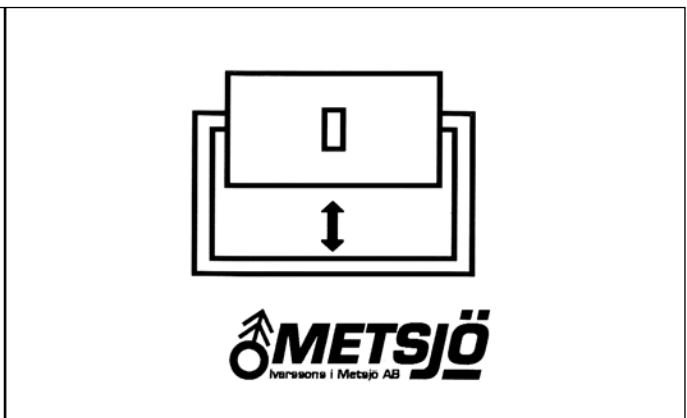
Hydraulic assist drive



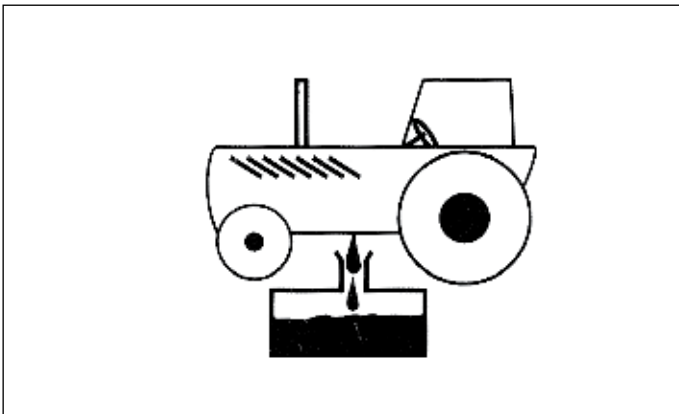
Hydraulic brakes



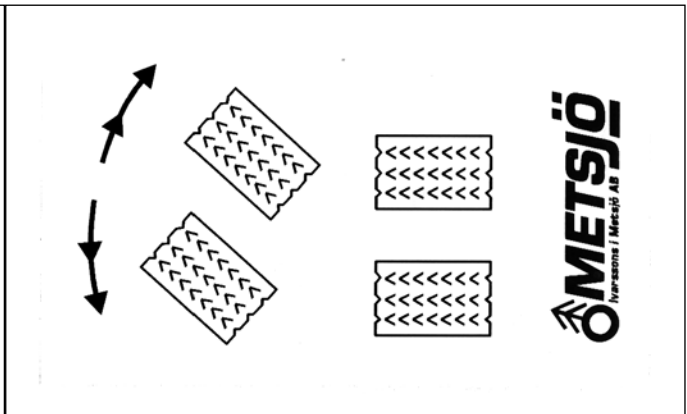
Hydraulic jack



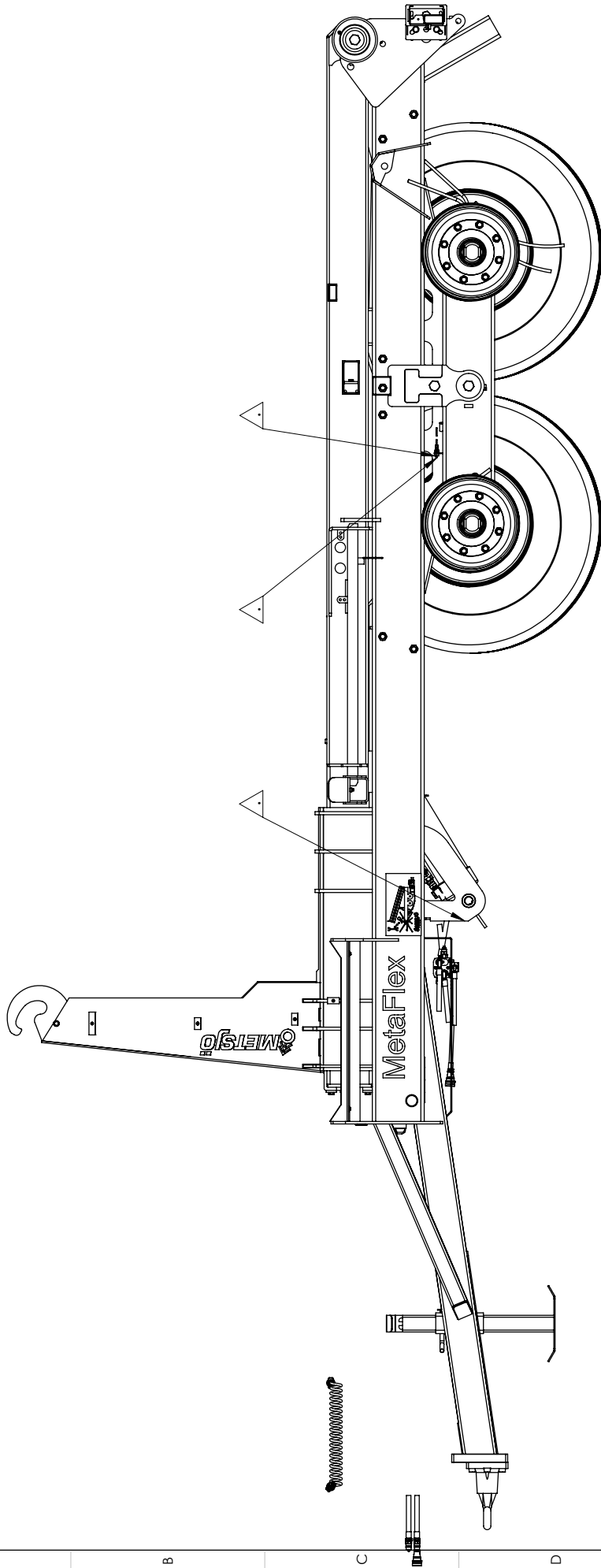
Hydraulic grain shutter



Free return - black




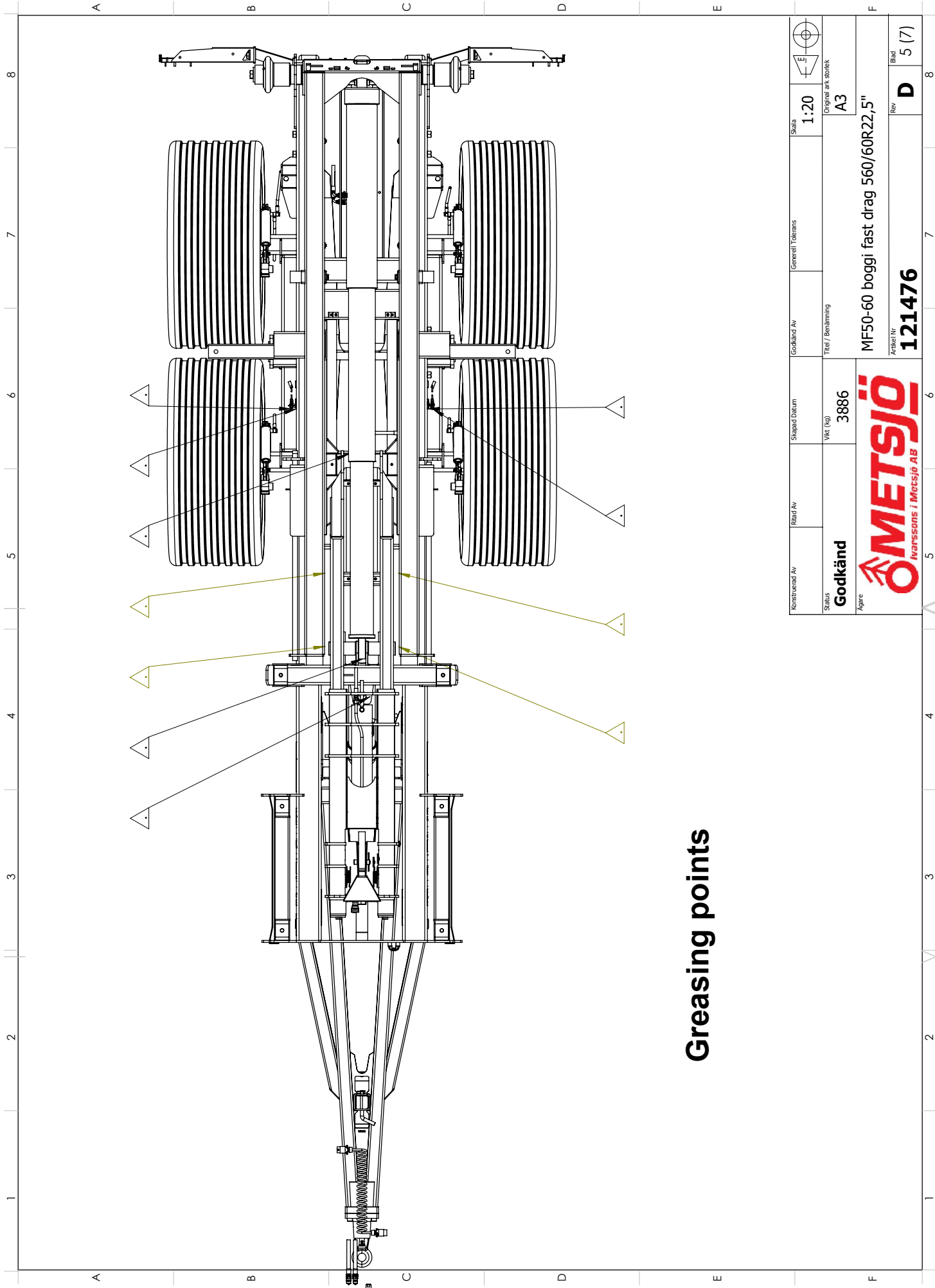
Forced steering



Greasing points

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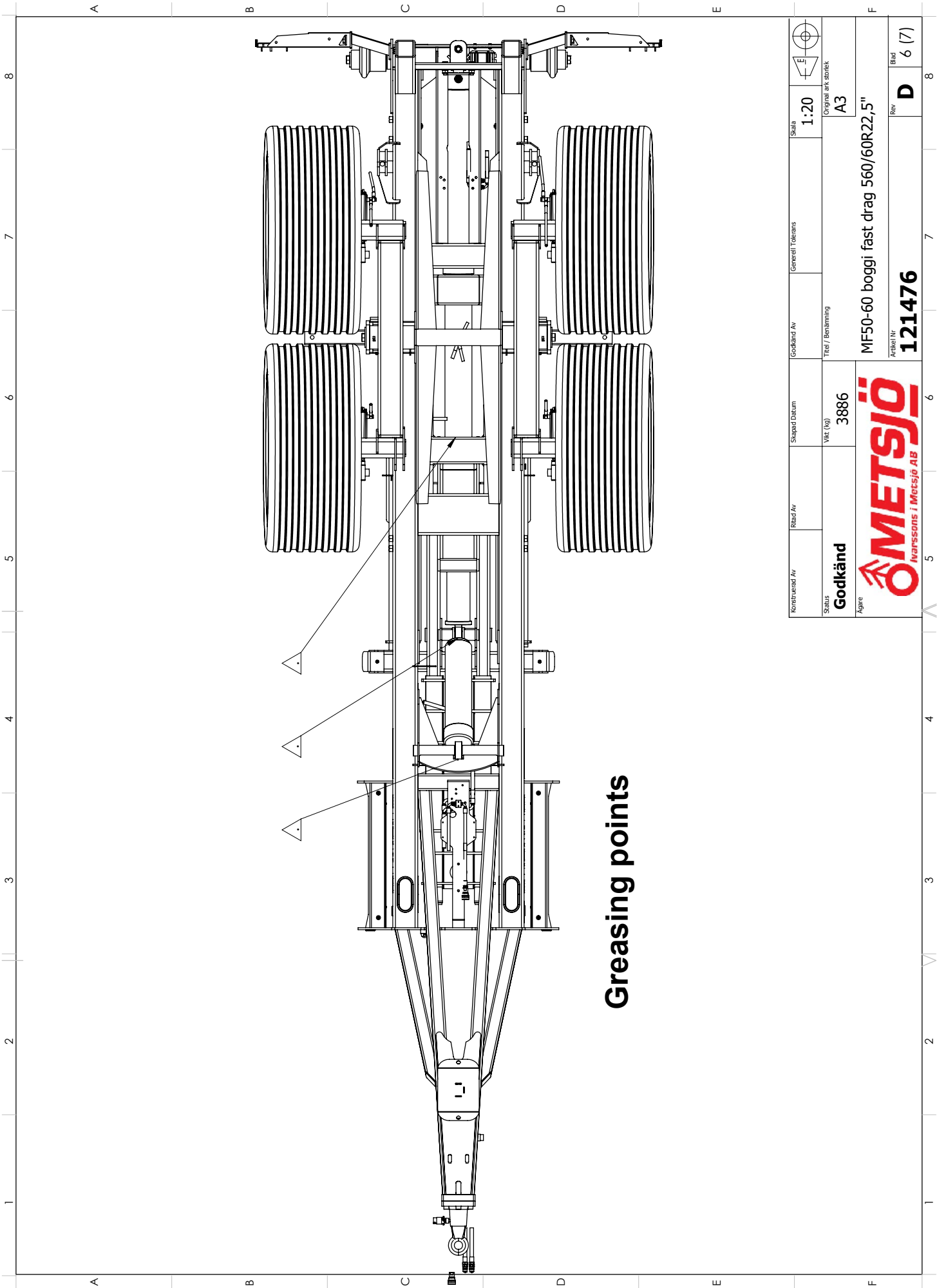
Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolernans	Skala	Original ark storlek
Godkänd		3886			1:20	A3
Agjore						
 METSJÖ Invarssons i Metsjje AB			MF50-60 boggi fast drag 560/60R22,5"			
			Artikel Nr	Rev	Bild	
			121476	D	4 (7)	



Greasing points

Konstruktör: Av	Ritad: Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
Status	Godkänd	Vikt (kg)	Titel / Benämning		1:20	Original art storlek
Agare		3886	MF50-60 boggi fast drag 560/60R22,5"		A3	
			121476			
			Rev		D	Blad
						5 (7)

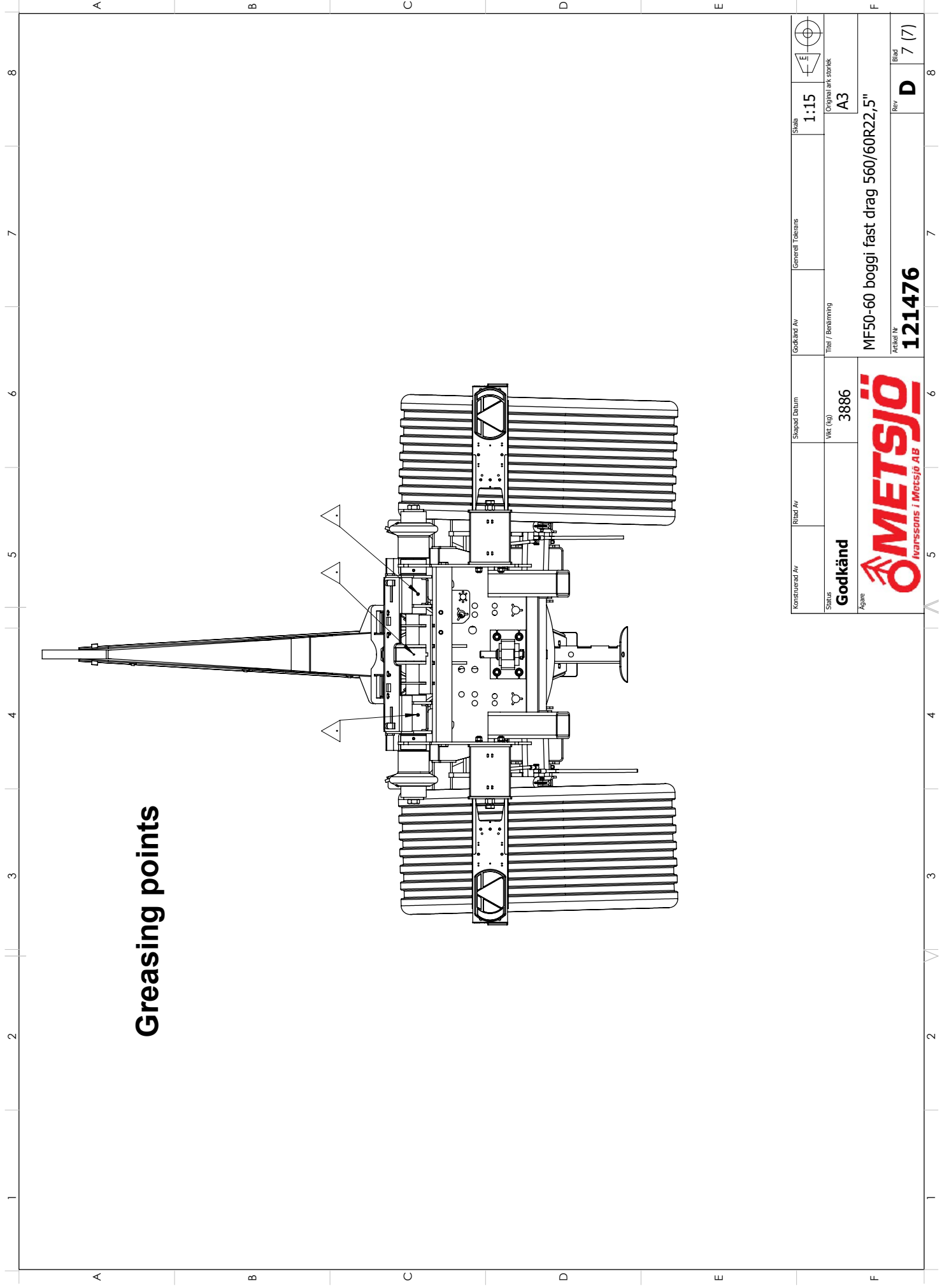
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Greasing points

Konstruktör Av	Ränd Av	Skapad Datum	Godkänd Av	Generell Tolörans	Skala
					1:20
Status	Vikt (kg)		Titel / Benämning		Original ark. storlek
Godkänd	3886				A3
Agare					
METSJÖ Ivarssons i Metsjö AB					
MF50-60 boggi fast drag 560/60R22,5"					
Artikel Nr				Rev	
121476				D	
				Bild	
				6 (7)	

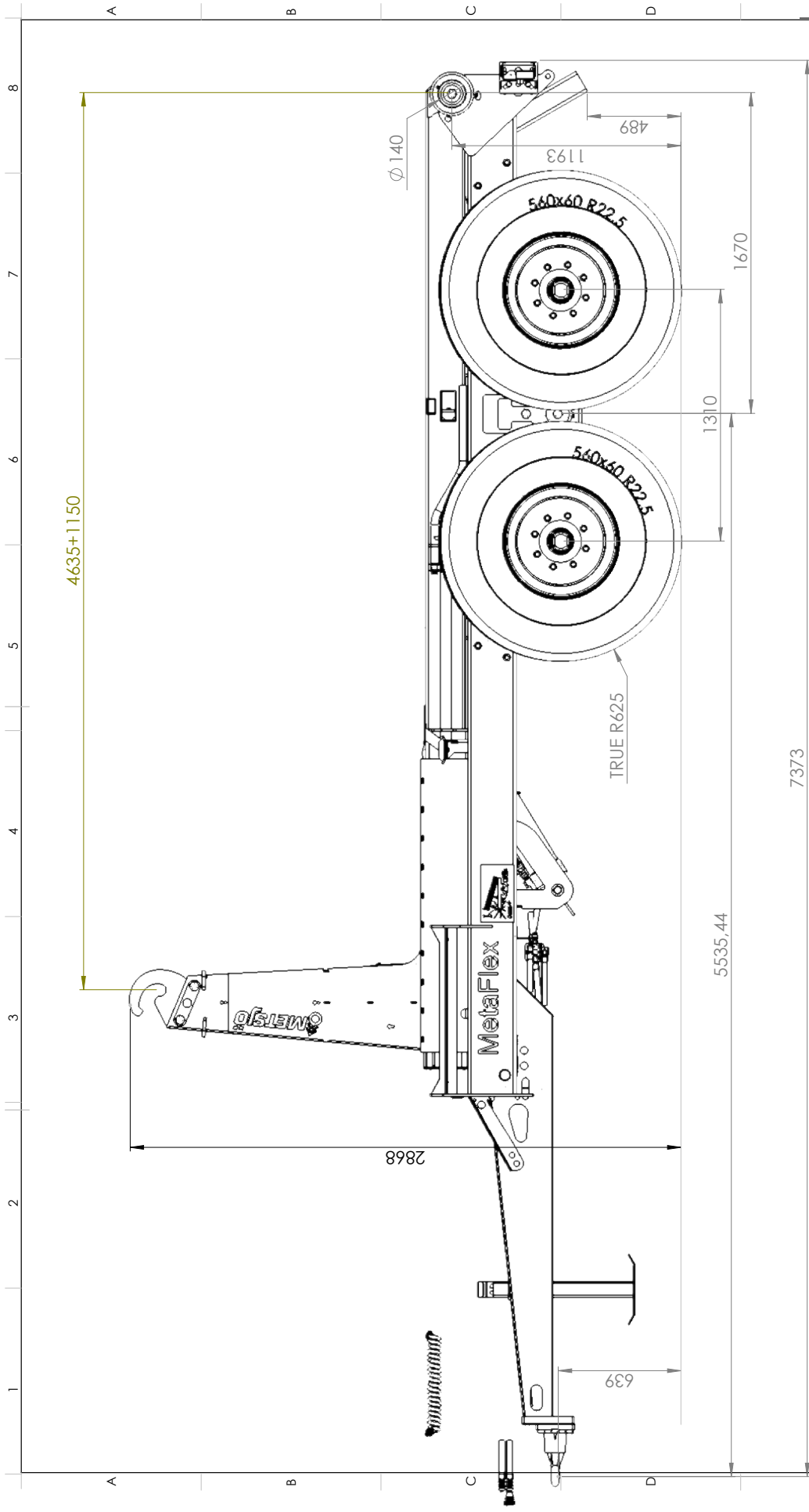
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Greasing points

Konstruktör Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	
Status Godkänd	Vikt (kg)	3886	Titel / Benämning		1:15	
Aggare			MF50-60 boggi fast drag 560/60R22,5"		A3	Original ark storlek
			Arkiv N°			
			121476			
			Rev		D	Blad
					7 (7)	8

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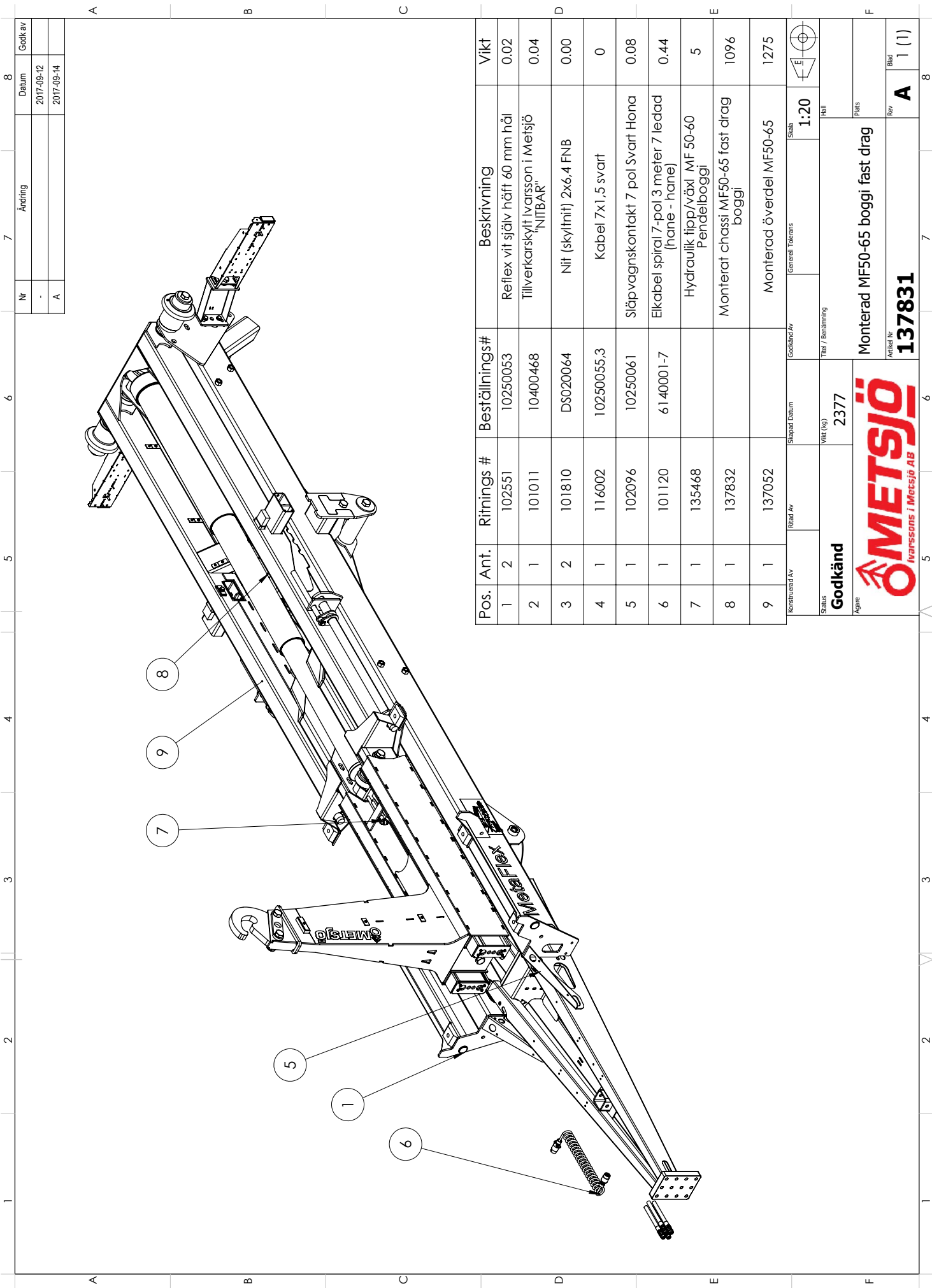


Pos. Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	138804		Monterad MF50-65 boggi fast drag	2545
2	117346		Dragögla med bult. Metallurgica 3,5t	21
3	106634	106634	Stödben Std komp	13
4	122324		Boggiställ MF50-60	688
5	103338		Hjul 8 bult	181,30

Monterad Av	MI	Skapat Datum	2017-09-14	Godkänd Av	AI	Skala	1:20
Status	Godkänd	Var (kg)	3992	Titel / Benämning		Original utgåva	A3
Aggre							

MF50-65 boggi fast drag 560/60R22,5"	
AREANR	137830
Rev	B
Blad	1 (7)

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Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	102551	10250053	Reflex vit själv häft 60 mm hål	0.02
2	1	101011	10400468	Tillverkskylt Ivarsson i Metsjö "NITBAR"	0.04
3	2	101810	DS020064	Nit (skylfrit) 2x6,4 FNB	0.00
4	1	116002	10250055,3	Kabel 7x1,5 svart	0
5	1	102096	10250061	Sjåpagnskontakt 7 pol Svart Hona	0.08
6	1	101120	6140001-7	Elkabel spiral 7-pol,3 meter 7 leddad (hane - hane)	0.44
7	1	135468		Hydraulik tipp/växl MF50-60 Pendelboggi	5
8	1	137832		Monterat chassi MF50-65 fast drag boggi	1096
9	1	137052		Monterad överdel MF50-65	1275

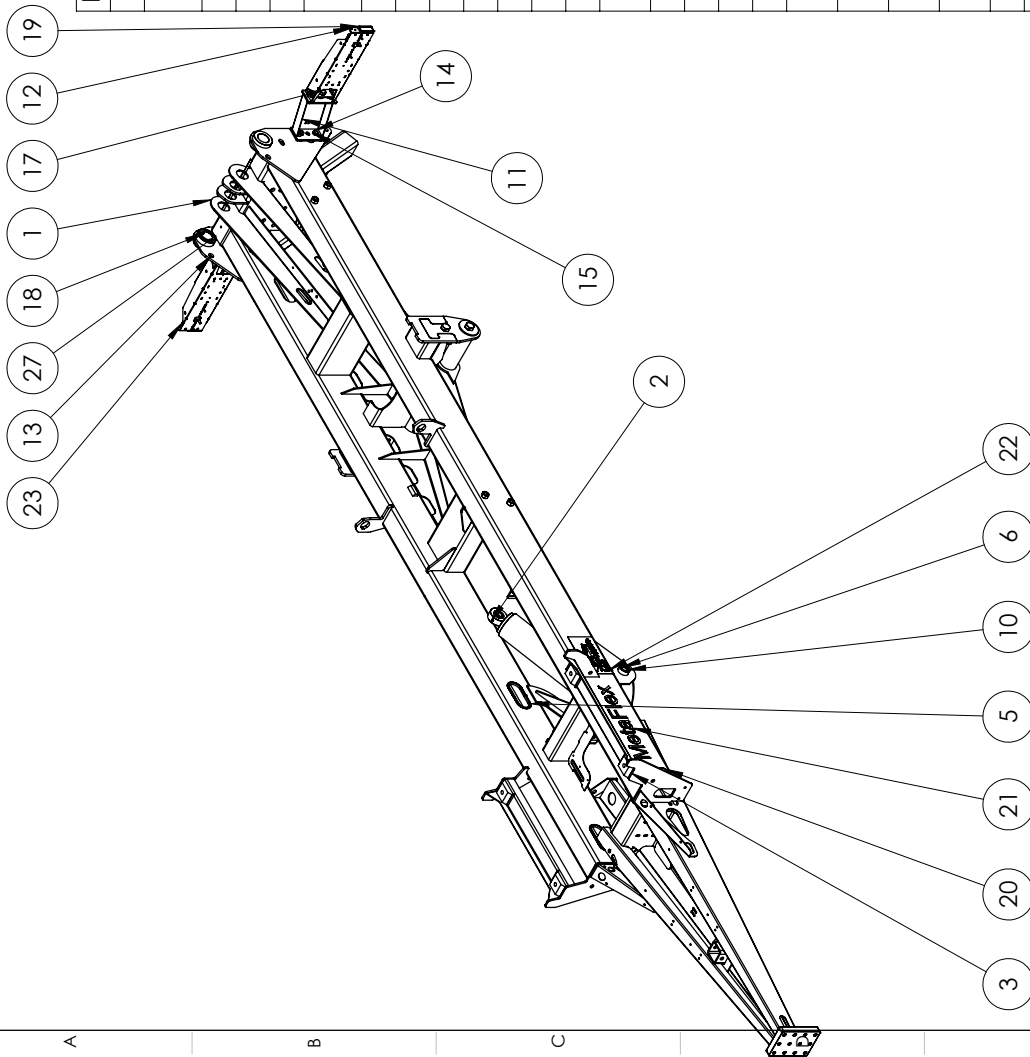
Konstruerad Av	Ritad Av	Stapelad Datum	Godkänd Av	Skala	Generell Tolerans	1:20	100
Stabus	Godkänd	VK (kg)	Titel / Benämning	Monterad MF50-65 boggi fast drag			
Agente	2377		Plats	A			
			Revis	1 (1)			

Nr	Ändring	Datum	Godk av
-		2017-09-12	
A		2017-09-14	

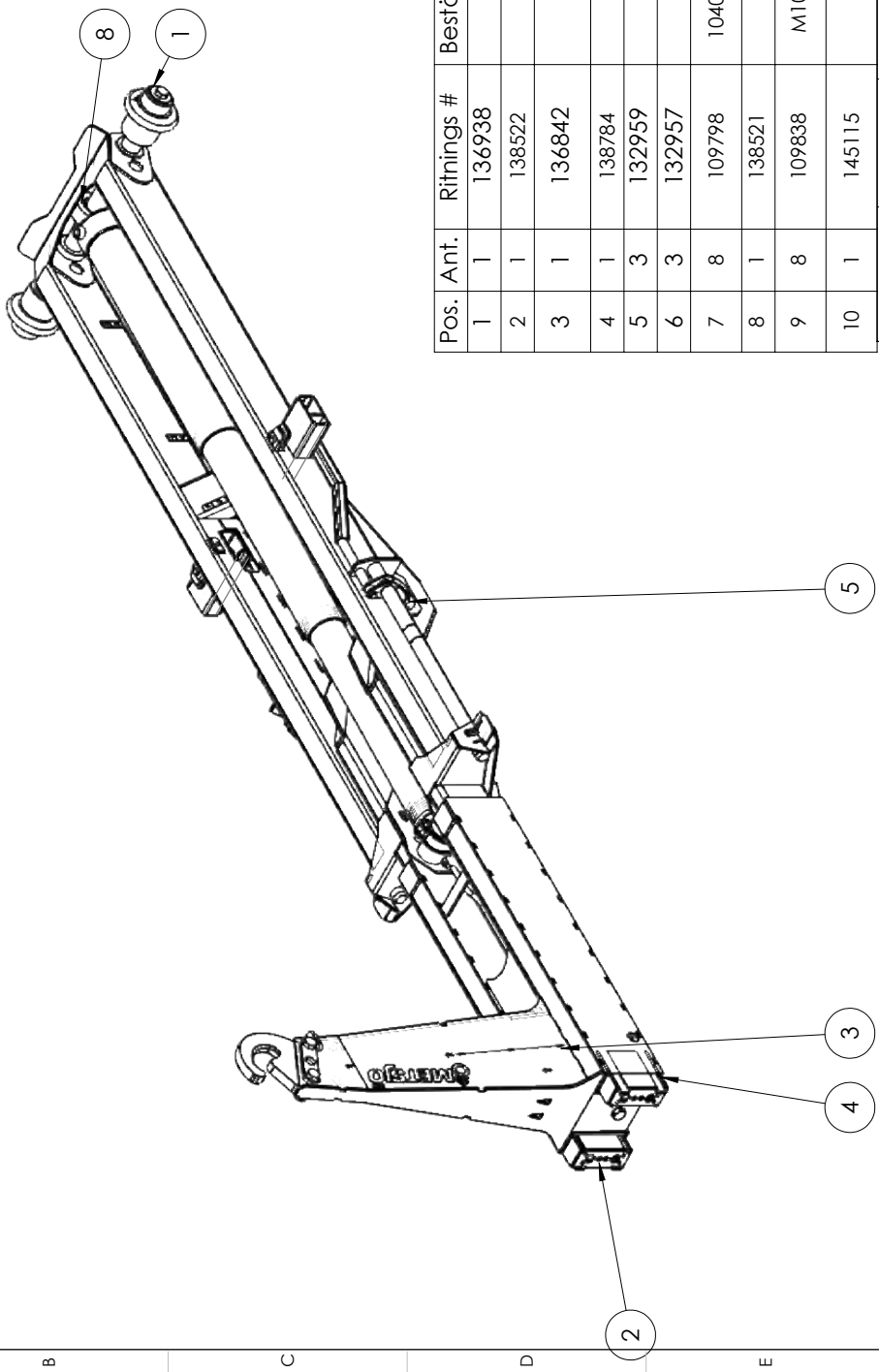
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	137833		Underram boggi MF50-65	998
2	1	121200		Tippcylindrar MF50-60 160/75-2830s LL40	
3	4	101918	45499BN06	Grön amid slifplatta 120x80x30	0.24
4	1	102742	416007	Kantskydd 15x12 6-8 PVC Svart	0.01
5	6	102742	416007	Kantskydd 15x12 6-8 PVC Svart	0.03
6	1	122264		Sprint nedre tippkolv MF50-60 40L520	
7	4	109875	7000107544.2	Vagnsbult M8x25 FZB	
8	4	109896	NB08251	Bricka 8x25x1,5 FZB	
9	4	109790	M8NyllockNiklod	Mutter M8 FZB nyllock	
10	2	109912	472040	Låsring SGH 40	
11	2	124836		Fäste lykthållare MF 50-60	4
12	2	130222		Lykthållare	
13	2	130226		Plåt infästning lykthållare	
14	4	ISO 4017 - M16 x 50-N	9338160501	Bult M16x50 FZB	
15	8	109904	69161701	Bricka 17x30x3 FZB	
16	4	109793	9851601	Mutter M16 FZB nyllock	
17	2	109852	9338240251	Bult M24x25 FZB Heigänga	
18	2	109868	91412025	Stoppskruv M12x25 Insex	
19	2	100982	1223214010	Reflex 40x90mm gul	0.03
20	2	101971	10250052	Reflex orange själv häft 60 mm	0.01
21	2	103046	10400472	Dekal Metatflex utskuren text	0.00
22	2	101081	10400469	Dekal varning tipp (gul) bredd 300mm höjd 170mm	0.01
23	1	109601	109601	Bakljus diod	1.72
24	1	134282		Plåt dragljus kontakt kopplingslåda	
25	2	109821	M6SZ080251	Bult tensi M8x25 FZB	
26	2	109797	10400060,03	Mutter M8 FZB Tensi	
27	2	133720		Schims $\varnothing 90 \times \varnothing 70,3 \times 1,5$	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Skala	Storlek
				1:20	Original ark storlek
Status	Vikt (kg)		Titel / Benämning		
Godkänd	1096		A3		
Agente					
Monterat chassi MF50-65 fast drag boggi					
Arbets Nr	Rev	Arbets Nr			Blad
137832	A	137832			1 (1)

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8	Ändrad av	7	Ändring	6		5		4		3		2		1	
	Datum														
	2019-04-03														
	Nr														
	C														



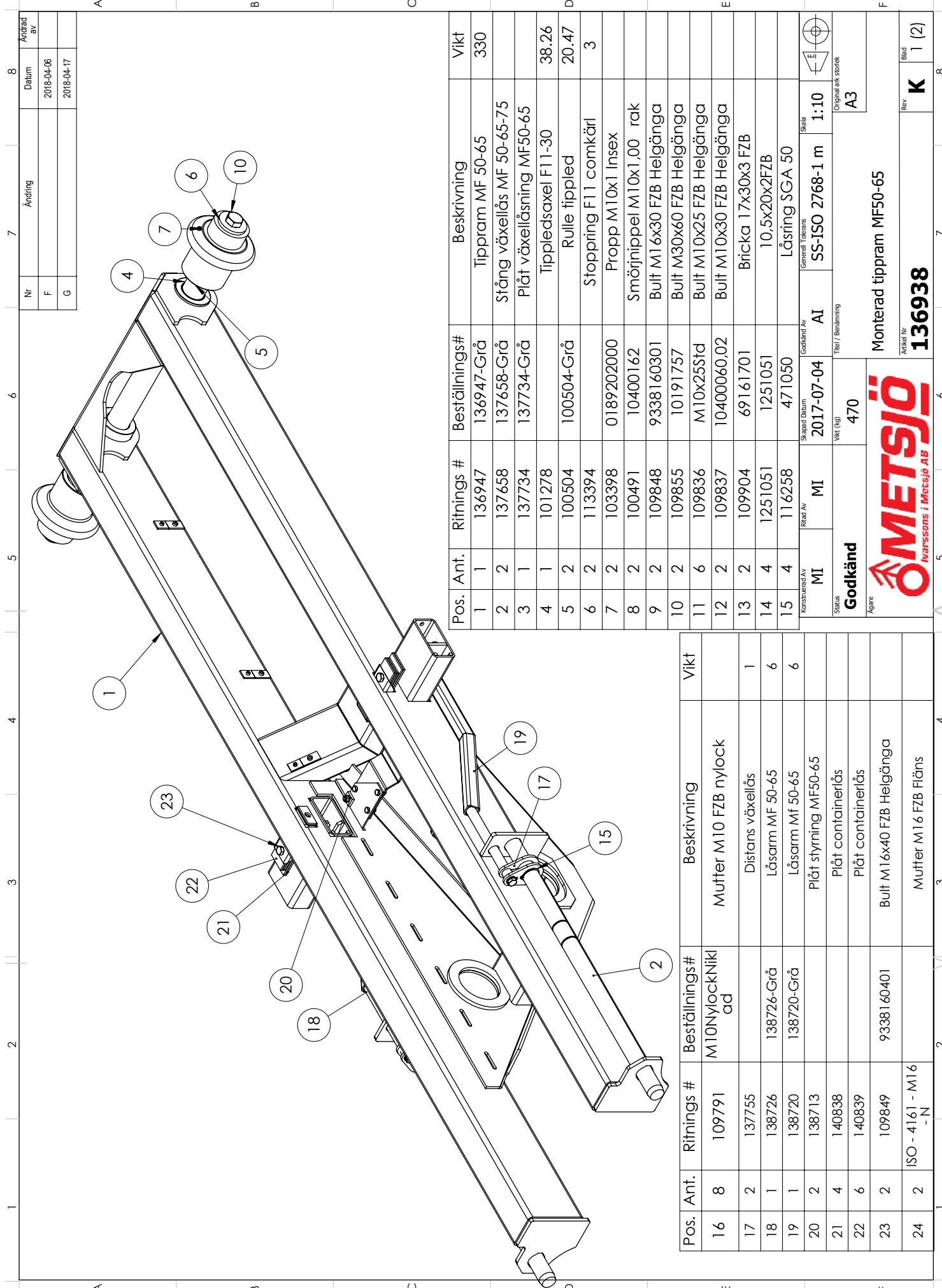
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	136938		Monterad fippram MF50-65	466
2	1	138522		Växelarm MF 50-65	464
3	1	136842		Cyl 110-63 inb. 1365 sl. 1150 L50 inv. M30	68.90
4	1	138784		Torn mont. MF 50-65	292
5	3	132959		Insatslysa tornled MF50-60	5
6	3	132957		Distans Tornled MF50-60	0.38
7	8	109798	10400060,01	Mutter M10 FZB Tensi	
8	1	138521		Vöxelcy MF50-60	134
9	8	109838	M10x40Std	Bult M10x40 FZB Helgänga	
10	1	145115		Distans Tornled MF Shims 133x100x1,5	0.07

Konstruktör Av	MI	Red Av	MI	Skapad Datum	2017-07-05	Godkänd Av	AI	Skala	1:20	
Status	Godkänd	Vikt (kg)	1441	Titel / Benämning		SS-ISO 2768-1 m				
Ägare				Original ark.storlek		A3				
Monterad överdel MF50-65							Rev	D		
Artikel Nr							138523			
Bild							1 (1)			



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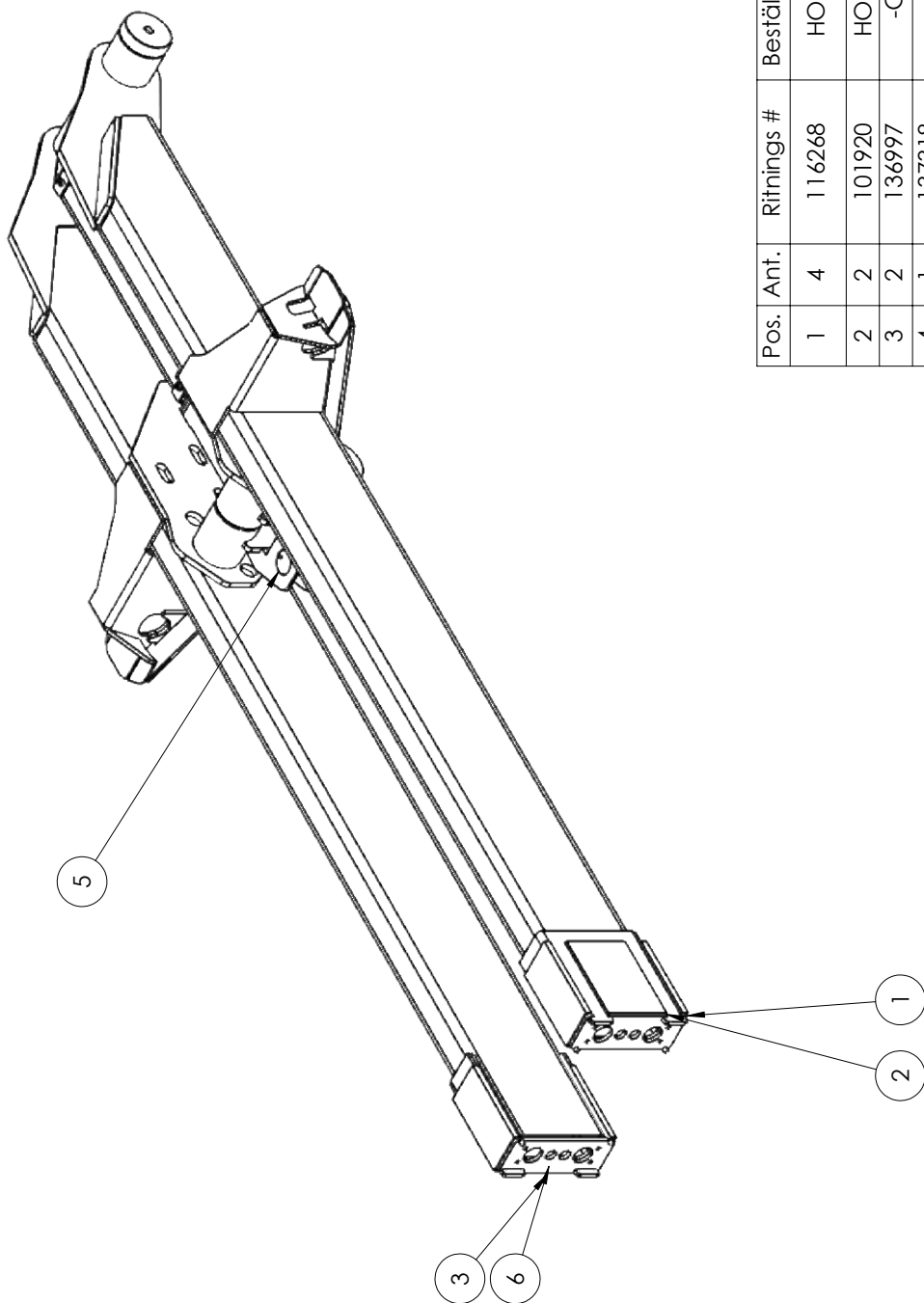
Nr	Ändring	Datum	Andrad av
F		2018-04-06	
G		2018-04-17	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	136947	136947-Grå	Tippram MF 50-65	330
2	2	137658	137658-Grå	Stång växellås MF 50-65-75	
3	1	137734	137734-Grå	Plåt växellåsning MF50-65	
4	1	101278		Tippledsaxel F11-30	38.26
5	2	100504	100504-Grå	Rulle tipped	20.47
6	2	113394		Stoppring F11 comkärl	3
7	2	103398	0189202000	Propp M10x1 Insex	
8	2	100491	10400162	Smörjnippel M10x1,00 rak	
9	2	109848	9338160301	Bult M16x30 FZB Helgänga	
10	2	109855	10191757	Bult M30x60 FZB Helgänga	
11	6	109836	M10x25Std	Bult M10x25 FZB Helgänga	
12	2	109837	10400060,02	Bult M10x30 FZB Helgänga	
13	2	109904	69161701	Bricka 17x30x3 FZB	
14	4	1251051	1251051	10,5x20x2FZB	
15	4	116258	471050	Låsring SGA 50	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
16	8	109791	M10Nylocknickel od	Mutter M10 FZB nylock	
17	2	137755		Distans växellås	1
18	1	138726	138726-Grå	Lösarm MF 50-65	6
19	1	138720	138720-Grå	Lösarm MF 50-65	6
20	2	138713		Plåt styrning MF50-65	
21	4	140838		Plåt containerlås	
22	6	140839		Plåt containerlås	
23	2	109849	9338160401	Bult M16x40 FZB Helgänga	
24	2	ISO - 4161 - M16 -N		Mutter M16 FZB Fläns	

Godkänd	MI	MI	MI	AI	1:10	Original ark storlek
Status	Godkänd	Skapad Datum	2017-07-04	AI	SS-ISO 2768-1 m	A3
Agare	Godkänd	Vikt (kg)	470	Titel/ Benämning	Låsring SGA 50	
Monterad tippram MF50-65						
Årskod nr 136938						
Rev	K	Bild	1	(2)		

Nr	Ändring	7	8
B			Datum
C			2018-06-13
			2018-10-18
			Ändrad av



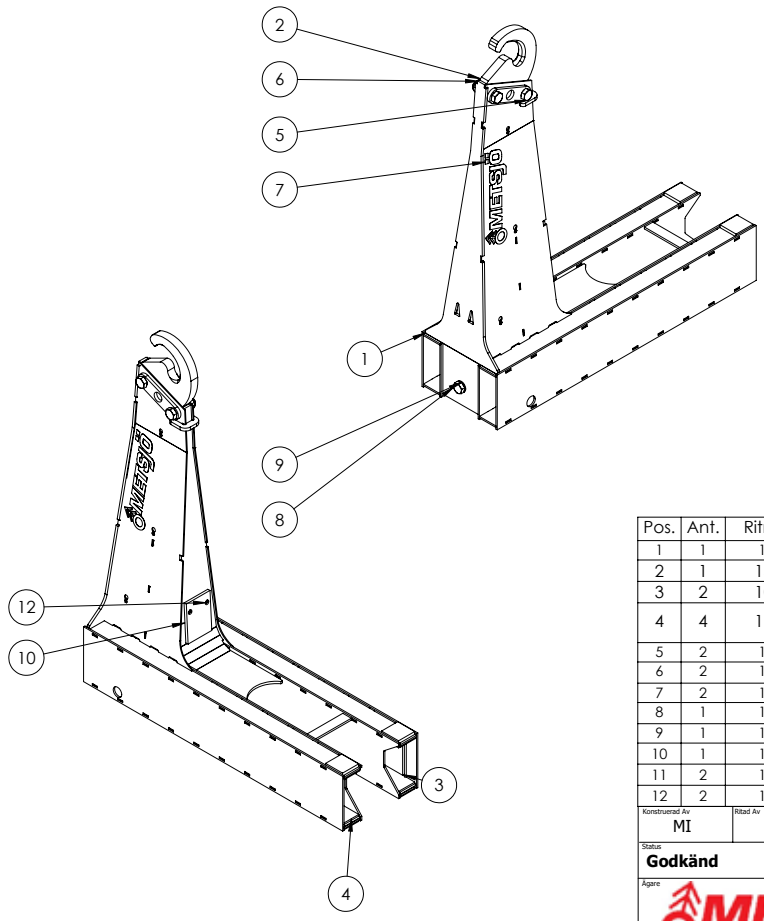
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	4	116268	HO6545	Amider glidplast svart 200x95x13	
2	2	101920	HO4138	Svart amid	0.35
3	2	136997	-Grå	Fäste glidplast	3
4	1	137318		Övre tippkolvssprint växelarm.	
5	1	122212		Sprint tornkolv MF50-60	
6	1	138328	138328-Grå	Växelarm MF50-65, 2016-09-30	453

Konstruktör Av	Ritad Av	MI	MI	Skapad Datum	2017-08-21	Godkänd Av	AI	Skala	1:10
Status	Godkänd	Vikt (kg)		464		Titel / Benämning		Original ark storlek	
Ägare		Växelarm MF 50-65		A3		Artikelnr		138522	
Revisör		B		1 (1)		Reviderad		1 (1)	




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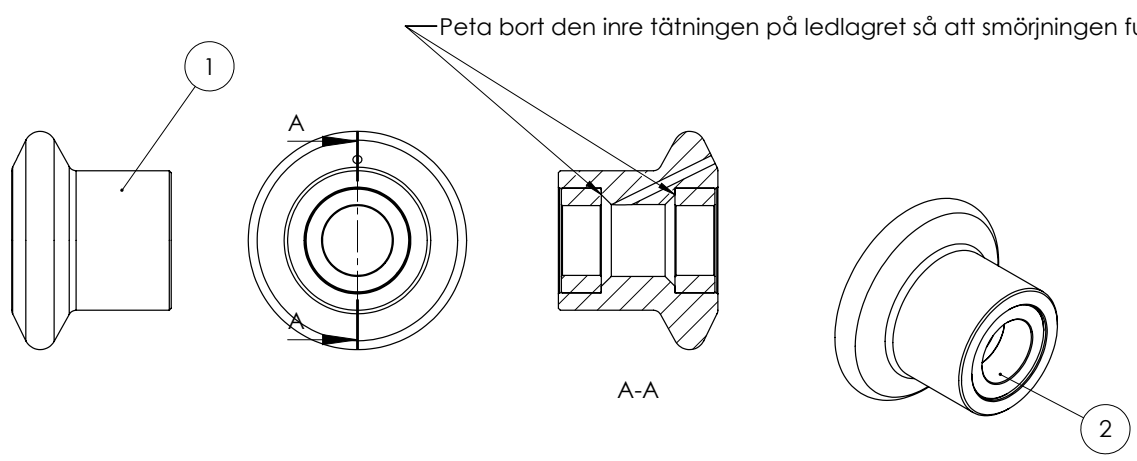
Nr	Ändring	Datum	Ändrad av
-		2017-07-05	
A		2017-09-12	




Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	138771	138771-Grå	Torn MF50-65	259
2	1	135641	135641-Vit	Växelkrok Bultad MF50-60-75	
3	2	101920	HO4138	Plast borrad	0.35
4	4	116268	HO6545	Amider glidplast svart 200x95x13	
5	2	129985	10191754	Bult M30x120 FZB	
6	2	109796	9853001	Mutter M30 FZB nylock	
7	2	105447	10400476	Dekal METSJÖ	
8	1	109855	10191757	Bult M30x60 FZB Helgänga	
9	1	109907	SRB310521	Bricka 31x52x4 FZB	
10	1	141741		Plast borrad	0.34
11	2	109798	10400060.01	Mutter M10 FZB Tensi	
12	2	121592	121592	Bult M10x20 FZB FörsänkInsex	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	Original ark storlek
MI	MI	2017-12-05	AI	SS-ISO 2768-1 m	1:15	A3
Status	Vikt (kg)	Titel / Benämning		Original ark storlek		
Godkänd	290	Torn mont. MF 50-65		A3		
Ägare			Artikel Nr	Rev	Blad	
			138784	A	1 (1)	

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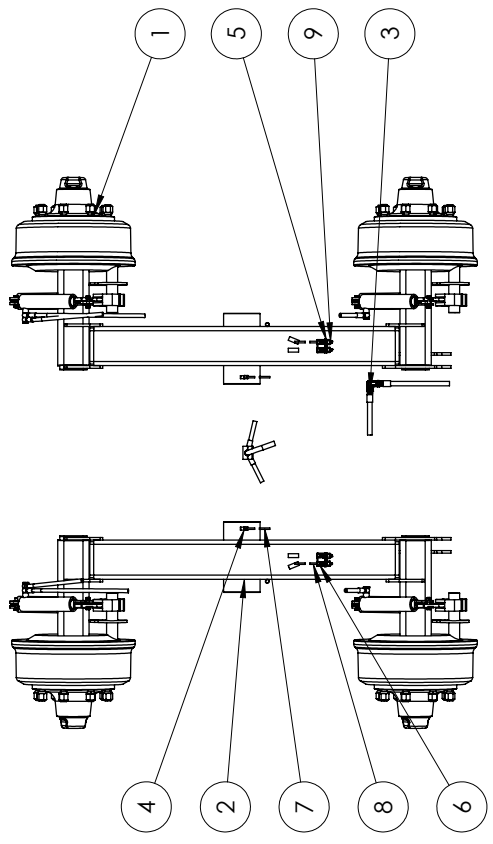


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100502		Flakväxelrulle	17.46
2	2	100503	10180055	Ledlager 70x105 L43	1.51

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala	Original ark storlek
OK	OK	2011-03-15	AI	SS-ISO 2768-1 f	1:5	A4
Status	Vikt (kg)	Titel / Benämning		Original ark storlek		
Godkänd	20.47	100504-Grå		A4		
Ägare			Rulle tippad	Artikel Nr	Rev	Blad
				100504	D	1 (1)

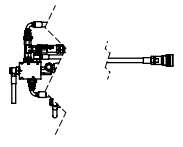
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Nr	Ändring	Datum	Godkav
-		2014-03-18	
A		2016-01-22	

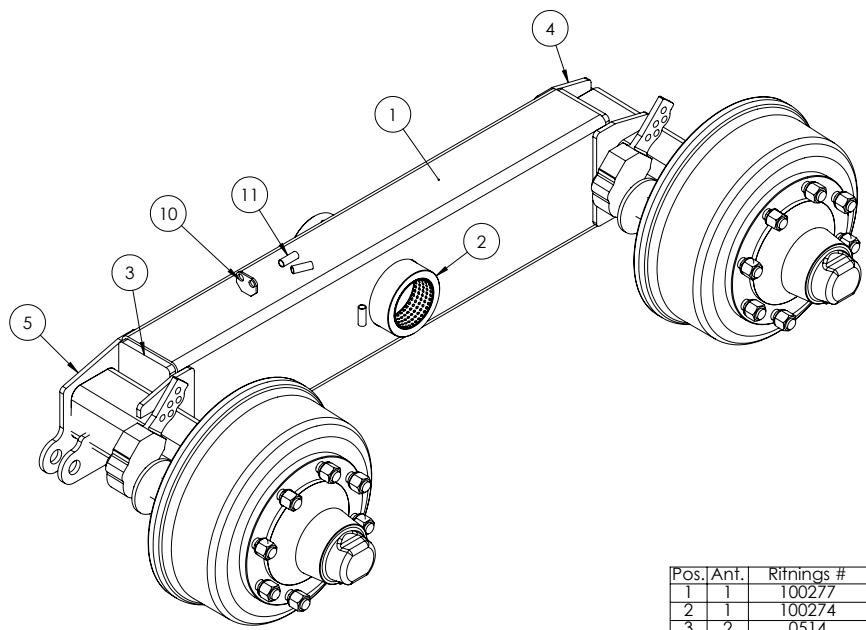


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100279	100279-Grå	Pendelboggi MX VÅ cc 1310	333.76
2	1	100281	100281-Grå	Pendelboggi MX HÖ cc 1310	333.76
3	1	122509		Hyd broms MF 50-60	19
4	4	101094	10400150	Vinkel 1/8 R LL6R	
5	4	101099	10400161	M14 Skottgenomgång-mutter smörj	0.04
6	4	101100	10400160	Rak LL6M	0.02
7	2	109615	10400140	Smörjslang 6-2 mid insida boggiödda	0
8	2	109613	10400140	Smörjslang 6-2 utsida mid boggiödda	0
9	4	100491	10400162	Smörjnippel M10x1.00 rak	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Skala	Original ark storlek
	LH	2014-03-18		1:20	A3
Status	Titel / Bestämning				
Godkänd	Boggiställ MF50-60				
Agare	Artikel Nr				
	122324				
	Rev	Blad			R
		B			1 (1)



Nr	Ändring	Datum	Godk av
F		2014-10-06	
G		2014-12-16	
H		2015-05-21	

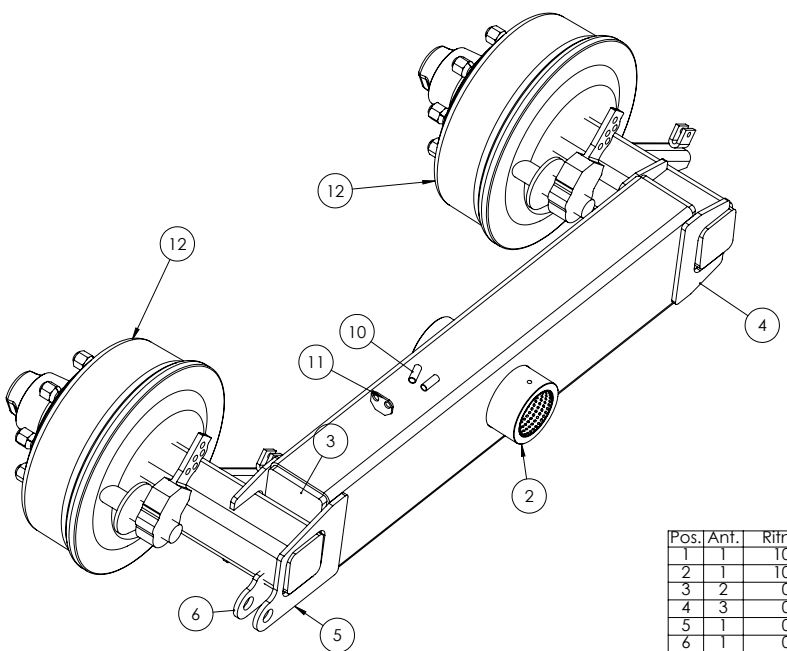


Pos.	Anf.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100277	100277	Boggilåda Flex 16	52.22
2	1	100274	410120067BH	Boggiehylsa	14.85
3	2	0514	0514	Lock MX-boggilåda	3.86
4	3	0515	0515	Lock MX-boggilåda	1.41
5	1	0516		Kolvfäste MX boggielyft	2.39
6	1	0517		Kolvfäste MX boggielyft	0.85
7	4	0010	0010	Förstärkningsplåt Boggilåda	0.81
8	2	0011	0011	Förstärkningsplåt Boggilåda	2.34
9	2	100301	10400110	Wb 702 Bussning	0.27
10	1	101095	101095	Hållare smörjslang pendelboggi	0.05
11	3	101092	101092	Rör till slang boggilåda	0.02
12	2	105762	410120065VÅ	Nav 8 bult 120x120 V	121

Konstruktör Av	OK	Skapad Datum	2010-02-24	Godkänd Av	AI	Generell Toleras	SS-ISO 2768-1 m	Skala	1:7	1	2
Status	Godkänd		Vikt (kg)	333.70	Titel / Benämning		100279-Grå		1	1	
Ägare	METSJÖ		Pendelboggi MX VÅ cc1310		Äckel Nr	100279		K	1	3	

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Nr	Ändring	Datum	Godk av
E		2014-10-06	
F		2014-12-16	
G		2015-05-22	

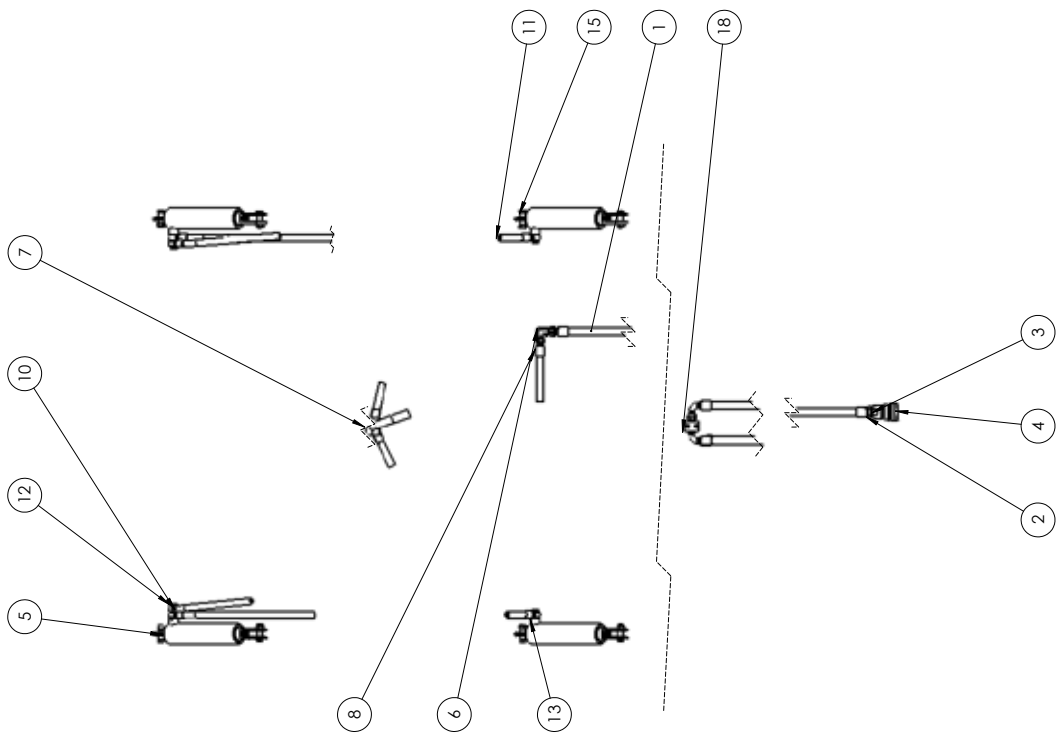


Pos.	Anf.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	100277	100277	Boggilåda Flex 16	52.22
2	1	100274	410120067BH	Boggiehylsa	14.85
3	2	0514	0514	Lock MX-boggilåda	3.86
4	3	0515	0515	Lock MX-boggilåda	1.41
5	1	0516		Kolvfäste MX boggielyft	2.39
6	1	0517		Kolvfäste MX boggielyft	0.85
7	4	0010	0010	Förstärkningsplåt Boggilåda	0.81
8	2	0011	0011	Förstärkningsplåt Boggilåda	2.34
9	2	100301	10400110	Wb 702 Bussning	0.27
10	3	101092	101092	Rör till slang boggilåda	0.02
11	1	101095	101095	Hållare smörjslang pendelboggi	0.05
12	2	105795	410120065HO	Nav 8 bult 120x120 H	121

Konstruktör Av	OK	Skapad Datum	2010-02-24	Godkänd Av	AI	Generell Toleras	SS-ISO 2768-1 m	Skala	1:7	1	2
Status	Godkänd		Vikt (kg)	333.70	Titel / Benämning		100281-Grå		1	1	
Ägare	METSJÖ		Pendelboggi MX HÖ cc1310		Äckel Nr	100281		K	1	3	

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Nr	Ävning	Datum	Godkänn
-		2014-03-18	
A		2015-01-22	
B		2016-06-08	



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	122511		Broms slang vent- pendelbaggie MF50-60	0.15
2	1	122465		Broms slang tractor-ventil MF 50-60	0.22
3	2	101007	450103	Tredo-bricka 1/2"	
4	2	101048	FT111313002	Snabbkopplingshona Broms 1/2"	0.46
5	4	101301	101301	Bromscylinder 45/32 inb.320 sl 90	3.13
6	1	101547	72100606	Utv 3/8 - utv 3/8 90°	0.11
7	1	101364	101364	Rörklamma enkel 20 rör	
8	1	102757	102757	Broms slang	0.13
9	1	108248	40700604	Adapter 1/4" INV-3/8" UTV	
10	2	102326	102326	Broms slang	0.17
11	2	112884	112884	Broms slang	0.19
12	3	104392	688110	Banjobult 1/4" dubbel	
13	13	101087	450100	Tredo-bricka 1/4"	
14	2	101559	688100	Banjobult 1/4" Enkel	
15	8	109838	M10x40Stid	Bult M10x40 FZB Helgönga	
16	8	109791	M10NylockNiki ad	Mutter M10 FZB nylock	
17	1	104539	7020606	Adapter 3/8" UTV-3/8"UTV	
18	1	102732	RAFE-215SV	klamma enkel 115 rör	0.06

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Godkänd

15

METSJÖ
Hydrauliska i Metall & Air

Hyd broms MF 50-60

122509

Skala 1:10

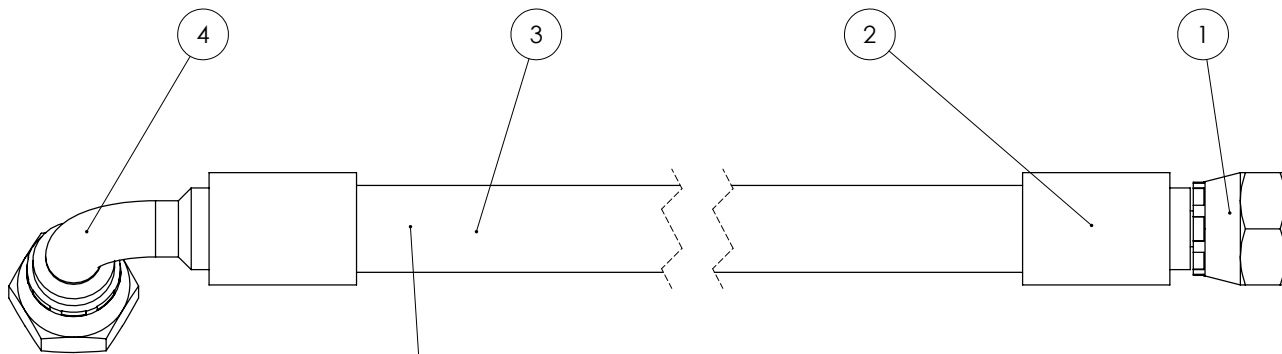
Dokument A2

Rev B

1 (1)

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Nr	Ändring	Datum	Godk av
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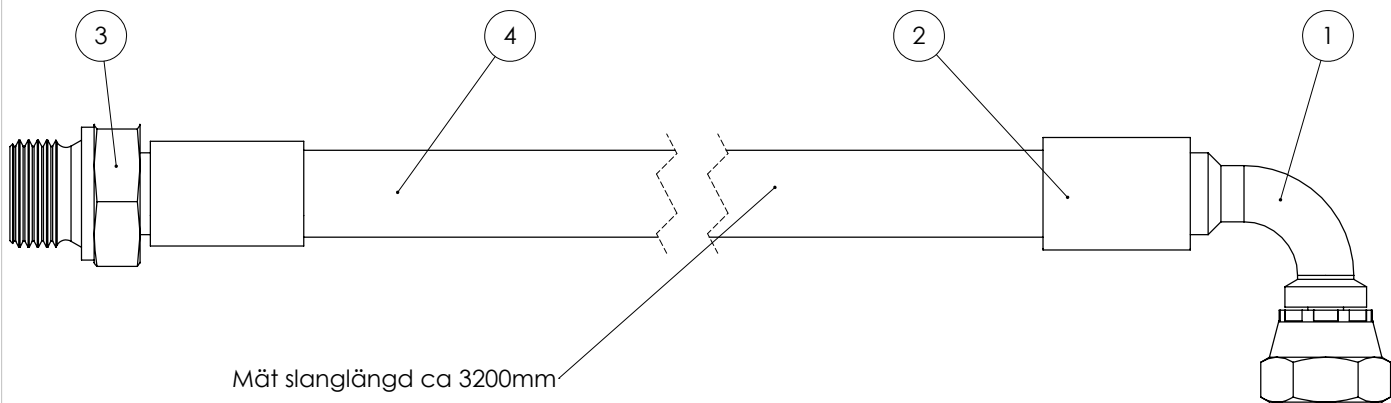


Mät slanglängd ca 3500mm

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	101516	A500010606	Stolpe 3/8"- INV R 3/8"	
2	2	102555	1100000606	Hylsa 3/8" 1W	0.03
3	1	101535	241B06	Hydraulslang 3/8"	0.04
4	1	103339	A500510606	Stolpe 3/8"- 90°	

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala		
LH	LH	2014-03-17			1:1		
Status	Vikt (kg)		Titel / Benämning		Hall		
Godkänd	0.15						
Ägare			Broms slang vent- pendelboggie MF50-60		Plats		
			Artikel Nr	Rev	Blad		
			122511	-	1 (1)		

Nr	Ändring	Datum	Godk av
-		2014-03-13	



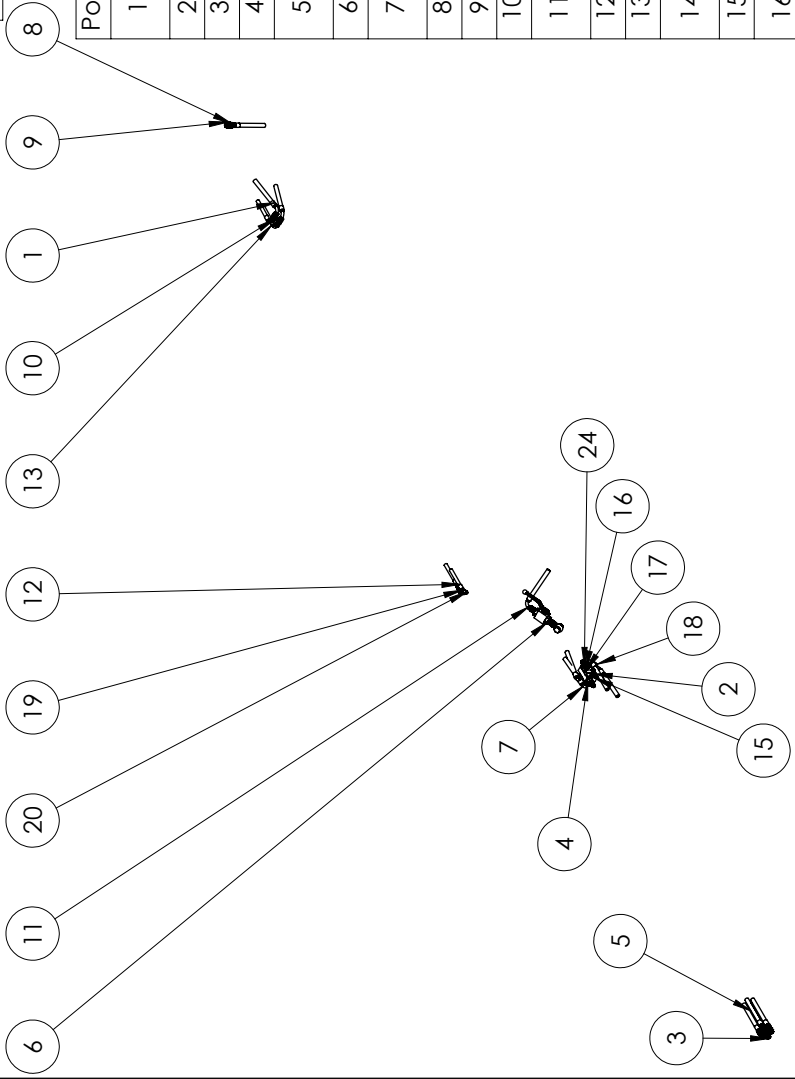
Mät slanglängd ca 3200mm

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	103339	A500510606	Stolpe 3/8"- 90°	
2	2	102555	1100000606	Hylsa 3/8" 1W	0.03
3	1	102553	5001200806	Stolpe 3/8"- UTV 1/2"	
4	1	101535	241B06	Hydraulslang 3/8"	0.04

Konstruerad Av	Ritad Av	Skapad Datum	Godkänd Av	Generell Tolerans	Skala		
LH	LH	2014-03-12			1:1		
Status	Vikt (kg)		Titel / Benämning		Hall		
Godkänd	0.22						
Ägare			Broms slang tractor-venti MF 50-60		Plats		
			Artikel Nr	Rev	Blad		
			122465	-	1 (1)		

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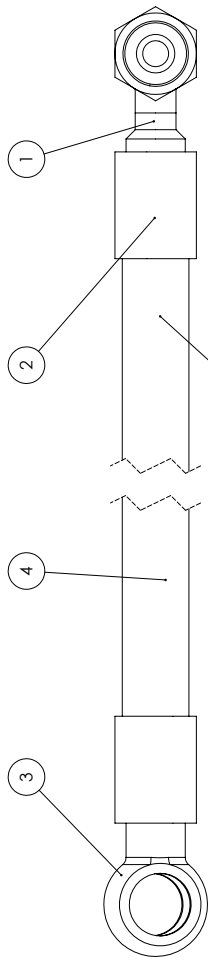
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt	Ändring	
						Nr	Datum
1	2	122409		Slang uttag bak stöfet bak MF50-60	0	A	2018-10-23
2	8	101007	450103	Tredo-bricka 1/2"		B	2018-12-20
3	4	101016	5C105956205	Snabbkoppling Hane 1/2"			
4	2	102987	60000808	Adapter 1/2"UTV-1/2"UTV			
5	2	135523		STD tryckslang tipp växling MF 50-60 Pendelboggi	0		
6	1	135520		3/4" kran 1/2 anslutning	1		
7	1	135522		STD växlings slang MF50-60 Pendelboggi	0		
8	1	103340	60001208	Adapter 3/4"UTV-1/2"UTV			
9	1	101477	450105	Tredo-bricka 3/4"			
10	2	103438	60000608	Adapter 3/8" UTV-1/2" UTV			
11	1	135521		Std tipp slang MF50-60 Pendelboggi	0		
12	1	128085		Torn slang MF 50-60	0		
13	1	128086		Torn slang MF 50-60	0		
14	1	133804	VLP80-DI-12-02-A	Dubbel crossover 1/2"	1		
15	1	133831		Fäste 1/2" VLP ventil			
16	2	109871		Spårskruv M5x50 FZB, Kapad 100 (109873)			
17	2	110155	TENSIFL051	Mutter M5 FZB Tensi			
18	2	133068	M6SFGF0801613	Bult M8x16 Självgänga			
19	2	103440	450102	Tredo-bricka 3/8"			
20	1	112765	688102	Banjobult 3/8" Enkel			
21	1	103613	0108212007	GE 15L-3/8" 60°			
22	1	142851	0010202000	Skäring DS-15L			
23	1	142850	0004202100	Mutter M22-15L			
24	2	143732	7092-08-08	Adapter 1/2"UTV-1/2"UTV oboorrad			



Konstruerad Av	LH	Ritad Av	LH	Skapat Datum	2017-02-14	Godkänd Av		Skala	1:30	
Status	Godkänd	Vikt (kg)	5	Titel / Benämning		Original ank. storlek	A3			
Aggre										
Hydraulik tipp/växl MF 50-60 Pendelboggi										
Artikel nr	135468								Rev	C
Bild										1 (2)



Nr	Andring	Datum	Andrad av
A		2019-01-07	

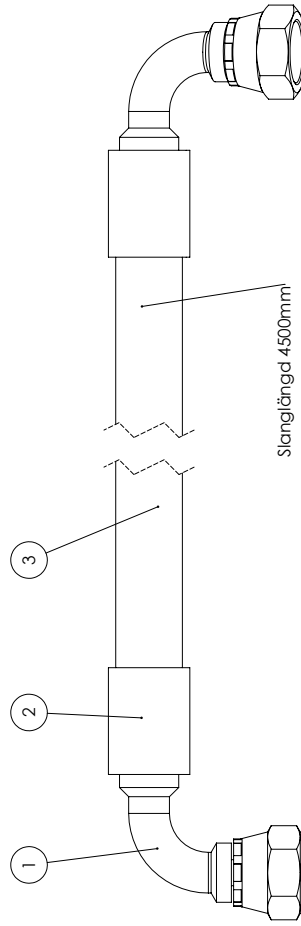


Slanglängd 4800mm

Pos.	Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	1	103339	A500510606	Stolpe 3/8" - 90°	0.03
2	2	102555	1100000606	Hylsa 3/8" 1W	0.03
3	1	104327	42800606	Banjo 3/8" - stolpe 3/8"	0.03
4	1	101036	1105630630	Hydraulslang 3/8" Rock	0.03

Skapa	LH	2015-09-04	1:1	
Godkänd				A4
Torn slang MF 50-60				
Artikel Nr: 128085				
Rev: A				

Nr	Andring	Datum	Andrad av
A		2019-01-07	



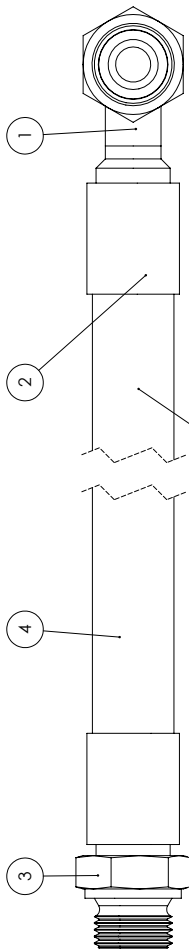
Slanglängd 4500mm

Pos.	Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	2	103339	A500510606	Stolpe 3/8" - 90°	0.03
2	2	102555	1100000606	Hylsa 3/8" 1W	0.03
3	1	101036	1105630630	Hydraulslang 3/8" Rock	0.03

Skapa	LH	2015-09-04	1:1	
Godkänd				A4
Torn slang MF 50-60				
Artikel Nr: 128086				
Rev: B				

Nr	Andring	Datum	Andrad av
A		2019-01-07	

Nr	Andring	Datum	Godk av
C		2019-01-07	

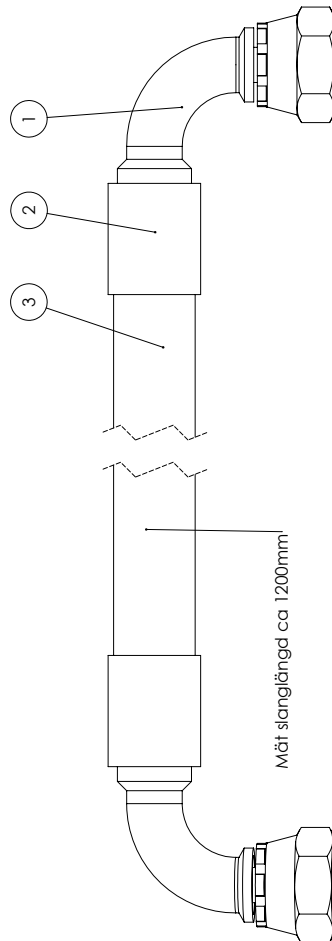


Mät slanglängd ca 8800mm

Pos.	Ant.	Rifnings #	Beställnings#	Beskrivning	Vikt
1	1	103836	A500510808	Stolpe 1/2" - 90°	0.03
2	2	101013	1100000808	Hylsa 1/2" 1W	0.03
3	1	101014	5001200808	Stolpe 1/2" - UTV 1/2"	0.05
4	1	101012	1105630830	Hydraulslang 1/2" Rock	0.05

Skapa	LH	2014-03-12	1:1	
Godkänd				C
Slang uttag bak stöfot bak MF50-60				
Artikel Nr: 122409				
Rev: C				

Nr	Andring	Datum	Andrad av
-		2017-02-15	



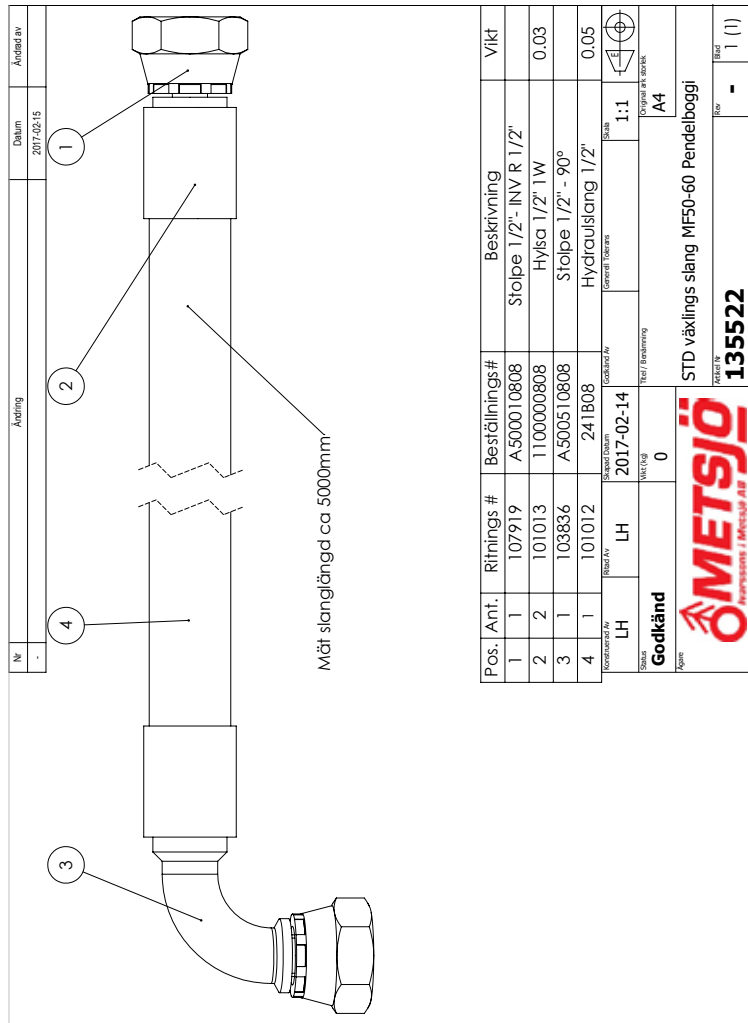
Mät slanglängd ca 1200mm

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

Skapa	LH	2017-02-14	1:1	
Godkänd				A4
Std tipp slang MF50-60 Pendelboggi				
Artikel Nr: 135521				
Rev: -				

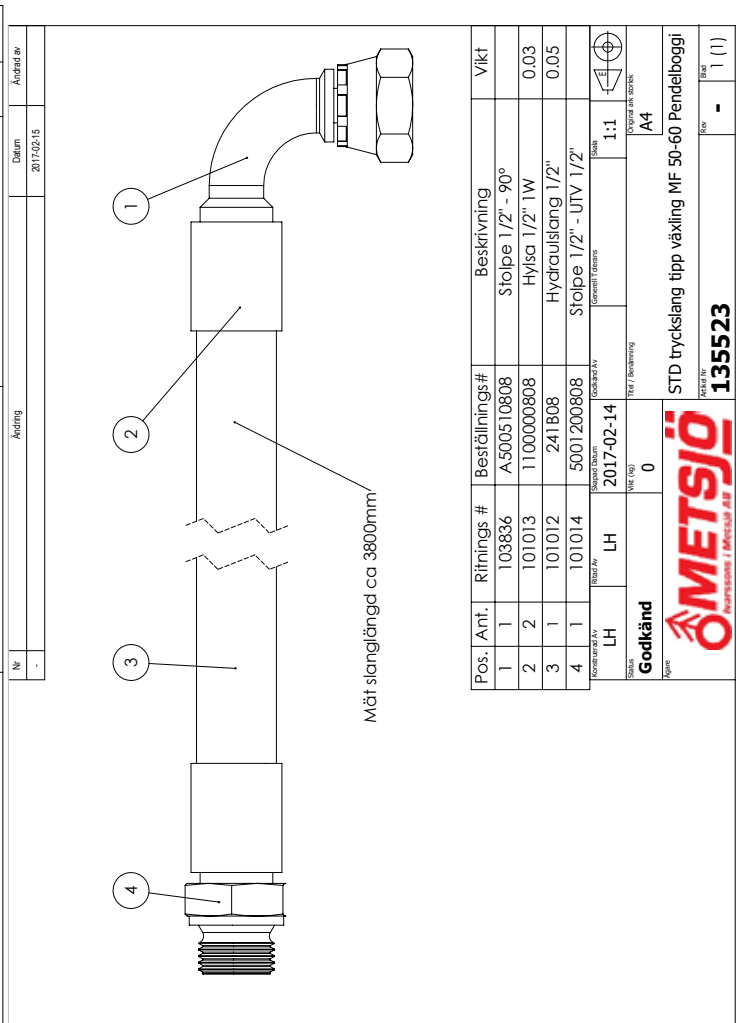
Nr	Andring	Datum	Andrad av
-		2017-02-15	

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Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	107919	A500010808	Stolpe 1/2" - INV R 1/2"	0.03
2	2	101013	1100000808	Hylsa 1/2" 1W	0.05
3	1	103836	A500510808	Stolpe 1/2" - 90°	
4	1	101012	241B08	Hydraulslang 1/2"	

Konstruerad Av: LH
 Ritad Av: LH
 Skapad Datum: 2017-02-14
 Godkänd Av: Godkänd
 Titel / Benämning: STD växlings slang MF50-60 Pendelboggi
 Skala: 1:1
 Original ark storlek: A4
 Vikt (kg): 1
 Artikel Nr: 135522
 Rev: -
 Blad: 1 (1)

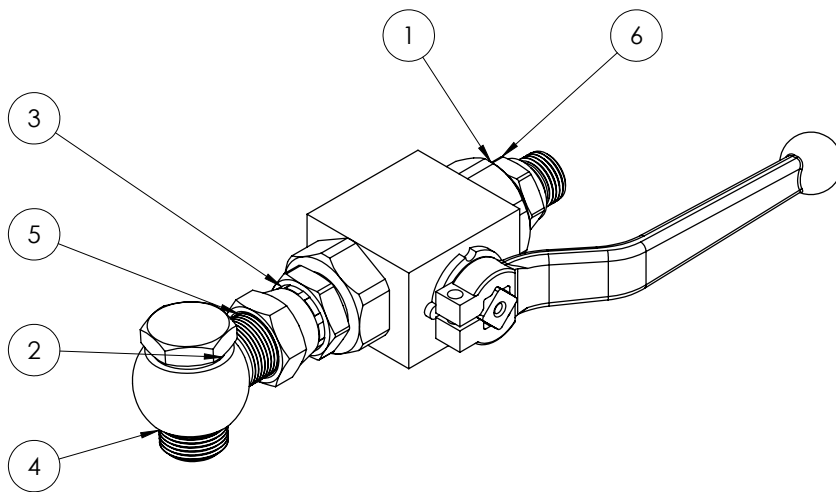


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	103836	A500510808	Stolpe 1/2" - 90°	0.03
2	2	101013	1100000808	Hylsa 1/2" 1W	0.05
3	1	101012	241B08	Hydraulslang 1/2"	
4	1	101014	5001200808	Stolpe 1/2" - UTV 1/2"	

Konstruerad Av: LH
 Ritad Av: LH
 Skapad Datum: 2017-02-14
 Godkänd Av: Godkänd
 Titel / Benämning: STD tryckslang tipp växling MF 50-60 Pendelboggi
 Skala: 1:1
 Original ark storlek: A4
 Vikt (kg): 1
 Artikel Nr: 135523
 Rev: -
 Blad: 1 (1)

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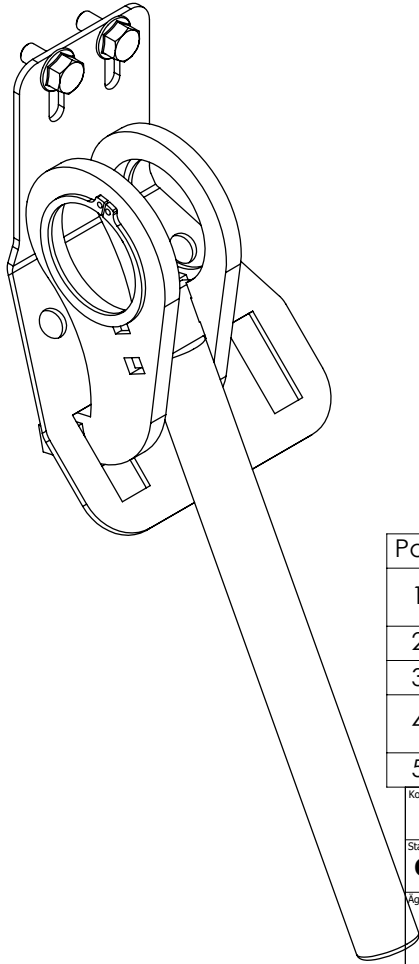
Nr	Ändring	Datum	Ändrad av
-		2017-02-15	



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	101470	471605	Kulventil 3/4"	0.19
2	4	101007	450103	Tredo-bricka 1/2"	
3	1	101475	40101212	Adapter INV R 3/4" - UTV 3/4"	
4	1	115580	688105	Banjobult 3/4" Enkel	
5	1	115581	461355	Banjo 3/4" - 3/4" UTV	0.19
6	1	102987	60000808	Adapter 1/2" UTV - 1/2" UTV	

Konstruerad Av: LH	Ritad Av: LH	Skapad Datum: 2017-02-14	Godkänd Av:	Generell Tolerans:	Skala: 1:2	Original ark storlek: A4
Status: Godkänd	Vikt (kg): 1	Titel / Benämning: 3/4" kran 1/2 anslutning		Agare:		
Artikel Nr: 135520			Rev: -	Blad: 1 (1)		

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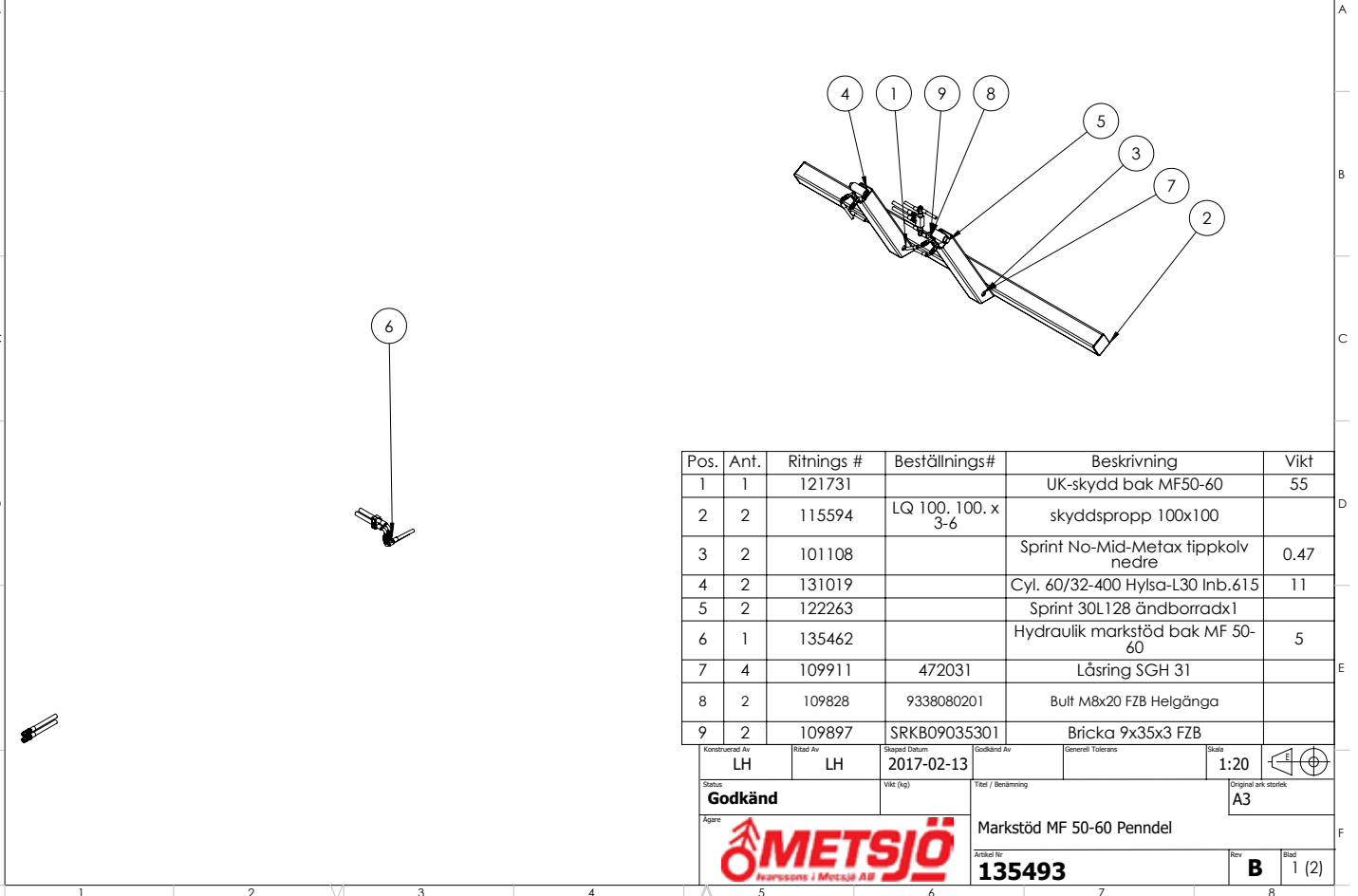


Nr	Ändring	Datum	Ändrad av
-		2017-12-19	

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	139001	139001-Grå	Manuell handtag skiftes lås MF 50-65	2
2	1	100333	10400060,2	Ringsprint 10m-40 nick parm	0.04
3	1	139002		Plåt manuell växellås MF 50-65	
4	2	133068	M6SFGF08016 13	Bult M8x16 Självgänga	
5	2	116258	471050	Låsring SGA 50	

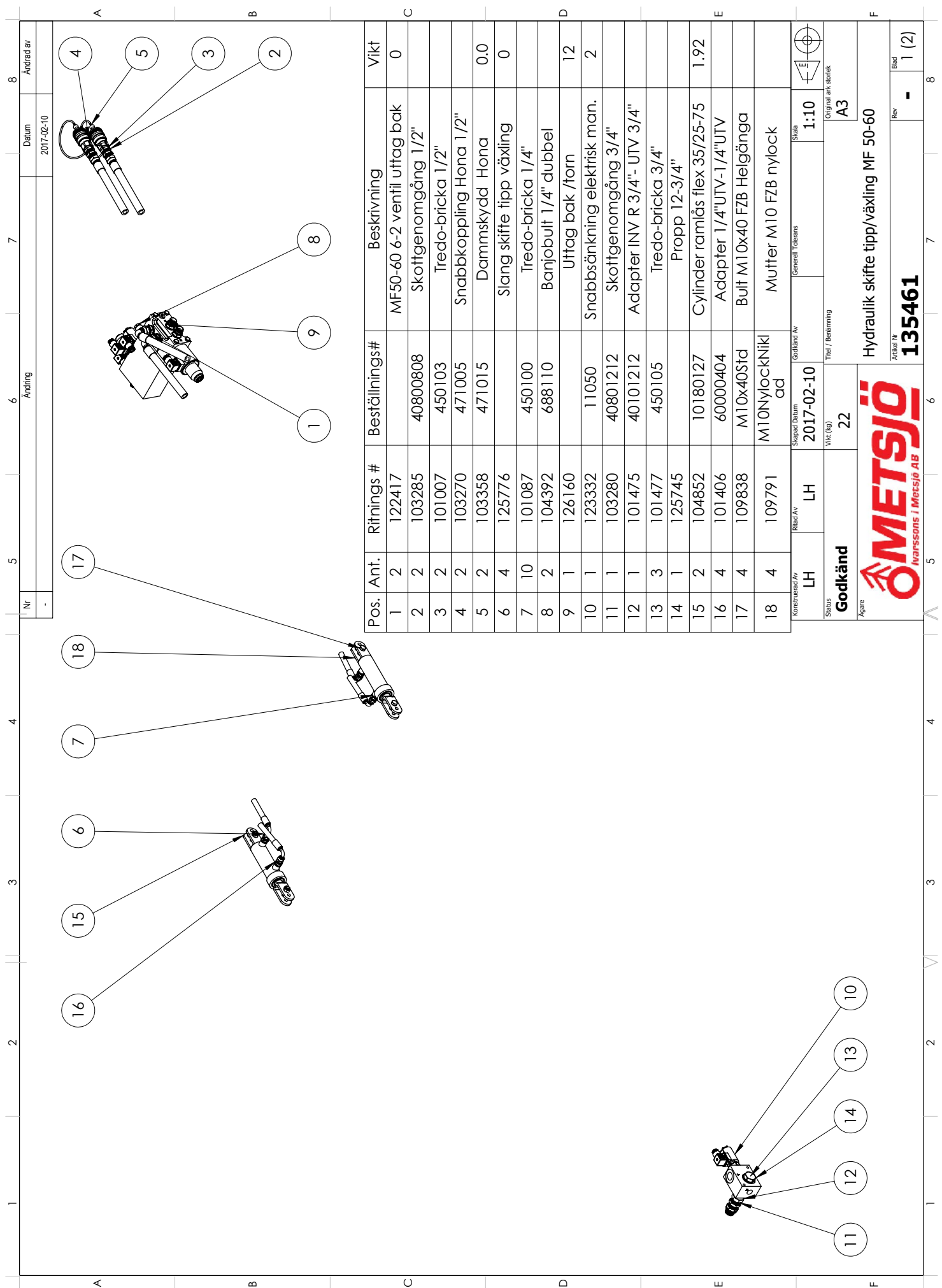
Konstruerad Av LH	Ritad Av LH	Skapad Datum 2017-12-19	Godkänd Av	Generell Tolerans	Skala 1:2	
Status Godkänd	Vikt (kg) 2	Titel / Benämning		Original ark storlek A4		
Agare 			Manuell skifte tipp/växling MF 50-65			
Artikel Nr 139050					Rev -	Blad 1 (1)

Nr	Ändring	Datum	Ändrad av
-		2017-02-15	
A		2017-02-16	
B		2017-02-16	



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	121731		UK-skydd bak MF50-60	55
2	2	115594	LQ 100. 100. x 3-6	skyddspropp 100x100	
3	2	101108		Sprint No-Mid-Metax tippkolv nedre	0.47
4	2	131019		Cyl. 60/32-400 Hylsa-L30 lnb.615	11
5	2	122263		Sprint 30L128 ändborradx1	
6	1	135462		Hydraulik markstöd bak MF 50-60	5
7	4	109911	472031	Låsring SGH 31	
8	2	109828	9338080201	Bult M8x20 FZB Helgänga	
9	2	109897	SRKB09035301	Bricka 9x35x3 FZB	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2017-02-13	Godkänd Av	Generell Tolerans	Skala 1:20	
Status Godkänd	Vikt (kg)	Titel / Benämning		Original ark storlek A3		
Agare 			Markstöd MF 50-60 Penndel			
Artikel Nr 135493					Rev B	Blad 1 (2)



Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	122417		MF50-60 6-2 ventil utftag bak	0
2	2	103285	40800808	Skottgenomgång 1/2"	
3	2	101007	450103	Tredo-bricka 1/2"	
4	2	103270	471005	Snabbkoppling Hona 1/2"	
5	2	103358	471015	Dammskydd Hona	0.0
6	4	125776		Slang skifte tipp växling	0
7	10	101087	450100	Tredo-bricka 1/4"	
8	2	104392	688110	Banjobult 1/4" dubbel	
9	1	126160		Utftag bak / torn	12
10	1	123332	11050	Snabbsänkning elektrisk man.	2
11	1	103280	40801212	Skottgenomgång 3/4"	
12	1	101475	40101212	Adapter INV R 3/4"- UTV 3/4"	
13	3	101477	450105	Tredo-bricka 3/4"	
14	1	125745		Propp 12-3/4"	
15	2	104852	10180127	Cylinder ramlös flex 35/25-75	1.92
16	4	101406	60000404	Adapter 1/4"UTV-1/4"UTV	
17	4	109838	M10x40Std	Bult M10x40 FZB Helgöngå	
18	4	109791	M10NylockNiki ad	Mutter M10 FZB nylock	

Nr	-	Ändring	Datum	2017-02-10	Ändrad av
Konstruktör Av	LH	Revisör Av	LH	Godkänd Av	Godkänd Av
Status	Godkänd	Skapad Datum	2017-02-10	Skala	1:10
Agare		Vikt (kg)	22	Original ark storlek	A3
		Titel / Beskrivning		Hydraulik skifte tipp/växling MF 50-60	
		Artikelnr		135461	
		Rev		1 (2)	

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Ivarssons i Metsjö AB

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Nr		Ändring		Datum		Ändrad av	
-				2017-02-10			
A				2017-02-16			

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	120670		VBESH-S-053,02	4
2	2	101087	450100	Tredo-bricka 1/4"	
3	2	103078	Propp04	Propp 04-1/4"	
4	2	122409		Slang uttag bak stöfet bak MF-50-60	0
5	5	101007	450103	Tredo-bricka 1/2"	
6	4	101016	5C105956205	Snabbkoppling Hane 1/2"	
7	6	101477	450105	Tredo-bricka 3/4"	
8	6	103333	60001212	Adapter 3/4"UTV-3/4"UTV	
9	3	122421		Tryck /retur tipp växling MF 50-60	0
10	1	122422		3/4" kran 3/4 anslutning	1
11	1	122427		växlings slang MF50-60	0
12	3	103340	60001208	Adapter 3/4"UTV-1/2"UTV	
13	1	103270	471005	Snabbkoppling Hona 1/2"	
14	2	103438	60000608	Adapter 3/8" UTV-1/2" UTV	
15	1	128082		Tipp slang MF50-60	0
16	1	128085		Torn slang MF 50-60	0
17	1	128086		Torn slang MF 50-60	0
18	1	103614	0108212007	GE 15L-3/8" 60°	
19	1	101557	Propp08	Propp 08-1/2"	
20	1	109365	RBP-325SV	Dubbel 25 rör	0

Konstruerad Av	Ribad Av	LH	LH	Skapad Datum	2017-02-10	Godkänd Av		Skala	1:10
Status		Godkänd		Titel / Beskrivning		General Tolerans		Original ark storlek	
Agare		Godkänd		Vikt (kg)		A3			
				11					

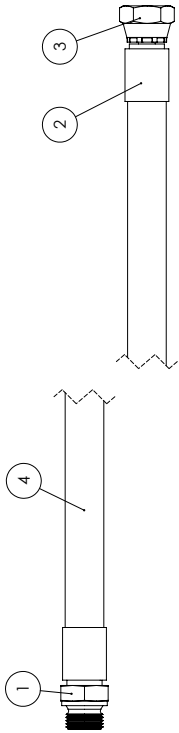
Hydraulik tipp/våxl Fri retur MF 50-60 Pendelboggi

Arbets Nr **135460**

Rev **A** 1 (1)



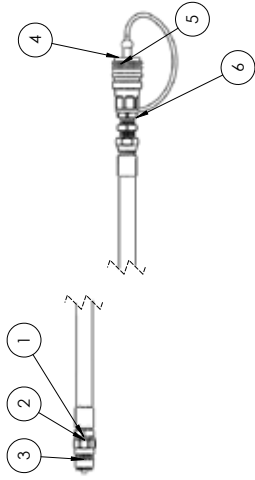
Nr	Ändring	Datum	Godk. av
C	Justerad slanglängd	2013-03-18	
D		2013-11-08	
E		2014-09-03	



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
 METSJÖ
 106930
 Slang uttag bak
 106930

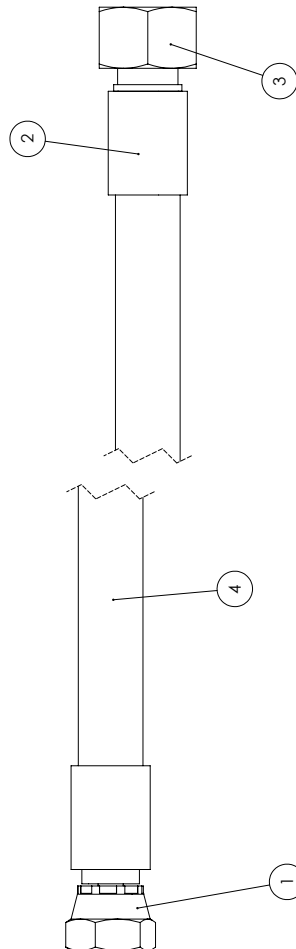
Nr	Ändring	Datum	Godk. av
-		2010-02-14	
A		2011-01-14	



Pos. Ant.	Artikelnr	Beställningsnr	Beskrivning	Vikt
1	106930		slang bakuttag MQ MF	0
2	101007	450103	Tredo-bricka 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	Skoffgenomgång 1/2"	

Godkänd
 METSJÖ
 106643
 Hydrauluttag bakNo, Mid, Mx, MQ 60/75-95
 106643

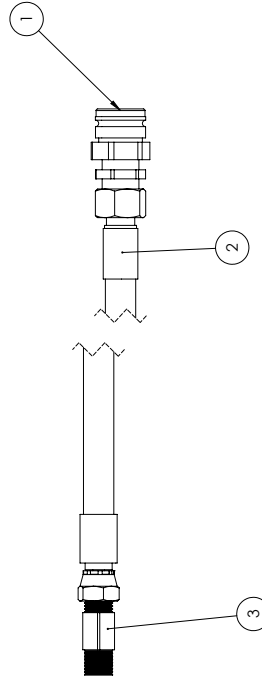
Nr	Ändring	Datum	Godk. av
C	Justerad Slanglängd	2014-09-03	
D		2017-04-20	



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	A501440806	Stolpe 3/8" - SL R M22	
MF 18	850mm	4	101036	241B08	Hydraulslang 3/8"	0.03

Godkänd
 METSJÖ
 111824
 Broms slang uttag bak
 111824

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



Pos. Ant.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	106641	F131322503	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
 METSJÖ
 106642
 Bromsuttag bak
 106642

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Nr	Ändring	Datum	Godk. av
C		2016-11-02	
D	Lag till notes	2017-10-09	

OBS! galvade produkter får inte ha grund färg eller svetspray

Pos. Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	128147	grå	svetsat stödben -15	13
2	100323	100323	Sprint stödben	0.54
3	100333	10400060.2	Ringsprint 10m-40 nick parm	0.04

Material Av	AI	2013-02-18	AI	1:5	
Skapad Datum	2013-02-18				
Godkänd Av					
Skapad Datum	2013-02-18				
Godkänd Av					
Skapad Datum	2013-02-18				
Godkänd Av					
Skapad Datum	2013-02-18				
Godkänd Av					

Godkänd 13 106634
Stödben Std komp

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106634
106634
H 1 (1)

Pos. Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	117315	117315	Dragögla Metallurgica 3.5t	20,68
2	109859		Bult M20x65 Insex 12,9	

Material Av	MI	2013-02-14	AI	SS-ISO 2768-1 m	1:2	
Skapad Datum	2013-02-14					
Godkänd Av						
Skapad Datum	2013-02-14					
Godkänd Av						
Skapad Datum	2013-02-14					
Godkänd Av						
Skapad Datum	2013-02-14					
Godkänd Av						

Godkänd 21
Dragögla med bult. Metallurgica 3,5t

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117315
117346
H 1 (1)

Nr	Ändring	Datum	Godk. av
A		2016-10-26	
		2016-10-11	

Pos. Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	100203	100203-GRÅ	Bultbart bakdrag	7.25
2	102198	102198	Dragsprint	1.72
3	100333	10400060.2	Ringsprint 10m-40 nick parm	0.04
4	109858	9121220060	Bult M20x60 Insex 12.9	
5	109905	BR82101	Bricka 21x36x3 FZB	
6	109794	982001	Muller M20 FZB nylock	

Material Av	MI	2013-02-14	AI	SS-ISO 2768-1 m	1:3	
Skapad Datum	2013-02-14					
Godkänd Av						
Skapad Datum	2013-02-14					
Godkänd Av						
Skapad Datum	2013-02-14					
Godkänd Av						
Skapad Datum	2013-02-14					
Godkänd Av						

Godkänd 9
Bakdrag kit.. Käfftadrag

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105366
105366
B 1 (1)

Nr	Ändring	Datum	Godk. av
H		2017-02-15	
J		2017-12-22	

Pos. Ant.	Artikelnr	Beskrivning	Vikt
1	122871	Kopplingsbox 8-pol	0
2	109869	Spårskruv M5x16 FZB	
3	15	24186225 Kabelskor A 2507 FLS hönå blå	
4	139119	12-26017LH LED-baklampa VA med reflex komplett med 2m kabel	
5	139120	12-26017RH LED-baklampa VA med reflex komplett med 2m kabel	

Material Av	LH	2012-01-19	AI	1:10	
Skapad Datum	2012-01-19				
Godkänd Av					
Skapad Datum	2012-01-19				
Godkänd Av					
Skapad Datum	2012-01-19				
Godkänd Av					
Skapad Datum	2012-01-19				
Godkänd Av					

Godkänd 1.72 109601
Bakljus diod

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Mekaniska | Metallurgiska AB

109601
109601
U 1 (1)

Pos. Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	130722	12232174010	LED-lampa	0.03
2	109982	3510201.6	Reliex 40x20mm gul	
3	100961	133650-10	Gummiklammer 16 mm	
4	102745	1025006.3	Bakskruv 5,5x24x39	
5	102745	1025006.3	Bakskruv 5,5x24x39	
6	102745	1025006.3	Bakskruv 5,5x24x39	
7	101082	1025006.3	Släpvagnskrydd 7 pol svart	0.08
8	101127	1025006.3	Gummiskydd till 7.13-pol	0.01
9	101112	1025006.0	Släpvagnskrydd 7 led kabel	0.02
10	109853	9338240451	Bult VAx45 FZB Högspänna	0.06
11	17885	64050301	Spårskruv M5x30 FZB	
12	17885	64050301	Spårskruv M5x30 FZB	

Material Av	LH	2011-05-18	AI	1:10	
Skapad Datum	2011-05-18				
Godkänd Av					
Skapad Datum	2011-05-18				
Godkänd Av					
Skapad Datum	2011-05-18				
Godkänd Av					
Skapad Datum	2011-05-18				
Godkänd Av					


Godkänd 5.08 106638
bakljus konsoler

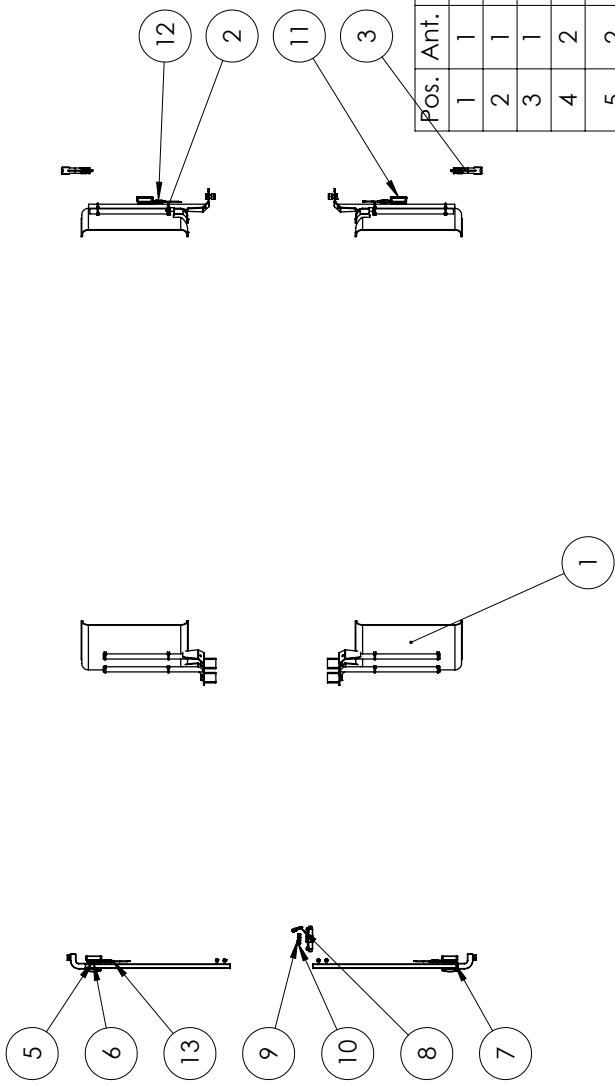
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106638
106638
M 1 (4)

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Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	103037		Skärm Fram	18.62
2	1	117216		Skärm Bak MF24	18.62
3	1	103041	103041	Sidmarkering fram o bak	5.75
4	2	106487	591086	Klämbricka L50	
5	2	Hex Screw GradeAB_ISO			
6	2	109791	M10NylockNikli ad	Mutter M10 FZB nylock	
7	2	108790		Fäste belysning	
8	1	112894	112894	Våningsplint	
9	4	113983	5501945	kabelgenomföring PG7	
10	4	118087	5502018	Kontramutter för kabelförkruv. i plast PG 7	
11	2	137406		LED arbetsbelysning 12/24V 3040lm DT-kontakt IP69K	
12	2	137406		LED arbetsbelysning 12/24V 3040lm DT-kontakt IP69K	
13	4	137407		DT-ADR-kabel 7,5m gjuten kontakt	0

Konfigurerad Av	Ritad Av	Skapad Datum	Godkänd Av	Skala
LH	LH	2013-01-08	Generell Tillrens	1:35
Status		Vik (kg)	Titel / Benämning	Original ark storlek
Godkänd		45		A3
Agare	Paket 1 h-skärm F o B. diod. belys MF			
				
Artikel # 117217				
Rev D				



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

Pos.	Ant.	Rifnings #	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	M10x40Stid	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"	

Kontrollerad Av	Skapat Datum	Godkänd Av	Generellt Toleras	Skala	1:5	⊕
Ola						
Status	Vikt (kg)	Titel / Beskrivning				
Godkänd	54					
Agens		Hydrauliskt stödben. Slangar mot traktor. Ej MF11-16.		Pos	Rev	Blad
		METSJÖ Hydrauliska i Metall AB		117545	-	1 (2)

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Nr	Ändring	Datum	Godk av
E		2018-04-01	
F		2018-03-02	

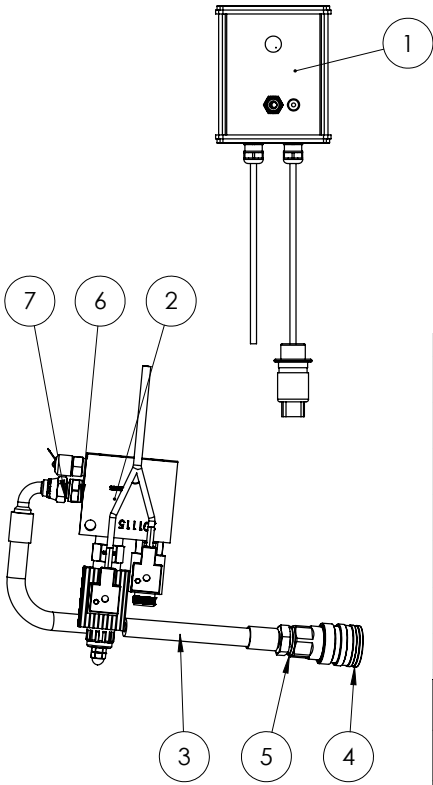
NOT: Fot 117475 kan ersättas med 126149 om större kontaktyta med backen är önskvärd 550x165

För montering av dessa finns det information på S:\OLA\Bilder montering\Chassityp"

Pos.	Ant.	Rifnings #	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 bromsuthög	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	Tredo-bricka 1/4" stödbenshylsa	
19	1	103882	20L120	Sprint till 3vägstipp	
20	4	109790	M8NylockNiklad	Mutter M8 FZB nylock	
21	4	109900	104000141	Bricka 12,5x35x3 FZB	
22	4	109914	104000142	Fjäderbricka M12 FZB	
23	2	109897	SRKB09035301	Bricka 9x35x3 FZB	
24	16	1251051	1251051	10,5x20x2FZB	
25	8	109791	M10NylockNiklad	Mutter M10 FZB nylock	
26	1	109879	148106040	Spännstift 6x40	
27	4	Hex Screw GradeA8, ISO		Hex Screw GradeA8, ISO	
28	4	Hex Screw GradeA8, ISO		Hex Screw GradeA8, ISO	
29	4	109842	104000140	Bult M12x20 FZB Helgänga	
30	2	Hex Screw GradeA8, ISO		Hex Screw GradeA8, ISO	
31	4	109831	9338080451	Bult M8x45 FZB Helgänga	
32	1	123246		Fäste pumphandtag	

Kontrollerad Av	Skapat Datum	Godkänd Av	Generellt Toleras	Skala	1:5	⊕
Ola	OK	2013-02-05	At	SS-ISO 2768-1 m		
Status	Vikt (kg)	Titel / Beskrivning				
Godkänd	70					
Agens		Hydrauliskt stödben. Handpump. Ej MF11-16.		Pos	Rev	Blad
		METSJÖ Hydrauliska i Metall AB		117500	A2	F 1 (2)

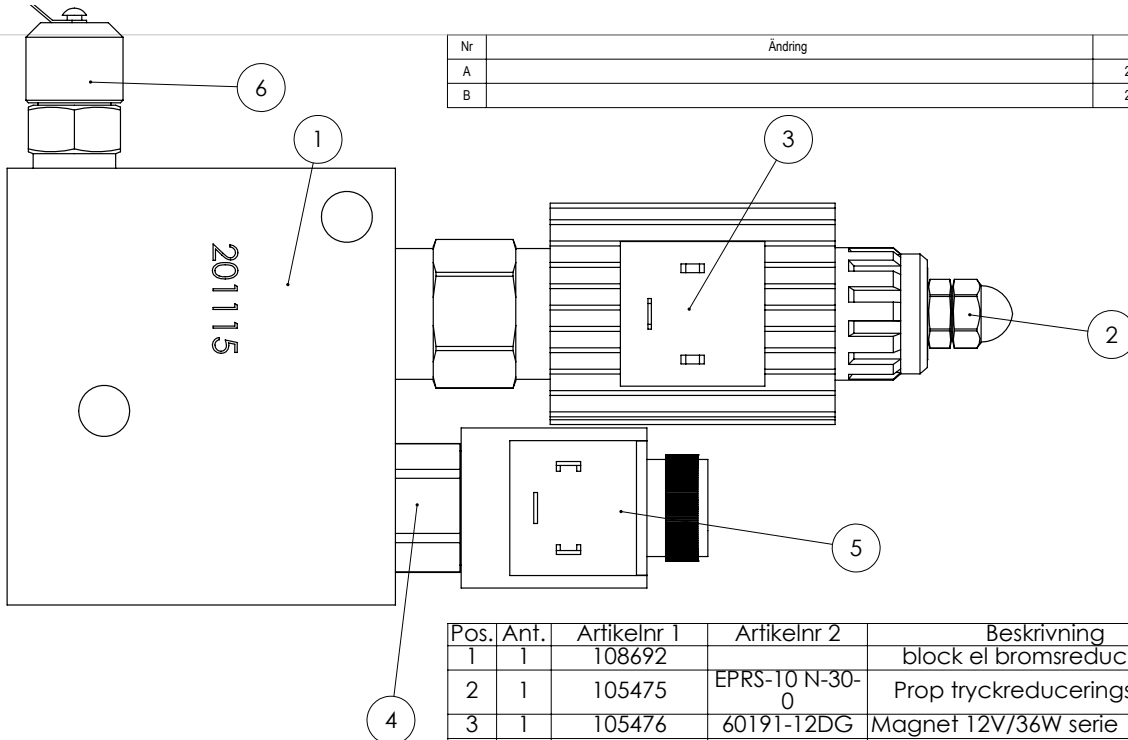
Nr	Ändring	Datum	Godk av
A		2013-06-11	
B		2017-04-26	



Pos.	Anf.	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	3
3	1	111521		Retur slang broms reducering	0
4	1	103270	471005	Snabbkoppling Hona 1/2"	
5	1	101007	450103	Tredo-bricka 1/2"	
6	1	101087	450100	Tredo-bricka 1/4"	
7	1	105498	70020406	Adapter 3/8" UTV-1/4 "UTV	

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		Original ark storlek A4		
Agare 		Bromsreducer pendel hyd broms			Rev B	Blad 1 (2)
		Artikel Nr 111338				

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Nr	Ändring	Datum	Godk av
A		2013-02-04	
B		2017-04-26	

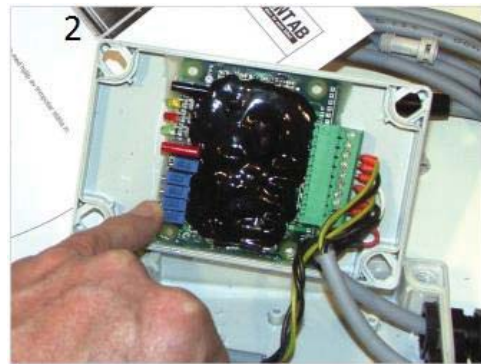
Pos.	Anf.	Artikelnr 1	Artikelnr 2	Beskrivning	Vikt
1	1	108692		block el bromsreducering	
2	1	105475	EPRS-10 N-30-0	Prop tryckreducerings ventil	
3	1	105476	60191-12DG	Magnet 12V/36W serie 10/12/16	
4	1	111341	CT512NC-12V	2-vägs ventil CT 05621 NC	
5	1	111348	0940010000	magnet spole NEM	
6	1	132903	83018004	Mätuttag NPT 1/4" M	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2011-10-05	Godkänd Av AI	Generell Tolerans	Skala 1:1	
Status Godkänd	Vikt (kg) 3	Titel / Benämning VBESH-B-5129.00		Hall		
Agare 		Ventilblock kpl. för prop. broms system 12V			Plats	Blad 1 (1)
		Artikel Nr 111360		Rev C		

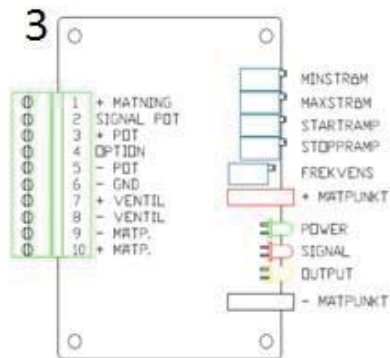
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PROPSTYRNING B-5094.00

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



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



justera bromsreducering för pendel boggie potentiometer i hytten bild1

För att justera minströmmen gör följande: Vrid ned ratten på lådan till ca 5% av utstyrningen (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 utstyrningen (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.

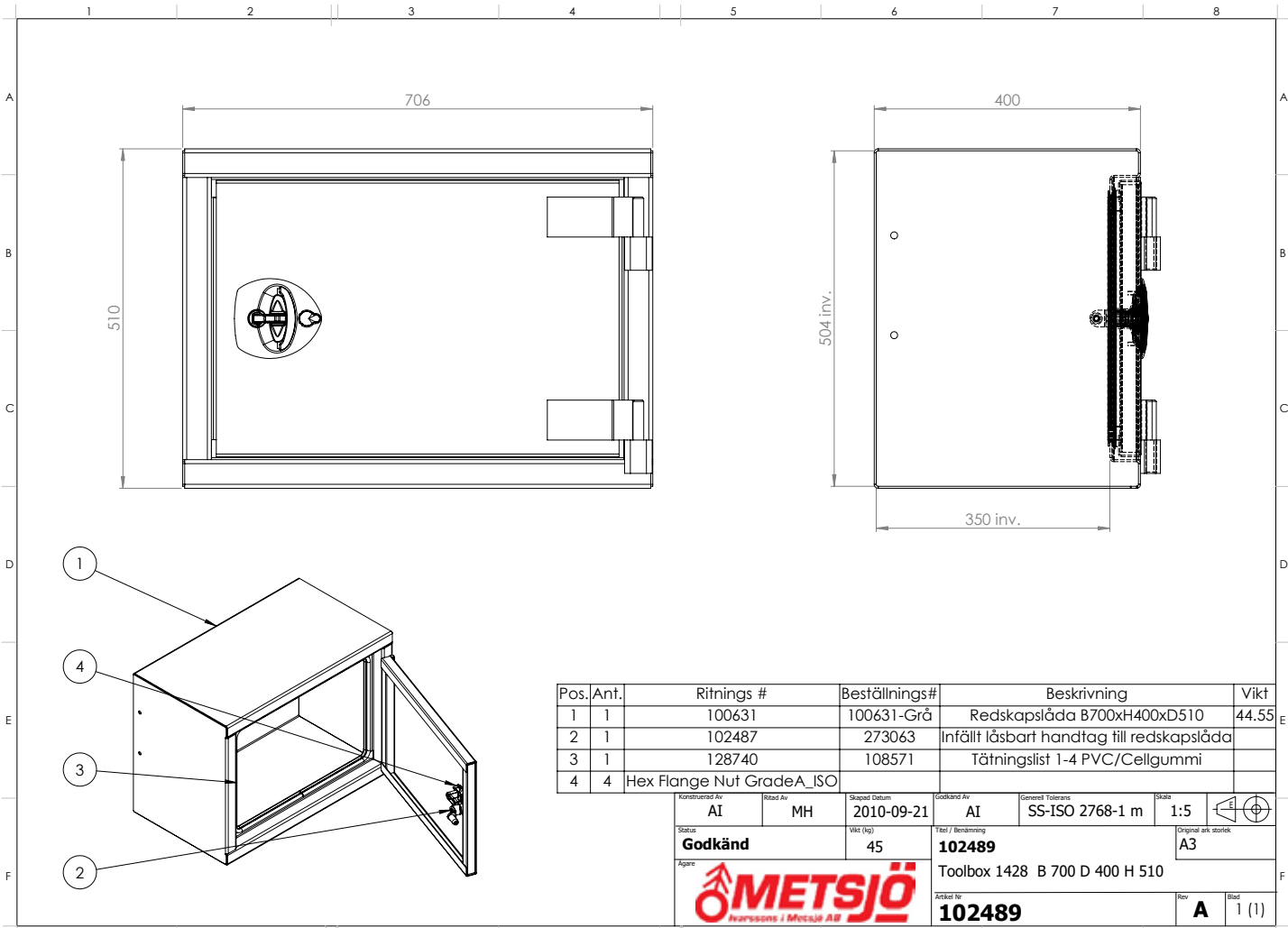
Lysdioden för output lyser steglöst och följer ventilens styrning.

Mätvärden

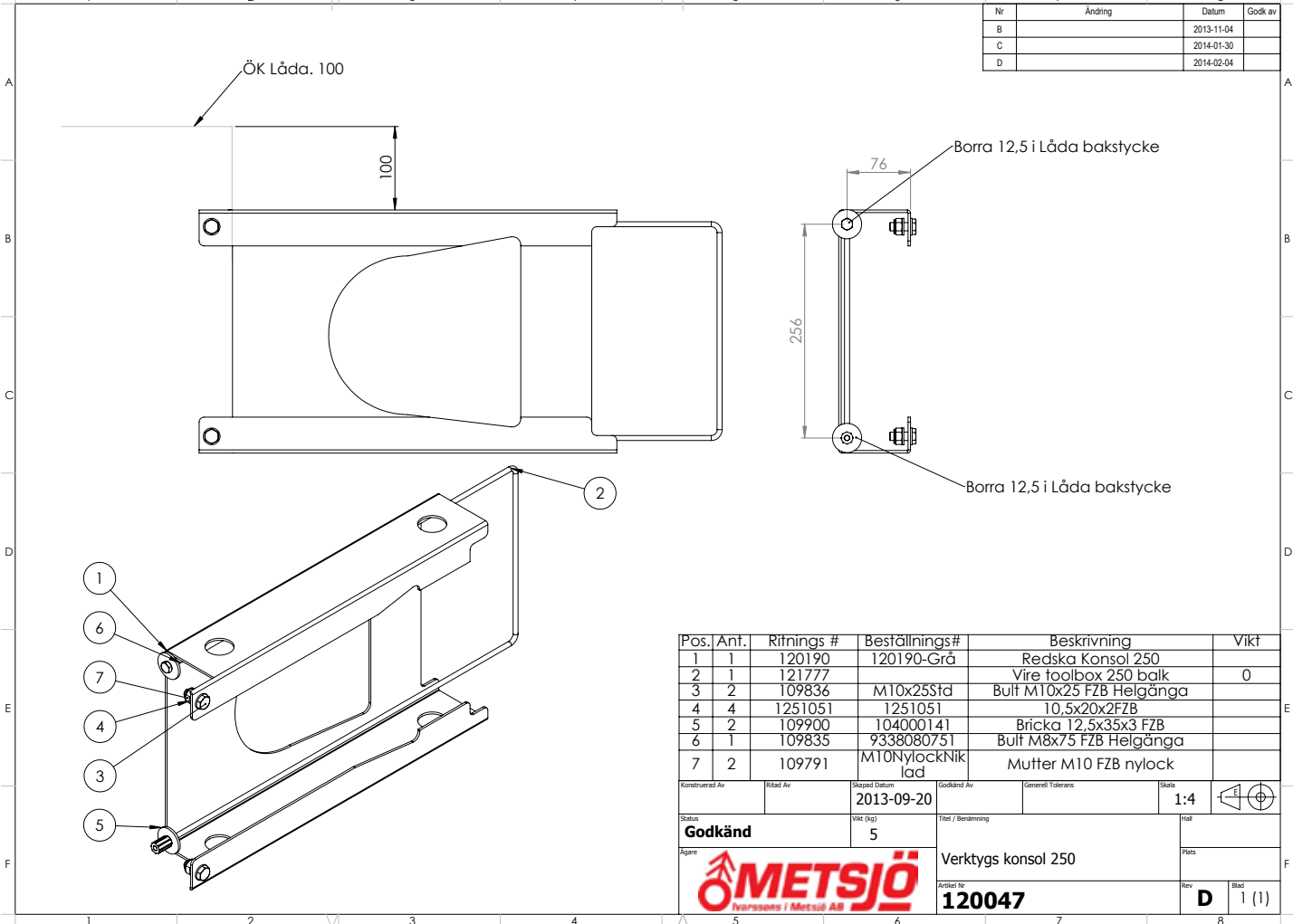
minström 0,25volt

maxström 1,7 volt

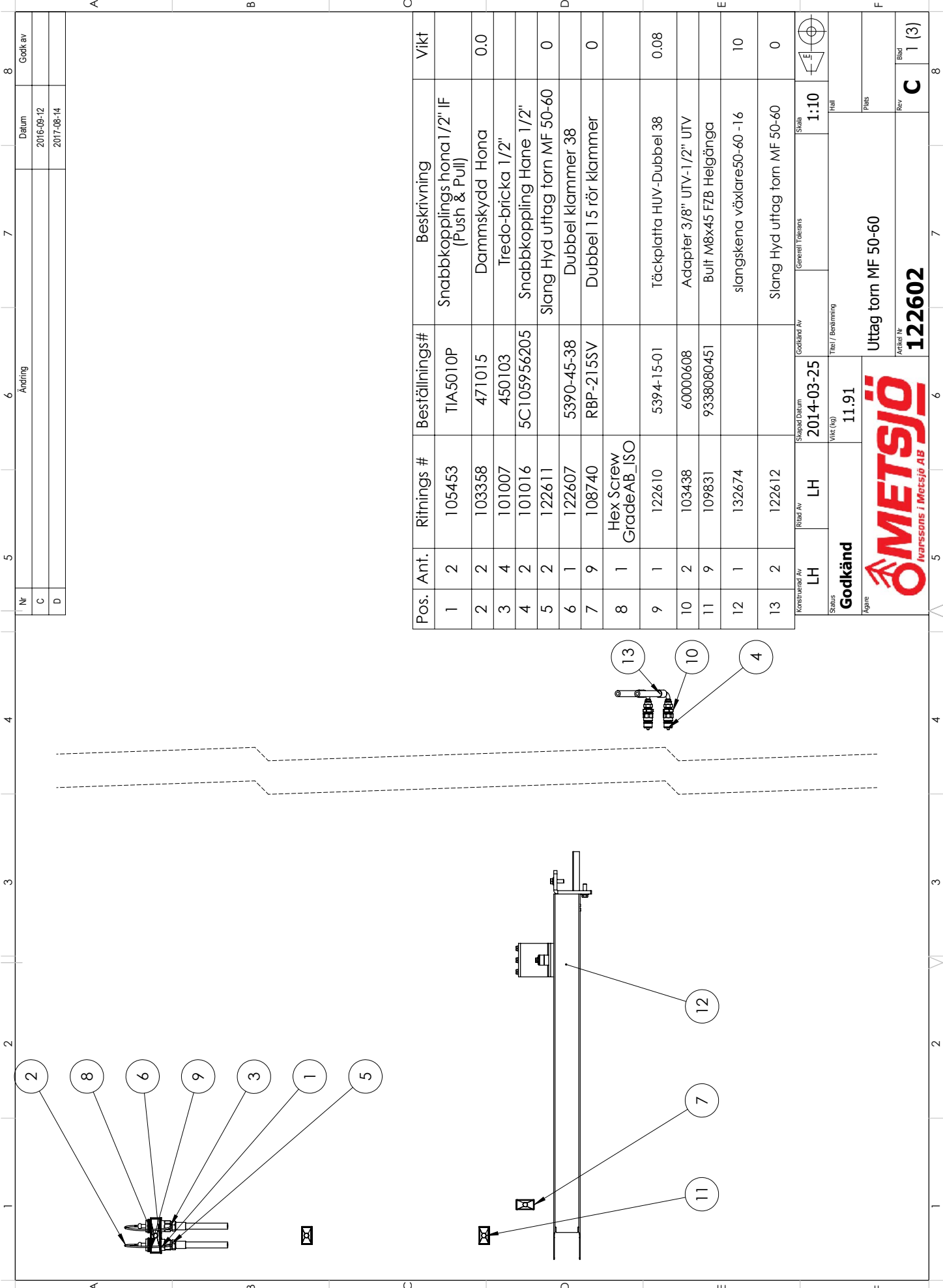
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Nr	Ändring	Datum	Godk.av
B		2013-11-04	
C		2014-01-30	
D		2014-02-04	



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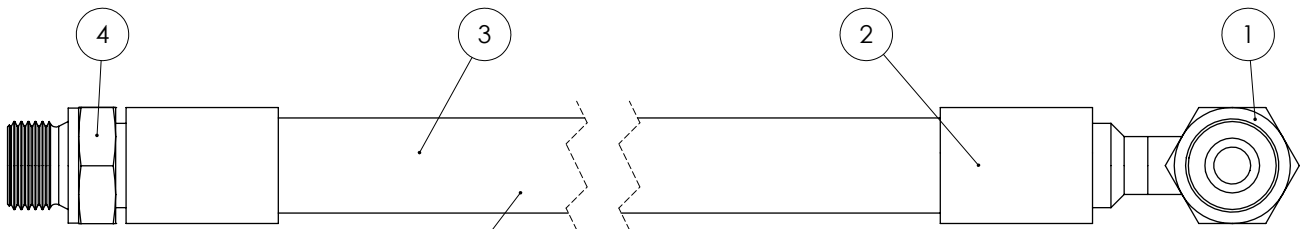


Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	2	105453	TIA5010P	Snabbkopplings hona 1/2" IF (Push & Pull)	
2	2	103358	471015	Dammskydd Hona	0.0
3	4	101007	450103	Tredo-bricka 1/2"	
4	2	101016	5C105956205	Snabbkoppling Hane 1/2"	
5	2	122611		Slang Hyd uttag torn MF 50-60	0
6	1	122607	5390-45-38	Dubbel klammer 38	
7	9	108740	RBP-215SV	Dubbel 15 rör klammer	0
8	1	Hex Screw GradeAB_ISO			
9	1	122610	5394-15-01	Täckplatta HUV-Dubbel 38	0.08
10	2	103438	60000608	Adapter 3/8" UTV-1/2" UTV	
11	9	109831	9338080451	Bult M8x45 FZB Helgänga	
12	1	132674		slangskena växlare50-60 -16	10
13	2	122612		Slang Hyd uttag torn MF 50-60	0

Konstruerad Av	LH	Ritad Av	LH	Skapad Datum	2014-03-25	Godkänd Av	Godkänd Av	Skala	1:10
Status	Godkänd	Titel / Benämning	Titel / Benämning	Vikt (kg)	11.91	Häll			
Ägare	Uttag torn MF 50-60								
									
Artikel Nr 122602									
Rev	C	Blad	1 (3)						

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Nr	Ändring	Datum	Godk av
-		2014-03-25	



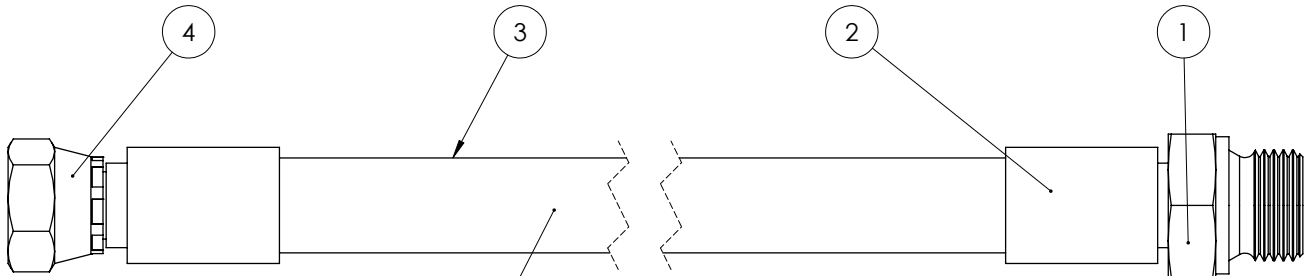
Mät slanglängd ca 5000mm

Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	103339	A500510606	Stolpe 3/8"- 90°	
2	2	102555	1100000606	Hylsa 3/8" 1W	0.03
3	1	101036	241B06	Hydraulslang 3/8"	0.03
4	1	108354	5001200606	Stolpe 3/8"- UTV 3/8"	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2014-03-25	Godkänd Av	Generell Tolerans	Skala 1:1	
Status Godkänd	Vikt (kg) 0	Titel / Benämning Slang Hyd uttag torn MF 50-60			Hall	
Ägare 		Artikel Nr 122612			Rev -	Blad 1 (1)

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Nr	Ändring	Datum	Godk av
-		2014-03-25	




Mät slanglängd ca 2900mm

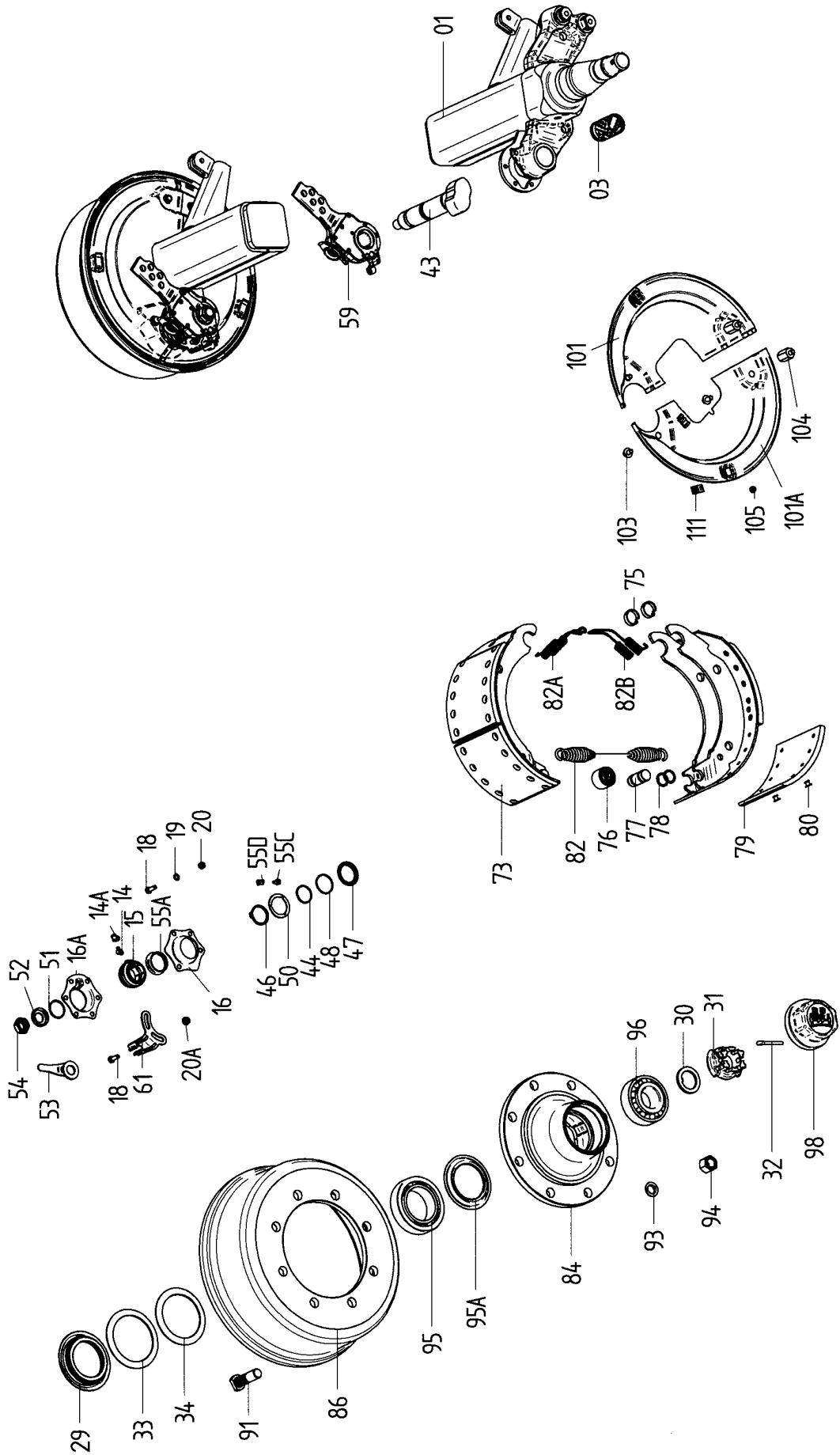
Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt
1	1	102553	5001200806	Stolpe 3/8"- UTV 1/2"	
2	2	102555	1100000606	Hylsa 3/8" 1W	0.03
3	1	101036	241B06	Hydraulslang 3/8"	0.03
4	1	104330	A500010606	Stolpe 3/8"- INV R 3/8"	

Konstruerad Av LH	Ritad Av LH	Skapad Datum 2014-03-25	Godkänd Av	Generell Tolerans	Skala 1:1	
Status Godkänd	Vikt (kg) 0	Titel / Benämning Slang Hyd uttag torn MF 50-60			Hall	
Ägare 		Artikel Nr 122611			Rev -	Blad 1 (1)

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Pos.	Ant.	Ritnings #	Beställnings#	Beskrivning	Vikt	Ändring			Datum	Godk av
						Nr				
1	1	122332		Underram multi boggi MF50-60	987				2014-03-07	
2	1	121200		Tippcylinder MF50-60 160/75-2830s LL40					2014-03-18	
3	4	101918	45499BN06	Grön amid slitplatta 120x80x30	0.24				2017-02-15	
4	1	122264		Sprint nedre tippkolv MF50-60 40L520						
5	1	102742	41 6007	Kantskydd 15x12 6-8 PVC Svart	0.01					
6	8	102742	41 6007	Kantskydd 15x12 6-8 PVC Svart	0.03					
7	1	100491	10400162	Smörjnipfel M10x1,00 rak						
8	4	109875	7000107544,2	Vagnsbult M8x25 FZB						
9	4	109896	NB08251	Bricka 8x25x1,5 FZB						
10	4	109790	M8Nyllockniklad	Mutter M8 FZB nylock						
11	2	109912	472040	Lösring SGH 40						
12	1	109601	109601	Bakljus diod	1.72					
13	2	124836		Fäste lykthållare MF 50-60	4					
14	2	130222		Lykthållare						
15	2	130226		Plåt infästning lykthållare						
16	2	100982	122321 4010	Reflex 40x90mm gul	0.03					
17	2	109852	9338240251	Bult M24x25 FZB Heigänga						
18	4	ISO 4017 - M16 x 50-N	9338160501	Bult M16x50 FZB						
19	8	109904	69161701	Bricka 17x30x3 FZB						
20	4	109793	9851601	Mutter M16 FZB nylock						
21	1	134282		Plåt dragljus kontakt kopplingslåda						
22	2	109821	M6SZ080251	Bult tensi M8x25 FZB						
23	2	109797	10400060,03	Mutter M8 FZB Tensi						

Konstruktör Av	Ritad Av	Skapad Datum	Godkänd Av	Skala	Original ark storlek
Ola				1:20	A3
Status	Vikt (kg)		Titel / Benämning		
Godkänd	1085		Monterat chassi MF50-60 multi boggi		
Agare					
Artikel Nr.			Rev		Bild
122360			C		1 (2)



5888460078



5888460078_DE.txt

ERSATZTEILLISTE

58.88.460.078

10.03.09

BPW-ANHAENGERSTUMMEL GSST 11008-1 LI
BREMSE FL 4112
ACHSSCHENKEL VK 120X15
MIT AGS
RADBOLZEN M22X1,5 MIT RADMUTTER UND FEDERRING

BILD NR: 5888460078

POS.	GEGENSTAND	ABMESSUNG	BESTELL-NR.	EINHEIT
1	ACHSKOERPER		05.059.70.21.0	1
3	BUCHSE	42/46X72.6	03.112.44.34.0	1
14	KE.SCHMIERNIPPEL	BS8X1/71412	02.6850.02.02	1
14A	SCHUTZKAPPE		02.3505.20.00	1
15	BUCHSE		03.113.14.04.0	1
16	LAGERHALTER		03.229.02.19.0	1
16A	LAGERHALTER		03.229.02.18.0	1
18	SCHRAUBE	M8X25	02.5025.30.82	4
19	FEDERSCHEIBE	B8/137	02.5403.08.92	2
20	6KT.MUTTER	M8-8/934	02.5202.12.82	2
20A	SICHERUNGSMUTTER	M8-8	02.5273.32.82	2
29	STOSSRING		05.370.06.48.0	1
30	SCHEIBE		03.320.73.13.0	1
31	KRONENMUTTER	M42X2	03.262.16.15.0	1
32	SPLINT	8X50/ISO 1234	02.6201.82.01	1
33	RING	142/111X2,5	03.310.97.31.0	1
34	RING	136/105X2.5	03.310.97.32.0	1
43	BREMSNOCKENWELLE	L=270 A=151,5	05.097.27.20.3	1
44	O-RING	37X2,6	02.5677.37.42	1
46	SICHERUNGSRING	42X2,5/471-FST	02.5676.01.00	2
47	RING	55X42X7	03.310.12.24.0	1



5888460078_DE.txt

48	O-RING	40X2,5	02.5679.23.00	1
50	DICHTRING		03.120.42.02.0	1
51	SPRENGRING	SW 40	02.5659.40.71	1
52	SCHEIBE		03.320.11.16.1	1
53	FORMBLECH		03.190.14.07.1	1
54	SICHERUNGSMUTTER	M22X1,5X15	05.260.14.12.0	1
55A	DICHTRING		03.120.42.09.0	1
55C	KEGELSCHMIERNIPPEL	AM10X1/71412	02.6802.03.50	1
55D	SCHUTZKAPPE		02.3505.20.00	1
59	AGS		05.174.83.15.3	1
61	FORMBLECH		03.165.25.15.0	1
73	BREMSBACKEN GRP		05.091.30.04.0	2
	(EINSCHL. POS. 76-78,79,80)			
75	HAKENSPRINGRING		03.188.02.02.0	4
76	ROLLE		05.331.44.02.0	2
77	BOLZEN		03.084.75.24.0	2
78	RING		03.310.70.15.0	4
79	BREMSBELAG		03.092.29.65.0	4
80	NIET	B8X15/7338	02.5805.80.35	40
82	ZUGFEDER		05.397.58.03.0	1
82A	ZUGFEDER		03.397.33.06.0	1
82B	ZUGFEDER		03.397.33.07.0	1
84	NABE		03.271.54.26.0	1
86	BREMSTROMMEL		03.106.91.11.0	1
91	RADBOLZEN	M22X1,5X80	03.296.33.11.1	8
93	FEDERRING	C22,5/74361	02.5615.22.94	8
94	MUTTER	M22X1,5	03.261.50.02.0	8
95	KEGELROLLENLAGER	33116/720	02.6408.80.00	2
95A	ABDECKBLECH		03.010.93.33.0	2
96	KEGELROLLENLAGER	32310/720	02.6406.50.00	2
98	KAPSEL	BPW 115X2	03.212.23.09.0	2
101	ABDECKBLECH	LINKS	03.010.91.32.0	1
101A	ABDECKBLECH	LINKS	03.115.50.54.0	1
103	SCHRAUBE	M10X15	02.5071.22.00	2
103A	SCHRAUBE	M10X12	02.5070.60.02	2
104	GEWINDEBOLZEN		03.177.61.01.0	2
105	STOPFEN	GPN F5	02.3704.33.00	
111	STOPFEN		03.379.00.23.0	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.

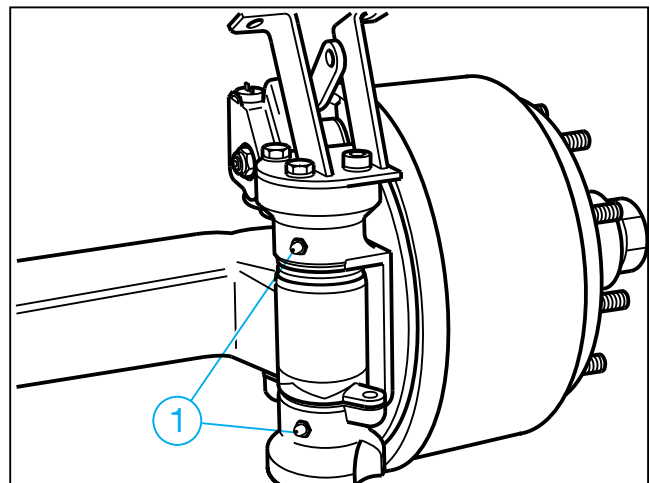
<p>Lubrication and maintenance works</p> <p>Summary</p> <p>Detailed description on pages 8 - 18</p> <p><input type="radio"/> Lubrication</p> <p><input type="checkbox"/> Maintenance works</p>	After the first laden journey	Every 40 hours in operation	Every 200 hours in operation	Every 500 hours in operation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

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.

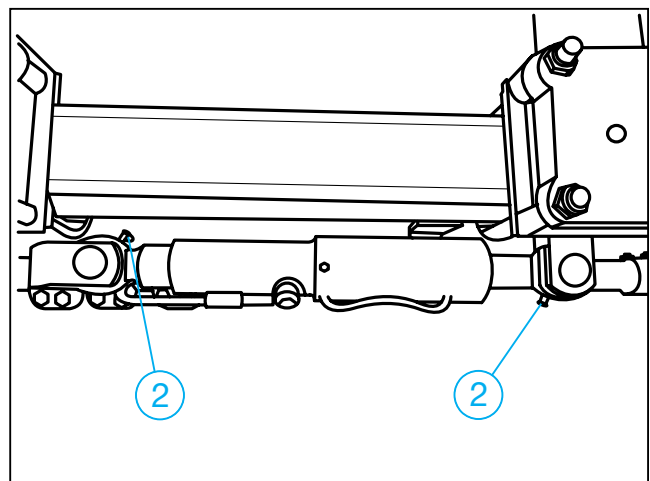


② Locking cylinder ends on steering axles

– 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.



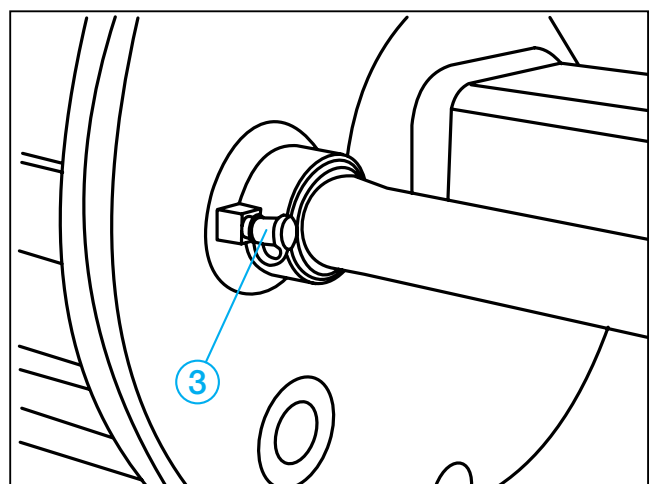
③ Outer and inner brake camshaft bearings

– 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.

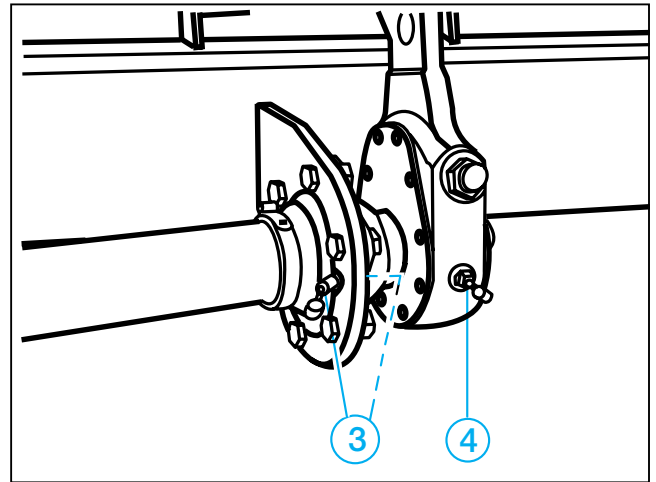
Use only lithium-based grease with a drop point above 190 °C.



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.

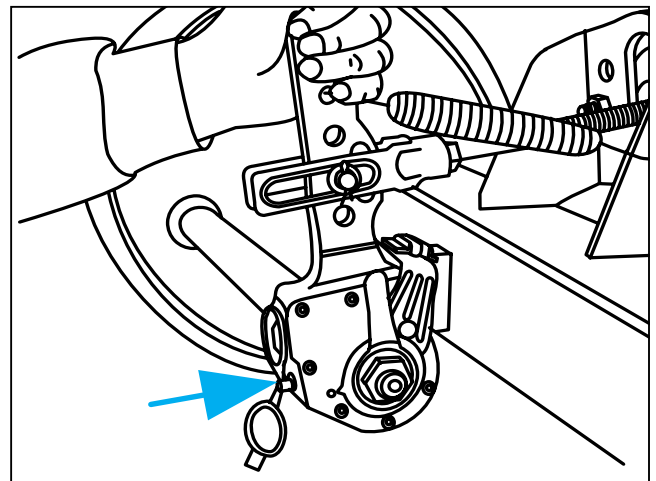
Undo the adjusting bolt by approximately one turn with a ring spanner. Operate the brake lever by hand several times.

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.

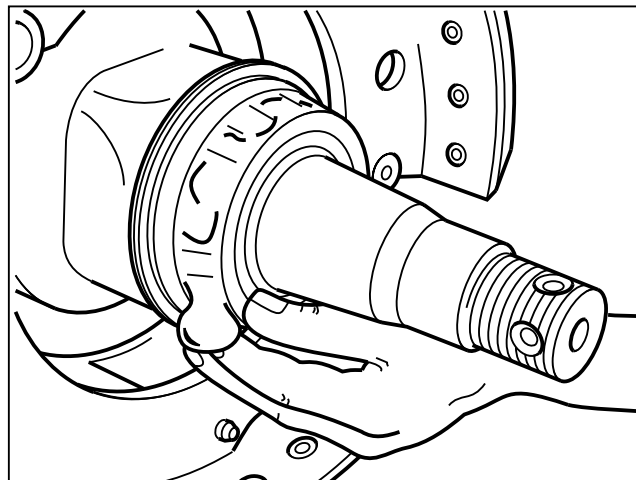
Lightly grease the bearing seats before fitting the bearings, and then assemble all the parts in the reverse order.

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

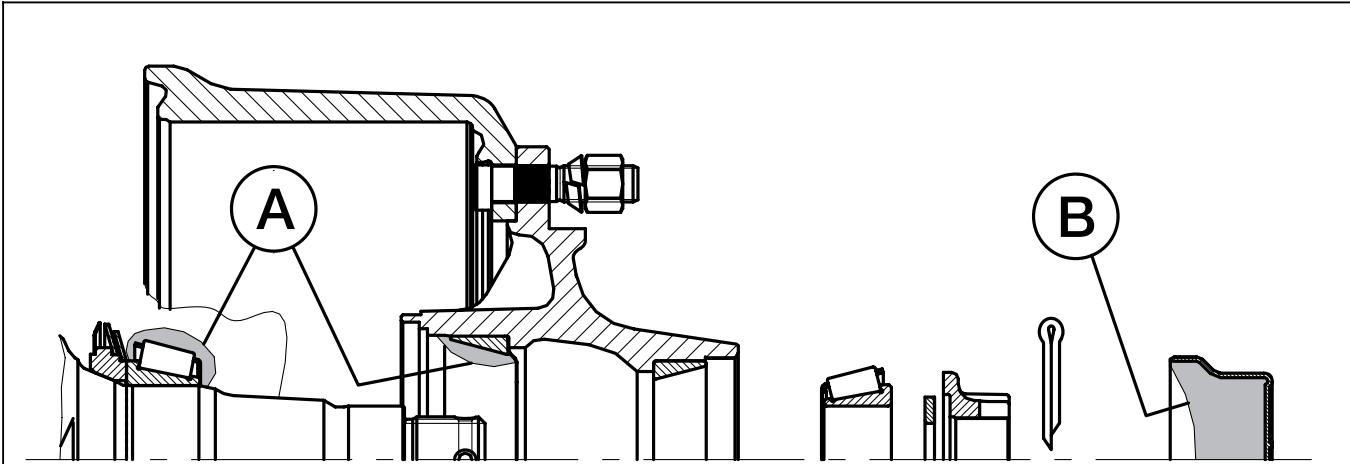


and the brake.

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.

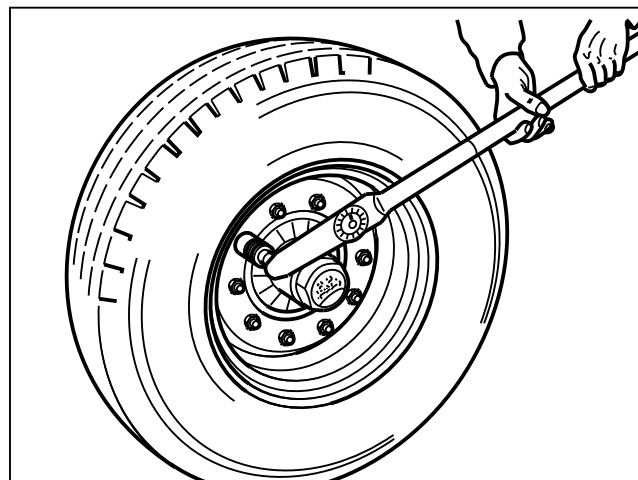


Wheel hub	BPW special longlife grease (ECO-Li 91), quantity per tapered roller bearing	
	Inner A	Outer B
GS 5506	40 g	80 g
GS 7006 GS 7008	50 g	210 g
GS 8008-1 GS 8010-1	90 g	230 g
GS 11008-1 GS 11010-1	170 g	290 g
GS 12008 GS 12010	180 g	320 g
	Work grease into the space between the tapered rollers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

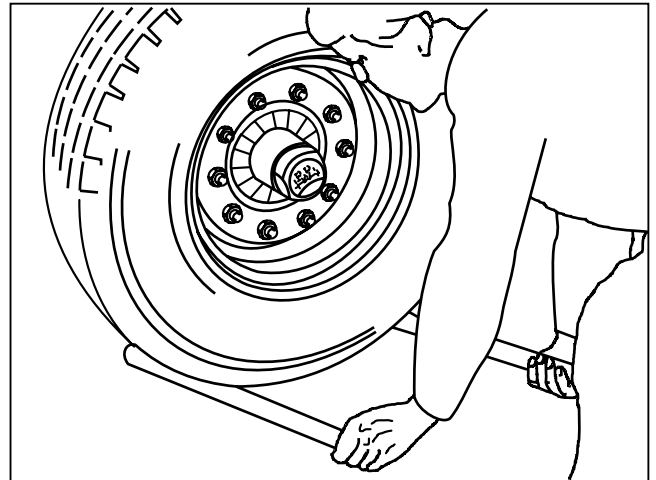
Release the brake, place a lever between the tyre and the ground, and check for play.

If you can feel play in the bearing:

Adjusting the bearing play

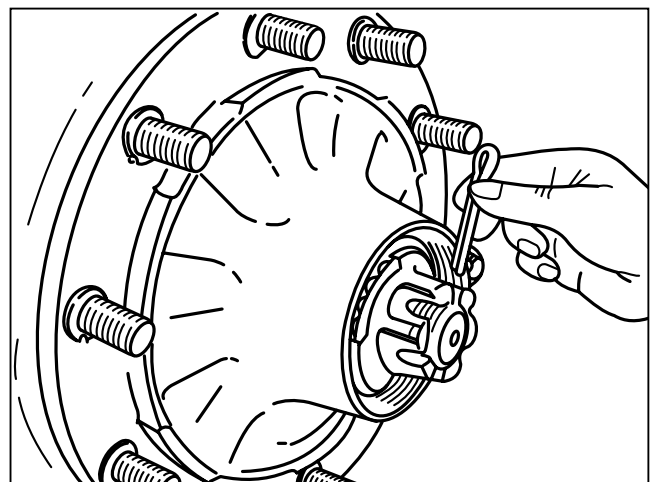
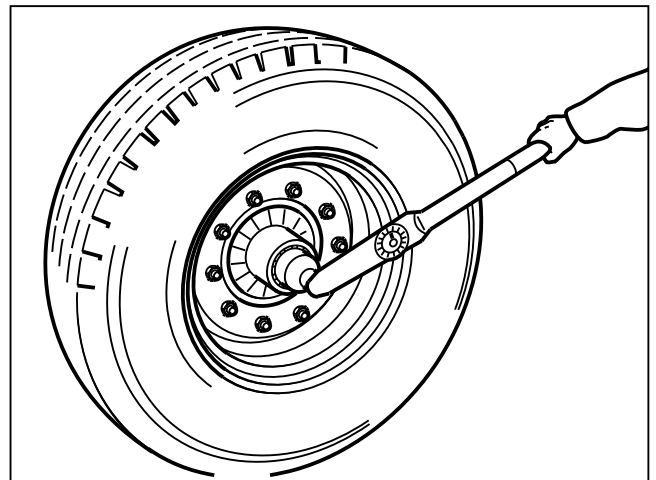
Standard hub bearing

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.



Wheel 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 –

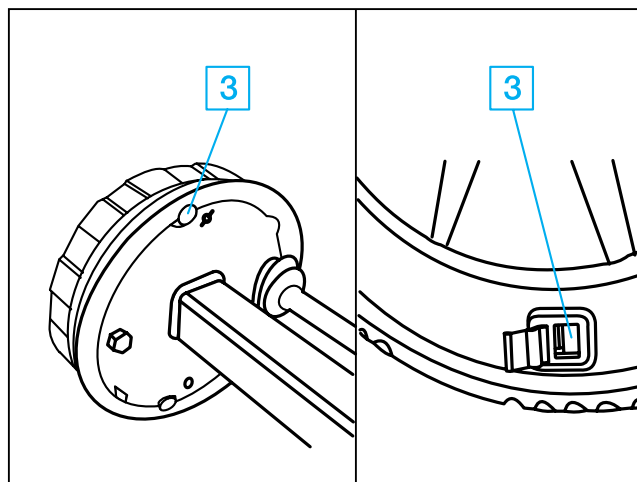
Open the inspection hole by removing the rubber bung (if present).

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.

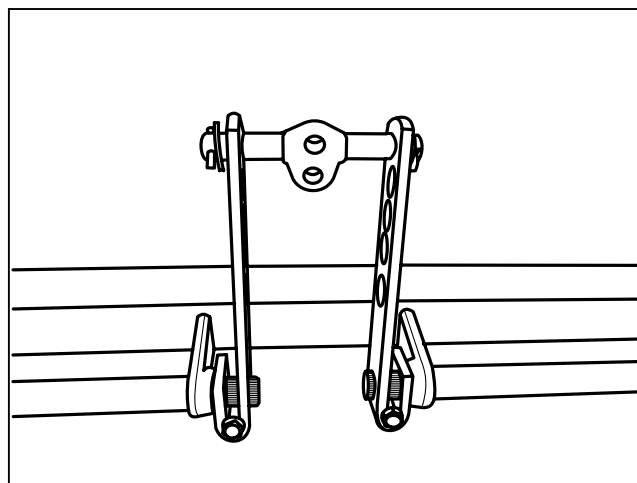
Adjustment is necessary when approx. 2/3 of the maximum cylinder stroke is used under heavy braking. For this purpose, jack up the axle and secure the vehicle against accidental movement.

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.



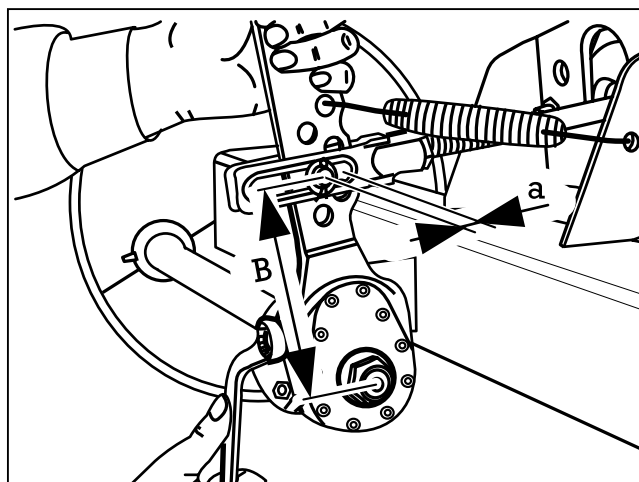
5 Adjustment of the slack adjuster

– 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.

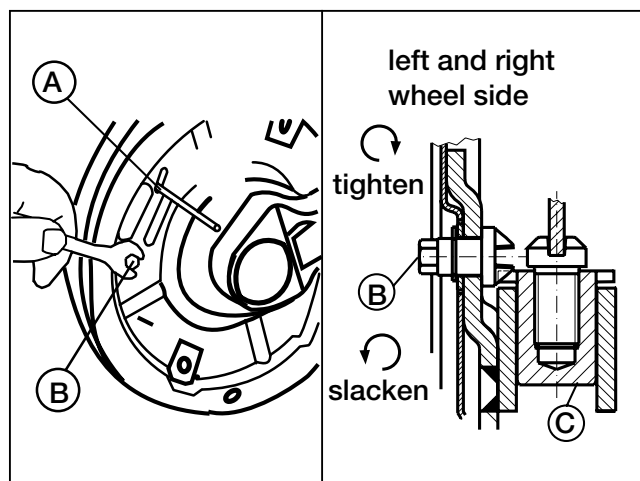
Caution:

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.



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