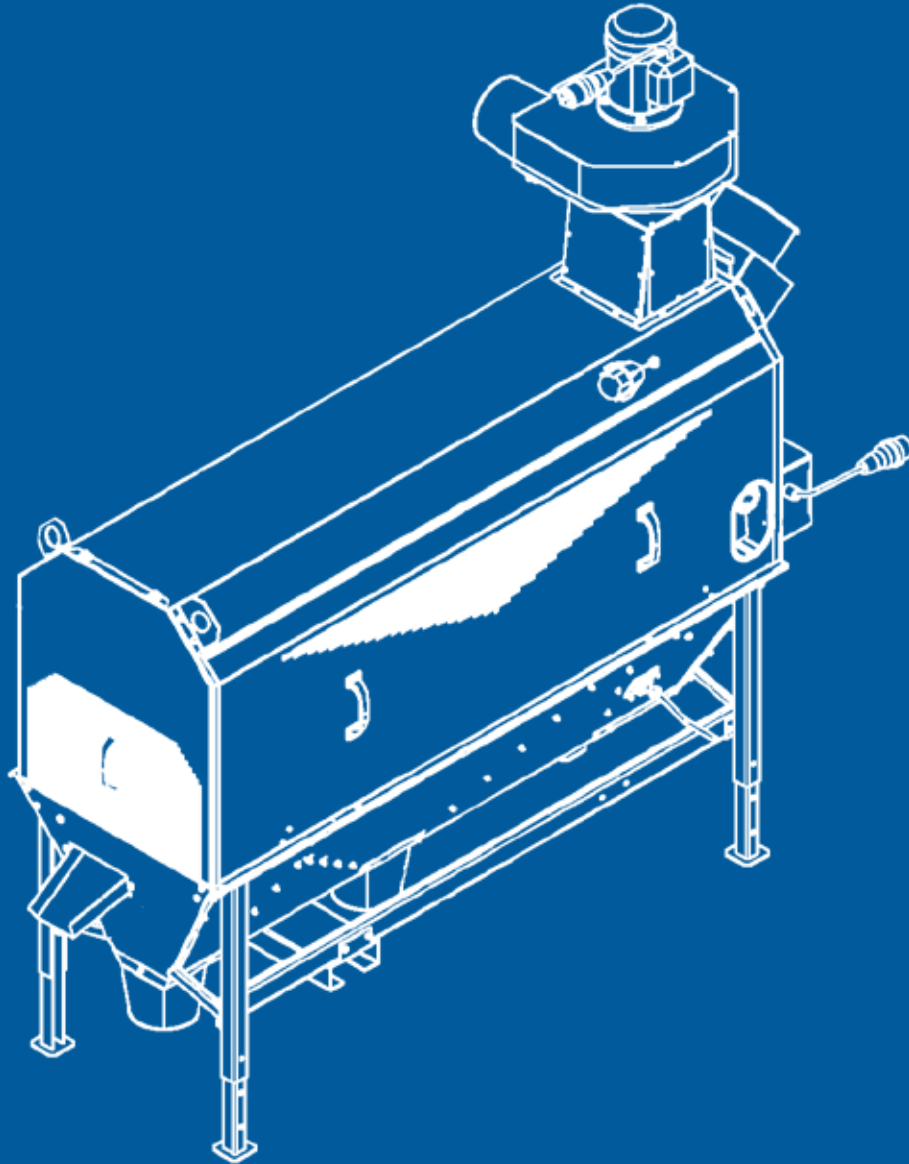


A40-4001-EN-202102



GRAIN SORTER

ASSEMBLY AND USER MANUAL

ARSKAMETALLI OY
www.arskametalli.fi



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INTRODUCTION

Production facilities of Arskametalli Oy are located in Somero, Southwest Finland. The family company has been operating for three generations and has manufactured grain handling equipment already since 1958.

Arskametalli Oy has been granted CE marking for structural welded steel assemblies and product systems as well as for internal quality control. Operations are based on the SFS-EN ISO 9001 quality system and for load-bearing structures to meet SFS-EN ISO 3834-3 welding requirements. In operations the essential requirements of the SFS-EN ISO 14001 environmental and OHSAS 18001 safety management system are taken into account.

This manual describes the assembly and operating instructions of the Arska grain sorter. Read this entire manual before installing the product. See the operating instructions and the necessary safety instructions. Successful installation and pre-trained use ensure functional operations.

Keep this manual available for frequent reference and review it with new personnel. If you need any additional information or assistance, please contact your distributor or us (www.arskametalli.fi).

DELIVERY INFORMATION

Inspection of goods

Check that the number of packages matches the packing list and that the package and the items are intact. Mark any damages and missing materials on the packing list and report to the transport company and Arskametalli. Do not install any faulty or incorrect materials.

Warranty

For grain sorters manufacturer gives a 1-year factory warranty starting from the date of delivery.

The warranty requires that owner of the product makes a announcement and a warranty application immediately after broke directly to manufacturer. If the faulted part and the warranty application haven't been delivered to warranty check to the manufacturer within two weeks of breaking, it won't be dealed as a warranty issue. The manufacturer is not responsible of additional warranty given by distributor.

The warranty requires that during the assembly there has been followed valid orders and manufacturer's instructions. Warranty covers production and material faults. Warranty does not cover faults caused by wrong assembly, improper using or neglecting the maintenance.

EU DECLARATION OF CONFORMITY



Manufacturer:

Mepu Oy
Mynämäentie 59
FI-21900 Yläne, Finland

Product: Arska grain sorter

We hereby declare that the product complies with the directives:

- 2006/42/EC Machinery Directive
- 2006/95/EC Low Voltage Directive
- 2004/108/EC Electromagnetic Compatibility Directive (EMC)

Harmonized standards that have been used:

- SFS-EN 349 + A1
- SFS-EN ISO 12100
- SFS-EN ISO 13857
- SFS-EN 60204-1:2018

Somero 1.10.2019

A handwritten signature in black ink, appearing to read 'Janne Kähkönen', is written over a horizontal line.

Janne Kähkönen, CEO
Mepu Oy

SAFETY

The product must be installed by a person who is suitably qualified. During assembly work follow valid safety orders.

Use the product only for its intended purpose. Do not modify the product in any way. Unauthorised modifications may impair the functionality and safety and affect the product's service life. Any modification of the product voids the warranty.

Assembly done wrong can lead to personal injuries or cause damage to the product. Incorrectly installed product may not work right and the capacity may drop. Read this manual carefully well before starting the assembly, maintaining or using.

General information

- Stop the machine and shut down the power before doing assembling or maintenance work of any kind.
- Do not start the machine if all hatches, connections and covers haven't been installed so that they can be only opened by tools.
- The machine is equipped with covers and warning labels according to EU's Machinery Directive. Notice all warning labels before introduction of the machine.
- Keep first aid kit available at all times.
- Make sure that the working area is clean, dry and well lit.
- Make sure that the person responsible of using the product has acquainted to its functions and safety orders.
- Packaging must be disposed properly.

Personal safety

Always wear protective equipment when assembling or using the product.

Signal words

NOTE!

The note text contains information that makes the installing easier.

CAUTION!

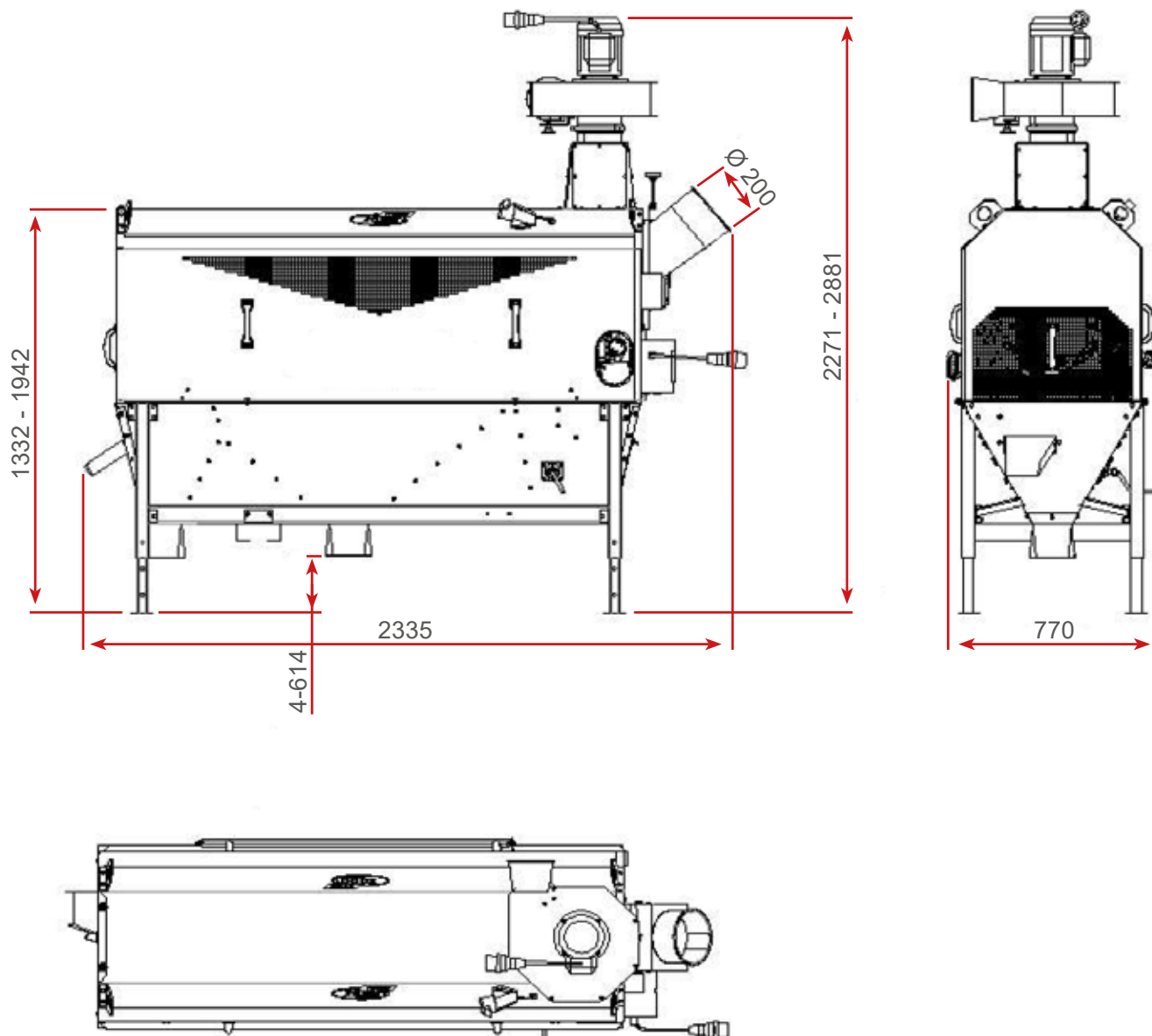
If caution text instructions are not followed, the product may be damaged. It can also result in incorrect operation or capacity decrease.

WARNING!

If warning text instructions are not followed, it could result in serious or life-threatening injuries.

1. OVERVIEW

1.1. Dimensions



1.2. Delivery contents

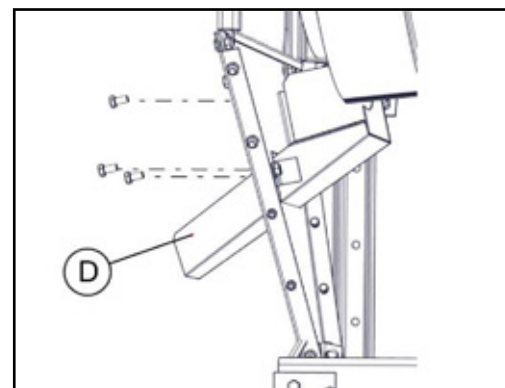
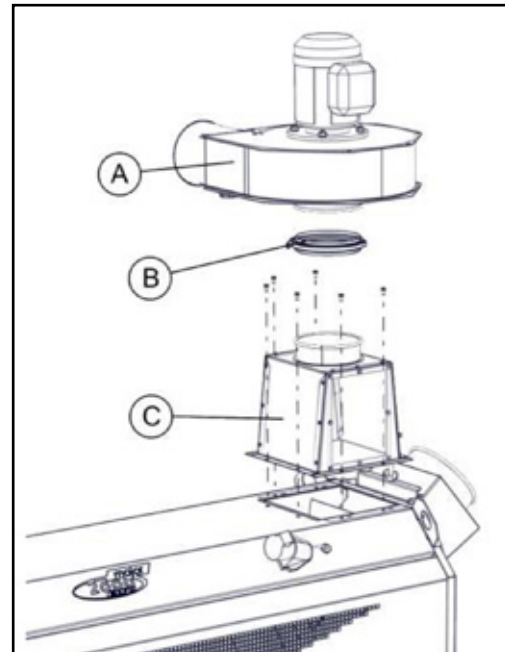
The sorter will be included in the standard delivery for grain equipment:

- Fan (A) 1 pce
- Connective band (B) 1 pce
- Cover (C) 1 pce
- Trough (D) 1 pce
- Internal drum Ø 8 mm 1 pce (standard)
- Internal drum Ø 10 mm 1 pce (standard)
- External drum 2.3 x 20 mm 1 pce (standard)

Unpack the delivery and remove the drums from the grain grader. Attach the cover (C) to the frame, using bolts. Attach the fan (A) with the band (B). Position the trough (D) in its intended position, using bolts (3 pcs).

Other drum sizes available by separate order:

INTERNAL DRUMS	EXTERNAL DRUMS
4 x 15 mm	2 x 20 mm
5 x 30 mm	2,5 x 20 mm
6 mm	2,7 x 20 mm
8 mm	3 mm
10 mm	5 x 30 mm
12 mm	
15 mm	



To a limited extent, the grain grader can be used for sorting grass seeds. Sorting capacity: for normal sorting – 0.5 – 1 t/h; for pre-cleaning/sorting 1 – 2 t/h.

Electrical connection 3-phase:

Variator 0.22 kW
 Fan 0.75 kW
 Total: 0.97 kW 1.75 A

⚠ NOTE!

The supply cable of the fan and the machine has been connected at the factory. However, please ensure that the rotating direction of the fan is correct, and that the drums are rotating clockwise, when viewed from the trough end (cf. the arrow on the external drum).

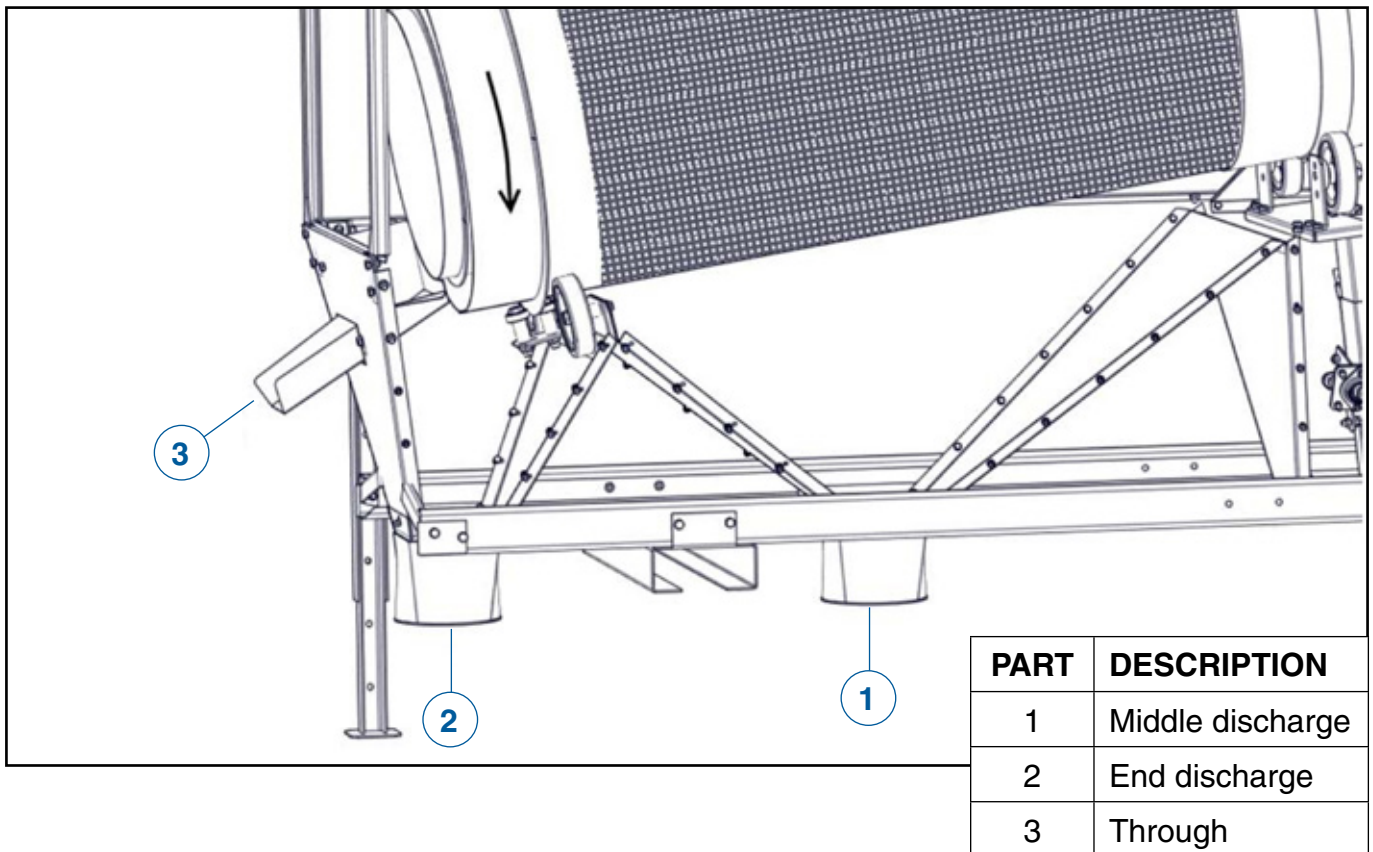
2. INSTALLATION

The machine must be installed in a horizontal position. The height of the support legs can be adjusted. If the machine is used on top of an intake hopper, it must be ensured that the grain grader is on a stable base. The base must be sturdy enough for the machine's own weight, approx. 200 kg. The machine does not strain structures with vibrations, neither does it create dust in the environment.

The air will be directed to a suitable location, using pipes. Containers that can be emptied will be placed at the end of the trough (C), and underneath the pipe for small grains, if the batches coming from these cannot be directed away with pipes.

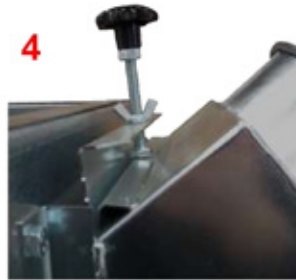
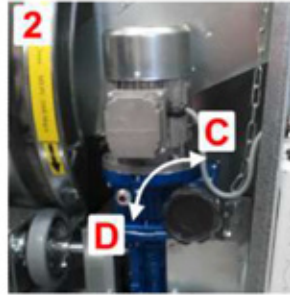
The machine can also be used to bag the assorted grain, in which case the grain grader must be positioned on such a height that the bagging process would be successful, and bag closures must also be added. During the installation process, it must be ensured there is sufficient space around the machine for changing drums, and for monitoring the machine.

A grain pipe can be connected to the grain grader in a free-flowing way, i.e. the incoming grain need not be limited when connecting the pipe.



	GOOD GRAIN	RUBBISH GRAIN	RUBBISH
Normal sorting	2	1	3
Sorting rapeseed or other small seeds	1	2	3

3. ADJUSTMENTS

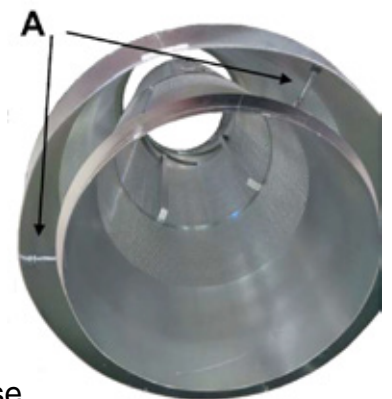


- 1. The inclination angle of the drums** is adjusted using a crank, by lifting (A) or lowering (B) the power end.
- 2. The rotating speed of the drums** is adjusted by using the wheel on the side of the variator. The speed will increase (C), and the speed will decrease (D).
- 3. Adjusting the intake air** can be done with the crank on the fan. More (E) and less (F).
- 4. Adjusting the feed amount** can be done using the rotating knob on the top edge of the hatch. After the adjustment, lock the wing nut.

3.1. Installing and changing drums

Place the height adjustment to its lowest position. Remove the drum's cleaning brush.

- Choose suitable drums:
 - Ø 8mm for barley, wheat, rye
 - Ø 10mm for barley, oat, peas
- Push the internal drum into the external drum so that the pegs of the internal drum will be at the end closes to the trough.
 - The pegs can be rotated, one of these is without a base. This peg will be positioned to go in the slot on the inner surface of the external drum.
 - The internal drum is rotated counter-clockwise inside the slot and then pulled outwards, which will lock the internal drum.
 - Tighten the middle pegs of the internal drum counter-clockwise (A). The internal drum must be tightened.
- Place the drums into the machine through the side hatches or from behind. Position the edge on the external drum in between the thrust bearings.
- The internal drum can also be changed so that the drums are pulled back enough for these to reach the back edge. Place a board underneath the front end so that it would not fall into the funnel. Rotate the internal drum and pull it out to change.
- When the drums are in place, the cleaning brush can be positioned to sweep the surface of the drums.



WARNING!

Do not touch rotating drums!

4. SORTING

The following sample procedures are the basic adjustments, according to the product to be sorted. It is impossible to give precise adjustment instructions, because grains will vary depending on the size of the grains, hectolitre weights, rubbish content, and pieces of straw. The grain is fed to the machine using a pipe of Ø200, maximum. When using a smaller pipe, e.g. Ø160, it is recommended to use a converter.

1. The inclination angle of the drums is set to low.
2. The feed shut-off damper is closed.
3. The drums are started, and set at a low speed.
4. The fan is started, the intake air is adjusted to approximately mid-range. If the intake is off, or too low, the feed roller's air gap can become blocked when the feeding of the grain to the machine starts.
5. When the shut-off damper is open, grain is fed to the machine. At the same time, the passage of the grain through the machine must be monitored.
6. The suction is increased up to a point when grains start flying out with the rubbish.
7. If the layer of grain becomes too big at one end, the feed is increased, and the drums are gradually inclined more, so that the grain will proceed downwards quicker. If the inclination is too great, the internal drum may grind on the feed pipe.
8. A suitable layer of grain on the lower level of the external drum would be 5 - 10cm. The suitable rotation speed for grains is 10-15 r/min, for peas 10-12 r/min, when the worm gear reducer change range is 7-22 r/min.
9. The rotating speed can be adjusted, in which case the width of the grain mass can be adjusted. If the rotation speed of the drums is too high, the end result of the sorting will be of lesser quality, and the cleaning will not be as efficient.

The basic setting for inclination is the top position for grains with hulls (barley / oats). Grains without hulls (wheat): medium inclination. Inclination for rapeseed and peas: the bottom position.



CAUTION!

You may only adjust the variator when the machine is running!

5. DRUM SUITABILITY

The yearly differences in grain quality affect the selection of drums. The table below is for recommendations only. Drums must be handled carefully so that they would not become dented.

EXTERNAL DRUM	INTERNAL DRUM	GRAIN TYPE	SORTING
2 x 15 mm	8 / 10 mm	Oat	SG
2 x 15 mm	8 / 4 x 15 mm	Barley, wheat, rye	PR
2 x 15 mm	5 x 30 mm	Mixture of oat / pea	PR
2,3 x 15 mm	8-10 / 4 x 15 mm	Oat, wheat, barley, rye	SG
2.5 x 15 mm	8-10 / 4 x 15 mm	Barley, wheat	MB / SG
2,7 x 15 mm	8 / 10 mm	Barley	MB / SG
Rapeseed drum 3 mm	6 / 4 x 15 mm	Rapeseed, canola	PR
Pea 5 x 30 mm	10 / 12 mm	Pea	PR / SG

SG = seed sorting

PR = commercial

MB = malting barley

- The cleaning capacity will change when adjusting the rotating speed and the inclination angle of the drums.
- A moderate throughput of seed grain will lead to a better end result.
- For commercial purposes, the capacity can be set to the maximum.
- For a more precise screening of larger quantities, it is recommended that a 6mm internal drum is used for wheat and rye.
- The 4 x 15mm internal drum is suitable for all grains, but when using oats, its capacity will only be 150-200kg / h.

6. MAINTENANCE

6.1. Sorter

When necessary, clean the machine can using a brush and a vacuum, particularly if a lot of loose rubbish has accumulated into the recess at the power end. The discharge hatch at the edge of the conical part must be opened. The drums are brushed with a coarse brush, in the direction of the holes. The threads of the height adjustment screw can be lubricated when necessary. Keep the grain grader and the drums protected from rain and sunlight, in an undercover area. Store the drums in a vertical position.

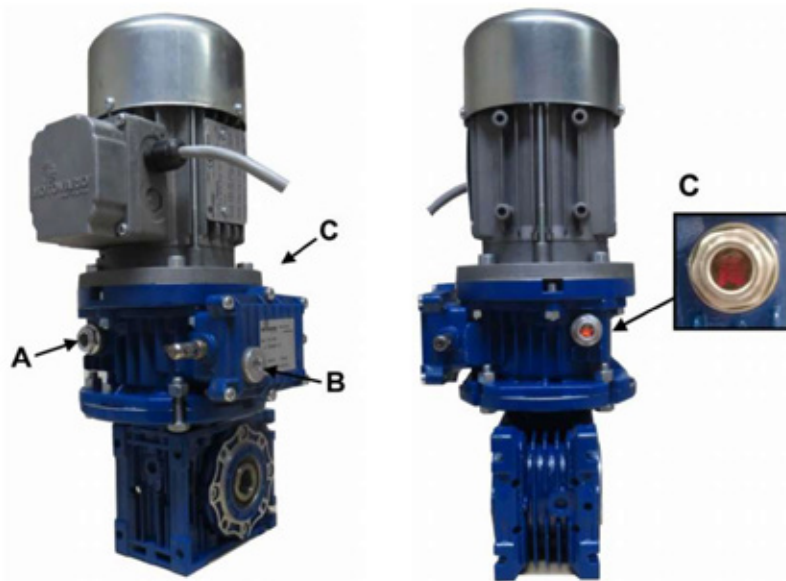
Check annually:

- the condition of the drive wheels of the feed end
- the rotation of the feed roller by lifting the lever
- that the bearings are in good condition.

6.2. Variator

Check Motovario’s valid instructions before use. The maintenance instructions in brief:

- Check regularly that the external surface of the motor and the variator is clean; particularly such surfaces that affect cooling.
- Check regularly that there are no oil leaks in the equipment; particularly the shaft seals and the O-rings.
- The switch has been lubricated permanently, it does not have oil change plugs. You do not need to change the oil of the switch.
- For the variator, the oil change interval is 5000h. When the machine is used for sorting, oil change is usually not necessary, due to the small amount of operating hours.
- You can check the variator’s oil amount visually (C). Oil is added through the plug (B). When adding or changing oil, the motor package must be removed from the drawing head.
- The normal operating temperature of the variator and the switch is (-5°C - +40°C). The lowest recommended operating temperature is -15°C. Please ensure that the machine has sufficient cooling air when using the machine in hot weather.



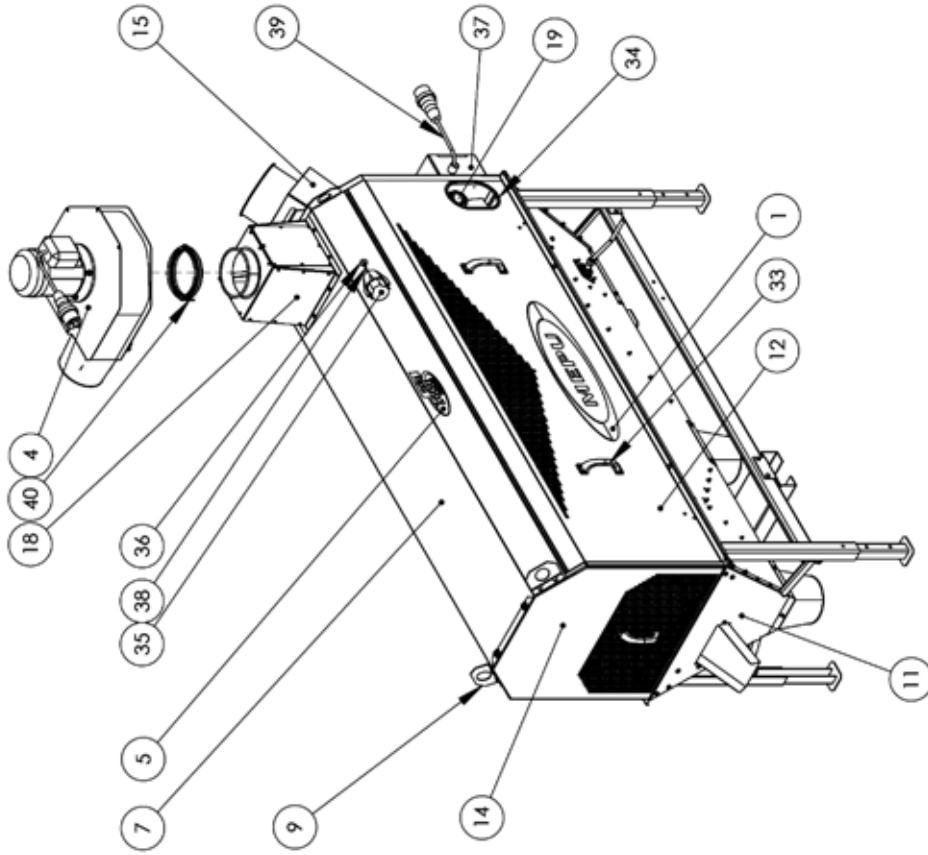
The variator’s oil volume is 0,29l and the worm gear reducer’s oil volume is 0,08l. Suitable oils for the variator TX002 and the worm gear reducer NMRV:

	TX002	NMRV
	Mineral oil	Synthetic oil
T°C ISO VG..	(-10) ÷ (+40) ISO VG32	(-25) ÷ (+50) ISO VG320
AGIP	BLASIA 32	TELIUM VSF320
SHELL	A.T.F. DEXRON	TIVELA OIL S320
ESSO	A.T.F. DEXRON	S220
MOBIL	A.T.F. 220	GLYGOYLE 30
CASTROL	DEXRON II	ALPHASYN PG320
BP	AUTRAN DX	ENERGOL SG-XP320

7. SPARE PARTS

7.1. Sorter (700100 F)

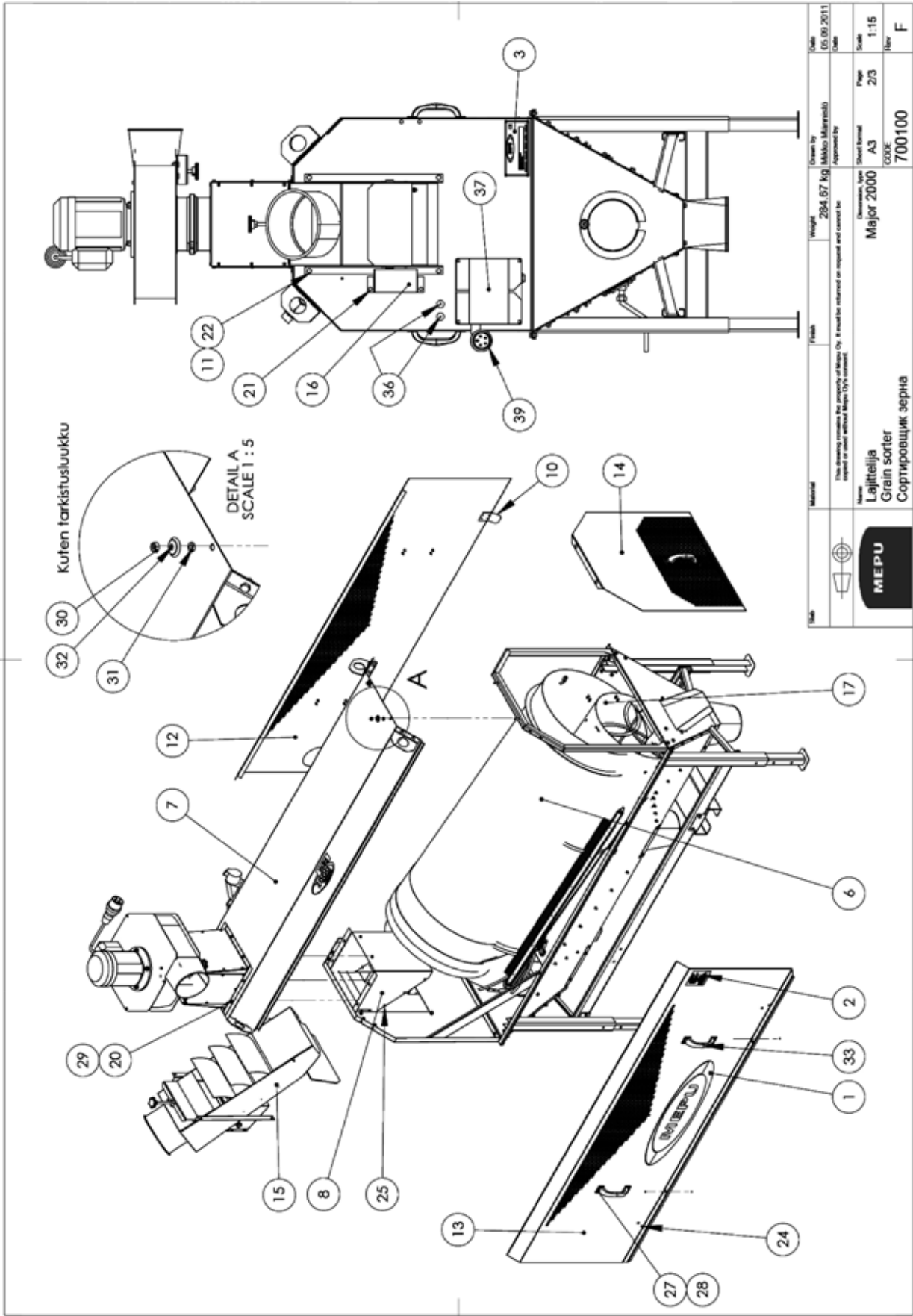
POS	CODE	Pääosa / Part / No	Nimitys	Description	По русски	Type
1	101055	2	Isama	Slector	накалка	Major 1-675
2	101059	3	Isama	Type plate	зависимый табличка	
3	101067	1	Yuppalajki	Fan	Вентилятор аппаратура	Puhallin 0,2kW
4	100091	1	Puhallin	Slector	накалка	Major2000
5	700060	2	Isama	Outlet sleeve	сино	Ulkoosula
6	700032	1	Ulkoosula	Plate	Пластина	Ylälevy
7	700043	1	Levy	Casing	Корпус	
8	700061	1	Kotelo	Plate	Пластина	Nostokorva
9	700097	4	Levy	Plate	Пластина	
10	700099	4	Levy	Frame	Рама	Major 2000
11	700109	1	Runko	Plate	Пластина	
12	700122	1	Levy	Plate	Пластина	
13	700123	1	Levy	Plate	Пластина	Stuurelevy, umpi
14	700171	1	Levy	Feeder	Матрица подачи	Syöttölaite
15	700200	1	Syöttölaite	Cover	Защита	
16	700226	1	Suoja	Inner sleeve	сино внутреннее	Sisäosula
17	700501	1	Sisäosula	Casing	Корпус	Leijakotelo
18	700625	1	Kotelo	Control dial		
19	900316	1	Säätöpyörä	Hex bolt	болт	M6x12
20	910004	6	Kuusiinuvli	Hex bolt	болт	M6x16
21	910006	2	Kuusiinuvli	Hex bolt	болт	M6x16
22	910072	8	Kuusiinuvli	Hex bolt	болт	M6x20
23	910074	10	Kuusiinuvli	Screw	Шпек	4,2x0,5
24	912399	8	Ruuvi	Drill head screw	Сверловый	4,8x13
25	912510	6	Pörräruuvi	Screw	Шпек	3,5x7,5
26	912600	4	Ruuvit	Hexagon socket screw	Венты	M6x16 - J
27	912932	20	Uppokantaruuvi	Hexagon Nut	Гайка	M5
28	920003	20	Kuusiinuvli	Hexagon Nut	Гайка	M6
29	920004	8	Kuusiinuvli	Hexagon Nut	Гайка	M8
30	920006	18	Kuusiinuvli	Hexagon Nut Low	Гайка приваленная	M8
31	920054	2	Kuusiinuvli	Cup head washer	Шайба конусная	D30/7
32	921070	2	Kupukalustelevy	Handle	Рука	Plata B05
33	960001	5	Vedin	Seal	Прокладка	1097.17
34	960631	1	Ilvälle	Power Socket	розетка	Reh. 5x16A IP44
35	980582	1	Pörräruuvi	Seal	Прокладка	BE1 7-10
36	980680	3	Iivelin	Control box	Центр управления	
37	980905	1	Oyjuokaus	Cable	Кабель	Controlbox 4x1,50 mm²
38	981031	1	Kaapeli	Cable	Кабель	4x1,5 L-2,5m 16A
39	981114	1	Kaapeli	Clamp	Защелка	el 160
40	981600	1	Kaapeli			




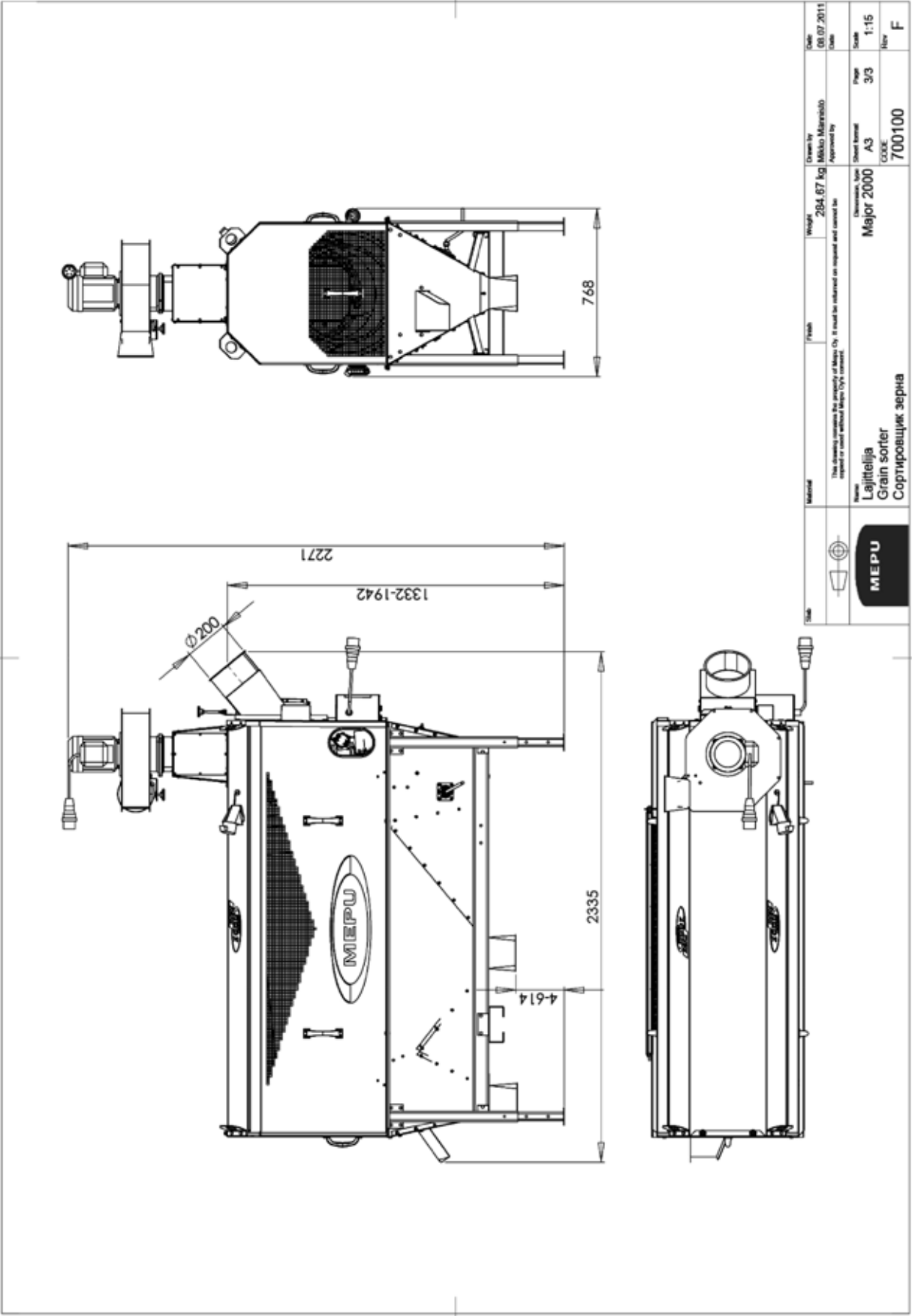
Weight	284,67 kg
Dimensions, type	Major 2000
Sheet format	A3
Page	1/3
Scale	1:15
Year	F
CODE	700100


MEPU
 Lajittelijä
 Grain sorter
 Корпусащик зерна

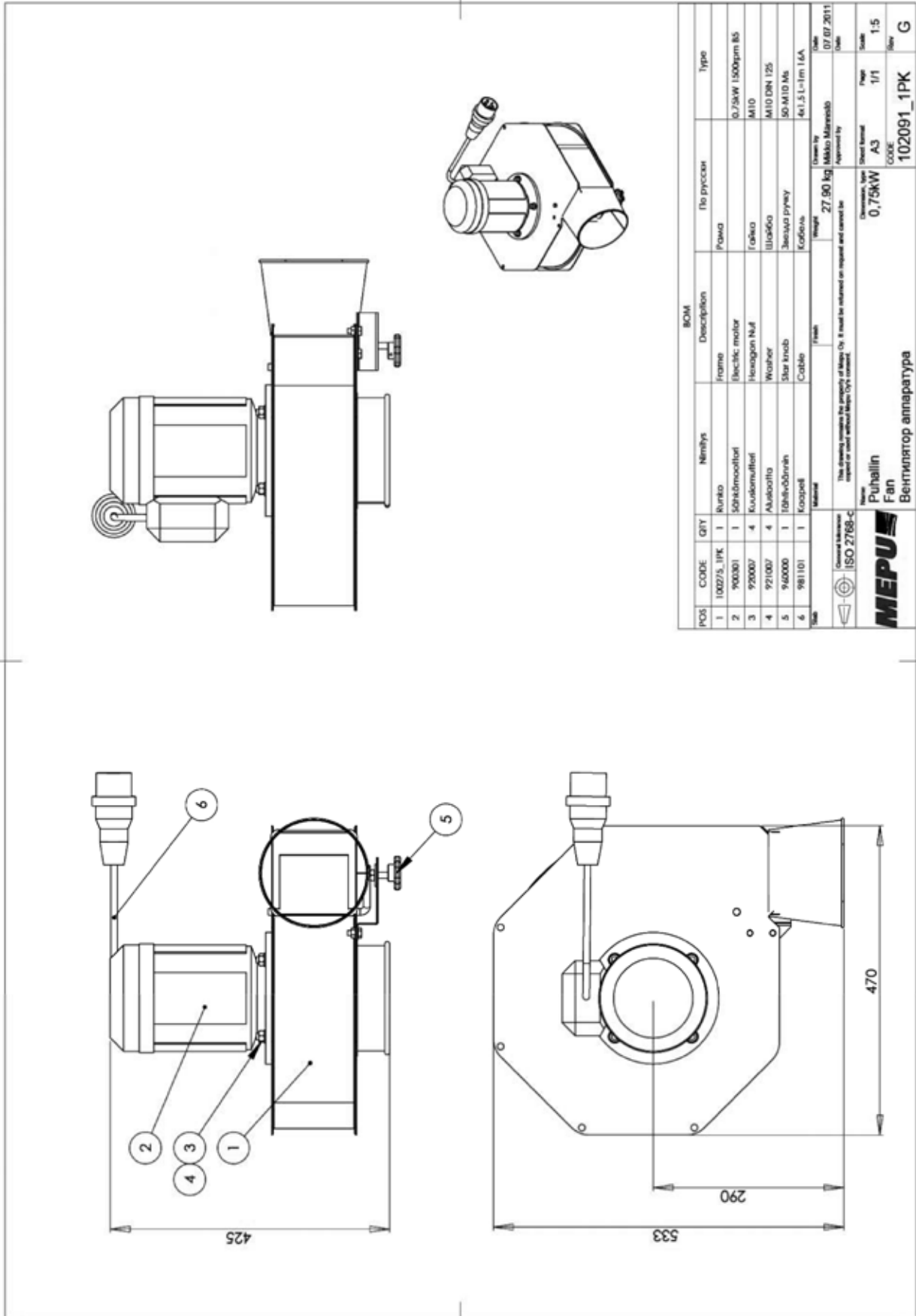
This drawing remains the property of Mepe Oy. It must be returned on request and cannot be copied or used without Mepe Oy's consent.
 Mikko Mäkelä
 Approved by
 08.07.2011
 Date



		Name Lajittelija Grain sorter Сортировщик зерна	Dimensions, type Major 2000	Sheet format A3	Page 2/3	Date 05.09.2011
		Weight 284,87 kg	Drawn by MMMA Malmelin	Approved by A3	Scale 1:15	Date 05.09.2011
This drawing contains the property of MEPU Oy. It shall be returned on request and cannot be used or sold without MEPU's consent.		Model MEPU	Code 700100	Name Major 2000	Page 2/3	Date 05.09.2011
		Name Lajittelija Grain sorter Сортировщик зерна	Dimensions, type Major 2000	Sheet format A3	Page 2/3	Date 05.09.2011
		Code 700100	Name Major 2000	Sheet format A3	Page 2/3	Date 05.09.2011
		Name Lajittelija Grain sorter Сортировщик зерна	Dimensions, type Major 2000	Sheet format A3	Page 2/3	Date 05.09.2011
		Code 700100	Name Major 2000	Sheet format A3	Page 2/3	Date 05.09.2011



7.2. Fan 0.75kW (102091_1PK G)



7.3. Casing (700625 B)

BOM						
POS	CODE	QTY	Nimi/tyyppi	Description	№ piirustus	Type
1	700625	1	Levy	Pelti	Ilvacsessa	700625/01
2	700627	2	Levy	Pelti	Ilvacsessa	Sivelenä
3	700628	2	Levy	Pelti	Ilvacsessa	Torjontakalvat
4	912510	16	Poranauha	Drill head screw	Crowpats	4.8x1.3
5	912299	18	Ruuvit	Screw	Ilvacsessa	4.2x9.5
6	1	Koukku	Collar	Ilvacsessa	401601-35	

Material
 3.63 kg
 15.07.2010
 15.07.2010

Manufacturer
 Leijukotelo

Product Code
 700625

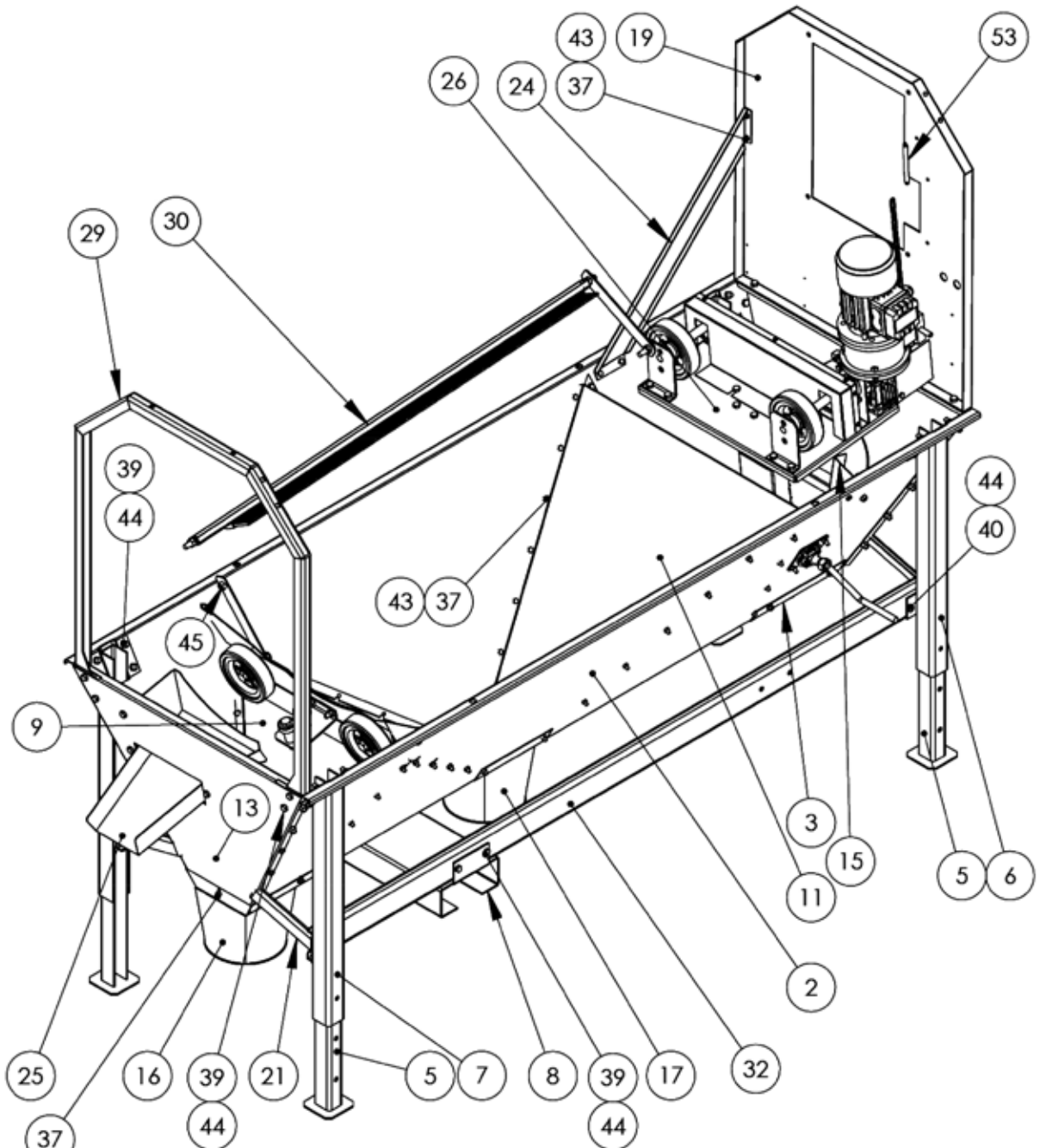
Revision
 B



Scale
 1:2.5

MEPU
 Kotelo Casing
 IAL-POLYALUMINISTE

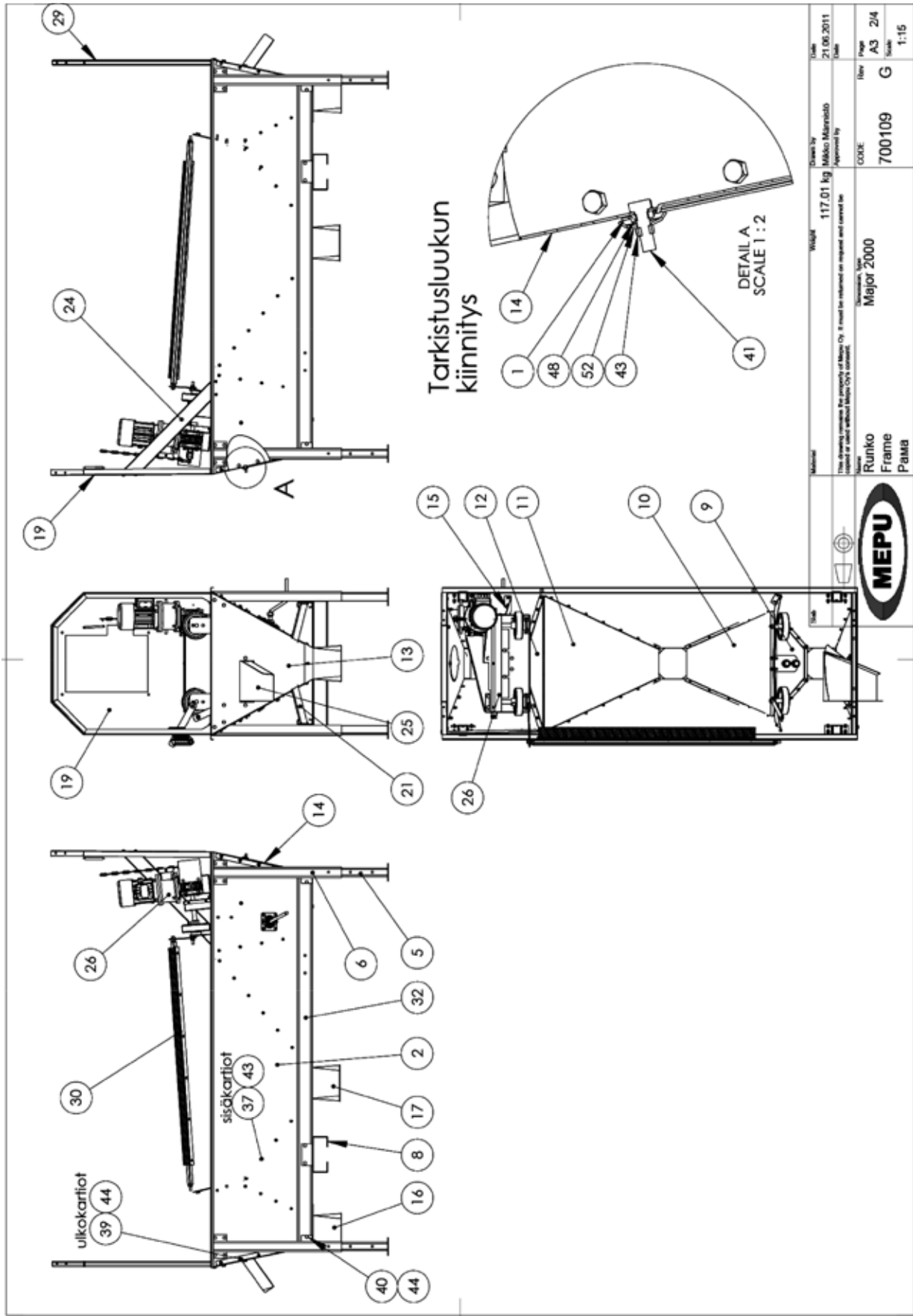
This drawing contains the property of MEPU Oy. It must be returned on request and cannot be copied or used without MEPU Oy's consent.

7.4. Frame (700109 G)



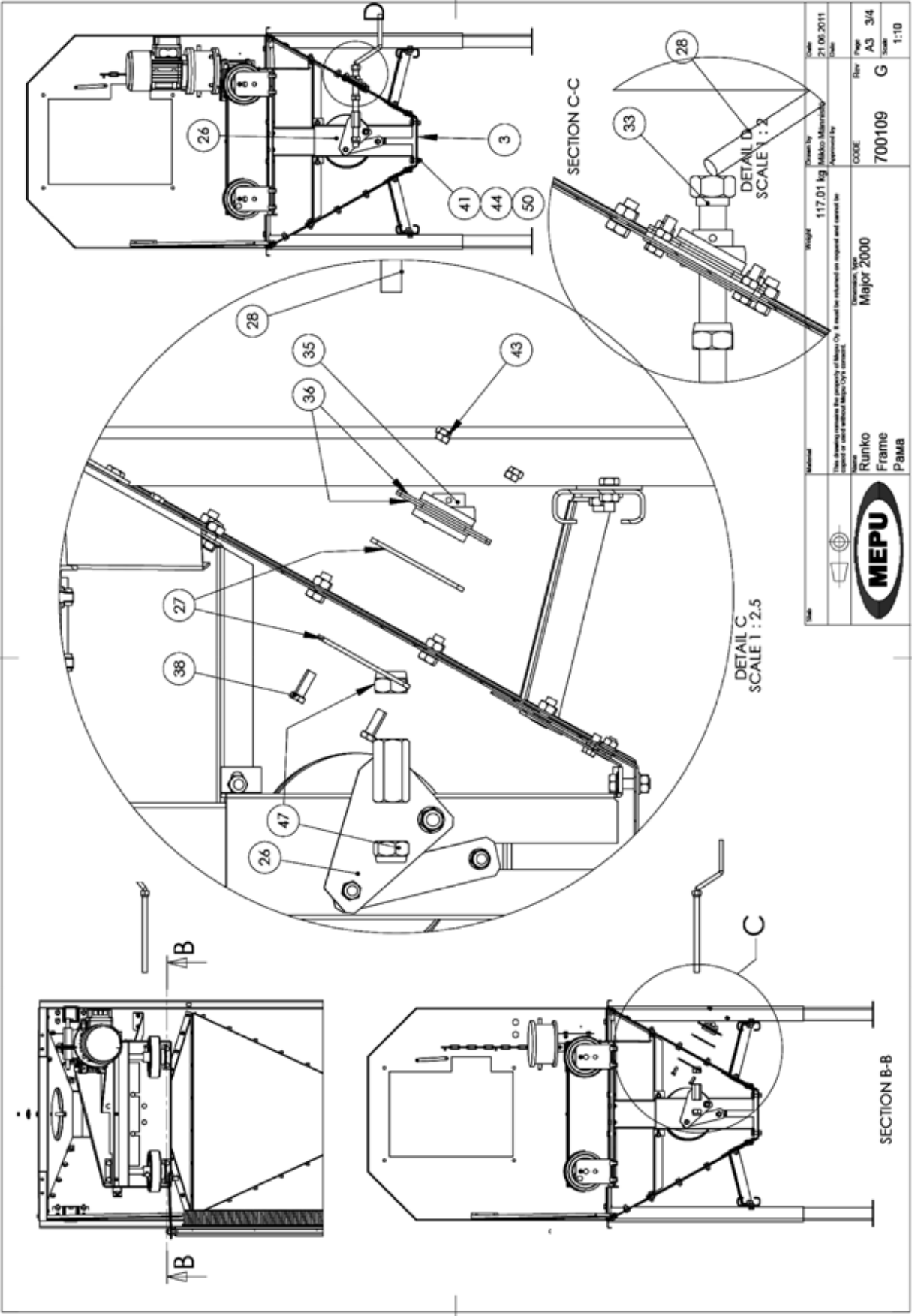
Aihe/Subject	Material	Massa/Weight 117.01 kg	Suunnittelija/Drawn by Mikko Männistö	Pvm/Date 21.06.2011
	This drawing remains the property of Mepu Oy. It must be returned on request and cannot be copied or used without Mepu Oy's consent.		Hyväksyjä/Approved by	Pvm/Date
	Nimi/Name Runko Frame LAJ_PUOLIVALMISTE	Malli, lyhyt/Dimension, type Major 2000	Piir. nro/Drw nbr 700109	Rov G Sivu/Page A3 1/4 Mittakaava/Scale 1:10

BOM						
POS	CODE	QTY	Nimitys	Description	По русски	Type
1	101476	1	Luukku	Hatch	Заслонка	
2	700042	1	Pohja	Bottom	основание	
3	700044	1	Levy	Plate	Пластина	
4	700081	4	Holkki	Bushing	Муфта	ø20/12 L=36
5	700090	4	Jalka	Leg	Нога	
6	700096	2	Holkki	Bushing	Муфта	
7	700096PK	2	Holkki	Bushing	Муфта	
8	700098	1	Trukkitasku	Forklift pocket	погрузчик карман	Trukkitasku
9	700110	1	Kartio		Картер	
10	700111	1	Kartio	Conus	Картер	
11	700112	1	Kartio	Conus	Картер	
12	700113	1	Kartio	Conus	Картер	
13	700120	1	Päätylevy		Headboard	Päätylevy
14	700121	1	Päätylevy		Headboard	
15	700124	1	Tukilevy	Support plate	Опорная пластина	
16	700129	1	Purkuyhde	Outlet	Выходной	
17	700133	1	Purkuyhde	Outlet	Выходной	
18	700142	1	Päätylevy		Headboard	Päätylevy
19	700172	1	Päätylevy		Headboard	
20	700181	1	Levy	Plate	Пластина	
21	700182	4	Kannake		Кронштейн	
22	700183	1	Tukilevy	Support plate	Опорная пластина	
23	700183	1	Tukilevy	Support plate	Опорная пластина	
24	700184	1	Tukilevy	Support plate	Опорная пластина	
25	700190	1	Kouru	Channel	желоб	
26	700350	1	Vetomoottori	Drive motor		Vetomoott. laitteisto
27	700362	2	Kaulus	Collar	Буртик	
28	700652	1	Kahva	Handle	Управлять	
29	700681	1	Kehikko	Frame	рамка	
30	700689	1	Puhdistusharja	Cleaning comb	чистка щётка	
31	700691	1	Levy	Plate	Пластина	Harjan tukilaatta
32	700771	2	Tukilevy	Support plate	Опорная пластина	
33	705001	1	Holkki	Bushing	Муфта	ø20/17 L=5
34	901100	2	Laakeri	Bearing	Подшипник	6202RS ø35/15
35	901111	1	Laakeri	Bearing	Подшипник	SB 203
36	901112	2	Laippa	Flange	Фланец	PFL203
37	910034	83	Kuusioruuvi	Hex bolt	Болт	M6x12
38	910038	6	Kuusioruuvi	Hex bolt	Болт	M6x20
39	910072	45	Kuusioruuvi	Hex bolt	Болт	M8x16
40	910074	4	Kuusioruuvi	Hex bolt	Болт	M8x20
41	910075	5	Kuusioruuvi	Hex bolt	Болт	M8x25
42	910133	4	Kuusioruuvi	Hex bolt	Болт	M12x70
43	920004	88	Kuusiomutteri	Hexagon Nut	Гайка	M6
44	920006	57	Kuusiomutteri	Hexagon Nut	Гайка	M8
45	920007	2	Kuusiomutteri	Hexagon Nut	Гайка	M10
46	920027	4	Lukitusmutteri	Hexagon lock nut	Стопорный Гайка	M12
47	920029	2	Lukitusmutteri	Hexagon lock nut	Стопорный Гайка	M16
48	920054	1	Kuusiomutteri Matala	Hexagon Nut Low	Гайка присаженная	M8
49	921004	8	Aluslaatta	Washer	Шайба	M6 DIN 125
50	921006	2	Aluslaatta	Washer	Шайба	M8 DIN 125
51	921008	2	Aluslaatta	Washer	Шайба	M12 DIN 125
52	921070	1	Kupualuslevy	Cup head washer	Шайба вогнутая	D30/9
53	960500	1	Jousi	Spring	Пружина	ø10/1.0 L=100
54	960624	2	Pyörä	Wheel	велосипед	125x32

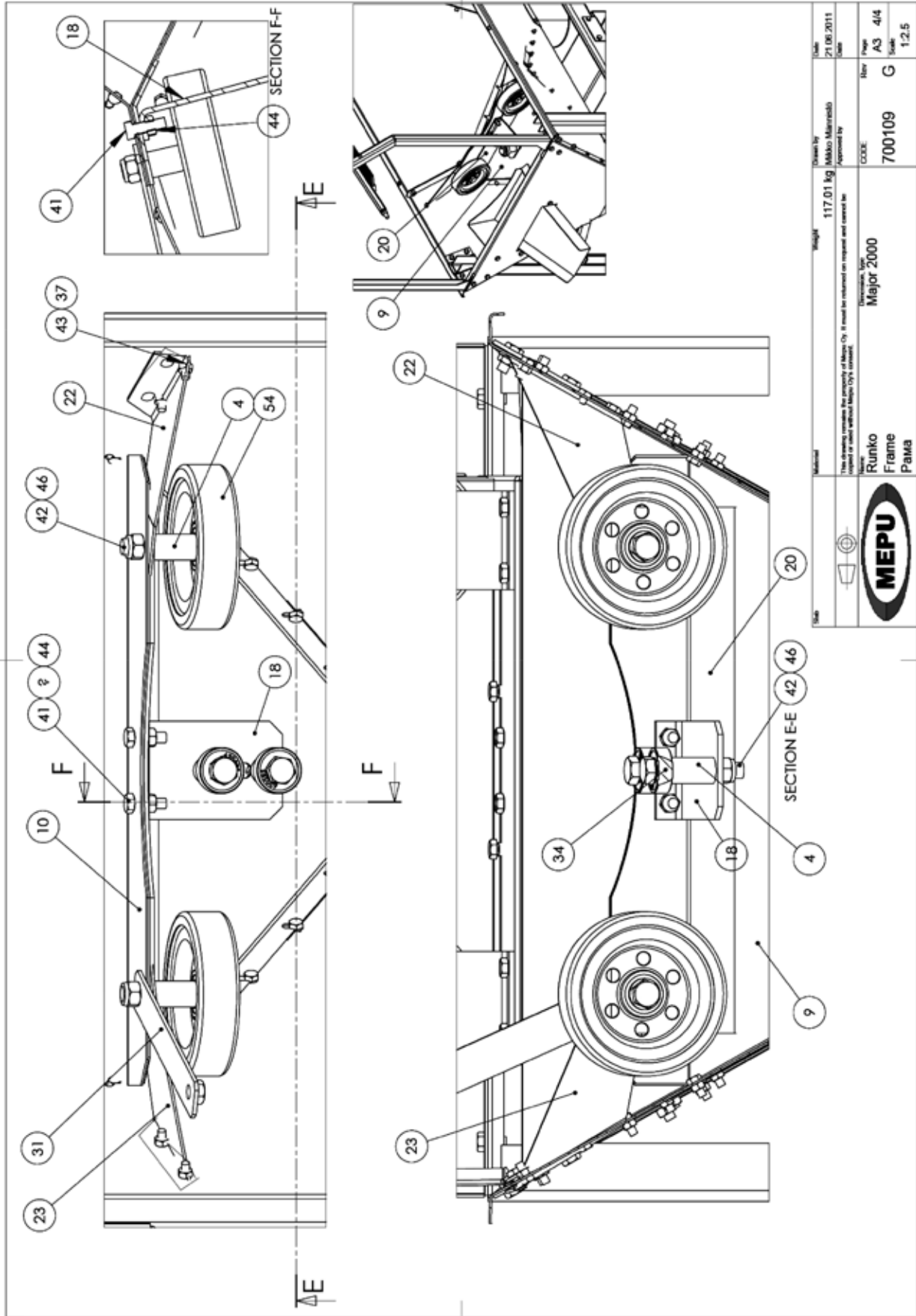


Model	Weight	Drawn by	Date
Runko Frame Palms	117.01 kg	Mikko Mäntylä	21.06.2011
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CODE	Version	Page	Scale
700109	Major 2000	A3 2/4	1:15





	Runko Frame Pama	Model No. Major 2000	CODE 700109	Rev A3 3/4	Scale G 1:10
	Weight 117.01 kg	Drawn by Mikko Mäntymäki	Date 21.06.2011	This drawing remains the property of Major Oy. It must be returned on request and cannot be copied or used without Major Oy's consent.	



Weight	117,01 kg	Drawn by	Mikko Mäyräaho	Date	21.06.2011
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Model	Major 2000	Approved by		Page	A3 4/4
MEPU	Runko Frame PAMA	CODE	700109	Scale	G 1:2.5

7.5. Drive motor (700350 G)

**DETAIL A
SCALE 1:2**

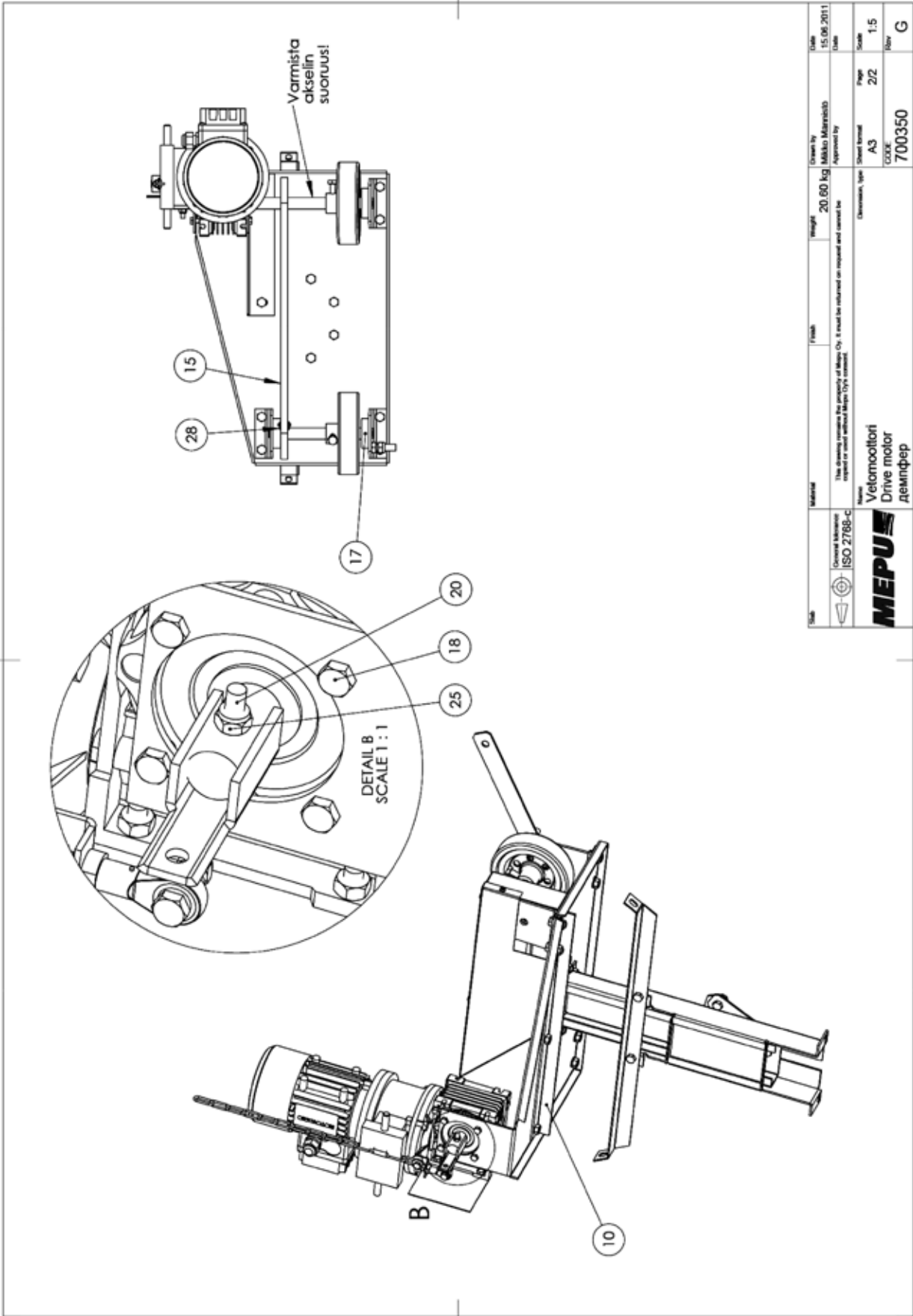
POS.	CODE	QTY	Nimitys	BOM Description	По русски	Typo
1	700045	1	Suoja	Cover	Защита	Sormilaukka
2	700078	2	Velopyörö	Drive pulley	шестерня	
3	700143	2	Kannake	Bracket	Кронштейн	
4	700144	1	Kannake	Bracket	Цепля, проушина	
5	700229	1	Ketju	Chain	Цепь	Velaketju kokoonp.
6	700345	1	Akseli	Axle	Вал	
7	700346	1	Akseli	Axle	Вал	
8	700351	1	Moottoripöytä	Motor base	Двигатель крошка	Moottoripöytä
9	700352	1	Tukipöytä	Support plate	Опорная плита	Tukipöytä
10	700353	1	Pakki	Beam	Болт	Jyväskylänpakki
11	700356	1	Pakki	Beam	Болт	Pakki
12	700357	1	Suoja	Cover	Защита	Ketjusuoja
13	700366	1	Kaliteija	Filler	комплексор	Kaliteija
14	700491	1	Levy	Plate	Плита	Hojan kaliteija
15	700510	1	Ketju	Chain	Цепь	1/2" OMB 11-926
16	700516	1	Velomoottori	Drive motor		NARVO/VIK/002/0,29kW 8803M 6000RPM 1/2" OMB 11-926
17	901100	3	Isotalli	Bearing	Подшипник	MMx12
18	910034	8	Kuulonauhi	Hex ball	Болт	MMx16
19	910036	2	Kuulonauhi	Hex ball	Болт	MMx16
20	910041	1	Kuulonauhi	Hex ball	Болт	MMx16
21	910072	12	Kuulonauhi	Hex ball	Болт	MMx20
22	910074	4	Kuulonauhi	Hex ball	Болт	MM
23	920004	2	Kuulonauhi	Hexagon Nut	Гайка	MM
24	920006	14	Kuulonauhi	Hexagon Nut	Гайка	MM
25	920023	1	Lukitusruuvi	Hexagon lock nut	Сторонний Гайка	MM
26	920026	1	Lukitusruuvi	Hexagon lock nut	Сторонний Гайка	M10
27	921006	6	Akseli	Washer	Шайба	MM DN 125
28	962005	1	Ketjuaukko	Material	Weight	1/2" 11/1600-1


General Information
 ISO 2768-C
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Material
 Weight: 20,60 kg
 Määrä: Määrä
 Approved by: AS
 Date: 15.06.2011

Dimensions, Type
 Sheet format: A3
 Scale: 1:5
 Code: 000E
 Name: 700350

MEPUS
 Velomoottori
 Drive motor
 демпфер



 Approved Manufacturer ISO 2768-C	Name Vetomoottori Drive motor демотор	Weight 20.00 kg	Drawn by Mikko Mänttä	Date 15.06.2011
This drawing remains the property of Mepla Oy. It must be returned on request and cannot be copied or used without Mepla Oy's consent.		Dimensions, type CODE 700350	Approved by A3	Date 2/2
		Sheet format A3	Scale 1:5	Size G



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