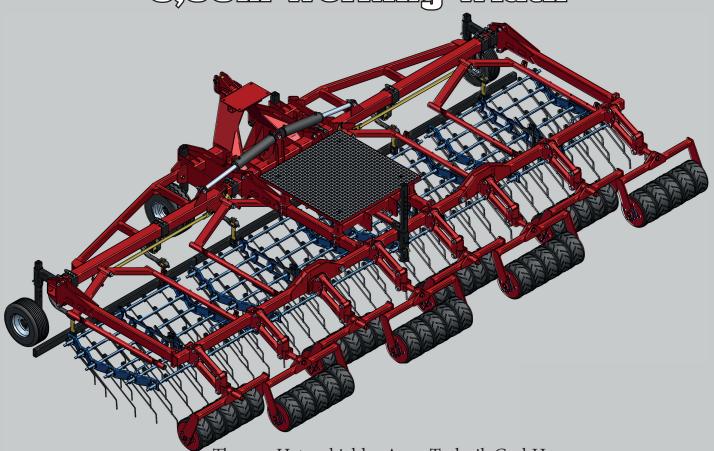




Manual

spare parts catalogue

Heavy Duty Crass Harrow 6,00m working width



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EG Declaration of Conformity

The manufacturer: Thomas Hatzenbichler

Agro-Technik GmbH

Fischering 2 A-9433 St. Andrä

Phone: +43 (0) 4358/2287

declares that the following product:

Product:	Heavy Duty Grass Harrow
Working width	
Serial number:	
Seriai number.	
Year of building	
all relevant provisi	ions of the Machinery Directive (2006/42/EC).

To properly implement the EG directives specified in the safety and health requirements of the following standards and / or specifications have been used.

DIN EN ISO 4254-1 Agricultural machinery - Safety - Part 1: General requirements

DIN EN ISO 12100 Safety of machinery - Basic concepts -

Risk assessment and risk reduction

DIN EN 60204-1 Safety of machinery - Electrical equipment of machines Part 1:

General requirements



Fischering, 29.07.2013 Date



2nd. Safety information:





Before starting, read the instruction manual and note.



The transport of the machine is prohibited!



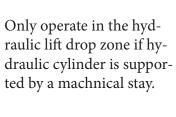
When attaching the machine and during operation of the hydraulic folding ensure that no one in between.



Never reach into the crushing area as long as parts may move!



Stay clear of swinging range folding machine parts!





Beware of high pressure fluid escaping!



3rd. Intended Use

Dear Customer!

We are pleased to congratulate you on your buying decision and wish you much fun and success in working with this device.

Please read necessarily before using this product all the instructions in this manual carefully.

This will avoid, reduce risks, downtime and repair costs, increase reliability and service life of your machine.

With illustrations and information on technical data and dimensions in this manual the manufacturer reserves the right to make changes.

The machine is equipped with state of the art and the recognized security safety rules. Nevertheless, results from the use injury to the user or third parties. Take care of the machine may not cause.

Use the machine in perfect working condition for its intended purpose, safety and risk of danger with respect to user manual!

In particular, problems that can affect safety must be corrected immediately.

The machine may only be used maintained and repaired by individuals who are familiar with and aware of the danger.

Hatzenbichler cannot take responsibilty for installation of madification of the machine effecting safety of man or machine.

The machine is designed for normal use for cultivation in the agricultural sector. Any other or additional use is considered improper.

Shall not be liable for damages resulting from Hatzenbichler. The risk is borne entirely by the user.

Intended use also includes compliance with the instruction manual and the adherence to the manufacturer's instructions for operation, maintenance and maintenance requirements.

4th. Accident prevention

- → The General accident prevention regulations of each country are taken into account.
- → When is arrival and uncoupling the machine to the hitch of the tractor injury.
- → The unit must be secured to prevent accidental switching off when rolling.
- → The device may only be used by anyone on the regulations for public transport streets know.
- → The attached machine before hanging off the ground.



5th. Transport on public roads (main provisions)

- → For transport on public roads set the stop valve on the cylinders to shut off this will ensure no accidentally opening of the machine.
- → The axle load and total weight of the tractor must not be exceeded.
- → The attachment must match films with warning signs or red and white diagonal bar (according to DIN, or relevant standards) are identified.
- → Transport hazardous or dangerous parts must be covered and also with warning signs or sheets be identified.
- → Warning signs or slides to max. be 1.50 m above the roadway while driving.
- → Illumination devices of the tractor must not be obscured by the unit, otherwise illumination must be attached to the attachment also.
- → The ability to steer the tractor may not be impaired or diminished.
- → The device may only be used on the public highway by someone who knows the regulations fully.
- → For transport on public roads with a max. 25 km/h.

6th. Warranty

Check unit immediately upon acceptance for possible shipping damage. Subsequent complaints from transit damage can not be accepted.

We give a one year warranty from date of shipment (your invoice or delivery note as proof of valid). This warranty is valid in the case of material or construction failure and does not cover parts that are damaged by normal-or excessive wear.

The warranty is void

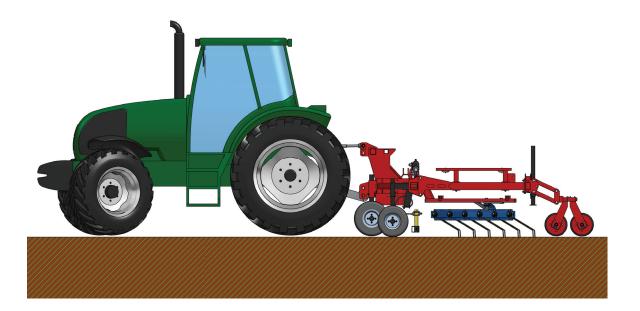
- → if damage is caused by external forces
- → when an operation error
- → if the specified KW/horsepower limit is exceeded
- → if the device is changed without our consent, extended, or is equipped with foreign parts.



7th Attaching the Heavy Duty Grass Harrow to the tractor

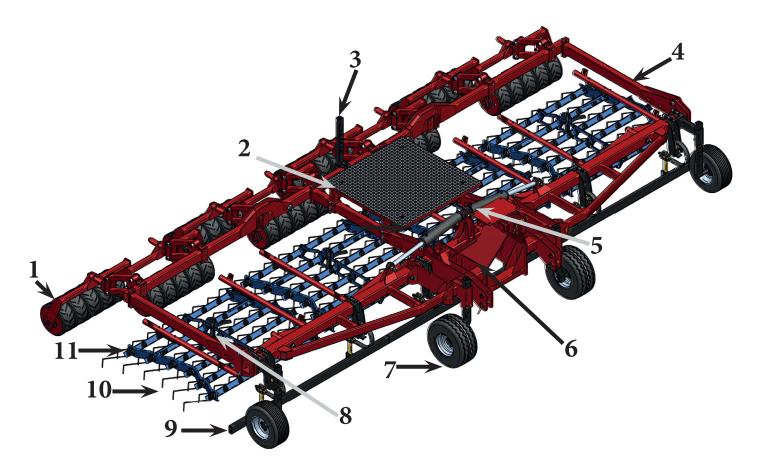
- → The air pressure in the tractor rear tyres should be sufficient for use
- → Under difficult operating conditions wheel weights might be advantageous. See also operating instructions of the tractor manufacturer.
- → Enhance tractor's front equipment with sufficient ballast to ensure the steering and braking ability.
- → Tractor lift arms must be adjusted left and right at the same height.
- → Attach Heavy Duty Grass Harrow to the 3-point hitch of the tractor.
- → Connect the hydraulic hoses (for devices with hydraulic folding) connected to a double-acting valve. Note when connecting to the tractor and machine hoses are depressurized.







8th Design and operation



- 1. Farmflex roller (Vertikator)
- 2. podium
- 3. jack stand
- 4. frame
- **5.** Cylinder for folding
- **6.** 3 point
- 7. stabilizer wheel
- **8.** tine adjustment
- **9.** leveling plate
- **10.** grassland tine Ø=8mm
- 11. tine field



Operation of the VERTIKATOR:

The Hatzenbichler Vertikator Heavy Duty Grass Harrow is used for harrowing weed of grassland. By building a pneumatic Seeding machine "Air 8" or "AIR16" it is possible to maintain in a single pass the grassland while applying seed to existing or new ways. Heavy Duty Grass Harrow wit air 16 is so called "Grass Master".

The specially shaped tines with vibration effect, "clean" the grassland of moss-covered and matted places without destroy the grassland.

The aggressive attitude of the tines is adjusted via the central levers giving 10-hole adjustment (see page 9).

Due to the special arrangement of the tines on the 6 tine bars, a perfect, full-surface-non-clogging work is guaranteed.

By the suspension of the harrow tine frames perfect ground contour following over the entire working width is achieved.

Specifically for grassland Hatzenbichler tines with a diameter of 8 mm or 7mm and a length of 410mm are specially made, which makes them very durable and sturdy, these can also be replaced individually.

The spring-loaded leveling boards can be adapted to the soil conditions varibel depth ensures so they flatten mole hills and cow dung rub.

The Farmflex roller (Vertikator) has a diameter of 330mm. Through their solid rubber sheathing pushes them to the seed to the ground so that it maintains the maximum soil contact for the seed and optimal growing conditions are created. It compensates for uneven surfaces such as trampling.

9th Technical data:

Working width:	6m
Weight approximately in kg:	1900kg
Transport high:	2,90m
Transport width:	3,00m
HP:	120
Diameter of tines:	7mm or 8mm
Lenght of the tines:	410mm
Pieces of Farmflex roller	8
Pieces hydraulic cylinders	2

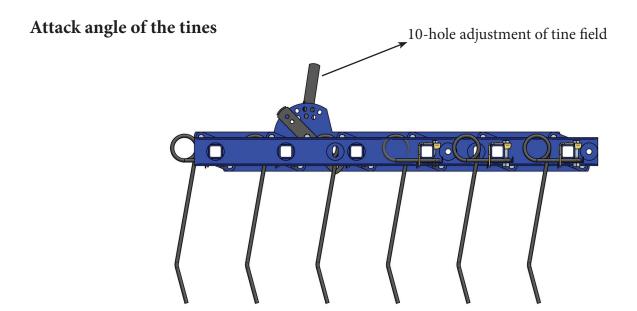


10th setting options for tine aggressivness

The setting of the aggressiveness of tines are noted below, according to drawings by means of central adjustment lever.

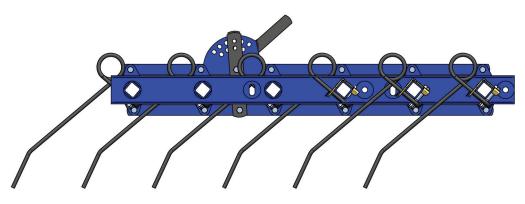
There are 10 settings, shallow to be aggressive.

NOTE: Each harrow bed must be located in the via pin and clip hole.



Aggressive recruitment of tines

• for aggressive harrowing the soil

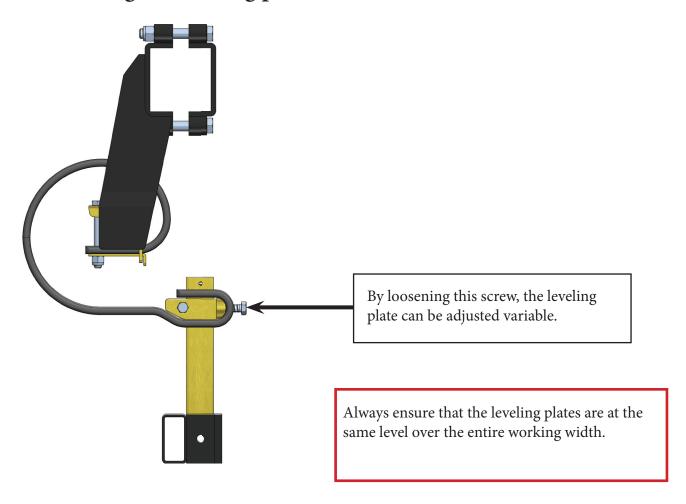


shallow setting

• for not aggressively working the soil



11th Setting the leveling plate



12th Hatzenbichler grassland tine:



- → The special grassland tine are made of oil tempered spring wire (which is also used in the motor industry).
- → He has, therefore, particularly long service life.
- → The tines changing are seperatly
- → vibration effect
- \rightarrow Ø= 7mm or 8mm
- \rightarrow tine length = 410mm
- → special spring coil



13th Care and Maintenance

- → For maintenance and service work mount the machine on level and stable ground to prevent from rolling away.
- → After cleaning, all hydraulic lines for leaks and loose connections check (About every 50 hours, the hydraulic power packs and hoses checked).
- → Check damage or wear. Any defects rectified immediately.
- → Check nuts and bolts regularly for tightness and tighten if necessary. (On new units every 3 hours and again after 20 hours.)
- → The lubrication points on the joints and bearings greased regularly (approximately every 10 hours).
- → Do not use high pressure washers for cleaning bearings and hydraulic parts used.
- →During the winter, protect the equipment with environmentally friendly means against rust.
- → When taking machine off protect from weather and ensure no unnecessary pressure on machine part (tines, etc).

14th Adjustment / operation

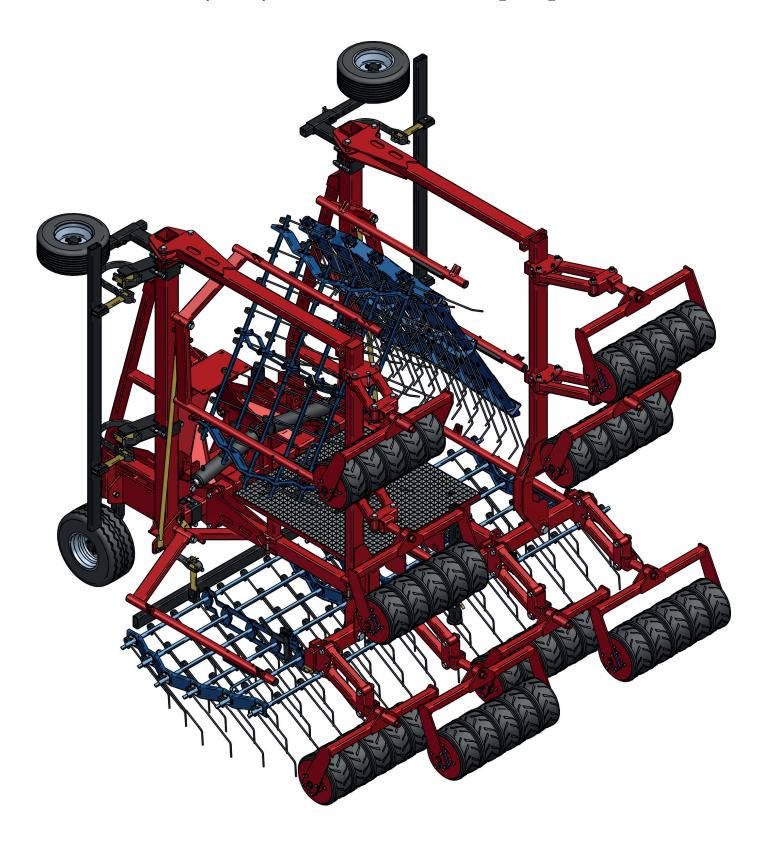
When coupling may ensure there are no people between the tractor and machine.

Attach the machine:

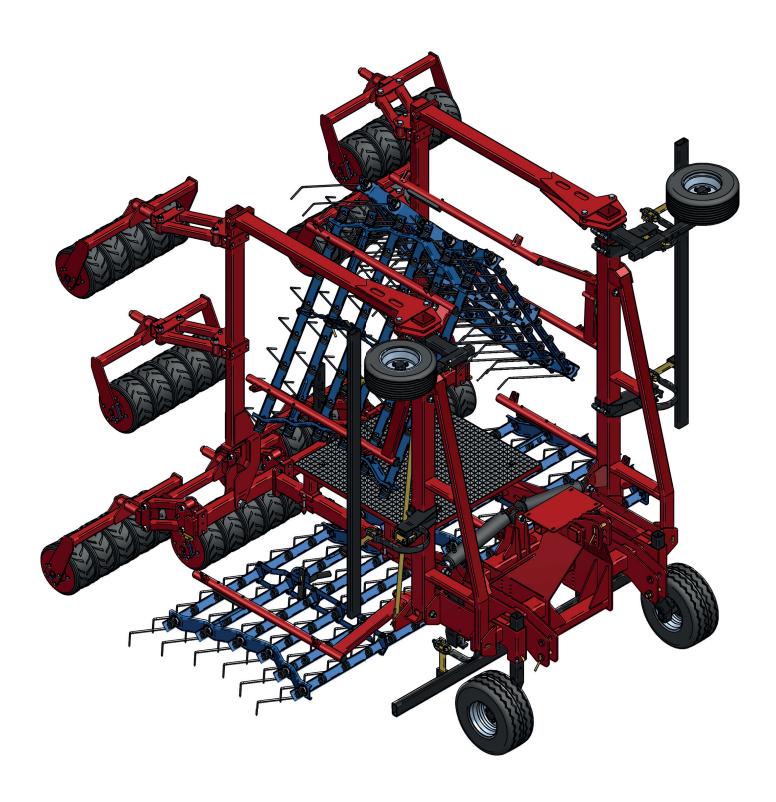
- → The machine, depending on the equipment at the three-point
- → Hydraulic lines connect
- → Connect the plug for the lights and functioning
- → Lift the machine.
- → Remove the jack stand (if any)
- → Fold sides (for transport) or fold out for the working position.



15th Views Heavy Duty Grass Harrow in transport positon









16th Connect the hydraulics:

Hydraulic connect only when the machine is hydraulic and unit pressure.

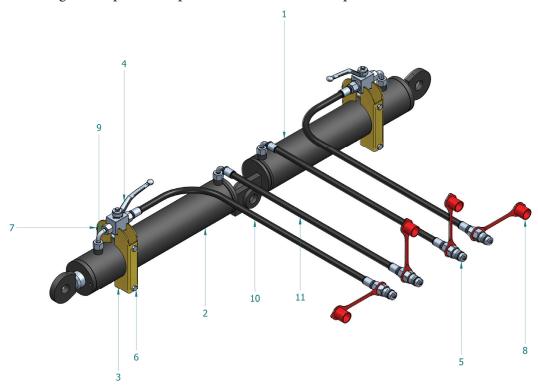
Throttling for all hydraulic movements controller before stop of the machine parts (minimise hydraulic speed).

To set the device to fold it must be connected to a double-acting control device.

Fold only on solid level ground.

When folding movement of the side wings always keep in mind - Warning Danger of tipping!

The side wings fold up until all parts have reached the stop - with the shut-off valve secure side wings.

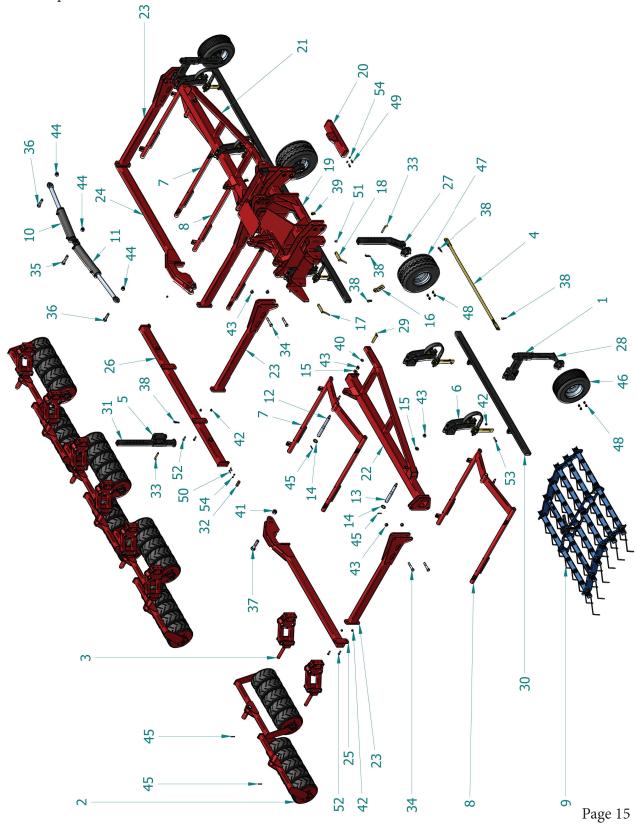


item code	item number	designation	quantity
1912010006	1	Cylinder left side	1
1912010007	2	Cylinder right side	1
1912050001	3	fixing off lever	1
1912060001	4	valve	1
1912030001	5	12L Push Pull plug	1
1901010033	6	hexagonal screw DIN 931 M8x120	1
1902010002	7	hexagonal nut DIN 982 -M8	1
1912040001	8	dust cap red	1
1912030003	9	angle between trim	1
1912020010	10	Hydr. hose l=2200mm	1
1912020011	11	Hydr. hose l=1800mm	1



17TH SPARE PART LIST HEAVY DUTY GRASS HARROW

Vertikator complete with Air 8: 0100190001 Vertikator complete with Air 16 with hydr. fan: 0100190002 Vertikator complete with Air 16 with PTO drive: 0100190003





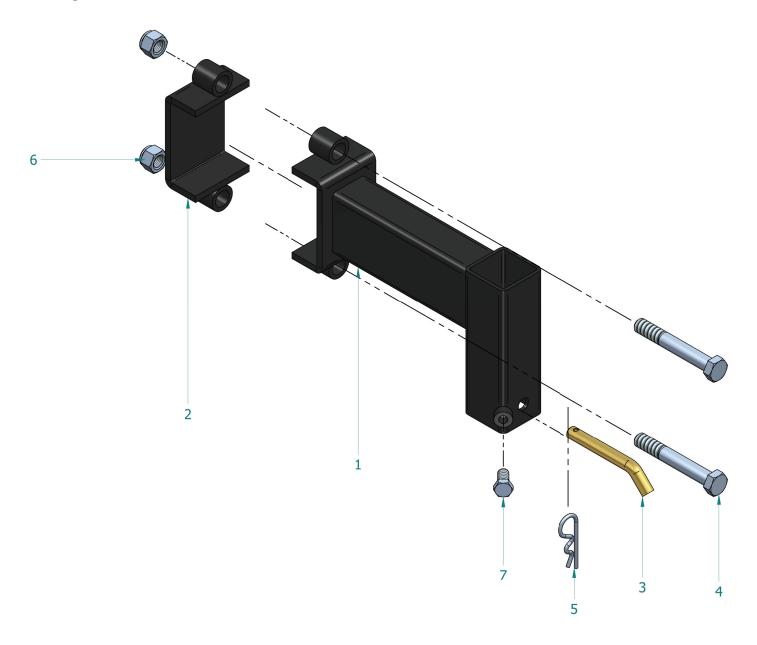
item code	item number	designation	quantity
0105010001	1	Recording head for sensing wheel at VERTIKATOR compl.	2
0106010001	2	Farmflex roller	8
0107010001	3	Parallelogram complete	8
0108010001	4	one folding linkage l=1250mm	1
0105020001	5	Recording head jack stand	1
0109010001	6	levelling plate holder	1
0104010001	7	harrow field carrier with bolt compl. left	6
0104020001	8	harrow field carrier with bolt compl. right	2
0110020001	9	harrow field 1,5m	2
1912010006	10	Cylinder left side	1
1912010007	11	Cylinder ritht side	1
1903050001	12	carrier stub long	1
1903050002	13	carrier stub short	2
1908020003	14	disc A35	2
1908020001	15	disc A20	4
0108020001	16	fixable flat iron	4
1903020002	17	top link pin Kat2	2
1903010002	18	lower link bolt Kat2	1
0101070001	19	middel part	2
0101070002	20	fan holder at the middle part	1
0103270001	21	side arm left	1
012270001	22	side arm right	1
0111010001	23	connecting strut	4
0111020001	24	side part behind left	1
0111030001	25	side part behind right	1
0111040001	26	middle part behind	1
1914010001	27	wheel lever cranked	2
1914010002	28	small wheel lever	2
1903030007	29	bolt d=25mm l=115mm	2
0112010001	30	grassland sheet strong l=1990mm	3
1914020001	31	jack stand	1
1915010001	32	iron Distance 20/20 l=70mm	2
1903030008	33	connecting pins d=14mm	2
1901010004	34	hexagonal screw DIN 931 M20x110	5
1901010022	35	hexagonal screw DIN 931 M24x110	1
1901010023	36	hexagonal screw DIN 931 M24x90	2
1901010024	37	hexagonal screw DIN 931 M30x130	2
1904020002	38	Linch pin Ø=4mm	6
1904010002	39	linch large	3
1904010001	40	linch Ø=4mm	1
1902010006	41	hexagonal nut M30	2
1902010003	42	hexagonal nut DIN 982-M12	10
1902010001	43	hexagonal nut DIN 982 - M20	8
1902010007	44	hexagonal nut DIN 982 -M24	3



item code	item number	designation	quantity
190501000	45	span pin ISO 8752- 8x50	12
1914030001	46	wheel 16x6,5-8	2
1914030002	47	wheel 18,5x8-8	2
1902030001	48	Wheel Nut M12	8
1901010025	49	hexagonal screw DIN 933 M10x30	3
1901010012	50	hexagonal screw DIN 933 M10x35	3
1901010005	51	hexagonal screw DIN 933 M12x25	2
1901010009	52	hexagonal screw DIN 933 M12x45	8
1901010026	53	hexagonal screw DIN 933 M12x55	6
1908010003	54	disc DIN 125 - A10,5	6



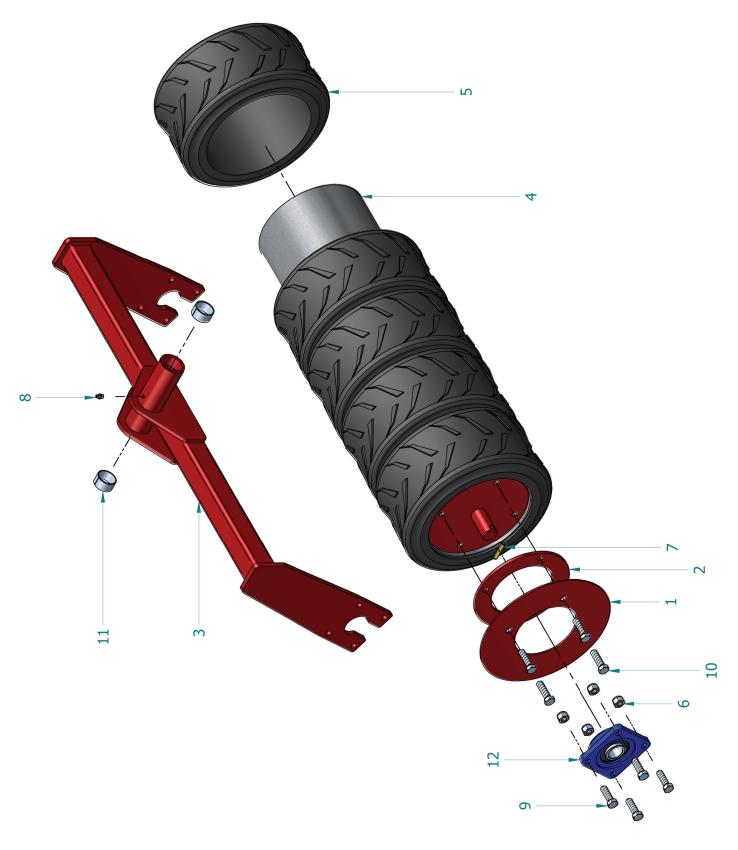
RECORDING HEAD FOR SENSING WHEEL COMPLETE



item code	item number	designation	quantity
0105010002	1	Recording head for sensing wheel loose	1
1913020004	2	blind plate weak	1
1903030008	3	connecting pins d=14mm	1
1901010027	4	hexagonal screw DIN 931 M16x110	2
1904020002	5	linch pin Ø=4mm	1
1902010008	6	hexagonal nut DIN 982-M16	2
1901010005	7	hexagonal screw DIN 933 M12x25	1



FARMFLEX ROLLER complete: 0106010001





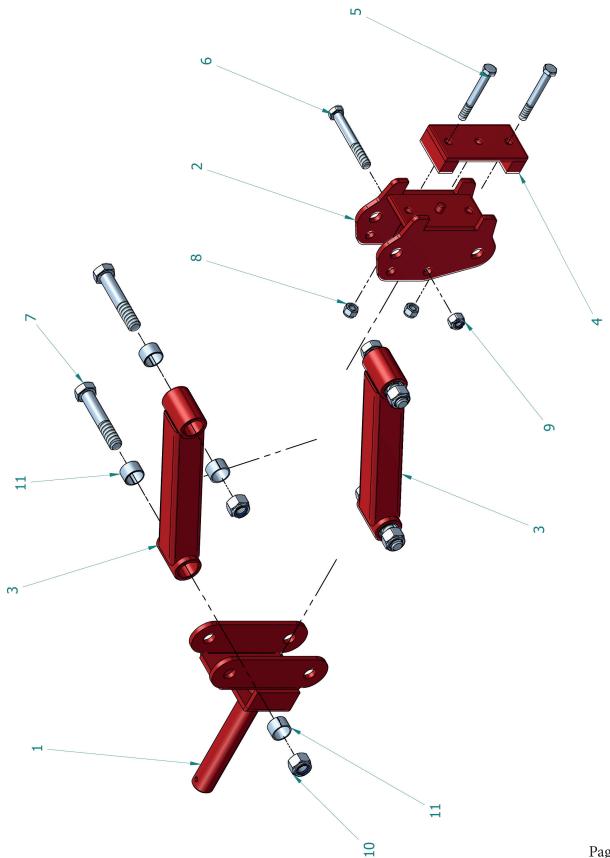
FARMFLEX ROLLER

item code	item number	Designation	quantity
0106010005	1	Cover disc for Vertikator roller s=3	1
0106010004	2	between disc for Vertikator rollers=6	1
0106010003	3	roller carrier	1
0106010002	4	Farmflex roller raw	1
1914040001	5	Farmflex wheel Ø=310x160	5
1902010003	6	hexagonal nut DIN 982-M12	4
1905010001	7	span pin ISO 8752 - 8x40	1
1906060001	8	greasing M8	1
1901010011	9	hexagonal screw DIN 933 M12x40	4
1901010009	10	hexagonal screw DIN 933 M12x45	4
1906010003	11	cylindrical socket	2
1906030001	12	flanged bearings	1



PARALLELOGRAM COMPLETE:

complete: 0107010001



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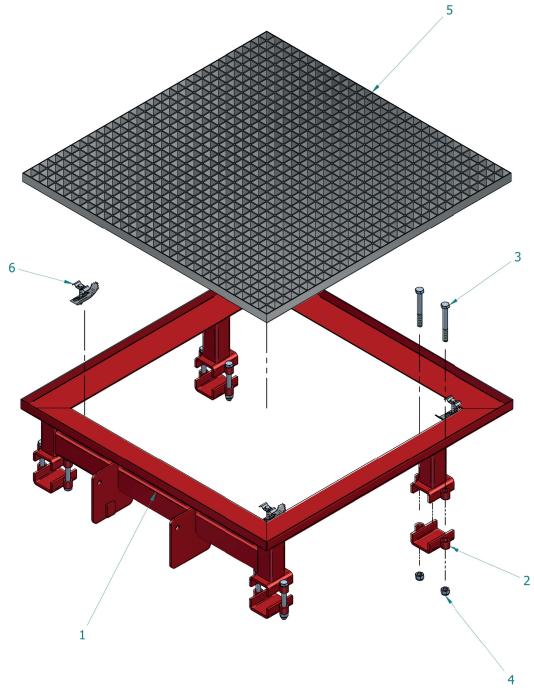


PARALLELOGRAM COMPLETE:

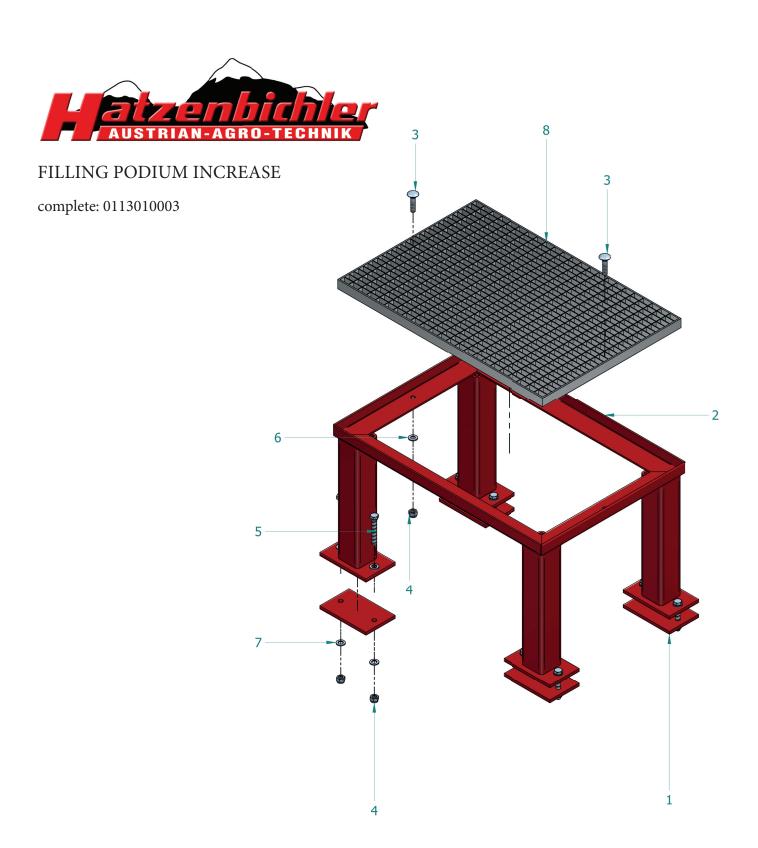
item code	item number	designation	quantity
0107010002	1	Parallelogram block with wave	1
0107010003	2	Parallelogram block	1
0107010004	3	Parallelogramm strut 335mm	2
1913020005	4	Blind plate	1
1901010010	5	hexagonal screw DIN 931 M12x100	2
1901010028	6	hexagonal screw DIN 931 M14x110	1
1901010004	7	hexagonal screw DIN 931 M20x110	4
1902010003	8	hexagonal nut DIN 982-M12	2
1902010004	9	hexagonal nut DIN 982-M14	1
1902010001	10	hexagonal nut DIN 982 -M20	4
1906010002	11	cylindrical socket	6



FILLING LARGE PODIUM



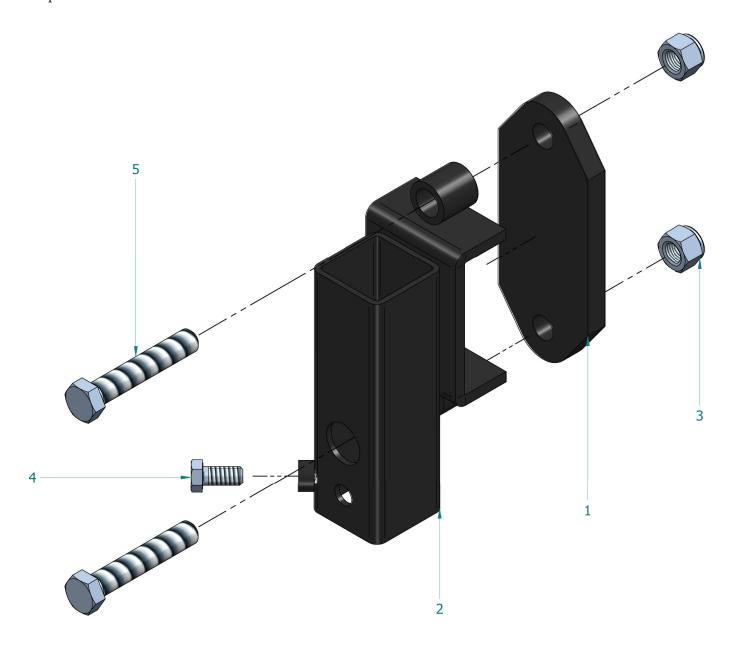
item code	item number	designation	quantity
0113010002	1	frame for podium large	1
1913020001	2	60er blind plate	4
1901010029	3	hexagonal screw DIN 931 M14x120	8
1902010004	4	hexagonal nut DIN 982-M14	6
1917010001	5	grating 1000x1000	1
1917020001	6	Grating clamp completely	3



item code	item number	designation	quantitiy
0199010083	1	sheet metal 110x70x6	4
0113010004	2	frame for podium increase	1
1901060002	3	Flat screw around DIN 603 -M8x35	2
1902010002	4	hexagonal nut DIN 982 -M8	5
1901010037	5	hexagonal screw DIN 933 M8x55	8
1908010004	6	disc DIN 125 -A8,4	1
1908010004	7	disc DIN 125 - A8,4	10
1917010002	8	grating 490x340	1



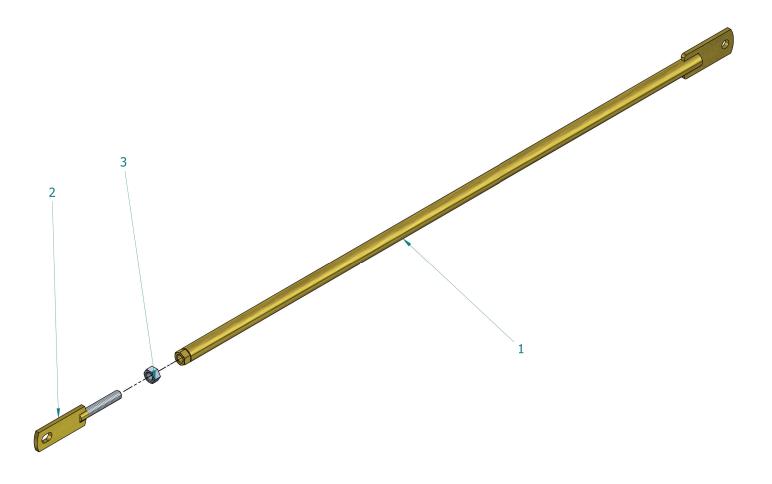
RECORDING HEAD JACK STAND:



item code	item number	designation	quantitiy
1913020006	1	clamping plate	1
0105020002	2	Recording head jack stand	1
1902010008	3	hexagonal nut DIN 982-M16	2
1901010005	4	hexagonal screw DIN 933 - M12x25	1
1901010030	5	hexagonla screw DIN 933 -M16x90	2



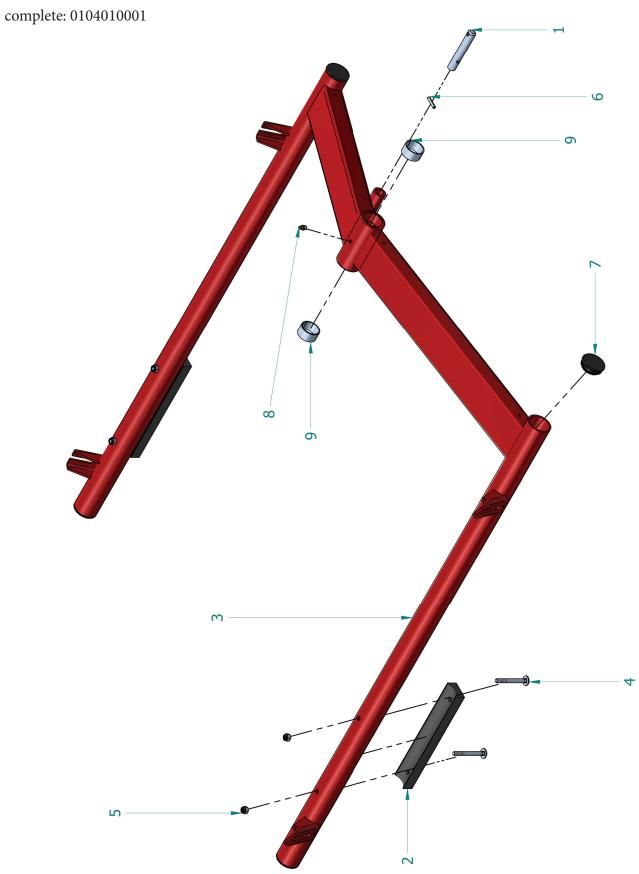
EINKLAPPGESTÄNGE:



item code	item number	designation	quantity
0108010002	1	part 2 folding linkage l=1250mm	1
0108010003	2	part 1 folding linkage	1
1902040001	3	hexagonal nut with seat	1



HARROW CARRIER



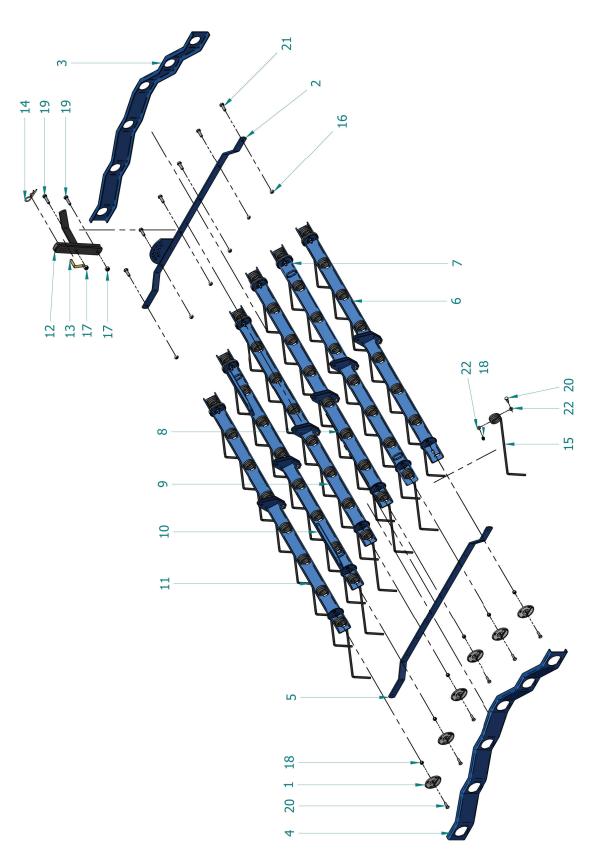


HARROW CARRIER

item code	item number	designation	quantitiy
0104010002	1	bolt Ø=16mm l=100mm	1
0104010003	2	Wearing pcv	2
0104010004	3	harrow carrier left loose	1
1901060001	4	flat screw around DIN 603 -M8x70	4
1902010002	5	hexagonal nut DIN 982-M8	4
1905010003	6	span pin ISO 8752 - 5x28-A	1
1906010001	7	PVC fill Ø =48mm	4
1906060001	8	grease nipple M8	1
1906010003	9	cylindrical socket	2



HARROW FIELD COMPLETE:



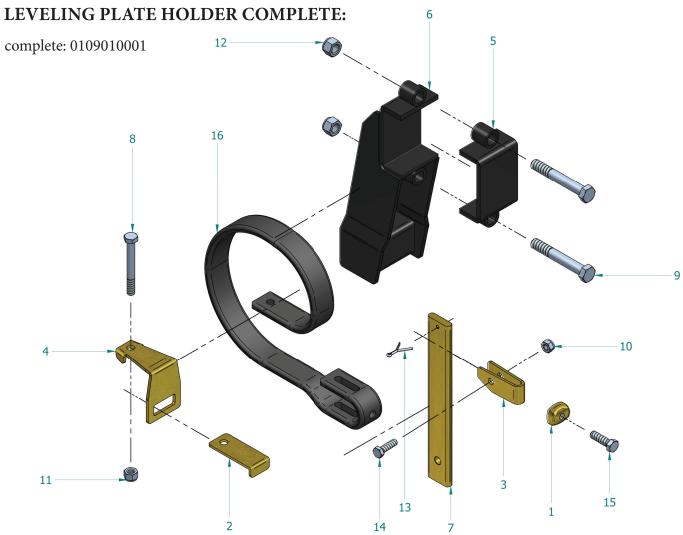
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HARROW FIELD COMPLETE:

Art. Nr.	Pos. Nr.	Bezeichnung	Menge
0110010002	1	disc for harrow field	12
0110010003	2	Flat iron for adjustment with multi-hole	1
0110010004	3	side profile for Harrow field right	1
0110010005	4	side profile for harrow field right	1
0110010006	5	Flat iron for adjustment below	1
0110010012	6	tine profile Nr. 6	1
0110010011	7	tine profile Nr. 5	1
0110010010	8	tine profile Nr. 4	1
0110010009	9	tine profile Nr. 3	1
0110010008	10	tine profile Nr. 2	1
0110010007	11	tine profile Nr. 1	1
0110010013	12	adjusting for harrow field	1
1903030009	13	Bolts for field adjustment harrow	1
1904020002	14	linch pin Ø=4mm	1
1909030008	15	tine Ø=8mm	48
1902010005	16	hexagonal nut M10	12
1902010005	17	hexagonal nut DIN 982-M10	2
1902010002	18	hexagonal nut DIN 982-M8	13
1901010031	19	hexagonal screw DIN 933 M10x40	2
1901010032	20	hexagonal screw DIN 933 M8x25	13
1901010025	21	hexagonal screw M10x30	12
1908010004	22	disc DIN 125 -A8,4	2





item code	item number	designation	quantitiy
1909020003	1	Nut for vibro spring	1
1910020001	2	Bridge for tine terminal	1
1909020002	3	U-bracket s=4mm	1
1910010001	4	tine clamp f. H91	1
1913020004	5	blind plate	1
0109010002	6	Mount for leveling plate holder	1
0109010003	7	Handle for leveling plate holder	1
1901010010	8	hexagonal screw DIN 931 M12x100	1
1901010027	9	hexagonal screw DIN 931 M16x110	2
1902010005	10	hexagonal nut DIN 982 -M10	1
1902010003	11	hexagonal nut DIN 982 -M12	1
1902010008	12	hexagonal nut DIN 982-M16	2
1904010003	13	cotter ISO 1234 -4x32	1
1901010012	14	hexagonal screw DIN 933 M10x35	1
1901010011	15	hexagonal screw DIN 933 M12x40	1
1909010001	16	vibro spring 45x12	1