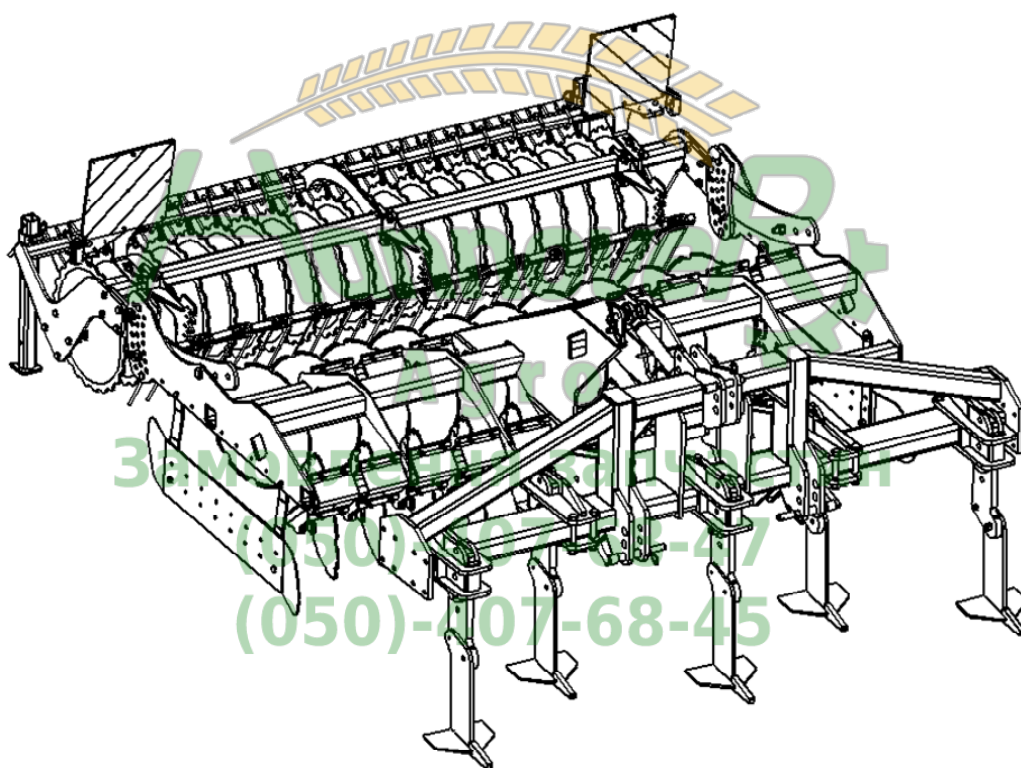


QUIVOGNE

PLUTO



Operating, Maintenance & Spare Parts Book

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TECHNICAL ADVICE FOR SAFETY **MACHINE DESIGNED FOR AGRICULTURAL USE**

Please read the advice given below before starting to operate. This machine is designed for agricultural use only. If used in a different capacity we will not be held responsible and the user will be responsible for his own actions.

People using the machine must be advised of the dangers. Comply with accidental protection notices, with work medical regulations with the road traffic regulations with the European Community regulations "Agricultural Machine Instructions". Any technical modification will be without the agreement of the manufacturer and we will not be held liable for the risks.

GENERAL BASIC RULES - SAFETY INSTRUCTIONS - ACCIDENT PROTECTION

Before each working session please ensure that the machine and tractor are in good working order.

1. Comply with the advice and safety instructions described in the operating book.
2. Read the stickers on the machine as they give important information.
3. Comply with safety instructions and the Road Traffic Regulations at the time of each use.
4. Read the operating book carefully before using the machine.
5. Avoid wearing loose clothing near the machine as it could be caught on the PTO shaft, rotors etc.
6. To avoid all risks of fire and premature corrosion keep the machine clean.
7. Make sure that no person stands near the machine before driving and working.
8. Never carry people on the machine. Do not stay on the machine in transport position or when in working position.
9. Only use the equipment provided by the manufacturer to couple the machine.
10. Couple the machine on the tractor, raise the machine carefully to avoid risks of accidents.
11. Always take into consideration the weight and width of the machine on the road.
12. Always set the lighting system, signal system and transport locks for road transportation.
13. Leave the semi-automatic coupling ropes loose so as to avoid the release of the locking system during transport.
14. Do not leave a moving tractor unattended. Stop the engine, disengage the PTO shaft and put on the handbrake.
15. When you steer to couple the machine make sure the braking capacity is sufficient – the braking is influenced by the weight of the machine coupled on the tractor.
16. In transport pay attention to the weight transfer when turning sharp corners and other road obstacles.
17. Only use the machine when all the safety and protection requirements have been followed.
18. Stop the machine immediately when someone arrives on or near the work area.
19. Put the machine on the ground, stop the engine, put the handbrake on and take the key out of the tractor before leaving it.
20. Do not stand between the tractor and the machine if they are not completely stabilized.
21. Do not use the machine if tired, under the influence of alcohol or on drugs.
22. Keep the reflective apparatus clean on the front and rear of machine.

MOUNTED MACHINE:

1. Make sure that the lifting system is working smoothly before coupling the machine on the tractor linkage.
2. Make sure the linkage category of the machine is the same as that of the tractor.
3. Be careful when standing near the linkage system area. There are risks of crushing and cutting.
4. Do not stand between the machine and the tractor during the coupling and when you fit the top link.
5. Adjust the check chains of the linkage of the tractor to avoid excessive sway.
6. In transport lock the operating lever of the linkage.
7. Set the lighting apparatus, signal system and required precautions for transport on the road.
8. Put on the safety pin and release the locking system in transport position.
9. Check the following regularly: axles, lynch pins, articulation pins, linkage bar.

SEMI MOUNTED & TRAILED MACHINES:

1. Make sure that the drawbar, turning link, fix link and hook is in good working order.
2. Check the connection to the tractor: linkage pins, hook, axles, pins etc.
3. Do not stand between the tractor and the machine at the time of coupling.
4. Never attach a trailed machine to the top link hitch point of the tractor
-SERIOUS RISK OF OVERTURNING
5. Regularly check and clean the hydraulic pipe connection, rams safety valves on the road etc.
6. In transport put on the safety pins and release the locking system.
7. In transport close the safety valves of the lifting rams of the machine.
8. When transporting drive carefully on the road especially on sharp curves and on bridges etc.
9. Set up lights, signal systems and transport locks for road transportation.
10. Do not uncouple the machine when on sloping ground. If necessary place a securing block behind the wheel.
11. Before leaving the tractor uncouple the machine. Lay the machine on the ground or on the support stand.
12. Open and close on a flat area with the tractor running at low revs.

MACHINE WITH HYDRAULIC EQUIPMENT:

1. Check the hydraulic kit, pipes, connections and valves are all in smooth working order before use.
2. Read the setting up procedure before use as shown herewith.
3. Before use fill up the hydraulic circuit by moving the spool valve of the tractor.
4. Keep people away from the driving area and be careful with large unfolding machines.
5. IMPORTANT - In transport close the safety valves of the rams.
6. On vertical and lateral folding machines put all release pins on.
7. Do not attempt to execute more than one operation at a time. Wait for one to finish before starting another.
8. Carry out all the operations on a flat surface with the tractor running at low revs. Leave the machine on a flat area.

PTO SHAFT:

1. Use the PTO shaft recommended by the manufacturer, which has a CE Mark.
2. Keep the guards and covers on the PTO Shaft.
3. At all times be careful with the PTO Shaft.
4. Never attach the PTO when the machine is lifted.
5. Lift the PTO Shaft to check that the guards move freely and cover the shaft.
6. IMPORTANT - Secure the chains of the PTO Shaft to ensure protection.
7. Before connecting the PTO Shaft make sure the RPM is the same as the machine.
8. When engaging the PTO Shaft ensure that no person is standing near the machine.
9. Never engage the PTO when the engine is a stopped or running at high rev.
10. Ensure that no person stands near the moving parts of the machine.
11. Do not allow hands, feet or any other part of the body near the moving parts of the machine.
12. Disengage the PTO Shaft if the work becomes too much for the machine - DO NOT OVERSTRAIN THE PTO.
13. Do not stand near the working machine even if the tractor PTO is disengaged WAIT FOR ALL MOVING PARTS TO STOP.
14. Carry out maintenance, greasing, cleaning and all other necessary work when the PTO Shaft is disconnected, the engine is stopped, the key away and the machine is stabilized.
15. Position the disconnected PTO Shaft on supports in order to avoid damage when in transport.
16. IMPORTANT - Always replace a broken or defective part by an original part, which has a CE Mark.

MAINTENANCE:

1. Carry out all maintenance, greasing, cleaning and any other work on the machine ONLY when the machine is stopped, stabilized, engine stopped, handbrake on and key out.
2. Regularly check the bolts, linkage, link pin, articulation axles, wearing parts often. Tighten them regularly and if necessary replace them with original parts.
3. For all work that needs to be carried out under the machine make sure the unit is wedged and supported carefully to avoid the risk of crushing. Take care with all parts that could fall or uncouple from the machine when this maintenance is being carried out.
4. Wear gloves for all work that needs to be carried out on the machine. Be careful on sharp edges.
5. Before undertaking greasing clean carefully the surplus grease and oil.
6. Before all welding operations on the machine when it is coupled with the tractor disconnect the cables of the battery.
7. Always replace the wearing parts or damaged parts with original ones.

WARNING & INFORMATION STICKERS ON THE MACHINE

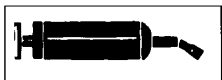


Before leaving the tractor for any operation on the machine, stop the engine and wait for the complete stop of any moving parts

Before starting to operate the machine read the advice and safety instructions given in the handbook. Before each use, check all the protection devices and tightness of bolts.

GRAISSAGE · Pailiers toutes les 6 heures · Autres graisseurs toutes les 20 heures GREASING · Bearings every 6 hours · Other grease nipples every 20 hours SCHMIERUNG · Lager alle 6 Stunden · Andere Schmiernippeln alle 20 Stunden	BOULONNERIE · Vérification de la boulonnerie après 1 heure d'utilisation, et ensuite, toutes les 20 heures BOLTING · Checking after the 1st hour using than, every 20 hours SCHRAUBEN · Überprüfung den Schrauben nach erster Stunde Verwendung, dann alle 20 Stunden
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Outlines the greasing instructions and frequency for tightening bolts.



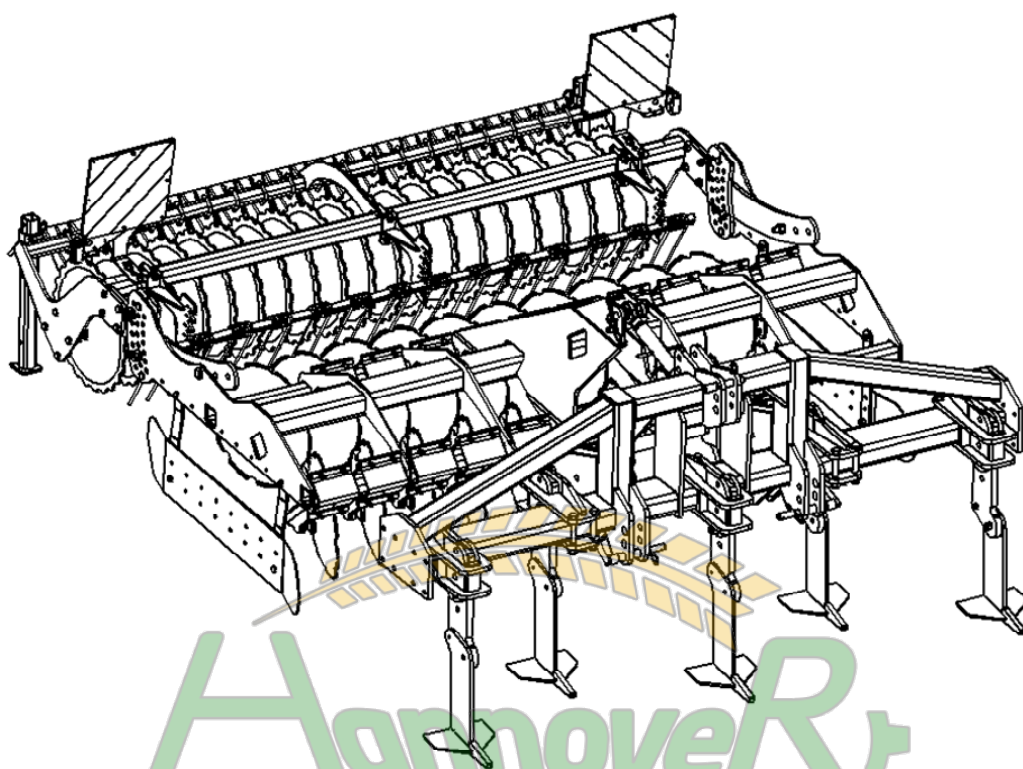
Indicates where grease nipples are located that need greasing.



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Adjusting the working height of the tines

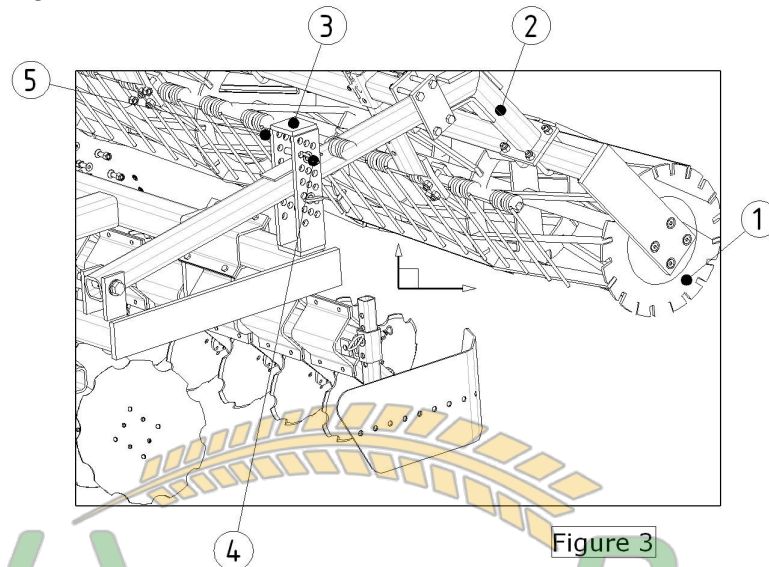
- The adjustment for the working depth of the tines is made through the 3 point linkage to the tractor
- Further adjustment can be made through the discs and rear roller
- The frame of the tines must be parallel to the soil for level and effective working. This adjustment is made through the 3 point linkage of the tractor

Adjusting the discs working depth.

The discs working depth is primarily controlled by the adjustment of the linkage from the subsoiler unit to the discing unit. Secondary adjustment is then the use of the rear roller as a means of depth control.

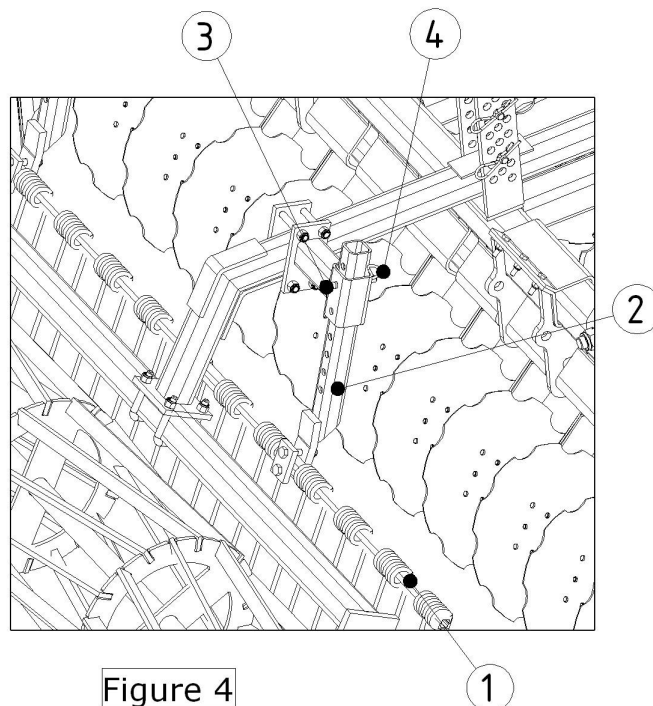
Adjusting the rear roller in Figure 1.

1. Ensure that all pins are removed from item number 3.
2. Place the machine to the desired discing depth and the roller will move accordingly.
3. Place pins 4 and 5 above and below the rollers bar to lock the roller in place.
Ensure that you place the pins in the same location for the other item 3 on the other side of the machine



Adjusting the height of the levelling fingers in Figure 2.

1. To be done after adjusting the roller and discing depth.
2. Adjust the fingers (item 1) to the desired height.
3. Insert the pin (item 4) into item 2 as shown in the diagram ensuring that the corresponding holes line up.
4. Remember to place the R clip (item 3) into position to stop the pin from falling out.
5. Try to ensure that both levelling finger brackets are aligned at the same height.



Adjusting the angle / overlap of the discs in Figure 5.

The discs are preset in the factory at the correct angle / overlap and should not need to be altered. However if the angle is not sufficient you may alter the angle / overlap by turning the adjusting screw to the indicated value as shown in figure 3 for your machine.

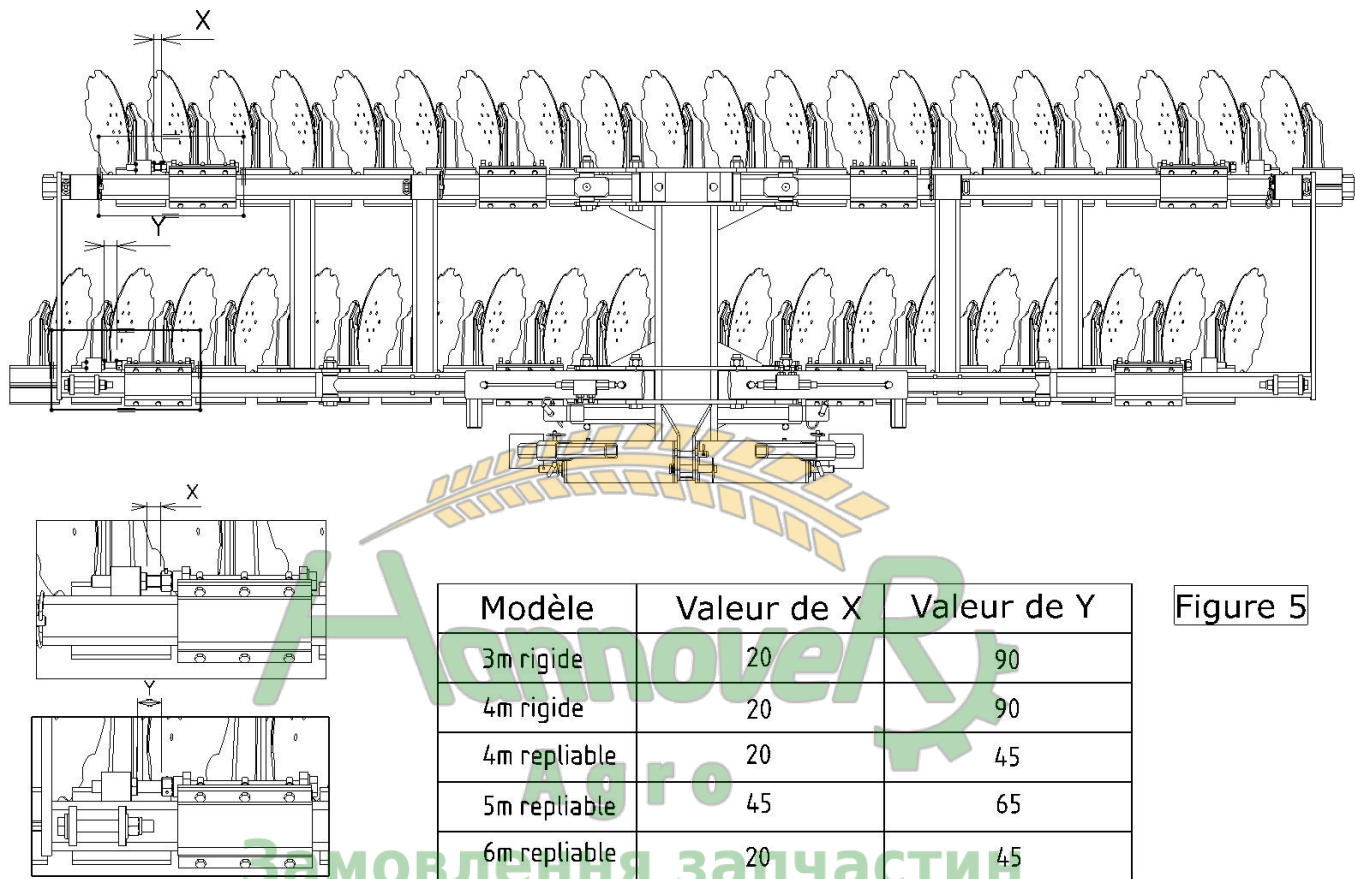


Figure 5

Adjusting the height of the deflectors in Figure 6

Once set, the deflectors need not be adjusted, as the depth of the discs governs the height of them. The recommended height of the deflector plate is approximately 10mm above the ground.

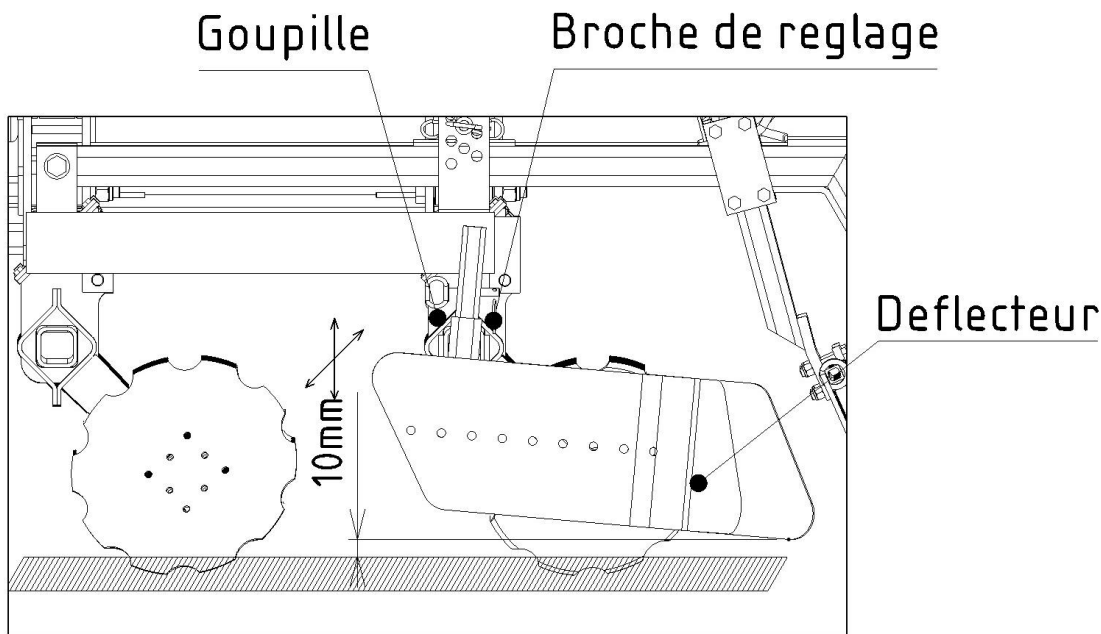


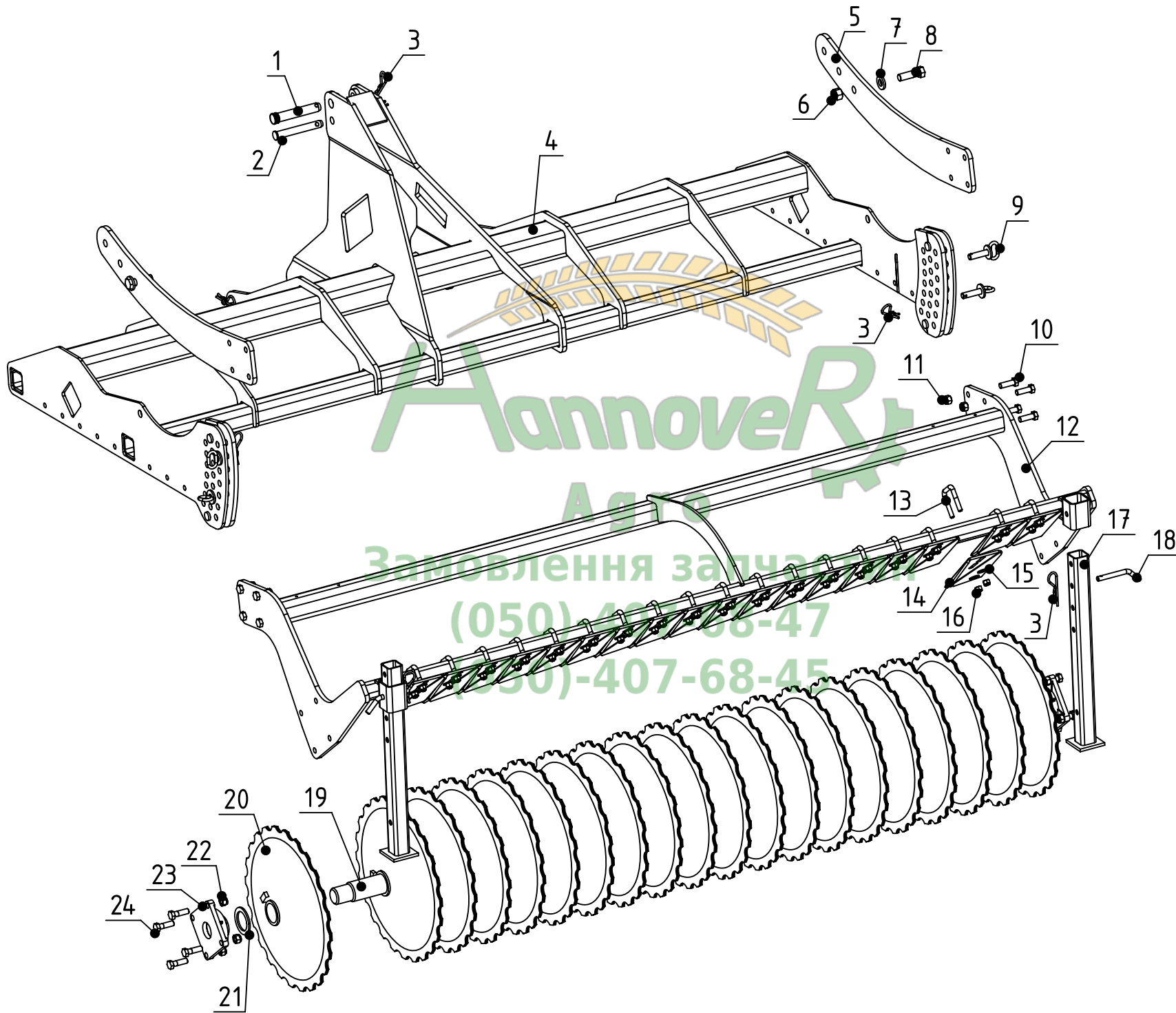
Figure 6



Parts Book

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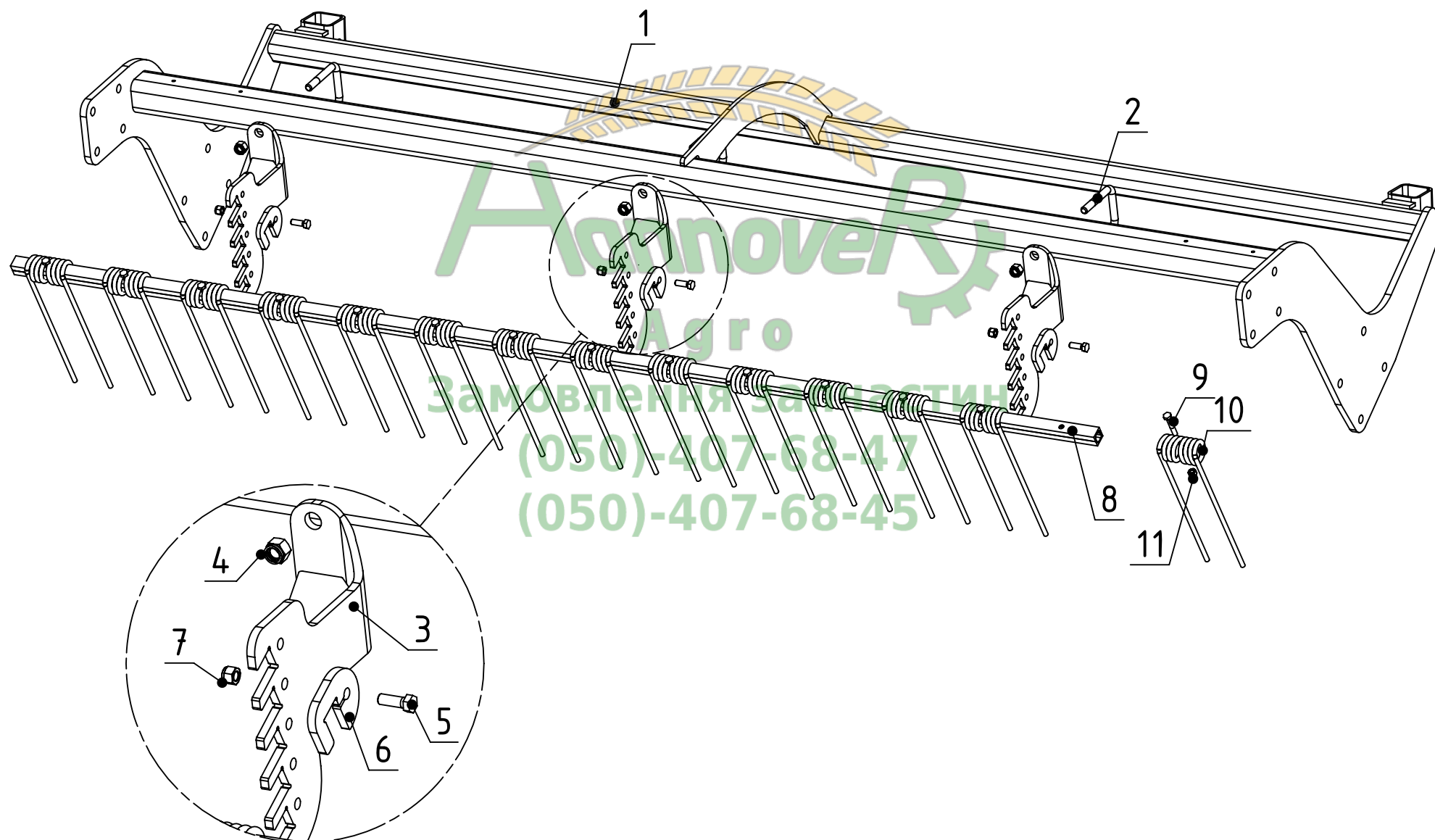
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PLUTO
N°1



PLUTO au 08-2007

Rep.	Nom du produit	Beschreibung	Description	Designacion	Наименование	Code
1	Axe Ø 32x149 de 3 point (Lg 170 totale)	Achse	Axle	Eje	Ось Ш 32x149 3-й точки	AXE32001
2	Axe Ø 25x180 3ème point	Achse Ø25X180	Axle Ø25X180	Eje Ø25X180	Ось 3-й точки Ш 25x180	AXE25036
3	Goupille beta Ø6	Stift beta Ø6	Pin beta Ø6	Pasador beta Ø6	Штифт beta Ш6	GOU06000
4	Chassis PLUTO au 08-2007	Rahmen	Main frame	Cajonera		RDL03006
5	Bras oxy de rouleau PLUTON	Kurbelarm	Crank	Brazo		RDL03040
6	Ecrou nylstop M24 Zn	Mutter M24	Nut M24	Tuerca M24	Гайка nylstop M24 Zn	ECR24003
7	Rondelle plate 25x50x7	Scheibe 25x50x7	Washer 25x50x7	Arandela 25x50x7	Плоская шайба 25x50x7	RON02503
8	Vis T.H.24x 80 8.8 Zn (partielisse lg 19mm)	Schraube 24x80	Screw 24x80	Tornillo 24x80		VIS24021
9	Broche Ø20x75	Spindel Ø20x75	Pin Ø20x75	Pasador Ø20x75	Штырь Ш20x75	BRO02003
10	Vis T.H.18x 60 8.8 Zn	Schraube 18x60	Screw 18x60	Tornillo 18x60	Болт Т.Н.18x 60 8.8 Zn	VIS18003
11	Ecrou nylstop M18 Zn	Mutter M18	Nut M18	Tuerca M18	Гайка nylstop M18 Zn	ECR18002
12	Cadre de rouleau PLUTON	Halter	Bracket	Soporte		RDL03050
13	Etrier Ø14x 62x 90/50	U- Bolzen Ø14x62x90/50	U- Bolt Ø14x62x90/50	Brida en U Ø14x62x90/50		ETR14001
14	Décrottoir pour roue ROLLCREST	Abstreifer	Scraper	Raedera		DEC00050
15	Rondelle plate 14x35x3 Zn	Scheibe Ø14x35x3	Washer Ø14x35x3	Arandela Ø14x35x3	Плоская шайба 14x35x3 Zn	RON01404
16	Ecrou nylstop M14 Zn	Mutter M14	Nut M14	Tuerca M14	Гайка nylstop M14 Zn	ECR14002
17	Bequille tube carré de 45 lg 725	Ständer	Stand	Soporte	Опора для нерабочего лоло	BEQ04512
18	Clé Ø16 lg 180 lg pliée BICHROMATEE	Spindel Ø16x180	Pin Ø16x180	Pasador Ø16x180		CLE01601
19	Arbre Ø 70 lg 2930	Welle	Shaft	Arbol		ARB07060
20	Roue ROLLCREST Ø600	Rad	Wheel	Rueda		RFT60701
21	Rondelle plate 71x100x6	Scheibe	Washer	Arandela	Плоская шайба 71x100x	RON07101
22	Ecrou nylstop M18 Zn	Mutter M18	Nut M18	Tuerca M18	Гайка nylstop M18 Zn	ECR18002
23	Palier UCF 212 complet	Lager UCF 212	Bearing UCF 212	Cojinete UCF 212	Подшипник в сборе UCF	PAL06000
24	Vis T.H.18x 60 8,8 Zn filetagetotal	Schraube 18x60	Screw 18x60	Tornillo 18x60		VIS18017

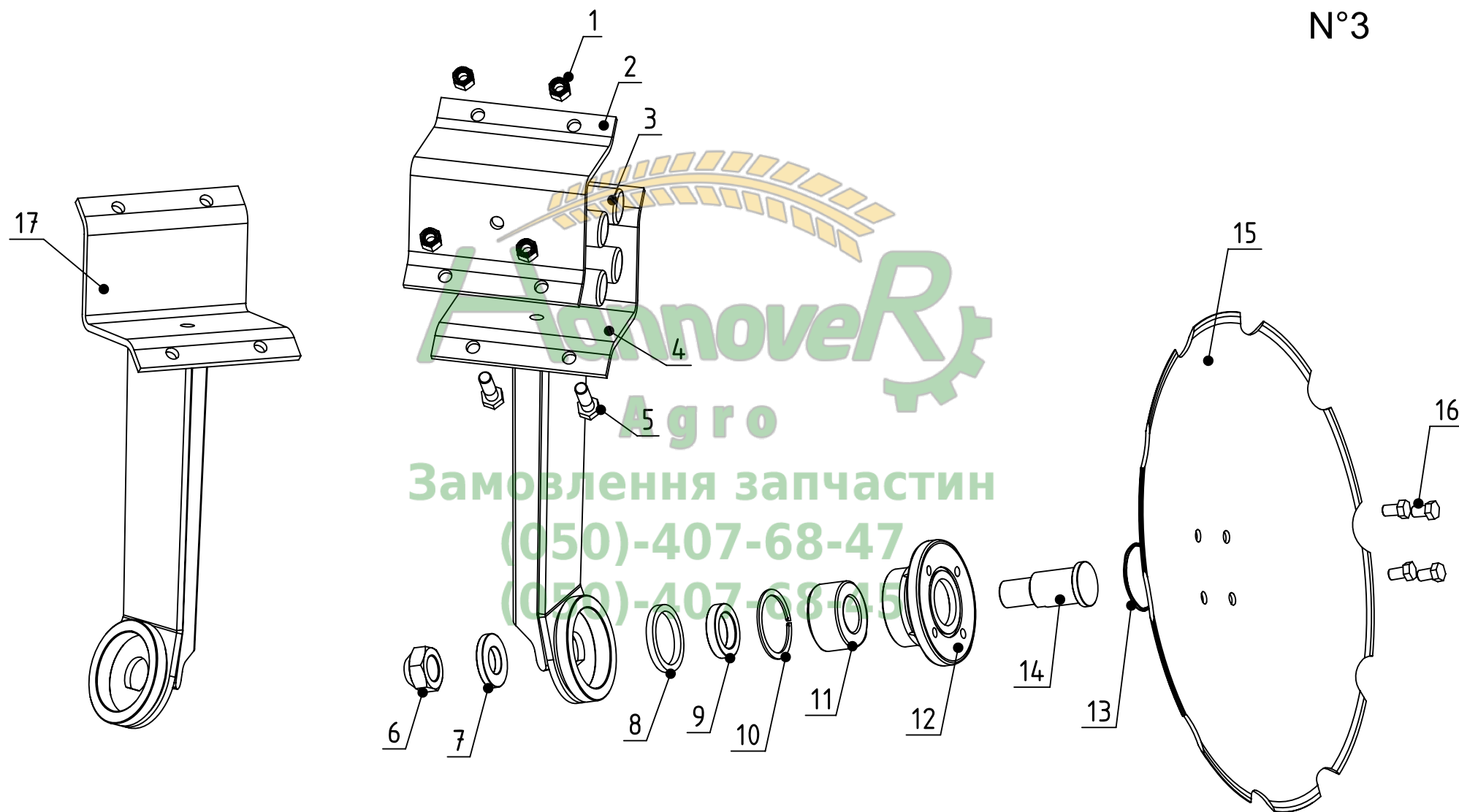
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Rep.	Nom du produit	Beschreibung	Description	Designacion	Наименование	Code
1	Cadre de rouleau PLUTON	Halter	Bracket	Soporte		RDL03050
2	Etrier Ø16x 82x120/40	U- Bolzen Ø16x82x120/40	U- Bolt Ø16x82x120/40	Brida en U Ø16x82x120/40	Скоба Ш16x 82x120/40	ETR16002
3	Support de bâti de herse à peigne	Halter	Bracket	Soporte	Олора стойки гребенчатой	RDL02090
4	Ecrou nylstop M16 Zn	Mutter M16	Nut M16	Tuerca M16	Гайка nylstop M16 Zn	ECR16002
5	Vis T.H.12x 35 8.8 Zn filetage total	Schraube	Screw	Tornillo	Болт Т.Н.12x 35 8.8 Zn л	VIS12009
6	Pièce de blocage de bâti de herse à peigne	Befestigung	Assembling parts	Fijacion	Блокировочный механизм	RDL02091
7	Ecrou nylstop M12 Zn DIN 985	Mutter M12	Nut M12	Tuerca M12	Гайка nylstop M12 Zn DIN	ECR12002
8	Bati de herse à peigne lg 2785/ 14 dts	Rahmen	Frame	Cajonera	Ось задних гребенок дл. 2	VIB00069
9	Vis T.H.10x 60 6.8 Zn	Schraube	Screw	Tornillo	Болт Т.Н.10x 60 6.8 Zn	VIS10013
10	Dent de herse à peigne Ø10 lg 400	Zinken	Tine	Diente	Зуб гребенчатой боронки д	DTS21100
11	Ecrou nylstop M10 Zn DIN 985 0871	Mutter M10	Nut M10	Tuerca M10	Гайка nylstop M10 Zn	ECR10002

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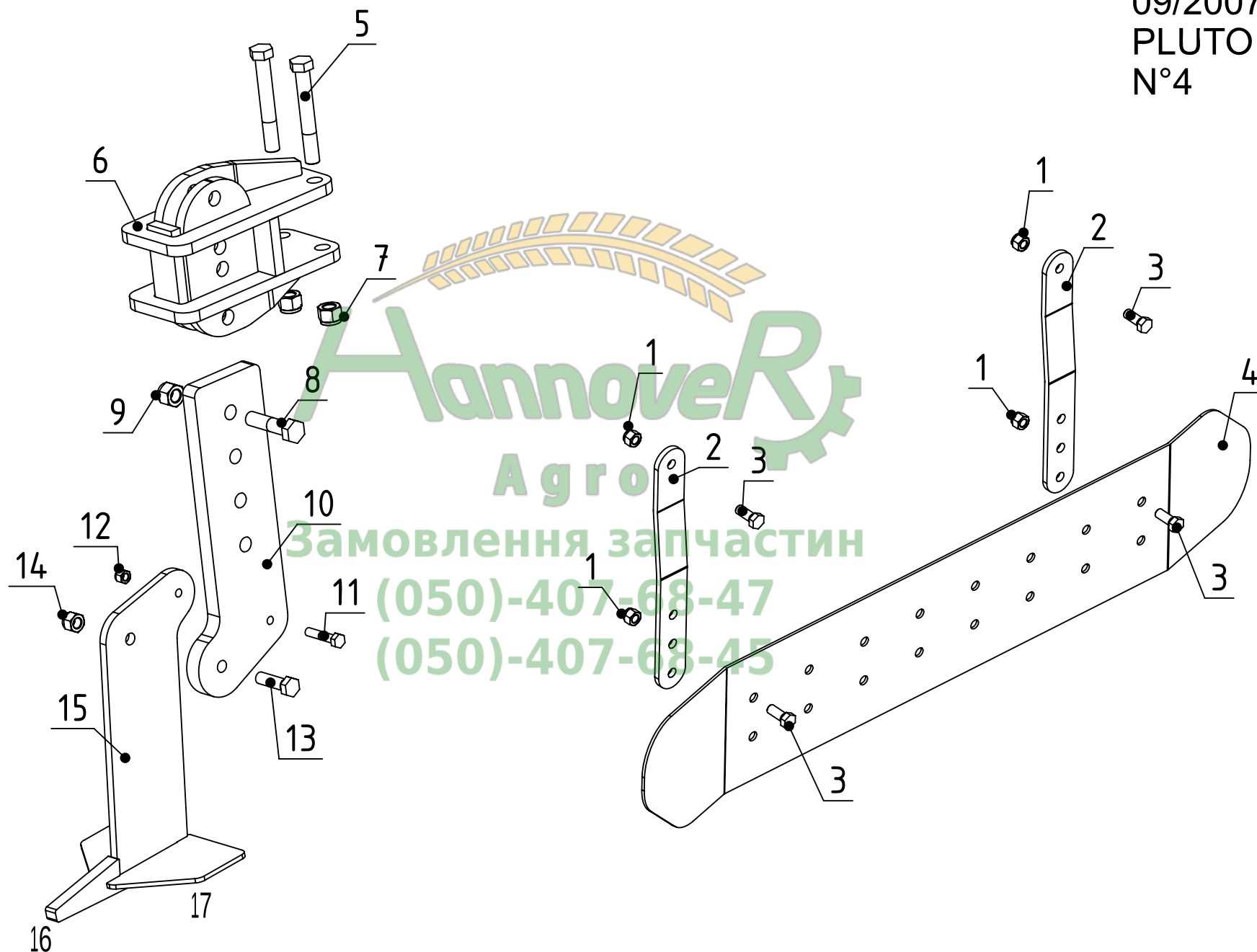


$$A=8+9+10+11+12$$

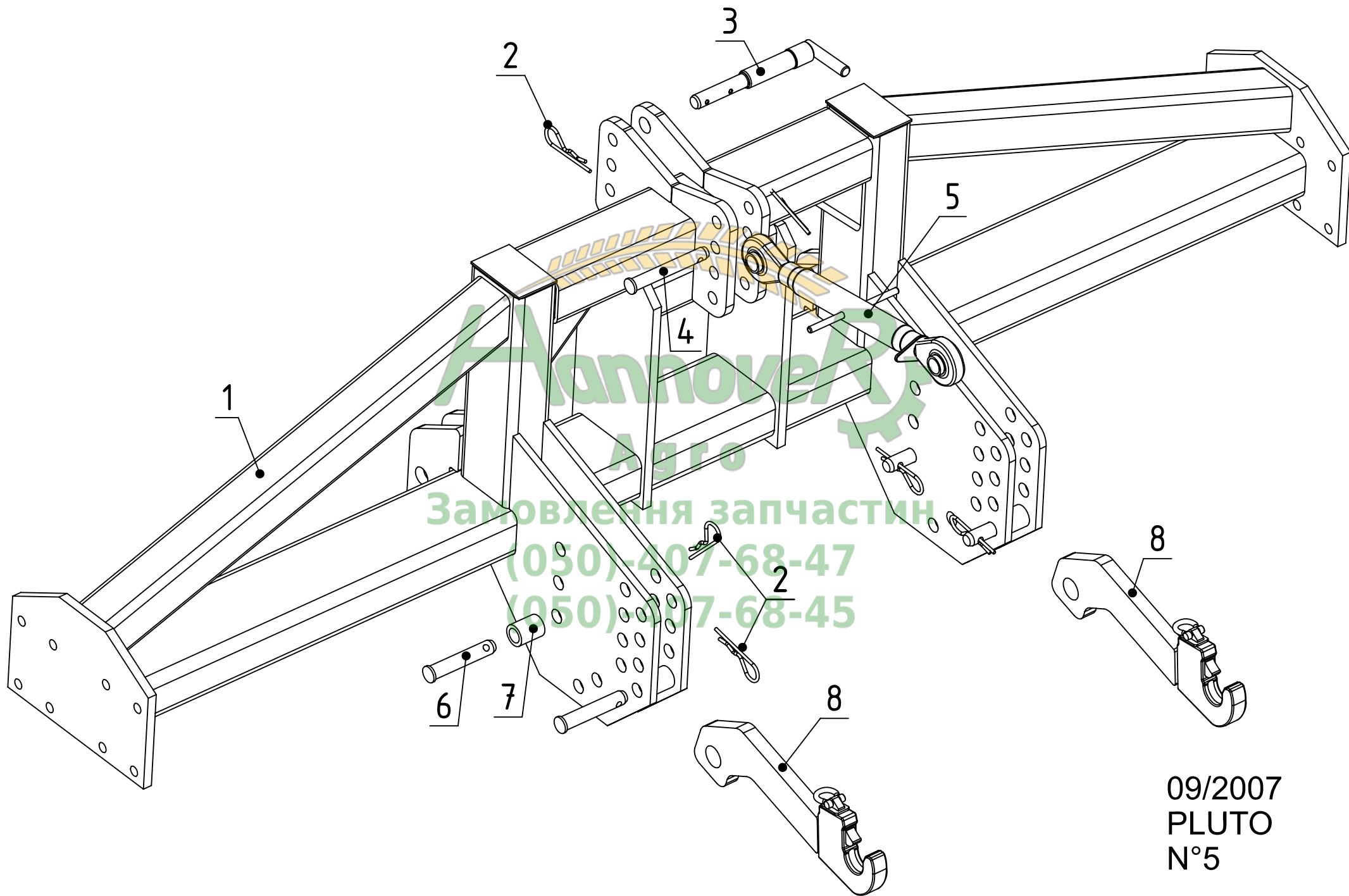
$$B=6+7+8+9+10+11+12+13+14+16$$

Rep.	Nom du produit	Beschreibung	Description	Designacion	Наименование	Code
1	Ecrou nylstop M14 Zn	Mutter M14	Nut M14	Tuerca M14	Гайка nylstop M14 Zn	ECR14002
2	Bride support de disque DISKATOR	Bride	Bridle	Brida	Олорный фланеч диска Д	RDL05053
3	Amortisseur caoutchouc Ø40 lg 200 DISKATOR	Stossdämpfer Ø40 lg 200	Shock absorber Ø40 lg 200	Amartigador Ø40 lg 200	Резиновый амортизатор III	RDL05052
4	Jambe de disque Ø560 AR nue (rltØ40) DISKATOR	Halter	Bracket	Soporte	Подлора диска III560 задне	RDL05140
5	Vis T.H.14x 50 8,8 Zn filetagetotal	Schraube 14x50	Screw 14x50	Tornillo 14x50		VIS14044
6	Ecrou H. M30x200 frein DIN 980- 8 ZG 5 MICRON	Mutter	Nut	Tuerca	Гайка Н. M30x200	ECR30018
7	Rondelle plate 31x60x5	Scheibe	Washer	Arandela	Шайба плоская 31x 60x	RON03100
8	Joint à lèvres Ø 60x 75x 8	Dichtung	Tight joint	Junta		JOI06006
9	Bague Ø 40x 60 lg 11,5	Büchse	Bushing	Casquillo		BAG04011
10	Circlips intérieur Ø 75	Seegering	Circlip	Anillo	Внутреннее столорное кол	CIR07505
11	Roulement bille contact obliq2 rang Ø75xØ40x37	Lager	Bearing	Cujinete	Шариколодшилник III75xIII	RLT90001
12	Moyeu pour rlt Ø40 et dsq Ø560 DISKATOR	Nabe	Hub	Cubo	Стулича для лодшилника	MOY00027
13	Joint torique OR 70 x 3	O-Ring 70x3	O-Ring seal 70x3	Junta toroidal 70x3	Прокладка OR 70 x 3	JOI07003
14	Axe moyeu de disque Ø560 (Ø40) DISKATOR	Achse	Axle	Eje	Ось стуличы диска III560	RDL05142
15	Disque 565x4,5 CR4 trous Ø14 sur Ø98 R725	Scheiben	Disc	Disco	Диск 565x4,5 CR 4 отв.	DSQ05632
16	Vis T.H.12x 20x1,25 10.90 filetage total Zn	Schraube	Screw	Tornilio	Болт Т.Н.12x 20x1,25 10.9	VIS12068
17	Jambe de disque Ø560 AV nue (rltØ40) DISKATOR	Halter	Bracket	Soporte	Подлора диска III560 лере	RDL05141
A	Moyeu, rlt Ø40, circlips,bague et joint DISKATOR	Nabe	Hub	Cubo		MOY00031
B	Moyeu, rlt Ø40, joint et axecomplets DISKATOR	Nabe	Hub	Cubo		MOY00032

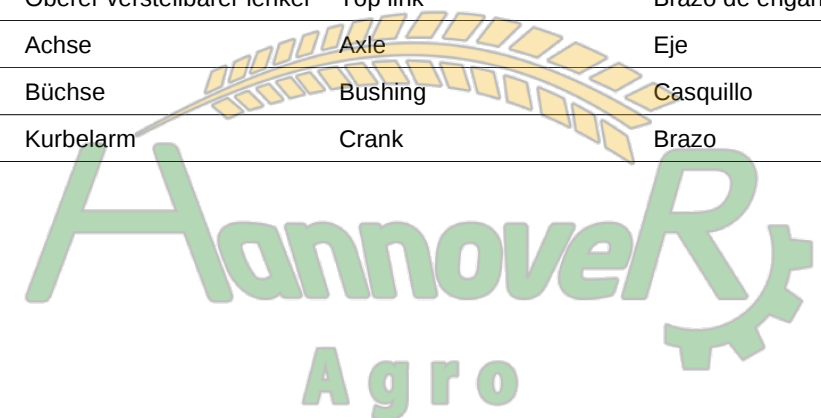
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Rep.	Nom du produit	Beschreibung	Description	Designacion	Наименование	Code
1	Ecrou nylstop M16 Zn	Mutter M16	Nut M16	Tuerca M16	Гайка nylstop M16 Zn	ECR16002
2	Bras de déflecteur PLUTON -PLUTO	Kurbelarm	Crank	Brazo		RDL03060
3	Vis T.H.16x 40 6.8 Zn	Schraube 16x40	Screw 16x40	Tornillo 16x40	Болт Т.Н.16x 40 6.8 Zn	VIS16004
4	Tôle de déflecteur PLUTON -PLUTO	Kupplung	Linkage	Enganche		RDL03070
5	Vis T.H.24x170 8,8 Zn	Schraube 24x170	Screw 24x170	Tornillo 24x170	Болт Т.Н.24x170 8,8 Zn	VIS24008
6	Support de dent PLUTON -PLUTO	Halter	Bracket	Soporte		RDL03080
7	Ecrou nylstop M24 Zn	Mutter M24	Nut M24	Tuerca M24	Гайка nylstop M24 Zn	ECR24003
8	Vis T.H.	Schraube	Adjusting Pin	Tornillo	Винт Т.Н.24x100 8.8	TMA00001
9	Ecrou nylstop M24 Zn	Mutter M24	Nut M24	Tuerca M24	Гайка nylstop M24 Zn	ECR24003
10	Dent intermédiaire PLUTON -PLUTO	Zinken	Leg	Diente		PLL00001
11	Vis T.H.16x 75 8.8	Schraube	Screw	Tornillo		PLS00001
12	Ecrou nylstop M14 Zn	Mutter M14	Nut M14	Tuerca M14	Гайка nylstop M14 Zn	ECR14002
13	Vis T.H.20x170 8.8 Zn DIN 931	Schraube	Screw	Tornillo		VIS20056
14	Ecrou nylstop M20 Zn DIN 985	Mutter M20	Nut M20	Tuerca M20	Гайка nylstop M20 Zn DIN	ECR20003
15	Dent de PLUTON-PLUTO	Zinken	Foot	Diente		PLF00001
16			Weld on Tip			TMP00001
17			Weld on Wing with Tip			TMW00001



Rep.	Nom du produit	Beschreibung	Description	Designacion	Наименование	Code
1	Chassis SCD 3,00m	Rahmen	Frame	Cajonera		SSO00300
2	Goupille beta Ø6	Stift beta Ø6	Pin beta Ø6	Pasador beta Ø6	Штифт beta Ш6	GOU06000
3	Broche Ø36,5/28 lg 115/125 total 285 1 trou SSD SS	Spindel	Pin	Pasador	Штырь Ш36,5/28 дл.115/12	BRO36501
4	Axe Ø 25x180 3ème point	Achse Ø25X180	Axle Ø25X180	Eje Ø25X180	Ось 3-й точки Ш 25x180	AXE25036
5	Barre 3 point Ø 25 / 30x3 /tube 275 / 430-650	Oberer verstellbarer lenker	Top link	Brazo de enganche		BAR25020
6	Axe Ø 28x122 3ème point (Lg 155 totale)	Achse	Axle	Eje		AXE28006
7	Bague Ø 30x 45 lg 58	Büchse	Bushing	Casquillo		BAG03009
8	Bras d'attelage AR de SCD N°3	Kurbelarm	Crank	Brazo		SSO00322



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