



ovlac



**OPERATING INSTRUCCIONES AND SPARE
PARTS** **CE**

REV 2015-08

CHISEL

OBSERVATIONS

This handbook describes the use, maintenance instructions and spare parts supplied for the indicated plough.

The farming implement known as “plough” is designed to work the soil, linked to a tractor with lift and universal 3-point coupling.

Regular and satisfactory operation together with economic and long lasting use of the implement depends on compliance with the instructions given in this handbook. It is, therefore, advisable to strictly comply with the following instructions in order to prevent faults which could jeopardise the correct and long-lasting operation of the implement.

Compliance with the instructions in this handbook is also important **since the Manufacturer declines all and every responsibility caused by negligence and failure to comply with these instructions.**

The Manufacturer shall, however, remain at the customer’s disposal for immediate and thorough assistance together with anything else that may be required in order to ensure the correct operation and maximum efficiency of the implement. The Manufacturer reserves the right to make any modifications and improvements to the implement, as may be considered opportune, without being obliged to immediately inform the user.

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1. SAFETY PROVISIONS

1.- Comply with the instructions given by the danger signals exposed in this handbook (Fig.1) and affixed to the plough itself.

2.- Operations and adjustments to the implement must always be carried out when the engine is off and the tractor braked.

3.- It is absolutely forbidden to carry passengers or animals on the plough.

4.- It is absolutely forbidden for persons without a driving license, inexpert persons or those in precarious health conditions to drive the tractor with the plough mounted.

5.- Strictly comply with all the recommended accident preventing measures described in this handbook.

6.- Assembly of an implement on the tractor will shift the weights on the axles.

7.- Before starting the tractor and plough, always check that all safety devices guarding transport and use are in perfect conditions.

8.- The instructions labels affixed to the plough give useful advice on how to prevent accidents.

9.- Always comply with the highway code in force in your country when travelling on public roads.

10.- Comply with the maximum permissible weight on the axle of the tractor, the total adjustable weight, transport regulations and the highway code.

11.- Always become familiar with the controls and their operation before starting work.

12.- Take the utmost care during the plough coupling and release phases.

13.- Never ever leave the driving seat whilst the tractor is moving.

14.- Remember that the road holding, steering and breaking capacity may be notably influenced by the presence of a mounted implement.

15.- It is absolutely forbidden to stand within the operative range of the plough.

16.- Before leaving the tractor, lower the mounted plough coupled to the lift unit, stop the engine, engage the hand brake and remove the ignition key from the control panel.

17.- The category of the implement coupling pins must correspond to that of the lift coupling.

18.- Take care when working close to the lift links. This is a very dangerous area.

19.- It is absolutely forbidden to stand between the tractor and the plough, to manoeuvre the outside lift control.

20.- Set the control lever of the hydraulic lift to the locked position during road transport with the plough mounted.

21.- The spare parts must correspond to the requirements established by the Manufacturer. Use only genuine spare parts.

22.- The safety transfers must always be perfectly visible. They must be kept clean and should be replaced if they become illegible. Replacements are available on request from your local dealer.

23.- The instruction manual must be kept for as long as the machine lasts.

(Fig.1) WARNING

Thoroughly read the manual before starting to work

DANGER

Do not handle the plough when lifted, danger of flattening. Keep safety distance.

DANGER

Damage can be caused by the rotation of the plough. Keep safety distance.

Be prepared in case of emergency

Have near a first aid kit and an extinguisher. Write down the telephone numbers of doctors, ambulances and firemen and keep them near the telephone.

Use suitable clothes

Avoid loose clothes and use suitable equipment of security according to the type of works. The safe handling of the machine requires all the attention of the operator.

Don't put on auricular to listen to the radio during the work with the machine.

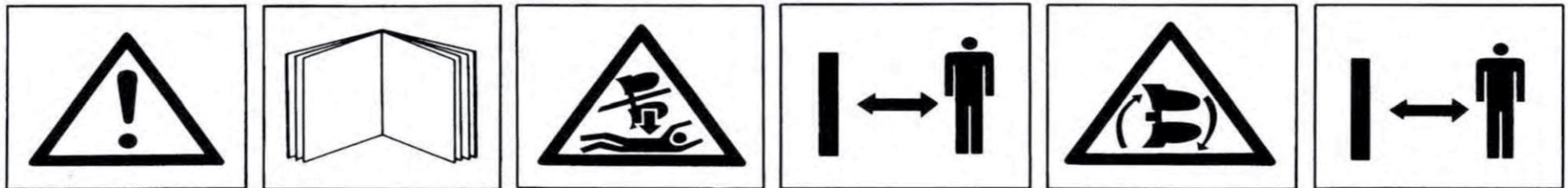
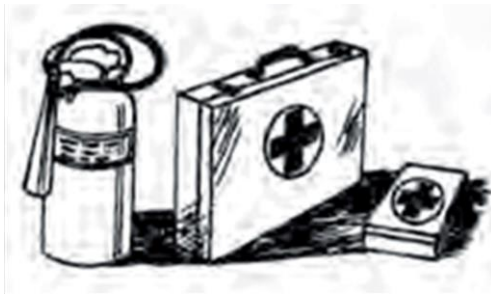


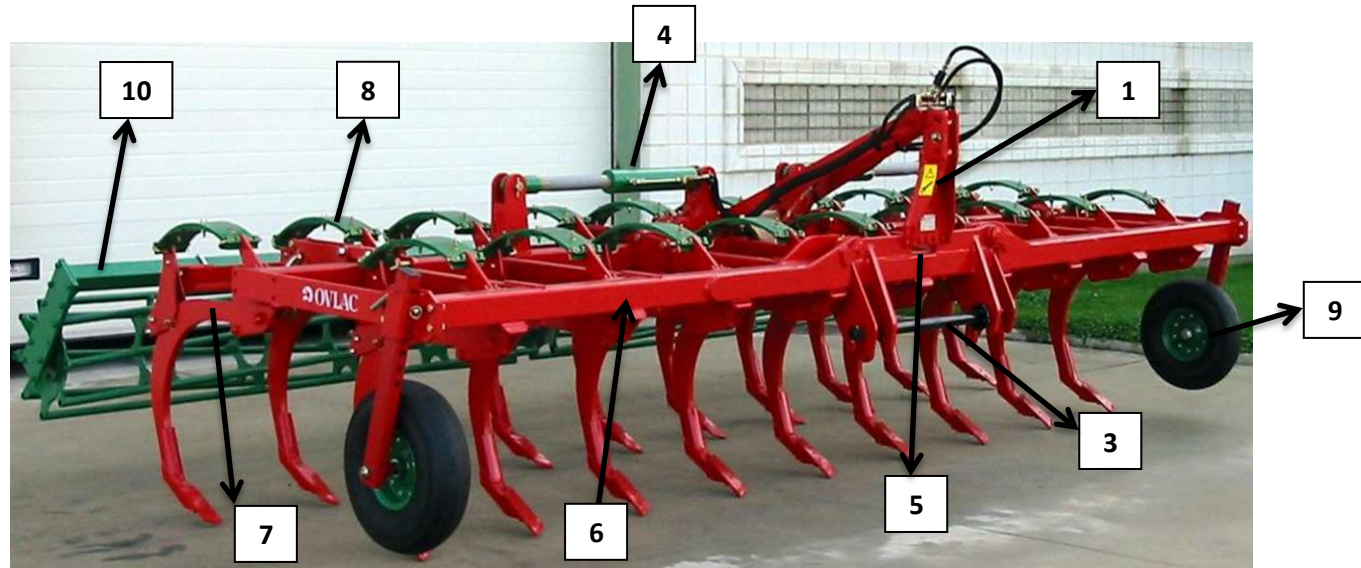
Fig.1

2. DESCRIPTION AND DATA TECHNICAL

1. HEADSTOCK
2. IDENTIFICATION PLATE
3. FAST COUPLING
4. FOLDING CYLINDERS
5. MAIN FRAME
6. SIDES FRAME
7. BODY
8. PROTECTION SYSTEMS
9. SET OF WHEELS
10. SET OF ROLLERS
11. DISC HARROWS

REMARK: The construction number that is engraved in the identification plate must be coincident with the number engraved on the headstock support.

IDENTIFICATION PLATE (2)



DATA TECHNICAL CH

	Models	Num. of arms	Working width (m)	Transport width (m)	Power (CV)
Conventional	CH-7	7	2	2	80-105
	CH-9	9	2,5	2,5	100-135
	CH-11	11	3	3	125-165
	CH-13	13	3,5	3,5	145-195
	CH-15	15	4	4	165-225
Foldable	CH-13-P	13	3,5	3	145-195
	CH-15-P	15	4	3	165-225
	CH-19-P	19	5,3	3	215-275
	CH-21-P	21	5,9	3	230-290

3. PROTECTION SYSTEMS

The different auto-reset protection systems (leafspring / rubber dampers) work automatically. When finding any obstacle, the system allows the tine to trip up and overcome it then returning to its working position without stopping the tractor.

In this way, all impacts caused by irregularities on the field are absorbed by the protection system which, therefore, protects all of the elements on the equipment as well as on the tractor.

Also because of this reason, the auto reset protection systems decreases the required pull power as they prevent the tractor from ripping all obstacles that the field may present to an even work (Fig.2).

Note: Ovlac's auto reset protection systems are set at the factory at an optimal pressure for average soils.



Fig.2

4. SET TO WORK

4.1 – HITCHING TO THE TRACTOR

Ovlac equipment are designed to fit the universal 3-point linkage of any tractor

The cross shaft is supplied in two versions (center-to-center distance):

- Category II 870 mm
- Category III 1.010 mm

Before hitching the equipment, check the following:

- The lower links of the tractor are adjusted at the same height and length.
- The wheels of the tractor have identical air pressure. This pressure must be according to the manufacturer's instructions
- The lower links of the tractor must be centered and allow for a small oscillation

4.2 – ALIGNMENT

The plough should always work in line with the tractor. If not, the tractor will tend to leave the furrow course. Check that lengths $A1=A2$ (Fig. 3)

Crabbing is corrected automatically in OVLAC ploughs thanks to their oscillating cross shaft. In ploughs with fix coupling, act on the drifting-correction turnbuckle (hydraulic in option).

The third point should be linked so that the end linked to the plough be slightly higher than the one linked to the tractor (Fig. 4)

The third point should always be placed in the oblong hole E (Fig. 3), trying that its length does not hinder it to move while working.

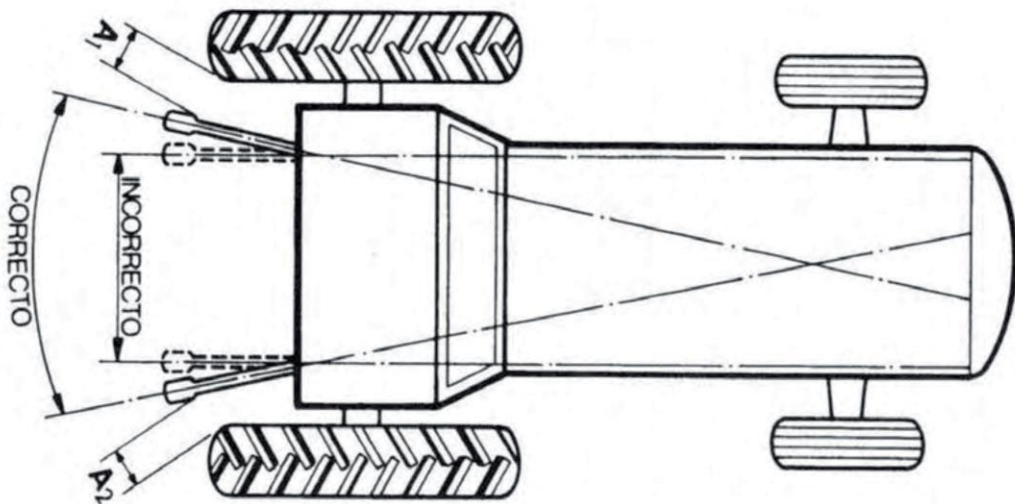


Fig.3

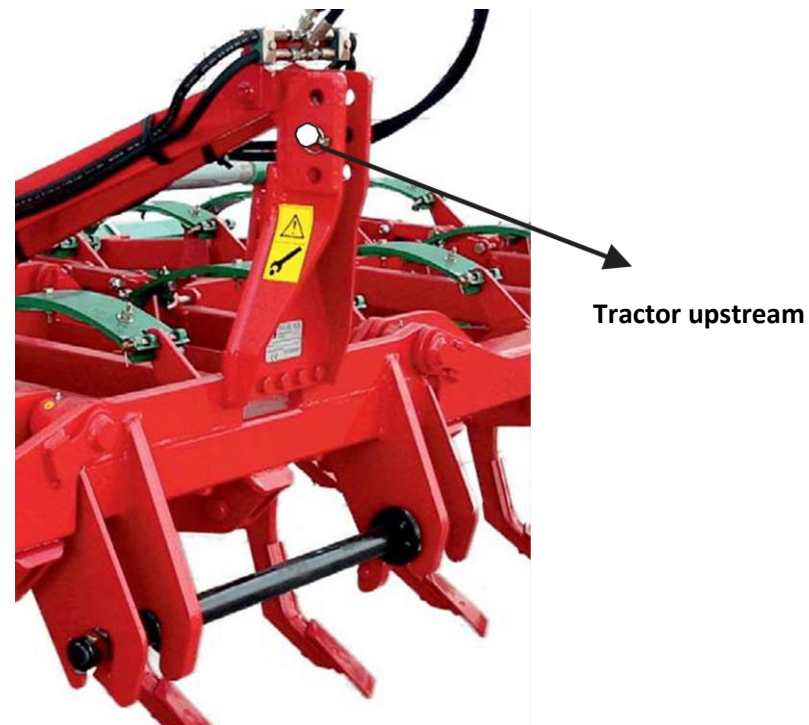


Fig.4

4.4 – OTHERS ADJUSTMENTS

The length of the third point should be adjusted so that the frame works in a parallel position with respect to the field since, if not, the first bodies would plough at a different depth than the rear ones achieving an uneven labour (Fig. 5).

IMPORTANT: Care should be taken not to take curves at work, especially with very wide tools, because the effort lever can cause serious damage to the structure of the machine.

For the same reason, check that the beams work vertically to the field (Fig.6). To achieve this, make sure that the lifting arms of the tractor are at the same height and act on the adjusting bolts A at the headstock (Fig. 7).

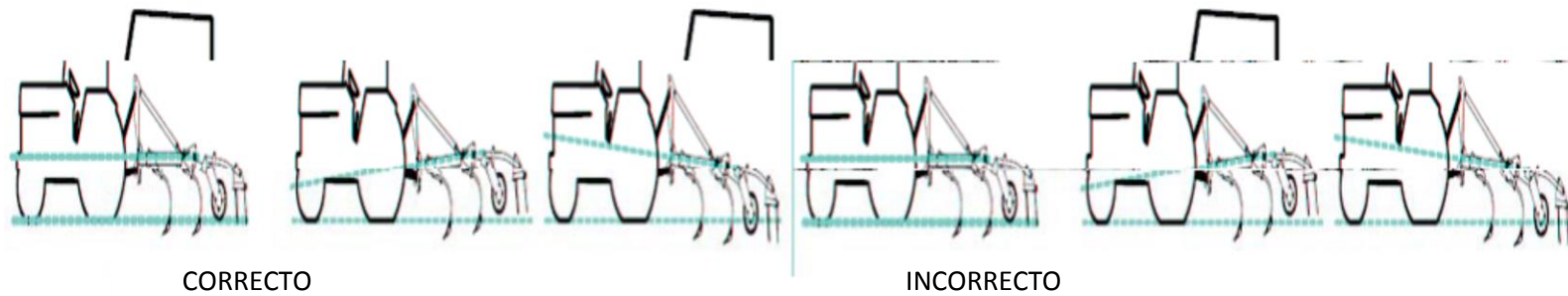


Fig.5

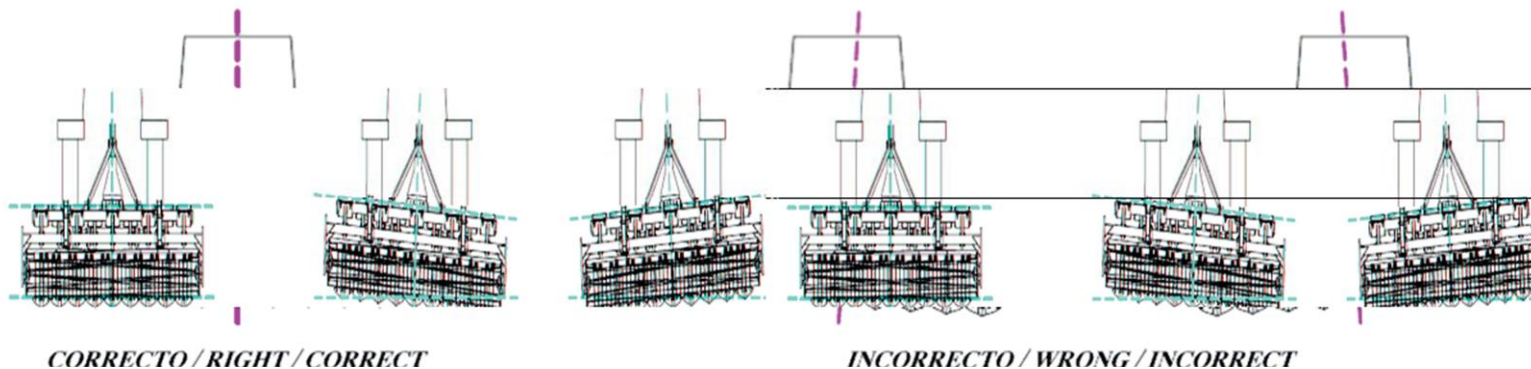


Fig.6

Fig.7

5. WORKING DEPTH

The working depth is set via the tractor hydraulic. Nevertheless, in order to get an even working depth, all Minichisel can be equipped with:

- Side wheels whose height is adjusted by means of pins A (Fig. 8)
- Roller whose height is adjusted by means of pins B (Fig. 9)

In CH cultivators equipped with rear disc harrow, its working depth is adjusted by means of pins C (fig.10)



Fig.8



Fig.9

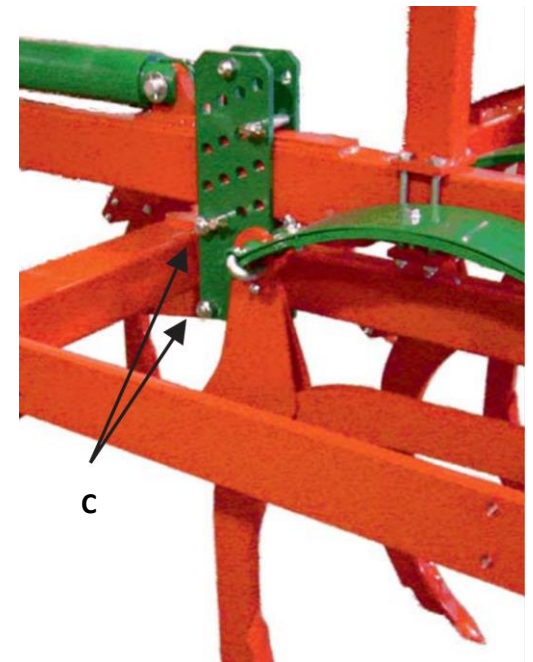


Fig.10

6. TRANSPORT

In foldable machines, the side frames must be folded in hydraulically for transport (Fig. 11) in order to carry the machine in its minimum width.

If the CH is equipped with rear foldable disc harrow, fold it on to the CH for an easier and safer transport on the road (Fig. 12).



Fig.11



Fig.12

7. MAINTENANCE

Retighten all bolts and nuts after the first 8 hours of work, specially the ones of mouldboards, shares and points. Henceforth, check every 100 hours of work. When putting the plough away, clean and grease thoroughly the mouldboards to prevent from rusting.

Lubrication: grease the greaser.

Safe maintenance

Be used to the maintenance procedures before carrying out the works. The working zone must be clean and dry. Don't carry out any work of lubrication, repair or adjust with the motor enabled. Keep the hands, feet and clothes always far from movable components. Turn all the controls off, to alleviate the pressure. All the components must be in good state and correctly installed. Repair damages immediately. Change any worn away or broken pieces. Maintain all the components of the machine clean of fat, oil and accumulated dirt. Because of being dragged equipment, disconnect the cable groups of the tractor before making works of weld in the machine.



Take care of the leaks of high pressure

The fluids that escape of the system can have as much force that they can penetrate the skin, causing serious injuries. Therefore, it is essential to leave the system without pressure before relaxing or disconnecting any pipe and make sure that all the connections and the hydraulic parts they are well tight before applying pressure to the system. In order to locate a hydraulic oil leak, use a piece of cardboard that is put on the connections. Do not approach the hands and the body to a leak of high pressure. If, in spite of this precaution, it happens an accident, go immediately to a doctor who should eliminate surgically the fluid within few hours to avoid gangrene. The doctors who do not have experience in dealing with these type injuries can go to a specialized medical centre.

Storage of the hydraulic sleeves.

IMPORTANT: maintain the plugs clean. The abrasive particles, like the sand or the metallic shaving, can damage the oil seals, shirts and cylinders, causing internal leaks. Once disconnected of the tractor, make sure that they are not in contact with the ground



8. OPTIONAL EQUIPMENT

The ploughs **CHISEL Ovlac** can be equipment with:

1. Wing share (Fig.13)
2. Additional bolt-on bodies. (Fig.14)
3. Additional foldable bodies. (Fig.15)
4. Wheels (Fig.16)
5. Rollers. (Fig.17)
6. V-shaped rear disc harrow(Fig.18)
7. Hydraulic folding of rear disc harrow. (Fig.19)



Fig.13

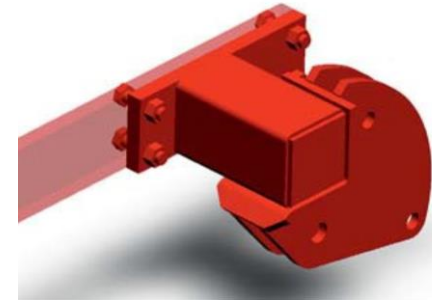


Fig.14



Fig.15



Fig.17



Fig.16



Fig.18



Fig.19

9. SPARE PARTS

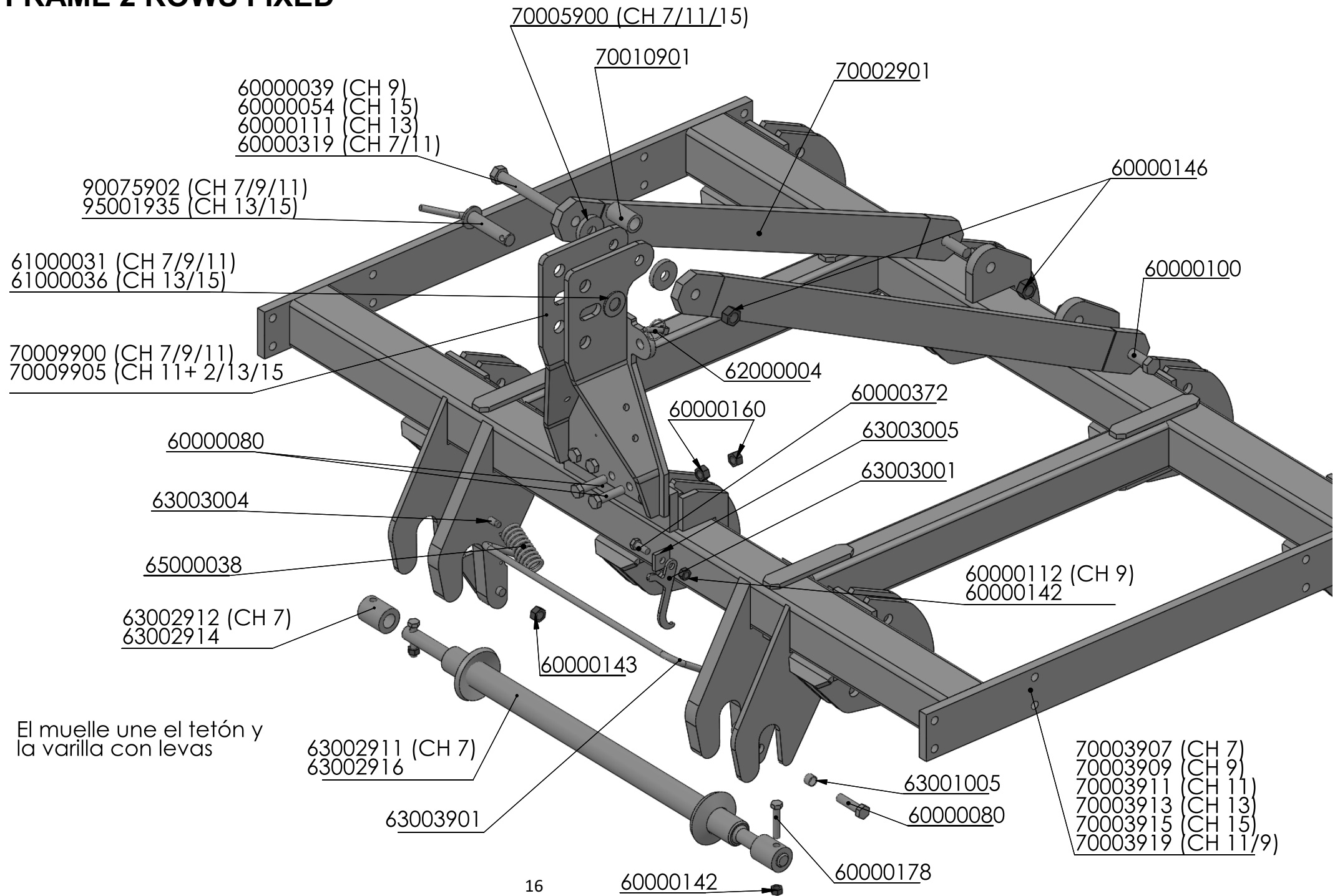
Spare parts should always be ordered from your dealer and should always include the following indications:

- **Type, model and serial number of the plough.** These data are punched on the identification plate with which every plough is equipped.
- **Code number of the required spare part.** This will be found in the attached spare parts list.
- **Description of the part and required quantity.**
- **Means of delivery.** Transport expenses shall always be at the consignor's charge.
- **NOTE:** The terms **Right** and **Left** indicated on the descriptions, refer to the plough when viewed from the rear. The spare parts components of waste equipment, as shares, mouldboards, etc., are considered right if they are mounted on a body which spills the soil to the right side and viceversa.
- **Note about the warranty:** The orders of spare parts in warranty should always be clearly specified. **The Manufacturer will always sentence if the spare parts are warranted in their replacement.**
- **Moreover, the warranty is suppressed if:**
 - **The plough is repaired without authorisation from the Manufacturer, or spurious spare parts, and inadequate bolts are mounted.**
 - **The plough has been used beyond the specified power limit, or anomalous manoeuvres and operations have been made.**

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FRAME 2 ROWS FIXED

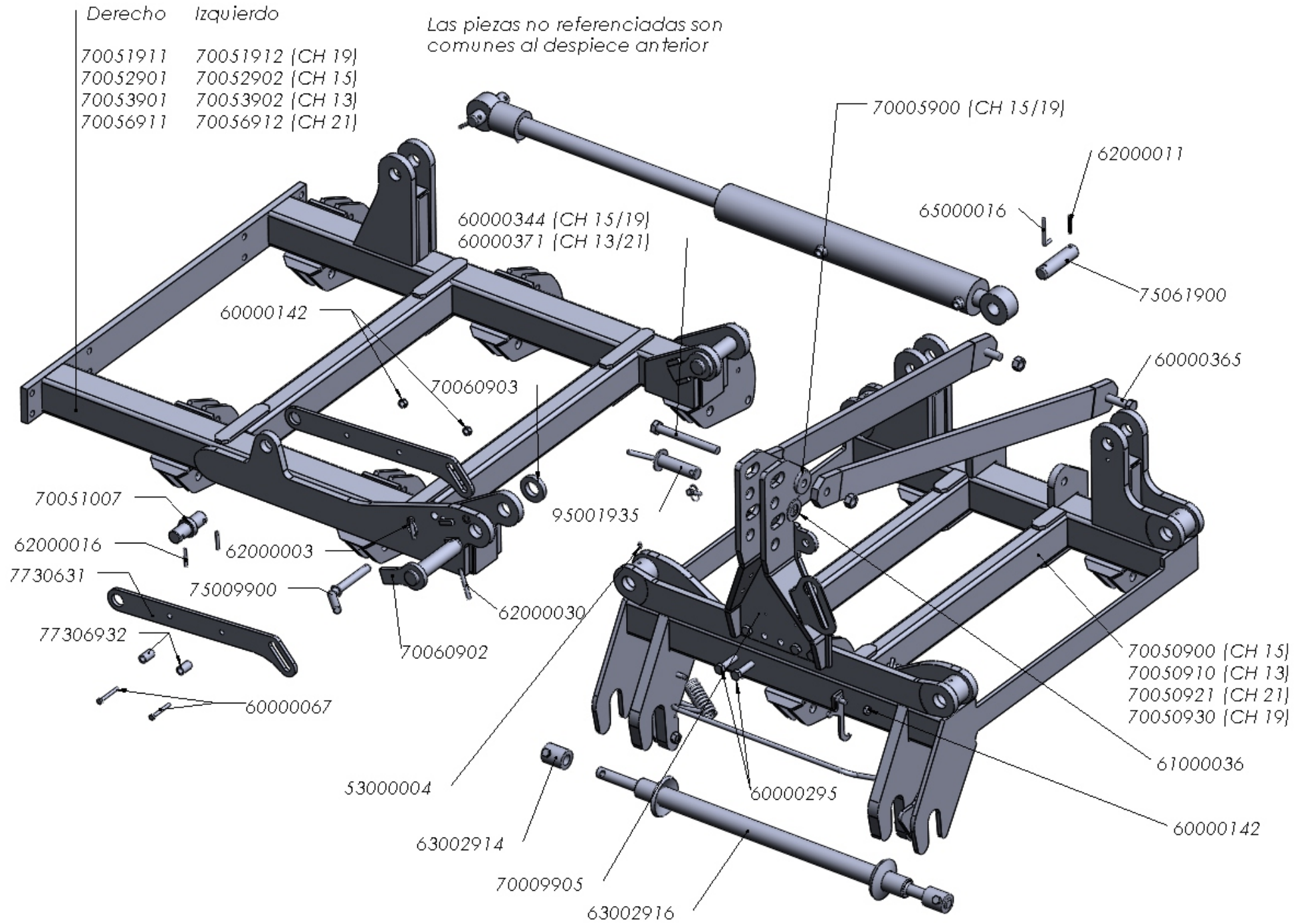


El muelle une el tetón y la varilla con levas

FRAME 2 ROWS FIXED

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000039	TORN.EXAG.DIN-931 20*150 8.8	63002916	BARRA ENG.RAP.CAT-II/III RFZD.
60000054	TORN.EXAG.DIN-931 20*180 8.8	63003001	GANCHO ENG.RAP.
60000080	TORN.EXAG.DIN-931 16* 60 8.8 ZINC.	63003004	TETON ENG RAP 12-25
60000100	TORN.EXAG.DIN-931 20* 70 8.8	63003005	LLANTA SOP.GANCHO ENG.RAP.
60000111	TORN.EXAG.DIN-931 20*160 8.8	63003901	VARILLA C/LEVAS ENG.RAP.
60000112	TORN.EXAG.DIN-931 20*200 8.8	65000038	MUELLE TRACCIÓN 2x18x19v - 55 long. m/g ZINC.
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70002901	TIRANTE SUP.CH
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.	70003907	BAST.CH-7-S
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	70003909	BAST.CH-9-S
60000160	TUER.EXAG.DIN-934 16 8.8 ZINC.	70003911	BAST.CH-11-S
60000178	TORN.EXAG.DIN-931 12* 65 8.8 ZINC.	70003913	BAST.CH-13-S
60000319	TORN.EXAG.DIN-931 20*170 8.8	70003915	BAST.CH-15-S
60000372	TORN.EXAG.DIN-933 12* 30 8.8	70003919	BAST.CH-11/9-S
61000031	ARAND.STANDAR S/BISEL CL-26 ZINC.(50x27x3)	70005900	ARAND.RFZO.D= 58*21 E-10mm.
61000036	ARAND.ESTANDAR-A 32 ZINC.	70009900	TORRETA CH/FENIX/EURODISC CAT-II
62000004	PASADOR ANILLA 10 ZINC.	70009905	TORRETA CH/FENIX/EURODISC CAT-III
63001005	SEP.TUBO 20*13mm.	70010901	SEP.B.P.36/25* 60mm.
63002911	BARRA ENG.RAP.CAT-II RFZD.	90075902	BULON D=25*110mm.3er.PTO.CAT.II ZINC.
63002912	CASQ.D= 50/28*60mm.ENG.RAP.CAT-II RFZD.	95001935	BULON D=31,2*115mm.3er.PTO.PENT.CAT.III (D/02)
63002914	CASQ.D= 50/37*60mm.ENG.RAP.CAT-III RFZD.		

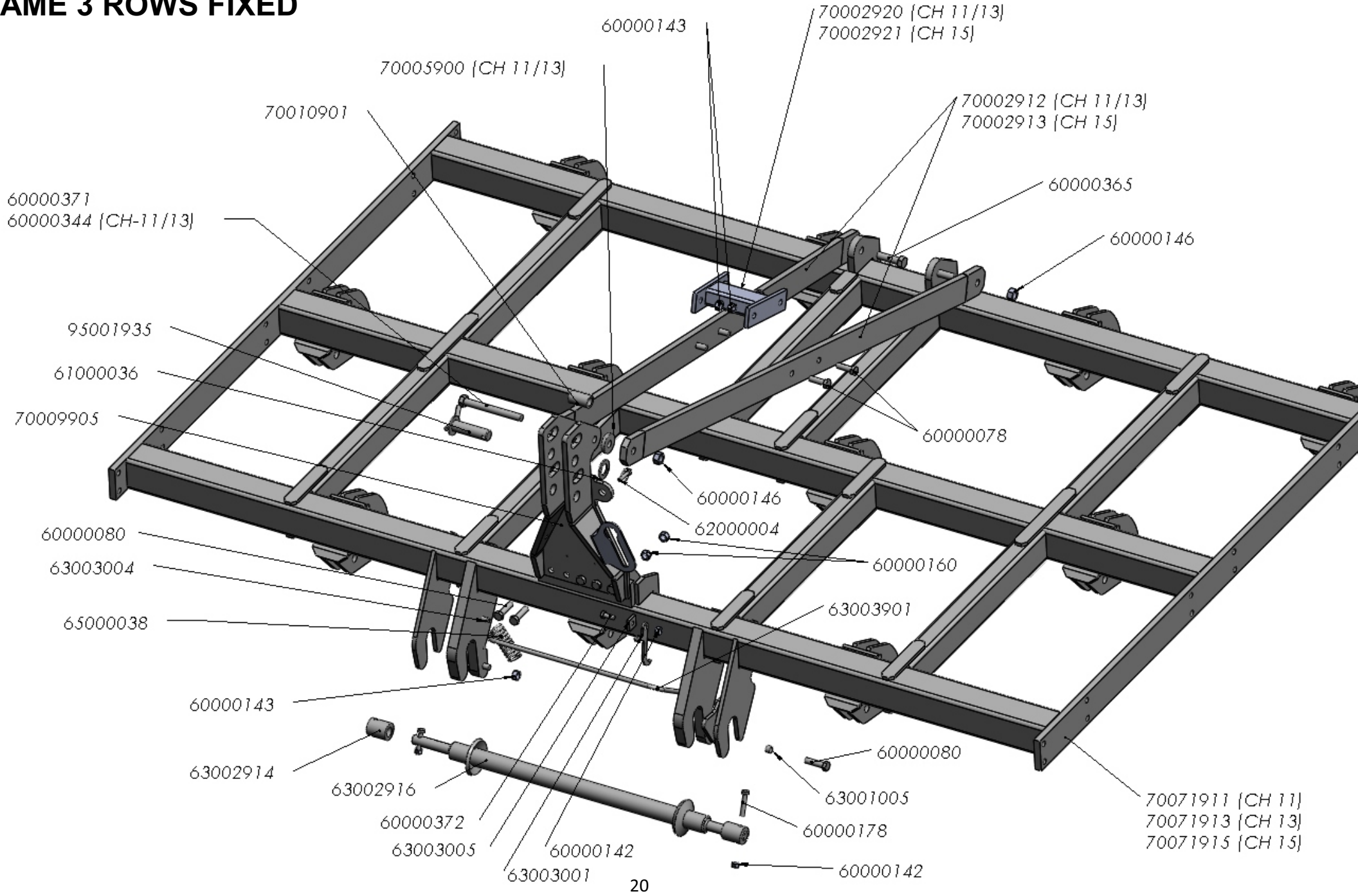
FRAME 2 ROWS FOLDING



FRAME 2 ROWS FOLDING

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60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70050921	BAST.CH-21 CENTRAL (D/08)
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70050930	BAST.CH-19 CENTRAL
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70051007	BULON D=34,6/50/34,6*115mm.GUIA TRANQUE
60000295	TORN.EXAG.DIN-931 16* 60 12.9	70051911	BAST.CH-19-S DCH.(D/08)
60000344	TORN.EXAG.DIN-931 20*180 12.9	70051912	BAST.CH-19-S IZQD.(D/08)
60000365	TORN.EXAG.DIN-931 20* 70 12.9	70052901	BAST.CH-15-S DCH.
60000371	TORN.EXAG.DIN-931 20*160 12.9	70052902	BAST.CH-15-S IZQD.
61000011	ARAND.DIN-125 20 ZINC.	70053901	BAST.CH-13-S DCH.
61000036	ARAND.ESTANDAR-A 32 ZINC.	70053902	BAST.CH-13-S IZQD.
62000003	PASADOR ANILLA 6 ZINC.	70056911	BAST.CH-21-S DCH.(D/08)
62000011	PASADOR ELAST.DIN-1481 8* 50 ZINC.	70056912	BAST.CH-21-S IZQD.(D/08)
62000030	PASADOR ELAST.DIN-1481 10* 80 ZINC.	70060902	BULON D=40*194mm.PLEG.CH/MCH/DISC
63002914	CASQ.D= 50/37*60mm.ENG.RAP.CAT-III RFZD.	70060903	ARAND.P/BULON PLEG.CH/MCH/DISC
63002916	BARRA ENG.RAP.CAT-II/III RFZD.	75009900	BULON D=20*255mm.REG.RDA.CH ZINC.
65000016	PASADOR FIJACION D= 7,5mm.	75061900	BULON D=34,8*138mm.CILIND.LATERAL + DACROMET
70005900	ARAND.RFZO.D= 58*21 E-10mm.	77306931	BIELA TRANQUE MANUAL
70009905	TORRETA CH/FENIX/EURODISC CAT-III	77306932	SEP.TUBO 22*16*36mm.
70050900	BAST.CH-15 CENTRAL	95001935	BULON D=31,2*115mm.3er.PTO.PENT.CAT.III (D/02)

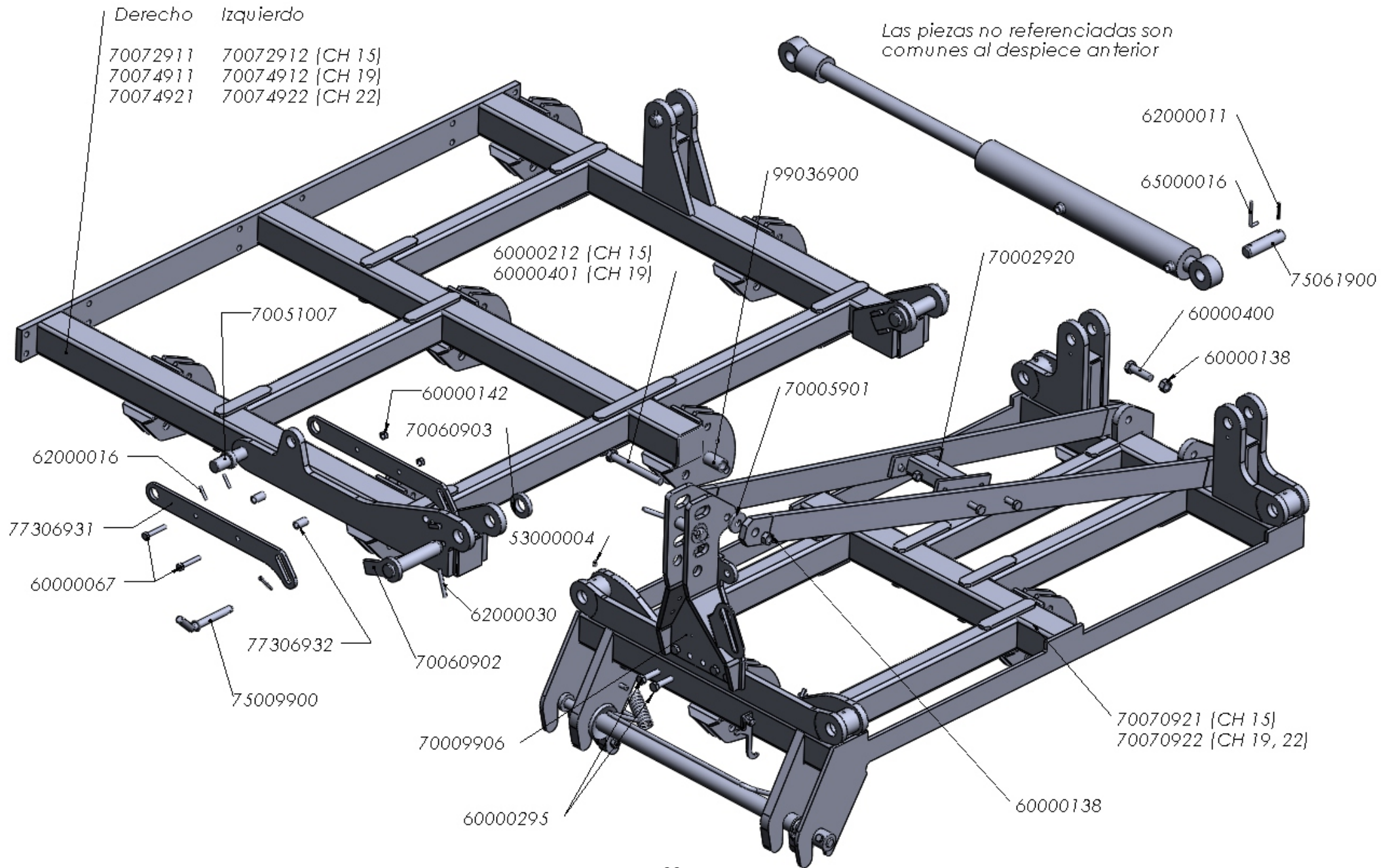
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FRAME 3 ROWS FIXED

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60000078	TORN.EXAG.DIN-933 16* 50 8.8 ZINC.	63003004	TETON ENG RAP 12-25
60000080	TORN.EXAG.DIN-931 16* 60 8.8 ZINC.	63003005	LLANTA SOP.GANCHO ENG.RAP.
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	63003901	VARILLA C/LEVAS ENG.RAP.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.	65000038	MUELLE TRACCIÓN 2x18x19v - 55 long. m/g ZINC.
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	70002912	TIRANTE SUP.CH-3F CORTO
60000178	TORN.EXAG.DIN-931 12* 65 8.8 ZINC.	70002913	TIRANTE SUP.CH-15-3F CORTO
60000344	TORN.EXAG.DIN-931 20*180 12.9	70002920	UNION TIRANTE SUP.CH-3F
60000365	TORN.EXAG.DIN-931 20* 70 12.9	70002921	UNION TIRANTE SUP.CH-15-3F
60000371	TORN.EXAG.DIN-931 20*160 12.9	70005900	ARAND.RFZO.D= 58*21 E-10mm.
60000372	TORN.EXAG.DIN-933 12* 30 8.8	70009905	TORRETA CH/FENIX/EURODISC CAT-III
61000036	ARAND.ESTANDAR-A 32 ZINC.	70010901	SEP.B.P.36/25* 60mm.
62000004	PASADOR ANILLA 10 ZINC.	70071911	BAST.CH-11/3-S CORTO
63001005	SEP.TUBO 20*13mm.	70071913	BAST.CH-13/3-S CORTO
63002914	CASQ.D= 50/37*60mm.ENG.RAP.CAT-III RFZD.	70071915	BAST.CH-15/3-S CORTO
63002916	BARRA ENG.RAP.CAT-II/III RFZD.	95001935	BULON D=31,2*115mm.3er.PTO.PENT.CAT.III (D/02)
63003001	GANCHO ENG.RAP.		

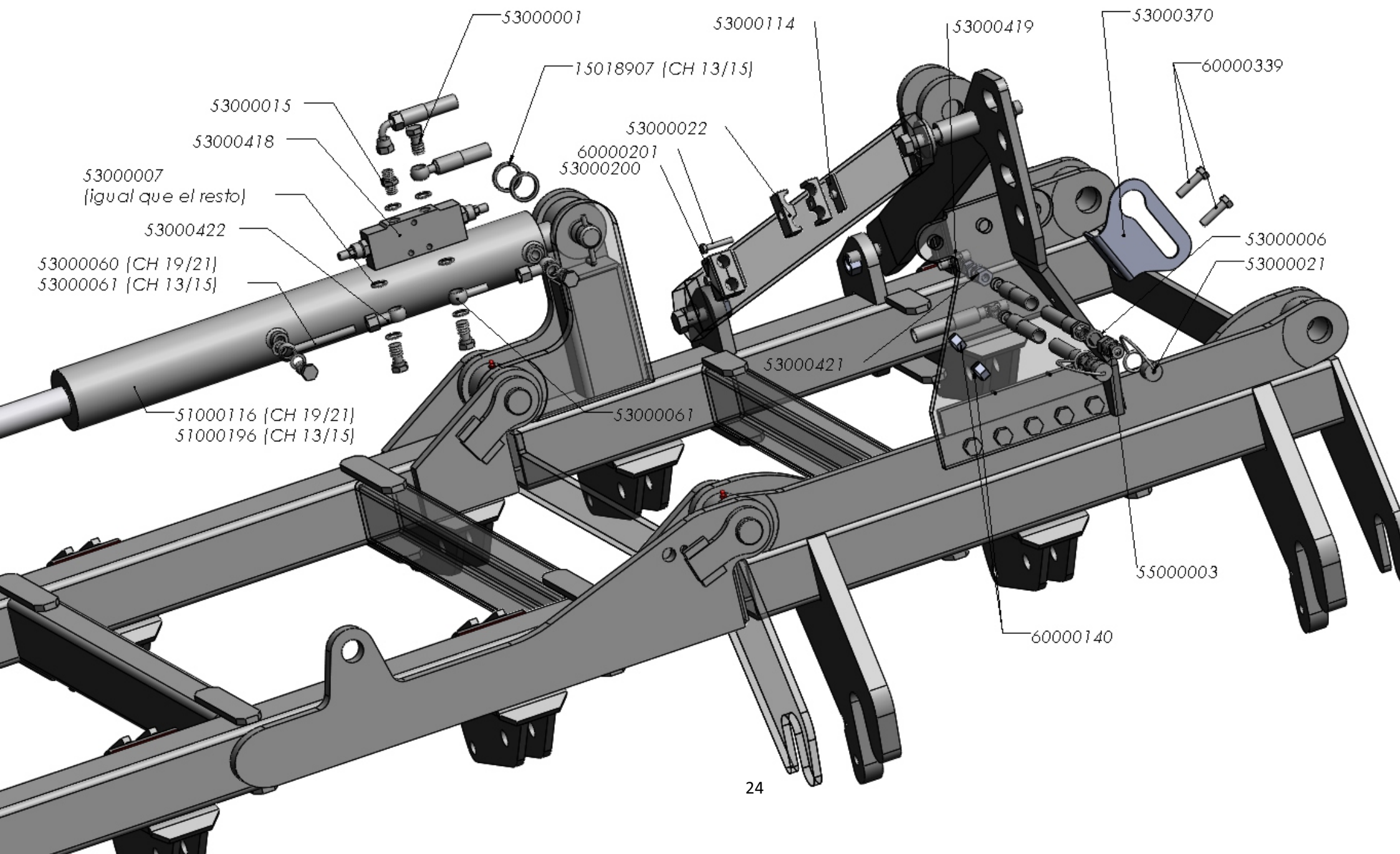
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FRAME 3 ROWS FOLDING

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60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70060902	BULON D=40*194mm.PLEG.CH/MCH/DISC
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.	70060903	ARAND.P/BULON PLEG.CH/MCH/DISC
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70070921	BAST.CH-15-17/3-S CENTRAL CORTO
60000212	TORN.EXAG.C/LAR.1"*190 SAE 12.9	70070922	BAST.CH-19/3-S CENTRAL CORTO
60000295	TORN.EXAG.DIN-931 16* 60 12.9	70072911	BAST.CH-15/3-S DCH. CORTO
60000400	TORN.EXAG.DIN-931 1"* 70 SAE 12.9	70072912	BAST.CH-15/3-S IZQD. CORTO
60000401	TORN.EXAG.DIN-931 1"*170 SAE 12.9	70074911	BAST.CH-19/3-S DCH. CORTO
62000003	PASADOR ANILLA 6 ZINC.	70074912	BAST.CH-19/3-S IZQD. CORTO
62000011	PASADOR ELAST.DIN-1481 8* 50 ZINC.	70074921	BAST.CH-21/3-S DCH. CORTO
62000016	PASADOR ELAST.DIN-1481 10* 50 ZINC.	70074922	BAST.CH-21/3-S IZQD. CORTO
62000030	PASADOR ELAST.DIN-1481 10* 80 ZINC.	75009900	BULON D=20*255mm.REG.RDA.CH ZINC.
65000016	PASADOR FIJACION D= 7,5mm.	75061900	BULON D=34,8*138mm.CILIND.LATERAL + DACROMET
70002920	UNION TIRANTE SUP.CH-3F	77306931	BIELA TRANQUE MANUAL
70005901	ARAND.RFZO.D= 58*26 E-10mm.	77306932	SEP.TUBO 22*16*36mm.
70009906	TORRETA CH/FENIX/EURODISC CAT-III (TORN-1")	99036900	SEP.B.P.42/26* 60mm.ZINC.

SIST. HYDRAULIC CHISEL

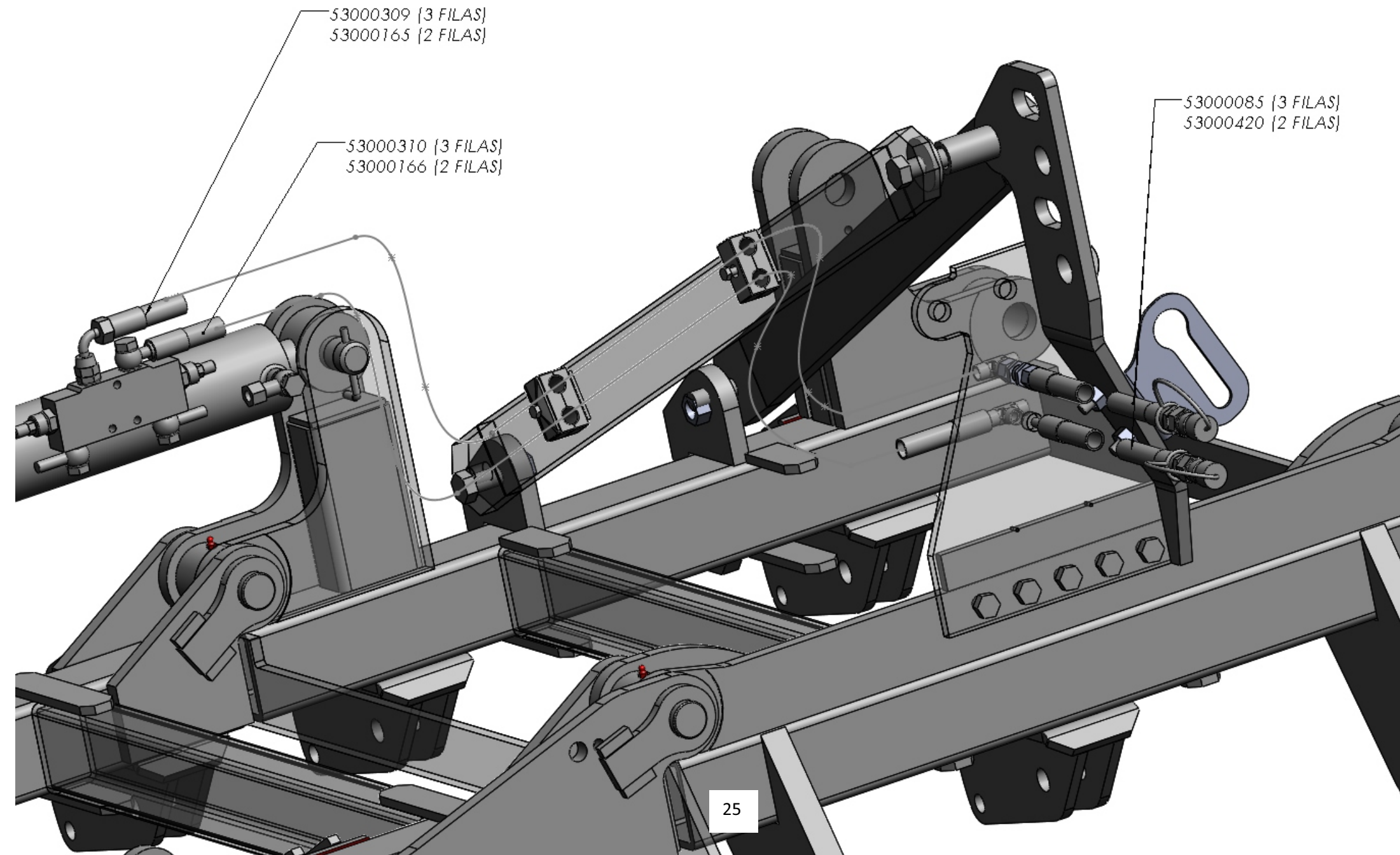


SIST. HYDRAULIC CHISEL

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53000165 (2 FILAS)

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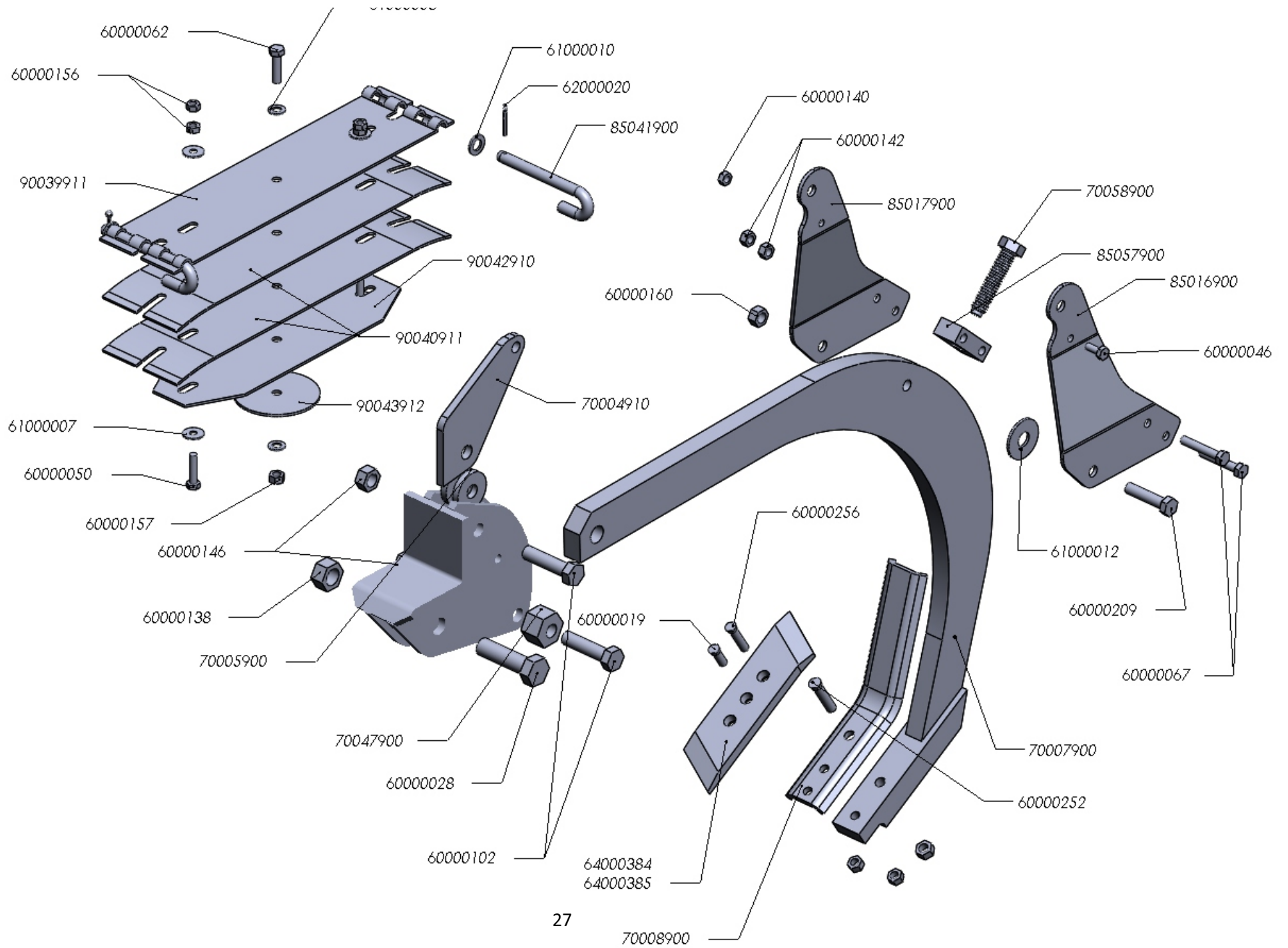
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SIST. HYDRAULIC CHISEL

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
15018907	CASQ. D=45/35*5 SEP.PLEGADOS.CICRO	53000200	PLACA RFZO.AB.DOBLE 19 GD3D
51000116	CILIND.PLEG.MCH/DISC/FENIX 50/100/500	53000309	LATIG.R2-3/8*2540mm.CTL-3/8/TL-18
51000196	CILIND.PLEG.CHISEL/VBC/EURO/MAXIDISC 90/42/375	53000310	LATIG.R2-3/8*2500mm.OR-3/8/TL-18
53000001	TORNILLO SIMPLE 3/8 4022	53000370	SOPORTE LATIG.TORRETA 1 HUECO ZINC.
53000006	JUNTA METAL/GOMA 1/2" 11603	53000418	VALV.OVERCENTER VBCD 3/8 DE-A (V0422)
53000007	JUNTA METAL/GOMA 3/8" 11602	53000419	TE M/M C/TCA.LOCA CENTRAL 18x150 12L
53000015	UNION MACHO 3/8 4062	53000420	LATIG.R2-3/8*1400mm.MF-1/2/TL-18
53000022	ABRAZ.DOBLE D=19mm. 1D19PP	53000421	PASATABIQUES 18*1,5 12L
53000060	ESFERICO 3/8" TUBO 12mm.LG=405 4002E-405	53000422	ESFERICO 3/8" + UNION TUBO/TUBO 12
53000061	ESFERICO 3/8" TUBO 12mm.LG=205 4002E-205	55000003	ADAPTADOR E.R.FASTER 1/2" 30410108
53000085	LATIG.R2-3/8*1600mm.MF-1/2/TL-18	60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.
53000165	LATIG.R2-3/8*1640mm.CTL-3/8/TL-18	60000201	TORN.EXAG.DIN-931 8* 45 8.8 ZINC.
53000166	LATIG.R2-3/8*1600mm.OR-3/8/TL-18	60000339	TORN.EXAG.DIN-933 10* 30 8.8 ZINC.

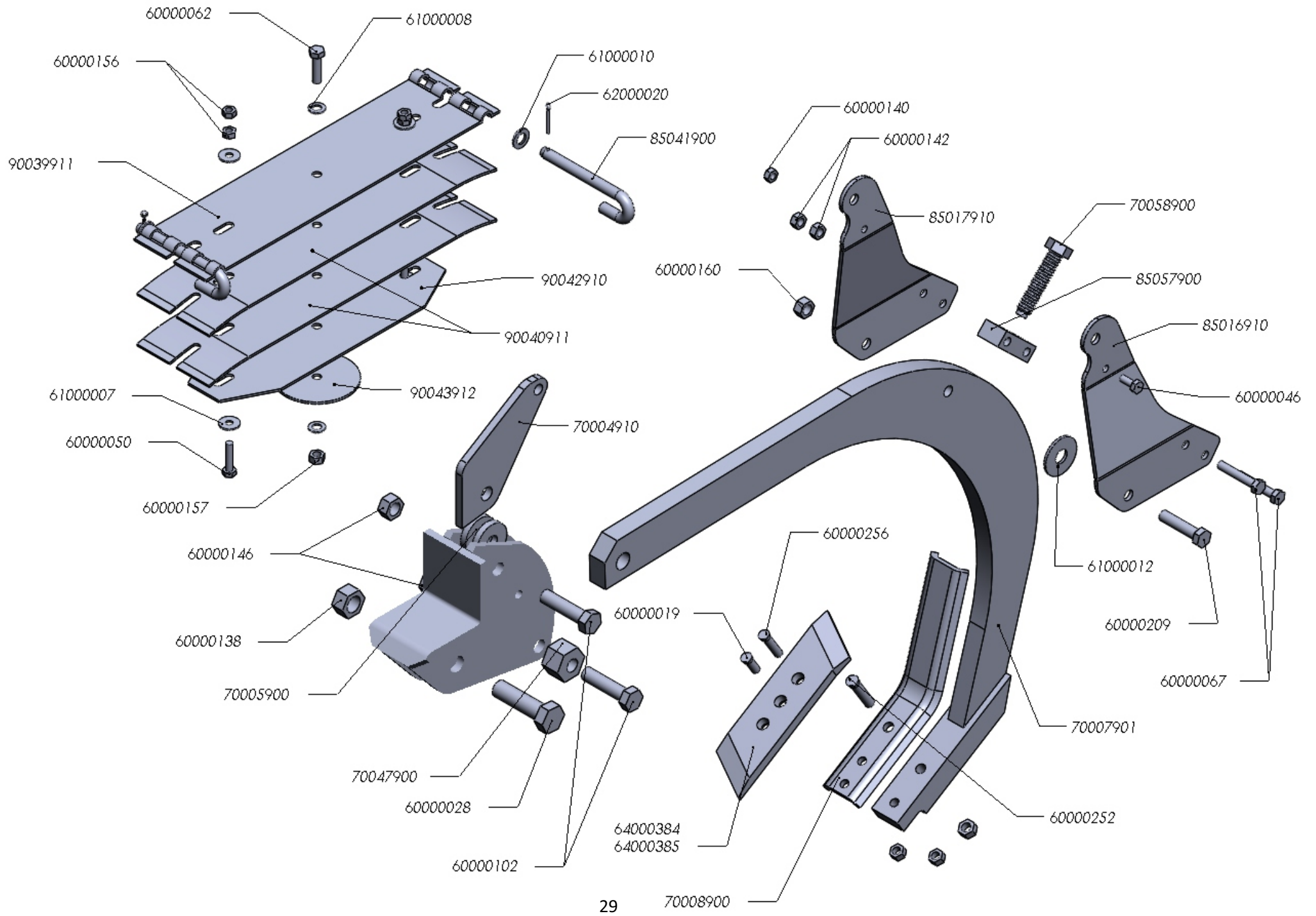
BODY CH



BODY CH

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000019	TORN.ARADO C/OV/934 12*36 12.9	61000010	ARAND.DIN-125 16 ZINC.
60000028	TORN.EXAG.DIN-931 1"* 90 SAE 8.8	61000012	ARAND.DIN-9021 20 ZINC.
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	62000020	PASADOR MED.CAÑA DIN-94 4*40 ZINC.
60000050	TORN.EXAG.DIN-931 10* 45 10.9 ZINC.	64000384	PUNTA CH-OVLAC D 15mm./3A
60000062	TORN.EXAG.DIN-931 12* 45 10.9 ZINC.	64000385	PUNTA CH-OVLAC I 15mm./3A
60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70004910	PORTABALLESTA ANTER CH-S
60000102	TORN.EXAG.DIN-931 20* 80 8.8	70005900	ARAND.RFZO.D= 58*21 E-10mm.
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.	70007900	CAMBA CH 30/40mm
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70008900	PORTA-PUNTAS CH
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70047900	SEP.HEXAG.REGULAC.CH
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	70058900	TORNILLO REGULACION BALLESTA CHISEL (22*100)
60000156	TUER.EXAG.DIN-934 10 8.8 ZINC.	85016900	PORTABALLESTA LARGA IZQD.
60000157	TUER.EXAG.DIN-934 12 8.8 ZINC.	85017900	PORTABALLESTA LARGA DCH.
60000160	TUER.EXAG.DIN-934 16 8.8 ZINC.	85041900	PASADOR CACHABA BALLESTA DACROMET
60000209	TORN.EXAG.C/LAR.16* 70 12.9 ZINC.	85057900	SOP.REGULACION BALLESTA ZINC.
60000252	TORN.ARADO C/OV/934 14*65 12.9	90039911	BALLESTA MAESTRA CORTA VERDE RAL-6029
60000256	TORN.ARADO C/OV/934 12*60 12.9	90040911	BALLESTA 1er.RFZO.CORTO VERDE RAL-6029
61000007	ARAND.DIN-9021 10 ZINC.	90042910	BALLESTA 3er.RFZO.VERDE RAL-6029
61000008	ARAND.DIN-125 12 ZINC.	90043912	BALLESTA BOTON CH VERDE RAL-6029

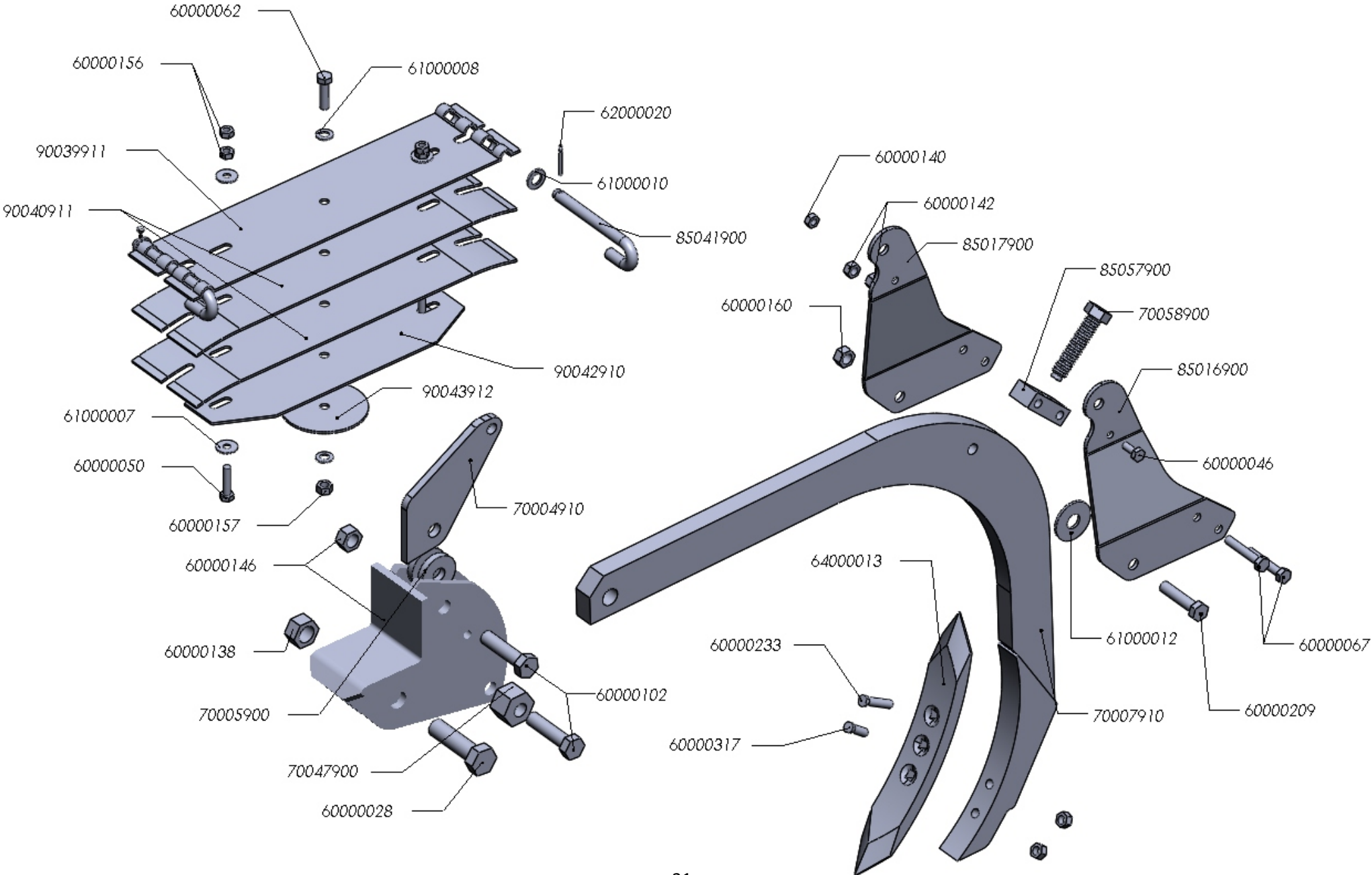
SHORT CH BODY



SHORT CH BODY

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000019	TORN.ARADO C/OV/934 12*36 12.9	61000010	ARAND.DIN-125 16 ZINC.
60000028	TORN.EXAG.DIN-931 1"* 90 SAE 8.8	61000012	ARAND.DIN-9021 20 ZINC.
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	62000020	PASADOR MED.CAÑA DIN-94 4*40 ZINC.
60000050	TORN.EXAG.DIN-931 10* 45 10.9 ZINC.	64000384	PUNTA CH-OVLAC D 15mm./3A
60000062	TORN.EXAG.DIN-931 12* 45 10.9 ZINC.	64000385	PUNTA CH-OVLAC I 15mm./3A
60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70004910	PORTABALLESTA ANTER CH-S
60000102	TORN.EXAG.DIN-931 20* 80 8.8	70005900	ARAND.RFZO.D= 58*21 E-10mm.
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.	70007901	CAMBA CH 30/40mm CORTO
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70008900	PORTA-PUNTAS CH
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70047900	SEP.HEXAG.REGULAC.CH
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	70058900	TORNILLO REGULACION BALLESTA CHISEL (22*100)
60000156	TUER.EXAG.DIN-934 10 8.8 ZINC.	85016910	PORTABALLESTA LARGA IZQD.CH-3F/VBC
60000157	TUER.EXAG.DIN-934 12 8.8 ZINC.	85017910	PORTABALLESTA LARGA DCH.CH-3F/VBC
60000160	TUER.EXAG.DIN-934 16 8.8 ZINC.	85041900	PASADOR CACHABA BALLESTA DACROMET
60000209	TORN.EXAG.C/LAR.16* 70 12.9 ZINC.	85057900	SOP.REGULACION BALLESTA ZINC.
60000252	TORN.ARADO C/OV/934 14*65 12.9	90039911	BALLESTA MAESTRA CORTA VERDE RAL-6029
60000256	TORN.ARADO C/OV/934 12*60 12.9	90040911	BALLESTA 1er.RFZO.CORTO VERDE RAL-6029
61000007	ARAND.DIN-9021 10 ZINC.	90042910	BALLESTA 3er.RFZO.VERDE RAL-6029
61000008	ARAND.DIN-125 12 ZINC.	90043912	BALLESTA BOTON CH VERDE RAL-6029

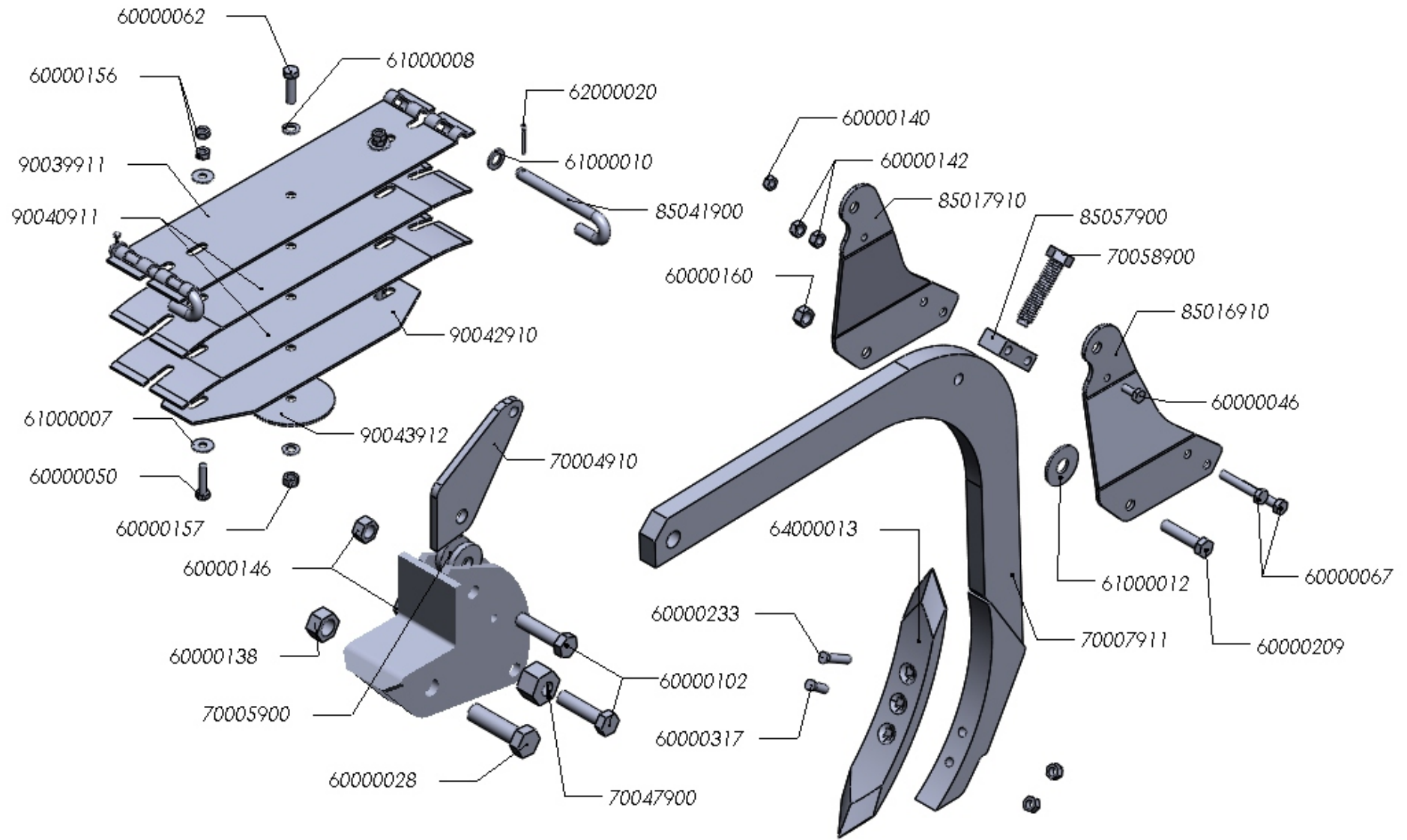
BODY CH D05



BODY CH D05

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000028	TORN.EXAG.DIN-931 1"* 90 SAE 8.8	61000010	ARAND.DIN-125 16 ZINC.
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	61000012	ARAND.DIN-9021 20 ZINC.
60000050	TORN.EXAG.DIN-931 10* 45 10.9 ZINC.	62000020	PASADOR MED.CAÑA DIN-94 4*40 ZINC.
60000062	TORN.EXAG.DIN-931 12* 45 10.9 ZINC.	64000013	REJA CH 1571-B C3A
60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70004910	PORTABALLESTA ANTER CH-S
60000102	TORN.EXAG.DIN-931 20* 80 8.8	70005900	ARAND.RFZO.D= 58*21 E-10mm.
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.	70007910	CAMBA CH 30/40mm.(D/05)
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70047900	SEP.HEXAG.REGULAC.CH
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70058900	TORNILLO REGULACION BALLESTA CHISEL (22*100)
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	85016900	PORTABALLESTA LARGA IZQD.
60000156	TUER.EXAG.DIN-934 10 8.8 ZINC.	85017900	PORTABALLESTA LARGA DCH.
60000157	TUER.EXAG.DIN-934 12 8.8 ZINC.	85041900	PASADOR CACHABA BALLESTA DACROMET
60000160	TUER.EXAG.DIN-934 16 8.8 ZINC.	85057900	SOP.REGULACION BALLESTA ZINC.
60000209	TORN.EXAG.C/LAR.16* 70 12.9 ZINC.	90039911	BALLESTA MAESTRA CORTA VERDE RAL-6029
60000233	TORN.ARADO DIN-608/934 12*70 8.8	90040911	BALLESTA 1er.RFZO.CORTO VERDE RAL-6029
60000317	TORN.ARADO DIN-608/934 12*65 8.8	90042910	BALLESTA 3er.RFZO.VERDE RAL-6029
61000007	ARAND.DIN-9021 10 ZINC.	90043912	BALLESTA BOTON CH VERDE RAL-6029
61000008	ARAND.DIN-125 12 ZINC.		

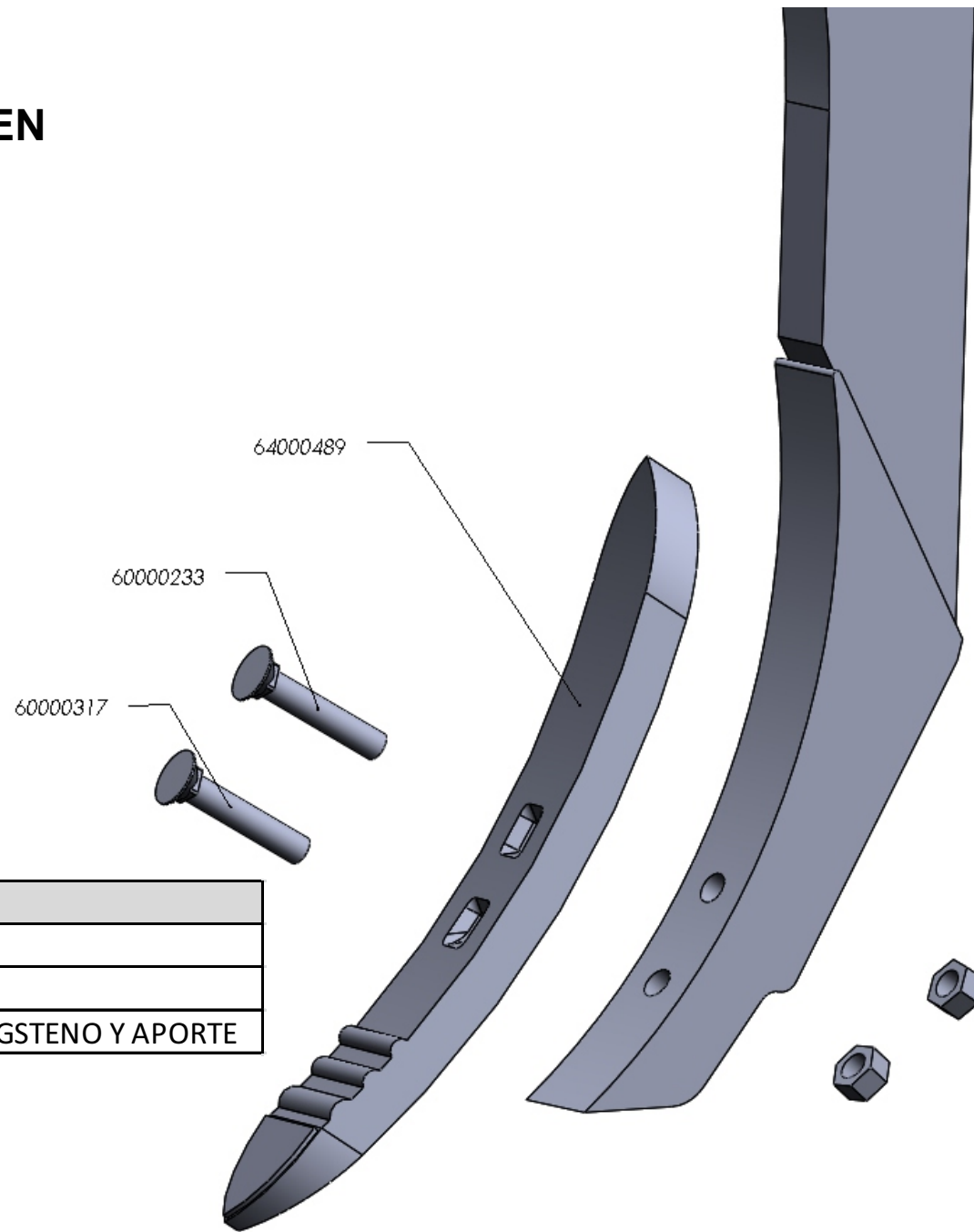
SHORT CH BODY D05



SHORT CH BODY D05

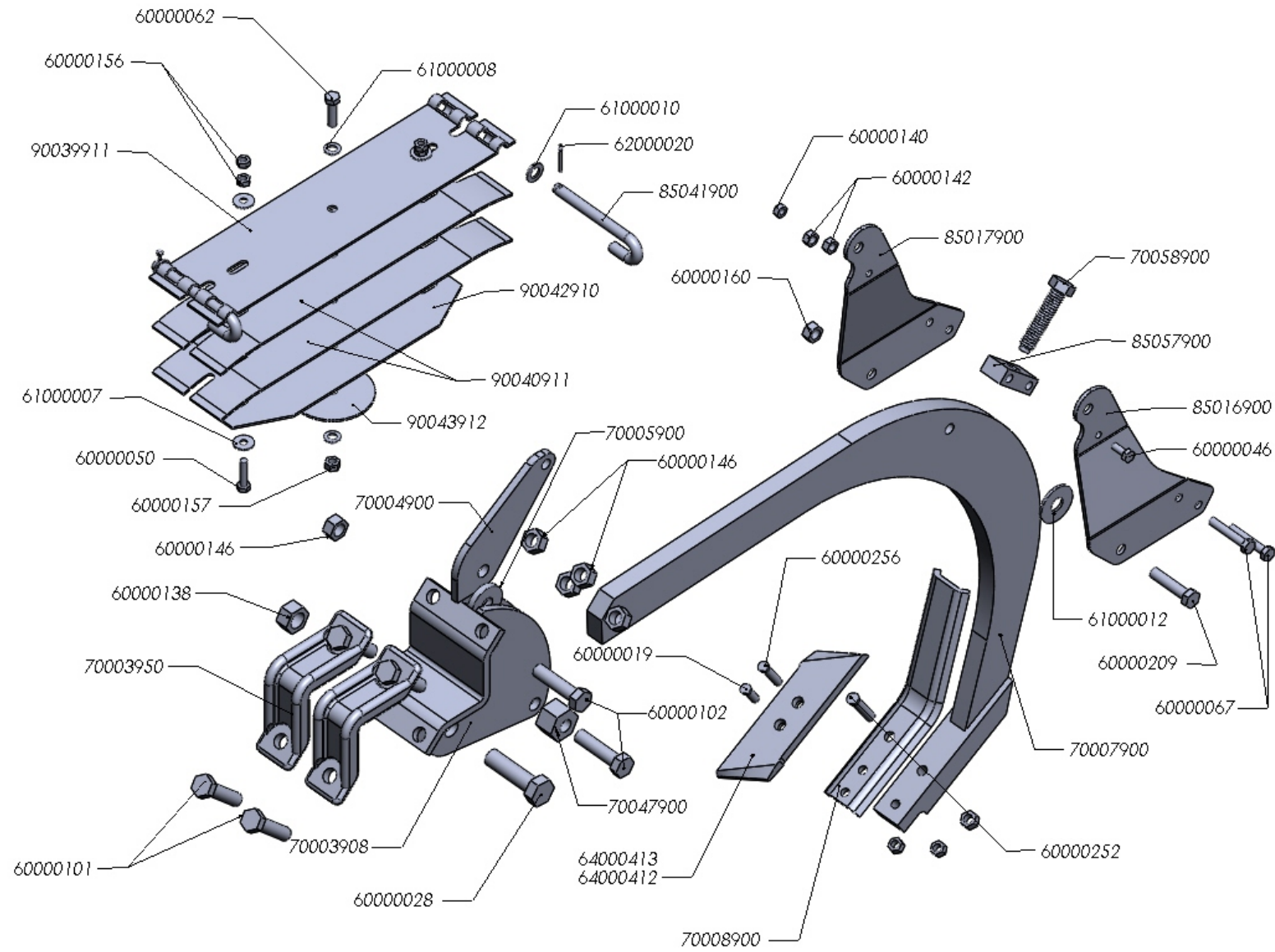
REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000028	TORN.EXAG.DIN-931 1"* 90 SAE 8.8	61000010	ARAND.DIN-125 16 ZINC.
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	61000012	ARAND.DIN-9021 20 ZINC.
60000050	TORN.EXAG.DIN-931 10* 45 10.9 ZINC.	62000020	PASADOR MED.CAÑA DIN-94 4*40 ZINC.
60000062	TORN.EXAG.DIN-931 12* 45 10.9 ZINC.	64000013	REJA CH 1571-B C3A
60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70004910	PORTABALLESTA ANTER CH-S
60000102	TORN.EXAG.DIN-931 20* 80 8.8	70005900	ARAND.RFZO.D= 58*21 E-10mm.
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.	70007911	CAMBA CH 30/40mm.(D/05) CORTA
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70047900	SEP.HEXAG.REGULAC.CH
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70058900	TORNILLO REGULACION BALLESTA CHISEL (22*100)
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	85016910	PORTABALLESTA LARGA IZQD.CH-3F/VBC
60000156	TUER.EXAG.DIN-934 10 8.8 ZINC.	85017910	PORTABALLESTA LARGA DCH.CH-3F/VBC
60000157	TUER.EXAG.DIN-934 12 8.8 ZINC.	85041900	PASADOR CACHABA BALLESTA DACROMET
60000160	TUER.EXAG.DIN-934 16 8.8 ZINC.	85057900	SOP.REGULACION BALLESTA ZINC.
60000209	TORN.EXAG.C/LAR.16* 70 12.9 ZINC.	90039911	BALLESTA MAESTRA CORTA VERDE RAL-6029
60000233	TORN.ARADO DIN-608/934 12*70 8.8	90040911	BALLESTA 1er.RFZO.CORTO VERDE RAL-6029
60000317	TORN.ARADO DIN-608/934 12*65 8.8	90042910	BALLESTA 3er.RFZO.VERDE RAL-6029
61000007	ARAND.DIN-9021 10 ZINC.	90043912	BALLESTA BOTON CH VERDE RAL-6029
61000008	ARAND.DIN-125 12 ZINC.		

SUPL. POINT WITH TUNGSTEN



REFERENCIA	DESCRIPCIÓN
60000233	TORN.ARADO DIN-608/934 12*70 8.8
60000317	TORN.ARADO DIN-608/934 12*65 8.8
64000489	REJA CAVADORA (350x60x20) CON TUNGSTENO Y APORTE

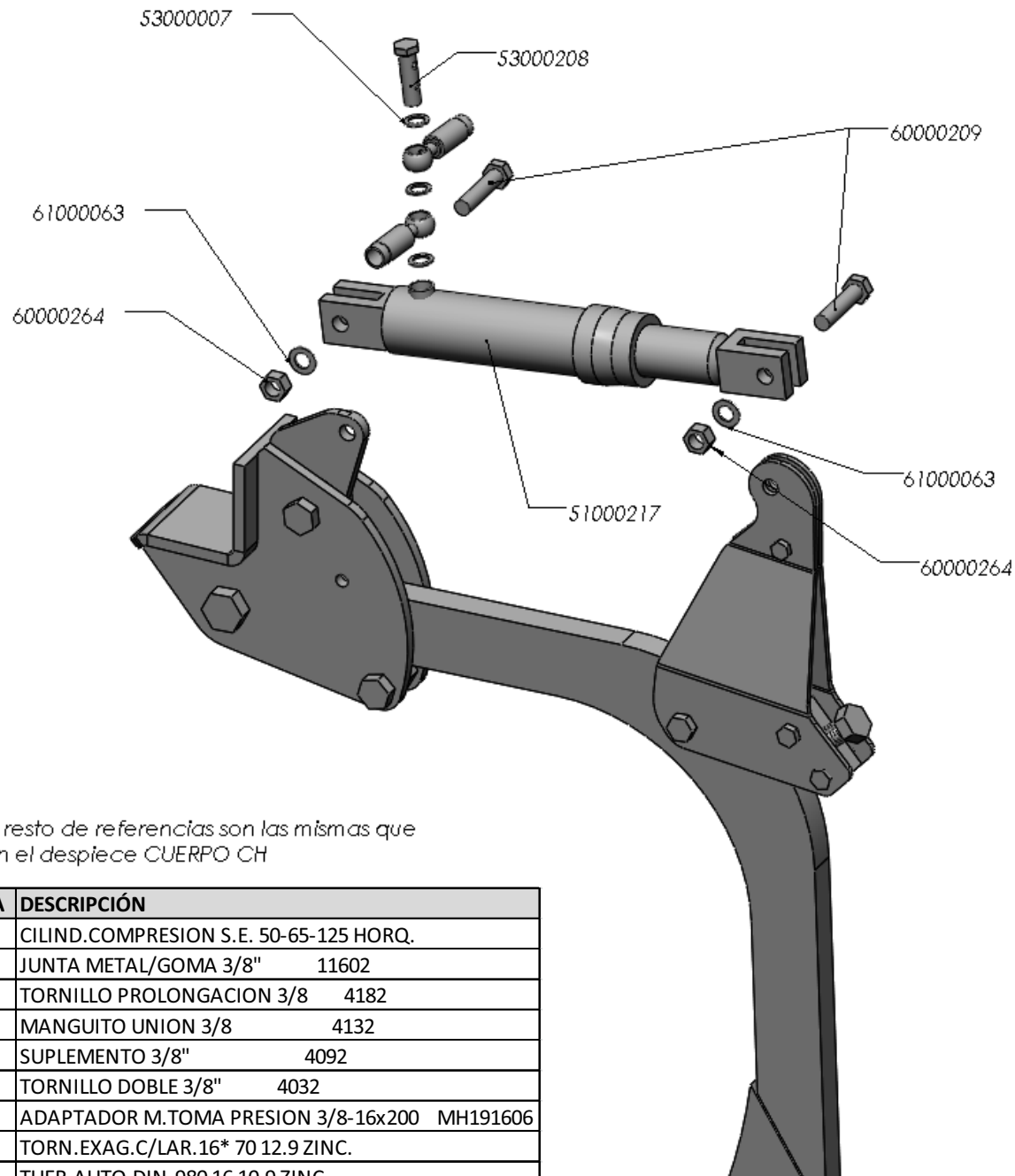
BOLT ON CH BODY



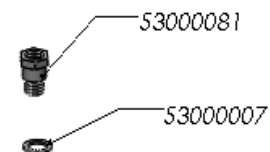
BOLT ON CH BODY

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000019	TORN.ARADO C/OV/934 12*36 12.9	61000010	ARAND.DIN-125 16 ZINC.
60000028	TORN.EXAG.DIN-931 1"* 90 SAE 8.8	61000012	ARAND.DIN-9021 20 ZINC.
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	62000020	PASADOR MED.CAÑA DIN-94 4*40 ZINC.
60000050	TORN.EXAG.DIN-931 10* 45 10.9 ZINC.	64000412	PUNTA CH-D 70x15mm.PLANA
60000062	TORN.EXAG.DIN-931 12* 45 10.9 ZINC.	64000413	PUNTA CH-I 70x15mm.PLANA
60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70003908	AMARRE POST.CH (M-20)
60000101	TORN.EXAG.DIN-931 20* 80 10.9 ZINC.	70003950	BRIDA AMARRE CH FORJADA
60000102	TORN.EXAG.DIN-931 20* 80 8.8	70004900	PORTABALLESTA ANTER.CH
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.	70005900	ARAND.RFZO.D= 58*21 E-10mm.
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70007901	CAMBA CH 30/40mm CORTO
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70008900	PORTA-PUNTAS CH
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	70047900	SEP.HEXAG.REGULAC.CH
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	70058900	TORNILLO REGULACION BALLESTA CHISEL (22*100)
60000156	TUER.EXAG.DIN-934 10 8.8 ZINC.	85016910	PORTABALLESTA LARGA IZQD.CH-3F/VBC
60000157	TUER.EXAG.DIN-934 12 8.8 ZINC.	85017910	PORTABALLESTA LARGA DCH.CH-3F/VBC
60000160	TUER.EXAG.DIN-934 16 8.8 ZINC.	85041900	PASADOR CACHABA BALLESTA DACROMET
60000209	TORN.EXAG.C/LAR.16* 70 12.9 ZINC.	85057900	SOP.REGULACION BALLESTA ZINC.
60000252	TORN.ARADO C/OV/934 14*65 12.9	90039911	BALLESTA MAESTRA CORTA VERDE RAL-6029
60000256	TORN.ARADO C/OV/934 12*60 12.9	90040911	BALLESTA 1er.RFZO.CORTO VERDE RAL-6029
61000007	ARAND.DIN-9021 10 ZINC.	90042910	BALLESTA 3er.RFZO.VERDE RAL-6029
61000008	ARAND.DIN-125 12 ZINC.	90043912	BALLESTA BOTON CH VERDE RAL-6029

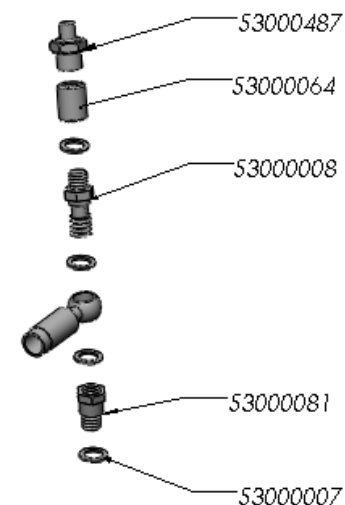
HYDRO BODY



Los brazos situados en la tercera fila al lado de los largueros de los rodillos llevarán a mayores un suplemento de 3/8 y otra junta de 3/8 para salvar el desnivel si es necesario



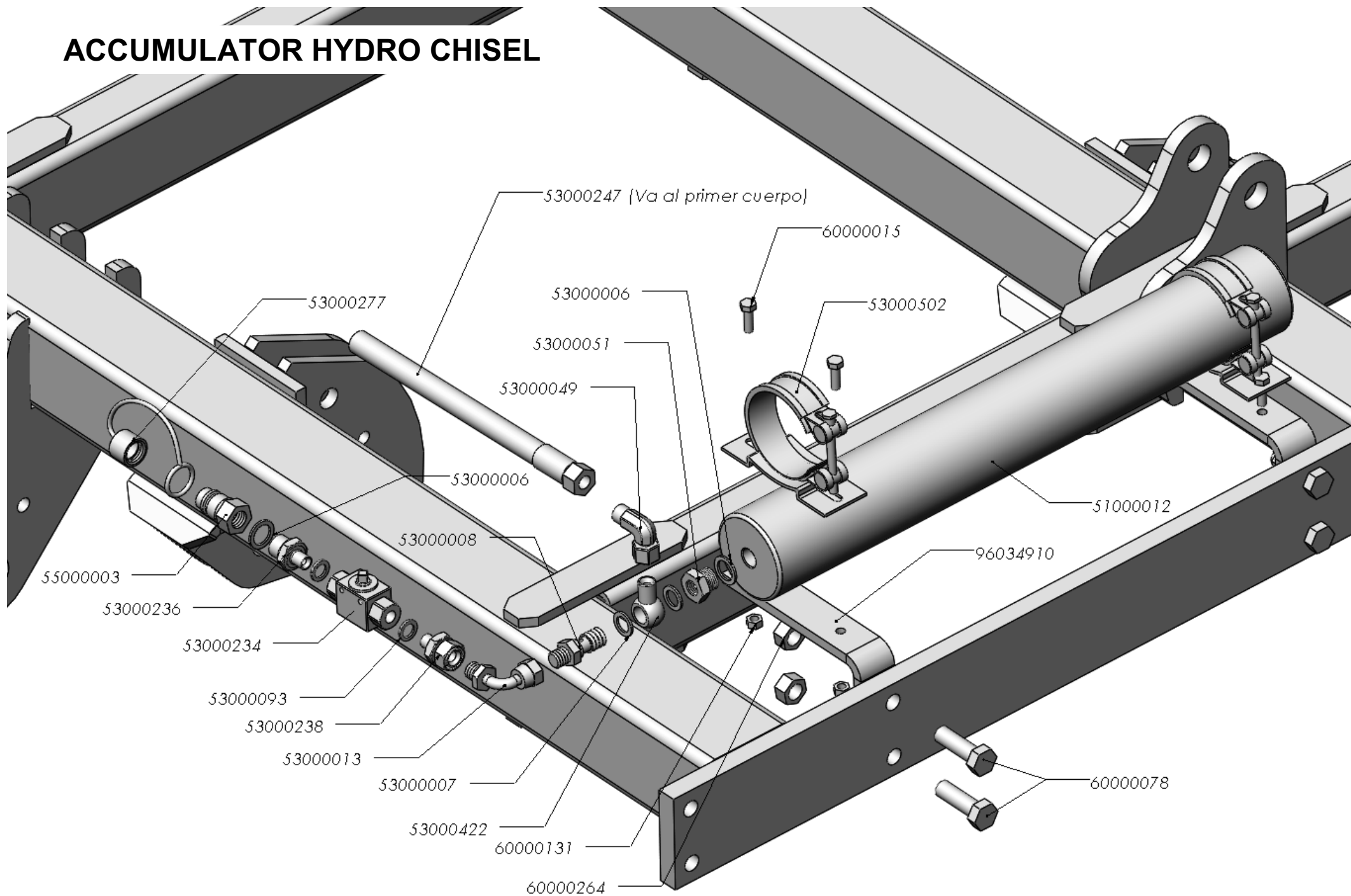
El último brazo se compone de los siguientes elementos a partir del cilindro



El resto de referencias son las mismas que en el despiece CUERPO CH

REFERENCIA	DESCRIPCIÓN
51000217	CILIND.COMPRESION S.E. 50-65-125 HORQ.
53000007	JUNTA METAL/GOMA 3/8" 11602
53000008	TORNILLO PROLONGACION 3/8 4182
53000064	MANGUITO UNION 3/8 4132
53000081	SUPLEMENTO 3/8" 4092
53000208	TORNILLO DOBLE 3/8" 4032
53000487	ADAPTADOR M.TOMA PRESION 3/8-16x200 MH191606
60000209	TORN.EXAG.C/LAR.16* 70 12.9 ZINC.
60000264	TUER.AUTO.DIN-980 16 10.9 ZINC.
61000063	ARAND.DIN-7349 16 8.8 300HV ZINC.

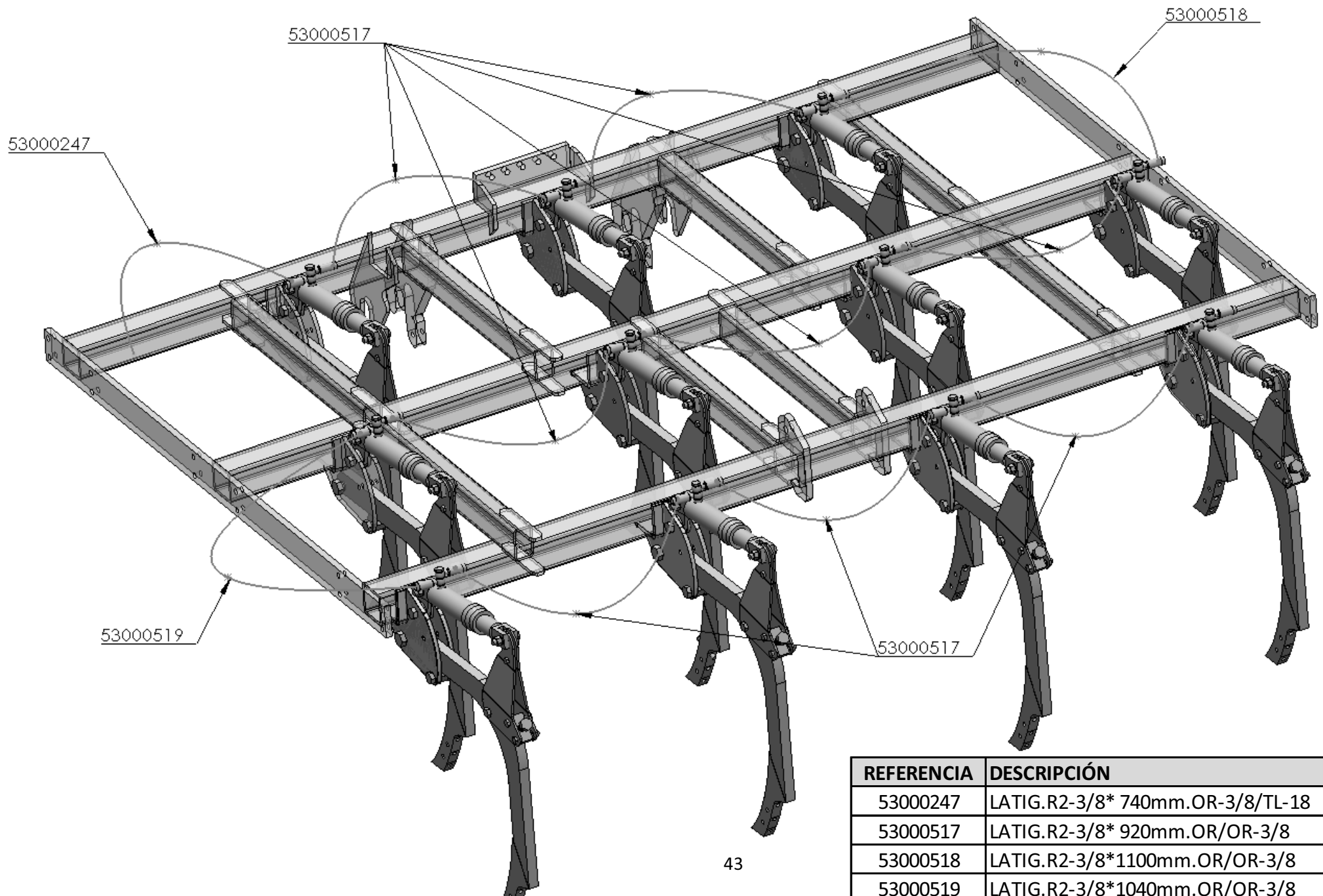
ACCUMULATOR HYDRO CHISEL



ACCUMULATOR HYDRO CHISEL

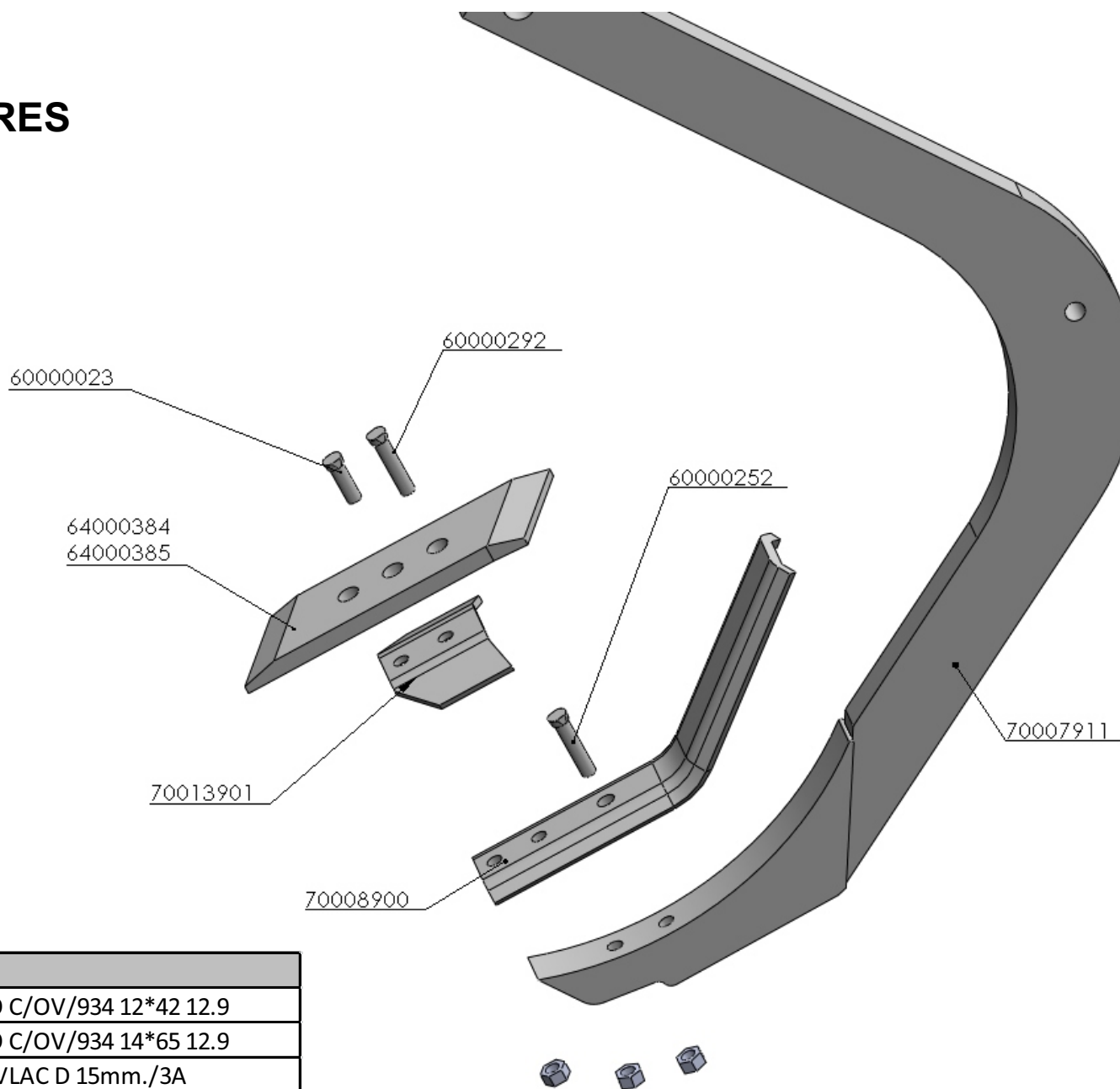
REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
51000012	ACUMULADOR PISTON PO20A34N1-AC RAL-6029	53000238	REDUCCION MACHO-TUERCA LOCA 1/4-3/8 4322
53000006	JUNTA METAL/GOMA 1/2" 11603	53000247	LATIG.R2-3/8* 740mm.OR-3/8/TL-18
53000006	JUNTA METAL/GOMA 1/2" 11603	53000277	PROTECTOR E.R.MACHO 1/2" AZUL 5029-4PB
53000007	JUNTA METAL/GOMA 3/8" 11602	53000422	ESFERICO 3/8" + UNION TUBO/TUBO 12
53000008	TORNILLO PROLONGACION 3/8 4182	53000502	ABRAZ.ACUMULADOR 80/88 MPC
53000013	CODO 90° M/H-3/8" 4292	55000003	ADAPTADOR E.R.FASTER 1/2" 30410108
53000049	CODO C/TCA.LOCA EVW12-L	60000015	TORN.EXAG.DIN-933 8* 25 8.8 ZINC.
53000051	REDUCTOR 1/2-3/8 4171	60000078	TORN.EXAG.DIN-933 16* 50 8.8 ZINC.
53000093	JUNTA METAL GOMA 1/4 11601	60000131	TUER.AUTO.DIN-980 8 8.8 ZINC.
53000234	VALV.ESFERA 2/2 1/4 GE2 DN6	60000264	TUER.AUTO.DIN-980 16 10.9 ZINC.
53000236	UNION REDUCCION 1/4-1/2 4371	96034910	SOP.ACUMULADOR VBC

HYDRAULIC TUBE HYDRO CH-11 3 ROWS



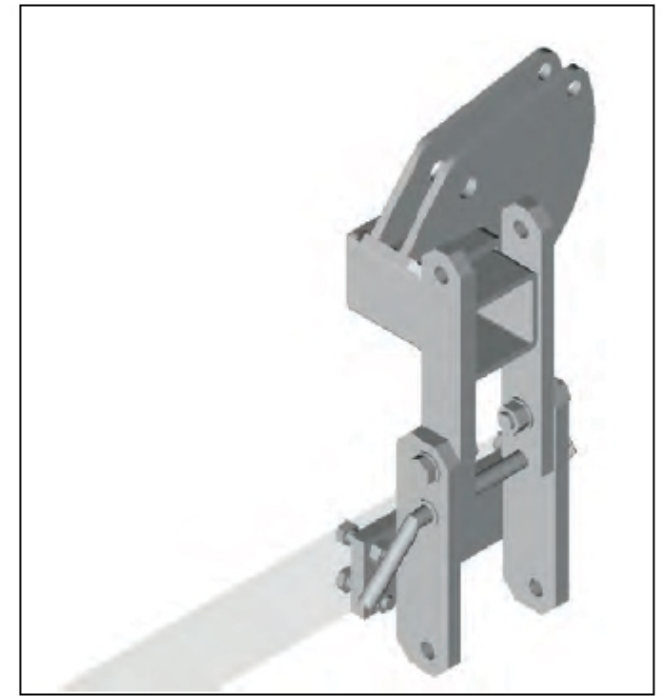
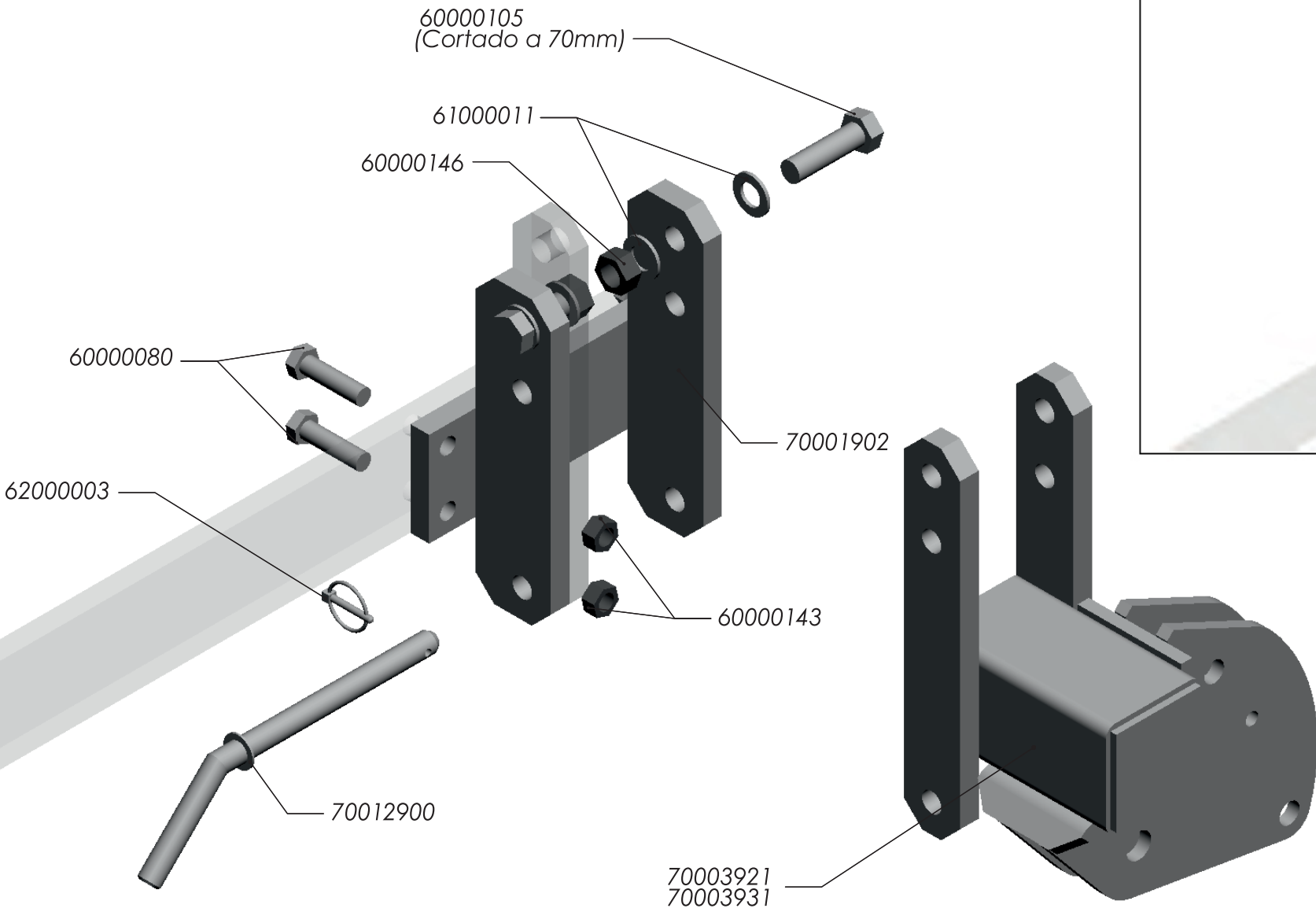
REFERENCIA	DESCRIPCIÓN
53000247	LATIG.R2-3/8* 740mm.OR-3/8/TL-18
53000517	LATIG.R2-3/8* 920mm.OR/OR-3/8
53000518	LATIG.R2-3/8*1100mm.OR/OR-3/8
53000519	LATIG.R2-3/8*1040mm.OR/OR-3/8

WING SHARES



REFERENCIA	DESCRIPCIÓN
60000023	TORN.ARADO C/OV/934 12*42 12.9
60000252	TORN.ARADO C/OV/934 14*65 12.9
64000384	PUNTA CH-OVLAC D 15mm./3A
64000385	PUNTA CH-OVLAC I 15mm./3A
70013901	ALA P/REJA CHISEL (D/14)
70008900	PORTA-PUNTAS CH
70007911	CAMBA CH 30/40mm.(D/05) CORTA
60000292	TORN.ARADO C/OV/934 12*65 12.9

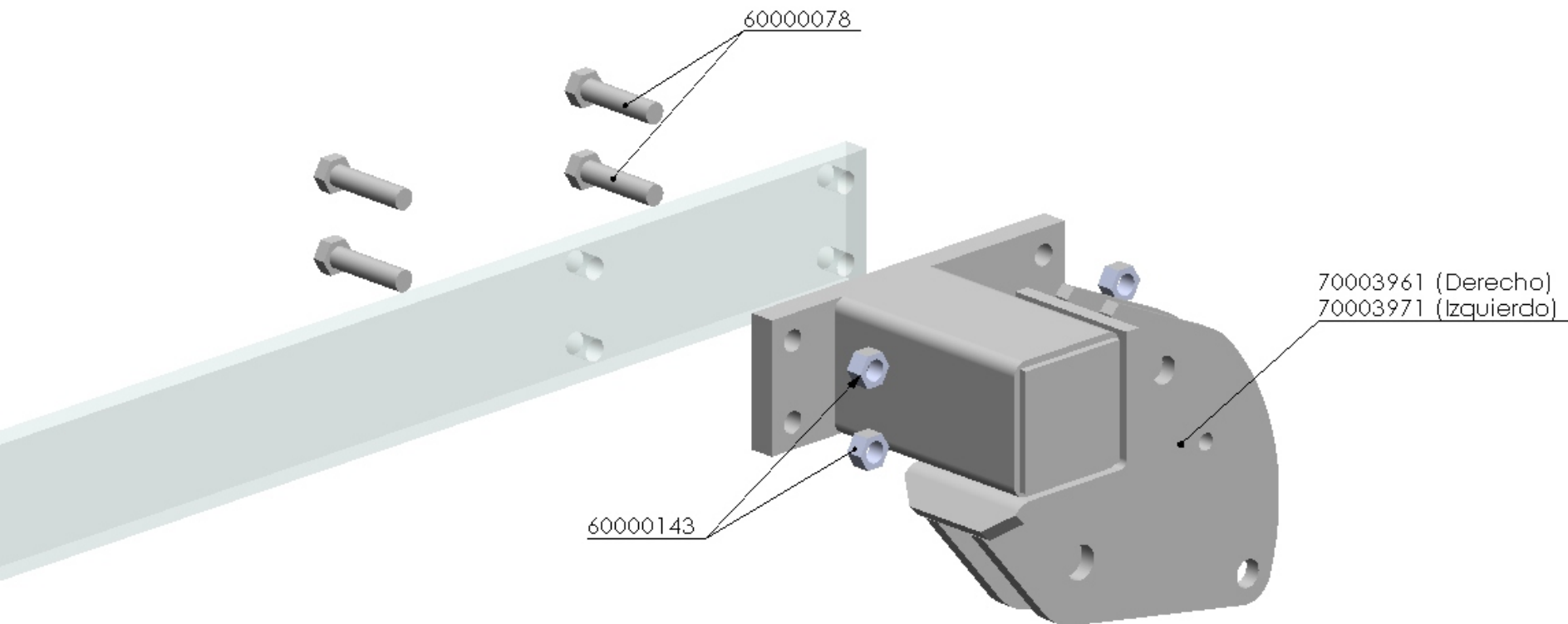
ADDITIONAL FOLDABLE BODIES



ADDITIONAL FOLDABLE BODIES

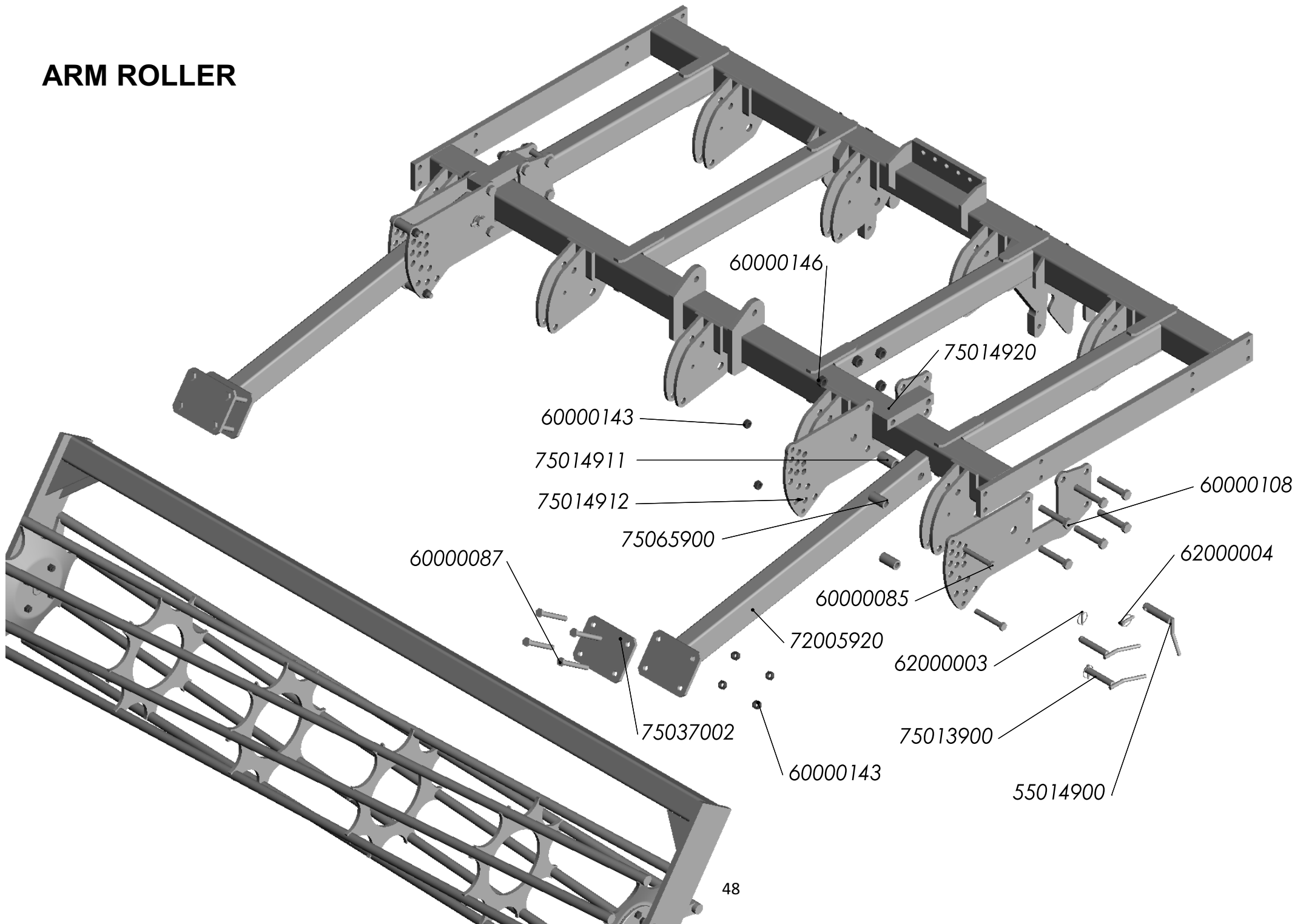
REFERENCIA	DESCRIPCIÓN
60000080	TORN.EXAG.DIN-931 16* 60 8.8 ZINC.
60000105	TORN.EXAG.DIN-931 20* 90 8.8
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
61000011	ARAND.DIN-125 20 ZINC.
62000003	PASADOR ANILLA 6 ZINC.
70001902	SOP.GIRO CH-1
70003921	BAST.CH-1-S DCH.(PLEG.)
70003931	BAST.CH-1-S IZQD.(PLEG.)
70012900	BULON D=20*325mm.FIJACION CH-1

ADDITIONAL BOLT ON BODIES



REFERENCIA	DESCRIPCIÓN
70003961	BAST.CH-1-S DCH. (FIJO)
70003971	BAST.CH-1-S IZQD. (FIJO)
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000078	TORN.EXAG.DIN-933 16* 50 8.8 ZINC.

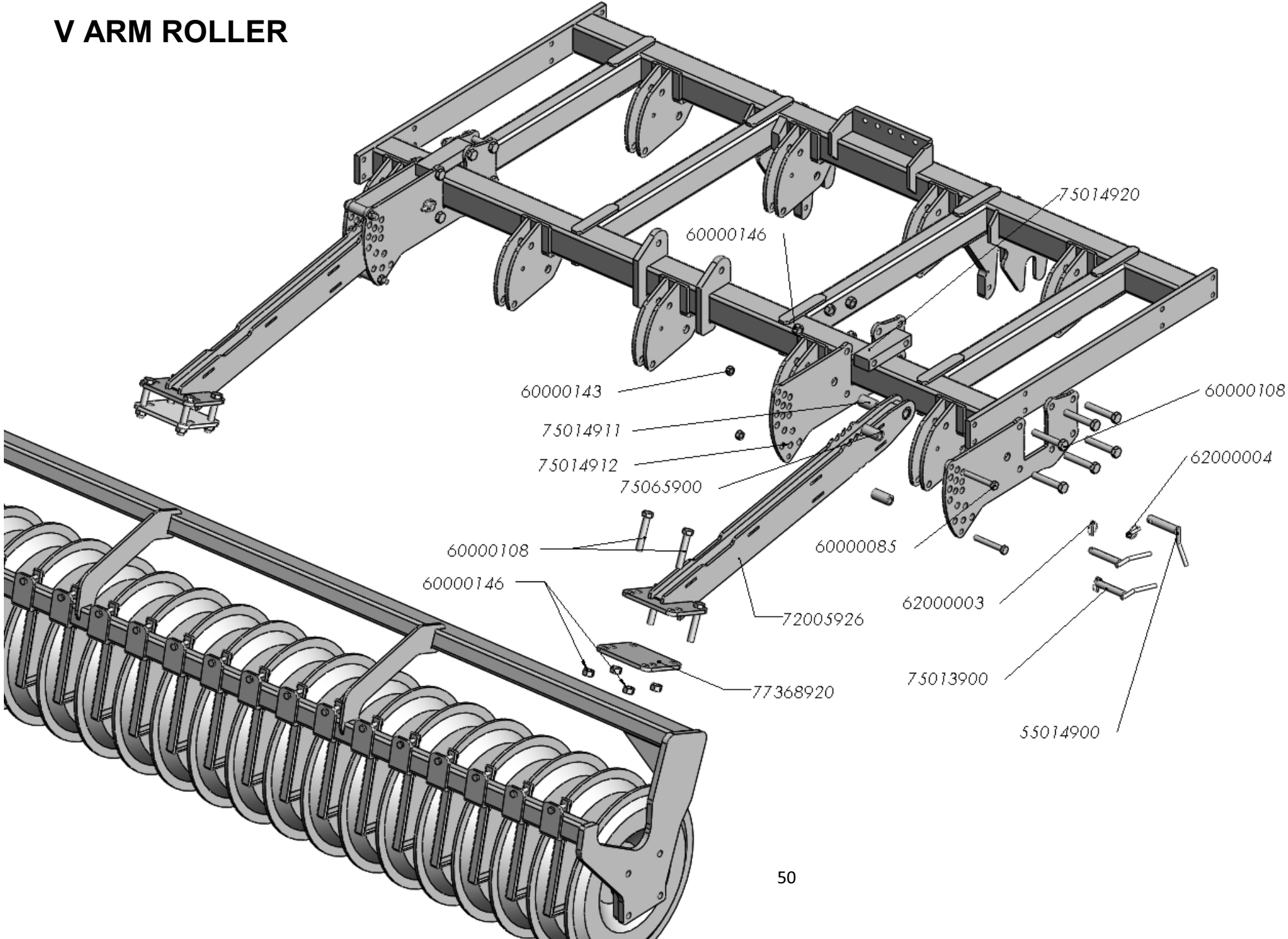
ARM ROLLER



ARM ROLLER

REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO
60000085	TORN.EXAG.DIN-931 16*110 8.8 ZINC.
60000087	TORN.EXAG.DIN-931 16*130 8.8 ZINC.
60000108	TORN.EXAG.DIN-931 20*110 8.8 ZINC.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
62000003	PASADOR ANILLA 6 ZINC.
62000004	PASADOR ANILLA 10 ZINC.
75013900	BULON D=20*118mm.REG.RODILLO ZINC.
75014911	SEP.B.P.36/25* 62mm.
75014912	PLACA REGULACION RODILLO (D/03)
75014920	LLANTA UNION SOP.RODILLO 60*40*200 mm.
75037002	PLACA AMARRE RODILLO
75065900	SEP.B.P.32/20* 62mm.
72005920	BRAZO SOP.RODILLO (D/03)

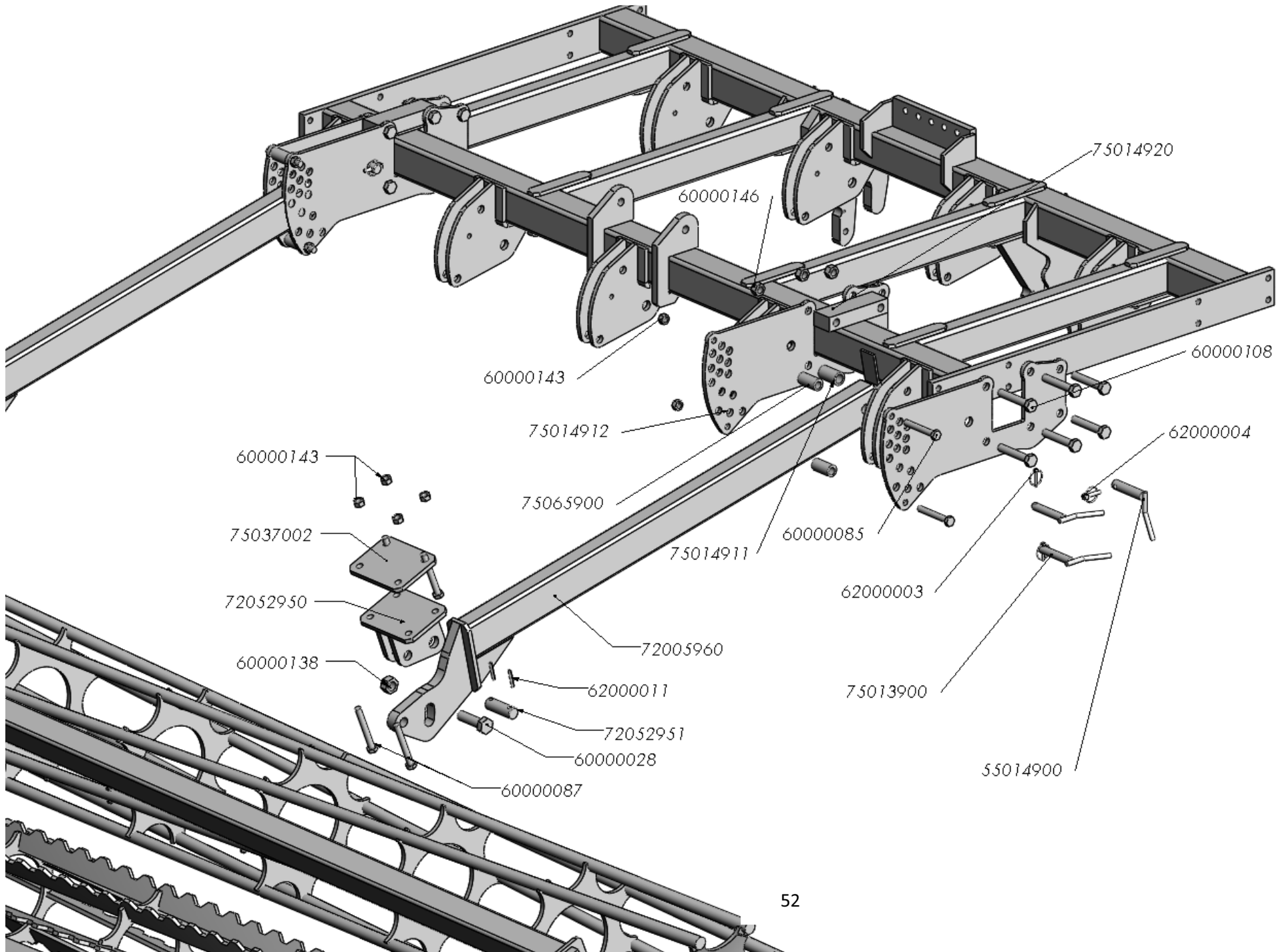
V ARM ROLLER



V ARM ROLLER

REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO
60000085	TORN.EXAG.DIN-931 16*110 8.8 ZINC.
77368920	PLACA AMARRE RODILLO MAXIDISC-II/VBC
60000108	TORN.EXAG.DIN-931 20*110 8.8 ZINC.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
62000003	PASADOR ANILLA 6 ZINC.
62000004	PASADOR ANILLA 10 ZINC.
75013900	BULON D=20*118mm.REG.RODILLO ZINC.
75014911	SEP.B.P.36/25* 62mm.
75014912	PLACA REGULACION RODILLO (D/03)
75014920	LLANTA UNION SOP.RODILLO 60*40*200 mm.
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
75065900	SEP.B.P.32/20* 62mm.
72005926	BRAZO SOP.RODILLO EURODISC (D/15)

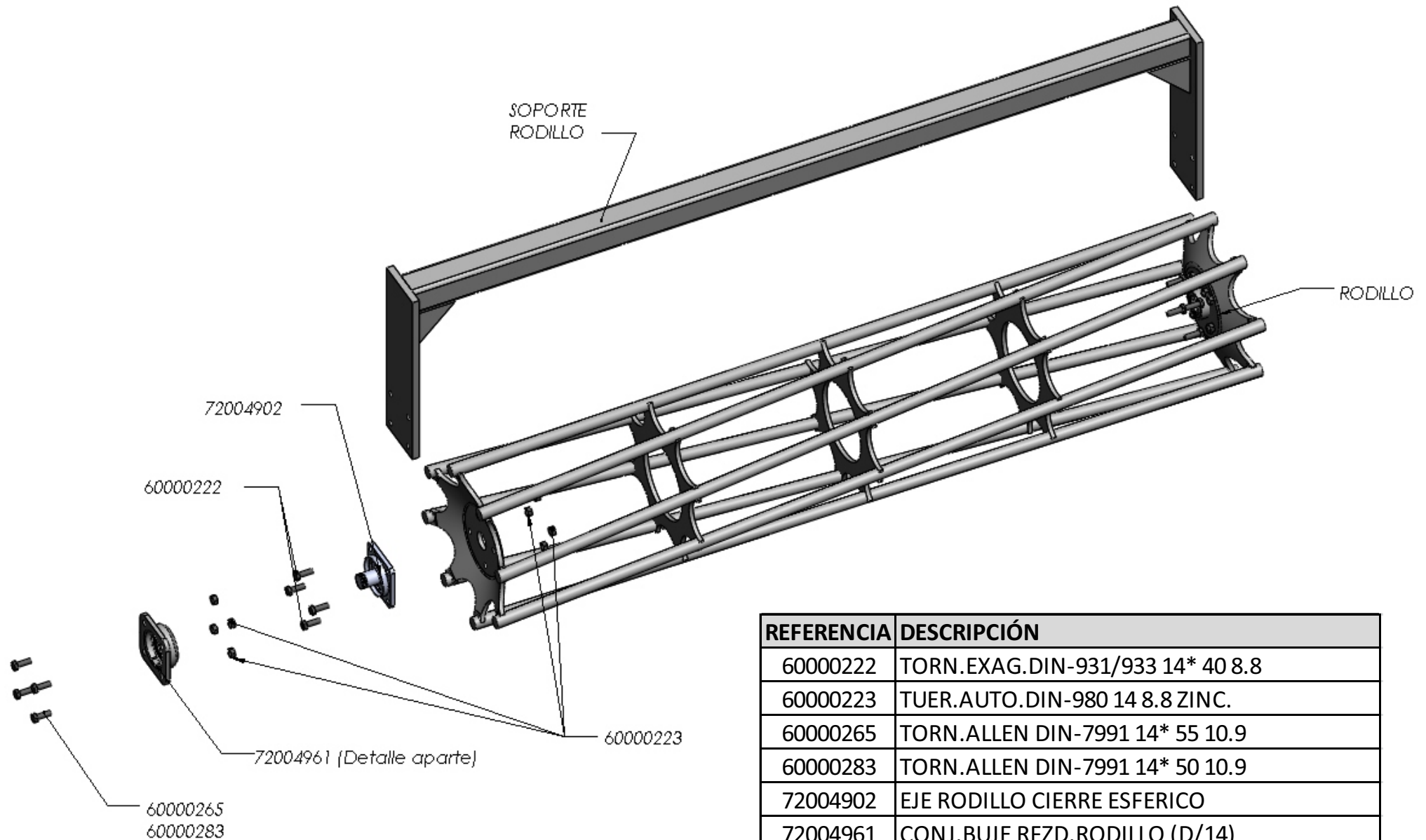
DOUBLE ARM ROLLER



DOUBLE ARM ROLLER

REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO
60000028	TORN.EXAG.DIN-931 1"* 90 SAE 8.8
60000085	TORN.EXAG.DIN-931 16*110 8.8 ZINC.
60000087	TORN.EXAG.DIN-931 16*130 8.8 ZINC.
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
62000003	PASADOR ANILLA 6 ZINC.
62000004	PASADOR ANILLA 10 ZINC.
62000011	PASADOR ELAST.DIN-1481 8* 50 ZINC.
72005960	BRAZO SOP.RODILLO DOBLE (D/08)
72052951	BULON D=31,5*94mm.ARTIC.RODILLO DOBLE
75013900	BULON D=20*118mm.REG.RODILLO ZINC.
75014911	SEP.B.P.36/25* 62mm.
75014912	PLACA REGULACION RODILLO (D/03)
75014920	LLANTA UNION SOP.RODILLO 60*40*200 mm.
75037002	PLACA AMARRE RODILLO
75065900	SEP.B.P.32/20* 62mm.

ROLLERS



REFERENCIA	DESCRIPCIÓN
60000222	TORN.EXAG.DIN-931/933 14* 40 8.8
60000223	TUER.AUTO.DIN-980 14 8.8 ZINC.
60000265	TORN.ALLEN DIN-7991 14* 55 10.9
60000283	TORN.ALLEN DIN-7991 14* 50 10.9
72004902	EJE RODILLO CIERRE ESFERICO
72004961	CONJ.BUJE RFZD.RODILLO (D/14)

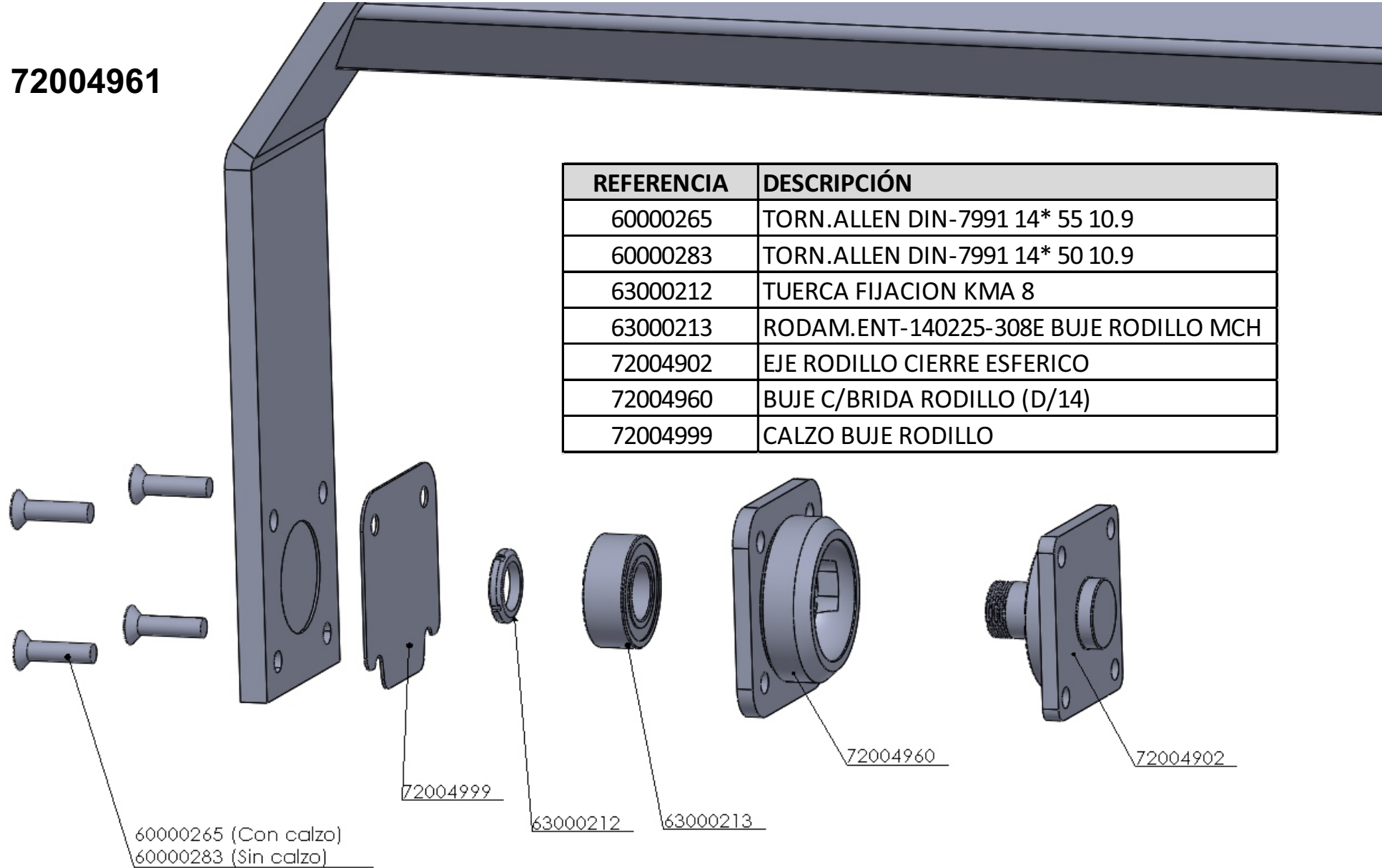
ROLLERS

RODILLOS							
Metros	8 BARRAS	10 BARRAS	8 MUESCAS	10 MUESCAS	8 PLETINAS	10 PLETINAS	12 PLETINAS
1,95	72001919	72011919	72101919	72151919			
2,20	72001920	72011920	72101920	72151920			
2,55	72001926	72011926	72101926	72151926			
2,70	72001925	72011925	72101925	72151925			
3,00	72001931	72011931	72101931				
3,30	72001930	72011930	72101930		72111930	72112930	
3,80	72001935	72011935	7210935	72151925			
3,90	72001919		72101919 (x2)				
4,15	72001919		72101919	72151919			
	72001920		72101920	72151920			
4,20							72113942
4,40	72001920 (x2)	72011920 (x2)	72101920 (x2)	72151920 (x2)			
4,75	72001920						
	72001926						
5,10	72001926 (x2)		72101926 (x2)				
5,40	72001925 (x2)		72101925 (x2)				
5,70		72011925					
		72011931					
6,00			72101931 (x2)				
6,30	72001930		72101930				
	72001931		72101931				

ROLLERS

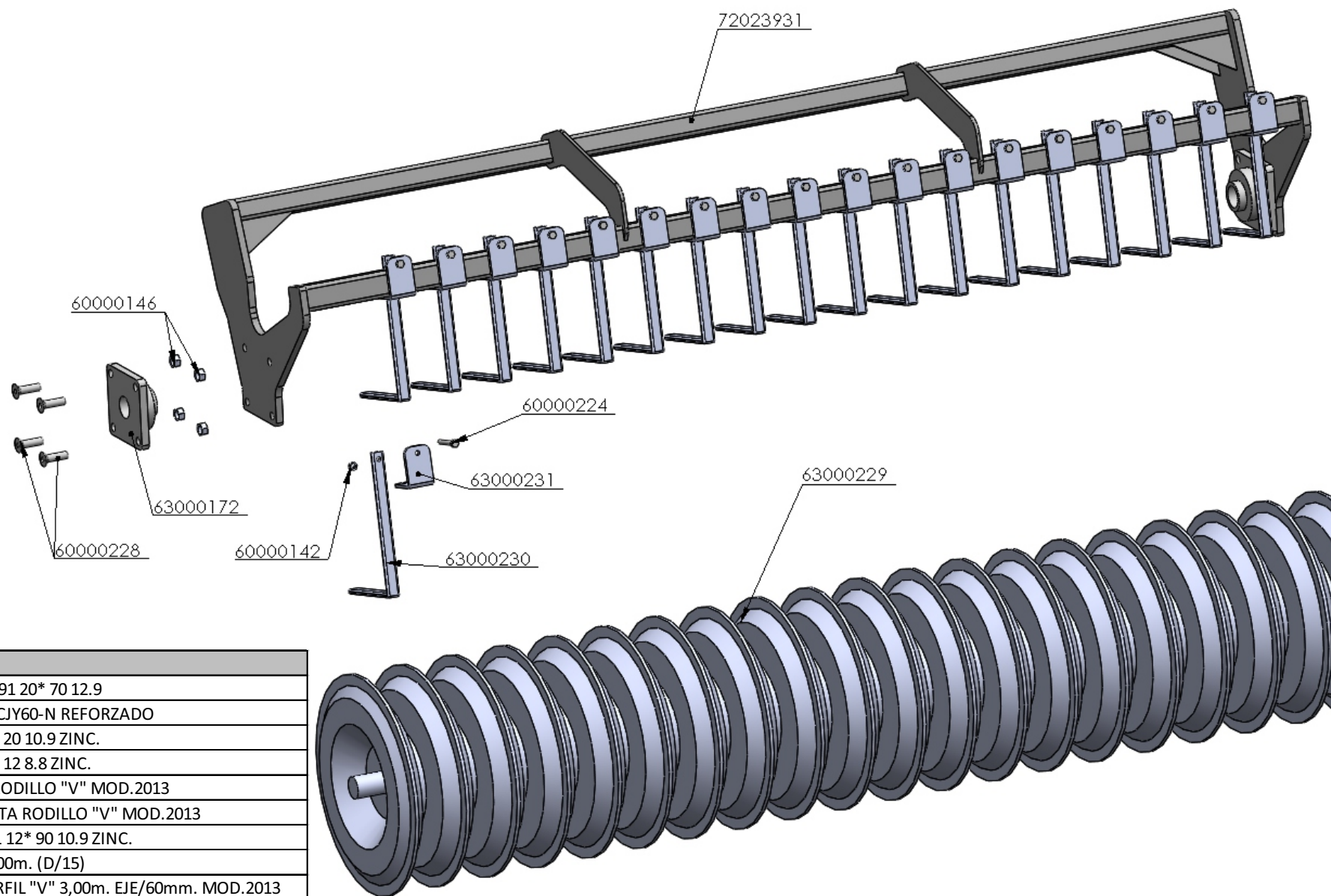
SOPORTE RODILLO			
Metros	CHISEL	MAXIDISC II	VERSATILL
1,95	72002920		72021919
2,20	72002919		72021922
2,55			72021925
2,70	72002925	72021927	72021927
3,00	72002931	72021930	72021930
3,30	72002930		
3,60			72021938
3,80	72002935		72021938
3,90	72012919 (x2)		
4,00		72024920	72703940
4,15		72021919	72021919
		72021922	72021922
4,20	72002940		
4,40	72016920 (x2)		
4,75		72021922	72021922
		72021925	72021925
5,10		72021925 (x2)	
5,25			72021925
			72021927
5,40	72012925 (x2)		
5,70	72012925		
	72012931		
6,00		72021930 (x2)	
6,30	72012930		
	72012931		

BUJE 72004961



REFERENCIA	DESCRIPCIÓN
60000265	TORN.ALLEN DIN-7991 14* 55 10.9
60000283	TORN.ALLEN DIN-7991 14* 50 10.9
63000212	TUERCA FIJACION KMA 8
63000213	RODAM.ENT-140225-308E BUJE RODILLO MCH
72004902	EJE RODILLO CIERRE ESFERICO
72004960	BUJE C/BRIDA RODILLO (D/14)
72004999	CALZO BUJE RODILLO

V ROLLER

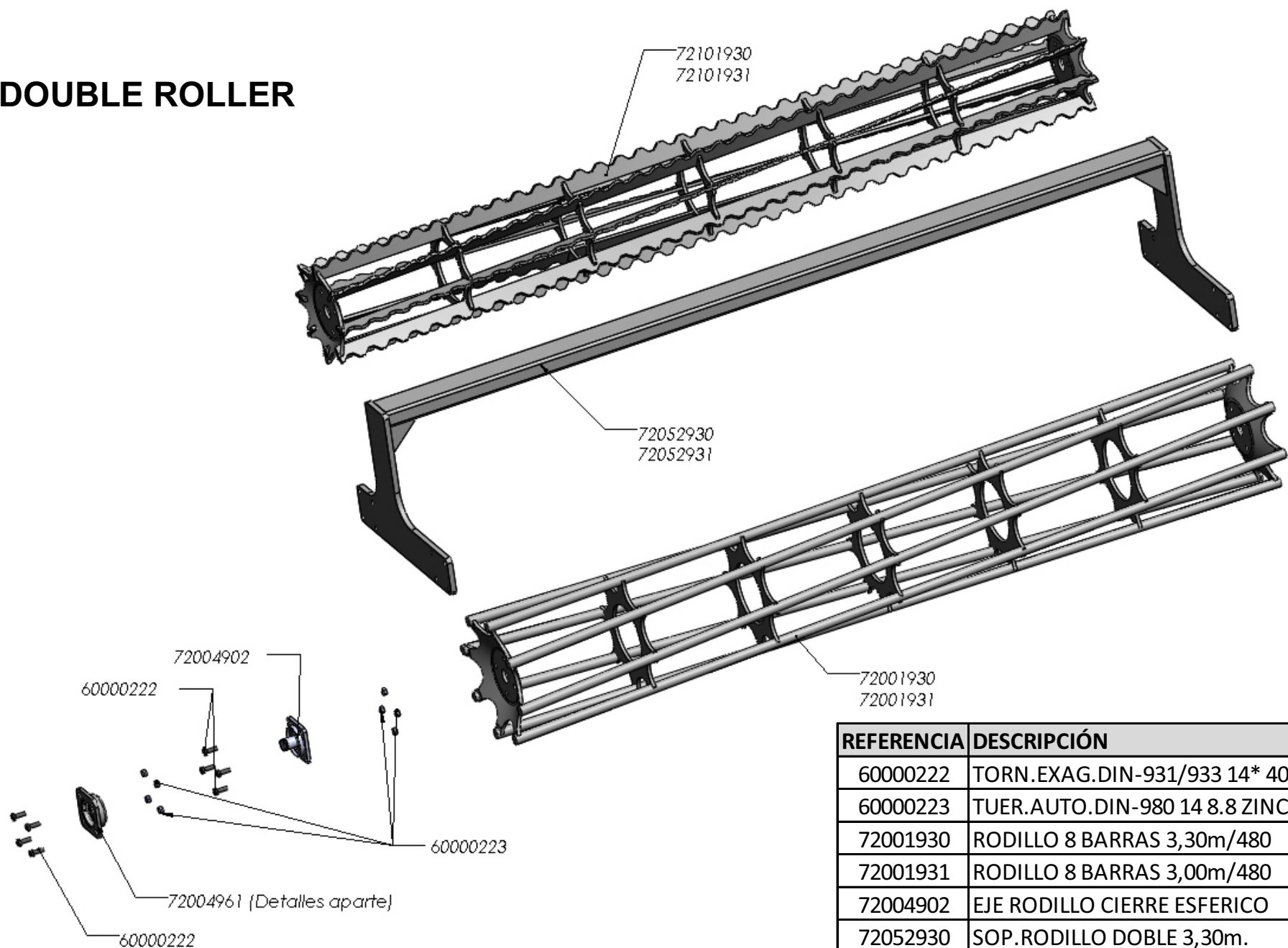


REFERENCIA	DESCRIPCIÓN
60000228	TORN.ALLEN DIN-7991 20* 70 12.9
63000172	RODAM.DE BRIDA RCJY60-N REFORZADO
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.
63000230	RASQUETA SIMPLE RODILLO "V" MOD.2013
63000231	PLACA SOP.RASQUETA RODILLO "V" MOD.2013
60000224	TORN.EXAG.DIN-931 12* 90 10.9 ZINC.
72023931	SOP. RODILLO "V" 3,00m. (D/15)
63000229	RODILLO DISCOS PERFIL "V" 3,00m. EJE/60mm. MOD.2013

V ROLLER

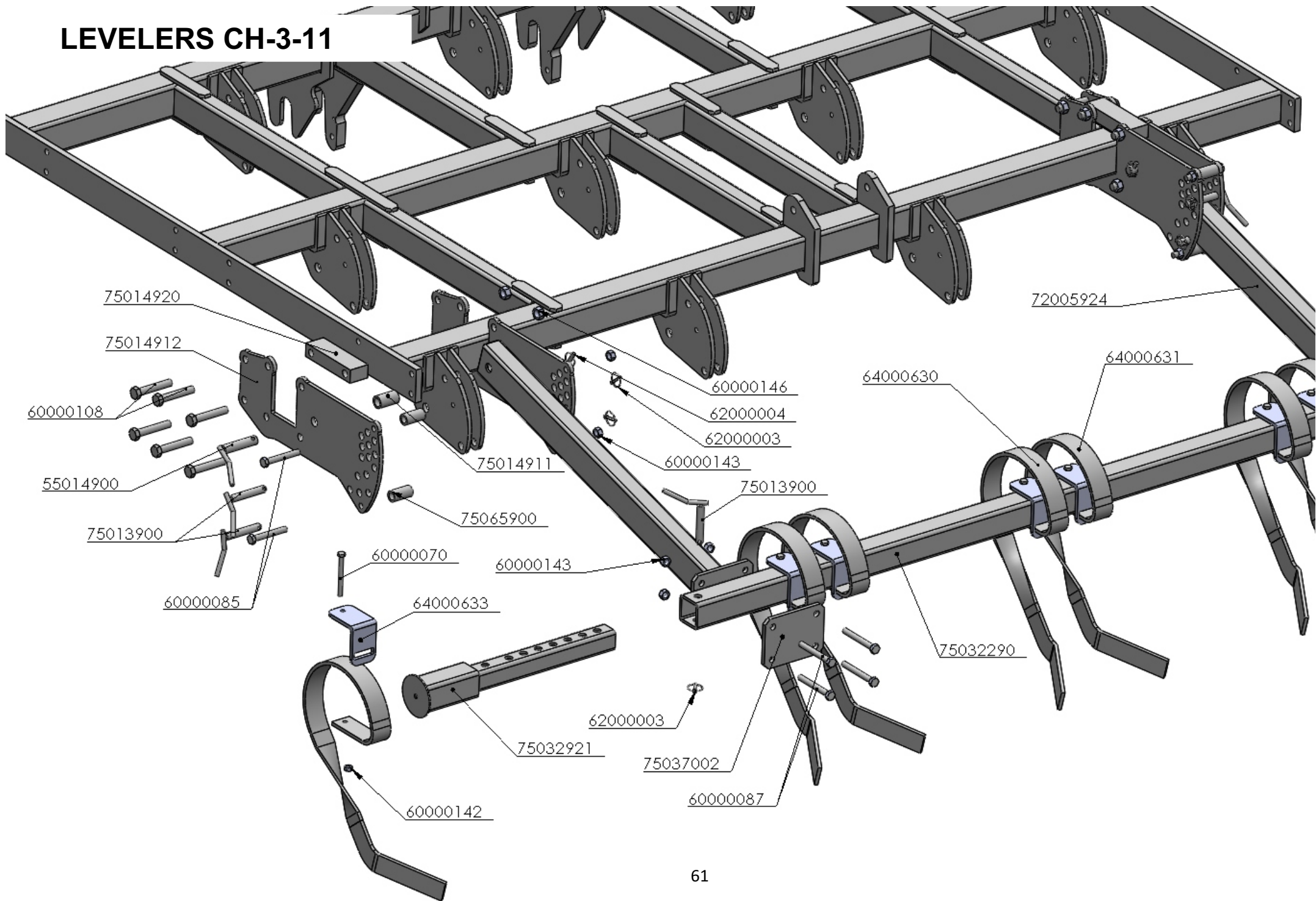
REFERENCIA	DESCRIPCIÓN
60000228	TORN.ALLEN DIN-7991 20* 70 12.9
63000172	RODAM.DE BRIDA RCJY60-N REFORZADO
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.
63000230	RASQUETA SIMPLE RODILLO "V" MOD.2013
63000231	PLACA SOP.RASQUETA RODILLO "V" MOD.2013
60000224	TORN.EXAG.DIN-931 12* 90 10.9 ZINC.
72023931	SOP.RODILLO "V" 3,00m. (D/15)
63000229	RODILLO DISCOS PERFIL "V" 3,00m. EJE/60mm. MOD.2013

DOUBLE ROLLER



REFERENCIA	DESCRIPCIÓN
60000222	TORN.EXAG.DIN-931/933 14* 40 8.8
60000223	TUER.AUTO.DIN-980 14 8.8 ZINC.
72001930	RODILLO 8 BARRAS 3,30m/480
72001931	RODILLO 8 BARRAS 3,00m/480
72004902	EJE RODILLO CIERRE ESFERICO
72052930	SOP.RODILLO DOBLE 3,30m.
72052931	SOP.RODILLO DOBLE 3,00m.
72101930	RODILLO 8 MUESCAS 3,30m/380
72101931	RODILLO 8 MUESCAS 3,00m/380

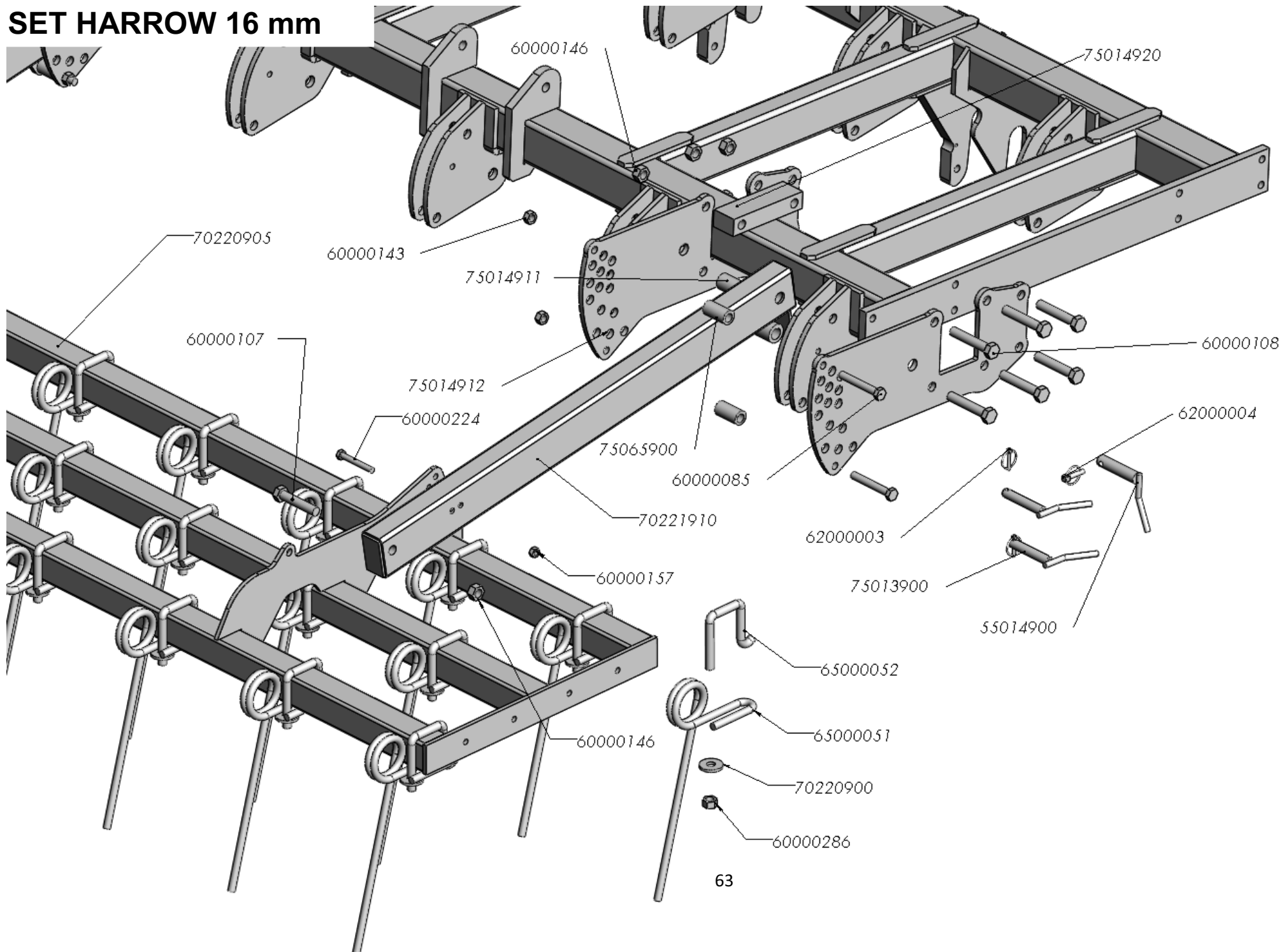
LEVELERS CH-3-11



LEVELERS CH-3-11

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO	64000631	BRAZO BORRAHUELLAS I 60x10 1A M-12
60000070	TORN.EXAG.DIN-931 12*120 8.8 ZINC.	64000633	AMARRE BRAZO DEFLECTOR 60*10
60000085	TORN.EXAG.DIN-931 16*110 8.8 ZINC.	72005924	BRAZO SOP.NIVELADORES CH
60000087	TORN.EXAG.DIN-931 16*130 8.8 ZINC.	75013900	BULON D=20*118mm.REG.RODILLO ZINC.
60000108	TORN.EXAG.DIN-931 20*110 8.8 ZINC.	75013900	BULON D=20*118mm.REG.RODILLO ZINC.
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	75014911	SEP.B.P.36/25* 62mm.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.	75014912	PLACA REGULACION RODILLO (D/03)
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	75014920	LLANTA UNION SOP.RODILLO 60*40*200 mm.
62000003	PASADOR ANILLA 6 ZINC.	75032290	ESTRUCT.80/80/ 8*2885 SOP.NIVELADORES CH-11/3
62000003	PASADOR ANILLA 6 ZINC.	75032921	BAST.DISCOS NON-STOP VBC CIERRE
62000004	PASADOR ANILLA 10 ZINC.	75037002	PLACA AMARRE RODILLO
64000630	BRAZO BORRAHUELLAS D 60x10 1A M-12	75065900	SEP.B.P.32/20* 62mm.

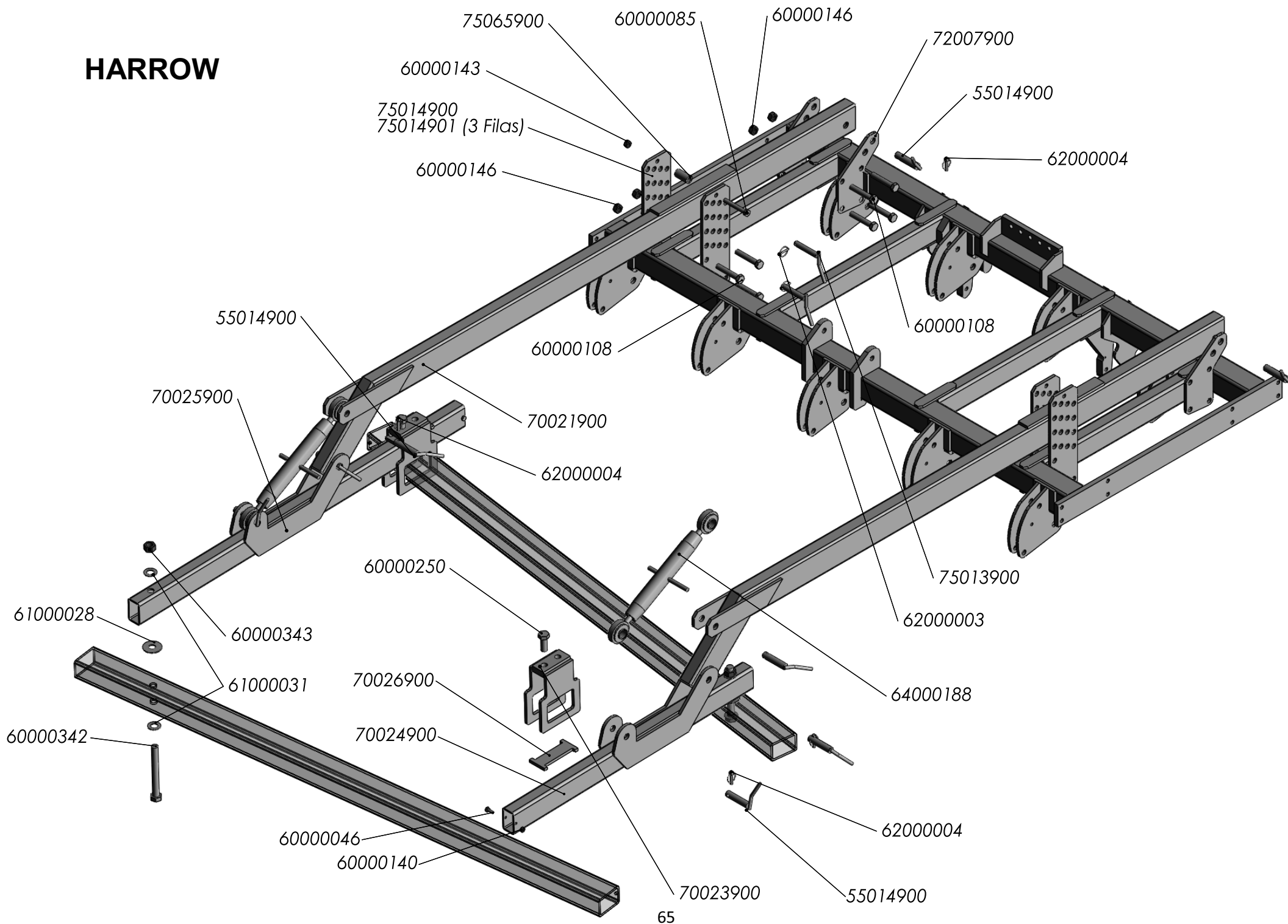
SET HARROW 16 mm



SET HARROW 16 mm

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO	65000051	MUELLE RASTRA D=16*500mm. 15°
60000085	TORN.EXAG.DIN-931 16*110 8.8 ZINC.	65000052	BRIDA MUELLE RASTRA M18x110x72 F-1 ZINC.
60000107	TORN.EXAG.DIN-931 20*100 8.8	70220900	ARAND.MUELLE RASTRA FRANCIA
60000108	TORN.EXAG.DIN-931 20*110 8.8 ZINC.	70220905	BAST.RASTRA CH FRANCIA 3,10
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.	70221910	BRAZO SOP.RASTRA CH FRANCIA
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	75013900	BULON D=20*118mm.REG.RODILLO ZINC.
60000157	TUER.EXAG.DIN-934 12 8.8 ZINC	75014911	SEP.B.P.36/25* 62mm.
60000224	TORN.EXAG.DIN-931 12* 90 10.9 ZINC.	75014912	PLACA REGULACION RODILLO (D/03)
60000286	TUER.AUTO.DIN-980 18 8.8 ZINC.	75014920	LLANTA UNION SOP.RODILLO 60*40*200 mm.
62000003	PASADOR ANILLA 6 ZINC.	75065900	SEP.B.P.32/20* 62mm.
62000004	PASADOR ANILLA 10 ZINC.		

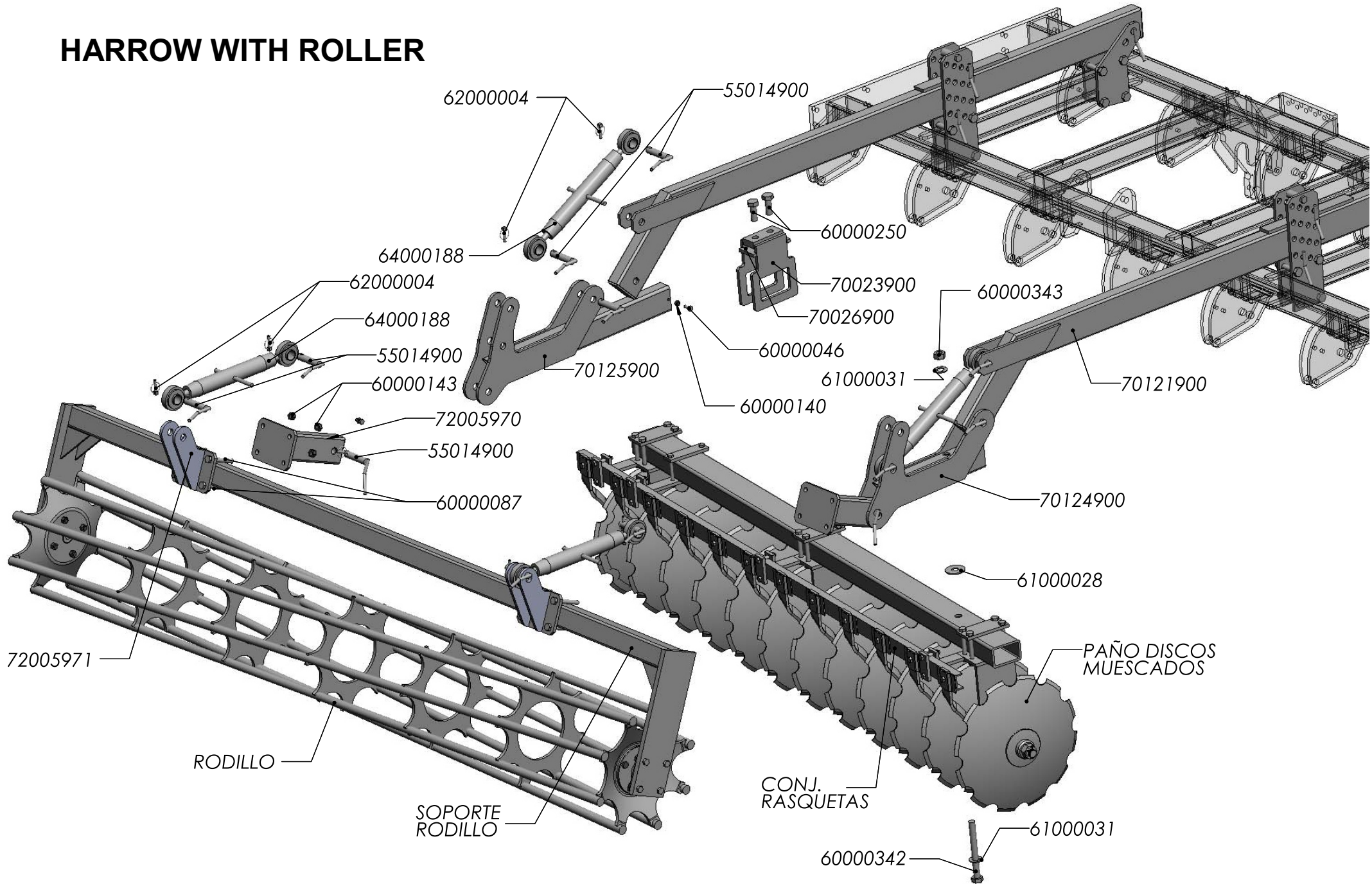
HARROW



HARROW

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO	62000004	PASADOR ANILLA 10 ZINC.
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	64000188	TENSOR C/ROT.D=26 30360 ZINC.
60000085	TORN.EXAG.DIN-931 16*110 8.8 ZINC.	70021900	BRAZO SOP.GRADA CH
60000108	TORN.EXAG.DIN-931 20*110 8.8 ZINC.	70023900	ABRAZ.SUSP.GRADA CH
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70024900	BRAZO CORTO SUSP.GRADA CH
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.	70025900	BRAZO LARGO SUSP.GRADA CH
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.	70026900	PLACA RFZO.SUSP.GRADA CH
60000250	TORN.EXAG.DIN-933 24* 60 8.8 ZINC.	72007900	PLACA SOP.BRAZO GRADA
60000342	TORN.EXAG.DIN-931 24*220 8.8	75013900	BULON D=20*118mm.REG.RODILLO ZINC.
60000343	TUER.AUTO.DIN-980 24 8.8 ZINC.	75014900	PLACA REGULAC.BRAZO GRADA
61000028	ARAND.DIN-9021 24 ZINC.	75014901	PLACA REGULAC.BRAZO GRADA CH-3F
61000031	ARAND.STANDAR S/BISEL CL-26 ZINC.(50x27x3)	75065900	SEP.B.P.32/20* 62mm.
62000003	PASADOR ANILLA 6 ZINC.		

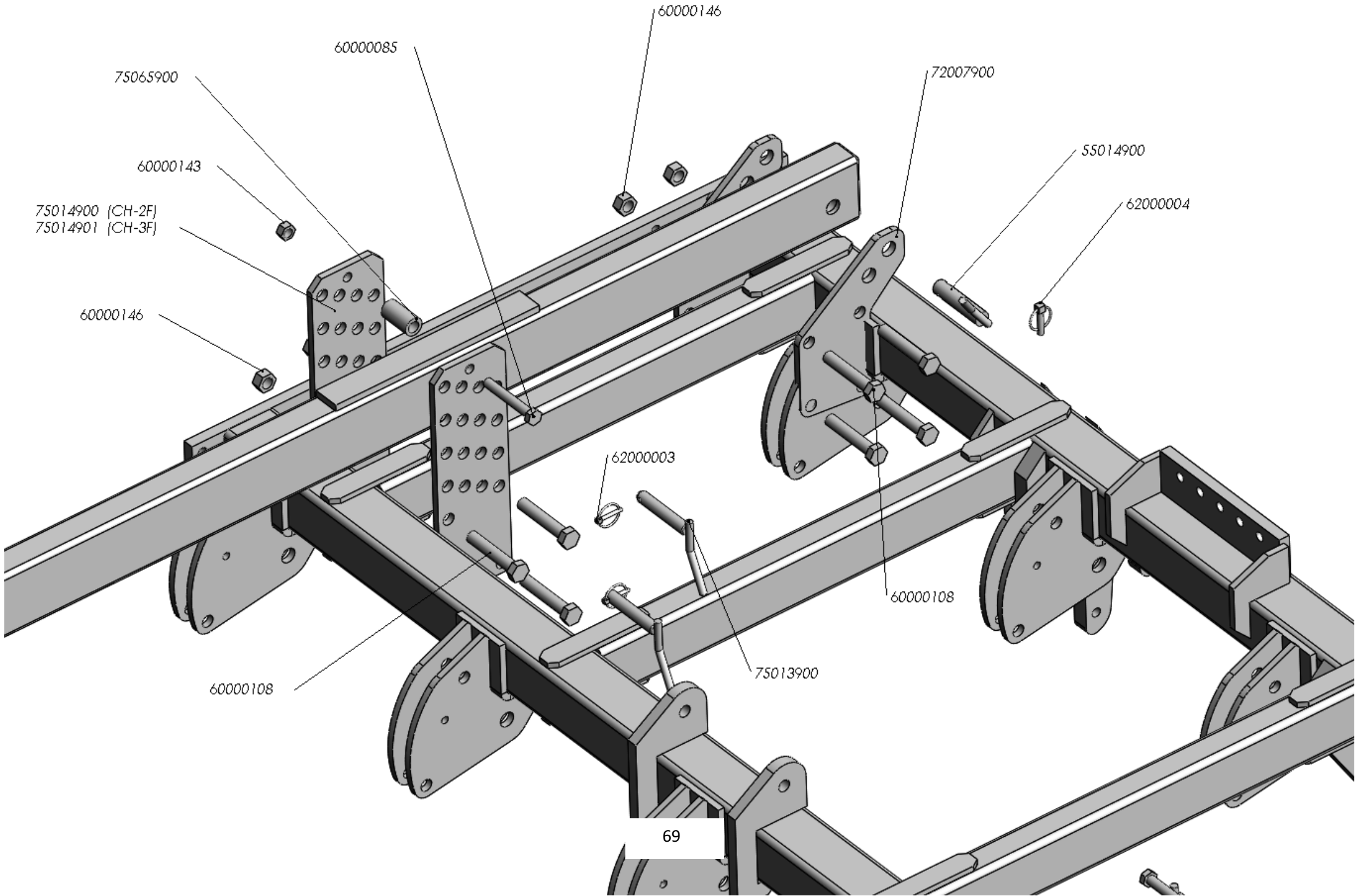
HARROW WITH ROLLER



HARROW WITH ROLLER

REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.
60000087	TORN.EXAG.DIN-931 16*130 8.8 ZINC.
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000250	TORN.EXAG.DIN-933 24* 60 8.8 ZINC.
60000342	TORN.EXAG.DIN-931 24*220 8.8
60000343	TUER.AUTO.DIN-980 24 8.8 ZINC.
61000028	ARAND.DIN-9021 24 ZINC.
61000031	ARAND.STANDAR S/BISEL CL-26 ZINC.(50x27x3)
62000004	PASADOR ANILLA 10 ZINC.
64000188	TENSOR C/ROT.D=26 30360 ZINC.
70023900	ABRAZ.SUSP.GRADA CH
70026900	PLACA RFZO.SUSP.GRADA CH
70121900	BRAZO SOP.GRADA CH C/RODILLO
70124900	BRAZO CORTO SUSP.GRADA CH C/RODILLO
70125900	BRAZO LARGO SUSP.GRADA CH C/RODILLO
72005970	BRAZO SOP.RODILLO C/GRADA
72005971	PLACA AMARRE RODILLO C/GRADA

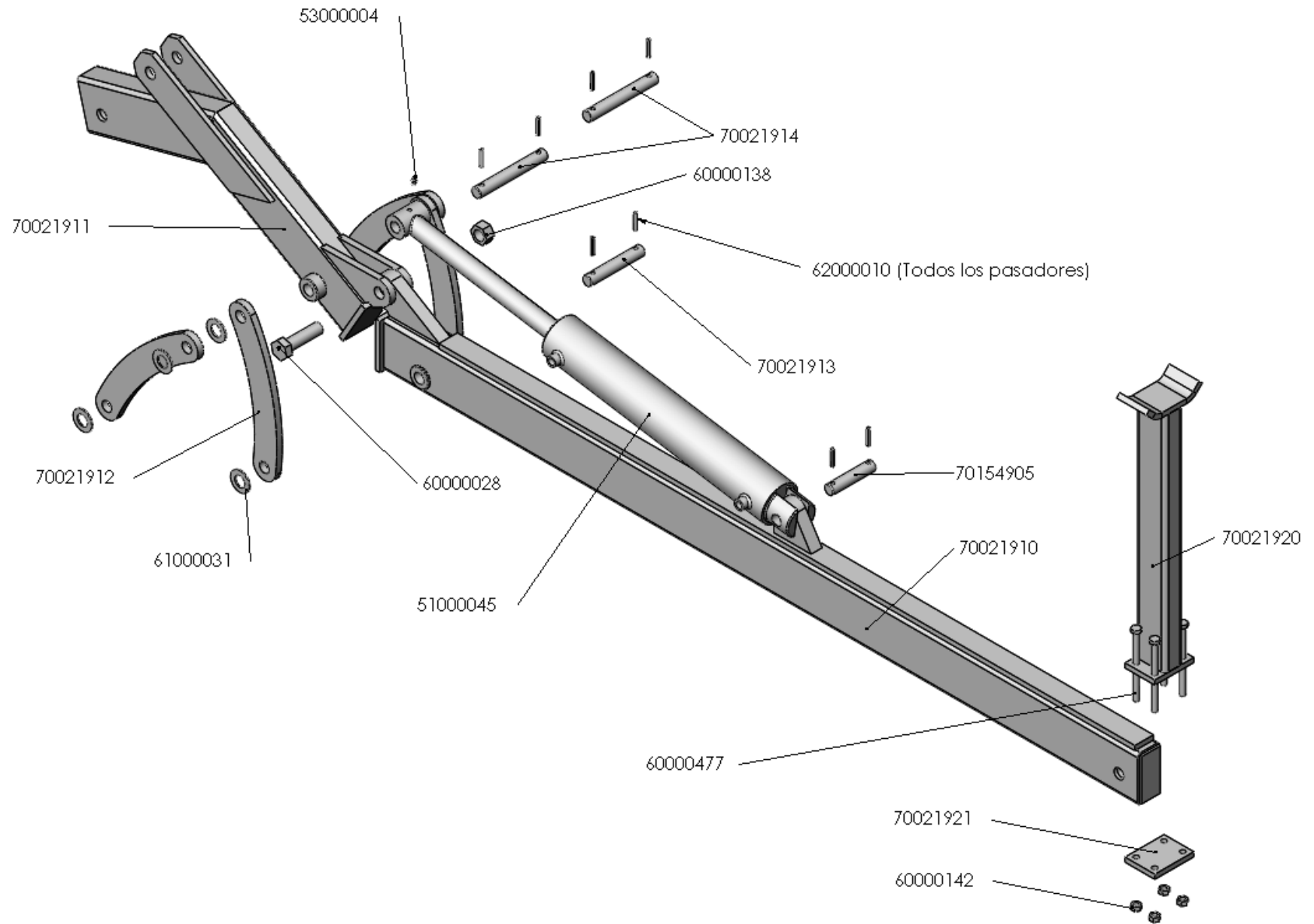
HARROW WITH ROLLER



HARROW WITH ROLLER

REFERENCIA	DESCRIPCIÓN
55014900	BULON D=25*110mm.BLOQUEO/BRAZO RODILLO
60000085	TORN.EXAG.DIN-931 16*110 8.8 ZINC.
60000108	TORN.EXAG.DIN-931 20*110 8.8 ZINC.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
62000003	PASADOR ANILLA 6 ZINC.
62000004	PASADOR ANILLA 10 ZINC.
72007900	PLACA SOP.BRAZO GRADA
75013900	BULON D=20*118mm.REG.RODILLO ZINC.
75014900	PLACA REGULAC.BRAZO GRADA
75014901	PLACA REGULAC.BRAZO GRADA CH-3F
75065900	SEP.B.P.32/20* 62mm.

HYDRAULIC FOLDING HARROW



HYDRAULIC FOLDING HARROW

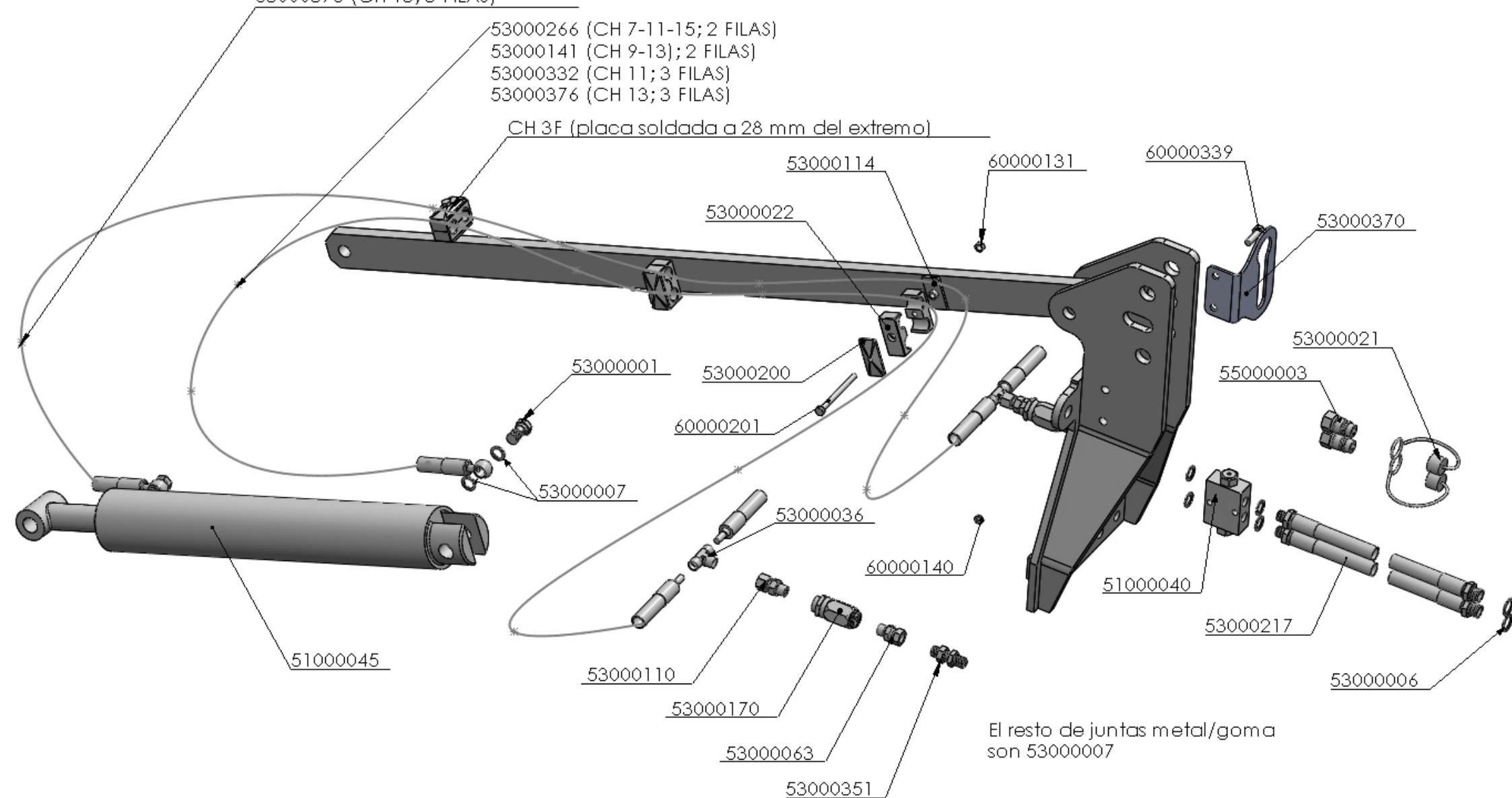
REFERENCIA	DESCRIPCIÓN
51000045	CILIND.PLEG.GRADA/MINI/MCH 80/40/470
53000004	ENGRASADOR AC° DIN-71412 8*125
60000028	TORN.EXAG.DIN-931 1"* 90 SAE 8.8
60000138	TUER.AUTO.DIN-980 1"SAE 10.9 ZINC.
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.
60000477	TORN.EXAG.DIN-931 12*180 8.8 ZINC.
61000031	ARAND.STANDAR S/BISEL CL-26 ZINC.(50x27x3)
62000010	PASADOR ELAST.DIN-1481 8* 40 ZINC.
70021910	BRAZO ANTER.SOP.GRADA ABAT.
70021911	BRAZO POST.SOP.GRADA ABAT.
70021912	BIELA GRADA ABAT./PLEG.MCH
70021913	BULON D=25*135mm.BIELA GRADA ABAT.
70021914	BULON D=25*172mm.BIELA/CIL.GRADA/MINI ZINC.
70021920	PIE APOYO GRADA ABAT.
70021921	LLANTA FIJ.PIE GRADA ABAT.
70154905	BULON D=25*110mm.CILIND.MINI/GRADA/MCH

HYDRAULIC FOLDING HARROW

53000267 (CH 7-11-15; 2 FILAS)
 53000095 (CH 9-13); 2 FILAS)
 53000331 (CH 11; 3 FILAS)
 53000375 (CH 13; 3 FILAS)

53000266 (CH 7-11-15; 2 FILAS)
 53000141 (CH 9-13); 2 FILAS)
 53000332 (CH 11; 3 FILAS)
 53000376 (CH 13; 3 FILAS)

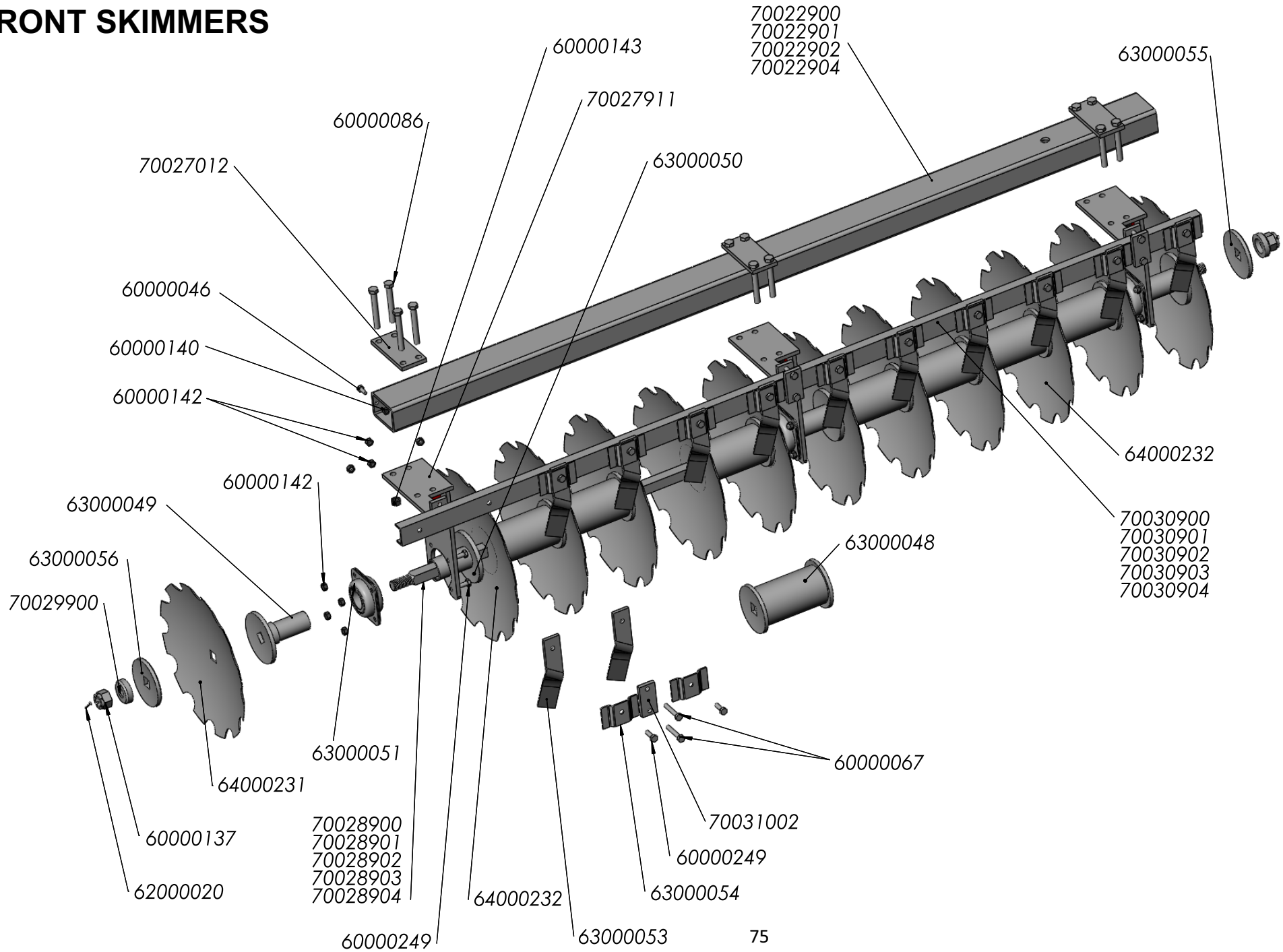
CH 3F (placa soldada a 28 mm del extremo)



HYDRAULIC FOLDING HARROW

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
51000040	VALV.BLOQUEO ZINC.3/8 VBPDE-3/8-A	53000170	VALV.REG.CAUDAL BIDIREC.3/8 V0555
51000045	CILIND.PLEG.GRADA/MINI/MCH 80/40/470	53000200	PLACA RFZO.AB.DOBLE 19 GD3D
53000001	TORNILLO SIMPLE 3/8 4022	53000217	LATIG.R2-3/8*1500mm.MF-1/2/MF-3/8
53000006	JUNTA METAL/GOMA 1/2" 11603	53000266	LATIG.R2-3/8*2570mm.OR-3/8/TL-18
53000007	JUNTA METAL/GOMA 3/8" 11602	53000267	LATIG.R2-3/8*2050mm.OR-3/8/TL-18
53000015	UNION MACHO 3/8 4062	53000331	LATIG.R2-3/8*2900mm.OR-3/8/TL-18
53000021	PROTECTOR E.R.MACHO 1/2" ROJO 5029-4PR	53000332	LATIG.R2-3/8*3420mm.OR-3/8/TL-18
53000022	ABRAZ.DOBLE D=19mm. 1D19PP	53000375	LATIG.R2-3/8*3000mm.OR-3/8/TL-18
53000036	TE UNION IGUAL 12 T12-L	53000376	LATIG.R2-3/8*3520mm.OR-3/8/TL-18
53000095	LATIG.R2-3/8*1950mm.OR-3/8/TL-18	55000003	ADAPTADOR E.R.FASTER 1/2" 30410108
53000114	PLACA SOLDAR AB.DOBLE 19 SP3D	60000146	TUER.AUTO.DIN-980 20 10.9 ZINC.
53000141	LATIG.R2-3/8*2470mm.OR-3/8/TL-18	60000237	TORN.EXAG.DIN-933 8* 35 8.8 ZINC.

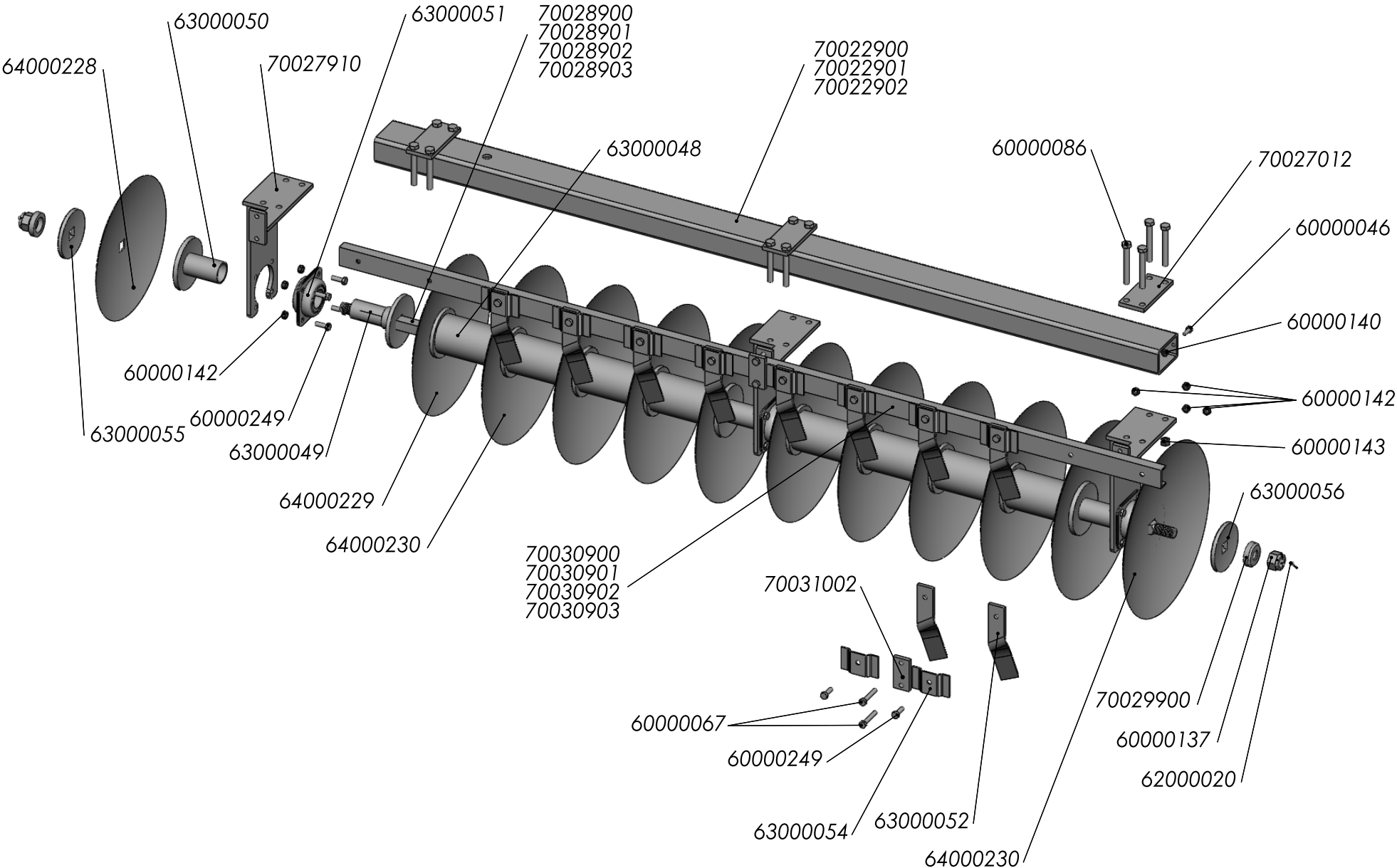
FRONT SKIMMERS



FRONT SKIMMERS

REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	70022900	BRAZO PORTA-PAÑOS GRADA CH (12/14 DISCOS)
60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	70022901	BRAZO PORTA-PAÑOS GRADA CH (9 DISCOS)
60000086	TORN.EXAG.DIN-931 16*120 8.8 ZINC.	70022902	BRAZO PORTA-PAÑOS GRADA CH (16 DISCOS)
60000137	TUER.ALME.DIN-935 30/200 5.6	70022904	BRAZO PORTA-PAÑOS GRADA CH (15 DISCOS)
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70027012	LLANTA SOP.RODAM.GRADA (D/03)
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70027911	SOP.ANT.RODAM.GRADA (IZQD.) (D/03)
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.	70028900	EJE GRADA CH (9 DISCOS)
60000249	TORN.EXAG.DIN-933 12* 35 8.8	70028901	EJE GRADA CH (12 DISCOS)
62000020	PASADOR MED.CAÑA DIN-94 4*40 ZINC.	70028902	EJE GRADA CH (14 DISCOS)
63000048	DISTANCIADOR 221mm.	70028903	EJE GRADA CH (16 DISCOS)
63000049	SEMI-DISTANCIADOR CONCAVO	70028904	EJE GRADA CH (15 DISCOS)
63000050	SEMI-DISTANCIADOR CONVEXO	70029900	CASQ.D= 70/30*20mm.EJE GRADA CH
63000051	RODAM.CON SOPORTE (GRADA CH)	70030900	PUENTE RASQUETAS (9 DISCOS)
63000053	RASQUETA IZQD.(ANTER.)	70030901	PUENTE RASQUETAS (12 DISCOS)
63000054	SOP.RASQUETA	70030902	PUENTE RASQUETAS (14 DISCOS)
63000055	ARAND.CONVEXA GRADA CH	70030903	PUENTE RASQUETAS (16 DISCOS)
63000056	ARAND.CONCAVA GRADA CH	70030904	PUENTE RASQUETAS (15 DISCOS)
64000231	DISCO CONCAVO MUESC.GRADA CH 1948-18" 4mm. C-31	70031002	LLANTA SOP.PUENTE 50*12*101mm.
64000232	DISCO CONCAVO MUESC.GRADA CH 1948-20" 4mm. C-31		

REAR SKIMMERS

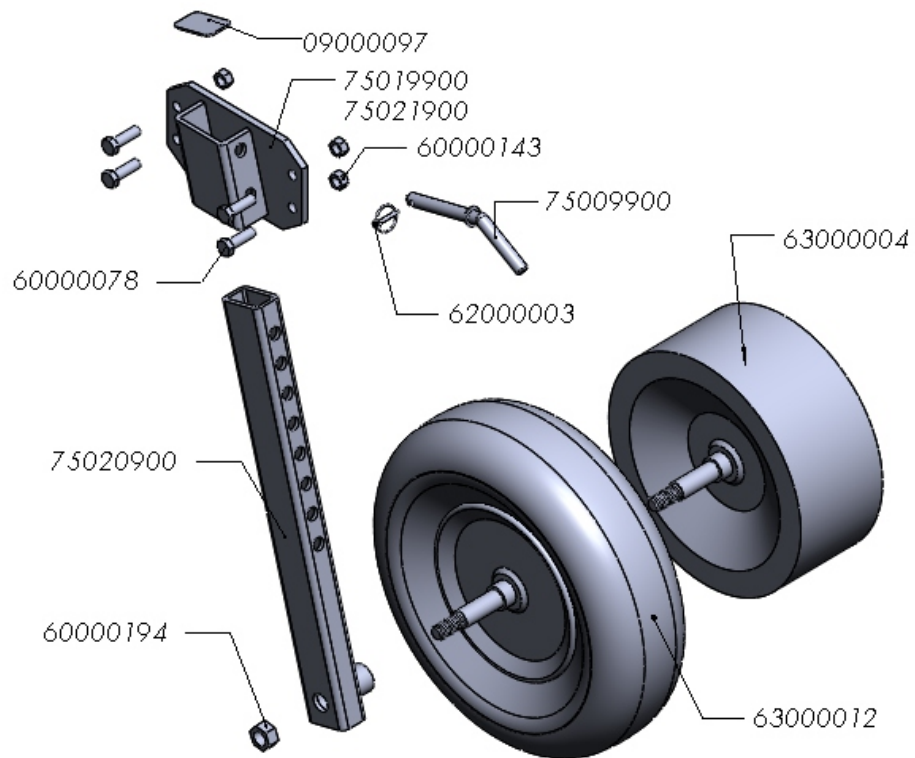


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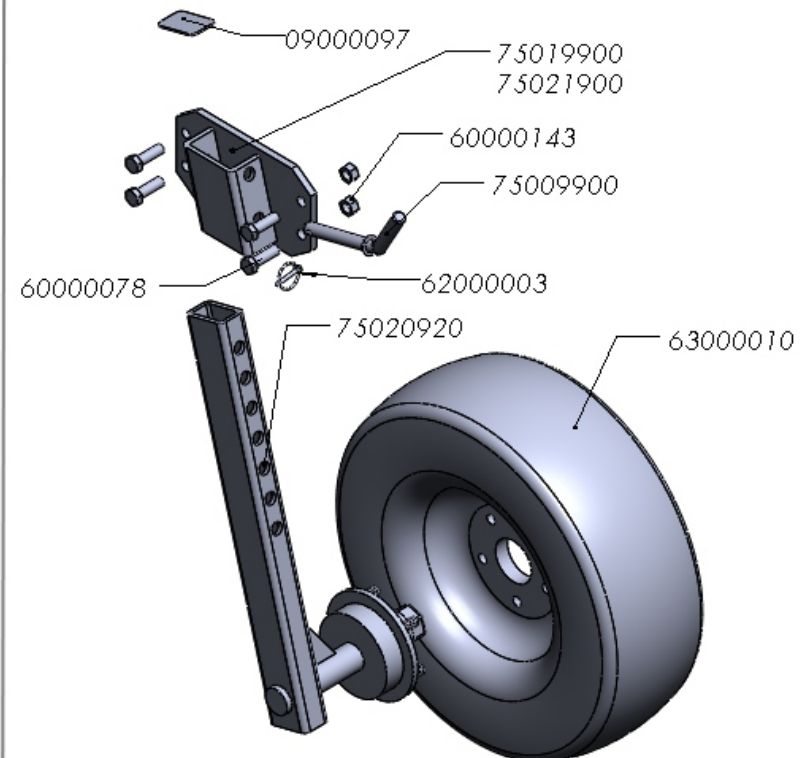
REFERENCIA	DESCRIPCIÓN	REFERENCIA	DESCRIPCIÓN
60000046	TORN.EXAG.DIN-933 10* 25 8.8 ZINC.	64000229	DISCO CONCAVO LISO GRADA CH 1948-18" 4mm.C-31
60000067	TORN.EXAG.DIN-931 12* 70 8.8 ZINC.	64000230	DISCO CONCAVO LISO GRADA CH 1948-20" 4mm.C-31
60000086	TORN.EXAG.DIN-931 16*120 8.8 ZINC.	70022900	BRAZO PORTA-PAÑOS GRADA CH (12/14 DISCOS)
60000137	TUER.ALME.DIN-935 30/200 5.6	70022901	BRAZO PORTA-PAÑOS GRADA CH (9 DISCOS)
60000140	TUER.AUTO.DIN-980 10 8.8 ZINC.	70022902	BRAZO PORTA-PAÑOS GRADA CH (16 DISCOS)
60000142	TUER.AUTO.DIN-980 12 8.8 ZINC.	70027012	LLANTA SOP.RODAM.GRADA (D/03)
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.	70027910	SOP.POST. RODAM.GRADA (DCH.) (D/03)
60000249	TORN.EXAG.DIN-933 12* 35 8.8	70028900	EJE GRADA CH (9 DISCOS)
62000020	PASADOR MED.CAÑA DIN-94 4*40 ZINC.	70028901	EJE GRADA CH (12 DISCOS)
63000048	DISTANCIADOR 221mm.	70028902	EJE GRADA CH (14 DISCOS)
63000049	SEMI-DISTANCIADOR CONCAVO	70028903	EJE GRADA CH (16 DISCOS)
63000050	SEMI-DISTANCIADOR CONVEXO	70029900	CASQ.D= 70/30*20mm.EJE GRADA CH
63000051	RODAM.CON SOPORTE (GRADA CH)	70030900	PUENTE RASQUETAS (9 DISCOS)
63000052	RASQUETA DCH.(POST.)	70030901	PUENTE RASQUETAS (12 DISCOS)
63000054	SOP.RASQUETA	70030902	PUENTE RASQUETAS (14 DISCOS)
63000055	ARAND.CONVEXA GRADA CH	70030903	PUENTE RASQUETAS (16 DISCOS)
63000056	ARAND.CONCAVA GRADA CH	70031002	LLANTA SOP.PUENTE 50*12*101mm.
64000228	DISCO CONCAVO LISO GRADA CH 1948-16" 4mm.C-31		

WHEELS

PAREJA RUEDAS MET/NEUM CH



PAREJA RUEDAS NEUMATICAS (608x205) CH

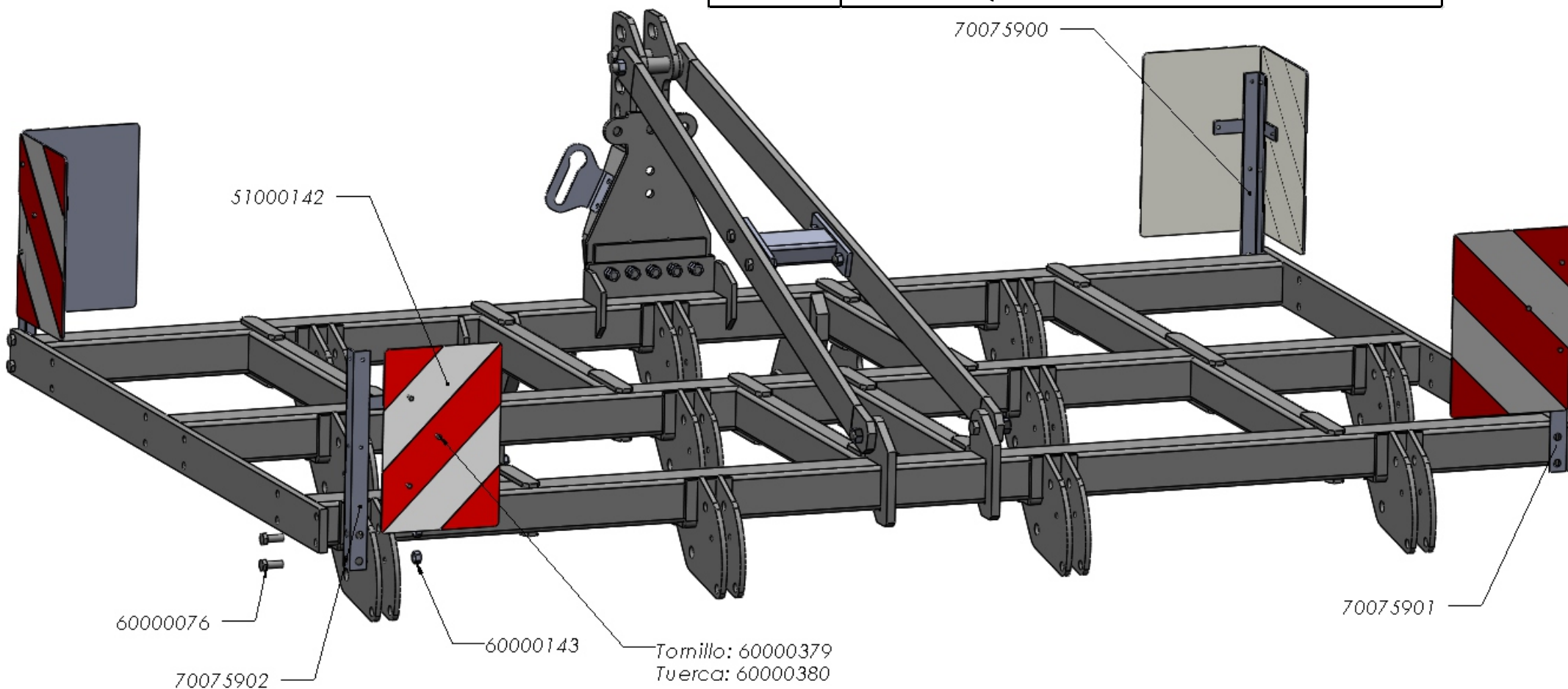


WHEELS

REFERENCIA	DESCRIPCIÓN
60000078	TORN.EXAG.DIN-933 16* 50 8.8 ZINC.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000194	TUER.AUTO.DIN-985 24/200 8.8
62000003	PASADOR ANILLA 6 ZINC.
63000004	R.M.C/EJE 400*170*3 RAL-3001
63000010	R.N.C/ATAQUE 200/60*14,5"-10PR RAL-6029
63000012	R.N.C/EJE 6.00*9"-10PR V50 RAL-6029
75009900	BULON D=20*255mm.REG.RDA.CH ZINC.
75019900	SOP.RDA.CHISEL DCH.
75020900	BRAZO RDA.CHISEL
75020920	BRAZO RDA.NEUM.(608*205) CHISEL
75021900	SOP.RDA.CHISEL IZQD.
9000097	TAPON GOMA 80* 50* 6mm.

KIT DE SIGNALISATION

REFERENCIA	DESCRIPCIÓN
51000142	PAREJA PANEL PLACA 423x282 239909
60000076	TORN.EXAG.DIN-933 16* 40 8.8 ZINC.
60000143	TUER.AUTO.DIN-980 16 8.8 ZINC.
60000379	TORN.EXAG.DIN-933 6* 16 8.8 ZINC.
60000380	TUER.AUTO.DIN-985 6 8.8 ZINC.
70075900	ESCUADRA DOBLE SEÑALIZACION CHISEL
70075901	ESCUADRA DCHA. SEÑALIZACION CHISEL
70075902	ESCUADRA IZQDA. SEÑALIZACION CHISEL





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