

# FERTILISER SPREADER DOBLE 695/R

## STARTING MANUAL

MAINTENANCE

DOSAGE

SPARE PARTS

*Please read and follow this operating manual before putting the machine into operation.*



*SOLÀ seed drills and fertilizer spreaders are manufactured in a highly specialized environment and our factory has a vast network of satisfied customers.*

*SOLÀ machines use highly advanced technology and are guaranteed to work without malfunctions in a large variety of conditions. They SOLÀ machines are provided with easy-to-use and efficient devices and perform excellently with only minimum operator maintenance.*

*This manual will help you use your SOLÀ product with the maximum efficiency.*



*Certified quality system*

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It is forbidden to copy any part of this manual.

Specifications are subject to change or modification without notice.

The pictures included do not necessary show the standard version.

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## 1. INTRODUCTION

It is essential to read and follow the instructions and recommendations in this manual before operating the fertiliser spreader. Careful reading enables maximum operator efficiency, prevents accidents and damage, and increases the fertiliser spreader's capacity and life expectancy.

Please ensure that this manual has been read by any person involved in performing operational tasks, (including preparation, dealing with mechanical problems and supervising the machine), maintenance (inspection and technical assistance) and transport.

For your safety, please follow these technical safety instructions as SOLA will not be responsible for damages caused by not observing the information provided.

In the first chapters you will find the Technical Characteristics and Safety Instructions, as well as some essential sowing concepts. Basic concepts that are required to operate the machine are explained in the Starting and Maintenance sections.

The last part of this manual consists of Dosage Tables detailed by seed type and a spare parts list.



**SOLA** RETAINS THE RIGHT TO MODIFY ILLUSTRATIONS, TECHNICAL DATA AND WEIGHTS INDICATED IN THIS OPERATING MANUAL, IF THESE CHANGES HELP TO IMPROVE THE QUALITY OF THE FERTILISER SPREADERS.

## 2. TECHNICAL CHARACTERISTICS



Fig. 1

TYPE	HOPPER'S CAPACITY (LITRES)	HOPPER'S CAPACITY (KG)	UNLADEN WEIGHT	FERTILISER SPREADER'S WIDTH	LOADING HEIGHT	TOTAL HEIGHT
<b>800</b>	800 l	900 kg	204 kg	190 cm	97 cm	97 cm
<b>1.000</b>	1.000 l	1.100 kg	220 kg	190 cm	98 cm	105 cm
<b>1.200</b>	1.200 l	1.350 kg	230 kg	190 cm	106 cm	121 cm

### COMMON CHARACTERISTICS

- Working width from 12 to 18m
- Fertiliser sieve.
- Spreading dics and spreading vanes, both made of inox steel.
- Hydraulic remote to adjust the spreading
- Three-point linkage of attachment category II.
- PTO shaft with friction clutch and protection.

### 3. SAFETY INSTRUCTIONS

#### 3.1 SAFETY SYMBOLS

In this operating manual you will find three different symbols relating to safety:



TO WORK MORE EASILY WITH THE FERTILISER SPREADER.



TO PREVENT DAMAGE TO THE FERTILISER SPREADER AND OPTIONAL EQUIPMENT.



TO PREVENT PHYSICAL INJURY.

On the machine you will find the following warning pictograms:



READ THE INSTRUCTIONS CAREFULLY AND OBSERVE THE SAFETY ADVICE GIVEN IN THE OPERATING MANUAL.



DURING THE COUPLING MANOEUVRE, STAY AWAY FROM THE REAR PART OF THE TRACTOR. RISK OF SERIOUS PHYSICAL INJURY.



WHEN MAINTAINING OR REPAIRING THE FERTILISER SPREADER, MAKE SURE THAT THE TRACTOR'S ENGINE IS OFF AND IS PREVENTED FROM STARTING.



DANGER OF INFECTION FROM ESCAPING HYDRAULIC FLUID AT HIGH PRESSURE! THIS CAN INFLICT SERIOUS INJURIES WITH POTENTIALLY FATAL CONSEQUENCES IF IT PASSES THROUGH THE SKIN AND INTO THE BODY. KEEP THE HOSE LINES IN GOOD CONDITION. RISK OF SERIOUS PHYSICAL INJURIES.



UNDER THE MACHINE, PLEASE SECURE THE MACHINE TO PREVENT THIS RISK. RISK OF SERIOUS PHYSICAL INJURIES.



RISK OF IMPACTS CAUSED BY THE FERTILISER GRAINS. STAY AWAY FROM THE FERTILISER SPREADER.



RISK OF BEING CRUSHED OR BEATEN BY THE SPREADING DISCS AND SPREADING VANES. RISK OF SERIOUS PHYSICAL INJURIES.



THE DIRECTION AND SPEED THAT THE PTO SHAFT TURNS.



COUPLING POINT FOR TRANSPORTATION BY CRANE. DO NOT EXCEED MAXIMUM LOAD.

### 3.2 USE ACCORDING TO DESIGN

- Fertiliser spreader SOLÁ DOUBLE 695/R has been designed for normal use in agricultural work, especially for spreading with mineral products.
- If the machine is used in circumstances other than the above, SOLÁ will not be held responsible for any damage caused.
- The user must observe all regulations concerning safety, traffic and hygiene.
- If the machine is modified by the user, the manufacturer's warranty is cancelled. SOLÁ will not be held responsible for any damage caused.

### 3.3 GENERAL SAFETY INSTRUCTIONS

- Before starting the machine, please check the machine is in good condition for work and is safe for road use.
- In thoroughfare, please observe traffic signs and regulations.
- Before using the machine, the user must be familiar with all operating elements.
- Please be extremely careful when coupling and uncoupling the machine to the tractor.
- Please check that the PTO shaft is in good condition and well protected.
- Prevent the protective tube from turning by holding both the tube and chain provided for this purpose. The PTO shaft's end which has the friction clutch has to be connected to the fertiliser spreader.
- Mount the PTO shaft only when the tractor's engine is off.
- Before connecting the PTO shaft, be sure that the danger zone surrounding the machine is clear.
- It is strictly forbidden to stay close to the spreading discs during operation.
- Fill the fertiliser spreader when it is in on the ground, ensure the tractor engine is off and the fertiliser outlet openings are closed.
- When raising the fertiliser spreader, the front axle is unloaded. Ensure that the machine has enough load to prevent it over-turning. At this time you must ensure that the condition of both the steering and the brakes is optimal.
- Do not deposit external elements inside the hopper.
- Always connect gently the PTO shaft's clutch in order to protect the fertiliser spreader. Otherwise the machine could be seriously damaged.
- During transit with the raised fertiliser spreader, block the lowering switch. Before leaving the tractor, lower the fertiliser spreader onto the ground and remove the tractor's starting key.
- It is forbidden to ride on the machine during operation.
- Risk of serious physical injuries.
- Always use enough supporting elements when maintaining the machine in a raised position to prevent the machine from lowering or falling.
- Before starting the machine, check that visibility is clear around the machine and there is no person in the working area.
- When maintaining the hydraulic system of the fertiliser spreader, make sure that it is depressurised and the tractor's engine is off.
- Please regularly check the condition of the tubes and hoses in the hydraulic system. These parts age naturally and their life should not surpass 6 YEARS. Please replace when necessary.

- Be careful when filling the fertiliser spreader and taking into a field which is far away. It is possible that the fertiliser compacts at the bottom of the hopper and the outlet openings are obstructed. In this case it will be necessary to completely open the outlets, let the PTO shaft's clutch slowly in and spread some fertiliser. After this operation, place the adjusting levers in the position corresponding to the chosen flow and spread normally.
- Never deliberately cause the exit of the fertiliser from the upper part of the hopper. There is a serious risk of obstructing the agitator.
- After each working day, the spreading vanes and their tightening screws should be checked. They should be replaced when they are visibly worn out, since the wear is caused by the contact with the fertiliser and it becomes worse when the fertiliser is more abrasive.
- Consequences of worn out spreading vanes are a bad irregular spreading and, especially, the risk caused by fragments detached from the spreading vanes.

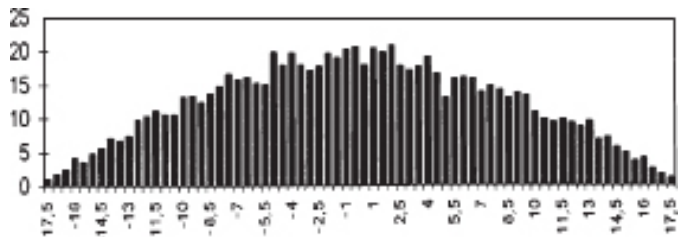
## 4. ESSENTIAL SPREADING CONCEPTS

### 4.1 FACTORS TO BE TAKEN INTO ACCOUNT FOR A GOOD SPREADING.

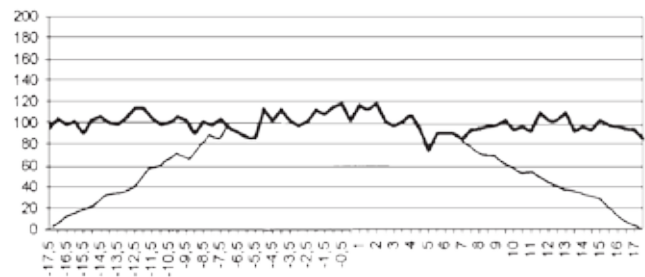
- 1- FERTILISER'S GRANULOMETRY:** Reject fertilisers with grains of irregular size or with grains that break easily. This makes uniform spreading difficult.
- 2- PTO SHAFT SPEED:** PTO shaft's speed determines the turning speed of the spreading discs and, consequently, the working width. Speed should be 540 rpm.
- 3- FORWARD SPEED:** Variations in forward speed modify the amount of fertiliser spread onto the ground.
- 4- HOPPER'S POSITION:** The hopper should stay horizontal since lateral or longitudinal lean modify the fertiliser's distribution onto the ground.
- 5- WORKING HEIGHT:** The working height should stay constant at 75 cm measured from the disc to the ground. This height should be checked at the field. It should not be checked when coupling the machine in the warehouse.
- 6- DO NOT FERTILISE IF THE WEATHER IS WINDY:** Wind modifies the spreading direction of the fertiliser grains as well as distribution. The wider the working width, the lower the dose and the more irregular the grain size, result in highly uneven spreading in windy conditions.
- 7- WEAR AND TEAR OF THE SPREADING DISCS AND SPREADING VANES:** Spreading discs and spreading vanes are essential in the spreading of the fertiliser, and their wear can have great influence when spreading the fertiliser onto the ground. Keep them in optimal condition.
- 8- CHECK FERTILISER'S FLOW:** Perform a previous calibration test in the warehouse in order to know exactly the amount of fertiliser going to be spread. Dosage is going to be very different when using different kinds of fertiliser, as it depends on factors such as density, moisture content, etc...
- 9- DISTANCE BETWEEN TRAMLINES:** Keeping the distance between tramlines is essential to get optimal spreading. To know this distance, follow the adjusting instructions. To increase the precision, a test at the field could be performed by checking the amount of spread fertiliser using boxes placed on the ground.

### 4.2 FERTILISER SPREADING

It is well known that the amount of fertiliser spread onto the field directly affects in the output of the harvest. Nevertheless, what is even more important than the amount of fertiliser is the uniformity in which it is distributed along the terrain. Fertiliser spreader D-695 distribute the fertiliser as shown in the following diagram:



To get a uniform distribution, the fertiliser should be spread overlapping the tramlines so the final result is a flat diagram like the one below:



Uniformity in fertiliser distribution is measured by means of the coefficient of variation (CV). The CV is calculated using a statistical formula based on the data obtained from the overlapping technique. Fertiliser's manufacturers agree on the fact that CV is very good if it stays below 10%, it is medium if it stays between 10% and 15%, and it is bad if it exceeds 15%. The last case should be avoided.

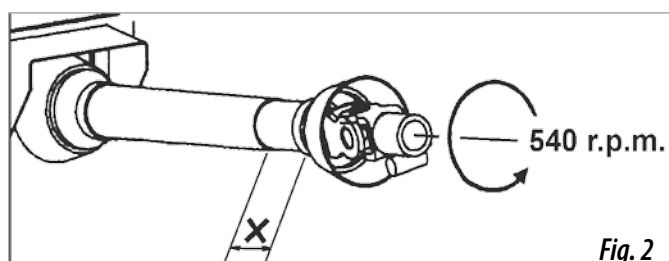
## 5. STARTING

### 5.1 COUPLING TO THE TRACTOR

The fertiliser spreader DOUBLE 695/R is provided with bolts of category II for their coupling to the tractor's three-point linkage. In working position, the fertiliser spreader should stay horizontally and its disc should be at 75 cm from the ground.

### 5.2 PTO SHAFT

PTO shaft's turning speed should be 540 rpm and it is important to keep this constant while working.



Check that the ends of the PTO shaft's telescopic axle (X, fig. 2) are not in contact when the fertiliser spreader is raised to its working position. If necessary, cut these ends leaving enough length so that, when the PTO shaft is fully extended, the telescopic axle's length inside the PTO shaft is about 15 cm.



**OPERATE THE PTO SHAFT ONLY WHEN THE TRACTOR'S ENGINE IS OFF.**

**WORK ALWAYS WITH THE PTO SHAFT IN GOOD CONDITION AND WELL PROTECTED.**

**PREVENT THE PROTECTIVE TUBE FROM TURNING BY HOLDING IT WITH THE CHAIN PROVIDED FOR THIS PURPOSE.**



**WHEN LOWERING THE FERTILISER SPREADER TO THE GROUND, UNPLUG THE TRACTOR'S UNIVERSAL JOINT SHAFT SO THAT THE PTO SHAFT DOES NOT HAVE AN EXCESSIVE INCLINATION (MAX. 35°).**

**WHEN HOLDING THE TRACTOR UNIVERSAL JOINT SHAFT'S CLUTCH IN, PERFORM IT GENTLY. STARTING SUDDENLY COULD SERIOUSLY DAMAGE THE FERTILISER SPREADER.**



## 6. COMMON ADJUSTMENTS IN THE FERTILISER SPREADER

### 6.1. SUMMARISED METHOD FOR ADJUSTING

The essential workflow steps to adjust the fertiliser spreader are as follows:

1. Knowing the kind of fertiliser, its granulometry, its density, its state (fragments or whole), etc..., to be able to compare it to a similar one found in the tables of this manual (pages 22 to 24).
2. Knowing the spreading dose in Kg/Ha to be spread, established depending on the kind of both crop, earth and fertiliser.
3. Choosing a working width.
4. Checking the corresponding dosage table and search the desired flow in the squares of Kg/Ha column which depend on the forward speed. Adjust the spreading vanes and the dosing slider as indicated in the table.
5. Perform a calibration test to check that the dosage is correct.
6. Spread a well known and small field to be able to check the instructions explained in the previous points.

### 6.2. KNOWLEDGE OF THE PHYSICAL CHARACTERISTICS OF THE FERTILISER

Using the same fertiliser spreader adjustments for different fertilisers is not a good way of working, since the spreading of the fertiliser will differ greatly if the fertiliser's physical characteristics are different. Therefore, for each type of fertiliser, a different adjustment needs to be set in the machine.

Physical characteristics which define a particular type of fertiliser are, basically, density and granulometry.

**DENSITY:** It is the weight per unit volume. It is measured in Kg/dm<sup>3</sup>. It can differ depending on the moisture content of the fertiliser. Density of the fertiliser to be used should be compared to the densities found in the dosage tables in chapter 12 of this manual.

**GRANULOMETRY:** It shows the ratio between the different grain sizes found in the fertiliser. The granulometry of each fertiliser can be found in the dosage tables. In them, the grain diameter is presented in four groups:

- Ø 4,75 % of grains which diameter exceed 4,75 mm
- Ø 3,3 % of grains with diameters from 3,3 mm up to 4,75 mm
- Ø 2 % of grains with diameters from 2 mm up to 3 mm
- Ø <2 % of grains which diameter is smaller than 2 mm

By convention, the group to which more than 50% of the fertiliser grains belong, determines the type of fertiliser.

A fertiliser is considered acceptable when 90% of its granulometric sizes can be found in a maximum of three contiguous groups.

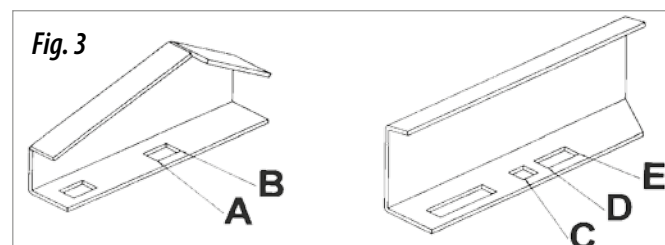
To check the fertiliser granulometry, there are special boxes with sieves of these four sizes. Thus the fertiliser to be spread can be compared to the ones in the dosage tables in a very easy way.

### 6.3. ADJUSTING THE WORKING WIDTH

The dosage tables show that, for each type of fertiliser, the position of the spreading vanes on the spreading disc is different, since this position depends on the working width and the dose to be spread. On each spreading disc two different spreading vanes are assembled: one is called **short** and the other one is called **long**.

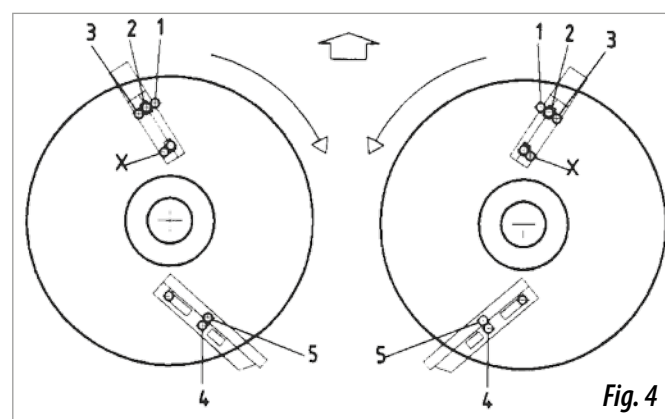
The position of the short spreading vane is indicated using one or two letters (X-A-B) and one number (1-2-3) (figures 3 and 4). When the letter X is not indicated, the spreading vane must be assembled in the non-marked hole.

The position of the long spreading vane is indicated using one letter (C-D-E) and one number (4-5).



Letters (A-B-C-D-E) show the position of the fixing screw in the spreading vane's holes, as shown in figure 3.

Letter X and numbers (1-2-3-4-5) show the position of the spreading vane on the spreading disc's holes, as shown in figure 4.



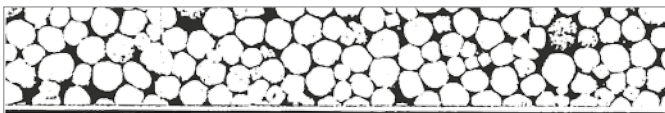
In order to explain how to use the tables which adjust the dosage and the working width, an example is going to be shown.

Let's suppose that we want to spread using nitrate NAC 26% as in the dosage table on page 21. We need to use a dose of 150 Kg/Ha and work at 8 Km/h of forward speed and at 18 metres between tramlines.

Next, we need to consult the column corresponding to 18 metres and, inside this column, we need to find the 8 km/h column. We will follow the column downwards until we find the closest value to the desired dose, which was 150 Kg/Ha. In this case it turns out to be 158 Kg/Ha (fig. 5). In the column which indicates the position of the spreading vanes corresponding to 158 Kg/Ha, we will find the positions XB2 and C4.

The first position refers to the short spreading vane, which needs to be placed in position B and in the holes X and 2 on the spreading disc. The second position refers to the long spreading vane, which needs to be placed in position C and in hole 4 on the spreading disc.

Both spreading discs must always have the two spreading vanes in the same positions.



15		18			
Kg/Ha		Kg/Ha			
Km/h		Km/h			
10	12	6	8	10	12
24	20	33	25	20	17
56	47	78	58	47	39
88	73	122	92	73	61
152	127	211	158	127	105
208	173	289	217	173	144
288	240	400	300	240	200
368	306	511	383	306	255
456	380	633	475	380	316
544	453	755	566	453	377
648	539	900	675	539	450

To show an example, let's continue with the case we started on page 15: we want to spread about 150 Kg/Ha of NAC 26% working at 8 Km/h of forward speed and working at 18 metres between tramlines.

In page 15 we had already determined the correct table. In this table we need now to consult the column corresponding to 18 metres and, inside this one, we need to find the 8 km/h column. We will follow the column downwards until we find the closest value to 150 Kg/Ha. In this case it turns out to be 158 Kg/Ha.

At the left of this dosing value (fig. 7), in the column corresponding to the graduated sector's lever position, we are going to find the position for the lever: position No. 7.

		12				15				18			
		Kg/Ha				Kg/Ha				Kg/Ha			
		Km/h				Km/h				Km/h			
		6	8	10	12	6	8	10	12	6	8	10	12
4	3	90	38	30	25	40	30	24	20	33	20	17	
5	7	117	88	70	58	93	70	56	47	78	47	39	XB2
6	11	183	138	110	92	147	110	88	73	122	73	61	C4
7										158	127	105	
8	26	433	325	260	217	347	260	208	173	289	217	173	144

Fig. 7

When pressuring cylinders the fertiliser outlets close (position of lever 1 is zero). When depressuring, cylinders go back to the default position (previously preset using the selection stop) and open the fertiliser outlets allowing the desired flow.

The two control valves allow switching between the following options:

- The whole fertiliser, which refers to when both spreading discs are used to spread (both control valves stay open).
- The right half (only the right spreading disc is used - only one valve stays open).
- The left half (only the left spreading disc is used - only one valve stays open).

When filling the fertiliser spreader and taking it into a field which is far away, once the fertiliser outlets have been closed, it is necessary to close the two control valves in order to prevent fertiliser leaks through the outlets.

### 6.4. FLOW ADJUSTMENT

In order to adjust the flow, the fertiliser characteristics needs to be determined as indicated in point 6.2 of this manual. Once this is done, the dosage tables need to be consulted to find the most similar fertiliser to the one which is going to be used.

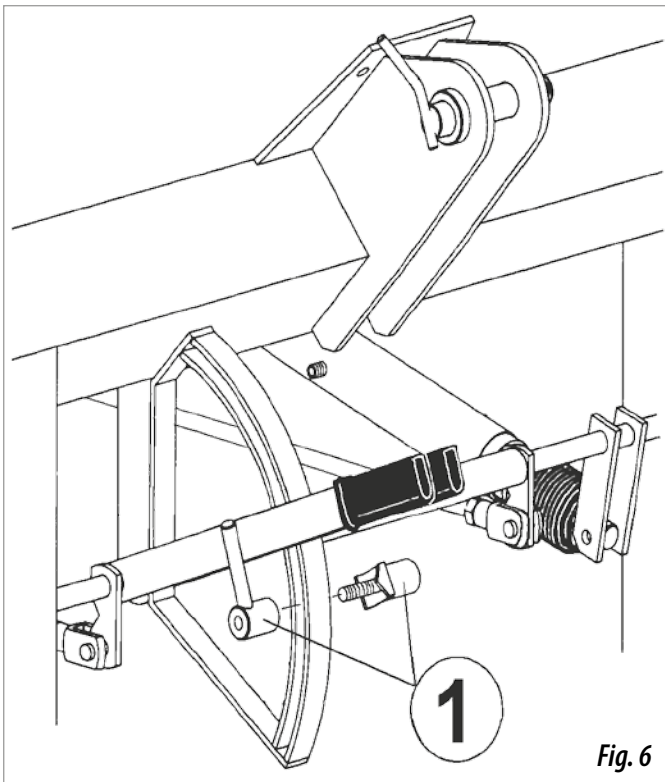


Fig. 6

For a chosen dose and working width, search in the tables the square corresponding to this dose (Kg/Ha) in the column that matches the right working width and forward speed.

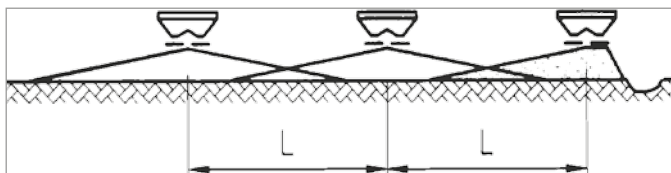
Once the square corresponding to the chosen dose is located, follow the same row towards the left until the end of the table, where the position of the adjusting lever is indicated. The stop for the lever (1, fig. 6) needs to be placed in that number in the graduated sector.

## 7. BOUNDARY AND SIDE SPREADING

There are two methods to spread until the edges of the field: boundary spreading and spreading at half the working width.

### 7.1. BOUNDARY SPREADING

When starting to spread at the boundaries of the crop, the outlet corresponding to the edge of the field needs to be closed. This operation is performed by operating the control valves as explained on the previous page.

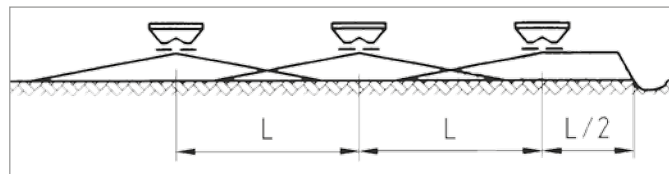


*Fig. 8 Spreading of the fertiliser at the field's boundary.*

### 7.2. SPREADING AT HALF THE WORKING WIDTH

When starting to work at half the working width, the spreading

limiter (optional) needs to be assembled on the right side of the machine and both outlet openings need to be open. Thus, the right side of the machine will have its fertilizer's spreading reduced to half the working width. Once the spread is finished, raise the spreading limiter.



*Fig. 9 Spreading of the fertiliser at half the working width.*



TO PREVENT ACCIDENTS, WHEN OPERATING THE SPREADING LIMITER IN THE TURNING DISCS ZONE, IT IS ESSENTIAL THAT THE ENGINE OF THE TRACTOR IS OFF.

## 8. CALIBRATION TEST

In order to know the fertiliser flow to be spread by the fertiliser spreader, the amount of fertiliser that comes out of one of the outlet openings in one minute needs to be measured (this value can be found in the dosage tables, on pages 21 to 23). Using the result of this measurement, the amount in Kg/Ha to be spread will depend only on the forward speed and the space between tramlines.

To perform the calibration test, follow these instructions:

- Fill the hopper with fertiliser.
- Remove the right spreading disc (in the drive direction) by removing the screw that fixes it at the lower part.
- Place a container under the outlet placed where the right disc was.
- Start the machine at 540 rpm.
- Place the stop of the graduated sector's lever at the desired position.

- Open the right outlet for a minute.
- Weigh the fertiliser that is in the container (so to directly obtain the value of the flow in Kg/min).

Pour obtenir le débit en kg/ha, utiliser la formule suivante:

$$\text{DOSE (kg/ha)} = \frac{1200 \times \text{flow (kg/min)}}{\text{speed (km/h)} \times \text{working width (m)}}$$

Readjust the graduated sector's lever and perform these operations until the desired flow rate is achieved.

## 9. LUBRICATION AND MAINTENANCE



PTO'S SHAFT AND THE BOUNDARY SPREADING LIMITER NEED TO BE GREASED DAILY.

AFTER USING THE FERTILISER SPREADER, IT IS RECOMMENDED TO WASH IT WELL USING HOSEPIPES.

IF THE MACHINE NEEDS TO BE STORED FOR A LONG TIME WITHOUT BEING USED, BESIDES WASHING IT, USING HOSEPIPES, IT IS NECESSARY TO ALSO

PROTECT IT USING OIL, DIESEL OIL OR ANY OTHER CORROSION INHIBITOR.

THE GEAR BOX USES GREASE TYPE NLGI 00. PERIODICALLY CHECK THE GREASE LEVEL BY REMOVING THE FILLING CAP AND REFILL IF NECESSARY.

## 10. DOSAGE TABLES

The dosage tables indicate the spread doses in Kg/Ha for each kind of fertiliser, depending on the working width and the forward speed.

The quantities are indicated as a guidance, since the predicted flow can vary depending on the fertiliser's granulometry, density, moisture, etc.

For fertilisers that haven't been specified in the tables, use the one which is most similar in granulometry and density.

### SYMBOLS USED IN THE TABLES



=Working width or spacing between tramlines.





=Position of the adjusting lever.



Kg/min =Flow of one outlet, in Kg/min

Km/h =Forward speed in Km/h

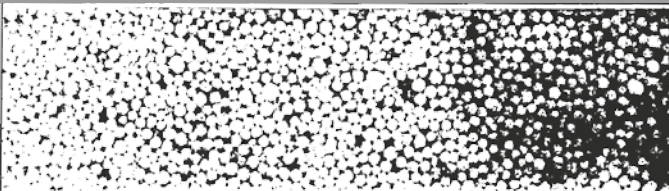






=Position of the spreading vanes on the disc.

  Kg/min		12						15						18					
		Kg/Ha						Kg/Ha						Kg/Ha					
		Km/h		Km/h		Km/h		Km/h		Km/h		Km/h		Km/h		Km/h			
4	3	50	38	30	25	B3 C4	40	30	24	20	B2 C4	33	25	20	17	XB2 C4			
5	7	117	88	70	58		93	70	56	47		78	58	47	39				
6	11	183	138	110	92	B2 C5	147	110	88	73	B2 D4	122	92	73	61	B2 C4			
7	19	317	238	190	158		253	190	152	127		211	158	127	105				
8	26	433	325	260	217	XA3 C4	347	260	208	173	XA1 C4	289	217	173	144	XA1 C4			
9	36	600	450	360	300		480	360	288	240		400	300	240	200				
10	46	766	575	460	383	XA3 C4	613	460	368	306	XA1 C4	511	383	306	255	XA1 C4			
11	57	950	713	570	475		760	570	456	380		633	475	380	316				
12	68	1133	850	680	566	XA3 C4	906	680	544	453	XA1 C4	755	566	453	377	XA1 C4			
13	81	1349	1013	810	675		1080	810	648	539		900	675	539	450				
14	93	1549	1163	930	775	XA3 C4	1240	930	744	619	XA1 C4	1033	775	619	516	XA1 C4			
15	100	1666	1250	1000	833		1333	1000	800	666		1111	833	666	555				
16	108	1799	1350	1080	900	XA3 C4	1440	1080	864	719	XA1 C4	1200	900	719	599	XA1 C4			
17	110	1833	1375	1100	916		1466	1100	880	733		1222	916	733	611				
18	115	1916	1438	1150	958	XA3 C4	1533	1150	920	766	XA1 C4	1278	958	766	638	XA1 C4			
19	118	1966	1475	1180	983		1573	1180	944	786		1311	983	786	655				
20	121	2016	1513	1210	1008	XA3 C4	1613	1210	968	806	XA1 C4	1344	1008	806	672	XA1 C4			

  Kg/min		12						15						18					
		Kg/Ha						Kg/Ha						Kg/Ha					
		Km/h		Km/h		Km/h		Km/h		Km/h		Km/h		Km/h		Km/h			
4	3	50	38	30	25	B3 E4	40	30	24	20	B3 D4	33	25	20	17	B3 C4			
5	8	133	100	80	67		107	80	64	53		89	67	53	44				
6	13	217	163	130	108	B2 E4	173	130	104	87	B2 D4	144	108	87	72	B2 C4			
7	22	367	275	220	183		293	220	176	147		244	183	147	122				
8	30	500	375	300	250	A1 E4	400	300	240	200	A1 D4	333	250	200	167	A1 C4			
9	41	683	513	410	342		547	410	328	273		456	342	273	228				
10	52	866	650	520	433	A1 E4	693	520	416	346	A1 D4	578	433	346	289	A1 C4			
11	63	1050	788	630	525		840	630	504	420		700	525	420	350				
12	73	1216	913	730	608	A1 E4	973	730	584	486	A1 D4	811	608	486	405	A1 C4			
13	88	1466	1100	880	733		1173	880	704	586		978	733	586	488				
14	103	1716	1288	1030	858	A1 E4	1373	1030	824	686	A1 D4	1144	858	686	572	A1 C4			
15	110	1833	1375	1100	916		1466	1100	880	733		1222	916	733	611				
16	118	1966	1475	1180	983	A1 E4	1573	1180	944	786	A1 D4	1311	983	786	655	A1 C4			
17	123	2049	1538	1230	1025		1640	1230	984	819		1367	1025	819	683				
18	128	2132	1600	1280	1066	A1 E4	1706	1280	1024	852	A1 D4	1422	1066	852	710	A1 C4			
19	132	2199	1650	1320	1100		1760	1320	1056	879		1467	1100	879	733				
20	136	2266	1700	1360	1133	A1 E4	1813	1360	1088	906	A1 D4	1511	1133	906	755	A1 C4			

LUBRICATION AND MAINTENANCE

<b>FERTILISER: ÜREA 46% N</b> Density: 0,770 kg/dm <sup>3</sup> Granulometry: $\varnothing$ 4,75=0% $\varnothing$ 3,3=20% $\varnothing$ 2 =79% $\varnothing$ <2 =1%	
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		9						12					
		Kg/Ha						Kg/Ha					
	Kg/min	Km/h					Km/h						
		6	8	10	12		6	8	10	12			
4	2	44	33	27	22	<b>B1</b> <b>C5</b>	33	25	20	17	<b>B2</b> <b>D4</b>		
5	9	200	150	120	100		150	113	90	75			
6	13	289	217	173	144		217	163	130	108			
7	21	467	350	280	233		350	263	210	175			
8	28	622	466	373	311		466	350	280	233			
9	37	822	616	493	411		616	463	370	308			
10	46	1022	766	613	511		766	575	460	383			
11	55	1222	916	733	611		916	688	550	458			

## 11. SPARE PARTS

The terms RIGHT, LEFT, FRONT and REAR refer to the machine in its drive direction, as shown in the figure 9.

When guidance describes parts that have a matching pair (symmetrical handles, wheels etc) only one will be demonstrated in the drawings shown. Please search for the distinguishing reference in the spare parts list.

When ordering spare parts to SOLÁ, please indicate number and type of the machine as shown in the identification plate which can be found at the right rear part the hopper.

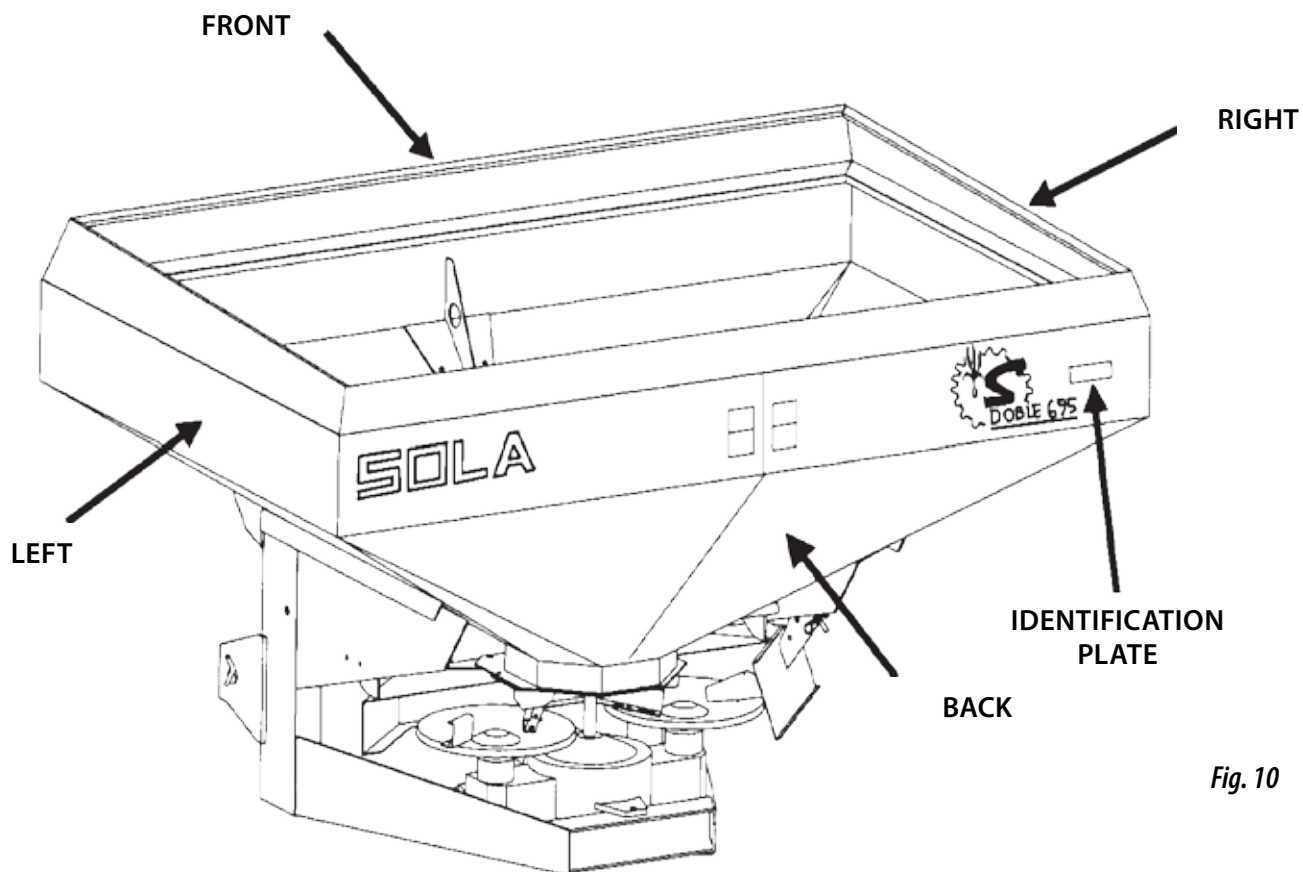


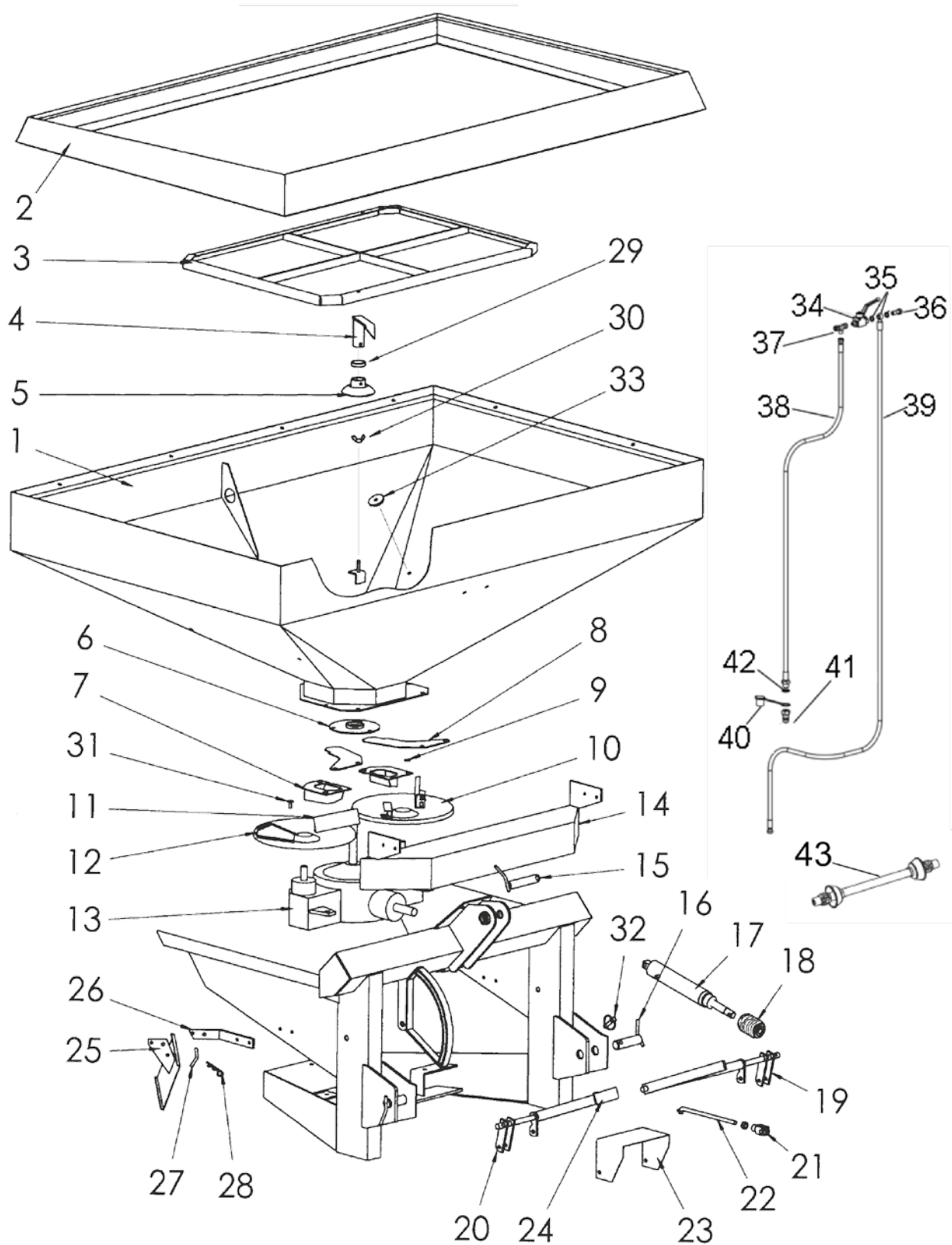
Fig. 10



AS A GENERAL RULE, DO NOT WORK UNDER THE MACHINE WHEN IT IS RAISED. IF SUCH A WORK IS REQUIRED, ALWAYS SECURE THE MACHINE PROPERLY TO PREVENT IT FROM COLLAPSING AS A PRESSURE LOSS IN THE TRACTOR CAN OCCUR.

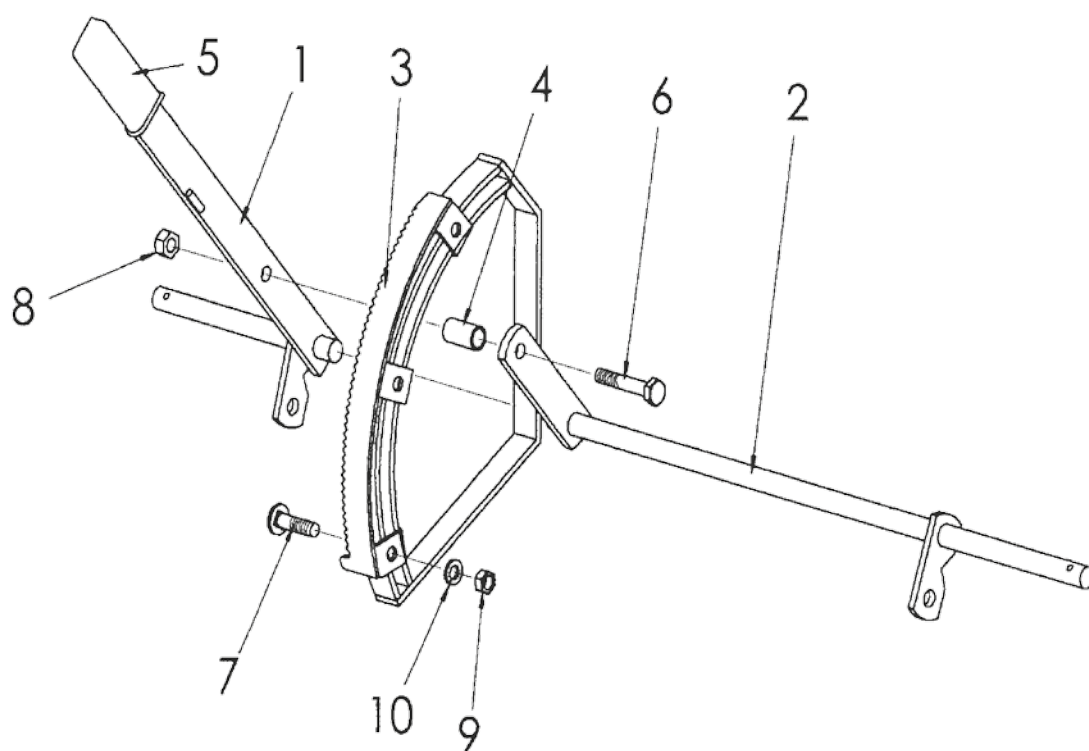
FIGURE	CODE
1	PS-025302
2	PS-025304
2	PS-025305
3	PS-025303
4	PS-2812
5	PS-2806
6	MO-045300
7	PS-045301/D
7	PS-045301/I
8	PX-045312
9	ME-045301
10	PS-2805/D
10	PS-2805/I
11	PX-045308/D
11	PX-045308/I
12	PX-045309/D
12	PX-045309/I
13	CO-045300
14	PS-045311
15	PS-010101
16	PS-015100
17	CO-045101
18	PL-045101
19	PS-045310
20	PS-045309
21	FE-610001
22	PS-2817
23	PX-015300
24	PL-040203
25	PS-105301
26	EE-105300
27	BU-045300
28	FE-610002
29	FE-601007
30	315 8 I
31	603 8X20 I C/C
32	FE-610008
33	ME-025300
34	HI-706000/D/I
35	HI-705001
36	HI-702000
37	HI-703003
38	HI-700030
39	HI-700001
40	HI-707001
41	HI-701000
42	HI-705002
43	FE-608000





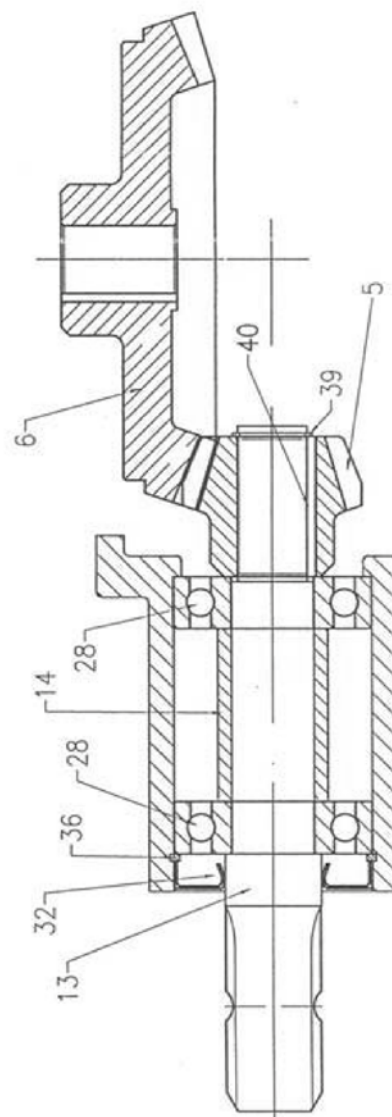
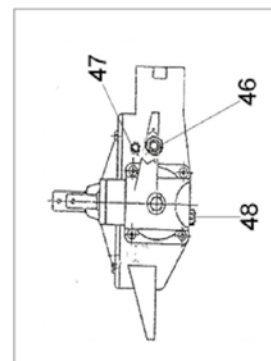
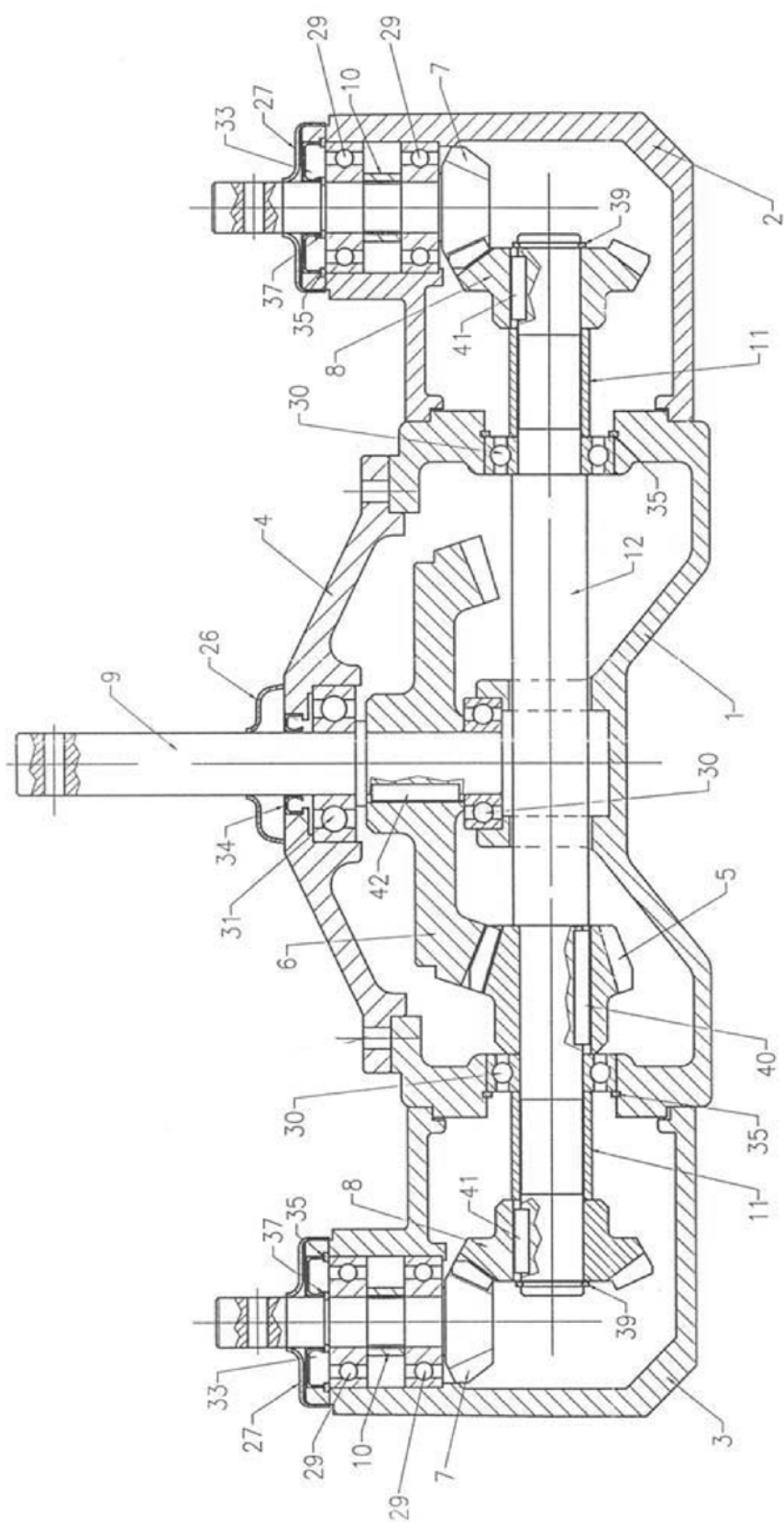
## SPARE PARTS

FIGURE	CODE
1	PS-045304
2	PS-045308
3	PS-045303
4	CT-045306
5	PL-040203
6	931 10X60 8.8 B
7	603 10X40 I
8	985 10
9	934 10 I
10	7980 10 I



**SPARE PARTS**

<b>FIGURE</b>	<b>CODE</b>
1	ME-045312
2	ME-045313
3	ME-045314
4	ME-045309
5	ME-045311
6	ME-045308
7	ME-045310
8	ME-045317
9	ME-045307
10	ME-045318
11	ME-045319
12	ME-045315
13	ME-045316
14	ME-045320
26	PL-045300
27	PX-045317
28	FE-600122
29	FE-600062
30	FE-600097
31	FE-600078
32	FE-601050
33	FE-601051
34	FE-601052
35	472 52
36	472 72
37	471 20X2
39	471 25X2
40	6885-A 8X7X45
41	6885-A 8X7X25
42	6885-A 8X7X35
46	HI-707004
47	HI-707006
48	HI-707009



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