

two disc spreader

Use Manual and Replacement Parts Catalogue

TDS 750

TDS 950

TDS 1150

TDS 1350

TDS 1550T

English

abonadora de doble discos

Manual de Uso y Catálogo de Piezas

TDS 750

TDS 950

TDS 1150

TDS 1350

TDS 1550T

Español



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1. TECHNICAL DATA.

Model	TDS 750	TDS 950	TDS 1150	TDS 1350	TDS 1550T
Capacity of hopper (gallons)	198	251	304	356	409
Full height (feet)	3.1	3.4	3.8	4.27	6.27
Full width (feet)	5.9	5.9	5.9	5.9	5.9
Empty weight (pounds)	414	439	452	465	792
Tires	-	-	-	-	600 x 16 or 900 x 16

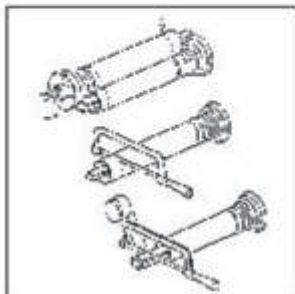
RPM at power takeoff : 400 to 600 for all models, depending on fertilizer type.

Equipment subject to changes without notice.

Data informed on the table may vary, according to humidity level, weight, type of material and working conditions.

2. STARTING OPERATION.

- 2.1.** - The spreader is directly engaged in 3 hydraulic raising points in the tractor.
- First it is connected in the two side arms, then in the 3rd point.
 - The gap in the 2 stabilizers must not exceed 1.97 in (5 cm).
 - According to the tractor type, weights are required in the front. This is because the weight of the bucket full of fertilizer highly affects the front steering wheels and the tractor maneuverability.
- 2.2. Cardan Assembly.**
- The cardan length must be adjusted according to each type of tractor.
 - In horizontal position and mounted on the tractor power takeoff, the sliding gap of the cardan two sections must be, at least, 1.18 in (3 cm) for both ends.
 - Maximum operating angle is 25°.
- 2.3. How to Start Cardan Movement.**
- Engage the power takeoff always with the engine in low rotation. Then increase rotation of spreader, thus avoiding damages to the gear box.
- 2.4. Cable-Driven Command Assembly.**
- The gear box with two handles for cables must be mounted in the tractor so that the cables can move freely.
 - Check the movement of opening and closing valves.
- 2.5. Levelling the Spreader.**
- The spreader must be leveled in both directions - from the back and from the side - to enable the uniform spreading:
 - The leveling height is 35.4 in (90 cm), from the disk to the surface to be fertilized - either the soil surface or the top of the tillage.



3. SPREADER ADJUSTMENT. INFLUENCING FACTORS.

3.1. The Spreader Height.

Both disks must work 35.4 in (90 cm) above the ground or above the surface of tillage being fertilized.

3.2. The Working Width.

The tables on pages 7 to 11 will help you determine the various widths, according to what is indicated - which are the **actual widths** measured from center to center of each pass.

The actual width depends on these factors:

- Granulation and specific weight of fertilizer.
- RPM of both disks (indicated in the tables)
- Length and positions of the blades. (See page 6)
- Height of both disks (See page 2 - item 2.5.)

3.3. The Disks Blades.

On page 6 there are 4 positions for blades. This is a summary:

Figure 1 A - Blade 143 and Blade 150 in opposite positions.

Figure 1 A 1 - Blades 143 and 150 mounted a little forwards.

Figure 1 B - Blade 143 mounted a little backwards and Blade 150 in the same position.

Figure 2 - Blade 120 and Blade 150 in opposite positions. This position is appropriate for working from actual 65 to 78 feet (20 to 24 meters).

Note that Blade 150 always remains in the same position and it has the mark "E" (for blades in left side disk) and "D" (for blades in right side disk). Blade 143 only can be mounted in three positions. (Except position Figure 1A1).

The tables on pages 7 to 11 indicate the type of fertilizer, the recommended RPM, and the types and positions of the blades to be used.

3.4. Quantity of Fertilizer by Hectare.

The quantity of fertilizer to be spread has to be adjusted by means of the black scale with white figures, indicating the various positions, and its white governor that moves by turning inside of the scale itself.

The figures engraved in the scale indicate the positions of the two openings in the bottom of the bucket. These are called "Position" in the tables.

Once the "Position" has been determined, the openings (valves) can be actuated by means of the 2 handles of the cables mounted in the tractor.

It is important that both openings have the same movement. The adjusting is performed through the nuts in the cables (See page 27).

4. HOW TO USE THE TABLES (pages 8 to 11).

The pictures and the tables on pages 8 to 11 and the setting made on the adjustment scale (3.4.) will help you spread the amount of fertilized desired.

You will need the following data:

- F - The type of Fertilizer
- W - The working Width
- C - Combination of blades
- R - RPM of the disks (RPM)
- S - Speed of the tractor
- Q - Quantity of fertilizer in lb/ac.
- O - Output of fertilizer in lb/min.

Proceed as follows:

1. Choose the type of fertilizer, according to the granulation. (See page 7).
2. Find the columns that indicate the quantity of lb/ac for desired width.
3. The rotation (RPM) required for the power takeoff is indicated on top of these columns. Such RPM varies from 400 to 600 RPM. This indication must be followed (although it might seem illogical in some cases) since those data have been obtained by several months of practical testing in a special shed built exclusively for such purpose.
4. Choose the desired speed of the tractor at which you want to work (from 0.6 mph to 5 mph) and make the proportional quantitative calculations, knowing that, at speed of 5 mph, the output of fertilizer is roughly 1/8 of the quantity that would be output if traveling at 0.6 mph with the same opening.
5. Find in the column for speed in mph the desired quantity of fertilizer in lb/ac.
6. In the same row, in the column "number in scale" you will find the appropriate number for the opening in the scale. For speeds other than 0.6 mph and 5mph, you must calculate the proportional quantity of fertilizer.

Important Note:

Please notice that the physical conditions of the different fertilizers, even those of the same type/brand, can vary according to their granulation, specific weight, and pellets surface, from one manufacturer to another. Thus, figures in the tables vary somehow, and we classify them as **indicative only**.

5. ADJUSTING THE SPREADER WITHOUT USING THE TABLES AND FOR FERTILIZERS NOT INDICATED IN THE TABLES.

This calculation is useful for finding the quantity of fertilizer that must get out of the fertilizer per minute (lb/min.) and the resulting position in the scale.

The formula is as follows:

$$\text{O (lb/min.)} = \frac{\text{Q (lb/ac)} \times \text{S (mph)} \times \text{W (width in feet)}}{497}$$

Example: For a particular fertilizer, you wish to:

Broadcast 245 lb/acre _____ = Q

To work traveling at 7.5 mph _____ = S

With width of 59 feet _____ = W

Thus, the formula is:

$$\text{O} = \frac{245 \times 7.5 \times 59}{497} = 218.13 \text{ lb/min.}$$

Now, after obtaining the value of 218.13 lb/min., find in the table and in the pictures the type of fertilizer that most resembles your fertilizer. In the table near the quantity of 218 lb/min. (= O) you find the position in the scale.

Note: The working width and the rotations per minute figures indicated in the table must be followed.

6. PRACTICAL TEST TO CHECK ADJUSTMENT MADE.

All the figures mentioned in the tables have been obtained after several months of practical testing, in ideal working conditions (no wind, plain terrain) and with the highest quality fertilizers.

That is why practical tests are always required, both for the quantity (lb/min.) and for the working width. Proceed as follows:

- Find in the table the scale position recommended for the quantity/acre of your fertilizer and the chosen speed. Move the scale to that position.
- Put the fertilizer in the bucket with the outlets closed.
- Disassemble the left disk, loosening the 3 screws.
- Put the power takeoff in the correct rotation, as per indicated in the table.
- With the cable (only one), open the left side outlet valve during 1 minute.
- Weight the fertilizer collected and multiply the amount by a factor of 1.66 to obtain the weight of the fertilizer that will get out of both disks working and with open valves.
- This figure is equal the weight in lb/min (= O).

Example:

You want to spread a Type 2 fertilizer: quantity of 317 lb/acre, width of 59 feet and speed of 5 mph. In the table for fertilizer type 2 you will find the position 45 in the scale.

- Now, if you make the practical test, you will find only 154 lb/min. in position 45.
- But, according to the table, it should be 187.4 lb/min. The test result is 33.4 lb lower.
- The next position is 48 and results 219.6 lb/min., i.e., 32.2 lb/min. higher.
- Put the position of the scale in 48 and make the test once again. The fertilizer output will surely result near 187.4 lb/min., the required amount.
- The practical adjustment was necessary due to the different factors existing during testes made for creating the tables.

7. WORKING WITH THE TDS SPREADER (TWO DISC SPREADER).

7.1. General Operation.

- Close the bucket valves before filling the bucket.
- Position the spreader 3 feet above the ground or above the tillage to be fertilized, measuring from the two disks.
- Make sure the spreader is well leveled, from the back and from the side.
- Determine the correct rotation for the power takeoff (RPM) according to the desired width (Please refer to the tables).
- Start the tractor engine and gradually increase the rotation of the cardan.

Note: Do not leave the machine working unnecessarily and without outflow, to prevent pellets from being ground inside the bucket.

7.2. Broadcast of Fertilizer in Only One Side.

- To spread the fertilizer in one of the sides only, you will need to assemble a specially built guard (please contact the factory) in the center of the chassis and, of course, leave one valve closed.

7.3. Turning the Tractor in the End of the Pass.

- Before turning the tractor to change direction, close both valves.
- Close only the two valves, and leave the two disks spinning. Do not turn off the power takeoff.
- Make the turn. Open the valves only when the tractor is again in the aligned position to the tillage pass, to restart the fertilizer spreading.

7.4. Working Safety.

- Do not allow anyone to approach the fertilizer spreading range, because there is an extremely high risk of eye injuries.
- Be careful with the disks and their blades, which rotate at 1,000 RPM. Before starting any servicing in the tractor or in the spreader, allow the disks to come to a full stop first.
- Do not allow anyone to enter the bucket while the engine is turned on (for instance, to break fertilizer pellets balls), since the spinner inside the bucket will be rotating.

8. MAINTENANCE.

8.1. Preventive Maintenance.

- Before the harvest season or after each 1,200 acres, inspect the spreader to prevent the machine from failing exactly when you need it most.
- Screws and nuts must be retightened after some hours of use, especially the disk blades nuts.

8.2. Cleaning.

- Close the valves and wash the inner side of bucket.
- Open the valves and continue to wash, including the valves, the valves guides in the inner side of the bucket, and the disks.
- Wash the outside of the machine, allow it to dry up, then grease the guides of the small handles mounted in the bottom of the bucket (which allow the movement of valves).
- Always make sure to grease the cables endings and their adjusting screws and nuts.

8.3. Adjusting the Two Valves.

- As of the start of the harvest season, check the movement of both valves. They must have the same openings and their adjustment can be made through the cables nuts. (See drawing on page 27).

8.4. Changing Oil in the Gear Box.

- Change the oil in the gear box every 5,000 acres, using 0.420 gallon SAE 140 or SAE 150 oil.
- The gear box includes:
 - 1 cover in the bottom, to bleed the oil (preferably when hot);
 - 1 side lid (which is also the vent) to fill;
 - 1 side lid for checking the oil level, near the grooved spindle.

9. THE BLADES AND THEIR POSITIONS.

Working Width
(39 feet to 59 feet) of the Position
9 to 36 in the Scale.

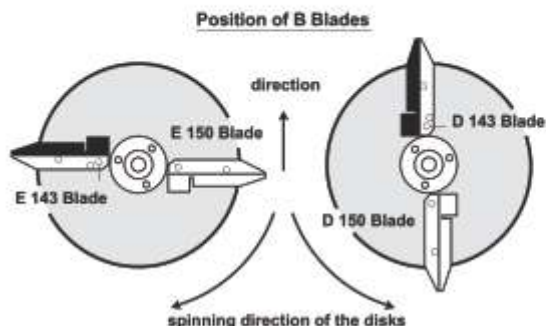


Figure 1A

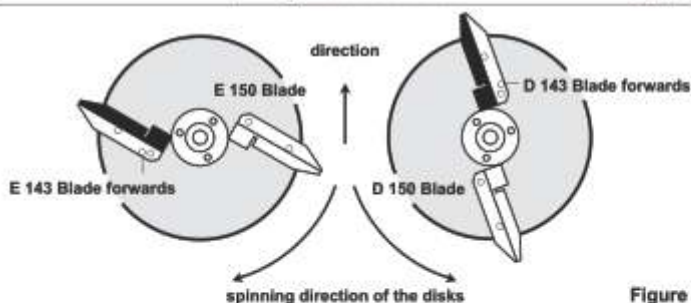


Figure 1A1

Note: For adjustment below 89,16 lb/acre of the products Type 3 - page 7.

Working Width
(39 feet to 59 feet) of the Position
Above 36 in the Scale.

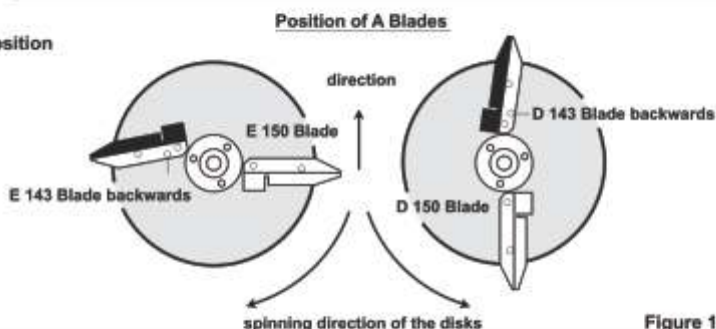


Figure 1B

Working Width
(65 feet to 78 feet).

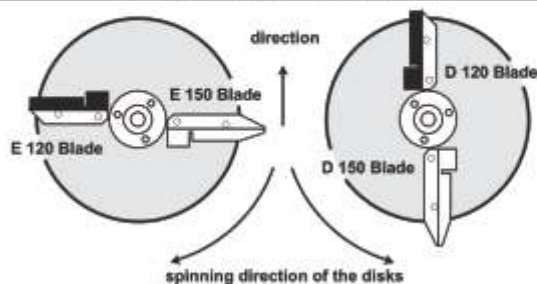


Figure 2

10.MOST USED FERTILIZERS AND THEIR IDENTIFICATION.

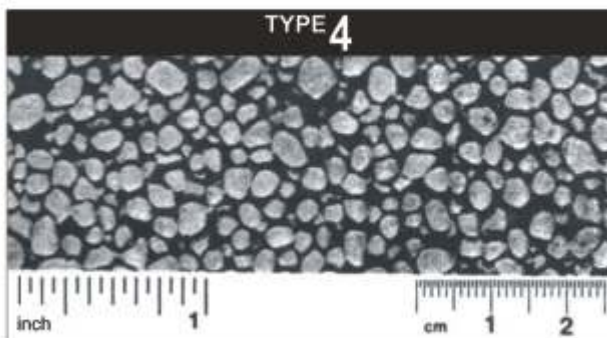
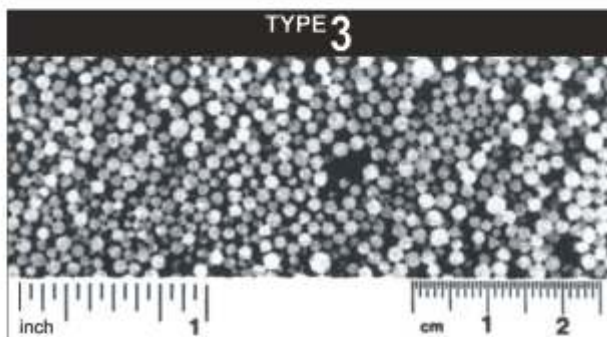
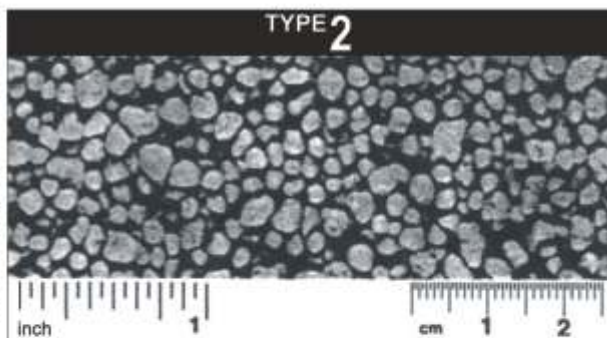
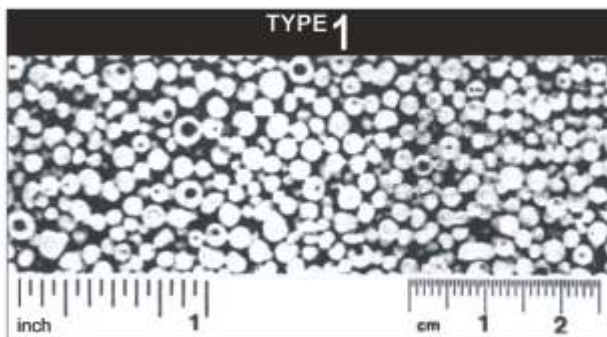
The most used granulated fertilizers are:

- Ammonium Nitrate
- Urea
- Ammonium Sulphate
- NPK - fertilizer composites
- Potassium Chloride
- Single Superphosphate
- NPK - fertilizer combines
- Triple Superphosphate

The physical conditions (such as granulation, specific weight and surface of pellets) of fertilizers available in the market always vary, depending on the manufacturer. So it is impossible to supply accurate tables for spreading and to indicate the correct setting for your machine.

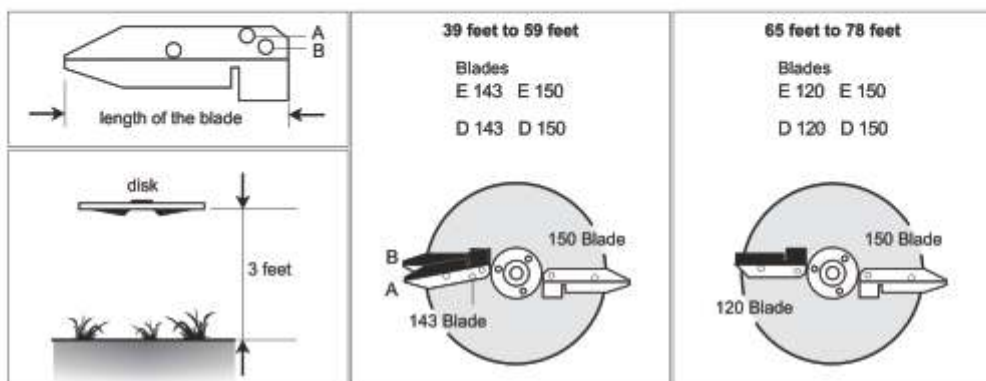
To make the adjustment easier, we have taken pictures of the several types of fertilizers, so that you can compare the granulation of fertilizer you wish to spread to the types in tables that most resemble it:

After this "theoretical" adjustment, based on these pictures and tables, you will need to make the practical test.



11.TABLE

TYPE 1



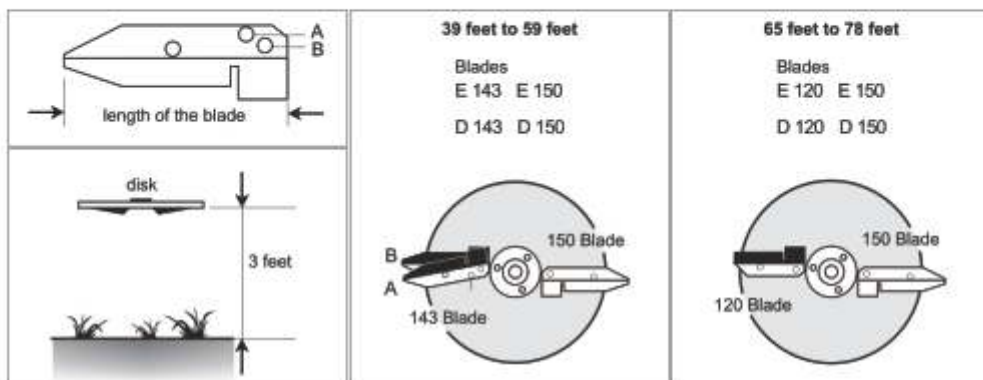
On page 6 there are further information about the blades in figures 1A, 1B and 2.

Cardan Rotation		540 RPM						400 RPM		470 RPM	
Working Width		39 feet		49 feet		59 feet		69 feet		79 feet	
Speed in mph		0.6	5	0.6	5	0.6	5	0.6	5	0.6	5
N° in scale	lb/min.	Position B of 143 Blade									
9	3.7	187	24	150	20	125	15	108	13	94	11
12	6.4	319	39	255	33	213	26	185	22	161	19
15	10.3	518	64	414	53	346	44	295	37	260	33
18	18.1	904	112	723	90	602	75	516	64	452	57
21	26.6	1,333	167	1,067	134	888	110	762	94	668	83
24	37.7	1,885	236	1,508	189	1,256	156	1,071	134	943	117
27	50.3	2,513	315	2,010	251	1,675	209	1,435	178	1,258	156
30	65.2	3,263	407	2,610	326	2,176	271	1,865	233	1,631	205
33	82.9	4,144	518	3,315	414	2,762	346	2,367	295	2,072	260
36	100.1	5,004	626	4,003	500	3,335	416	2,859	357	2,502	313
		Position A of 143 Blade									
39	132.5	6,051	756	4,841	606	4,034	505	3,459	432	3,027	379
42	142.4	7,121	890	5,696	712	4,746	594	4,069	509	3,560	445
45	170.6	8,531	1,067	6,825	853	5,688	712	4,874	608	4,266	533
48	199.7	9,987	1,248	7,989	998	6,658	833	5,707	714	4,993	624
51	230.6	11,530	1,441	9,224	1,153	7,687	961	6,385	824	5,765	721
54	258.8	12,941	1,618	10,353	1,294	8,626	1,078	7,394	923	6,470	809
57	286.4	14,319	1,790	11,455	1,433	9,546	1,192	8,181	1,023	7,160	895
60	312.4	15,620	1,953	12,495	1,563	10,412	1,300	8,926	1,115	7,811	976
63	338.4	16,920	2,114	13,536	1,693	11,281	1,411	9,669	1,208	8,461	1,058
66	357.8	17,890	2,235	14,312	1,790	11,927	1,490	10,223	1,278	8,946	1,117
69	385.6	19,279	2,409	15,423	1,929	12,853	1,607	11,016	1,378	9,641	1,206
72	413.3	20,668	2,584	16,534	2,068	13,779	1,722	11,810	1,477	10,335	1,292
75	429.5	21,473	2,685	17,178	2,147	14,314	1,790	12,270	1,534	10,736	1,342
78	441.3	22,068	2,758	17,654	2,207	14,711	1,838	12,610	1,576	11,034	1,380

11.TABLE

TYPE 2

English

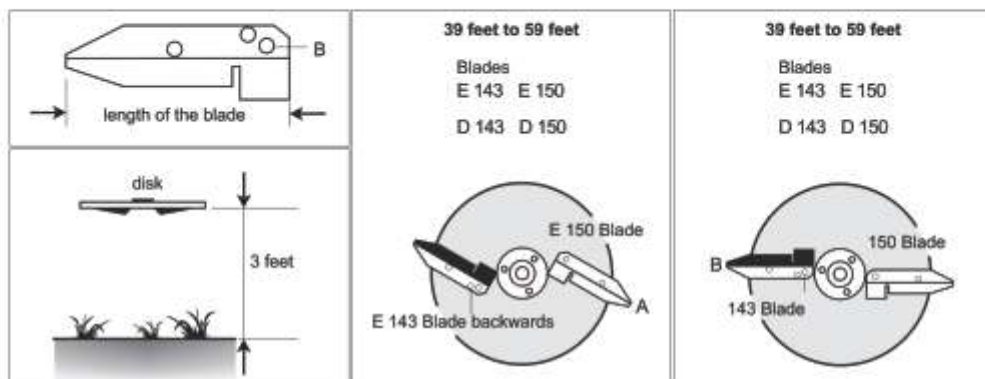


On page 6 there are further information about the blades in figures 1A, 1B and 2.

Cardan Rotation		540 RPM						400 RPM		470 RPM	
Working Width		39 feet		49 feet		59 feet		69 feet		79 feet	
Speed in mph		0.6	5	0.6	5	0.6	5	0.6	5	0.6	5
N° in scale	lb/min.	Position B of 143 Blade									
9	-	-	-	-	-	-	-	-	-	-	-
12	4.0	198	-	158	-	132	-	112	-	99	-
15	10.6	529	66	423	53	352	44	302	37	264	15
18	19.4	970	121	776	97	646	81	553	68	485	61
21	28.9	1,444	180	1,155	145	963	121	824	103	723	90
24	39.9	1,995	249	1,596	200	1,329	165	1,139	143	998	125
27	54.5	2,733	339	2,178	273	1,814	227	1,556	194	1,362	169
30	70.5	3,527	440	2,821	352	2,352	293	2,015	251	1,763	220
33	89.7	4,486	560	3,580	449	2,991	374	2,564	319	2,244	280
36	109.8	5,489	685	4,391	549	3,659	458	3,137	392	2,744	344
		Position A of 143 Blade									
39	133.2	6,658	833	5,326	666	4,438	555	3,805	476	3,329	416
42	157.4	7,870	983	6,296	787	5,247	657	4,497	562	3,935	491
45	187.4	9,369	1,170	7,495	937	6,245	317	5,355	670	4,685	586
48	219.6	10,979	1,373	8,783	1,098	7,319	915	6,272	785	5,489	685
51	253.5	12,676	1,585	10,141	1,267	8,450	1,056	7,244	906	6,338	791
54	284.4	14,219	1,777	11,376	1,422	9,480	1,186	8,126	1,016	7,176	888
57	314.8	15,741	1,968	12,593	1,574	10,494	1,311	8,995	1,124	7,870	983
60	338.6	16,931	2,116	13,545	1,693	11,287	1,411	9,676	1,210	8,465	1,058
63	371.9	18,596	2,323	14,876	1,861	12,396	1,550	10,626	1,329	9,299	1,161
66	393	19,854	2,456	15,723	1,966	13,102	1,638	11,230	1,404	9,828	1,228
69	414.9	20,745	2,592	16,596	2,074	13,829	1,728	11,854	1,481	10,372	1,296
72	454.2	22,707	2,839	18,166	2,270	15,139	1,891	12,976	1,622	11,353	1,419
75	472.0	23,600	3,060	18,880	2,361	15,734	1,966	13,485	1,686	11,801	1,475
78	485.0	24,250	3,031	19,400	2,425	16,166	2,021	13,858	1,732	12,125	1,516

11.TABLE

TYPE 3

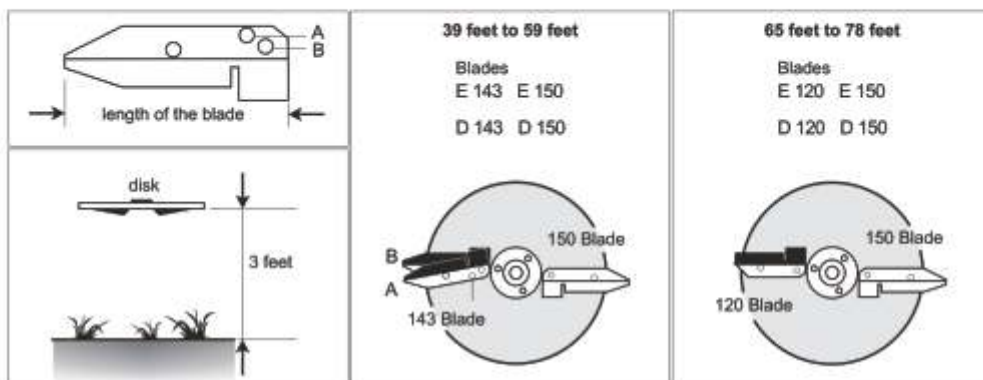


On page 6 there are further information about the blades in figures 1A1 and 1B.

Cardan Rotation		600 RPM									
Working Width		39 feet		49 feet		59 feet					
Speed in mph		0.6	5	0.6	5	0.6	5				
N° in scale	lb/min.	Position A of 143 Blade									
9	-	-	-	-	-	-	-				
12	7.5	375	46	300	37	249	31				
15	15.2	760	95	608	77	507	64				
18	30.2	1,510	189	1,208	152	1,007	103				
21	35.9	1,796	225	1,437	181	1,197	150				
24	46.3	2,315	289	1,852	231	1,543	192				
27	57.8	2,888	361	2,310	289	1,926	240				
30	75.4	3,770	472	3,016	377	2,513	313				
33	89.9	4,475	562	3,598	450	2,998	375				
36	105.4	5,269	659	4,215	527	3,512	439				
		Position B of 143 Blade									
39	122.1	6,107	763	4,885	610	4,067	509				
42	138.2	6,911	864	5,529	692	4,607	575				
45	151.7	7,584	948	6,067	758	5,055	633				
48	164.7	8,234	1,029	6,587	824	5,489	685				
51	194.7	9,733	1,217	7,786	974	6,488	811				
54	222.9	11,144	1,393	8,915	1,115	7,429	928				
57	242.5	12,125	1,516	9,700	1,212	8,082	1,010				
60	262.3	13,117	1,640	10,494	1,311	8,743	1,093				
63	286.4	14,319	1,790	11,455	1,433	9,546	1,193				
66	313.1	15,653	1,958	12,522	1,565	10,434	1,305				
69	-	-	-	-	-	-	-				
72	-	-	-	-	-	-	-				
75	-	-	-	-	-	-	-				
78	-	-	-	-	-	-	-				

11.TABLE

TYPE 4



On page 6 there are further information about the blades in figures 1A, 1B and 2.

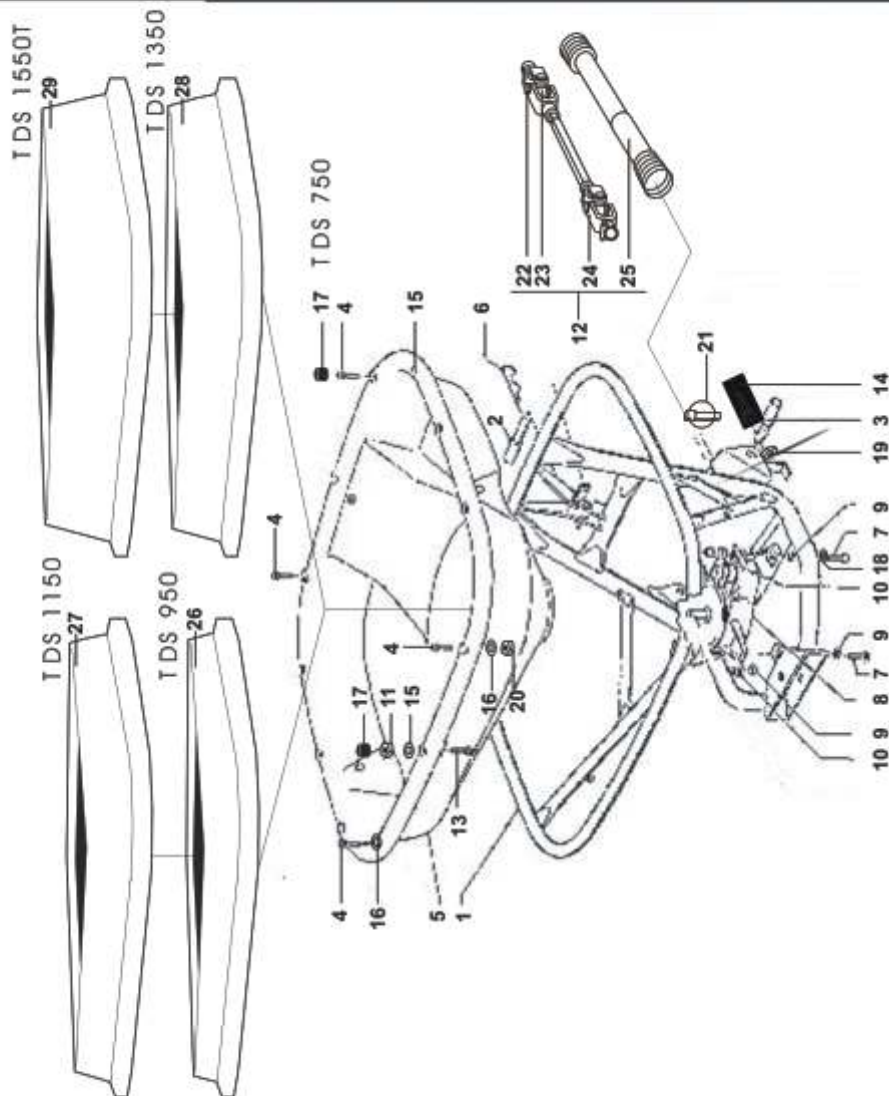
Cardan Rotation		540 RPM						400 RPM		470 RPM	
Working Width		39 feet		49 feet		59 feet		69 feet		79 feet	
Speed in mph		0.6	5	0.6	5	0.6	5	0.6	5	0.6	5
N° in scale	lb/min.	Position B of 143 Blade									
9	-	-	-	-	-	-	-	-	-	-	-
12	4.0	198	-	159	-	132	-	112	-	99	-
15	8.4	421	53	335	42	280	35	240	31	209	26
18	18.7	937	117	749	92	624	77	535	66	467	57
21	28.2	1,413	176	1,128	141	941	117	807	101	705	88
24	40.6	2,028	255	1,622	203	1,351	169	1,164	145	1,014	128
27	50.9	2,546	317	2,037	255	1,697	211	1,455	183	1,274	159
30	67.2	3,362	421	2,689	337	2,242	280	1,920	240	1,682	209
33	85.3	4,266	533	3,412	427	2,844	355	2,438	304	2,134	266
36	104.9	5,247	657	4,197	524	3,498	436	2,998	374	2,623	328
		Position A of 143 Blade									
39	132.5	6,625	829	5,300	663	4,416	551	3,785	474	3,313	414
42	154.3	7,716	965	6,173	771	5,143	643	4,409	551	3,858	483
45	183.4	9,171	1,146	7,337	917	6,113	765	5,240	654	4,585	573
48	209.9	10,494	1,311	8,395	1,049	6,996	875	5,996	749	5,247	657
51	236.1	11,805	1,475	9,444	1,181	7,870	983	6,746	844	5,904	738
54	262.1	13,106	1,638	10,485	1,311	8,737	1,091	7,489	937	6,554	820
57	284.8	14,242	1,781	11,393	1,424	9,493	1,186	8,137	1,016	7,121	890
60	308.9	15,443	1,931	12,354	1,545	10,295	1,287	8,825	1,102	7,722	965
63	344.8	17,240	2,156	13,792	1,724	11,492	1,437	9,852	1,232	8,620	1,078
66	384.3	19,213	2,400	15,370	1,922	12,809	1,600	10,979	1,373	9,607	1,201
69	410.5	20,525	2,566	16,420	2,052	13,681	1,710	11,728	1,466	10,262	1,283
72	428.1	21,406	2,676	17,125	2,140	14,270	1,783	12,233	1,530	10,703	1,338
75	437.0	21,849	2,731	17,478	2,184	14,566	1,821	12,487	1,561	10,924	1,367
78	445.8	22,288	2,789	17,842	2,231	14,859	1,858	12,745	1,594	11,144	1,393

12. REPLACEMENT PARTS CATALOGUE.

12. CATALOGO DE PIEZAS.

CHASSIS, HOPPER AND CARDAN CHASIS, TOLVA Y CARDAN

SERIES 19990 SERIE 19990



N°	Reference	Quantity per machine
N°	Referencia	Cantidad por máquina
1	10598	1
2	30002	1
3	30602	2
4	84190	4
5	60129	1
6	91569	1
7	83240	3
8	90119	1
9	85702	3
10	86612	3
11	86610	8
12	90185	1
13	84301	8
14	302.70.155	2
15	85410	8
16	85408	8
17	70625	8
18	314.61.250	3
19	305.96.100	4
20	86608	4
21	94887	2
22	90186	1
23	310-CZ-101	2
24	90187	1
25	95560	1

Options to Increase Capacity of Bucket

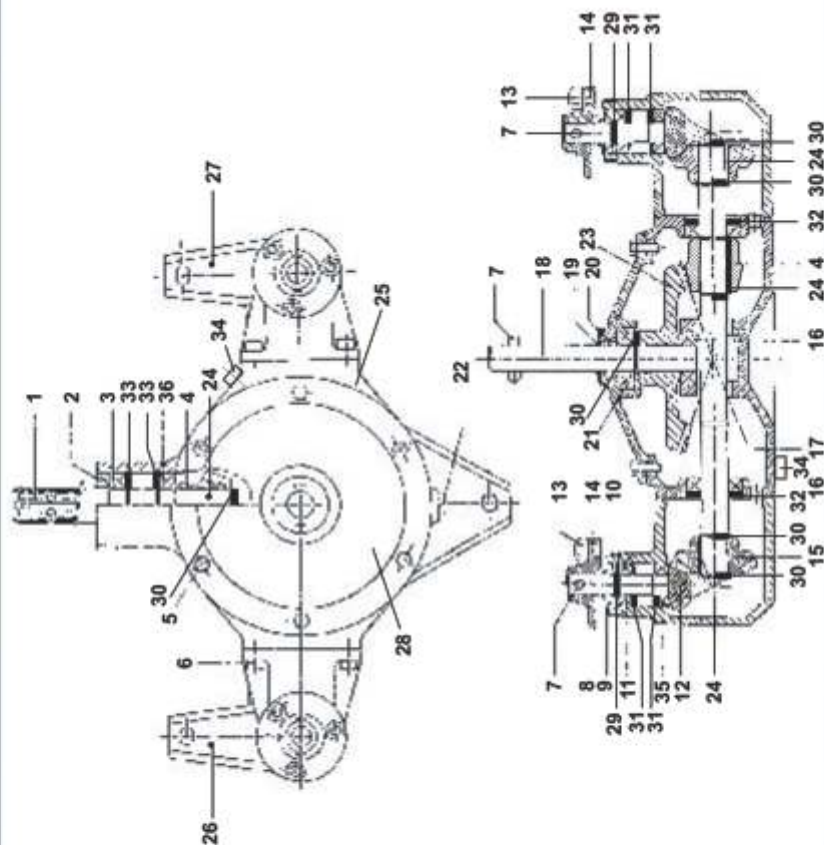
Options to Increase Capacity of Bucket	Quantity per machine
Referencia	Cantidad por máquina
26 70314	1
27 70310	1
28 70313	1
29 70311	1

GEAR BOX

CAJA DE ENGRANAJE

SERIES 19990

SERIE 19990



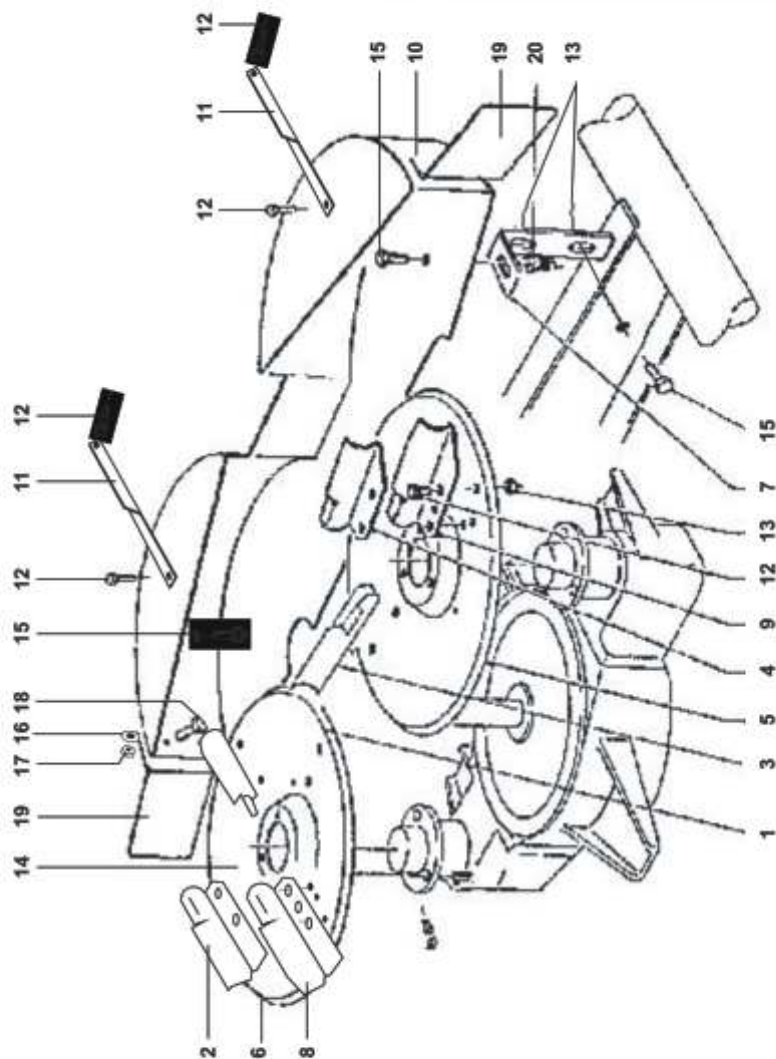
Note: The complete gear box (90119 - page 23) is made using the references: 30735, 30736 E & D and 30737.

Observación: La caja de engranaje completa (90119 - página 23), es compuesta por las referencias: 30735, 30736 E y D, y 30737.

N°	Reference	Quantity per machine
N°	Referencia	Cantidad por máquina
1	30742	1
2	70049	1
3	70046	1
4	97061	2
5	80821	6
6	84429	8
7	88140	3
8	30738	2
9	30744	2
10	70047	2
11	70043	2
12	97059	2
13	88610	6
14	84133	6
15	97060	2
16	70044	3
17	30741	1
18	30740	1
19	30743	1
20	70048	1
21	70045	1
22	53320	1
23	97062	1
24	97063	5
25	30735	1
26	30736 E	1
27	30736 D	1
28	30737	1
29	87020	2
30	87025	6
31	87142	4
32	87152	2
33	87162	2
34	53321	2
35	70042	2
36	70041	1

DISKS AND BLADES DISCOS Y PALETAS

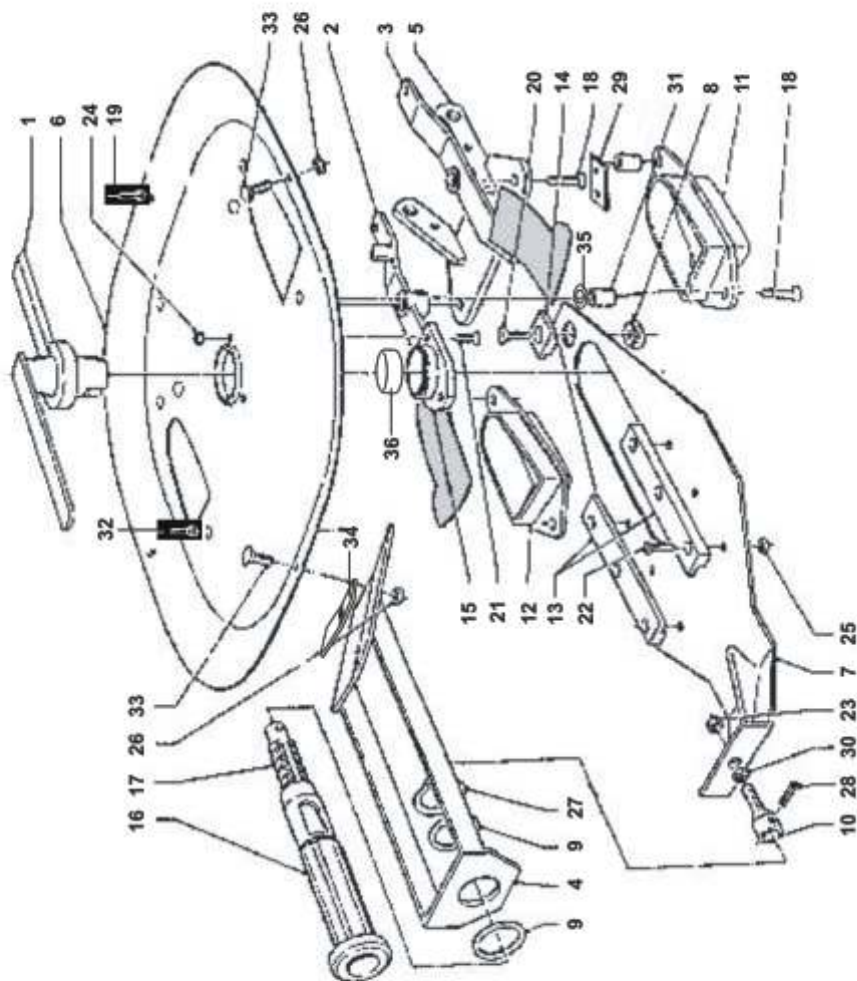
SERIES 19990 SERIE 19990



Nº	Reference Referencia	Quantity per machine Cantidad por máquina
1	21458	1
2	21457	1
3	21458	1
4	21459	1
5	21521	1
6	21522	1
7	21531	2
8	21562	1
9	21561	1
10	40193	1
11	21532	2
12	83816	12
13	88608	18
14	86610	6
15	80821	6
16	85406	4
17	86606	4
18	84813	4
19	40262	2
20	85408	6

ADJUSTMENT AND SPINNER REGULACION Y AGITADOR

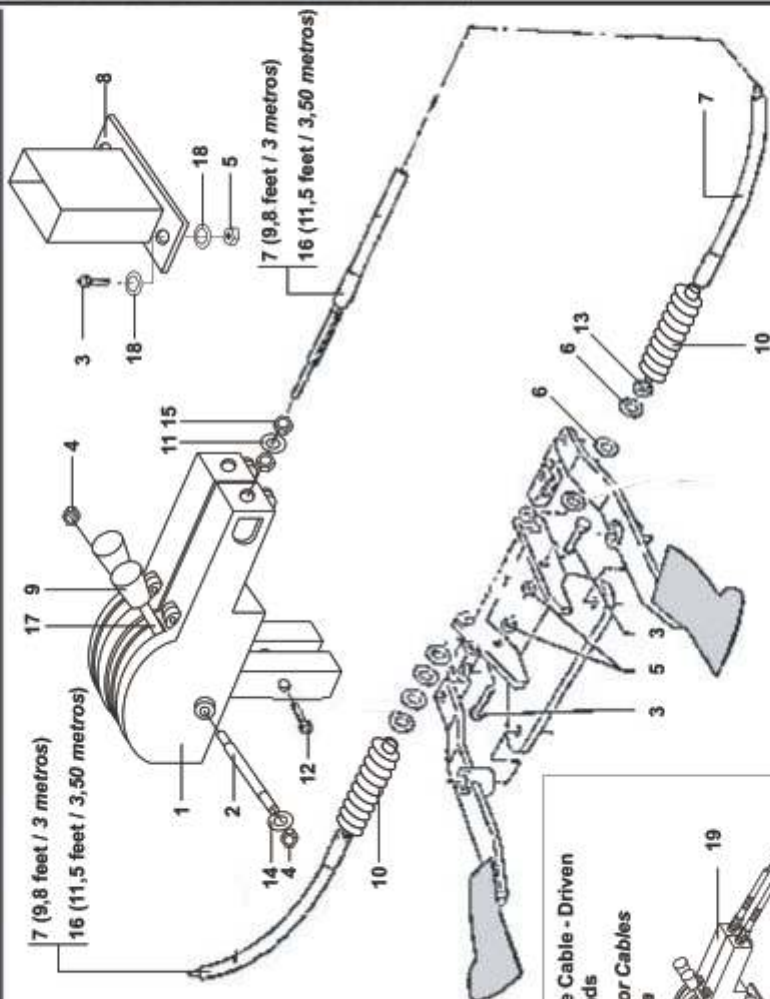
SERIES 19990 SERIE 19990



N°	Referencia	Quantidade por máquina Cada da por máquina
1	10560	1
2	10561	1
3	10562	1
4	10563	1
5	10564	1
6	10565	1
7	21347	1
8	30549	1
9	30551	2
10	30603	1
11	60100	1
12	60101	1
13	60102	2
14	60103	1
15	60105	1
16	60127	1
17	60128	1
18	84167	6
19	83820	1
20	84168	1
21	84161	3
22	84164	6
23	86610	1
24	86605	3
25	86606	6
26	86608	7
27	87034	1
28	88026	1
29	21932	2
30	30596.100	1
31	30550	6
32	84169	8
33	83822	4
34	10567	1
35	31461.800	6
36	60104	1

CABLE - DRIVEN COMMANDS MANDO POR CABLES

SERIE 1990 SERIE 19990



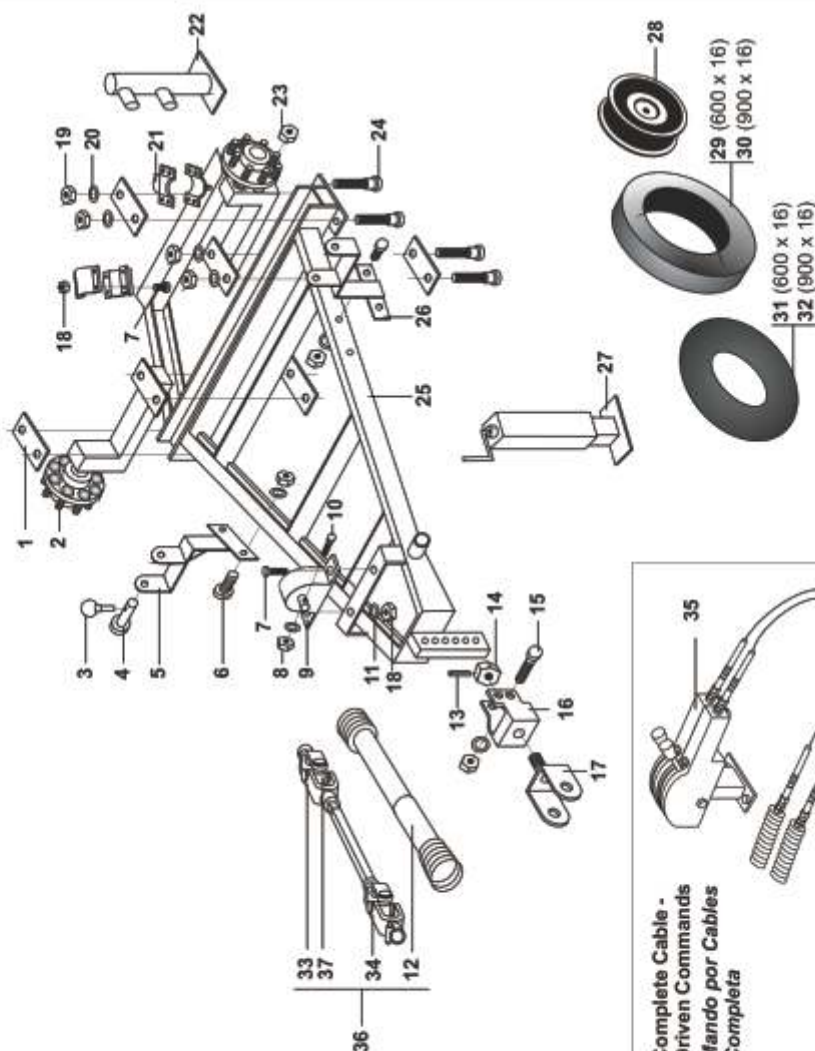
Complete Cable - Driven
Commands
Mando por Cables
Completa



Nº	Referencia	Quantidade por unidade com 2 peças
1	10525	1
2	80055	1
3	302.71.825	4
4	305.96.100	2
5	305.81.800	4
6	85702	4
7	79051	2
8	20199	1
9	10550	2
10	80051	2
11	86214	2
12	83241	10
13	86212	2
14	86410	2
15	86213	4
16	79052	2
17	10526	2
18	314.81.800	4
19	79057	1

**TRAILER: TDS 1350T, TDS 150T
CARRETA: TDS 1350T, TDS 150T**

**SERIE 19990
SERIE 19990**



N°	Reference	Quantity per machine
N°	Referencia	Cantidad por máquina
1	80209	4
2	60014	2
3	94887	2
4	80214	2
5	80207	1
6	302.70.143	4
7	302.71.245	10
8	305.96.100	4
9	80215	1
10	308.03.155	2
11	314.61.250	2
12	95561	1
13	308.03.550	1
14	305.96.192	1
15	302.70.144	2
16	80210	1
17	80211	1
18	305.83.200	10
19	305.96.190	14
20	314.53.195	14
21	80213	2
22	80212	1
23	305.96.191	12
24	302.70.145	8
25	80205	1
26	80206	1
27	80208	1
28	60015	2
29	60016	2
30	60017	2
31	60018	2
32	60019	2
33	2303-144	1
34	2303-143	1
35	79056	1
36	90190	1
37	310-CZ-101	2