

# ASSEMBLY, USE AND MAINTENANCE SPARE PARTS LIST





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# SECTION 1 SPARE PARTS LIST





	TABLE NO. 910.051					
Item	Part No.	Q.tè				
Pos.	Code	Q.ty	DESCRIPTION	NOTE		
1	100.774	1	PLUG			
2	100.831	2	BUSHING			
3	620.129	2	BEARING			
4	100.883	4	WASHER			
5	620.141	1	ТАВ			
6	100.772	1	BEVEL GEAR			
7	100.992	1	GEAR BOX CASING			
8	100.770	1	COVER			
9	620.130	8	SCREW			
10	620.156	1	OIL SEAL			
11	100.884	1	BUSH			
12	100.771	1	DRIVING SHAFT			
13	620.171	1	RING OR			
14	620.172	1	BEARING			
15	620.161	1	SEAL			
16	110.119	8	COUNTERCLOCK-WISE KNIFE			
17	100.773	1	SPROCKET			
18	620.145	1	RING			
19	620.148	2	SNAP RING			
20	620.164	1	O-RING GASKET			
21	100.993	8	DISC SUPPORT			
22	620.143	2	SPRING PIN			
23	110.118	8	CLOCK-WISE KNIFE			
24	100.994	6	CUTTING DISC			
26	100.995	7	SLIDING SUPPORT			
27	100.802	14	GEAR			
28	100.996	1	DISC COVER			
29	100.790	1	SCREW			
30	620.243	3	SCREW			
31	620.137	8	NUT			
32	100.906	1	GEAR			
33	620.146	1	SNAP RING			
34	620.173	1	BEARING			
35	100.885	1	BEARING BUSH			
36	620.148	1	SNAP RING			
37	620.133	5	SCREW			
38	620.174	4	NUT			
39	620.131	4	SCREW			
40	620.136	128	NUT			
41	100.997	1	REAR REINFORCEMENT			
42	100.799	8	BEARING DISC SUPPORT			
43	100.792	6	SPACER			
44	100.998	1	SUPPORT (UPPER+LOWER)			
45	100.782	97	SCREW			
46	100.804	16	SNAP RING			

	TABLE NO. 910.051				
Item	Part No.	Q.ty			
Pos.	Code	Q.tè	DESCRIPTION	NOTE	
47	620.126	16	BEARING		
48	100.798	16	NUT		
49	100.801	2	GEAR		
50	100.787	31	SCREW		
51	100.797	16	DISTANCE PIN		
52	100.786	16	SCREW		
53	100.785	16	DISTANCE		
54	100.789	2	PLUG		
55	620.175	2	WASHER		
56	620.139	8	NUT		
57	620.150	8	WASHER		
58	620.128	8	BEARING		
59	100.783	8	SCREW		
60	100.795	8	WASHER		
61	100.803	8	BUSH		
62	620.176	8	BEARING		
63	100.800	8	GEAR		
64	620.165	8	RING OR		
65	620.159	8	SEAL		
66	100.890	1	HOOK		
67	100.793	2	DISTANCE		
68	620.244	48	SCREW		
70	110.001	1	SLIDING SUPPORT		
71	110.127	1	DISC SUPPORT		
72	600.223	8	SCREW		
73	600.115	8	WASHER		
74	100.332	2	CONVEY PLATE		
75	600.076	8	NUT		
76	110.002	2	DISC + CONVEY		
77	500.056	1	PLUG		
78	620.245	1	SCREW		
251	620.152	1	PLUG		
252	100.986	1	SLIDING SUPPORT		
253	620.134	1	SCREW		
254	100.821	16	WASHER		
255	100.796	16	SCREW		
256	100.794	16	NUT		



Item         Part No.         Code         OLY         DESCRIPTION         NOTE           1         620.252         1         SPRING PIN		TABLE NO. 910.052					
Pos         Code         Cuty         DESCRIPTION         NOTE           1         620:252         1         SPRING HEAD	ltem	Part No.					
1         620.252         1         SPRING FIAD           3         100.980         1         SPRING SUPPORT           4         100.979         1         SPRING SUPPORT           5         100.940         1         CYLINDER, COMPLETE           6*         600.645         1         CYLINDER, ROD CASKET           8         200.301         1         CYLINDER, ROD CASKET           9*         600.875         1         ORING FIAD           10         600.877         1         NUT           11         100.977         1         SPRING SUPPORT           12         110.004         1         CYLINDER ROD           12         110.004         1         CYLINDER RUBE           13         100.977         SPRING SUPPORT           14         110.005         1         CYLINDER ROD           15         600.533         1         NUT           16*         600.646         1         O-RING GASKET           17*         203.33         1         CYLINDER READ           20         610.067         1         NUT           21         100.976         1         SETOF CYLINDER GASKET	Pos.	Code	Q.ty	DESCRIPTION	NOTE		
2         100.980         1         SPRING SUPPORT           4         100.979         1         SPRING           5         100.940         1         CVLINDER COMPLETE           6*         600.645         1         CVLINDER ROD GASKET           7*         610.031         1         CVLINDER ROD GASKET           8         200.301         1         CVLINDER ROD GASKET           9*         600.875         1         O-RING GASKET           10         600.597         1         O-RING GASKET           11         100.976         1         SPRING HEAD           12         110.004         1         CVLINDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.004         1         CVLINDER ROD           15         600.646         1         O-RING GASKET           16*         600.647         1         PISTON GASKET           19         100.976         1         SET OF CVLINDER GASKET           20         610.087         1         NUT           21         100.943         1         VUT           22         100.944         1         PIN	1	620.252	1				
3         100.981         1         SPRING           4         100.940         1         CYUNDER, COMPLETE           6*         600.645         1         CYUNDER, ROD DUST COVER           7*         610.031         1         CYUNDER ROD DUST COVER           9*         600.875         1         O-RING GASKET           10         600.877         1         NUT           11         100.978         1         SPRING HEAD           12         110.004         1         CYUNDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.005         1         CYUNDER ROD           15         600.633         1         NUT           16*         600.646         1         O-RING GASKET           17*         200.303         1         CYUNDER ROD           18         600.647         1         PISTON GASKET           19         100.976         1         SPRACER           20         610.087         1         NUT           21         100.943         1         SLIDING ROD           22         110.142         PIN         1           24	2	100.980	1				
4         100.979         1         SHANG           5         100.940         1         CYLINDER COD DUST COVER           6*         600.645         1         CYLINDER ROD GASKET           8         200.301         1         CYLINDER HEAD           9*         600.875         1         O-RING GASKET           10         600.697         1         NUT           11         100.977         1         SPRING HEAD           12         110.004         1         CYLINDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.005         1         CYLINDER ROD           15         600.646         1         O-RING GASKET           16*         600.647         1         PISTON           18         600.647         1         SPLING ROD           21         100.976         1         SPLICER           22         100.687         1         NUT           23         110.143         1         PIN           24         600.270         1         NIPLE           25         100.944         1         PIN           24         600.027 <td>3</td> <td>100.981</td> <td>1</td> <td>SPRING SUPPORT</td> <td></td>	3	100.981	1	SPRING SUPPORT			
5         100.940         1         CVLINDER ROD DUST COVER           7*         610.031         1         CVLINDER ROD DUST COVER           8         200.301         1         CVLINDER ROD DUST COVER           9*         600.875         1         O-RING GASKET           10         600.897         1         NUT           11         100.978         1         SPRING HEAD           12         110.004         1         CVLINDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.005         1         CVLINDER ROD           15         600.633         1         NUT           16*         600.6467         1         SPRING READ           17*         200.303         1         CVLINDER ROD           16*         600.647         1         PISTON           18         600.647         1         PISTON           18         600.647         1         SPECR           20         610.087         1         NUT           21         100.943         1         SUDING ROD           22         110.143         1         PIN           24	4	100.979	1	SPRING			
6*         600.645         1         CYLINDER ROD GASKET           8         200.301         1         CYLINDER ROD GASKET           9*         600.875         1         O-RING GASKET           10         600.597         1         NUT           11         100.978         1         SPRING HEAD           12         110.004         1         CYLINDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.004         1         CYLINDER TOBE           15         600.553         1         NUT           16*         600.646         1         O-RING GASKET           16*         600.647         1         PISTON GASKET           *         610.037         1         SET OF CYLINDER GASKET           *         610.0467         1         PISTON GASKET           20         610.067         1         NUT           21         100.976         1         SLDIN ROD           22         110.142         1         PIN           23         101.43         1         PIN           24         600.270         5         SPRING PIN           26	5	100.940	1	CYLINDER, COMPLETE			
7*       610.031       1       CYLINDER HEAD         9*       600.875       1       O-RING GASKET         10       600.875       1       NUT         11       100.978       1       SPRING HEAD         12       110.004       1       CYLINDER TUBE         13       100.977       1       SPRING SUPPORT         14       110.005       1       CYLINDER TUBE         15       600.553       1       NUT         16*       600.646       1       O-RING GASKET         17*       200.303       1       CYLINDER PISTON         18       600.647       1       D-BRING GASKET         19       100.976       1       SPACER         20       610.087       1       NUT         21       100.976       1       SPACER         23       110.143       1       NIDING ROD         22       110.142       1       PIN         24       600.277       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT	6*	600.645	1	CYLINDER ROD DUST COVER			
8         200.301         1         CYLINDER HEAD           9*         600.875         1         O-RING GASKET           10         600.597         1         NUT           11         100.978         1         SPRING HEAD           12         110.004         1         CYLINDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.005         1         CYLINDER ROD           15         600.553         1         NUT           16*         600.646         1         O-RING GASKET           17*         200.303         1         CYLINDER PISTON           18         600.647         1         PISTON GASKET           19         100.976         1         SPACER           20         610.087         1         NUT           21         100.943         1         SLIDING ROD           22         110.142         1         PIN           23         110.143         1         PIN           24         600.270         1         NIIPLE           25         100.944         1         PIN           26         600.027         5	/*	610.031	1	CYLINDER ROD GASKET			
9*         600.875         1         O-RING GASKET           10         600.977         1         NUT           11         100.978         1         SPRING HEAD           12         110.004         1         CYLINDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.005         1         CYLINDER ROD           15         600.553         1         NUT           16*         600.646         1         O-RING GASKET           17*         200.303         1         CYLINDER PISTON           18         600.647         1         PISTON GASKET           *         610.030         1         SET OF CYLINDER GASKET           19         100.976         1         SPACER           21         100.943         1         SLIDING ROD           22         110.142         1         PIN           24         600.270         1         NIPPLE           25         100.944         1         PIN           26         600.27         5         SPRING PIN           27         100.955         1         SUPPORT           28         110.023	8	200.301	1	CYLINDER HEAD			
10         600.597         1         NUT           11         100.978         1         SPRING HEAD           12         110.004         1         CYLINDER TUBE           13         100.977         1         SPRING SUPPORT           14         110.005         1         CYLINDER ROD           15         600.553         1         NUT           16'         600.464         1         O-RING GASKET           17'         200.303         1         SET OF CYLINDER GASKET           19         100.976         1         SPACER           20         610.087         1         NUT           21         100.497         1         SLIDING ROD           22         110.142         1         PIN           23         110.143         1         PIN           24         600.270         1         NIPPLE           25         100.944         1         PIN           24         600.277         5         SPRING PIN           27         100.955         1         SUPPORT           28         110.023         2         BUSH           29         200.028         2	9*	600.875	1	O-RING GASKE I			
11       100.978       1       SPRING HEAD         12       110.004       1       CYLINDER TUBE         13       100.977       1       SPRING SUPPORT         14       110.005       1       CYLINDER ROD         15       600.553       1       NUT         16*       600.646       1       O-RING GASKET         17*       200.303       1       CYLINDER PISTON         18       600.647       1       PISTON GASKET         20       610.087       1       SET OF CYLINDER GASKET         20       610.087       1       NUT         21       100.943       1       SLIDING ROD         22       110.143       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING<	10	600.597	1	NUT			
110.004       1       CYLINDER TUBE         13       100.977       1       SPRING SUPPORT         14       110.005       1       CYLINDER ROD         15       600.563       1       NUT         16*       600.664       1       CRING GASKET         17*       200.303       1       CYLINDER PISTON         18       600.4647       1       PISTON GASKET         19       100.976       1       SPACER         20       610.0307       1       NUT         21       100.943       1       SLIDING ROD         22       110.142       1       PIN         23       100.443       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.228       2       WASHER         30       62.247       2       SPRING PIN         31       610.017       2       SPRING PIN         34 <td>11</td> <td>100.978</td> <td>1</td> <td>SPRING HEAD</td> <td></td>	11	100.978	1	SPRING HEAD			
13       100.977       1       SPRING SUPPORT         14       110.005       1       CVLINDER ROD         15       600.553       1       NUT         16*       600.646       1       O-RING GASKET         17*       200.303       1       CYLINDER PISTON         18       600.647       1       PISTON GASKET         *       610.030       1       SET OF CYLINDER GASKET         20       610.087       1       NUT         21       100.976       1       SPACER         22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN	12	110.004	1	CYLINDER TUBE			
14       110.005       1       CYLINDER ROD         15       600.553       1       NUT         16'       600.646       1       O-RING GASKET         17'       200.303       1       CYLINDER PISTON         18       600.647       1       PISTON GASKET         *       610.030       1       SET OF CYLINDER GASKET         19       100.976       1       SPACER         20       610.087       1       NUT         21       100.943       1       SLIDING ROD         22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING         31       610.017       2       SNAP RING         32       200.374       2       SPRING	13	100.977	1	SPRING SUPPORT			
15       600.533       1       NUT         16*       600.646       1       O-RING GASKET         17*       200.303       1       CYLINDER PISTON         18       600.647       1       PISTON GASKET         *       610.030       1       SET OF CYLINDER GASKET         19       100.976       1       SPACER         20       610.087       1       NUT         21       100.943       1       SLIDING ROD         22       110.143       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       USH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SAAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SCREW	14	110.005	1	CYLINDER ROD			
16*         600.646         1         O-RING GASKET           17*         200.303         1         CYLINDER PISTON           18         600.647         1         PISTON GASKET           *         610.030         1         SET OF CYLINDER GASKET           20         610.087         1         NUT           21         100.943         1         SLIDING ROD           22         110.142         1         PIN           23         110.143         1         PIN           24         600.270         1         NIPPLE           25         100.944         1         PIN           26         600.027         5         SPRING PIN           27         100.955         1         SUPPORT           28         110.023         2         BUSH           30         620.247         2         SPRING PIN           31         610.017         2         SNAP RING           32         200.374         2         SPRING PIN           33         600.033         2         SPRING PIN           34         100.947         1         COUNECTING ROD           35         100.942	15	600.553	1	NUT			
17*       200.303       1       CYLINDER PISTON         18       600.647       1       PISTON GASKET         *       610.030       1       SET OF CYLINDER GASKET         19       100.976       1       SPACER         20       610.087       1       NUT         21       100.943       1       SLIDING ROD         22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         34       100.942       1       OUTER SLIDING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW	16*	600.646	1	O-RING GASKET			
18       600.647       1       PISTON GASKET         *       610.030       1       SET OF CYLINDER GASKET         19       100.976       1       SPACER         20       610.087       1       NUT         21       100.943       1       SLIDING ROD         22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SPRING PIN         32       200.374       2       SPRING PIN         33       600.33       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW	17*	200.303	1	CYLINDER PISTON			
*         610.030         1         SET OF CYLINDER GASKET           19         100.976         1         SPACER           20         610.087         1         NUT           21         100.943         1         SLIDING ROD           22         110.142         1         PIN           23         110.143         1         PIN           24         600.270         1         NIPPLE           25         100.944         1         PIN           26         600.277         5         SPRING PIN           27         100.955         1         SUPPORT           28         110.023         2         BUSH           29         200.028         2         WASHER           30         620.247         2         SPRING PIN           31         610.017         2         SNAP RING           32         200.374         2         SPRING PIN           34         100.947         1         CONNECTING ROD           35         100.942         1         OUTER SLIDING ROD           36         610.803         2         SCREW           37         600.076         12	18	600.647	1	PISTON GASKET			
19       100.976       1       SPACER         20       610.087       1       NUT         21       100.943       1       SLIDING ROD         22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         39       600.514       3       WASHER         40       100.949       1       HANDLE         42 <td>*</td> <td>610.030</td> <td>1</td> <td>SET OF CYLINDER GASKET</td> <td></td>	*	610.030	1	SET OF CYLINDER GASKET			
20       610.087       1       NUT         21       100.943       1       SLIDING ROD         22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING ROD         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         41	19	100.976	1	SPACER			
21       100.943       1       SLIDING ROD         22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.33       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULEY         43       600.538       1       SPRING PIN         4	20	610.087	1	NUT			
22       110.142       1       PIN         23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44 <td>21</td> <td>100.943</td> <td>1</td> <td>SLIDING ROD</td> <td></td>	21	100.943	1	SLIDING ROD			
23       110.143       1       PIN         24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.945       1       LEVER         45 </td <td>22</td> <td>110.142</td> <td>1</td> <td>PIN</td> <td></td>	22	110.142	1	PIN			
24       600.270       1       NIPPLE         25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING GIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       10.948       1       PIN         45       600.124       4       GREASE NIPPLE         <	23	110.143	1	PIN			
25       100.944       1       PIN         26       600.027       5       SPRING PIN         27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE	24	600.270	1	NIPPLE			
26         600.027         5         SPRING PIN           27         100.955         1         SUPPORT           28         110.023         2         BUSH           29         200.028         2         WASHER           30         620.247         2         SPRING PIN           31         610.017         2         SPRING PIN           32         200.374         2         SPRING ROD           33         600.033         2         SPRING ROD           34         100.947         1         CONNECTING ROD           35         100.942         1         OUTER SLIDING ROD           36         610.803         2         SCREW           37         600.076         12         NUT           38         110.026         1         RUBBER           39         600.514         3         WASHER           40         100.949         1         HANDLE           42         100.720         1         PULLEY           43         600.538         1         SPRING PIN           44         100.948         1         PIN           45         600.124         4         <	25	100.944	1	PIN			
27       100.955       1       SUPPORT         28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER	26	600.027	5	SPRING PIN			
28       110.023       2       BUSH         29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49	27	100.955	1	SUPPORT			
29       200.028       2       WASHER         30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN <td< td=""><td>28</td><td>110.023</td><td>2</td><td>BUSH</td><td></td></td<>	28	110.023	2	BUSH			
30       620.247       2       SPRING PIN         31       610.017       2       SNAP RING         32       200.374       2       SPRING PIN         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         5	29	200.028	2	WASHER			
31       610.017       2       SNAP RING         32       200.374       2       SPRING         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	30	620.247	2	SPRING PIN			
32       200.374       2       SPRING         33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	31	610.017	2	SNAP RING			
33       600.033       2       SPRING PIN         34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE       51         51       100.959       1       MAIN FRAME	32	200.374	2	SPRING			
34       100.947       1       CONNECTING ROD         35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	33	600.033	2	SPRING PIN			
35       100.942       1       OUTER SLIDING ROD         36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	34	100.947	1	CONNECTING ROD			
36       610.803       2       SCREW         37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	35	100.942	1	OUTER SLIDING ROD			
37       600.076       12       NUT         38       110.026       1       RUBBER         39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	36	610.803	2	SCREW			
38         110.026         1         RUBBER           39         600.514         3         WASHER           40         100.949         1         HANDLE           42         100.720         1         PULLEY           43         600.538         1         SPRING PIN           44         100.948         1         PIN           45         600.124         4         GREASE NIPPLE           46         600.539         7         SPRING PIN           47         100.945         1         LEVER           48         600.472         2         NUT           49         100.974         1         PIN           50         610.160         1         ROPE           51         100.959         1         MAIN FRAME	37	600.076	12	NUT			
39       600.514       3       WASHER         40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	38	110.026	1	RUBBER			
40       100.949       1       HANDLE         42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	39	600.514	3	WASHER			
42       100.720       1       PULLEY         43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	40	100,949	1	HANDLE			
43       600.538       1       SPRING PIN         44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	42	100.720	1	PULLEY			
44       100.948       1       PIN         45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	43	600.538	1	SPRING PIN			
45       600.124       4       GREASE NIPPLE         46       600.539       7       SPRING PIN         47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	44	100.948	1	PIN			
46         600.539         7         SPRING PIN           47         100.945         1         LEVER           48         600.472         2         NUT           49         100.974         1         PIN           50         610.160         1         ROPE           51         100.959         1         MAIN FRAME	45	600.124	4	GREASE NIPPLE			
47       100.945       1       LEVER         48       600.472       2       NUT         49       100.974       1       PIN         50       610.160       1       ROPE         51       100.959       1       MAIN FRAME	46	600.539	7	SPRING PIN			
48         600.472         2         NUT           49         100.974         1         PIN           50         610.160         1         ROPE           51         100.959         1         MAIN FRAME	47	100,945		LEVER			
49         100.974         1         PIN           50         610.160         1         ROPE           51         100.959         1         MAIN FRAME	48	600 472	2	NUT			
50 610.160 1 ROPE 51 100.959 1 MAIN FRAME	49	100 974	1	PIN			
51 100.959 1 MAIN FRAME	50	610 160	1	ROPE			
	51	100 959	1				

	TABLE NO. 910.052				
ltem	Part No.	Q.ty			
Pos.	Code	Q.tè		NOTE	
52	100.956	1			
53	100.831	2	BUSHING		
54	100.957				
22 56	620.454	1			
57	600.080	2			
58	600.000	2			
50	600.039	2	SCREW/		
60	610 144	1	FLOW ADJUSTER		
61	110 139	1	PIN		
62	600,416	1	NIPPLE		
63	600.176	2	SCREW		
65	600.180	2	WASHER		
66	600.273	1	QUICK RELEASE COUPLING		
67	100.962	1	MULTIPLIER SUPPORT PLATE		
68	110.003	1	SAFETY ROD		
69	100.960	1	PTO SUPPORT		
70	600.540	1	SNAP RING		
71	100.168	1	SAFETY HOOK		
72	110.137	1	PIN		
73	110.009	1	RUBBER SPRING		
74	110.138	1	PIN		
75	100.958	1	PIN		
77	600.075	1			
/8	110.010	2	WASHER		
79	600.017	3			
80	610.154	1			
81	610.900	1	GREASE NIPPLE 90		
02 94	100.054	<u> </u>			
86	100.954	1	PTO SHAFT		
87	110 011	1	3 POINT HITCH PIN		
88	100.951	2	PIN		
89	600.333	3	SNAP RING		
90	600.336	1	WASHER		
91	620.278	2	SCREW		
92	600.818	1	HOOD		
93	600.412	2	WASHER		
94	100.965	1	TIGHTENER ROD		
95	100.967	1	PTO SPRING		
96	100.969	1	SPACER		
98	100.968	1			
99	100.953	$\frac{2}{4}$			
100	100.758	1			
101	100.253	1			
102	600,522	2			
103	620 240	<u> </u>			
104	100 249	1			
106	100.240	1	3 POINT HITCH		
107	100.970	1	WASHER		
108	610.118	2	SHACKLES		
109	100.352	2	SHIM		
110	110.135	2	WASHER		
111	110.136	2	WASHER		
112	600.042	4	WASHER		



	TABLE NO. 910.053				
ltem	Part No.	Q.ty			
Pos.	Code	Q.tè	DESCRIPTION	NOTE	
1	100.991	1	LATERAL REAR PROTECTION		
2	610.500	1	SCREW		
3	600.441	4	SCREW		
4	600.227	15	SCREW		
5	600.018	4	WASHER		
6	100.985	1	OUTER SUPPORT		
7	600.322	21	WASHER		
8	100.990	1	LATERAL FRONT PROTECTION		
9	200.279	1	SPRING		
10	600.006	5	SCREW		
11	600.280	1	SCREW		
12	600.029	31	NUT		
13	600.009	2	NUT		
14	110.012	1	PROTECTION CANVAS		
15	600.826	3	SCREW		
16	100.989	1	REAR PROTECTION		
17	600.077	3	NUT		
18	110.028	1	PROTECTION SUPPORT		
19	100.987	3	PROTECTION PIVOTING		
20	100.988	1	FRONT PROTECTION		
21	620.319	1	NUT		
22	600.336	1	WASHER		
23	600.086	4	WASHER		
24	200.309	2	PLUG		
26	600.246	1	WASHER		
27	600.006	5	SCREW		
28	110,140	1	PIN		
29	600.539	4	SPRING PIN		
30	110,141	1	PIN		
31	600.702	1	SCREW		
32	600.854	6	PLUG		
33	620.322	4	SCREW		
34	610,185	2	WASHER		
35	600.076	12	NUT		
36	110.013	1	PLATE DEFLECTOR SUPPORT		
37	110.014	1	PLATE DEFLECTOR		
39	620,245	1	SCREW		
40	620,134	1	SCREW		
41	100 763	1	HAY WHEEL ASSY		
42	205 654	1	CUP		
43	600 301	1	SPI IT PIN		
44	600 015	1	NUT		
45	600 014	1	BEARING 30204		
46	600.124	1	GREASE NIPPLE		
47	100 569	1	HUB		
48	600 012	1	BEARING 30205		
49	600 641	1	SCREW		
50	600.011	1	DUST COVER		
51	100 881	1	HAY WHEFI		
52	110.136		WASHER		



	TABLE NO. 910.054					
Item	Part No.	t No. Q.ty				
Pos.	Code	Q.tè	DESCRIPTION	NOTE		
1	110.021	2	SCREW			
2	600.833	1	SCREW			
3	100.964	1	BELT REAR COVER			
4	600.616	1	SCREW			
5	500.160	1	WASHER			
6	600.206	4	SCREW			
7	610.718	1	NUT			
8	100.225	1	PULLEY			
9	100.313	1	PLUG			
10	110.015	1	SHIM			
11	600.029	31	NUT			
12	600.441	2	SCREW			
13	110.022	2	SPACER			
14	600.018	2	WASHER			
15	600.333	3	SNAP RING			
16	100.963	1	BELT FRONT COVER			
17	620.250	4	WASHER			
18	620.251	4	BELT			
19	100.224	1	PULLEY			
20	110.016	1	BELT COVER SUPPORT			
21	600.076	1	NUT			
22	600.702	1	SCREW			
23	610.185	1	WASHER			
24	600.089	1	SPACER			
25	610.505	1	TAB			
26	600.845	2	WASHER			



	TABLE NO. 620.237				
Item	Part No.	Q.ty			
Pos.	Code	Q.tè	DESCRIPTION	NOTE	
01	620.079	1	YOKE		
02	620.080	2	CROSS JOURNAL ASS.		
03	610.369	8	CIRCLIP		
04	610.206	2	GREASE NIPPLE		
05	620.081	1	OUTER TUBE YOKE		
11	620.082	1	FLEXIBLE PIN		
12	620.083	1	CM. 100 CARDAN TUBE(*)		
13	610.373	1	CM. 100 CARDAN TUBE(*)		
14	620.084	1	FLEXIBLE PIN		
21	620.085	1	INNER TUBE YOKE		
30	620.265	1	FREE WHEELE		
31	620.266	1	OUTER BEARING		
32	620.267	1	OUTER BASIC CONE		
33	620.088	1	OUTER SAFETY TUBE		
34	620.089	1	INNER SAFETY TUBE		
35	620.268	1	INNER BASIC CONE		
36	620.269	1	INNER BEARING		
37	610.068	1	CHAIN		
51	610.057	2	COMPLTE PUSH BUTTON		
61	610.216	1	GRAESE NIPPLE		
62	620.270	1	OUTER CASING WITH YOKE		
63	610.355	1	HUIB 1 3/8"z6		
64	610.356	3	RATCET TOOTH		
66	610.357	1	SCREEN RING		
67	610.358	1	RETAINING RING		
68	610.359	1	CIRCLIP		
91	620.092	1	OUTER HALF SHAFT		
92	620.271	1	INNER HALF SHAFT		
93	620.094	1	OUTER HALF SHAFT		
94	620.272	1	INNER HALF SHAFT		
95	620.096	1	OUTER HALF SAFETY GUARD		
96	620.273	1	INNER HALF SAFETY GUARD		
97	620.274	1	SAFETY GUARD		

# SECTION 2 GENERAL INFORMATION

#### 2.1 WARRANTY

The manufacturer warrants new machinery to be free from defects in material and workmanship at the time of delivery to the original purchaser if correctly set up and operated according to this Operator's Handbook.

The manufacturer undertakes to repair or replace free of charge any defective part which should be returned by the purchaser (freight prepaid) and found to be defective on inspection authorized by the manufacturer during the warranty period.

This warranty shall be valid for 12 (twelve) months from the delivery of the goods to the original purchaser.

If the customer is unable to return the defective part to the manufacturer, the manufacturer cannot be held responsible for any cost due for repair or replacement of any part of the machine. He shall only supply the part(s) required for such repair and/or replacement.

The warranty shall be considered null and void when it is evident that the machine has been improperly used or at least repaired without authorization.

The manufacturer shall not be held responsible for any obligation or agreement reached by any manufacturer employers, agents or dealers who do not comply with the above warranty. The manufacturer cannot be held responsible for the subsequent damages. This warranty replaces any other warranty, either explicit or implied, as well as any other obligation of the manufacturer.

#### NOTE:

ALL WARRANTY WORK OR REPAIRS MUST BE APPROVED BY THE MANUFACTURER BEFORE WORK BEGIN.

ANY WORK OR REPAIRS MADE BEFORE APPROVAL MAY NOT BE COVERED UNDER WARRANTY. PLEASE NOTIFY YOUR SALES & SERVICE DEPARTMENT OF THIS POLICY.

# SECTION 3 GUIDE TO THE SIGNS AND SYMBOLS USED IN THIS MANUAL AND THEIR LOCATION ON THE MACHINE

#### 3.1 SIGNS AND SYMBOLS

These signs and symbols give information to the operator on how to make the best use of the machine so as to prolong life, avoid damage, optimise work and, above all, to avoid injury to the operator and anyone within range of the machine

#### 3.2 WARNING AND DANGER SIGNS

#### 3.2.1 FIG. 3.1

Before beginning operations, read the instruction manual carefully.



#### 3.2.2 FIG. 3.2

Risk of possible ejection of blunt objects. Keep a safe distance from the machine.

# 

#### 3.2.3 FIG. 3.3

Indicates that it is dangerous to touch the Cardan shaft. For all other information regarding the Cardan shaft, see the use-andmaintenance booklet specifically for the Cardan shaft which, together with this manual, makes up the documentation on safety, use and maintenance of the machine.



#### 3.2.4 FIG. 3.4

Risk. Noise



#### 3.2.5 FIG. 3.5

This indicates the risk of cutting one's hand. Keep at a safe distance.



3.2.7 FIG. 3.7

Risk. Rotation part.

FIG. 3.8

Indicates danger caused by accidental fall of suspended

arms. Keep safe distance.

3.2.8





#### 3.2.6 FIG. 3.6

This indicates the risk of cutting one's foot. Keep at a safe distance.



#### 3.3 INDICATION SIGNS

#### 3.3.1 FIG. 3.9

Indicates a greasing point.



#### 3.3.2 FIG. 3.10

This indicates the oil level.



#### 3.3.3 FIG. 3.11

Shows the direction of rotation of the power takeoff and the maximum number of revolutions.



### SECTION 4 GENERAL SUMMARY OF SAFETY AND ACCIDENT -PREVENTION INSTRUCTIONS

#### 4.1 GENERAL SUMMARY OF SAFETY AND ACCIDENT-PREVENTION INSTRUCTIONS

Read all the directions carefully before using the machine. When in doubt, seek advice from the manufacturers.

The manufacturing company declines all responsibility for non-compliance with the following safety and accident-prevention instructions.

- **1-** Pay attention to the danger signs and symbols in this manual and on the machine.
- **2-** Do not touch moving parts.
- **3-** All work on the machine (including adjustments) must always be carried out with the tractor immobilized and the engine switched off.
- **4-** On no account may persons or animals be carried on the machine.
- **5-** Driving the tractor with the machine connected is absolutely forbidden to persons lacking suitable experience, or who are in poor health, or who do not have a suitable driving license.
- 6- All accident-prevention measures recommended in this manual should be scrupulously observed.
- 7- Connecting the machine to the tractor creates a different weight distribution on the axles and so it is essential to ensure that the tractor-machine combination is stable in all anticipated working conditions. It is therefore necessary to have exact instructions from the tractor manufacturers. If such instructions are not available, suitable tests should be conducted in safe conditions in order to assess stability.
- 8- Once the machine is connected, it can only be controlled through a Cardan shaft complete with the required overload protection and guard secured with the appropriate small chains. Be aware of the rotational direction of the Cardan shaft.
- **9-** Before operating the tractor and machine, check that all transport and operational safety devices are complete and working.
- **10-**When driving on public roads, you should comply with the Highway Code regulations for the country concerned.
- **11-**Do not exceed the tractor axle maximum weight and the total mobile weight. Heed transport regulations.
- **12-**Before starting work, familiarize yourself with the control devices and how they work.
- **13-**Wear suitable clothes. Do not wear clothing which is loose or which could become entangled in rotating or moving parts.
- **14-**Connect the machine to a suitably powerful tractor by using an appropriate lifting unit and in accordance with instructions.
- **15-**Take maximum care when connecting and disconnecting the machine to and from the tractor.
- **16-**The machine and any road transport attachments must bear the appropriate signs and symbols and have suitable protection.
- **17-**Never leave the driving seat when the tractor is running.
- **18-**It is extremely important to appreciate that road holding, steering and braking may be significantly affected with the machine attached.
- **19-**When turning corners with the machine attached, be aware of the fact that the centrifugal force will alter due to the change in the centre of gravity.

**20-**Before engaging the power takeoff check the preset revolution speed. Do not change speed from 540 rpm to 1000 rpm.



- **21-**Under no circumstances should anybody stand near the machine or any moving parts. It is the duty of the operator to ensure that this requirement is respected.
- **22-**Under no circumstances should anybody go between the tractor and the machine (fig. 4.1) when the engine is running and the Cardan shaft is engaged, especially without first having applied the parking brake and placed chocks against the wheels.
- **23-**Before connecting or disconnecting the machine to or from the 3-point linkage, put the lifting unit lever into the locked position.
- 24-The connection pins on the machine must match the connection sockets on the lifting unit.
- 25-During transport, secure the lateral lifting arms with the appropriate chains and tighteners.
- **26-**When the machine is raised during road transport, put the tractor's hydraulic lifter lever into the locked position.
- **27-**Only use the Cardan shaft provided by the manufacturer and, in case of replacement, substitute it with one having the same characteristics.
- **28-**Regularly check all protection on the Cardan shaft. This should always be in excellent condition and securely fixed.
- **29-**It is important to ensure that the protection on the Cardan shaft is complete.
- **30-**Connection and disconnection of the Cardan shaft must be carried out with the engine switched off.
- **31-**Pay particular attention to the correct connection and safety of the Cardan shaft and the power takeoffs on the machine and the tractor.
- **32-**Prevent the cardan shaft protection from rotating using the chains supplied.
- **33-**Before engaging the power takeoff, make sure that there are no people or animals in the vicinity and that the selected engine speed corresponds to that permitted. Never go above the maximum permitted.



- **34-**Do not engage the power takeoff when the engine is not running.
- **35-**Always disengage the power takeoff when the cardan shaft is at too wide an angle (it should never be more than 35° as shown in fig. 4.2) and when it is not in use.
- **36-**Only clean and grease the Cardan shaft when the power takeoff is disengaged, the engine is off, the parking brake is applied and the ignition key is removed.
- 37-On disconnecting the Cardan shaft, replace the protective hood on the power takeoff shaft.
- **38-**Prolonged use of the machine can cause the drive boxes to become hot. To avoid any risk of getting burnt, avoid touching these areas both during use and some time afterwards.
- **39-**Periodically check screws and nuts for tightness and grip. Tighten if necessary.
- **40**-When carrying out maintenance work or replacing the blades, raise the machine and rest on adequate supports.
- **41**-Use the quantities of grease and oil advised.
- **42-**Spare parts must meet the requirements as defined by the manufacturer. Use only original spare parts.
- **43-**Safety decals must always be clearly visible. They must be kept clean and replaced if they become too illegible (they can be ordered from the agent if necessary).
- **44-**The instruction booklet must be available for the lifetime of the machine.
- 45-and rest on adequate supports.
- 46-Use the quantities of grease and oil advised.
- 47-Spare parts must meet the requirements as defined by the manufacturer. Use only original spare parts.
- **48-**Safety decals must always be clearly visible. They must be kept clean and replaced if they become too illegible (they can be ordered from the agent if necessary).
- 49-The instruction booklet must be available for the lifetime of the machine.

# SECTION 5 PRODUCT IDENTIFICATION

#### 5.1 TRACTOR REQUIREMENTS

Power takeoff speed (PTO)	revs/min	540
Max hydraulic pressure	bar	160
Minimum power required	(se	e 5.2)
Simple distributor	n°	1

#### 5.2 MACHINE TECHNICAL DATA

Type of machine		DM/8
Number of disks	n°	8
Number of knives per disk	n°	2
Working width	m (inch)	3.23 (127)
Gear ratio (PTO-disks)		2.73
Peripheral knife speed (PTO 540 revs/min)	m/s (ft/s)	81 (266)
Minimum power required	kW (HP)	41 (56)
Weight	kg (Lb)	650 (1434)
Power takeoff speed (PTO)	revs/min	540
Max hydraulic pressure	bar	160

#### 5.3 MACHINE IDENTIFICATION DATA

The machine is identified by means of the following technical data:

- Type of machine
- Registration number
- Year of manufacture
- Weight

stamped on the rating plate fastened to the frame of the machine. This data should be mentioned when requesting any replacements or information.

53	AGRICULTURAL MACHINERY SILFESTINA-PERUGIA-ITALY Phone: 075-8540021 Fax: 075-8540523	Q
		]
MA	DE IN TIALY	

# SECTION 6 ASSEMBLY

#### 6.1 TECHNICAL NOTES

We will provide a few examples to make it easier to choose which of the various accessories to use for each step of assembly. An approximate equivalent of the metric measurements is given in inches.

#### 6.1.1 PINS AND SCREWS (fig. 6.1)

Example: a pin with a 25 mm (1") diameter and a screw with an M 16 (5/8") diameter, both 50 mm (2") long, will be listed as:

D 25 x 50 (D 1" x 2") and M 16 x 50 (D 5/8" x 2").



# 6.1.2 SHIMS, SPACERS, BUSHINGS AND WASHERS (fig. 6.2)

Example: a shim, spacer, bushing or washer with an inside diameter of 25 mm (1"), outside diameter of 50 mm (2") and thickness or length of 13 mm (1/2") will be listed as: D 25 - 50 x 13 (D 1" - 2" x 1/2").



#### 6.1.3 NUTS, GREASE NIPPLES (fig. 6.3)

Example: a nut or grease nipple having a thread of M 8 (5/6") will be listed as: M 8 (5/16")



#### 6.2 INSTRUCTIONS ON HOW TO ASSEMBLE MODEL DM 8

In fig. 6.4 is shown the packaging of the machine in crate. To put the machine as in fig. 6.5, using a forklift truck, crane or other suitable equipment of sufficient capacity attach the machine in holes 1 and lift the machine pivoting in pin 5 until position in fig. 6.5 is reached.







Be careful: the frame 2 is very unstable. Frame 2 is pivoting in axle 3 and in pin 4.

Pay attention to tie rod 6 and 7 too.

#### 6.2.1 see pict. 6.6





Refer to fig. 6.6 and carry out the following steps in the order indicated:

- Use pin 5 (ø 35 x 230 ø 1"3/8 x 9"1/4) to mount tie rod 1 into the support 20 and fasten with two spring pin (ø 8 x 45 - ø 5/16 x 1"49/64).
- 2) Use pin 2 (ø 22 x 102 ø 55/64 x 4") to insert tie rod 1 between slots of frame and fasten with spring pin 6 (ø 6 x 35 ø 15/64 x 1"3/8).
  Pay attention to dimension 3 (77.5 mm 3"3/64); this

dimension shows the right assembly of pin 2 as shown in figure.

- Mount rubber spring 24 (M12 x 22 − ½" x 55/64") to tie rod 1.
- Insert the two hoist pins 13 into their respective slots and use screws 22 M 8 x 80 (5/16" X 3"9/64), nuts 21 to fasten into the position which best suits the dimensions of the tractor.



- 5) Insert clamp 12 of hoist chain 11 on one of the hoist pins 13 and fasten with washer 14 ( $\emptyset$  25  $\emptyset$  1") and spring pin 15 ( $\emptyset$  8 x 50  $\emptyset$  5/16" x 1" 61/64).
- 6) Use clamp 16 to connect chain 11 to the tractor (see fig. 8.2). When the hoist chain 11 is well stretched this is the minimum distance of the hoist pins from ground.
- 7) Mount four grease-nipple 9 and 10 M6.

#### 6.2.2 see pict. 6.7



Refer to fig. 6.7 and carry out the following steps in the order indicated:

- See fig. 6.8 for the right position of safety bar rubber spring. Use pin 2 (Ø 22 x 106 - Ø 55/64 x 4"11/64) to mount safety bar 1 into the supports of frame 5 and fasten with two spring pin (Ø 6 x 35 - Ø 15/64 x 1"3/8) and washers (Ø 22 - Ø 55/64).
- Use pin 3 (Ø 22 x 100 Ø 55/64 x 4") to mount safety bar 1 into the supports of frame 4 and fasten with two spring pin (Ø 6 x 35 - Ø 15/64 x 1"3/8) and washers (Ø 22 - Ø 55/64).





The machine 3<sup>rd</sup> point hitch is not stabilized. Now it is possible to attach the machine to the tractor (see 7.1 HOW TO ADAPT TO THE TRACTOR).

It is not necessary for assembly operations.



6.2.3 see pict. 6.9 Mount internal conveyor disc

The oval disks are splined to a shaft and have to be positioned so that the main axle is at right angles with those next to it (see figure).

Cupped washer 1 in figure must be mounted with its concavity facing downwards. The self-locking nut 2 must be tightened with a dynamometric spanner set at 32 kgm (320 Nm).



#### 6.2.4 see pict. 6.10





Refer to fig. 6.10 and carry out the following steps in the order indicated:

- 1) Mount protection canvas support 2 to the gearbox with four screw M14 x 35 (35/64 x 1"3/8) using loctite or similar without fully tighten. These screws are 10.9 class of material, so always replace them with others screws with the same class of material.
- 2) Because of little gap between hole and screw, align the support 2 vertically to make it fall between the slots of frame when the machine is in transport position.



#### 6.2.5 see pict. 6.11

Refer to fig. 6.11 and carry out the following steps in the order indicated:

- 2) Mount support 5 to the canvas support with four screw item 6 M12 x 25 (15/32 x 1") and washer item 7 (ø 13 – 1/2").
- 3) Mount support 5 to the disc support 12 with screw item 8 M14 x 45 (35/64 x 49/64) and nuts 10 and 11.
- 4) Tighten all the screws of canvas support.



#### 6.2.6 see pict. 6.12

Refer to fig. 6.12 and carry out the following steps in the order indicated:

- Mount pin 2 as in fig. 6.13 point 2).
- 2) Mount sliding rod 1 as in figure with pin item 3 (Ø 25 x 93 Ø 1" x 3"21/32) and two spring pin 5 (Ø 6 x 45 15/64 x 1"3/4).
- Mount sliding rod 1 as in figure with pin item 2 (ø 25 x 182 – ø 1" x 7"5/32) and two spring pin 4 (ø 6 x 45 - 15/64 x 1"3/4).
- Bend rope 7 to the locking device 8 and let it pass in pulley of sliding rod 1 and mount greasenipple 6.



#### 6.2.7 see pict. 6.13

Refer to fig. 6.13 and carry out the following steps in the order indicated:

- Insert threaded pin 24 (M 24 x 201 − 1" x 7"5/32) with washer 27 (Ø 25 − Ø 1") shown in figure detail to the canvas support 1 and fasten with other washer 27 (Ø 25 − Ø 1") and grower 26 (Ø 25 − Ø 1") and nut 25 (M 24 − 1").
- 2) Mount pin 28 (ø 25 x 182 ø 1" x 7"5/32) shown in figure detail to the canvas support 1 and fasten with one spring pin 29 (ø 6 x 45 ø 15/64 x 1"49/64) using the center hole 30 of pin 28.
- 3) Mount lift cylinder 31 as in figure (the hose attach must be on the upper side of the cylinder) on pin 24 mounted on step 1 and fasten with one spring pin 34 (Ø 6 x 35 Ø 15/64 x 1"3/8); on the other side of the cylinder use pin 32 (Ø 30 x 85 Ø 1"11/64 x 3"11/32) and two spring pin 33 (Ø 8 x 45 Ø 5/16 x 1"49/64) and two washers (Ø 30 Ø 1"11/64).
- 4) Mount spring 38 as in figure on pin 28 already mounted on step 2 and fasten with one spring pin 39 (ø 6 x 45 ø 15/64 x 1"3/4) and washer (ø 25 ø 1")..
- 5) Mount the threaded rod of the spring 38 on pin already mounted on step 1 of figure 6.6 with spacer 36 (ø 35 42 x 20 ø 1"3/8 1"41/64 x 25/32).and washers (ø 35 ø 1"3/8) and fasten with one spring pin 35 (ø 8 x 45 ø 5/16 x 1"49/64).



# To make easier mounting spring 38, attach the machine to the tractor and lift up the disc carrier with cylinder 31 (see 7.1 HOW TO ADAPT TO THE TRACTOR).

- 6) Mount rear protection 13 on support canvas 1 as shown with six screw 14 (M10 x 20 25/64 x 25/32) and nut 16 (M10 25/64); mount plugs for pipe ( $\emptyset$  27 x 2.5  $\emptyset$  1" 1/16 x 3/32").
- Mount the three pivoting supports 17 on support canvas 1 as shown with three screws 18 (M12 x 75 15/32 x 2"15/16) and self-locking nuts 19 (M12 – 15/32)

#### Do not fully tighten the screws 18 to let pivoting the front protection.

- Mount front protection 20 on pivoting supports 17 as shown with five screw 21 (M10 x 20 25/64 x 25/32) and nut 22 (M10 25/64). Do not mount the screw for hole 10 shown in fig. 6.15, used later to mount pivoting spring support.
- 9) Mount disc conveyor 50 with screw 52 (M 10 x 35 3/8" x 1"3/8) in the slot 55 of support 51 of discs carrier and tighten up with two washers 54 and nuts 53 (M 10 3/8"). Use the slot 55 to adjust the position of disc conveyor. Mount grease-nipple M6.



#### 6.2.8 see pict. 6.14

Refer to fig. 6.14 and carry out the following steps in the order indicated:

- 1) Mount support 5 with screw 6 (TCEI M 10 x 25 -25/64" x 1") without fully tighten.
- 2) Mount conveyor sheet 4 with screw, two washers and nut 9 (M 8 x 25 - 5/16" x 1") and screw, washer and nut 8 (M 10 x 25 - ø 25/64" x 1"); on the rear view of the machine use screw, washer and nut 11 (M 10 x 25 - ø 25/64" x 1") to fasten conveyor sheet 4 to canvas support.



#### 6.2.9 see pict. 6.15

Refer to fig. 6.15 and carry out the following steps in the order indicated:

- 1) Mount protection canvas with the opening between ground and its lower reinforced edge on the front of the machine. Fasten all the belt of the canvas to prevent damage.
- 2) Mount plugs for pipe (ø 33.7 x 3 - 1" 5/16 x 7/64") of 1 and 2
- 3) Make three holes 10 on protection canvas as shown for screws 5 (M 10 x 25 - 25/64" x 1") to assembly support 1 and 2, and fasten with washer 7 and nut 6.
- 4) Use screws 3 (M 10 x 75 -25/64" x 2"15/16) and self-
- 5) Mount pivoting spring 8 on pins 9.



locking nuts 4 to mount support 1 and 2, but not fully tighten to make them pivoting.

#### 6.2.10 see pict. 6.16

Refer to fig. 6.16 and carry out the following steps in the order indicated:

- Use two screws 8 M 6 x 16 (D 15/64" x 5/8") and washers 6 to assemble casing 7.
- 2) Pin 12 and peg 13 is used for the 3<sup>rd</sup> point tractor attach.
- Insert hook 14 into the hole indicated in figure. This is for parking position of cardan shaft.



# SECTION 7 INSTRUCTIONS FOR INSTALLATION

#### 7.1 HOW TO ADAPT TO THE TRACTOR

The machine can be adapted to tractors with various gauges by placing the two hoist arms as shown in figure, so that height A is about 10 cm (4 inches) when the machine is in the work position (see 9.3). The hoist pins 13 (fig. 7.2) for the machine with 8 disks can be used only with a 2nd class coupling (28 mm - 1.1 inches).

In order to obtain the various positions:

- a) turn the hoist pins upside down as shown in figure 7.1;
- b) slide the pins 13 in the respective slots and fasten into position with screws 22 and nut 21 (fig. 7.2) in one of the adjustment holes 23 on the pins.
- c) fasten the two tractor hoist arms into pins 13 with pegs 24.

The third point has to be adjusted so that axle E in fig. 7.3 is vertical.

- 1) Start up the hydraulic hoist and raise the drawbar slightly.
- 2) Adjust and stabilise the lower hoist arms of the tractor on each side.
- If necessary, move the vertical movement adjuster tie rod on the hoist arms until both balland-socket joints are at the same height above ground.
- 4) Use clamp 16 to connect chain 11 in fig. 7.2 to the tractor (see fig. 7.3). When the hoist chain 11 is well stretched this is the minimum distance H of the hoist pins from ground. Fasten adjustment chain 11 above the ground so that distance H is about 50 cm (19.7 inches).







#### 7.2 HOW TO ADAPT THE CARDAN SHAFT

In order to make sure that the cardan shaft is the right length compared with the tractor power takeoff (with the machine already attached to the tractor), proceed as follows(see pict. 7.2):

- Remove the two cardan joint axle shafts and insert them separately on the two power takeoffs (tractor and mowing machine) with the clutch on the side of the mowing machine.
- 2) Place the two axle shafts one alongside the other.
- 3) Check that when the cardan shaft is stretched to its minimum length (repeatedly raise and lower the machine to find this position), the tubes do not touch the bottom, so that there is always a minimum clearance B of 20 mm (0.79 inches).



4) If necessary, reduce the two axle shafts as well as the two axle shaft protections by the same amount (keeping the above-mentioned conditions), and take care to clean and lubricate them before starting work.



When the cardan shaft is stretched to its maximum length (with the safety device released), the cardan tubes must remain inserted at least 10 cm (4 inches).

Use the relevant chains to fasten the outer cardan shaft protection

# SECTION 8 ADJUSTMENTS AND SET-UP

#### 8.1 BELT TENSION

Belt tension must be checked regularly particularly during the first few hours of use. In order to adjust tension proceed as follows (see pict. 8.1):

- In order to have the right belt tension, you have to tighten screw A till the spacing pipe C is in contact with upright D and washer B, then you have to tighten screw A for other 2 compete turns.
- Finally check that tension is correct. Distance, visible through opening on rear side of belt cover, is about 20 mm (0.8 inches) when pressure is applied to the belt.

Note : You have to tighten the screw A for the 2 final turns, just for the first assembling and the following replacements of belts.

If a belt has to be replaced, all belts should be replaced at the same time. The belts must be loosened at the end of the season.

#### 8.2 CUTTING HEIGHT

The cutting height can be adjusted by using turnbuckle 1 on the third tractor point to vary the tilt of the knives compared to the ground (distance F in fig. 8.2).

Cutting height may vary within the range of 16/60 mm (0.63/2.36 inches) even though uneven land may influence these values.

#### 8.3 HYDRAULIC FLOW ADJUSTER

The hydraulic flow adjuster 1 in fig. 8.3 (item 4 rapidcoupling and item 3 hydraulic hose) is used to move down to the ground the cutting bar slowly to prevent it from damage.

To set hydraulic flow adjuster 1 turn nut 1:

1) clockwise to lower the machine slower

2) counter-clockwise to lower the machine faster.

The standard adjustments is two complete turns from max slow position.

When setting operation is ended lock nut 1 with counter-nut 2.



Pay attention to hydraulic flow adjustment: try to move up and down the cutting bar during setting operation to check the right adjustment.

The <u>hydraulic flow adjuster works in only one</u> <u>direction</u> so always check the right assembly as in figure.







#### 8.4 SPRING TENSION

To adjust spring tension (fig. 8.4):

- 1) Lift the disk carrier bar until spring is not tensioned.
- 2) Loose the nut A and turn the spring B.
- 3) When adjust is completed, tighten the nut A.

The dimension C is 100 mm (4") for the standard adjustment.



The dimension C must be always higher than 95 mm (3" 47/64) to preserve spring B from permanent stretching and lower than 120 mm ( 4" 23/32) for transport position



#### 8.5 SAFETY DEVICE

Safety device B (fig. 8.5) unhook when it receives blows that are too strong for the machine structure.

The dimension A is the length of the rubber spring of safety device when tensioned between the two washers; it is 95 mm (3" 47/64) for the standard adjustment.

When adjust the length of the spring, tighten the relevant screw very carefully until unhooking occurs at reasonable intervals only.



The dimension A must be always higher than 85 mm (3" 11/32).

Danger of not unhooking when it receives blows that are too strong for the machine structure



# SECTION 9 USE

#### 9.1 PARKING POSITION

The parking position is when the pin A is locked in slot D as in fig. 9.1. In that position the hoist pins of the machine are at about 50 cm (19.7 inches) from ground and horizontally aligned, as in fig. 9.2. Remember that the disk carrier spring is stretched in parking position.



# Never lift up the disk carrier bar with pin A inserted in hole D as in fig. 9.1.The machine structure may be damaged.

In order to put the machine in the parking position when the machine is connected to the tractor, proceed as follows (see pict. 9.1):

- Take out the cylinder shaft until the disk carrier bar is horizontal on the ground.
- 2) Take point C of pin A out of hole B as in fig. 9.1.
- Use the tractor hoist to raise or to lower the machine just to make pin A enter slot D.
- 4) Disconnect the hoist chain from the tractor.
- 5) Lower the tractor hoist at the lowest position. At this time the pin A is locked in slot D.
- 6) Disconnect the tractor hoist arms from the machine hoist pins.
- 7) Put the rapid coupling of the hose as in fig. 8.1. Insert cardan shaft on hook 14 (see fig. 6.16).





#### 9.2 TRANSPORT POSITION (ROAD USE)

Strictly comply with the road traffic regulations in your country.

In order to put the machine in the transport position when the machine is parking position and is connected to the tractor, proceed as follows(see pict. 9.1):

- 1) Open the front pivoting protection cage (item 20 fig. 6.13).
- 2) Use the tractor hoist to raise the machine just to make pin A free on slot D.
- Take pin A out of slot D and position point C of pin A in hole B.
- 4) Use the tractor hoist to raise the machine off the ground.
- Lift the disk carrier bar vertically along the entire cylinder run keeping in tension cable in order to take safety locking pin out of slot F until safety locking pin E entirely enters the hole G of rod H (see pict. 9.3).



6) Pull out the cylinder shaft slightly until safety locking pin E is well fastened.

#### 9.3 WORKING POSITION

To move from the transport position (see 9.2) to the working position proceed as follows:



#### Make sure that no person or object is standing within the turnover range of the disk carrier bar.

- 1) Send the cylinder shaft backwards slightly but keep rope stretched until safety locking pin E fig. 9.1 is unhooked.
- 2) Take out the cylinder shaft until the disk carrier bar is horizontal.
- Use the tractor hoist to lower the machine; fasten adjustment chain 11 fig.7.2 above the ground so that distance H fig. is about 50 cm (19.7 inches).



#### Make sure that adjustment chain 11 fig.7.2 is always well stretched when machine is working.

4) Lower the protection plate and check that the cardan shaft is inserted into the machine power takeoff.

To <u>lift up rapidly the disk carrier bar</u> from the ground for movement in the field take in the disk carrier bar cylinder without keeping in tension the safety locking pin cable.

When working in sloping ground as in fig. 9.4, see 9.5 WORKING IN SLOPING GROUND.

#### 9.4 MOWING

- 1) Before starting to mow, place the machine on the ground so that the disk carrier bar is horizontal.
- 2) Before starting the machine, make sure that the knives are well sharpened, particularly if the grass is thin, dry or sparse.
- 3) Switch on power takeoff rotation and gradually accelerate.

Machine input rotation speed must be about 540 revs/minute.



Make sure there are no persons nearby, particularly behind the disk carrier bar discharge area. Always check before you start mowing that the protection plate is lowered all the way round the machine.

If the bar is working for long periods on sloping ground, we advise holding it in a horizontal position for a few minutes every half hour of work.

#### 9.5 WORKING IN SLOPING GROUND

When working in sloping ground as in fig. 9.4 check these points:

- 1) Never take safety locking pin E in fig. 9.1 out from slot F when working in sloping ground. This pin prevents machine from damage when working in sloping ground.
- 2) The dimension C (fig. 8.4) must be increased about 20 mm (25/32") each 5° degree of sloping ground from standard adjustment to preserve spring B from permanent stretching. Before lift up the disk carrier for transport position, remember to put the spring in standard adjustment.



The dimension C must be always higher than 95 mm (3" 47/64) to preserve spring B from permanent stretching and minus than 120 mm ( 4" 23/32) for transport position



# SECTION 10 FAULTS: REASONS AND REMEDIES

#### 10.1 The disk carrier bar vibrates too much during work:

the nylon bushings of the joints in question are over worn or completely worn out.

 $\Rightarrow$  replace the bushings;

the pins and/or respective bushings/bearings of the joints in question are over worn.

 $\Rightarrow$  replace the worn-out parts and lubricate regularly;

the outer conveyor is too slack

 $\Rightarrow~$  check that it is fastened correctly.

#### 10.2 The disk carrier bar does not adapt correctly to uneven ground:

the height of the tractor coupling plate is not adjusted correctly

⇒ readjust as specified in point 7.1 (in particular check that both ball-and-socket joints are the same height above ground);

the machine joints resist free rotation

 $\Rightarrow$  clean and lubricate the parts in question.

#### 10.3 <u>The disk carrier bar is not raised parallel to the ground:</u>

the entire machine is leaning to one side

 $\Rightarrow$  check that both hoist ball-and-socket joints are at the same height above ground;

Earth accumulates between two sliding blocks in the front part of the disk carrier bar:

#### 10.4 <u>7.4 Earth accumulates between two sliding blocks in the front part of the disk car-</u> rier bar

The ground is exceptionally wet;

the bar presses to hard on the ground

 $\Rightarrow$  increase tension of the spring B fig. 8.4;

the disk carrier bar tilts too far forward

 $\Rightarrow$  adjust the tilt of axle E fig. 8.2 by moving turnbuckle 1 on the third point.

#### 10.5 Safety device (fig. 8.5) often unhooks under impact:

The rubber buffer B is worn out or is not adjusted correctly.

⇒ check the condition of the rubber buffer and if necessary, tighten the relevant screw very carefully <u>(dan-ger of not unhooking when it receives blows that are too strong for the machine structure)</u> until unhooking occurs at reasonable intervals only.

#### 10.6 <u>The stubble is too high or too sparse:</u>

The disk carrier bar does not tilt correctly (axle E in fig. 8.2)  $\Rightarrow$  use turnbuckle 1 on the third point to adjust the tilt.

#### 10.7 <u>The stubble is not the same height all along the cutting width:</u>

the disk carrier bar tilts too much

 $\Rightarrow$  reduce the tilt of the disk carrier bar (fig. 8.2);

the knives are over worn

 $\Rightarrow$  replace the knives;

power takeoff speed is insufficient

 $\Rightarrow$  increase power takeoff rotation speed up to, but not over, 540 revs/min;

forward movement speed is too fast

 $\Rightarrow$  reduce tractor speed.

#### 10.8 The forage is pushed forward before being cut:

the ventilating effect of the knives is too strong

 $\Rightarrow$  reduce power takeoff rotation speed and increase tractor forward movement speed.

# SECTION 11 MAINTENANCE

#### 11.1 HOW TO FASTEN CUTTING DEVICES

After they have been used the first time, the disks, knives and relevant parts to fasten them must be controlled regularly every 15-20 working hours. More frequent checks will have to be made if mowing is carried out on stoned ground and after impact with an obstacle.

The oval disks are splined to a shaft and have to be positioned so that the main axle is at right angles with those next to it (fig. 11.1).

The knives are fastened by means of a special selftapping screw and an M12 nut (fig. 11.2); the nut must be tightened with a 16 kgm (160 Nm) torgue.

Cupped washer 1 (fig. 11.3) must be mounted with its concavity facing downwards. The self-locking nut 2 must be tightened with a dynamometric spanner set at 32 kgm (320 Nm).

Pay attention to the direction of disk rotation. Worn knives can be replaced by carefully looking at fig. 11.1 (A is the work moving direction); the second cutter (if still in good condition) can be used by putting it back turned up-down at the same side of the disk. If worn knives are used to mow, the cut will be less precise and more power will be used.







#### 11.2 HOW TO CHECK THE MOWING DEVICES

The knives should be replaced when:

- $\Rightarrow$  the width of the knife at point B=1 cm (0.4 inches) from the edge of the disk is 3/4 of the original width A (fig. 11.4).
- $\Rightarrow$  the oval shape of the hole is more than a distance of C=2 mm (0.08 inches) of the size of the original hole (fig. 11.5).

The clamp parts should be replaced when:

- $\Rightarrow$  the screw to fasten the knives is bent or too worn out below the head (fig. 11.6).
- $\Rightarrow$  the self-tapping layer 1 of the screw to fasten the knives is missing or too worn out; we advise changing the screw after it has been tightened 5 times (fig. 11.7).
- $\Rightarrow$  the clamp screw is worn down where it holds the knife to a distance of E higher than or equal to 3 mm (0.12 inches) (fig.11.8).
- $\Rightarrow$  the height of the lock nut at any point whatsoever is less than or equal to 1/2 of the total nut height (fig. 11.9).



Worn out or damaged pieces must be replaced with original spare parts.







#### 11.3 GENERAL MAINTENANCE

Before carrying out any cleaning or maintenance operation etc. comply with all the safety warnings given in this use and maintenance handbook. Before carrying out any operation directly, first:

- switch off the engine;
- remove the key from the dashboard and put the brake on the tractor;
- release circuit pressure;

check that the mower is stable.

The following points should be checked on each new machine 8 working hours:

- · the screws are correctly tightened;
- the tension of all the belts;
- · that no parts of the hydraulic system are leaking;
- that the driving gear parts are correctly lubricated.

Carry out the following checks regularly particularly at the beginning of each season:

- check/replace the oil, lubricate/grease each point necessary, according to the instructions;
- check wear and tear of the knives and respective clamp parts;
- · check wear and tear of protection parts;
- · reset correct belt tension;

check that all the screws are tightened correctly.

11.7





Before beginning to mow, make sure that the machine is working correctly and there are no vibrations.

#### 11.4 LUBRICATION

Change the oil in the disk carrier bar and the overgear box after the first 50 hours use. After this first change, we advise changing the oil every 100 working hours or at least once a year.

- The <u>cardan shaft</u> should be greased regularly as shown in fig.11.10.
- The joints, supports, hinges, and points equipped with lubricator as shown in figs. 11.13 and 11.14 should be lubricated or greased frequently, at least every 20 working hours.



When in use, check the oil levels every day and top up if necessary.



#### 11.4.1 OVER-GEAR BOX (fig.11.11)

1= drain/loading cap with level rod 2= breather cap on disk carrier bar.

Use SAE EP 80 W 90 oil in the quantities shown in the table. Check the level with the special rod on the drain/loading cap when the bar is lying horizontally. Oil can be drained through the hole in cap 1 when the bar is vertical.

#### 11.4.2 DISK CARRIER BAR (fig. 11.12)

1= loading cap - level cap 2= drain cap

Use SAE EP 80 W 90 oil in the quantities shown in the table.

Oil is loaded and the oil level is checked when the disk carrier bar is vertical (it must have been in the vertical position for at least 5 minutes).

In order to fill up the oil unscrew both caps 1 (filling and level) and pour in the amount shown or the amount needed to top up the level through the hole in cap 1 (tilt the bar slightly if necessary so it is easier to pour in the oil) until the level of cap 1 is reached.

	litres	Gall. UK	Gall. USA
Over-gear box	0,7	0.16	0.19
8 disk bar	3,8	0.8	1





#### 11.5 END OF SEASON STORAGE

At the end of the season we recommend storing the machine with the bar lying horizontally after having cleaned it carefully. You should also:

- · lubricate and grease each point shown in this use and maintenance handbook;
- · protect the areas subject to rubbing with a layer of anti-rust paint;
- loosen the trapezoidal belts and check that the protection plate is lying flat.





