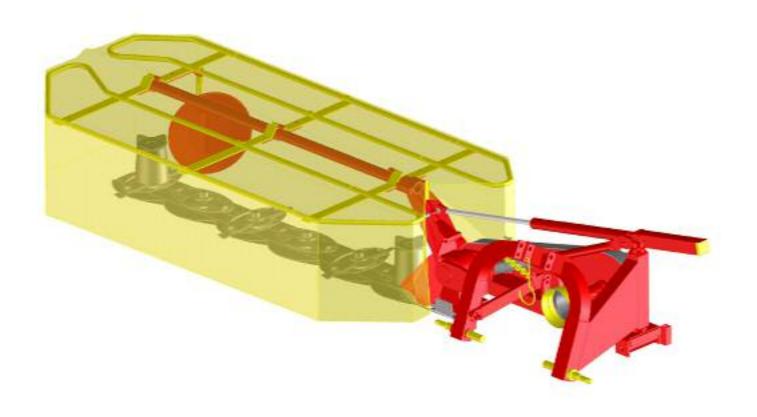


SPARE PARTS LIST ASSEMBLY USE AND MAINTENANCE



DM/4 - DM/5 - DM/6 - DM/7

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 Manual.

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 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 begins. Any work or repairs made before approval may not be covered under warranty.

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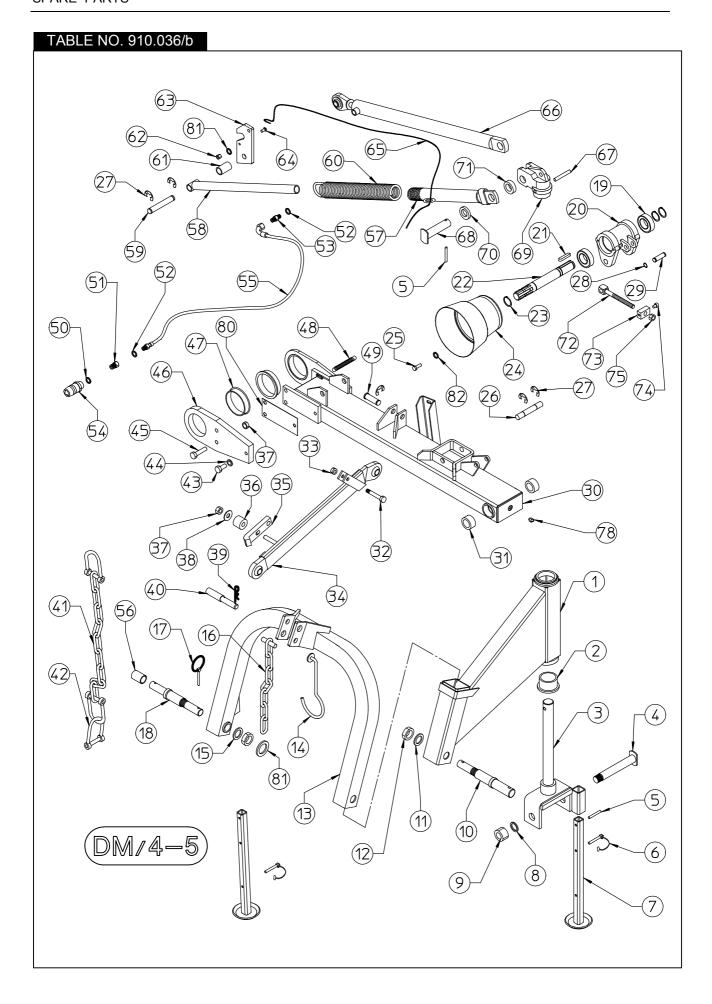


	TABLE NO. 910.036 DM/4-5								
ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE	ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE
1	1	100.162	SUPPORT		40	1	200.343	PIN	
2	1	100.236	BUSH		41	1	110.367	CHAIN	
3	1	100.163	PIN SUPPORT		42	3	610.118	SHACKLES	
4	1	100.164	PIN		43	1	620.361	SCREW	
5	3	600.027	SPRING PIN		44	1	600.180	WASHER	
6	2	610.151	PIN		45	2	620.405	SCREW	
7	2	100.166	PARKING STAND		46	1	110.020	BOX SUPPORT	
8	1	600.632	WASHER		47	2	100.831	BUSH	
9	1	600.717	NUT		48	1	100.235	SPRING	
10	1	100.175	PIN		49	1	100.176	PIN	
11	1	600.336	WASHER		*	1	100.203/a	KIT HYDRAULIC	
12	2	610.150	NUT		50	1	600.269	COPPER WASHER	
13	1	100.161	3 POINT HITCH		51	1	600.428	NIPPLE	
14	1	100.253	SUPPORT		52	3	600.039	COPPER WASHER	
15	1	600.246	WASHER		53	1	200.192	NIPPLE	
16	1	110.368	CHAIN		54	1	600.273	QUICK COUPLING	
17	3	600.017	PIN		55	1	610.143	HOSE	
18	1	100.280	PIN		56	1	400.045/a	BUSH	
19	2	600.608	BEARING		57	1	100.170/a	OUTER TUBE	
20	1	100.756	SUPPORT		58	1	100.171	INNER TUBE	
21	1	610.153	TAB	DM/4	59	1	100.202	PIN	
21	1	610.154	TAB	DM/5	60	1	100.172	SPRING	
22	1	100.760	P.T.O. SHAFT	DM/4	61	1	100.204	BUSH	
22	1	100.761	P.T.O. SHAFT	DM/5	62	1	600.076	NUT	
23	4	600.333	SNAP RING		63	1	110.029	HOOK	
24	1	600.818	HOOD		64	1	110.053	SCREW	
25	2	600.650	SCREW		65	1	610.160	ROPE	
26	1	100.757	PIN		66	1	100.169	CYLINDER	
27	5	610.152	SNAP RING		67	1	610.168	SPRING PIN	
28	2	600.533	SNAP RING		68	1	100.173	PIN	
29	2	100.758	PIN		69	1	100.165	UPPER SUPPORT	
30	1	100.749/b	MAIN FRAME		70	1	100.251	BUSH	
31	2	100.198/a	BUSH		71	1	100.252	BUSH	
32	1	600.754	SCREW		72	1	100.746	TIE ROD	
33	1	600.077	NUT		73	1	100.745	SUPPORT	
34	1	100.167/a	SAFETY HOOK		74	2	610.941	SCREW	
35	1	100.168	HOOK		75	2	600.082	SCREW	
36	1	100.201	SPRING		78	1	600.124	GREASE NIPPLE	
37	3	620.441	NUT		80	1	100.353/a	SPACER	
38	1	610.231	WASHER		81	1	200.165	WASHER	
39	1	600.308	SPLIT PIN		82	2	610.185	WASHER	

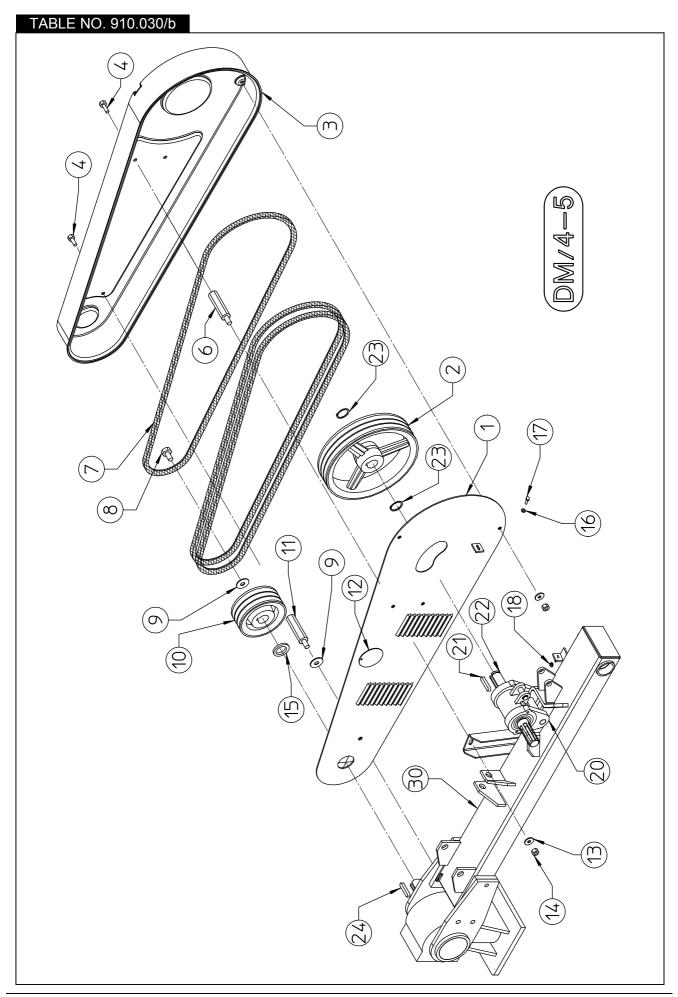


	TABLE NO. 910.030/b							
	DM/4-5							
ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE				
1	1	100.918	INTERNAL COVER					
2	1	100.180	PULLEY	DM/4				
2	1	100.224	PULLEY	DM/5				
3	1	100.919	OUTER COVER					
4	5	610.674	SCREW M10x16					
6	4	100.921	SPACER SCREW					
7	3	610.033	BELT	DM/4				
7	4	610.033	BELT	DM/5				
8	1	600.440	SCREW					
9	2	500.160	WASHER					
10	1	100.181	PULLEY	DM/4				
10	1	100.225	PULLEY	DM/5				
11	1	100.920	SPACER SCREW					
12	1	100.313	PLUG					
13	2	600.322	WASHER					
14	6	600.029	NUT M10					
15	1	100.205	BUSH					
16	1	610.185	WASHER D.9					
17	1	600.223	SCREW M8x20					
18	1	600.076	NUT M8					
20	1 *	100.756	SUPPORT					
21	1	610.153	TAB	DM/4				
21	1	610.154	TAB	DM/5				
22	1 *	100.760	P.T.O. SHAFT	DM/4				
22	1	100.761	P.T.O. SHAFT	DM/5				
23	2 *	600.333	SNAP RING					
24	1	610.505	TAB					
30	1	100.749/b	MAIN FRAME					

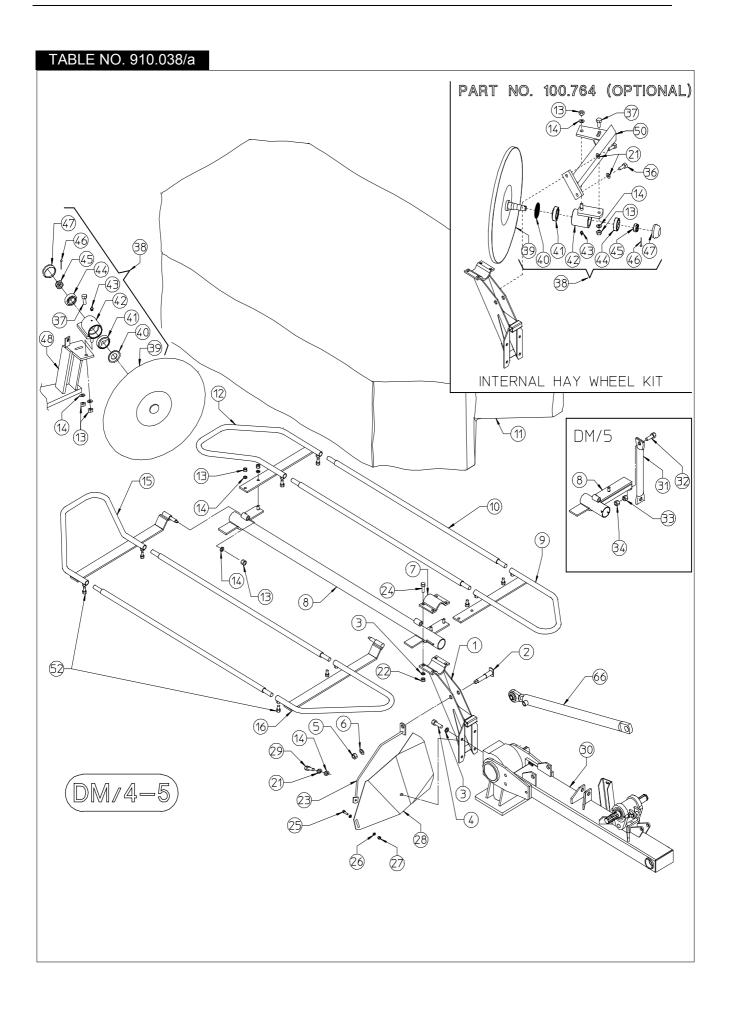


	TABLE NO. 910.038						
			DM/4-5				
ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE			
1	1	100.190/a	SUPPORT				
2	1	100.174/a	PIN				
3	8	600.089	WASHER				
4	4	600.004	SCREW				
5	1	600.080	NUT				
6	1	600.031	WASHER				
7	1	100.192	OUTER SUPPORT				
8	1	100.191/a	FRAME TUBE	DM/4			
8	1	100.937	FRAME TUBE	DM/5			
9	1	100.194/a	FRAME				
10	4	100.197/a	DISTANCE TUBE	DM/4			
10	4	100.256/a	DISTANCE TUBE	DM/5			
11	1	100.244	PROTECTION CANVAS	DM/4			
11	1	100.245	PROTECTION CANVAS	DM/5			
12	1	100.193/a	FRAME				
13	9	600.029	NUT				
14	9	600.322	WASHER				
15	1	100.195/a	FRAME				
16	1	100.196/a	FRAME				
21	3	600.024	WASHER				
22	4	600.077	NUT				
23	1	100.328	ARM				
24	4	600.754	SCREW				
25	1	600.757	SCREW				
26	2	600.115	WASHER				
27	1	600.076	NUT				
28	1	100.188	PLATE DEFLECTOR				
29	1	600.148	SCREW				
30	1 *	100.749/b	MAIN FRAME				
31	1	100.936	TIE ROD	DM/5			
32	2	600.752	SCREW M14 x45	DM/5			
33	4	600.009	NUT M14	DM/5			
34	4	600.009	NUT M14	DM/5			
36	2	600.006	SCREW				
37	1	600.641	SCREW				
38	1	100.763	HAY WHEEL ASSY				
39	1	100.881	HAY WHEEL				
40	1	600.011	DUST COVER				
41	1	600.012	BEARING 30205				
42	1	100.569	HUB				
43	1	600.124	GREASE NIPPLE	1			
44	1	600.014	BEARING 30204				
45	1	600.015	NUT				
46	1	600.301	SPLIT PIN	1			
47	1	205.654	CUP	1			
48	1	100.759	SUPPORT				
50	1	100.766	SUPPORT				
52	8	600.227	SCREW				
66	1 *	100.169	CYLINDER				
-	1	100.764	INTERNAL HAY WHEEL KIT	OPTIONAL			

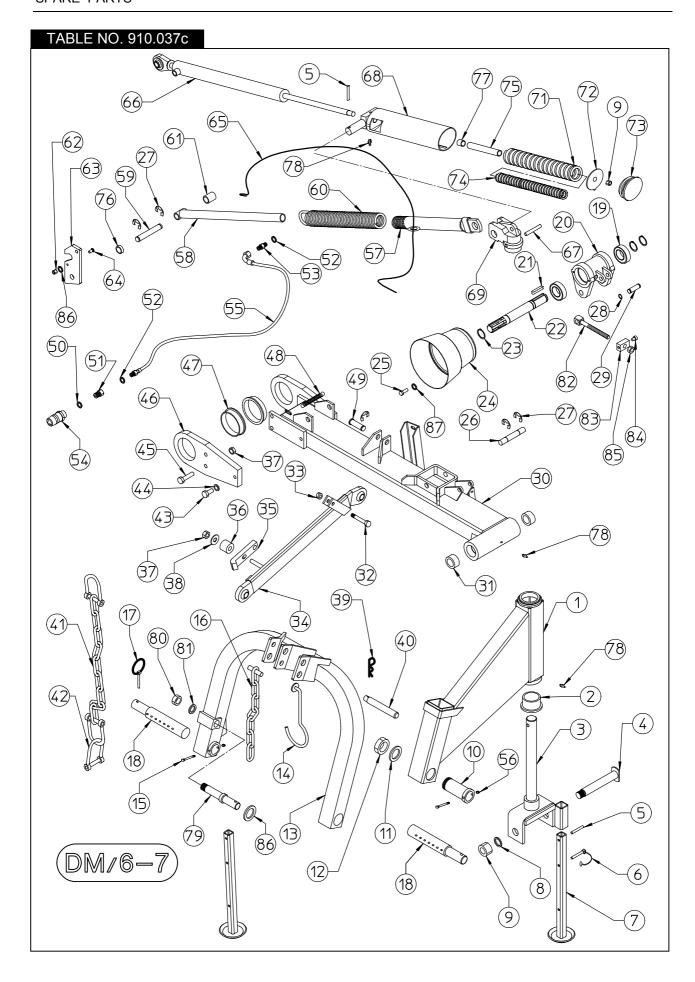


	TABLE NO. 910.037c DM/ 6-7								
ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE	ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE
1	1	100.319	SUPPORT		45	2	620.405	SCREW	
2	1	100.236	BUSH		46	1	110.020	BOX SUPPORT	
3	1	100.221/a	PIN SUPPORT		47	2	100.831	BUSH	
4	1	100.222/a	PIN		48	1	100.235	SPRING	
5	3	600.027	SPRING PIN		49	1	100.176	PIN	
6	2	610.151	PIN		*	1	100.203/a	KIT HYDRAULIC	
7	2	100.166	PARKING STAND		50	1	600.269	COPPER WASHER	
8	1	600.632	WASHER		51	1	600.428	NIPPLE	
9	2	600.717	NUT		52	3	600.039	COPPER WASHER	
10	1	100.322	BUSH		53	1	200.192	NIPPLE	
11	1	100.324	WASHER		54	1	600.273	QUICK COUPLING	
12	2	610.316	NUT		55	1	610.143	HOSE	
13	1	100.563	3 POINT HITCH		56	1	600.076	NUT	
14	1	100.253	SUPPORT		57	1	100.223/a	OUTER TUBE	
15	1	600.400	SCREW		58	1	100.171	INNER TUBE	
16	1	110.368	CHAIN		59	1	100.202	PIN	
17	3	600.017	PIN		60	1	100.172	SPRING	
18	2	100.320	PIN		61	1	100.365	BUSH	
19	2	600.608	BEARING		62	1	600.076	NUT	
20	1	100.756	SUPPORT		63	1	110.029	HOOK	
21	2	610.154	TAB		64	1	110.053	SCREW	
22	1	100.761	P.T.O. SHAFT		65	1	610.160	ROPE	
23	4	600.333	SNAP RING		66	1	100.214	CYLINDER	
24	1	600.818	HOOD		67	1	610.168	SPRING PIN	
25	2	600.650	SCREW		68	1	110.372	SUPPORT	
26	1	100.757	PIN		69	1	100.165	UPPER SUPPORT	
27	5	610.152	SNAP RING		70				
28	2	600.533	SNAP RING		71	1	110.373	SPRING	
29	1	100.758	PIN		72	1	110.375	FLANGE	
30	1	100.750/a	MAIN FRAME		73	1	630.327	PLUG	
31	2	100.232	BUSH		74	1	110.374	SPRING	ONLY DM/7
32	1	600.754	SCREW		75	1	100.217	BUSH	
33	1		NUT		76	1	100.363	BUSH	
34	1	100.167/a	SAFETY HOOK		77	1	100.362	BUSH	
35	1	100.168	HOOK		78	3	600.124	GREASE NIPPLE	
36	1	100.201	SPRING		79	1	100.564	PIN	
37	3	620.441	NUT		80	1	600.244	NUT	
38	1	610.231	WASHER		81	1	600.246		
39	1	600.308	SPLIT PIN		82	1	100.746	TIE ROD	
40	1	100.321	PIN		83	1	100.745	SUPPORT	
41	1	110.367	CHAIN		84	2	610.941	SCREW	
42	3	610.118	SHACKLES		85	2	600.082	NUT	
43	1	620.361	SCREW		86	1	200.165	WASHER	
44	1	600.180	WASHER		87	2	610.185	WASHER	

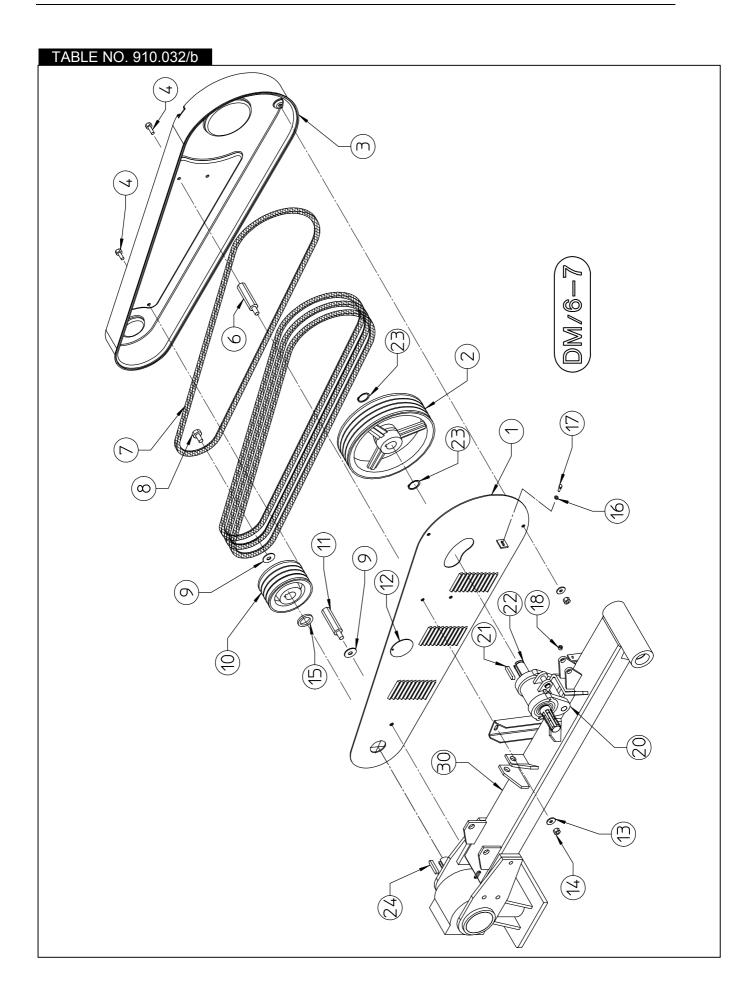


			TABLE NO. 910.032/b					
	DM/6-7							
ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE				
1	1	100.916	INTERNAL COVER					
2	1	100.224	PULLEY					
3	1	100.917	OUTER COVER					
4	5	610.674	SCREW M10x16					
6	4	100.921	SPACER SCREW					
7	4	610.032	BELT					
8	1	600.440	SCREW M12x25					
9	2	500.160	WASHER					
10	1	100.225	PULLEY					
11	1	100.920	SPACER SCREW					
12	1	100.313	PLUG					
13	2	600.322	WASHER					
14	6	600.029	NUT M10					
15	1	100.205	BUSH					
16	1	610.185	WASHER					
17	1	600.223	SCREW M8x20					
18	1	600.076	NUT M8					
20	1 *	100.756	SUPPORT					
21	1	610.154	TAB					
22	1 *	100.761	P.T.O. SHAFT					
23	2*	600.333	SNAP RING					
24	1	610.505	TAB					
30	1*	100.750/a	MAIN FRAME					

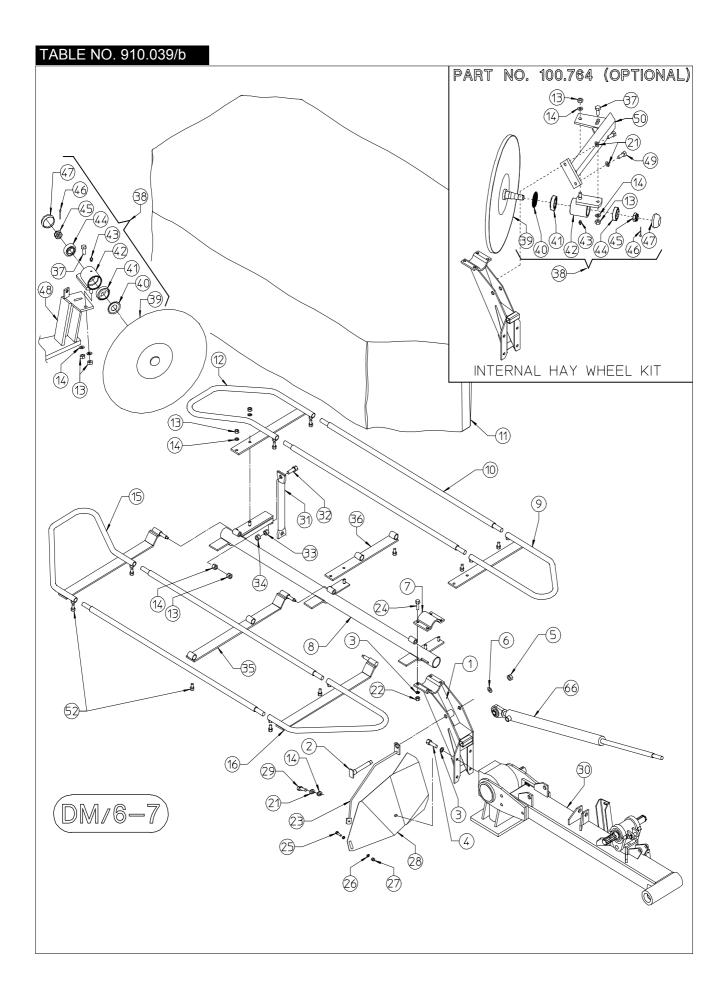
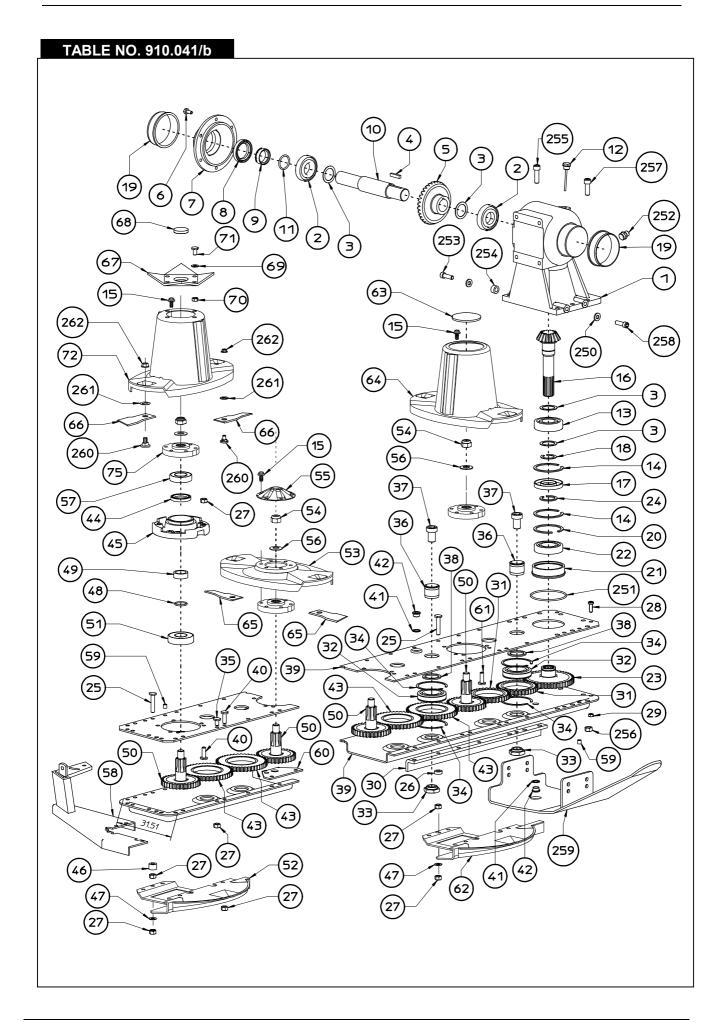


	TABLE NO. 910.039b					
	<u> </u>		DM/6-7	1		
ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE		
1	1	100.360	SUPPORT			
2	1	100.361	PIN			
3	8	600.089	WASHER			
4	4	600.004	SCREW			
5	1	600.080	NUT			
6	1	600.031	WASHER			
7	1	100.192	OUTER SUPPORT	DM/O		
8	1	100.938	FRAME TUBE	DM/6		
8	1	100.939	FRAME TUBE	DM/7		
9	1	100.194/a	FRAME	DM/C		
10	4	100.231/a	DISTANCE TUBE	DM/6		
10	4	100.257	DISTANCE TUBE	DM/7		
11	1	100.246/a	PROTECTION CANVAS	DM/6		
11	1	100.247	PROTECTION CANVAS	DM/7		
12	1	100.193/a	FRAME			
13	9	600.029	NUT			
14	9	600.322	WASHER			
15	1	100.195/a	FRAME			
16	1	100.196/a	FRAME			
21	3	600.024	WASHER			
22	4	600.077	NUT			
23	1	100.515	ARM			
24	4	600.754	SCREW			
25	1	600.757	SCREW			
26	2	600.115	WASHER			
27	1	600.076	NUT			
28	1	100.188	PLATE DEFLECTOR	DN 4/7		
28	1	100.329	PLATE DEFLECTOR	DM/7		
29	<u> </u>	600.148	SCREW			
30		100.750/a	MAIN FRAME	DM/F C 7		
31	1	100.936	TIE ROD	DM/5-6-7		
32	2	600.752	SCREW M14 x 45	DM/5-6-7		
33 34	4 4	600.009	NUT M14	DM/5-6-7		
5		600.009	NUT M14	DM/5-6-7		
35	1	100.325/a	FRAME	DM/7		
36	1	100.326/a	FRAME	DM/7		
37	1	600.641	SCREW			
38	1	100.763	HAY WHEEL ASSY			
39	1	100.881	HAY WHEEL			
40	1	600.011	DUST COVER			
41	1	600.012	BEARING 30205			
42	1	100.569	HUB			
43	1	600.124	GREASE NIPPLE			
44	1	600.014	BEARING 30204			
45 46	1	600.015	NUT SOLIT DIN			
46	1	600.301	SPLIT PIN CUP			
47	1	205.654				
48	1	100.759	SUPPORT			
49 50	2	600.006	SCREW			
50	1	100.766	SUPPORT			
52	12 1 *	600.227	SCREW			
66		100.214	CYLINDER	ODTIONAL		
-	1	100.764	INTERNAL HAY WHEEL KIT	OPTIONAL		



		TA	ABLE NO. 910.041/b					
	DM-4							
ITEM	Q.TY	PART/NO	DESCRIPTION	NOTE				
1	1	100.882	GEAR BOX CASING					
2	2	620.129	BEARING					
3	4	100.883	WASHER					
4	1	620.141	TAB					
5	1	100.772	BEVEL GEAR					
6	8	620.130	SCREW					
7	1	100.770	COVER					
8	1	620.156	OIL SEAL					
9	1	100.884	BUSH					
10	1	100.771	DRIVING SHAFT					
11	1	620.171	RING OR					
12	1	100.774	PLUG					
13	1	620.172	BEARING					
14	2	620.148	SNAP RING					
15	24	620.244	SCREW					
16	1	100.773	SPROCKET					
17	1	620.161	SEAL					
18	1	620.145	RING					
19	2	100.831	BUSH					
20	1	620.148	SNAP RING					
21	1	100.885	BEARING BUSH					
22	1	620.173	BEARING					
23	1	100.779	GEAR					
24	1	620.146	SNAP RING					
25	4	100.783	SCREW					
26	1	100.792	DISTANCE					
27	70	620.136	NUT					
28	4	620.131	SCREW					
29	4	620.174	NUT					
30	1	100.892	REAR REINFORCEMET					
31	2	100.801	GEAR					
32	8	620.126	BEARING					
33	8	100.798	NUT					
34	16	100.804	SNAP RING					
35	21	100.787	SCREW					
36	8	100.797	DISTANCE PIN					
37	8	100.786	SCREW					
38	8	100.785	DISTANCE					
39	1	100.889	SUPPORT (UPPER+LOWER)					
40	40	100.782	SCREW					
41	3	620.175	WASHER					
42	3	100.789	PLUG					
43	6	100.802	GEAR					
44	4	620.159	SEAL					
45	4	100.799	DISC SUPPORT					
46	3	100.793	DISTANCE					

	TABLE NO. 910.041/b							
	DM-4							
ITEM	Q.TY	PART/NO	DESCRIPTION	NOTE				
47	4	100.795	WASHER					
48	4	620.165	RING OR					
49	4	100.803	BUSH					
50	4	100.800	GEAR					
51	4	620.176	BEARING					
52	3	100.995	SUPPORT					
53	2	100.994	DISC					
54	4	620.139	NUT					
55	2	100.996	COVER					
56	4	620.150	WASHER					
57	4	620.128	BEARING					
58	1	100.759	SUPPORT DEFLEKTOR					
59	2	620.143	SPRING PIN					
60	1	100.890	HOOK					
61	1	100.790	SCREW					
62	1	110.001	SUPPORT					
63	2	100.791	PLUG					
64	2	110.002	DISC CONVEY					
65	4	110.118	CLOCK-WISE KNIFE					
66	4	110.119	CONTERCLOCK-WISE KNIFE					
67	1	100.332	DISC CONVEY PLATE					
68	1	500.056	PLUG					
69	4	600.115	WASHER					
70	4	600.076	NUT					
71	4	600.223	SCREW					
72	1	110.002	DISC CONVEY					
75	4	100.993	SUPPORT					
250	4	600.024	WASHER					
251	1	620.164	RING OR					
252	1	620.152	PLUG					
253	2	600.641	SCREW					
254	2	100.788	SPACER					
255	3	620.132	SCREW					
256	8	620.137	NUT					
257	5	620.133	SCREW					
258	2	600.227	SCREW					
259	1	100.891	SUPPORT					
260	8	100.796	SCREW					
261	8	100.821	WASHER					
262	8	100.794	NUT					

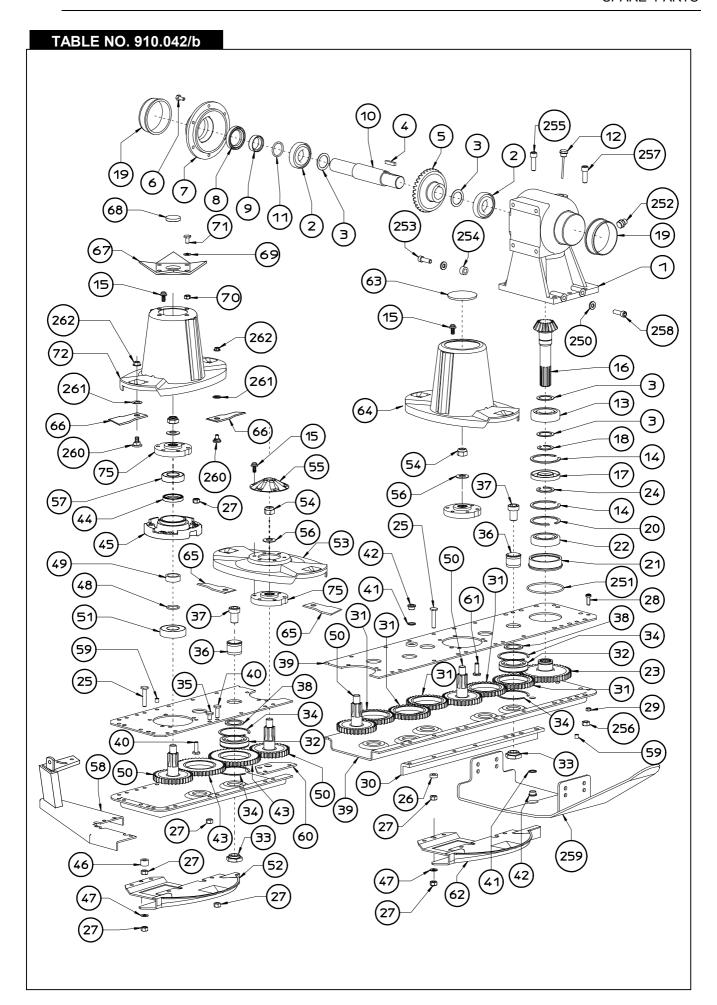
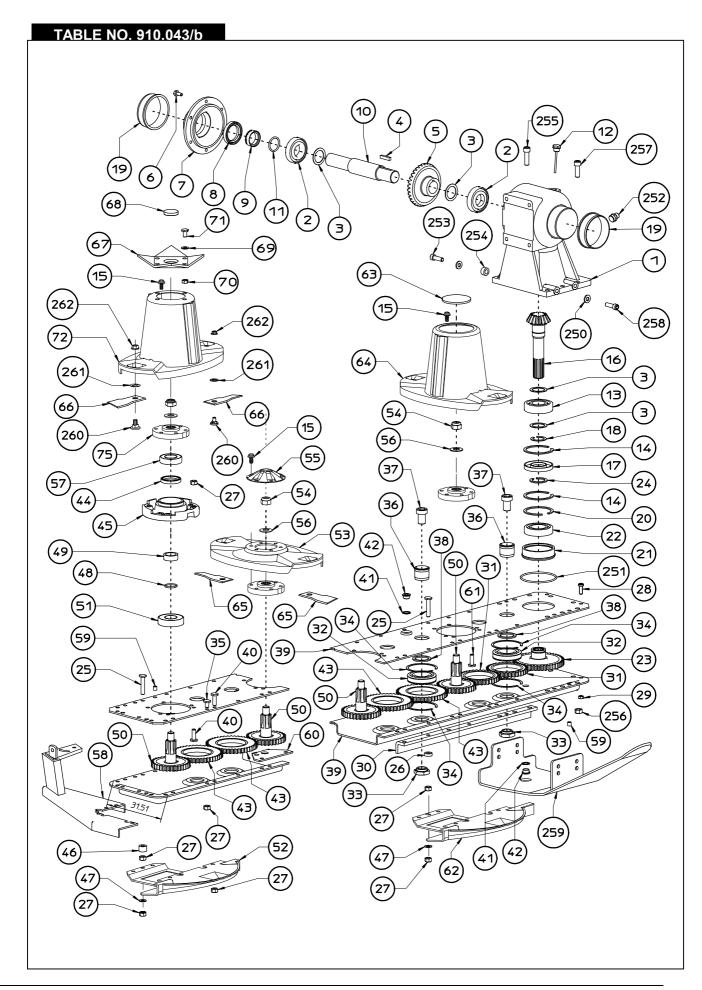


TABLE NO. 910.042/b					
	0 = 1/	24220	DM-5	1	
ITEM	Q.TY	PART/NO	DESCRIPTION	NOTE	
1	1	100.882	GEAR BOX CASING		
2	2	620.129	BEARING		
3	4	100.883	WASHER		
4	1	620.141	TAB		
5	1	100.772	BEVEL GEAR		
6	8	620.130	SCREW		
7	1	100.770	COVER		
8	1	620.156	OIL SEAL		
9	1	100.884	BUSH		
10	1	100.771	DRIVING SHAFT		
11	1	620.171	RING OR		
12	1	100.774	PLUG		
13	1	620.172	BEARING		
14	2	620.148	SNAP RING		
15	30	620244	SCREW		
16	1	100.773	SPROCKET		
17	1	620.161	SEAL		
18	1	620.145	RING		
19	2	100.831	BUSH		
20	1	620.148	SNAP RING		
21	1	100.885	BEARING BUSH		
22	1	620.173	BEARING		
23	1	100.779	GEAR		
24	1	620.146	SNAP RING		
25	5	100.783	SCREW		
26	2	100.792	DISTANCE		
27	86	620.136	NUT		
28	4	620.131	SCREW		
29	4	620.174	NUT		
30	1	100.893	REAR REINFORCEMET		
31	5	100.801	GEAR		
32	11	620.126	BEARING		
33	11	100.798	NUT		
34	11	100.804	SNAP RING		
35	24	100.787	SCREW		
36	11	100.797	DISTANCE PIN		
37	11	100.786	SCREW		
38	11	100.785	DISTANCE		
39	1	100.888	SUPPORT (UPPER+LOWER)		
40	49	100.782	SCREW		
41	3	620.175	WASHER		
42	3	100.789	PLUG		
43	6	100.802	GEAR		
44	5	620.159	SEAL		
45	5	100.799	DISC SUPPORT		
46	3	100.793	DISTANCE		

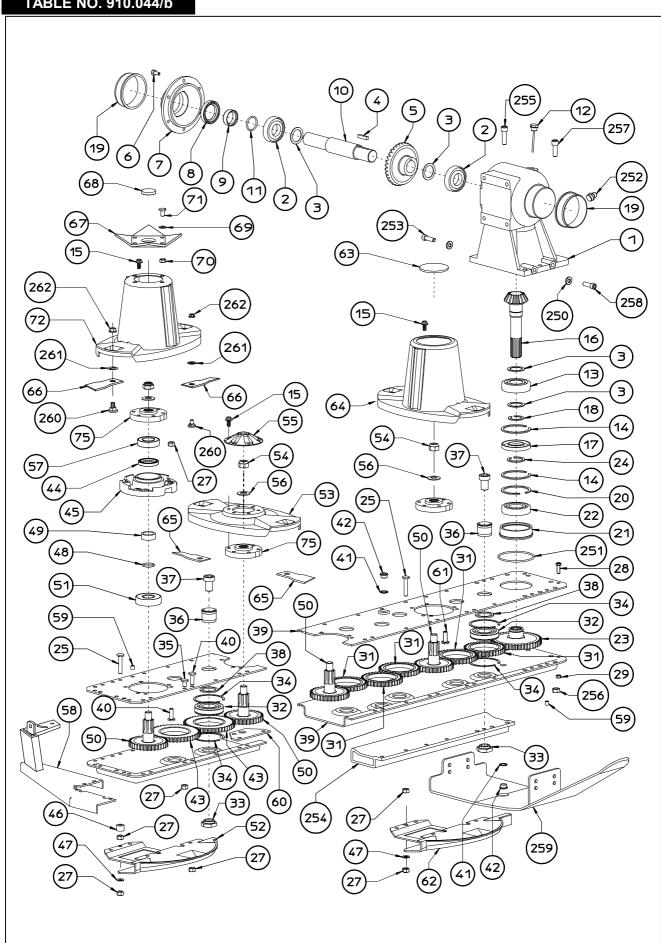
	TABLE NO. 910.042/b						
DM-5							
ITEM	Q.TY	PART/NO	DESCRIPTION	NOTE			
47	5	100.795	WASHER				
48	5	620.165	RING OR				
49	5	100.803	BUSH				
50	5	100.800	GEAR				
51	5	620.176	BEARING				
52	3	100.995	SUPPORT				
53	3	100.994	DISC				
54	5	620.139	NUT				
55	3	100.996	COVER				
56	5	620.150	WASHER				
57	5	620.128	BEARING				
58	1	100.759	SUPPORT DEFLEKTOR				
59	2	620.143	SPRING PIN				
60	1	100.890	HOOK				
61	3	100.790	SCREW				
62	2	110.001	SUPPORT				
63	2	100.791	PLUG				
64	2	110.002	DISC CONVEY				
65	4	110.118	CLOCK-WISE KNIFE				
66	6	110.119	CONTERCLOCK-WISE KNIFE				
67	1	100.332	DISC CONVEY PLATE				
68	1	500.056	PLUG				
69	4	600.115	WASHER				
70	4	600.076	NUT				
71	4	600.223	SCREW				
72	1	110.002	DISC CONVEY				
75	5	100.993	SUPPORT				
250	4	600.024	WASHER				
251	1	620.164	RING OR				
252	1	620.152	PLUG				
253	2	600.641	SCREW				
254	2	100.788	REINFORCEMENT				
255	3	620.132	SCREW				
256	8	620.137	NUT				
257	5	620.133	SCREW				
258	2	600.227	SCREW				
259	1	100.891	SUPPORT				
260	10	100.796	SCREW				
261	10	100.821	WASHER				
262	10	100.794	NUT				



		TA	ABLE NO. 910.043/a	
ITES:	0.71/	DARTING	DM-6	NOTE
ITEM	Q.TY	PART/NO	DESCRIPTION	NOTE
1	1 2	100.882	GEAR BOX CASING	
2		620.129	BEARING	
3	4	100.883	WASHER	
4	1	620.141	TAB DEVELOCIAD	
5	1	100.772	BEVEL GEAR	
6	8	620.130	SCREW	
7	1	100.770	COVER	
8	1	620.156	OIL SEAL	
9 10	1	100.884	BUSH DRIVING SHAFT	
		100.771		
11	1	620.171	RING OR	
12	1	100.774	PLUG BEARING	
13	1 2	620.172		
14		620.148	SNAP RING	
15 16	36 1	620.244	SCREW SPROCKET	
		100.773		
17	1	620.161	SEAL	
18	1 2	620.145	RING	
19		100.831	BUSH	
20	1	620.148	SNAP RING	
21	1	100.885	BEARING BUSH	
22	1	620.173	BEARING	
23	1	100.779	GEAR	
24	1	620.146	SNAP RING	
25	6	100.783	SCREW	
26	3	100.792	DISTANCE	
27	102	620.136	NUT	
28	4	620.131	SCREW	
29	4	620.174	NUT	
30	1	100.894	REAR REINFORCEMET	
31	2	100.801	GEAR	
32	12	620.126	BEARING	
33	12	100.798	NUT SNAD DING	
34	24	100.804	SNAP RING	
35	27	100.787	SCREW	
36	12	100.797	DISTANCE PIN	
37	12	100.786	SCREW	
38	12	100.785	DISTANCE	
39	1	100.887	SUPPORT (UPPER+LOWER)	
40	62	100.782	SCREW	
41	3	620.175	WASHER	
42	3	100.789	PLUG	
43	10	100.802	GEAR	
44	6	620.159	SEAL DISC. CURRORT	
45	6	100.799	DISC SUPPORT	
46	3	100.793	DISTANCE	

TABLE NO. 910.043/a						
DM-6						
ITEM	Q.TY	PART/NO	DESCRIPTION	NOTE		
47	6	100.795	WASHER			
48	6	620.165	RING OR			
49	6	100.803	BUSH			
50	6	100.800	GEAR			
51	6	620.176	BEARING			
52	5	100.995	SUPPORT			
53	4	100.994	DISC			
54	6	620.139	NUT			
55	4	100.996	COVER			
56	6	620.150	WASHER			
57	6	620.128	BEARING			
58	1	100.759	SUPPORT DEFLEKTOR			
59	2	620.143	SPRING PIN			
60	1	100.890	НООК			
61	1	100.790	SCREW			
62	1	110.001	SUPPORT			
63	2	100.791	PLUG			
64	2	110.002	DISC CONVEY			
65	6	110.118	CLOCK-WISE KNIFE			
66	6	110.119	CONTERCLOCK-WISE KNIFE			
67	1	100.332	DISC CONVEY PLATE			
68	1	500.056	PLUG			
69	4	600.115	WASHER			
70	4	600.076	NUT			
71	4	600.223	SCREW			
72	1	110.002	DISC CONVEY			
75	6	100.993	SUPPORT			
250	4	600.024	WASHER			
251	1	620.164	RING OR			
252	1	620.152	PLUG			
253	2	600.641	SCREW			
254	2	100.788	SPACER			
255	3	620.132	SCREW			
256	8	620.137	NUT			
257	5	620.133	SCREW			
258	2	600.227	SCREW			
259	1	100.891	SUPPORT			
260	12	100.796	SCREW			
261	12	100.821	WASHER			
262	12	100.794	NUT			

TABLE NO. 910.044/b



DM-7					
ITEM	Q.TY	PART/NO	DESCRIPTION	NOTE	
1	1	100.882	GEAR BOX CASING		
2	2	620.129	BEARING		
3	4	100.883	WASHER		
4	1	620.141	TAB		
5	1	100.772	BEVEL GEAR		
6	8	620.130	SCREW		
7	1	100.770	COVER		
8	1	620.156	OIL SEAL		
9	1	100.884	BUSH		
10	1	100.771	DRIVING SHAFT		
11	1	620.171	RING OR		
12	1	100.774	PLUG		
13	1	620.172	BEARING		
14	2	620.148	SNAP RING		
15	42	620.244	SCREW		
16	1	100.773	SPROCKET		
17	1	620.161	SEAL		
18	1	620.145	RING		
19	2	100.831	BUSH		
20	1	620.148	SNAP RING		
21	1	100.885	BEARING BUSH		
22	1	620.173	BEARING		
23	1	100.779	GEAR		
24	1	620.146	SNAP RING		
25	7	100.783	SCREW		
27	118	620.136	NUT		
28	4	620.131	SCREW		
29	4	620.174	NUT		
30	2	100.791	PLUG		
31	5	100.801	GEAR		
32	15	620.126	BEARING		
33	15	100.798	NUT		
34	30	100.804	SNAP RING		
35	31	100.787	SCREW		
36	15	100.797	DISTANCE PIN		
37	15	100.786	SCREW		
38	15	100.785	DISTANCE		
39	1	100.886	SUPPORT (UPPER+LOWER)		
40	71	100.782	SCREW		
41	3	620.175	WASHER		
42	3	100.789	PLUG		
43	10	100.802	GEAR		
44	7	620.159	SEAL		
45	7	100.799	DISC SUPPORT		
46	7	100.793	DISTANCE		

TABLE NO. 910.044/a						
DM-7						
ITEM Q.TY PART/NO			DESCRIPTION	NOTE		
47	7	100.795	WASHER			
48	7	620.165	RING OR			
49	7	100.803	BUSH			
50	7	100.800	GEAR			
51	7	620.176	BEARING			
52	5	100.995	SUPPORT			
53	5	100.994	DISC			
54	7	620.139	NUT			
55	5	100.996	COVER			
56	7	620.150	WASHER			
57	7	620.128	BEARING			
58	2	100.759	SUPPORT DEFLEKTOR			
59	2	620.143	SPRING PIN			
60	1	100.890	HOOK			
61	3	100.790	SCREW			
62	2	110.001	SUPPORT			
64	2	110.002	DISC CONVEY			
65	6	110.118	CLOCK-WISE KNIFE			
66	8	110.119	CONTERCLOCK-WISE KNIFE			
67	1	100.332	DISC CONVEY PLATE			
68	1	500.056	PLUG			
69	4	600.115	WASHER			
70	4	600.076	NUT			
71	4	600.223	SCREW			
72	1	110.002	DISC CONVEY			
75	7	100.993	SUPPORT			
250	4	600.024	WASHER			
251	1	620.164	RING OR			
252	1	620.152	PLUG			
253	2	600.641	SCREW			
254	2	100.315	REAR REINFORCEMENT			
255	3	620.132	SCREW			
256	8	620.137	NUT			
257	5	620.133	SCREW			
258	2	600.227	SCREW			
259	4	100.316	SUPPORT			
260	14	100.796	SCREW			
261	14	100.821	WASHER			
262	14	100.794	NUT			

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 authorised 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 authorisation.

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.

2.2 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.



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

2.3 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, optimize work and, above all, to avoid injury to the operator and anyone within range of the machine.

2.4 WARNING SIGNS



 Before beginning operations, read the instruction manual carefully.



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



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



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



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



7. Risk. Rotation part



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



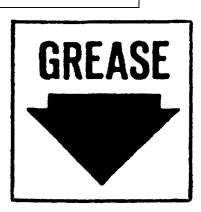
6. Indicates danger caused by accidental fall of suspended arms. Keep safe distance



8. Risk. Noise



10. This indicates the oil level.



11. Indicates a greasing point

3. GENERAL SUMMARY OF SAFETY AND ACCIDENT - PREVENTION INSTRUCTIONS

3.1 GENERAL SUMMARY OF SAFETY AND ACCIDENT-PREVENTION INSTRUCTIONS

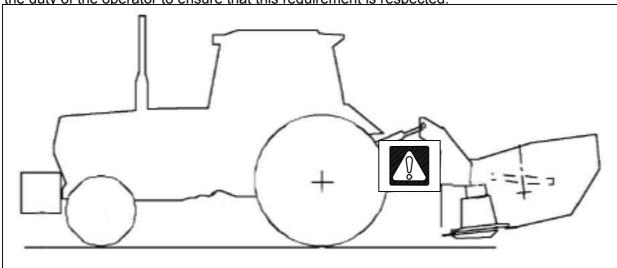
Read all the directions carefully before using the machine. When in doubt, seek advice from the manufacturers.

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.

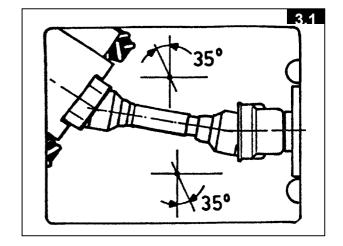
- **14-**Connect the machine to a suitably powerful tractor by using an appropriate lifting unit and in accordance with instructions.
- **15-**Take maximum care when connecting and disconnecting the machine to and from the tractor.
- **16-**The machine and any road transport attachments must bear the 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 center 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 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° Fig. 3.11) 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.

4. Technical characteristics

4.1 Tractor requirements

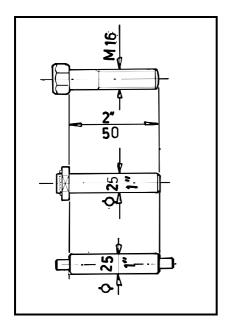
Power takeoff speed (PTO)	revs/min	540	
Max hydraulic pressure	bar	160	
Minimum power required	(see	(see 4.2)	
Simple distributor	n°	1	

4.2 Description of the machine

Type of machine		DM/4	DM/5	DM/6	DM/7
Number of disks	n°	4	5	6	7
Number of knives per disk	n°	2	2	2	2
Working width	m (inch)	1.65 (65)	2.09 (82)	2.45 (96)	2.85 (112)
Gear ratio		2.73			
Peripheral knife speed (PTO 540 revs/min)	m/s (ft/s)	81 (266)			
Minimum power required	kW (HP)	26 (35)	30 (40)	34 (46)	39 (52)
Weight	kg (Lb)	372 (820)	411 (906)	489(1078)	543(1197)

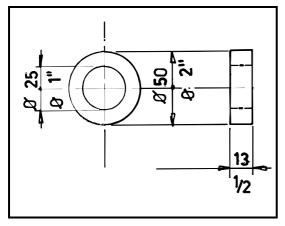
4.3 Technical notes

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.



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:

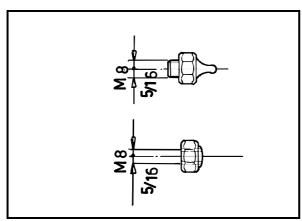
D 25 x 50 (D 1" x 2") and M 16 x 50 (D 5/8" x 2").



2) SHIMS, SPACERS, BUSHINGS AND WASHERS

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").



3) NUTS, GREASE NIPPLES

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

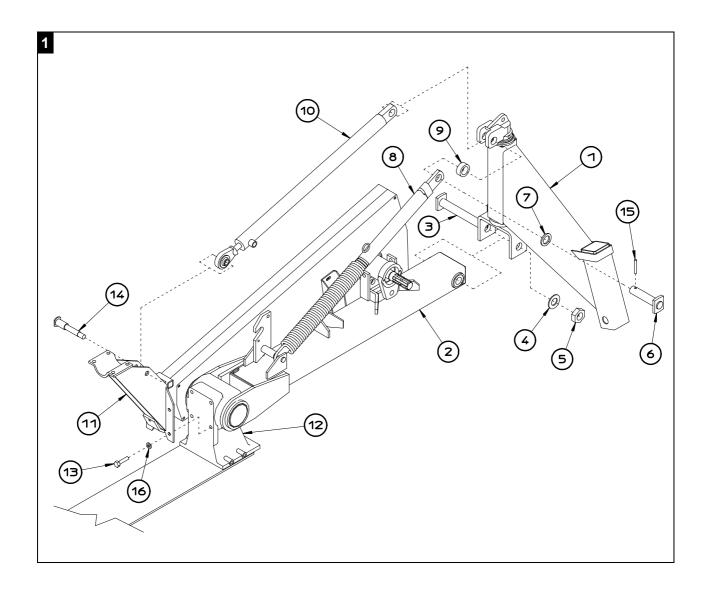
5. **Assembly**

5.1 Instructions on how to assemble models DM 4-5

Refer to fig. 1 and carry out the following steps in the order indicated:

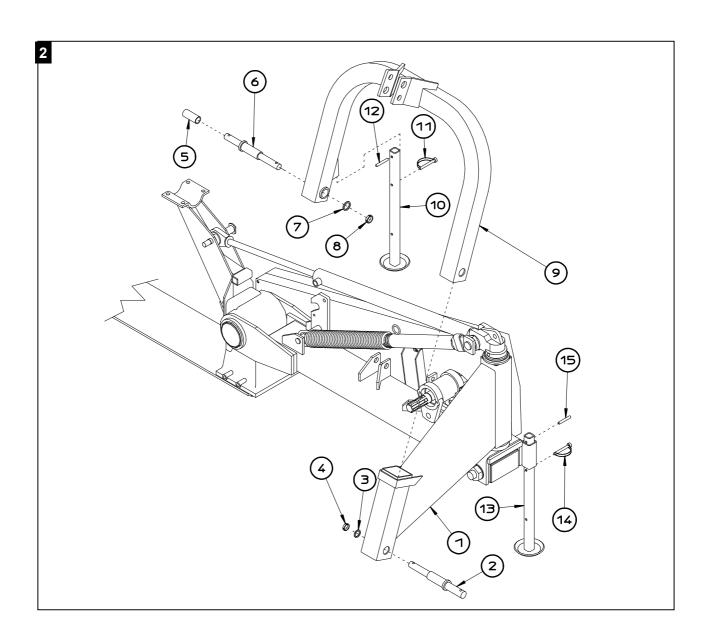
- 1) Use pin 3 D 30 x 178 (D 1"3/16 x 7") to insert support 1 into the special slot on frame 2 and
- fasten with washer 4 and nut 5 M 20 (D 3/4").

 2) Use the four screws 13 M 12 x 30 (D 1/2" x 1"11/64) and washers 16 to mount support 11 on gear box 12.
- 3) Use pin 6 D 30 x 106 (D 1"3/16 x 4") to insert distance washer 7 D 30 42 x 5 (D 1"3/16 -1"5/8 x 3/16"), tie rod 8, distance washer 9 D 30 - 42 x 10 (D 1"3/16 - 1"5/8 x 3/8") and hydraulic cylinder 10 into the special slot on support 1 and fasten into position with peg 15 D 8 x 50 (D 5/16" x 2").
- 4) Use pin 14 D 25 19 x 45 67 (D 1" 3/4" x 2" 2"3/4) to insert hydraulic cylinder 10 into support 11. Do not fasten at this stage.



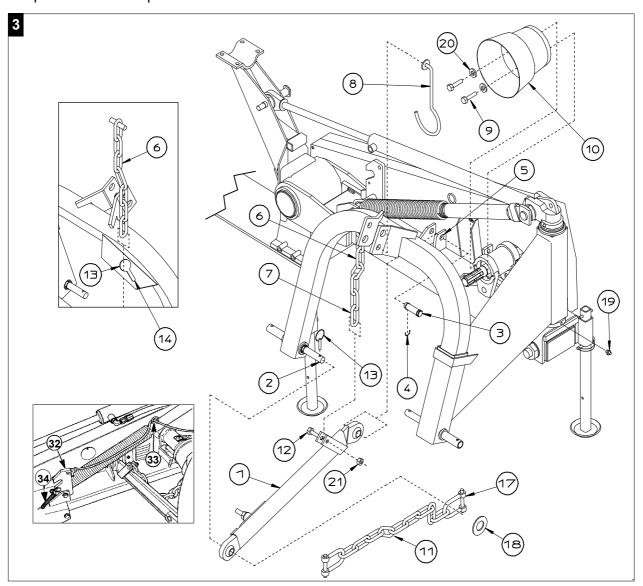
Refer to fig. 2 and carry out the following steps in the order indicated:

- 1) Insert rest foot 13 into the slot on support 1 and fasten into position with pegs 14 and 15 D 8 x 50 (D 5/16" x 2").
- 2) Use pin 2 D $28 30 22 \times 260$ (D $1"1/8 1"3/16 7/8" \times 10"1/4$) to insert arc 9 into the slot on support 1 and fasten into position with washer 3 and nut 4.
- 3) Insert rest foot 10 into the slot on arc 9 and fasten into position with pegs 11 D 8 x 50 (D 5/16" x 2") and 12 and 12.
- 4) Insert pin 6 D $22 30 22 \times 260$ (D 7/8" 1"3/16 7/8" x 10"1/4) into the slot on arc 9 and fasten into position with washer 7 and ring nut 8.
- 5) Insert bushing 5 D 22 28 x 45 (D 7/8" 1"1/8 x 1"3/4) into pin 6 for coupling (2nd class) to the tractor.



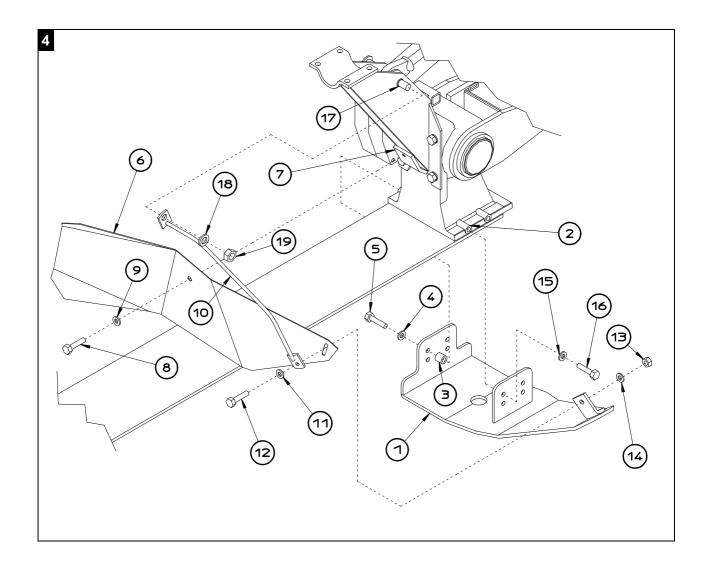
Refer to fig. 3 and carry out the following steps in the order indicated:

- 1) Mount safety bar 1, hoist chain 11 with two clevis 17 and washer 18 ø23xø39x3.5 in pin 2 and fasten with peg 13.
- 2) Use pin 3 D 20 x 67 (D 3/4" x 2"5/8) to assemble safety bar 1 into slot 5 and fasten into position with E-clip 4.



- 3) Insert chain 6 (for adjustment see 7.3) into hole 13 on the arc and fasten one ring on the chain into slot 14.
- 4) Use screw- 12 M 12 x 55 (D 1/2" x 2" 10/64) and nut 21 to fasten ring 7 on chain 6 to safety bar 1.
- 5) Use screws 9 M 8 x 12 (D 5/16" x 1/2") and flat washer 20 (ø8.5/ø24) to assemble casing 10.
- 6) Insert cardan support 8 into one of the holes not used by the pin on the third point.
- 7) Mount grease nipple 19.
- 8) Tie the rope to the safety latch 32 and then thread it through the steel circle 33 (see figure detail).
- 9) Remember to link the spring 34 to transport hook 32 (see figure detail).

- Refer to fig. 4 and carry out the following steps in the order indicated:
- 1) Raise the bar off the ground and rest it on a support that is sufficiently stable in order to be able to easily insert slide 1 into slots 2 on the gear box.
- 2) Select one of the series of horizontal holes on slide 1 according to the cutting height required.



- 3) Use screws 5 M 10 x 35 (D 3/8" x 1"1/2), lock washers 4 and distance 3 to fasten slide 1 on the side opposite forward movement and use screws 16 M 10 x 20 (D 3/8" x 50/64") and lock washers 15 to fasten it on the opposite side.
- 4) Mount conveyor sheet 6 over the holes on support 7 and slide 1 and use screw 8 M 10 x 30 (D 3/8" x 1"11/64) and lock washer 9 to fasten into position without tightening at this stage.
- 5) Insert protection 10 into pin 17 together with screw 12 M 8 x 30 (D 5/16" x 1"3/16) and flat washer 11 and 14 into the hole on slide 1 and slot on conveyor sheet 6.
- 6) Use flat washer 18 (Ø17) and nut 19 (M16) to fasten pin 17 and at the same time use washer 14 and nut 13 and screw 8 to fasten screw 12 to support 7.

Refer to fig. 5 and carry out the following steps in the order indicated:

- 1) Mount the main tube 1 on the frame, move it on to flange 2 and 3 assembled with screws 4 M 12 x 55 (D 1/2" x 2" 10/64), nuts 6 and flat washers 5, and at the same time insert the curved tube 16 into the relevant hinge 18; do not tighten the set of screws 3-4-5-6 for the time being; make sure that the positioning tooth on tube 1 is held in the horizontal connection plane of flanges 2 and 3.
- 2) Insert tubes 7 and 10 into support 21 (for models DM 6-7 only).
- 3) Insert the curved tubes 8 and 9 into the slots on tubes 10 and 7.
- 4) Mount the assembly set 7-8-9-10-21 on to the load bearing tube 1 connecting with welded screws 13 and use flat washers 11 and nuts 12 to tighten.
- 5) Insert tubes 14 and 15 into support 22 (for models DM 6-7 only).
- 6) Insert assembly set 14-15-22 into hinge 18 connecting with load bearing tube 1.
- 7) Use washer 19 and nut 20 to tighten hinge 22 into slot 18.
- 8) At the same time insert the curved tube 16 into the relevant hinge 18 and into tubes 14 and 15 and use flat washer 19 and nut 20 to tighten the hinge in the corresponding slot 18.
- 9) Carry out the same operation with curved tube 17, hinge 18, washer 19 and nut 20.
- 10) Use screws 24 M 14 x 45 (D 35/64" x 1"49/64), nut and counter-nut 26 to mount support 23 over slot 27 and curtain support tube 1 (for models DM 5-6-7 only).
- 11) Line up the axial of load bearing tube 1 with the inside of flanges 2 and 3 so that the axle of support 23 is vertical and then proceed to tighten screws 4 and 24.
- 12) Mount conveyor 33 in the slot 35 of screw 34 on support 36 and tighten everything up with nut 30 and washer 31. Use the slot 35 to change the position of conveyor.
- 13) Mount screw 28 M 10 x 20 (D 3/8" x 13/16")
- 14) Secure the curtain 30 with front protection flipped towards the rear lacing ALL the straps 31 on the under side of the curtain (see figure detail).

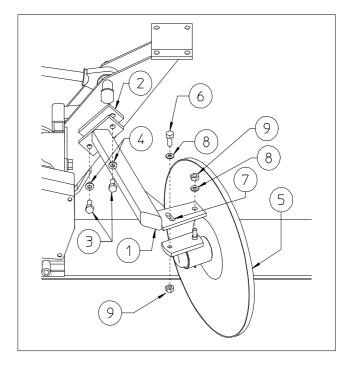
RIGHT WHEEL CONVEYOR KIT (OPTIONAL):

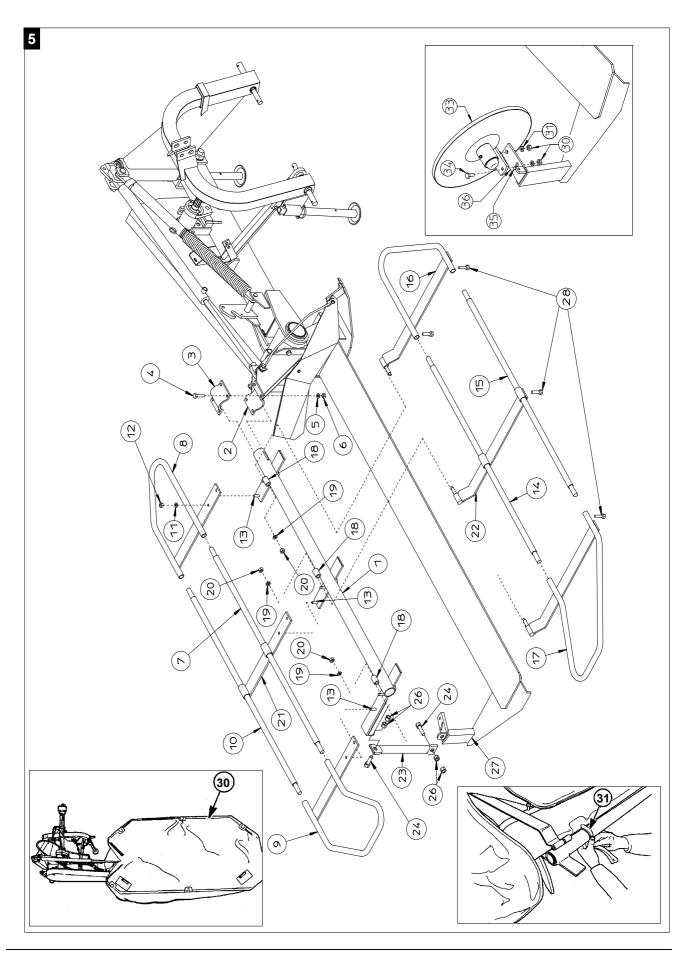
Remove conveyor sheet 6 shown in previous figure. Attach the conveyor support 1 to plate 2 with threaded holes welded to the body of the machine with screws 3 M 10 x 25 (D 3/8" x 1") and washers 8. Mount conveyor 5 in the slot 7 of screw 6 M 10 X 35 (d 3/8" X 1"3/8) on support 1 and tighten everything up with nut 9 and washer 8. Use the slot 7 to change the position of conveyor.



Make sure that when assembly operations have been finished, all nuts and bolts are correctly screwed up.

RIGHT WHEEL CONVEYOR KIT (OPTIONAL)

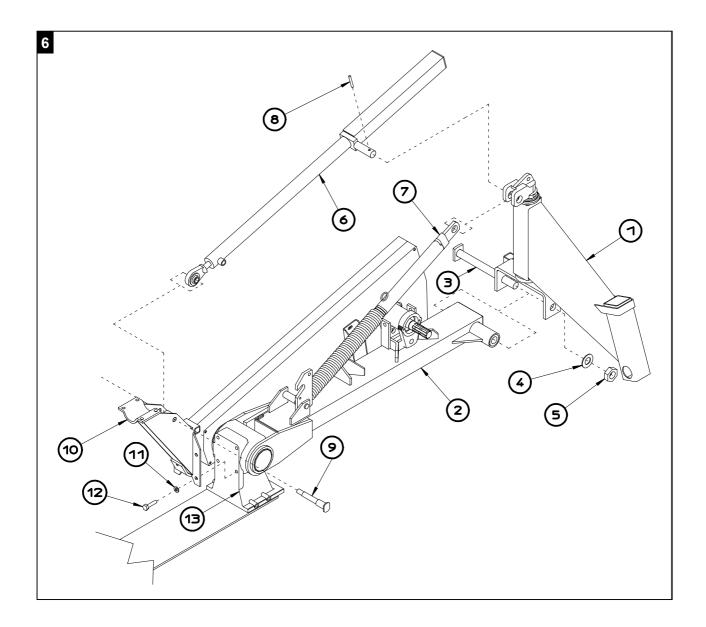




5.2 Instructions on how to assemble models DM 6-7

Refer to fig. 6 and carry out the following steps in the order indicated:

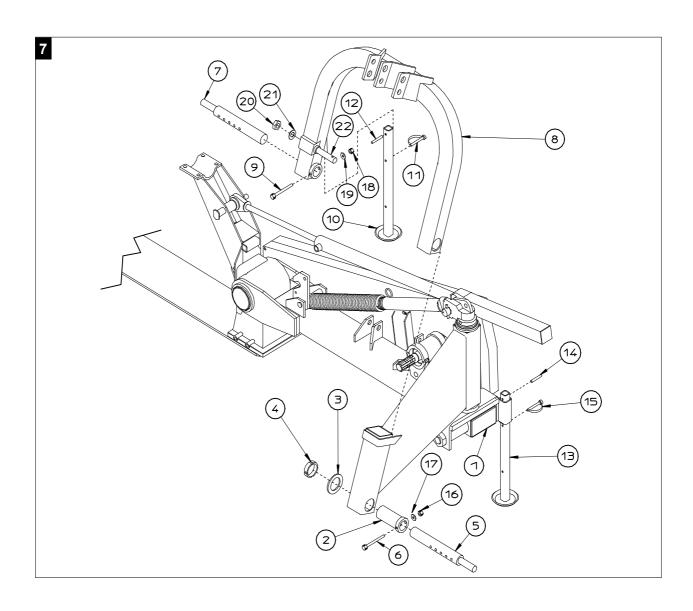
- 1) Use pin 3 D 30 x 249 (D 1"3/16 x 10") to insert body 1 into the slot on body 2 and use washer 4 and nut 5 to fasten into position.
- 2) Use the four screws 12 M 12 x 30 (D 1/2" x 1"11/64) and washer 11 to mount support 10 on gear box 13.



- 3) Mount hydraulic cylinder 6 into the relevant slot on body 1 together with suspension 7 and fasten everything into position with peg 8.
- 4) Use pin 9 D 25 19 x 45 67 (D 1" 3/4" x 2" 2"3/4) to insert hydraulic cylinder 6 into the slot on support 10 without tightening at this stage.

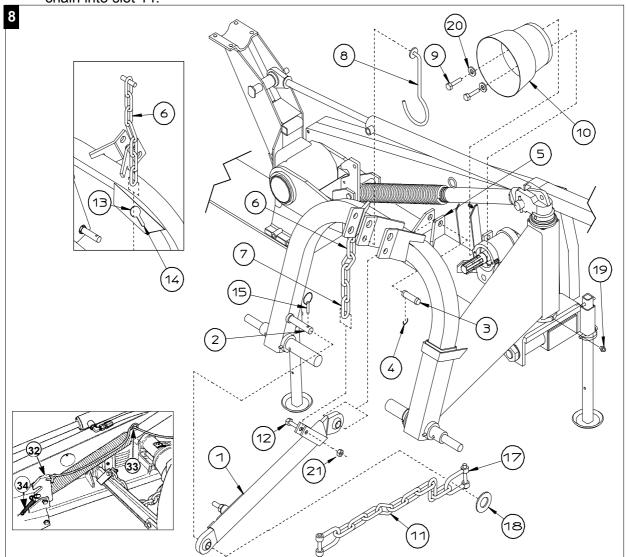
Refer to fig.7 and carry out the following steps in the order indicated:

- 1) Insert rest foot 13 into the slot on support 1 and fasten into position with pegs 14 D 8 x 50 (D 5/16" x 2") and 15.
- 2) Use bushing 2 to insert arc 8 into the slot on support 1 and fasten into position with washer 3 and ring nut 4.
- 3) Insert pins 5 and 7 into their respective slots and use screws 6 and 9 M 8 x 80 (D 5/16" X 3"), washers 17 and 19 and nuts 16 and 18 to fasten into the position which best suits the dimensions of the tractor.
- 4) Insert rest foot 10 into the slot on arc 8 and fasten into position with pegs 11 and 12 D 8 x 50 (D 5/16" x 2").
- 5) Insert pin 22 on 3rd point hitch 8 and lock it with lock washer 21(M24) and nut 20 (M24).



Refer to fig.8 and carry out the following steps in the order indicated:

- 1) Mount safety bar 1, hoist chain 11 with two clevis 17 and washer 18 ø23xø39x3.5 in pin 2 and fasten with peg 15.
- 2) Use pin 3 D 20 x 67 (D 3/4" x 2"5/8) to insert safety bar 1 into slot 5 and fasten with E-clip 4.
- 3) Insert chain 6 (for adjustment see 5.3) into hole 13 on the arc and fasten one ring of the chain into slot 14.



- 4) Use screw 12 M 12 x 55 (D 1/2" x 2"10/64) and nut 21 to fasten ring 7 on chain 6 to safety bar 1.
- 5) Use screws 9 M 8 x 12 (D 5/16" x 1/2") and flat washer 20 (ø8.5/ø24) to assemble casing 10.
- 6) Insert cardan support 8 into one of the holes not used by the pin of the third point.
- 7) Mount grease nipple 19.
- 8) Tie the rope to the safety latch 32 and then thread it through the steel circle 33 (see figure detail).
- 9) Remember to link the spring 34 to transport hook 32 (see figure detail).
- 10) For the following steps proceed as shown for figures 5 and 6.



Make sure that when assembly operations have been finished, all nuts and bolts are correctly screwed up.

6. Instructions for installation

6.1 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 fig.9, so that height A is about 10 cm (4 inches) when the machine is in the work position (see 7.1):

The hoist pins of the machine with 4-5 disks (fig.2) are different from those of the machine with 6-7 disks (fig.7).

The pins for the machine with 4-5 disks are suitable for 1st and 2nd class couplings (22mm/0.86 inches and 28mm/1.1 inches) whereas the pins for the machine with 6-7 disks can be used only with a 2nd class coupling.

In order to obtain the various positions shown in fig.9 proceed as follows:

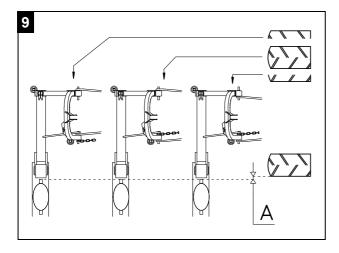
- a) with 4-5 disks turn the pin that is not holding the safety hook in place correctly upside down and remove or insert adjuster bush 5 into the other pin.
- b) with 6-7 disks turn the pins upside down in the respective slots and fasten into position with screws 6 and 9 (fig. 7) in one of the adjustment holes on the lateral projecting part of the pin.

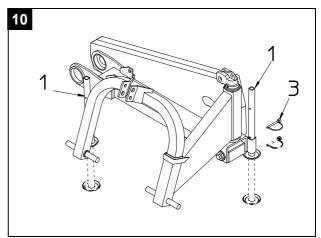
The third point has to be adjusted so that axle E in fig. 14 is vertical.

- 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.
- 3) If necessary, move the vertical movement adjuster tie rod on the hoist arms until both ball-and-socket joints are at the same height above ground.
- 4) Use peg 3 to fasten the rest feet (fig. 10) in position 1.
- 5) Connect hoist chain 2 in figure 14 to the tractor for the time being.

6.2 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:

- 1) Remove the two cardan joint axle shafts and insert them separately on the 2 power takeoffs with the clutch on the side of the mowing machine.
- 2) Place the two axle shafts one alongside the other (fig. 11).
- 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 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.
- 5) 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).
- 6) Use the relevant chains to fasten the outer cardan shaft protection

6.3 Road use

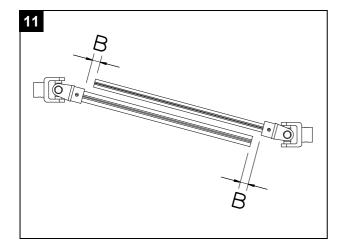
Strictly comply with the road traffic regulations in your country.

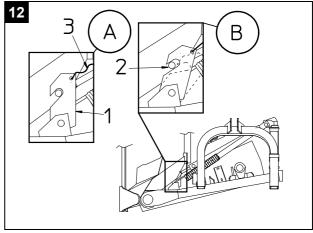
In order to put the machine in the <u>transport position</u> when the machine is on the ground and is connected to the tractor, proceed as follows:

- 1) Open the protection plate cage.
- 2) Use the tractor hoist to raise the machine off the ground.
- 3) Lift the disk carrier bar vertically along the entire cylinder run until pin 2 entirely enters the slot on hook 1 (fig.12 item A).
- 4) Pull out the cylinder shaft slightly until it is well fastened.

Reference: picture 8

Settle chain 6 in order to block the frame's swinging, when the tractor lifts the disc mower. Insert last ring 7 in the relevant hitch of bar 1 and block it with screw 12 and the specially provided nut. At this point insert a chain's ring in slot 14 of hole 13 (this last one is settled in the 3 point hitch). The choice of the ring, that has to be inserted in the slot, depends on the kind of tractor. This choice must assure a certain safety distance from the ground, during the transport.





7. Adjustments and set-up

7.1 Belt tension

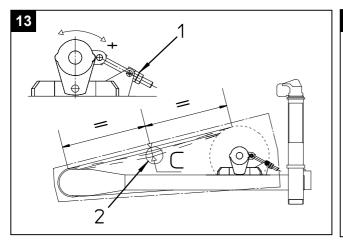
Belt tension must be checked regularly particularly during the first few hours of use. In order to adjust tension proceed as follows (fig. 13):

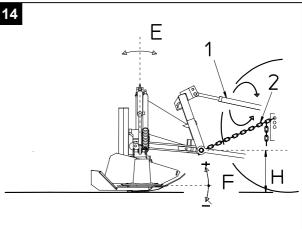
- 1) Loosen the nuts 1.
- 2) Move the pulley and use nuts 1 to increase belt tension until distance C (visible through opening 2 as shown in fig.13) is about 20 mm (0.8 inches) when pressure is applied to the central line.
- 3) Tighten the nuts 1 in order to fasten the pulley hub and finally check that tension is correct. 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.

7.2 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. 14).

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. Use

8.1 Work position

To move from the <u>transport position</u> (see 5.3) to the <u>work position</u> 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 3 stretched until pin 2 (fig.12 item B) is unbooked.
- 2) Take out the cylinder shaft until the disk carrier bar is horizontal.
- 3) Use the tractor hoist to lower the machine; fasten adjustment chain 2 (fig.14) above the ground so that distance H is about 50 cm (19.7 inches).



Make sure that adjustment chain 2 (fig.14) is always well stretched when machine is working to prevent pin 2 (see fig.8) from damage.

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

8.2 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.

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.



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.

9. Faults: reasons and remedies

9.1 The disk carrier bar vibrates too much during work:

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

⇒ replace the bushings;

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

⇒ replace the worn-out parts and lubricate regularly;

the outer conveyor is too slack

⇒ check that it is fastened correctly and check the nylon bushing.

9.2 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 4.1 (in particular check that both ball-and-socket joints are the same height above ground);

the machine joints resist free rotation

⇒ clean and lubricate the parts in question.

9.3 The disk carrier bar is not raised parallel to the ground:

the entire machine is leaning to one side

⇒ check that both hoist ball-and-socket joints are at the same height above ground; the transverse slant of chain 6 (figs.3-8) is not adjusted correctly adjust the chain to the correct length and fasten one of the circlips into slot 14 (figs.3-8)

9.4 <u>Earth accumulates between two sliding blocks in the front part of the disk</u> carrier bar:

The ground is exceptionally wet;

the bar presses to hard on the ground

⇒ use the tractor hoist to raise the machine higher above the ground and then readjust the chain giving minimum height above ground;

the disk carrier bar tilts too far forward

⇒ adjust the tilt of axle E (fig.14) by moving turnbuckle 1 on the third point.

9.5 Safety device 1 (figs. 3-8) often unhooks under impact:

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

⇒ check the condition of the rubber buffer and if necessary, tighten the relevant screw very carefully (danger of unhooking when it receives blows that are too strong for the machine structure) until unhooking occurs at reasonable intervals only.

9.6 The stubble is too high or too sparse:

The disk carrier bar does not tilt correctly (axle E in fig.14)

 \Rightarrow use turnbuckle 1 on the third point to adjust the tilt.

9.7 The stubble is not the same height all along the cutting width:

the disk carrier bar tilts too much

⇒ reduce the tilt of the disk carrier bar (fig.14);

the knives are over worn

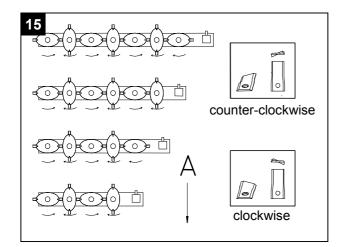
⇒ replace the knives;

power takeoff speed is insufficient

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

forward movement speed is too fast

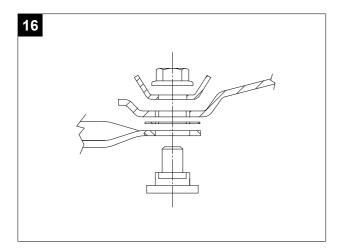
 \Rightarrow reduce tractor speed.

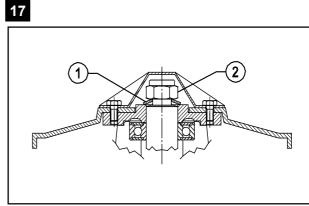


9.8 The forage is pushed forward before being cut:

the ventilating effect of the knives is too strong

⇒ reduce power takeoff rotation speed and increase tractor forward movement speed.





10. Maintenance

10.1 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 stony 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.15).

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

Cupped washer 1 (fig.17) 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.15 (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. <u>If worn knives are used to mow, the cut will be less precise and more power will be used.</u>

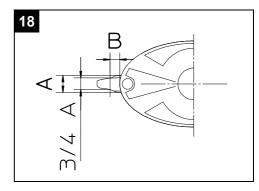
10.2 How to check the mowing devices

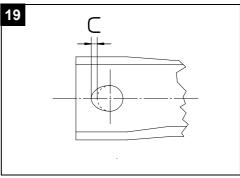
The knives should be replaced when:

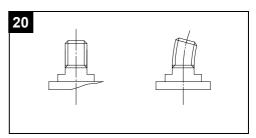
- ⇒ the width of the knife at point B=1 cm (0.4 inches) from the edge of the disk is 3/4 of the original width A (fig.18).
- ⇒ the oval shape of the hole is more than a distance of C=2mm (0.08 inches) of the size of the original hole (fig.19).

The clamp parts should be replaced when:

- ⇒ the screw to fasten the knives is bent or too worn out below the head (fig.20).
- ⇒ 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.
- ⇒ 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.22).
- ⇒ the height of the lock nut at any point whatsoever is less than or equal to 1/2 of the total nut height (fig.23).









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

10.3 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.



Do not carry out any operation if the machine is moving.

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:

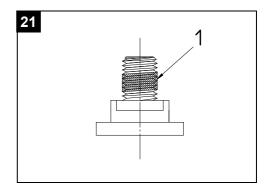
- check/replace the oil, lubricate/grease each point necessary, according to the instructions;
- check wear and tear of the knives and respective clamp parts;
- check wear and tear of protection parts;
- · reset correct belt tension;
- check that all the screws are tightened correctly.

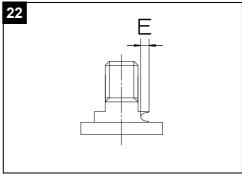
Before beginning to mow, make sure that the machine is working correctly and there are no vibrations.

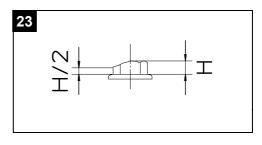
10.4 Lubrification

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.24.
- The joints, supports, hinges, and points equipped with lubricator should be lubricated or greased frequently, at least every 20 working hours (fig.27).









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

10.4.1 Over-gear box (fig.25)

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.

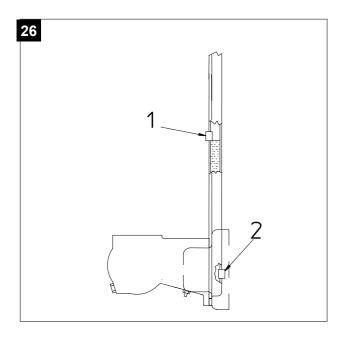
Oil can be drained through the hole in cap 1 when the bar is vertical.

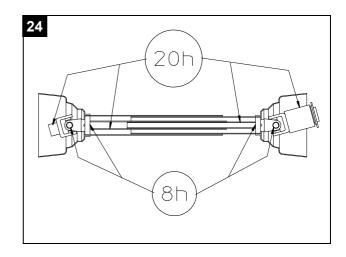
10.4.2 Disk carrier bar (fig.26)

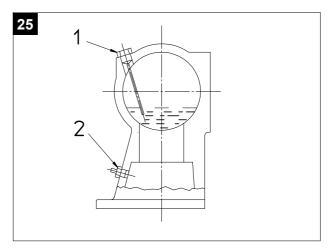
1= loading cap - level cap 2= drain cap

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).







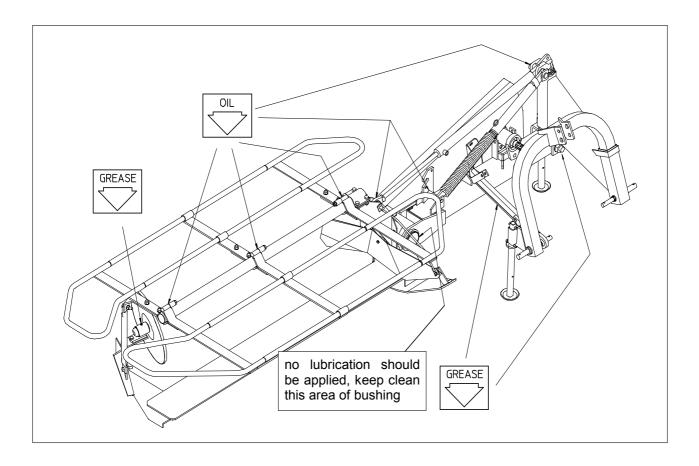
In order to fill up the oil unscrew both caps 1 (filling and level) and pour in the amount shown or the amount needed to top up the level through the hole in cap 1 (tilt the bar slightly if necessary so it is easier to pour in the oil) until the level of cap 1 is reached.

	litres	Gall. UK	Gall. USA
Over-gear box	0,7	0.16	0.19
4 disk bar	1,6	0.36	0.43
5 disk bar	2.3	0.50	0.60
6 disk bar	2,9	0.64	0.77
7 disk bar	3,6	0.80	0.95

10.5 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.





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