

Howard 350 Rotavator Parts List

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Howard Rotavator

300/350 Parts List

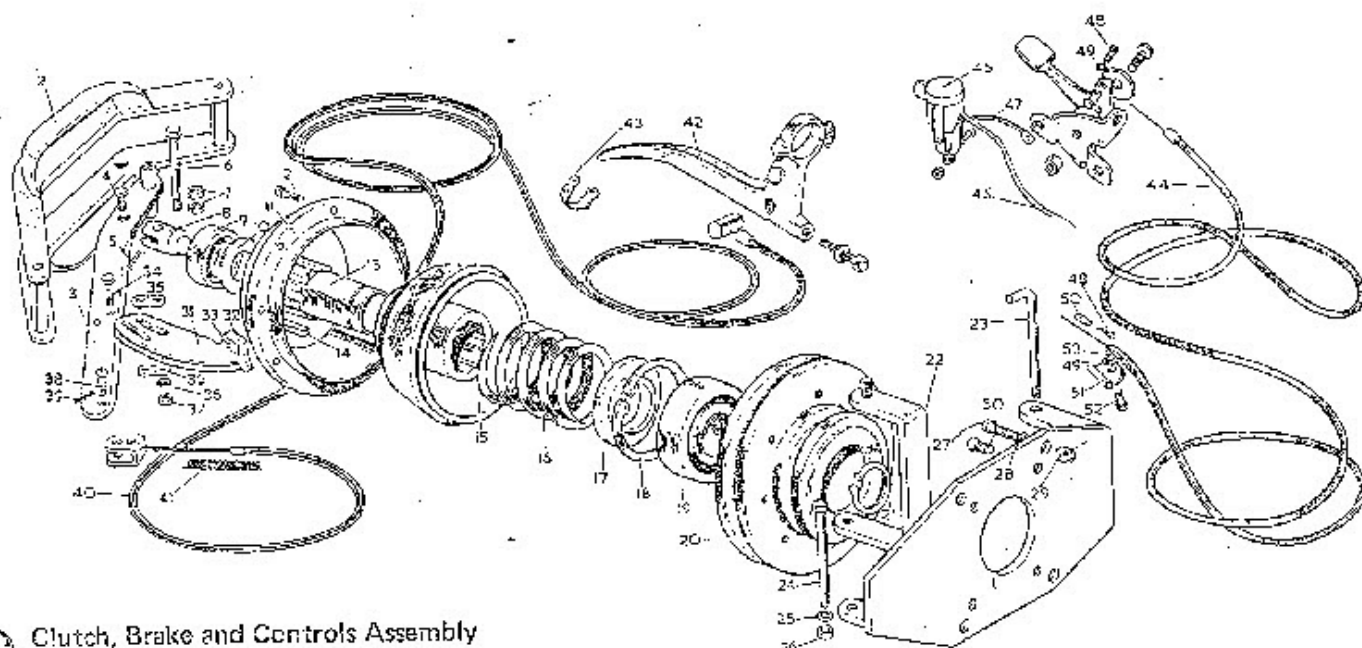


When ordering spare parts, it is essential to state the serial number of the machine for which the part is required, the part number (NOT the illustration number) and the description. The machine serial number plate (Ill. 1) is attached to the left-hand side of the engine support frame beneath the engine. We cannot guarantee that correct parts will be supplied unless the correct machine number and part number is given.

In the following parts list, all directions "left" or "right" are as viewed from the rear of the machine.

Illus. No.	Part No.	Description	No. Off	Illus. No.	Part No.	Description	No. Off
1	60954	Machine Number Plate	1	47	67782	Short Cable and Terminal	1
CLUTCH ASSEMBLY				48	103902030	Set-screw 2BA. x $\frac{5}{16}$ " long, Cheese Head	3
2	60427	Control Frame	1	49	108030540	Spring Washer $\frac{3}{16}$ " dia.	3
3	68391	Operating Arm	1	50	54693	Cable Nipples	1
4	25914	Pin	1	51	203210149	Throttle Cable Clip—Kohler Part No. 210149	1
5	208010040	Splitpin $\frac{1}{8}$ " dia. x $\frac{1}{2}$ " long	1	52	101703040	Set-screw $\frac{3}{8}$ " BSF. x $\frac{1}{2}$ " long, Hex. Head	1
6	101205220	Bolt $\frac{3}{8}$ " UNC. x $2\frac{1}{2}$ " long	1	53	107503010	Nut $\frac{3}{8}$ " BSF.	1
7	107205020	Locknut $\frac{3}{8}$ " UNC.	2	54 to 60 not allocated.			
8	60926	Clutch Release	1	POWER AND FRAME UNIT			
9	250616045	Ballrace—Fischer 20G2 $\frac{5}{8}$ " i.d. x $1\frac{1}{2}$ " o.d. x $\frac{1}{2}$ " w. Double-Sealed	1	203001070	Kohler K91 Engine—Howard '300'	1	
10	14509	Washer	1	203001130	Kohler K141 Engine—Howard '350'	1	
11	68950	Clutch Cone Cutter	1	61	203220145	Muffler—Kohler Part No. 220145	1
12	147410340	Countersunk Set-screw No. 10 UNC. x $\frac{1}{2}$ " long	8	62	203220122	Gasket—Kohler Part No. 220122	2
13	68938	Clutch Drive Shaft—for Kohler K91	1	63	203220133	Muffler Stud—Kohler Part No. 220133	2
	208012370	Tension Pin $\frac{3}{16}$ " dia. x $1\frac{1}{2}$ " long—for Kohler K91	1	64	203101510	Nut—Kohler Part No. X-81-1	2
13	68928	Clutch Drive Shaft—for Kohler K141	1	65	68410	Exhaust Gasket	for Kohler K91 Engine 1
14	68312	Key—for Kohler K91	1	66	68317	Muffler Elbow	1
14	68927	Key—for Kohler K141	1	67	101204120	Bolt $\frac{1}{2}$ " UNC. x $1\frac{1}{2}$ " long	2
15	68308	Clutch Cone Inner and Lining	1	68	108040840	Spring Washer $\frac{1}{2}$ " dia.	1
15	66973	Spring	1	69	68306	Engine Baseplate	4
17	68931	Spring Pad	1	70	101405090	Bolt $\frac{3}{8}$ " UNC. x $1\frac{1}{2}$ " long	4
18	208001160	Circle 2 $\frac{1}{2}$ " dia. Internal	1	71	108061010	Flat Washer $\frac{5}{16}$ " dia.	4
19	251227075	Ballrace—LS.12.HSSV.3— $1\frac{1}{4}$ " i.d. x $2\frac{1}{2}$ " o.d. $\frac{1}{2}$ " w. Double Sealed	1	72	108060940	Spring Washer $\frac{3}{16}$ " dia.	4
20	68929	Engine Pulley	1	73	107205010	Nut $\frac{3}{8}$ " UNC.	1
21	208002020	Cushion 1 $\frac{1}{2}$ " dia. External	1	74	69153	Engine Baseplate	1
22	68313	Backplate	1	75	69157	Engine Baseplate—Upper	1
23	68440	Locking Pin	1	76	101205170	Bolt $\frac{3}{8}$ " UNC. x $1\frac{1}{2}$ " long	for Kohler K141 Engine 2
24	101205240	Bolt $\frac{3}{8}$ " UNC. x $3\frac{1}{2}$ " long	1	77	101406080	Set-screw $\frac{1}{2}$ " UNC. x $1\frac{1}{2}$ " long, Hex. Head	2
25	108051030	Shakeproof Washer $\frac{5}{16}$ " dia. Internal	1	78	102406100	Bolt $\frac{1}{2}$ " UNC. x $1\frac{1}{2}$ " long, Slotted Countersunk Head	2
25	107205010	Nut $\frac{3}{8}$ " UNC.	1	79	108061140	Spring Washer $\frac{3}{4}$ " dia.	6
27	101406060	Set-screw $\frac{3}{8}$ " UNC. x $\frac{1}{2}$ " long, hex. head	for Kohler K141 4	80	107206010	Nut $\frac{3}{8}$ " UNC.	6
28	108061130	Shakeproof Washer $\frac{5}{16}$ " dia. Internal	1	81	103051010	Flat Washer $\frac{3}{4}$ " dia.	4
29	G.316	Spacer	1	82	108050940	Spring Washer $\frac{1}{2}$ " dia.	4
30	117305080	Socket Head Countersunk Screw $\frac{1}{2}$ " UNF. x $\frac{3}{4}$ " long, UNERAKO KA.—for Kohler K91	4	83	107205010	Nut $\frac{3}{8}$ " UNC.	1
	68932	Stroke Block—Rivet Assembly comprising:—	1	84	68313	Belt Guard	1
31	68933	Brake Shoe	1	85	107205080	Wing Nut $\frac{5}{16}$ " UNC.	2
32	68935	Stroke Shoe	1	86	108051010	Flat Washer $\frac{5}{16}$ " dia.	1
33	208029030	Rivet $\frac{3}{8}$ " dia. x $\frac{3}{4}$ " long, Flat head, Semi-tubular	1	87	60831	Belt Guard Bracket	1
34	141410070	Bolt No. 10 UNC. x $\frac{1}{2}$ " long, Hex. Head	2	88	204006170	Vee Bolt—Fenner Alpha 560	1
35	69123	Keeper Plate	2	89 to 99 not allocated			
36	108030540	Spring Washer $\frac{3}{16}$ " dia.	2	BACKPLATE AND CHAINCASE			
37	107210200	Nut No. 10 UNC.	2	64327	Backplate Assembly comprising:—	1	
38	34233	Pin	1	100	68593	Backplate	1
39	208010040	Splitpin $\frac{1}{8}$ " dia. x $\frac{1}{2}$ " long	1	101	65639	Depth Skid Bracket L.H.	1
	64417	Clutch Cable Assembly comprising:—	1	102	68714	Rotor Bearing Housing	1
40		Cable	1	103	64330	Axis Bearing Housing	1
41	26575	Spring	1	104	208035070	Avdelok Bolt—Ref. 26110808	12
42	207001090	Clutch Lever—Doherty 107 PA. $\frac{1}{2}$ " L.H.	2	105	208035020	Avdelok Collar—Ref. 26620800	12
43	208003250	Cable Clip—John Bull—Size 'S'	1	64338	Chainbox Assembly comprising:—	1	
44	207001720	Throttle Control—Auto-elec Electric—Type MC.223—Red Handle, Inner Cable 57 $\frac{1}{2}$ " long, Outer Cable 54 $\frac{1}{2}$ " long	1	102	68714	Rotor Bearing Housing	1
45	203102330	Ground Lead Extension 65" long, L.H. 1460-6312	1	103	64330	Axis Bearing Housing	1
46	207005100	Stop Switch—Miller D.2 Spec. $\frac{3}{8}$ " Bar— $\frac{1}{2}$ " Screw	1	105	208035020	Avdelok Collar—Ref. 26110807	12
				106	208035060	Avdelok Bolt—Ref. 26110807	2
				107	66593	Chainbox	1
				108	66639	Depth Skid Bracket L.H.	1
				109	64394	Chaincase Gasket	1
				110	64406	Weed Cutter	2

HOWARD ROTAVATOR 300/350 - Parts List



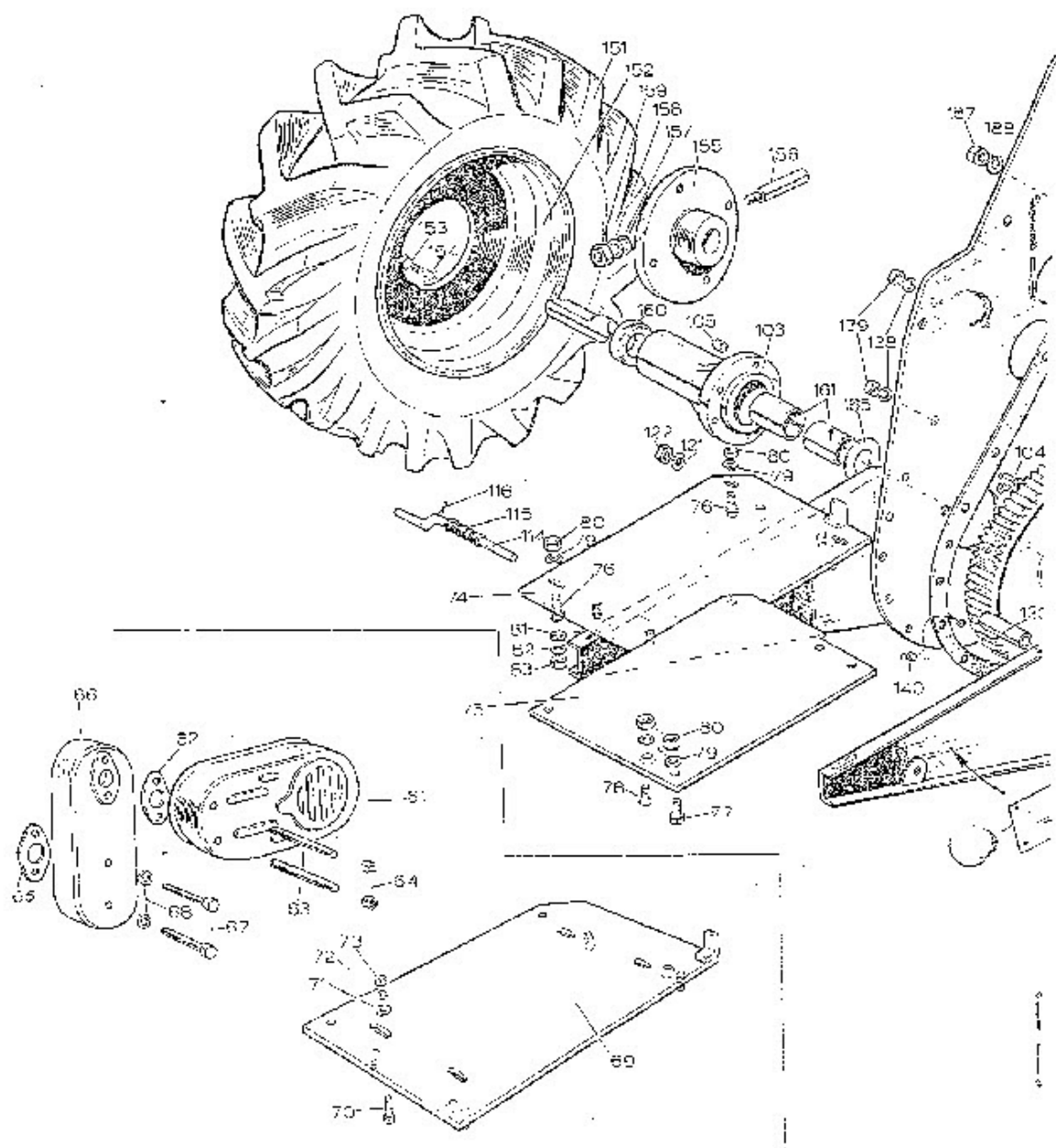
Clutch, Brake and Controls Assembly

Illus. No.	Part No.	Description	No. Off	Illus. No.	Part No.	Description	No. Off
111	6430	Keeper Plate	2	164	64342	Bull Gear	1
112	108040830	Shakeproof Washer $\frac{1}{2}$ " dia. Internal	4	165	14224	Wearing Washer	2
113	101305050	Bolt $\frac{1}{2}$ " UNF. x $\frac{5}{8}$ " long	4	ROTOR AND ROTOR DRIVE			
114	64465	Retaining Pin	1	166	64429	Rotor Spacer	as required
115	30869	Spring	1	167	251712023	Oilseal-Superseal 900659C-1020-011-	4
116	205010130	Spline in $\frac{1}{2}$ " dia. x $\frac{1}{4}$ " long	1	168	252530382	Inner Race INA IR. 25mm. x 30mm. x 38.5mm.	2
117	64396	Adjusting Bolt	1	169	553037264	Needle Bearing INA.HK.3026	2
118	107206010	Nut $\frac{3}{8}$ " UNF.	1	170	64367	Thrust Washer	2
119	101108280	Bolt $\frac{1}{2}$ " UNF. x $3\frac{1}{2}$ " long	1	171	64353	Chain Assembly	1
120	64392	Spacer	1	172	64364	Rotor Drive Shaft and Sprocket	1
121	108081440	Spring Washer $\frac{1}{2}$ " dia.	1	173	64427	Rotor Draw Bolt-16" Model	1
122	107108010	Nut $\frac{1}{2}$ " UNF.	1	174	64430	Draw Bolt Washer	2
123	67280	Adjuster Screw	1	175	64420	Rotor-16" Model	2
124	107206020	Locknut $\frac{3}{8}$ " UNC.	1	176	107210320	Locknut $\frac{3}{8}$ " UNC.	2
125	67275	Chain Tensioner	1	177	64486	Centre Blade L.H.	2
126	67281	Sleeve	1	178	64485	Centre Blade R.H.	2
127	101105140	Bolt $\frac{1}{2}$ " UNF. x $1\frac{1}{2}$ " long	1	179	9836	Blade L.H.	4
128	107105030	Phillips Nut $\frac{1}{2}$ " UNF. GUP. 1	1	180	9837	Blade R.H.	4
129	101204170	Bolt $\frac{1}{2}$ " UNC. x $2\frac{1}{2}$ " long	1	181	14144	Special Bolt	24
130	64391	Skid Bracket Spacer	1	182	108050940	Spring Washer $\frac{1}{8}$ " dia.	24
131	108040840	Spring Washer $\frac{1}{2}$ " dia.	1	183	107105010	Nut $\frac{3}{8}$ " UNF.	24
132	107204010	Nut $\frac{1}{2}$ " UNC.	1	184	65476	Drawbolt	1
133	65121	Chaincase Skid	1	185	65475	Dust Cap	2
134	101404370	Setscrew $\frac{1}{4}$ " UNC. x $\frac{3}{4}$ " long, Hex. Head	3	186	107105010	Nut $\frac{3}{8}$ " UNF.	1
135	101404060	Setscrew $\frac{1}{4}$ " UNC. x $\frac{1}{2}$ " long, Hex. Head	22	Optional Extras for 23" Rotor			
136	101404040	Setscrew $\frac{1}{4}$ " UNC. x $\frac{1}{4}$ " long, Hex. Head	2	187	64451	Rotor Extension 23" Model	2
137	25578	Fibre Washer	1	173	64450	Rotor Draw Bolt-23" Model	1
138	108040840	Spring Washer $\frac{1}{2}$ " dia.	26	179	9836	Blade L.H.	2
139	107204010	Nut $\frac{1}{2}$ " UNC.	26	180	9837	Blade R.H.	2
140	203031650	Flag $\frac{3}{8}$ " BSP Square Head	1	181	14144	Special Bolt	8
141 to 150	not located.						8
151	209001360	Tyre -400 x 8 x 2 ply	2	182	108050940	Spring Washer $\frac{1}{8}$ " dia.	8
152	209001370	Tube-400 x 8	2	183	107105010	Nut $\frac{3}{8}$ " UNF.	8
153	64467	Wheel	2	GEARBOX ASSEMBLY			
154	101406060	Setscrew $\frac{1}{4}$ " UNC. x $\frac{1}{2}$ " long	8	187	107206010	Nut $\frac{1}{2}$ " UNC.	1
155	108061140	Spring Washer $\frac{3}{8}$ " dia.	8	188	108061440	Spring Washer $\frac{1}{2}$ " dia.	1
156	64465	Wheel Hub	2	189	67256	Spacer	1
157	64466	Cutter Pin	2	190	67257	Thrust Washer	2
158	108061210	Flut Washer $\frac{1}{2}$ " dia.	2	191	67251	Rotor Drive Sprocket Assembly	1
159	108061140	Spring Washer $\frac{3}{8}$ " dia.	2	192	67252	Rotor Drive Sprocket	1
160	107106010	Nut $\frac{1}{2}$ " UNF.	2	192	251011053	Bearing-Glacier No. 3204 1" i.d. x $1\frac{1}{2}$ " l.d. x $\frac{1}{2}$ " long	2
161	261510041	Oilseal $1\frac{1}{2}$ " o.d. x $1\frac{1}{2}$ " i.d. x $\frac{3}{8}$ " w. Pioneer 11P.150.100.37	2				
162	251011123	Bearing-Glacier No. 3210-1" i.d. x $1\frac{1}{2}$ " o.d. x $1\frac{1}{2}$ " long	4				
163	64342	Wheel Axle	1				
164	64497	Key	2				

WHEELS AND AXLE

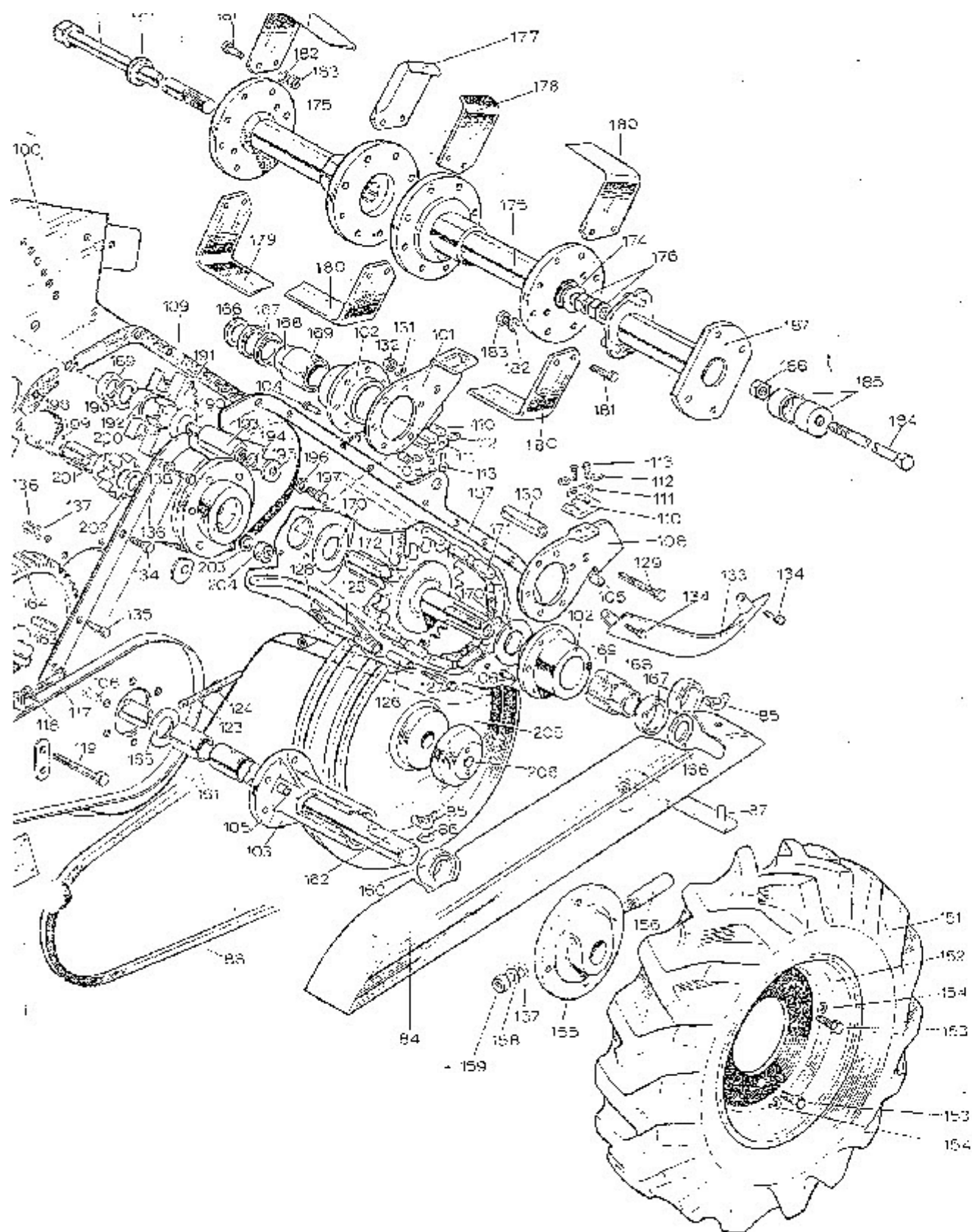
151	209001360	Tyre -400 x 8 x 2 ply	2
152	209001370	Tube-400 x 8	2
153	64467	Wheel	2
154	101406060	Setscrew $\frac{1}{4}$ " UNC. x $\frac{1}{2}$ " long	8
155	108061140	Spring Washer $\frac{3}{8}$ " dia.	8
156	64465	Wheel Hub	2
157	64466	Cutter Pin	2
158	108061210	Flut Washer $\frac{1}{2}$ " dia.	2
159	108061140	Spring Washer $\frac{3}{8}$ " dia.	2
160	107106010	Nut $\frac{1}{2}$ " UNF.	2
161	261510041	Oilseal $1\frac{1}{2}$ " o.d. x $1\frac{1}{2}$ " i.d. x $\frac{3}{8}$ " w. Pioneer 11P.150.100.37	2
162	251011123	Bearing-Glacier No. 3210-1" i.d. x $1\frac{1}{2}$ " o.d. x $1\frac{1}{2}$ " long	4
163	64342	Wheel Axle	1
164	64497	Key	2

HOWARD ROTAVATOR 300/350 - Parts List



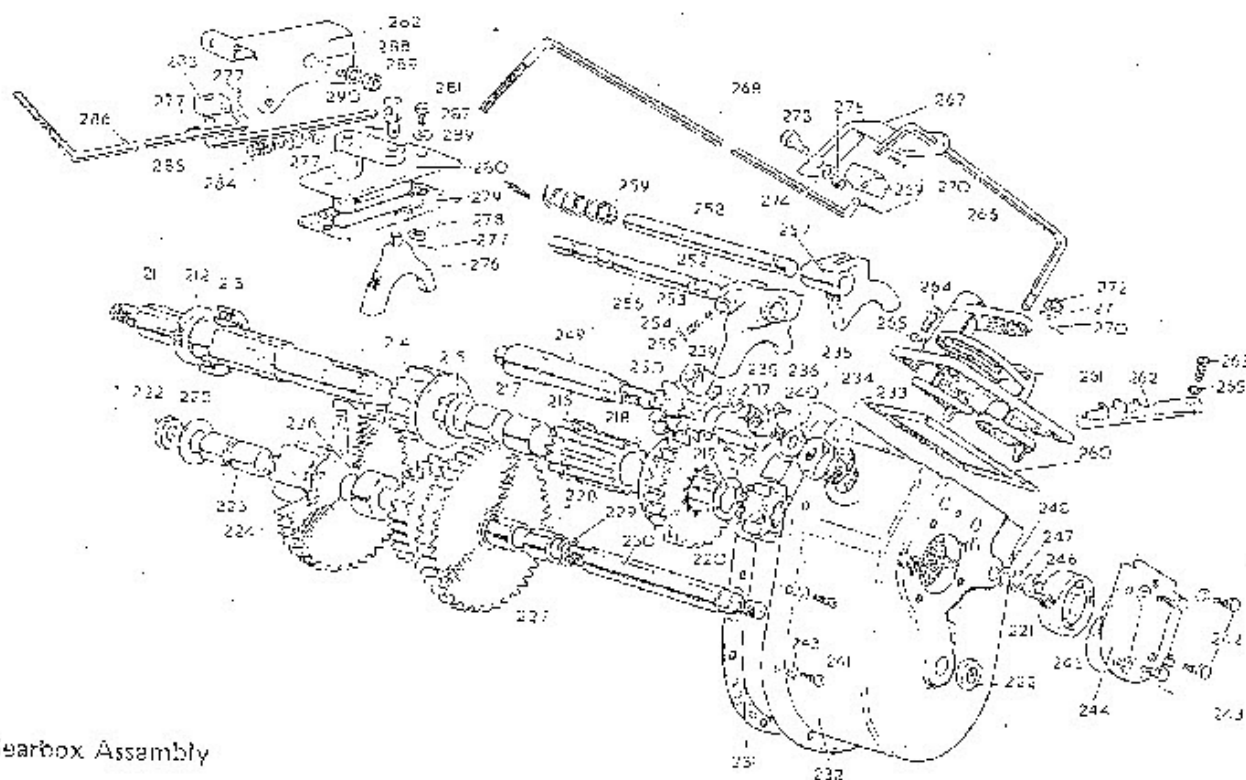
NOTES 91

Frame Unit, including Backplate, Chaincase, Wheels & Axle and Rotor Assemblies.



HOWARD ROTAVATOR 300/350 - Parts List

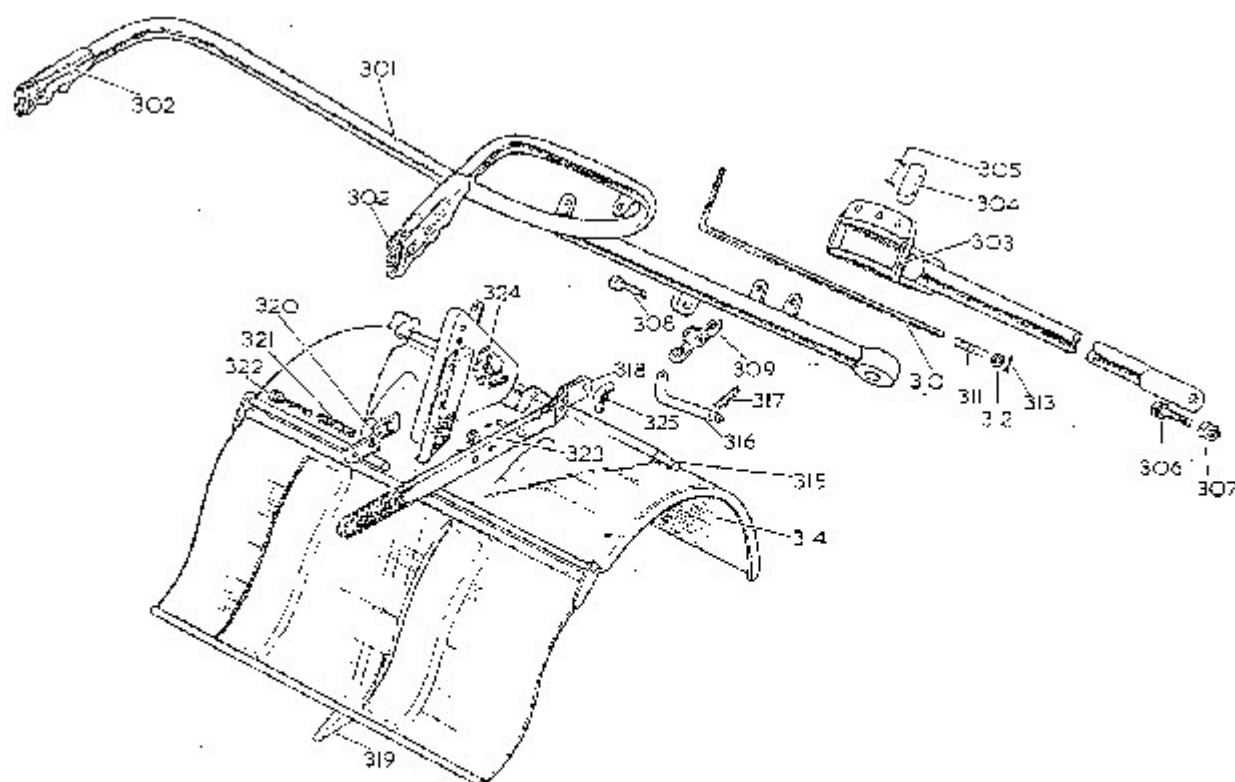
U.S. Part No.	Part No.	Description	No. of	U.S. Part No.	Part No.	Description	No. of
103	67255	Drive Sprocket Spindle	1		67258	Cluster Gear Assembly	1
84	202023140	10" Ring $\frac{3}{8}$ " i.d. x $\frac{3}{4}$ " o.d. - Pioneer 3-110	1			comprising:-	
103	65174	Washer	1	227	67259	Cluster Gear	1
196	108051030	Shakeproof Washer $\frac{3}{8}$ " dia. Internal	1	228	250307063	Bearing-Gladier No. 2005- $\frac{3}{8}$ " i.d. x $\frac{3}{4}$ " o.d.	1
197	101406040	Set screw $\frac{3}{8}$ " UNC. x 4" long. Hex. Head	1			x $\frac{3}{4}$ " long	2
198	67250	Uller Pinion Shaft	1	229	67495	Shim .015	as required
199	64320	Gear Spacer	1		67494	Shim .010	as required
	67248	Motor Uller Gear Assembly	1	230	67250	Intermediate Shaft	1
		comprising:-		231	64395	Gearbox Gasket	1
200	67249	Motor Uller Gear	1	237	64305	Gearbox	1
201	250750103	Bearing-Gladier No. 2406- $\frac{3}{8}$ " i.d. x $\frac{3}{4}$ " o.d.	1	233	502023040	Washer-Benton and Sons No. 13860	1
		x 1" long	1	234	56274	Plug	1
202	64317	Thrust Washer	1		66193	Breather Assembly	1
203	108071240	Spring Washer $\frac{3}{8}$ " dia.	1			comprising:-	
204	107207010	Nut $\frac{3}{8}$ " UNC.	1	235	10580	Washer	1
205	66452	Driver Pulley	1	236	6312	Press Union	1
206	67605	Pulley Nut	1	237	23646	Gauze Filter	2
207 to 210		not shown.		238	66195	Breather Fod	1
211	64315	Drive Shaft	1	239	3.279	Nut	1
212	261311071	Oilseal-Pioneer 11P.150.112.25	1	240	143406030	Sealscrew $\frac{3}{8}$ " UNC. x $\frac{3}{4}$ " long. Shallow	3
213	250720071	Ballbearing $\frac{3}{8}$ " i.d. x 2" o.d. x $\frac{1}{2}$ " w. Hoff. V.S. 6	1	241	116404040	Countersunk Head	1
214	64316	Motor Selector Gear	1			Set screw $\frac{3}{8}$ " UNC. x $\frac{3}{4}$ " long. Round Head, Phillips Head	6
215	64320	Gear Spacer	1	242	101404040	Set screw $\frac{3}{8}$ " UNC. x $\frac{3}{4}$ " long. Hex. Head	4
	64318	Intermediate Drive Gear Assembly	1	243	108040840	Spring Washer $\frac{3}{8}$ " dia.	10
		comprising:-		244	64352	Bearing and Slide Bar Cover	1
216	64361	Drive Gear	1	245	64459	Gasket	as required
217	250709073	Bearing-Gladier No. 2406- $\frac{3}{8}$ " i.d. x $\frac{3}{4}$ " o.d.	1	246	107206013	Nut $\frac{3}{8}$ " UNC.	1
		x $\frac{3}{4}$ " long	2	247	108061140	Spring Washer $\frac{3}{8}$ " dia.	1
218	64319	Drive Slide Gear 27T	1	248	108061210	Flat Washer $\frac{3}{8}$ " dia.	1
219	64317	Thrust Washer	1	249	64354	Reverse Spindle	1
220	64321	Drive Shaft Gear 15T	1		64362	Reverse Gear Assembly	1
221	250616041	Ballbearing $\frac{3}{8}$ " i.d. x $\frac{1}{2}$ " o.d. x $\frac{1}{4}$ " w. Hoff. L.S. 7	1			comprising:-	
222	107205020	Locknut $\frac{3}{8}$ " UNC.	2	250	64383	Reverse Gear	1
223	67264	Thrust Washer	1	251	250507103	Bearing-Gladier No. 2008- $\frac{3}{8}$ " i.d. x $\frac{3}{4}$ " o.d.	1
	67250	Final Drive Pinion Assembly	1			x 1" long	1
		comprising:-		252	64322	Travel Selector	1
224	67261	Final Drive Pinion	1	253	250001801	Ball $\frac{3}{8}$ " dia.	1
225	250607063	Bearing-Gladier No. 2005- $\frac{3}{8}$ " i.d. x $\frac{3}{4}$ " o.d.	1	254	64471	Spring	1
		x $\frac{3}{4}$ " long	2	255	208010040	Splitpin $\frac{3}{8}$ " dia. x $\frac{1}{2}$ " long	1
226	67262	Gear Spacer	1	256	64325	Travel Selector Slide Bar	1
				257	64320	Reverse Selector	1



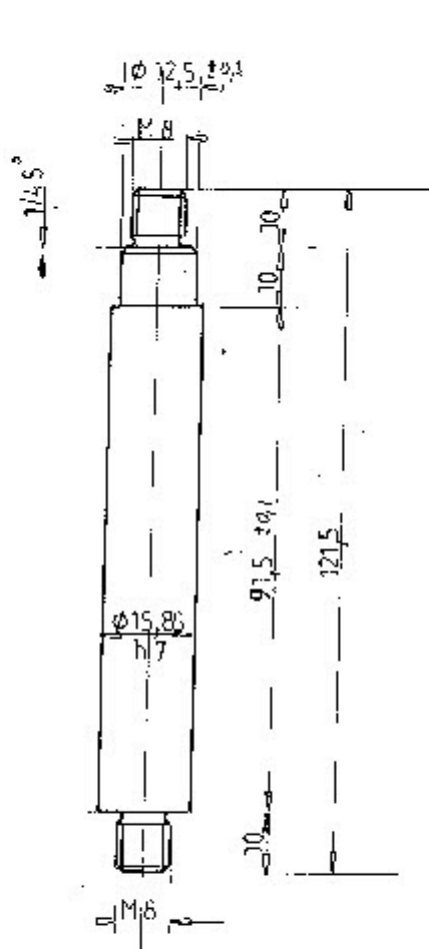
Gearbox Assembly

HOWARD ROTAVATOR 300/350 - Parts List

Illus. No.	Part No.	Description	No. Off	Illus. No.	Part No.	Description	No. Off
258	64324	Reverse Selector Slide Bar	1	290	107204010	Nut $\frac{1}{4}$ " UNC.	2
259	64472	Reverse Selector Spring	1	201 to 300 not allocated.			
260	64379	Gasket	as required	HANDLEBARS			
261	66356	Gearbox Cover and Selectors	1	301	65431	Handle Bar Stem	1
262	65750	Selector Gate	1	302	20557	Handle Bar Grip	2
263	106404120	Capscrew $\frac{1}{4}$ " UNC. x $\frac{1}{2}$ " long	2	303	65432	Handle Bar Mounting	1
264	103404050	Chesse Head Setscrew $\frac{1}{4}$ " UNC. x $\frac{1}{8}$ " long	2	304	65433	Pin	1
265	205040830	Shakeproof Washer $\frac{1}{4}$ " dia.	4	305	208010200	Splitpin $\frac{1}{8}$ " dia. x 1" long	2
266	65507	Lower Control Rod	1	306	101306080	Bolt $\frac{3}{8}$ " UNF. x 1" long	1
267	65439	Control Rod Bracket	1	307	107106030	Phillips Nut $\frac{3}{8}$ " UNF. JUFF.	1
268	63183	Upper Control Rod	1	308	101306100	Bolt $\frac{3}{8}$ " UNF. x $1\frac{1}{4}$ " long	1
269	65508	Gear Control Trunnion	1	309	207001150	Wing Nut $\frac{3}{8}$ " UNF. Utility Cycle No. 2	1
270	208010060	Splitpin $\frac{1}{8}$ " dia. x $\frac{1}{2}$ " long	3	310	65430	Release Handle	1
271	208051010	Flat Washer $\frac{1}{8}$ " dia.	1	311	62136	Spring	1
272	208050950	Spring Washer $\frac{5}{16}$ " dia. Double Coil	1	312	108061210	Flat Washer $\frac{3}{4}$ " dia.	1
273	101304080	Bolt $\frac{1}{2}$ " UNF. x 1" long	1	313	208010050	Splitpin $\frac{1}{8}$ " dia. x $\frac{3}{4}$ " long	1
274	108040340	Spring Washer $\frac{1}{4}$ " dia.	1	SHIELDS			
275	107104010	Nut $\frac{1}{4}$ " UNF.	1	314	64431	Rotor Shield—16" Model	1
	68792	Rotor Selector Control Assembly comprising:	1	315	64455	Rotor Shield—23" Model	1
276	64390	Rotor Selector	1	316	64439	Shield Securing Pin	1
277	208010040	Splitpin $\frac{1}{8}$ " dia. x $\frac{1}{2}$ " long	4	317	67284	Shield Securing Pin	1
278	102040910	Flat Washer $\frac{1}{2}$ " dia.	1	318	67285	Clip Pin	1
279	65499	Gasket	1	319	64440	Depth Control Handle	1
280	68793	Rotor Selector	1	320	64446	Depth Skid	1
281	68010	Trunnion	1	321	64445	Spring Clip	1
282	68798	Selector Gate	1	322	20476	Spring	1
283	20545	Trunnion Block	1	323	101204120	Bolt $\frac{1}{4}$ " UNC. x $1\frac{1}{4}$ " long	1
284	68003	Rotor Selector Spring	1	324	107204010	Nut $\frac{1}{4}$ " UNC.	1
285	68795	Rotor Selector Rod	1	325	64443	Depth Control Handle Pivot Bolt	1
286	62801	Rotor Control Rod	1	326	107205060	Wing Nut $\frac{1}{2}$ " UNC.	1
287	101404040	Setscrew $\frac{1}{4}$ " UNC x $\frac{1}{8}$ " long, Hex. Head	2				
288	101404060	Setscrew $\frac{1}{4}$ " UNC x $\frac{1}{4}$ " long, Hex. Head	2				
289	108040340	Spring Washer $\frac{1}{4}$ " dia.	4				



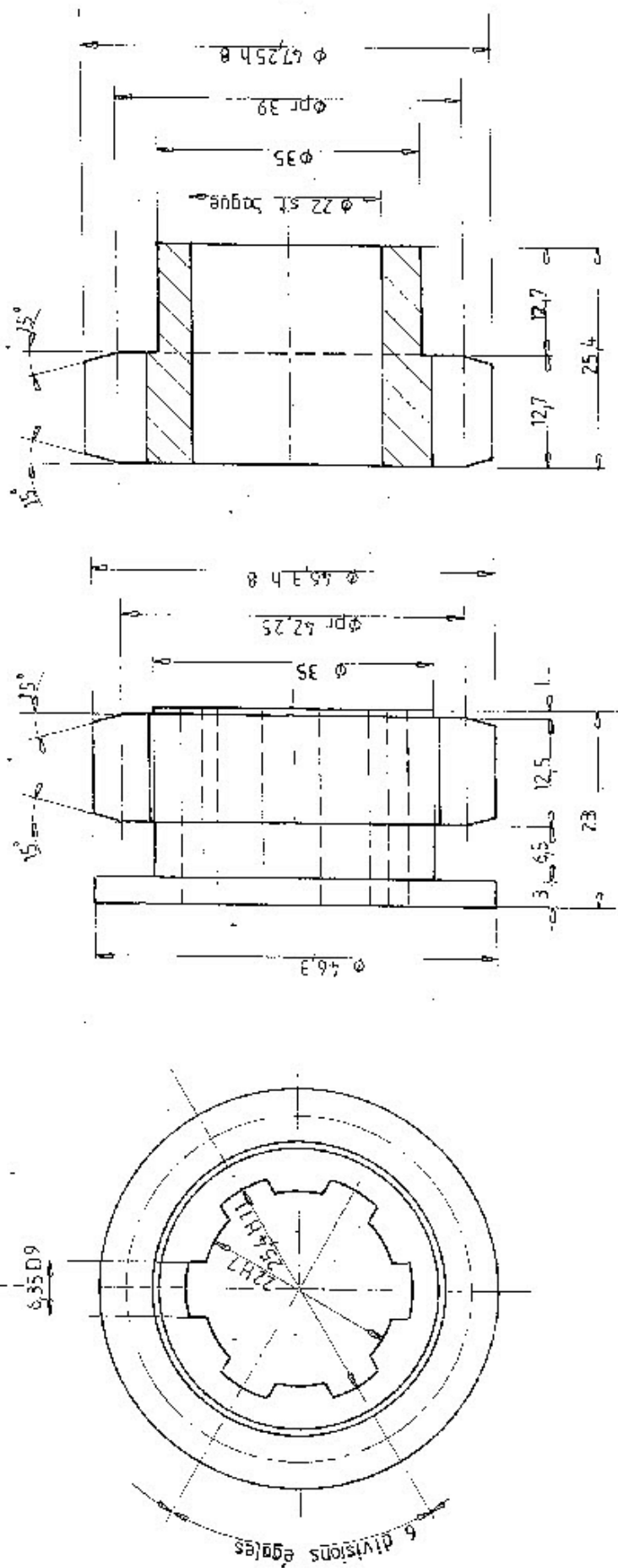
Handlebar and Shields Assembly



Mat 42C No 4.

191

16



Moniteur du Saut	Z	13	Rep 1	Rep 2
Mouille réel	m			12
Angle d'attaque	°	0		0
Viscousité apparente	mpa	0		
Angle de position	°	20°		
Débit de la Venturie	m ³ /s	0.0095		0.0097
Entrée	g	49.30		
Mesure sur n. d'essai	Wink			
Mesure de l'écoulement sur l'essai	n			
Classe de la denture	g			
PUSSANCE en moteur				
Moniteur de tour minute				

Matière : 42 CrMo4		NOM : DIN :		poids :	
Caractéristiques mécaniques					
R	Re	Al	K	N	r
30-110	65				
Traitement thermique					
Composition chimique :					
C	Mn	Si	P	S	Cr
0,42	0,8	0,3			1,1
					Ni
					Mo
					0,25

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Exclusion:	Data:
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rev.11c: