



# **Howard® Gem® V and Super Gem Rotavator®**

---

## **Parts List**

*(Incorporates Parts Bulletin HPI)*

**Howard Rotavator Co. Ltd.**  
A member of the Howard group

Saxham Bury St Edmunds  
Suffolk IP28 6RP England  
Telephone Bury St Edmunds (0284) 63266  
Telex 817321

# CONTENTS

Chaincase assembly .....	9
Clutch .....	5
Clutch controls .....	17
Decompressor control (twin engine only) .....	19
Depth control skid .....	13
Depth control wheel .....	15
Differential .....	7
Extension hubs .....	7
Frame and handlebars .....	13
Fuel tank — petrol for Twin Engine, Wisconsin and Kohler .....	15
— Twin Engine — V.O. and Lamp Oil .....	15
Gearbox .....	3
Hatz engine and fittings .....	27
Jackshaft extension and backplate .....	9
Kohler engine and fittings .....	23 & 25
Machine transfers .....	27
Numerical parts list .....	28 & 29
Pictorial rotor .....	11
Reverse interlock .....	19
Rotor .....	11
Rotor, differential and handlebar controls .....	17
Rotor drive .....	9
Rotor safety clutch .....	11
Rotor stub axle .....	11
Sachs engine conversion unit .....	21
Shields .....	15
Starting handles for use with extension hubs .....	13
Staytube and starting handle .....	13
Throttle control for twin engine .....	17
Travel gear control .....	17
Wheels .....	7
Wisconsin AEN engine and fittings .....	23

It is important that when ordering spare parts, the user of a machine should always give the serial number of the particular machine for which the spare part is required, the part number (not the illustration number) and description. We cannot guarantee to supply correct parts unless these numbers are quoted.

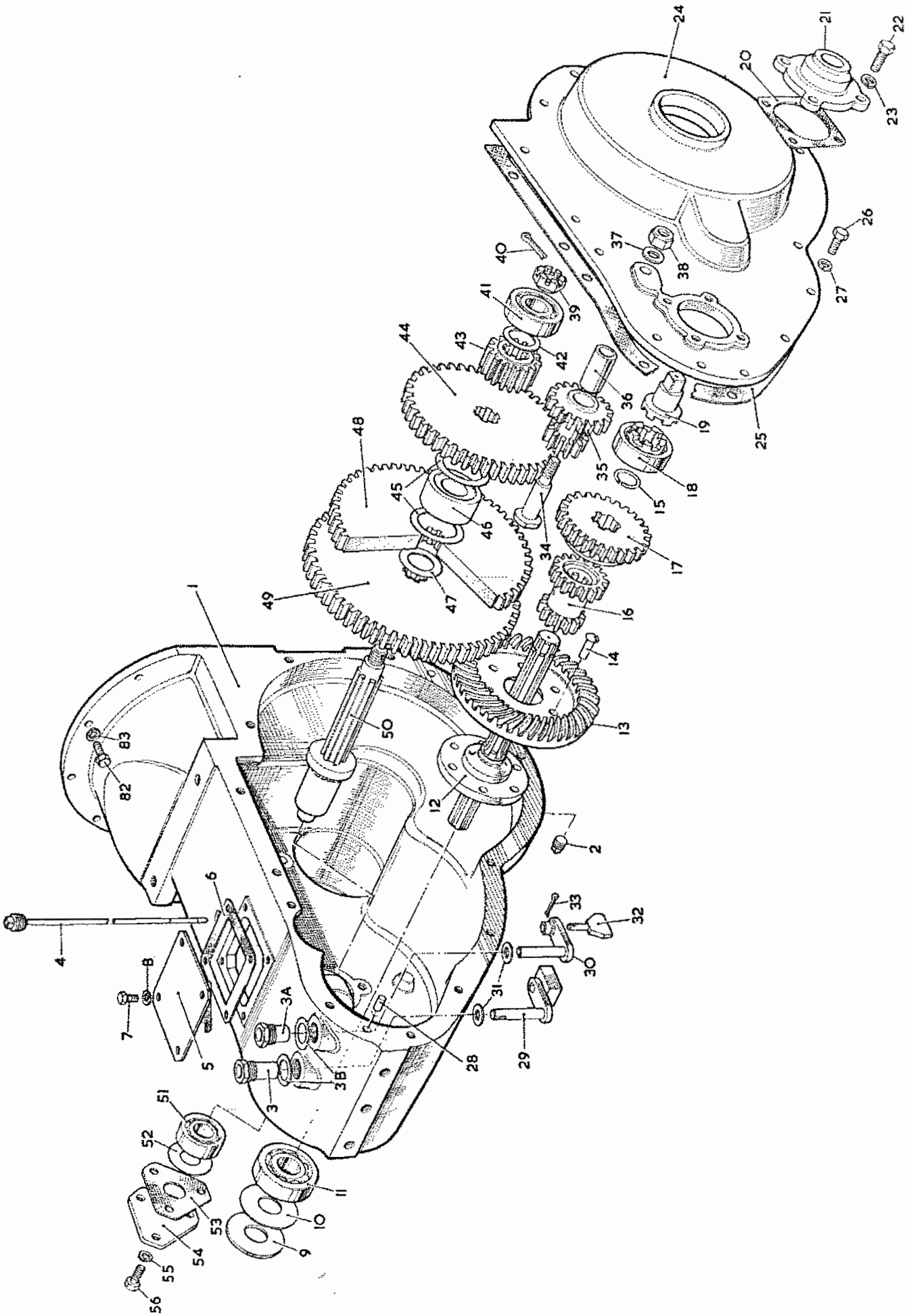
## NOTE FOR DEALERS

The Bulletin columns provide space to record the reference number of any Bulletin issued concerning that part.

The Bin number column is for you to record the location of that item in the stores.

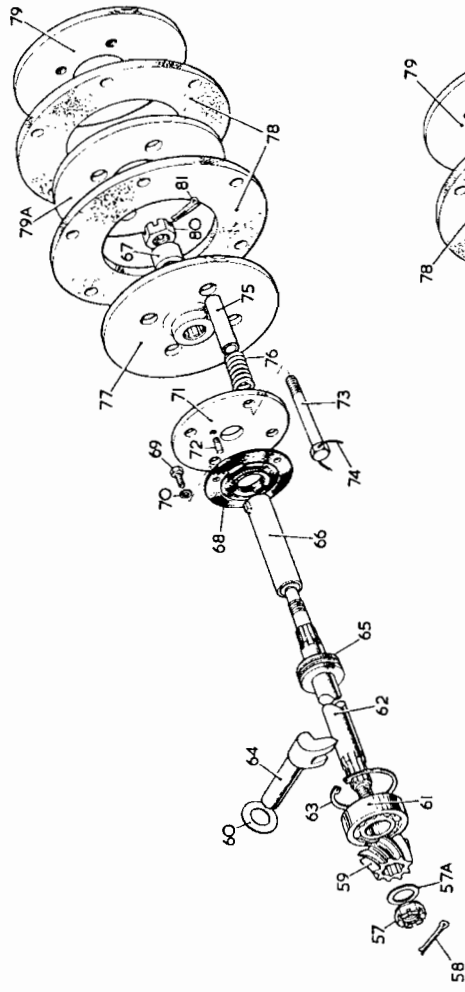
When writing in the Bin locations, complete the numerical index first and then transfer the information to the other pages.

# Howard Gem and Super Gem Parts List

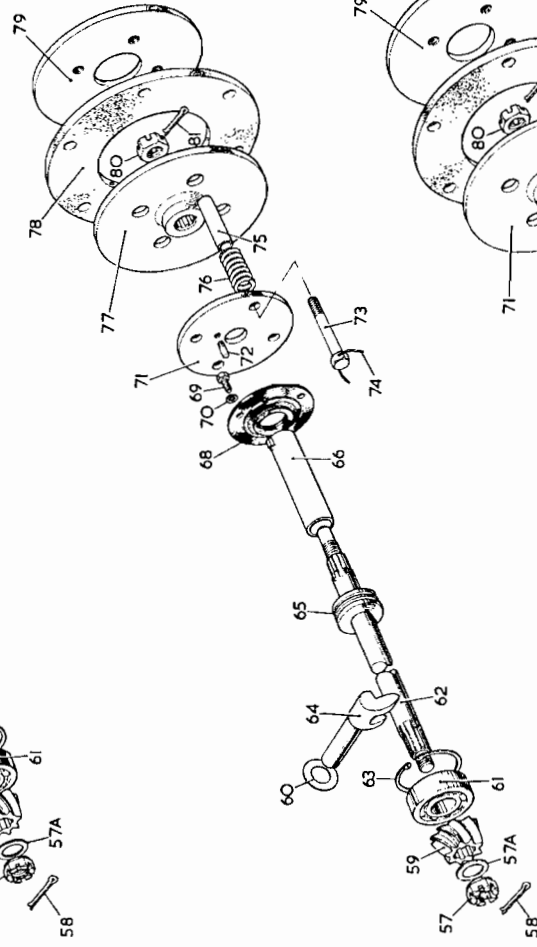


Illus. Part No.	Description	No. off	Bin No.	Bulletin	Bin No.
41	Ballbearing 1" i.d. x 2 1/4" o.d. x 5/8" w. BRL. 1	1	251022061		
42	Shim .005"	As required	25054		
43	Bull pinion	1	25025		
44	Layshaft small gear	1	62916		
45	Shim .030"	As required	25757		
46	Spacer	1	25015		
47	Shim .028"	As required	554		
48	Medium gear	1	25012		
49	Large gear	1	25011		
50	Layshaft	1	25037		
51	Ballbearing 3/4" i.d. x 1 7/8" o.d. x 3/16" w. BRL. 3/4"	1	250719061		
52	Layshaft shim .005"	As required	25684		
53	Gasket	1	355		
54	Layshaft bearing stop	1	354		
55	Spring washer 5/16" dia.	3	108050940		
56	Setscrew 5/16" BSW x 5/8" long, hex. head	3	101805050		
57 to 81	See Page 7				
82	Setscrew, engine to gearbox 1/4" BSW x 3/4" long, hex head	8	101804060		
83	Spring washer 1/4" dia.	8	108040840		

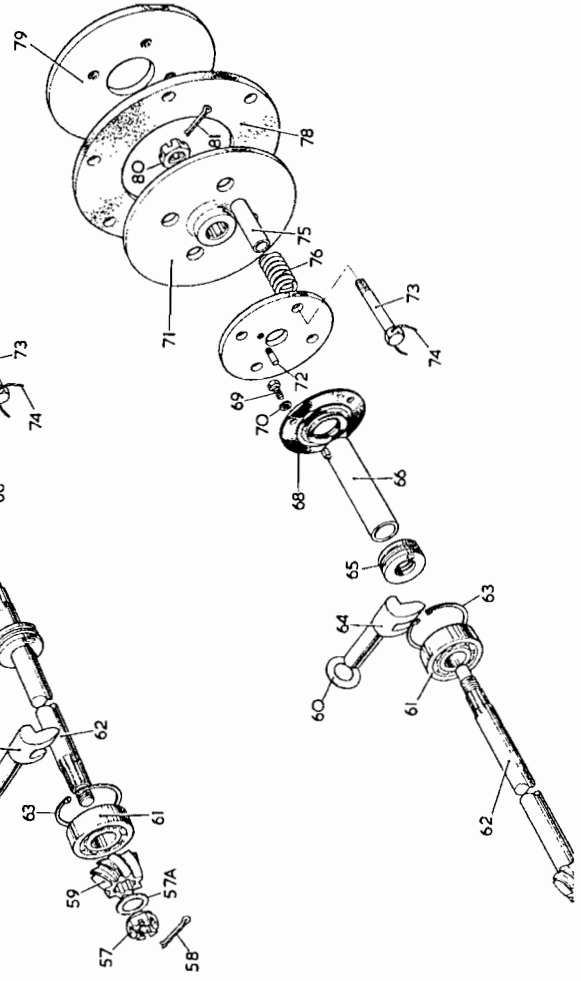
Illus. Part No.	Description	No. off	Bin No.	Bulletin	Bin No.
<b>GEARBOX</b>					
1	Gearbox casing	1			
2	Drain plug 1/4" BSP sq. head, taper plug	1			
3	Selector bush	1			
3A	Selector bush	As required			
3B	Shim	As required			
4	Dipstick	1			
5	Inspection cover	1			
6	Inspection cover gasket	1			
7	Setscrew 1/2" BSW x 1/2" long, hex. head	4			
8	Spring washer 1/4" dia.	4			
9	Jackshaft bearing shim .062"	As required			
10	Jackshaft bearing shim .010"	As required			
11	Ballbearing 1" i.d. x 2 1/4" o.d. x 3/4" w. BRM 1	1			
12	Jackshaft	1			
UP TO MACHINE SERIAL NUMBER 250A 1020					
13	Spiral bevel gear	1			
14	Rivet 5/16" dia. x 3/4" long, pan head	6			
13	Spiral bevel gear	1			
14	Rivet 5/16" dia. x 7/8" long, pan head	6			
FROM MACHINE SERIAL NUMBER 250A 1021					
* Not interchangeable and must be used with their respective pinions 25007 and 27368 (clutch shaft with integral pinion).					
15	Special circlip	1			
16	Double pinion	1			
17	Single pinion	1			
18	Starting dog bearing	1			
19	Starting dog	1			
20	Starter dog bearing housing gasket	1			
21	Starter dog bearing housing	1			
22	Setscrew 5/8" BSW x 7/8" long, hex. head	4			
23	Spring washer 3/8" dia.	4			
24	Gearbox cover	1			
25	Cover gasket	1			
26	Setscrew 5/16" BSW x 7/8" long hex. head	14			
27	Spring washer 3/16" dia.	14			
28	Mills pin 5/16" dia. x 5/8" long, GP2	2			
29	Speed change selector	1			
30	Reverse selector	1			
31	Washer	As required			
32	Reverse selector block	1			
33	Split pin 1/16" dia. x 3/4" long	1			
34	Reverse idler pin	1			
35	Reverse idler gear	1			
36	Reverse idler bush	1			
37	Washer 1/2" dia.	1			
38	Nut 1/4" BSF self locking	1			
39	Special nut	1			
40	Split pin 3/32" dia. x 1 1/8" long	1			



Twin plate clutch assembly



Single plate clutch assembly



\* Single plate clutch assembly with integral pinion

Illus. Part No.	Description	No. off	Bulletin	Bin No.
<b>CLUTCH USAGE</b>				
+ Up to Machine Serial Number 2571945	— when Kohler engine is fitted			
o Up to Machine Serial Number 2571945	— not when Kohler engine is fitted			
+ From Machine Serial Number 2571946 to 2571954				
o From Machine Serial Number 2571955 to 2571966	— fitted with Hatz Engine			
+ From Machine Serial Number 2571967 to 250A1020	— except the following:-			
2591063				
2591067				
2591069				
2591070				
2591138				
2591139				
2591181 to 2591191				
2591394				
2591451				
2592305				
2592306				
* From Machine Serial Number 250A1021				
<b>CLUTCH</b>				
57	+25061 Special nut	1		
	o25061 Special nut	1		
57A	25794 Spacer	As required		
58	+208010160 Split pin $\frac{3}{32}$ " dia. x 1 $\frac{1}{2}$ " long	1		
	o208010160 Split pin $\frac{3}{32}$ " dia. x 1 $\frac{1}{2}$ " long	1		
59	+25007 Spiral bevel pinion	1		
	o25007 Spiral bevel pinion	1		
60	292 Clutch fulcrum shim	As required		
61	250720071 Ball bearing 2" x $\frac{3}{4}$ " x $\frac{11}{16}$ " BRM $\frac{3}{4}$	1		
62	+25009 Clutch shaft	1		
	o62921 Clutch shaft	1		
	*27368 Clutch shaft — with integral pinion	1		
63	208001130 Circlip 2" dia. internal	1		
64	291 Clutch operating pawl	1		
65	250715061 Thrust race 1 $\frac{1}{2}$ " x $\frac{3}{4}$ " x $\frac{3}{8}$ "	1		
66	+288 Thrust sleeve	1		
	o62922 Thrust sleeve	1		
	*288 Thrust sleeve	1		
67	o62919 Thrust sleeve spacer	1		
68	25069 Special oilseal	1		
69	101804040 Setscrew $\frac{1}{4}$ " BSW x $\frac{1}{2}$ " long	3		
70	108040840 Spring washer $\frac{1}{4}$ " dia.	3		
	+ Clutch thrust plate	1		
	comprising:-			
71	233 Plate	1		
72	234 Pin	1		
73	+250 Special bolt	4		
	o25776 Special bolt	4		
	*250 Special bolt	4		
74	208052010 Locking wire 16swg x 12" long	1		

## Howard Gem and Super Gem Parts List

693

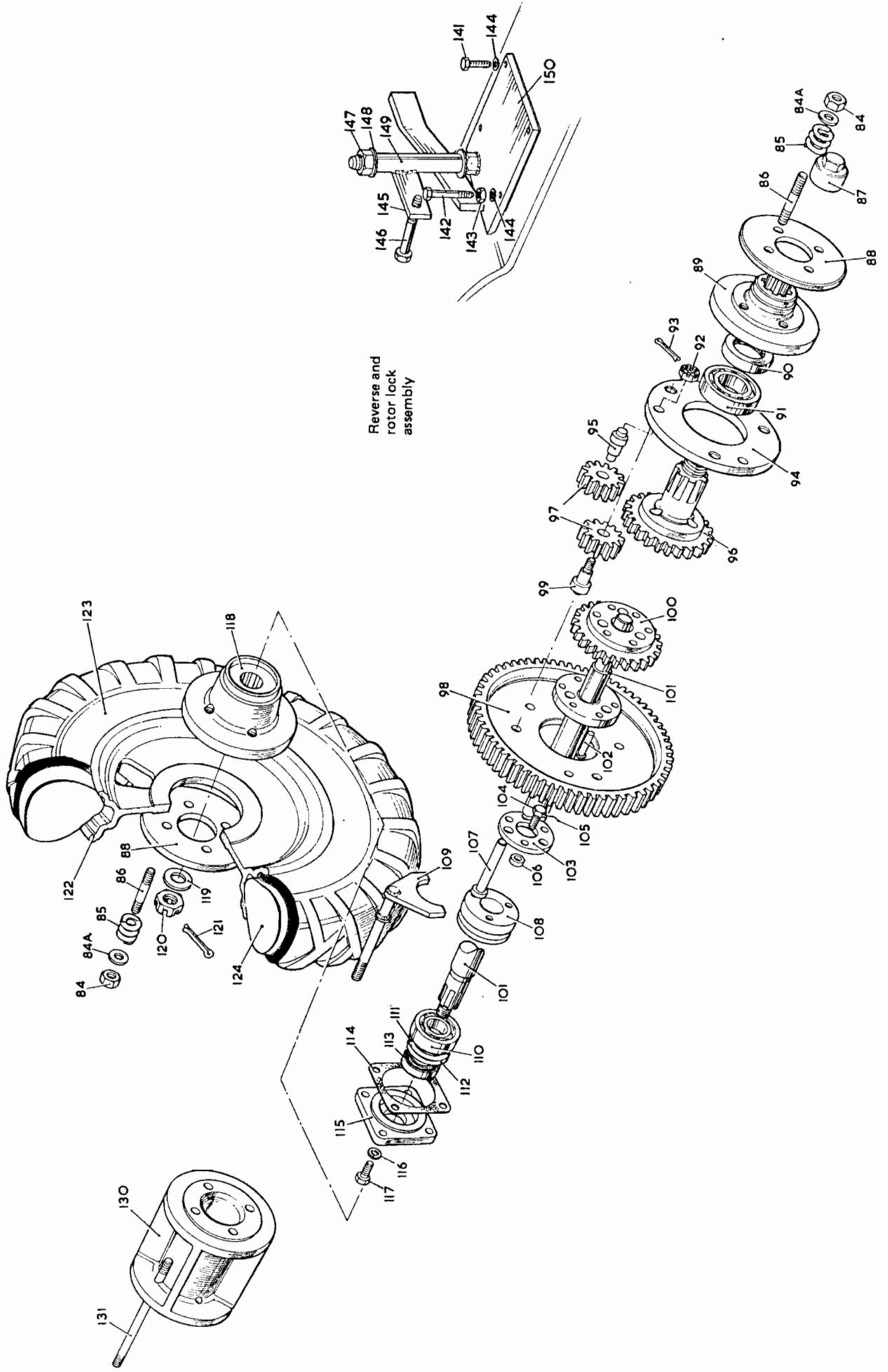
A

9.78

5

# Howard Gem and Super Gem Parts List

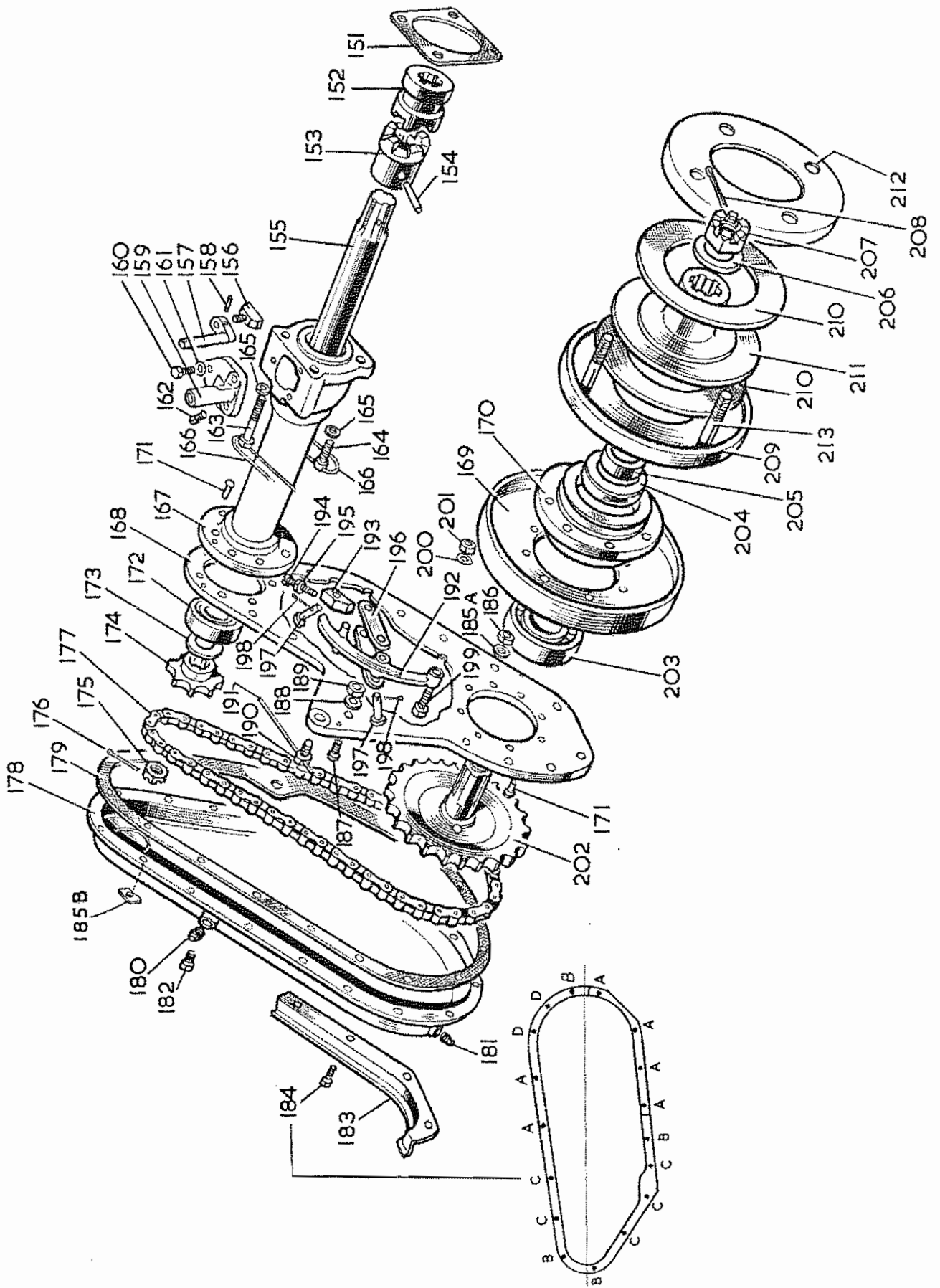
693	A	9.78	6
-----	---	------	---



Illus Part No.	Description	Bin No.	No. off.	Bulletin	Bin No.
122	26923 Roadwheel rim L.H. 20" & 24" models	...	...	...	1
26923	† Roadwheel rim L.H. 30" model	...	...	...	3
26922	† Roadwheel rim R.H. 20", 24" & 30" models	...	...	...	1
209028200	* Tyre	...	...	...	2
209028210	* Inner tube	...	...	...	2
125	130 Landwheel 20" & 24" model	...	...	...	2
	† Note. The 30" model is fitted with two L.H. wheels on the left of the machine and one R.H. and one L.H. on the right of the machine.				
	* 4 off each for 30" model				
	126 - 129 not allocated				
<b>EXTENSION HUBS</b>					
<b>Standard Fitment on 30" Model</b>					
<b>Optional Extra for 20" &amp; 24" Models</b>					
130	25397 Extension hub L.H.	...	...	...	1
25396	Extension hub R.H.	...	...	...	1
131	25394 Stud short L.H.	...	...	...	4
25393	Stud long R.H.	...	...	...	4
	132 - 140 not allocated				
141	101804060 Setscrew ¼" BSW x ¾" long	...	...	...	3
142	101604180 Bolt ½" BSW x 2¼" long	...	...	...	1
143	107604010 Nut ¼" BSW	...	...	...	1
144	108040840 Spring washer ¼" dia.	...	...	...	4
145	107205020 Locknut ¾" UNC	...	...	...	1
146	101205160 Bolt 5/16" UNC x 2" long	...	...	...	1
147	107208010 Nut ½" UNC	...	...	...	1
148	108081610 Flat washer ½" dia.	...	...	...	2
149	27381 Pivot tube	...	...	...	1
150	27382 Base plate	...	...	...	1

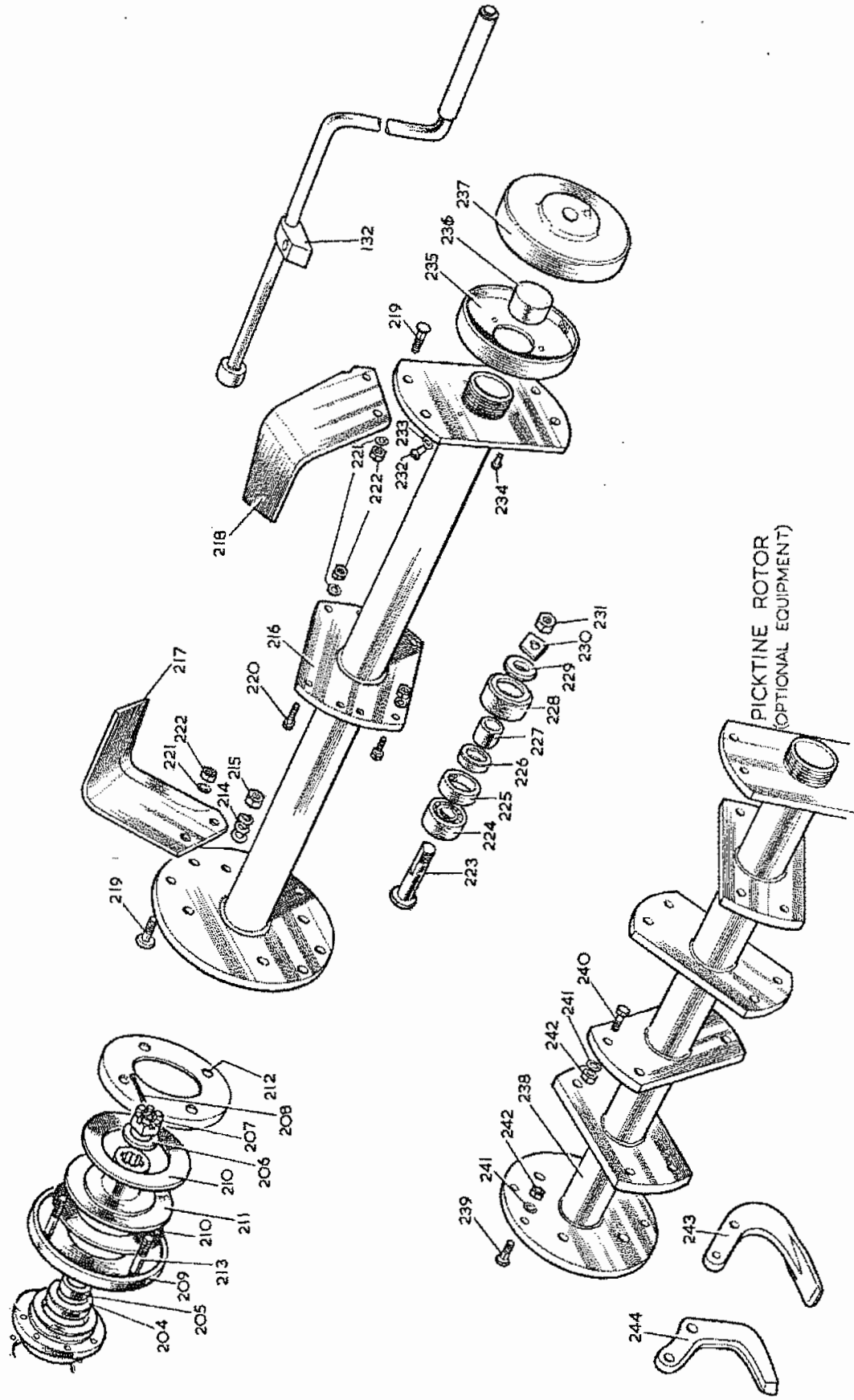
Illus Part No.	Description	Bin No.	No. off.	Bulletin	Bin No.
<b>DIFFERENTIAL AND WHEELS</b>					
84	107608010 Nut ½" BSW	...	...	...	8
84A	108081610 Washer ½" dia. heavy gauge	...	...	...	8
85	142 Spring	...	...	...	8
86	141 Stud	...	...	...	8
87	25878 Hub nut	...	...	...	1
88	162 Wheel hub disc	...	...	...	2
89	25051 Wheel hub R.H.	...	...	...	1
90	262717051 Oilseal 1¼" i.d. x 2¼" o.d. x ½" w. 27517550	...	...	...	1
91	251730061 Ballbearing 1¼" i.d. x 3" o.d. x 9/16" w. BRX 1¼"	...	...	...	3
92	25042 Special nut	...	...	...	3
93	208010160 Split pin 3/32" dia. x 1½" long	...	...	...	3
25044	† Differential plate assembly comprising:-	...	...	...	1
94	25028 Differential plate	...	...	...	1
95	25023 Differential pinion pin	...	...	...	3
96	25020 Loose hub gear	...	...	...	1
97	25022 Differential pinion	...	...	...	6
25043	† Bullwheel assembly comprising:-	...	...	...	1
98	25021 Bullwheel	...	...	...	1
99	25024 Pinion stud	...	...	...	3
25045	† Roadwheel axle assembly comprising:-	...	...	...	1
100	25019 Fixed hub gear	...	...	...	1
101	25046 Roadwheel axle	...	...	...	1
102	208021170 Rivet 5/16" dia. x 1¼" long, round head	...	...	...	6
103	314 Differential lock ring	...	...	...	1
104	317 Differential lock setscrew	...	...	...	3
208052010	Locking wire 16 SWG x 9" long	...	...	...	1
106	316 Differential lock spacer	...	...	...	3
107	25056 Differential lock pin	...	...	...	3
108	313 Differential lock	...	...	...	1
109	25359 Differential lock selector	...	...	...	1
110	251227071 Ballbearing 1¼" i.d. x 2¼" o.d. x 11/16" w. BRL 1¼"	...	...	...	1
111	25906 Shim .005" (.125mm)	...	...	...	As required
27374	Shim .020"	...	...	...	As required
27375	Shim .025"	...	...	...	As required
112	25058 Oilseal Shim .015"	...	...	...	As required
113	262012051 Oilseal 1¼" i.d. x 2" o.d. x ½" w. 20012551	...	...	...	1
114	25057 Axle bearing stop gasket	...	...	...	1
115	25053 Axle bearing stop	...	...	...	1
116	108061140 Spring washer 3/8" dia.	...	...	...	4
117	101806060 Setscrew 3/8" BSW x ¾" long, hex. head	...	...	...	4
118	25052 Wheel hub L.H.	...	...	...	1
119	108122410 Washer ¾" dia. heavy gauge	...	...	...	1
120	25047 Hub nut	...	...	...	1
208010310	Split pin 5/32" dia. x 1½" long	...	...	...	1

# Howard Gem and Super Gem Parts List



Illus. Part No.	Description	No. off	Bulletin	Bin No.
<b>JACKSHAFT EXTENSION AND BACKPLATE</b>				
151	Gasket	1		
152	Sliding dog	1		
439	Extension shaft assembly 20" model	1		
452	Extension shaft assembly 24" model	1		
26045	Extension shaft assembly 30" model	1		
25738	Fixed dog	1		
26017	Fixed dog pin	1		
153	Extension shaft 20" model	1		
154	Extension shaft 24" model	1		
155	Extension shaft 30" model	1		
26011	Rotor dog clutch selector sub-assembly comprising:-	1		
26012	Selector block	1		
156	Selector crank	1		
157	Selector tension pin	1		
158	Rotor dog clutch selector housing	1		
208089310	Setscrew $\frac{3}{16}$ " BSW x $\frac{3}{4}$ " long, hex. head	3		
159	Spring washer $\frac{5}{16}$ " dia.	3		
160	Oil plug $\frac{3}{8}$ " BSP taper	2		
101805060	Special bolt	2		
108050940	Special setscrew	2		
203031160	Spring washer $\frac{3}{8}$ " dia.	4		
163	Locking wire	2		
25776	Jackshaft housing 20" model	1		
164	Jackshaft housing 24" model	1		
108061140	Jackshaft housing 30" model	1		
208052010	Backplate	1		
167	Bearing dust cover	1		
25865	Rotor bearing housing	1		
25735	Rivet $\frac{1}{4}$ " dia. x $\frac{5}{8}$ " long, pan head	16		
168	Ballbearing 1" i.d. x 2 $\frac{1}{4}$ " o.d. x $\frac{3}{4}$ " w. BRM 1	1		
169	Shim .028"	As required		
545	Jackshaft sprocket	1		
540	Special nut	1		
208023010	Split pin $\frac{3}{8}$ " dia. x 1 $\frac{1}{2}$ " long	1		
25105071				
172				
173				
462				
174				
460				
175				
455				
176				
208010410				
<b>CHAINCASE ASSEMBLY</b>				
177	Drive chain	1		
25101	Outer link Renold 119063 no. 107	26		
26152	Inner link Renold 119063 no. 4	27		
26153	Connecting link Renold 119063 no. 26	1		
26154	Chaincase	1		
520	Chaincase gasket	1		
178	Oil plug $\frac{3}{8}$ " BSP sq. head	1		
26842	Oil level plug $\frac{3}{8}$ " BSP sq. head	1		
203031030	Frame bolt, chaincase to stay tube	1		
180	Wearing shoe	1		
181				
203031160				
182				
590				
183				
519				
<b>ROTOR DRIVE</b>				
202	Rotor drive shaft	1		
253072191	Ballbearing 72mm o.d. x 30mm i.d. x 19mm w. BRM 030	1		
204	Oilseal 2 $\frac{1}{2}$ " o.d. x 1 $\frac{1}{2}$ " i.d. x $\frac{1}{2}$ " w. 25015050	1		
262515051	Spacing sleeve	1		
53404	Washer $\frac{3}{4}$ " dia.	1		
108122410	Nut $\frac{3}{4}$ " BSF slotted	1		
107512050	Split pin $\frac{3}{8}$ " dia. x 1 $\frac{1}{4}$ " long	1		
208010210				
19001	Chaincase bolt set comprises items marked*			
184A	* Setscrew $\frac{1}{4}$ " BSW x $\frac{3}{4}$ " long, hex. head	6		
101804060	* Setscrew $\frac{1}{4}$ " BSW x $\frac{5}{8}$ " long, hex. head	4		
184B	* Setscrew $\frac{1}{4}$ " BSW x $\frac{1}{2}$ " long, hex. head	5		
101804050	* Setscrew $\frac{1}{4}$ " BSW x $\frac{7}{8}$ " long, Hex. Head	2		
184D	* Spring washer $\frac{1}{4}$ " dia.	13		
101804070	Shakeproof washer $\frac{1}{4}$ " dia.	4		
185	Special washer	2		
108040840	* Nut $\frac{1}{4}$ " BSW	10		
108040830	Setscrew, backplate to shield $\frac{1}{4}$ " BSW x $\frac{5}{8}$ " long, hex. head	1		
27068	Spring washer $\frac{1}{4}$ " dia.	1		
107604010	Nut $\frac{3}{4}$ " BSW	1		
101804050	Frame setscrew, coutersunk head	1		
188	Locking wire $\frac{1}{16}$ " dia. x 4" long	1		
108040840	Chain skid	1		
107604010	Sliding block	1		
591	Adjusting screw	1		
208052010	Nut $\frac{3}{16}$ " BSF	1		
25917	Connecting link	2		
25920	Connecting pin	2		
25913	Split pin $\frac{1}{16}$ " dia. x $\frac{3}{8}$ " long	2		
107505010	Chain skid bolt, $\frac{5}{16}$ " BSW x 1 $\frac{1}{4}$ " long	1		
25919	Washer $\frac{5}{16}$ " dia.	2		
25914	Nut $\frac{5}{16}$ " BSW	1		
208010030				
101605100				
108051010				
107605010				
69527				
253072191				
262515051				
53404				
108122410				
107512050				
208010210				

# Howard Gem and Super Gem Parts List

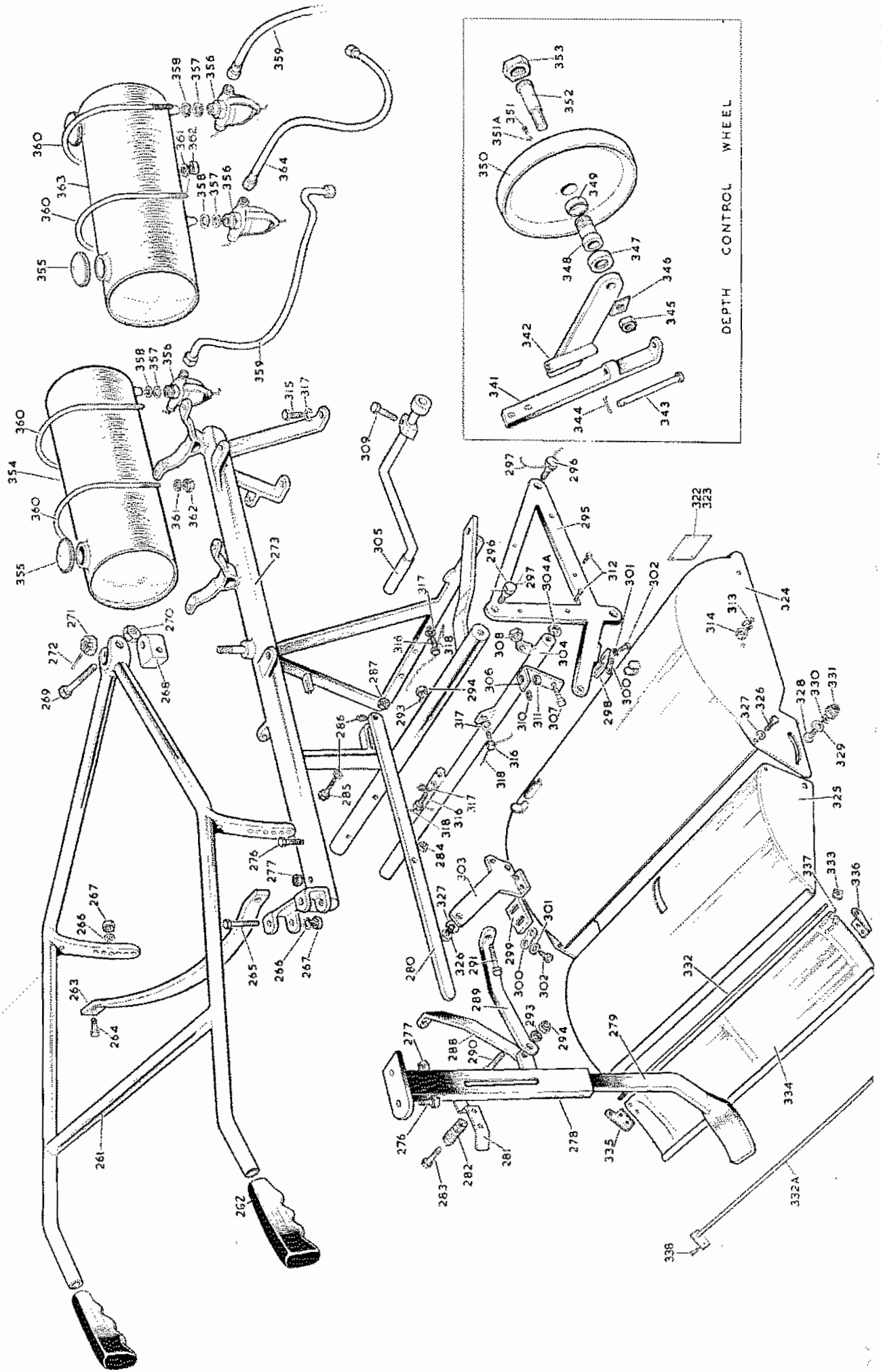


Illus. Part No.	Description	No. off	Bin No.
<b>ROTOR SAFETY CLUTCH</b>			
209 605	Drive plate	1	
69486	Rotor drive disc assembly	1	
210 607	comprising:-		
210 27420	o Friction disc - asbestos	2	
211 606	+ Friction disc - sintered metal	2	
	o Rotor drive disc	1	
	o Early machines		
	+ Later machines		
212 544	Wearing plate	1	
213 603	Rotor drive stud	4	
214 650349	Rotor drive spring	4	
215 107608010	Nut 1/2" BSW	4	
<b>ROTOR</b>			
216 600A	Rotor 20" model	1	
25462	Rotor 24" model	1	
25734	Rotor 30" model	1	
	24" & 30" 20"		
217 9900	Universal blade L.H.	6	
218 9901	Universal blade R.H.	4	
26530	Swept back blade L.H.	6	
26531	Swept back blade R.H.	4	
9866	Hardfaced straight	6	Alternative blades, special order only
	Blade L.H.	4	
	Hardfaced straight	6	
	Blade R.H.	4	
219 919	Blade bolt, assembly	8	
220 69667	Blade bolt, assembly	8	
	includes:-		
221 108071240	Spring washer 7/16" dia.	24	16
222 61188	Special nut	24	16
<b>ROTOR STUB AXLE</b>			
223 630	Rotor stub axle	1	
224 250618061	Ballbearing 5/8" i.d. x 1 13/16" o.d. x 5/8" w. BRM 5/8"	1	
225 637	Oilseal holder	1	
226 261509042	Oilseal 1 1/2" o.d. x 7/8" i.d. x 3/32" w. 150-087-40	1	
227 634	Spacing sleeve	1	
228 632	Bearing cap	1	
229 629	Tab washer	1	
230 648	Nut 5/8" BSF locknut	1	
231 107510020	Oiling screw 1/4" BSW x 3/4" long cheese head	1	
232 103804030	Spring washer 1/4" dia.	1	
233 108040840	Rivet 3/16" dia. x 1/2" long. round head	3	
234 208021070	Inner dust cover	1	
235 639	Back plug	1	
236 635	Outer dust cover	1	
237 640		1	

Illus. Part No.	Description	No. off	Bin No.
<b>PICTINE ROTOR - Optional Extra</b>			
238 69536	Pictine rotor 20" model (6 flanges)	1	
25473	Pictine rotor 24" model (7 flanges)	1	
25969	Pictine rotor 30" model (9 flanges)	1	
239 922	End flange bolt assembly	per flange	
240 921	Intermediate flange bolt assembly	per flange	
	includes:-		
241 108071240	Spring washer 7/16" dia.	per flange	
242 107507010	Nut 7/16" BSF	per flange	
243 26992	Pictine	per flange	
244 991	Lucerne tine	per flange	
245	260 not allocated		

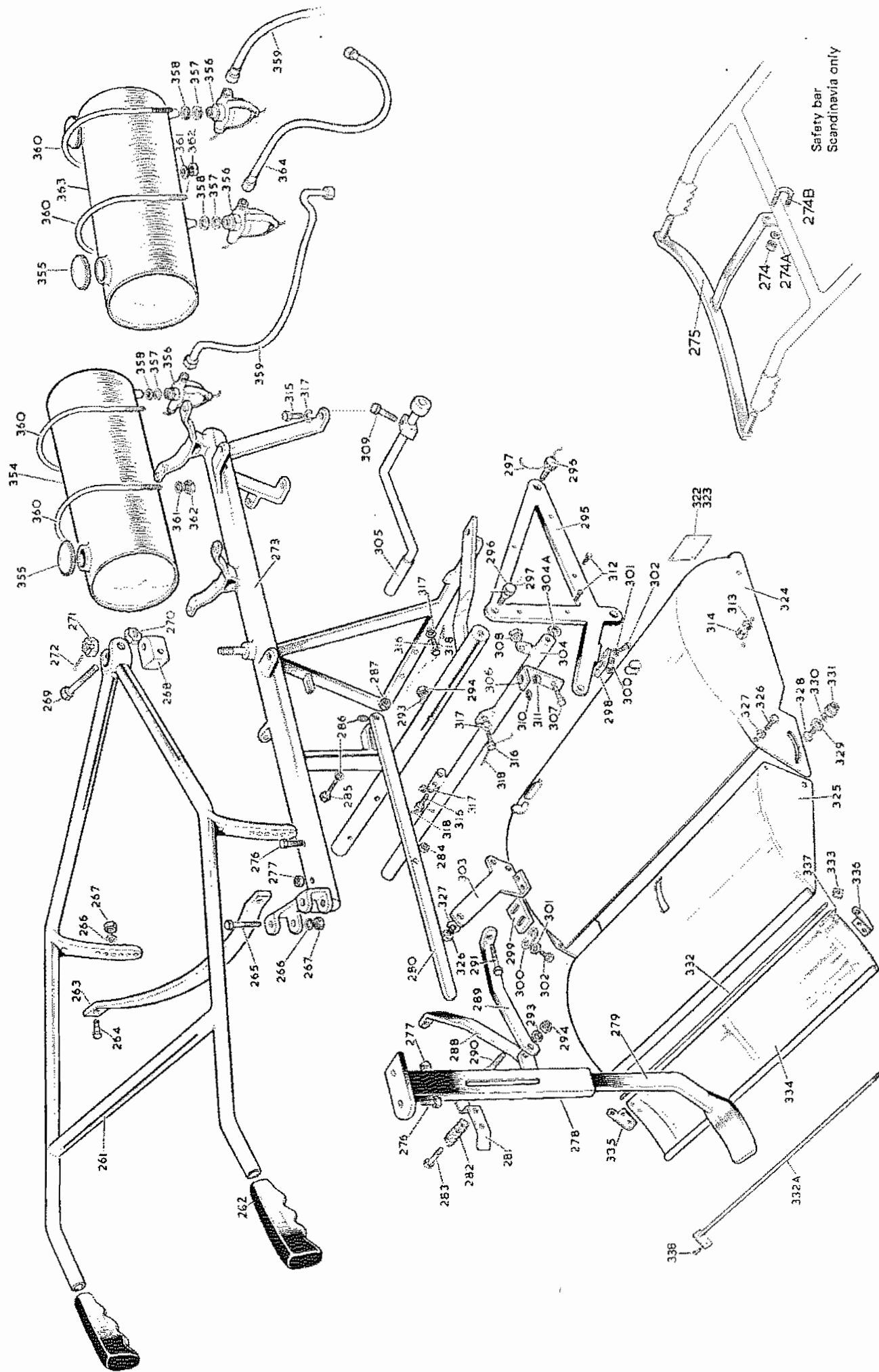
# Howard Gem and Super Gem Parts List



DEPTH CONTROL WHEEL

# Howard Gem and Super Gem Parts List

693	B	9.78	12
-----	---	------	----

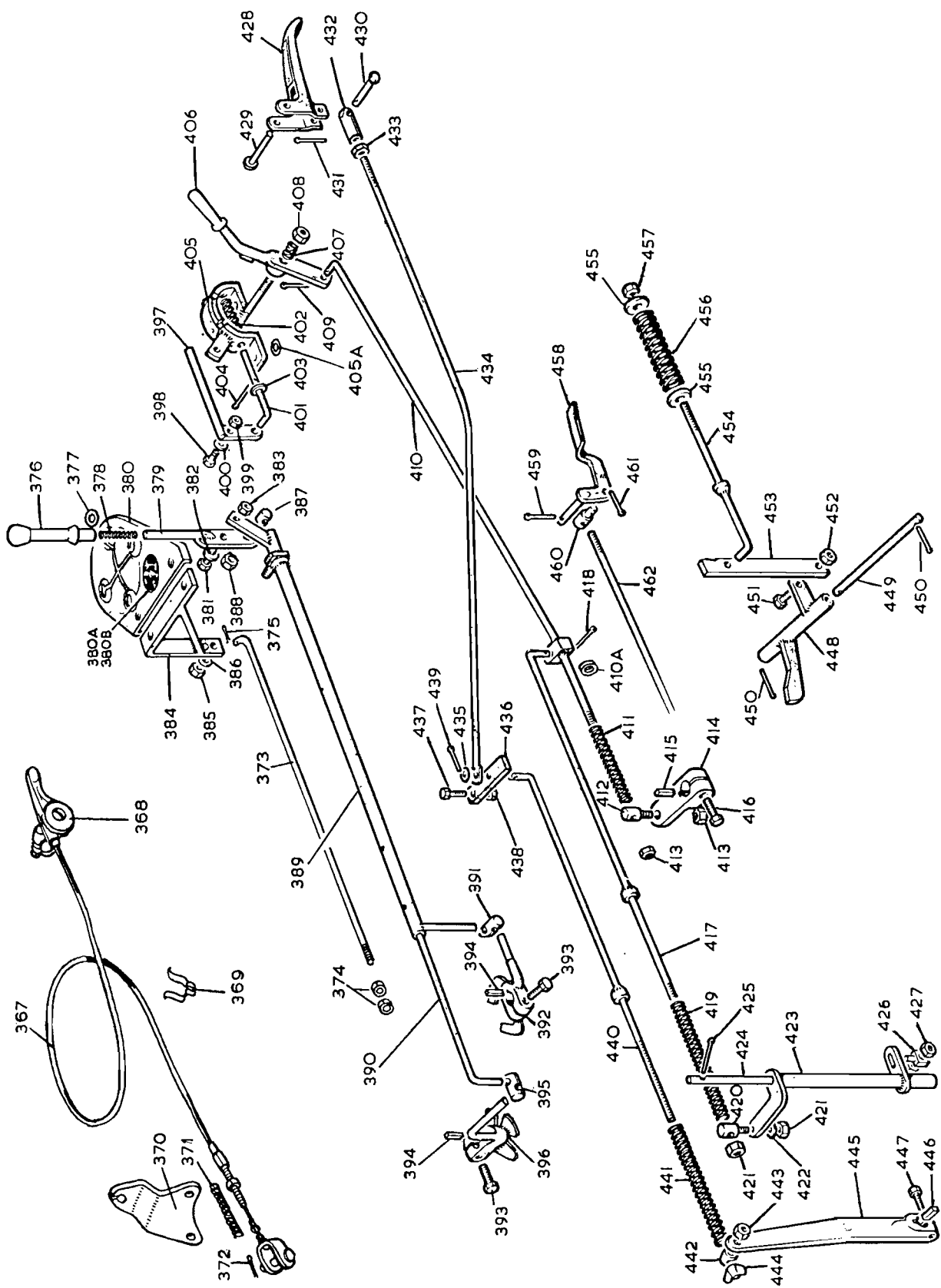


Safety bar  
Scandinavia only

Illus. Part No.	Description	No. off	Bulletin	Bin No.
<b>FRAME AND HANDLEBARS</b>				
261	Handle bar	1		
262	Handlebar grip	2		
263	Handlebar slide	1		
264	Bolt, slide bar $\frac{3}{8}$ " BSW x 1 $\frac{1}{2}$ " long, hex. head	2		
265	Slide clamp bolt	2		
266	Spring washer $\frac{3}{8}$ " dia.	4		
267	Nut $\frac{3}{8}$ " BSW	4		
268	Pivot block	1		
269	Pivot bolt $\frac{1}{2}$ " BSW x 2 $\frac{1}{2}$ " long	1		
270	Locknut $\frac{1}{2}$ " BSW	1		
271	Nut $\frac{5}{8}$ " BSF slotted	1		
272	Split pin $\frac{3}{32}$ " dia. x 1 $\frac{1}{2}$ " long	1		
273	Main frame 20" model	1		
62943	Main frame 24" model	1		
62947	Main frame 30" model	1		
274	Nut $\frac{1}{4}$ " UNC	2		
274a	Spring washer $\frac{1}{4}$ " dia. ] Scandinavia	2		
274b	'U' bolt	1		
275	Safety bar	1		
<b>DEPTH CONTROL SKID</b>				
276	Socket bolt $\frac{3}{8}$ " BSW x 2 $\frac{1}{2}$ " long	2		
277	Nut $\frac{3}{8}$ " BSW	2		
278	Depth control socket	1		
279	Depth control skid - (see depth control wheel illus. no. 341 - 353 for 30" model)	1		
280	Depth control arm	1		
281	Clip	1		
282	Spring	1		
283	Bolt $\frac{1}{2}$ " BSW x 1 $\frac{1}{2}$ " long	1		
284	Locknut $\frac{1}{2}$ " BSW	1		
285	Pivot bolt $\frac{3}{8}$ " BSW x 1 $\frac{1}{2}$ " long	1		
286	Washer $\frac{3}{8}$ " dia.	2		
287	Locknut $\frac{3}{8}$ " BSW	1		
288	Support stay L.H.	1		
289	Support stay R.H.	1		
290	Bolt $\frac{1}{4}$ " BSW x 1 $\frac{1}{2}$ " long	1		
291	Bolt $\frac{1}{4}$ " BSW x 2" long	2		
292	not allocated			
293	Spring washer $\frac{1}{4}$ " dia.	3		
294	Nut $\frac{1}{4}$ " BSW	3		
295	Side frame	1		
296	Frame bolt, countersunk head	2		
297	Locking wire $\frac{1}{16}$ " dia. x 4" long	2		
298	Weed cutter blade R.H.	1		
299	Weed cutter blade L.H.	1		
300	Weed cutter keeper plate	2		
301	Spring washer $\frac{1}{4}$ " dia.	4		
302	Setscrew $\frac{1}{4}$ " BSW x $\frac{1}{2}$ " long	4		
303	Weed cutter bracket	1		
<b>STAYTUBE AND STARTING HANDLE</b>				
304	Staytube 20" model	1		
25428	Staytube 24" model	1		
25747	Staytube 30" model	1		
304A	Washer $\frac{27}{16}$ i.d. x 1" o.d. x 17G	1		
305	Starting handle 20" model	1		
25466	Starting handle 24" model	1		
25750	Starting handle 30" model	1		
Note:- For South African machines use 24" starting handle on 20" machines. 30" starting handle on 24" machines.				
<b>STARTING HANDLES for use with Extension Hubs</b>				
25466	Starting handle for 20" model	1		
25750	Starting handle for 24" model	1		
306	Starting handle support lug	1		
307	Setscrew, lug to staytube $\frac{3}{8}$ " BSW x $\frac{3}{4}$ " long, hex. head	1		
308	Locknut $\frac{3}{8}$ " BSW	1		
309	Pivot bolt	1		
310	Washer $\frac{17}{16}$ dia. special -	1		
311	Locknut $\frac{17}{16}$ BSW -	1		
312	Setscrew, side frame to shield $\frac{1}{4}$ " BSW x $\frac{3}{4}$ " long, hex. head	5		
313	Spring washer $\frac{1}{4}$ " dia.	5		
314	Nut $\frac{1}{4}$ " BSW	5		
315	Setscrew, frame to gearbox $\frac{3}{8}$ " BSW x 1" long	2		
316	Setscrew, staytube to gearbox and frame to gearbox	7		
317	Spring washer $\frac{3}{8}$ " dia.	9		
318	Locking wire $\frac{1}{16}$ " dia. x 40" long	1		
319	not allocated			

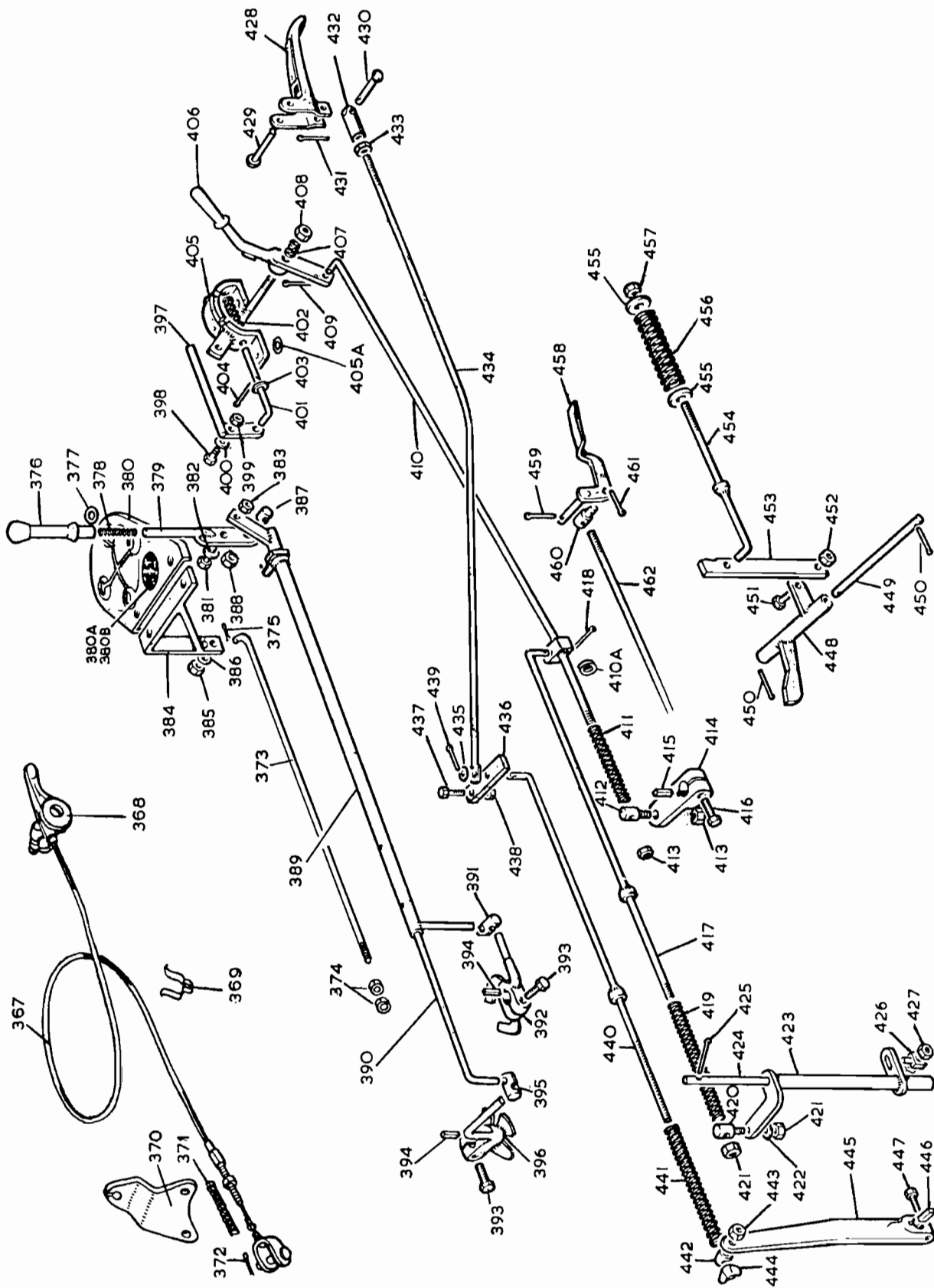
Illus. Part No.	Description	No. off	Bulletin	Bin No.	Illus. Part No.	Description	No. off	Bulletin	Bin No.
<b>SHIELDS</b>									
322	Machine number plate	1			341	Pedestal	1		
323	Chobert rivet $\frac{3}{32}$ " x $\frac{3}{16}$ " long	4			342	Arm	1		
324	Front shield 20" Gem	1			343	Swivel pin	1		
25436	Front shield 24" Gem	1			344	Split pin $\frac{3}{16}$ " dia. x 1" long	1		
102006	Front shield 24" Super Gem	1			345	Locknut $\frac{5}{8}$ " BSW	1		
25743	Front shield 30" Gem	1			346	Tab washer	1		
102054	Front shield 30" Super Gem	1			347	Inner dust cover	1		
642	Rear shield 20" Gem	1			348	Bush	1		
25443	Rear shield 24" Gem	1			349	Outer dust cover	1		
102010	Rear shield 24" Super Gem	1			350	Wheel	1		
25744	Rear shield 30" Gem	1			351	Oiling screw $\frac{1}{4}$ " BSW x $\frac{3}{8}$ " long, cheese head	1		
102057	Rear shield 30" Super Gem	1			351A	Spring washer $\frac{1}{4}$ " dia.	1		
326	Setscrew $\frac{3}{8}$ " BSW x 1" long hex. head	2			352	Axle	1		
327	Spring washer $\frac{3}{8}$ " dia.	2			353	Wheel cap	1		
328	Clamping bolt	2			<b>FUEL TANK</b>				
329	Washer $\frac{1}{16}$ " dia. x 1" o.d.	2			<b>Petrol for Twin Engine, Wisconsin and Kohler</b>				
330	Washer, thackeray $\frac{3}{8}$ " dia.	2			354	Petrol tank	1		
330	108061150	2			355	Tank cap	1		
331	Nut $\frac{3}{8}$ " BSW self locking	2			356	Petrol filter	1		
332	Hinge bar 20" Gem	1			↑ includes:-				
25479	Hinge bar 24" Gem	1			Bowl	1			
25751	Hinge bar 30" Gem	1			357	Sealing washer	1		As required
102018	Hinge bar 24" Super Gem	1			358	Fibre washer	1		As required
102062	Hinge bar 30" Super Gem	1			359	Fuel pipe - Twin engine	1		1
333	Locknut $\frac{1}{2}$ " BSW Gem	2				Fuel pipe - Wisconsin engine	1		1
333	107605020	1			360	Tank strap	2		2
333	Locknut $\frac{1}{16}$ " BSW Super Gem	1			361	Spring washer $\frac{1}{4}$ " dia.	4		4
334	Trailing board 20" Gem	1			362	Nut $\frac{1}{4}$ " BSW	4		4
25575	Trailing board 24" Gem	1			<b>FUEL TANK</b>				
25454	Trailing board 30" Gem	1			<b>V.O and Lamp Oil for Twin Engine.</b>				
25746	Trailing board 30" Super Gem	1			355	Tank cap	2		2
↑ includes:-									
335	Hinge bracket L.H.	1			356	Filter	2		2
336	Hinge bracket R.H.	1			357	Sealing washer	1		As required
337	Rivet $\frac{3}{16}$ " dia. x $\frac{3}{8}$ " long round head	4			358	Fibre washer	1		As required
334	Trailing board 24" Super Gem	1			359	Fuel pipe - short	1		1
102014	Trailing board 30" Super Gem	1			360	Tank strap	2		2
102060	Trailing board 30" Super Gem	1			361	Spring washer $\frac{1}{4}$ " dia.	4		4
↑ includes:-									
335	Hinge bracket L.H.	1			362	Nut $\frac{1}{4}$ " BSW	4		4
336	Hinge bracket R.H.	1			<b>FUEL TANK</b>				
337	Rivet $\frac{3}{16}$ " dia. x $\frac{3}{8}$ " long	4			<b>V.O and Lamp Oil for Twin Engine.</b>				
208021050	Rivet $\frac{3}{16}$ " dia. x .29 long	1			355	Tank cap	2		2
208033030	Rivet $\frac{3}{8}$ " dia. x .29 long	1			356	Filter	2		2
The Super Gem Shields can be fitted to the Gem									
339 - 340	not allocated				357	Sealing washer	1		As required
27416	Rear shield and trailing board assy. 20" Gem	1			358	Fibre washer	1		As required
27417	Rear shield and trailing board assy. 24" Gem	1			359	Fuel pipe - short	1		1
102017	Rear shield and trailing board assy. 24" Super Gem	1			360	Tank strap	2		2
27418	Rear shield and trailing board assy. 30" Gem	1			361	Spring washer $\frac{1}{4}$ " dia.	4		4
102056	Rear shield and trailing board assy. 30" Super Gem	1			362	Nut $\frac{1}{4}$ " BSW	4		4
338	365 - 366 not allocated				363	Fuel tank	1		1
					364	Fuel pipe	1		1

# Howard Gem and Super Gem Parts List



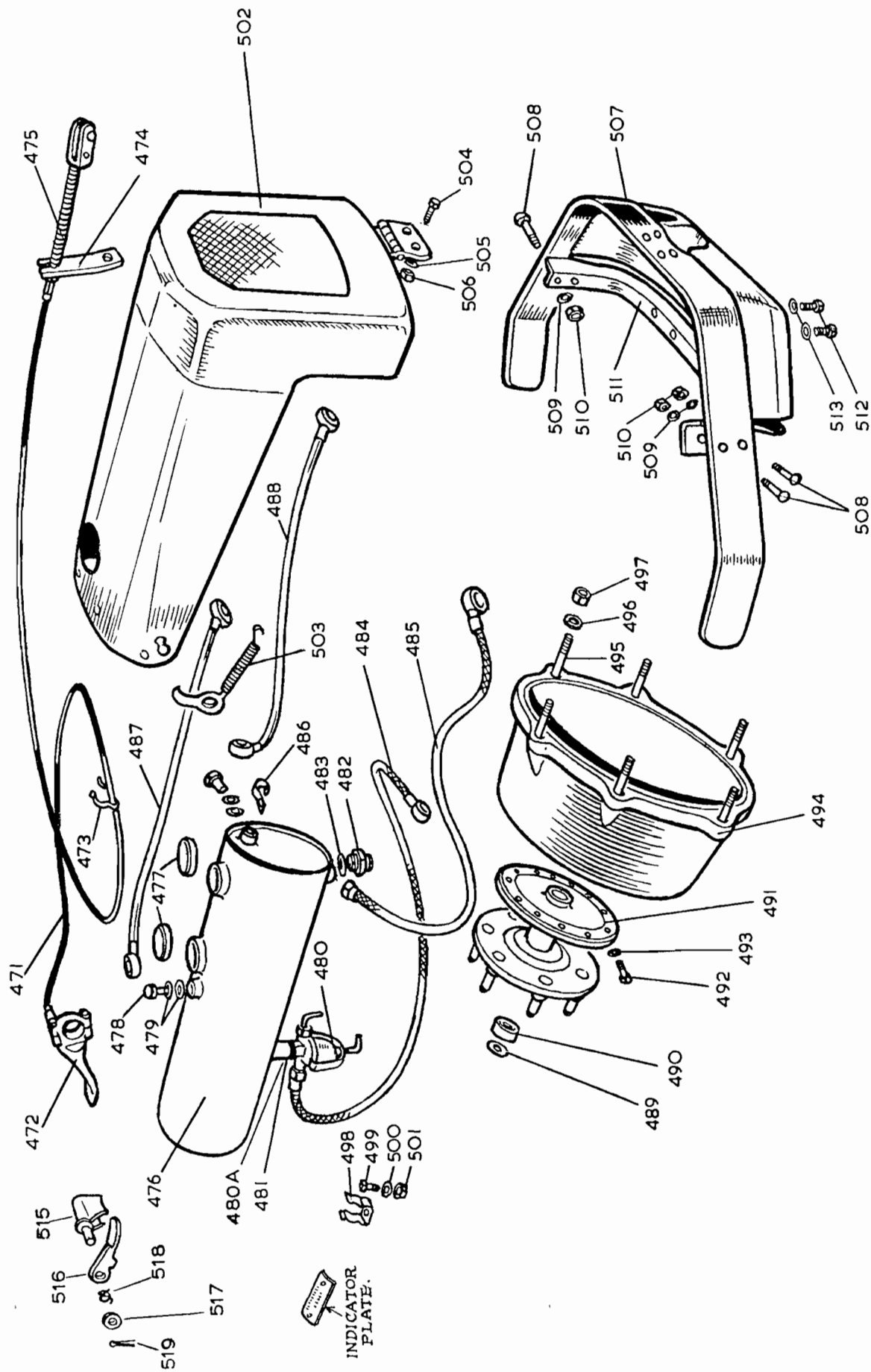
Illus. Part No.	Description	No. off	Bulletin	Bin No.
	<b>THROTTLE CONTROL</b>			
	— For Twin Engine			
367 27059	Throttle cable	1		
368 207001080	Hand control	1		
369 208003270	Throttle cable spring clip	1		
370 27076	Support plate	1		
371 27060	Throttle cable spring	1		
372 208010030	Split pin $\frac{1}{16}$ " dia. x $\frac{3}{8}$ " long	1		
	<b>TRAVEL GEAR CONTROL</b>			
373 26107	Stay rod	1		
374 107604010	Nut $\frac{1}{2}$ " BSW	2		
375 208010040	Split pin $\frac{1}{16}$ " dia. x $\frac{1}{2}$ " long	1		
376 27404	Gear lever upper	1		
377 108081610	Washer $\frac{1}{2}$ " dia.	As required		
378 25161	Hand lever spring	1		
379 25158	Gear lever lower	1		
25419	Indicator plate and gate comprising:-	1		
380 25173	Gate	1		
380A 25348	Indicator plate	1		
380B 208041090	Hammer drive screw no. 2 x $\frac{3}{10}$ " long	2		
381 101604060	Pivot bolt $\frac{1}{4}$ " BSW x $\frac{1}{2}$ " long	1		
382 108040910	Washer $\frac{1}{2}$ " dia.	2		
383 107604020	Locknut $\frac{1}{2}$ " BSW	1		
384 25136	Rear support bracket	1		
385 107605010	Nut $\frac{5}{16}$ " BSW	2		
386 108051010	Washer $\frac{1}{16}$ " dia.	2		
387 25415	Control rod trunnion	1		
388 107605140	Nut $\frac{5}{16}$ " BSW self locking	1		
389 25139	Control tube - to 1st and 2nd gears	1		
390 25165	Control rod - to 3rd and reverse gears	1		
391 25172	Universal joint - 1st and 2nd gears	1		
392 26110	Selector arm - 1st and 2nd gears	1		
393 101605080	Bolt, control arms $\frac{5}{16}$ " BSW x 1" long	2		
394 208008260	Key	2		
395 25166	Universal joint - 3rd and reverse gears	1		
396 26112	Selector arm - reverse and 3rd gears	1		
	<b>ROTOR, DIFFERENTIAL AND HANDLEBAR CONTROL</b>			
397 25320	Handlebar positioning arm	1		
398 101604060	Bolt $\frac{1}{2}$ " BSW x $\frac{3}{4}$ " long	1		
399 107604010	Nut $\frac{1}{2}$ " BSW	1		
400 108040910	Washer $\frac{1}{4}$ " dia.	2		
401 465	Positioning pin	1		
402 466	Spring	1		
403 1080501010	Washer $\frac{5}{16}$ " dia.	1		
404 208010100	Split pin $\frac{5}{16}$ " dia. x $\frac{3}{4}$ " long	1		
	<b>THROTTLE CONTROL</b>			
	— For Twin Engine			
405 25222	† Gear control quadrant assembly includes:-	1		
26105	Indicator plate - rotor and differential	1		
208032090	Pop rivet $\frac{3}{8}$ " dia. x .40" long	2		
405A 209025440	Washer $\frac{7}{16}$ " i.d. x 1" o.d. x 17.G	1		
406 781	Control hand lever	1		
407 792	Spring	1		
408 107605140	Nut $\frac{5}{16}$ " BSW self locking	1		
409 208010100	Split pin $\frac{5}{16}$ " dia. x $\frac{3}{4}$ " long	1		
410 793	Rotor control rod	1		
410A 26715	Spacer	As required		
411 25412	Spring	1		
412 773	Eye bolt	1		
413 107605140	Nut $\frac{5}{16}$ " BSW self locking	2		
414 152	Rotor control arm	1		
415 208008260	Key	1		
416 101805080	Setscrew $\frac{5}{16}$ " BSW 1" long	1		
417 321	Differential lock control rod	1		
418 208010100	Split pin $\frac{5}{16}$ " dia. x $\frac{3}{4}$ " long	1		
419 324	Control rod spring	1		
420 773	Eye bolt	1		
421 107605140	Nut $\frac{5}{16}$ " BSW self locking	2		
422 108051010	Washer $\frac{1}{16}$ " dia.	2		
423 25356	Differential lock selector quadrant	1		
424 25352	Quadrant pin	1		
425 208010080	Split pin $\frac{1}{16}$ " dia. x 1" long	1		
426 319	Trunnion	1		
427 107608020	Locknut $\frac{1}{2}$ " BSW	2		
	<b>CLUTCH CONTROL</b>			
428 25145	Hand lever	1		
429 208020090	Rivet $\frac{1}{4}$ " dia. x $1\frac{1}{2}$ " long, flat head	1		
430 208021080	Link pivot rivet $\frac{3}{16}$ " dia. x $1\frac{1}{8}$ " long, round head	1		
431 208010040	Split pin $\frac{1}{16}$ " dia. x $\frac{1}{2}$ " long	1		
432 25150	Adjusting link	1		
433 107605020	Locknut $\frac{5}{16}$ " BSW	1		
434 25170	Hand lever to pivot lever rod	1		
435 108040910	Washer $\frac{1}{4}$ " dia.	1		
436 25144	Pivot lever	1		
437 101604060	Bolt $\frac{1}{2}$ " BSW $\frac{3}{4}$ " long	1		
438 107604010	Nut $\frac{1}{2}$ " BSW	1		
439 208010100	Split pin $\frac{5}{16}$ " dia. x $\frac{3}{4}$ " long	1		
440 25446	Pivot lever to control arm rod	1		
441 25412	Spring	1		
442 25410	Trunnion	1		
443 107605140	Nut $\frac{5}{16}$ " BSW self locking	1		
444 25411	Wing nut	1		
445 710	Control arm	1		
446 208008360	Key	1		
447 101805080	Setscrew $\frac{5}{16}$ " BSW x 1" long, hex. head	1		

# Howard Gem and Super Gem Parts List



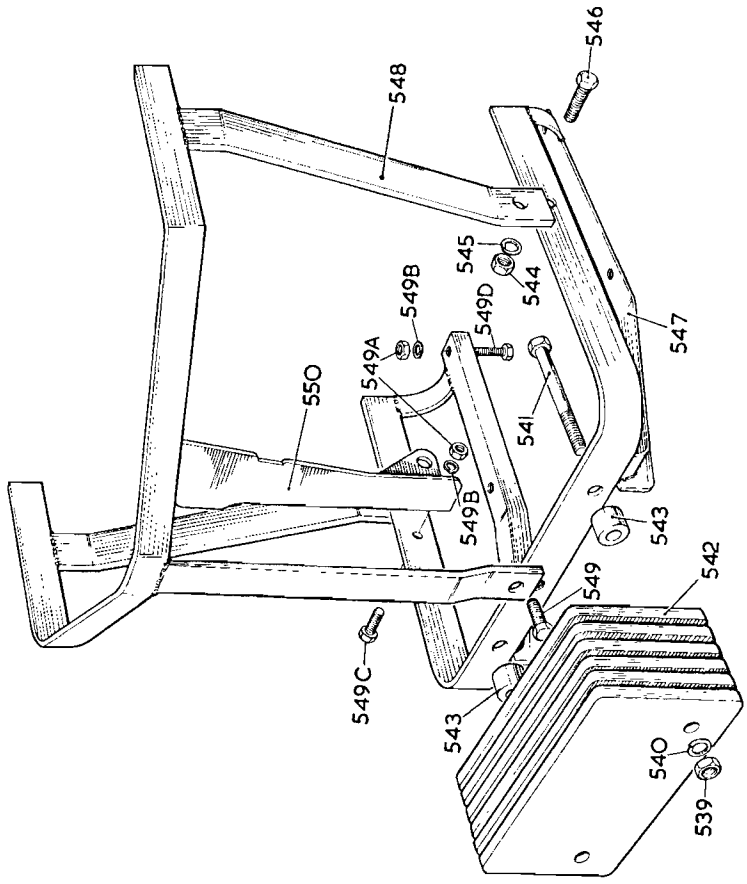
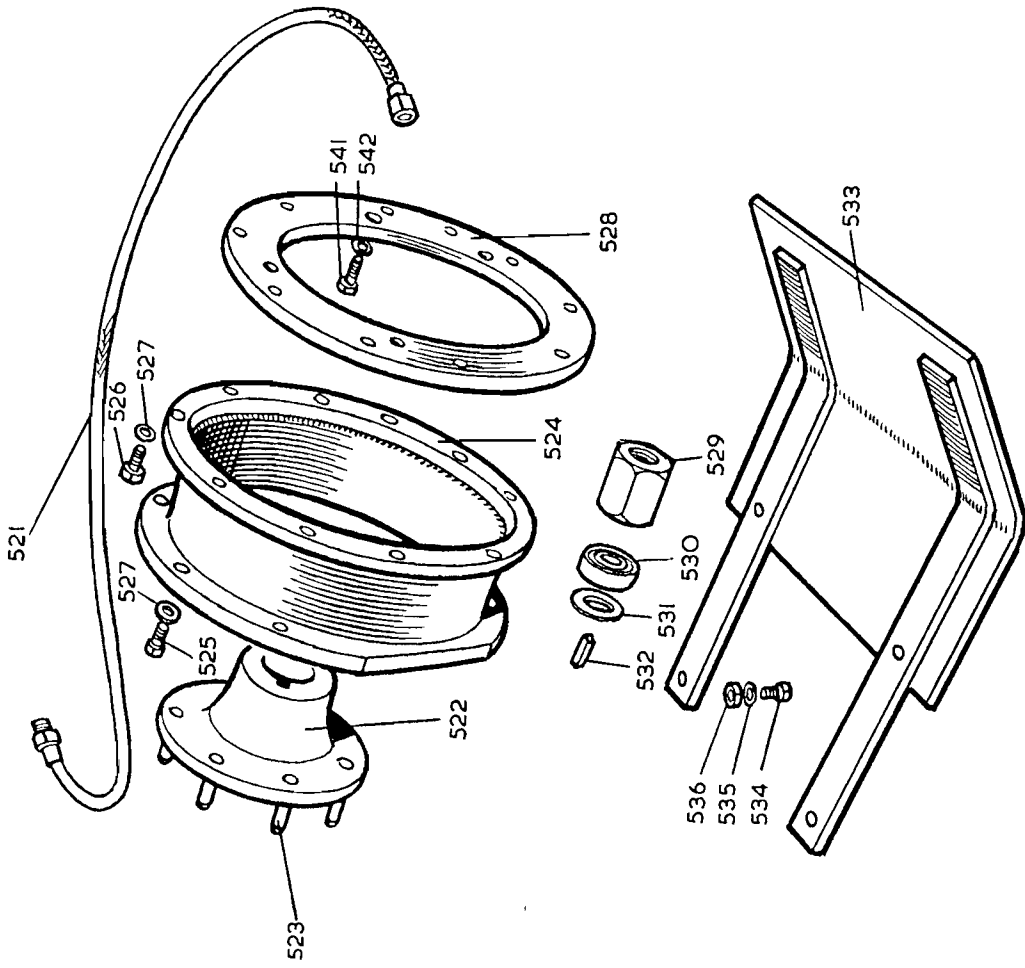
Illus. Part No.	Description	No. off	Illus. Part No.	Description	No. off	Bin No.	Bin No.
<b>REVERSE INTERLOCK</b>							
448 25132	Rocker	1					
449 25153	Rocker pin	1					
450 208010030	Split pin $\frac{1}{16}$ " dia. x $\frac{3}{8}$ " long	2					
451 101604060	Setscrew $\frac{1}{8}$ " BSW x $\frac{3}{4}$ " long, hex. head	1					
452 107604010	Nut $\frac{1}{4}$ " BSW	1					
453 25152	Vertical link	1					
454 25181	Rod	1					
455 25178	Special washer	2					
456 25131	Spring	1					
457 107605010	Nut $\frac{3}{16}$ " BSW	1					
<b>DECOMPRESSOR CONTROL</b>							
—For Twin Engine only							
458 188	Hand lever	1					
459 208010100	Split pin $\frac{3}{16}$ " dia. x $\frac{1}{2}$ " long	1					
460 789	Trunnion	1					
461 208010040	Split pin $\frac{1}{16}$ " dia. x $\frac{1}{2}$ " long	2					
462 25646	Valve lifter rod	1					
463 - 470 not allocated							
						693	B
						9.78	19

# Howard Gem and Super Gem Parts List



Illus. Part No.	Description	No. off	Bulletin	Bin No.
<b>CONVERSION UNIT FOR SACHS 500 and 600 ENGINES</b>				
N.I.	203001210	1		
N.I.	203001030	1		
471	26337	1		
472	207001080	1		
473	208003270	1		
474	27217	1		
475	26575	1		
476	55891	1		
477	27036	1		
478	203036150	2		
479	55961	1		
479	55962	2		
479	55961	2		
479	55962	4		
480	203061580	1		
includes:-				
	Bowl	1		
480A	202028150	1		
481	26899	As required		
482	202031030	As required		
483	108081260	1		
484	26338	1		
485	26336	1		
486	26578	1		
487	27037	1		
488	27038	1		
489	8007	1		
490	250513045	1		
491	26565	1		
492	301406180	1		
493	108040840	12		
491	26844	12		
492	301408200	1		
493	108050940	6		
494	26745	6		
495	26746	1		
496	108071410	6		
497	107607010	6		
498	26579	6		
499	101605080	1		
500	108050940	1		
501	107605010	1		
Drive adaptor to flywheel 6mm dia. x 18mm long } for 500 engine Drive adaptor to flywheel 8mm dia. x 20mm long } for 600 engine Spring washer $\frac{5}{16}$ " dia. Ball housing Stud Washer $\frac{7}{16}$ " dia. Nut $\frac{3}{8}$ " BSW Spring clip Bolt $\frac{5}{16}$ " BSW x 1" long } for 20" & 24" models Spring washer $\frac{5}{16}$ " dia. Nut $\frac{3}{16}$ " BSW				
<b>FOR SACHS 500 ENGINE ONLY</b>				
498	26579	2		
499	101605080	2		
500	108050940	2		
501	107605010	2		
Spring clip Bolt $\frac{5}{16}$ " BSW x 1" long } for 30" models Spring washer $\frac{5}{16}$ " dia. Nut $\frac{3}{16}$ " BSW				
<b>FOR SACHS 500 and 600 ENGINE</b>				
502	26724	1		
503	26753	2		
504	101705060	2		
505	108050940	2		
506	not allocated	2		
507	26756	1		
508	105606180	4		
509	108061140	4		
510	107606010	4		
511	26741	4		
512	26749	2		
513	209025530	2		
514	not allocated	2		
514	27290	1		
515	27291	1		
516	27294	1		
571	108040910	1		
518	108040850	1		
519	208010040	1		
	27295	1		
	208031090	4		
Bumper bar Coach bolt $\frac{3}{8}$ " BSW x $2\frac{1}{4}$ " long, rd. head sq. neck Spring washer $\frac{3}{8}$ " dia. Nut $\frac{3}{8}$ " BSW Angle support Special setcrew Spring washer $\frac{1}{2}$ " dia. Throttle stop control assembly comprising:- Fulcrum bracket Throttle stop catch Flat washer $\frac{1}{4}$ " dia. Spring washer $\frac{1}{4}$ " dia. double coil Split pin $\frac{1}{16}$ " dia. x $\frac{1}{2}$ " long Indicator plate Hammer drive screw, type 'U' no. 2 dia. x $\frac{3}{16}$ " long				

# Howard Gem and Super Gem Parts List



Illus. Part No.	Description	No. off	Bulletin	Bin No.
102025	Front guards and weight assy. ...	1		
539	comprising:- Nut $\frac{5}{8}$ " UNC	2		
540	Spring washer $\frac{5}{8}$ " dia.	2		
541	Bolt $\frac{5}{8}$ " UNC x $6\frac{1}{2}$ " long	2		
542	Front weight	6		
543	Spacer	2		
544	Nut $\frac{5}{8}$ " UNC Super	2		
545	Nut $\frac{5}{8}$ " UNC Gem	2		
546	Spring washer $\frac{5}{8}$ " dia.	2		
547	Setscrew $\frac{5}{8}$ " UNC x $1\frac{1}{2}$ " long	2		
548	Bumper	1		
549	Front guard	1		
549A	Setscrew $\frac{5}{8}$ " UNF x 1" long	1		
549B	Nut $\frac{3}{8}$ " UNC	5		
549C	Spring washer $\frac{3}{8}$ " dia.	5		
549D	Setscrew $\frac{3}{8}$ " UNC x 1" long	1		
550	Setscrew $\frac{3}{8}$ " UNC x $1\frac{1}{2}$ " long	4		
	Carburettor guard	1		

Illus. Part No.	Description	No. off	Bulletin	Bin No.
102025	Front guards and weight assy. ...	1		
539	comprising:- Nut $\frac{5}{8}$ " UNC	2		
540	Spring washer $\frac{5}{8}$ " dia.	2		
541	Bolt $\frac{5}{8}$ " UNC x $6\frac{1}{2}$ " long	2		
542	Front weight	6		
543	Spacer	2		
544	Nut $\frac{5}{8}$ " UNC Super	2		
545	Nut $\frac{5}{8}$ " UNC Gem	2		
546	Spring washer $\frac{5}{8}$ " dia.	2		
547	Setscrew $\frac{5}{8}$ " UNC x $1\frac{1}{2}$ " long	2		
548	Bumper	1		
549	Front guard	1		
549A	Setscrew $\frac{5}{8}$ " UNF x 1" long	1		
549B	Nut $\frac{3}{8}$ " UNC	5		
549C	Spring washer $\frac{3}{8}$ " dia.	5		
549D	Setscrew $\frac{3}{8}$ " UNC x 1" long	1		
550	Setscrew $\frac{3}{8}$ " UNC x $1\frac{1}{2}$ " long	4		
	Carburettor guard	1		

**WISCONSIN AEN ENGINE AND FITTINGS**

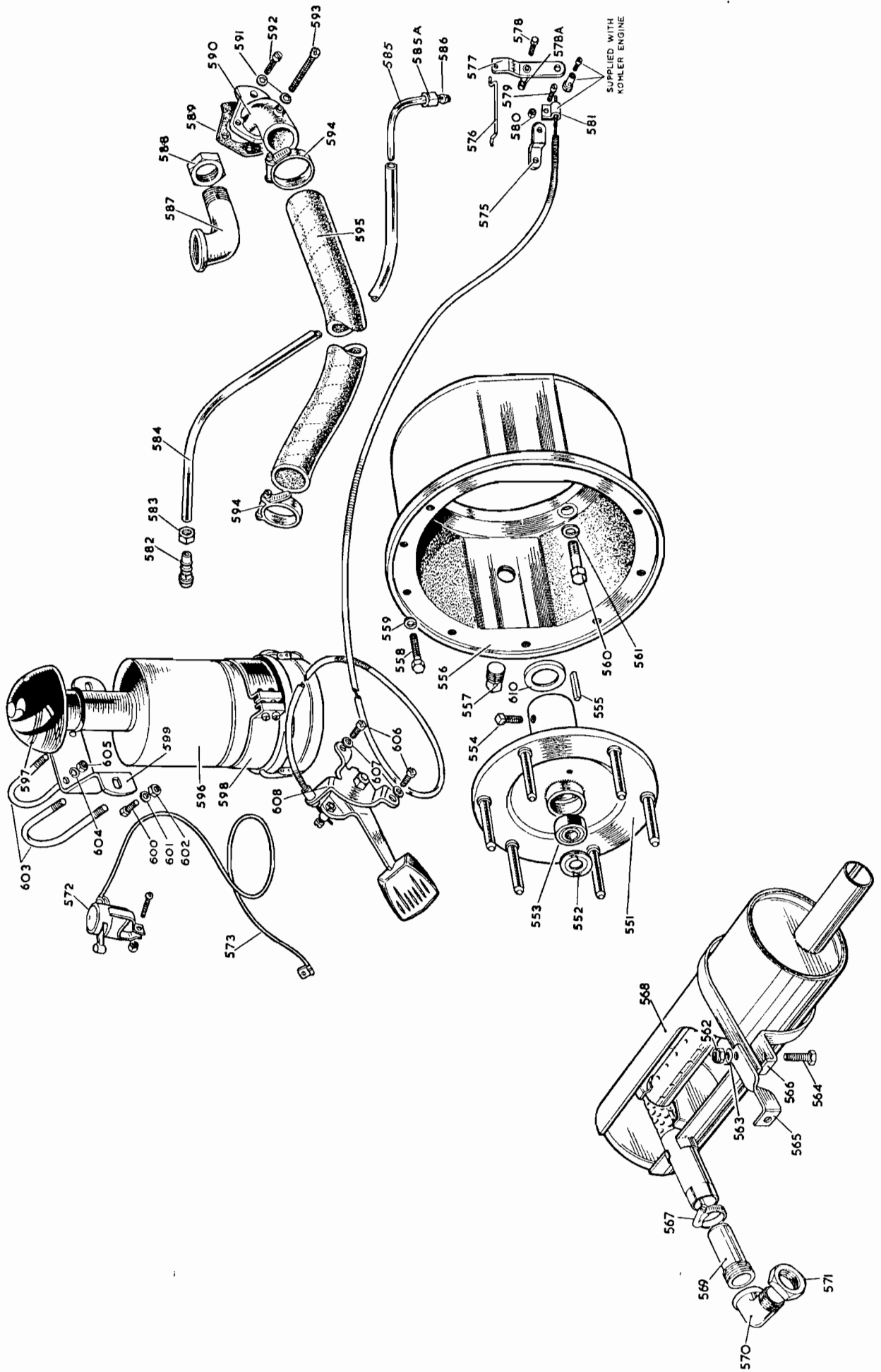
203001230	Engine Wisconsin AEN	1		
26897	Petrol supply pipe	1		
26554	Drive flange rivet assembly	1		
26555	comprising:- Drive flange	6		
62677	Driving pin	1		
26430	Adaptor	8		
101804060	Bolt $\frac{1}{2}$ " BSW x $\frac{3}{4}$ " long, hex. head	10		
101804080	Bolt $\frac{1}{4}$ " BSW x 1" long, hex. head	18		
108040840	Spring washer $\frac{1}{4}$ " dia.	1		
26552	Adaptor ring (model AEN)	1		
26553	Flywheel nut (model AEN)	1		
250513041	Balbearing for flywheel nut	1		
8007	Retaining plate	1		
26438	Key	1		
26556	Cowling guard	1		
101206240	Bolt $\frac{3}{8}$ " UNC x $3\frac{1}{2}$ " long	4		
108061140	Spring washer $\frac{3}{8}$ " dia.	4		
107206010	Nut $\frac{3}{8}$ " UNC	4		
101407100	Setscrew $\frac{7}{16}$ " UNC x $1\frac{1}{4}$ " long (Model AEN)	4		
108071240	Spring washer $\frac{7}{16}$ " dia.	4		
103303030	Setscrew No. 10 UNF x $\frac{3}{8}$ " long cheese head	2		
*108030540	Spring washer $\frac{1}{8}$ " dia.	2		

**KOHLER ENGINE AND FITTINGS**

203001090	Kohler 301T Engine Gem 20" + 24"	1		
203001420	Kohler K341T Engine Super Gem 24"	1		
68641	Spec. No. 71268 A	1		
27366	Bumper bar and weights assy. ...	1		
107210010	comprising:- Front weight assembly	2		
108101740	Nut $\frac{5}{8}$ " UNC	2		
101210400	Spring washer $\frac{5}{8}$ " dia.	2		
27359	Bolt $\frac{5}{8}$ " UNC x 5" long	6		
not allocated	Front weight	6		
107206010	Nut $\frac{3}{8}$ " UNC	4		
108061140	Spring washer $\frac{3}{8}$ " dia.	4		
101406120	Setscrew $\frac{3}{8}$ " UNC x $1\frac{1}{2}$ " long	4		
68642	Bumper	1		
548 - 549 not allocated	See Super Gem	1		
27278	Carburettor guard	1		

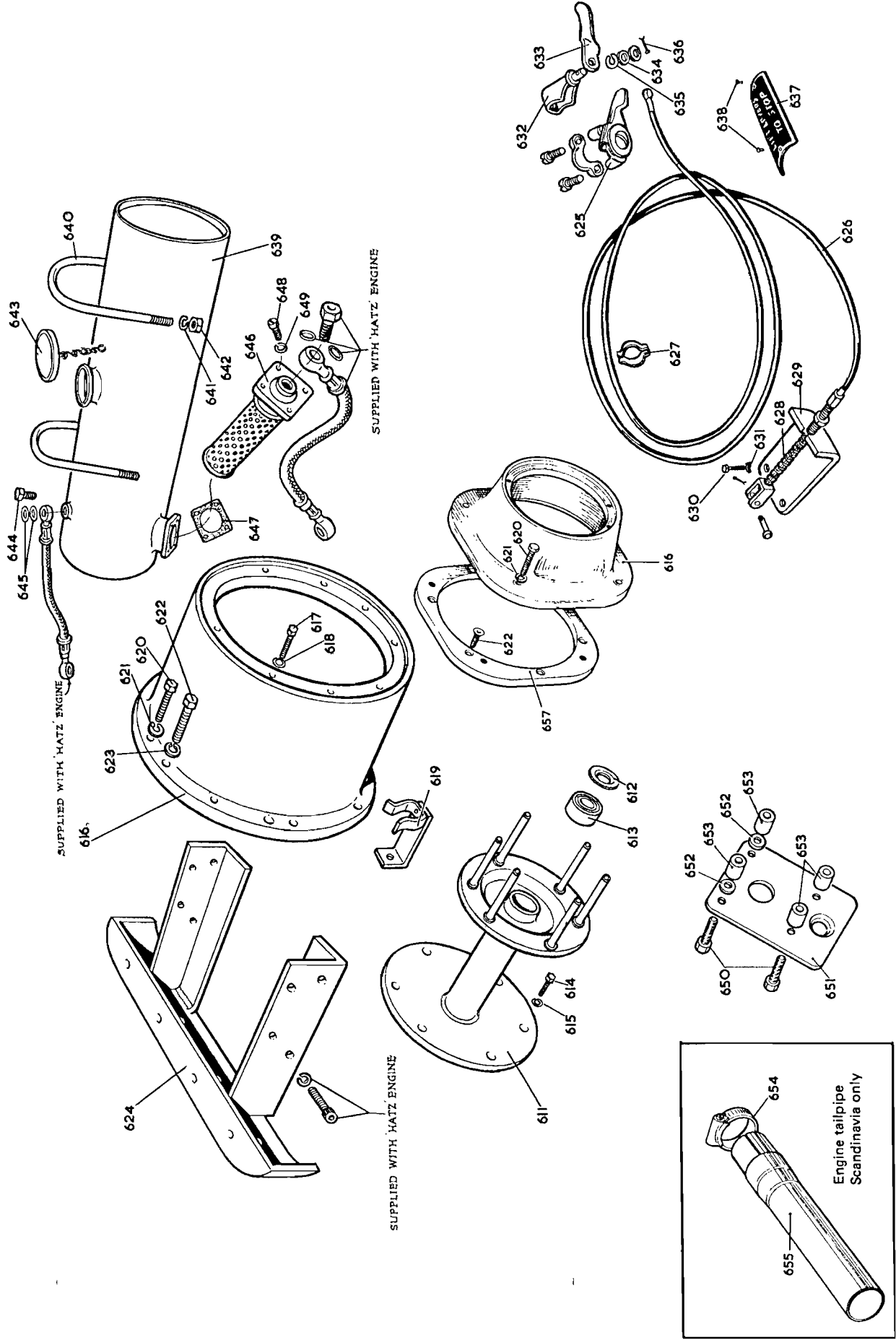
# Howard Gem and Super Gem Parts List

693	B	9.78	24
-----	---	------	----



Illus. Part No.	Description	No. off	Bulletin	Bin No.
<b>KOHLER ENGINE AND FITTINGS</b>				
551 59702	Clutch extension	1		
552 8007	Special washer	1		
553 250513045	Ball journal 1 5/8" o.d. x 1/4" i.d. x 3/8" w. BRL 1/2"	1		
554 126405040	Setscrew 5/16" UNC x 1/4" long, cup point 'UNBRAKO' square head	1		
555 208008350	Key	1		
556 68635	Bell housing	1		
557 203031190	Drain plug 1/2" BSP square head	1		
558 101404070	Setscrew 1/4" UNC x 7/8" long, hex. head	8		
559 108040840	Spring washer 1/4" dia.	4		
560 101407100	Setscrew 7/16" UNC x 1 1/4" long, hex. head	4		
561 108071240	Spring washer 7/16" dia.	4		
102024	Exhaust muffler assembly comprising:-	1		
562 107105030	Nut 5/8" UNF self locking	1		
563 108051010	Flatwasher 1/8" dia.	1		
564 101305190	Setscrew 5/16" UNF x 1 1/4" dia.	1		
565 102038	Support bracket	1		
566 102039	Support strap	1		
567 208003090	Clip 2A	1		
568 203027060	Muffler	1		
27394	Muffler ... Alternatives	1		
569 102034	Adaptor	1		
570 202034610	Elbow 1 1/4" BSP 90° Male/Female	1		
571 202041340	Back nut 1 1/4" BSP	1		
572 207005090	Stop switch	1		
573 67782	Cable and terminal short	1		
574 101406080	Setscrew 3/8" UNC x 1" long, hex. head	2		
575 68712	Throttle pivot link	1		
576 68711	Throttle control connector	1		
577 68708	Throttle control lever	1		
578 101403060	Setscrew no. 10 UNC x 3/4" long, hex. head	1		
578A 107203010	Nut no. 10 - 24 UNC	1		
579 103902040	Setscrew 2BA x 1/2" long, cheese head slotted	1		
580 107902010	Nut 2BA	1		
581 203210149	Clip - Kohler no. 210149	1		
68637	Fuel line assembly comprising:-	1		
582 202038110	Nipple	1		
583 202039500	Union nut 3/4" BSP	1		
584 202026210	Nylon tube 17" long	1		
585 202034120	Elbow 90°	1		
585A 202039470	Union nut 7/16" - 24 BSW	1		
586 202038120	Cone	1		
587 202034320	Elbow 90° 1" A.S.P.T. Male/Female	1		
588 202041230	Backnut 1" A.S.P.T.	1		
589 69099	Carburettor gasket	1		
590 68636	Induction elbow	1		
591 108030730	Shakeproof washer 2BA dia.	2		
592 103902040	Setscrew 2BA x 1/2" long, cheese head slotted	2		
593 103902200	Bolt, 2BA x 2 1/2" long, cheese head slotted	1		
594 208003100	Jubilee clip	2		
595 27026	Air cleaner hose	1		
596 203034010	Air cleaner	1		
597 203034030	Pre-cleaner	1		
598 203034060	Support bracket	1		
599 27027	Air cleaner support bracket	1		
600 101705050	Setscrew 3/16" BSF x 3/8" long, hex. head	2		
601 108050940	Spring washer 5/16" dia.	2		
602 107505010	Nut 5/16" BSF	2		
603 27028	'U' bolt	2		
604 108040840	Spring washer 1/4" dia.	4		
605 107504010	Nut 1/4" BSF	4		
203034070	Stackpipe	1		
27029	Clip	1		
27030	Stay	1		
27031	Tank bracket	1		
101504050	Bolt 1/4" BSF x 5/8" long	2		
108040840	Spring washer 1/4" dia.	2		
107504010	Nut 1/4" BSF	2		
606 103902030	Setscrew 2BA x 3/8" long cheese head	2		
607 108030730	Shakeproof washer 7/16" dia.	2		
608 207001240	Throttle cable	1		
609 not allocated	Inner cable 74 1/2" Outer cable 71 1/2"	1		
610 102040	Spacer Super Gem Only	1		

# Howard Gem and Super Gem Parts List



Illus. No.	Part No.	Description	No. off	Bulletin	Bin No.
<b>HATZ ENGINE AND FITTINGS</b>					
		*Gem			
		+Super Gem			
203001370		*Hatz Engine ES 780U	1		
203001430		+Hatz Engine E 785U	1		
27297		Drive adaptor	1		
611	8007	Special washer	1		
612	250513045	Ball journal 1 5/8" o.d. x 1/2" i.d. x 3/8"	1		
613	301408200	Setscrew 8mm dia. x 20mm long	6		
615	108050940	Spring washer 5/16" dia.	6		
616	27296	*Bell housing	1		
102021		+Bell housing	1		
617	101404060	Setscrew 1/4" UNC x 3/4" long	8		
618	108040840	Spring washer 1/4" dia.	8		
619	27352	Handle clip rivet assembly	1		
620	301208350	*Bolt 8mm dia. x 35mm long	10		
301412350		+Bolt 12mm dia. x 35mm long	4		
621	108050940	*Spring washer 5/16" dia.	10		
308120045		+Spring washer 5/16" dia.	4		
622	301210350	*Bolt 10mm dia. x 35mm long	2		
302210300		+Screw M10 dia. x 10 H socket csk. hd.	6		
N.I.	208008580	Allen key for 302210300 illus. no. 622	1		
623	108071240	*Spring washer 1/8" dia.	2		
624	27348	Bumper bar	1		
625	207001080	Throttle control lever	1		
626	26337	Throttle cable complete	1		
627	208003270	Throttle cable spring clip	1		
628	26575	Spring	1		
629	27331	*Bracket	1		
102036		+Bracket	1		
630	301408160	Setscrew 8mm dia. x 16mm long	2		
631	108051030	Shakeproof washer 1/8" dia.	2		
27290		Throttle stop control assembly	1		
comprising:-					
632	27291	Fulcrum bracket	1		
633	27294	Throttle stop catch	1		
634	108040910	Flat washer 1/4" dia.	1		
635	108040850	Spring washer 1/4" dia. double coil	2		
636	208010040	Split Pin 1 1/8" dia. x 1/2" long	1		
637	27295	Indicator Plate	1		
638	208032070	Pop rivet	2		
639	27326	Fuel tank	1		
640	175	Tank strap	2		
641	108040840	Spring washer 1/4" dia.	4		
642	107604010	Nut 1/4" BSW	4		
643	203036150	Tank cap	1		
644	55961	Banjo bolt small	1		
645	55962	Fibre washer	2		
646	27370	+Fuel filter	1		
includes:-					
203016050		Element	1		

**Howard Gem and Super Gem Parts List**

# Howard Gem and Super Gem Numerical Parts List

693										A	9.78	Bin
Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.	
104	268		519	183		919	219		25734	216	26565	491
123	263		520	178		921	240		25735	167	26575	475
130	125		530	168		922	239		25738	153	26575	628
141	86		540	170		950	384		25743	324	26578	486
142	85		544	212		991	244		25744	325	26579	498
152	414		545	169		8007	489		25746	334	26588	363
153	157		554	47		8007	531		25747	304	26598	354
156	156		589	304		8007	552		25750	305	26715	410A
158	156		590	182		8007	612		25751	332	26724	502
162	88		591	190		9866	217		25757	45	26741	511
175	360		591	296		9867	218		25758	38	26745	494
175	640		600A	216		9900	217		25776	73	26746	495
188	458		603	213		9901	218		25776	163	26749	512
220	78		605	209		19001	184		25777	164	26753	503
231	79		606	211		25005	16		25794	57A	26756	507
233	71		607	210		25007	59		26842	167	26842	179
234	72		629	229		25008	13		25878	87	26844	491
250	73		630	223		25009	62		25906	111	26889	364
255	75		632	228		25011	49		26892	194	26892	359
260	76		634	227		25012	48		26897	197	26897	359
288	66		635	236		25015	46		26899	192	26899	358
291	64		637	225		25019	100		26899	196	26899	358
292	60		639	235		25020	96		26908	193	26908	481
313	108		640	237		25021	98		26922	335	26908	5
314	103		642	325		25022	97		26922	122	26922	122
316	106		644	328		25024	95		26923	122	26923	122
317	104		646	332		25024	99		26928	295	26928	295
317	316		648	230		25025	43		26959	303	26959	243
319	426		649	336		25028	94		27026	595	27026	205
321	417		657	347		25029	34		27027	599	27027	599
324	419		658	349		25034	12		27028	603	27028	603
354	54		659	348		25037	36		27059	488	27059	367
355	53		660	350		25038	50		27060	371	27060	551
373	19		661	352		25042	39		27068	185B	27068	185B
374	21		662	353		25043	92		27076	370	27076	370
380	305		663	342		25044	97		27278	474	27278	474
381	306		664	341		25045	100		27290	515	27290	515
382	309		665	346		25046	101		27291	632	27291	632
402	20		667	289		25047	120		27294	516	27294	516
402	151		671	288		25050	25		27295	633	27295	633
437	18		674	280		25051	89		27295	515	27295	515
439	152		675	282		25052	118		27296	616	27296	616
452	153		675	282		25053	115					
453	167		675	445		25054	42					
455	175		677	412		25054	107					
456	159		677	420		25055	112					
460	174		678	406		25057	114					
461	10		679	460		25058	112					
462	173		679	407		25061	57					
465	401		679	410		25062	80					
466	402		820	299		25069	68					
476	4		821	298		25072	32					
481	3		830	300		25101	177					

Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.	Part No.	Illus. or Page No.	Bin No.		
62921	62		101404070	558		103902040	579		107607020	311		108051030	631		203034010	596		208021050	337
62922	66		101406080	574		103902040	592		107608010	84		108061140	23		203034030	597		208021160	14
62928	273		101406080	549C		103902200	593		107608010	215		108061140	116		203034060	598		208021070	234
62943	273		101406120	546		105606180	508		107608020	270		108061140	165		203034070	25		208021080	430
62947	273		101406120	564		107105030	562		107608020	427		108061140	266		203036150	355		208021170	102
62948	261		101407100	537		107203010	578A		107610020	345		108061140	317		203036150	477		208021510	343
66414	P27		101407100	560		107204010	274		107902010	580		108061140	327		203036150	643		208020990	405
67782	P27		101504050	P27		107205020	145		108030540	538		108061140	509		203060170	356		208023010	171
68610	P27		101604060	381		107206010	536		108030730	607		108061140	538		203061580	356		208026020	323
68635	556		101604060	398		107206010	544		108030730	591		108061140	545		203061580	480		208031090	519
68636	590		101604060	437		107206010	549A		108040830	185A		108061140	549B		207001080	368		208032070	638
68637	582		101604060	451		107208010	147		108040840	8		108061150	330		207001080	368		208041090	380B
68641	539		101604100	290		107210010	539		108040840	70		108071240	221		207001080	472		208052010	74
68642	547		101604140	283		107210010	544		108040840	83		108071240	241		207001080	625		208052010	105
68708	577		101604160	291		107504010	605		108040840	144		108071240	538		207001210	262		208052010	166
68711	576		101604180	142		107505010	195		108040840	185		108071240	542		207001240	569		208052010	191
68712	575		101605080	393		107505010	602		108040840	188		108071240	561		207005090	608		208052010	297
69099	589		101605080	499		107507010	242		108040840	233		108071240	561		208002620	15		208052010	318
69527	202		101605100	199		107508030	38		108040840	293		108071240	623		208002620	567		208052010	158
69536	238		101606100	264		107510020	231		108040840	293		108071240	496		208003090	608		208052010	286
69667	220		101606140	285		107510050	271		108040840	301		108081610	37		208003090	654		209254440	304A
69486	209		101606200	276		107512050	207		108040840	313		108081610	84A		208003100	594		209254440	405A
102006	324		101608200	269		107604010	143		108040840	361		108081610	148		208003270	369		209254440	310
102014	334		101705050	600		107604010	186		108040840	361		108081610	148		208003270	473		209254440	329
102018	332		101705060	504		107604010	189		108040840	351A		108081610	37		208003270	627		209254440	513
102021	616		101804040	7		107604010	314		108040840	527		108081610	377		208003270	627		209254440	123
102022	P27		101804040	69		107604010	362		108040840	559		108081610	148		208003270	627		209254440	224
102024	562		101804040	184C		107604010	374		108040840	604		108081610	148		208003270	627		209254440	224
102025	539		101804060	302		107604010	399		108040840	618		108081610	148		208003270	627		209254440	224
102026	548		101804050	184B		107604010	438		108040840	641		108081610	148		208003270	627		209254440	224
102030	547		101804050	187		107604010	438		108040840	649		108081610	148		208003270	627		209254440	224
102032	543		101804060	82		107604010	452		108040840	518		108081610	148		208010030	198		250715061	65
102033	550		101804060	141		107604010	642		108040850	518		108081610	148		208010030	372		250719061	51
102034	569		101804060	184A		107604020	284		108040850	635		108081610	148		208010030	372		250720071	61
102035	657		101804060	312		107604020	383		108040850	382		108081610	148		208010030	450		251022061	41
102036	629		101804060	525		107604020	383		108040850	400		108081610	148		208010040	375		251025071	11
102038	565		101804070	184D		107605010	201		108040850	435		108081610	148		208010040	431		251025071	172
102039	566		101804080	526		107605010	385		108040850	517		108081610	148		208010040	461		251227071	110
102040	610		101805050	56		107605010	457		108040850	634		108081610	148		208010040	519		251730061	91
102057	325		101805060	160		107605010	501		108050940	27		108081610	148		208010040	636		253072191	203
102060	334		101805070	26		107605020	333		108050940	55		108081610	148		208010060	33		261509042	226
102062	332		101805080	416		107605140	388		108050940	161		108081610	148		208010060	425		262012051	113
650349	214		101805080	447		107605140	408		108050940	493		108081610	148		208010100	404		262515051	204
101205160	146		101806060	117		107605140	413		108050940	500		108081610	148		208010100	409		262717051	90
101206240	534		101806060	307		107605140	421		108050940	505		108081610	148		208010100	418		301208350	620
101206120	549D		101806070	22		107605140	443		108050940	601		108081610	148		208010100	439		301208350	650
101210400	541		101806080	315		107606010	267		108050940	615		108081610	148		208010140	81		301406180	492
101210520	541		101806080	326		107606010	277		108050940	621		108081610	148		208010160	58		301408160	630
101305190	564		103303030	538		107606010	277		108051010	200		108081610	148		208010160	93		301408200	614
101310080	549		103404040	648		107606010	287		108051010	366		108081610	148		208010200	344		301408200	492
101210400	541		103804030	232		107606020	308		108051010	403		108081610	148		208010200	400		301412350	622
101403060	578		103804030	351		107606020	308		108051010	422		108081610	148		208010210	272		302210300	622
101404060	617		103902030	606		107607010	497		108051010	563		108081610	148		208020090	429		308120045	621