

# BOLENS

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ESTATE KEEPER

TRACTOR

MODEL 931-02

## ILLUSTRATED PARTS CATALOG



# BOLENS

PORT WASHINGTON, WISCONSIN, U.S.A.

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MODEL 931-02 TRACTOR GEAR CASE ASSEMBLY  
ASSEMBLY PART NO. 1719691

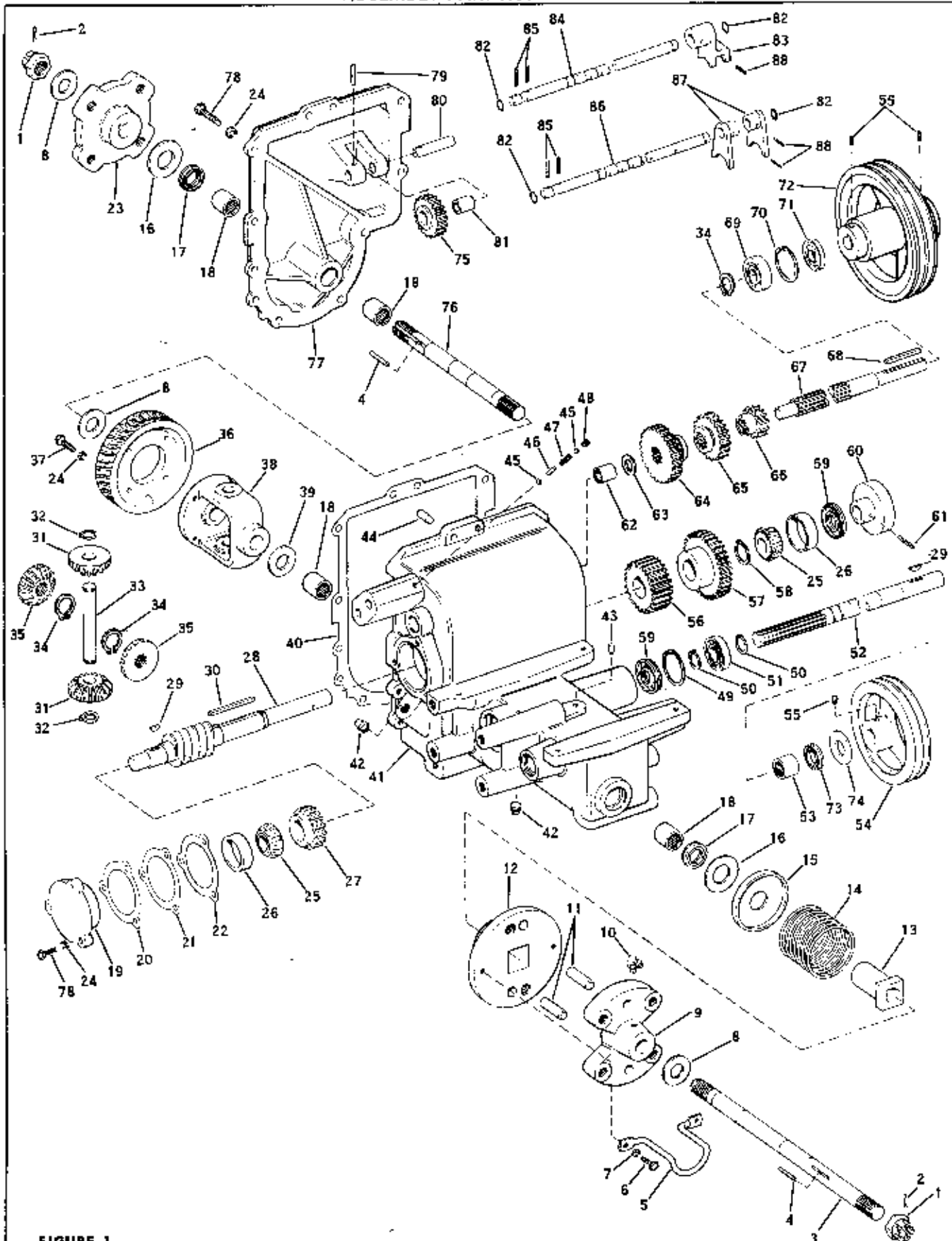


FIGURE 1

# MODEL 931-02 TRACTOR GEAR CASE ASSEMBLY

Ref. No.	Part No.	Description	No. Req'd.
*1	1100219	Castle Nut 7/8-14	2
*2	1100352	Cotter Pin 1/8 x 1-1/2	2
3	1719223	Axle - Left Side	1
*4	1108844	Sq. Key 1/4 x 1-1/4	2
*5	1715293	Free Wheeling Handle	1
*6	1106832	Capscrew 1/4-20 x 5/8	2
*7	1100241	Lockwasher 1/4	2
*8	1719216	Thrust Washer	3
*9	1719219	Wheel Hub - L. H.	1
*10	1100758	Grease Fitting	1
*11	1715180	Free Wheeling Pin	2
*12	1719398	Free Wheeling Hub	1
*13	1719222	Free Wheeling Block	1
*14	1715302	Compression Spring	1
*15	1719215	Retainer Cup	1
*16	1719213	Washer	2
17	1185709	Oil Seal	2
18	1185143	Bearing Needle	4
19	1715163	Support Housing	1
20	1715297	Shim .002	As Req.
21	1715296	Shim .010	As Req.
22	1715295	Shim .020	1
*23	1719218	Wheel Hub - R. H.	1
24	1100242	Lockwasher 5/16	16
25	1185275	Bearing Cone	2
26	1185276	Bearing Cup	2
27	1715173	Gear - 22T	1
28	1715294	Worm Shaft	1
29	1104436	Woodruff Key 3/16 x 3/4	2
30	1185573	Sq. Key 3/16 x 2-1/4	1
31	1707539	Differential Pinion	2
32	1118808	Retaining Ring	2
33	1707562	Pinion Shaft	1
34	1180025	Retaining Ring	3
35	1719217	Differential Gear	2
36	1715161	Worm Wheel	1
37	1109005	Capscrew H. T. 5/16-24 x 1	4
38	1719225	Differential Carrier	1
39	1719214	Thrust Washer	1
40	1715303	Gasket	1
41	1718755	Gear Case Only	1
42	1105678	Pipe Plug 3/8	2
43	182682	Breather	1
44	1100959	Dowel Pin	2

Ref. No.	Part No.	Description	No. Req'd.
45	1713416	Ball	2
46	1713421	Pin	1
47	1713417	Compression Spring	1
48	1185596	Set Screw 5/16-18 x 5/16	1
49	1118727	Retaining Ring	1
50	1113527	Retaining Ring	2
51	1187873	Ball Bearing	1
52	1715159	Shaft - PTO	1
53	1185010	Needle Bearing	1
*54	1715142	Pulley	1
*55	1182554	Set Screw 5/16-18 x 5/16	6
56	1715176	Gear - 28T	1
57	1715152	Gear - 36T	1
58	1118813	Retaining Ring	1
59	1709814	Oil Seal	2
*60	1715179	Brake Drum	1
*61	1185597	Roll Pin 3/16 x 1-1/8	1
62	1185538	Needle Bearing	1
63	1715301	Thrust Washer	1
64	1715177	Gear - 30T	1
65	1715175	Gear - 24T	1
66	1715178	Gear - 18T	1
67	1719226	Shaft - Input	1
*68	1187474	Sq. Key 1/4 x 2-1/4	1
69	1185710	Ball Bearing	1
70	1118733	Retaining Ring	1
71	1185735	Oil Seal	1
*72	1719229	Pulley	1
73	1185296	Oil Seal	1
74	1707546	Thrust Washer	1
75	1715174	Gear - 24T	1
76	1719224	Axle - Right Side	1
77	1719227	Gear Case Cover	1
78	1106876	Capscrew 5/16-18 x 7/8	12
79	1704692	Drive Pin 1/8 x 1	1
80	1715154	Idler Shaft	1
81	1185433	Sleeve Bearing	1
82	1177388	O-Ring	4
83	1715168	Shifter Fork - Low	1
84	1715164	Shifter Shaft (Upper)	1
85	1185598	Drive Pin 5/32 x 7/8	4
86	1715165	Shifter Shaft (Lower)	1
87	1715157	Shifter Fork	2
88	1185624	Drive Pin 1/8 x 7/8	3

\*Indicates parts not included with gear case assembly  
Part No. 1719691

# MODEL 931-02 TRACTOR ASSEMBLY

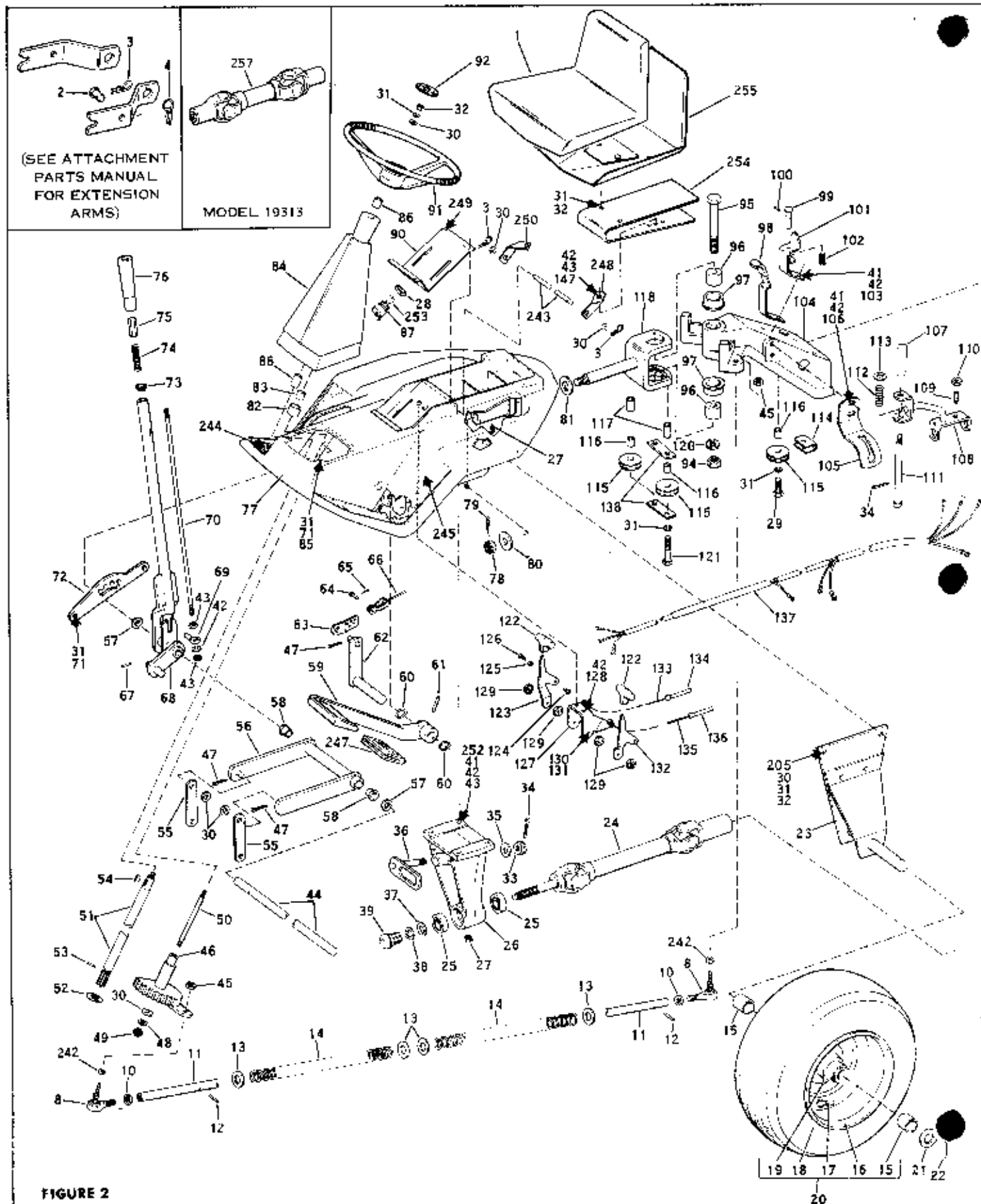
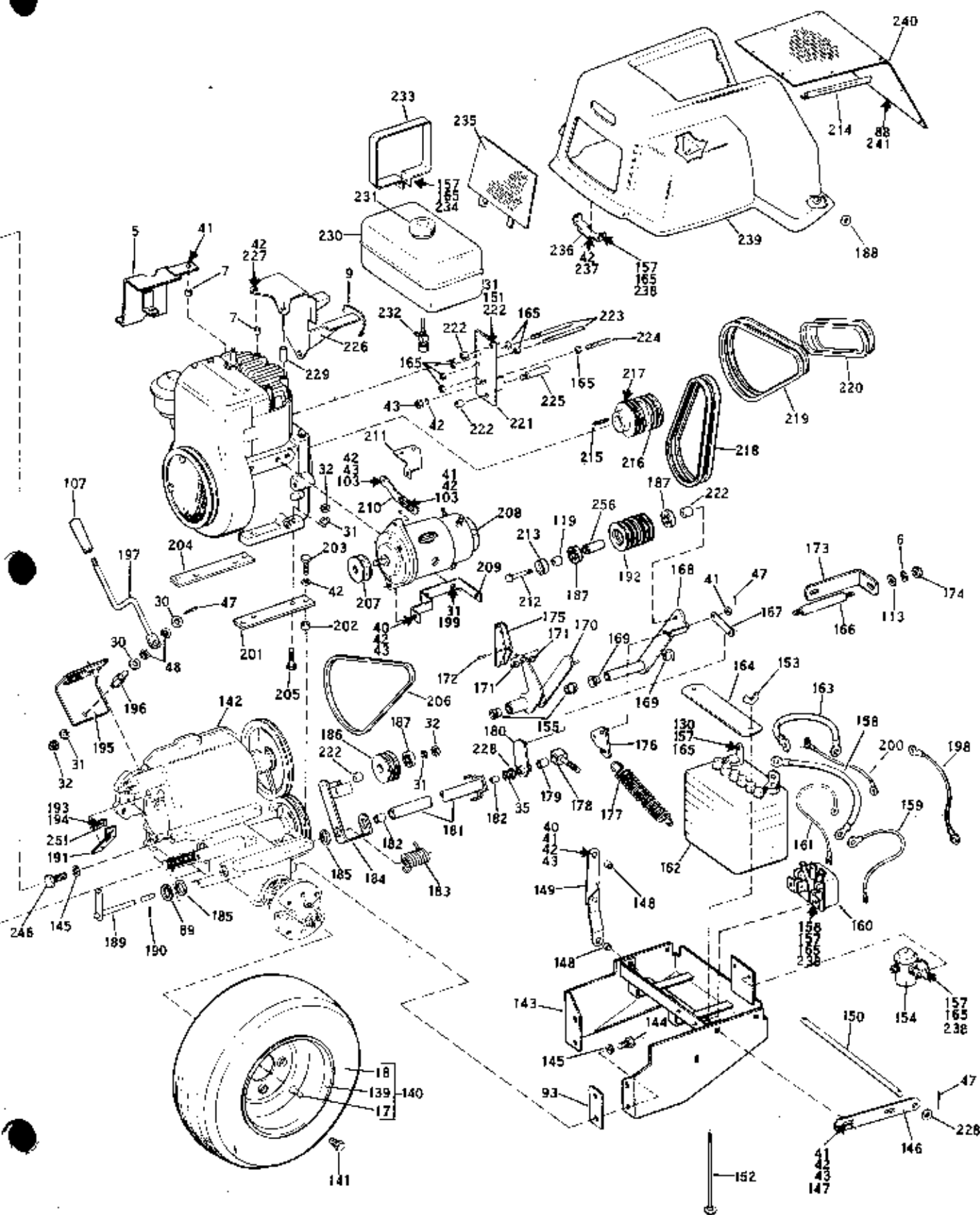


FIGURE 2

## MODEL 931-02 TRACTOR ASSEMBLY



# MODEL 931-02 TRACTOR ASSEMBLY

Ref. No.	Part No.	Description	No. Req'd.
1	1719265	Seat Pad	1
2	1715637	Clevis Pin	2
3	1703011	Spring Cotter	3
4	1185590	Spring Cotter	2
5	1719286	Heat Shield	1
6	1100244	Lockwasher 7/16	1
7	1719427	Spacer	2
8	1719513	Spherical Bearing	2
9	1719496	Wire Tie	1
10	1121710	Jam Nut 7/16-20	2
11	1715276	Drag Link	1
12	1185614	Roll Pin 1/8 x 1-1/2	2
13	1107387	Flat Washer 3/4	4
14	1715615	Compression Spring	2
15	1715998	Bearing	4
16	1715997	Wheel Only	2
17	1715855	Valve Stem Assy	4
18	1715865	Tubeless Tire 16 x 6:50-8	2
19	1104954	Grease Fitting	4
20	1715684	Wheel and Tire Assy	2
21	1713468	Washer	2
22	1104231	Cotter Pin 1/4 x 1-1/2	2
23	1715259	Wheel Spindle	2
24	1715441	Universal Drive Shaft Assy	1
25	1185605	Ball Bearing	2
26	1715580	Shaft Support - PTO	1
27	1100758	Grease Fitting	2
28	1706512	Washer	1
29	1106923	Capscrew 3/8-16 x 1-1/4	1
30	1107389	Flat Washer 3/8	26
31	1100243	Lockwasher 3/8	31
32	1103840	Hex Nut 3/8-16	20
33	1120063	Slotted Nut 1/2-13	1
34	1100350	Cotter Pin 1/8 x 1	2
35	1107385	Flat Washer 1/2	2
36	1715578	Spring Retainer	1
37	1185432	Thrust Race	1
38	1113527	Retaining Ring	1
39	1714132	Rubber Tip	1
40	1106880	Capscrew 5/16-18 x 1-1/8	3
41	1107382	Flat Washer 5/16	19
42	1100242	Lockwasher 5/16	36
43	1103839	Hex Nut 5/16-18	23
44	1715466	Pivot Shaft	1
45	1121712	Jam Nut 9/16-18	2
46	1719507	Steering Gear	1
47	1109346	Cotter Pin 3/32 x 3/4	9
48	1703616	Bowed Washer	3
49	1110108	Lock Nut 3/8-16	1
50	1720449	Stud	1
51	1715271	Steering Shaft	1
52	1701447	Washer	1
53	1185314	Drive Pin 1/8 x 1-1/4	1
54	1104436	Woodruff Key 3/16 x 3/4	1
55	1715263	Lift Link	2
56	1715255	Lift Arm	1
57	1701411	Bowed Washer	2
58	1185034	Flange Bushing	2
59	1716665	Clutch Pedal	1
60	1702258	Wave Washer	2
61	1185376	Drive Pin 3/16 x 1-1/2	1
62	1715266	Clutch Arm	1
63	1715262	Adjustment Plate	1
64	1703697	Clevis Pin 3/16 x 19/32	2

Ref. No.	Part No.	Description	No. Req'd.
65	1187385	Cotter Pin 1/16 x 1/2	2
66	1715470	Wire Rope	1
67	1704692	Drive Pin 1/8 x 1	1
68	1715248	Lift Lever	1
69	1715480	Lift Pin	1
70	1715481	Control Rod	1
71	1106921	Capscrew 3/8-16 x 1-1/8	7
72	1715277	Quadrant	1
73	1714233	Bushing	1
74	1713075	Compression Spring	1
75	1714644	Plunger	1
76	1719267	Grip	1
77	1715250	Front Frame	1
78	1110112	Slotted Nut 5/8-11	1
79	1100351	Cotter Pin 1/8 x 1-1/4	1
80	1715492	Spacer	1
81	1715491	Spacer	1
82	1185628	Bronze Bearing	1
83	1185612	Bronze Bearing	1
84	1720448	Steering Column (Incl Ref #50-49 86-82-83)	1
85	1100256	Flat Washer 3/8	4
86	1185627	Flange Bearing	2
87	1719143	Ignition Switch (Incl 253)	1
88	1185381	Thd Cutting Screw 10-24x1/2	11
89	1891548	Flat Washer	As Req.
90	1719257	Control Plate	1
91	1719164	Steering Wheel	1
92	1719165	Steering Wheel Cap	1
93	1719255	Spacer	2
94	1121513	Hex Nut 5/8-11	1
95	1111449	Capscrew 5/8 x 11	1
96	1715483	Spacer	2
97	1185609	Flange Bearing	2
98	1715497	Spring Lever	1
99	1715513	Rivet Pin 3/8 x 1-3/4	1
100	1703066	Roll Pin 1/8 x 3/4	1
101	1715500	Guide	1
102	1713187	Compression Spring	1
103	1106874	Capscrew 5/16-18 x 3/4	8
104	1719506	Frame Pivot	1
105	1715241	Quadrant	1
106	1106876	Capscrew 5/16-18 x 7/8	3
107	1719266	Shift Knob	2
108	1715275	Control Lever - PTO	1
109	1185607	Set Screw 3/8-16 x 7/8	1
110	1185345	Lock Nut 3/8-16	1
111	1715516	Lever	1
112	1707525	Spring	1
113	1107384	Flat Washer 7/16	3
114	1700045	Cable Guide	1
115	1700039	Cable Pulley	3
116	1700094	Bushing	3
117	1715504	Spacer	2
118	1715239	Pivot Yoke	1
119	1716896	Spacer	1
120	1100247	Lockwasher 5/8	1
121	1106934	Capscrew 3/8-16 x 2-1/4	2
122	1719288	Control Knob	2
123	1715609	Throttle Lever	1
124	1706672	Wire Fitting	2
125	1715311	Washer	2
126	1114275	Flt. Screw 8-32 x 1/4	2
127	1715718	Control Bracket	1

# MODEL 931-02 TRACTOR ASSEMBLY (CONT)

Ref. No.	Part No.	Description	No. Req'd.
123	1106872	Capscrew 5/16-18 x 5/8	2
129	1890947	Friction Washer	4
130	1106834	Capscrew 1/4-20 x 3/4	4
131	1110106	Lock Nut 1/4-20	2
132	1715808	Choke Lever	1
133	1715719	Throttle Control Wire	1
134	1715720	Throttle Wire Housing	1
135	1715721	Choke Control Wire	1
136	1715722	Choke Wire Housing	1
137	1719492	Wiring Assembly	1
138	1715505	Guide	2
139	1715996	Wheel Only	2
140	1715602	Wheel and Tire Assy	2
141	1715428	Wheel Bolt 1/2 x 20	8
142	1719691	Transmission Assy (See Fig. 1)	1
143	1719284	Rear Frame Support	1
144	1106987	Capscrew 1/2-13 x 1-1/4	4
145	1100245	Lockwasher 1/2	8
146	1720286	Hood Support Bracket	2
147	1111266	Carriage Bolt 5/16-18 x 1	6
148	1715557	Spacer	2
149	1715580	Hood Stop	1
150	1715494	Pivot Rod	1
151	1106932	Capscrew 3/8-18 x 2	1
152	1111260	Carriage Bolt 1/4-20 x 7	2
153	1709652	Wing Nut 1/4-20	2
154	1717048	Solenoid	1
155	1185666	Bearing	2
156	1107381	Flat Washer 1/4	4
157	1100241	Lockwasher 1/4	10
158	1715318	Wire - Thick White (Battery to Solenoid)	1
159	1715327	Wire - Thin White (Solenoid to Regulator)	1
160	1708287	Voltage Regulator	1
161	1719495	Wire - Thin Red (Solenoid to Regulator)	1
162	1716072	Battery	1
163	1715316	Wire - Thick Black (Battery to Ground)	1
164	1714619	Battery Clamp	1
165	1103838	Hex Nut 1/4-20	12
166	1719241	Stud	1
167	1716888	Link	1
168	1719234	Control Arm	1
169	1714299	Bushing	2
170	1719245	Control Arm	1
171	1715953	Washer	2
172	1185409	Drive Pin 1/4 x 5/8	1
173	1716438	Bracket	1
174	1108978	Hex Nut 7/16-14	1
175	1716667	Brake Shoe Assy (Incl Lining)	1
176	1716880	Spring Clip	1
177	1719230	Extension Spring	1
178	1716038	Bearing Block	1
179	1892945	Bushing	1
180	1719238	Lever Arm	1
181	1719244	Lever	1
182	1177647	Sleeve Bearing	2
183	1715475	Torsion Spring	1
184	1715285	Idler Arm - PTO	1
185	1185601	Oil Seal	2

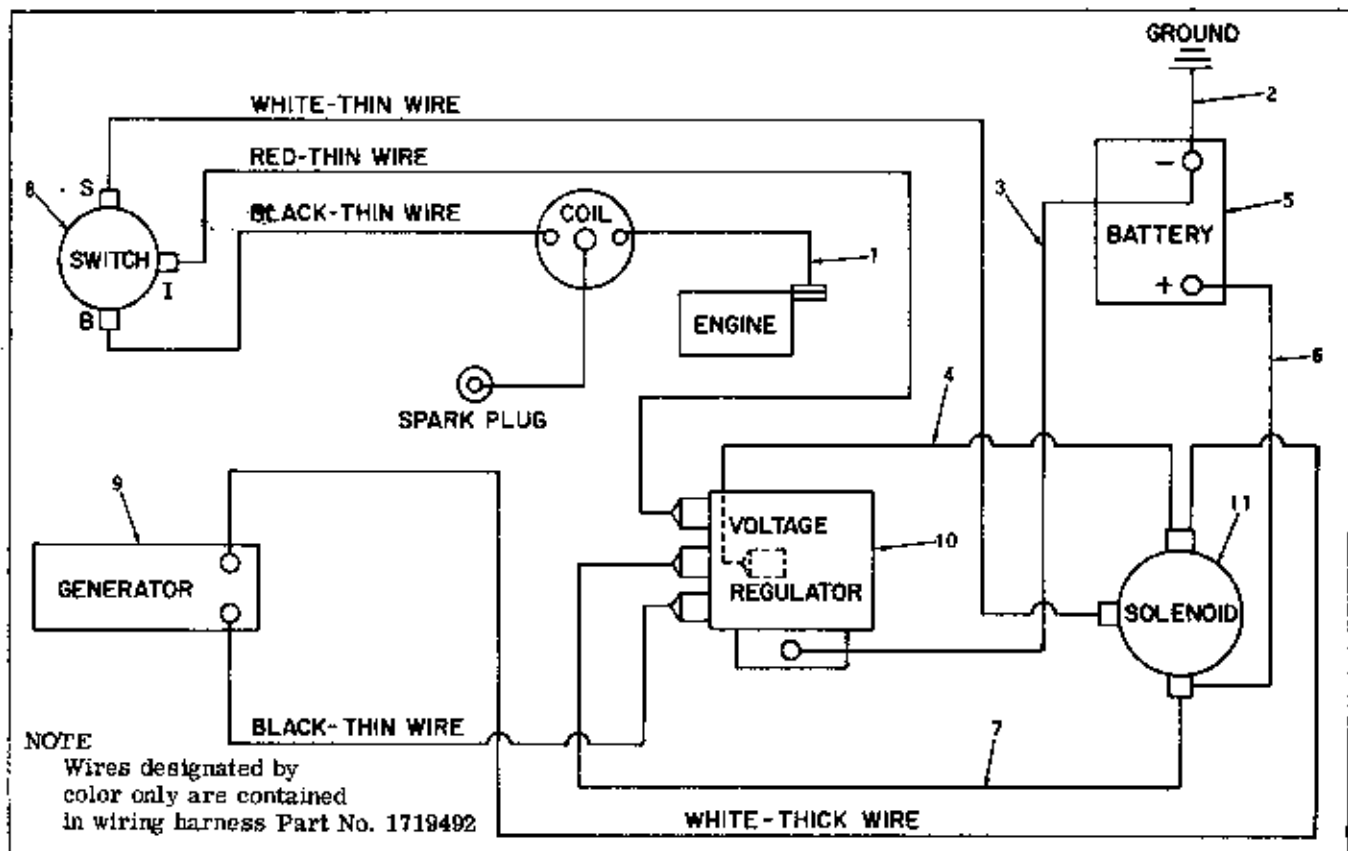
Ref. No.	Part No.	Description	No. Req'd.
186	1715582	Idler Pulley (Incl 187) - PTO	1
187	1185265	Ball Bearing	3
188	1720447	Nyliner	2
189	1719239	Idler Arm	1
190	1185624	Drive Pin 1/8 x 7/8	1
191	1715697	Bracket - Throttle Control	1
192	1719232	Pulley (Incl Ref #187 & 256)	1
193	1100240	Lockwasher "10"	1
194	1114755	Machine Screw 10-32 x 5/8	1
195	1715153	Shift Lever Quadrant	1
196	1715474	Lever Support	1
197	1715147	Shift Lever	1
198	1719494	Lead Assembly	1
199	1106917	Capscrew 3/8-16 x 7/8	2
200	1719493	Lead Assembly	1
201	1715691	Engine Support Bar	1
202	1715692	Spacer	4
203	1106882	Capscrew 5/16-18 x 1-1/4	4
204	1715696	Engine Support Bar	1
205	1106927	Capscrew 3/8-16 x 1-1/2	13
206	1716181	Generator Belt 30 9/16"	1
207	1708293	Generator Pulley	1
208	1708288	Starter Generator	1
209	1715701	Support Bracket - Generator	1
210	1715698	Adjusting Strap	1
211	1715700	Bracket	1
212	1106944	Capscrew 3/8-16 x 3-1/2	1
213	1704412	Dust Cap	1
214	1716737	Molding	1
215	1104337	Sq. Key 1/4 x 1-1/2	1
216	1719253	Engine Pulley	1
217	1182554	Set Screw 5/16-18 x 5/16	2
218	1715614	Power Take Off Belts - 27.8" (Matched Pair)	1
219	1719444	Drive Belt - 31.5" (Low Speed - Matched Pair)	1
220	1719269	Drive Belt - 26" (High Speed - Matched Pair)	1
221	1719491	Mounting Plate	1
222	1713783	Spacer	6
223	1719248	Belt Guide	2
224	1715489	Belt Guide	1
225	1715487	Idler Arm Stop	1
226	1719258	Gas Tank Support	1
227	1111609	Capscrew 5/16-16 x 2-3/4	2
228	1706782	Bowed Washer	3
229	1719428	Spacer	1
230	1720286	Gas Tank (Incl 231)	1
231	1718756	Cap Only	1
232	1718029	Outlet - Gas	1
233	1715703	Tank Strap	2
234	1114474	Fil. Screw 1/4-20 x 1-1/2	2
235	1719275	Front Grille	1
236	1715495	Latch Plate	1
237	1185577	Thd. Cutting Screw 5/16-18 x 3/4	2
238	1106832	Capscrew 1/4-20 x 5/8	6
239	1720446	Rear Hood (Incl Ref #188)	1
240	1719274	Rear Grille	1
241	1103959	Flat Washer #10	11
242	1100246	Lockwasher 9/16	2
243	1715509	Rod	1
244	1715593	Right Foot Pad	1

# MODEL 931-02 TRACTOR ASSEMBLY (CONT)

Ref. No.	Part No.	Description	No. Req'd.
245	1715592	Left Foot Pad	1
246	1106989	Capscrew 1/2-13 x 1-1/2	4
247	1716444	Pedal Pad	1
248	1719249	Support - L. H.	1
249	1185212	Thd. Cutting Screw W/Washer 10-24 x 3/8	4
250	1719251	Support - R. H.	1
251	1715127	Housing Clamp	1
252	1106884	Capscrew 5/16-18 x 1-1/2	5

Ref. No.	Part No.	Description	No. Req'd.
253	1718288	Key Only	1
254	1719256	Seat Support	1
255	1717352	Seat Pan	1
256	1719233	Spacer	1
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257	1715440	Driveshaft	1

## WIRING DIAGRAM



Ref. No.	Part No.	Description	No. Req'd.
1	1719494	Lead Assembly (Coil to Engine)	1
2	1715316	Lead Assembly (Battery to Ground)	1
3	1719493	Lead Assembly (Battery to Regulator)	1
4	1719495	Lead Assembly (Solenoid to Regulator)	1
5	1716072	Battery	1

Ref. No.	Part No.	Description	No. Req'd.
6	1715318	Lead Assembly (Battery to Solenoid)	1
7	1715327	Lead Assembly (Solenoid to Regulator)	1
8	1719143	Ignition Switch	1
9	1708288	Starter Generator	1
10	1708287	Voltage Regulator	1
11	1717048	Solenoid	1