

FMC CORPORATION
Outdoor Power Equipment Division
Port Washington Wisconsin 53074

MODEL 1660 (QS-16)

Serial Number
0100101
thru
0299999

**BOLENS
TRACTOR
with
16 HP
KOHLER
ENGINE**

PARTS LIST

BOLENS 16 HP TRACTOR

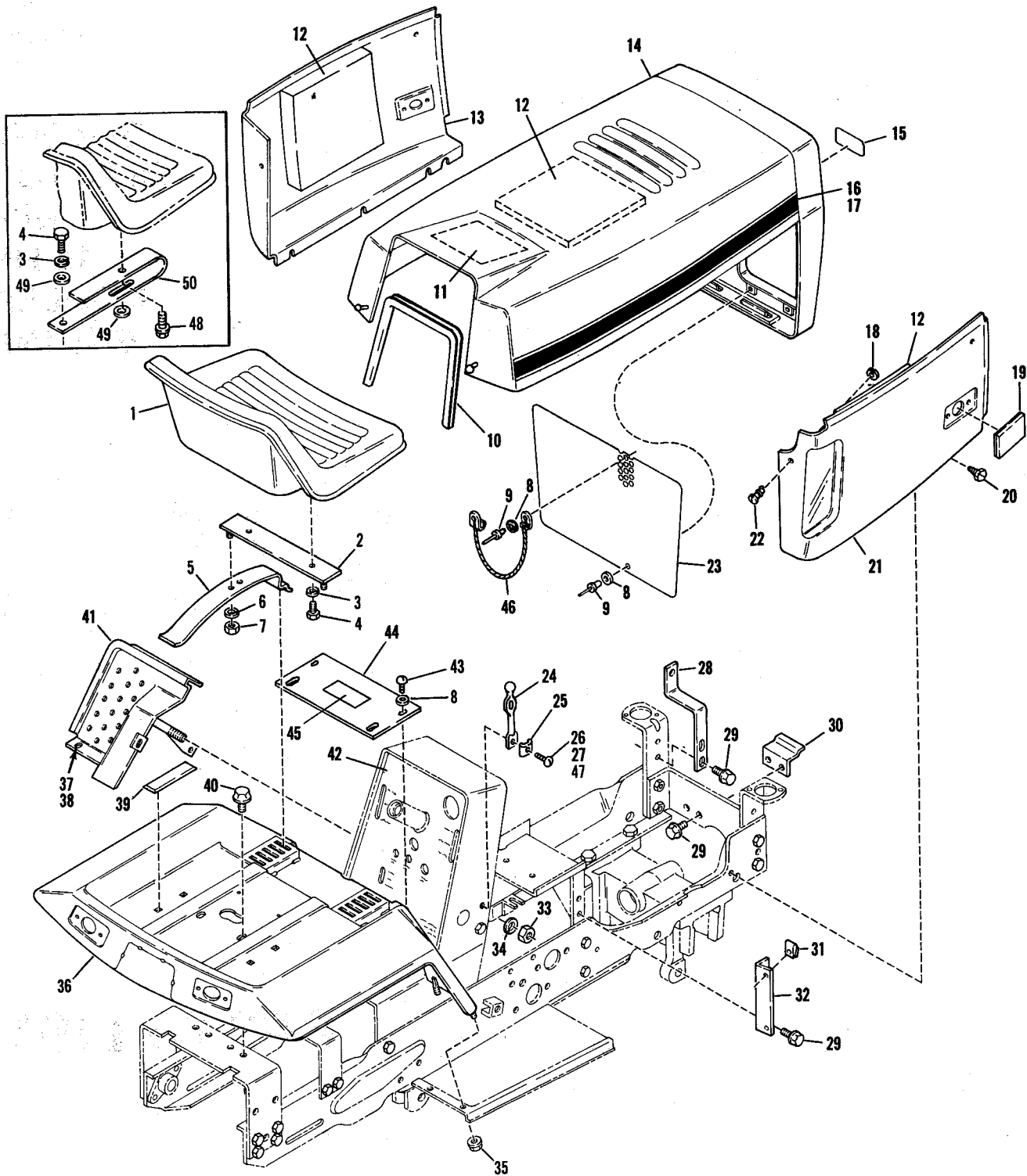


Figure 1 TRIM ASSEMBLY

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	1723525	Seat	1
2	1727007	Support Assembly (1)	1
3	● 1100243	Lockwasher, 3/8	2
4	● 1103212	Capscrew, 3/8-16 × 5/8	2
5	1726439	Spring Leaf (1)	2
6	● 1100242	Lockwasher, 5/16	4
7	● 1182563	Nut, 5/16-18	4
8	● 1185418	Flat Washer, 7/32	8
9	● 1185878	Pop Rivet, 3/16 × 3/8	6
10	1726932	Trim, Hood	1
11	1725624	Decal, (Service Instruction)	1
12	1726212	Foam, Acoustical	3
13	1724854	Side Panel, Left Hand	1
14	1727176	Grille and Hood Assembly	1
15	1727437	Decal, (Logo)	1
16	1727479	Decal, (Identification) Right Hand	1
17	1727480	Decal, (Identification) Left Hand	1
18	1725410	Retainer, Stud	4
19	1725489	Reflector	2
20	● 1724492	Screw, Flange Whiz-lock 1/4-20 × 1/2	6
21	1724853	Side Panel, Right Hand	1
22	1725409	Stud, 1/4 Turn	4
23	1725613	Screen, Grille (1)	1
	1727529	Screen, Grille (2)	1
24	1727127	Latch	2
25	1727126	Clip	2
26	● 1118172	Screw, No. 10-24 × 5/8 (1)	2
27	● 1185985	Nut, Keps No. 10-24 (1)	2

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
28	1724889	Support, Panel (1)	2
	1727739	Support, Panel (2)	2
29	● 1186308	Whiz-lock Screw, 1/4-20 × 1/2	12
30	1724887	Support, Grille	2
31	1725411	Receptacle, 1/4 Turn	4
32	1724890	Support, Rear Panel	2
33	● 1121513	Nut, 5/8-11	1
34	● 1100247	Lockwasher, 5/8	1
35	● 1186391	Flange Nut, 5/16-18	4
36	1725401	Rear Fender Assembly (1)	1
	1729345	Rear Fender Assembly (2)	1
37	● 1111250	Carriage Bolt, 1/4-20 × 1/2	2
38	● 1186389	Whiz-lock Nut, 1/4-20	2
39	1721369	Wear Strip (1)	2
40	● 1186327	Whiz-lock Screw, 5/16-18 × 1/2	4
41	1725286	Pedal, Left Hand	1
42	1725498	Decal, (Instrument Panel) (1)	1
	1727481	Decal (Instrument Panel) (2)	1
43	● 1185381	Screw, Thread Cutting, No. 10-24 × 1/2	2
44	1727164	Cover	1
45	1727446	Decal, (Instructions)	1
46	1725637	Lanyard	1
47	● 1728772	Pop Rivet, 3/16 (2)	2
48	● 1186345	Whiz-Lock Screw, 3/8-16 × 3/4 (2)	2
49	● 1107383	Flat Washer, 3/8 (2)	6
50	1728753	Spring, Seat (2)	2
N.I.	1725791	Spray Paint, Black	
N.I.	1725794	Spray Paint, White	

(1) Serial Numbers 0100101 thru 0199999

(2) Serial Numbers 0200101 thru 0299999

● Common Hardware - Purchase Locally (Grade 5 where Applicable)

BOLENS 16 HP TRACTOR

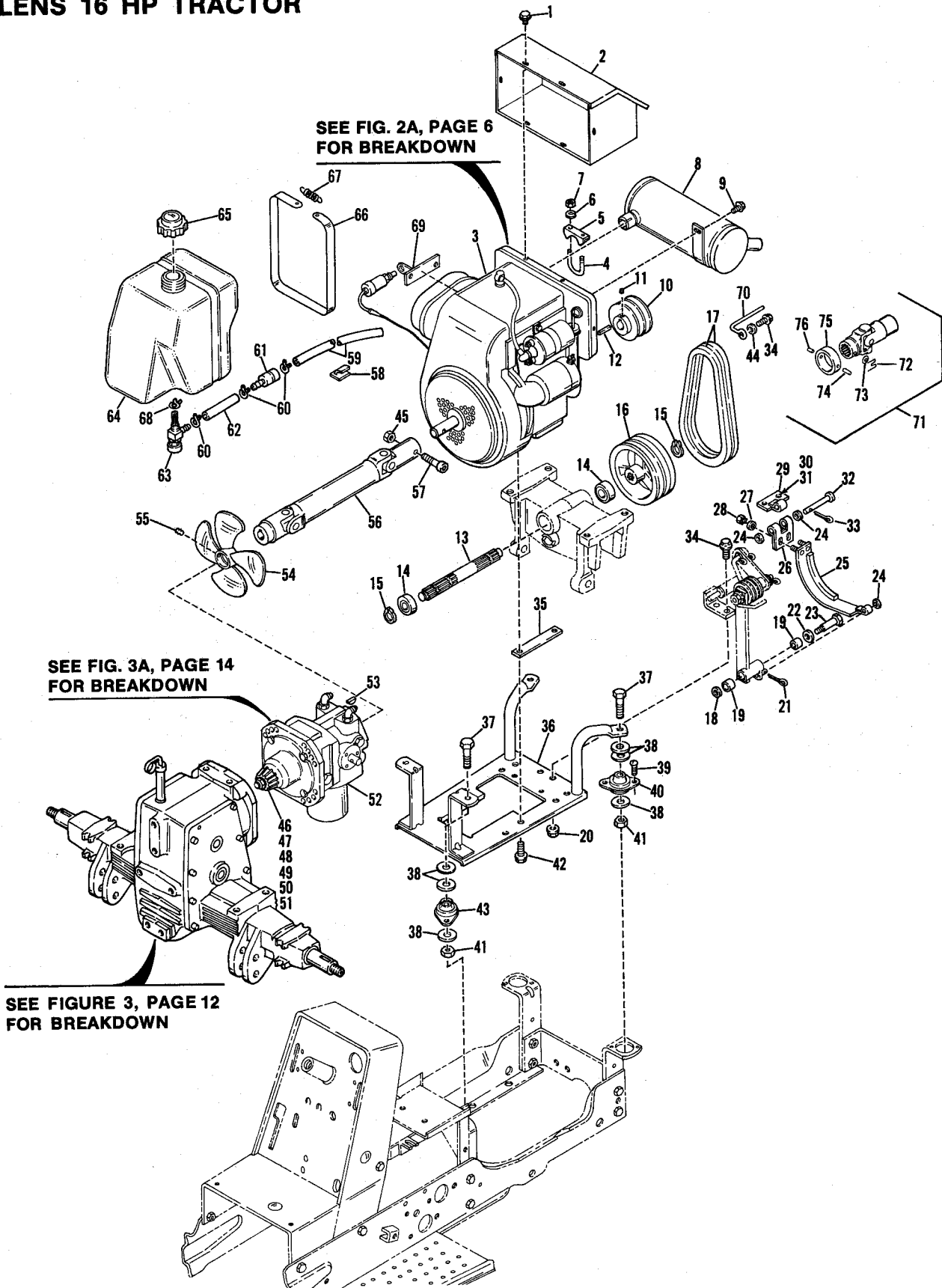


Figure 2 ENGINE AND DRIVE ASSEMBLY

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	● 1186307	Machine Screw, with Ext. tooth lockwasher No. 10-32 x 3/8	6
2	1727546	Muffler Shield Assembly	1
3	*	Engine, Kohler K341AQS ...	1
4	1723131	"U" Bolt	1
5	1723130	Saddle Clamp	1
6	● 1100242	Lockwasher, 5/16	2
7	● 1186211	Hex Nut, 5/16-24	2
8	1727984	Exhaust Muffler	1
9	● 1186327	Screw, Whiz-lock, 5/16-18 x 1/2	1
10	1727585	Engine Sheave	1
11	● 1185919	Set Screw, Socket Head, 5/16-18 x 3/8	2
12	1104338	Key, 1/4 square	1
13	1725090	Shaft, PTO	1
14	1725087	Ball Bearing	2
15	1185689	External Retaining Ring	2
16	1727977	Sheave, PTO	1
17	1724729	"V" Belt (1 pair)	2
18	● 1100243	Lockwasher, 3/8	1
19	1185581	Bearing Sleeve	2
20	● 1186393	Nut, Flange Whiz-lock, 3/8-16	2
21	● 1187386	Cotter Pin, 1/16 x 5/8	1
22	● 1107385	Flat Washer, 1/2	1
23	1724730	Shoulder Bolt	1
24	● 1107381	Flat Washer, 1/4	1
25	1727957	Belt Guide Assembly	1
26	1727953	Hinge Plate	1
27	● 1103959	Flat Washer, #10	2
28	● 1185985	Nut with External tooth lockwasher, #10-24	2
29	1727954	Hinge Support	1
30	● 1186309	Screw, Flange Whiz-lock, 1/4-20 x 5/8	1
31	● 1186389	Nut, Flange Whiz-lock, 1/4-20	1
32	1727952	Clevis Pin	1
33	● 1185147	Cotter Pin, 3/32 x 5/8	1
34	1186345	Screw, Whiz-lock, 3/8-16 x 3/4	2
35	1727742	Engine Spacer	2
36	1727876	Engine Mount Assembly	1
37	● 1100048	Capscrew, 3/8-16 x 2	4

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
38	● 1186047	Flat Washer, 3/8	12
39	● 1185381	Screw, Round Head Thread Cutting, #10-24 x 1/2	8
40	1724896	Mount	2
41	● 1110108	Lock Nut, 3/8-16	4
42	● 1186347	Screw, Flange Whiz-lock 3/8-16 x 1	4
43	1727989	Mount	2
44	● 1107383	Flat Washer, 3/8	1
45	● 1110106	Lock Nut, 1/4-20	1
46	1727265	Pinion, Bevel 18T	1
47	1728832	Shim	1
48	1728833	Shim	2
49	1727281	Washer	1
50	1727266	Washer	1
51	● 1186212	Nut, 3/8-24	1
52	***	Hydrostatic Package, L.H. (Incl. Ref. Nos. 46 thru 51) .	1
53	1186016	Woodruff Key, 3/16 x 5/8	1
54	1724818	Fan	1
55	● 1100113	Set Screw, 1/4-20 x 1/2	1
56	** 1724819	Drive Shaft	1
57	1727986	Hex Socket Screw	1
58	1806734	Clip	1
59	1727985	Fuel Line	1
60	1718185	Clamp	4
61	1727491	Fuel Line Filter	1
62	1725124	Fuel Line	1
63	1723518	Shut-Off Valve	1
64	1724893	Fuel Tank	1
65	1725868	Fuel Cap	1
66	1727918	Strap	1
67	1806648	Extension Spring	1
68	1723474	Hose Clamp	1
69	1729017	Bracket (1)	1
70	1725259	Belt Guide	1
71	1724836	Universal Joint (Incl. Ref. Nos. 72 thru 76	1
72	1723782	Spring, Return	1
73	1725334	Washer, Thrust	1
74	1118922	Pin, Groove, 3/16 x 1/2	1
75	1723781	Collar, Locking	1
76	1185916	Pin, Groove, 3/16 x 3/8	1

* Purchase Parts from your Kohler Outlet.

(1) Serial Numbers 0100101 thru 0199999

(2) Serial Numbers 0200101 thru 0299999

● Common Hardware - Purchase Locally (Grade 5 where Applicable)

** Repair Kit - 1724401 Rockwell or Weasler
1724208 NEAPCO

*** See Fig. 3A, Page 14

BOLENS 16 HP TRACTOR

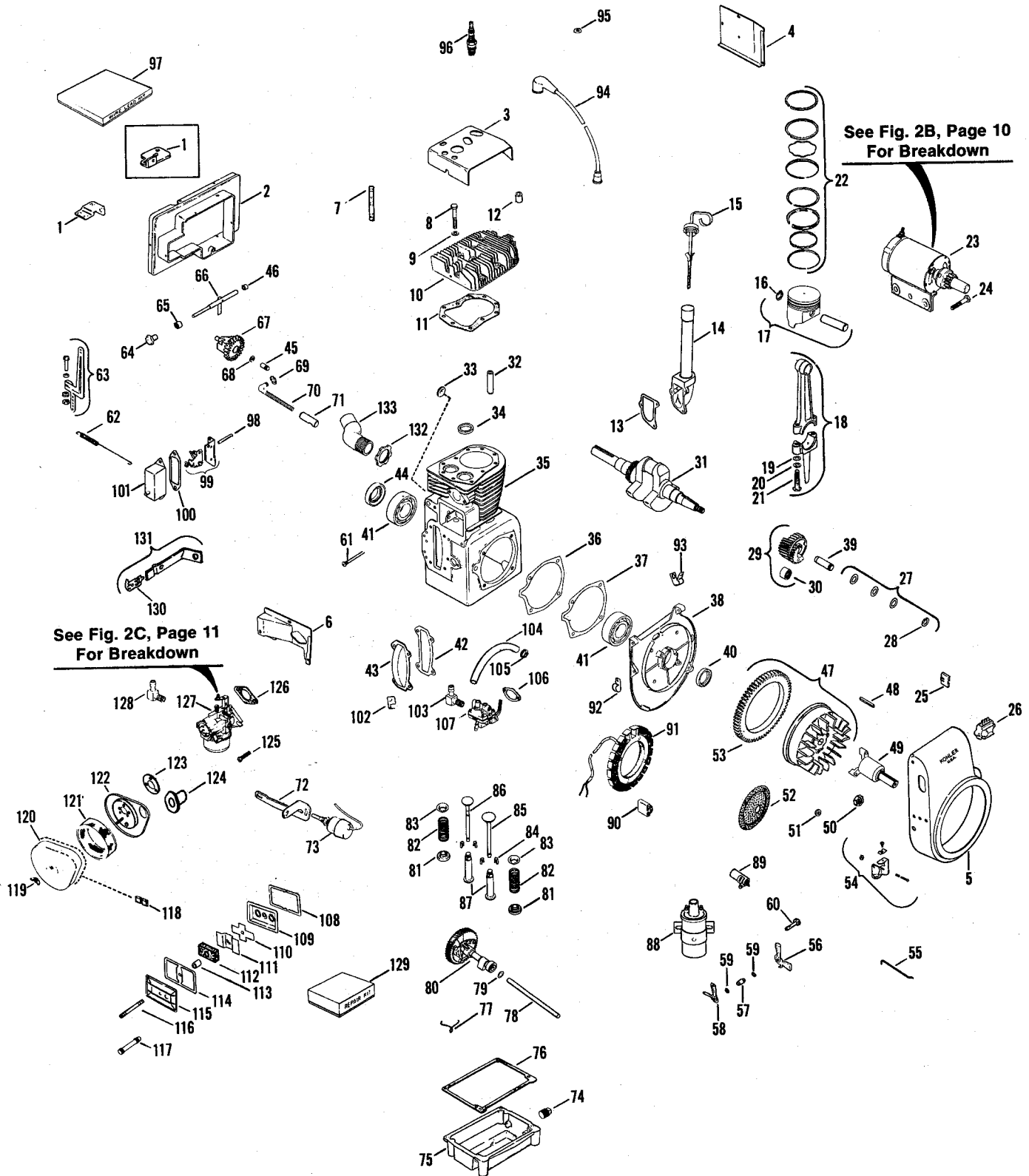


Figure 2A. KOHLER ENGINE ASSEMBLY (K341AQS)

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
BAFFLES AND SHROUD GROUP			
1	4512603	Bracket, Duct support (1) . . .	1
	4512604	Bracket, Duct support (2) . . .	1
2	4728101	Duct, Air (1)	1
	4728105	Duct, Air (2)	1
3	4712401	Baffle, Head (1)	1
	4712403	Baffle, Head (2)	1
4	4706303	Baffle, Cylinder (1)	1
	4706305	Baffle, Cylinder (2)	1
5	4702703	Housing, Blower (1)	1
	4702705	Housing, Blower (2)	1
6	4706301	Baffle, Side air	1
CYLINDER HEAD GROUP			
7	237522	Stud	1
8	270158	Screw, H.C.	9
9	270889	Washer	10
10	4501501	Head, Cylinder (1)	1
	4501504	Head, Cylinder (2)	1
11	4505201	Gasket, Head	1
12	X40071	Spacer	1
DIPSTICK GROUP			
13	237064	Gasket	1
14	4718002	Tube, Oil-fill (1)	1
	4718003	Tube, Oil-fill (2)	1
15	4703802	Dipstick (1)	1
	4703804	Dipstick (2)	1
PISTON AND ROD GROUP			
16	235811	Retainer	2
17	4507401	Piston-Assembly, Std. (Includes pin and retainers, Ref. No. 16)	1
	4507402	Piston, Assembly .003 (Includes pin and retainers, Ref. No. 16)	1
	4507403	Piston, Assembly .010 (Includes pin and retainers, Ref. No. 16)	1
	4507404	Piston, Assembly .020 (Includes pin and retainers, Ref. No. 16)	1
	4507405	Piston, Assembly .030 (Includes pin and retainers, Ref. No. 16)	1
18	4506701	Rod, Conn., Assembly (Std) (Includes Ref. Nos. 19, 20 & 21)	1
	4506702	Rod, Conn., Assembly (.010) (Includes Ref. Nos. 19, 20 & 21)	1
19	235003	Washer	2
20	X221	Washer, Split	2
21	4708601	Screw, Connecting Rod	2
22	4510801	Ring Set, Std. & .003 (Svc.)	1
	4510802	Ring Set, .010 (Service)	1
	4510803	Ring Set, .020 (Service)	1
	4510804	Ring Set, .030 (Service)	1
ELECTRIC START GROUP			
23	4509801	Starter	1
24	234948	Screw, H.C. 3/8-16 x 1-11/32	2
25	236602	Connector (1)	1
26	4140301	Regulator, Rectifier (2)	1

REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
CRANKSHAFT GROUP			
27	4775501	Kit, Spacer	1
28	X26934	Retainer	2
29	A236507	Gear, Assembly	2
30	236506	Bearing, Needle	2
31	4501408	Crankshaft	1
CRANKCASE GROUP			
32	235007S	Guide, Valve	2
33	X23011	Plug	1
34	230265	Insert, Intake	2
35	4500511	Block, Cylinder, Assembly	1
36	235070	Gasket, Bearing Plate	As Req'd.
37	235757	Gasket	1
38	4515602	Plate, Bearing	1
39	236559	Shaft	2
40	X27130	Seal, Front Oil	1
41	235376	Bearing, Ball	2
42	235025	Gasket, Cover	1
43	235026	Cover, Camshaft	1
44	X3799	Seal, Rear Oil	1
45	235125S	Shaft, Governor	1
46	234866	Bearing	1
N.I.	4500401	Gasket Set	
N.I.	4552210	Short Block	
FLYWHEEL GROUP			
47	A-237310	Flywheel, Assembly (1) (Incl. Ref. 54)	1
	4702502	Flywheel, Assembly (2) (Incl. Ref. 54)	1
48	X28615	Key	1
49	4514405	Shaft, Front Drive	1
50	X11914	Nut, Lock 5/8-18	1
51	271463	"O" Ring	4
52	237029	Screen, Grass	1
53	236285	Gear, Ring	1
GOVERNOR GROUP			
54	4721705	Bracket, Control, Assembly	1
55	4707901	Linkage, Choke	1
56	4709004	Lever, Throttle Control	1
57	4711202	Spacer	1
58	4709006	Lever, Choke Control	1
59	275690	Washer, Wave	2
60	231052	Swivel	2
61	231355	Pin, Governor Stop	1
62	4709101	Spring, Governor	1
63	4508703	Lever, Governor, Assembly	1
64	235476	Bushing	1
65	X40080	Spacer	1
66	237455	Shaft, Governor Cross	1
67	A237031	Gear, Governor	1
68	237022	Washer, Thrust	1
69	235278	Retainer, Throttle Rod	1
70	235277	Rod, Ball Joint	1
71	4520803	Ball Joint	1
72	4512605	Bracket, Solenoid	1
73	4543501	Solenoid	1
OIL PAN GROUP			
74	X752	Plug, Pipe 1/4	1
75	4719901	Pan, Oil	1
76	235353	Gasket, Oil Pan	1

Order Parts From Your Local Kohler Outlet.

- (1) Kohler Spec 71172A
- (2) Kohler Spec 71176A

SEE PAGE 9 FOR REF. NOS. 77 THRU 133.

BOLENS 16 HP TRACTOR

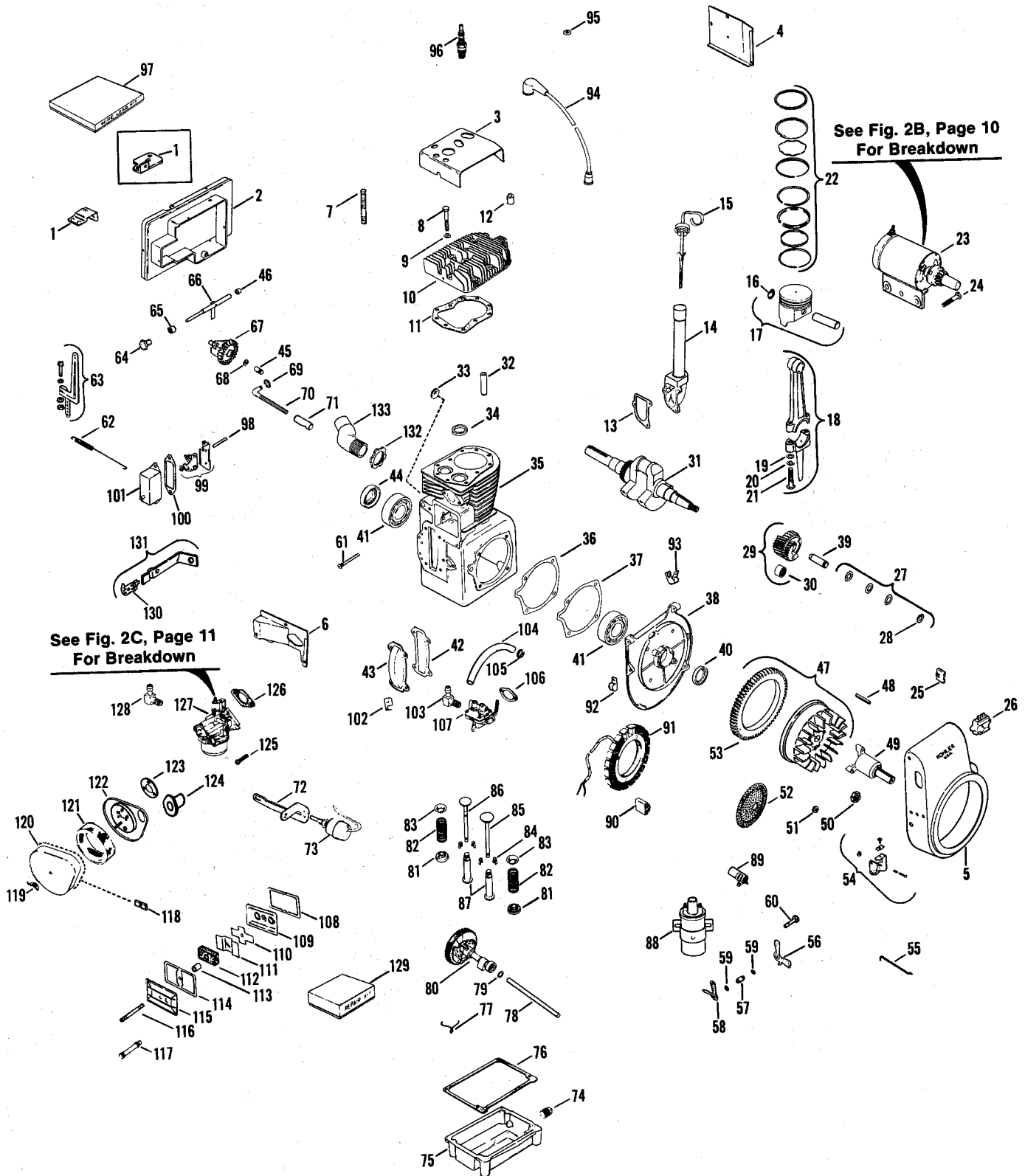


Figure 2A. KOHLER ENGINE ASSEMBLY (K341AQS) Continued

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

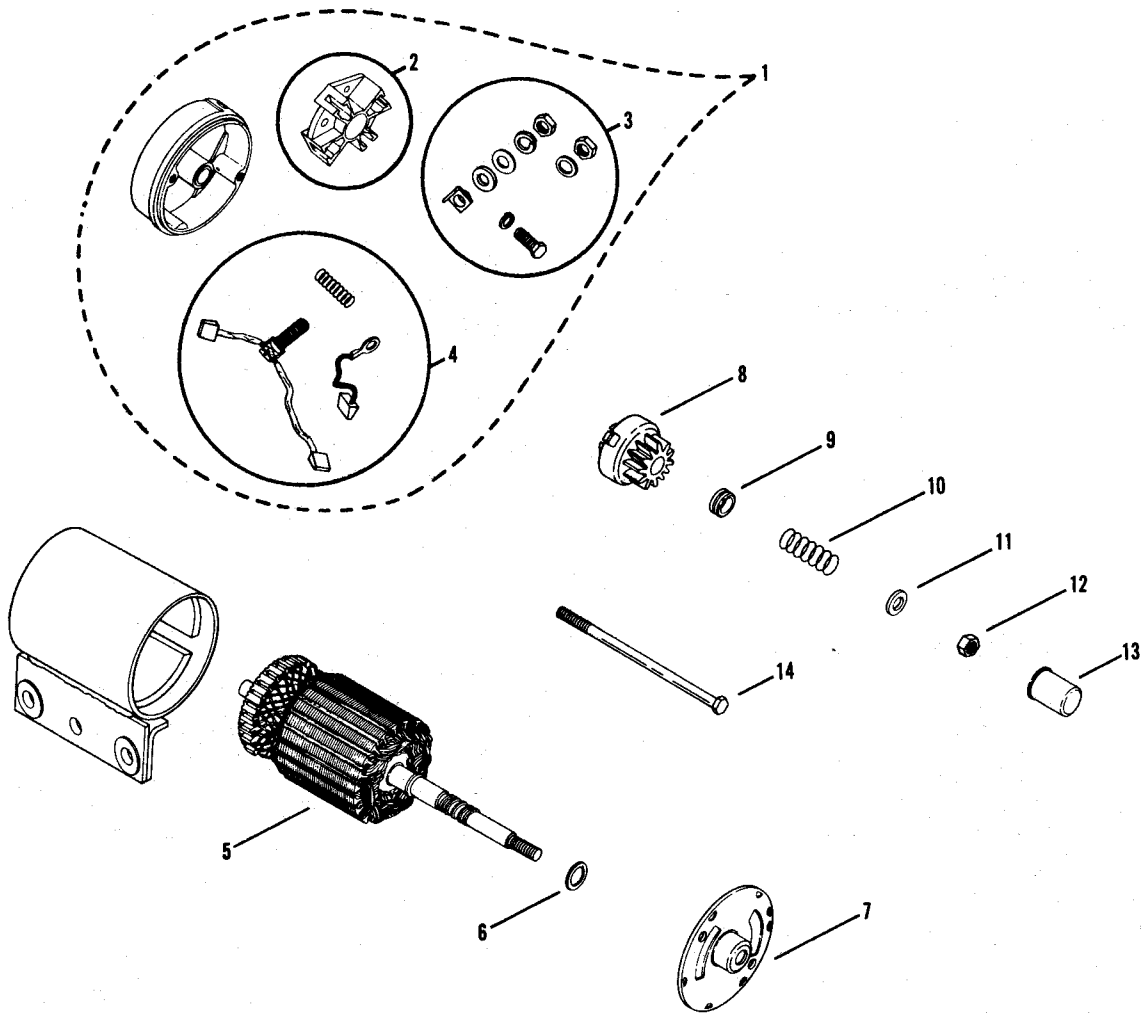
REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
CAMSHAFT AND VALVES GROUP			
77	4708901	Spring, Actuating	1
78	235053	Pin, Camshaft	1
79	275066	Spacer, Camshaft .005	As Req'd.
	275067	Spacer, Camshaft .010	As Req'd.
80	E235646	Camshaft, Assembly	1
81	230020	Rotator	2
82	235168	Spring, Valve	2
83	235011	Retainer, Spring Upper	2
84	240013	Keeper, Valve	4
85	235582	Valve, Intake	1
86	237672	Valve, Exhaust	1
87	D235327	Tappet	2
IGNITION GROUP			
88	231281	Coil, Ignition	1
89	230722	Condenser	1
90	237757	Connector	1
91	237716	Kit, Stator (1)	1
	237878	Kit, Stator (2)	1
92	234511	Clip	1
93	X7281	Clip, Cable	1
94	241389	Lead	1
95	4731301	Grommet, Spark Plug	1
96	235040S	Plug, Spark	1
97	238054	Lead Kit, No. 14 Wire	1
98	X4891	Rod, Breaker	1
99	A220474	Breaker, Assembly	1
100	220174	Gasket, Breaker	1
101	232535	Cover, Breaker	1
102	275182	Clip	1
FUEL PUMP GROUP			
103	X3911	Elbow, Hose	2
104	X6971	Line, Fuel	1

REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
105	X4269	Clamp, Hose	2
106	4704101	Gasket, Fuel Pump	1
107	A235807	Pump, Fuel	1
BREATHER AND VENT GROUP			
108	235048	Gasket, Valve Cover	1
109	235631	Plate, Breather	1
110	235047	Reed, Breather	1
111	235117	Baffle, Breather	1
112	235118	Filter, Breather	1
113	231032	Seal, Breather	1
114	275144	Gasket, Valve Cover	1
115	4709601	Cover, Valve	1
116	275220	Stud, Valve Cover	1
117	4732601	Hose, Breather	1
AIR INTAKE GROUP			
118	4703203	Seal	1
119	X2767	Nut, Wing	1
120	4708201	Cover, Air Cleaner	1
121	4708301	Element	1
122	4720101	Base, Air Cleaner	1
123	275341	Gasket, Air Horn	1
124	4713401	Tube	1
CARBURETOR GROUP			
125	X7701	Screw, Slotted Head	2
126	4704901	Gasket, Carburetor	1
127	4505306	Carburetor, Assembly	1
128	X3911	Elbow, Hose	1
129	231555	Repair Kit	1
130	235603	Clip	1
131	4721704	Bracket, Choke, Assembly	1
EXHAUST GROUP			
132	4510001	Nut, Lock	1
133	4505404	Elbow, Exhaust	1

Order Parts From Your Local Kohler Outlet.

- (1) Kohler Spec 71172A
- (2) Kohler Spec 71176A

BOLENS 16 HP TRACTOR

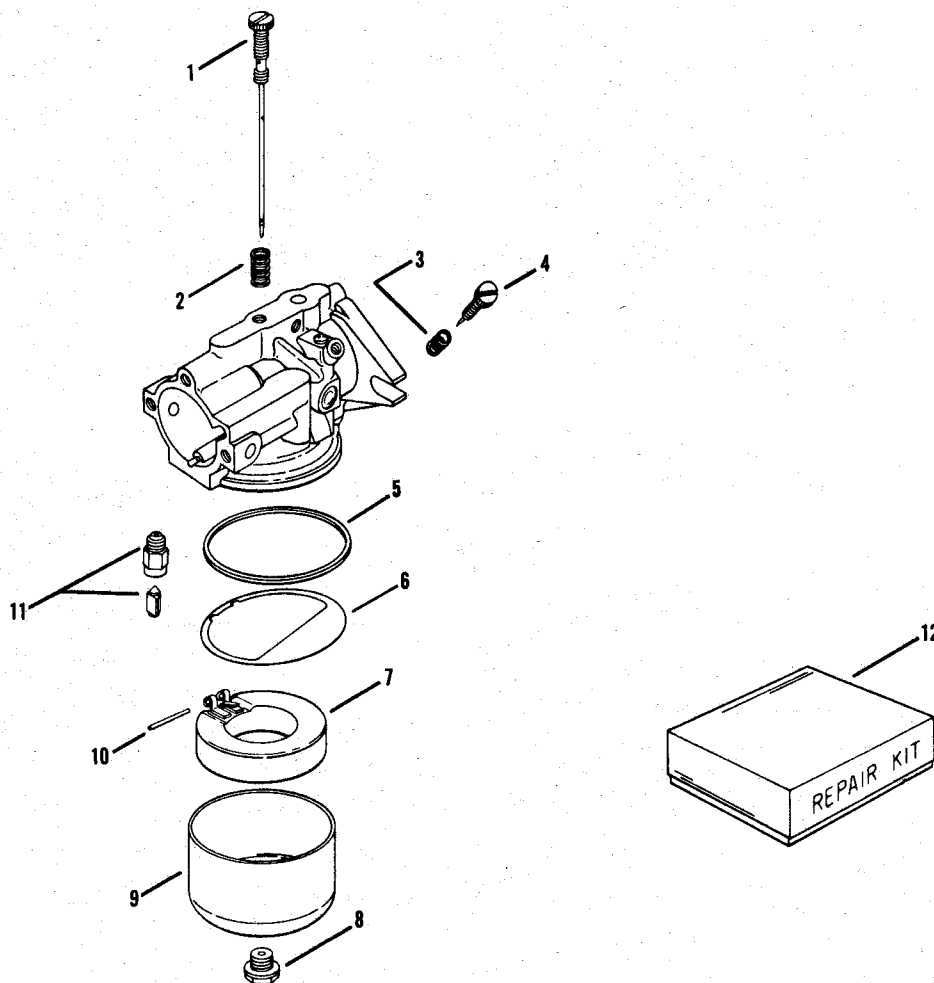


REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
	4509801	Starter, Complete Assy.	1
1	237368	Kit, commutator cap - assembly	1
2	237762	Kit, brush holder	1
3	237761	Kit, hardware	1
4	237367	Kit, brush and spring	1
5	237846	Armature, Assembly	1
6	237363	Washer, Armature Thrust ...	1

REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
7	237650	Cap, Assembly (D.E.)	1
8	237809	Drive, Assembly	1
9	237647	Spacer, Dust Cover	1
10	237357	Spring, Anti-drift	1
11	237645	Spacer, Stop Gear	1
12	237644	Nut, Stop	1
13	237643	Cover, Dust	1
14	237649	Bolt, Thru	2

Order Parts From Your Local Kohler Outlet.

Figure 2B. KOHLER STARTER ASSEMBLY (4509801)



REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
	4505306	Carburetor, Complete Assembly	1
1	4536802	Needle, Main Fuel Adjusting	1
2	200383	Spring, Main Fuel Adjusting Needle	1
3	200380	Spring, Idle Fuel Adjusting Needle	1
4	275231	Needle, Idle Fuel Adjusting	1

REF. NO.	KOHLER PART NO.	DESCRIPTION	NO. REQ'D.
5	200375	Gasket, Bowl	1
6	200439	Gasket, Anti-Splash	1
7	200408	Float with Lever	1
8	235447	Screw, Bowl Retainer	1
9	235448	Bowl	1
10	200376	Pin	1
11	200443	Needle and Seat	1
12	231555	Repair Kit	1

Order Parts From Your Local Kohler Outlet.

Figure 2C. KOHLER CARBURETOR ASSEMBLY (4505306)

BOLENS 16 HP TRACTOR

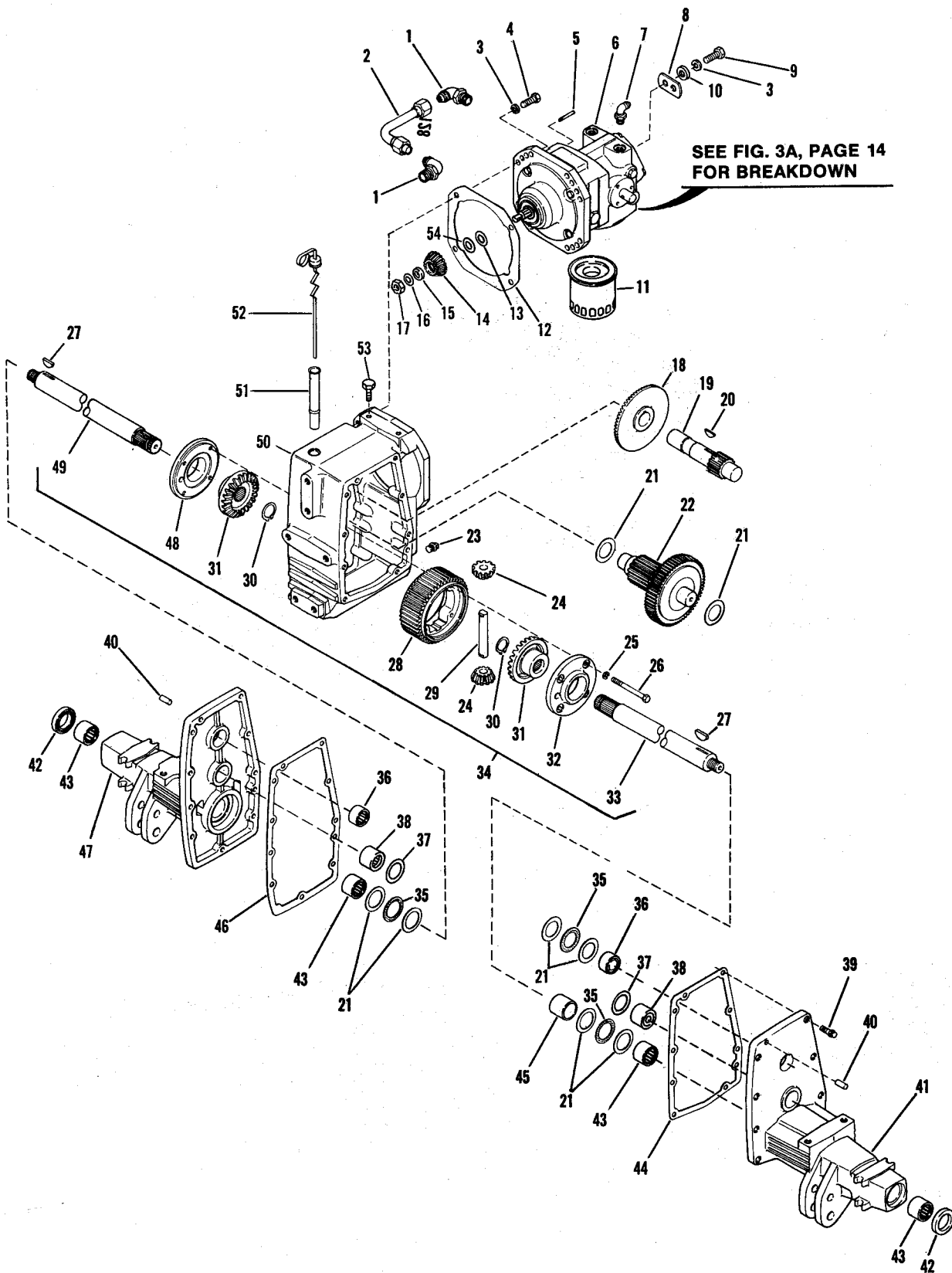


Figure 3 HYDRO AND TRANSMISSION ASSEMBLY

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	1724390	Fitting, 90° Elbow	2
2	1724247	Tube Assembly, 37° Flare	1
3	● 1100243	Lockwasher, 3/8	4
4	● 1100043	Capscrew, 3/8 × 1-1/4	3
5	1185376	Roll Pin, 3/16 × 1-1/2	1
6	*	Hydrostatic Package, L.H.	1
7	1185737	Fitting, 90° Elbow	2
8	1725415	Neutral Anchor	1
9	● 1100047	Capscrew, 3/8 × 1-1/2	1
10	● 1107383	Flat Washer, 3/8	1
11	1726450	Oil Filter	1
12	1720282	Gasket	1
13	1728832	Shim	1
14	1727265	Pinion, Bevel 18T	1
15	1727281	Washer	1
16	1727266	Washer	1
17	● 1186212	Nut, 3/8-24	1
18	1724079	Bevel Gear, 56T	1
19	1724810	Pinion Shaft, 17T	1
20	1100279	Key, Woodruff	1
21	1186002	Race, Thrust .125	8
22	1724812	Clutster Gear, 16T & 53T	1
23	1185930	Pipe Plug (Square Head Magnetic)	1
24	1713466	Pinion, Bevel 10T	2
25	● 1100242	Lockwasher, 5/16	4
26	● 1186015	Capscrew, 5/16-18 × 3-1/2 H.T.	4
27	1100281	Woodruff Key, 5/16 × 1-1/8	2
28	1724085	Bull Gear, 44T	1
29	1724075	Pinion Shaft	1
30	1185732	Retaining Ring, External	2

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
31	1724074	Bevel Gear, 22T	2
32	1724071	Carrier, Bull Gear, R.H.	1
33	1724808	Axle, Right Hand	1
34	1724205	Differential Assy. (Incl. Ref. Nos. 24 thru 33, 48 and 49)	1
35	1185764	Roller Bearing, Thrust	3
36	1185774	Bearing, Needle (Closed End)	2
37	1719271	Shim	As Req'd.
38	1186010	Bearing, Needle (Closed End)	2
39	● 1185771	Screw, Counterbore Cap, 3/8-16 × 1	17
40	1110189	Dowel Pin, 3/8 × 1	4
41	1724534	Cover, Transaxle Housing, Right Hand	1
42	1185301	Oil Seal	2
43	1187206	Bearing, Needle	4
44	1724086	Gasket, Cover, R.H.	1
45	1724809	Spacer	1
46	1724087	Gasket, Cover, L.H.	1
47	1724536	Cover, Transaxle Housing, Left Hand	1
48	1724072	Carrier, Bull Gear, L.H.	1
49	1724807	Axle, Left Hand	1
50	1724102	Housing, Transaxle	1
51	1724090	Tube	1
52	1724092	Dip Stick	1
54	● 1186347	Lock Screw, 3/8-16 × 1	2
55	1728833	Shim	2
N.I.	1721514	Trans. Fluid, 2-1/2 gal.	
N.I.	1719650	Trans. Fluid, 1 gal.	
N.I.	1721599	Trans. Fluid, 1 qt.	

- (1) Serial Numbers 0100101 thru 0199999
- (2) Serial Numbers 0200101 thru 0299999

* See Fig. 3A, Page 14

- Common Hardware - Purchase Locally (Grade 5 where Applicable)

BOLENS 16 HP TRACTOR

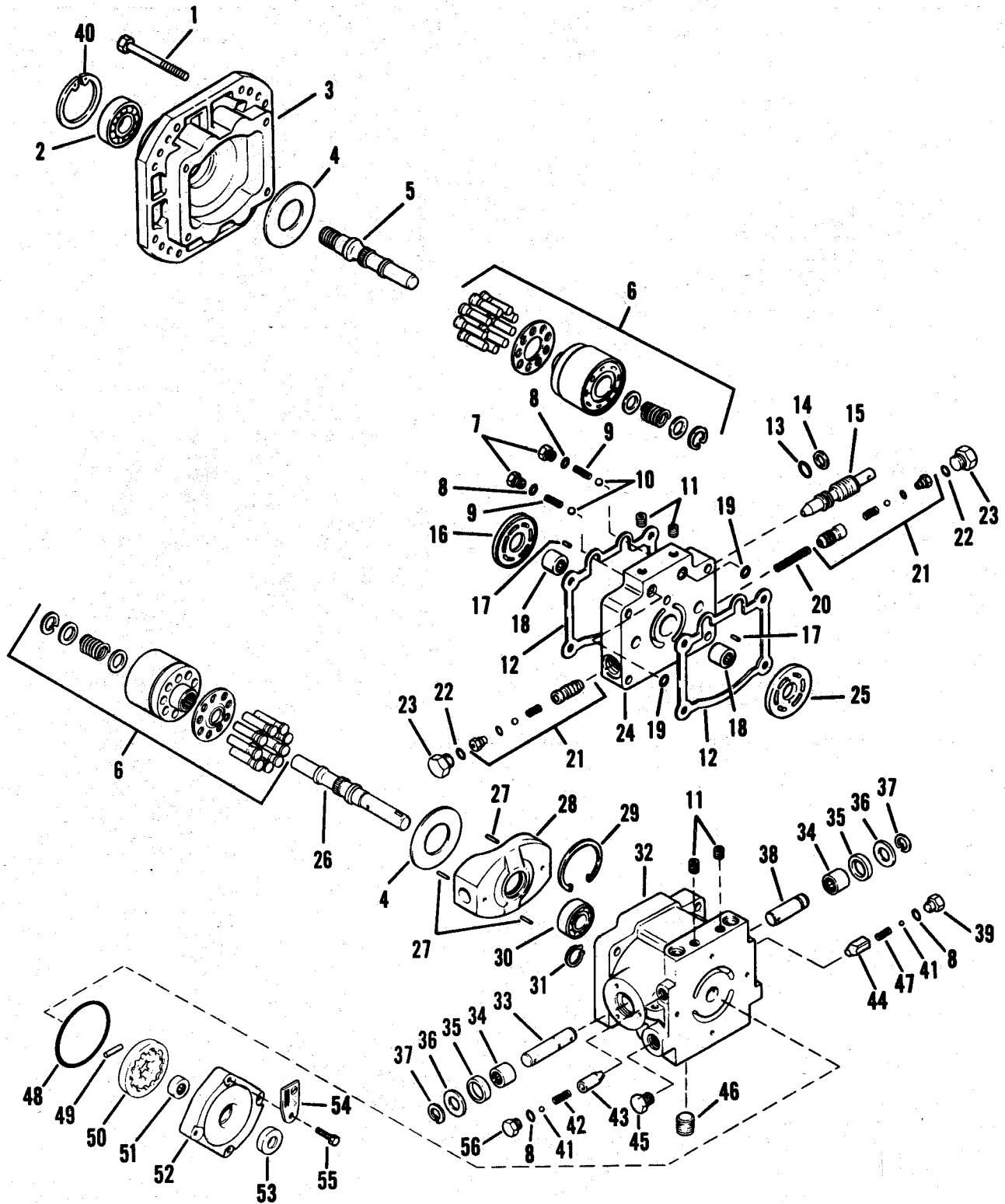


Figure 3A. HYDRO ASSEMBLY

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	1110644	Cap Screw	4
2	1728251	Bearing	1
3	1728201	Motor Housing (1)	1
	1728887	Motor Housing (2)	1
4	1728202	Thrust Plate	2
5	1728885	Motor Shaft	1
6	1728204	Cylinder Block Assy.	2
7	1728205	Check Valve Cap	2
8	1728252	"O" Ring	4
9	1728206	Spring	2
10	1728207	Ball	2
11	1728208	Pipe Plugs	4
12	1728209	Gaskets	2
13	1177388	"O" Ring	1
14	1728210	Back Up Ring	1
15	1728211	Free Wheeling Valve	1
16	1728212	Motor Valve Plate	1
17	1728213	Pin	2
18	1728253	Bearing	2
19	1728214	"O" Ring	2
20	1728215	Acceleration Valve Spring	1
21	1728216	Acceleration Valve Assembly	2
22	1185773	"O" Ring	2
23	1728217	Hex Plug	2
24	1728218	Center Section	1
25	1728220	Pump Valve Plate L.H.	1
26	1728222	Pump Shaft	1
27	1728223	Roll Pins	3
28	1728224	Pump Swash Plate	1

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
29	1728254	Snap Ring	1
30	1728255	Bearing	1
31	1728226	Snap Ring	1
32	1728227	Pump Housing	1
33	1728228	Control Shaft	1
34	1728229	Bearing	2
35	1728230	Seal	2
36	1728231	Washer	2
37	1728225	Retaining Ring	2
38	1728232	Trunnion Shaft	1
39	1728233	Hex Plug (Implement)	1
40	1728886	Snap Ring (2)	1
41	1728234	Shim Pack	As Req'd.
42	1728235	Charge Relief Valve Spring	1
43	1728236	Poppet Valve (Charge)	1
44	1728237	Poppet Valve (Implement)	1
45	1728238	Hex Plug	1
46	1728239	Filter Union	1
47	1728240	Implement Relief Valve Spring	1
48	1728241	"O" Ring	1
49	1728242	Drive Pin	1
50	1728243	Charge Pump (Geroter)	1
51	1728250	Needle Bearing	1
52	1728246	Charge Pump Housing	1
53	1728248	Seal	1
54	1728249	Identification Tag	1
55	1100808	Cap Screw	4
56	1728888	Hex Plug (charge)	1

- (1) Sundstrand Type 90-1149 (Bolens #1727788)
- (2) Sundstrand Type 90-1154 (Bolens #1727788)

**NOTE: ALWAYS REFER TO IDENTIFICATION TAG (REF. #54)
TO OBTAIN SUNDSTRAND MODEL AND TYPE NUMBER.
TYPE NUMBER PRECEDES SERIAL NUMBER.**

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	1725393	Control, Choke (Incl. Ref. No. 2) (1)	1
	1729521	Control, Choke (Incl. Ref. No. 2) (2)	1
2	1724527	Knob Only	2
3	● 1185985	Nut, External Lockwasher, No. 10-24	4
4	1727944	Pivot Support Assembly	1
5	1727987	Control, Throttle (Incl. Ref. No. 2)	1
6	● 1185850	Cotter Pin, 5/64 × 3/4	3
7	1724741	Pin	1
8	1724744	Lever, Lift	1
9	● 1100356	Cotter Pin, 3/32 × 1	1
10	1113527	Retaining Ring	4
11	1724703	Pin, Cylinder Anchor	1
12	1724520	Cylinder (Incl. Ref. Nos. 41 thru 52)	1
13	1185739	Elbow, 90°	2
14	1719178	Hose, Cylinder	2
15	1717563	Connector	2
16	1185479	Roll Pin, 3/32 × 5/8	1
17	1724742	Link, Lever	1
18	1724743	Grip, Handle	1
19	1724722	Valve	1
	1726213	Valve Repair Kit	1
20	1724737	Tubing Assembly, L.H.	1
21	● 1100241	Lockwasher, 1/4	2
22	● 1121507	Nut, 1/4-20	2
23	1185737	Elbow, 90°	4
24	1724736	Tubing Assembly, R.H.	1
25	1724707	Support, Bearing	1
26	● 1100243	Lockwasher, 3/8	2
27	● 1100068	Cap screw, 3/8-16 × 3/4 H.T.	2
28	1186037	Flange Bearing	2
29	1725602	Washer, Bowed	2
30	1724697	Anchor, Lift Arm	2
31	● 1100350	Cotter Pin, 1/8 × 1	2
32	1724705	Pin, Shoulder	2
33	1724694	Pivot Shaft Assembly	1
34	1724702	Pin, Anchor	2
35	1118808	Retaining Ring	4
36	1724704	Pin, Cylinder Rod	1
37	1724739	Pin, Latch	2
38	1724738	Spring, Torsion	2
39	1725452	Knob, Latch Pin	2

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
40	1185376	Drive Pin, 3/16 × 1-1/2	2
41	1724512	Piston Rod Assembly	1
42	1185266	Oil Seal	1
43	1118735	Snap Ring	1
44	1186019	Ring Washer	1
45	1177395	"O" Ring	1
46	1186018	Ring Washer	3
47	1186017	"O" Ring	2
48	1724511	Cylinder Head	1
49	1724515	Piston	1
50	1177509	"O" Ring	1
51	● 1110154	Lock Nut, 5/8-18	1
52	1724516	Cylinder Tube Assembly	1
53	1186393	Nut, Flange Whiz-lock	1
54	1727939	Idler Arm Assembly	1
55	1727978	Idler Sheave	2
56	● 1100346	Cotter Pin, 3/32 × 3/4	6
57	1727935	Idler Anchor	1
58	● 1107383	Flat Washer, 3/8	11
59	1727947	Link Assembly	1
60	1711164	Bearing	2
61	1727983	Spring Anchor	1
62	1727981	Extension Spring	1
63	1727590	Cable Assembly	1
64	1727980	Extension Spring	1
65	● 1186329	Screw, Whiz-lock, 5/16-18 × 3/4	4
66	● 1186391	Nut, Whiz-lock, 5/16-18	4
67	1727982	Control Cable Support Assembly	1
68	● 1107385	Flat Washer, 1/2	1
69	1185581	Bearing	2
70	1727951	Pivot Rod Assembly	1
71	1723428	Compression Spring	1
72	● 1186333	Screw, Whiz-lock, 5/16-18 × 1-1/2	1
73	1727532	Control Cable Support Assembly	1
74	1708126	Clevis Pin, 3/8 × 3/16	1
75	1715711	Handle Grip	1
76	1727579	Handle	1
77	1704692	Drive Pin	1
78	● 1110107	Locknut, 5/16-18	1
79	1723384	Special Washer	1
80	1727940	Spacer	1

(1) Serial Numbers 0100101 thru 0199999

(2) Serial Numbers 0200101 thru 0299999

- Common Hardware - Purchase Locally (Grade 5 where Applicable)

BOLENS 16 HP TRACTOR

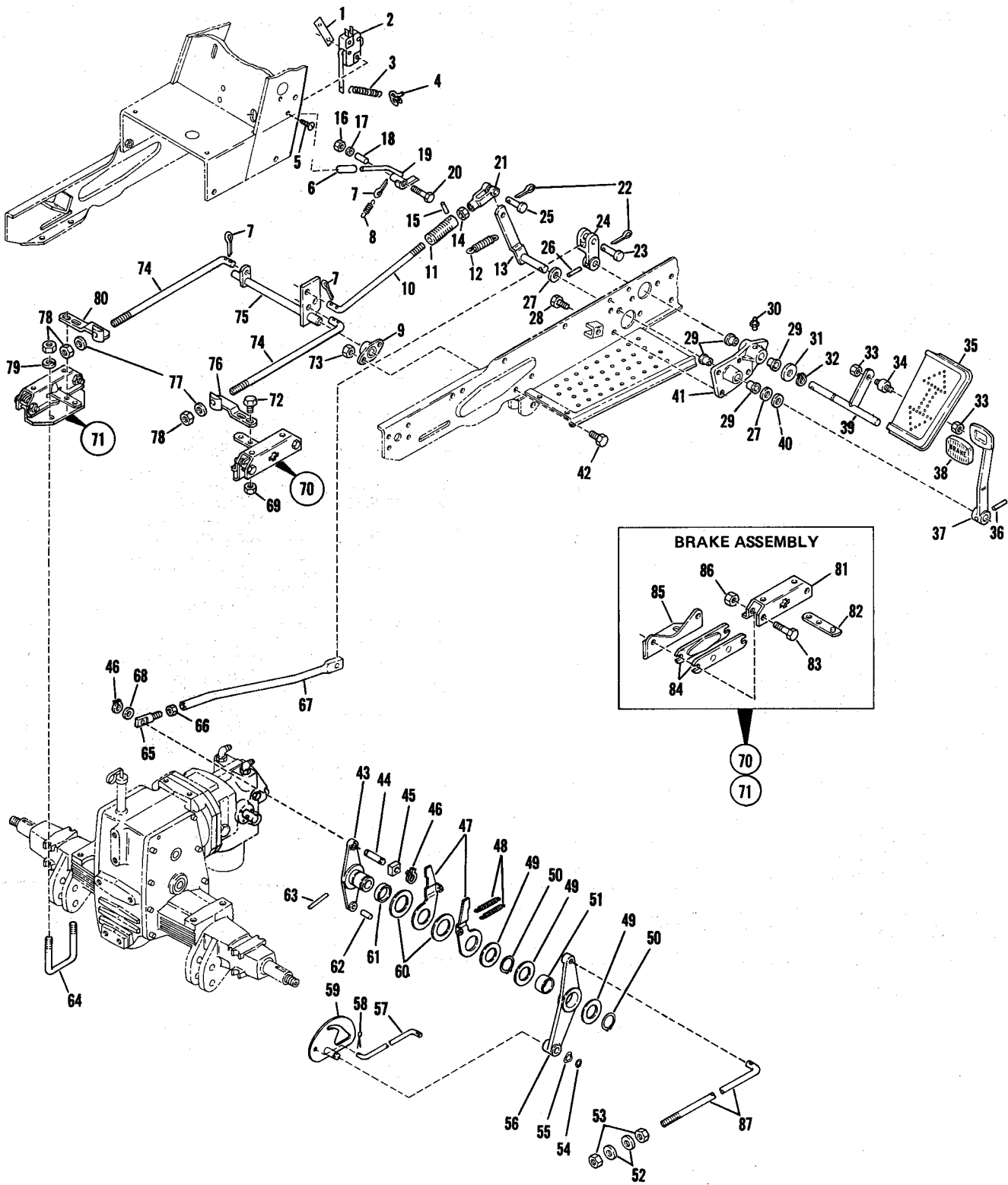


Figure 5 BRAKE AND HYDRO CONTROL ASSEMBLIES

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	1727777	Speed Nut, Twin Type	2
2	1725550	Switch, Brake	1
3	1725826	Spring	1
4	1725536	Clamp	1
5	● 1725552	Screw, Fill. Head, No. 4-40 × 3/4	2
6	1725483	Grip, Handle	1
7	● 1185147	Cotter Pin, 3/32 × 5/8	8
8	1725354	Spring, Extension	1
9	1724457	Flanged Bearing	2
10	1725347	Rod, Adjusting	1
11	1725348	Ratchet, Brake	1
12	1725367	Spring, Extension	1
13	1725346	Arm, Brake	1
14	● 1100197	Nut, 3/8-24	1
15	1177625	Drive Pin	1
16	● 1110107	Lock Nut, 5/16-18	1
17	● 1107382	Flat Washer, 5/16	1
18	1725353	Spacer	1
19	1725355	Latch, Brake	1
20	● 1111606	Capscrew, 5/16-18 × 2 H.T.	1
21	222007	Yoke, Clutch Rod	1
22	● 1100349	Cotter Pin, 1/8 × 3/4	2
23	1724632	Clevis Pin	1
24	1724467	Arm, Control	1
25	1112587	Clevis Pin, 5/16 × 1-3/16	1
26	1713432	Drive Pin, 3/16 × 1-1/4	1
27	1715301	Washer, Thrust	As Req'd.
28	● 1186345	Screw, Whiz-lock, 3/8-16 × 3/4	5
29	1185802	Flange Bearing	4
30	1185976	Grease Fitting	1
31	● 1100266	Flat Washer, 5/8	1
32	1185668	Retaining Ring	1
33	● 1186389	Flange Nut, 1/4-20	2
34	1725335	Rubber Mount	1
35	1725287	Pedal, R.H.	1
36	1185232	Roll Pin, 3/16 × 1-1/4	1
37	1725520	Pedal, Brake	1
38	1725518	Pad, Pedal	1
39	1725338	Shaft, Control	1
40	1701411	Washer, Bowed	1
41	1725030	Speed Control Bearing Support	1
42	● 1100068	Capscrew, 3/8-16 × 3/4 H.T.	4
43	1724449	Speed Control Arm	1
44	1724445	Control Pin	1
45	1720699	Cushion Block	1

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
46	1185219	Retaining Ring	2
47	1725359	Neutralizer Arm	2
48	1724582	Extension Spring	2
49	1720529	Thrust Washer	3
50	1185732	Retaining Ring, External	2
51	1724581	Bearing	1
52	● 1100265	Flat Washer, 7/16	2
53	● 1121510	Nut, 7/16-14	2
54	1118804	Retaining Ring	1
55	1706782	Wave Washer	1
56	1724452	Neutral Stop Arm	1
57	1724820	Lockplate Control Rod	1
58	● 1100346	Cotter Pin, 3/32 × 3/4	2
59	1724443	Lockplate Assembly	1
60	1720361	Thrust Washer	2
61	1720706	Bearing	1
62	1110187	Dowel Pin	1
63	1186022	Roll Pin, Spirol	1
64	1724468	"U" Bolt, 3/8-16	2
65	1724446	Rod End	1
66	● 1100203	Nut, 1/2-13	1
67	1725343	Rod, Speed Control	1
68	1890948	Washer	1
69	● 1186393	Nut, Whiz-lock, 3/8-16	4
70	1724599	Brake Assy., R.H. (Incl. Ref. Nos. 81 thru 85)	1
71	1724580	Brake Assy., L.H. (Incl. Ref. Nos. 81 thru 85)	1
72	● 1186347	Screw, Whiz-lock, 3/8-16 × 1	4
73	● 1186393	Flange Nut, 3/8-16	4
74	1725364	Rod, Brake	2
75	1725358	Shaft, Transfer	1
76	1725362	Extension, Brake Arm, Right Hand	1
77	● 1100256	Flat Washer, 3/8	2
78	● 1110108	Lock Nut, 3/8-16	7
79	● 1185715	Lockwasher, 3/8	4
80	1725363	Extension, Brake Arm, Left Hand	1
81	1724587	Bracket, Secondary	1
82	1724588	Lever, Actuating	1
83	1724590	Bolt	2
84	1724589	Stator Plate	2
85	1724473	Support, Brake	1
86	1724591	Lock Nut	2
87	1724444	Rod, Neutral Adjuster	1

- (1) Serial Numbers 0100101 thru 0199999
- (2) Serial Numbers 0200101 thru 0299999

● Common Hardware - Purchase Locally (Grade 5 where Applicable)

BOLENS 16 HP TRACTOR

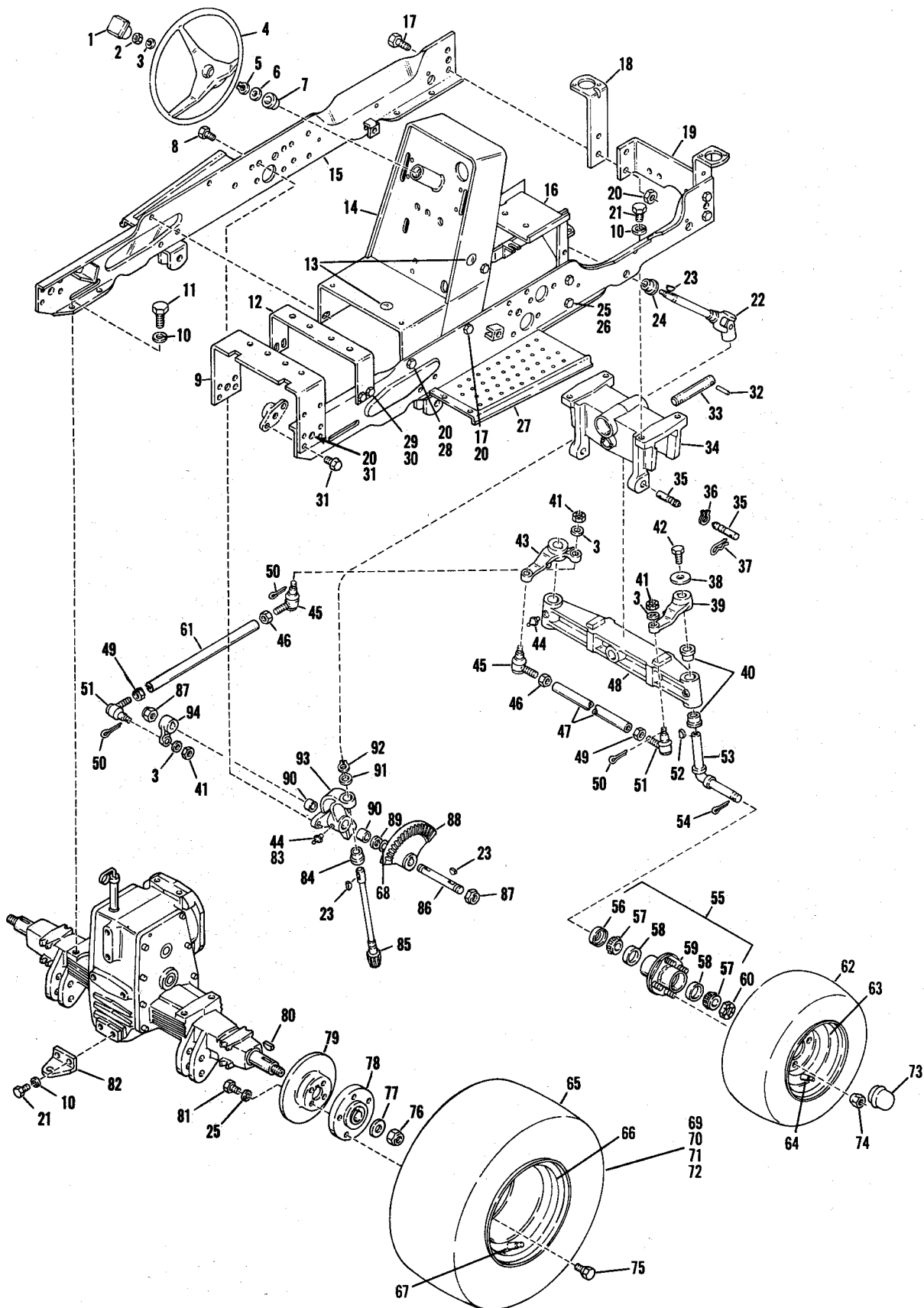
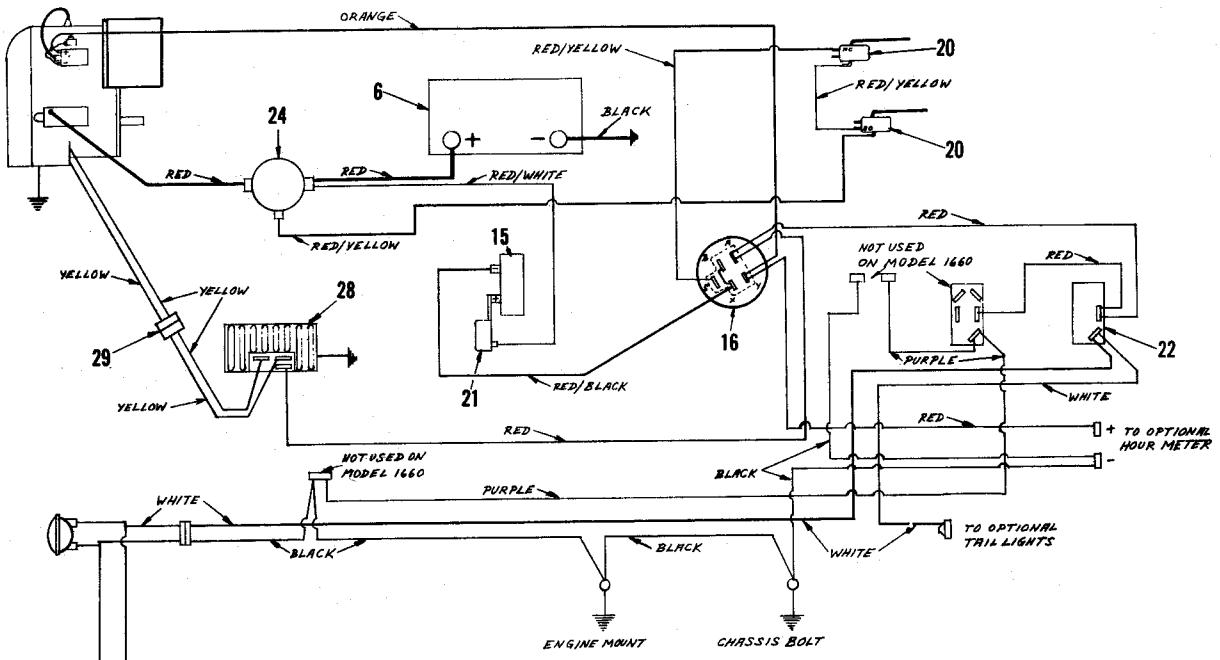


Figure 6 FRAME, STEERING AND AXLE ASSEMBLIES

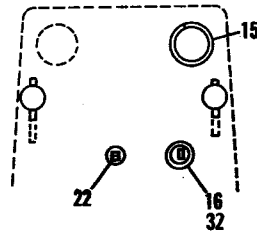
BOLENS 16 HP TRACTOR

Serial Numbers 0100101 thru 0199999



FRONT VIEW OF CONSOLE

REAR VIEW OF IGNITION SWITCH



REAR VIEW OF CONSOLE

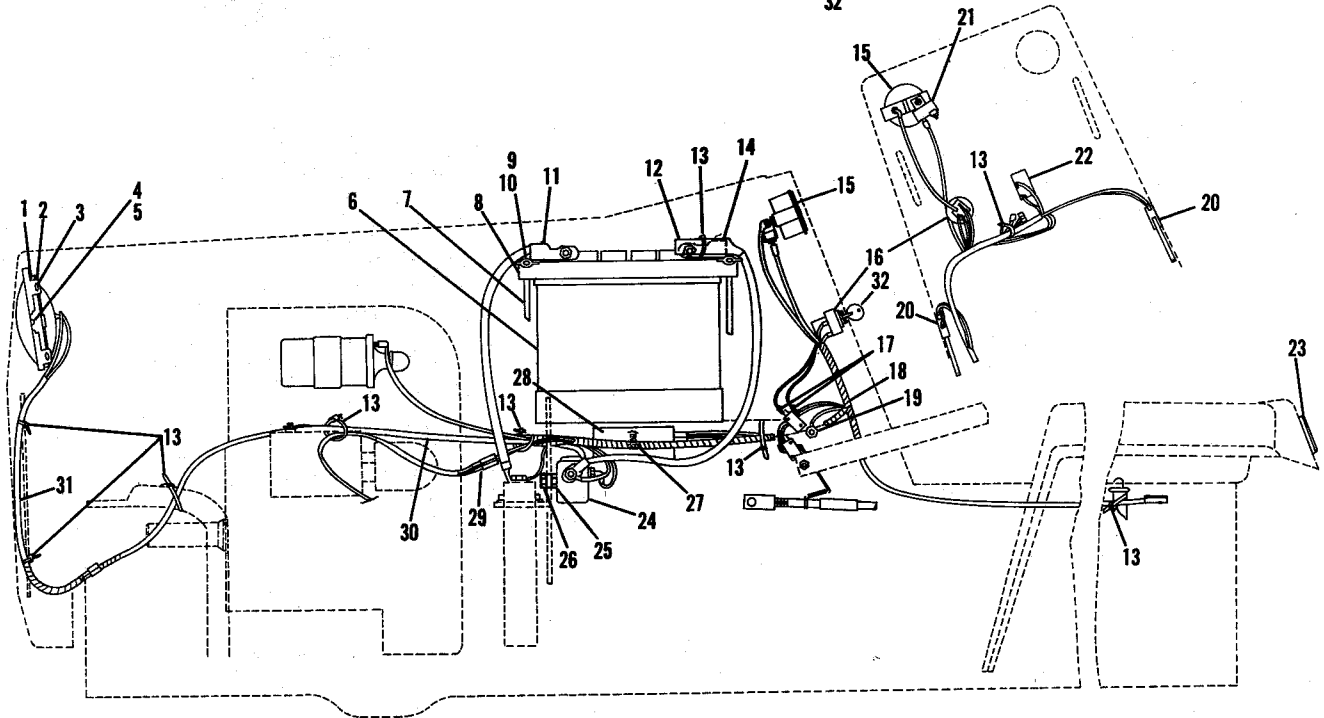
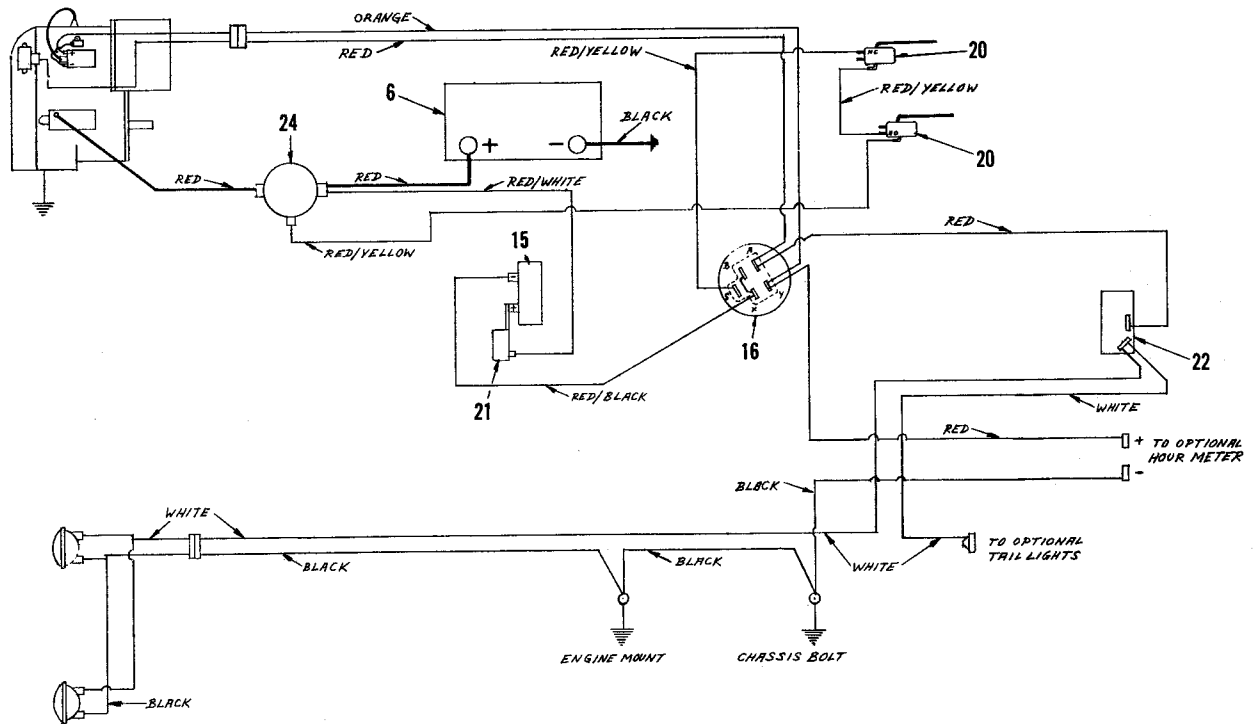
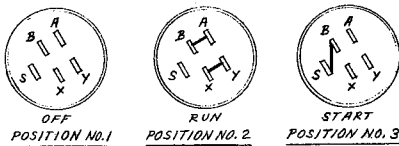


Figure 7 ELECTRICAL SYSTEM

MODEL 1660 (QS-16)- Serial Number 0100101 thru 0299999



REAR VIEW OF IGNITION SWITCH



Serial Numbers 0200101 thru 0299999

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	1726435	Headlight (Mfg. No. 4406-1)	2
2	1806805	Retaining Plate	2
3	1806808	Retainer	2
4	1103959	Flat Washer	4
5	● 1185878	Pop Rivet, 3/16 × 3/8	4
6	1718027	Battery	1
7	1724895	"U" Bolt	1
8	1724360	Clamp	1
9	1709652	Wing Nut	2
10	1107381	Flat Washer	2
11	1725373	Battery Cable, Negative	1
12	1721413	Battery Boot	1
13	1805345	Cable Tie	9
14	1725374	Battery Cable, Positive	1
15	1725031	Ammeter	1
16	1721409	Switch, Ignition (Incl. Ref. No. 32)	1

REF. NO.	PART NO.	DESCRIPTION	NO. REQ'D.
17	1727800	Connector Body	2
18	1727787	Main Wiring Harness (1)	1
	1729367	Main Wiring Harness (2)	1
19	● 1121509	Nut, 3/8-16	1
20	1725550	Switch	2
21	1725375	Circuit Breaker	1
22	1724894	Switch	1
23	1725615	Reflector	2
24	1717048	Solenoid	1
25	● 1185456	Nut, 1/4-20	2
26	1186309	Screw	2
27	1185912	Nut (1)	2
28	* 1725406	Regulator/Rectifier, 15 Amp(1)	1
29	1727801	Connector Body (1)	1
30	1722731	Starter Cable	1
31	1727169	Headlight Harness	1
32	1718266	Key Only	1

- (1) Serial Numbers 0100101 thru 0199999
- (2) Serial Numbers 0200101 thru 0299999

● Common Hardware - Purchase Locally (Grade 5 where Applicable)

**Not Stocked. Purchase from your local automotive or electrical supplier.

*1660 with Kohler Engine Spec 71172A only— Refer to Fig. 2A for later engines which include the regulatory rectifier.



BOLENS 16 HP TRACTOR

MODEL 1660 (QS-16)- Serial Number 0100101
thru 0299999