

OPERATION AND PARTS MANUAL



MULTIQUIP®

**MAYCO SERIES
MODEL MG30T2D
MODEL MG30M2D
PLASTER MORTAR PUMPS**

**MODEL MG30T3D
MODEL MG30M3D
FIREPROOFING PUMPS**

Revision #3 (09/15/11)

THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

MG-30 PUMP — SUGGESTED SPARE PARTS

ESSICK 120SM MIXER 1 TO 3 UNITS WITH HATZ 1B30 DIESEL ENGINE EM-120SM 1 TO 3 UNITS

Qty.	P/N	Description
1	EM200293	PADDLE ARM TOW SIDE
1	EM200294	PADDLE ARM CENTER TOW SIDE
1	EM200295	PADDLE ARM CENTER ENGINE SIDE
1	EM200296	PADDLE ARM ENGINE SIDE
3	EM200863	RUBBER BLADE KIT (STEEL DRUM)
2	EM200297	U-BOLT
2	EM200268	J-BOLT
2	EM902153	BEARING, PADDLE SHAFT
3	EM963157	CONNECTOR BOLT
1	EM934041	CLUTCH, DRIVEN MEMBER
12	EM200301	PACKING RINGS
4	EM200286	CARRIAGE BOLT
4	EM200794	ADJUSTMENT SPRING
4	EM200285	GLAND
2	EM200303	RING FOLLOWER
2	50449200	GLOW PLUGS
3	50426000	FILAMENT, AIR FILTER
3	01635200	FUEL FILTER
3	50404900	KEYS, IGNITION
1	50268600	TEMP SWITCH
1	50469100	OIL PRESSURE SWITCH

MG-30 PUMP (MOBILE AND TAG) 1 TO 3 UNITS WITH HATZ 2M41LZ DIESEL ENGINE

Qty.	P/N	Description
4	EM402581	QUARTER ROUND SEAL
6	EM402580	O-RING
2	EM914312	SEAL HOPPER
2	EM400296	PLUG, SAFETY PRESSURE RELEASE
4	EM915003	O-RING
4	EM400581	BLACK BALL PRESSURE RELEASE
2	EM402421	OILER PLATE
2	EM402439	STUD
2	EM900227	V-BELT TRANSMISSION
1	EM900082	V-BELT AIR COMPRESSOR
2	EM400668	CAP, NOZZLE
2	EM400687	1/2" ORIFICE
2	EM400688	9/16" ORIFICE
2	EM400689	5/8" ORIFICE
3	40065300	OIL FILTER
3	5031700	PREFILTER, FUEL
3	50251500	FUEL FILTER
3	50345700	FUEL FILTER
3	00952900	ELEMENT, AIR FILTER
1	50141500	V-BELT
2	50163900	GLOW PLUGS
1	40021300	OIL PRESSURE SWITCH
1	50268600	TEMP SWITCH

PLASTER/MORTAR

MODEL MG30-2 (2-INCH OUTLET) USED ON CYLINDER DIAMETER OF 3.50" 1 TO 3 UNITS

Qty.	P/N	Description
2	EM402394	BACKUP WASHER
4	EM402393	LEATHER CUP
4	EM402395	FELT RING
4	EM402392	WASHER
4	EM402390	RUBBER EXPANDER WASHER
2	EM402391	EXPANDER INSERT
2	EM402389	COMPRESSION WASHER
4	EM400581	BLACK BALL
2	EM402402	VALVE SEAT W/PIN
2	EM402415	SLEEVE
2	EM966089	CAP SCREW

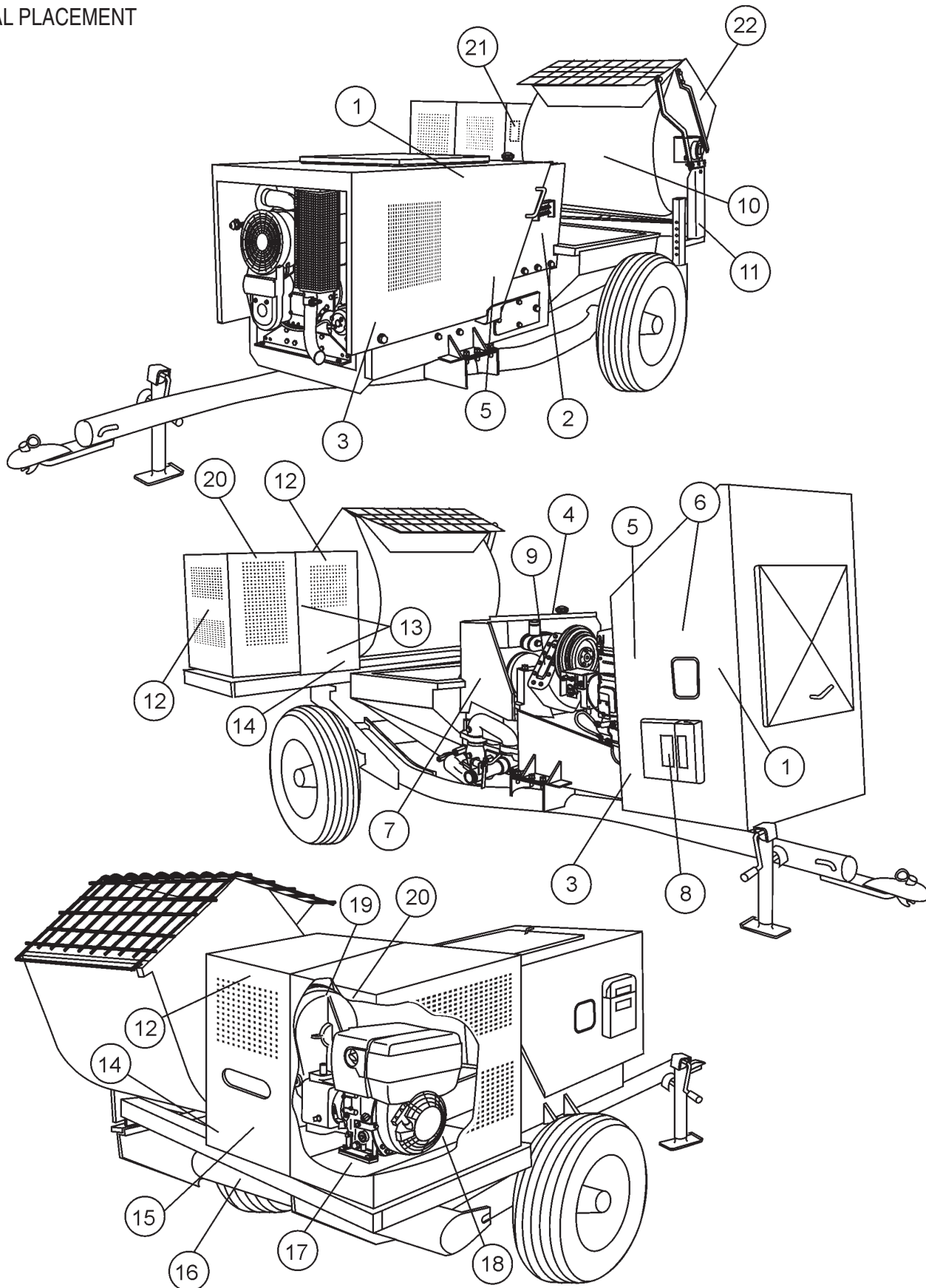
FIREPROOFING

MODEL MG30-3 (3-INCH OUTLET) USED ON CYLINDER DIAMETER OF 3.75" 1 TO 3 UNITS

Qty.	P/N	Description
4	EM403004	BACKUP WASHER
4	EM403005	LEATHER CUP
4	EM403002	FELT RING
4	EM402390	RUBBER EXPANDER WASHER
4	EM403007	EXPANDER WASHER
4	EM403008	COMPRESSION WASHER
4	EM400581	BALL STEEL
4	EM402995	VALVE SEAT W/O PIN

MG-30 PUMP — DECAL PLACEMENT

DECAL PLACEMENT



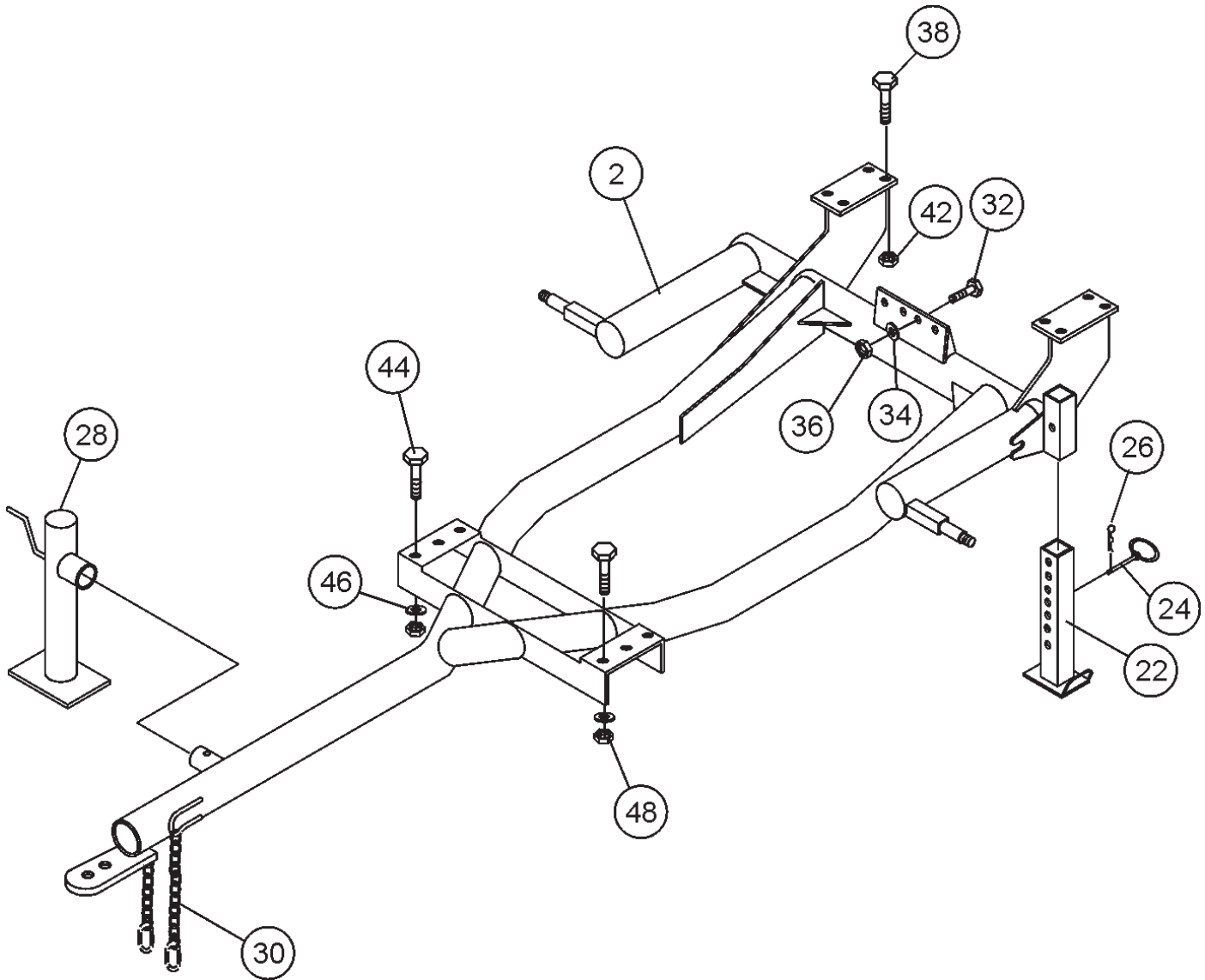
MG-30 PUMP — DECAL PLACEMENT

PLACEMENT

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM1028	DECAL, MQ MAYCO	2	
2	EM513164	DECAL, GREASE DAILY	1	
3	EM513159	DECAL, MG30-M2D	2	MOBILE UNIT ONLY
3	EM513158	DECAL, MG30-T2D	2	TAG UNIT ONLY
4	EM995	DECAL, USE DESIEL FUEL ONLY	1	
5	EM508594	DECAL, CAUTION - READ MANUAL	2	
6	EM513161	DECAL, CONTROL BOX	1	
7	EM932	DECAL, CAUTION - MANIFOLD	1	
8	34536	DECAL, OWNERS MANUAL	1	
9	EM507607	DECAL, CAUTION- ADD OIL	1	
10*	EM510915	DECAL, MQ ESSICK LARGE	1	
11*	13118	DECAL, POWDER COATED	1	MOBILE UNIT ONLY
12*	TBD	DECAL, MQ ESSICK SMALL	3	MOBILE UNIT ONLY
13*	EM948630	DECAL, PUSH TO STOP	2	MOBILE UNIT ONLY
14*	DCL151	DECAL, INSPECT BEFORE TOWING	2	MOBILE UNIT ONLY
15*	EM948501	DECAL, ESSIC SAFTEY	1	MOBILE UNIT ONLY
16*	EM511709	DECAL, 800-30-MAYCO	1	MOBILE UNIT ONLY
17*	EM948005	DECAL, ENGINE OIL FILLER	1	MOBILE UNIT ONLY
18*	EM948012	DECAL, CLUTCH OIL FILLER	1	MOBILE UNIT ONLY
19*	EM948013	DECAL, TRANSMISSION OIL FILLER	1	MOBILE UNIT ONLY
20*	DCL160A	DECAL, WARNING - CRUSH/CUT HAZ.	2	MOBILE UNIT ONLY
21*	EM948121	DECAL, IMPORTANT - PADDLE SHAFT	1	MOBILE UNIT ONLY
			PLACE ON INSIDE OF CABINET
22*	513479	DECAL, WARNING - SAFTEY GRATE	1	MOBILE UNIT ONLY

MG-30 PUMP — FRAME ASSY.

FRAME ASSY.



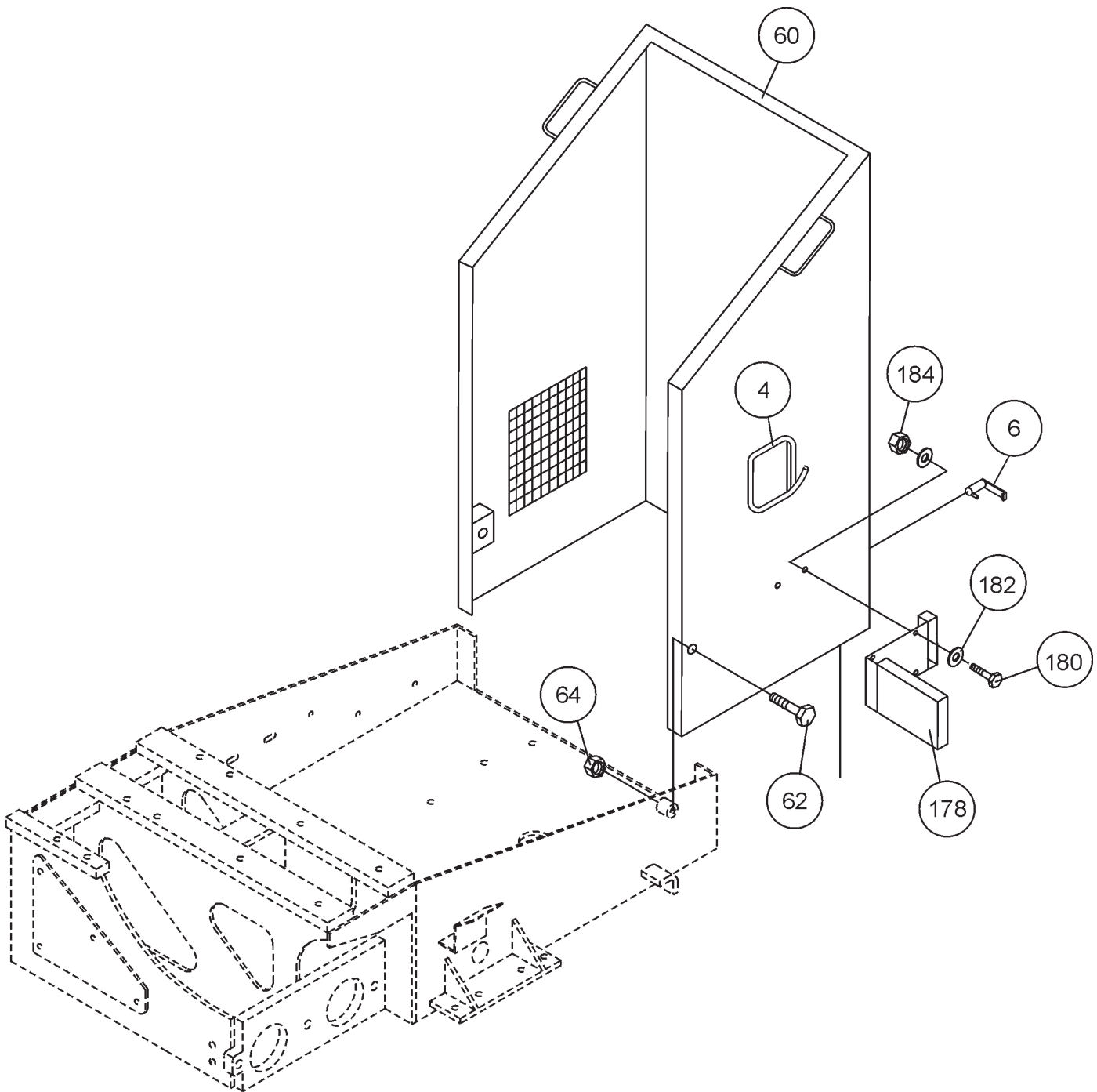
MG-30 PUMP — FRAME ASSY.

FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	EM402975	TRAILER FRAME	1	
22	EM70186	JACK STAND, REAR	1	
24	EM744	PIN ASSEMBLY - 1/2" X 4"	1	
26	EM745	COTTER PIN	1	
28	EM25610	JACK STAND	1	
30	EM01005	CONNECTOR LINKS	2	
32	492394	HEX HEAD BOLT, 1/2 X 1-1/2	4	
34	492600	WASHER	4	
36	492584	HEX HEAD NUT 1/2 IN	4	
38	EM963105	HEX HEAD BOLT 1/2 X 2	8	
42	492584	HEX HEAD NUT 1/2 IN	8	
44	EM492455	HEX HEAD BOLT 1/2 IN X 1-1/2 IN	6	
46	EM621	WASHER 1/2	6	
48	492584	HEX HEAD NUT 1/2 IN	6	

MG-30 PUMP — HOOD ASSY.

HOOD ASSY.

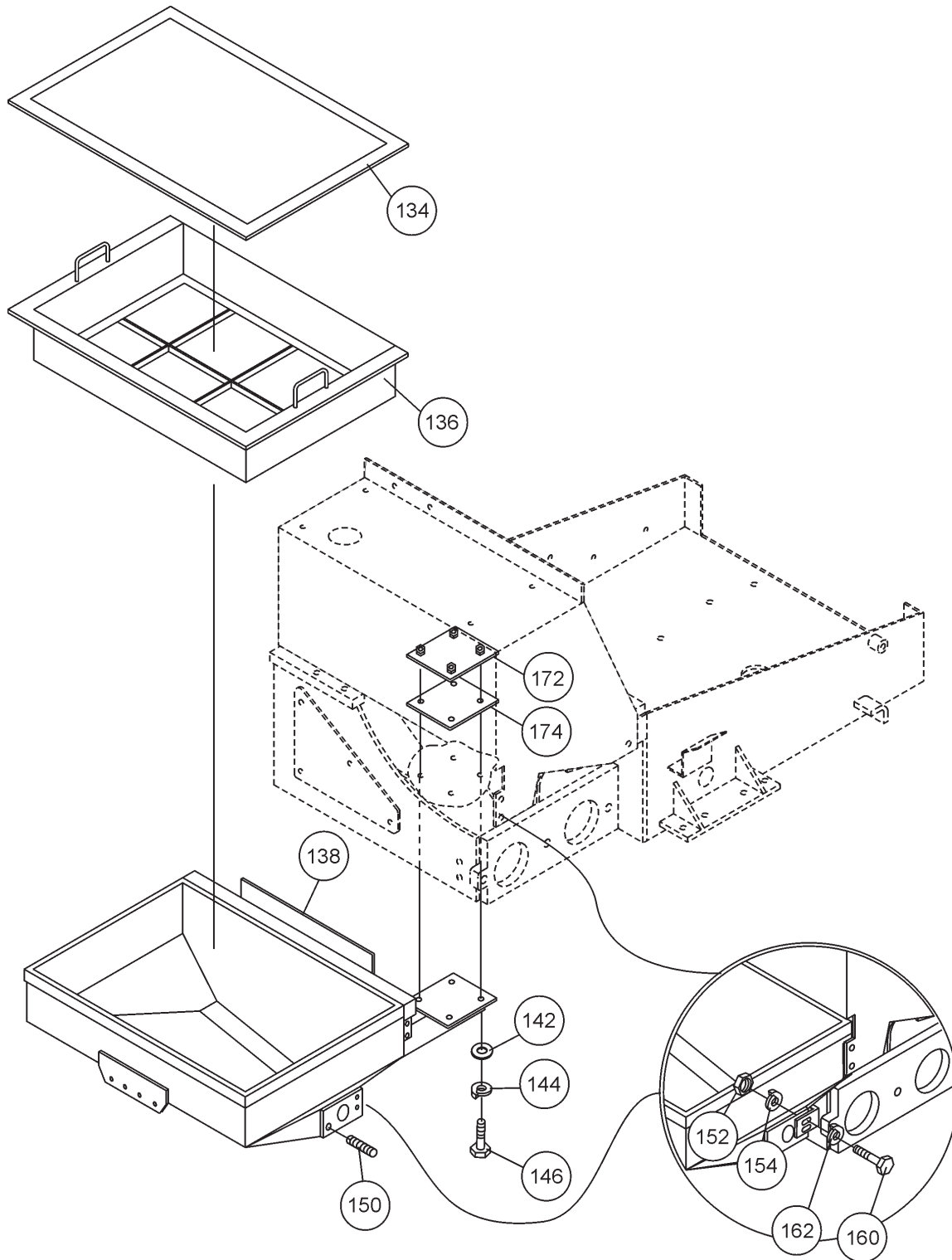


HOOD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
4	EM505831	GASKET	1	
6	EM508659	LOCKING HANDLE	1	
60	EM510830	HOUSING - MG 30	1	
62	EM492399	HEX BOLT - 1/2 - 3 IN	2	
64	492584	HEX NUT - 1/2 IN	2	
178	29057	MANUAL HOLDER	1	
180	492356	HEX BOLT - 1/4 X 3/4 IN	2	
182	492596	FLAT WASHER - 1/4 IN	4	
184	492581	HEX NUT - 1/4 IN	2	

MG-30 PUMP — HOPPER ASSY.

HOPPER ASSY.



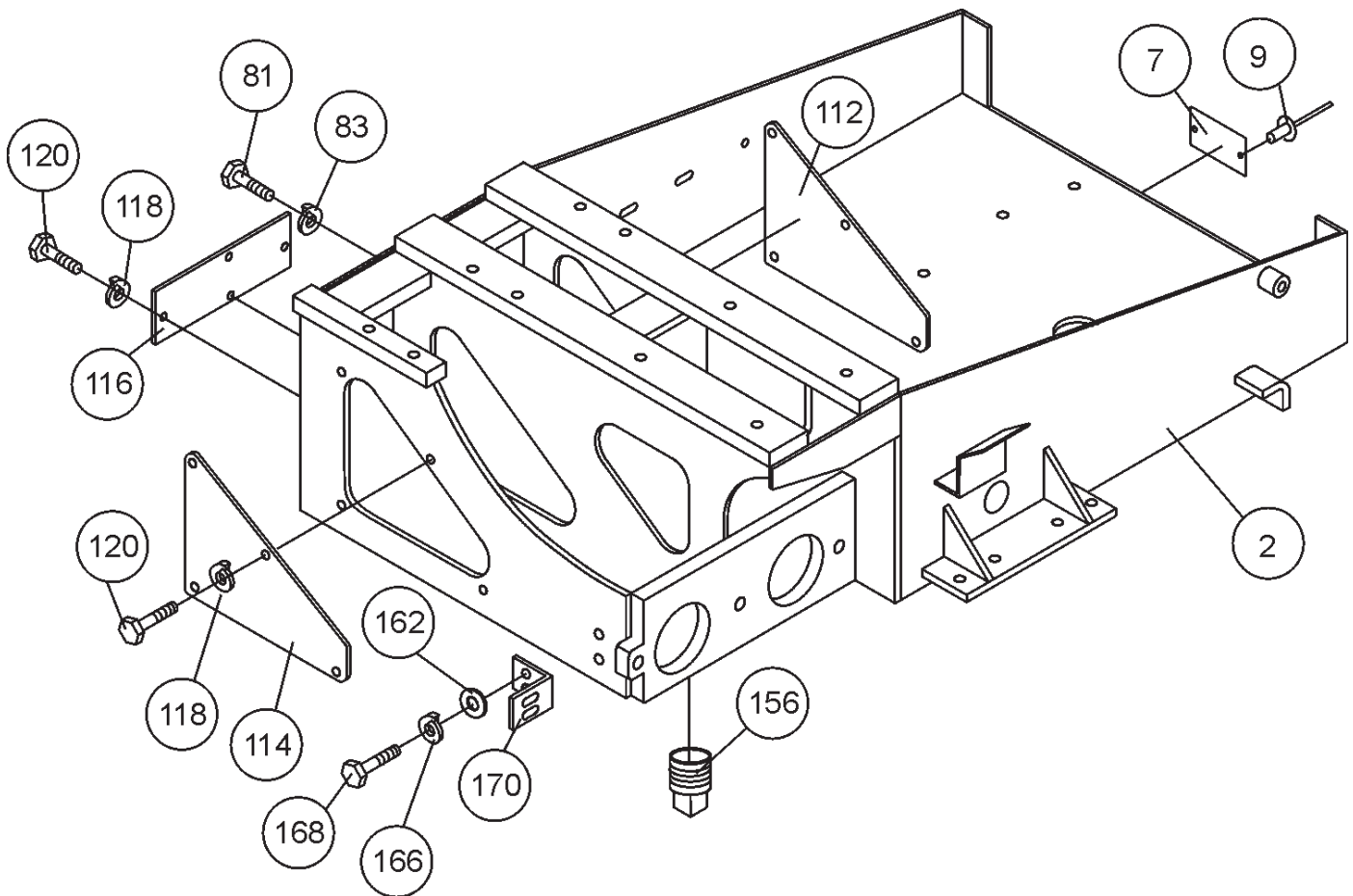
MG-30 PUMP — HOPPER ASSY.

HOPPER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
134	EM402521	HOPPER SCREEN	1	
136	EM402519	HOPPER SCREEN FRAME	1	
138	EM402495	HOPPER	1	
142	EM621	WASHER - 1/2 IN	4	
144	6109180	LOCK WASHER - 1/2 IN	4	
146	EM963105	HEX BOLT - 1/2 X 2 IN	4	
148	EM963057	HEX BOLT - 3/8 X 1-1/8 IN	2	
150	EM402422	STUD - 3/4 X 2-1/8 IN	1	
152	1456	HEX NUT - 3/8 IN	2	
154	0166 A	LOCK WASHER - 3/8 IN	2	
160	EM963057	HEX BOLT - 3/8 X 1-1/2 IN	2	
172	EM513149	ANCORING PLATE W/ NUT	1	
174	EM513151	SEAL PLATE	1	

MG-30 PUMP — CHASSIS ASSY.

CHASSIS ASSY.



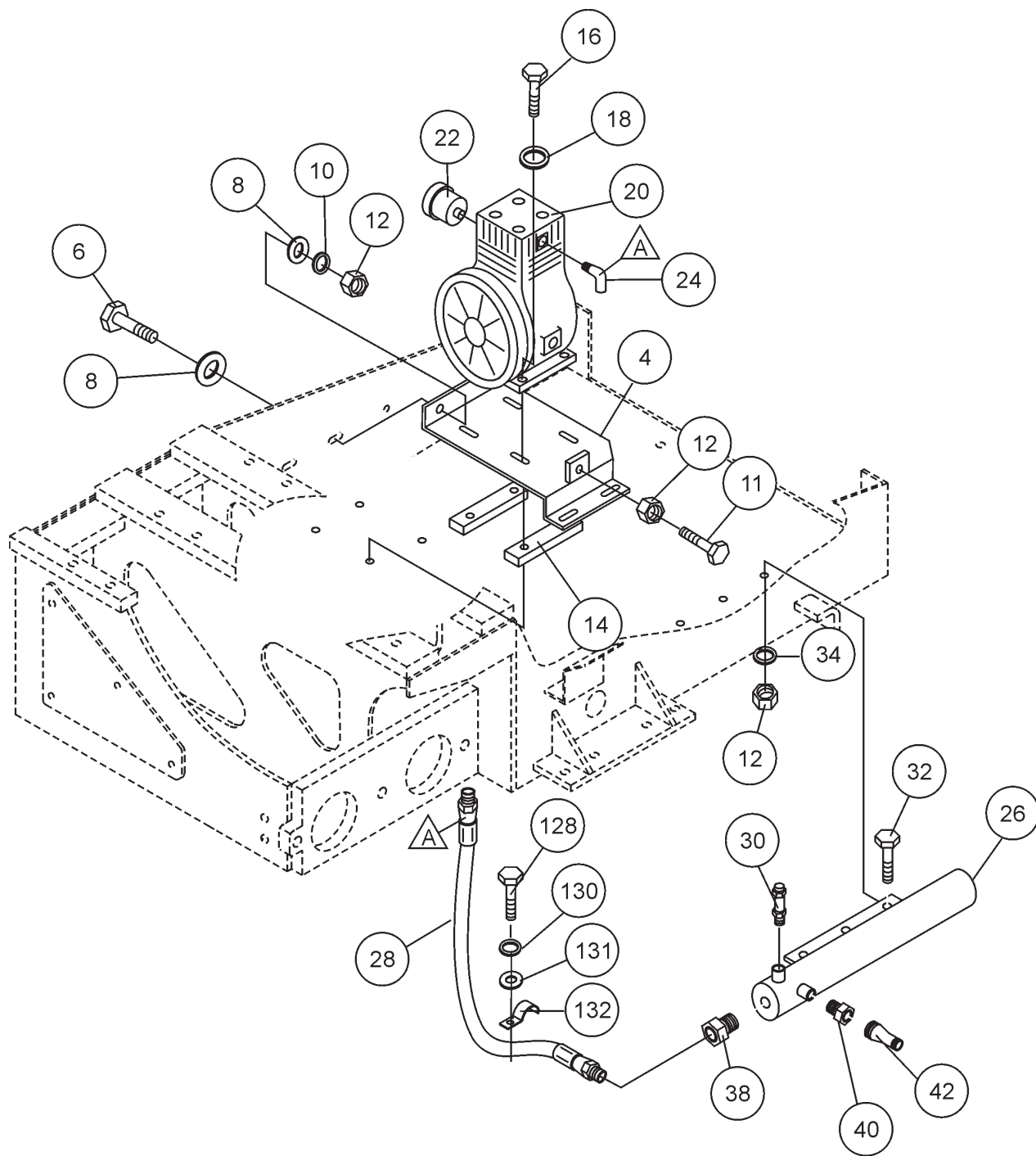
MG-30 PUMP — CHASSIS ASSY.

CHASSIS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	EM402447	FRAME - MG30	1	
7		PLATE - SERIAL NO.	1	ORDER FROM MQ PARTS DEPT. WITH MODEL AND SERIAL NO.
9	491757	POP RIVETS	2	
81	EM963692	HEX BOLT - 1/2 X 1-1/8 IN	3	
83	6109180	LOCK WASHER 1/2 IN	3	
112	EM511044	PLATE - SMALL	1	
114	EM511042	PLATE FRONT	1	
116	EM511046	PLATE	1	
118	0166A	LOCK WASHER - 3/8 IN	12	
120	492309	HEX BOLT - 3/8 X 3/4 IN	12	
156	507895	PLUG - 2-1/2 IN	1	
162	3019092	WASHER - 3/8 IN	6	
164	EM969013	HEX NUT - 3/8 IN	2	
168	EM963610	HEX BOLT - 3/8 X 1 IN	2	
170	EM402515	MOUNTING BRACKET	1	

MG-30 PUMP — COMPRESSOR ASSY.

COMPRESSOR ASSY.



NOTES:

 HOSE CONNECTION

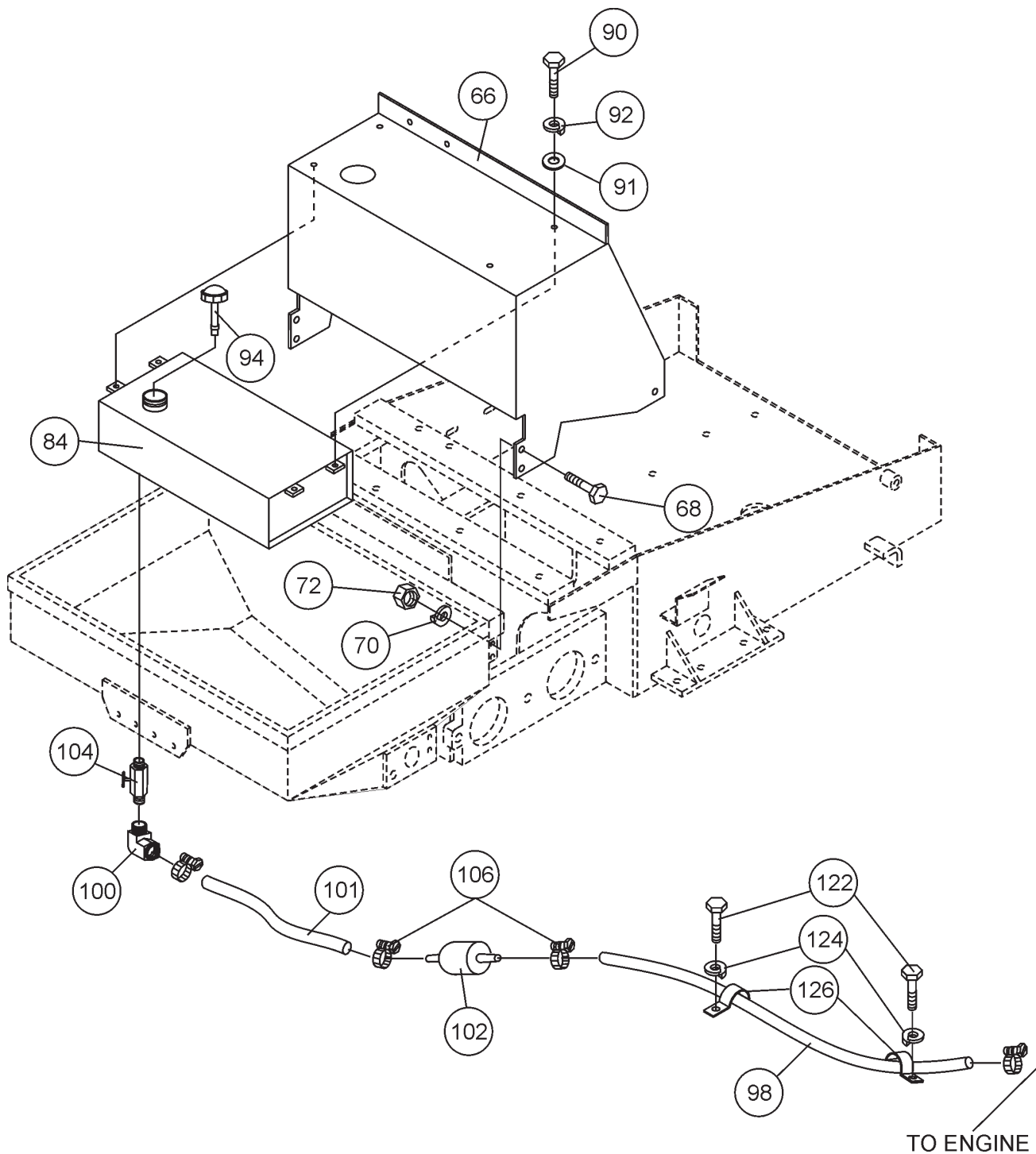
MG-30 PUMP — COMPRESSOR ASSY.

COMPRESSOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
4	EM510827	COMPRESSOR BASE	1	
6	EM963059	HEX BOLT - 3/8 X 1 - 1/4 IN	4	
8	3019092	WASHER - 3/8 IN	8	
10	0166 A	LOCK WASHER - 3/8 IN	4	
11	492486	ADJUSTING BOLT - 3/8 X 1 - 3/8 IN	1	
12	1456	HEX NUT - 3/8 IN	8	
14	510707	BOLTING BAR	2	
16	492365	HEX BOLT - 5/16 X 1 - 1/4 IN	4	
18	EM923343	LOCK WASHER - 5/16 IN	4	
20	EM958171	COMPRESSOR, AIR	1	
22	EM958033	AIR FILTER	1	
24	EM911058	ELBOW 90°	1	
26	EM402489	AIR TANK	1	
28	EM508695	AIR HOSE	1	
30	EM913116	SAFETY VALVE	1	
32	EM963610	BOLT HEX - 3/8 X 1 IN	3	
34	0166 A	LOCK WASHER - 3/8 IN	3	
38	EM491260	ELBOW ADAPTER MALE - 90°	1	
40	512609	ADAPTER REDUCER FEMALE	1 1/8" TO 5/16"
42	EM947032	QUICK-CONNECT SIGET - MALE	1	
128	492356	HEX BOLT - 1/4 X 3/4 IN	1	
130	2101402	LOCK WASHER - 1/4 IN	1	
131	492596	WASHER - 1/4 IN	2	
132	351104770	BRACKET -3/4 IN	1	

MG-30 PUMP — FUEL TANK ASSY.

FUEL TANK ASSY.



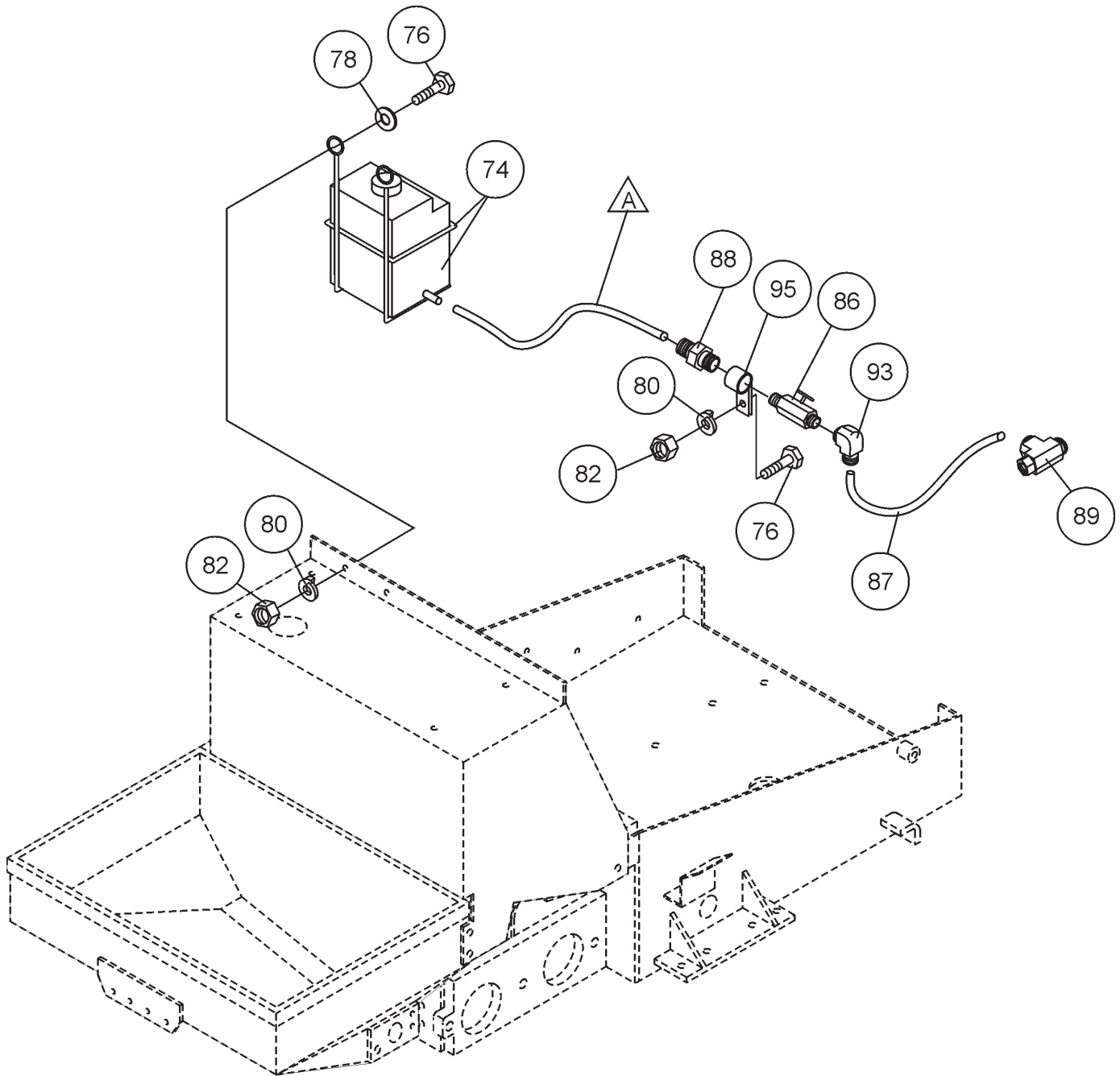
MG-30 PUMP — FUEL TANK ASSY.

FUEL TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
66	EM402532	BONNET	1	
68	EM963692	HEX BOLT 1/2 X 1 - 1/8 IN	5	
70	6109180	LOCK WASHER 1/2 IN	5	
72	6109160	HEX NUT 1/2 IN	5	
84	EM402494	FUEL TANK, W/CAP	1	INCLUDES ITEMS W/*
90	EM963610	HEX BOLT 3/8 X 1 IN	4	
91	3019092	WASHER - 3/8 IN	4	
92	0166 A	LOCK WASHER - 3/8 IN	4	
94*	19340	FUEL TANK CAP W /GAUGE	1	
98	EM20427	TUBING	1	
100	EM20426	ELBOW 90° - 1/8 IN	1	
101	EM20427	TUBING	1	
102	EM20763	FUEL FILTER	1	
104	EM20421	VALVE, SHUT-OFF	1	
106	506208	CLAMP - 1/4 IN	3	
122	492356	HEXBOLT - 1/4 X 3/4 IN	2	
124	2101402	LOCK WASHER - 1/4 IN	2	
126	EM503081	BRACKET - 1/4 IN	2	

MG-30 PUMP — PISTON OILER TANK ASSY.

PISTON OILER TANK ASSY.



 ITEM INCLUDED WITH OIL TANK

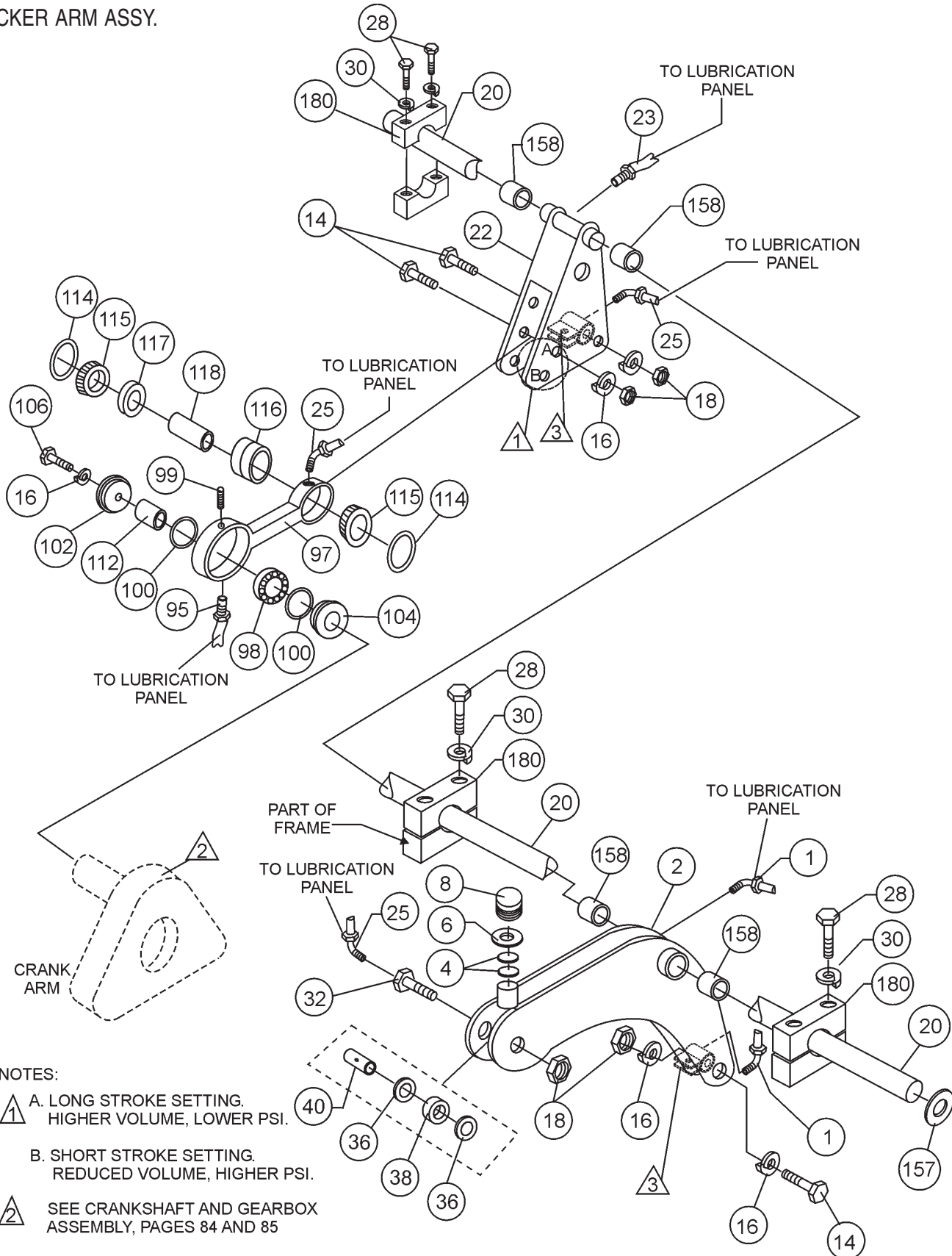
MG-30 PUMP — PISTON OILER TANK ASSY.

PISTON OILER TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
74	310555	OIL TANK W/ BRACKETS	1	
76	492356	HEX BOLT - 1/4 X 3/4 IN	4	
78	492596	WASHER 1/4 IN	2	
80	2101402	LOCK WASHER 1/4 IN	4	
82	492561	HEX NUT 1/4 IN	2	
86	512722	VALVE, SHUT-OFF	1	
87	EM20415	TUBING	1	
88	512731	MALE CONNECTOR REDUCER	1	1/8 TO 5/16
89	512721	TEE CONNETOR	1	
93	EM20426	ELBOW 90°	1	
95	513116	BRACKET - 1/2 IN	1	
99	492561	HEX NUT - 1/4 IN	2	

MG-30 PUMP — ROCKER ARM ASSY.

ROCKER ARM ASSY.



NOTES:

- A A. LONG STROKE SETTING.
HIGHER VOLUME, LOWER PSI.
- B B. SHORT STROKE SETTING.
REDUCED VOLUME, HIGHER PSI.
- 2 SEE CRANKSHAFT AND GEARBOX
ASSEMBLY, PAGES 84 AND 85
- 3 REFER TO PUSH ROD ASSEMBLY
PAGES 80-83

MG-30 PUMP — ROCKER ARM ASSY.

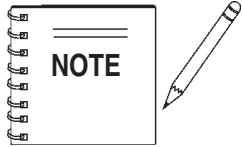
ROCKER ARM ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM505490	FITTING 45° - 1/8 TO 7/16 IN	2	
2	EM402982	CAM ROCKER	1	
4	EM402456	OILER FELT	2	
6	EM607	WASHER - 1/2 IN	1	
8	EM20349	OIL CAP	1	
14	512613	HEX BOLT - 1 X 5 IN	3	
16	EM603	LOCK WASHER - 1 IN	3	
18	EM417	HEX NUT - 1 IN	3	
20	EM20339	ROCKER ARM SHAFT	1	
22	EM402464	CRANK ROCKER ARM W/ BUSHING	1	
23	EM505489	CONNECTOR - 1/8 IN TO 7/16 IN	1	
25	EM505491	ELBOW 45° - 1/8 IN TO 7/16 IN	1	
28	505124	HEX BOLT 3/4" X 5" G5	4	
30	492628	LOCK WASHER - 3/4 IN	6	
32	EM20344	GREASING BOLT	1	
36	EM20347	BEARING SPACER	2	
38	EM903092	BEARING ASSEMBLY	1	
40	EM402434	BEARING BUSHING	1	
95	EM505489	CONNECTOR MALE	1	
97	EM514328	SP CONECTING ROD	1	
98	EM903176	BEARING	1	
99	EM702	SCREW ALLEN HEAD 3/8-16 X 3/4"	1	
100	EM20336	O -RING	2	
102	EM402996	SEAL PLATE	1	
104	EM402997	SEAL PLATE	1	
106	EM104	HEX BOLT - 5/8 X 2 IN	1	
114	EM20816	O -RING	2	
115	EM903162	CONE BEARING	2	
116	EM903163	BEARING CUP	1	
117	EM20813	SPACER	1	
118	EM20814	BEARING BUSHING	1	
157	512854	WASHER - 5/8 IN	1	
158	EM402461	BUSHINGS	4	
180	EM402457	BLOCK	3	

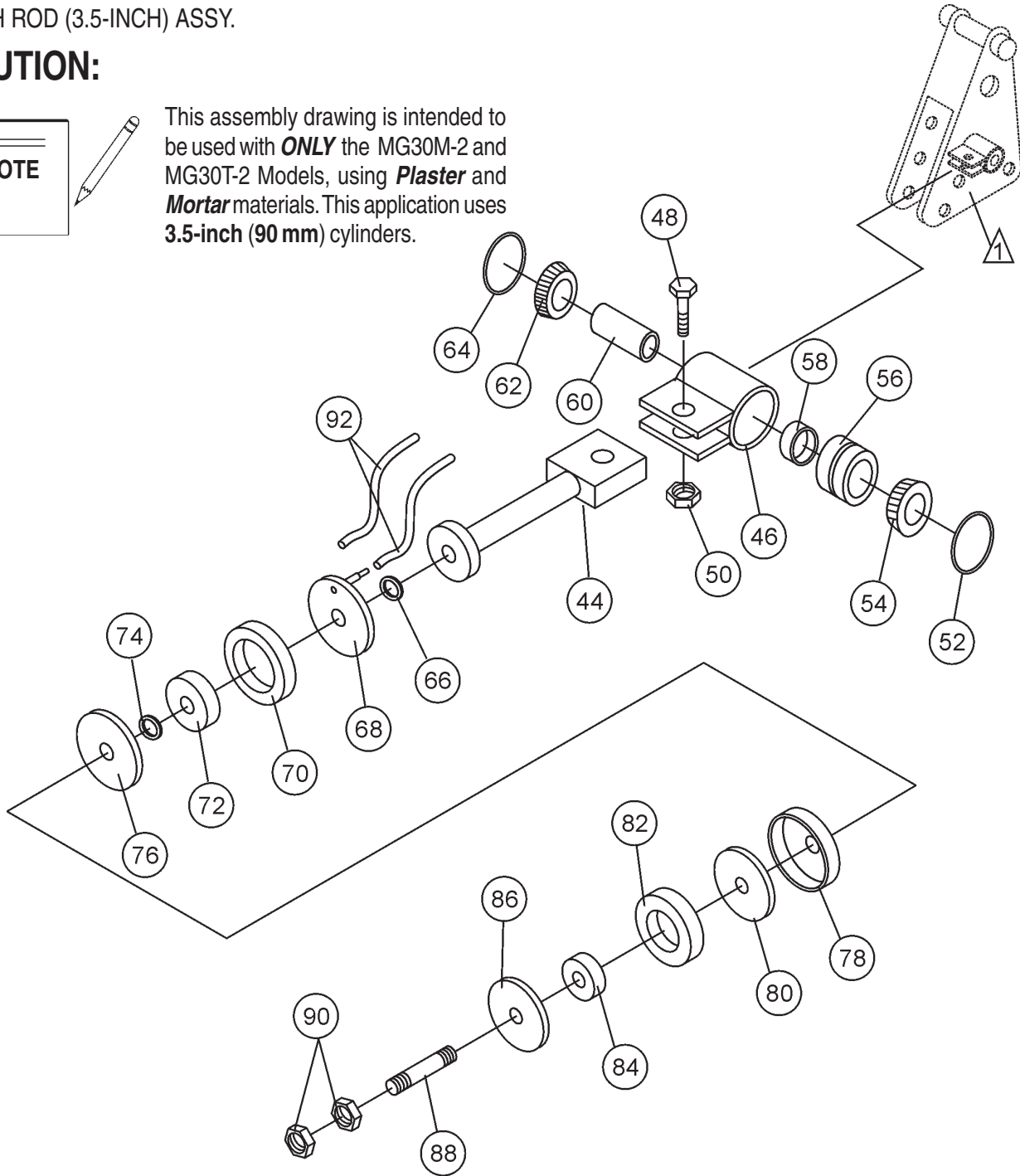
MG-30 PUMP — PUSH ROD (3.5-INCH) ASSY.

PUSH ROD (3.5-INCH) ASSY.

CAUTION:



This assembly drawing is intended to be used with **ONLY** the MG30M-2 and MG30T-2 Models, using **Plaster** and **Mortar** materials. This application uses **3.5-inch (90 mm)** cylinders.



NOTES:

PRE-HEAT BEFORE ASSEMBLING



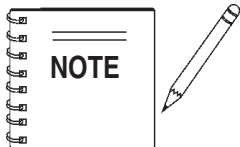
REFER TO ROCKER ARM ASSEMBLY PAGES 78-79.

MG-30 PUMP — PUSH ROD (3.5-INCH) ASSY.

PUSH ROD (3.5-INCH) ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
44	EM402437	PUSH ROD	2	
46	EM402441	BEARING HOUSING	2	
48	EM492421	HEX BOLT - 3/4 X 3 - 1/2 IN	2	
50	EM969038	HEX NUT - 3/4 IN	2	
52	EM20816	O-RING	2	
54	EM903162	BEARING CONE	2	
56	EM903163	BEARING CUP	2	
58	EM20813	BEARING SPACER	2	
60	EM20814	BEARING BUSHING	2	
62	EM903162	BEARING CONE	2	
64	EM20816	O-RING	2	
66	EM491056	O-RING	2	
68	EM402421	FELT OILER PLATE	2	
70	EM402395	FELT WASHER	2	
72	EM402396	SPACER	2	
74	EM491056	O-RING	2	
76	EM402394	BACK- UP WASHER	2	
78	EM402393	LEATHER CUP	2	
80	EM402392	CUP WASHER	2	
82	EM402390	EXPANDER WASHER	2	
84	EM402391	EXPANDER INSERT	2	
86	EM402389	COMPRESION WASHER	2	
88	EM402439	STUD - 1/2 X 3 - 5/16 IN	2	
90	6109160	HEX NUT - 1/2 IN	4	
92	EM20415	TUBING - 3/16 IN x 5'	2	

CAUTION:



This parts list is intended to be used with **ONLY** the MG30M-2 and MG30T-2 Models, using **Plaster** and **Mortar** materials. This application uses **3.5-inch (90 mm)** cylinders.

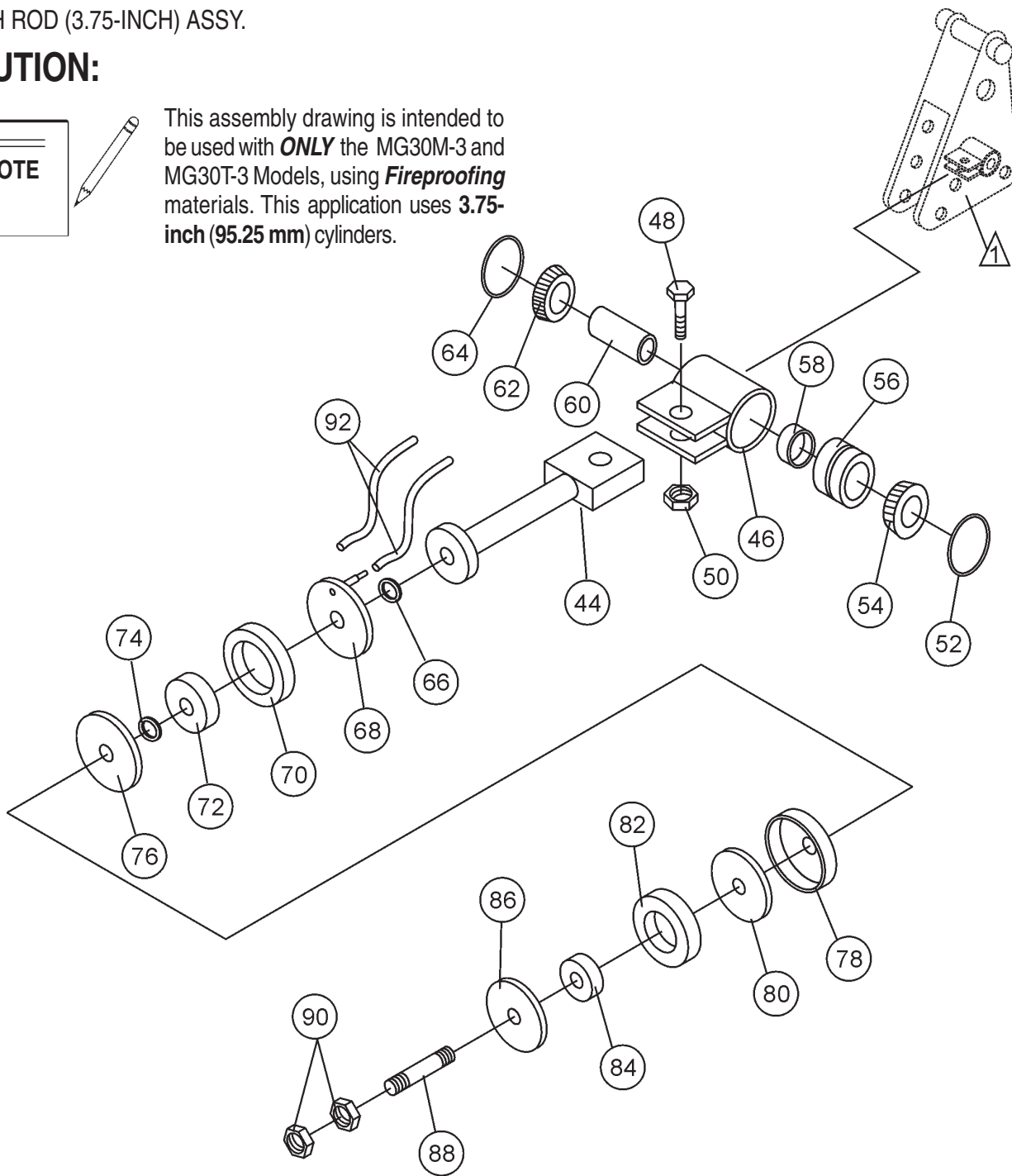
MG-30 PUMP — PUSH ROD (3.75-INCH) ASSY.

PUSH ROD (3.75-INCH) ASSY.

CAUTION:



This assembly drawing is intended to be used with **ONLY** the MG30M-3 and MG30T-3 Models, using **Fireproofing** materials. This application uses **3.75-inch (95.25 mm)** cylinders.



NOTES:

PRE-HEAT BEFORE ASSEMBLING



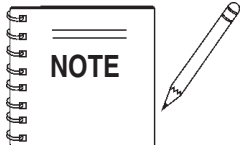
REFER TO ROCKER ARM ASSEMBLY PAGES 78-79.

MG-30 PUMP — PUSH ROD (3.75-INCH) ASSY.

PUSH ROD (3.75-INCH) ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
44	EM402437	PUSH ROD	2	
46	EM402441	BEARING HOUSING	2	
48	EM492421	HEX BOLT - 3/4 X 3 - 1/2 IN	2	
50	EM969038	HEX NUT - 3/4 IN	2	
52	EM20816	O-RING	2	
54	EM903162	BEARING CONE	2	
56	EM903163	BEARING CUP	2	
58	EM20813	BEARING SPACER	2	
60	EM20814	BEARING BUSHING	2	
62	EM903162	BEARING CONE	2	
64	EM20816	O-RING	2	
66	EM491056	O-RING	2	
68	EM402421	FELT OILER PLATE	2	
70	EM403002	FELT WASHER	2	
72	EM402396	SPACER	2	
74	EM915003	O-RING	2	
76	EM403004	BACK- UP WASHER	2	
78	EM403005	LEATHER CUP	2	
80	EM403006	CUP WASHER	2	
82	EM403007	EXPANDER WASHER	2	
84	EM402391	EXPANDER INSERT	2	
86	EM403008	COMPRESION WASHER	2	
88	EM402439	STUD - 1/2 X 3 - 5/16 IN	2	
90	EM968003	HEX NUT - 1/2 IN	4	
92	EM20415	TUBING - 3/16 IN x 5'	2	

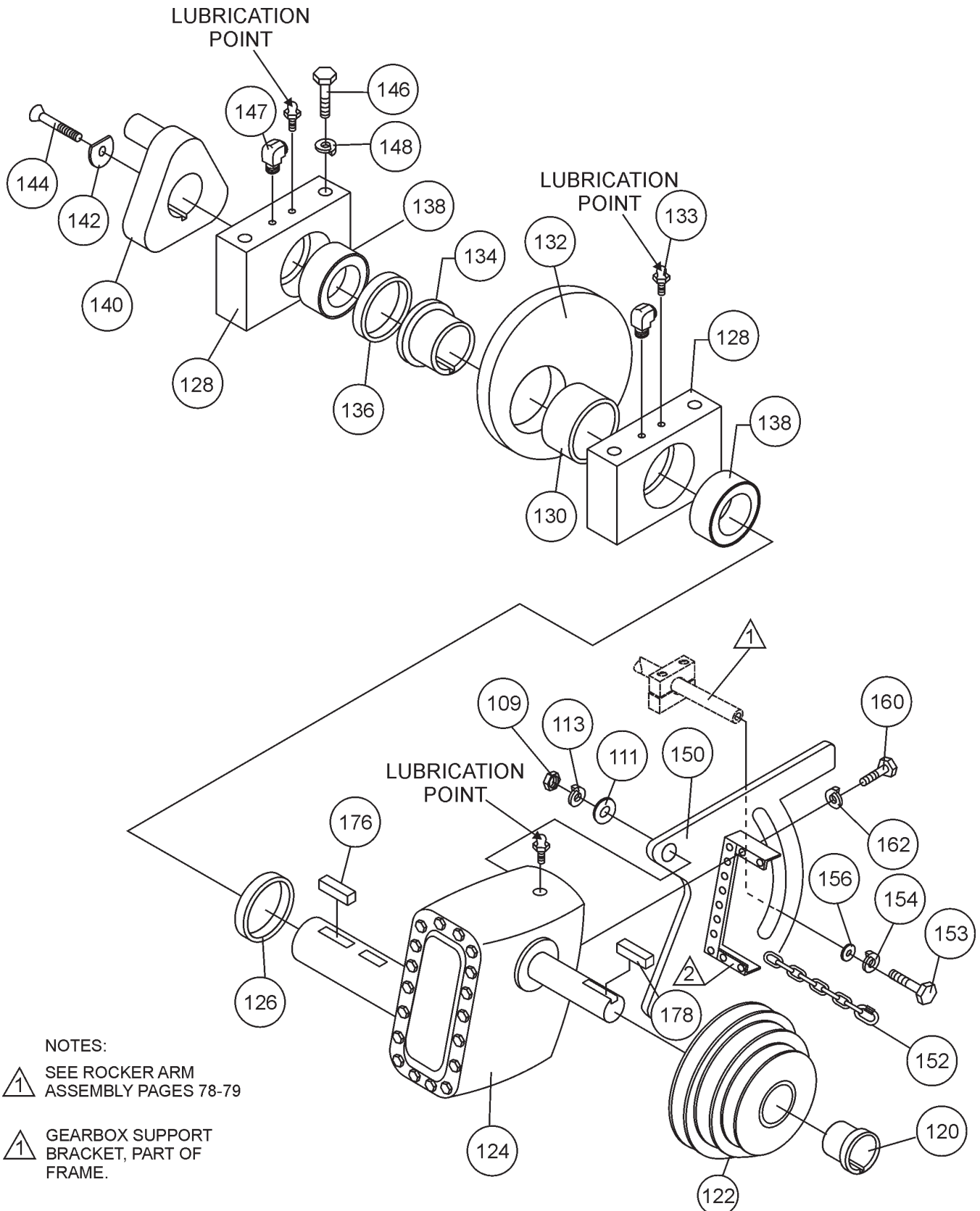
CAUTION:



This parts list is intended to be used with **ONLY** the MG30M-3 and MG30T-3 Models, using **Fireproofing** materials. This application uses **3.5-inch (90 mm)** cylinders.

MG-30 PUMP — CRANKSHAFT AND GEAR BOX ASSY.

CRANKSHAFT AND GEAR BOX ASSY.



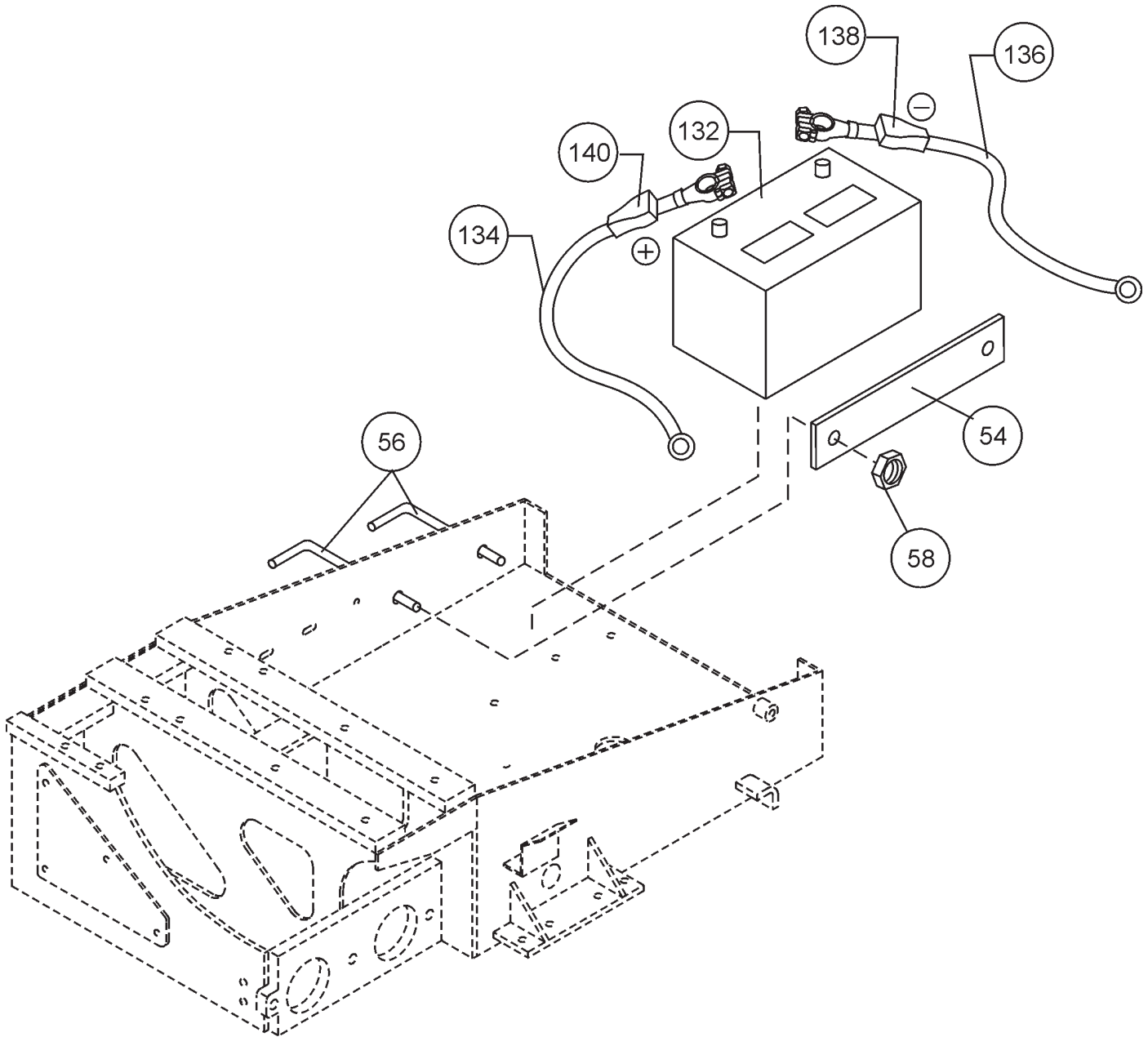
MG-30 PUMP — CRANKSHAFT AND GEAR BOX ASSY.

CRANKSHAFT AND GEAR BOX ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
109	EM492570	HEX NUT - 5/8 IN	1	
110	EM417	HEXNUT - 1 IN	1	
111	EM505882	WASHER - 5/8	1	
112	EM402998	ADAPTER SLEEVE	1	
113	EM492627	LOCK WASHER - 5/8 IN	1	
120	EM901331	BUSHING	1	
122	EM400090	STEP PULLEY	1	
124	EM931000	GEAR BOX	1	
126	EM510847	SPACER - 3 IN , 9MM	1	
128	EM20324-1	BLOCK BEARING	2	
130	EM510846	SPACER - 3 IN , 47.5 MM	1	
132	EM20301	CAM	1	
133	EM702	SCREW ALLEN HEAD 3/8-16 X 3/4	2	
134	EM20303	BUSHING	1	
136	EM510845	SPACER - 3 IN , 12 MM	1	
138	EM20324-2	BEARING	2	
140	EM402412	CRANK	1	
142	EM402413	TENSION WASHER W /SLOT	1	
144	EM512618	ALLEN BOLT - 1/2 X 2 IN	1	
146	EM505122	HEX BOLT - 3/4 X 8 - 1/2 IN	4	
147	EM505490	ELBOW 45°	2	
148	EM492628	LOCK WASHER - 1 IN	4	
150	EM20306	BELT TIGHTENER	1	
152	EM509947	MASTER LINK W/CHAIN	1	
153	EM503982	HEX BOLT- 5/8 X 2 IN	1	
154	EM923348	LOCK WASHER - 5/8 IN	1	
156	EM402459	GROOVE WASHER	1	
160	EM492363	HEX BOLT - 5/16 X 3/4 IN	8	
162	EM492623	LOCK WASHER - 5/16	8	
176	EM513233	KEY - 3/4 X 5/8 X 1 - 3/4 IN	2	
178	EM513232	KEY - 3/8 IN X 65 MM	1	

MG-30 PUMP — BATTERY ASSY.

BATTERY ASSY.



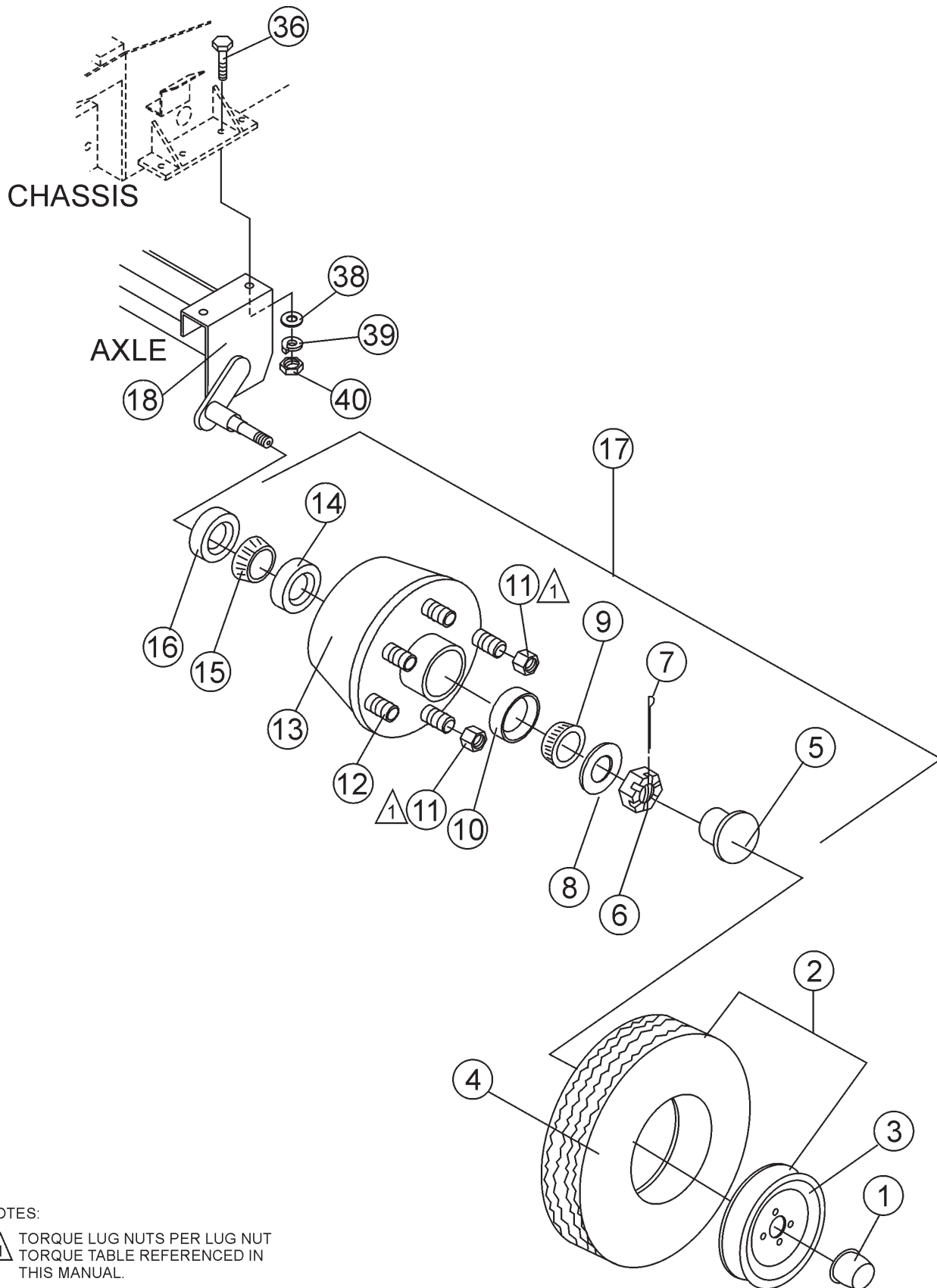
MG-30 PUMP — BATTERY ASSY.

BATTERY ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
54	EM510708	BATTERY CLAMP	1	
56	EM510844	SUPPORT ROD	1	
58	EM969079	HEX NUT - 1/4 IN	1	
132	507590	BATTERY - 12 V	1	
134	EM505297	BATTERY TERMINAL CABLE - POS.	1	
136	EM20720	BATTERY TERMINAL CABLE - NEG.	1	
138	505624	BATTERY TERMINAL COVER - BLACK	1	
140	506266	BATTERY TERMINAL COVER - RED	1	

MG-30 PUMP—TAG UNIT AXLE ASSY.

TAG UNIT AXLE ASSY.



NOTES:

- △ TORQUE LUG NUTS PER LUG NUT TORQUE TABLE REFERENCED IN THIS MANUAL.

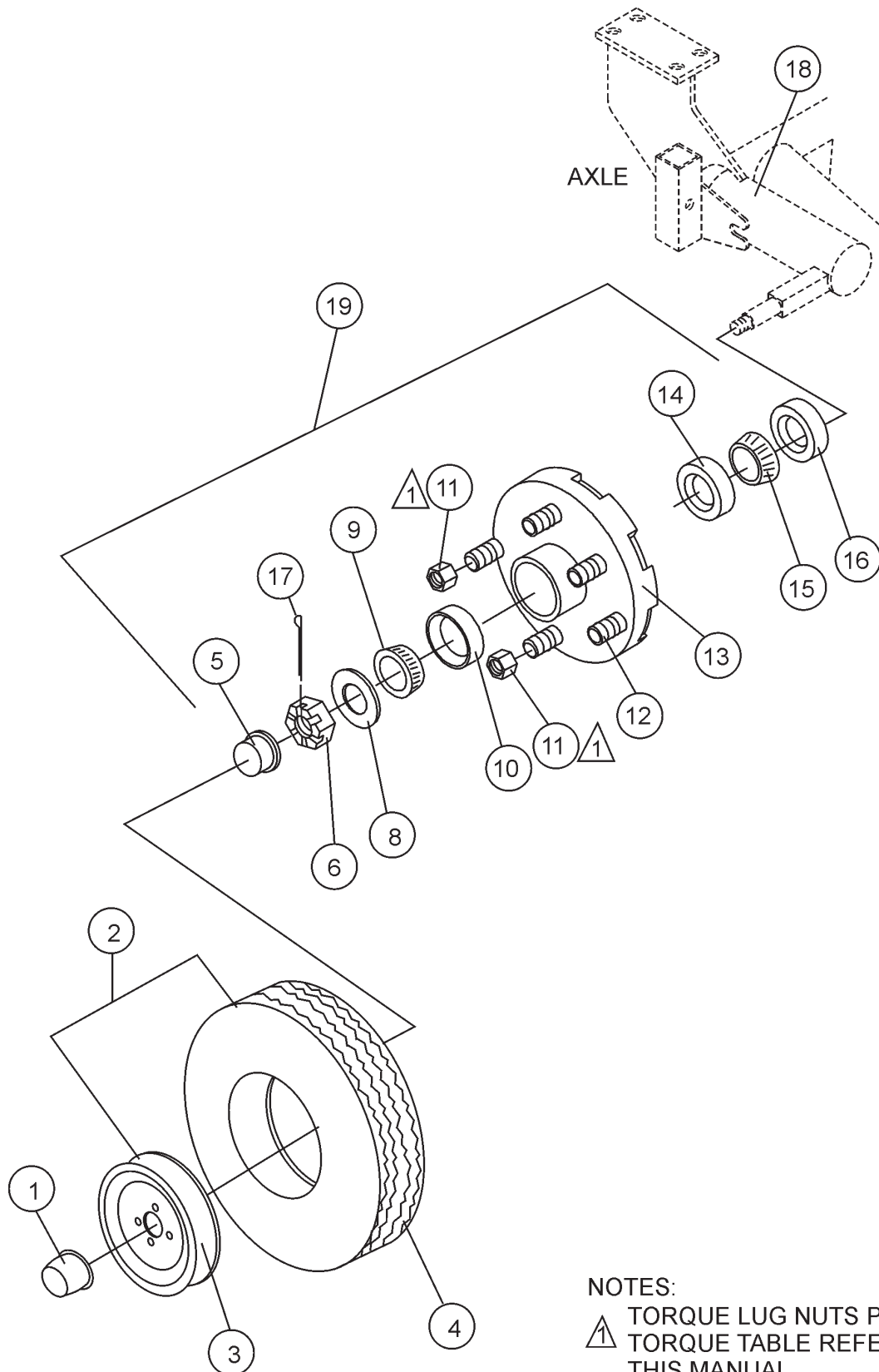
MG-30 PUMP—TAG UNIT AXLE ASSY.

TAG UNIT AXLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM26518	CAP 14" CHROME	2	
2	EM26615A	TIRE ASSY.....	2	INCLUDES ITEMS W/*
3*	EM20602	WHEEL	2	CANNOT BE PURCHASED SEPARATELY
4*	EM20603	TIRE	2	CANNOT BE PURCHASED SEPARATELY
5#\$	EM26306	DUST COVER	2	
6#\$	EM968481	CASTLE NUT	2	
7	EM705	PIN, COTTER 3/16X1 1/2	2	
8#\$	EM26329	WASHER	2	
9#\$	EM903113	OUTER BEARING	2	
10#\$	EM903012	OUTER CUP	2	
11#\$	EM26519	NUT	12	
12#\$	EM20612	STUD	12	
13#\$	EM26300	HUB	2	
14#\$	EM903169	INNER CUP	2	
15#\$	EM903168	INNER BEARING	2	
16#\$	EM26305	GREASE SEAL	2	
17\$	EM20601	HUB ASSEMBLY	2	INCLUDES ITEMS W/#
18	EM14600	AXLE	1	
18	EM14600A	AXLE WITH HUB INSTALLED	1	INCLUDES ITEMS W/\$

MG-30 PUMP — MOBILE UNIT AXLE ASSY.

MOBLE UNIT AXLE ASSY.



NOTES:

⚠ TORQUE LUG NUTS PER LUG NUT
TORQUE TABLE REFERENCED IN
THIS MANUAL.

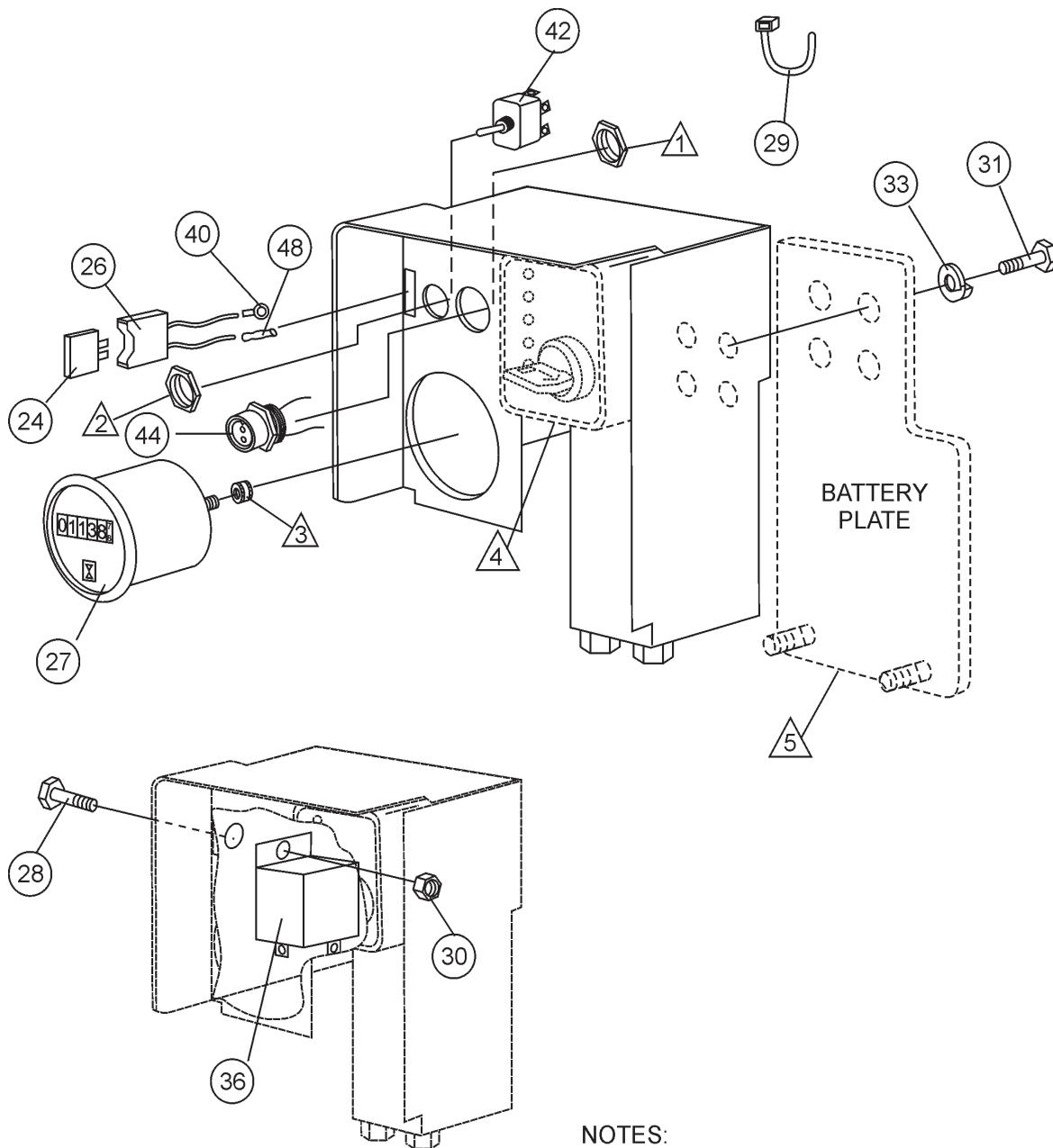
MG-30 PUMP — MOBILE UNIT AXLE ASSY.

MOBLE UNIT AXLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM26520	CAP 15" CHROME	2	
2	EM26615	TIRE ASSY.....	2	INCLUDES ITEMS W/*
3*		WHEEL	2	CANNOT BE PURCHASED SEPARATELY
4*		TIRE	2	CANNOT BE PURCHASED SEPARATELY
5#	EM941307	DUST CAP	2	
6#\$		CASTLE NUT	2	INCLUDES ITEMS W/\$
8#\$		WASHER	2	CANNOT BE PURCHASED SEPARATELY
9#	EM941309	OUTER BEARING	2	
10#	EM941315	OUTER CUP	2	
11#	EM941314	NUT	12	
12#	EM941315	STUD	12	
13#		HUB	2	CANNOT BE PURCHASED SEPARATELY
14#	EM941310	INNER CUP	2	
15#	EM941312	INNER BEARING	2	
16#	EM941311	GREASE SEAL	2	
17#\$		PIN, COTTER 3/16X1 1/2.....	2	CANNOT BE PURCHASED SEPARATELY
18	TBD	AXLE	1	CONTACT MULTIQIP PARTS DEPT.
19	EM512906	HUB ASSEMBLY	2	INCLUDES ITEMS W/#

MG-30 PUMP — CONTROL BOX ASSY.

CONTROL BOX ASSY.



NOTES:

- ① INCLUDED WITH ITEM 44,
REMOTE OUTLET PLUG P/N EM26789.
- ② INCLUDED WITH ITEM 42,
PUMPING CONTROL SWITCH P/N EM40711.
- ③ INCLUDED WITH ITEM 27,
HOUR METER P/N EM963003.
- ④ IGNITION BOX INCLUDED WITH ENGINE.
- ⑤ BATTERY PLATE INCLUDED WITH ENGINE.

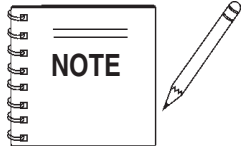
MG-30 PUMP — CONTROL BOX ASSY.

CONTROL BOX ASSY.

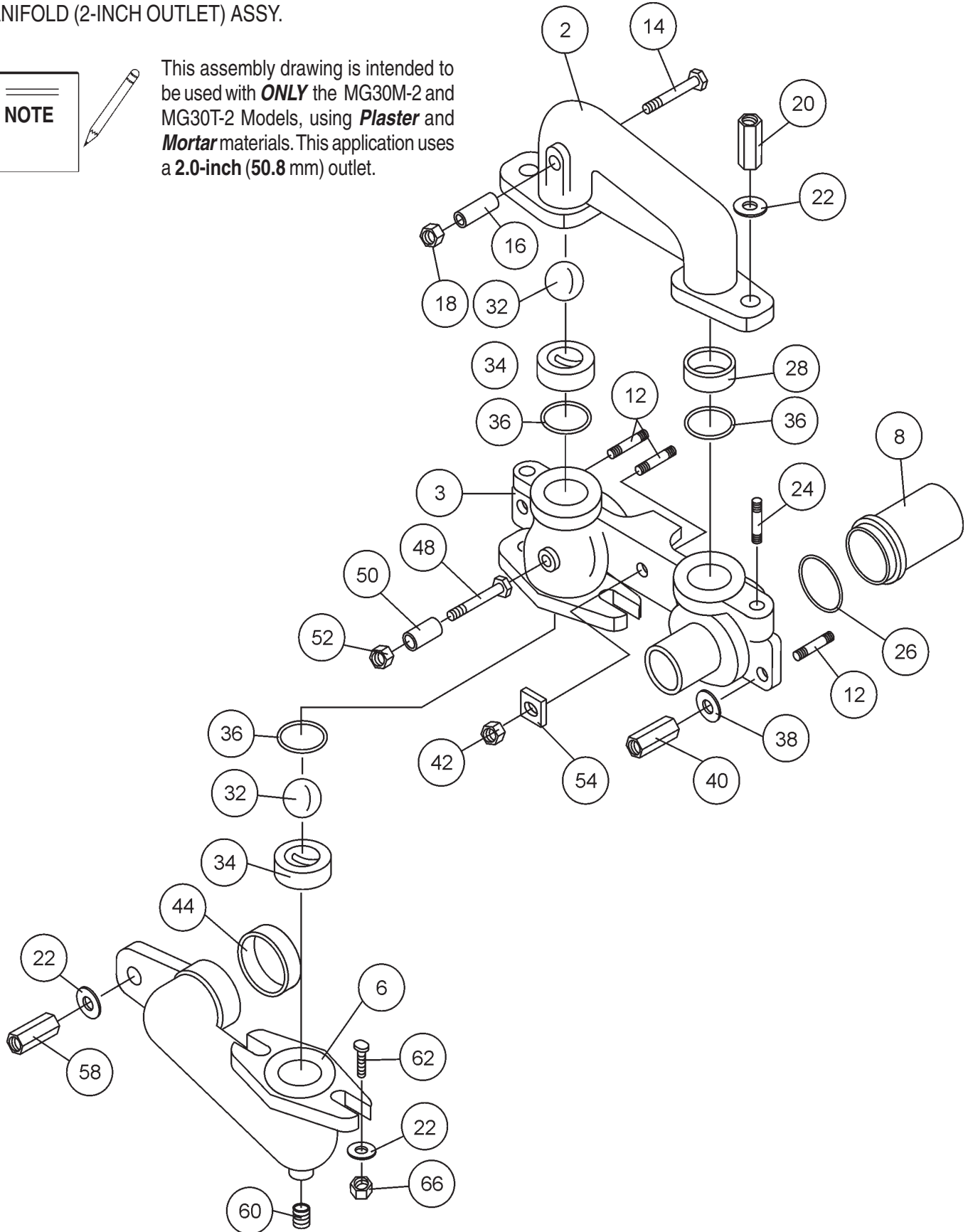
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
24	508632	FUSE, 25 AMP	1	
26	EM98066	FUSE HOLDER	1	
27	EM18706	HOURLMETER	1	
28	EM963003	HEX BOLT - 1/4 X 3/4 IN	1	
29	504505	CABLE TIE WRAP	3	
30	EM969079	HEX NUT - 1/4 IN	1	
31	EM506599	HEX BOLT - 6MM X 15	3	
32	EM512644	INSTRUMENT PANEL	1	
33	2101402	LOCK WASHER - 1/4 IN	1	
36	EM16710	RELAY	1	
40	EM491897	TERMINAL - BLUE 3/16 LOOP	1	
42	EM40711	SWITCH	1	
44	EM26789	RECEPTICAL FEMALE	1	
46	EM491879	STAR NUT FOR RECEPTICAL	1	
48	EM508242	CONNECTOR	1	

MG-30 PUMP — MANIFOLD (2-INCH OUTLET) ASSY.

MANIFOLD (2-INCH OUTLET) ASSY.



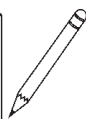
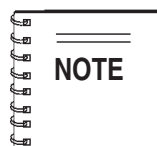
This assembly drawing is intended to be used with **ONLY** the MG30M-2 and MG30T-2 Models, using **Plaster** and **Mortar** materials. This application uses a **2.0-inch (50.8 mm)** outlet.



MG-30 PUMP — MANIFOLD (2-INCH OUTLET) ASSY.

MANIFOLD (2-INCH OUTLET) ASSY.

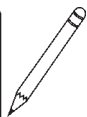
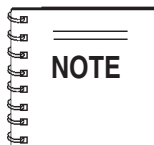
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	EM402385	CONNECTING MANIFOLD	1	
3	EM402383	PUMP MANIFOLD 2-INCH 45 OUTLET	1	(TAG UNIT)
3	EM402382	PUMP MANIFOLD 2 -INCH STR. OUTLET .	1	(MOBILE UNIT)
6	EM402388	HOPPER ELBOW	1	
8	EM403408	MATERIAL CYLINDER 3.5" DIA	2	STANDARD
12	EM402977	STUD - 1 X 5-1/2 IN	3	
14	EM503111	CAP SCREW 1/2 X 4 - 1/2 IN	1	
16	EM402473	SLEEVE FOR FIREPROOF KIT	1	
18	EM492584	HEX NUT 1/2 IN	1	
20	EM968002	HEX NUT 3/4 IN	2	
22	EM619	WASHER 3/4 IN	5	
24	EM510849	STUD - 3/4 X 3 IN	2	
26	EM402581	QUARTER ROUND SEAL	2	
28	EM402418	CONNECTING RING	1	
32	EM400581	RUBBER BALL	2	
34	EM402402	VALVE SEAT WITH PIN	2	
36	EM402580	SPECIAL O - RING	3	
38	EM512914	WASHER - 1 IN	2	
40	EM968020	HEX NUT - 1 IN	2	
42	EM512612	HEX NUT - 1 IN	1	
44	EM914312	SEAL	1	
48	EM492399	CAP SCREW - 1/2 X 3 IN	1	
50	EM402415	SLEEVE SHORT	1	
52	EM492584	HEX NUT - 1/2 IN	1	
54	EM402986	SQUARE WASHER - 1 IN	1	
58	EM968002	HEX NUT - 3/4 IN	1	
60	EM505988	PIPE PLUG - 1 IN	1	
62	EM966207	"T" SLOT BOLT - 1/2 IN X 2 - 1/4 IN	2	
66	EM492556	HEX NUT - 1/2 IN	2	



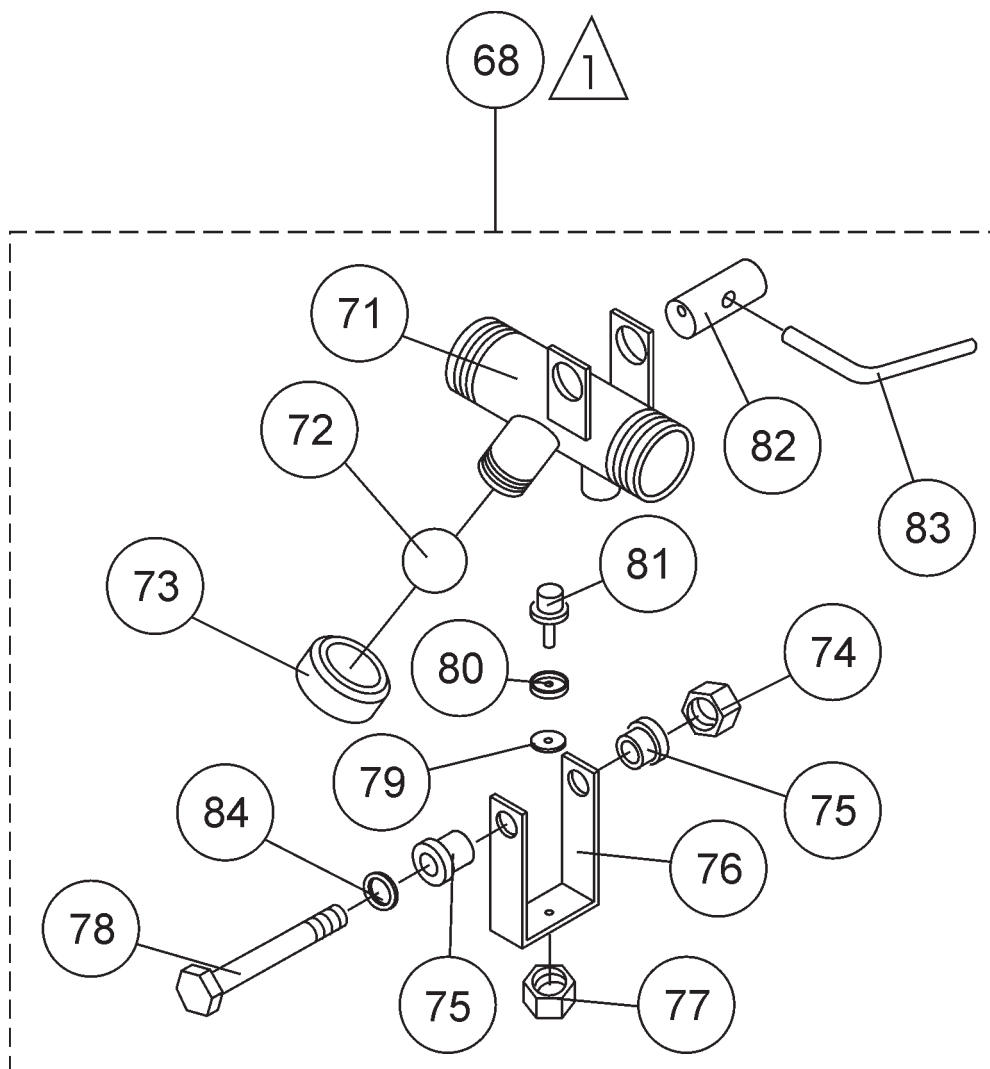
This parts list is intended to be used with **ONLY** the MG30M-2 and MG30T-2 Models, using **Plaster** and **Mortar** materials. This application uses a **2.0-inch (50.8 mm)** outlet.

MG-30 PUMP — PRESSURE RELIEF VALVE (2-INCH OUTLET) ASSY.

PRESSURE RELIEF VALVE (2-INCH OUTLET) ASSY.



This assembly drawing is intended to be used with **ONLY** the MG30M-2 and MG30T-2 Models, using **Plaster** and **Mortar** materials. This application uses a **2.0-inch (50.8 mm)** outlet.



NOTES:

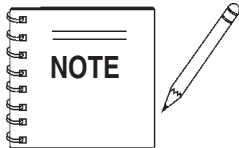


COMPLETE PRESSURE VALVE ASSEMBLY, ITEM 68, P/N 20800 INCLUDES ALL ITEMS WITHIN OUTLINE.

MG-30 PUMP — PRESSURE RELIEF VALVE (2-INCH OUTLET) ASSY.

PRESSURE RELIEF VALVE (2-INCH OUTLET) ASSY.

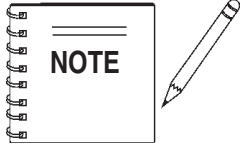
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
68	EM20800	PRESSURE RELIEF - 2 IN	1	INCLUDES ITEMS ITEMS W/*
71*	EM20800	BODY ASSEMBLY 2 IN	1	
72*	EM400581	RUBBER BALL	1	
73*	EM402527	WORKING PRESSURE CAP 700#	1	
73*	EM402528	WORKING PRESSURE CAP 1000#	1	
74*	EM969079	LOCK NUT	1	
75*	EM906065	BUSHING	2	
76*	EM20807	CLAMPING YOKE 2 IN	1	
77*	EM969079	LOCK NUT	1	
78*	EM963518	CAP SCREW 2 IN	1	
79*	EM400714	SHIM WASHER	1	
80*	EM400458	CAP	1	
81*	EM20806	SAFTEY PLUG	1	
82*	EM20803	CAM 2 IN	1	
83*	EM20805	CAM LEVER	1	
84*	TBD	WASHER	1	



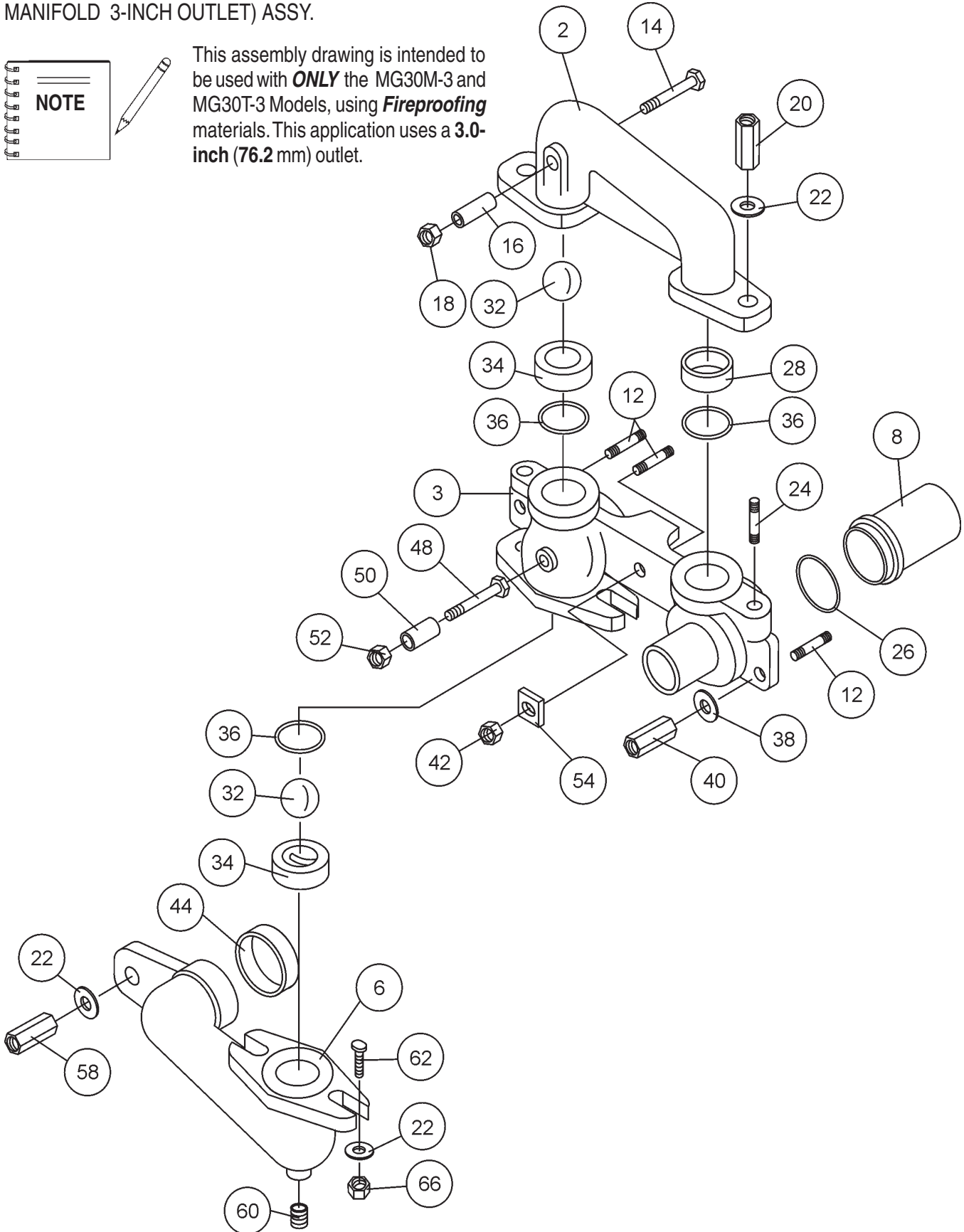
This parts list is intended to be used with **ONLY** the MG30M-2 and MG30T-2 Models, using **Plaster** and **Mortar** materials. This application uses a **2.0-inch (50.8 mm)** outlet.

MG-30 PUMP — MANIFOLD (3-INCH OUTLET) ASSY.

MANIFOLD 3-INCH OUTLET) ASSY.



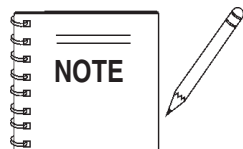
This assembly drawing is intended to be used with **ONLY** the MG30M-3 and MG30T-3 Models, using **Fireproofing** materials. This application uses a **3.0-inch (76.2 mm)** outlet.



MG-30 PUMP — MANIFOLD (3-INCH OUTLET) ASSY.

MANIFOLD (3-INCH OUTLET) ASSY.

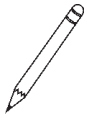
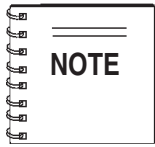
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	EM402385	CONNECTING MANIFOLD	1	
3	EM402774	PUMP MANIFOLD 3-INCH 45 OUTLET	1	(TAG UNIT)
3	EM402775	PUMP MANIFOLD 3 -INCH STR. OUTLET ..	1	(MOBIL UNIT)
6	EM402388	HOPPER ELBOW	1	
8	EM403000	MATERIAL CYLINDER 3.75" DIA	2	HIGH VOLUME
12	EM402977	STUD - 1 X 5-1/2 IN	3	
14	EM503111	CAP SCREW 1/2 X 4 - 1/2 IN	1	
16	EM402473	SLEEVE FOR FIREPROOF KIT	1	
18	EM492584	HEX NUT 1/2 IN	1	
20	EM968002	HEX NUT 3/4 IN	2	
22	EM619	WASHER 3/4 IN	6	
24	EM510849	STUD - 3/4 X 3 IN	2	
26	EM402581	QUARTER ROUND SEAL	2	
28	EM402418	CONNECTING RING	1	
32	EM402579	STEEL BALL	2	
34	EM402995	VALVE SEAT WITHOUT PIN	2	
36	EM402580	SPECIAL O-RING	3	
38	EM512914	WASHER - 1 IN	2	
40	EM968020	HEX NUT - 1 IN	2	
42	EM512612	HEX NUT - 1 IN	1	
44	EM914312	SEAL	1	
48	EM492399	CAP SCREW - 1/2 X 3 IN	1	
50	EM402415	SLEEVE SHORT	1	
52	EM492584	HEX NUT - 1/2 IN	1	
54	EM402986	SQUARE WASHER - 1 IN	1	
58	EM968002	HEX NUT - 3/4 IN	1	
60	EM505988	PIPE PLUG - 1 IN	1	
62	EM966207	"T" SLOT BOLT - 1/2 IN X 2 - 1/4 IN	2	
66	6109160	HEX NUT - 1/2 IN	2	



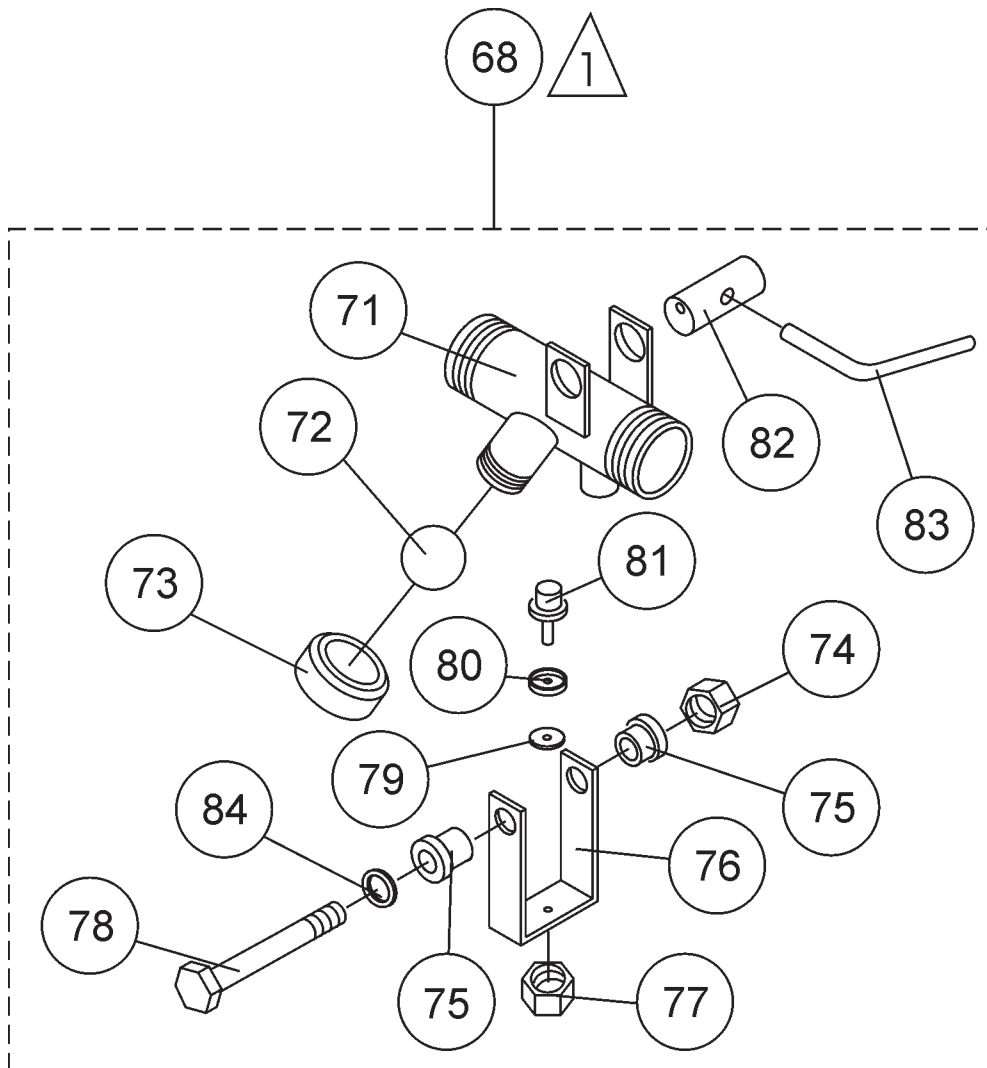
This parts list is intended to be used with **ONLY** the MG30M-3 and MG30T-3 Models, using **Fireproofing** materials. This application uses a **3.0-inch (76.2 mm)** outlet.

MG-30 PUMP — PRESSURE RELIEF VALVE (3-INCH OUTLET) ASSY.


PRESSURE RELIEF VALVE (3-INCH OUTLET) ASSY.



This assembly drawing is intended to be used with **ONLY** the MG30M-2 and MG30T-2 Models, using **Fireproofing** materials. This application uses a **3.0-inch (76.2 mm)** outlet.



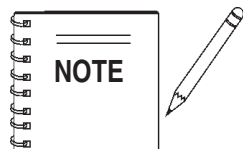
NOTES:

-  COMPLETE PRESSURE VALVE ASSEMBLY, ITEM 68, P/N EM23414 INCLUDES ALL ITEMS WITHIN OUTLINE.

MG-30 PUMP — MANIFOLD (3-INCH OUTLET) ASSY.

PRESSURE RELIEF VALVE (3-INCH OUTLET) ASSY.

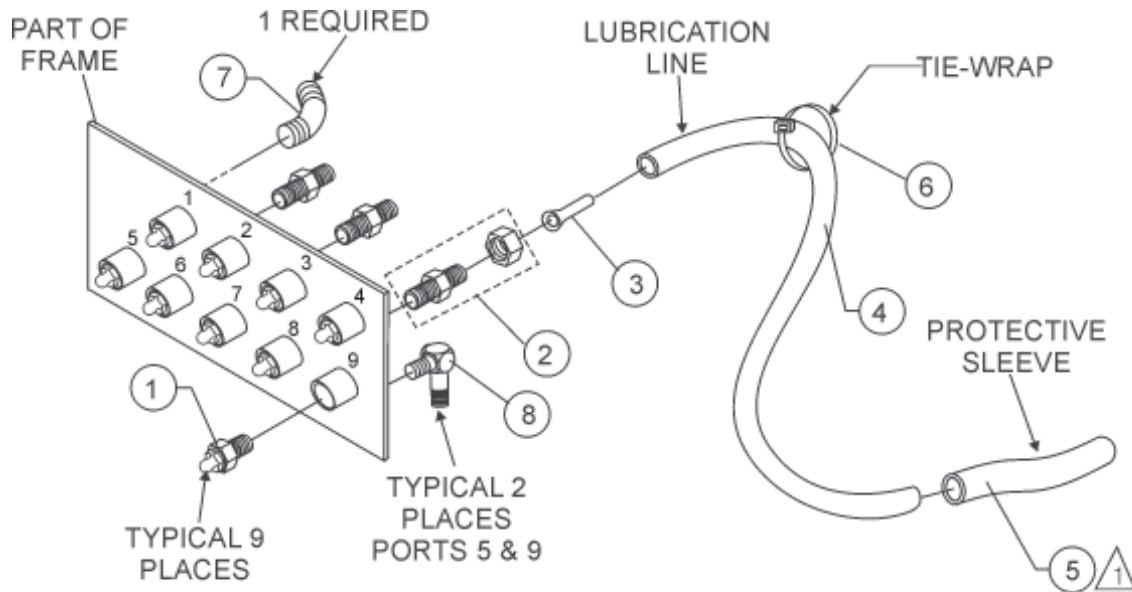
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
68	EM23414	PRESSURE RELIEF - 3 IN	1	INCLUDES ITEMS ITEMS W/*
71*	EM23809	BODY ASSEMBLY 3 IN	1	
72*	EM400581	RUBBER BALL	1	
73*	EM402527	WORKING PRESSURE CAP 700#	1	
73*	EM402528	WORKING PRESSURE CAP 1000#	1	
74*	EM906065	LOCK NUT	1	
75*	EM906065	BUSHING	2	
76*	EM402747	CLAMPING YOKE 3 IN	1	
77*	EM969079	LOCK NUT	1	
78*	EM963698	CAP SCREW 3 IN	1	
79*	EM400714	SHIM WASHER	1	
80*	EM400458	CAP	1	
81*	EM20806	SAFTEY PLUG	1	
82*	EM402748	CAM 3 IN	1	
83*	EM20805	CAM LEVER	1	
84*	TBD	WASHER	1	



This parts list is intended to be used with **ONLY** the MG30M-3 and MG30T-3 Models, using **Fireproofing** materials. This application uses a **3.0-inch (76.2 mm)** outlet.

MG-30 PUMP — LUBRICATION PANEL ASSY.

LUBRICATION PANEL ASSY.



NOTES:
 ⚠ PLACE PROTECTIVE SLEEVE OVER LUBRICATION LINE #9.



<u>POSITION</u>	<u>LOCATION</u>	<u>LENGTH OF LINES</u>
1	CAM ROCKER BUSHINGS	11 IN. (28.0 CM.)
2	GEARBOX BLOCK (BACK)	28 IN. (71.1 CM.)
3	CAM ROCKER ARM ROLLER	27 IN. (68.7 CM.)
4	CONNECTING ROD (UP)	40 IN. (102 CM.)
5	CAM ROCKER ARM (BEARING HOUSING)	35 IN. (88.9 CM.)
6	GEARBOX BLOCK (FRONT)	29 IN. (73.6 CM.)
7	CONNECTING ROD (DOWN)	40 IN. (102 CM.)
8	CRANK ROCKER ARM (BUSHINGS)	10 IN. (25.4 CM.)
9	CRANK ROCKER ARM (BEARING HOUSING)	29 IN. (73.6 CM.)
.....	TOTAL LENGTH OF LINES REQUIRED	249 IN. (632.4 CM.)

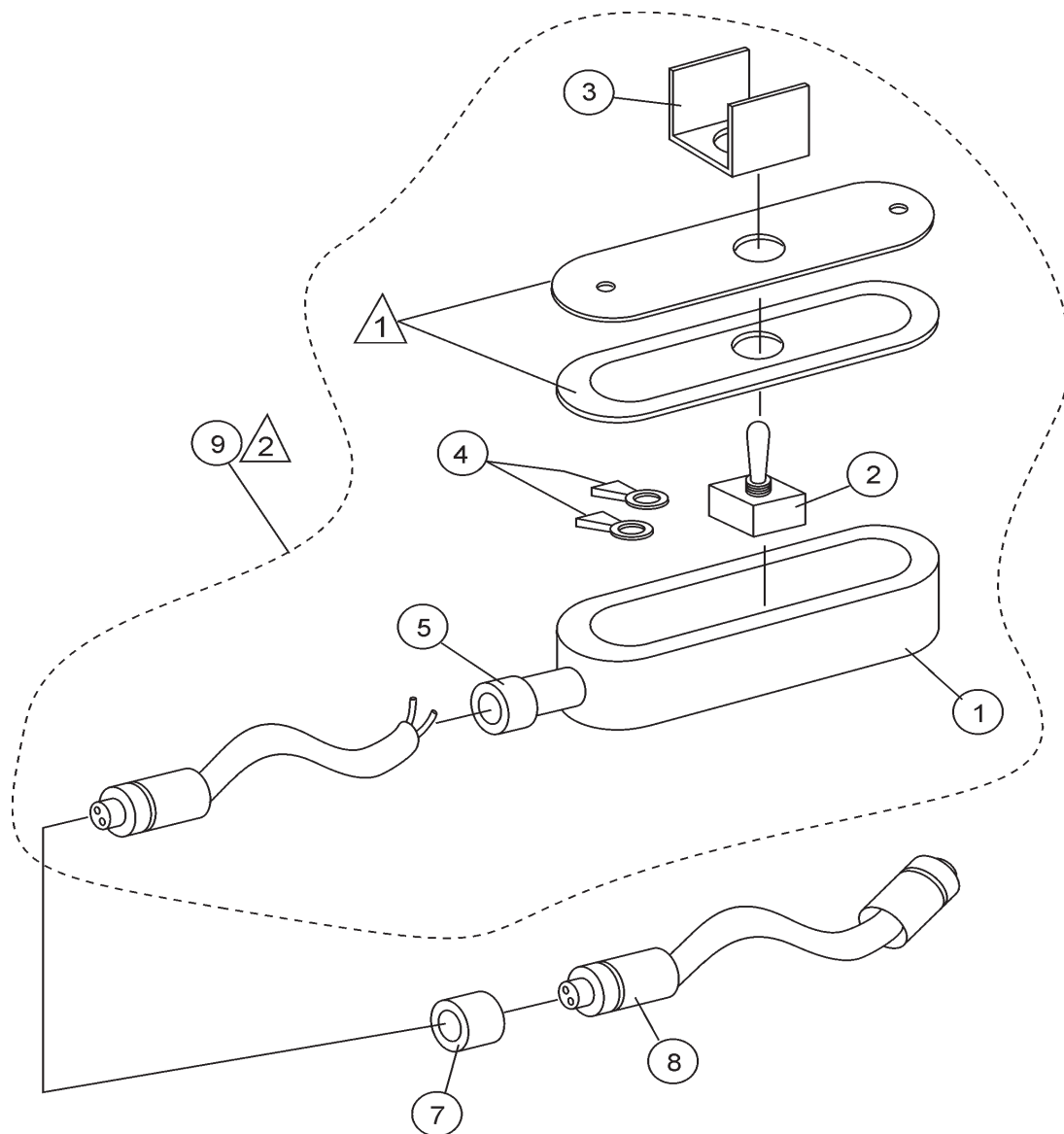
MG-30 PUMP — LUBRICATION PANEL ASSY.

LUBRICATION PANEL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	EM916001	FITTING, GREASE 1/8" NPT	14	
2*	EM505489	STRAIGHT FITTING 1/8" NPT, W/ NUT	13	
3*	EM505534	INSERT 1/8" NPT	14	
4*	EM505516	PLASTIC HOSE LINE 1/4" DIA. AR	1FT=1PC	
5*	EM490531	PROTECTIVE SLEEVE 3/8" (HOSE)	1FT=1PC	
6*	EM491028	TIE-WRAP 2.5 x 95 MM	AR	
7*	EM505490	FITTING, 45 DEGREE ELBOW	1	
8	TBD	FITTING, 90 DEGREE ELBOW	1	
9	EM512659	KIT, LUBRICATION	1	INCLUDES ITEMS W/*

MG-30 PUMP — REMOTE CONTROL CABLE ASSY.

REMOTE CONTROL CABLE ASSY.



- NOTES:
- △ 1 INCLUDED WITH ITEM 1.
 - △ 2 COMPLETE CORD ASSY.
P/N EM26788 INCLUDES
ITEMS WITHIN DASHED LINE.

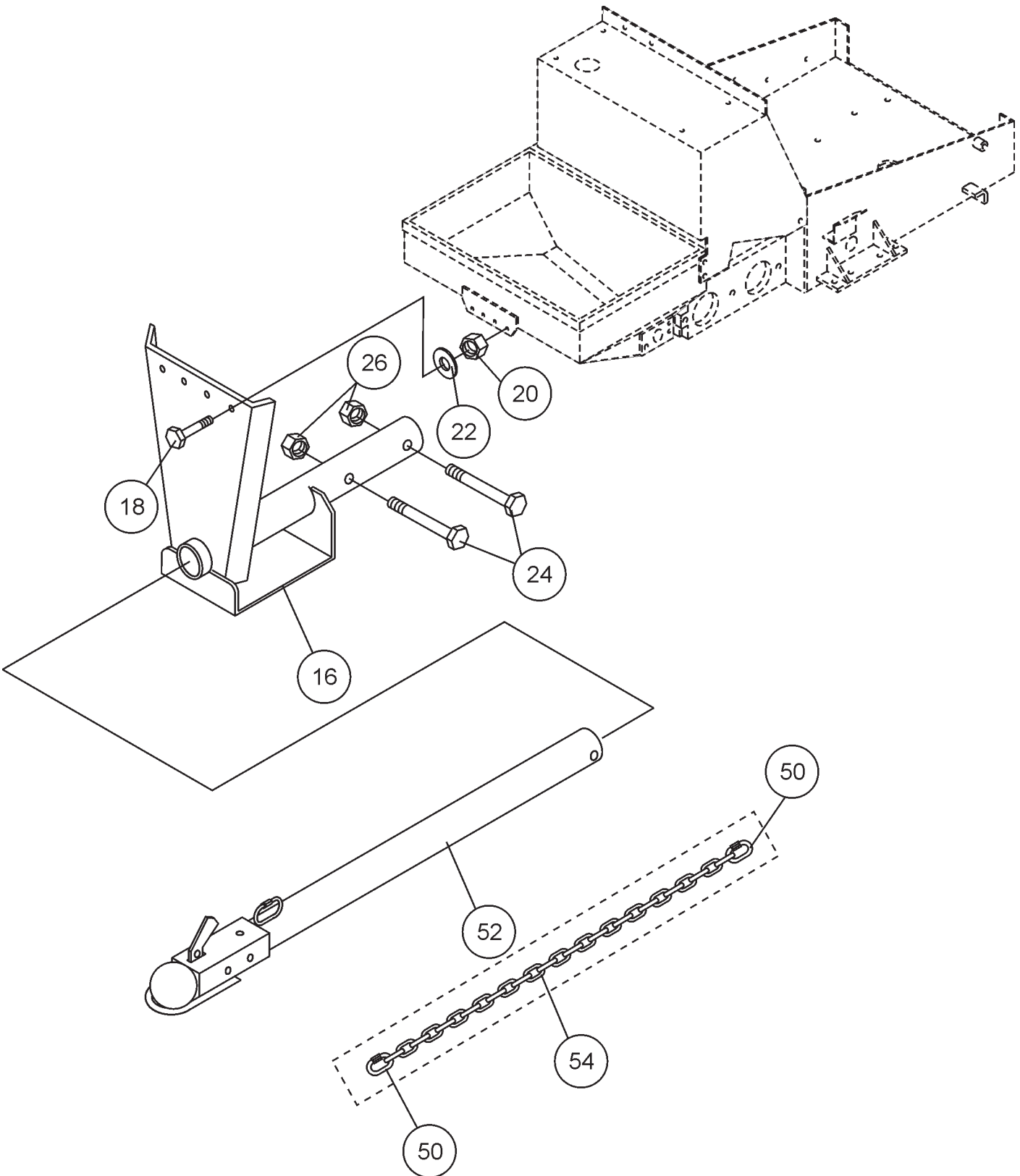
MG-30 PUMP — REMOTE CONTROL CABLE ASSY.

REMOTE CONTROL CABLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	EM16753	JUNCTION BOX	1	
2*	EM16754	SWITCH, MICRO	1	
3*	EM16756	GUARD SWITCH - ALUMINUM	1	
4*	EM491897	CONNECTOR, 3/16 RING	2	
5*	EM26791	GRIP CORD SEAL	1	
6*	EM26790	CORD 25' MX P/E	1	
7	EM26793	ADAPTER CORD GRIP 1/2"	1	
8	EM26792	ADAPTER CORD 100 FT.	1	
9	EM26788	COMPLETE CORD ASSY 25 FT	1	INCLUDES ITEMS W/*

MG-30 PUMP — TAG UNIT TRAILER ASSY.

TAG UNIT TRAILER ASSY.



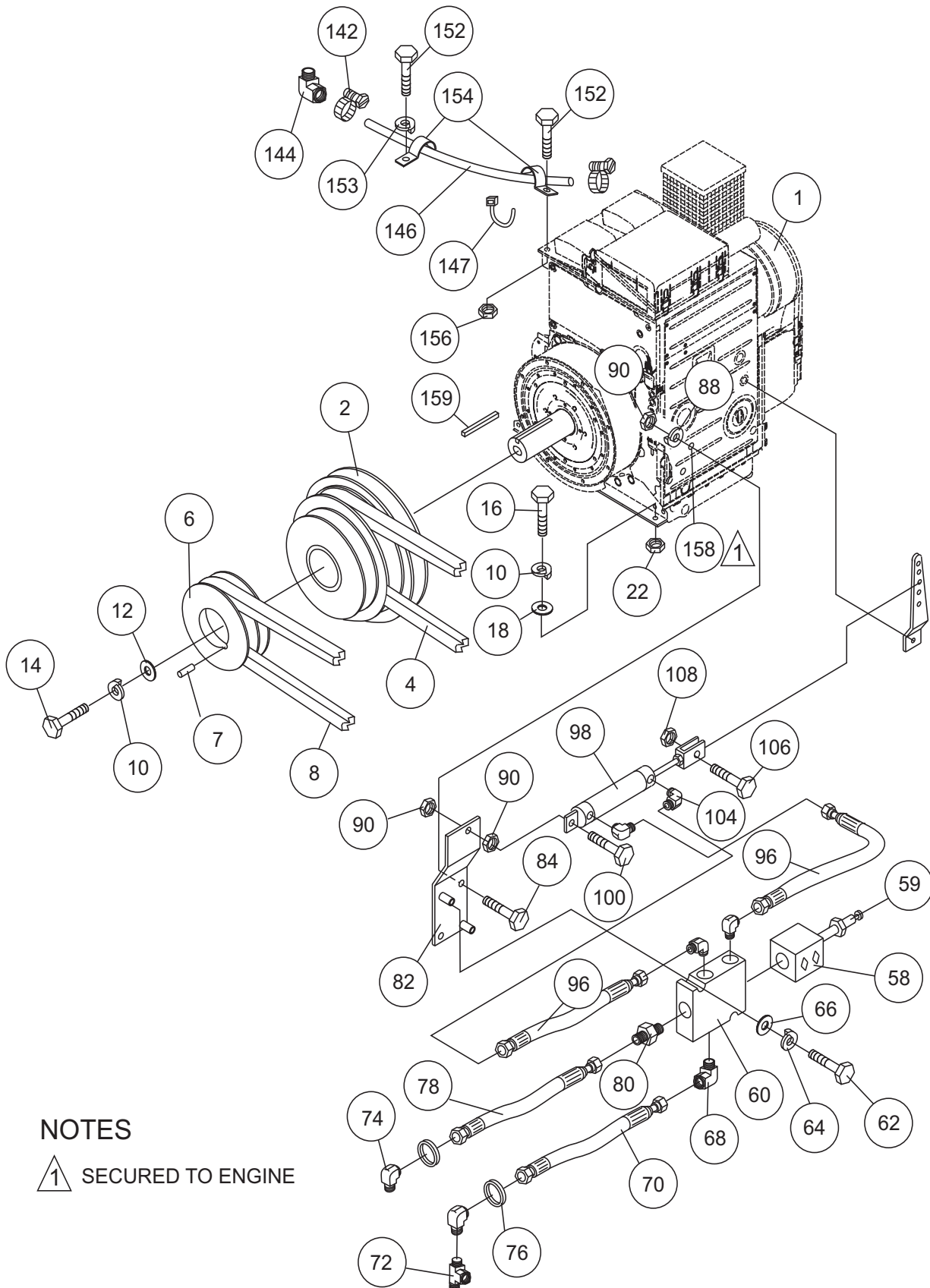
MG-30 PUMP — TAG UNIT TRAILER ASSY.

TAG UNIT TRAILER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
16	EM402510	HOPPER SUPPORT	1	
18	EM963692	HEX BOLT - 1/2 -13X1-1/2	4	
20	492584	HEX NUT - 1/2 IN	4	
22	492600	FLAT WASHER 1/2 IN	4	
24	EM963580	HEX BOLT - 3/4 X 4 1/2 IN	2	
26	EM505069	HEX NUT - 3/4 IN	2	
50	EM01005	CHAIN CONNECTOR LINK 3/8"	2	
52	HBC-1	TOW BAR W/ 2 IN BALL COUPLER	1	
54	EM513167	SAFTEY CHAIN	1	

MG-30 PUMP — HATZ 2M41LZ ENGINE ASSY.

HATZ 2M41LZ ENGINE ASSY.



NOTES

▲ SECURED TO ENGINE

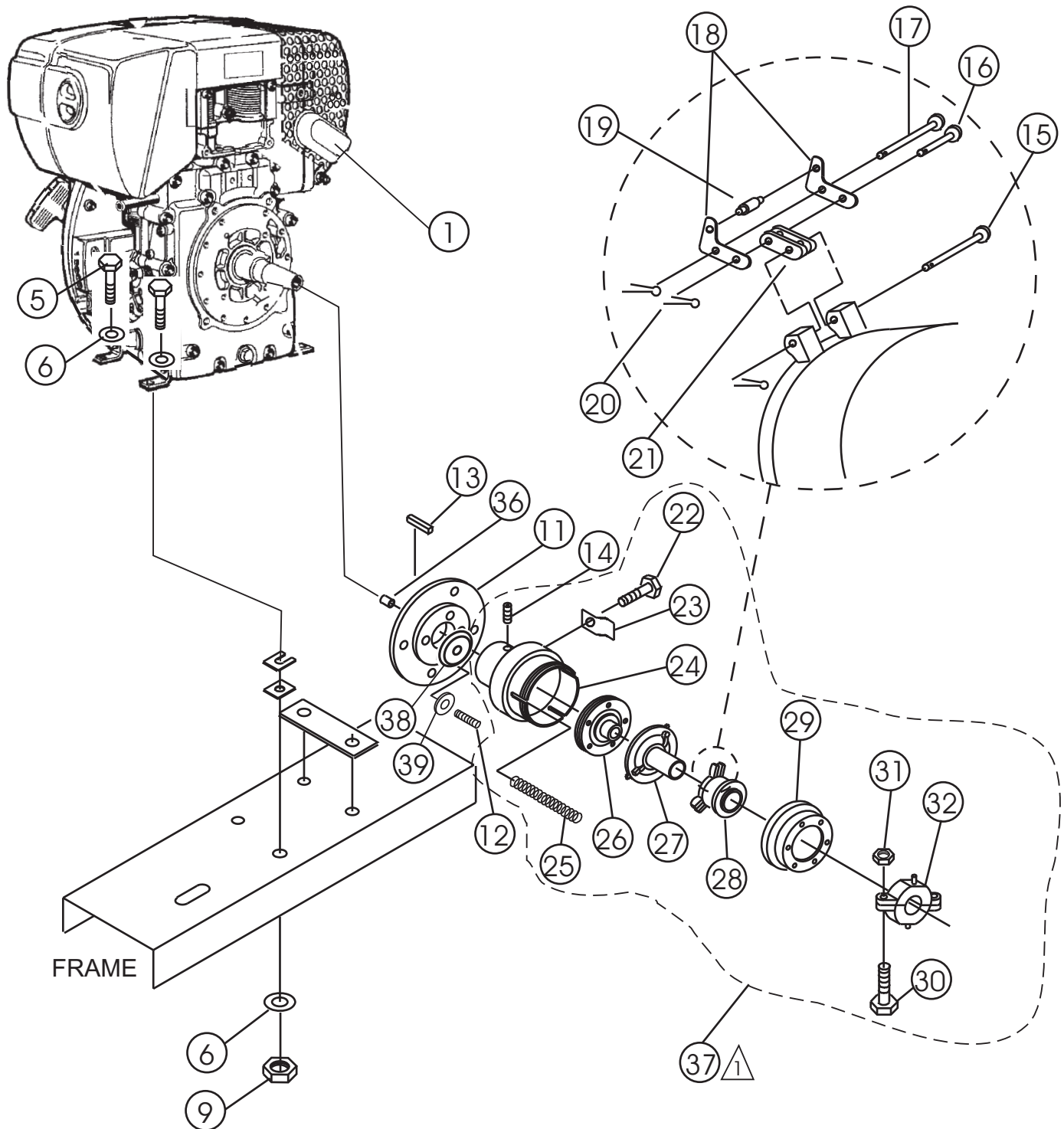
MG-30 PUMP — HATZ 2M41LZ ENGINE ASSY.

HATZ 2M41LZ ENGINE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	2M41LZ	ENGINE, HATZ 35 HP	1	
2	EM934305	CLUTCH ASSEMBLY	1	
4	EM504243	TRASSMISSION DRIVE BELT B53	1	
6	EM402582	COMPRESSOR DRIVE PULLEY	1	
7	EM513152	STUD - 5/16 X 1-3/4 IN	1	
8	EM900082	COMPRESSOR DRIVE BELT B48	1	
10	6109180	LOCK WASHER - 1/2 IN	1	REPLACES 492626
12	492600	WASHER - 1/2 IN	1	
14	EM507231	HEX BOLT - 12 MM X 100 MM	1	
16	492394	HEX BOLT - 1/2 X 1-1/2 IN	4	
18	492600	WASHER - 1/2 IN	4	
20	6109180	LOCK WASHER - 1/2 IN	4	REPLACES 492626
22	6109160	HEX NUT - 1/2 IN	4	REPLACES 492556
58	EM25451	COIL, 12 VOLT	1	
59	EM25572	VALVE	1	
60	EM25571	BODY	1	
62	512185	HEX BOLT - 1/4 X 1-3/4	2	
64	2101402	LOCK WASJER - 1/4 IN	2	REPLACES 492622
66	492596	WASHER - 1/4 IN	2	
68	EM25429	ELBOW 90°	3	
70	EM512642	HOSE	1	
72	EM25577	TEE CONNECTOR	1	
74	EM50449	ELBOW 90° - 1/8 TO 7/16	2	
76	EM506085	GROMENT	2	
78	EM25576	HOSE - 20 IN	1	
80	EM25511	FITTING	1	
82	EM512643	ACCELERATING PISTON SUPPORT	1	
84	492357	HEX BOLT - 1/4-20 X12	2	
88	2101402	LOCK WASHER - 1/4 IN	2	REPLACES 492622
90	492561	HEX NUT - 1/4 IN	2	
96	EM50462	HOSE - 10 IN	2	
98	EMCC700	HYDRAULIC CYLINDER	1	
100	EM963007	HEX BOLT - 1/4 X 1-1/2 IN	1	REPLACES 492359
104	EM50449	ELBOW 90° - 18/ TO 7/16 IN	2	
106	EM492358	HEXT BOLT - 1/4 X 1-1/4 IN	1	
108	EM969079	HEX NUT - 1/4 IN	1	
130	EM511709	LABEL - " 800-30-MAYCO"	1	
142	506208	HOSE CLAMP	2	
144	EM20426	ELBOW 1/4 X1/4 IN	1	
146	EM20427	HOSE, 1/4" FUEL	3	SOLD BY THE FOOT 2.5' REQ.
147	EM491028	CABLE TIE WRAP	1	
152	EM963003	HEX BOLT - 1/4 X 3/4 IN	2	REPLACES 492356
153	2101402	LOCK WASHER - 1/4 IN	1	REPLACES 492622
154	EM503081	U- BRACKET	2	
156	492581	LOCK NUT 1/4"	1	
158	EM513209	ENGINE SIDE COVER	1	
159	EM513232	KEY, 3/8" X 2-1/2"	1	

MG-30 PUMP — HATZ 1B30 ENGINE (CLUTCH) ASSY.

HATZ 1B30 ENGINE (CLUTCH) ASSY.



NOTES:

- △ COMPLETE CLUTCH ASSEMBLY, ITEM 37, P/N 934022 INCLUDES ALL ITEMS WITHIN OUTLINE.

MG-30 PUMP — HATZ 1B30 ENGINE (CLUTCH) ASSY.

HATZ 1B30 ENGINE (CLUTCH) ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	1B30	8.0 HP HATZ DIESEL ENGINE	1	
5	0169	BOLT BOLT HHCS 3/8-16 x 3"	4	
6	10136	FLAT WASHER 3/8"	8	
9	10133	LOCK NUT 3/8-16	4	
13	EM010009	SQ KEY 1/4 x 1/4 x 1"	1	
14	EM961045	SHSS 5/16-18 x 1/2" NYLOC	1	
15*	EM925013	LEVER PIN	3	
16*	EM925018	SHORT LINK PIN	3	
17*	EM925016	LONG LINK PIN	3	
18*	EM959012	LEVER	6	
19*	EM934054	ROLLER	3	
20*	5117	COTTER PIN	9	
21*	EM934053	CONNECTING LINK	6	
22*	TBD	SLOTTED BOLT HHCS 1/4-20 x 1/2"	1	
23*	EM934040	ADJUSTING LOCK	1	
24*	EM934039	CLUTCH HOUSING	1	
25*	EM918009	SPRING	3	
26*	EM934041	DRIVEN MEMBER	1	
27*	EM934042	PRESSURE PLATE ASSY.	1	
28*	EM934043	RELEASE SLEEVE	1	
29*	EM934045	ADJUSTING RING	1	
30*	EM963289	BOLT	2	
31*	2656	LOCK NUT	2	
32*	EM934044	RELEASING BEARING ASSY.	1	
33	EM801570	PILOT BUSHING	1	
36	EM801970	BUSHING	1	
37	EM934022	CLUTCH ASSY.	1	INCLUDES ITEMS W/*
38	TBD	OIL SEAL	1	
39	13379	WASHER	1	

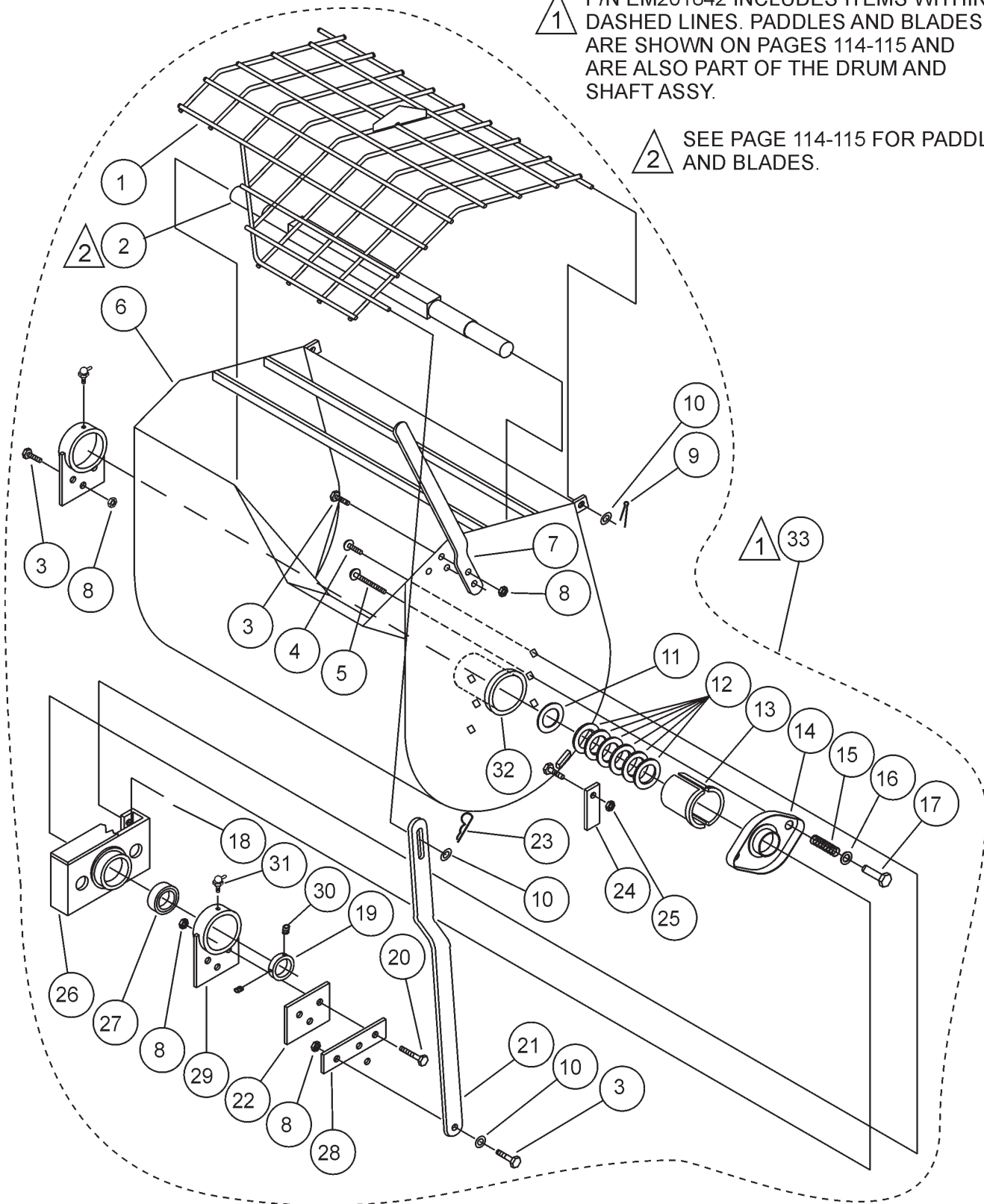
EM-120SM — MIXING DRUM ASSY.

MIXING DRUM ASSY.

NOTES:

DRUM AND SHAFT ASSY. ITEM 33, P/N EM201842 INCLUDES ITEMS WITHIN DASHED LINES. PADDLES AND BLADES ARE SHOWN ON PAGES 114-115 AND ARE ALSO PART OF THE DRUM AND SHAFT ASSY.

SEE PAGE 114-115 FOR PADDLES AND BLADES.



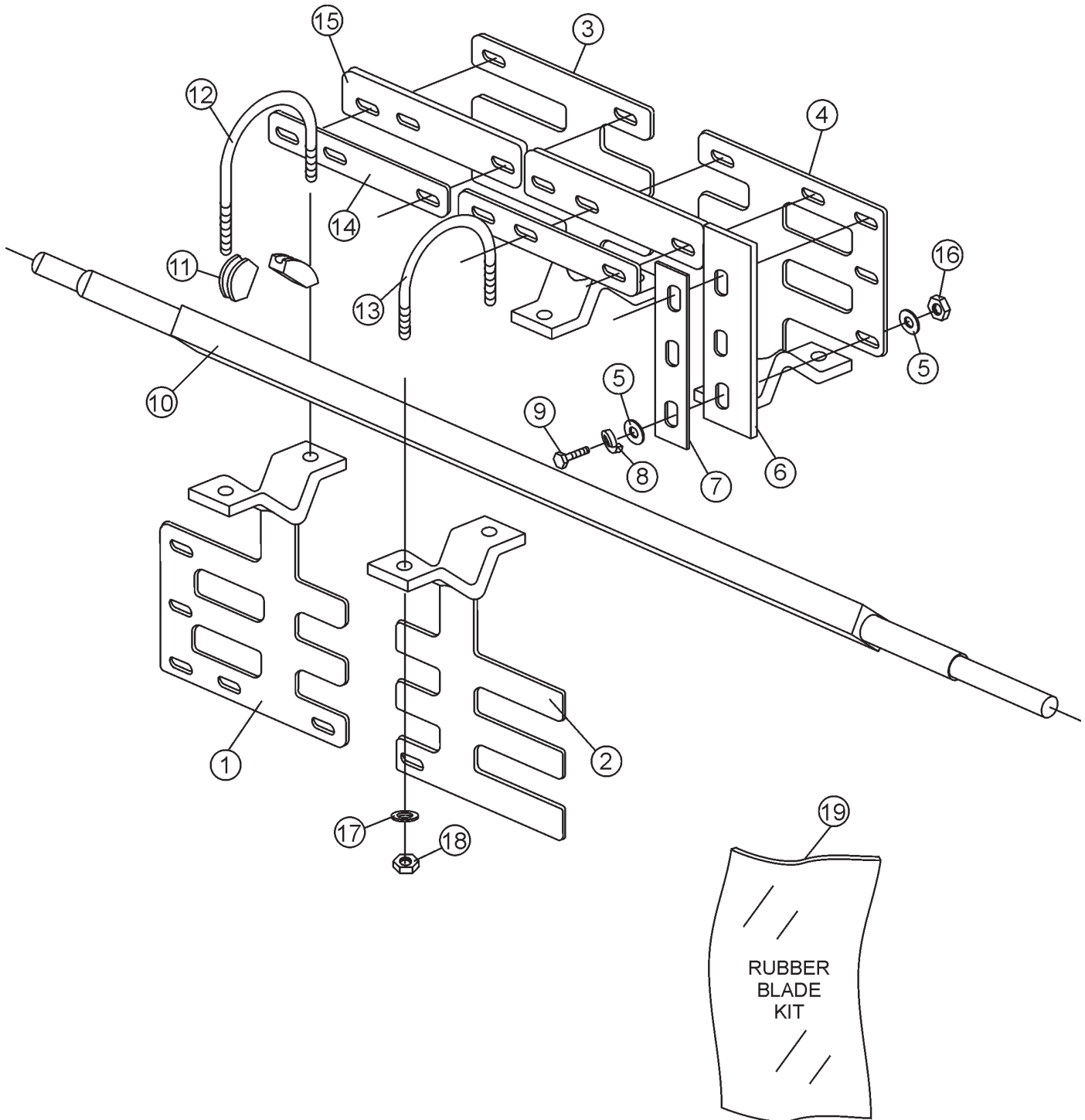
EM-120SM — MIXING DRUM ASSY.

MIXING DRUM ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1%	EM2033449	DRUM GRILL	1	
2%	EM200333	PADDLE SHAFT	1	
3%	EM963692	BOLT HHCS 1/2-13 x 1.1/2"	6	
4%	EM966048	CARRIAGE BOLT 3/8-16 x 1.1/4"	8	
5%	EM200286	CARRIAGE BOLT 3/8-16 x 3 FULL THREAD	4	
6%	EM201618	DRUM	1	INCLUDES ITEMS W/*
7*%	EM201537	DUMP LEVER	1	
8%	10176	LOCK NUT 1/2-13	9	
9%	EM924015	COTTER PIN 3/16 x 1"	2	
10%	13211	FLAT WASHER 1/2"	4	
11%	EM200303	PACKING RING FOLLOWER	2	
12%	EM200301	SHAFT PACKING RING	12	
13%	EM200285	HALF GLAND PACKING	4	
14%	EM200288	PACKING GLAND PRESSURE PLATE	2	
15%	EM200794	GLAND ADJUSTMENT SPRING	4	
16%	EM923157	FLAT WASHER 5/8"	4	
17%	EM200287	SPECIAL ADJUSTING NUT 3/8-16	4	
18%	10133	LOCK NUT 3/8-16	8	
19%	EM200018	PADDLE SHAFT COLLAR	2	
20%	6159A	BOLT HHCS 1/2-13 x 2"	3	
21%	EM203344	GRILL OPENING BAR	1	
22%	EM200079	BEARING BRKT. SHIM .135" THICK	AR	
22%	EM200080	BEARING BRKT. SHIM .187" THICK	AR	
23%	7170	HITCH CLIP PIN	1	
24*%	EM201731	DRUM LATCH	1	
25*%	EM969023	LOCK NUT 5/8-11	1	
26%	EM201648	DRUM HEAD	2	
27%	EM902153	BALL BEARING	2	
28%	203335	GRILL CLOSING BAR HINGE	1	
29%	EM201786	BEARING BRKT.	2	INCLUDES ITEMS W/#
30%	EM961066	SHSS 3/8-16 x 3/8"	4	
31#%	EM916006	GREASE FITTING 90 DEG.	2	
32%	EM200237	PACKING BOX, WELDMENT	2	
33%	EM201842	DRUM AND SHAFT ASSY.	1	INCLUDES ITEMS W/% + PADDLES/BLADES

EM-120SM — PADDLE SHAFT ASSY.

PADDLE SHAFT ASSY.

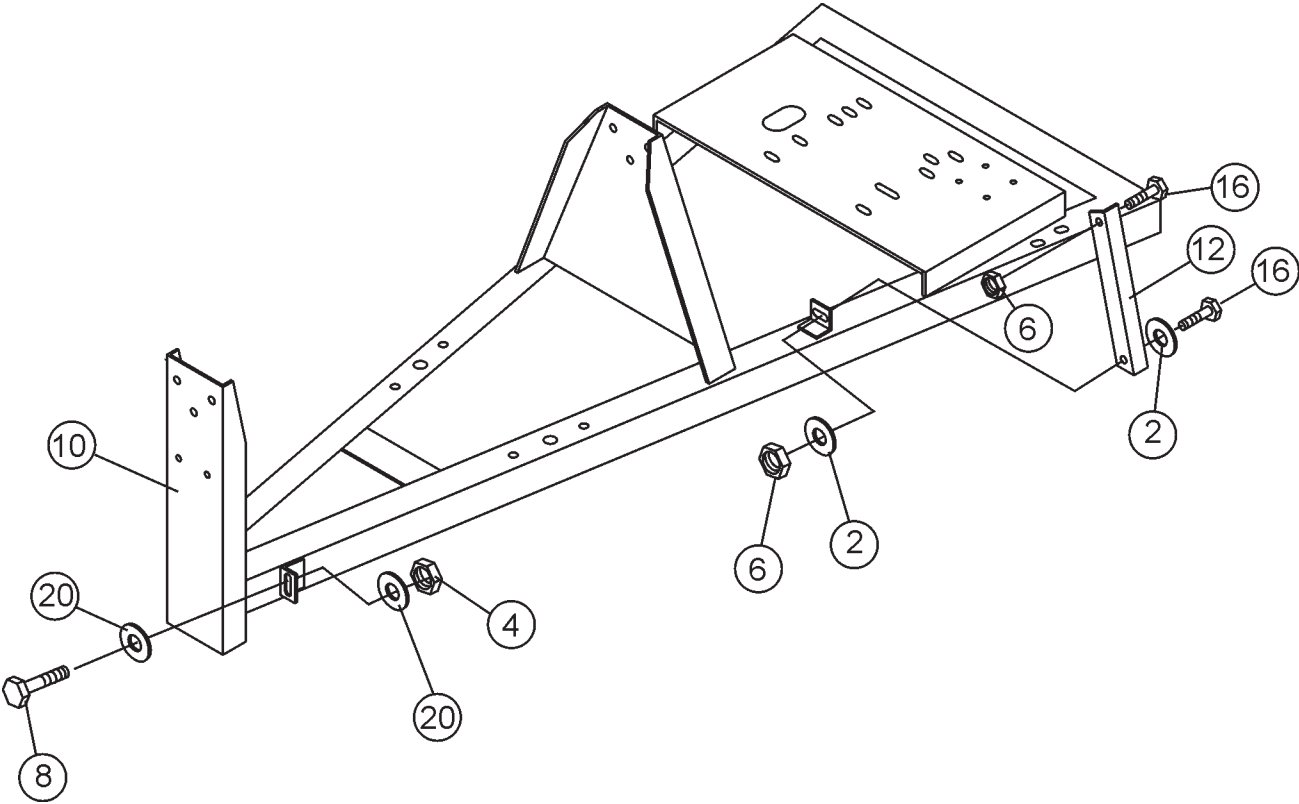


EM-120SM — PADDLE SHAFT ASSY.

PADDLE SHAFT ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM200293	TOW END CAST PADDLE	1	
2	EM200294	CENTER TOW END CAST PADDLE	1	
3	EM200295	CENTER ENGINE END CAST PADDLE	1	
4	EM200296	ENGINE END CAST PADDLE	1	
5#	0300 B	FLAT WASHER 5/16"	7	
6#	EM200213	SIDE RUBBER WIPER	1	
7#	EM203433	SIDE SCRAPER BLADE	1	
8#	0161 C	LOCK WASHER 5/16"	7	
9#	1207	BOLT BOLT HHCS 5/16-18 x 1.3/4"	7	
10	EM200333	PADDLE SHAFT	1	
11	EM200292	PADDLE ARM INSERT CASTING	6	
12	EM200297	END PADDLE U-BOLT	2	
13	EM200268	CENTER PADDLE U-BOLT	2	
14#	EM203432	TOP SCRAPER BLADE	2	
15#	EM200212	TOP RUBBER WIPER	2	
16#	0161 D	HEX NUT 5/16-18	7	
17	5054 A	LOCK WASHER 1/2"	4	
18	EM968011	HEX NUT 1/2-13	4	
19	EM200863	RUBBER BLADE KIT	1	INCLUDES ITEMS W/#
19	EM200943	STEEL BLADE KIT - OPTIONAL	1	

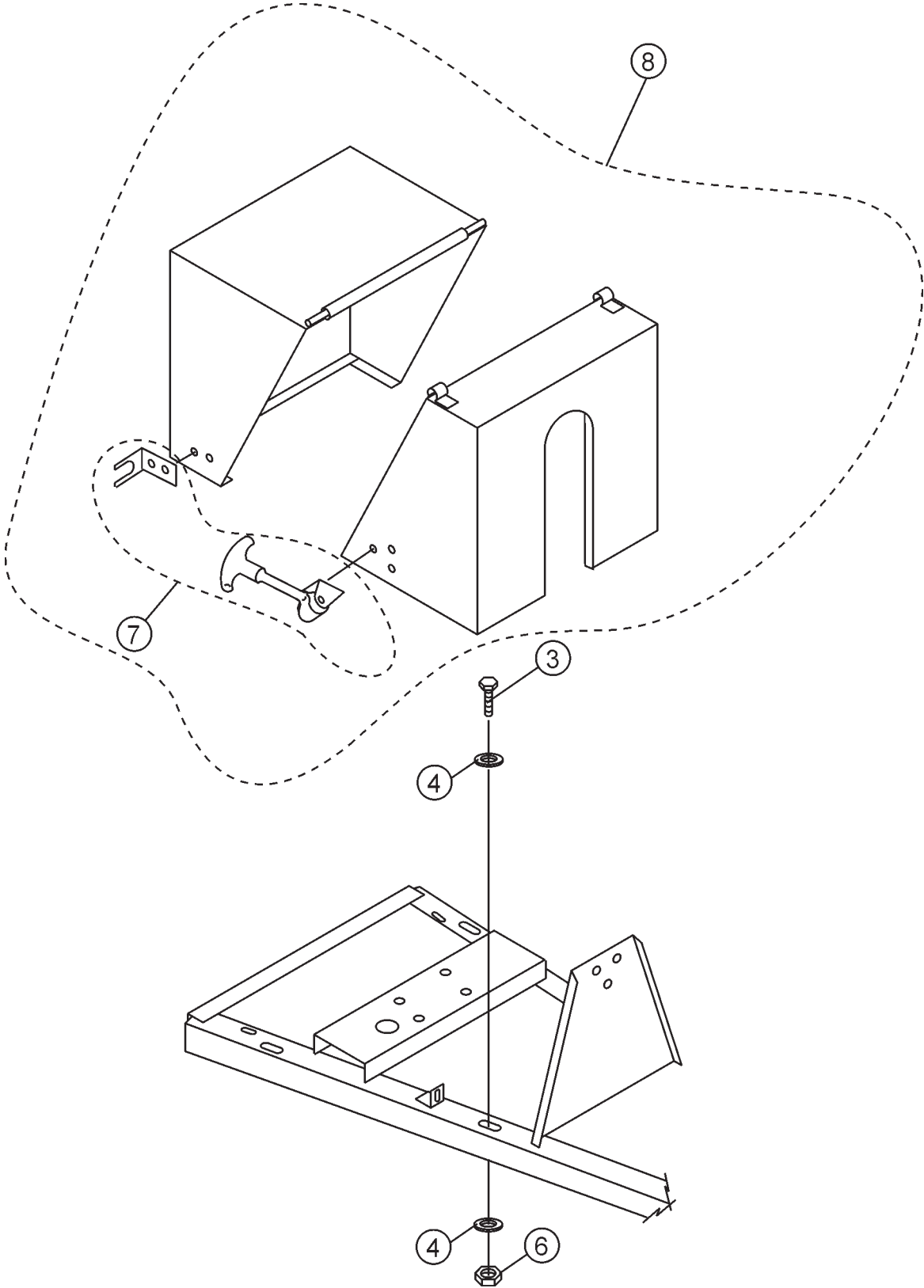
FRAME ASSY.



FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	504322	WASHER 1/2"	2	
4	492583	HEX NUT 3/8"	1	
6	4922584	HEX NUT 1/2"	4	
8	492376	BOLT BOLT HHCS 3/8" NC X 1-1/4" G5	1	
10	513212	FRAME	1	
12	204086	SUPPORT	2	
16	492334	BOLT BOLT HHCS 1/2" NC X 1-1/2" G5	4	
20	492598	WASHER 3/8"	2	

CAB ASSY.

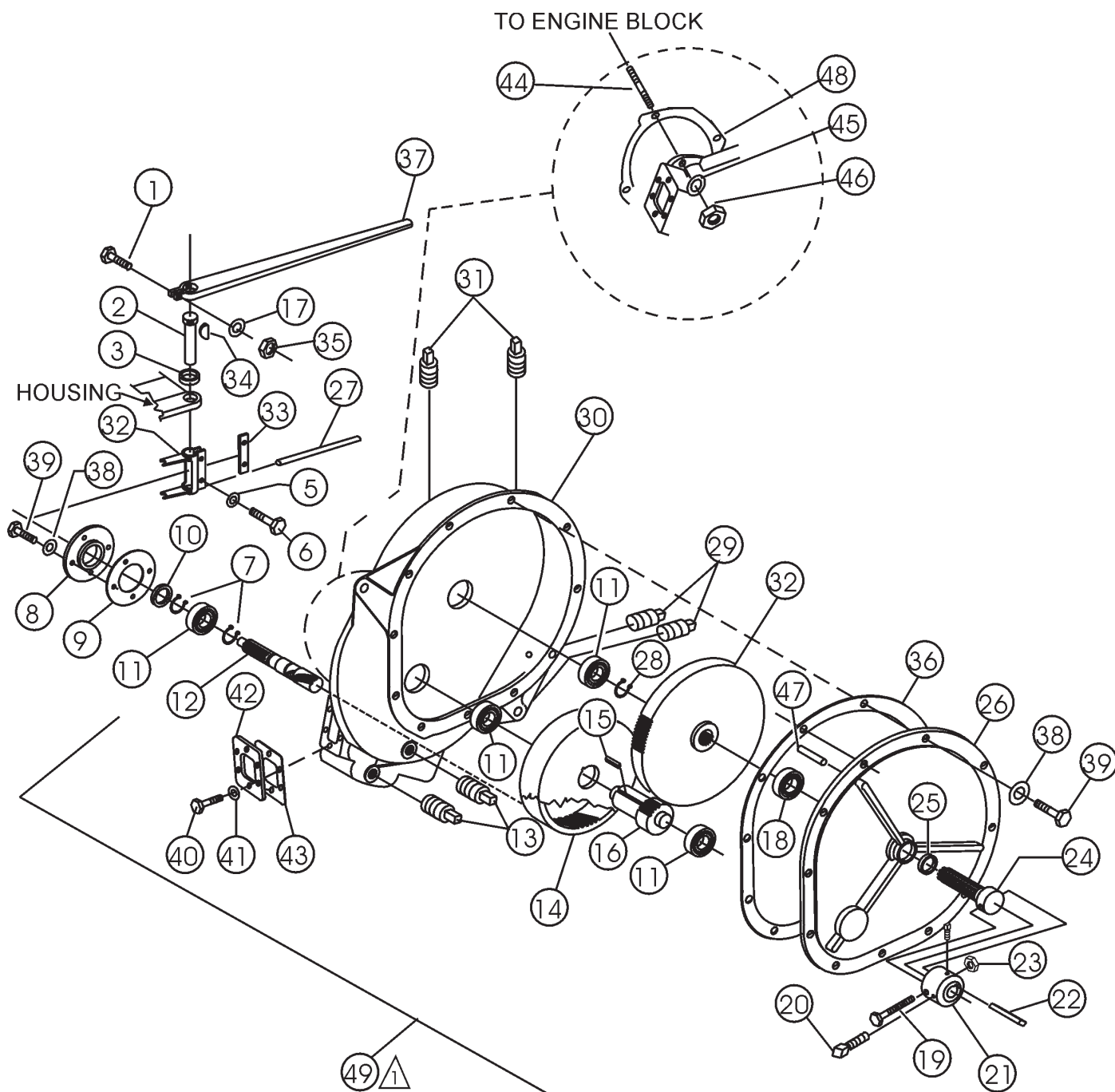


CAB ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3	1284	BOLT HHCS 3/8-16 x 1.1/2"	4	
4	4001	FLAT WASHER 3/8"	8	
6	10133	LOCK NUT 3/8-16	4	
7*	491010	RUBBER LATCH ASSY.	2	
8	EM202957	COMPLETE CAB ASSY. (GAS).....	1	INCLUDES.ITEMS W/*

EM-120SM — TRANSMISSION ASSY.

TRANSMISSION ASSY.



NOTES:

- 1 COMPLETE TRANSMISSION ASSEMBLY, ITEM 49, P/N 600000 INCLUDES ALL ITEMS WITHIN BRACKET, EXCEPT ITEMS, 19, 20, 21, 22, 23, 37, AND 44, 45, 46 AND 48.

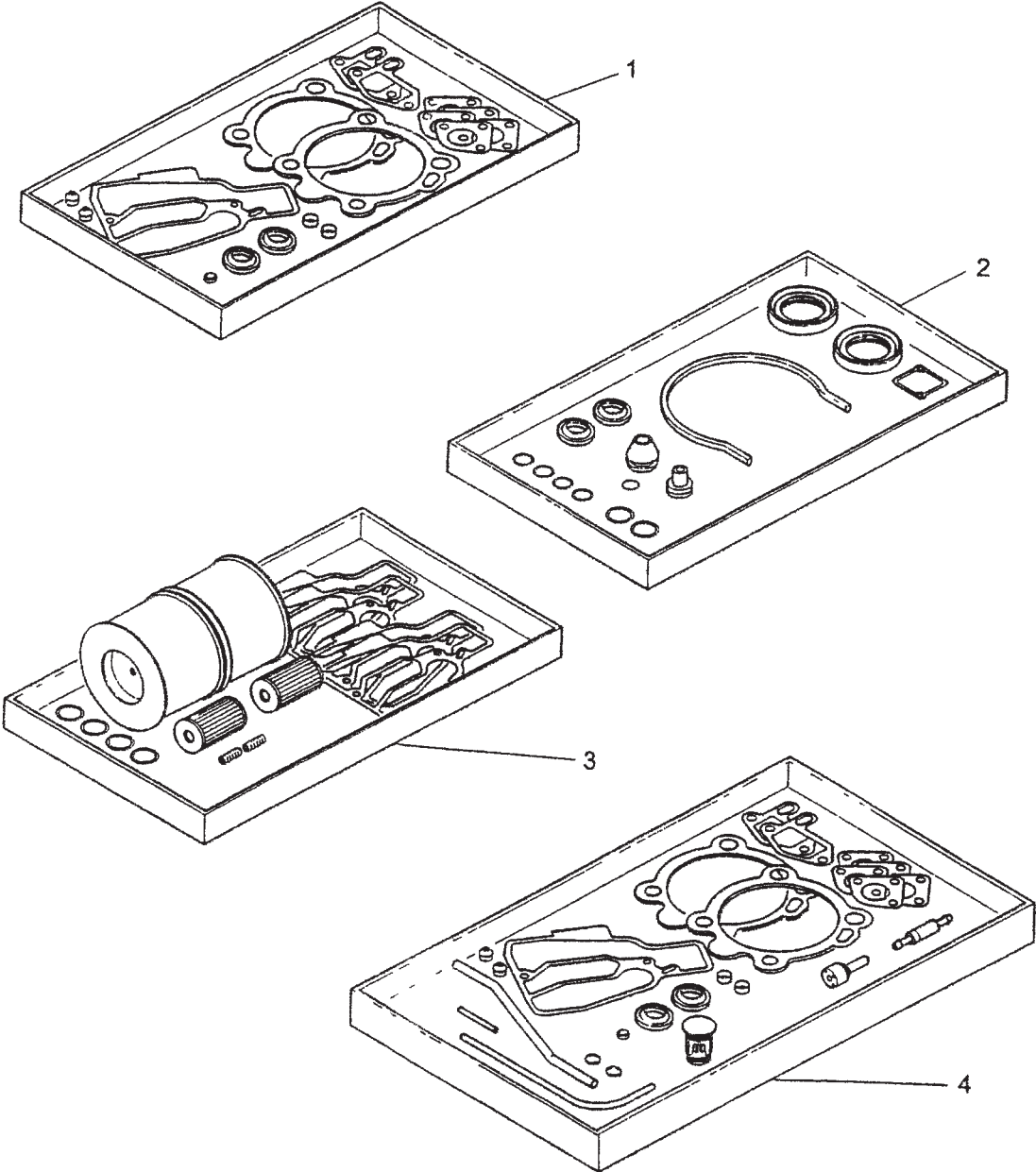
EM-120SM — TRANSMISSION ASSY.

TRANSMISSION ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#	2200	BOLT HHCS 3/8-24 x 2"	1	
2#	EM600029	SHIFTER SHAFT	1	
3#	EM914005	SEAL	1	
4#	EM600028	CLUTCH YOKE	1	
5#	0181 B	LOCK WASHER 1/4"	2	
6#	0730	BOLT HHCS 1/4-20 x 1"	2	
7#	EM926029	SNAP RING	2	
8#	EM600023	BEARING RETAINER	1	
9#	EM600022	BEARING RETAINER GASKET	1	
10#	EM914209	SEAL	1	
11#	EM902091	BALL BEARING	4	
12#	EM600016	INPUT PINION SHAFT	1	
13#	EM911329	SQ HEAD MAG. PIPE PLUG 3/8"	2	
14#	EM600020	INTERNAL GEAR	1	
15#	010062	SQ KEY 3/8 x 3/8 x 1.3/8"	1	
16#	EM600131	OUTPUT DRIVE PINION	1	
17#	10136	FLAT WASHER 3/8"	1	
18#	040006208	BALL BEARING	1	REPLACES EM902161
19	EM963157	BOLT HHCS 5/8-11 x 4.1/2" GD2	1	
20	EM961019	SQHSS 3/8-16 x 1.1/4" CUP	2	
21	EM200255	PADDLE SHAFT CONNECTOR ASSY. KIT	1	
22	EM010022	SQ KEY 3/8 x 3/8 x 1.3/4"	1	
23	9503	LOCK NUT 5/8-11	1	
24#	EM600015	OUTPUT SHAFT	1	
25#	EM914207	OIL SEAL	1	
26#	EM600014	TRANSMISSION COVER	1	
27#	1729	ROLL PIN	1	
28#	EM926036	SNAP RING	1	
29#	EM911064	SQ HEAD PIPE PLUG 1/2 NPT	2	
30#	EM600012	MAIN TRANSMISSION HOUSING	1	
31#	EM911356	BREATHER VENT PIPE PLUG 1/2"	2	
32#	EM600133	OUTPUT SHAFT GEAR	1	
33#	EM600024	LOCK PLATE	1	
34#	EM927048	WOODRUFF KEY #A	1	
35#	10133	LOCK NUT 3/8-16	1	
36#	EM600021	TRANSMISSION COVER GASKET	1	
37	EM600018	SHIFTER LEVER	1	
38#	0161 C	LOCK WASHER 3/8"	17	
39#	0202	BOLT HHCS 5/8-16 x 1"	17	
40#	4196	BOLT HHCS 3/8-16 x 3/4"	6	
41#	1875	INTER. SHKP WASHER 3/8"	6	
42#	EM931233	COVER, SHIFTER	1	
43#	EM600026	GASKET, SHIFTER COVER	1	
44#	EM300999	STUD 7 / 16-14 x 2.1/16"	4	
45#	2955	LOCK WASHER 7/16"	4	
46#	EM492555	HEX NUT 7/16-14	4	REPLACES EM968010
47#	925109	DOWEL PIN	3	
48	EM801965	GASKET	1	
49	EM600000	COMP. TRANSMISSION ASSY.....	1	INCLUDES ITEMS/W#

HATZ 1B30 — SPARE PARTS KIT ASSY.

SPARE PARTS KITS ASSY.



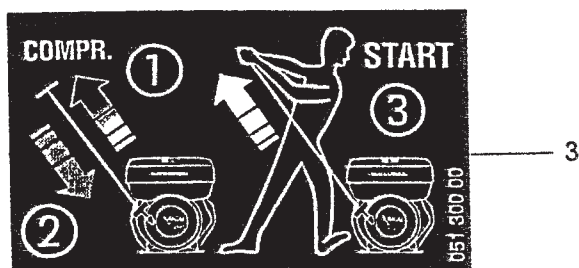
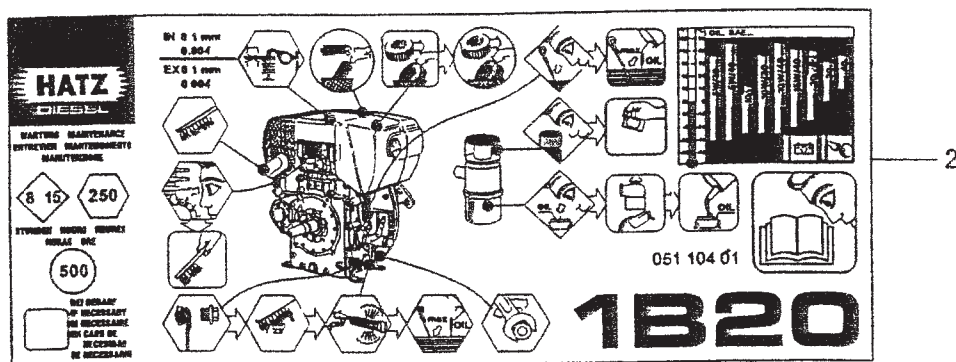
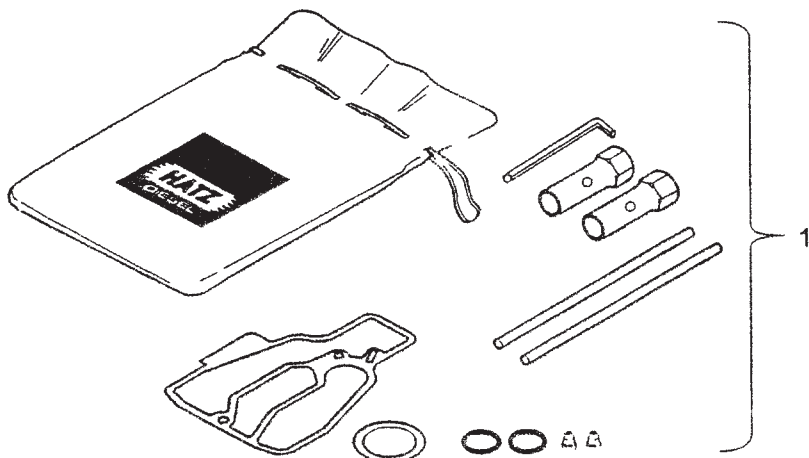
HATZ 1B30 — SPARE PARTS KIT ASSY.

SPARE PARTS KITS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01582200	GASKET SET CYL. HEAD	1	
2	01582300	GASKET SET CRANKCASE	1	
3	01582400	MAINTENANCE KIT- 1000 HRS	1	
4	01582500	EMERGENCY KIT	1	

HATZ 1B30 — ACCESSORIES ASSY.

ACCESSORIES ASSY.



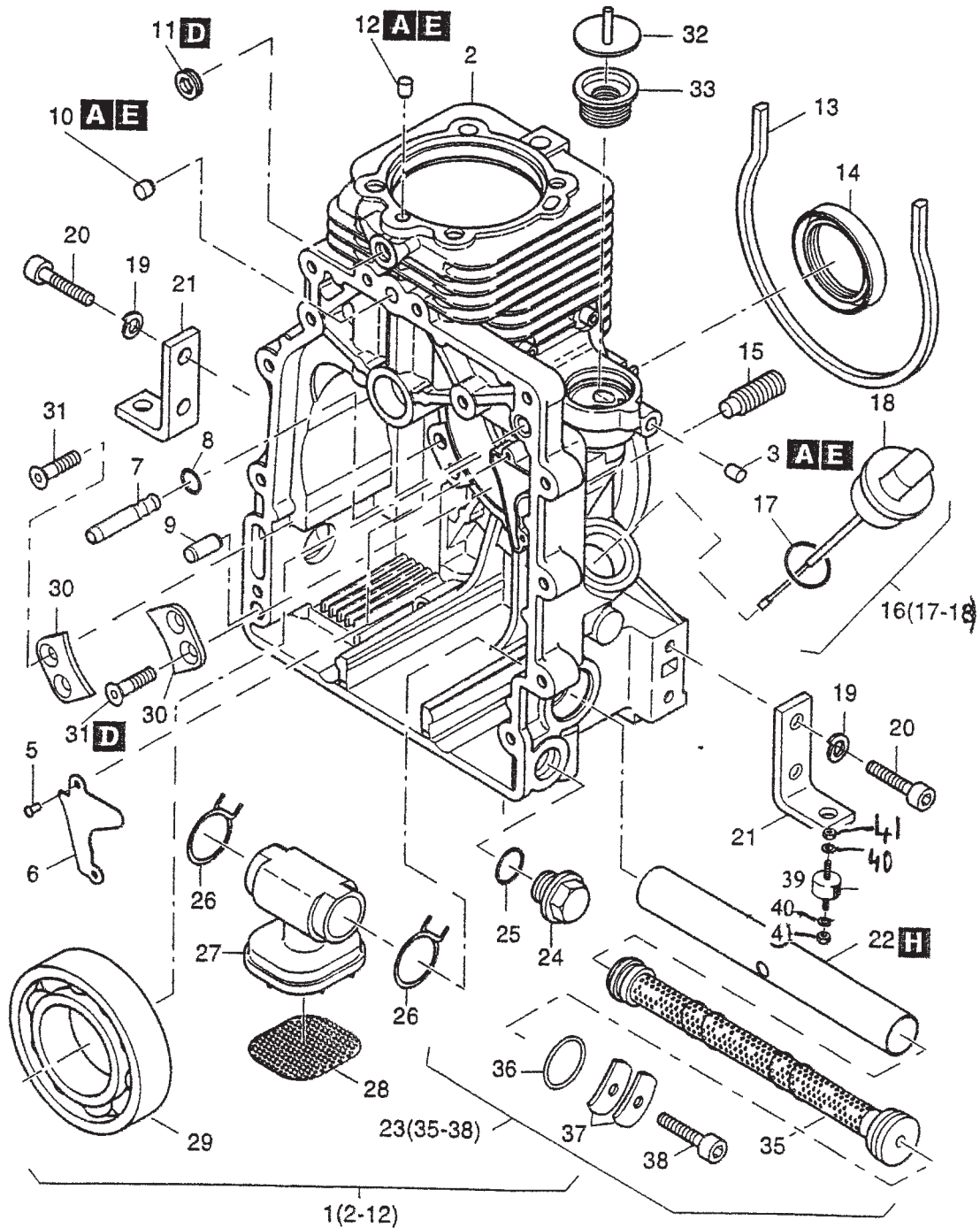
HATZ 1B30 — ACCESSORIES ASSY.

ACCESSORIES ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01578700	TOOL KIT	1	
2	05120100	DECAL MAINTENANCE	1	
3	05130000	DECAL START	1	
4	05130100	DECAL	1	

HATZ 1B30 — CRANKCASE AND ENGINE MOUNT ASSY.

CRANKCASE AND ENGINE MOUNT ASSY.



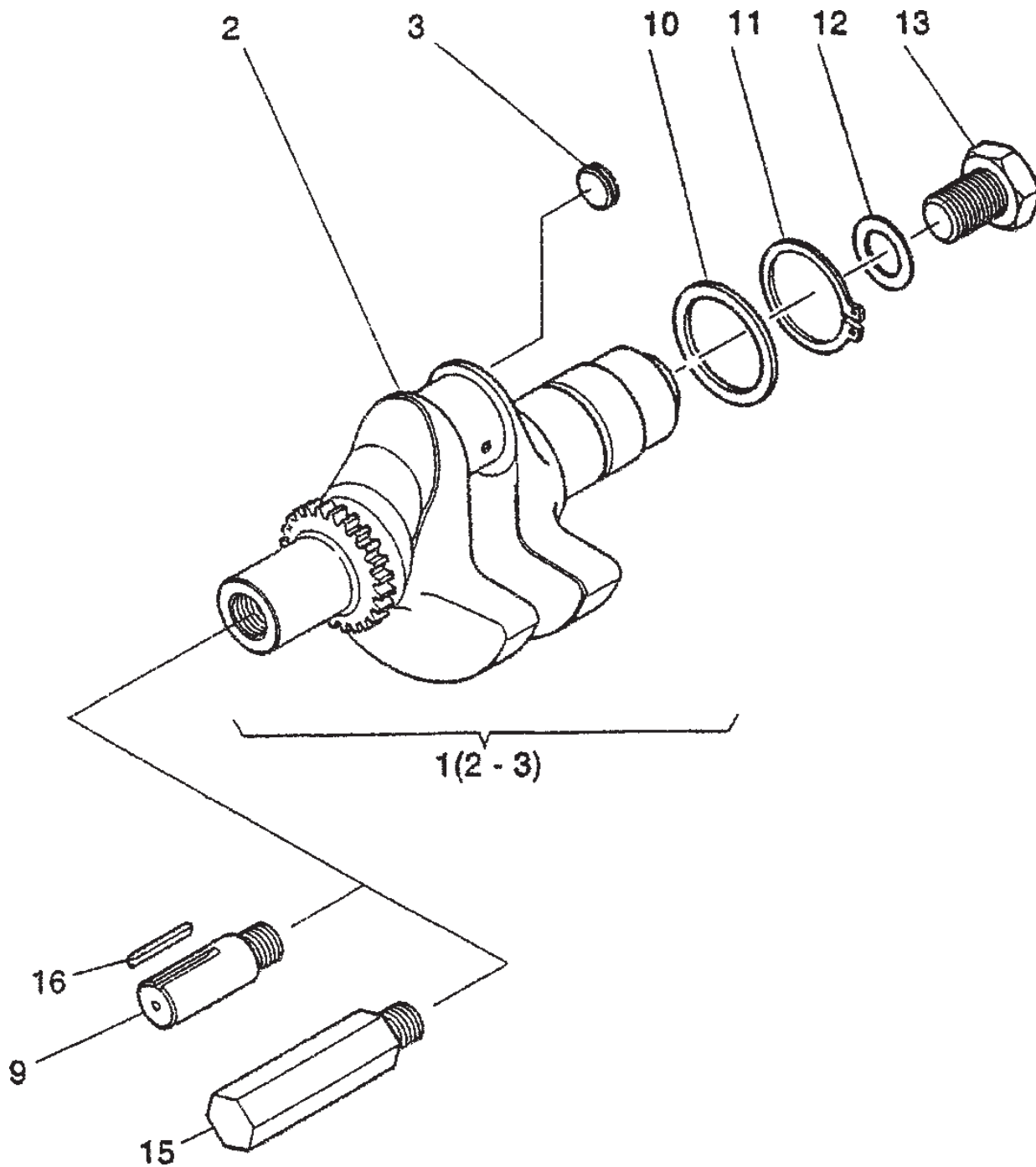
HATZ 1B30 — CRANKCASE AND ENGINE MOUNT ASSY.

CRANKCASE AND ENGINE MOUNT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01582710	CRANKCASE ASSEMBLY	1	
2		CRANKCASE	1	NOT SOLD SEPERATELY
3*	03455000	PLUG 6.5X7	1	
5*	40002600	BLIND RIVET	2	
6*	01333100	COVER PLATE	1	
8*	50440300	O- RING	1	INCLUDED IN CRANKC. GASK. SET
9*	50249101	CYL. PIN	1	
10*	04123800	PLUG	1	
11*	50062300	SCREW M10X1	1	
12*	04112800	PLUG	1	
13	04112600	SEALING STRIP 419MM	1	INCLUDED IN CRANKC.GASK.
SET				
14	50449800	OIL SEAL 42X55X10	1	INCLUDED IN CRANKC. GASK.
SET				
15	04115200	GRUB SCREW	1	
16	01316000	DIPSTICK W/SEALING RING	1	INCLUDES ITEMS W/%
17%	04125000	SEALING RING	1	
18%		DIPSTICK.....	1	NOT SOLD SEPERATELY
19	50208500	SPRING WASHER	8	
20	04121900	ALL. SCREW M8X35	8	
21	04099302	ENGINE BRACKET	4	
22	04105710	TUBE F. OIL FILTER	1	
23	01542702	OIL SUCTION FILTER	1	INCLUDES ITEMS W/#
24	50373100	DRAIN PLUG M22X1.5	1	INCLUDED IN MAINTENANCE KIT
25	50469800	JOINT A22X27	1	INCLUDED IN CRANKC. GASK. SET
			AND MAINTENANCE KIT
26	05036900	HOSE CLIP	2	
27	04104400	SUCTION PORT	1	
28	04104500	SIEVE	1	
29	50449700	BALL BEARING 6309	1	
30	04094400	PLATE	2	
31	50328000	CENTER SUNK SCREW AM6X16	4	
32	01555800	COVER	1	
33	03568700	RUBBER DIAPHRAM	1	
35#		FILTER, OIL SUCTION	1	NOT SOLD SEPERATELY
36#	50475900	O- RING 20X4	1	
37#	05148200	PLATE SPRING	2	
38#	50170700	ALL. SCREW M6X16	1	
39	99400696	ISOLATOR	4	
40	50208500	SPRING WASHER	8	
41	50022900	NUT M8	8	

HATZ 1B30 — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.



HATZ 1B30 — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01334200	CRANKSHAFT NO. X W? PLUG	1	INCLUDES ITEMS W/*
2*		CRANKSHAFT	1	NOT SOLD SEPERATELY
3*	04125300	CLOSING PLUG 12 MM	1	
9	TBD	STUBSHAFT 25 DIA.	1	
10	40065600	SUPPORTING DISK 45X55X3.0	1	
11	50021600	CIRCLIP A45X1.75	1	
12	04114201	DISK 18.5X37X5	1	
13	50443600	HEX. SCREW M18X1.5X55	1	
14	05141600	FITTING KEY A6.35X61	1	
15	05107301	STUBSHAFT SEM FINISHED 27 MM DIA.	1	
16	50473700	FITTING KEY 7X8X45	1	

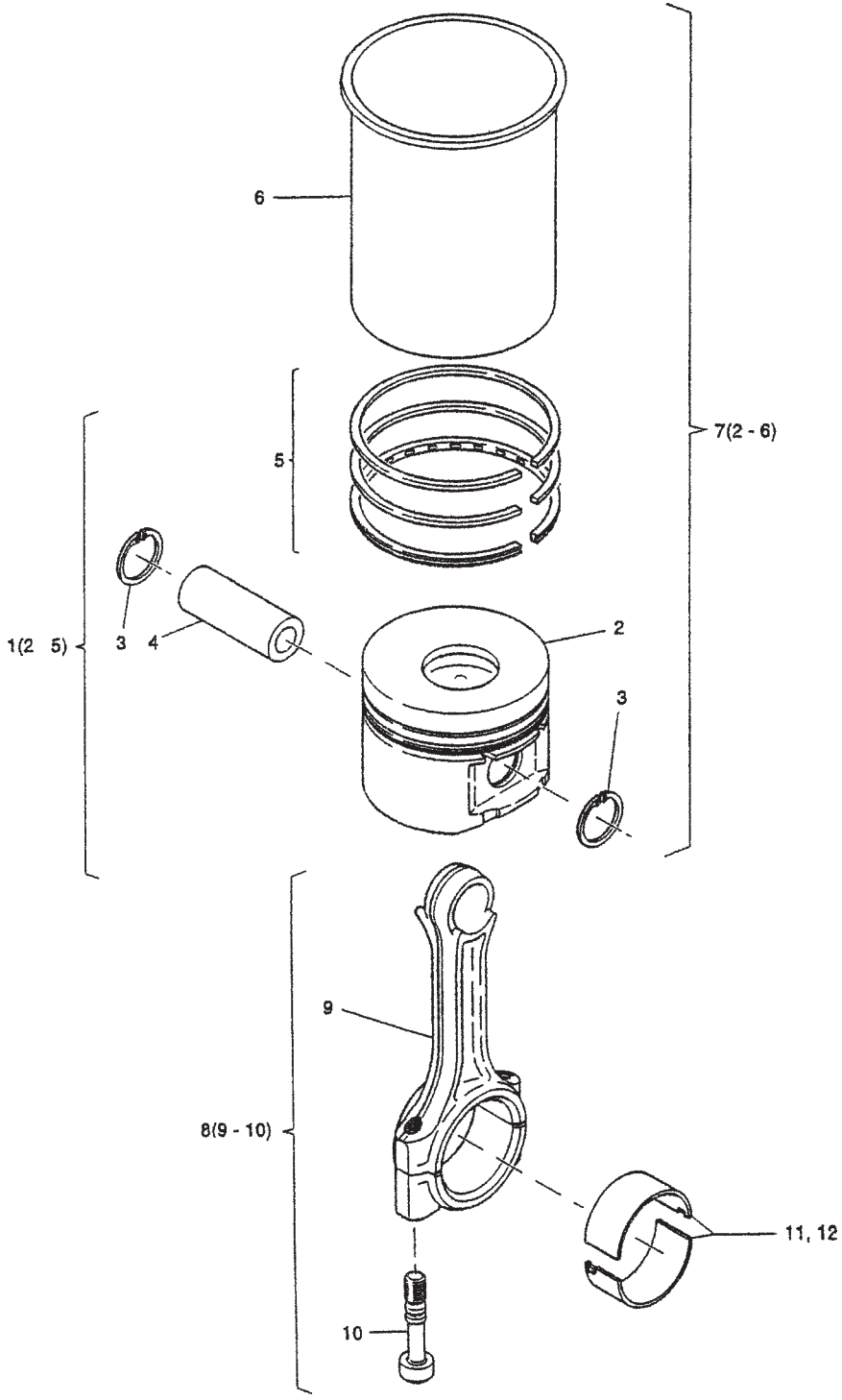
HATZ 1B30 — CAMSHAFT ASSY.

CAMSHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01503520	CAMSHAFT ASSY.	1	INCLUDES ITEMS W/*
3*	01326400	CAMLEVER	1	
4*	50123200	SHIM 5X10X0.5 DIN988	2	
5*	01326600	FLYWEIGHT	1	
6*	50255300	LOCK WASHER	2	
7*	01326500	FLYWEIGHT	1	
8*		CAMSHAFT	1	NOT SOLD SEPERATELY
9	04121700	WASHER 0.9MM 23X38X0.9	0..1	
10	04112100	WASHER 1.0MM 23X38X1.0	0..1	
11	04112200	WASHER 1.1MM 23X38X1.1	0..1	
12	04112300	WASHER 1.2MM 23X38X1.2	0..1	
13	04125100	WASHER 1.3MM 23X38X1.3	0..1	
14	04125200	WASHER 1.4MM 23X38X1.4	0..1	

HATZ 1B30 — PISTON ASSY.

PISTON ASSY.



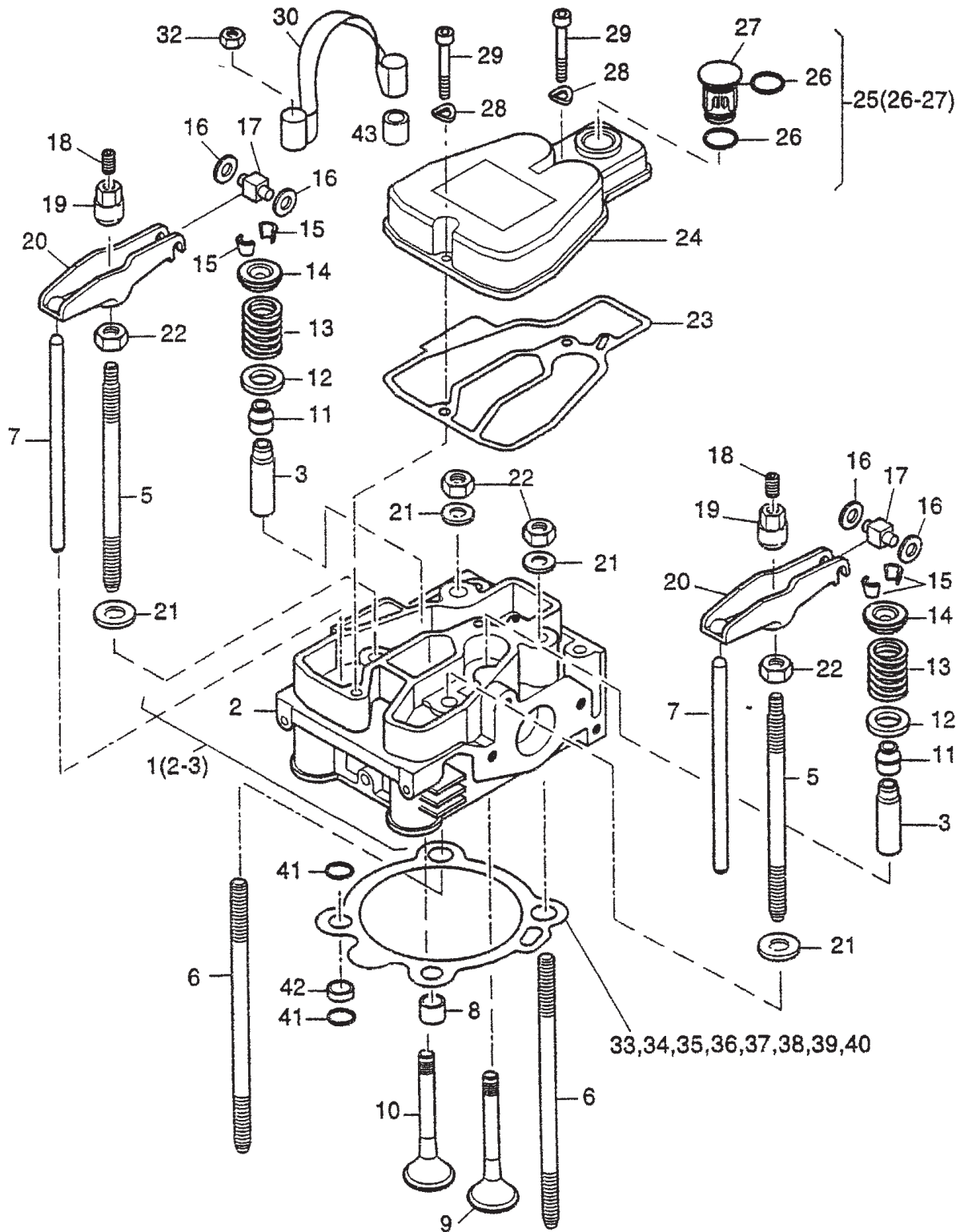
HATZ 1B30 — PISTON ASSY.

PISTON ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01328501	PISTON 80MM ASSY.	1	INCLUDES ITEMS W/*
2*		PISTON 80MM	1	NOT SOLD SEPERATELY
3*%	01326500	FLYWEIGHT	2	
4*%	50463600	PISTON PIN	1	
5*%	01328601	PISTON RING SET 80MM	1	
6%		CYLINDER	1	NOT SOLD SEPERATELY
7%	01582600	CYLINDER WITH PISTON ASSY.	1	INCLUDES ITEMS W/%
8	01329201	CONROD ASSY.	1	INCLUDES ITEMS W/\$
9\$		CONROD	1	NOT SOLD SEPERATELY
10\$	04113100	CONROD SCREW	2	
11	01582100	BIG END BEARING	1	
12	01582000	BIG END BEARING - 0.5MM	1	

HATZ 1B30 — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.



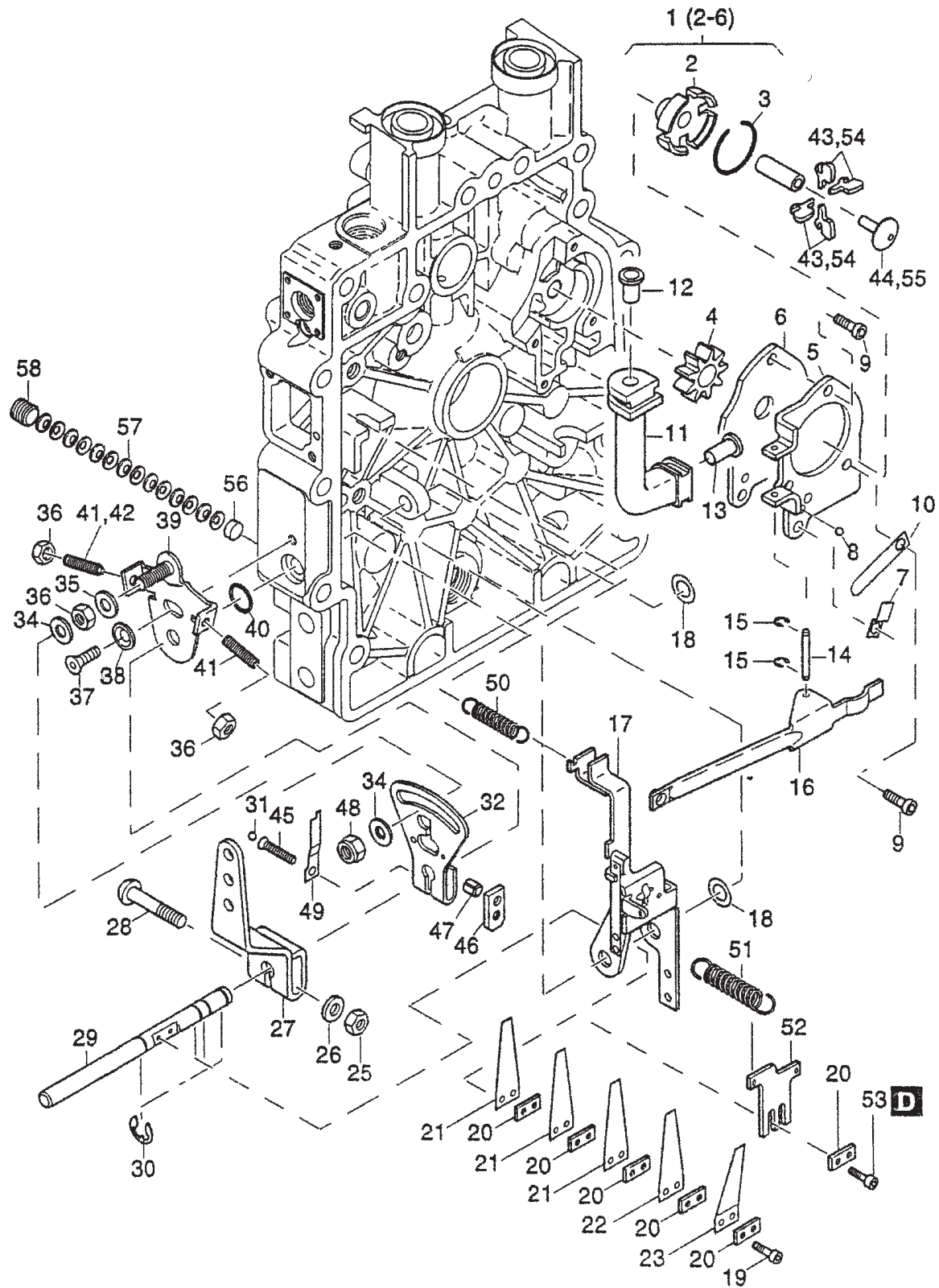
HATZ 1B30 — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01529801	CYLINDER HEAD ASSY	1	INCLUDES ITEMS W/*
2*		CYLINDER HEAD	1	NOT SOLD SEPERATELY
3	05129500	VALVE GUIDE	2	
5	05097500	STUD CYLINDER HEAD 141MM	2	
6	05097400	STUD CYLINDER HEAD 148MM	2	
7	05098900	PUSH ROD	2	
9	05093000	VALVE, INTAKE	1	
10	05093100	VALVE, EXHAUST	1	
11	50425800	VALVE STEM SEAL CAP	2	INCLUDED IN CRANKC. GASK. SET
12	04093700	WASHER	2	
13	04113500	VALVE SPRING	2	
14	04093800	SPRING PLATE	2	
15	50425700	COLLET	2	
16	50445100	DISK 6X12X1.2 DIN 988	4	
17	05091101	SLIDER	2	
18	50358000	GRUB SCREW M8X10	2	INCLUDED IN MAINTENANCE KIT
19	05054700	NUT FOR ROCKER ARM	2	
20	05098201	ROCKER	2	
21	05499300	WASHER 10.1X35X3	4	
22	50396600	HEX. NUT M10 DIN 934	4	
23	05093301	HEAD COVER GASKET	1	INCLUDED IN CRANKC. GASK. SET AND MAINTENANCE KIT
24	05092701	CYLINDER HEAD COVER	1	
25	01509600	DOSING DEVICE ASSY	1	INCLUDES ITEMS W/+ INCLUDED IN EMERGENCY KIT
26+	50425900	O- RING 16X2	2	
27+		DOSING DEVICE	1	NOT SOLD SEPERATELY
28	50081200	SPRING WASHER A6	2	
29	50374900	ALL SCREW M6X35	2	
30	04117701	LIFTING STRAP	1	
32	50453200	HEX. NUT M10	2	
33	05096301	CYLINDER HEAD GASKET 0.3MM	0..1	
34	05096401	CYLINDER HEAD GASKET 0.4MM	0..1	INCLUDED IN HEAD GASKET SET
35	05096501	CYLINDER HEAD GASKET 0.5MM	0..1	INCLUDED IN HEAD GASKET SET
36	05096601	CYLINDER HEAD GASKET 0.6MM	0..1	
37	05096701	CYLINDER HEAD GASKET 0.7MM	0..1	
38	05096801	CYLINDER HEAD GASKET 0.8MM	0..1	
39	05096901	CYLINDER HEAD GASKET 0.9MM	0..1	
40	05097001	CYLINDER HEAD GASKET 1.0MM	0..1	
41	50440300	O- RING 8X1.5	4	INCLUDED IN HEAD GASKET SET
42	04133500	SEALING RING CYLINDER HEAD	2	INCLUDED IN HEAD GASKET SET
43	04126100	PROTECTION HOSE 10X12X9	2	

HATZ 1B30 — OIL PUMP/GOVERNOR ASSY.

OIL PUMP/GOVERNOR



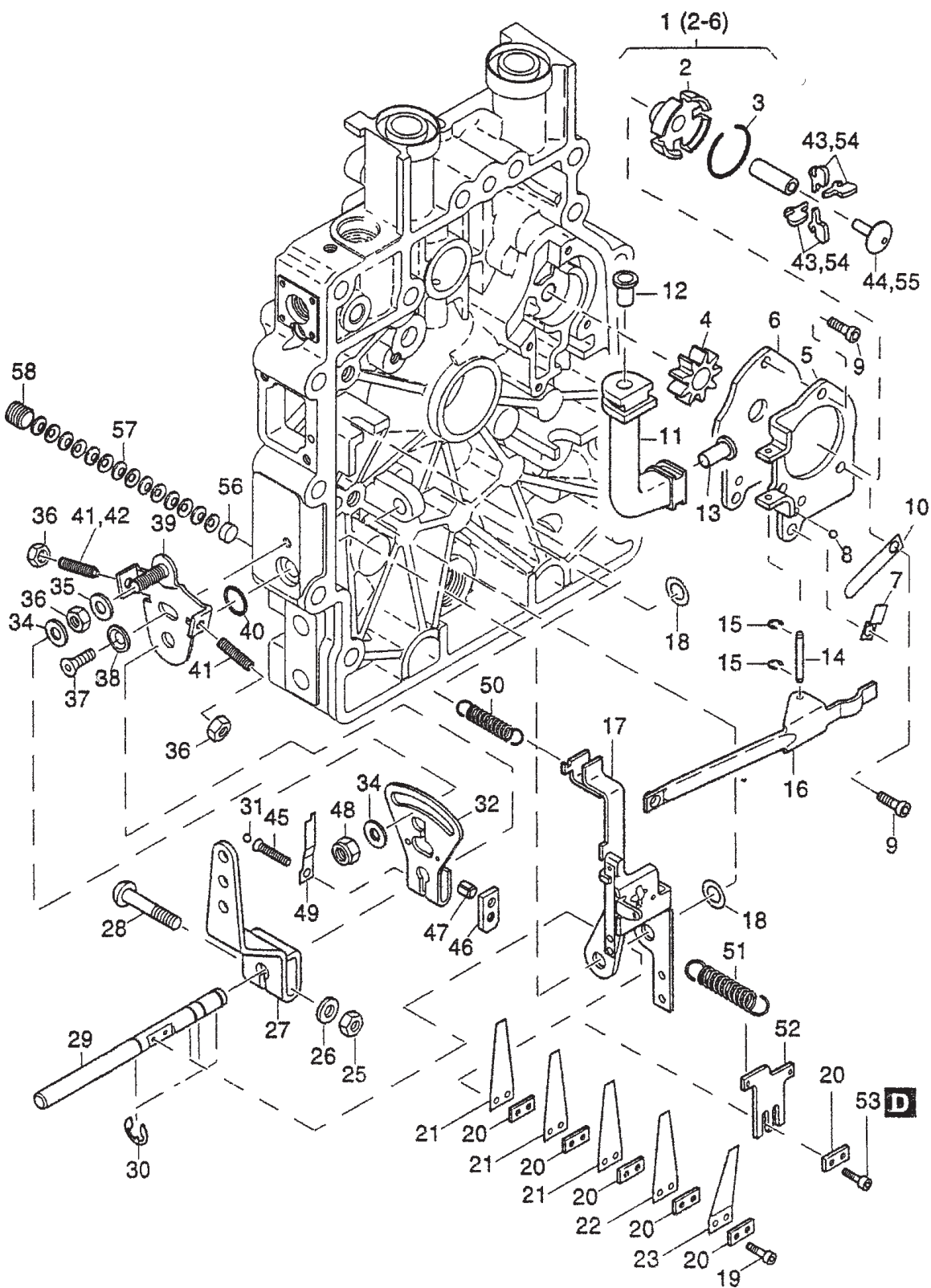
HATZ 1B30 — OIL PUMP/GOVERNOR ASSY.

OIL PUMP/GOVERNOR

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01530210	COVER OIL PUMP ASSY.	1	INCLUDES ITEMS W/*
2*		COVER, OIL PUMP	1	NOT SOLD SEPERATELY
3*	50434901	CIRCLIP	1	
4*		GEAR, OIL PUMP	1	NOT SOLD SEPERATELY
5*		HOUSING, OIL PUMP	1	NOT SOLD SEPERATELY
6*		HOUSING, OIL PUMP	1	NOT SOLD SEPERATELY
7	05097100	RETAINING STRAP	1	
8	50447900	BALL 3.5MM	1	
9	50429400	ALL. SCREW M5X12	4	
10	05097300	FLAT SPRING 0.4	1	
11	04102900	OIL SUCTION TUBE	1	
12	50447400	TUBE INSERT	1	
13	50447500	TUBE INSERT	1	
14	05078600	SHAFT	1	
15	50434800	CIRCLIP	2	
16	05079400	LEVER	1	
17	01530402	GOVERNOR LEVER	1	
18	50422400	SHIM 8X14X1	2	
18	50125800	DISK 8X14X0.5	0.2	
19	50435000	ALL. SCREW M3X12	2	
20	05079800	INTERMED. PLATE	1.5	
21	05131600	GOVERNOR SPRING 0.2MM	1.3	
22	05078900	GOVERNOR SPRING 0.3	1	
23	05148600	STOP SPRING 0.4MM	1	
25	50144400	HEX. NUT M6	1	
26	50144500	FLAT WASHER	1	
27	04095600	LEVER	1	
28	03927300	SCREW M6X32	1	
29	05079301	SHAFT	1	
30	50092700	CIRCLIP	4	
31	50347100	BALL 3.175MM	1	
32	01333000	CONSOLE	1	
34	50114300	DISK	2	
35	50144500	FLAT WASHER	1	
36	50144400	HEX. NUT M6	3	
37	50423900	CTR. SUNK SCREW M6X20	1	
38	04122900	DISK	1	
39	01316402	SUPPORT	1	

HATZ 1B30 — OIL PUMP/GOVERNOR ASSY. (CONT.)

OIL PUMP/GOVERNOR



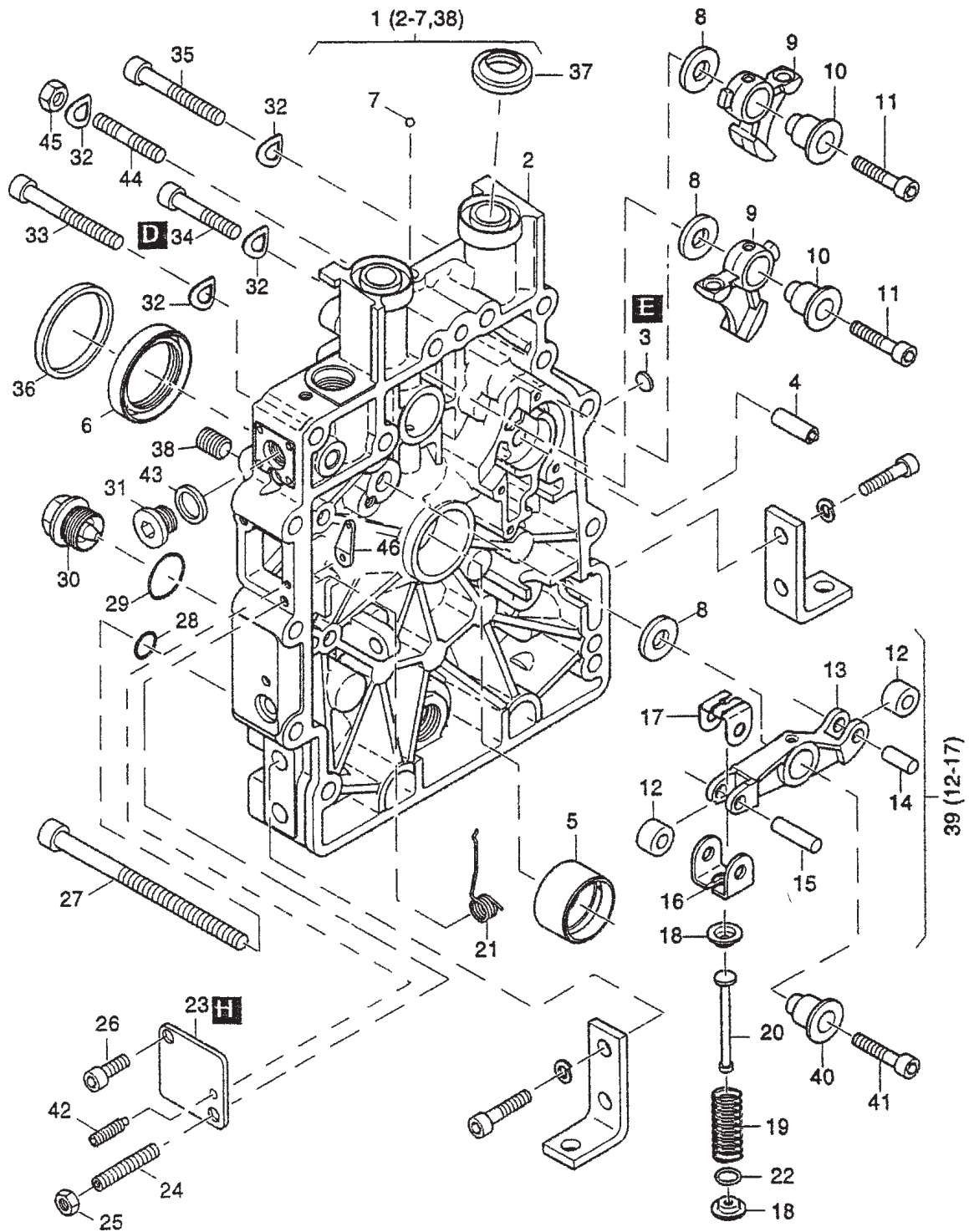
HATZ 1B30 — OIL PUMP/GOVERNOR ASSY. (CONT.)

OIL PUMP/GOVERNOR

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
40	40022401	O- RING 8X2	1	
41	50138100	THREADED PIN M6X35	1..2	
42	50004200	THREADED PIN M6X18	0..1	
43	05079601	CENTRIFUGAL WEIGHT	8	
44	05078501	GOVERNOR SLEEVE	1	
45	50475300	FILL. HEAD SCREW 5X25	1	
46	05151300	SUPPORT	1	
47	50475400	PIN 5X8	1	
48	50328300	HEX. NUT M6	1	
49	04122800	PLATE SPRING	1	
50	04000200	TENSION SPRING	1	
51	05130900	GOVERNOR SPRING	1	
52	05130800	STOP PLATE	1	
53	50465300	CYL. SCREW M3X8	2	
54	05146900	CENTRIFUGAL WEIGHT	4	
55	05147001	GOVERNOR SLEEVE	1	
56	05151700	PLUG	1	
57	50475800	PLATE SPRING	14	
58	50475700	GRUB SCREW M10X10	1	

HATZ 1B30 — TIMMING COVER ASSY.

TIMING COVER ASSY.



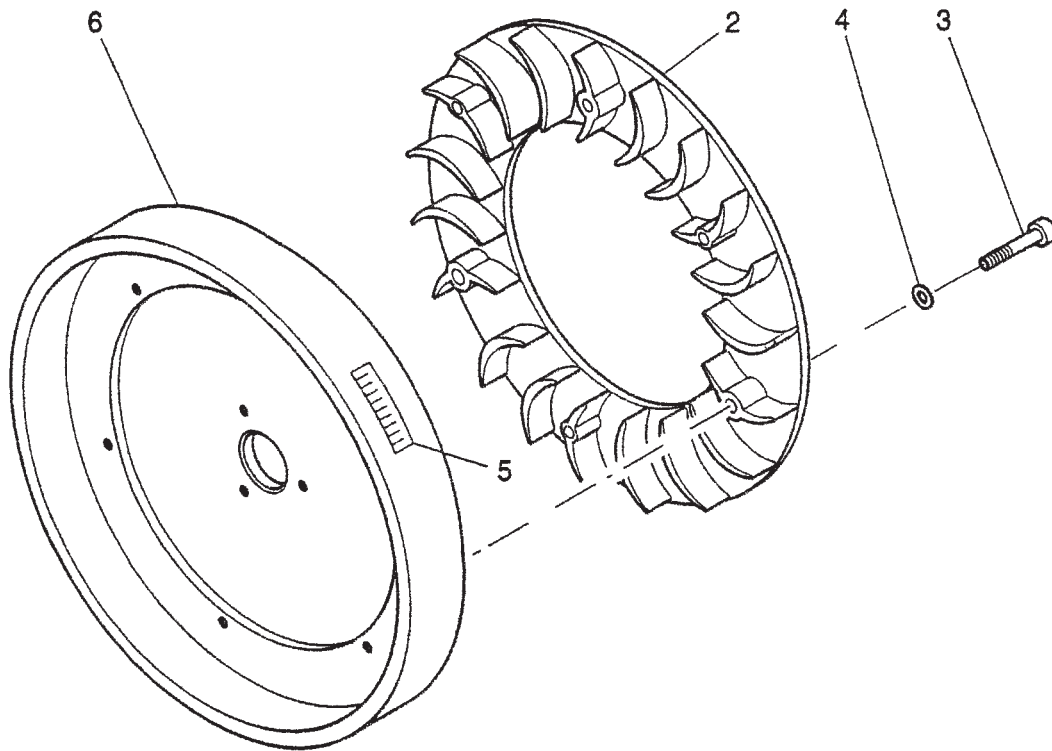
HATZ 1B30 — TIMMING COVER ASSY.

TIMING COVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01319510	TIMING COVER ASSY	1	INCLUDES ITEMS W/*
2*		TIMING COVER	1	NOT SOLD SEPERATELY
3*	04130200	CLOSING PLUG	1	
4*	01533900	BOLT GOVERNOR HOUSING	1	
5*	05053100	MAIN BEARING	1	
5	04124800	MAIN BEARING - 0.5	1	
6*	40033700	OIL SEAL 30X47X8	1	IN CRANKCASE GASKET SET
7*	50443400	BALL	1	
8	03794100	WASHER	3	
9	05053400	CAM FOLLOWER	2	
10	03794201	CAM FOLLOW SPINDLE	2	
11	50457900	ALL. SCREW M6X25	2	
12\$		BUSHING, ROCKER ARM	2	NOT SOLD SEPERATELY
13\$		ROCKER ARM	1	NOT SOLD SEPERATELY
14\$		PIN, ROCKER ARM	1	NOT SOLD SEPERATELY
15\$		PIN, ROCKER ARM	1	NOT SOLD SEPERATELY
16\$		CLAMP, ROCKER ARM	1	NOT SOLD SEPERATELY
17\$		CLAMP, ROCKER ARM	1	NOT SOLD SEPERATELY
18	04094801	CUP	2	
19	04095700	PRESSURE SPRING	1	
20	04094700	DRAW ROD	1	
21	05095210	SPRING	1	
22	04133900	DISK 10.7X19X0.5	1	
23	04095210	COVER	1	
24	50448901	GRUB SCREW M6X30	1	
25	50144400	HEX. NUT M6	1	
26	50384200	ALL. SCREW M6X12	1	
27	50463000	ALL. SCREW M8X130	2	
28	50162900	JOINT A8X14	2	IN CRANKCASE GASKET SET
29	50469800	JOINT A22X27	1	IN MAINT. + CRANKCASE SET
30	50373100	DRAIN PLUG M22X1.5	1	IN MAINTENANCE KIT
31	50459200	CLOSING SCREW M12X1.5	1	
32	50095100	SPRING WASHER A8	13	
33	50248800	ALL. SCREW M8X60	1	
34	50453400	ALL. SCREW M8X45	2	
35	50392900	ALL. SCREWM8X50	9	
36	04097800	CENTERING RING SAE A	1	
37	04106500	SEALING RING TIMING COVER	2	IN HEAD GASKET SET
38*	50358000	GRUB SCREW M8X10	5	
39	01319601	ROCKER ARM	1	INCLUDES ITEMS W/\$
40	04096810	CAM FOLLOW SPINDLE	1	
41	50469900	ALL. SCREW M6X30	1	
42	50274901	GRUB SCREW M4X20	1	
43	04122000	JOINT	1	
44	50038700	STUD M8X50	1	
45	50148000	HEX. NUT M8	1	
46	05127100	LEVER	1	

HATZ 1B30 — FLYWHEEL ASSY.

FLYWHEEL ASSY.



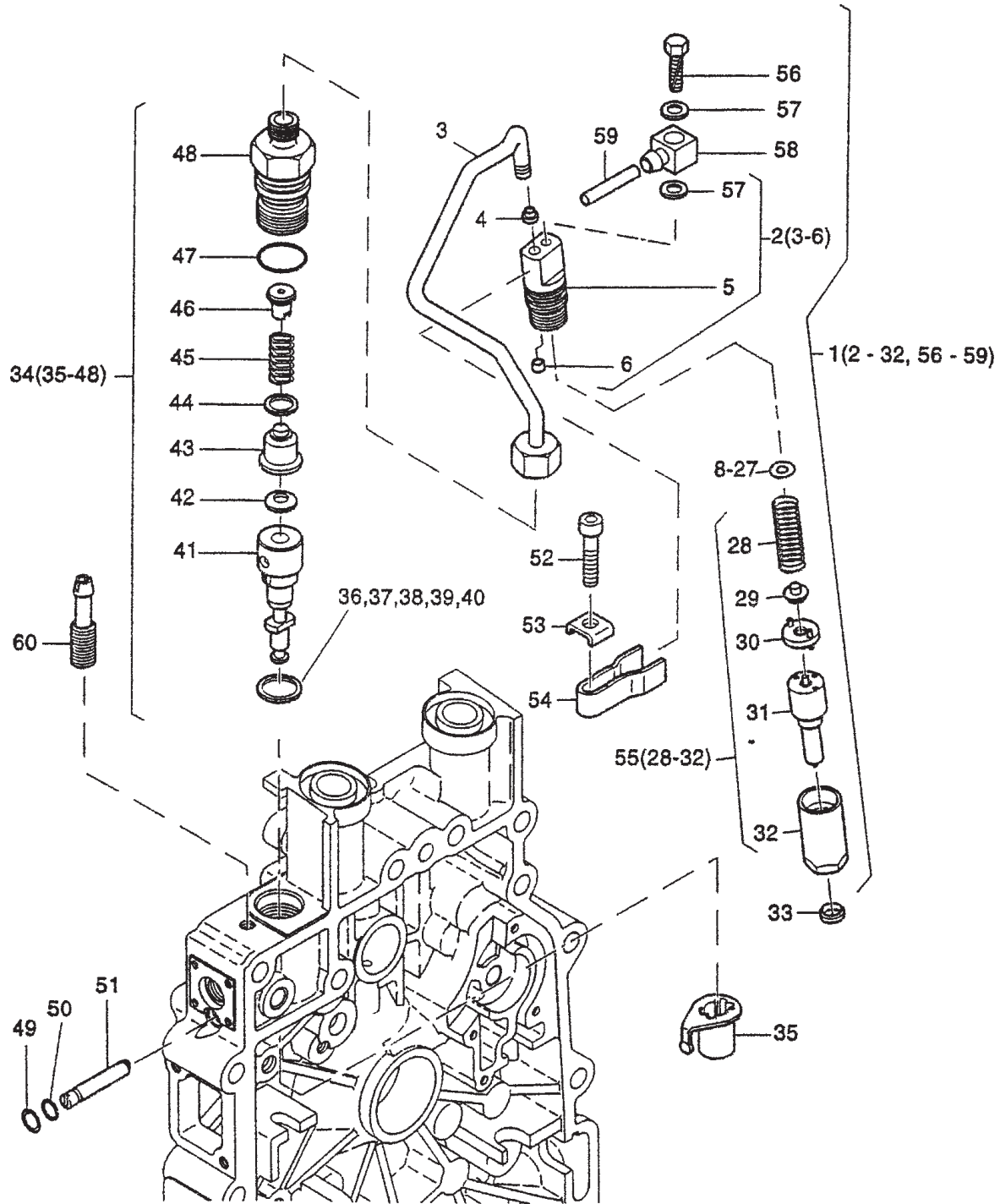
HATZ 1B30 — FLYWHEEL ASSY.

FLYWHEEL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	01321310	BLOWER RING	1	
3	50327300	ALL. SCREW M4X20	6	
4	50003400	SPRING WASHER A4	6	
5	04117300	STICKER "TDC"	1	
6	04110302	FLYWHEEL	1	

HATZ 1B30 — FUEL INJECTION ASSY.

FUEL INJECTION ASSY.



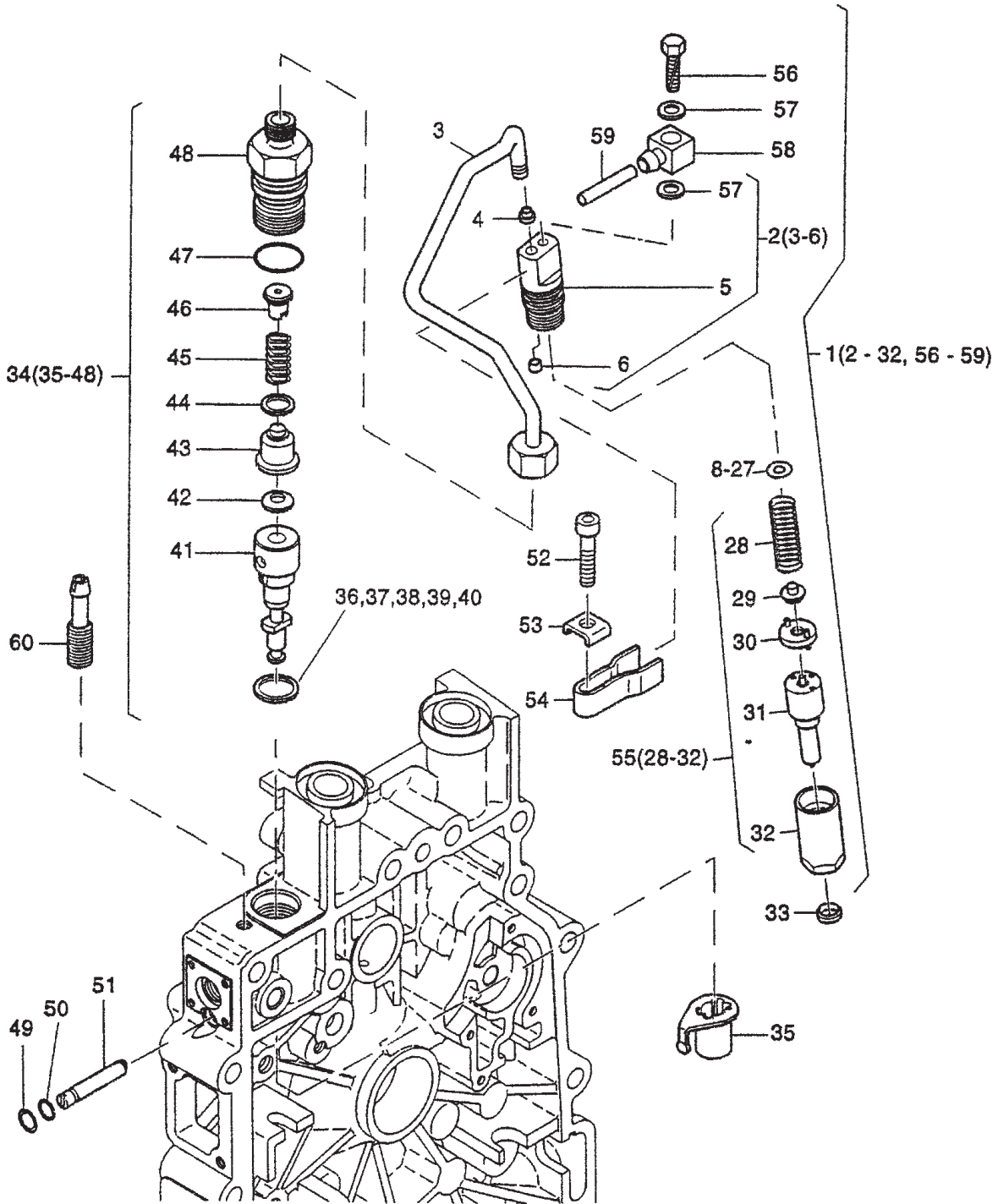
HATZ 1B30 — FUEL INJECTION ASSY.

FUEL INJECTION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01328800	INJECTOR ASSY.	1	INCLUDES ITEMS W/\$
2\$	01577110	NOZZLE HOLDER ASSY	1	INCLUDES ITEMS W/#
3#\$		PIPE	1	NOT SOLD SEPERATELY
4#\$	05096101	SEALING CONE 4.9MM	0.1	SEE TECHNICAL ADVICE 95125801
4	05070601	SEALING CONE 5.3MM	0.1	
5#\$		NIPPLE BODY	1	NOT SOLD SEPERATELY
6#\$	05081500	SEALING CONE	1	
8\$	50436400	SHIM 1.00MM	0.1	
9\$	50436500	SHIM 1.04MM	0.1	
10\$	50436600	SHIM 1.10MM	0.1	
11\$	50436700	SHIM 1.14MM	0.1	
12\$	50436800	SHIM 1.20MM	0.1	
13\$	50436900	SHIM 1.24MM	0.1	
14\$	50437000	SHIM 1.30MM	0.1	
15\$	50437100	SHIM 1.34MM	0.1	
16\$	50437200	SHIM 1.40MM	0.1	
17\$	50437300	SHIM 1.44MM	0.1	
18\$	50437400	SHIM 1.50MM	0.1	
19\$	50437500	SHIM 1.54MM	0.1	
20\$	50437600	SHIM 1.60MM	0.1	
21\$	50437700	SHIM 1.64MM	0.1	
22\$	50437800	SHIM 1.70MM	0.1	
23\$	50437900	SHIM 1.74MM	0.1	
24\$	50438000	SHIM 1.80MM	0.1	
25\$	50438100	SHIM 1.84MM	0.1	
26\$	50438200	SHIM 1.90MM	0.1	
27\$	50438300	SHIM 1.94MM	0.1	
28+		SPRING	1	NOT SOLD SEPERATELY
29+		SPRING WASHER	1	NOT SOLD SEPERATELY
30+		PLATE	1	NOT SOLD SEPERATELY
31+\$	50442200	NOZZLE	1	IN EMERGENCY KIT
32+		BODY	1	NOT SOLD SEPERATELY
33	05070500	JOINT	1	IN HEAD GASKET SET
55	01326100	PARTS SET NOZZLE ASSY.	1	INCLUDES ITEMS W/+
56\$	50464500	HEX SCREW M6X16	1	
57\$	50110800	JOINT A4X8	2	
58\$	05129000	CONNECTING NIPPLE	1	
59\$	05130300	HOSE 2.5X295	1	

HATZ 1B30 — FUEL INJECTION ASSY. (CONT.)

FUEL INJECTION ASSY.



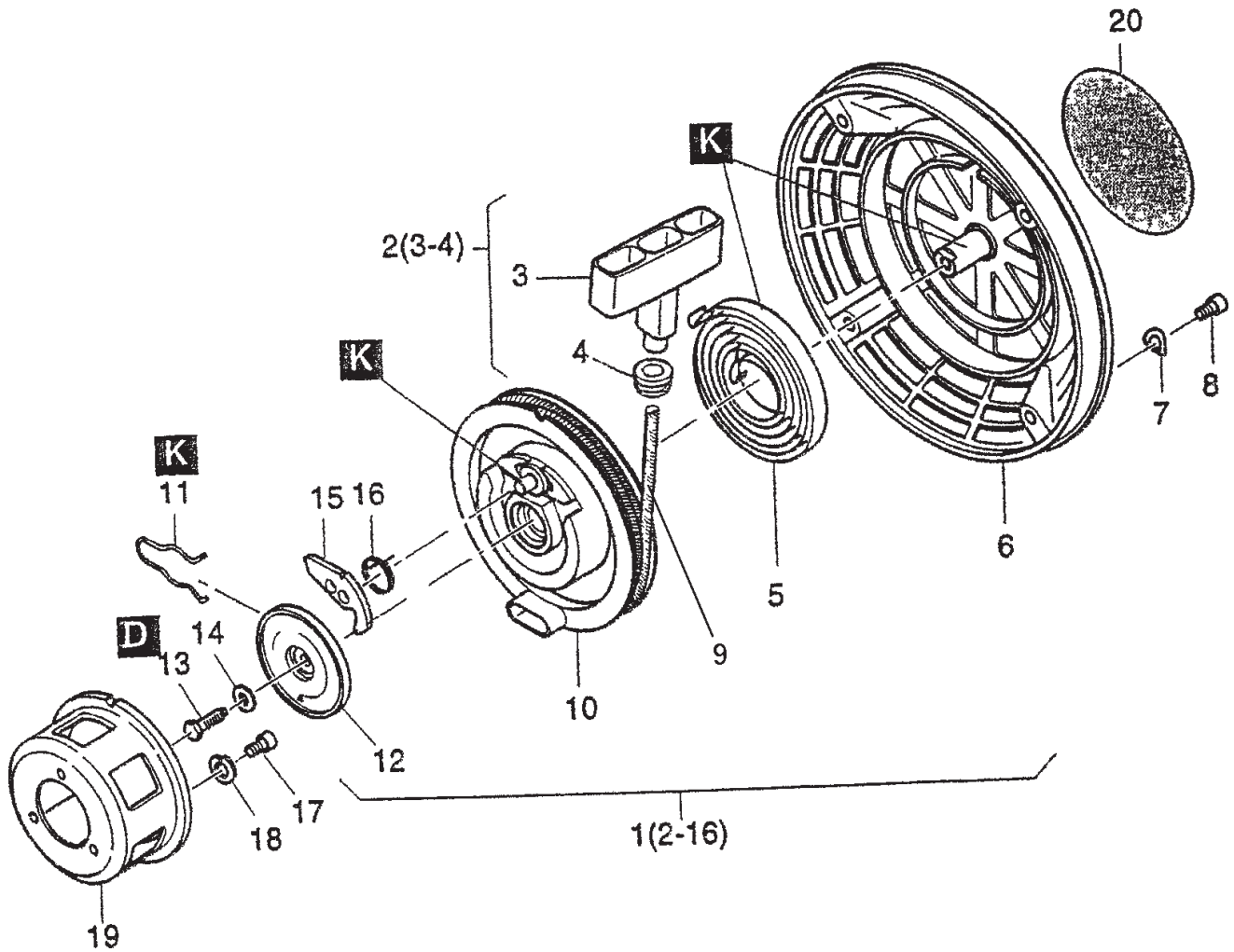
HATZ 1B30 — FUEL INJECTION ASSY. (CONT.)

FUEL INJECTION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
34	01322200	INJECTION PUMP	1	INCLUDES ITEMS W/*
35*	01330800	CONTROL SLEEVE	1	
36*	04096300	SHIM 0.2MM	0..1	
37*	04096400	SHIM 0.3MM	0..1	
38*	04096500	SHIM 0.4MM	0..1	
39*	04096600	SHIM 0.5MM	0..1	
40*	04096700	SHIM 0.6MM	0..1	
41*		VALVE, FUEL INJECTOR PUMP	1	NOT SOLD SEPERATELY
42*	50471600	SPRING WASHER 8	1	
43*		BODY, FUEL INJECTOR PUMP	1	NOT SOLD SEPERATELY
44*	50476900	WASHER	1	
45*		SPRING, FUEL	1	NOT SOLD SEPERATELY
46*		BODY, FUEL	1	NOT SOLD SEPERATELY
47*	50476500	O- RING 17X2	1	
48*	50445900	VALVE HOLDER	1	
50	50433900	O- RING 1.0X3.3	1	
51	04097700	PIN	1	
52	50323900	ALL. SCREW M6X30	1	
53	05089300	RETAINING YOKE	1	
54	05056700	FORK FOR INJECTOR	1	
60	05084201	CONNECTING NIPPLE	1	

HATZ 1B30 — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.



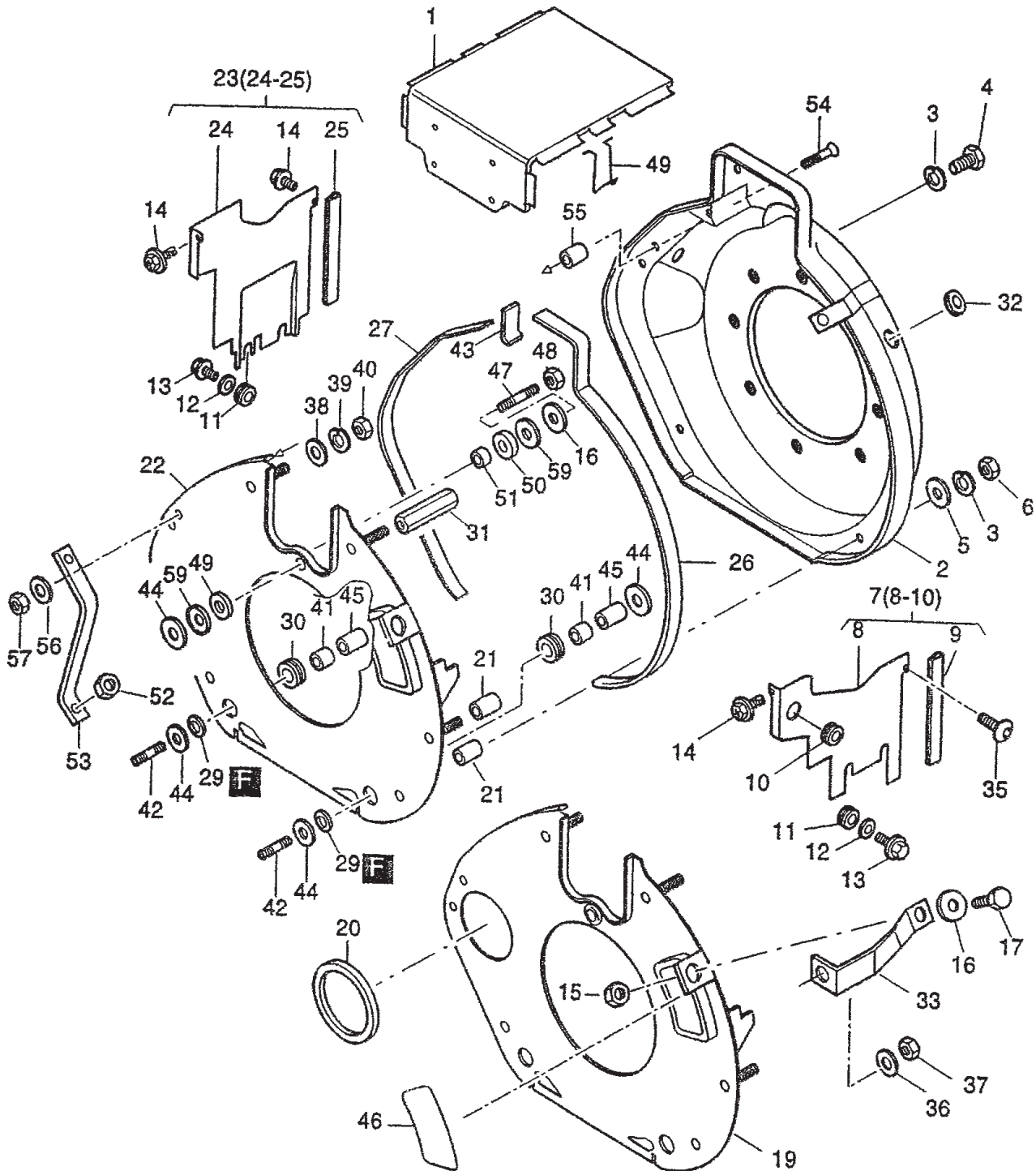
HATZ 1B30 — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01515002	RECOIL STARTER ASSY.....	1	INCLUDES ITEMS W/*
2*	01497800	HANDLE ASSY.....	1	INCLUDES ITEMS W/#
4*#		HANDLE	1	NOT SOLD SEPERATELY
4*#	03665200	RUBBER SLEEVE	1	
5*	05045201	RETURN SPRING	1	
6*	01569300	HOUSING RECOIL STARTER	1	
7*	50081200	SPRING WASHER A6	4	
8*	50062700	ALLEN SCREW M6X10	4	
9*	05088901	ROPE RECOIL STARTER	1	
10*	01548800	ROPE PULLEY	1	
11*	05044901	BRAKE SPRING	1	
12*	05045001	BRAKE DISK	1	
13*	50146300	HEX SCREW M6X18	1	
14*	50165600	SPRING WASHER	1	
15*	05044800	RATCHET	1	
16*	05061300	RETURN SPRING	1	
17	50062700	ALLEN SCREW M6X10	3	
18	50170900	SPRING WASHER 6	3	
19	50445800	DRIVING SLEEVE	1	
20	05109100	STICKER LABEL	1	

HATZ 1B30 — AIR DUCT ASSY.

AIR DUCT ASSY.



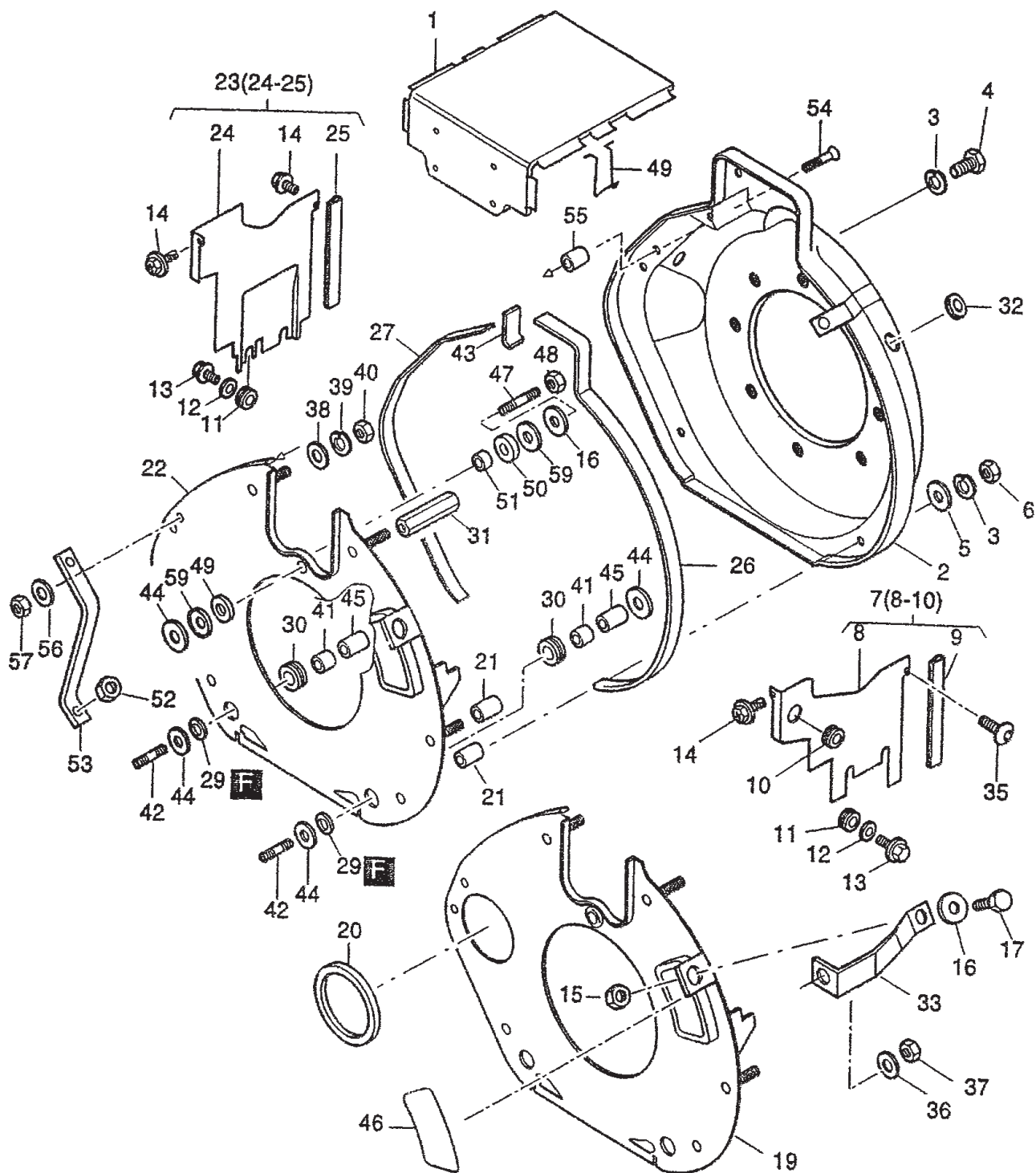
HATZ 1B30 — AIR DUCT ASSY.

AIR DUCT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01551401	HOOD	1	
2	01551301	BLOWER DUCTING	1	
3	50170900	SPRING WASHER 6	7	
4	50146300	HEX SCREW M6X18	1	
5	50120000	DISC A6,4	2	
6	50144400	HEX NUT M6	6	
7	01326300	COOLING AIR DUCTING	1	INCLUDES ITEMS W/*
8*		AIR DUCT	1	NOT SOLD SEPERATELY
9*	05128900	SEALING STRIP 80MM	1	
10*	50334800	RUBBER SLEEVE	1	
11	50163801	RUBBER SLEEVE	3	
12	50441600	WASHER 4,3	3	
13	50445400	HEX. SCREW M4X10	3	
14	50335600	COMBI SCREW M6X16	3	
15	50144400	HEX. NUT M6	1	
16	50114300	DISK 6,4	2	
17	50177100	HEX. SCREW M6X16	1	
19	01326800	PARTING SHEET	1	ELECTRIC START ONLY
20	04099500	SEALING RING	1	
21	04098400	SPACER TUBE 7X12X16.3	5	
22	01326700	PARTING SHEET	1	
23	01326200	COOLING AIR DUCT	1	INCLUDES ITEMS W/#
24		AIR DUCT	1	NOT SOLD SEPERATELY
25		AIR DUCT STRIP	1	NOT SOLD SEPERATELY
25	04111500	SEALING STRIP 119MM	1	
26	05108100	SEALING STRIP 495MM	1	
27	04124600	SEALING STRIP 388MM	1	
29	03575500	SEALING RING	2	
30	00921400	SPACER BUSHING	2	
31	05081700	SPACER	1	
32	50453300	RUBBER SLEEVE	1	
33	01599600	SUPPORT	1	
35	50328000	CTR. SUNK SCREW AM6X16	1	
36	50095100	SPRING WASHER A8	1	
37	50344700	HEX. NUT M8	1	
38	50144500	FLAT WASHER 6,4	1	
39	50170900	SPRING WASHER 6	1	

HATZ 1B30 — AIR DUCT ASSY. (CONT.)

AIR DUCT ASSY.



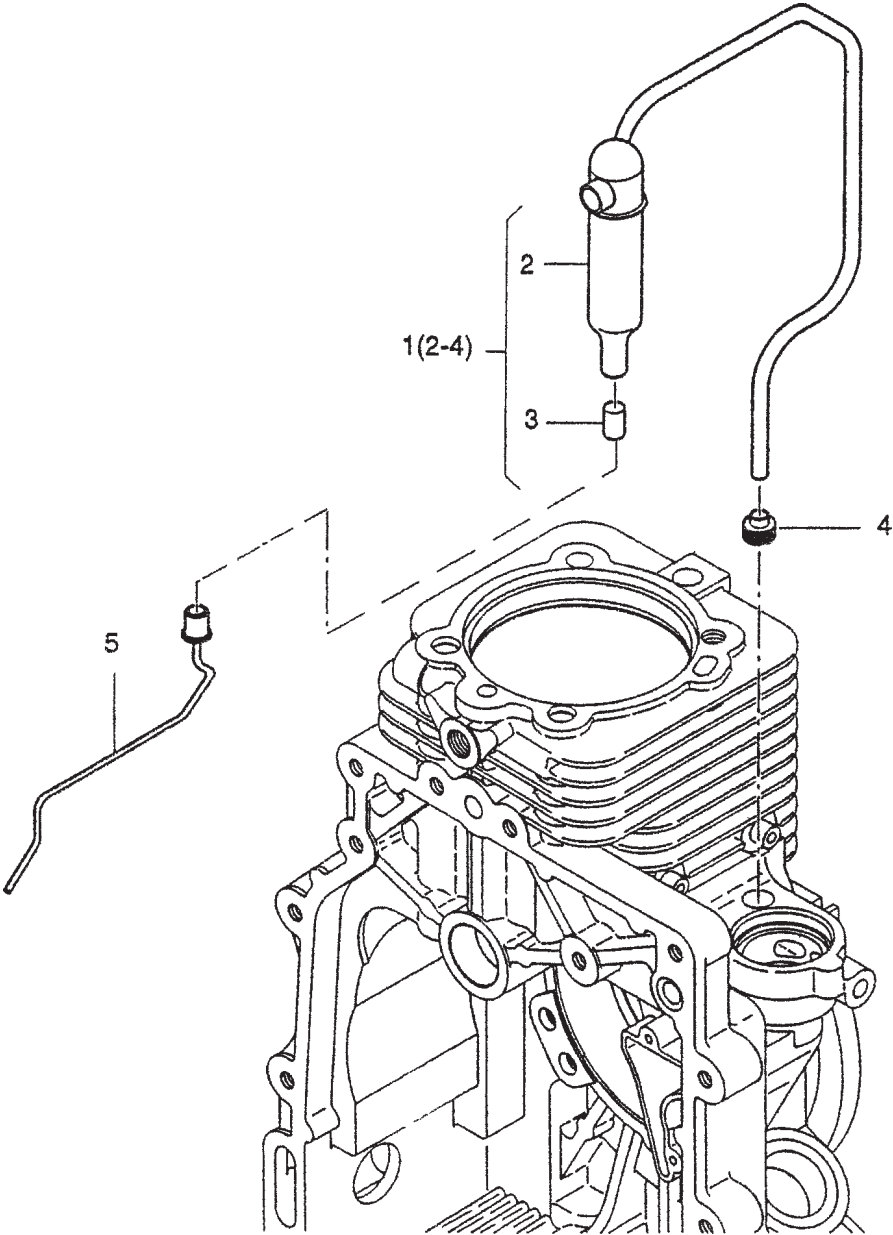
HATZ 1B30 — AIR DUCT ASSY. (CONT.)

AIR DUCT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
40	50144400	HEX. NUT M6	1	
41	04119100	TUBE 6X8X14	2	
42	50458100	STUD M6X45	2	
43	05007300	SEALING STRIP 48MM	1	
44	04042000	WASHER 6.5X22.5X1	5	
45	05132900	BUSH 6.5X13X14	2	
46	04116700	COVER	1	
47	50464401	STUD M6X35	1	
48	40028300	HEX. NUT M6	1	
49	05133800	RUBBER RING 17X28X5	1	
50	05133900	RUBBER RING 17X28X9	1	
50	05133900	RUBBER RING 17X28X9	1	
51	05132700	BUSH 6.5X17Z11.5	1	
52	50148000	HEX. NUT M8	1	
53	05133000	SUPPORT FUEL TANK	1	
54	50445000	CTR. SUNK SCREW M6X35	1	
55	05132800	SPACER TUBE 7X12X16.3	1	
56	50170900	SPRING WASHER 6	1	
57	50144400	HEX NUT M 6	1	
58	05145800	SPRING CLIP	1	
59	05097600	WASHER	2	

HATZ 1B30 — CRANKCASE BREATHER ASSY.

CRANKCASE BREATHER ASSY.



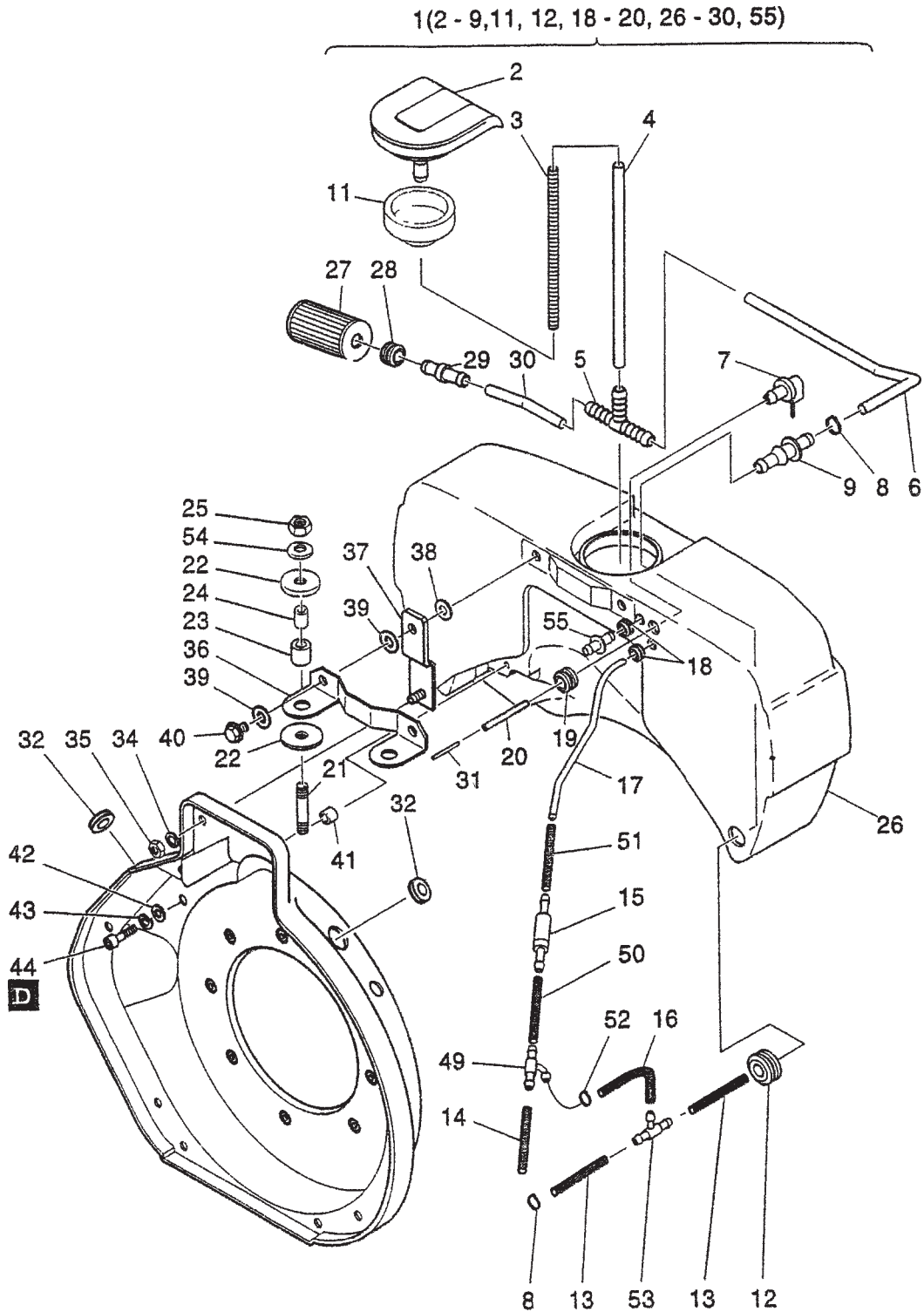
HATZ 1B30 — CRANKCASE BREATHER ASSY.

CRANKCASE BREATHER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01599200	OIL SEPARATOR ASSY.	1	INCLUDES ITEMS W/*
2*		OIL SEPERATOR	1	NOT SOLD SEPERATELY
3*	05102900	FILTER BREATHER SYSTEM	1	
4*	01617900	BREATHER TUBE	1	IN CRANKCASE GASKET SET
5	01551600	SUCTION PIPE	1	

HATZ 1B30 — FUEL TANK ASSY.

FUEL TANK ASSY.



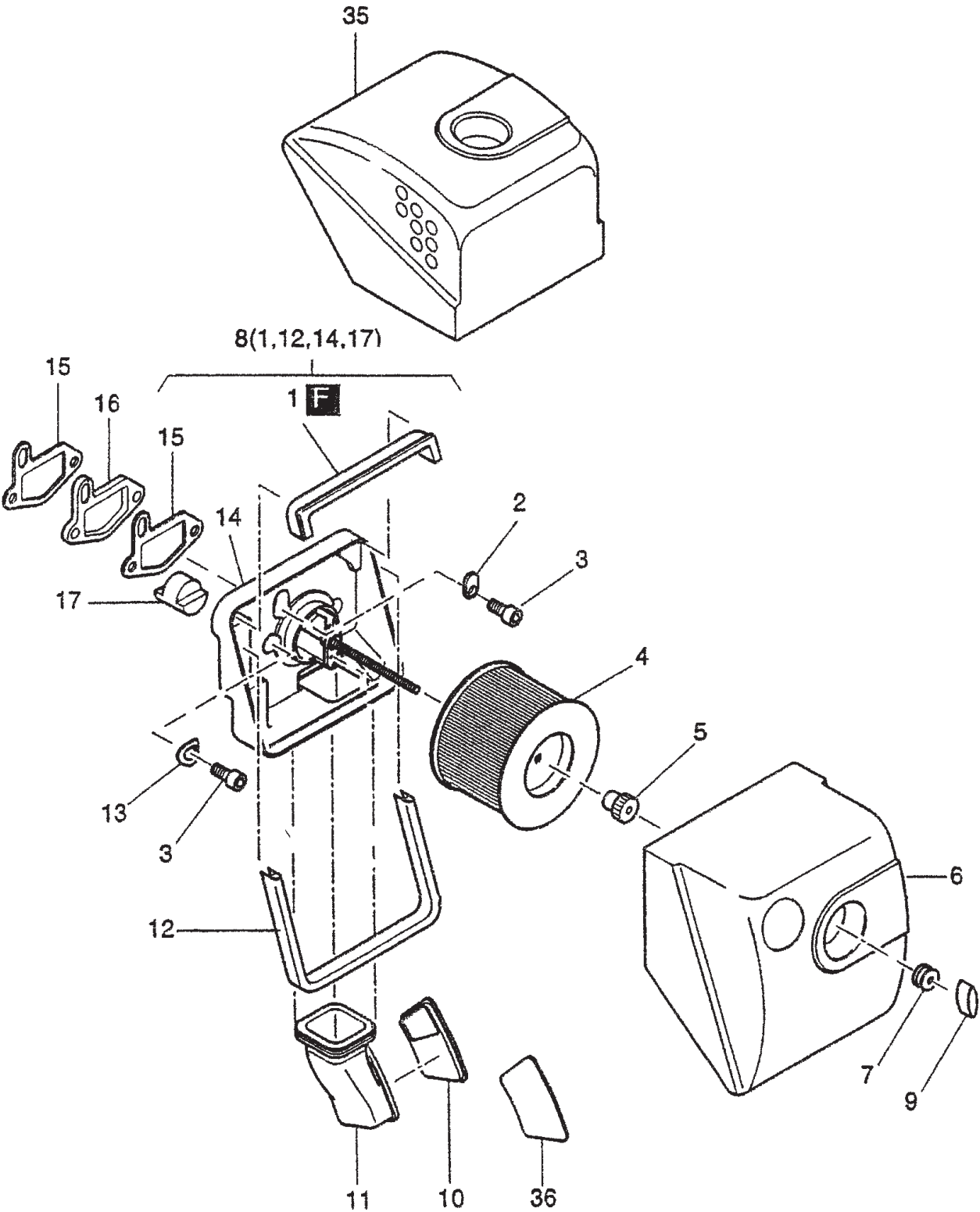
HATZ 1B30 — FUEL TANK ASSY.

FUEL TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01588610	FUEL TANK ASSY 5 LITER	1	INCLUDES ITEMS W/*
2*	01535302	CAP FOR FUEL TANK	1	
3*		FUEL HOSE WRAP	1	NOT SOLD SEPERATELY
4*	05084600	FUEL HOSE 7X165	1	
5*	50440600	NIPPLE FOR FUEL TANK	1	
6*	05137000	FUEL PIPE 7X220	1	
7*	01534900	FUEL VENT VALVE	1	
8*	50441100	HOSE CLIP	2	IN EMERGENCY KIT
9*	05084000	CONNECTING NIPPLE	1	
11	05086401	GASKET FOR FUEL CAP	1	
12*	50440800	RUBBER SLEEVE	1	
13	05123100	FUEL HOSE 7/70	2	
14	05085300	FUEL HOSE 3.5X45	1	
15	01534600	FUEL VENT VALVE	1	
16	003673300	FUEL HOSE 4.5/170	1	
17	05122200	FUEL PIPE	1	
18*	05130400	RUBBER SLEEVE	2	
19*	50440900	RUBBER SLEEVE	1	
20*	05085600	BREATHER HOSE	1	
21	50231900	STUD M8X25	2	
22	05109810	DISK 8.2X22X2	4	
23	05086810	RUBBER SHELL	2	
24	05122800	INSULATING SLEEVE	2	
25	40028400	HEX. NUT M8	2	
26		FUEL TANK	1	NOT SOLD SEPERATELY
27*	01635200	FUEL FILTER	1	IN MAINTENANCE KIT
			INCLUDES ITEMS W/#
28*#	50440900	RUBBER SLEEVE	1	
29*	05084400	CONNECTING NIPPLE	1	
30*	05136900	FUEL PIPE 7X80	1	
31	05085500	TUBE 1.4X2X16	1	
34	50170900	SPRING WASHER 6	2	
35	50144400	HEX. NUT M6	2	
36	05122300	SUPPORT	1	
37	01331300	SUPPORT	2	
38	50120000	DISK A6,4	2	
39	05110010	DISK 7.1X17.9X2	4	
40	01588900	HEX. SCREW M6X16	2	
41	04118800	DISK 6.5X13X4.8	4	
42	50144500	FLAT WASHER 6,4	4	
43	50170900	SPRING WASHER 6	4	
44	50170700	ALL. SCREW M6X16	4	
49	05122700	HOSE NIPPLET	1	
50	05123200	FUEL HOSE 3.5X38	1	
51	04060400	FUEL HOSE 4.5X100	1	
52	50399801	CLAMP 11,3	1	
53	50459600	HOSE NIPPLE T	1	
54	50148100	FLAT WASHER 8,4	2	
55*	05129610	CONNECTING NIPPLE	1	

HATZ 1B30 — AIR FILTER ASSY.

AIR FILTER ASSY.



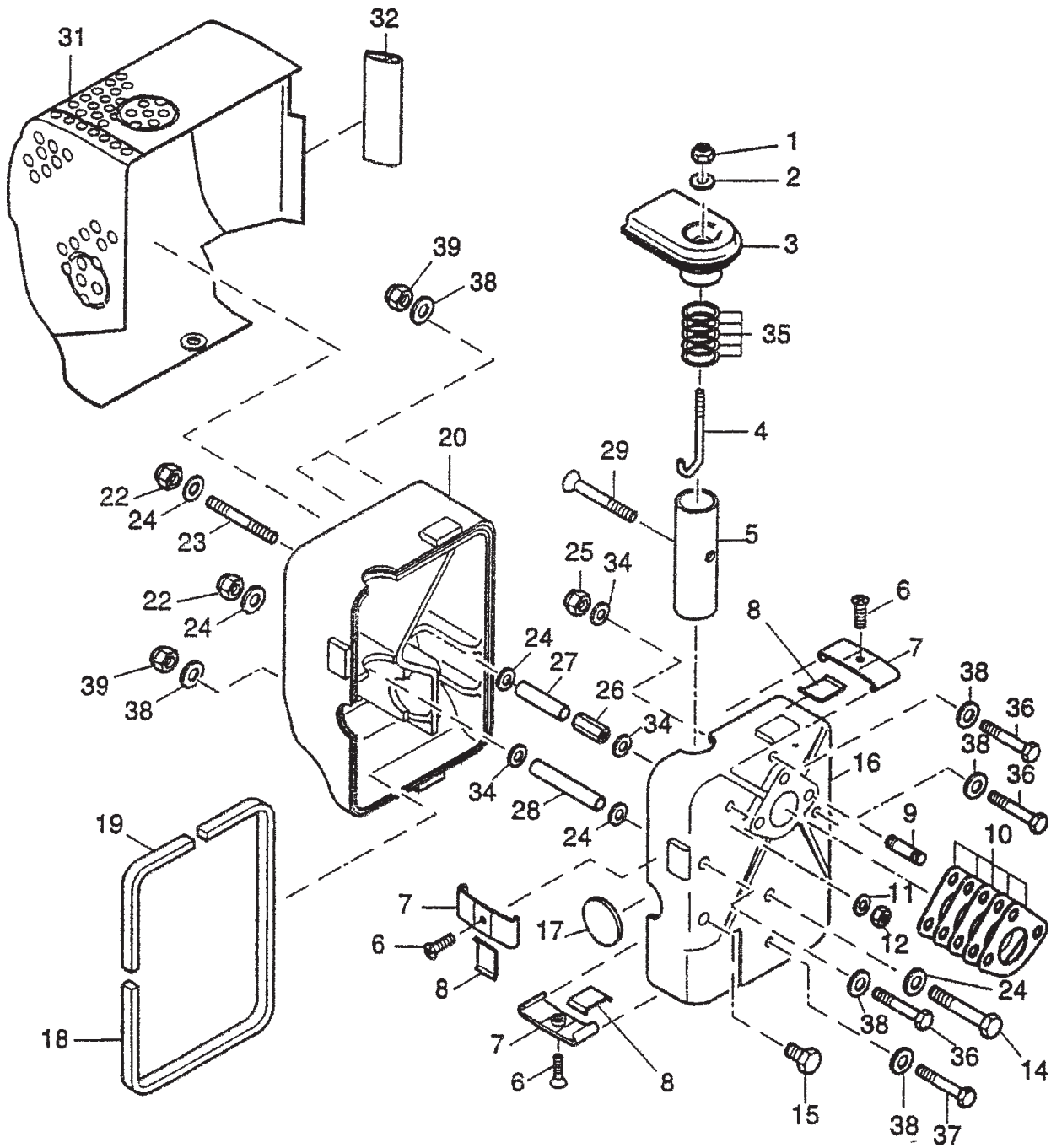
HATZ 1B30 — AIR FILTER ASSY.

AIR FILTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	05107600	SEALING STRIP	1	
2	05056400	WASHER	1	
3	50171500	ALL. SCREW M8X25	3	
4	50426000	AIR FILTER ELEMENT	1	IN MAINTENANCE KIT
5	50454300	NUT M6	1	
6	05107500	COVER AIR FILTER	1	
7	50435800	RUBBER SLEEVE	1	
8	01607900	AIR FILTER HOUSING ASSY	1	INCLUDES ITEMS W/*
9	50452200	WING NUT M6	1	
10	04116600	COVER, RUBBER INSERT	1	
11	04116501	RUBBER INSERT	1	
12*	05056100	SEALING STRIP 365MM	1	
13	50095100	SPRING WASHER A8	2	
14		AIR FILTER ASSY	1	NOT SOLD SEPERATELY
15	05056300	GASKET AIR FILTER.....	2	IN HEAD GASKET SET
16	05088300	INSULATING FLANGE	1	
17*	05098100	PLUG	1	
35	05132000	COVER AIR FILTER	1	
36	04116700	COVER	1	

HATZ 1B30 — MUFFLER ASSY.

MUFFLER ASSY.



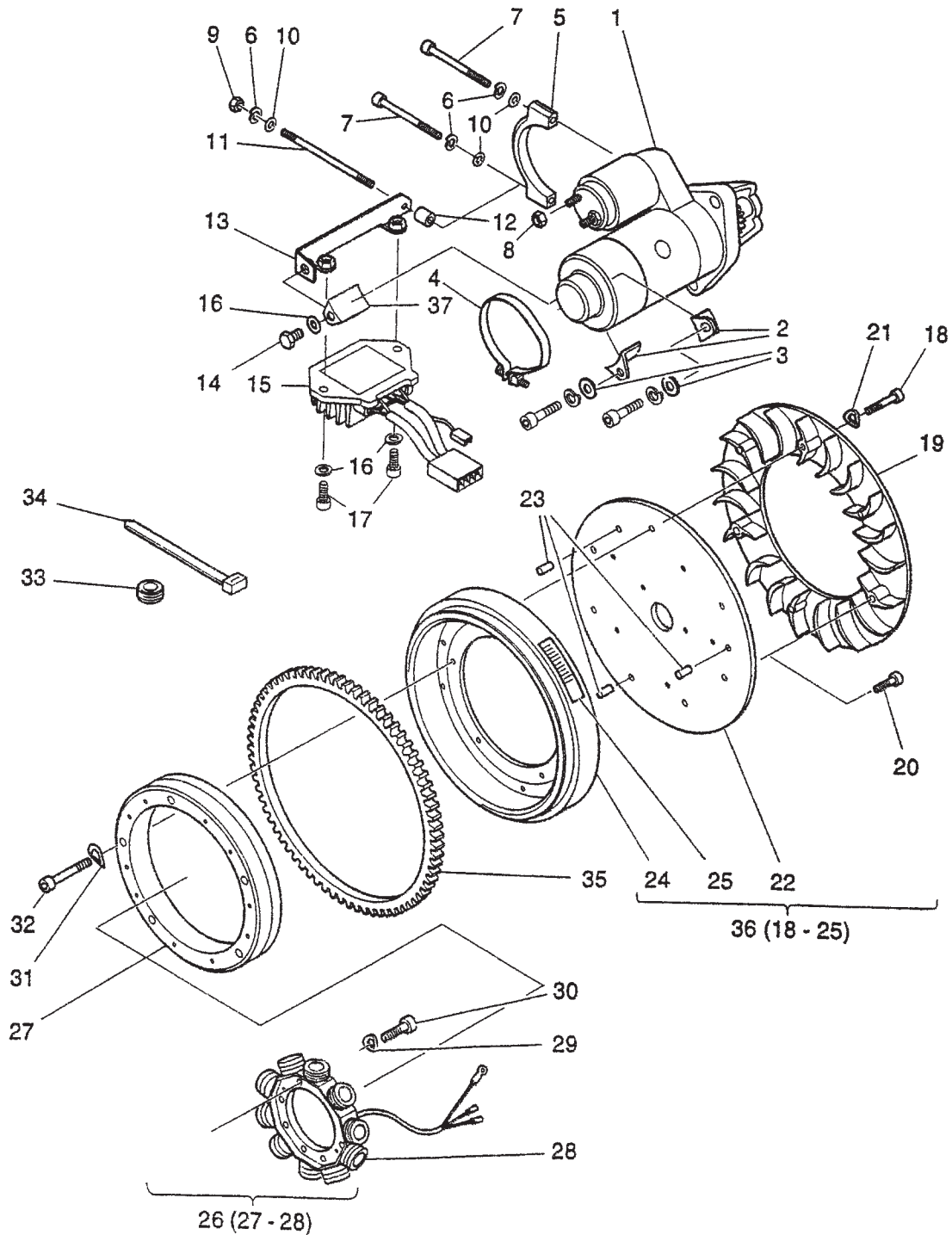
HATZ 1B30 — MUFFLER ASSY.

MUFFLER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	40028300	HEX. NUT M6	1	
2	50144500	FLAT WASHER 6,4	1	
3	01531311	EXHAUST END PIPE	1	
4	05081101	THREADED BOLT M6	1	
5	05081410	EXHAUST TUBE	1	
6	50422500	CTR. SUNK SCREW M6X12	3	
7	01531201	CLAMP	3	
8	05081611	SUPPORTING PLATE	3	
9	50128100	STUD	3	
10	05103600	MUFFLER GASKET 1B30	5 IN HEAD GASKET SET
11	50144500	FLAT WASHER 6,4	1	
12	40028300	HEX NUT M6	1	
14	50028900	HEX. SCREW M8X100	1	
15	50450500	HEX. SCREW M8X10	1	
16	05103401	MUFFLER, INNER PART	1	
17	05081002	COVER	1	
18	05104100	SEALING STRIP	1	
19	05104000	SEALING STRIP	1	
20	05103500	MUFFLER, OUTER PART	1	
22	40028400	HEX. NUT M8	3	
23	50445201	STUD M8X70	1	
24	50148100	FLAT WASHER 8,4	6	
25	40028400	HEX. NUT M8	1	
26	05083900	SPACER NUT M8	1	
27	05103901	SPACER TUBE 51.6MM	1	
28	05103801	SPACER TUBE 65MM	1	
29	50445000	CTR. SUNK. SCREW M6X35	1	
31	01560200	MUFFLER GUARD	1	
32	05100300	SEALING STRIP 65MM	1	
34	04054300	WASHER 8.4X23.5	3	
35	05127000	WASHER 28.1X34X0.5	5	
36	50460700	HEX. SCREW M6X100	3	
37	50460800	HEX. SCREW M6X55	1	
38	50144500	FLAT WASHER 6,4	8	
39	40028300	HEX. NUT M6	4	

HATZ 1B30 — STARTER/ALTERNATOR ASSY.

STARTER/ALTERNATOR ASSY.



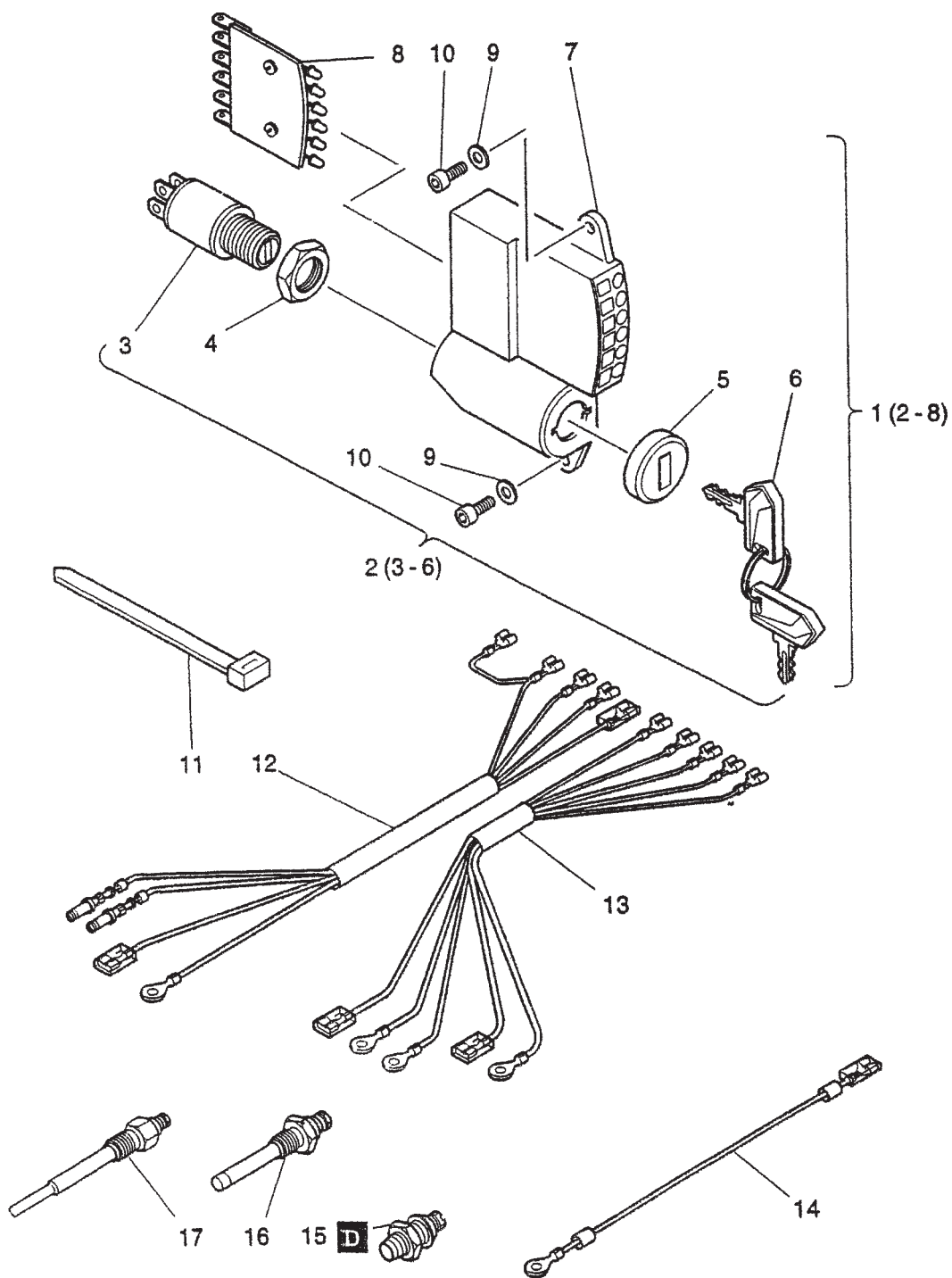
HATZ 1B30 — STARTER/ALTERNATOR ASSY.

STARTER/ALTERNATOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	50426201	STARTER 12V	1	
2	04138400	SUPPORT	2	
3	50148100	FLAT WASHER 8,4	2	
4	04115600	HOSE CLIP	1	
5	04099100	RETAINING BRACKET	1	
6	50170900	SPRING WASHER 6	2	
7	50444300	ALLEN SCREW M6X80	2	
8	50023200	HEX. NUT	1	
9	50144400	HEX. NUT M6	1	
10	50144500	FLAT WASHER 6,4	2	
11	50449600	STUD MFS 6X95	1	
12	03671400	SPACER BUSH	1	
13	01560900	SUPPORT BRACKET	1	
14	50096200	HEX. SCREW M8X12	1	
15	05100701	REGULATOR 12V	1	
16	50148100	FLAT WASHER 8,4	3	
17	50165400	ALLEN SCREW M8X16	2	
18\$	50327300	ALLEN SCREW M4X20	6	
19\$	01321310	BLOWER RING	1	
20\$	50416800	ALLEN SCREW M6X16	3	
21\$	50003400	SPRING WASHER A4	6	
22\$	04098720	FLANGE	1	
23\$	50035200	PIN 6X12	3	
24\$	04110101	ADD. FLYWHEEL	1	
25	04117400	"TDC" STICKER	1	
26	50435901	ALTERNATOR 12V 200W ASSY	1	INCLUDES ITEMS W/*
27*		???	1	NOT SOLD SEPERATELY
28		ALTERNATOR	1	NOT SOLD SEPERATELY
29	50081900	SPRING WASHER A5	4	
30	50427100	ALLEN SCREW M5X25	4	
31	50081200	SPRING WASHER A6	5	
32	50448700	ALLEN SCREW M6X30	5	
33	03565400	RUBBER SLEEVE	1	
34	50358400	STRAP	3	
35	04108000	RING GEAR	1	
36	TBD	ADD. FLYWHEEL ASSY	1	INCLUDES ITEMS W/\$
37	04138400	SUPPORT	1	

HATZ 1B30 — ELECTRONIC COMPONENTS ASSY.

ELECTRONIC COMPONENTS ASSY.



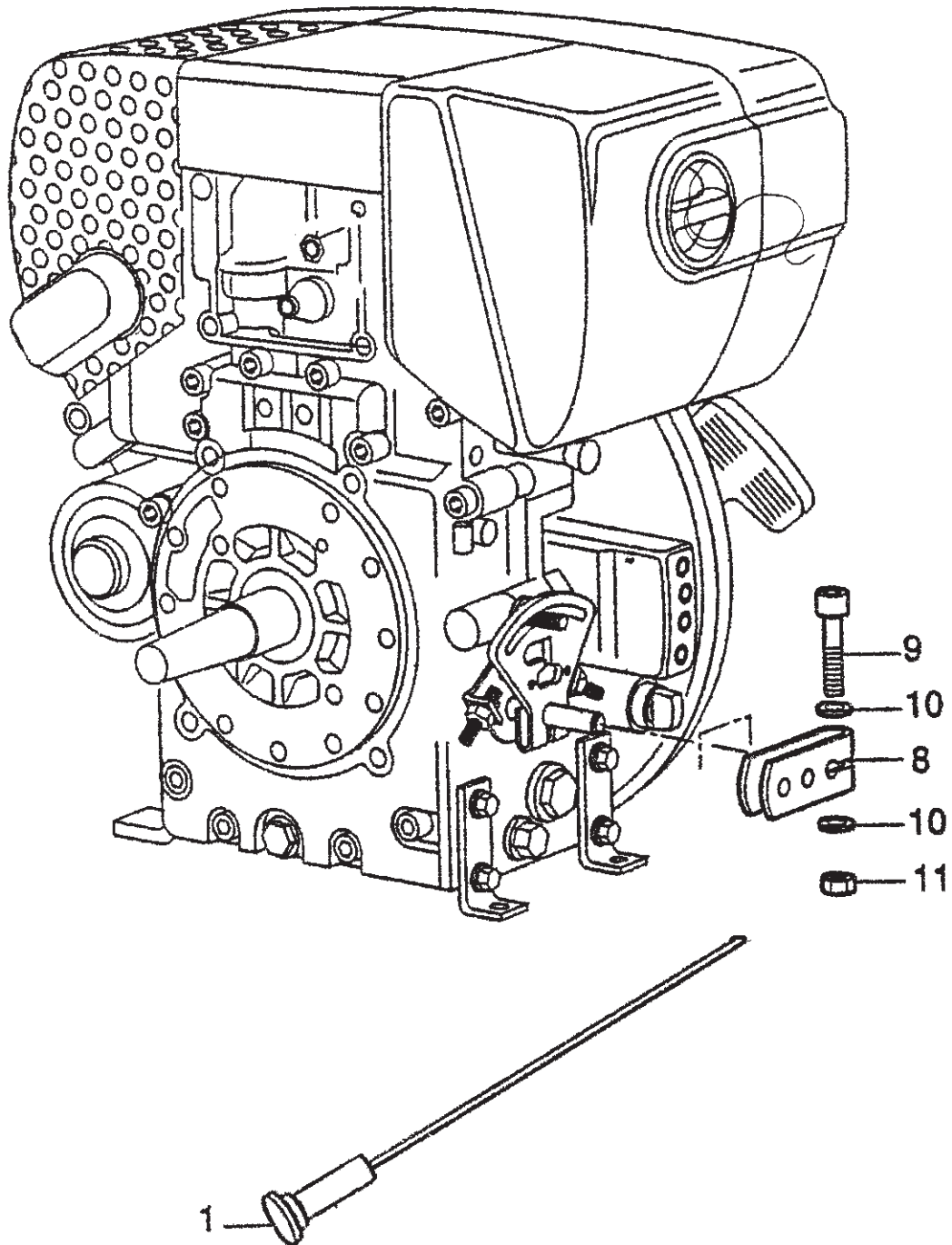
HATZ 1B30 — ELECTRONIC COMPONENTS ASSY.

ELECTRONIC COMPONENTS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	01560800	INSTRUMENT BOX, W/O GLOW SYST.	1	INCLUDES ITEMS W/\$
1	01561701	INSTRUMENT BOX FOR GLOW SYST.	1	INCLUDES ITEMS W/#
2\$#	50384401	STARTING SWITCH ASSY.	1	INCLUDES ITEMS W/*
3*\$#		STARTING SWITCH BODY	1	NOT SOLD SEPERATELY
4*\$#		NUT, STARTING SWITCH	1	NOT SOLD SEPERATELY
5*\$#		FACE PLATE, STARTING SWITCH.....	1	NOT SOLD SEPERATELY
6*\$#	50404900	KEY	1	
7\$#	05101000	HOUSING, INSTRUMENT BOX	1	
8\$#	05092100	LED DISPLAY	1	
9	50144500	FLAT WASHER 6,4	2	
10	50149100	ALLEN SCREW M6X12	2	
11	50358400	STRAP	2	
12	01542100	WIRING HARNESS	1	
14	01546800	WIRE	1	
15	50469100	OIL PRESSURE SWITCH	1	
16	50268600	TEMP. SWITCH	1	
17	50449200	GLOW PLUG 12V	1	USE LOCTITE 221

HATZ 1B30 — SPEED CONTROL ASSY.

SPEED CONTROL ASSY.



HATZ 1B30 — SPEED CONTROL ASSY.

SPEED CONTROL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	510229	THROTTLE CABLE	1	
8	05117700	LEVER	1	
9	50427100	ALLEN SCREW M5X25	1	
10	50216300	WASHER 5,3	2	
11	50094300	HEX. NUT M5	1	
12	05129900	STICKER	1	