

CRUISER 22



MODEL
5813-0000

PARTS AND SERVICE **MANUAL**



AMERICAN MACHINE & FOUNDRY COMPANY
CONSUMER PRODUCTS SALES DIVISION
PARTS & SERVICE DEPARTMENT
Whiteford Road, York, Pennsylvania 17402 • Area Code 717 848-1177

PART NO. 37950

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All information in the preceding section relative to Models 5811 and 5812 apply to Model 5813 except the information under POWER TRAIN on pages 7 & 8, "Brake Adjustment" and "To Remove Drive Sprockets" on page 11. New copy for the latter is below.

TO REMOVE DRIVE SPROCKETS

1. Remove the battery from the sled.
 - A. Remove cables from battery terminals.
 - B. Remove battery hold-down fasteners.
2. Place rear of sled on kick-stand.
3. Release track tension by removing both right hand and left hand adjuster plates. Remove all fasteners holding adjuster plates to the frame (See Figure 1).
4. Remove track tension springs by pushing the extended top end toward the center and pulling down. Use same procedure on both sides (See Figure 2).
5. Remove the three screws, lock washers, and nuts that hold the bearing retainer to the right side of the sled (See Figure 3).
6. Turn sled up on its right side. With the sled on its right side, the grease in the gear case will not run out as much as it would if the sled were on its left side.
7. Remove lacer pins from the drive track by bending the ends straight and pulling them out.
8. Pull belt to one side so you can gain access to the drive sprockets.
9. Remove the set screw in the collar at both ends of the drive shaft. There is a notch

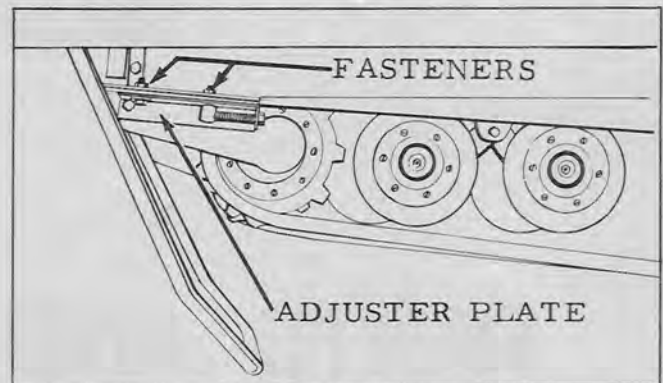


Figure 1

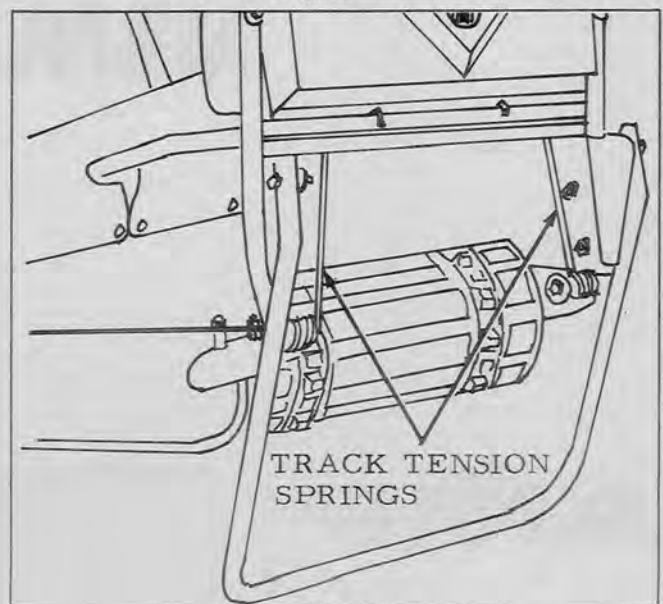


Figure 2

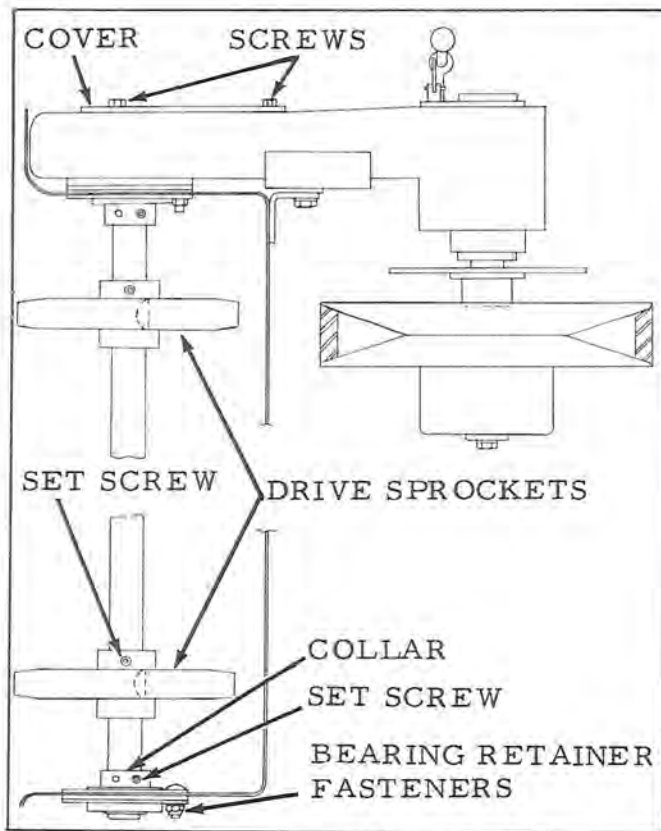


Figure 3

in each collar. Insert a punch into the notch. Tap the punch lightly to loosen the collar (See Figure 3).

10. Remove the three screws which secure the chain case cover (See Figure 3).

11. Remove the bolt and washer from the end of the drive shaft (See Figure 4). Tap on the drive sprockets with a hammer. Tap them to the right side. This will free the drive shaft from the gear shaft.

12. Loosen set screws which hold the drive sprockets in place. Slide them off the left end of the drive shaft.

13. Replace or repair sprockets.

14. Reassemble in opposite order.

15. When replacing the drive shaft into the gear case, align the large sprocket and the spacer behind it with your finger before inserting the drive shaft (See Figure 5). Insert shaft and align notches on the end of the drive shaft with those on the sprocket in the gear case.

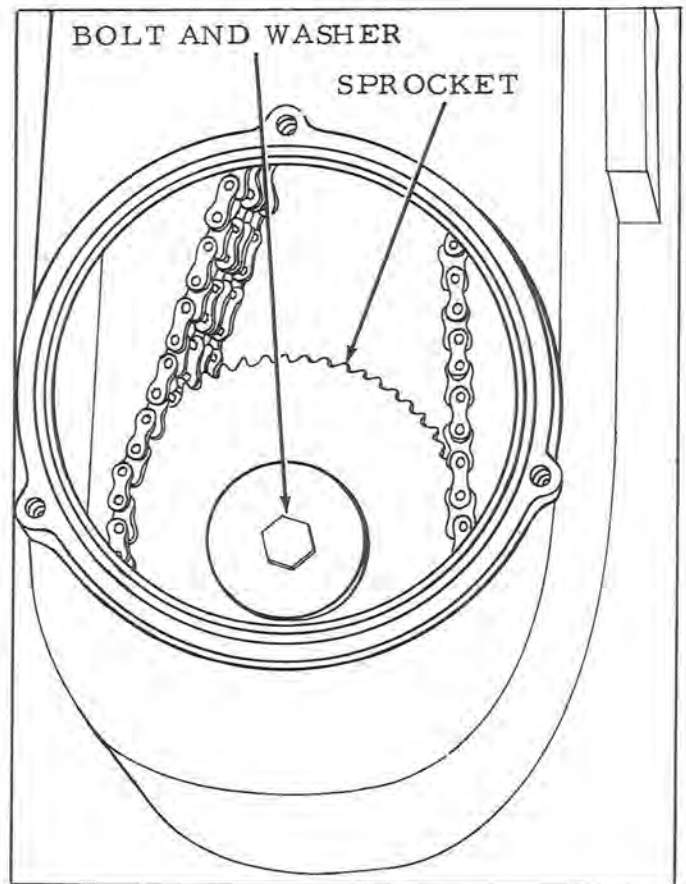


Figure 4

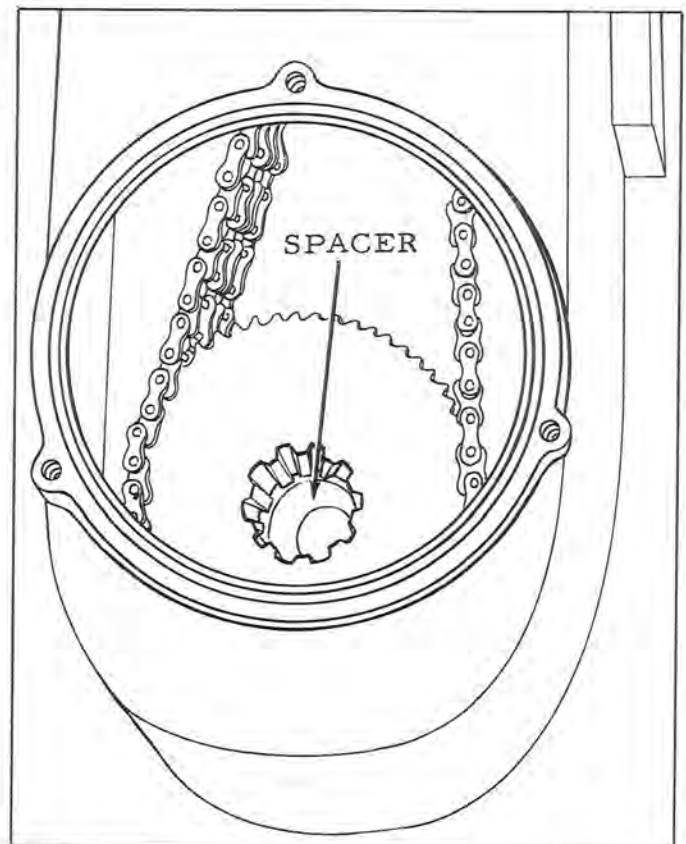


Figure 5

AMF SKI-DADDLER SNOWMOBILE

BODY PARTS

For Parts List — See Page 5
ALL UNNUMBERED
PARTS INTER-CHANGEABLE
WITH OPPOSITE SIDE

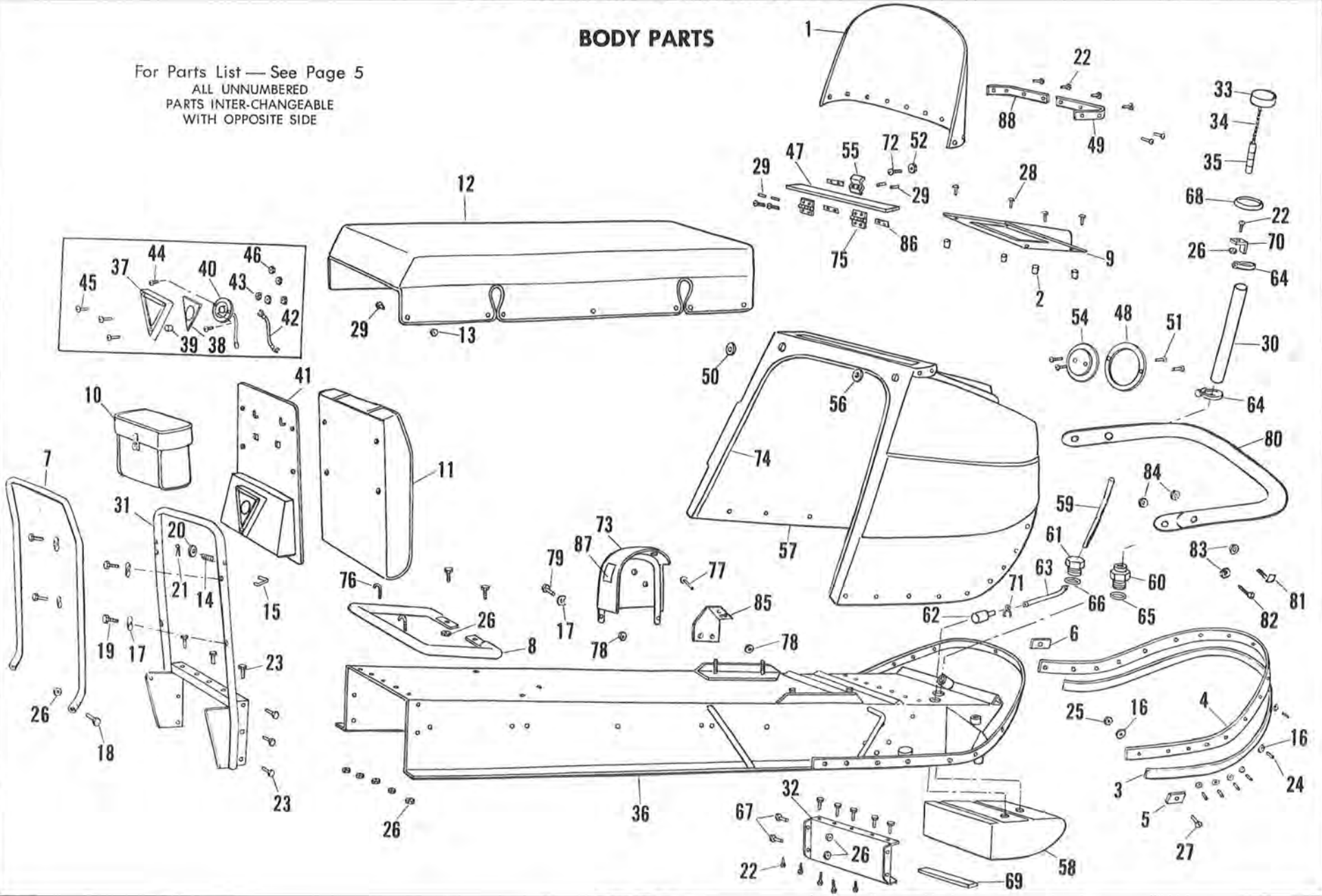


FIGURE 1

AMF SKI-DADDLER SNOWMOBILE

ALWAYS GIVE THE FOLLOWING INFORMATION WHEN ORDERING REPAIR PARTS:

1. THE PART NUMBER 2. THE PART NAME 3. QUANTITY DESIRED 4. THE MODEL NUMBER—**58130000**

SEND PART ORDERS TO ATTENTION OF: PARTS DEPARTMENT, P. O. BOX 377, DES MOINES, IOWA 50302

Your Unit is Right Hand (R.H.) or Left Hand (L.H.) as you stand behind it.

DO NOT USE KEY NUMBERS WHEN ORDERING REPAIR PARTS, ALWAYS USE PART NUMBERS.

BODY PARTS

FIGURE 1 PARTS LIST FOR MODEL 58130000

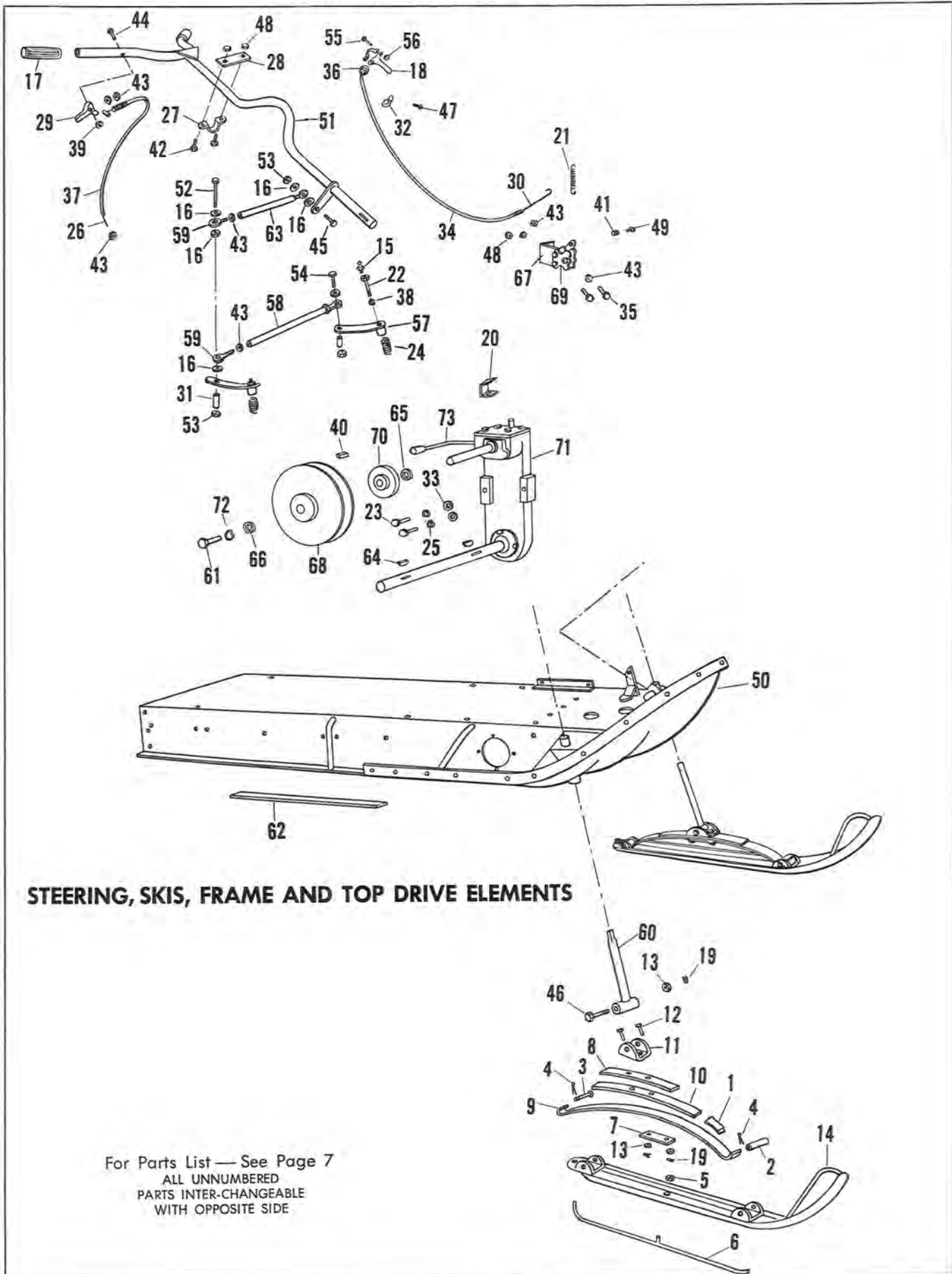
Key No.	Part No.	Description	Key No.	Part No.	Description
1	30418	Windshield	45	134186	*No. 6-32 x 1" Oval Hd. Sc.
2	30295	Rubber Spacer	46	271482	No. 6-32 Lock Nut
3	30555	Rubber Bumper Strip	47	30581	Glove Box Lid
4	30529	Aluminum Trim Strip	48	30218	Head Lamp Assy.
5	30376	End Cap Trim—R.H.	49	30630	Windshield Trim Strip R.H.
6	30377	End Cap Trim—L.H.	50	16615	Light Switch Decal
7	30394	Kick Stand Tube	51	134244	*No. 8-32 x 1 1/4" Oval Hd. Sc.
8	30395	Hand Rail Tube	52	996907	*No. 10-32 Keps Nut
9	30396	Hood Access Lid	53	457514	*No. 8-32 Lock Nut
10	30397	Tote Pouch	54	30283	Sponge Pad
11	30398	Seat Back	55	30219	Latch
12	30399	Seat	56	16634	Ignition Decal
13	30233	Snap—Male Half	57	30417	Hood
14	30245	Spring—Latch Hook	58	31450	Fuel Tank
15	30246	Latch Hook	59	30229	Gas Line—Long
16	2251	7/32" x 3/4" Washer	60	30263	Gas Tank Inlet Fitting
17	8728	Formed Washer	61	30264	Gas Tank Outlet Fitting
18	121913	*1/4"-20 x 1 1/4" Hex Hd. Sc.	62	30265	Fuel Filter
19	121926	*1/4"-20 x 1 1/2" Hex Hd. Sc.	63	30270	Fuel Pick-Up Tube
20	9417373	*No. 10 x 1/2" Flat Washer	64	24180	Hose Clamp
21	112726	*1/16" x 1/2" Cotter Pin	65	30278	"O" Ring 1 1/2" O.D.
22	125680	*1/4"-20 x 5/8" Truss Hd. Mach. Sc.	66	30279	"O" Ring 1 1/4" O.D.
23	120854	*1/4"-20 x 5/8" Hex Hd. Sc.	67	120706	*1/4"-20 x 1/2" Hex Hd. Sc.
24	30275	3/16" x 5/8" Pop Rivet	68	30810	Hood Grommet
25	457509	No. 10-24 Lock Nut	69	31763	Rubber Strip
26	9413314	1/4"-20 Lock Nut	70	30365	Support Angle
27	120691	No. 10-24 x 1 1/4" Flat Hd. Sc.	71	30488	Hose Clamp
28	995355	1/4"-20 x 1" Truss Hd. Sc.	72	132911	*No. 10-32 x 5/8" Rd. Hd. Sc.
29	30276	1/8" Pop Rivet	73	30635	Clutch Guard
30	30400	Fuel Inlet Tube Assy.	74	30605	Plastic Hood Trim
31	30409	Seat Back Tube Assy.	75	30272	Hinge
32	30412	Fuel Tank Retainer Plate Assy.	76	30171	J-Bolt
33	30268	Gas Cap	77	122007	*5/16"-18 x 3/4" Hex Hd. Sc.
34	30624	Chain	78	9415988	*5/16"-18 Lock Nut
35	30269	Fuel Level Indicator	79	122027	*5/16"-18 x 1 1/4" Hex Hd. Sc.
36	30414	Main Frame Assy.	80	30633	Bumper
37	29080	Tail Lamp Door	81	22780	5/16"-18 Curved Hd. Bolt
38	29081	Tail Lamp Lens	82	120272	5/16"-18 x 1" Truss Hd. Sc.
39	29266	Rubber Spacer	83	996407	*5/16" Washer
40	30363	Tail Lamp	84	271184	*5/16"-18 Lock Nut
41	31151	Seat Back Cover	85	30587	Rear Brake Mounting Bracket
42	30362	Tail Lamp Ground Wire	86	30285	Plate (Glove Box Lid)
43	120622	*No. 8-32 Hex Nut	87	16439	Decal F.N.R.
44	132764	*No. 8-32 x 5/8" Rd. Hd. Mach. Sc.	88	30631	Windshield Trim Tape L.H.

*Standard Hardware Items may be purchased locally.

For Illustration See Page 4

All replacement parts will be supplied in current production colors or in a neutral color.

AMF SKI-DADDLER SNOWMOBILE



STEERING, SKIS, FRAME AND TOP DRIVE ELEMENTS

For Parts List — See Page 7
 ALL UNNUMBERED
 PARTS INTER-CHANGEABLE
 WITH OPPOSITE SIDE

FIGURE 2

AMF SKI-DADDLER SNOWMOBILE

STEERING, SKIS, FRAME AND TOP DRIVE ELEMENTS

FIGURE 2 PARTS LIST FOR MODEL 58130000

Key No.	Part No.	Description	Key No.	Part No.	Description
1	30247	Bumper Pad	38	120383	*Lock Washer
2	8441	Spring Roller	39	457507	*No. 10-32 Lock Nut
3	28762	Spring Pivot Pin	40	30575	Square Key
4	137185	* $\frac{1}{8}$ " x 1" Cotter Pin	41	25188	Swivel Button
5	997314	$\frac{1}{4}$ "-20 Centerlock Nut	42	121893	* $\frac{1}{4}$ "-20 x $\frac{7}{8}$ " Hex Hd. Sc.
6	30369	Ski Wear Rod Assy.	43	124925	* $\frac{3}{8}$ "-24 Jam Nut
7	28764	Spring Plate	44	142443	No. 10-32 x $1\frac{3}{8}$ " Rd. Hd. Sc.
8	28766	Leaf Spring	45	181643	* $\frac{3}{8}$ "-24 x $1\frac{1}{2}$ " Hex Hd. Sc.
9	28770	Main Leaf Spring	46	995364	$\frac{3}{8}$ "-24 x $2\frac{3}{4}$ " Hex Hd. Sc.
10	29645	Middle Leaf Spring	47	999101	*No. 10-32 x $\frac{3}{8}$ " Self Tap. Sc.
11	28769	Spring Mounting Bracket	48	9413314	* $\frac{1}{4}$ "-20 Lock Nut
12	995365	$\frac{3}{8}$ "-24 x $1\frac{1}{4}$ " Hex Hd. Sc.	49	995339	No. 8-32 x $\frac{3}{8}$ " Socket Hd. Sc.
13	995224	$\frac{3}{8}$ "-24 Slotted Nut	50	30414	Main Frame Assy.
14	30799	Ski and Wear Rod Assy.	51	30579	Steering Handle & Column Assy.
15	706	Grease Fitting	52	181652	$\frac{3}{8}$ "-24 x 3" Hex Hd. Sc.
16	21777	Spacer Bushing	53	9415106	* $\frac{3}{8}$ "-30 Lock Nut
17	28416	Hand Grip	54	181650	$\frac{3}{8}$ "-24 x $2\frac{1}{2}$ " Hex Hd. Sc.
18	28907	Hand Control Assy.	55	424339	*No. 10-32 x 1" Rd. Hd. Sc.
19	121222	* $\frac{3}{32}$ " x $\frac{3}{4}$ " Cotter Key	56	120614	*No. 10-32 Hex Nut
20	30673	Brake Spring Bracket	57	30060	Spindle Arm
21	2347	Spring	58	30403	Tie Rod
22	30117	Spindle Bolt	59	30081	Rod End Bearing
23	120233	* $\frac{3}{8}$ "-16 x 1" Hex Hd. Sc.	60	30124	Spindle Tube Assy.
24	30149	Spring (Spindle)	61	180079	$\frac{5}{16}$ "-18 x 1" Hex Hd. Sc.
25	120382	* $\frac{3}{8}$ " Lock Washer	62	30228	Foot Pad
26	20202	Throttle Control Cable	63	30561	Drag Link
27	24054	"U" Strap	64	30535	No. 706 Hi-Pro Key
28	30211	Column Support Plate (Upper)	65	30576	Washer (Disc Brake)
29	30212	Thumb Lever (Throttle Control)	66	8103	Flat Washer
30	30224	Brake Cable	67	30592	Front Brake Mounting Bracket
31	30251	Spacer Bushing	68	30392	Driven Clutch
32	27128	Cable Clamp	69	28783	Disc Brake
33	120396	* $\frac{3}{8}$ " Washer	70	28784	Disc Brake Hub
34	30282	Housing (Brake Cable)	71	30390	Apex Gear Case Complete
35	120854	* $\frac{1}{4}$ "-20 x $\frac{5}{8}$ " Hex Hd. Sc.	72	120638	* $\frac{5}{16}$ " Lock Washer
36	29032	Cable Ferrule	73	31406	Lever Assy.
37	30284	Cable Housing			

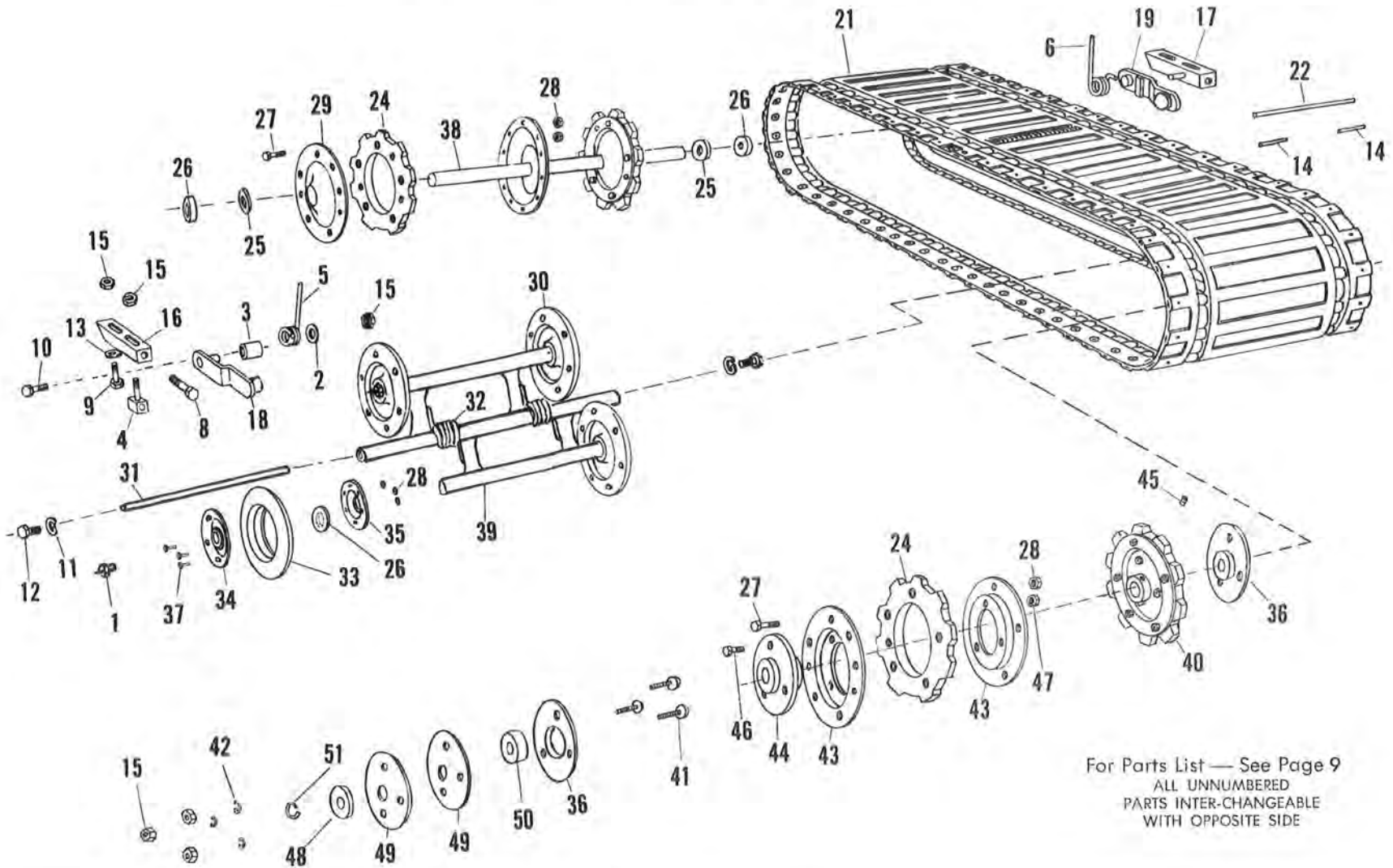
* Standard Hardware Items May Be Purchased Locally

For Illustration See Page 6

All replacement parts will be supplied in current production colors or in a neutral color.

AMF SKI-DADDLER SNOWMOBILE

DRIVE BELT AND LOWER DRIVE ELEMENTS



For Parts List — See Page 9
ALL UNNUMBERED
PARTS INTER-CHANGEABLE
WITH OPPOSITE SIDE

FIGURE 3

AMF SKI-DADDLER SNOWMOBILE

DRIVE BELT AND LOWER DRIVE ELEMENTS

FIGURE 3 PARTS LIST FOR MODEL 58130000

Key No.	Part No.	Description	Key No.	Part No.	Description
1	706	Grease Fitting	26	30080	Ball Bearing
2	2483	Spring Washer	27	120222	*No. 10-24 x 3/8" Mach. Sc.
3	29956	Spacer	28	997316	No. 10-24 Lock Nut
4	29975	Adjusting Block	29	29955	Sprocket Support Plate Assy.
5	30464	Rear Torsion Spring R.H.	30	30087	Boggie Wheel & Support Assy.
6	30463	Rear Torsion Spring L.H.	31	30402	Boggie Wheel & Support Shaft
7	30145	Retainer Spring	32	29944	Boggie Wheel Spring
8	28776	5/16"-18 x 3" Hex Hd. Sc.	33	29942	Boggie Tire
9	122007	*5/16"-18 x 3/4" Hex Hd. Sc.	34	29954	Boggie Wheel Half (Outer)
10	122065	*5/16"-18 x 2" Hex Hd. Sc.	35	29953	Boggie Wheel Half (Inner)
11	138485	*5/16" Lock Washer	36	30560	Bearing Back Up Plate
12	181595	*5/16"-24 x 3/4" Hex Hd. Sc.	37	120221	*No. 10-24 x 1/2" Mach. Sc.
13	456145	5/16" Washer	38	31802	Rear Shaft Assy. W/Plugs
14	30620	Short Hinge Wire	39	31803	Boggie Support Assy. W/Plugs
15	9415988	*5/16"-18 Lock Nut	40	30577	Drive Sprocket Assy. Consists of (24-27-28-43-44-45-46-47)
16	29980	Belt Adjust. Angle Assy. R.H.	41	998010	5/16"-18 x 3/4" Carriage Bolt
17	29981	Belt Adjust. Angle Assy. L.H.	42	120638	*5/16" Split Lock Washer
18	29984	Rear Support Arm Assy. R.H.	43	30523	Plate
19	29985	Rear Support Arm Assy. L.H.	44	30524	Hub
20	30017	No. 40 Sprocket—26 Tooth	45	998503	5/16"-18 x 5/16" Set Sc.
21	30100	Traction Belt Assy.	46	121887	*1/4"-20 x 3/4" Hex Hd. Sc.
22	30621	Long Hinge Wire	47	9413314	*1/4"-20 Lock Nut
23	30085	Rear Sprocket Complete Consists of (24-25-26-27-28-29-38) Not Illus.	48	31073	Link Belt Bearing
24	29945	Rubber Sprocket—9 Tooth	49	31074	Link Belt Collar
25	30079	Grease Seal	50	31075	Link Belt Stamping
			51	8288	Snap Ring

* Standard Hardware Items May Be Purchased Locally

For Illustration See Page 8

All replacement parts will be supplied in current production colors or in a neutral color.

AMF SKI-DADDLER SNOWMOBILE

ENGINE, ELECTRICAL AND FUEL ELEMENTS

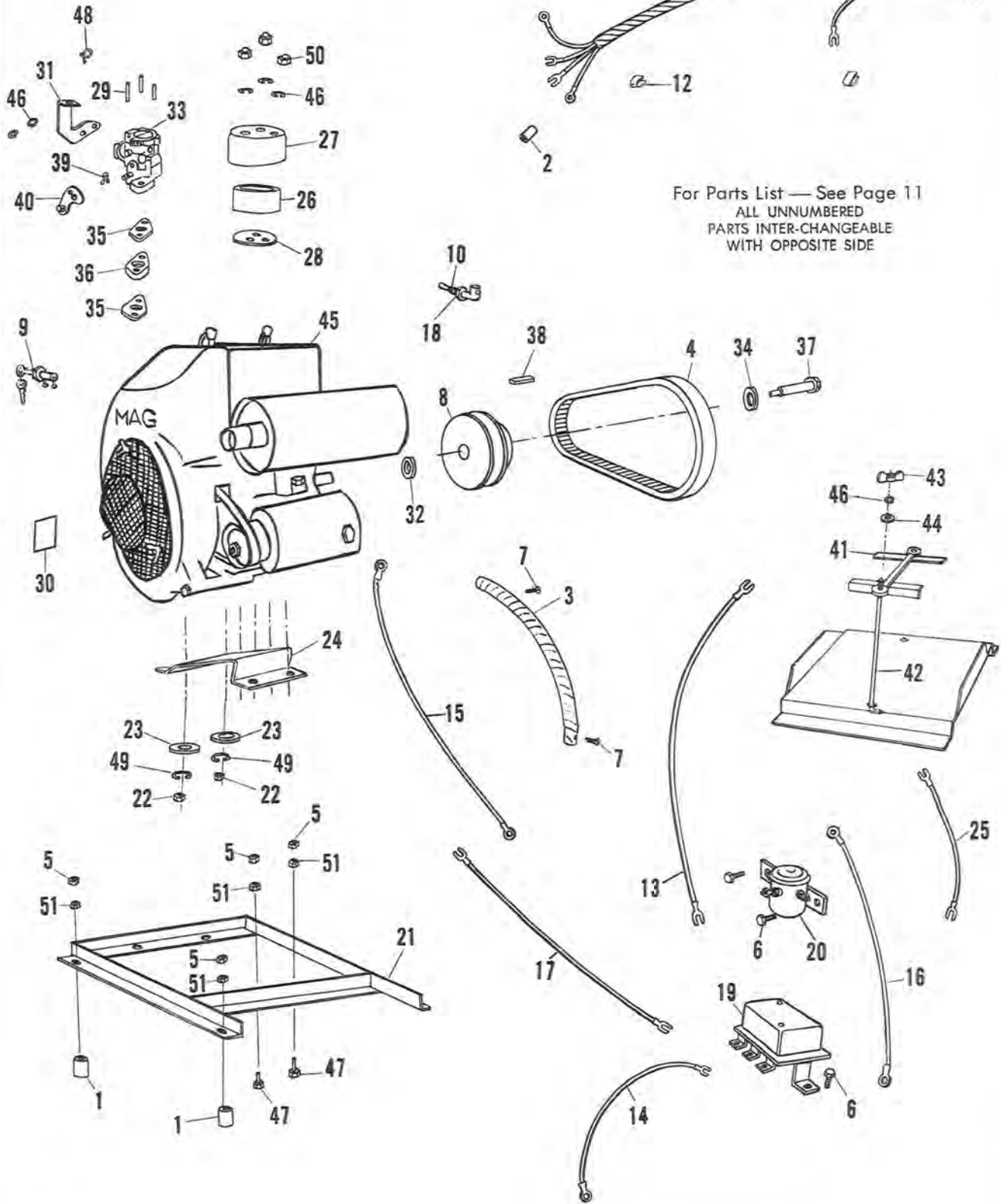


FIGURE 4

AMF SKI-DADDLER SNOWMOBILE

ENGINE, ELECTRICAL AND FUEL ELEMENTS

FIGURE 4 PARTS LIST FOR MODEL 58130000

Key No.	Part No.	Description	Key No.	Part No.	Description
1	30556	Rubber Engine Mounting Pad	26	30176	Air Cleaner Screen
2	29677	Connector	27	30178	Air Cleaner Cover
3	30557	Exhaust Pipe	28	30180	Air Cleaner Mount Plate
4	30393	Variable Speed Belt	29	30375	Air Cleaner Stud
5	9416107	* $\frac{3}{8}$ "-16 Lock Nut	30	16635	Kill Button Decal
6	999701	$\frac{1}{4}$ "-20 x $\frac{5}{8}$ " Hex Hd. Self Tap Sc.	31	30603	Anchor Bracket (Throttle Cable)
7	999101	*No. 10-32 x $\frac{3}{8}$ " Self Tap Sc.	32	30610	Clutch Spacer
8	30391	Drive Clutch	33	30628	Carburetor (Tillotson HR-3A)
9	26032	Key Switch	34	21970	Washer
10	29073	Light Switch	35	30676	Intake Manifold Gasket
11	30618	Wiring Harness	36	30629	Insulator Block
12	30389	Wiring Clip	37	30573	Special Screw
13	30612	Lead Wire (Battery to Solenoid)	38	30574	$\frac{1}{4}$ " Square Key
14	30614	Lead Wire (Regulator to Ground)	39	119117	* $\frac{3}{32}$ x $\frac{1}{2}$ " Cotter Pin
15	30615	Lead Wire (Regulator to Gen.)	40	30642	Carburetor Adapter Arm Assy.
16	30616	Lead Wire (Solenoid to Regulator)	41	30601	Battery Hold Down Assy.
17	30617	Lead Wire (Regular to Generator)	42	30602	Battery Hold Down Rod
18	135629	* $\frac{1}{2}$ " Shakeproof Washer	43	126177	$\frac{1}{4}$ "-20 Wing Nut
19	31470	Voltage Regulator (See Engine Manual)	44	120386	$\frac{1}{4}$ " Washer
20	3324	Solenoid	45	Engine	See Footnote Below
21	30572	Engine Base Assy.	46	120380	$\frac{1}{4}$ " Lock Washer
22	9415106	* $\frac{3}{8}$ "-24 Lock Nut	47	180124	$\frac{3}{8}$ "-16 x $1\frac{1}{4}$ " Hex Hd. Sc.
23	446363	* $\frac{3}{8}$ " Washer	48	30489	Hose Clamp (Carburetor)
24	30568	Engine Mount Plate	49	120382	* $\frac{3}{8}$ " Split Lock Washer
25	30613	Lead Wire (Battery to Ground)	50	995246	$\frac{1}{4}$ "-20 Acorn Nut
			51	124829	$\frac{3}{8}$ "-16 Jam Nut

* Standard Hardware Items May Be Purchased Locally

For Illustration See Page 10

All prices subject to change without notice.

All replacement parts will be supplied in current production colors or in a neutral color.

Replacement engines and parts are obtainable from the Engine Manufacturer's authorized Service Stations who are also to be contacted in regards to the Engine Warranty. See your Engine Manual for location of these stations.

AMF SKI-DADDLER SNOWMOBILE

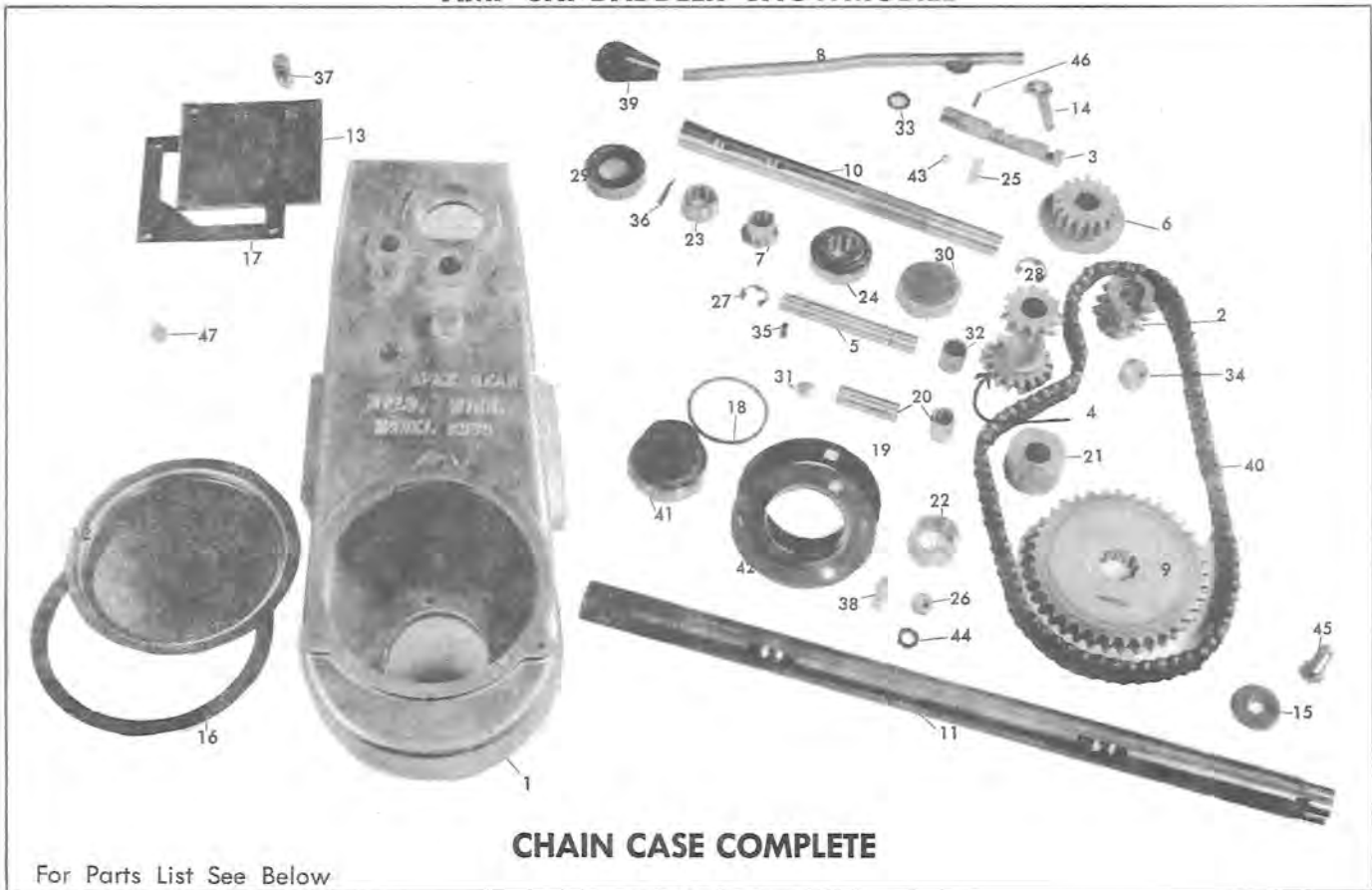


FIGURE 5

CHAIN CASE COMPLETE

FIGURE 5 PARTS LIST FOR MODEL 58130000

Key No.	Part No.	Description
1	31814	Housing
2	31815	Drive Sprocket & Bushing
3	31816	Shifter Shaft
4	31817	Reverse Pinion
5	31818	Reverse Shaft
6	31819	Reverse Gear
7	31820	Taper Bearing Bushing
8	31821	Shift Lever
9	31822	Sprocket-Driven
10	31823	Input Shaft
11	31824	Output Shaft
12	31825	Inspection Cover
13	31826	Cover Plate
14	31827	Fulcrum & Nut
15	31828	Washer-Axle
16	31829	Gasket for Inspection Cover
17	31830	Gasket for Cover Plate
18	31831	"O" Ring for Flanget
19	31832	Gasket for Flanget
20	31833	Shaft & Bearing
21	31834	Roller
22	31835	Spacer-Output
23	31836	Collar-Input
24	31837	Timken Bearing

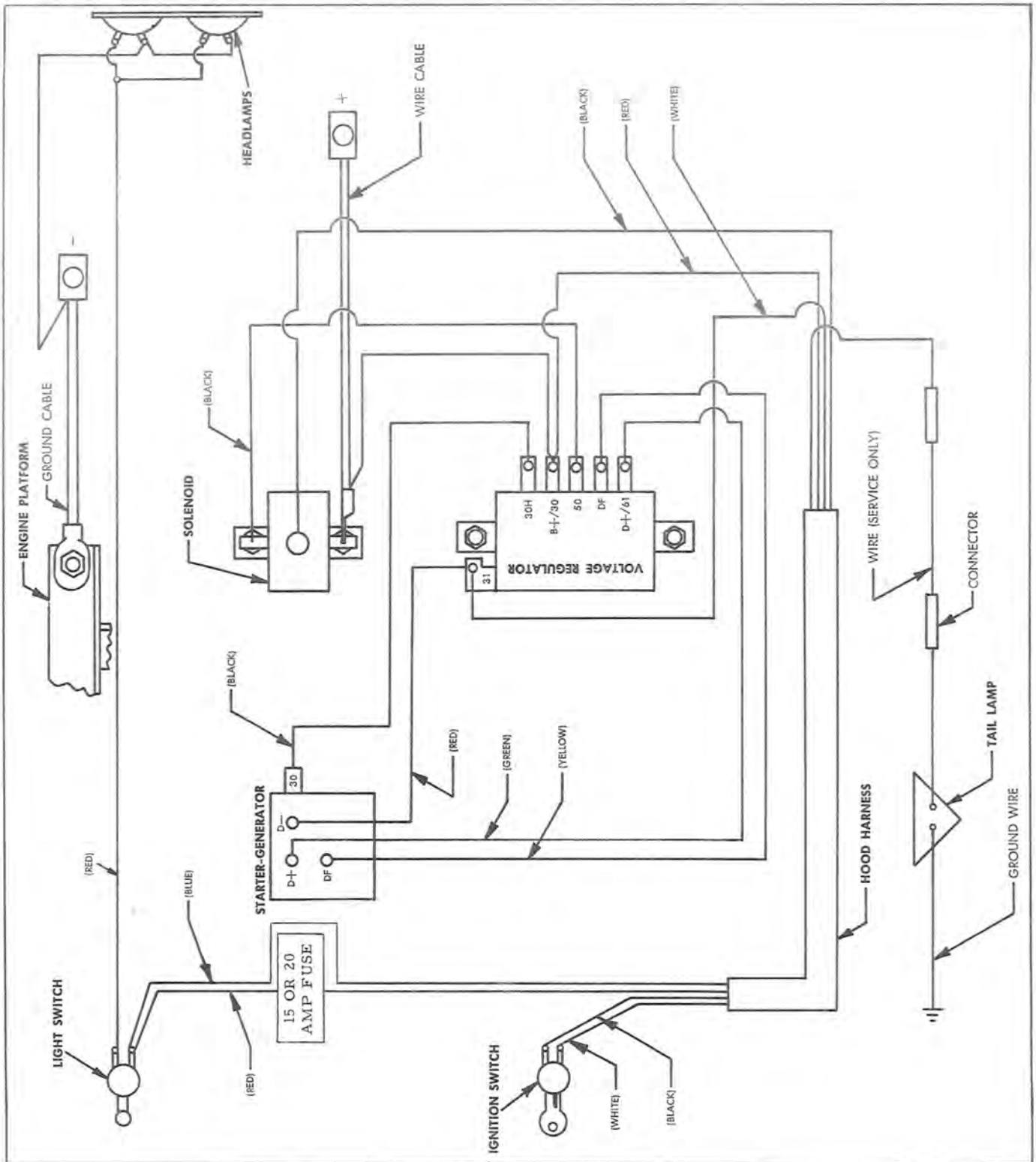
Key No.	Part No.	Description
25	31838	Spring for Detent
26	31839	5/16" Nut
27	31840	Snap Ring
28	31841	Snap Ring
29	31842	Seal—Input Shaft
30	31843	Dust Cap
31	31844	Expansion Plug
32	31845	Torrington Bearing
33	31846	Seal
34	31847	Oilite Bearing
35	31848	Set Screw
36	31849	1/8" x 1" Roll Pin
37	31850	Breather
38	31851	Stud
39	31852	Lever Ball
40	31853	Chain (by link)
41	31854	Bearing & Collar
42	31855	Flanget
43	31856	Detent Ball
44	31857	5/16" Lock Washer
45	31858	3/8" Bolt
46	31859	1/8" x 1/2" Roll Pin
47	31860	1/4" Bolt

* Standard Hardware Items May Be Purchased Locally

For Illustration See Above

All replacement parts will be supplied in current production colors or in a neutral color.

REPAIRMAN'S REFERENCE WIRING DIAGRAM



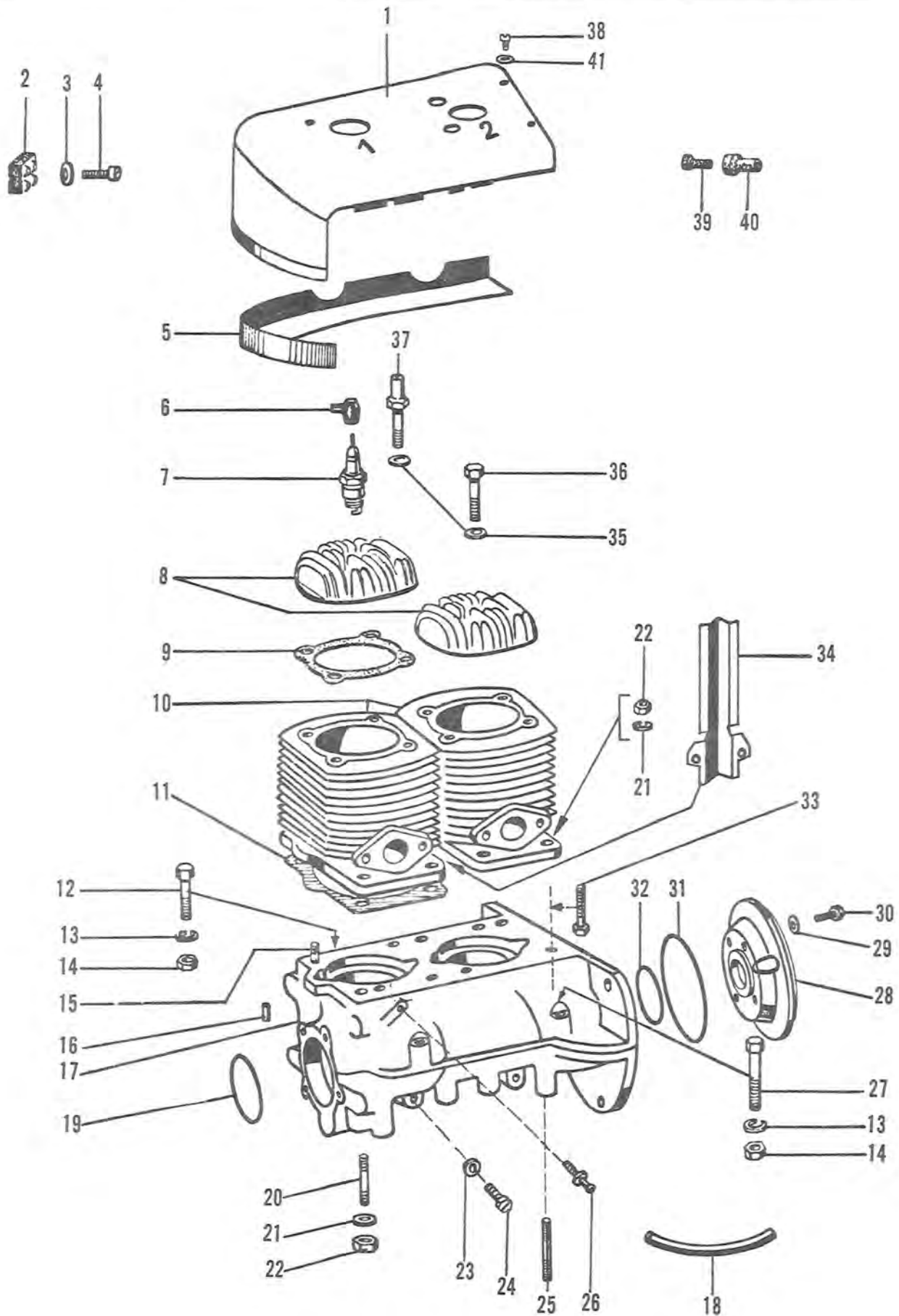
The wiring diagram shown here is a technical explanation of the circuitry on this unit. It is intended for use by repairman or owners capable of reading and using wiring diagrams.

The various component parts have been labeled. See your Service Dealer for part numbers, price and ordering

information. Also see your Service Dealer for available Service Manual.

We recommend that unless you are fully qualified to make repairs on the electrical system on this unit, you take it to a competent repairman for such work or adjustments.

BLOCK AND HOOD

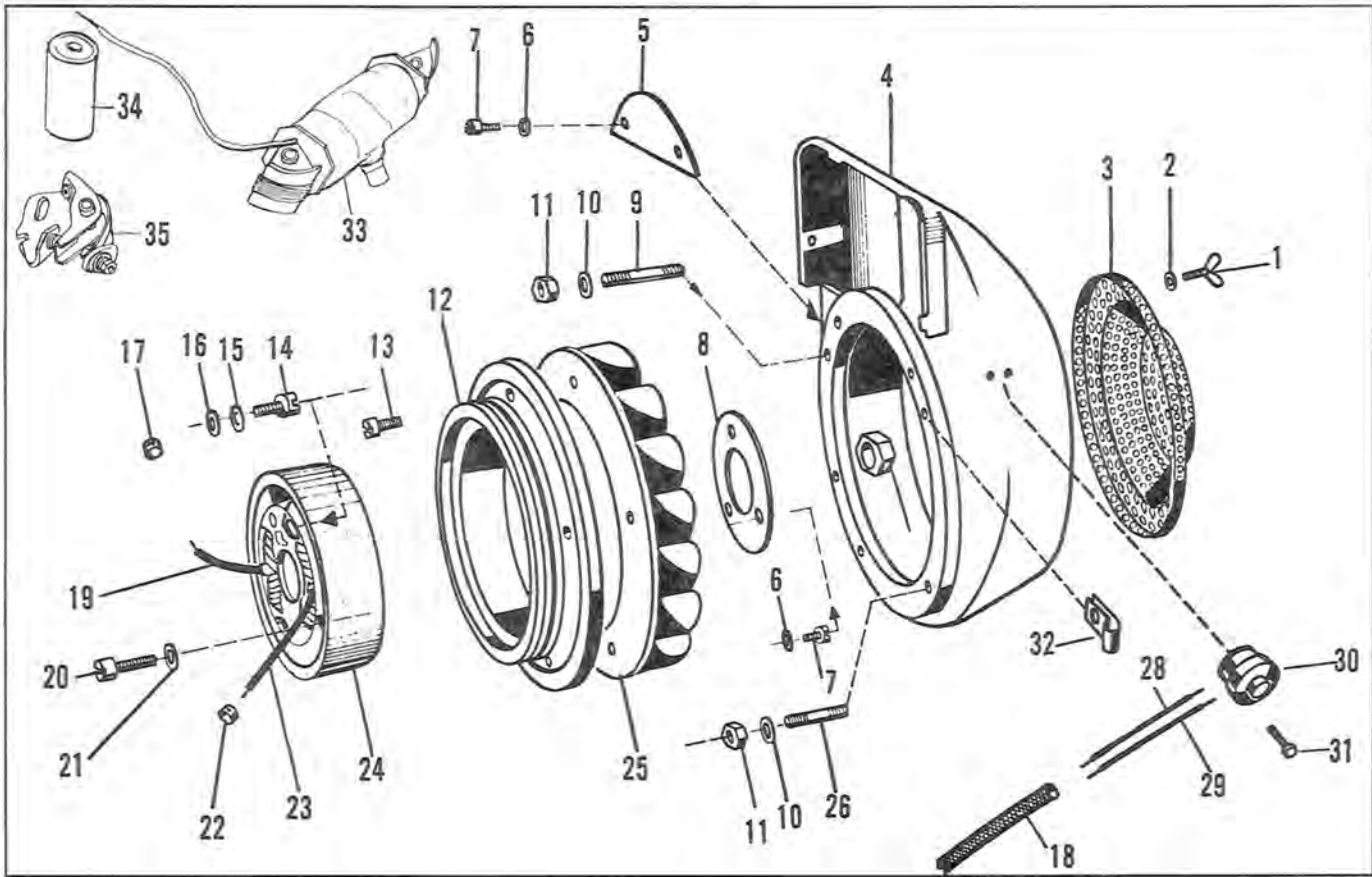


BLOCK AND HOOD PARTS LIST

ENGINE TYPE Z054-SRB x 18 (AMF)

<u>ITEM</u>	<u>NOS.</u>	<u>QUANTITIES</u>	<u>DESIGNATION</u>
1	549x398	1	Cover for air shroud
2	EA2102B	1	Connection clamp for grounding wire
3	884x7	1	Insulating washer
4	DIN84-5S M3x15	1	Screw for connection clamp
5	549x399	1	Shield for cylinder
6	836x43	2	Terminal for ignition cable
7	50x39	2	Spark plug BOSCH M Z25 - T 1
8	1712x142	2	Cylinder head
9	759x181	2	Gasket for Cylinder head
10	205x178	2	Cylinder
11	759x183	2	Gasket for cylinder base
12	DIN931-5S M8x65	1	Screw for crankcase
13	DIN137 A8	4	Lockwasher
14	DIN934-5S M8	4	Nut for crankcase
15	DIN835-5S M10x22	2	Stud for cylinder
16	9244x159	1	Crankcase assembly
17	343x135	2	Roll pin
18	318x340	1	Impulse tube
19	73x218	1	"O" ring seal for crankcase
20	DIN835-5S M10x70	2	Stud for crankcase
21	DIN137 A10	10	Lockwasher
22	DIN934-5S M10	10	Nut for crankcase and cylinder
23	DIN7603 A8x11,5	2	Washer for drainage plug
24	DIN933-5D M8x158S2	2	Plug for crankcase drainage
25	954x87	4	Stud for mounting crankcase
26	222x366	1	Straight fitting for fuel pump
27	DIN931-5S M8x60	3	Screw for crankcase
28	582x33	1	Main bearing plate fly wheel end
29	DIN137 A8	4	Lockwasher
30	DIN931-5D M8x20	4	Screw for main bearing plate
31	73x219	1	"O" ring seal for crankcase
32	73x217	1	"O" ring seal for crankcase
33	DIN931-5S M10x160	6	Screw for crankcase
34	549x385	1	Air guidance tin
35	DIN125 10,5	8	Plain washer for mounting cylinder head
36	DIN931-8G M10x45	7	Screw for mounting cylinder head
37	819x77	1	Screw for mounting cylinder head and cover for air shroud
38	DIN84-5S M6x10	7	Screw for fixing cover for air shroud
39	813x62	1	Rubber nipple for grounding wire
40	813-H	3	Rubber nipple for ignition cable
41	DIN433-St 6,4	7	Plain washer

FLY WHEEL AND MAGNETO

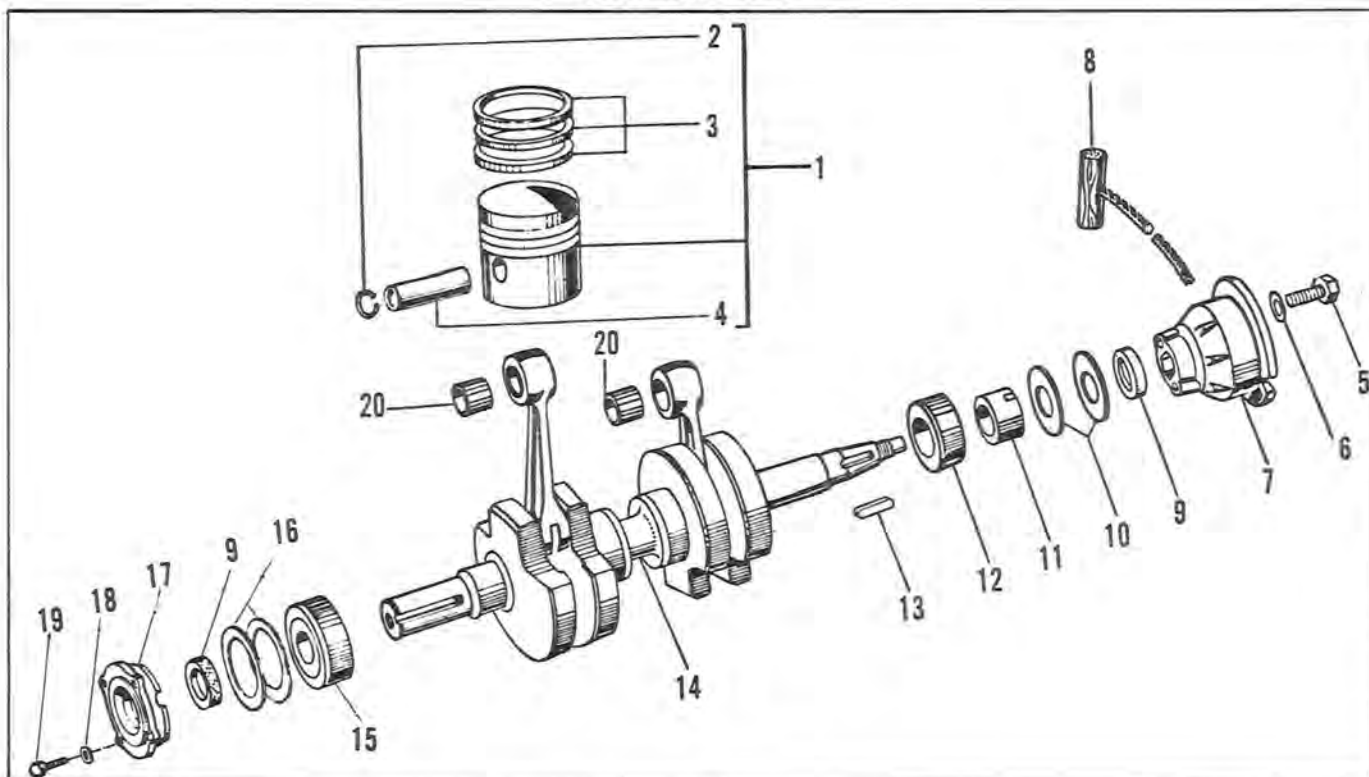


FLY WHEEL AND MAGNETO PARTS LIST

ENGINE TYPE 2054-SRB & 18 (AMF)

ITEM NOS.	QUANT	DESIGNATION	PRICE	ITEM NOS.	QUANT	DESIGNATION	PRICE	
1	DIN316-4D M8x15	3	Screw for mounting screen	.15	19	141x234	1	Ignition cable for cyl. No. 2
2	DIN433-St 8, 4	3	Plain washer	.05	20	DIN84-5S M6x12	4	Screw for mounting fly wheel magneto
3	82x127	1	Screen for cooling air intake	9.30	21	DIN137 A6	4	Lockwasher
4	549x397	1	Air shroud	110.00	22	787x160	1	Marked bushing for ignition cable No. 1
5	810x278	1	Cover for air shroud	1.80	23	141x235	1	Ignition cable for cyl. No. 1
6	DIN137 A6	5	Lockwasher	.05	24	9281x134	1	Fly wheel magneto assembly
7	DIN933-5D M6x12	5	Screw for mounting and air shroud cover	.15	25	547x6	1	Fan
8	287x32	1	Breaker cover	2.30	26	DIN935-5D M8x15	4	Stud for fixing air shroud
9	994x86	1	Stud for fixing air shroud	.60	27	209x82	1	Nut for mounting fly wheel
10	DIN137 A8	5	Lockwasher	.05	28	141x237	1	Wire for stop button
11	DIN934-5S M8	5	Nut for fixing air shroud	.08	29	141x238	1	Wire for stop button
12	583x241	1	Fly wheel	52.00	30	9367x24	1	Stop button
13	DIN7976 Bx 4, 8x19	6	Screw for mounting fan	.15	31	DIN933-5S M3x8	2	Screw for stop button
14	DIN84-5S M5x15	2	Screw for fixing armature plate	.15	32	929x179	1	Support clip for insulating sheath
15	DIN137 A5	2	Lockwasher	.05	33	204 211 005	2	Ignition Coil
16	DIN433 St 5, 5x10	2	Plain washer	.05	34	237 330 037	1	Condenser
17	787x161	1	Marked bushing for ignition cable No. 2	.25	35	217 013 006	1	Contact Set
18	143x160	1	Insulating sheath	1.00				

CRANKSHAFT

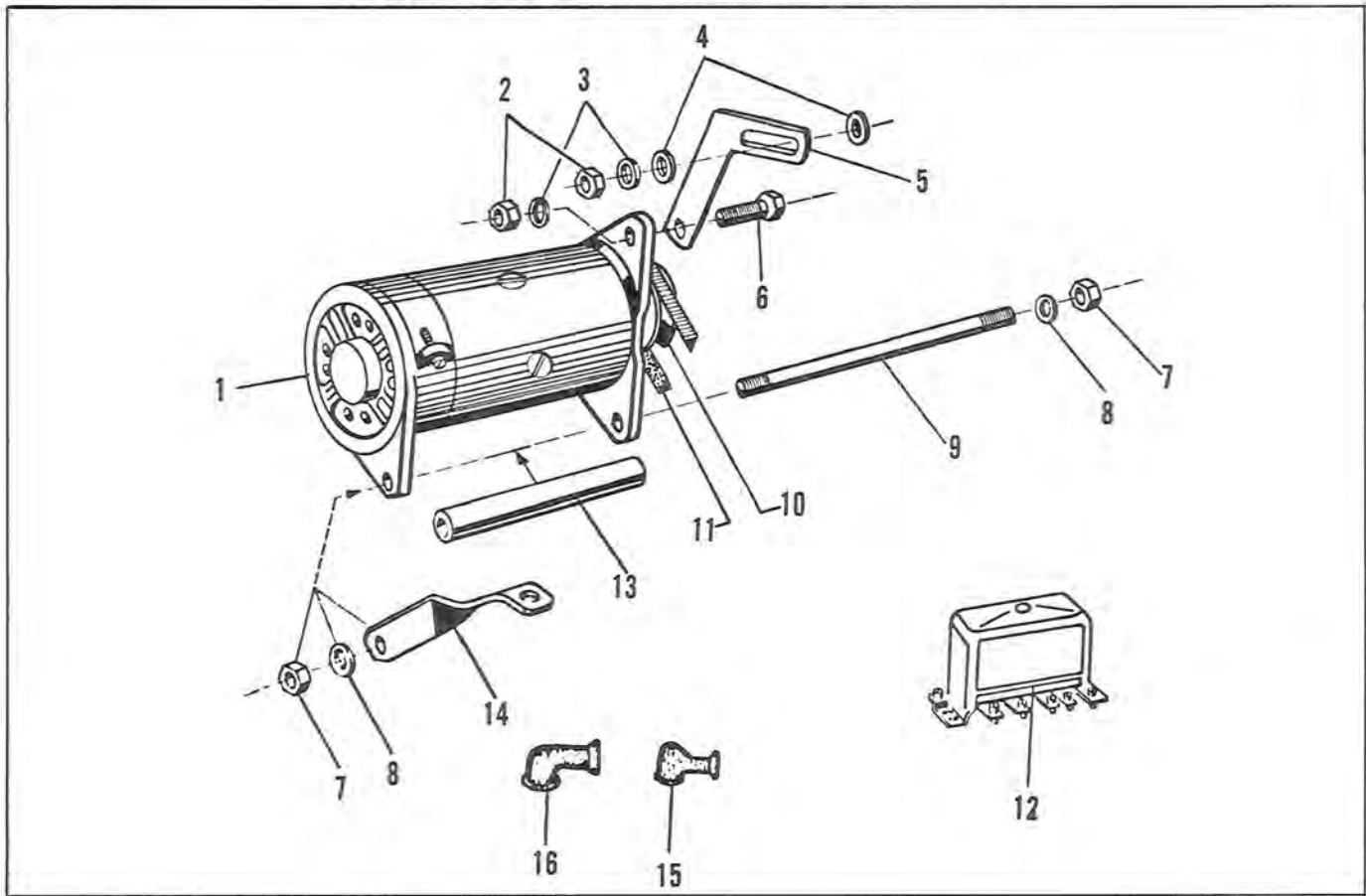


CRANKSHAFT PARTS LIST

ENGINE TYPE 2054-SRB x 18 (AMF)

ITEM NOS.	DESIGNATION	QUANTITIES	DESIGNATION
1	9020x29 9020x29-R1 9020x29-R2 9020x29-R3 9020x29-R4	2 2 2 2 2	Piston assembly - standard -do- 0,25 mm O. S. -do- 0,50 mm O. S. -do- 0,75 mm O. S. -do- 1,00 mm O. S.
2	DIN73123-B20	4	Retaining ring for piston pin
3	240x125 240x125-R1 240x125-R2 240x125-R3 240x125-R4	6 6 6 6 6	Piston ring - standard -do- 0,25 mm O. S. -do- 0,50 mm O. S. -do- 0,75 mm O. S. -do- 1,00 mm O. S.
4	DIN73121-K D20x14x60	2	Piston pin
5	DIN931-5D M8x40	2	Screw for rope starter sheave
6	DIN137 A8	2	Lockwasher
7	334x92	1	Rope starter sheave
8	9002x10	1	Starting rope assembly
9	9493x80	2	Oil seal for crankshaft, T.O. and fly wheel end
10	321x39	2	Thrust washer for main bearing, fly wheel end
11	1212-202-109	1	Cam for breaker contacts
12	9341x144	1	Main bearing, fly wheel end
13	DIN6885 St A5x5x30	1	Key for mounting cam and fly wheel
14	9090x72	1	Crankshaft assembly
15	9341x66	1	Main bearing T. O. end
16	321x143	1	Thrust washer for main bearing T. O. end
17	1652x180	1	Main bearing plate, T. O. end
18	DIN137 A8	4	Lockwasher
19	DIN931-5D M8x20	4	Screw for main bearing plate
20	732x80	2	Piston pin bushing

GENERATOR AND VOLTAGE REGULATOR

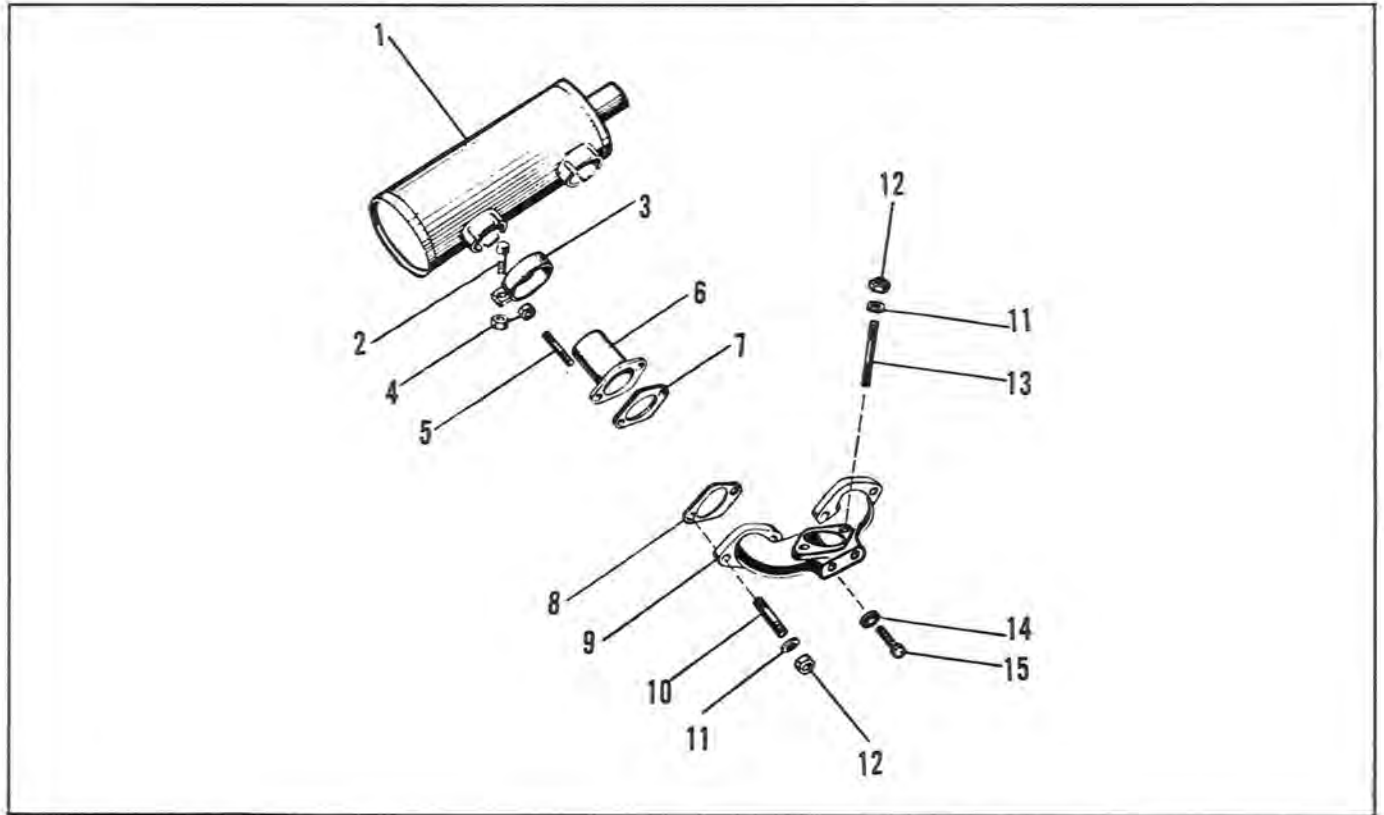


GENERATOR AND VOLTAGE REGULATOR PARTS LIST

ENGINE TYPE 2054-SRB x 18 (AMF)

<u>ITEM</u>	<u>NOS.</u>	<u>QUANTITIES</u>	<u>DESIGNATION</u>
1	9281x113	1	Starter generator assembly
2	DIN934-5S M8	2	Nut for adjusting strap
3	DIN137 A8	2	Lockwasher
4	DIN125 8, 4	2	Plain washer for adjusting strap
5	1552x603	1	Strap for starter generator belt adjustment
6	DIN933-5D M8x25	1	Screw for mounting adjusting strap
7	DIN934-5S M10	2	Nut for fixing starter generator
8	DIN137 A10	2	Lockwasher
9	112x93	1	Stud for mounting starter generator
10	221x149	1	Driven pulley on starter generator
11	332x52	1	Belt for starter generator
12	9448x34	1	Current voltage regulator assembly
13	889x215	1	Spacer for mounting starter generator
14	1552x604	1	Support bracket for starter generator
15	813x49	2	Rubber hood for cable terminal
16	813x63	1	Rubber hood for cable terminal

MANIFOLD AND MUFFLER



MANIFOLD AND MUFFLER PARTS LIST

ENGINE TYPE 2054-SRB x 18 (AMF)

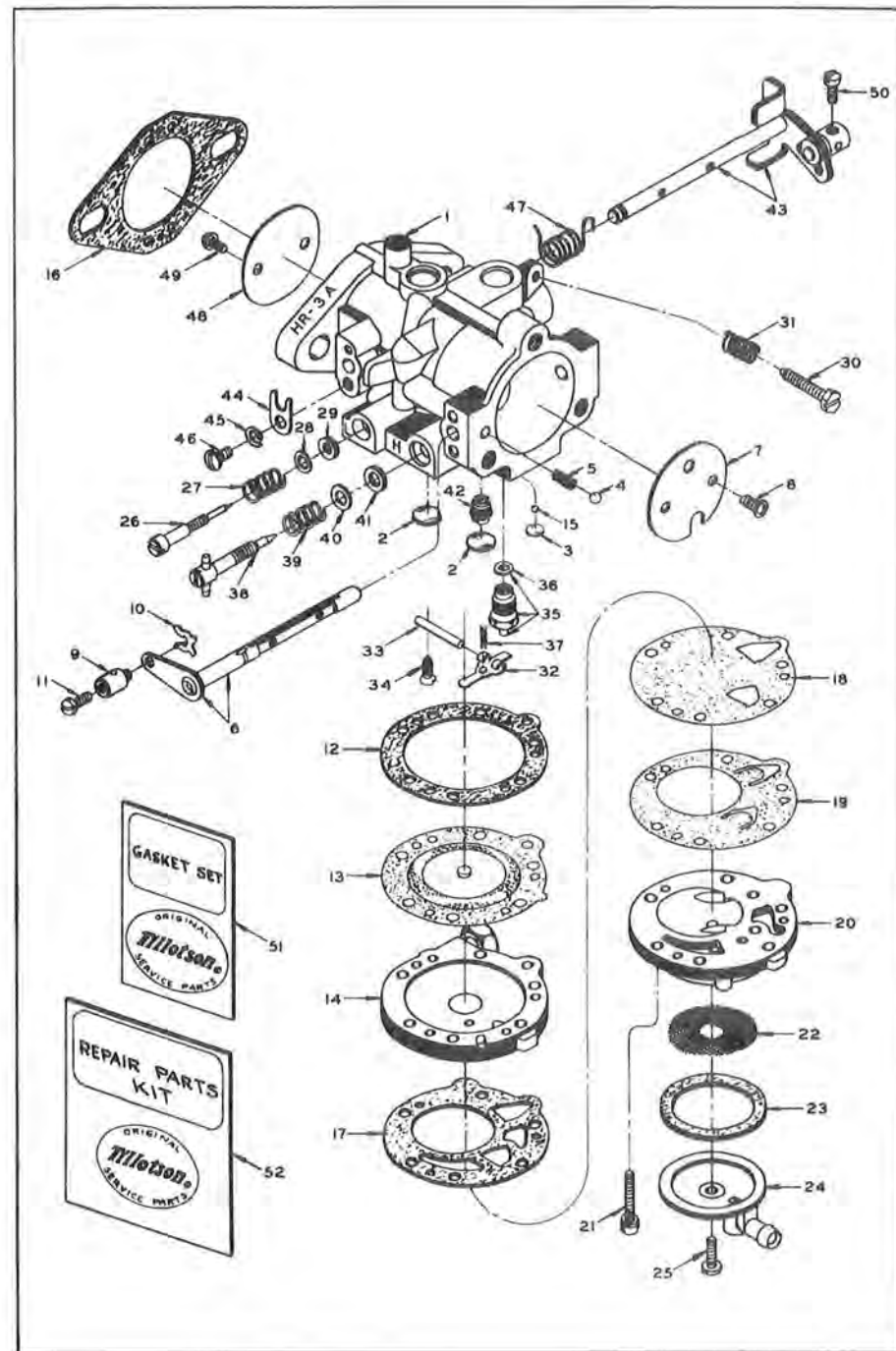
<u>ITEM</u>	<u>NOS.</u>	<u>QUANTITIES</u>	<u>DESIGNATION</u>
1	9003x484	1	Muffler
2	DIN933-5D M8x25	2	Screw for muffler strap
3	929x246	2	Muffler strap
4	DIN934-M8 Laiton	6	Nut for muffler strap
5	DIN939-5D M8x18	4	Stud for exhaust pipe
6	9003x485	2	Pipe nipple for muffler mounting
7	759x182	2	Gasket for pipe nipple for muffler
8	73x142	2	Gasket for intake manifold
9	903x301	1	Intake manifold
10	DIN939-5D M8x25	4	Stud for intake manifold
11	DIN137 A8	6	Lockwasher
12	DIN934-5S M8	6	Nut for intake manifold
13	DIN939-5D M8x22	2	Stud for intake manifold
14	DIN137 A6	2	Lockwasher
15	DIN933-5S M6x15	2	Screw for support at carburetor

NOTICE: Parts listed on this page available from--Tillotson Mfg. Co.--
Parts & Service Division--761-69 Berdan Ave.--Toledo, Ohio-- or through
any Authorized Tillotson Service outlet.

Ref. No.	HR-3A Part No.	Part Name
1	014387	Body (Service)
2	02531	* Body Channel Welch Plug (2)
3	013737	* Body Channel Welch Plug
4	04784	Choke Friction Ball
5	08805	Choke Friction Spring
6	014359	Choke Shaft & Lever
7	014356	Choke Shutter
8	08942	Choke Shutter Screw & Lockwasher (2)
9	010393	Choke Wire Connection
10	010392	Choke Wire Connection Ret. Clip
11	058	* Choke Wire Ret. Screw
12	012473	Diaphragm Gasket
13	012475	* Diaphragm
14	014402	Diaphragm Cover
15	05322	Economiser Check Ball
16	014319	Flange Gasket
17	012930	Fuel Pump Gasket
18	014230	* Fuel Pump Diaphragm (Pulse)
19	014229	* Fuel Pump Diaphragm (Valve)
20	013335	Fuel Pump Body
21	010098	Fuel Pump Body Screw & Lockwasher (6)
22	010530	* Fuel Strainer Screen
23	010529	Fuel Strainer Cover Gasket
24	010527	Fuel Strainer Cover
25	010571	* Fuel Strainer Cover Ret. Screw
26	014321	* Idle Mixture Screw
27	08793	* Idle Mixture Screw Spring
28	011428	Idle Mixture Screw Washer
29	011401	Idle Mixture Screw Packing
30	014326	* Idle Speed Screw
31	0788	* Idle Speed Screw Spring
32	010513	* Inlet Control Lever
33	013406	* Inlet Control Lever Fulcrum Pin
34	013269	* Inlet Control Lever Fulcrum Pin Ret. Screw
35	013546	* Inlet Needle, Seat & Gasket
36	010165	Inlet Seat Gasket
37	013434	* Inlet Tension Spring
38	014323	* High Speed Mixture Screw
39	011103	* High Speed Mixture Screw Spring
40	03114	High Speed Mixture Screw Washer
41	010511	High Speed Mixture Screw Packing
42	014334	* Nozzle Check Valve
43	014361	Throttle Shaft & Lever
44	09678	Throttle Shaft Clip
45	0992	Throttle Shaft Clip Lockwasher
46	01974	Throttle Shaft Clip Ret. Screw
47	014324	* Throttle Shaft Return Spring
48	014320	Throttle Shutter
49	08942	* Throttle Shutter Screw & Lockwasher (2)
50	012305	* Throttle Wire Ret. Screw
51	GS-199	* Gasket & Packing Set
52	RK-756	Repair Parts Kit

(*) Indicates contents of Repair Parts Kit

specifications are subject to change without notice.



ENGINE OPERATING INSTRUCTIONS

FOR ENGINE TYPE 2054-SRB x 18

- A) Do not start this engine until you have carefully read the instructions on operating the engine.

1. Fill fuel tank with correct fuel mixture

The MAG engine type 2054-SRB is a 2-stroke engine which runs using a GASOLINE-OIL MIXTURE.

During the period of "RUNNING-IN", that means for a period of about 40 HOURS, a gasoline-oil mixture which contains 5% oil, should be used. After this period the proportion of oil should be 4%.

2. Starting procedure

- a) Set throttle about 1/2 open
- b) Set choke control into position closed
- c) Start the engine by operating the starting switch
- d) After engine starts, open choke fully. Less choking is necessary in warm weather or when engine is warm than when it is cold. Should flooding occur, open choke fully and continue starting.

3. Warm-up period

When starting a gasoline engine, the engine should be allowed to warm up to operating temperature, before the load is applied. This requires only a few minutes of running at moderate speed. Racing an engine or gunning it, to hurry the warm-up period, is very destructive to the polished wearing surfaces on pistons, rings, cylinders, bearings, etc.

4. Running-in period

The various wearing surfaces on pistons, rings, cylinders, bearings, etc., in a new engine have not been glazed, as they will be with continued operation, and it is in this period of "RUNNING-IN" that special care must be exercised, otherwise the highly desired glaze will not be obtained. A new wearing surface that has once been damaged by carelessness will be ruined forever. Therefore, operate the engine at light loads for a period totaling about 40 HOURS, before maximum load is applied. This will greatly increase engine life.

5. Stop the engine

- a) Set throttle into idle position.
- b) Press stop switch and hold it down until engine stops.

B) Safety precautions

1. Precaution is the best insurance against an accident.
2. Never fill fuel tank while engine is in operation, to avoid the possibility of spilled fuel causing a fire.
3. Never operate engine in a closed building unless the exhaust is piped outside. This exhaust contains carbon monoxide, a poisonous, odorless and invisible gas, which if breathed causes serious illness and possible death.
4. Keep engine clean. This engine is air-cooled. If cooling system becomes clogged, serious damage may result. Therefore, keep the blower screen free from dirt.

C) Maintenance adjustments

1. After the first 20 hours of running
 - a) Tighten cylinder head screws to 32 foot pounds torque.
 - b) Tighten fixing nuts and screws for the main parts as follows:
 - Screws and nuts for crankcase (M8 thread) = 18 foot pounds
 - Screws and nuts for crankcase (M10 thread) = 32 foot pounds
 - Nuts for intake manifold = 18 foot pounds
 - Nuts for exhaust pipe = 18 foot pounds
 - Nuts for air shroud = 18 foot pounds
 - Nuts for carburetor = 18 foot pounds
 - Nuts for cylinder = 32 foot pounds
 - Nuts and screws for starter generator = 18 foot pounds
 - c) Check the tension of the starter generator belt and if necessary adjust it.

2. Every 100 hours of running

- a) Check the spark plugs. The spark plug gap should be twenty thousandths (.020) of an inch, and plugs should be kept clean both inside and out. If the porcelain insulator is cracked, replace with a new plug of correct heat range, like BOSCH M225-T1, or equal. The thread is 18 millimeters. When mounting either old or new plug thoroughly clean threads in cylinder heads before installation.
- b) Clean the blower screen if dirty.
- c) Adjust the starter generator belt if it is too unbended.

3. Every 200 hours of running

- a) Repeat procedures as mentioned under paragraph 2, a, b, c, d, (Every 100 hours of running).

b) Breaker points adjustments

Magnetos are properly adjusted and timed before leaving the factory. The breaker point gap of BOSCH type 0204402001 should have an opening of .015 inch at full separation. If the spark becomes weak after continued operation, it may be necessary to re-adjust the breaker points. To do this first remove the cover on the magneto.

- c) Check carbon brush. Check dynamo if it is worn out and replace if necessary.

d) Removing of the oil carbon

Carbon oil is set up at the places as follows - due to the burning of the added lubrication oil in the fuel:

- in the cylinder head
- on the piston head
- in the exhaust pipe
- in the transfer part
- in the exhaust silencer

D) TROUBLES CAUSES AND REMEDIES

1. Three prime requisites are essential to starting and maintaining satisfactory operation of gasoline engines. They are:

- a proper fuel mixture in the cylinder
- good compression in the cylinder
- good spark, properly timed, to ignite the mixture

If all three of these conditions do not exist, the engine cannot be started.

As a guide to locating any difficulties which might arise, the following causes are listed under the three headings: Fuel Mixture, Compression and Ignition.

In each case the causes of trouble are given in the order in which they are most apt to occur. In many cases the remedy is apparent, and in such cases no further remedies are suggested.

2. Starting difficulties / Fuel mixture

- No fuel in tank.
- Fuel pump diaphragm worn out, so pump does not apply carburetor with fuel.
- Fuel pump diaphragm worn out, so pump does not supply carburetor with fuel.
- Carburetor not choked sufficiently, especially if engine is cold.
- Water, dirt, or gum in gasoline interfering with free flow of fuel to carburetor.
- Poor grade or stale gasoline that will not vaporize sufficiently to form the proper fuel mixture.
- Carburetor flooded, caused by too much choking especially if engine is hot.

3. Compression

- If the engine has proper compression, considerable resistance will be encountered in the pull on the starting sheave. If this resistance is not encountered, compression is faulty. Following are some reasons for poor compression:
- Cylinder dry due to engine having been out of use for some time.
- Loose spark plug or broken spark plug. In this case a hissing noise will be heard in cranking engine due to escaping gas mixture on compression stroke.
- Damaged cylinder head gasket or loose cylinder head. This will likewise cause hissing noise on compression stroke.
- Piston rings stuck in piston due to carbon accumulation. If rings are stuck very tight this will necessitate removing pistons.

Scored cylinder. This will require reboring of the cylinder and fitting with new piston and rings. If scored too severely an entirely new cylinder may be necessary.

4. Ignition

- Ignition cable disconnected from magneto, coil, or spark plug.
- Broken ignition cables, causing short circuits.
- Ignition cable wet or oil soaked.
- Spark plug insulator broken.
- Spark plug wet or dirty.
- Spark plug point gap wrong.
- Condensation on spark plug electrodes.
- Magneto breaker points pitted or fused.
- Magneto breaker arm sticking.
- Magneto condenser leaking or grounded.
- Spark timing wrong. Correct timing .140-.160 before T. D. C.

5. Engine misses

- Spark plug gap incorrect.
- Worn and leaking ignition cable.
- Weak spark.
- Loose connections at ignition cable.
- Magneto breaker points pitted or worn.
- Water in gasoline.

- Poor compression.

6. Engine stops

- Fuel tank empty.
- Water, dirt or gum in gasoline.
- Gasoline vaporized in fuel lines due to excessive heat around engine.
- Air vent hole in fuel tank cap plugged. Engine scored or stuck due to lack of oil.