SEM

MAGNETOS

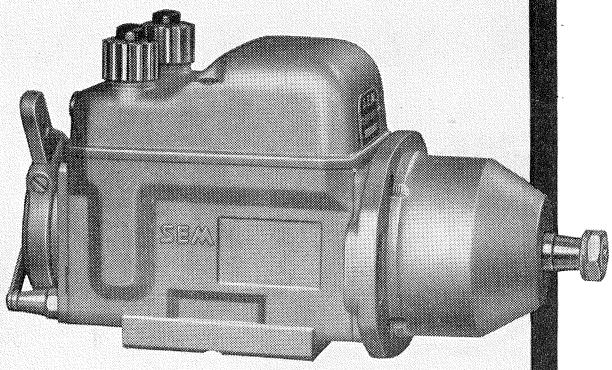
Type EY-2R36

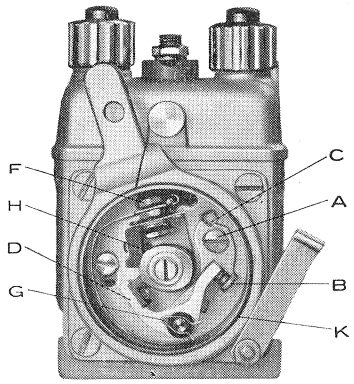
for Albin engines model O-21

DATA:

Cylinders: two
Rotation: clockwise
Timing range: 20°
Weight: 2.8 kgs
Drawing: No. 17204

SEM
SERVICE-LIST
ME — 242





DESCRIPTION

SEM Magnetos type EY-2R36 are of a design employing the rotating magnet principle. The permanent magnet of Alnico-steel is diecast in a single unit with the laminated pole pieces and the spindles to form the magneto rotor. The less robust parts, such as the coil and condenser, are stationary. The contact breaker, which does not rotate, is of the pivotal type and entirely enclosed in a metal casing. The magnetos are designed for service under the most arduous conditions. The entire units are enclosed within a dust- and moisture-proof metal frame. The coil is effectively insulated by a method which protects against deterioration and power leakage under adverse running conditions.

INSPECTION AND MAINTENANCE

When faulty ignition occurs, the high tension cables and sparking plugs should first be examined. If the insulation shows signs of deterioration or cracking, the cables must be exchanged. For this purpose the main cover of the magneto housing need not be removed. Unscrew the nut on the cable outlet and remove the cable. The new cable should not be bared but must be cut of flush to the required length. The rubber is pulled onto the cable for a distance of at least 40 mm from its end and the cable is pushed well down into the bottom of the insulator. The nut on the cable outlet must then be screwed home.

The plug electrodes burn away sligthly in service whereby the gap length gradually increases. Examine and clean them from time to time, adjusting them if necessary. For the right distance follow the instructions of the engine manufacturer.

ADJUSTMENT OF BREAKER POINTS

The contact breaker should be inspected from time to time. It is important that the contacts should be kept clean. If they are burned or blackened, they may be cleaned with a very fine carborundum stone or emery cloth. Care must be taken that all particles of dirt or metal dust are wiped away. This can be done with a cloth moistened with petrol.

The gap between the contacts, when fully opened, should be 0,4 mm. The distance can be checked by means of the gauge on the adjusting spanner. If adjustment is necessary, proceed as follows. Slack off the screw A (See fig.) slightly. Insert the screw driver of the adjusting spanner in the slot C. Turning the spanner to the left decreases, and turning to the right increases, the distance between the contacts. When the gap is set to the thickness of the gauge tighten the screw A.

If the cam is removed from the shaft for any reason, make sure that it is replaced in its original position. The end surfaces of the cam are marked with an R and an L respectively. On magnetos for a right-hand drive the letter R must be turned towards the breaker cover. On magnetos for a left-hand drive the letter L should have the same position.

If the moving contact D is to be replaced, unscrew the nut F with the adjusting spanner and remove the split pin G. Fill the groove of the contact breaker pivot with ball bearing grease and install the new moving contact. If the felt lubricator H is dry, add a few drops of thin machine oil onto the felt. When replacing the contact breaker housing, fill its lubricating groove with ball bearing grease before assembly.

REPLACEMENT OF CONDENSER

When replacing the condenser remove the two retaining screws. When reassembling ensure that the cable connections from the contact breaker and the wound core are replaced in their original positions. The eyelet from the winding and the nickel-plated cable terminal from the contact breaker are placed under one of the retaining screws. The brass cable terminal from the contact breaker and the eyelets from the ignition coil and condenser are placed under the retaining screw for the shorting spring clip.

CLEANING OF HIGH TENSION MOULDING AND SLIP RING

The high tension moulding should be removed about once a year and cleaned. Wipe off any deposits and polish with a fine dry cloth. See that the pick up brushes move freely in their holders. Before replacing the high tension moulding, clean the slip ring by inserting a soft cloth and at the same time slowly turning the engine. When reassembling ensure that the cable connections from the wound core, the condenser and the contact breaker are made according to the instructions for replacement of the condenser.

AKTIEBOLAGET SVENSKA ELEKTROMAGNETER - ÅMÅL - SWEDEN
TELEPHONE: 120 10
Telegraphic address: MAGNETER

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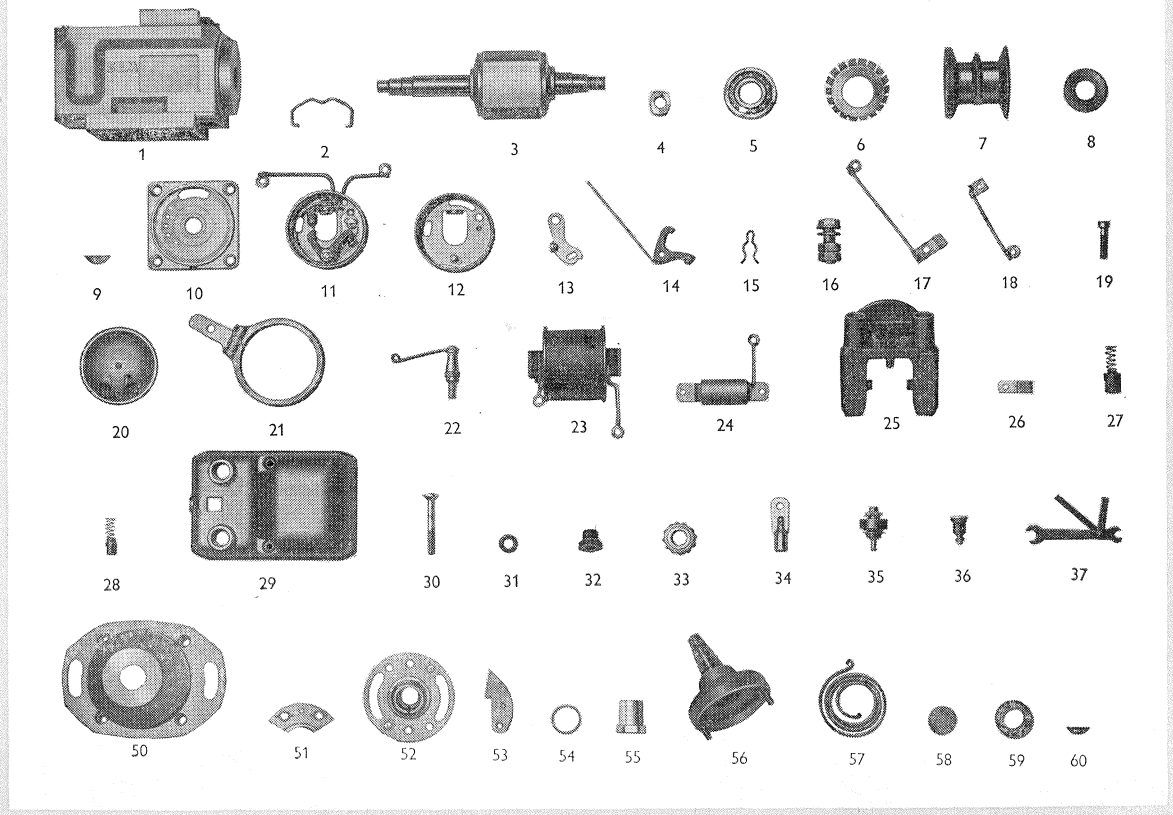

SPARE PARTS LIST

Fig. No.		Order No.
1	Main housing	17305
2	Retaining spring	17030
3	Rotor	17231
4	Contact breaker cam	17239
—	Retaining screw with washers for contact breaker cam	17059
—	Woodruff key for contact breaker cam	17051
5	Ball bearing, breaker end	1761
6	Ball bearing packing, breaker end	17052
—	Felt packing, breaker end (diam. 28 hole 11)	1704
—	Adjustment washers (assortment of 4) diam. 17.5 hole 12	1750
—	Spring washer (diam. 26 hole 12.1)	17240
7	Slip ring	17236
—	Ball bearing, drive shaft end	1760
—	Ball bearing packing, drive shaft end	17039
8	Rubber packing, drive shaft end	17038
9	Woodruff key, drive shaft end	1597
10	Bearing plate	17061
11	Contact breaker housing complete	17245
12	Contact breaker housing	17064
13	Contact plate with contact	17069
—	Retaining screw for contact plate (PKCS 3.5×4.5)	17093
—	Washer for contact plate (diam. 7 hole 3.5)	10159
14	Contact breaker lever	17071
—	Washer for contact breaker pivot (diam. 8 hole 4.6)	17131
15	Lock spring for contact breaker pivot	17063
16	Screw for cable connection with bush, insulating washers and nuts	17097
—	Nut only for cable connection	17094
17	Earthing cable with felt lubricator	17246
18	Contact breaker cable connection	17080
19	Stop screw for contact breaker housing	17081
20	Contact breaker cover	17082
21	Timing lever	17088
—	Retaining screw for bearing plate	17086
22	Breaker cover spring and stud	17083
23	Wound core	17250
24	Condenser	17272
25	High tension moulding	17256
26	Short circuiting spring clip	17270
—	Screw for short circuiting spring clip (CS 4×8)	2638
27	Collector carbon with spring	1954
28	Collector carbon (cylindrical) with spring	17268
—	Retaining screw for high tension moulding (CS 4×18)	2720
—	Washer for screw 2720 (diam. 8 hole 4.1)	1766
—	Spring washer for screw 2720 (FB 4.3)	2463
29	Main housing cover	17279
30	Retaining screw for main housing cover	17148
31	Insulating bush for high tension cable outlet	17145
32	Rubber bush for cable outlet	14123
33	Nut for cable outlet	17146
34	Flat terminal	1819
35	Contact screw for shorting cable	17147
—	Metal washer for same	17152
—	Insulating washer for same (diam. 15 hole 7)	17151
—	Nut for same	17157
36	Short circuiting push button, complete	17156
37	Spanner	1649
	IMPULSE STARTER	
50	Casing	17365
—	Retaining screw for casing (7/32"×24)	17360
51	Fixed stop	17306
—	Retaining screw for same (7/32"×10)	3023
52	Pawl disc	17307
53	Pawl	17313
—	Washer for pawl (diam. 8 hole 5)	1736
—	Lock spring for pawl pivot	17354
54	Washer for pawl disc	17345
55	Lock nut for pawl disc	17341
56	Spring housing	17391
57	Impulse spring	17325
58	Adjustment washers (assortment of 5)	17352
—	Ball bearing	1760
—	Ball bearing packing	17039
59	Oil seal	17389
60	Woodruff key for drive shaft	1597
—	Spring washer for drive shaft (FB 9.5)	10203
—	Nut for drive shaft (LB6M-9)	10110

When ordering spare parts please state, in addition to the order number of the part (not number of the Fig.) also the type and factory number of the magneto.

AKTIEBOLAGET SVENSKA ELEKTROMAGNETER - ÅMÅL
TELEPHONE: 120 10 **SWEDEN** Telegraphic address: MAGNETER