

LUCAS

Quality

EQUIPMENT



MOTOR-CYCLE EQUIPMENT DETAILS
AND SPARE PARTS FOR

A.J.S. and MATCHLESS

50-G9 498 c.c. O.H.V. TWIN

50-G3LC 347 c.c. O.H.V. COMPETITION

50-16MC 347 c.c. O.H.V. COMPETITION

50-16 347 c.c. O.H.V.

50-G3LS 347 c.c. O.H.V.

50-20 498 c.c. O.H.V. SPRING TWIN

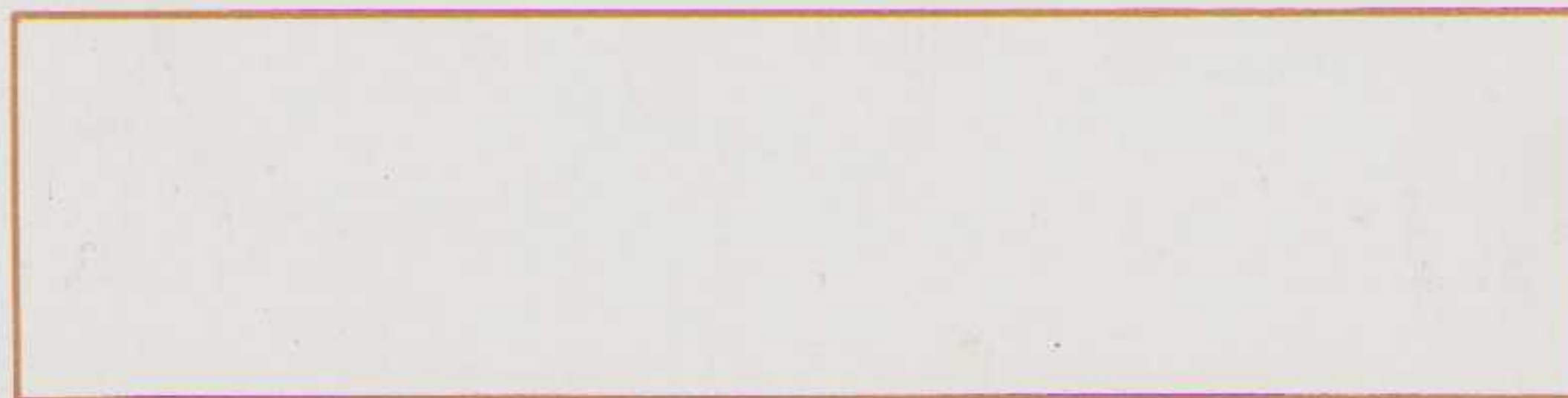
G80C 498 c.c. O.H.V. COMPETITION

50-18C 498 c.c. O.H.V. COMPETITION

50-18 498 c.c. O.H.V.

50-G80S 498 c.c. O.H.V.

1950



JOSEPH LUCAS LTD • BIRMINGHAM 19 • ENGLAND

LUCAS

ORIGINAL EQUIPMENT

A.J.S. and MATCHLESS EQUIPMENT SPECIFICATION

UNIT	MODEL & TYPE	SERVICE No.	SERVICED BY	REMARKS
DYNAMO	E3AR/0 Anti-clock	200430	200430	347 and 498 c.c. models
	E3L Anti-clock	20009B	20009B	} Spring Twin A.J.S. and Matchless Super Clubman
MAGNETO	K2F Anti-clock	42180A	42180A	
SPANNER		415116	415116	
MAGNETO	N1/4	42020D	42020D	347 and 498 c.c. models
SPANNER		460076	470076	347 and 498 c.c. models
MAGNETO	NRI Anti-clock	42179E	42179E	Competition models (wading magnetos)
REGULATOR	MCR2	37097B	37097B	A.J.S. Spring Twin and Matchless Super Clubman
	MCR1	33018A	33018A	347 and 498 c.c. models
BATTERY	PUW7E/4			
LAMP, HEAD	SSU700P	50788B	50788B	
	MU42	50791A	50791A	For competition models
SWITCH, DIPPER	No. 99	380521	380521	
LAMP, TAIL	467/2	53139B	53139B	
	MT211	53056A	53056A	For competition models
HORN	HF1234	70039A	069225	
HORN PUSH	4A	762164	762164	
SWITCH, MAGNETO	4A	762164	762164	A.J.S. Spring Twin and Matchless Super Clubman
CABLES		994001	994001	
		994521	994521	Competition models
REGULATOR CABLES		995031	995031	
		989981	989981	



LUCAS SPARE PARTS

ILLUSTRATION	DESCRIPTION OF PART	ORDERING No.
<p>454496 463107 454176</p> <p>455343 460051 451260 455191 484098</p> <p>455190 451315 460061 189291 454593</p>	<p>MAGNETO, NI/4 A0/0</p> <p>Pick-up</p> <p>Brush and spring</p> <p>Cover, contact breaker</p> <p>Contact breaker, complete</p> <p>Contact set</p> <p>Cam</p> <p>Control parts, set</p> <p>Spring and pin (contact breaker cover)</p> <p>Plate, contact breaker end</p> <p>Armature</p> <p>Slip ring</p> <p>Bearing, A15</p> <p>Brush, spring and holder</p> <p>Brush and spring</p>	<p>42020</p> <p>463066</p> <p>451260</p> <p>460061</p> <p>460051</p> <p>484098</p> <p>455343</p> <p>463107</p> <p>451315</p> <p>454176</p> <p>454593</p> <p>189291</p> <p>455191</p> <p>455190</p>
<p>458367 458728 458619</p> <p>458368 470688 458370</p> <p>455190 455191 451260 189291 470609</p> <p>458726 458725 470534 455361 458333</p>	<p>MAGNETO, K2F SM8</p> <p>Pick-up assembly, left hand... ..</p> <p>Pick-up assembly, right hand</p> <p>Brush and spring</p> <p>Cover, contact breaker</p> <p>Contact breaker</p> <p>Contact set</p> <p>Springs, set, lever actuating</p> <p>Cam</p> <p>End plate, contact breaker</p> <p>Armature</p> <p>Slip ring</p> <p>Bearing</p> <p>Brush, spring and holder</p> <p>Brush and spring (contact breaker earth)</p> <p>Spring pin assembly</p> <p>Control parts, set</p>	<p>42180</p> <p>458368</p> <p>458367</p> <p>451260</p> <p>458619</p> <p>470534</p> <p>470609</p> <p>470688</p> <p>458725</p> <p>458726</p> <p>458333</p> <p>455361</p> <p>189291</p> <p>455191</p> <p>455190</p> <p>458370</p> <p>458728</p>
<p>2000373 200188 200032</p> <p>200290 249683 189284 173814 189289</p> <p>200435 200079 200370</p>	<p>DYNAMO, E3AR/0 A05/1</p> <p>Brush set</p> <p>Band cover</p> <p>Bracket, commutator end</p> <p>Bearing, commutator end</p> <p>Spring set, brush tension</p> <p>Bearing, drive end</p> <p>Bracket, drive end</p> <p>Nut, shaft</p> <p>Armature</p> <p>Coils, field, set</p> <p>Sundry parts, kit</p>	<p>200430</p> <p>200290</p> <p>200435</p> <p>200032</p> <p>189284</p> <p>200079</p> <p>189289</p> <p>200373</p> <p>173814</p> <p>200370</p> <p>200188</p> <p>249683</p>



LUCAS SPARE PARTS

ILLUSTRATION	DESCRIPTION OF PART	ORDERING No.
	<p>DYNAMO, E3L L10</p> <p>Band cover</p> <p>Brush set</p> <p>Cover assembly, commutator end</p> <p>Bracket, commutator end</p> <p>Bearing, commutator end</p> <p>Springs, set, brush tension</p> <p>Brushgear</p> <p>Bearing, drive end</p> <p>Bracket, drive end</p> <p>Armature</p> <p>Coils, field</p> <p>Plate assembly, drive end</p> <p>Sundry parts, set</p>	<p>20009</p> <p>200609</p> <p>200737</p> <p>200718</p> <p>200713</p> <p>189210</p> <p>220197</p> <p>200738</p> <p>189307</p> <p>220760</p> <p>200712</p> <p>200731</p> <p>200761</p> <p>200762</p>
	<p>HEADLAMP, MU42</p> <p>Rim assembly... ..</p> <p>Wire, glass fixing</p> <p>Glass</p> <p>Panel</p> <p>Ammeter</p> <p>Switch</p> <p>Bead, rubber</p> <p>Reflector</p> <p>Bulb holder</p> <p>Bulb holder, interior</p> <p>Plug</p> <p>Socket... ..</p> <p>HEADLAMP, SSU700P</p> <p>Rim assembly... ..</p> <p>Wire, reflector fixing</p> <p>Panel</p> <p>Ammeter</p> <p>Switch</p> <p>Unit, light</p> <p>Bulb holder, double contact</p> <p>Backshell assembly</p> <p>LAMP, TAIL, MT211</p> <p>Cover assembly</p> <p>Flange assembly</p> <p>LAMP, TAIL, 467/2</p> <p>Body</p> <p>Window</p> <p>Gasket</p> <p>Grommet</p> <p>Set of sundries</p> <p>SWITCH, Dipper, No. 99</p> <p>BULBS</p> <p>Headlamp, main</p> <p>Headlamp, pilot</p> <p>Headlamp, pilot</p> <p>Tail lamp</p> <p>Tail lamp</p>	<p>50791</p> <p>509484</p> <p>500291</p> <p>550875</p> <p>308312</p> <p>364455</p> <p>351551</p> <p>553065</p> <p>553147</p> <p>504801</p> <p>500181</p> <p>859260</p> <p>809795</p> <p>50788</p> <p>553248</p> <p>504665</p> <p>30917</p> <p>36084</p> <p>351551</p> <p>516364</p> <p>504801</p> <p>516368</p> <p>53056</p> <p>526232</p> <p>526239</p> <p>53139</p> <p>572604</p> <p>572611</p> <p>572595</p> <p>572039</p> <p>572588</p> <p>380521</p> <p>168</p> <p>988</p> <p>200</p> <p>988</p> <p>200</p>



LUCAS SPARE PARTS

ILLUSTRATION	DESCRIPTION OF PART	ORDERING No.
	<p>HORN, Electric, HF1234 ...</p> <p>Bracket 701686</p> <p>Push, 4A 762164</p> <p>SWITCH, Magneto, 4A 762164</p> <p>CONTROL BOX, MCRI L31 33018</p> <p>Cover 390380</p> <p>Clip 390381</p> <p>CONTROL BOX, MRC2 37097</p> <p>Cover 391454</p> <p>Clip 391453</p>	
		

SERVICE NOTES AND TEST DATA

6 VOLT EQUIPMENT

NEGATIVE EARTH RETURN

DYNAMO

200430.

Single wound pole; compensated voltage control; anti-clockwise rotation viewed from driving end.

Crossed connections will cause serious damage to the regulator. Connect lead with **YELLOW IDENTITY TAG** to main terminal, and **GREEN AND BLACK TRACER CABLE** to field terminal.

TEST DATA

Dynamo cold:

Cutting-in speed 1,250—1,500 r.p.m. at 7.0 dynamo volts.

Output 5.0 amps. at 1,900—2,200 r.p.m. at 7.0 dynamo volts, taken on 1.4 ohm resistance load without regulator. (Resistance must be able to carry 7.5 amps. without overheating).

Brush tension 10—15 ozs.

Field resistance 3.2 ohms.

DYNAMO

20009 E and H. Matchless Super Clubman and A.J.S. Spring Twin.

TEST DATA

Dynamo cold:

Cutting-in speed 1,050—1,200 r.p.m. at 6.5 dynamo volts.

Output 8.5 amps. at 1,850—2,000 r.p.m. at 7.0 dynamo volts, taken on 0.8 ohm resistance load without regulator. (Resistance must be able to carry 10 amps. without overheating).

Brush tension 16—20 ozs.

Field resistance 2.8 ohms.

MAGNETO

Anti-clockwise rotation viewed from driving end.

Contact breaker gap .012"—.015".

Condenser capacity 0.1—0.14 microfarad.



CONTROL BOX Houses cut-out and dynamo voltage regulator.

TEST DATA

- (a) Cut-out. Cut-in voltage 6.3—6.7 volts.
 Drop-off voltage 4.5—5.0 volts.
- (b) Regulator. Setting at 10°C. (50°F.) 7.8—8.2 volts.
 Setting at 20°C. (68°F.) 7.8—8.2 volts.
 Setting at 30°C. (86°F.) 7.7—8.15 volts.
 Setting at 40°C. (104°F.) 7.6—8.1 volts.

HEADLAMP Correct lamp setting is important to prevent dazzle.
All except competition models incorporate Lucas light unit.

HORN All Models.
High-frequency type.
Current consumption 4 amps. (approx.).

BATTERY

Capacity 12 ampere hours, at 10 hour rate.

The importance of carefully carrying out the initial charging of the battery cannot be overstressed, as in the early stages of its life it can be completely ruined by non-adherence to the following charging instructions.

Carefully break seals in filling holes and half fill each cell with dilute sulphuric acid, specific gravity 1.270. The battery should be allowed to stand at least six hours before further electrolyte is added.

Allow to stand a further two hours before commencing charge.

Initial charge rate 0.8 amperes for approximately 50 hours.

Correct electrolyte to 1.280—1.300 at completion of charge when voltage and specific gravity remain constant.

The figures given are for Home Trades and climates ordinarily below 80°F. (27°C.).

For sub-tropical climates between 80°—100°F. (27°—38°C.) the appropriate figures are: Filling, 1.245; Fully charged, 1.250—1.270.

For tropical climates over 100°F. (38°C.) the figures are: Filling 1.220; Fully charged, 1.220—1.240.

For complete charging instructions, see Lucas Publication No. 732A.

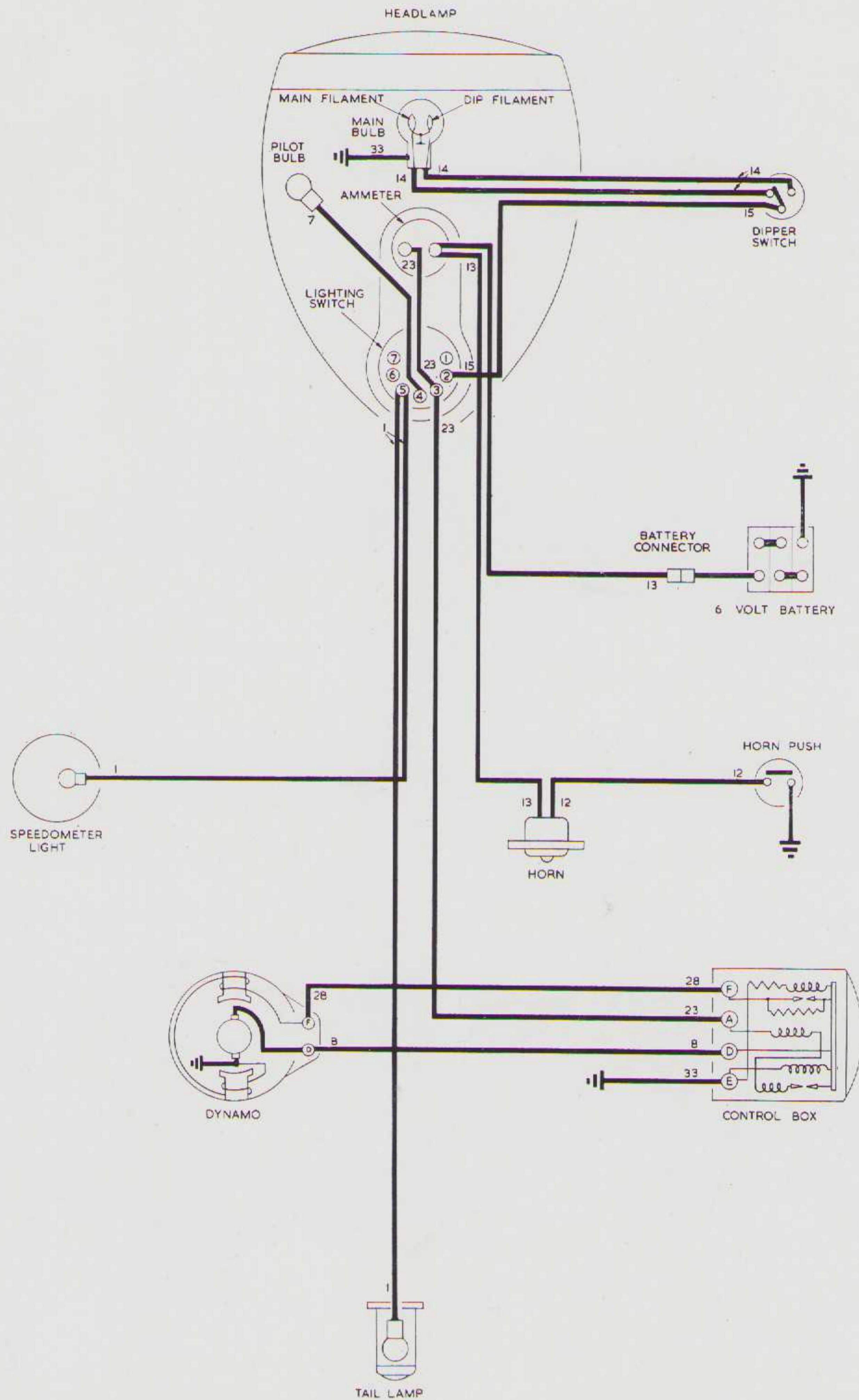
Recharge at 1.5 amperes.

Battery should be topped up to the level of separators, using distilled water only.

Battery terminals should be kept clean, and connectors tight.

LUCAS ELECTRICAL EQUIPMENT

A.J.S. and MATCHLESS MAGNETO IGNITION



KEY TO CABLE COLOURS

1 RED	12 YELLOW & PURPLE	23 WHITE & PURPLE
2 RED & YELLOW	13 YELLOW & BLACK	24 WHITE & BLACK
3 RED & BLUE	14 BLUE	25 GREEN
4 RED & WHITE	15 BLUE & WHITE	26 GREEN & BROWN
5 RED & GREEN	16 BLUE & GREEN	27 GREEN & PURPLE
6 RED & BROWN	17 BLUE & BROWN	28 GREEN & BLACK
7 RED & BLACK	18 BLUE & PURPLE	29 BROWN
8 YELLOW	19 BLUE & BLACK	30 BROWN & PURPLE
9 YELLOW & BLUE	20 WHITE	31 PURPLE
10 YELLOW & GREEN	21 WHITE & GREEN	32 PURPLE & BLACK
11 YELLOW & BROWN	22 WHITE & BROWN	33 BLACK

WIRING DIAGRAM

No. W91481

6-VOLT