

PREFACE

Good work in the workshop forms the basis of a successful and lasting business.

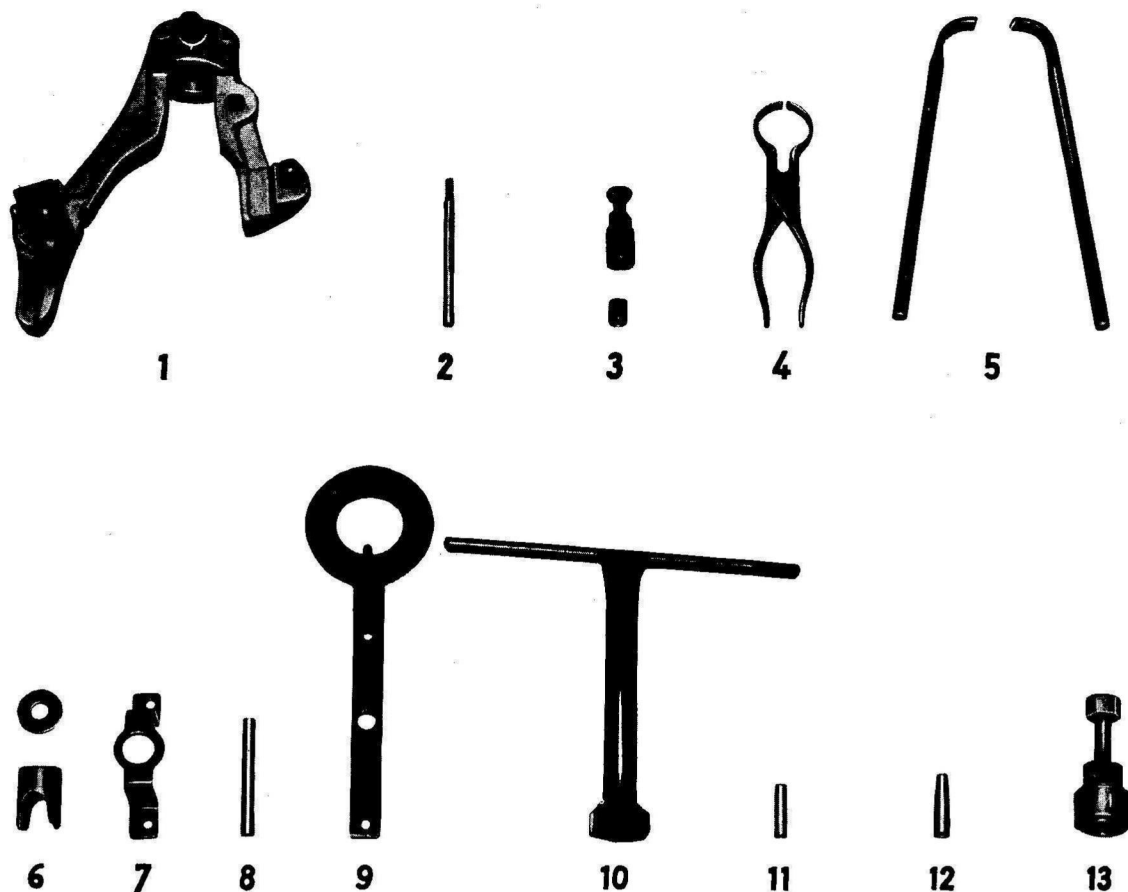
This new edition of the 'Quickly Maintenance Manual' contains the instructions for correct and time-saving operations on all models of the Quickly Engine and frames, including the electrical equipment.

To use this Manual it is necessary to have a general knowledge of mechanical engineering and in addition to normal tools, you will need those which have been developed specially for the Quickly.

The Manual also contains all important technical data, electrical wiring diagrams, and flat rate times for the various repair jobs.

This Manual has been produced for use of workshop staffs of all NSU Quickly dealers and will assist in ensuring that good work is carried out in the workshops.

In order to keep the Quickly repair instructions up-to-date, it will be necessary to add, in the correct order, all modifications published in our "Service Bulletins".



ONE SET OF SPECIAL WORKSHOP TOOLS
FOR QUICKLY REPAIRS

<u>Fig. No.</u>	<u>Description</u>	<u>Part No.</u>
1	1 Clamping fixture for engine (for assembling bench 048 422 000)	16 91 00 901
2	1 Punch for gudgeon pin	16 91 00 903
3 Flywheel	1 Extractor with cap for removal of flywheel	16 91 02 904
4	1 Piston ring	16 91 00 907
5	2 Levers for removing clutch assembly	16 91 00 908
6	1 Assembly sleeve for inner clutch casing	16 91 00 909
7	1 Assembly bracket for clutch spring	16 91 00 910
8	1 Mandrel for checking connecting rod	16 91 00 911
9	1 Holder for flywheel and inter- mediate gear	16 91 00 913
10	1 Box spanner for handlebar	16 91 00 917
11	1 Tapered sleeve for gear shifting shaft (3 gears)	16 91 00 919
12	1 Tapered sleeve for use when assembling crankcase.	018 110 282

These tools are supplied in sets, for which the number is
16 91 02 914 (for initial equipment of a workshop)

ADDITIONAL SPECIAL TOOL

13	1 Extractor for engine sprocket	048 422 007
----	---------------------------------	-------------

The right to make alterations is reserved.

CONTENTS

Preface	1
Contents	2
Special Tools	3

Technical data engine	5
Technical data engine	17
Electrical system	30

ENGINE

M 01 Engine removing and fitting	18-19	32
M 02 Engine dismantling and assembly	6-16	6-16

WHEELS, BRAKE, HUBS, FORK

F 01 Front wheel removing and fitting	20	32
F 02 Rear wheel removing and fitting	20	32
F 11 Front wheel dismantling and assembly	20-21	32
F 12 Rear wheel dismantling and assembly	21	33
F 19 Front forks dismantling and assembly	22	34
F 20 Front forks removal and re-fitting	23	34
F 42 Speedometer removal and re-fitting	23	34
F 43 Flexible Drive removal and re-fitting	23	34
F 49 Handlebar removal and re-fitting	-	-
F 50 Clutch Cable removal and re-fitting	24	35
F 51 Front Brake removal and re-fitting	24	35
F 52 Decompression cable removal & re-fitting	24	35
F 53 Throttle cable removal and re-fitting	24	35
F 54 Gear Change Cable removal and re-fitting (2 speed engine)	25	36
F 54 Gear Change Cable removal and re-fitting (3 speed engine)	25-26	36
F 56 Rear brake cable removal and re-fitting	-	37
F 57 Bell Cable (when fitted)	-	44

FRAME

F 60 Frame removal and re-fitting	26	37
F 62 Rear mudguard (engine cowling) removal and re-fitting	27	38
F 63 Rear Suspension removal and re-fitting	-	38-39
F 69 Suspension unit (front and rear) dismantling and assembly	-	-
F 71 Dual seat and luggage carrier brackets removal and re-fitting	-	-
F 72 Pivoted saddle removal and re-fitting	27	39
F 73 Prop Stand removal and re-fitting	39	39
F 74 Centre Prop Stand removal and re-fitting	18	18
F 76 Tool box removal and re-fitting	-	-
F 80 Fuel tank removal and re-fitting	27	39
F 84 Horn removal and re-fitting	-	39
F 85 Pedals removal and re-fitting	27	27

ELECTRICAL INSTALLATION

E 02 Rear Light head removal and fitting (when fitted)	28	40
E 04 Lighting leads removal and fitting	28	40
E 08 Horn (export model) removal and fitting	28	40
E 09 Rear light removal and fitting	28	40
E 10 Dipswitch (export model) removal & re-fitting	28	40
E 12 Headlamp glass and reflector removal and re-fitting	29	40
E 13 Headlamp unit removal & fitting	29	40

Quickly N and S Page	Quickly L Page
5	5
17	31
30	30
18-19	32
6-16	6-16
20	32
20	32
20-21	32
21	33
22	34
23	34
23	34
23	34
-	-
24	35
24	35
24	35
24	35
25	36
25-26	36
-	37
-	44
26	37
27	38
-	38-39
-	-
-	-
27	39
39	39
18	18
-	-
27	39
-	39
27	27
28	40
28	40
28	40
28	40
28	40
29	40
29	40

Quickly-Motor

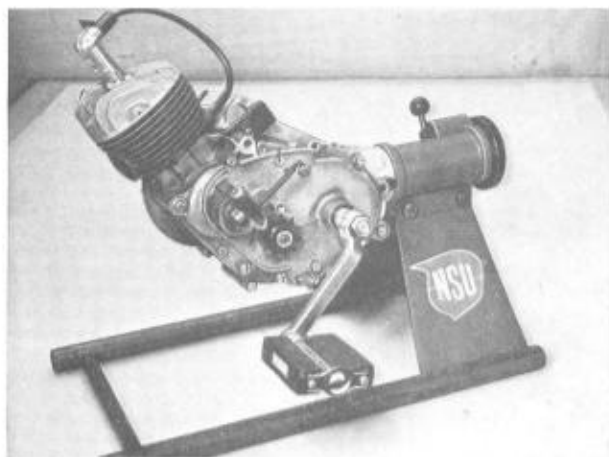
TECHNICAL DATA

ENGINE. 2 and 3 speed model and also for Agriette.

Engine	Unit Construction
Cycle	Two stroke
Cylinder	Light-alloy with hard-chromed bore
Bore	40 mm
Stroke	39 mm
Capacity	49 ccm
Compression space	N-S-L-Cavallino = 10.9 ccm T-TT-Agriette = 8.8 ccm
Compression ratio	N-S-L-Cavallino = 1 : 5.5 T-TT-Agriette = 1 : 6.8
Maximum engine speed	5200 r.p.m.
Output	N-S-L-Cavallino = 1.4 H.P. T-TT = 1.7 H.P. Agriette = 2.5 H.P.
Piston clearance	0.015 - 0.025 mm (.0005-.001")
Gudgeon pin diameter	10 - 0.05 mm
Small end diameter	10 - 0.013 bis - 0.01028 mm
Axial crankshaft play	0.2 - 0.3 mm (.008 - .012")
Lubrication mixture	Petrol and oil mixture
Control of gas flow	By cylinder ports
IGNITION	
Type of ignition	Flywheel magneto and 6v/17 watt lighting generator
Ignition timing	2.1 - 2.5 mm or 24-26° B.T.D.C.
Contact breaker gap	0.2 - 0.3 mm (.008 - .012")
Sparking Plug standard	190 M 11 S
Sparking Plug electrode gap	0.6 mm (.024")
CLUTCH	
Clutch	Multi-plate clutch
Clutch operation	By hand
Clutch adjustment	on handlebars
GEARBOX	
Gearbox	NSU two and three speed gearbox built in unit with engine.
Gearbox oil capacity 2 speed	(0.21 pint) SAE 30 in summer SAE 20
Gearbox oil capacity 3 speed	(210 cc) in winter
Engagement	By dogs
Primary drive, engine gearbox	By spur gears
Rear drive, gearbox, rear wheel	By chain

ATTENTION: NSU engines used by Agriette

Any additional spare parts required for the repair of Agria engines which differ from those used on the Quickly i.e. Crank Assm. Cylinder, Cylinder Head, Carburettor etc, should be obtained from the Agria Service Organisation only.



1

M 02 3 SPEED ENGINE, DISMANTLING AND ASSEMBLY

Dismantling - Illustration No: 1

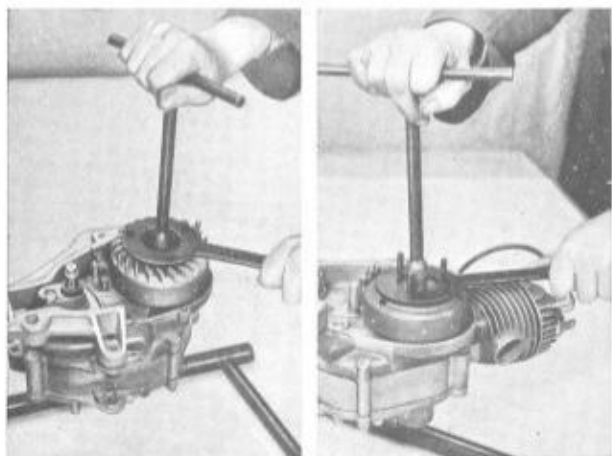
1. Secure engine on mounting bench (048 422 000) in clamping fixture (16 91 01 901) and place upright.
2. Drain off oil.
3. Remove crank cotter pins.
4. Unscrew spark plug.
5. Remove cylinder head.



2

Illustration No: 2

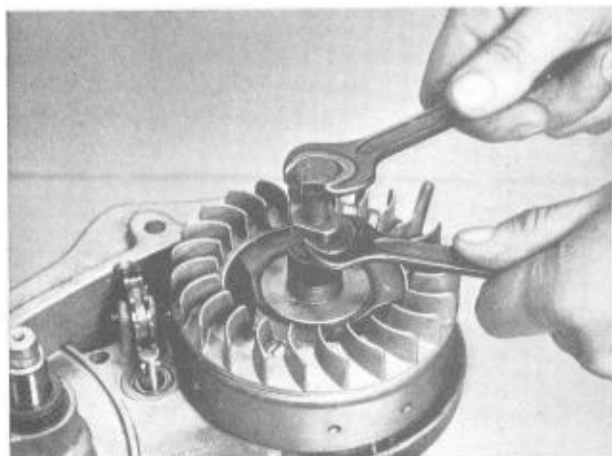
6. Remove cylinder and piston (using gudgeon pin punch 16 91 00 903).



3

Illustration No: 3

7. Remove magneto flywheel nut using holder (16 91 01 913)



4

Illustration No: 4

8. Remove magneto flywheel using extractor (16 91 02 904) with protection end cap.

Illustration No: 5

8. Remove the outer circlip and the washer on the gear-change shaft.

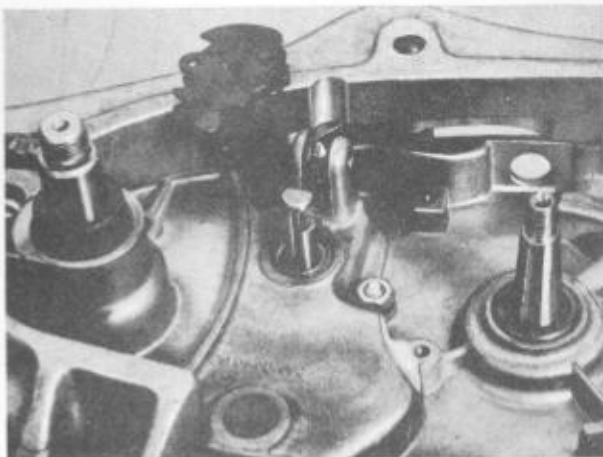


Illustration No: 6

9. Remove engine sprocket

First hold the sprocket by means of a bar inserted between the sprocket and the clutch housing, remove the nut and spring washer and remove the sprocket, by means of the extractor (048 422 007).

NOTE:

Do not try to stop the sprocket from rotating by means of the connecting rod as it could cause damage to the gears.

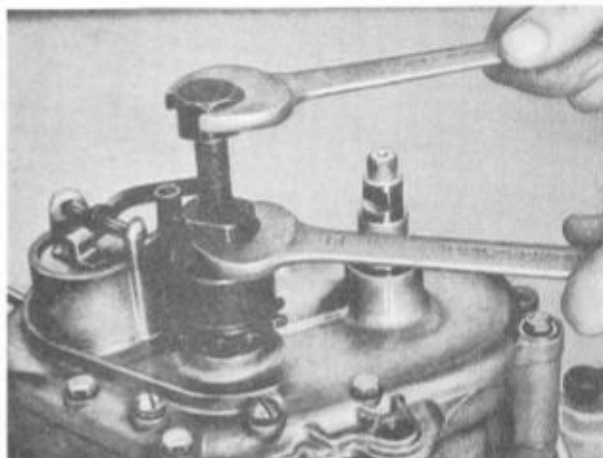


Illustration No: 7

10. Remove left-hand crankcase cover.

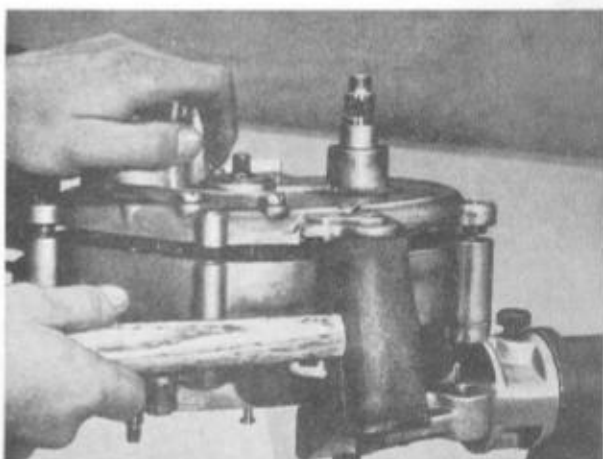


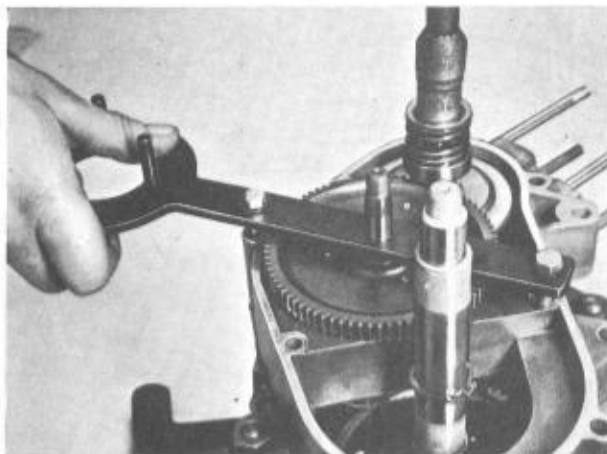
Illustration No: 8

11. Press out locking circlip at clutch operating cup with screw driver laterally.
Remove cup with levers (16 91 00 908)

NOTE:

Before removing clutch cup with covers 16 91 00 908 place a metal strip on the crankcase to avoid damage.





9

Illustration No: 9

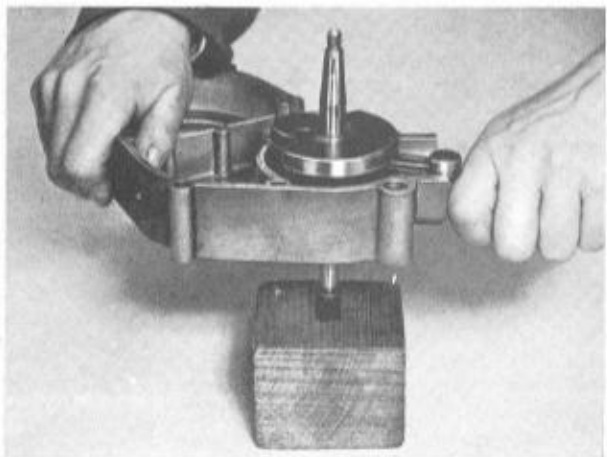
12. Remove clutch spring and ball bearing. To unscrew the nut use holder (16 91 01 913) placing it on the rear pinion.



10

Illustration No: 10

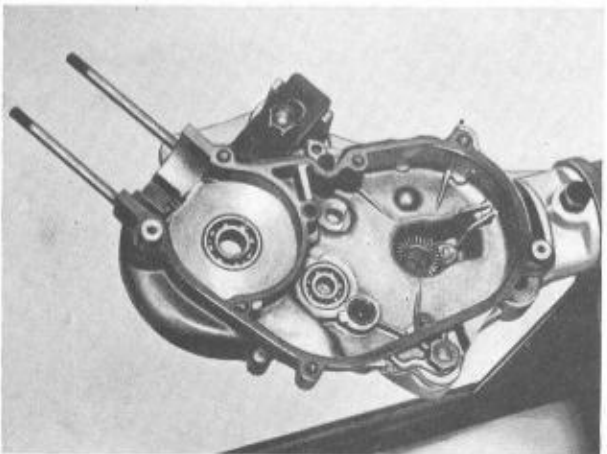
13. To remove gear pinion press slightly downwards at the same time turning and it will come free from its driving pinion.
14. Remove clutch, take off the outer clutch casing and the plates, then the circlip, and remove the inner clutch casing with the aid of the levers (16 91 00 908).



11

Illustration No: 11

15. Remove the bolt supporting the crankcase and the crankcase will separate.



12

Illustration No: 12

16. Take out gear and pedal crank spindle.

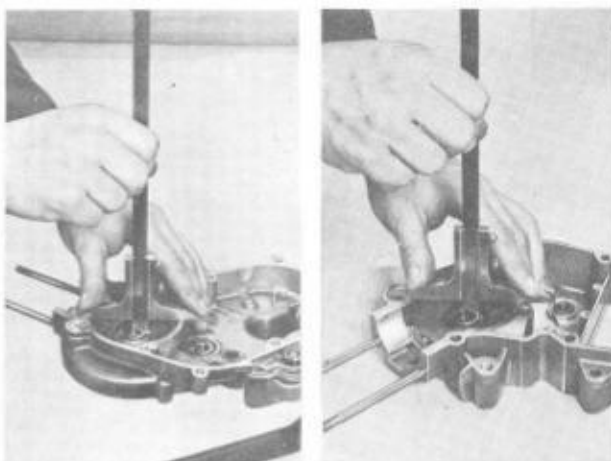
ASSEMBLYATTENTION:

Before assembling clean and inspect all parts carefully. Defective bearings and bushes can be changed only when the casing has been preheated (approx 320°F). Renew gaskets and circlips.

Illustration No: 13

17. Measure the left-hand crankcase then the right-hand, but make sure you place the gasket on ONE half before measuring otherwise your clearance will not be correct. Then measure the thickness of the flywheel to the ground surfaces on both sides. Subtract the thickness of the flywheel assembly from the total sum of the crankcase; that will give you the axial end float. Then place shims on the right hand side of the flywheel assembly until you have (0.008 to 0.012") end float.

13

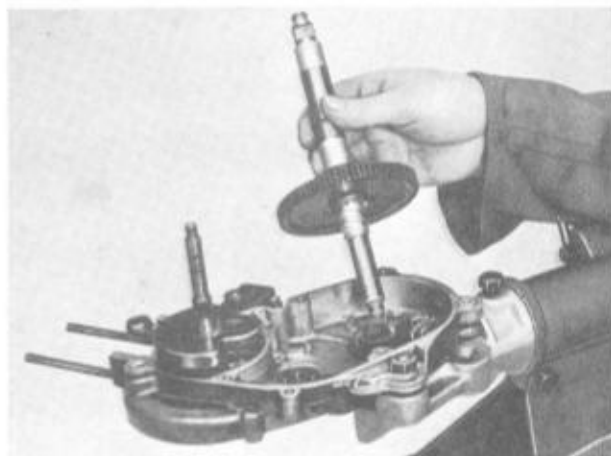
Illustration No: 14

18. Fit pedal crank spindle.

The end play of the pinion must be 0.2 - 0.3 (0.008 to 0.012) and can be corrected by additional pressing of the spacer tube.

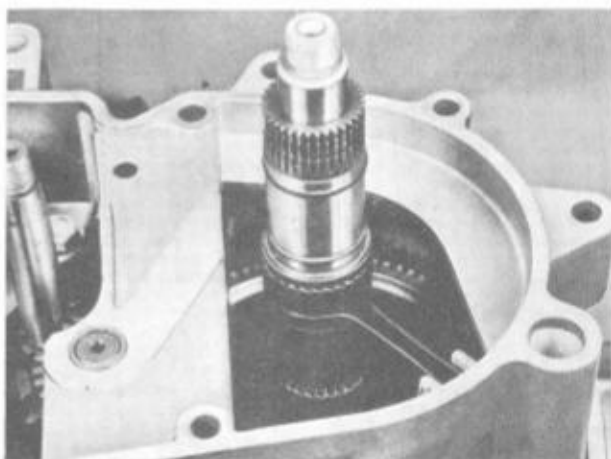
The Quickly N, S, L and Cavallino have their brake operation on the left hand side, while the Quickly T and TT have their brake operation on the right hand side.

14

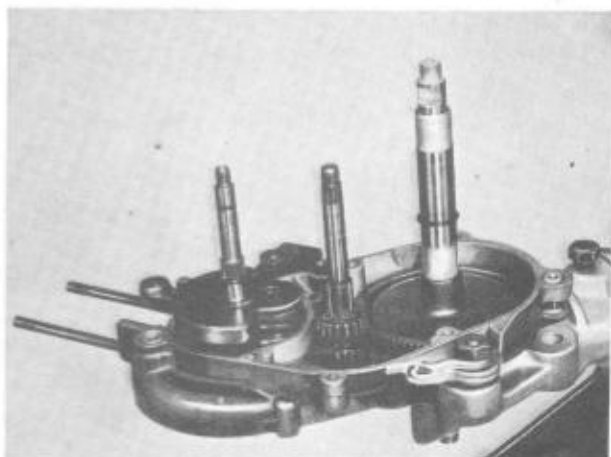
ATTENTION:

In order to avoid displacing the spacer tube on the pedal crank spindle when fitting in assembly first fit the left hand crank for Quickly T and TT and first the right hand crank for Quickly N, S, L and Cavallino.

15



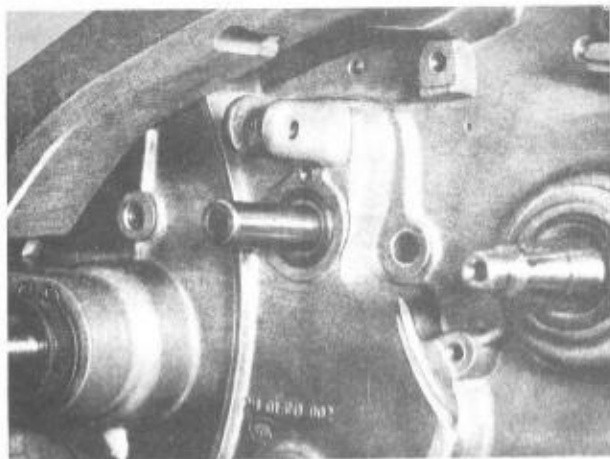
16

Illustration No: 16

19. Fit gearbox main shaft.

ATTENTION:

The sliding gear points with the plain dogs to the first gear.



17.

Illustration No: 17

20. Replace striking fork and gear selector shaft using tapered sleeve (16 91 00 919).



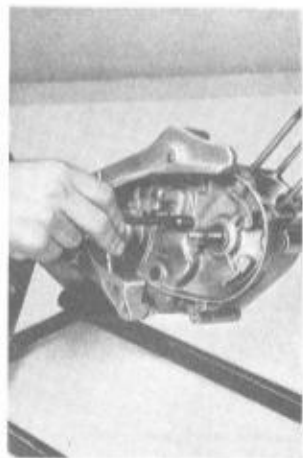
18

Illustration No: 18 Left and Right

21. Fit layshaft and measure end play (0.2 - 0.3 mm, 0.008 - 0.012").

ATTENTION:

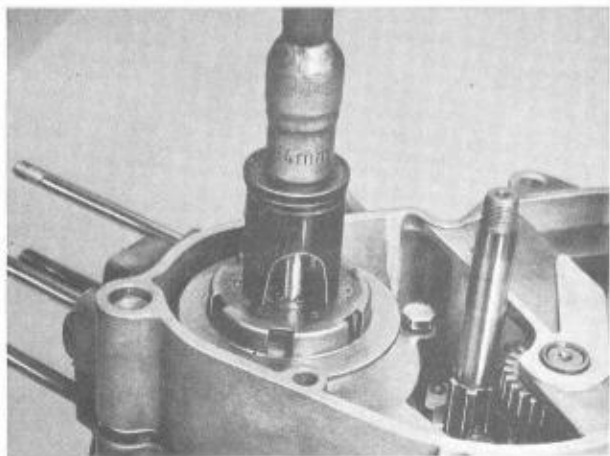
Lay the thrust washer on the gear pinion only. The flat side of the sliding wheel faces the gear pinion.



19

Illustration No: 19 Left and Right

22. Replace the gasket on the left hand crankcase cover (with jointing compound). To prevent the crankcase being distorted the centre screw must be tightened up firmly.



20

Illustration No: 20

23. Fit down clutch casing with special tool. 16 91 00 909

ATTENTION:

Replace seal ring under the clutch casing.

21

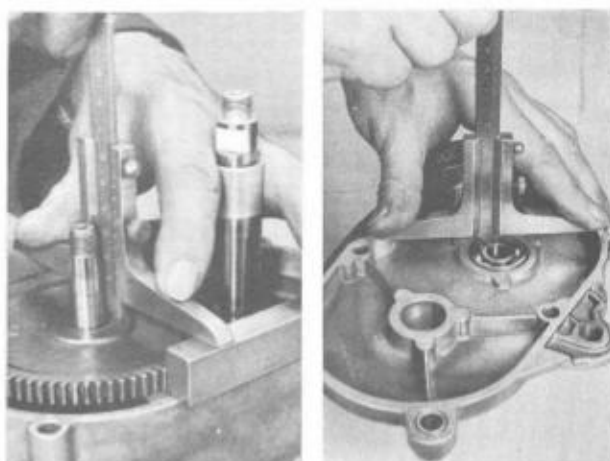


Illustration No: 21 Left and Right

24. Measure gear mainshaft and correct the end play (0.2 - 0.3 mm, 0.008 to 0.012") by shim washers.

22

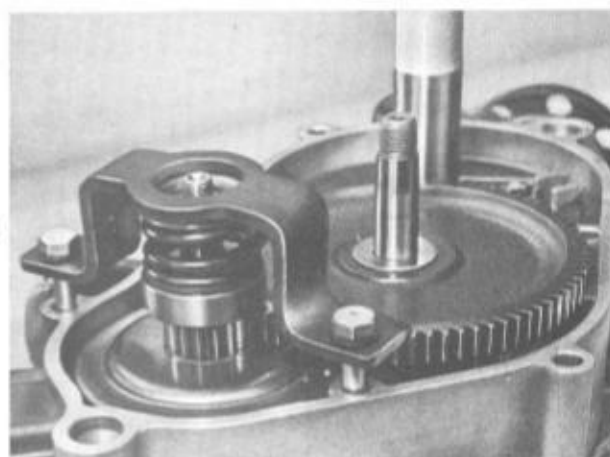


Illustration No: 22

25. Compress the clutch spring with the assembly bracket 16 91 00 910

23

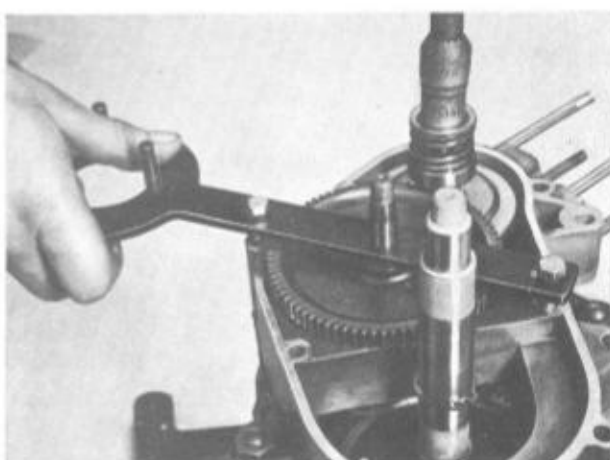


Illustration No: 23

26. Tighten the nut until the clutch slips holding the shaft by fitting holder 16 91 01 913.

24

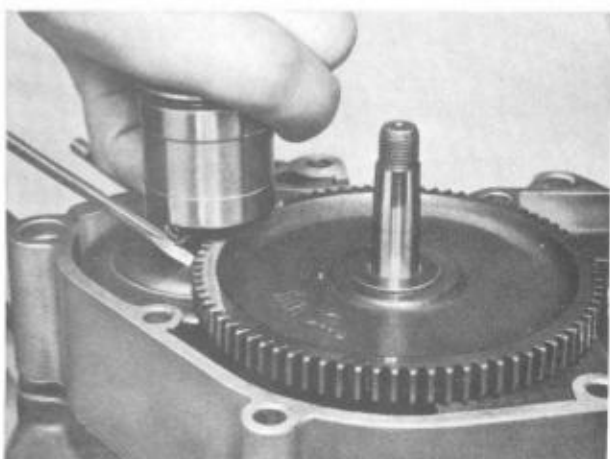
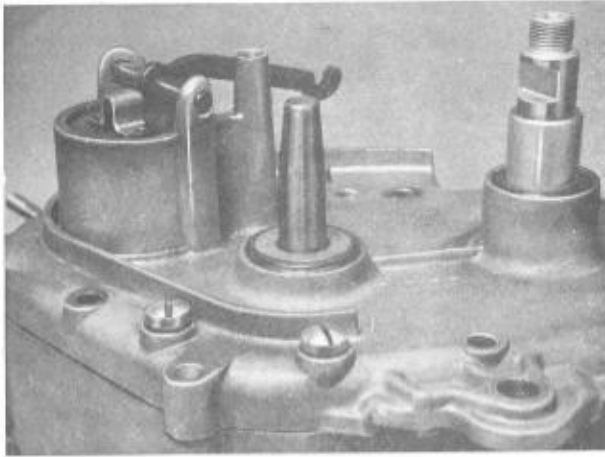


Illustration No: 24

27. Place clutch operating cup over the spring and ball bearing, push circlip into the cup with a screw driver.

ATTENTION:

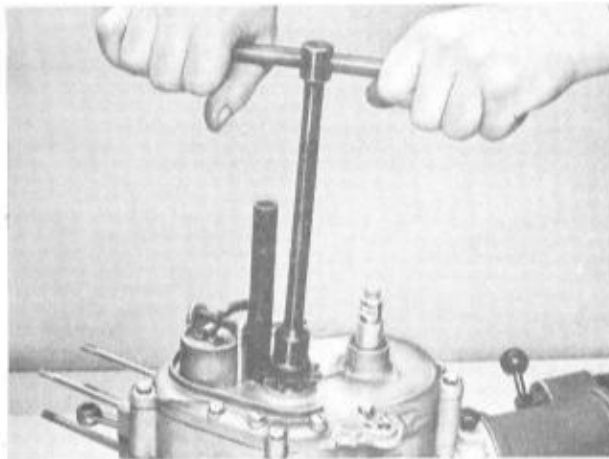
Make sure that the circlip is firmly seated.



25

Illustration No: 25

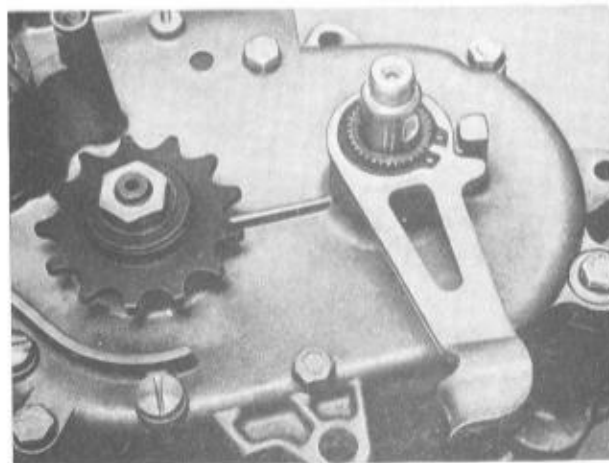
28. Place the left hand crankcase cover and the gasket on top using the tapered sleeve 018 110 282



26

Illustration No: 26

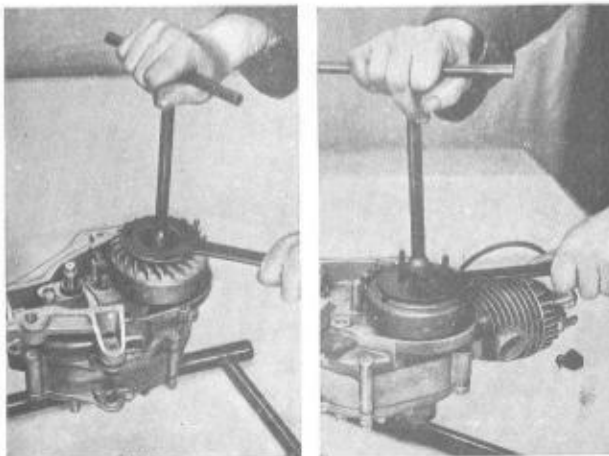
29. Replace chain sprocket.
Hold engine sprocket by placing rod between the sprocket and the clutch casing.



27

Illustration No: 27

30. Replace brake lever as in illustration No 27.
31. Replace gearchange mechanism, grease it well and check for correct gear selection.



28

Illustration No: 28 Left and Right

32. Replace magneto generator. Hold flywheel with holder 16 91 01 913. Pay attention to rubber sleeve of H.T. lead.

Illustration No: 29 Left and Right

33. Insert the mandrel (16 91 00 911) in the small end bearing and align the connecting rod if necessary.

Illustration No: 30

34. Fit piston and cylinder.
Heat the piston up to a temperature of about 120°C (250°F). Use extractor (16 91 00 903) and piston ring pliers (16 91 00 907)

NOTE:

When fitting piston make sure that the highest edge of the part is at the rear and the arrow on the crown is facing to the front.

Illustration No: 31 Left

35. Reset the ignition.
Contact gap 0.2 - 0.3 mm (0.008 - 0.012")

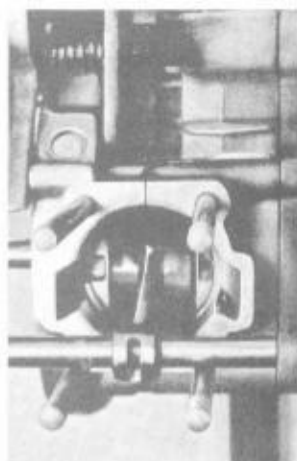
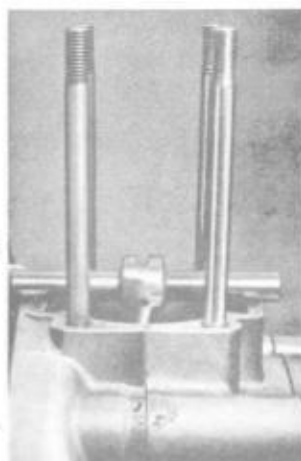
Illustration No: 31 Right

Distance between flywheel magnet and pole shoe of H. T. Coil 9-12 mm ($\frac{3}{8}$ to $\frac{1}{2}$ ")
Ignition timing 2.1 - 2.5 mm (0.084 to 0.1") B.T.D.C.

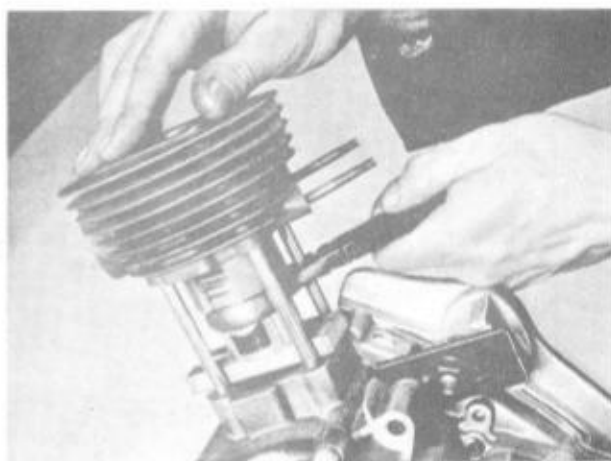
Illustration No: 32

To adjust ignition timing slacken the three screws on the base plate and move clockwise or anti-clockwise as necessary.

29



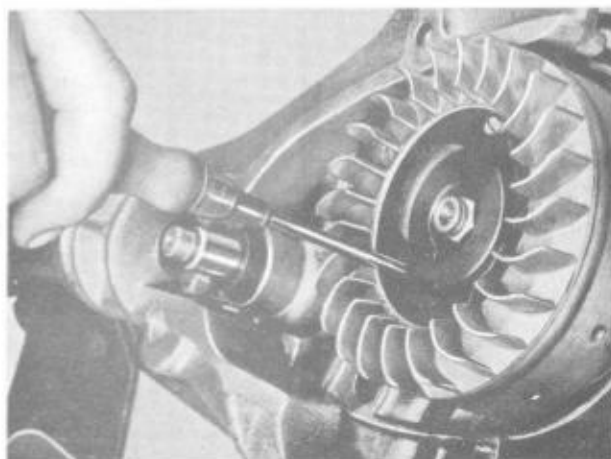
30

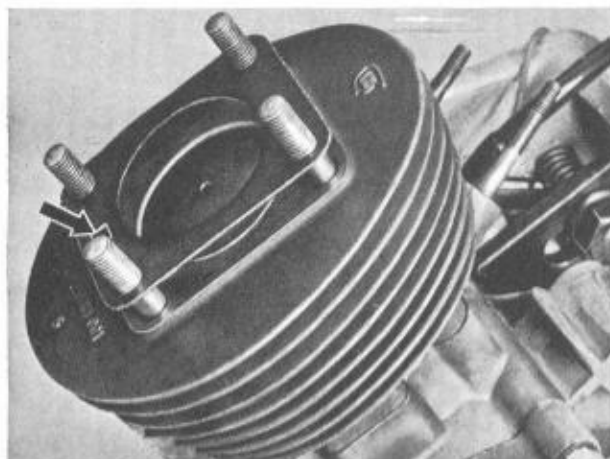


31



32





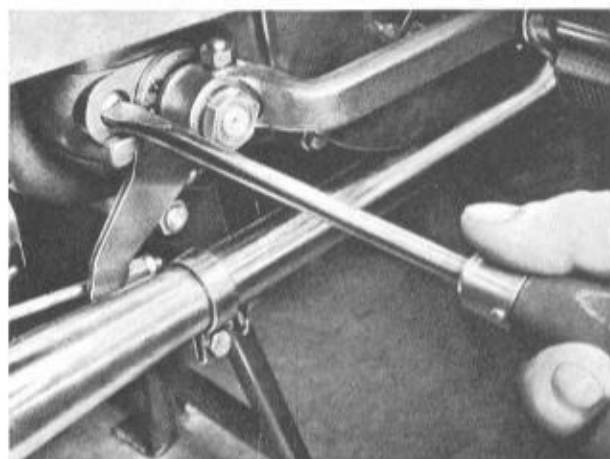
33

Illustration No: 33

36. Replace the cylinder head.

ATTENTION:

When fitting the cylinder head gasket make certain the opening for decompression passage is not blocked.



34

Illustration No: 34

37. Fill gearbox with oil.

For 2 gear engine 135 ccm (0.24 pint) SAE 30 in summer.
For 3 gear engine 210 ccm (0.37 pint) SAE 20 in winter.

M 02

DISMANTLING AND ASSEMBLY OF 2 GEAR ENGINE

The removal and fitting of cylinder, piston, clutch, magneto generator and crankshaft is the same as the 3 speed engine.

The only differences are gearbox, gearchanging and pedal crank spindle.

Illustration No: 35

1. To avoid damage to the oilseal on the selector shafts it is advisable to replace the shaft from the outside.

35

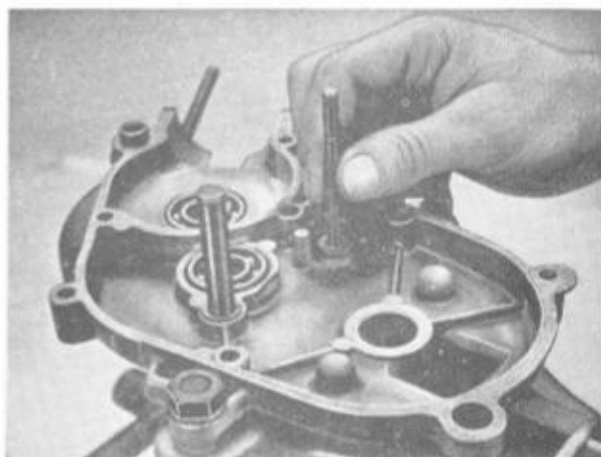
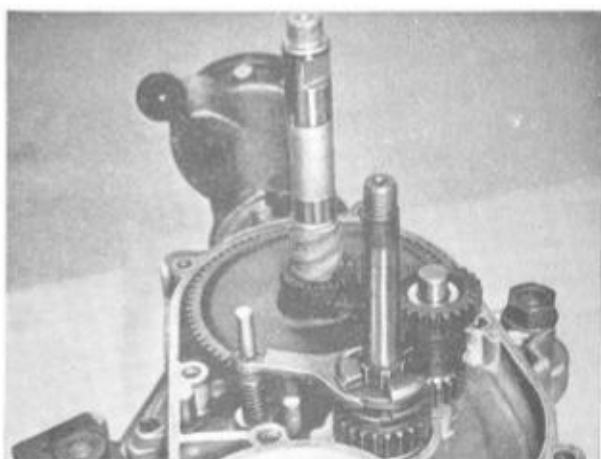


Illustration No: 36

2. The chamfered side of the selector dog points inwards towards bottom gear.
3. Replace main shaft.
Axle play of the mainshaft = 0.2 - 0.3 mm
(0.008 to 0.012")

36



37

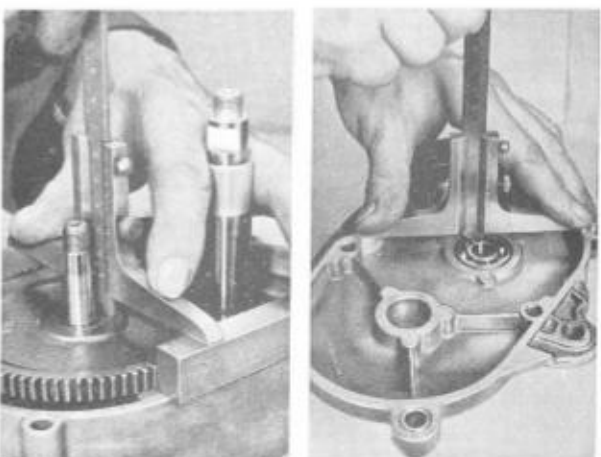
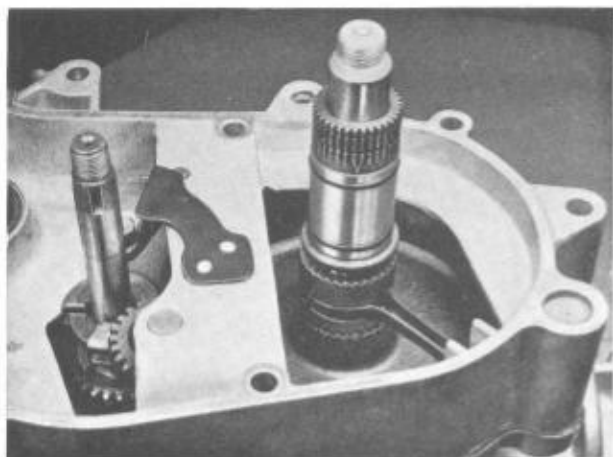


Illustration No: 37 Left and Right

There is no need for thrust washers on the crankcase side of the layshaft.



38

Illustration No: 38

4. It is important to ensure that the narrow portion of the driver faces inwards towards the gear, otherwise the retaining spring will not remain in its location.

NOTE:

For perfect gear selection the striker shaft must return freely from bottom to second gear.

Quickly-N and S



Quickly - N

from vehicle 000 001 / 000 001



Quickly - S

from vehicle 360 030 / 380 173

TECHNICAL DATA QUICKLY N and S

ENGINE	See technical data engine	
Ratio	3 gear model	2 gear model
Engine-Gearbox	5.33 : 1	5.33 : 1
Gearbox ratios 1st gear	2.44 : 1	1.88 : 1
2nd gear	1.563 : 1	1 : 1
3rd gear	1 : 1	-
Ratio Gearbox		
Gearbox-Rear wheel	3 : 1	3 : 1
Overall ratio 1st gear	39.06 : 1	30.06 : 1
2nd gear	25 : 1	15.99 : 1
3rd gear	15.99 : 1	-
FUEL SYSTEM		
Fuel tank capacity	4.4 liter = 1 gallon (approx)	
Of which is reserve supply	0.4 liter = $\frac{3}{4}$ pint (approx)	
Carburettor type Bing	1/9/22	
Main jet	54	
Needle jet	2.12	
Needle position	3	
Air filter	wet air filter in frame	
WHEELS	front	rear
Rims	26 x 2	26 x 2
Tyre size	26 x 2.00	26 x 2.00
Tyre pressure	21 lb/sq. in	25 lb/sq. in.
SPOKES		
Front wheel left hand	dia 2.65 mm 263 mm long (10 $\frac{1}{2}$ in)	
Front wheel right hand	dia 2.65 mm 235 mm long (9 $\frac{1}{2}$ in)	
Rear wheel left hand	dia 3.00 mm 236 mm long (9 $\frac{1}{2}$ in)	
Rear wheel right hand	dia 3.00 mm 262 mm long (10 $\frac{1}{2}$ in)	
LEADING DIMENSION FOR SPOKING UP WHEELS		
Front wheel	From outer edge of brake down to edge of rim	
Rear wheel	From outer edge of chain sprocket to edge of rim	
Front brake	Internal expanding brake	
Rear Brake	Internal expanding brake	
Brake operation	Front by hand Rear by foot	
OTHER DATA		
Maximum height	37.8 in	
Overall length	74.6 in	
Maximum width	25.3 in	
Weight unladen	approx 100 lbs	
Permissible load	approx 280 lbs	

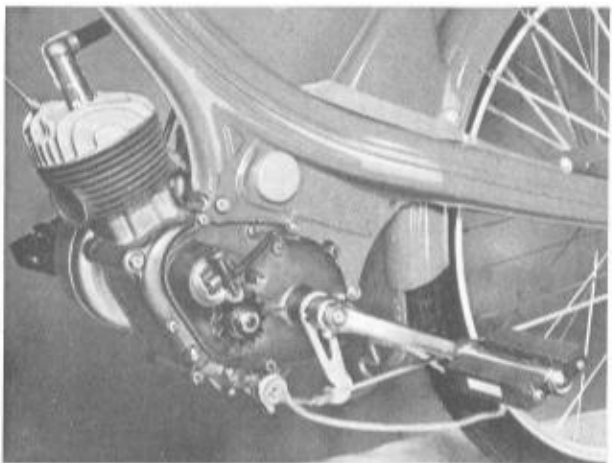


1

M 01 ENGINE REMOVAL AND FITTING

Illustration No: 1

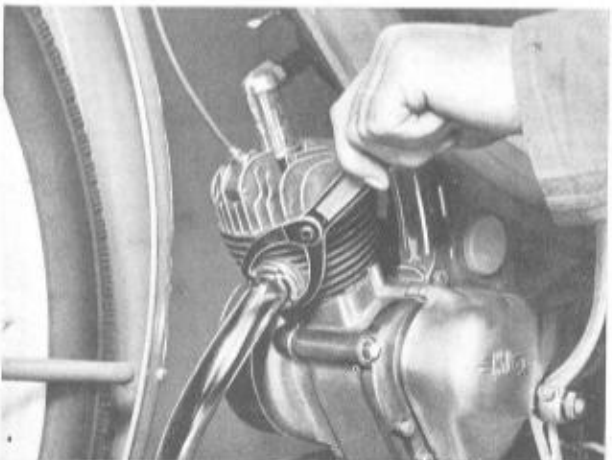
1. Place the frontwheel in a holding stand.



2

Illustration No: 2

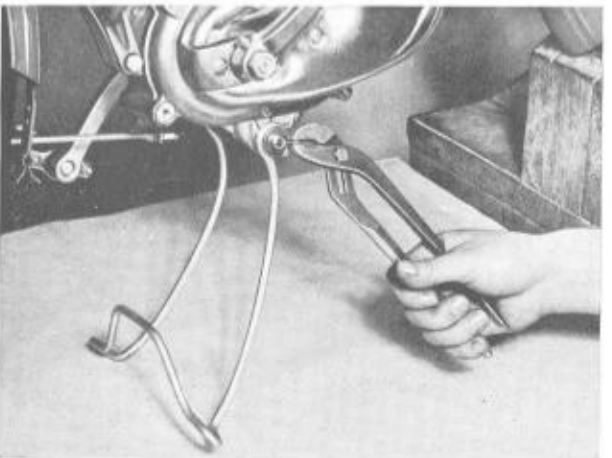
2. Remove left hand front chain cover, take off the chain.



3

Illustration No: 3

3. Remove exhaust flange nut (with commercial hook spanner).



4

Illustration No: 4

4. Remove centre stand.

Illustration No: 5

5. Disconnect rear brake operating rod.

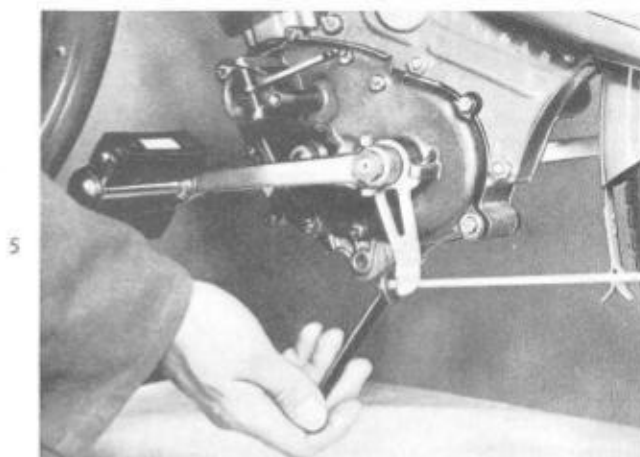


Illustration No: 6

6. Disconnect the clutch cable (see F 50 - page 24)
7. Disconnect decompression cable (see F 52 - p. 29)
8. Remove right hand cover.
9. Disconnect lighting lead.

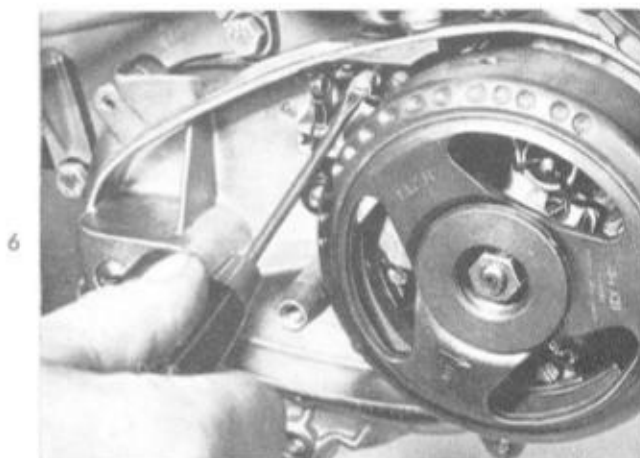


Illustration No: 7

10. Remove the air intake pipe and flange, disconnect carburettor.
11. Disconnect the gearchange cable.
12. Remove three mounting belts and remove engine from the frame.

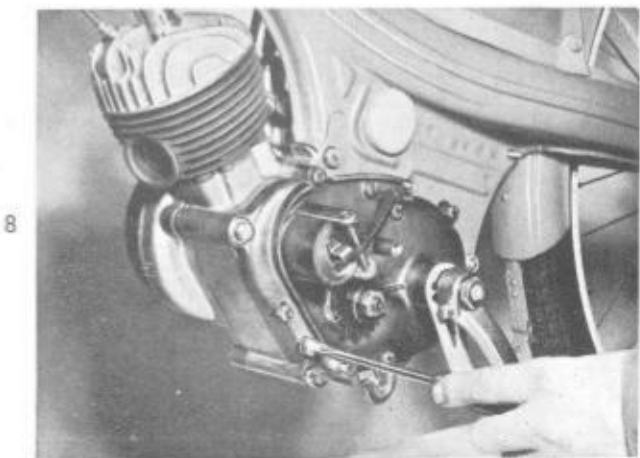
ATTENTION:

The engine mounting belts have been altered into 8 mm. In cases of repair to frame or crankcase of earlier models, mounting hole must be enlarged to 8 mm clearance.



Illustration No: 8

13. Replace in the reverse order.
Chain slackness 15-20 mm.
Check brake adjustment and wheel alignment.
Check oil level (page 15).





9

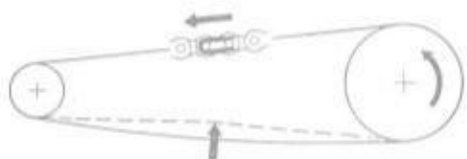
WHEELS, BRAKE, HUBS AND FORK

F 01 FRONT WHEEL - removal and fitting

Illustration No: 9

1. Disconnect lower end of front brake cable.
Loosen both pinch bolts on the pivoted links.
Unscrew nut from spindle and remove spindle.
2. Replace in the reverse order.
If a speedometer is fitted then distance spacers between the hub and link are not required.

F 02 REAR WHEEL - removal and fitting



10

Illustration No: 10

1. Disconnect brake rod from rear brake cam lever.
Unscrew nut and remove spindle.
Remove chain from rear chain sprocket (on hub),
and remove wheel downwards.
2. Replace in the reverse order.
Take care of the distance spacer.
Chain slackness 15-20 mm.
Check brake adjustment and wheel alignment.

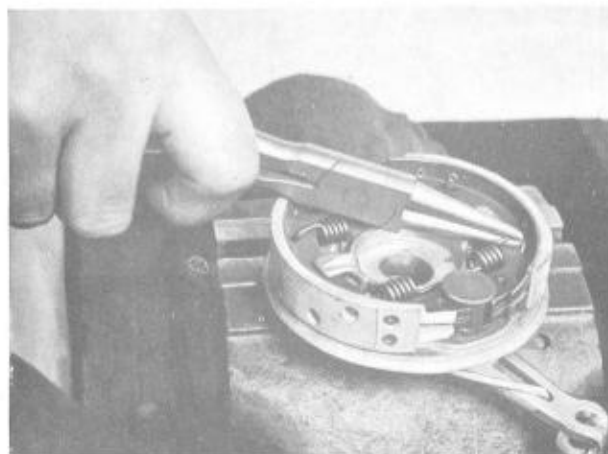


11

F 11 FRONT WHEEL - dismantling and assembly

Illustration No: 11

1. Remove the hexagon nut of the brake back plate and remove brake assembly.
Remove the brake shoes.
Remove the return spring on the brake lever side first.



12

Illustration No: 12

2. Fit brake shoes.
Connect the return spring on the brake lever side last. When riveting the new linings start from the centre, thus ensuring that the lining lies evenly against the shoe.

3. To remove the bearing, unscrew the cones completely. Extract the bearing cone, left side first by means of two screw drives.

Illustration No: 13 Right

Remove the right hand bearing cone complete with threaded sleeve, caged ball bearing, and oil seal with a suitable drift.

Illustration No: 13 Left

4. Replace in the reverse order.
Replace oil seals with their leading edges facing inwards.

F 12 REAR WHEEL - dismantling and assembly

Illustration No: 14

1. Remove the hexagon nut on the brake back plate.
Remove brake assembly.
Remove brake shoes.
Remove the return spring on the brake lever side first.

Illustration No: 15

2. Fit brake shoes.
Connect the return spring on the brake lever side last.

When riveting the new linings start from the centre thus ensuring that the lining lies evenly against the shoe.

Illustration No: 16 Right

3. To remove the bearing unscrew the cones completely. Extract the bearing cone right side first by means of two screwdrivers.

Extract the left hand bearing cone complete with bearing cups with an extractor, complete with threaded sleeve, caged ball bearing, and oil seal with suitable drift.

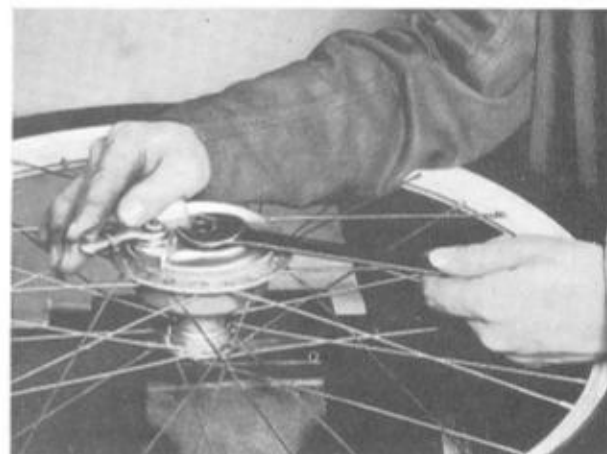
Illustration No: 16 Left

4. Replace in the reverse order, making sure that the leading edges of the oil seals face inwards. Adjust the bearing without perceptible play.

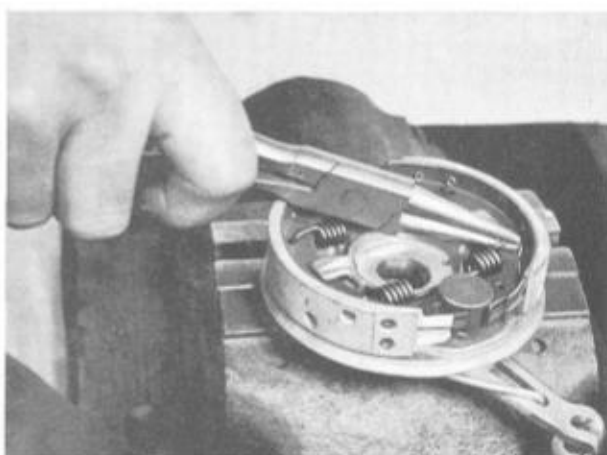
13



14

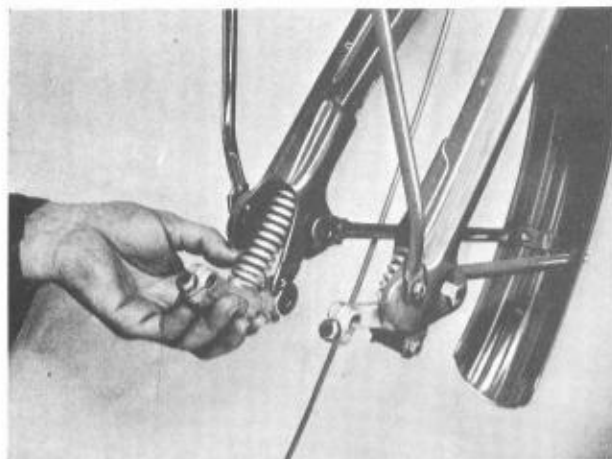


15



16





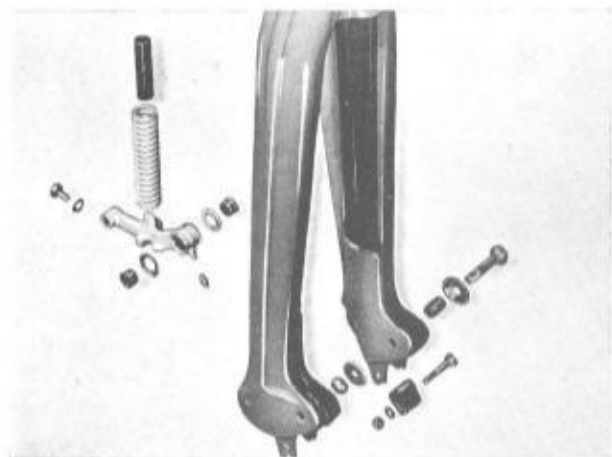
17

F 19 - FRONT FORK - dismantling and assembly

Illustration No: 17

1. Front fork removal and fitting (F 20 page 23). The front wheel mudguard can be removed without removing the fork.
2. After removing the rubber blocks and the bearing bolts it is possible to remove the swinging links.

When extracting the bushes of the swinging links ream the bronze bushes out so that you can fit in the spacer bushes

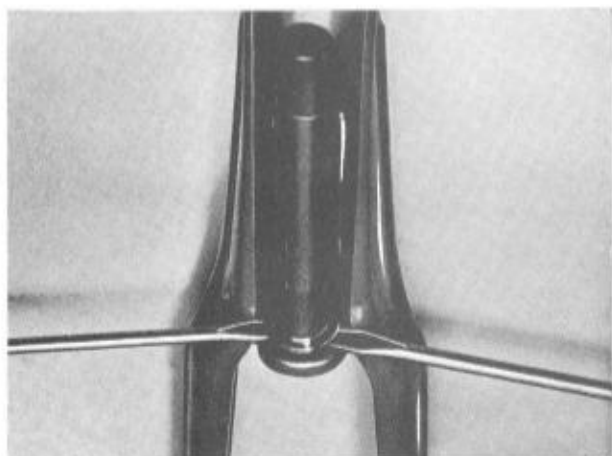


18

Illustration No: 18

3. When removing the swinging links also remove the springs.
The springs must always be matched in pairs.

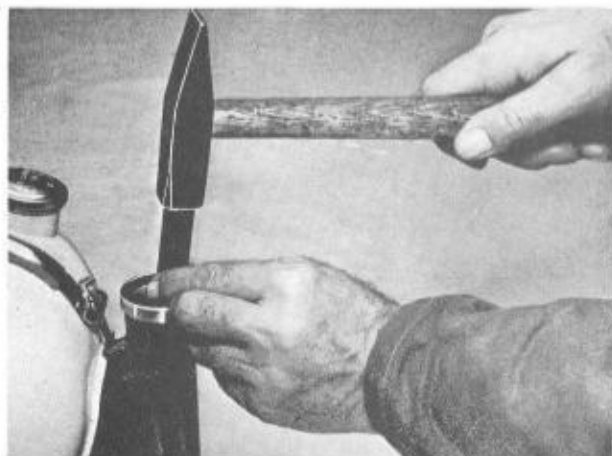
Assembly:



19

Illustration No: 19

4. Remove the sealing rings, bearing cups and ball bearings. Withdraw the bearing rings of the front fork.



20

Illustration No: 20

Extract the bearing cups with a suitable drift. When fitting the bearing cups and bearing rings use a suitable tube. The ball bearings must be bedded in grease.

F20 FRONT FORKS - removal and fitting

Illustration No: 21

1. Remove front wheel (F01 - page 20).
2. Take off the headlamp rim.
Disconnect leads.
Disconnect speedometer cable from speedometer.
3. Unscrew two hexagon bolts with nuts and star washers on forks and handlebar bracket, and lay the complete handlebar on the tank or frame (place a cloth underneath to prevent damage to the paintwork).

21

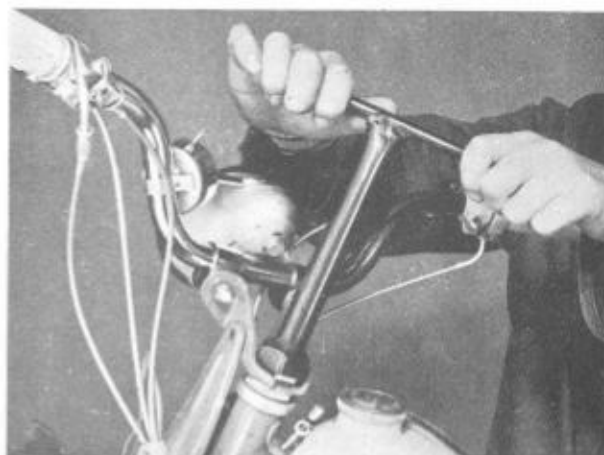


Illustration No: 22

4. Unscrew the lock nut on the fork stem and withdraw the fork downwards.

When fitting ball bearings pack with grease.

The headbearings must be adjusted so that there is no play in the forks but swing easily right to left.

22



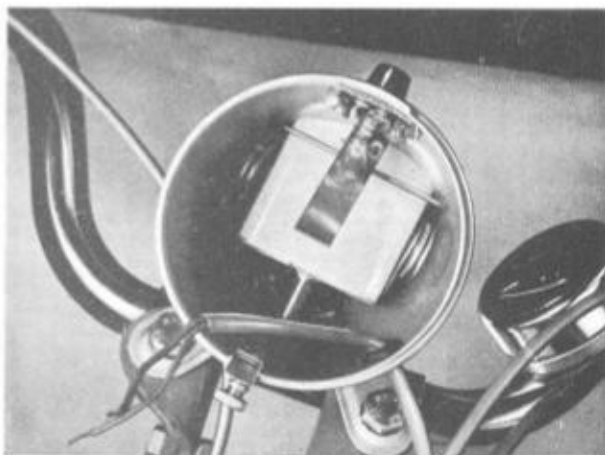
F42 CONTROLS AND CABLES

Speedometer removal and fitting

Illustration No: 23

To remove the speedometer remove the headlamp rim.

23



F43 FLEXIBLE DRIVE, SPEEDOMETER - removal and fitting

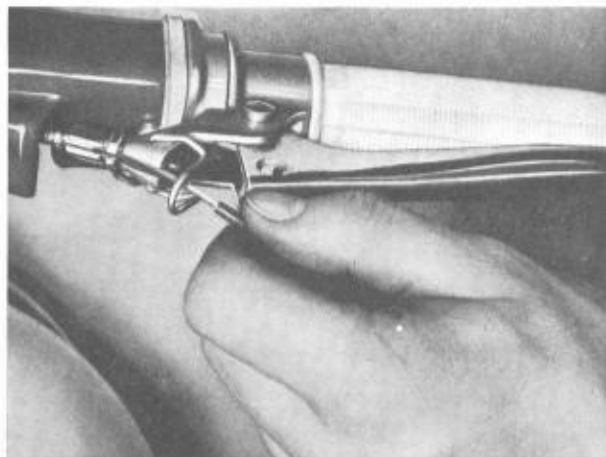
Illustration No: 24

Disconnect the speedometer drive cable union nut and withdraw the speedometer upwards.

When fitting speedometer cable care should be taken that the cable should have a gradual bend.

24





25

F 50 CLUTCH CABLE - removal and fittingIllustration No: 25

1. Remove the chainguard (engine end). Disconnect the cable at the engine.
2. Remove the nipple on the handlebar. Disconnect the cable.

Fitting: Adjust the cable with a play of approx 2 mm.

NOTE:

The cables and leads are partly laid through the frame in a plastic tube. Before fitting or removal it is advisable to oil the cables and tube to prevent damage to them.

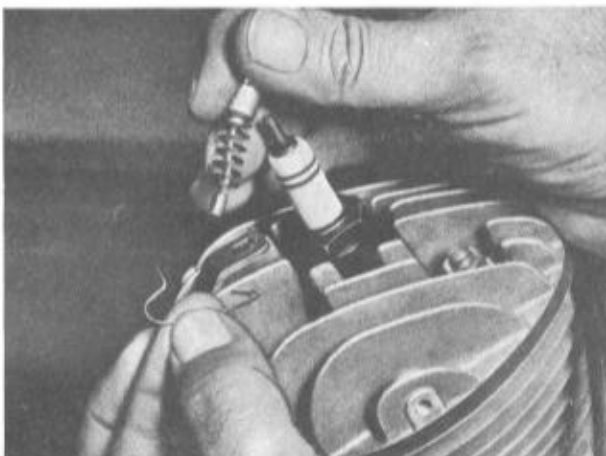
When removing the old cable it is advisable to connect a length of string or flexible wire to one end and pull through the frame. This can be of benefit when replacing the new cable.



26

F 51 BRAKE CABLE - removal and fittingIllustration No: 26

1. Disconnect the cable from the front wheel and the handlebars.
2. Replace in the reverse order. Note layout of cables.



27

F 52 DECOMPRESSION CABLE - removal and fitting

1. Disconnect the cable at the cylinder head. Unscrew the set screw in the solderless nipple (upper end of cable) and withdraw the cable.
2. Replace in the reverse order. Allow a play of about 1 mm by adjustment on the nipple.

Illustration No: 27ATTENTION:

Insufficient play will reduce the engine performance, allowing gases to leak from the valve.



28

F 53 THROTTLE CABLE - removal and fittingIllustration No: 28

1. Remove carburettor top. Disconnect the cable.
2. Unscrew the slotted screw on the body of the twist-grip. Withdraw the twistgrip and disconnect the cable.
3. Replace in the reverse order.

The cable is maintained in its position by two rubber blocks under the fuel tank.

F 54 GEARCHANGE CABLE - removal and fitting

two speed engine

Illustration No: 29

1. Remove the cover on the right hand side.
Engage second gear and disconnect the cable from the engine.

29

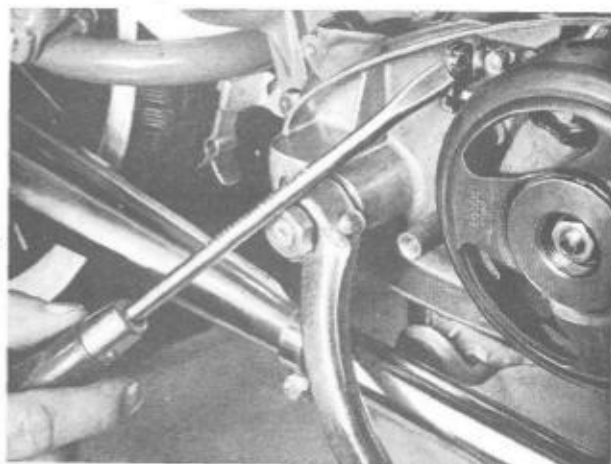
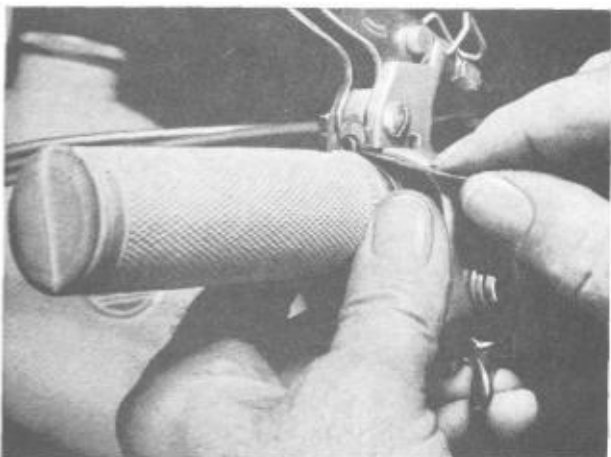


Illustration No: 30

2. Disconnect cable from handlebar.
Remove and insert the cable through the frame (F 50 - page 24)
3. To adjust the gears move the vehicle backwards and forwards.

It must be easy to select the 1st and 2nd gear with gearchange lever in "O" position (i.e. neutral).
Slacken lock nut, and adjust cable for neutral position in gearbox.
Lock up adjuster with lock nut.

30



F 54 - GEARCHANGE CABLE - removal and fitting

three speed engine

Illustration No: 31

1. Remove the cover on the right hand side.
Remove carburettor and select 3rd gear.
Screw in both adjusters completely to enable both nipples to be disconnected.

31

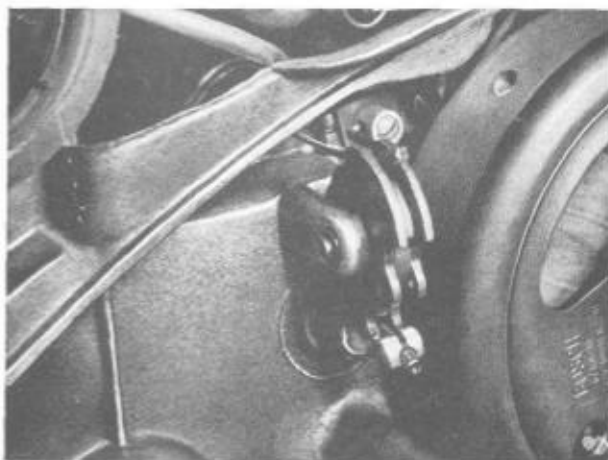


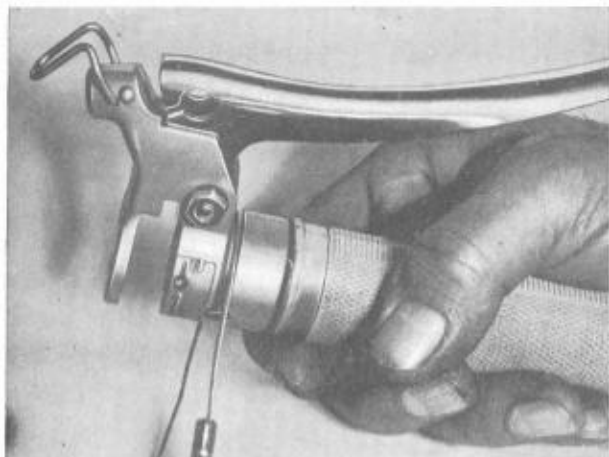
Illustration No: 32

2. Unscrew clamping screw and withdraw gearchange twistgrip.
Disconnect the cable.

Remove and insert the cable through the frame (F 50 - page 24).
Remove and insert the cables separately.

32



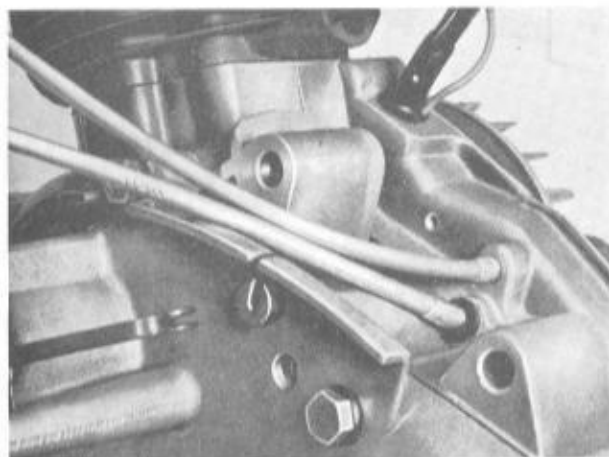


33

Illustration No: 33**ATTENTION:**

When fitting the gearchange cable ensure that the end of the shortest cable is fitted to the base of the gear-change twistgrip.

The cable marked with a groove on the adjuster must be fitted to the twistgrip housing rear also to the top location point on the engine.



34

Illustration No: 34

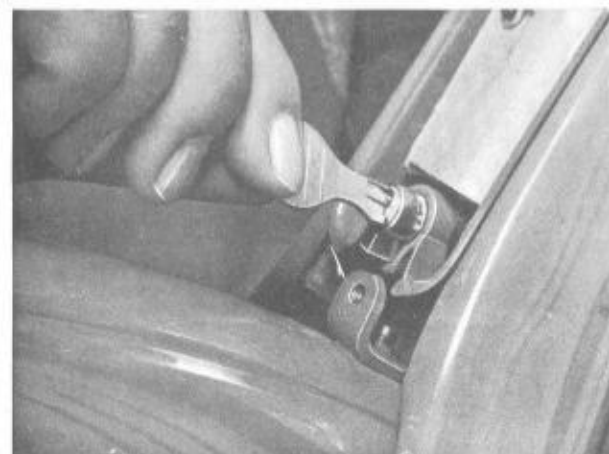
Insert the rubber seal on the lower engine location point to avoid the cable coming in contact with petrol.



35

Illustration No: 35

3. Re-adjust the cables with 2nd gear engaged until there is no excessive play on them.

FRAMEF 60 FRAME - removal and fittingIllustration No: 36

36

1. Remove engine (M01 - page 18)
Remove rear wheel (F 02 - page 20)
Remove rear mudguard (F 62 - page 27)
Remove saddle (F 72 - page 32)
Remove fuel tank (F 80 - page 27)
Remove all cables (F 50/53 page 24 to 26)
Remove front forks (F 20 - page 23)
2. Replace in the reverse order.
To remove the steering lock remove tool box cover.
Withdraw lock and key.

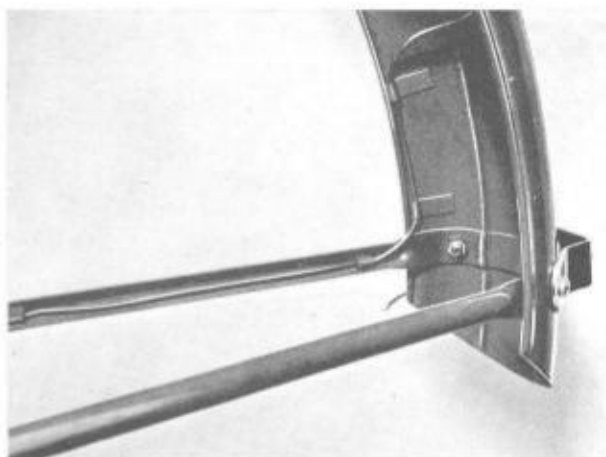
F 62 REAR MUDGUARD - removal and fitting

Illustration No: 37

1. Remove rear wheel (F 02 - page 20)
Remove rear lamp (E 09 - page 28)

Note cable holders for rear light lead.
2. Replace in the reverse order.

37

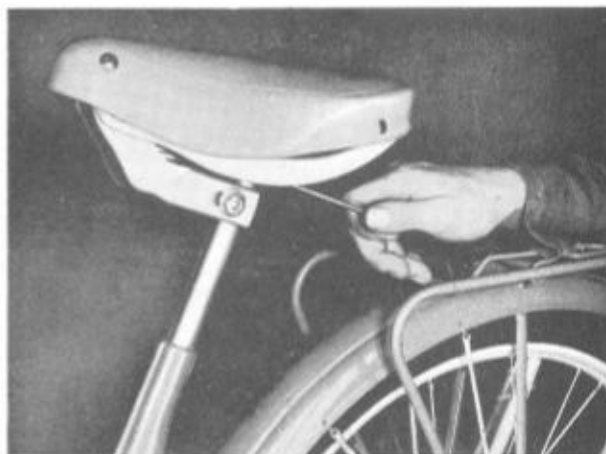


F 72 PIVOTED SADDLE - removal and fitting

Illustration No: 38

1. Slacken the bolt (SW 11) on the saddle tube for adjusting height.
2. Replace in the reverse order.

38



ATTENTION:

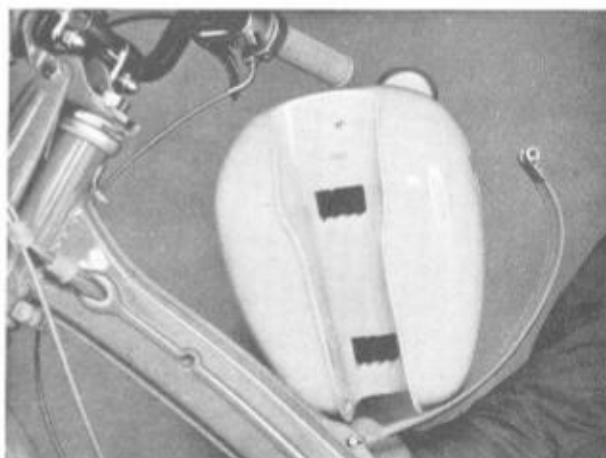
Seat tube must not be pulled out beyond the marks.

F 80 FUEL TANK - removal and fitting

Illustration No: 39

1. Remove fuel pipe from tap, and unscrew nut from strap. Swing strap up, and take off the fuel tank.
2. Replace in the reverse order.

39



ATTENTION:

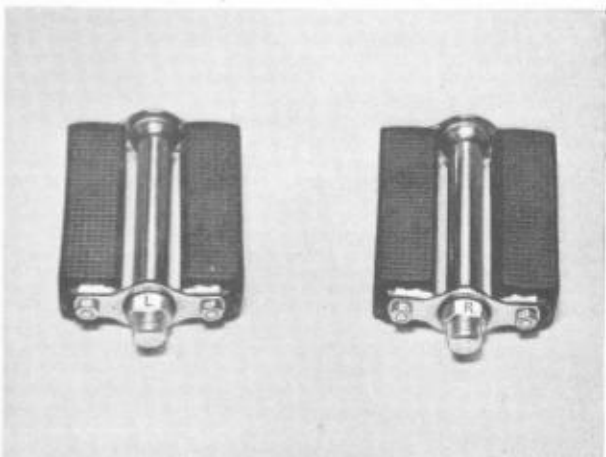
Ensure that the two rubber blocks are replaced correctly, under the fuel tank.

F 85 PEDALS - removal and fitting

Illustration No: 40

1. Left hand pedal is marked "L" (left hand thread)
Right hand pedal is marked "R" (right hand thread)

40

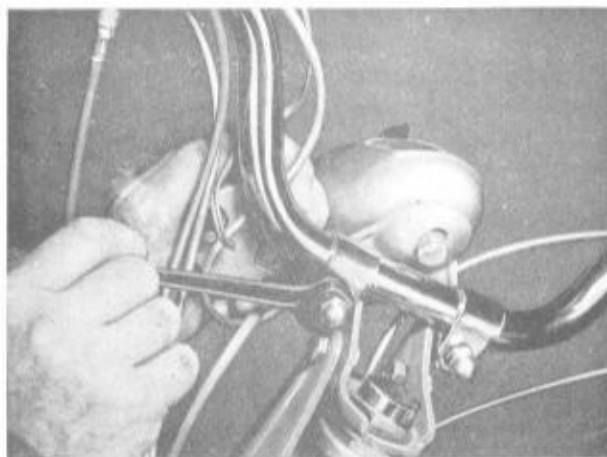




41

ELECTRICAL INSTALLATIONE02 REAR LIGHT LEAD - removal and fittingIllustration No: 41

1. Remove headlamp rim and disconnect the cable from the red marked screw.
2. Connect the new lead to the old one. Bend up the clips on the mudguard and pull the new cable through whilst removing the old one.



42

E08 HORN - removal and fitting (export model)Illustration No: 42

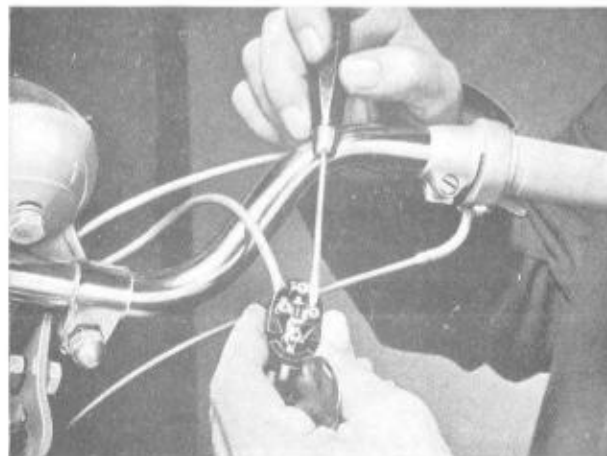
1. Disconnect the lead and remove the horn.
2. Assemble in the reverse order.



43

E09 REAR LIGHT - removal and fittingIllustration No: 43

1. Disconnect the lead. Unscrew nut and take off bulb socket.
2. Replace in the reverse order.



44

E10 DIPSWITCH - removal and fitting (export model)Illustration No: 44

1. Remove dipswitch, withdraw housing, disconnect leads and mark them.
2. Replace in the reverse order. Refer to wiring diagram (page 30).

ATTENTION:

When exchanging the dipswitch lead remove the headlamp rim and disconnect the dipswitch lead. Refer to wiring diagram (page 30).

E 12 HEADLAMP GLASS OR REFLECTOR

Removal and fitting

Illustration No: 45

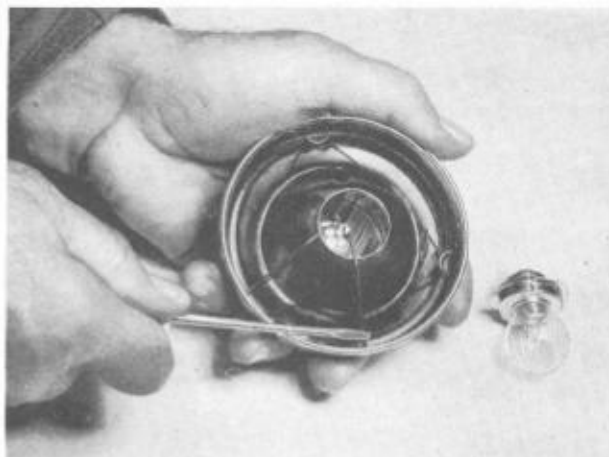
1. Remove headlamp rim.
Remove spring clip from bulb socket and remove the bulb.
Remove two spring clips and withdraw reflector, sealing ring and glass.

ATTENTION:

Do not touch the surface of reflector.

2. Assemble in the reverse order, note the projecting part in glass and slot in rim.

45

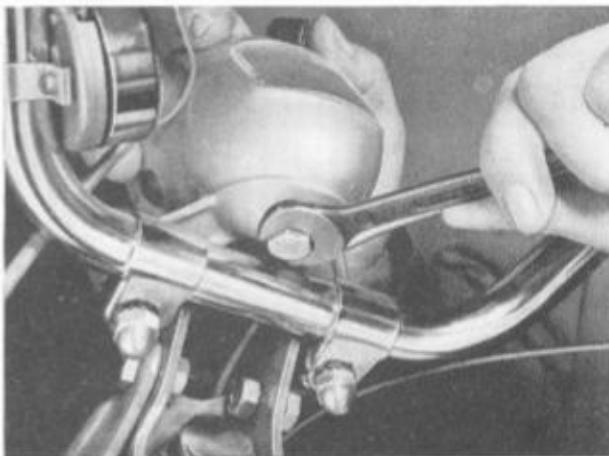


E 13 HEADLAMP - removal and fitting

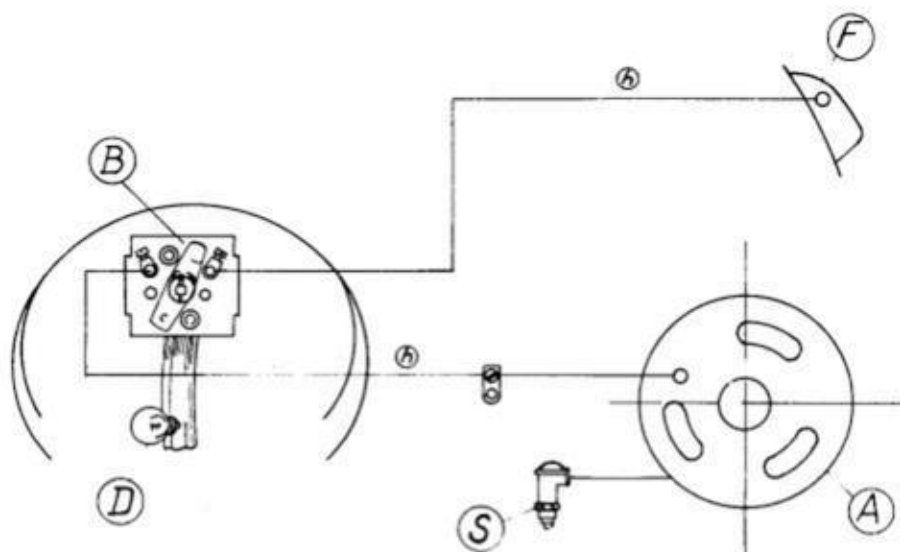
Illustration No: 46

1. Remove headlamp rim, disconnect lead.
Remove screw from the headlamp housing, and withdraw the headlamp.
2. Assemble in the reverse order, adjust headlamps.

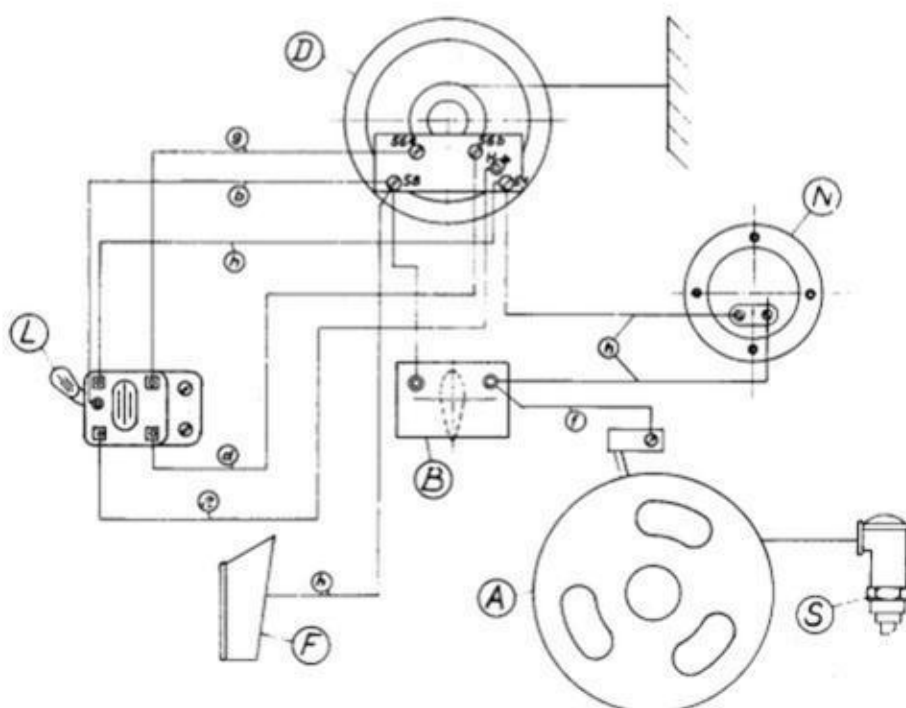
46



WIRING DIAGRAM - N - S - L and CAVALLINO



WIRING DIAGRAM - N - S - L (EXPORT MODEL)

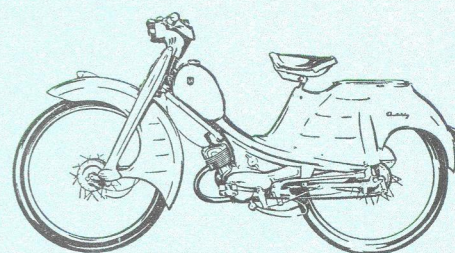


CODE

b red
d yellow
e white
f blue
g green
h grey

A Flywheel magneto and lighting generator
B Light switch
D Headlamp bulb
F Tail light
L Dipperswitch
N Horn
S Sparking plug

Quickly-L

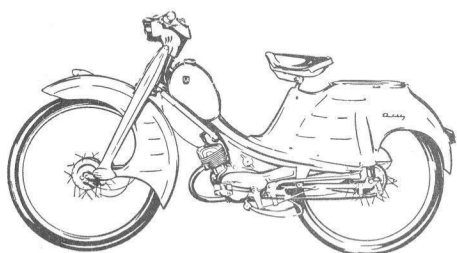


Quickly - L

from vehicle 530 211 / 576 197

TECHNICAL DATA QUICKLY "L"

ENGINE	See technical data Engine	
RATIO	3 speed model	2 speed model
Engine-Gearbox	5.33 : 1	5.33 : 1
Gearbox ratios 1st gear	2.44 : 1	1.88 : 1
2ndgear	1.563 : 1	1 : 1
3rdgear	1 : 1	-
Ratio gearbox		
Rear wheel	3 : 1	3 : 1
Overall ratio 1st gear	39.06 : 1	39.06 : 1
2ndgear	25 : 1	15.99 : 1
3rdgear	15.99 : 1	-
FUEL SYSTEM		
Fuel tank capacity	4.4 liter = approx 1 gallon	
Of which is reserve supply	0.4 liter = approx $\frac{3}{4}$ pint	
Carburettor Type Bing	1/9/22	
Main jet	54	
Needle jet	2.12	
Needle position	3	
Air cleaner	wet air filter in frame	
WHEELS AND BRAKES		
	Front	Rear
Rims	26 x 2	26 x 2
Tyre size	26 x 2.00	26 x 2.00
Tyre pressure	21 lbs/sq. in.	25 lbs/sq in.
SPOKES		
Front wheel left hand	2.65 mm	233 mm long
Front wheel right hand	2.65 mm	233 mm long
Rear wheel left hand	3.00 mm	233 mm long
Rear wheel right hand	3.00 mm	233 mm long
LEADING DIMENSION FOR SPOKING UP WHEELS		
Front wheel	From outer edge of brake drum to edge of rim 18.75 mm	
Rear wheel	From outer edge of chain sprocket to edge of rim 29.90 mm	
Front brake	Internal expanding brake	
Rear brake	Internal expanding brake	
Brake operation	Front: by hand Rear: by foot	
OTHER DATA		
Maximum height	990 mm	
Overall length	1900 mm	
Maximum width	670 mm	
Weight unladen	approx 51 kg	
Permissible load	130 kg	



1

M01 ENGINE - removal and fitting

Illustration No: 1

(See Quickly N and S - page 18)

WHEELS, BRAKE HUBS AND FORKS

F01 FRONT WHEEL - removal and fitting

(See Quickly N and S, page 20)

F02 REAR WHEEL - removal and fitting

(See Quickly N and S, page 20)

F11 FRONT WHEEL - dismantling and assembly

Illustration No: 2

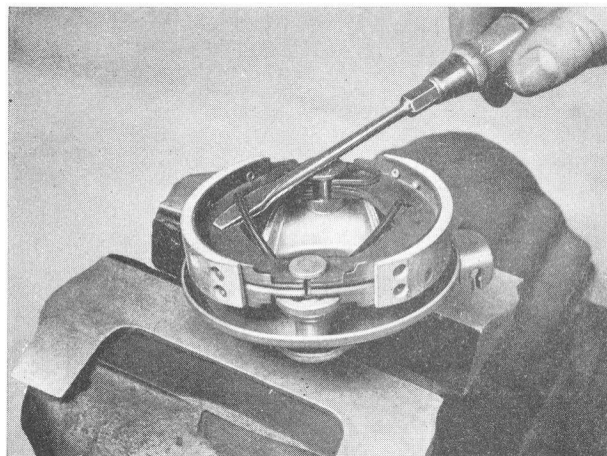
1. Remove front wheel (F01, page 20)
Unscrew nut from brake plate and withdraw brake plate. Disconnect return spring with screw driver and remove the brake shoes.

Illustration No: 3

2. Assembly: Replace both brake shoes and connect return spring so that the spring fits in the groove of the Pivot Pin.

NOTE:

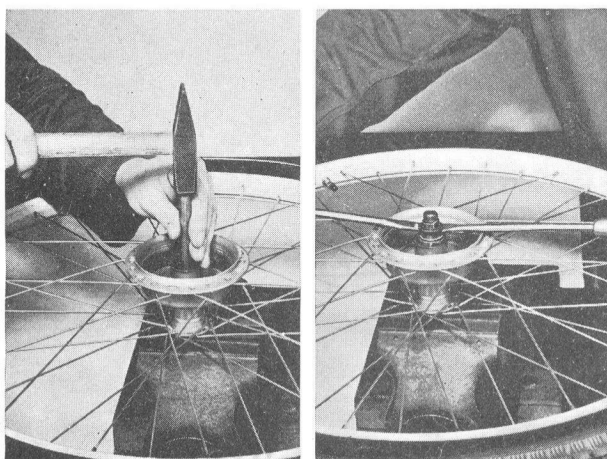
When riveting the new linings start from the centre thus ensuring that the linings lie evenly against the shoe.



2



3



4

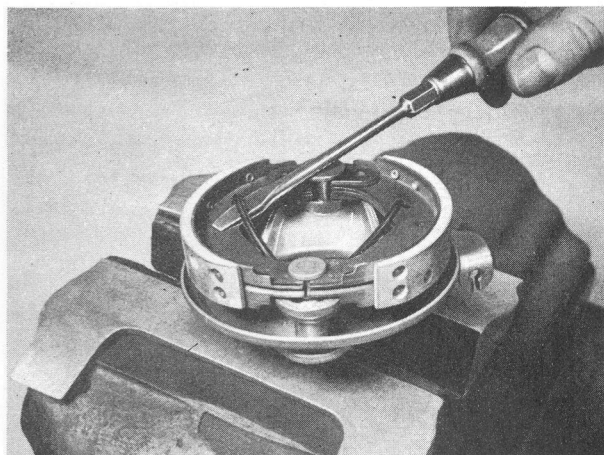
Illustration No: 4

3. Removal and fitting of bearings and sealing rings (See Quickly N and S, F11, page 20).

F12 REAR WHEEL - dismantling and assemblyIllustration No: 5

1. Remove rear wheel (F 02, page 20)
 Unscrew nut from brake plate and withdraw brake plate moving it sideways to pass the sprocket.
 Disconnect return spring with a screw driver and remove brake shoes.

5

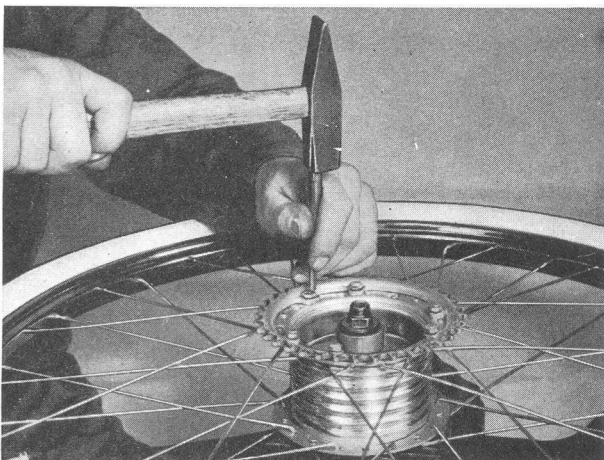


6

Illustration No: 6

2. Assembly:
 Replace both brake shoes and connect return spring so that the spring fits in the groove of the pivoting pin.

7

Illustration No: 7

3. To withdraw the sprocket remove all nuts.

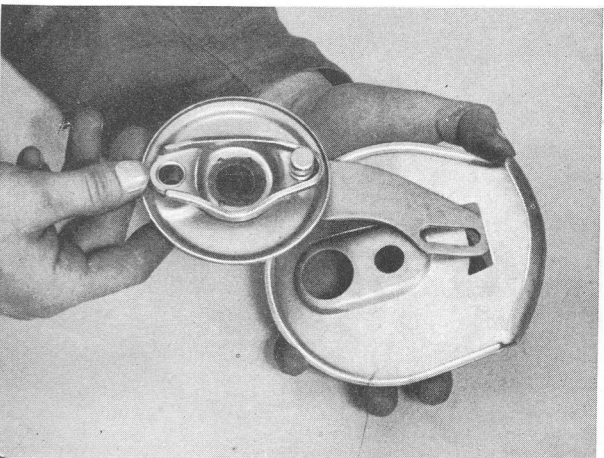
ATTENTION:

When assembling secure nuts with centre punch.

Illustration No: 8

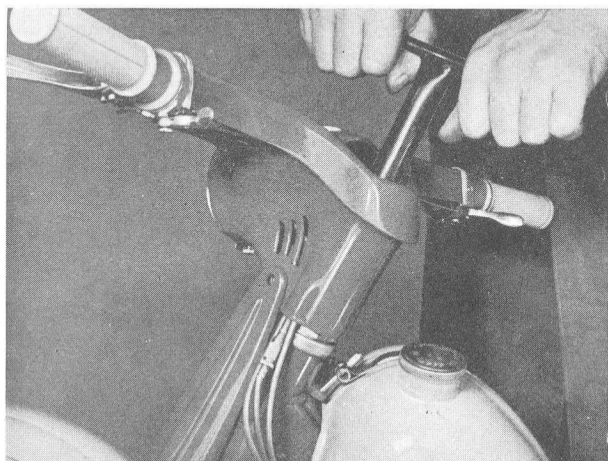
4. Before removing the cover plate, mark the position of the brake lever, unscrew nut, push brake lever out and withdraw cover plate.

8

**ATTENTION:**

When assembling, do not forget the thrust washer between bearing cone and brake plate.

5. Replacement of brake lining, removal and fitting of bearings, and sealing rings (see Quickly N and S, F 11, page 20).



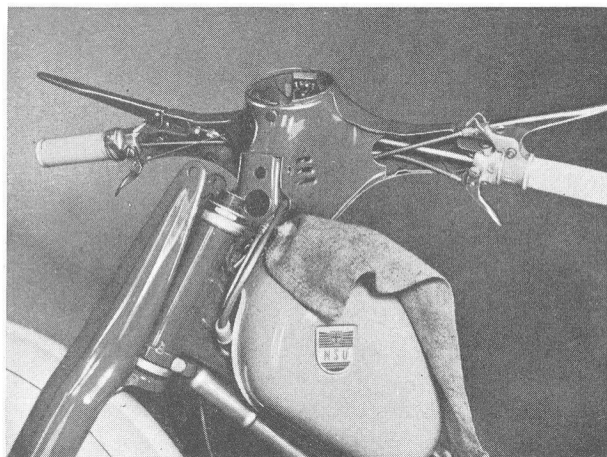
9

F19 FRONT FORKS - dismantling and assembly
(see Quickly N and S, page 27).

F20 FRONT FORKS - removal and fitting

Illustration No: 9

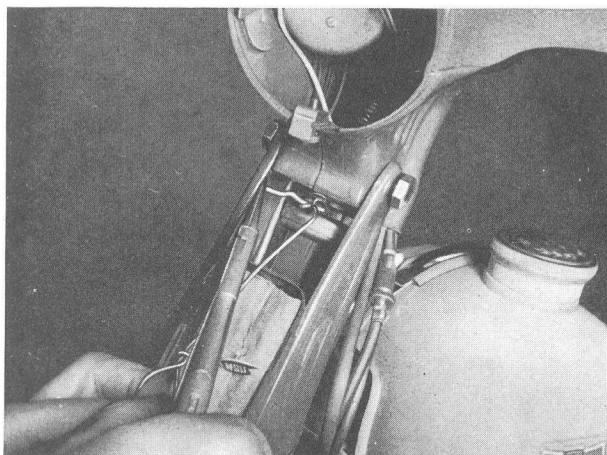
1. Remove front wheel (F 01, page 20)
Remove front mudguard (see N and S, page 22)
Remove headlamp rim (E 13, page 40)
Remove speedometer (F 42, page 34)
Remove bell or horn (F 84, page 39 and E 08, page 40)
Bend up lock plate, unscrew nuts with special spanner (16 91 00 917). Remove two screws from front fork.



10

Illustration No: 10

2. Place the complete handlebars on the fuel tank (but first cover the paintwork).
3. Further removal (See Quickly N and S, page 23).
4. Assemble in the reverse order.



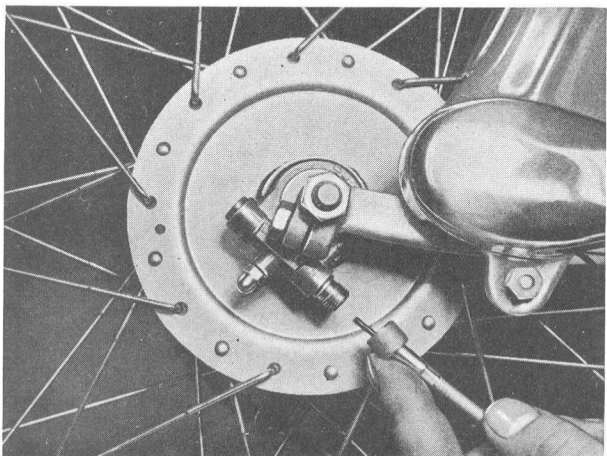
11

CONTROLS AND CABLES

F42 SPEEDOMETER - removal and fitting

Illustration No: 11

1. Remove headlamp rim (E 13, page 40)
Remove the toolbox lid.
Disconnect the tension spring by removing the retaining clip.
Extract the speedometer drive union nut and withdraw the speedometer with tension spring.
2. Assemble in the reverse order. Replace tension spring with a hook and fasten with a clip.



12

F43 SPEEDOMETER - removal and fitting
(Flexible drive)

Illustration No: 12

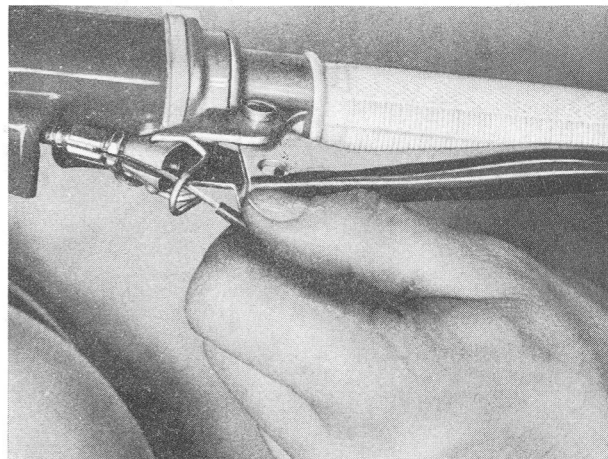
1. Loosen the speedometer drive union (F 42 as above)
2. Loosen speedometer drive union from the speedometer drive and withdraw it.
3. Assemble in the reverse order.

F 50 CLUTCH CABLE - removal and fitting

Illustration No: 13

1. Remove headlamp rim (E 13, page 40)
Remove the chainguard from the left hand side of the engine and disconnect cable from the clutch lever (engine).
Disconnect cable from the clutch lever (handlebar).
2. Removal and fitting of cables (see Quickly N and S F 50, page 24).
3. Assemble in the reverse order.

13

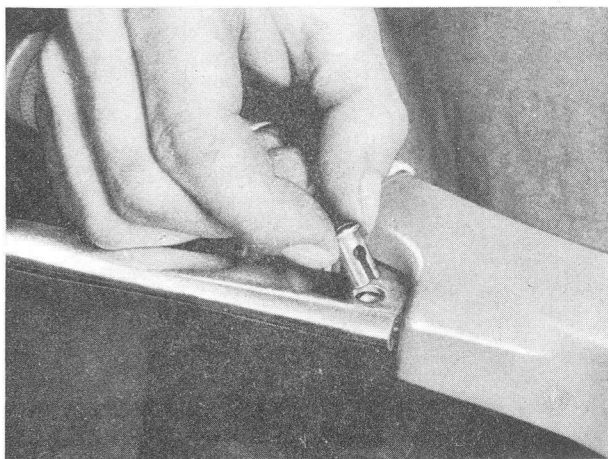


F 51 BRAKE CABLE - removal and fitting

Illustration No: 14

1. Disconnect nipple from the lower brake lever.
Remove the nipple holder from the handlebar.
Set the adjuster and star nut with their slots in line, then disconnect the control cable and withdraw upwards.
2. Assemble in the reverse order.

14

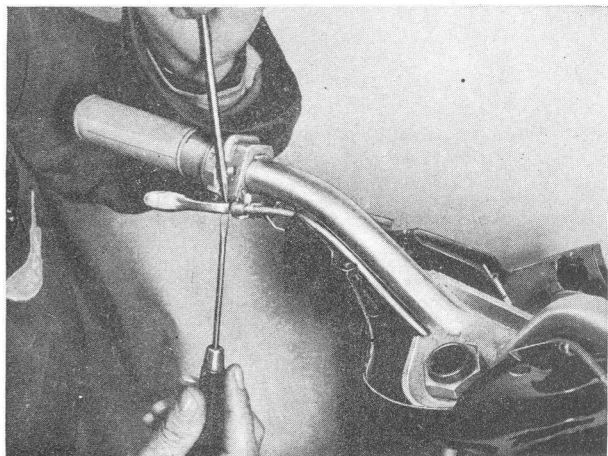


F 52 DECOMPRESSION CABLE - removal and fitting

Illustration No: 15

1. Remove headlamp (E 13, page 40)
Disconnect cable at the cylinder head, unscrew the set screw in the solderless nipple (upper end of cable) and withdraw the cable.
2. Assemble in the reverse order. Adjust the cable at the adjusting sleeve with a play of about 1.2 mm (0.04 to 0.08 in.)

15

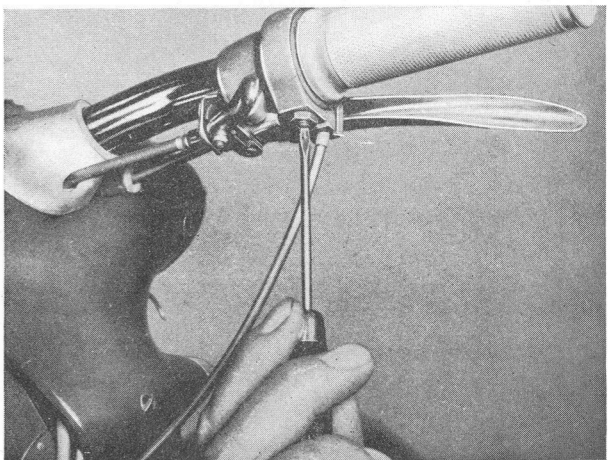


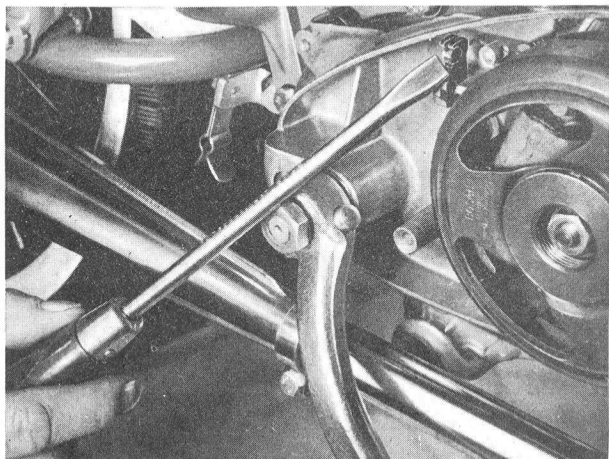
F 53 THROTTLE CABLE - removal and fitting

Illustration No: 16

1. Remove carburettor top and disconnect cable from the throttle slide. Disengage twistgrip, loosen lock nut.
Unscrew the slotted screw on the body of the twistgrip. Withdraw the complete twistgrip from the handlebars, and disconnect the cable from the twistgrip. Slightly loosen the fuel tank mountings and slip the cable out underneath the rubber tank pads.
2. Assemble in the reverse order. Grease the cable housing.
Tighten slotted screw for cable. Lock throttle grip stop. Screw with nut.

16



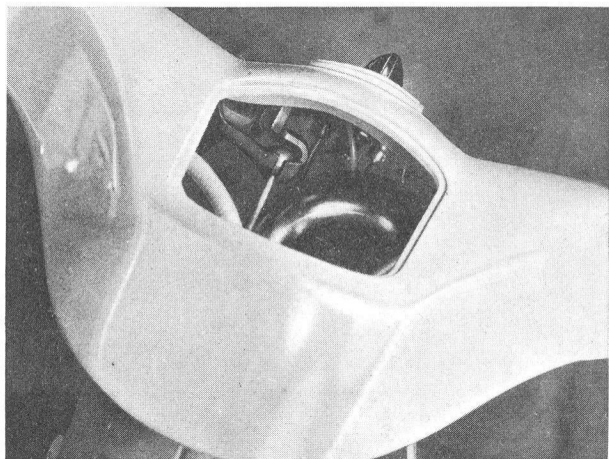


17

F 54 GEARCHANGE CABLE - removal and fitting
(2 gear engine)

Illustration No: 17

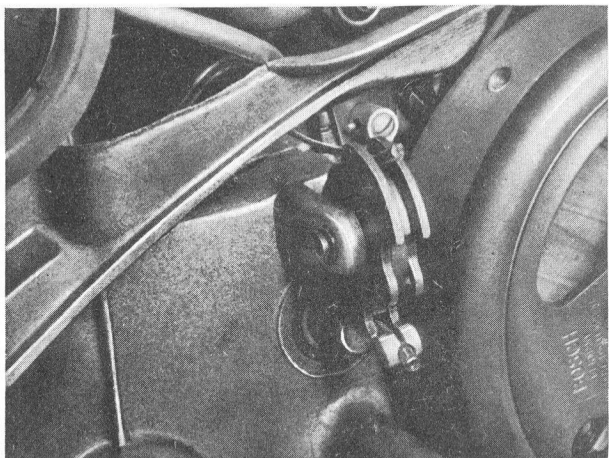
1. Remove the cover on the right hand side of the engine. Select 2nd gear and disconnect the nipple.



18

Illustration No: 18

- Remove headlamp rim (E 13, page 40)
Remove speedometer (F 42, page 33)
2. Disconnect cable from the gearchange lever, page 18. Exchange the cable (Quickly N and S, F 50, page 24) Adjust the gears (Quickly N and S, 2 gear engine, F 54, page 25)
3. Assemble in the reverse order.



19

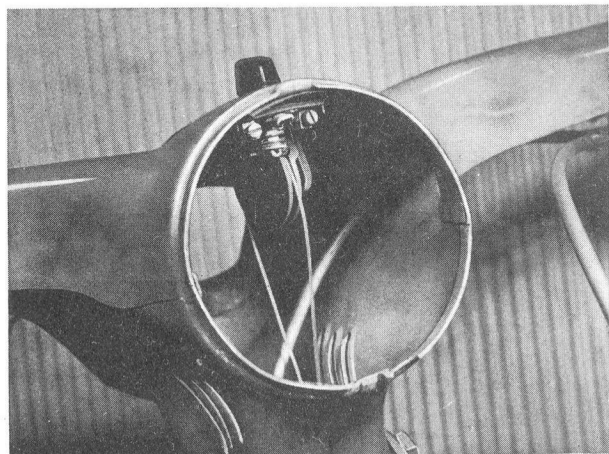
F 54 GEARCHANGE CABLE - removal and fitting
(3 gear engine)

Illustration No: 19

1. Remove the cover on the right hand side of the engine, remove carburettor. Select third gear. Screw the cable adjusting screw in completely, in order to disconnect the nipples. Remove the cap from the selector plate (engine) and disconnect both nipples.

ATTENTION:

Removal and replacement of the cables.
(Quickly N and S, F 50, page 24).



20

Illustration No: 20

2. Assembly:
The adjusting screw on the side of the cable marked with a groove or a red line must be fitted in the headlamp rear and at the selector plate (engine) top. The lower cable must be sealed in the housing with a rubber sleeve. Adjust the gears. Select 2nd gear at the twist grip and in the engine. Remove the play of the cables equally with the aid of adjusting screws. Try all the gears in turn and adjust the control system by means of the adjuster. It is best to do this in the headlamp.

ATTENTION:

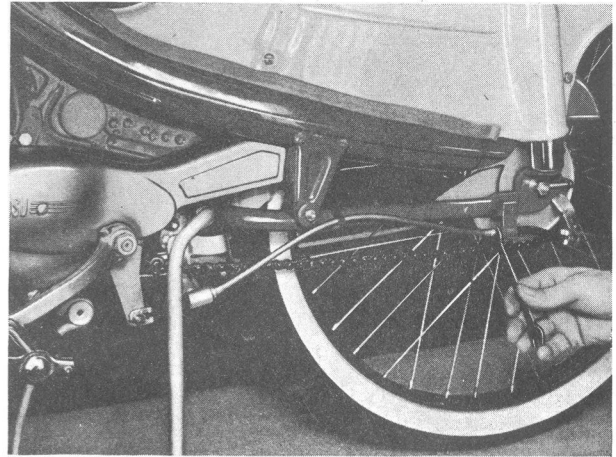
If adjusted too tight, the gears cannot be changed easily.

F 56 REAR BRAKE CABLE - removal and fitting

Illustration No: 21

1. Remove the locking spring, take off the washers and clevis pin.
Unscrew the lock nut and unscrew the adjuster.
Remove the cable clip and withdraw the cable.
2. Assemble in the reverse order. Make sure the cable is correctly adjusted

21

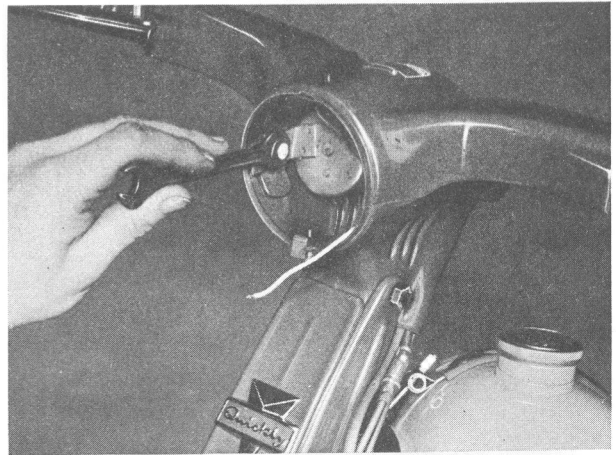


F 57 BELL CABLE - removal and fitting (when fitted)

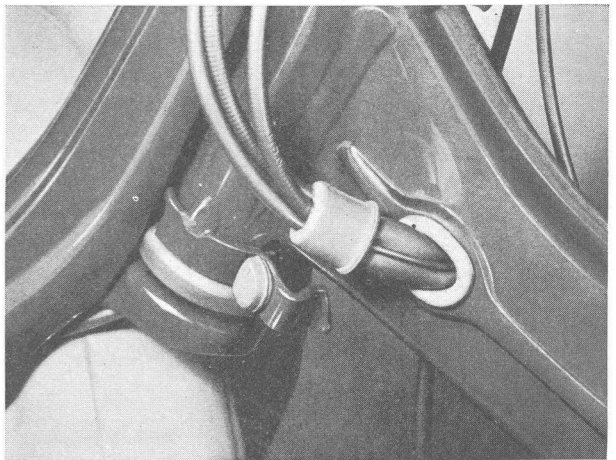
Illustration No: 22

1. Remove headlamp rim (E 13, page 40)
Loosen screw nipple from the handlebar lever.
Screw the bell off and withdraw it with the cable.
2. Assemble in the reverse order.

22



23



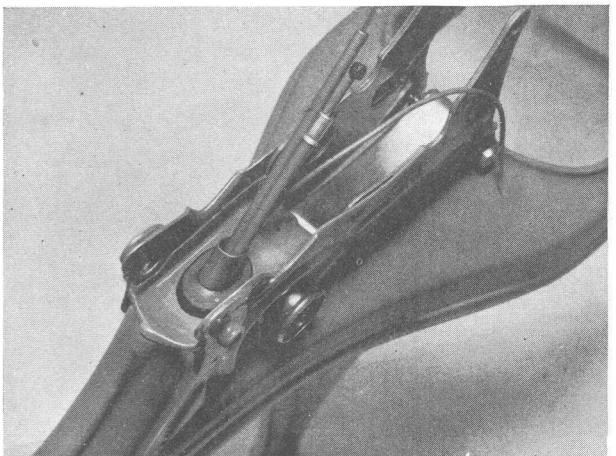
FRAME

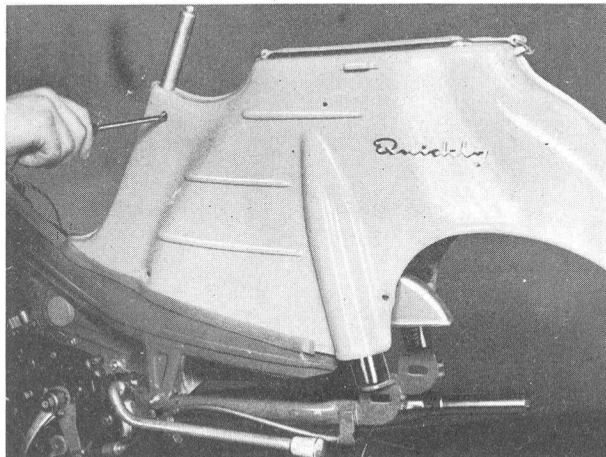
F 60 FRAME - removal and fitting

Illustration Nos. 23 and 24

1. Remove front forks (F 20, page 34)
Remove cables (F 50, F 51, F 54, pages 35-37)
Remove fuel tank (Quickly N and S, F 80, page 27)
Remove rear mudguard (F 62, page 38)
Remove rear wheel (E 02, page 20)
Remove engine (M 01, page 32)
Remove rear suspension swinging arm (F 63, page 38)
2. Assemble in the reverse order.
Fit all the Bowden cables and the electric wiring harness to the frame before fitting the engine.

24





25

F 62 REAR MUDGUARD - removal and fitting

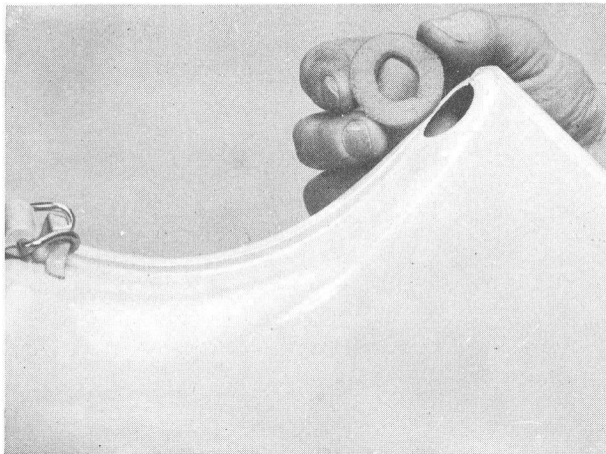
Illustration No: 25

1. Remove rear wheel (F 02, page 32)
Remove pivoted saddle (F 12, page 27)
Remove rear light, (E 09, page 40)

Withdraw the rear light lead through the location points.

Remove the blanking plug on the upper left hand side and withdraw the slotted screw.

Unscrew four screws and lift the complete rear frame member off, with its moulding strip, clips, spaces, and seals.



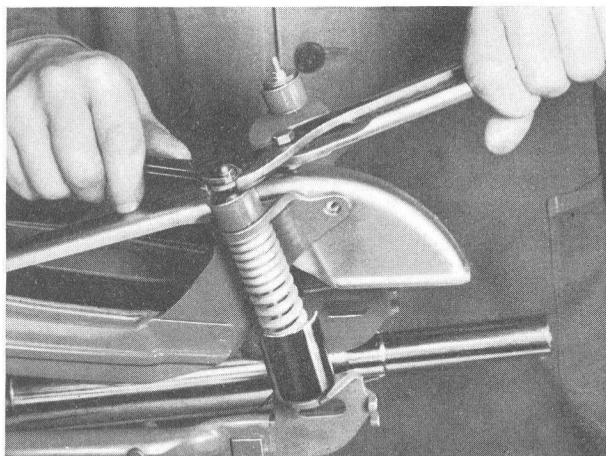
26

Illustration No: 26

2. Assemble in the reverse order.
Insert the seal above the retaining clip before placing the latter on to the frame.
Finally tighten the top slotted screw.

ATTENTION:

To remove and fit the stays of the luggage carrier remove the rear wheel and unscrew the stays at the inside of the rear mudguard.



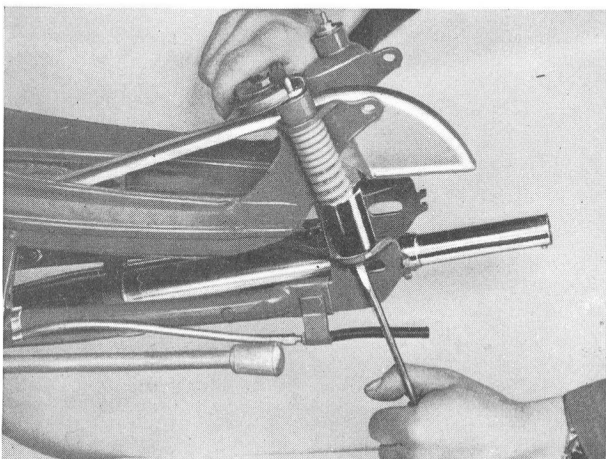
27

F 63 REAR SUSPENSION SWINGING ARM

Removal and fitting

Illustration No: 27

Remove rear frame member (F 62, above).
Unscrew lock nuts, holding the threaded disc in place.
Twist the retaining arm out with a screw driver.
Push the swinging arm down and remove the springs, spring caps and shock absorbers.



28

Illustration No: 28

Withdraw the lock washers and remove the distance bushes, spring washers, sliders and retaining rods.

Unscrew the Bowden cable adjuster and lock nut.
Unscrew the self-locking nuts on the inside of the swinging arm and the bearing belt.

Remove the swinging arm with its inner and outer shims.

Illustration No: 29

2. Assembly: Stick the outer and inner shims to the bearing brackets with grease. Place swinging arm into position, grease the bearing bolts and replace them with the aid of a drift (11 91 00 921). Tighten up the self-locking nuts.

Insert the retaining rod and the slider with graphite from the bottom. Slide the distance bush and spring washer over the end of the swinging arm and lock. Fit the spring caps with the end hole facing forward. Insert the springs, push the shock absorbers into position, lift the swinging arm and screw the threaded discs in until there is a clearance of 4.11/64" (106 mm) between the swinging arm and the frame on both sides. Lock the threaded discs and the nuts.

Illustration No: 30

3. Carry out the remaining assembly in the reverse order to dismantling.

ATTENTION:

To remove the rear suspension units it is not necessary to remove the rear suspension swinging arm.

Renew springs only in matching pairs, making special note of the colour code.

F 72 PIVOTED SADDLE - removal and fitting

(See Quickly N and S, F 72, page 27)

F 73 PROP STAND - removal and fitting

1. Place the machine on to its centre stand. Remove the chain cover (left hand side of the engine). Disconnect the rear brake cable. Remove the prop stand.

Illustration No: 31

2. Assemble in the reverse order.

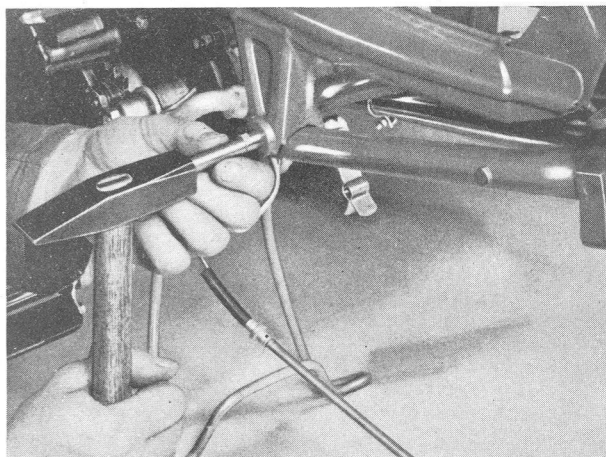
F 80 FUEL TANK - removal and fitting

(See Quickly N and S, page 27)

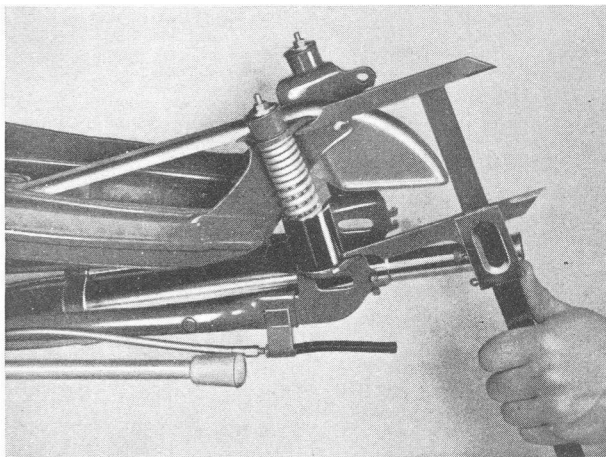
F 84 BELL - removal and fitting (when fitted)Illustration No: 32

1. Remove headlamp unit (E 13, page 40)
Loosen the screwed nipple on the handlebars.
Remove the bell and its pull wire
2. Assemble in the reverse order.

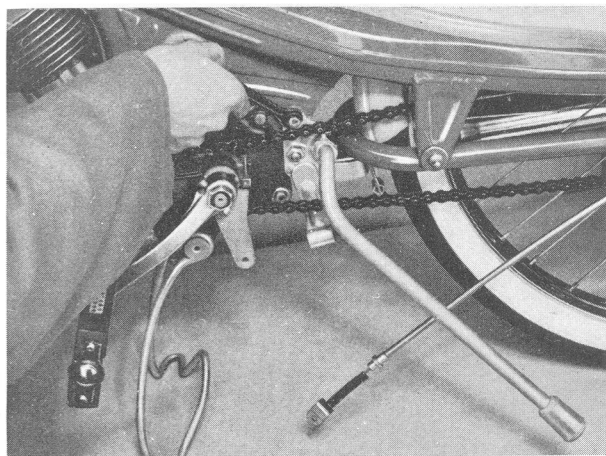
29



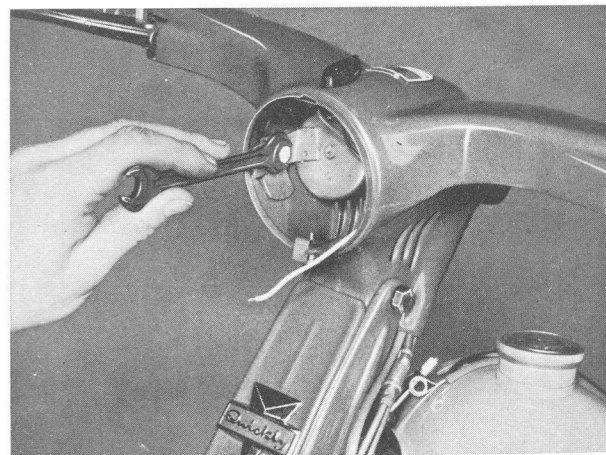
30

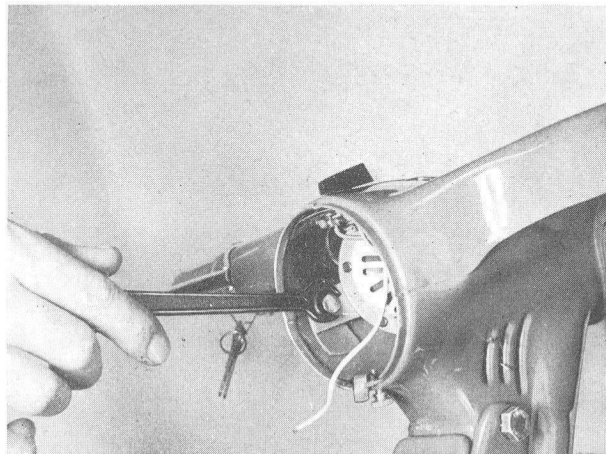


31

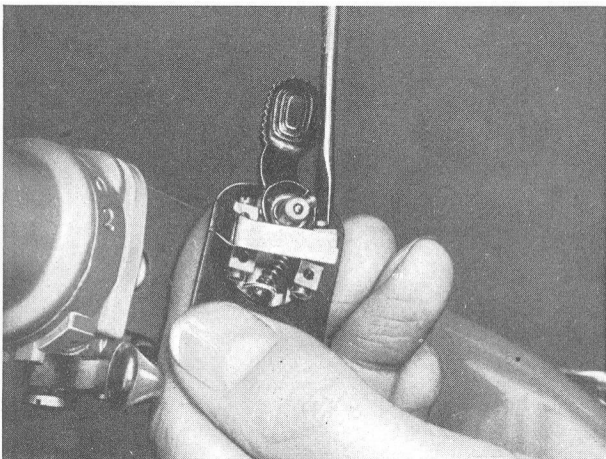


32

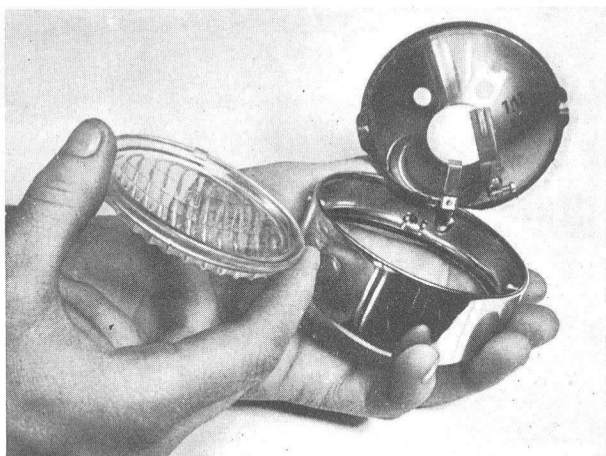




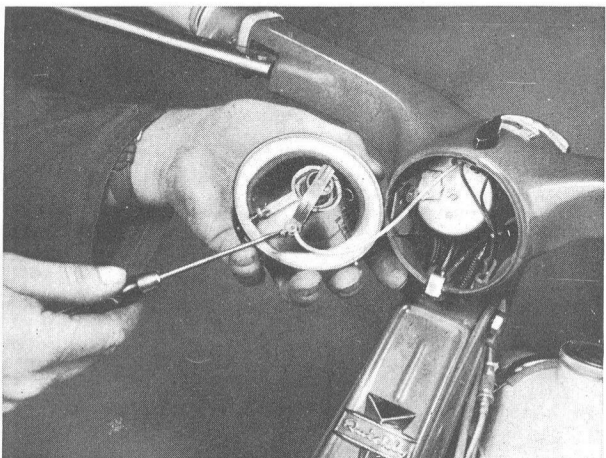
33



34



35



36

ELECTRICAL SYSTEM

E 02 REAR LIGHT CABLE - removal and fitting
(Quickly N and S, E 02 - page 28)

E 04 LIGHTING LEADS - removal and fitting
(Quickly N and S, E 04, page 28)

WIRING DIAGRAM
(Quickly N and S, page 35)

E 08 HORN - removal and fitting (export model)

Illustration No: 33

1. Remove headlamp rim (E 13, below)
Disconnect the lead and remove the horn.
2. Assemble in the reverse order.

E 09 REAR LIGHT - removal and fitting
(See Quickly N and S, E 09 - page 28)

E 10 DIPSWITCH - removal and fitting (export model)

Illustration No: 34

1. Remove dipswitch, push the distance ring out with a small screw driver and withdraw switch, terminal plate and horn button from the housing. Disconnect leads, taking care to mark them.
2. Assemble in the reverse order (refer to the wiring diagram).

E 12 HEADLAMP GLASS AND REFLECTOR
Removal and fitting

Illustration No: 35

1. Remove headlamp unit (E 13, below)
Move the terminal over to one side and remove the bulb. Disconnect the adjusting screw and remove the compression spring, washer, earth terminal and nut. Remove both retaining springs from the headlamp glass and withdraw sealing ring.
2. Assemble in the reverse order. The projecting part of the headlamp faces downwards. Set the reflector by means of the adjusting screw.

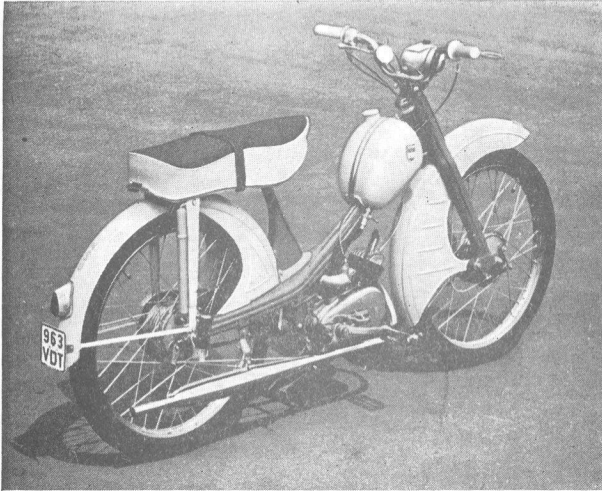
E 13 HEADLAMP UNIT - removal and fitting

Illustration No: 36

1. Remove the knurled screw on the bottom of the headlamp unit, remove the unit and disconnect the leads.
2. Assemble in the reverse order. Set the reflector.

QUICKLY S2SUPPLEMENT FOR MAINTENANCE MANUALQUICKLY N, S, L, CAVALLINOT and TTTECHNICAL DATA QUICKLY S2

ENGINE	See technical data engine.	
Output	2 b. h. p.	
GEARING		
Engine - gearbox	5.33 : 1	
Gearbox ratios 1st gear	2.44 : 1	
2nd gear	1.563 : 1	
3rd gear	1 : 1	
Ratio gearbox		
rear wheel	3.16 : 1	
Overall ratio 1st gear	41.1 : 1	
2nd gear	26.4 : 1	
3rd gear	16.84 : 1	
FUEL SYSTEM		
Fuel tank capacity	4.4 Liter = approx 1 gallon	
With reserve supply	0.4 Liter = approx $\frac{1}{4}$ pint	
Carburettor type Bing	1/12/127	
Main jet	66	
Needle jet	2.12	
Needle position	2	
Air cleaner	wet air filter in frame	
WHEELS AND BRAKES	Front	Rear
Rims	25 x 2.25	25 x 2.25
Tyre size	25 x 2.25	25 x 2.25
Tyre pressure	1 - 1.2 atu (15-18 lbs sq" Solo - 2.25 atu (32 lbs sq") Two up - 2.50 atu (36 lbs sq"))	
Front wheel right and left	3.5 mm	299 mm long
Rear wheel right and left	3.5 mm	299 mm long
Leading dimension for spoking up wheels		
From outer edge of brake drum to edge of rim	12.5 mm	
Rear wheel		
From outer edge of brake drum to edge of rim	18.5 mm	
Front brake	internal expanding brake	
Rear brake	internal expanding brake	
Brake operating	Front: by hand Rear: by foot	
OTHER DATA		
Maximum height	960 mm	Weight unladen approx 110 lbs
Overall length	1895 mm	Permissible load 480 lbs
Maximum width	642 mm	

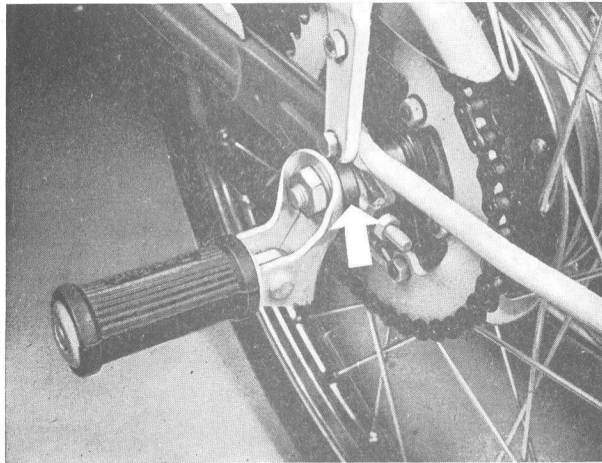


1

Illustration no: 1

To use the hitherto existing Quickly S for 2 persons stronger wheels have been assembled.

A dual seat has also been fitted.



2

Illustration No: 2

SERVICE INFORMATION

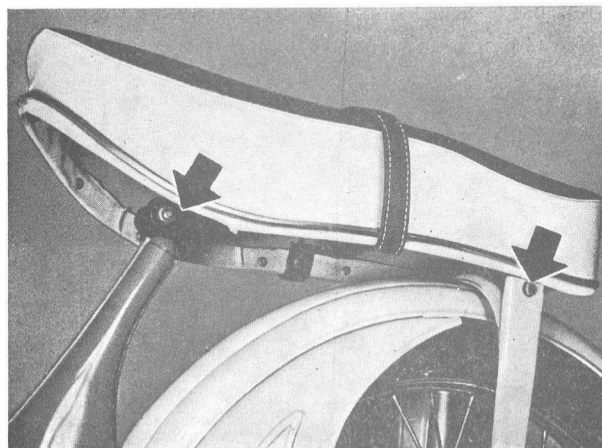
All repairs mentioned here refer to Quickly N and S.

F 02 REAR WHEEL - removal and fitting

When fitting the spindle also fit the footrests for passenger.

Note distance spacer.

Assemble according to N and S, page 25.



3

Illustration No: 3

F 11 FRONT WHEEL - dismantling and assembly

As Quickly T, pages 63-64.

F 12 REAR WHEEL - dismantling and assembly

As Quickly T, pages 64-65.

F 72 DUAL SEAT - removal and fitting

1. Loosen front and rear Mountings and remove dual seat.

2. Assemble in reverse order.