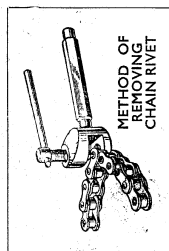
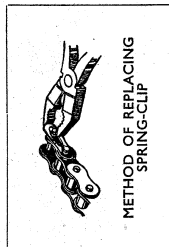




If chain has an odd number of pitches, remove rivets holding the second pair of outer links (see A) (first pair will be cranked) and replace with single connecting link and inner link (B).



CHAIN COMPONENTS



CRANKED DOUBLE LINK



INNER LINK



CONNECTING LINK

FITTING A NEW REAR CHAIN. To simplify the task of fitting a new rear chain, disconnect the old chain at the rear wheel sprocket by removing the single connecting spring link. Connect old chain to new chain, when pulling the bottom run of the old chain, the new chain can easily be carried round the gearbox sprocket, whereupon the old chain is disconnected and the ends of the new one connected together. Care should be taken when fitting a new chain to keep it from contact with the floor or any place where it is likely to collect grit, etc.

REPLACEMENT CHAINS. After considerable mileage, chains will require replacing owing to wear and stretch. These can be purchased either from your motor cycle dealer or from the factory.

Primary chain : Renold No. 54130, 58 links, $\frac{3}{8}$ " pitch, $\frac{1}{4}$ " roller, .225" wide, pre-stretched.
Rear chain : Renold 004869, 118 links, $\frac{1}{2}$ " pitch, .335" roller, .205" wide.

Power Unit

150 MODEL 15T TWO STROKE ENGINE AND 3 SPEED GEARBOX.

Noted for its almost unfailing reliability and its appetite for hard work, the 149 cc. 15T two-stroke engine is a highly efficient power unit which, provided it is thoughtfully maintained and lubricated, will give years of service without requiring any major replacements. By virtue of its simplicity, it is cheap and easy to maintain and even owners with no previous motor cycling experience can confidently tackle normal adjustments, maintenance and minor repairs. In the case of major repairs, should they ever arise, we strongly advise the amateur mechanic to entrust the job to a qualified motor cycle repairer.

OPERATION OF TWO-STROKE ENGINE. In the cylinder walls are arranged four holes or ports, viz.: one inlet port which permits the air fuel mixture to enter the crankcase, two transfer ports which, through passages in the sides of the cylinder, are in communication with the crankcase, and one exhaust port through which the burned charge is allowed to escape. Movement of the piston in a vertical direction is arranged to cover and uncover the ports at suitable times so that the mixture is first drawn from the carburettor through the inlet port into the crankcase. There it is compressed and then forced through the transfer passage into the cylinder above the piston, where it is further compressed. It is then ignited by a spark from the plug, and after expansion due to heat, escapes through the exhaust port into the exhaust pipe and silencer.

ENGINE ASSEMBLY COMPONENTS

1. Clutch spring stud.
2. Clutch spring cup.
3. Clutch spring.
4. Clutch spring adjuster nut.
5. Clutch back plate nut.
6. Clutch back plate.
7. Clutch sprocket.
8. Clutch roller cage.
9. Clutch roller bearings.
10. Clutch race plate.
11. Clutch centre.
12. Clutch friction plate.
13. Clutch plain plate.
14. Clutch friction plate front.
15. Clutch pressure plate.
16. Gearbox and chaincase paper washer.
17. Gearbox and chaincase inner assembly.
18. Front chain cover seal.
19. Primary chain.
20. Front chain cover.
21. Chain cover nut (trapped).
22. Chain cover washer.
23. Chain cover screw.
24. Cylinder head gasket.
25. Cylinder base gasket.
26. Sparking plug.
27. Cylinder head bolt.
28. Cylinder head.
29. Cylinder head stud.
30. Cylinder head steel washer.
31. Cylinder barrel.
32. Engine sprocket.
33. Engine sprocket nut.
34. Chaincase inner gasket.
35. Shim, engine sprocket.
36. Crankcase drive side oil seal.
37. Engine sprocket spacer.
38. Crankshaft bearing locating circlip.
39. Bearing spacer.
40. Inner chaincase fixing washer.
41. Crankcase left hand.
42. Crankshaft drive side.
43. Crankshaft timing side.
44. Generator rotor key.
45. Crankcase stud 4 $\frac{1}{2}$ ".
46. Crankcase stud 3 $\frac{1}{2}$ ".
47. Washer crankcase stud.
48. Nut crankcase stud.
49. Cylinder base nut.
50. Cylinder base washer.
51. Timing side roller bearing.
52. Timing side oil seal.
53. Generator spacer.
54. Generator shroud.
55. Generator-studded nut washer.
56. Generator rotor washer.
57. Generator rotor nut.
58. Generator cover.
59. Foot change pedal rubber.