Working Instructions for

BAMFORD BL59 & SUPER 59 BALERS

This Instruction Manual contains information regarding preparation before use, operation and maintenance of the BL59 and 'Super 59' Balers. Before attempting any work on or with the baler, study the manual carefully and follow the instructions. In this way you can become familiar with it and a big step nearer to securing the best possible performance and service from the machine. Make sure that this Manual is readily available for reference at all times.

Your Bamford Dealer will give you general operation instructions and will also deal with any queries you may have.

Be sure to demand genuine Bamford Spare Parts whenever these are required for repairs or replacements.

The terms "right" and "left" used in this Manual indicate the position when facing in the direction of travel. In all communications please quote serial number of Baler (to be found on the plate fixed on the side of the bale chamber.)
Unified bolts, screws and nuts with either UNC (Coarse) or UNF (Fine) threads are used throughout this baler.

By Appointment to H.M. The Queen
Manufacturers of Farm Machinery and Engines

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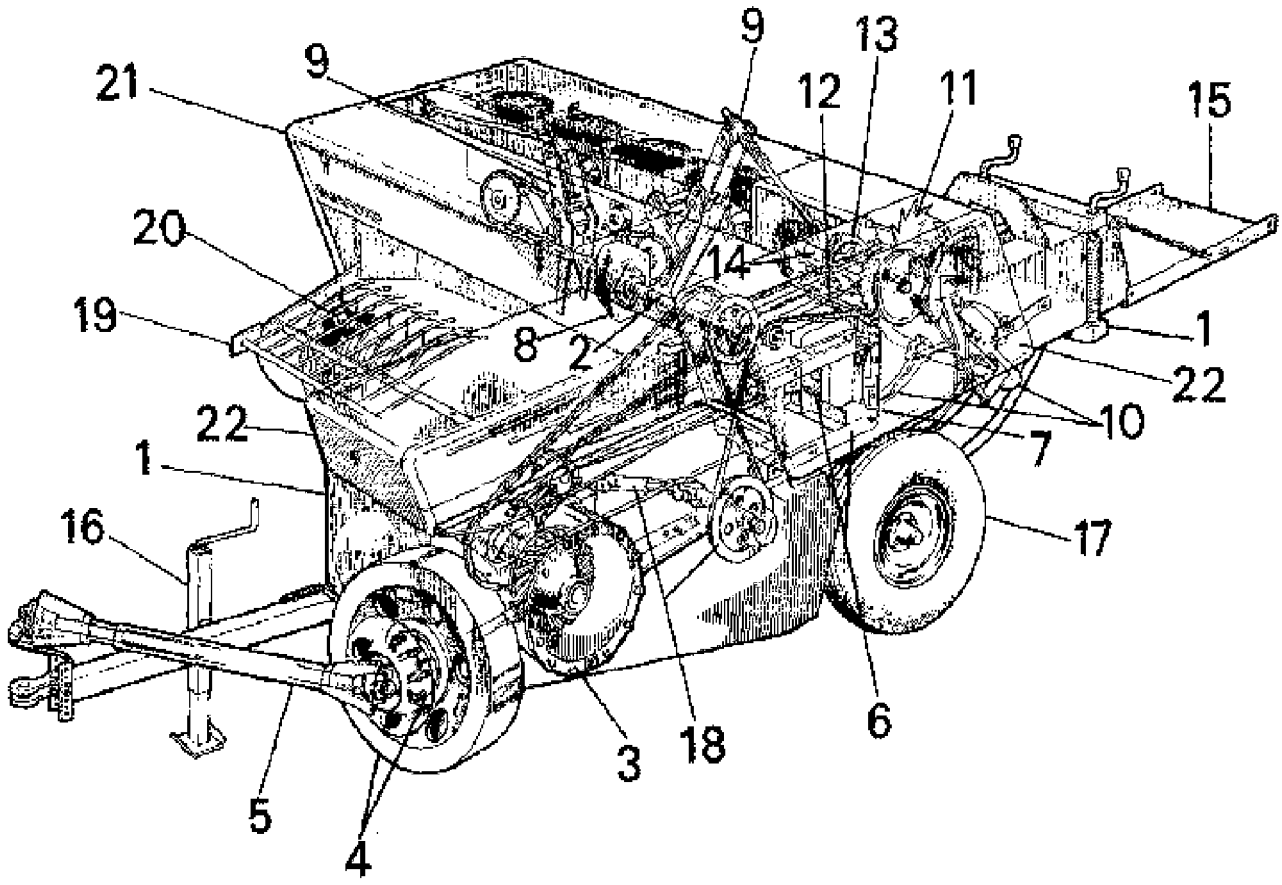


1. Bale chamber and bale tension device.
2. Main drive cross shaft.
3. Gear box.
4. Flywheel and friction clutch; p.t.o. drive over-running free wheel clutch.
5. P.t.o. drive shaft.
6. Connecting rod and plunger.
7. Bottom dog assembly.
8. Feed fork drive gear box.
9. Feed and packer forks.
10. Needles and needle yoke.
11. Metering wheel for bale lengths.
12. Twine fingers and tracer shaft.
13. Knotter shaft assembly.
14. Twine knotters.
15. Tailgate.
16. Jack and hitch.
17. Road wheels and main axle.
18. Pick-up drive shaft, pulley etc.
19. Pick-up cylinder and crop retainer.
20. Pick-up tine bars.
21. Feed housing.
22. Safety guards.

IMPORTANT

The terms 'right' and 'left' used in this Manual indicate the position when facing in the direction of baler travel. In all communications please quote serial number, in full, of baler (to be found on the plate fixed on the left hand side of the bale chamber).

INDEX

REPLACING PICK-UP TINES

Double tines (A,Fig.18) are fitted to the angle type tine bars (B,Fig.18) and these tines can be replaced in a very simple manner in the event of damage. The tines are secured to the tine bar (B,Fig.18) by a clamp (C,Fig.18) and a bolt, nut and spring washer (D,Fig.18). To remove and fit a new tine, first take off the pick-up stripper band (E,Fig. 18) covering the damaged tine, by removing the bolts, nuts and spring washers (F,Fig.18) securing the stripper band to the top channel frame (G,Fig.18) and a similar pair of bolts, etc. on the bottom channel frame. The stripper can now be lifted off and the tine replaced with ease, without disturbing the remainder of the pick-up assembly. The stripper band should of course be refitted in its original position.

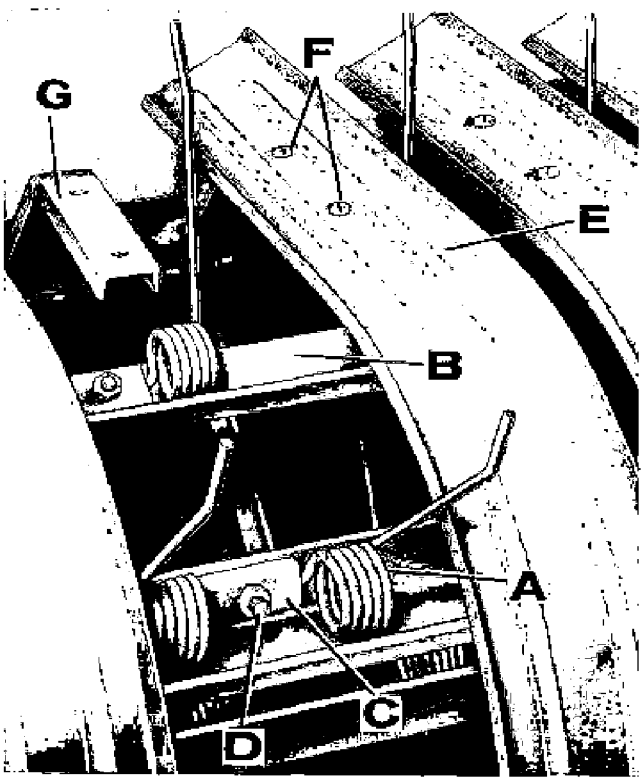
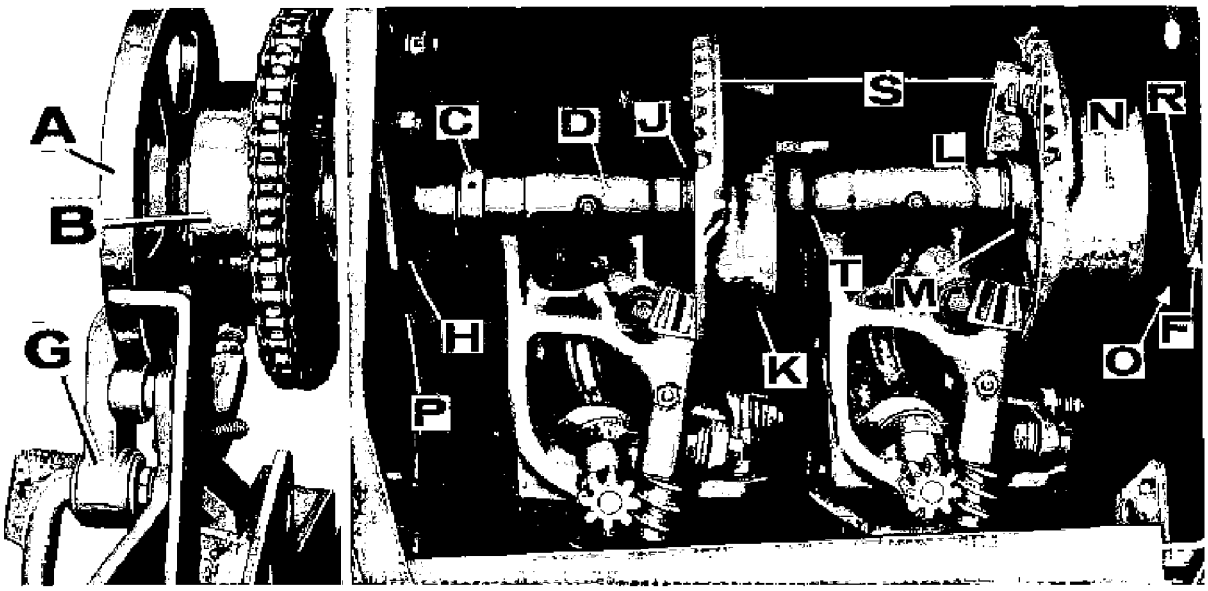


Fig.18. Removing and replacing pick-up tines

Knotter Adjustments



Figs.44/44a. Re-assembling the knotters.

RE-ASSEMBLY OF THE KNOTTERS

If it is necessary to remove the knotters from the knotter shaft for any reason, it is most important to identify the 2 knotters as to which is left and right so that they can be re-assembled in their original positions. The following procedure should be followed when re-assembling.

1. Make sure that the knotter shaft is perfectly straight and true.
2. Carefully examine all knotter components, and replace any parts which show that they are excessively worn. Pay particular attention to all keyways and keys.
3. All parts, including spacing washers, etc. should be re-assembled in their original positions, the only exception being any new components being fitted for the first time.
4. Adjust the slotted nut (F,Fig.44) on the right hand end of the knotter shaft so that the cotter can be inserted.
5. The right hand side flanged bearing (O,Fig.44) is provided with a collar which has an eccentric boss which fits into a similar eccentric shaped recess in the flanged bearing. Fit collar,bearing and bearing plate (R,Fig.44) together and thread on to the knotter shaft with the collar to the right hand or outside, as illustrated. Leave slack at this stage, also do not tighten up the grub screw in the collar until later.
6. Add one 21swg (·032") spacing shim on the shaft (outside the knotter cam gear).
7. Next fit the right hand cam gear (N, Fig.44) on to the woodruff key on knotter shaft.
8. Fit right hand knotter (L,Fig.44) adding shim or shims (M,Fig.44) between the knotter and cam gear until the bill hook pinion is mating with the cam face and the worm drive pinion is approx. .015" clear. Make sure that the two gears will revolve correctly in the cam.
9. Fit left hand cam gear (K,Fig.44) on to woodruff key on knotter shaft, making sure that the distance between the machined surfaces (S,Fig.44) on this and the right hand cam gears is 7½" (19,1cm). Note that no more than 1/64" (0,4mm) tolerance should be allowed. This distance is obtained by the addition or removal of spacing washers between left hand cam gear and right hand knotter frame (see T,Fig.44).