

LOGMATE

Operation & Spares manual



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INTRODUCTION

Read this manual before fitting or operating the machine. Whenever any doubt exists contact your dealer or the McConnel Service Department for assistance.

Use only McConnel spare parts on McConnel equipment and machines. This manual includes an illustrated spare parts breakdown and the interpretation which precedes it should be read before ordering replacement components.

DEFINITIONS

The following definitions apply throughout this manual:-

WARNING

An operating procedure, technique etc., which can result in personal injury or loss of life if not observed carefully.

CAUTION: An operating procedure, technique etc., which can result in the damage of either machine or equipment if not observed carefully.

NOTE: An operating procedure, technique etc., which is considered essential to emphasise.

Left and Right-Hand

This term is applicable to the machine when viewed from the operator's working position.

In or Out

These terms 'in or out' refer to whether the table is pushed in towards the blade or pulled out away from it.

Record the serial number of your machine on this page and always quote this number when ordering spares. Whenever information concerning the machine is requested remember to also state the type of tractor to which it is fitted.

MACHINE
SERIAL
NUMBER

INSTALLATION
DATE

MODEL
DETAILS

DEALERS
NAME

DEALERS
TELEPHONE
NUMBER

SECTION I



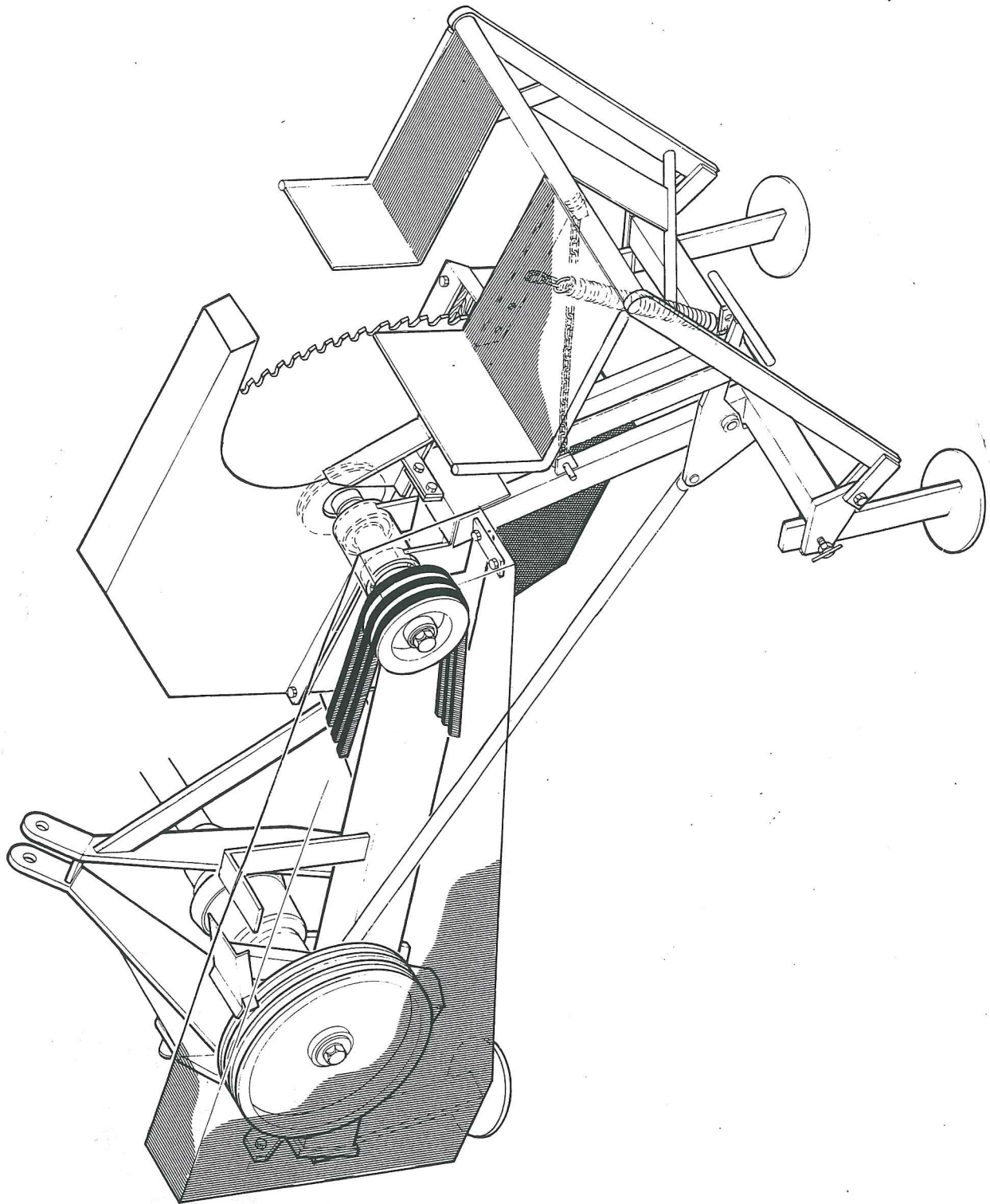
WARNING

SAFETY PRECAUTIONS

- NEVER
- Allow inexperienced personnel to operate the machine without supervision.
 - Operate the machine without all safety guards fitted securely in position.
 - Use a cracked or distorted blade.
 - Make any adjustments to machine without stopping the tractor engine and disengaging the PTO shaft.
 - Never stop the saw with the safety pedal except in an emergency.
 - Stop the tractor engine with the PTO in gear.
 - Wear loose or flapping clothing, neckties, belts etc.

- ALWAYS
- Disengage the PTO when machine is left unattended.
 - Keep blades sharp and correctly set for the type of timber being cut.
 - Check timber for any metalwork e.g. nails, barbed wire etc., and clean off any mud and stones before cutting.
 - Clear the area around the operator's feet of anything that may cause him to trip or stumble.
 - Secure saw in transport position before travelling on the highway.

GENERAL VIEW



SECTION 2 FITTING

Check that your machine is complete and undamaged.

1. TRACTOR PREPARATION

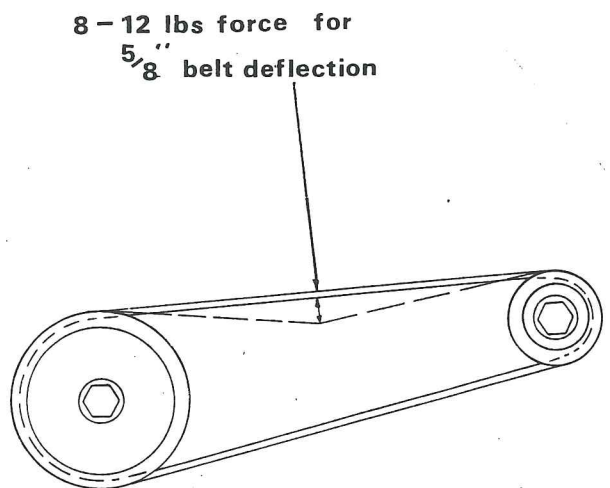
Ensure that the drop arms of the hydraulic lift are set in a fixed position and not in a 'floating position'. This will not apply to some tractors where fixed positions only are obtainable.

2. ATTACHMENT

- i) Stop tractor and disengage P.T.O.
- ii) Attach the tractor lower linkage arms to the attachment pins.
Cat. 1 on the inside Cat. 2 on the outside.
- iii) Fit the PTO drive shaft to the tractor.
On smaller tractors with shorter lift arms the PTO shaft may have to be shortened, equal amounts being cut off both sections.
- iv) Attach the tractor adjustable top link,

3. SAWBENCH PREPARATION

- i) Tension the belts by removing the belt guard and unscrewing the tensioning bolt which is located on the side of the emergency brake arm. The belts must be tightened until it requires a force of 8 - 12 lbs (3.5 - 5.5 kg) to deflect each belt $\frac{5}{8}$ " (16 mm) at the centre of the span. To allow for initial stretch in new belts check tension after first few hours use.



- ii) Machine table is secured by pushing in the table and putting a link of the check chain over the chain anchor pin and securing with split pin.
- iii) Raise machine on tractor linkage.
- iv) Fully raise the legs and lock in position.
- v) Adjust stabilizer chains on tractor linkage to prevent sideways.

The Sawbench is now ready to be transported to the work-site.

SECTION 3

OPERATION

IMPORTANT

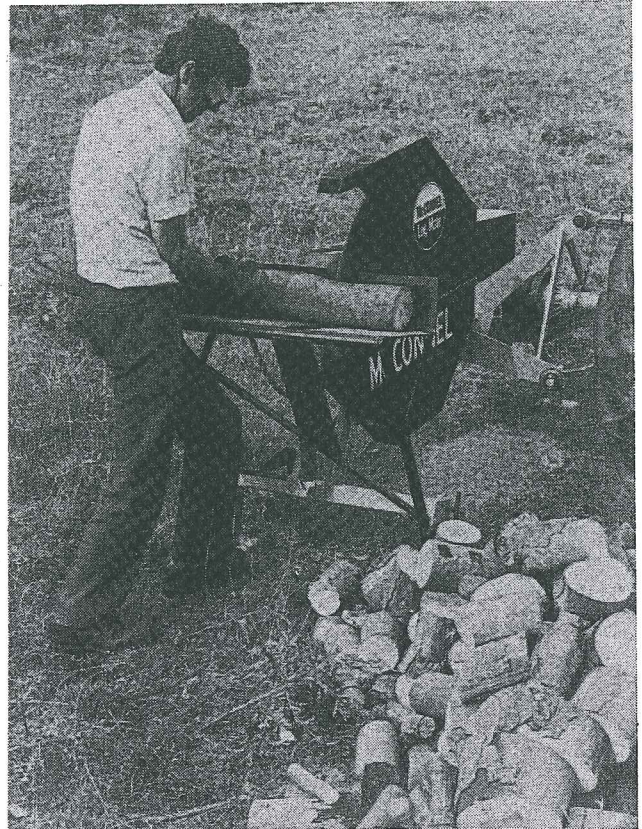
Your attention is drawn to the following information:-

The standard saw guard meets the requirements of paragraph 5 of Part 1 of the First Schedule of the Agriculture (Circular Saws) Regulations 1959 for use on agricultural and forestry undertakings.

The Logmate sawbench can be used to cross cut up to a diameter of 12" (300mm) allowing for a minimum clearance under the top saw guard on logs, poles, gate-posts etc. For long or heavy material two operators will be required.

Clothing

The operator and any assistant should always wear protective eye goggles, stout shoes or boots and take care to avoid loose and flapping clothing that may become entangled in the sawblade.



Preparation

Lower the sawbench on the three point linkage to a convenient working height. Check the saw is level, if not, correct by adjusting the tractor top link. Lower the support legs to the ground and secure tightly.

Release the table stop chain from its shortened position looped around the transport pin.

Adjust the tension of the table return assistor spring to suit individual operator preference.

Clean the area under the operators feet of anything that may cause him to trip or stumble.

Check that the blade is sharp and free from cracks.

Work.

Start the saw by engaging P.T.O. and easing in the clutch.

Tractor P.T.O. speed should be sufficient to enable the saw to cut the material without loss of speed or stalling. Maximum permitted P.T.O. speed is 540rpm. This will give a saw spindle speed of 1250rpm and a cutting speed of 10,000 ft. per minute with a 30" blade.

An emergency brake pedal is fitted to the sawbench and is operated by depressing the 'T' shaped foot pedal situated over the lower cross bar between the support props. This releases tension from the belts and clamps them between two jaws thus stopping the saw blade.

CAUTION

The emergency brake should never be used as a clutch or to stop and start the machine during normal operation as it causes unnecessary belt wear.

Inspect the timber to be cut for nails, barbed wire etc., and clean off any mud and stones.

Place the log securely on the logging table in the most stable position possible. Hold the timber with the hands and push with the hips either at one side of, or directly behind the saw blade. When holding the timber, especially when working directly behind the sawblade, it is a wise precaution to keep the thumbs alongside the hands and not splayed at right angles across the line of saw cut.

Allow the table to return to the fully 'out' position before the cut material is removed and another cut is made.

Transport

When transporting the saw secure the table in the 'in' position by pushing a link of the table return stop chain over the transport pin and secure in position with a split pin. This decreases transport width and minimises risk of damage. Remember when in transport that the saw overhangs the width of the tractor.

GENERAL OPERATION

The blade must be constantly watched for signs of bluntness, cracking, or loss of tension.

Bluntness will be recognised by the timber being progressively harder to push through and in extreme cases the blade will be slowed down or even stopped.

Loss of tension is caused by operating the blade in a blunt condition causing heat to build-up and the appearance of blue or black spots. If this happens the blade will flap and wander in the timber.

Cracking may be suspected if the note of the cut suddenly alters, and may have been caused by incorrectly sharpened blades or hitting metalwork that was buried in the timber. A sound blade should ring if tapped with a piece of wood.

The blade should not be allowed to become blunt but should be sharpened lightly but frequently. In the case of loss of tension or cracking the servicing of the blade must be done by a skilled saw doctor.

If when operating a good blade still wanders in the timber the speed of feed must be reduced to give the blade more time to cut.

During operation the belts may slacken slightly causing belt slip and loss of cutting ability. They should be retightened to the same tension stated in the Fitting Section para. 3 after disengaging the PTO shaft and stopping the tractor engine.

The operator must NEVER remove the top guard to accommodate a larger piece of timber.

WARNING

Remember, by its nature, a saw is dangerous and should be treated with respect. Never rush the work, never allow yourself to become careless and always diligently follow the operating instructions.

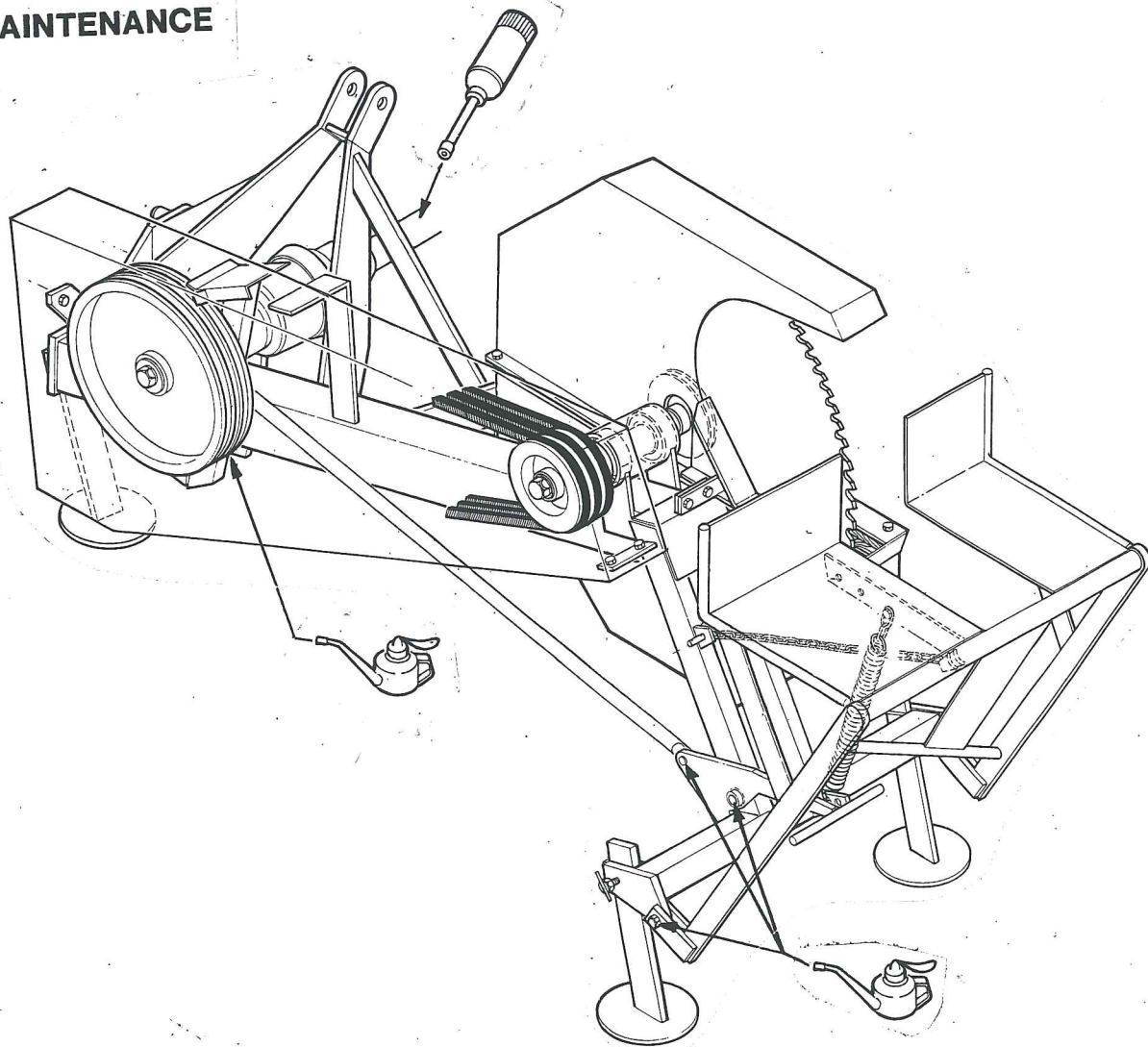
Removal of Sawblade.

Remove the top saw guard.

Release set screw and remove retaining washer and flange.

The blade may now be pulled off the spindle and lifted clear of the bottom saw guard.

SECTION 4 MAINTENANCE



Grease Daily

Greaser on driveshaft universal joints.

Oil Daily

- i) Pivots on swinging table hinges.
- ii) Hole in block on emergency brake arm.
- iii) Pivots in emergency stop pedal and linkage.

REPLACEMENT OF SAW PACKING STRIPS

The timber packing strips are situated under the base flange of the top saw guard and clamped in position by setscrew. They are to be kept adjusted close to the sawblade to prevent it contacting the guard and should be replaced immediately if there is a danger of this happening.

STORAGE

Lower the sawbench to the ground and disconnect the lower linkage arms, PTO shaft and adjustable top link. The sawbench will stand rigidly ready for use when next required.

Coat the sawblade with grease.

Grease or oil all points shown in lubrication section.

Cover table top with light coat of oil.

If left outside cover with tarpaulin.

CARE OF SAWBLADE

Care of the sawblade starts with the operator. At the first sign of inefficiency the blade should be lightly sharpened. Never continue to work the saw thus compounding the trouble. Time spent in keeping blades in top condition will rapidly repay itself.

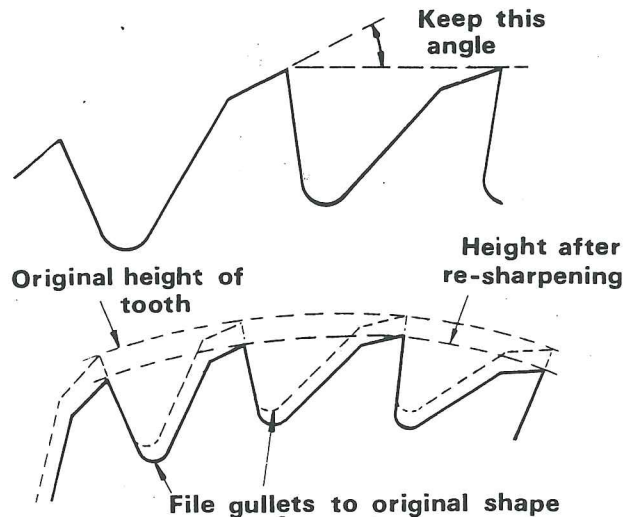
If on inspection the blade requires retensioning, is dished or cracked or needs major resharpener the servicing must be carried out by a skilled saw doctor

Re-sharpening

For optimum performance the profile of the original tooth must be maintained and all teeth must be equal in pitch, space, bevel, gullet and length.

Particular attention must be paid to the gullet radius as any sharp corners could start cracks.

The sawblade should be rotated to see if it is perfectly round, if not file down the points of any projecting teeth before sharpening.

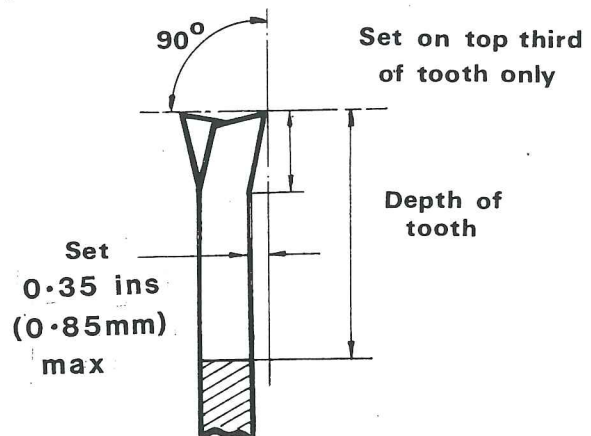


The re-sharpening is carried out with round and flat files that suit the teeth profile. The outline of the new blade should be followed and a teeth profile template can be used to check the finished work.

The standard 30" (750 mm) blade may be repeatedly re-sharpened and gulletted down to a diameter of 26" (650 mm). We do not recommend use of a blade below this diameter due to the reduction in the peripheral speed of the cutting teeth.

Set is the bending of the tips of alternate teeth to the right and left by an amount that will ensure the blade will not bind in the timber.

The amount of set must be equal on all teeth to prevent irregular wear and strain building up in the blade which could cause loss of tension or cracking. The operation is carried out with a special saw-setting tool and finished work should be checked with a 'set' gauge.

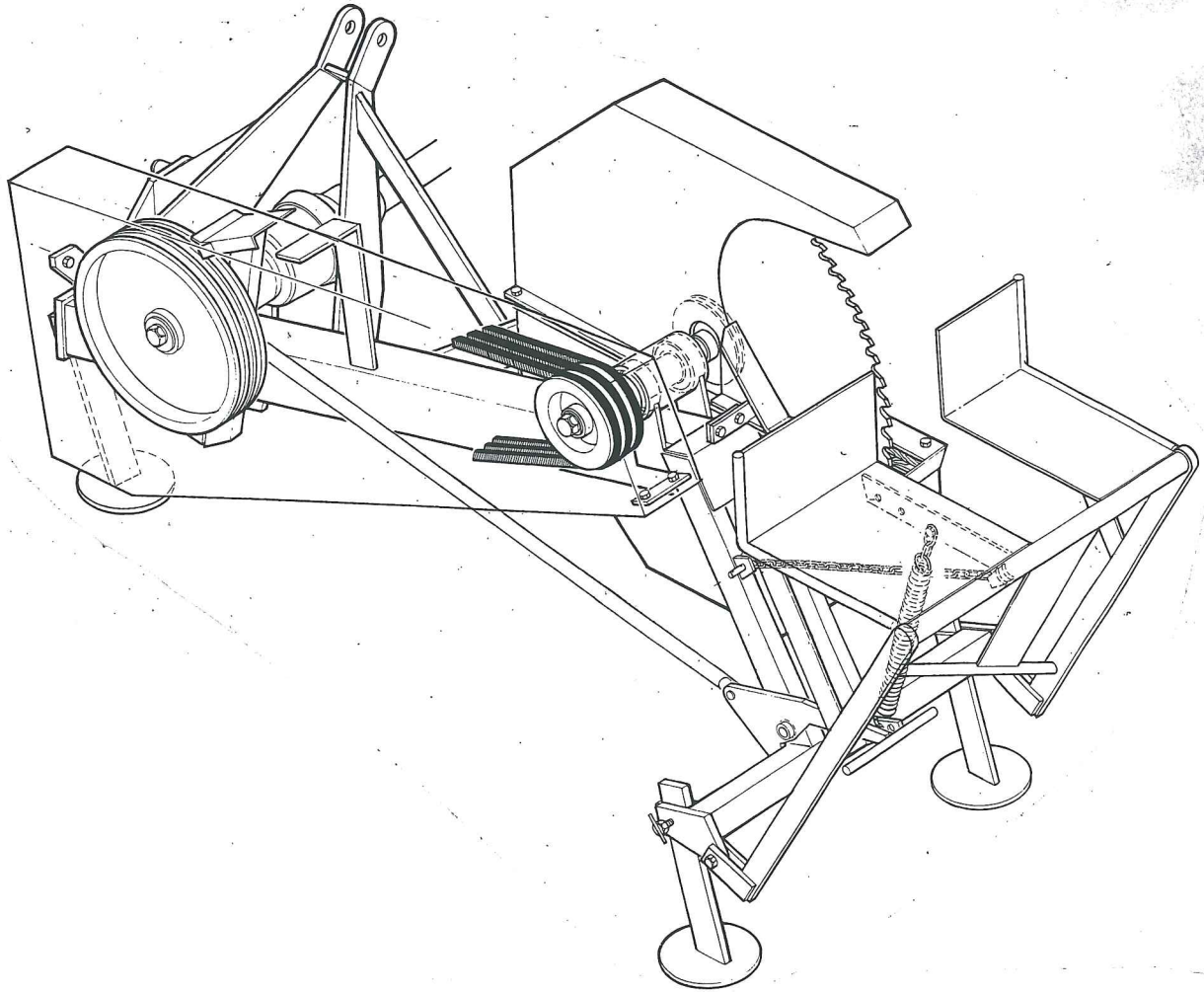


Set is shown exaggerated for clarity

The sawblade is sent out set for dry wood but for everyday farmwork e.g. logging a set of .035" (1 mm) per side is recommended).

If in doubt about the amount of set ask an experienced saw doctor to recommend a figure for your particular requirements.

SPARE PARTS MANUAL



USE ONLY McCONNEL SPARE PARTS

To be assured of the latest design improvements purchase your genuine replacements from the original equipment manufacturer F.W.McConnel Ltd. through your local dealer or stockist.

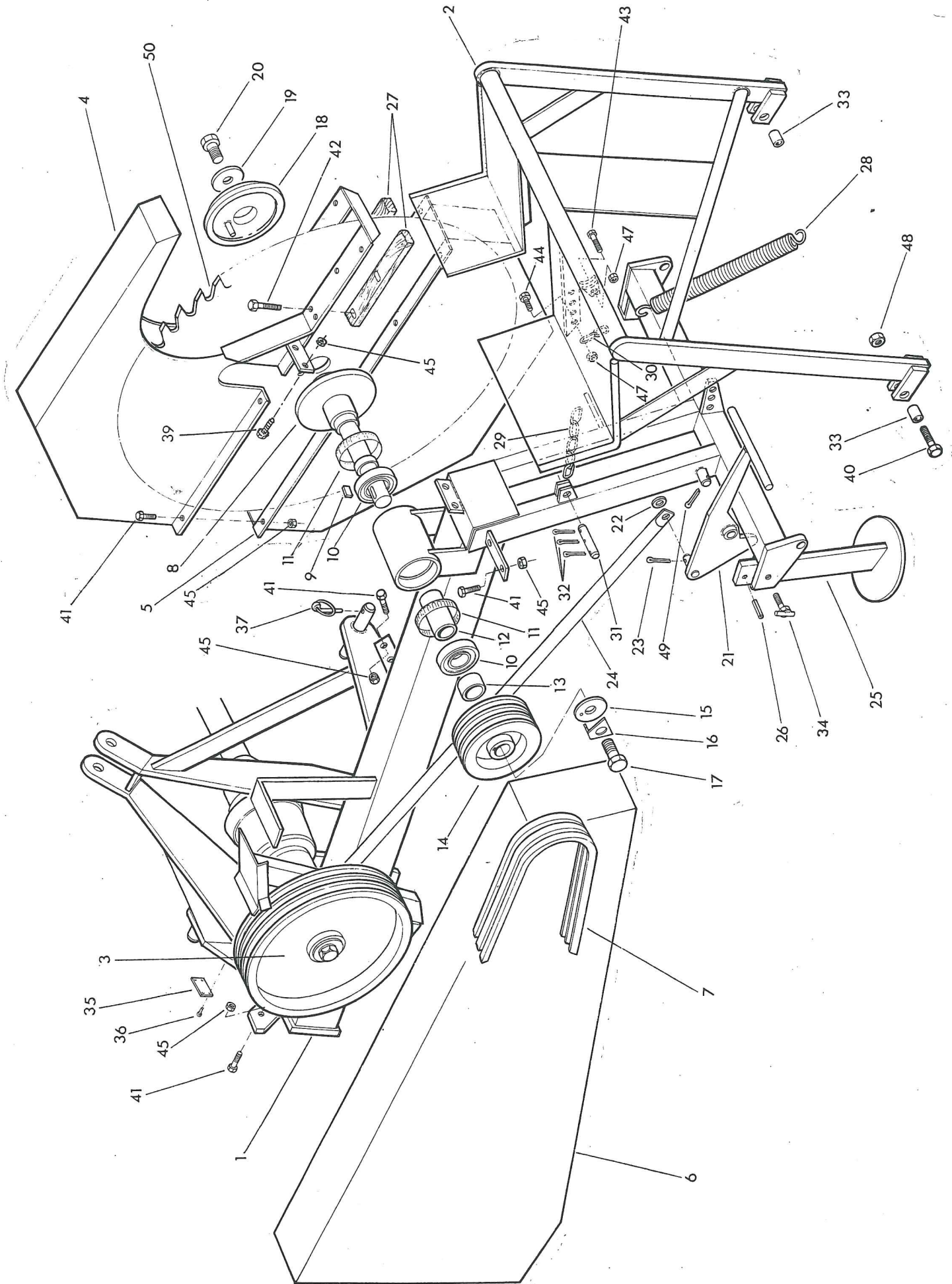
Always quote machine type and serial number as well as the part number.

Design improvement may have altered some of the parts listed in this manual - the latest part will always be supplied when it is interchangeable with an earlier one.

THE DOT SYSTEM

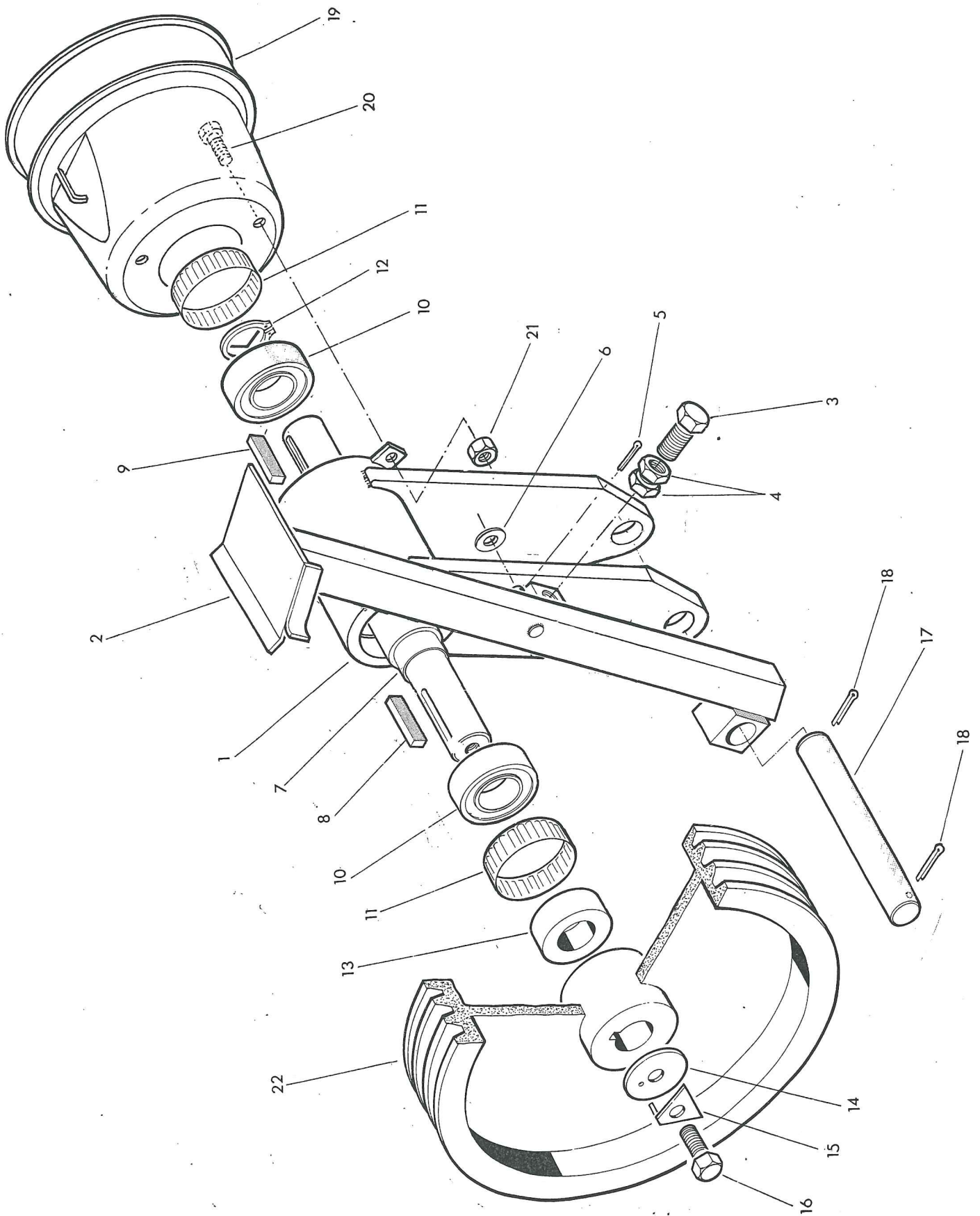
Many spares are supplied as Assemblies or as Sub-assemblies and to help the customer determine the composition of an Assembly the Dot System is used. The Main Assembly will not show a dot preceding its description and is printed in BLOCK CAPITALS. Subsequent listed parts are preceded by one or more dots until the next major assembly is reached. An increase in the number of preceding dots indicates that the item is an associated part of the preceding item. Whenever the number of dots are decreased by one this indicates the termination of an assembly.

LOGMATE GENERAL ASSEMBLY



Ref	Part No.	Qty	Description
	14 69 250		LOGMATE SAW BENCH
1	14 69 253	1	.Main Frame.
2	14 69 254	1	.Logging table.
3	14 69 252	1	.Countershaft assembly See Page
4	14 69 267	1	.Saw blade guard - top
5	14 69 266	1	.Saw blade guard - bottom
6	14 69 265	1	.Belt guard.
7	14 69 002	1	.Wedge belt - set of three
8	14 69 264	1	.Saw spindle c/w key
9	14 68 027	1	.Key
10	06 00 061	2	.Bearing.
11	14 69 036	2	.Tolerance ring.
12	14 69 035	1	.Bearing spacer
13	14 69 034	1	.Saw pulley spacer
14	14 68 033	1	.Saw pulley
15	60 13 030	1	.Special washer
16	15 65 117	1	.Tab washer
17	93 13 056	1	.Setscrew
18	60 13 028	1	.Loose saw flange
19	14 68 054	1	.Flange retainer washer
20	93 13 088	1	.Setscrew
21	14 69 262	1	.Safety pedal c/w washer & split pin.
22	91 00 106	1	..Plain washer
23	95 01 203	1	..Split pin
24	14 69 031	1	.Connecting rod.
25	14 69 269	3	.Leg c/w spring dowel.
26	04 21 612	1	..Spring dowel
27	14 69 003	2	.Saw blade packing strip.
28	14 21 097	1	.Spring.
29	09 02 202	1	.Table check chain - 32 links
30	09 02 222	1	.Spring anchor chain - 2 links
31	14 69 038	1	.Chain anchor pin c/w split pins.
32	05 03 082	3	..Split pin
33	14 69 012	1	.Table pivot bush.
34	14 68 063	3	.'T' setscrew
35	14 69 040	1	.Serial plate.
36	28 00 020	4	.Rivet
37	04 31 217	2	.Linch pin
38	93 13 023	3	.Setscrew
39	93 13 044	2	.Setscrew
40	02 11 145	2	.Bolt
41	93 13 034	18	.Setscrew
42	92 13 064	4	.Setscrew
43	92 13 063	1	.Bolt
44	93 13 043	1	.Bolt
45	91 43 004	20	.'Clevelok' nut
47	91 43 003	5	.'Clevelok' nut
48	01 41 005	2	.'Clevelok' nut
49	05 03 082	2	.Split pin
50	14 67 075	1	.Sawblade 30" dia. - general purpose.

COUNTERSHAFT ASSEMBLY



Ref	Part No.	Qty.	Description
	14 69 252		COUNTERSHAFT ASSEMBLY
1	14 69 268	1	.Bearing Housing.
2	14 69 263	1	.Brake arm c/w bolts, nuts, split pin and washer
3	16 68 061	1	..Bolt - belt adjuster
4	91 33 007	2	..Hexagon nut
5	95 01 203	1	..Split pin
6	91 00 106	1	..Plain washer
7	14 68 274	1	.Spindle.
8	14 68 027	1	.Key
9	14 69 041	1	.Key
10	06 00 061	2	.Bearing.
11	14 69 036	2	.Tolerance ring.
12	04 01 240	1	.Circlip - external
13	14 69 033	1	.Pulley spacer.
14	60 13 030	1	.Special retaining washer
15	15 65 117	1	.Tab washer
16	93 13 056	1	.Setscrew
17	14 68 023	1	.Bearing housing mounting pin c/w split pin.
18	05 03 125	2	..Split pin
19	14 69 039	1	. P.T.O. guard.
20	93 13 023	3	.Bolt
21	91 43 003	3	.Clevelok nut
	14 68 275	1	. P.T.O. Shaft assembly
	14 68 276	1	..Shaft - sawbench end.
	14 68 277	1	..Shaft - tractor end.
	14 68 279	1	..Plastic guard - spline end.
	14 68 280	1	..Plastic guard - Key end.
22	14 68 257	1	. Pulley.

Not
illustrated.



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