'Yeoman'

OWNER'S HANDBOOK

BY APPOINTMENT
TO HER MAJESTY THE QUEEN
MANUFACTURERS OF
AGRICULTURAL EQUIPMENT
Rotary Hoes Ltd.

ROTARY HOES LIMITED
WEST HORNDON · ESSEX
ENGLAND

Telegraphic Address
ROTOVATE BRENTWOOD

Telephone No.
HERONGATE 361

CONTENTS

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FOR SPARES AND SERVICE CONSULT YOUR DEALER:

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The purpose of this book is to provide, in the most simple possible manner, a complete guide to the operation of the 'Yeoman'.

Detailed instructions for major maintenance operations, especially those which may become necessary after long service, are not included because such work should be entrusted to the 'Yeoman' Service Dealer.

Instructions for the operation and maintenance of the Villiers Mk40 Engine are contained in the special Engine Handbook issued with each machine. Special instruction sheets are issued for 'Yeoman' attachments.

Brief Specification

ENGINE

See Engine Handbook.

CLUTCH

Single dry plate hand-operated engine clutch.

GEARBOX

Two-ratio gearbox giving the following speeds:

	TRAVEL		ROTOR	P.T.O.
Gear		**High Ratio**		
1.	1.05 m.p.h.	(1.68 k.p.h.)	220 r.p.m.	2,150 r.p.m.
2.	2.38 m.p.h.	(3.81 k.p.h.)	" "	
Reverse	1.37 m.p.h.	(2.19 k.p.h.)		
		Low Ratio		
1.	.73 m.p.h.	(1.17 k.p.h.)	150 r.p.m.	1,490 r.p.m
2.	1.65 m.p.h.	(2.64 k.p.h.)	" "	
Reverse	.94 m.p.h.	(1.50 k.p.h.)		

WHEELS

Wheel Track. 11¾ in. (30 cms.) or 14¾ in. (37 cms.).
Width of 'Yeoman' over wheels: 15 in. (38 cms.) or 18 in. (46 cms.).

ROTOR AND BLADES

Width of Cultivation: 15 in. (38 cms.).
Depth of Cultivation: adjustable to 9 in. (22.9 cms.) maximum in most soils.
Number of blades: 8.

DIMENSIONS

Overall length (over handlebars and bumper bar): 76 in. (198.1 cms.).
Overall Width:—Over handlebars: 24½ ins. (62.2 cms.).
Over shield: 19 in. (48.3 cms.).

WEIGHT

489 lbs. (221.8 kgs.)

CONTROLS

(All directions left and right are given from the rear of the machine looking forward).

(THE ENGINE SHOULD BE STOPPED BEFORE ANY OF THE ADJUSTMENTS DESCRIBED ARE CARRIED OUT)

CLUTCH

The clutch is of a single fibre disc type, simple in operation and efficient in work. It should be adjusted with a little play on the lever (about $\frac{1}{4}$ in. at the end), so that the thrust is not always on the selector. Adjustment can be made by means of the adjuster in the cable.

SNAPLOCK QUICK-RELEASE CLAMP

This clamp provides a quick and simple means of changing attachments. By swinging the clamp to the right (across the machine), the gate can be opened and the fitted attachment released. The reverse procedure engages the next attachment required. The handlebars must be held firm when the clamp is being released.

ROTOR GEAR CONTROL LEVER

The lever engages with either of the two notches. Pushing forward engages the rotor; pulling it back disengages the rotor.

WHEEL LOCK

The wheel lock has three positions:

(i) fully back: both wheels are free for freewheeling the machine.

(ii) central: drive is applied to the left-hand wheel only, making for easy turning at row ends and on headlands.

(iii) fully forward: drive is applied to both wheels. *

* If it is found that the wheels do not engage immediately, the machine should be pivoted slightly until the desired engagement is obtained.

GEAR LEVER

The gear lever operates in a quadrant marked R,1,N,2, to indicate Reverse, forward travel and neutral positions.

HIGH-LOW RATIO

With the lever in the forward position, the machine operates in high ratio; with the lever in the rear position, in low ratio.

HANDLEBAR HEIGHT ADJUSTMENT

By slackening the adjusting lever, the handlebars are freed and may be moved to the desired position. The lever should be tightened again after adjusting.

THROTTLE

The throttle lever is fitted on the right handlebar and serves as a variable speed governor. Movement to the left opens the throttle and vice versa.

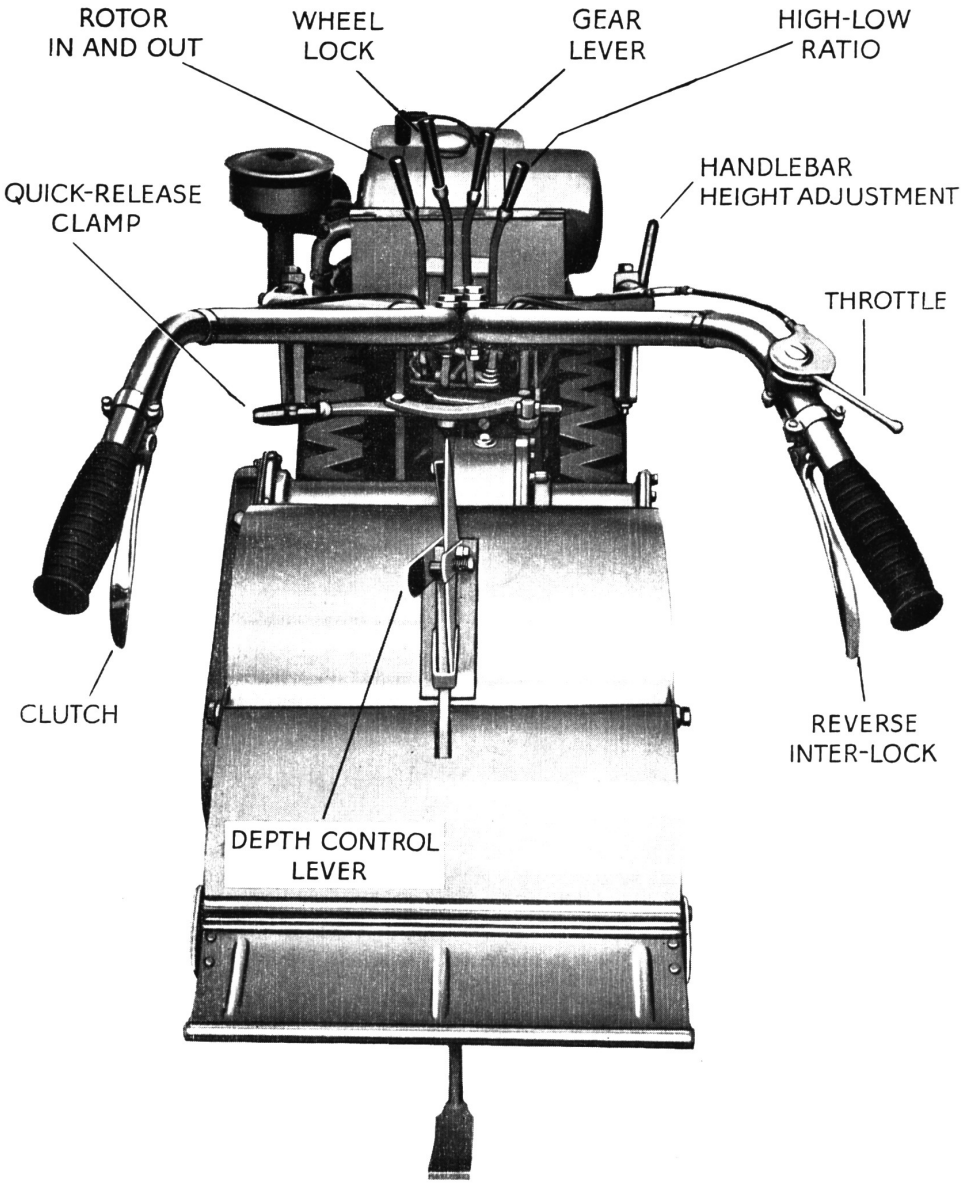


DIAGRAM 1—**CONTROLS**

REVERSE INTERLOCK

To reverse the machine, pull up the clutch lever, move the gear lever to reverse, then release clutch lever. No movement will take place until the reverse interlock is pulled up. Removal of pressure on the reverse interlock automatically stops the machine. To disengage the reverse gear, pull up the clutch lever, move gear lever to neutral.

DEPTH CONTROL LEVER

This is situated above the rotor shield. To lower the rotor for deeper work, raise the lever. To decrease the depth of cultivation, push the lever down.

N.B.—The lever must be moved slightly to the side before movement up or down can take place.

N.B.—Engine controls are described in the Engine Handbook.

Making the most of Your 'Yeoman'

GENERAL

The 'Yeoman' will cultivate to a depth of 9 inches (22.9 cms.). On certain, especially the heavier, types of soil, this depth will not be obtained in a single pass. Where cultivation in depth is needed, a first pass should be made at 3—4 inches (7.6—10.1 cms.) and followed by a second at full depth.

If the surface of the ground is very hard or baked, the depth control should be adjusted so that the machine just bites the surface. Further passes should then be made until the required depth is reached.

On heavy land which is to be laid up for the winter, the surface should be left rough. The best results will come from using high ratio. The quality of the work in high gear and in low gear will tell the operater which is the better. By using the ridging or furrowing attachment during this final or late autumn cultivation the land can be left in ridges to promote better drainage and to expose a greater surface area to weather.

If heavy land is rotary cultivated too finely and left bare to the winter rains, the soil may run together, and spring cultivations will be difficult.

On light land two courses are open. It may either be left rough, or it may be cultivated to medium depth and sown to a green crop, e.g. rye. The green crop will prevent the leaching out of the soil nitrogen. In the early part of the year, the crop is rotary cultivated in (high ratio and low gear). After a week or ten days, the spring seed bed may be prepared; this rotary cultivation should be more shallow than that which worked in the green crop.

SEED BEDS

In ground which has been cultivated properly, seed beds should seldom exceed 2 in. (5.1 cms.) in depth, except for certain crops. Seeds require a well-aerated soil with a firm bottom. Some small seeds require a seed bed to be lightly consolidated. This is particularly important on light soil, where consolidation will bring moisture nearer to the seedling plant.

Weeds are at their most dangerous when the crop is in the seedling stage. To obtain weed-free seed beds, the ground should be prepared a few weeks in advance of the sowing dates. Rotary cultivation should be carried out at a depth of 4 inches (10.1 cms.) and this causes any weed seeds to germinate. These weeds may be turned in by a second rotary cultivation, which will prepare the seed bed at the same time. It is most important that this second rotary cultivation is more shallow. Remember that the ground is now more open and the machine will consequently tend to dig more deeply.

WEED CONTROL

Rotary cultivation produces a well aerated warm seed bed in which germination takes place readily. Inevitably, these conditions also favour weed seeds.

Weeds are eliminated by preventing them from reaching flower or from feeding the deep tap roots or rhizomes. Weeds are killed most easily and inexpensively by rotary cultivating them directly they show green. Annuals will be killed off outright and perennials will be reduced until they, too, die out. This is true even of such persisistent weeds as couch and twitch.

ROW-CROP WORK

Weeds between rows may be controlled by rotary cultivating in high ratio, high gear, under almost all conditions while the weeds are small.

This will not prevent weeds growing in the rows themselves. Such weeds must be controlled by hand-hoeing when small. Should land become filthy because these weeds have been allowed to seed, the following crop should be a cleaning crop, e.g. roots or potatoes which will give a period of several weeks in the early part of the year when the weed seeds will shoot and can be killed by rotary cultivation.

The effective width of the 'Yeoman' for cultivation is 16¾ inches (42 cms.); actual width of cultivation is 15 inches (38.1 cms.). In planning your crops so that the best use may be made of the 'Yeoman', two or three inches over the effective width should be allowed on either side of the machine. This means that the minimum planting or sowing distance is 20 inches (50.8 cms). Such a sowing would allow only one cultivation for hoeing, and this cultivation should be done in high ratio, high gear.

GREEN MANURING

Land not immediately required may be sown down to such crops as mustard or rye grass during the spring and summer, or rye during the winter. These crops should be allowed to mature, if they are to be used as green manures; they will then have the best effect on the soil. But a winter cover crop will preserve plant foods which would otherwise be leached away, and need not be allowed to mature.

To turn in the green manure crop: ratio and gears will be determined by the maturity of the crop. Low ratio, low gear should normally produce a satisfactory result.

LAND RECLAMATION

The 'Yeoman' may also be used for bringing derelict land back into cultivation. When virgin land is being cultivated, the first pass should be at shallow depth. Depth can be increased by subsequent passes made at intervals of about a week or ten days. Low ratio, high gear will probably give the best results in work of this kind, but if the going is very tough it may be necessary to drop down to low ratio, low gear.

Working Instructions

STARTING AND STOPPING

Instructions for starting and stopping the engine will be found in the Engine Handbook. Before starting the engine, make sure that the gear lever is in neutral and the rotor lever in the "out" position.

COMMENCING CULTIVATION

Adjust the depth control lever to give the required depth of work, select the appropriate ratio and gear (see below), put the rotor gear in mesh and commence work, keeping the engine running at a constant speed whatever type of work is being done. Do not race the engine if the work is light or labour the engine if the work is heavy. After a little practice, no difficulty will be found in maintaining the engine at the most suitable speed.

REAR SHIELD

To avoid an accumulation of soil choking the rotor and causing the use of unecessary power, always keep the rear shield well raised so that the blades throw the soil clear.

USE OF RATIOS AND GEARS

In order to cover all possible cultivating requirements the 'Yeoman' is provided with a range of six different speeds.

These are selected by a gear lever giving two forward speeds and reverse. On the same quadrant is another lever which provides the alternative of a high or low **ratio**, thus a **high** first, second and reverse gear is available and a **low** first, second and reverse according to which **ratio** is employed. The high and low ratio lever also automatically gives two different rotor speeds. In this way a total of four forward travel speeds and two reverse speeds combined with two different rotor speeds are obtainable.

The various lever positions are shown in diagram 3. A table of the rotor speeds and approximate travel speeds of the 'Yeoman' in each gear combination is given on page 1.

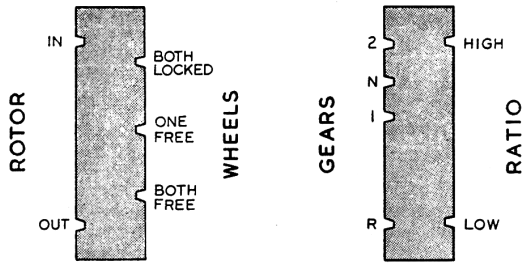


DIAGRAM 3.

Low ratio and low gear should be used for deep work and fine tilth. Low ratio and high gear for coarse deep tilth. High ratio and low gear for fine shallow tilth and high ratio and high gear for surface weeding and other light cultivations.

Methods will naturally vary with various crops, climates and soil conditions and it is therefore impossible to lay down rigid rules. But further guidance is given in the section 'Making the most of your Yeoman'.

Notes for the Operator

1. Regular and correct lubrication is essential.
2. The throttle must always be shut to idling position when lifting the clutch lever for engaging or disengaging gears.
3. The engine must not be allowed to idle at slow speeds for long periods. If it is found necessary to leave it ticking over for a short time the machine should be put into gear with the wheel lock in the "both free" position.
4. Do not hold the handles firmly down if the machine jumps on striking a stump or other obstacle. Just lightly resist the movement and let the machine right itself. This particularly applies when working on hillsides in badly cleared land.

5. When taking sharp corners, put the rotor out of gear and use the wheel lock to apply drive to one wheel only. If necessary, lift the machine at the handles to help in turning.

6. Never run the 'Yeoman' with the engine labouring. By selecting the right gear and correct depth of work, a reserve of engine power is always in hand.

7. Use the clutch as you would use a car clutch—for changing gear only. Do not 'slip the clutch' to obtain extra engine speed.

8. For the first 12 hours use after delivery, only light work should be done. This enables the working parts to bed down properly.

9. Instructions for maintaining the air cleaner are given in the Engine Handbook. It should be topped up every 24 hours. But in dusty conditions, the oil should be renewed daily—twice daily if it is extremely dusty.

Adjustments and Maintenance

IMPORTANT.—STOP THE ENGINE BEFORE MAKING ANY ADJUSTMENTS.

ENGINE CLUTCH

The clutch is of a single fibre disc type, simple in operation and efficient in work. It should be adjusted with a little play in the lever (about $\frac{1}{4}$ in. or 6 mm.), so that the thrust is not always on the selector. Adjustment can be made by means of the adjustor in the cable. When adjustment is complete, check the correct operation of the reverse interlock cable. With the engine stopped and the machine in first gear, there should be no load on the cable fulcrum lever from the reverse interlock spring.

CHAIN CASE

An adjuster is provided on the bottom front edge of the chain case. Removal of the filler plug on the uppermost edge makes the chain visible. Test the chain for free movement by inserting a screwdriver between the links and moving it up and down; and by screwing up the adjuster obtain the correct tension ($\frac{3}{8}$ in. or 9 mm.). After adjusting, tighten the locknut and replace the filler cap.

ROTOR FRICTION DRIVE

The rotor to which the blades are bolted is driven direct from the main gearbox through a friction clutch. This clutch is not intended to operate, except when the rotor blades strike an obstacle. When the machine leaves the factory, the clutch is adjusted so that no slip takes place under ordinary working conditions. If it is suspected that the clutch slips too freely, the engine should be stopped and the clutch adjusted by means of the four nuts. Tighten the nuts fully, then slacken each half a turn.

ROTOR FLANGE WEEDCUTTERS

Two weedcutter blades are provided to prevent long grass or weeds from binding round the end rotor flanges. To adjust, slacken the two setscrews securing the weedcutter blade (Ill. No. 225 & 273) and tap the blade until it is within 1/32 in. or 1 mm. of the rotor flange. Then revolve the rotor by hand to make sure that the blade does not foul. Re-tighten the screws.

SNAPLOCK CLAMP

Sometimes the clamp may require adjustment to ensure complete clamping. Slacken the inside locknut and tighten the outside locknut until the correct clamping pressure is obtained.

REVERSE INTERLOCK

If the clutch slips when the reverse interlock is used, adjustment can be made by means of the adjuster in the cable.

BLADE FITTING

The 'Yeoman' is normally delivered with the blades already fitted. If it is necessary to fit your own blades, this is the way it should be done.

1. Identify left-hand and right-hand blades.
2. The left-hand end flange carries two right-hand blades; the right-hand end flange carries two left-hand blades.
3. The centre flange carries two left-hand and two right-hand blades. Bolt the blades to the flange with the left-hand blades leading. All blades should be fitted to the left-hand side of the flange. In each case the heads of the bolts should be in contact with the blades and with the spring washer fitted under the nut.

BLADE MAINTENANCE

This is most important. Examine the blades daily to see that they are correct. See diagram 4 (Fig. 1). Any bent blades (Fig. 2) should be straightened with the blade setting bar (Fig. 3). The illustration is of a larger machine but the principle applies.)

When land that has become hard-panned through persistent ploughing to a constant depth, or land that is very stony, is being cultivated with the 'Yeoman' for the first time, the cutting edges of the blades may become slightly turned (Fig. 4). These blades must be corrected in the following manner.

Put the end of the straightening bar behind the blade and beat the cutting edge back into its correct position with a hammer (Fig 5). The blades will then cut cleanly with the cutting edges only touchting the ground and the backs having clearance.

IMPORTANT.—Before cleaning hoe blades or the underside of the shield, return the rotor gear lever to netural and stop the engine.

WHEEL ENGAGEMENT

If, when the wheel lock is in the 'both free' position, the wheels are still engaged, adjust the nut at the rear of the trunnion until the wheels are free. If more tension is required to engage the wheel-lock, tighten the nut holding the spring on the rod (Ill. No. 367).

VARYING TRACK-WIDTH

By undoing the four setscrews (Ill. No. 109) either wheel can easily be freed and reversed to vary track-width to suit the work in hand. When both wheels are inward, the overall width of the 'Yeoman' is 15 in. (38.1 cms.). Reversing one wheel gives an overall width of 16½ in. (41.8 cms.). Reversing both wheels gives an overall width of 18½ in. (45.7 cms.).

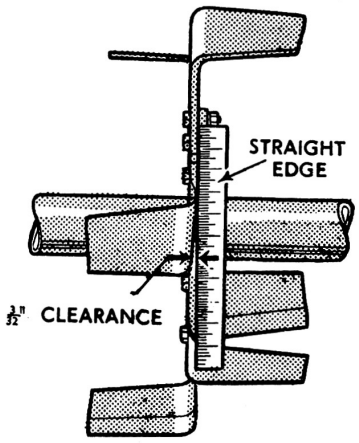


Fig. 1. Checking blade alignment with straight edge (or setting bar.)

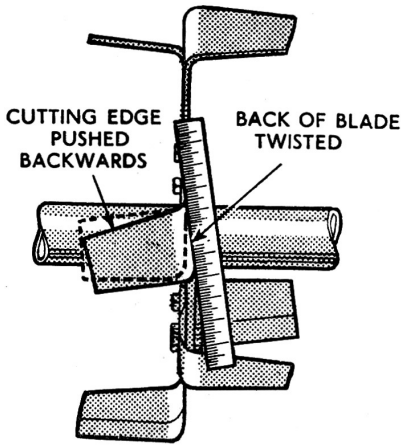


Fig. 2. Showing bent blade.

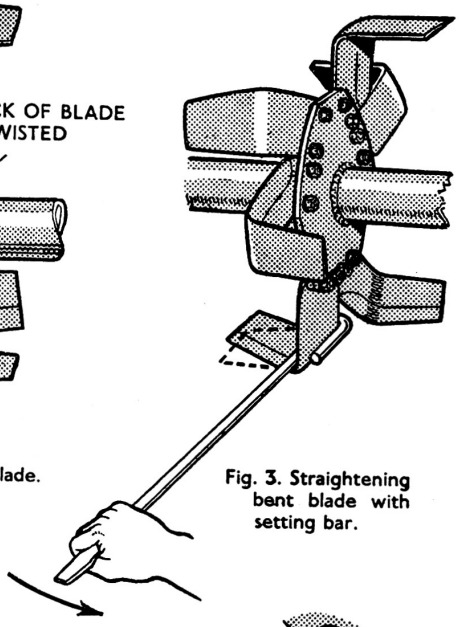


Fig. 3. Straightening bent blade with setting bar.

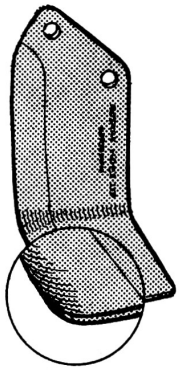


Fig. 4. Enlarged view of blade with cutting edge turned inwards.

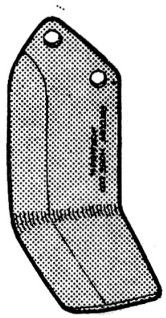


Fig. 5. Normal blade.

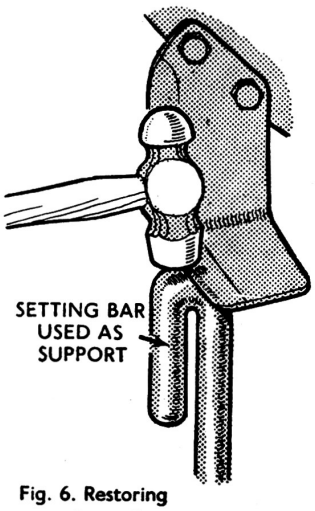


Fig. 6. Restoring turned up edge.

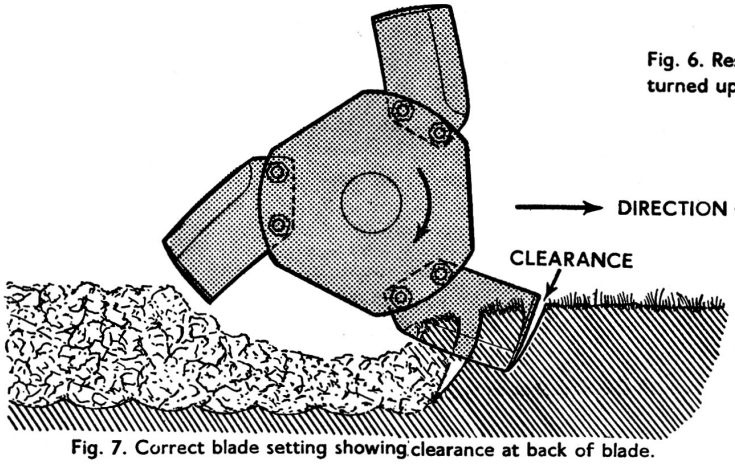


Fig. 7. Correct blade setting showing clearance at back of blade.

DIAGRAM 4—**BLADE MAINTENANCE**

List of Parts
for the
'YEOMAN'

IMPORTANT. When ordering spare parts always give the serial number of your machine. This number is stamped on the frame main tube (Illus No. 332). Then give the part number (not the illustration number) and description. We cannot guarantee that correct parts will be supplied unless these numbers are quoted.

In the following parts list all directions are given left or right looking forward from the back of the machine.

BUMPER BAR ASSEMBLY

Illust. No.	Part No.	Description	No. off.
1	16832	Bar (Villiers Engine)	1
	16907	Bar (B.S.A. Engine)	1
	16882	Bar (Wisconsin A.E.N. Engine)	1
2	17302	Clamp	2
		Setscrew, Hex. Hd. $\frac{1}{2}$" B.S.F. x 1" Lg.	2
3	16829	Bar (Villiers Engine)	2
	16908	Bar (B.S.A. Engine)	2
	16883	Bar (Wisconsin A.E.N. Engine)	2
4		Bolt, $\frac{3}{8}$" B.S.F. x 2" Lg. Hex. Hd. (Villiers and B.S.A Engines)	4
		Bolt, $\frac{3}{8}$" B.S.F. x $3\frac{1}{4}$" Lg. (Wisconsin Engine)	4
5		Washer, $\frac{3}{8}$" Dia., Single Coil	4
6		Nut, $\frac{3}{8}$" B.S.F. Hex. Pln.	4

FRICTION CLUTCH AND HOUSING

7	16638	Spacer (Villiers & Wisconsin)	1
	16905	Spacer (B.S.A. Engine)	1
8	16714	Key (Villiers & Wisconsin)	1
		Key, B.S.K. $\frac{3}{16}$" x $\frac{5}{32}$" x $1\frac{1}{2}$" Lg. Rnd. one end (B.S.A. Engine)	1
9		Grub Screw, $\frac{5}{16}$" B.S.W. x $\frac{3}{8}$" Lg. (Villiers & Wisconsin)	1
		Allen Grub Screw, $\frac{5}{16}$" B.S.W. x $\frac{1}{2}$" Lg. (B.S.A. Engine)	1
10	16519	Clutch Flywheel (Villiers & Wisconsin)	1
	16904	Clutch Flywheel (B.S.A. Engine)	1
11	16644	Bearing Shield (Villiers & Wisconsin)	1
	16912	Bearing Shield (B.S.A. Engine)	1
12		Ball Bearing, "Hoffman" S11 (Villiers & Wisconsin) ...	1
		Ball Bearing, "Hoffman" S10 (B.S.A. Engine)	1
13	16639	Clutch Shaft Nut (Villiers & Wisconsin)	1
	16911	Clutch Shaft Nut (B.S.A.)	1

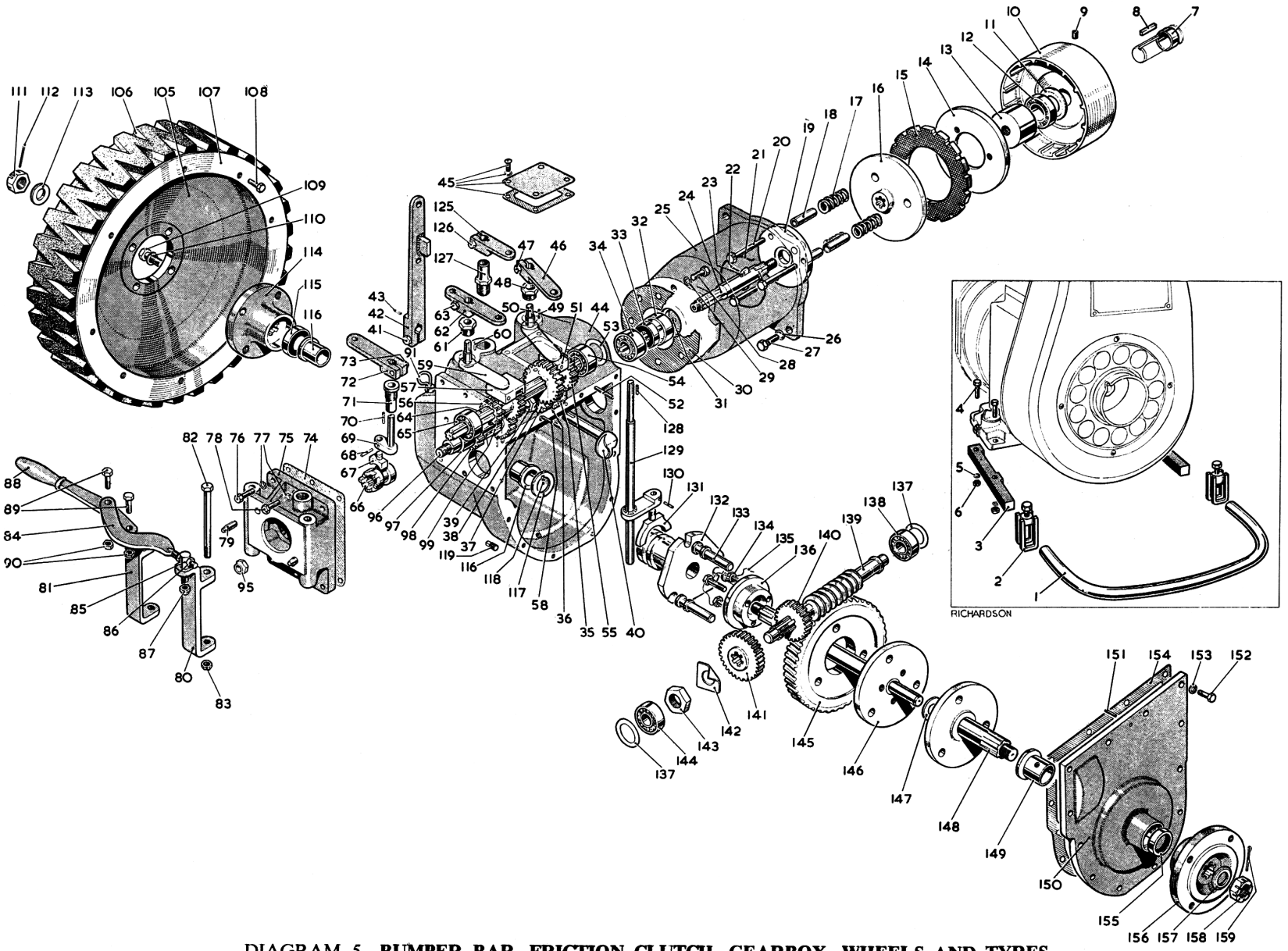


DIAGRAM 5—**BUMPER BAR, FRICTION CLUTCH, GEARBOX, WHEELS AND TYRES**

Illust. No.	Part No.	Description		No. off.
	16906	Adaptor Plate	B.S.A ...	1
		Setscrew (adaptor plate to engine), ...	Engine only ...	8
		$\frac{5}{16}$" B.S.W. x $\frac{3}{4}$" Lg. Hex. Hd.		
		Spring Washer, $\frac{5}{16}$" Dia.	...	8
14	16641	Clutch Plate, Loose		1
15	16520	Clutch Friction Disc		1
16	16640	Clutch Plate, Fixed		1
17	G260	Spring		3
18	16643	Clutch Distance Piece		3
19	16642	Thrust Plate		1
20	G250	Bolt, Special		3
21		Locking Wire, $\frac{1}{16}$" Dia. x 13$\frac{1}{2}$" Lg.		1
22		Splitpin, $\frac{3}{32}$" Dia. x $\frac{1}{2}$" Lg.		2
23	16891	Push Rod Selector		1
24	16647	Clutch Shaft		1
25	16636	Clutch Housing (Villiers Engine)		1
	16873	Clutch Housing (B.S.A. & Wisconsin Engine)		1
26		Setscrew, $\frac{3}{8}$" B.S.F. x 1" Lg. (Villiers Engine)		4
		Setscrew, $\frac{7}{16}$" x 1$\frac{1}{4}$" Lg. (B.S.A. & Wisconsin Engine) ...		4
27		Spring Washer, $\frac{3}{8}$" Dia. (Villiers Engine)		4
		Spring Washer, $\frac{7}{16}$" Dia. (B.S.A. & Wisconsin Engine)		4
28		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{1}{4}$" Lg. Hex. Hd.		6
29		Washer, $\frac{5}{16}$" Dia. Single Coil		6
30	16692	Gasket		1
31	16889	Push Rod		1
32	16637	Oil Seal Holder		1
33		Oil Seal, $\frac{7}{8}$" I.D. x 1$\frac{5}{8}$" O.D. x $\frac{3}{8}$" Wide		1
34	BRL$\frac{3}{4}$	Ball Bearing $\frac{3}{4}$" Bore, 1$\frac{7}{8}$" O.D. $\frac{9}{16}$" Wide		1
35	16581	Pinion (22T.)		1
36	16601	Spacer		1
37	16582	Pinion (18T.)		1
38	16648	Tab Washer		1
39		Nut, $\frac{5}{8}$" B.S.F. Locknut Hex.		1
	16888	Bearing Cap (not illustrated)		1
	SFL$\frac{1}{4}$	Ball Bearing, $\frac{1}{4}$" Bore x $\frac{13}{16}$" O.D x $\frac{3}{8}$" Wide		1
		Circlip, $\frac{13}{16}$" Dia. Internal		1
40	16890	Clutch Selector		1
41		Setscrew, $\frac{5}{16}$" B.S.F. x 1" Lg., Hex. Hd.		1
42	16844	Clutch Fulcrum Arm		1
43		Key, B.S.K. $\frac{1}{8}$" S. x $\frac{5}{8}$" Lg.		1

GEAR BOX

44	16511A	Gear Box		1
45	16694	Cover Plate		1
	16695	Gasket		1

Illust. No.	Part No.	Description	No. off.
		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{1}{2}$" Lg. Rnd. Hd.	4
		Washer, $\frac{1}{4}$" Dia., Single Coil	4
46	16627	Selector Arm	1
47		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{7}{8}$" Lg., Hex. Hd.	1
48	16616	Selector Bush	1
49		Key, B.S.K., $\frac{1}{8}$" S. x $\frac{5}{8}$" Lg.	1
50	16702	Selector	1
51	16698	Selector Block	1
52	16699	Pin	1
53	16590	Shim	1
54	BRL$\frac{3}{4}$	Ball Bearing, $\frac{3}{4}$" Bore, $1\frac{7}{8}$" O.D., $\frac{9}{16}$" Wide	1
55	16580	Cluster Gear	1
56	16583	Cluster Gear	1
57	16703	Selector Block	1
58	16699	Pin	1
59	16702	Selector	1
60		Key, B.S.K., $\frac{1}{8}$" S. x $\frac{5}{8}$" Lg.	1
61	16616	Selector Bush	1
62	16848	Selector Arm	1
63		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{7}{8}$" Lg., Hex Hd.	1
64	16596	P.T.O. Shaft	1
65	BRL$\frac{3}{4}$	Ball Bearing, $\frac{3}{4}$" Bore, $1\frac{7}{8}$" O.D., $\frac{9}{16}$" Wide	1
	16591	Bearing Shield	1
		DOG CLUTCH	
66	16598	Sliding Dog	1
67	16705	Selector Block	1
68	16706	Pin	1
69	16704	Selector	1
70		Key, B.S.K., $\frac{1}{8}$" S. x $\frac{5}{8}$" Lg.	1
71	16622	Bush	1
72	16627	Selector Arm	1
73		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{7}{8}$" Lg., Hex. Hd.	1
74	16674	Gasket	1
75	16543	Clutch Housing	1
76		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{3}{4}$" Lg., Hex. Head	5
77		Washer, $\frac{5}{16}$" Dia., Single Coil	8
78	16675	Bolt, Special	3
79	16801	Dowel	2
		SNAPLOCK CLAMP	
80	16652	Clamp, R. Hd.	1
81	16653	Clamp, L. Hd.	1
82		Bolt, $\frac{3}{8}$" B.S.F., $4\frac{1}{4}$" Lg., Hex. Hd.	2
83		Nut, $\frac{3}{8}$" B.S.F., Hex. Locknut	2

MAINTENANCE AND LUBRICATION GUIDE FOR THE HOWARD ROTAVATOR "YEOMAN"

DAILY MAINTENANCE
(OR EVERY 8 WORKING HOURS)

1 CHECK OIL LEVEL IN ENGINE SUMP. TOP UP IF REQUIRED.
2 CHECK OIL LEVEL IN AIR CLEANER. TOP UP IF REQUIRED.
3 CHECK TIGHTNESS OF BLADE BOLTS.
4 CHECK FOR BENT BLADES AND STRAIGHTEN IF REQUIRED.
5 WATCH FOR SIGNS OF UNDUE ROTOR CLUTCH SLIP (INDICATED BY CLUTCH BECOMING VERY HOT, ROTOR STOPPING UNNECESSARILY.) ADJUST IF REQUIRED.
6 LOOK OUT FOR WIRE OR ANY OBSTRUCTION ROUND THE ENDS OF THE ROTOR.
7 CHECK ADJUSTMENT OF WEED CUTTERS. (CORRECT CLEARANCE BETWEEN BLADE AND ROTOR FLANGE IS $\frac{1}{16}$").

EVERY THREE DAYS
(OR 24 WORKING HOURS)

1 CHECK GEARBOX OIL LEVEL WITH DIPSTICK.
2 CHECK OIL LEVEL IN ROTOR DRIVE CHAINCASE.
3 CHECK OIL LEVEL IN ROTOR DRIVE BEVEL BOX.
4 LUBRICATE ROTOR STUB AXLE WITH ENGINE OIL.
5 OIL ALL CONTROLS, HANDLEBAR PIVOTS, DEPTH CONTROL LEVER, SHIELD HINGES AND SNAPLOK CLAMP.
6 WASH AIR FILTER IN PETROL AND REFILL WITH CLEAN OIL.
7 CHECK TIGHTNESS OF ALL NUTS AND BOLTS.

WEEKLY MAINTENANCE
(OR EVERY [illegible] WORKING [illegible] HOURS)

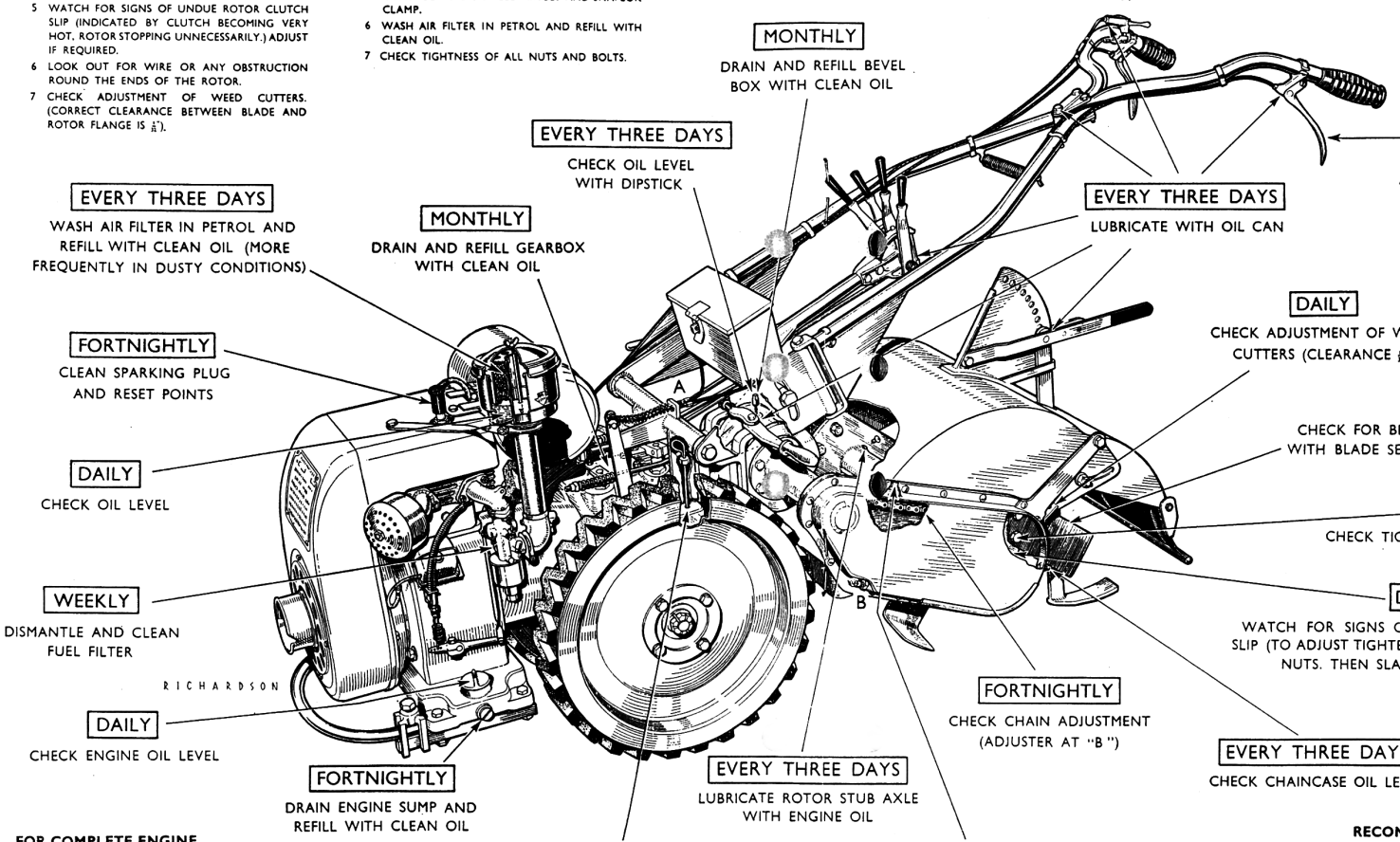
1 CHECK ENGINE CLUTCH ADJUSTMENT (ALLOW ABOUT $\frac{1}{4}$" OF FREE MOVEMENT AT HANDLEBAR LEVER).
2 DISMANTLE AND CLEAN FUEL FILTER (ALSO V.O. FILTER IF FITTED).

FORTNIGHTLY
(OR EVERY 100 WORKING HOURS)

1 DRAIN ENGINE SUMP, WHILE WARM, AND REFILL WITH CLEAN OIL.
2 CLEAN SPARKING PLUG AND RESET POINTS.
3 CHECK CHAIN ADJUSTMENT (UP AND DOWN MOVEMENT CAN BE CHECKED WITH A SCREWDRIVER THROUGH OIL FILLER HOLE, CORRECT ADJUSTMENT $\frac{1}{2}$").

MONTHLY
(OR EVERY 200 WORKING HOURS)

1 DRAIN AND REFILL GEARBOX WITH CLEAN OIL.
2 DRAIN AND REFILL ROTOR CHAINCASE WITH CLEAN OIL.
3 DRAIN AND REFILL ROTOR BEVEL BOX WITH CLEAN OIL.



MONTHLY — DRAIN AND REFILL BEVEL BOX WITH CLEAN OIL

EVERY THREE DAYS — CHECK OIL LEVEL WITH DIPSTICK

WEEKLY — CHECK ENGINE CLUTCH ADJUSTMENT (ADJUST AT "A")

EVERY THREE DAYS — LUBRICATE WITH OIL CAN

EVERY THREE DAYS — WASH AIR FILTER IN PETROL AND REFILL WITH CLEAN OIL (MORE FREQUENTLY IN DUSTY CONDITIONS)

MONTHLY — DRAIN AND REFILL GEARBOX WITH CLEAN OIL

DAILY — CHECK ADJUSTMENT OF WEED CUTTERS (CLEARANCE $\frac{1}{16}$")

FORTNIGHTLY — CLEAN SPARKING PLUG AND RESET POINTS

DAILY — CHECK FOR BENT BLADES (STRAIGHTEN WITH BLADE SETTING BAR IF NECESSARY)

DAILY — CHECK OIL LEVEL

DAILY — CHECK TIGHTNESS OF BLADE BOLTS

WEEKLY — DISMANTLE AND CLEAN FUEL FILTER

DAILY — WATCH FOR SIGNS OF UNDUE ROTOR CLUTCH SLIP (TO ADJUST TIGHTEN ALL FOUR CLUTCH SPRING NUTS. THEN SLACKEN HALF A TURN)

FORTNIGHTLY — CHECK CHAIN ADJUSTMENT (ADJUSTER AT "B")

DAILY — CHECK ENGINE OIL LEVEL

EVERY THREE DAYS — CHECK CHAINCASE OIL LEVEL

FORTNIGHTLY — DRAIN ENGINE SUMP AND REFILL WITH CLEAN OIL

EVERY THREE DAYS — LUBRICATE ROTOR STUB AXLE WITH ENGINE OIL

EVERY THREE DAYS — CHECK GEARBOX OIL LEVEL WITH DIPSTICK

MONTHLY — DRAIN AND REFILL CHAINCASE TO CORRECT LEVEL

FOR COMPLETE ENGINE MAINTENANCE INSTRUCTIONS AND ADJUSTMENTS SEE ENGINE HANDBOOK

RECOMMENDED LUBRICANTS

ENGINE – SEE ENGINE HANDBOOK.

GEARBOX	S.A.E. 90
ROTOR BEVEL BOX	S.A.E. 90
ROTOR CHAINCASE	S.A.E. 90
AIR FILTER	ENGINE OIL

Illust. No.	Part No.	Description	No. off.
84	16649	Clamping Lever	1
85	16672	Trunnion	1
86		Nut, $\frac{3}{8}$" B.S.F., Hex. Locknut	2
87		Nut (Nyloc), $\frac{5}{16}$" B.S.F., No. ND/F106	1
88	16651	Clamping Handle	1
89		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{3}{4}$" Lg., Hex Head	2
90		Nut, $\frac{5}{16}$" B.S.F., Hex. Locknut	2
91	16867	Gearbox Dipstick	1
	16868	Gearbox Dipstick Felt Washer	1
		REVERSE GEAR ASSEMBLY	
95		Nut (Nyloc) $\frac{1}{2}$" B.S.F., No. NT/F166	1
96	16609	Reverse Shaft	1
97	16587	Spacer	1
98	16586	Cluster Gear	1
99	16593	Bush	2
		WHEELS AND TYRES	
105	16849	Wheel (for solid tyre)	2
106	16846	Tyre	2
107	16862	Plate	2
108		Setscrew, $\frac{5}{16}$" B.S.F. x $\frac{5}{8}$" Lg. Hex. Head	16
	Wheel	Assembly Complete, comprising above parts, Part No. 16863	
	16654	Wheel (for pneumatic tyre)	2
		Tyre, 3.00" x 12"	2
		Tube, 3.00" x 12"	2
109		Setscrew, $\frac{3}{8}$" B.S.F. x 1" Lg. Hex. Head	8
110		Washer, $\frac{3}{8}$" Dia., Single Coil	8
		LEFT HAND WHEEL HUB	
111		Nut, $\frac{5}{8}$" B.S.F., Hex. Slotted	1
112		Split Pin, 7/64" Dia. x $1\frac{1}{4}$" Lg.	1
113		Washer, $\frac{5}{8}$" Dia., Flat	1
114	16657	Hub, L.H.	1
115		Oilseal, 1" I.D. x $1\frac{1}{2}$" O.D. x $\frac{3}{5}$" Wide	1
116	16692	Bush	2
117	16659	Thrust Washer	1
118	16660	Dowel	1
119		Plug $\frac{1}{4}$" B.S.P., Sq. Hd.	1

WHEEL LOCK ASSEMBLY

Illust. No.	Part No.	Description	No. off.
125	16624	Arm	1
126		Setscrew, $\frac{5}{16}$" B.S.F. x $\frac{7}{8}$" Lg.	1
127	16603	Bush	1
128		Key, B.S.K. $\frac{3}{16}$" Sq. x $\frac{5}{8}$" Lg.	1
129	16661	Selector Shaft	1
130	16689	Pin	1
131	16625	Wheel Lock Selector	1
132	16608	Selector Plate	1
133	16626	Pin	3

WORM DRIVE

134	16605	Bolt, Special	3
135		Locking Wire, $\frac{1}{16}$" Dia. x 9" Lg.	1
136	16595	Worm Wheel Hub	1
137	16590	Shim	2
138	BRL$\frac{3}{4}$AC	Ball Bearing, $\frac{3}{4}$" Bore, $\frac{7}{8}$" O.D. $\frac{9}{16}$" Wide, Angular Contact	1
139	16522	Worm Shaft	1
140	16584	Pinion (24T.)	1
141	16585	Pinion (31T.)	1
142	16691	Tab Washer	1
143		Nut, 1" B.S.F. Locknut Hex.	1
144	BRL$\frac{3}{4}$AC	Ball Bearing, $\frac{3}{4}$" Bore, $1\frac{7}{8}$" O.D. $\frac{9}{16}$" Wide, Angular Contact	1
145	16521	Worm Wheel	1
146	16602	Axle	1
147	16600	Spacer	1
148	16606	Loose Hub	1
149	16594	Bush	1

GEAR BOX COVER PLATE

150	16513	Cover Plate	1
151	16686	Dowel	1
152		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{3}{4}$" Lg. Hex. Hd.	12
153		Washer, Single Coil, $\frac{1}{4}$" Dia.	12
154	16685	Gasket	1
155		Oilseal, 1.11/16" O.D., $1\frac{1}{4}$" I.D., $\frac{3}{8}$" Wide	1
156	16656	Hub, R.H.	1
157		Washer, $\frac{7}{8}$" Dia. Flat	1
158	F2609	Nut, Special	1
159		Splitpin 7/64" Dia. x $1\frac{1}{2}$" Lg.	1

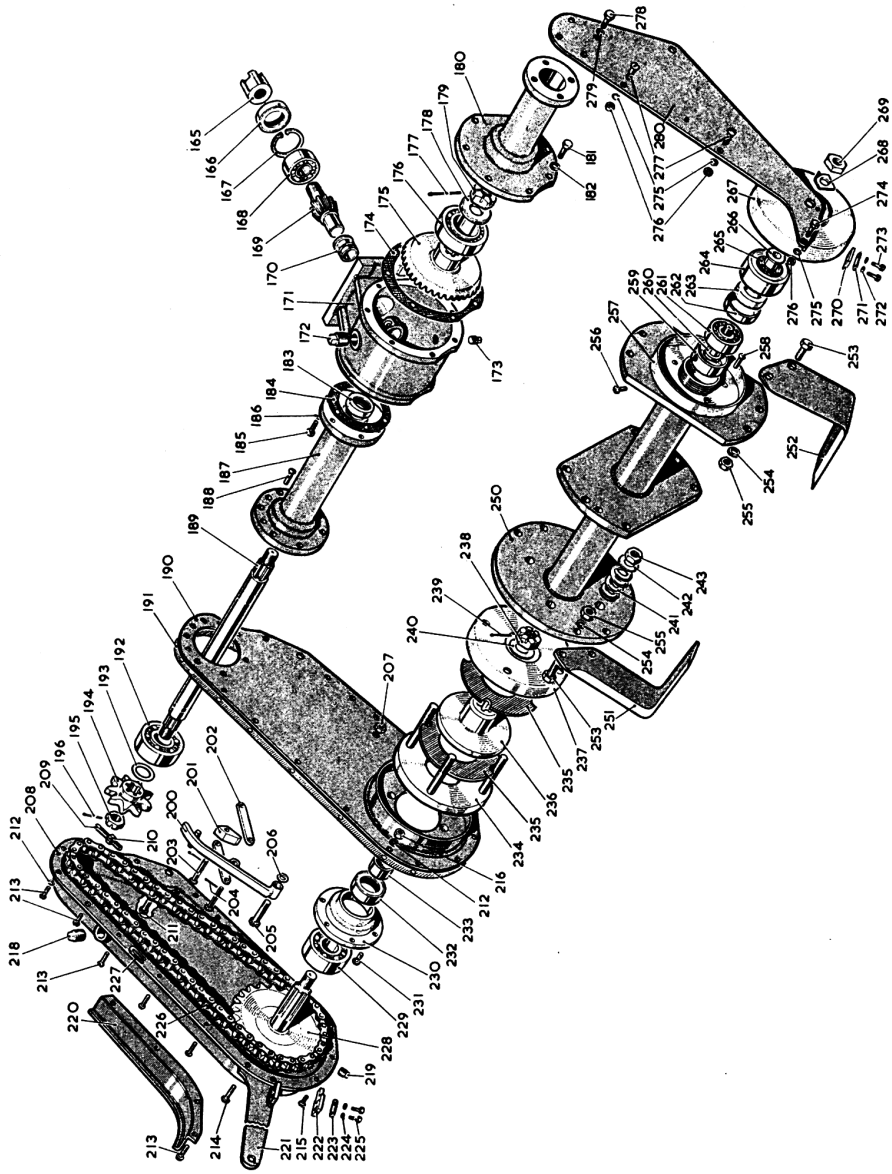


DIAGRAM 6—ROTOR DRIVE, ROTOR AND HOE BLADES

BEVEL BOX ASSEMBLY

Illust. No.	Part No.	Description	No off.
165	16597	Fixed Dog	1
166		Oilseal, $1\frac{3}{8}$" I.D. x $1\frac{7}{8}$" O.D. x $\frac{5}{16}$" Wide	1
167		Circlip $1\frac{7}{8}$" Dia., Internal	1
168	BRL$\frac{3}{4}$AC	Ball Bearing, $\frac{3}{4}$" Bore $1\frac{7}{8}$" O.D. $\frac{9}{16}$" Wide, Angular Contact	1
169	16530	Pinion	1
170	16728	Bush	1
171	16534	Bevel Box	1
172	16869	Bevel Box Dipstick	1
173		Plug, $\frac{1}{4}$" B.S.P. Sq. Hd.	1
174	16756	Gasket	1
175	16529	Crown Wheel	1
176	BRL040	Ball Bearing, 40 m/m Bore x 80 m/m O.D. x 18 m/m Wide	1
177		Splitpin, $\frac{1}{8}$" Dia., $1\frac{1}{2}$" Lg.	1
178	16759	Washer	1
179	25047	Nut, Special	1
180	16577	Staytube	1
181		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{3}{4}$" Lg. Hex. Hd.	7
182		Washer, $\frac{1}{4}$" Dia., Single Coil	7
183		Oilseal, $1\frac{1}{8}$" Bore, $1\frac{5}{8}$" O.D. $\frac{5}{16}$" Wide	1
184	16757	Gasket	1

JACKSHAFT ASSEMBLY

185		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{3}{4}$" Lg. Hex Hd.	6
186		Washer, $\frac{5}{16}$" Dia., Single Coil	6
187	16575	Jackshaft Housing	1
188		Rivet, $\frac{1}{4}$" Dia. $\frac{5}{8}$" Lg., Rd. Hd.	6
189	16574	Jackshaft	1
190	16567/4	Back Plate with Dust Cover	1
191	16774	Gasket	1
192	BRM1	Ball Bearing 1" Bore, $2\frac{1}{2}$" O.D., $\frac{3}{4}$" Wide	1
193	G462	Shim	as required
	16874	Sprocket, 10-Tooth (Standard)	1
194	G460	Sprocket, 9-Tooth (Alternative)	1
195	G455	Nut, Special	1
196		Splitpin, 7/64" Dia x $1\frac{1}{4}$" Lg.	1
200	25917	Chain Skid	1
201	25920	Sliding Block	1
202	25919	Connecting Link	2
203	25914	Connecting Pin	2
204		Splitpin $\frac{1}{16}$" Dia. x $\frac{5}{8}$" Lg.	2
205		Bolt, $\frac{5}{16}$" B.S.F. x $1\frac{1}{4}$" Lg.	1
206		Washer, $\frac{5}{16}$" Dia., Flat	1
207		Nut, $\frac{5}{16}$" B.S.F., Hex. Lock	1

CHAINCASE AND CHAIN

Illust. No.	Part No.	Description	No. off.
208	16773	Chaincase	1
209	25913	Adjusting Screw	1
210		Nut, $\frac{5}{16}$" B.S.F., Hex. Pln.	1
211		Setscrew, $\frac{7}{16}$" B.S.F., $\frac{3}{4}$" Lg., Hex. Hd.	1
212		Washer, $\frac{1}{4}$" Dia., Single Coil	17
213		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{5}{8}$" Lg., Rnd. Hd.	14
214		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{3}{4}$" Lg., Rnd. Hd.	2
215		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{1}{2}$" Lg. Rnd. Hd.	1
216		Nut, $\frac{1}{4}$" B.S.F., Hex. Pln.	14
218		Plug, $\frac{3}{8}$" B.S.P. Sq. Hd.	1
219		Plug, $\frac{1}{8}$" B.S.P. Sq. Hd.	1
220	16570	Wearing Shoe	1
221	16763	Shield Support, L.H.	1
222	16765	Scraper Blade, L.H.	1
223	G830	Keeper Plate	1
224		Washer, $\frac{1}{8}$" Dia., Single Coil	2
225		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{1}{2}$" Lg., Hex. Hd.	2
226	16783	Chain Assy. Complete	1
227		Connecting Link	1

SAFETY CLUTCH

228	16632	Rotor Drive Shaft	1
229		Ball Bearing, 1" Bore, $2\frac{1}{2}$" O.D., $\frac{3}{4}$" Wide	1
230	16572	Bearing Housing	1
231		Rivet, $\frac{1}{4}$" Dia., $\frac{5}{8}$" Lg. Rnd. Hd.	6
232		Oilseal, $1\frac{1}{4}$" I.D. x $1\frac{7}{8}$" O.D. x $\frac{3}{8}$" Wide	1
233	16563	Spacing Sleeve	1
234	16554	Drive Plate	1
	16552	Stud	4
235	16135	Friction Disc	2
236	16553	Rotor Drive Disc	1
237	16551	Wearing Plate	1
238		Nut, $\frac{3}{4}$" B.S.F. Hex. Slotted	1
239		Splitpin, $\frac{1}{8}$" Dia., $1\frac{1}{2}$" Lg.	1
240		Washer, $\frac{3}{4}$" Dia., Std. Flat Brt.	1
241	G602	Spring	4
242		Washer, $\frac{7}{16}$" Dia., Std. Flat Brt.	4
243		Nut, $\frac{7}{16}$" Dia., B.S.F. Hex. Pln.	4

ROTOR AND BLADES

250	16784	Rotor (Standard)	1
251	16792	Hoe Blade, R.H.	4
252	16793	Hoe Blade, L.H.	4
253	G918	Bolt	16
254		Washer, $\frac{7}{16}$" Dia., Single Coil	16

Illust. No.	Part No.	Description	No. off.
255		Nut, $\frac{7}{16}$" B.S.F., Hex. Pln.	16
	16896	Picktine Rotor (Alternative not illustrated)	1
	G991	Lucerne Tine	10
	G992	Picktine	10
	G921	Bolt	20
		Nut, $\frac{7}{16}$" B.S.F., Hex. Pln.	20
		Spring Washer, $\frac{7}{16}$" Dia.	20
256		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{1}{2}$" Lg., Rnd Hd.	1
257	G639	Dust Cover	1
258		Rivet $\frac{3}{16}$" Dia., $\frac{1}{2}$" Lg. Rnd. Hd.	3
259	G635	Back Plug	1
		STUB AXLE ASSEMBLY	
260	16558	Stub Axle	1
261	BRM$\frac{5}{8}$	Ball Bearing, $\frac{5}{8}$" Bore, $1\frac{3}{16}$" O.D. $\frac{5}{8}$" Wide	1
262	G637	Oilseal Holder	1
263		Oilseal, $\frac{7}{8}$" I.D., $1\frac{1}{2}$" O.D., 13/32" Wide	1
264	G632	Bearing Cap	1
265	G629	Felt Dust Seal	1
266	16557	Spacing Sleeve	1
267	G640	Dust Cover Assy.	1
268	16758	Tab Washer	1
269		Nut, $\frac{5}{8}$" B.S.F. Hex. Lock	1
		SIDE PLATE	
270	16764	Scraper Blade, R.H.	1
271	G830	Keeper Plate	1
272		Washer, $\frac{1}{4}$" Dia., Single Coil	2
273		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{1}{2}$" Lg., Hex. Hd.	2
274		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{3}{4}$" Lg., Hex. Hd.	1
275		Washer, $\frac{1}{4}$" Dia., Single Coil	3
276		Nut, $\frac{1}{4}$" B.S.F., Hex. Pln	3
277		Setscrew, $\frac{1}{4}$" B.S.F., $\frac{5}{8}$" Lg., Rnd. Hd.	2
278		Setscrew, $\frac{5}{16}$" B.S.F., $\frac{3}{4}$" Lg., Hex. Hd.	4
279		Washer, $\frac{5}{16}$" Dia., Single Coil	4
280	16760	R.H. Side Plate	1
		SHIELDS AND TRAILING BOARD	
285	16811	Blade Setting Bar	1
286	16861	Main Shield	1
287		Setscrew, $\frac{7}{16}$" B.S.F., $\frac{3}{4}$" Lg., Hex Hd.	1
288		Washer, $\frac{7}{16}$" Dia., Single Coil	1
289		Setscrew, $\frac{3}{8}$" B.S.F., $\frac{3}{4}$" Lg., Hex. Hd.	2
290		Washer, $\frac{3}{8}$" Dia., Single Coil	2

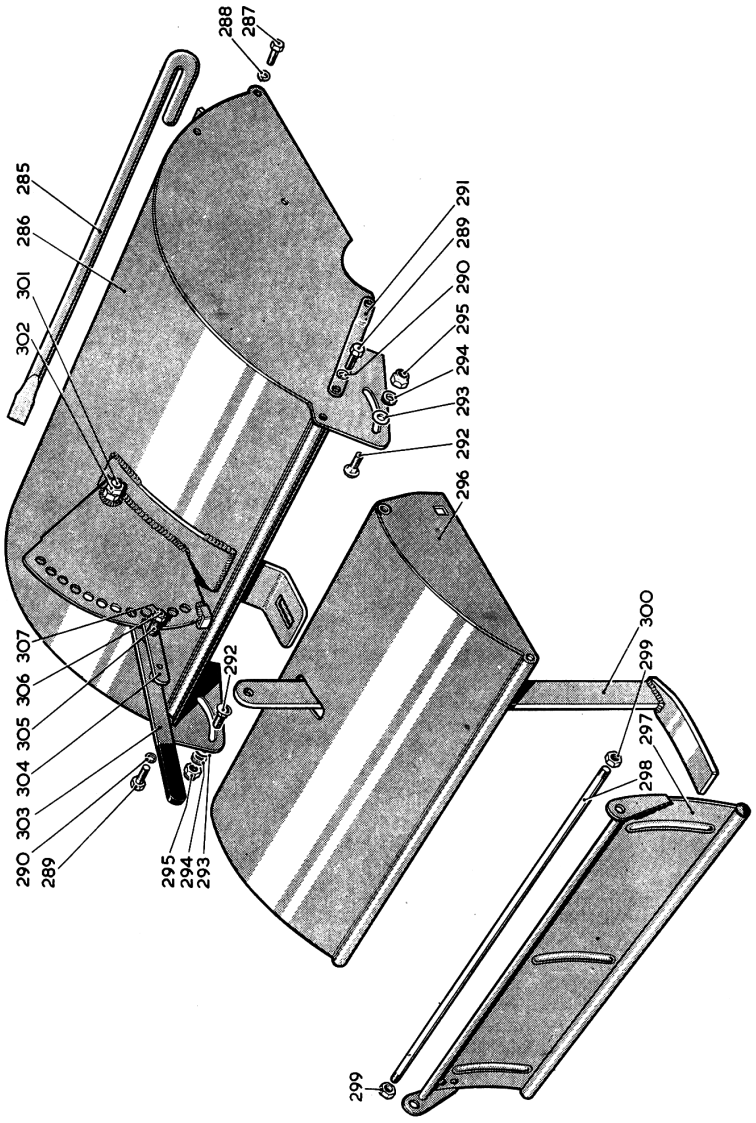


DIAGRAM 7—SHIELDS AND DEPTH CONTROL

Illust. No.	Part No.	Description	No. off.
291	16754	Shield Support, R.H.	1
292	G644	Clamping Bolts	2
293		Washer, $\frac{7}{16}$" Dia., Flat Brt.	2
294		Washer, $\frac{3}{8}$" Dia., Double Coil	2
295		Nut (Nyloc) $\frac{3}{8}$" B.S.W., No. NP/V126	2
296	16770	Rear Shield	1
297	16539	Trailing Board Assy. Comprising:	
		16752 Trailing Board	1
		G649 Bracket, L.H.	1
		G647 Bracket, R.H.	1
		Rivet, $\frac{3}{16}$" Dia., $\frac{1}{2}$" Lg. Rnd. Hd.	4
298	16771	Rod	1
299		Nut, $\frac{5}{16}$" B.S.F., Hex. Lock	2
300	16720	Skid	1
301		Setscrew, $\frac{3}{8}$" B.S.F., 1" Lg., Hex. Hd.	1
302		Nut, $\frac{3}{8}$" B.S.F., Hex. Lock	1
303	16717	Depth Control Lever	1
304	16727	Clip	1
305	20470	Spring	1
306		Bolt, $\frac{1}{4}$" B.S.F., $1\frac{1}{2}$" Lg., Hex. Hd.	1
307		Nut, $\frac{1}{4}$" B.S.F., Hex. Lock	1

HANDLEBARS

315	16803	Handlebar Grip	2
316	16736	Clutch Lever and Reverse Interlock Lever	2
317	16732	Clutch Cable and Reverse Interlock Cable	2
318		Cable Clips 1" Dia. Spring Clips	10
319	20525	Toggle Upper	2
320	20526	Toggle Centre	1
321	20527	Toggle Lower	1
322		Bolt, $\frac{5}{16}$" B.S.F., $1\frac{3}{4}$" Lg., Hex. Hd.	1
323		Bolt, $\frac{5}{16}$" B.S.F., 2" Lg., Hex Hd.	2
324		Nut, $\frac{5}{16}$" B.S.F., Hex. Locknut	3
325	20422	Handle Bar, Spring	1
326	16744	Handle Bar, L.H.	1
327	16743	Handle Bar, R.H.	1
328	16799	Toggle Spacer	1
329		Bolt, $\frac{3}{8}$" B.S.F., $5\frac{3}{4}$" Lg.	2
330		Nut, $\frac{3}{8}$" B.S.F., Hex. Locknut	1
331	16707	Hinge Plate	2

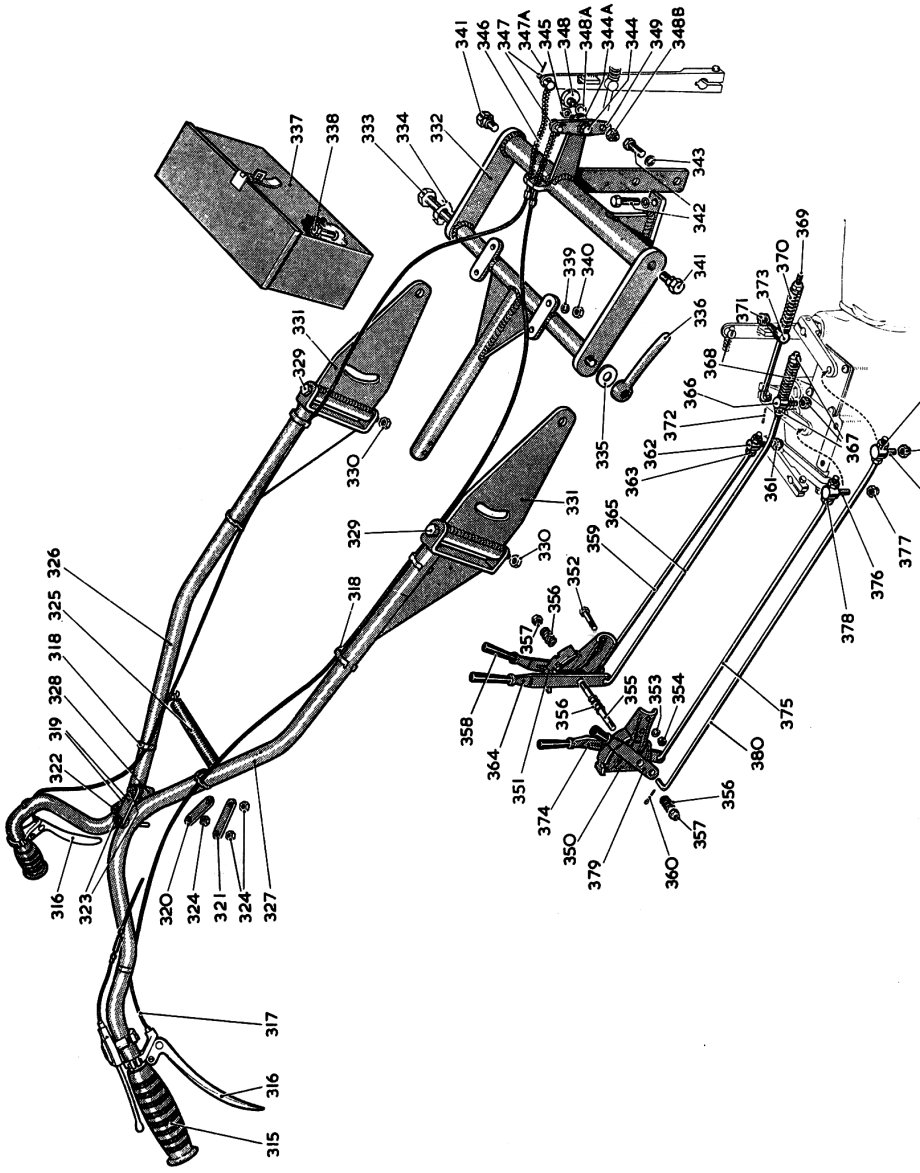


DIAGRAM 8—**HANDLEBARS AND CONTROLS**

FRAME AND TOOLBOX

Illust. No.	Part No.	Description	No. off.
332	16662	Frame	1
333	16715	Clamp Bolt	1
334	16735	Locking Washer	1
335		Washer, $\frac{1}{2}$" Dia., Flat Brt.	1
336	20517	Clamping Lever	1
337	16808	Toolbox Assy.	1
338		Bolt, $\frac{1}{4}$" B.S.F., $\frac{3}{4}$" Lg., Hex. Hd.	4
339		Washer, $\frac{1}{4}$" Dia., Single Coil	4
340		Nut, $\frac{1}{4}$" B.S.F., Hex. Pln.	4
341	16734	Bolt, Special	2
342		Setscrew, $\frac{3}{8}$" B.S.F., 1" Lg., Hex. Hd.	4
343		Washer, $\frac{3}{8}$" Dia., Single Coil	4
344		Bolt, $\frac{5}{16}$" B.S.F., 1" Lg., Hex. Hd.	1
344A		Washer, $\frac{5}{16}$" Flat Brt.	1
345		Nut, $\frac{5}{16}$" B.S.F., Locknut Hex.	1
346	16850	Clutch Cable Spring	2
347	16733	Trunnion	2
347A		Splitpin, $\frac{5}{8}$" Lg., $\frac{3}{32}$" Dia.	2
348	16894	Eccentric	1
348A		Shakeproof Washer, $\frac{5}{16}$" Dia., Internal	1
348B		Nut, $\frac{5}{16}$" B.S.F. Simmond's "Nyloc" (NP/F105)	1
349	16845	Reverse Fulcrum Arm	1

CONTROL LEVERS AND QUADRANTS

350	16634	Quadrant, R.H.	1
351	16635	Quadrant, L.H.	1
352		Bolt, $\frac{1}{4}$" B.S.F., $1\frac{1}{2}$" Lg. Hex. Hd.	2
353		Washer, $\frac{1}{4}$" Dia., Single Coil	2
354		Nut, $\frac{1}{4}$" B.S.F., Hex. Pln.	2
355	16731	Stud	1
356	G792	Spring	3
357		Nut (Nyloc) $\frac{5}{16}$" B.S.W., No. NT/V106	2
358	16729	Hand Lever, Short	1
359	16629	Rotor Control Rod	1
360		Splitpin, $\frac{3}{32}$" Dia., $\frac{5}{8}$" Lg. (1 per rod)	4
361		Nut (Nyloc) $\frac{5}{16}$" B.S.W., No. NT/V106	1
362	16739	Trunnion	1
363		Nut, $\frac{5}{16}$" B.S.W., Locknut	2

Illust. No.	Part No.	Description	No. off.
364	16730	Hand Lever, Long	1
365	16630	Wheel Selector Rod	1
366	16739	Trunnion	1
367		Nut (Nyloc) $\frac{5}{16}$" B.S.W., No. NT/V106	3
368	16851	Spring	1
369	16841	Reverse Lock Rod	1
370	16865	Spring	1
371		Nut (Nyloc) $\frac{5}{16}$" B.S.W., No. NT/V106	2
372		Splitpin, $\frac{3}{32}$" Dia., $\frac{5}{8}$" Lg.	1
373	16739	Trunnion	1
374	16730	Hand Lever, Long	1
375	16631	Gear Control Rod	1
376	16739	Trunnion	1
377		Nut (Nyloc) $\frac{5}{16}$" B.S.W., No. NT/V106	1
378		Locknut, $\frac{5}{16}$" B.S.W. Hex Lock	2
379	16729	Hand Lever, Short	1
380	16628	Ratio Change Rod	1
381	16739	Trunnion	1
382		Nut (Nyloc) $\frac{5}{16}$" B.S.W., No. NT/V106	1
383		Locknuts, $\frac{5}{16}$" B.S.W. Hex. Lock	2

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