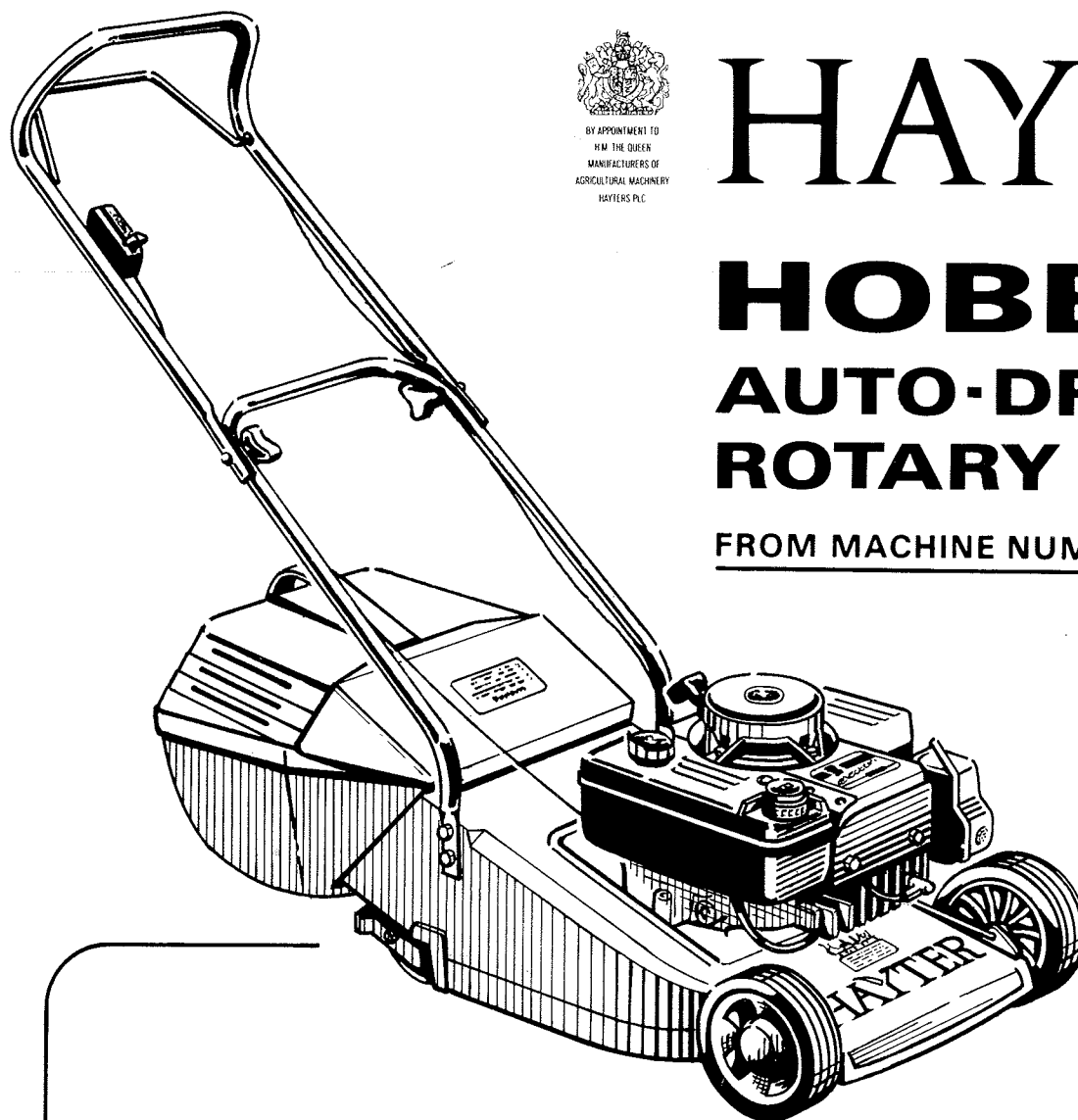




HAYTER

HOBBY AUTO-DRIVE ROTARY LAWNMOWER

FROM MACHINE NUMBER 239-3701



OPERATING INSTRUCTIONS ILLUSTRATED PARTS LIST

HAYTERS PLC. SPELLBROOK BISHOP'S STORTFORD
HERTS ENGLAND CM23 4BU

SAFETY PRECAUTIONS (As recommended in B.S.5107:1974)

-  Know your controls. Read the owner's manual carefully. Learn how to stop the engine quickly in any emergency.
-  Make sure the lawn is clear of sticks, stones, bones, wire and debris. They could be thrown by the blade.
-  Stop the engine and disconnect spark plug wire before checking or working on the mower.
-  Damaged cutterbars and loose fixing bolts are major hazards. Before using, always visually inspect the cutting mechanism to ensure that it is in good condition. A damaged cutterbar should be replaced immediately, using only Hayter replacement cutterbars. Cutterbars can be re-sharpened, ensure that both cutting edges are evenly sharpened to maintain the balance.
-  Always be sure the mower is in safe operating condition. Check all nuts, bolts and screws often. Use only replacement parts made and guaranteed by HAYTERS P.L.C.
-  Add fuel BEFORE starting the engine. Avoid spilling petrol and do not fill the tank while the engine is running or while you are smoking.
-  Do not mow whilst people, especially children, or pets are in the mowing area.
-  Never use the mower unless the guards provided by the Manufacturers are in position.
-  Do not mow barefoot or in open sandals.
-  Do not operate the engine in a confined space where exhaust fumes (carbon monoxide) can collect.
-  Start the engine carefully with feet well away from the blades.
-  Stop the engine whenever you leave the mower.
-  Do not allow children or people unfamiliar with these instructions to use the mower.
-  On slopes or wet grass, be extra careful of your footing.
-  Never cut grass by pulling the mower towards you.
-  Do not overspeed the engine or alter governor settings. Excessive speed is dangerous and shortens mower life.
-  Warning: Blades continue to rotate after machine is switched off.

-  When using the machine without the grassbox, do not lift the deflector plate whilst the machine is in operation.
-  Never insert hand into grass discharge chute whilst the engine is running.
-  Stop the engine before pushing the mower across gravel drives, walks or roads.
-  Never pick up or carry a mower when it is operating.

The Hayter Hobby Auto Drive is perfectly safe if used correctly. Failure to observe these simple precautions may result in serious injury.



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND ANY PROVIDED WITH THE EQUIPMENT ON WHICH THIS ENGINE IS USED BEFORE ATTEMPTING TO OPERATE YOUR TECUMSEH ENGINE.

OIL & FUEL RECOMMENDATIONS

To start and operate your Tecumseh engine, you will need the following:

- ① **A CLEAN, HIGH QUALITY, DETERGENT OIL.**
To a classification of "SC", "SD" or "SE".
DO NOT USE SAE 10W40 OIL
FOR SUMMER (OR ABOVE 5°C) USE SAE 30 OIL
(SAE10W30 is an acceptable substitute)
FOR WINTER (OR BELOW 5°C) USE SAE 5W20 or 5W30 OIL
(SAE10W is an acceptable substitute)
Oil Sump capacity is approximately 0,6 litres (Oil Sump capacity on engine with 8½:1 auxiliary horizontal power take-off is approximately 0,7 litres).
- ② **A FRESH, CLEAN COMMERCIAL ("REGULAR") GRADE PETROL**

NOTE: Use clean oil and fuel and store in approved, clean, covered containers. Use clean fill funnels.

INTRODUCTION

The 16" HAYTER HOBBY AUTO DRIVE is robustly constructed and designed to give an efficient economical performance, combined with ease of operation. The correct operation and attention to routine maintenance as recommended will ensure long and efficient service from the machine. It is important that the machine is not abused or neglected.

The machine is carefully checked at our works prior to despatch and every effort is made by Hayters to see that the machine arrives in perfect condition. Your dealer will ensure this on delivery. It is recommended that you permit the dealer to go through the operating instructions with you.

Due to the possible settling in of new components, it is essential that after a short period of use all securing nuts and bolts be checked and tightened if necessary.

GUARANTEE

The machine is guaranteed against faulty workmanship and materials for a period of 12 months from the date of purchase. In the case of components not manufactured by HAYTERS PLC, no guarantee is given but the purchaser shall be entitled to the benefit of any guarantee given by the manufacturers of such components. Any claim under guarantee should be referred to the Agent through whom the machine was originally supplied, quoting the machine Serial Number which is located to rear of mainframe behind height adjuster.

The guarantee becomes void if any parts not made or supplied by Hayters are fitted to the machine. In the case of machines being used for hiring out purposes no guarantee of any kind is given or is to be implied.

ASSEMBLY INSTRUCTION

Remove the grassbox and machine from carton. Place lower handlebar onto fixing screws sticking out of the rear sides of machine. Fit spring washers, plain nuts and plastic caps. Align upper handlebar and tighten locking knobs.

OPERATING INSTRUCTIONS

See the engine manufacturers' handbook and carefully carry out the recommendations for starting the engine, ensuring that engine sump is filled to the correct level with one of the recommended grades of lubricating oils. It is most important that oil other than those grades

OPERATING INSTRUCTIONS CONTD.

recommended should not be used in this engine.

STARTING: Please refer to engine manufacturers manual.

The engine is governed to run at the maximum speed of 3,200 r.p.m. and this speed is obtained by setting the throttle control lever in the 'FAST' position. Should any adjustments be made to the engine it is essential that the maximum governed speed of 3,200 r.p.m. is strictly adhered to.

CLUTCH LEVER

The Clutch incorporates a 'fail-safe' device, i.e: the machine will only move forward whilst the clutch lever, which is situated on the handlebar is manually sustained. Release of the lever will cause the machine to stop.

CUTTING HEIGHT ADJUSTMENT

The cutting height range is from $\frac{1}{2}$ " to 2". To increase the height of cut, the height adjusting knob must be turned clockwise until the required cutting height is obtained.

HINTS ON OPERATION

The Hayter Hobby Auto Drive is a self propelled machine having a forward speed of 2.4 m.p.h.



When the machine is used without the grassbox, the grass deflector will automatically lower to cover the discharge chute aperture and will deflect cuttings downwards and away from the operator. Under no circumstances must the machine be used with the deflector plate removed.

HINTS ON OPERATION

LAWNS: Fit grassbox, raise cutting height to maximum (2") and cut area. This will help to predetermine the height setting for the next cut and also eliminate the possibility of 'scalping' occurring on any high spots in the law.

BORDERS: The inset wheels permit mowing over lawn edges. Edge grasses should be cut with edging cutters first.

HINTS ON OPERATION CONTD.

WALLS, FENCES AND OTHER OBSTRUCTIONS: The machine can be safely used to cut close up to obstructions.

RUNAWAY GROWTH ON LAWNS: Set cutting height to maximum, remove grassbox and cut area. The cuttings can then be collected by fitting grassbox and working over area a second time; if cuttings are wet, leave to dry and collect later.



HIDDEN OBSTRUCTIONS: When mowing overgrown areas, if practicable survey the area first, removing any large items of debris. Should an obstruction be encountered whilst mowing the attention of the user will immediately be drawn by the frictional noise which is set up; draw the machine backwards without raising the front. Stop the engine and remove the spark plug, examine the cutting mechanism. If undamaged remove the obstruction or proceed to work round it. Should, however, the cutterbar be broken or badly damaged it should be replaced immediately.

BLOCKAGE IN THE DISCHARGE CHUTE APERTURE: Observance of the preceding 'Hints' should eliminate the possibility of a blockage occurring in the Discharge Chute Aperture, for it is usually caused by attempting to remove too much grass initially with a low cutting height setting, especially, when conditions are wet, or from allowing the grassbox to become overfilled. Remember that, whatever the conditions, it is better to cut higher and more frequently than to try to cut low at the first cutting. It is most important that the engine is stopped and the sparking plug removed before attempting to clear a blockage or examine the cutting mechanism.



UNDER DECK CLEANLINESS: The underside of the main-frame casing is designed to permit the cutting mechanism to work efficiently and safely and also to provide the correct volume of air to pass through the casing to carry the cuttings through the rear aperture and into the grassbox or, alternatively, deflected downwards and on to the ground. After a period of use, and more especially when conditions are wet, grass cuttings can accumulate on the underside of the casing and if allowed to remain will eventually build up and greatly impair the efficiency of the machine. Regular cleaning of the underside of the casing by hosing or scraping off the debris will prevent this. Before attempting to clean the underside of the casing, stop the engine and remove the spark plug, the machine may then be turned on its side with the Silencer uppermost.

GRASSBOX: The grassbox requires minimal attention; ensure that the interior of the box is kept clean and that the air vents in the sides of the box are kept clear.

MAINTENANCE

LUBRICATION:

HEIGHT ADJUSTMENT LINKAGE POINTS: Apply a small amount of oil to the linkage and pivot points occasionally.

THROTTLE CONTROL CABLE: Apply a light application of oil to the inner cable occasionally.

DEFLECTOR PLATE: Apply a light application of oil to the deflector plate hinge points occasionally.

WHEELS: The wheel bearings are sealed units and are pre-packed with grease sufficient to last a long period of time, should however, further lubrication be required remove wheel covers and run in a little lubricating oil.

CLUTCH CABLE: Apply a small quantity of light oil by means of an oilcan to the inner cable at the point where the cable connects with the clutch cable bracket. Oil penetration down the cable will be facilitated if the clutch lever is worked backwards and forwards as the oil is applied.
See Fig.1.

MAINTENANCE

LUBRICATION:

ENGINE: See engine manufacturer's handbook and carefully carry out the recommended instructions, paying particular attention to the lubricating instructions. Cover up the machine when not in use.

The use of an upper cylinder lubricant is recommended where the machine is infrequently used and also towards the end of the season before Winter storage. When storing the machine disconnect the spark plug lead, remove the spark plug. Insert a small quantity of oil into the cylinder and turn the engine, by means of the recoil start, a few times to distribute the oil. Replace spark plug. Pull starter rope slowly until compression is felt (resistance will be felt at this point). This will ensure that both valves are fully closed preventing moisture entering combustion chamber.

CLUTCH ADJUSTMENT: Disconnect spark plug. Ensure clutch is disengaged by operating recoil start. Loosen locknut on handlebar cable bracket and adjust cable by turning plain nut. Adjust so length of spring is $1\frac{3}{4}$ " - $1\frac{7}{8}$ " when clutch is held in the engaged position (Fig.1). Tighten locknut. The machine should now roll freely with the clutch disengaged.



SECURING NUTS AND BOLTS: It is essential that all securing nuts and bolts are examined periodically and tightened if necessary.

CUTTERBAR: The Hayter cutterbar is friction driven by the dished bottom plate when in use. In the event of the cutterbar striking an obstruction the cutterbar is free to move relative to the bottom plate to a new position at which it will continue to cut. Regular inspection of the cutting mechanism is recommended to ensure that the cutterbar is in good condition. Should the cutterbar be damaged to the extent that it is likely to become out of balance it should be replaced immediately, ensuring that the new cutterbar is fitted exactly as shown in Fig.2 and that the retaining setscrew, Item No.30 is tightened securely, a torque setting of 40 ft/lb is recommended. The cutterbar may be resharpened, ensuring that both cutting edges are evenly sharpened to maintain the balance.



It is important, when examining, cleaning or making any adjustment to the cutting mechanism that the engine be stopped and the plug lead disconnected.

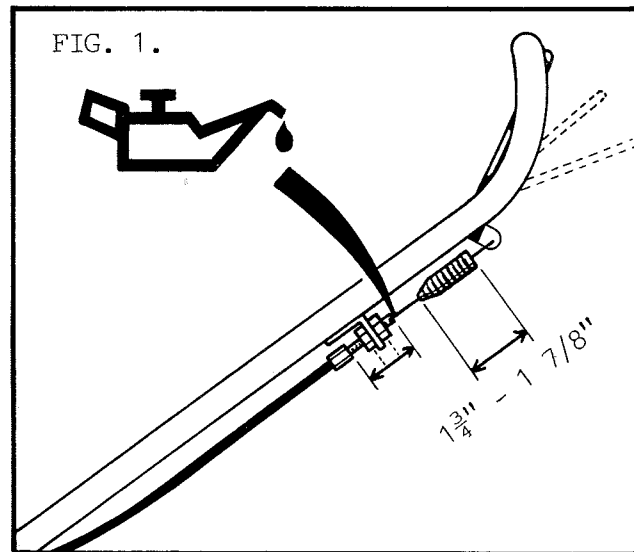
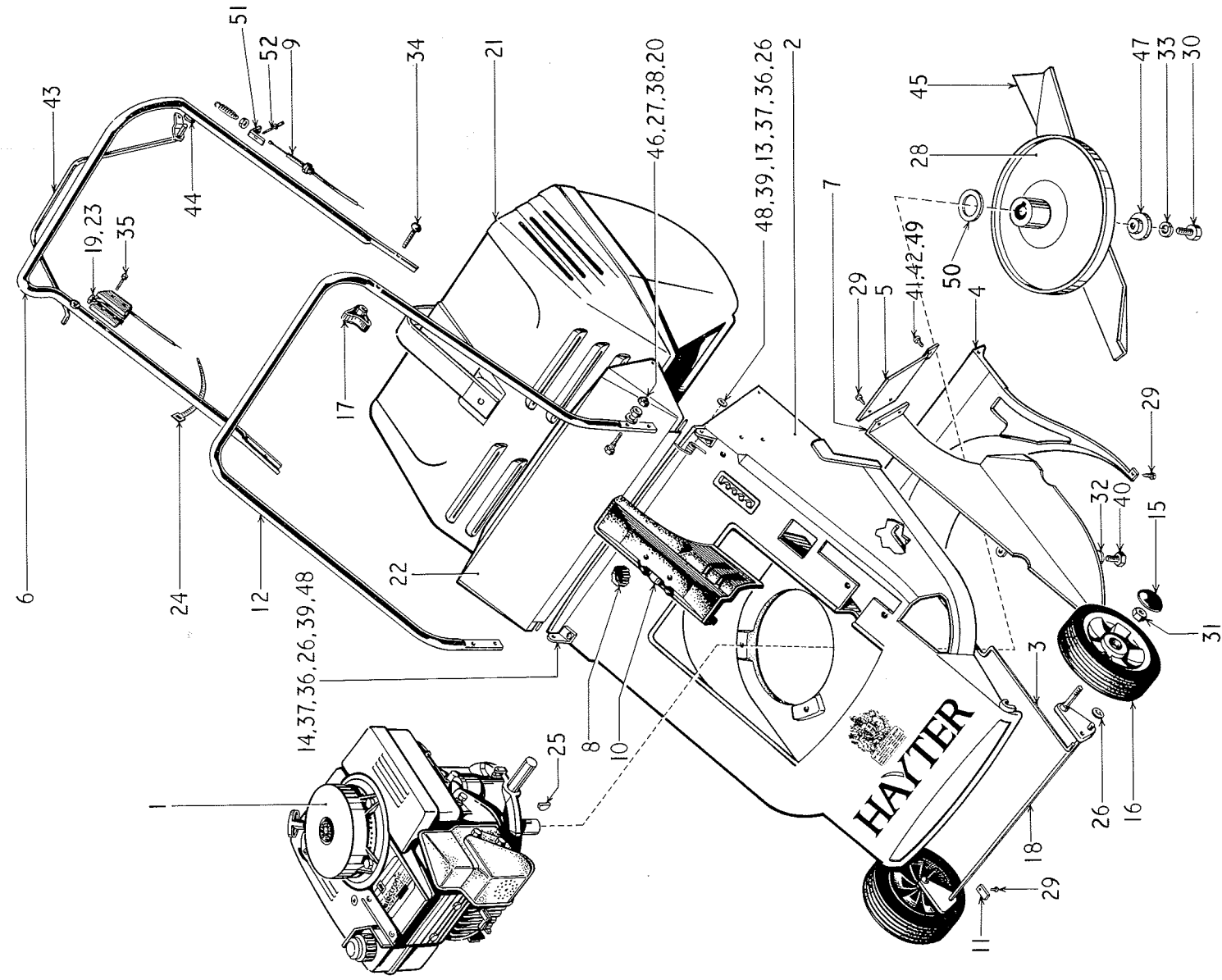


FIG. 2. MAINFRAME ASSEMBLY



ITEM NO.	PART NO.	NO OFF	DESCRIPTION
1	239002	1	Engine Technamotor
2	239003	1	Mainframe Casting (Green)
3	239023	1	Connecting Rod
4	239038	1	Throwplate Assy.
5	239055	1	Rear Underguard Cover
6	239067	1	Upper Handlebar
7	239072	1	Underguard Assy.
8	239077	2	M6 Plastic knob
9	239080	1	Clutch Cable
10	239081	1	Plastic Cover
11	201025	2	Axle Retainer
12	201028	1	Lower Handlebar
13	201053	1	N/Side Hinge Bracket
14	201054	1	O/Side Hinge Bracket
15	201091	2	Wheel Cap
16	201095	2	6" Hamlin Wheel c/w 1/2" Ball Bearing
17	201089	2	Knob & Insert
18	201101	1	Front Axle Assy.
19	217005	1	Throttle Control & Cable
20	234051	4	Plastic Nut Cover
21	234055	1	Grassbox Assy.
22	234054	1	Deflector Assy.
23	5631	1	Throttle Control Moulding
24	363	3	Cable Tie C.C.I.
25	1662	1	Woodruff Key
26	2385	4	1/4" Spring Retainer
27	3469	4	M8 Spring Washer
28	6164	1	Friction Disc Assy.
29	9578	4	8/32 x 1/2" Hex Washer Hd. Screw
30	9118	1	3/8" UNF x 1 1/2 Setscrew
31	9232	2	1/2" UNF Nyloc Nut
32	9271	3	3/8" Washer
33	9273	1	3/8" Spring Washer
34	9367	2	M6 x 40 Coach Bolt
35	9358	2	M5 x 35 Taptite Pan Hd. Screw
36	9360	2	M5 x 12 Pozi Drive Pan Hd. Screw
37	9430	2	M5 Self Lock Nut
38	9443	4	M8 Plain Nut
39	9470	4	M5 Washer
40	9520	3	3/8" UNC x 1" Taptite Screw
41	9005	1	4BA x 1/2" Rd. Hd. Screw
42	9188	1	4BA Lock Nut
43	239084	1	Clutch Lever Assy.
44	239039	2	Nylon Bush
45	201026	1	Cutterbar
46	201060	5	M8 x 18 Serrated Screw
47	4014	1	Distance Piece
48	201048	2	Deflector Spring
49	9253	1	4BA Plain Washer
50	239093	1	Spacer
51	239052	1	Stop
52	9318	1	Pop Rivet

*Small hand-drawn
Mette Patent
- 239109*

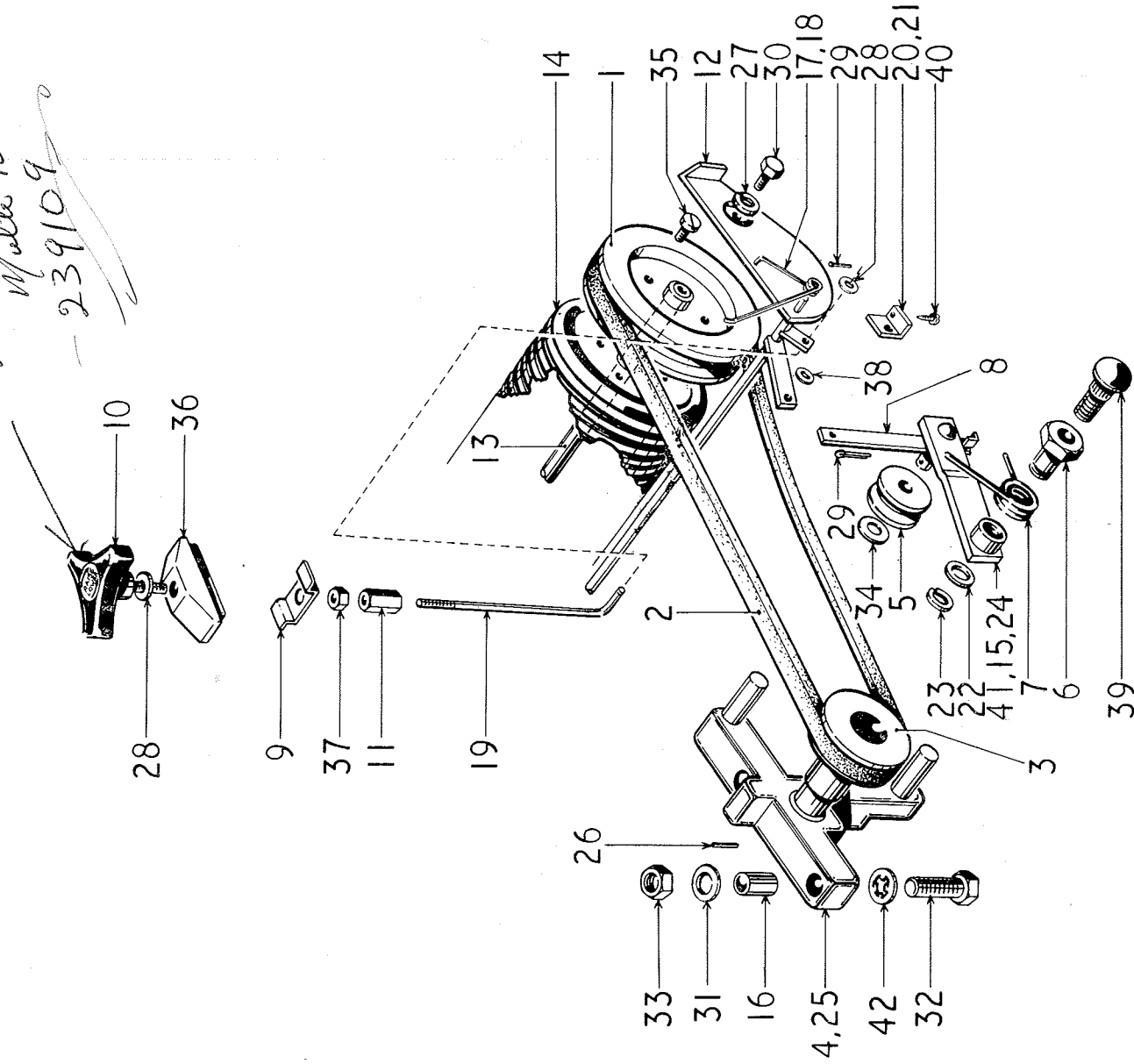


FIG. 3. DRIVE ASSEMBLY

ITEM NO.	PART NO.	NO		DESCRIPTION
		OFF		
1	239010	1		Driven Pulley
2	239011	1		V-Belt Z940 T.S.O
3	239015	1		Driving Pulley
4	239017	1		Bearing Housing
5	239021	1		Tensioner Pulley
6	239033	1		Pivot Nut
7	239034	1		Spring
8	239053	1		Clutch Cable Arm
9	239054	1		Washer
10	239056	1		Handwheel
11	239058	1		Height Adjusting Pillar
12	239083	1		Rear Roller Frame Assy.
13	239064	1		Roller Shaft
14	239065	1		Rear Roller
15	239075	1		Tensioner Pulley Arm Assy.
16	239076	2		Distance Piece
17	239078	1		Spring
18	239079	1		Spring
19	239082	1		Height Adjuster Screw
20	201105	1		Bracket N/Side
21	201106	1		Bracket O/Side
22	2575	1		Plain Washer
23	3096	1		1/2" Circlip External
24	3296	1		Bush (Pulley Arm)
25	3347	1		Bush (Bearing Housing)
26	3997	1		Driving Pulley Pin
27	9474	2		M6 Spring Washer
28	9266	1		5/16" Plain Washer
29	9303	3		3/32" x 1/2" Split Pin
30	9361	2		M6 x 12 Setscrew
31	9472	3		M6 Washer
32	9568	2		M6 x 45 Hex. Hd. Bolt
33	9437	2		M6 Plain Nut
34	9479	2		M10 Plain Washer
35	9533	4		M10 x 12 Self Tap Screw Pan Hd.
36	201082	1		Moulding
37	9443	1		M8 Plain Nut
38	2385	4		1/4" Spring Retainer
39	201060	5		M8 x 18 Serrated Screw
40	9578	4		8/32" x 1/2" Hex Washer Hd. Screw
41	239086	1		Tensioner Arm Assy. c/w Bush
42	239095	2		6mm Push Fix

239101 →

239100-19

WARNING NOTICE

(Issued in accordance with Asbestos Products (Safety) Regulations 1986)
Certain components on this Mower, such as brake and clutch linings and some gaskets and joints, may contain a small quantity of asbestos.

When repairing and replacing these items care should be taken to:-

- 1) Carry out the repairs in a well ventilated area.
- 2) Remove dust by dampening down using a recommended liquid or water.
- 3) Dampen dust and place it in a properly closed receptacle.
- 4) Dispose of the receptacle safely.

If you are uncertain seek advice from your dealer.



PART No. 239 046