

IM1912

# ***ROTARY HEAD***

***INSTRUCTION BOOK  
&  
REPLACEMENT PARTS INFORMATION  
ISSUE 1***

## IMPORTANT

NOTE HERE THE SERIAL NUMBER OF YOUR MACHINE AND ALWAYS QUOTE IT IN ANY COMMUNICATION WITH US OR YOUR DEALER. THIS IS PARTICULARLY IMPORTANT WHEN ORDERING SPARES. REMEMBER TO INCLUDE ALL NUMBERS AND LETTERS.

MACHINE SERIAL NUMBERS \_\_\_\_\_

THE INFORMATION GIVEN THROUGHOUT THIS MANUAL IS CORRECT AT THE TIME OF PUBLICATION. HOWEVER, IN THE COURSE OF CONSTANT DEVELOPMENT OF BOMFORD TURNER MACHINES, CHANGES IN SPECIFICATION ARE INEVITABLE. SHOULD YOU FIND THE INFORMATION GIVEN IN THIS BOOK TO BE AT VARIANCE WITH THE MACHINE IN YOUR POSSESSION, YOU ARE ADVISED TO CONTACT THE BOMFORD TURNER SERVICE DEPARTMENT WHERE UP-TO-DATE INFORMATION WILL BE PROVIDED. THE MANUAL CAN CONTAIN STANDARD AND OPTIONAL FEATURES AND IS NOT TO BE USED AS A MACHINE SPECIFICATION.

THE MACHINE HAS BEEN TESTED AND IS CONSIDERED SAFE IF CAREFULLY USED. ENSURE YOUR OPERATOR IS PROPERLY TRAINED IN ITS USE AND MAINTENANCE.

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## IMPORTANT

NOTEZ ICI LES NUMEROS DE SERIE DE VOTRE MACHINE ET MENTIONNEZ LES DANS TOUTE COMMUNICATION AVEC NOS SERVICES OU VOTRE REVENDEUR. CECI EST IMPORTANT POUR LA COMMANDE DE PIECES DETACHEES. PENSEZ A NOTER TOUS LES NUMEROS ET TOUTES LES LETTERS.

NUMEROS DE SERIE DE LA MACHINE \_\_\_\_\_.

LES INFORMATIONS DONNEES DANS CE MANUEL SONT CORRECTES CEPENDANT, DU FAIT DE DEVELOPPEMENT CONSTANT DES MACHINES BOMFORD TURNER.

CHANGEMENTS DANS LES CARACTERISTIQUES SONT INEVITABLES.

SI VOUS TROUVEZ QUE LES INFORMATIONS DONNEES NE CORRESPONDENT PAS A VOTRE MACHINE VEUILLEZ CONTACTER LE SERVICE DES REPARATIONS OU DES INFORMATIONS PLUS RECENTES VOUS SERONT DONNEES.

CE MANUEL PEUT MONTRER DES CARACTERISTIQUES OPTIONNELLES ET NE PEUT PAS ETRE CONSIDERE COMME SPECIFICATION DE LA MACHINE.

CETTE MACHINE A ETE TESTEE, ET ELLE EST CONSIDEREE COMME FIABLE A CONDITION D'UNE BONNE UTILISATION. ASSUREZ-VOUS QUE VOTRE OPERATEUR EST QUALIFIE EN CE QUI CONCERNE L'UTILISATION DE LA MACHINE AINSI QUE SON ENTRETIEN.

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## IMPORTANTE

ANOTE AQUÍ EL NÚMERO DE SERIE DE SU MÁQUINA Y CÍTELO SIEMPRE EN CUALQUIER COMUNICACIÓN CON NOSOTROS O CON SU PROVEEDOR. ESTO ES ESPECIALMENTE IMPORTANTE CUANDO SE PIDEN RECAMBIOS. NO OLVIDE INCLUIR TODOS LOS NÚMEROS Y LETRAS.

NÚMERO DE SERIE DE LA MÁQUINA .....

LA INFORMACIÓN QUE SE OFRECE A LO LARGO DE ESTE MANUAL ES CORRECTA EN EL MOMENTO DE SU PUBLICACIÓN. SIN EMBARGO, DEBIDO AL CONSTANTE DESARROLLO DE LAS MÁQUINAS BOMFORD TURNER, LAS MODIFICACIONES DE LAS CARACTERÍSTICAS TÉCNICAS SON INEVITABLES. EN CASO DE ENCONTRAR QUE LA INFORMACIÓN QUE SE OFRECE EN ESTE LIBRO DIFIERE RESPECTO A LA MÁQUINA DE SU PROPIEDAD, RECOMENDAMOS QUE SE PONGA EN CONTACTO CON EL DEPARTAMENTO DE SERVICIO DE BOMFORD TURNER, DONDE LE PROPORCIONARÁN INFORMACIÓN ACTUALIZADA.

EL MANUAL PUEDE CONTENER CARACTERÍSTICAS ESTÁNDARES Y OPCIONALES Y NO SE DEBE UTILIZAR COMO UNA ESPECIFICACIÓN DE LA MÁQUINA.

LA MÁQUINA SE HA REVISADO Y SE CONSIDERA SEGURA SI SE UTILIZA CON CUIDADO. ASEGÚRESE DE QUE SU OPERADOR ESTÉ CORRECTAMENTE INSTRUIDO EN EL USO Y MANTENIMIENTO DE LA MÁQUINA.

This manual describes the Bomford Rotary Head designed for use on suitable arm mowers. It must be read in conjunction with the arm mower manual and also the tractor operation manual. The head has been designed for “on the ground” grass and scrub cutting and must not be used in any other position.

### Disclaimer

The CE markings and guarding are only relevant to this machine when it used for grass or scrub cutting with the deck flat on the ground.

### Important

All implements with moving parts are potentially hazardous. The manufacturer has designed this rotary head to be used with all its safety equipment properly attached. Failure to do so may result in injury.

THIS MANUAL MUST BE READ IN CONJUNCTION WITH THE OPERATING INSTRUCTION MANUAL FOR THE BASE UNIT,

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### IMPORTANT

This machine is designed for vegetation control and must not be used for any other purpose.

It is potentially hazardous to fit or use. Any parts other than genuine **Bomford Turner** parts.

The company disclaims all liability for the consequences of such use

which, in addition, voids the machine warranty.

EC DECLARATION OF CONFORMITY  
conforming to EEC Directive 98/37/EC

We,

of BOMFORD TURNER LIMITED, Station Road, Salford Priors, Evesham,  
Worcestershire, WR11 5SW

declare that under our sole responsibility that the product (type)

60" ROTARY HEAD ASSEMBLY

Product Code: RC15

Serial No. & Date: .....

Manufactured by the above Company/\* .....

.....

(\*insert business name and full address if not stated above)

complies with the required provisions of the Directive 98/37/EC and 89/336/EEC,  
AMD 92/31/EEC, AMD 93/68/EEC and conforms with European Norm. BS EN 292

Part 1: 1991 Safety of Machinery - Terminology, Methodology  
Part 2: 1991 Safety of Machinery - Technical Specifications

and other national standards associated with its design and construction as listed in the Technical  
File.

Signed  .....

on behalf of BOMFORD TURNER LIMITED Responsible Person

Status      Engineering Manager

Date      10/03/2004

## Safety

A safe and careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this implement. This equipment should only be operated by those persons who have read the Manual, who are responsible and trained, and who know how to do so safely and responsibly.

The Safety Alert Symbol combined with a Signal Word, as seen below, is used throughout this manual. The Safety Alert Symbol means: "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!" The Symbol and Signal Word are intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this equipment..

Practice all usual and customary safe working precautions and above all remember safety is up to YOU. Only YOU can prevent serious injury or death from unsafe practices

**CAUTION!** The lowest level of Safety Message; warns of possible injury.



**WARNING!** Serious injury or possible death.



**DANGER!** Imminent death/critical injury.



**READ, UNDERSTAND, and FOLLOW** the following Safety Messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards.



**DANGER!** Operate Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operator's Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced or untrained personnel too operate the Tractor and Implement without supervision. Make sure the operator has fully read and understood the manuals prior to operation.



Safety (continued)

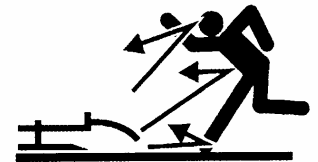
**WARNING!**

Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Serious injury or even death could result from falling off the tractor--particularly during a turnover when the operator could be pinned under the ROPS.



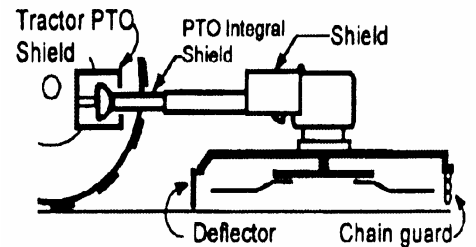
**DANGER!**

There are obvious and hidden potential hazards in the operation of this Mower. REMEMBER! This machine is often operated in heavy brush and in heavy weeds. The Blades of this Mower can throw objects if shields are not properly installed and maintained. Serious injury or even death may occur unless care is taken to insure the safety of the operator, bystanders, or passers-by in the area. Do not operate this machine with anyone in the immediate area. Stop mowing if anyone is within 100 yards of mower.



**DANGER!**

All Safety Shields, Guards and Safety devices including (but not limited to) - the Deflectors, Chain Guards, Steel Guards, Gearbox Shields, PTO integral shields, and Retractable Door Shields should be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or blade contact.



**DANGER!**

The rotating parts of this machine have been designed and tested for rugged use. However, the blades could fail upon impact with heavy, solid objects such as metal guard rails and concrete structures. Such impact could cause the broken objects to be thrown outward at very high velocities. To reduce the possibility of property damage, serious injury or even death, never allow the cutting blades to contact such obstacles.



**WARNING!**

Extreme care should be taken when operating near loose objects such as gravel, rocks, wire, and other debris. Inspect the area before mowing. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any objects that cannot be removed must be clearly marked and carefully avoided by the operator. Stop mowing immediately if blades strike a foreign object. Repair all damage and make certain rotor or blade carrier is balanced before resuming mowing.



**WARNING!**

Do not put hands or feet under mower decks. Blade Contact can result in serious injury or even death. Stay away until all motion has stopped and the decks are securely blocked up.



**DANGER!**

Replace bent or broken blade with new blades. NEVER ATTEMPT TO STRAIGHTEN OR WELD ON BLADES SINCE THIS WILL LIKELY CRACK OR OTHERWISE DAMAGE THE BLADE WITH SUBSEQUENT FAILURE AND POSSIBLE SERIOUS INJURY FROM THROWN BLADES



Safety (continued)

**WARNING!**



Do not operate or let the Blades turn when the Mower Deck is raised for any reason, including clearance or for turning. Raising the Mower deck exposes the Cutting Blades which creates a potentially serious hazard and could cause serious injury or even death from coming into contact with or objects thrown from the Blades.



**DANGER!**



Rotary Mowers are capable under adverse conditions of throwing objects for great distances (100 yards or more) and causing serious injury or death. Follow safety messages carefully.



**STOP MOWING IF PASSERS BY ARE WITHIN 100 YARDS UNLESS:**

- Front and Rear Deflectors, Chain Guards, or Bands are installed and in good, workable condition;
- Mower sections or Wings are running close to and parallel to the ground without exposed Blades;
- Passers by are outside the existing thrown-object zone;
- All areas have been thoroughly inspected and all foreign material such as rocks, cans, glass, and general debris has been removed.

**NOTE:** Where there are grass and weeds high enough to hide debris that could be struck by the blades, the area should be: inspected and large debris removed, mowed at an intermediate height, inspected, closely with any remaining debris being removed, and mowed again at desired final height. (This will also reduce power required to mow, reduce wear and tear on the Mower drive train, spread cut material better, eliminate streaking, and make the final cut more uniform.)

**DANGER!**



Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause serious injury or even death.



Safety (continued)

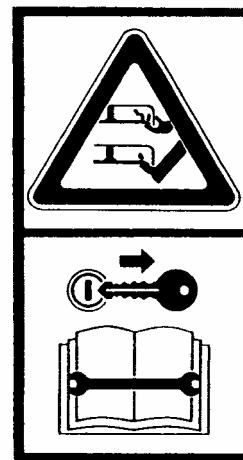
## SAFETY DECALS

Safety decals are located on various points of the machine. They can be identified by the yellow upper panel depicting the hazard, and the lower white panel indicating means of avoidance or precautions to be taken. These decals have no text. It is essential that all operators and personnel associated with the machine fully understand their meanings which are shown on the following examples.

Any safety decals which are found missing should be replaced.



**DECAL – RAISED  
HEAD DANGER**



**DECAL – STOP ENGINE  
& REMOVE KEY BEFORE  
WORKING ON OR  
UNBLOCKING HEAD**



### Fitting

The head is attached to the arm of the mower by means of a clamp.

1. Place the head on a flat level surface.
2. Remove the clamp bracket from the end of the arms.
3. Start tractor engine and adjust position of arms until the clamp is lined up with the clamping bar on the head in the desired position along the bar.
4. Stop tractor engine and refit clamp bracket and fully tighten nuts and bolts to secure head to arms.

### Connecting the motor hoses

The connection of the hoses to the motor will determine the direction of rotation of the blades

1. Connect the hoses to the motor.
2. Start the tractor and engage the PTO with engine on low revs.
3. Check the direction of rotation.
4. Stop the tractor engine and wait for blades to stop.
5. If the blades have run in the wrong direction, reverse the hoses on the motor.

**WITH THE MACHINE FULLY ASSEMBLED, FAMILIARIZE YOURSELF WITH ALL THE CONTROLS, START THE TRACTOR AND CHECK FOR LEAKS**



### Daily Checks

- 1 Check the tightness of the  $\frac{3}{4}$ " cap screws securing the blade bar to the drive shaft – Recommended torque 445Nm (328 lbs/ft)
- 2 Examine blades for damage. Replace any blade that is bent, excessively nicked worn or has any other damage.
- 3 Check blade bolts for tightness.
- 4 Examine Rubber guard for splits or damage and replace if necessary.
- 5 Check chain guard for missing links or damage and replace if necessary.
- 6 Check motor mounting bolts for tightness.
- 7 Check motor hoses for tightness, leaks, splits etc.

### Blade Servicing

Inspect blades to determine that they are properly installed and in good condition. Replace any blade that is bent, excessively nicked, worn or has any other damage. Small nicks can be ground out when sharpening.

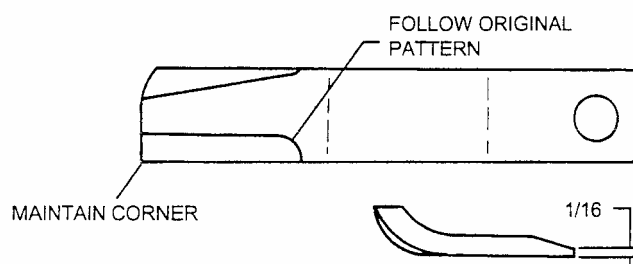
**WARNING** Use only original equipment blades on this head. They are made of special heat-treated alloy steel. Substitute blades may not meet specification and may be dangerous.

### Blade Sharpening

Always sharpen both blades at same time to maintain balance. Follow original sharpening pattern as shown in below. Always sharpen blades by grinding. DO NOT heat and pound out edge. Do not sharpen blade to a razor edge, but leave a 2mm (1/16") blunt edge. Do not sharpen back side of blade.

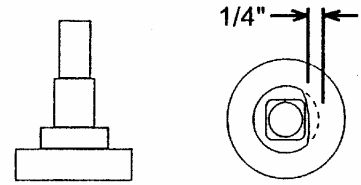
**IMPORTANT:** When sharpening blades, grind each blade the same amount to maintain balance. The difference in blade weights should not exceed 25g (1 ounce). Unbalanced blades will cause excessive vibration, which can damage gearbox bearings. Vibration may also cause structural cracks in cutter housing.

**WARNING** Never work under equipment supported by a hydraulic device because it may drop if the control is actuated (even with the engine stopped) or in the event of hose failure etc. Always use a secure support for equipment which must be serviced in the raised position.



### Blade Removal

To remove blades for sharpening or replacement, remove the cover plate on deck of cutter near gearbox. Remove locknut from blade bolt. **NOTE:** Inspect locknut after removal and replace if threads are damaged. Always replace nut when replacing blade bolt. When installing blades, be sure and check blade bolt pivot diameter for wear. Replace bolt if worn more than 6mm (1/4") at any point. See figure opposite. Install blade bolts with partially worn side of bolt either toward or away from centre. Tighten locknut to (250ft.lbs.)(340 Nm)



**WARNING** Avoid personal injury. Blade and/or blade carrier removal should be done only with the tractor engine shut off, key removed, in neutral, parking brake on, PTO disengaged and the cutter blocked in the raised position.

### Blade Carrier Removal

Remove the 4 cap screws securing the blade carrier to the shaft assembly. Pull the carrier from the shaft assembly.

### Blade Carrier Installation

Clean the face and recess of the blade carrier and the end of the shaft. Fit the four cap screws and spring washers and tighten to a torque 445Nm (328 lbs/ft). NOTE after a few hours operation recheck the cap screw torque.

**WARNING** Avoid personal injury. Do not work under head without support blocks to keep head from falling.

NOTES

## Replacement Parts Section

For best performance...

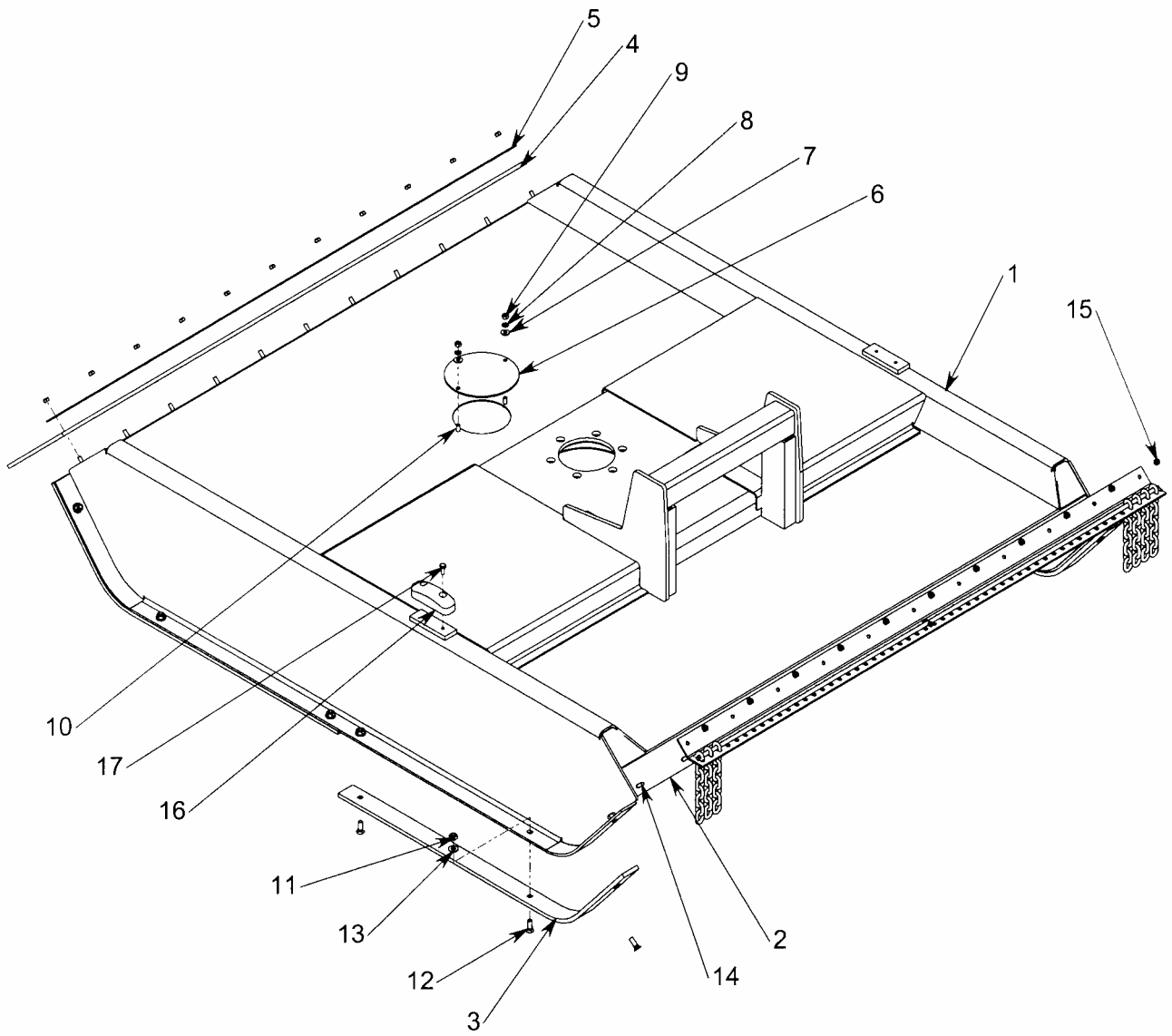
### ***USE ONLY GENUINE SERVICE PARTS***

***To be assured of the latest design improvements purchase your 'Genuine Replacements' from the Original Equipment Manufacturer through your local Dealer or Stockist.***

**Always quote:**

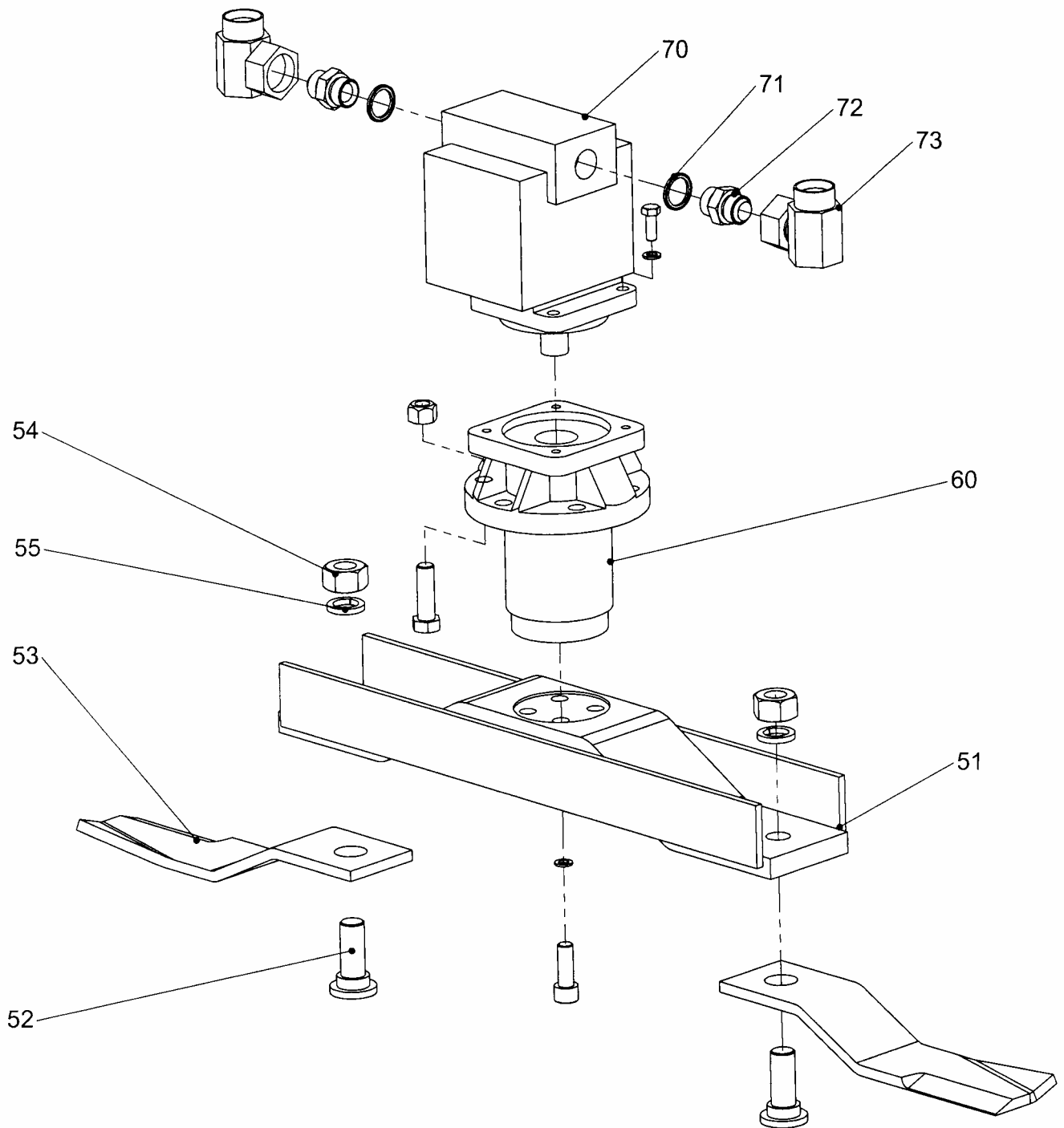
- ***Machine Type***
- ***Serial Number***
- ***Part Number***

**Design Improvements 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.**



**76.688.02 ROTARY HEAD ASSEMBLY**

1	46455.01	ROTARY COWL ASSEMBLY	1
2	45114.04	FRONT GUARD ASSY.	1
3	45112.01	SKID	4
4	45110.01	GUARD - FLEXIBLE	1
5	45111.01	BACKING STRIP	1
6	09.611.01	PLATE - COVER	1
7	05.281.01	FLAT WASHER 8MM PLATED	2
8	05.282.01	SPRING WASHER 8MM PLATED	2
9	05.286.01	NUT M8 PLATED	2
10	05.291.18	BOLT M10 X 65 PLATED	1
11	05.287.02	SELF-LOCKING NUT M10 PLATED	13
12	30.072.96	BOLT M10X30 SQ SHLDR SCK Z/P	12
13	05.281.02	FLT WASHER 10MM PLATED FORM C	12
14	9293054	BOLT CUP SQUARE M8X25 (PLATE)	22
15	05.287.01	SELF-LOCKING NUT M8 PLATED	22
16	46237.01	RUBBER BUFFER	1
17	05.264.01	SETSCREW M8 X 20MM PLATED	2





**76.690.01 CUTTER BAR ASSEMBLY 60" 8127**

50	02708700	CAP SCREW SK HD	4
50	02965737	BLADE BAR ASSY	1
50	05.282.03	SPRING WASHER 12MM PLATED	4
51	02965579	BLADE BAR	0
52	00752827	BOLT	0
53	02964824	BLADE	0
54	00747900	NUT	0
55	00748000	WASHER	0

**76.691.01 DRIVE SHAFT ASSEMBLY 8127**

60	02960553B	SPINDLE HOUSING ASSEMBLY	1
60	05.287.05	SELF-LOCKING NUT M20 PLATED	6
60	05.291.47	BOLT M20X65 PLATED	6

**76.689.01 MOTOR ASSEMBLY ROTARY 8127**

70	05.256.23	SETSCREW 1/2"UNCX1.1/4"PLATED	4
70	05.282.03	SPRING WASHER 12MM PLATED	4
70	43506.01	MOTOR ASSEMBLY - ROTARY	1
71	05.290.07	BONDED SEAL 1"BS	2
72	05.434.01	ADAPTOR 1"BSP X 1"BSP	2
73	05.835.08	ADAPTOR-90 1.5/16"JIC X 1"BSP	2