

IM1793

**BANDIT
FLAIL MOWER**

OPERATORS MANUAL
ISSUE 3

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.

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.

WICHTIG

TRAGEN SIE HIER DIE SERIENNUMMERN IHRER MASCHINE EIN UND GEBEN SIE DIESE IMMER AN, WENN SIE SICH AN UNS ODER IHREN HÄNDLER WENDEN. DAS IST BESONDERS BEI ERSATZTEILBESTELLUNGEN WICHTIG. VERGESSEN SIE NICHT, ALLE ZAHLEN UND BUCHSTABEN ZU NOTIEREN.

SERIENNUMMERN DER MASCHINE _____

DIE ANGABEN IN DIESEM HANDBUCH SIND BEI VERÖFFENTLICHUNG KORREKT. AUFGRUND DER KONSTANTEN WEITERENTWICKLUNG VON BOMFORD TURNER MASCHINEN SIND JEDOCHÄNDERUGDEN IN DER SPEZIFIKATION UNVERMEIDLICH. WENN DIE INFORMATION IN DIESEM HANDBUCH NICHT MIT IHRER MASCHINE ÜBEREINSTIMMEN, NEHMEN SIE BITTE KONTAKT MIT DER BOMFORD TURNER KUNDENDIENSTABTEILUNG AUF, DIE IHNEN GERNE DIE AKTUELLEN INFORMATION ZUKOMMEN LÄSST.

DAS HANDBUCH KANN SOWOHL BESCHREIBUNGEN FÜR DIE STANDARD AUSFÜHRUNG ALS AUCH FÜR ZUBEHÖR ENTHALTEN UND IST NICHT ALS MASCHINENSPEZIFIKATION ZU VERWENDET.

DIE MASCHINE IST GETESTET UND BEI SACHGEMÄSSEM BETRIEB ALS SICHER BEFUNDEN WORDEN. SORGEN SIE DAFÜR, DASS IHR BEDIENPERSONAL IN ANWENDUNG UND WARTUNG RICHTIG GESCHULT WIRD.



Technical Bulletin

cmb

Issue Date:- 6th November 2007

TECHNICAL BULLETIN ECN 10736

FOR THE ATTENTION OF THE SERVICE MANAGER

PRODUCT:- Bandit Rear Mounted Flail Mower

MODEL:- B1800 and 2250

COMPONENT AFFECTED:- Hiton Gearbox Part Number

SUBJECT:- Comer Gearbox Replacement Kit Part No **48014.01**

DESCRIPTION OF CHANGE:-

Due to a supply difficulty it has become necessary to replace the original Hiton gearboxes on the above Bandit models with a Comer equivalent. Likewise the availability of parts, other than seal kits, are no longer made.

For instances where a complete gearbox is thought necessary we have produced a retro replacement kit, part numbered above.

Briefly the kit consists of a new Comer gearbox along with a gearbox adaptor plate. The drive shaft has been replaced with a new drive shaft along with double bearing support for the primary drive pulley. New drive guarding is supplied along with the rear "A" frame slide unit. Extra cut outs are required in this "A" frame due to the larger Comer gearbox.

Kits may be ordered in the usual manner through our parts department.

Expected Introduction Date:- September 2007
(Serial Number if Known)

C M Blackbrough
Service Manager



Technical Bulletin

cmb

Issue Date:- 15th July 08

TECHNICAL BULLETIN ECN 11022

FOR THE ATTENTION OF THE SERVICE MANAGER

PRODUCT:- Rear Three Point Linkage Flail Mower

MODEL:- Bandit 2250, all models

COMPONENT AFFECTED:- Hiton Gearbox part numbers 01.4001.01, 04.400.21, 04.400.26 and 04.400.27

SUBJECT:- Change to Comer Gearbox part number 47373.01 (Kit Number 48014.01)

DESCRIPTION OF CHANGE:-

Supplies difficulties of gearboxes have forced us to change the gearbox on the Bandit 2250 to a Comer design. New machines have been altered to accommodate this change. Customers wishing to replace their existing gearboxes may do so by purchasing a service kit, part number 48014.01. Details of these changes are detailed on the attached pdf document attached to this e-mail

Should there be any questions concerning this change then you should contact the Bomford Service Department.

Expected Introduction Date:- January 2008
(Serial Number if Known)

C M Blackbrough
Service Manager

PL 1962: SERVICE KIT COMER GEARBOX

FITTING INSTRUCTIONS:

This kit (48014.01) provides all the necessary equipment to replace the Hiton gearbox fitted to the machine with a Comer alternative.

Below shows the machine fitted with 1) Hiton gearbox, 2) Mainframe stay, 3) Bearing assembly, 4) Drive shaft, 5) PTO single joint assembly, 6) Drive shaft guard mounting plate and 7) Drive shaft guard.

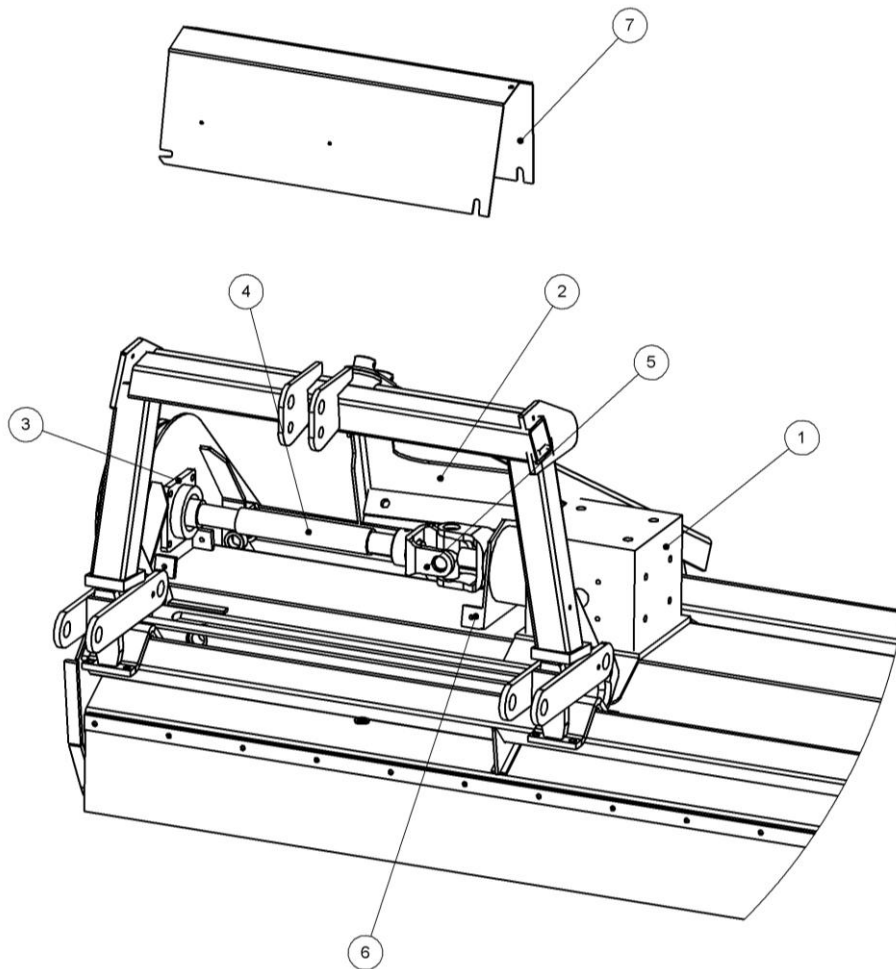


Figure 1: Bandit 2250 fitted with Hiton gearbox.

Instructions to remove Hiton gearbox:

1. Remove mainframe stay (Item 2) by removing the two M16 setscrews and nuts.
2. Remove drive shaft guard (Item 7) by removing all four M10 setscrews, spring and flat washers and lifting off.
3. Remove Hiton gearbox (Item 1) from machine.
4. Remove belt drive guard from side of machine in order to remove taper-lock and upper pulley.
5. Remove bearing assembly (Item 3) by removing all four M12 setscrews, washers and nuts.
6. Remove drive shaft (Item 4) along with PTO single joint assembly (Item 5).
7. All components are removed and machine is now ready to be fitted with Comer alternative.

PL 1962: SERVICE KIT COMER GEARBOX

Below shows the machine fitted with 1) Comer gearbox, 2) Mainframe stay, 3) Bearing assembly, 4) Drive shaft, 5) Drive shaft guard mounting plate, 6) Drive shaft guard, 7) Shaft – drive and 8) Gearbox mounting plate.

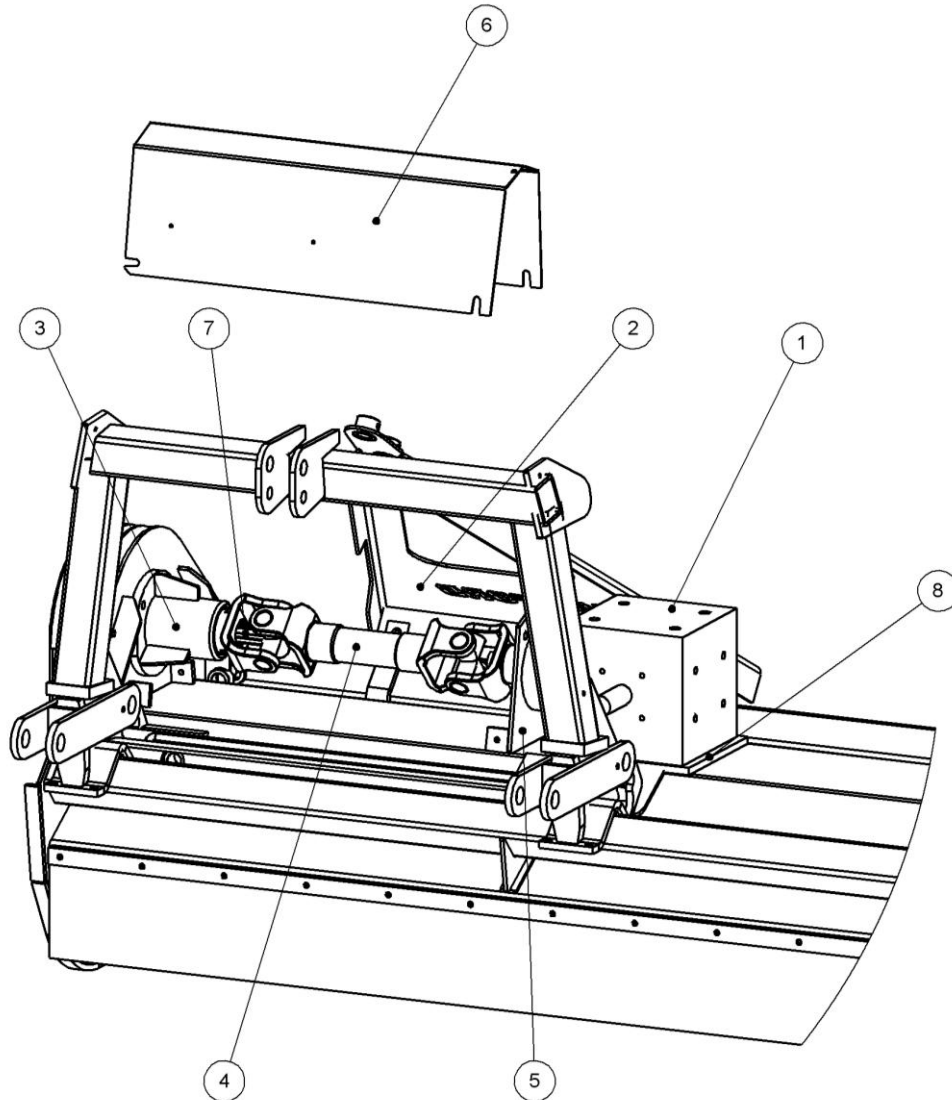


Figure 2: Bandit 2250 fitted with Comer gearbox.

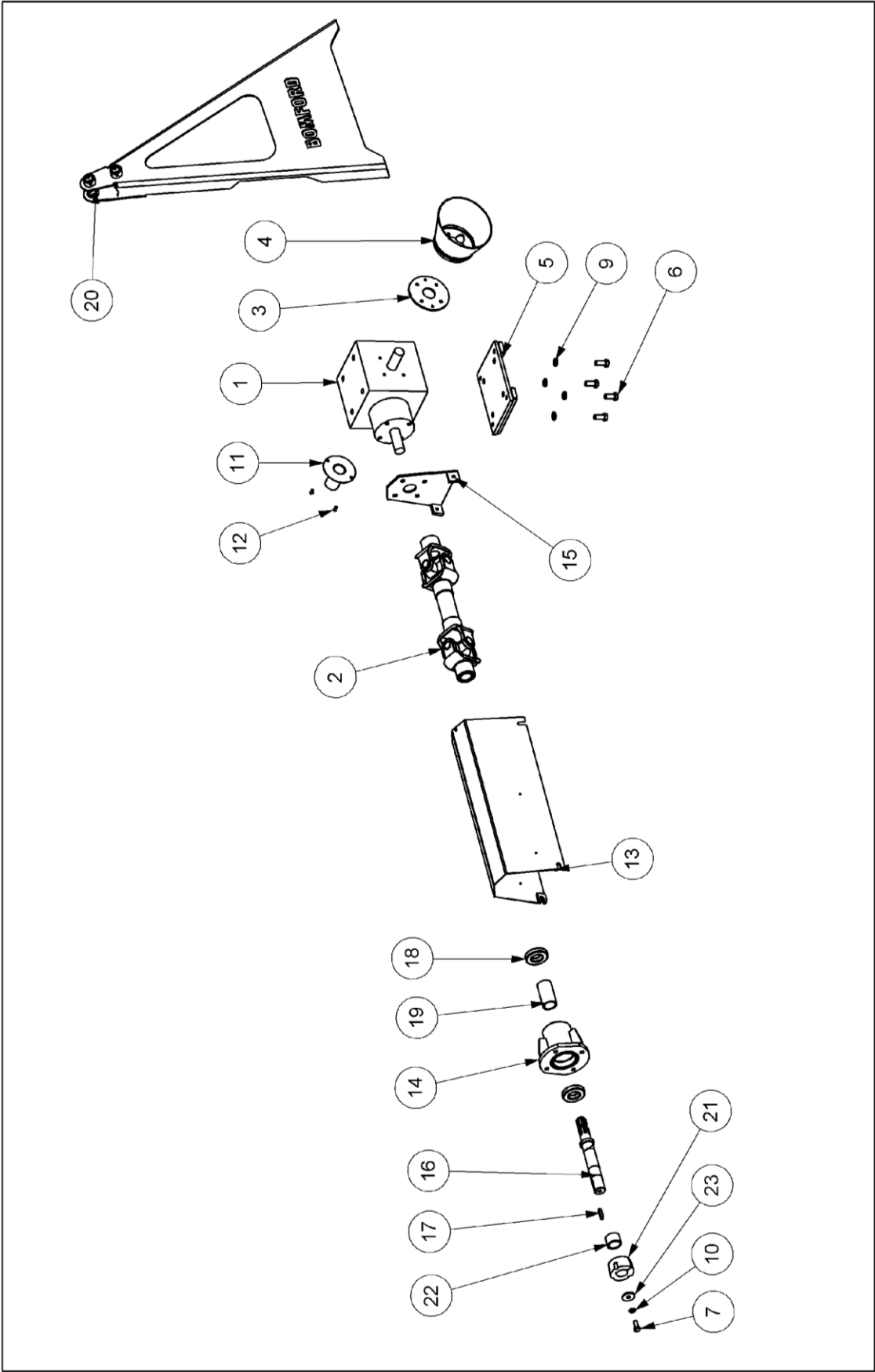
Instructions to fit Comer gearbox:

1. Fit new mainframe stay (Item 2) with the two M16 setscrews and nuts.
2. Fit new gearbox mounting plate (Item 8) to Comer gearbox (Item 1) with M16 setscrews and washers provided.
3. Fit Comer gearbox and gearbox mounting plate to machine.
4. Fit drive shaft guard bracket (Item 5) to Comer gearbox (Item 1).
5. Fit bearing assembly (Item 3) and shaft-drive (Item 7) to machine.
6. Fit drive shaft (Item 4) to Comer gearbox (Item 1) and shaft-drive (Item 7).
7. Fit drive shaft guard (Item 6) over entire drive train and attach to machine.
8. Fitting of Comer gearbox service kit is complete.

NOTE: For greasing instructions see IM 1793 supplied with machine.

PL 1962: SERVICE KIT COMER GEARBOX

SERVICE KIT COMER GEARBOX
48014.01 REV: A



PL 1962: SERVICE KIT COMER GEARBOX

SERVICE KIT COMER GEARBOX

48014.01 REV : A

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	47373.01	GEARBOX T-290A	1
2	47436.02	SHAFT - DRIVE	1
3	46498.01	PLATE - GUARD PTO	1
4	08.548.01	GUARD - PLASTIC PTO	1
5	46567.01	BRACKET - GEARBOX MOUNTING	1
6	05.264.34	SETSCREW M16x35	4
7	05.264.23	SETSCREW M12x30	1
8	05.264.22	SETSCREW M12x25	4
9	05.282.04	SPRING WASHER M16	4
10	05.282.03	SPRING WASHER M12	5
11	42668.02	GUARD - GEARBOX SHAFT	1
12	30.068.95	SCREW M8 X 12	2
13	42791.02	GUARD - DRIVE SHAFT	1
14	46578.01	BRACKET - DRIVE SHAFT	1
15	46504.01	BRACKET - DRIVE SHAFT GUARD	1
16	41730.04	SHAFT - DRIVE	1
17	05.960.16	KEY-S/REP 12X8X40	2
18	03.007.00	BALL JOURNAL BEARING	2
19	41.258.01	SPACEER 50 O/D x 40.2 I/D - 94	1
20	42738.04	STAY - MAINFRAME	1
21	05.424.18	TAPERLOCK 40 DIA (2517)	1
22	46646.01	SPACER - DRIVE SHAFT	1
23	05.234.01	WASHER 44.5x13x5 PLATED	1

BANDIT B2250, B1800, B1500, B1200 INSTRUCTION MANUAL

From Machine Serial No2010J/98.....

Section	Page No.
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IMPORTANT

IT IS POTENTIALLY HAZARDOUS TO FIT OR USE ANY PARTS OTHER THAN GENUINE BOMFORD PARTS. THE COMPANY DISCLAIMS ALL LIABILITY FOR THE CONSEQUENCES OF SUCH USE, WHICH IN ADDITION VOID THE MACHINE WARRANTY.

NOTE:

The terms left hand and right used in the text apply to the machine when viewed from the rear. If in any doubt consult Bomford Turner Limited.

IMPORTANT

THIS MACHINE IS FOR VEGETATION CONTROL AND MUST NOT BE USED FOR ANY OTHER PURPOSE.

This manual describes the BANDIT 1200, 1500, 1800 and 2250 range of trailed flail mowers. The cowl housing the rotor is attached to the tractor lift arms and top link by an 'A' frame. The cowl can be offset (not Bandit 1200) to one side of the centre line of the tractor, either manually or by an hydraulic ram option.

The rotor shaft is driven from the tractor PTO by a universally jointed drive shaft, gearbox, and tensioned belt and pulley system.

TRACTOR REQUIREMENT	B1200	B1500	B1800	B2250
BHP	25 BHP (min)	35 BHP (min)	35 BHP (min)	35 BHP (min)
PTO type	Live	Live	Live	Live
PTO speed	540 rev/min (opt 1000 r/m)	540 rev/min (opt 1000 r/m)	540 rev/min (opt 1000 r/m)	540 rev/min (opt 1000 r/m)
PTO size	1.3/8" - 6 spline (opt 1.3/8" - 21 spline)	1.3/8" - 6 spline (opt 1.3/8" - 21 spline)	1.3/8" - 6 spline (opt 1.3/8" - 21 spline)	1.3/8" - 6 spline (opt 1.3/8" - 21 spline)
MACHINE DIMENSIONS				
Transport width	1.440m	1.740m	2.050m	2.500m
Height adjustment	Roller 13mm-105mm	Roller 13mm-105mm	Roller 13mm-105mm	Roller 13mm-105mm
ROTOR SHAFT				
Shaft speed	2198 rev/min @ 540 rev/min PTO 2211 rev/min @ 1000 rev/min PTO	2198 rev/min @ 540 rev/min PTO 2211 rev/min @ 1000 rev/min PTO	2017 rev/min @ 540 rev/min PTO 2098 rev/min @ 1000 rev/min PTO	2017 rev/min @ 540 rev/min PTO 2098 rev/min @ 1000 rev/min PTO
Cutting width	1.2m	1.5m	1.8m	2.25
Number of flails	32	40	50	62
GENERAL DATA				
Offset	Fixed	250mm	700mm	700mm
Machine weight	380 kg	470 kg	580 kg	650 kg

NOISE

The equivalent daily personal noise exposure from this machine measured at the operator's ear is within the range of 80-85dB, when used in conditions where the load fluctuates between zero and maximum.

This applies when the machine is attached to a tractor fitted with a quiet cab and used in accordance with the operating instructions in a generally open environment.

At equivalent daily noise exposure levels of between 85 and 90dB, suitable ear protectors are recommended.

EC DECLARATION OF CONFORMITY

Conforming to EU Directive 2006/42/EC

We,

Of BOMFORD TURNER LIMITED, Station Road, Salford Priors, Evesham, Worcestershire, WR11 8SW, UK.

Declare that under our sole responsibility the product (type);

Linkage mounted unit	Product code
BANDIT 1.8M	BT18
BANDIT 2.25M	BT22

A vegetation control flail mowing tractor-mounted attachment.

Serial No(s). & Date:.....

Manufactured by: ALAMO MANUFACTURING SERVICES (UK) Limited, Station Road, Salford priors, Evesham, Worcestershire, WR11 8SW.

Complies with the required provisions of;

- Directive 2006/42/EC
- Directive 2004/108/EC
- EN ISO 12100:2010

And other national standards associated with its design and construction as listed in the technical file.

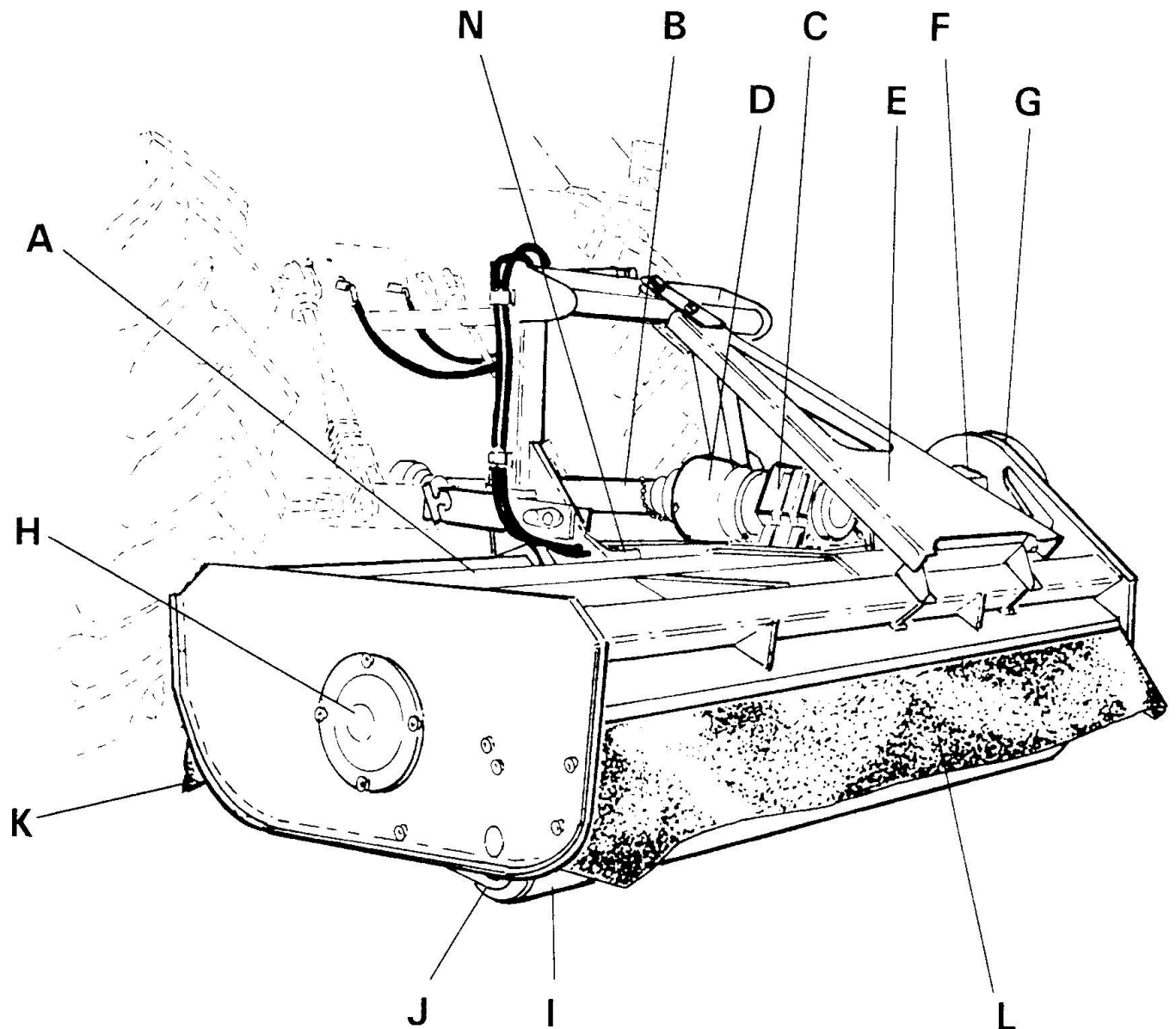
BOMFORD TURNER LIMITED operates an ISO 9001:2008 quality management system.
This system is accredited by;

BSI, Beech House, Linford Wood, Milton Keynes, UK, MK14 6ES
BSI identification number: UKAS 003
Bomford Turner certificate number: FM 34659

Signed.....
On behalf of BOMFORD TURNER LIMITED Responsible person

Status Managing Director

Date: 02/01/11



A. ROTOR UNIT

B. PTO SHAFT

C. GEARBOX

D. PTO GUARD

E. ADJUSTABLE 'A' FRAME

F. DRIVE SHAFT GUARD

G. DRIVE END GUARD

H. ROTOR SHAFT

I. ROLLER

J. ROLLER BRACKET

K. FRONT GUARD

L. REAR GUARD

M. WHEELS (OPTIONAL) (not illustrated)

N. SIDESHIFT RAM

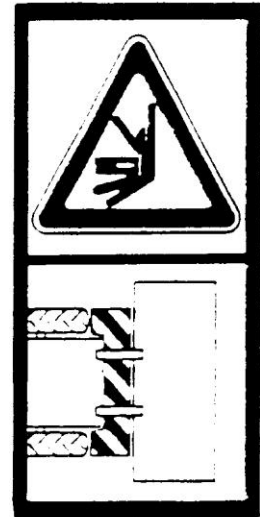
- 1 DO NOT attempt any maintenance of or adjustment to the machine while it is running. Before carrying out any work on the machine, follow the three safety instructions below:
 - a PUT THE PTO OUT OF GEAR
 - b STOP THE TRACTOR ENGINE
 - c LOWER THE MACHINE ON TO THE GROUND
2. Ensure that the pulley and belt guards are properly fitted to the machine at all times and that they are in good condition.
3. DO NOT adjust cutting height by altering the top link length. Tilting the machine will reduce the effectiveness of the guards.
4. THINK SAFETY - WORK SAFELY.
 - a AVOID WIRE. It can be extremely dangerous if wire catches on the rotor and every care must be taken to ensure that this will not happen. Inspect the working area before commencing. Remove all loose wire and obstructions and clearly mark those that are fixed so that you can avoid them.
 - b Any unusual noise from the cowl area indicates that the rotor may have been fouled by an obstruction. In any such event STOP the tractor engine INSTANTLY. On no account lift the machine until the rotor has completely stopped. NEVER IN ANY CIRCUMSTANCES run the machine to 'clear itself'.
 - c When the rotor has stopped inspect it and remove any obstruction that may be present. If working under a raised machine ensure that it is safely supported. Before working on the rotor always stop the tractor engine.
 - d CHECK the flails for wear and the attachment bolts for tightness every day during work (see Maintenance Section). A few moments checking this whenever the machine is stopped, e.g. whenever removing obstructions, will help reduce flail wear or loss.
 - e Keep your forward speed to a level appropriate to the operation conditions.
 - f Watch carefully while operating for passers-by who may inadvertently get in the way of cut material being thrown from the rotor. Stop the rotor until all personnel are well clear.
 - g Keep the roller in position at all times.
 - h Keep all guards in position at all times.



READ THE INSTRUCTION
MANUAL BEFORE STARTING
WORK



KEEP ALL NUTS TIGHT



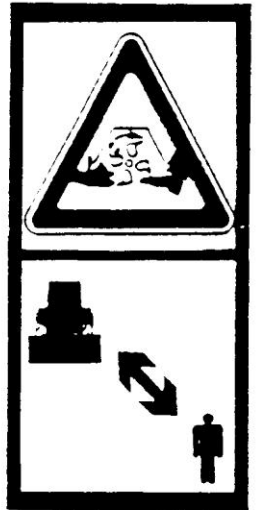
DANGER OF CRUSHING
STAY CLEAR OF ZONES



DO NOT WORK UNDER OR
STAND UNDER UNSUPPORTED
MACHINE



DANGER FROM THROWN
DEBRIS KEEP ALL PERSONNEL
AT SAFE DISTANCE FROM
THE MACHINE WHEN WORKING

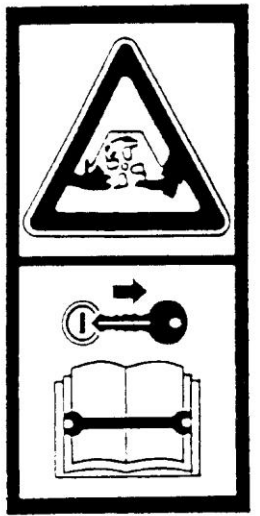


DANGER OF ROTATING
BLADES STAY CLEAR OF
OPERATING MACHINE



DANGER OF ENTANGLEMENT
IN SHAFT KEEP ALL PERSONNEL
CLEAR WHILE TRACTOR IS
RUNNING

STOP TRACTOR AND REMOVE
KEY BEFORE ATTEMPTING
MAINTENANCE ON OR
UNBLOCKING HEAD



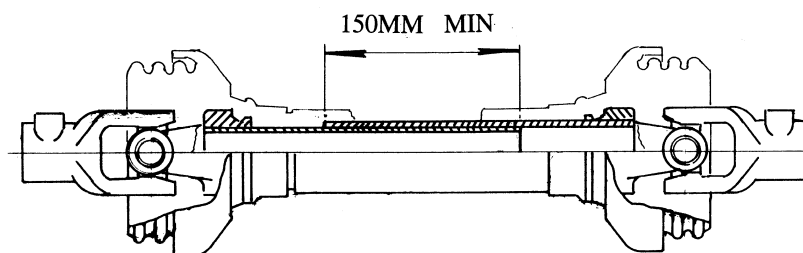
1 TRACTOR REQUIREMENTS

Ensure the specifications of the tractor meet the requirements listed below:

- a A 6 spline PTO of 1.3/8" diameter (standard).
- b A PTO output of 540 rev/min (standard).
Note: The machine can be operated with 1000 rev/min PTO - see Maintenance Section 10 to convert.
- c A Category II three point linkage.
- d Adjustable top link.
- e Any brackets or objects which may obstruct operation of lift arms should be removed.

2 PTO SHAFT LENGTH

Due to many different makes and sizes of tractor to which BOMFORD mowers can be fitted, a nominal length PTO shaft is supplied with the machine. In some cases it may be found that this PTO shaft is too long and will have to be shortened.



IMPORTANT

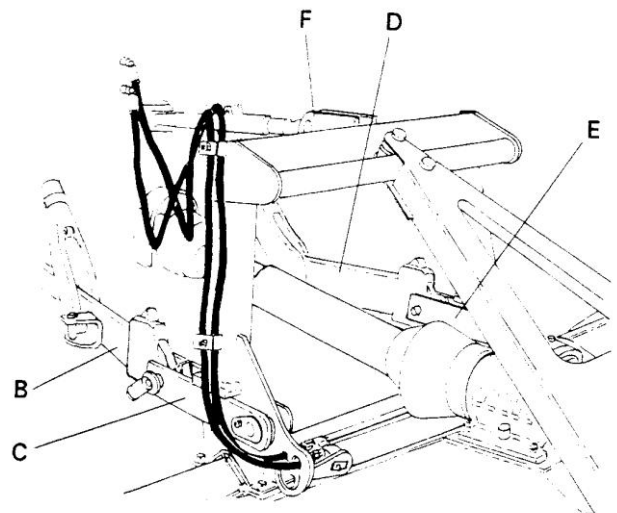
MINIMUM ENGAGEMENT OF PTO IS 150MM IN THE WORKING POSITION.
THIS MEASUREMENT MUST BE TAKEN INTO ACCOUNT WHEN SHORTENING
THE PTO SHAFT.

Before fitting PTO shaft to tractor grease the sliding drive shafts and bearing units.

3 FITTING MACHINE TO TRACTOR

To fit the machine to the tractor the following instructions must be followed:

- a Disengage PTO drive and expose drive shaft.
- b Reverse squarely to the machine.
- c When tractor lift arms are 70-80mm short of mounting pins, stop and switch off tractor engine.
- d Attach PTO to rear of tractor ensuring locking device is fully engaged.
- e Gradually reverse tractor until lift arm holes are level with mounting pins.
- f Position left lift arm (B) in mounting clevis (C), fit pin and lock with linch pin and ring.
- g Adjust height of right lift arm (D), if necessary.
- h Position right lift arm (D) in mounting clevis (E), fit pin and lock with linch pin and ring.
- i Fit adjustable top link (F) to top link hole of 'A' frame.
- j Secure with pin provided with tractor.
- k Adjust top link ensuring the machine is level.
- l Attach PTO guard chains to tractor and machine in the holes provided.
- m Adjust lift arm check chains to prevent machine from swaying when raised.



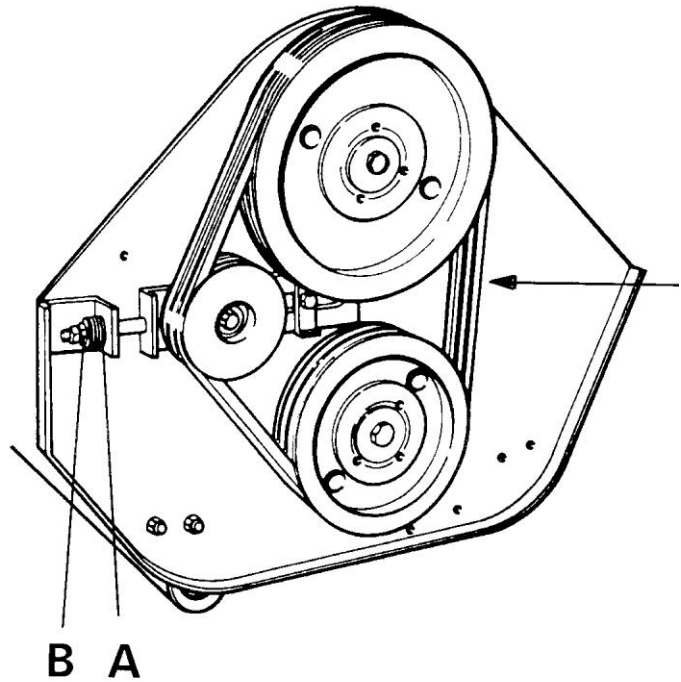
4 HYDRAULIC SIDESHIFT (1800 & 2250 MODELS ONLY)

- a Attach hydraulic hoses to tractor spool valve connections. Ensure hoses are routed to miss moving parts.

5 DRIVE BELT TENSIONING

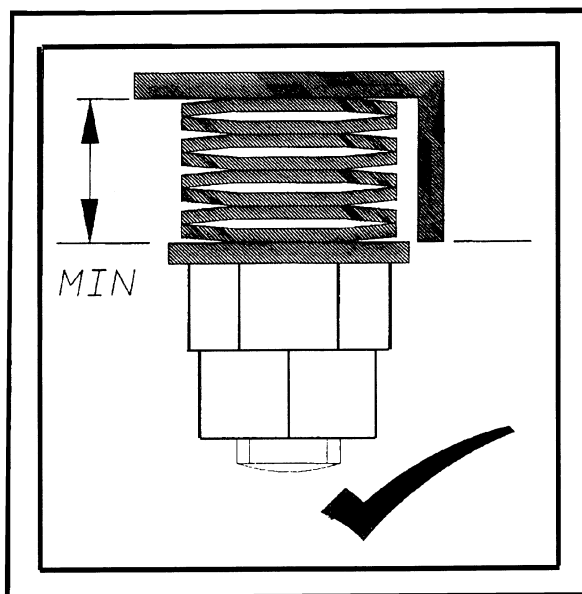
Before operating the machine it is essential that the belts are checked for tension. Follow the instructions below.

- a Stop tractor engine and disengage PTO drive.
- b Checking belt tension. To achieve correct belt tension the disc springs 3(A) must be compressed by tightening the locknuts 3(B). The belt tension is correct when the flat washer is level with the end of the indicator. The belts at correct tension can be deflected 6mm by applying a force of 3.6 to 6.3kg (8.14 lbs) at right angles to the belts, midway between the two drive pulleys.



IMPORTANT

ENSURE THE BELTS ARE NOT OVER TIGHT AS THIS MAY CAUSE PREMATURE FAILURE OF THE ROTOR SHAFT BEARINGS AND BELTS.

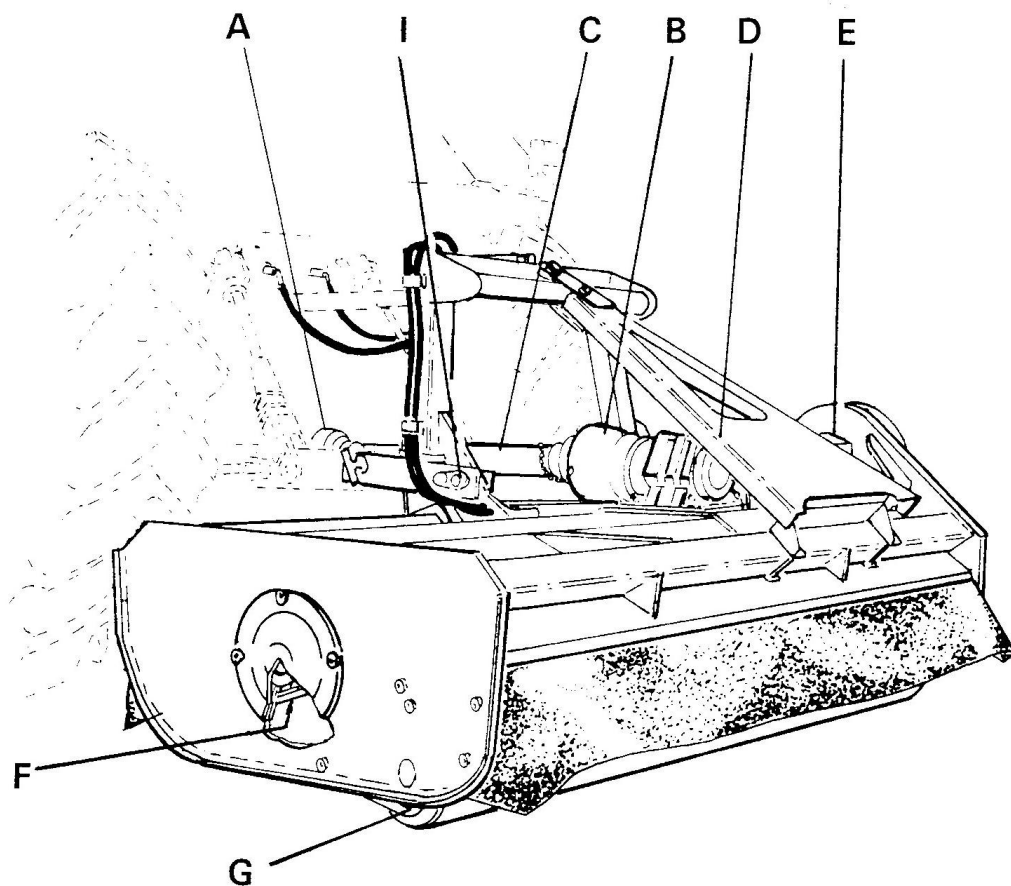
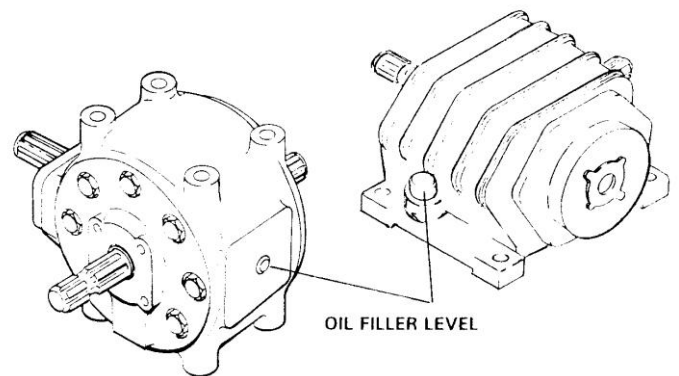


1 GEARBOX LUBRICATION

The gearbox is filled with EP 90 oil before it leaves the factory, but level should be checked before use.

2 GREASE POINTS

All grease points should be greased before operating the machine and then at time intervals indicated by the grease decal.



A	PTO SHAFT (TRACTOR END)	F	ROTOR SHAFT BEARINGS
B	PTO SHAFT (GEARBOX END)	G	ROLLER BEARINGS
C	PTO TUBE	H	WHEEL BEARINGS (if fitted)
D	GEARBOX COUPLING		Not illustrated
E	LAY SHAFT/DRIVE SHAFT BEARING	I	PIVOT LINKS

IMPORTANT

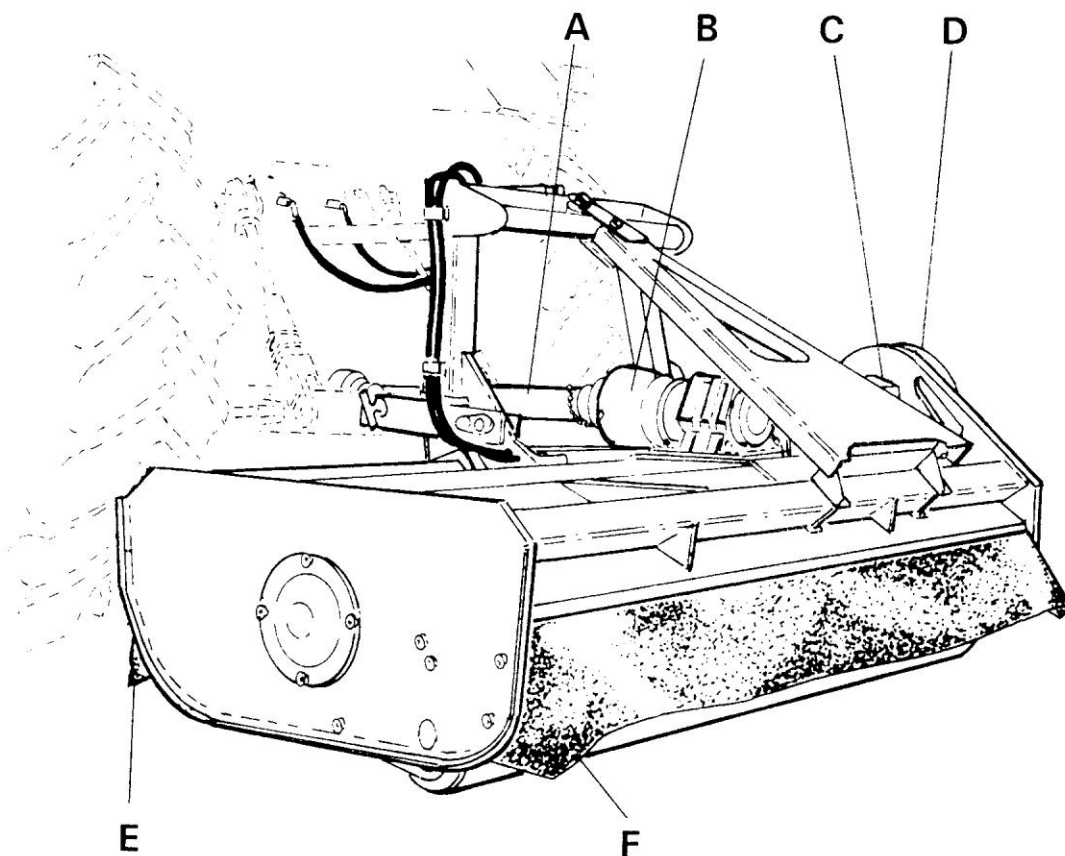
Do not use pressure grease guns or violent pumping action on the rotor bearings as damage to the seals and overheating of the bearings could result. One or two gentle pumps are sufficient.

BOMFORD TURNER LTD disclaim all responsibility for damage or injury arising as a result of guards being removed or of guards other than of BOMFORD TURNER manufacture being fitted, or of machine operation other than in accordance with these instructions.

It is essential that in the interests of safety all guards must be kept in position on the machine and tractor whenever the machine is running.

- a Check that all guards are fitted correctly and that they are in good condition.
- b Inspect guards frequently. Replace any guards that have wear or damage which is likely to impair their operation.
- c Replace flexible guards that have missing portions, are damaged, or worn sufficiently to permit stones to be ejected beneath them in normal conditions.

IF IN DOUBT CONSULT BOMFORD TURNER SERVICE.



A	PTO SHAFT	D	DRIVE END GUARD
B	PTO GUARD	E	FRONT FLEXIBLE GUARD
C	DRIVE SHAFT GUARD	F	REAR FLEXIBLE GUARD

1 OPERATOR

These notes are produced for guidance and are intended to help you obtain the best results with the minimum of trouble and downtime.

Read carefully the following pages and familiarise yourself with their contents.

Make a note of the serial number stamped on the rotor unit. Always quote the number in any correspondence with your dealer.

2 INITIAL CHECKS

Check that the tractor is equipped to deliver 540 rev/min at the power take-off shaft. IN NO CIRCUMSTANCES MUST THE PTO EXCEED 600 REV/MIN.

3 NORMAL PRE-START CHECKS

- a Check that the rotor is free from obstructions, especially pieces of wire.
- b Check that all flails are in good condition and securely attached.
- c Check that all guards are in position and also that they are in good condition.
- d Check that the roller is in place and correctly adjusted.
- e Examine the job to be cut. It is very important that the work site is inspected before cutting and all hidden obstructions removed or their positions marked so that they may be avoided.
- f Check for wire, hidden stakes, drain pipes, large stones, etc.

4 NORMAL RUN UP

- a With a new machine never start cutting in arduous conditions. Allow at least one day's light work for running-in.
- b Never attempt to start the machine while it is under load at any time. Always free rotor shaft from any obstructions.
- c Never increase or decrease PTO speed rapidly as this can lead to gearbox damage.

WARNING

STOP RUN-UP IMMEDIATELY IF NOISE IS DETECTED FROM THE ROTORS OR GEARBOX AND REFER TO MAINTENANCE - SECTION 10 OR TO SECTION 5 - INSTALLATION PROCEDURE.

5 TRANSPORT

Normally the machine will need to be driven to the work site before commencing work.

IMPORTANT

WHEN TRANSPORTING MACHINES WITH HYDRAULIC OFFSET, ISOLATE THE CONTROL TO PREVENT THE MACHINE ACCIDENTALLY MOVING.

- a Raise the machine from the ground using tractor hydraulics.
- b Centralize mower with tractor.
- c Lock in raised position.
- d Do not transport with PTO engaged.
- e Do not transport with roller or wheel on the ground.

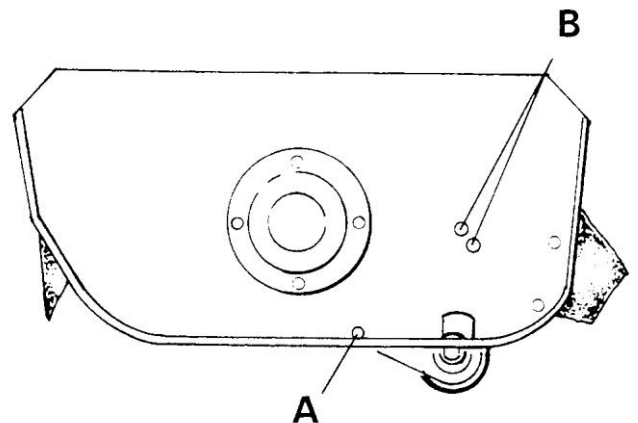
6 ROLLER HEIGHT

IMPORTANT

DO NOT ADJUST CUTTING HEIGHT BY ALTERING TOP LINK LENGTH. TILTING THE MACHINE WILL REDUCE THE EFFECTIVENESS OF THE GUARDS AND REDUCE THE LIFE OF THE BEARINGS IN THE PTO SHAFT.

The roller is pre-set in its raised position before leaving the factory. The method of adjustment is detailed below.

- a Raise the machine off the ground using tractor hydraulics.
- b Stop tractor engine and disengage PTO drive.
- c Place a strong support under the side skids.
- d Place a suitable jack under the centre of the roller and support the weight of the roller.
- e Loosen the nuts and bolts (A) from each side of the roller.
- f Unscrew bolts and nuts (B) from the roller bracket.
- g Lower or raise roller to the height required.
- h Replace nuts and bolts (B)
- i Fully tighten all nuts and bolts on both sides
- j Remove supports and jack and lower the machine to the ground.



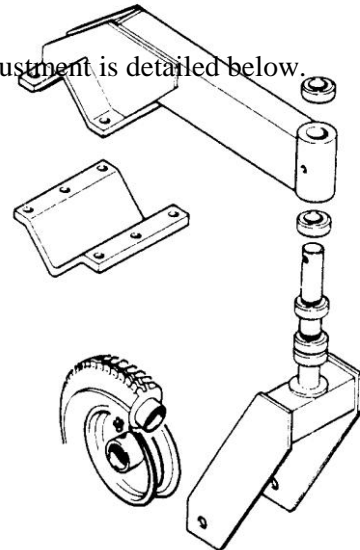
ADJUST THE ROLLER BY THE SAME AMOUNT BOTH SIDES TO ALLOW THE BANDIT TO MAINTAIN ITS HORIZONTAL POSITION.

THE ROLLER MUST BE KEPT IN POSITION AS IT IS AN ESSENTIAL PART OF THE BANDIT GUARD.

7 WHEEL ADJUSTMENT (1)

The wheel adjustment is carried out by a series of shims on the wheel pivot spindle. The method of wheel adjustment is detailed below.

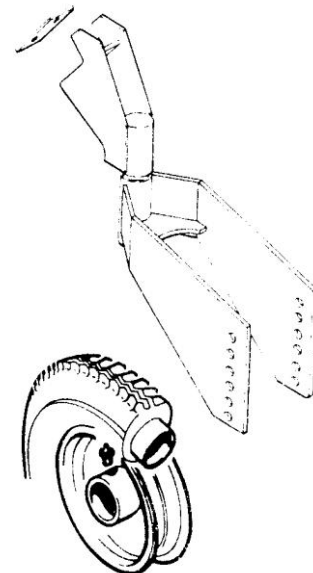
- a Raise the machine off the ground using the tractor hydraulics.
- b Stop the tractor engine and disengage PTO drive.
- c Place a strong support under the side skids.
- d Adjust position of shims to give required height of cut.
- e Remove support and lower the machine to the ground.



WHEEL ADJUSTMENT (2)

The wheel adjustment is carried out by locating the wheel spindle with a bolt in a series of holes. The method of wheel adjustment is as follow:

- a Raise the machine off the ground using the tractor hydraulics.
- b Stop the tractor engine and disengage PTO drive.
- c Place a strong support under the side skids.
- d Remove nut, spring washer and bolts from wheel spindle.
- e Lower or raise the wheel to height required.
- f Replace bolt, nut and spring washer and fully tighten.
- g Repeat previous operation for adjustment of second wheel.
- h Remove support and lower the machine to the ground.



8 OPERATING HINTS

- a KEEP tractor PTO speed at 540-550 rev/min to maintain rotor shaft speed.
- b AVOID wire. STOP tractor engine instantly if an unusual noise is heard from the machine. On no account raise or move the cutting unit until the rotor has stopped. NEVER IN ANY CIRCUMSTANCES run the rotor to clear itself.
- c AVOID stumps and pipes, etc. Stalling in heavy growth may cause damage to the rotor shaft.
- d DO NOT allow personnel near the machine while it is operating.
- e AVOID rushing into material when operating. Remember the unit has to chop material as well as cut it to the require height.
- f AVOID taking in too much material by selecting appropriate forward gear.
- g Run rotor at normal speed.
- h Advantage may be gained in exceptional conditions to take narrow cuts with part of the rotor shaft running idle.
- i When cutting it is always advisable to take a cut along the edges of ditches, etc. so that ditch limits can be seen.

9 STALLING THE ROTOR

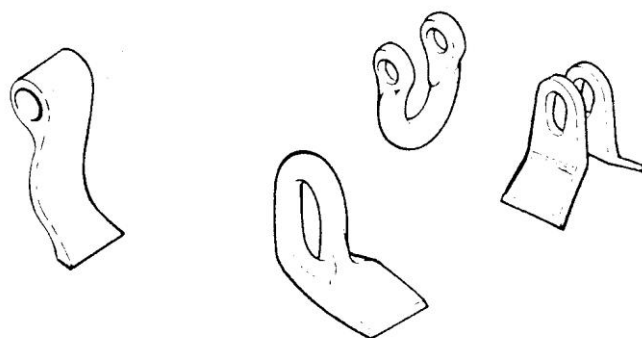
If the rotor becomes choked the tractor will stall or the belts will slip. If this does occur follow the instructions below.

- a Stop forward motion, disengage PTO drive immediately and place PTO drive lever in neutral.
- b Lift machine using tractor hydraulics.
- c Stop tractor engine.
- d Remove any obstructions that may be present on the rotor. If working under the raised machine ensure that it is safely supported.
- e NEVER IN ANY CIRCUMSTANCES run the rotor to clear itself.

10 FLAIL OPTIONS

The machine will normally be delivered with the 'C' flails fitted as standard. Other flail options available, which are able to be fitted to the rotor shaft are:

- a **Forged Flail**
Used for scrub cutting and will also give an acceptable finish on grass
- b **Twin Flail**
Used for light scrub and grass and where a lower power requirement is necessary.



C FLAIL FORGED FLAIL TWIN FLAIL

11 'A' FRAME POSITIONS

(not applicable to 1200 range)

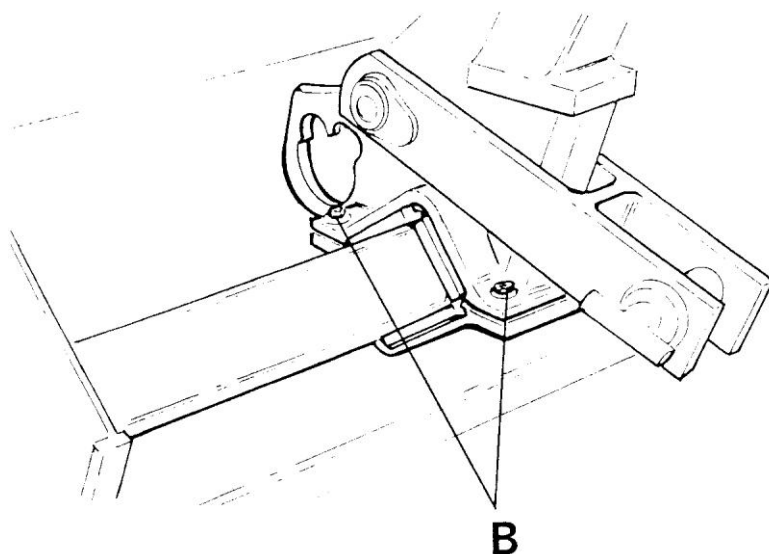
Hydraulic Machines - The 'A' frame is adjusted with the hydraulic sideshift.

Machines without hydraulic sideshift

The machine will normally be delivered with the 'A' frame bolted in the centre of the rotor unit. The 'A' frame is adjustable sideways for up to 700mm to the left as viewed from the rear.

The method of adjustment is detailed below:

- a Lower the machine to the ground using the tractor hydraulics.
- b Disengage PTO drive and stop tractor engine.
- c Remove machine from the tractor.
- d Slacken bolts and nuts (B) on both clamps at bottom of 'A' frame.
- e Position 'A' frame in desired position.
- f Tighten up all bolts and nuts.
- g Refit machine to tractor.



- 1 Before removing the machine from the tractor, a thorough check should be made as follows:
 - a Thoroughly clean all moving parts, particularly the rotor shaft.
 - b Check that all flails are in place and that they are in good condition.
 - c Smear all unpainted metal parts with grease and lubricate all grease nipples.
 - d Check all hoses for damage such as cracks, evidence of chafing and leaks.
 - e Make a note of any item that needs replacing so that parts can be ordered.
 - f Retract ram to protect rod.

2 **PARKING AND REMOVAL**

In the parked position the machine rests on the roller at the rear and on the skids at both sides.

To put the machine in this position the following procedure is necessary:

- a Lower the machine to the ground using the tractor hydraulics.
- b Stop the tractor engine and disengage PTO drive.
- c Slacken lift arms and check chains.
- d Slacken adjustable top link and remove.
- e Remove linch pin and rings securing lift arms to mounting pins.
- f Remove lift arms from mounting pins.
- g Grease mounting pins.
- h Replace linch pins and rings on mounting pins.
- i Release tractor end of PTO shaft and pull back along splines. (On some tractors it may not be possible to remove PTO shaft at this stage.)
- j Start tractor engine and drive carefully forward releasing PTO shaft from tractor.
- k Grease spline and tubes of PTO and store with machine or keep in a safe dry place.
- l Remove PTO. Check condition of guards. Replace if damaged, then store in a safe place.

1 POWER TAKE-OFF SHAFT

The PTO shaft used is of the normal agricultural type. Spares kits comprising the spider, needle bearings, circlips, etc. are available from most agricultural dealers.

See parts manual for correct part numbers which must be quoted when ordering spares.

Some routine maintenance is needed to ensure a trouble free life for the PTO shaft. For best results:

- a Regularly grease PTO shaft sliding tubes.
- b Grease both ends of PTO shaft daily.
- c Ensure check chains are securely attached and in good condition.
- d Check that PTO guard is in good condition and replace if not.
- e Check universal joint bearing journals for roughness or slackness, replace if necessary.

2 GREASING

Any good quality lithium based grease may be used for lubrication of pivot pins and bearings.

There are a number of greasing points on the machine. The frequency at which these greasing points should be greased is shown by a decal on the machine.

Do not overgrease the roller and its bearings or the carriers may be forced apart and distorted by the pressure.

To grease the rotor shaft bearings follow the instructions below:



- a Place head on ground or support it safely.
- b Stop tractor engine and disengage drive to PTO shaft.
- c Rotor shaft bearings: Grease nipples are located in the side of the bearing housing.
- d Apply grease to the nipples but do not grease violently as damage to the seals may result.
- e Do not overgrease or it could cause overheating.

3 ROTOR SHAFT

WARNING!

Flails - Check each day that flails are in good condition and securely attached to the rotor shaft. Replace any damaged and tighten any loose nuts.

Vibration of the rotor shaft will cause premature failure of the rotor shaft bearings, as well as hydraulic and structural failures. It is important not to operate the machine with the cutting unit vibrating. As soon as any vibration is felt stop operating the machine and make the checks listed below:

- a Place the head on the ground or support it safely.
- b Stop tractor engine and disengage PTO drive.
- c Check flails are in place and fastened tight.

- d Check for missing or worn flails. Always replace missing/worn flails in pairs opposite each other to maintain shaft balance.
- e When replacing missing or worn flails check if the retaining bolts are worn or bent. Replace any suspect bolts. Always fit new locknuts and spring washers when replacing flails.

IMPORTANT

ONLY FIT GENUINE BOMFORD TURNER PARTS

- f If any flails were missing or loose and have been replaced or tightened, run the rotor and retest for vibration. If vibration is still present check rotor bearings as follows:
- g Stop tractor engine and disengage PTO drive.
- h Check rotor shaft bearings for roughness or signs of slackness.
- i Replace bearings if either of the above symptoms are found. If vibration persists it is an indication that the rotor shaft is probably bent and must therefore be replaced.

ATTENTION

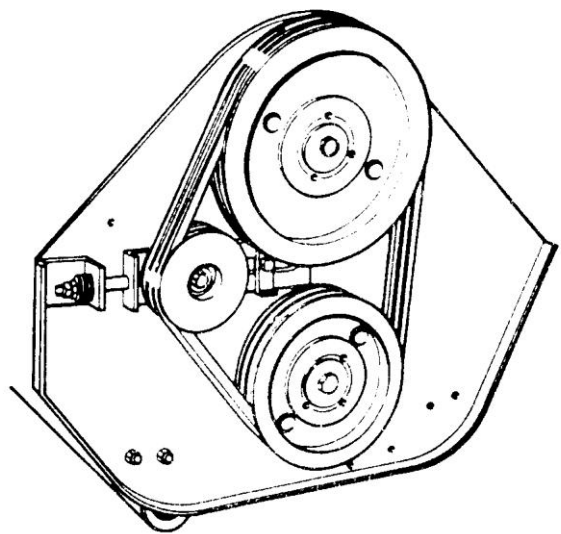
When replacing bearings or changing pulley ratios, ensure the centre bolt retaining the taperlock is fully tightened before tightening the grubscrews holding the taper lock to pulley. Failure to do this may result in the bearing rotating on the shaft journal.

4 REVERSING THE PULLEYS

IMPORTANT

IF 1000 REV/MIN PTO OUTPUT IS TO BE USED THE FOLLOWING MUST BE CHECKED AND CHANGED.

- A Ensure the tractor rev counter is checked and marked so that under no circumstances can 1000 rev/min PTO output be exceeded.
- B The PTO end yoke will require changing to a 1.3/8" - 21 spline for 1000 PTO output. Consult your agricultural dealer.
- C Check that the drive pulleys are set up for 540 rev/min PTO input and need to be reversed for 1000 rev/min PTO input.
 - a Stop tractor engine and disengage PTO drive.
 - b Remove drive guards.
 - c Slacken drive belt tensioner and remove drive belts.
 - d Remove top pulley by taking out 2 grubscrews from the taperlock bush and using one of them to loosen the pulley by inserting it into the third tapped hole.
 - e Remove the bottom pulley in the same manner as (d) above.
 - f Replace the lower taper lock bush and pulley on to the rotor shaft, being careful not to displace the drive key. Replace and fully tighten centre bolt before tightening the grubscrews holding the taper lock. Failure to do this may result in the bearing rotation on the shaft journal.

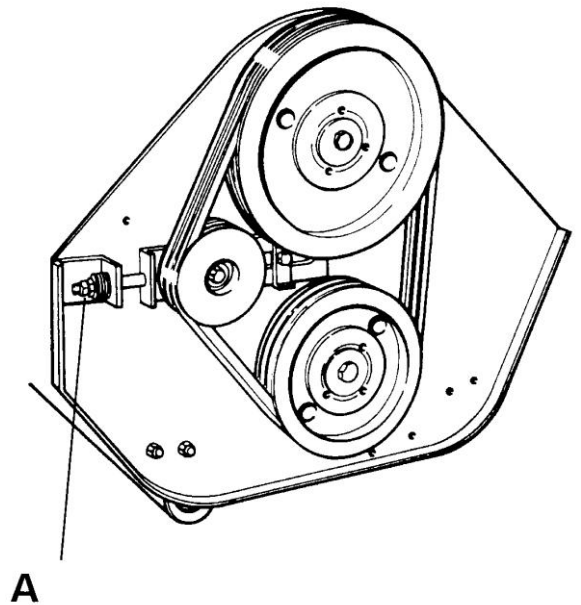


- g Replace vee-belts at the same time as replacing With a straight edge line up to top and bottom pulleys and fully tighten grubscrews. Check pulley alignment and repeat if not aligned correctly.
- h Check pulley alignment and adjust on lay shaft if not aligned correctly.
- i Tension drive belts.

5 TENSIONING DRIVE BELTS

The rotor shaft is driven from the gearbox via 'V' belts which are adjustable for tension. The belts are tensioned by an idler pulley running on the inside of the belts and are adjusted as detailed below.

- a Lower the machine to the ground using the tractor hydraulics.
- b Stop tractor engine and disengage PTO drive.
- c Turn locknut (A) on outside of idler pulley bracket in a clockwise direction to obtain correct tension. The belt tension is correct when the flat washer is level with end of indicator(see sketch below).
- d Tighten locknuts (A) together.



IMPORTANT

ENSURE THE BELTS ARE NOT OVER TIGHT AS THIS MAY CAUSE PREMATURE FAILURE OF THE ROTOR SHAFT BEARINGS AND BELTS.

