

AF-15 flail mower



Spearhead

Operator's manual & parts lists

Spearhead

AF-15 flail mower Operator's manual & parts list

First edition

Important

The purchaser should ensure that this manual is handed to the operator before using the machine for the first time and should be satisfied that the operator fully understands the contents of this manual before being allowed to proceed. If the machine is resold the Operators manual must be given to the new owner.

Fill in the details below, you will find it useful to refer to when ordering spare parts.

Serial No.

Date of Delivery

Dealer's address

Telephone No.

Spearhead Machinery Ltd.

Pershore Trading Estate, Pershore,
Worcestershire. WR10 2DD

Tel:01386 556748 Fax: 01386 561398

Safety

- * Never operate the machine with other people present, as it is possible for debris, including stones, to be discharged from the front and rear of the flail head.
- * Always ensure all cab safety guards are in place and all tractor windows closed.
- * Never allow an inexperienced person to operate the machine without supervision.
- * Never allow children to play on or around the machine at any time.
- * Never attempt any maintenance or adjustment without first disengaging the p.t.o., lowering the machine to the ground, stopping the tractor engine and applying the tractor parking brake.
- * Before leaving the tractor cab always ensure that the flail head is firmly on the ground, no weight is on the machine's hydraulics and the rotor has stopped spinning.
- * Never stop the engine with the p.t.o. engaged.
- * Always check that all guards are properly fitted, check there are no damaged or loose parts. Particular attention should be given to the flails to ensure they are not damaged, cracked or missing.
- * Never operate with flails missing.
- * Always inspect work area for wire, steel posts, large stones and other dangerous materials and remove before starting work.
- * Never attempt to use the machine for any purpose other than that it was designed for.
- * Ensure that all warning labels are always visible and that they are not damaged, defaced or missing.

Introduction

The Spearhead AF15 flail mower is a robust high capacity flail mower that is easy to operate and maintain but to ensure trouble-free operation this manual should be carefully studied.

Safety First

Do not start the machine until you fully understand operation and safety precaution requirements.

Attaching to the tractor

Warning - It is most important the operator fully understands the procedure for attaching/unattaching the mower to/from the tractor. The following text must be fully understood before attempting to attach the machine. If there is any doubt please contact your supplying dealer or Spearhead Service Department. Failure to follow the correct procedure to attach/unattach the machine could result in personal injury or machine damage. Any resulting damage to a machine is not covered by warranty.

Always be sure to select a level firm surface, such as concrete before attaching to the tractor.

Before fitting the machine to the tractor linkage you should ensure there is sufficient rear weights to ensure the rear steerage wheels are always in contact with the ground. This is most important for safe transport and stability when turning on slopes.

First fit the correct Spearhead linkage arms to the tractor, ensuring they are correct type for the tractor being used. (NOTE: Every model of tractor has a different type of arm). It is highly recommended that the initial fitting is carried out by your Dealer.

Attaching to the tractor (continued)

Fully raise the link arms and slowly drive forward until the link arm ends are directly above the mounting pins on the mower body. Lower the arms to the correct height to fit pin through the link arm end.

SAFETY - Always be sure that the machine is fully lowered to the floor, the engine is stopped and the hand brake is fully applied before leaving the seat. Never attempt to fit the p.t.o. shaft to the tractor with the engine running.

Attaching p.t.o. shaft.

Before fitting the p.t.o. for the first time, it may be necessary to adjust the length. There should be maximum engagement of the sliding tubes without bottoming at the shortest operation position. To check, first connect the mower to the tractor. Pull the p.t.o. shaft apart and connect to the tractor p.t.o. output shaft and the gearbox input shaft. Hold the half shafts next to each other in the shortest working position. If necessary, shorten the inner and outer guard tubes equally. Shorten the inner and outer sliding profiles by the same length as the guard tubes. File all sharp edges and remove burrs. Grease sliding profiles.

To fit the p.t.o., first clean and grease. Press pins on the yoke and simultaneously push the p.t.o. drive shaft on to p.t.o. shaft of the tractor until pins engage.

Setting up and adjustment

Height adjustment The height of cut is controlled by a rear roller and front castoring wheels. The rear roller is repositioned by selecting a matching set of holes on the two side plates, attached to the rear roller. The front castor wheels are repositioned by selecting a matching hole on the castor wheel stem.

It is most important that the equal holes are selected on the left and right hand side to ensure that there is a uniform height of cut from left to right. It is advised that the machine's working position from front to rear is level or slightly higher at the front.

P.T.O. Speed

The machines are supplied as standard as a direct 1:1 ratio to the rotor. It is important that the machine is operated at a p.t.o. speed of 2200 r.p.m. Before first use, please refer to your tractor manual and/or Tractor Dealer to ensure your p.t.o. speed is 2200 r.p.m. when tractor engine is operated at a maximum speed.

Operation

Before use please check all routine maintenance has been carried out. Engage the p.t.o. only when the tractor engine is at low revs to prevent shock damage to machine. Slowly increase the engine revs to maximum speed to achieve correct p.t.o. speed. If at any time serious vibration occurs, stop the engine immediately and check that no flails are missing, (following all safety precautions.) The cause must be found and rectified immediately or other components may be affected.

When in work, lower the machine to the ground carrying all the weight on the rear roller and front castoring wheels, allowing the machine to follow the contours of the ground. Select a sensible forward speed bearing in mind the density of growth, the terrain and the available horsepower, taking extra care when turning, particularly on slopes. When turning it is not necessary to lift the machine off the ground but instead allow sufficient room to turn in a large radius. The machine only needs to be raised when turning in a tight corner.

Quality of finish is determined by the forward speed i.e. a slow speed will produce a high quality of cut, whereas faster forward speeds are used when high output is first priority.

Servicing and maintenance

Warning Never carry out any servicing or maintenance work without first disengaging the p.t.o. and stopping the tractor.

Daily

Check the condition of the flails and ensure all retaining bolts are tight. When blades are replaced, care must be taken not to disturb the balance of the rotor shaft. Never operate with broken, bent or missing flails; this will cause immediate bearing failure and in the long term cause structural damage to the machine.

Check the condition of drive belts, ensuring they are aligned and properly tensioned to avoid any unnecessary belt wear.

It is imperative that the grubscrews are checked on the bearings and pulleys, once bedded in Loctite glue may prove useful.

Check there is no wrapping of string, plastic, grass or other debris on rotor shaft and rear roller bearings.

Check the condition of flails and ensure all retaining bolts are tight. When flails are replaced care must be taken to maintain balance of rotor shaft.

Blunt flails leave an untidy finish and absorb excessive power, when re-sharpening always wear protective clothing and goggles.

When flails are showing severe wear, damage or cracking they must be replaced immediately. Never attempt to weld the flails this will make them very brittle and extremely dangerous.. Do not take risks with the cutting flails, if in doubt replace.

When replacing flails always replace bolts, nuts, washers and bushes for new.

Check that all gearbox bolts are tight. **When the machine is new there will be a “bedding in” period when very frequent checking is important.**

Grease rear roller bearings and p.t.o. shaft.

Gearbox

Before first use check gearbox oil level, thereafter check every 8 hours.

Regularly inspect gearbox oil seals.

Every 50 hours

Closely inspect the condition of both rotor main bearings. These are sealed bearings and if any signs of wear or damaged to seals occurs, this will mean immediate replacement. Regular inspection will simply mean replacing the inner bearing race which is designed for quick and easy replacement with minimum cost, without the need of replacing the complete housing.

Every 200 hours

Drain and replace gearbox with EP90 oil.

Storage

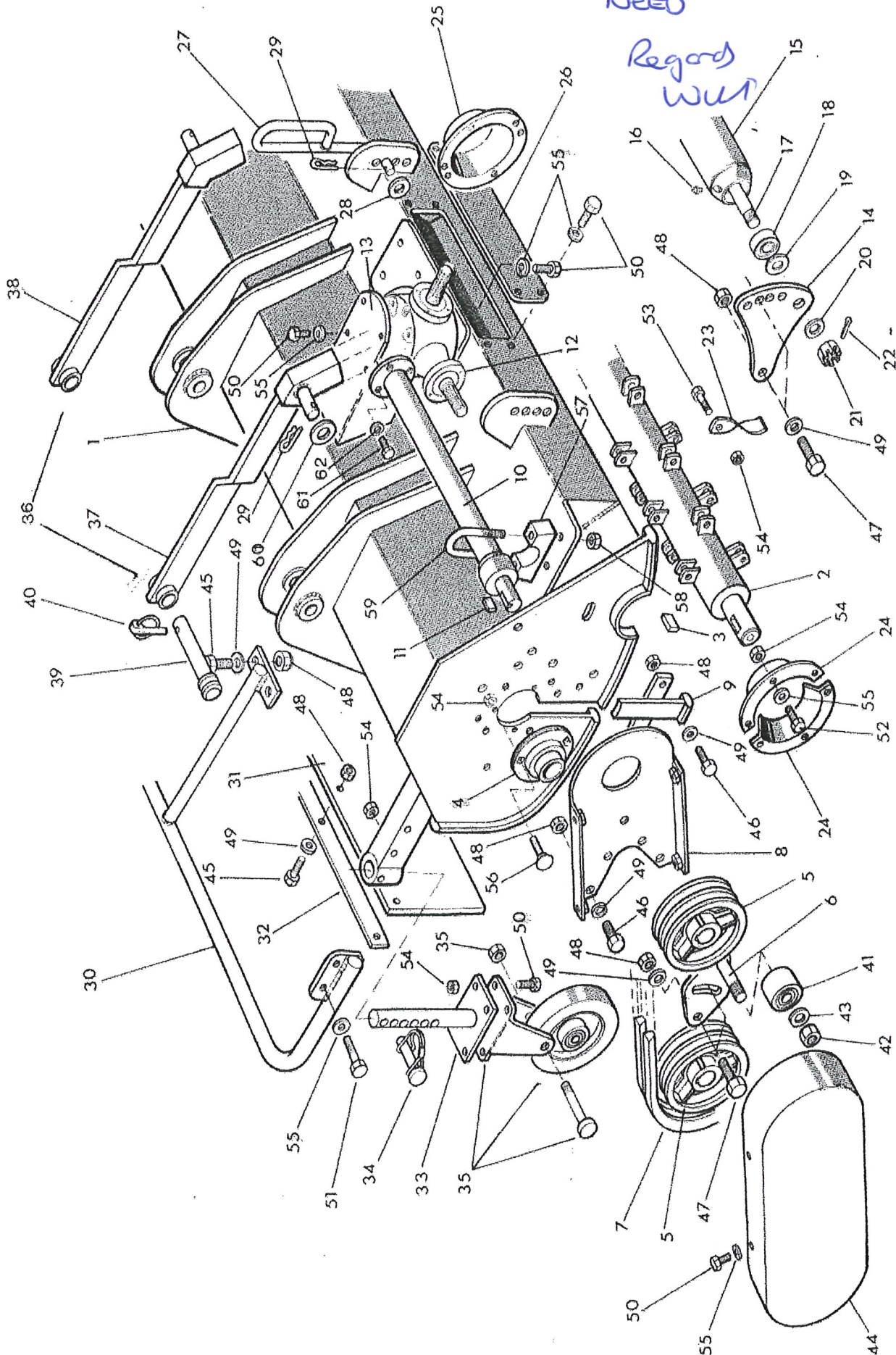
Before storing away, thoroughly wash the machine removing all traces of grass and dirt. Great care must be taken when washing, do not use high pressure washers, do not hold the water jet close to the paintwork. Do not use steam cleaners and be sure to remove all detergents to avoid any discolouring or damage to paint. Grease all grease points until fresh grease shows. Slacken rotor drive belts. It is important where possible to store undercover, to protect against rain and sunlight. Always ensure a firm level surface.

Remember the AF15 Flail Mower is a well engineered machine and with a little care and attention, will give many years trouble free service. So as not to invalidate the warranty and to avoid problems, use only genuine parts and make sure the machine is not driven at a speed in excess of 2200 r.p.m. at the p.t.o.

F.AO TORBEN

PLEASE HIGHLIGHT PARTS
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Ref	Part number	Item description	Ref	Part number	Item description
1	1770001	Main body	31	8400203	Rubber flap
2	1770000	Rotor	32	1770003	Retaining strip
3	4772222	Key	33	1770004	Wheel bracket
4	4770889	Rotor bearing	34	6310211	Clip pin
5	4770889A	Rotor bearing insert only	35	6550140	Wheel assembly
6	4770888	Pulley	36	4600124	Bush
7	1770013	Tensioner bracket	37	*	Link arm LH
8	4770868	Belt	38	*	Link arm RH
9	1770009	Support plate	39	6310203	Pin
10	1770010	Skid infill	40	6310206	Lynch pin
11	5770022	Gearbox extension	41	1770015	Idler pulley
12	4772222	Key	42	4771586	Idler pulley bearing
13	5770017	Gearbox	43	2770447	Nut
14	1770011	Gearbox cover	44	2770454	Washer
15	1770016	Roller plate	45	1770008	Pulley guard
16	1770017	Roller	46	2770535	Bolt
17	2770467	Grease nipple	47	2770420	Bolt
18	1770018	Roller shaft	48	2770443	Bolt
19	4771604	Bearing	49	2770417	Nut
20	1777231	Hub cover	50	2770436	Washer
21	2770470	Washer	51	2770407	Bolt
22	2777501	Castle nut	52	2770553	Bolt
23	2770513	Split pin	53	2770421	Bolt
24	7770712	Flail	54	2770396	Bolt
25	1770006	Half rotor shield	55	2770412	Nut
26	1770007	Full rotor shield	56	2770434	Washer
27	1770012	Inspection plate	57	2770565	Bolt
28	1770020	Float link LH	58	1770005	Support block
29	1770021	Float link RH	59	2770412	Nut
30	2770436	Washer	60	1770019	U bolt
	6310194	Clip	61	2770552	Washer
	1770002	Bumper	62	2777499	Cap bolt
				2770433	Spring washer

* Specify tractor model when ordering

Servicing log

Date	Details

Date	Details

Date	Details

Date	Details

Date	Details

Date	Details

Date	Details

Date	Details

The Spearhead Warranty

Spearhead warrants that the Spearhead machine referred to in the Warranty Registration Form will be free from defects in materials and workmanship for a period of 12 months from the date of sale. This warranty does not affect your statutory rights, but merely adds to them. Should you have a problem within 12 months from the date of sale please contact your original Spearhead dealer, or Spearhead's Service Department. Any part found to be defective during this period will be replaced or repaired, at Spearhead's discretion, by the dealer or a Spearhead Service Engineer.

Spearhead Warranty Conditions

1. The Warranty Registration Form must be completed and returned to Spearhead within 30 days of the date of sale.
2. This warranty does not cover defects arising from fair wear and tear, wilful damage, negligence, misuse, abnormal working conditions, use in competition, failure to follow Spearhead's instructions (oral or written, including all instructions and recommendation made in the Operator's Manual) or alteration or repair of the machinery without Spearhead's approval.
3. The machinery must have been serviced in accordance with the Operator's Manual and the Service Log must have been kept up to date and made available to the dealer should service, repair or warranty work be undertaken.
4. This warranty does not cover claims in respect of wearing parts such as blades, flails, paintwork, tyres, belts, hydraulic hoses, bearings, bushes, linkage pins, top links, ball ends unless there is a manufacturing or material defect or the cost of normal servicing items such as oils and lubricants.
5. This warranty does not cover any expenses or losses incurred whilst the machinery is out of use for warranty repairs or parts replacement.
6. This warranty does not extend to parts, materials or equipment not manufactured by Spearhead, for which the Buyer shall only be entitled to the benefit of any such warranty or guarantee given by the manufacturer to Spearhead. Only genuine Spearhead replacement parts will be allowable for warranty claims.
7. All parts replaced by Spearhead under warranty become the property of Spearhead and must be returned to Spearhead if Spearhead so request. Such parts may only be disposed of after a warranty claim has been accepted and processed by Spearhead.
8. Spearhead is not liable under this warranty for any repairs carried out without Spearhead's written consent or without Spearhead being afforded a reasonable opportunity to inspect the machinery the subject of the warranty claim. Spearhead's written consent must, therefore, be obtained before any repairs are carried out or parts replaced. Use of non-Spearhead parts automatically invalidates the Spearhead Warranty. Failed components must not be dismantled except as specifically authorised by Spearhead and dismantling of any components without authorisation from Spearhead will invalidate this warranty.
9. All warranty claims must be submitted to Spearhead on Spearhead Warranty Claim Forms within 30 days of completion of warranty work.

Extended Warranty

As an extension to the 12 month warranty set out above, Spearhead will provide an additional 12 month warranty cover subject to the Spearhead Warranty Conditions above and the Extended Warranty Conditions below.

Extended Warranty Conditions

1. The extended warranty applies to hydraulic pumps, motors, valves and gearboxes only. It does not apply to other parts, to consumables such as lubricants, seals or filters or to labour charges.
2. The machinery must have had an annual service carried out by an Authorised Spearhead Dealer or a Spearhead Service Engineer within 1 month of the first anniversary of the date of sale and the Service Report form must have been completed and stamped by the servicing dealer or Spearhead Service Engineer and sent to Spearhead within 14 days after the first annual service.
3. The extended warranty does not cover costs of transportation of the machinery to or from the dealer or Spearhead or the call out costs or travelling expenses of on-site visits.

Transfer of Warranty

The Spearhead warranty may be transferred to a subsequent owner of the machinery (for use within the UK) for the balance of the warranty period subject to all of the warranty conditions and provided that the Change of Owner form is completed and sent to Spearhead within 14 days of change of ownership.

Spearhead reserves the right to make alterations and improvements to any machinery without notification and without obligation to do so.

Spearhead

EC declaration of conformity, conforming to EEC directive 89/392/EEC

We, Spearhead Machinery Ltd, Pershore Trading Estate,
Persnore, Worcestershire WR10 2DD declare under our
sole responsibility that the

product

product code

serial no. & date

type

Manufactured by the above company complies with the
required provisions of the directive 89/392/EEC, and
AMD 91/368/EEC, AMD 93/44/EEC, AMD 93/68/EEC
and conforms with European norm. BSEN 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 constructions as listed in the
Technical File.

Signed

on behalf of Spearhead Machinery Ltd

Status

Date

Operator's manual & parts lists

AF-15 flail mower

Second edition March 1999



Spearhead

AF-15 flail mower

Operator's manual

Second edition

March 1999

IMPORTANT - The information contained in this manual is correct at the time of publication. However, in the course of constant development, changes in specification are inevitable. Should you find the information given in this book different to the machine it relates to please contact the "After Sales Department" for advise.

Important

The purchaser should ensure that this manual is handed to the operator before using the machine for the first time and should be satisfied that the operator fully understands the contents of this manual before being allowed to proceed. If the machine is resold the Operators Manual must be given to the new owner.

Fill in the details below, you will find it useful to refer to when ordering spare parts.

Serial No.	
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Dealer's address	
Telephone No.	

Spearhead Machinery Limited
Persore Trading Estate,
Persore,
Worcestershire WR10 2DD
Tel: 01386 556748 Fax: 01386 561398



Safety

- Never operate the machine with other people present, as it is possible for debris, including stones, to be discharged from the front and rear of the flail head.
- Always ensure all safety guards are in place and all tractor windows closed.
- Never allow an inexperienced person to operate the machine without supervision.
- Never allow children to play on or around the machine at any time.
- Never attempt any maintenance or adjustment without first disengaging the p.t.o., lowering the machine to the ground, stopping the tractor engine and applying the tractor parking brake.
- Before leaving the tractor cab always ensure that the flail head is firmly on the ground, no weight is on the machine's hydraulics and the rotor has stopped spinning.
- Never stop the engine with the p.t.o. engaged.
- Always check that all guards are properly fitted, check there are no damaged or loose parts. Particular attention should be given to the flails to ensure they are not damaged, cracked or missing.
- Never operate with flails missing.
- Always inspect work area for wire, steel posts, large stones and other dangerous materials and remove before starting work.
- Never attempt to use the machine for any purpose other than that it was designed for.
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Introduction

The Spearhead AF15 flail mower is a robust high capacity flail mower that is easy to operate and maintain but to ensure trouble free operation this manual should be carefully studied.

Safety First

Do not start the machine until you fully understand operation and safety precaution requirements.

Attaching to the tractor



WARNING - It is most important the operator fully understands the procedure for attaching/unattaching the mower to/from the tractor. The following text must be fully understood before attempting to attach the machine. If there is any doubt please contact your supplying dealer or Spearhead Service Department. Failure to follow the correct procedure to attach/unattach the machine could result in personal injury or machine damage. Any resulting damage to a machine is not covered by warranty.



WARNING - For every model of tractor a different type of lift arm is required.

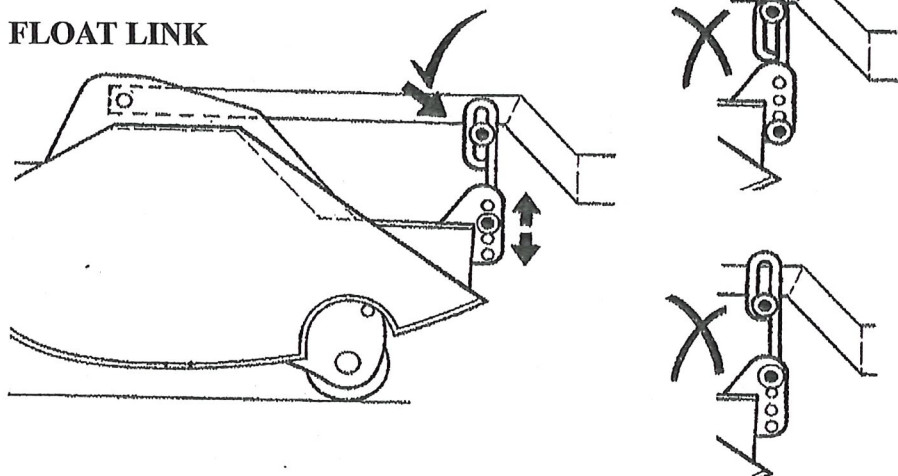
Always be sure to select a level firm surface, such as concrete before attaching to the tractor.

Before fitting the machine to the tractor linkage you should ensure there is sufficient rear weights, to ensure the rear steerage wheels are always in contact with the ground. This is most important for safe transport and stability, wheels are always in contact with the ground. This is most important when turning on slopes.

First fit the correct Spearhead linkage arms to the tractor, ensuring they are correct type for the tractor being used. It is highly recommended that the initial fitting is carried out by your Dealer.

Fully raise the link arms and slowly drive forward until the link arm ends are directly above the mounting pins on the mower body. Lower the arms to the correct height and fit pin through the link arm end.

FLOAT LINK



Float link to be fitted in a position which allows equal movement up or down when the tractor and machine are on level ground. It's purpose to raise rear of the machine when mower is lifted, and to stop p.t.o. becoming disconnected.

Attachine p.t.o. shaft

Before fitting the p.t.o. for the first time, it may be necessary to adjust the length. There should be maximum engagement of the sliding tubes without bottoming at the shortest operation position. To check, first connect the mower to the tractor. Pull the p.t.o. shaft apart and connect to the tractor p.t.o. output shaft and the gearbox input shaft. Hold the half shafts next to each other in the shortest working position. If necessary, shorten the inner guard tube. Shorten the inner sliding profile by the same length as the guard tube (shorten male shaft only on splined type). File all sharp edges and remove burrs. Grease sliding profiles.

The fit the p.t.o., first clean and grease. Press pins on the yoke and simultaneously push the p.t.o. drive shaft on the p.t.o. shaft of the tractor until pins engage.

Setting up and adjustment

Height adjustment

The height of cut is controlled by a rear roller and front castoring wheels. The rear roller is repositioned by selecting a matching set of holes on the two side plates, attached to the rear roller (Fig. 2). The front castor wheels are repositioned by selecting spacers on the castor wheel stem (Fig. 1).

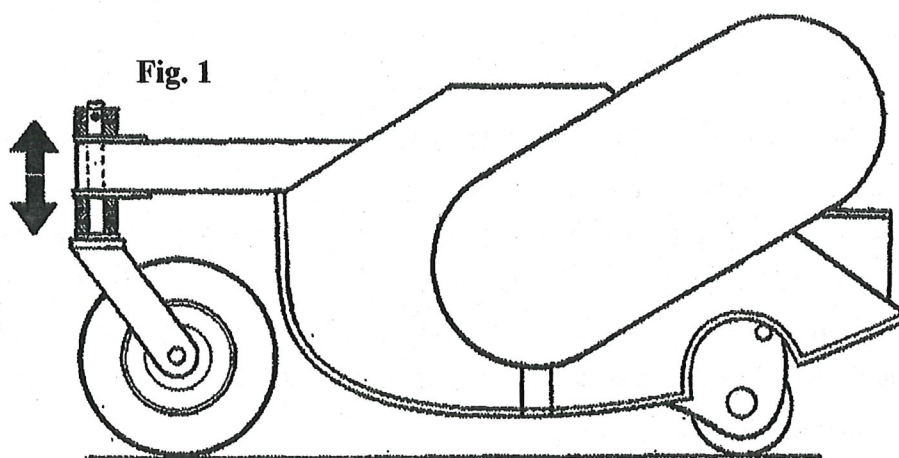
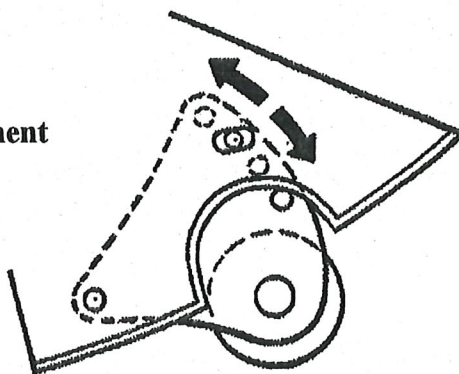


Fig. 2

Height adjustment
for rear roller



It is most important that the equal spacers are selected on the left and right hand side to ensure that there is a uniform height of cut from left to right. It is advised that the machine's working position from front to rear is level or slightly higher at the front.

P.t.o. Speed

The machines are supplied as standard as a direct 1:1 ratio to the rotor. It is important that the machine is operated at a p.t.o. speed of 2200 r.p.m. Before first use, please refer to your tractor manual and/or tractor Dealer to ensure your p.t.o. speed is 2200 r.p.m. when tractor engine is operated at a maximum speed.

Operation

Before use please check all routine maintenance has been carried out. Engage the p.t.o. only when the tractor engine is at low revs to prevent shock damage to machine. Slowly increase the engine revs to maximum speed to achieve correct p.t.o. speed. If at any time serious vibration occurs, stop the engine immediately and check that no flails are missing, (following all safety precautions). The cause must be found and rectified immediately or other components may be affected.

When in work, lower the machine to the ground carrying all the weight on the rear roller and front castoring wheels, allowing the machine to follow the contours of the ground. Select a sensible forward speed bearing in mind the density of growth, the terrain and the available horsepower, taking extra care when turning, particularly on slopes. When turning it is not necessary to lift the machine off the ground but instead allow sufficient room to turn in a large radius. The machine only needs to be raised when turning in a tight corner.

Quality of finish is determined by the forward speed i.e. a slow speed will produce a high quality of cut, whereas fast forward speeds are used when high output is first priority.

Servicing and maintenance



WARNING - Never carry out any servicing or maintenance work without first disengaging the p.t.o. and stopping the tractor.

Daily

1. Check the condition of the flails and ensure all retaining bolts are tight. When blades are replaced, care must be taken not to disturb the balance of the rotor shaft. Never operate with broken, bent or missing flails; this will cause immediate bearing failure and in the long term cause structural damage to the machine.
2. Check the condition of drive belts, ensuring they are aligned and properly tensioned to avoid any unnecessary belt wear (Fig. 3).

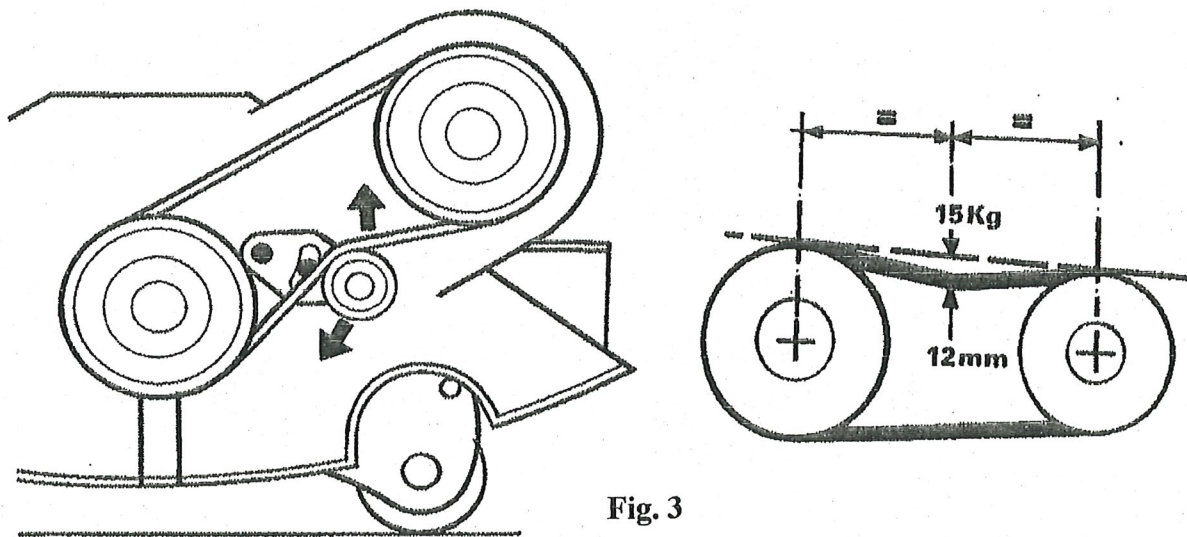


Fig. 3

3. It is imperative that the grub screws are checked on the pulleys and bearings, once bedded in Lactate glue may prove useful.
4. Check there is no wrapping of string, plastic, grass or other debris on rotor shaft and rear roller bearings.

5. Check the condition of flails and ensure all retaining bolts are tight. When flails are replaced care must be taken to maintain balance of rotor shaft.
6. Blunt flails leave an untidy finish and absorb excessive power, when re-sharpening always wear protective clothing and goggles.
7. When flails are showing severe wear, damage or cracking they must be replaced immediately. Never attempt to weld the flails this will make them very brittle and extremely dangerous. Do not take risks with the cutting flails, if in doubt replace.
8. When replacing flails always replace bolts, nuts, washers and bushes for new.
9. Check that all gearbox bolts are tight.
10. Grease rear roller bearings, rotor bearings, p.t.o. shaft, front castor wheels and front spindles.
11. Check tyre pressures.



WARNING - When the machine is new there will be a 'bedding in' period when very frequent checking is important.

Gearbox

1. Before first use check gearbox oil level, thereafter check every 8 hours.
2. Regularly inspect gearbox oil seals.

Every 50 hours

Closely inspect the condition of both rotor main bearings.

Every 200 hours

Drain and replace gearbox with EP90 oil.

Storage

Before storing away, thoroughly wash the machine removing all traces of grass and dirt. Great care must be taken when washing, with high pressure washers, and steam cleaners do not hold the water jet close to the paintwork, and be sure to remove all detergents to avoid any discolouring or damage to paint. Grease all grease points until fresh grease shows. Slacken rotor drive belts. It is important where possible to store undercover, to protect against rain and sunlight. Always ensure a firm level surface.

Remember the AF15 Flail Mower is a well engineered machine and with a little care and attention, will give many years trouble free service. So as not to invalidate the warranty and to avoid problems, use only genuine parts and make sure the machine is not driven at a speed i excess of 2200 r.p.m. at the p.t.o.

Servicing Log

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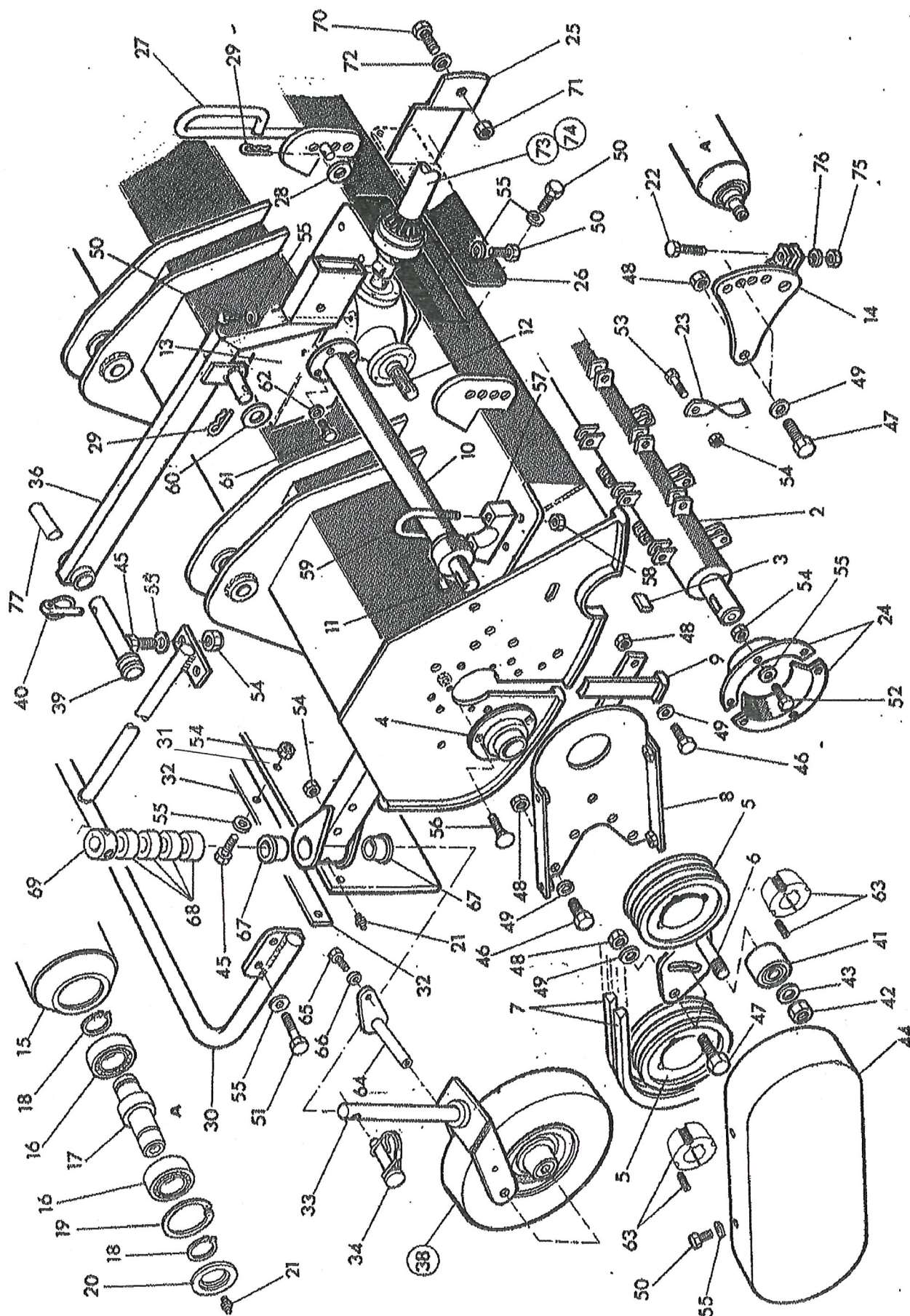
Parts lists

Ordering parts

When ordering parts please refer to your parts list to help your dealer with your order. Please provide the following:

1. Part no. and quantity
2. Description
3. Machine model no.
4. Machine serial number of the machine
5. Delivery instructions (e.g. next day)

Delivery is normally via carrier direct to your dealer. Services that are currently available are Next Day with the additional option of before 9 am, 10.30am or Noon. Carriers also offer a 2-3 day service for heavier items. For light and small parts, these can be posted first or second class mail.



Parts list - AF15 Main body assembly

Fig. Ref	Part number	Item description
1	1770001A	Main body
2	1770000	Rotor
3	4772229	Key
4	4770890	Bearing
5	4770825	Pulley
6	1770013	Tensioner bracket
7	4770870	Belts
8	1770009A	Pulley plate
9	1770010A	Skid infill
10	5770022	Cross shaft
11	4772229	Key
12	5770017	Gearbox
13	1770011	Gearbox cover
14	1770016L	Left hand rear roller plate
	1770016R	Right hand rear roller plate
15	1770017A	Roller 4" DIA
16	4771604	Bearing
17	1777314	Stub shaft
18	2777519	Circlip
19	2771108	Circlip
20	1777231A	Hub cover
21	2770468	Grease nipple
22	2770433	Bolt
23	7770742	Twisted flail 7770715 x 45
24	1770006	Rotor shield
25	1770007	Bearing shield
26	1770012	Lower cover plate
27	1770020	Left hand float bracket
	1770021	Right hand float bracket
28	2770436	Washer
29	6310194	Clip
30	1770002	Front bumper
31	8550162	Rubber flap per metre
32	1770003	Retaining strip
33	1777627A	Wheel fork
34	6310211	Clip
35		
36	1770014	Left hand link arm - John Deere
	1770014R	Right hand link arm - John Deere
	1770030	Left hand link arm - Iseki
	1770030R	Right hand link arm - Iseki
	1777635	Left hand link arm - Shebora
	1777636	Right hand link arm - Shabora

Parts list - AF15 assembly

Fig. Ref	Part number	Item description
38	6770517	Wheel
39	6310203	Pin
40	6310206	Lynch Pin
41	1770015	Idler pulley
	4771586	Bearings
	1770022	Spacer
42	2770447	Nut
43	2770454	Washer
44	1770008A	Pulley Guard
45	2770421	Bolt
46	2770535	Bolt
47	2770535	Bolt
48	2770417	Nut
49	2770436	Washer
50	2770418	Set screw
51	2770553	Bolt
52	2770420	Set screw
53	2770396	Bolt 2770364
54	2770412	Nut 2770574
55	2770469	Spring washer
56	2770419	Bolt
57	1770005	Support block
58	2770412	Nut
59	1770019	U-bolt
60	2770552	Washer
61	2770521	Cap bolt
62	2770433	Spring washer
63	4770848	Taper lock
64	1777633 use 1777917	Pin 1" x 124
65	2770484	Set screw
66	2770436	Washer
67	4600135	Bush
68	1777639	Spacer bush
69	1777638	Top wheel bush
70	2770535	Set screw
71	2770417	Nut
72	2770436	Washer
73	5770045	P.t.o. shaft - 15 spline
74	5770046	P.t.o. shaft - 6 spline
75	2770417	Nut
76	2770436	Washer
77	4600124	Bush
101010	5770049	P.T.O 10 SPLINE

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Spearhead

EC declaration of conformity, conforming to EEC directive 89/392/EEC

We, Spearhead Machinery Ltd, Pershore Trading Estate, Pershore,
Worcestershire WR10 2DD declare under our sole responsibility that the

product
product code
serial no. & date
type

Manufactured by the above company complies with the required
provisions of the directive 89/392/EEC, and AMD 91/368/EEC, AMD 93/
44/EEC, AMD 93/68/EEC and conforms with European norm. BSEN 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 constructions as listed in the
Technical File.

Signed
on behalf of Spearhead Machinery Ltd
Status
Date

The Spearhead Warranty

Spearhead warrants that the Spearhead machine referred to in the Warranty Registration Form will be free from defects in materials and workmanship for a period of 12 months from the date of sale. This warranty does not affect your statutory rights, but merely adds to them. Should you have a problem within 12 months from the date of sale please contact your original Spearhead dealer, or Spearhead's Service Department. Any part found to be defective during this period will be replaced or repaired, at Spearhead's discretion, by the dealer or a Spearhead Service Engineer.

Spearhead Warranty Conditions

- 1 The Warranty Registration Form must be completed and returned to Spearhead within 30 days of the date of sale.
- 2 This warranty does not cover defects arising from fair wear and tear, wilful damage, negligence, misuse, abnormal working conditions, use in competition, failure to follow Spearhead's instructions (oral or written, including all instructions and recommendation made in the Operator's Manual) or alteration or repair of the machinery without Spearhead's approval.
- 3 The machinery must have been serviced in accordance with the Operator's Manual and the Service Log must have been kept up to date and made available to the dealer should service, repair or warranty work be undertaken.
- 4 This warranty does not cover claims in respect of wearing parts such as blades, flails, paintwork, tyres, belts, hydraulic hoses, bearings, bushes, linkage pins, top links, ball ends unless there is a manufacturing or material defect or the cost of normal servicing items such as oils and lubricants.
- 5 This warranty does not cover any expenses or losses incurred whilst the machinery is out of use for warranty repairs or parts replacement.
- 6 This warranty does not extend to parts, materials or equipment not manufactured by Spearhead, for which the Buyer shall only be entitled to the benefit of any such warranty or guarantee given by the manufacturer to Spearhead. Only genuine Spearhead replacement parts will be allowable for warranty claims.
- 7 All parts replaced by Spearhead under warranty become the property of Spearhead and must be returned to Spearhead if Spearhead so request. Such parts may only be disposed of after a warranty claim has been accepted and processed by Spearhead.
- 8 Spearhead is not liable under this warranty for any repairs carried out without Spearhead's written consent or without Spearhead being afforded a reasonable opportunity to inspect the machinery the subject of the warranty claim. Spearhead's written consent must, therefore, be obtained before any repairs are carried out or parts replaced. Use of non-Spearhead parts automatically invalidates the Spearhead Warranty. Failed components must not be dismantled except as specifically authorised by Spearhead and dismantling of any components without authorisation from Spearhead will invalidate this warranty.
- 9 All warranty claims must be submitted to Spearhead on Spearhead Warranty Claim Forms within 30 days of completion of warranty work.

Extended Warranty

As an extension to the 12 month warranty set out above, Spearhead will provide an additional 12 month warranty cover subject to the Spearhead Warranty Conditions above and the Extended Warranty Conditions below.

Extended Warranty Conditions

- 1 The extended warranty applies to hydraulic pumps, motors, valves and gearboxes only. It does not apply to other parts, to consumables such as lubricants, seals or filters or to labour charges.
- 2 The machinery must have had an annual service carried out by an Authorised Spearhead Dealer or a Spearhead Service Engineer within 1 month of the first anniversary of the date of sale and the Service Report form must have been completed and stamped by the servicing dealer or Spearhead Service Engineer and sent to Spearhead within 14 days after the first annual service.
- 3 The extended warranty does not cover costs of transportation of the machinery to or from the dealer or Spearhead or the call out costs or travelling expenses of on-site visits.

Transfer of Warranty

The Spearhead warranty may be transferred to a subsequent owner of the machinery (for use within the UK) for the balance of the warranty period subject to all of the warranty conditions and provided that the Change of Owner form is completed and sent to Spearhead within 14 days of change of ownership.

Spearhead reserves the right to make alterations and improvements to any machinery without notification and without obligation to do so.

