

New model Serial No.

1004633560, 1011533573 & 1011533574

1011933585 - onwards

»»»»» **Spearhead**

3000 Swipe and 300 Multi-Cut

Handbook & Parts List

5th Edition

June 2004

Important Note

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 advice.

Please ensure that this manual is handed to the operator before using the machine for the first time. The operator must fully understand the contents of this manual before using the machine.
(If the machine is resold the Manual must be given to the new owner.)

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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.

FAX NO.

E-MAIL ADDRESS

Spearhead Machinery Limited

Green View,

Station Road

Salford Priors,

Evesham, Worcestershire,

WR11 8SW

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Spearhead

EC declaration of conformity, conforming to EEC directive 89/392/EEC & 98/37/EC

*We, Spearhead Machinery Ltd, Green View, Salford Priors, Evesham, Worcestershire
WR11 8SW declare under our sole responsibility that the*

Product

Product code

Serial No. & date

Flail head serial No.

Type

*Manufactured by the above company complies with the required provisions of the directive
89/392/EEC and 98/37/EC, 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

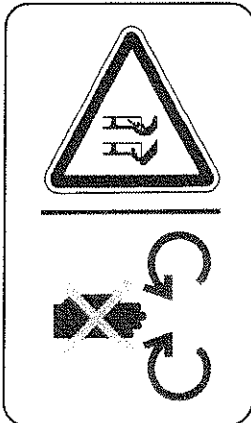
Status *General Manager*

Date

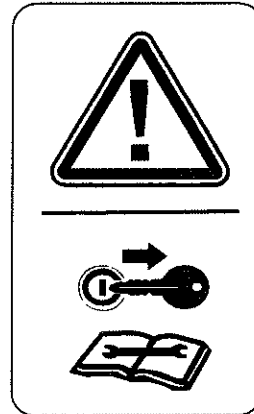
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- Never operate the machine with other people present, as it is possible for debris, including stones, to be discharged from the front and rear of the main deck.
- Always ensure all safety guards are in place and all tractor windows closed.
- Never allow an inexperienced person to operate the machine without supervision.
- Never attempt any maintenance or adjustment without first disengaging the PTO, lowering to the ground, stopping the tractor engine and applying the tractor parking brakes.
- Before leaving the tractor cab always ensure that the machine is firmly on the ground, and the rotor has stopped spinning.
- Never stop the engine with the PTO engaged.
- Always check that all guards are properly fitted, check there are no damaged or loose parts. Particular attention should be given to the blades to ensure they are not damaged, cracked or missing.
- Never operate with damaged blades.
- Always operate PTO at recommended speed.
- Always inspect work area for wire, steel posts, large stones and other dangerous materials and remove before starting work.
- Never operate with wire around the rotor. Stop immediately.
- 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.
- Never transport with the PTO engaged.
- When parking up always lower to the ground.
- Where applicable, check condition of tyres and that the wheel nuts are tight.
- During transport, ensure linkage stabilisers are fully tightened and observe public highway regulations.



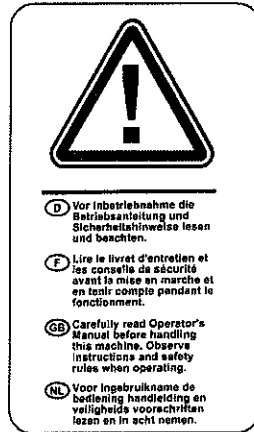
Warning
Stay clear of mower blade
as long as engine is
running.



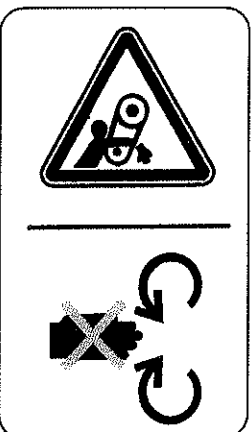
Warning
Shut off engine
remove key.



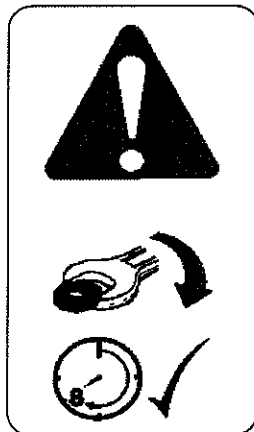
Warning
Keep a safe distance
when the machine is
running.



Warning
Carefully read
operator's
manual before
handling this
machine. Observe
instructions and
safety rules when
operating.



Warning
Do not remove / open
guard.



Warning
Keep bolts tight

Introduction

The Spearhead 3000 swipe is a very robust high capacity Rotary Cutter that is easy to operate and maintain. 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. Always ensure the operators are proficient with the operation of this type of machine.

Tractor requirements

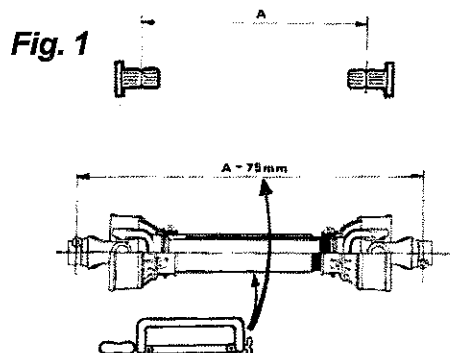
- Spearhead strongly recommend 75hp-plus tractors with category 2 rear linkage.
- Ensure there is sufficient weight on front wheels of the tractor for safe transport and stability.
- PTO must be independent live drive to enable continuous PTO drive even when tractor clutch is pressed down.
- Before hitching, ensure position control is selected. Do not attempt to hitch in draft control.
- Check chains and stabilisers must be in good working order to hold the machine firmly. Do not operate without checking that chains and stabilisers are tight.
- Spearhead particularly recommend “turn buckle” type check chains.
- Set linkage lift rods to an equal length.

Attaching to the tractor

Fit the machine to the tractor in the standard way, ensuring the correct match of linkage (*category 2*). Check that the top link is in good order and threads are well lubricated. Use stabilisers to take any free movement out of the lower link arms.

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

Before fitting the PTO 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 PTO shaft apart and connect to the tractor PTO 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 (*Fig. 1*). 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 PTO to the machine, first remove bolt or tapered pin from the slip clutch yoke and push onto splined shaft of gearbox ensuring it is fully engaged before refitting retaining bolt/pin.

To fit the PTO, first clean and grease press pins on the yoke and simultaneously push the PTO drive shaft onto PTO shaft of the tractor until pins engage.

The PTO shaft is fitted with a non-rotating safety guard. It should be secured to the machine and tractor with the two retaining chains provided.

Setting up and adjustment

Height

Cutting height adjustment is achieved by raising or lowering the wheels. Lowering the wheels produces a longer cut, raising the wheels leaves a shorter cut. Always set machine level front to rear and side to side.

The weight of the machine should be equally distributed between the tractor and the wheels. When set properly this should prevent scalping.

Machine protection

To prevent gearbox damage the PTO is fitted with either a shear bolt or optional knocking clutch. When cutting in extreme conditions where solid objects are likely to be found it is recommended the operator reduces the engine revs to allow the blades to pivot more easily when striking solid objects, and proceed with caution.

The shear bolt or clutch settings should not be altered without reference to the Spearhead Service Department. Never operate without protection, this could result in severe damage to the gearbox and drive lines, as well as infringing the warranty.

Optional

Anti scalp dish may be fitted to the lower blade carriers to ease the machine over obstacles and prevent damage to the blades.

Operation

Engage the PTO only when the tractor engine is at low revs to prevent shock damage to the machine, slowly increase the engine revs to achieve the standard 540/1000 PTO speed.

If at any time serious vibration occurs, stop the engine immediately and check that no blades are missing - following all safety precautions. The cause must be found and rectified immediately or other components may be affected.

Operation, con'd

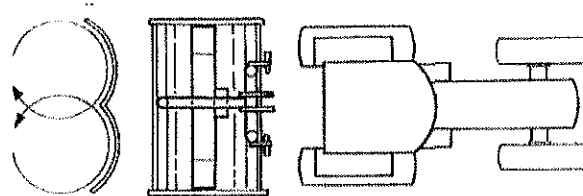
When in work, lower the machine to the ground carrying its weight on the wheels, allowing the machine to follow the contours of the ground and ensuring there is sufficient slack in the wire rope. Select a sensible forward speed bearing in mind the density of growth, the terrain, and the available horsepower, 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 or reversing over dense undergrowth or when operating on the front linkage. The machine is fitted with, as standard, 4 high lift blades complete with fin, to aid spreading/mulching.

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.

When operating, particularly in confined areas, it is possible to cut going backwards but it is advisable to slightly raise the machine, particularly if in dense growth where there is a risk of hitting hidden solid obstacles obscured by dense undergrowth.

Always exercise particular care when operating over uneven ground surfaces. Do not allow the blades and blade holders to frequently hit the ground.

Direction of blades for machine with skirts



Transportation

Please observe Public Highway Regulations concerning the towing of implements, and securely attach a registration and lighting board. Take care to slow when travelling over rough ground and avoid bouncing machine on linkage causing unnecessary strain.



Service & Maintenance

Safety first

- Never leave the tractor seat without first disengaging the PTO and stopping the engine.
- Ensure all rotating parts have stopped turning.
- Never attempt any repairs, maintenance, service or any other checks with the machine carried on the tractor hydraulics.
- Always fully lower to the ground, or securely prop the machine on substantial servicing stands.
- Always replace all guards and retaining chains after servicing/maintenance is completed.



Important

On delivery of your machine check that the Dealer has completed the P.D.I. form, ensure the warranty registration form is completed and returned.

It is imperative that the following checks are carried out in order not to invalidate your warranty, these are carried out **before the first operation, after the first hour, then after 4 hours**. These checks are:

- wheel nuts and tyre pressure (50psi)
- gearbox bolts
- blade bolts are fully tightened and in particular the castle headed nut on the blade rotor
- retaining bolts on the drive shaft
- grease all points
- After the first 50 hours drain and replace the gearbox oil. Replace with EP90 Gear oil
- It is your responsibility to maintain, to ensure a long reliable working life.

Torque Settings

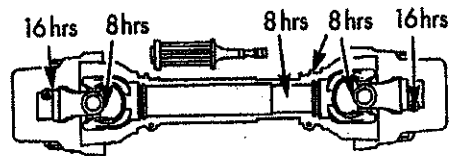
The Torque figures given below are recommended **maximum** settings only.

Size:	Tensile strength:	Description:	Torque setting: Nm.
M16	8.8	Gearbox bolts	280
M16	8.8	Axle clamps	280
M16	8.8	Blade carriers	280
M24	8.8	Blade bolts	950
M24	12.9	Axle bolts	1500
		Wheel nuts	270

Daily / Every 8 hours

- Grease all grease points, on PTO, including secondary drive line under the centre guard.
- Check condition of blades and blade bushes and ensure all retaining bolts are fullytight.
- Check gearbox oil, replenish with 'EP90' gear oil as necessary to the correct level line on the dip stick provided with each gearbox.
- Dismantle and clean PTO sliding surfaces and re-grease. Grease universal joints (Fig. 3)

Fig. 3



Every 16 hours

- Grease PTO inner tube and push pins (Fig. 3)

Regularly

- Check there is no wrapping of string, plastic, grass or other debris between rotor boss and blades.
- Inspect gearbox seals for leaks.
- Regularly check the rotor boss retaining castle nut for tightness (part no.5771409). First remove the split pin, select the correct size (46mm) socket in 3/4" drive and fully tighten the nut. When replacing the split pin, do not slacken the nut to align the hole, always tighten. Failure to regularly check this nut will result in serious wear to hub, which is expensive to repair.
- It is most important that all gearbox and blade bolts are regularly checked to be very tight. **When the machine is new there will be a 'bedding in' period where very frequent checking is important.**

Blades

Caution! When carrying out maintenance work on or near the blades be careful of free-swinging blades over-centring and falling. It is recommended that protective headgear, gloves and goggles are worn.

The blades can be re-sharpened by grinding the cutting edges and care must be taken that the blades are of the same weight and length after grinding. Do not over heat when grinding as this will affect the hardness of the blades.

All the blades are free swinging and swivel on hardened steel bushes which are easily replaced. When replacing blades, it is important that blades are replaced in sets, in order to retain balance of the rotor. Bushes must be replaced when new blades are to be fitted.

If the blades are showing any signs of severe wear, damage or cracking, they must be replaced immediately. Never attempt to weld the blades, this will make them very brittle thus extremely dangerous.

Do not take risks with the cutting blades - if in doubt, replace.



Warning

The slip clutch is there to protect the drive train. If the blades strike a large obstacle they may get damaged or break so avoid these conditions.

The two rotor blade carriers are timed to ensure the blades do not clash, ensure timing is correct after carrying out any maintenance to the drive line.

Skids

When operating on abrasive soils, particularly in stubbles and similar conditions with thin ground cover, excessive skid wear may be expected. To provide extra protection and to prolong life of the skids, special hard facing rods are available.

If working in wet and muddy conditions, ensure that debris is not allowed to build up on the deck.

Wheels



Warning

If heavy duty industrial tyres have been fitted for convenience of tyre removal, the wheel rims are of the split rim type.

When removing the above type wheels only remove the five larger wheel nuts. Never undo the smaller outer nuts (which are painted red for danger) when removing the wheel.

The outer nuts must not be loosened until the valve has been removed and the inner tube is entirely deflated. **Failure to observe these precautions could seriously injure and could even result in loss of life.** If in any doubt consult a tyre repair specialist or Spearhead Service Department.

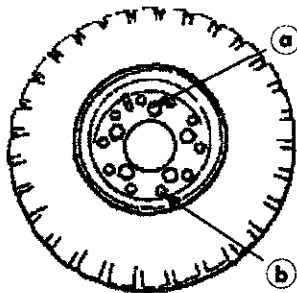


Fig. 4 Wheel

- a Hub nuts
- b Outer nuts (painted red)

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 hoses, do not hold the water jet close to the paintwork. Use steam cleaners with caution, be sure to remove all detergents to avoid any discolouring or damage to paint.

Grease all grease points until fresh grease shows. Store PTO shaft in a dry place.



After storage

Check condition of the tyre (where applicable) and then follow the maintenance procedure covered in the servicing part of this manual. Pay particular attention to the condition of guards and blades.

Remember the 3000 swipe is designed to withstand the most rigorous conditions and, with a little care and attention, will give many years of 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 540/1000 rpm on the PTO.

Trouble shooting guide

Broken or damaged blades

- ~ Raise cutting height
- ~ Avoid obstacles
- ~ Timing incorrect
- ~ Ensure a steady feed into drive (do not snatch the PTO)
- ~ Fit anti scalp dish

Damage blade holders

- ~ Raise cutting height
- ~ Avoid obstacles
- ~ Failure to keep centre retaining nut tight
- ~ Fit anti scalp dish

Gearbox overheating

- ~ Incorrect oil level
- ~ Incorrect grade of oil
- ~ Incorrect operating speed
- ~ Machine overloaded
- ~ Rubbish around the gearbox reducing air circulation

Shear bolt failure

- ~ Machine overloaded
- ~ PTO engaged with too much power/revs
- ~ Blades hitting the ground

Damage to rubber bonded Yoke

- ~ Shock loading from either poor start-up or blades hitting something

Damage to PTO shaft & gearboxes

- ~ Seized slip clutch
- ~ Telescopic tube bottoming out
- ~ Engaging drive with too much power/revs
- ~ Lifting machine too high
- ~ Not enough overlap
- ~ Lack of grease on sliding tubes of drive shaft

Metal fatigue on frame

- ~ Too fast a travelling or operating speed for the conditions
- ~ Machine not floating, i.e. not following the ground controls (check position of top link).

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.

Using the machine implies the knowledge and acceptance of these instructions and the limitations contained in this Manual.



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.

3000 swipe

Parts list

Liste de pièces

Ersatzteilliste

Reservedelsliste

Spearhead Machinery Ltd

Green View,
Salford Priors,
Evesham,
Worcestershire,
WR11 8SW

Tel: 01789 491860 Fax: 01789 778683

www.spearhead.uk.com

enquiries@spearhead.uk.com

When ordering parts please refer to you parts list to help your dealer with your order.

- ~ Part number and quantity
- ~ Description
- ~ Machine model number
- ~ Serial number of the machine
- ~ Delivery instructions (e.g. next day).

Delivery is normally via carrier direct to your dealer. Please check with your dealer for stock availability and arrangement of despatch. Ensure you or your dealer has sufficient cover for parts requirement outside factory hours.

When ordering your seal kits please quote both codes stamped on the base of the cylinder.

Important Note

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Dans le but d'aider votre concessionnaire, veuillez vous référer à la liste des pièces détachées lors du passage d' une commande.

- ~ Numéro de pièce et quantité requise
- ~ Désignation
- ~ Numéro du modèle de machine
- ~ Numéro de série de la machine
- ~ Délais et détails de livraison
(Ex: pour le lendemain)

Normalement les livraisons se font par transporteur directement chez votre concessionnaire. Veuillez vérifier avec ce dernier la disponibilité des stocks et toutes conditions d'envoi. Assurez-vous que vous, ou votre concessionnaire, ayez toujours suffisamment de pièces pour répondre à vos besoins en-dehors des heures d'ouverture d'usine.

Lors de la commande des kits de joints prière d'indiquer les deux numéros de code estampillés à la base du cylindre

Avertissement

Toute information contenue dans ce manuel est correcte à la date d'impression. Cependant, dans le cours d'améliorations constantes apportées à nos produits, certaines modifications sont parfois inévitables. Dans le cas où une information contenue dans ce manuel ne correspondrait pas aux caractéristiques de votre machine, prière de contacter le Service Après-Vente.

Key:		
(<)	=	Left hand
(>)	=	Right hand

Légende:		
(<)	=	À gauche
(>)	=	À droite

Bei der bestellung der ersatzteile Bitten wir Sie die ersatzteilliste zu benutzen.

Geben sie folgende daten an:

Model nummer
Teilenummer und anzahl
Beschreibung
Seriennummer der maschine
Lieferdatum und -ort

Lieferung normalerweise mit LKW direkt an den Händlern. Kontrollieren Sie bitte zusammen mit den Händlern, ob der Lagerbestand und die Versandmöglichkeiten zufriedenstellend sind. Bitte sichern, dass Sie oder Ihre Händler ausserhalb normaler Arbeitszeit genügend Ersatzteile zur Disposition haben, um die Anforderungen der Kunden zu genügen

Bei bestellung von dichtsätze für hydr. zylinder; bitte beide koden angeben die an der ende der zylinder steht.

Wichtig

Zum Zeitpunkt der Veröffentlichung sind die Informationen in dieser Bedienungs-Anleitung korrekt. Im Laufe ständiger Entwicklung sind jedoch Änderungen nicht zu vermeiden. Finden Sie in diesem Buch Informationen, die keine Übereinstimmung mit Ihrer Maschine haben, bitten wir Sie mit Spearhead DK Kontakt aufzunehmen.

(LH) = Links
(RH) = Recht

Ved bestilling af reservedele Bedes De benytte reservedelslisten og opeive følgende:

Model nummer
Reservedels nummer og antal
Beskrivelse
Maskinens serienummer
Leveringstid og -sted

Levering sker normalt med fragtmand direkte til forhandleren. Kontroller venligst hos Deres forhandler om lagerbestanden og forsendelsesmuligheder er tilfredsstillende. De bør også sikre, at De eller Deres forhandler har tilstrækkelig dækning for reservedele til levering uden for normal arbejdstid.

Ved bestilling af pakningssæt bedes de opgave begge de koder der står i enden af cylinderen.

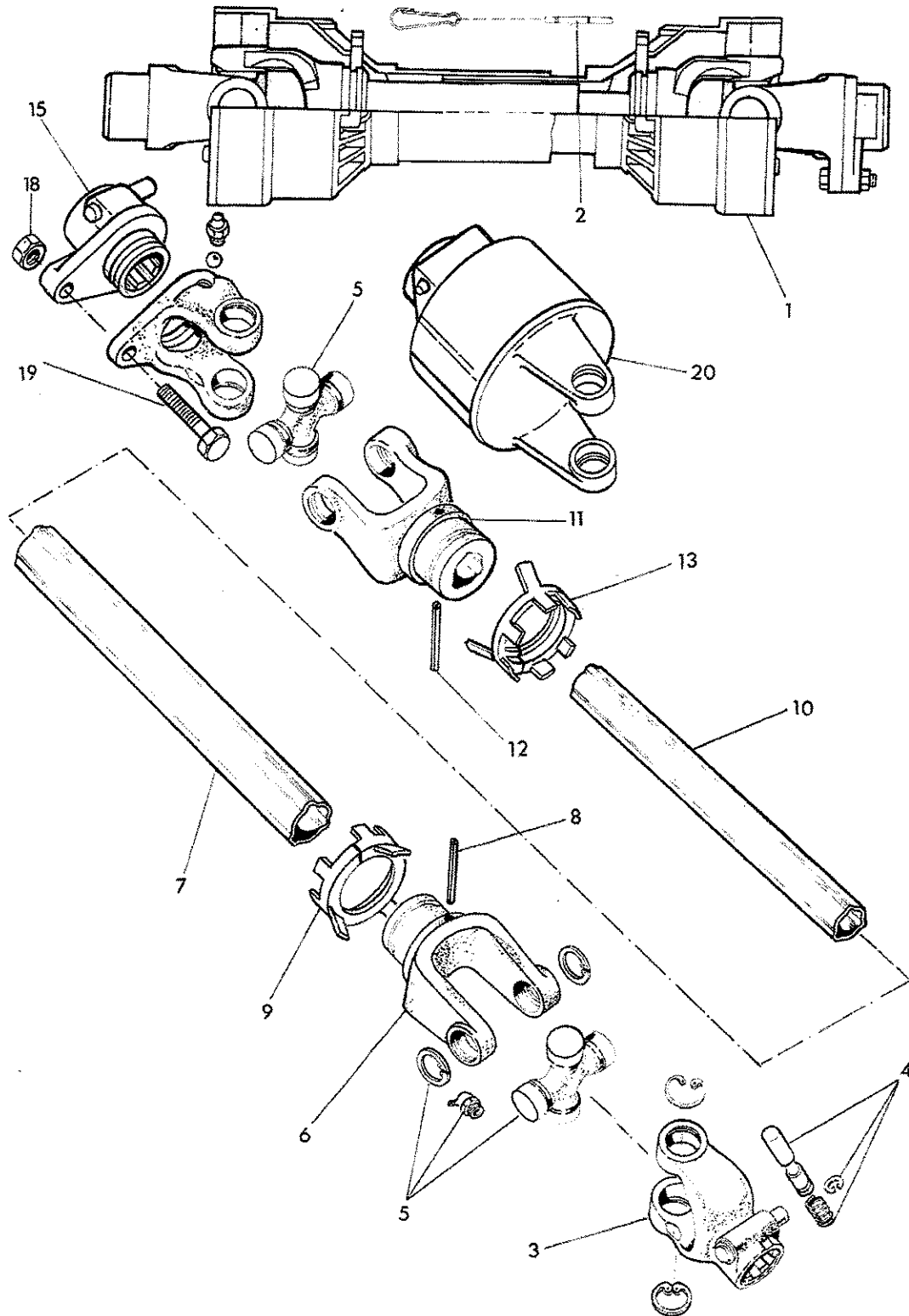
Vigtigt

Informationerne i denne betjenings - vejledning er korrekte på tidspunktet for udgivelsen. Men i løbet af den konstante udvikling kan det ikke undgås at der sker ændringer i specifikationen. Hvis de i denne bog finder oplysninger, som ikke har relation til Deres maskine, bedes De kontakte vores Kundeserviceafdeling for vejledning.

(LH) = Venstre
(RH) = Højre

Spearhead ◀◀◀◀◀

PTO shaft assembly
Ensemble arbre de prise de force
Gelenkwelle
Pto-aksel



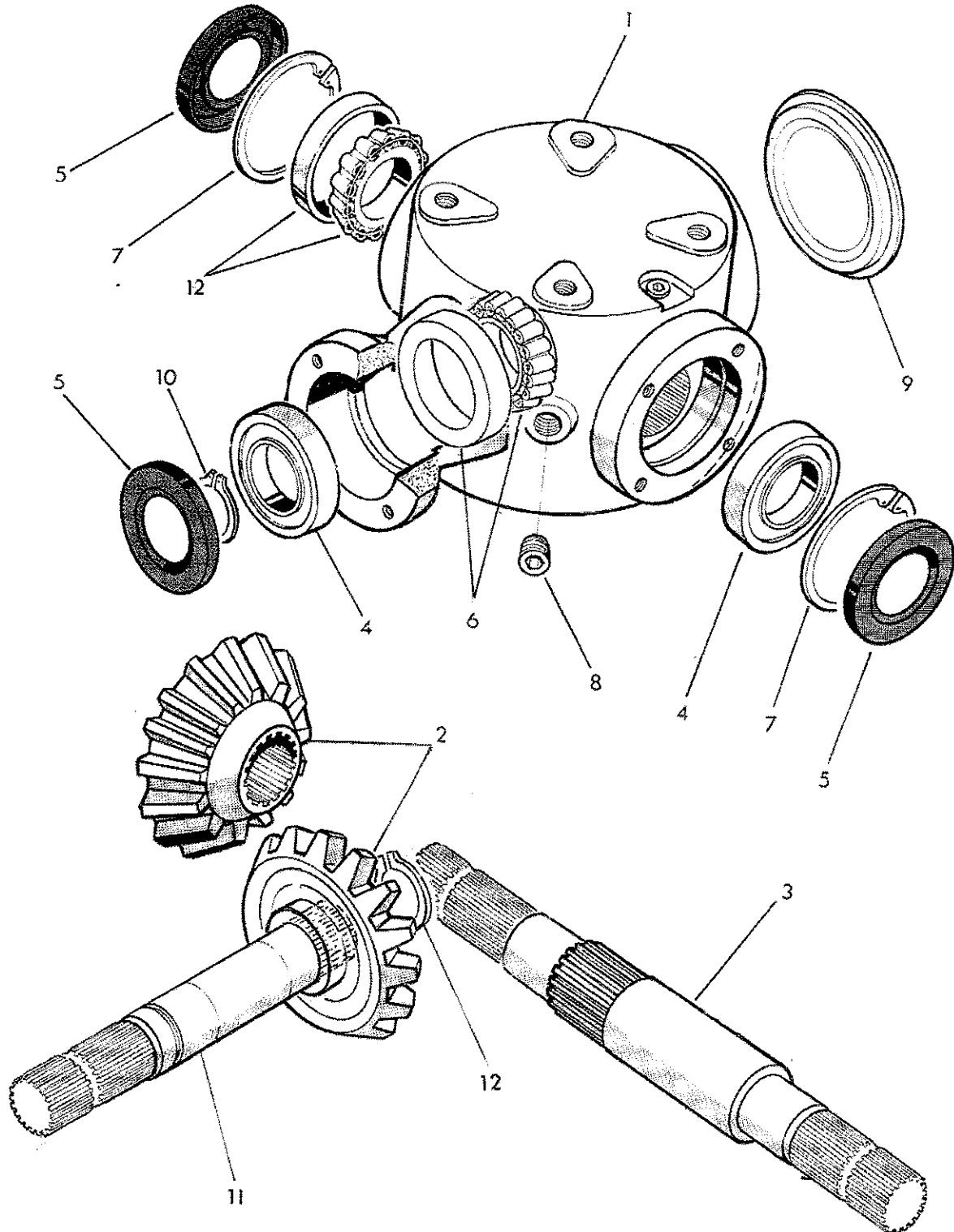
PTO shaft assembly
Ensemble arbre de prise de force
Gelenkwelle
Pto-aksel



Ref.	Part No.	English Description	French Description	German Description	Danish Description
<i>ré. Des</i>	<i>Numéro de pièce</i>	<i>Désignation en Anglais</i>	<i>Désignation en Français</i>	<i>Désignation en Allemand</i>	<i>Désignation en Danois</i>
Ref. No	Teilenummer	Englische beschreibung	Französische beschreibung	Deutsche beschreibung	Dänische beschreibung
Ref. No	Reservedelsnumme	Engelsk beskrivelse	Fransk beskrivelse	Tysk beskrivelse	Dansk beskrivelse
	5769993	P.t.o. shaft assembly 1000 rpm - 6/6 spline	Ensemble arbre de prise de force	Gelenkwelle	Pto-aksel
	5769994	P.t.o. shaft assembly 1000 rpm - 6/21 spline	Ensemble arbre de prise de force	Gelenkwelle	Pto-aksel
	5770088	P.t.o. shaft assembly Shearbolt - 6/21 spline	Ensemble arbre de prise de force	Gelenkwelle	Pto-aksel
	5770088A	P.t.o. shaft assembly Shearbolt - 21/21 spline	Ensemble arbre de prise de force	Gelenkwelle	Pto-aksel
	5770060	P.t.o. shaft assembly Knocking clutch 21/21 spline 1000rpm	Ensemble arbre de prise de force	Gelenkwelle	Pto-aksel
	5770060A	P.t.o. shaft assembly Knocking clutch 6/21 spline 1000rpm	Ensemble arbre de prise de force	Gelenkwelle	Pto-aksel
	5770061	P.t.o. shaft assembly Knocking clutch 6/21 spline 540rpm	Ensemble arbre de prise de force	Gelenkwelle	Pto-aksel
1	5772262B	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
2	5771020	Chain	Chaîne - chaînette	Kette	Kæde
3	5771299	Quick release yoke 6 spline	-	-	-
	5771298	Quick release yoke 21 spline	-	-	-
4	5771023	Adaptor	Raccord	Brustnippel	Nippel
5	5771301	Cross journal	Portée d'arbre transversale	Kreuzgarnitur	Kardankryds
6	5770095	Yoke	-	-	-
7	5772277	Tube	Tube	Schlauch	Slange
8	2770542	Pin	Goupille	Bolzen	Bolt
9	5771308	Bearing	Palier - Roulement	Lager	Leje
10	5772278	Tube	Tube	Schlauch	Slange
11	5770096	Yoke	-	-	-
12	2770542	Pin	Goupille	Bolzen	Bolt
13	5771313	Bearing	Palier - Roulement	Lager	Leje
15	5770154	Adaptor	Raccord	Brustnippel	Nippel
18	2770412	Nut	Écrou	Mutter	Møtrik
19	2770578	Bolt	Boulon	Bolzen	Bolt
20	5770153	Knocking clutch 540rpm - 2500Nm 21 spline	Embrayage	Kupplung	Kobling
	5770153A	Knocking clutch 540rpm - 6 spline	Embrayage	Kupplung	Kobling
	5770152	Knocking clutch 1000rpm - 1700Nm 21 spline	Embrayage	Kupplung	Kobling
	5770152A	Knocking clutch 1000rpm 6 spline	Embrayage	Kupplung	Kobling

Spearhead ◀◀◀◀◀

Centre gearbox assembly
Ensemble multiplicateur
Getriebe
Gearkasse



Centre gearbox assembly
Ensemble multiplicateur
Getriebe
Gearkasse

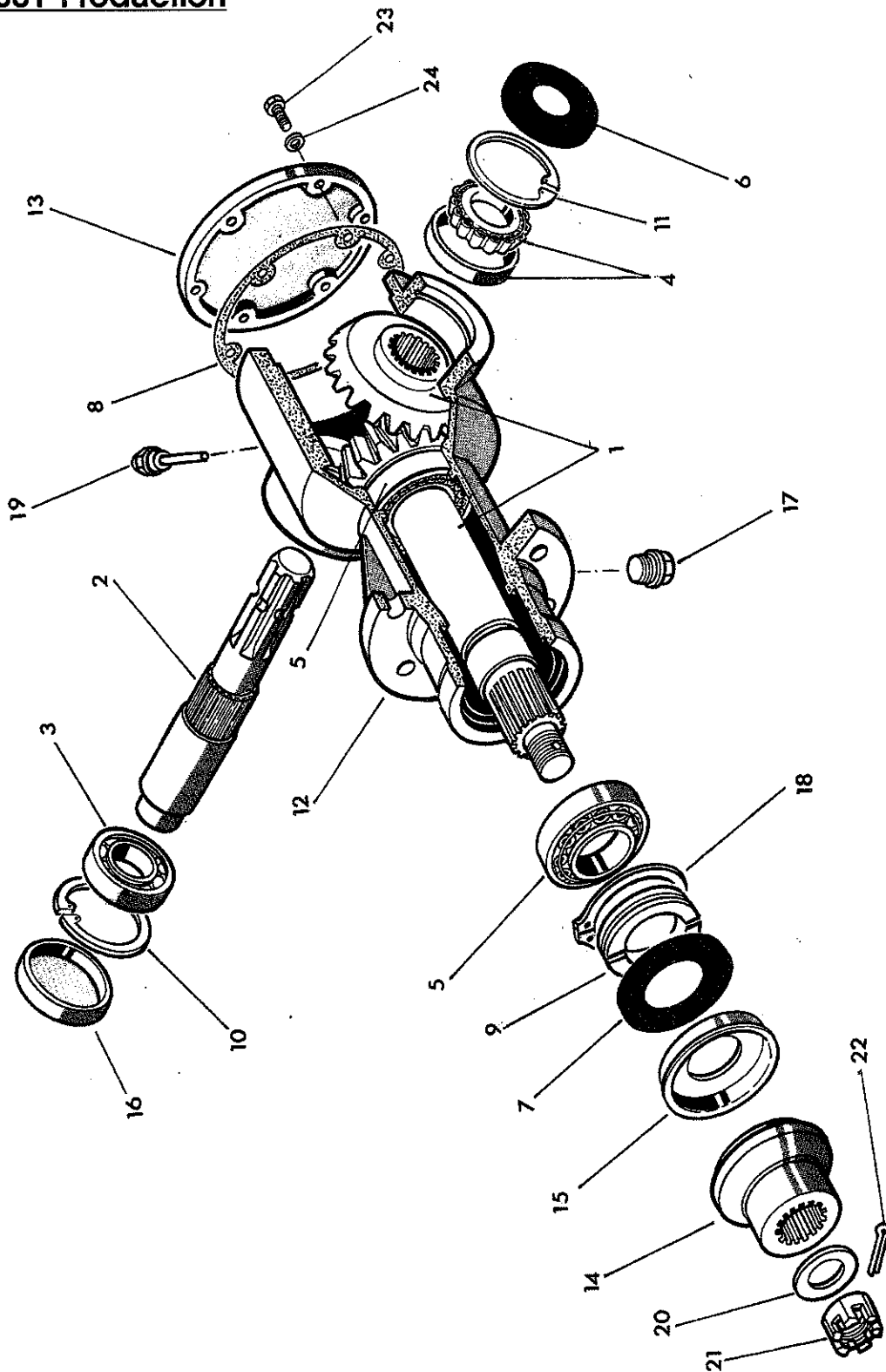


Ref. No	Part No.	English Description	French Description	German Description	Danish Description
<i>réf. Dessi</i>	<i>Numéro de pièce</i>	<i>Désignation en Anglais</i>	<i>Désignation en Français</i>	<i>Désignation en Allemand</i>	<i>Désignation en Danois</i>
<i>Ref. No</i>	<i>Teilenummer</i>	<i>Englische beschreibung</i>	<i>Französische beschreibung</i>	<i>Deutsche beschreibung</i>	<i>Dänische beschreibung</i>
<i>Ref. No</i>	<i>Reservedelsnummer</i>	<i>Engelsk beskrivelse</i>	<i>Fransk beskrivelse</i>	<i>Tysk beskrivelse</i>	<i>Dansk beskrivelse</i>
	5769992	Gearbox assy 6 spline 1000rpm	Multiplicateur	Getriebekasten	Gearkasse
	5769997	Gearbox assy 21 spline 1000rpm	Multiplicateur	Getriebekasten	Gearkasse
1	5771500	Gearbox casing	Multiplicateur	Getriebekasten	Gearkasse
2	5771501	Gear	Vitesse	Getriebe	Gear
3	5771506	Shaft - 6 spline	Arbre	Welle	Aksel
	5771506B	Shaft - 21 spline	Arbre	Welle	Aksel
4	4771599	Bearing	Palier - Roulement	Lager	Leje
5	4771507	Seal	-	-	-
6	4770660	Bearing	Palier - Roulement	Lager	Leje
7	2777518	Circlip	Circlip	Sicherungsring	Lasering
8	5777208	Plug	Bouchon	Schraube	Prop
9	5771507	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
10	2777518	Circlip	Circlip	Sicherungsring	Lasering
11	5771424	Shaft - 21 spline	Arbre	Welle	Aksel
	5771424A	Shaft - 6 spline	Arbre	Welle	Aksel
12	5772341	Bearing	Palier - Roulement	Lager	Leje
13	5772349	Circlip	Circlip	Sicherungsring	Lasering

Spearhead ◀◀◀◀◀

Gearbox assembly
Ensemble multiplicateur
Getriebe
Gearkasse

2000 & 2001 Production



Gearbox assembly
Ensemble multiplicateur
Getriebe
Gearkasse

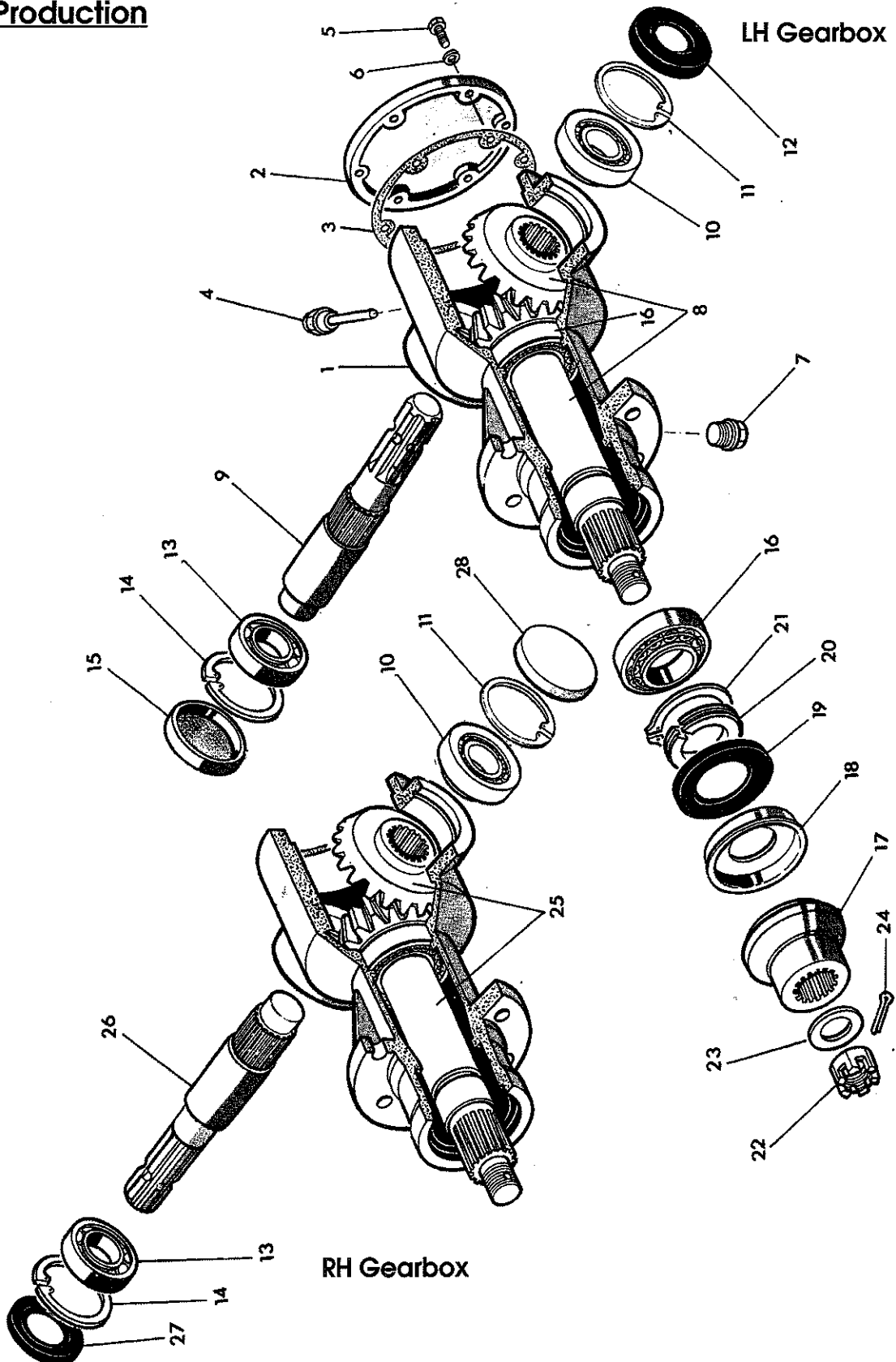


Ref.	Part No.	English Description	French Description	German	Danish Description
Réfé	Numéro de pièce	Désignation en Anglais	Désignation en Français	Désignation en Allemand	Désignation en Danois
Ref.	Teilenummer	Englische Beschreibung	Französische Beschreibung	Deutsche Beschreibung	Dänische Beschreibung
Ref.	Reservedelnummer	Engelsk beskrivelse	Fransk beskrivelse	Tysk beskrivelse	Dansk beskrivelse
	5769998	Gearbox assembly 21 spline	Ensemble multiplicateur	Getriebe	Gearkasse
1	5771419	Gear	Vitesse	Getriebe	Gear
2	5771403D	Shaft - 21 spline	Arbre	Welle	Aksel
3	4771600	Bearing	Palier - Roulement	Lager	Leje
4	4771601	Bearing	Palier - Roulement	Lager	Leje
5	4771602	Bearing	Palier - Roulement	Lager	Leje
6	4771124	Seal	-	-	-
7	4771500	Seal	-	-	-
8	5771405	Gasket	Garniture	Dichtung	Pakning
9	5771422	Collet	Douille	Klemmring	Klemring
10	2771108	Circlip	Circlip	Sicherungsring	Lasering
11	2771129	Circlip	Circlip	Sicherungsring	Lasering
12	5771402	Body	Caisse	Körper	Krop
13	5771401	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
14	Splined bush (See, blade carrier)				
15	5771406	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
16	4771503	Seal	-	-	-
17	5771415	Plug	Bouchon	Schraube	Prop
18	2771600	Circlip	Circlip	Sicherungsring	Lasering
19	5771416	Dipstick	Jauge	Messtab	Oliepind
20	5771410	Washer	Rondelle	Spannscheibe	Spændeskive
21	5771409	Nut	Écrou	Mutter	Møtrik
22	2770477	Pin	Goupille	Bolzen	Bolt
23	5771407	Bolt	Boulon	Bolzen	Bolt
24	2771408	Washer	Rondelle	Spannscheibe	Spændeskive
		Not illustrated	Sans gravure	Nicht abgebildet	Ikke illustreret
	6771423	Shim set	-	-	-

Spearhead ◀◀◀◀◀

Gearbox assembly - 1000rpm
Ensemble multiplicateur
Getriebe
Gearkasse

2002 Production



Gearbox assembly - 1000rpm
Ensemble multiplicateur
Getriebe
Gearkasse

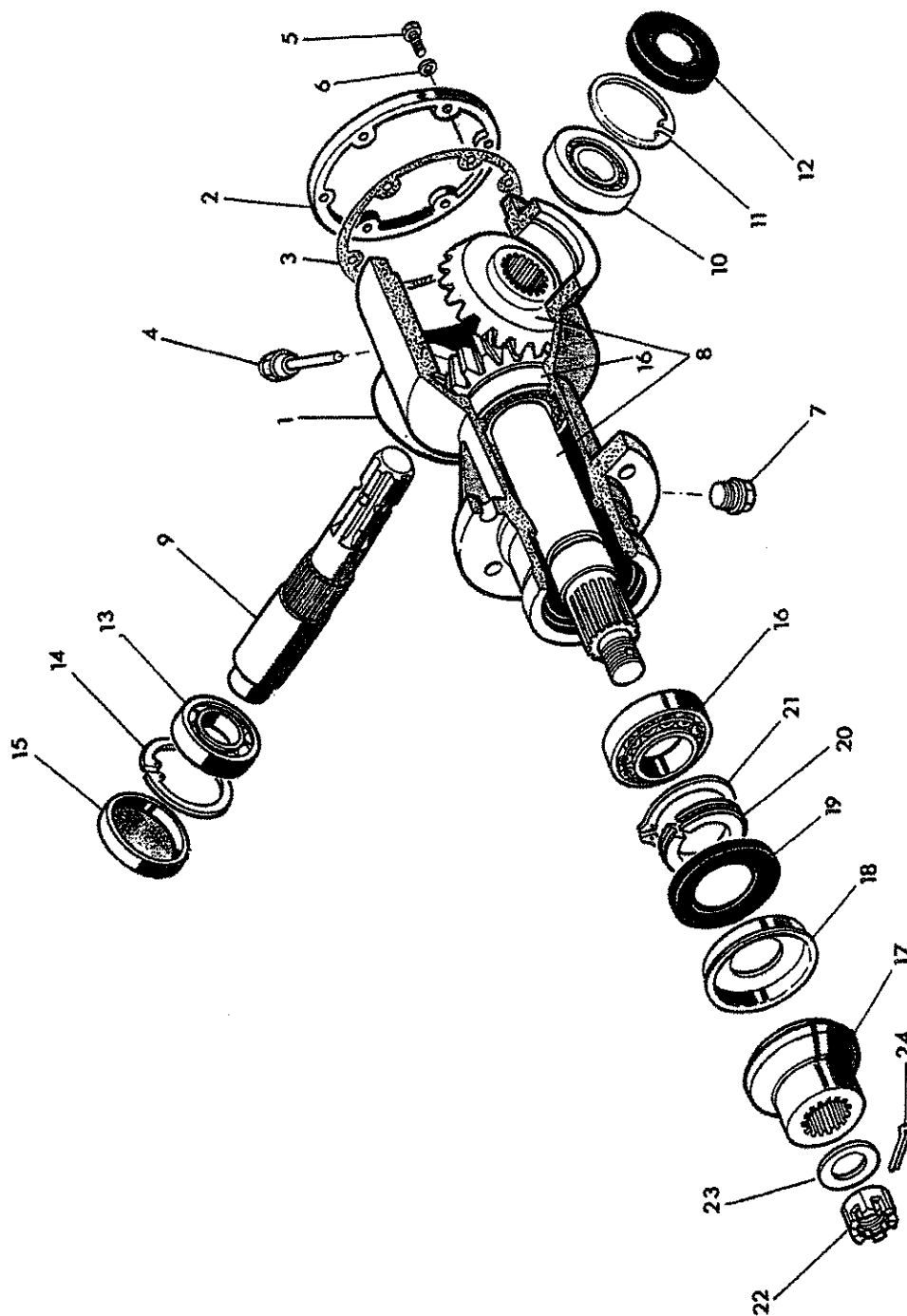


Ref.	Part No.	Part No.	English Description	French Description	German Description	Danish Description
Réf.	Numéro de pièce	Numéro de pièce	Désignation en Anglais	Désignation en Français	Désignation en Allemand	Désignation en Danois
Ref.	Teilenummer	Teilenummer	Englische beschreibung	Französische beschreibung	Deutsche beschreibung	Dänische beschreibung
Ref.	Reservedelsnumm	Reservedelsnumm	Engelsk beskrivelse	Fransk beskrivelse	Tysk beskrivelse	Dansk beskrivelse
	5770003 (RH)	5770002 (LH)	Assembly - 6 spline			
1	5771402	5771402	Housing	Carter	Gehäuse	Hus
2	5771401	5771401	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
3	5771405	5771405	Gasket	Garniture	Dichtung	Pakning
4	5771416	5771416	Dipstick	Jauge	Messtab	Oliepind
5	5771407	5771407	Bolt	Boulon	Bolzen	Bolt
6	2771408	2771408	Washer	Rondelle	Spannscheibe	Spændeskive
7	5771415	5771415	Plug	Bouchon	Schraube	Prop
8		5771419	Gear set	Vitesse	Getriebe	Gear
9		5771403R	Shaft	Arbre	Welle	Aksel
10	4771601	4771601	Bearing	Palier - Roulement	Lager	Leje
11	2771129	2771129	Circlip	Circlip	Sicherungsring	Lasering
12		4771124	Oil seal	Joint	Öldichtung	Pakning
13	4771600	4771600	Bearing	Palier - Roulement	Lager	Leje
14	2771108	2771108	Circlip	Circlip	Sicherungsring	Lasering
15		4771503	Cap	Chapeau	Kappe	Hætte
16	4771602	4771602	Bearing	Palier - Roulement	Lager	Leje
18	5771406	5771406	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
19	4771500	4771500	Oil seal	Joint	Öldichtung	Pakning
20	5771422	5771422	Collet	Douille	Klemmring	Klemring
21	2771600	2771600	Circlip	Circlip	Sicherungsring	Lasering
22	5771409	5771409	Nut	Écrou	Mutter	Møtrik
23	5771410	5771410	Washer	Rondelle	Spannscheibe	Spændeskive
24	2770477	2770477	Pin	Goupille	Bolzen	Bolt
25	5771419		Gear set	Vitesse	Getriebe	Gear
26	5771403F		Shaft	Arbre	Welle	Aksel
27	4771501		Oil seal	Joint	Öldichtung	Pakning
28	4771502		Cap	Chapeau	Kappe	Hætte
			Not illustrated	Sans gravure	Nicht abgebildet	Ikke illustreret
	5771423	5771423	Shim set	Entretoise	Distanzscheibe	Afstandsbøsning

Spearhead ◀◀◀◀◀

Gearbox assembly
Ensemble multiplicateur
Getriebe
Gearkasse

2003 Production



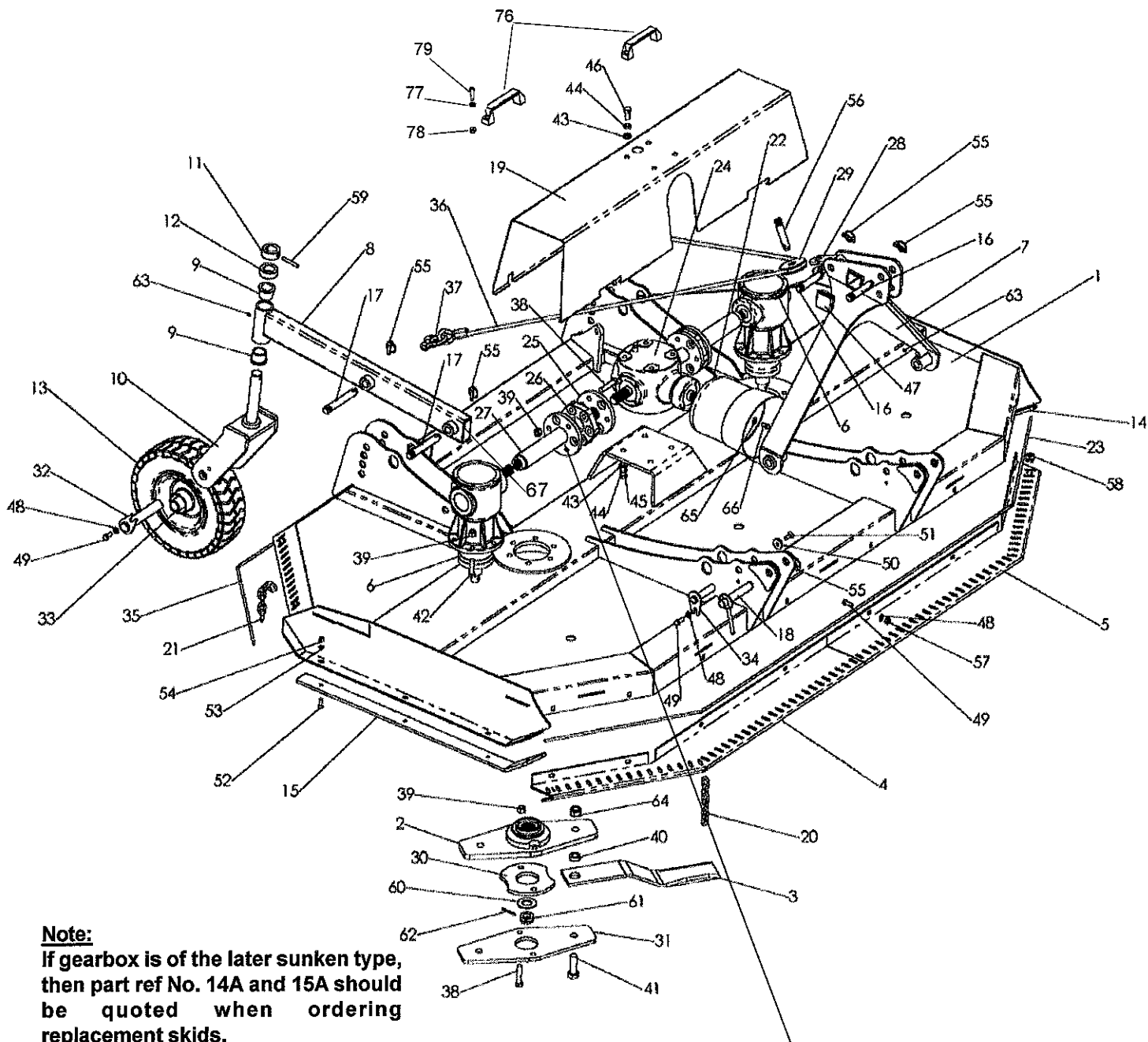
Ref. No	Part No.	English Description	French Description	German Description	Danish Description
<i>Référence</i>	<i>Numéro de pièce</i>	<i>Désignation en Anglais</i>	<i>Désignation en Français</i>	<i>Désignation en Allemand</i>	<i>Désignation en Danois</i>
<i>Ref. No</i>	<i>Teilenummer</i>	<i>Englische beschreibung</i>	<i>Französische beschreibung</i>	<i>Deutsche beschreibung</i>	<i>Dänische beschreibung</i>
<i>Ref. No</i>	<i>Reservedelsnummer</i>	<i>Engelsk beskrivelse</i>	<i>Fransk beskrivelse</i>	<i>Tysk beskrivelse</i>	<i>Dansk beskrivelse</i>
	5770002	LH and RH Assembly - 6 spline			
1	5771402	Housing	Carter	Gehäuse	Hus
2	5771401	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
3	5771405	Gasket	Garniture	Dichtung	Pakning
4	5771416	Dipstick	Jauge	Messtab	Oliepind
5	5771407	Bolt	Boulon	Bolzen	Bolt
6	2771408	Washer	Rondelle	Spannscheibe	Spændeskive
7	5771415	Plug	Bouchon	Schraube	Prop
8	5771419	Gear set	Vitesse	Getriebe	Gear
9	5771403R	Shaft	Arbre	Welle	Aksel
10	4771601	Bearing	Palier - Roulement	Lager	Leje
11	2771129	Circlip	Circlip	Sicherungsring	Lasering
12	4771124	Oil seal	Joint	Öldichtung	Pakning
13	4771600	Bearing	Palier - Roulement	Lager	Leje
14	2771108	Circlip	Circlip	Sicherungsring	Lasering
15	4771503	Cap	Chapeau	Kappe	Hætte
16	4771602	Bearing	Palier - Roulement	Lager	Leje
18	5771406	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse / Dæksel
19	4771500	Oil seal	Joint	Öldichtung	Pakning
20	5771422	Collet	Douille	Klemmring	Klemring
21	2771600	Circlip	Circlip	Sicherungsring	Lasering
22	5771409	Nut	Écrou	Mutter	Møtrik
23	5771410	Washer	Rondelle	Spannscheibe	Spændeskive
24	2770477	Pin	Goupille	Bolzen	Bolt
		Not illustrated	Sans gravure	Nicht abgebildet	Ikke illustreret
	5771423	Shim set	Entretoise	Distanzscheibe	Afstandsøsning

Note: The serial No's listed below are all fitted with 5770003 gearbx (LH and RH). See page 28/29 for details:

1032333752, 1032633745, 1033433766, 1033433767, 1033733780, 1033733781, and 1033433778

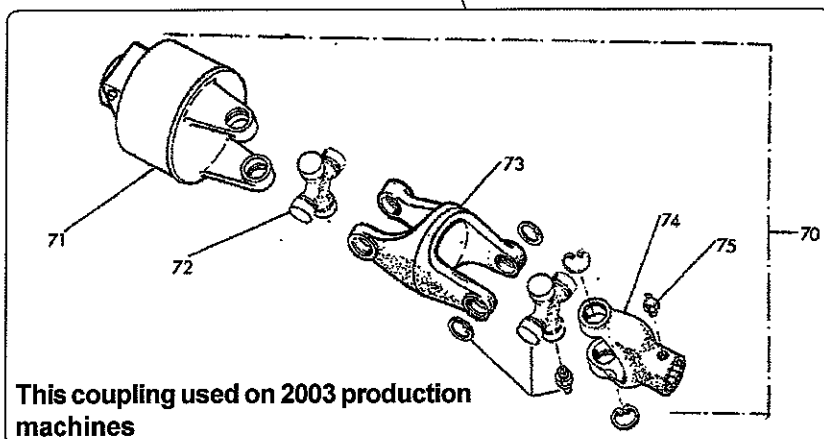
Spearhead ◀◀◀◀◀

Main frame assembly
Ensemble bâti principal
Hauptrahmen
Hovedramme



Note:

If gearbox is of the later sunken type, then part ref No. 14A and 15A should be quoted when ordering replacement skids.



Main frame assembly
Ensemble bâti principal
Hauptrahmen
Hovedramme



Ref. No	Part No.	English Description	French Description	German Description	Danish Description
<i>éfé. Dess</i>	<i>Numéro de pièce</i>	<i>Désignation en Anglais</i>	<i>Désignation en Français</i>	<i>Désignation en Allemand</i>	<i>Désignation en Danois</i>
<i>Ref. No</i>	<i>Teilenummer</i>	<i>Englische beschreibung</i>	<i>Französische beschreibung</i>	<i>Deutsche beschreibung</i>	<i>Dänische beschreibung</i>
<i>Ref. No</i>	<i>Reservedelsnummer</i>	<i>Engelsk beskrivelse</i>	<i>Fransk beskrivelse</i>	<i>Tysk beskrivelse</i>	<i>Dansk beskrivelse</i>
1	1770400B	Body	Caisse	Körper	Krop
2	1770398	Blade carrier	Porte-lames	Messerhalter	Knivholder
3	7770702	Blade RH	Lame	Messer	Kniv
	7770703	Blade LH	Lame	Messer	Kniv
4	1770404A	Bracket RH	Support - Étrier	Konsole	Konsol
5	1770403A	Bracket LH	Support - Étrier	Konsole	Konsol
6	5769998	Gearbox 21 spline	Multiplicateur	Getriebekasten	Gearkasse
	5770002	Gearbox 6 spline	Multiplicateur	Getriebekasten	Gearkasse
	5770003	Gearbox 6 spline	Multiplicateur	Getriebekasten	Gearkasse
7	1777613A	Headstock	Poupée	A-rahmen	A-ramme
8	1770401A	Arm	Bras	Arm	Arm
9	4600127	Bush	Bague	Buchse	Bøsning
10	1770399A	Yoke	-	-	-
11	1777700	Bush	Bague	Buchse	Bøsning
12	1777524	Spacer	Entretoise	Distanzscheibe	Afstandsbøsning
13	6770680	Wheel assembly	-	-	-
14	1770685	Skid	Patin	Stützkufen	Glideskinne
15	1770685R	Skid	Patin	Stützkufen	Glideskinne
16	6310203	Pin	Goupille	Bolzen	Bolt
17	6310235	Pin	Goupille	Bolzen	Bolt
18	6310208	Pin	Goupille	Bolzen	Bolt
19	1770411A	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse /
20 & 21	8770621	Chain	Chaîne - chaînette	Kette	Kæde
22	5770106	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse /
23	6770925	Wire rope	-	-	-
24	5769997	Gearbox 21 spline	Multiplicateur	Getriebekasten	Gearkasse
	5769992	Gearbox 6 spline	Multiplicateur	Getriebekasten	Gearkasse
25	1772245A	Coupling	Accouplement	Kupplung	Kobling
26	5770090A	Coupling	Accouplement	Kupplung	Kobling
27	1772281A	Coupling	Accouplement	Kupplung	Kobling
28	1560120	Bracket	Support - Étrier	Konsole	Konsol
29	1560121	Pulley	Poulie	Riemenscheibe	Remskive
30	1770396	Spacer	Entretoise	Distanzscheibe	Afstandsbøsning
31	1770397	Blade carrier	Porte-lames	Messerhalter	Knivholder
32	1560130	Pin	Goupille	Bolzen	Bolt
33	1560131	Bush	Bague	Buchse	Bøsning
34	1777761	Pin	Goupille	Bolzen	Bolt
35	6770926	Wire rope	-	-	-
36	-	Wire rope	-	-	-
37	6777575	Shackle	Manille	Schäkel	Sjækel
38	2770404	Bolt	Boulon	Bolzen	Bolt
39	2770447	Bolt	Boulon	Bolzen	Bolt
40	7770707	Bush	Bague	Buchse	Bøsning
41	2770413	Bolt	Boulon	Bolzen	Bolt
42	2770423	Bolt	Boulon	Bolzen	Bolt
43	2770454	Washer	Rondelle	Spannscheibe	Spændeskive
44	2770456	Washer	Rondelle	Spannscheibe	Spændeskive
45	2770425	Bolt	Boulon	Bolzen	Bolt
46	2770473	Bolt	Boulon	Bolzen	Bolt
47	8777518	Guard / Cover	Protecteur	Schutz / Deckel	Beskyttelse /
48	2770436	Washer	Rondelle	Spannscheibe	Spændeskive
49	2770420	Bolt	Boulon	Bolzen	Bolt
50	1777209	Washer	Rondelle	Spannscheibe	Spændeskive

Ref. No	Part No.	English Description	French Description	German Description	Danish Description
<i>Ref. No</i>	<i>Numéro de pièce</i>	<i>Désignation en Anglais</i>	<i>Désignation en Français</i>	<i>Désignation en Allemand</i>	<i>Désignation en Danois</i>
<i>Ref. No</i>	<i>Teilenummer</i>	<i>Englische beschreibung</i>	<i>Französische beschreibung</i>	<i>Deutsche beschreibung</i>	<i>Dänische beschreibung</i>
<i>Ref. No</i>	<i>Reservepartsnummer</i>	<i>Engelsk beskrivelse</i>	<i>Fransk beskrivelse</i>	<i>Tysk beskrivelse</i>	<i>Dansk beskrivelse</i>
51	2770506	Bolt	Boulon	Bolzen	Bolt
52	2770509	Bolt	Boulon	Bolzen	Bolt
53	2770434	Washer	Rondelle	Spannscheibe	Spændeskive
54	2770412	Nut	Écrou	Mutter	Møtrik
55	6310206	Pin	Goupille	Bolzen	Bolt
56	6310203A	Pin	Goupille	Bolzen	Bolt
57	2770417	Nut	Écrou	Mutter	Møtrik
58	6770907	Adaptor	Raccord	Brustnippel	Nippel
59	2770479	Pin	Goupille	Bolzen	Bolt
60	5771410	Washer	Rondelle	Spannscheibe	Spændeskive
61	5771409	Nut	Écrou	Mutter	Møtrik
62	2770512	Pin	Goupille	Bolzen	Bolt
63	2770467	Grease nipple	Graisser	Schmiernippel	Smørenippel
64	2770414	Nut	Écrou	Mutter	Møtrik
65	2770437	Washer	Rondelle	Spannscheibe	Spændeskive
66	2770418	Bolt	Boulon	Bolzen	Bolt
67	8777510	Plastic insert - post Aug 2003 (not shown)	Chapeau	Kappe	Hætte
70	5770059	Complete coupling assembly - 21 spline	Accouplement	Kupplung	Kobling
	5770065A	Complete coupling assembly - 6 spline	Accouplement	Kupplung	Kobling
71	5770056	Yoke - 21 spline	Joint (d'assemblage)	Gelenkteil	Gaffel
	5770124	Yoke - 6 spline	Joint (d'assemblage)	Gelenkteil	Gaffel
72	5771301	Cross journal	Portée d'arbre transversale	Kreuzgarnitur	Kardankryds
73	5770092	Yoke	Joint (d'assemblage)	Gelenkteil	Gaffel
74	5771296A	Yoke - 21 spline	Joint (d'assemblage)	Gelenkteil	Gaffel
	5771296	Yoke - 6 spline	Joint (d'assemblage)	Gelenkteil	Gaffel
75	2770467	Grease nipple	Graisser	Schmiernippel	Smørenippel
76	8777513	Plastic handle	Support-étrier	Konsole	Konsol
77	2770432	Flat washer	Rondelle	Spannscheibe	Spændeskive
78	2770416	Nylock nut	Écrou	Mutter	Møtrik
79	2770368	Socket button screw	Boulon	Bolzen	Bolt