

Twose

BALEHANDLING

Edition 6904-11-12

IMPORTANT VERIFICATION OF WARRANTY REGISTRATION



DEALER WARRANTY INFORMATION & REGISTRATION VERIFICATION

It is imperative that the selling dealer registers this machine with Twose of Tiverton Limited before delivery to the end user – failure to do so may affect the validity of the machine warranty.

To register machines go to the Twose web site at www.twose.com, log onto 'Dealer Inside' and select the 'Machine Registration button' which can be found in the Service Section of the site. Confirm to the customer that the machine has been registered in the section below.

Should you experience any problems registering a machine in this manner please contact the Twose Office on 01884 253691.

Registration Verification

Dealer Name:
Dealer Address:
Customer Name:
Date of Warranty Registration:/...../..... Dealer Signature:

NOTE TO CUSTOMER / OWNER

Please ensure that the above section above has been completed and signed by the selling dealer to verify that your machine has been registered with Twose of Tiverton Limited.

IMPORTANT: During the initial 'bedding in' period of a new machine it is the customer's responsibility to regularly inspect all nuts, bolts and hose connections for tightness and re-tighten if required. New hydraulic connections occasionally weep small amounts of oil as the seals and joints settle in – where this occurs it can be cured by re-tightening the connection – *refer to torque settings chart below*. The tasks stated above should be performed on an hourly basis during the first day of work and at least daily thereafter as part of the machines general maintenance procedure.

TORQUE SETTINGS FOR HYDRAULIC FITTINGS

HYDRAULIC HOSE ENDS		
BSP	Setting	Metric
1/4"	18 Nm	19 mm
3/8"	31 Nm	22 mm
1/2"	49 Nm	27 mm
5/8"	60 Nm	30 mm
3/4"	80 Nm	32 mm
1"	125 Nm	41 mm
1.1/4"	190 Nm	50 mm
1.1/2"	250 Nm	55 mm
2"	420 Nm	70 mm

PORT ADAPTORS WITH BONDED SEALS		
BSP	Setting	Metric
1/4"	34 Nm	19 mm
3/8"	47 Nm	22 mm
1/2"	102 Nm	27 mm
5/8"	122 Nm	30 mm
3/4"	149 Nm	32 mm
1"	203 Nm	41 mm
1.1/4"	305 Nm	50 mm
1.1/2"	305 Nm	55 mm
2"	400 Nm	70 mm

WARRANTY POLICY

WARRANTY REGISTRATION

All machines must be registered, by the selling dealer with Twose of Tiverton Ltd, before delivery to the end user. On receipt of the goods it is the buyer's responsibility to check that the Verification of Warranty Registration in the Operator's Manual has been completed by the selling dealer.

1. LIMITED WARRANTIES

- 1.01. *All machines supplied by Twose of Tiverton Ltd are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 12 months, unless a different period is specified.*
- 1.02. *All spare parts supplied by Twose of Tiverton Ltd and purchased by the end user are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 6 months. All parts warranty claims must be supported by a copy of the failed part invoice to the end user. We cannot consider claims for which sales invoices are not available.*
- 1.03. *The warranty offered by Twose of Tiverton Ltd is limited to the making good by repair or replacement for the purchaser any part or parts found, upon examination at its factory, to be defective under normal use and service due to defects in material or workmanship. Returned parts must be complete and unexamined. Pack the component(s) carefully so that any transit damage is avoided. All ports on hydraulic items should be drained of oil and securely plugged to prevent seepage and foreign body ingress. Certain other components, electrical items for example, may require particular care when packing to avoid damage in transit.*
- 1.04. *This warranty does not extend to any product from which Twose of Tiverton Ltd's serial number plate has been removed or altered.*
- 1.05. *This warranty does not apply to any part of the goods, which has been subjected to improper or abnormal use, negligence, alteration, modification, fitment of non-genuine parts, accident damage, or damage resulting from contact with overhead power lines, damage caused by foreign objects (e.g. stones, iron, material other than vegetation), failure due to lack of maintenance, use of incorrect oil or lubricants, contamination of the oil, or which has served its normal life. This warranty does not apply to any expendable items such as blades, belts, clutch linings, filter elements, flails, flap kits, skids, soil engaging parts, shields, guards, wear pads, pneumatic tyres or tracks.*
- 1.06. *Temporary repairs and consequential loss - i.e. oil, downtime and associated parts are specifically excluded from the warranty.*
- 1.07. *Warranty on hoses is limited to 12 months and does not include hoses which have suffered external damage. Only complete hoses may be returned under warranty, any which have been cut or repaired will be rejected.*
- 1.08. *Machines must be repaired immediately a problem arises. Continued use of the machine after a problem has occurred can result in further component failures, for which Twose of Tiverton Ltd cannot be held liable, and may have safety implications.*
- 1.09. *If in exceptional circumstances a non Twose of Tiverton Ltd part is used to effect a repair, warranty reimbursement will be at no more than Twose of Tiverton Ltd's standard dealer cost for the genuine part.*
- 1.10. *Except as provided herein, no employee, agent, dealer or other person is authorised to give any warranties of any nature on behalf of Twose of Tiverton Ltd.*
- 1.11. *For machine warranty periods in excess of 12 months the following additional exclusions shall apply:*
 - 1.11.1. *Hoses, exposed pipes and hydraulic tank breathers.*
 - 1.11.2. *Filters.*
 - 1.11.3. *Rubber mountings.*
 - 1.11.4. *External electric wiring.*
 - 1.11.5. *Bearings and seals.*

- 1.12. All service work, particularly filter changes, must be carried out in accordance with the manufacturer's service schedule. Failure to comply will invalidate the warranty. In the event of a claim, proof of the service work being carried out may be required.
- 1.13. Repeat or additional repairs resulting from incorrect diagnosis or poor quality previous repair work are excluded from warranty.

NB Warranty cover will be invalid if any non-genuine parts have been fitted or used. Use of non-genuine parts may seriously affect the machine's performance and safety. Twose of Tiverton Ltd cannot be held responsible for any failures or safety implications that arise due to the use of non-genuine parts.

2. REMEDIES AND PROCEDURES

- 2.01. The warranty is not effective unless the Selling Dealer registers the machine, via the Twose of Tiverton Ltd web site and confirms the registration to the purchaser by completing the confirmation form in the operator's manual.
- 2.02. Any fault must be reported to an authorised Twose of Tiverton Ltd dealer as soon as it occurs. Continued use of a machine, after a fault has occurred, can result in further component failure for which Twose of Tiverton Ltd cannot be held liable.
- 2.03. Repairs should be undertaken within two days of the failure. Claims submitted for repairs undertaken more than 2 weeks after a failure has occurred, or 2 days after the parts were supplied will be rejected, unless the delay has been authorised by Twose of Tiverton Ltd. Please note that failure by the customer to release the machine for repair will not be accepted as a reason for delay in repair or submitting warranty claims.
- 2.04. All claims must be submitted, by an authorised Twose of Tiverton Ltd Service Dealer, within 30 days of the date of repair.
- 2.05. Following examination of the claim and parts, Twose of Tiverton Ltd will pay, at their discretion, for any valid claim the invoiced cost of any parts supplied by Twose of Tiverton Ltd and appropriate labour and mileage allowances if applicable.
- 2.06. The submission of a claim is not a guarantee of payment.
- 2.07. Any decision reached by Twose of Tiverton Ltd is final.

3. LIMITATION OF LIABILITY

- 3.01. Twose of Tiverton Ltd disclaims any express (except as set forth herein) and implied warranties with respect to the goods including, but not limited to, merchantability and fitness for a particular purpose.
- 3.02. Twose of Tiverton Ltd makes no warranty as to the design, capability, capacity or suitability for use of the goods.
- 3.03. Except as provided herein, Twose of Tiverton Ltd shall have no liability or responsibility to the purchaser or any other person or entity with respect to any liability, loss, or damage caused or alleged to be caused directly or indirectly by the goods including, but not limited to, any indirect, special, consequential, or incidental damages resulting from the use or operation of the goods or any breach of this warranty. Notwithstanding the above limitations and warranties, the manufacturer's liability hereunder for damages incurred by the purchaser or others shall not exceed the price of the goods.
- 3.04. No action arising out of any claimed breach of this warranty or transactions under this warranty may be brought more than one (1) year after the cause of the action has occurred.

4. MISCELLANEOUS

- 4.01. Twose of Tiverton Ltd may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
- 4.02. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.
- 4.03. Applicable law may provide rights and benefits to the purchaser in addition to those provided herein.



DECLARATION OF CONFORMITY

Conforming to EU Machinery Directive 2006/42/EC

We,

TWOSE of TIVERTON LIMITED,
6 Chinon Court, Lower Moor Way,
Tiverton Business Park, Tiverton, Devon, EX16 6SS, UK

Hereby declare that:

The Product; *Tractor Mounted Bale Handling Attachment*

Product Code; *TBAL*

Serial No. & Date Type

Manufactured in; *United Kingdom*

Complies with the required provisions of the Machinery Directive 2006/42/EC
The machinery directive is supported by the following harmonized standards;

- BS EN ISO 12100 (2010) Safety of machinery – General principles for design – Risk assessment and risk reduction.
- BS EN 349 (1993) + A1 (2008) Safety of machinery - Minimum distances to avoid the entrapment with human body parts.
- BS EN 953 (1997) + A1 (2009) Safety of machinery - Guards general requirements for the design and construction of fixed and movable guards.
- BS EN 4413 (2010) Hydraulic fluid power. Safety requirements for systems and their components.

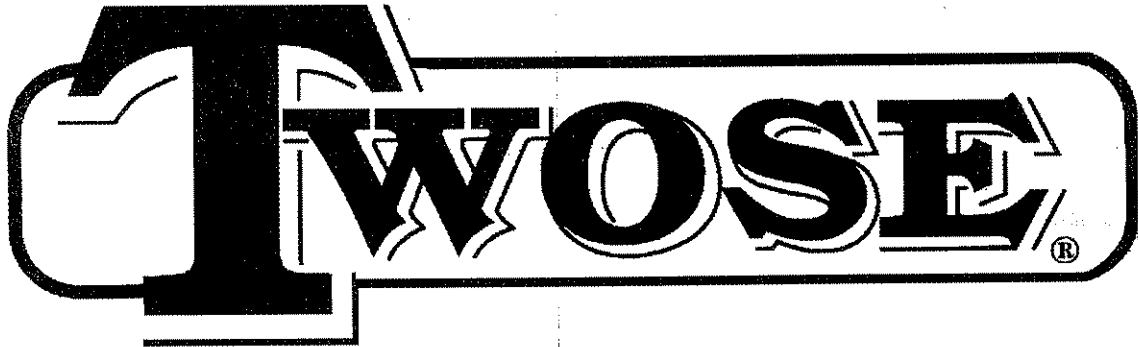
Signed  *Responsible Person*
CHRISTIAN DAVIES on behalf of TWOSE OF TIVERTON LIMITED

Status: *General Manager*

Date: *September 2015*

THIS MANUAL IS TO BE HANDED TO THE CUSTOMER BEFORE THE
MACHINE IS USED FOR THE FIRST TIME.

THE CUSTOMER SHOULD READ AND UNDERSTAND FULLY BOTH THIS
MANUAL AND THE ENCLOSED BOOKLET FROM HSE -
“HANDLING AND STACKING BALES IN AGRICULTURE”



TWOSE OF TIVERTON LIMITED
6 Chinon Court
Lower Moor Way
Tiverton Business Park
Tiverton
Devon
EX16 6SS

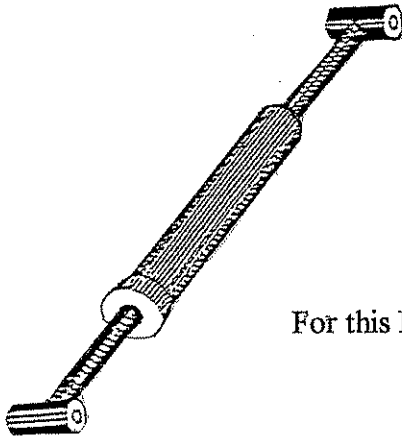
TEL:- 01884 253691
FAX:- 01884 255189

All dimensions and capacities mentioned in this book are approximate. In pursuance of the Companies policy of constant development, the right is reserved to depart, without notice, from any detail illustrated or specified in this book, without incurring the obligation to provide such modifications on machines previously delivered.

No responsibility will be accepted by Twose of Tiverton Limited for any injury, damage or loss arising from the improper use or lack of maintenance of any machine supplied by them or from any failure of the user to comply with all instructions published by Tractor or Loader Manufacturers, particularly with regard to maximum load capacities, tyre pressures and stability, or with instructions and regulations pertaining to Tractor Cabs.

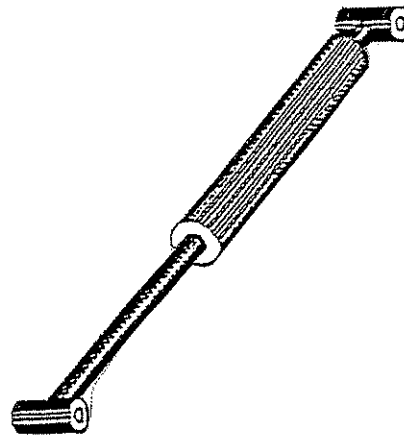
IDENTIFYING
HYDRAULIC CYLINDER.

The illustrations below show the two versions of 1670027 Ram that have been fitted to the Twose Bale Handler. In the earlier version the cylinder is placed centrally in the assembly with an external gland nut:-



For this Ram type order 1670027.1 Seal Set

Later Rams have the cylinder close to the Rod end of the assembly and an internal gland nut.



For this Ram type order 1670027.2 Seal Set.

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SPECIFICATION

BS/3

Linkage
Frame width
Tine working length
Weight

3 Point
141cm (55 1/2in)
85cm (33 1/2in)
43 Kg (94.6 lbs)

BS/87

Front Loader
141cm (55 1/2in)
85cm (33 1/2in)
50 Kg (110 lbs)

BH/98

Linkage
Frame Width
Tine working length
Weight
Diameter Bales

Front Loader
141cm (55 1/2in)
85cm (33 1/2in)
217 Kgs (478 lbs)
4ft-5ft Square Bales

BH/87A

Diameter Bales
Optional spikes
Weight

4ft - 5ft
81cm (32")
142 kg(312 lb)

Note: Dimensions are approximate and
for guidance only.

GENERAL INFORMATION

NOTE:- The provision of this information is a requirement of the Health & Safety at Work Act 1974.

NOTE:- This handbook has been designed to help the operator and service/mechanic to use and understand the machine fully, safely and efficiently, bearing in mind the Health & Safety requirements and the new CE requirements which come into force from January 1st 1995.

NOTE:- The handbook/manual will be supplied in a waterproof plastic outer cover to prevent damage from rain, condensation etc. The cover of the handbook will include its own part number, which includes information as to machine type and issue date of manual in question.

DANGER

NOTE:- It is very important that the handbook/manual has been read thoroughly - throughout, and is completely understood before attempting to attach or use machine in any way.

CAUTION: When ordering spares, please state clearly:-

- (a) Machine type and model No.
- (b) Part No. of component.
- (c) Description of component.
- (d) Quantity required.
- (e) Full address to which spares are to be sent.
- (f) Method of delivery required.

CAUTION:- Always insist on genuine and correct spare parts.

NOTE:- Further copies of this handbook/manual can be obtained from:-

TWOSE OF TIVERTON LIMITED
6 CHINON COURT
LOWER MOOR WAY
TIVERTON BUSINESS PARK
TIVERTON
DEVON
EX16 6SS

TEL: 01884 253691

FAX: 01884 255189

SAFETY NOTES AND WARNINGS

Throughout the handbook the following sub headings are used to draw attention to various points of importance.



DANGER
WARNING

This is to draw attention to very important instructions which MUST be followed precisely to avoid injury or death.

CAUTION

This is used to draw attention to instructions which MUST be followed to avoid damage to operator, machine, process or the environment.

NOTE:-

This is used to highlight points used for supplementary information.

ABOUT THESE MACHINES

These machines are from a range of equipment for the handling of bales. The range consists of two groups, the Bale Spikes and the Bale Handlers.

BS/3 The BS/3 machine is intended to be attached to an agricultural vehicle by means of the "three-point-linkage" couple-up system.

The remaining machines in the range are designed to be attached to front end loaders.

BH/87A The BH/87A model Bale Handler is designed to handle/stack round, wrapped or unwrapped bales. The rolling action of the base tines virtually eliminates damage to bale covering plastic - due to drag - between surfaces.

BH/98 The BH/98 model is designed to handle and stack up to 2 square or round bales of hay or straw.

This machine has the option of two different clamping/operating actions, depending on bales involved and user needs. The Top 'BEAM ARM' can be fitted horizontally (to give the paddle an IN-OUT clamp action) or fitted vertically (to give paddle an UP-DOWN clamp action).

- - - * - - -

The standard configuration will be as that shown in the parts book - top beam set horizontal with paddle 'IN-OUT' clamping action. The unit in this case will be equipped with base bump bar and a pair of top bump pads, - Bump bar and bump pads are to protect wrappings of bales. Both round or square bales can be handled in this format. Use for single bale height only, - wrapped or unwrapped.

- - - * - - -

The other option - where top beam is set vertically with paddle - 'UP-DOWN' clamping action will be required when handling bales stacked '2-high' (one above the other). Hay or straw bales can be handled in this way, and applies primarily to unwrapped bales.

The bump bar and bump pads will not be needed when handling bales in the '2-high' method, and should be substituted with bale spike tines, in order to hold bale and prevent rotation/movement.

The 'down' clamp action on top of upper bale will hold the pair of bales in position.

The purpose for their production and their sole intention is to handle bales of varying sizes.

AT NO TIME must this machine be used for anything other than, or to do any job - other than that for which it has been designed (see note above).

HEALTH AND SAFETY



DANGER
WARNING

Never attempt to assemble, couple up, or operate machinery until you understand fully the functions, controls and safety precautions required, as shown in the operators manual.



DANGER
WARNING

Always follow tractor safety operations and instructions VERY carefully.
NEVER TAKE RISKS

CAUTION.

Be aware of warning stickers and instruction stickers on machine as care must be taken and instructions obeyed.

CAUTION

Contact your dealer should you need advice, assistance, or if you do not understand the manual or machine. "NEVER ASSUME" - if not sure - ASK.

CAUTION

Machine MUST NOT be altered or modified in any way - without permission - No liability will be accepted in respect of a machine that has been modified without manufacturers permission.



DANGER
WARNING

Never drive machinery at speeds that could cause danger to other persons or properties, or in a manner that may cause accidents.



DANGER
WARNING

Never attempt to Service/adjust or work on any machinery in an unsupported state.

For Example:- Any three point linkage mounted machinery
Front Loaders
Digger Booms
Hedgetrimmer booms etc. etc.

Always ensure that machinery is safely supported and propped in position.

CAUTION

Always "SWITCH-OFF" tractor engine before attempting to carry out adjustment or service repairs and inspections, on machinery.



DANGER
WARNING

Always be aware of your surroundings - and operate machinery accordingly. Beware of confined-tight areas, low height restrictions, buildings and overhangs etc. Also drive and operate bearing in mind weather conditions such as sun, rain, ice, snow, wind etc. [Make allowances in all situations].

CAUTION

Never carry "passengers" on machinery or on tractor.
Ensure bystanders/onlookers are kept well away from operational area of apparatus.

CAUTION

'PARKING UP' MACHINE

When machine is being removed from tractor linkage and being 'parked up' it is essential that a good firm base and level site be found.

Always chock and prop machine to ensure a good firm position to leave parked. Ensure that stand legs of machine are correctly locked into position.

CAUTION

Never allow children to play on, or around, parked machinery.

CAUTION

Never wear loose fitting or ragged clothing which could get caught in machinery or controls.

CAUTION

Ensure visibility is clear through cab-screens at all times.

CAUTION

Always dispose of discarded or worn out parts thoughtfully - by disposing of them in an approved and specified legal scrap site, bin or skip.

CAUTION

Worn out and spent waste oil, grease and other obnoxious substances must always be disposed of in suitable and legally approved dumping containers suitable for the waste in question.



DANGER
WARNING

It may be necessary to fit rear weights to the tractor in order to improve stability.

NOTES

AMENDMENT

DATE

DETAILS

GENERAL INSTRUCTIONS



DANGER
WARNING

1. Before attaching any machine to a tractor or loader make sure that implement is still standing firmly on good solid - level site as it will be, providing unit was previously parked correctly.
- Check that any wheels are 'chocked' correctly and that supports/props are in position where necessary to prevent booms etc. dropping.
2. Before and during the manoeuvring of the tractor or vehicle in order to attach machinery/implements, - make sure that No other persons are in the vicinity. Keep other persons well clear and make known your intentions, all the while keeping a sharp lookout whilst reversing and aligning machines for coupling up.
3. Always secure tractor into selected position by ensuring that brakes are applied correctly in order to prevent vehicle moving off on its own to cause injury and damage.
4. Make sure that the lift arms and top link ball ends of the tractor are properly fitted to the machine/implement by using correct adaptor sleeves where necessary, and that retaining pins of the correct type are used on all three point linkage points. Secure pins with relevant pin and ring assembly.
5. If the machine is of the drawbar type - check that the hitch on the tractor is in good condition and that the hitch pin used is of the correct size and type, and is properly secured when fitted.
6. Should it become necessary to make any adjustments or service on machine while raised on the tractor linkage, or raised on a front end loader - trestles or suitable supports MUST be positioned to support machine to prevent accidental dropping of lift arms, loader arms or mechanical failure.
[MACHINE MUST ALWAYS BE PROPPED AND CHOCKED]
7. Never attempt to work on, adjust or service repair machinery of any kind whilst it is still running or working. Always stop the machine and **STOP THE TRACTOR ENGINE** - before any service/repairs begin.
(SWITCH OFF TRACTOR ENGINE BEFORE LEAVING TRACTOR SEAT)

8. In transit always use transport stays or locking devices where provided. If, as in the case of some longer machines, the unit is transported lengthways - make sure that the front of the tractor is suitably ballasted to maintain stability.
A method of achieving this would be to add suitable weights to a correctly specified and fitted front weight frame.
9. Always use machines in a sensible and reasonable manner and do not attempt to use them in work for which they are not intended. Avoid overloading and abusing them as this can cause damage to machine and tractor and can be very dangerous.
10. When unhitching/detaching a machine from a tractor three point linkage or from a front end loader ensure that any stands or legs are securely positioned and that the machine is parked where it will not be a safety hazard or cause annoyance to others. Make sure that chose 'parking site' is a firm and level site.
11. Carry out regular periodic maintenance. - Always with safety in mind.
12. Ensure regular maintenance procedures are maintained for the lifetime of the machine.
13. **HEALTH AND SAFETY RULES AND REGULATIONS MUST BE ADHERED TO IN ALL AGRICULTURAL RESPECTS.**

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THE TWOSE BALE
HANDLING RANGE:

This book covers the whole of the current range of Twose equipment for the handling of Bales.

The range includes:-

BS/3 Bale Spike for Three Point Linkage mounting. Comes complete with Anti-Spin Tine, Cat. I Pins, Cat. II Bushes and Linch Pins.

BS/87 Bale Spike for Loader or Three Point Linkage. Comes complete with Anti-Spin Tine.

BH/87A Bale Handler for Loader. Options available include:-

T2 Two Spikes and Collars to fit Roller sockets.

BH/98 Bale Handler for handling stack of up to '2 high' bales, round or square, straw or hay.

Caution: - Bale Handlers and Spikes must only be used for the purpose for which they were designed - that of handling bales.

ATTACHING BALE
HANDLERS/SPIKES TO
LOADERS

1. Before starting ensure that the machine is on a flat level site, with plenty of room to manoeuvre.
2. Slacken nuts securing lift brackets to frame (or fit them loosely if applicable).
3. Measure centre distance of both loader arms and crowd links.
4. Position the brackets to suit measurements found in 3. Ensure they are the same distance from each side of the frame.
5. Tighten nuts fully.
6. Bring loader forward squarely to the machine until holes in lower brackets correspond with holes in ends of loader arms.
7. Fit pins and any necessary spacers and secure with linch pins and rings.
8. Fit crowd links into brackets. Align holes.
9. Fit pins and any necessary spacers and secure with linch pins and rings.
10. The machine will now be securely connected to the loader.
11. Where applicable connect two hydraulic hoses to the ports on the double-acting ram, these will need to connect at their other end to a double-acting hydraulic service.
12. Test that the loader lifts correctly and that the hydraulic ram functions correctly where applicable.
13. Strongly consider the fitting of weights to the rear of the tractor.

ROUTINE MAINTENANCE
AND LAYING-UP

DAILY



DANGER
WARNING

Grease all pivot points.



DANGER
WARNING

Check tightness of all nuts and bolts.

WEEKLY



DANGER
WARNING

Check all hydraulic fittings and hoses for damage or wear - replace as required.

ANNUAL



DANGER
WARNING

Check bushes for damage or wear - replace when necessary.

When the machine is not to be used for a prolonged period, clear it and note any damage and any repairs needed. Arrange for spares/repairs in readiness for next season.

Grease machine at the greasing points and apply grease or oil to any parts still not protected by paint or lubricant. Store the machine under cover and in the dry.

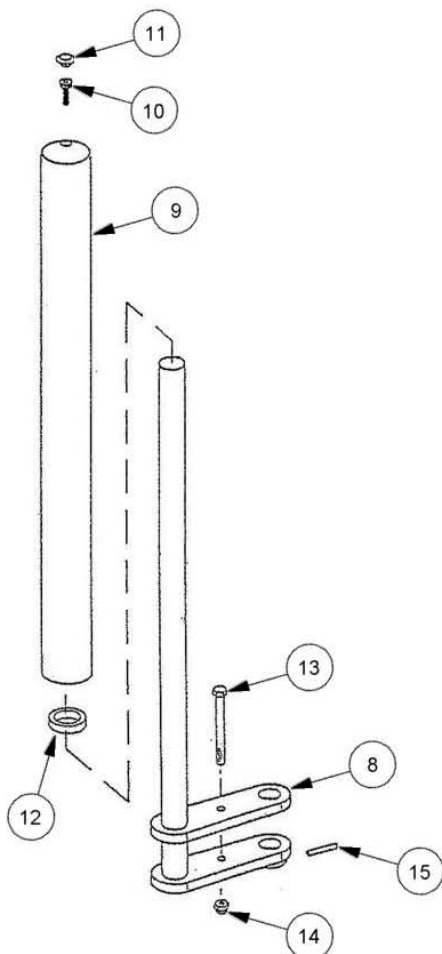
BALE HANDLERS

Models : ABH84A / ABH98 /
ABH98E8 / ABS3 / ABS87E8

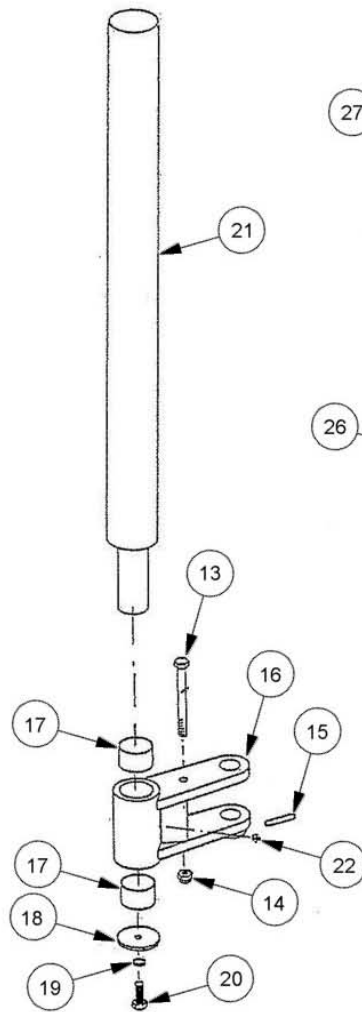
Parts Manual

(Rev. 07.12.12)

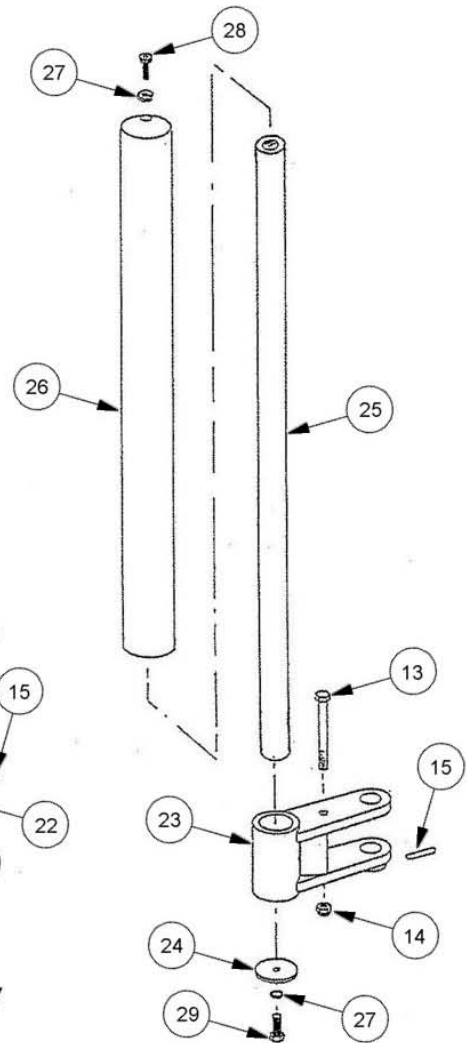
ABH87A – BALE HANDLER



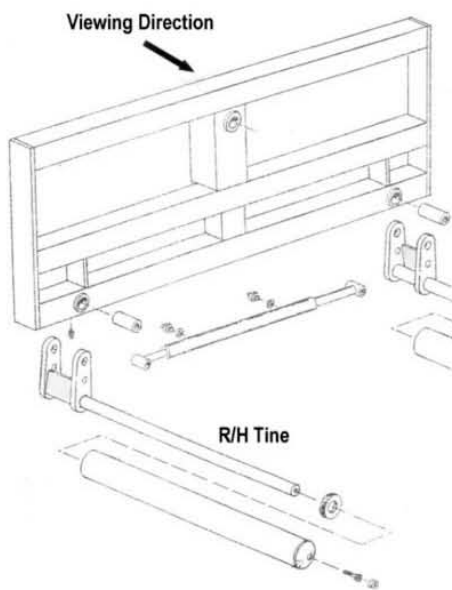
ROLLER TINE FOR MACHINES UP TO 06/93



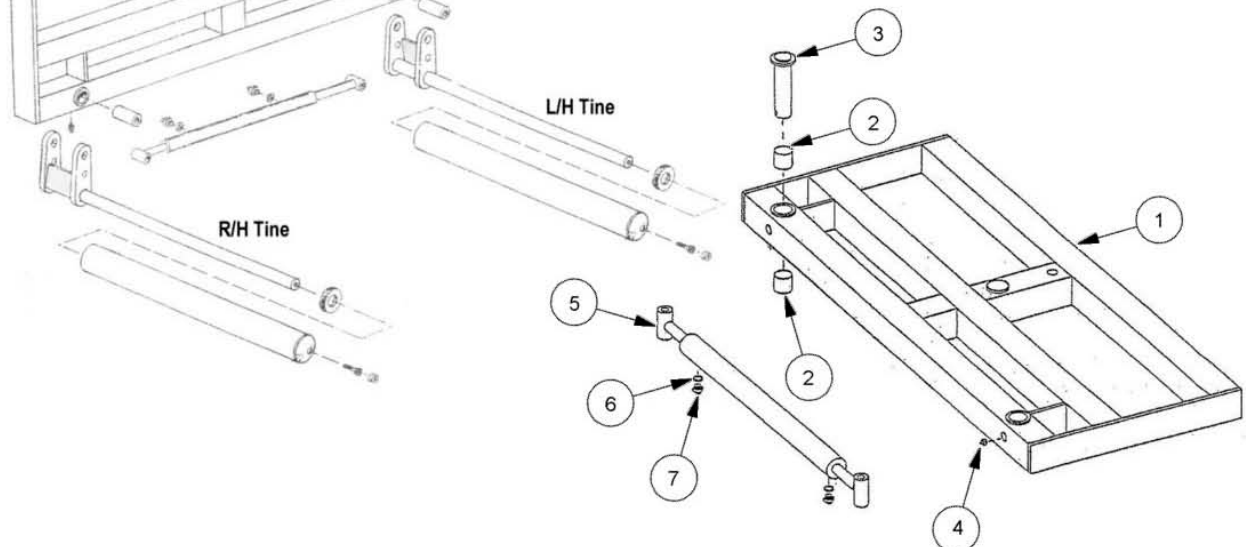
ROLLER TINE FROM 07/93 - 12/97



ROLLER TINE 01/98 ONWARDS



Viewing Direction



L/H Tine

R/H Tine

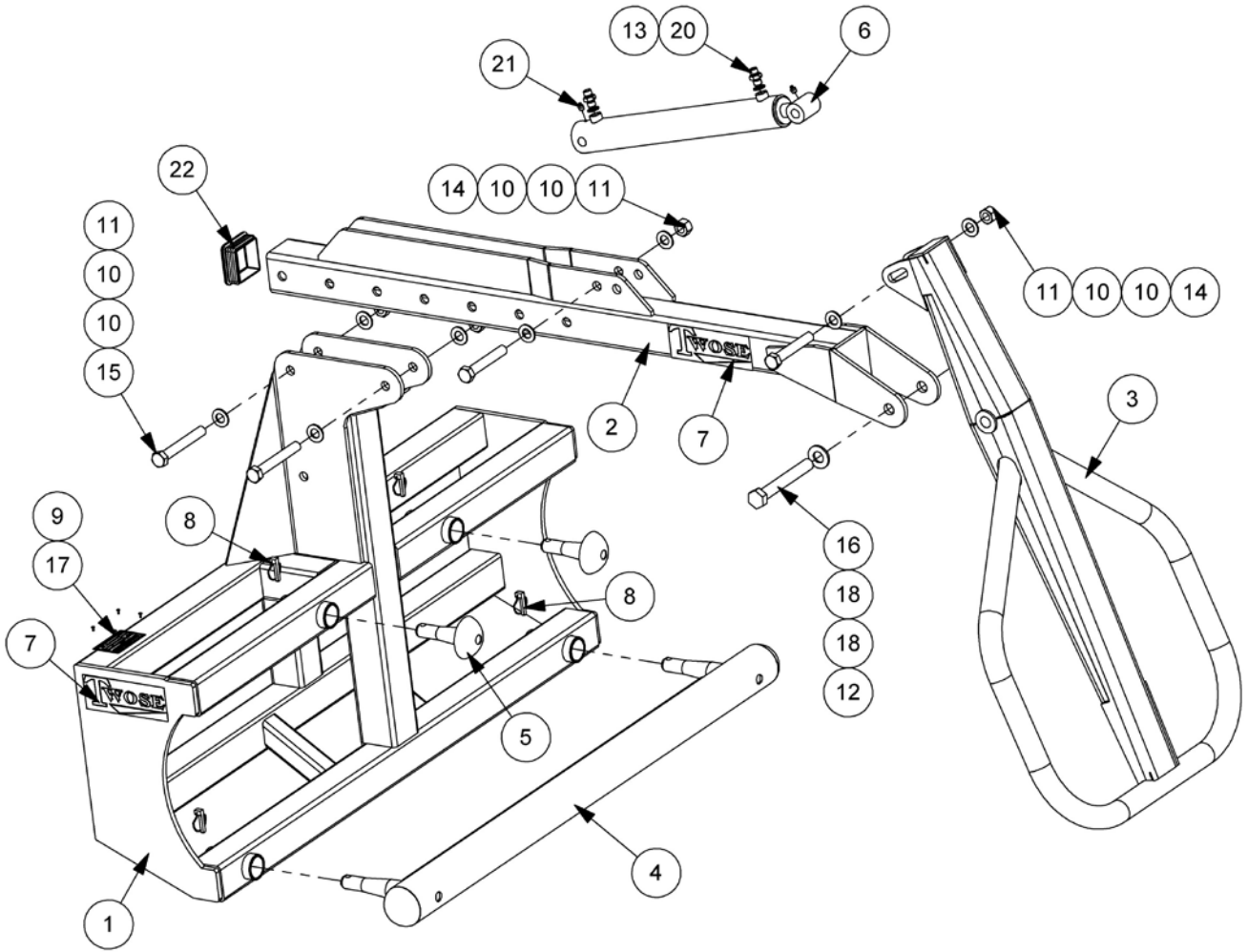
ABH87A – BALE HANDLER

REF.	QTY.	PART No.	DESCRIPTION
		ABH87A	BALE HANDLER
1	1	167.035	MAINFRAME
2	4	6257G	BUSH
3	2	167.038	PIN
4	2	05.953.03	GREASE NIPPLE
5	1	T1670027	RAM
6	2	05.290.02	BONDED SEAL
7	2	01.099.01	ADAPTOR
8	1	167.036	* PIVOT TINE Mk3 RH
	1	167.037	* PIVOT TINE Mk3 LH
9	2	167.021	* ROLLER TINE
10	2	3153	SETSCREW
11	2	2367	GROMMET
12	2	167.023	SPACER
13	2	2911	BOLT
14	2	05.287.04	SELF-LOCKING NUT
15	2	T3714	SPRING PIN
16	1	167.045R	** SOCKET ASSEMBLY RH
	1	167.045L	** SOCKET ASSEMBLY LH
17	4	T6935	BUSH
18	2	181.042	WASHER
19	2	2730	SPRING WASHER
20	2	2892	SETSCREW
21	2	167.044	** ROLLER TINE
22	2	05.953.03	GREASE NIPPLE
23	1	167.068R	*** SOCKET ASSEMBLY RH
	1	167.068L	*** SOCKET ASSEMBLY LH
24	2	167-069	SPECIAL WASHER
25	2	167.067	*** SHAFT
26	2	167.066	*** ROLLER TINE
27	4	05.282.03	SPRING WASHER
28	2	T3536	SETSCREW
29	2	05.264.23	SETSCREW
30	1	45429.01	SERIAL No. PLATE
31	4	05.227.01	HAMMER DRIVE SCREW
32	2	T410201	DECAL - GREASE

* Machines to 06/93
 ** Machines 07/93 to 12/97
 *** Machines 01/98 onward

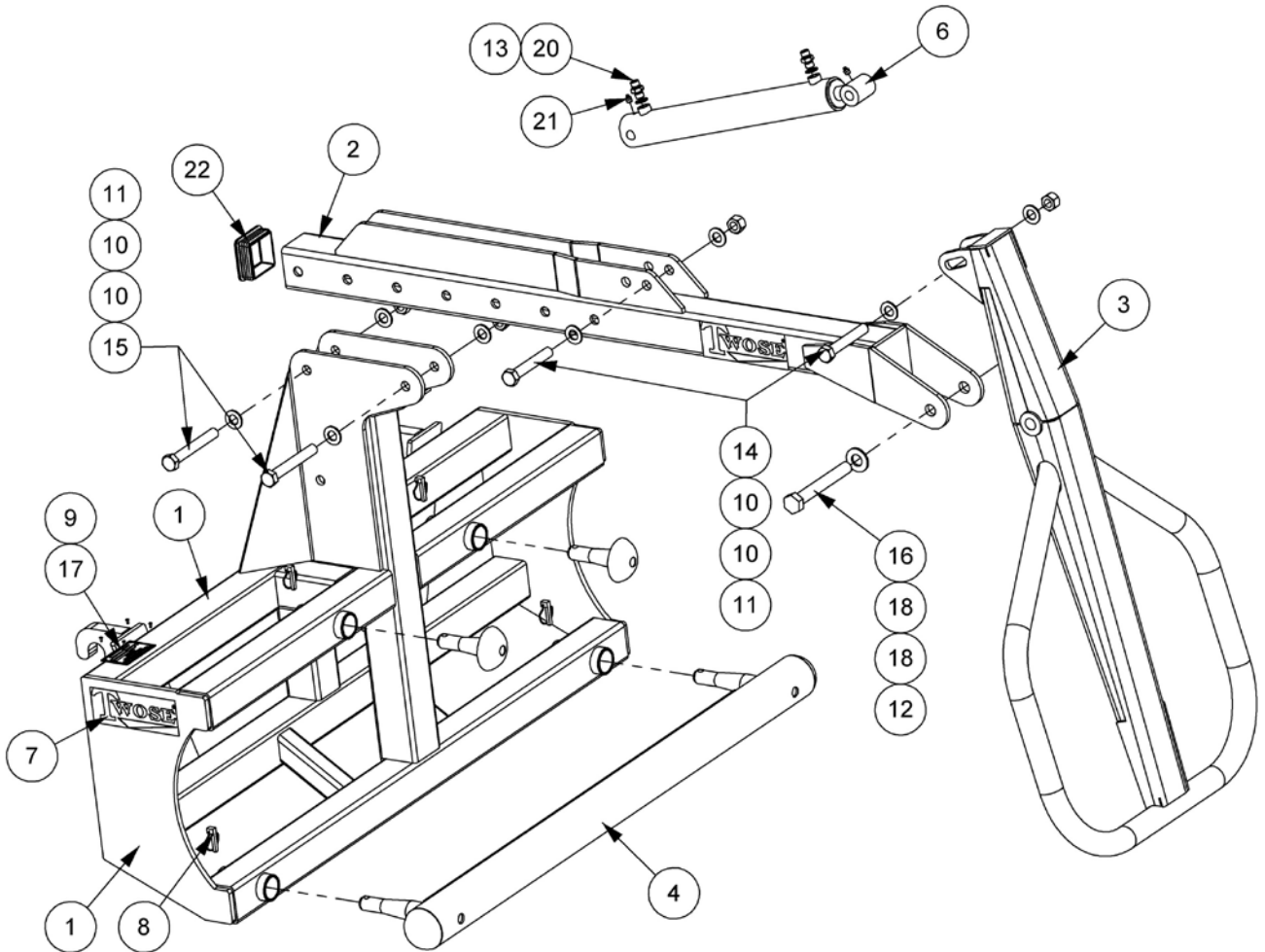
1670027.02 SEAL KIT FOR RAM T1670027

ABH98 – BALE HANDLER



ABH98 – BALE HANDLER

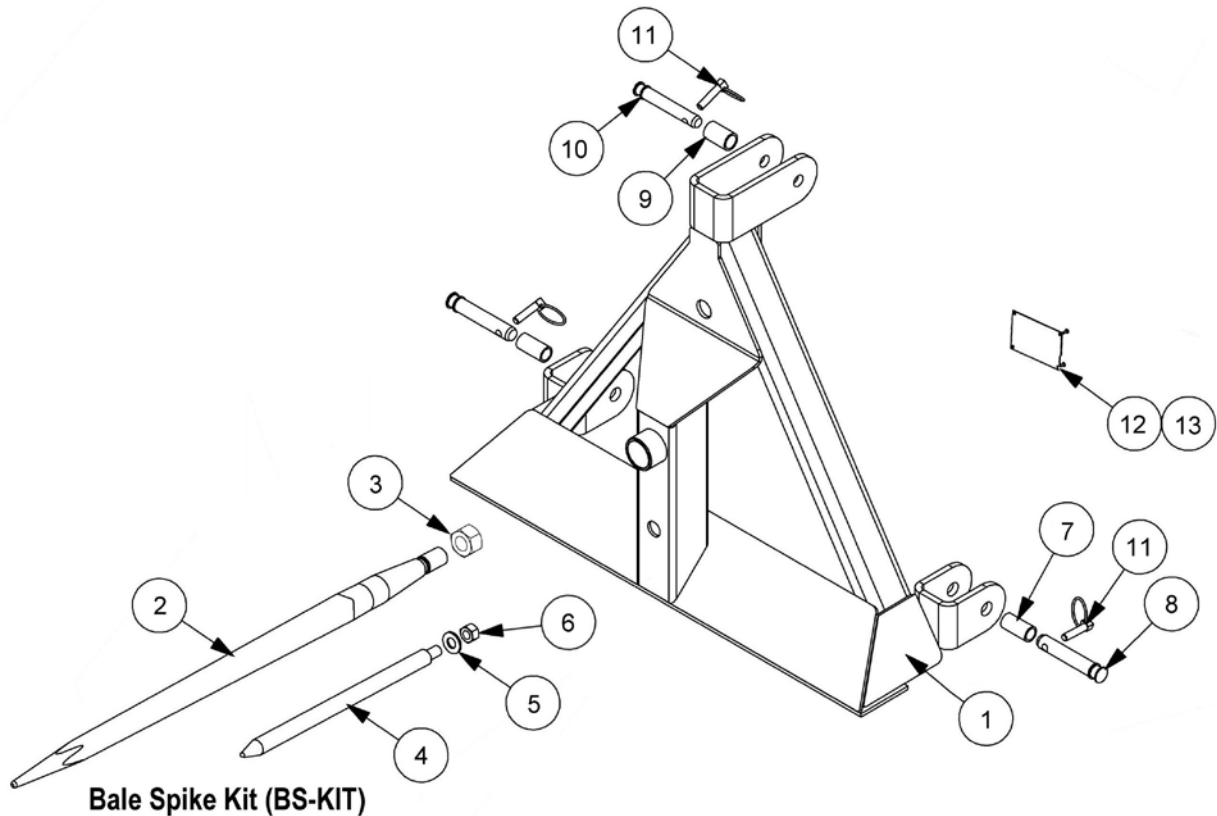
REF.	QTY.	PART No.	DESCRIPTION
		ABH98	BALE HANDLER
1	1	167.070	MAINFRAME
2	1	167.071	MAIN BEAM
3	1	167.072	PADDLE
4	1	167.073	BUMP BAR
5	2	167.074	BUMP PAD
6	1	167.075	GRAB RAM
7	4	200.040	DECAL - TWOSE
8	4	00.372.01	LINCH PIN
9	4	05.227.01	HAMMER SCREW
10	8	05.281.05	FLAT WASHER
11	4	05.287.05	SELF-LOCKING NUT
12	1	05.287.06	SELF-LOCKING NUT
13	2	05.290.04	BONDED SEAL
14	2	05.292.46	BOLT
15	2	05.292.48	BOLT
16	1	05.285.07	BOLT
17	1	45429.01	SERIAL No. PLATE
18	2	9100109	FLAT WASHER
19	10	06.023.01	HOSE TIE
20	2	05.124.01	ADAPTOR
21	2	05.963.04	GREASE NIPPLE
22	1	T8160	PLASTIC BUNG



ABH98E8 – BALE HANDLER (Euro 8 Brackets)

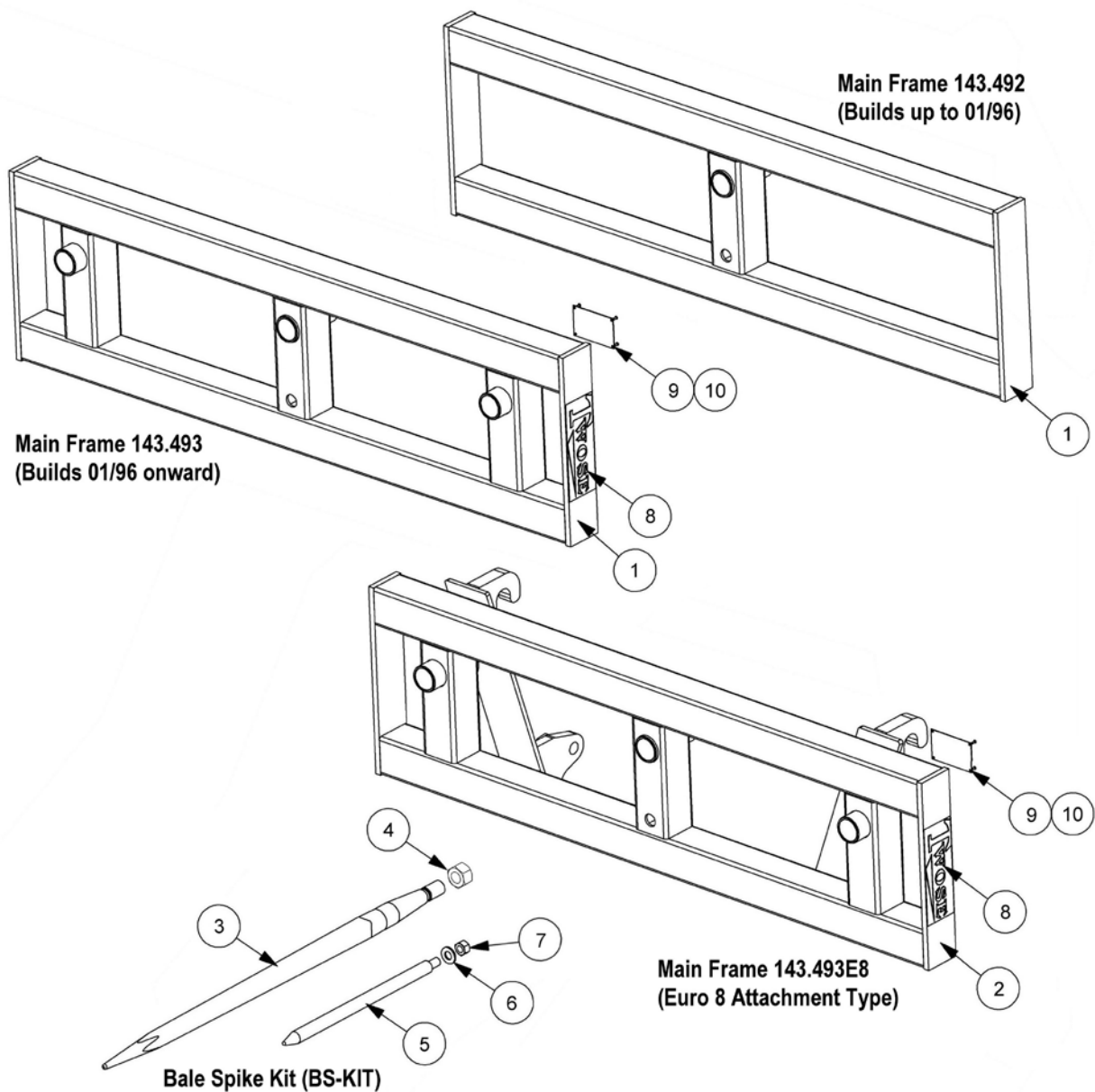
REF.	QTY.	PART No.	DESCRIPTION
		ABH98E8	BALE HANDLER c/w EURO 8 BKTS
1	1	167.070E8	MAINFRAME WITH EURO 8 BRACKETS
2	1	167.071	MAIN BEAM
3	1	167.072	PADDLE
4	1	167.073	BUMP BAR
5	2	167.074	BUMP PAD
6	1	167.075	GRAB RAM
7	4	200.007	DECAL - TWOSE
8	4	00.372.01	LINCH PIN
9	4	05.227.01	HAMMER SCREW
10	8	05.281.05	FLAT WASHER
11	4	05.287.05	SELF-LOCKING NUT
12	1	05.287.06	SELF-LOCKING NUT
13	2	05.290.04	BONDED SEAL
14	2	05.292.46	BOLT
15	2	05.292.48	BOLT
16	1	05.285.07	BOLT
17	1	45429.01	SERIAL No. PLATE
18	2	9100109	FLAT WASHER
19	10	06.023.01	HOSE TIE
20	2	05.124.01	ADAPTOR
21	2	05.963.04	GREASE NIPPLE
22	1	T8160	PLASTIC BUNG

ABS3 - BALE SPIKE FOR 3-POINT LINKAGE



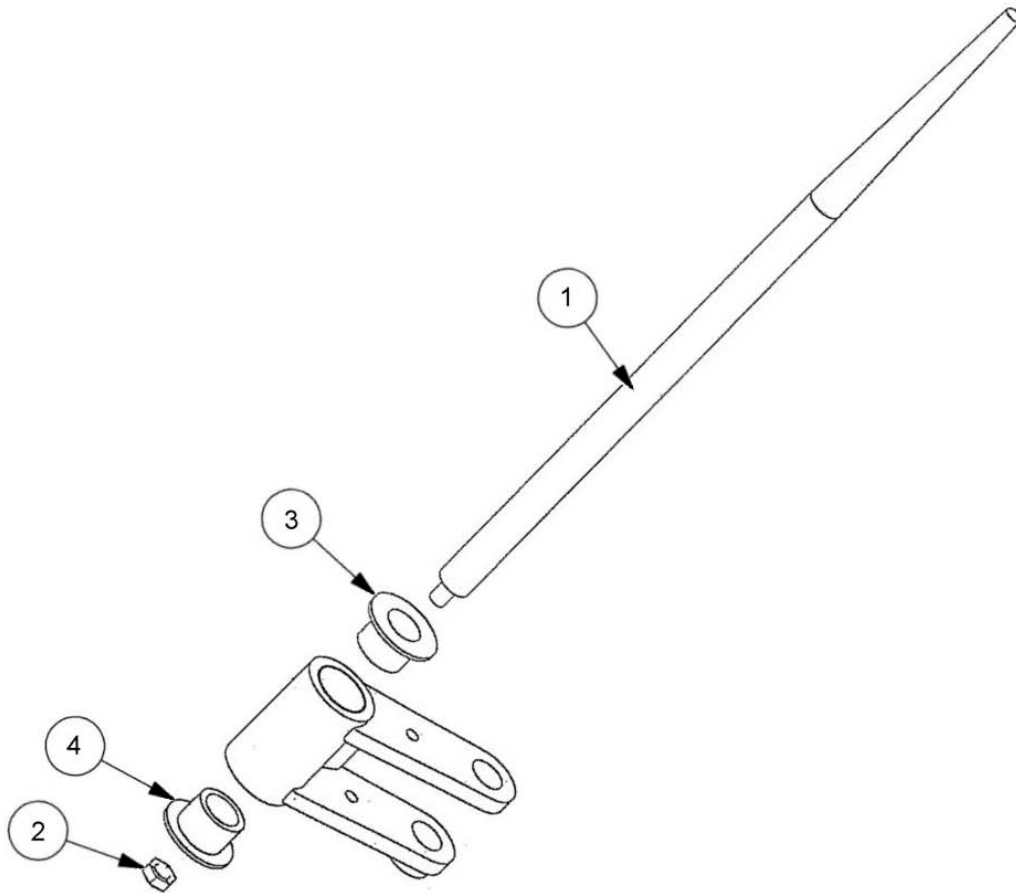
REF.	QTY.	PART No.	DESCRIPTION
		ABS3	BALE SPIKE FOR 3-POINT LINKAGE
1	1	166.002	BALE SPIKE MAIN FRAME
2	1	6001	TINE BALE SPIKE c/w NUT
3	1	6001.1	NUT
4	1	143.487	TINE STABILISER
5	1	2867	WASHER
6	1	3747	LOCKNUT
7	2	120014	SLEEVE - LOWER LINK CAT. 1-2
8	2	0853	LINKAGE PIN
9	1	190050	SLEEVE - TOP LINK CAT. 1-2
10	1	1657	LINKAGE PIN
11	3	T0832	LINCH PIN
12	1	45429.01	SERIAL No. PLATE
13	4	05.227.01	HAMMER SCREW

ABS87/87E8 - BALE SPIKE FOR FORE-END LOADERS



REF.	QTY.	PART No.	DESCRIPTION
BALE SPIKE FOR FORE-END LOADERS			
1	1	143.493	BALE SPIKE MAIN FRAME
	1	143.492	BALE SPIKE MAIN FRAME - <i>Pre 01/96 builds</i>
2	1	143.493E8	BALE SPIKE MAIN FRAME (EURO 8)
3	1	6001	TINE BALE SPIKE c/w NUT
4	1	6001.1	NUT
5	1	143.487	TINE STABILISER
6	1	2867	WASHER
7	1	3747	LOCKNUT
8	2	200.040	DECAL - TWOSE
9	1	45429.01	SERIAL No. PLATE
10	4	05.227.01	HAMMER SCREW

ZT2 - BALE SPIKE CONVERSION KIT



REF.	QTY.	PART No.	DESCRIPTION
		ZT2	BALE SPIKE CONVERSION KIT
1	2	6001	TINE BALE SPIKE c/w NUT 6001.1
2	2	6001.1	NUT
3	2	167.046A	ADAPTING SLEEVE (50mm)
4	2	167.046B	ADAPTING SLEEVE (69mm)