

*Operating Instructions and Parts Book for*

**CUTTER GRABS**

**MULTI GRABS**

**CUTTER GRAB BUCKETS**

For machines produced prior to May 2007

Publication: 7993-10-99



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



**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 machinery 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.

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

We,

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

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

This machine is a **Silage Grab** and is part of a range known as the "Cutter Grab"

Serial No. & Date: .....

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

.....

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

complies with the required provisions of the Directive 98/37/EC and conforms with European Norm. BS EN 292

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

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

Signed Adrian Longstaff  
on behalf of TWOSE OF TIVERTON LIMITED Responsible Person

Status DIRECTOR OF ENGINEERING

Date 13 February 2001

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## GENERAL SPECIFICATIONS CUTTER GRABS.

Protruding tine length (from tine socket). 0.68 m (all machines).

### CG - 10S Machine.

Overall Width. 1.29 m  
Capacity of Grab. 0.60 m<sup>2</sup>  
Total Weight of machine. 0.416 T  
Overall Height (Grab closed) 0.62 m  
Overall Height (Grab open) 1.17 m  
Overall Length of machine. 0.77 m

### CG - 20S Machine.

Overall Width. 1.42 m  
Capacity of Grab. 0.85 m<sup>2</sup>  
Total Weight of machine. 0.433 T  
Overall Height (Grab closed) 0.62 m  
Overall Height (Grab open) 1.17 m  
Overall Length of machine. 0.77 m

### CG - 25S Machine.

Overall Width. 1.8 m  
Capacity of Grab. 1.1 m<sup>2</sup>  
Total Weight of machine. 0.49 T  
Overall Height (Grab closed) 0.94 m  
Overall Height (Grab open) 1.40 m  
Overall Length of machine. 1.06 m

### CG - 30S Machine.

Overall Width. 1.9 m  
Capacity of Grab. 1.24 m<sup>2</sup>  
Total Weight of machine. 0.622 T  
Overall Height (Grab closed) 0.62 m  
Overall Height (Grab open) 1.17 m  
Overall Length of machine. 0.77 m

### CG - 35S Machine.

Overall Width. 2.4 m  
Capacity of Grab. 1.5 m<sup>2</sup>  
Total Weight of machine. 0.65 T  
Overall Height (Grab closed) 0.62 m  
Overall Height (Grab open) 1.40 m  
Overall Length of machine. 1.06 m

Note - Dimensions are approximate and will vary from tractor to tractor.

## GENERAL SPECIFICATIONS MULTI GRABS.

Protruding tine length (from tine socket).	0.68 m (all machines).
Overall Height (Grab closed)	0.62 m (all machines).
Overall Height (Grab open)	1.17 m (all machines).
Overall Length of machine.	0.77 m (all machines).

### MG - 10 Machine.

Overall Width.	1.39 m
Capacity of Grab.	0.84 m <sup>2</sup>
Total Weight of machine.	0.345 T

### MG - 20 Machine.

Overall Width.	1.53 m
Capacity of Grab.	0.925 m <sup>2</sup>
Total Weight of machine.	0.375 T

### MG - 25 Machine.

Overall Width.	1.8 m
Capacity of Grab.	1.1 m
<sup>2</sup> Total Weight of machine.	0.395 T

### MG - 30 Machine.

Overall Width.	1.99 m
Capacity of Grab.	1.24 m <sup>2</sup>
Total Weight of machine.	0.415 T

### MG - 35 Machine.

Overall Width.	2.4 m
Capacity of Grab.	1.5 m <sup>2</sup>
Total Weight of machine.	0.46 T

## GENERAL SPECIFICATIONS CUTTER GRAB BUCKETS.

Protruding tine length (from tine socket).	0.68 m (all machines).
Overall Height (Grab closed)	0.62 m (all machines).
Overall Height (Grab open)	1.17 m (all machines).
Overall Length of machine.	0.77 m (all machines).

### CGB - 20S Machine.

Overall Width.	1.53 m
Capacity of Grab.	0.83 m <sup>2</sup>
Total Weight of machine.	0.44 T

### CGB - 25S Machine.

Overall Width.	1.8 m
Capacity of Grab.	1.0m <sup>2</sup>
Total Weight of machine.	0.52T

Note - Dimensions are approximate and will vary from tractor to tractor.

## 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 used 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 THE MACHINES.**

These machines are known throughout the agricultural industry as a Cutter Grab, Multi-Grab and a Cutter Grab Bucket.

These machines are intended to be attached to agricultural vehicle by means of a tractor front end loader or by the boom on a purpose built materials handler.

The purpose for the cutter grabs production and its sole intention is to give a safe and economical method of removing silage (or similar) from the clamp.

The purpose for the multi grabs production and its sole intention is to give a safe and economical method of handling straw manure (or similar), and occasional removal of silage (or similar) from the clamp.

The purpose for the cutter grabs buckets production and its sole intention is to give a safe and economical method of removing silage (or similar) from the clamp. and to pick up loose materials.

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 above) - In particular:

**NEVER USE CUTTER GRAB BUCKET FOR DIGGING PURPOSES.**

## HEALTH AND SAFETY POINTS.



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.



DANGER  
WARNING

NEVER TAKE RISKS



DANGER  
WARNING

NEVER LEAVE TRACTOR SEAT WHILST ENGINE - OR MACHINE IS RUNNING



DANGER  
WARNING

BEWARE OF THE CUTTING BLADES AS THEY ARE RAZER SHARP.



DANGER  
WARNING

It may be necessary to **stabilize** the whole unit once coupled up - by ballasting tractor's rear wheels and/or fitting counterbalance weights to tractor. Tractor wheel track settings could also be widened as a further method of increasing stability. (Check with agent).

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

CAUTION - Contact your dealer should you need advice, assistance, or if you do not understand any part of the manual or machine.  
NEVER ASSUME - if you are not sure - ASK.

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



DANGER  
WARNING

Never attempt to service/work on/adjust in any way any machinery that is in an unsupported or poorly supported state.

Most machines will need additional support in order that the worker's safety is not reliant only on hydraulic or other services of the machine or tractor.  
For example: Any three point linkage mounted machinery  
Front Loaders  
Digger Booms  
Hedge trimmer booms  
etc.

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



DANGER  
WARNING

Always ensure that the wheels of any wheeled implement or machine are chocked firmly and that the implement will not move, before attempting to service or work on the implement/machine in any way or form.

CAUTION -

Always ensure that the Floor of the Cutter Grab Bucket is raised and secure before it is used to remove materials from the clamp. Only use the bucket facility to scoop up loose materials. **do not use for digging purposes.**



**DANGER  
WARNING**

Always be aware of your surroundings, and operate machinery accordingly. Beware of confined or tight areas and restricted height due to buildings, overhangs, etc. Drive and operate machines with weather conditions in mind; such as sun, rain, ice, snow, wind, etc. **Make allowances for all situations.**

**CAUTION -** Never operate machine in a reckless or uncaring manner. Respect other road users and be patient.

**HIGHWAY USE.**

When operating machinery on the Highways the operator should consult the local Highways Department regarding notification and approval, as rules and regulations will vary from local authority area to area. The Highways Department regulations must be followed

**NOTE:-** Never carry passengers on machinery or on tractors.  
Ensure bystanders/onlookers are kept well away from the operational area of the machine.

**CAUTION -** Never walk underneath the machine for any reason.

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

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

CAUTION

Ensure workstation controls, joysticks, cable levers etc. are positioned correctly to suit operator, and not obstructing other driving functions.  
Controls **MUST** not obstruct entry and exit to cab.



**DANGER  
WARNING**

Always ensure safety screens are fitted into position to protect operator from flying debris.

CAUTION

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

CAUTION

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

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

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.

NOTES.

AMENDMENTS.

<u>AMENDMENT</u>	<u>DATE</u>	<u>DETAILS</u>
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## GENERAL INSTRUCTIONS

1. Before attaching any machine to a tractor or loader make sure that implement is still standing firmly on a good solid level site. (This will depend of course on how well the site was chosen previously).

Check that any wheels are chocked correctly and that supports/props are in position where necessary to prevent booms, etc. from dropping.

2. Before and during the maneuvering of the tractor or vehicle 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 ensure that brakes are applied correctly to secure the tractor into the selected position. This will prevent the vehicle from moving off on its own to cause injury and damage.

4. Make sure that the loader lift arms are properly fitted to the machine/implement by using the correct adapter sleeves where necessary. Secure pins with relevant pin and ring assemblies.

5. Should it become necessary to make any adjustments or service the machine while raised on the tractor linkage or 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.

### **MACHINES 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 adjustments/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 larger machines make sure that the rear of the tractor or loader is suitably ballasted to maintain stability.

A method of achieving this is to add suitable weights to a correctly specified and fitted rear weight frame.

9. Always use machines in a sensible and reasonable manner and do not attempt to use them for 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 front end loader ensure that any stands or legs are securely positioned. The machine must be parked where it will not be a safety hazard or cause annoyance to others.

Make sure that chosen parking site is firm and level.

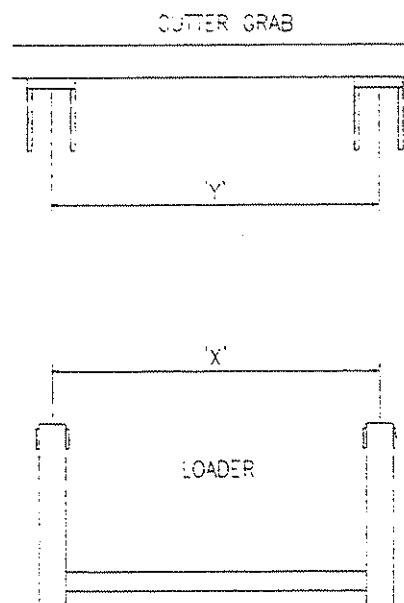
11. Carry out regular periodic maintenance, always with safety in mind.

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.**

## ATTACHING LOADER BRACKETS TO CUTTER GRAB.

1. Before attempting to attach the brackets to any of the machines, ensure that the grab is on a flat level site with sufficient room to manoeuvre the tractor/loader.
2. Loader brackets vary from one make of loader/materials handler to another. To overcome this Twoose can provide a universal Multi - Hole bracket which can be used with the majority of standard pin attach type loaders (please confirm brackets will fit before ordering). Where 'Quick Hitch' type loaders are used the correct type of weld on brackets will have to be purchased through the supplier or dealer. Some of the cutter grabs main frames are based on a box section design, only on these machines can the loader brackets be attached either by welding or by using correctly sized U - Bolts around the box section.
- 3.



- a) Measure the centre distance of the loader arms and crowd rams or linkage (distance 'X').
- b) Position the weld or bolt on brackets on the rear of the cutter grab on the welded on strips or box section so that their centre width (distance 'Y') matches that of the loader arms and crowd rams or linkage (distance 'X'). The height of the brackets should be set so that the loader can easily be attached and removed when parked on level ground and provide a large contact area for welding.
- c) Ensure that the distance from the centre of the cutter grab to each bracket is equal and that they are at the same height and are parallel.

- d) If you are in any way unsure of the measured distance contact the loader manufacturer or dealer to confirm the correct bracket width (distance 'Y') before welding.
- e) Now the on brackets are in the correct position they should be either welded **100%** to the cutter grab body by a **QUALIFIED WELDER** or the **U - Bolts** tightened sufficiently.

### ATTACHING LOADER TO GRABS.

- a) Before and during the maneuvering of the tractor or vehicle to attach the cutter grab, make sure that **NO** other persons are in the vicinity. Keep other persons clear of the machinery and make known your intentions, all the while keeping a sharp lookout whilst maneuvering machines for coupling up.
- b) Position tractor/loader 'square' to the cutter grab with the loader arm or quick hitch inline with the brackets.
- c) Move loader slowly forward between the brackets until bracket pin holes correspond with loader pin holes, fit the correct pins and secure correctly.
- d) Operate crowd on loader to align crowd rams or linkage with the holes in the brackets, fit the correct pins and secure correctly.
- e) In the case of a quick hitch attachment the method of connecting the cutter grab to the loader correctly should be that as described in the owners manual.
- f) The cutter grab is now mechanically connected to the loader, the pressure and return hoses for the rams on the cutter grab now need to be connected from the tractor/loader to the 'TEE' ports at the rear of the cutter grab.
- g) Carefully lift the cutter grab off the ground and test the crowd and grab rams work correctly and that there are no oil leaks etc. The machine is now ready for use.
- h) Reverse above procedure to remove the grab from the loader.

## CUTTER GRAB OPERATION.

The cutting blades are fitted with protective sheaths for delivery and must be removed before the cutter Grab is used. To ensure the machine works efficiently as a cutter grab you must make sure that the cutting blades are kept extremely sharp at all times.

The cutting procedure should start at the top and at one side of the clamp working towards the opposite side. This procedure can be repeated until the base of the clamp is reached ensuring a clean wall face with wastage kept to a minimum.

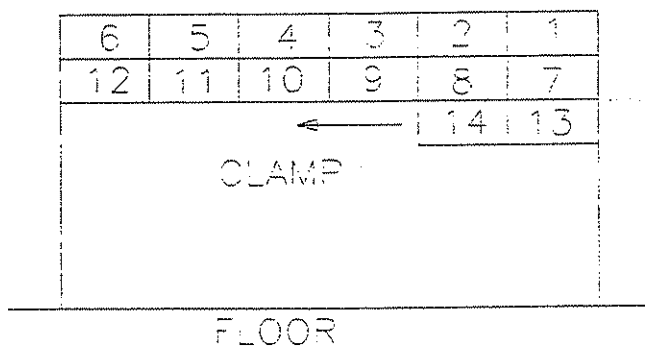
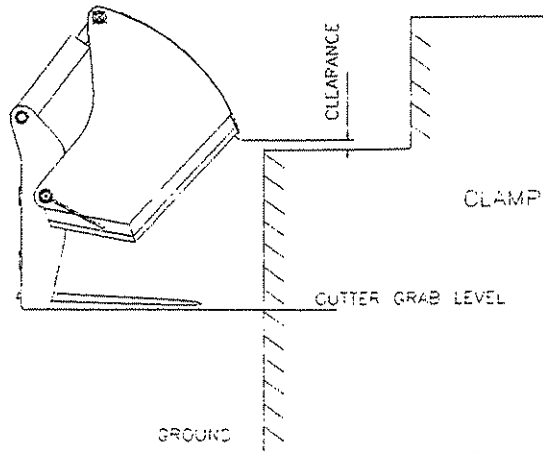


Diagram shows the suggested method of unloading the clamp to keep wastage to a minimum and maximise the loading capacity of the cutter grab.

**Before the CUTTER GRAB BUCKET** is used for cutting the bucket floor must first be lifted away from the tines and secured with the latch.

**CAUTION :** The machine should not under any circumstances be used as a cutter grab with the floor in the working position i.e. resting on the tines. The bucket facility is only to be used for loose materials and not for digging.



It is important that the cutter grab is loaded correctly to ensure that no unnecessary stress is placed on the grab and that the face of the clamp is cleanly cut.

First fully open the grab and position it squared to the clamp face in the position as shown in the diagram above. The cutter grab should be level with the ground and there should be a small clearance (up to 75mm) between the under side of the raised blade and the clamped silage.

With the grab set in this position it should be forcefully driven in to the clamp until the tines are fully embedded in the silage.

The top section of the cutter grab can now be closed by operating the rams on the grab. While the top section is cutting through the silage it may help to transfer some of the loader's weight on to the grab to help keep the tines level and in position. An extensive lifting of the tines during the cutting procedure will cause the silage to be torn out of the clamp causing a rough clamp face. The cutting action helps seal the face of the clamp and therefore reduces losses.

With the top section fully closed the grab should be crowded forward and lifted a little while reversing away from the clamp.

The silage can now be transported to where it is needed and unloaded from the grab.

## MAINTENANCE.

### *GREASE POINTS.*

On each pivot of booms, links or rams a grease nipple will be found and its position will be highlighted by a transfer symbolizing a grease gun. These should be greased daily.

### *NUTS AND BOLTS.*

Check all nuts and bolts daily for tightness or damage during the machines first week of use, then weekly there after.

### *HOSES.*

Hoses should be regularly checked to ensure that the metal braiding is undamaged. Should damage have occurred, affected hoses should be replaced as their ability to withstand pressure will be reduced, increasing the risk of their bursting. Care should be exercised when replacing hoses to ensure that each new hose terminates at the same places as the hose it replaces and that its route is as the original.

Hose ends and other hydraulic connections should be checked daily to ensure there are no leaks.

### *CUTTING BLADES.*

Keep the cutting blades VERY SHARP; this should be inspected daily and the blades are to be sharpened using a hand file, not a grinding wheel. Should any of the blades become damaged or worn they should be replaced immediately so not to impair the operation of the machine.

### *LAYING-UP*

Clean the machine and note any damage or repairs needed. Arrange for spares and repairs as required in preparation for next season.

The machine should be lubricated fully and any exposed bright surfaces greased **particularly** any exposed rods of rams.

Store machine in dry conditions. preferably undercover.

## PARTS LIST

Always order Two genuine spares for your machine. They are correctly designed to give the best operational results.

When ordering spare parts, please specify:-

Type and Serial Number of machine

Part number, description and quantity of spares required.

Always make sure that you have ordered a sufficient quantity to complete the job.

Always make sure that you have ordered the correct parts. In some instances (eg Hydraulic Rams) parts or assemblies are, in the course of time, modified due to introduction of new materials, or improved design.

Always state by what means you wish the goods to be sent. In the absence of specific instructions consignments will be sent by post or railways goods service, if it is not possible to deliver by our own transport.

Always State the number of our Invoice or Sales Slip, and the reason for return should it become necessary to return any items for exchange or credit.

Remember that we operate a Service Department for Hydraulic Equipment which means that we can normally supply, by return, complete serviced and tested replacements.

## WARRANTY AND SPARE PARTS

all enquiries regarding these machines and orders for spare parts must be addressed to:-

TWOSE OF TIVERTON LIMITED

6 Chinon Court

Lower Moor Way

Tiverton Business Park

Tiverton

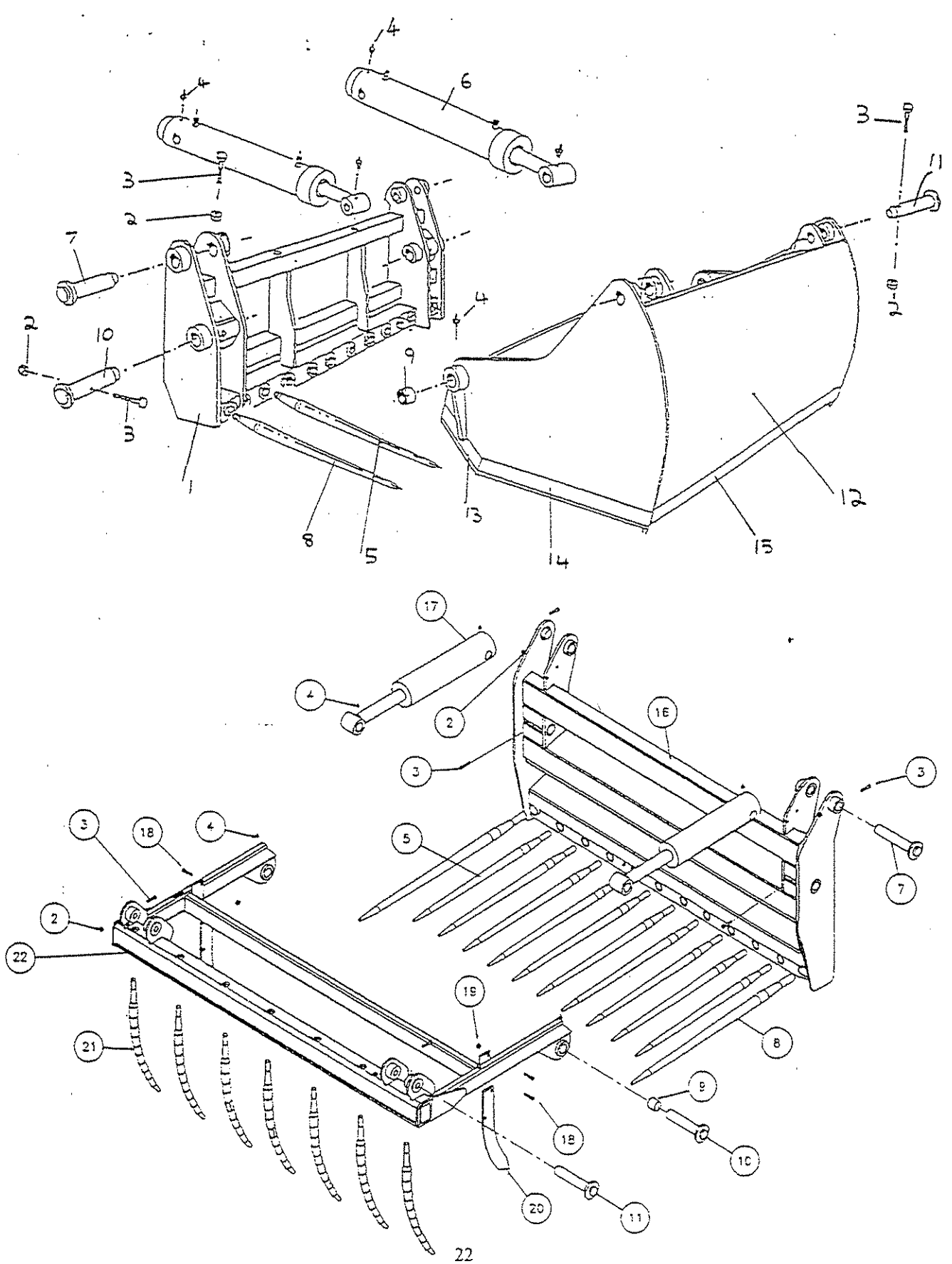
DEVON

EX16 6SS

TELEPHONE (01884) 253691

FAX (01884) 255189

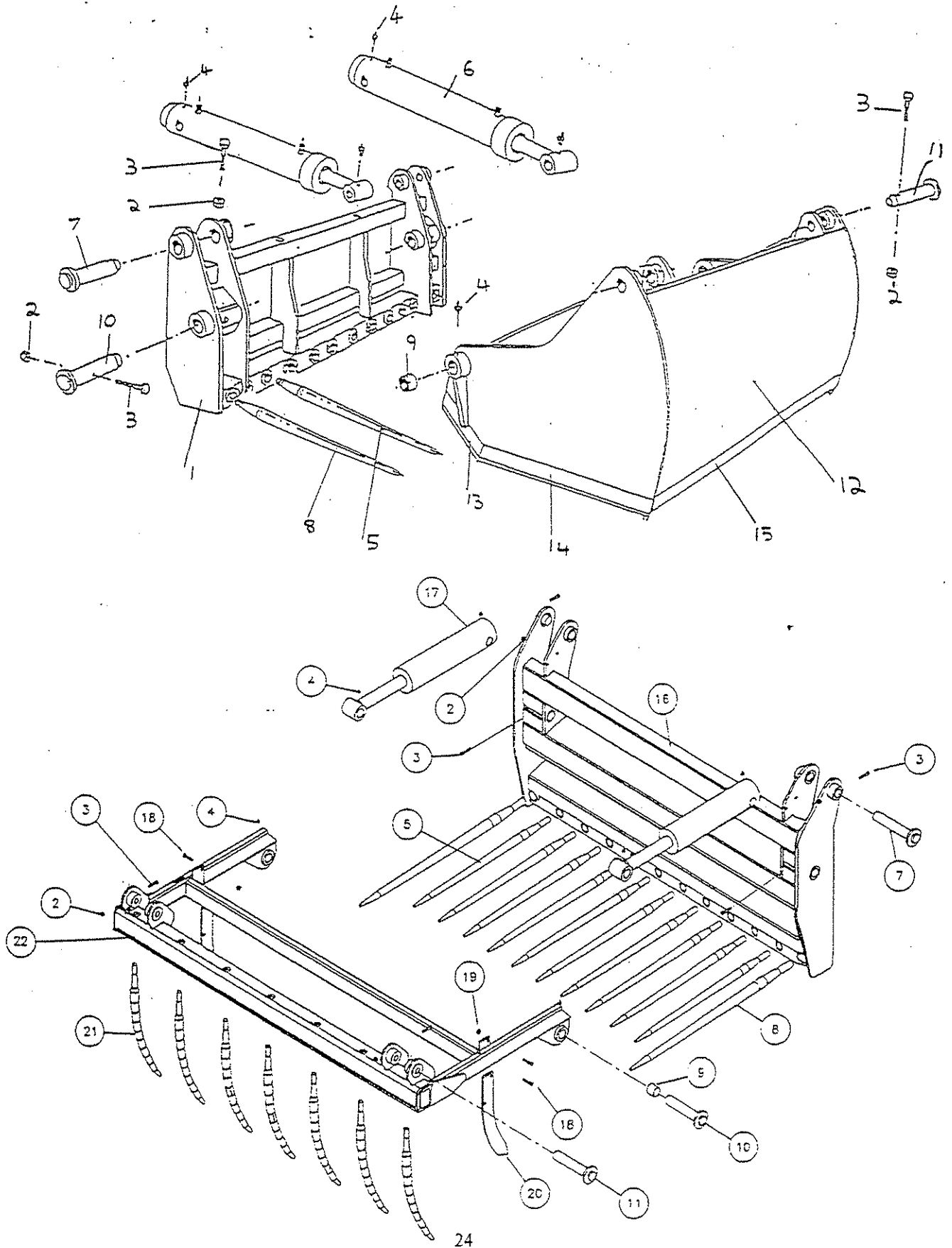
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PARTS CUTTER GRAB AND MULTI GRAB 20.

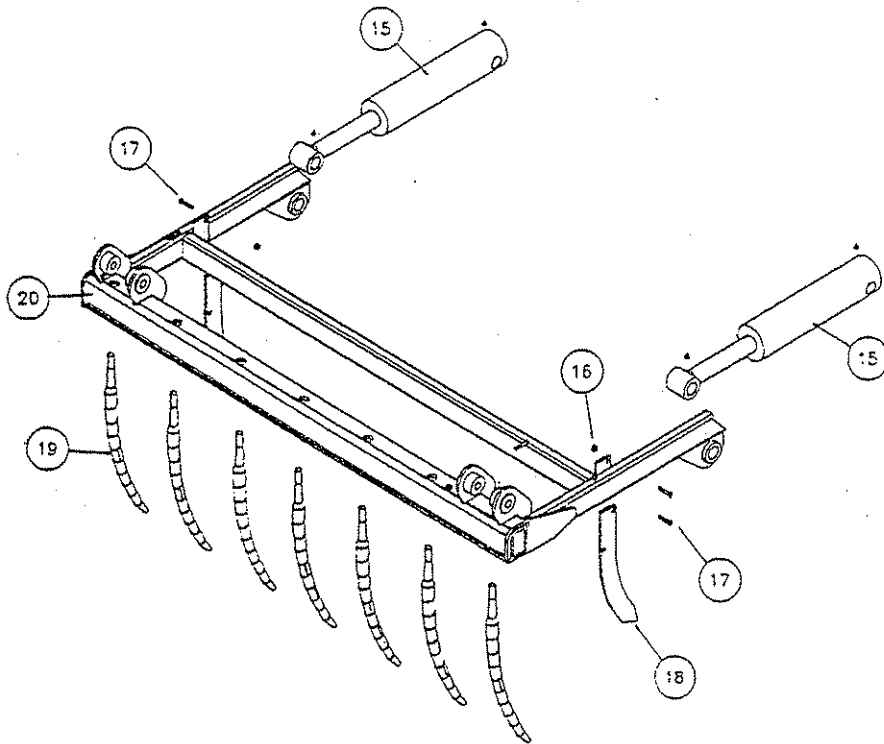
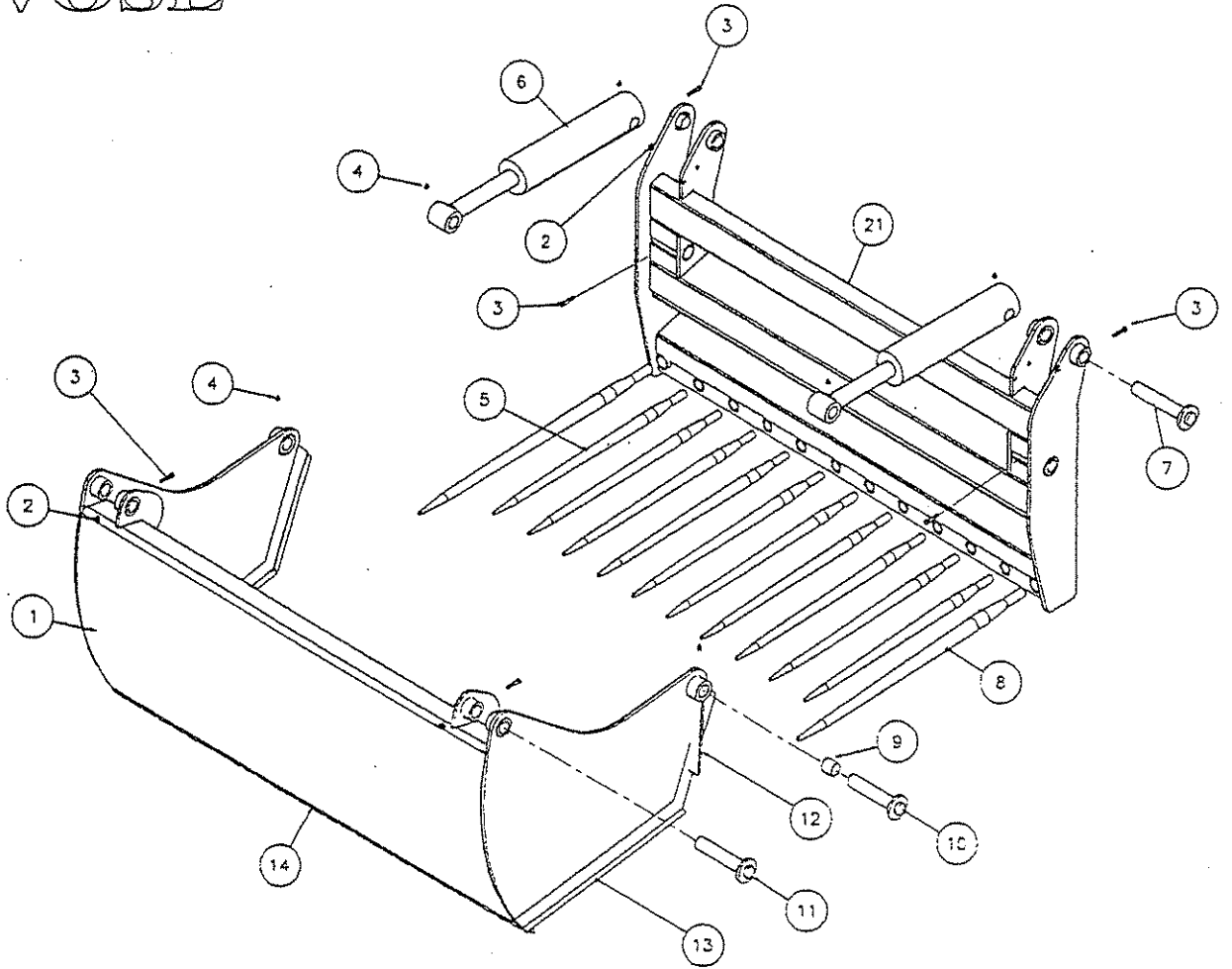
	Component Item	Description	Qty Per
1	177.066	Base Section Medium	1
2	4421	Stiffnut	6
3	2994	Bolt	6
4	2923	G/Nipple	6
5	6910	Tine Straight 22-11-89 (c/w Nut T6910.1)	8
6	1770035	Ram Cutter Grab New Type	2
	T7480	Seal Kit for Ram 1770035 (07/11/97 onwards)	
7	177.010	Pin Assy Ram anchor	2
8	6911	Tine Straight 24-11-60 (c/w Nut T6911.1)	2
9	6257N	Nylon bush	2
10	177.012	Pin Assy Main Pivot	2
11	177.011	Pin Assy Ram Rod	2
12	177.067S	Top Section Medium Serrated	1
13	1770031 or 32	Side blade rear. (Spares Only).	
14	1770068 L/R	Side blade . (Spares Only).	
15	1770069BS	Front blade serrated (Spares Only).	
#	004.178	Hose 3/8 STx91x 700	2
#	004.240	Hose 3/8 STx91x1080	2
#	3999	Tee	2
#	3758.2	Top Plate	2
#	3758.3	Clamp	4
#	1770027	Transfer "...Blades..."	1
16	191.048	Base Section For CG-20	1
17	1910057	Ram Multi Grab	2
18	2950	Setscrew	4
19	3082	Stiffnut	4
20	1910028	Blade Side	2
21	7994	Tine Curved 22-11-94	6
22	191.053	Top	1
#	004.689	Hose 1/4 STx91x1200	4
#	6942	Tee	2
#	5351.1	Top Plate	2
#	5351.2	Clamp (JAW ONLY)	4

PARTS FOR BOTH MACHINES

#	1770072	Transfer "...Lift Bkts."	1
#	410184	Transfer "<<<<<<<<>>>>>>>"	1
#	410186	Transfer "twose"(Sm. Blk)	2
#	410201	Transfer "Grease Gun"	2
#	3041	Tie Universal	4
#	0460	Screw	4
#	6900	Serial No. Plate	1
#	3183	Bolt	2

# - Denotes not drawn.

# TWOSE

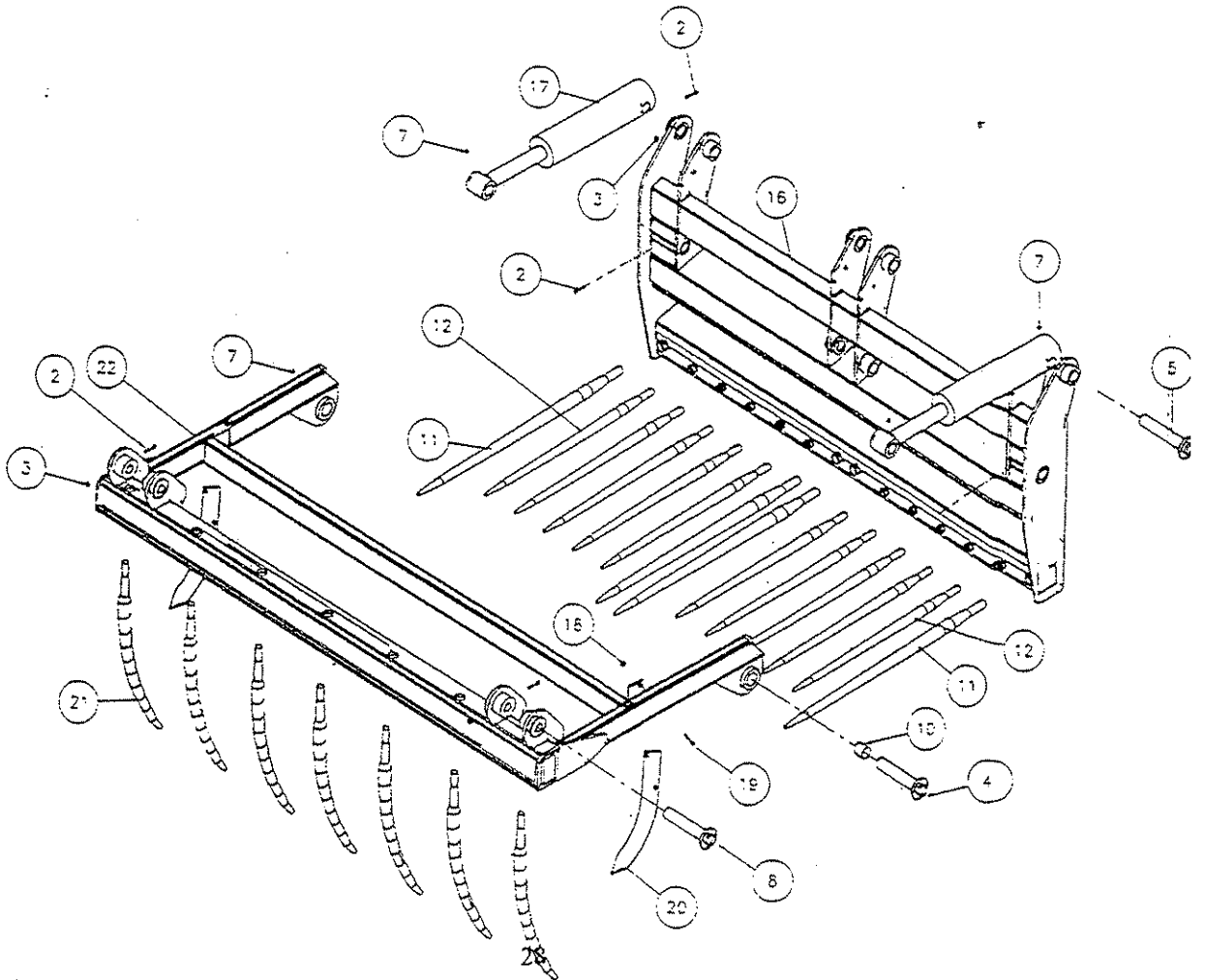
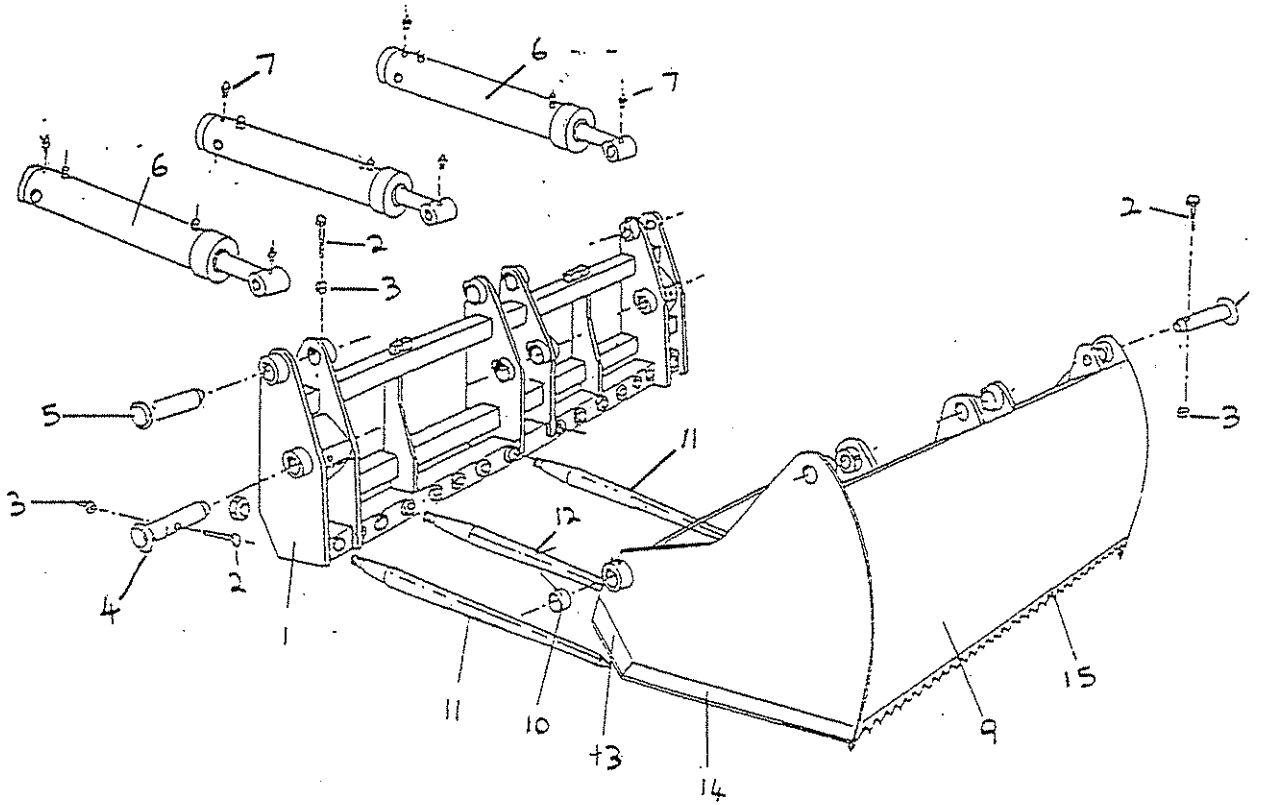


PARTS CUTTER GRAB AND MULTI GRAB 25.

	Component Item	Description	Qty Per
1	177.071S	Top Section CG-25S	1
2	4421	Stiffnut	6
3	2994	Bolt	6
4	2923	G/Nipple	6
5	6910	Tine Straight 22-11-89 (c/w Nut T6910.1)	10
6	1770035	Ram Cutter Grab	2
	T7480	Seal Kit for Ram 1770035 (07/11/97 onwards)	
7	177.010	Pin Assy Ram anchor	2
8	6911	Tine Straight 24-11-60 (c/w Nut T6911.1)	2
9	6257N	Nylon bush	2
10	177.012	Pin Assy Main Pivot	2
11	177.011	Pin Assy Ram Rod	2
12	1910005 OR 6	Side blade rear. (Spares Only).	
13	1770068L/R	Side blade . (Spares Only).	
14	1770069DS	Front blade serrated (Spares Only).	
#	004.438	Hose 3/8 STx91x1210	4
#	3758.2	Top Plate	2
#	3758.3	Clamp	4
#	3999	Tee	2
15	1910057	Ram Multi Grab	2
16	3082	Stiffnut	4
17	2950	Setscrew	4
18	1910028	Blade Side	2
20	191.054	Top	1
21	177.070	Base Section For CG-25	1
#	6942	Tee	2
#	5351.1	Top Plate	2
#	5351.2	Clamp (JAW ONLY)	4
PARTS FOR BOTH MACHINES.			
#	1770027	Transfer "...Blades..."	1
#	1770072	Transfer "...Lift Bkts."	1
#	3041	Tie Universal	4
#	410184	Transfer "<<<<<<<<>>>>>>"	1
#	410186	Transfer "twose"(Sm. Blk)	2
#	410201	Transfer "Grease Gun"	2
#	3183	Bolt	2
#	6900	Serial No. Plate	1
#	0460	Screw	4

# - Denotes not drawn.

# TWOSE



PARTS CUTTER GRAB AND MULTI GRAB 30.

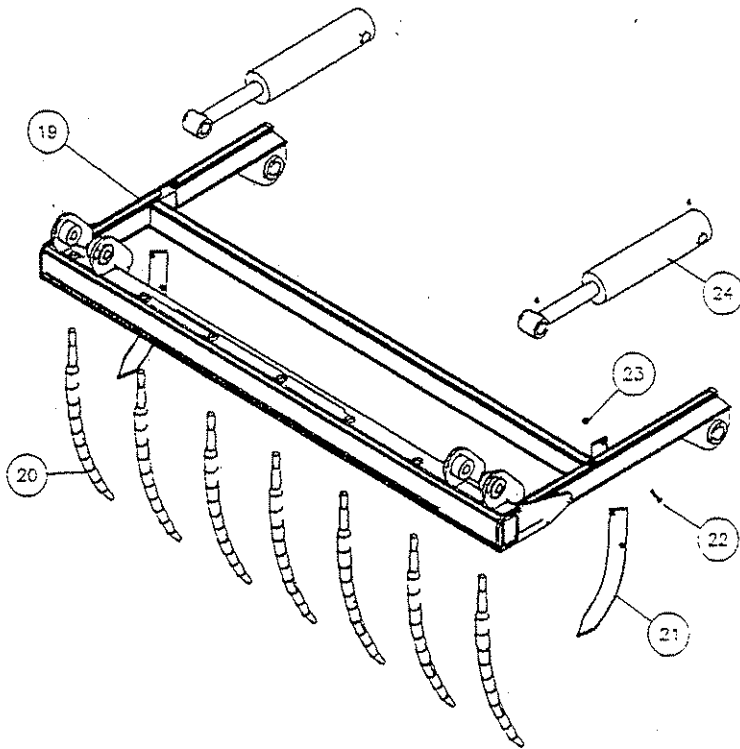
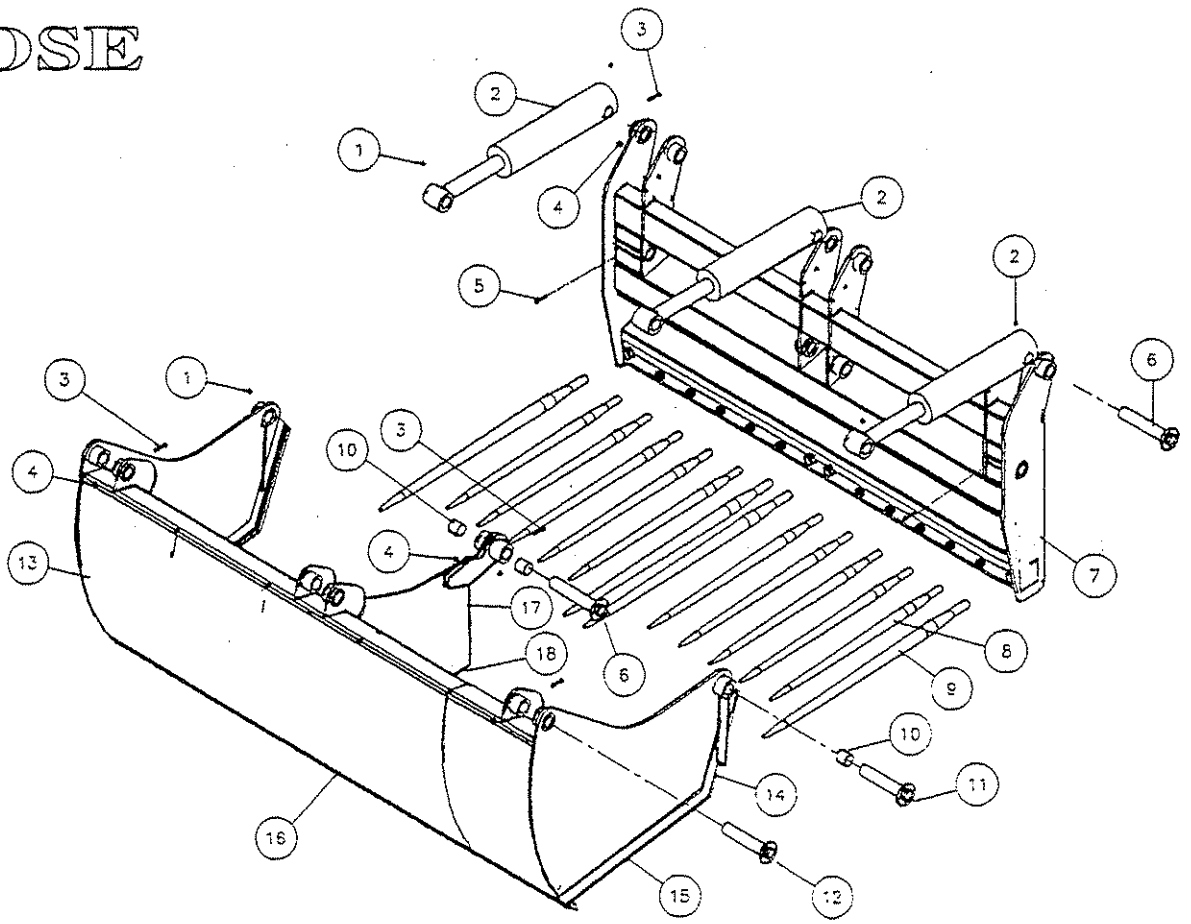
	Component Item	Description	Qty Per
1	177.063	Base Section Large	1
2	2994	Bolt	9
3	4421	Stiffnut	9
4	177.012	Pin Assy Main Pivot	2
5	177.010	Pin Assy Ram anchor	4
6	1770035	Ram Cutter Grab New Type	3
	T7480	Seal Kit for Ram 1770035 (07/11/97 onwards)	
7	2923	G/Nipple	9
8	177.011	Pin Assy Ram Rod	3
9	177.062S	Top Section Large Serrated	1
10	6257N	Nylon bush	4
11	6911	Tine Straight 24-11-60 (c/w Nut T6911.1)	4
12	6910	Tine Straight 22-11-89 (c/w Nut T6910.1)	10
13	1770031 OR 2	Side blade rear. (Spares Only).	
13.1	1770041B	Centre blade rear (Spares Only)	
14	1770068L/R	Side blade . (Spares Only).	
14.1	1770041A	Centre blade Btm (Spares Only).	
15	1770069AS	Front blade serrated (Spares Only).	
#	0914	Adaptor	2
#	0665	Adaptor	6
#	0670	Bonded Seal	8
#	004.178	Hose 3/8 STx91x 700	1
#	004.236	Hose 3/8 STx91x1520	1
#	004.237	Hose 3/8 STx91x 470	1
#	004.238	Hose 3/8 STx91x 630 @ 100	1
#	004.239	Hose 3/8 STx91x1110	1
#	004.240	Hose 3/8 STx91x1080	1
16	191.050	Base Section For CG-30	1
17	1910057	Ram Multi Grab	2
18.	3082	Stiffnut	4
19	2950	Setscrew	4
20	1910028	Blade Side	2
21	7994	Tine Curved 22-11-94	9
22	191.056	Top	1
#	5351.1	Top Plate	2
#	5351.2	Clamp (JAW ONLY)	4
#	3183	Bolt	4

PARTS FOR BOTH MACHINES.

#		Serial No. Plate	1
#	0460	Screw	4
#	1770027	Transfer "...Blades..."	1
#	1770072	Transfer "...Lift Bkts."	1
#	3041	Tie Universal	5
#	410184	Transfer "<<<<<<<<>>>>>>>>"	1
#	410186	Transfer "rwose"(Sm. Blk)	2
#	410201	Transfer "Grease Gun"	3

# - Denotes not drawn.

# TWOSE

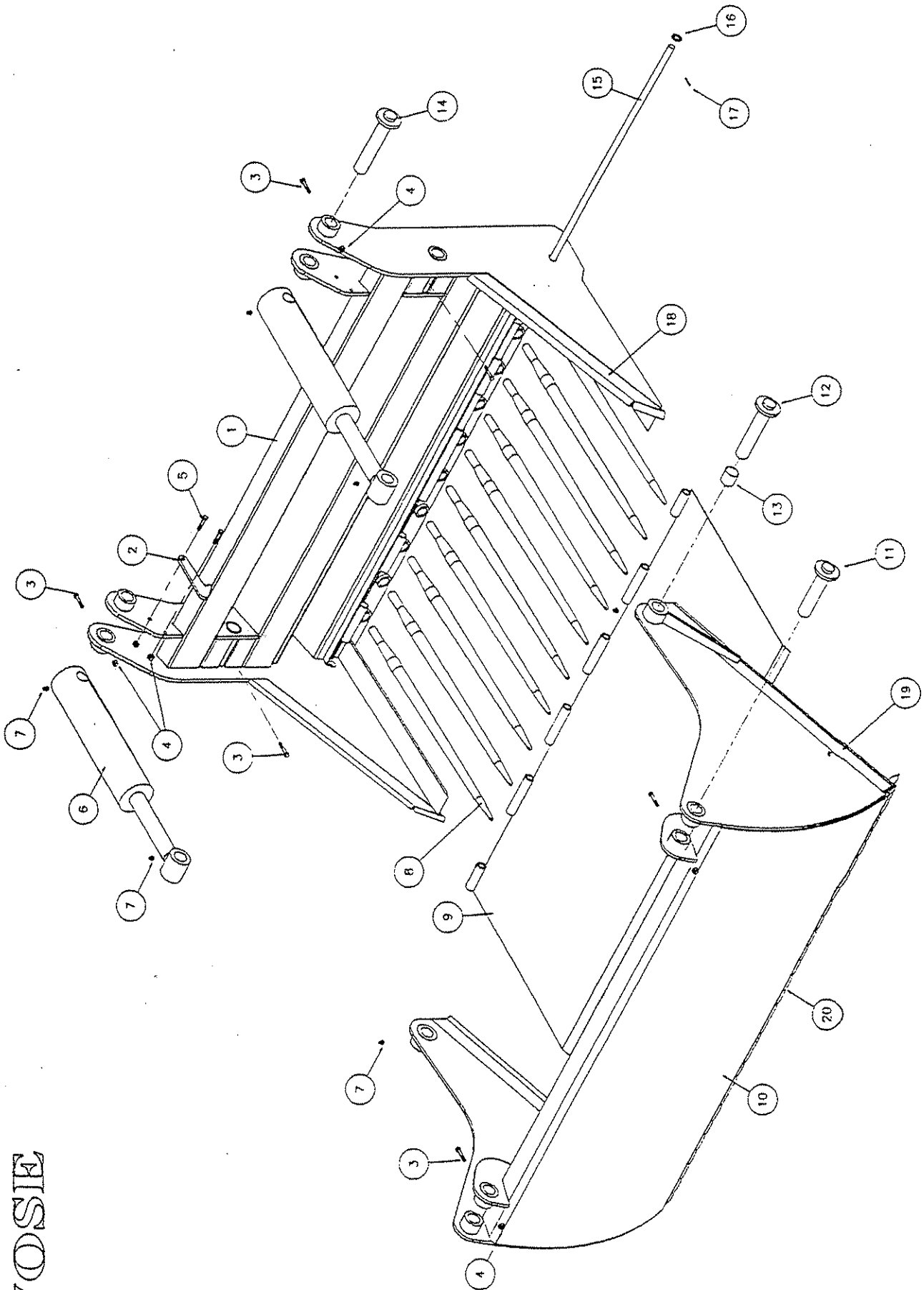






TWOSIE

7993-10-99



PARTS CUTTER GRAB BUCKET 20 & 25.

	Component Item	Description	Qty Per
1	191.059	Base Section CGB20	1
2	191.041P	Catch.	1
3	2994	Bolt	6
4	4421	Stiffnut	8
5	2698	Bolt	2
6	1910042	Ram Cutter Grab	2
7	2923	G/Nipple	6
8	6910	Tine Straight 22-11-89 (c/w Nut T6910.1)	8
9	191.061	Tray WA CGB 20	1
10	191.060	Top WA CGB20	1
11	177.011	Pin Assy Ram Rod	2
12	177.012	Pin Assy Main Pivot	2
13	6257N	Nylon bush	2
14	177.010	Pin Assy Ram anchor	2
15	191.062	PIN Tray pivot cgb 20	1
16	3062	Washer	2
17	6351	Spring Pin	2
18	1910037A/B	Side blade Base section. (Spares Only).	
19	1910039A/B	Side blade Top section : (Spares Only).	
20	1770069BS	Front blade serrated (Spares Only).	
#	004.179	Hose	4
#	0460	Screw	4
#	1770027	Transfer "...Blades..."	1
#	3041	Tie Universal	4
#	3183	Bolt	2
#	3758.2	Top Plate	2
#	3758.3	Clamp	4
#	3999	Tee	2
#	410184	Transfer "<<<<<<<<>>>>>>>>"	1
#	410186	Transfer "twose"(Sm. Blk)	2
#	6900	Serial No. Plate	1
#	7865.11	Transfer "Gross Weight"	1

PARTS FOR CGB - 25.

	Component Item	Description	Qty Per
1	191.035	Base Section CGB25	1
2	191.041P	Catch.	1
8	6910	Tine Straight 22-11-89 (c/w Nut T6910.1)	10
9	191.040	Tray WA CGB 25	1
10	191.038	Top WA CGB25	1
15	191.043	Pivot Bar	1
20	1770069DS	Front blade serrated (Spares Only).	
#	004.438	Hose 3/8 STx91x1210	4

# - Denotes not drawn.