Stancen

Rapide Tanker Mk3A
Sugar Beet Harvester
Including Skew Bar and
Rapide Turbo Models

Parts Catalogue

Standen Engineering Limited Hereward Works Station Road, Ely CB7 4BP Cambridgeshire, England

Telephone: Ely 61111 Cables: Hereward, Ely

Telex: 81486

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RAPIDE TANKER Mk3A SPECIFICATION

| Length |
|-----------------------------------|
| Width (Transport)8ft 2ins (2.49m) |
| (Work)11ft 8ins (3.56m) |
| Height |
| Weight (Unladen) |
| Row Widths |
| Tank Capacity |
| Tyre Size |
| Tyre Pressure40lbs/sq in |

TOPS SAVER

| Length |
|----------------------------------|
| Width (Transport)9ft 2ins (2.8m) |
| (Work)12ft 8ins (3.86m) |
| Height10ft 7ins (3.23m) |
| Weight (Unladen) |

SKEW-BAR SPECIFICATION

| Length | 17ft 6in (5.34m) |
|-------------------|-------------------------|
| Width (Transport) | 8ft 2ins (2.49m) |
| (Work) | 11ft 8ins (3.56m) |
| Height | 10ft 7ins (3.23m) |
| Weight | 1.78 tons (1.81 tonnes) |
| Row Widths | |
| Tank Capacity | 1.72 tons (1.75 tonnes) |
| Tyre Size | 11.00 x 16 (ribbed) |
| Tyre Pressure | 40 lbs/sg in |

RAPIDE TURBO

Standens policy of continual improvements means that the specification may be altered without prior notice. Dimensions are approximate.

INTRODUCTION

This manual is divided into two sections, the first being the instruction manual and the second being the illustrated spare parts list.

As this manual covers the three models of the Rapide Tanker Mk3A, both section have been divided into three separate sub-sections, these being

RAPIDE TANKER Mk3A RAPIDE TANKER Mk3A SKEW BAR RAPIDE TURBO

The first sub-section (Rapide Tanker Mk3A) deals with the complete basic machine, describing the adjustments and maintenance of all the functions of that machine. The later two models (Skew Bar and Rapide Turbo) are based on the Rapide Tanker Mk3A. therefore a large majority of the functions are the same therefore there respective sub-sections only covers the additional functions and should always be read in conjunction with the basic machine information.

Before putting the machine to work, read the manual through carefully to obtain a full understanding of what the machine should do and how to obtain it.

Adjustments may have to be made singly or in combination according to crop and soil conditions. Allow the machine to settle to a new setting before making more adjustments.

Throughout this manual the terms 'Front', 'Rear', 'Left Hand' (LH) and 'Right Hand' (RH) are derived from the tractor drives positon facing forward and the normal forward direction of travel of the Tanker Mk3A.

The second section of this manual provides an illustrated list of spare parts available through Standen agents. Each illustration shows a complete unit or assembly in exploded form and includes not only items for holding the assembly together, but also the items for fixing the unit onto the harvester.

Since guards may overlap two or more assemblies guards are grouped together in a separate section, although optional items are an exception and include their own guards.

Standens policy of continual improvements means that components and even complete assemblies are re-designed from time to time. Where possible the modifications will be shown in the parts list remarks column.

The first printing of each page in the catalogue is identified as Issue 1 at the foot of the page. When a complete unit or assembly has been redesigned the appropriate pages are revised and re-issued as Issue 2, for filing alongside existing pages so that a complete modification history is gradually built up. When using an illustration and parts list it is essential that both are of the same issue.

| Date Purchased | |
|---|---|
| Date Started Work | |
| Serial Number | |
| Agents Name | |
| Agents Address | |
| *************************************** | |
| | |
| Agents Telephone Number | • |

SECTION 1

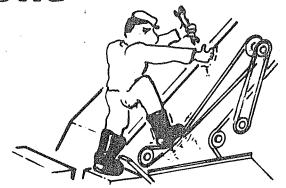
INSTRUCTION MANUAL

ė.

Safety Precautions

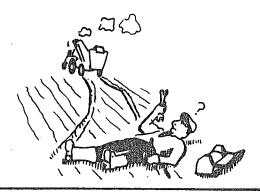
NEVER

Operate the machine with any of the safety guards removed, remember they are fitted for two reasons — to keep dirt out, and more important to protect you and others from the various working parts. So, make sure they are always kept in good condition and they are fitted correctly when the machine is in work.



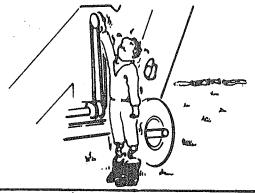
NEVER

Attempt to adjust or clean any part of the machine with the tractor power take-off in motion and always stop the tractor engine.



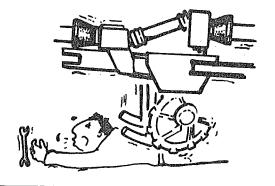
NEVER

Fit drive chains or drive belts while the drive sprockets or drive pulleys are in motion.



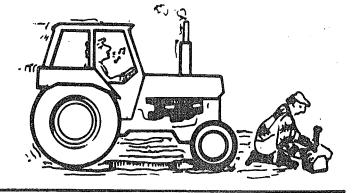
NEVER

Work under the machine when it is in a raised position on the tractor hydraulic lift linkage.



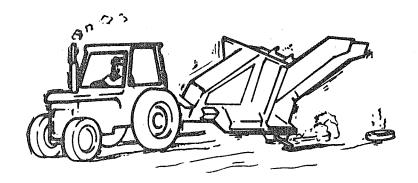
NEVER

Set the machinery in motion before ensuring that every one in the vicinity is aware of your intention.



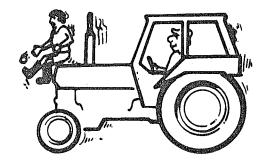
NEVER

Operate the machine in a state of disrepair.



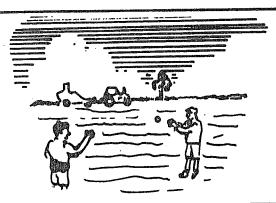
NEVER

Allow any one *especially children* to ride on the machine.



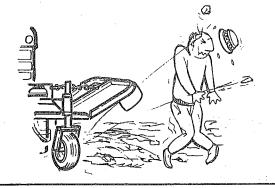
NEVER

Allow children to be in the vicinity where machines are working.



NEVER

Stand near the discharge end of the topper while machine is running.



The above list of precautions is not exhaustive. All machinery is potentially dangerous and great care must be exercised by the operator(s) at all times.

Standen Engineering Limited will not accept liability for damage or injury caused by their products except when such liability is specifically imposed by English Statute.

INSTALLATION

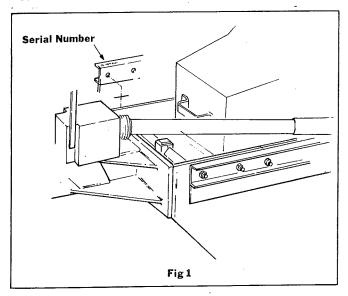
The Standen Rapide Tanker Mk3A is a single row sugar beet harvester designed to top, lift and carry beet, although the discharge elevator can be operated by the tractor driver to empty the tank into a trailer running beside the harvester whilst topping and lifting is in progress. The power requirement is at least a 50 HP tractor fitted with a 540 RPM PTO and three point linkage plus one single acting spool valve. The basic harvester incorporates a trash extractor and utilises lifting wheels for light to average soils and optional shares available for heavy conditions.

Check that the nuts and bolts and sprocket keys are tight, also the grub screws in the bearings, especially before starting off a new machine and during the first day or two of work.

Do not raise the machine to its fullest height with the PTO engaged as serious damage could result to the PTO drive shaft.

Do not reverse or turn unless the machine is in the raised position. Pay particular attention to the lubrication and maintenance of the machine.

Pay particular attention to the safety prescautions, they are written as a warning to protect you and others.



TRACTOR LIFT LINKAGE SETTING

The draw bar, supplied with the harvester, has been made to fit category two and should be fitted between the two lower lift arms on the tractor and secured with a linch pin. The levelling lever, between the top lift arm and the lower lift arm, should be fitted in the fixed position. Fit the stabilizer bar and adjust so the harvester is central to the centre of the tractor. The tractor top link is not required.

TRACTOR WHEEL SETTING

Both front and rear tractor wheels must be set to straddle the rows of beet. For example, if the crop is grown at 20" (50.80cms) the distance measured between the tractor tyre centres must be 60" (152.40cms) this will then ensure that the wheels run in a centre line between the rows of beet. The instructions for adjusting the tractor wheels are given in the tractor manufacturers' handbook.

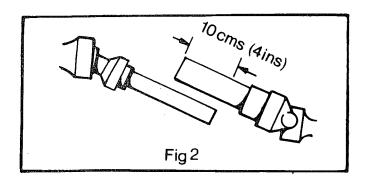
SAFETY FIRST



When carrying out wheel adjustments take care to place the jack on firm ground under a solid part of the tractor. Before removing the wheel place stout support under the tractor frame in case the jack should become dislodged.

PTO COUPLING TO TRACTOR AND HARVESTER

The PTO coupling supplied with the harvester may require cutting to a correct length to suit individual tractors. To do this the coupling should be parted and the two ends fitted to the tractor and harvester respectively. The male and female square can then be measured alongside each other and adjustments made by cutting the surplus bar from both male and female squares. At least 4" (10cms) overlap should be allowed see Fig. 2. After the correct length of the coupling has been obtained the PTO coupling guard should then be cut to correspond with the coupling. Also ensure that the rubber hood to protect the knuckles of the PTO coupling is in place. Finally before engaging the PTO secure the guard by fixing the chain to a convenient place on the harvester.



HARVESTER REAR WHEEL SETTINGS

The RH rear wheel of the harvester should be midway between two adjacent rows of beet and in line with the RH rear tractor wheel. The LH wheel of the harvester should be similarly positioned between rows when opening out a field and should then be repositioned to run in the furrow made when lifting a row earlier.

To reposition the LH wheels along the axle, slacken the clamps either side of the wheel and slide the wheel across. Push the clamps up against each side of the wheel and re-secure.

To reposition the RH wheel, slacken the clamp bolt in the wheel hub and slide the wheel along the axle to the required position and re-secure. If it is found necessary the axle itself can be repositioned by slackening the grub screws in the axle bearings and releasing the two clamps adjacent to the bearings. Remember to realign the topping unit drive sprocket on the repositioned axle.

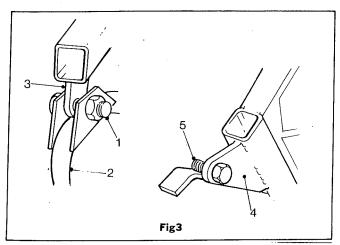
UNFOLDING THE DISCHARGE ELEVATOR FOR WORK

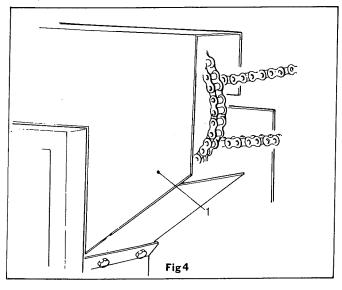
There are two positions for the discharge elevator, the working position and the transport position.

To change the discharge elevator from the transport position to the working position, first remove the retaining bolt (Item 1 fig. 3) securing the elevator to the hand rail (Item 2 fig. 3) and swing the discharge elevator backwards through 180° until the bracket (Item 3 fig.3) on the elevator aligns with the bracket (Item 4 fig.3) on the rear tank side. Secure the elevator to the tank side with the nut and bolt supplied. Join the two webs inside the elevator and using the roller chain supplied chain up the elevator ensuring that the drive and return side of the roller chain is running on top of the wooden runners. The drive chain guard (Item 1 fig 4) is hinged for easy access to the drive chain. Always replace the guard after fitting the chain.

FOLDING THE DISCHARGE ELEVATOR FOR TRANSPORT

To change the discharge elevator from work position to the transport position, lift the drive guard (Item 1 fig.4) and remove the drive chain and secure it to the harvester in a convenient position for future use. Break the web in a convenient place and roll it back and tie it to the harvester. Remove the securing bolt (Item 5 fig.3) and swing the elevator forward through 180° until the bracket (Item 3 fig.3) locates between the two plates on the hand rail (Item 2 fig.3) and secure the elevator with the nut and bolt supplied, the machine is now ready for transport.



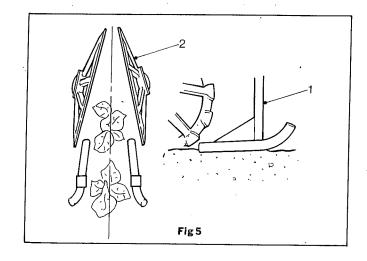


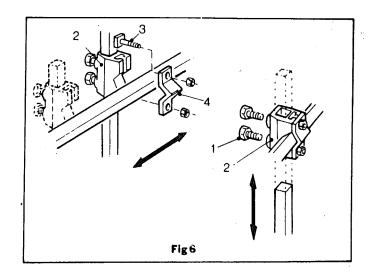
GUIDE SKIDS

The purpose of the guide skids (Item 1 fig.5) is to follow the row of beet in front of the lifting wheels (Item 2 fig.5) keeping the harvester in a straight line, irrespective of the contours of the ground. To set the guide skids (Item 1 fig.5) drive the harvester down the row of beet for a considerable distance until the required depth of the lifting wheels, (Item 2 fig.5) to lift the beet efficiently has been obtained by setting the tractor depth control. Stop the harvester and switch the engine off the tractor. Do not alter the tractor depth control setting. Adjust the guide skids (Item 1 fig.5) to sit on the ground without taking the weight of the harvester. The heels of the guide skids (Item 1 fig.5) should be in line with the inside front edge of the lifting wheels (Item 2 fig.5) and directed downwards with the leading curve directed upwards.

To adjust the guide skids (Item 1 fig.5) to or from the ground, loosen the two adjusting studs (Item 1 fig.6) in the guide skid bracket (Item 2 fig.6) allowing the guide skid (Item 1 fig.5) to be raised or lowered as required.

To adjust the width of the guide skids (Item 1 fig.5) loosen the clamp bolts (Item 3 fig.6) in the guide skid brackets (Item 2 fig.6) and the cap (Item 4 fig.6). Slide the brackets and caps (Item 2-4 fig.6) horizontally along the guide skid bar, to the required position which is determined by the width of the rows of beet.





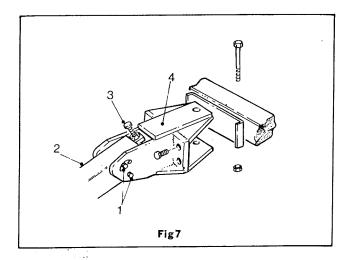
LIFTING WHEELS

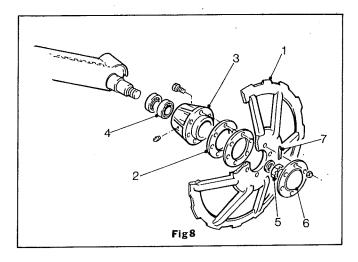
The lifting wheels (Item 1 fig. 8) are designed to lift the beet from the ground and transfer them to the main elevator. The working depth of the lifting wheels is determined by the setting of the tractor depth control which is set according to the depth required to lift the beet from the ground without breaking off the root or lifting too much soil.

Further depth control can be effected by the setting of the angle of the lifting wheels (Item 1 fig.8). The adjustment is made by loosening the nuts and bolts (Item 1 fig.7) holding the lifting wheel mounting bracket (Item 2 fig. 7) which is fitted with slotted holes in either side to allow the lifting wheel mounting (Item 2 fig. 7) to be adjusted both up and down. At the top of the lifting wheel mounting bracket (Item 2 fig.7) is fitted an adjusting screw (Item 3 fig.7) which is provided to pust down onto the lifting wheel mounting (Item 4 fig.7). The adjustment described allows the lifting wheels (Item 1 fig.8) to be raised or lowered irrespective of the harvester, it will also alter the point of the lifting of the beet in relation to the width of the lifting wheels (Item 1 fig.8). The working depth of the lifting wheels (Item 1 fig.8) should be at least 2 ins (51mm).

The width of the wheels at the narrowest point is from $1\frac{1}{2}$ inches (38mm) to $1\frac{3}{4}$ (45mm) and they can be adjusted by removing or adding spacers (Item 2 fig.8) between the lifting wheels (Item 1 fig.8) and the lifting wheel hubs (Item 3 fig.8).

The lifting wheel spindles are fitted with tapered roller bearings (Item 4 fig.8) and are adjusted by a castle nut (Item 5 fig.8) after first removing the hub cap (Item 6 fig.8). Care should be taken not to overtighten the bearings (Item 4 fig.8). Adjust by turning the castle nut (Item 5 fig.8) as tight as possible while slowly rotating the lifting wheel hub (Item 3 fig.8) then slacken off one or two castleration of the nut (Item 5 fig.8) secure with a new split pin, (Item 7 fig.8).

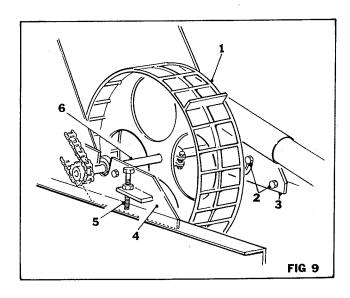




CAGE WHEEL

The cage wheel (Item 1 fig 9) is fitted between the lifting wheels (Item 1 fig 8), to transfer the beet into the main elevator. Provision is made to raise or lower the cage wheel (Item 1 fig 9) which should generally be set higher when the beet are large and lower when the beet are small.

To adjust, loosen the nuts and bolts (Item 2 fig 9) in the support brackets RH & LH (Item 3 & 4, fig 9). Turn the adjusting screws (Item 5 fig 9) until the cage wheels (Item 1 fig 9) are in the required position. It is important when carrying out the above adjustment that the final position of the cage wheel drive shaft (Item 6 fig 9) is in a direct horizontal line across the machine. Failure to do so will result in a broken cage wheel drive shaft (Item 6 fig 9). Retighten all adjusting nuts and bolts.



TOPPING UNIT

The purpose of the topping unit is to crown the beet cleanly and squarely by the use of a feeler which runs on top of the beet, holding it steady while the knife crowns it.

RAISING AND LOWERING THE TOPPING UNIT

Before transporting the harvester the topping unit will need to be lifted. To lift the topping unit, transfer the quick release pin (Item 1 fig. 10) to one of the holes in the tension rod (Item 2 fig. 10) above the bracket (Item 3 fig. 10). This will allow the tension spring (Item 4 fig. 10) to drop and will also hold the topping unit up.

To lower the topping unit into the working position, release the quick release pin (Item 1 fig.10) from the upper position and replace it in a lower hole in the tension rod (Item 2 fig.10) simultaneously compressing the tension spring (Item 4 fig.10) upwards as shown in fig.10. The bigger the tops, the more compression the tension spring (Item 4 fig.10) will require.

SETTING THE TOPPING UNIT FOR DIFFERENT ROW WIDTHS

Because the topping unit is topping the beet one row ahead of lifting them, consequently the topping unit will need to be adjusted for different row widths.

To adjust the topping unit slacken the clamp (Item 6 fig.10) and the retaining collar (Item 5 fig.10) and slide the topping unit along the support bar (Item 7 fig.10). The feeler wheel should be central over the row of beet. Push the retaining collar (Item 5 fig.10) and the clamp (Item 6 fig.10) back up against the topping unit and retighten. Re-align the tension rod (Item 2 fig.10) vertically by moving the top bracket (Item 3 fig.10) along the support bar (Item 8 fig.10) and re-secure.

TOPPING KNIFE SETTING

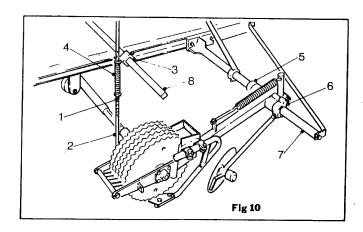
The feeler wheel should ride onto the crowns of the beet before the knife starts to cut. As a pre-setting before starting off set the knife so that the rear setscrew (Item 1 fig.11) holding the knife to the knife arm (Item 2 fig.11) is approximately in line with the centre of the feeler wheel (Item 3 fig.11). The knife (Item 4 fig.11) should be forward for small beet and back for large beet. To adjust the knife slacken the spring tension arm (Item 5 fig. 11) and the front collar (Item 6 fig.11) and slide the knife arm (Item 2 fig.11) through the knife arm bracket (Item 7 fig.11). Push the spring tension arm (Item 5 fig.11) and the front collar (Item 6 fig.11) back up against the knife arm bracket (Item 7 fig.11) and tighten. Note that the clamp screws (Item 8 fig.11) should remain slack enough to allow the knife arm (Item 2 fig. 11) to pivot in the clamp (Item 7 fig.11)

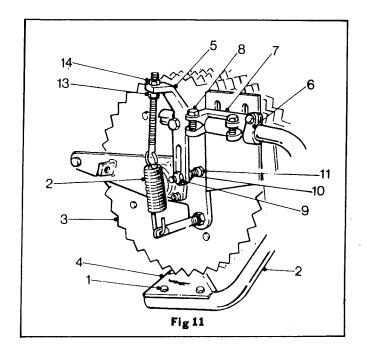
Once the above adjustment has been made, ensure that the knife is parallel with the feeler wheel when viewed from the front or rear of the harvester. To adjust, slacken the lock nut (Item 9 fig.11) and hold the setscrew (Item 11 fig.11) while turning the adjusting nut (Item 10 fig.11) in or out as required. Lock the setscrew (Item 10 fig.11) in position by using the lock nut (Item 9 fig.11).

The amount of crown removed is determined by the distance between the knife (Item 4 fig.11) and the feeler wheel (Item 3 fig.11). To adjust, slacken the two setscrews in the slots behind the knife arm

bracket (Item 7 fig. 11) and move the knife arm bracket (Item 7 fig. 11), the knife arm (Item 2 fig. 11) and the knife (Item 4 fig. 11) up or down as required. Ensure that the knife is parallel to the feeler wheel when viewed from the side, before tightening both the setscrews in their slots.

Stones passing between the knife (Item 4 fig.1.1) and the feeler wheel (Item 3 fig.1.1) push the knife arm (Item 2 fig.1.1) out against the tension of the spring (Item 12 fig.1.1) until the obstruction has cleared, then the spring pulls the knife back into position. To tension the spring, slacken the lock nut (Item 13 fig.1.1) and turn the adjusting nut (Item 14 fig.1.1) to obtain the required tension. Finally tighten the lock nut (Item 13 fig.1.1).



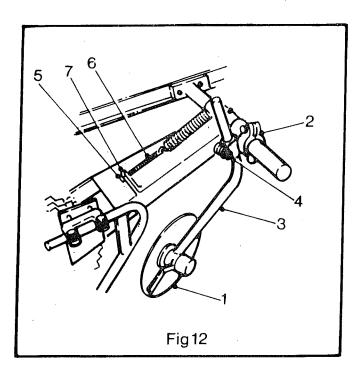


DISC COULTER

The concave disc coulter, located in front of the topping unit, prevents the clogging of the topping knife by cutting away weeds and broken leaves.

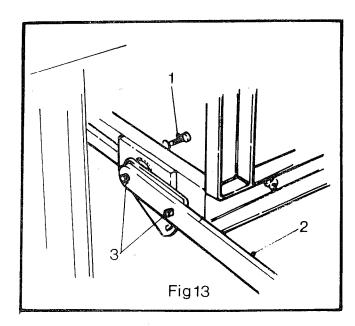
Under normal conditions, the disc (Item 1 fig 12) should be set to cut about 1½ inches (38mm) below ground level. To adjust, slacken the clamp (Item 2 fig.12) and swing the disc arm (Item 3 fig.12) and tighten the clamp. The disc (Item 1 fig.12) should align with the knife arm so that the knife arm runs into the furrow left by the disc (Item 1 fig.12). To adjust slacken the clamp (Item 4 fig.12) and align the disc with the knife arm, finally re-tighten the clamp.

There should be enough spring tension on the disc arm (Item 3 fig.12) to make the disc cut into the soil, but the arm must be able to lift up when the disc rides over obstructions. To vary the spring tension, turn the nuts (Item 5 fig.12) along the threaded adjusting rod (Item 6 fig.12) remembering to finally tighten the nuts either side of the post (Item 7 fig.12).



TOPS FLAIL

The purpose of the tops flail is to clear the crowns and tops away from the beet after they have been topped. The centre of the flail should be in line with the centre of the feeler wheel after the feeler wheel has been set for the required row width. To do this slacken the two setscrews (Item 1 fig.13) and slide the flail assembly (Item 2 fig.13) across to the required position and re-tighten the two setscrews. Under normal conditions the height of the flails should be set so that they just flick the loose earth around the beet. Setting the tips of the flails about 1 inch (25mm) above ground level when stationary on a hard standing will usually be found satisfactory. If the beet crowns are high, the flails may knock the beet out of the ground, therefore the flails would need raising, to do this slacken the two setscrews (Item 3 fig. 13) and adjust the height of the flails and tighten the setscrews.

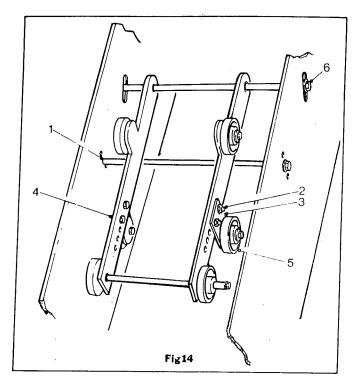


MAIN ELEVATOR AND TOP TRACK

The purpose of the main elevator is to transfer the beet from the lifting wheels to the trash extractor. While the beet are travelling up the elevator they are being cleaned by means of them passing between two webs, the main web and the top track web.

If more cleaning is required, the gap between the two webs should be made larger, this will then allow less grip on the beet and will allow them to roll around thus removing the soil. The adjustment can be to either or both of the webs. To adjust the main web, move the six carrying rollers (three bolted to the LH elevator side and three to the RH elevator side) into the upper or lower holes as required. To adjust the top track web raise or lower the top track drive shaft which may result in changing the length of the drive chains and raise or lower the top track tie bar (Item 1 fig.14). The tie bar should not be moved into the two upper holes when lifting small beet as this would allow the beet to roll forward down the main web and into the lifting wheels, resulting in beet losses and blocked lifting wheels. Adjustment is provided to allow large beet up the main elevator. To adjust, remove the two securing bolts (Item 2 fig. 14) holding the adjusting plate (Item 3 fig.14) to the top track frame (Item 4 fig.14) backwards up the elevator and re-secure in the upper holes as required.

The top track web must never be allowed to become slack. To adjust loosen the two top track frame securing bolts (Item 6 fig.14) and slide the frame forward, to obtain more adjustment, remove. a web link.



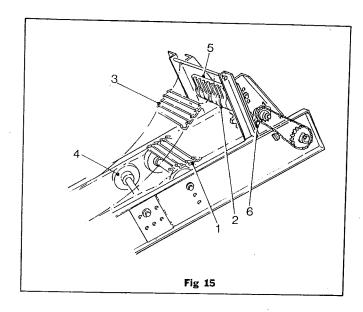
TRASH EXTRACTOR

The trash extractor consists of a set of rubber star wheels, a web (Item 1 fig 15) a rubber trash roller (Item 2 fig 15) and a cleaning apron (Item 3 fig 15). The beet are transferred from the main elevator to the trash extractor web by the rubber star wheels, once on the trash extractor, the cleaning apron, which is suspended over the top of the trash extractor, restricts the flow of the beet, simultaneously rubbing against the beet to give a cleaning action. From the trash extractor the beet roll off into the tank, while the leaves and trash carry on under the rubber trash 'roller (Item 2 fig 15) to be thrown over the rear of the harvester.

Adjustment is provided to the rubber trash roller (Item 2 fig 15) to accommodate varying soil conditions. To adjust slacken the two retaining bolts holding the scraper (Item 5 fig 15) in position and swing the scraper away from the roller. Remove the drive chain and slacken the four securing bolts (Item 6 fig 15) and slide the roller to the required position, ensure the roller is parallel with the web before resecuring the roller. Once the roller has been adjusted the scraper can then be repositioned. After the adjustment has been completed it may be found necessary to add or delete a number of links in the drive chain.

The trash extractor can be adjusted to allow more cleaning of beet. To adjust, move the rubber star wheels away from the main web, which increases the gap between the two, allowing the dirt and trash to fall through and down the dirt chute. When carrying out this adjustment the trash extractor front roller (Item 4 fig.15) must also be moved back up or the star wheels will foul the web. The required number of web links will have to be removed in order to give the web the correct tension.

Cleaning can also be done with the trash extractor cleaning apron (Item 3 fig.15) by adding weights or moving the existing weights in the best position to restrict the flow of the beet



DISCHARGE ELEVATOR

The discharge elevator has two webs for emptying the tank and twenty four lats to help to convey the beet to the trailer. There are twelve lats on each web. The lats must be fitted adverse to each other, across the two webs. Care must be taken to ensure that the same number of links are fitted to each web. Adjustment of the webs is made by removing or adding the web links.

DRIVES

The various mechanical drives that are involved in the operation of the Standen Rapide Mk3A Tanker beet harvester consists of clutches, chains, sprockets, pulleys and belts. Each drive chain or belt has its own tension adjustment, either manual or self-adjusting. The chains and belts should be correctly tensioned to ensure the efficient working of the machine. It is important that the drive chains and belts are not over tightened as this will cause excessive chain and sprocket wear.

CAUTION

ALL REVOLVING DRIVE MACHINERY CHAINS, SHAFT AND SPROCKETS ETC. ARE POTENTIALLY DANGEROUS. THEREFORE BEFORE ATTEMPTING ANY ADJUSTMENT OR MAINTENANCE OF THE DRIVE EQUIPMENT, SWITCH OFF THE ENGINE OF THE TOW VEHICLE, DISCONNECT THE POWER TAKE-OFF SHAFT AND SET THE HANDBRAKE. FAILURE TO OBSERVE THE ABOVE CAUTION COULD RESULT IN SERIOUS INJURY TO PERSONNEL.

MAIN DRIVES

The main drive from the power take off of the tow vehicle is connected to a bearing housing situated at the front of the drawbar by means of a universal coupling mounted on the bearing housing shaft. From this bearing housing, the drives are transferred into a gearbox (Item 1 fig 16) via two universal couplings and a bearing housing. From this gearbox various drives are taken to operate various functions of the harvester.

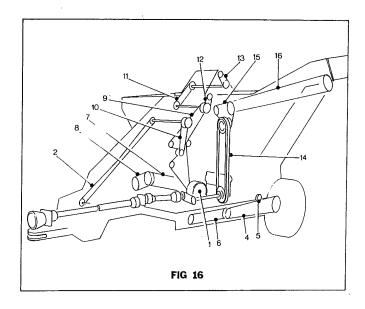
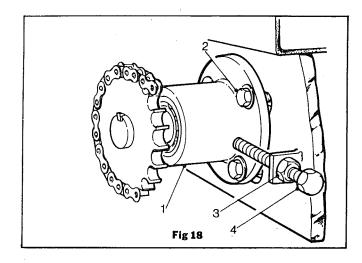


fig.16) down onto the chain and re-secure. To adjust the front drive chain (Item 6 fig.16) slacken the bearing housing (Item 1 fig.18) securing bolts (Item 2 fig.18) and slacken the lock nut (Item 3 fig.18). Turn the adjuster screw (Item 4 fig.18) clockwise until the required tension is obtained and tighten the four securing bolts (Item 2 fig.18) and the lock nut (Item 3 fig.18)



TOPS FLAIL DRIVE

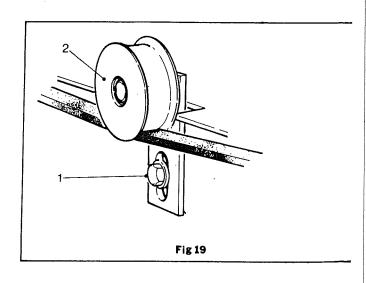
The tops flail is driven by two vee belts and various pulleys. Besides providing a drive, vee belts also act as a slip clutch; it is therefore important that the belt tension is sufficient to drive normally without slip, but not so great that the belt connot slip when the drive is obstructed. To tension the first drive belt (Item 7 fig.16) slacken the retaining bolt (Item 1 fig.19) and push the jockey pulley (Item 2 fig.19) down onto the belt and secure. To adjust the second drive belt (Item 8 fig.16) slacken the bearing housing securing bolts (Item 1 fig.20) and loosen the lock nut (Item-2 fig.20) and turn the adjusing screw (Item 3 fig.20) clockwise until the required tension is obtained. Finally tighten the four securing bolts (Item 1 fig.20) and the lock nut (Item 2 fig.20).

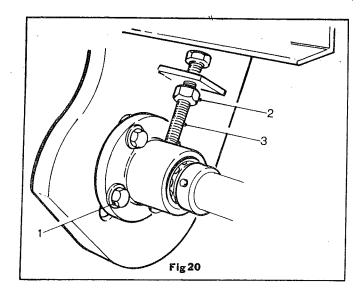
CAGE WHEEL DRIVES

The cage wheel drive chain (Item 2 fig 16) is tensioned by a self adjusting tensioner, therefore no adjustment is required.

TOPPING UNIT DRIVES

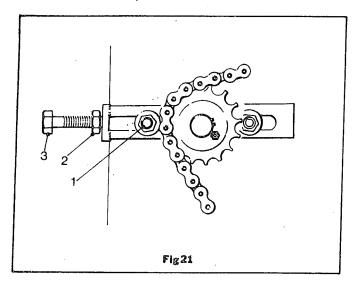
The topping unit drive is taken from the rear axle and is routed along underneath the left hand side of the harvester via chains and sprocket to a bearing housing (Item 1 fig.18). Fixed on the bearing housing shaft is a universal coupling, which takes the drive to the feeler wheel. The chain drive along the left hand side of the machine is a split drive. To adjust the rear chain (Item 4 fig.16) slacken the jockey sprocket (Item 5 fig.16) securing bolt and push the sprocket (Item 5





MAIN ELEVATOR DRIVE

The main elevator drive chain (Item 9 fig. 16) can be adjusted by slackening the two securing bolts (Item 1 fig.21) and the lock nut (Item 2 fig.21). Turn the adjusting screw (Item 3 fig.21) clockwise until the required tension is acheived. Finally tighten the two securing bolts (Item 1 fig.21) and the lock nut (Item 2 fig.21). The main elevator drive contains a friction clutch to protect the drives, for adjustment see Friction Clutch Adjustment.



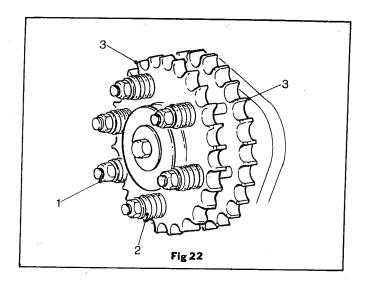
TOP TRACK DRIVE

The top track drive chain (Item 10 fig.16) is tensioned by a self adjusting tensioner, therefore no adjustment is required. The top track drive contains a friction clutch, for adjustment see Friction Clutch Adjustment.

FRICTION CLUTCH ADJUSTMENT

Friction Clutches are fitted in the drives to prevent overloading and serious damage if the elevators become jammed. The amount of torque required to start the clutch slipping can be varied by turning the nuts (Item 1 fig.22) clamping the clutch plate (Item 3 fig.22) together. The clutch should be set to just drive without slipping under normal conditions.

Overtightening on the adjustment nuts will render the clutch ineffective.



CARE SHOULD BE EXCERCISED TO ENSURE ALL SIX LOCK NUTS ARE ADJUSTED EQUALLY THIS IS EASILY ACHEIVED BY ADJUSTING EACH NUT ONE FLAT AT A TIME.

TRASH EXTRACTOR DRIVES

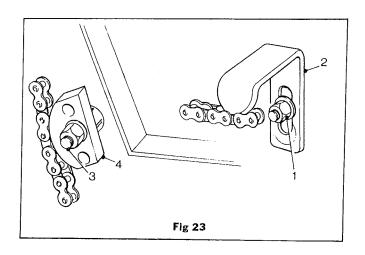
The trash extractor drive chain (Item 11 fig.16) is tensioned by a self adjusting tensioner, therefore no adjustment is required.

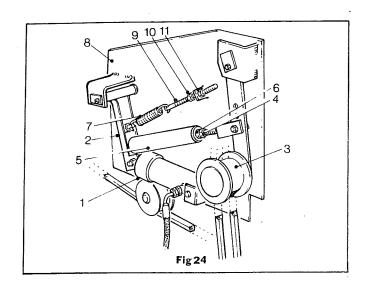
STAR WHEEL DRIVE

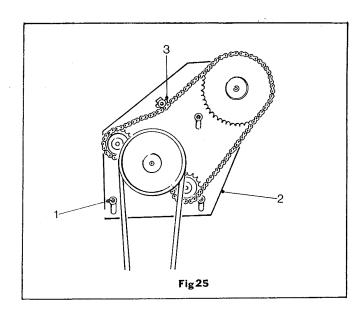
To adjust the star wheel drive chain (Item 12 fig.16) slacken the securing bolt (Item 1 fig.23) and push the tensioner (Item 2 fig.23) down onto the chain and retighten.

RUBBERED TRASH ROLLER DRIVE

The trash roller drive chain (Item 13 fig.23) can be adjusted by slackening the retaining bolt (Item 3 fig.23) and pushing the tensioner (Item 4 fig.23) onto the chain. Re-secure the tensioner (Item 4 fig.23) when the correct tension has been acheived.





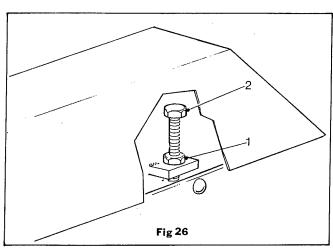


DISCHARGE ELEVATOR DRIVES

When the PTO is engaged, the machine runs continously except for the discharge elevator. The discharge elevator is set in motion by actuating the hydraulic rams (Item 1 fig.24). The hydraulic ram is coupled into the tractor external hydraulics. Once the ram has been actuated it pushs an arm (Item 2 fig. 24) which in turn pulls a pulley (Item 3 fig.24) onto the drive belt. Once the drive is engaged the pulley will act as a tensioner for the belt. To increase or decrease the tension, slacken off the lock nut (Item 4 fig. 24) at the end of the tension barrel (Item 5 fig. 24) and adjust by turning the adjusting nut (Item 6 fig.24) clockwise or anti-clockwise until the tension is correct. To ensure that the pulley (Item 3 fig.24) will retract when it is needed the tension arm is fitted with a spring (Item 7 fig.24), which is mounted to the anchor plate (Item 8 fig.24) via a tension screw (Item 9 fig.24). To tension the spring loosen the lower lock nut (Item 10 fig.24) and adjust by turning the adjusting nut (Item 11 fig.24) until the correct tension is acheived. Once the pulley (Item 3 fig.24) has been retracted and there is no more travel in the ram (Item 1 fig.24) then the discharge elevator should not continue to run. If the drive belt (Item 14 fig.16) requires adjusting loosen the four drive plate securing bolts (Item 1 fig.25) and loosen the lock nut (Item 1 fig.26) behind the drive plate (Item 2 fig.25). Turn the adjusting screw (Item 2 fig.26) clockwise or anti-clockwise according to the belt requirements. Once the adjustment has been made, re-secure the drive plate (Item 2 fig.25) and lock the adjusting screw (Item 2 fig. 26) with the lock nut (Item 1 fig. 26).

From the vee belt (Item 14 fig.16) the drive is transmitted to the main discharge elevator drive chain (Item 16 fig.16), by a intermediate drive chain (Item 15 fig.16). To adjust this chain for tension loosen the nylon tensioner (Item 3 fig.25) and push it onto the chain and finally re-tighten.

The main discharge elevator drive chain (item 16 fig.16) is tensioned by a self adjusting tensioner, therefore no adjustment is required.



SPLIT SPROCKETS

Most elevators are fitted with split sprockets. These sprockets have been designed to simplify the maintenance work required should a fault occur. Rather than dismantle a complete drive assembly the Sprocket can be individually split from the shaft as described below.

SPROCKET REMOVAL

- 1. Lossen the four fixing bolts and remove.
- 2. Using a hammer and cold chisel, split the sprocket along the groove provided.
- 3. Remove both halves of the sprocket from the shaft.

SPROCKET REPLACEMENT

- 1. Mark each half of the sprocket clearly before splittings.
- 2. Split the sprocket with a hammer and a cold chisel in the groove provided.
- 3. Locate both halves of the sprocket on the shaft and secure using the four fixing bolts provided.

MAINTENANCE

Regular maintenance will ensure that the Standen Rapide Tanker Mk3A provides a long and efficient service life. Depending on the soil and weather conditions the maintenance time schedule can vary. However, it is recommended that the machine be lubricated and gearbox oil levels checked once a week throughout the season.

LUBRICATION

Correct lubrication should be employed to ensure the full life of the various working parts and the efficient operation of the machine.

A general purpose grease should be used for the bearings and the universal coupling drives. The gearbox should be filled with SAE 90 oil to an inch below the filler plug. (Ref O on fig. 27).

NOTE: With reference to fig. 27 that some of the bearings are sealed and pre-lubricated (Ref GS) and care should be taken not to flood these bearings with grease or the seals will burst allowing the grease to escape and dirt to get in, should this happen more frequent greasing will be required in order to keep the dirt at bay. When lubricating sealed bearings, only two or three strokes of the grease gun every twenty acres of work are all that is required.

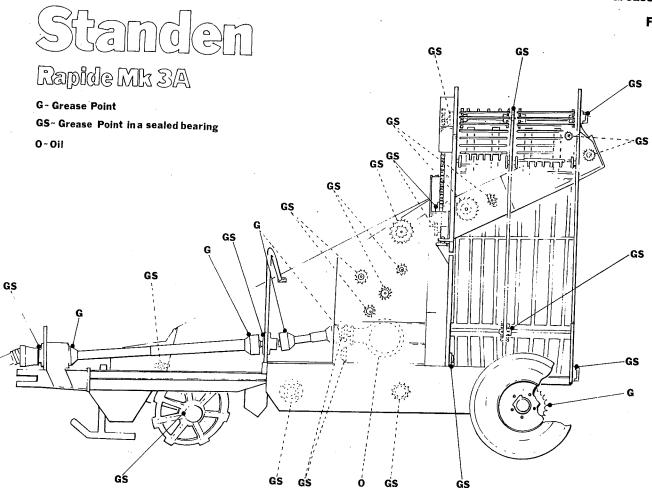
The non-sealed bearings (Ref G) should be greased at least once a day or every ten acres.

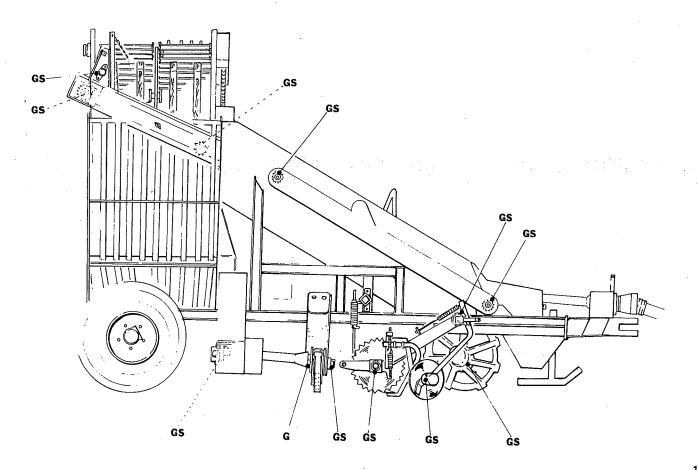
Particular care must be taken to ensure that grease or oil does not come into contact with the ferodo discs fitted to the clutches or the vee belts on some of the drives.

Grease points requiring individual quantities of lubrication will be found on the lubrication points chart fig. 27.

We recommend that the universal couplings should be dismantled periodically and their shafts smeared with general purpose grease, also all drive chains should be kept well greased.

Fig 27





OPTIONAL ITEMS

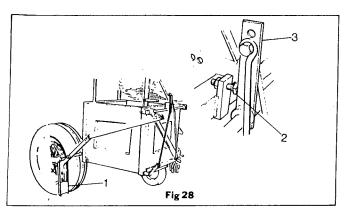
AGITATORS AND CLEANING WEIGHTS

Where additional cleaning is required, main web idler rollers can be replaced by agitator sprockets and weights can be added to the cleaning apron.

AUTOMATIC DUMPER FOR TOPS

The automatic dumper utilises the top saver elevators, but replaces the variable chute with a dumper box. When opening out a field, the trip board (Item 1 fig.28) should be pushed back manually to dump a heap of tops each time the box gets full. On the next round when the trip board (Item 1 fig.28) strikes a heap of tops, a fresh heap will be dumped alongside, gradually forming a row of tops across the field.

The efficiency of the trip mechanism relies on the correct setting of the stop screw (Item 2 fig.28). If this is set too far back the tops piling up in the box may push the flaps open, and if it is too far forward the trip board will be hard to operate. A normal setting should bring the arm (Item 3 fig.28) just forward of the top dead centre.



LIFTING WHEEL GUARD SPIDERS

In a poor season when the beet are small, if there is a tendency for beet to drop between the lifting wheel spokes, then the distance between the spokes can be halved by fitting guard spiders.

SHARE LIFTER

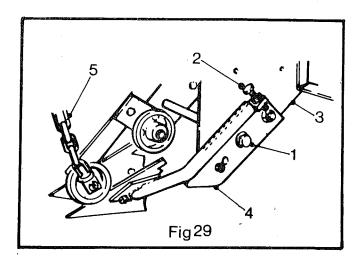
Shares are designed to lift beet in heavy soil conditions, where as lifting wheels would be inclined to block and lift too much soil, the shares lift less soil and can be made to work at a much shallower depth.

The working depth of the shares is determined by the setting of the tractor depth control, which is set according to the depth required to lift the beet from the ground without breaking off the root or leaving the beet in the soil.

As a pre-setting before starting off, set the shares so that they are parallel with the ground. In very wet soil the points of the shares may need tilting up slightly and hard ground conditions may dictate tipping the points down. To adjust, slacken the retaining screws (Item 1 fig.29) then turn the adjuster screw (Item 2 fig.29) in, to lower the points, or out to raise them. Keep adjustment to a minimum, and tighten the retaining screws (Item 1 fig.29) to lock the shares in position.

The normal spacing between the shares is $1\frac{1}{2}$ (38mm) at the narrowest point, but this can be varied to suit small or large beet by adding or subtracting the spaces between the cheek plates (Item 3 fig.29) and the share mounting (Item 4 fig.29).

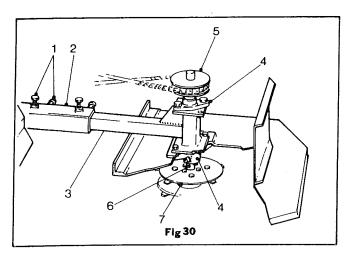
A web is fitted to run over the top of the shares to pull the beet into the main elevator. The web is adjustable and should be set forward enough over the shares to pull the beet back and not knock them off the shares. The weight of the web can also be taken up on the slotted check chains (item 5 fig.29) situated either side of the top web frame.



TOPS PULVERISOR

The purpose of the tops pulverisor is to cut down seedy beet and tall weeds prior to topping the beet. It is driven by a "brammer" belt in a "V" pulleys. The belt also acts as a safety device should the cutter head become blocked. To adjust the drive belt, segments can be removed from the belt or added as required to tension it.

Adjustment is possible to suit various row widths by releasing the setscrews (Item 1 fig.30) on the horizontal arm (Item 2 fig.30) and sliding the inner arm (Item 3 fig.30) in or out. The vertical adjustment is done by releasing the grub screws in the two bearings (Item 4 fig.30) and the setscrew clamping the pulley (Item 5 fig.30) to the shaft (Item 6 fig.30). Lift or lower the cutter Item 7 fig.30) and the shaft (Item 6 fig.30) as required. Finally re-secure the shaft in the bearings (Item 4 fig.30) and set the pulley to run on top of the bearing and locate it to the shaft.

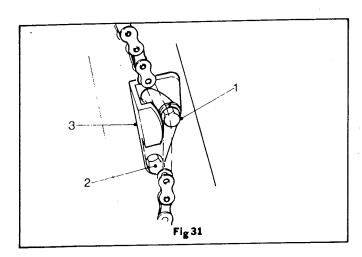


TOPS SAVER

The tops saver is designed to pick up the tops from behind the topping unit and transport them round the back of the harvester where a variable chute deposits three rows of tops into one continuous line of beet, or they can be fed into the automatic tops dumper, this can be fitted to the end of the rear tops elevator after removing the variable chute.

The tops saver consists of a different topping unit to the standard machine, a side elevator, a rear elevator and a tops flail.

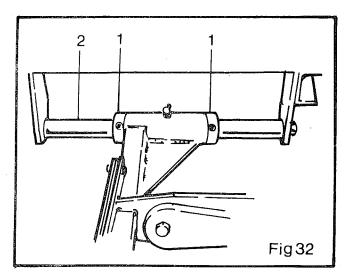
The topping unit is of a similar design to the standard topping unit except that the feeler wheel has a driven cleaner. To adjust the cleaner drive, slacken the two securing bolts (Item 1 & 2 fig.31) and pivot the tensioner (Item 3 fig.31) on the securing bolt (Item 2 fig.31) until the correct tension is acheived and tighten the two securing bolts. All other adjustments on the topping unit are the same as the standard topping unit.



The side elevator is adjustable for varying row widths. The drive for the side elevator is taken from the main drives via a universal coupling to a bearing housing, from the bearing housing the drive is taken to a friction clutch (for adjustment see Friction Clutch Adjustment on page 1.10). This drive chain is self tensioning, therefore there is no adjustment required

From the slip clutch, a chain takes the drive to the paddle shaft, which flips the tops onto the rear elevator.

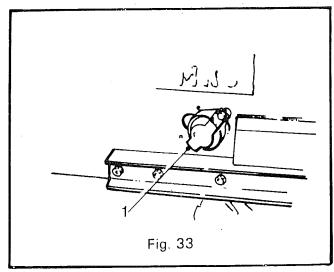
The tops flail is situated at the rear of the machine. This flail cleans a row of beet between the row being topped and the row being lifted. To centralise the flai over the row of beet, slacken the two retaining collars (Item 1 fig.31) back up against the flail assembly and secure. The height adjustment is the same as that or the standard harvester.



BEET FLAIL

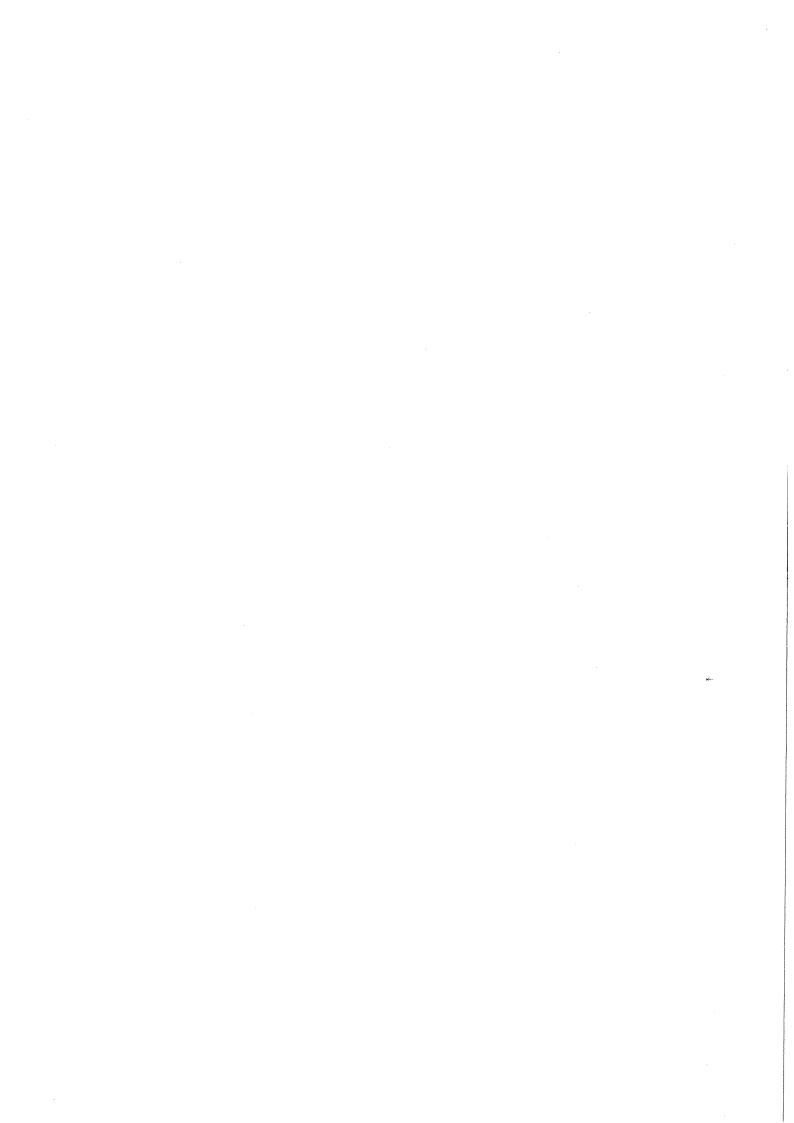
The beet flail, located between the lifting wheels and the main elevator transfers the beet from the wheels to the main elevator and simultaneously helps to break up any dirt being lifted with the beet.

When the rubber flails have shortened from wear, some small beet may tend to drop down the side of the lifting wheels. The flails are provided with three sets of bearings holes (Item 1 fig 33) so that the flail assembly can be repositioned further back to overcome this problem. When small beet loss persists after the flail has been set fully rearward, flails probably need re-newing. In a poor season, when all the beet are small, halve the gap between the lifting wheel spokes by fitting guard spiders to reduce beet loss.



BEET FLAIL DRIVES

The beet flail drive chain is in a similar position to the cage wheel drive chain (item 2 fig 16) and when fitted the chain is tensioned by self adjusting tensioner, therefore no adjustment is required.



FAULT ANALYSIS

| FAULT | POSSIBLE CAUSE(S) | CORRECTION |
|---|--|--|
| Side of beet shaved off | Lifting wheels too close together | Increase distance between wheels by adding spacers between the wheel and the wheel hub |
| Too much top removed from beet | Knife too far below lowest point of feeler wheel | Set knife in highter position |
| | Insufficient spring tension of knife | Increase spring tension on knife but ensure that move- ment is enough to release stones |
| | Too much tension on topping unit lift rod | Decrease tension by fitting the quick release pin into a lower hole on lift rod |
| Not enough top removed from beet | Knife set too high in relation to feeler wheel | Set knife in lower position |
| | Not enough tension on topping unit lift rod | Increase tension by fitting quick release pin, under the spring, into a higher hole on lift rod |
| Uneven topping | | |
| Knife cutting upwards | Knife not set squarely to the beet. Front of knife arm higher than the rear | Adjust knife arm pitch |
| | Knife set too far forward causing feeler wheel to climb as knife begins to cut | Move knife arm back |
| Knife cutting down- wards breaking off front edge of beet | Knife too far back causing feeler wheel to drop off beet before finishing cut | Move knife arm forward |
| Topping unit bouncing | Driving too fast for field conditions | Reduce speed |
| Beet being topped by the end of the knife | Topping unit too far to the right on pivot bar | Move unit to left so that the knife arm just misses the side of the wide beet |

| FAULT | POSSIBLE CAUSE(S) | CORRECTION |
|--|--|--|
| Harvester not running in straight line | Left hand harvester wheel not running in groove made by previous lifted row | After openings have been made, set wheels to follow lifted row |
| Topping unit drive clamp, slipping on axle | Clamp bolt and nut loose | Tighten nut |
| Scalped beet, scored across top of beet | Feeler wheel drive chains too slack, causing wheel to rock and skid across top of beet | Tighten drive chain |
| | Hardy spicer drive shaft, badly worn knuckles or worn male and female shaft | Renew hardy spicer |
| | To much pressure on tension spring on topping unit lift rod, in relation to the number of high beet and density of the beet tops | Release pressure by fitting the quick release pin into a lower hole on the topper unit lift rod |
| Beet knocked over | | |
| (i) By Feeler Wheel | Pressure of topping unit on beet too great in relation to the number of high beet and denisity of beet tops | Reduce pressure, by fitting the quick release pin, under the spring, into the lower hole on the topper unit lift rod |
| | Feeler wheel drive chains too slack | Tighten drive chains |
| | Too much play in knife between feeler wheel and knife | Increase tension on knife spring |
| | Too much pitch on knife arm | Adjust knife |

Peripheral speed of

feeler wheel, too slow

Topping unit drive clamp slipping on the axle

in relation to ground

speed

Fit 17 tooth sprocket, in

Place of the 19 tooth, at

drive shaft, to increase the speed of the feeler

Tighten clamp, check for tightness periodically

wheel

the end of the feeler wheel

| FAULT | POSSIBLE CAUSE(S) | CORRECTION |
|---------------------------------------|--|--|
| (ii) By flail | Flail set too low | Raise flails so that the tips of the rubbers clear the top of the high beet |
| | Centre of flail set over centre of beet row | Adjust the lateral position of flail so that the centre point is 25-50mm or 1 to 2 inches to the left of the centre of the row |
| (iii) By tractor wheels | Wheels set too narrow, causing the sides of the tyre to loosen beet | Adjust wheels to run central between beet rows |
| (iv) By lifting wheels | Lifting wheels set too close together | Increase distance between lifting wheels by adding spacers between the wheels and wheel hubs |
| | Lifting wheels not working deep enough | Increase penetration on the tractor depth control |
| | Guide skids set too deep, Weight of harvester being carried on guide skids | Reduce the depth of the guide skids after slackening off the set screws |
| | Driving too fast | Reduce forward speed |
| Too much soil being lifted | Lifting wheels too deep in the ground | Reduce penetration on the tractor depth control |
| • • • • • • • • • • • • • • • • • • • | Lifting wheels too far apart | Decrease distance between wheels by removing the spacers between the lifting wheels and wheel hubs |
| | Small beet and beet growing irregular in the row | As above |
| Too much soil in tank | Top and bottom webs in main elevator, too close together | (i) Adjust the distance between the webs, by moving the rollers of the bottom web to a lower hole |
| | | (ii) Under severe soil conditions, fit two rollers between the webs to hold them apart |
| | | (iii) Move top web drive shaft bearing bolts into a higher hole to increase width of web |
| | Rubber star wheels set too close to main digger web | Move star wheels to widen the gap from the digger web, by fitting the bearing bolts into the appropriate holes |

| FAULT | POSSIBLE CAUSE(S) | CORRECTION |
|-----------------------------|---|--|
| Other causes of beet losses | Beet lost between web | Fig narrow pitch web to main digger elevator |
| | Beet rolling off front of main elevator web | Beet deflectors, fitted inside of each cheek plate, lost or bent |
| | Beet being taken between the trash extractor roller and trash extractor web | Lower trash roller. Reduce the number of pockets in web, by adding up links in place of down links |
| | Beet lost down dirt chute | The distance between the star wheels and the main digger web too wide |
| | Filling the tank too full | Do not over fill the tank |
| | Beet lost when dis- charging into trailer | Ensure that discharge elevator is central to the trailer |
| | | Do not over fill the trailer |
| Web links breaking | Web links badly worn | Renew complete web |
| | Top track web too slack causing the web to hook into the main digger web | Adjust top track web by, loosening the two securing bolts in the slots, each side of the main digger elevator and slide the track down. If the track is at full adjustment slide back and remove required number of web links and readjust track |

Web links too slack

Web links badly worn

Remove required number of links to tension web

Renew complete webs

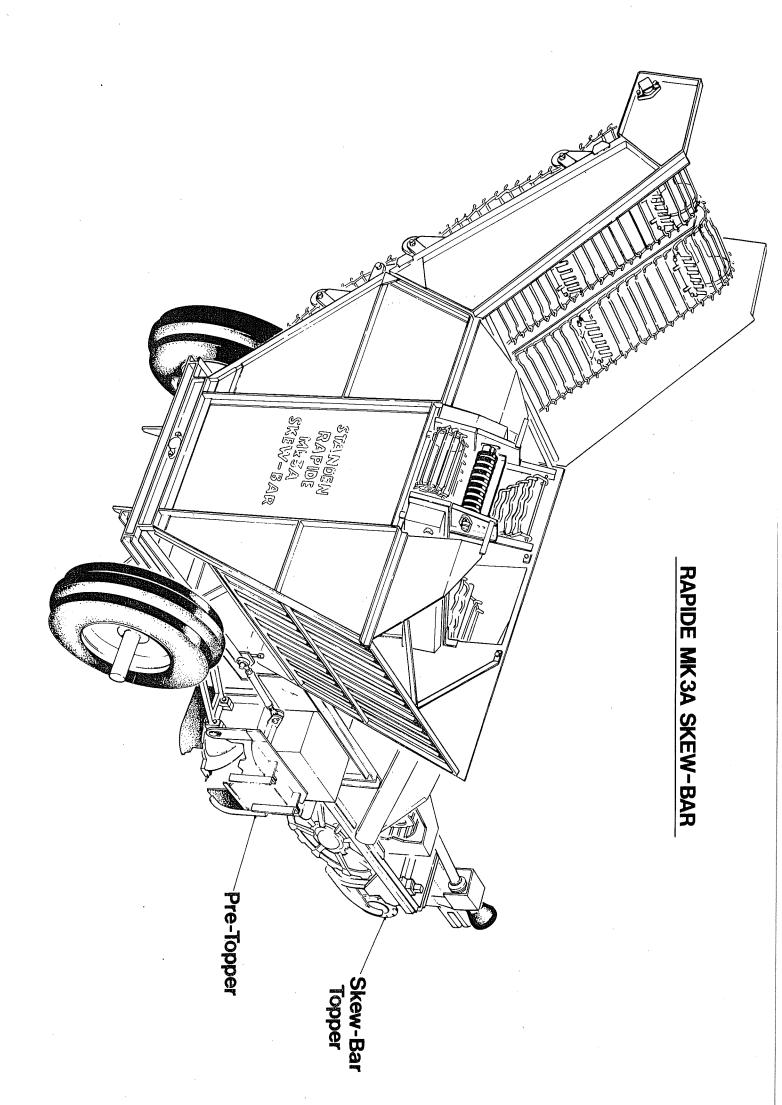
Discharge elevator webs unhooking

| ner apron, suspended the trash extractor, estricting the flow of er trash extractor fitted to close to ash extractor web eing pushed off the extractor web by rward rotation of eller folling off the trash extractor web, into the enstead of travelling extractor web and out of the fithe machine | Add more weights to apron, or adjust existing weights to the best position to restrict beet flow Raise trash roller, but beward of losing small beet Remove trash roller drive chain and allow roller to turn freely by the action of the trash extractor web Make more pockets in the trash web by exchanging an occasional up link for a down link |
|--|---|
| eing pushed off the extractor web by rward rotation of elling off the trash tor web, into the extract of travelling web and out of the | Remove trash roller drive chain and allow roller to turn freely by the action of the trash extractor web Make more pockets in the trash web by exchanging an occasional up link for a down |
| extractor web by rward rotation of iller off the trash tor web, into the instead of travelling web and out of the | chain and allow roller to turn freely by the action of the trash extractor web Make more pockets in the trash web by exchanging an occasional up link for a dowr |
| tor web, into the instead of travelling web and out of the | trash web by exchanging an occasional up link for a dowr |
| | • |
| drive belt slipping | Tension drive belt |
| wheels set too | Decrease distance between wheels by removing the spacers between the wheels and hubs |
| lifting wheels | Renew wheels |
| wheel hub spindles | Renew lifting wheel mounting |
| wheels not g deep enough | Increase penetration of the Tractor depth control |
| skids set too deep of harvester being on guide skids | Reduce the depth of guide skids after slackening off the set screws |
| too fast in to crop conditions | Reduce forward speed |
| | wheels set too ifting wheels wheel hub spindles wheels not g deep enough skids set too deep of harvester being on guide skids too fast in |

| | Lifting wheel hub spindles bent | Renew lifting wheel mounting |
|---------------------------------------|---|--|
| | Lifting wheels not working deep enough | Increase penetration of the Tractor depth control |
| | Guide skids set too deep weight of harvester being carried on guide skids | Reduce the depth of guide skids after slackening off the set screws |
| | Driving too fast in relation to crop conditions | Reduce forward speed |
| · · · · · · · · · · · · · · · · · · · | | |
| | | |
| Too many beet tops in the tank | Flails set too high failing to clear tops behind topper | Lower flails so that the tips of the rubbers clear the tops of the high beet |
| | to clear tops behind | of the rubbers clear the |

FAULT ANALYSIS (SHARES)

| FAULT | POSSIBLE CAUSE(S) | CORRECTION |
|------------------------------------|---|--|
| Beet knocked out by shares | Shares set too close together | Increase distance by fitting spacers between the share arms and the harvester cheek plate |
| By top web running over the shares | Too much weight of the top web laying on the shares | Lift the web off the shares adjusting the support chains in the slots provided |
| | Top track web too far back, not allowing beet to pass under the front | Adjust web to a forward position by the slots in each web side |
| Too much soil being lifted | Shares too deep in the ground | Reduce penetration by the screw handle on the depth wheels |
| | | If depth wheels have been removed in favour of discs or guide skids, reduce penetration on the tractor depth control |
| | Points of shares pitched down | Adjust shares by slackening the retaining bolts on the share arms and turning the adjusting screws. Re-tighten retaining bolts |
| Beet left in the ground | Shares set too wide | Decrease distance between shares by removing the spacers between the share arms and the harvester cheek plate. |
| | Points of shares tilting up breaking off the beet with the heel of the shares | Pitch points down by adjust- ing the bolts on the share arms |
| | Shares not deep enough in the ground | Increase penetrating by the screw handle on the depth wheels |
| | | If depth wheels have been removed increase penetration on the tractor depth control |



SKEW BAR

This section of the manual describes the additional setting up, maintenance and adjustment procedures for the Tanker Mk3A Skew Bar model, and should be read inconjunction with the basic machine section.

INSTALLATION

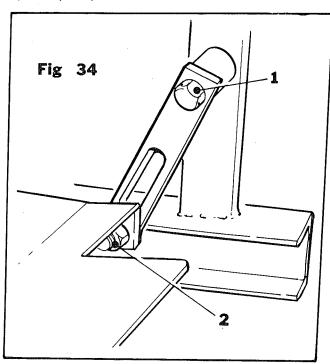
The Skew-Bar Topper is designed to top beet with the use of power driven barrel (Skew-Bar) and is used in conjunction with a Pre-Topper which is either mounted on the tractor or the harvester. An oil flow of 6 gals/min minimum with the tractor operating at 540 r.p.m. is required when plumbing the skew bar directly into the tractor. In addition the tractor must be fitted a three point linkage and a single acting spool valve.

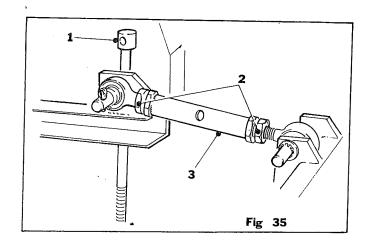
PRE TOPPER

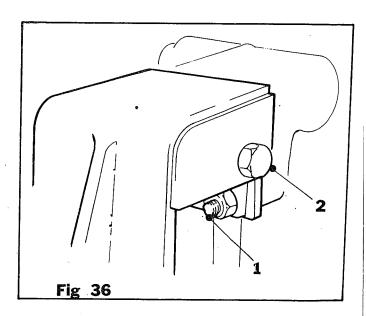
The Pre Topper is a unit designed to cut the leaf from the beet by means of a rotating cutter. The cutting width of the rotor is 17 inches (43cms.). The amount of tops removed from the beet by the rotor is determined by the amount being removed by the Skew-Bar. As an initial setting, set the Pre Topper to leave approximately 4 ins. (10 cms.) of stubble on the beet. To adjust the height of the topper, slacken the two retaining bolts (item 1 and 2 fig 34) and raise or lower the topper by turning the adjusting screw (Item 1 fig 35). Once the required height is set, retighten the retaining bolts.

When the Pre Topper is in work it should be pitched down at the front, to achieve this, slacken the two lock nuts (Item 2 fig 35) and turn the adjustable tie bar (Item 3 fig 35) clockwise or anticlockwise. Finally resecure with the lock nuts. (Item 2 fig 35).

The Pre Topper drive is taken from the main drives of the harvester to a gear-box via a universal coupling. From the gear-box the drive is transmitted to the rotor by two pulleys and a 'V' belt.







The 'V' belt situated on top of the pre-topper can be adjusted for tension by slackening the gearbox retaining bolts (Item 1 fig 36) and turning the adjusting screw (Item 2 fig 36). The second 'V' belt transmitting the drive to the pre-topper from the left hand side of the harvester can adjusted for tension as described in the section headed Tops Flail Drive on page 1.9.

SKEW BAR TOPPER

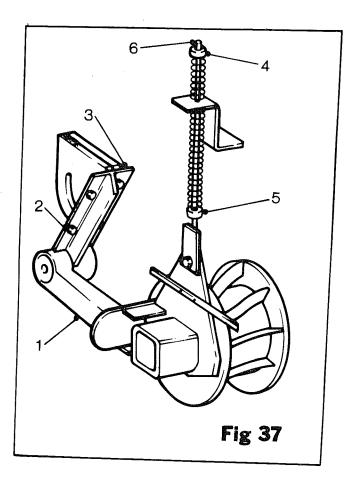
The Skew -Bar is designed to rub off the remaining tops left by the pre-topper. The amount of tops removed is determined by the height of the Skew-Bar, the amount of pressure sent down on the Skew-Bar and the speed of rotation.

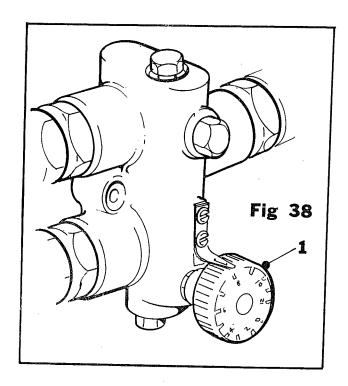
To obtain good clean topping the pivot end of the pivot arm (Item 1 fig 37) should be set so that it clears the tops of the pre topped beet, to adjust loosen the four retaining bolts (Item 2 fig 37) and slide the mounting plate (Item 3 fig 37) to the required position.

The height of the Skew-Bar can be adjusted by turning the adjusting nut (Item 4 fig 37). As an initial setting the Skew-Bar can be set so that a distance of 2 ins (5cms) exists between the bottom of the Skew-Bar and the ground when the harvester is resting on its lifting wheels.

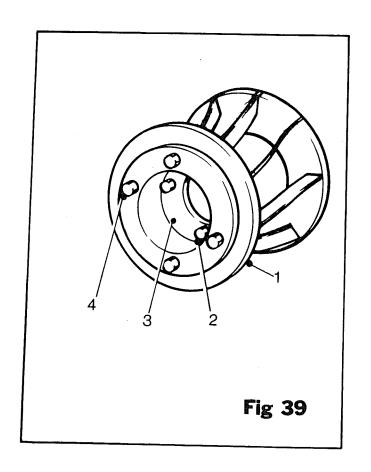
Another important feature to take into consideration to achieve good topping is the amount of pressure that is applied onto the Skew-Bar.Increased pressure results in more of the tops being removed, conversely the less pressure the less tops removed. To adjust the amount of pressure exerted onto the Skew-Bar, simply loosening the retaining collar (Item 5 fig 37) and either slide it up or down the tension rod (Item 6 fig 37) to give the required tension, finally resecure the collar.

The rotational speed of the Skew-Bar should be set in relationship to the forward speed of the harvester. Therefore the faster the forward speed of the harvester, the faster the Skew-Bar needs to rotate. To adjust the speed of the Skew-Bar, turn the knurled knob on the flow divider (Item 1 fig 38) clockwise or anti-clockwise. The greater the number on the knob, the greater the speed of rotation.





It is worth noting that by turning the Skew barrel (Item 1 fig 39) through 180° will increase its life. To do this, remove the four retaining bolts (Item 2 fig 39) and remove the barrel complete with its inner section (Item 3 fig 39). Once the barrel is remove dismantle the inner section (item 3 fig 39) from the barrel by removing the securing bolts (Item 4 fig 39). Turn the barrel and re-assemble the barrel with the inner section (Item 3 fig 39). Finally bolt the barrel assemble back onto the spindle, the bolts used are a special patch type bolt and should be replaced after being removed twice or once the locking material on the bolt has become inefficient.



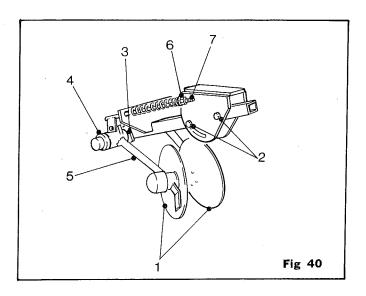
DISC COULTERS

Situated at the front of the harvester are two disc coulters. The disc coulters are designed to cut away weeds and broken leaves so preventing them from clogging the lifting wheels.

Under normal conditions the disc (Item 1 fig 40) should be set to cut about 1 1/2 (38 mm) below ground level. To adjust, slacken the two retaining bolts (Item 2 fig 40) and swing the disc arm to the required position and retighten.

Adjustment is also provided to allow the disc to either cut close too or further away from the beet. To adjust loosen the clamp (Item 3 fig 40) and the collar (Item 4 fig 40) and slide the disc arm (Item 5 fig 40) to the required position, once correctly positioned slide the clamp and the collar up to the disc arm and retighten.

There should be enough spring tension on the disc arm to make the disc cut into the soil, but the arm must be able to lift up when the disc rides over obstructions. To vary the spring tension, turn the adjusting nut (Item 6 fig 40) along the rod (Item 7 fig 40).



LUBRICATION

Correct lubrication should be employed to ensure the full life of the various working parts and the efficient operation of the machine.

A general purpose grease should be used for the bearings and the universal coupling drives. The gearbox should be filled with EP 90 semi liquid grease.

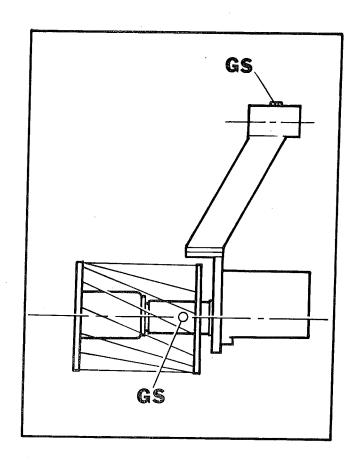
NOTE: With reference to lubrication chart below some of the bearings are sealed and pre-lubricated (Ref GS) and care should be taken not to flood these bearings with grease or the seals will burst allowing the grease to escape and dirt to get in, should this happen more frequent greasing will be required in order to keep the dirt at bay. When lubricating sealed bearings, only two or three strokes of the grease gun every twenty acres of work are all that is required.

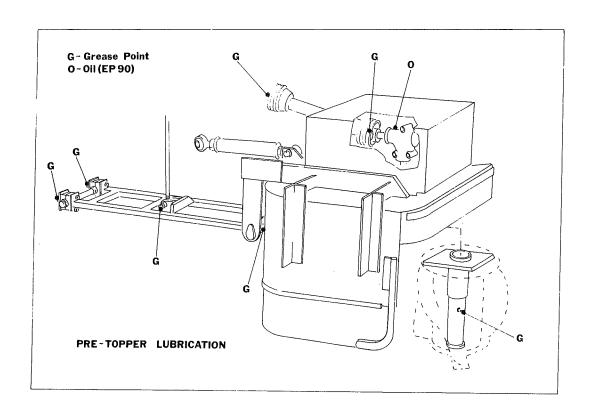
The non-sealed bearings (Ref G) should be greased at least once a day or every ten acres.

Particular care must be taken to ensure that grease or oil does not come into contact with the vee belt.

Grease points requiring individual quantities of lubrication will be found on the lubrication points chart.

We recommend that the universal couplings should be dismantled periodically and their shafts smeared with general purpose grease.





HYDRAULIC SYSTEM

The hydraulic system basically consists of an oil tank, pump, relief valve, flow divider and motor. There can be variations to this, for instance when the Skew-Bar is plumbed direct into the tractor hydraulics, only a flow divider and motor are used.

The pump and motor are maintenance free and require no adjustment or setting up.

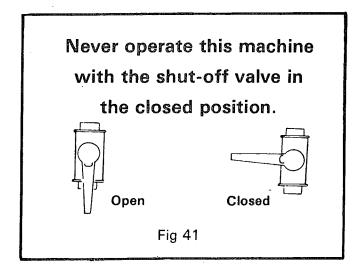
The pressure relief valve is an essential safety feature of the hydraulic system. The idea of the relief valve is to release pressure from the hydraulic system if an obstruction should occur. The relief is preset at the factory to a pressure of 2200 p.s.i. and should never be tampered with.

The flow divider is of a variable type which means it can be adjusted to alter the amount of oil flowing to the motor, so altering the speed of rotation of the Skew-Bar.

Located on the right hand side of the machine viewed from the rear, is the hydraulic tank which provides the necessary hydraulic fluid to drive the Skew-Bar. The tank has a capacity of 20 gallons and is fitted with a removable lid for ease of maintenance. A strainer is located inside the tank, at the output port, the strainer should be dismantled and cleaned thoroughly at the end of every season. The lid of the tank houses a 10 micron filter that removes any foreign bodies from the hydraulic fluid, this filter monitors the input into the tank. The input filter should be replaced after the first 50 hours of running and then replaced every 500 hours thereafter.

The tank should be filled with H68 NUTO hydraulic oil or equivalent and should always be kept full, especially when storing the machine for long periods of time.

A shut off valve has been fitted to the hydraulic tank to allow the undertaking of any maintenance to the hydraulic system without draining the tank.



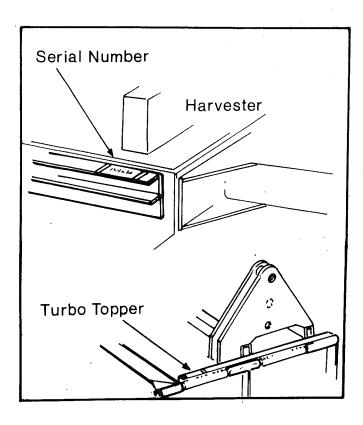
When undertaking any maintenance to the hydraulic system, every precaution must be taken to avoid any dirt entering the system.

FAULT ANALYSIS (SKEW BAR)

| FAULT | POSSIBLE CAUSE(S) | CORRECTION |
|---|--|---|
| Not enough tops removed from the beet | Skew-Bar bouncing | Increase the pressure exerted on the skew bar |
| · | | 2. Decrease the forward speed of the harvester. |
| | Skew-Bar set too high | Adjust the height |
| 4 9 | Pre Topper set too high | Adjust the height |
| | Speed of Skew-Bar too slow | Increase the speed of rotation |
| Too much top removed from | Skew-Bar set too low | Increase the height |
| the beet | Skew-Bar rotating to fast | Decrease the speed |
| | Pre Topper set too low. | Increase the height of the topper. |
| | Too much pressure exerted on the Skew-Bar | Reduce the pressure |
| Beet knocked | Forward speed of the | Decrease forward speed. |
| over | tractor is too fast for the | or |
| • | speed of the skew. | Increase the speed of the Skew-Bar |
| | Skew-Bar set too low | Increase the height of the Skew-Bar. |
| | Too much pressure exerted on the Skew-Bar. | Reduce the pressure |
| Skew-Bar not rotating fast enough. | Insufficient oil flow | 1. Adjust flow divider. |
| | | Check to ensure that the relief is not blowing. |
| | | Ensure that the tractor is giving enough oil flow when the Skew-Bar is plumbed direct into the tractor. |

RAPIDE TURBO

This section of the manual describes the additional setting up, maintenance and adjustment procedures for the Rapide Turbo model and should be read inconjunction with the Rapide Tanker Mk3A section.



INSTALLATION

The Standen Turbo-Topper is designed to remove the leaf from the beet by the use of rotating cutters prior to beet being topped by the scalpers.

Two rotary cutters are used and the loose leaf if thrown from one cutter to the other and finally out to the side. The surplus sugar beet crown is them removed by the scalpers leaving a clean path of topped sugar beet for the lifter loader.

The tractor power required is a minimum of 60 H.P. with 540 revs. from the P.T.O. three point linkage and a double spool valve.

Check that the nuts and bolts and keys are tight, also the grub screws in the bearings, especially when starting off a new machine and during the first day or two of work.

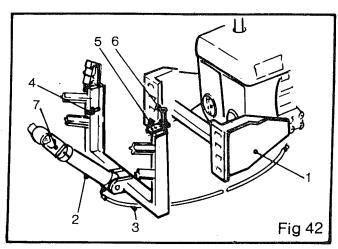
Do not reverse the machine or turn at the end of a row unless the machine is in a raised position.

Pay particular attention to the safety precautions, symbolized in the setting instructions.

FITTING THE TURBO TOPPER

The Turbo-Topper is mounted to the front of the tractor supported by mounting brackets (Item 1 fig 42) fitted to the tractor. It is fully floating on pivoting linkage, and raised and lowered by a hydraulic ram (Item 2 fig 42), the ram being fed and operated by hydraulic hose (Item 3 fig 42) from the tractor external control lever.

There are various types of tractor mounting brackets available to suit individual tractors and they should be fitted by bolting to the existing holes in the tractor chassis with the bolts provided in the kit.



With the mounting brackets in place fit the Turbo Topping unit to the brackets by the four bolts (Item 4 fig 42) provided, ensuring that the rear of the Turbo-Topper is higher than the front.

Situated at the left hand side, above the mounting bracket is a levelling adjuster (Item 5 fig 42) which is designed to adjust and level the machine in work. To adjust, first slacken off the four nuts and bolts (Item 4 fig 42) holding the Turbo-Topper to the mounting brackets and then turn the adjusting screw (Item 6 fig 42) up or down until the required angle is obtained on the Turbo-Topper, then retighten the four nuts and bolts (Item 4 fig 42) in the mounting brackets.

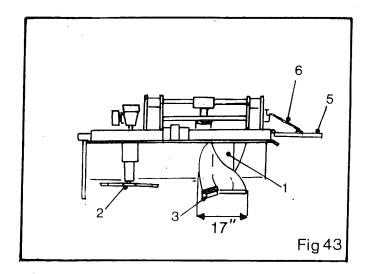
TURBO TOPPER

The Turbo-Topper is a unit designed to cut the leaf from the beet by means of the rotating cutters (Item 1 & 2 fig 43) prior to the beet being topped by the scalpers.

The tops are transferred from one rotor to the other and then out of the side by means of the rotating speed of the rotors (Item 1 & 2 fig 43). The suction of the spiral fins welded round one of the rotors (Item 1 fig 43) lifts any loose leaf and trash, leaving a clean path for the lifter.

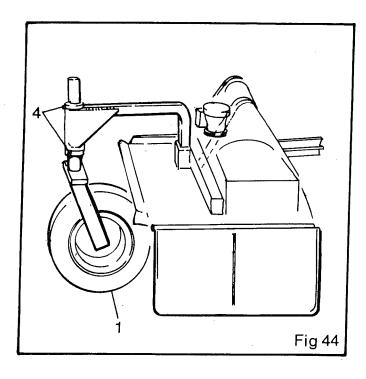
The cutting width of the rotor (Item 1 fig 43) is 17 inches 43cms).

The amount of tops removed from the beet by the rotors is determined by the size of the crown that can be removed by the scalpers. As a guide to the amount of top to remove, prior to scalping, set the depth of cut of the rotors knives (Item 3 fig 43) to just top the highest beet (fig 45). The depth of cut is determined by the depth wheel (Item 1 fig 44) fitted at the front of the unit. To adjust the depth wheel (Item 1 fig 44) loosen the two retaining screws in the depth wheel stop collars (Item 2 fig 44) and lift or lower the wheel according to the amount of topping required.



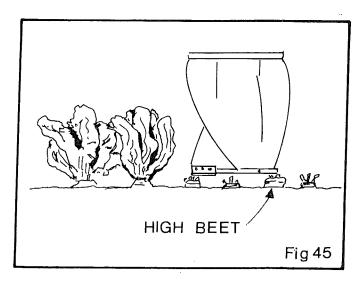
Stop brackets (Item 7 fig 42) fitted to the hydraulic ram (Item 2 fig 42) are there to reduce the amount of float, should the depth wheel (Item 1 fig 44) sink into the ground when travelling over undulating ground or soft soil patches.

To adjust the stop brackets (Item 7 fig 42) turn the set screws (Item 8 fig 42) to or from the stop plate until the correct amount of float in the hydraulic ram (Item 2 fig 42) is achieved.



Steel knives (Item 3 fig 43) are fitted to the rotor (Item 1 fig 43) and can be removed or replaced by removing the retaining patch bolts (Item 4 fig 43). When fitting or removing patch bolts care should be taken not to overheat the nylon locking material fitted to the bolt. Always replace the bolts with new after they have been removed or fitted twice. Never set the topper so that the knives (Item 3 fig 43) touch the soil as damage to the knives (Item 3 fig 43) will ensue.

The sugar beet tops discharge end of the topper is fitted with a hinged tops deflector flap (Item 5 fig 43) which can be adjusted to a high or low position, according to the amount of beet tops, to form a windrow or to spread the tops, adjustment is made by lengthening or shortening the support chain (Item 6 fig 43).



HYDRAULIC DRIVES

The rotors (Item 1 & 2 fig 43) are driven by a hydraulic motor (Item 2 fig 47) being fed from a 12 G.P.M. pump (Item 1 fig 48) mounted on the front of the harvester and driven from the harvester P.T.O. shaft via the 3 to 1 gear box. The oil to the hydraulic pump is supplied from a 20 gallon tank (Item 2 fig 48) mounted on the harvester. The tank should be filled with H68 Nuto hydraulic oil or equivalent and should always be kept full, especially when storing for long periods of time. A level gauge is positioned at the front of the hydraulic tank.

The replacement filter (Item 3 fig 48) situated at the top of the tank should be renewed at the completion of the first 100 hours of work and then at every 500 hours

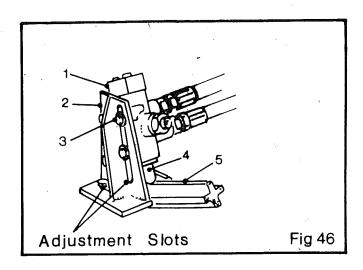
Situated at the right hand corner of the tractor mounting bracket is a diverter valve (Item 1 fig 46) designed to cut off the flow of oil to the rotors (Item 1 & 2 fig 43) when the machine is in the raised position, so stopping the rotors (Item 1 & 2 fig 43) from turning.

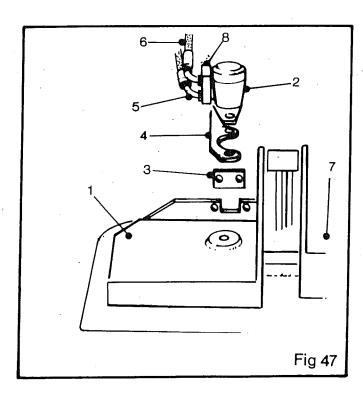
The diverter valve (Item 1 fig 46) must be fitted or adjusted with the Topper in the raised position and the valve must be closed. Adjusting slots are provided in the diverter valve support bracket (Item 2 fig 46).

To adjust loosen the cap screws (Item 3 fig 46) securing the valve and slide the valve until the spool (Item 4 fig 46) touches centrally on the lift arm (Item 5 fig 46). If additional adjustment is required to the diverter valve a spacer block supplied with the machine should be fitted.

At the top of the diverter valve (Item 1 fig 46) is a return spring fitted to push down on the top of the spool (Item 4 fig 46) when the machine is lowered.

The spring is encased for cleanliness and does not require adjusting.



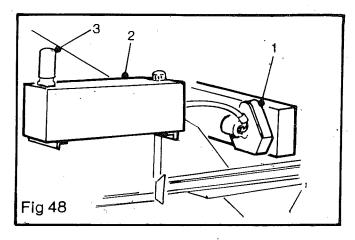


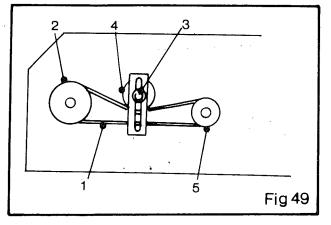
The pressure relief valve is situated at the rear of the diverter valve and (Item 1 fig 46) is fitted to protect the hydraulic system, should any blocking occur and is preset at a pressure of 2,000 P.S.I.

The aluminium check valve (Item 8 fig 47) enables the rotors (Item 1 fig 43) to slow down when the oil supply is shut off. The motor (Item 2 fig 47) must be always connected to the oil supply via the check valve (Item 8 fig 47). Failure to do so will cause severe damage to the motor.

From the hydraulic motor (Item 2 fig 47) the drive is by a vee belt (Item 1 fig 49) to the pulley (Item 2 fig 49) which in turn drive the topper rotor (Items 1 & 2 fig 43). To remove the motor guard (Item 1 fig 47) first remove the motor stop bracket (Item 3 fig 47) from the motor reaction bar (Item 4 fig 47) and then lift the motor (Item 2 fig 47) clear. Do not remove the hydraulic pipes (Items 5 & 6 fig 47).

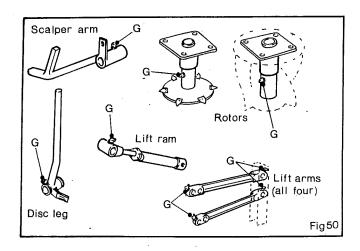
To adjust the belt (Item 1 fig 49) loosen the nut on the pump bearing (Item 3 fig 49) and slide the jockey roller (Item 4 fig 49) towards the belt (Item 1 fig 49) in the adjusting slot provided. The correct adjustment allows 5 to 7 mm. of movement of the belts at a point centre of the drive pulleys (Item 2 & 5 fig 49). After all adjustments have been made it is essential that the guards (Items 1 & 7 fig 47) are securely replaced to avoid loose tops and trash blocking the pulley (Item 2 & 5 fig 49) teeth and causing damage to the belts (Items 1 fig 49). Never allow the belts (Item 1 fig 49) to be run slack as this will result in severe damage and their subsequent failure.





LUBRICATION

The grease points are shown in fig 50. These components should be greased with a general purpose grease at least once everyday.



SCALPERS

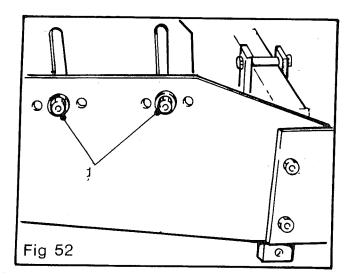
The scalper unit is fitted to the rear of the tractor between the tractor and the lifter-loader. It is designed to crown the beet and remove the surplus leaf stubble left remaining on the beet by the Turbo-Topper. The unit is attached to the tractor by fitting the 'A' Frame. (Item 1 fig 51) to the tractor three point lift linkage. To the 'A' Frame (Item 1 fig 51) is fitted the scalper support bar (Item 2 fig 51) and the drawbar (Item 3 fig 51) supplied for towing the lifter-loader. Before attempting to set up the scalpers drive the machine a short distance down the rows of beet to obtain the required depth of the lifting wheels of the harvester, which will in turn determine the pitch of the scalpers (Item 4 fig 51). The amount of beet crown removed by the knife (Item 5 fig 51) is determined by adjusting the comb (Item 6 fig 51) above the knife (Item 5 fig 51). Increasing the distance between the two will remove more beet crown and decreasing the distance will remove less beet crown.

A very important part of the scalping mechanism is the tension of the springs (Item 7 fig 51) fitted to the tension rods (Item 8 fig 51) designed to give a downward pressure to the knife (Item 5 fig 51). Enough pressure should be given to return the scalper arm (Item 4 fig 51) and knife (Item 5 fig 51) to successfully top a low beet after topping a high beet. At the same time too much pressure will force the knife (Item 5 fig 51) to dig into the highest beet causing too much beet crown to be removed or the beet to be pushed over.

To adjust the spring (Item 7 fig 51) either tighten up or loosen the nut (Item 10 fig 51) until the right amount of pressure is acquired.

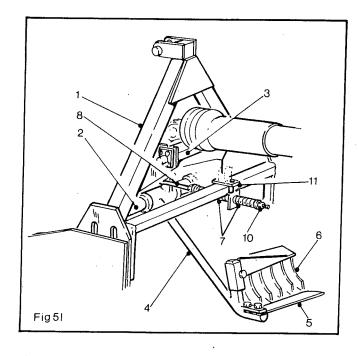
Each scalper arm (Item 4 fig 51) is independently pivoted on the scalper arm (Item 4 fig 51) along the scalper support bar (Item 2 fig 51). Adjustments can be obtained to position the scalper unit correctly in relationship to the lifting wheels. To adjust, loosen the collars fitted to each side of the scalper arm (Item 4 fig 51) and the nuts and bolts in the spring clamp plate (Item 11 fig 51). Move the two outside units to the required row setting ensuring that the knife (Item 5 fig 51) is crowning the beet as close to the scalper arm (Item 4 fig 51) as possible, so that the scalper arm (Item 4 fig 51) just misses the side of the widest beet. Height adjustment is also provided for the scalper arm, depending on the working depth of the harvester. To adjust the height loosen the nuts and bolts (Item 1

To adjust the height loosen the nuts and bolts (Item 1 fig 52) and move the mounting plates up or down according to the height required. If more adjustment is required, remove the nuts and bolts (Item 1 fig 52) from the upper holes in the mounting plates and place them in the lower set of holes and re-assemble in the slots in the 'A' frame (Item 1 fig 51) and tighten when the height is correctly set.



DISC COULTERS

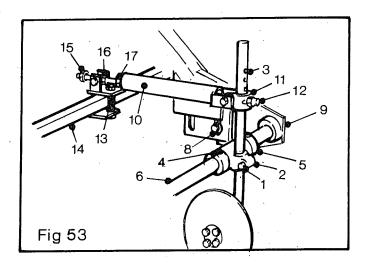
The purpose of the disc coulters fitted in front of the topping unit is to cut sugar beet leaves and trash to prevent them from building up and clogging on the knives (Item 5 fig 51), also to cut a 1 1/2 in (38mm) deep furrow for the knife arm. This furrow enables the knife arm to drop down when topping beet at ground level. Adjustment can be made at the depth of the disc by loosening the nut and bolt (Item 1 fig 53) in the stalk bracket (Item 2 fig 53) and sliding the disc coulter stalk (Item 3 fig 53) up or down depending on the depth required. To alter the disc coulter for different row centres, first loosen the setscrew (Item 4 fig 53) in the collars (Item 5 fig 53) either side of the Stalk bracket (Item 2 fig 53) and move the bracket along the support bar (Item 6 fig 53) until the required position is obtained, making sure the disc will pass the widest beet without cutting it. Then slide the collars (Item 5 fig 53) up to the bracket (Item 2 fig 53) and tighten the setscrews. To adjust the height of the disc coulter support bar (Item 6 fig 53) in relationship to the 'A' frame (Item 1 fig 51) remove the nuts and bolts (Item 8 fig 53) and move the disc coulter support brackets (Item 9 fig 53) up or down until the bar is correctly positioned, then secure with nuts and bolts.



Once these adjustments have been made, attention must be paid to the tension barrel assembly (Item 10 fig 53). The barrel should be in line with the disc stalk (Item 3 fig 53) to ensure that the spring tensioner will work correctly. To adjust the tension barrel (Item 10 fig 53) to come parallel with the ground move the tension bracket (Item 11 fig 53) up or down the disc coulter stalk (Item 3 fig 53) securing with the nut and setscrew (Item 12 fig 53).

To adjust the barrel to be in line with the disc stalk (Item 3 fig 53) when looking down on the tension barrel assembly remove the nuts and bolts from the trunnion support (Item 13 fig 53) and move it along the mounting frame (Item 14 fig 53) until the tension barrel (Item 10 fig 53) aligns with the disc stalk (Item 3 fig 53) and secure down on to the mounting frame (Item 14 fig 53).

Adjustment is provided for setting the angle and for tensioning the disc coulter. To ensure that the discwill cut efficiently the angle of it must be set slightly forward to allow it to enter the trash instead of lifting. Also at the same time, the disc should be tensioned correctly. If the tension is insufficient, the disc will not be held firmly in the ground and consequently it will ride over the tops or trash instead of cutting it. Adjustment for the angle is made by loosening the lock nut (Item 15 fig 53) and turning the other nut (Item 16 fig 53) clockwise or anticlockwise depending on the angle required. Once the angle is achieved, secure by tightening up the nut (Item 16 fig 53). Both nuts must be tight. Failure to do so will result in damage to the thread. To adjust the tension turn the nut (Item 17 fig 53) clockwise or anticlockwise. Under no circumstances must the nut be loose.

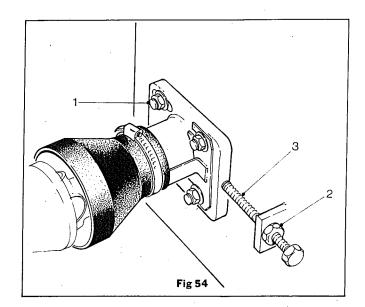


CAUTION

ALL REVOLVING DRIVE MACHINERY CHAINS, SHAFT AND SPROCKETS ETC ARE POTENTIALLY DANGEROUS. THEREFORE BEFORE ATTEMPTING ANY ADJUSTMENT OR MAINTENANCE OF THE DRIVE EQUIPMENT, SWITCH OFF THE ENGINE OF THE TOW VEHICLE, DISCONNECT THE POWER TAKE-OFF SHAFT AND SET THE HANDBRAKE. FAILURE TO OBSERVE THE ABOVE CAUTION COULD RESULT IN SERIOUS INJURY TO PERSONNEL.

MECHANICAL DRIVES

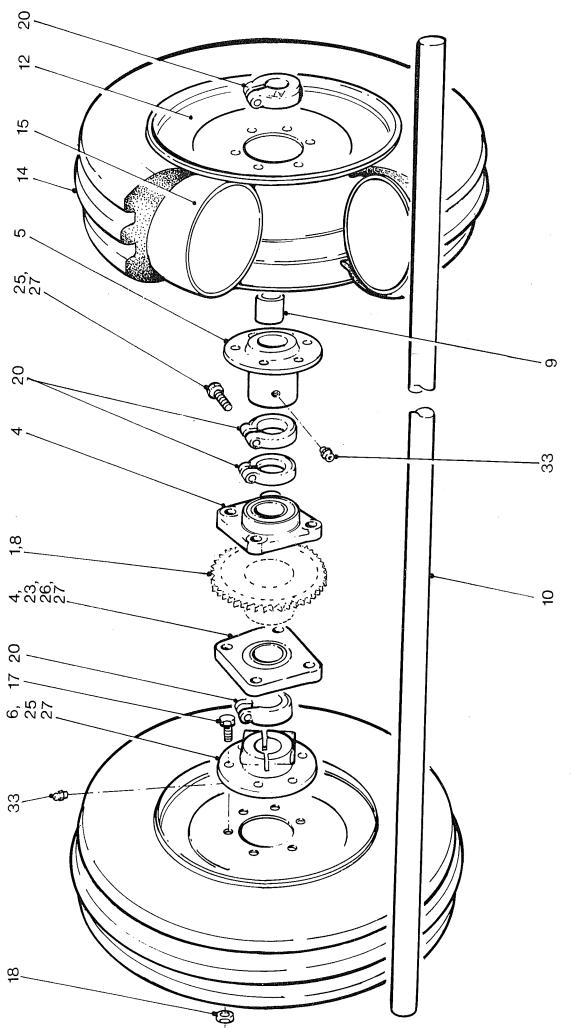
The drive from the power take off of the tow vehicle is connected to a bearing housing situated in the centre of the drive box by means of a universal coupling. From this bearing housing the drive is transferred to the left to another bearing housing by means of two sprockets and a chain. This bearing housing then transmits the drive to the various mechanical drives on the machine. The left hand drive chain can be tensioned by slackening the four retaining bolts (Item 1 fig 54) and the lock nut (Item 2 fig 54) and then by turning the adjusting bolt (Item 3 fig 54) the chain can be tensioned. Finally retighten the retaining bolt and lock nut. From the centre bearing housing the drive is also transferred to the right to a gearbox via two sprockets and a chain. This gearbox has a hydraulic pump fitted to the back of it which in turn supplys the drives to the various hydraulic components. The drive chain can be adjusted loosening the securing bolt and sliding the tensioner down onto the chain. Resecure the tensioner when the correct tension has been acheived.



SECTION 2

EXPLODED PARTS ILLUSTRATIONS

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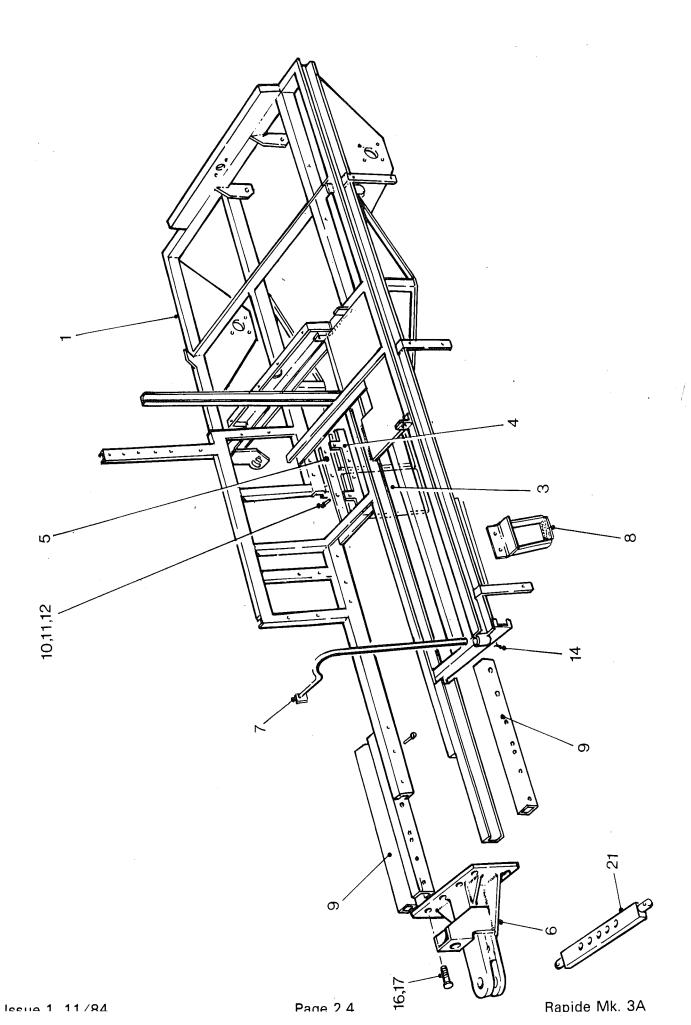


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AXLE & WHEELS

| em No. | Part No. | Description | | Qty. | Remarks |
|-------------------------------|-------------------------------|---|---|--------------------|----------|
| 1 2 | TBM51 | 41T Sprocket | | 1 | Ref Only |
| 2 3 4 5 6 7 | TBMW391 TBMW392 TBMW393 | Axle Bearing Wheel Hub, Driven Wheel Hub, Driver | | 2 1 1 | |
| 8 9 10 | TBMW410 TBMW634 10701 | Drive Sprocket Clamp Bush Axle | | 1 2 1 | Ref. |
| 1 - 2 3 | 13008 | Wheel Rim | | 2 | |
| 4 5 6 | 13033 13034 | Tyre Inner Tube | ļ | 2 2 | |
| 7 | 13208 13209 | Wheel Stud Wheel Nut | | 12 12 | |
| 9 0 | 13012 · | Axle Collar | | 4 | |
| 2 I | , | M16 x 60 Sq Hd Bolt | | 8 | |
| 3 1 5 7 7 8 9 9 | | M16 x 120 Hex Hd Bolt M16 Plain Washer M16 Lock-Nut | : | 7 8 15 | |
| | GS411 | Grease Nipple | | | • |
| | | Grease Mippie | | 2 | |
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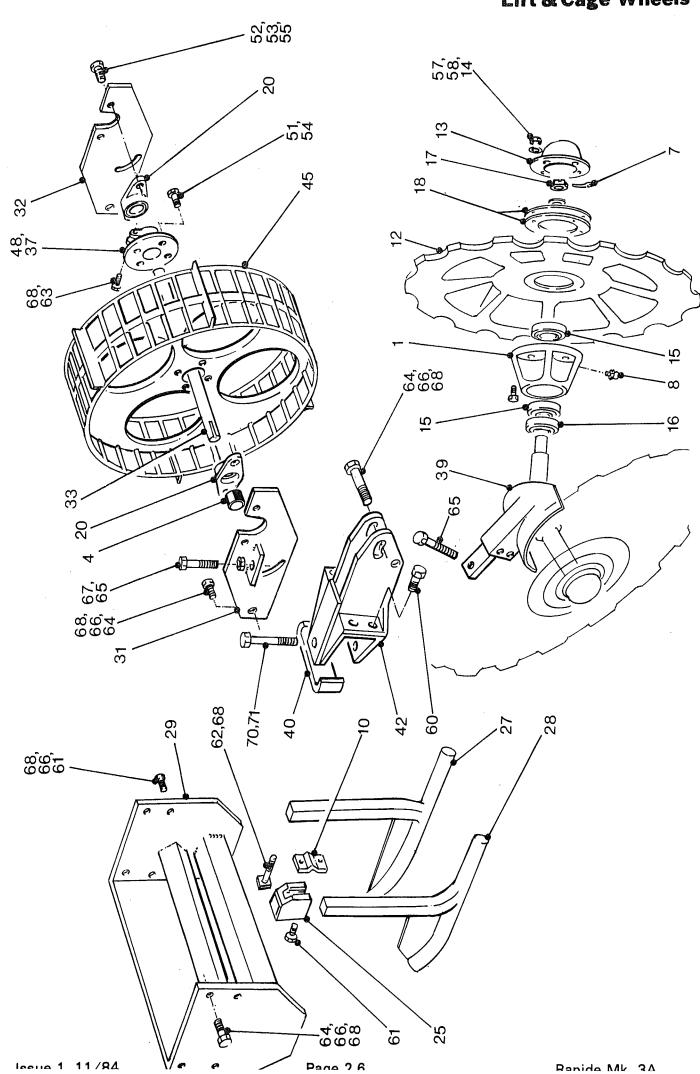
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MAIN FRAME

| em No. | Part No. | Description | | Qty. | Remarks |
|---|---|---|---|---|---------|
| 1 2 | TBMW1B | Main Frame | | 1 | |
| 3 1 5 5 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | TBMW253 TBMW254 TBMW255 TBMW386 TBMW421 TBMW645 TBMW667 | Rubber Flap Rubber Flap Mounting Bracket Rubber Flap Clamp Strip Draw Bar Hand Rail Step Strengthening Section M8 x 25mm Hex Hd Setscrew M8 Spring Washer M8 Nut 3/16" Dia x 1 3/4" Long Cotter Pin M12 x 35mm Hex Hd Setscrew M12 Lock-Nut | | 2 1 1 1 1 1 1 4 4 4 1 8 8 | |
| 9 1 2 3 4 5 5 7 | 11517 | Draw Bar (Crosspiece) | : | 1 | |
| | | | | | |
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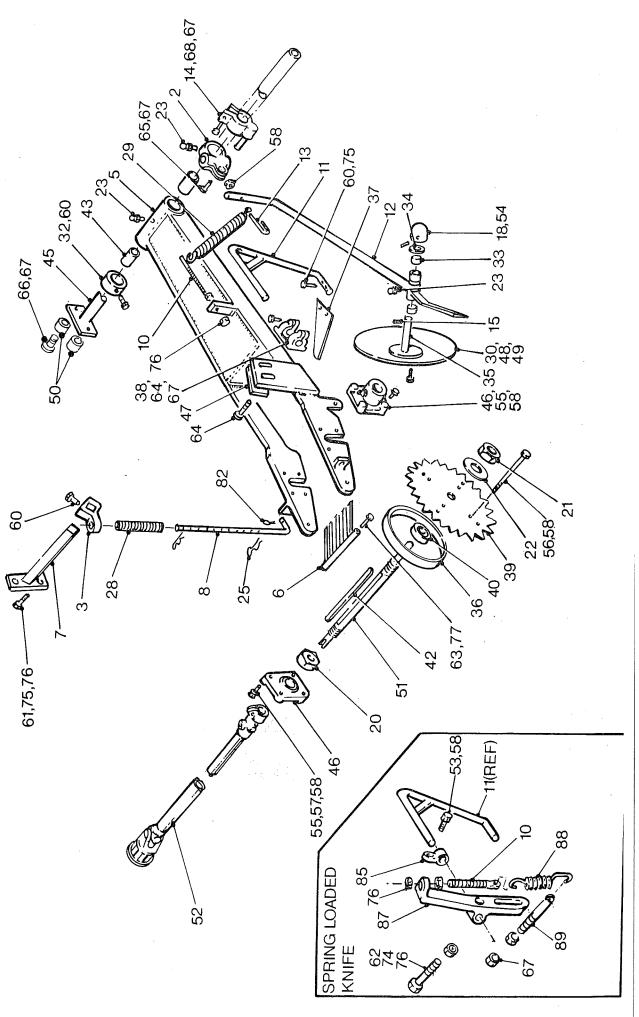
Lift & Cage Wheels



LIFT AND CAGE WHEELS

| Part No. | Description | Qty. | Remarks |
|--------------------|---|----------|---------------------------------------|
| BMZ99 | Wheel Hub | 2 | · · · · · · · · · · · · · · · · · · · |
| C50 | Plastic Spacer | | |
| C50 GS378 | Trastic Opacer | 1 | |
| GS378 GS412 | Split Pin Grease Nipple | 2 2 | |
| H74 | Bracket Cap | 2 | |
| RP/E | Lift Wheel | 2 | |
| RP3 RP3N | Hub.Cap Hub Cap Nut | 2 | |
| RP4 | Hub Bearing | 12 | |
| RP5 RP6/1 | Hub Seal | 2 | |
| RP15 | Hub Nut Hub Spacer | 2 4 | |
| SFT30 | Bearing | 2 | |
| SS/030018/050 | Steel Spacer | 8 | |
| 7844V270 | | | |
| TBMW270 | Mounting Bracket | 2 | |
| TBMW354 TBMW355 | Guide Skid R.H. Guide Skid L.H. | 1 | |
| TBMW387 | Lifting Wheel Support Frame | 1 1 | |
| TBMW669 | Cage Wheel Support Plate L.H. | | |
| TBMW670 TBMW675 | Cage Wheel Support Plate R.H. Cage Wheel Shaft | | |
| 11389 | Cage Wheel Clamp | 1 | |
| 12095 12263 | Lifting Wheel Mounting Packing Plate | 1 1 | |
| 13305 | Mounting Bracket | 1 | |
| 16150 | Cage Wheel | 1 | |
| | 8 x 7 Gib Hd Key x 50 | 1 | |
| | M10 x 25 Setscrew | 4 | |
| | M10 x 30 Setscrew | 4 | |
| | M10 Plain Washer M10 Spring Washer | 4 4 | |
| | M10 Locknut | 4 | |
| | M12 x 50 Bolt M12 Spring Washer | 12 12 | • |
| | M16 x 20 Setscrew | 4 | |
| | M16 x 40 Setscrew | 8 | |
| | M16 x 60 Sq Hd Bolt M16 x 80 Bolt | 4 | |
| | M16 x 110 Bolt | 10 | |
| | M16 x 110 Setscrew M16 Plain Washer | 3 | |
| | M16 Hex Nut | 12 2 | |
| | M16 Lock Nut | 19 | |
| | M20 x 230 Bolt | 1 | |
| | M20 Locknut | 1 1 | |
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Standard Topping Unit



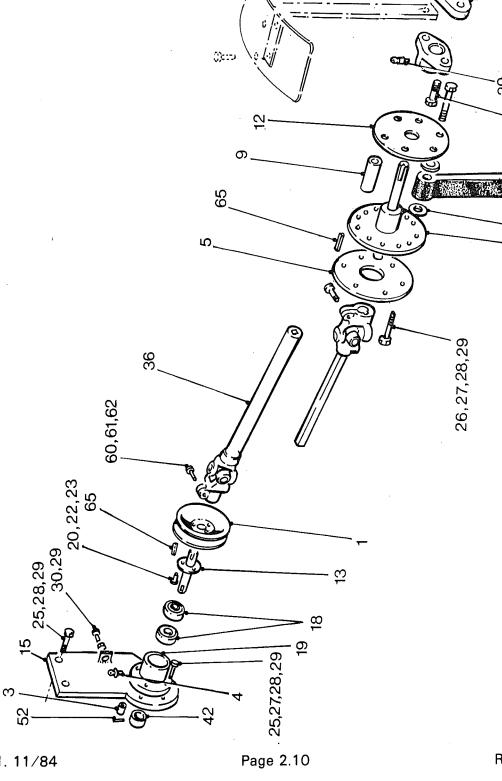
STANDARD TOPPING UNIT

| em No. | Part No. | Description | Qty | Remarks |
|---------------------------------------|---|--|---|--|
| 1 2 3 | BM20AM BM21AM | Bracket Lift Bracket | 1 1 | |
| 4 5 6 7 8 | BM71CM BM73M BM74B BM75A | Frame Feeler Wheel Cleaner Lift Bar Topping Unit Lift Link | 1 1 1 | |
| 9 10 11 12 13 14 15 | BM82M BM143M BM210AM BM213M BM214 BM218 | Spring Tensioner Knife Arm Disc Stalk Hook Bolt Stop Collar Disc Retaining Pin | 2 1 1 1 1 1 1 1 | |
| 7 8 | BMT81M | Dust Cap | 1 | |
| 9 1 2 3 4 | GS353 GS412 | M30 RH Nut M30 LH Nut Washer Grease Nipple | 1 1 2 3 | |
| | H105 | Quick Release Pin | 2 | |
| | PS165 PS194 PS224 | Spring Spring Disc (15in) | 1 1 1 | |
| | PS353 PS386NM PS588 PS596AM PS872 PS1001RH PS1002AM PS1003AM PS1005 | Stop Collar Bush Oil Seal Disc Boss Feeler Wheel Ring Knife Knife Arm Bracket Feeler Wheel Plate Feeler Wheel Spacer | 1 1 1 1 5 1 6 5 | |
| | PS1031M | 8mm x 7mm x 165mm RBE Key Topping Unit Frame Bush | 1 2 | |
| | RP12M SLF25 SPCL309 2611-1007 2682-1000 IBMW431 IBMW173M IBMW741 | Topping Unit Frame Support Bar Bearing Clamp Plate Pin Collar Spacer Feeler Wheel Shaft Univeral Coupling M10 x 45mm Hex Hd Bolt M10 x 10mm Hex Sprocket Setscrew | 1 2 1 4 4 2 1 1 | Prior to Serial No.RT5074B Part No. was TBMW639 |
| | | M10 x 40mm Hex Hd Bolt M10 x 180mm Hex Hd Bolt M10 Lock-Nut M12 x 60mm Hex Hd Setscrew M12 x 25mm Hex Hd Setscrew M12 x 40mm Hex Hd Bolt M12 x 100mm Hex Hd Setscrew M16 x 30mm Hex Hd Setscrew M16 x 40mm Hex Hd Setscrew M16 x 40mm Hex Hd Setscrew M16 x 70mm Hex Hd Bolt M16 x 85mm Hex Hd Bolt M16 Lock-Nut | 15 2 4 2 1 2 4 2 2 8 | · |
| | | M12 Plain Washer M12 Spring Washer M12 Nut M16 Spring Washer | 2 6 10 4 | |
| | | 5/16 Dia x 1 1/2" Quick Release Pin | . 1 | |

STANDARD TOPPING UNIT

| Item No. | Part No. | DESCRIPTION | Qty. | Remarks |
|---|------------------------------------|---|-------------|---------|
| 83 84 85 86 87 88 89 90 | PS176 PS724 PS766 PS815 M | Clamp Tension Arm Spring Spring Support Rod | 1 1 1 | , |
| 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 | | | • | |
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Standard Flail 39 14 5'



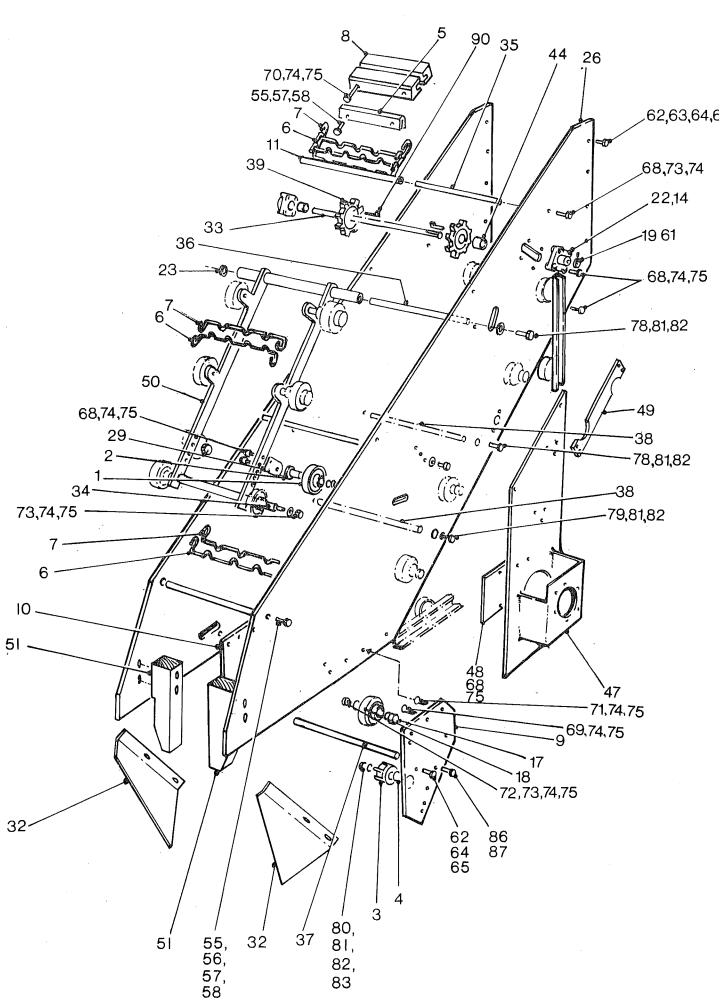
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Rapide Mk. 3A

| (hallana | STANDARD FLAILS | | | | | | | | |
|--|--|---|---|----------------------------|---------|--|--|--|--|
| ite No | | DESCRIPTION | | Qty. | Remarks | | | | |
| | BM37/1 BM146B D15 GS412 RP15 | Pulley Flail Mounting Arm Spacer Grease Nipple Flail Plate | | 1 1 1 1 | | | | | |
| The state of the s | 7 8 SP245 9 SP253 0 | Flail Rubber Spacer | | 12 12 | | | | | |
| 1 1 1 1 | 1 | Flail Plate | | 1 1 1 | | | | | |
| 1: 20 2: 2: | 8 6005Z 9 19411 0 1 1 2 3 | Roller Race Bearing Housing M10 x 30mm Hex Hd Setscrew M10 x 50mm Hex Hd Bolt M10 Spring Washer M10 Nut | | 2 1 3 2 5 5 | | | | | |
| 24 25 26 27 28 29 30 | 5 5 7 8 | M12 x 35mm Hex Hd Setscrew M12 x 80mm Hex Hd Bolt M12 Plain Washer M12 Spring Washer M12 Nut M12 x 100mm Hex Hd Setscrew | | 6 12 28 18 19 | | | | | |
| 32 33 34 | | M16 x 30mm Hex Hd Setscrew M16 Plain Washer | | 1 | | | | | |
| 35 36 37 | TBMW 638 | Universal Couping | | 1 | | | | | |
| 38 39 40 41 | GS450 | Grease Nipple | ; | 4 | | | | | |
| 42 43 | PS488M | Stop Collar | | 2 | | | | | |
| 44 45 46 | SFT25 | Bearing | | 4 | | | | | |
| 47 48 49 50 | TBM99 TBM100 | Bracket Clamp Plate | | 1 1 | | | | | |
| 51 52 53 | AND THE PROPERTY PROP | M10 x 10mm Hex Socket Setscrew | | 2 | | | | | |
| 54 55 56 57 58 59 | | M16 x 25mm Hex Hd Setscrew M16 x 65mm Hex Hd Bolt M16 Spring Washer M16 Thin Washer | , | 2 1 4 24 | | | | | |
| 60 61 62 63 64 | | M12 x 60 mm Hex Hd. Setscrew M12 Spring Washer M12 Nut | | 2 2 2 | | | | | |
| 65 66 67 | | 7mm x 8mm x 25mm RBE Key | | 2 | 4. | | | | |
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Main Elevator & Top Tracl



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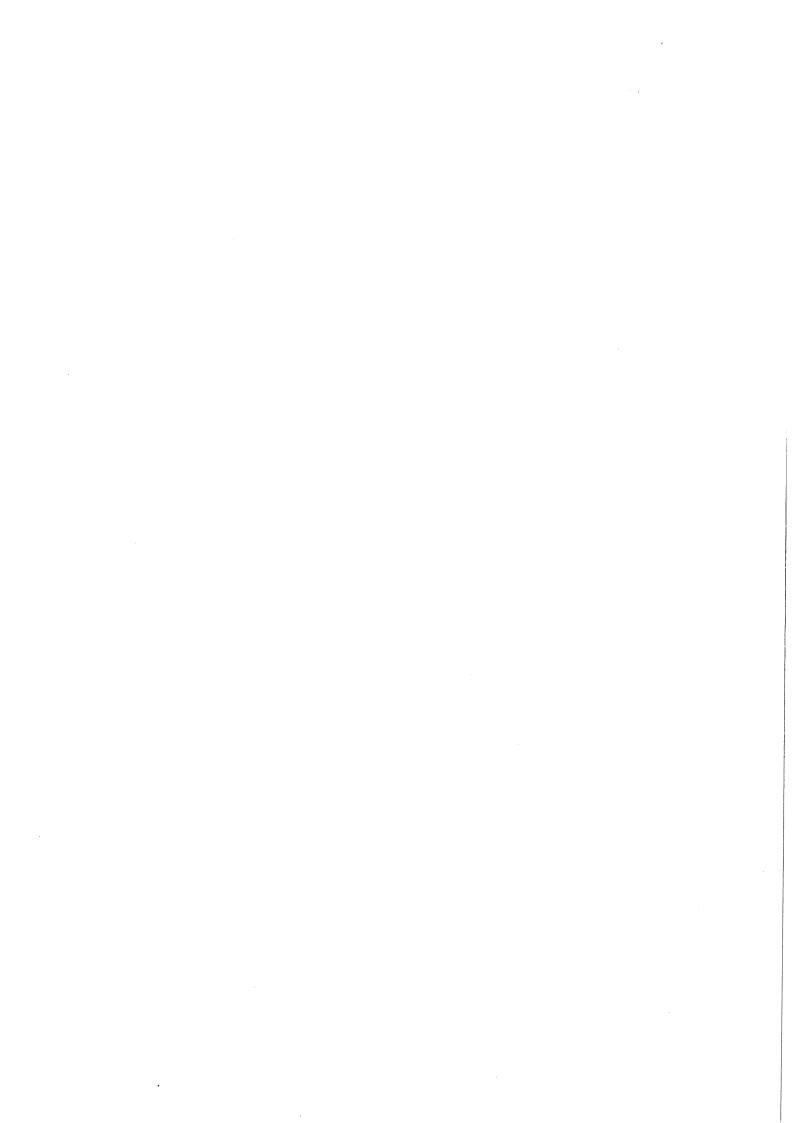
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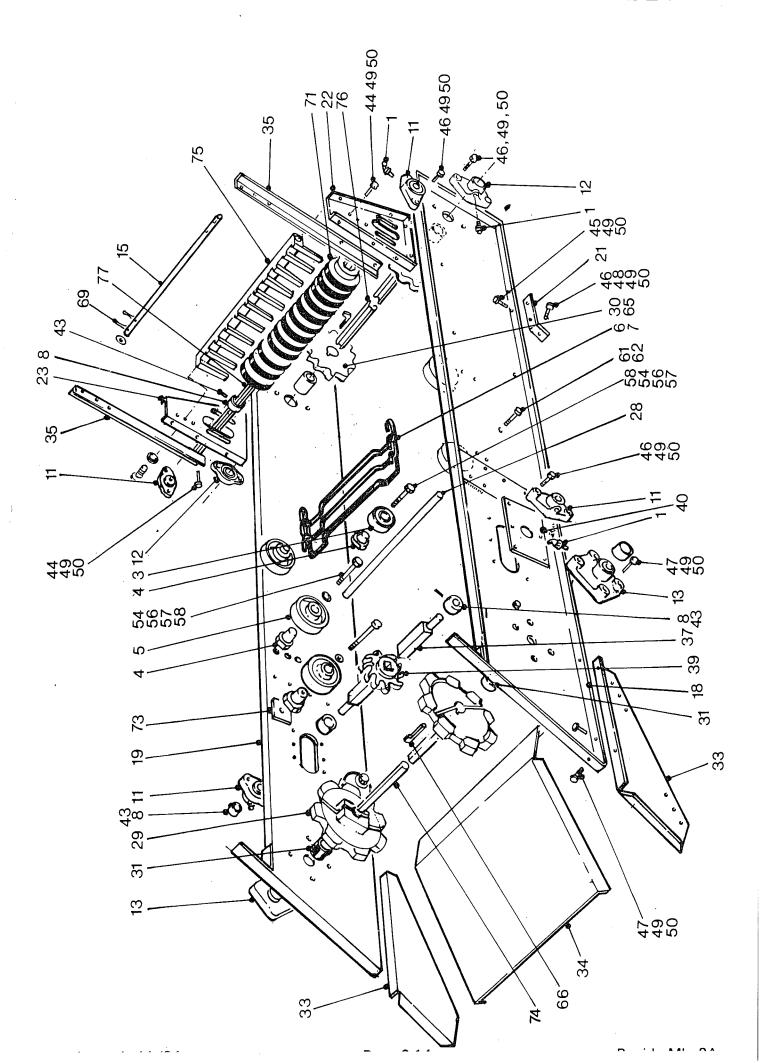
| em lo. | Part No. | Description | Qty. | Remarks |
|-----------|--------------------|--|-----------|----------------------------------|
| | | | | |
| 1 | BM2 | Roller | 8 | |
| 2 | BM2/A | Roller Bush | 8 | |
| 3 4 | BM3 | Roller | 2 | |
| 5 | BM3/A BM8/A | Roller Bush Flight | 2 | |
| 6 | BM43/A | Web Link Up | 10 | |
| 7 | BM44/A | Web Link Down | 103 74 | Oty Breakdown for BM43A & 44A |
| 8 | BM44/1 | Cleaner Weight | 2pr | BM43A & 44A |
| 9 | BM58/A | Cheek Plate LH | 1 | Main Elev - 73 |
| 10 11 | BM59/B BM85 | Cheek Plate RH Apron Anchor | 1 | Top Track - 30 |
| 12 | DIVIOU . | Aproli Alichoi | 1 | BM44A |
| 13 | 1 | | | Main Elv - 18 Top Track - 30 |
| 4 | GS450 | Grease Nipple | 2 | Cleaner Apron - 26 |
| 5 | | | | |
| 7 | PS212B | Roller Bush | | |
| 8 | PS213B | Roller | 14 | • |
| 9 | PS326/M | Stop Collar | 1 1 | |
| 0 | | | ' | |
| 2 | SF30 | Bearing | 1 - 1 | |
| 3 | SPCL253 | Washer | 2 2 | |
| 4 | | | 2 | |
| 5 | TBMW692 | 111.00 | | |
| 7 | TBMW693 | LH Side RH Side | | |
| 3 | , 5, 1, 1, 1, 1, 1 | 711 Side | 1 1 | |
| | TBMW10 | Top Track Roller Adjuster Plate | 2 | • |
|) | | | - | |
| | TBMW36 | Inner Plate | | |
| | TBMW674 | Drive Shaft | 1 p | |
| . | TBMW155 | Tie Bar | 1 1 | |
| | TBMW156 | Top Track Rest | 2 | |
| , | TBMW157/A | Pivot Bar | 1 1 | |
| | TBMW158 TBMW159 | Tie Bar Tie Bar | 1 1 | • |
| | TBMW162 | Web Sprocket | 2 2 | |
| -] | | TOD OPTOMOL | 2 | |
| | | | | |
| | | | | |
| | TBMW226 | Spacer | | |
| | | · | 2 | |
| | TBMW395 | Carathau C | | |
| 1 | TBMW396 | Gearbox Support Plate Blanking Plate | 1 1 1 | • |
| | TBMW397 | Tie Plate | 1 1 | |
| | TBMW735 | Top Track Frame | | |
| | TBMW736 | Beet Deflector | 2 | |
| | | | | |
| | ĺ | | | |
| | | M8 x 25mm Hex Hd Setscrew | 26 | |
| | | M8 Plain Washer | 6 | |
| | | M8 Spring Washer M8 Nut | 26 | |
| | 1 | IVIO IVUL | 26 | |
| | | | | |
| | ĺ | M10 x 10mm Hex Socket Setscrew | 1 1 | |
| | j | M10 x 25mm Hex Hd Setscrew M10 Plain Washer | 7 | |
| | | M10 Spring Washer | 8 | |
| | | M10 Nut | 7 7 | |
| | | | ' | |
| | | M12 x 30mm Hex Hd Setscrew | | |
| | | M12 x 35mm Hex Hd Setscrew M12 x 35mm CSK Hd Bolt | 24 | |
| | } | M12 x 70mm Hex Hd Bolt | 2 4 | |
| | | M12 x 75mm CSK Hd Bolt | 4 4 | |
| 1 | | M12 x 110mm Hex Hd Bolt | 20 | |
| | . | M12 Plain Washer M12 Spring Washer | 26 | |
| | - | M12 Spring vvasner M12 Nut | 50 | |
| | | | 47 | |
| | | M16 v 20mm Havett to | | |
| | | M16 x 30mm Hex Hd Setscrew M16 x 40mm Hex Hd Bolt | 4 | |
| | 1 | M16 x 80mm Hex Hd Bolt | 2 | |
| 1 | 1 | M16 Plain Washer, M16 Spring Washer | 2 8 | |
| 1 | | | 1 0 1 | |

MAIN ELEVATOR & TOP TRACK

| tem Part No. No. | DR & TOP TRACK DESCRIPTION | , Qty. | Remarks |
|---------------------|---|--------|---------|
| 83 84 | M16 Nut | 2 | |
| 85 86 87 | M20 x 40mm Hex Hd Bolt M20 Spring Washer | 2 2 | |
| 88 89 90 | 7mm x 8mm x 70mm Gib Head Key | 2 | |
| 90 | /mm x 8mm x /0mm Gib Head Key | - | |
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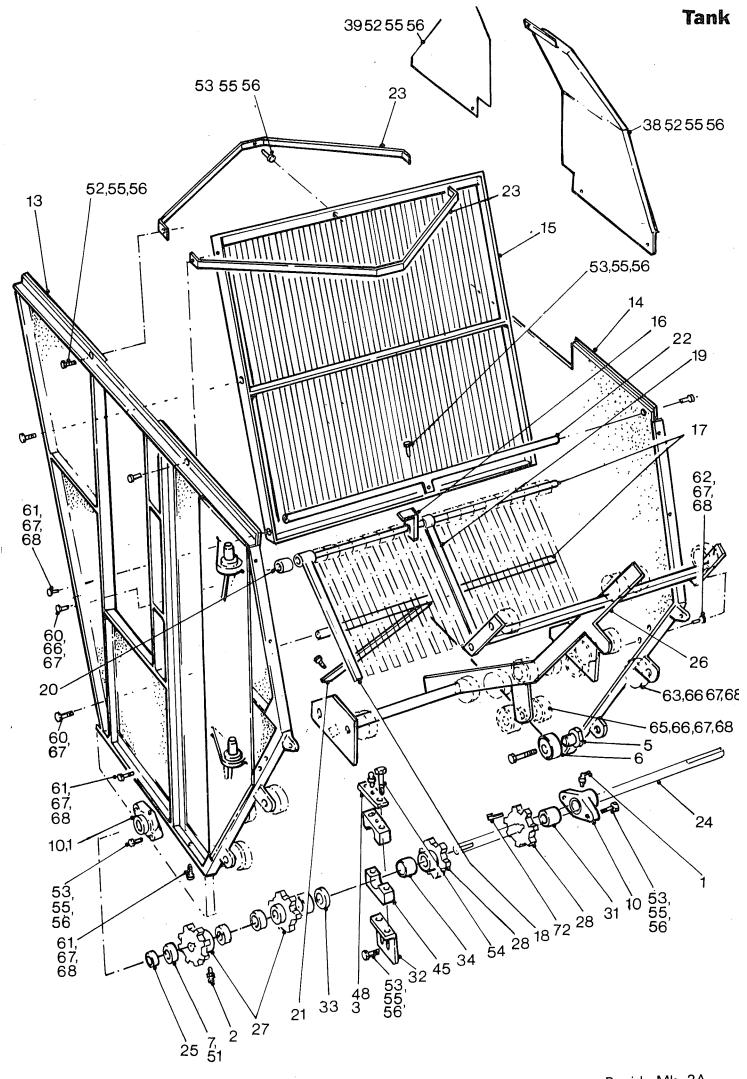
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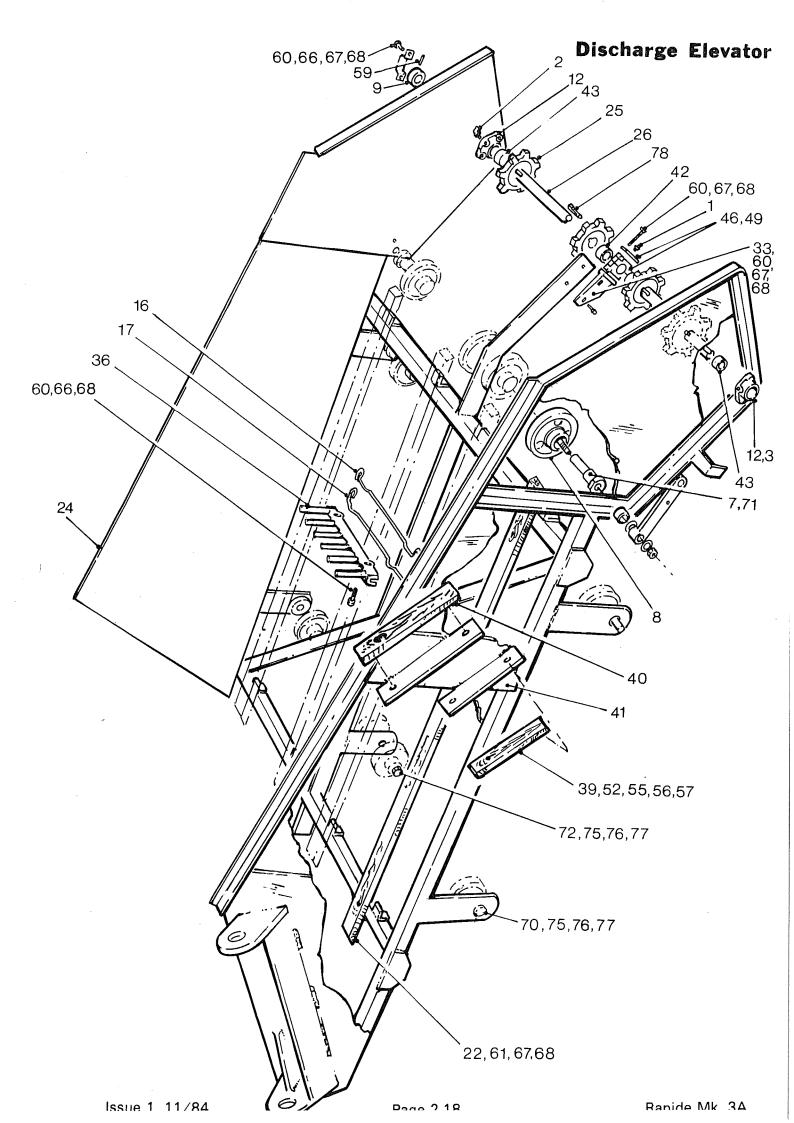


TRASH EXTRACTOR

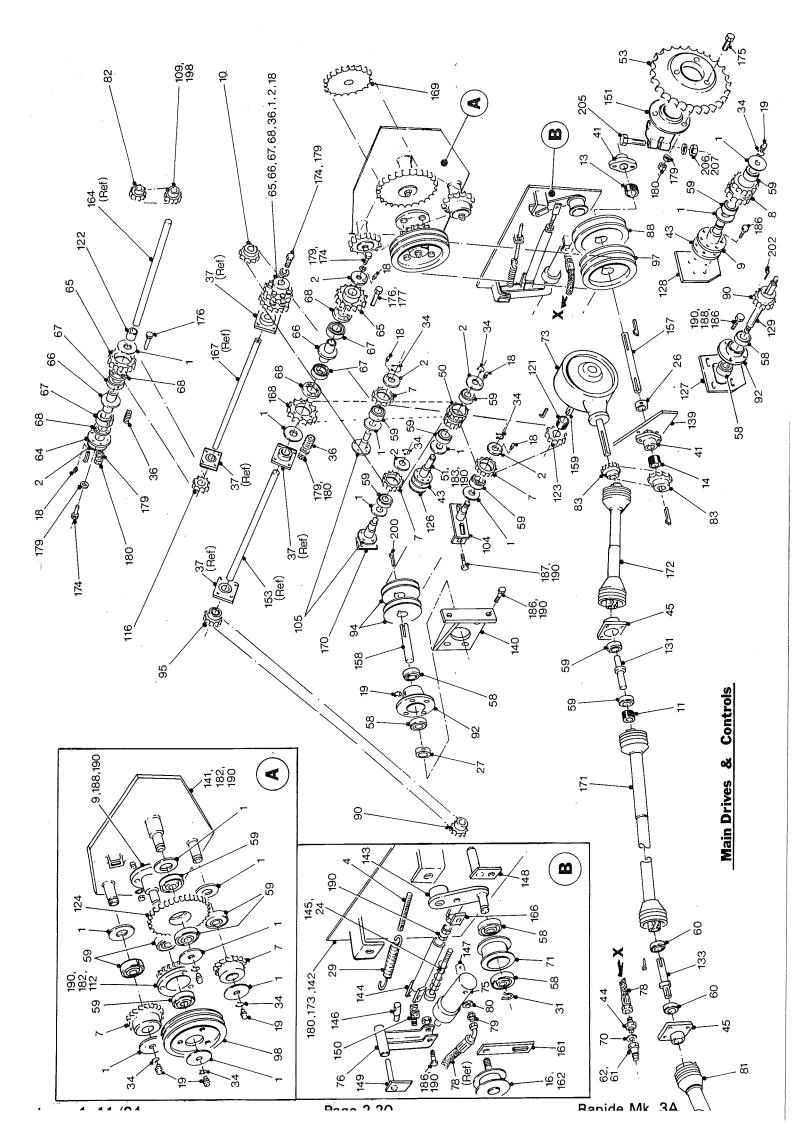
| em o. Part No. | Description | Oty. | Remarks |
|---|---|--|---------|
| GS409 | Grease Nipple | 6 | |
| PS213A PS212B PS213B PS438Down PS438Up PS488M | Roller Roller Bush Roller Web Link Web Link Stop Collar | 4 12 8 35 35 5 | |
| SFT25 SFT30 SF30A | Bearing Bearing Bearing | 4 2 2 | |
| TBM138 | Cleaner Web Support Bar | 1 | |
| TBMW731 TBMW732 | LH Side RH Side | 1 1 | |
| TBMW132A TBMW733 TBMW734 | Support Strap Roller Support Plate LH Roller Support Plate RH | 2 1 1 1 | |
| TBMW140 TBMW145A TBMW159 TBMW162 TBMW170 TBMW226 TBMW227 TBMW227 TBMW247 TBMW247 | Drive Shaft Rubber Roller Scraper Main Elevator Tie Bar Main Elevator Sprocket Web Sprocket Main Elevator Drive Shaft Spacer Drive Shaft Spacer Tank Chute Side Plate L & R Tank Inner Chute Apron Support Stay | 2 1 2 2 2 2 2 1pr 1 1pr | |
| TBMW275 TBMW276 TBMW277 TBMW284 | Flipper Barrel Shaft Chain Tensioner Flipper Dust Cover | 1 1 12 2 | • |
| | M10 x 10mm Hex Socket Setscrew M10 x 20mm Hex Hd Setscrew M10 x 25mm Hex Hd Setscrew M10 x 30mm Hex Hd Setscrew M10 x 35mm Hex Hd Bolt M10 x 40mm Hex Hd Bolt M10 Plain Washer M10 Spring Washer M10 Nut | 12 12 12 4 8 2 48 48 | |
| | M12 x 85mm Hex Hd Bolt M12 x 110mm Hex Hd Bolt | 4 12 | |
| | M12 Plain Washer M12 Spring Washer M12 Nut | 12 16 16 | |
| | M16 x 25mm Hex Hd Setscrew M16 Spring Washer | 4 4 | |
| | 7mm x 8mm x 50mm Gib Head Key 7mm x 8mm x 70mm Gib Head Key | 2 2 | |
| | 3/16" x 1 1/2" LG Cotter Pin | 2 | |
| 14725 TRH133 | Roller Packing Piece | 12 | |
| TBMW461 TBMW720 TBMW724 TBMW725 | Drive Shaft Roller Scraper Drive Shaft Roller Shaft | 2 1 1 1 1 | |
| | | | |



| item No. | Part No. | DESCRIPTION | Qty | Remarks |
|--|---|--|--|---------|
| 1 2 3 | GS409 GS410 GS412 | Grease Nipple Grease Nipple Grease Nipple | 2 2 1 | |
| 4 5 6 7 8 | PS212B PS213B PS326M | Roller Bush Roller Stop Collar | 24 24 4 | |
| 9 10 11 | SFT30 | Bearing | 2 | |
| 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 | TBMW114A TBMW115B TBMW116 TBMW117 TBMW118 TBMW120 TBMW121 TBMW637 TBMW637 TBMW123 TBMW124 TBMW125 TBMW125 TBMW128A TBMW128A TBMW142 TBMW166 TBMW166 | Front Rear RH Side Tip Grille Support Angle Tie Rod Tip Grille Finger Tip Grille Centre Finger Tip Grille Spacer Tip Grille Support Bar Top Tie Rod Stay Discharge Elevator Bottom Shaft Spacer Divider Discharge Elevator Idler Web Sprocket Discharge Elevator Driven Web Sprocket | 1 1 1 1 2 14 1 2 1 1 2 1 1 1 2 | |
| 29 30 31 32 33 34 | TBMW227 TBMW245 TBMW260 TBMW261 | Spacer Discharge Elevator Briven Web Sprocket Spacer Discharge Elevator Bottom Shaft Support Spacer Spacer | 1 1 1 1 | |
| 6 7 8 9 0 | TBMW290 TBMW291 | LH Baffle Plate RH Baffle Plate | 1 1 | |
| 2 3 4 5 5 6 | TRT298 | Bottom Shaft Centre Bearing Block | 2 | |
| | 17133 | Bottom Shaft Centre Bearing Keep Plate | 1 | |
| | | M10 x 10mm Hex Socket Setscrew M10 x 25mm Hex Hd Setscrew M10 x 30mm Hex Hd Setscrew M10 x 75mm Hex Hd Bolt M10 Spring Washer M10 Nut | 4 8 9 2 17 17 | |
| | · | M12 x 25mm Hex Hd Setscrew M12 x 30mm Hex Hd Setscrew M12 x 60mm Hex Hd Bolt M12 x 110mm Hex Hd Bolt M12 x 140mm Hex Hd Bolt M12 x 190mm Hex Hd Bolt M12 x 190mm Hex Hd Bolt M12 Plain Washer M12 Spring Washer M12 Nut | 6 17 2 10 2 6 28 47 41 | |
| | | 7mm x 8mm x 70mm Gib Head Key | 2 | |
| | | | | |
| | | | | |



| item No. | CHARGE EL Part No. | DESCRIPTION | Qty | Remarks |
|--|---|---|------------------|---------|
| 1 2 3 4 5 | GS412 GS413 GS450 | Grease Nipple Grease Nipple Grease Nipple | 1 1 1 | |
| 6 7 8 9 | PS212B PS213B PS326M | Roller Bush Roller Stop Collar | 12 12 1 | |
| 11 12 13 14 | SFT30 | Bearing | 2 | |
| 15 16 17 18 19 | TBM15 TBM16 | Web Link Web Link (Looped) | 218 24 | |
| 20 21 22 23 | TBMW113 | Wooden Runner | 4 | |
| 24 25 26 27 28 29 | TBMW144C TBMW167 TBMW183 | Frame Driven Web Sprocket Top Shaft | 1 4 1 | |
| 30 31 32 33 34 | TBMW224 | Top Shaft Support | 1 | |
| 35 36 37 | TRH361 | Lat | 28 | |
| 38 39 40 41 42 43 44 | TBMW419 TBMW420 TBMW436 C33 C38 | Wooden Runner (Small) Wooden Runner (Large) Wood Runner Support Plastic Spacer (11/4 ID) Plastic Spacer (11/4 ID) | 1 1 1 2 2 2 | |
| 45 46 47 | TRT298 | Top Shaft Centre Block | 2 | |
| 48 49 50 51 | 17133 | Top Shaft Centre Bearing Keep Plate | 1 | |
| 52 53 54 | | M8 x 30mm Hex Hd Setscrew | 4 | |
| 55 56 57 58 | | M8 Plain Washer M8 Spring Washer M8 Nut | 4 4 4 | |
| 9 30 31 | | M10 x 10mm Hex Socket Screw M10 x 30mm Hex Hd Setscrew M10 x 50mm Coach Bolt | 1 62 8 | |
| 2 3 4 | | M10 x 75mm Hex Hd Bolt | 2 | |
| 5 6 7 8 | | M10 Plain Washer M10 Spring Washer M10 Nut | 117 15 69 | |
| 0 1 2 3 | | M12 x 110 Hex Hd Bolt M12 x 160 Hex Hd Bolt M12 x 190 Hex Hd Bolt | 5 1 3 | |
| 4 5 7 8 | | M12 Plain Washer M12 Spring Washer M12 Nut 7mm x 8mm x 55mm Gib Hd Key | 9 9 9 4 | |
| 0 | | | | |



MAIN DRIVES & CONTROLS

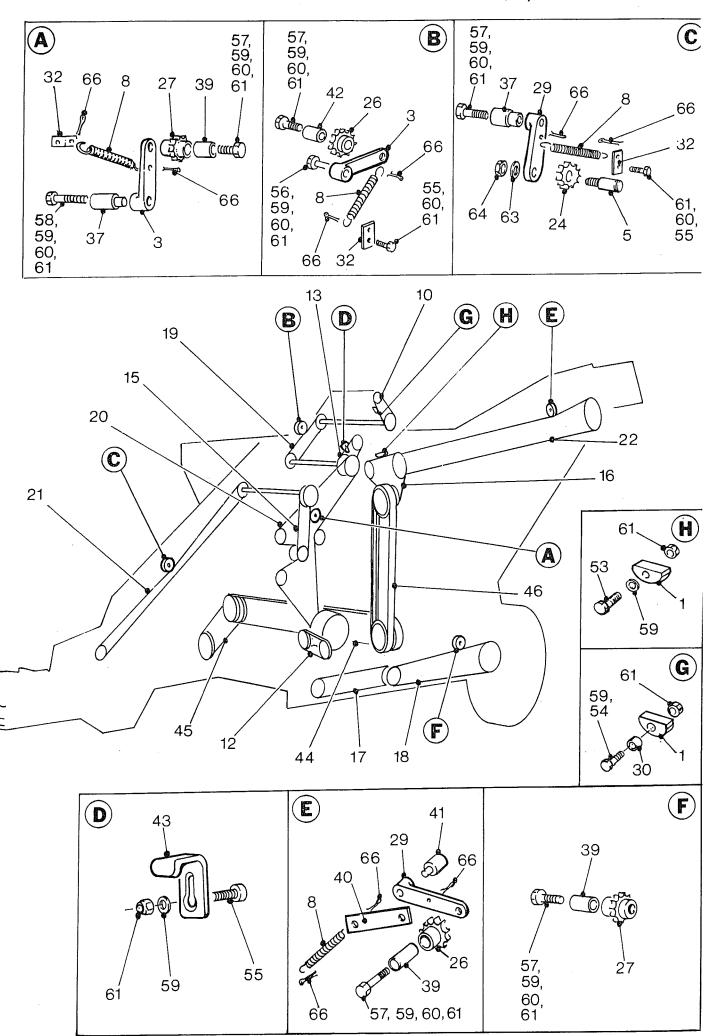
| Item No. | Part No. | Description | Qty. | Remarks |
|--|--|---|-----------------------------|-----------------------------|
| 1 2 | BM12 BM12A | Washer Washer | 6 5 | |
| 3 4 | BM82M | Spring Tensioner | 1 | |
| 5 6 7 8 9 10 11 | BM172 BM173 BM174A BMZ112M A13 | Sprocket Double Sprocket Sprocket Spigot Sprocket Plastic Spacer | 5 1 2 1 1 | |
| 13 14 | C27 C35 | Plastic Spacer Plastic Spacer | 1 1 | |
| 15 16 17 | FPS118A | Bearing | 1 | |
| 17 18 19 20 21 22 | GS410 GS412 GS450 | Grease Nipple Grease Nipple Grease Nipple | 5 4 2 | |
| 23 24 25 | PS165 | Spring | 1 | |
| 26 27 28 | PS326M PS488M | Collar Collar | 2 | |
| 29 30 | PS766 | Spring | 1 | |
| 31 32 | PS843 | Circlip | 1 | |
| 33 34 35 | RH56 | Circlip | 8 | |
| 36 37 38 39 40 41 | RH149 SF30A SFT25 SFT30 SFT25A SFT30A | Spring Bearing Bearing Bearing Bearing Bearing Bearing | 18 4 1 2 4 4 | |
| 42 43 44 45 46 47 48 | SPCT36 SPCT69 SP44M | Spigot Spacer Male/Male Adaptor Bearing Housing | 2 1 2 | |
| 49 50 51 52 | ТВМ6 ТВМ7А | Double Sprocket Double Sprocket Spigot | 1 1 | |
| 53 54 55 | TBM51 | Topping Unit Drive Sprocket 45T | 1 | |
| 56 57 58 59 60 61 62 | 6005RS 6206 6207RS 10140 10141 | Bearing Bearing Bearing Male Quick Release Coupling Female Quick Release Coupling | 6 12 4 1 1 | |
| 63 64 65 66 67 68 69 | 11002 11003 11004 11005 11006 | Clutch Plate 26T Sprocket Clutch Centre Bearing Clutch Disc | 1 4 3 6 6 | |
| 70 71 | 11125 11176 | Seal Washer Roller | 1 1 | |
| | 11279 | Gearbox | 1 | For breakdown see page 2.24 |
| 76 | TBMW474 11331 | Hydraulic Ram Adjusting Arm | 1 | |
| 79 80 81 | 11335 11336 11337 13019 14423 | Hydraulic Hose Adaptor Washer Coupling 17T Sprocket | 1 1 1 1 | |

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| MAIN DRIVES & CONTROLS | | | | | | | |
|--|----------------------|---|----------|--|--|--|--|
| Item No. | Part No. | Description | Qty. | Remarks | | | |
| 83 84 | 17075 | Sprocket | 2 | | | | |
| 85 86 87 | 17155 | Nylon Jockey | 1 | | | | |
| 88 89 | 17221 Tamb 152 | Pulley | 1 | | | | |
| 90 91 | TBHW153 | Sprocket | 1 | , | | | |
| 92 93 | 19411 | Bearing Housing Pulley | 2 2 | | | | |
| 94 95 96 | 13314 | 19T Sprocket | 1 | | | | |
| 97 98 | TBMW101 TBMW102 | Double Pulley Double Pulley | 1 1 | | | | |
| 99 100 101 102 103 104 | TBMW147 | Chain Tensioner Plate | 1 | | | | |
| 105 106 107 108 | TBMW148 | Idler Spocket Spigot | 2 | | | | |
| 109 110 111 | TBMW169 | Rubber Roller Drive Sprocket | 1 | | | | |
| 112 113 114 | TBMW181 | D/E Pulley Mounting Flange | 1 | | | | |
| 115 116 117 118 119 120 | TBMW204 | Trash Extractor Drive Sprocket | 1 | | | | |
| 121 122 | TBMW217 TBMW227 | Plastic Spacer Spacer | 1 1 | · | | | |
| 123 124 | TBMW250 TBMW251 | Gearbox Sprocket Double Sprocket | 1 1 | | | | |
| 125 126 127 | TBMW269/1 TBMW272 | Shim Bearing Plate | A/R 1 | | | | |
| 128 129 130 | TBMW273 TBMW274 | Double Sprocket Support Plate Drive Shaft | 1 1 | | | | |
| 131 132 | TBMW326M | Collar | 1 | | | | |
| 133 134 135 | TBMW385 | Bearing Housing Shaft | 2 | | | | |
| 136 137 | TBMW395 | Gearbox Support Plate | 1 | | | | |
| 138 139 | TBMW397 TBMW398 | Tie Plate Gearbox Support Plate | 1 1 | | | | |
| 140 | TBMW399 TBMW400 | Bearing Housing Mounting Bracket Top Drive Mounting Plate | 1 1 1 | | | | |
| 142 143 | TBMW401 TBMW402 | Bottom Drive Mounting Plate Jockey Arm Tension Barrel | | | | | |
| 144 145 | TBMW649 TBMW404 | Tension Rod | 1 1 | | | | |
| 146 147 | TBMW405 TBMW406 | Spring Tensioner Ram Pin | 1 | , | | | |
| 148 149 | TBMW407 TBMW408 | Pivot Pin Pivot Pin | 1 1 | | | | |
| 150 | TBMW648 | Rod Fixing Bracket | 1 1 | | | | |
| 151 152 153 | TBMW410 TBMW674 | Drive Support Clamp Top Track Drive Shaft | ' | | | | |
| 154 155 | | | | | | | |
| 156 157 158 | TBMW415 TBMW417 | D/E Drive Shaft Flail Drive Shaft | 1 1 | If Pulverisor Fitted Part No. TBMW416 If PreTopper Fitted part no. TBMW591 | | | |
| 159 160 | TBMW418 | Gearbox Shaft | 1 | | | | |
| 161 162 | TBMW431 TBMW348 | Jockey Arm Jockey Roller | 1 1 | | | | |
| | | | | | | | |

| tem No. Part No. | Description | Qty. | Remarks |
|--|--|---------------------------------------|---------|
| 163 164 165 166 178MW453 170 171 178 170 171 178 177 178 177 178 181 182 183 184 185 186 187 188 189 190 190 191 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 201 202 203 204 205 206 207 208 209 201 202 203 204 205 206 207 208 209 201 202 203 204 205 206 207 208 209 201 202 203 204 205 206 207 208 209 201 202 203 204 205 206 207 208 209 201 202 203 204 205 206 207 208 209 201 202 203 204 205 206 207 208 209 201 202 203 204 205 206 207 208 208 209 201 202 203 204 205 206 207 208 208 209 201 202 203 204 205 206 207 208 208 209 209 201 202 203 204 205 206 207 208 208 209 209 201 202 203 204 205 206 207 208 208 209 209 200 201 202 203 204 205 206 207 208 208 209 209 209 209 200 201 202 203 204 205 206 207 208 208 208 209 209 209 209 209 209 209 209 209 209 | Drive Shaft Adjuster Trash Extractor Drive Shaft | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Remarks |

Jockeys, Chains & Vee belt



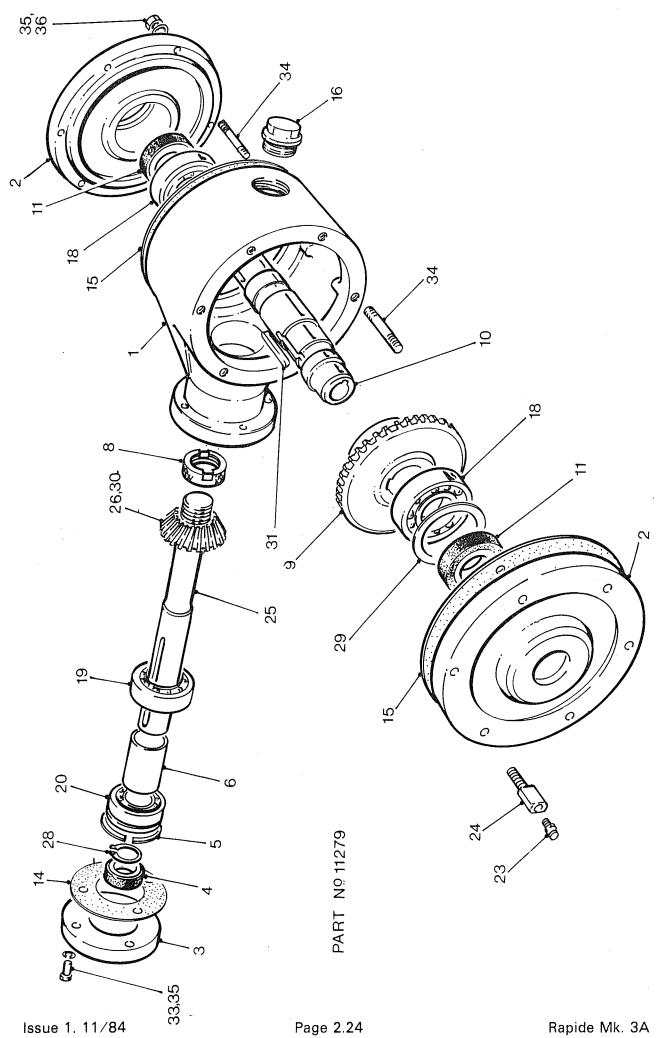
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Rapide Mk. 3A

JOCKEYS, CHAINS & VEE BELTS

| tem No. | Part No. | Description | Qty. | Remarks |
|-----------------------|--|---|--|---------|
| 1 2 | 17155 | Chain Tension Block | 2 | |
| 3 | BM184A | Jockey Arm | 2 | |
| 5 6 | FPS118 | Bearing | 1 | |
| 7 8 9 | H121 | Jockey Spring | 5 | |
| 10 | PH526/72 | Rubber Roller Drive Chain | 1 | · |
| 2 3 4 | PS871/39 PS371/42 | Chain Chain | 1 1 | |
| 5 | PS871/95 PS871/91 | Chain Chain | 1 1 | |
| 7 8 9 0 1 | PS871/113 PS871/142 PS871/181 PS871/187 PS871/214 PS871/224 | Chain Chain Chain Chain Chain Chain Chain | 1 1 1 1 1 1 | |
| 3 4 5 | RP72 | Paddle Drive Jockey Sprocket | 1 1 | |
| 6 7 | SP295 SP295A | Jockey Sprocket Jockey Sprocket | 2 2 | |
| | SP446 SS025013/035 | Jockey Arm Steel Spacer | 2 | |
| | твмвз | Spring Anchor | 3 | |
| | TBMW190A TBMW191 TBMW205 FBMW276/1 /B17 /B23 /B64 | Jockey Spring Anchor Jockey Spigot Jockey Sleeve Drive Chain Tensioner Vee Belt Vee Belt Vee Belt | 1 1 1 1 1 1 1 1 1 1 1 | |
| | | M12 x 45 Hex Hd Setscrew M12 x 90 Hex Hd Bolt M12 x 25 Hex Hd Setscrew M12 x 55 Hex Hd Bolt M12 x 70 Hex Hd Bolt M12 x 120 Hex Hd Bolt M12 Plain Washer M12 Spring Washer M12 Nut 1/2" Plain Washer 1/2" BSW Nut | 1 1 4 1 5 1 13 10 13 | |
| | | 1/4" Dia x 1 1/4" Long Cotter Pin | 9 | |
| | | | | |
| 1 | | | | |

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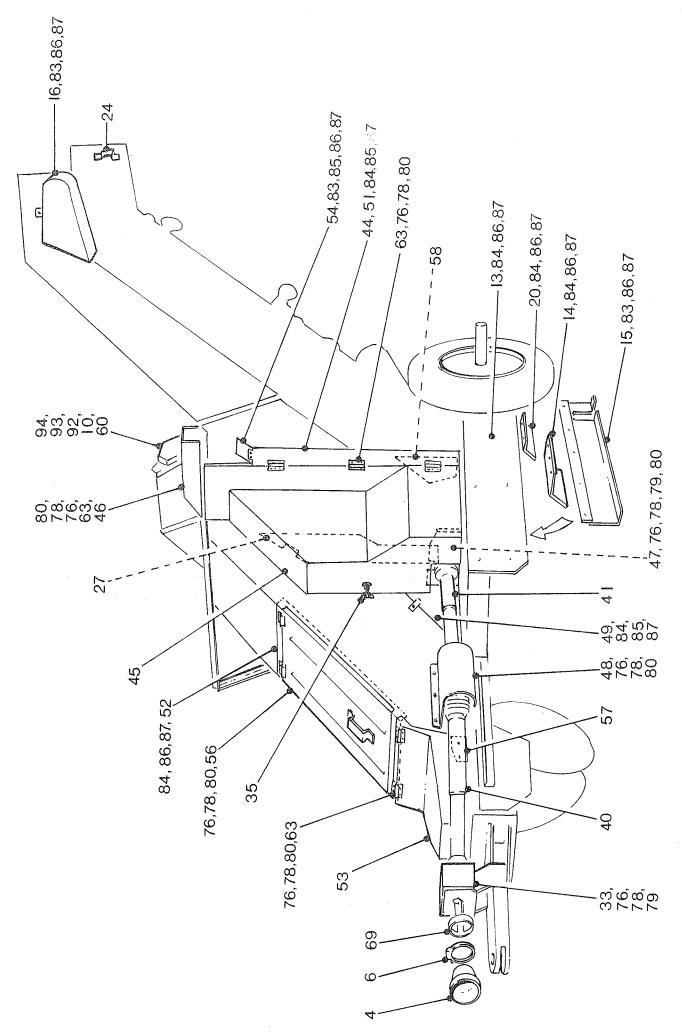


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Rapide Mk. 3A

GEARBOX

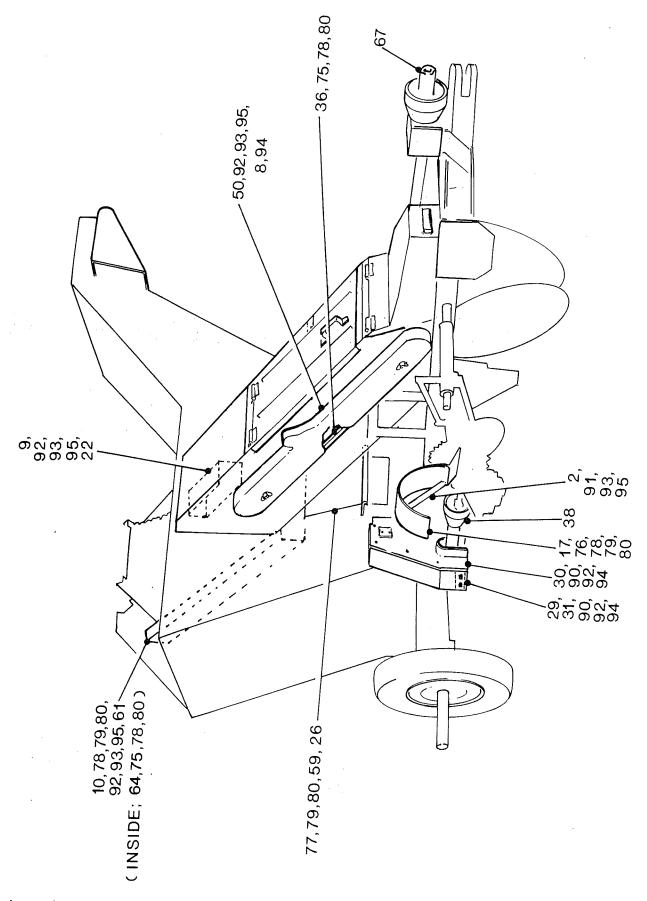
| 9 | | RBOX | | | | |
|----------------------------------|-----------|--|---|-----------------------|-----|---------|
| | em lo. | Part No. | DESCRIPTION | Q | ty. | Remarks |
| 1 2 3 4 5 6 7 | | PS200/2M PS201/2M PS202 PS233 PS236 PS237 | Gearbox Housing Gearbox Side Plate Tail Shaft End Plate Tail Shaft Oil Seal Bearing Circlip Spacer | 1 2 1 1 1 | | ·. |
| 8 9 10 11 12 | | PS240/1 PS242 PS243/M PS245 | Locknut Bevel Gear Output Shaft Output Shaft Oil Seal | 1 1 1 2 | | |
| 13 14 15 16 17 | | PS469 PS470/A PS869 | Tail Shaft End Plate Gasket Gearbox Side Plate Gasket Drain/Filter Plug | 1 2 1 | | |
| 18 19 20 21 | | 145 330 330/C | Output Shaft Bearing Tail Shaft Bearing Tail Shaft Bearing with Circlip Groove | 2 1 1 | | |
| 22 23 24 25 26 27 | | 11066 11069 11277 11278 | Gearbox Breather Gearbox Breather Plug Tail Shaft Bevel Pinion | 1 1 1 1 | | |
| 28 29 30 31 32 | | | Tail Shaft Circlip Side Plate Shim RBE Key 8mm x 7mm x 25mm RBE Key 8mm x 7mm x 32mm | 1 AR 1 1 | | |
| 33 34 35 36 | | | M10 x 30 Hex Hd Bolt M10 x 50 Stud M10 Spring Washer M10 Nut | 4 11 15 11 | | |
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Guards



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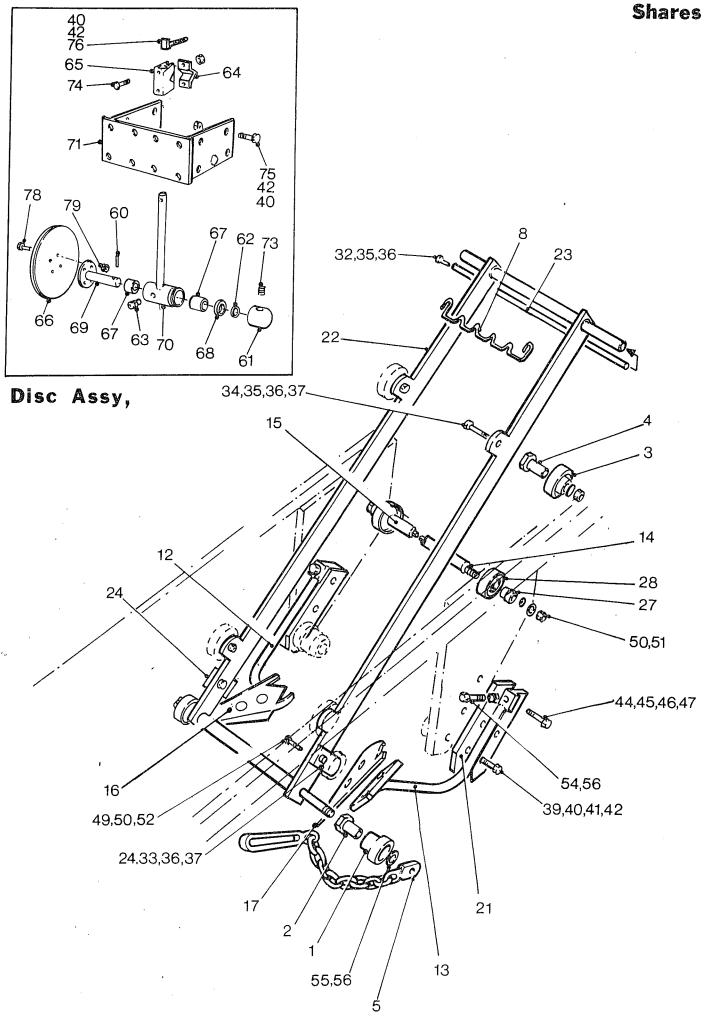
GUARDS

| GUARDS | | | | | | |
|----------------|----------------------|---|----------|--------------------------|--|--|
| Item No. | Part No. | Description | Qty. | Remarks | | |
| 1 2 | BM157A | Flail Guard Stay | | | | |
| 3 | | · | 1 | | | |
| 4 5 | BM196 | Coupling Guard Rubber | 1 | | | |
| 6 7 | GS407 | Jubilee Clip | 1 | | | |
| 8 | RP77M TBMW40M | Guard Bolt Guard Bolt | 2 | | | |
| 10 | TBMW72M | Guard Bolt | 3 | | | |
| 12 13 | TBMW197A | Feeler Wheel Chain Guard Front | 1 | | | |
| 14 15 | TBMW198A TBMW199A | Feeler Wheel Chain Guard Inner Feeler Wheel Chain Guard Back Plate | 1 1 | | | |
| 16 17 | TBMW200A TBMW210 | Discharge Elevator Top Guard Flail Guard | 1 1 | | | |
| 18 | 1810100210 | rian duard | | | | |
| 19 20 | TBMW252 | Feeler Wheel Inner Chain Guard Rear | 1 | | | |
| 21 22 | TBMW288A | Main Elevator Chain Guard | . 1 | | | |
| 23 24 | TBMW376 | Shaft End Guard | 2 | 2 on Tank rear not shown | | |
| 25 26 | TBMW434 | Vee Belt Guard/Dirt Chute | | | | |
| 27 28 | TBMW435 | Web Side Cover | 1 1 | | | |
| 29 30 | TBMW439 TBMW440 | Pulverisor Pulley Guard | 1 1 | | | |
| 31 | TBMW441 | Pulverisor Pully Guard Cover Pulverisor Pulley Guard Bracket | 1 1 | | | |
| 32 33 | TBMW446 | Drawbar Coupling Guard | 1 | | | |
| 34 35 36 | TBMW494 TBMW548 | Rubber Safety Hook Wood Runner | 1 1 | • | | |
| 37 38 | TBMW638/5 | Flail Drive Shaft Guard Tube | 1 | | | |
| 39 40 | TBMW663/5 | Main Drive Shaft Guard Tube | 1 | | | |
| 41 42 | TBMW664/5 | Main Drive Shaft Guard Tube | 1 | | | |
| 43 44 | TBMW694 | Main Drive Guard Support Panel | 1 | | | |
| 45 46 | TBMW695 TBMW696 | Main Drive Guard Main Drive Guard Top | 1 1 | | | |
| 47 48 | TBMW697 TBMW698 | Main Drive Guard End Plate Bearing Housing Guard | 1 1 | | | |
| 49 50 | TBMW699 TBMW700 | Web Guard Cage Wheel Drive Guard | 1 1 | | | |
| 51 | TBMW701 | Main Drive Guard Support Bracket | 1 1 | | | |
| 52 53 | TBMW702 TBMW703 | Main Web Angle Frame Cage Wheel Guard | 1 1 | | | |
| 54 55 | TBMW704 | Sprocket Run On Cover | 1 1 | | | |
| 56 57 | TBMW708 TBMW711 | Main Web Lid Cage Wheel Shaft End Plate | 1 1 | | | |
| 58 59 | TBMW718 TBMW719 | Pulley Drive Dirt Shield Dirt Chute Bracket | 1 1 | | | |
| 60 | TBMW723 | Roller Drive Guard | 1 1 | | | |
| 61 62 | TBMW727 | Trash Extractor Drive Guard | 1 | , | | |
| | TBMW739 TBMW740 | Hinge Wood Runner | 6 | | | |
| 66 67 | 13019/5 | Drive Shaft Guard Tube | 1 | | | |
| | 13118 | Rubber Guard Support Bracket | 1 | | | |
| 70 71 | | | | | | |
| 72 | | | | | | |
| 73 74 | | | | | | |
| 75 76 | | M8 CSK Hd Setscrew x 30 Lg M8 x 20 Hex Hd Setscrew | 12 | | | |
| 77 | | M8 x 35 Hex Hd Setscrew | 4 | | | |
| 78 79 | | M8 Plain Washer M8 Spring Washer | 46 10 | | | |
| 80 | | M8 Nut | 50 | : | | |
| | | | | | | |

GUARDS

| Iter No | m Part No. | Description | Qty. | Remarks |
|------------|---------------|---|-----------------------------------|---------|
| Iter | Part No. | M10 x 20 Hex Hd Setscrew M10 Plain Washer M10 Spring Washer M10 Nut M12 x 25 Hex Hd Setscrew M12 x 40 Hex Hd Setscrew M12 Plain Washer M12 Spring Washer M12 Wing Nut M12 Wing Nut | Oty. 9 18 7 20 25 10 2 15 7 11 6 | Remarks |
| | | | | |

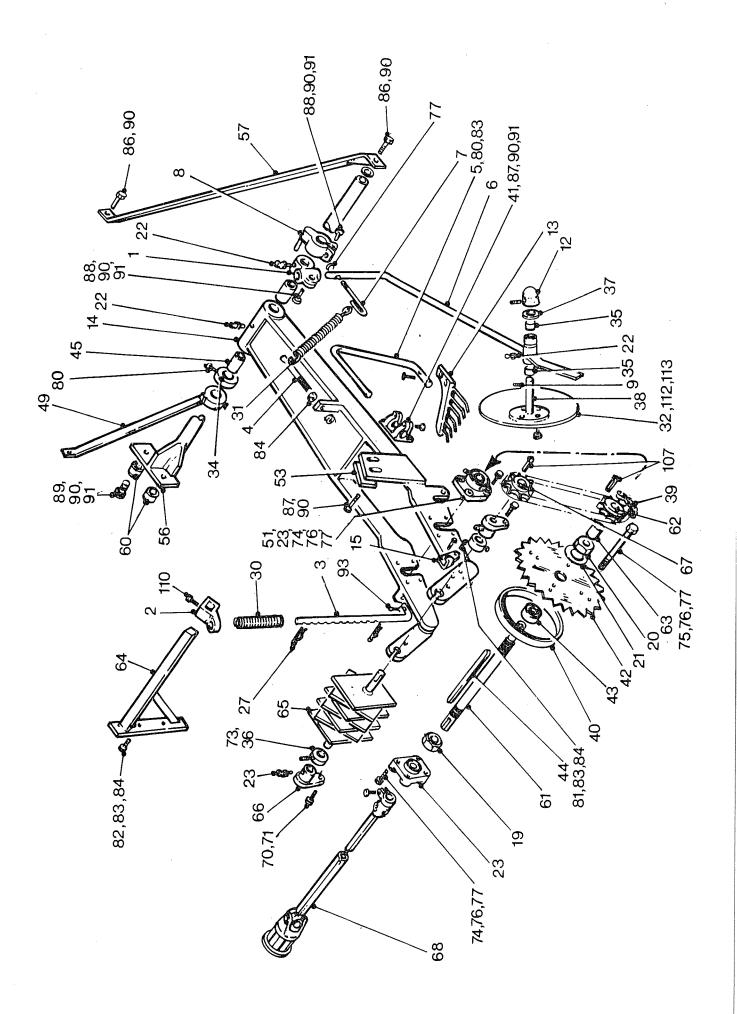
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SHARES

| Item No. | Part No. | Description | Qty. | Remarks |
|--|---|---|---|---------|
| 1 2 3 4 5 | BM1 BM1A BM2 BM2A BM127A | Top Track Bottom Roller Top Track Bottom Roller Bush Top Track Idler Roller Top Track Idler Roller Support Chain | 2 2 6 6 2 | |
| 7 8 9 10 | ВМ43А | Web Link | 40 | |
| 11 12 13 14 15 16 17 18 | BM60A BM61A BM111 BM112A BM114 BM115 BM126 | Lifter Arm RH Lifter Arm LH Cheek Plate Tie Rod Cheek Plate Tie Rod Tube Share Blade RH Share Blade LH Top Track Tie Rod | 1 1 1 1 1 1 | |
| 20 21 22 23 24 25 | BM133 BM137 BM137B BM138 | Lift Arm Spacer Top Track Frame Top Track Tie Bar Top Track Adjuster Plate | 2 1 1 1 2 | |
| 26 27 28 29 30 | PS212B PS213B | Roller Bush Roller | 4 4 | |
| 31 32 33 34 35 36 37 38 39 40 41 42 44 45 46 47 48 49 51 52 53 55 55 55 55 57 | | M12 x 30 Hex Hd Setscrew M12 x 35 Hex Hd Setscrew M12 x 110 Hex Hd Bolt M12 Plain Washer M12 Spring Washer M12 Spring Washer M12 Nut M16 x 65mm Hex Hd Bolt M16 Spring Washer M16 Plain Washer M16 Nut M20 x 65 Hex Hd Bolt M20 Plain Washer M20 Spring Washer M20 Spring Washer M20 Spring Washer M20 Nut 1/2 UNF x 1 1/2" CSK Sq Hd Setscrew 1/2 Spring Washer 1/2 BSW Nut 1/2 UNF Nut 5/8" BSW x 3" Hex Hd Setscrew 5/8" Spring Washer 5/8 BSW Nut | 2 6 8 10 8 2 10 2 10 2 2 2 2 2 2 2 2 4 6 2 2 4 | |
| 61 | 8M218 8M781M 6S 348 6S 348 6S 412 174 S206M S224 S386NM S588 S596M S597M BMW592 | Pin Dust Cap Washer Grease Nipple Bracket Disc Bracket Disc 15" Bush Oil Seal Disc Spindle Disc Leg Support Frame M10 x 10 Socket Hd Setscrew M16 x 30 Setscrew M16 x 70 Sq Hd Bolt Pin Collar | 2 2 2 2 2 2 2 4 2 2 2 2 2 2 2 2 2 4 8 4 4 4 4 | |

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TOP SAVING TOPPING UNIT

| Item No. | | Description | Qty | Remarks |
|--|--|--|--|--|
| 1 2 3 4 5 6 7 8 9 | BM20A BM21 BM75B BM82M BM143M BM210A BM213M BM213 BM214 BM218 | Bracket Lift Bracket Lift Link Spring Tens.oner Knife Arm Disc Stalk Hook Bolt Stop Collar Disc Retaining Pin | 1 1 1 1 1 1 | |
| 11 12 13 14 15 16 | BMT81M BMT87M BMT100A BMT103A | Dust Cap Knife Frame Chain Adjuster | 1 1 1 | |
| 18 19 20 21 22 23 24 25 | GS353 GS412 GS450 | M30 RH Nut M30 LH Nut Washer Grease Nipple Grease Nipple | 1 1 2 3 6 | |
| 26 27 28 | H105 | Quick Release Pin | 2 | |
| 29 30 31 32 | PS165 PS194 PS224 | Spring Spring Disc | 1 1 1 | |
| 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 | PS353M PS386NM PS488M PS588 PS596AM PS666/48 PS872 PS1002AM PS1003AM PS1005 | Stop Collar Bush Stop Collar Oil Seal Disc Boss Drive Chain Feeler Wheel Ring Knife Arm Bracket Feeler Wheel Plate Feeler Wheel Spacer 8mm x 7mm x 165mm RBE Key Bush | 1 2 2 1 1 1 5 1 6 5 1 2 | |
| 48 49 50 | RPT67 | Pivot Stay | 1 | |
| 51 | SLF25 | Bearing | 2 | |
| 52 53 54 | SPCL309 | Clamp Plate | 1 | |
| 55 56 57 58 | TBMTW1M TBMTW2 | Pivot Bar Pivot Stay | 1 1 | |
| 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 | TBMW437 TBMW504 TBMW505 TBMW506 TBMW507 TBMW508 TBMW509 TBMW509 TBMW510 TBMW742 | Spacer Shaft Sprocket Spacer Lift Bar Cleaner Bearing Sprocket Universal Coupling M8 x 20mm Hex Hd Setscrew M8 Spring Washer M10 x 10 Hex Hd Setscrew M10 x 40 Hex Hd Setscrew M10 x 180 Hex Hd Setscrew M10 x 180 Hex Hd Solt M10 Spring Washer | 1 1 1 1 2 1 1 2 2 2 8 4 16 17 | Prior to Serial No. RT5074B Part. No. was TBMW644 |
| 78 79 80 81 82 | | M12 x 25 Hex Hd Setscrew M12 x 30 Hex Hd Setscrew M12 x 40 Hex Hd Bolt | 3 2 2 | |

| m Part o. No. | DESCRIPTION | Oty. | Remarks |
|------------------------|--|--|---------|
| | M12 Spring Washer M12 Nut M12 x 60mm Hex Hd Setscrew M16 x 25mm Hex Hd Setscrew M16 x 40 Hex Hd Setscrew M16 x 70 Hex Hd Bolt M16 x 85 Hex Hd Bolt M16 Spring Washer M16 Nut | 8 6 2 2 4 2 2 10 6 | |
| 2611-1007 2682-1000 | 7 x 8 x 40 Gib Hd Key ½" BSW x ¾" Bolt Pin Collar | 2 3 4 4 | |
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Andrew Marie Comment of the Comment

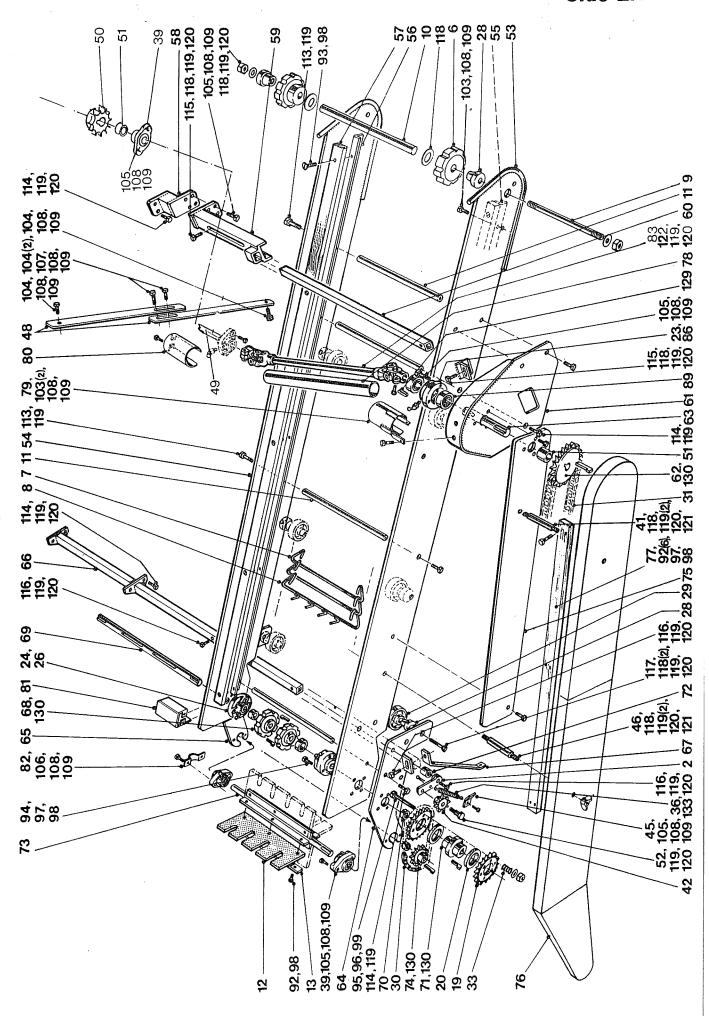
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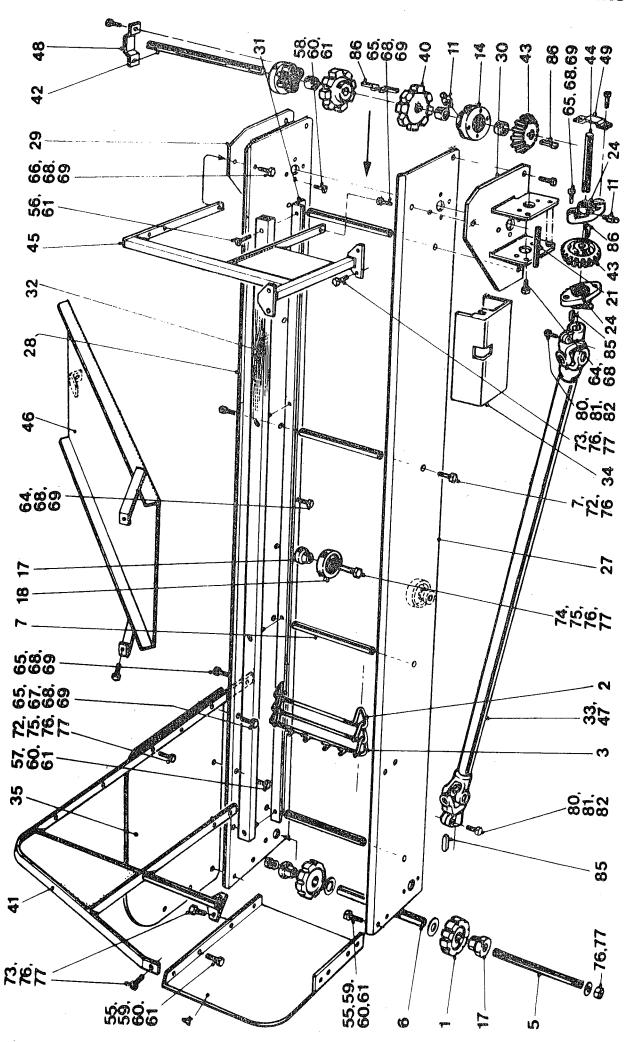
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Side Elevator



| Item No. | Part No. | DESCRIPTION | Terrori Macadamic Alexandria (1914) | Oty. | Remarks |
|--|--|--|-------------------------------------|--|---|
| 1 2 3 | BM186A | Jockey Arm | | 1. | |
| 4 5 6 7 8 9 10 11 12 13 14 15 | BMT3 BMT7 BMT7 1 BMT111M BMT112 BMT113M BMT123A BMT124A | Sprocket Web Link Web Link Tie Rod Tube Spacer Tie Bar Paddle Rubber Clamp Strip | | 2 143 14 1 1 4 4 | |
| 17 18 19 20 21 | BMZ114 BMZ118A | Clutch Sprocket Ferodo Disc | | 2 2 | |
| 22 23 24 25 | GS411 GS450 | Grease Nipple Grease Nipple | | 1 4 | |
| 26 27 | MFC25 | Bearing | | 2 | *************************************** |
| 28 29 30 31 | PS212B PS213A PS666/41 PS666/252 | Roller Bush Roller Drive Chain Drive Chain | C. 10. | 8 6 1 | |
| 32 | RH149 | Clutch Spring | | 6 | |
| 34 35 36 37 | RP71 | Spring | | 1 | |
| 38 39 | SFT25 | Bearing | | 4 | |
| 40 41 42 43 | SPCL154M SP296 | Guard Bolt Jockey Sprocket | | 1 | |
| 5 6 | TBM83 TBM172M | Spring Anchor Guard Bolt | | . 1 | |
| 7 T T T T T T T T T T T T T T T T T T T | TBMT4/5 TBMW106 TBMW107 TBMW108 TBMW511 TBMW511 TBMW512 TBMW513 TBMW514 TBMW515 TBMW516 TBMW516 TBMW517 TBMW517 TBMW517 TBMW520 TBMW520 TBMW521 TBMW523 TBMW524 TBMW525 TBMW525 TBMW525 TBMW525 TBMW526 TBMW527 TBMW528 TBMW527 TBMW528 TBMW529 TBMW52 | Support Drive Shaft Drive Sprocket Spacer Jockey Spindle RH Side LH Side RH Wood Runner Support LH Wood Runner Support Wood Runner Connector Support Channel Adjuster Tube Support Plate Support Plate Sprocket Shaft RH Support Plate LH Support Plate Support Bar Support Ba | | 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |

| em o. Part No. | Description | Qty. | Remarks |
|-------------------|---|--|---|
| 3 TBMW639 | Universal Coupling | 1 | Prior to Serial No. RT4988A Part No. was BM9DM |
| TRH354 | Bearing Housing | 1 | |
| 6005Z | Bearing | 2 | |
| | M8 x 20mm Hex Hd Setscrew M8 x 25mm CSK Hd Setscrew M8 x 50mm Hex Hd Setscrew M8 x 80mm Hex Hd Bolt M8 Plain Washer M8 Spring Washer M8 Nut M8 Lock Nut | 18 10 8 6 6 14 36 6 | |
| | M10 x 20mm Hex Hd Setscrew M10 x 25mm Hex Hd Setscrew M10 x 30mm Hex Hd Setscrew M10 x 30mm CSK Hd Setscrew M10 Plain Washer M10 Spring Washer M10 Nut | 10 4 12 2 4 28 28 | |
| | M12 x 25mm Hex Hd Setscrew M12 x 30mm Hex Hd Setscrew M12 x 65mm Hex Hd Bolt M12 x 70mm Hex Hd Bolt M122 x 100mm Hex Hd Bolt M12 Plain Washer M12 Spring Washer M12 Nut M12 Wing Nut M12 x 60mm Hex Hd Bolt | 4 9 3 3 6 22 34 25 2 | |
| | 7mm x 8mm x 25mm RBE Key 7mm x 8mm x 50mm Gib Head Key | 2 5 | |
| | 1/4 x 1 1/2" Cotter Pin | . 1 | |
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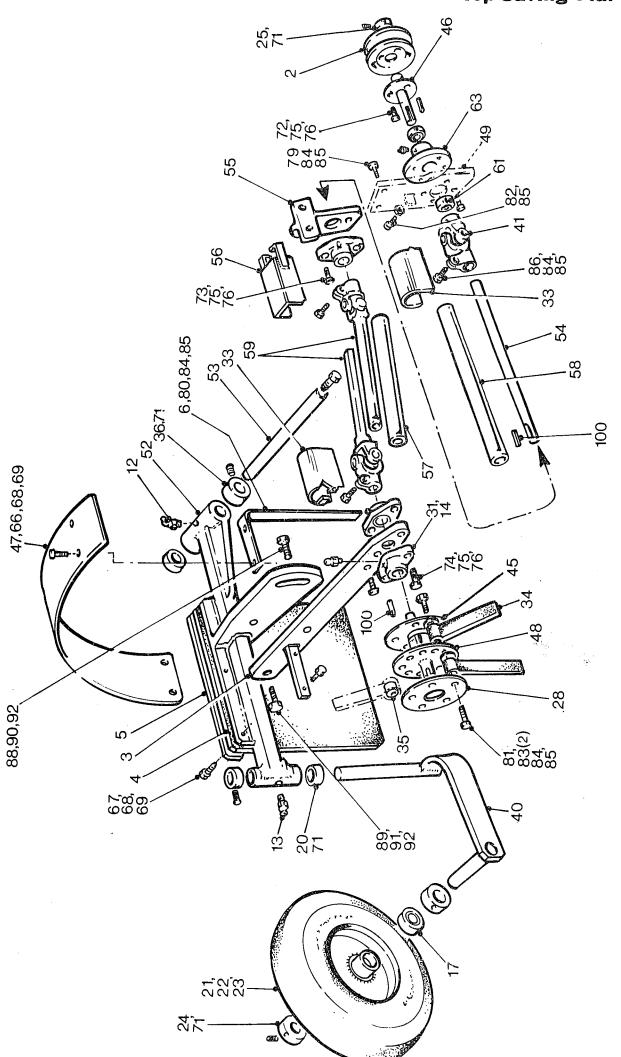
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| Item No. | Part No. | Description | Qty | y. Remarks |
|--|--|---|--|------------|
| 1 2 3 4 5 6 7 8 9 | BMT3 BMT7 BMT7/2 BMT/C20 BMT111M BMT112 BMT113M | Sprocket Web Link Web Link End Plate Tie Rod Spacer Tie Bar | 2 10 6 1 1 1 1 | 98 |
| 10 11 11 12 | GS450 | Grease Nipple | 4 | |
| 13 14 15 16 | MFC25 | Bearing | 2 | |
| 17 18 19 20 | PS212B PS213B | Bush Roller | 4 2 | |
| 21 22 23 | RPT81 | Tie Bar | 2 | |
| 25 26 | SLF25 TBMT21 | Bearing Front Side | 2 | |
| 28 29 30 31 | TBMT21 TBMT22 TBMT23 TBMT24 TBMT25/26 TBMT27/28 | Rear Side Rear Side Bearing Plate Bevel Box Wood Runner Angles Wood Runner | 1 1 1 1 1 1 1 pr | |
| 34 | ТВМТ49А ГВМТ54 | Bevel Box Cover Guard | 1 1 | |
| 41 | TBMW527 BMW534 BMW536 BMW537 BMW538 BMW539 BMW549 BMW551 BMW556 BMW556 | Sprocket RH Bracket Shaft Bevel Gears Shaft LH Bracket Chute Guard Tube Bearing Blanking Strip Bevel Box Shaft End Cover Universal Coupling | 2 1 1 2 1 1 1 1 1 1 | |
| 54 55 56 57 58 59 60 61 62 | | M8 x 20mm Hex Hd Setscrew M9 x 25mm Hex Hd Setscrew M8 x 25mm CSK Hd Setscrew M8 x 40mm Hex Hd Bolt M8 Plain Washer M8 Spring Washer M8 Nut | 7 8 2 8 7 17 25 | |
| 54 55 56 57 58 59 | 1 | M10 x 25mm Hex Hd Setscrew M10 x 30mm Hex Hd Setscrew M10m x 40mm Hex Hd Bolt M10 Plain Washer M10 Spring Washer M10 Nut | 10 7 1 1 18 14 | |
| 12 12 13 14 15 16 17 18 19 10 11 | | M12 x 25mm Hex Hd Setscrew M12 x 30mm Hex Hd Setscrew M12 x 100mm Hex Hd Bolt M12 Plain Washer M12 Spring Washer M12 Nut M12 x 60mm Hex Hd Bolt | 9 7 2 5 22 14 2 | |

REAR ELEVATOR

| Item | | | | |
|----------------|----------|---|------|---------|
| No. | Part No. | Description | Qty. | Remarks |
| 84 85 86 | | 7mm x 8mm x 25mm RBE Key 7mm x 8mm x 50mm Gib Hd Key | 2 4 | |
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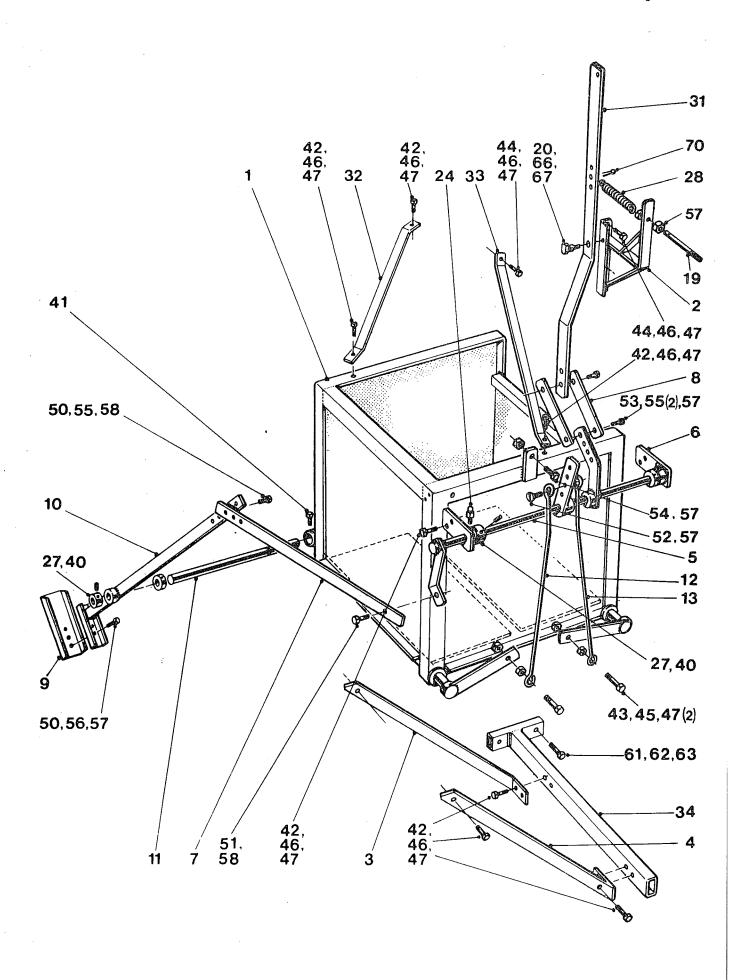
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| Item No. | Part No. | Description | Qt | y. Remarks |
| 1 | BM90M | Universal Coupling | 1 | |
| 2 3 | BM37/1 BM146B | Pulley Flail Mounting Arm | 1 | • |
| 4 | BM154 | Rubber Flap | ' | |
| 5 | BM155 | Clamp Strip | 1 | • |
| 6 7 | BM157A | Guard Stay | 1 | |
| 8 9 10 | D15 | Spacer | 1 | |
| 11 | 66444 | | | |
| 12 13 | GS411 GS412 | Grease Nipple Grease Nipple | 1 1 | |
| 14 | GS450 | Grease Nipple | 1 5 | |
| 15 16 | | | | |
| 17 18 | EE9 | Ball Race | 2 | |
| 19 20 | PS326M | Stop Collar | 2 | |
| 21 | PS459 | 16 x 4 Cover | 1 | |
| 22 | PS460 | 16 x 4 Tube | 1 | 1 |
| 23 24 | PS461/1 PS488 | Wheel Centre | i | |
| 25 | PS488M | Stop Collar Stop Collar | 2 | |
| 26 | 1 0 4001/1 | Stop Contain | | |
| 27 28 | RP15 | Flail Plate | 1 | |
| 29 30 | | | · | |
| 31 | SFT25 | Bearing | 5 | |
| 32 33 | 60227 | Counting Count | ļ | |
| 33 34 | SP237 SP245 | Coupling Guard Flail Rubber | 2 | |
| 35 | SP253 | Spacer | 12 | |
| 36 | ST41M | Stop Collar | 1 1 | |
| 37 38 | | | } | |
| 39 | | | | |
| 40 | TBMT30A | Wheel Castor | 1 | |
| 41 42 | ТВМТЗ8М | Drive Knuckle | 1 | |
| 43 | | | • | |
| 44 | | | | |
| 45 | TBMW71 | Inner Flail Plate | 1 | |
| 46 47 | TBMW182A TBMW210 | Shaft Flail Guard | 1 | · |
| 48 | TBMW211 | Flail Plate | 1 1 | |
| 49 | TBMW636 | Bearing Support Plate | | |
| 50 51 | | , | | |
| 52 | TBMW500 | Support Arm | 1 | |
| 53 | TBMW501 | Tie Rod | 1 | |
| 54 | TBMW544A | Shaft | 3 | |
| 55 56 | TBMW545 TBMW558 | Support Bracket Central Knuckle Guard | 1 | · |
| 57 | TBMW559 | Guard Tube | 1 1 | |
| 58 | TBMW560 | Guard Tube | 1 1 | |
| 59 60 | TBMW639 | Universal Coupling | i | |
| 61 | 6005Z | Roller Race | 2 | |
| 62 63 | 19411 | Bearing Housing | l | |
| 64 | 10411 | Coaring Housing | 1 | |
| 65 66 | | M8 x 20mm Hex Hd Setscrew | | |
| 67 | | M8 x 25mm Hex Hd Setscrew | 4 3 | 1 |
| 68 | | M8 Spring Washer | 4 |] |
| 69 | | M8 Nut | 7 | |
| 70 | | M40 - 40 H - 0 - 1 - 2 - 1 | | 1 |
| 71 72 | | M10 x 10 Hex Socket Setscrew | 7 | [|
| 73 | 1 | M10 x 30 Hex Hd Setscrew M10 x 40 Hex Hd Setscrew | 3 | |
| 74 | ļ | M10 x 40 hex hd Setscrew M10 x 50 Hex hd Bolt | .2 | |
| 75 | | M10 Spring Washer | 7 | |
| 76 | | M10 Lock-Nut | 7 | |
| 77 78 | | | | |
| 79 | | M12 x 35 Hex Hd Setscrew | 6 | 1 |
| во | | M12 x 40 Hex Hd Setscrew | 2 | l |
| 81 | | M12 x 80 Hex Hd Bolt | 12 | |
| 82 | | M12 x 100 Hex Hd Setscrew | 1 1 | |
| | | | | 1 |

TOP SAVING FLAIL

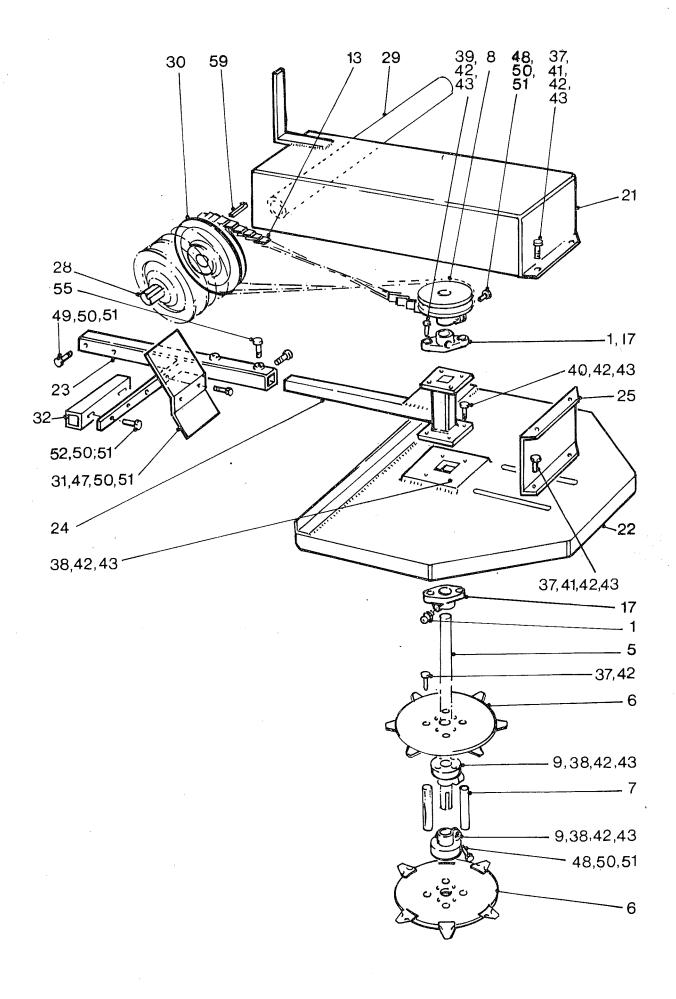
| Item No. | Part No. | Description | Qty. | Remarks |
|---|----------|--|--|---------|
| 83 84 85 86 87 88 89 90 91 92 93 94 95 | | M12 Plain Washer M12 Spring Washer M12 Nut M12 x 60mm Hex Hd Bolt M16 x 30 Hex Hd Setscrew M16 x 50 Hex Hd Bolt M16 Plain Washer M16 Spring Washer M16 Nut | 28 21 22 2 1 1 1 2 1 | |
| 96 97 98 99 100 101 102 103 104 105 106 107 108 | | 7mm x 8mm x 25mm RBE Key | 3 | |
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| Item No. | Part No. | Description | Qty | Remarks |
|----------------------------------|---|---|--|------------------|
| 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 | AD1 AD3A AD4 AD5 AD6 AD7 AD8 AD9 AD10 AD11 AD12 AD16 AD17 | Dumper Box Spring Tension Bracket LH Support RH Support Trip Bar Assembly Trip Bar Bracket Adjuster Bar Adjuster Bar Adjuster Bar Trip Board Trip Board Trip Board Arm Trip Board Shaft LH Flap Rod RH Flap Rod | 1 1 1 1 1 1 1 2 1 1 1 1 | |
| | BM82M BM194 | Spring Tensioner Shoulder Bolt | 1 . | Supersedes BM 82 |
| | GS412 | Grease Nipple | 2 | |
| | PS488 PS766 | Stop Collar Spring | 4 | |
| | TBMW540 TBMW541 TBMW542 TBMW543 | Trip Bar Front Steady Rear Steady Bracket | 1 1 1 1 1 | |
| | | M10 x 10mm Hex Socket Screw M10 x 20mm Hex Hd Setscrew M10 x 30mm Hex Hd Setscrew M10 x 35mm Hex Hd Bolt M10 x 40mm Hex Hd Bolt M10 Plain Washer M10 Spring Washer M10 Nut | 4 2 15 2 3 2 18 22 | |
| | | M12 x 30mm Hex Hd Setscrew M12 x 35mm Hex Hd Bolt M12 x 35mm CSK Hd Bolt M12 x 40mm Hex Hd Bolt M12 x 50mm Hex Hd Bolt M12 x 50mm Hex Hd Bolt M12 Plain Washer M12 Spring Washer M12 Nut M12 Locking Nut | 3 1 1 2 1 5 2 8 2 | Qty was 6 |
| | | M16 x 60mm Hex Hd Bolt M16 Spring Washer M16 Nut | 2 2 2 2 | |
| | : | 1/2 in. Spring Washer 1/2 in. BSW Nut | 1 1 | Qty was 3 |
| | | 3/16 in. dia. x 1 1/2 in. LG Cotter Pin | 1 | |
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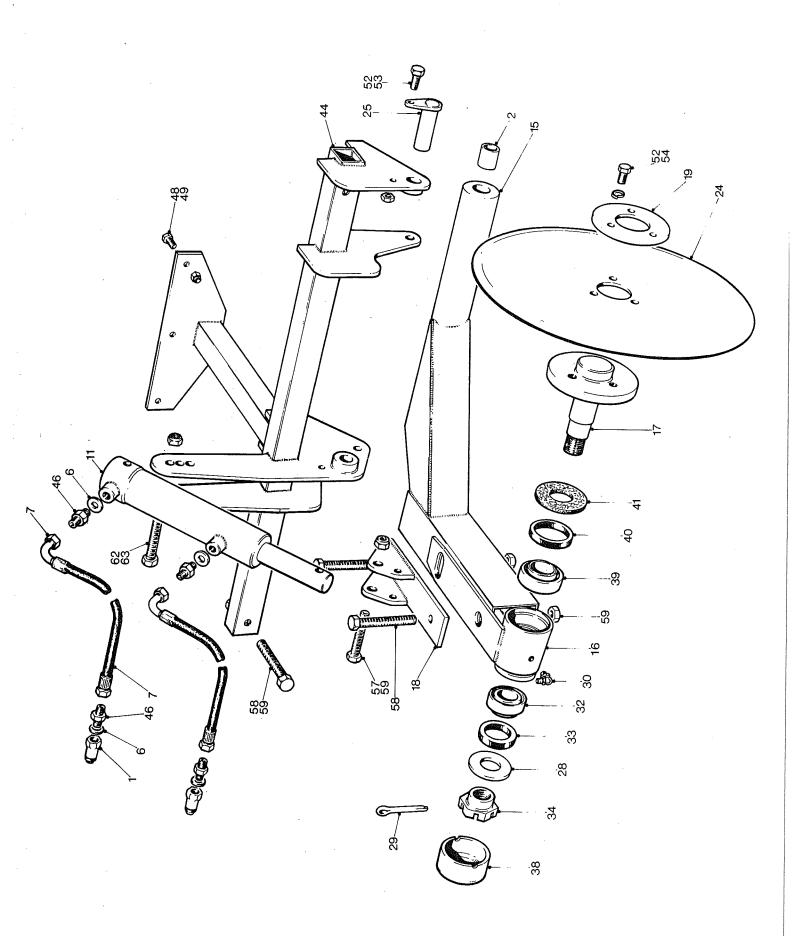
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PULVERISOR

| tem No. Part No. | Description | Qty. | Remarks |
|---|--|-------------------------------------|---|
| 1 GS450 2 | Grease Nipple | , 2 | |
| 3 | Cutter Head Shaft Cutter Plate Cutter Plate Spacer Cutter Head Pulley Cutter Plate Boss | 1 2 4 1 2 | Supersedes KT2 Supersedes KT7 Supersedes KT19 |
| 11 12 13 PV18/75 | Brammer Belting | 1 | |
| 5 | Bearing | 2 | Supersedes SLF1 1/4 |
| 9 | Brammer Belt Guard Cutter Head Guard Cutter Head Support Cutter Head Guard | 1 1 1 1 1 | Supersedes TBM197 |
| TBMW416 TBMW112 TBMW442 TBMW229 TBMW647 | Drive Shaft Main Drive Shaft Guard Tube Drive Pulley Flail Belt Guard Mounting Spacer | 1 1 1 1 1 | |
| | M10 x 20mm Hex Hd Setscrew M10 x 25mm Hex Hd Setscrew M10 x 30mm Hex Hd Setscrew M10 x 40mm Hex Hd Setscrew M10 Plain Washer M10 Spring Washer M10 Nut | 12 10 2 2 8 26 18 | |
| | M12 x 30mm Hex Hd Setscrew M12 x 60mm Hex Hd Bolt M12 x 70 Hex Hd Bolt M12 Spring Washer M12 Nut M12 x 80mm Hex Hd Bolt | 4 3 2 9 9 2 | |
| | M16 x 30mm Hex Hd Setscrew | 4 | |
| | 7mm x 8mm x 50mm Gib Head Key | 1 | |
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Stabilizer Disc Kit.

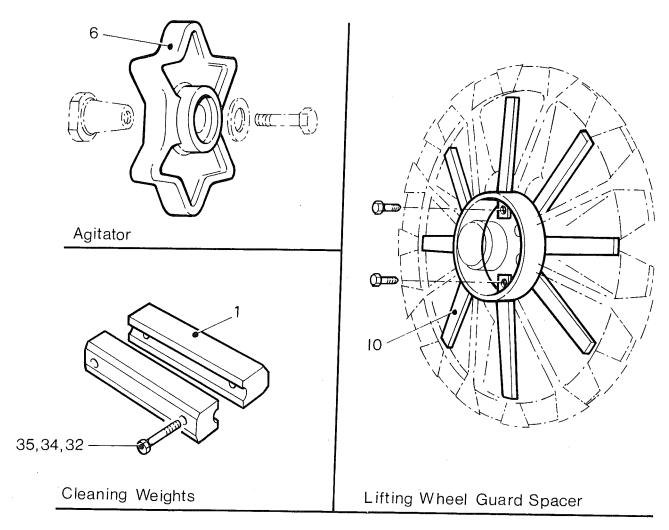
ASSEMBLY NO TBMW633.

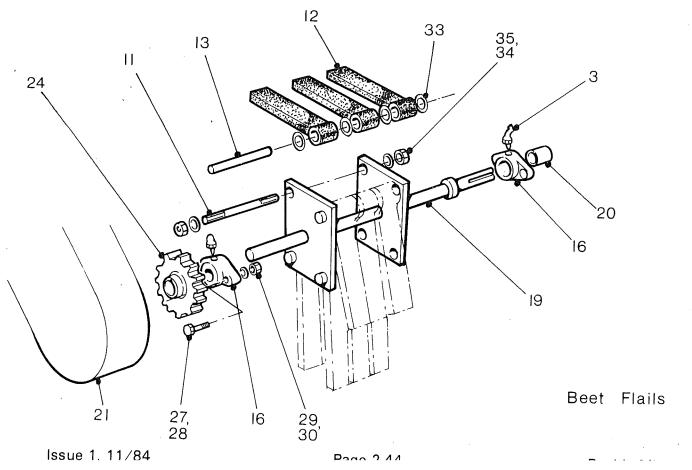


TANKER STABILIZER DISC KIT (TBMW 633)

| Item No. | Part No. | Description | Ωty. | Remarks |
|--|---|---|--|--|
| 1 2 3 4 | 10140 10337 | Male Coupling Bush | 2 2 | |
| 2 3 4 5 6 7 8 9 | 11125 11843 | 3/8 BSP Dowty Seal Washer Hose Assembly | 4 2 | |
| 10 11 | 13391 | Ram | · 1 | Prior to Serial No. RT5073A Part No. was 12206 |
| 13 14 15 16 17 18 19 20 21 | 13360 13361 13362 13363 13368 | Mounting Arm Hub Spindle Ram Support Bracket Clamp Disc | 1 1 1 1 1 | |
| 23 24 25 26 | 14039 14194 | Disc Pivot Pin | 1 2 | |
| 27 28 29 30 31 | GS353 GS378 GS412 | Washer Split Pin Grease Nipple | 1 1 1 | |
| 32 33 34 35 36 | RP4 RP5 RP6 | Bearing Oil Seal Nut | 1 1 1 | |
| 37 38 39 40 41 42 | SPCL58 SPCL231 SPCL232 SPCL303 | Cap Bearing Oil Seal Felt Seal | 1 1 1 1 | |
| 43 44 45 | TBMW632 | Mounting Frame | 1 | |
| 46 47 48 | UC31A | 3/8 BSP - 3/8 BSP M/M Adaptor M10 x 25mm Hex Hd Setscrew | 3 | |
| 49 50 51 | | M10 Lock Nut | 3 | · |
| 52 53 54 55 | .e. | M12 x 30mm Hex Hd Setscrew M12 Lock Nut M12 Spring Washer | 5 2 3 | |
| 56 57 58 59 60 | | M16 x 90mm Hex Hd Bolt M16 x 150mm Hex Hd Bolt M16 Lock Nut | 3 2 5 | |
| 61 62 63 64 65 | | M20 x 120mm Hex Hd Bolt M20 Lock Nut | 2 2 | |
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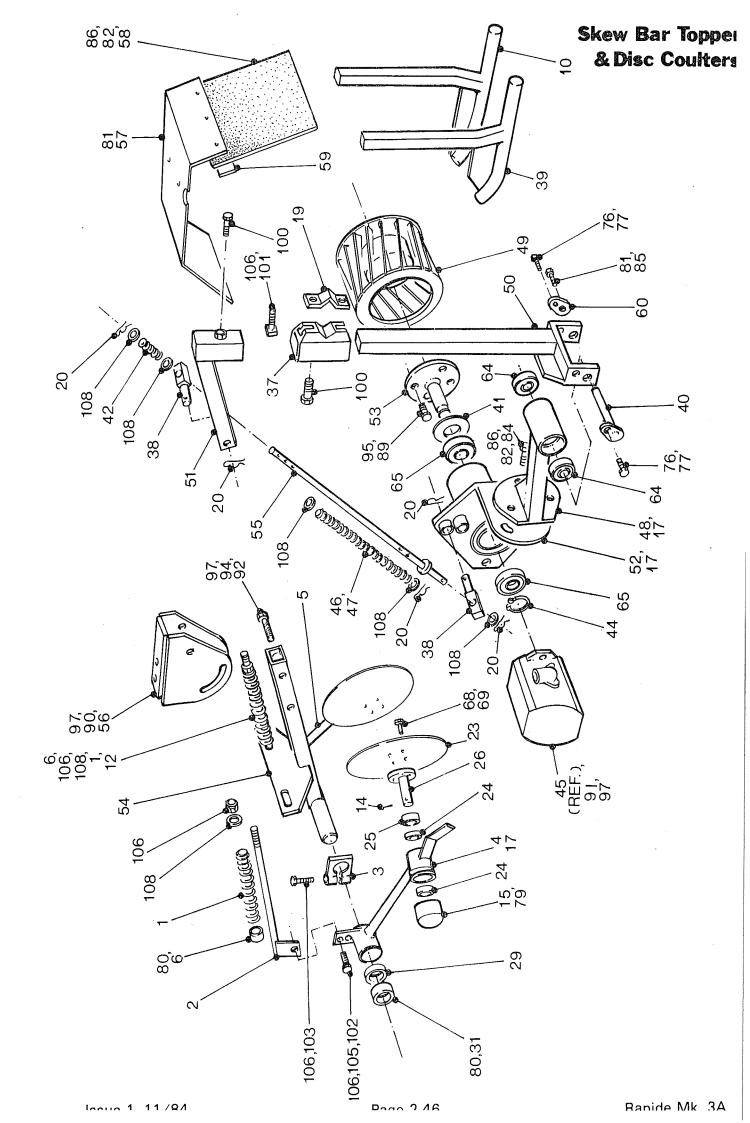
Optional Equipmer





OPTIONAL EQUIPMENT

| Part No. | Description | Qty. | Remarks |
|-------------------------------|--|-------------------|---------|
| BM44/1 | Cleaning Weight | A/R | |
| G\$409 | Grease Nipple | 2 | |
| PS212 | Agitator Sprocket | A/R | |
| RP15 RP24M RP43 RP68 | Lifting Wheel Guard Spider Tie Bar Rubber Flail Sleeve | 2 4 12 4 | |
| SFT30A | Bearing | 2 | |
| TBMW152 TBMW154 TBMW738 | Paddle Shaft Spacer Paddle Drive Guard | 1 1 1 | |
| 19320 | 19T Sprocket | 1 | |
| | M10 x 30mm Hex Hd Setscrew M10 Plain Washer M10 Spring Washer M10 Nut | 4 4 4 | |
| | M12 x 70mm Hex Hd Bolt M12 Plain Washer M12 Spring Washer | A/R 16 8 | |
| | M12 Nut | 8 | |
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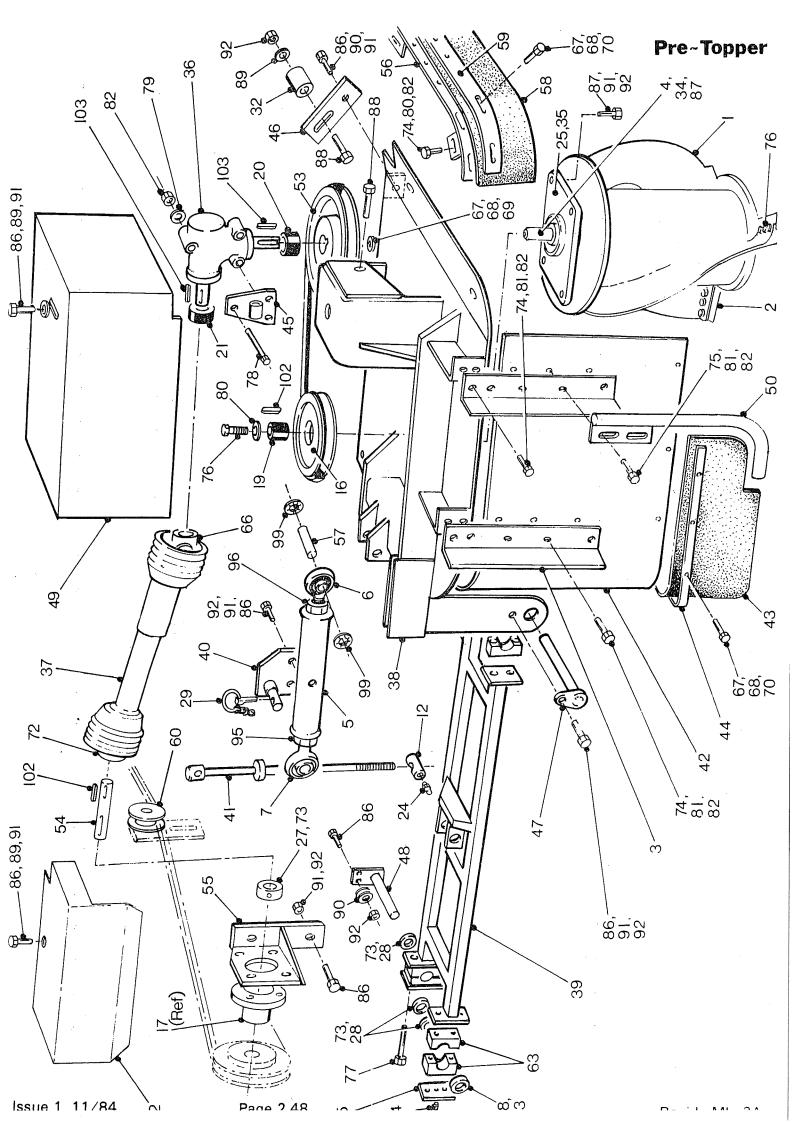
SKEW BAR TOPPER TANKER Mk3 & 3A (Assy. No. TBMW671)

| Item No. | Part No. | Description | Qty. | Remarks |
|--|--|--|---|---|
| 1 2 3 4 5 6 7 | 11630 11636 11643 11678 11679 11717 | Spring Tension Screw Clamp Disc Arm L.H. Disc Arm R.H. Collar | 2 1 2 1 1 2 | |
| 8 9 10 11 | 12232 | Guide Skid R.H. | 1 | |
| 12 13 14 | 16070 BM218 | Tension Screw Disc Retaining Pin | 1 | · |
| 15 16 | BMT81M | Dust Cap | 2 2 | |
| 17 18 19 | GS412 H74 | Grease Nipple Bracket Cap | 6 | |
| 20 21 22 | H105 | Quick Release Pin | 5 | |
| 23 24 25 26 | PS224 PS386NM PS588 PS596AM | Disc Nylon Bush Oil Seal Spigot | | |
| 27 28 ·29 | RH43M | Wrapped Bush | 4 | |
| 30 31 32 | ST41M | Collar | 2 | |
| 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 66 57 58 60 61 62 63 | TBMW270 TBMW479 TBMW487 TBMW488 TBMW489 TBMW493 TBMW594 TBMW661 TBMW662 TBMW665 TBMW672 TBMW676 TBMW677 TBMW678 TBMW678 TBMW679 TBMW680 TBMW680 TBMW680 TBMW680 TBMW681 TBMW681 TBMW682 TBMW685 TBMW685 TBMW685 TBMW685 TBMW686 TBMW686 TBMW686 TBMW687 | Mounting Bracket Tension Screw Trunnion Guide Skid L.H. Pivot Pin Felt Ring Seal Spring Dirt Shield Circlip Hydraulic Motor Spring Spring Pivot Arm Barrel Mounting Leg Tension Screw Bracket Bearing Housing Spindle Disc Arm Support Tension Rod Disc Arm Support Bracket Dirt Shield Dirt Shield Rubber Dirt Shield Rubber Dirt Shield Rubber Clamp Keep Plate | 121111111111111111111111111111111111111 | Mk3 only (Not Drawn) Includes 2 porting kits 'ਧਰf only) Alternatives Alternatives |
| 64 65 66 67 | 6005RS 6209RS | Bearing Bearing | 2 2 | |
| 68 69 70 71 | 2611-1007 2682-1000 | Avdel Pin Avdel Collar | 8 | |
| 72 73 74 75 | | M6 Setscrew x 12 Lg M6 Locknut | 4 4 | Mk 3 only |
| 76 77 78 | | M8 Setscrew x 16 Lg M8 Spring Washer | 2 2 | |
| 79 80 81 | | M10 Socket Hd Setscrew x 10 Lg M10 Sq Hd Bolt x 20 Lg M10 Bolt x 25 Lg | 2 4 3 | |

SKEW BAR TOPPER TANKER MK3 & 3A (Assy. No. TBMW671)

| em lo. | Part No. | Description | Qty. | Remarks |
|-----------|----------|--|------------------|--------------|
| | | M10 Bolt x 30 Lg | 6 | |
| | | M10 Washer M10 Spring Washer M10 Locknut | 3 1 8 | |
| | | M12 Setscrew x 25 Lg M12 Bolt x 40 Lg M12 Bolt x 60 Lg M12 Bolt x 90 Lg | 4 2 2 2 | |
| | | M12 Washer M12 Spring Washer | 4 4 | |
| | | M12 Locknut | 6 | |
| | | M16 Setscrew x 40 Lg M16 Sq Hd Bolt x 60 Lg M16 Bolt x 60 Lg M16 Bolt x 100 | 3 2 2 2 | f: Tracks |
| 5 | | M16 Washer M16 Locknut | 2 6 | |
| | | 5/8" Large Washer | 9 | O/D 1 1/2" |
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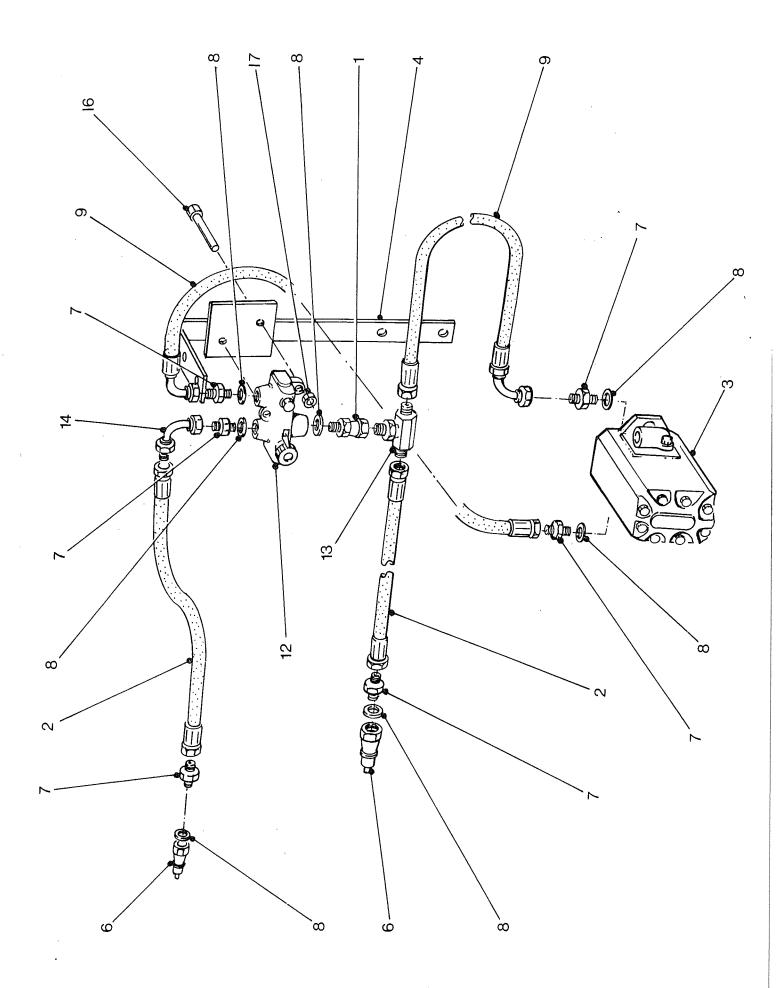
PRE-TOPPER (Assy. No. TBMW577

| y (RH) (LH) g Spigot ate Housing | 1 3 2 2 1 1 1 1 | |
|---|--|---|
| (RH) (LH) g Spigot ate | 3 2 2 1 1 1 1 | |
| (RH) (LH) g Spigot ate | 2 1 1 1 1 | |
| (LH) g Spigot ate | 1 1 1 4 1 | |
| (LH) g Spigot ate | 1 1 4 1 | |
| (LH) g Spigot ate | 1 1 4 1 | |
| g Spigot ate | 1 4 1 | |
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| | lipple ar ar Spring Ring acer adle dousing Coupling Plate djustment Screw kirt rip at Bracket aport ard ft Bracket ount ap | Image: |

PRE-TOPPER (Assy. No. TBMW 577)

| Item No. | Part No. | Description | Qty. | Remarks |
|--|----------|---|--|---------|
| 73 74 75 76 77 78 79 80 81 82 83 84 | | M10 x 10mm Hex Hd Soc Setscrew M10 x 25mm Hex Hd Setscrew M10 x 30mm Hex Hd Setscrew M10 x 30mm Setscrew (Patch Type) M10 x 90mm Hex Hd Bolt M10 x 100mm Hex Hd Bolt M10 Flat Washer M10 Special Washer M10 Spring Washer M10 Nut | 5 13 2 10 8 3 3 1 26 26 | |
| 85 86 87 88 89 90 91 92 93 | | M12 x 30mm Hex Hd Setscrew M12 x 40mm Setscrew (Patch Type) M12 x 80mm Hex Hd Setscrew M12 Flat Washer M12 Special Washer M12 Spring Washer M12 Nut | 7 8 2 3 4 8 8 | |
| 94 95 96 97 | | 1 1/8 in UNC LH Nut 1 1/8 in UNC RH Nut | 1 1 | |
| 98 99 100 | | 1 in Starlock Washer | 2 | |
| 101 102 103 | | 8 x 7 RBE Key x 30 Lg 6 x 6 RBE Key x 32 Lg | 2 2 | · |
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Skewbar Hydraulic Drives

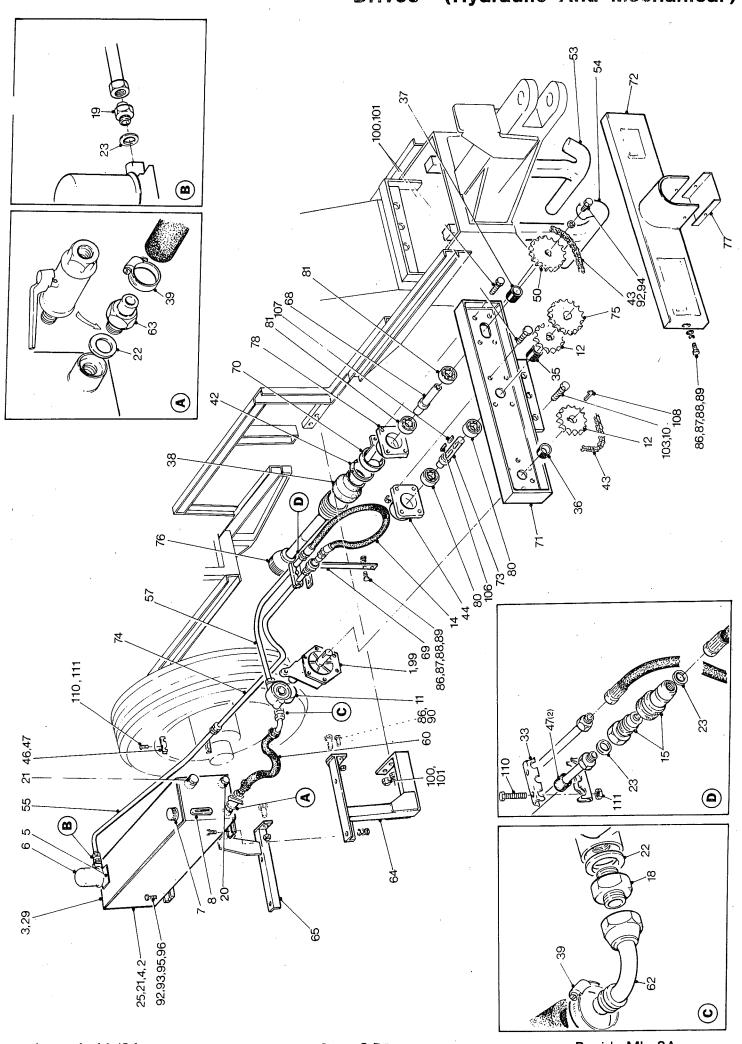


Rapide Mk. 3A

SKEWBAR HYDRAULIC DRIVES

| • | Item No. | Part No. | Description | Qty. | Remarks |
|---|--------------------------------------|--|--|------------------|---------|
| | 1 2 3 4 | TBMW338 TBMW601 TBMW661 TBMW307 | Swivel Adaptor Hose Assembly Hydraulic Motor Pipe Support Bracket | 1 2 1 | |
| | 2 3 4 5 6 7 8 9 | 10140 11115 11123 11744 | Quick Release Coupling Male/Male Adaptor Washer Hose Assembly | 2 6 7 2 | (Male) |
| | 11 12 13 14 15 | 12273 12322 12350 | Variable Flow Divider Male Tee Bent Stem Adaptor | 1 1 1 | |
| | 16 17 | | M6 x 35mm Hex Hd Bolt M6 Lock Nut | 2 2 | |
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Drives (Hydraulic And Mechanical)



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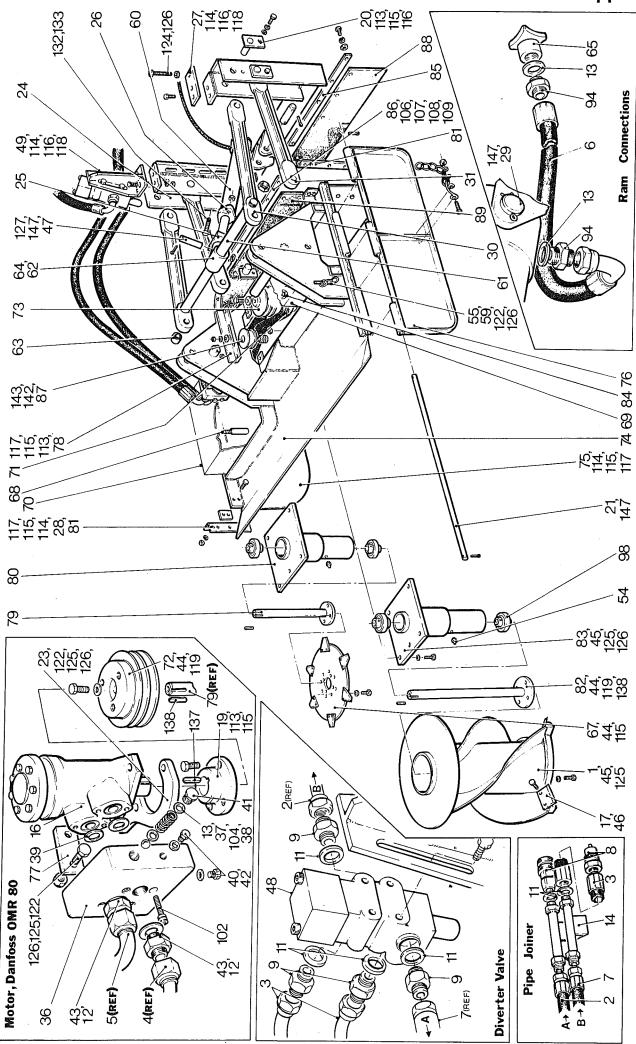
Rapide Mk. 3A

DRIVES (HYDRAULIC AND MECHANICAL)

| Item No. | Part No. | Description | Qty | . Remarks |
|--|--|--|--------------------------------------|---------------------------------|
| 1 2 3 4 5 6 7 8 9 | 11052 11053 11054 12278 11057 11058 11059 11060 | Gearbox (A5-3) Hydraulic Tank Tank Lid Strainer Filter Complete Filter Element Air Breather Fluid Level and Temp Guage | | 1 1 1 1 1 1 1 |
| 10 11 12 13 | 11067 11068 | Pump Sprocket 19T | 1 2 | |
| 14 15 16 | 11101 11108 | 3//' Pressure Hose Quick Release Coupling (One Pair) | 1 | P |
| 17 18 19 20 21 22 23 24 | 11114 11115 11116 11117 11122 11123 | 1" BSP M/M Adaptor 3/4" BSP M/M Adaptor 1" BSP Blanking Plug 3/4" BSP Blanking Plug 1" BSP Dowty Seal Washer 3/4" BSP Dowty Seal Washer | 1 2 1 2 2 4 | |
| 25 26 27 28 | 11126 | Oil Return Tube | 1 | |
| 29 30 31 | 11305 | Lid Gasket | 1 | |
| 32 33 34 | 11373 | Pipe Clamp-Triple | 1 | |
| 35 36 37 38 39 40 41 42 43 44 | A32 A10 C22 BM196 GS406 GS409 GS412 GS407 PS871/64 SP44M | Plastic Spacer Plastic Spacers Plastic Spacers Plastic Spacer Coupling Rubber Guard Hose Clips (25mm - 35mm) Grease Nipple Grease Nipple Jubilee Clip Drive Chain Bearing Housing | 1 1 1 2 1 1 1 2 | |
| 45 46 47 48 | SPCT208 SPCT222 | Pipe Clamp-Double Pipe Clamp Grommet | 1 3 | |
| 49 50 51 | TBMW206 | 26T Sprocket | 1 | |
| 52 53 54 55 56 | TBMW313 TBMW314 TBMW315 | Guide Skid Right Hand Guide Skid Left Hand Hydraulics Steel Pipe (rear) | 1 1 | |
| 57 58 59 | TBMW316 | Hydraulics Steel Pipe (front) | 1 | |
| 60 61 | TBMW333 | 34 Bore Return Hose Unit Length 725mm | 1 | |
| 66 | TBMW340 TBMW341 TBMW595 TBMW596 | 1" BSP FM - 1" Stand Pipe End 90° Swept Elbow 1" BSP M - 1" Stand Pipe End Straight Front Hydraulic Tank Support Frame Rear Hydraulic Tank Support Frame | 1 1 1 | |
| 69 70 71 72 73 74 75 76 77 78 | TBMW414 TBMW473 TBMW466 TBMW469 TBMW470 TBMW471 TBMW472 TBMW491 TBMW643 TBMW650 VRT23M | Bearing Housing Drive Shaft Hydraulic Pipe Mounting Bracket Rubber Guard Support Bracket Drive Box Drive Box Lid Input Drive Shaft Hydraulics Steel Pipe (Middle) Sprocket 26T Universal Coupling Bottom Cover Bearing Housing | 1 1 1 1 1 1 2 1 | Guard Pt. No. TBMW643∕3 |
| | 6207RS 6306RS | Bearing Bearing | 2 2 | |

| tem No | Part No. | Description | Qty. | Remarks |
|--|----------|--|---|---------|
| 83 84 85 86 88 89 90 91 92 93 94 95 96 97 | | M6 x 20mm Hex Hd Setscrew M8 Plain Washer M8 Spring Washer M8 Plain Nut M8 Lock-Nut M10 x 30 Hex Hd Setscrew M10 Plain Washer M10 Plain Washer M10 Spring Washer M10 Plain Nut | 5 4 4 4 1 5 5 1 4 | |
| 99 000 01 02 03 04 05 06 | | M12 x 30 Hex Hd Bolt M12 x 50 Hex Hd Setscrew M12 Lock-Nut M16 x 25 Hex Hd Setscrew M16 Locknut 8 x 7 x 30 RBE Key 8 x 7 x 30 GIB Hd Key 8 x 7 x 40 Gib Hd Key | 6 13 19 3 3 | |
| 08 09 10 11 | | 8 x 7 x 40 Glb Hd Key M8 x 55mm Hex Hd Bolt M8 Nut | 3 3 | |
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Turbo Topper



Issue 1. 11/84

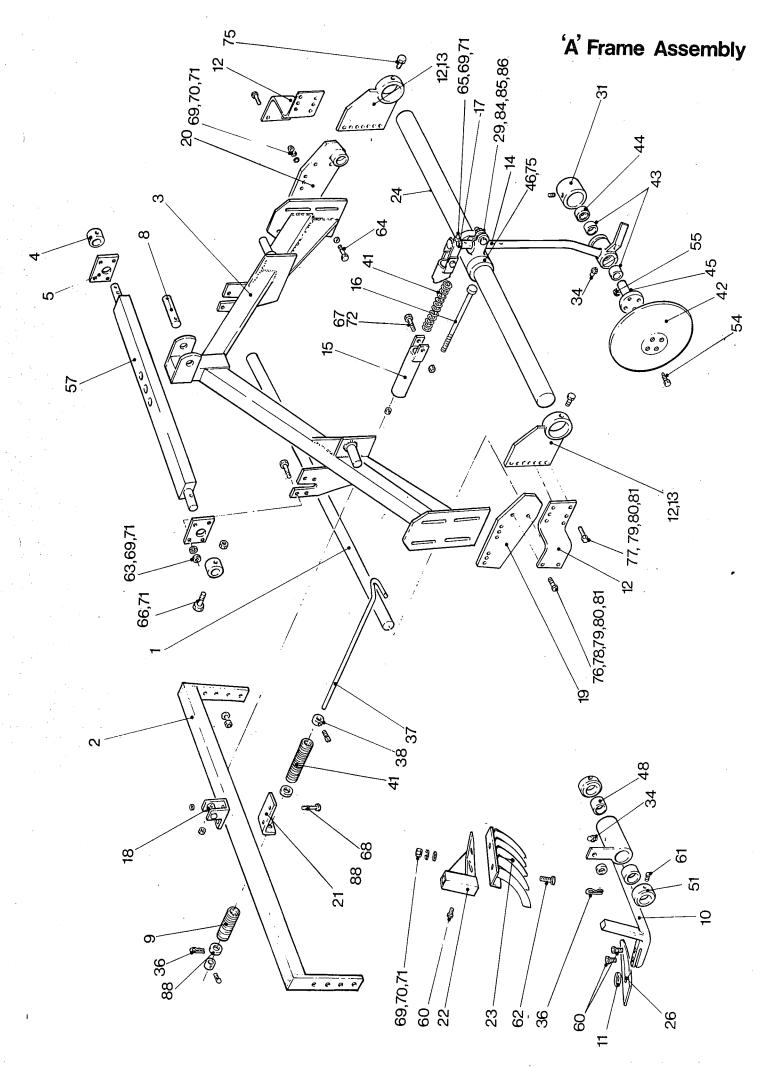
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TOPPER (Rapide Turbo)

| | PER (Rapide | Turboj | 1 | <u> </u> |
|--|---|--|--|----------|
| Item No. | Part No. | Description | Qty. | Remarks |
| 1 2 3 4 | 11001 11100 11101 | Topper Rotor 3/4" Pressure Hose (4750) 3/4" Pressure Hose (1000) | 1 1 2 | |
| 5 6 7 8 9 | 11104 11105 11108 11115 | 3/4" Pressure Hose (4750) 3/4" Return Hose (4750) Quick Release Coupling 3/4" BSP Male to Male Adaptor | 1 1 4 | |
| 11 12 13 14 | 11123 11124 11125 11171 | %" BSP Dowty Seal Washer %" BSP Dowty Seal Washer %" Dowty Seal Washer Hydraulic Pipe Joiner Support | 4 1 3 1 | |
| 15 16 17 | 11201 11205 | Motor Danfoss OMR 80 Knife | 1 3 | |
| 18 19 20 21 22 | 11223 11224 11226 | Motor Fixing Support Mounting Pin Hinge Pin | 1 8 1 | |
| 23 24 25 26 27 28 29 30 31 32 33 | 11228 11236 TBMW706 TBMW707 11240 11241 11245 11251 | Motor Reaction Bar Mounting Bracket Ram Top Stop Bracket Ram Bottom Stop Bracket Level Adjustment Bracket Spacer Ram Pin Lift Arm Top Lift Arm Bottom | 1 1 1 1 2 1 2 2 | |
| 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 | 11288 11289 11290 11291 11292 11293 11294 11295 11303 11304 11326 11398 11490 TBMW365 | Aluminium Valve Block Spring Ball Bearing 'O' Ring '\8'' BSP Blanking Plug '\8'' BSP Blanking Plug '\9'' BSP Dowty Seal Washer '\4'' BSP Male to '\2'' BSP Male Adaptor Patch Bolt Patch Bolt Patch Bolt Ram Pin (Top) Diverter Valve Mounting Bracket | 1 1 1 2 2 1 2 2 1 1 1 | |
| 52 53 54 55 56 | GS412 GS506/16 | Grease Nipple Chain | | · |
| 57 58 59 60 61 62 63 64 65 | H171 10379 H412 H413 H415 H416 H420 | O Shackle Fam Piston Mounting Shaft Mounting Bracket Wrapped Bush Wrapped Bush Exactor Coupling | 2 1 1 1 8 2 | |
| | KT4/5 TBM172M TBMW352 TBMW303 TBMW303 TBMW304 TBMW305 TBMW325 TBMW326 TBMW327 TBMW328 TBMW329 TBMW330 TBMW331 TBMW331 TBMW332 TBMW332 | Cutter Plate Guard Bolt Pulley Guard Motor Guard Topper Drive Belt Topper Drive Pulley Topper Drive Pulley Topper Top Plate Topper Skirt Hinged Flap Retainer Plate Belt Adjusting Angle Rotor Spindle Rotor Spindle Skirt Stay Rotor Spindle | 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |

| m D. Part | lo. Description | Qty. | Remarks |
|---|--|---|-------------------------------------|
| TBMW344 TBMW658 TBMW346 TBMW347 TBMW349 TBMW350 TBMW356 TBMW357 TBMW599 UC31 | Rotor Bearing Housing Guard Support Bar Flap Clamp Strip Rear Flap Clamp Strip Side Nylon Jockey Roller Rubber Skirt Rear Rubber Skirt Side LH Stand RH Stand Stand Tie Strip Male to Male Adaptor | 1 1 1 1 1 1 1 1 1 1 1 | Not Shown Not Shown Not Shown |
| 1130-30 | Bearing | 4 | |
| | M6 x 20mm Lg Socket Hd Setscrew M6 Spring Washer M6 Plain Washer M8 x 25mm Lg Hex Hd Setscrew M8 Plain Washer M8 Spring Washer M8 Nut | 4 2 1 10 10 10 10 | |
| | M10 x 20mm Lg Hex Hd Setscrew M10 x 30mm Lg Hex Hd Setscrew M10 Spring Washers M10 Plain Washer M10 Nut M10 Locknut M10 Special Washer | 13 38 43 12 25 4 | |
| | M12 x 40 Lg Hd Setscrew M12 x 100 Lg Hex Hd Setscrew M12 Spring Washer M12 Nut M12 Starlock Washer | 5 1 20 16 1 | |
| | M16 x 80 Lg Hex Hd Setscrew M16 Locknut | 2 2 | |
| | R.B.E. Key 8 x 7 x 40mm Lg R.B.E. Key 8 x 7 x 50mm Lg | 1 2 | |
| | ½" BSW Nut ½" Special Washer | 1 1 | |
| | Split Pin ¼" Dia x 1½" Lg | 5 | |
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| Par | t No. | Description | Qty. | Remarks |
|------------------|-------|---|-------|---------|
| 11180 | | Scalper Support Bar | 1 | |
| 11181 | | Spring Support Bar | 1 1 | |
| 11518 | | 'A' Frame | 2 | |
| 11183 | | Retaining Collar | 2 | ¥ |
| 11184 | | Retaining Plate | 2 | |
| | | | | |
| 11192 | | Three Point Linkage Pin | 1 1 | |
| 11193 | | Spring | 1 1 | |
| 11318 | | Scalper | | |
| 11324 | | Blade Locking Disc Disc Unit Support Bracket | 2 | |
| 11471 | | Disc Unit Bar Support | 2 | |
| 11474 | | Disc Stalk Straight | 1 1 | |
| 11498 | | Tension Barrel | 1 | |
| 11499 | | Tension Spindle | 1 1 | |
| 11500 | | Support Bracket | 1 1 | |
| 11522 | | Trunion Support | 1 1 | |
| 11611 | | RH Mounting Plate | 1 1 | |
| 11612 | | LH Mounting Plate Clamp Strip | | |
| 11613 12150 | 1 | RH Comb Mounting Bracket | lil | |
| 12150 | ļ | RH Comb | 1 1 | |
| 11480 | İ | Disc Support Bar | i | |
| | | | | • |
| 17185 | | RH Knife | . 1 | |
| | | | | |
| BM20N | 1 | Disc Coulter Bracket | 1 1 | |
| вмт81 | ., | Dust Cap | 1 1 | |
| DIVITOT | IVI | Dust Cap | ' | |
| GS412 | | Grease Nipple | 2 | |
| G5412 | 1 | Grease Mipple | 2 | |
| H105A | | Quick Release Pin | 2 | |
| H2101 | | Tension Rod | 1 | |
| H211 | . | Collar | 2 | |
| | | | | |
| PS165 | | Spring | 2 | |
| PS224 | ı | Disc | 1 | |
| PS386N | 1 | Bush | 2 1 | |
| PS588 | . 1 | Oil Seal | | |
| PS596A PS353N | | Disc Spindle Collar | 2 | |
| , 000011 | · | | | |
| RH43M | l | Bush | 2 | |
| | | | | |
| ST41M | | Collar | 2 | |
| | - | | | |
| 2611-10 | 007 | Fixing Pin | 4 | |
| 2682-10 | | Collar | 4 | |
| 11517 | | Draw Bar | | |
| ,,,,, | | | | |
| | | M10 v 20mm blow Hand Catagories | | |
| | | M10 x 20mm Hex Head Setscrew M10 x 20mm Sq Head Setscrew | 3 2 | |
| | | M10 x 30mm Hex Head Setscrew | 2 2 | |
| | | M10 x 40mm Hex Head Bolt | 4 | |
| | l | M10 x 40mm Hex Head Setscrew | 4 | |
| | | M10 x 50mm Hex Head Bolt | 1 | |
| | | M10 x 60mm Hex Head Bolt | 2 | |
| | 1 | M10 x 70mm Hex Head Bolt | 1 | |
| | | M10 x 80mm Hex Head Bolt | 2 | |
| | | M10 Spring Washer M10 Plain Washer | 19 | |
| | | M10 Plain vvasner M10 Nut | 19 | |
| | | M10 Lock-nut | 1 | |
| | | | | |
| | | M12 x 20mm Hex Head Setscrew | 3 | |
| | | M12 x 40mm Hex Head Setscrew | 4 | |
| | | M12 x 40mm Hex Head Bolt | 4 | |
| | | M12 Plain Washer | 8 | |
| | | M12 Spring Washer | 8 | |
| | | M12 Special Washer M12 Nut | 4 11 | |
| | 1 | ITTE THAT | } '' | |

| Part No. | Description | Qty. | Remarks |
|----------|---|-----------|---------|
| | M16 x 80mm Hex Head Bolt M16 Plain Washer M16 Nut Plain Washer | 1 4 1 1 3 | |
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