

Teagle

TOMAHAWK




606 & 6060

Instruction Book & Parts List



From Serial Numbers
606 5538
6060 6204
Issue 06/10

SAFETY FIRST!

- 1. READ THE INSTRUCTION BOOK THOROUGHLY** before attempting to operate or carry out any maintenance on the machine. If you do not understand any part of this manual, ask your dealer for assistance.
- 2.  ALWAYS CARRY OUT SAFE MAINTENANCE.** Never clean, adjust or maintain the machine until the engine has been stopped, the machine come to rest, the PTO disengaged and the key removed.
- 3.  NEVER WORK UNDER A MACHINE RAISED ON THE 3-POINT LINKAGE** unless it is securely supported.
- 4. NEVER OPERATE THE MACHINE WITH ANY PARTS OR GUARDS MISSING.** Check that all guards including the PTO shaft guards are in good condition and in place before operating the machine.
- 5. OPERATE SAFELY.** Before starting work, check that there are no persons or animals in the immediate vicinity of the machine or tractor. Always maintain full control of the tractor and machine. Ensure that you know how to stop the tractor and machine quickly in case of emergency.
- 6. SECURE THE PTO GUARD BY MEANS OF CHECK CHAINS** to suitable points on the tractor and machine to prevent the outer plastic shield from rotating.
- 7. NEVER STAND BETWEEN THE MACHINE AND THE TRACTOR WHEELS.**
- 8. DO NOT WEAR LOOSE OR RAGGED CLOTHING**
- 9. BEWARE OF DUST.** Under dusty conditions, keep the cab windows and doors closed. The use of a dust mask conforming to EN149 is strongly recommended.
- 10.  BEWARE OF HIGH NOISE LEVELS.** Some tractor/implement combinations give noise levels in excess of 90dB at the operator's ear. Under such circumstances, ear defenders should be worn. Keep cab windows and doors closed to reduce noise level.

Throughout this handbook, the term 'tractor' is used to refer to the power source used to drive the machine. It does not necessarily refer to a conventional agricultural tractor.

HEALTH AND SAFETY AT WORK

Our equipment is designed so as to conform with current Health & Safety Regulations and therefore poses no significant hazard to health when properly used. Nevertheless, in the interests of all concerned, it is essential that equipment of our manufacture is used in accordance with the instructions that are supplied or are available from our Technical Staff.

Legislation requires that all operators are instructed in the safe operation, cleaning and maintenance of equipment and machines. This handbook forms part of that instruction and it must be read and understood before fitting the machine onto the tractor or attempting to use it.

Your supplier is responsible for carrying out any necessary pre-delivery inspection, fitting the machine onto the tractor and test running. The supplier must also give instruction in the safe use, maintenance and adjustment of the machine.

In the interests of safety, please ensure that the instructions referred to above are brought to the attention of all your employees who are to use the equipment. We recommend that the use of this equipment is restricted to capable trained operatives. Persons under the age of sixteen should not operate the machine and should be kept away from where it is being used.

WARRANTY

The standard warranty is for 12 calendar months against faulty materials and workmanship. Components supplied as part of the original machine, but manufactured by another company, e.g. PTO shafts, wheels etc., are subject to the original manufacturer's conditions and warranty.

Where repairs are carried out under warranty:-

- Claims for the fitting of non original parts will not be considered unless prior agreement has been obtained.
- The repairer must be advised that the work is to be the

subject of a warranty claim beforehand.

- Any claim must be submitted within four weeks of the repair.
- The damaged parts must be retained for inspection and returned carriage paid if required.

The right to withdraw warranty is reserved if:-

- Non-original parts are fitted.
- The machine has been abused, badly maintained or used for purposes other than that for which it was

INDEX

INSTRUCTIONS

Specifications	2
Explanation of pictograms	2
Safety	3
Left and right hand	3
Use of the Tomahawk	3
Preparation of the tractor	4
Fitting the machine onto the tractor	4
Operation	5
Silage	5
Straw	5
Use on the public highway	6
Maintenance	6
Blades	6
Drum removal	6
Drum mountings	6
Rotor removal	6
PTO shaft	6
Slip clutch	6
Belt adjustment	6
Lubrication	7
Stationary use	7
Optional extras	7
Castor wheels	7
Giraffe chute	7
Drum extension	7
Disposal	7

FAULT FINDING CHART 8

PARTS LISTS

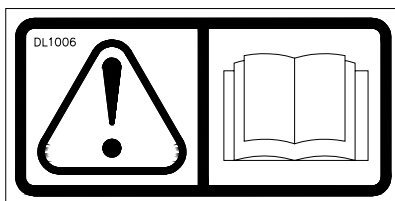
Quick hitch system	9
Mainframe, drum & associated parts	10
Motor & drive parts	12
Decals	13
Rotor & bearing housing - silage parts	14
Rotor & bearing housing - straw parts	15
Comer PTO shaft - combined slip and overrun clutch	16
Lower chute kit	17
Castor wheel parts	18
Silage giraffe chute parts	19
Straw giraffe chute parts	20
Hydraulic flap kit	21
Strawberry chute kit	22

Specifications

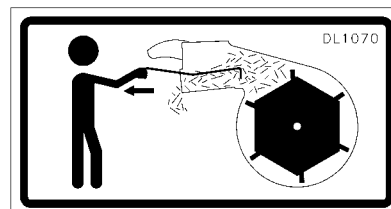
	606	6060
Width - chutes closed	2.38m	2.38m
Width - operating	2.49m	2.69m
Operating width with Giraffe Chute	2.60m	2.90m
Length	2.50m	2.50m
Height lowered *	2.78m	2.78m
Drum diameter	2.13m	2.13m
Upper chute discharge height *	1.20m	1.20m
Lower chute discharge height *	0.40m	0.40m
Straw Giraffe chute height *	2.17m	2.17m
Unladen weight	1100kg	1100kg
Tractor power required	55kW	55kW
Sound Power Level	93dbA	93dbA

* Heights listed are with the machine on the ground. When operating these heights can be increased by up to 1m depending on the tractor to which the machine is attached.

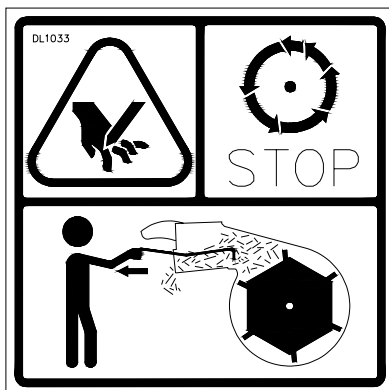
EXPLANTAION OF PICTOGRAMS



Please read instruction book before using the machine.






Blockage removal tool



Allow rotor to stop before removing blockage with tool provided

SAFETY

 In addition to the standard safety guidelines listed at the beginning of this handbook, the following special safety items apply to the Tomahawk.

- 1  **NEVER** put your hands inside the delivery chutes. In the event of a blockage, clear it using the tool provided (stored across the top of the rotor bearing housing). First, stop the engine, remove the key, disengage the PTO and wait for the rotor to come to rest.
- 2  **NEVER** enter the drum unless the machine is resting on the ground, the engine stopped, the key removed, the PTO disengaged and the rotor come to rest.
- 3 Never insert anything inside the flaps or drum while the machine is running.
- 4 Do not allow anyone to ride on the machine or tractor linkage.
- 5 Do not allow persons or animals to stand in front of the outlet chutes whilst the machine is running.
- 6 Never put your hand over a hydraulic leak. Oil under pressure may enter the blood stream.
- 7 The shredding of dusty or mouldy material can cause dust having adverse health effects. Operator exposure to such conditions should be avoided where possible. When circumstances prevent this, either use a tractor with a suitable forced air cab filtration system or use an adequate respirator. Respirators must comply with the relevant Standard and be approved by the Safety Inspectorate. Disposable filtering face piece respirators to EN149 or half mask respirators to EN140 fitted with filters to EN 143 are likely to be adequate.
- 8 If a hydraulic top link is used, ensure that the top of the Tomahawk is clear of the cab with the machine fully raised and the top link in the fully contracted position.
- 9 When lifting the machine on the three point linkage, always check the clearance between the upper front of the Tomahawk and the rear of the cab, particularly the window if it is open, as the machine is lifted.

LEFT AND RIGHT HAND

In this Handbook and Parts List, the terms Right and Left Hand apply to the machine when viewed looking towards the rear of the tractor.

USE OF THE TOMAHAWK

Tomahawk 606 straw models are designed to shred round bales of hay or straw.

Tomahawk 6060 silage models are designed to chop round bales of straw, hay, silage and roots.

Optional chutes available are:

- 1 Low level chute on the left hand side, suitable only for dry materials (standard on 606 models).
- 2 Giraffe high level straw chute, suitable only for dry materials.
- 3 Giraffe high level silage chute (only available on 6060 models), suitable for all materials the machine is designed to handle.

The various delivery options are shown in Figs.1 - 3.

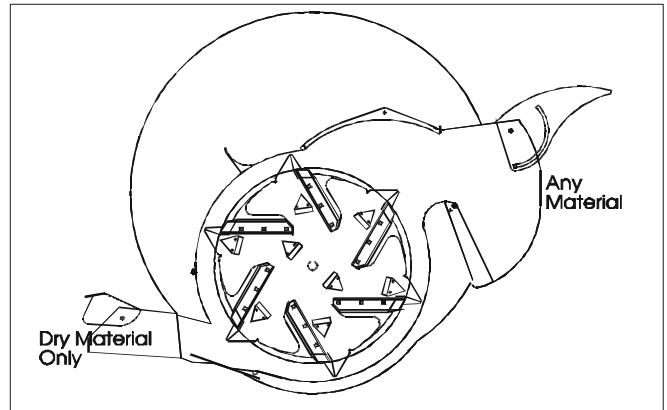


Fig. 1 Standard machine

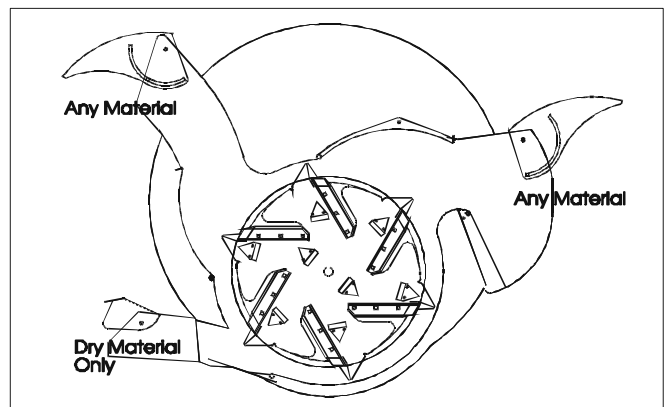


Fig. 2 Silage Giraffe

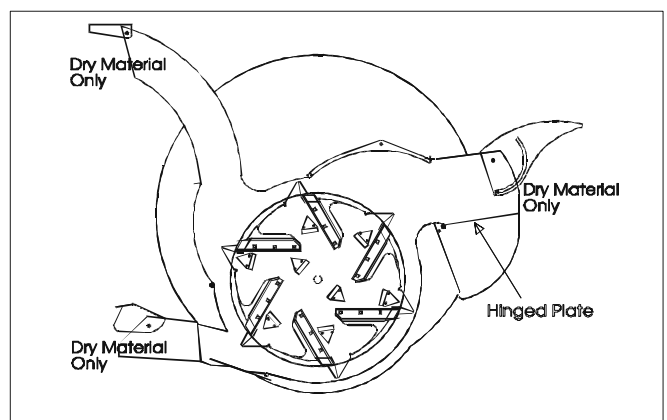


Fig. 3 Straw Giraffe

Material can be delivered from two chutes simultaneously or from one chute at a time. By fitting the optional high level straw or silage Giraffe Chute, material can be discharged over gates or barriers etc. The extra discharge height is also useful when it is necessary to spread over a greater distance.

Where it is necessary to deliver material over a substantial distance from the right hand silage chute, the hinged plate fitted in the chute base may be swung up into a horizontal position to act as a deflector - as shown in Fig. 3.

The machine must never be run with either of the two chute blanking plates removed unless the correct chute is fitted onto the aperture in question. Unapproved chute modifications should not be carried out, otherwise Safety Regulations may be infringed.

PREPARATION OF THE TRACTOR

The PTO power required to drive the Tomahawk is typically about 55KW (70 HP). However, the suitability of any particular tractor will depend upon, a) the strength/capacity of the 3 point linkage, b) its stability and c) operating conditions. Front end weights may be considered necessary depending upon circumstances. Castor wheels are available as an optional extra where stability is a particular problem.

⚠ Do not use the quick-hitch system if the optional castor wheels are fitted. The normal 3-point linkage system must be used if castor wheels are attached to the machine.

The machine is designed to use the standard 540 R.P.M. PTO shaft. However speeds of up to 1000 R.P.M may be used if specific circumstances necessitate this. The higher speed will cause an increase in power consumption.

The Tomahawk uses the tractor hydraulic system to power the drum rotation motor. A rotational speed of approximately 7 - 10 R.P.M. is required for the shredding of wet material (6060 models only). Where the tractor does not incorporate a means controlling the hydraulic flow, it may be necessary to fit a separate flow control valve to achieve the correct drum speed. For dry materials, drum speeds of up to 15 - 20 RPM may be used to improve the feed rate if necessary.

The hydraulic motor requires a double acting spool valve or a single acting valve with an unrestricted return. Whichever is used, the hydraulic supply must be independent of the 3 point linkage. Some tractors may require a separate linkage isolating valve to achieve this. If a hydraulic top link is used then an additional valve will be required to operate it.

FITTING THE MACHINE ONTO THE TRACTOR

Unbolt the round metal guard from the front of the main shaft bearing housing and fit the slip clutch end of the PTO shaft onto the machine. Ensure the clamp bolts are tightened fully, check that there is no free play on the splines of the shaft otherwise damage will occur. Refit the metal guard.

Fit the machine onto the tractor in the usual manner and fit the stabilisers or tighten the check chains. Using the multi-hole tie bar at the top of the lifting frame, angle the frame such that it is vertical, or leaning away from the tractor. The top link pin should be in the lower of the two holes at this stage. The angle of the machine may be adjusted in use to give the required feed rate. A steeply sloping drum will generally produce a faster feed and vice versa. This adjustment is greatly facilitated by the use of a hydraulic top link.

Fit the PTO shaft and with 'Position Control' selected, lift the machine fully on the linkage, continuously checking that the PTO shaft does not come to within 25 mm. (1 inch) of bottoming. With the shaft in its most extended position, there should not be less than half of the original overlap between the sliding members. If necessary, cut the PTO shaft to the correct length. If a hydraulic top link is used, check the PTO for bottoming throughout the full range of adjustment of the top link.

Connect the hydraulic hoses into the spool valve connections of the tractor. The connections and valve operation must be such that the drum rotates in an anticlockwise direction when viewed from the rear. This ensures that a) the belt drive operates safely and effectively and that b) the bale is fed into the rotor in the correct manner.

In use, the drum rotates, feeding the bale into the rotating blades. The output (and power requirement) can be increased by tilting the machine forwards slightly, thereby increasing the pressure of the bale against the blades.

It is essential to get the relationship between the tractor PTO shaft and the Tomahawk splined shaft correct to give a satisfactory PTO shaft life.

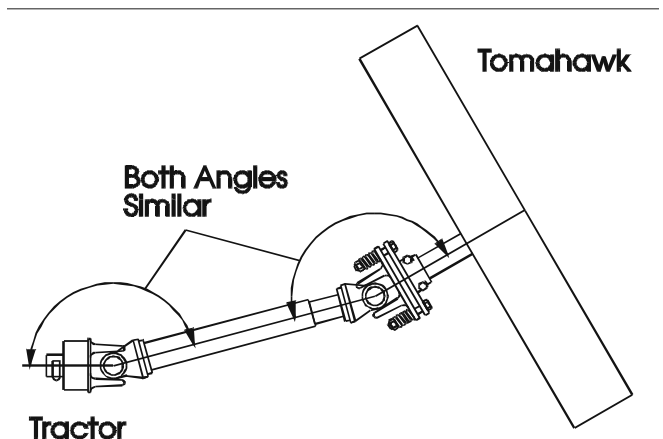


Fig. 4 Correct PTO Geometry

The correct geometry exists when the angle between the tractor shaft and the PTO shaft is the same as the angle between the Tomahawk splined shaft and the PTO shaft (ref Fig.4). Any significant deviation from this situation will adversely affect the life of the drive line and may cause the machine to vibrate.

The geometry will vary from one tractor to another but the basic layout is obtained by adjusting the angle of tilt using linkage geometry and height of lift. Once the correct top link lengths/ positions/working heights have been established for a particular tractor, these should always be used when the machine is shredding.

OPERATION

The Tomahawk will shred string, but putting twine or netwrap through the machine is not recommended as it will eventually be spread on the land and pollute the next crop of silage or hay. The strings or net should be removed from the bale as it is being loaded into the machine.

Bales can be loaded into the machine in two ways, using a loader or by hand. If a loader is used, simply load the bale into the drum such that it is fully inserted, but without ramming it against the end plate. It may also be possible to load straw bales by hand with the machine lowered onto the ground.

Minor adjustments to the machine are required when switching from silage to straw and vice versa as outlined below.

SILAGE (6060 models only)

Place the locking pin across underneath the end of the lower flap. This prevents the lower on/off flap from being forced open by the pressure of the silage.

Remove or fully hinge down the straw plate in the base of the right hand chute. It is essential that the base of the silage delivery chute slopes steeply to prevent blockage. If silage is to be discharged via the giraffe chute, open the blanking disc at the front of the machine by slackening the two wing nuts and sliding it fully towards the tractor (see Fig. 5). This will allow more air into the rotor and ensure more positive delivery.

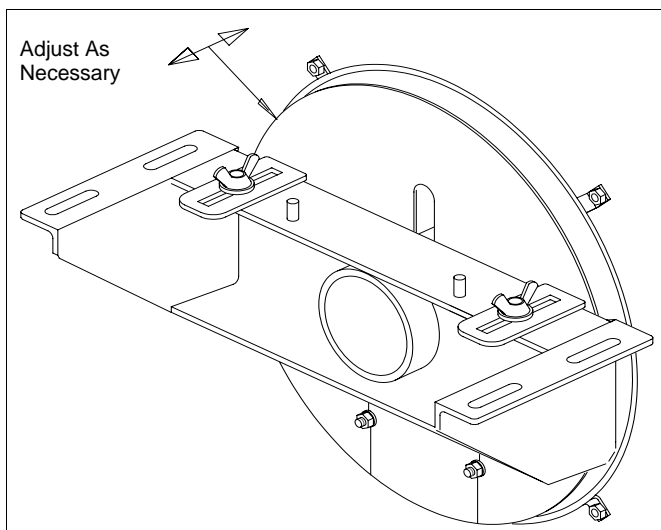


Fig. 5 Blanking Disc Adjustment

STRAW

If it is necessary to use the bottom chute, remove the locking pin from underneath the end of the lower flap so that the flap becomes operational again. If it is necessary to spread the straw over any significant distance from the right hand chute, raise the bottom hinged plate to a horizontal position. On 6060 models close the blanking disc at the front of the rotor (Ref Fig.5).

A large air flow into the front face of the rotor when straw is being chopped will cause an excessive amount of material to be blown out through the rear of the drum. The feed rate may also be very low.

Raise the machine on the linkage until the PTO shaft working geometry described under 'Fitting the Machine onto the Tractor' is obtained. Open the flap on the side(s) to which the shredded straw is to be delivered and adjust the deflector(s) to give the desired spread width. Never run the machine with no flaps open, as a severe blockage and possible damage is liable to occur.

Engage the PTO with the tractor engine on low idle and increase the speed rapidly when the clutch has engaged fully. Once the rotor is turning at 540 RPM., operate the spool valve so that the drum starts rotating and shredding is commenced.

When it is necessary to stop shredding part way through a bale, always stop the drum rotation a few seconds before the rotor, so that the shredded material in the area around the outside of the rotor has time to be blown clear of the machine. Failure to do this may result in a blockage occurring when the machine is restarted.

The length of chop will vary with the condition of the bale. Fresh clean straw will tend to result in a longer chop length than that which is old, slightly damp, weathered or caked together in the bales. The power consumption will also vary with the material being shredded. In general, materials producing a short chop length will require a relatively high power input.

The length of chop can be adjusted on 606 models. For a shorter chop length the bearing housing should be moved towards the rear of the machine. This creates a greater overlap between the knife sections on the rotor and the static knife sections in the rotor ring. Conversely a longer chop length is gained by moving the bearing housing towards the front of the machine.

To move the bearing housing, loosen the four bearing housing retaining nuts and slide the bearing housing and rotor in the desired direction in the slotted holes, then retighten the nuts.

IMPORTANT: The machine is fitted with a slip clutch on the rotor shaft. If this slips repeatedly, it should not be tightened until the machine has been examined to check that there is no fault or blockage. Refer to 'Maintenance' for the correct clutch setting.

USE ON THE PUBLIC HIGHWAY

If the machine is to be transported along the public highway (any road where the public have access) behind the tractor it will be necessary to comply with local road traffic legislation as the machine is likely to obscure the rear light units of the tractor.

Failure to comply with road traffic legislation may lead to prosecution by local law enforcement agencies and could also result in a road traffic accident.

MAINTENANCE

BLADES

When carrying out maintenance work on the blades, wedge the rotor to prevent it from turning. Always keep your hands away from the edges of blades particularly new ones, as they are extremely sharp. A leather glove will give some protection against minor cuts.

DRUM REMOVAL

This operation requires two persons.

To remove the drum, dismantle the belt guards then slacken and remove the belts. Swing the motor assembly around so that it is well clear of the drum and restrain it in that position. Turn the drum so that the large hole in its periphery is at the top. Suspend the drum from the spiral bar inside the hole using a strong rope or chain attached to a fore end loader.

Remove the two lower rear drum retainers and roller guards so that it is possible to slide the drum rearwards. Slacken the two bolts holding the top bearing channel in place and carefully remove it, ensuring that the loader is just taking the weight of the drum as the bolts are loosened. Raise the drum slightly and slide it rearwards, away from the machine.

Reassembly is a reverse of the above procedure.

DRUM MOUNTINGS

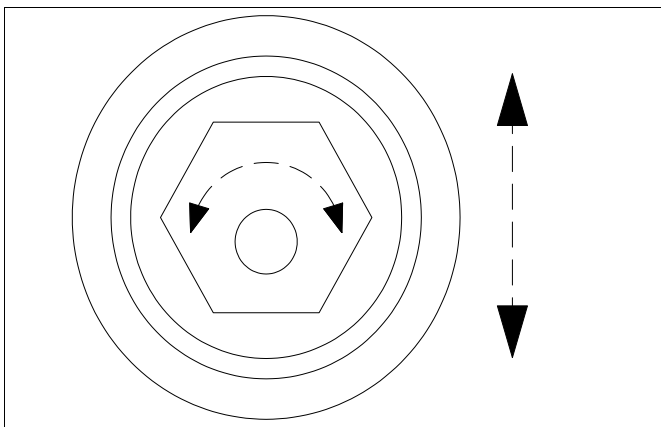


Fig. 6 Eccentric Drum Mountings

The lower rollers which support the drum are mounted on eccentric hexagonal bosses - see Fig.6. By rotating these bosses, it is possible to centralise the drum and adjust the clearance between the drum and back plate at the bottom. The roller at the top of the

drum can be adjusted by moving the channel in its slots. No adjustment is normally required as the rollers are correctly positioned during factory assembly. The clearance between the drum and back plate should be 10 - 15mm.

ROTOR REMOVAL

First, remove the drum and as described above. Undo the eight bolts securing the rotor sealing ring to the housing assembly and remove the puller, place a solid object against the end of the shaft and administer a sharp blow, again taking care not to damage the threads.

The rotor is located on a taper and will usually require the action of a hub puller to dislodge it. When using a puller, care should be taken not to damage the tapped hole in the rear of the rotor shaft. If the rotor does not have slots for a puller, place a solid object against the end of the shaft and administer a sharp blow, again taking care not to damage the threads.

Refitting is a reverse of the above

PTO SHAFT

Check once a week that the clamp bolts on the rotor shaft are tight and that there is no free play on the splines.

SLIP CLUTCH

If the clutch slips repeatedly for no apparent reason, it should be adjusted as follows.

1. Remove the large metal guard fitted over the clutch.
2. Insert a piece of wood through the top discharge chute and position it such that it prevents the rotor from turning.
3. Insert a steel bar through the rear PTO yoke and use a spring balance to obtain the correct torque setting. The clutch should just slip at a torque of 1200 Nm (900 lb.ft.) equal to a force of 1200N at 1 metre (300 lb. at 3 feet) from the centre of the yoke. Adjust the clutch as necessary using the eight spring loaded clamp bolts. If the clutch linings show signs of damage or excessive wear, they should be replaced. When new they are 3mm (1/8") thick.

BELT ADJUSTMENT

The belt tension should be sufficient for slip not to occur, but over tightening should be avoided. Tensioning is carried out by means of an adjuster attached to the motor bracket.

If the belts slip persistently, check that the drum is not fouling on the back plate.

If the belts turn over in their grooves or appear to run out of alignment, the position of the motor pulleys should be adjusted by means of the large nuts on the threaded pivot shaft.

LUBRICATION

A good quality semi-solid grease should be applied to the following grease points:

Every week:

Main rotor shaft

Every 2 weeks:

PTO shaft joints 2 nipples
PTO guard bearings (where fitted)
PTO shaft sliding members

Every 4 weeks:

Motor housing pivot shaft
Oil PTO shaft spring plungers

The above frequencies are based on typical daily use for bedding purposes. Continuous use for special applications may necessitate more frequent lubrication.

STATIONARY USE

When used as a stationary machine it should always be attached to the power source to prevent separation of the drive shaft. If it is necessary for the operator to be anywhere other than on the tractor seat, then means must be provided to stop the tractor from the operating position.

If the Tomahawk is to be installed as a permanent stationary machine it is subject to the regulations which apply to stationary machinery. The person installing the machine along with its power source is responsible for ensuring the installation complies with all relevant legislation.

OPTIONAL EXTRAS

CASTOR WHEELS

The castor wheels fit onto the rear of the mainframe and socket into brackets permanently attached onto the machine. For parking purposes, the machine is raised just clear of the ground and the wheel assemblies removed. The Tomahawk is then lowered onto the ground and parked in a similar manner to a standard machine.

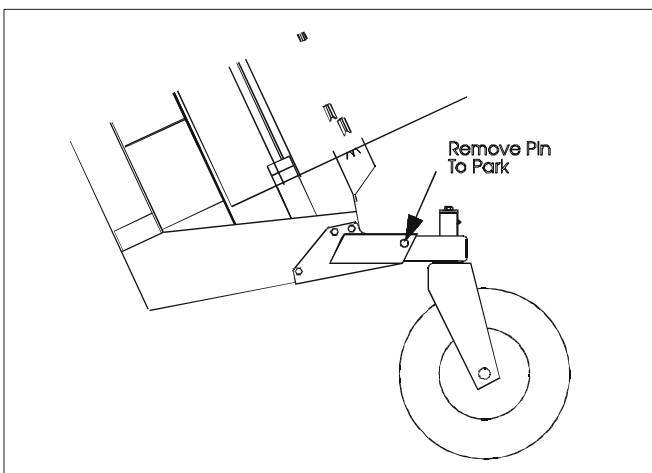


Fig. 7 optional Castor Wheels

! Never park the Tomahawk on a raised support with the castor wheels still attached.

! Never use a quick-hitch system in conjunction with a castor wheel kit.

The loading on the tractor linkage is such that the latch may become detached with a serious risk of personal injury.

The castor pivot shafts should be greased once a week with a good quality semisolid grease. The tyres should be inflated to a pressure not exceeding 89 psi (6.25 bar).

LEFT HAND (LOWER) CHUTE

This option provides the chute, on/off flap, deflector and control linkage.

! In the event of the Lower Chute being removed, the machine must not be operated without the blanking plate being bolted securely in place.

GIRAFFE CHUTE

Two Giraffe chute options are available:

- A silage chute suitable for all types of material (see Fig.2).
- A straw chute suitable for dry materials where a greater discharge height/distance is required (see Fig.3).

Included in both kits are the deflector, on/off flap and operating linkage.

! In the event of the Giraffe Chute being removed, the machine must not be operated without the blanking plate being bolted securely in place.

! The flap pivot bar and operating linkage should not be removed until the engine has been switched off, the PTO disengaged and the rotor come to rest.

DRUM EXTENSION

This is a factory fitted option and it is intended only for holding bales of straw. Where the Tomahawk Silage Feeder equipped with a drum extension is also used for feeding silage, only one bale of silage should be loaded in the machine at any time.

DISPOSAL

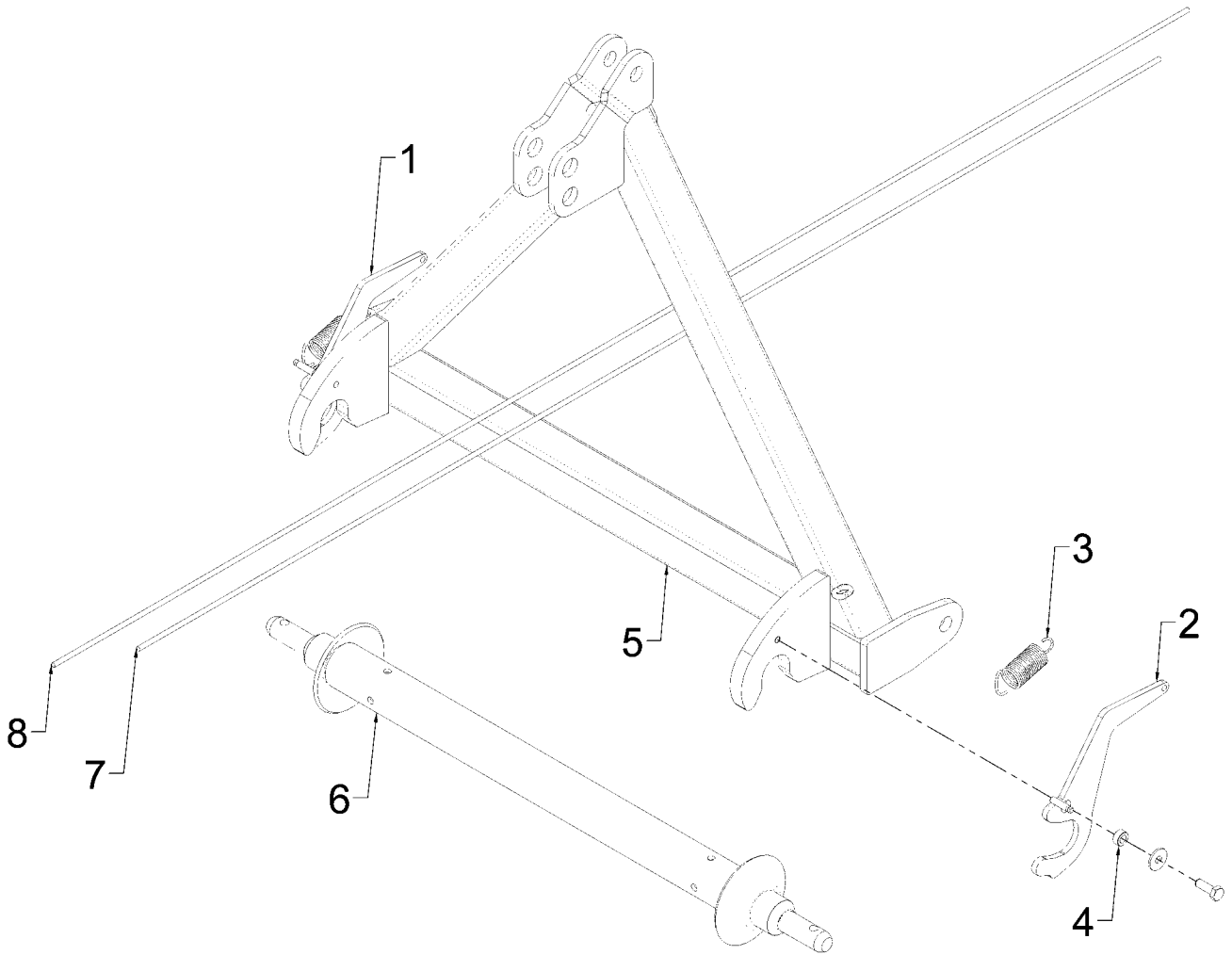
At the end of the machine's working life, the method of disposal must be within the legislation laid down by the local authority or the National Environment Agency.

The machine is composed of ferrous materials, synthetic paints and rubber compounds.

TOMAHAWK FAULT FINDING CHART

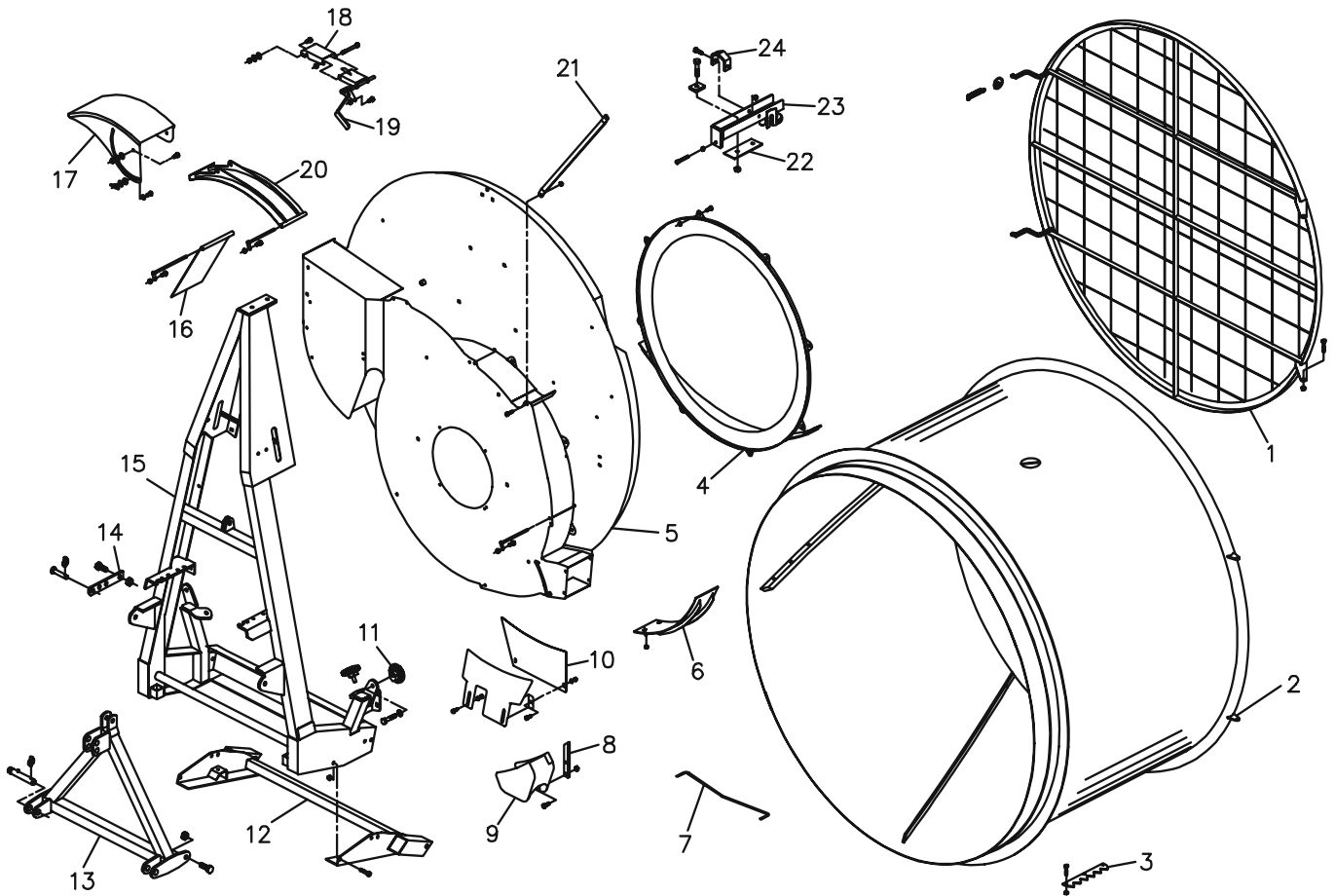
Symptom	Fault	Possible Solutions
Drum does not turn	<p>Hydraulic connections to tractor faulty or not connected</p> <p>Belt slack</p> <p>Drum fouling back plate</p> <p>Motor not turning</p> <p>Rollers seized</p> <p>Material jammed between drum and back plate/shield</p> <p>Bale out of shape</p>	<p>Rectify</p> <p>Tighten belt</p> <p>Adjust drum away from back plate using eccentric adjusters</p> <p>Check connections and tractor hydraulics. Check that motor turns by hand with belt slack and hoses disconnected. If motor is seized, reverse flow to release. Consult your dealer if this fails</p> <p>Replace bearings or complete rollers</p> <p>Clear material and adjust drum further from back plate if problem continues</p> <p>Check belt tension</p>
Slow discharge	<p>Blades blunt or worn</p> <p>Insufficient pressure between bale and rotor</p> <p>Drum speed too slow</p> <p>Drum rotating in wrong direction</p> <p>Rotor not close enough to face of bale</p> <p>Bale not turning in drum.</p> <p>Rotor speed low</p> <p>Bale jammed in drum or not feeding into rotor</p>	<p>Sharpen or replace blades. Blade condition is critical for performance</p> <p>Tilt drum at steeper angle - shorten top link</p> <p>Consult dealer for advice if hydraulic flow cannot be controlled using tractor valve See handbook for recommended speeds</p> <p>Reverse hose connections</p> <p>Slacken retaining bolts and slide bearing housing/ rotor towards bale. Check rotation by hand before turning under power</p> <p>Fit bale grippers in drum</p> <p>Check that slip clutch is not slipping - indicated by hot clutch assembly Check tractor tachometer or simply increase engine speed (try 1000rpm. PTO if necessary)</p> <p>Remove bale grippers if fitted, peel layer off outside of bale before loading</p>
Poor delivery from Giraffe Chute	Rotor speed low	See above - Rotor Speed Low
High power consumption	<p>Excess pressure of bale upon rotor</p> <p>Blunt blades causing long material to hang on rotor</p>	<p>Lengthen top link</p> <p>Sharpen knife sections</p>
Rotor won't start	<p>Bale jammed hard against rotor</p> <p>Clutch setting too low</p>	<p>Lower machine, lengthen top link and rotate drum one or two turns</p> <p>Check setting and adjust</p>
Insufficient delivery from bottom chute when both chutes are	Drum speed too low	<p>Increase hydraulic flow rate</p> <p>Check belt tension etc</p> <p>Consult dealer regarding motor size. It may be possible to fit a faster motor</p>

QUICK HITCH SYSTEM



Ref	Description	Part Number	Qty	Associated Components	Part No.	Qty
	KIT Quick Hitch Frame (Comprising All Items)	SC2542				
1	RH Latch	SC2543	1			
2	LH Latch	SC2538	1			
3	Spring (WP0168)	SPR4215	2			
4	Spacer	SC2539	2	Setscrew M10 x 30 Washer M10 Form G	FAS2655P FAS2344GP	2 2
5	Quick Hitch A-Frame	SC2537	1			
6	Lifting Bar	SC2540	1			
7	Latch Rope 1.8m Long	SC2544	1			
8	Pull Rope 2.0m Long	SC2545	1			

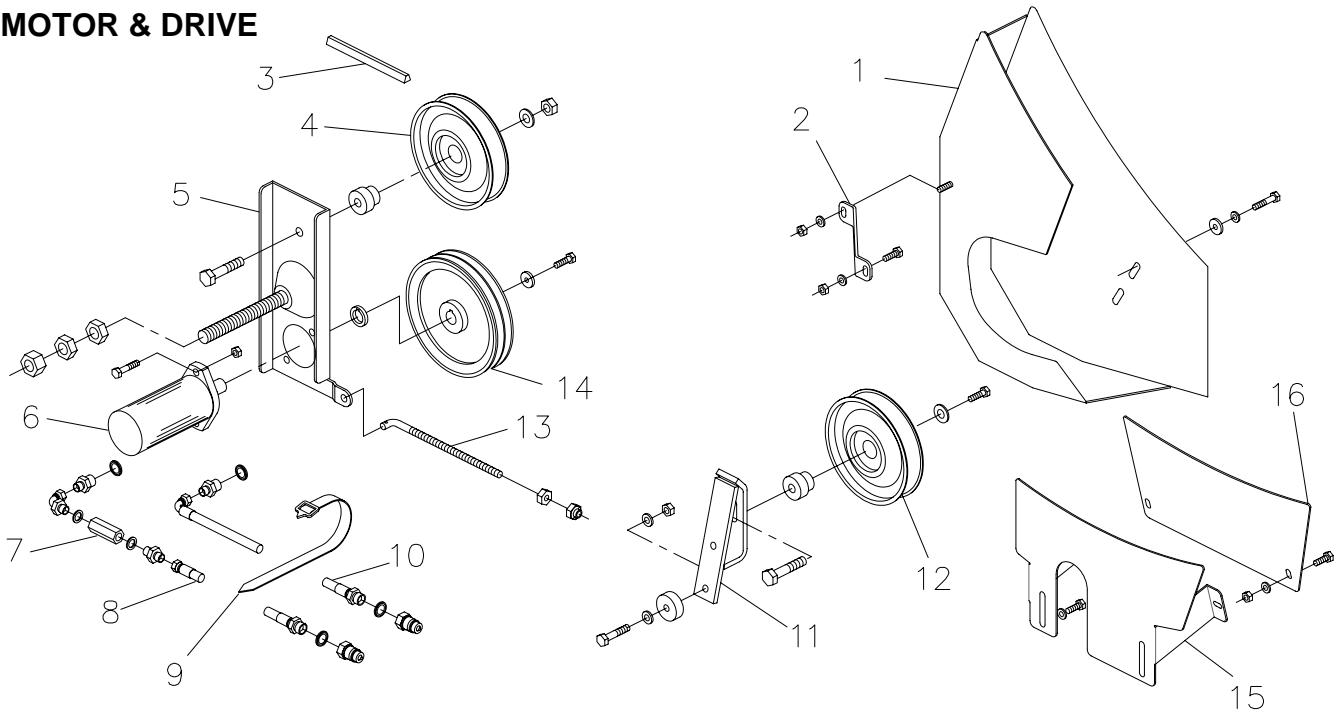
MAINFRAME, DRUM & ASSOCIATED PARTS



Ref	Description	606	6060	Qty	Associated Parts	Part number	Qty
1	Guard - 220mm sq.mesh	SC2706	SC2706	1	Bolt M12 x 30	FAS2678P	2
				1	Locknut M12	FAS2334	2
					Spring	SPR4416	2
					Guard spring handle	SC1040	2
2	Drum	SC2707	SC2707	1			
3	Serrated bale grip	SC1146	SC1146	2	Setscrew M10 x 30	FAS2655P	6
					Locknut M10	FAS2333	6
4	Rotor sealing ring	SC2601	SC2701	1	Bolt M10 x 20 cup sq.	FAS9261P	8
				1	Locknut M10	FAS2333	8
5	Rotor housing	SC2700	SC2700	1	Setscrew M12 x 25	FAS2677P	4
					Locknut M12	FAS2334	4
					Bolt M12 x 25 cup sq.	FAS9282P	8
					Locknut M12	FAS2334	8
6	Outlet sealing plate	SC2530	SC2530	1	Plain washer M10	FAS2344P	2
					Locknut M10	FAS2333	2
7	Blockage removal tool	SC1247	SC1247	1			
8	Drum retainer - L.H.	SC2515	SC2515	1	Setscrew M16 x 60 (8.8)	FAS2707P	2
	Drum retainer - R.H.	SC2515	SC2515	1	Plain nut M16	FAS2305P	2
					Bolt M12 x 35 cup sq.	FAS9284P	4
					Locknut M12	FAS2334	4
9	Roller guard - L.H.	SC2513	SC2513	1			
	Roller guard - R.H.	SC2514	SC2514	1			

Ref	Description	606	6060	Qty	Associated Parts	Part No.	Qty	
10	Lower belt guard	SC2517	SC2517	1	Setscrew M10 x 20	FAS2652P	2	
	Lower belt guard cover	SC2518	SC2518	1	Spring washer M10	FAS2354P	2	
					Plain washer M10	FAS2344P	2	
11	Wheel assy. less spindle	SC1051	SC1051	2	Bearing and tyre assy.	SC1014	4	
	Wheel assy. c/w spindle	SC1044	SC1044	2	Bearing 6307 2RS	BRG1038	4	
					Threaded spindle	SC1036	2	
					Setscrew M16 x 35 (8.8)	FAS2702P	2	
					Spring washer M16	FAS2356P	4	
					Plain nut M16	FAS2305P	2	
12	Frame foot extension	SC2506	SC2506	1	Setscrew M12 x 25 (8.8)	FAS2677P	10	
					Locknut M12	FAS2334	10	
13	A Frame	SC2505	SC2505	1	Bolt M20 x 60 (8.8)	FAS9732P	2	
					Locknut M20	FAS2336	2	
					Tomahawks 4040 & 5050:			
					Lower link pin	TRM0731A	2	
					Plain nut 1" BSF	FAS1808P	2	
					Spring washer 1"	FAS2378P	2	
					Tomahawk 6060 only:			
					Lower link pin	MB2502	2	
Lynch pin 8mm	FAS6102	2						
14	Adjustable link	SC1215	SC1215	1	Bolt M20 x 50 (8.8)	FAS9730P	1	
					Locknut M20	FAS2336	1	
					Adjustable link pin	SC1293	1	
					Lynch pin 8mm	FAS6102	1	
15	Main frame	SC2500	SC2500	1	Gr. Nipple 1/4" BSF	BRG5004	1	
16	Chute base - hinged	SC2709	SC2709	1	Plate position pin	SC1152	1	
					R Pin 3mm	FAS6003P	1	
					Hinged plate pivot bar	SC1238	1	
					Setscrew M8 x 20	FAS2627P	1	
					Locknut M8	FAS2332	1	
17	Curved deflector	SC1177	SC1177	1	Setscrew M12 x 25	FAS2677P	2	
					Bolt M12 x 25 cup sq.	FAS9282P	1	
					Disc spring	SPR7012	6	
					Locknut M12	FAS2334	2	
					Plain washer M16	FAS2346P	1	
					Wing nut M12	FAS1392	1	
18	Flap link	SC2523	SC2523	1	Bolt M12 x 110	FAS9692P	1	
					Setscrew M12 x 25	FAS2677P	2	
					Disc spring	SPR7012	2	
					Locknut M12	FAS2334	3	
19	Flap operating handle	SC2710	SC2710	1	Setscrew M10 x 20	FAS2652P	2	
					Locknut M10	FAS2333	2	
20	Upper flap	SC2703	SC2703	1	Flap pivot bar	SC1216	1	
					Setscrew M8 x 20	FAS2627P	1	
					Locknut M8	FAS2332	1	
21	Back plate stay	SC2528	SC2528	1	Setscrew M10 x 25	FAS2654P	2	
					Locknut M10	FAS2333	2	
22	Spacer (where fitted)	SC1222	SC1222	1				
23	Top drum mount including tyre	SC2509	SC2509	1	Setscrew M12 x 80 (8.8)	FAS2688P	1	
	Top drum mounting bare	SC2507	SC2507	1	Plain nut M12	FAS2304P	1	
	Bearing and tyre assembly	SC1014	SC1014	1	Strengtheners	SC1031	2	
	Bearing 6307 2RS	BRG1038	BRG1038	1	Bolt M16 x 60 (8.8)	FAS9707P	2	
					Locknut M16	FAS2335	2	
24	Lifting Loop	SC2508	SC2508	1	Setscrew M12 x 30	FAS2678P	2	
					Locknut M12	FAS2334	2	

MOTOR & DRIVE



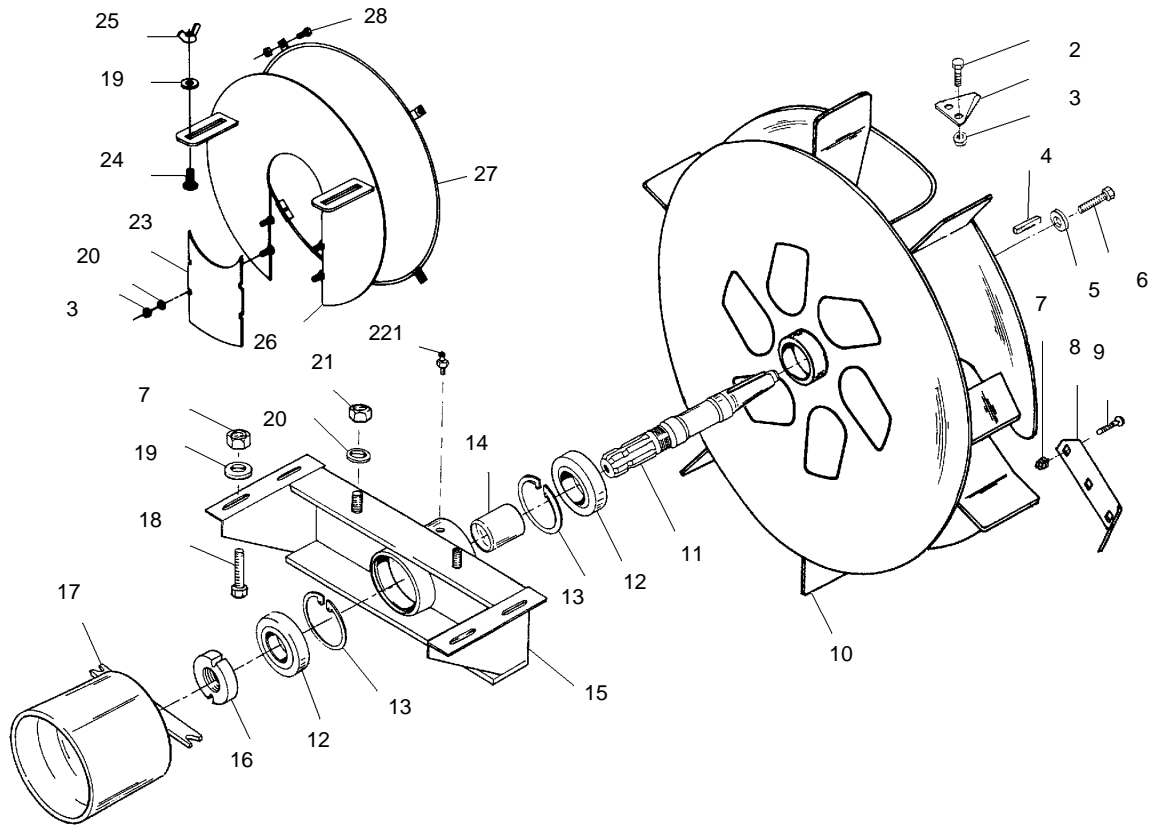
Ref.	Description	Part Number	Q'ty	Associated Parts	Part	Q'ty
1	Drum and pulley guard	SC2519	1	Setscrew M10 x 20 Plain washer M10 Spring washer M10	FAS2652P FAS2344P FAS2354P	2 2 2
2	Guard link	SC2520	1	Setscrew M10 x 20 Plain washer M10 Locknut M10	FAS2652P FAS2344P FAS2333	1 2 2
3	Belt B7610(B298)	BEB0298	2			
4	Idler pulley twin belt	TRM0714	1	Idler pulley spacer Bolt M16 x 70 Plain washer M16 Locknut M16	SC1145 FAS9709P FAS2346P FAS2335	1 1 1 1
5	Motor mounting plate	SC2512	1	1" BSF half nut 1" BSF full nut	FAS1818P FAS1808P	2 1
6	Hydraulic motor 400cc (1" shaft) Hydraulic motor 400cc (25mm shaft)	HYD5203 HYD5234	1 1	Setscrew M12 x 40 (8.8) Locknut M12 1/2" BSP x 3/8" BSP unin. Bonded seal 1/2" BSP	FAS2680P FAS2334 HYD1115 HYD4204	2 2 2 2
	Seal kit - Adan	HYD4881	1	(Allen key headed bolts on end of motor)		
	Seal kit - Geolink / M&S	HYD4884	1	(4 bolt mounting flange on motor)		
	Seal kit - M&S MPN	HYD4885	1	(2 bolt mounting flange on motor)		
	Seal kit - SAM Hydrauliks	HYD4891	1	(25mm diameter motor output shaft)		
7	Check valve	HYD5005	1	3/8" BSP 90° angled union 3/8" x 3/8" BSP union Bonded seal 3/8" BSP	HYD1735 HYD1012 HYD4202	1 1 2
8	Return hose 3/8"	HYD2152	1	Bonded seal 1/2" BSP Quick release coupling	HYD4204 HYD1901	1 1
9	Strap reusable	FAS9001	2			
10	Supply hose 3/8"	HYD2152	1	Bonded seal 1/2" BSP Quick release coupling	HYD4204 HYD1901	1 1
11	Reverse idler bracket	SC2516	1	Spacer Bolt M12 x 55 Plain washer 12mm Locknut M12	SC1259 FAS9683P FAS2345P FAS2334	2 2 2 2

Ref.	Description	Part Number	Q'ty	Associated Parts	Part	Q'ty
12	Reverse idler pulley	SC1126	1	Idler pulley spacer	SC1145	1
				Bolt M16 x 70	FAS9707P	1
				Plain washer M16	FAS2411P	1
				Locknut M16	FAS2335	1
13	Belt tension rod	SC1217	1	Nut-tensioner 1/2" BSW	TRM0284	1
14	Pulley 2 Groove 224 (B) taperlock	SC2529	1	Spacer	SC1161	1
	Taperlock bush 1" bore	SC2564	1	Plain washer	FAS2408P	1
	Taperlock bush 25mm bore	SC2565	1	Bolt M8 x 30 HT (8.8)	FAS2630P	1
				Key 1/4" x 1/4" x 1.1/4"(1")	FAS8113	1
				Key 8 x 7 x 30 (25mm)	FAS8134	1
15	Lower belt guard	SC2517	1	Setscrew M10 x 20	FAS2652P	2
				Plain washer M10	FAS2344P	2
				Locknut M10	FAS2333	2
16	Lower guard cover	SC2518	1	Setscrew M12 x 25	FAS2677P	2
				Plain washer M12	FAS2345P	2

DECALS

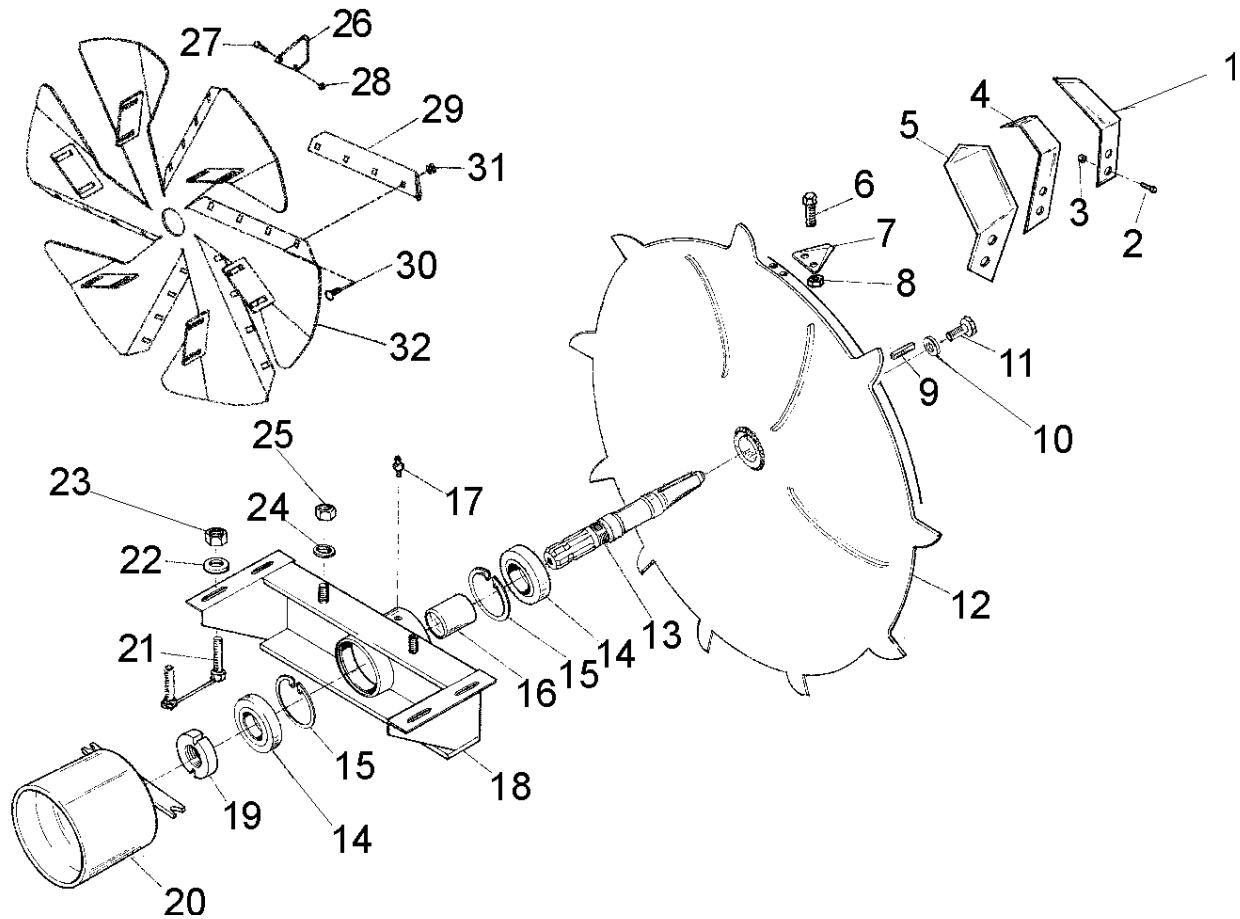
Description	606	6060	Qty
"Read Instruction Book"	DL1006	DL1006	1
"Severed Fingers"	DL1033	DL1033	3
"Tomahawk"	DL1051	DL1051	2
Arrow	DL1052	DL1052	2
"Teagle"	DL1015	DL1015	3
"Tomahawk 606"	DL1064		1
"Tomahawk 6060"		DL1065	1
Serial number plate	DL2040	DL2041	1
Pop rivet	FAS9069	FAS9069	2

ROTOR & BEARING HOUSING - SILAGE



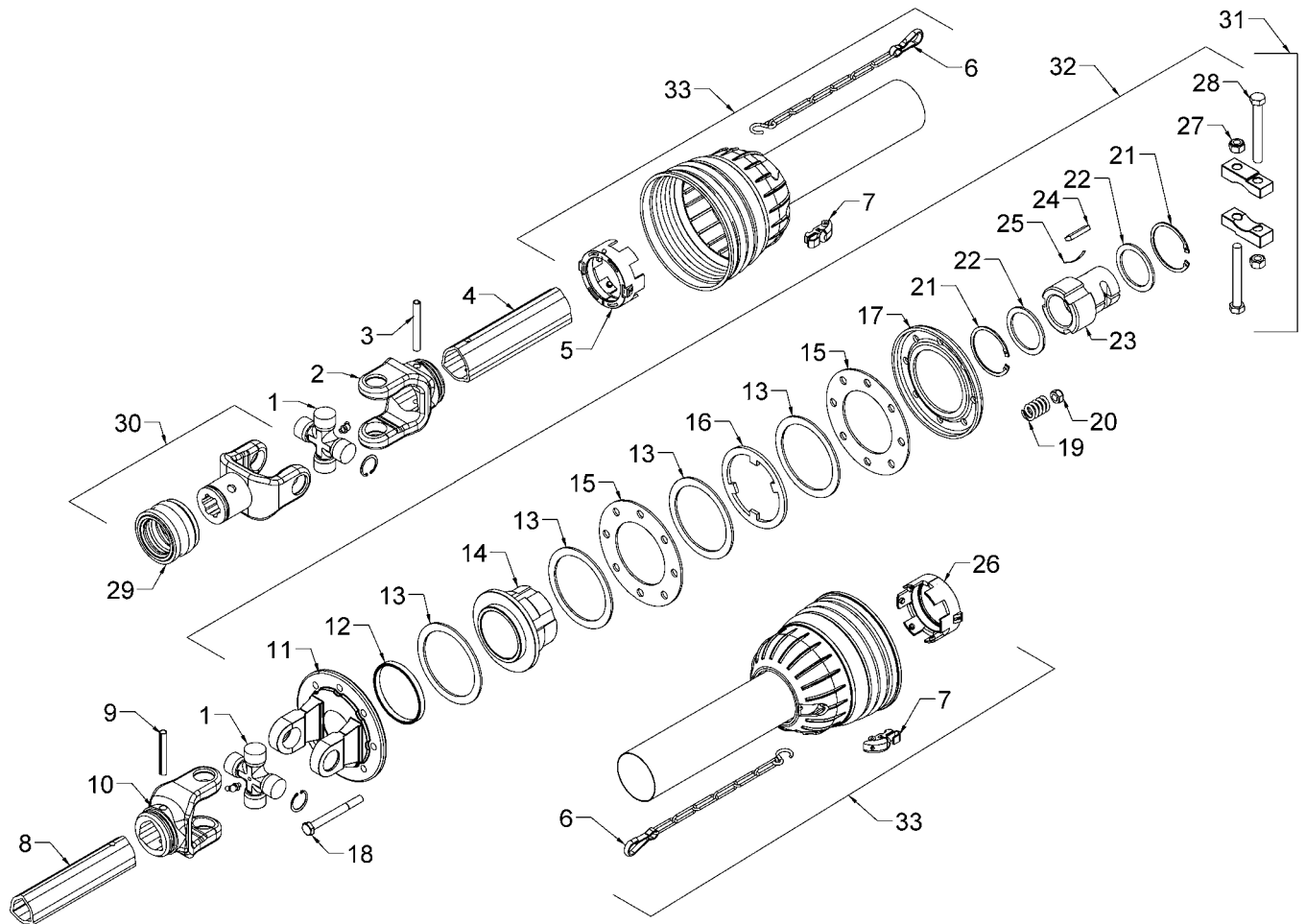
Ref.	Description	6060 (6 Spline)	6060 (20 Spline)	Qty
	Rotor complete (items 1 to 10)	SC2713	SC2713	1
	Shaft & housing assembly (items 11 to 16)	SC2511	SC2562	1
1	Bolt M8 x 25 (8.8)	FAS2629P	FAS2629P	28
2	Knife section 8mm holes	SC1220	SC1220	14
3	Locknut M8	FAS2332	FAS2332	37
4	Key 1/2" x 5/16" x 85mm long	FAS8115	FAS8115	1
5	Washer 55 x 20 x 10	FAS2409P	FAS2409P	1
6	Bolt M20 x 40 (8.8)	FAS2728P	FAS2728P	1
7	Locknut M12	FAS2334	FAS2334	24
8	Blade	SC2525	SC2525	6
9	Cup square bolt M12 x 35	FAS9282P	FAS9282P	24
10	Rotor bare	SC2712	SC2712	1
11	Shaft	SC1065HT	SC1392	1
12	Bearing	BRG1048	BRG1073	2
13	Circlip internal 1300-100	FAS7111		2
14	Bearing spacer	RS1039	SC1393	1
15	Bearing housing	SC2510	SC2563	1
16	Nut 1 1/2" UNF	TRM0184	SC1394	1
17	PTO cover shield	SC1139	SC1139	1
18	Bearing housing bolt	SC1260	SC1260	2
19	Plain washer M12	FAS2345P	FAS2345P	4
20	Plain washer M10	FAS2344P	FAS2344P	6
21	Locknut M10	FAS2333	FAS2333	2
22	Grease nipple 1/4" BSF	BRG5004	BRG5004	1
23	Lower rotor guard	SC1809	SC1809	1
24	Cup square bolt M12 x 25	FAS9282P	FAS9282P	2
25	Wing nut M12	FAS1392	FAS1392	2
26	Upper rotor guard	SC1808	SC1808	1
27	Guard ring	SC1813	SC1813	1
28	Setscrew M8 x 16	FAS2625P	FAS2625P	5

ROTOR & BEARING HOUSING - STRAW



Ref.	Description	606 (6 Spline)	606 (20 Spline)	Q'ty
	Rotor Complete (items 6 to 13 & 26 to 32)	SC2606	SC2606	1
	Shaft & housing assembly (items 13 to 19)	SC2511	SC2562	1
6	Setscrew M8 x 20 (8.8)	FAS2627P	FAS2627P	80
	Setscrew M8 x 35 (8.8)	FAS2631P	FAS2631P	8
7	Knife section - 8mm holes	SC1100	SC1100	44
8	Locknut M8	FAS2332	FAS2332	88
	Plain nut M8	FAS2302P	FAS2302P	16
9	Key 1/2" x 5/16" x 85mm long	FAS8115	FAS8115	1
10	Washer 55 x 20 x 10	FAS2409P	FAS2409P	1
11	Bolt M20 x 40 (8.8)	FAS2728P	FAS2728P	1
12	Rotor bare	SC2602	SC2602	1
13	Shaft	SC1065	SC1392	1
14	Bearing 6309RS	BRG1048	BRG1073	2
15	Circlip internal 1300-100	FAS7111		2
16	Bearing spacer	RS1039	SC1393	1
17	Grease nipple 1/4" BSF	BRG5004	BRG5004	1
18	Bearing housing	SC2510	SC2563	2
19	Nut 1 1/2" UNF	TRM0184	SC1394	1
20	PTO Cover shield	SC1139	SC1139	1
21	Bearing bolt assembly	SC1260	SC1260	2
22	Plain washer M12	FAS2345P	FAS2345P	4
23	Locknut M12	FAS2334	FAS2334	4
24	Plain washer M10	FAS2344P	FAS2344P	2
25	Locknut M10	FAS2333	FAS2333	2
26	Knife section - rotor face	SC1220	SC1220	6
27	Setscrew M8 x 25 (8.8)	FAS2629P	FAS2629P	12
28	Locknut M8	FAS2332	FAS2332	12
29	Blade	SC2525	SC2525	6
30	Bolt M12 x 35	FAS9282P	FAS9282P	36
31	Locknut M12	FAS2334	FAS2334	36
32	Rotor Face	SC2603	SC2603	1

COMER PTO SHAFT - COMBINED SLIP AND OVERRUN CLUTCH

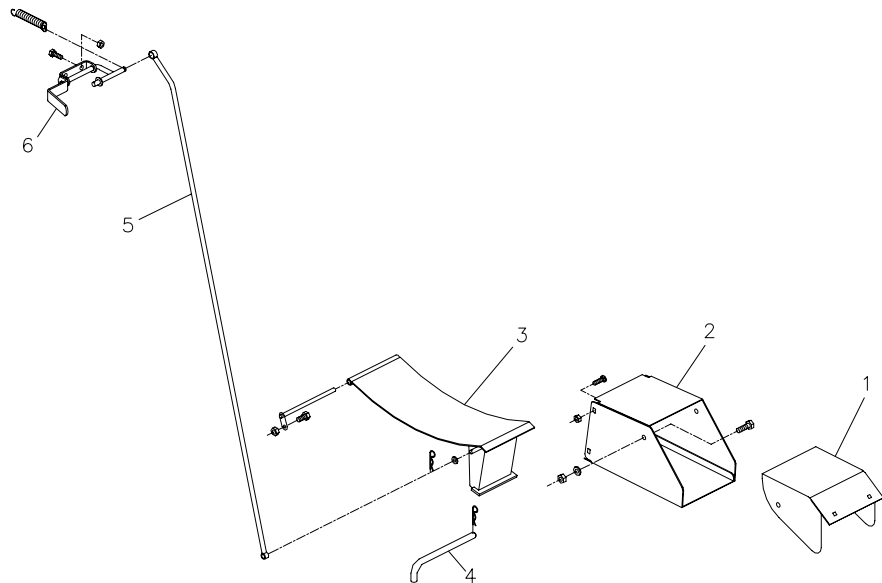


Ref	Description	Part No.	Qty	Ref	Description	Part No.	Qty
	PTO Shaft Complete			12	Bush	PTO2071	1
	6 Spline Tractor - 6 Spline Machine	PTO8084		13	Clutch Plate	PTO2058	4
	21 Spline Tractor - 6 Spline Machine	PTO8072		14	Overrun Clutch Body	PTO2072	1
	6 Spline Tractor - 20 Spline Machine	PTO8125		15	Inner Plate	PTO2073	2
	21 Spline Tractor - 20 Spline Machine	PTO8127		16	Intermediate Plate	PTO2074	1
1	Cross Journal Kit	PTO2321	2	17	Pressure Plate	PTO2075	1
2	Outer Yoke	PTO1915	1	18	Bolt M10 x 100	FAS9669	8
3	Spring Tension Pin 10 x 80	FAS4147	1	19	Spring	SPR7112	8
4	Outer Profile Tube	PTO1998	1	20	Locknut M10	FAS2333	8
5	Outer Guard Bearing Ring	PTO2768	1	21	Inner Circlip 1300 - 72	FAS7112	2
6	Anchor Chain	MB0592	2	22	Retaining Washer	PTO2077	2
7	Guard Clip	PTO2707	4	23	Hub		1
8	Inner Profile Tube	PTO2706	1		1 3/8" - 6 Spline	PTO2788	
9	Spring Tension 10 x 70	FAS4145	1		1 3/4" - 20 Spline	PTO2905	
10	Inner Yoke	PTO1918	1	24	Ratchet Tooth	PTO1911	3
11	Flanged Yoke	PTO2070	1				

Ref	Description	Part No.	Qty	Ref	Description	Part No.	Qty
25	Ratchet Spring	PTO1912	3	32	Clutch Assembly c/w Clamp 1 3/8" - 6 Spline	PTO2930	1
26	Inner Guard Bearing Ring	PTO2769	1		1 3/4" - 20 Spline	PTO2931	
27	Locknut M12 Fine	FAS4714	2	33	T60 Guard Complete	PTO2936	1
28	Bolt M12 x 95 Fine	FAS4725	2				
29	Pull Back Collar Set	PTO2771	1				
30	Yoke Assembly 540rpm - 6 Spline 1000rpm - 21 Spline	PTO2775 PTO2784	1				
31	Clamp Plate Assembly 1 3/8" - 6 Spline 1 3/4" - 20 Spline	PTO2789 PTO2904	1				

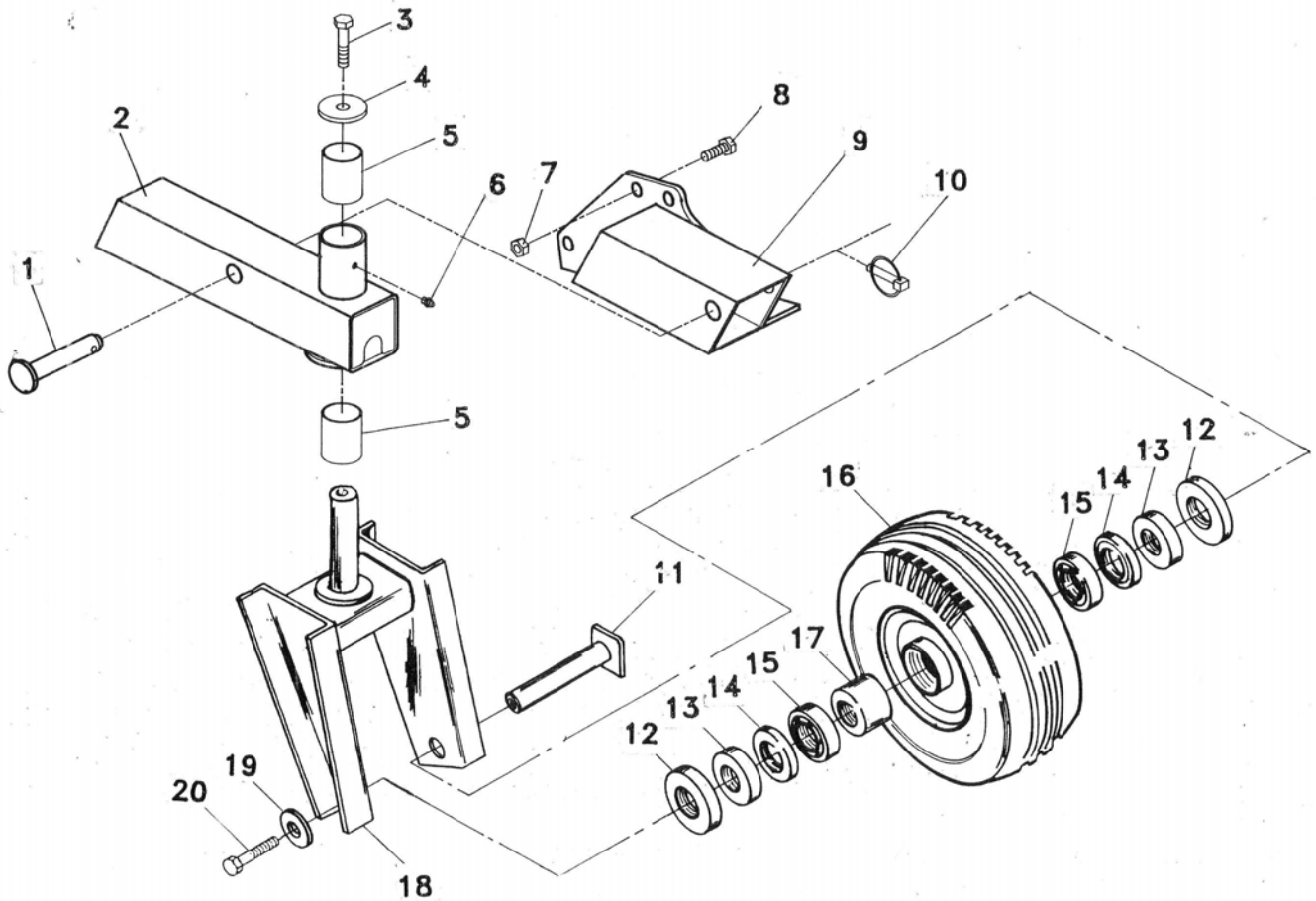
* Spring length to give correct slip clutch torque setting is 32.5mm

LOWER CHUTE KIT



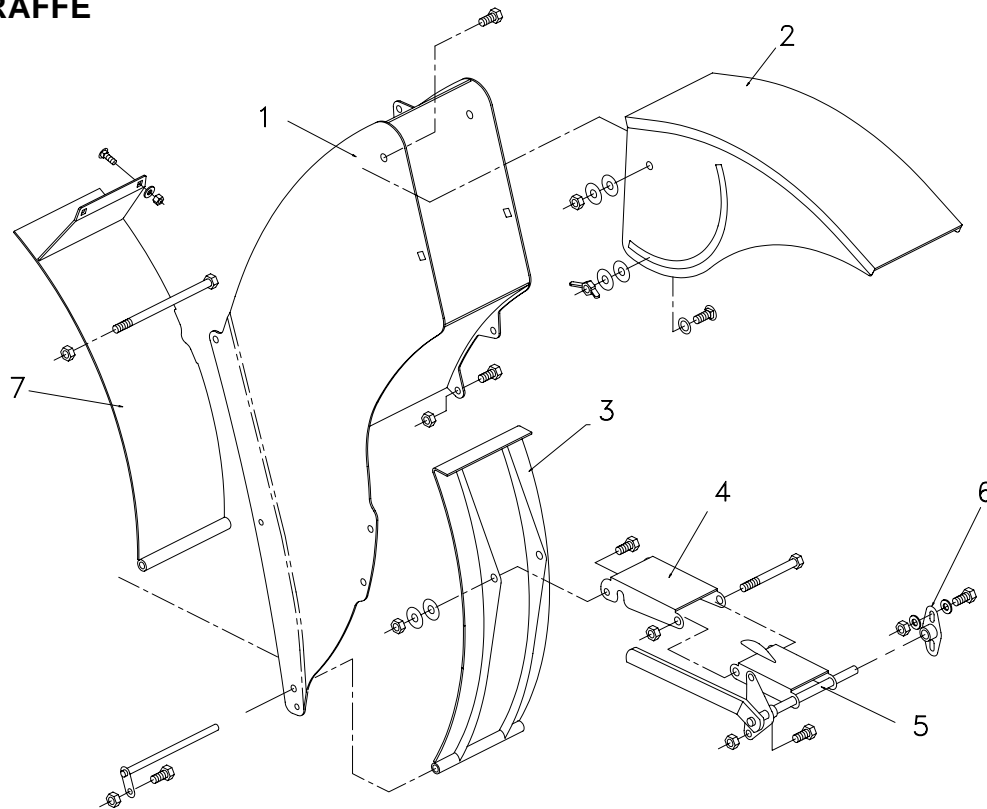
Ref	Description	Part Number	Qty	Associated Components	Part No.	Qty
	Kit complete	SC2526				
1	Straw deflector	SC1219	1	Setscrew M12 x 25 Disc spring Locknut M12	FAS2677P SPR7012 FAS2334	1 2 1
2	Lower chute	SC1701	1	Bolt M8 x 20 cup sq. Locknut M8 Plain washer M8	FAS9241P FAS2332 FAS2343P	4 4 4
3	Lower flap	SC2503	1	Flap pivot bar Setscrew M8 x 20 Locknut M8 R clip 3mm	SC1216 FAS2627P FAS2332 FAS6003	1 1 1 1
4	Flap retaining bar	SC2531	1	R clip 3mm	FAS6003	1
5	Lower flap link	SC2524	1			
6	Lower flap operating rod	SC1815	1	R clip 3mm Setscrew M12 x 25 Locknut M12 Spring	FAS6003P FAS2677P FAS2334 SPR4419	1 2 2 1

CASTOR WHEELS



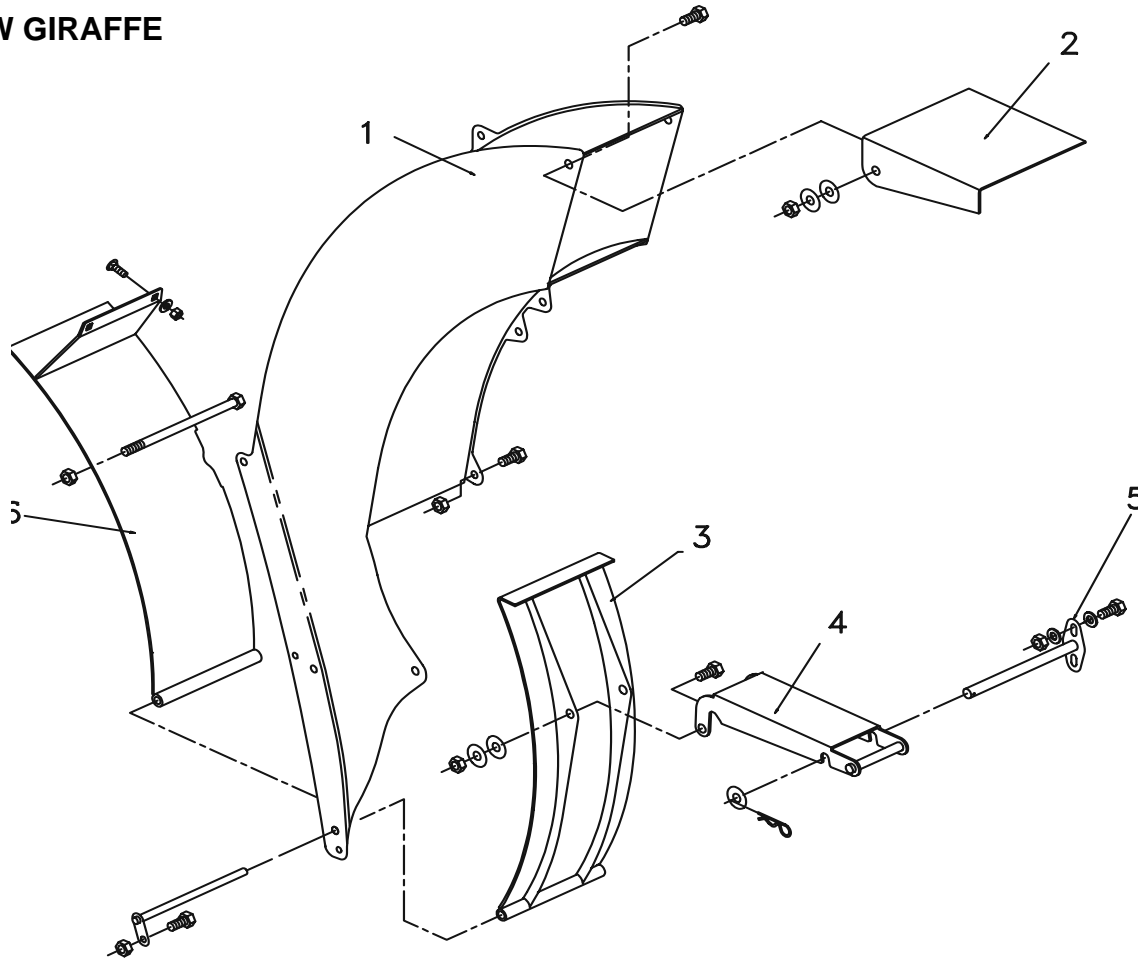
Ref	Description	Part Number	Qty
	Castor wheel kit complete	SC2521	1
1	Retaining pin	SC1293	2
2	Castor wheel beam	SC1242	2
3	Setscrew M12 x 30 (8.8)	FAS2678P	2
4	Plain washer 50 x 13 x 5	FAS2383P	2
5	Wrapped bush	BRG2027	4
6	Grease nipple ¼" BSF	BRG5004	4
10	Lynch pin 8mm	FAS6102	2
11	Axle	SC1130	2
12	Wheel spacer	SC1131	4
13	Spacing collar	SC1137	4
14	Grease seal	BRG3044	4
15	Ball bearing 6206	BRG1054	4
16	Wheel assembly 500 x 8 (items 13-17)	SC1128	2
17	Bearing spacer	SC1136	2
18	Castor wheel fork	SC1243	2
19	Plain washer M20	FAS2347P	2
20	Setscrew M20 x 40 (8.8)	FAS2728P	2

SILAGE GIRAFFE



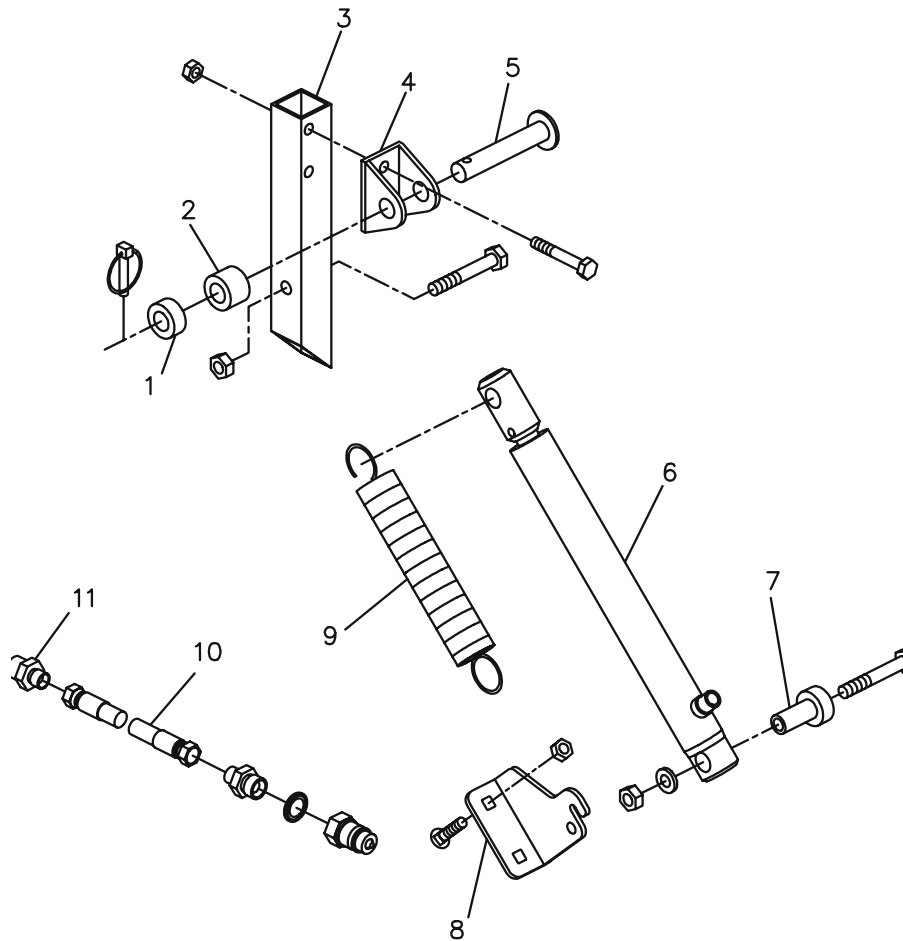
Ref.	Description	6060	Qty	Associated Parts	Part No.	Qty
	Giraffe chute kit	SC2502				
1	Giraffe chute	SC2708	1	Setscrew M10 x 20 Locknut M10 Setscrew M8 x 20 Locknut M8	FAS2652P FAS2333 FAS2627P FAS2332	2 2 1 1
2	Curved deflector	SC1806	1	Setscrew M12 x 25 Bolt M12 x 25 cup sq. Disc spring Locknut M12 Plain washer M16 Wing nut M12	FAS2677P FAS9282P SPR7012 FAS2334 FAS2346P FAS1392	2 1 6 2 1 1
3	On/off flap	SC2504	1	Flap pivot bar Setscrew M8 x 20 Locknut M8	SC1216 FAS2627P FAS2332	1 1 1
4	Flap link	SC1209	1	Bolt M12 x 110 Setscrew M12 x 25 Disc spring Locknut M12	FAS9692P FAS2677P SPR7012 FAS2334	1 2 2 3
5	Flap operating handle	SC1804	1	Setscrew M10 x 20 Locknut M10	FAS2652P FAS2333	2 2
6	Linkage boss & plate	SC1814	1	Setscrew M8 x 20 8.8 Locknut M8 Plain washer M8	FAS2627P FAS2332 FAS2343P	2 2 4
7	Blanking plate - giraffe	SC2527	Opt.	Bolt M8 x 20 cup sq. Locknut M8 Plain washer M8 Bolt M10 x 200 Locknut M10	FAS9241 P FAS2332 FAS2343P FAS2073P FAS2333	2 2 2 1 1

STRAW GIRAFFE



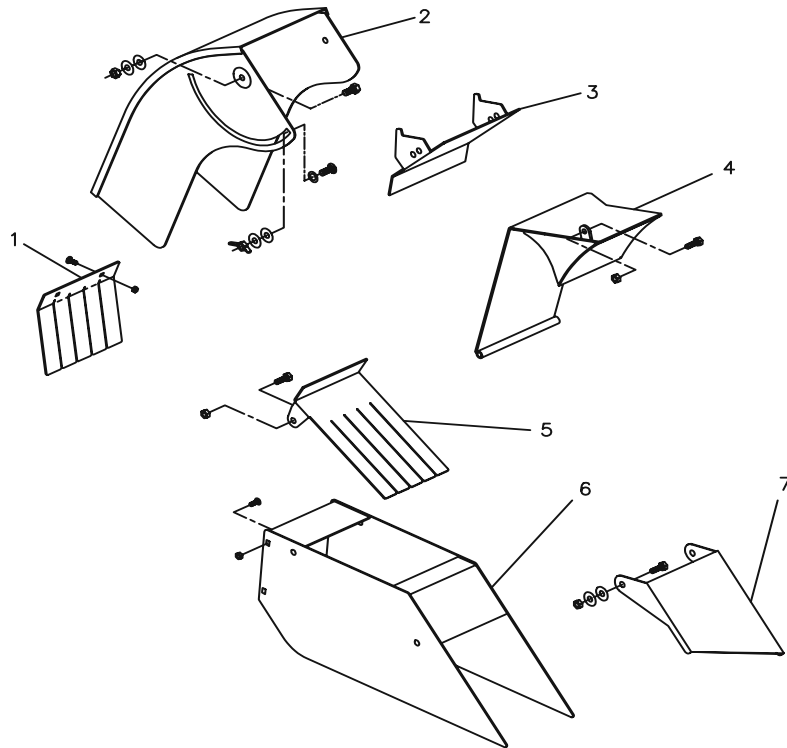
Ref	Description	Part Number	Qty	Associated Parts	Part No.	Qty
Giraffe Chute Kit Comprising all except item 6		SC2501				
1	Giraffe chute	SC2605	1	Setscrew M10 x 20 Locknut M10 Setscrew M8 x 20 Locknut M8	FAS2252P FAS2333 FAS2627P FAS2332	5 5 1 1
2	Deflector	SC1283	1	Setscrew M12 x 25 Disc spring Locknut M12	FAS2677P SPR7012 FAS2334	1 2 1
3	On/off flap	SC2504	1	Flap pivot bar Setscrew M8 x 20 Locknut M8	SC1216 FAS2627P FAS2332	1 1 1
4	Flap operating link	SC1609	1	Setscrew M12 x 25 Disc spring Locknut M12	FAS2677P SPR7012 FAS2334	2 2 2
5	Latch bar	SC1610	1	Setscrew M8 x 20 (8.8) Locknut M8 Plain Washer M8	FAS2627P FAS2332 FAS2343P	2 2 4
6	Blanking plate - giraffe	SC2527	Opt.	Bolt M8 x 20 cup sq. Locknut M8 Plain washer M8 Bolt M10 x 200 Locknut M10	FAS9241P FAS2332 FAS2343P FAS2073P FAS2333	2 2 2 1 1

HYDRAULIC FLAP KIT



Ref	Description	Part Number	Qty	Associated Parts	Part No.	Qty
	Kit complete	SC1261				
1	Front spacer	SC1270	1			
2	Rear spacer	SC1269	1			
3	Lever	SC1267	1	Bolt M12 x 80 (8.8) Locknut M12	FAS9688P FAS2334	1 1
4	Ram pivot bracket	SC1268	1	Bolt M10 x 55 (8.8) Locknut M10	FAS9660P FAS2333	2 2
5	Ram pivot pin	FAS6444	1	Lynch pin 8mm	FAS6102	1
6	Flap operating Ram	RS1056	1	Seal kit	HYD4841	1
7	Lower ram pivot	SC1265	1	Bolt M12 x 70 (8.8) Plain washer Locknut M12	FAS9686P FAS2345P FAS2334	1 1 1
8	Spring anchor	SC1266	1	Bolt M10 x 25 cup sq. Locknut M10	FAS9262P FAS2333	2 2
9	Return spring	SPR5027	1			
10	Hydraulic hose	HYD2014	1	Quick release coupling Bonded seal 1/2" BSP 1/4" x 1/2" BSP Union	HYD1901 HYD4204 HYD1114	1 1 1
11	One way restrictor 1mm	HYD1750	1			

STRAWBERRY CHUTE KIT



Ref	Description	Part Number	Qty	Associated Parts	Part No.	Qty
	Kit complete	SC2533				
1	Fingers deflector	SC1186	1	Bolt M8 x 20 cup square Locknut M8	FAS9241P FAS2332	2 2
2	Upper deflector	SC1185	1	Setscrew M12 x 25 Bolt M12 x 25 cup square Disc spring Locknut M12 Plain washer M12	FAS2677P FAS9282P SPR7012 FAS2334 FAS2346P	2 1 6 2 1
3	Internal deflector	SC1187	1	Wing nut M12	FAS1392	1
4	Equal delivery plate	SC2532	1	Setscrew M10 x 20 Locknut M10 Bolt M10 x 20 cup square Locknut M10	FAS2652P FAS2333 FAS9261P FAS2333	1 1 2 2
5	Fingers deflector	SC1252	1	Setscrew M12 x 25 Locknut M12 Disc spring	FAS2677P FAS2334 SPR7012	2 2 4
6	Lower chute	SC1235	1	Bolt M8 x 20 cup square. Locknut M8 Plain washer	FAS9241P FAS2332 FAS2343P	4 4 4
7	End deflector	SC1253	1	Setscrew M12 x 25 Locknut M12 Disc spring	FAS2677P FAS2334 SPR7012	2 2 4