SEEDKING Professional

SK2122

NO-TILL DRILL

REESE ENGINEERING LTD
41 KELVIN GROVE ROAD – PO BOX 5056
PALMERSTON NORTH, NEW ZEALAND
7 9323
) 354 3155

Introduction

Dear Valued Owner,

Congratulations, you have just made an excellent investment.

Your new Aitchison drill has been designed and engineered to give years of dependable service. Every consideration has been taken to incorporate the latest technology, thus ensuring optimum seeding is achieved. Aitchison Drills provide the optimum agronomic environment; ensure proper seedling germination, leading to superior crops and thus greater revenue earning potential.

It has often been said “when all else fails-read the operators manual” and to ensure you get the best from your new Aitchison drill it is very important that you thoroughly read through the entire contents of the manual. Please also pay attention to the maintenance recommendations, understand the calibration system and consider the design features and their specific functionality.

Your local dealer carries an extensive range of genuine Aitchison spare parts and consumables that also have been engineered to provide long service and life. It is important that only genuine parts are used on your drill.

Thank you for making your investment in our expertise.

Yours Sincerely,

Ross Simpson
Rob Baan

Directors
Reese Agri

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TECHNICAL SPECIFICATIONS

SEEDKING Professional	**SK2122**
Overall Width – Transport	3.1m
Overall Length	5.6m
Sowing Width	3.0m
Working Speed	6-15 km/h
Tractor HP (min)	120
Weight Empty	4250kg
Seed Hopper Capacity	450lts
Fertiliser Hopper Capacity	450lts
No. Disc	22
Row Spacing	136mm

Optional Extras:

Small Seeds Box / Granule Box #A3770

Chain Harrow #A3750

TO THE OWNER AND OPERATOR

Your Aitchison drill has been carefully designed and manufactured to give you years of dependable service. To keep it running efficiently, read and follow the instructions in this operator's manual. Any questions you may have that are not covered in this manual should be referred to your dealer:

Dealers Name: _____
Address: _____
Phone No: Business: _____ Private: _____
Date of Purchase: _____
Model: _____ Serial Number: _____

WARRANTY

The warranty card on your Seedmatic Professional Drill is included with this manual. Please ensure that the registration card is correctly filled in.

The owner must ensure the dealer, upon delivery of the machine, has completed the **WARRANTY REGISTRATION CARD**. This must be signed by the owner and returned to the factory promptly. **Failure to carry out this function could nullify warranty claim opportunities against the factory in the future**. Warranty claims will only be accepted for registered products.

Indemnity from liability is a complex subject. Our indemnity makes it clear that we are not liable for any claim lodged for breakdown, delays or machine down time, crop failure or any other contingency involving the use of our equipment. In all these circumstances the user can take precautionary measures to ensure that none of theses problems occur – like having on-hand spare parts at the local dealer. Crop failures can be caused by countless problems – our job is to mechanically place seed in the soil and any mechanical malfunction preventing this happening can be checked during the seeding operation and rectified by the operator.

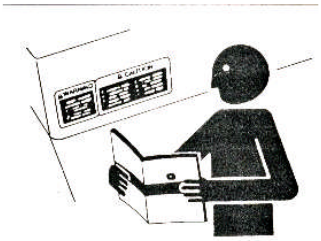
ORDERING PARTS AND ACCESSORIES

When ordering spare parts, quote the model and serial number of the drill and use the Aitchison part number given in the parts section. Reference to the right hand and left hand is taken from behind in the direction of travel

SAFETY FIRST

Keep all covers in place when using the drill.
Stop the drill before making adjustments.
Lower the drill to the ground or put on props when working around the machine.
Tighten all nuts and bolts after initial use.

FOLLOW SAFETY INSTRUCTIONS



Carefully read all safety messages in this manual and on your machine safety signs. Replace missing or damaged safety signs, these can be ordered from your local Aitchison dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate it without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

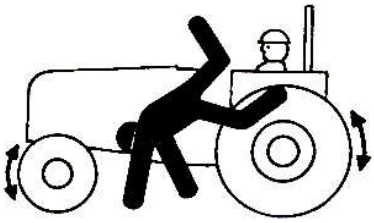
If you do not understand any part of this manual and need assistance, contact your Aitchison dealer.

OPERATE YOUR MACHINE SAFELY

Be careful when operating machine to avoid injury.

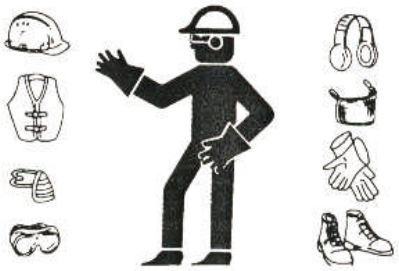
Serious injury or death can result from contact with electric lines. Use care when moving or operating the machine near electric lines to avoid contact.

Be careful when operating on hillsides, tractor can tip sideways if it strikes a hole, ditch or other irregularity.



Permit only one person, the operator, on tractor platform while tractor and drill are in operation.
Keep riders off the seed drill. They are subject to injury such as being struck by foreign object and being thrown off the machine. They also obstruct the operators view.

WEAR PROTECTIVE GEAR

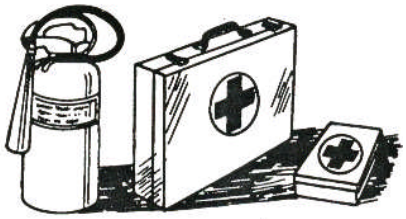


Wear close fitting clothes and safety equipment appropriate to the job.

Wear suitable hearing protective device as prolonged exposure to loud noise can cause impairment or loss of hearing. Wear safety gloves when working with discs as they can have sharp edges.

Operating equipment safely requires the full attention of the operator. Do not wear radio headphones while operating machine.

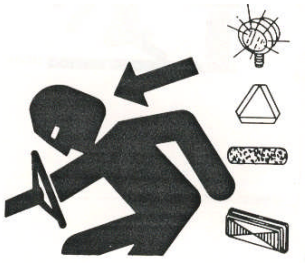
BE SAFE WITH CHEMICALS



Direct exposure to agricultural and hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with Aitchison equipment include such items as lubricants, coolants, fertilizer, paint and adhesives. If in doubt, contact your local Aitchison dealer for information about chemical safety and first aid procedures. Keep a fire extinguisher and first aid kit handy.

When disposing of chemicals, make sure hoppers are properly washed to get rid of any chemical residue and that any chemicals are disposed of in an approved manner. Follow instructions of chemical manufacturers for disposal methods.

USE SAFETY LIGHT AND DEVICES



Slow moving tractors and equipment can create a hazard when driven on public roads. They are difficult to see, especially at night. This could lead to personal injury or death if a collision with a vehicle occurs.

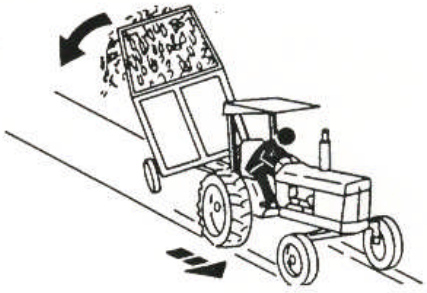
Whenever driving on public roads, use flashing warning lights. Provide extra lighting at night on machine and tractor. An implement safety lighting kit is available from Aitchison Industries.

TRANSPORT SAFELY

Do not exceed transport speed for machine; see your local Aitchison dealer. Never transport at any speed which does not permit adequate control of steering and stopping.
Reduce speed over rough ground

For safe transport, tractor must weigh more than machine.

REDUCE SPEED WHEN TOWING LOADS



Braking to stop towed loads from transport speeds can cause the towed load to swerve and upset. Reduce speed if towed load weighs more than the tractor and is not equipped with brakes. Use additional caution when towing loads under adverse surface conditions, when turning and on lines.

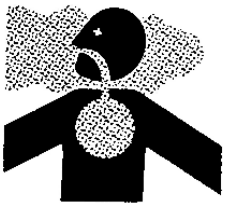
PRACTICE SAFE MAINTENANCE

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service or adjust machine while it is moving. Keep hands, feet and clothing from power driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.



Remove paint before welding or heating. Avoid potentially toxic fumes and dust when sanding, repainting or welding. Do all work outside in a well-ventilated area. Dispose of paint and solvent properly.

Avoid heating near pressurized fluid lines or other flammable materials. Pressurized lines can be accidentally cut when heat goes beyond the immediate flame, which could result in severe burns to yourself and bystanders.

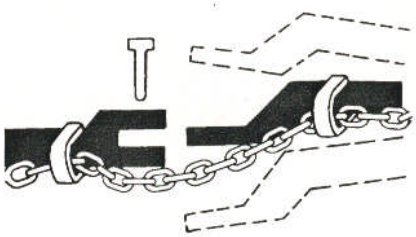
Avoid high-pressure fluids. Escaping fluid under pressure can cause injury. Relieve pressure before disconnecting hydraulic or other lines.

DISPOSE OF WASTE PROPERLY

Improper disposing of waste can threaten the environment and ecology. Use leak-proof equipment when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source. Use the manufacturer's directions on the correct way to recycle or dispose of waste.

USE A SAFETY CHAIN



A safety chain will help control drawn equipment should it accidentally separate from the drawbar.

Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning.
Make sure that the chains you are using has a strength rating double or greater than the gross weight of the towed machine. Do not use the safety chain for towing.

GENERAL OPERATION IN THE FIELD

The drill should always be moving forward when lowered or raised from work. Avoid stopping and never reverse with drill in work. These precautions will avoid blocking outlets; however make periodic checks for blockages while drilling.

The speed of travel is governed by the conditions e.g. if the ground is rough the drill may tend to bounce which would necessitate a lower speed. In optimum conditions 12 km/h may be maintained.

Always lift the drill out of the ground before turning sharp corners as this will protect the disc openers and stop the turf from ripping.

Under no circumstances should the tractor wheels be allowed to slip excessively as this will break the turf and the following disc may tear up the ground. If slippage is a problem, use a tractor with more traction or wait for the ground to be in better condition. Towing chain or bar harrows behind the drill is very beneficial as this will crumble the groove and help to cover the seed.

PASTURELAND FARMING WITH THE AIRPRO SK2122

Continuous reaping of grasses either by machine or animal will eventually lead to their degeneration. Desired species of grasses and legumes will weaken and their ability to survive adverse climatic conditions will be diminished. Undesirable species of grasses and weeds will eventually tend to dominate or pasture may simply thin out with minimal plant populations. Of course conditions that cause pasture degenerations vary from location to location, and from country to country, but one can assume that every pasture can be improved no matter where its location.

MANAGEMENT CONSIDERATIONS

In describing the technique for sowing seeds into uncultivated soils, we should clarify the terminology. It is most common to refer to CONSERVATION TILLAGE (or CT) but it may be called SOD-SEEDING in Australia, or DIRECT DRILLING in UK or even NO-TILL SEEDING in North America. Wherever it is practical, successful conservation tillage requires well considered and thorough preparation, integrated with a whole farm management program.

The cropping rotation, optimum sowing dates and grazing fertilization program will depend on the seasonal vegetation or weed spectrum, paddock history, soil type, fertility and drainage, and many other factors.

Here is a checklist that should be followed for any CT program (courtesy of Monsanto NZ Ltd):

1. Check that the soil pH is around 6.0.
2. Check soil fertility levels for fertiliser requirement.
3. 3. E Establish optimum time for planting.
4. Check and control weeks present, before and during crop establishment.
5. Check and control insect and slug infestation before and during plant establishment.
6. Check and control insect and slug infestation before and during plant establishment.
7. Ensure soil conditions are suitable for drilling.
8. Inspect the crop regularly after planting.

Experience has shown that farmers new to CT often have crop failures on the first occasion, but as their skills and understanding of the technique improve, so do their crop results.

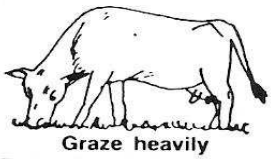
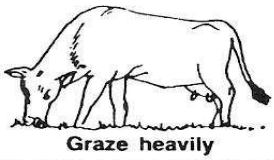
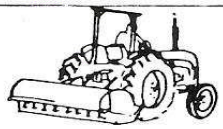
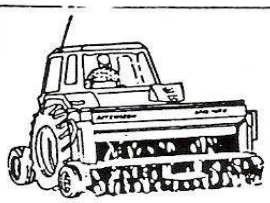
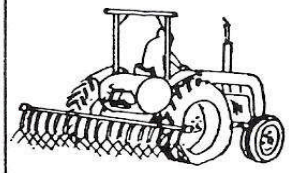
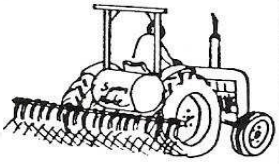
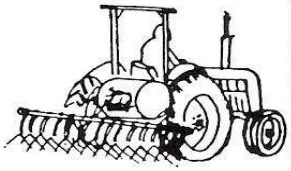
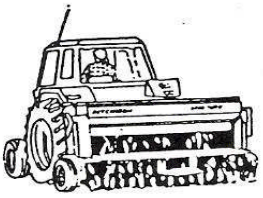
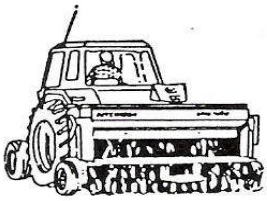
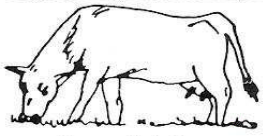
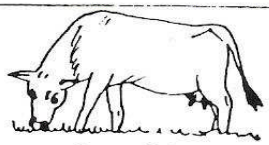
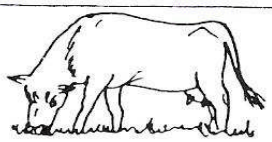
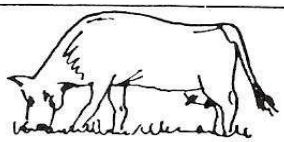
TECHNIQUES AND TIMING FOR PASTURE RENOVATION

There are two basic techniques for pasture renovation, i.e. rejuvenation and renewal. Rejuvenation is the most efficient technique and involves sowing the seeds of new and virile pasture grasses and legumes direct into existing pasture and have them gradually take over the old strain, without causing loss of production due to cultivation. This technique is known as 'stitching in'. Renewal involves a total herbage control system, i.e. spray off old pasture with a wide spectrum herbicide before drilling.

Local knowledge is invaluable when determining which techniques to use and when to use them. The best time for pasture renovation will vary by region, and is largely governed by the temperature and weather that follow. In temperate climates with mild winters the autumn is best; and tropical climates the spring is the best time when the tropical grasses have not recovered from their winter dormancy. In arid climates the time is directly before or after summer rains.

The basic requirement for seed germination is a warm moist seed bed. The aim should be to sow the seed at a time when there is sufficient moisture for quick germination, and little likelihood for later drought. The Aitchison opener/coulter however will promote germination in much drier soils than any other known coulter when used correctly.

SIMPLE RULES TO FOLLOW FOR SUCCESSFUL PASTURE RENOVATION

TIME	TEMPERATE PASTURELAND		TROPICAL PASTURELAND	ARID PASTURELAND
	REJUVENATION	RENEWAL		
	Autumn or spring	Autumn	Spring	Before or after monsoonal rain
1.	 Graze heavily	 Graze heavily	 * Mow with flail type mower	
2.		 Allow 1 week to recover	 Allow 3 days to recover	
3.	 Seed with Seedmatic	 Spray with total spectrum herbicide. Include insecticide	 Spray for insects. Can use light herbicide rate to control competition	
4.	 Spray for insects and watch for witholding period requirements	 Seed with Seedmatic	 Seed with Seedmatic	 Seed with Seedmatic
5.	 Graze lightly	 Graze lightly	 Graze lightly	 Graze lightly

* An application of a total spectrum herbicide may replace mowing if the ground cover is short. Sowing must be done within 10 days.

MICRO INSECTICIDE GRANULES IN PASTURES

In New Zealand where grass grub is a problem, excellent control has been attained with the use of Gesapon, Dasanit, Dysiston, Mocap, and Lindane in control of this pasture destroyer. Normal rates applied on the pasture surface can be as high as 30 kg/ha but when sown in the soil and hence away from neutralizing effect sunlight, rates as low as four and five kg/ha can be used. If unexposed to sunlight these chemicals can remain effective in the soil as long as three months, thus killing generations of pupae as they emerge. Also, withholding of livestock after treatment is not necessary. Both these factors are important features with the Seedking SK2122.

Watch for slugs. Slugs like the moist groove produced by the disc opener. If slugs become a problem (eating seeds or seedlings underground), a suitable pellet should be used.

DIRECT SEEDING OF FEED CROPS AND ARABLE CROPS WITH SEEDKING SK2122

We are not in a position to give total formal recommended seeding rates, chemical usage and fertiliser recommendations because of the circumstance that the Seedking will be used in will be so varied and diverse that some misunderstanding can occur.

Refer to the checklist and ALWAYS confirm with known successful CT operators as well as your local seed specialist and chemical company representatives. Remember that with this technique the environment is not as predictable as with cultivated soils, and take the precaution of using insecticide or increased fertiliser if there should be any element of doubt.

Seeding programs are wide and varied and it is best to look at rotation that starts with a legume or feed crop followed by a grain crop, followed by another feed crop and so on. Heavy pasture into grain is always disappointing, but grain after legume or brassica is outstanding.

Here are just a few possibilities:

Brassicas, Turnips, Swedes, Legumes – Can be sown early spring (for winter feed) or again in autumn for later winter early spring feed. The technique is to blanket spray the entire area and ensure that seeding depths are shallow. A light bar harrow pulled over the seeding areas is beneficial. Use fertiliser and see your chemical company specialist with regard to the correct insecticide to use.

Winter Feed Oats – This can be seeded direct into pasture in early autumn. Herbage control can be carried out also if necessary.

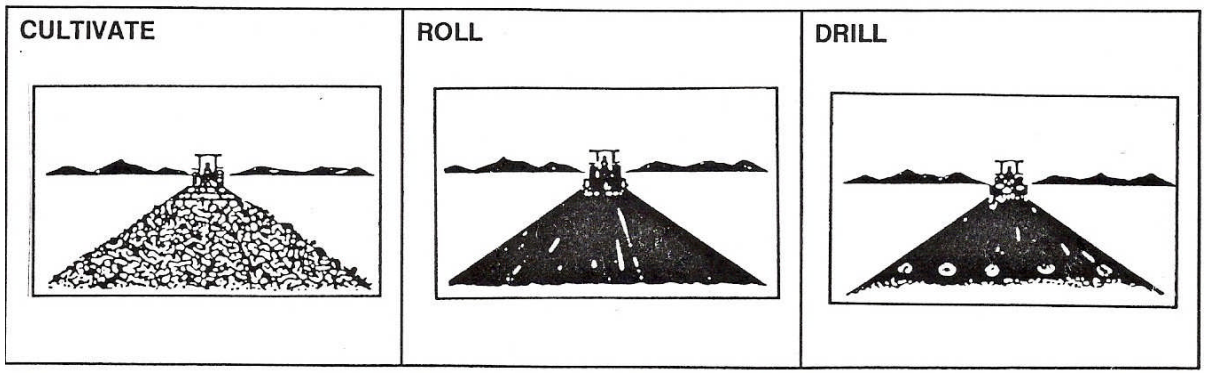
Wheat and Barley – Direct seeding in early spring or autumn depending on variety. Spray out pasture with approved herbicide (may not be necessary after brassica). Always sow with fertiliser.

Lucerne, Alfalfa – Sow in early spring after spraying out entire area with Roundup or Paraquat. It is always a good idea to do a soil test to ensure that the solid pH is satisfactory for plant establishment. Also it is necessary to ensure that the seeds are treated with inoculants to guarantee their germination and nodulation. Use fertiliser and ensure that spraying for insects is carried out – particularly for control of slugs and spring snails.

Green-feed Maize – Carry out in early spring and the same rules apply as with wheat, barley and oats. You may wish to seed in 30 or 45 cm rows and the technique for achieving that is shown under the section **SPECIAL PURPOSE SEEDING** shown later in this booklet.

SOWING IN CULTIVATED SOILS

As this is a tined implement with a direct drill type opener, it is important to treat all seed beds as you would a pasture. With a conventional drill one works up the soil into a fine seedbed so that a broad boot type coulter will pass through leaving the seed behind the soil tilth. With the Seedking, cultivate the soil to destroy existing vegetation but before seeding, roll the seedbed thoroughly and then drill the seeds required into this rolled seedbed. Good germination results will occur.



DEPTH CONTROL SYSTEM

The Aitchison SEEDKING SK2122 seed drill is fitted with an electronic depth control device that automatically controls the seed drill seeding depth over undulating ground contours. This system can also be over ridden if needed by the flick of a switch.

This system has 5 major components:

1. Depth wheel assembly. (Front centre rubber wheel)
2. Load cell. (Mounted to "Depth Wheel Assembly")
3. Electro hydraulic valve block. (Mounted on drawbar)
4. Load cell monitor. (Mounted in tractor cab)
5. Drawbar Ram. (Hydraulic Ram on drawbar)

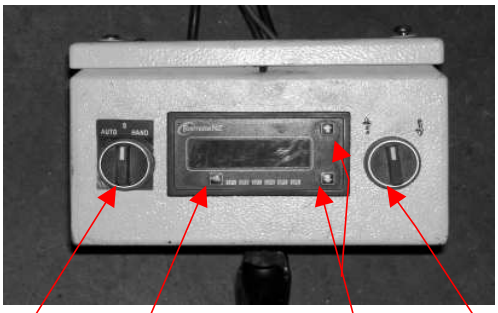
System overview:

When seeding the front centre "Depth Wheel" rolls along the ground, as the ground in front of the seed drill rises or drops away so does the "Depth Wheel".
The depth wheel is fitted with a spring and a load cell.
When the depth wheel rides up over a hump or drops down through a dip the load cell measures the different pressures applied to the spring.
The load cell feeds this information to the "Load Cell Monitor", the monitor then tells the "Electro Hydraulic Valve Block" to pump oil to the top or bottom of the "Drawbar Ram", and this raises or lowers the front of the seed drill to match the ground contours.

System requirements:

12 volts power supply inside tractor cab. (Cigarette lighter plug).
Continuous hydraulic oil supply, 12 l/m @ 2600psi min. (One hydraulic bank with lever locked on).

LOAD CELL MONITOR



Manual/Auto Switch
Program Button
Up/Down Button
Up/Down Switch

SETTING THE SEEDING DEPTH

1. Ensure that the “Side Stabiliser Wheels” are folded up clear of ground.
2. Ensure that there is power to the “Load Cell Monitor” (switch to “Manual”)
3. Ensure that there is oil flow to the “Electro Hydraulic Valve Block”.
4. Ensure that all other systems are connected. (Rear axle hydraulics, Eagle Seedrate controller, etc.)

To check that the depth control system is connected correctly:

Turn the “Up” Switch on the load cell monitor: this should drive the drawbar ram **out.**
Turn the “Down” Switch on the load cell monitor: this should drive the drawbar ram **in.**

If all of the above systems are working you can now set the seeding depth on the seed drill.

Place seed in the hopper, drive forward slowly and raise the rear transport wheels fully up. (Clear of ground).
Use the up and down switch on the load cell monitor to lower the front of the drill until the disc openers start cutting into the ground. (manual/auto switch on **MANUAL**)

Check depth of planted seed in seed slot, if seed is at the required depth, good; if not use the up and down switch to achieve the required depth. (While driving forward with the rear transport wheel clear of ground.)

Once the required seed depth is achieved read the figure shown on the load cell monitor. Eg, 48.
This figure is what the load cell monitor needs to be set at to control the required seeding depth.

Press the “program” button on the load cell monitor, then use the up/down arrow buttons to select the required seed depth figure. Eg, 48
Press the “program” button to save.
The seeding depth has now been set; flick the manual/auto switch to **AUTO**.

NOTE:

As the seed drill hoppers get lighter because of the product being sown; the seeding depth may change.
If the ground conditions change (Hard/Soft) the seeding depth may change.

PROBLEM SHOOTING

If the seed drill starts bouncing up and down; slow the oil flow down until this knee-jerk reaction has stopped.

Drawbar ram moves in opposite direction than needed; swap over the electrical plugs on the “electro hydraulic valve”.

Drawbar ram only moves slightly then stops; swap hydraulic hoses around, (pump oil in opposite direction.

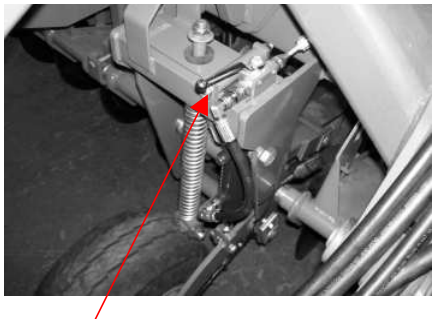
Drawbar ram does not move in or out; check there is power to the “Load cell monitor”, check there is oil flow to the “electro hydraulic valve”, check that the transport lock valve (tap on front hydraulic ram) is on.

NOTE:

The depth control wheel is plumbed into the Rear Transport Axle hydraulic system.
When the drill is lowered for seeding the Rear Transport Axle must be lifted fully clear of the ground; this will allow the front Depth Control Wheel hydraulic ram to extend fully and allow it to follow the contours of the ground.

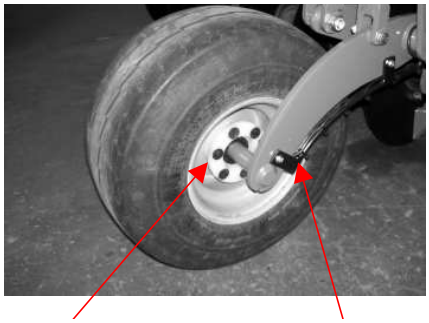
The depth control wheel is also fitted with a Ball Valve; this valve MUST be turned ON for this system to work.

DEPTH CONTROL WHEEL



Ball Valve **ON**

GROUND SPEED SENSOR



Ground Speed Magnets Ground Speed Sensor

NOTE:

The Depth Control Wheel is also used for ground speed sensing; this speed sensing is used by the EAGLE Seed Rate Controller to control seeding rates.
Hence this wheel has to make contact with the ground while seeding.

SIDE STABILISER WHEELS

The Aitchison SEEDKING is fitted with two “Stabiliser Wheels”; these wheels are located on the front two corners of the seed drill.

These wheels are designed to stabilise the seed drill on hillsides and help prevent the front corners of the drill ploughing too deep in undulating ground. When these wheels are not required they can be quickly folded up out of the way.

STABILISER WHEEL ADJUSTMENT

After you have set the seeding depth of the seed drill and the stabiliser wheels are required, they can be lowered into place.

With the seed drill engaged (seeding) on a flat piece of ground stop the tractor and lower the stabiliser wheels and pin into place, adjust the wheels with the crank handle provided. (located on End Panel.)

Adjust the wheels down onto the ground so they carry some weight (preload of about 15mm) this will ensure that the each end of the drill is carried at the correct height.

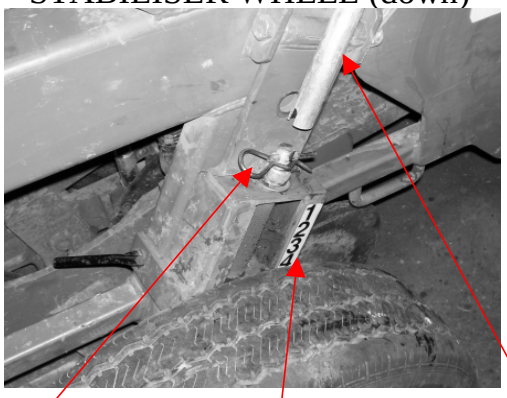
NOTE:

Use the depth gauge decals to ensure that both stabiliser wheels are set to the same height.

Ensure that the “R” clip is fitted through the top of the adjustment thread to prevent the wheels self-adjusting.

Ensure that the stabiliser wheels are locked in the “UP” position when the drill is transported on public roads.

STABILISER WHEEL (down)



“R” Clip Depth Decal Crank Handle

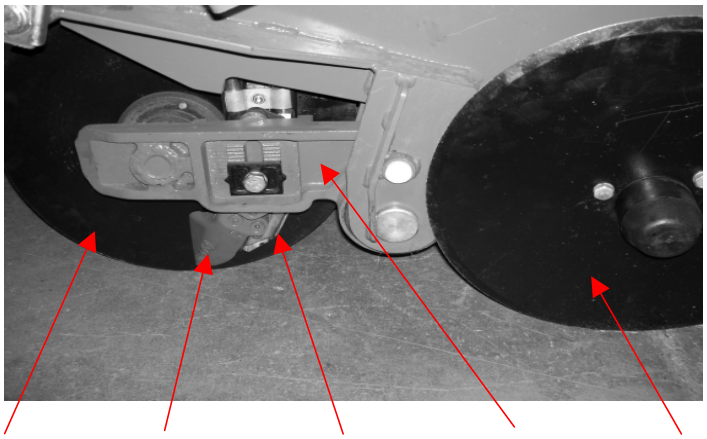
BOOT TO DISC ADJUSTMENT

Every Dragarm has two Disc Coulters; these two Disc Coulters are mounted on one common Pivot Arm.

Each Disc Coulter (RH & LH) has one Disc and one Boot; the Boot is attached to the seed delivery tubes. Behind this Boot is the fertiliser delivery tube.

The Pivot Arm can rock back and forth slightly to follow the contours of the ground.

Dragarm; Disc Pivot Arm Assembly

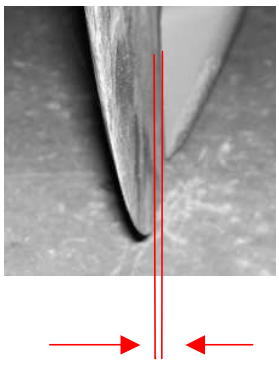


Front Disc **Boot** **Fertiliser Tube** **Pivot Arm** **Rear Disc**

It is very important that the Boots are adjusted correctly against the Disc to ensure even sowing depth and to prevent trash blockages.

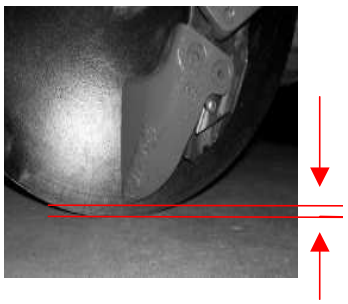
The Boots should be set at lest 5mm up from the bottom edge of the disc and have about 1mm clearance between the face of disc and the inner face of the boot.

Front View



1.0mm

Side View

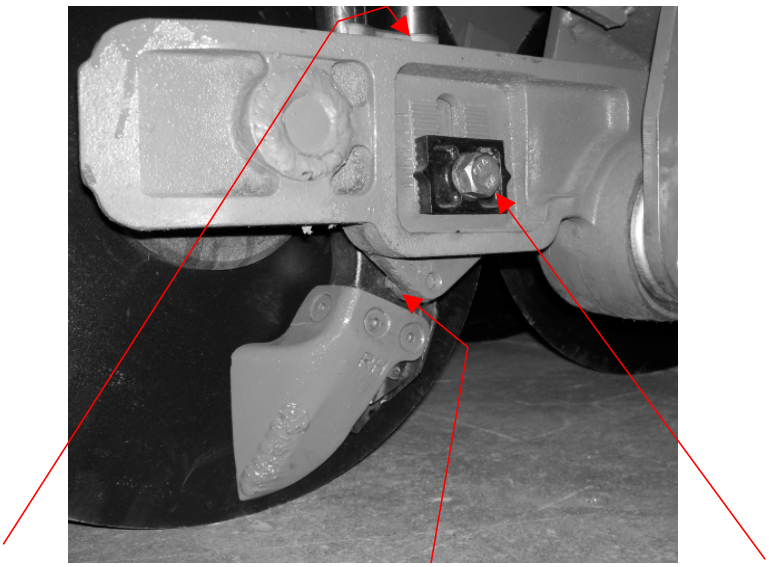


5mm Min

NOTE:
Never have a bigger gap at the bottom than the top

MAKING ADJUSTMENTS

There are three bolts used to adjust the Boot; One main bolt M16 x 40 (24mm head), which is used to adjust the boot up/down and two M12 x 20 (19mm head) to adjust the boot in/out from the disc.



M12 Bolt M12 Bolt M16 Bolt

To make adjustment to the Boots raise the drill up using the hydraulics. Ensure that the transport locks are **locked**.
(Rear lock on Rear Transport Axle, Valve on front Drawbar Ram.)

All three of these adjustments can be made from under the drill.
To make an in/out adjustment use the custom made 19mm spanner supplied with the seed drill.

It is important that these two M12 bolts are tight after completing adjustments. (Bolts should be tightened against each other).

To make a up/down adjustment loosen of the M16 bolt enough that enable the complete Boot assembly to move.
When the boot is at the correct height retighten the bolt ensuring that the lock washer is located in the notches provided.

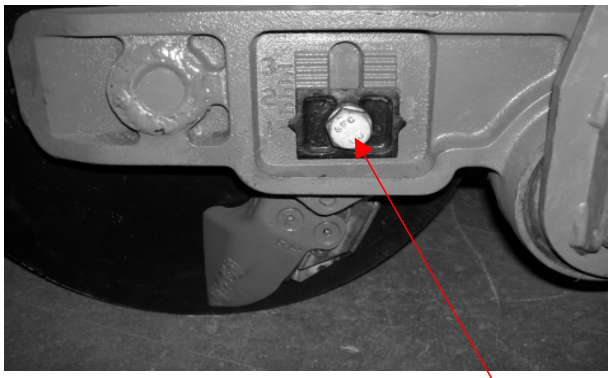
BOOT REPLACEMENT

Over a period of time the Boots will wear down and will need replacing.

The easiest way to go about this is to remove the complete Boot Pivot assembly.

This can be done by pulling off the seed/fertiliser dropper hoses from the top of the coulter tubes.(at disc coulter end).

Loosening/removing the M16 x 40 bolt that is used to adjust the height of the boots.

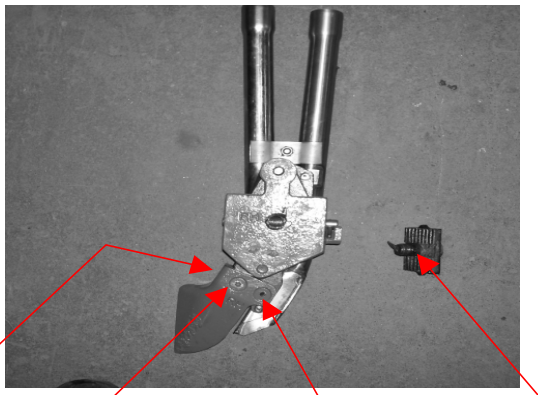


M16 x 40 Bolt

The complete Boot Pivot assembly can now be slipped down from the Dragarms.

The three countersunk (C/S) bolts have been secured by loc-tite and may required heat to break this bond.

BOOT PIVOT ASSEMBLY



C/S Bolt **C/S Bolt** **C/S Bolt** **M16 x 40 Bolt**

Use a medium strength Loc-tite (271) when replacing the countersunk bolts.

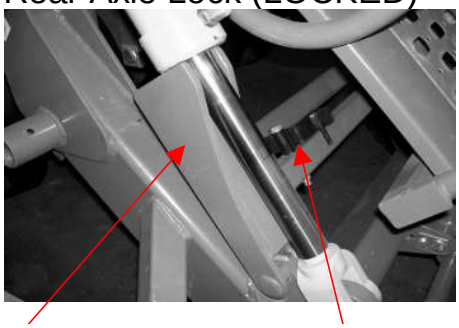
TRANSPORT LOCKS

The Aitchison SEEDKING is fitted with two Transport Locks; these locks are important safety device.

Always ensure that these Transport Locks are in place when the seed drill is transported on public roads.

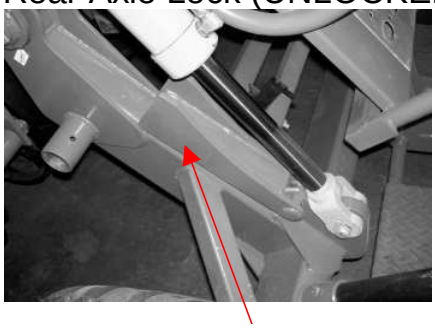
Always ensure that these Transport Locks are in place when maintenance work is carried out.

Rear Axle Lock (LOCKED)



Lock Lock Lever

Rear Axle Lock (UNLOCKED)



Lock

TO LOCK REAR AXLE

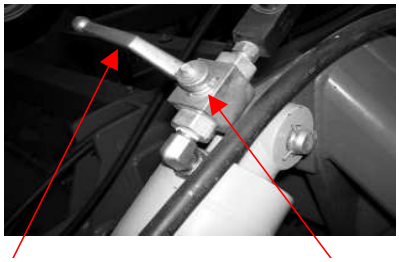
1. Fully extend rear hydraulic rams.
2. Lift lock up by hand.
3. Rotate Lock Lever.

FRONT DRAWBAR RAM LOCK

The front Drawbar Hydraulic Ram is fitted with a Ball Valve (tap).

To lock this ram, simply turn the valve to the off position.

DRAWBAR HYDRAULIC RAM



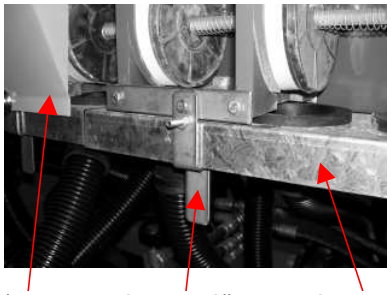
OFF Position Ball Valve

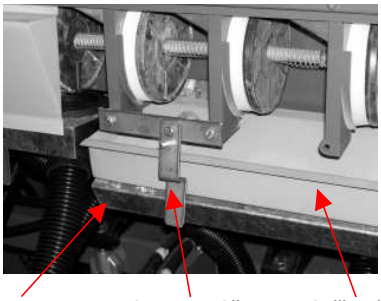
CALIBRATION

The Aitchison SK2122 has Calibration Trays attached; these trays are to be used to catch the products that have been metered from the seed and fertiliser boxes.

SEED BOX CALIBRATION

The seed box has two yellow Calibration Trays (inspection panels) attached to its front, covering the seeder units. These trays can be removed and placed under the seeder units to catch the seed.
You can use one of both of these trays.





CALIBRATION TRAY PLACEMENT

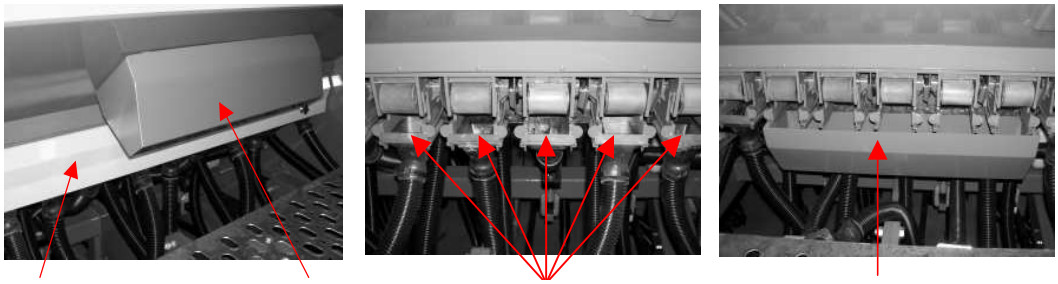
1. Remove one or both Calibration Trays.
2. Pull out Cup Tray Clips (Cup Tray should swing down).
3. Insert Calibration Tray on top of Cup Tray.
4. Use Cup Tray Clip to hold Calibration Tray in place.
5. Push “ENTER” on EAGLE Seeder Console (refer to EAGLE Operators Manual).
6. Remove Calibration Tray (with metered seed).
7. Pour seed from Calibration Tray (weigh seed).
8. NOTE: Always prime system before calibration.

NOTE:
If using only **one** Calibration Tray you will have to multiply the weight of seed by **2** to get correct answer before entering it into the EAGLE Console.

NOTE:
When new (from factory) the Seed Pads are covered in white powder, this powder is to prevent the pads being stuck together during manufacturing.
Until this powder has worn away (or been removed) inconsistent calibration will result.

FERTILISER BOX CALIBRATION

The fertiliser box has one green Calibration Tray attached to the rear panel. This calibration tray can be placed under any five fertiliser metering units to catch the metered product.



CALIBRATION TRAY PLACEMENT

1. Remove one Inspection Panel.
2. Slide out five Cup Holders.
3. Slide in the Calibration Tray.
4. Push “ENTER” on EAGLE Seeder Console (refer to Eagle Operators Manual).
5. Remove Calibration Tray (with metered fertiliser).
6. Pour fertiliser from Calibration Tray (weigh fertiliser).
7. NOTE: Always prime system before calibration.

NOTE:

Because fertiliser has only been caught from **5** outlets you will have to multiply the weight of fertiliser by **4.4** to get the correct answer before entering it into the EAGLE Console.

EAGLE CONSOLE SETTINGS

Listed below are the key settings that are needed to for the Aitchison SK2122 to operate correctly.

SEEDER SETUP.

BINS SETUP

NO OF BINS: = 2 (seed/fertiliser) or 3 (seed/fertiliser/granule).

BIN 1	BIN 2	BIN 3
450 L	450 L	90 L

EXTERNAL OPTIONS

EXTERNAL MASTER SWITCH	ON	MASTER TYPE	TILLAGE

WHEEL FACTOR

WHEEL FACTTOR 0.249 = (Sensor on front Depth Wheel) m/pulse

(If sensor is fitted to Dragarm Press Wheel) = 0.172

WIDTH SPEED AND PRIME DURATION

WIDTH	2.98 meters
MANUAL SPEED	10.0km/h
PRIME TIME	5secs

MOTOR SETUP

USING FOUR PULSE MOTOR	ON

PRODUCTS SETUP

BIN NUMBER	1(Fertiliser Box)
DRIVE RATIO	108.0
BIN NUMBER	2(Seed Box)
DRIVE RATIO	95.0

NOTE: (if sprockets are reversed; i.e. big seeds) DRIVE RATIO = 38.0

BIN NUMBER	3(Granule Box)
DRIVE RATIO	231.0

ALARM SETUP

SHAFT STOPPED	1,2 & 3(if used)	ON
BIN LOW	1,2	ON
BIN EMPTY	1,2 & 3(if used)	ON

NOTE:
For all other settings please refer to “EAGLE Operators Manual”

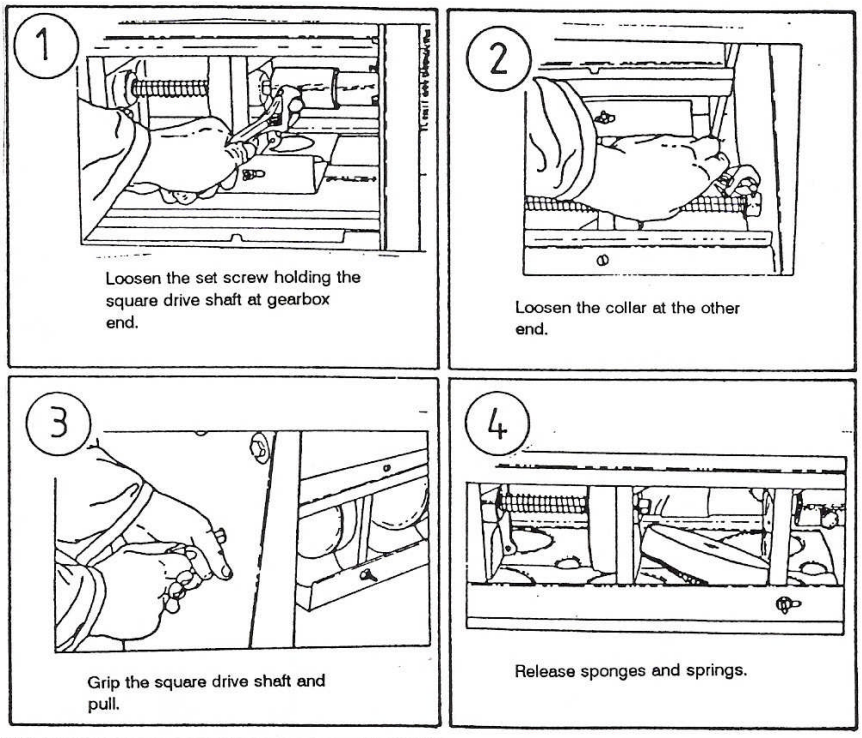
CARE OF THE SPONGE PADS

The sponge feeds are easily accessible for maintenance and cleaning by removing the inspection panel at the bottom of the seed hopper. The seed hopper should be cleaned thoroughly after use as vermin show little respect for a sponge pad if there is seed behind it. A deterrent such as Diasinit may be run through the pads before storage to discourage the entry of vermin into the drill. Leave the guards removed during storage.

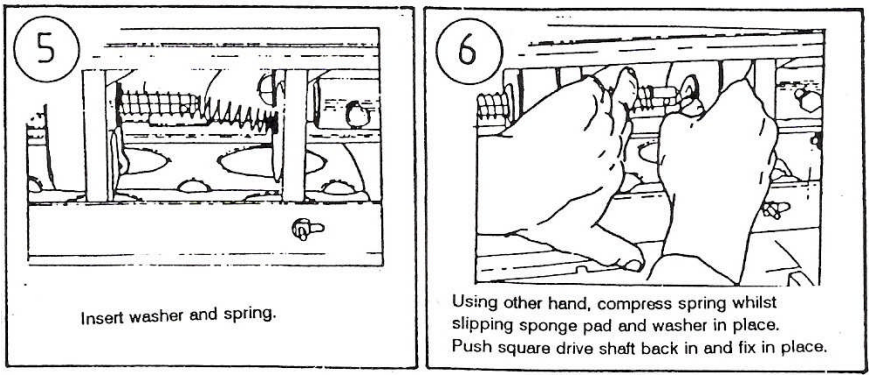
To empty the hopper of seed, push the pads away from the seeder units to let the seed fall through. Do not leave seed lodged between the pad and seeder unit as this will distort the pad giving erratic sowing. The sponge pads are replaced as shown below.

Replacement of Sponge Pads

Removing:



Inserting:



DIFFICULT SEEDS TO SOW

There are a number of seeds that are difficult to sow due to their physical shape and weight. These include:

Prairie Grass
Buffel Grass
Callida Rhodes Grass
Unclipped oats

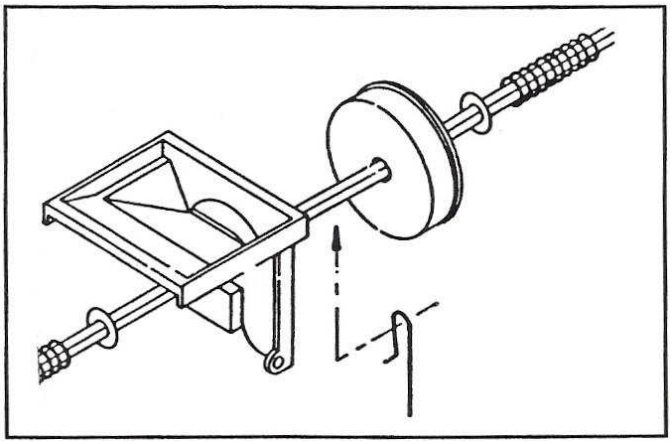
If seeds adhere to the sponge pad, fit the oat wiper (Part # A2366). If there are problems with large seeds failing to pick up with the sponge it will be necessary to fit the bean spacers (Part # A2365-01) which space out the pads leaving a greater surface to pick up seed.

OAT WIPER AND BEAN SPACER

Oat Wiper

The oat wiper is an optional extra that is designed to wipe clean the sponge pad if heavily horned seeds are not being sown. These will tend to collect on the pad and as the build-up increases inaccuracies in the seeding rates will occur.

To fit the wiper, remove the front panel from seed box. Pull the sponge pad from the seeder assembly and place the wiper on the centre shaft BETWEEN the pad and the casting. The wiper works in such a way that it presents a flexible edge on the oats and in effect 'wipes' the seeds that may be sticking to the pads on each rotation.



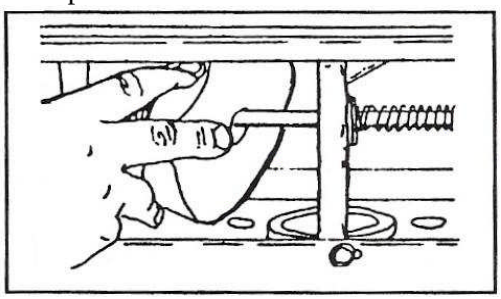
Fit the Oat Wiper between the sponge pad and the seeder unit.

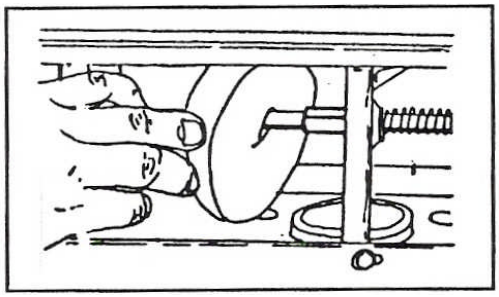
Bean Spacer

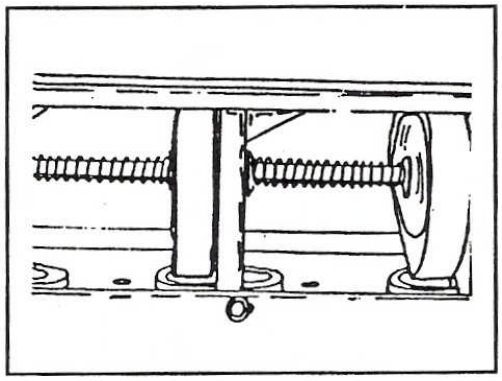
Markedly improved seeding performance is achieved by fitting spacers between the sponge and the seeder casting. This in effect moves the sponge away from the seeder casting and allows for better entry of the seeds into the sponge. A better 'pick up' is attained and seeding consistency is improved.

Also to decrease the advent of intermittency and improve seed spacing it is advisable to use the seeder agitator set on maximum spring pressure.

To fit the spacers follow these instructions:







1. Pull the sponge away from the seeder casting.
2. Fit the Bean Spacer between the sponge pad and the seeder unit.
3. Allow the sponge pad to return to the seeding position with approx (3mm) between the sponge pad and seeder unit.

WARNING: When the bean spacers are fitted always go back and recalibrate the drill.

If small seeds need to be sown (i.e. grass seed, brassicas) or small grains (i.e. wheat) always remove the spacers and store in a safe place.

RODENT DANGER

The sponge seed mechanism is unique – it has great capacity to sow seed consistently and accurately. However, if seeds are left in the hopper over the winter months rats and mice will find an entry point into the hopper by chewing through the sponge pad to reach the seeds. The simple solution therefore is to remove the seeds.

To give added protection, sponge pads can be treated with any strongly odoured insecticide powder – DIASINIT, LINDANE, MALATHION, THIMET. **Note**: Rodent repellant can also be ordered from Aitchison via you local dealer (Part # 9341).

REMOVAL OF SEED FROM HOPPER

There is probably no easier drill to clean than this Aitchison Drill. Remove the front panel by way of wing nuts and manually move the sponge pads away from the seeder casting. Any remaining seeds within the hopper will simply fall out. Push pads away to clean out seeds. To remove pads, loosen this set screw and move shaft to the left.

THE FERTILISER SYSTEM

The fertiliser box on the SK2122 drill uses a unique rubber roller metering system. These rubber rollers can deliver rates from 15kg/ha to 300kg/ha.

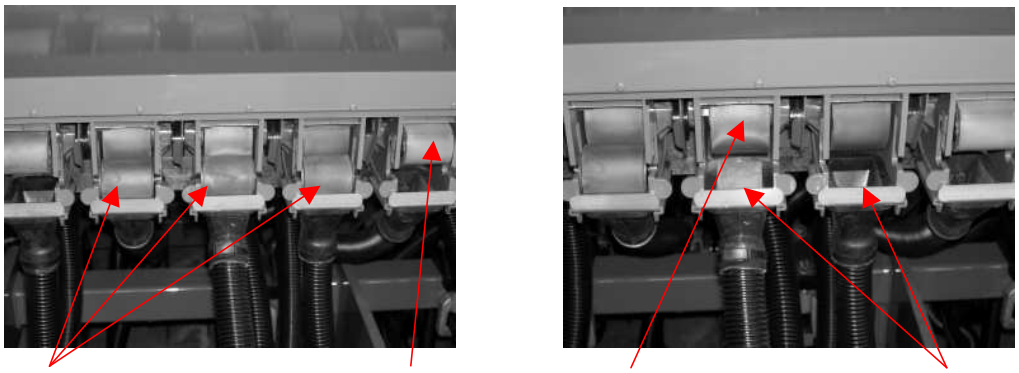
Each fertiliser unit incorporates a large drive roller running against a smaller idler roller. There is slight pressure on both rollers that provides enough surface movement to prevent fertiliser to build up even with quite sticky fertiliser. Care must be taken not to leave sharp objects in the hopper as damage may occur to the rollers.

The fertiliser units can also be used to sow some types of seeds as long as the seed are a reasonable size and reasonable rates; e.g. grass seeds or bigger, rates from 15kg/ha and up.

REMOVAL OF FERTILISER FROM HOPPER

To empty the fertiliser that has not been used up simply press the small idler roller in and down and it will come out. (Do not lose the small idler axle).
It is important to empty and clean the fertiliser box completely at the end of each season to avoid fertiliser building up and setting hard.

FERTILISER BOX WITH INSPECTION PANEL REMOVED



Small Idler Roller In Dump position

Small Idler Roller metering position

Large Drive Roller

Small Idler Roller removed completely

NOTE:

At the end of each season leave the Small Idler Rollers in the Dump position to prevent flat spots on the rollers.

With the Small Idler Roller in the Dump position fertiliser will spill outwards; with the Small Idler Roller removed fertiliser will spill down the dropper tube.

GENERAL MAINTENANCE

The SK2122 seed drill has been designed with minimal maintenance in mind reducing down time and increasing productivity.
However close observation should be kept on all moving parts, this will prevent costly repairs in the long run.

MACHINE GREASE POINTS

Grease Points.	No. of Nipples.	Greasing Regularity.
Rear Axle Main Pivot	2	10 hours
Rear Hydraulic Rams	2	10 hours
Drawbar Main Pivot	2	10 hours
Seed Drive Shaft Axle	1	100 hours
Fertiliser Drive Shaft Axle	1	100 hours
Granule Drive Shaft Axle	1	100 hours
Stabiliser Wheels	2	100 hours

Keep all adjustment threads corrosion free by periodically coating with copper coating. (Grease tends to attract dust).

Greasing location points are labelled on the drill with"GREASE" decal as shown.

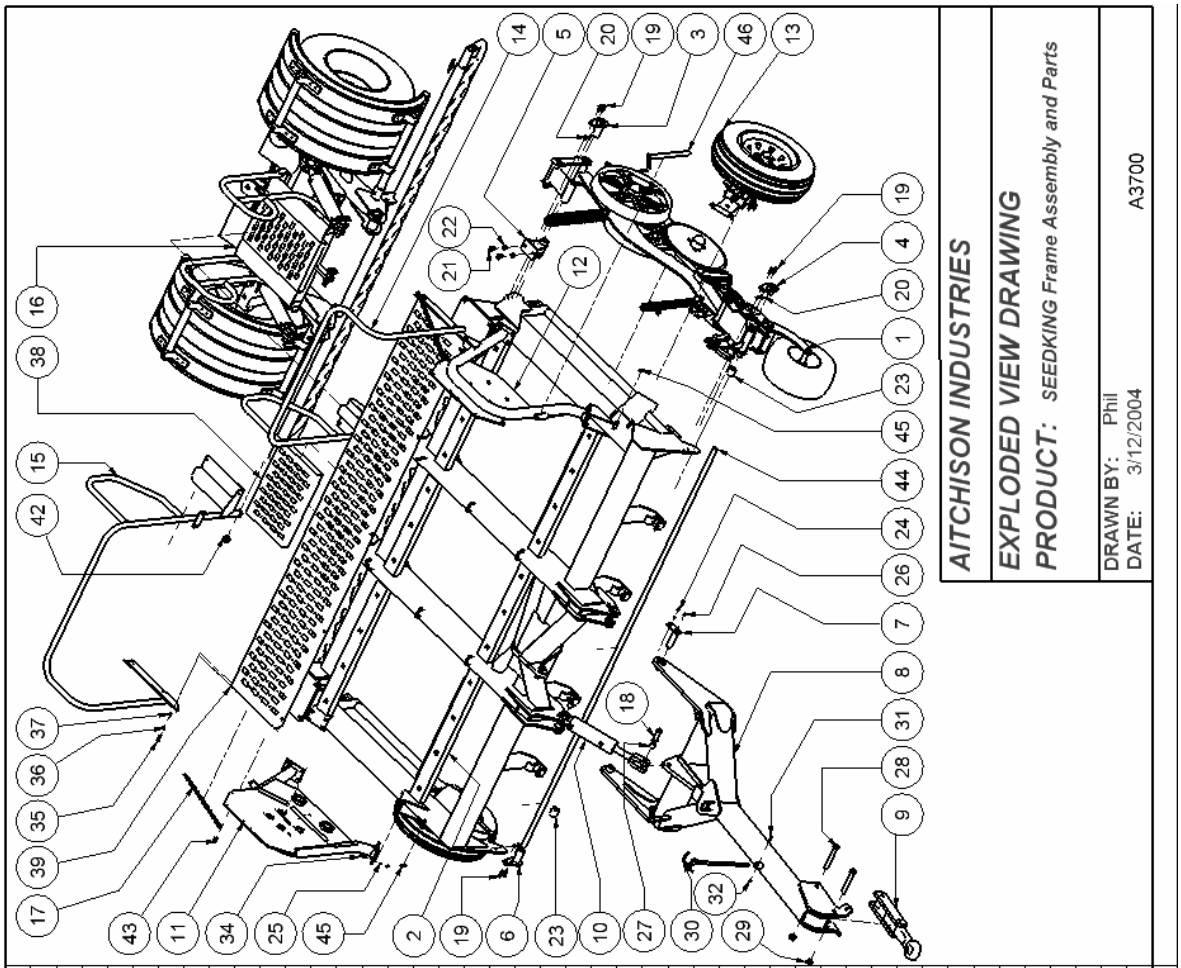
Chains should be kept lubricated with chain oil and should be thoroughly cleaned once a season.

All the Discs and Press Wheels should be checked daily for any sign of play in their bearings and adjusted if needed to prevent costly bearing replacement.

Check that all Dust Caps are in place and replace if damaged of missing.

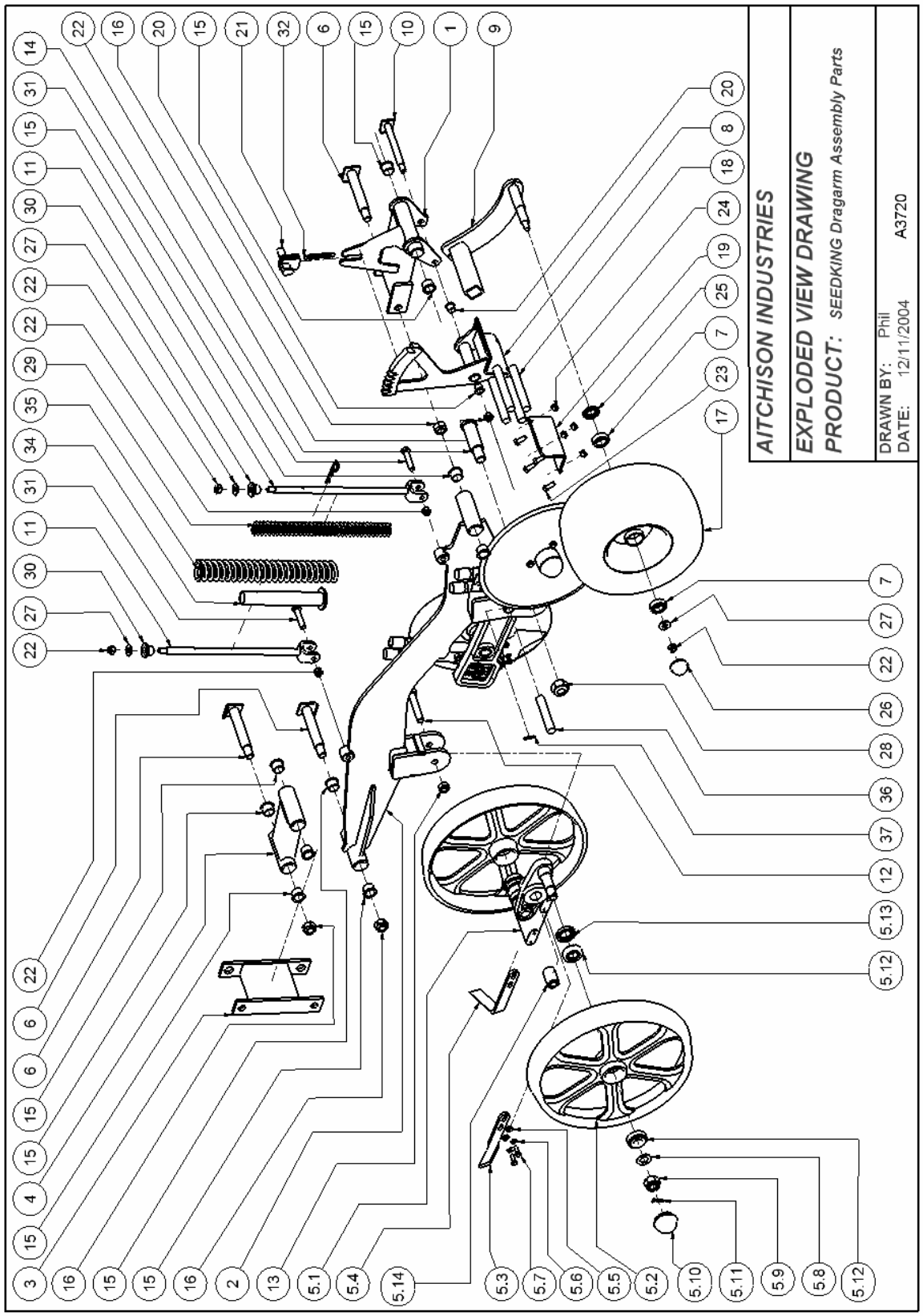
Check the Press Wheel Pivot Arms for side-ways movement and tighten their pivot bolts when needed.

SK2122 FRAME ASSEMBLY & PARTS



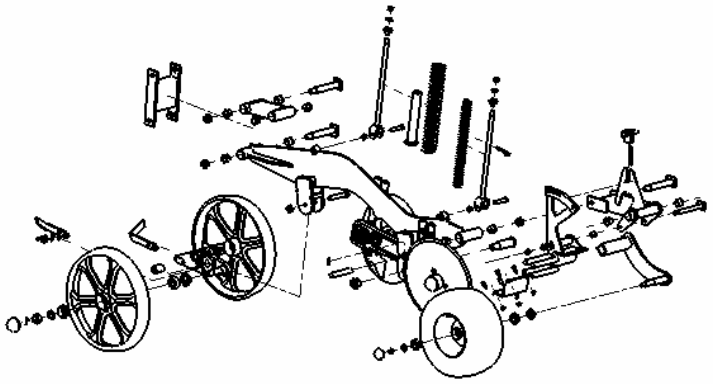
1	1	Complete Dragarm Assembly	A3720
2	1	3m SeedKing Main Frame	A3701
3	2	Rear Dragarm Stop Assembly	A3700-11
4	1	Front Dragarm Short End Spacer	A3700-15
5	10	Rear Dragarm Spacer Assembly	A3700-21
6	1	Front Dragarm Long End Spacer	A3700-31
7	2	Drawbar Pivot Pin Assembly	A3715
8	1	Drawbar Assembly	A3715
9	1	Tow Eye Assembly	A3716
10	1	4" x 8" Double Clevis Ram	A3700-50
11	1	Drive End Panel Assembly	A3702
12	1	Non Drive End Panel Assembly	A3703
13	2	Complete Stabiliser Leg Assembly	A3707
14	1	Main Treadboard LH Safety Rail Assembly	A3706L
15	1	Main Treadboard RH Safety Rail Assembly	A3706R
16	1	Rear Axle Assembly and Parts.	A3710
17	2	Main Treadboard Chain M6 MS @ 650mm	A3700-51
18	2	1" Lyco Ram Pin	A23187
19	8	M12 x 35 Bolt	8510H
20	8	M 12 Nylock Nut	9151
21	20	M16 x 40 Bolt	8602H
22	20	M16 Nyloc Nut	16A
23	10	Front Dragarm Spacer	A3700-52
24	15	M10 x 20 Bolt	8419H
25	33	10mm Spring Washer	9041
26	2	M6 Stright Grease Nipple	9323
27	2	1" x 1 1/4" Hardened Bush	A2249-12
28	2	Drawbar Tow Eye Bolt	A3700-53
29	2	M24 Nylock Nut	9198
30	1	Hidrolic Hose Pig Tail Pole	A23188-14/15
31	1	M6 x 45 Bolt	8203H
32	1	M6 Nylock Nut	9109
33	31	M10 Nut	9141
34	16	M10 x 30 Bolt	8415H
35	2	M10 x 40 Bolt	8416H
36	2	10mm HD Flat Washer	9040
37	2	M10 Nylock Nut	9142
38	1	Rear Centre Tread Board	A3700-54
39	1	440 x 60 x 3m Tread Board	A3700-55
40	1	Main Treadboard Stiffener	A3700-56
41	4	M10 x 25 Bolt	8418H
42	2	Plastic Spring End	A2250-03
43	2	M6 MS D Shackel	9285
44	2	Dragarm Main Pivot Bar	A3700-57
45	2	8mm Lynch Pin	9291
46	1	Stabiliser Wheel Crank	A3707-01

SK2122 DRAGARM PARTS



Parts List			
ITEM	QTY	Description	Part Number
1	1	Front Arm Assembly	A3721
2	1	Dragarm Assembly	A3722
3	1	Rear Link	A3723
4	1	Rear Pivot	A3720-20
5.1	1	Press Wheel Arm Assembly	A3724
5.2	2	Cast Press Wheel Machined	A3720-10
5.3	1	Press Wheel Mud Scraper RH	A3720-01
5.4	1	Press Wheel Mud Scraper LH	A3720-02
5.5	4	10mm HD Flat Washer	9040
5.6	4	10mm Spring Washer	9041
5.7	4	M10 x 30 Bolt	8415H
5.8	2	27mm Flat Washer	A3719-02
5.9	2	M27x3 Castle Nut	91935
5.10	2	62mm Plastic Cap	A3719-03
5.11	2	5 x 50 Split Cotter Pin	9277
5.12	4	HR 32206 Taper Roller Bearing	92101
5.13	2	40 x 62 x 7 Seal	92321
5.14	1	Bush DRR5495 - Seedking	92102
6	3	Pivot Pin Assembly	A3720-05
7	2	6205 Bearing	9212
8	1	Packer Wheel Duratorque Pivot	A3725
9	1	Packer Wheel Arm Assembly	A3726
10	1	Packer Wheel Pivot Pin Assembley	A3720-15
11	2	Push Rod Assembly	A3727
12	1	M20 x 110 Bolt	8715H
13	1	M20 Nylock Nut	9172

Parts List			
ITEM	QTY	Description	Part Number
14	1	Disc Pivot Pin	A3720-31
15	10	FMB 3026DU	A3720-40
16	3	M24 Nylock Nut	9198
17	1	18.5 x 8.50-8 Wheel	A3729
18	4	Packer Wheel Duratorque Rubber	A3720-32
19	1	Packer Wheel Duratorque Plate	A3725-03
20	2	FMB 2021.5DU	A3710-52
21	1	Packer Wheel Arm Lock	A3720-33
22	6	M16 Nyloc Nut	16A
23	4	M12 x 30 Bolt	8523H
24	4	M 12 Nylock Nut	9151
25	1	30 x 52 x 7 Seal	9235
26	1	52mm Cap	A4623
27	3	16mm Thick Flat Washer	9062
28	1	M30x3.5 Nylock Nut	9199
29	1	Dragarm Front Spring	A3720-34
30	2	Push Rod Spring Bush	A23211
31	2	M16 x 75 Bolt	8617H
32	1	Gearbox Spring	A23104
33	1	MK2 Disc Pivot Arm Assembly	A3718
34	1	Dragarm Rear Spring Stop Assembly	A3728
35	1	Dragarm Rear Spring	A3720-35
36	1	Dragarm Disc Arm Pivot Rubber	A3720-36
37	2	Dragarm Disc Arm Pivot Rubber Lock Pin	A3720-37
38	1	5mm R Clip	9289



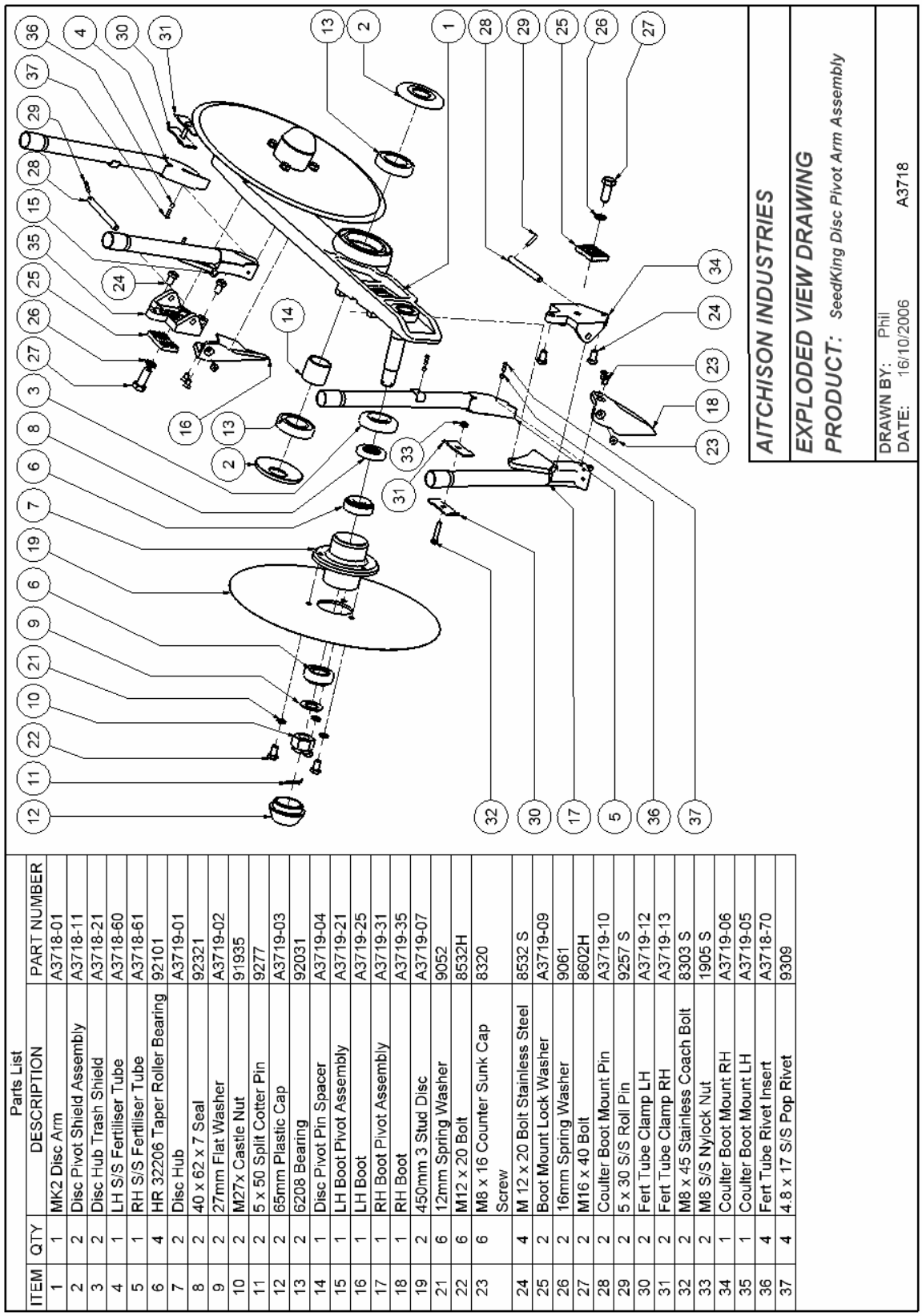
AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: *SEEDKING Dragarm Assembly Parts*

DRAWN BY: Phil
DATE: 15/11/2004 A3720

SK2122 DISC PIVOT ARM PARTS



Parts List

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	MK2 Disc Arm	A3718-01
2	2	Disc Pivot Shield Assembly	A3718-11
3	2	Disc Hub Trash Shield	A3718-21
4	1	LH S/S Fertiliser Tube	A3718-60
5	1	RH S/S Fertiliser Tube	A3718-61
6	4	HR 32206 Taper Roller Bearing	92101
7	2	Disc Hub	A3719-01
8	2	40 x 62 x 7 Seal	92321
9	2	27mm Flat Washer	A3719-02
10	2	M27x Castle Nut	91935
11	2	5 x 50 Split Cotter Pin	9277
12	2	65mm Plastic Cap	A3719-03
13	2	6208 Bearing	92031
14	1	Disc Pivot Pin Spacer	A3719-04
15	1	LH Boot Pivot Assembly	A3719-21
16	1	LH Boot	A3719-25
17	1	RH Boot Pivot Assembly	A3719-31
18	1	RH Boot	A3719-35
19	2	450mm 3 Stud Disc	A3719-07
21	6	12mm Spring Washer	9052
22	6	M12 x 20 Bolt	8532H
23	6	M8 x 16 Counter Sunk Cap Screw	8320
24	4	M 12 x 20 Bolt Stainless Steel	8532 S
25	2	Boot Mount Lock Washer	A3719-09
26	2	16mm Spring Washer	9061
27	2	M16 x 40 Bolt	8602H
28	2	Coulter Boot Mount Pin	A3719-10
29	2	5 x 30 S/S Roll Pin	9257 S
30	2	Fert Tube Clamp LH	A3719-12
31	2	Fert Tube Clamp RH	A3719-13
32	2	M8 x 45 Stainless Coach Bolt	8303 S
33	2	M8 S/S Nylock Nut	1905 S
34	1	Coulter Boot Mount RH	A3719-06
35	1	Coulter Boot Mount LH	A3719-05
36	4	Fert Tube Rivet Insert	A3718-70
37	4	4.8 x 17 S/S Pop Rivet	9309

AITCHISON INDUSTRIES

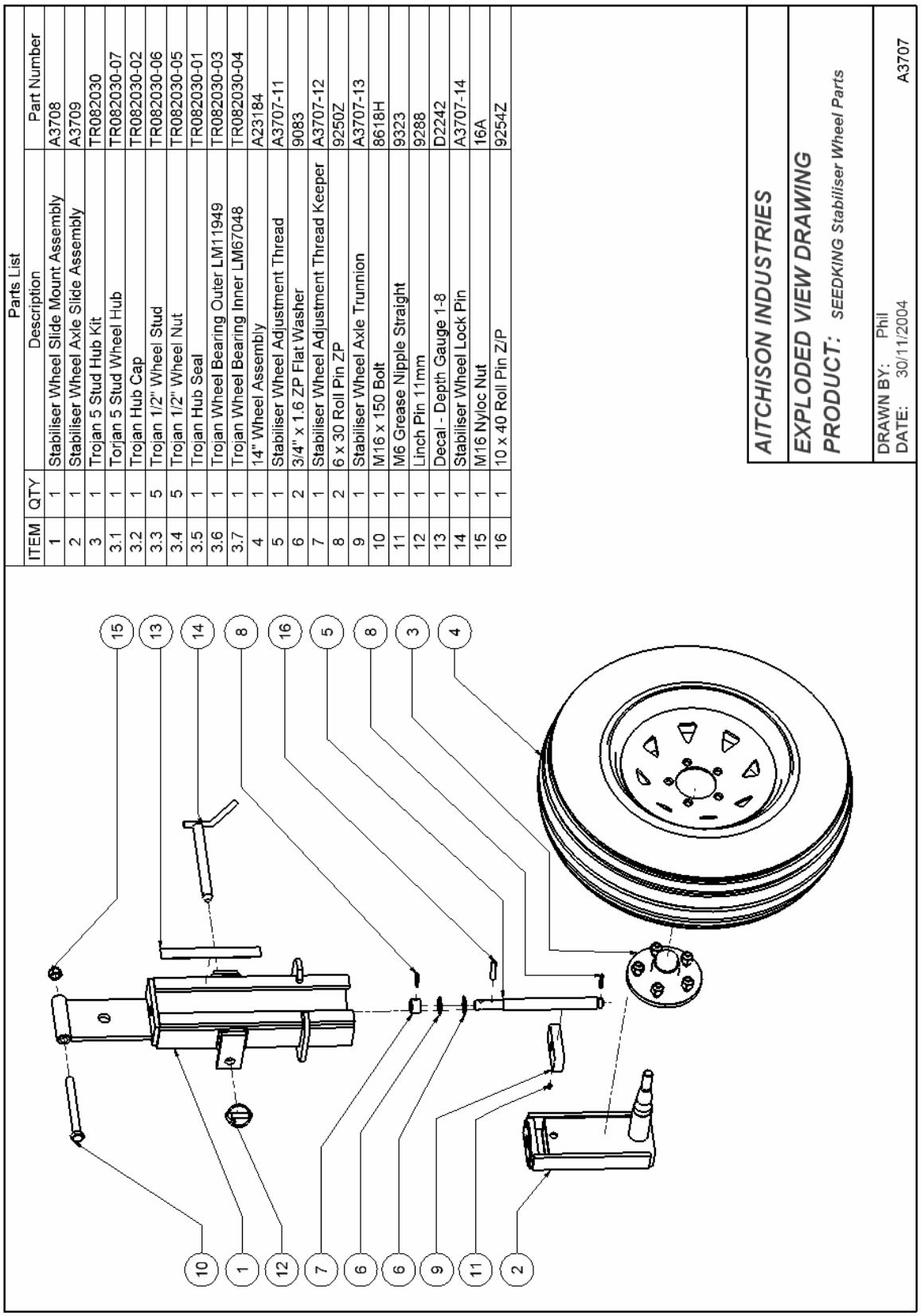
EXPLODED VIEW DRAWING

PRODUCT: SeedKing Disc Pivot Arm Assembly

DRAWN BY: Phil
DATE: 16/10/2006

A3718

SK2122 STABILISER WHEEL PARTS



Parts List

ITEM	QTY	Description	Part Number
1	1	Stabiliser Wheel Slide Mount Assembly	A3708
2	1	Stabiliser Wheel Axle Slide Assembly	A3709
3	1	Trojan 5 Stud Hub Kit	TR082030
3.1	1	Torjan 5 Stud Wheel Hub	TR082030-07
3.2	1	Trojan Hub Cap	TR082030-02
3.3	5	Trojan 1/2" Wheel Stud	TR082030-06
3.4	5	Trojan 1/2" Wheel Nut	TR082030-05
3.5	1	Trojan Hub Seal	TR082030-01
3.6	1	Trojan Wheel Bearing Outer LM11949	TR082030-03
3.7	1	Trojan Wheel Bearing Inner LM67048	TR082030-04
4	1	14" Wheel Assembly	A23184
5	1	Stabiliser Wheel Adjustment Thread	A3707-11
6	2	3/4" x 1.6 ZP Flat Washer	9083
7	1	Stabiliser Wheel Adjustment Thread Keeper	A3707-12
8	2	6 x 30 Roll Pin ZP	9250Z
9	1	Stabiliser Wheel Axle Trunnion	A3707-13
10	1	M16 x 150 Bolt	8618H
11	1	M6 Grease Nipple Straight	9323
12	1	Linch Pin 11mm	9288
13	1	Decal - Depth Gauge 1-8	D2242
14	1	Stabiliser Wheel Lock Pin	A3707-14
15	1	M16 Nyloc Nut	16A
16	1	10 x 40 Roll Pin Z/P	9254Z

AITCHISON INDUSTRIES

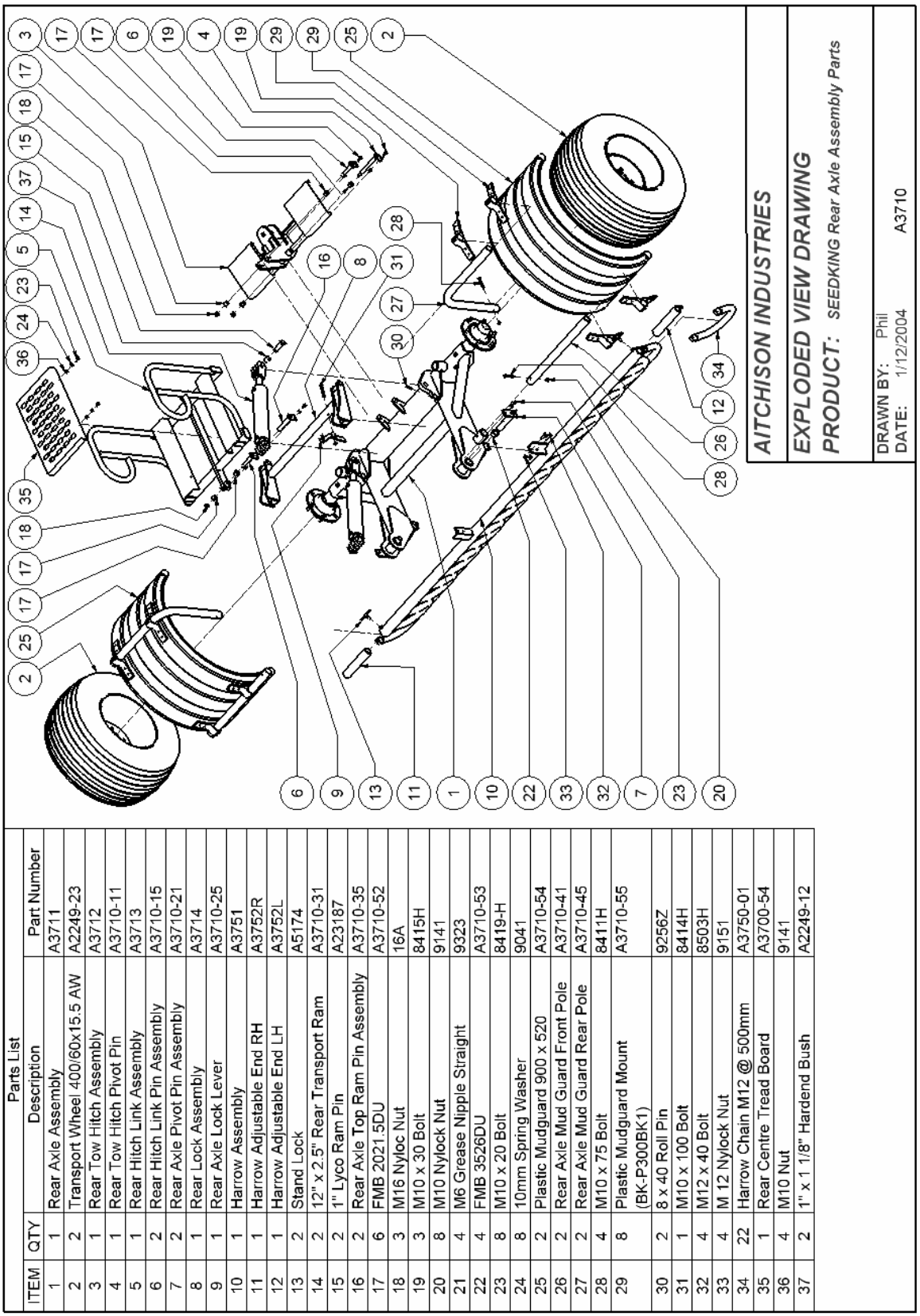
EXPLODED VIEW DRAWING

PRODUCT: SEEDKING Stabiliser Wheel Parts

DRAWN BY: Phil
DATE: 30/11/2004

A3707

SK2122 REAR AXLE PARTS



Parts List

ITEM	QTY	Description	Part Number
1	1	Rear Axle Assembly	A3711
2	2	Transport Wheel 400/60x15.5 AW	A2249-23
3	1	Rear Tow Hitch Assembly	A3712
4	1	Rear Tow Hitch Pivot Pin	A3710-11
5	1	Rear Hitch Link Assembly	A3713
6	2	Rear Hitch Link Pin Assembly	A3710-15
7	2	Rear Axle Pivot Pin Assembly	A3710-21
8	1	Rear Lock Assembly	A3714
9	1	Rear Axle Lock Lever	A3710-25
10	1	Harrow Assembly	A3751
11	1	Harrow Adjustable End RH	A3752R
12	1	Harrow Adjustable End LH	A3752L
13	2	Stand Lock	A5174
14	2	12" x 2.5" Rear Transport Ram	A3710-31
15	2	1" Lyco Ram Pin	A23187
16	2	Rear Axle Top Ram Pin Assembly	A3710-35
17	6	FMB 2021.5DU	A3710-52
18	3	M16 Nyloc Nut	16A
19	3	M10 x 30 Bolt	8415H
20	8	M10 Nylock Nut	9141
21	4	M6 Grease Nipple Straight	9323
22	4	FMB 3526DU	A3710-53
23	8	M10 x 20 Bolt	8419-H
24	8	10mm Spring Washer	9041
25	2	Plastic Mudguard 900 x 520	A3710-54
26	2	Rear Axle Mud Guard Front Pole	A3710-41
27	2	Rear Axle Mud Guard Rear Pole	A3710-45
28	4	M10 x 75 Bolt	8411H
29	8	Plastic Mudguard Mount (BK-P300BK1)	A3710-55
30	2	8 x 40 Roll Pin	9256Z
31	1	M10 x 100 Bolt	8414H
32	4	M12 x 40 Bolt	8503H
33	4	M 12 Nylock Nut	9151
34	22	Harrow Chain M12 @ 500mm	A3750-01
35	1	Rear Centre Tread Board	A3700-54
36	4	M10 Nut	9141
37	2	1" x 1 1/8" Hardend Bush	A2249-12

AITCHISON INDUSTRIES

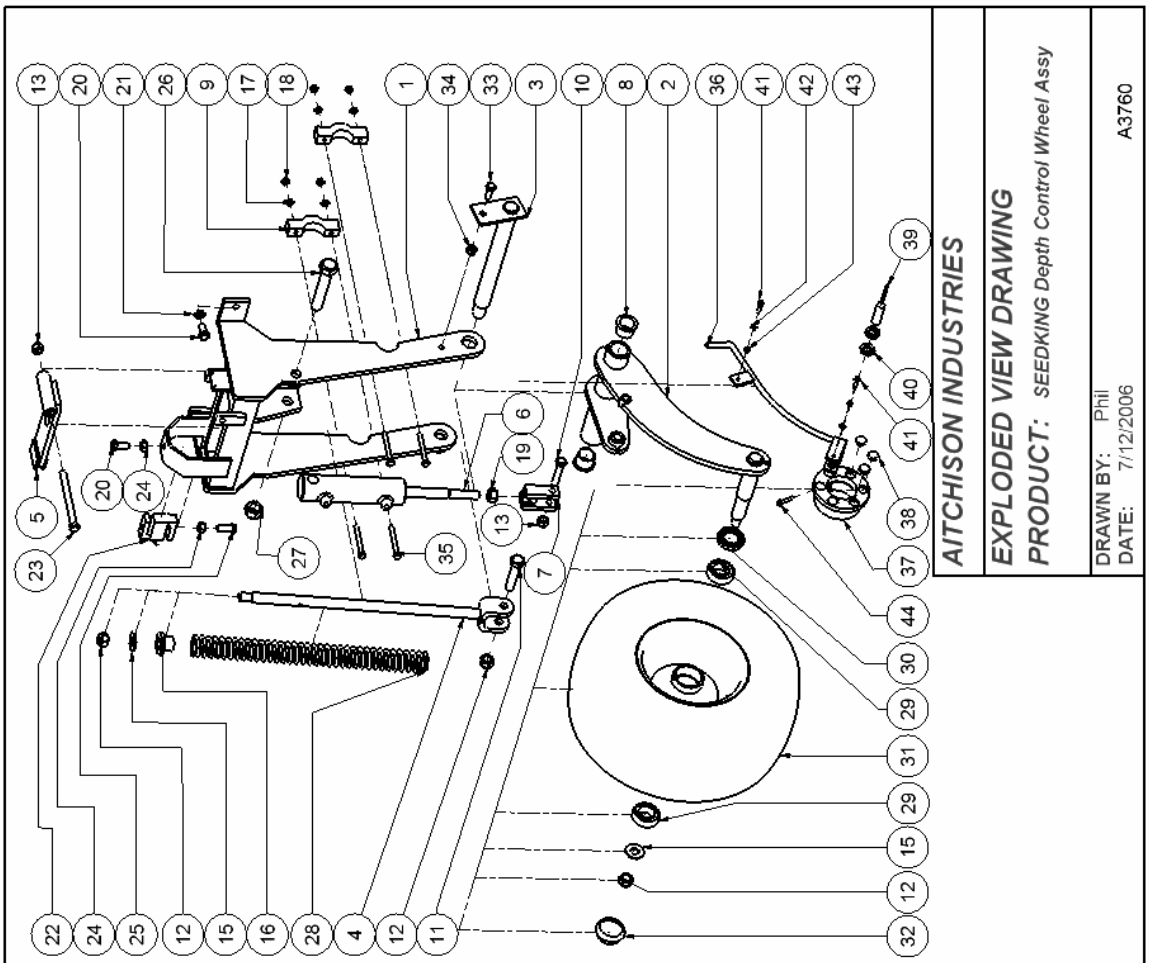
EXPLODED VIEW DRAWING

PRODUCT: SEEDKING Rear Axle Assembly Parts

DRAWN BY: Phil
DATE: 1/12/2004

A3710

SK2122 DEPTH CONTROL WHEEL PARTS



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Depth Control Wheel Mount Assy	A3761
2	1	Depth Control Wheel Arm Assy	A3762
3	1	Depth Control Wheel Pivot Pin Assy	A3760-01
4	1	Push Rod Assembly	A3727
5	1	Load Cell Hinge Plate Assembly	A3763
6	1	Ram - Clutch 1.5"x3/4"x 90mm	A5130-11
7	1	Depth Control Wheel Ram Clevis	A3760-03
8	2	FMB 3026DU	A3720-40
9	2	Depth Control Wheel Clamp	A3761-03
10	1	M12 x 60 Bolt	8528H
11	1	M16 x 75 Bolt	8525H
12	3	M16 Nylock Nut	16A
13	2	M12 Nylock Nut	9151
14	1	M24 Nylock Nut	9198
15	2	16mm Thick Flat Washer	9062
16	1	Push Rod Spring Bush	A23211
17	4	8mm Spring Washer	9030
18	4	M8 Nut	9105
19	1	M16 Nut	9161
20	3	M12 x 25 Bolt	8527H
21	2	12mm Spring Washer	9052
22	1	PT4000-500kg Load Cell	A3760-05
23	1	M12 x 140 Bolt	8514H
24	2	M12 Nut	9152
25	1	Load Cell Load Bolt	A3760-06
26	1	M20 x 110 Bolt	8716H
27	1	M20 Nylock Nut	9172
28	1	Dragarm Front Spring	A3720-34
29	2	6205 Bearing 2RS	9212
30	1	30 x 52 x 7 Seal	9235
31	1	18.5 x 8.50-8 Wheel (Hard filled to: 6psi)	A3760-07
32	1	52mm Cap	A4623
33	1	M10 x 30 Bolt	8415H
34	1	M10 Nylock Nut	9142
35	4	M8 x 75 Bolt	8411H
36	1	Wheel Speed Sensor Mount Assembly	A3764
37	1	Depth Wheel Magnet Mount	A3764-05
38	6	Wheel Magnet (set of 10)	A3730-22
39	1	Speed Sensor	A3730-25
40	2	Sensor Nut (supplied with Sensor)	See Above
41	2	M6 x 25 Bolt	8213 H
42	2	6mm Spring Washer	9021
43	2	M6 Nut	9121
44	1	M6 x 30 S-S Cap Screw	8223 S

AITCHISON INDUSTRIES

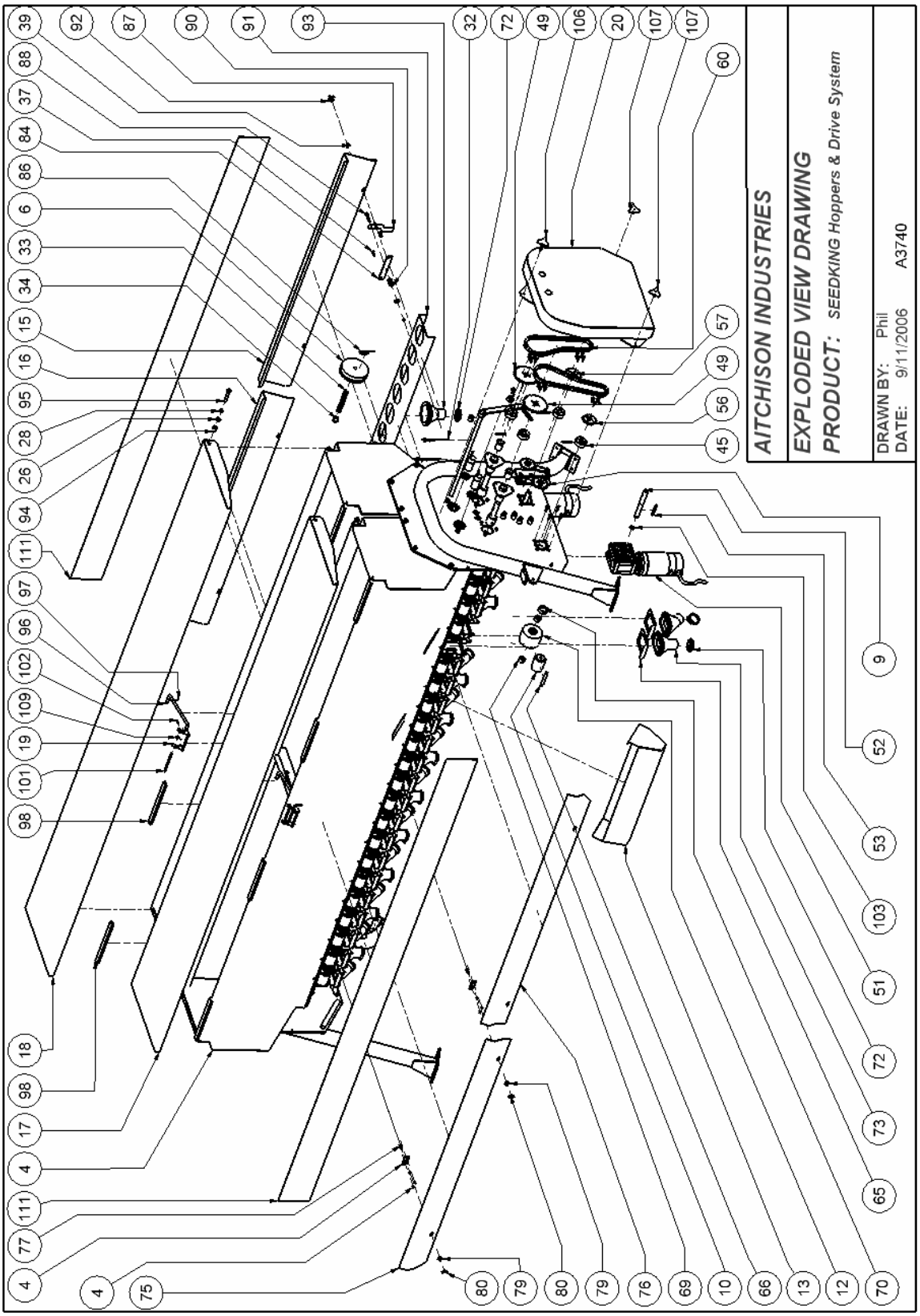
EXPLODED VIEW DRAWING

PRODUCT: SEEDKING Depth Control Wheel Assy

DRAWN BY: Phil
DATE: 7/12/2006

A3760

SK2122 HOPPER & DRIVE SYSTEM PARTS



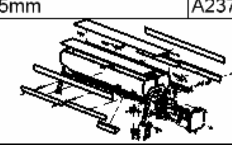
SK2122 HOPPERS & DRIVE SYSTEM PART NUMBERS

Parts List

ITE	QTY	DESCRIPTION	PART NUMBER
1	1	Drive End Panel Assembly	A3702
2	1	Non Drive End Panel Assembly	A3703
3	1	SK Seed Box Assembly	A3742
4	1	SK Fert Box Assembly	A3743
5	1	Agitator Shaft Assembly	A3731
6	22	Sponge Pad and Disc	A2364
7	2	Seed Shaft Mount	A2337
8	1	Agitator Cam And Boss	A3732
9	2	Tensioner Chain Complete	A2350
10	22	Small Idler Roller	A2292-05
11	22	Agitator Arm Assembly	A2292-01
12	22	Large Drive Roller	A2292-09
13	1	Fert Calibration Tray	A2294
14	4	3" x 2" S/S Butt Hinge	A23805
15	1	Seed Box Calibration Tray RH Assembly	A3746R
16	1	Seed Box Calibration Tray LH Assembly	A3746L
17	1	SK Fert Box Lid Assembly	A3745
18	1	SK Seed Box Lid Assembly	A3744
19	2	SM Lid Lock Assembly	A3140-03
20	1	Main Drive Cover Assembly	A3733
21	1	Fert Square Drive Shaft	A3730-01
22	7	M10 x 25 S/S Bolt	8418S
23	7	10mm S/S Flat Washer	9042S
24	6	10mm S/S Spring Washer	9041S
25	7	M10 S/S Nut	9141S
26	13	10 mm Flat Washer	9042
27	8	M10 x 25 Bolt	8418H
28	14	10mm Spring Washer	9041
29	9	M10 Nut	9141
30	5	S 210 Plastic Bush	A2357
31	1	16mm Shaft Collar	A2360
32	22	Agitator Shart R Clip	A2359
33	22	Seed Pad Spring	A2280-10
34	22	S 9 Plastic Bush	A2280-11
35	2	M6 Grease Nipple Straight	9323
36	22	M6 Nut	9121

Parts List

ITE	QTY	DESCRIPTION	PART NUMBER
37	22	M6 x 25 Bolt	8213H
38	46	6mm Spring Washer	9021
39	18	6mm Fender Washer	9022
40	4	S 15 Plastic Bush	A2352
41	1	Seed Shaft Axle	A2361
42	1	Fertiliser Shaft Axle	A3730-02
43	1	M10 x 20 Bolt	8419H
44	1	M10 x 20 S/S Bolt	8419S
45	3	Sprocket Boss	A2343-01
46	1	6200 2RS Bearing	9219
47	1	M10 x 30 Bolt	8415H
48	1	Gearbox Spring	A23104
49	2	27T Plate Sprocket	A3730-03
50	16	M6 x 20 Stainless Steel Cap Screw	8207S
51	2	Seedrate Motor & Gearbox 60to1	A3730-20
52	2	Motor Drive Shaft	A3730-04
53	2	M6x6 Key	A3730-05
54	8	M6 x 30 Cap Screw S/S	8223S
55	4	6 x 50 Roll Pin	9262
56	1	15T Plate Sprocket	A3730-06
57	1	17T Plate Sprocket	A2347
58	4	Spacer 20mm	A2270-10
59	1	Fert Drive Chain 1/2" @ 1m	ZCH 1/2
60	1	Seed Drive Chain 1/2" @ 1m	ZCH 1/2
61	4	M8 x 50 Bolt	8308H
62	4	M8 Nut	9106
63	4	8mm Spring Washer	9030
64	4	8mm Flat Washer	9031
65	22	Fertiliser Cup Plate	A2292-12
66	22	Small Idler Roller Axle	A2292-11
67	22	R Clip 3mm S/S	9292
68	22	Fert Unit Agitator Spacer	A2292-08
69	44	Fert Unit Shaft Bush	A2292-06
70	22	Cam 16mm Wide	A2292-04
71	11	Square Fert Cup Angled	A2290-13
72	44	Crey Clip 35mm	A2370

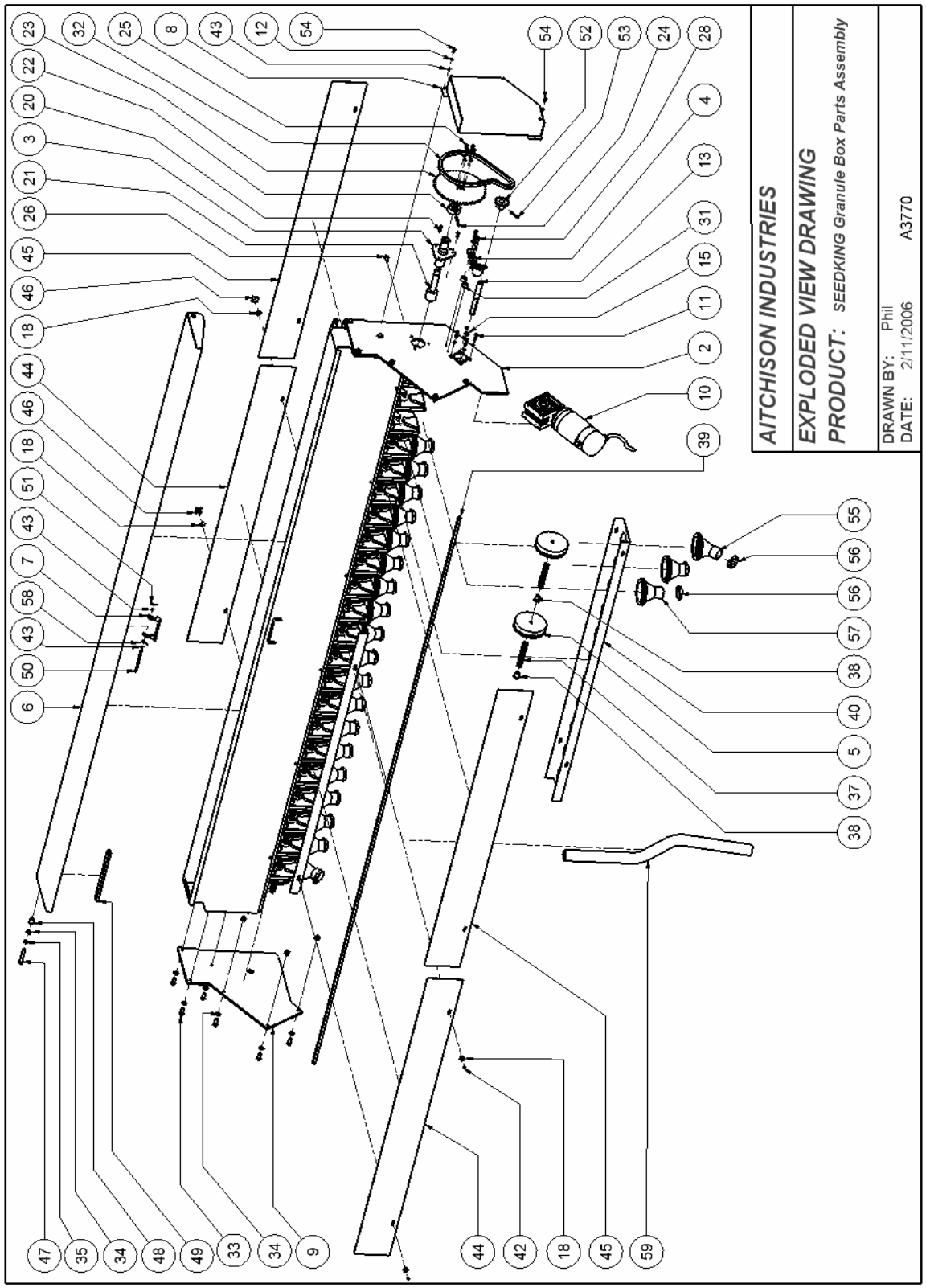


Parts List

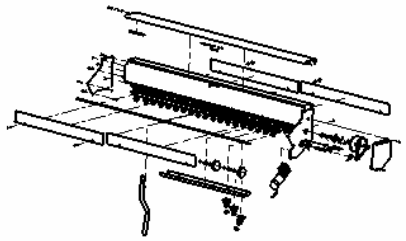
ITE	QTY	DESCRIPTION	PART NUMBER
73	11	Square Fert Cup Straight	A2290-12
75	1	Fert Box LH Inspection Panel	A3740-01
76	1	Fert Box RH Inspection Panel	A3740-02
77	8	M6 x 25 S/S Bolt	8213S
78	8	M6 Stainless Nut	9121S
79	4	6mm S/S Fender Washer	9022S
80	4	M6 S/S Wingnut	9108S
81	1	Seed Square Drive Shaft	A3730-07
82	1	Seed Box Rear RH Inspection Panel	A3740-04
83	1	Seed Box Rear LH Inspection Panel	A3740-03
84	8	123mm Hinge Plate	A3040-08
85	24	4.8 x 12 S/S Rivet	9301
86	22	Oat Wiper	A2366
87	4	Seed Tray Clip	A3040-07
88	4	M6 x 50 Bolt	8210H
89	4	M6 Nylock Nut	9109
90	4	Agrispred Spinner Disc Fin Spring	A4619
91	2	Seed Tray 11 x 123mm	A3048-01
92	4	M6 Quid Knob	9122
93	22	Seed Cup Straight	A2368
94	4	S 206 Plastic Bush	A2355
95	4	M10 x 65 Bolt	8417H
96	2	SM Lid Stay	A3140-10
97	2	3 x 20 Roll Pin	9267
98	8	Buffer Pad	A2375
99	2	6mm Flat Washer	9023
100	2	6mm S/S Flat Washer	9022S
101	2	Lid Latch Pin	A3140-02
102	2	2.5 x 16 Split Cotter Pin S/S	9273S
103	2	18mm External Circlip	92455
104	2	Bin level Sensor	A3730-30
105	4	Bin level Sensor Nut (supplied with sensor only)	See Above
106	1	M 8 x 40 Tri Knob	A3030-11
107	2	M8 Female Tri Knob	A2353
108	2	M8 x 25 Bolt	8305H
109	2	Lid Lock Spring	A3142-05
111	2	3M Yellow Panel Decal	D1513

A3740

SK2122 GRANULE BOX PARTS



Parts List				Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER	ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	SK Granule Box Assembly	A3772	31	2	Spacer 15mm	A2349
2	1	Granule Box Drive End Panel Assembly	A3776	32	1	Granule Drive Chain 1/2" P/M	ZCH1/2"
3	1	Seed Shaft Mount	A2337	33	12	M10 x 25 Bolt	8418H
4	1	1/2" Fixed Chain ensioner	A2336	34	14	10 mm Flat Washer	9042
5	22	Sponge Pad & Disc	A2364	35	14	10mm Spring Washer	9041
6	1	SK Granule Box Lid Assembly	A3773	36	12	M10 Nut	9141
7	1	SM Lid Lock Assembly	A3140-03	37	22	Seed Pad Spring	A2280-10
8	1	SK Granule Box Drive Cover Assembly	A3774	38	22	S 9	A2280-11
9	1	Granule Box Non Drive Panel	A3770-01	39	1	Seed Square Drive Shaft	A3730-07
10	1	Seedrate Motor & Gearbox 60to1	A3730-20	40	1	Seed Tray Moore Granule A	A2281-11
11	4	M6 x 30 Stainless Steel Cap Screw	8223 S	41	1	Seed Tray Moore Granule B	A2281-11
12	21	6mm Spring Washer	9021	42	4	M6 Nylock Nut	9109
13	1	Motor Drive Shaft	A3730-04	43	12	6mm Flat Washer	9023
14	1	M6x6 Key	A3730-05	44	2	Seed Box Rear LH Inspection Panel	A3740-03
15	1	18mm External Circlip	92455	45	2	Seed Box Rear RH Inspection Panel	A3740-04
16	2	S 15 Bush	A2352	46	4	M6 Quid Knob	9127
17	1	M6 Grease Nipple Straight	9323	47	2	M10 x 65 Bolt	8417H
18	11	6mm Fender Washer	9022	48	2	S 206 Bush	A2355
19	11	M6 Nut	9121	49	4	Buffer Pad	A2375
20	11	M6 x 25 Bolt	8213H	50	1	Lid Latch Pin	A3140-02
21	1	Seed Shaft Axle	A2361	51	1	2.5 x 16 Split Cotter Pin	9273S
22	1	Sprocket Boss	A2343-01	52	1	13T Sprocket Half Inch Pitch	A2339-01
23	1	50T Plate Sprocket	A3770-02	53	1	6 x 40 Roll Pin	9251
24	1	6 x 50 Roll Pin	9262	54	2	M6 x 16 Bolt	8208H
25	4	M6 x 20 Stainless Steel Cap Screw	8207S	55	2	Seed Cup Angled	A2369
26	1	M10 x 20 Bolt	8419H	56	22	Crey Clip 35mm	A2370
27	2	M8 Nut	9106	57	20	Seed Cup Straight	A2368
28	2	M8 x 45 Bolt	8303H	58	1	Lid Lock Spring	A3142-05
29	2	8mm Spring Washer	9030	59	1	35mm Seed Dropper Hose P/M	A2384-01
30	2	8mm Flat Washer	9031				



AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: *SEEDKING Granule Box Part Numbers*

DRAWN BY: Phil
DATE: 2/11/2006

A3770

SK2122 MDECU BOX AND SENSOR PARTS