

***AITCHISON
SEEDMATIC
PROFESSIONAL
8124A
DRILL***



**REESE ENGINEERING LTD
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AITCHISON

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, ensuring 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

**Director
Reese Agri**



WARNING

THE OPERATION AND ADJUSTMENT OF THE REESE MACHINE REQUIRES A COMPLETE KNOWLEDGE OF THE CONTENTS OF THIS HANDBOOK. TO AVOID PERSONAL INJURY PLEASE ENSURE THAT ALL PERSONNEL ARE THOROUGHLY CONVERSANT WITH ALL DETAILS BEFORE COMMENCEMENT OF OPERATION OR MAINTENANCE.

WARRANTY

COMPLETE AND RETURN WARRANTY REGISTRATION TO ENSURE VALIDATION.

IN THE USA RETURN TO: REESE AGRI USA, 705.N MAIN STREET, BRAYMER, MISSOURI, 64624, USA.

IN AUSTRALIA AND NZ RETURN TO: REESE ENGINEERING LTD, PO BOX 5056, PALMERSTON NORTH, NEW ZEALAND

REESE warrants that the Machine delivered shall conform to the specifications set out in this Handbook.

REESE makes no warranty of saleability or fitness for a particular use, nor is there any other express or implied warranty.

Subject to such other conditions, warranties, and/or undertakings which may apply from time to time under any applicable law, REESE warrants with respect to each new AITCHISON Machine sold by its accredited agents, that for a period of twelve months from the dates of original retail sale, REESE will repair or replace free of charge any part found to be defective in factory materials or workmanship under normal use and operation within the United States of America, Canada, Australia and New Zealand provided that;

1. The Machine

- (a) has been properly assembled and adjusted
- (b) has been properly used and operated within the capacity and operating limitations specified by the manufacturer thereof, and
- (c) has been properly maintained and cared for.

2. This Warranty applies to direct purchase from an authorized AITCHISON dealer. If any defect or fault shall arise such purchaser must return the defective work or Machine to an authorized AITCHISON Dealer within ten working days of such defect or fault arising.

3. In the event of the purchaser attempting to repair or replace the work or product without prior written consent of an authorized AITCHISON Distributor this guarantee shall become void. REESE may replace or repair any damaged product or work at its discretion.

4. In respect of such Machine this warranty does not apply to:

- (d) misuse or carelessness in handling,
- (e) Noncompliance to REESE's operating and maintenance instruction,
- (f) Unauthorized repairs or alterations,
- (g) Consequential damage resulting from misuse or initial faults,
- (h) Parts subjected to wear or damage as a result of normal operation i.e.
 - i. Tines and boots
 - ii. Discs
 - iii. Tyres
 - iv. Hydraulic components

5. Any disputes in relation to this contract or product shall be governed by New Zealand law and shall be determined in a New Zealand court.

TO THE OWNER AND OPERATOR

Your Aitchison Drill was 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: _____

The warranty card on your Seedmatic 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.

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.

TECHNICAL SPECIFICATIONS

Model	8124A	
Transport Width	3.30m	10.8ft
Sowing Width	3.00m	9.8ft
Height	2.50m	8.2ft
Weight Empty	2150kg	4221lb
Length	5.12m	16.8ft
Seed Capacity	700lt	19.8bu
Fertiliser Capacity	700lt	19.8bu
Number of Coulters & row spacings	24 Rows @	125mm / 5"

Optional Accessories:

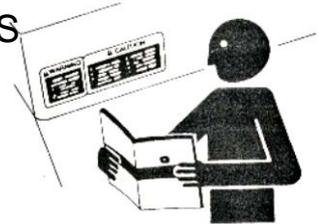
Small Seeds Box.
 Hydraulic Drawbar Ram.
 Chain Harrow.
 Front Disc Coulter Bar.

SAFETY FIRST

Keep all covers in place when using the drill.
Stop the drill before making any 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's dealer.

OPERATE YOUR MACHINE SAFELY

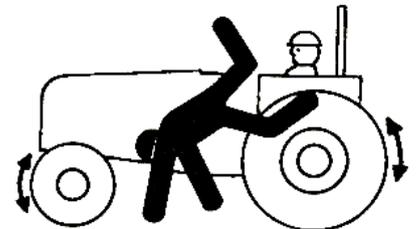
Be careful when operating machine to avoid injury.

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 planter are in operation. Keep riders off. 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.

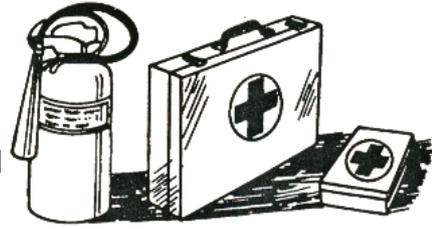
Wear safety gloves when working with discs as they can have sharp edges.



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 includes 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 DEVICE

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.

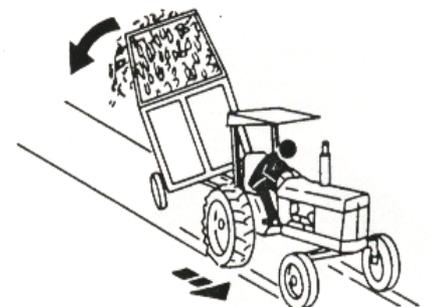
Reduce speed over rough ground

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 road marking 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 build-up 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 manufacturers directions on the correct way to recycle or dispose of waste.

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 8 km/h (5 mph) may be maintained.

Always lift the drill out of the ground before turning sharp corners as this will protect the tines and 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 tines will 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 chains or bar harrows behind the drill is very beneficial as this will crumble the groove and help to cover the seed.

PASTURELAND FARMING WITH SEEDMATIC

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. Ensure your spray boom has a marking system and is fully operational.
4. Establish optimum time for planting.
5. Check and control weeds present, before and during crop 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.

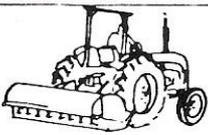
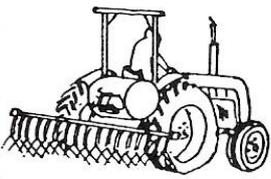
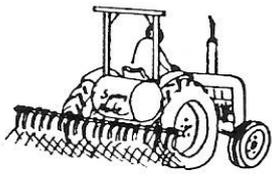
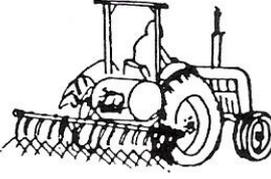
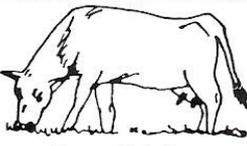
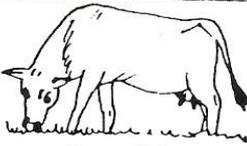
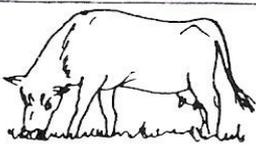
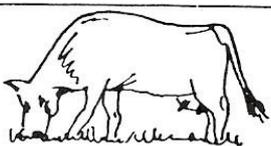
TECHNIQUES AND TIMING FOR PASTURE RENOVATION

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

	TEMPERATE PASTURELAND		TROPICAL PASTURELAND	ARID PASTURELAND
	REJUVENATION	RENEWAL		
TIME ↓	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 withholding 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 (26 lb/acre) 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 for 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 Seedmatic Professional.

Watch for slugs. Slugs like the moist groove produced by the wing blade 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 SEEDMATIC PROFESSIONAL

We are not able to give total formal recommended seeding rates, chemical usage and fertiliser recommendations because of circumstance that the Seedmatic 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 can be 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 regards 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.

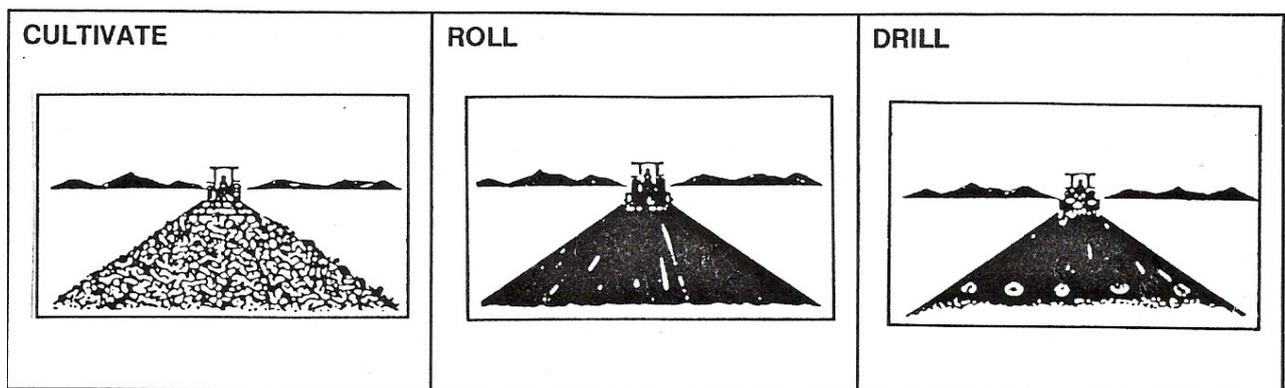
Wheat and Barley – Direct seeding in early spring or autumn depending on variety. Always spray out pasture with approved herbicide (may not be necessary after brassica). Always sow with fertiliser.

Lucerne, Alfalfa – Sow in early spring after spraying out entire area with Roundup or similar herbicide. It is always a good idea to do a soil test to ensure that the soil 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. Apply fertiliser and ensure that spraying and baiting 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 (12” or 18”) 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, in the soil tilth. Cultivate the soil to destroy existing vegetation, then roll the seedbed thoroughly and finally drill the seeds required into this rolled seedbed with the Seedmatic. Good germination results will occur.



We recommend that a chain harrow be towed behind the seed drill or roll the field after seeding has been completed.

SETTING UP SEEDMATIC FOR USE.

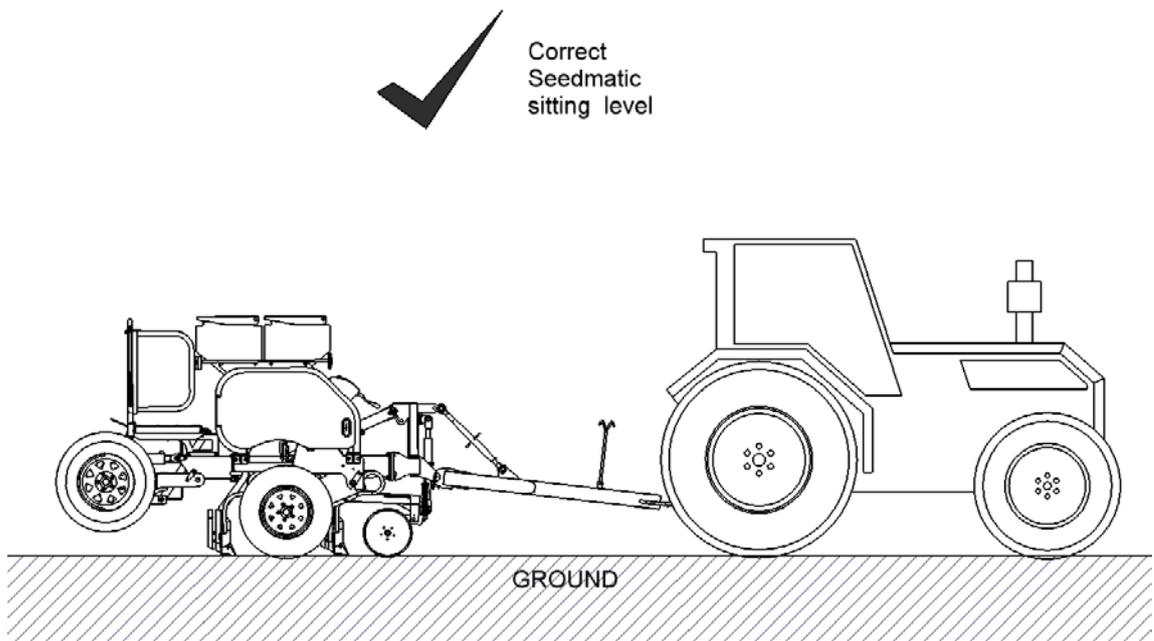
Connect the Seedmatic Drawbar to the tractors Towbar. Make sure you use a safety clip on the drawbar pin.

If you are to travel on public roads, ensure you fit a **SAFETY CHAIN** between the Seedmatic Drawbar and the tractor's Towbar.

Connect the Seedmatic's hydraulic hoses to the tractors hydraulic banks. This hydraulic system is used to raise and lower the rear transport wheels on the Seedmatic.

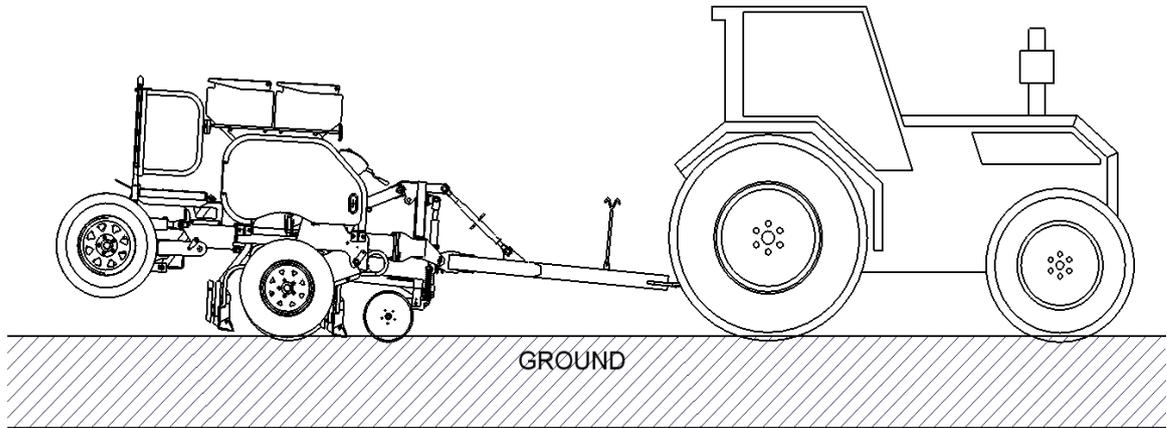
When seeding the rear transport wheels can be fully raised clear of the ground.

Adjust the Drawbar top link to ensure that the Seedmatic drill frame is sitting parallel with the ground.

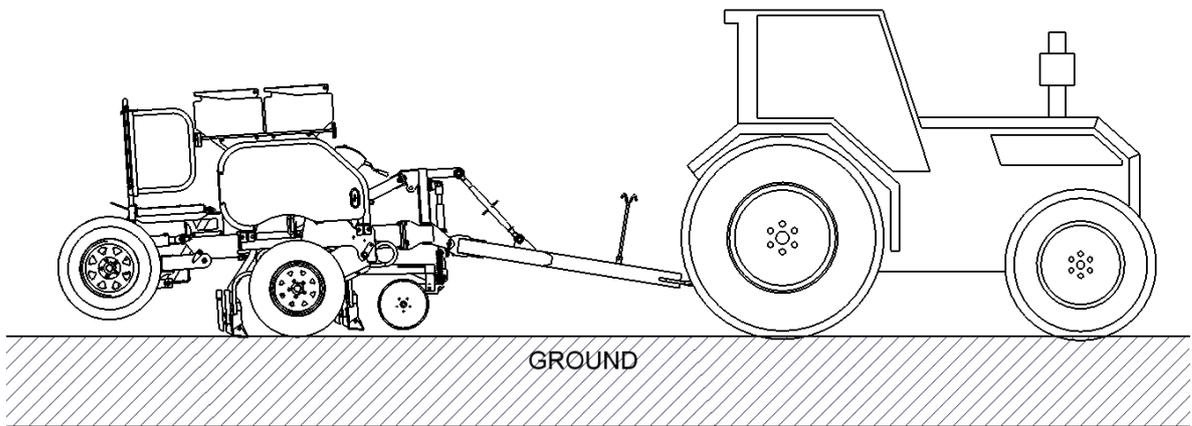




Seedmatic leaning to far forward



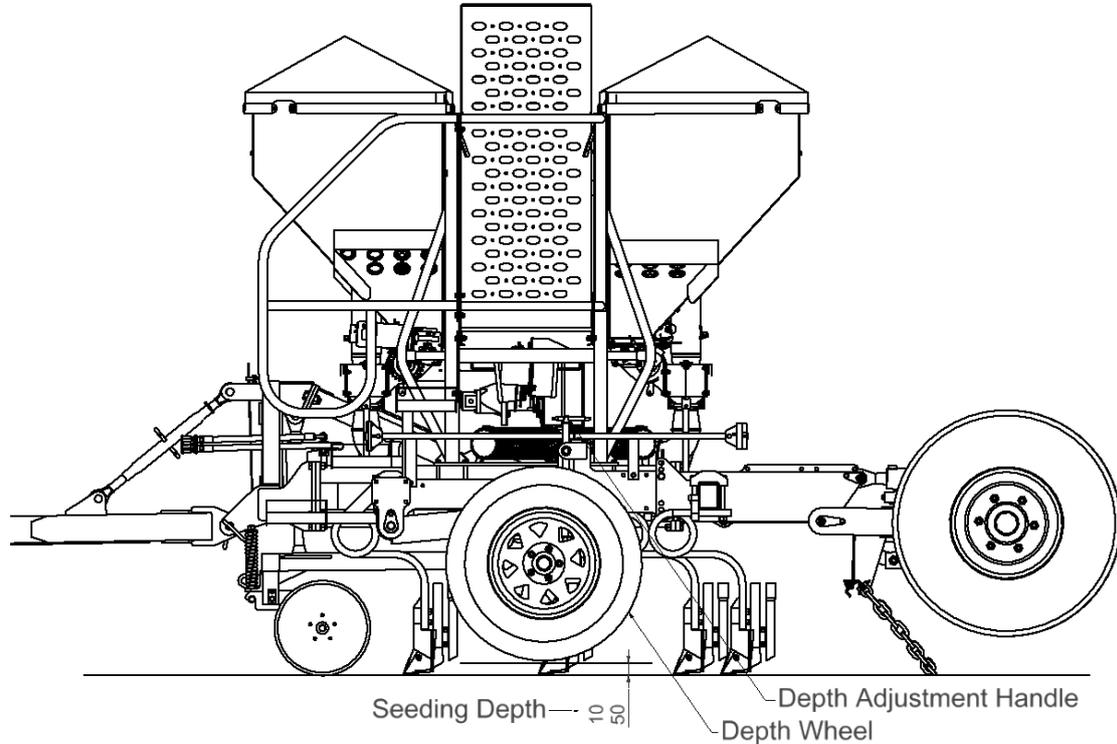
Seedmatic leaning to far back



SETTING THE DEPTH WHEELS.

With the Seedmatic sitting on hard flat ground, the depth wheels should be 10-50mm clear of the ground, depending on your desired seeding depth. There is an adjustment handle at the top of each depth leg, use this to adjust the legs.

There is a depth gauge at the top of each depth leg, check that both depth legs are set at the same height



When the drill is in work, the best way to check your seeding depth is to have a scratch around in the seed slots behind the drill and check where the seeds are placed in the soil. Make the appropriate adjustments as needed.

We recommend that a chain harrow be towed behind the Seedmatic to help cover the seed slots. This will help prevent bird strike and aid in seed germination.

DISC COULTER KITSET

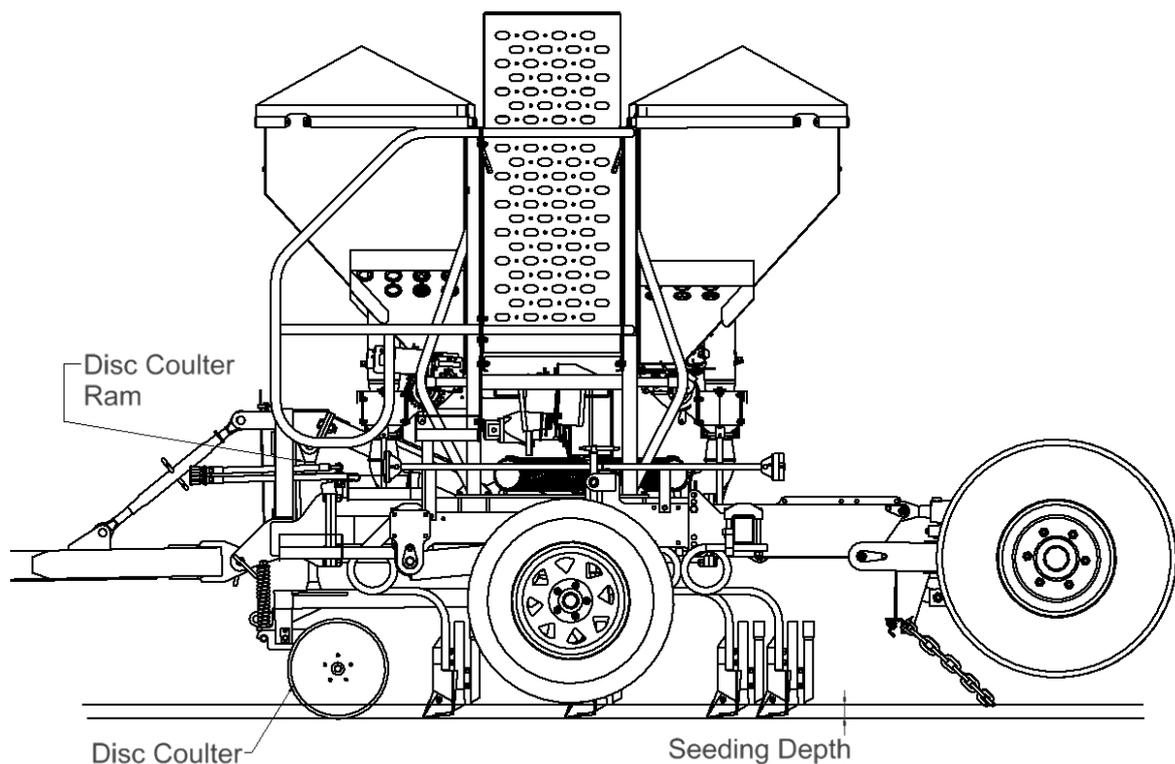
The Disc Coulters are designed to help cut trash/residue or stubble that may be present in the field. This trash/residue or stubble is cut into short lengths by the Disc Coulters, allowing the trash/residue or stubble to flow more efficiently past the Seed Openers with fewer blockages. The Disc Coulters will also help prevent surface tearing in existing pastures when under sowing.

Setting up the Disc Coulters Kit

If your Seedmatic drill has a Disc Coulters Kit, it is important that this is adjusted correctly to get the best performance from your drill.

The Disc Coulters are usually set depending on ground conditions. Then the Seed Openers are slightly shallower. To adjust the depth of the Disc Coulters, use the Disc Coulters Ram attached between the disc coulters bar and the Headstock frame. In very hard ground conditions the Disc Coulters may hold-up the drill preventing the Seed Openers being at the correct depth, if this occurs reduce the depth of the Disc Coulters.

In very soft/damp ground the Disc Coulters may roll up a strip of turf, if this occurs reduce the depth of the Disc Coulters.

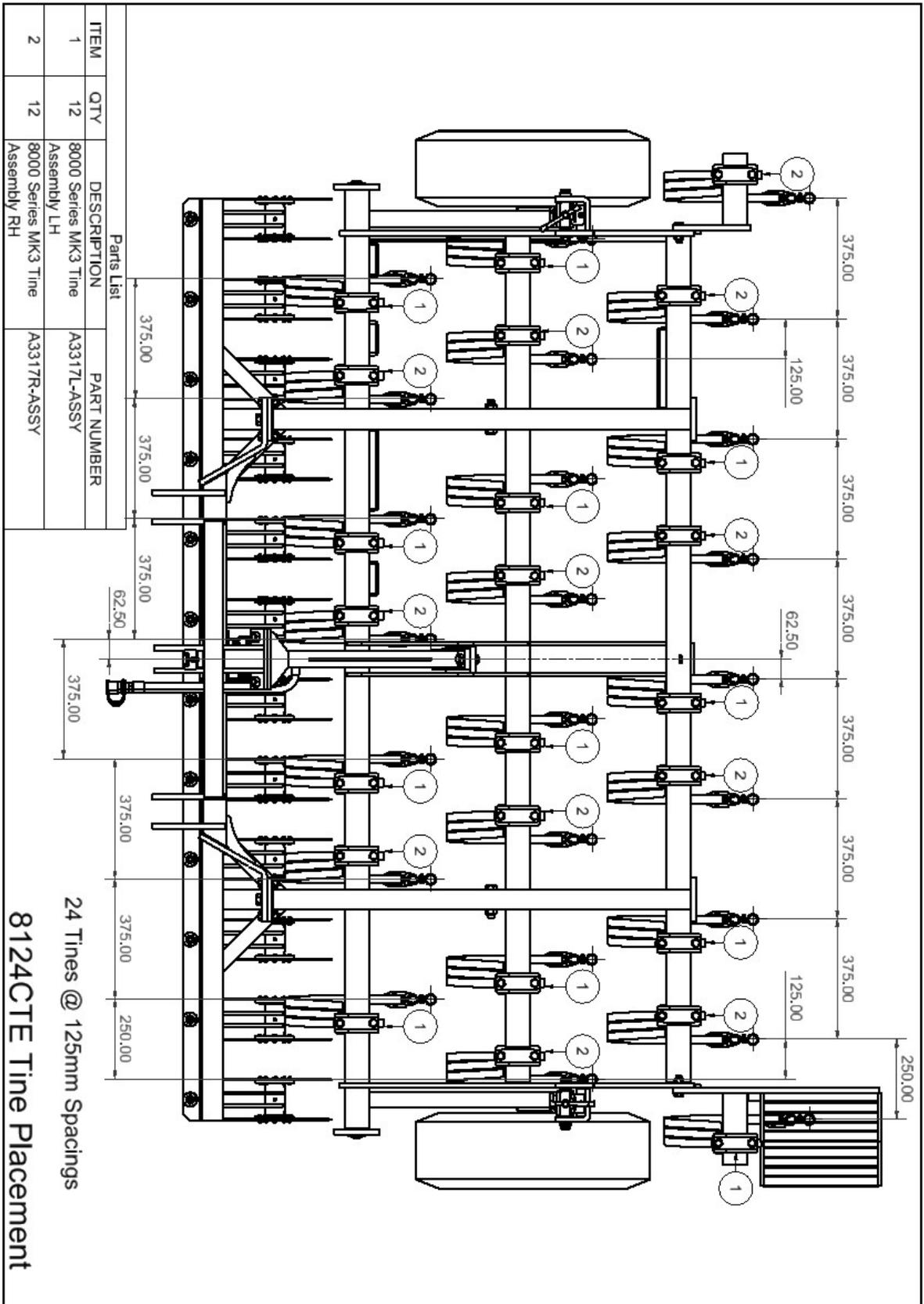


Tine Alignment

To get the best from your Disc Coulters kit check that the Seed Openers are tracking in the slots created by the Disc Openers. Failure to do so will result in severe tearing of your pasture. To make these adjustments loosen the top Tine Clamp and slide the Tine along the mainframe tool bar until alignment is achieved.

TINE PLACEMENT

8124CTE Tine Placement



TINE CLAMPS

The 8000 Series Seedmatic is fitted with new 75mm Saddle Clamps, these clamps have been designed to stop the tines from “walking” along the tool bars.

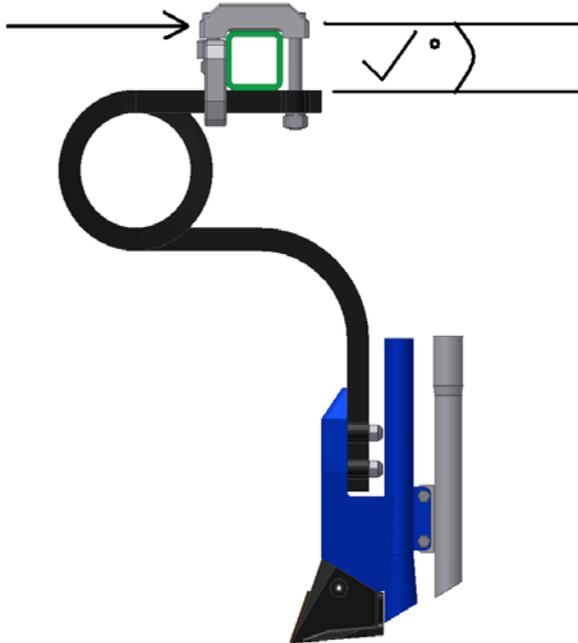
Some care needs to be taken when fitting these new clamps.

When fitting or adjusting ensure that the M16 bolts are tightened evenly so both the Saddle Clamp and the straight leg of the tine are parallel to each other.

The M16 bolts should be tightened to 200Nm (147ftlb) Maximum.

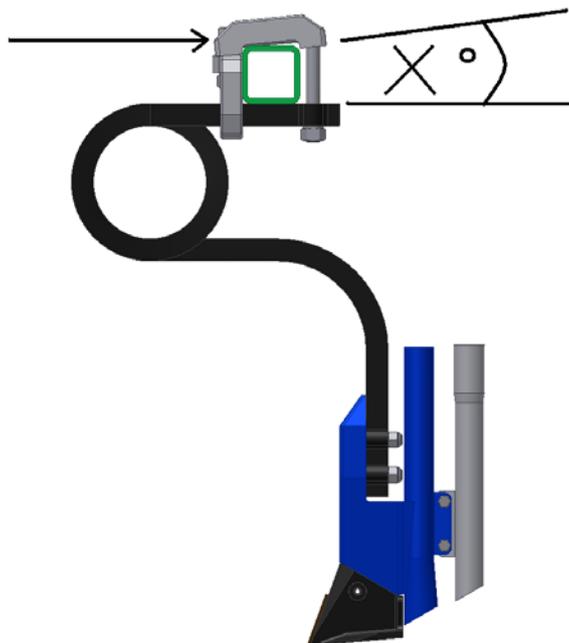
CORRECT FITMENT

Bolts tightened evenly, Saddle Clamp parallel with Tine Leg



INCORRECT FITMENT

Front bolt too tight, Saddle Clamp leaning forward



AITCHISON

SEEDMATIC

Electric Drive Head Unit

AITCHISON	
Job Info: Reese Engineering LTD. Aitchison	
Run	0 km/h 0 ha/h 1.473 ha
Running	SEED
- 50 + kg/ha	0 kg/ha Rate
0 0	1.77 ha
Rate1 Rate2	Area
0.597 to 9.553 km/h	
0	0 Shaft
Enter	
Fan	
Stopped	FERT
- 50 + kg/ha	0 kg/ha Rate
0 0	0.716 ha
Rate1 Rate2	Area
0.596 to 9.543 km/h	
Enter	
Job Manager	

Introduction:

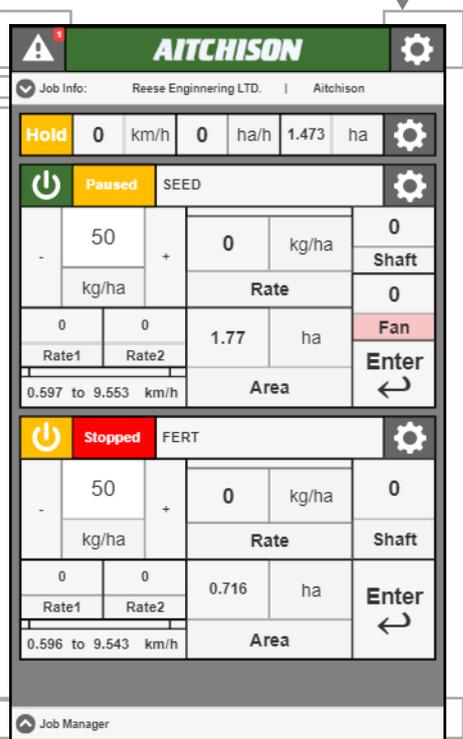
The Aitchison E-Drive Head Unit provides a simple and convenient means of monitoring and controlling your seed drill. The interface has been designed to efficiently convey all relevant information on the home screen. All functionality is at most a few clicks away, with all the key features easily accessible.

The interface features an integrated touch screen keyboard that automatically appears when required. The advanced warning system lets you know when a fault occurs and provides useful information on how to resolve it. The home page has been designed to provide easy navigation by using a tile-based layout and high contrast. The operational state of each hopper on the machine can be seen at a glance using informative colour coded indicators.

It is important to become familiar with the interface before using it in the field. This guide describes the interface layout, navigation and how to operate the Aitchison E-Drive System.

It is recommended that all new users go through a dry run to become familiar with operating the Drill.

Overview:

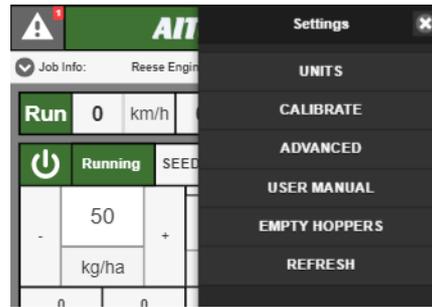
<p>Settings: This button opens the settings panel. This is used to navigate to: Units, Calibrate, Empty Hoppers, User Manual and Advanced Settings. See Settings.</p>	
<p>Alerts: This button opens the “Alerts” window, where system messages and warnings can be viewed. This can be clicked to stop the buzzer. See Alerts.</p>	
<p>Job Info: This button shows/hides the “Job Info” form. It is used to set and edit the current job. See Job Info.</p>	
<p>Dashboard: This section shows the systems monitored data and the control widgets. This is categorised into clusters of related information: General, Seed Hopper and Fert Hopper. See Dashboard.</p>	
<p>Job Manager: This button opens/closes the “Job Manager” form. This is used to start a new job, save the current job or view/edit old jobs. See Job Manager.</p>	

Settings:

This menu is used to set the display units, start calibration, access advanced system settings, view this user manual Empty hoppers and refresh the interface.

This menu is accessed from the home page by clicking the top right “Settings” button.

See: [Units](#), [Calibration](#), [Advanced Settings](#) and [Empty Hoppers](#).



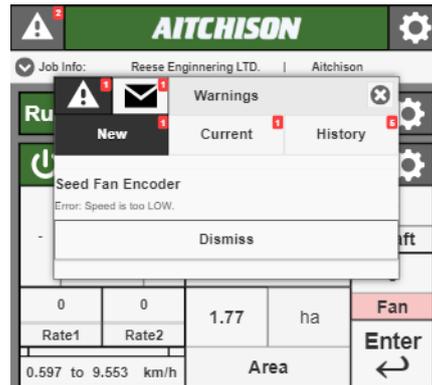
Alerts:

This window shows the current, the new and a history of system messages and warnings. It will pop up automatically when a new alert starts. Click the  button to see the warnings and the  button to see the messages. The number of active alerts is indicated by the numbered red icon.

To stop the buzzer, click anywhere within this window.

This window is accessed from the home page by clicking the top left “” button.

Any tile associated with an Alert will change colour to light red and can be clicked to view the warning message. When a device disconnects, the associated tiles will turn grey.



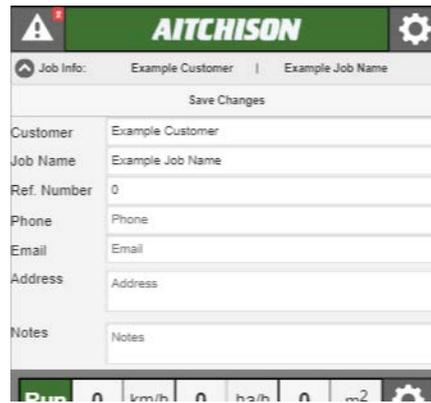
Job Info:

This is where all information for the current job is viewed and edited. Edits need to be saved using the “Save Changes” button to take effect. The Customer and Job Name are displayed on the drop-down button.

When an input field is selected a keyboard will pop up from the bottom of the screen with a specialised layout.

The “Job Info” button on the home screen is used to show and hide this window.

See: [Keyboard](#).



Job Manager:

This menu is used to save the current job, create a new job and view/edit saved jobs. All saved jobs are listed under the search bar and can be clicked to view the information page (See [Job Log](#)). The list tile shows: [Job Index, Customer, Job Name]. The search bar can be used to find old jobs using the information on the list tile. Jobs must be saved before a new job is started, otherwise progress will be lost.

The “Job Manager” button is used to show and hide this window on the home screen.



Job Index	Customer	Job Name
4	Customer	Job Name
3	Example Customer	Example 1
1	Reese Engineering Ltd.	Aitchison

Job Log:

This window shows the “Job Info” and report for the job selected using the “Job Manager”. Using this window you can: view, edit, download, delete or copy job information.

Edits made to the job information need to be saved by clicking the tick [top left] or canceled using the cross [top right].

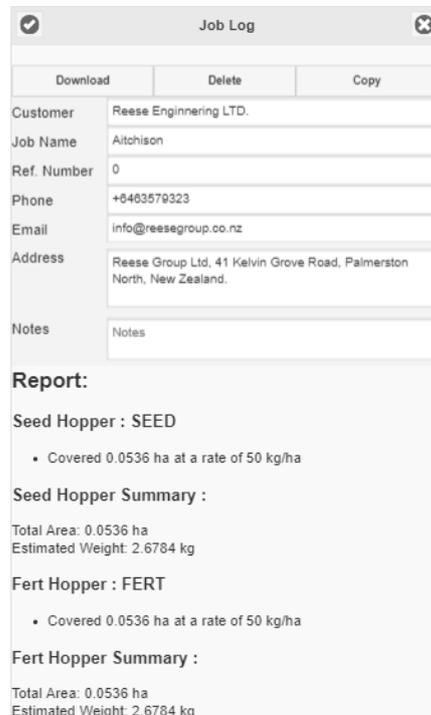
The **Download** button saves the job information and report to a connected USB flash drive under: “:\aitchison\reports”. If the device is not available, plug it back in and wait 10s.

The **Delete** button deletes the job from the job manager.

The **Copy** Button copies the job information to the current “Job Info” menu on the home screen.

The report shows the area covered for each set rate, for each hopper and provides a summary with total area covered by the hopper and the estimated applied product weight.

Each calibration will have a unique report entry.



Report:

Seed Hopper : SEED

- Covered 0.0536 ha at a rate of 50 kg/ha

Seed Hopper Summary :

Total Area: 0.0536 ha
Estimated Weight: 2.6784 kg

Fert Hopper : FERT

- Covered 0.0536 ha at a rate of 50 kg/ha

Fert Hopper Summary :

Total Area: 0.0536 ha
Estimated Weight: 2.6784 kg

See: [Job Info](#) and [Job Manager](#).

Dashboard:

The dashboard has been designed to efficiently convey information to the operator. A tile-based layout organises related information into clusters, making it easy to navigate and interact with.

This model has three clusters: General, Seed Hopper and Fert Hopper. The Seed Hopper and Fert Hopper clusters provide monitor and control for the respective hoppers and are fundamentally the same. They will be referred to collectively as “the Hopper Cluster”.

The Menu button on the top right corner of each cluster will open a properties window for the contained tiles.



See: [General Cluster](#), [Hopper Cluster](#).

General Cluster:

Shows the general system information:

- **Lift:** Shows “Run” when the machine is in the ground and “Hold” when it is not.
- **Speed:** Shows the ground speed when the lift is in the “Run” position.
- **Area Rate:** Shows the area that would be covered in an hour at the current ground speed.
- **Area:** Shows the total area covered while running the seed or Fert hoppers.

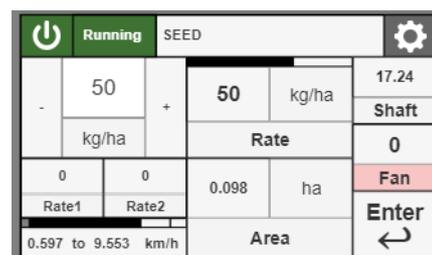
The distance and area tiles are automatically cleared when a new job is started. They can also be manually cleared using the cluster menu.



Hopper Cluster:

Provides information and controls to operate the Hopper. The hopper cluster header has three features at the top: Power, Status and Settings.

- **Power:** Used to enable and disable rate control for the hopper. Turns green when on and amber when off.
- **Status:** Shows the operational state of the hopper. This will indicate when the rate control is “Running” (green) when drilling; “Stopped” (red) when switched off and “Paused” (amber) when the lift is in the hold position.



- **Settings:** Used to alter the settings of the tiles contained by the cluster.
The hopper cluster tiles are used to set the application rate as well as monitor: the perceived rate, the shaft speed and the area covered by the hopper.



- **Rate:** This shows the perceived application rate in the selected units. The bar at the top shows the motor speed as a proportion of the motors top speed. Adjust the ground speed (within reason) to keep the motor comfortably within 5-90%. Change the gearing and re-calibrate if required to maintain the set rate.

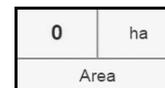
- **Shaft:** This tile shows the shaft speed in RPM and is used to detect drive chain faults. When the shaft speed doesn't match the expected shaft speed: the buzzer will start, a Warning message will popup describing the potential fault and the tile will change colour to a light red. The warning can be accessed directly by tapping on the tile or through the warnings tab (See [Alerts](#)).



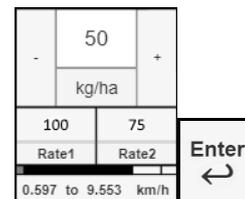
- **Fan:** This tile shows the RPM of the hydraulic fan. If the Fan speed is too high or too low during application, a warning will pop up. The limits can be set in the clusters settings menu.



- **Area:** This tile shows the total area covered by the hopper while running. It is automatically cleared when a new job is started and can be manually cleared using the cluster Menu.



- **Rate Controller and Enter:** The rate controller tile is used to select the application rate and the Enter button tile is used to submit the changes. The rate can be changed and submitted at any time. The rate can be changed by using the -/+ buttons or using the popup keyboard by clicking on the number field. Holding the + or - button will increment or decrement the rate quickly. The number field background will be white when the value matches the set rate and will change to yellow if it does not match. To set the number field back to the set rate, click on the units field below the number. The product name set during calibration can be seen at the bottom of the Rate Controller tile (See [Calibration](#)). There are two preset rates above the product name. These can be loaded by clicking on them and set by long pressing for 2-3 seconds. The bottom of the Rate Controller tile shows the speed ground speed range to achieve the set rate. The bar indicates the current speed in relation to these limits.

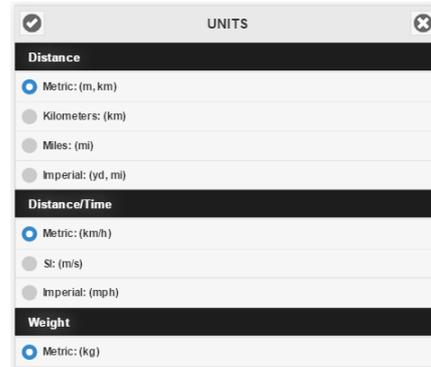


Units:

This window is used to customise the displayed units and can be set at any time. These units will also be used when generating the job reports.

Accessed using the “Settings” Menu.

See: [Settings](#).



Calibration:

The Aitchison E-Drive Calibration provides an easier and faster means of setting up your Seed Drill compared to the traditional calibration process. This section describes how to set up and complete the calibration process.

Important: Only calibrate one hopper at a time.

Preparation: Load the product, Prime the Hoppers and set up the product catchment.

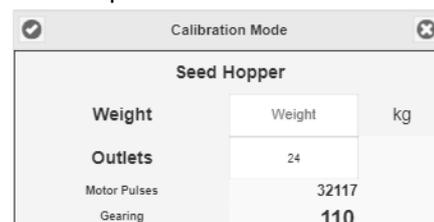
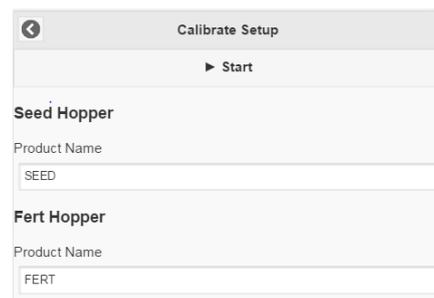
- **Load the Product:** Load the product over the catchment outlets for calibration.
- **Prime Hoppers:** Press and hold the desired prime button until the product flows freely. Forgetting to prime the hoppers before calibration will result in a false application rate.
- **Product Catchment:** Place catchment under the calibration outlet.

Run Calibration:

1. **Enable Calibration Mode:** Click on the “CALIBRATE” button in the “Settings” Menu. Enter the Product Names for each Hopper. Then press the “Start” button. A blank “calibrating” page will appear.

Note: An instructions tab can be found at the bottom of the window.

2. **Start Calibration:** To start/pause calibration, press the products prime button on the machine. The calibration will stop itself automatically when complete and the interface will buzz for 1s. The interface will update, showing a weight and outlets input field for the calibrated hopper. The second hopper can be calibrated once the buzzer signals completion.
 - If the buzzer does not sound when the motor stops and the interface is not updated, quick press the prime button.
 - Only calibrate one Hopper at a time.
 - If the catchment is nearing overflow, pause the calibration using the prime button, collect the product and continue with an empty catchment.
 - Take note of the weight units. This can be set in the “UNITS” menu (See [Units](#)).
3. **Collect and Weigh the Product:** Remember to “TARE” scales before weighing.
4. **Set Calibration Weight and Number of Outlets:** Go to the user interface and enter the total measured weight.



Press tick [top left] button to complete the calibration process. To cancel at any time, press the cross [top right] button. A conformation message will show up if the calibration is successful.

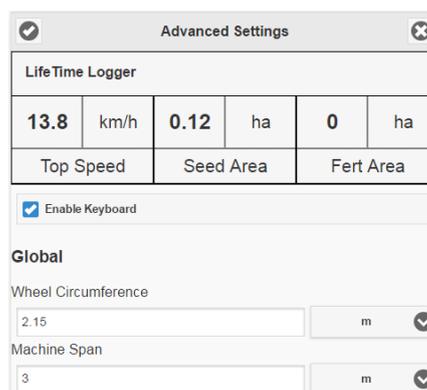
Advanced Settings:

The advanced settings menu is used for system configuration. This is where the wheel circumference can be set, and the dedicated-on screen keyboard can be enabled/disabled.

At the top of the advanced settings menu, a tile cluster shows the: Top Speed, Total Seed Area and Total Fert Area for the lifetime of the system. This is not resettable and will track over the lifetime of the interface.

This menu is found using the settings menu at the top right of the home screen.

See: [Settings](#), [Keyboard](#).



The screenshot shows the 'Advanced Settings' window. At the top, there is a 'Life Time Logger' section with a table of metrics: Top Speed (13.8 km/h), Seed Area (0.12 ha), and Fert Area (0 ha). Below this is a checkbox for 'Enable Keyboard' which is checked. The 'Global' section contains two input fields: 'Wheel Circumference' set to 2.15 m and 'Machine Span' set to 3 m. Each input field has a dropdown arrow on the right.

Empty Hoppers:

This feature allows the operator to run the motors without holding down the prime buttons. It is enabled and disabled by selecting the “Empty Hoppers” button in the top right “Settings” menu of the home page. Once enabled, each motor can be started or paused by pressing and releasing the corresponding prime button on the machine.

See: [Settings](#).

Refresh:

This restarts the user interface and has no effect on the operation of the Machine. It is found in the top right “Settings” menu on the home page.

See: [Settings](#).

Keyboard:

An on-screen keyboard is shown when an input field is selected. The keyboards layout will be customised for the input field (i.e. “qwerty” for text and “numpad for” numbers). This keyboard can be disabled/enabled in the “Advanced” settings menu.

See: [Advanced Settings](#).

Quick Start Guide:

This section provides a brief description of how to operate the E-Drive Head Unit for a new Job instance.

1. **Check connections and mounting.**
2. **Switch on:** using the green switch on the right side of the monitor. The boot sequence will take approximately 1.5 minutes.
3. **Start Interface:** Hit the “Start” button on the bottom of the screen.
4. **Create a New Job:** Open the Job Manager and start a new job by clicking “New Job”. Wait for the interface to load. Important: *Make sure the previous job was saved using the “Save Job” button as unsaved information will be lost when the new job is created.*
5. **Set Job Info:** Open the Job Info Dropdown menu and fill in the relevant information. If applicable, copy information from a previous job (See [Job Log](#)). Once finished, hit the “Save Changes” button to commit the changes. Close the

dropdown menu.

Note: *To find this job in the future, it is important to give the Job a Name or set the customer.*

6. **Calibrate:** For the best results, it is important to calibrate often.
For a detailed description see [Calibration](#).
7. **Set Application Rate:** Input the desired rate and press enter.
To see how this is done, see [Hopper Cluster: - Rate Controller and Enter](#).
8. **Start Seeding:** To start seeding, press the hoppers power button.
The drill should be ready to use.
9. **System Check:** Ensure the perceived rate matches the seed rate and that the motor is not being driven out of bounds. Adjust ground speed appropriately using the Rate controllers ground speed range or change gearing if required.
10. **Finish:** when finished, power off the hoppers and save the job.

General Information:

- The application rate can be changed at any point and will update as soon as the “Enter” button is pressed.
 - The application can be stopped at any time by either pressing the hopper “Power” button or lifting the machine.
 - Jobs can be saved at any time, as many times as you would like.
 - The system can be switched off at any time using the green power switch on the right side of the Monitor without loss of data. The system will boot back into the last session.
-

SEED & FERTILISER RATES

Your 8124ACT is fitted with two adjustable fluted rollers; these fluted rollers gauge the amount of seed/fertiliser that is to be dispensed into the airstream. This chart can be used as a guide; the variable speed motors will take care of the rest.

SEED & FERTILISER RATES

SEED TYPE		WHEAT	BARLEY	OATS	BEANS	GRASS	PHOSPHATE
		(Kg/Litre)	0.77	0.68	0.50	0.85	0.36
		Kg/ha	Kg/ha	Kg/ha	Kg/ha	Kg/ha	Kg/ha
SCALE: STANDARD SOWING "A"	10	16	14	20	22		40
	15	36	30	34	39	17	61
	20	53	44	48	57	24	81
	25	69	57	62	74	32	104
	30	85	72	75	92	39	128
	35	100	82	89	109	47	150
	40	114	93	102	127		175
	45	130	106	116	145		200
	50	144	118	129	162		227
	55	160	133	140	178		250
	60	175	145	154	197		259
	65	190	157	167	214		
	70	205	170	180	231		
	75	221	182	196	249		
	80	237	195	207	266		
	85	251	208	219	284		
	90	267	220	232	301		
	95	282	234	245	318		
100	298	246	256	335			
105	314	260	270	352			
100	330	273	282	370			

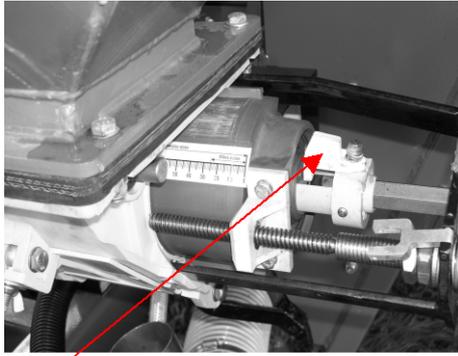
FINE SEEDS

SCALE: Fine seeds "Z"		RAPE	GRASS
		Kg/ha	Kg/ha
2.5	1.7		
5	4.3		
7.5	6.4		2.6
10	8.5		4.9
12.5	10.7		6.8
15	12.9		8.6
17.5	15.0		10.5
20	17.1		12.4
22.5	19.3		14.1
25	21.5		15.2

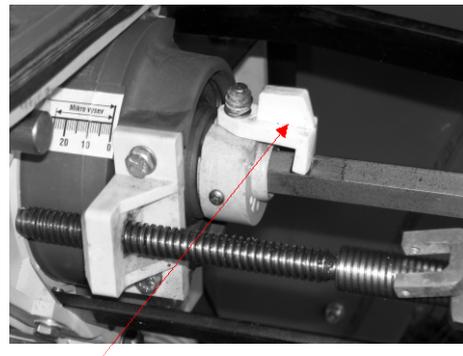
FINE SEED SETTING

Each fluted roller-metering unit has a FINE SEEDS setting; this fine seed setting is used for the metering of fine seeds or granules at low rates.

The fine seed lever works on from 0 to 25 on the fine seed scale "Z", if higher rates than this are needed the fine seeds lever needs to be locked out and the STANDARD SOWING SCALE "A" used.



Fine seeds lever locked out (scale "A").
For sowing most seeds from 15kg/ha up.



Fine seeds lever locked (scale "Z").
0 < 25 only.
Adjustments over 25 with lever lock
will result in **damage**.

SEED & FERTILISER DELIVERY SYSTEM

The Seedmatic Professional 8124A AirSeeder is fitted with one blower fan, this fan is powered by the tractors hydraulics.

This system requires continuous oil flow. One PRIORITY hydraulic bank with the lever locked on, (motor spool) setting. It's very important that the fan maintains a constant speed especially when the seed drill is lifted for the headlands.

The **CASE DRAIN** hose (the hose with the female coupling) is used to drain any oil that has sneaked pass the main seals in the hydraulic motor. This CASE DRAIN hose needs to be connected to the tractor oil tank **without any restriction**.

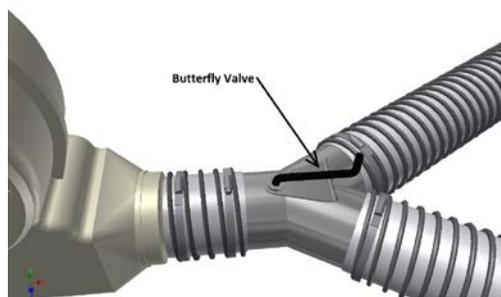
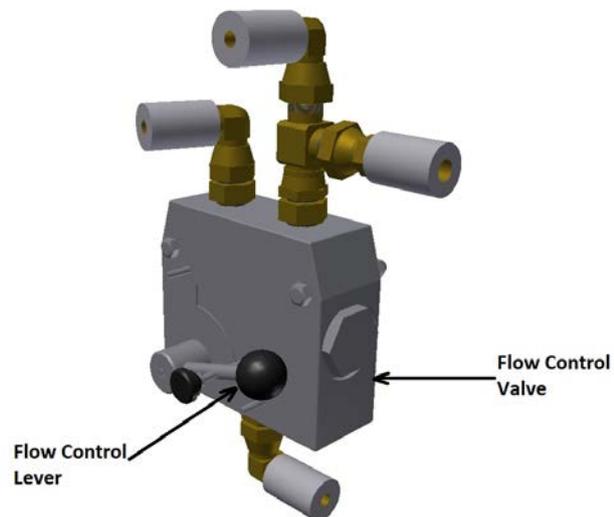
NOTE: If the case drain hose is pressurised or blocked sever damage will occur.

CONNECT THE CASE DRAIN HOSE FIRST; this is “Best practise”

The Fan RPM speeds are controlled by a Flow Control Valve. By moving the control lever on the control valve will increase or decrease the fan RPM.

To control the air flow for the Seed and Fertiliser a Butterfly Valve is fitted to the air stream between the Blower Fan and the Seed & Fertiliser metering units.

By adjusting this Butterfly Valve, you can control the amount of air that is delivered to each system. Fertiliser is a lot heavier than most seeds; this will usually require more air flow to ensure that the product reaches the coulter tubes. If too much air is put down the Seed delivery system, the seeds could be blown out of their seed beds.



GENERAL MAINTENANCE

LUBRICATION

Machines Grease Points:

- 1 per Disc Coulter Pod assembly.
- Drive Leg assembly
- Depth Leg assembly
- Seed Shaft drive.
- Fertiliser Shaft drive.
- Rear Transport assembly.



Greasing location points are labelled on the drill with the “Grease” sticker (shown above).

PARTS BREAKDOWN

Right Hand Tine Assembly A3317R-ASSY			
Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	MK3 25mm RH-DC Tine	A3892R
2	1	MK3 Seed Coulter Assembly	A3893
3	1	MK3 Replaceable Boot	A3895
4	1	MK3 Fert Coulter Assembly	A3894
5	2	M12 x 60 Bolt	8528H
6	2	M12 Nyloc Nut	9151
7	2	M8 x 20 Bolt	8311H
8	2	M8 Nyloc Nut	9105
9	1	MK3 Tine Clamp Casting	A3896
10	2	M16 Nut	9161
11	1	8 x 25 Roll Pin	9265
12	1	M16 x 160 Bolt	8614H
13	1	Eye Bolt Clamp Plate Casting	A3048-09
14	1	M16 x 105 Bolt	9065
15	2	16mm Starlock Washer	9065

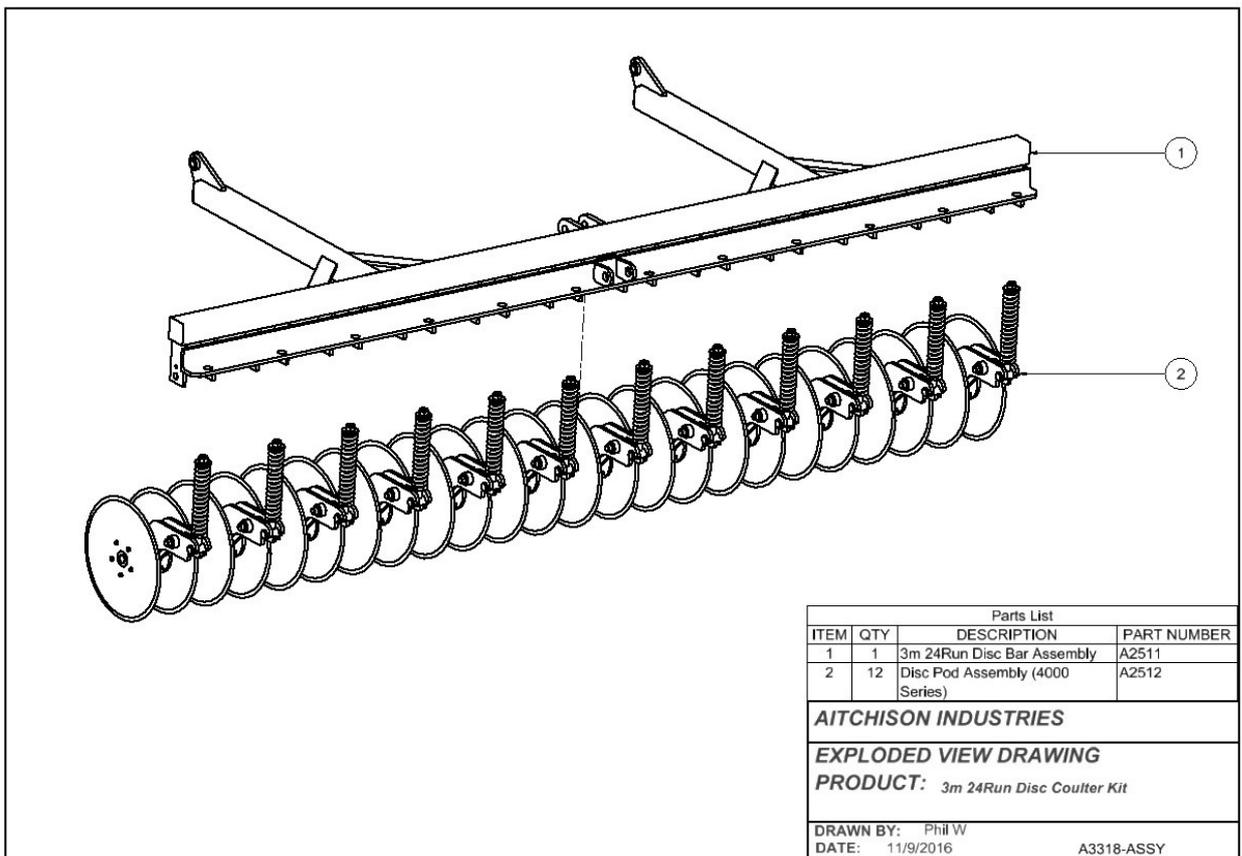
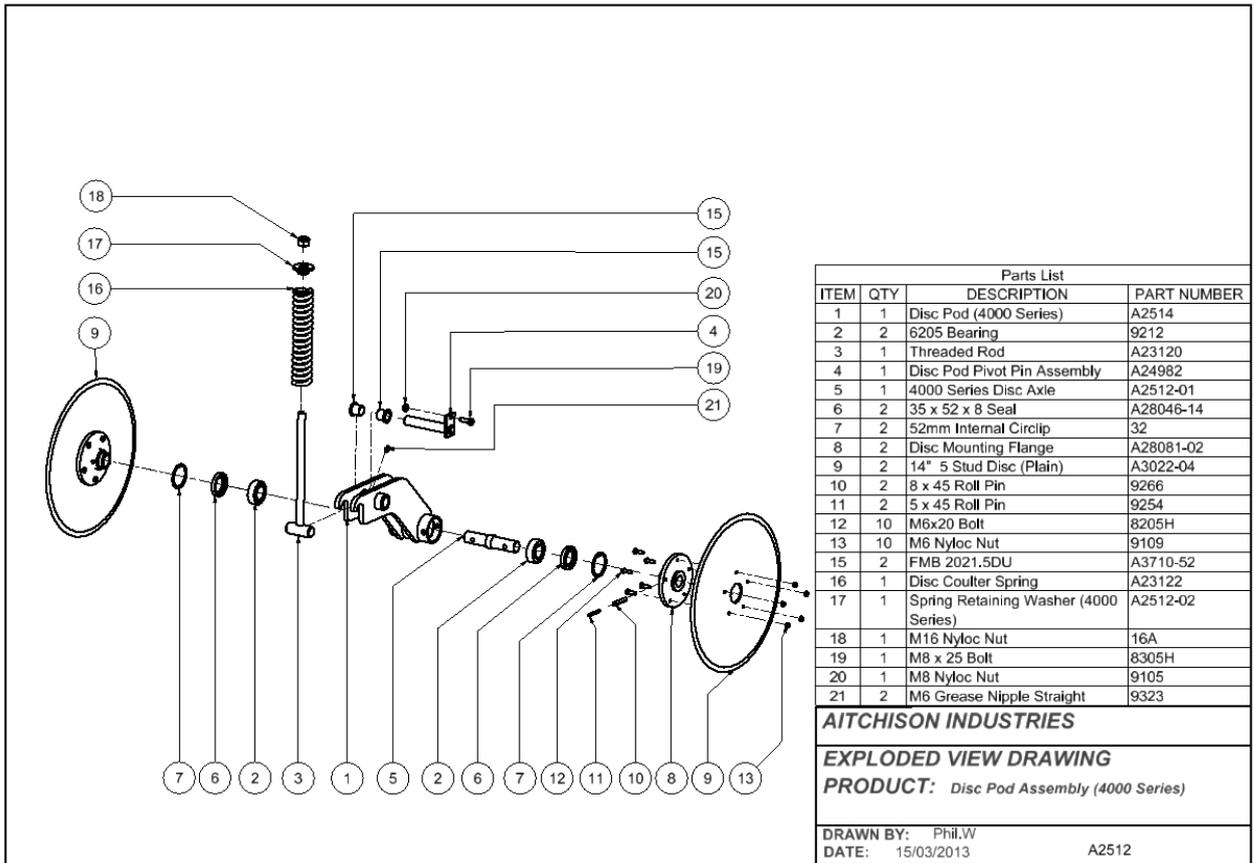
Left Hand Tine Assembly A3317L-ASSY			
Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	MK3 25mm LH-DC Tine	A3892L
2	1	MK3 Seed Coulter Assembly	A3893
3	1	MK3 Replaceable Boot	A3895
4	1	MK3 Fert Coulter Assembly	A3894
5	2	M12 x 60 Bolt	8528H
6	2	M12 Nyloc Nut	9151
7	2	M8 x 20 Bolt	8311H
8	2	M8 Nyloc Nut	9105
9	1	MK3 Tine Clamp Casting	A3896
10	2	M16 Nut	9161
11	1	8 x 25 Roll Pin	9265
12	1	M16 x 160 Bolt	8614H
13	1	Eye Bolt Clamp Plate Casting	A3048-09
14	1	M16 x 105 Bolt	9065
15	2	16mm Starlock Washer	9065

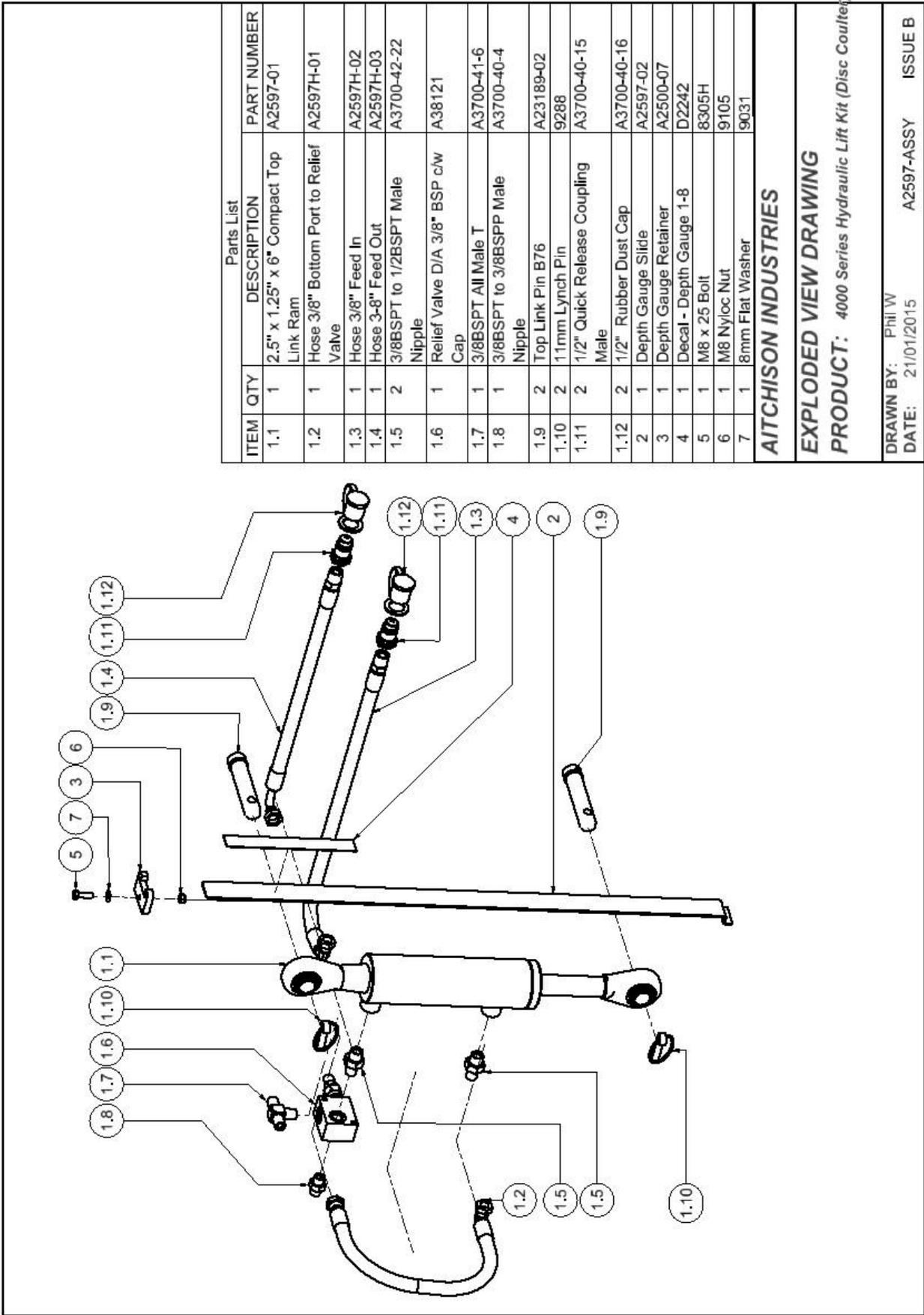
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15	2	16mm Starlock Washer	9065

Right Hand Tine Assembly A3317R-ASSY		
EXPLODED VIEW DRAWING		
PRODUCT: 8000 Series MK3 Tine Assembly (Parts)		
DRAWN BY: Phil W	A3317R-ASSY	
DATE: 11/9/2016	A3317L-ASSY	

Left Hand Tine Assembly A3317L-ASSY		
EXPLODED VIEW DRAWING		
PRODUCT: 8000 Series MK3 Tine Assembly (Parts)		
DRAWN BY: Phil W	A3317R-ASSY	
DATE: 11/9/2016	A3317L-ASSY	





Parts List

ITEM	QTY	DESCRIPTION	PART NUMBER
1.1	1	2.5" x 1.25" x 6" Compact Top Link Ram	A2597-01
1.2	1	Hose 3/8" Bottom Port to Relief Valve	A2597H-01
1.3	1	Hose 3/8" Feed In	A2597H-02
1.4	1	Hose 3/8" Feed Out	A2597H-03
1.5	2	3/8BSPT to 1/2BSPT Male Nipple	A3700-42-22
1.6	1	Relief Valve D/A 3/8" BSP c/w Cap	A38121
1.7	1	3/8BSPT All Male T	A3700-41-6
1.8	1	3/8BSPT to 3/8SPP Male Nipple	A3700-40-4
1.9	2	Top Link Pin B76	A23189-02
1.10	2	11mm Lynch Pin	9288
1.11	2	1/2" Quick Release Coupling Male	A3700-40-15
1.12	2	1/2" Rubber Dust Cap	A3700-40-16
2	1	Depth Gauge Slide	A2597-02
3	1	Depth Gauge Retainer	A2500-07
4	1	Decal - Depth Gauge 1-8	D2242
5	1	M8 x 25 Bolt	8305H
6	1	M8 Nyloc Nut	9105
7	1	8mm Flat Washer	9031

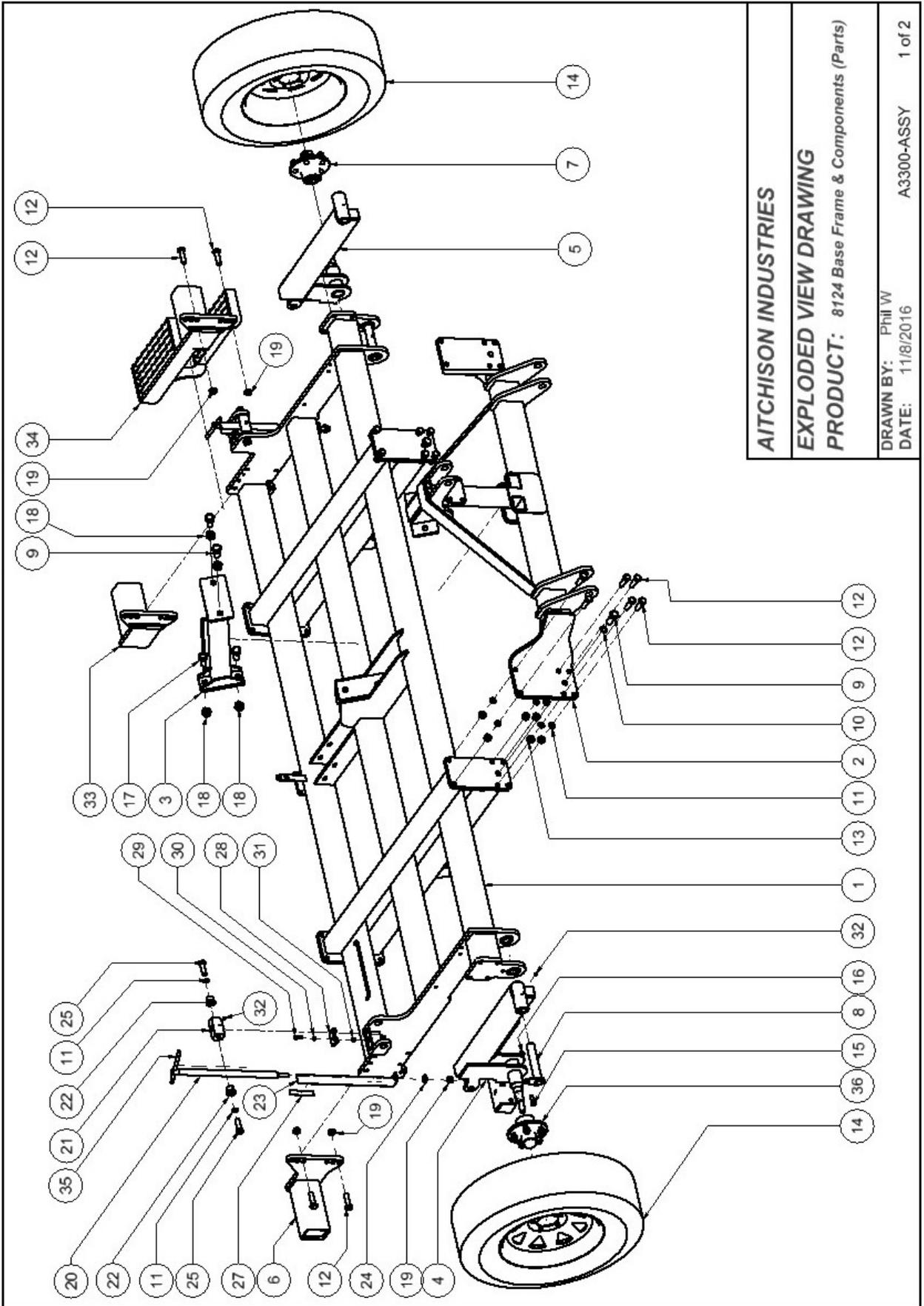
AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: 4000 Series Hydraulic Lift Kit (Disc Coupler)

DRAWN BY: Phil W
DATE: 21/01/2015

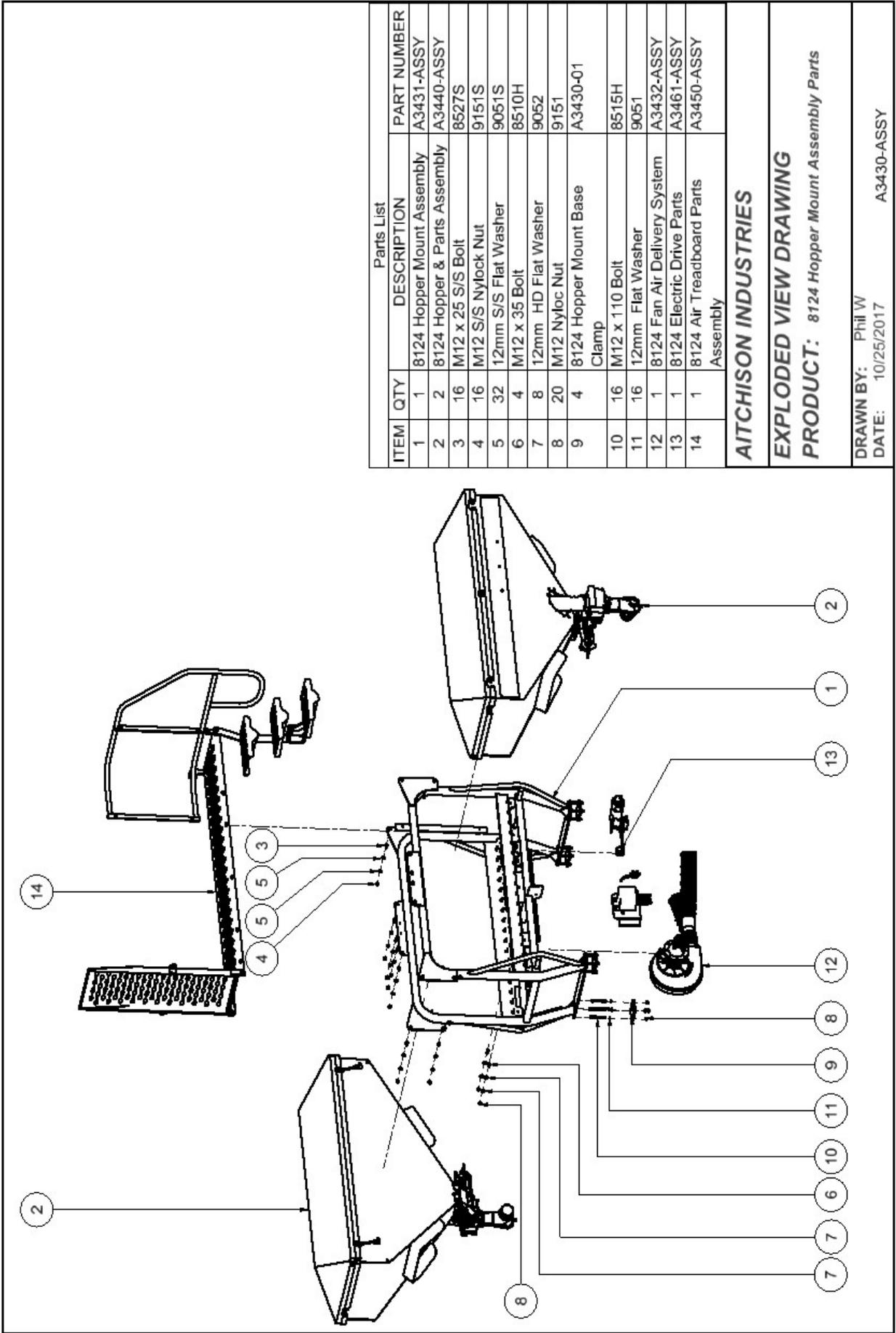
A2597-ASSY ISSUE B



AITCHISON INDUSTRIES
EXPLODED VIEW DRAWING
PRODUCT: 8124 Base Frame & Components (Parts)
 DRAWN BY: Phil W
 DATE: 11/8/2016
 A3300-ASSY 1 of 2

Parts List				Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER	ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	8124 Main Frame Assembly	A3301	19	6	M16 Nyloc Nut	16A
2	1	8124 Head Stock Assembly	A3302	20	2	8124 Depth Leg Control Rod	A3300-01
3	1	Headstock Stay Assembly	A2503	21	2	Threaded Top Trunion	A2309-01
4	1	8124 Depth Leg RH	A3303	22	4	8000 Series Trunion Keeper	A3300-02
5	1	8124 Depth Leg LH	A3304	23	2	8124 Depth Leg Gauge	A3300-03
6	1	8124 Frame Outrigger RH Assembly	A3305	24	2	16mm ZP Washer	9063
7	1	Trojan 5 Stud Hub	TR 082030	25	4	M16 x 50 Bolt	8616H
8	2	8124 Depth Leg Pin Assembly	A3306	27	2	Decal - GF Depth Control	D1525
9	4	M20 x 50 Bolt	8711H	28	2	Depth Gauge Retainer	A2500-07
10	2	20mm Spring Washer	9076	29	2	M8 x 25 Bolt	8305H
11	16	16mm Spring Washer	9061	30	2	8mm Flat Washer	9031
12	16	M16 x 55 Bolt	8603H	31	2	M8 Nyloc Nut	9105
13	12	M16 Nut	9161	32	4	M6 Grease Nipple Straight	9323
14	2	235-70/R15 Wheel Assembly	A3127-01	33	1	8124 Frame Outrigger LH Assembly	A3307
15	2	M10 x 35 Bolt	8402H	34	1	8124 Frame Outrigger Step Mount Assembly	A3308
16	2	M10 Nyloc Nut	9142	35	2	4000 Depth Control Handle	A2600-01
17	2	M20 x 55 Bolt	8718H	36	1	Trojan Drive Hub (4000 Series)	A2580-01
18	4	M20 Nyloc Nut	9172				

AITCHISON INDUSTRIES
EXPLODED VIEW DRAWING
PRODUCT: 8124 Base Frame & Comp (Numbers)
DRAWN BY: Phil W DATE: 11/8/2016
A3300-ASSY 2 of 2



Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	8124 Hopper Mount Assembly	A3431-ASSY
2	2	8124 Hopper & Parts Assembly	A3440-ASSY
3	16	M12 x 25 S/S Bolt	8527S
4	16	M12 S/S Nylock Nut	9151S
5	32	12mm S/S Flat Washer	9051S
6	4	M12 x 35 Bolt	8510H
7	8	12mm HD Flat Washer	9052
8	20	M12 Nyloc Nut	9151
9	4	8124 Hopper Mount Base Clamp	A3430-01
10	16	M12 x 110 Bolt	8515H
11	16	12mm Flat Washer	9051
12	1	8124 Fan Air Delivery System	A3432-ASSY
13	1	8124 Electric Drive Parts	A3461-ASSY
14	1	8124 Air Treadboard Parts Assembly	A3450-ASSY

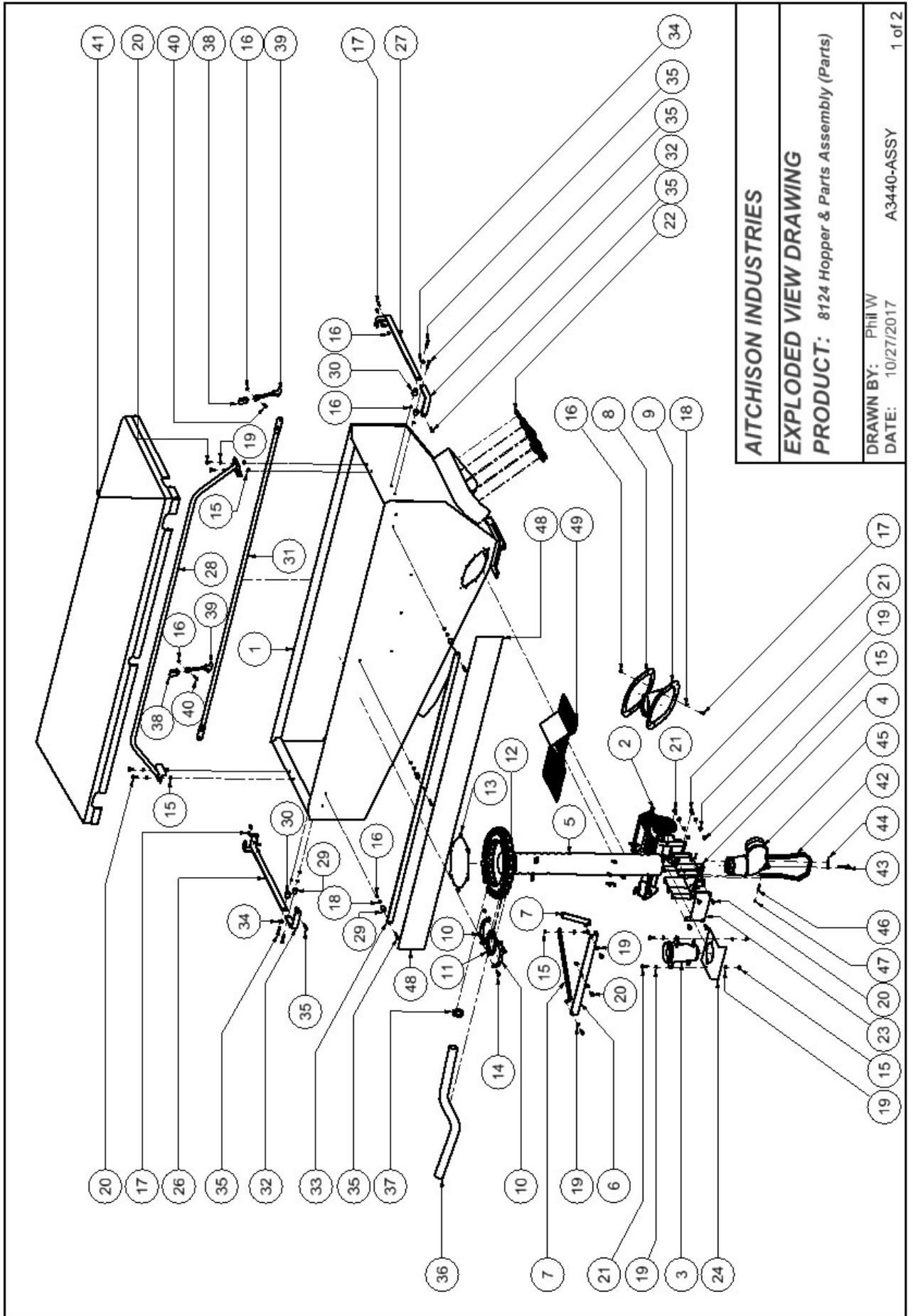
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EXPLODED VIEW DRAWING

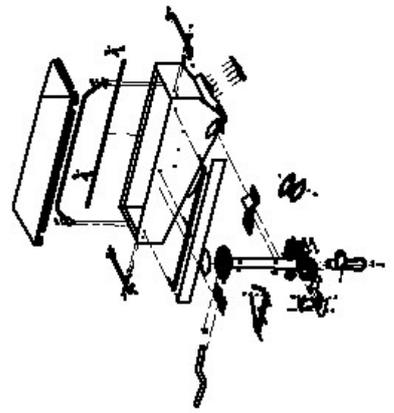
PRODUCT: 8124 Hopper Mount Assembly Parts

DRAWN BY: Phil W
DATE: 10/25/2017

A3430-ASSY



Parts List				Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER	ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	8000 Series Hopper Assembly	A3441	26	1	8124 Lid LH Hinge Assembly	A3835L
2	1	Metering Unit Assembly	A3544	27	1	8124 Lid RH Hinge Assembly	A3835R
3	1	Difusor	A3577-31	28	1	8000 Series Hopper Cross Rail Assembly	A3442
4	1	Injector	A3577-32	29	7	Soft Top Side Rail Boss	A3575-41
5	1	Tube 830 CHD	A3591	30	2	Soft Top Hinge	A3575-43
6	1	8000 Series Hopper Tube Mount	A3440-01	31	1	8124 Hopper Lid Rail	A3440-06
7	2	8000 Series Hopper Tube Stay	A3440-02	32	2	8124 Hopper Lid Corner Keeper	A3440-07
8	1	8000 Series Hopper Seal Ring	A3440-03	33	1	8124 Hopper Lid Keeper	A3440-08
9	1	Hopper Seal	A3440-04	34	2	6mm S/S Fender Washer	9022S
10	2	Distributor Half Clamp	A3577-95	35	9	M6 x 40 SS Bolt	A3575-42
11	1	Sealing Plastic	A3577-29	36	1	35mm Seed Dropper Hose / Meter	A2384-01
12	1	Distributor 24 Plastic	A3577-96	37	24	Hose Clamp 33-57mm S-S	A3589
13	1	Distributor 24 Plastic Lid	A3577-97	38	2	Soft Top Front Rail Clamp Plate	A3575-45
14	2	M8 x 30 S/S Bolt	8301S	39	2	Rubber Hold-down Latch 120mm	00844
15	25	M8 S/S Nylock Nut	9105S	40	2	M6 x 25 S/S Bolt	8213S
16	25	M6 S/S Nylock Nut	9109S	41	1	8124 Hopper Lid Cover	A3444
17	14	M6 x 20 S/S Bolt	8205S	42	1	Holder For Difusor	A3577-27
18	17	6mm S/S Flat Washer	9023S	43	1	Difusor Locking Bolt	A3577-89
19	33	8mm S/S Flat Washer	9031S	44	1	Difusor Locking Nut	A3577-90
20	15	M8 x 20 S/S Bolt	8311S	45	1	Fan Main Elbow	A3577-30
21	8	M8 x 25 SS Bolt	8305S	46	2	M5 x 25 S/S Bolt	8204S
22	24	45 x 50 x 1.6 Rubber Grommet	9363	47	2	M5 S/S Nylock Nut	9102S
23	1	Metering Unit Injector Rear Cover	A3544-61	48	1	2.5m Yellow Decal	D1509
24	1	8124 Metering Unit Injector Top Cover	A3440-05	49	1	8000 Series Hopper Grill Assembly	A3443
25	2	M8 x 35 S/S Bolt	8310H				



AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

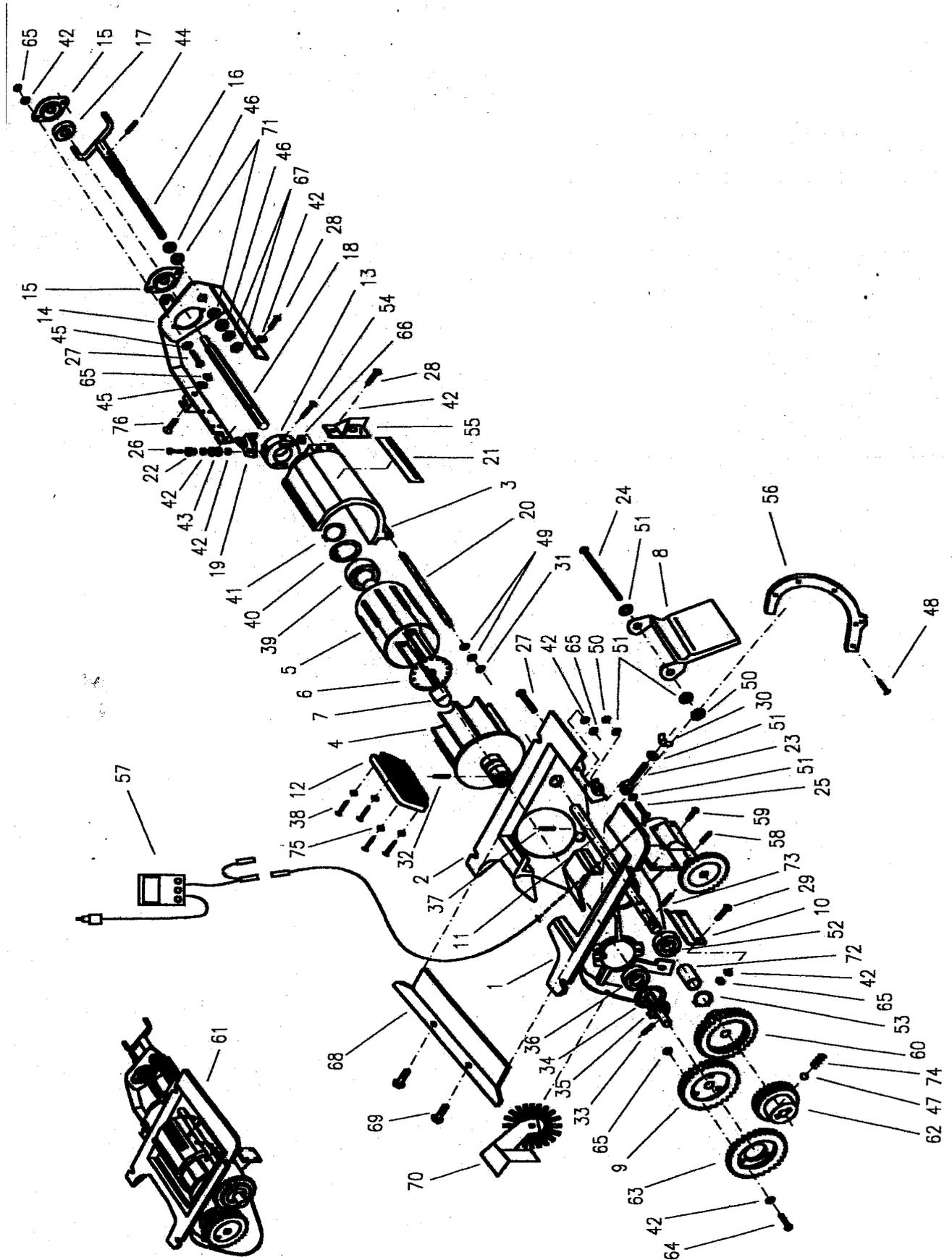
PRODUCT: 8124 Hopper & Parts Assy (Numbers)

DRAWN BY: Phil W

DATE: 10/27/2017

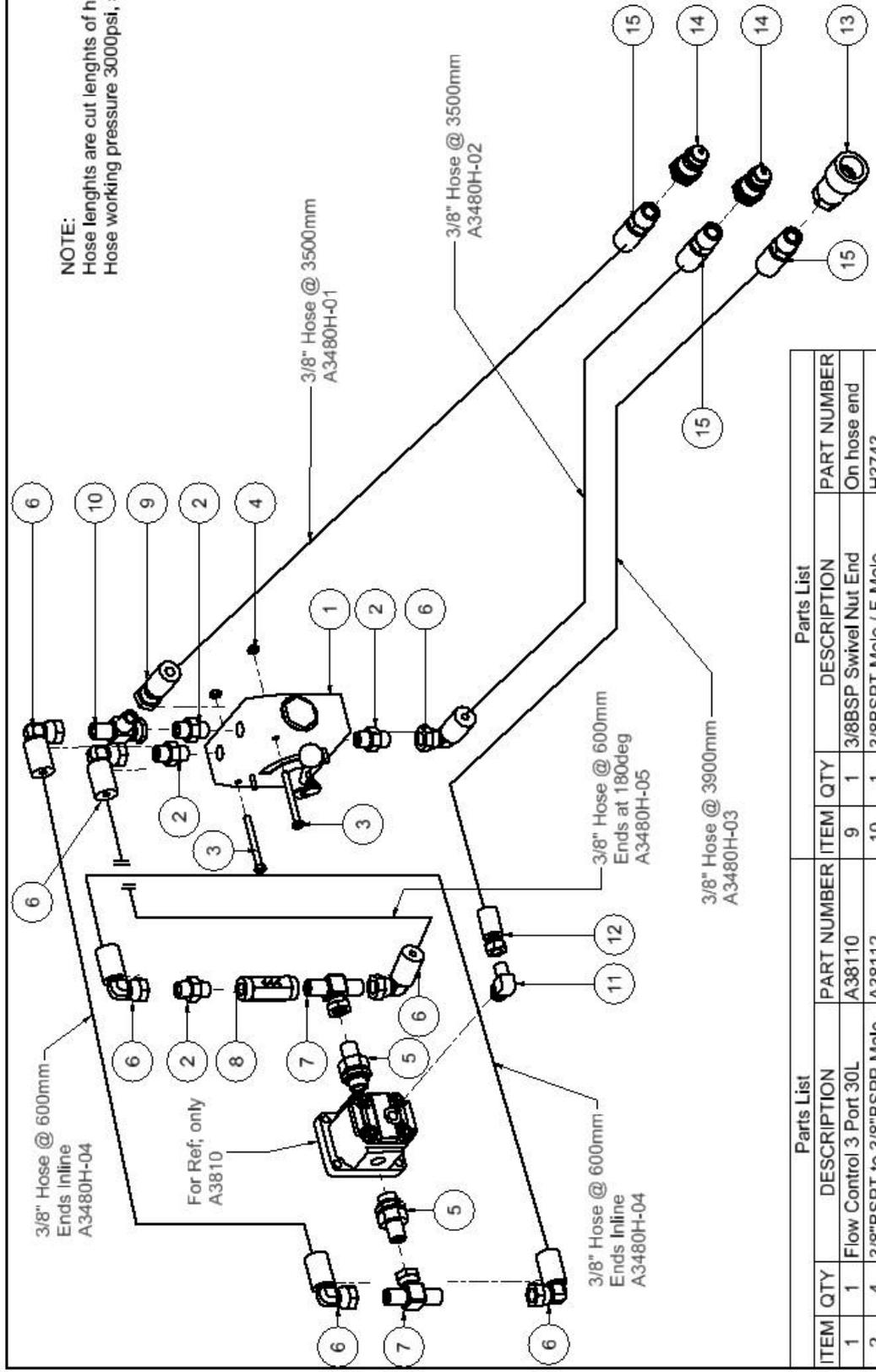
A3440-ASSY

2 of 2



1	LH of Turnstile	A3544-01	39	Bearing 6009-2rs	A3544-54
2	RH of Turnstile	A3544-02	40	Safety Ring 75	A3544-37
3	Covering	A3544-03	41	Safety Ring 45	A3544-38
4	Cylinder	A3544-04	42	M6 Washer	9023
5	Cover	A3544-05	43	M6 Washer	9022
6	Curtain	A3544-06	44	Flexible Pin 4x32	A3544-33
7	Pin	A3544-07	45	M6 Washer	9022
8	Door	A3544-08	46	Washer 17	A3544-46
9	Wheel 19 Teeth	A3544-09	47	Metal Bullet 6.35	A3544-47
10	Scraper Rubber	A3544-10	48	Screw M3.5x16	A3544-48
11	Shaft	A3544-11	49	Washer 5.3	A3544-49
12	Brush	A3544-12	50	M8 Nut	9106
13	Sleeve	A3544-13	51	Washer 9	9032
14	Arm	A3544-14	52	Bearing 6002-2rs	A3544-55
15	Cup	A3544-15	53	Safety Ring 15	A3544-39
16	Screw	A3544-41	54	Screw M3.5x13	A3544-53
17	Bearing ay15- 2rs	A3544-59	55	Bracket	A3544-21
18	Shaft	A3544-16	56	Half-moon	A3544-22
19	Flap	A3544-17	57	El. Hecaremeter	N/A
20	Bold	A3544-18	58	Flexible Pin 2x16	A3544-32
21	Mark	A3544-19	59	Screw M3x6	A3544-50
22	Bush	A3544-20	60	Wheel 19 Teeth	A3544-09
23	M8 x 35 Bolt	8310H	61	Turnstile Complete	A3544
24	M8 x 160 Bolt	8319H	62	Wheel 14 Teeth	A3544-26
25	M8 x 40 Bolt	8309H	63	Wheel 28 Teeth	A3544-27
26	M4 x 20 Screw	8200H	64	M6 x 20 Bolt	8205H
27	M6 x 20 Bolt	8205H	65	M6 Washer	9022
28	M6 x 18 Screw	8221H	66	M6 Nut	9121
29	M6 x 20 Bolt	8205H	67	M18 Nut	to-202106
30	M8 Nut	9106	68	Cover AL	A3544-28
31	M5 Nut	9102	69	Screw M2.2x6	A3544-57
32	Flexible Pin 6x36	A3544-34	70	Rotary Brush	A3544-29
33	Flexible Pin 6x45	A3544-35	71	Washer 17	A3544-46
34	Safety Ring 47	A3544-42	72	Bearing	A3544-56
35	Safety Ring 25	A3544-73	73	Flexible Pin 5x25	A3544-31
36	Bearing 6005-2rs	A3544-38	74	Thrust Spring	A3544-30
37	Flexible Pin 5x50	A3544-36	75	Washer 4.3	A3544-52
38	Screw M3.9 x 22	A3544-45	76	M6 x 20 Bolt	8205H

NOTE:
 Hose lengths are cut lengths of hose.
 Hose working pressure 3000psi, 5000psi peak



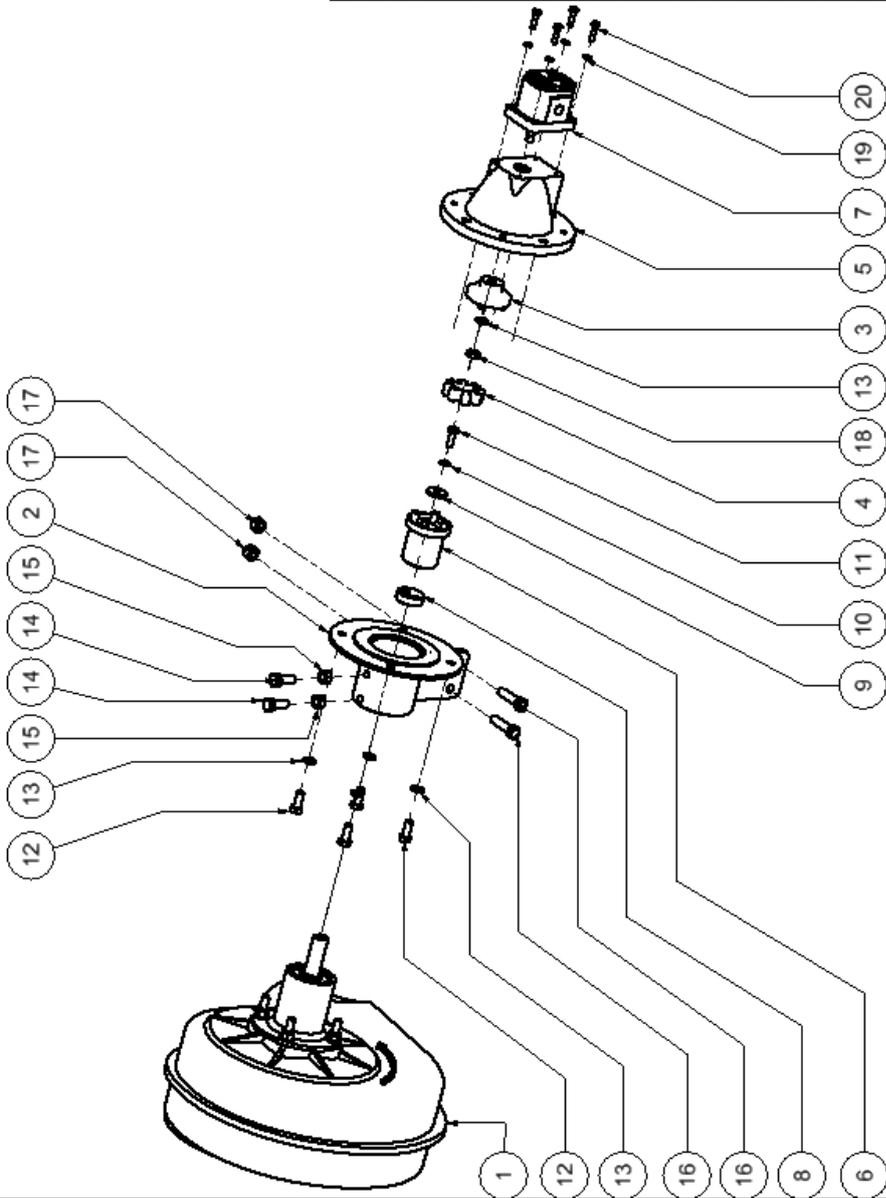
AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: 8124 Airpro Fan Hydraulic System

DRAWN BY: Phil W
DATE: 1/25/2018
A3480-ASSY
ISSUE B

Parts List			Parts List				
ITEM	QTY	DESCRIPTION	PART NUMBER	ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Flow Control 3 Port 30L	A38110	9	1	3/8BSP Swivel Nut End	On hose end
2	4	3/8"BSPT to 3/8"BSPP Male Nipple	A38112	10	1	3/8BSPT Male / F-Male Swivel T	H3743
3	2	M6 x 60 Bolt	8202H	11	1	Elbow 90Deg, 1/4"-1/4"	A38117-01
4	2	M6 Nyloc Nut	9109			Locknut	
5	2	3-8BSPT to 1-2BSPP Male Nipple Washer & Nut	H3741	12	1	1-4"BSPP Swivel Nut	On hose end
6	7	3/8BSP C-PAC Swivel Nut	On hose end	13	1	1/2" Quick Release Coupling Female	A38119
7	2	3/8BSP to 3/8BSP Swivel Nut T	H3742	14	2	1/2" Quick Release Coupling Male	A3700-40-15
8	1	3/8" Check Valve 0.35Bar	A3700-42-13	15	3	1/2BSPT Male Tail	On hose end



Parts List			
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Ventilator of rigid Pulley-Airpro	A3546
2	1	Small Fan Drive Mount Assembly	A38101S
3	1	65mm OD, 1:8 Large Taper, 21.5mm Long Coupling	A3810-01
4	1	HC-R62 Coupling Insert	A3810-02
5	1	Bell Housing, Grp1.5 - 80 Frame	A3810-03
6	1	MK2 Fan to Motor Coupling	A3810-04
7	1	Hydraulic Motor 6.08cc 1/2" Ports Mazocchi Special	A3810
8	1	MK2 Fan Coupling Spacer	A38102
9	1	MK2 Fan Coupling Washer	A38103
10	1	8mm Spring Washer	9030
11	1	M8 x 25 Bolt	8305H
12	4	M10 x 25 Bolt	8418H
13	5	10mm Spring Washer	9041
14	2	M12 x 30 Bolt	8523H
15	2	M12 Nut	9152
16	2	M12 x 45 Bolt	8504H
17	2	M12 Nylock Nut	9151
18	1	M10x1 Half Nut	9140
19	4	6mm Spring Washer	9021
20	4	M6 x 25 Bolt	8213H

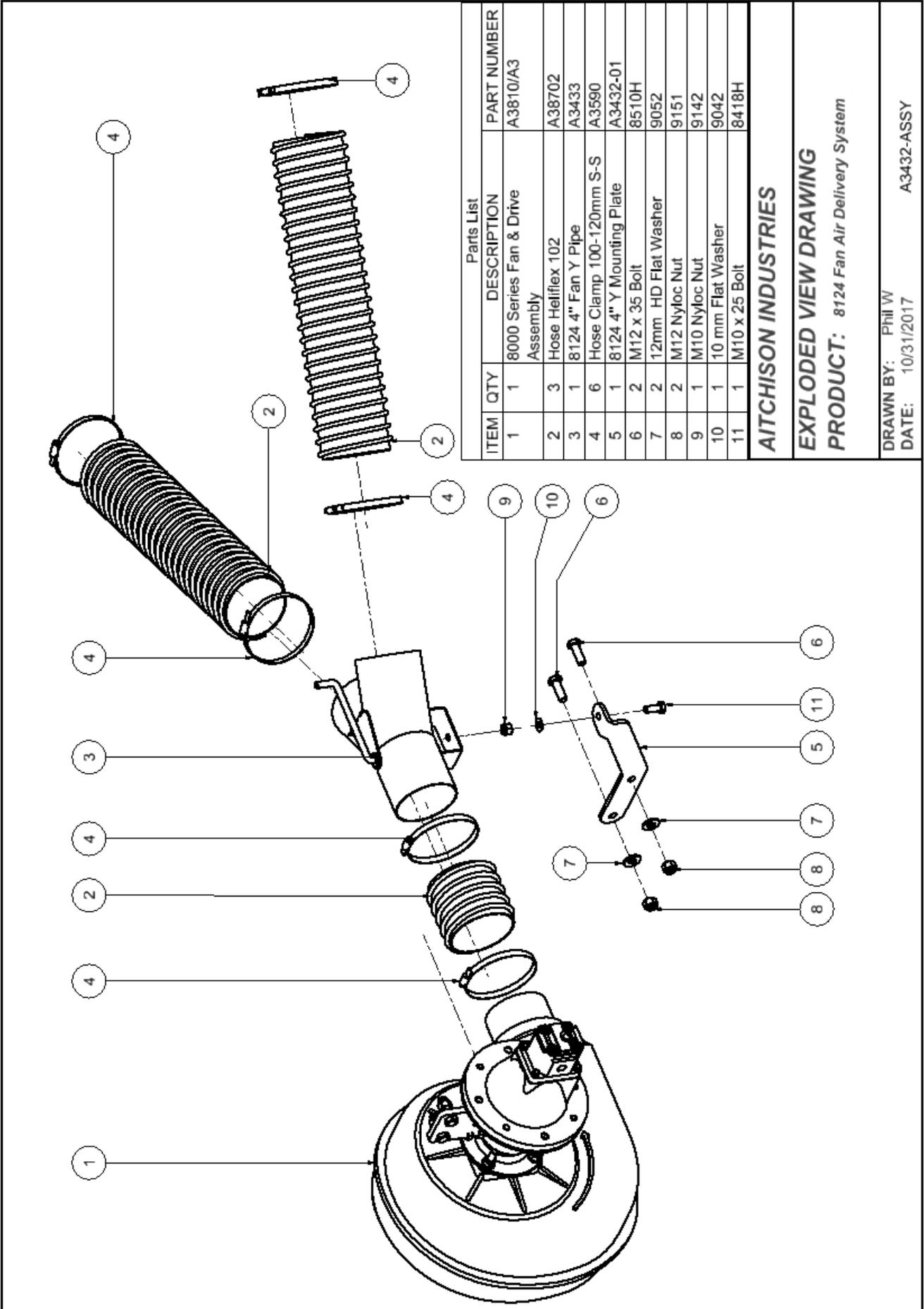
AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: 8000 Series Fan & Drive Assembly

DRAWN BY: Phil.W
DATE: 9/22/2010

A3810 / A3



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	8000 Series Fan & Drive Assembly	A3810/A3
2	3	Hose Heliflex 102	A38702
3	1	8124 4" Fan Y Pipe	A3433
4	6	Hose Clamp 100-120mm S-S	A3590
5	1	8124 4" Y Mounting Plate	A3432-01
6	2	M12 x 35 Bolt	8510H
7	2	12mm HD Flat Washer	9052
8	2	M12 Nyloc Nut	9151
9	1	M10 Nyloc Nut	9142
10	1	10 mm Flat Washer	9042
11	1	M10 x 25 Bolt	8418H

AITCHISON INDUSTRIES

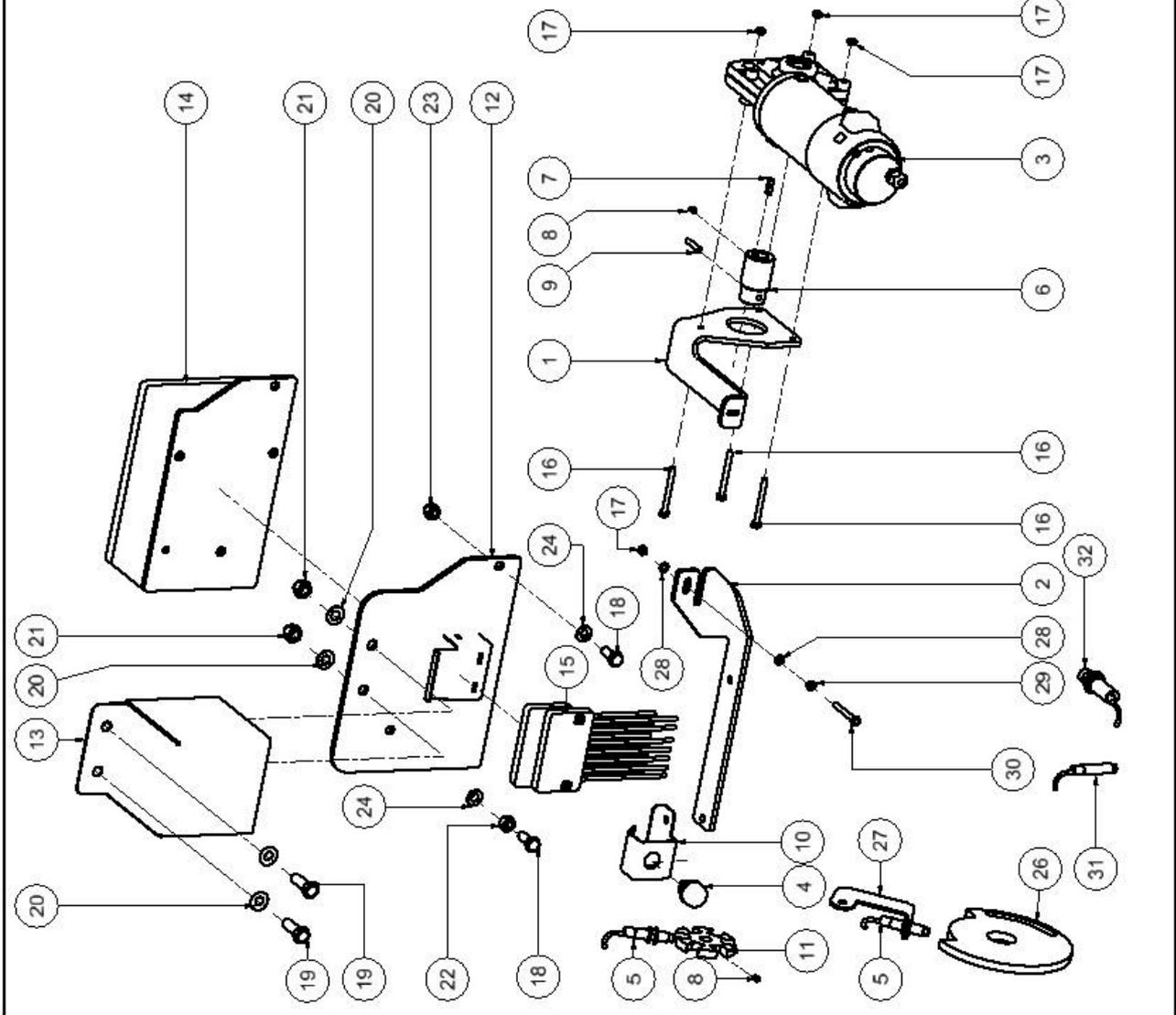
EXPLODED VIEW DRAWING

PRODUCT: 8124 Fan Air Delivery System

DRAWN BY: Phil W
DATE: 10/31/2017

A3432-ASSY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Airpro Motor Mount Plate	A3461-06
2	2	Airpro Motor Mount Lock Plate	A3461-07
3	2	320W 12VDC Motor & Gearbox with Encoder	A2529E
4	2	Switch Push Waterproof MOM SPST 5A DC	A2530E-11
5	2	12mm NPN NC Proximity Sensor	A2579E-03
6	2	Airpro Motor Drive Assembly	A3462
7	2	320W 12VDC Motor Drive Key	A2530E-02
8	2	M6 x 8 Grub Screw	8204
9	2	6 x 30 Roll Pin	9250
10	2	8124 Air Seeder Prime Button Mount	A3461-03
11	2	Airpro Metering Unit Sender Plate	A3461-04
12	1	Airpro Motor Control Mount Assembly	A3463
13	1	Airpro Node Cover Plate	A3461-05
14	1	Twin Motor Speed Controller Assembly	A2539E
15	2	Electric Drive Node	A2578E-03
16	6	M6 x 60 Bolt	8202H
17	8	M6 Nyloc Nut	9109
18	2	M10 x 25 Bolt	8418H
19	2	M12 x 35 Bolt	8510H
20	4	12mm Flat Washer	9051
21	2	M12 Nyloc Nut	9151
22	1	M10 Nut	9141
23	1	M10 Nyloc Nut	9142
24	2	10 mm Flat Washer	9042
26	2	4000 Electric Drive Master Switch Sender	A2530E-12
27	2	4000 Electric Drive Master Switch Mount	A2530E-08
28	4	6mm Flat Washer	9023
29	2	M6 Nut	9121
30	1	M6 x 50 Bolt	8210H
31	1	12mm Fan Speed Sensor	A2579E-07
32	2	18mm Blin Level Sensor	A2579E-05



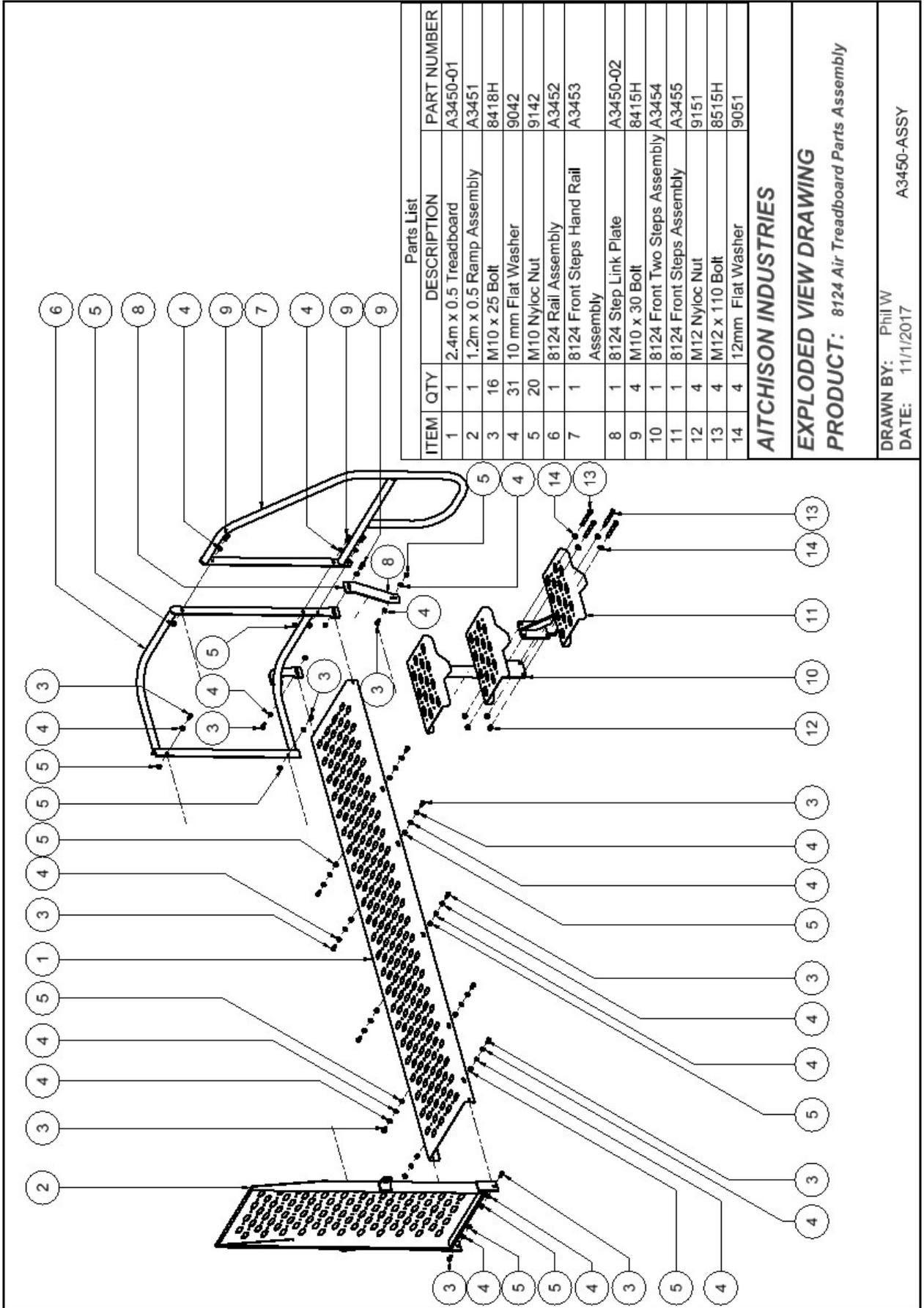
AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: 8124 Electric Drive Parts

DRAWN BY: Phil W
DATE: 10/31/2017

A3461-ASSY



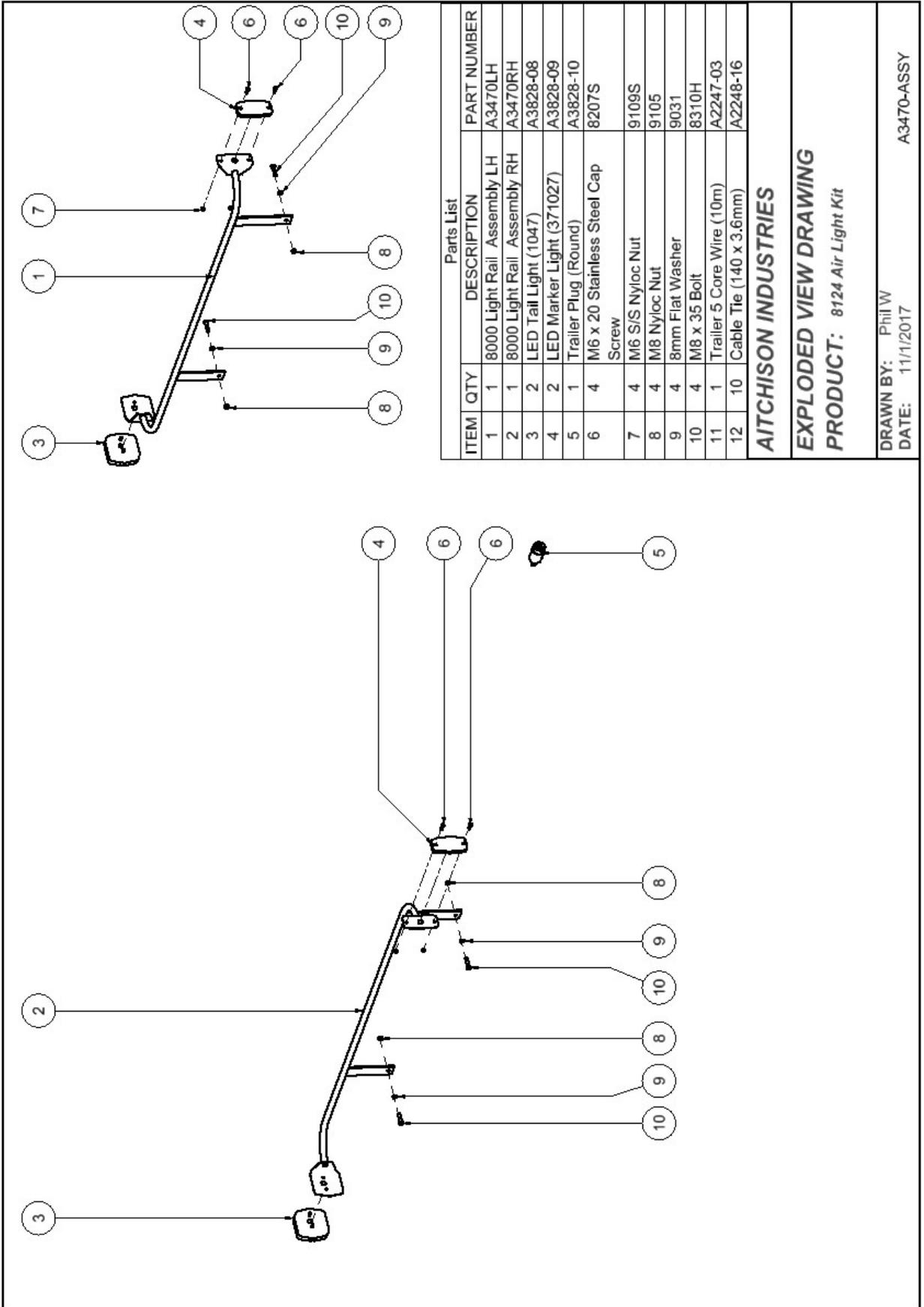
AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: 8124 Air Treadboard Parts Assembly

DRAWN BY: Phil W
DATE: 11/1/2017

A3450-ASSY



Parts List

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	8000 Light Rail Assembly LH	A3470LH
2	1	8000 Light Rail Assembly RH	A3470RH
3	2	LED Tail Light (1047)	A3828-08
4	2	LED Marker Light (371027)	A3828-09
5	1	Trailer Plug (Round)	A3828-10
6	4	M6 x 20 Stainless Steel Cap Screw	8207S
7	4	M6 S/S Nyloc Nut	9109S
8	4	M8 Nyloc Nut	9105
9	4	8mm Flat Washer	9031
10	4	M8 x 35 Bolt	8310H
11	1	Trailer 5 Core Wire (10m)	A2247-03
12	10	Cable Tie (140 x 3.6mm)	A2248-16

AITCHISON INDUSTRIES

EXPLODED VIEW DRAWING

PRODUCT: 8124 Air Light Kit

DRAWN BY: Phil W
DATE: 11/1/2017

A3470-ASSY