INSTRUCTION AND PARTS MANUAL

sam MACHINERY

FEEDWAGONS
Side & centre-feed delivery

All models from 2018

10 CUBIC METRE, TANDEM AXLE
CHAIN SIDE FEED

15 CUBIC METRE, TANDEM AXLE,
SIDEFEED

12 CUBIC METRE, TANDEM AXLE
BELT SIDE FEED

Ph 07 847 8492 or 0508 726 726

www.sammachinery.co.nz

THANKS FOR CHOOSING A SAM

This Instruction and Parts Manual covers all SAM Feed Wagon models manufactured since 2018.

For all other SAM Machinery Instruction Manuals please visit www.sammachinery.co.nz

SERIAL NUMBER

All SAM Machinery products are identified with a unique serial number located on the front of the machine (e.g. '18 SF 1234'). Please include this number with all parts and servicing enquiries so we can provide you with fast and accurate assistance.

sam MACHINERY

Serial Number:

18 SF 1234

Call + 64 7 847 8492 | 0508 726 726
Visit www.sammachinery.co.nz
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HQ Maeroa Road, Hamilton, New Zealand

Proudly NZ-made since 1946

INTRODUCTION

Coombridge & Alexander have created SAM Feed Wagons from over 70 years' experience making agricultural machinery in New Zealand. Smart, reliable and hardworking, each machine is handcrafted from the very best heavy-duty materials we can find. Known for their practical design and easy to use operation, their quality is guaranteed with every SAM built tough for lasting performance.

A family-owned and operated company, located in the heart of the Waikato, we control the complete manufacturing process of the iconic SAM range: Fertiliser Spreaders, Feed Wagons, Hydraulic Trailers and Quick Hitches.

We stand by the quality of all of our products - our team have put the hard work in so you can expect a long working life out of your gear. All the best with your new SAM. We trust you will love it.

For all parts, servicing or support enquiries please contact us on 07 847 8492.

For international parts and servicing please contact 0064 7 847 8492.

www.sammachinery.co.nz

MODEL DETAILS

MODEL	
SERIAL NUMBER	

QUALITY GUARANTEE

SAM Machinery products are guaranteed against any defects in either material or manufacture for a period of 24 months from delivery date, provided that the equipment has not been subject to abuse or misuse, operated incorrectly, over loaded or used for purposes other than for which the equipment is designed, or is not maintained correctly or if fitted with other than genuine parts.

Claims are only valid when approved by the manufacturer. No person or agent is authorised to assume any liability.

As the use of the equipment is outside our control we can only guarantee quality. No liability for loss, direct expenses incurred from the use of this equipment or from any other cause of in respect of performance etc. can be accepted.

Defective parts must be returned freight paid to the manufacturer or available to be inspected as directed. Should such parts prove to the manufacturers satisfaction to be faulty - repair of or replacement of defective parts shall constitute fulfillment of guarantee obligations. Parts destroyed, lost or tampered with nullify guarantee.

WARRANTY

SAM Machinery products as designed and supplied by Coombridge & Alexander Ltd, are warranted against faulty workmanship and defective materials for a period of 24 months from date of purchase. Such warranty is subject to the following conditions:

1. This warranty covers the repair or replacement of parts or machinery sold by Coombridge & Alexander Ltd and damaged as a result of faulty workmanship of materials in such part of machinery. It does not extend to any other loss or damage including consequential loss or damage to other property or persons.
2. No responsibility will be accepted for repairs made other than by Coombridge & Alexander Ltd or its
3. accredited agent and without prior authorisation by Coombridge & Alexander Ltd.
   Without limiting the generality of paragraph 1. above, this warranty does not cover the following;
   a. Losses sustained through delay in delivery
   b. Travel expenses
   c. Damage caused by accident, misuse or abuse
   d. Damage to any goods which have been altered or modified by someone other than Coombridge & Alexander Ltd or its authorised dealers.
4. Procedure for recovery under warranty;
   1. No loss or damage will be covered under warranty unless the following procedure is followed by the purchaser.
      1. If the purchaser is an authorised dealer -
         a. Coombridge & Alexander Ltd must first be advised of details of the goods concerned, the loss or damage sustained and the circumstances in which the loss or damage arose.
         b. Coombridge & Alexander Ltd will then decide if such loss or damage is within the terms of warranty and shall advise the dealer as to how the loss or damage is to be repaired.
      2. If the purchase is not an authorised dealer -
         a. The loss or damage should be reported directly to Coombridge & Alexander Ltd who will advise whether it is covered by the warranty and direct the purchaser accordingly as to what action is to be taken.

BASIC SAFETY

Many agricultural machines have potentially dangerous moving parts, which can cause serious or fatal injuries. Remember;

1. Read ALL warning labels on the machine and ensure you understand operating instructions
2. Turn off the tractor before removing any guards, blockages or servicing the machine
3. Never use your hands or fingers to check for hydraulic oil leaks
4. Do not use the machine in steep areas where there is a high-risk of rollover occurring.

OPERATIONAL CHECK

Before you start work with a machine there are a few basic checks that can be carried out. Ask yourself:

1. Is the machine you intend to use suitable for the job e.g. in good working order and safe to use?
2. Are all safety devices such as guards in place and working correctly?
3. Are there any known mechanical defects – pay particular attention to items such as wheels and tyres, and moving parts?
4. Are you (or the operator) properly trained to do this job/use this machine?
5. Has this instruction manual been provided, read and understood?
6. Is the right personal protective equipment (PPE) available and worn?
7. Has a risk assessment been carried out?
8. Has the work been properly planned and communicated to those who may be at risk?
9. Is the machine operator competent to do the job safely?
10. Hitching and attachment points for trailed machinery - check that it has been safely attached to the towing vehicle such as a tractor. Pay attention to the condition of drawbar/pick-up hitch, and hitch rings, pins, clips etc.
11. Carry out any pre-use checks as specified.

HEALTH & SAFETY RISK ASSESSMENT

A hazard identification, assessment and control procedure has been conducted on a representative SAM Feed Wagon and where necessary appropriate risk control measures have been outlined below;

HAZARD	HARM	CONTROLS
Contact, impact or entanglement from moving parts/ loose objects inc. gears, chains, sprockets, belt and wheels.	1. Deep cuts or amputation 2. Bruising 3. Fractures	AVOID wearing loose clothing, jewelery or gloves - they increase the risk of entanglement. Stand a SAFE distance from the machine when under operation.
Leaking hydraulic hoses and/or couplings.	1. Leaking oil may get into skin 2. Skin and eye irritation 3. Breathing difficulties	APPLY a programme of preventive maintenance (hydraulic hoses and hydraulic hose couplings). Leaking oil, or bulging or abraded hose walls, MUST have faulty parts replaced. NEVER use hands or fingers to detect leaks. WEAR appropriate PPE (personal protective equipment).
Tractor and/or Feed Wagon roll-over due to instability under varying conditions and terrain.	1. Serious injury 2. Fatality	DO NOT use the machine in steep areas, or on unstable ground.

To ensure your SAM Feed Wagon continues to operate in excellent working condition, please follow these basic maintenance procedures;

Please oil or grease the following parts EACH DAY during operation;

1. Sprockets running the floor and elevator chains
2. Front and rear floor shaft bearings
3. Bottom elevator shaft bearings (x2)
4. All chains under covers.

Please grease the following parts EACH WEEK during operation;

1. Grease nipples on tandem-axle tube (x4)
2. Top elevator shaft bearings (x2)
3. Grease nipple under lower side guard (x1)
4. Screw Jack (x1).

Check the following EACH WEEK;

1. Floor and elevator chain adjustment
2. Elevator: to tighten the elevator bars, tighten up the bottom nut of the adjuster thread and lock with the top nut. There should be a 20-30mm clearance between the elevator bars and the front angle guide - be careful not to over tension.
3. Floor: the floor can be tensioned with the adjuster threads at the rear of the Feed Wagon. There should be a 50-60mm sag between the axle and back sprockets - be careful not to over tension.
4. Tyre pressure (35-45psi)
5. Hubs - grease and wear
6. Tractor hydraulic oil

Side-feed delivery - MAINTENANCE;

1. Grease bearings in drive and tail-end rollers (x4)
2. For belt side feeds: If the side-feed belt is tracking to one side, tighten the adjuster on this side. This should make the belt track away from the side being tightened. The belt should run evenly in the centre of the drive and
   tail-end rollers.
3. Keep the rollers clear of any product/feed build-up. If you identify lumps of product/feed under the belt, remove the belt and clean the belt and rollers.
4. The side conveyor skirts should run firmly on the belt to prevent silage getting under the belt edge.

Before starting work with your SAM Feed Wagon please read the following set-up and feed out instructions to ensure safe and productive operation.

HYDRAULICS

All hydraulic hoses and motors are pre-loaded with oil during pre-delivery testing by the manufacturer. The two hoses (live and return) on the front of the Feed Wagon must be coupled to the external hydraulic system on the tractor. The live hose (red) must be coupled to either a double or single-acting outlet point on the tractor, and the return oil hose (yellow) must be connected to the second half of the double-acting bank or back to a tank.

HYDRAULIC SENSOR VALVE

A hydraulic sensor valve is included within the hydraulic alloy block fixed to the Feed Wagon drawbar. This sensor valve bypasses oil from the floor motor when there is excessive loading on the elevator. The bypass oil pressure is preset by the manufacturer - before altering please contact Coombridge & Alexander Ltd for instructions.

When the Feed Wagon elevator is under increased loading, the floor will pause (and intermittently start and stop) to allow the elevator time (and power) to clear and begin running smoothly. If the floor brings the load forward continuously without pausing, and the elevator begins to stall under increased loading the sensor valve may need adjusting.

FLOOR SPEED CONTROL

The Feed Wagon floor can be halted whilst the elevator is rotating by simply turning the adjustment handle mounted to the hydraulic alloy block fixed on the front of the machine. This adjustment handle can also be used to control the floor speed (slow and fast) depending on feed volumes. The adjustment control sticker is preset by the manufacturer during pre-delivery testing - the floor will come to a complete stop when the adjustment control is turned fully clockwise to the stop position.

If the floor speed does not stop it can be reset following these steps;

1. Keep the hydraulics operating
2. Turn the adjustment control clockwise to the stop position
3. Loosen the hose clamps at the base of the adjustment handle revealing the stainless cap
4. Turn the stainless cap clockwise until the floor stops moving
5. Tighten the hose clamps.

FEEDING OUT

Product should be loaded into the Feed Wagon without exceeding the manufacturers maximum load height (200mm above the sides). The floor adjustment control should be set to 75% speed - the floor and elevators will
operate simultaneously to feed out.

REAR BULK UNLOADING

If the hydraulics are coupled to a double-acting system on the tractor, place the hydraulic lever on the tractor into the reverse position to which you would feed out normally. The elevator will not turn and all hydraulic oil will circulate through the reversing floor motor pushing the load to the rear of the Feed Wagon. If the hydraulics are coupled to a single-acting system, reverse the two hoses at the tractor end of the hose.

Check the back door is latching correctly before operation.

SIDE-FEED DELIVERY CONVEYOR

There are two options for the side-feed delivery conveyor depending on requirements;

1. Belt Side-Feed Delivery
2. Chain Side-Feed Delivery

BELT SIDE-FEED DELIVERY

The belt side-feed conveyor provides a steady continuous stream of feed into troughs or along fence lines etc. Regular maintenance and servicing of the belt delivery is recommended to ensure efficient operation and tracking.

The drive and tail rollers are manufactured with a slight crown shape to encourage tracking to the roller centre. If feed or foreign material works its way under the belt we recommend safely removing before the belt tracking is affected.

We also suggest regularly inspecting the side-feed skirt rubbers to ensure these are sealing on the belt, preventing feed or foreign material working underneath the belt. If feed build-up is occurring regularly we suggest replacing the side-feed skirt rubbers. The top surface of the belt is manufactured with a food-grade cover, the side-feed skirt rubbers may wear through this cover - this will not effect the integrity or performance of the belt.

Depending on usage, we recommend removing the belt at least once a year to inspect the floor and rollers, and to clean out any feed build-up.

Belt speed can also have an influence on tracking - most tractors have external oil flows in excess of 80-100 litres of oil per minute. SAM Feed Wagons only require 40-60 litres of oil per minute to operate efficiently - if the operator's tractor exceeds these guidelines please lower the oil flow, to help with belt tracking.

Instructions on how to install and adjust the belt are included below. Alteration to the tension adjuster nuts should only be made in small increments allowing time for the belt to settle before further alteration.

INSTALLATION AND ADJUSTMENT

Please follow these instructions to adjust the belt tracking;

1. Set up the belt with both the tail and drive-end rollers set as close to right-angles (90 degrees) from the conveyor frame as possible
2. Adjust or set the drive-end (motor) roller first
3. Install the belt and tension until the underside of the belt clears the return guides by approximately 20mm
4. Run the belt very slowly and check to see if the belt is tracking to the centre of the rollers
5. If the belt is tracking to one side, tension the bearing on the side that the belt is tracking towards. This will cause the belt to track back towards the rollers centre.
6. Check both ends of the belt for correct tracking. Once the belt appears to be tracking correctly on both the drive and tail-end rollers, test the belt again at higher speed.

CHAIN SIDE-FEED DELIVERY

A chain side-feed is fitted as standard to SAM Feedwagons. The chain side-feed uses heavy-duty agricultural roller chain, with 25mm bars attached to carry feed off the conveyor.

The benefit of the chain side-feed is a significant reduction in maintenance - the chain and sprocket system does not require tracking and there are no side-feed skirt rubbers fitted to the conveyor.

Monthly application of clean oil to the chain is recommended, this is particularly important if the machine is likely to be stored for long periods between use.

When cleaning the machine, do not use a water blaster or high pressure hose on the rollers. This has the negative effect of removing grease (added during manufacture), causing the rollers to become susceptible to seizing.

FEED WAGON SIDE-VIEW

REFERENCE	PART NO.	DESCRIPTION	QTY.
1	P540	Floor Tension Adjusters (Left/Right)	2
2*	3103	Wheel & Tyre - 11.5/80 x 15.3 (12ply)	2-4
	3107	Wheel & Tyre - 400/60 X 15.5 (TR Tread)	
	6052	Wheel & Tyre - 550/50 x 17 (16ply)	
3	P3028	Shaft - Top Elevator (Complete)	1
4*	-	Hub & Stub	2-4
5	P1023	Side Feed Conveyor (Complete)	1
6	1025	Hydraulic Sensor Valve - 1918	1
7	1130	Hose kit 1918 - Side-Feed - *See Diagram*	1
8	P1402	Jack Stand (70sq) - DG701	1
9*	P3145D	Fixed Tow Hitch (16mm Mounting Plate) - 50mm Donut Eye	1
	P3145	Fixed Tow Hitch (16mm Mounting Plate) - 37mm Ball Eye	
	P3557B	Swivel Tow Hitch (16mm Mounting Plate) - 37mm Ball Eye	
	P3557	Swivel Tow Hitch (16mm Mounting Plate) - 50mm Ball Eye	
	P2102	Swivel Tow Hitch (20mm Mounting Plate) - Ball/No Ball	
10	P4699	Back Floor Shaft Complete	1

* Wheel & Tyre, Tow Hitch and Hub & Stub set-up varies depending on machine model, size and year of manufacture. Please include the machine serial number with all parts and servicing enquiries.

SIDE-FEED DELIVERY

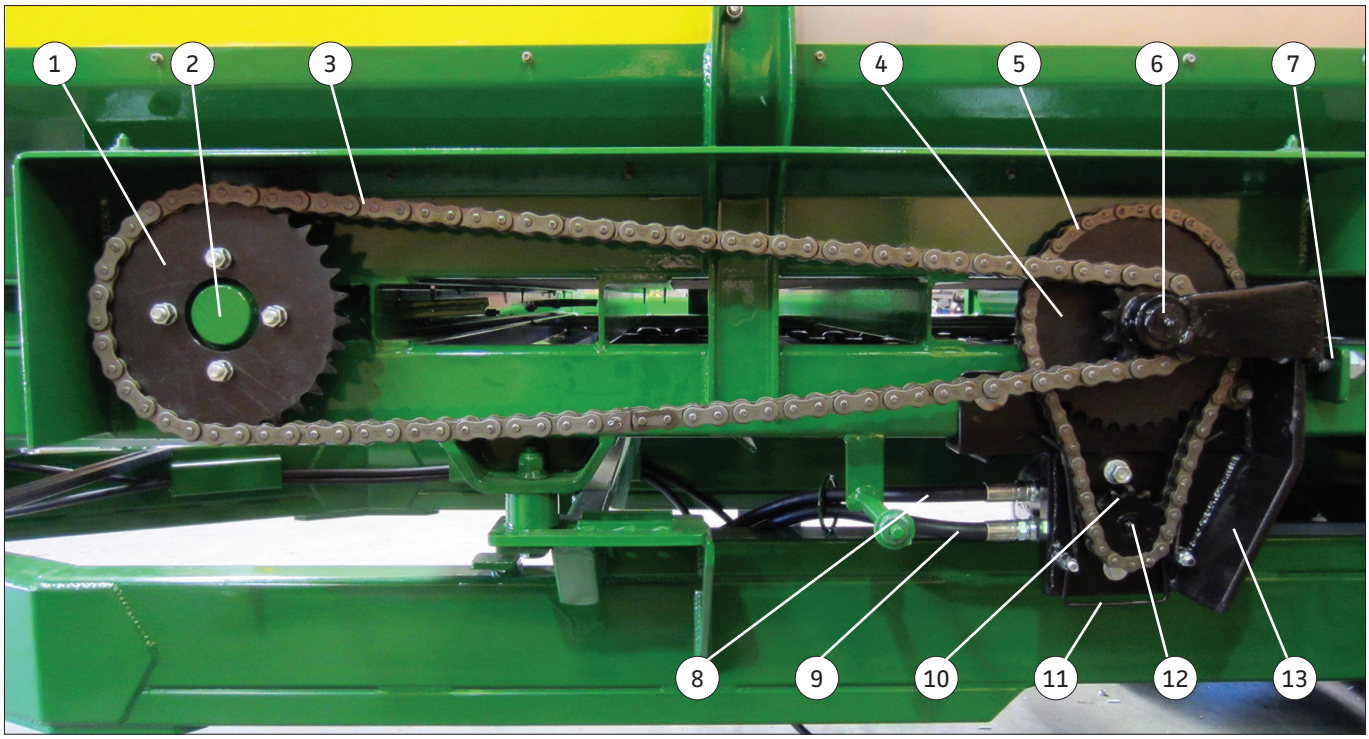
REFERENCE	PART NO.	DESCRIPTION	QTY.
1*	P1022	Chain Elevator - Complete 8 and 9m³ Side Feed (inc. Chain + Bars)	1
	P445	Chain Elevator - 10m³ & 12m³ Side Feed (inc. Chain + Bars)	
2*	P4454	Shaft - Bottom Elevator (Kit)	1
3*	P1021	Floor Chain - Complete 8 and 9m³ Side Feed (inc. Chain + Bars)	1
	P1024	Floor Chain - Complete 10 and 12m³ Side Feed (inc. Chain + Bars)	
4*	P3024	Shaft - Front Floor 8 and 9m³ Side Feed (Kit)	1
	P4665	Shaft - Front Floor 10 and 12m³ Side Feed (Kit)	
5	P2853	Sprocket 5T - Floor	-
6	P286	Motor Guard - Side-Feed	1
7*	6053	Hydraulic Motor BG 130 NC25.4 Brevini - For chain Side Feed models (9-12m³)	1
	3576	Hydraulic Motor MF06 (TEO100AS100AAAB) - For belt Side Feed models only	1
8	0401	Coupling 1”/90mm - Side Feed	1
9	4193	Motor Mount - Side Feed	1
10*	P4723	Side Feed Drive Shaft - For chain Side Feed models only	1
	P4791	Side Feed Roller - Drive (930mm mat) - for belt Side Feed models only	1
	P4792	Side Feed Roller - Tail (930mm mat)	1
	4130	Bearing 6205.2RSR (x 2 on each side)	4
12	1025	Hydraulic Sensor Valve - 1918	1
13*	6336	Belt Side Feed - (5.05 x 920) - for belt Side Feed only	1
	P4700	Chain With Bars for Side feed Conveyor - Check Widths - 600, 750 & 900, 930mm	1
	P3042	Conveyor Skirts (Side-Feed) - Rubber 120mm x 2500mm (belt Side Feed only)	2
15	3966	1.5” 2 Bolt Flange Bearing Housing	2

* Parts vary depending on machine model. Include the machine serial number with all parts and servicing enquiries.

FLOOR REDUCTION

REFERENCE	PART NO.	DESCRIPTION	QTY.
1	2828	Sprocket 30T	1
2*	P3024	Shaft - Front Floor Kit 50mm Pipe - 6, 8 and 9m³ Feed Wagon	1
	P4665	Shaft - Front Floor Kit Solid - 10 and 12m³ Feed Wagon	1
3	P0424	Chain 16B (1” Pitch) - 46 Outer Links + Joiner	1
4	2825	Sprocket 11T (1” Pitch) + 38T (3/4” Pitch)	1
5	P4759	Chain Asa60h - 24 Outer Links + Joiner (Floor)	1
6	0408	Shaft 1-1/2” + Collar	1
7	P1018	Motor Mount Drive - Floor	1
8	-	Hose SW2 - (Hose Kit 1918 - Side-Feed) - See Table	1
9	-	Hose SW6 - (Hose Kit 1918 - Side-Feed) - See Table	1
10	2826	Sprocket 13T - (3/4” Pitch, 1” Bore)	1
11	2835	Spring Torsion - Double Wire (18275)	1
12*	3577	Hydraulic Motor MF14 (TEO230AS100AAAB) - 8, 9 and 10m³ Feed Wagon	1
	5970	RT400 Gearbox on 12m³ Feed Wagon	

* Shafts and Motors vary depending on machine model, size and year of manufacture. Please include the machine serial number with all parts and servicing enquiries.

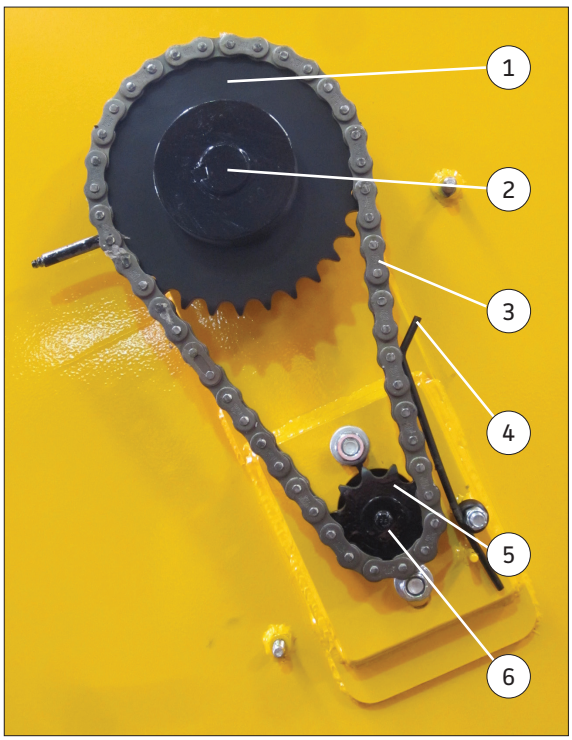


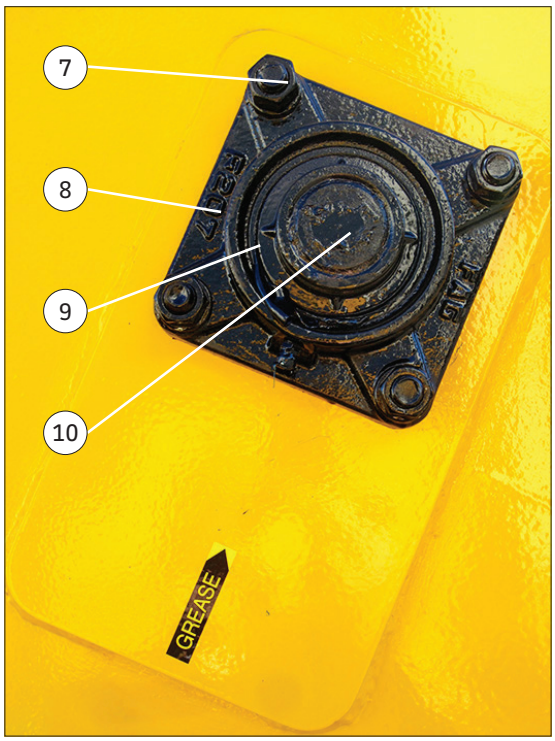
HOSE KIT 1918 SIDE-FEED

HOSE ASSEMBLY NO.	OVERALL LENGTH	HOSE CUT OFF LENGTH	HOSE TYPE	COUPLING A	COUPLING B	FERRULES
SW1A	2.6m	3.526m	R17-08	S15-0808 M	S01-0808 F	SCN-08
SW1B	2.6m	3.526m	R17-08	S15-0808 M	S01-0808 F	SCN-08
SW2	2.53m	2.46m	R17-08	S01-0808 F	S01-0808 F	SCN-08
SW3	4.85m	4.776m	R17-08	S01-0808 F	S15-0808 M	SCN-08
SW4	2.95m	2.88m	R17-08	S01-0808 F	S01-0808 F	SCN-08
SW5	2.45m	2.376m	R17-08	S01-0808 F	S01-0808 F	SCN-08
SW6	2.56m	2.488m	R17-08	S01-0808 F	S01-0808 F	SCN-08
				B-N-0814 (x10)		
				BC0808 x 1 BB0808 x 1		

TOP ELEVATOR DRIVE

REFERENCE	PART NO.	DESCRIPTION	QTY.
1	2829	Sprocket 30T - (3/4” Pitch, 1-3/8” Bore)	1
2 & 10	P3028	Shaft - Top Elevator (Complete)	1
3	6114	Chain - 23 Outer Links + Joiner (Elevator) ASA60	1
4	2836	Spring Torsion - Single Wire (18274)	1
5	2827	Sprocket 11T - (3/4” Pitch, 1” Bore)	1
6	3577	Hydraulic Motor MF14 (TEO230AS100AAAB)	1
7	-	Bolts M12 x 40 + Nyloc Nuts M12	4
8 & 9	0210	Bearing & Housing (F207) FL - 1-3/8” Bearing (4 Bolt)	1



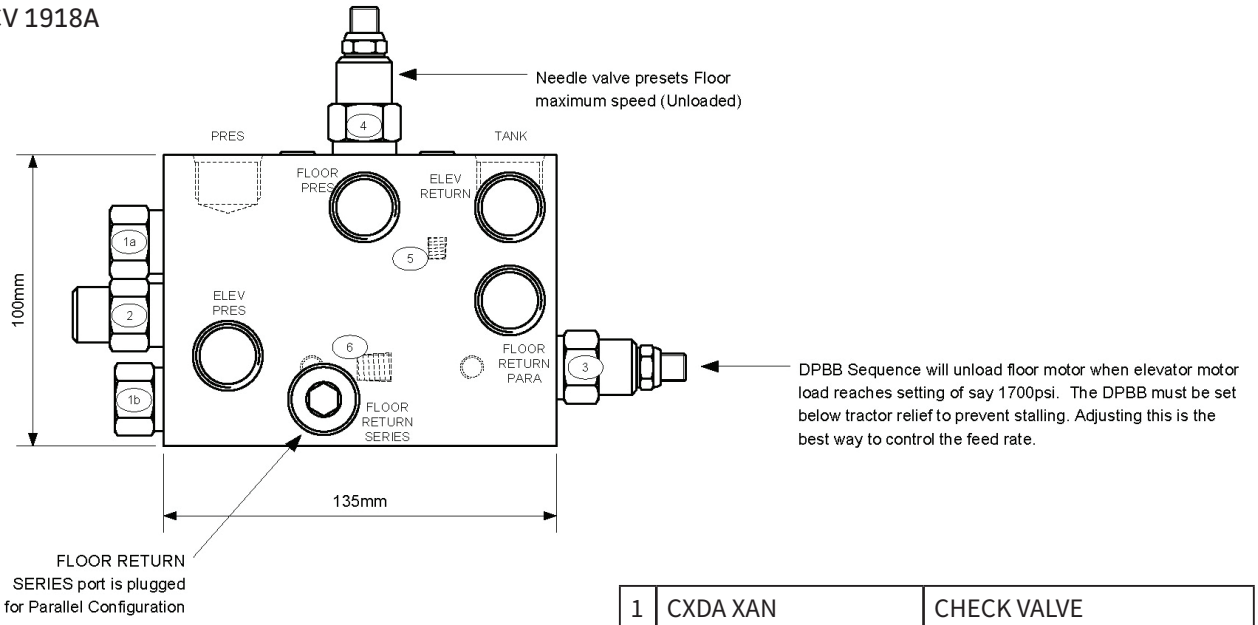


If you are experiencing a problem or have a question that is not listed in this chart below, please contact Coombridge & Alexander directly or see your local dealership for parts and service.

QUESTION / PROBLEM	SOLUTION
The floor does not move forwards.	1. Check the tractors hydraulic flow using a flow meter. No flow would indicate faulty QR couplings or tractor hydraulics. If the floor does not move forward but will go in reverse, this typically indicates a problem in the hydraulic valve block, as the oil is bypassing the hydraulic valve block when the floor is in reverse.
	2. Check that the drive chains from the motor (under the side cover) are all connected, well greased and moving freely. Any seized links in the chain will require significant pressure to drive this chain.
	3. Check the NFCD LFN Cartridge (or older equivalent) - the connection between the cartridge and the stainless cap that connects to the control rod can become loose - turning the control rod may not be adjusting the cartridge. If the cartridge is in the closed position the floor will not move. The cartridge can become seized which requires removing the stainless cap, lubricating with CRC and loosening the thread with an allen key. This cartridge can also be blocked, jammed or wound open too far. If wound too far anti-clockwise, the cartridge will prevent oil going to the elevator/side-feed conveyor and send it all to the floor motor.
	4. The DPBB LAN Sensor Cartridge is designed to stop the floor if the loading on the elevator exceeds 1800psi. This can cause a problem if the side-feed belt has tracked off to one side or it has a large build up of material underneath it, causing an increase in pressure to drive the side-feed. The sensor cartridge will stop the floor and not let it move until the pressure drops, which won't happen if there is a mechanical impediment. The easiest way to check if the side-feed is causing the problem is to isolate the side-feed by disconnecting the hoses off the motor and screwing them together. Other mechanical problems, such as damaged bearings on the elevator, will cause the same issue. Reseting DPBB LAN Sensor Cartridge. This cartridge should be set by loosening the lock nut and winding the thread all the way out using an allen key. The thread should then be wound in 3.75 turns and the locking nut tightened. This cartridge sets the pressure that can be applied to the elevator or side-feed. If this pressure is exceeded then the floor will stop until the pressure is relieved.
The floor does not move forwards (cont'd).	If there is a flow, but the floor, elevator and side-feed are not working, check the three cartridges in the end of the block. These cartridges have spring-loaded discs or pistons in the cartridge - if any of these have dirt or debris caught under the plate they can cause the oil to go directly to dump. The LHDA XEN cartridge has a piston which moves inside the stem, if this is jammed open the floor will not operate (x1 LHDA XEN, x2 CXDA XAN).

QUESTION / PROBLEM	SOLUTION
The floor moves forward but will not stop - and the elevator/side-feed does not go.	Check the NFCD LFN Cartridge.
The elevator and side-feed are not moving.	The elevator and side-feed motors run in series - if there is a problem preventing one motor from turning, the other motor will most likely also be affected. If one motor is turning (and the other not) there is likely to be a problem with the mechanical connection between the motor and the shaft it is driving. If the elevator is not moving, check that the chain between the 11 & 30 tooth sprockets is connected, well greased and moving freely. Check that the keys, between the sprockets, motor and elevator shafts are still working and that the sprocket is not free wheeling on each shaft. If the side-feed is not moving, check that the key is still working inside the 90mm coupling and that neither of the shafts are free wheeling inside this coupling. Check the three cartridges in the end of the hydraulic valve (1 x LHDA XEN, 2 x CXDA XAN), as described above.

HCV 1918A



1	CXDA XAN	CHECK VALVE
2	LHDA XEN	FLOW COMPENSATOR
3	DPBB LAN	UNLOAD SENSING VALVE
4	NFCD LFN	NEEDLE VALVE
5	1/16”NPT x 0.7mm	DAMPENING ORIFICE
6	1/8”BSPT x 0.7mm	DAMPENING ORIFICE

EXTERNAL BATTERY PACK

The Iconix FX15 Monitor is powered by a 12V external battery pack. Supplied with the Iconix FX15 Monitor is two 12V batteries together with a battery charger (AC adaptor).

Battery life and charging frequency will depend on usage and battery care. We recommend always charging the battery (with the supplied charger) for 6-8 hours.

The Iconix FX15 Monitor can also be powered from the round pin connection (7-pin) designed to fit the tractors auxiliary ply. This connection will power the display while the tractor is running but will not charge the battery.

USER GUIDE

1. To turn on the Iconix FX15 Monitor, press the 'ON' button - the display should read '0.0' with the '^' symbol underneath the 'ZERO' label.

2. When loading is completed the load weight will display in kilograms.

3. If the Iconix FX15 Monitor is left 'ON', it will hold the load weight/display until the load starts to discharge. As the load is discharged, the display will provide an accurate reading of the current load throughout the discharge process (subtracting from the initial weight).

4. If the Iconix FX15 Monitor is turned 'OFF' before load discharge begins, there are two methods for discharging;

   Option 1 - push the 'ON' button - this will retrieve the stored load weight. Discharge or further loading can begin. Please note pushing the 'ZERO' button will clear the stored weight if required.

   Option 2 ('Negative' mode) - push the 'ON' button followed by the 'ZERO' button - this will zero the load. As discharge begins the display will show a negative symbol as it counts the kilograms discharged.

Only loads greater than 100kgs can be stored when the Iconix FX15 Monitor is turned 'OFF'.
When loads exceed 1,000kgs in 'Negative' mode, the display will alternately flash the load weight discharged and a negative symbol (as only four digits can be displayed).

QUESTION / PROBLEM	SOLUTION
No display on Iconix FX15 Monitor.	1. Plug the FX15 Monitor into an alternative power source to eliminate potential battery issues 2. If an external power cable is used, please try another power cable 3. If there is still no reading please try another display to determine if the fault is within the Iconix unit or load-cells. If alternative display works the original unit is likely to be faulty and will need to be returned to the manufacturer for diagnosis and repair.
Four flat lines displaying on Iconix FX15 Monitor. OR The displayed weight is unstable and varies up/down.	The load-cells are connected in pairs to a junction box by cables, with a main cable extending from junction box to the FX15 Monitor. The load-cells are paired up - two in the front and two in the back. 1. Disconnect both load cell cables from the junction box 2. If the FX15 Monitor will not 'ZERO', the unit is likely to be faulty and will need to be returned to the manufacturer for diagnosis and repair 3. If the FX15 Monitor zeros, try the following; 1. Plug in one of the two cables that connect to the junction box 2. If the fault reoccurs, remove the first cable and plug in the second. It is unlikely that there will be a fault with multiple cells, and instead you should be able to isolate the exact faulty load-cell 3. 'ZERO' the FX15 Monitor with the good load-cells (one cable) connected 4. Pull down on the top front of the machine to activate the load-cell/s 5. A negative (-) reading indicates the rear cells are working 6. A positive (+) reading indicates the front cells are working 7. Disconnect the cable (attached to the junction box) for the working load-cells, and reconnect cable for the faulty load-cells. 8. Disconnect the wires at the junction box for both the load-cells. 9. If the reading on the display is incorrect the cable is likely to be damaged/faulty 10. If the FX15 Monitor zeros, connect each load cell individually checking the display after each connection to ensure a normal reading. 11. This will indicate which of the cells, if not both, are faulty. 12. Replace the faulty load-cell or cells, connect all wires and cables and retest.

COMMON BEARING SIZES AND DIMENSIONS

BEARING SIZES BY HUB MAKE / MODEL

HUB MAKE / MODEL	HUB SIZE	BEARINGS	SEAL	HUB CAP
ADR Mk2	60sq	30211 / 30208	57 x 100 x 10 Mk2	80mm
ADR Mk3	60sq	30211 / 30208	56 x 100 x 10 Mk3	80mm
ADR Mk3	70sq	30213 / 32210	67 x 120 x 10 Mk3	90mm
ADR Braked	70sq Braked	30213 / 32210	67 x 120 Mk1	90mm
ADR Mk3	80sq	32215 / 32212	77 x 130 x 10 Mk3	110mm
ADR Mk5	60sq	30211 / 30208	73 x 100 x 13 Mk5	80mm
ADR Mk5	70sq	30213 / 32210	93 x 120 x 13 Mk5	90mm
ADR Mk6	60sq	30211 / 30208	56 x 100 Mk6	82mm - Screw on
ADR Mk6	70sq	30213 / 32210	67 x 120 Mk6	92mm - Screw on
ADR Mk6	80sq	32215 / 32212	77 x 130 Mk6	124mm (+ Cap Screws)
ADR Mk7	60sq	30211 / 30208	80 x 100 x 8	82mm - Screw on
ADR Mk7	70sq	30213 / 32210	100 x 120 x 8	Screw on
ADR Mk7	80sq	32215 / 32212	110 x 130 x 8	124mm (+ Cap Screws)
FAD	60sq	30211 / 30208	70 x 100 x 10	80mm
FAD	70sq	30213 / 30210	80 x 120 x 12	90mm
FAD	80sq	32215 / 32211	90 x 130 x 12	100mm
TVS	60sq	30211 / 30208	80 x 100 x 12	80mm
TVS	70sq	32213 / 32210	90 x 120 x 12	90mm
TVS Braked	70sq & 80sq	Check	Check	90mm & 110mm
TVS	80sq	32215 / 32212	100 x 130 x14	110mm
Monroc	60sq	30211 / 30207	72 x 105 x 10	73.5mm - Screw on
Monroc	80sq	30215 / 32211	95 x 135 x 14	101.5mm - Screw on

COMMON BEARING SIZES AND DIMENSIONS

BEARING	INTERNAL DIAMETER (ID)	OUTSIDE DIAMETER (OD)	WIDTH
30208	40mm	80mm	19.75mm
30210	50mm	90mm	21.75mm
32210	50mm	90mm	24.75mm
30211	55mm	100mm	22.75mm
32211	55mm	100mm	26.75mm
32212	60mm	110mm	29.75mm
30213	65mm	120mm	24.75mm
32213	65mm	120mm	32.75mm
32215	75mm	130mm	33.25mm
67048 / 010	1.25”	2.328”	0.625”