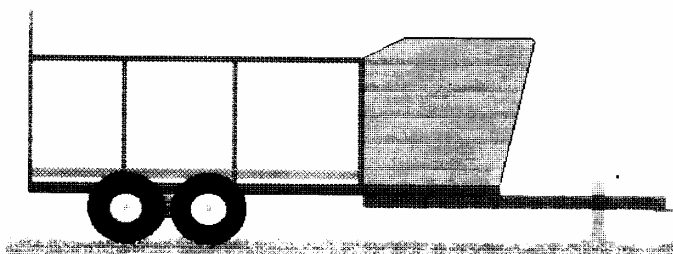


# **ROBERTSON FEED WAGON**

## **INSTRUCTION MANUAL**



## **.MODELS.**

**SF 720,900,1070 [SS]**

**SF 1060,1270,1470 [TS]**

**ROBERTSON FARM EQUIPMENT LTD.  
MAIN SOUTH ROAD, HINDS,  
MIDCANTERBURY, NEWZEALAND.  
PHONE 03 3037229, BUSINESS HRS.  
PHONE 03 3037059, AFTER HOURS.**

## OPERATION OF ROBERTSON FEEDWAGON. PAGE 1.

### FEEDING/STARTING UP

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1. Ensure hoses are coupled in correct couplings before starting.
2. If tractor can deliver more than 60 litres/min [13 GPM] restrict output flow down to 60 LPM or less on tractors control, to eliminate overspeeding of elevator and side delivery which can cause damage to equipment.
3. Turn floor control (fig 1. page 2.) fully open (anti clockwise).

**IMPORTANT:** Under cold start ups (frosty days) floor control must be turned fully open (anti clockwise). Activate hydraulic lever into reverse direction for reversing of floor - Note: Floor, elevator and side delivery will not rotate with floor control fully open. Let hydraulic oil run in this by-pass mode for at least 60 seconds.

4. Engage tractor hydraulic lever into correct direction to rotate elevator, (check elevator is rotating in correct direction).

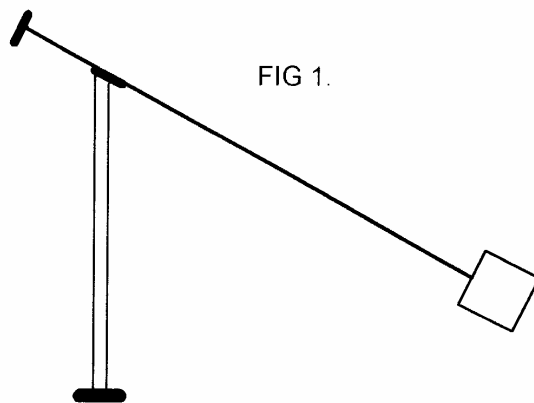
**IMPORTANT:** If elevator does not rotate, make sure elevator is not frozen or jammed. Note: Never activate hydraulic lever forwards and backwards to "free" elevator/side delivery.

Reverse floor with lever in reverse direction by closing control valve (clockwise) until floor just starts to reverse and stop then, (DO NOT CONTINUE AS TAIL DOOR WILL DAMAGE). Open floor control valve fully (anti clockwise) and make sure elevator and side delivery are rotating when lever is activated into correct direction.

5. When elevator is rotating with feed material flowing, gradually open floor control (anti clockwise) until feed material flow reaches desired amount.
6. To decrease feed rate gradually close floor control (clockwise).

OPERATION OF ROBERTSON FEEDWAGON PAGE 2.  
FEEDING/STARTING UP (CONTINUED)

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REVERSING FLOOR.

Note elevator will not turn in reverse.

1. Release tail door.
2. Open floor control fully (anti clockwise), (fig 1).
3. Engage tractor hydraulic lever into opposite direction to feeding position.

## FLOOR CHAIN,

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1. Slacken 12mm adjustment plate lock bolts and nuts.
2. Slacken locking nut and adjust 16mm threaded rod adjustments until floor slats strike axle guide rails in centre of lead up (see fig 2).
3. Retighten 12mm and 16mm lock bolts and nuts.
4. Test run.

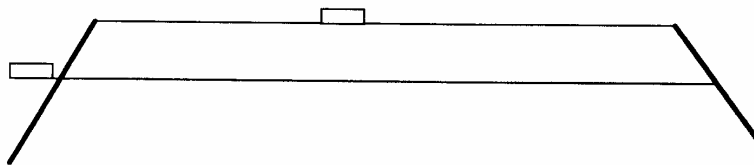


FIG 2.

Correct.

CAUTION: 1. Floor chain too tight will cause unnecessary wear to sprockets and chain.

2. Floor chain too slack will cause danger of floor slat catching below axle guides.

ELEVATOR AND DRIVE.

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1. Slacken elevator drive chain idler.
2. Slacken adjustment plate 12mm lock bolts and nuts.
3. Slacken shaft cover bolts (Inside wagon on elevator screen).
4. Slacken locking nut and adjust 16mm threaded rod adjustments until elevator chain has aproximately 50mm free play in and out [see fig 3].
5. Retighten 16mm and 12 mm lock bolts and nuts.
6. Retighten shaft cover bolts.
7. Readjust elevator drive chain idler until chain has 20mm free play in and out (see fig 4).

FIG 3.

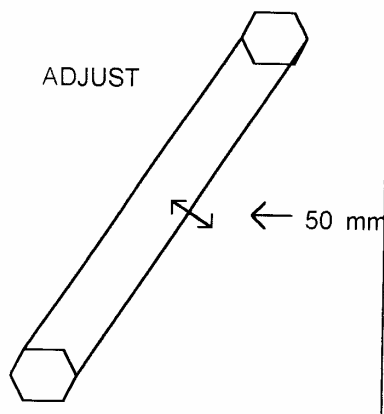
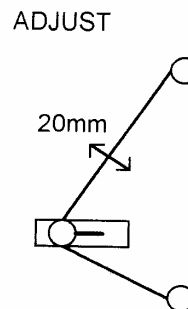


FIG 4.



CAUTION.

1. Elevator chain too tight will cause unnessessary wear to chain and sprockets.
2. Elevator chain too slack may cause chain to derail from sprocket.

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**CROSS CONVEYOR.**

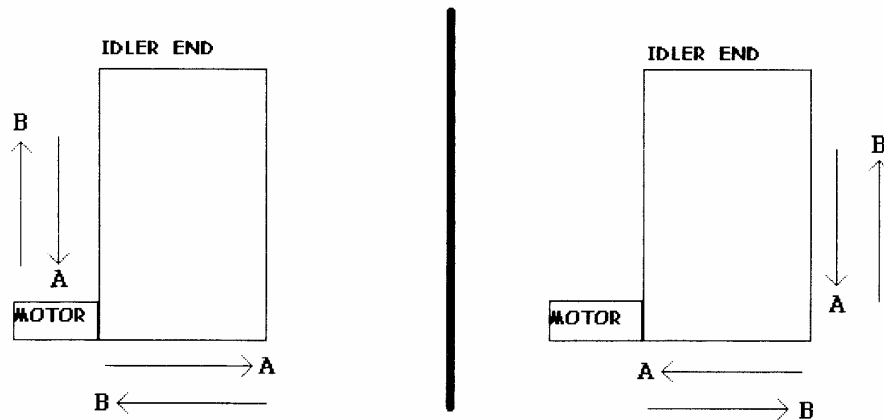

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Rear idler roller assembly. Only adjust for initial line up.

Front drive roller assembly. To adjust, tighten adjuster to send belt away, see A on diagram, or slacken to bring towards, see B on diagram.  
If belt tension becomes too tight or too slack while adjusting use opposite adjuster.

**CAUTION**

1. DO NOT OVER TENSION
2. Adjust a small amount at a time and allow belt time to react.



DHS LOAD SENSING VALVE BLOCK. Diagram page 6.

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1. Elevator speed is determined by tractor oil flow only.  
[ full tractor supply is used for elevator motor ].
2. Floor speed is adjusted by rotary valve, it can be adjusted from zero up to full tractor supply speed.
3. Under load floor will stop and start as elevator requires material. Under excessive load or obstruction floor will stop until obstruction has been cleared.
4. To reverse, open rotary valve fully and reverse oil flow to valve block, floor will reverse at full tractor supply speed, elevator will not turn.

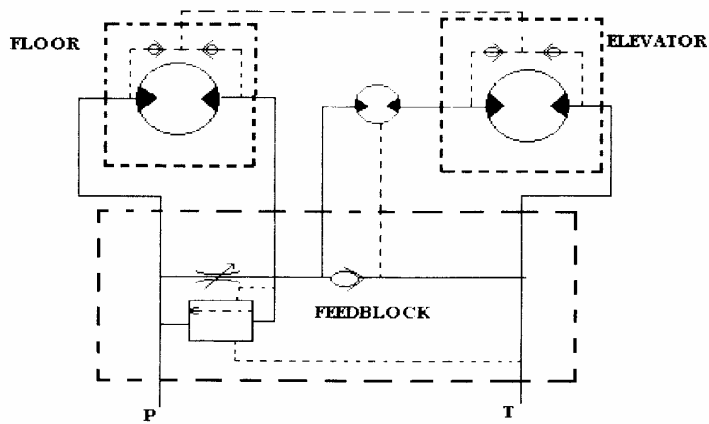
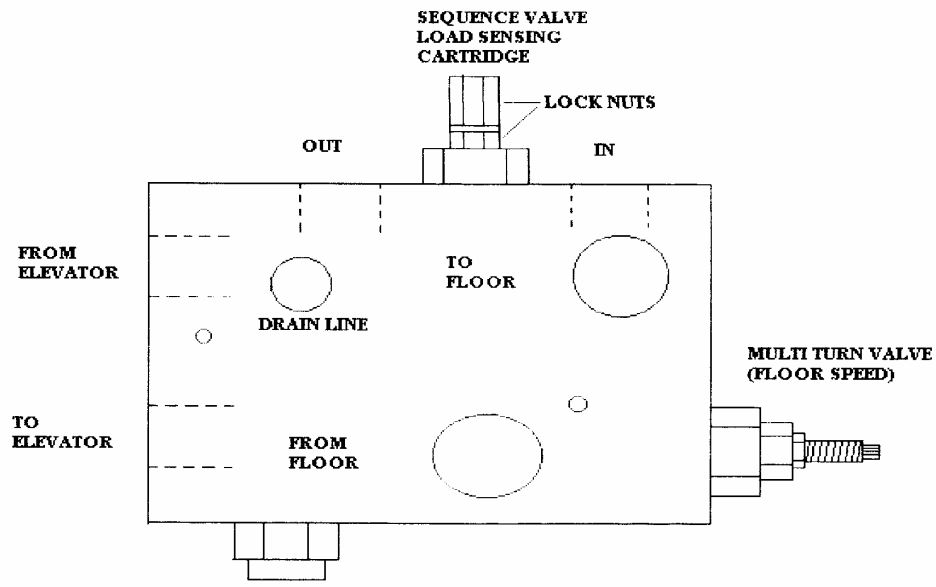
INITIAL SETTING OF LOAD SENSING VALVE

1. Check elevator is running free.
2. Load wagon.
3. Slacken lock nut.
4. Back off adjustment screw until there is about eight clear threads exposed above lock nut when lock nut is down to top of cartridge body.
5. Open floor rotary valve to half throttle.
6. Engage hydraulics [ elevator will turn ].
7. Screw adjustment screw down until floor starts to move forward and then give another half turn.
8. Tighten lock nut.

CAUTION.

1. Do not force rotary valve more than 180 deg.
2. Load sensing valve is pre set at factory and should under normal circumstances not need adjusting.
3. If adjuster is screwed down too far sensor will be bypassed and machine will over load hydraulic system.
4. Too little adjustment floor will not come forward.
5. Check elevator is running free from obstruction or miss adjustment otherwise floor will not come forward.

# DIAGRAM LOAD SENSING VALVE and CIRCUIT. Page 6.



# LUBRICATION.

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LOCATION.	GREASE POINTS .	HOURS.
Rear floor shaft. ....	2 .....	10.
Front floor shaft. ....	5 .....	10.
Top elevator shaft. ....	2 .....	5.
Bottom elevator shaft. ....	2 .....	2.
Drive reductions [ CF & SF 720,900].....	1 .....	2.
Drive reductions. [CF & SF 1060,1070.] [CF & SF 1270,1470]	2 .....	2.
Tandem axle .....	4 .....	10
SF cross conveyor. ....	4 .....	5.
Wheel bearings. .... pre season check .....	adjust and grease if nessessary.	
Transmission chains .....	oil occassionly and prior to storage.	
Floor and elevator chains .....	paint with waist oil prior to storage.	
Screw jack .....	oil thread and bearing surface regulary.	
Tyre pressures .....	check and adjust if nessessary .	

## **WARRANTY**

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Robertson farm equipment ltd warrants each new feed wagon to be free of defects in material and workmanship for a period of 12 months from date of purchase.

This warranty covers replacement of faulty parts but does not include freight, labour or lost time due to defective unit.

Any warranty repairs must be approved by Robertson farm equipment ltd management before being carried out.

This warranty is void if any modifications from the standard machine have been made , affecting performance or the unit has been neglected , misused or overloaded.

Robertson farm equipment ltd reserves the right to alter all or any specifications without prior notice.

FEED WAGON CHECK LIST.

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DATE. ....  
SERIAL NO. ....  
MODEL. ....  
CHECKED BY. ....

PLEASE TICK BELOW.

BOLTS AND NUTS TIGHT?.....  
GRUB SCREWS TIGHT?.....  
WHEEL NUTS TIGHT?.....  
AXLE BOLTS TIGHT?.....  
MISSING WELDS ?.....  
TYRE PRESSURE ?.....  
FLOOR CHAIN TENSION ?.....  
ELEV CHAIN TENSION ? .....

DRIVE CHAIN TENSIONS ?.....  
SCRAPERS FITTED ?.....  
SPARE SHEAR BOLTS ?.....  
BEEN GREASED ?.....  
JOINTS SEALED ?.....  
VALVE SETTING ?.....  
SF CONVEYOR BELT TRACKING ?.....  
HYD FITTINGS TIGHT ?.....  
PAINT JOB O.K. ?.....  
TEST RUN WENT O.K. ?.....

SIGNED. ....