

# **Haith Tickhill Group of Companies**

## **Bulk Feeder**

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### **Introduction**

This Instruction Manual contains information peculiar to the type of machinery shown above; its purpose is to assist with the running and maintenance of the machinery to which it relates and also to comply with the requirements of Machinery Directive 2006/42/EC.

‘Haith’ means ‘The Haith Tickhill Group of Companies’ which include ‘Tickhill Engineering Co. Ltd.’, ‘Haith Engineers Ltd.’ & ‘Haith Industrial Ltd.’

All persons working with the machine must familiarize themselves with the contents of this Manual prior to operation. It is the responsibility of the purchaser of the machinery to ensure that all personnel are fully aware of the safe working practices advocated herein.

This Manual covers the operation and servicing of the equipment supplied by Haith as titled above. The Manual is divided into sections as listed in the contents; these are arranged so the users can acquaint themselves with the system equipment and service parts as may be required.

Haith policy is one of continuous development and we therefore reserve the right to amend any of the information contained herein without prior notice.

#### **Please Note:**

When requiring replacement parts or issuing instructions for repairs, customers should, in their own interest always specify the use of Haith genuine replacement parts.

Parts that have not been supplied by Haith cannot be relied upon for correct materials, dimensions or finish.

Haith cannot therefore, be responsible for any damage arising from the use of such parts. It is in your own best interest to ensure that only replacement parts supplied by Haith are used.

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**Safety Precautions**

Although the machine has been designed to be as safe as practicable, there are areas to which the user must be aware to ensure personal safety and the safety of others.

**Power Supply:**

**Electricity:** Always ensure that electrical equipment is well maintained. Under no circumstances should anyone attempt to modify or repair electrical equipment other than suitably qualified personnel.

**Note: When any work is carried out on the machine, DANGER and/or WARNING notices must be displayed and the system must be isolated and locked off.**

**Moving Parts:**

The machine has been guarded as far as possible so as not to cause any detriment to its effectiveness. However, special care must be taken at all times and it is emphasized that operatives must work only at recognized workstations.

**Guards:**

The machine must be isolated from the power supply before any guards, chutes or protective devices are removed, under no circumstances must the power be supplied to any part of the machine whilst any guards, chutes or protective devices are damaged, removed or rendered inoperable.

**Noise:**

The machinery has been designed to keep the noise risks resulting from the emission of airborne noise as low as possible. However the risk is real and all precautions necessary should be taken by the Customer/Operator.

**Vibration, Explosion, Fire and Radiation:**

This machine does not under normal working conditions generate any hazard from vibration, a risk of explosion, fire or radiation.

**Dust:**

The machinery may create a certain amount of dust; the manufacturer obviously has no control over the type of product or amount of dust created from the various types of products. Please ensure the correct protective equipment is used at all times.

**Emergency Stop:**

Emergency Stop button(s) are situated in strategic positions on the machine or machines (if part of a Haith System), when pressed, the machine(s) will stop and can only be restarted by the main start button(s) after resetting the Emergency Stop.

**Protective Clothing:**

Protective clothing must be worn at all times when working on or near machinery (Dust masks, eye protection, ear defenders etc.).

(cont...)

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**Safety Precautions (cont...)**

**Static Electricity:**

There is no hazard from static electricity, providing the machine is earthed.

**Additional Precautions:**

The strict rule regarding children and young persons under the age of sixteen is; that under no circumstances what so ever must the previously mentioned persons be allowed access to a dangerous position near the machine.

**Please Note:**

These notes are general observations only and the site-specific rules and regulations must also be taken into account. Haith cannot be held responsible for any misuse of equipment.

It is the responsibility of the owner/user to assess the hazards and implement a site safety plan for the operation of the machinery. The machinery must not be operated without all guards and safety devices in place and working correctly; when guards are removed for maintenance purposes, the isolators must be locked in the OFF position. If during any maintenance or testing procedure the machinery is to be operated with any of its guarding and/or safety devices removed or disabled, then a competent person must assess the risks and implement safeguards to ensure the safety of him/herself and the safety of others.

**Handling & Installation**

- ! A Fork Lift Truck (FLT) or Crane of suitable proportions must be used to lift and manoeuvre the machine.**
- ! The machine may be lifted by positioning the FLT tines equally either side of the balancing point beneath the machine or approved Crane accessories (e.g. slings).**
- ! Lifting machinery and Forktrucks must be operated by suitably qualified personnel.**
- ! Once the installation work is complete the rotational direction of the Motor(s) must be checked and corrected if necessary, prior to operation.**
- ! All connections, adjustments, maintenance etc. to power supplies and related ancillary equipment must be carried out by appropriately qualified personnel.**

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### Bulk Feeder

#### Specifications

<b>Serial No.</b>	<b>24141-001</b>
<b>Electrical Supply</b>	415v 3 phases – 1.0A
<b>Nominal Dimensions</b>	See Drawing on CD\Drawing

#### Description

Large sheet steel hopper with a cross lathed chain sided conveyor belt which is hauled along the bottom. This machine provides a temporary holding area and also a controlled discharge by means of variable belt speed control.

The purpose of the Unit is to receive bulk produce, provide a temporary storage area and a controlled feed.

The machine must not be used for any purpose other than as described in this Manual.

#### Adjustment

##### **Conveyor Chain Tension:**

It is recommended that the user does not adjust these chains unless he is familiar with them.

- ✓ Check the head shaft is set at 90° in relation to the centre-line of the belt, if not, examine for reason, e.g. an excessively worn bearing, replace if necessary.
- ✓ Check conditions of tail shaft bearings, replace if necessary.
- ✓ Check condition of all conveyor chain sprockets, if excessively 'hooked', they will need replacing.
- ✓ Check condition of conveyor chains, if excessively worn, they will need replacing.

**Note:** The conveyor chains and sprockets should be replaced at the same time as mismatched chains and sprockets cause excessive wear to either or both sets of components.

Assuming all previous check points are OK, proceed as follows...

1. Check all points between the sprockets and chain runners, if the chain is sagging at any of these points, then it is too slack and will need adjustment. Adjustment is possible at the tail end only.
  2. Loosen adjuster screw locking nuts.
  3. Turn adjuster nuts until the chain is straight, but not tight.
  4. Measure distance from shaft to end of frame at both sides, if different, adjust the tightest chain to the same distance as the slackest.
  5. Tighten locking nuts.
- ! These chains must not run tight, over-tight chains will cause excessive wear to all moving parts.
- ! If in any doubt, please contact Haith.

##### **Leg Adjustment (if fitted):**

Leg adjustment is by means of nip bolts; before adjustment support the machine, as when the bolts are released the machine will drop.

1. Support machine, release nip bolts.
2. Reposition machine.
3. Retighten nip bolts.

##### **Skirt Adjustment:**

1. Release Clamp(s).
2. Reposition the skirt rubber.
3. Lock the Clamp(s).

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**Operating Instructions**

① **Controlled from the Main Panel. See the Operating Instruction Manual**

**Initial Set Up:**

- ✓ Set Bulk Feeder to half speed (or slower) initially.
- ✓ Ensure all personnel are at their correct stations and not in a dangerous position.
- ✓ Load produce into Bulk Feeder.

**General Running:**

As the produce flows over the machine, the Bulk Feeder belt speed may need to be adjusted – always adjust in small steps.

The amount of produce being discharged will depend on the machinery (or other) downstream.

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#### Maintenance

	10 hours	50 hours	200 hours	2000 hours	
Check Guards and Safety Devices.					Securely fixed, not damaged and are working effectively.
Cleaning.					Pressure wash (not electrical equipment).
Check condition of Plugs and Cables.					If damaged, a qualified Electrician should make repairs immediately.
Check for Physical Damage.					Inspect entire machine and make repairs as necessary.
Check Chain(s).					Adjust as necessary. Lubricate.
Check Gearbox(es).					Check oil level, top up as necessary, unless 'sealed for life' design.
Check Bearing(s).					Replace if excessively worn.
Grease Points.					Generally 2 full pumps. For Bearing lubrication see 'Relevant Information' section.
Renew Gearbox Oil.					Drain and refill to level, unless 'sealed for life' design.

**All component manufacturer literature must be adhered to, over and above these recommendations. The machine must be isolated from the power supply before any maintenance or adjustments are carried out, unless stated otherwise. Regular maintenance of this equipment is very important to keep it in a good running condition, if it is not carried out as specified in this Manual premature parts failure could occur.**

#### Lubrication

Gearboxes	See 'Relevant Information' Section
Drive and Conveyor Chains	SAE 20/50 Multigrade Oil
Grease Points	Grease – Lithium EP2

#### Gearmotor Mounting Position – Important Information

The Gearmotor Units are fitted with the correct specific components and filled with the correct quantity and grade of oil to suit the mounting position which they have been fitted.

If for any reason the Gearmotor position has to be adjusted, then it is advisable to check with Haith before proceeding as this sometimes dramatically reduces the life of some types/sizes of Gearbox.

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#### **Cleaning**

- It is recommended that the machine is washed with a pressure washer type cleaner at the end of each shift or more frequent if circumstances allow.
  - The life span and effectiveness of the machine will be reduced if thorough cleaning is not carried out regularly.
- ! DO NOT PRESSURE WASH ANY ELECTRICAL COMPONENTS AS THEY ARE WATER RESISTANT (IP65) NOT WATERPROOF AND THE INGRESS OF WATER WILL RESULT IN COMPONENT FAILURE.**

#### **Parts & Spares**

The use of Haith supplied replacement parts will ensure correct materials, dimensions and high standards of quality in line with the original equipment. When ordering replacement parts, always quote the Serial No, Part No. & Description. The information, specification and illustration as detailed in this Operation and Maintenance Manual are correct at the time of issue.

Serial No. – 24141-001
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① See Drawing on CD\Drawing

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### **Electrical Information**

- ! All electrical work must be carried out by a qualified Electrician and comply with local regulations.
- ! The machine must be earthed.
- ! The rotational direction of all Motors must be checked, any action taken to correct the rotational direction must be carried out by a qualified Electrician.

### **Notice**

Any alterations whatsoever to the machine(s) by anyone other than a representative of the Haith Tickhill Group of Companies could contravene E.C. regulations.

Any second-hand machinery supplied by the Haith Tickhill Group of Companies will at the very least conform to the Essential Health and Safety Requirements (unless sold on a 'sold as seen' basis, in this case it is the responsibility of the purchaser/user to ensure the machinery meets the correct requirements before use).

The Haith Tickhill Group will not be held responsible for dangerous areas or situations arising from poor installation or modifications to machinery by others.

The information contained in the Manual is issued as a guide and is not intended to be definitive. The Manual has been compiled from details and specifications available at the time of manufacture and to the best of knowledge is correct at the time of printing. Information regarding any modifications performed by the Haith Tickhill Group of Companies after printing will be passed on to the customer if deemed necessary.

The Haith Tickhill Group of Companies will not be held responsible for any errors, omissions or misinterpretations caused by language translation.

To allow for design and specification improvements, the information in this Manual is subject to change at any time without notice.

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**Relevant Information**

See CD – Manual\Other