

**USER'S MANUAL**

**Gizzard inspection/peeling table**

**HP  
HP-T**

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**Figure numbers**

The text contains references to figure numbers.  
These are made up of the page number followed by  
the figure number

example: fig. 10.1  
page 10  
figure 1

**COPYRIGHT**

All technical and technological information contained in this User's Manual as well as any drawings and technical specifications made available by us shall remain our property and shall not be utilised (other than for the operation of the equipment), reproduced, transmitted, or disseminated to any unauthorised person, in any form or by any means, without our prior written permission.

**GUARANTEE**

The data contained in this User's Manual are based on the latest information available at the time of printing. They are supplied subject to subsequent changes.

We reserve the right to change the design and/or configuration of our products at any time, without any obligation on our part to change any previous supplies accordingly.

It should be noted that the guarantee carried by this equipment will become null and void, if:

- the service and/or maintenance operations are not performed strictly in accordance with the User's Manual, repairs are not made by our personnel, repairs are made without our prior written consent
- alterations have been made in the equipment supplied without our prior written permission
- parts other than the original Marel Poultry parts or lubricants other than those specified are used
- the equipment is used in an improper, incorrect or negligent manner, or in a manner inconsistent with its purpose and/or intended use

All parts subject to wear are exempted from the guarantee.

Our General Terms of Delivery and Payment for Export also apply.

**PREFACE****IN THIS USER'S MANUAL ....**

This user's manual contains information on:

- safety measures
- machine functions
- the required connections
- the settings to be made
- operation
- cleaning
- maintenance

In addition, you will find a listing of possible defects and remedies attached.

This User's Manual has following appendices:

- the Technical Data sheet, which gives the technical specifications of the machine
- the instruction for Cleaning and Disinfection, which gives guidelines for cleaning and disinfection of the machine
- the Spare Parts Book, which gives instructions for parts identification and ordering

**PLEASE REMEMBER !**

The purchaser/user has a duty to familiarise the operatives, cleaning and maintenance staff with the instructions given in this manual.

We would like to emphasise to the purchaser/user that additional safety measures may be required, if the equipment is not installed according to the lay-out drawings, or if this is dictated by local authorities.

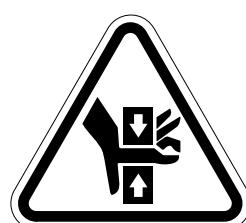
If you have any questions, please do not hesitate to contact the Marel Poultry service department.



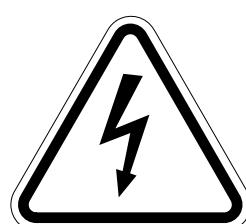
Danger of personal injury caused by sharp objects



Danger of personal injury caused by rotating parts



Danger of personal injury caused by seizure



Danger of personal injury caused by electrical power



Approaching danger zone

## **SAFETY**

### **KNOW THE PICTOGRAPHS**

Marel Poultry equipment has been fitted with safety and protective devices.

Yet it is imperative that caution be exercised when performing machine operations. The adjacent pictographs alert the user to possible dangers. You will find them on the machine and in the text explaining the dangerous operations.

Check at regular intervals that the pictographs are still present in the relevant positions on the machine.

If any pictographs have been lost or damaged, apply new pictographs. Please see section on Maintenance.

### **UNIT OUT OF OPERATION ?**

If the unit is to be taken out of operation for a prolonged period of time or if it is to be dismantled, all hazardous parts such as knives, protruding guides, etc. should be removed.

### **SAFETY AT WORK !**

Marel Poultry has made every possible effort to provide you with comprehensive, accurate information as regards any hazards relating to the operation of the machine.

The purchaser / user shall be responsible for the implementation and proper observance of the safety procedures.

We would like to emphasise to the purchaser/user that additional safety measures may be required, if the equipment is not installed according to the lay-out drawings, or if this is dictated by local authorities.



Danger of hearing impairments  
through noise pollution

## NOISE POLLUTION

Marel Poultry designs and builds machines and installations in which noise pollution is reduced to a minimum within reason.

However, as a result of local conditions, it is still possible that staff is subjected to a noise level which can cause hearing impairments.

The noise level of the machine or installation is indicated in the Technical Data sheet.

To prevent hearing impairments caused by excessive noise levels we urge you to provide hearing protection devices for machine operators.

In addition to this urgent advice please bear in mind that legal standards and regulations for noise pollution must, of course, be observed at all times. If necessary, measures must be taken.

We would also like to draw your attention to the fact that incorrect settings and overdue maintenance can lead to noise pollution.



fig.7.1 Overview

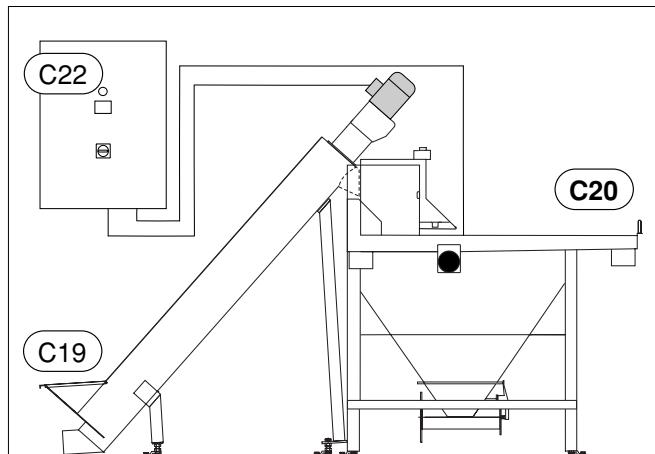


fig.7.2 Set-up with washer/conveyor screw

## GENERAL

The inspection/peeling table has the model indication HP and HP-T.

The letters HP stand for High Performance.

The letters T stands for turkeys.

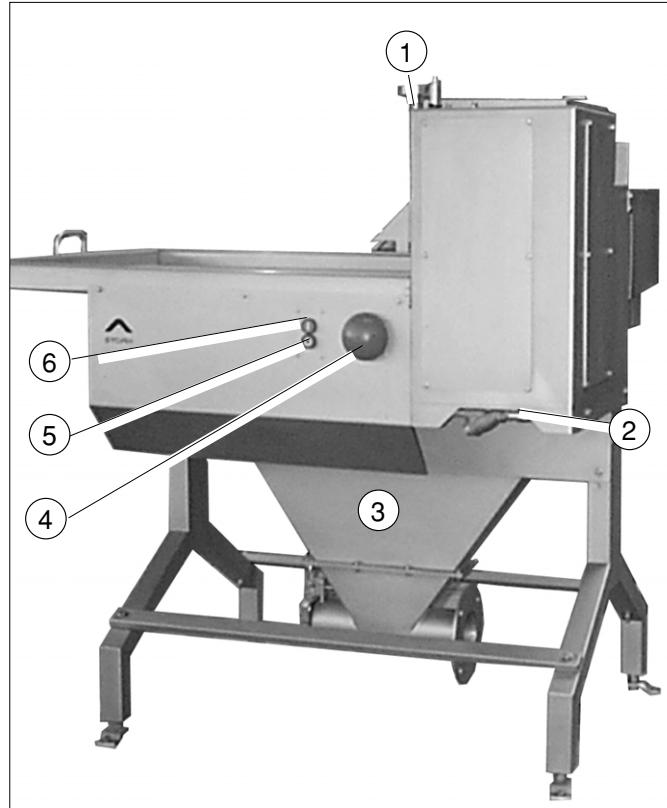
The inspection/peeling table is one of the components of the gizzard processing installation.

The gizzard processing installation can consist of:

- C16 Slatted belt conveyor
- C17 Gizzard harvester
- C18 Gizzard defattener
- **C19** Washer/conveyor screw
- **C20** Inspection/peeling table
- C21 Intestine separator
- **C22** Switchbox gizzard processing

See figure 7.2.

All components of the gizzard processing installation are connected in the switchbox gizzard processing.

**NAMES USED**

- 1 - Safety switch
  - 2 - Water supply
  - 3 - Collecting bin
  - 4 - Safety stop button
  - 5 - Stop knob
  - 6 - Start knob
  - 7 - Peeling rolls
  - 8 - Protection cover peeling rolls
  - 9 - Sieve
  - 10 - Manual peeling rolls
  - 11 - Discharge peeled gizzards
  - 12 - Discharge non-peeled gizzards
- See figures 8.1 and 8.2.

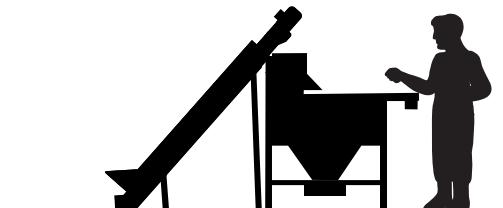


fig.8.1 Components of the inspection/peeling table



fig.8.2 Some details; protection cover and sieve in cleaning position

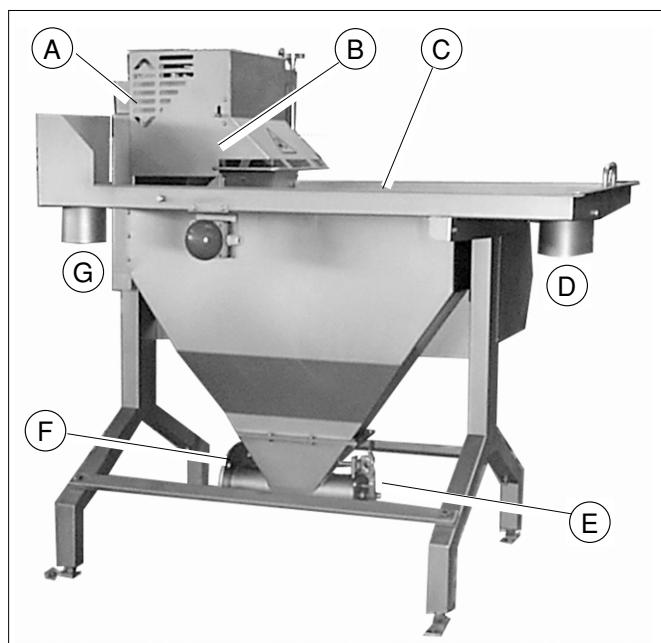


fig.9.1

## FUNCTIONING

- A - Infeed gizzards from washer/conveyor screw
- B - automatic peeling set
- C - manual peeling set
- D - discharge peeled gizzards
- E - Drain collecting bin
- F - vacuum transport connection
- G - return unpeeled gizzards to washer/conveyor screw

The gizzards are conveyed into automatic peeling set **B** by the washer/conveyor screw.

The gizzards are peeled again in the automatic peeling set, after which they end up on the worktop via the discharge.

The inspection proceeds as follows:

One person inspects whether or not the gizzards have been peeled correctly. The correctly peeled gizzards are discharged via discharge **D**.

The partly peeled gizzards are peeled manually by a second person. These gizzards are also discharged via discharge **D**.

Non-peeled gizzards are returned to the washer/conveyor screw via discharge **G**, so they are conveyed once again to the automatic peeling set.

Correctly peeled gizzards can be conveyed further with a giblet conveyor system.

The offal and pure water are collected in the collecting bin that can be connected to the vacuum transport system.

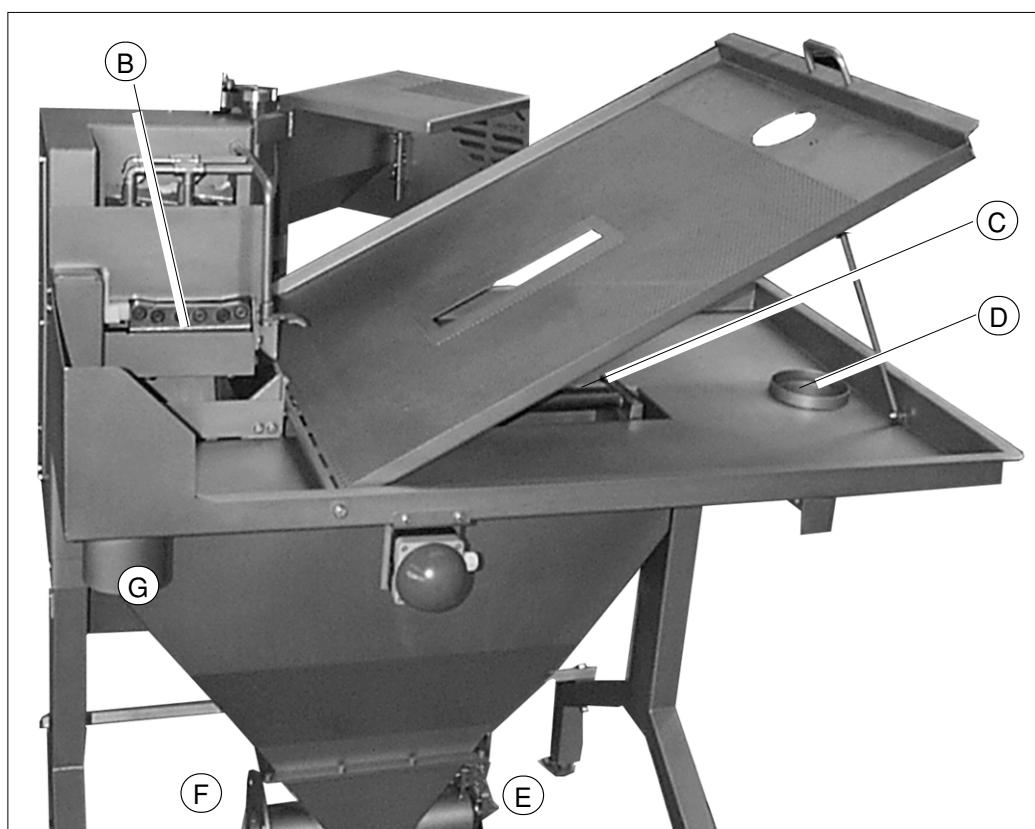


fig.9.2 inspection/peeling table with opened protection cover and sieve

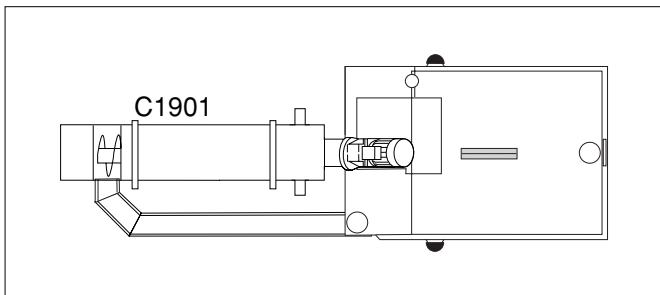


fig.10.1 Position washer/conveyor screw and trough in relation to the inspection/peeling table

## SET-UP

The machine must be installed according to the lay-out drawings provided by Marel Poultry . Please see the lay-out and connection specifications given in the Technical Data sheet.

We would like to emphasise to the purchaser/user that additional safety measures may be required, if the equipment is not installed according to the lay-out drawings, or if this is dictated by local authorities.

**Emergency stop devices must be fitted within reach of the machine. See also User's Manual Switchbox gizzard processing.**

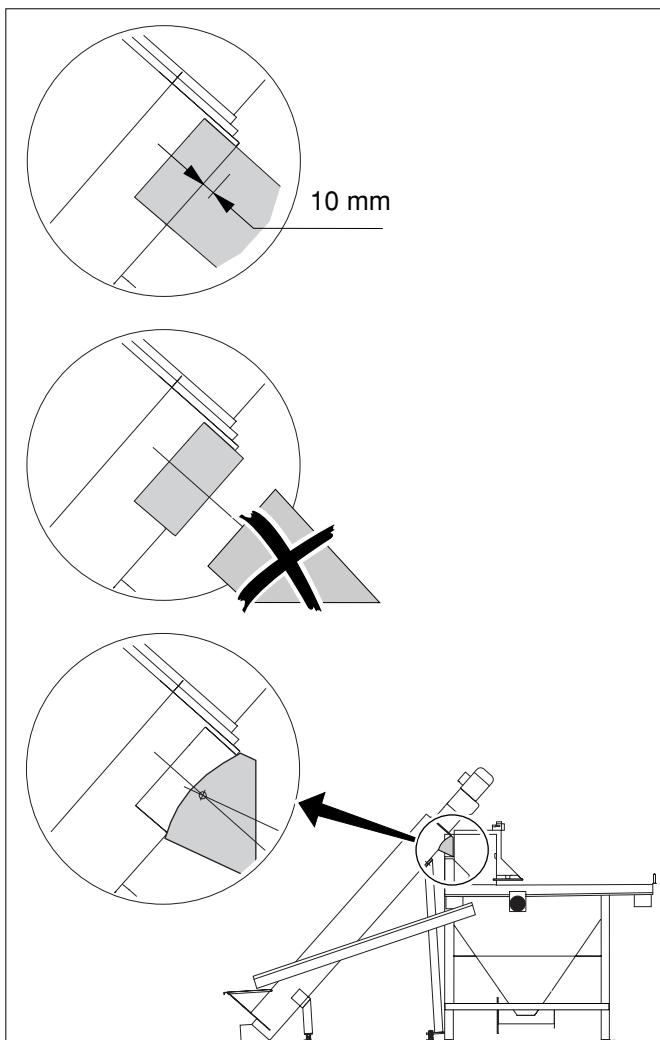


fig.10.2 Set-up with detail outfeed washer/conveyor screw

## SET-UP

Mind the following items during the set-up of the inspection/peeling table:

- place the inspection/peeling table level
- mind during the set-up of the inspection/peeling table the setting conditions of the other components of the gizzard processing installation. See figure 10.1.
- if the inspection/peeling table is not part of a gizzard processing installation, safety provisions must be fitted on the infeed side.
- fasten the inspection/peeling table and the washer/conveyor screw to the floor after the set-up.
- mount the trough between the discharge of non-peeled gizzards and the infeed of the washer/conveyor screw.
- make certain that there is sufficient illumination at the work station.

## MODIFICATION WASHER/CONVEYOR SCREW

A modification set for the outfeed and height adjustment of the washer/conveyor screw is supplied with the inspection/peeling table.

Mount it as follows:

1. Grind the outfeed of the washer/conveyor screw in such a way that the length is 10 mm. See figure 10.2.
2. Slide the new pipe across the outfeed and adopt the fastening openings.
3. Mount the pipe.
4. Mount the adjustment bolts.
5. Set the washer/conveyor screw in such a way that the outfeed of it is positioned in the infeed of the inspection/peeling table.

See figure 10.2.

## CONNECTIONS

Connections must be carried out by skilled staff.

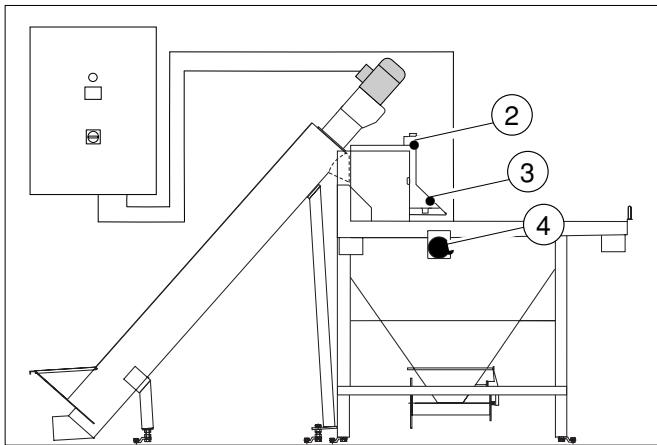


fig.11.1 Electricity

## ELECTRICITY



**Always make sure that the voltage supply has been switched off prior to any operation involving the electrical installation of the machine.**

When making the connection please check whether the voltage supply and frequency match those indicated on the type plate.

Please make sure that you observe local regulations when making connections.

Also consult the connection specifications given in the Technical Data sheet.

- Connect the inspection/peeling table in accordance with the electrical circuit diagrams that have been supplied by Marel Poultry .  
The diagrams can be found in the switchbox.  
The inspection/peeling table has been internally cabled and equipped with a terminal box.

If you do not use a Marel Poultry switch-box we explicitly point out to you to take care of the correct functioning of the safety provisions.

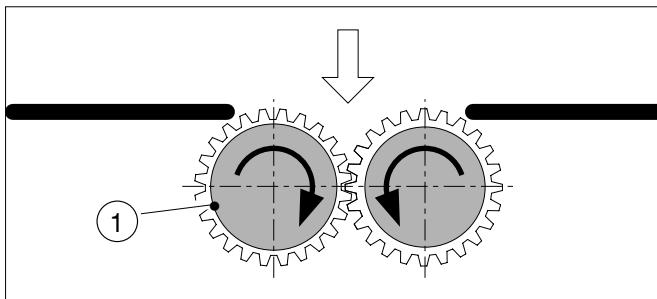


fig.11.2 Correct direction of rotation

Make sure that the motor reducer and the reduction gearbox have been lubricated before starting the machine.

When the connection has been completed, check:

1. the direction of rotation of peeling rolls 1.
2. the working of safety switch 2.

When opening protection cover 3, the peeling rolls must not start revolving after safety stop 4 has been operated.

3. the working of safety stop 4.
  - When protection cover 3 is closed and safety stop 4 has been operated, the peeling rolls must make some revolutions opposite to the common direction of rotation and then stop.
  - When protection cover 3 is open and safety stop 3 has been operated, the peeling rolls must not start revolving.

See figures 11.1 and 11.2.

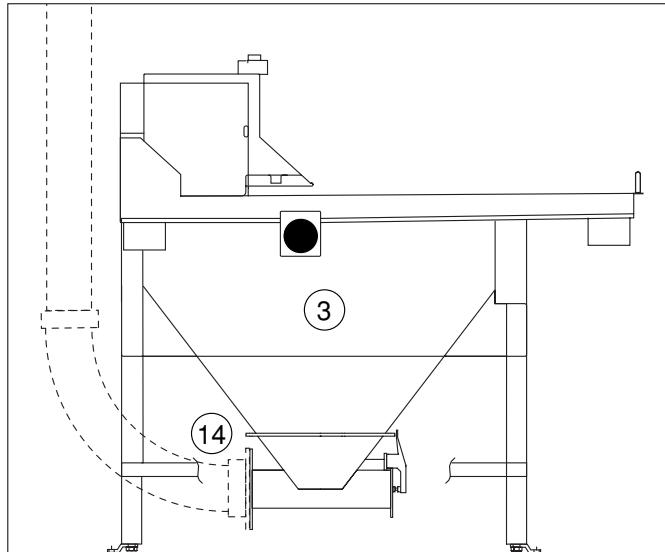


fig.12.1 Collecting bin connections

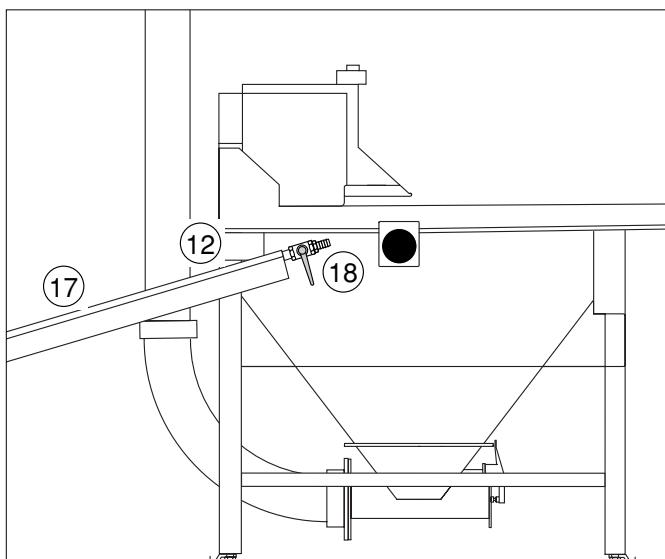


fig.12.2 Trough connection

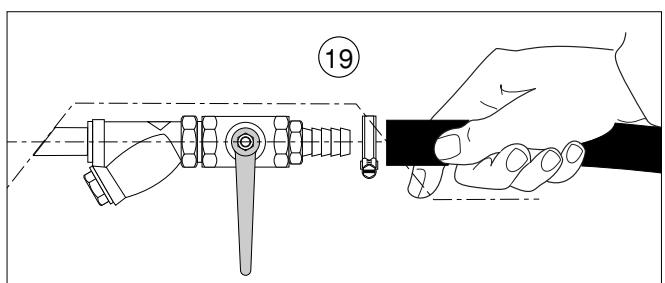


fig.12.3 Water connection

## DISCHARGE COLLECTING BIN CONNECTION

Offal and pure water are collected in collecting bin **3**. The collecting bin has been equipped with a central discharge with flange connection **14** for the discharge of the offal with a vacuum transport system.

- Connect point **14** to the vacuum transport system. Consult the Technical Data sheet for connection data. See figure 12.1.

## TROUGH CONNECTION

- Mount trough **17** underneath the discharge of non-peeled gizzards **12** to the infeed of the washer/conveyor screw.

See figure 12.2.

## WATER

- Connect points **18** and **19** to the water supply system. Please see figures 12.2 and 12.3.

Also see the connection and consumption specifications given in the Technical Data sheet.

The spray water must be of drinking water quality. An excess iron content ( $>0.1 \text{ mg/l}$ ) can have an adverse effect on machine operation.

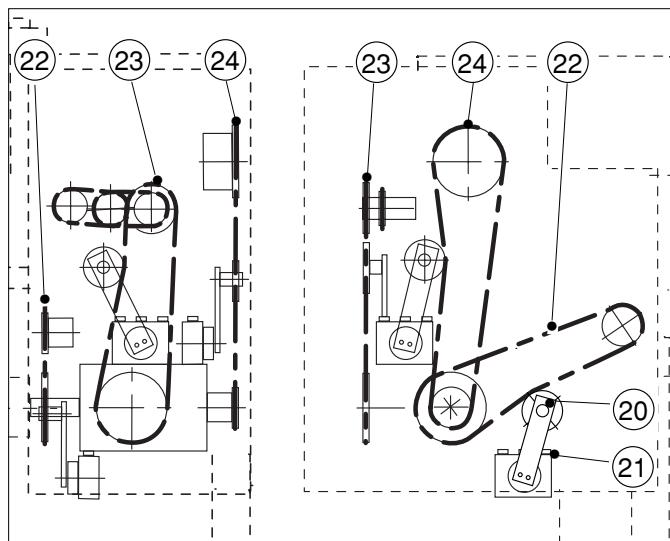


fig.13.1 Tensioning drive chains peeling rolls

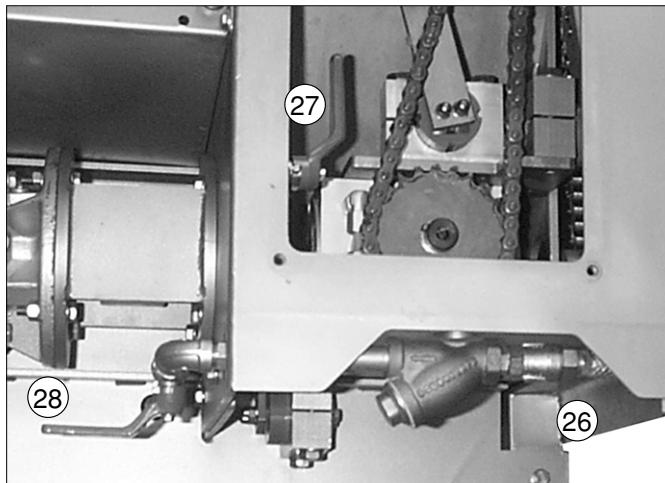


fig.13.2 Water supply valves to the peeling sets

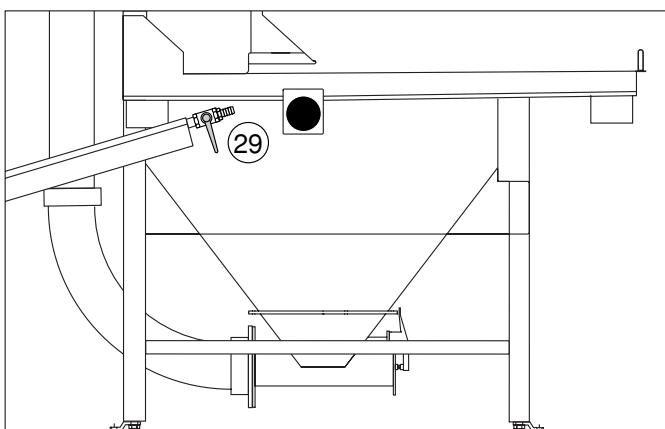


fig.13.3 Water supply valve to the trough

## SETTINGS



**Setting operations should only be carried out when the machine is stationary. Even when the machine is stationary, setting operations must be carried out with extreme care.**

Setting operations must be carried out by skilled staff.

The setting data given below are basic data, which may have to be adjusted for proper machine performance.

### TENSIONING DRIVE CHAINS

The three drive chains 22, 23 and 24 have been fitted with chain tensioners 20.

Tension the chains as follows:

1. Loosen bolts 21 a few turns.

2. Turn the tensioner:

- tension higher: towards the chain
- tension lower: away from the chain

3. Fasten bolts §21.

See figure 13.1.

### SETTING WATER QUANTITY TO SPRAYERS PEELING UNITS

There are two valves in the water supply to control the water quantity on the automatic peeling set and the manual peeling set.

Set the valves as follows:

1. Open valve 26 completely.

2. Set the water quantity for the automatic peeling set with valve 27.

3. Set the water quantity for the manual peeling set with valve 28.

See figure 13.2.

### SETTING WATER SUPPLY TO TROUGH

Set the water quantity in the trough with valve 29. See figure 13.3.

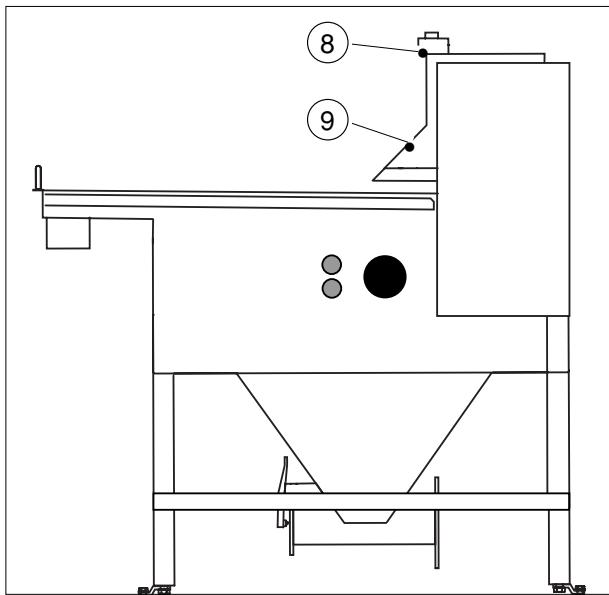


fig.14.1 Safety stop button, stop knob, start knob and protection cover

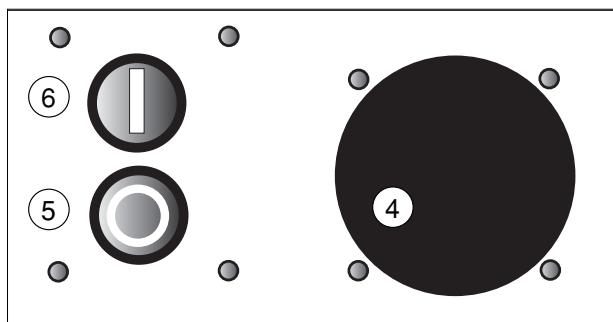


fig.14.2 Safety stop button, stop knob and start knob

## OPERATION

The purchaser/user has a duty to familiarise the operatives, cleaning and maintenance staff with the instructions given in this manual.

If the machine is supplied with a Marel Poultry switch box and connected in accordance with the Marel Poultry electrical diagrams, it can be operated as follows.

### PLEASE, READ THIS BEFORE PUTTING THE MACHINE INTO OPERATION!

If the inspection/peeling table is part of the gizzard processing installation and has been connected in the central switchbox "gizzard processing", please keep into account the following:

- The inspection/peeling table has a start and stop knob of its own and can be started and stopped independently of the components in the gizzard processing installation.
- Safety switch 8 is operated when opening protection cover 9. The inspection/peeling table immediately stops and all electrical drives to the peeling rolls are switched off. See figure 14.1.
- Also see User's Manual Switchbox gizzard processing on the operation of the entire gizzard processing installation.

#### ■ OPERATION OF MUSHROOM-TYPE SAFETY STOP BUTTON

The inspection/peeling table is equipped with a mushroom-type safety stop button 4.

Operation of this safety stop button will result in the following situation:

- In case of a **closed** protection cover 9.  
The inspection/peeling table stops, all other gizzard processing equipment remains in operation.  
The peeling rolls make some revolutions opposite to the common direction of rotation and then stop.
- In case of an **opened** protection cover 9.  
The inspection/peeling table stops, all other gizzard processing equipment remains in operation.

When you have rectified any possible failures, release the blockage by pulling at the black knob.

See figure 14.2.

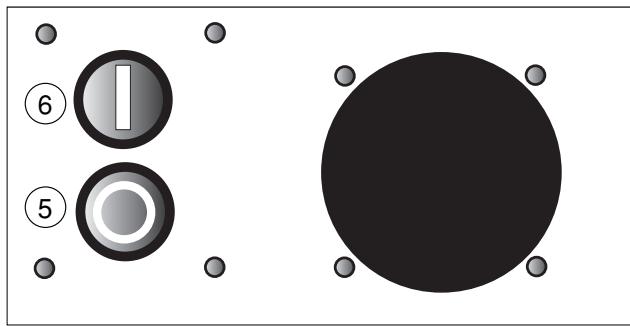


fig.15.1 Start and stop knob

## STARTING THE MACHINE

1. Close protection cover **8** of the automatic peeling set.
  2. Open the water supply. See chapter Settings.
  3. Start the inspection/peeling table by pressing start knob **6**.
- See figure 15.1.

**While working at the inspection/peeling table it is prohibited to wear jewellery and gloves.**

## STOPPING THE MACHINE

1. Stop the inspection/peeling table by pressing stop knob **5**.
  2. Close the water supply.
- See figure 15.1.



## WARNING

Defective safety provisions can cause death or serious injury.



Do not use the safety provisions to stop or turn off the machine.  
Use the procedure in this user manual to stop or turn off the machine.

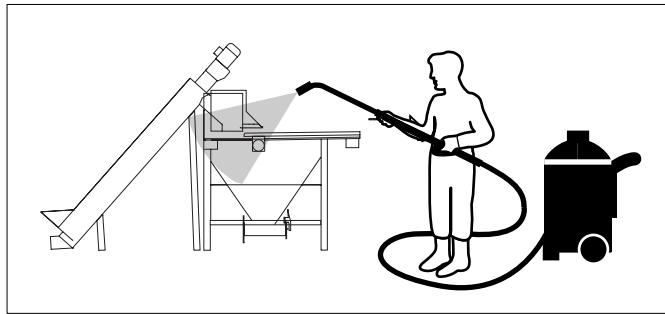


fig.16.1

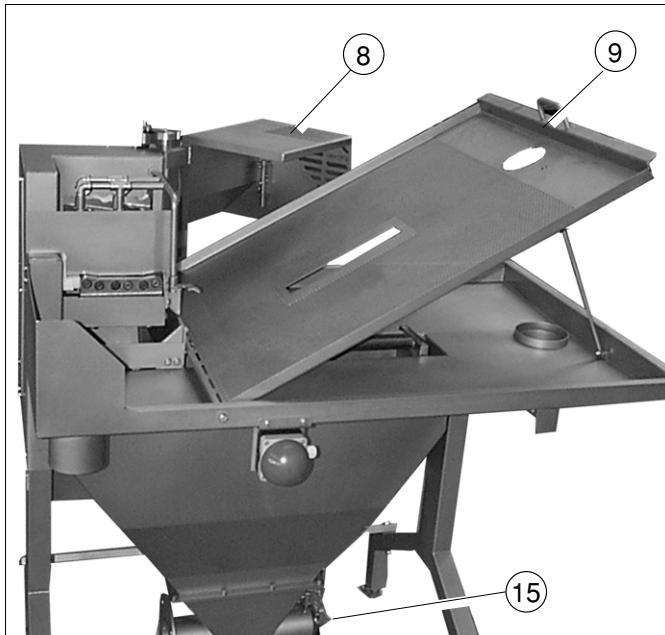


fig.16.2 Protection cover and sieve in cleaning position

## CLEANING



**Cleaning operations should only be carried out when the machine is stationary. Even when the machine is stationary cleaning operations must be carried out with extreme care.**

**Never remove, by-pass or block safety devices.**

- Clean the machine daily both inside and out. Also see the instructions in Cleaning and disinfection.

When cleaning the inspection/peeling table, proceed as follows:

1. Stop the inspection/peeling table.

Please take measures to ensure that the machine cannot be started.

2. Open protection cover 8 and sieve 9.
3. Open valve 15.
4. Clean the entire inspection/peeling table thoroughly both inside and out.
5. Close sieve 9, protection cover 8 and valve 15 after cleaning.

See figure 16.2.

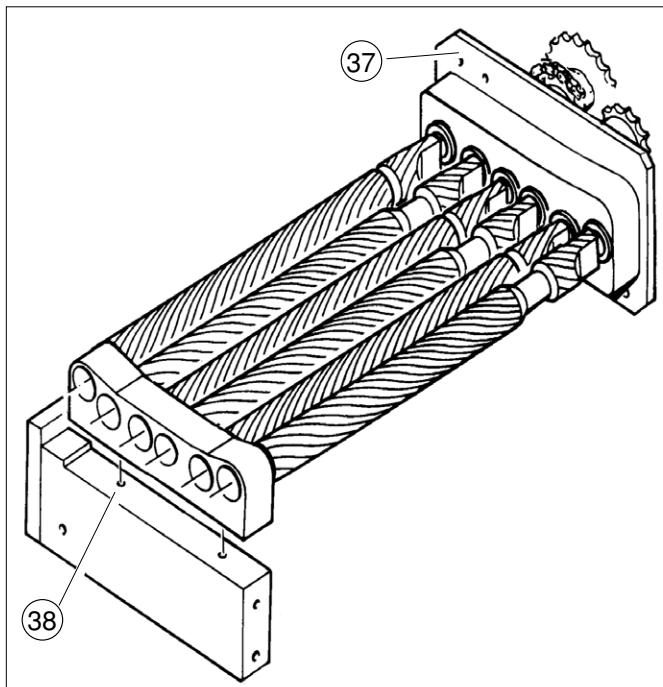


fig.17.1 Demounting peeling set

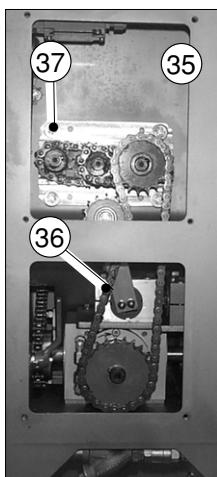


fig.17.2

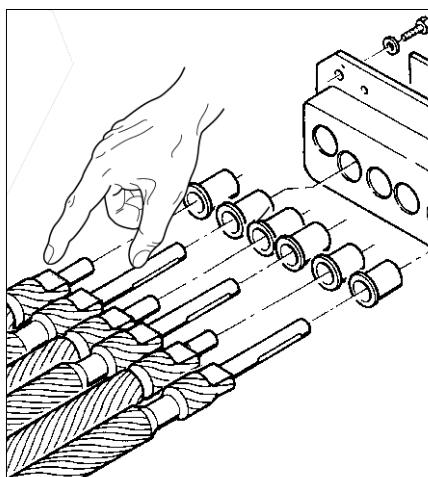


fig. 17.3 Flat side of peeling rolls

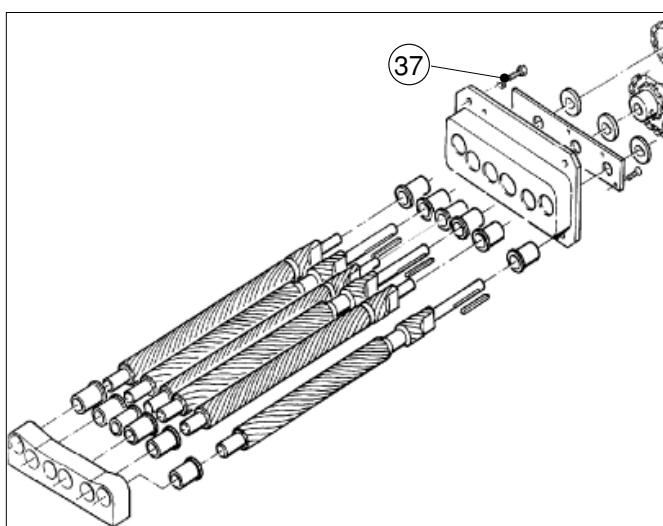


fig.17.4 Mounting peeling rolls

## MAINTENANCE



**Maintenance operations should only be carried out when the machine is stationary. Even when the machine is stationary maintenance operations must be carried out with extreme care.**

**Never remove, by-pass or block safety devices.**

Maintenance operations must be carried out by skilled staff.

## REPLACING PEELING ROLLS

The peeling rolls can be removed from the inspection/peeling table as a whole (peeling set). When replacing the peeling rolls proceed as follows:

1. Remove cover 35 of the drive box.
2. Remove chain 36 between drive and peeling rolls.
3. Loosen bolts 37 (4x).
4. Loosen bolts 38 (2x).
5. Take the peeling set from the inspection/peeling table.
6. Demount the entire peeling set.
7. Replace all peeling rolls by new ones.

Also check the bearing bushes and replace them by new ones if necessary.

See figures 17.1, 17.2 and 17.3.

Proceed as follows while mounting:

1. Mount all components in the correct order. Every peeling roll has a flat side on the drive side. Mount the peeling rolls in such a way that all flat sides are in horizontal position. See figure 17.3.
  2. Mount drive chains in between the peeling roll sets.
  3. Place the entire peeling set in the inspection/peeling table.
  4. Attach the peeling set with bolts 37 (4x) and 38 (2x).
  5. Check whether the peeling set can be turned manually.
  6. Mount drive chain 36 and tension it.
  7. Mount cover 35 of the drive box.
- See figures 17.1, 17.2, 17.3 and 17.4.

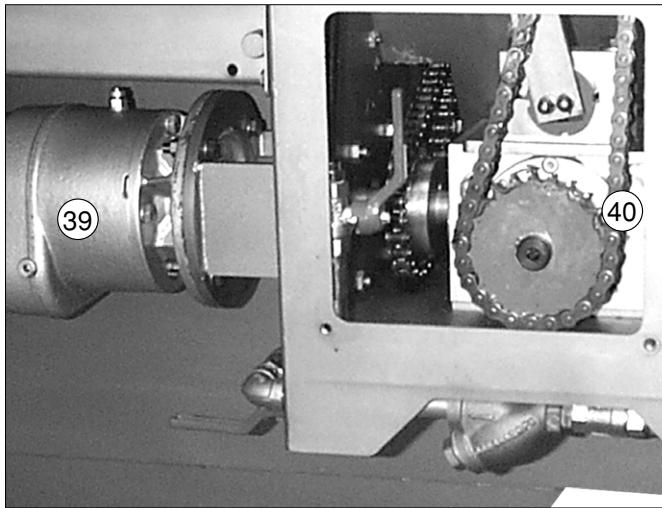


fig.18.1 Lubrication

	 <b>Texaco</b>	 <b>Mobil</b>	 <b>Esso</b>	 <b>Shell</b>
▼	Meropa 150	Mobilgear 629	Spartan EP 150	Omala oil 150
■	Rando oil HD B-26	DTE 2	Nuto H 46	Tellus oil 46
▲	Multifak MP 2	Mobilux EP 2	Beacon 2	Alvania Grease R2

## PREVENTIVE MAINTENANCE

For optimal technical machine operation we recommend the following checks and replacements.

### Daily

- Check the functioning of the safety provisions and any available indicators.
- Check whether the pictographs are available.

### Weekly

- Check all sprayers on blockage.
- Check the peeling rolls on wear; replace if necessary.  
See chapter Replacing peeling rolls.

### Monthly

- Check the entire machine on wear, fracture and smooth running of moving parts.
- Check the filter in the water supply.
- Check the tension of the drive chains.

**LIST OF DEFECTS**

<b>DEFECT</b>	<b>CAUSE</b>	<b>REMEDY</b>
pile-up of gizzards at the infeed cover	inspection/peeling table has not been switched on	switch on inspection/peeling table; see chapter Operation
	gizzards are supplied irregularly	ensure a regular gizzard supply
	sprayers are blocked	clean sprayers
gizzards are peeled insufficiently	sprayers are blocked	clean sprayers
	insufficient water quantity	reset the water quantity; see chapter Settings
	check the functioning of the gizzard harvester	see User's Manual of the gizzard harvester
many damaged gizzards	peeling rolls are worn	replace peeling rolls; see chapter Replacing peeling rolls
	check the functioning of the gizzard harvester	see User's Manual of the gizzard harvester
	peeling rolls are worn	replace peeling rolls; see chapter Replacing peeling rolls
manual peeling set is not running, whereas the inspection/peeling table has been started	bearings of peeling rolls are worn	replace bearings at the same time as peeling rolls; see chapter Replacing peeling rolls
	synthetic pins in coupling are defect	replace the pins in the coupling