

INSTRUCTION MANUAL

Hopper type ABM



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1.0 Purpose and scope of operations

The machine is designed to be used for storing and dosing potatoes, onions and similar products.

2.0 Installation

The hopper must be supported evenly on all four legs.

Connect the electricity supply in accordance with local regulations. The supply is connected through a motor protection relay which corresponds to the size of the motor. If the machine is fitted with a relay, connect the supply to this.

3.0 Operation

When the machine is correctly positioned in relation to other machines in the sequence, it may be started by activating the motor relay.

The conveyor is fitted with a variator (variable speed regulator), which is adjusted by turning the handle on the adjuster (only when in operation).

4.0 Pictograms

Danger! Chains, rotating drums and rollers. Keep a safe distance when in operation.

5.0 Lubrication and maintenance

All bearings are lubricated for life and require no further maintenance.

Type NMRV50/75/90 worm reduction gear is lubricated for life with IP TELIUM VSF, a synthetic grease for operation in the -15°C to + 40°C temperature range.

Quantity of lubricant:	NMRV50	0,15 L.
	NMRV75	0,55 L.
	NMRV90	1,0 L.

Type NMRV110 and NMRV130 worm reduction gears are supplied filled with IP MELLANA OIL 220, a mineral oil for operation at temperature range 0°C to 35°C.

Quantity of lubricant:	NMRV110	2,5 L.
	NMRV130	3,5 L.

	Synthetic	Mineral
IP	Telium VSF	Mellena oil 220
Shell	Tivela oil SC320	Omala oil 220
Agib	Blasia S320	Blasia 220
Mobil	Glygoyle 30	Mobilgear 220
Castrol	Alphasyn PG 320	Alpha 220

The variator is fitted between the worm drive and motor and is always supplied ready-filled with life-time oil to at least the middle of the inspection glass.

The oil should be changed every eight years.

It is very important that there is a sufficient quantity and correct type of oil in the variator

Recommended oils:

IP	Transmission V. E.
IP	A.T.F. Dexron Fluid
AGIP	A.T.F. Dexron
BP	Autran DX
Chevron	A.T.F. Dexron
ESSO	A.T.F. Dexron
Fina	A.T.F. Dexron
Mobil	A.T.F. 220
Shell	A.T.F. Dexron
Castrol	TQ Dexron II.

Rollers are lubricated for life and require no further maintenance.

Defective rollers must be removed and returned to the factory for repair.

The conveyor should run evenly and be kept sufficiently taut by regulating the adjusting bolts of the conveyor.

5.1 Cleaning

With reference to the Danish Plant Directorate's Order No. 965 of 13 December 1993 (p. 6).

- 2.3.3. Seed potato growers with contained propagation must clean and disinfect all sorting and ancillary equipment after each new variety. Disinfecting should be carried out using a product approved by The Danish Institute of Plant and Soil Science.
- 2.3.4 Companies authorised to sort potatoes and who also have the authorisation to propagate potatoes, must clean and disinfect sorting machinery etc. which is under the control of The Danish Plant Directorate before the sorting of own propagation is commenced. Disinfecting should be carried out using a product approved by The Danish Institute of Plant and Soil Science.
- 2.3.5 Premises and machinery etc. must be cleaned and disinfected each year before 30 June. Disinfecting must be carried out using a product approved by The Danish Institute of Plant and Soil Science.

In other countries, customers must conform to relevant, local food and hygiene regulations.

When cleaning with high pressure equipment, the following parts must be securely covered: Motor, variator, worm gear, conveyor cylinders, motor shield, and all bearings.

In order to maintain effective production and keep maintenance costs at a minimum, regular lubrication, maintenance and cleaning is very important.

6.0 Packing and transport information

Number of units:

The hopper is packed as one complete unit.

7.0 Transport and lifting instructions

Should it be necessary to lift the hopper, this must be carried out by attaching nylon straps to all four legs as shown in the illustration below (fig. 1).



Fig. 1.

8.0 Spare parts

When ordering spares quote the machine type, serial number and, if possible, position number.

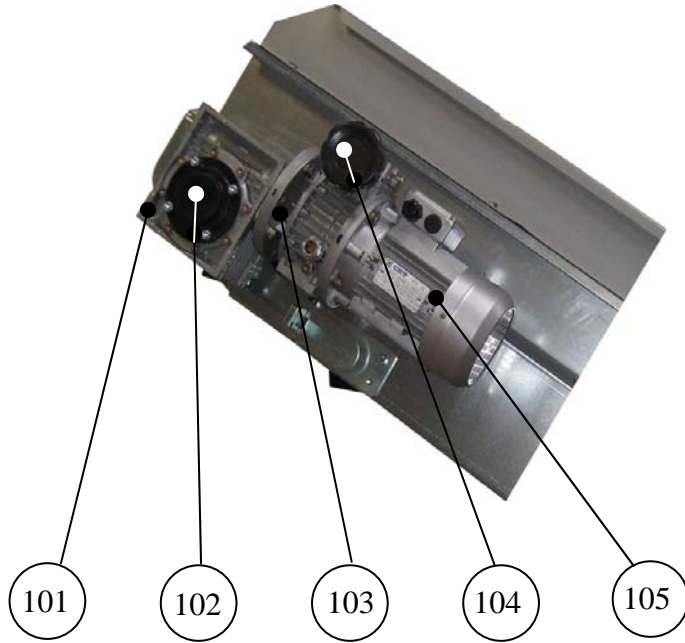


Fig. 2.

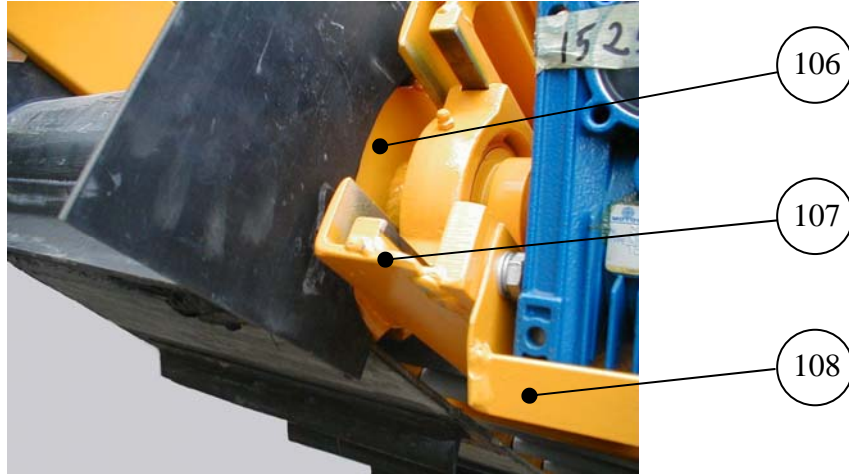


Fig. 3.

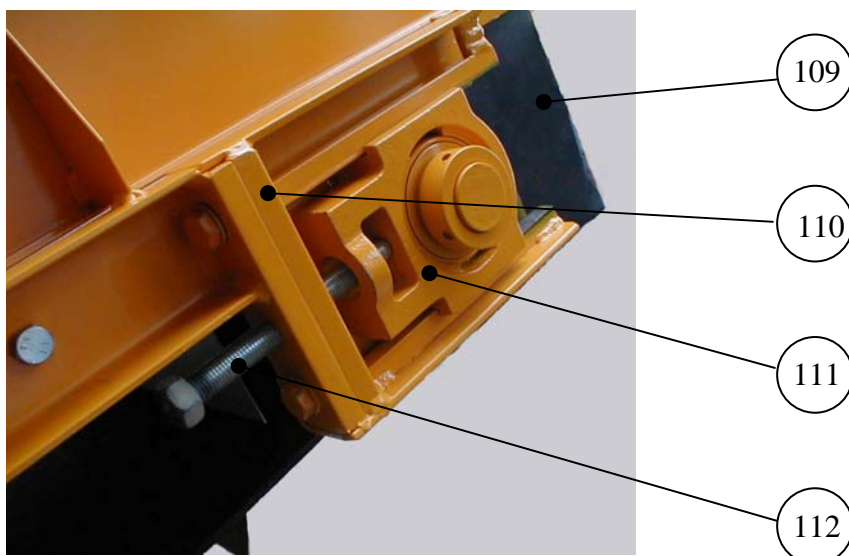
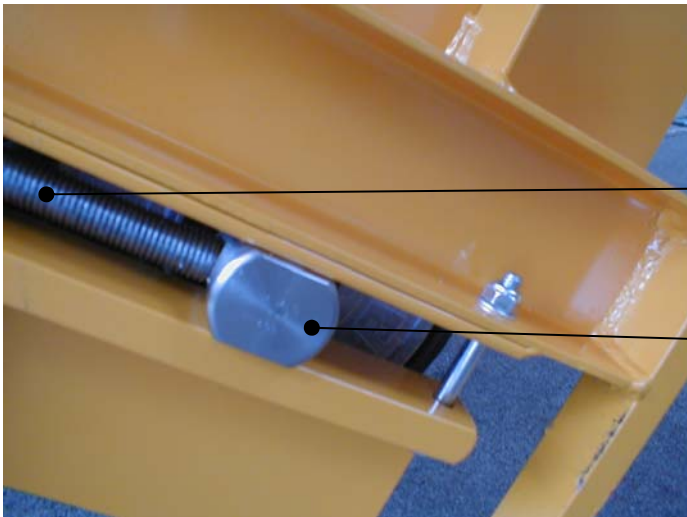


Fig. 4.



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Fig. 5.



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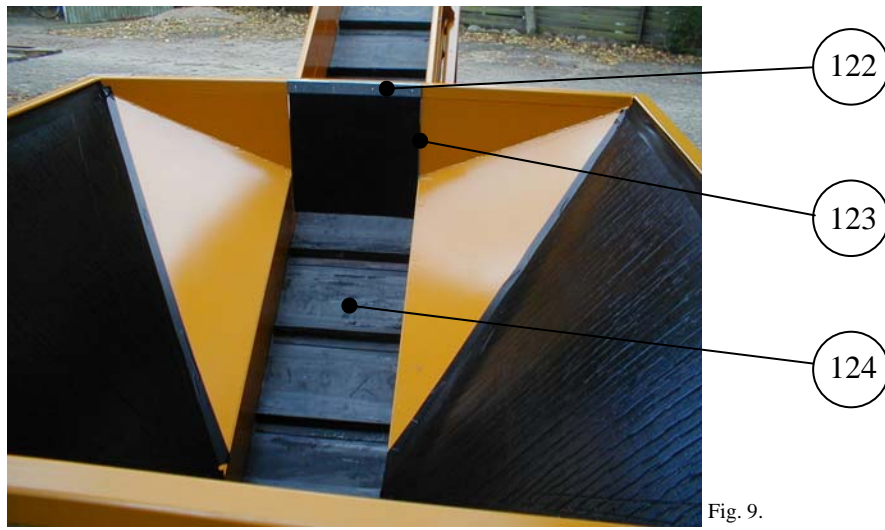
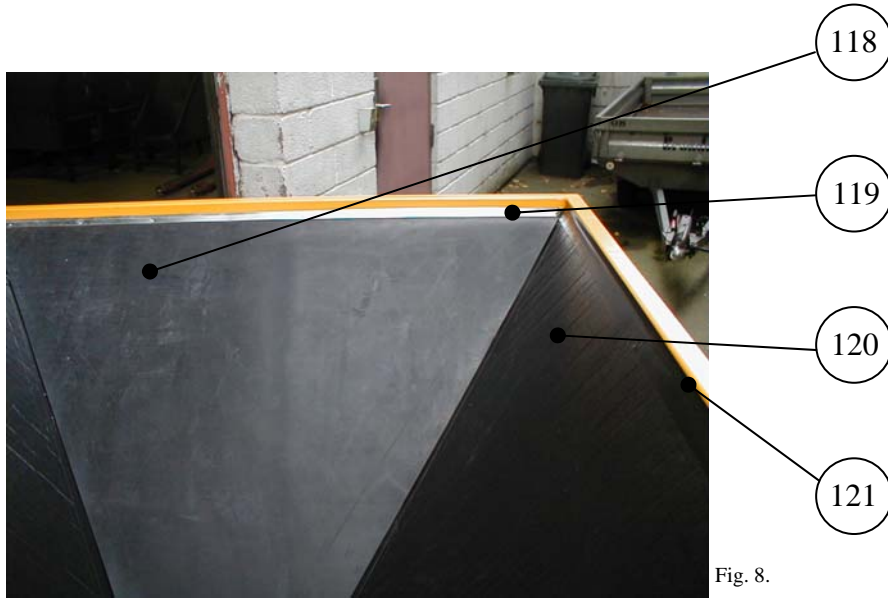
Fig. 6.

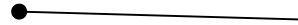


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Fig. 7.





Page	Fig. no.	Pos. no.	Description
5	2	101	Gear
5	2	102	PVC shielding
5	2	103	Variator
5	2	104	Ur
5	2	105	Motor
5	3	106	Driving drum
5	3	107	Bearing guide
5	3	108	Gear motor mounting
5	4	109	Rubber sides
5	4	110	Bearing guide
5	4	111	Transom bearing
5	4	112	Adjusting screw
6	5	113	Belt scraper
6	6	114	Adjusting screw
6	6	115	Roller
6	7	116	Supporting roller (unit)
6	7	117	End bearing
7	8	118	Rubber sheet
7	8	119	Rubber mounting
7	8	120	Rubber sheet
7	8	121	Rubber srib
7	9	122	Rubber mounting
7	9	123	Rubber flap
7	9	124	Elevator belt
7	10	125	Hopper
7	10	126	Frame
7	10	127	Leg extension

9.0 Declaration of conformity with EU



Manufacturer	
Firm:	A/S Skals Maskinfabrik
Address:	Hovedgaden 56
	8832 Skals, Denmark
Telephone:	87 25 62 00

declares herewith, that

Machine:	Hopper type ABM
Brand:	
Type, serial no., year:	

Is manufactured in accordance with the decisions of the Councils Directives:

- 1 Machinery Safety – Directive 98/37/EC
- 2 Low Voltage Equipment Directive (LVD) 2006/95/EEC
- 3 Electromagnetic Compatibility (EMC) Directive 89/336/EEC and 93/68/EEC as amended.

Title:	Productions Manager
Name:	Søren Lund Madsen
Firm:	A/S Skals Maskinfabrik

Date: _____

Signed: _____

