

ORIGINAL INSTRUCTIONS - according to Directive 2006/42/EC, Annex I 1.7.4.1

OPERATOR'S MANUAL

VM-Strawblower Mixer

FOREWORD

DEAR CUSTOMER!

This instruction manual only deals with the straw bedding unit.

This is a supplement to the instruction manual, which was delivered with your diet feeder. Therefore, you must first read the instruction manual for the diet feeder.

This instruction manual contains information about correct and safe use of the straw bedding unit.

When buying the machine you will receive information about use, adjustment and maintenance.

However, this first introduction doesn't replace a more thorough knowledge of the different tasks, functions and correct technical use of the machine.

Therefore you should read this instruction manual very carefully before using the machine.

This instruction manual is made so that the information is mentioned in the order you will need it, i.e. from the necessary operation conditions to use and maintenance. There are illustrations to support the instructions.

"Right" and "Left" are defined from a position behind the machine facing the direction of travel.

All the information, illustrations and technical specifications in this instruction manual describe the latest version at the time of publication.

Kongskilde Industries A/S reserves the right to make changes or improvements in the design or construction of any part without incurring the obligations to install such improvements on any unit previously delivered.

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1. INTRODUCTION

SAFETY

The general safety regulations are described in the instruction manual for the diet feeder. Please refer to that in conjunction with this supplement.

The machine demands a skilled operation, which means that **you should read the instruction manual before you use the straw bedder.** Even though you have been driving a similar machine before, you should read the manual - this is a matter of your own and other persons' safety!

You should **never** leave the machine to others before you have made sure that they have the necessary knowledge to operate the machine safely.

DEFINITIONS

The safety decals and the instruction manual of the machine contain a line of safety notes. The safety notes mention certain measures, which we recommend you and your colleagues to follow as to increase the personal safety as much as possible.

We recommend that you take the necessary time to read the safety instructions and inform your staff to do the same.



In this instruction manual this symbol is used with reference to personal safety directly or indirectly through maintenance of the machine.

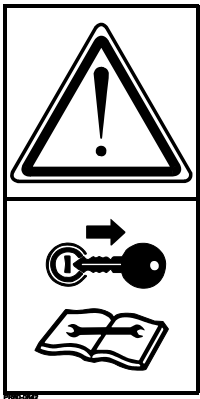
CAUTION: The word CAUTION is used to ensure that the operator follows the general safety instructions or the measures mentioned in the instruction manual to protect the operator and others against injuries.

WARNING: The word WARNING is used to warn against visible or hidden risks, which might lead to serious personal injuries.

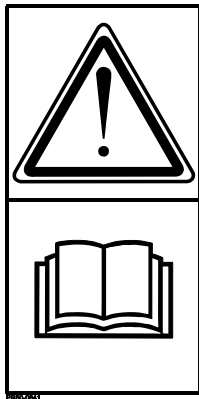
DANGER: The word DANGER is used to indicate measures which, according to legislation, must be followed to protect the driver and others against serious injuries.

1. INTRODUCTION

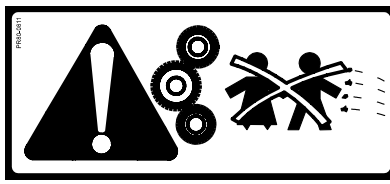
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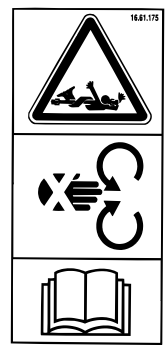
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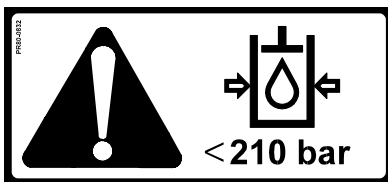
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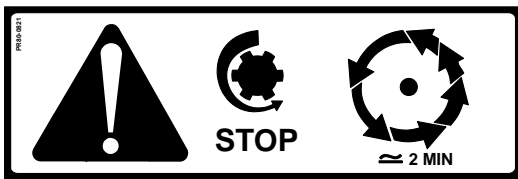
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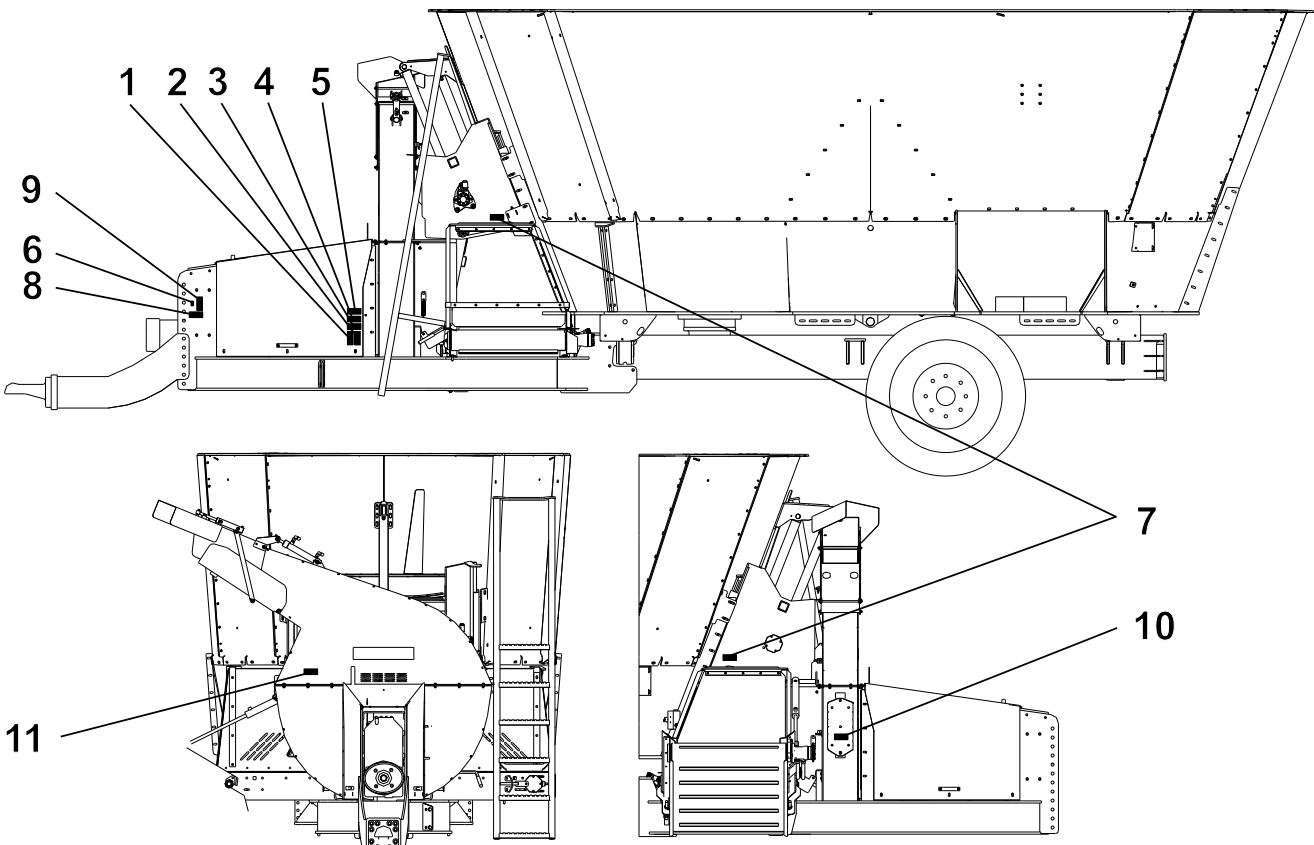
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SAFETY DECALS

Note: This chapter is a supplement to the corresponding chapter in the instruction manual for the diet feeder.

The safety decals shown on the previous page are positioned as shown on the drawings at the bottom of the page. Before using the machine, check that all decals are present: if not, replace those missing. The decals have the following meaning: (See order No. in the spare parts book):

- 1 Stop the tractor engine and remove the ignition key before touching the machine.**
Always remember to stop the tractor engine before lubricating, adjusting, maintaining or repairing. Also remember to remove the ignition key to ensure that nobody starts the engine, until you have finished.
- 2 Read the instruction manual.**
This is to remind you to read the delivered documents to ensure the machine is operated correctly and to avoid unnecessary accidents and machine damage.
- 3 Children.**
Never let children stand near the machine during operation. Especially not small children as they have a tendency to do unforeseen things.
- 4 Hydraulic oil under pressure.**
This warning emphasises that hydraulic oil under pressure is very dangerous. Make sure that the hoses are always in a good condition and are treated properly to minimise the risk of leakage and hose breach.
- 5 Maximum pressure on the hydraulic system.**
Make sure that the hydraulic components are not exposed to more pressure than 210 bar, as there could be a risk of explosive damage of hoses and other components. Hereby you expose yourself and others to serious danger of getting hit by metal parts with high speed or oil under high pressure.
- 6 The number and the direction of rotations.**
Check that the PTO drive shaft runs with the right RPM and in the right direction. A wrong number of rotations and/or direction of rotation can damage the machine with the risk of personal injury as a result.
- 7 Risk of injury.**
This warning is there to remind you that there is a risk of injuring or cutting off fingers or hands when opening or closing the discharge doors.
- 8 Risk of injury during the connection.**
Never let anybody stand between the tractor and the machine during connection to the tractor. An unintentional manoeuvre may cause serious injury.
- 9 The PTO drive shaft.**
This decal has the purpose to remind you how dangerous the PTO drive shaft can be if it is not correctly mounted or protected.
- 10 Rotating parts.**
After the PTO drive shaft has stopped, the turbine will have a momentum where it keeps rotating for up to 2 minutes.
Do not dismount the inspection door until the turbine has come to a complete stop.
- 11 Stones being thrown from the straw bedder.**
In spite of a built-in stone trap there is still a risk of stones being thrown from the straw bedder. Therefore, always make sure that nobody is standing closer than 50 m from the straw bedder in the blowing direction when the machine is working.

TECHNICAL DATA

Type	Straw bedder for diet feeder
Straw bedder position	Front
Drive of the straw bedder	PTO and gearbox
Blowing direction	Right
Operation	Electro-hydraulic
Hydr. connection and disconnection of straw bedder	Yes
Hydr. foldable chute	Yes
Hydr. adjustable chute	Option
Hydr. straw feeding rotor	Yes
Rotation indicator for straw feeding rotor	Yes
Friction clutch	Yes
Overrun clutch	Yes
Inspection hole	Yes
Stone trap with spring-loaded emptying	Yes
*Max. blowing capacity [m]	18

* Cannot be guaranteed in all cases. Depends on the amount and condition of the straw.

2. USE OF THE STRAW BEDDER

This chapter describes the principal construction of the equipment, how you switch to straw bedding mode, how you switch back to feeding mode and the actual use of the straw bedder.

CONSTRUCTION

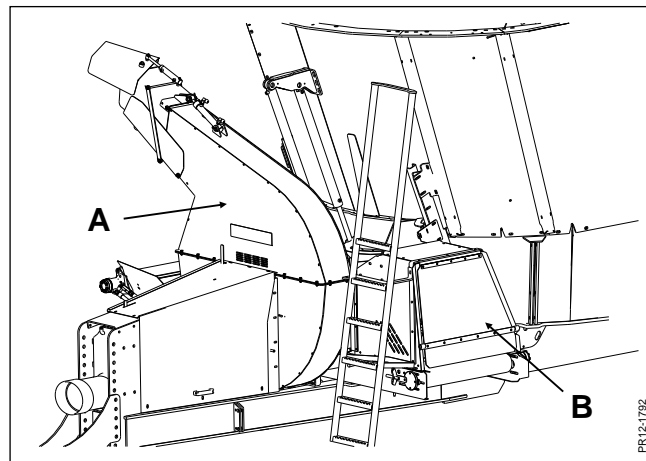


Fig. 2-1

Fig. 2-1 KONGSKILDE's solution is very unique and has been patented. The solution is unique because both the straw bedder (A) and the cross conveyor for feeding (B) are placed at the front. This guarantees a perfect view.

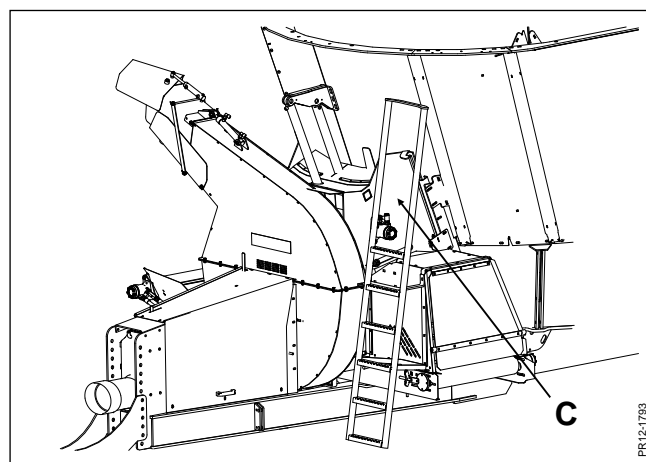


Fig. 2-2

Fig. 2-2 This combination is possible because the straw feeding rotor (unit) (C) can move up and down, whereby you switch from feeding to straw bedding and vice versa.

2. USE OF THE STRAW BEDDER

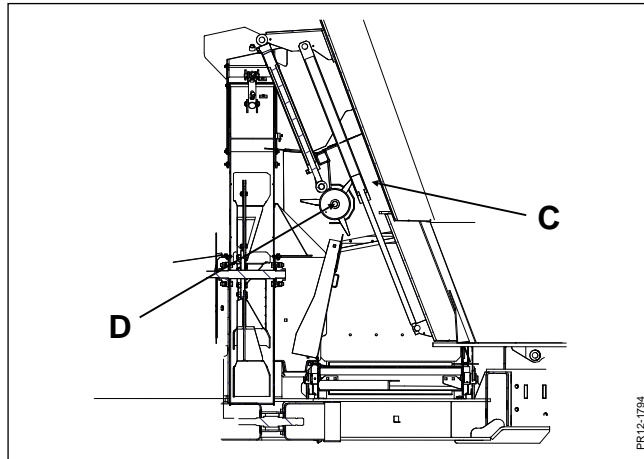


Fig. 2-3

Fig. 2-3 Shows the same as Fig. 2-2, only illustrated by sectional view lengthwise of the machine. This is the adjustment for feeding. The straw feeding rotor (**D**) cannot rotate in this position.

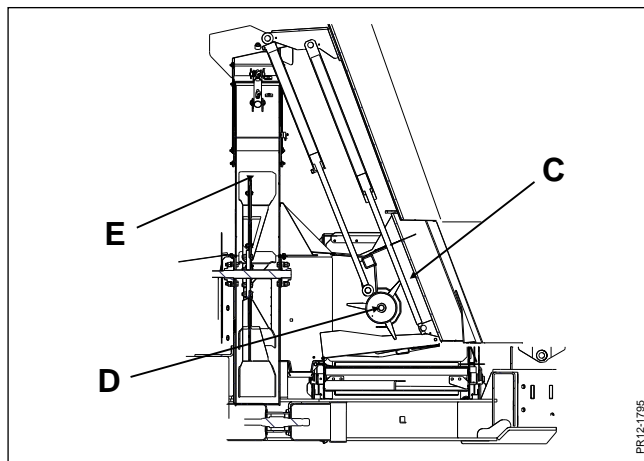


Fig. 2-4

Fig. 2-4 This is the adjustment for straw bedding. (**C**) has been moved down and (**D**) can rotate. The straw feeding rotor ensures an even supply of straw to the turbine (**E**). It can also be used for brief interruptions of the straw bedding as the supply of straw to the turbine stops when the straw feeding rotor is not rotating.

2. USE OF THE STRAW BEDDER

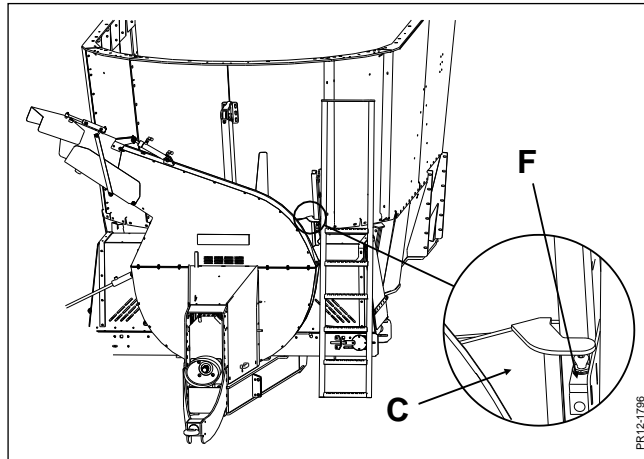


Fig. 2-5

Fig. 2-5 When (C) has been moved down the contact (F) is established, which enables the straw feeding rotor to rotate. When (C) is moved up and (F) is no longer in contact, the straw feeding rotor can not rotate.

OPERATION

SWITCHING TO STRAW BEDDING

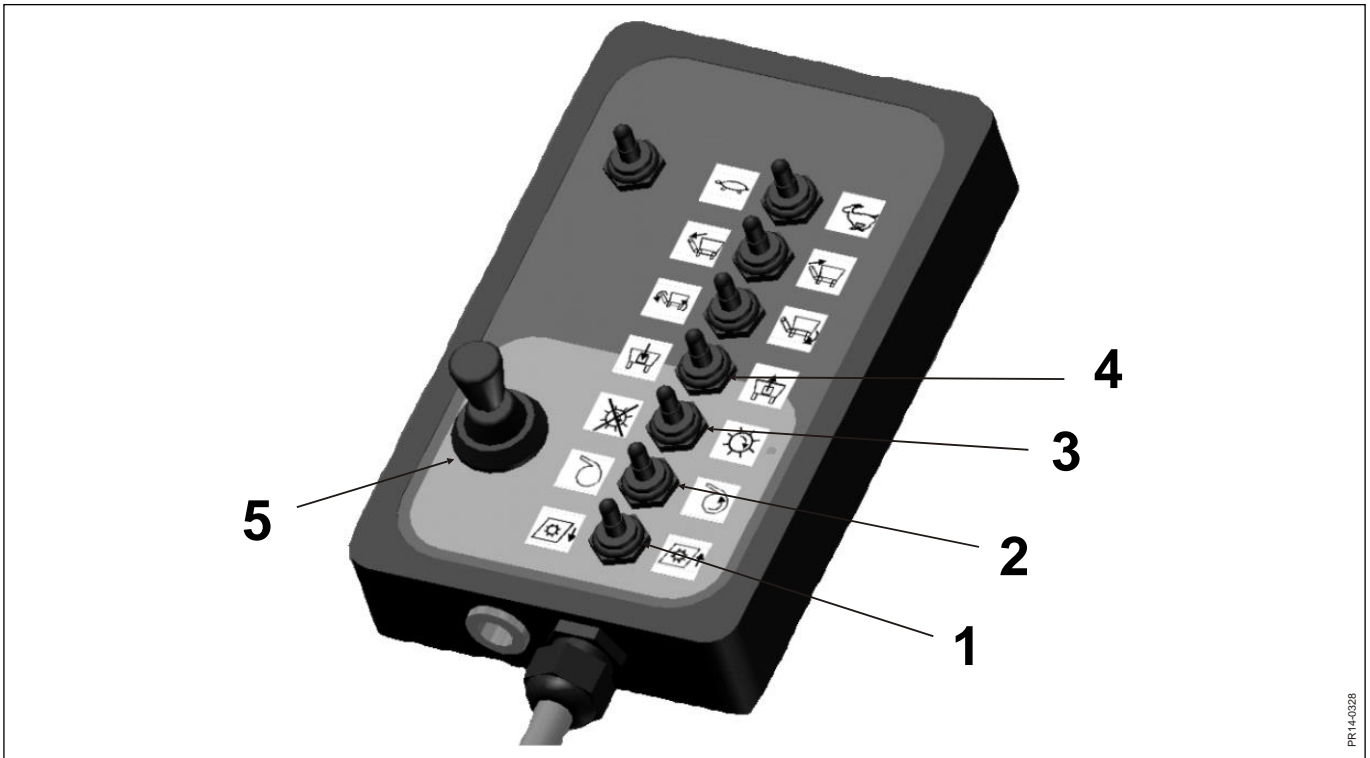


Fig. 2-6

Fig. 2-6 Before the bedding material is loaded, make sure that the front door is closed. It is closed by pushing switch 4 to the left. Also make sure that the cross conveyor is empty.

- 1) Before starting the straw bedding, the straw feeding unit (see fig. 2.2 (C)) must be moved down by pushing switch (1) to the left.
- 2) The straw bedder is connected by pushing switch (2) to the right.



WARNING: Never connect the straw bedder while the PTO shaft is rotating.

2. USE OF THE STRAW BEDDER

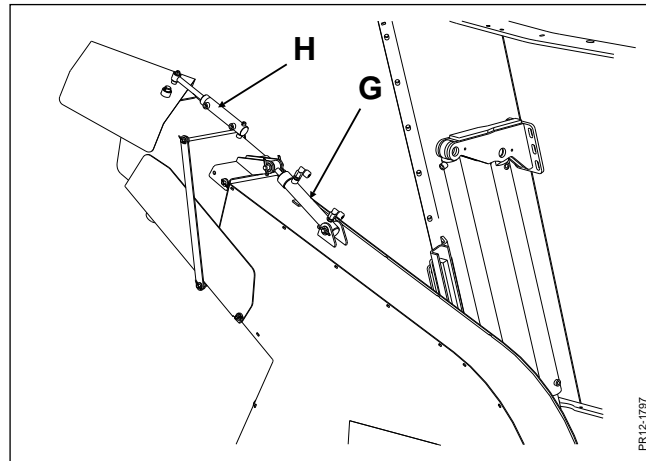


Fig. 2-7

- Fig. 2-7** 3) The chute is adjusted with the joystick (5).
The cylinder (G) is operated by moving the joystick up or down.
The cylinder (H), which is optional equipment, is operated by moving the joystick to the right or left.



Fig. 2-8

- Fig. 2-8** 4) The door is opened by pushing switch (4) to the right. The door should not be opened more than to the point where the 2 arrows are on level with each other.



WARNING: If the door is opened more than the arrows indicate, there is a risk that the straw is not guided the right way into the straw feeding unit.

- Fig. 2-6** 5) The straw feeding rotor is activated by pushing switch (3) to the right whereby the straw bedding is started. The green light diode is flashing when the feeding rotor is rotating.

2. USE OF THE STRAW BEDDER

STRAW BEDDING

When the straw bedding is going to be interrupted briefly, you simply stop the straw feeding rotor. This can be necessary if, for instance, you are going to pass a post. Afterwards the straw feeding rotor is activated again and the straw bedding is continued.

Please note that the blowing capacity (length) is depending on the amount and the condition of the material.

If the material is very dry and porous and the amount very small, the blowing capacity is smaller than when the material is heavier and long-strawed and the amount is bigger.

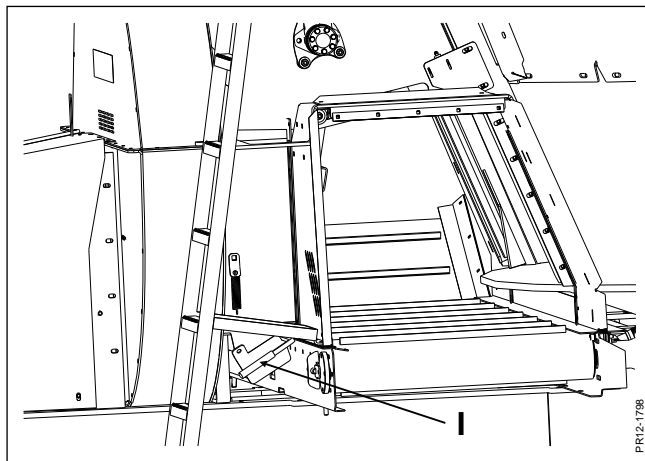


Fig. 2-9

Fig. 2-9 When the straw bedding is finished, the stone trap must be emptied. This is done by pushing down the spring-loaded handle **(I)**.

2. USE OF THE STRAW BEDDER

SWITCHING TO FEEDING

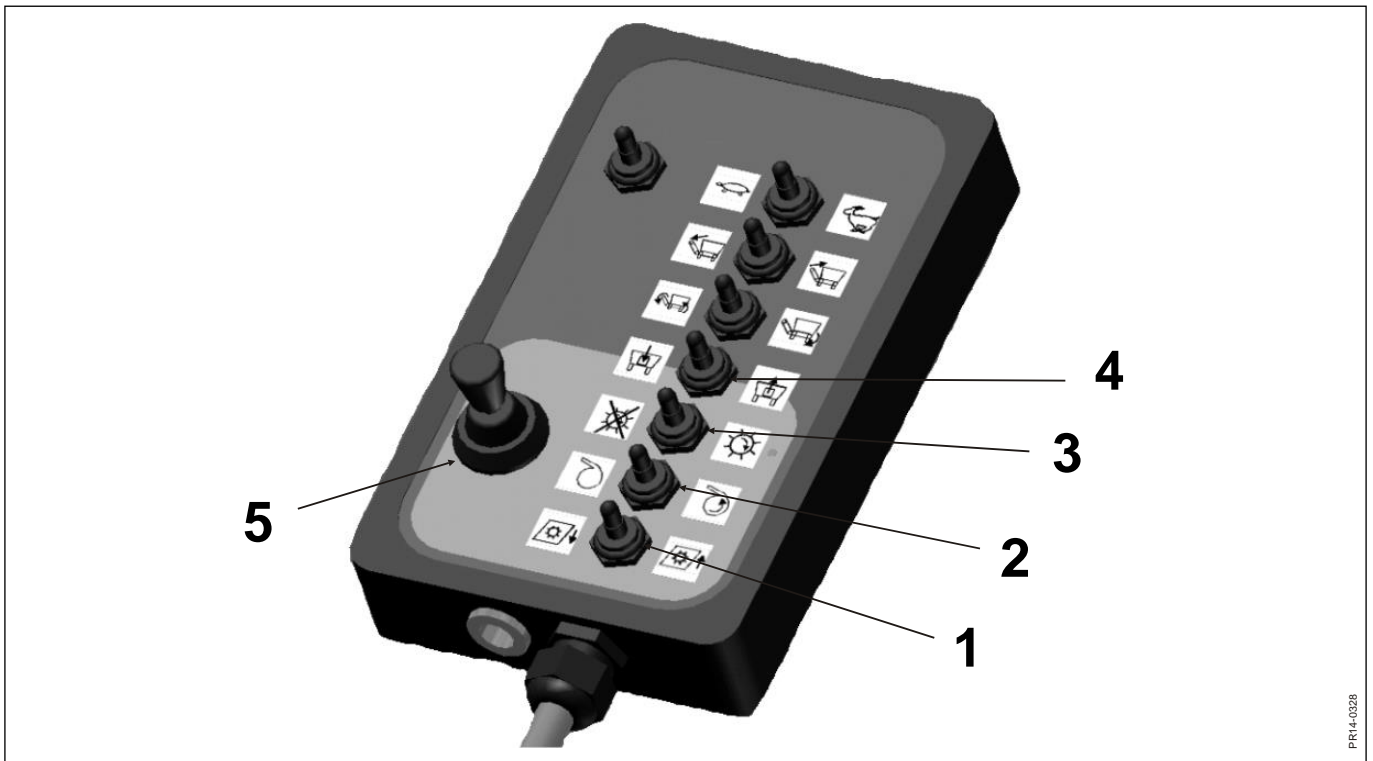


Fig. 2-6

Fig. 2-6 Before the feed is loaded, make sure that the front door is closed. It is closed by pushing switch **(4)** to the left.

1) The straw bedder is disconnected by pushing switch **(2)** to the left.



WARNING: Never disconnect the straw bedder while the PTO shaft is rotating.

2) Before the feeding is started, the straw feeding unit (see fig. 2.2 (C)) must be moved up by pushing switch **(1)** to the right.

The diet feeder is now ready to feed.

3. MAINTENANCE

For general maintenance of the straw bedder as regards re-tightening of bolts see the table for torque settings in the chapter "5. MAINTENANCE" in the instruction manual for the Feeder.

INSPECTION



DANGER: Before any inspection is carried out the PTO shaft must be disconnected and the tractor engine must be stopped.

If, by accident, large foreign objects have passed through the straw bedder, it is possible to inspect the vanes of the turbine.

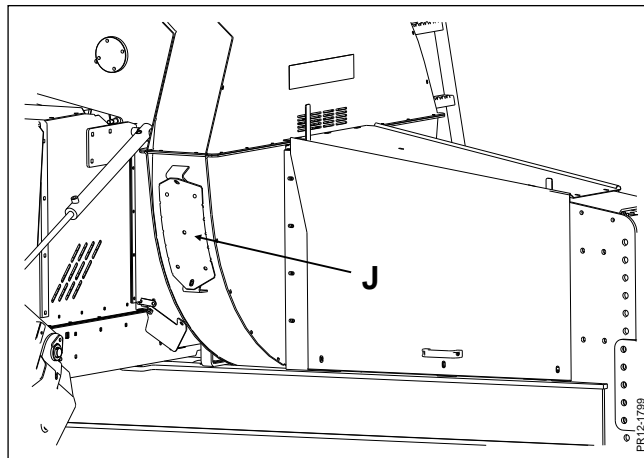


Fig. 3-1

Fig. 3-1 This is done by dismantling the inspection door (**J**) at the side of the turbine casing. This makes it possible to turn the rotor and check that the vanes are not bent. If they are bent, they must be replaced. See the spare parts book.

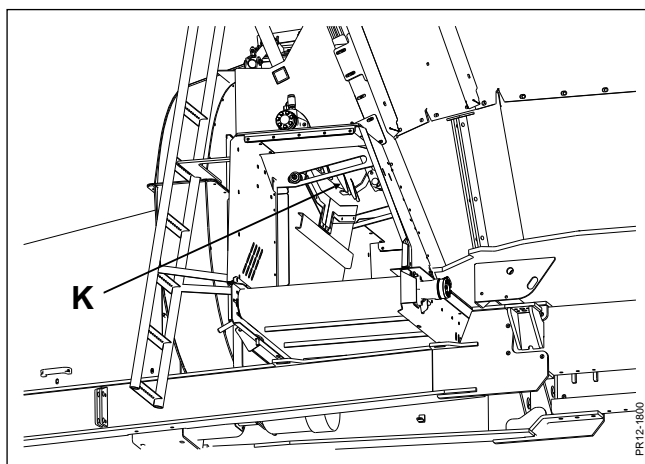


Fig. 3-2

Fig. 3-2 The carriers (**K**) of the straw feeding rotor should also be inspected. If they are bent they must be straightened out.

FRICITION CLUTCH

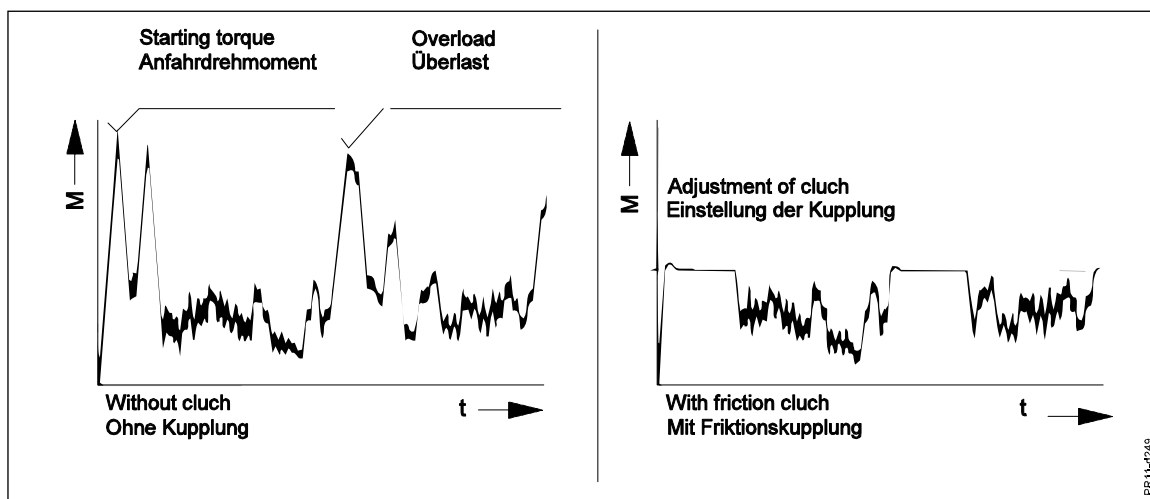


Fig. 3-3

Fig. 3-3 In order to ensure a long life for your tractor and machine, the machine is delivered with a **friction clutch** on the PTO drive shaft between the input gear and the straw bedder.

The figure illustrates how the clutch protects the transmission against high torque peaks and at the same time is capable of transmitting the torque while it slips.



WARNING: If the clutch is overloaded it will slip and get heated, and hence be worn quickly. Overheating will damage the friction plates. If the clutch is blocked or put out of function in other ways, the factory guarantee will be discontinued.

GREASING

Always ensure that the machine has been properly greased before it starts operating.

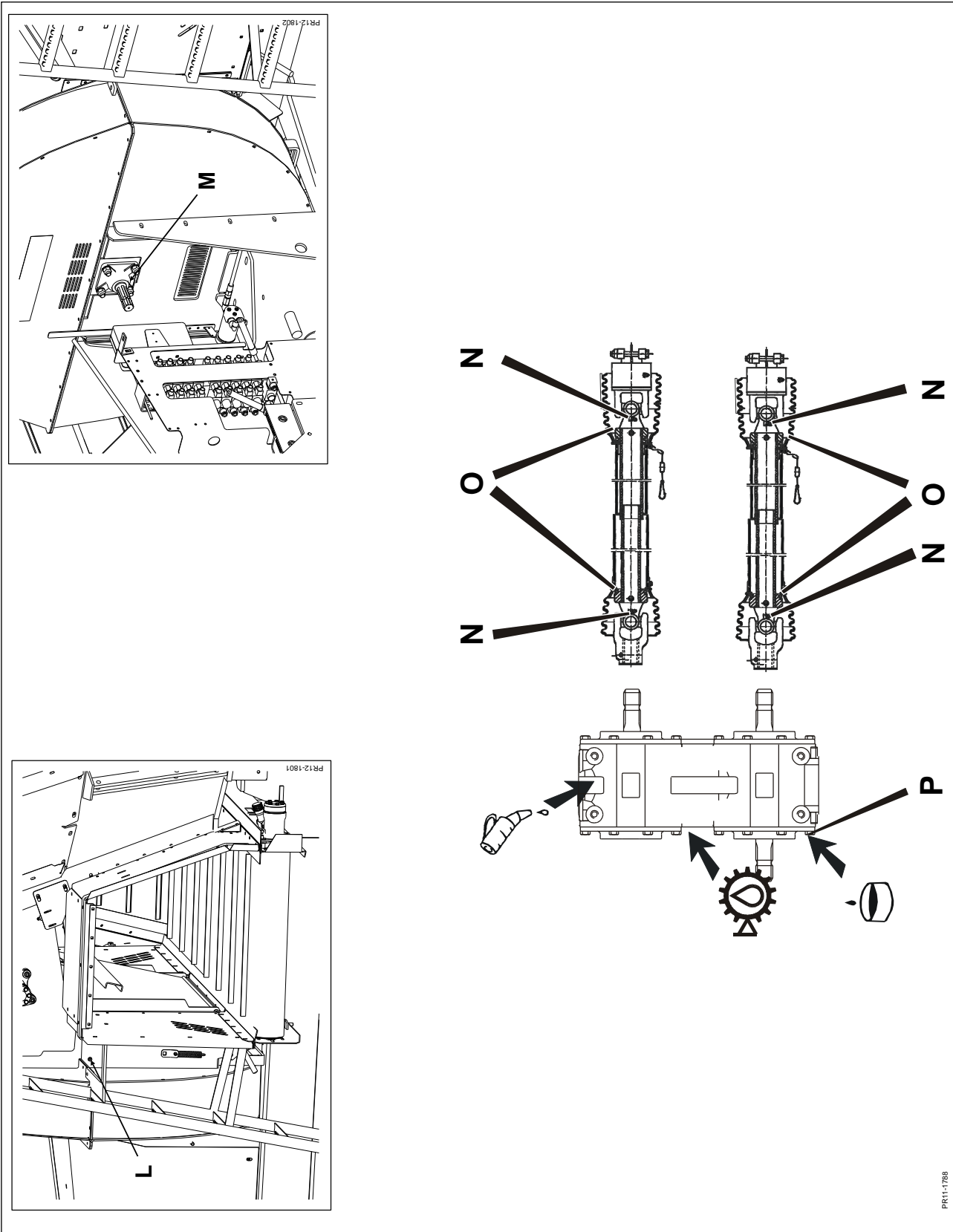


Fig. 3-4

3. MAINTENANCE

GREASE

Fig. 3-4 Grease spots on the straw bedder:

Lubrication chart		
Pos.	Number of spots	
		Once after every 10 hours of operation
N	2 per PTO shaft	Cross bearings in PTO drive shaft
		Once after every 40 hours of operation
L	1 per machine	Bearing for turbine
M	1 per machine	Bearing for turbine
O	2 per PTO shaft	Protection

OIL

The gearbox is filled with oil from the factory. However, you should check that there is oil before starting the machine.

The oil amount in the table is only a guideline.

Fig. 3-4 Input gear (Fig. 3-4, Pos. P): Change the oil for the first time after the first 100 hours, then after every 2000 hours of operation or annually, whichever comes first.

See figure	Amount of oil	Oil type	KONGSKILDE order No.
3-4	5.6 litres	API GL4/GL5 SAE 80W 90	1192-0106

4. DIAGRAMS

HYDRAULIC DIAGRAM

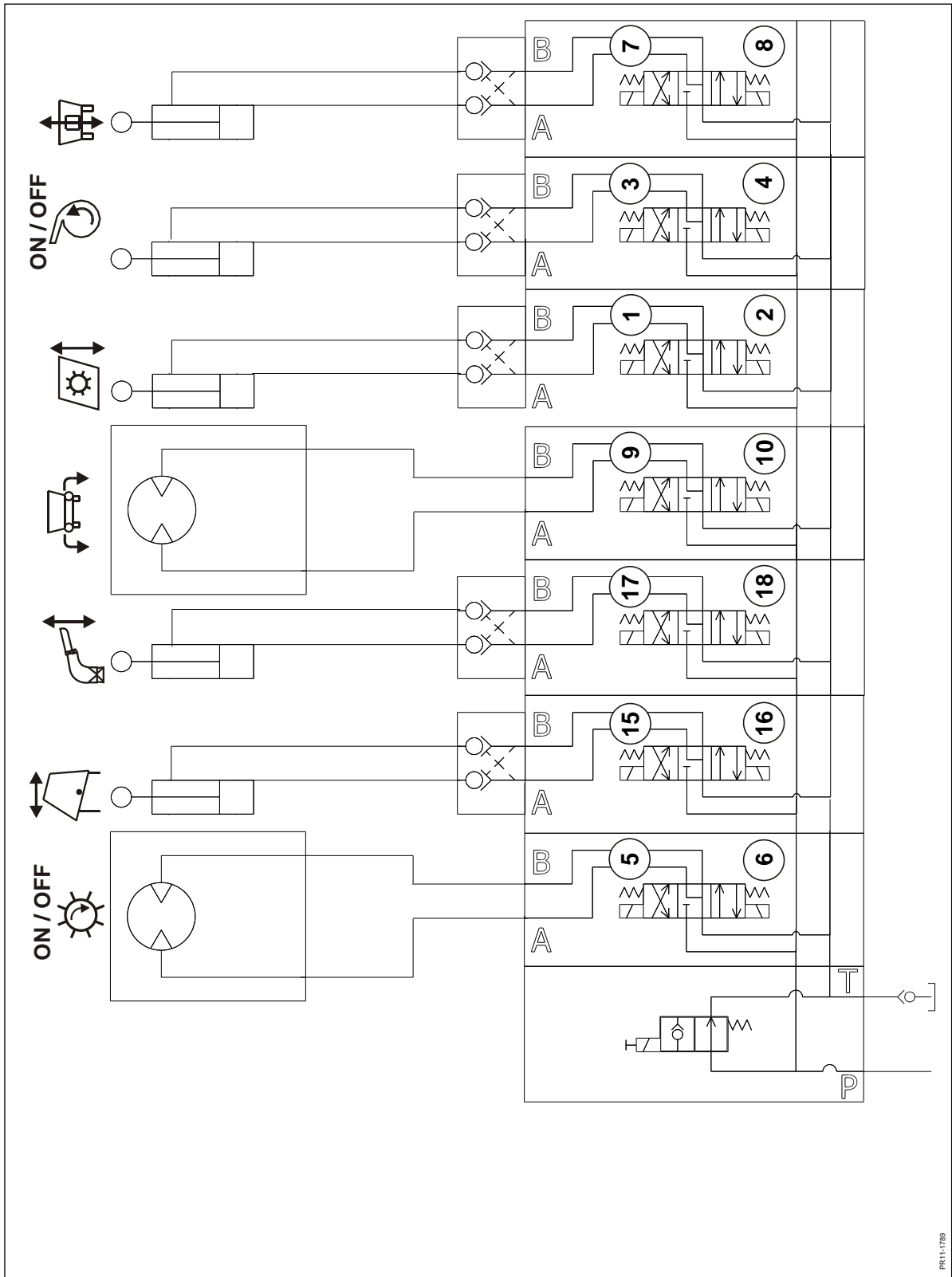


Fig. 4-1

ELECTRIC CONTROL

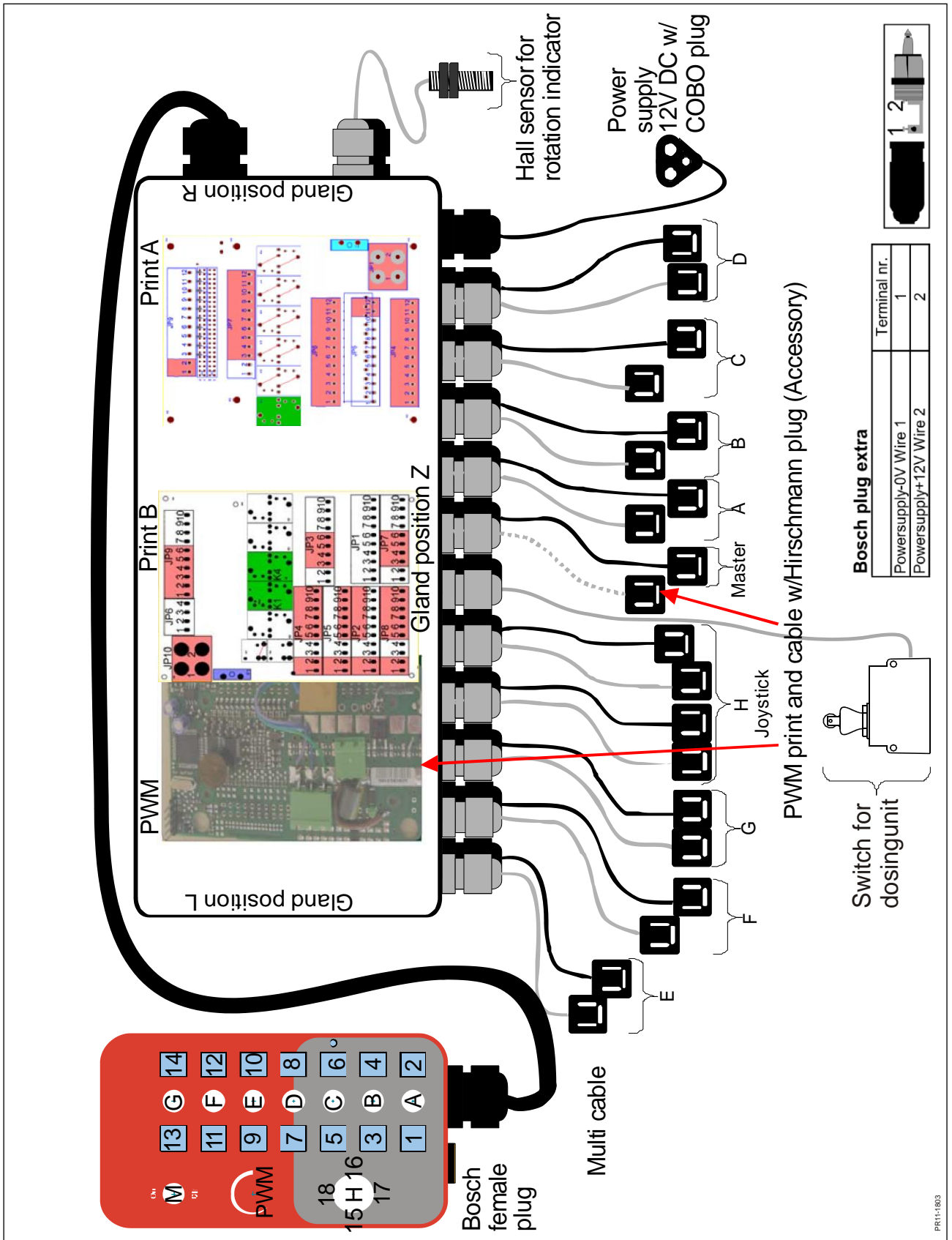


Fig. 4-2

EF-overensstemmelseserklæring/ EG-Konformitätserklärung/ EC Declaration of Conformity/ Déclaration CE de conformité/ Dichiarazione CE di conformita/ EG Verklaring van Overeenstemming/ EG-försäkran om överensstämmelse/ EY-vaatimustenmukaisuusvakuutus/ Declaración de conformidad CE/ Deklaracja Zgodności WE./ Декларация за съответствие EO/ EK Megfelelőségi Nyilatkozat /ES Prohlášení o shodě/ EB Atitikties deklaracija/ ES prehlásenie o zhode/ Declarația de conformitate CE/ Vastavuse Deklaratsioon EÜ /ES Izjava o skladnosti/ Δήλωση πιστότητας EK/ Declaração de fidelidade CE/ Dikjarazzjoni ta' Konformità tal-KE/ EK Atbilstības deklarācija/

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Maskine:	La máquina:	Masin:
Maschine:	Maszyna:	Stroj:
Machine:	Машината:	Η μηχανή:
Machine:	Gép:	Máquina:
La macchina:	Stroj:	Il-magna:
Machine:	Mašina:	Mašina:
Maskin:		Stroj:
Laite:		Mašina:


KONGSKILDE

Model/Type: **VM-Strawblower**

Designation: Mixer

Serial:

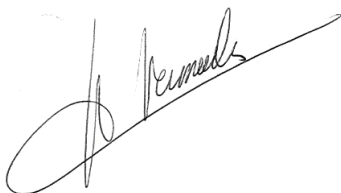
- er i overensstemmelse med Maskindirektivets bestemmelser (Direktiv 2006/42/EF) og hvis relevant også bestemmelserne i EMC-direktivet 2014/30/EU.

- In übereinstimmung mit den Bestimmungen der Maschinen-Richtlinie 2006/42/EG und wenn erforderlich auch mit der EMC-Richtlinie 2014/30/EU hergestellt wurde.

- is in conformity with the provisions of the Machinery Directive 2006/42/EC and if relevant also the provisions of the EMC Directive 2014/30/EU.

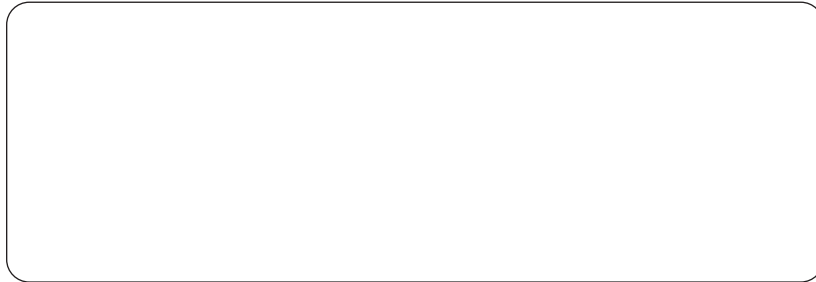
- est conforme aux dispositions de la Directive relatives aux machines 2006/42/CE et également aux dispositions de la Directive sur la Directive EMC 2014/30/UE.
- é in conformita' con la Direttiva Macchine 2006/42/CE e, se pertinente, anche alla Direttiva alla Direttiva EMC 2014/30/UE.
- in overeenstemming is met de bepalingen van de Machine richtlijn 2006/42/EG en wanneer relevant ook met de bepalingen van de EMC richtlijn 2014/30/EU.
- är i överensstämmelse med Maskindirektivets bestämmelser (Direktiv 2006/42/EG) ock om relevant också bestämmelserne EMC-direktivet 2014/30/EU.
- täyttää Konedirektiivin (Direktiivi 2006/42/EY) määräykset ja oleellisilta osin myös EMC-direktiivin 2014/30/EU.
- es conforme a la Directiva de Maquinaria 2006/42/CE y, si aplica, es conforme también a la Directiva EMC 2014/30/EU.
- pozostaje w zgodzie z warunkami Dyrektywy Maszynowej 2006/42/WE i jeżeli ma to zastosowanie również z warunkami Dyrektywy dot. kompatybilności elektro magnetycznej EMC 2014/30/UE.
- отговаря на изискванията на Директивата за Машините 2006/42/ЕО и ако има приложение на изискванията на Директивата за електромагнитна съвместимост 2014/30/ЕС.
- Megfelel a 2006/42/EK Gépi Eszközökre vonatkozó előírásoknak és amennyiben felhasználásra kerül, a 2014/30/EU Elektromágneses kompatibilitás Irányelv feltételeinek.
- odpovídá základním požadavkům Strojní směrnice 2006/42/ES a jestliže to její uplatnění vyžaduje i s podmínkami Směrnice 2014/30/EU týkající se elektromagnetické kompatibility.
- atitinka Mašinų direktyvos Nr. 2006/42/EB ir, jeigu taikoma, Elektromagnetinio suderinamumo direktyvos Nr. 2014/30/ES reikalavimus.
- je v súlade s podmienkami Smernice 2006/42/ES o strojných zariadeniach a pokiaľ si to jeho uplatnenie vyžaduje aj s podmienkami Smernice 2014/30/EÚ o elektromagnetickej kompatibilite.
- îndeplineşte prevederilor Directivei de Maşini 2006/42/CE şi dacă este utilizată de asemenea cu prevederile Directivei referitoare la compatibilitatea electro-magnetică EMC 2014/30/UE.
- on vastavuses Masinate Direktiivi tingimustega 2006/42/EÜ ning sammuti juhul, kui on tegemist sammuti on vastavuses Elektromagnetilise kokkusobivuse Direktiivitingimustega EMC 2014/30/EL.
- z določili Direktive o strojih 2006/42/ES ter, če je to relevantno, tudi z določili EMC Direktive 2014/30/EU.
- παραμένει σύμφωνη με τους όρους της Οδηγίας περί Μηχανών 2006/42/EK και σε περίπτωση που αυτό εφαρμόζεται και με τους όρους της Οδηγίας περί ηλεκτρομαγνητικής συμβατότητας (ΗΜΣ) 2014/30/ΕΕ.
- Está de acordo com exigências das Directivas das Maquinarias 2006/42/CE e no caso em que tiver igualmente aplicação com as exigências das Directivas referentes a compatibilidade electromagnética EMC 2014/30/UE.
- tikkonforma mad-dispożizzjonijiet tad-Direttiva dwar il-Makkinarju 2006/42/KE u jekk rilevanti wkoll mad-dispożizzjonijiet tad d-Direttiva EMC 2014/30/EU.
- atbilst mašīnu direktīvai 2006/42/EK, kā arī nepieciešamības gadījumā elektromagnētiskās saderības direktīvai EMC 2014/30/ES.

Zedelgem, date:



Antoon Vermeulen

Dealer's stamp



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