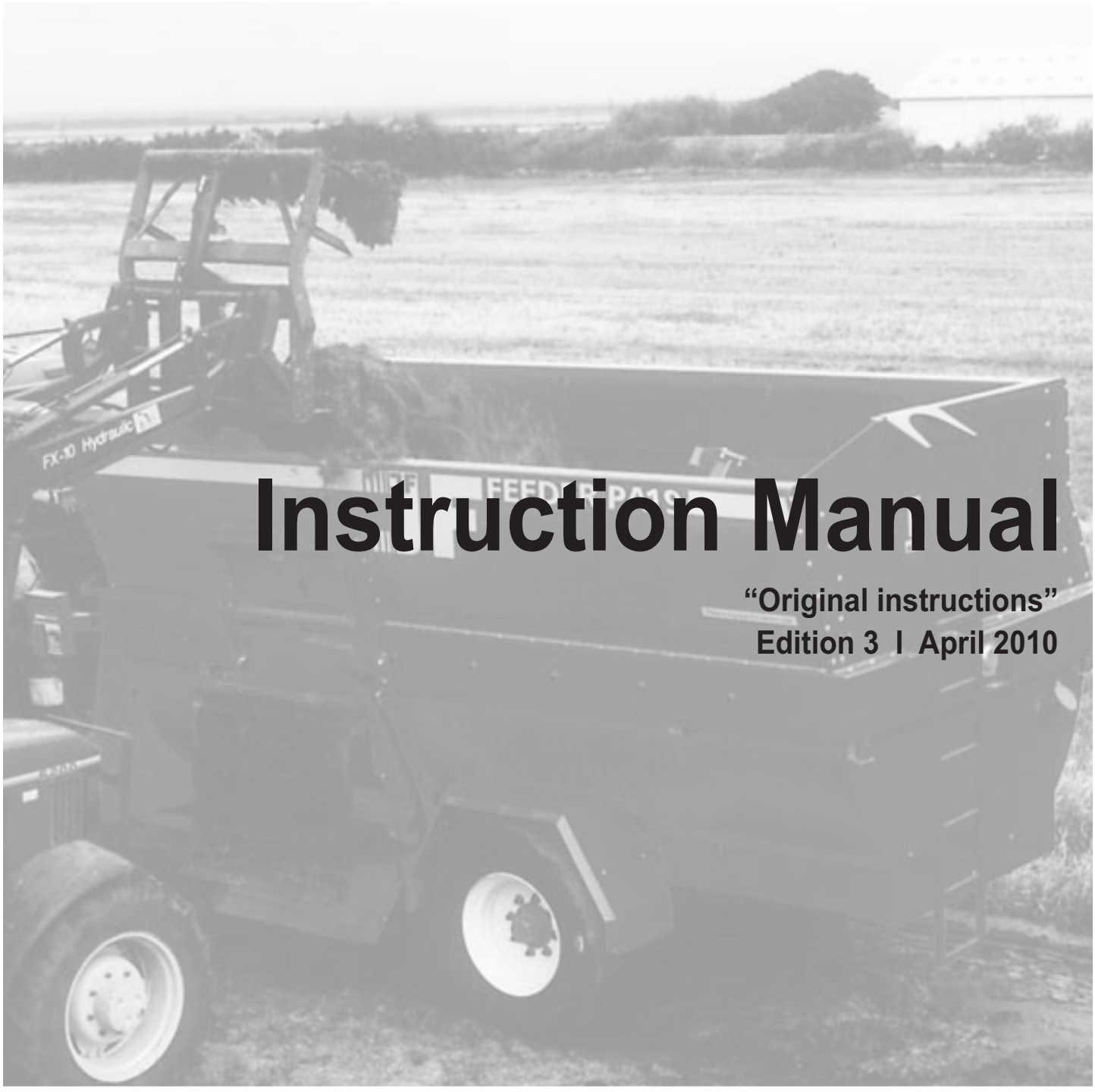
JF-STOLL

FEEDER

PA 19



Instruction Manual

“Original instructions”
Edition 3 I April 2010

JF-STOLL

EN EC-Declaration of Conformity
according to Directive 2006/42/EC

DE EG-Konformitätserklärung
entsprechend der EG-Richtlinie 2006/42/EC

IT Dichiarazione CE di Conformità
ai sensi della direttiva 2006/42/EC

NL EG-Verklaring van conformiteit
overeenstemming met Machinerichtlijn 2006/42/EC

FR Déclaration de conformité pour la CEE
conforme à la directive de la 2006/42/EC

ES CEE Declaración de Conformidad
según la normativa de la 2006/42/EC

PT Declaração de conformidade
conforme a norma da C.E.E. 2006/42/EC

DA EF-overensstemmelseserklæring
i henhold til EF-direktiv 2006/42/EC

PL Deklaracja Zgodności CE
wedlug Dyrektywy Maszynowej 2006/42/EC

FI EY : N Vaatimustenmukaisuusilmoitus
täyttää EY direktiivin 2006/42/EC

EN We,
DE Wir,
IT Noi,
NL Wij,
FR Nous,
ES Vi,
PT Me,
DA Vi,
PL Nosotros,
FI Nós,

JF-Fabriken - J. Freudendahl A/S
Linde Allé 7
DK 6400 Sønderborg
Dänemark / Denmark
Tel. +45-74125252

EN declare under our sole responsibility, that the product:
DE erklären in alleiniger Verantwortung, dass das Produkt:
IT Dichiara sotto la propria responsabilità che il prodotto:
NL verklaren als enig verantwoordelijken,dat het product:
FR déclarons sous notre seule responsabilité que le produit:
ES declaramos bajo resposibilidad propia que el producto:
PT declaramos com responsabilidade próqria que o produto:
DA erklærer på eget ansvar, at produktet:
PL deklarujemy z pełną odpowiedzialnością, iż produkt:
FI ilmoitamme yksin vastaavamme, että tuote:

EN Model:
DE Typ :
IT Tipo :
NL Type :
FR Modèle :
ES modelo :
PT Marca :
DA Typ :
PL Model :
FI Merkki :

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EN to which this declaration relates corresponds to the relevant basic safety and health requirements of the Directive:

2006/42/EC

DE auf das sich diese Erklärung bezieht, den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG
2006/42/EC

IT E' Conforme ai Requisiti Essenziali di Sicurezza a di tutela della Salute di cui alla Direttiva e sue successive modificazioni:
2006/42/EC

NL waarop deze verklaring betrekking heeft voldoet aan de van toepassing zijnde fundamentele eisen inzake veiligheid en gezondheid van de EG-machinerichtlijn no:
2006/42/EC

FR faisant l'objet de la déclaration est conforme aux prescriptions fondamentales en matière de sécurité et de santé stipulées dans la Directive de la:
2006/42/EC

ES al cual se refiere la presente declaración corresponde a las exigencias básicas de la normativa de la y referentes a la seguridad y a la sanidad:
2006/42/EC

PT a que se refere esta declaração corresponde às exigencias fundamentais respectivas à segurança e à saúde de norma da
2006/42/EC

DA som er omfattet af denne erklæring, overholder de relevante grundlæggende sikkerheds- og sundhedskrav i EF-direktiv sam:
2006/42/EC

PL dla którego się ta deklaracja odnosi, odpowiada właściwym podstawowym wymogom bezpieczeństwa i ochrony zdrowia Dyrektywy Maszynowej:
2006/42/EC

FI johon tämä ilmoitus liittyy, vastaa EY direktiivissä mainituja perusturvallisuus- ja terveysvaatimuksia (soveltuvin osin) sekä muita siihen kuuluvia EY direktiivejä:
2006/42/EC

CE

Konstruktion (Design) + Produktion (Production)
Sønderborg, 15.12.2009 Jørn Freudendahl

FOREWORD

DEAR CUSTOMER!

We appreciate the confidence you have shown our company by investing in a JF-machine. Of course, it is our wish that you will experience a complete satisfaction with the investment.

This instruction manual contains information about correct and safe use of the machine.

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

However, this first introduction cannot replace a more thorough knowledge of the different tasks, functions and the technically correct use of the machine.

Therefore you should read this instruction manual very carefully before using the machine. Pay special attention to the safety instructions.

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. Besides this there are illustrations with text.

"Right" and "Left" is 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 on the time of publication.

JF-Fabriken reserves the right to make changes or improvements in the design or construction of any part without incurring the obligations to install such changes on any unit previously delivered.

CONTENTS

1. INTRODUCTION

INTENDED USE

The machine is intended for mixing components for animal feed and feeding of the finished product.

Any use beyond what is mentioned above will be outside intended use. Any damage in consequence of that will not make JF-Fabriken responsible, the user bears the risk.

It is assumed that the work is performed under reasonable conditions, including that the fields have been cultivated normally and to a reasonable extent been cleaned of foreign bodies and the like.

Intended use also means that the information prescribed by JF-Fabriken in the instruction manual and the spare parts book is observed.

The JF Feeder must only be used, maintained, and repaired by persons who, after reading this instruction manual, are confident with the machine in question and thereby informed about possible risks.

It is **absolutely** necessary to observe the following instructions to prevent injuries and damages. Also common technical safety rules and road safety rules must be observed.

If changes are made on the machine without permission from JF-Fabriken, JF-Fabriken cannot be held responsible for any injuries or damage.

SAFETY

Generally much damage occurs in consequence of misuse and insufficient instruction. The safety of persons and machines is therefore an integrated part of JF-Fabriken's development work. **We wish to secure you and your family in the best possible way**, but this also demands an effort from your side.

A feeder mixer cannot be constructed in such a way that it guarantees the full safety of persons and at the same time performs an efficient piece of work. This means that it is very important that you as user of the machine pay attention and use the machine correctly and thereby avoid exposing yourself and others to unnecessary danger.

The machine demands a skilled operation which means that ***you should read the instruction manual before you connect the machine to the tractor***. Even though you have been driving a similar machine before, you should read the manual - this is a matter of your own safety!

Your 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 that 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 possible 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 secure that the operator follows the general safety instructions or the measures mentioned in the manual instruction of how to protect himself and others against injuries.

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

DANGER: The word DANGER is used to indicate measures that according to legislation must be followed to protect oneself and others against serious injuries.

GENERAL SAFETY INSTRUCTIONS

The following is a short mentioning of the measures that should be a matter of common knowledge to the operator.

1. Always disengage the PTO drive shaft, activate the parking brake of the tractor and stop the tractor engine before you:
   - lubricate the machine
   - clean the machine
   - disassemble any part of the machine
   - adjust the machine.
2. Always block the wheels before you work under the machine.
3. Never activate the machine before all persons are safely away from the machine.

4. After repair: Before activating the machine you must make sure that all tools have been removed.

5. See to it that all guards are correctly placed.

6. Never wear loose clothes during work as they can be pulled in by the movable parts of the machine.

7. Do not modify guards or work with the machine if guards are missing.

8. Always use the statutory lights and safety marking during transport on public road and when driving at night.

9. Limit the transport speed to max. 20 km/h when driving with full load.

10. When mounting a PTO drive shaft you must check that the number of RPM of the tractor matches that of the machine.

11. Avoid using the machine for other jobs than as described under intended use.

CHOICE OF TRACTOR

Always follow the recommendations specified in the manual instruction of the tractor. If this is not possible you must seek technical assistance.

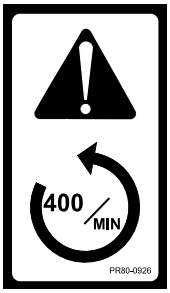
Choose a tractor with a suitable power and avoid tractors with electrical connection of the PTO-shaft.

The tractor must also have a suitable own weight so that it can drive steadily with the machine in the ground conditions in question.

CONNECTION AND DISCONNECTION

Always make sure that nobody is standing between the tractor and the machine during connection and disconnection. An unintentional manoeuvre with the tractor persons might jam persons. (see fig. 1-1)

Check that the machine is intended for the number and the direction of rotations of the tractor (see fig. 1-2). A wrongly chosen RPM for a considerable period can damage the machine and at worst lead to parts being thrown out.



Make sure that the PTO drive shaft has been mounted correctly. This means that the shear pin is in mesh and that the support chain has been fasted at both ends.

The PTO drive shaft must be correctly protected. If the guard is defect it must be replaced immediately.

Hydraulic hoses must be checked by an expert before use, and after that minimum once a year. If necessary, they must be replaced. The working life of hydraulic hoses should not exceed 6 years, including max 2 years of storage. When replacing, always use hoses, which comply with the requirements stated by the manufacturer. All hoses are marked with date of production.

Check always that the hydraulic clutches are tight and that all hoses and fittings are undamaged before the hydraulic system is activated. When the engine of the tractor has stopped also make sure that there is *no* pressure in the hydraulic hoses by activating the hydraulic tractor valves.
Hydraulic oil under pressure can penetrate the skin and cause serious infections. You should always protect the skin and the eyes against oil splashes. If the hydraulic oil under pressure hits you consult a doctor immediately (see fig. 1-3).


Fig. 1-3

Check that the mixing tub, the door, and the elevator can move freely before you activate the hydraulic cylinders. Make sure that no persons are near the machine when starting, as there might be air in the hydraulic system that might lead to sudden movements.

ADJUSTMENT

Never adjust the mower while the PTO drive shaft and the hydraulic system is engaged.

TRANSPORT

Never drive faster than the conditions allow and max. 20 km/h at full load.
The machine is equipped with complete lighting kit. In addition a tractor triangle is statutory in Scandinavia to mark slow driving.

WORK

You should never activate the machine until all guards are correctly placed and undamaged.

Do not get near the hydraulic roller when it is activated during feeding.

Never stand on the upper step of the ladder while the machine is working.

PARKING

You should make sure that the machine is on a plane surface and that the jacks are correctly fixed in connection with parking of the machine.

GREASING

Never try to clean, grease or adjust the machine until you have disconnected the PTO drive shaft, stopped the tractor motor and activated the parking brake.

MAINTENANCE

Always make sure to tighten spare parts with the correct moment.

MACHINE SAFETY

It is very important that the transmission is not overloaded. The PTO drive shaft is therefore equipped with a break bolt.
Under no circumstances use bolts with another dimension or quality than the type mounted by JF-Fabriken.

Do not clean weighing cells and display with a high pressure cleaner.

Do not use large quantities of longstrawed feed, and try to add it in small portions. You should not use more than 250 kg longstrawed feed per mixed feed.

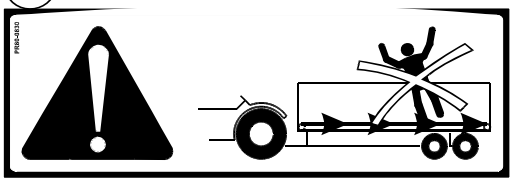
1


FORSIGTIG
Læs brugsanvisningen og sikkerhedsforskrifterne før maskinen tages i brug. Er brugsanvisning ikke medleveret, skal du bede om efterlevering.
CAUTION
Before starting the machine read operators manual and safety instructions. Request copy if not supplied.
VORSICHT
Vor inbetriebnahme Betriebsanleitung und Sicherheitshinweise lesen und beachten. Wenn nicht mitgeliefert bitte anfordern.
ATTENTION
Avant la mise en route de la machine lire le manuel d'utilisation et les prescriptions de sécurité. Reclamer le manuel s'il manque.

2


STOP
FORSIGTIG
Stop altid traktormotoren og fjern tændingsneglen før De smører, indstiller eller reparerer maskinen.
ATTENTION
Always stop engine and remove ignition key before lubricating, maintaining or repairing the machine.
VORSICHT
Schleppermotor immer abschalten und Zündschlüssel abziehen bevor Sie die Maschine schmieren, einstellen oder reparieren.
ATTENTION
Toujours arrêter le moteur de tracteur et enlever la clef de contact avant de lubrifier, régler ou réparer la machine.

3



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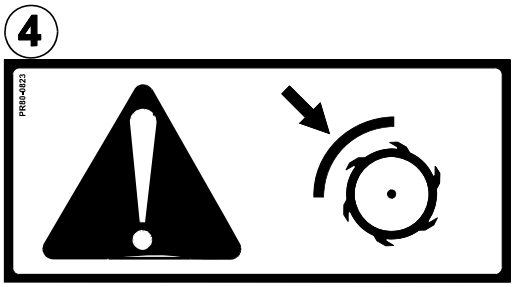

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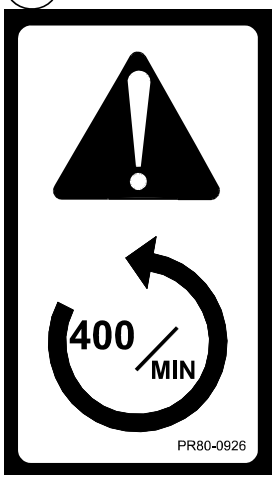
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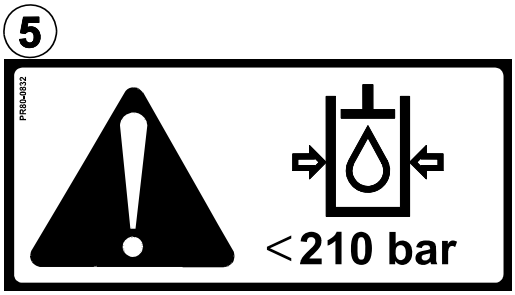
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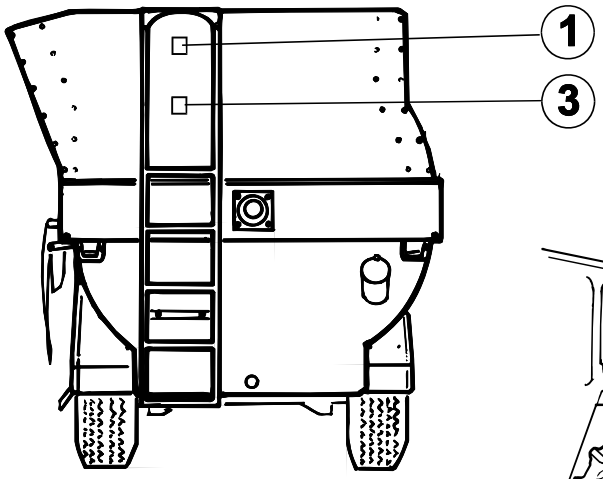
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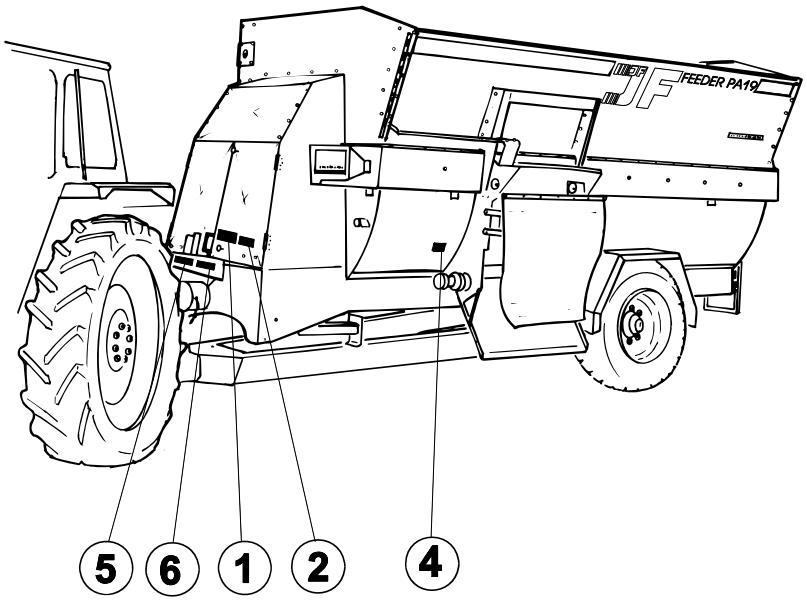
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6
1
2
4

SAFETY DECALS

The warning decals shown on the previous page are positioned as shown on the drawing at the bottom of the page. Before using the machine check that all the decals are present, if not, require those missing. The decals have the following meaning:

1 Read the manual instruction and the safety instructions.
This is to remind you to read the delivered documents to ensure that the machine is operated correctly and to avoid unnecessary accidents and machine damage.

2 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 before the work is completed.

3 Rotor in mixing tub.
Always see to it that nobody steps up on the mixing tub while the rotor is driving. Not in connection with cleaning either, it can be very dangerous.

4 Rotating parts.
Do not under any circumstances let anybody get near or stay near the machine during operation. The rotating parts of the machine can without difficulty cause serious injury on any part of the body hit by such a part.

5 Max. 210 bar.
Make sure that hydraulics is not exposed to more pressure than max. 210 bar, as there could be a risk of explosive damages of parts. Hereby you put yourself and other persons in danger of getting hit by metal parts with high speed or oil under high pressure.

6 The number and direction of rotations
Check that the PTO drive shaft runs with the right rpm and in the right direction. a wrong number and/or direction of rotations can damage the machine with the risk of personal injury as a result.

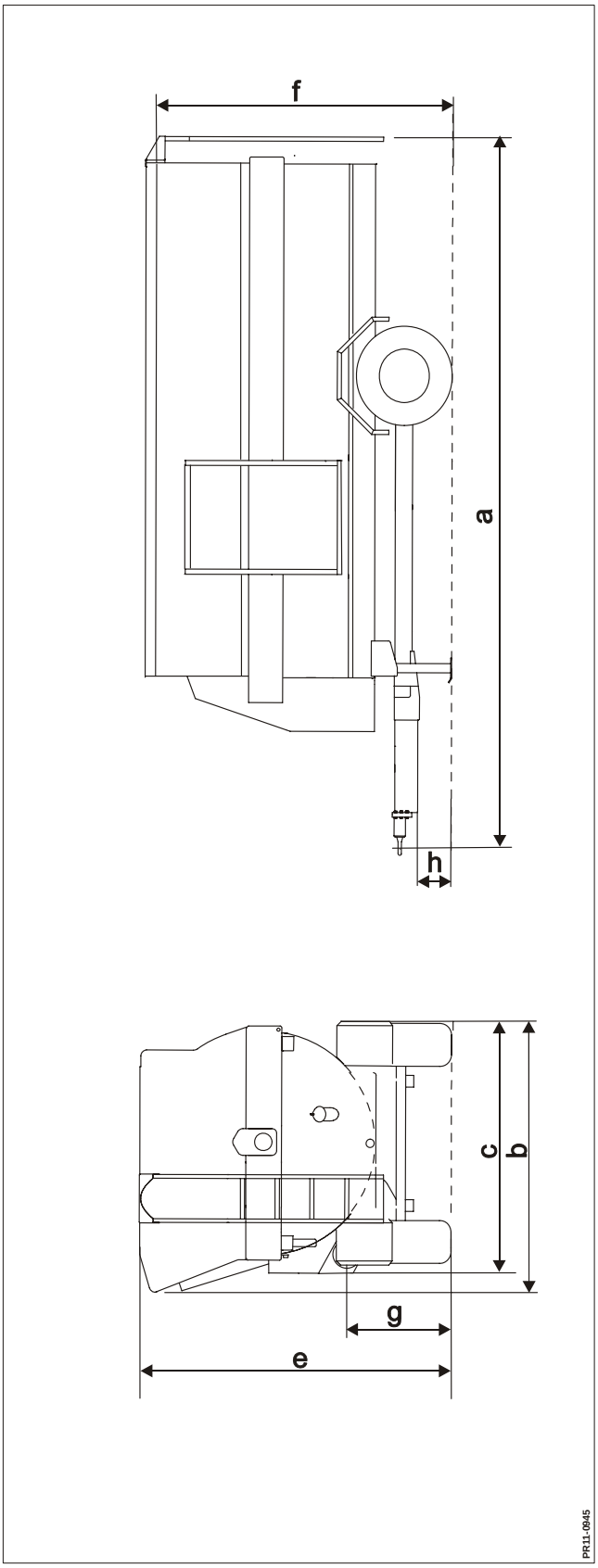


Fig. 1.4

TECHNICAL DATA

Type				**PA15R**
Volume			[m^3]	19
Tractor requirements	Power requirement (engine)		[kW]	80
	Oil take-out			1 S-act. +return
	Oil quantity		[l/min]	35
	Elec. for light and weighing equipment		[V]	12
PTO-rpm by mixing v			[o/min]	400
PTO-rpm by feeding			[o/min]	540
Rotor-rpm on PTO = 400 o/min			[o/min]	6,3
Number of paddles			[stk.]	9
Digital-height			[mm]	50
Tyre dimensions				425/65R22.5 (385/65R22.5)
Own weight			[kg]	5760
Payload			[kg]	8000
Dimension **see Fig. 1.4** Dimensioned sketch	Length (a)		[mm]	6595
	Max. width (b)		[mm]	2680 (2620)
	Width (c)		[mm]	2500
	Max. height (e)		[mm]	2950
	Loading height (f)		[mm]	2770
	Max. unloading height (g)		[mm]	970
	Ground clearance (h)		[mm]	390
Noise level in tractor cabin	Machine connected	Window closed		76,5 dB(A)
		Window open		85,6 dB(A)
	Machine disconnected	Window closed		76,5 dB(A)
		Window open		80,7 dB(A)

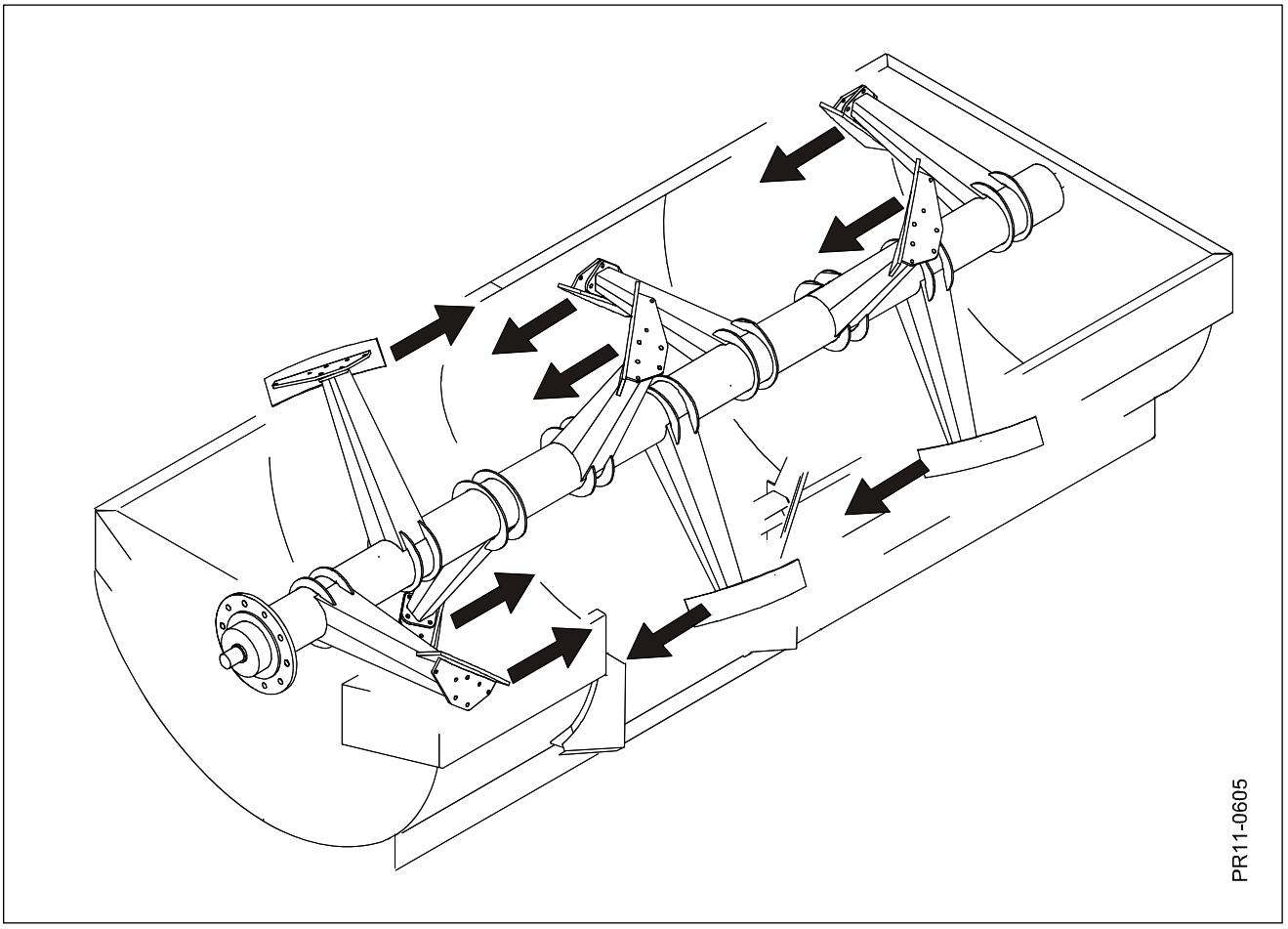


Fig. 2.1

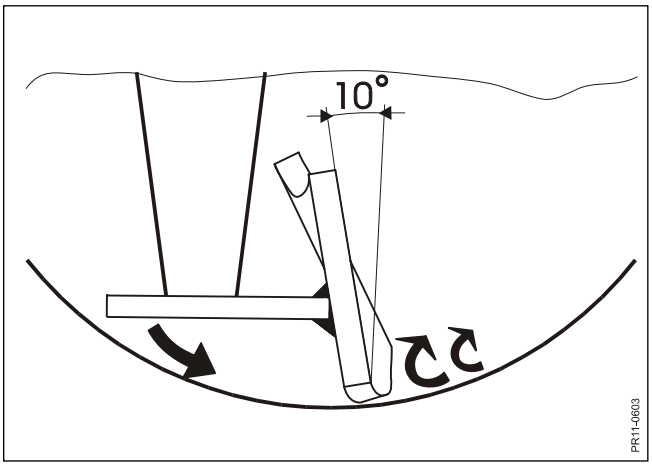


Fig. 2.2

2. JF-FEEDER MIXING PRINCIPLE

The JF-Feeder has been designed especially to fulfil the wish of keeping the feed structure whether the mixing takes 5 or 30 min. Also the wish of having a low power consumption and a longitudinal mixing effect has contributed to the choice of the paddle principle.

Fig. 2.1 The paddles are inclined to obtain a mixing process where the material is mixed in the trailer's longitudinal direction. The inclined position also helps to move the material towards the outlet when feeding.

Fig. 2.2 The paddles are also inclined 10^{o} in the rotor's direction of rotation to obtain the effect of lifting the material "away" from the sides of the tub.

In order to have that angle similar in both ends of the paddle in relation to the round tub the paddle is helical shaped.

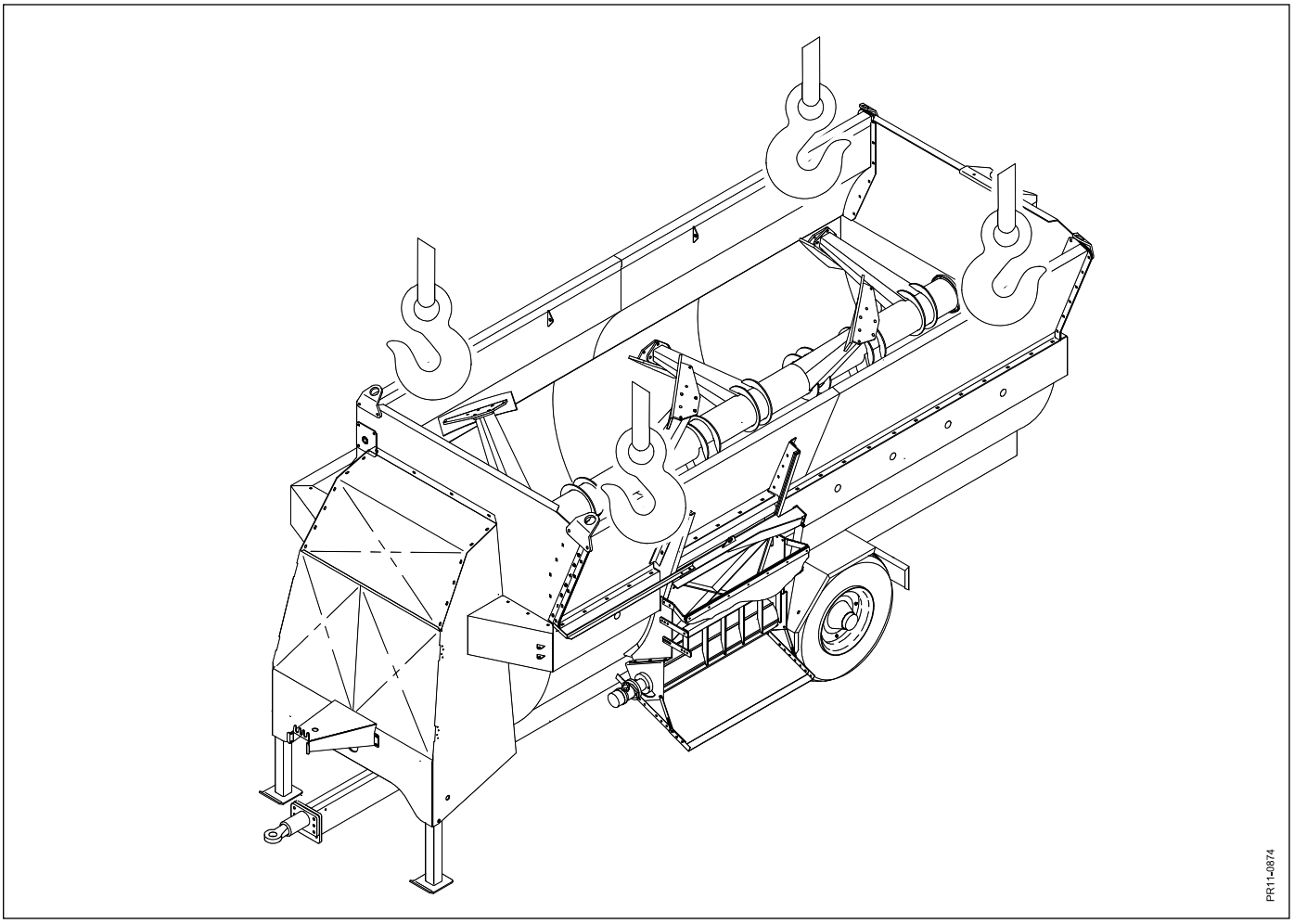


Fig. 3.1

3. TRANSPORT OF THE MACHINE

Fig. 3.1 If it is necessary to lift the machine in connection with transport the lift eyes mounted at the factory must be used.
When the transport is finished these lift eyes can be dismounted and replaced by the screws to be found in the packet with accessories.

If the machine is reversed up on a lorry via a skid it may be necessary to dismount the ladder as it may otherwise be damaged.

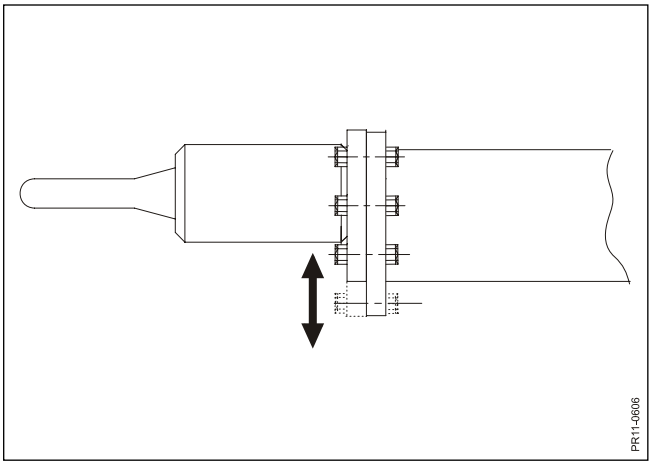


Fig. 4.1

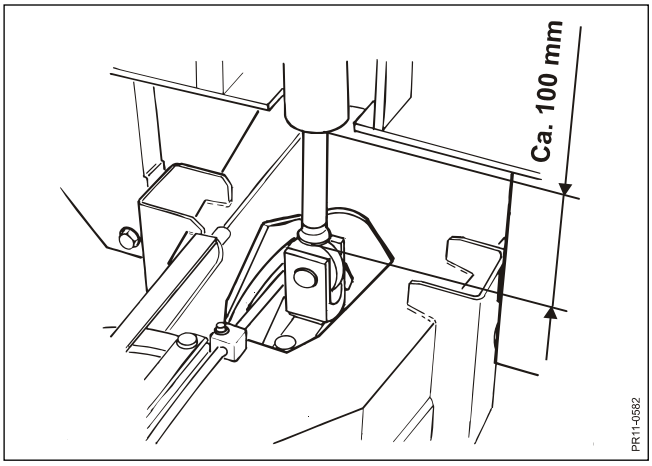


Fig. 4.2

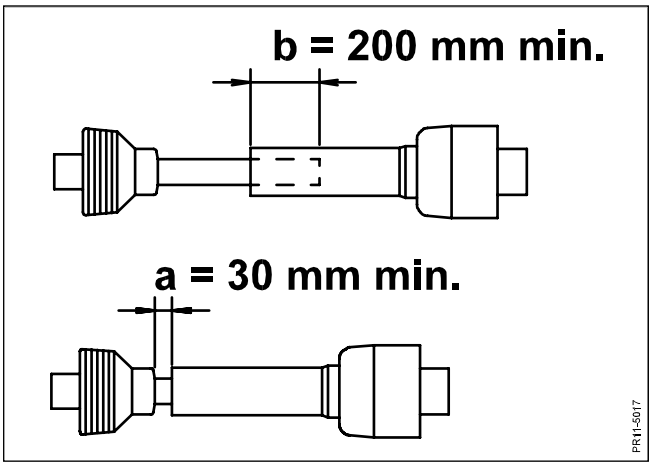


Fig. 4.3

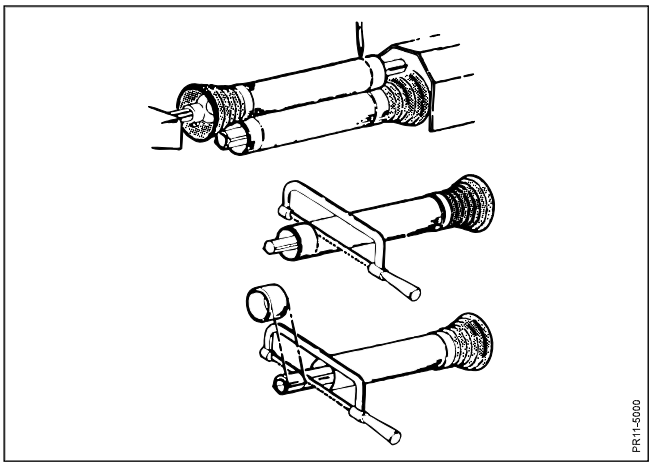


Fig. 4.4

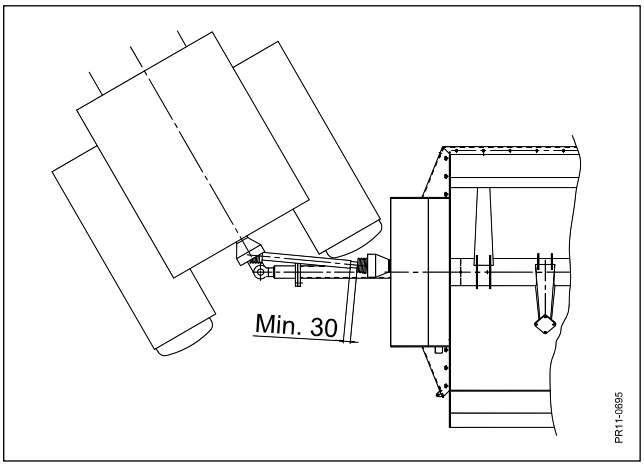


Fig. 4.4.2

4. CONNECTION AND ADJUSTMENTS

REQUIREMENTS TO TRACTOR

In order to drive the mixer a tractor as follows is required:

- It has 65 kW on PTO at 400 rpm.
- It has at least one single acting hydraulic take-out with return connection.
- It delivers min. 35l oil per min. at 540 rpm.
- Has a battery giving min. 10 volt, measured on the machine, under all conditions.

Please note that the power requirement is only an average guidance for your information. The power requirement very much depends on the mixed feed used and how many shearbars are mounted.

ADJUSTMENT OF DRIVE

Fig. 4.1 The drive can be adjusted in height and can be turned 180^{o} round the longitudinal shaft whereby other possibilities of height adjustment are obtained.

Fig. 4.2 The drive must be adjusted in such a way that when the cylinder for tipping of the tub is in the intermediary position the tub must be horizontal. This will ensure that the cylinder can counterbalance uneven ground conditions so that the tub is always horizontal during mixing and weighing.

If the machine is connected to the tractor's hitch hook the distance to the tractor's rear wheel may become so small that turning is disturbed. In such cases a drawbar extension is mounted.

POSSIBLE ADAPTATION OF DRIVE SHAFT

Fig. 4.3 Adjust the PTO-shaft so that
it has the biggest possible overlapping
in no position it has more than 200 mm overlapping and **in no position it is closer to the block than 30 mm.**

Fig. 4.4 Secure the PTO parts for PTO and PIC respectively when they are at the same horizontal level and opposite each other. Take the shaft ends and hold them parallel to each other and mark off 30 mm (min.). Shorten all 4 tubes equally. The profile tube ends must be rounded and any burrs must be removed carefully.

Fig. 4.4.2. **Please note that the input shaft on the Feeder is offset to the right**, and must therefore be checked for minimum distance when the tractor turns right

WARNING: Grease the tube carefully before it is reassembled, as it is exposed to considerable friction forces if the safety drive is released during stress!

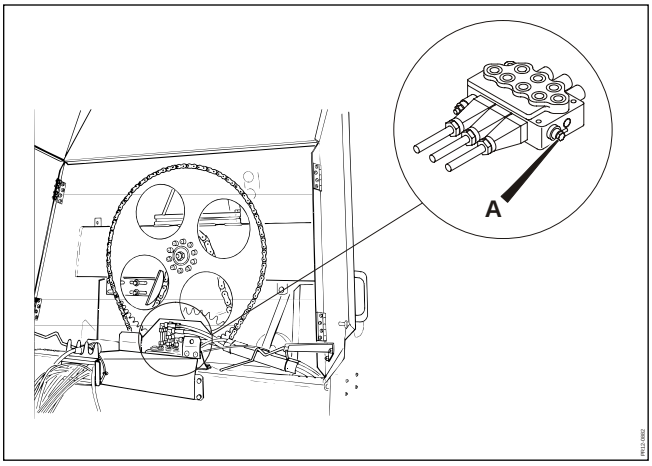


Fig. 4.5

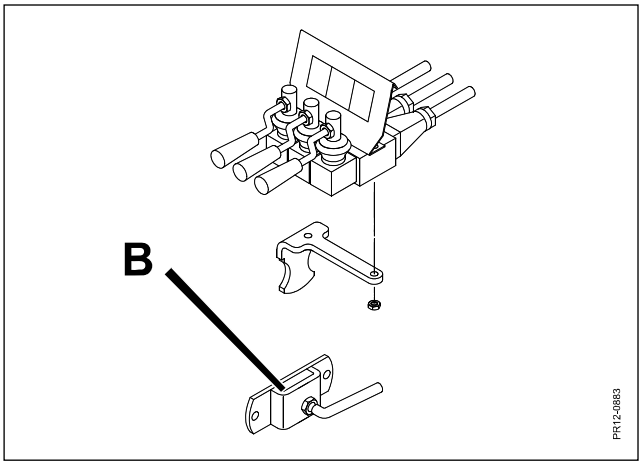


Fig. 4.6

CONNECTION OF HYDRAULIC HOSES

The hydraulic hoses are connected to the tractor's oil take-out. The pressure hose has a red cap and the return hose is blue.

Fig. 4.5 If your tractor has John Deere hydraulic, turn off the tap (A).

CONNECTION OF ELECTRIC SYSTEM

The electric plug for the weighing and transport lightening system is connected to the tractor's electric power take-out for trailer. It is **very** important that the plug connection is good, as the weighing system requires min. 10 volt.
Therefore always handle the electric plug for the system with care.

ADJUSTMENTS OF CONTROL HANDLE

Fig. 4.6 The control bracket can be turned 90°, by moving dowel (A). The angle (V) can be adapted by loosening the 4 bolts (B).
The distance between control bracket and tractor can be adjusted by loosening handle (C) and displace the outer end of the bracket.

CORRECT NUMBER OF REVOLUTIONS

The main rule is: The lower the number of revolutions during mixing the better the mixing qualities.

We therefore recommend: 400 rpm for mixing
540 rpm for feeding

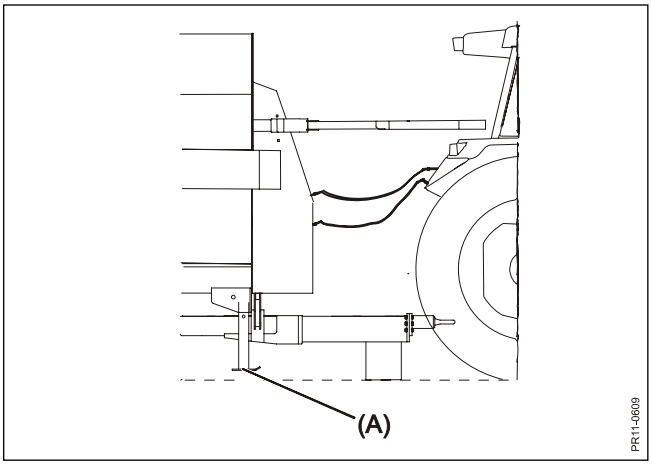


Fig. 4.7

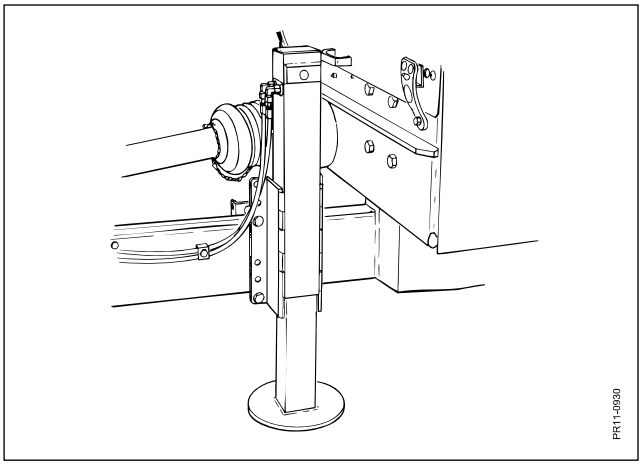


Fig. 4.8

CORRECT USE OF JACK

CONNECTION/DISCONNECTION OF TRACTOR

Fig. 4.7 Connection of tractor:

1. Hydraulic hoses, electrics plug for weighing system and lighting kit is connected to tractor.
2. The tractor height is adjusted by means of the tub's lifting cylinder.
3. The tractor is connected.
4. The tub is raised by means of the lifting cylinder.
5. The jacks are tipped up.
6. Only one pin is mounted in order to fasten the jacks in the tipped-up position when the tractor is often connected and disconnected. If the tractor is permanently connected to the machine both pins should be mounted.

Disconnection of tractor:

1. A plane and horizontal surface is chosen on which to place the machine.
2. The jacks are tipped down and the pins are fitted.
3. The machine's draw eye is lifted free of the tractor drawbar by means of the tub's lifting cylinder.
4. Hydraulic hoses and electric connections are disconnected. **Always take care that the weighing system's electric plug does <u>not</u> lie on the ground.**

USE OF WEIGHING SYSTEM WITH DISCONNECTED TRACTOR

Fig. 4.7 **Conditions** :

- A battery is mounted on the machine.
- The drawbar is supported by a block or the like to a suitable height.
  The tub's jack is <u>completely clear</u> of the ground at A. - (Also when loaded.)

If above conditions have been fulfilled, the weighing system also functions when the tractor is disconnected.

Disconnection of tractor:

1. A plane and horizontal surface is chosen where the machine is placed.
2. The jacks are tipped down and the pin is placed.
3. The machine's draw eye is lifted clear of the tractor drawbar by means of the tub's lifting cylinder and the tractor is disconnected.
4. The block is placed under the machine's drawbar, and the undercarriage is lowered until the jacks are at least 5 cm clear of the ground.
5. The hydraulic hoses and the electric connections are disconnected.

HYDRAULIC JACK

Fig. 4.8 A hydraulic jack is optional (regarding ordering No.: see spare parts list).
This jack requires the tractor to have a double acting take-out, in addition to a single acting for the other hydraulic functions.

CHECK BEFORE USE

Before you use your new Feeder, please do as follows:

1. Read this instruction manual carefully!

2. Check that the Feeder has been assembled correctly and is undamaged.

3. Check correct PTO speed in the instruction manual and possibly that of the tractor. Too high PTO speed can be very dangerous. Help for finding the correct speed can be found under **CORRECT NUMBER OF REVOLUTIONS** on page 21.

4. Check the movements of the PTO drive shaft. If the PTO-shaft is too short or too long it might damage the tractor as well as the machine. Check that the protection tubes do not get jammed in any position and may be damaged. Check that the safety chains of the protection tubes have been secured properly and that they do not in any position get too tight or get damaged.

5. Check that the hydraulic hoses are correctly mounted and that they are long enough.

6. Check that the electric connections are correct.

7. Check that the drive is correctly adjusted in relation to the tractor.

8. Retighten wheel bolts. After a few hours of driving with your new machine all bolts are retightened. This is especially important with fast rotating parts. See tightening moment in the paragraph **"MAINTENANCE"**. This retightening is made when service jobs have been made.

9. Check the tyre pressure. See the paragraph **”MAINTENANCE”**.

10. Check that the Feeder, especially the chain gear, has been sufficiently greased and that the oil level in the chain gearbox is correct. See the paragraph **”GREASING”**.

In the factory the Feeder’s rotating parts have been tested and found faultless. Even so you should do as follows:

11. Start the machine at a low number of revolutions. If no abnormal jarring or knocking sounds are heard the number of revolutions may be increased. If there is any doubt tractor and machine are stopped according to the procedure described in the **”SAFETY”**. Go through the machine visually to find possible errors. Then contact authorized assistance.

Point 11. Testing should be made with open rear window and without hearing protection.

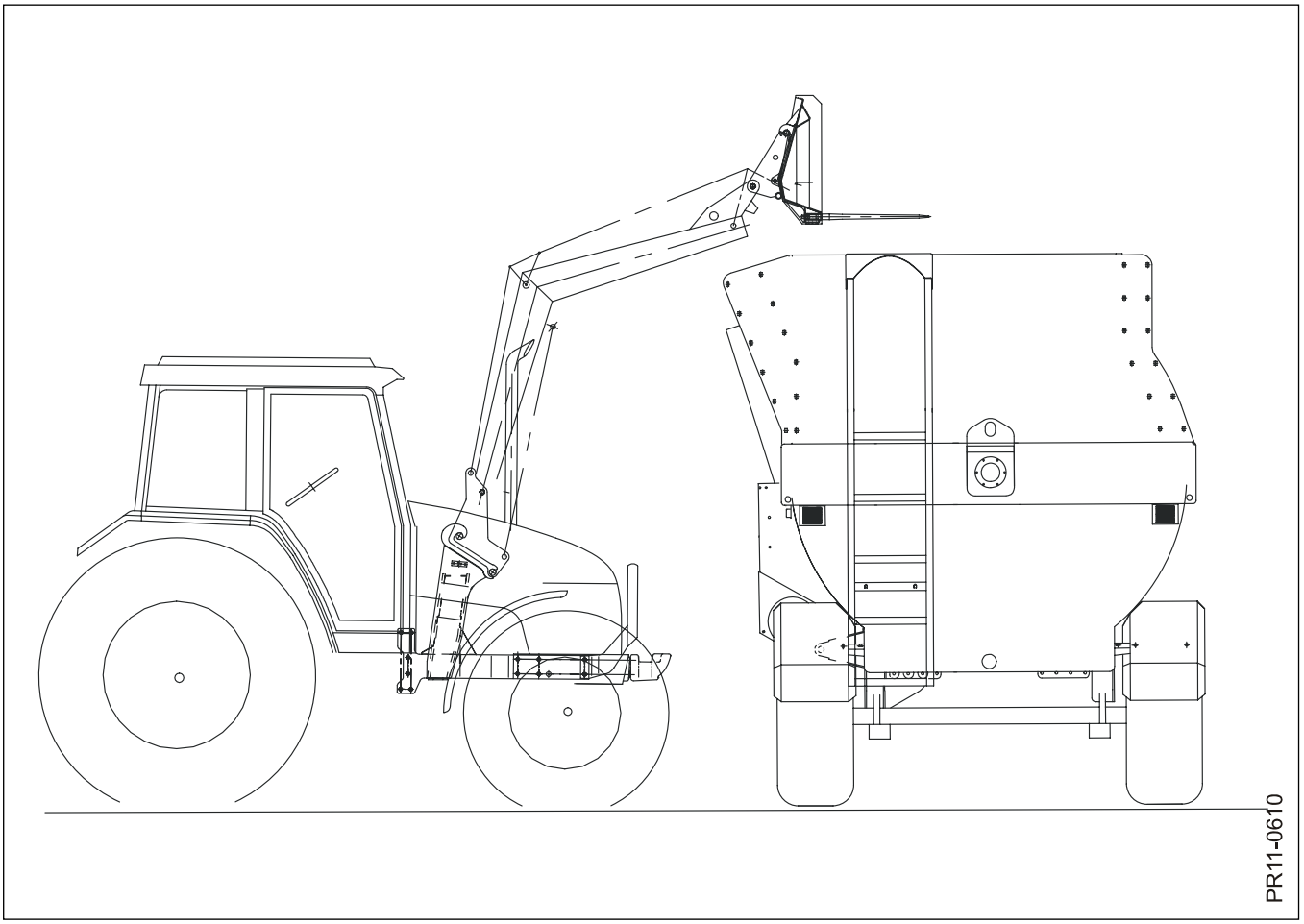


Fig. 5.1

5. USE OF THE MACHINE

In order to avoid unnecessary wear and overload of the transmission we recommend to mix and feed in one working procedure.

Do not leave a filled machine overnight.

FILLING OF FEED

Fig. 5.1 ***The feed must always be loaded from the machine's left hand side.***
The mixing tub should never be filled more than 80%, as there is otherwise a risk of reducing the mixing quality.

Whole unchopped round bales must never be filled into the machine.

ADVISABLE SUCCESSION FOR FILLING OF FEED

Also see the next chapter regarding examples of feed plans.
Generally feedstuffs with the highest density are loaded first.
Longstrawed material, as e.g. straw, must however, be added when the machine is about half filled so that the straw has been torn apart before the remaining quantity of feed is filled in.
When the degree of filling of the machine is approaching 50-60% the rest of the wanted quantity of feed should be added in the whole length of the machine. In this way a homogenous mixed feed is obtained faster.

4 EXAMPLES OF FEED PLANS FOR FILLING OF FEED

1. Molasses
2. Roughage
3. Chopped beets
START MIXER
4. Straw
1. Silage

1. Roughage
2. Beet refuse
START MIXER
3. Silage

1. Roughage
2. Silage (first half)
START MIXER
3. Straw
4. Silage (second half)

FEEDSTUFFS	WEIGHT [KG]	ACCUMMUL. WEIGHT [KG]
Soya	140	140
Minerals	15	155
Roughage	450	605
Beet pills	200	805
Sugar beet refuse	2000	2805
Whole crop silage	2500	5305

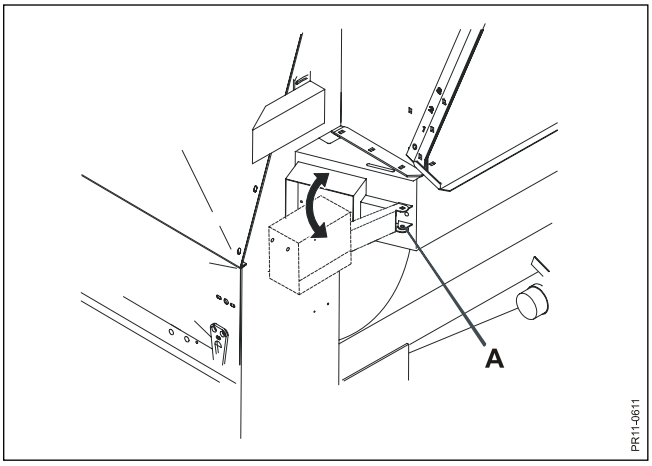


Fig. 5.2

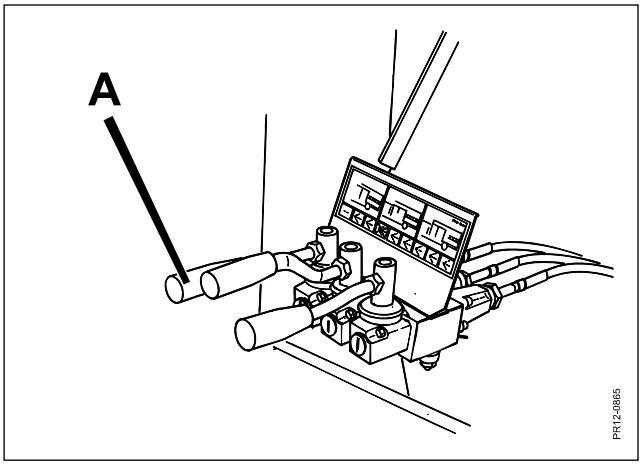


Fig. 5.3

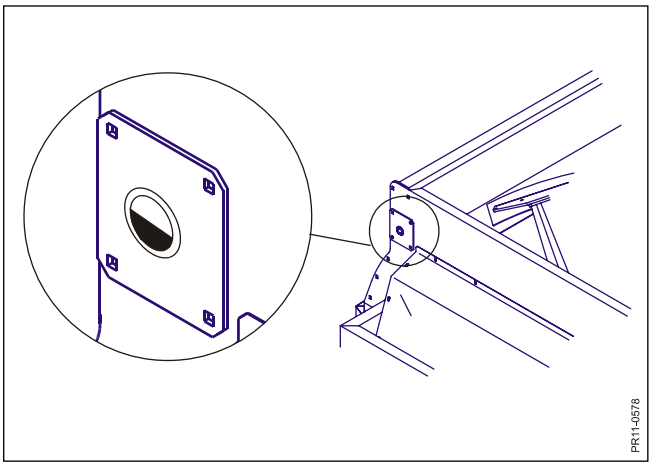


Fig. 5.4

WEIGHING

Fig. 5.2 The weighing instrument can be turned 90°. The disc springs (A) **must** be tightened ”suitably” together so that the instrument does not flutter.

The electronics of the weighing instrument have a short warm-up time, so it may take a couple of minutes before the instrument can make a 100% stable measurement.
It is therefore recommended to turn on the weighing instrument a couple of minutes before measuring. This especially applies in winter.
In order to obtain optimum weighing the mixing tub must be horizontal The adjustment is made by means of the front cylinder and is checked by means of the level tube (fig. 5.2 + fig. 5.4).

If the machine is moved there may be a small variation in the weight indication. This is mostly due to uneven ground.
The weighing system still functions perfectly, and you only ”count” forward from the weight shown.

When the mixing arm is working the weight will naturally vary as the feed lifted up by the mixing arm and then dropped will be in a ”temporary weightless condition”.

MIXING

During mixing the PTO-shaft is to rotate at about **400 RPM**. The optimum number of revolutions depends on the composition and sort of feed used.

Fig. 5.3 The mixing tub is adjusted by means of a handle (A) so that it is horizontal while mixing.
Thereby accumulation of feed in the ends is avoided, and a precise measuring of weight is ensured.

Fig. 5.4 When the tub is horizontal the liquid level is in the middle of the liquid indicator.

Some foodstuffs further the mixing ability of the machine. These are called ”co-mixers”

- Beets, chopped
- Potato pulp
- Beettop silage
- Wholecrop and maize silage
- Beet refuse

Other foodstuffs may be more problematic to mix and may, if they enter into the mix in large quantities, give a lower weight per load

- Very wilted grass silage
- Hay and straw
- Uncut silage and grass

The quantity of straw should not exceed 250 kg pr. mix.

We recommend the use of bales of chopped straw, as this will reduce the mixing time and the power requirement. This means that the fuel consumption is considerably reduced.
Also notice that chopped straw takes up about 10% less room than unchopped straw. This means that only 90 big bales have to be transported home from the field instead of 100 when the press is equipped with a chopper.

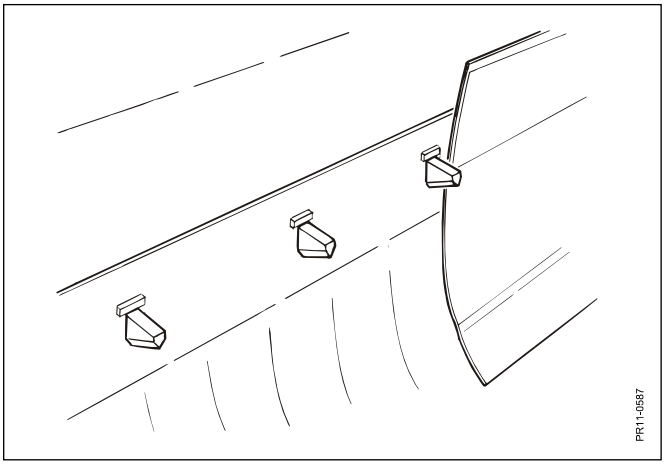


Fig. 5.5

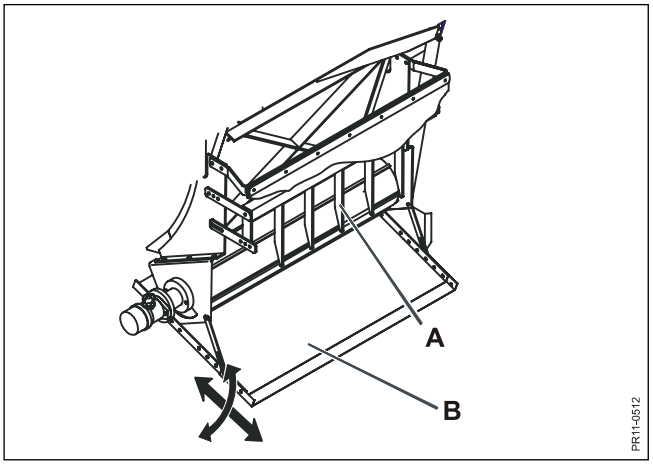


Fig. 5.6

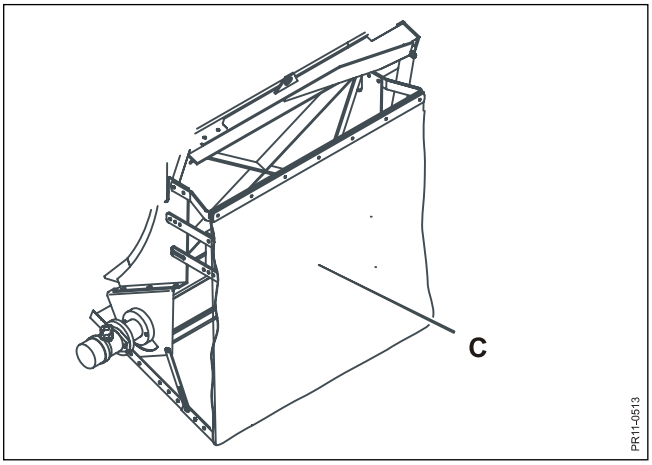


Fig. 5.7

Fig. 5.5 The number of shearbars also influences the consumption of energy: the more shearbars, the larger the consumption of energy is.
If the material is chopped straw it is not necessary to have all the shearbars mounted.
However, when using certain mixtures of feed it is important that all shearbars are mounted, i.e. when the mixture has a tendency to rotate like "one big sausage". In that case it is important that the shearbars are mounted to prevent a rotation.
(The paddles should displace the feed, and not let it carry on rotating.)
The 2 shearbars at the door require **very much** power, and should be left out.

If there are many concentrates it might be an advantage to mix these into one mixture for a week's consumption. The machine is very suitable for this job if it is equipped with rubber scrapers (see No. in the spare parts catalogue).
Also when producing caustic treated cereal grains, the rubber scrapers must be mounted. In this connection the safety instructions regarding proceedings with sodium hydroxide (caustic soda) must be observed. Please notice that the paint of the machine can be damaged.

FEEDING WITH THE “R” MODEL

After a shorter initial phase it is possible to have a completely uniform and nice feeding. However, it is necessary to adjust the firm and variable settings to the present feed mixture.

FIRM SETTINGS

Fig. 5.6 To obtain a uniform feeding the retainer bars (A) can be adjusted by means of a wrench.
However, the retainer bars are not always necessary, it depends very much on the feed mixture.
The angle of the slide (B) can be adjusted by moving the bolts or to choose other holes for the bolts.
The length of the slide can be adjusted by choosing other holes.
The slide prevents a waste of feed, but it is not always necessary. It depends very much on the feed mixture.

Fig. 5.7 The rubber canvas (C) must **always** be down when the cattle is able to come near the trailer as regards the feeding. It also limits the feed, so that it is not thrown longer than intended to.

VARIABLE SETTINGS AND DRIVING PARAMETERS

The electronic scales are turned so that the numbers are visible from the tractor. It is a good idea to compare the weight with some fixed points in the stable.

For example: The machine has been loaded with 5000 kg feed. The manger is 40 m long. Having driven 20 m the weight must be 2500 kg, if a uniform feeding is required.

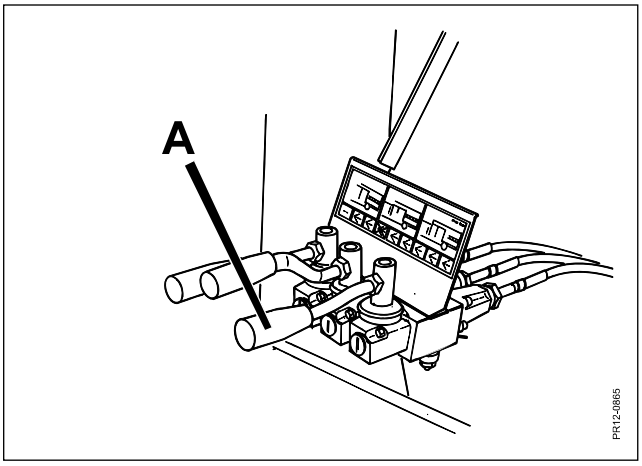


Fig. 5.8

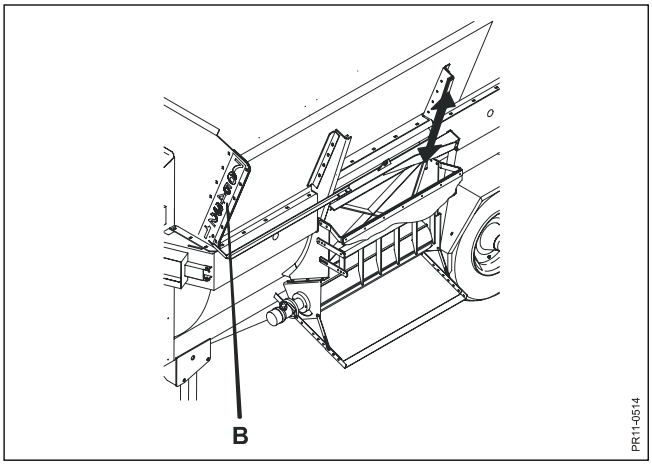
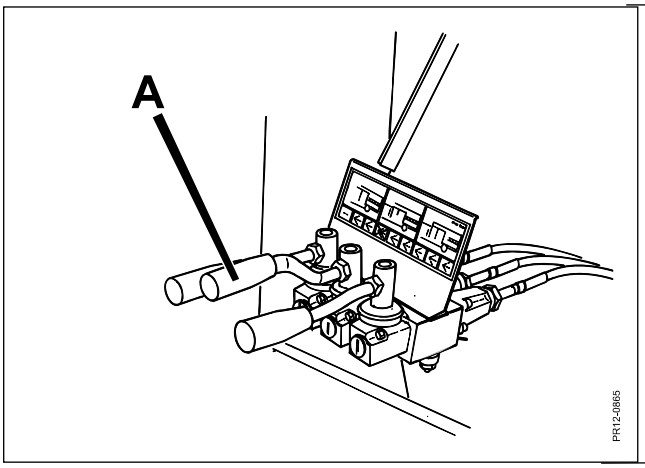


Fig. 5.9



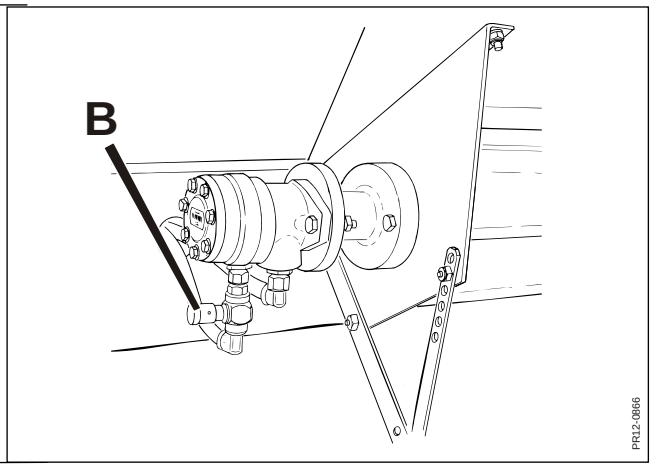


Fig. 5.10

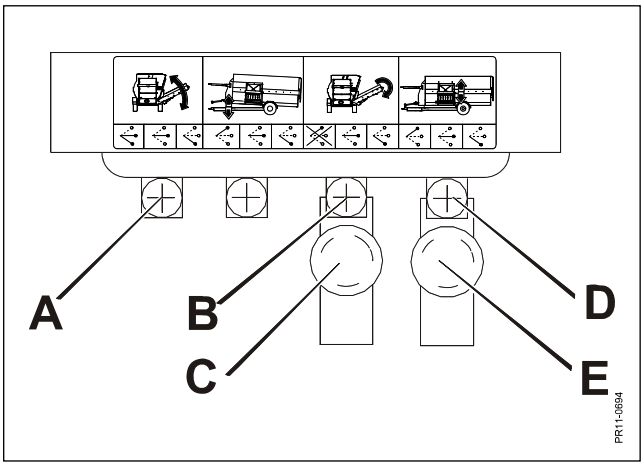


Fig. 5.11

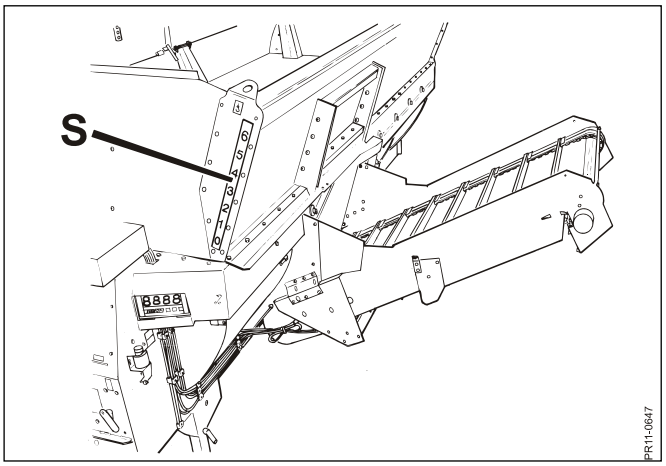


Fig. 5.12

Fig. 5.8 The opening of the door is adjusted with the handle (A).

Fig. 5.9 The opening can be read on the scale (B).

Fig. 5.10 The roller is activated by the handle (A).
The speed can be adjusted by means of the throttle valve (B), or/and by the RPM of the tractor.

The number of revolutions of the PTO shaft must be approximately 540 RPM to obtain a uniform feeding. It might be necessary to increase the number of revolutions concurrently with the machine being almost empty.

The forwarding speed must be adjusted to the required quantity of feed. When the machine is almost empty it is necessary to drive a little slower.

It is also an advantage to lower the mixing tank when the machine is almost empty.
Please notice that this also influences the electronic scales!

If the machine is to be emptied completely, the rubber scrapers must be mounted on the paddles (see No. in the spare parts catalogue).

FEEDING WITH THE "E" MODEL

The mixing bar must be activated. Choose an appropriate number of revolutions, the faster the mixing bar is turning the quicker the machine can be emptied.

The operation bracket is turned 90º as described in chapter 4 (fig. 4.6).

Fig. 5.11 The elevator is folded out with the handle (A). See also fig. 12. However, it is not necessary to fold out the elevator completely to unload, but the elevator capacity will be reduced, when it is in a very steep position, so we recommend folding it down as much as possible.

The conveyor is activated by means of handle (B). The speed can be adjusted by means of throttle valve (C).
The conveyor must <u>always</u> be activated before the gate is opened.

The gate is opened by means of handle (D), and the unloading has started.
The speed, when opening, can be adjusted by means of the throttle valve (E).

Fig. 5.12 The opening can be read at the scale (B).
When the required quantity has been unloaded the gate is closed again.
The conveyor must not be stopped until the gate is completely closed.

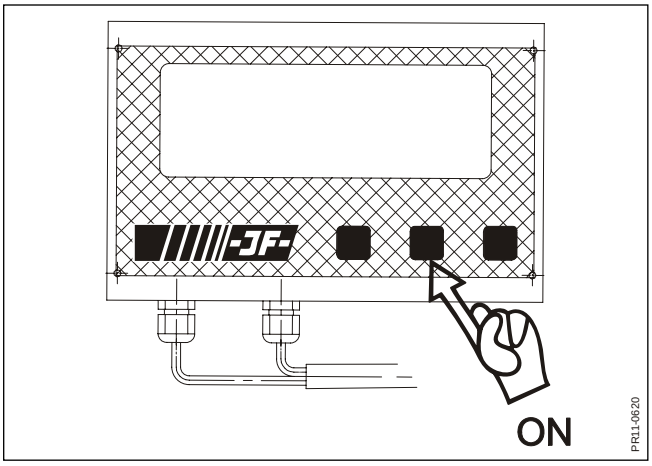


Fig. 6.1

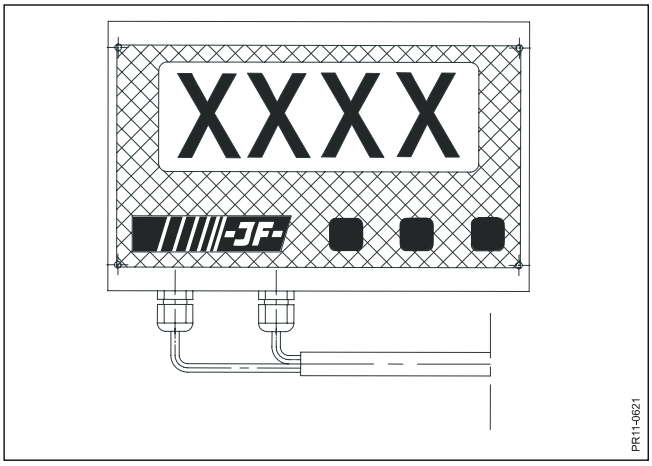


Fig. 6.2

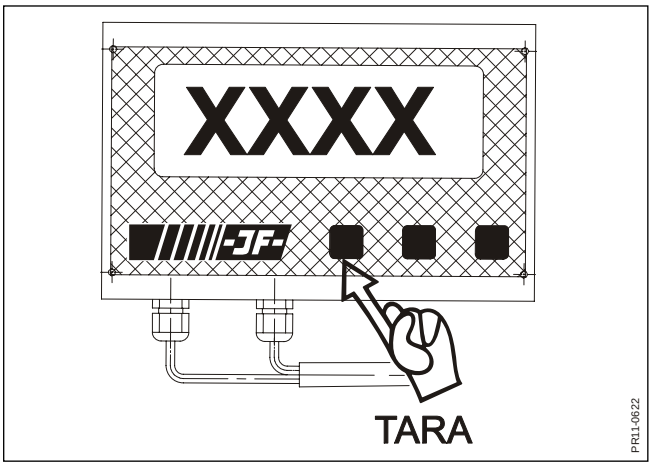


Fig. 6.3

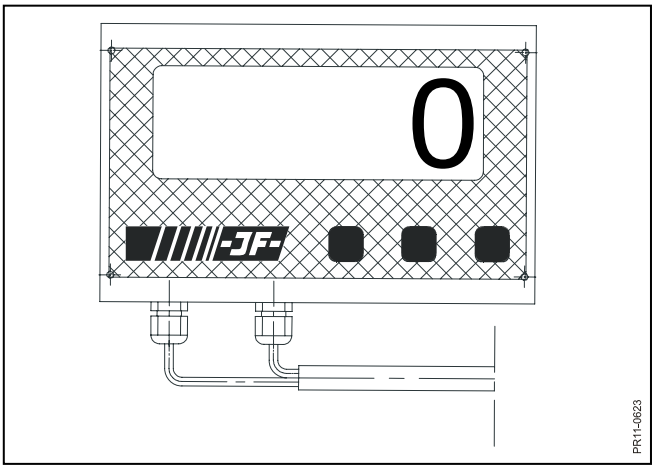


Fig. 6.4

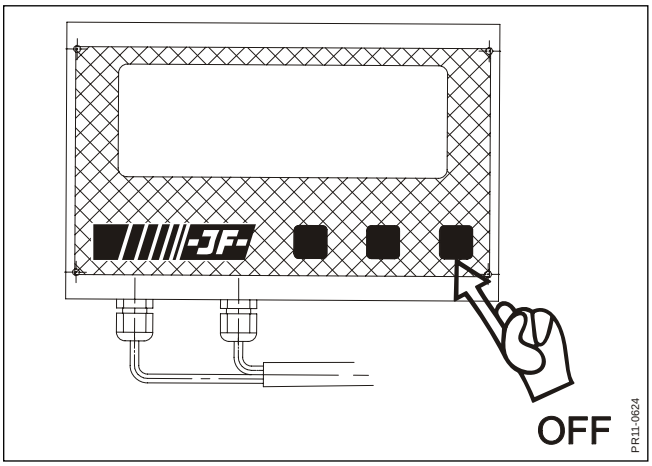


Fig. 6.5

6. WEIGHING SYSTEM

Fig. 6.1 The weighing equipment is activated by pushing the ”ON” button.

Fig. 6.2 The weighing equipment shows the number saved in the memory.

Fig. 6.3 To begin the loading, push the button ”TARA”.

Fig. 6.4 The weighing equipment now shows 0 and is ready for use.

You might push the button ”TARA” after each feed mean or you could use a scheme as shown in the chapter: ”4 examples of feeding ideas and the order”.

Fig. 6.5 When the weighing equipment is not used it is turned off by pushing the ”OFF” button.

Even if the weighing equipment is turned off or the power is cut off it still remembers the last shown number.

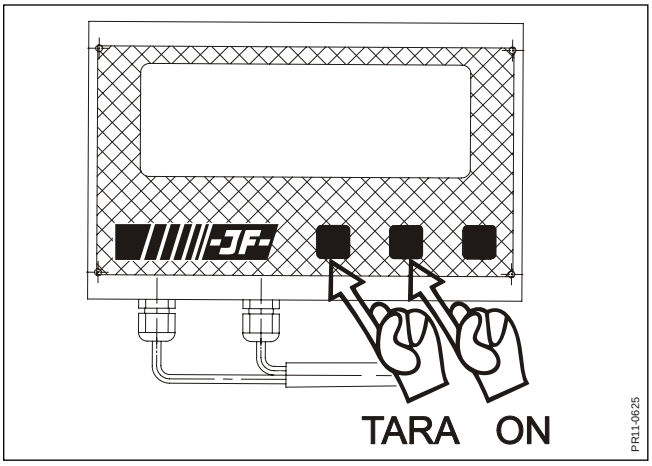
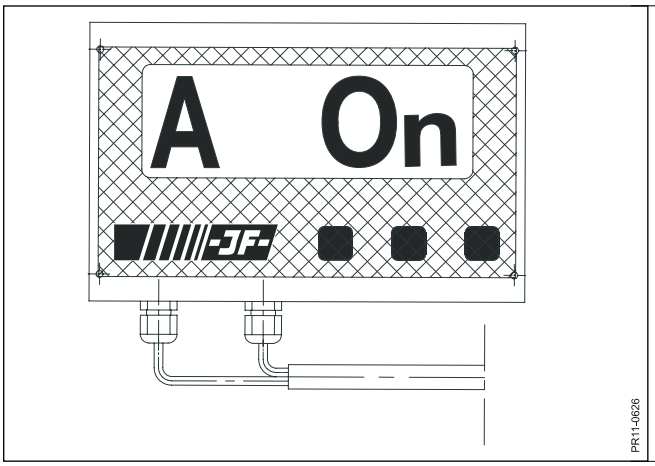


Fig. 6.6



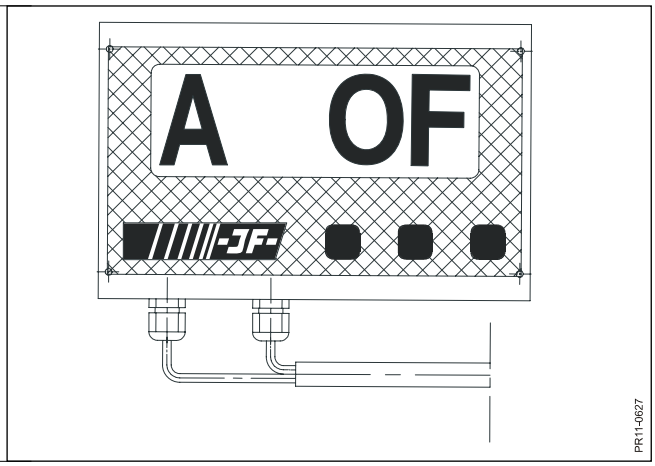


Fig. 6.7

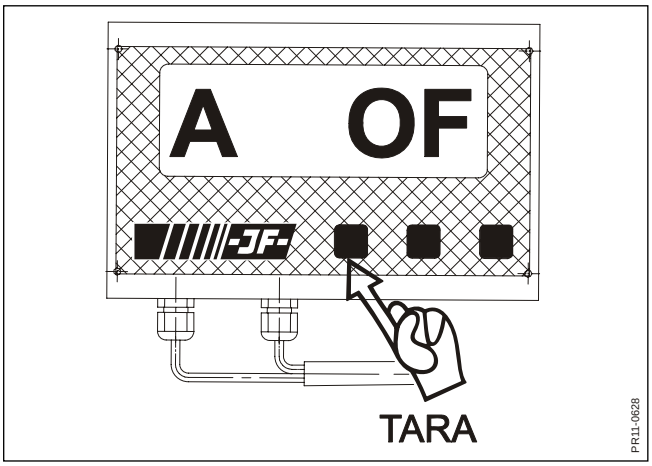


Fig. 6.8

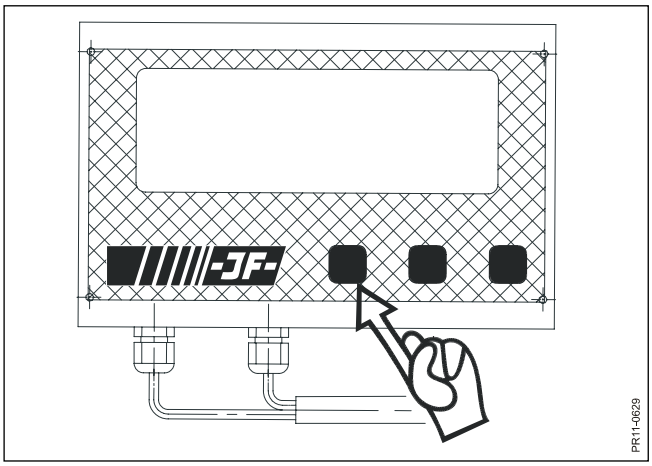


Fig. 6.9

SETTING OF ”AUTO-OFF”

The weighing equipment can be programmed so that the display is put off automatically, when the weight has not changed for an hour.

Fig. 6.6 Push ”TARA” and ”ON” on the same time.

Fig. 6.7 The display now shows the actual setting: ”A ON” or ”A OFF”.

Fig. 6.8 Every time ”TARA” is pushed you can shift between ”A ON” and ”A OFF”.

Fig. 6.9 To return to the normal weighing equipment push the button ”ON” **twice.**

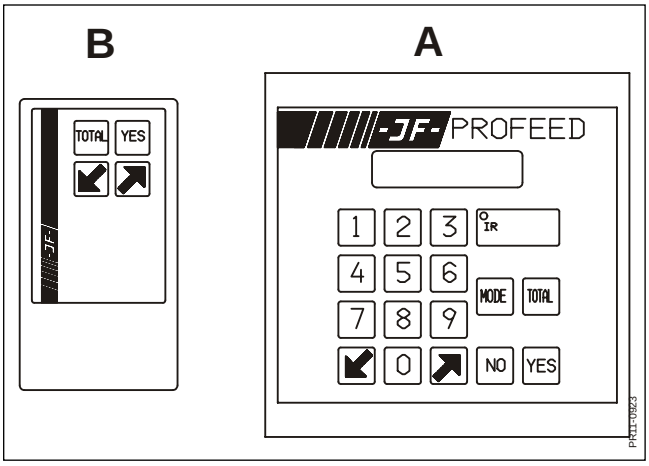

B
A
TOTAL
YES
-JF-
PROFEED
1
2
3
IR
4
5
6
MODE
TOTAL
7
8
9
0
NO
YES

Fig. 7.1

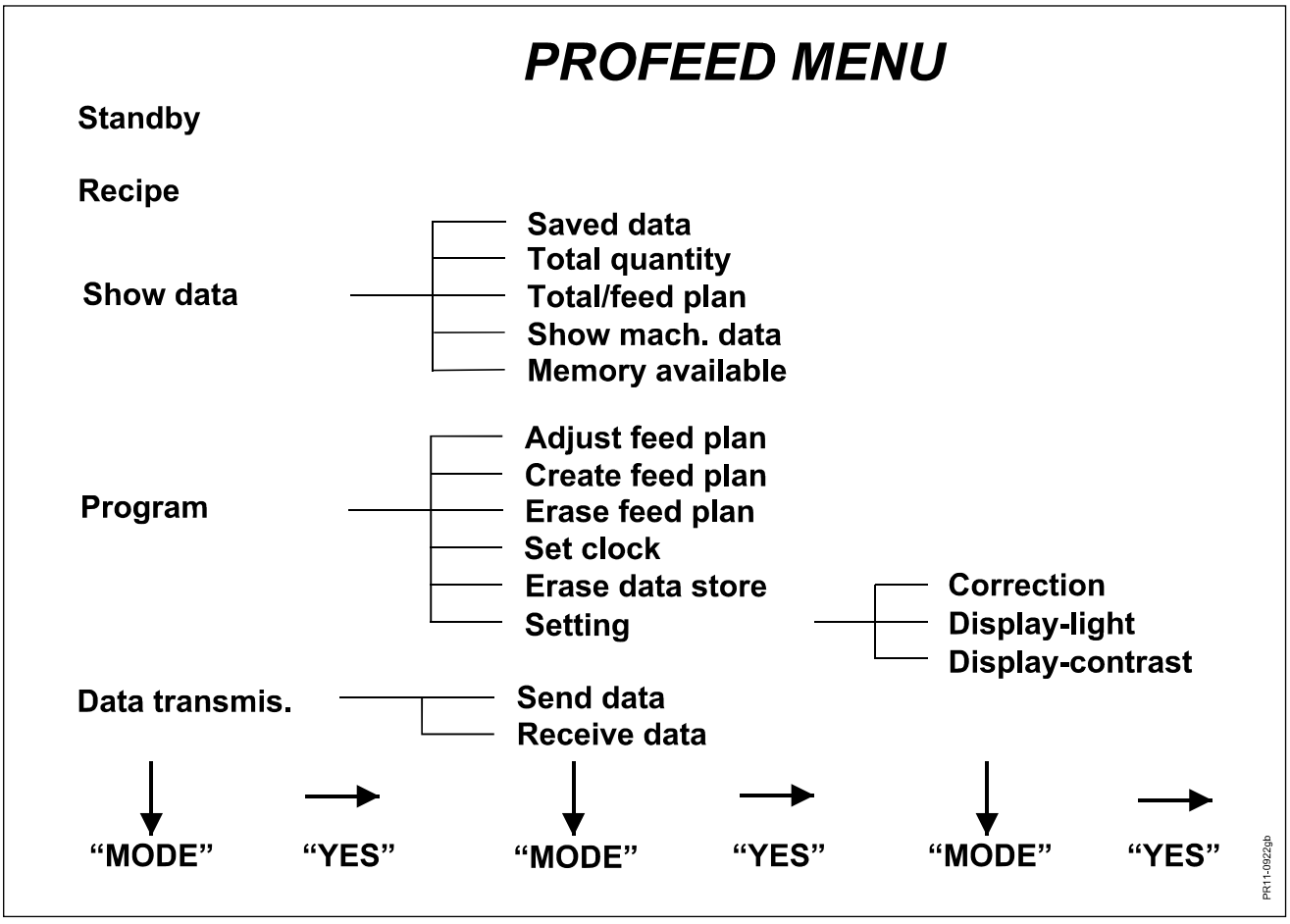

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0922gb

Fig. 7.2

7. PROFEED WEIGHING SYSTEM

Fig. 7.1 PROFEED is an electronic unit (A), to be built into the existing weighing instrument on your JF-Feeder, unless the Feeder has been delivered with PROFEED as standard. A 4-channel remote control (B) is delivered as standard, which ensures that the user has complete control of the system during filling of forage.
PROFEED has 2 main functions:

1) To help the user during filling of forage by showing which and how much forage is to be filled in.
2) To function as a data compiling equipment that is saving which and how much forage has been mixed.

If you want to treat the saved data and make e.g. curves you only have to get a JF hand terminal and the "IR-receiver for PC" belonging to it. By means of this equipment wireless communication with your own PC is possible.

Everywhere hereafter where reference is made to a display it will be PROFEED's display unless something else is mentioned.

Fig. 7.2 **Menu structure** : Choose between the menu points and press the <MODE> button and press <YES> on the wanted menu point.
If in a menu you press <NO> you will be back in the main menu (Standby).

Main menu :
Standby
Recipe
Show data
Program
Data transmis.

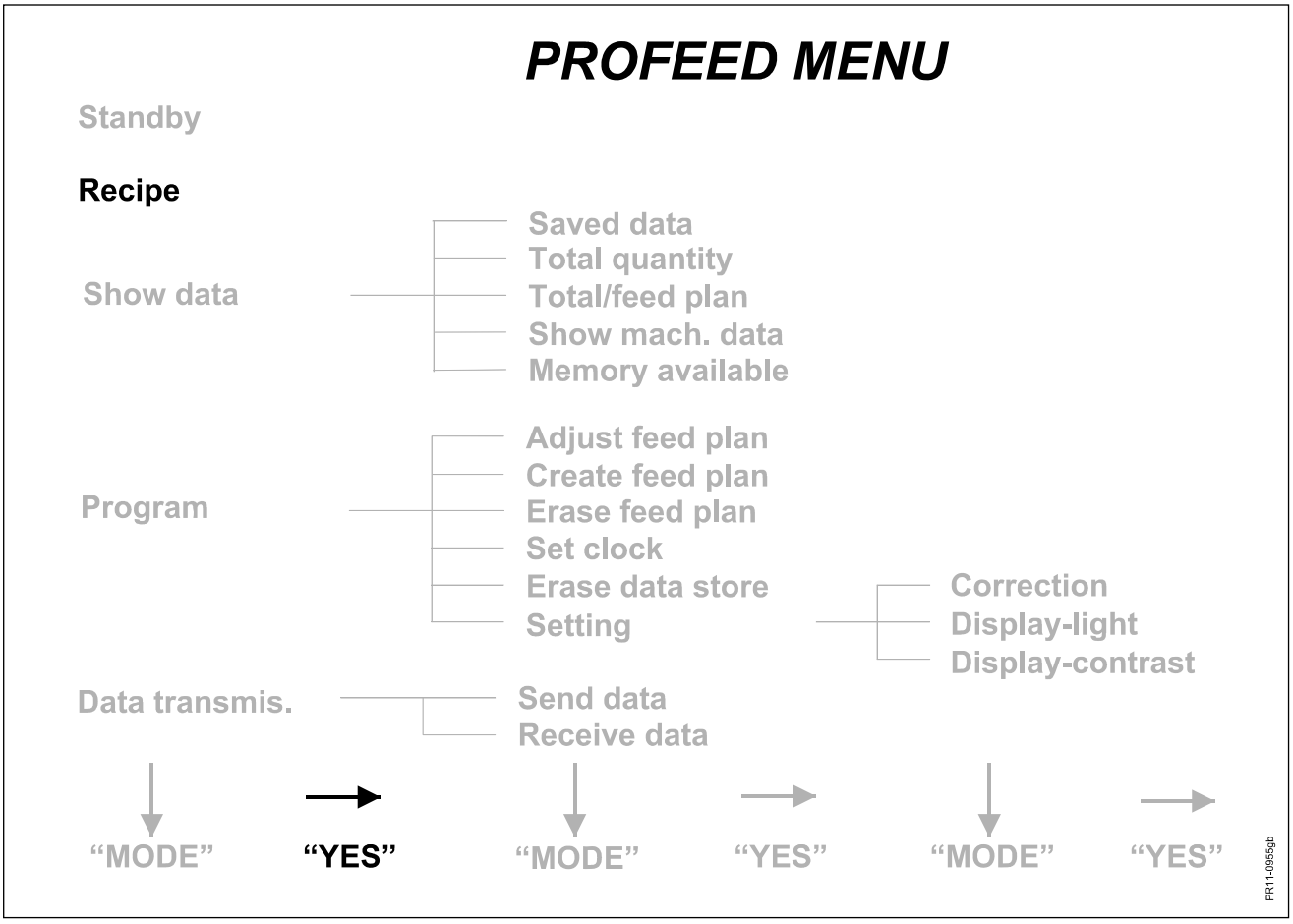

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0955gb

Fig. 7.3

RECIPE : (MIXING)

Fig. 7.3 The display of the weight will show _¯¯_.
PROFEED now expects that the number of the wanted feeding plan <0.9> is entered followed by a press on the <YES> key. If you do not remember the number of the feeding plan you press the <TOTAL> key and the display will show a survey of the possible feeding plans (number of the feed plan, number of animals and total volume). By means of the two arrows the wanted feeding plan is chosen and the <YES> key is pressed.
In the display the present number of animals is shown.
If you want to change the number you press the <NO> key, and the correct number is entered followed by a press on the <YES> key. The feeding plan will now be changed to the new number of animals and saved in PROFEED's memory.
If the number of animals is unchanged you press the <YES> key instead.

In the display the first foodstuff in the feeding plan is shown. In the upper line the foodstuff's position in the feeding plan is shown and the wanted weight. In the last line the number and 'name' of the foodstuff.
You can now mix by means of the two arrows. First the programmed foodstuffs are shown and after these you have the possibility of accepting the feeding plan or interrupting the mixing.
When the wanted foodstuff is shown in the display you press the <YES> key and the display for the weight is shown shortly. _¯¯_. After that the weight's display shows the number of the foodstuff and the weight alternately. If for example 250 kg of the foodstuff No. 1 is required the weight's display shows F1 and -250 alternately. When this sequence has been shown five times the weight's display changes to show the weight only.
The foodstuff is added, and when the weight's display shows zero the wanted quantity has been added. Now press the <YES> key and the weight's display is shown shortly _¯¯_ after which it switches to choice of foodstuff.
It is always possible to resume the weighing of a foodstuff that has already been weighed, if, for example, you run out of a foodstuff while weighing. The foodstuff is approved with the <YES> key, later you can page back to the foodstuff in question and continue the weighing.

When all the foodstuffs have been added the menu point 'Mixing finished' is chosen, and the weighed foodstuffs are saved in PROFEED's memory.

If you want to interrupt the weighing you choose the menu point 'Interrupt mixing' whereby the weighed foodstuffs are not saved in PROFEED's memory.

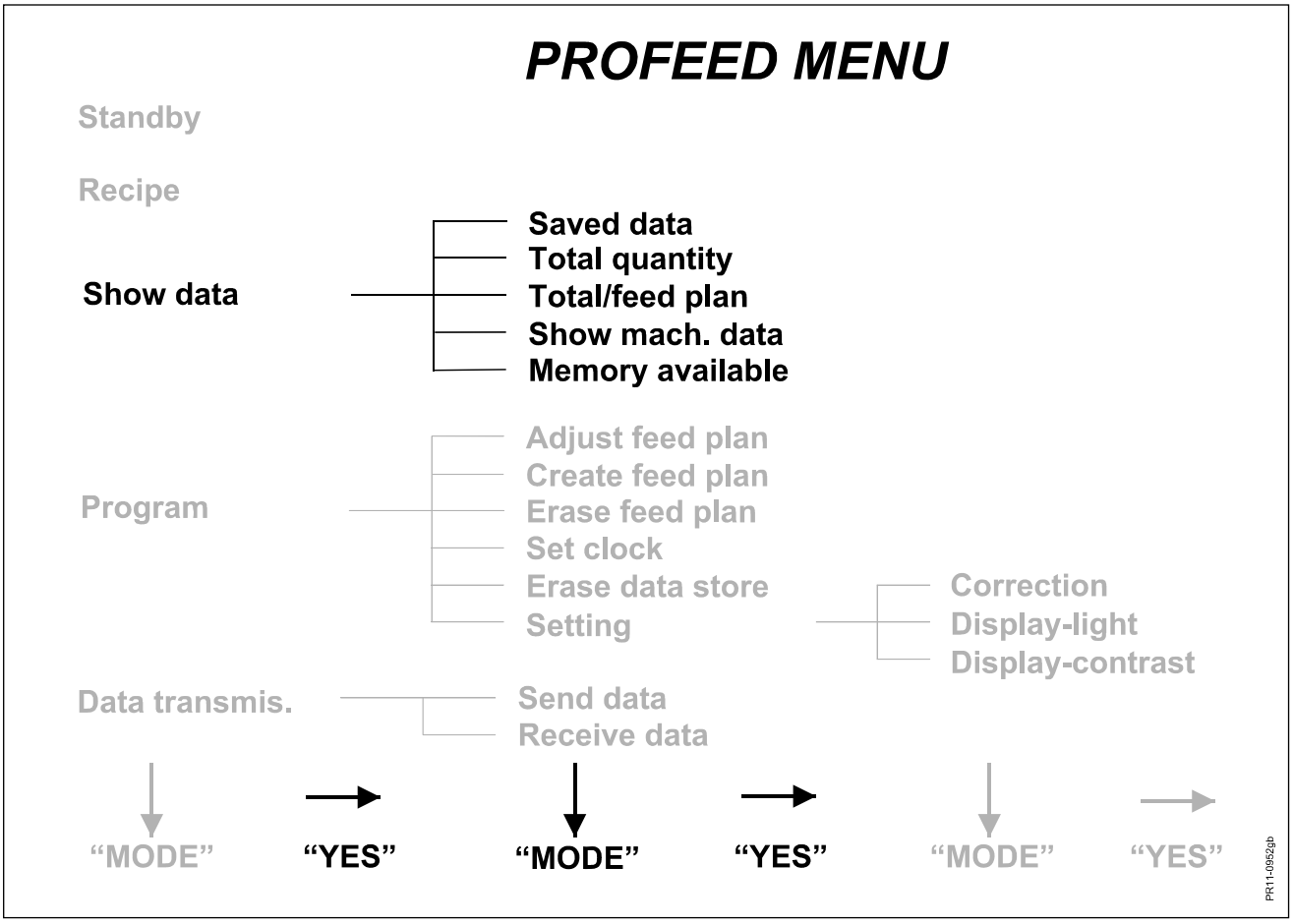

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0952gb

Fig. 7.4

SHOW DATA

Fig. 7.4 The menu ‘Show data’ gives the possibility of choosing as follows:

Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available

SAVED DATA

Each time a feed plan is approved after mixing each individual weighing is saved in PROFEED’s memory.
After choosing the menu point ‘Saved data’ PROFEED expects the entering of a date by means of the <0>.9> keys followed by a pressure on the <YES> key. PROFEED will now consults the data table at the place where the entered date appears for the first time, for example:

09/06-99 ANIMALS: 50
FP0 F01: 200kg

which means that on the 9th June, 1999 200kg of the foodstuff F01 has been weighed. The foodstuff has been used in the feed plan FP0 that was intended for 50 animals.

It is now possible to leaf forward and backwards in the data table by means of the two arrows. Press the <MODE> key for returning to the main menu.

TOTAL QUANTITY

This point makes it possible to see the consumption of the individual foodstuffs during a determined period.
After choosing the menu point ‘Total quantity’ PROFEED expects the start date for the period to be entered by means of the <0.9> keys followed by the <YES> key. After that the end date is entered in the same way, and PROFEED will now run through the data table and calculate the consumption of the individual foodstuffs.
When the calculation is finished PROFEED shows the individual foodstuffs in the display and the quantity that has been weighed during the entered period. You can leaf through the foodstuffs by means of the arrows and finish by pressing <MODE> key.

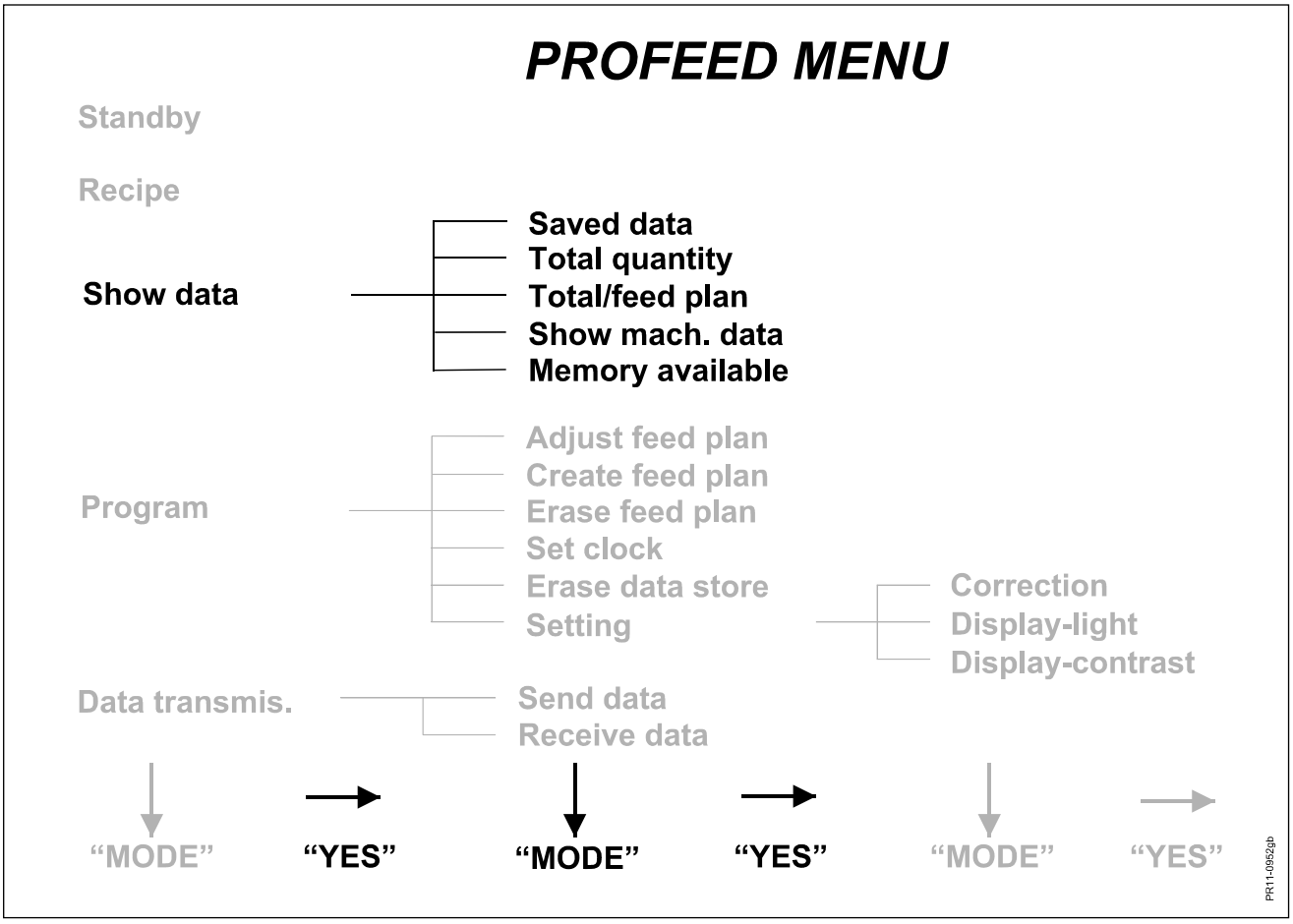

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0952gb

Fig. 7.4

TOTAL/FEED PLAN

This menu point is very similar to ‘Total quantity’. The difference is that here it is only possible to show the foodstuffs that has been used in a determined feed plan, for example FP3.

First enter the number of the feed plan followed by a pressure on the <YES> key. If you do not remember the number of the feed plan you press the <TOTAL> key and the display will show a survey of the possible feed plans (number of the feed plan, number of animals and total quantity). By means of the two arrows you choose the wanted feed plan and press the <YES> key.
After that you enter start- and end date as in the (Total quantity) menu.

SHOW MACH. DATA

The menu point 'Show machine data' shows the total quantity of mixes and the total quantity weighed in the display. Press the <MODE> key to finish.

MEMORY AVAILABLE

Shows how much free memory is left for saving data.

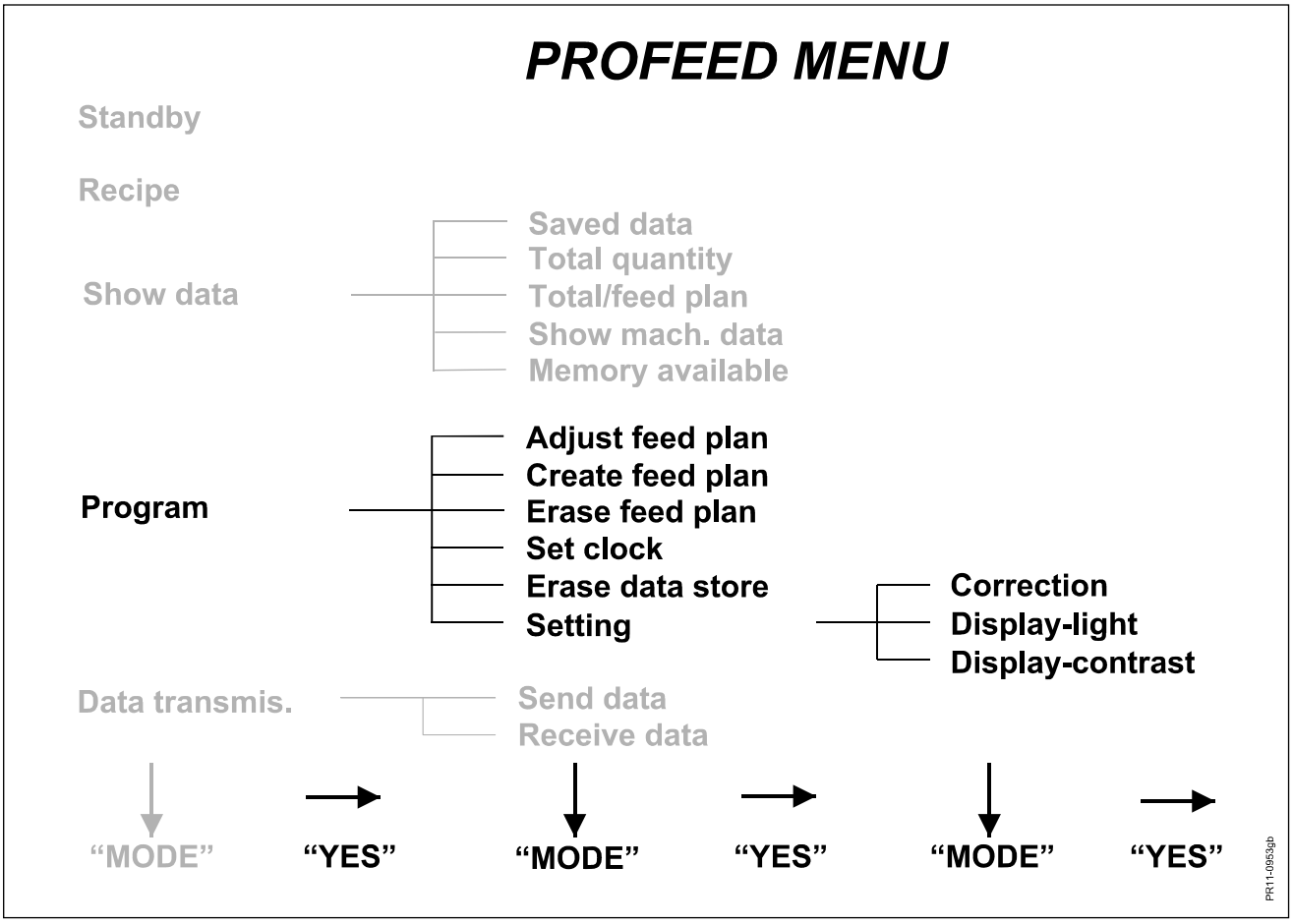

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0953gb

Fig. 7.5

PROGRAM

Fig. 7.5 The menu ‘Program’ gives the possibility of the following choices:

Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting

ADJUST FEED PLAN

This menu point gives the possibility of correcting the stocked feed plans. PROFEED now expects the number of the wanted feed plan to be entered <0..9> followed by a pressure on the <YES> key. If you do not remember the number of the feed plan press the <TOTAL> key and the display will show a survey of the possible feed plans (number of the feed plan, number of animals and total quantity. By means of the two arrows you chose the wanted feed plan and press the <YES> key.

By means of the two arrows you can now leaf through the feed plan. First the number of animals is shown, then the individual foodstuffs in the feed plan, and the last point accepts the feed plan. A point is changed by pressing the <YES> key when the point in question is shown in the display.

Change of number of animals:

Choose a point where ‘Number of animals: XXX’ is shown in the display. Press the <YES> key, the new number and accept by pressing the <YES> key. Instead of starting with the <YES> key you can enter the number directly.

Change of foodstuff:

Choose the foodstuff to be changed and press the <YES> key.
You can now leaf through the following by means of the two arrows: position, foodstuff/name, wanted weight, Delete foodstuff and Return to feed plan.

Position:

The display now shows the actual position of the foodstuff in the feed plan. If the foodstuff is to have another position, you enter the new position followed by a pressure of the <YES> key.

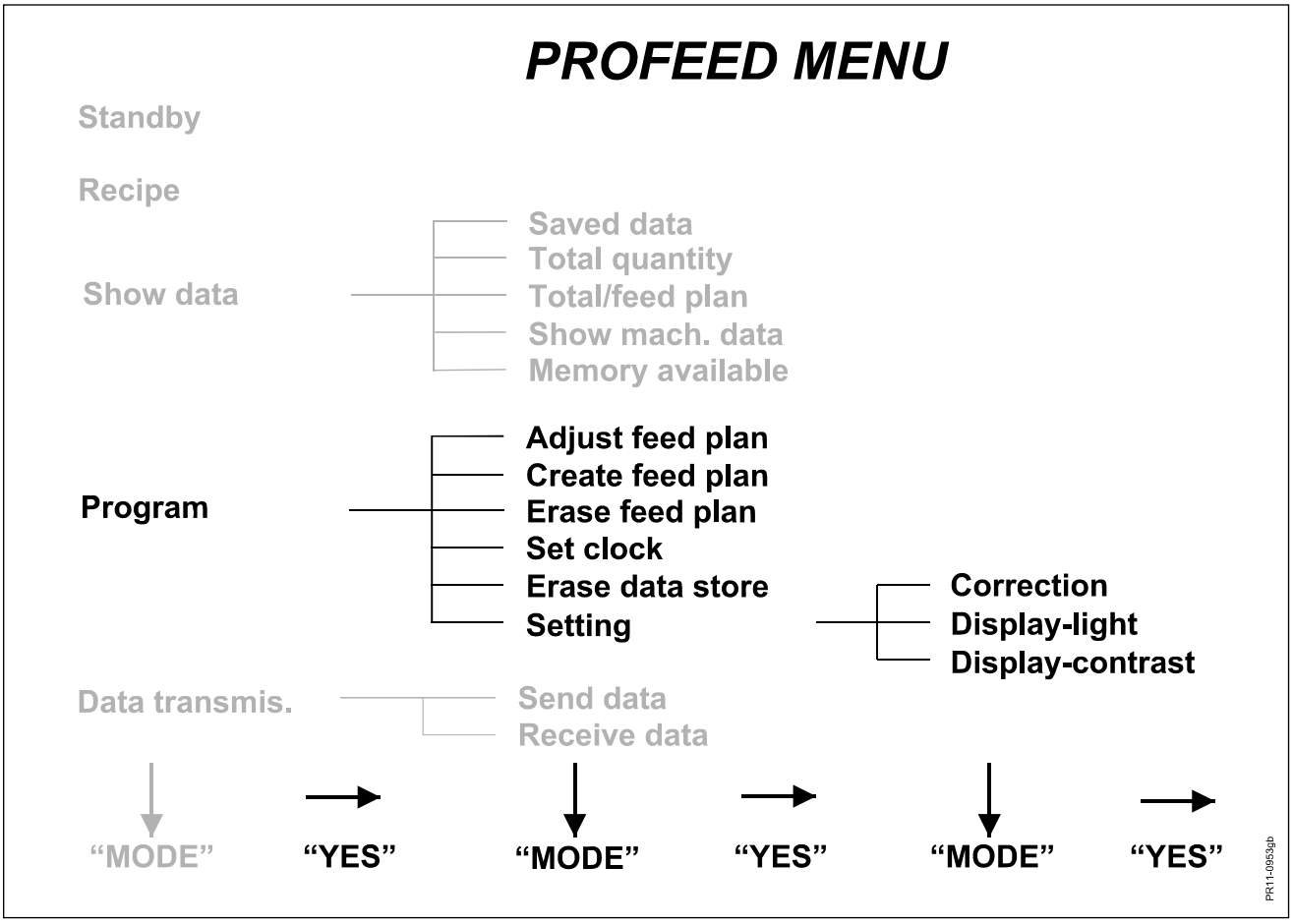

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0953gb

Fig. 7.5

Foodstuff:

In the display foodstuff No. and name is shown. Enter the number of the wanted foodstuff <1..40> followed by a pressure on the <YES> key. If you do not remember the number of the foodstuff you press the <TOTAL> key after which the display shows a survey of the possible foodstuffs (number and name of the foodstuff). By means of the two arrows the wanted foodstuff is chosen and you press the <YES> key.

Weight:

In the display the wanted weight is chosen. Enter the new weight followed by a pressure on the <YES> key.

Delete foodstuff:

If you want to delete the point in question in the feed plan you press <YES> key.

Return to feed plan:

By pressing the <YES> key the entered corrections are saved and you return to the feed plan.

Insert new foodstuff:

Press the <YES> key.

A new foodstuff is now inserted in the first free position. The number and weight of the foodstuff is entered as shown above.

If the wanted foodstuff is not on the list, one of the free positions can be used. If you want to add text, see the section "Data Transmis".

Feed plan OK?:

By pressing the <YES> key the feed plan is saved.

CREATE FEED PLAN

Is done in the same way as 'Correct feed plan'. The only difference is that you cannot chose a feed plan that has already been created.

ERASE FEED PLAN

This menu point gives the possibility of deleting an existing feed plan.

PROFEED expects that the number of the wanted feed plan is now entered <0..9> followed by a pressure on the <YES> key. If you do not remember the number of the feed plan you press the <TOTAL> key and the display will show a survey of the possible feed plans (number, number of animals and total quantity of the feed plan). By means of the two arrows the wanted feed plan is chosen and the <YES> key is pressed.

PROFEED now asks if you want to delete the chosen feed plan. Press the <YES> key to delete the feed plan, or the <NO> key to regret.

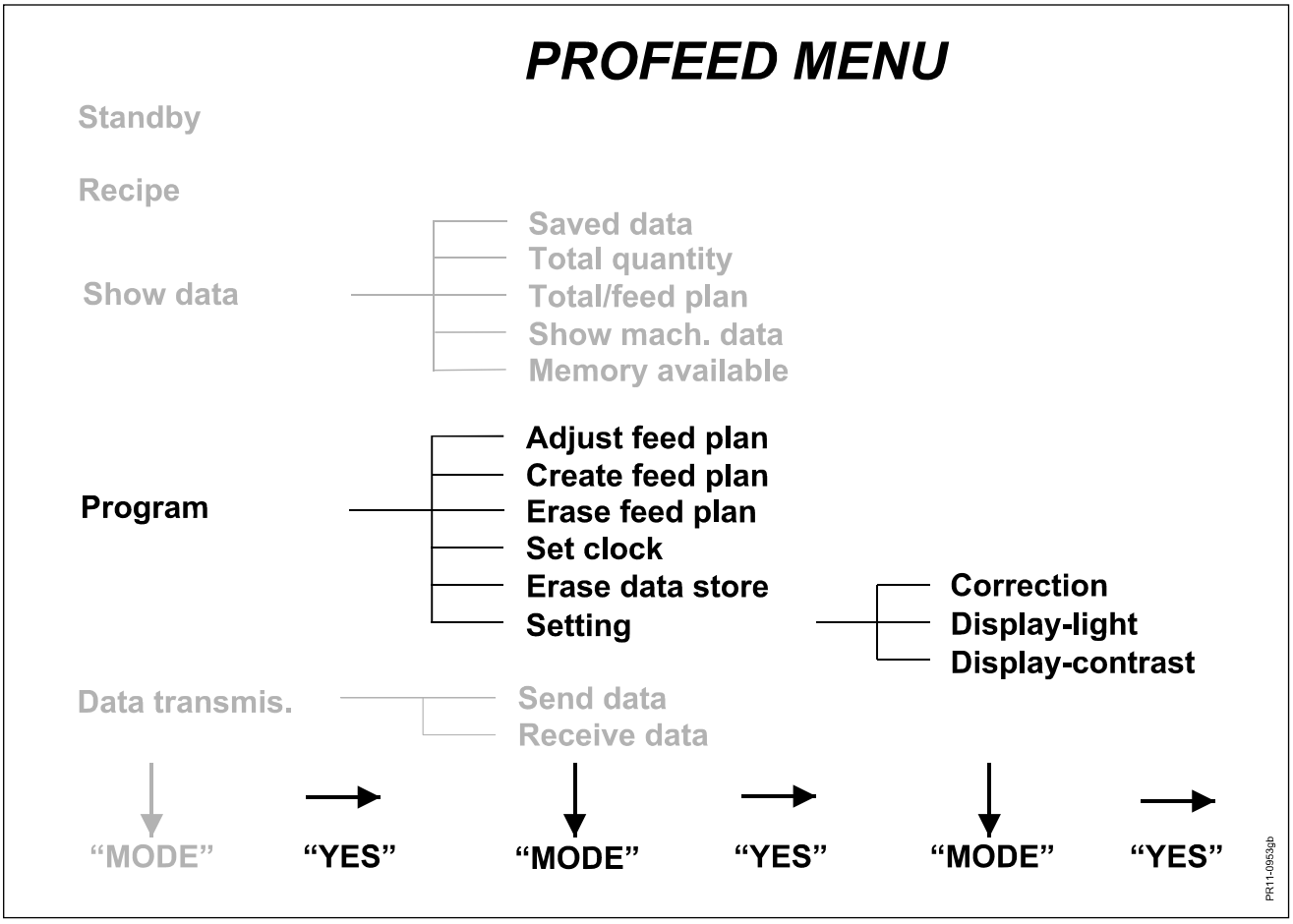

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0953gb

Fig. 7.5

SET CLOCK

This menu point makes it possible to adjust PROFEED's clock and calendar.
When you press the <YES> key PROFEED will show the present date and time. Press the <NO> key to set clock/calendar, or the <YES> key to go back to the main menu.
If you press the <YES> key PROFEED will show the present date. Press the left-arrow to delete the present value, enter new date and finish with the <YES> key, or press the <YES> key to accept the present value.
The same procedure is now repeated with month, year, hour and minute. When the minutes have been accepted the seconds are zero set, and you revert to display of the present date and time. Press the <YES> key to get back to the main menu.

ERASE DATA STORE

This menu point gives the possibility of deleting all saved data. Press the <YES> key to delete. PROFEED now offers the last chance of regretting the erasion. Press the <YES> key again to erase or the <NO> key to regret.

SETTING

This menu point gives the possibility of changing PROFEED's setting.
The menu gives you the following choices:

Correction
Display-light
Display-contrast

CORRECTION

This menu point gives the possibility of switching correction of the vibrations of the machine off and on. Press the <YES> key. The display now shows the present setting. Press the left-arrow to erase the present value, enter the new (0=correction switched off, 1=correction switched on) and accept by pressing the <YES> key.

DISPLAY-LIGHT

This menu point makes it possible to change the background light of the display. Press the arrows to change the background light and accept by pressing the <YES> key.

DISPLAY-CONTRAST

This menu point makes it possible to change the contrast of the display. Press the arrows to change the contrast and accept by pressing the <YES> key.

OBS ! If, by mistake, you turn the contrast completely down nothing is seen in the display. It is therefore always possible to press the <0> key at the same time as one of the arrow keys in order to change the contrast.

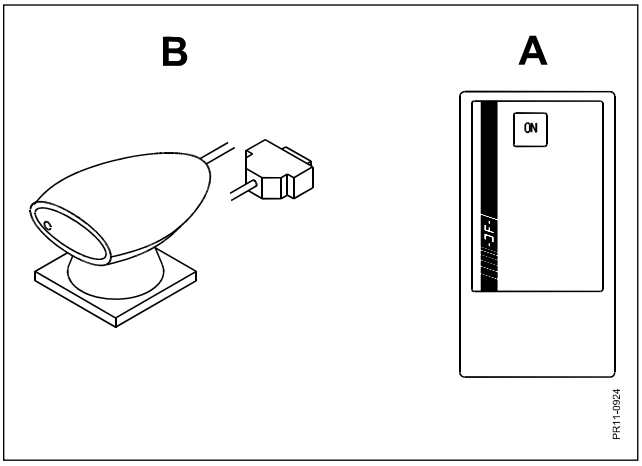

B
A
ON
PR11-0924

Fig. 7.6

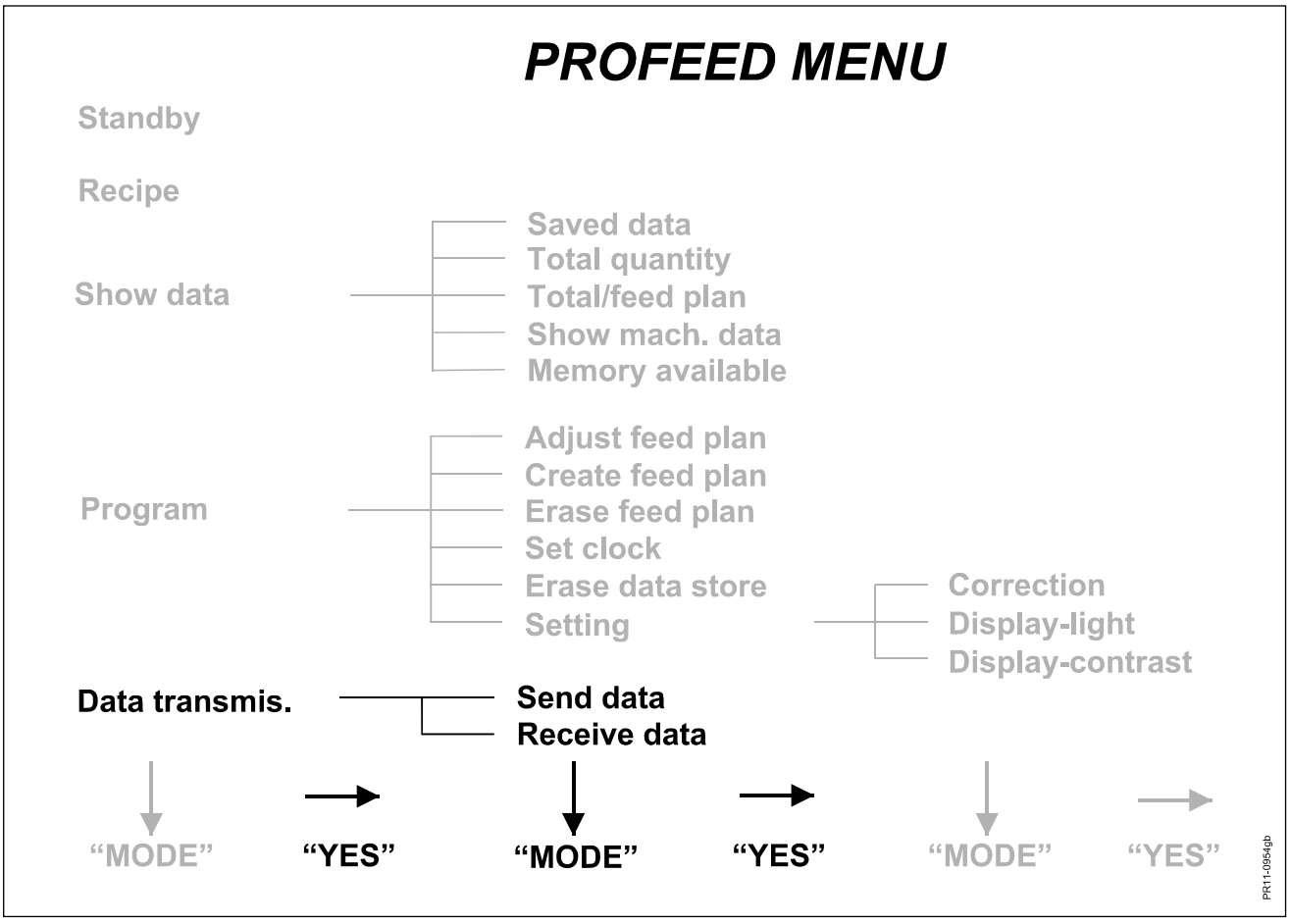

PROFEED MENU
Standby
Recipe
Show data
Saved data
Total quantity
Total/feed plan
Show mach. data
Memory available
Program
Adjust feed plan
Create feed plan
Erase feed plan
Set clock
Erase data store
Setting
Correction
Display-light
Display-contrast
Data transmis.
Send data
Receive data
"MODE"
"YES"
"MODE"
"YES"
"MODE"
"YES"
PR11-0954gb

Fig. 7.7

DATA TRANSMIS.

Fig. 7.6 This menu point makes it possible to send data to PROFEED or receive data from PROFEED. A condition is that you have got an infrared hand terminal (A) and a receiver/transmitter (B), which must be connected to the PC to be communicated with. The equipment makes it possible to transfer non-existing foodstuffs to the Profeed system.Regarding Ordering Numbers: see spare parts list.

SEND DATA

Fig. 7.7 This menu point makes it possible to move data from PROFEED. The user can transfer feed plans, foodstuff tables, and not the least the saved data. Further JF can transfer the texts.
Answer <YES> to the menu point ”Send data” and hold the hand transmitter at a distance of about 30 cm from the IR-window on PROFEED, and press <ON>. Now data are transferred to the hand transmitter.

RECEIVE DATA

This menu point gives the possibility of sending data to PROFEED. The user can transfer feed plans and the foodstuff table. JF can further change the texts to, for example, another language. Answer <YES> to the menu point ”Recieve data” and hold the hand transmitter at a distance of about 30 cm from the IR-window on PROFEED and press <ON>. Now data are transferred from the hand transmitter to PROFEED.

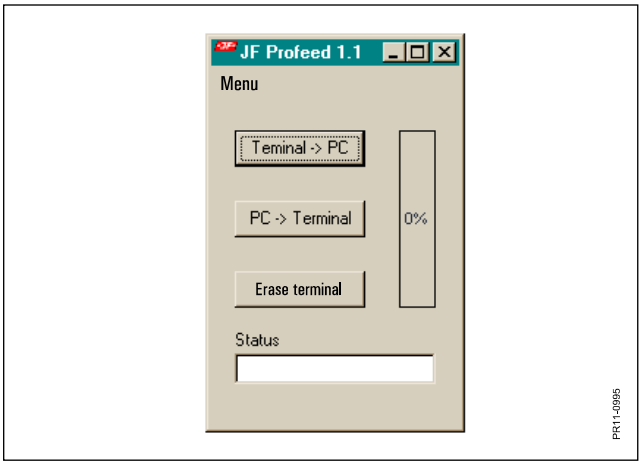


Fig. 7.8

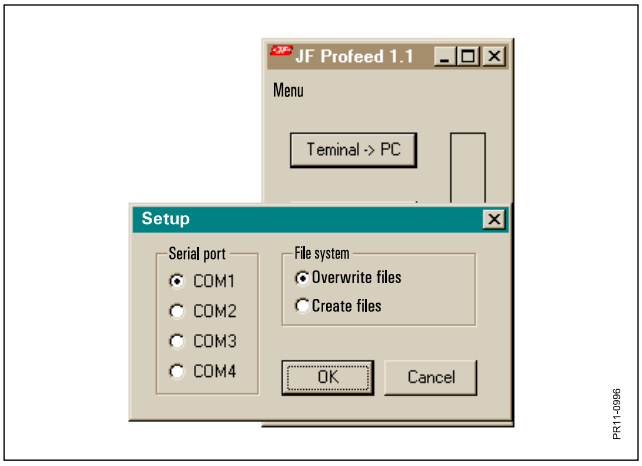


Fig. 7.9

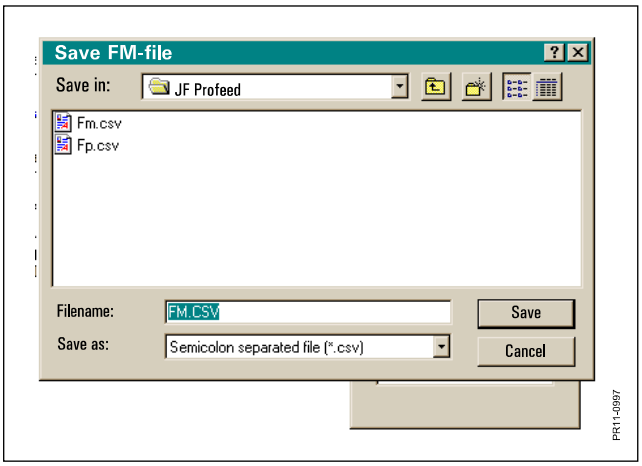


Fig. 7.10

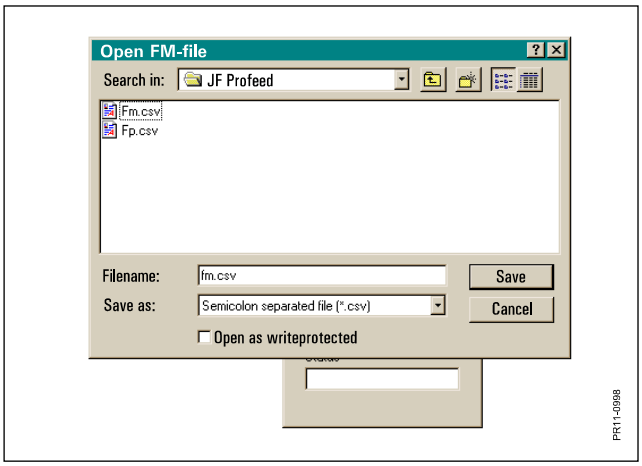


Fig. 7.11

TRANSFERRING DATA FROM PC TO HAND TRANSMITTER AND VICE VERSA

The PC software is installed by setting up a directory on the PC, for instance c:\profeed. The file Jf_ir. exe is copied to the new directory.

Fig. 7.8 Having transferred the file and when the infrared receiver is connected to a communication port on the computer, the programme can be started.

Fig. 7.9 Choose the menu point "setup". State which port is connected to the infrared receiver, typically this would be COM1 or COM2. Then the programme is ready to transmit and receive data. The file type is CSV, semicolon separated, which most spreadsheets can handle.

TERMINAL PC

Fig. 7.10 This menu point is chosen to have data transferred to the PC. In order to use this point the data first has to be transferred from the PROFEED system to the infrared hand transmitter.

The hand transmitter must be kept at a distance of approx. 30 cm from the infrared receiver, which has been connected to the PC. Having completed the transmission, it is possible to state where you should like to save the files, the data file: da.csv, the feed type file: fm.csv and the feed plan file: fp.csv.

This function is often used when you want a general knowledge of how the previous feed mixings have been. The data file contains the actual feed quantities, which were added in the single feed mixings.

PC TERMINAL

Fig. 7.11 This menu point is chosen, when data is transferred from the PC to the hand transmitter. First chose which feed type file: fm.csv must be transmitted and then which feed plan: fp.csv. This function is often used when the contents of the feed type file: fm.csv or the feed plan file: fp.csv must be changed on your PC and then transmitting it back to the PROFEED system.

ERASE TERMINAL

This menu point is chosen, when the contents of the hand transmitter must be erased. This function is often used when the files have been transferred to PC or PROFEED and when "old" data is not wanted in the hand transmitter.

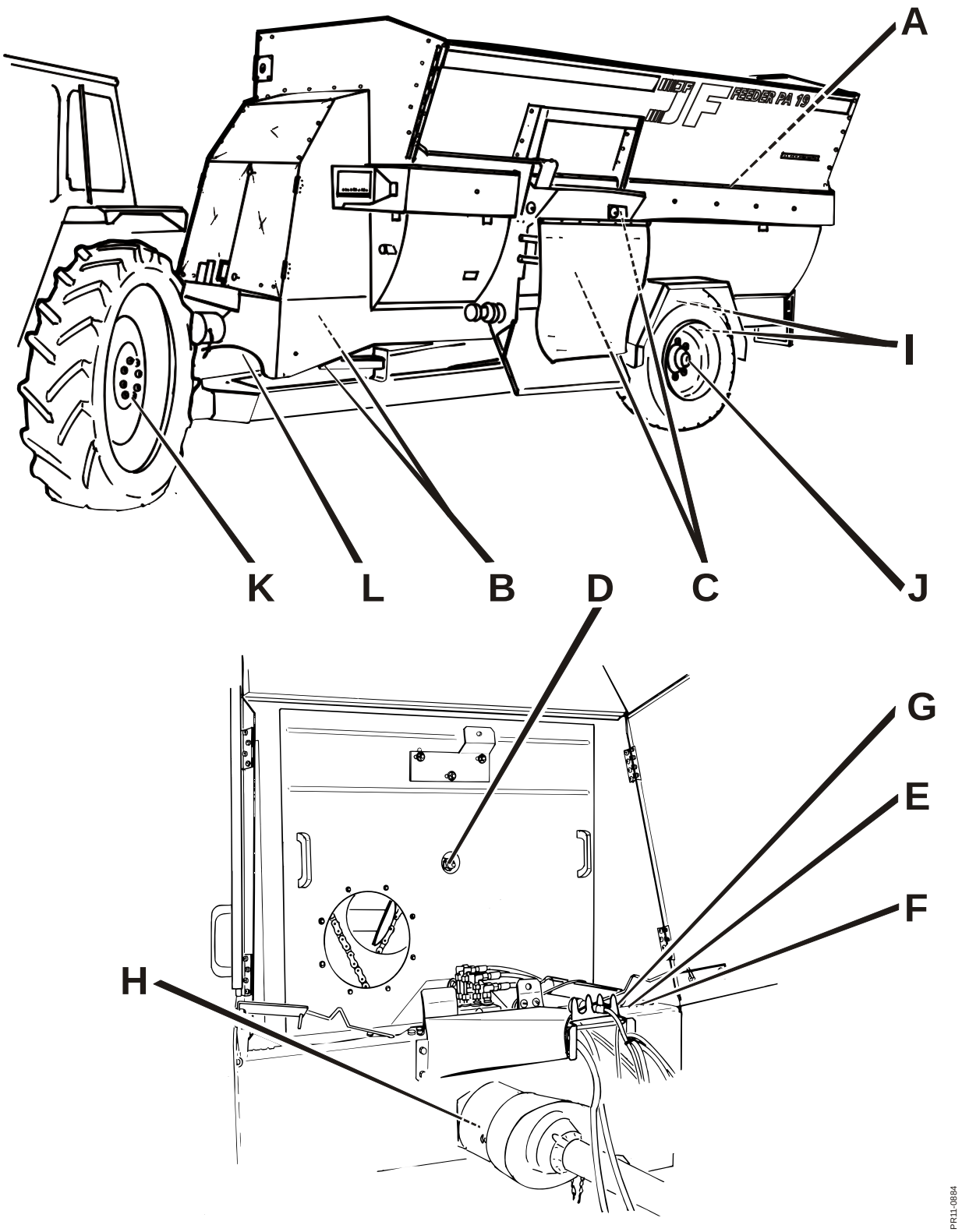


Fig. 8.1

8. GREASING

GREASE

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

TYPE OF GREASE: Universal grease of good quality.

PTO shaft must be greased **once a week**.

Pay special attention to the PTO's **sliding PROFILE TUBES**. They must be able to slide forwards and backwards even when the torque is heavy. **If you neglect to grease the profile tubes sufficiently, it will result in high axial forces, which will damage the profile tubes, and in time also connecting shafts and gearboxes.**

Fig. 8.1 Places to grease on the feeder:

Pos.:	No.:	Placing:	Greasing intervals:
A	1	Rear bearing for mixing boom	Once a month
B	2	Ball joint at lifting cylinder	Once a month
C	2	Ball joint at gate cylinder	Once a month
D	1	Top bearings in chain drive	Once a month
E	1	Middle bearings in chain drive	Once a month
F	1	Front bearing for mixing boom	Once a month
G	1	Bottom bearings in chain drive	Once a month
H	1	Front bearing in chain drive	Once a month
I	2	Ball joint for rear weighing cells	Once a month
J	2	Wheel bearings (10 gr. extra in hub caps)	Once per 6 months
K	1	Drive	Once a month
L		Oil reservoir in chain gearbox	

OIL

Once a week the oil level in the oil reservoir is checked. The oil level must be approximately 10 mm below the edge/bottom of the chain gearbox (Fig. 8.1).
Every 6 months the oil is changed. Shell Omala 100, or corresponding suitable oil must be used.
Also check that there is no water in the oil.

9. MAINTENANCE

IN GENERAL

WARNING: **For repair or maintenance of the machine it is especially important to ensure correct personal safety. Therefore, always park the tractor (if mounted) and the machine according to the GENERAL SAFETY RULES items 1-11 at the beginning of this instruction manual.**

IMPORTANT: **Screws and bolts on your new machine must be tightened after some hours of operation. This also applies if repair has been made.**

Torque moment $\mathbf{M_A}$ (if nothing else is stated)

A Ø	Class: **8.8** $\mathbf{M_A}$ [Nm]	Class: **10.9** $\mathbf{M_A}$ [Nm]	Class:**12.9** $\mathbf{M_A}$ [Nm]
M 8	25	33	40
M 10	48	65	80
M 12	80	120	135
M 12x1,25	90	125	146
M 14	135	180	215
M 14x1,5	145	190	230
M 16	200	280	325
M 16x1,5	215	295	350
M 18	270	380	440
M 20	400	550	650
M20x1,5	430	615	720
M 24	640	900	1100
M 24x1,5	690	960	1175
M 30	1300	1800	2300

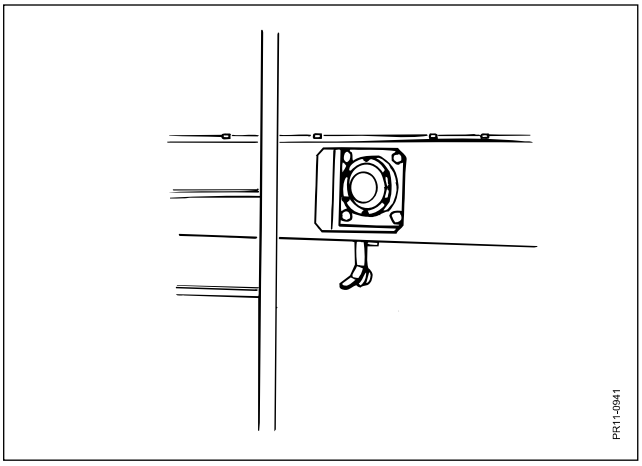


Fig. 9.1

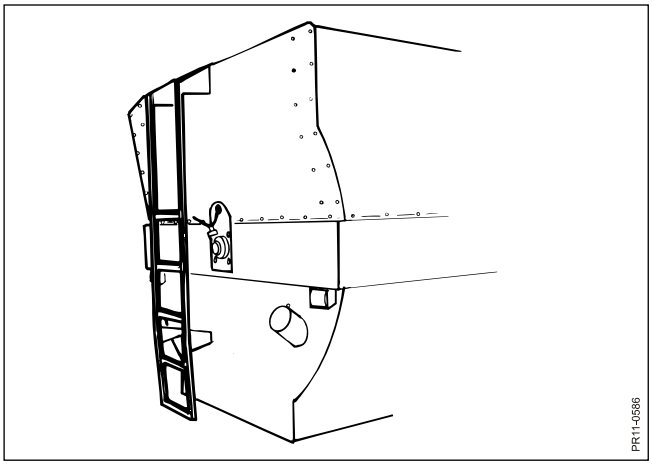


Fig. 9.2

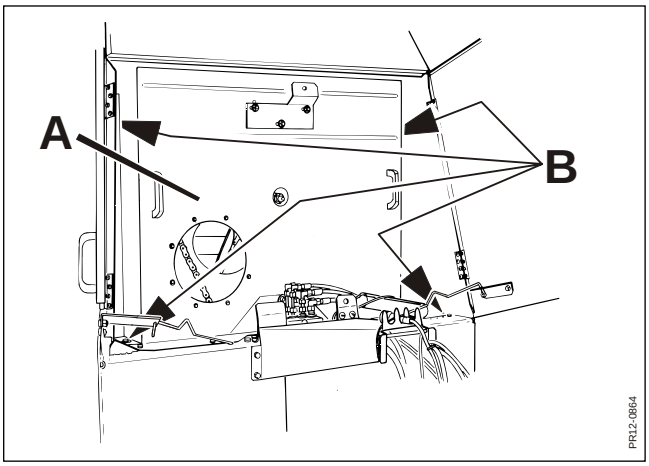


Fig. 9.3

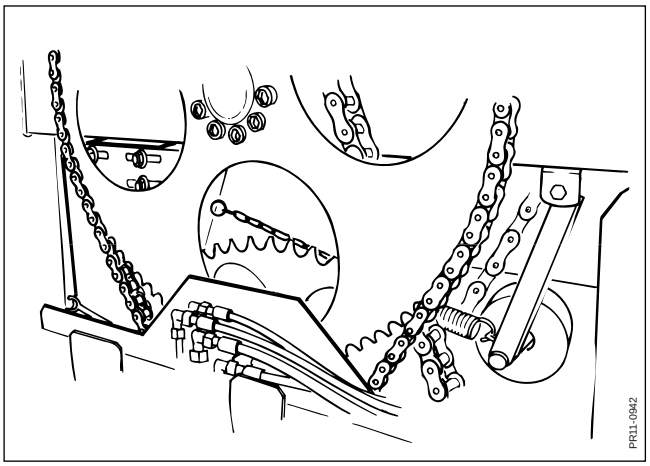


Fig. 9.4

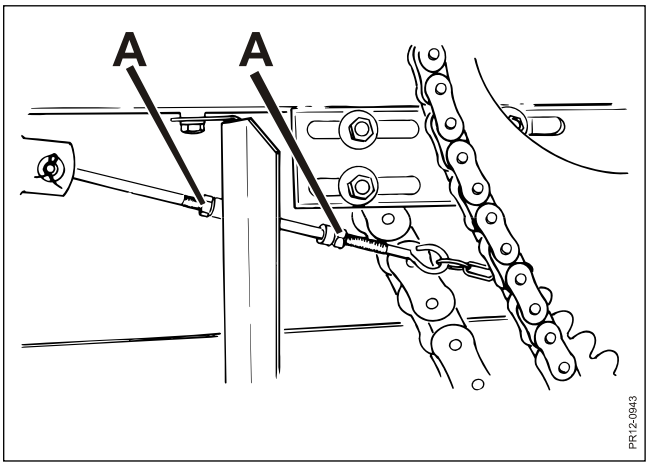


Fig. 9.5

CLEANING

Fig. 9.1 When cleaning the mixing tank inside the drain plug can be unscrewed and hung in the rear-lifting eye.
If the machine is stored outside the drain plug should also be hung in the rear-lifting eye, so that rain cannot gather in the mixing tank.

Fig. 9.2 The ladder is intended for inspection, to clean the mixing tank inside, and to remount rubber scrapers or shearbars.

The upper step of the ladder must never be used when the mixing boom rotates.
Do never use a high pressure cleaner in the near of the weighing cells and the weighing equipment.

Remember to remove mixed feed containing caustic treated cereal grains that are on the outside of the machine.

After cleaning with high pressure cleaner: Check that there is no water in the oil, which lubricates the chains.

TYRES

Tyre pressure:	425/65 – R22.5	8,2 bar / 120 lb.
	385/65 – R22.5 - 158	8,5 bar / 125 lb.

ADJUSTMENTS

TIGHTENING OF CHAINS

It is very important for the life of a chain to be well greased and that it is sufficiently tight. However, if the chain is too tight the bearings are worn unnecessarily, and if it is too loose there might be the risk for it to "jump". New chains stretch. Therefore it is important to **check the chains after 1 week of operation and after that once a month.**

Fig. 9.3 To get access to the chains, open the front doors and dismount the chain guard (A) by removing the 4 bolts (B).

Fig. 9.4 **Tightening of 2" chain:** turnbuckle is tightened until the distance between the coils
Fig. 9.5 of the spring is 1,5 – 2 mm. Do not forget to tighten the 2 counternuts after adjustment of the turnbuckle.

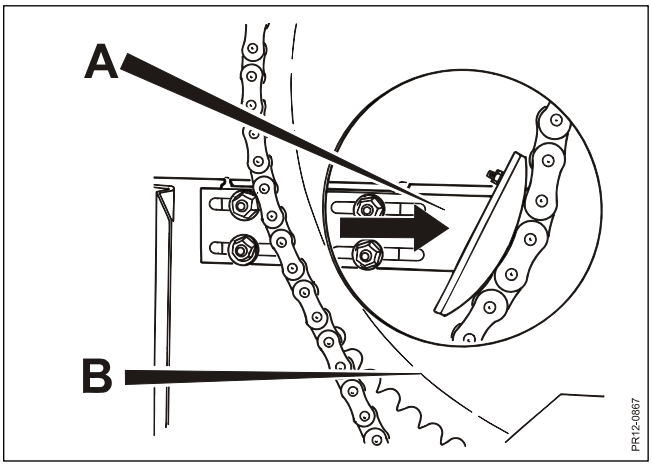


Fig. 9.6

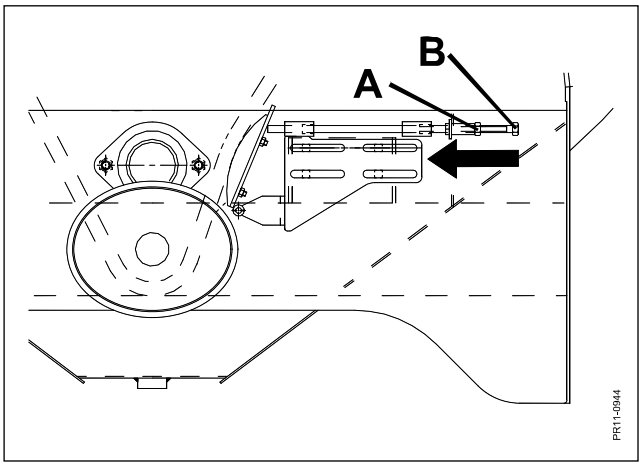


Fig. 9.7

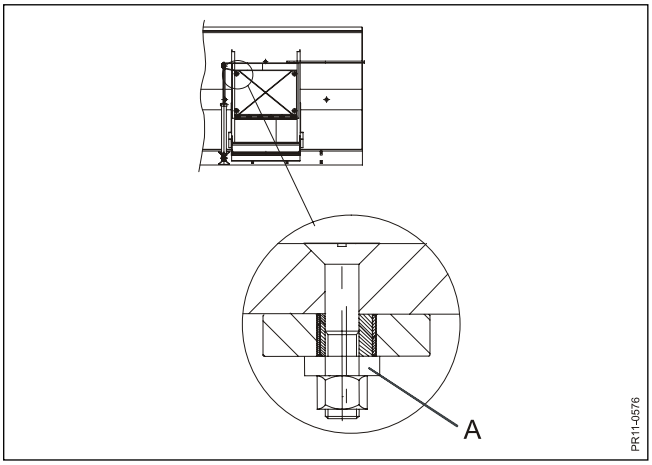


Fig. 9.8

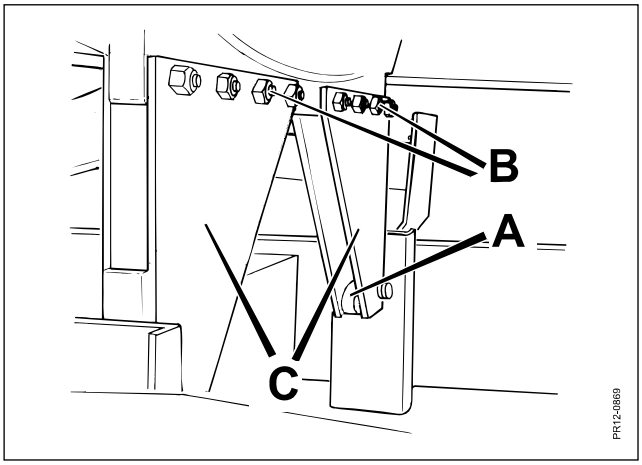


Fig. 9.9

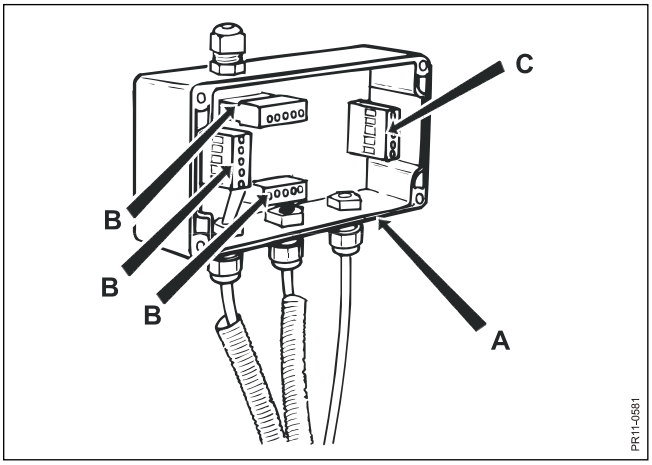


Fig. 9.10

Fig. 9.6 **Tightening of 1 ½'' chain:** the chain tightener (A) is loosened, pushed towards the chain and retightened. It may be appropriate to place the chain wheel (B) in a position as shown on the figure.

Fig. 9.7 **Tightening of 1'' chain:** the counter nut (A) is loosened and the chain is tightened by tightening the bolt (B). Be careful not to tighten the chain too much.

ROLLERS AT THE DOOR

Fig. 9.8 The rollers at the door should be checked once per 6 months and if necessary adjusted.
The nut is loosened and the roller can be adjusted towards the edge by means of the eccentric (A).
The door must run parallel with the guidance with as little play between roller and edge as possible.

SUPPORT ROLLERS FOR TIP

Fig. 9.9 Support rollers for the tip (A) must ensure that there is no unnecessary play between undercarriage and mixing tank. Play and friction free guidance ensures a stable and good measuring of weight.

Adjustment: The bolts (B) are loosened and the bracket (C) is pushed under the undercarriage, after which it is retightened.

ADJUSTING THE BOLTS

The wheel bolts must be adjusted **once a month** with 230 Nm.

Bolts for shearbars must be adjusted **once a month** with 600 Nm.

Bolts holding the mixing paddles (200 Nm.) must be checked **once a month**.

REPAIRS, INCLUDING WELDING

Fig. 9.10 When welding **never ever** let the current run through a weighing cell.
Opening the connection box (A) and dismounting the outlet for the weighing cells (B) and the outlet for the instrument (C) prevents this.
Besides this, the welding device's frame clamp must always be positioned immediate near by the place of the welding.

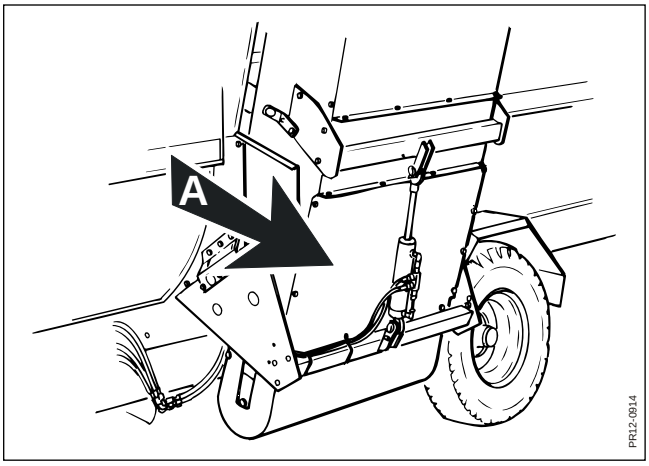


Fig. 9.11

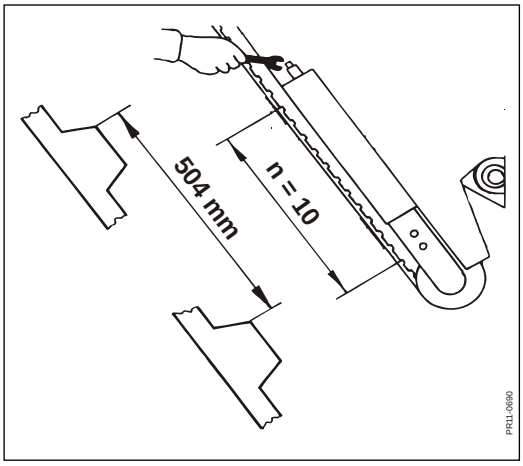


Fig. 9.12

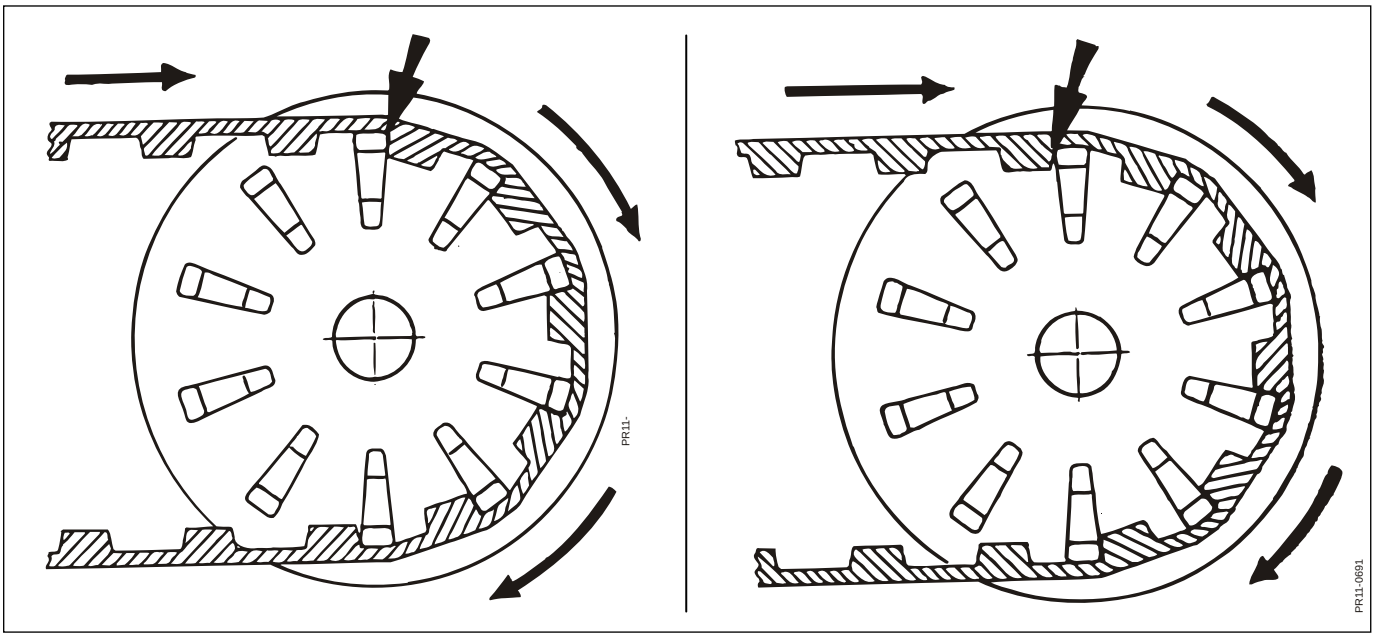


Fig. 9.13a

Fig. 9.13b

TOOTH BELTS FOR ELEVATOR (THE "E" MODEL)

Fig. 9.11 To gain acces to the tension screws, the coverplate (A) must be dismounted.

Fig. 9.12 Removing the lock pin and then turning the tension screws counter clockwise can tighten the elevator's synchronous belts. Tighten the belts until the distance measured over 10 teeth is about 504 mm. and then a test is made if the belts are running correctly.
Correct tightening is decisive of how the tooth belts run on the driving wheels and necessary to transfer maximum power from the driving wheel to the belts. If the tooth belts are too tight or too loose, they might end up on the teeth of the driving wheels and in doing so run wryly.

Fig. 9.13a Vernier adjustment of the tightening
Fig. 9.13b

Turn the shaft with the driving wheels minimum 5 turns in the direction as shown in fig. a and b. Always turn in the same direction! If the belts run against the front edge of the driving wheel teeth (fig. a) the belts are too tight. If the belts run hard against the rear edge of the driving wheel teeth, the belts are too loose.
Correct belt tightening is achieved when the belt teeth run in the centre of the driving wheel teeth, or very lightly against the rear edge of the driving wheel teeth.
Adjust the belt tightening by turning tightening screw once after every attempt.

<u>Remember</u> to mount the coverplate again, when the toothbelts have been adjusted.

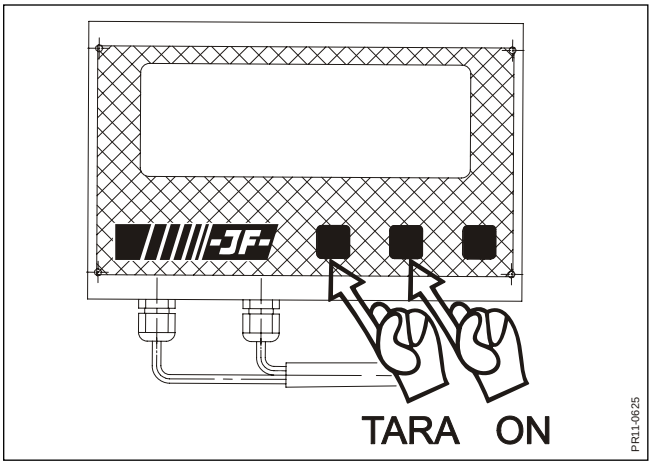


Fig. 10.1

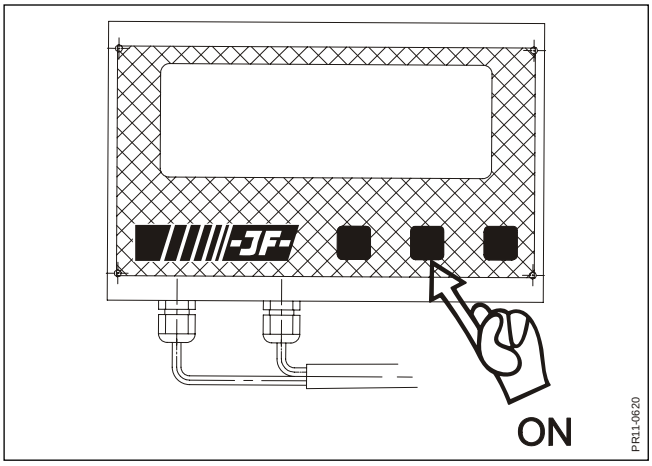


Fig. 10.2

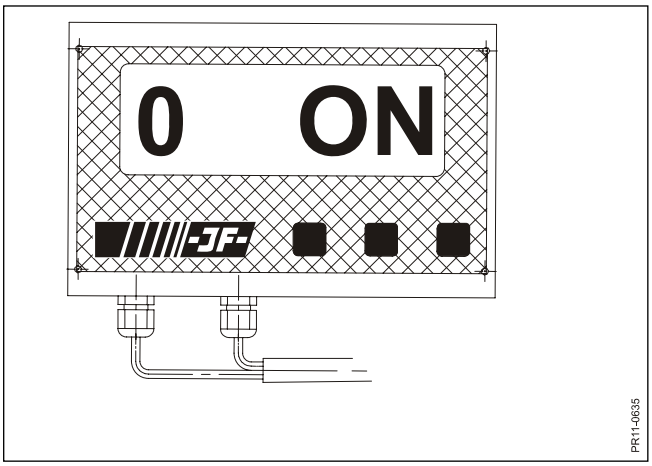


Fig. 10.3

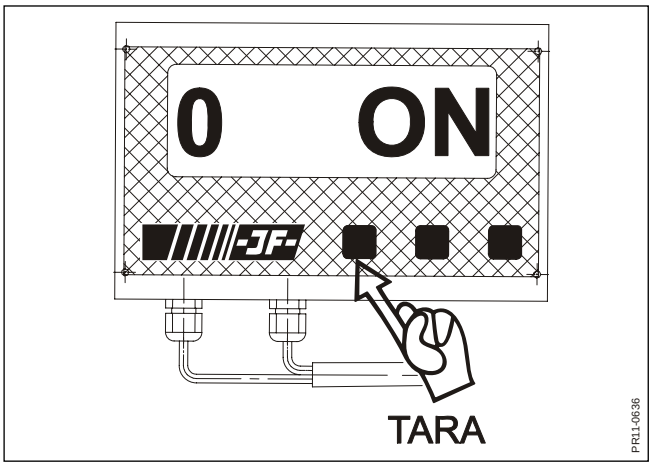


Fig. 10.4

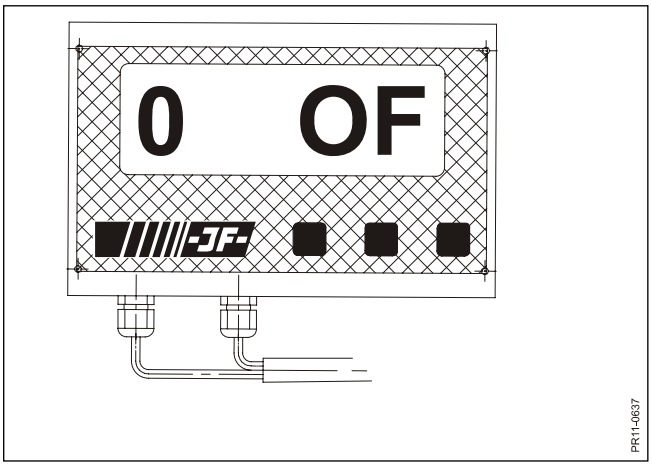


Fig. 10.5

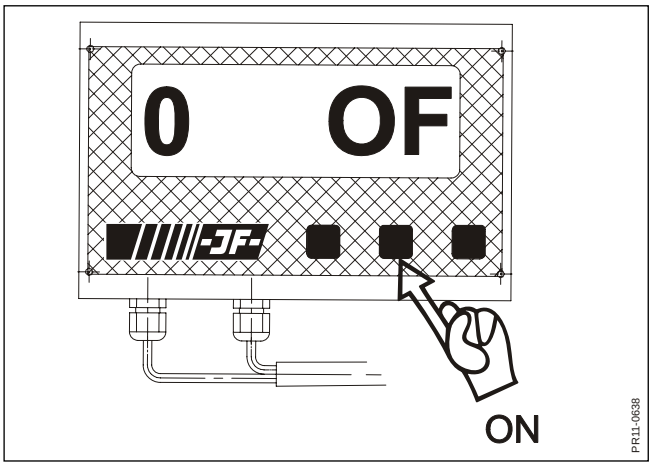


Fig. 10.6

10. INTERRUPTIONS

Overloading and/or incorrect loading (loading from the wrong side with the risk of the front loader bucket being jammed) with very compact feed means (straw – silage) can cause damage on the mixing rotor like any foreign objects in the feed.
However, very often the damage will be limited to breaking the explosive bolt of the PTO shaft.
When replacing bolts only bolts with the same quality as the ones that JF mounted must be used.
It might happen that one of the chain links break if the above-mentioned overloading or incorrect loading take place. Before the repair of such a chain with original assembling link it must be checked if the chain is worn or has been damaged in other ways.
Never use crank chain link in connection with such a repair, as they only have approximately 70% of the strength of the chain.

If the unloading roller cannot rotate, it could be caused by some feed being jammed. If this is the case let the unloading roller rotate backwards for some seconds.

If there are problems with the weighing equipment, please contact the local dealer of the JF Feeder. He has the necessary special tools regarding both calibration and finding faults.

When the Feeder electronic scales is zero set and following molasses is loaded or water added continuously, the weighing equipment might continue to show ”0”.
Doing as follows solves this:

Fig. 10.1 Push the buttons ”TARA” and ”ON” at the same time.
The display shows “A ON” or “A OFF”.

Fig. 10.2 Push the button ”ON”.

Fig. 10.3 The display shows ”0 ON”.

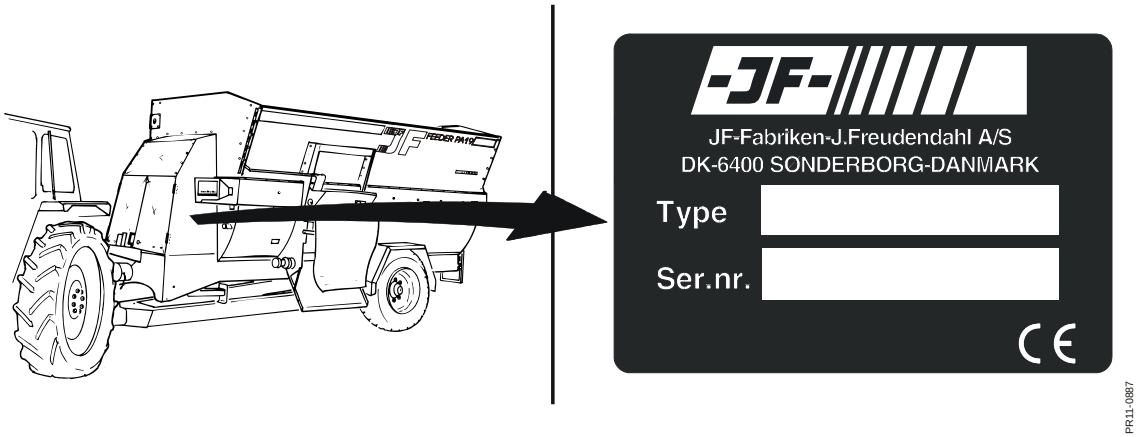
Fig. 10.4 Push the button ”TARA”.

Fig. 10.5 The display shows ”0 OFF”.

Fig. 10.6 Push the button ”ON”.
Now the system is ready for measuring.

11. ORDERING SPARE PARTS

When ordering spare parts please state model and serial number . This information is printed on the machine plate. Soonest possible after delivery we request you to write these information on the first page of your spare parts book supplied with the machine, so that you have the information at hand when ordering spare parts.



12. SCRAPPING THE MACHINE

When the machine is worn-down it must be scrapped in a proper way. Observe the following:

The machine must **not** be placed somewhere outside, - it must be emptied of oil (gear and hydraulic system). These oils must be handed over to a destruction company.

Disassemble the machine and separate the individual recycling parts, for instance tyres, hydraulic hoses, hydraulic valves etc.

Hand over usable parts to an authorized recycling centre. The large scrapping parts are handed over to an authorized breaker's yard.

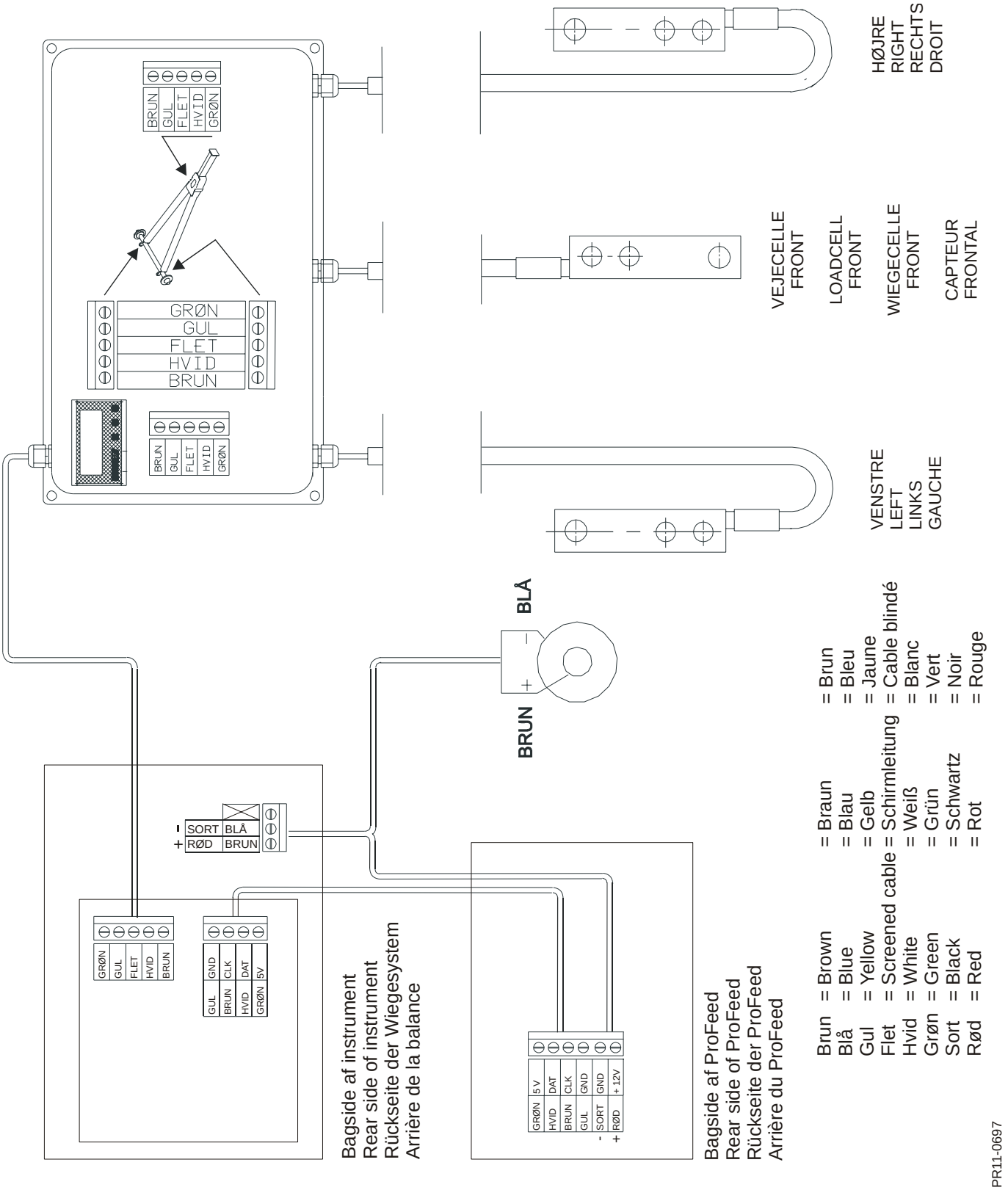

HØJRE
RIGHT
RECHTS
DROIT
VEJECELLE
FRONT
LOADCELL
FRONT
WIEGECELLE
FRONT
CAPTEUR
FRONTAL
VENSTRE
LEFT
LINKS
GAUCHE
BLÅ
BRUN
BRUN GUL FLET HVID GRØN
GRØN GUL FLET HVID BRUN
- SORT BLÅ
+ RØD BRUN
GRØN GUL FLET HVID BRUN
GUL BRUN HVID GRØN GND CLK DAT 5V
GRØN HVID BRUN GUL 5 V DAT CLK GND
- SORT GND
+ RØD + 12V
Bagside af instrument
Rear side of instrument
Rückseite der Wiegesystem
Arrière de la balance
Bagside af ProFeed
Rear side of ProFeed
Rückseite der ProFeed
Arrière du ProFeed
Brun = Brown = Braun = Brun
Blå = Blue = Blau = Bleu
Gul = Yellow = Gelb = Jaune
Flet = Screened cable = Schirmleitung = Cable blindé
Hvid = White = Weiß = Blanc
Grøn = Green = Grün = Vert
Sort = Black = Schwartz = Noir
Rød = Red = Rot = Rouge
PR11-0697

Fig. 13.1

13. ELECTRIC AND HYDRAULIC DIAGRAM

ELECTRIC DIAGRAM

Fig. 13.1

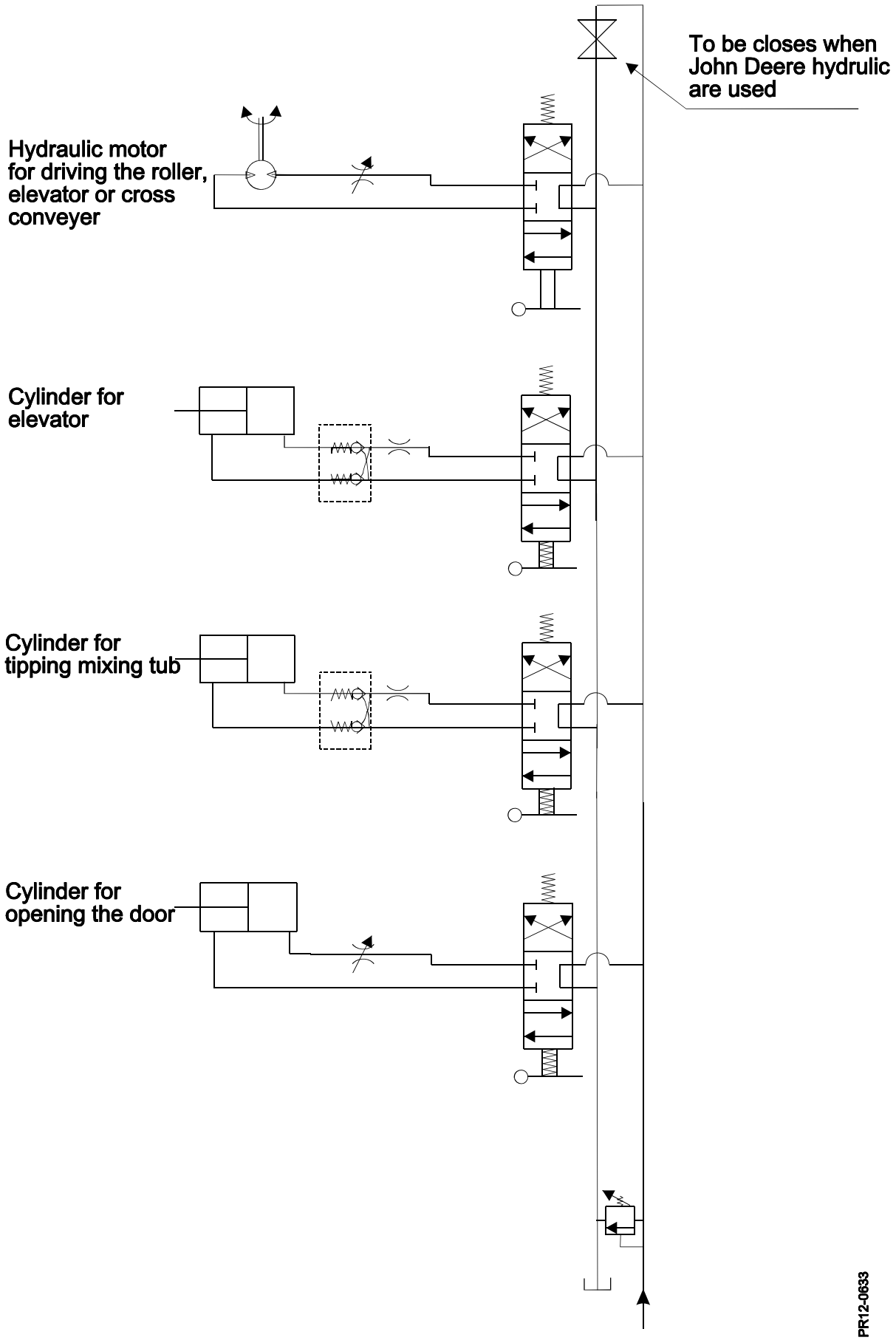

To be closes when
John Deere hydrulic
are used
Hydraulic motor
for driving the roller,
elevator or cross
conveyer
Cylinder for
elevator
Cylinder for
tipping mixing tub
Cylinder for
opening the door
PR12-0633

Fig. 13.2

HYDRAULIC DIAGRAM

Fig. 13.2

FOR OWN NOTES

WARRANTY

JF-Fabriken - J. Freudendahl A/S, 6400 Sønderborg, Denmark, hereafter called **"JF"**, grants warranty to any buyer of new JF-STOLL machines from authorized JF-STOLL dealers.

The warranty covers remedy of material and production faults. This warranty is valid within a year after date of sale to end-user.

The warranty is invalidated in the following cases:

1. **The machine has been used for other purposes than those described in the instruction manual.**
2. **Improper use.**
3. **Damage caused by external sources, e.g. lightning or falling objects.**
4. **Insufficient maintenance.**
5. **Transport damage.**
6. **The construction of the machine has been modified without JF's written permission.**
7. **Unskilled repair of the machine.**
8. **Unoriginal spare parts have been used.**

JF cannot be held responsible for loss of income or legal claim as a result of faults either of the owner or of a third party. Nor is JF responsible for wages beyond current agreements in connection with replacement of warranty parts.

JF is not responsible for the following costs:

1. **Normal maintenance such as expenses for oil, grease and minor adjustments.**
2. **Transport of machine to and from workshop.**
3. **The dealer's travelling expenses or freight charges to and from the user.**

Warranty is not granted on wearing parts unless it can clearly be proved that JF has committed a fault.

The following is regarded as wearing parts:

Protective canvases, blades, blade suspensions, wearing bars, guide shoes, stone protections, discs, rotor skirts, crimper parts, tyres, tubes, brake shoes, chain tightener parts, guards, hydraulic hoses, conveyors, vertical auger and tub, wheel-fixing bolts and nuts, snap rings, sockets, PTO-shafts, clutches, gaskets and seals, tooth belts, V-belts, chains, sprocket wheels, carriers, conveyor chain slats, rake- and pick-up tines, rubber seals, rubber paddles, cutter blades, chute liner and lining for spreading platform, shredding blades incl. bolts and nuts, spreading rotors and vanes for farmyard manure spreaders.

In addition, the user must note the following:

1. **The warranty is only valid if the dealer has undertaken a pre-delivery check and has given instruction to the end user in the use of the machine.**
2. **The warranty cannot be transferred to others without JF's written permission.**

3.The warranty can be nullified if repair is not undertaken immediately.

Specialist in grassland machinery and complete diet mixers

When it comes to green feed techniques, JF-STOLL has gained a reputation as one of the world's leading suppliers and specialists. As a specialist manufacturer for over 50 years, we have gained a vast amount of experience from right around the world and, more importantly, unique regional requirements.

We also receive important inspiration in our development work through a close and continuous dialogue with customers, dealers and agricultural researchers.

No matter which type of JF-STOLL-machine you chose, you can be sure to obtain the best result to obtain a top result - in the shape of high performance and operational reliability, minimum maintenance, flexible working possibilities and optimal operating economy.

Dealer

JF-STOLL

JF-Fabriken · J. Freudendahl A/S
Linde Allé 7 · Postbox 180
DK-6400 Sønderborg · Denmark
Phone. +45 74 12 51 51 · Fax +45 74 42 52 51
www.jf-stoll.com

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