PEECON

English

Biga Series

Feed mixer type; Eco, Eco+, Eco low, Twin eco, Twin eco wide body, Mammoet

OPERATOR'S MANUAL, 2015 REVISED 2.5.2

Store this document for future use! The main function of this document is creating safe and efficient man/machine interaction.

Peeters Landbouwmachines B.V.		
Tel +31 (0)76-504 66 66	Munnikenheiweg 47	www.peetersgroup.com
Fax +31 (0)76-504 66 99	4876NE Etten-Leur (NL)	info@peetersgroup.com

Preface

The aim of this operator's manual is to give users an understanding of the operation, assembly and maintenance of the machines supplied by Peeters Landbouwmachines B.V. Thoroughly read these instructions before starting to use this machine and follow these instructions at all times. When in doubt about how to perform an action, please contact Peeters Landbouwmachines B.V. Installation, commissioning and maintenance must only be carried out by experience technicians.

As this concerns industrial equipment, we assume it is installed and maintained by properly trained and educated technicians. Peeters Landbouwmachines B.V. has paid a lot of attention to the safety and reliability of the machine and the accompanying installation. Some safety measures have been taken to ensure that the equipment can be worked with safely. When coupling and/or connecting the machine, all safety components must be installed before putting the machine into use.

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1 Introduction

1.1 General

We would like to start by congratulating you on purchasing your new Peecon Biga feed mixer. Peecon products are synonymous with quality and reliability.

The Peecon Biga series was developed following an intensive research and test programme. One of our initial objectives was and is constructing machines whose use, operation, safety, maintenance and service life comply with, at a minimum, all the latest available standards and regulations of the EEC. Peecon machines can be delivered in various different versions; your version is described in section 1.4. The possibility to indicate your options has been created so that you will always refer to the right version.

1.2 Goal

The objective of the operating instructions in this manual is to give you the right information regarding how to carry out these actions. This document is part of the machine and it must always be available at the machine / on the tractor.

The Peecon Biga model is available in many different “standard” versions and with a wide range of extras to enable you to expand your feed mixer to a machine tailored to your specific requirements. The Peecon Biga model can be used for mixing and, if necessary, cutting various kinds of produce. It can also be used to transport and dispense feed to livestock. The Biga model has been fully equipped according to your wishes in order to enable comfortable working for many hours and in heavy-duty conditions.

We understand that you are keen to start using your feed mixer, but please take some time to first read these instructions carefully. Every Peecon feed mixer is one of a kind. This may lead to dangers if you do not use the feed mixer in the correct way. Thoroughly reading this operator’s manual may save you time and money in the future. Any use other than that described in these instructions cancels any liability on the part of your supplier.

1.3 Intended user

This operator's manual is intended for authorised personnel and technically competent personnel.

Authorised personnel are people who:
have achieved a certain level of knowledge through education / training (internal training course specifically for the feed mixer) and have certain skills to operate the machine.

Technically competent personnel are people who:
are authorised and have developed a certain level of technical expertise (at least an diploma at intermediate vocational education level) through schooling / training and who are familiar with the machine's technology and aware of the possible dangers and risks. They are also authorised to set up the machine, to work with the machine, to clean it and to carry out maintenance work. (e.g. a Peeters Landbouwmachines B.V. service technician)

1.4 Technical Specifications Biga series

You can find the specific type of your machine on the machine identification plate on the right-hand side of the chassis. In this paragraph several models are divided and displayed in various tables.

1.4.1 Technical specifications Biga Eco

	6 m³ Eco	7,5 m³ Eco	10 m³ Eco	10 m³ Maxi Eco	12 m³ Maxi Eco	12/14 m³ Maxi Eco Vario	13 m³ Maxi Eco	14 m³ Maxi Eco	15 m³ Maxi Eco
required power (pk)	50	55	65	65	75	75	85	90	100
wheel hub	6 mounting holes								
Tires	Peecon 7.00 x 12			Peecon 7.00 x 12 double mount					GY 205/65R17.5 double mount
Quantity Counter Knives	2 (manually operated)								
towing hitch (mm)	45								
towing hitch height(mm)	±500								
Support	manually								
Required electricity supply	Optional 12 Volt DC for lighting								
Required hydr. connection tractor	2x double acting valve								
Own oil pressuresystem	no								
Required oil volume tractor (L)	2	2	2,5	2	2,5	2,5	2,5	2.5	2,5
Oil Flow (L/min)	30								
Standard own weight(kg)	2.900	3.050	3.260	3.605	3.780	3.890	3.880	4020	4.400
Total length (mm)	4.340	4.400	4.485	4.550	4.635	4.635	4.680	4710	4.860
Total height (mm)	2.250	2.560	2.860	2.560	2.860	2.860	3.010	3160	3.160
Total width (mm)	2.360	2.360	2.360	2.660	2.660	2.660	2.660	2660	2.810
Load capacity (kg)	2.400	3.000	4.000	4.000	4.800	5.600	5.200	5600	6.000
maximum speed (km/u)	25								

Tab. 1-1 Technical specification Biga Eco

1.4.2 Available options Biga Eco

	6 m³ Eco	7,5 m³ Eco	10 m³ Eco	10 m³ Maxi Eco	12 m³ Maxi Eco	12/14 m³ Maxi Eco Vario	13 m³ Maxi Eco	14 m³ Maxi Eco	15 m³ Maxi Eco
Electr. Weighing system Profifeed	○	○	○	○	○	○	○	○	○
Electr. Weighing system Digi-star EZ3400V	○	○	○	○	○	○	○	○	○
Electr. Weighing system + software + Datastick	○	○	○	○	○	○	○	○	○
Extra Weighing display	○	○	○	○	○	○	○	○	○
Electrohydr. operation of 2 unloading doors	○	○	○	○	○	○	○	○	○
Ring to prevent boiling over	○	○	○	●	○	○	○	○	○
Potato cutting knife	○	○	○	○	○	○	○	○	○
Alligator double life auger i.s.o. double action	○	○	○	○	○	○	○	○	○
Walterscheid wide angle PTO shaft	○	○	○	○	○	○	○	○	○
Hand brake axle	○	○	○	○	○	○	○	○	○
Hydraulically braked axle	○	○	○	○	○	○	○	○	○
2 speed reduction gearbox (horsepower -20%)	○	○	○	○	○	○	○	○	○
Operation with Bowden cable from tractor cabine	○	○	○	○	○	○	○	○	○
Electr. hydr. operation with reduction gearbox	○	○	○	○	○	○	○	○	○
High hitch with DIN towing bracket	○	○	○	○	○	○	○	○	○
Low hitch with pick-up hitch towin bracket and skid food	○	○	○	○	○	○	○	○	○
Mounting battery for weighing in disconnected position.	○	○	○	○	○	○	○	○	○
Single acting hydraulic support with manual pump	○	○	○	○	○	○	○	○	○
Hydr. support for loading in uncoupled pos.	○	○	○	○	○	○	○	○	○
Anniversary set	○	○	○	○	○	○	○	○	○
In height adjustable belt conveyor	○	○	○	○	○	○	○	○	○
Speed regulator for belt conveyor	○	○	○	○	○	○	○	○	○
Extra unloading doors placed slantingly at the back	○	○	○	○	○	○	○	○	○
movable output chutes connected with unloading door	○	○	○	○	○	○	○	○	○
Hydraulic mechanically adjustable counter knives	○	○	○	○	○	○	○	○	○
Lowering tub height	○	○	○	○	○	○	○	○	○
Lighting LED	○	○	○	○	○	○	○	○	○
Extended chassis (for build-up crane or stationary motor)	○	○	○	○	○	○	○	○	○
Mineral box	○	○	○	○	○	○	○	○	○
Other RAL-color i.s.o. Peecon red	○	○	○	○	○	○	○	○	○
Prepared for future mounting of Multilift-system	○	○	○	○	○	○	○	○	○

Tab. 1-2 Available options Biga Eco

○ = optional
● = standard

1.4.3 Technical specifications Biga Eco+

	6 m³ Eco+	7,5 m³ Eco+	10 m³ Eco+	10 m³ Maxi Ec+	12 m³ Maxi Eco+	13 m³ Maxi Eco+	15 m³ Maxi Eco+	12 m³ Twin Eco+	15 m³ Twin Eco+	16 m³ Twin Eco+ WB	17 m³ Twin Eco+	19 m³ Twin Eco+ WB	20 m³ Twin Eco+	22 m³ Twin Eco+ WB	20m³ Maxi Twin Eco+	24 m³ Maxi Twin Eco+	26 m³ Maxi Twin Eco+	30 m³ Maxi Twin Eco+
required power (pk)	50	55	65	65	75	85	100	75*	80*	80*	85*	85*	90*	90*	90*	95*	105*	120*
wheel hub	6 mounting holes																	10 m.h.
Tires	Peecon 7,00x12			Peecon 7,00x12 DM			Goodyear 205/65R17.5 DM					Good Year 205/75 R17.5 DM			Goodyear 215/75R17.5			Good Year 245/70R19.5
Quantity Counter Knives	2 (manually operated)																	
towing hitch (mm)	45																	
towing hitch height(mm)	±500																	
Support	manually																	
Required electricity supply	Optional 12 Volt DC for lighting																	
Required hydr. connection tractor	2x double acting valve																	
Own oil pressuresystem	no																	
Required oil volume tractor (L)	5																	
Oil Flow (L/min)	30																	
Standard own weight(kg)	327	342	362	398	415	425	477	557	595	600	615	620	630	635	915	940	955	1030
Total length (mm)	5,14	5,22	6,3	5,51	5,59	5,64	5,82	7,19	7,25	7,4	7,3	7,47	7,34	7,5	7,92	7,99	8,04	8,64
Total height (mm)	2,36	2,61	2,91	2,61	2,91	3,06	3,19	2,39	2,65	2,65	2,78	2,78	2,97	2,97	2,79	3,08	3,23	3,43
Total width (mm)	2,3	2,3	2,3	2,3	2,3	2,3	2,5	2,3	2,3	2,36	2,3	2,3	2,3	2,3	2,3	2,3	2,3	2,51
Load capacity (kg)	240	300	400	400	480	520	560	480	600	640	680	680	800	800	860	960	1060	1200
maximum speed (km/u)	25																	

* is required power with gearbox.

Tab. 1-3 Technical specifications Biga Eco+

1.4.4 Available options Biga Eco+

	6 m³ Eco+	7,5 m³ Eco+	10 m³ Eco+	10 m³ Maxi Ec+	12 m³ Maxi Eco+	13 m³ Maxi Eco+	15 m³ Maxi Eco+	12 m³ Twin Eco+	15 m³ Twin Eco+	16 m³ Twin Eco+ WB	17 m³ Twin Eco+	19 m³ Twin Eco+ WB	20 m³ Twin Eco+	22 m³ Twin Eco+ WB	20m³ Maxi Twin Eco+	24 m³ Maxi Twin Eco+	26 m³ Maxi Twin Eco+	30 m³ Maxi Twin Eco+
Electr. Weighing system Profifeed	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Electr. Weighing system Digi-star EZ3400V	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Electr. Weighing system + software + Datastick	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Extra Weighing display	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Electrohydr. operation of 2 unloading doors	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Ring to prevent boiling over	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Potato cutting knife	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Alligator double life auger i.s.o. double action	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Walterscheid wide angle PTO shaft	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Hand brake axle	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Hydraulically braked axle	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
2 speed reduction gearbox (horsepower -20%)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Operation with Bowden cable from tractor cabine	○	○	○	○	○	○	○	○	○	○	○	○	●	●	●	●	●	●
Electr. hydr. operation with reduction gearbox	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
High hitch with DIN towing bracket	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Low hitch with pick-up hitch towin bracket + skid food	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Mounting battery for weighing disconnected position.	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Single acting hydraulic support with manual pump	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Hydr. support for loading in uncoupled pos.	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Anniversary set	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
In height adjustable belt conveyor	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Speed regulator for belt conveyor	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Extra unloading doors placed slantingly at the back	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
movable output chutes connected unloading door	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Hydraulic mechanically adjustable counter knives	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Lowering tub height	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Lighting LED	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Extended chassis (build-up crane or stationary motor)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Mineral box	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Other RAL-color i.s.o. Peecon red	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Prepared for future mounting of Multilift-system	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Voorbereiding voor latere opbouw Multilift-systeem	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Tab. 1-4 Available options Biga Eco+

○ = optional
● = standard

1.4.5 Technical specifications Biga Eco Low

	6 m³ Eco Low	7,5 m³ Eco Low	10 m³ Eco Low	10 m³ Maxi Eco Low	12 m³ Maxi Eco Low	13 m³ Maxi Eco Low	14 m³ Maxi Eco Low	15 m³ Maxi Eco Low
required power (pk)	50	55	65	65	75	85	90	100
wheel hub	6 mounting holes							
Tires	Peecon 7.00 x 12			Peecon 7.00 x 12 double mount				Goodyear 205/65R17.5 double mount
Quantity Counter Knives	2 (manually operated)							
towing hitch (mm)	45							
towing hitch height(mm)	±500							
Support	manually							
Required electricity supply	Optional 12 Volt DC for lighting							
Required hydr. connection tractor	2x double acting valve							
Own oil pressuresystem	no							
Required oil volume tractor (L)	2	2	2,5	2	2,5	2,5	2,5	2,5
Oil Flow (L/min)	30							
Standard own weight(kg)	3150	3300	3500	4000	4175	4275	4415	4.400
Total length (mm)	4860	4860	4860	4950	4950	4950	4980	5090
Total height (mm)	2100	2360	2650	2360	2650	2.800	2950	2900
Total width (mm)	2.360	2.360	2.360	2.660	2.660	2.660	2.660	2.810
Load capacity (kg)	2.400	3.000	4.000	4.000	4.800	5.200	5.600	6.000
maximum speed (km/u)	25							

Tab. 1-5 Technical specifications Biga Eco Low

1.4.6 Available options Biga Eco Low

	6 m³ Eco Low	7,5 m³ Eco Low	10 m³ Eco Low	10 m³ Maxi Eco Low	12 m³ Maxi Eco Low	13 m³ Maxi Eco Low	14 m³ Maxi Eco Low	15 m³ Maxi Eco Low
Electr. Weighing system Profifeed	○	○	○	○	○	○	○	○
Electr. Weighing system Digi-star EZ3400V	○	○	○	○	○	○	○	○
Electr. Weighing system + software + Datastick	○	○	○	○	○	○	○	○
Extra Weighing display	○	○	○	○	○	○	○	○
Electrohydr. operation of 2 unloading doors	○	○	○	○	○	○	○	○
Ring to prevent boiling over	○	○	○	●	○	○	○	○
Potato cutting knife	○	○	○	○	○	○	○	○
Alligator double life auger i.s.o. double action	○	○	○	○	○	○	○	○
Walterscheid wide angle PTO shaft	○	○	○	○	○	○	○	○
Hand brake axle	○	○	○	○	○	○	○	○
Hydraulically braked axle	○	○	○	○	○	○	○	○
Axle in 2 segments for shorter wheelbase of 250mm	○	○	○	○	○	○	○	○
2 speed reduction gearbox (horsepower -20%)	○	○	○	○	○	○	○	○
Operation with Bowden cable from tractor cabine	○	○	○	○	○	○	○	○
Electr. hydr. operation with reduction gearbox	○	○	○	○	○	○	○	○
High hitch with DIN towing bracket	○	○	○	○	○	○	○	○
Low hitch with pick-up hitch towin bracket and skid food	○	○	○	○	○	○	○	○
Mounting battery for weighing in disconnected position.	○	○	○	○	○	○	○	○
Single acting hydraulic support with manual pump	○	○	○	○	○	○	○	○
Hydr. support for loading in uncoupled pos.	○	○	○	○	○	○	○	○
Anniversary set	○	○	○	○	○	○	○	○
Belt conveyor at the front of the machine	○	○	○	○	○	○	○	○
Speed regulator for belt conveyor	○	○	○	○	○	○	○	○
Extra unloading doors placed slantingly at the back	○	○	○	○	○	○	○	○
movable output chutes connected with unloading door	○	○	○	○	○	○	○	○
Hydraulic mechanically adjustable counter knives	○	○	○	○	○	○	○	○
Lowering tub height	○	○	○	○	○	○	○	○
Lighting LED	○	○	○	○	○	○	○	○
Extended chassis (for build-up crane or stationary motor)	○	○	○	○	○	○	○	○
Mineral box	○	○	○	○	○	○	○	○
Other RAL-color i.s.o. Peecon red	○	○	○	○	○	○	○	○
Prepared for future mounting of Multilift-system	○	○	○	○	○	○	○	○

Tab. 1-6 Available options Biga Eco Low

○ = optional
● = standard

1.4.7 Technical specifications Biga Twin Eco

	12m³ Twin Eco	15m³ Twin Eco	15/20m³ Twin Eco Vario	17m³ Twin Eco	17/20m³ Twin Eco Vario	20 m³ Twin Eco	20 m³ Maxi Twin Eco	24 m³ Maxi Twin Eco	26 m³ Maxi Twin Eco	30 m³ Maxi Twin Eco
required power (pk)	75*	80*	80*	85*	85*	90*	90*	95*	105*	120*
wheel hub	6 mounting holes									10 mounting holes
Tires	Goodyear 205/65R17.5 DM					Goodyear 215/75R17.5 DM				Goodyear 245/70R19.5 DM
Quantity Counter Knives	2 (manually operated)									
towing hitch (mm)	45									
towing hitch height(mm)	±500									
Support	manually									
Required electricity supply	Optional 12 Volt DC for lighting									
Required hydr. connection tractor	2x double acting valve									
Own oil pressuresystem	no									
Required oil volume tractor (L)	2	2,5								
Oil Flow (L/min)	30									
Standard own weight(kg)	5800	6180	6280	6390	6490	6530	8250	8500	8640	9360
Total length (mm)	6335	6365	6365	6420	6420	6460	7030	7070	7175	7310
Total height (mm)	2340	2600	2600	2730	2730	2925	2735	3025	3175	3365
Total width (mm)	2360	2360	2360	2360	2360	2360	2660	2660	2660	2810
Load capacity (kg)	4800	6000	6000	6800	6800	8000	8600	9600	10600	12000
maximum speed (km/u)	25									

* is required power with gearbox.

Tab. 1-7 Technical specifications Biga Twin Eco

1.4.8 Available options Biga Twin Eco

	12m³ Twin Eco	15m³ Twin Eco	15/20m³ Twin Eco Vario	17m³ Twin Eco	17/20m³ Twin Eco Vario	20 m³ Twin Eco	20 m³ Maxi Twin Eco	24 m³ Maxi Twin Eco	26 m³ Maxi Twin Ecoo	30 m³ Maxi Twin Eco
Electr. Weighing system Profifeed	○	○	○	○	○	○	○	○	○	○
Electr. Weighing system Digi-star EZ3400V	○	○	○	○	○	○	○	○	○	○
Electr. Weighing system + software + Datastick	○	○	○	○	○	○	○	○	○	○
Extra Weighing display	○	○	○	○	○	○	○	○	○	○
Electrohydr. operation of 2 unloading doors	○	○	○	○	○	○	○	○	○	○
Ring to prevent boiling over	○	○	○	○	○	○	●	○	○	○
Potato cutting knife	○	○	○	○	○	○	○	○	○	○
Alligator double life auger i.s.o. double action	○	○	○	○	○	○	○	○	○	○
Walterscheid wide angle PTO shaft	○	○	○	○	○	○	○	○	○	○
Hand brake axle	○	○	○	○	○	○	○	○	○	○
Hydraulically braked axle	○	○	○	○	○	○	○	○	○	○
Air braked axle	○	○	○	○	○	○	○	○	○	○
2 speed reduction gear box. (540tpm)	○	○	○	○	○	○	x	x	x	x
2 speed reduction gear box. (1000 tpm)	○	○	○	○	○	○	●	●	●	●
Powershift 2 gears	○	○	○	○	○	○	○	○	○	○
Ball towing eye Scharmüller / Sauerman 80 mm	○	○	○	○	○	○	○	○	○	○
High hitch with DIN towing bracket	○	○	○	○	○	○	○	○	○	○
Low pick-up hitch towin bracket and skid food	○	○	○	○	○	○	○	○	○	○
Mount. battery for weighing in disconnected position.	○	○	○	○	○	○	○	○	○	○
Single acting hydraulic support with manual pump	○	○	○	○	○	○	○	○	○	○
Hydraulic support for loading in uncoupled pos.	○	○	○	○	○	○	○	○	○	○
Anniversary set	○	○	○	○	○	○	○	○	○	○
In height adjustable belt conveyor	○	○	○	○	○	○	○	○	○	○
Speed regulator for belt conveyor	○	○	○	○	○	○	○	○	○	○
Extra unloading doors placed slantingly at the back	○	○	○	○	○	○	○	○	○	○
movable output chutes connected with unloading door	○	○	○	○	○	○	○	○	○	○
Perforatd platform with stairs in front of the tub	○	●	●	●	●	●	●	●	●	●
Hydraulic mechanically adjustable counter knives	○	○	○	○	○	○	○	○	○	○
Lowering tub height	○	○	○	○	○	○	○	○	○	○
Lighting LED	○	○	○	○	○	○	○	○	○	○
Extend chassis (for build-up crane or stationary motor)	○	○	○	○	○	○	○	○	○	○
Mineral box	○	○	○	○	○	○	○	○	○	○
Other RAL-color i.s.o. Peecon red	○	○	○	○	○	○	○	○	○	○
Prepared for future mounting of Multilift-system	○	○	○	○	○	○	○	○	○	○

○ = optional
● = standard
x = not optional

Tab. 1-8 Available options Biga Twin Eco

1.4.9 Technical specifications Biga Twin Eco Wide Body

	13m³ Twin Eco Wide Body	16m³ Twin Eco Wide Body	19m³ Twin Eco Wide Body	22m³ Twin Eco Wide Body	25m³ Twin Eco Wide Body	28m³ Twin Eco Wide Body	32m³ Twin Eco Wide Body
required power (pk)	75*	80*	85*	90*	95*	105*	120*
wheel hub	6 mounting holes						10 mounting holes
Tires	Goodyear 205/65R17.5 DM		Goodyear 215/75R17.5 DM				Goodyear 245/70R19.5 DM
Quantity Counter Knives	2 (manually operated)						
towing hitch (mm)	45						
towing hitch height(mm)	±500						
Support	manually						
Required electricity supply	Optional 12 Volt DC for lighting						
Required hydr. connection tractor	2x double acting valve						
Own oil pressuresystem	no						
Required oil volume tractor (L)	2	2,5					
Oil Flow (L/min)	30						
Standard own weight(kg)	5420	5800	6010	6150	8500	8650	9560
Total length (mm)	6335	6365	6420	6460	7255	7300	7355
Total height (mm)	2345	2600	2795	2955	3025	3175	3365
Total width (mm)	2500	2520	2540	2520	2820	2795	2950
Load capacity (kg)	5100	6300	7100	8300	10000	11400	12800
maximum speed (km/u)	25						

* is required power with gearbox.

Tab. 1-9 Technical specifications Biga Twin Eco Wide Body

1.4.10 Available options Biga Twin Eco Wide Body

	13m³ Twin Eco Wide Body	16m³ Twin Eco Wide Body	19m³ Twin Eco Wide Body	22m³ Twin Eco Wide Body	25m³ Twin Eco Wide Body	28m³ Twin Eco Wide Body	32m³ Twin Eco Wide Body
Electr. Weighing system Profifeed	○	○	○	○	○	○	○
Electr. Weighing system Digi-star EZ3400V	○	○	○	○	○	○	○
Electr. Weighing system + software + Datastick	○	○	○	○	○	○	○
Extra Weighing display	○	○	○	○	○	○	○
Electrohydr. operation of 2 unloading doors	○	○	○	○	○	○	○
Ring to prevent boiling over	○	○	○	○	○	○	○
Potato cutting knife	○	○	○	○	○	○	○
Alligator double life auger i.s.o. double action	○	○	○	○	○	○	○
Walterscheid wide angle PTO shaft	○	○	○	○	○	○	○
Hand brake axle	○	○	○	○	○	○	○
Hydraulically braked axle	○	○	○	○	○	○	○
Air braked axle	○	○	○	○	○	○	○
2 speed reduction gear box. (540tpm)	○	○	○	○	x	x	x
2 speed reduction gear box. (1000 tpm)	○	○	○	○	●	●	●
Powershift 2 gears	○	○	○	○	○	○	○
Ball towing eye Scharmüller / Sauerman 80 mm	○	○	○	○	○	○	○
High hitch with DIN towing bracket	○	○	○	○	○	○	○
Low pick-up hitch towin bracket and skid food	○	○	○	○	○	○	○
Mount. battery for weighing in disconnected position.	○	○	○	○	○	○	○
Single acting hydraulic support with manual pump	○	○	○	○	○	○	○
Hydraulic support for loading in uncoupled pos.	○	○	○	○	○	○	○
Anniversary set	○	○	○	○	○	○	○
In height adjustable belt conveyor	○	○	○	○	○	○	○
Speed regulator for belt conveyor	○	○	○	○	○	○	○
Extra unloading doors placed slantingly at the back	○	○	○	○	○	○	○
movable output chutes connected with unloading door	○	○	○	○	○	○	○
Perforatd platform with stairs in front of the tub	○	●	●	●	●	●	●
Hydraulic mechanically adjustable counter knives	○	○	○	○	○	○	○
Lowering tub height	○	○	○	○	○	○	○
Lighting LED	○	○	○	○	○	○	○
Extend chassis (for build-up crane or stationary motor)	○	○	○	○	○	○	○
Mineral box	○	○	○	○	○	○	○
Other RAL-color i.s.o. Peecon red	○	○	○	○	○	○	○
Prepared for future mounting of Multilift-system	○	○	○	○	○	○	○

○ = optional
● = standard
x = not optional

Tab. 1-10 Available options Biga Twin Eco Wide Body

1.4.11 Technical specifications Biga Mammoet

	22.5m³ Mammoet	25.5m³ Mammoet	30m³ Mammoet	33m³ Mammoet WB	36m³ Mammoet	38m³ Mammoet WB	40m³ Mammoet	42.5m³ Mammoet WB	45m³ Mammoet	48m³ Mammoet WB	52m³ Mammoet
required power (pk)	120	125	140	140	150	155	165	170	180	185	200
wheel hub	6 mounting holes				10 mounting holes						
Tires	Goodyear 205/65R17.5 DM				Goodyear 245/70R19.5 DM		Goodyear 275/70R22.5 DM				
Quantity Counter Knives	2 (manually operated)										
towing hitch (mm)	45										
towing hitch height(mm)	±500										
Support	manually										
Required electricity supply	Optional 12 Volt DC for lighting										
Required hydr. connection tractor	4x double acting valve										
Own oil pressuresystem	no										
Required oil volume tractor (L)	4				5						
Oil Flow (L/min)	30										
Standard own weight(kg)	8300	8600	8765	8860	13000	13050	13800	13805	15600	15650	18000
Total length (mm)	8400	8435	8480	8635	9485	9635	9590	9740	10155	10305	12025
Total height (mm)	2660	2790	2950	2950	3115	3115	3485	3485	3485	3485	3485
Total width (mm)	2360	2360	2360	2520	2660	2800	2660	2800	2810	2900	2660
Load capacity (kg)	9000	10200	12000	13200	14400	15200	16000	17000	18000	19200	22000
maximum speed (km/u)	25										

Tab. 1-11 Technical specifications Biga Mammoet

1.4.12 Available options Biga Mammoet

	22.5m³ Mammoet	25.5m³ Mammoet	30m³ Mammoet	33m³ Mammoet WB	36m³ Mammoet	38m³ Mammoet WB	40m³ Mammoet	42.5m³ Mammoet WB	45m³ Mammoet	48m³ Mammoet WB	52m³ Mammoet
Electr. Weighing system Profifeed	○	○	○	○	○	○	○	○	○	○	○
Electr. Weighing system Digi-star EZ3400V	○	○	○	○	○	○	○	○	○	○	○
Electr. Weighing system + software + Datastick	○	○	○	○	○	○	○	○	○	○	○
Extra Weighing display	○	○	○	○	○	○	○	○	○	○	○
Electrohydr. operation of 4 unloading doors	○	○	○	○	○	○	○	○	○	○	○
Ring to prevent boiling over	○	○	○	○	○	○	○	○	○	○	○
Potato cutting knife	○	○	○	○	○	○	○	○	○	○	○
Alligator double life auger i.s.o. double action	○	○	○	○	○	○	○	○	○	○	○
Walterscheid wide angle PTO shaft	○	○	○	○	○	○	○	○	○	○	○
Hand brake axle	○	○	○	○	○	○	○	○	○	○	○
Hydraulically braked axle	○	○	○	○	○	○	○	○	○	○	○
Air braked axle	○	○	○	○	○	○	○	○	○	○	○
Hydraulically forced steered axle	○	○	○	○	○	○	○	○	○	○	○
Existing tandem with extra hydraulically steered axle	○	○	○	○	○	○	○	○	○	○	○
Spring- mounted tridem with 3 hydr. brake axles	○	○	○	○	○	○	○	○	○	○	○
Oil cooler and filtration system	○	○	○	○	○	○	○	○	○	○	○
Hour counter	○	○	○	○	○	○	○	○	○	○	○
Powershift 2 gears	○	○	○	○	○	○	○	○	○	○	○
Powershift 3 gears	○	○	○	○	○	○	○	○	○	○	○
Operation 2 speed reduction gear box (bowden cable)	○	○	○	○	○	○	○	○	○	○	○
Operation 2 speed reduction gear box (electr. hydr.)	○	○	○	○	○	○	○	○	○	○	○
Single acting hydraulic support with manual pump	○	○	○	○	○	○	○	○	○	○	○
Hydr. Support for loading in uncouples position.	○	○	○	○	○	○	○	○	○	○	○
Anniversary set	○	○	○	○	○	○	○	○	○	○	○
Wear out parts Hardox-Raex	○	○	○	○	○	○	○	○	○	○	○
Extra unloading door	○	○	○	○	○	○	○	○	○	○	○
movable output chutes connected with unloading door	○	○	○	○	○	○	○	○	○	○	○
Hydraulic mechanically adjustable counter knives	○	○	○	○	○	○	○	○	○	○	○
Towing bracket and coupling for braking	○	○	○	○	○	○	○	○	○	○	○
Ball towing eye scharmüller/ Sauerman 80mm	○	○	○	○	○	○	○	○	○	○	○
Lighting Led	○	○	○	○	○	○	○	○	○	○	○
Mount. battery for weighing in disconnected position	○	○	○	○	○	○	○	○	○	○	○
Mineral box	○	○	○	○	○	○	○	○	○	○	○
Other RAL-color i.s.o. Peecon red	○	○	○	○	○	○	○	○	○	○	○
Extra charge American version	○	○	○	○	○	○	○	○	○	○	○
Ouput chute with magnets	○	○	○	○	○	○	○	○	○	○	○
Prepared for future mounting of Multilift-system	○	○	○	○	○	○	○	○	○	○	○

○ = optional
● = standard

Tab. 1-12 Available options Biga Mammoet

1.5 Elementary specifications

The Biga feed mixer is made from hollow cold-rolled steel elements combined with sheet steel parts of various thicknesses. Its construction is thus that the durability and rigidity of the Biga feed mixer are optimised. The feed mixer has a sound and stable construction and is very stable while loading, mixing and unloading feed.

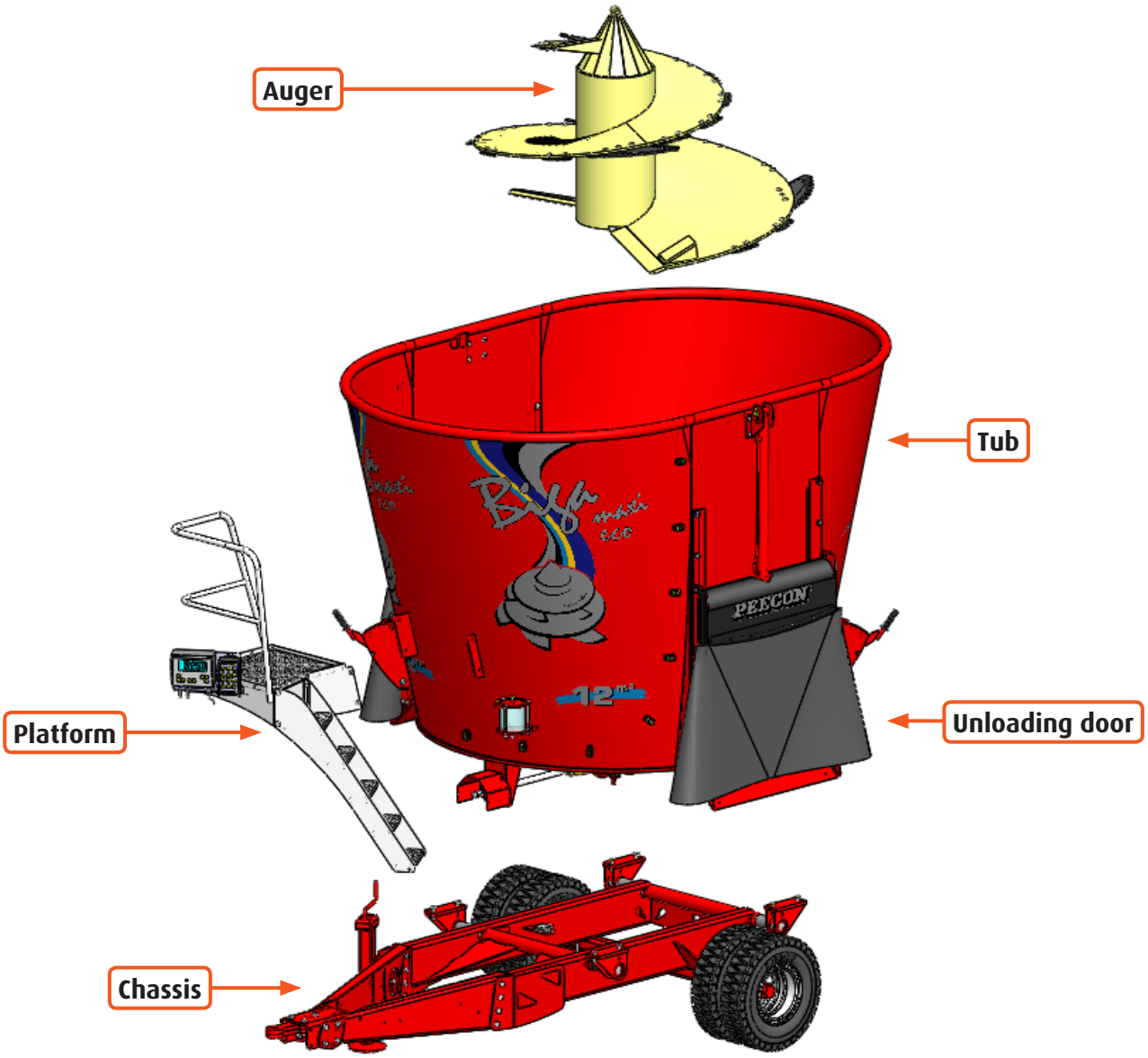


Fig. 1-1 Main elements

1.6 Main elements

The Biga feed mixer consists of the modules listed in the following sections and designated by their functional names. The “Chassis” module largely consists of cold-rolled hollow steel elements combined with sheet steel sections. The “tub”, “platform”, “auger” and “unloading door” modules largely consist of sheet metal parts.

1.6.1 Chassis

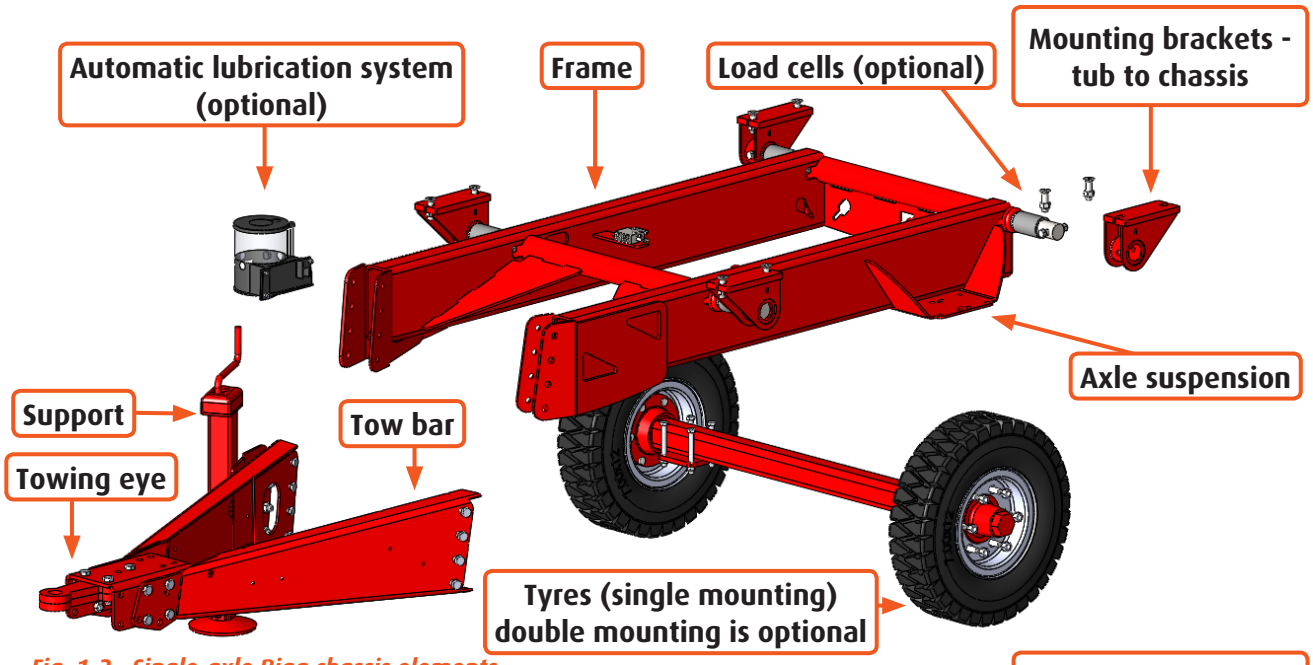


Fig. 1-2 Single-axle Biga chassis elements

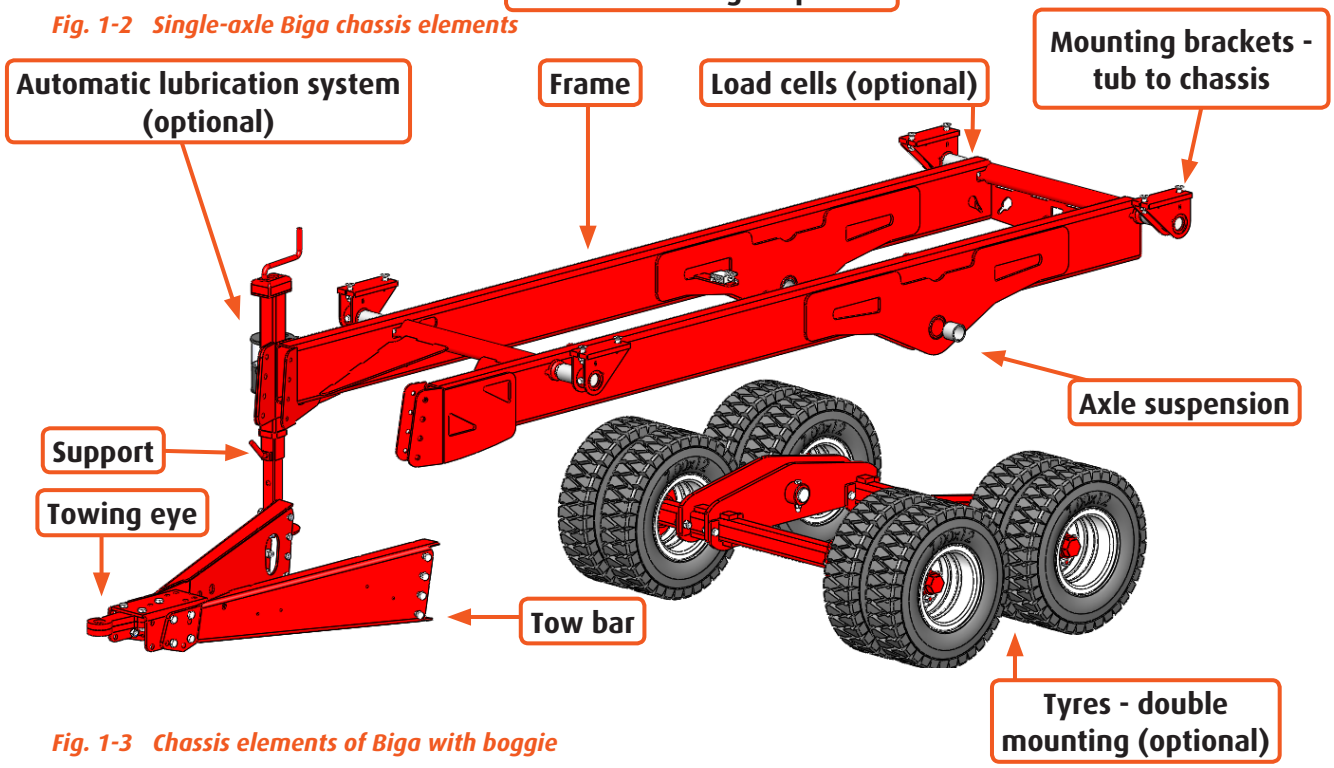


Fig. 1-3 Chassis elements of Biga with boggie

1.6.2 Tub

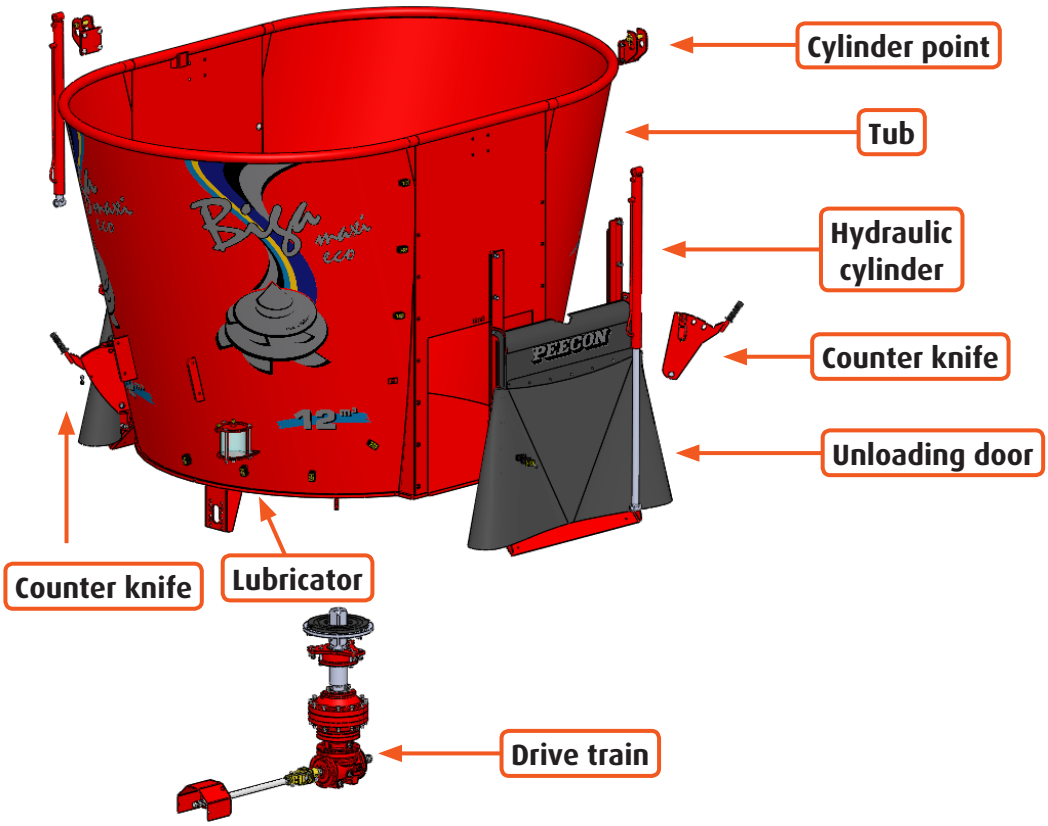


Fig. 1-5 Tub elements of single auger model

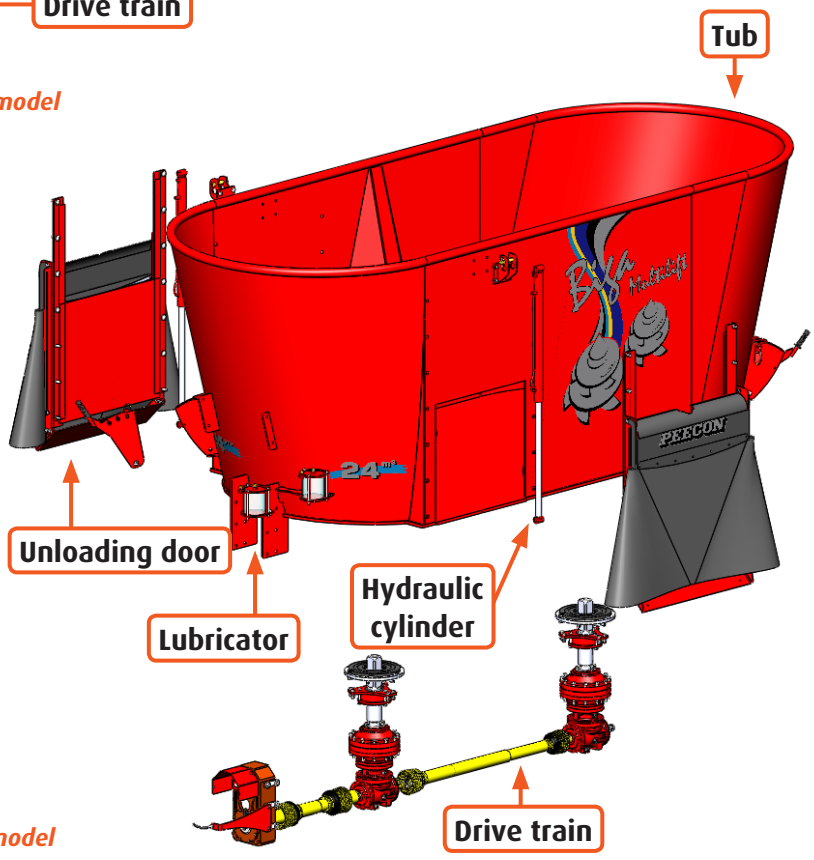


Fig. 1-4 Tub elements of multi-auger model

1.6.3 Auger

The auger element consists of sheet metal parts with hollow pipe sections. The auger is available in various shapes and sizes. The diameter, height and winding have been developed specifically for the individual types of feed mixer. When replacing augers, make sure to install the right auger in your specific feed mixer.

> ⚠ *NOTE! The auger is a loose component that is pushed over the drive shaft using a special fitted section. Take this into account, e.g. if the feed mixer is turned around for repairs or maintenance.*

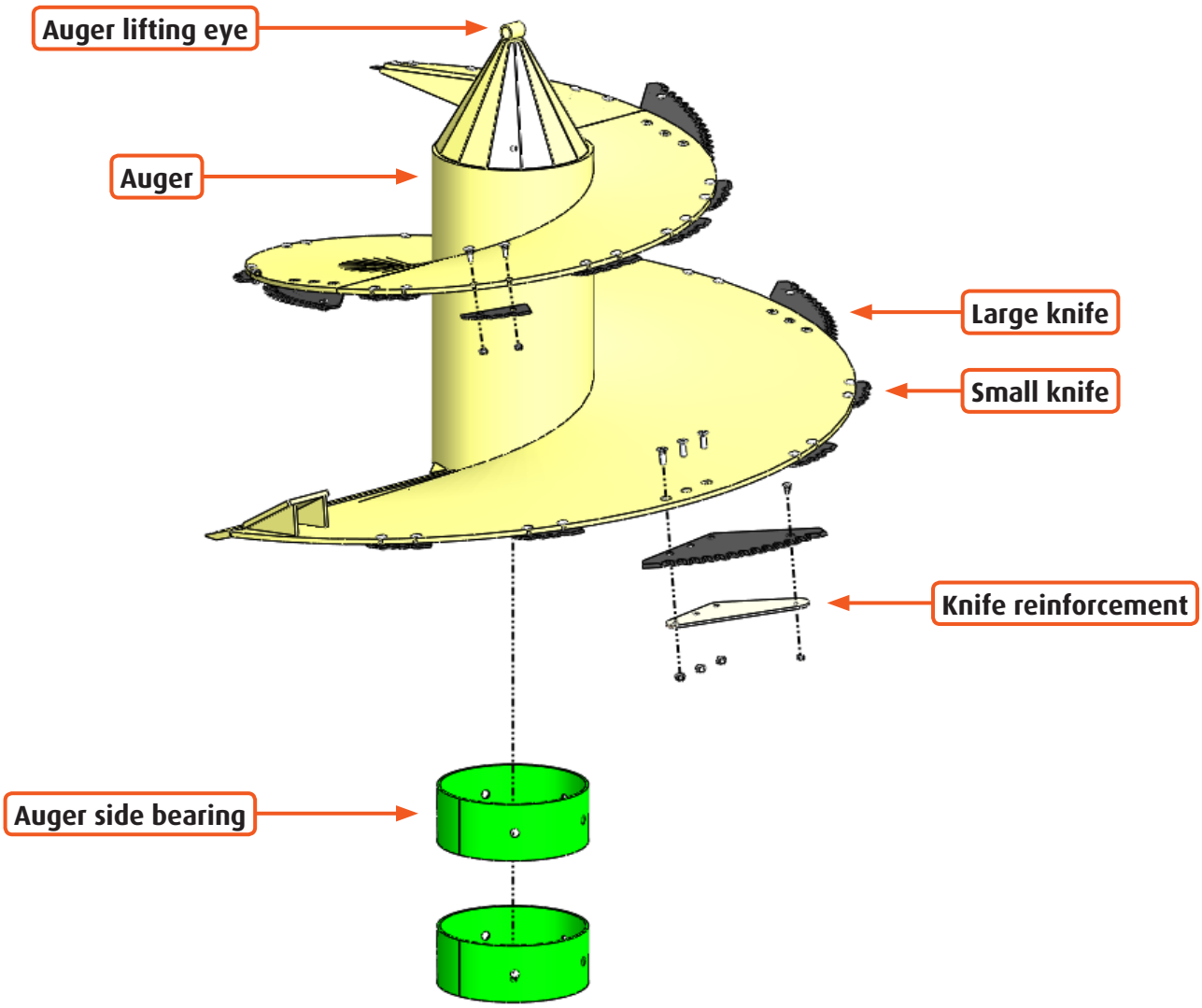


Fig. 1-6 Auger elements

1.6.4 Platform

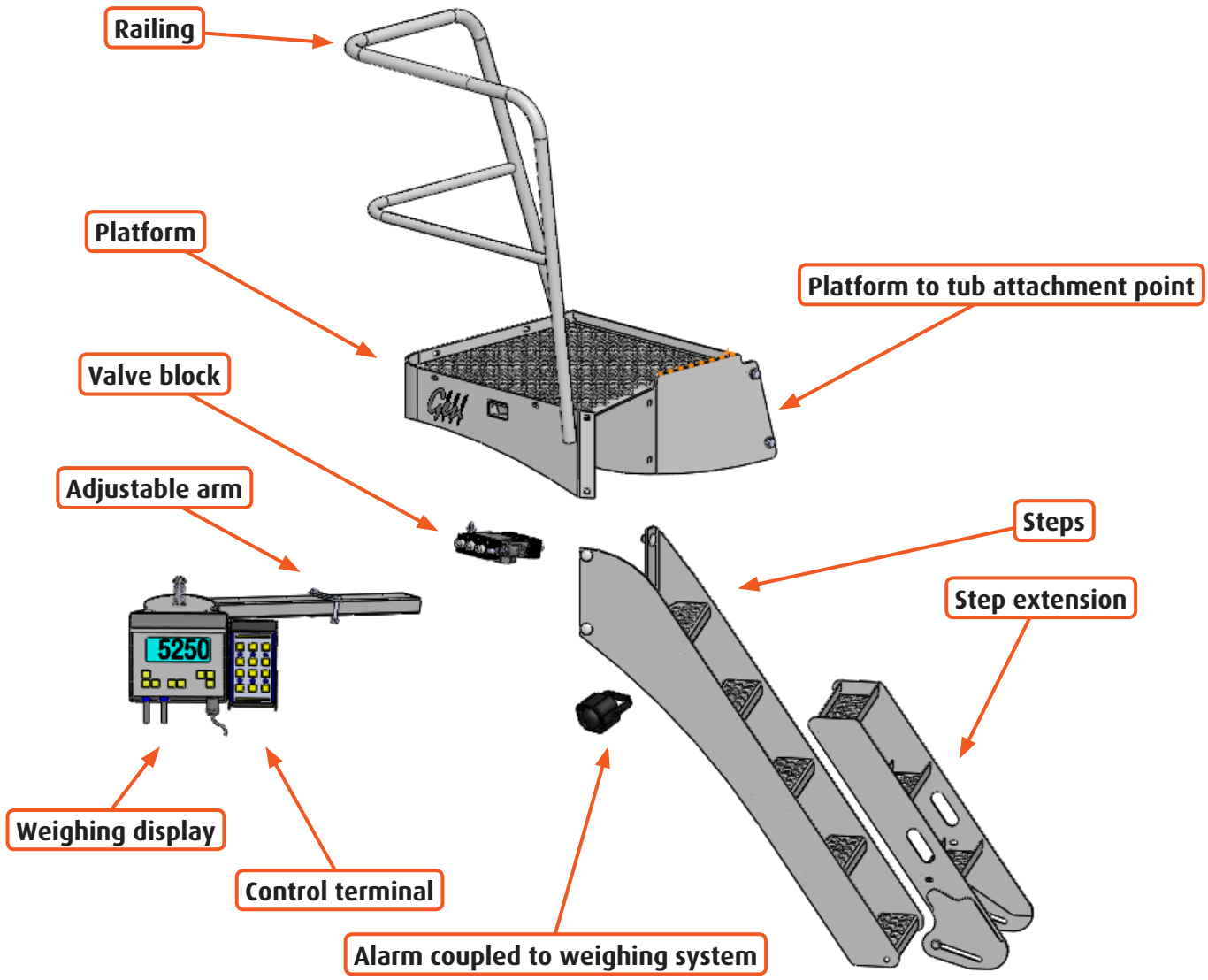


Fig. 1-7 Platform elements

1.6.5 Front/rear belt (standard with Eco+)

The front / rear belt is a standard component in all Biga Eco+ models. These implementing may be positioned at the front or rear. It is also possible to use as an option to replace the rubber conveyor belt in front of a stainless steel chain belt.

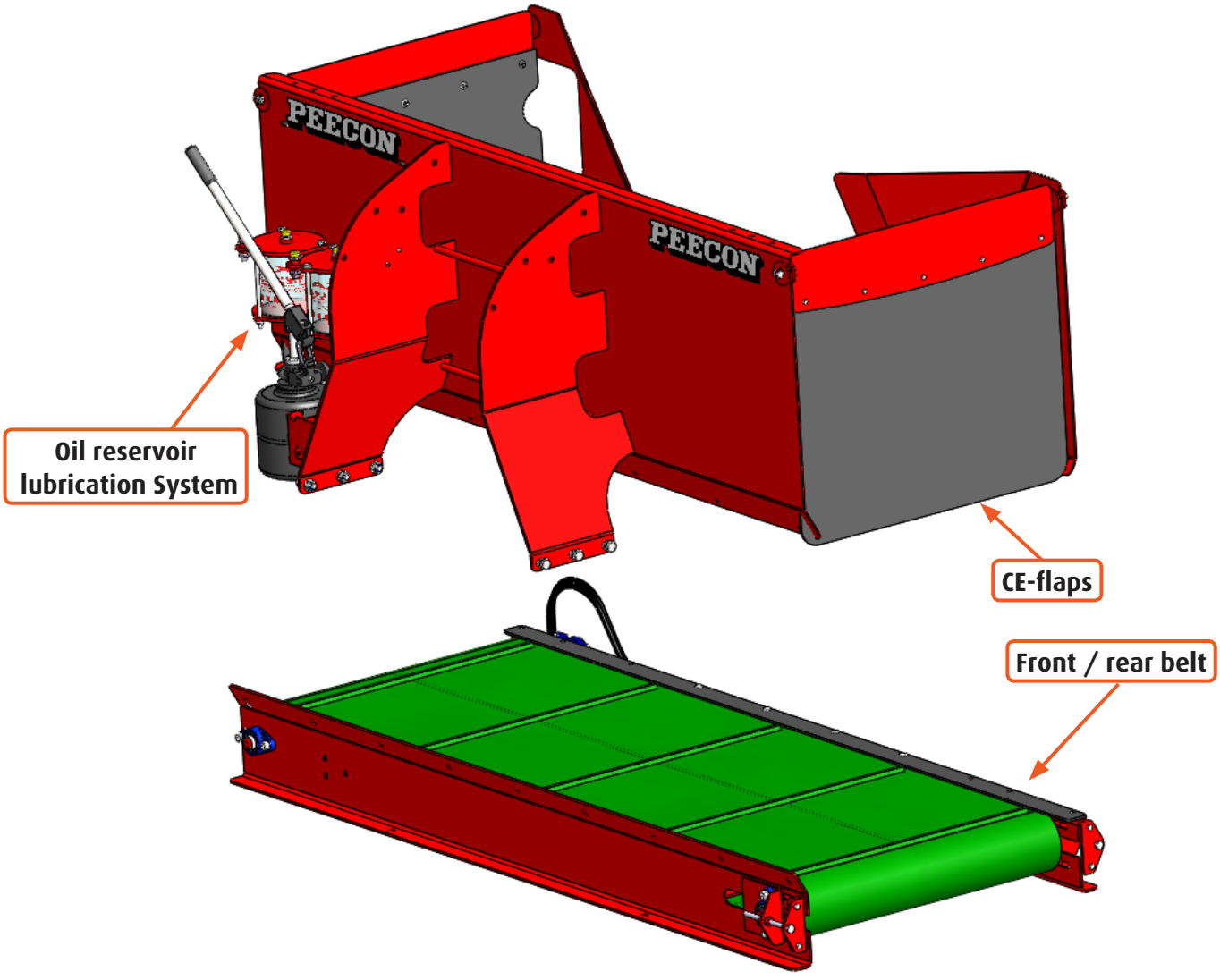


Fig. 1-8 Front / rear belt (standard with Eco+)

1.6.6 Possible axle suspension

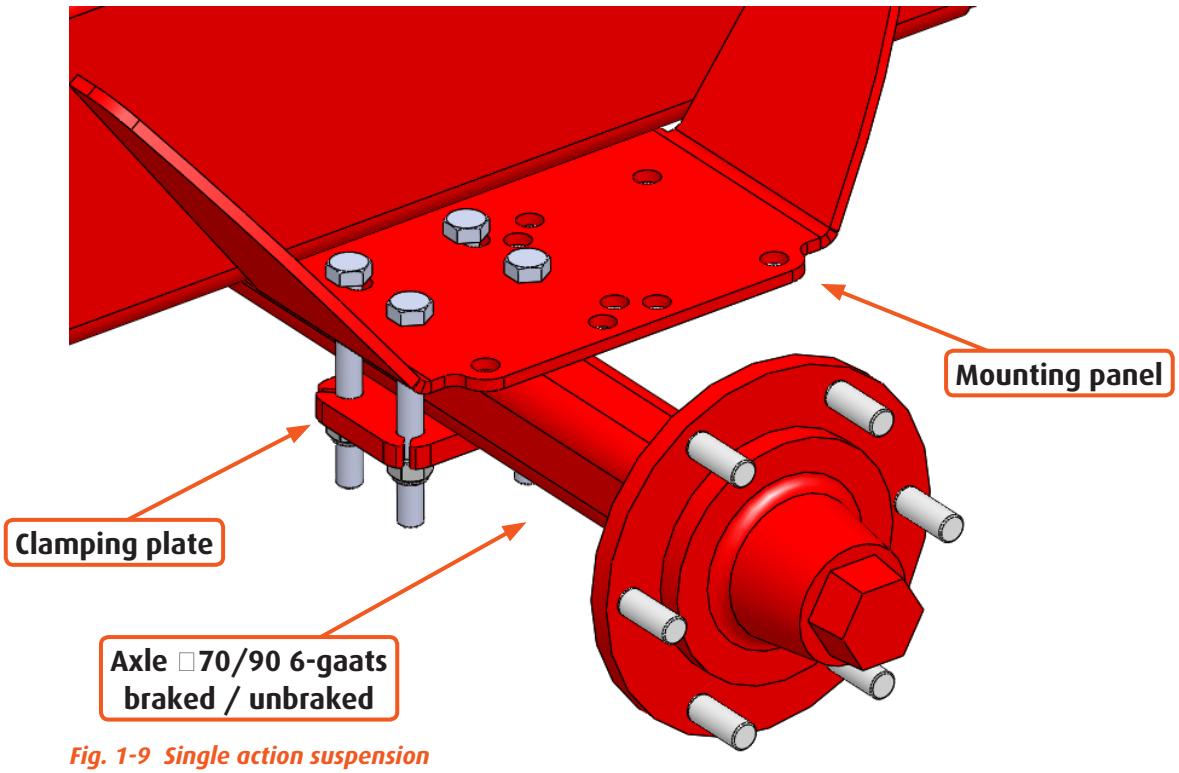


Fig. 1-9 Single action suspension

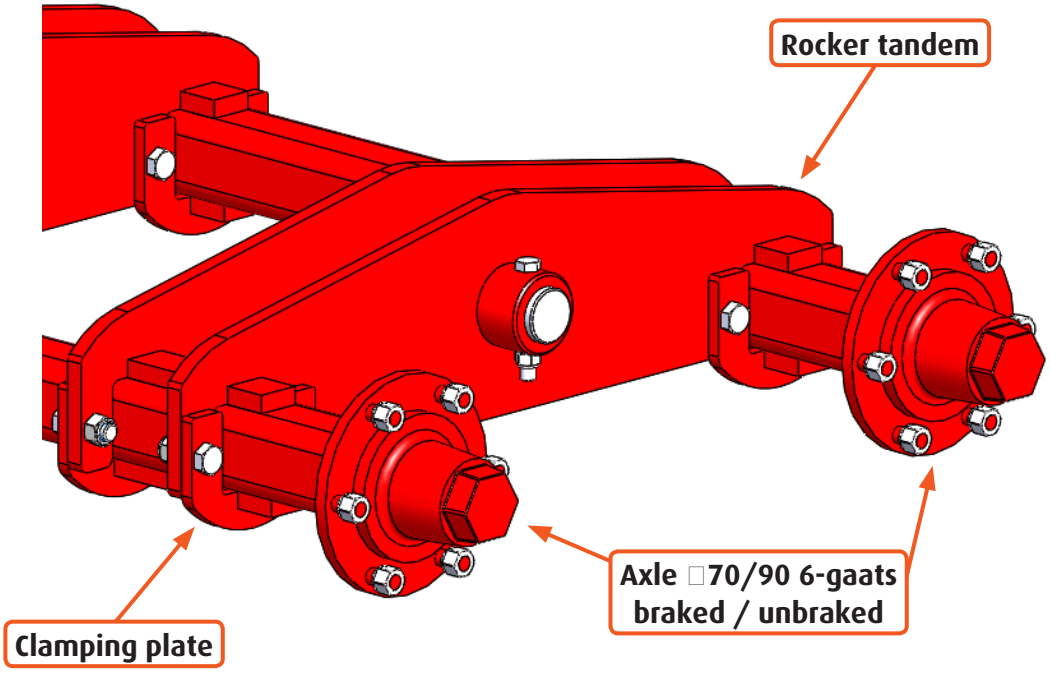


Fig. 1-10 Rocker tandem

1.6.7 Support

The entire Biga line has a manually operated support. All these machines also have the option of a hydraulic support. The hydraulic support can be connected in two ways, i.e. through the tractor hydraulics or by means of the hydraulic valve block. If the hydraulic support features a ball valve, this ball valve must be closed whenever the feed mixer is not coupled to a tractor.

NOTE! Make sure that after uncoupling the machine, the support has been retracted completely or as far as possible, lowering the tow bar as closely to the ground as possible. This prevents the tow bar from sinking lower if there is a leak in the support or if the soil is not firm enough, as this might otherwise lead to a dangerous situation!

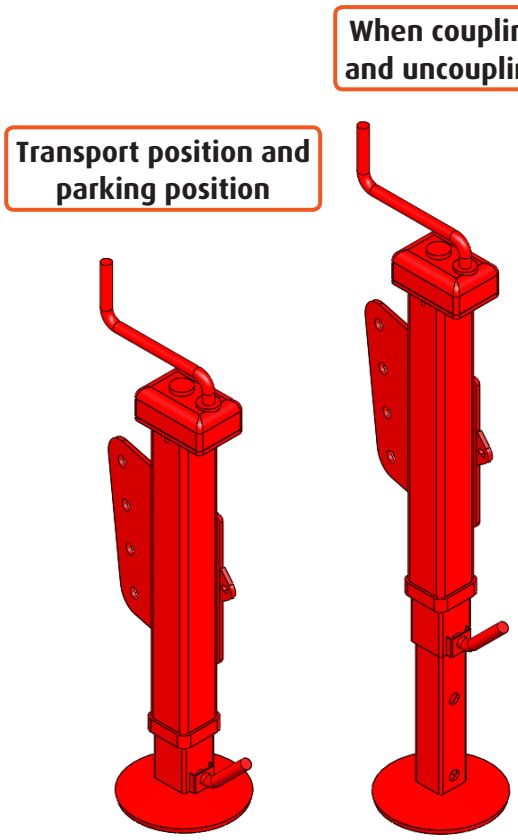


Fig. 1-11 Manually operated support

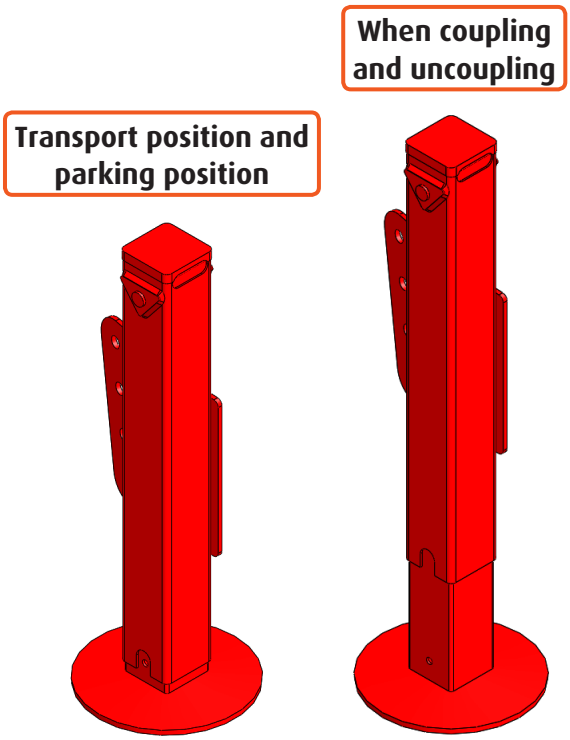


Fig. 1-12 Hydraulically operated support

Version	Specifications	Content	Capacity at 100 bar	Capacity at 150 bar	Max. operating pressure
Manual	80x80 S500	-	-	-	-
Hydraulic	100x100 S500	2.8 L	2,800 kg	4,200 kg	200 bar

Tab. 1-13 Support specifications

1.6.8 Weighing system

Depending on its configuration, the machine may feature:

- a counting/weighing system to determine the volumes loaded.
- a programmable weighing system that enables several feed formulas to be stored.
- a programmable weighing system that enables several feed formulas to be stored and the data to be transmitted to a PC.

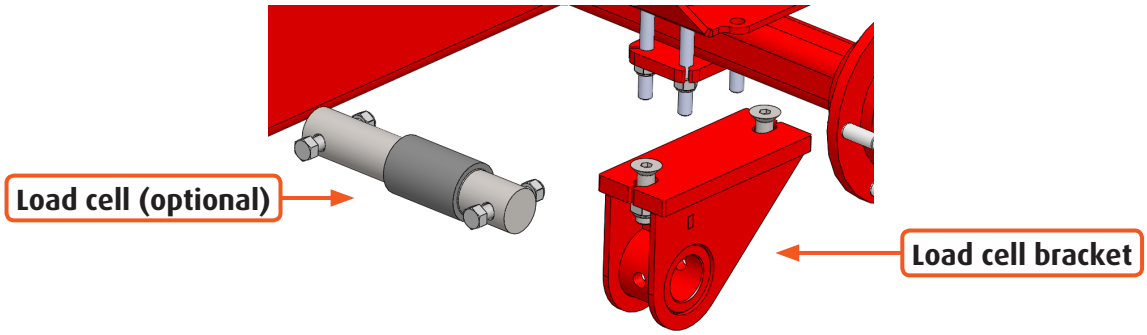


Fig. 1-13 Weighing system

NOTE! Load cells are measuring instruments. Always be aware that these parts are sensitive to shocks and impacts and that they contain electronics.

The weighing system "option" is described in detail in the manual that is part of the delivery and that was specifically drawn up for your feed mixer.

1.6.9 Towing eye

A towing eye serves to enable the trailer to be attached to the tractor. It is also very important that you always check the towing eye for any defects before using the trailer. The Biga models have a standard screw-type towing eye with a Ø45mm eye diameter. Optionally, Peecon delivers a DIN 74504-40A certified towing eye with an eye diameter of Ø40mm or

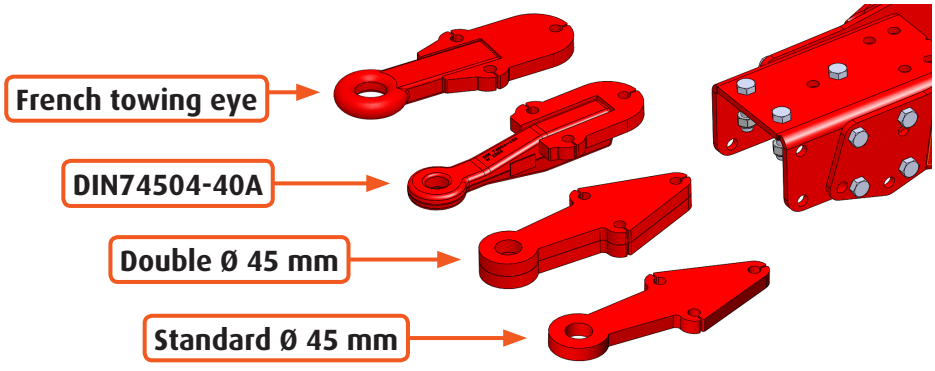


Fig. 1-14 Towing eye models

1.6.10 Counter knife

The counter knives on your machine are there to shorten the mixing and cutting times. The extended variety has electro-hydraulic operation; in the standard variety this is a manual function. The manually operated version has three fixed settings. The hydraulic version is variable at all the desired settings.

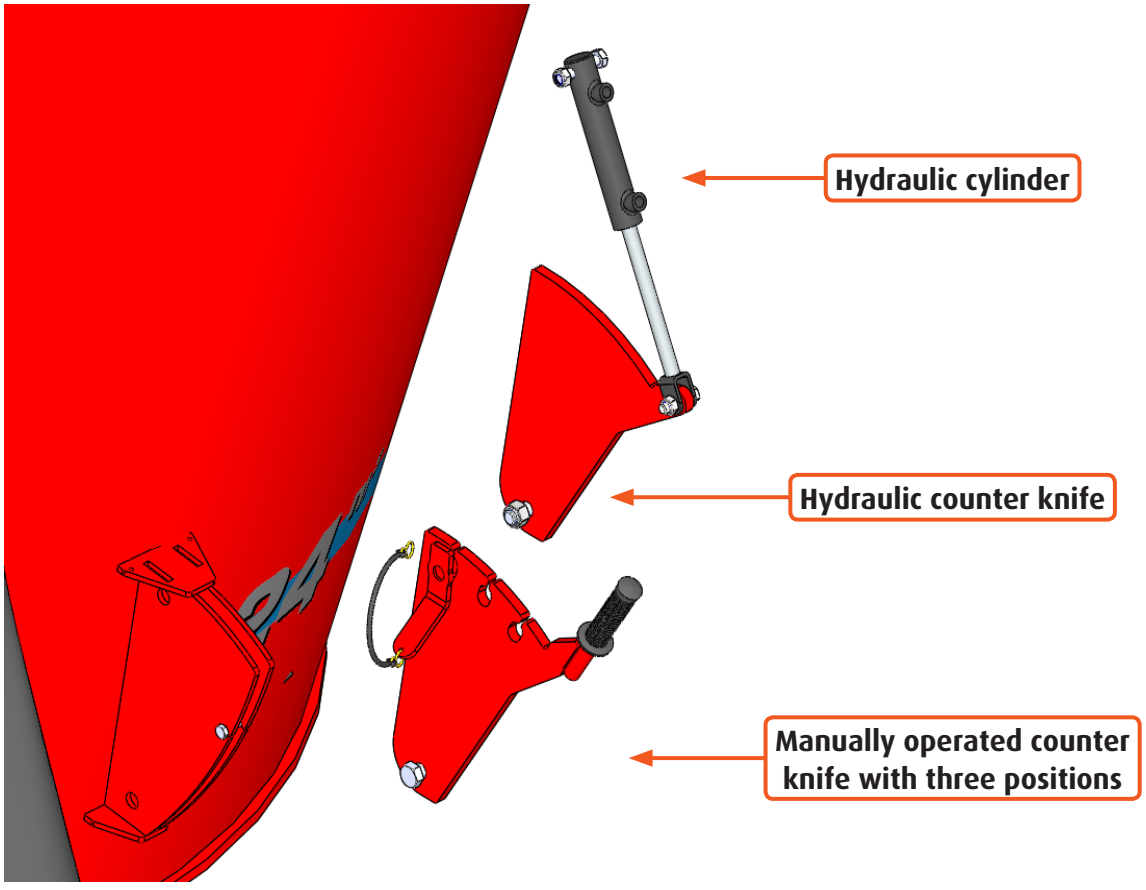


Fig. 1-15 Counter knives

1.6.11 Drive train with bearing support

The standard drive train of the Biga feed mixer has a guard with a fixed drive train. The power required, as described in section 1.4 “Technical specifications”, can easily be reduced using an optional reduction gear unit (see section 1.6.11). This reduction gear unit reduces the power needed by 20%.

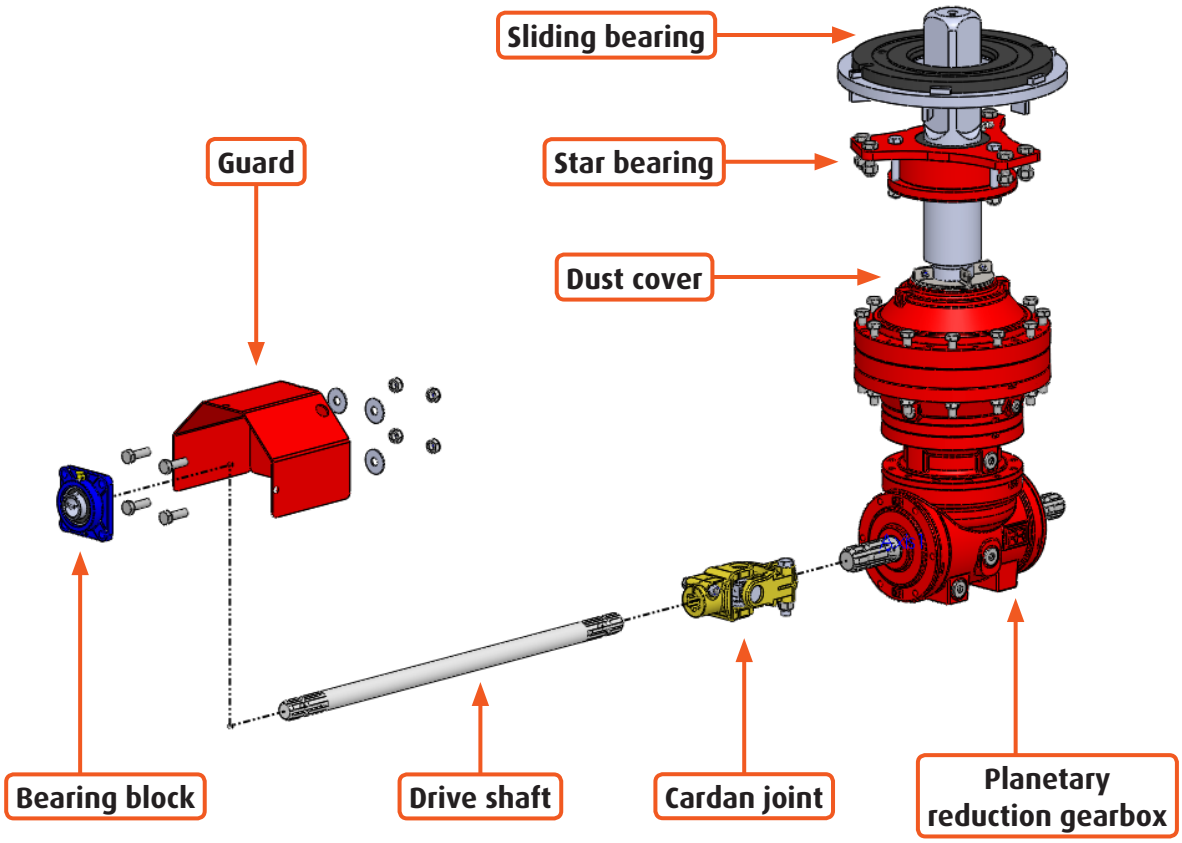


Fig. 1-16 Drive train elements

1.6.12 Drive train with an optional reduction gearbox

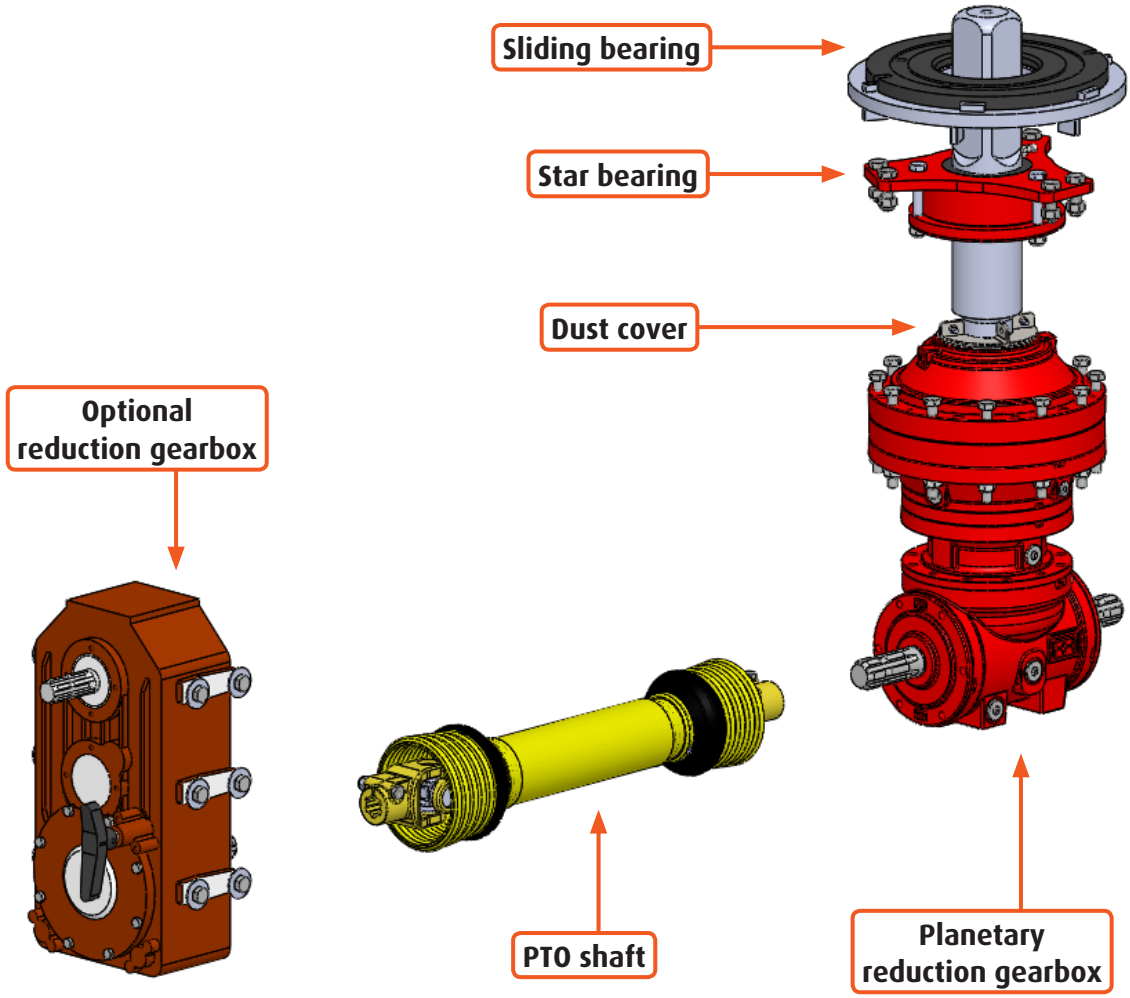


Fig. 1-17 Drive train elements with an optional reduction gearbox

1.6.13 Adjustable discharge conveyor (option)

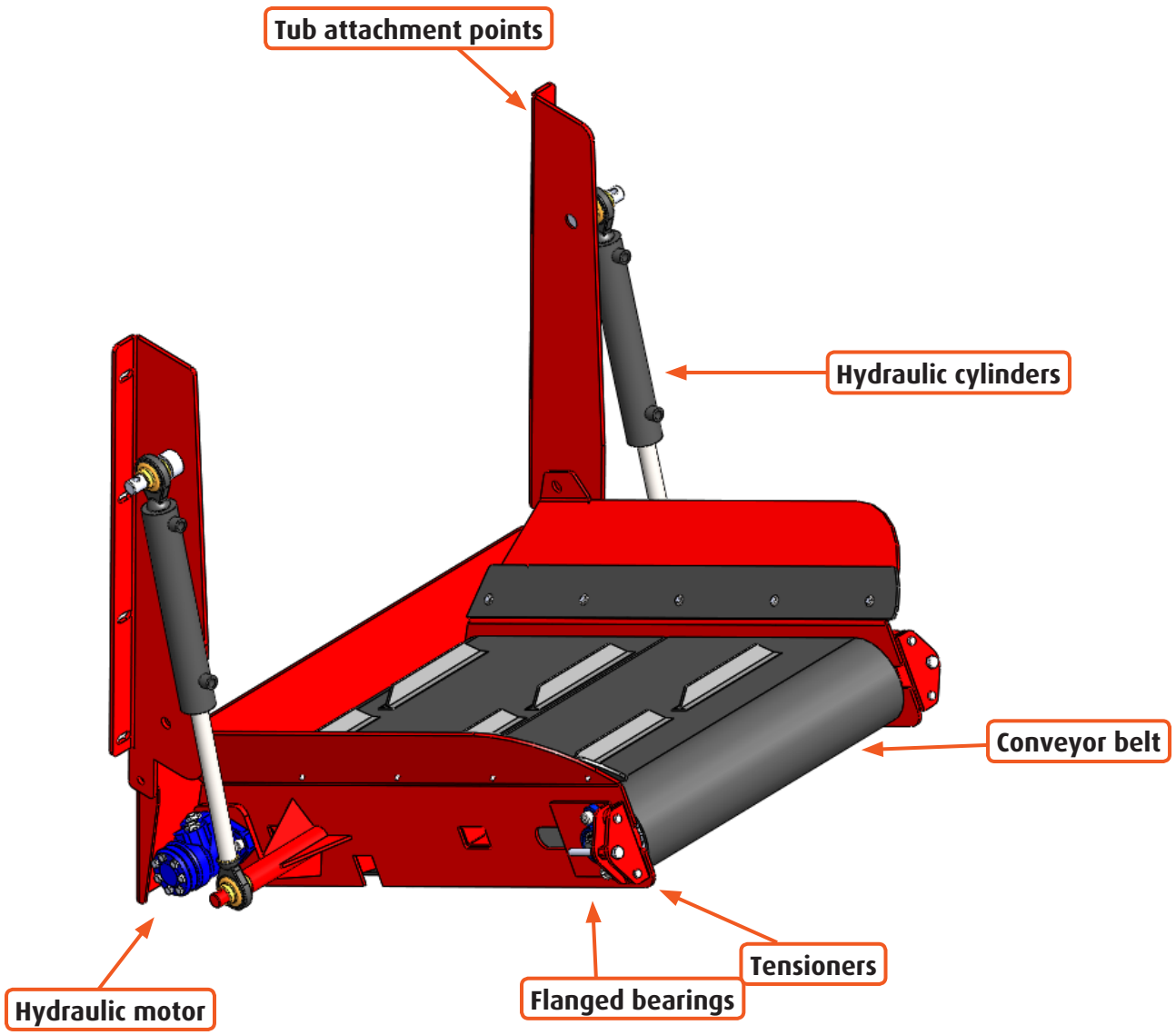


Fig. 1-18 Side unloading belt elements

1.6.14 Modules of the Front / rear belt (standard with Eco +)

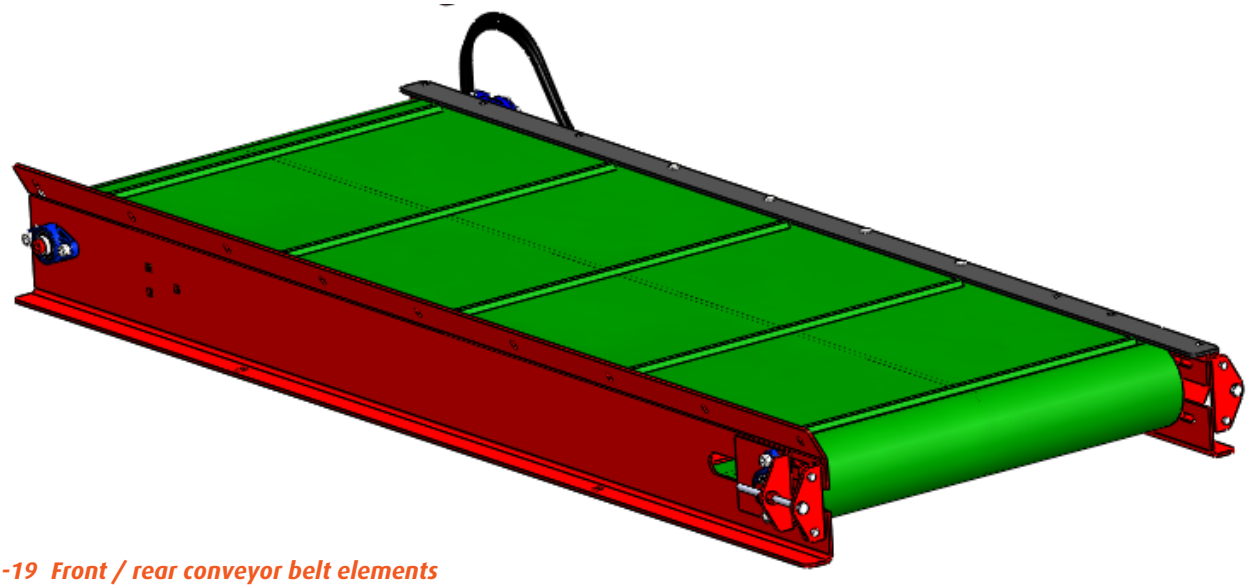


Fig. 1-19 Front / rear conveyor belt elements

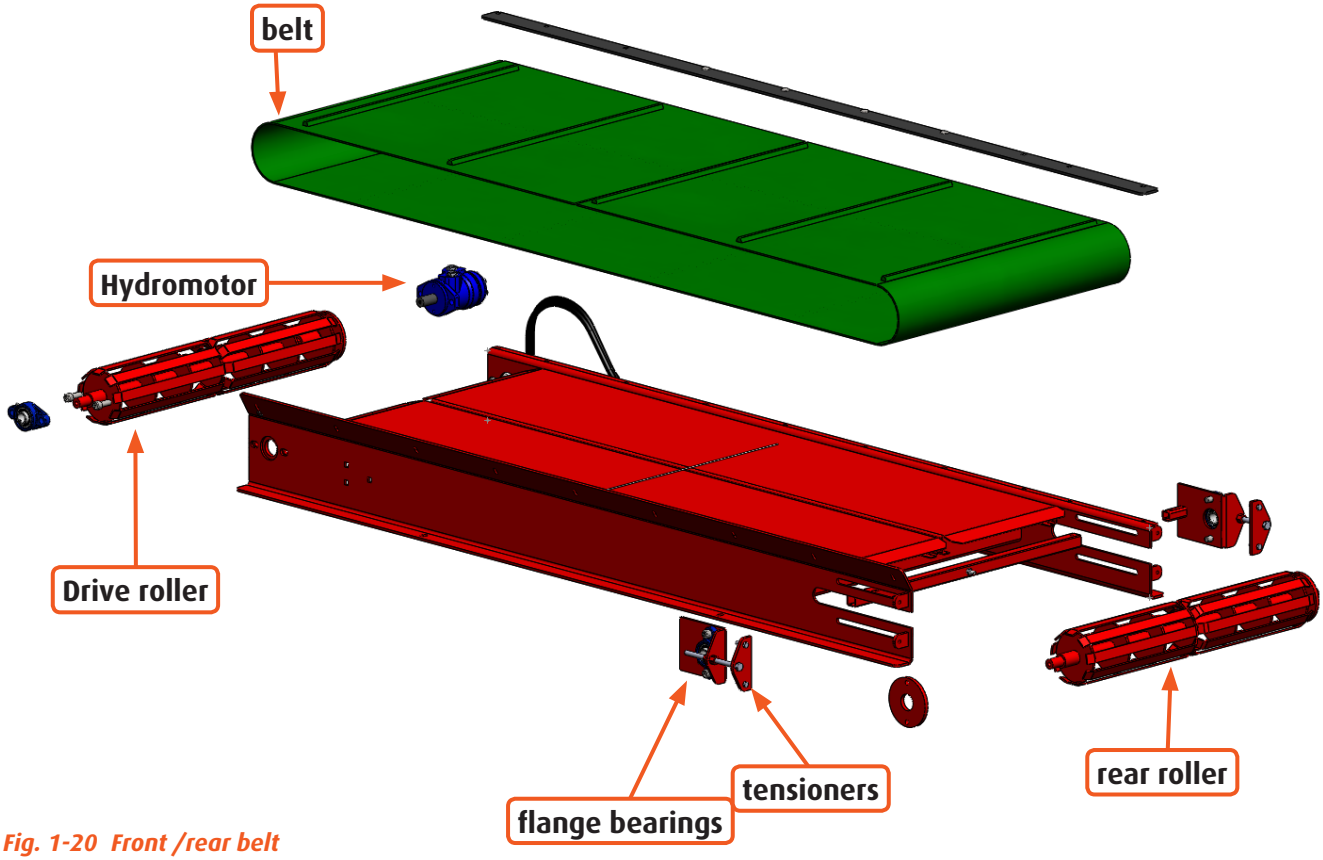


Fig. 1-20 Front /rear belt

1.6.15 Tyres

A list of tyre options is available for the different models.

The tables below show the optional extras we offer. Table 1-12 shows the specific details for the type of tyre. Table 1-13 shows the standard and optional types of tyre for your machine.

If you have any other preferences than the tyres we have selected, we can always offer you a tyre option tailored to your preference.

"DM" means that the axle features double mounting. Double mounting means that two tyres have been mounted on each side of the axle.

NOTE! Never fit an inner tyre onto a damaged or repaired wheel or onto a wheel for which the use of an inner tyre is not allowed.

Tire type	Speed symbol	Techn. Max. Airpressure (psi)	Techn. Max. Airpressure (bar)	Techn. Max. Speed (km/h)
Peecon 7.00x12 (*)	2375 kg - 25 km/h	87	6	25
Peecon 7.00x12 DM	2375 kg - 25 km/h	87	6	25
Goodyear 205/65R17.5 DM	127 K	130	8,5	80
Peecon 400/60x15.5	145 A6	48	3,3	25
Goodyear 215/75R17.5 DM	133 J	125	8,6	100
Goodyear 245/70R19.5 DM	140 J	123	8.5	100
Goodyear 245/70R19.5	140 J	123	8.5	100
Goodyear 355/50R22.5	154 K	130	9	110
Goodyear 275/70R22.5 DM	145 M	130	9	130
Goodyear 435/50R19.5	160 J	130	9	100

Tab. 1-14 Tire specifications

	Peecon 7.00x12	Peecon 7.00x12 DM*	Goodyear 205/65R17.5 DM	Peecon 400/60x15.5	Goodyear 215/75R17.5 DM	Goodyear 245/70R19.5 DM	Goodyear 245/70R19.5	Goodyear 355/50R22.5	Goodyear 275/70R22.5 DM	Goodyear 435/50R19.5
Biga 6m³ Eco	●	○	○	○	○	x	x	x	x	x
Biga 7.5m³ Eco	●	○	○	○	○	x	x	x	x	x
Biga 10m³ Eco	●	○	○	○	○	x	x	x	x	x
Biga 10m³ Maxi Eco	○	●	○	○	○	x	x	x	x	x
Biga 12m³ Maxi Eco	○	●	○	○	○	x	x	x	x	x
Biga 12/14m³ Maxi Eco Vario	○	●	○	○	○	x	x	x	x	x
Biga 13m³ Maxi Eco	○	●	○	○	○	x	x	x	x	x
Biga 14m³ Maxi Eco	○	●	○	○	○	x	x	x	x	x
Biga 15m³ Maxi Eco	○	●	○	○	○	x	x	x	x	x
Biga 6m³ Eco Low	●	○	○	○	○	x	x	x	x	x
Biga 7.5m³ Eco Low	●	○	○	○	○	x	x	x	x	x
Biga 10m³ Eco Low	●	○	○	○	○	x	x	x	x	x
Biga 10m³ Maxi Eco Low	○	●	○	○	○	x	x	x	x	x
Biga 12m³ Maxi Eco Low	○	●	○	○	○	x	x	x	x	x
Biga 13m³ Maxi Eco Low	○	●	○	○	○	x	x	x	x	x
Biga 14m³ Maxi Eco Low	○	●	○	○	○	x	x	x	x	x
Biga 15m³ Maxi Eco Low	○	○	●	○	○	x	x	x	x	x
Biga 12m³ Twin Eco	○	○	●	○	○	○	○	○	○	○
Biga 15m³ Twin Eco	○	○	●	○	○	○	○	○	○	○
Biga 15/20m³ Twin Eco Vario	x	○	●	x	○	○	○	○	○	○
Biga 17m³ Twin Eco	x	○	●	x	○	○	○	○	○	○
Biga 17/20m³ Twin Eco Vario	x	○	●	x	○	○	○	○	○	○
Biga 20m³ Twin Eco	x	○	○	x	●	○	○	○	○	○
Biga 20m³ Maxi Twin Eco	x	○	○	x	●	○	○	○	○	○
Biga 24m³ Maxi Twin Eco	x	○	○	x	●	○	○	○	○	○
Biga 26m³ Maxi Twin Eco	x	x	○	x	●	○	○	○	○	○
Biga 30m³ Maxi Twin Eco	x	x	○	x	○	●	○	○	○	○
Biga 13m³ Twin Eco Wide body	x	○	●	x	○	○	○	○	○	○
Biga 16m³ Twin Eco Wide body	x	○	●	x	○	○	○	○	○	○
Biga 19m³ Twin Eco Wide body	x	○	○	x	●	○	○	○	○	○
Biga 22m³ Twin Eco Wide body	x	○	○	x	●	○	○	○	○	○
Biga 25m³ Twin Eco Wide body	x	○	○	x	●	○	○	○	○	○
Biga 28m³ Twin Eco Wide body	x	x	○	x	●	○	○	○	○	○
Biga 32m³ Twin Eco Wide body	x	x	○	x	○	●	○	○	○	○
Biga 22,5m³ Mammoet	x	x	●	x	x	○	x	x	○	○
Biga 25,5m³ Mammoet	x	x	●	x	x	○	x	x	○	○
Biga 30m³ Mammoet	x	x	●	x	x	○	x	x	○	○
Biga 33m³ Mammoet WB	x	x	●	x	x	○	x	x	○	○
Biga 36m³ Mammoet	x	x	○	x	x	●	x	x	○	○
Biga 38m³ Mammoet WB	x	x	○	x	x	●	x	x	○	○
Biga 40m³ Mammoet	x	x	○	x	x	○	x	x	●	○
Biga 42,5m³ Mammoet WB	x	x	○	x	x	○	x	x	●	○
Biga 45m³ Mammoet	x	x	○	x	x	○	x	x	●	○
Biga 48m³ Mammoet WB	x	x	○	x	x	○	x	x	●	○
Biga 52m³ Mammoet	x	x	○	x	x	○	x	x	●	○

Tab. 1-15 Tires

○ = optional, ● = standard, x = not possible.

Introduction

	Peecon 7.00x12	Peecon 7.00x12 DM*	Goodyear 205/65R17.5 DM	Peecon 400/60x15.5	Goodyear 215/75R17.5 DM	Goodyear 245/70R19.5 DM	Goodyear 245/70R19.5	Goodyear 355/50R22.5	Goodyear 275/70R22.5 DM	Goodyear 435/50R19.5
Biga 6m³ Eco+	●	○	○	○	○	x	x	x	x	x
Biga 7,5m³ Eco+	●	○	○	○	○	x	x	x	x	x
Biga 10m³ Eco+	○	●	○	○	○	x	x	x	x	x
Biga 10m³ Maxi Eco+	○	●	○	○	○	x	x	x	x	x
Biga 12m³ Maxi Eco+	○	●	○	○	○	x	x	x	x	x
Biga 13m³ Maxi Eco+	○	●	○	○	○	x	x	x	x	x
Biga 15m³ Maxi Eco+	○	○	●	○	○	x	x	x	x	x
Biga 12m³ Twin Eco+	○	○	●	○	○	x	x	x	x	x
Biga 15m³ Twin Eco+	○	○	●	○	○	x	x	x	x	x
Biga 16m³ Twin Eco+ WB	○	○	●	○	○	x	x	x	x	x
Biga 17m³ Twin Eco+	○	○	●	○	○	x	x	x	x	x
Biga 19m³ Twin Eco+ WB	x	x	x	x	x	●	○	○	○	○
Biga 20m³ Twin Eco+	○	○	○	○	●	x	x	x	x	x
Biga 22m³ Twin Eco+ WB	○	○	○	○	●	x	x	x	x	x
Biga 20m³ Maxi Twin Eco+	○	○	○	○	●	x	x	x	x	x
Biga 24m³ Maxi Twin Eco+	○	○	○	○	●	x	x	x	x	x
Biga 26m³ Maxi Twin Eco+	○	○	○	○	●	x	x	x	x	x
Biga 30m³ Maxi Twin Eco+	x	x	x	x	x	○	●	○	○	○

Tab. 1-16 Tires

○ = optional, ● = standard, x = not possible.

1.6.16 Bowden cable control for reduction gear unit (option)

Tractors whose power is insufficient and that have an optional reduction gear unit can be delivered with a 'Bowden cable'. This is mounted directly onto the gearbox of the machine. The reduction gear unit must be connected to the PTO shaft of the tractor. The speed sticker on the machine indicates the required tractor speed (540 / 1000 rpm). The reduction gear unit consists of a switching gearbox with a 1:1 speed ratio and an extra speed reduction. This extra speed reduction lowers the power required. Always switch on the mixing auger to run the mixing process in low speed reduction mode when the PTO shaft is idle. If possible, switch the gearbox to its 1:1 speed ratio when dispensing silage. This Bowden cable is installed in the cab.

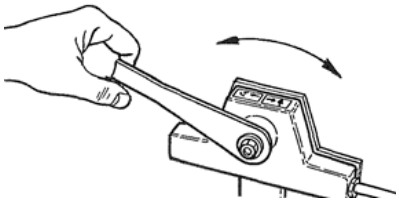


Fig. 1-21 Bowden cable operation

1.6.17 Electric control terminal (option)

The Biga line features an optional electric control terminal to enable the hydraulic functions to be operated. The various individual control functions of the Biga are explained in more detail in the following chapters. The control terminal can have a maximum of 12 functions (6 switches) to operate the machine. The switches have been provided with stickers indicating the functions of the individual switches. The hydraulic diagram of the Biga feed mixer has been incorporated into this manual. It is possible that not all functions apply to your machine. The terminal can have various function configurations. This depends on the configuration of your machine. The example shown here is the panel of the standard Biga.

Function 1 is the upper position of the switch. This position usually signifies the “up“, “open“ or “on” functions. Function 2 is the lower position of the switch. Its function is usually “down“, “closed“ or “off“.

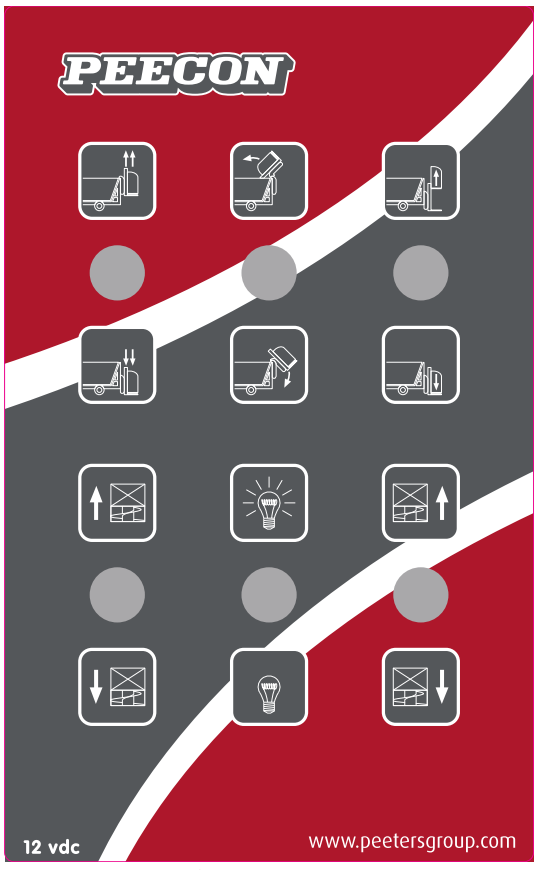


Fig. 1-22 Electric/hydraulic control panel

NOTE! If a failure occurs, always contact the dealer.

1.6.18 Meanings of symbols on the electric control terminal

Version	Icon 1	Function 1	Icon 2	Function 2
Rotating beacon		On		Off
Work lamp		On		Off
Counter knife		Extend		Retract
Unloading door		Open		Closed
Side unloading belt		Up		Down
Unloading belt		Left		Right
Support		Up		Down
Bucket		Up		Down
Multilift		Up		Down
Silage cutter		Up		Down
Multilift		Tipping position		Return

Tab. 1-17 Electric control symbols

1.7 Marking conventions

This chapter explains the marking conventions used in this operator's manual and their meanings to enable us to draw your attention to certain issues.

NOTE! Where "left", "right", "front" and "rear" are used in this text, they should be considered as when viewed from the tractor's driving direction.

Symbol	Meaning
 **DANGER**	WARNING AGAINST DANGER / FATAL HAZARD You may be seriously injured if you do not carry out the procedures carefully. Fatal hazard: there is a direct risk of your getting killed.
 **CAREFUL**	CAREFUL The machine may be damaged if you do not carry out the procedures carefully.
 **NOTE**	NOTE A remark with additional information; alerts you to possible problems.
 **TIP**	TIP Offers suggestions and advice to help you carry out certain work more easily or more handily.

Tab. 1-18 Marking conventions

If you encounter any further questions or problems that this operator's manual does not answer, please contact your dealer or Peeters Landbouwmachines B.V.

1.8 Main label of your machine

The Peecon brand name covers various types of agricultural machines. For reasons of clarity and transparency, Peeters Landbouwmachines has designed one model of machine identification plate. You can find the specific type of your machine on the machine identification plate on the right-hand side of your chassis.
The most recent machine identification plate with a table with the relevant information is shown below.

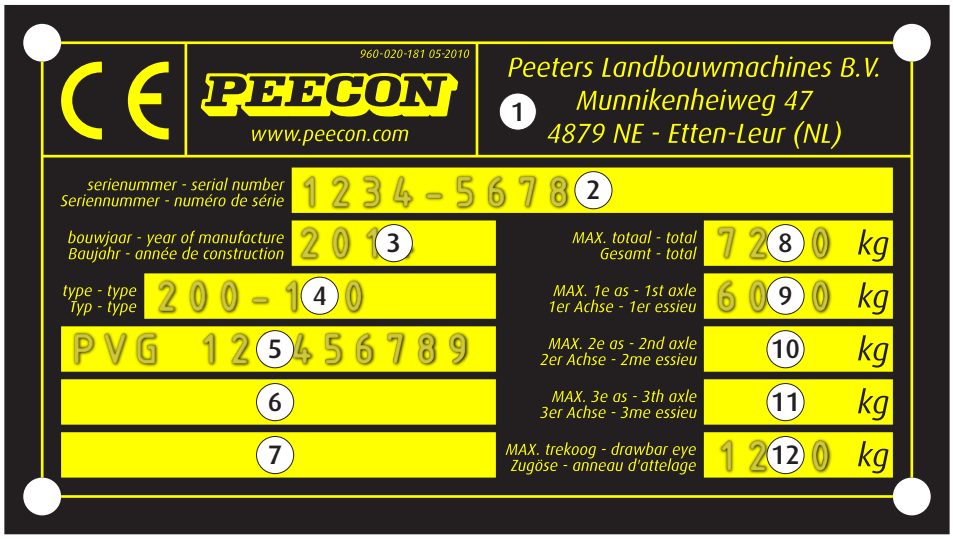


Fig. 1-23 Peecon machine identification plate

Item	Tyre type
1	Manufacturer's contact details
2	Series number (identification number)
3	Year of manufacture of the machine
4	Machine version
5	Reserved for extra details (e.g. homologation number)
6	Reserved for extra details
7	Reserved for extra details
8	The maximum total weight of the machine
9	The maximum axle load on the 1st axle
10	The maximum axle load on the 2nd axle (if present)
11	The maximum axle load on the 3rd axle (if present)
12	The statutory maximum load on the towing eye (may differ from country to country)

Tab. 1-19 Main label

1.9 Markings on hydraulic hoses

To provide optimum transparency, the hydraulic hoses to the tractor have colour markings. Every colour has its own function. You will find the different colours and functions in the table below.

Colour	Function
1x Green	Support
1x Black	Brake
1x White	Springs
2x Red	Pressure valve
2x Blue	Return
1x Green/ 1x White	Load sensing
2x Black	Leakage circuit
2x Green	Hinged door / optional

Tab. 1-20 Colour codes

1.10 Liability and guarantee

To rule out any misunderstandings, we ask you to please read the entire operator's manual with due care and attention. We have tried to guarantee the machine's functionality and your safety. For this reason, we would like to introduce you to a number of things that are not allowed within the lifecycle/warranty period. If you ignore these instructions and warnings, this will be at your own risk and it will invalidate any guarantee provisions and annul our liability.

- The intended usage stated in this operator's manual must not be deviated from in any way without the manufacturer's permission in writing or otherwise the product liability and warranty will no longer apply.
- Original Peecon accessories may be installed later, provided that this is done by the manufacturer or by the dealer in accordance with the manufacturer's assembly and inspection instructions.
- No changes to the machine as a result of your own initiative are allowed, or otherwise all product liability and responsibility on the part of the manufacturer will be terminated. Any damage or loss resulting from the above, including any third party damage or loss, can never qualify for compensation under the warranty.
- Before the product left the factory, great efforts were made to safeguard you against any and all defects in materials and workmanship. Should such defects still occur, Peeters Landbouwmachines B.V. will make all parts that display defects during normal use available for free for a period of twelve months upon delivery (except wear parts). This warranty will lapse if the usage and safety instructions stated in this operator's manual have not been complied with in full or at all.

2 Making your machine ready for use

2.1 General

When receiving the machine, check it carefully for any transport damage. If the machine is damaged, notify the carrier and the manufacturer of the product immediately.

2.2 Storing the machine

We recommend against storing the machine in cold or moist surroundings for long periods after receiving it and throughout its lifecycle. Make sure that all blank parts are greased and protected properly.

2.3 First time coupling of your feed mixer to your tractor

This section provides a step-by-step explanation of how to couple the Biga feed mixer to the tractor.

1. The tractor's towing hook should be positioned near the feed mixer's towing eye, leaving at least a 20-cm clearance. The feed mixer and the tractor must be made safe against unintentionally driving away by applying the hand brake or by placing wheel chocks.
2. If the support is operated manually, retract or extend the support by turning the handle so that the towing eye is positioned slightly higher than the towing hook of the towing vehicle. If the support is operated hydraulically (optional), the hydraulic coupling of the support must be connected to the hydraulic system of the tractor. Open the ball valve and use the tractor valve to retract or extend the support to position the towing eye slightly higher than the tractor's towing hook.
3. Reverse the tractor and fit the towing pin. Lock the towing pin after connecting it.
4. Fully retract the support. If the support is hydraulic, it retracted by opening the tractor valve in question to remove the oil. On a manual support, you will have to remove the locking pin, fully retract the support, and then replace the locking pin.
5. (option) Connect the 7-pole connector and check the lights.
6. Switch off the tractor's engine and remove the ignition key. Install the PTO shaft between the tractor and the feed mixer. The tractor side of the PTO shaft is indicated by a sticker on the guard. Check that the maximum speed (rpm) matches the speed (rpm) of the PTO shaft of the tractor. Install the PTO shaft with the shear pin coupling on the machine side. Check the length of the PTO shaft. The outer sleeve must have at least 15 cm space left, allowing it to slide. Shorten the PTO shaft if necessary and carefully deburr the sawn sleeve then. Remove any burrs or chips of metal and grease the sliding surfaces. Consult the manual supplied by the supplier of the PTO shaft for further instructions.

7. Connect the hydraulic system of the feed mixer to the hydraulic system of the tractor. Connect at least one free return hose (hose with a yellow cover) and one single-acting function (hose with a red cover).

NOTE! Make sure that the oil can flow back to your tractor unobstructed so as to prevent pressure building up and faulty hydraulic system operation.

8. If you have a feed mixer with an optional weighing system, plug the power supply lead of the weighing system into the tractor's power supply connection. See the enclosed manual for further details about the weighing system.
9. Carry out the daily maintenance according to the maintenance schedule in Chapter 5.1 before using the machine.

3 Safety instructions

NOTE! Please note that you should read this operator's manual carefully before starting to use the machine. If you encounter any problems, refer to this operator's manual. Make sure that the factory settings have not been changed and check that no parts have come loose during transportation before you start using the machine. Check that all warning signs and labels have been applied in the right places. You must always check the towing eye for defects before using the machine.

3.1 General

The driver or operator is always responsible for any damage or loss and/or accidents resulting from use other than the intended use of this machine or for the safety instructions not being observed. The feed mixer must only be used for mixing, transporting and dispensing livestock feed product. This means that any use for other purposes is not allowed. If the correct lights are not present, you are never allowed to use public roads.

TIP! If you use the public roads, always comply with the requirements of your national government's body for road traffic, including requirements on maximum axle loads, maximum vehicle dimensions, lights and brakes.

Prior to use, always:

- Carefully check the feed mixer.
- Check that all connecting elements have been installed properly.
- Make sure that the unloading doors have been closed tightly.
- If present, check the brakes and the lights.
- Check that the support has been folded away correctly.
- Make sure that no cargo can blow off or fall from the feed mixer.
- Check that the hand brake is not active and has been retracted completely.
- Check that there are no people within the feed mixer's working range.
- Never exceed the maximum load and driving speed.*
- Study the safety instructions.
- Check the wheel nuts.
- Check the tyre pressure.

*(The maximum allowed even load as indicated on the machine identification plate.)

DANGER! We would like to present some common situations where you should be extra mindful in order to ensure your safety and that of others in your vicinity.

- Due to the risk of exhaust fumes being inhaled, starting, working and test running must never take place in a closed room (art. 69 of the Dutch Decree on Agricultural Safety)
- Check around the machine (and the tractor) before driving off and before putting the machine into use!
- Pay attention to people, animals and particularly to children in the surrounding area.
- Make sure that you can see sufficiently well!
- Stay away from between the machine and the tractor unless the vehicle has been safeguarded against accidentally rolling away by means of a handbrake and/or wheel chocks having been applied!
- Stay outside the machine's work range and danger zone!
- Always stay outside your machine’s turning radius or clearance circle!
- It is strictly forbidden to be under or in the mixer without using a safety support (available from Peeters Landbouwmachines B.V.). The kniver on the auger are really sharp.
- Being on the machine while it is in operation or being transported is strictly forbidden!
- Check that the machine has been secured to the tow bar correctly. Specifically make sure that the towing pin has been locked, e.g. by means of a cotter pin. Carry out the same check for any extra towing point.

CAREFUL! Points where you have to act with extra caution and observe extra care for yourself and your machine are listed below.

- In addition to the specific instructions in this operator's manual, also observe the generally applicable safety and accident prevention instructions!
- Familiarise yourself with all systems and controls and their functions before working with them! If you have to do this while working, it will be too late.
- Always check the working and road safety of the machine and tractor before using them!
- Carefully read the manual for the power take-off shaft befoe working with it!
- Users must only wear tightly fitting clothes! Avoid loose clothing!
- Always match your driving speed to the circumstances of the environment and the terrain! Never take sudden turns when driving up or down hill and when driving perpendicularly across a slope!
- Machines that are carried or towed, as well as front weights, affect the driving behaviour, steerability and brake operation! You must therefore ensure sufficient steering and brake operation!
- When going through bends, take into account the increased width (turning circle) and/or the increased mass (inertia) of the machine!
- The machine must only be operated by one person!
- Make the machine safe before leaving the tractor! Switch off the motor/engine and remove the ignition key. In the event of electrical operation, always deactivate the switch functions and pull out the plug.
- When working with the power take-off shaft, there must not be anyone within the range of the turning power take-off shaft and clutch shaft!

Safety instructions

- Couple the machine in keeping with the instructions and make sure that the connection is secured properly!
- Be particularly carefully when coupling and uncoupling the machine or the tractor!
- Only work with machines if their protection is complete and intact and functions properly!
- Immediately repair any wear or damage to the paintwork before working with the machine again! If the machine is still covered by warranty, always contact your dealer or the manufacturer before making repairs.
- Every now and then, check the hydraulic hoses for damage. Damaged hoses must be replaced immediately by hoses of the prescribed quality (SAE 100 R2A according to DIN 20022/2). Never try to manually seal an oil leak on a running motor/engine. The oil might penetrate your skin and cause blood poisoning!

NOTE! Pay attention to these points when first installing the machine behind a tractor. This prevents hydraulic functions not working at all or working incorrectly.

- Check the direction of rotation and rpm chosen for the power take-off shaft before switching on the power take-off shaft. Change them if they do not match the required direction of rotation and rpm (see stickers)!
- Always switch off the power take-off shaft when it is not in use.
- Machines driven by means of a clutch shaft as well as the actual clutch shaft shall only be cleaned, lubricated or adjusted after the power take-off shaft has been switched off, the motor/engine has been switched off, and the ignition key has been removed!
- The driver must always be in the driver seat while driving and operating the machine!
- Observe the statutory regulations on transport using public roads. Also pay attention to the lights required and front, rear and side reflectors!
- Always check that the machine complies with the permissible transport dimensions.
- Switch off the power take-off shaft whenever it is not necessary, as otherwise the oil's viscosity might worsen unnecessarily.
- Carry out weekly checks to make sure that the knives and screws/bolts on the auger have not worn too much. A knife may end up in the feed, which may lead to a dangerous / animal unfriendly situation.

3.2 Danger zone

There must not be any people inside the vehicle's danger zone while a hook system is in operation. A particular area around the vehicle must be free from people: sides 5 m, front and rear 10 m.

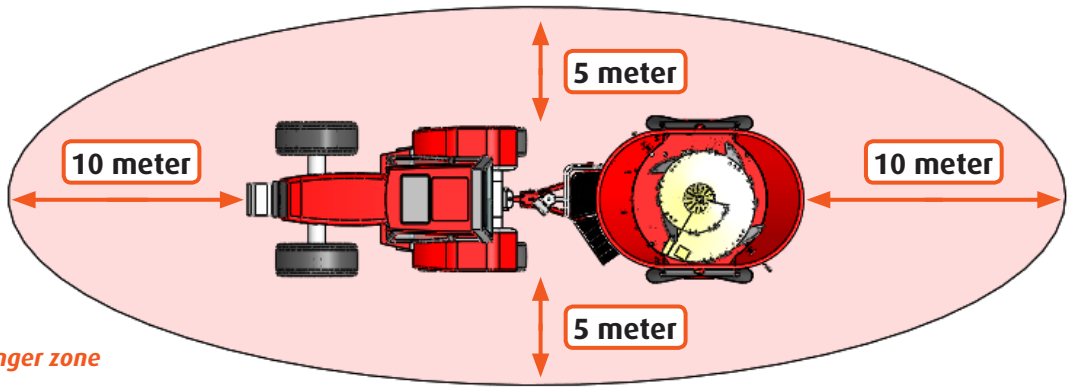


Fig. 3-1 Danger zone

DANGER! It is strictly forbidden for any people to be present while driving, loading or unloading the feed mixer

The machine operates within a sound pressure level zone of 70 dB(A). This means that hearing protection is not necessary when operating this machine. Of course, we will never advise against hearing protection, since there may be ambient noises that may affect your hearing. Make sure that you always carry hearing protection with you.

3.3 Coupling and uncoupling the machine

This section describes the safety instructions that are important while coupling and uncoupling the machine.

- Couple the machine to the tractor's tow bar according to the instructions referred to above.
- Only use suitable tractors to work with the machine and to transport the machine.
- Make sure that the following values are never exceeded:
  - Maximum permissible axle load
  - Maximum permissible tractor towing eye load.
  - Maximum permissible total tractor weight.
- Before uncoupling the machine, take precautions to prevent it rolling away.

DANGER! Make sure there is no one in the danger zone between the tractor and the machine when driving the tractor towards the machine!

- When coupling or uncoupling the machine, put the support in the relevant position (safety position).
- Be careful while coupling and uncoupling the machine to the tractor! There are highly dangerous areas (a danger of getting caught and crushed) between the tractor and the machine, near the coupling point.
- Check any connected feed hoses. Make sure that:
  - no hoses can chafe against the machine parts.
  - any movements required when going through bends can be made without any tensioning or buckling.
- The uncoupled machine must be secured so that it cannot roll away by making sure that there is sufficient pressure on the support while uncoupling.

3.4 Using the machine

- Familiarise yourself with the entire machine and all controls before starting to work with the machine! If you have to do this while working, it will be too late.
- Pay attention to the maximum permitted total weight of the machine, the maximum axle load of the tractor, and the maximum tow point load! If necessary, drive with a partially filled machine.
- Only use the machine if all the safety and protection facilities have been installed as instructed and are closed!
- Wear tightly fitting clothes! Loose clothing increases the risk of it being caught by, and wound around, a turning drive shaft or other shaft!
- The presence of people in the machine's operating and danger zones is strictly forbidden.
- There are also dangerous areas in locations where other forces act upon machine parts (e.g. hydraulic drives)!

- Such machine parts that are driven by other forces may only be operated if there is nobody within the machine's danger zone!
- Before leaving the tractor, safeguard it against it being started unexpectedly and/or rolling off!

3.5 Safety symbols

For extra safety, your hook system features some safety and warning stickers to remind you of any residual risks that may still occur when using the machine in spite of its safe design. Always read the operator's manual before commissioning the machine. Follow all the instructions in the operator's manual.

Check that all warning indicators are present. If they are not, do not work with the machine but contact the dealer and make sure that the warning indicators are replaced/renewed as necessary.

The stickers consist of an image depicting the danger (with a triangle) and an image indicating how to prevent the danger.

TIP! To enable all (new) users to work safely, the stickers must always be clean and clearly legible; always replace any stickers that are damaged. You can obtain new stickers from your dealer/manufacturer.

3.5.1 Explanation of the safety symbols used

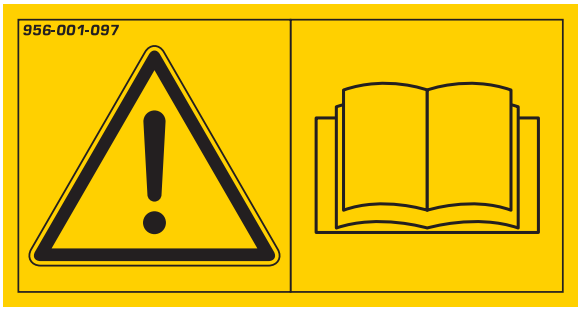


Fig. 3-2 Note!

Read the operator's manual and the safety instructions before commissioning the machine and heed them at all times.

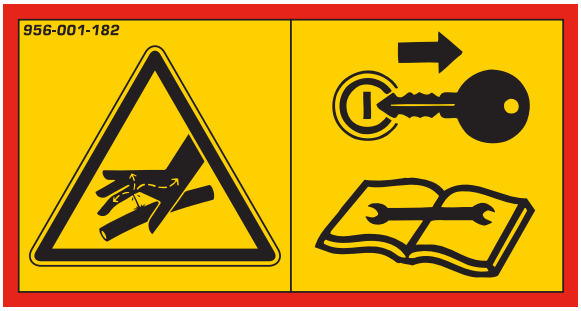


Fig. 3-3 WARNING!

Faulty hoses can cause physical injury and environmental pollution. Only work on the system if it has been depressurised.

Safety instructions

Fig. 3-4 Note!

Torque 310 Nm. Tighten the wheel nuts and check the tyre pressure after the first machine hour and then every 25 machine hours.

Fig. 3-8 DANGER!

Being on or under the machine while it is in operation or driving is strictly forbidden! Never allow anyone to be behind the feed mixer while loading the machine.

Fig. 3-6 DANGER!

Climbing the platform is forbidden. Do not allow anyone onto the platform to manually load the machine (danger of people falling into the machine).

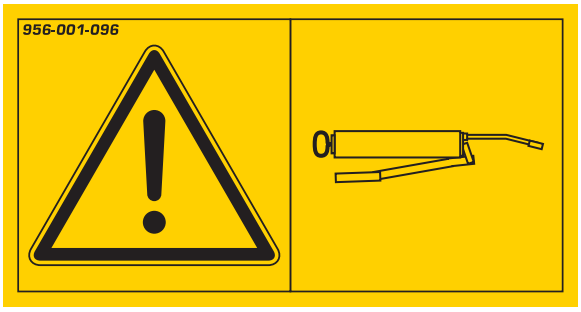


Fig. 3-5 Note!

Regularly check the lubrication points; this will prevent wear and high costs. Use the grease or lubricant specified. When in doubt, you can always contact your dealer.

Fig. 3-7 NOTE!

Compacting the load in the mixing compartment is not recommended, as this may cause damage or defects to the tractor or the machine.

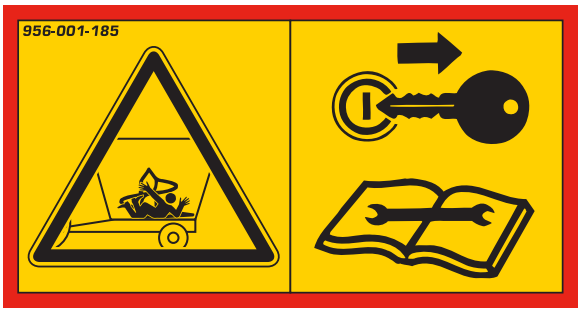


Fig. 3-9 DANGER!

Keep a safe distance from moving parts. Always switch off the machine when carrying out maintenance and remove the ignition key.

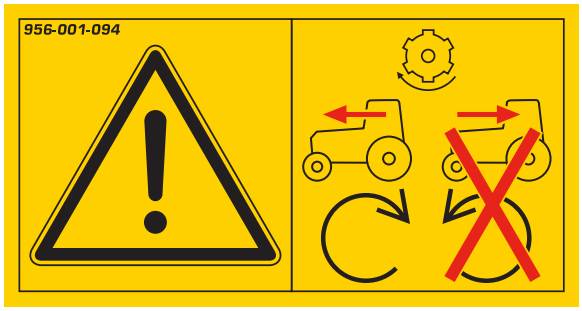


Fig. 3-10 NOTE!

Only driving forwards is allowed if the PTO shaft is turning. Reversing is only allowed if the PTO shaft is stationary. Provided that you do not use a PTO shaft that can reverse directions. (Note the direction of rotation)

Fig. 3-13 DANGER!

Touching rotating shafts and wearing loose clothes leads to a risk of getting trapped or of being pulled along by the shaft.

Fig. 3-14 DANGER!

Never stay on or in the direct vicinity of the loading scoop of the feed mixer. You might fall or get trapped, which may result in serious injury.

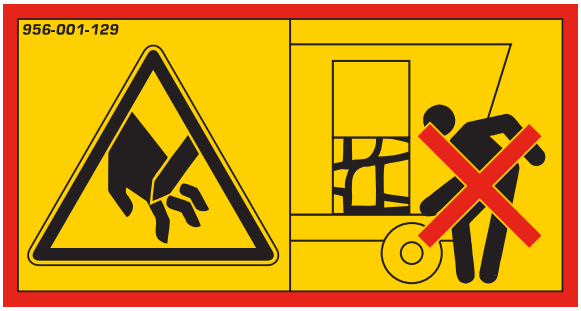


Fig. 3-12 DANGER!

Crushing hazard near the mixing compartment. Never come near the dispensing opening. While working in or near the feed mixer, always remove the ignition key and uncouple the PTO shaft.

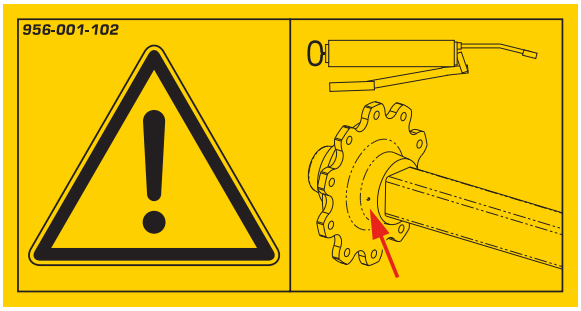


Fig. 3-11 NOTE!

In your feed mixer has any shafts, there may be a lubrication point on the hub of the shaft.

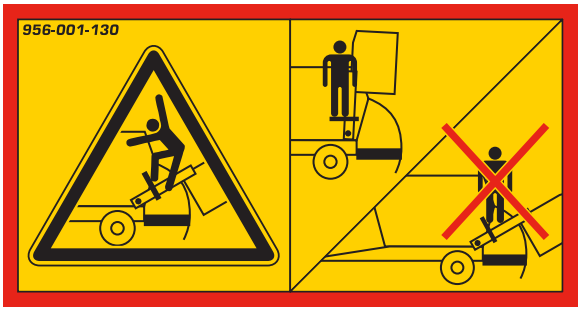


Fig. 3-15 DANGER!

Only use the step if the loading scoop is fully closed and the feed mixer is standing still.

Safety instructions

Fig. 3-21 DANGER!

Keep a safe distance from the moving loading scoop. Parts of your body may get crushed.

Fig. 3-16 NOTE!

This is a hoisting point. Use only these points to hoist/lift the machine.

Fig. 3-20 NOTE!

This is not a hoisting point. Do not attach any cables, chains and / or other hoisting gear here. This will damage the machine.

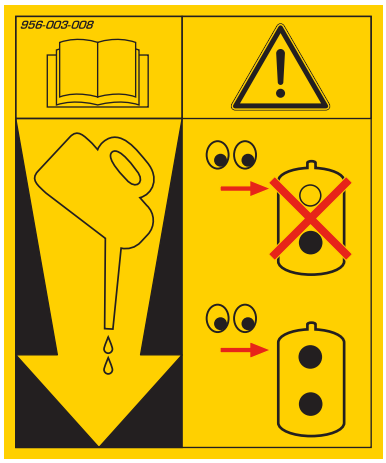


Fig. 3-17 NOTE!

Make sure that the oil level in the planetary reduction gearbox is visible in the upper sight glass. (Only applies to models with a steel oil reservoir.)

Fig. 3-19 NOTE!

Make sure that the oil level in the planetary reduction gearbox is above the minimum mark and below the maximum mark. (Only applies to models with a transparent plastic oil reservoir.)

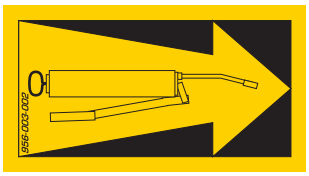


Fig. 3-18 NOTE!

There are one or more lubrication points here. Lubricate them as indicated in the maintenance schedule.

Fig. 3-22 NOTE!

The position of the loading scoop can be read out on the tow bar from the tractor, using the indicator rod and the above sticker. Position "0" indicates that the scoop has been lowered completely. Multiplying this value by 6 gives the scoop position in degrees. I.e. position 15 means that the scoop is at 90 degrees: closed.

Fig. 3-23 NOTE!

The position of the (front) unloading door(s) can be read out from the side of the tub via the indicator and the above sticker. Position 0 means that the door is closed, position 9 means that the door has been opened to its maximum extent.

Fig. 3-24 NOTE!

The position of the rear unloading door(s) can be read out on the front of the tub by means of the indicator and the above sticker. Position 0 means that the door is closed, position 9 means that the door has been opened to its maximum extent.

Safety instructions

3.5.2 Safety symbols on de machine

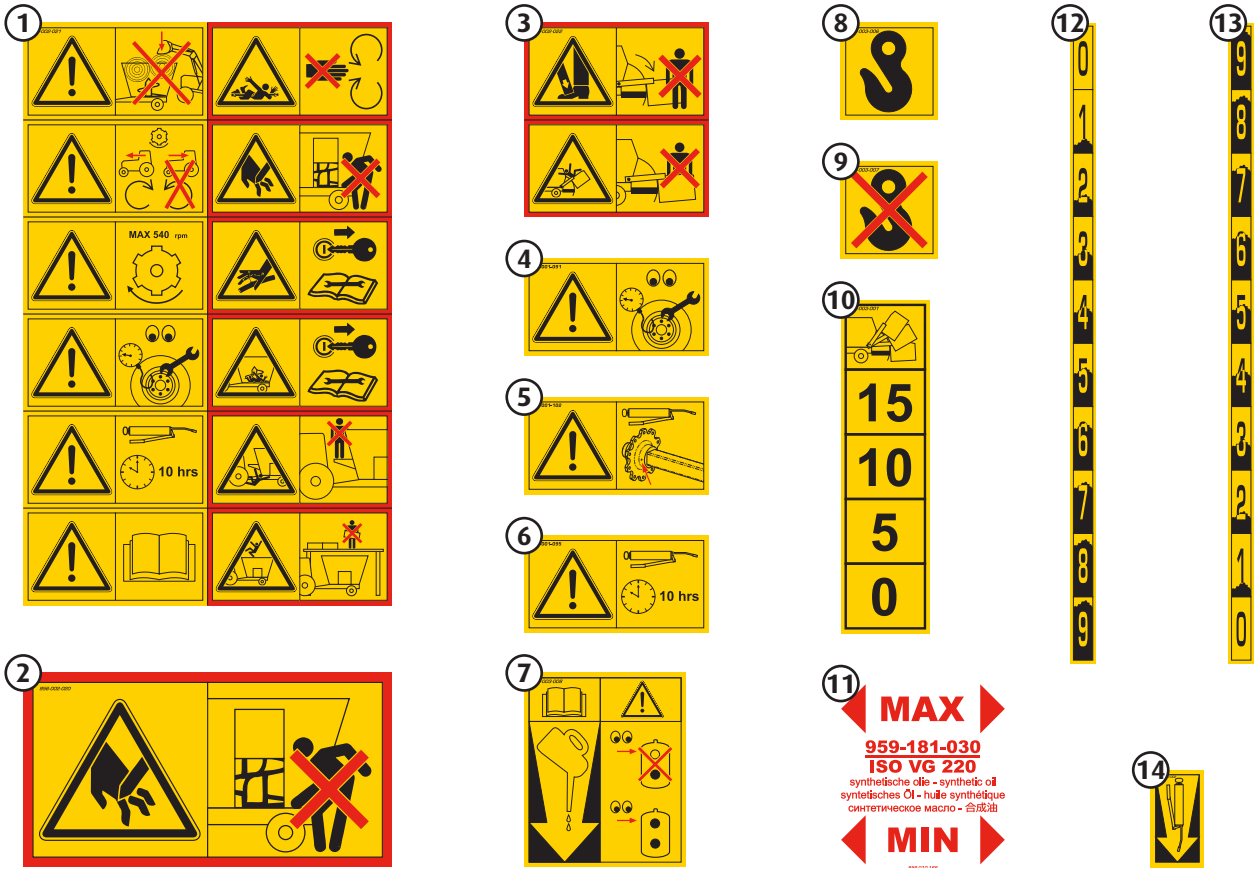


Fig. 3-25 Positions of the safety symbols

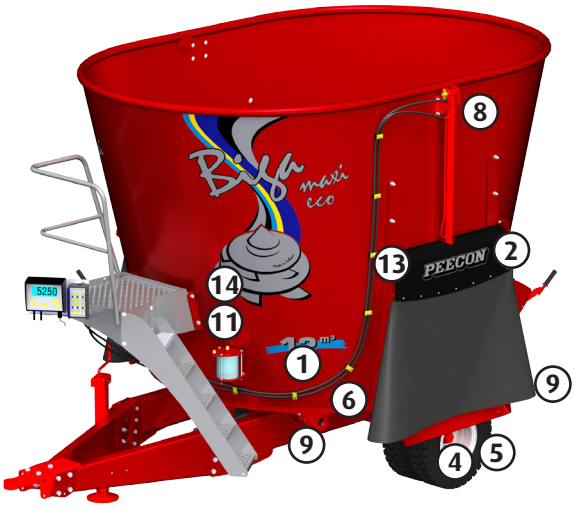


Fig. 3-26 safety symbols on the Biga Eco series

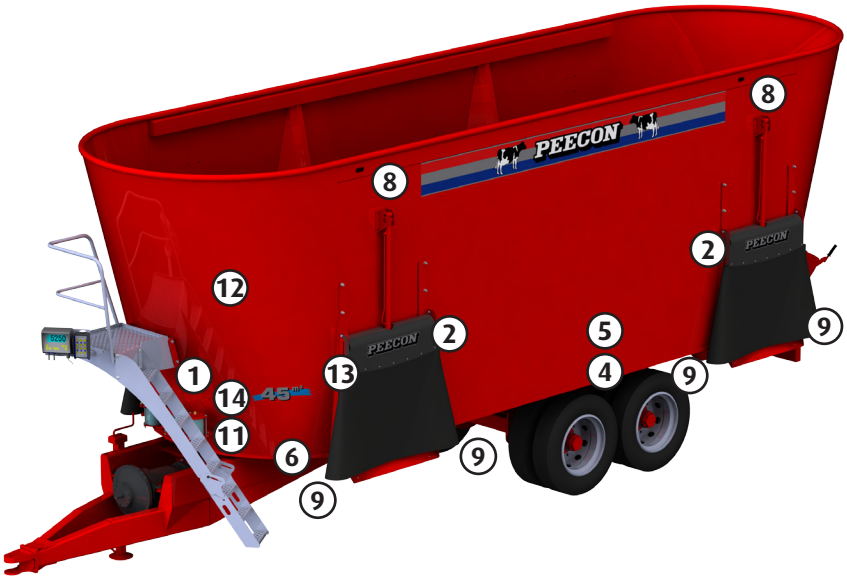


Fig. 3-27 Safety Symbols on the Biga Twin Eco and Mammoet series

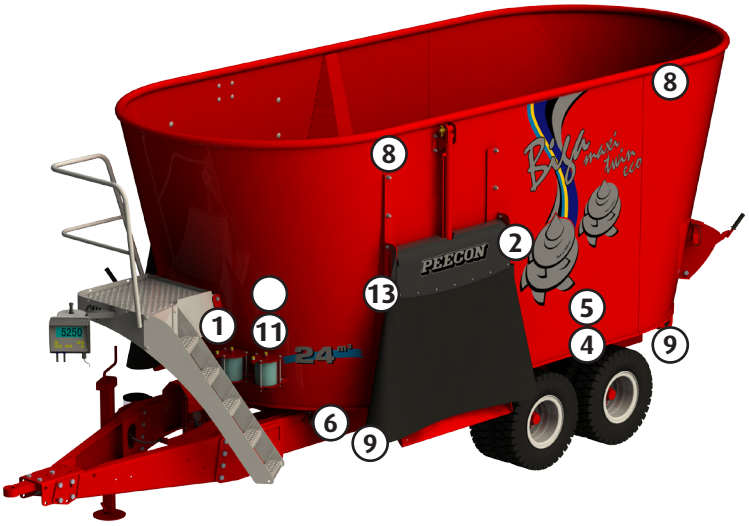


Fig. 3-28 Safety Symbols on the Biga Twin Eco series

NOTE! Paragraph 5.11 gives an overview with the positions of all the lubrication spots. These spots al marked with the symbol "14".

Safety instructions

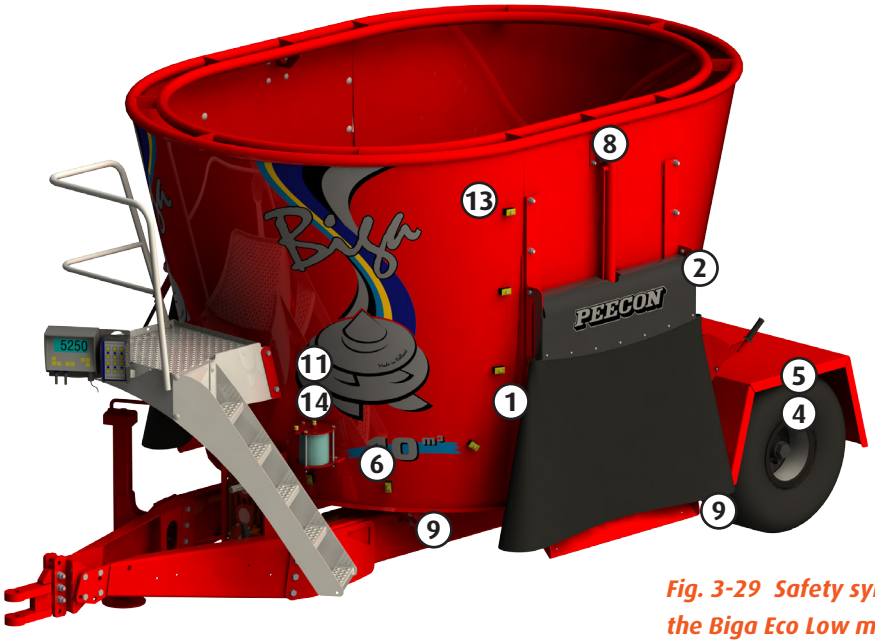


Fig. 3-29 Safety symbols on the Biga Eco Low models

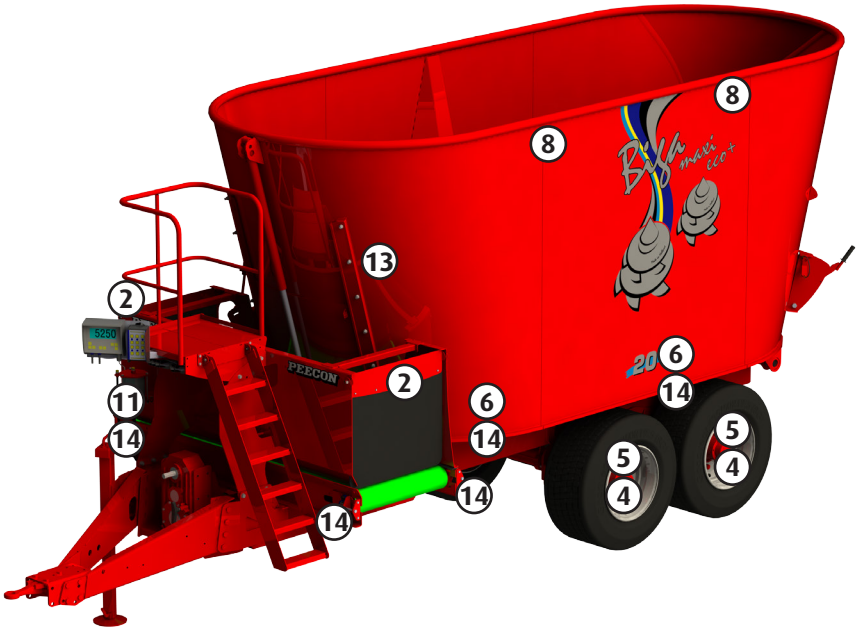


Fig. 3-30 Safety symbols on the Biga Eco+ models

3.6 Brake system

The brake system of the tractor must match the brake system of the machine. If the machine does not work properly, stop the towing vehicle immediately and have the fault repaired. Any repairs and adjustments to the brake system must only be carried out by experts and specialists in this field. Have the system checked regularly to prevent unexpected downtime. Grease all the grease nipples every 200 machine hours or once a year; this will extend your machine's service life.

If you have to carry out any work, such as grinding, welding and/or drilling, in the direct vicinity of the brake system, then make sure that these vital parts have been screened off properly and cannot be damaged.

If you have a hand-braked axle, test it by pulling the brake lever. This should lock the wheels. This system should also be lubricated every 200 machine hours or once a year.

3.7 Extreme situations

This section lists some extreme situations. Should you ever find yourself in such a situation, then please remember that the system may start to misfunction.

The recommended operating/ambient temperature is between -30°C and +40°C. Using the system at lower temperatures will lead to accelerated wear to hydraulic gaskets and it will increase the risk of hydraulic hoses being damaged and brittle fractures in the steel structure. If you work at temperatures lower than the recommended temperature, the maximum load that can be lifted is lower than what is normally allowed.

Before starting to work at a low temperature, have the oil circulate through the system for some minutes. Slowly repeat all actions several times so that the gaskets will become flexible before being exposed to full pressure.

If working in extremely high temperatures, remember that the hydraulic oil will heat up extremely. If the oil temperature exceeds +80°C, the oil will evaporate and the gaskets will be damaged

4 Function description

4.1 Coupling the machine

Before driving the tractor/machine combination study the safety instructions and warnings. Make sure there are no people in the direct vicinity of the vehicle while operating the tractor or feed mixer. (See the danger zone section 3.2)

DANGER! If you hear any unusual noises, especially loud noises, this might be a sign of unsafe usage. Immediately stop your work and find and remedy the problem.

1. Prevent the machine from rolling away. Apply wheel chocks or engage the hand brake.
2. When coupling the machine, check it for any visible defects.
3. Couple the tow bar.
4. Make the hydraulic connections.
5. Connect the brake hoses. (optional)
6. Connect the PTO shaft.
7. Plug the control panel cable into the holder on the tractor. (optional)
8. Connect the electrical power supply leads / lighting cable. (optional)
9. Place the support in transport position. Refer to chapter 1.6.6 for this.
10. Release the feed mixer hand brake. (optional)

You are now ready to drive off with the feed mixer.

4.2 Loading the machine

Heed the following warnings before loading. (Note the danger zone, section 3.2) Section 4.6 describes the recommended loading sequence. Refer to this sequence for the most effective and efficient procedure.

DANGER! There must not be any people in the direct vicinity of the vehicle while loading the machine (danger zone).

1. Place the machine by the product to be loaded. If you wish to have the feed mixer mix while loading, place the tractor in front of the feed mixer, in a straight line.
2. Make sure that the machine has been set up fully horizontally.
3. Check that the unloading slide valve has been closed.
4. (Optional) Switch on the weighing system, set it to the right feed program if required.
5. Switch on PTO shaft at a low speed without throttling down the motor speed while loading.
6. Then load the machine from the side, centrally in the centre. Prevent overloading the auger: do not load too much produce in the feed mixer as a single batch.
7. Introduce the loading bucket or the fork into the tub as far as possible in order to minimise the dropping distance of the product. This prevents the knives and the auger from being damaged. Make sure not to touch the auger with the loading bucket or the fork.
8. Mix the feed as described in section 4.3.

TIP! If you wish to use the feed mixer to process round or square bales, you should split them up instead of loading complete bales. This reduces the mixing time and prevents the auger from being overloaded.

TIP! Before mixing round bales, you should start at a low speed and increase this as the bale is cut up.

TIP! The machine can be fitted with special hay augers to prevent "boiling over" when mixing round bales and hay. The machine can also be fitted with a special ring to prevent "boiling over".

4.3 Mixing the feed.

This section provides an indication of the mixing cycle that can generally be followed. This will vary for the different configurations; set the time and cutting speed based on your own experience.

1. To achieve an optimally homogeneous mixture, leave the machine to mix and cut for another 5 to 8 minutes (depending on the product loaded) while the tub is full. Machines with a wide-angle PTO shaft (optional) also allow for mixing during transportation.
2. The cutting intensity of the knives can be adjusted by repositioning the two counter knives at the front and rear of the machine.
3. The speed of the mixing auger can be controlled by adjusting the speed of the tractor or the reduction gear unit.

DANGER! A shear pin protects the augers against overloading. The shear pin is located at the bottom of the feed mixer, where the PTO shaft is mounted to the support bearing. Only use original shear pins!

4.4 Unloading feed

1. Switch on the PTO shaft; this will cause the mixing auger to turn.
2. (optional) If a conveyor belt is applied: Engage the conveyor belt. If there is an front or rear unloading belt, choose first the unloading side.
3. Open the unloading slide valve; you can determine the amount of feed to be dispensed by adjusting the opening distance of this slide valve. The “cow / arrow” indicator indicates how far the unloading slide valve has opened.
4. When the tub is nearly empty, you can remove the last remnants of feed from the auger by increasing the PTO shaft (auger) speed.
5. Lower the tractor engine and auger speeds.
6. (option) If a conveyor belt is used: Switch off the conveyor belt.
7. Switch off the PTO shaft.
8. Close the unloading slide valve.

DANGER! Abruptly stopping the auger at a high speed may damage your reduction gearbox(es). Always lower this speed before switching off the PTO shaft.

4.5 Parking the feed mixer

When driving the machine on public roads, it must have a hydraulic service brake if its empty weight is more 3,500 kg (this can differ when loaded and from country to country). The tractor and the machine must then be fitted with hydraulic brakes. In this case, connect the hydraulic brake clutch to the tractor's hydraulic brake system. When parking the machine, apply the hand brake by turning the hand brake spindle. Do not forget to release the hand brake when coupling the machine to the tractor and check that the brake system and the lights work before going out onto public roads.

4.6 Recommended loading sequence

A guideline for the loading sequence for different components is provided below. However, this is just a general guideline. Another sequence may be preferred for specific products in real-life situations.

1. Always load the longer / lighter structured products (hay) first. Try to load these products into the mixing compartment in a controlled manner, so as to prevent overloading the compartment. First rip round or square bales apart. “If possible” Always load bales between two augers to prevent the bales from rotating along on the auger. When loading several bales, always let the machine process the first bale before adding the next one. You can switch on the counter knives to improve the cutting action. This will not be necessary if you mainly feed maize or grass silage; in that case the counter knives had better not be used, since the use of activated counter knives requires extra power from your tractor.
2. Then load concentrated feed, feed pellets etc.
3. Add any minerals.
4. Load grass silage
5. Load maize and/or cereal silage
6. Load products with high moisture content (brewers' grain, beets, orange peels, etc.)
7. Load any liquid components (molasses, etc)

5 Maintenance and inspection

5.1 General

The best way to make sure that the hook arm system will continue to work proper and to minimise repair is by using it correctly and carefully. The required precautions to prevent accidents must be taken during all maintenance activities. The safety instructions must be complied with and any repairs may only be carried out by trained technicians.

NOTE! The engine/motor of the vehicle must be off during maintenance work and the ignition key must have been removed and taken away by the trained technician. The PTO must be off.

This operator's manual concerns the use of the machine in the state in which it was marketed, excluding any components added and/or modifications implemented by the end user at a later date. Any conversion of the installation not implemented by Peeters Landbouwmachines B.V. or the relevant dealer is not allowed.

If studying the machine reveals that damage will have to be repaired or that a preventative repair will be necessary, the component to be repaired must be replaced by an original component as detailed in the parts list. Any failure to respect this provision will remove any liability as regards such structural change.

While carrying out maintenance, the tipped frame must be made safe by placing a support under the rear tipping frame.

5.2 General inspection

Proper maintenance extends the service life of the hook system. Any defects can then be found at an early stage, so as to prevent any further or consequential damage or loss. Peeters Landbouwmachines B.V. does not accept any responsibility for direct or consequential damage or loss resulting from poor maintenance. Heed the following warnings before carrying out the necessary maintenance activities.

- Only carry out maintenance if the system has been placed in a straight and stable position and the tractor has been uncoupled.
- Never seal any holes or leaks in hydraulic hoses or pipes with your bare/covered fingers and/or hands. Replace the entire circuit.
- If you carry out repairs on a raised installation, always install a support under the tipping frame. (see chapter 5.1)
- Always wear safe clothing and shoes and work in an uncluttered and clean work environment.
- Only use water to clean the machine; do not use any aggressive cleaners.

5.3 Daily inspection

Before starting to work with the hook system, you must always do the following checks:

- Check the entire construction for visible tears and cracks and any deformation.
- Check that the unloading doors work properly.
- Check the operation/controls in combination with the hydraulic valve block for defects.
- Check the hydraulic hoses and circuits for leaks, damage and that they are not obstructed.
- Check the hydraulic cylinders for leaks.
- Check the rubber flaps at the unloading door for any cracks or fissures.
- Check that sufficient oil is available for the hydraulic system.
- (optional) Check that the discharge belt works properly.
- Check that the bolted connections on the auger are still intact and have not worn excessively.

NOTE! Never top up the oil in the oil tank if not all the cylinders have been extended. Changes in its level might otherwise cause the tank to flow over!

If any of the above items is found to not be okay, then contact the dealer or manufacturer before taking action!

5.4 Weekly maintenance items

Do not forget to also carry out the daily inspection in combination with these items!

- Lubricate all lubrication points.
- If present: Drain all liquid from the air brake system through the air tank.
- If present: clean the discharge belt thoroughly to prevent moulds and corrosion.

Maintenance and inspection

5.5 Monthly maintenance items

Do not forget to also carry out the weekly inspection in combination with these items!

- Clear the hydraulic valve block of any serious contamination, such as sand.
- If present: Check and clean the oil filter if it is visibly contaminated.
- Make sure that the oil tank's de-aeration valve is free from dirt; clean it if necessary.

5.6 Annual maintenance items

(or after 2,000 container changing cycles, whatever is reached the first)

- Replace the oil filter.
- Replace the oil if necessary.
- If present: Adjust the brakes if necessary.

5.7 After commissioning

- Do not clean the installation using a steam or pressure cleaner for the first six weeks after commissioning the installation, since the paint may still have not hardened to its full strength.
- When cleaning the machine, always make sure not to apply the jets of steam or pressure cleaners to the lubrication points, cylinder seals and steering/control valves at any time during the machine's lifetime. Apply new grease to all lubrication points after cleaning.
- All bolts, nuts and connections must be checked and, if necessary, tightened after about 8 machine hours.

5.8 Decommissioning for more than 1 month

- Thoroughly clean and dry the machine.
- Check all moving parts and the protection of the machine. Replace/Repair them if necessary.
- Check that all bolts and nuts have been tightened correctly.
- When not in use, the machine should preferably be parked in a covered, locked location.

5.9 Torques

A summary of the torques of the various bolts on the feed mixer is provided below.

Nominal dimensions	Spanner width (mm)	Torque (Nm)
M8	13	27
M10	17	57
M12	19	101
M14	22	148
M16	24	230
M18	27	348
M20	30	464
M22	32	634
M24	36	798
M27	41	1176
M30	46	1597
M18x1.5 (wheel nut)	*27*	*270*
M20x1.5 (wheel nut)	*30*	*350*
M22x1.5 (wheel nut)	*32*	*450*

Tab. 5-1 Torques for 8.8 bolts

5.10 Maintenance of the optional brake system

The machines in this line can optionally be fitted with a hydraulic brake system. Brakes with a compressed air system are also optionally available for all machine versions.

Check the brakes at regular intervals and test the brakes at least once a week while the machine is in operation. Make sure that no lubricant penetrates into the brakes as this might make the brakes become greasy, reducing the friction between the surfaces of the brake discs, brake pads and brake drum. This will negatively affect the brakes. If this does happen, disassemble the brake system and clean it using the designated detergents.

If the brakes do not work smoothly, then step on the brake and tow the machine at low speed for a couple of hundred metres. Then try to use the brakes again when the vehicle is running at its normal speed. Always contact the dealer or the manufacturer in this respect.

5.11 Lubricants.

Recommended grease: Kratos EP3

Recommended oil for hydraulic functions: Textran TDH Premium

Recommended oil for the reduction gearbox(es): Synthetic oil EP220

5.12 Renewing gearbox oil

Removing the mineral oil and replacing it by synthetic oil is no problem. First let the mineral oil drip out of the gearbox as much as possible. If any mineral oil is left behind, it will not start frothing when combined with the synthetic oil. Flushing the system is not necessary for these actions.

It is important that you let all the oil drip out of the drive gearboxes when renewing the oil. This is particularly important if mineral oil was used in the past.

The auger drive gearboxes must be filled completely! Make sure no pockets of air stay behind at the top of the gearbox. You can ensure this by connecting a vacuum pump to the bleed tube on top of the gearbox. As soon as oil comes out through this tube and the oil level in the oil cup(s) no longer drops, you know that the gearbox has been filled completely.

5.13 Topping up oil in the lubrication system

Check the oil level at all times. Make sure that the oil level in the planetary reduction gearbox is above the minimum mark and below the maximum mark. You can top it up by unscrewing the air vent cap in the centre of the oil cup lid and pouring in the right oil. Note: every auger has one oil cup. Make sure to keep all cups within the margins indicated.

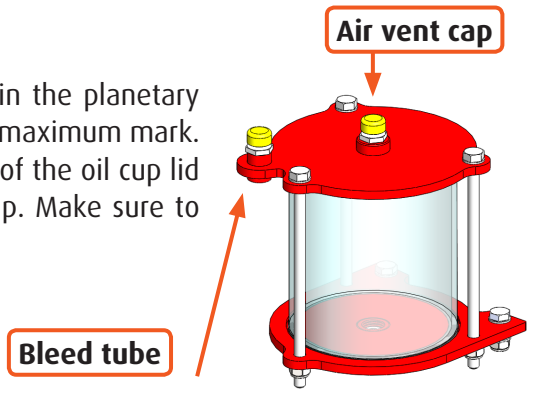


Fig. 5-1 Lubricator

5.14 Lubrication points

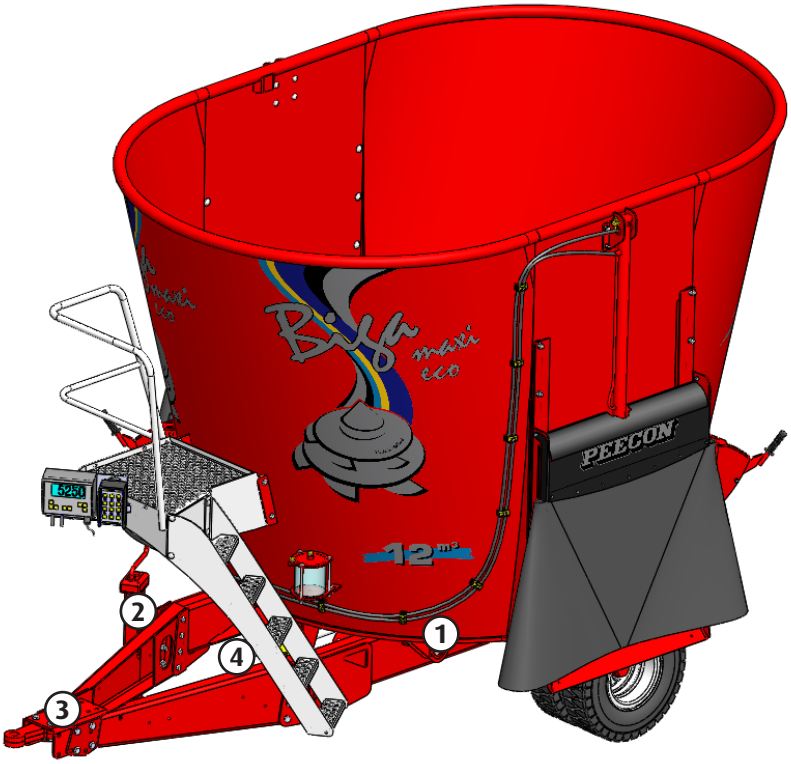


Fig. 5-2 Grease nipple locations on Biga Eco models

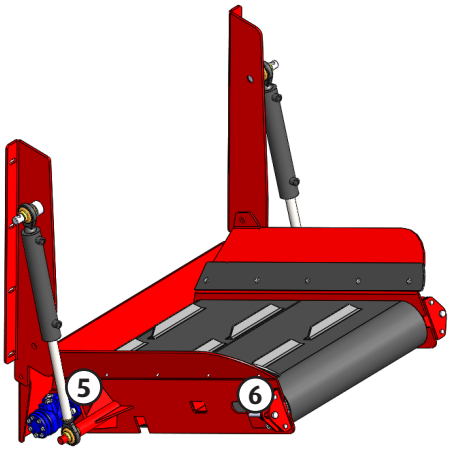


Fig. 5-3 Grease nipple locations for the optional side unloading belt

Item	Grease nipples	Number of nipples
1	Nipple block (four-fold)	1 per auger
1.1	Top bearing	1 per auger
1.2	Star bearing	1 per auger
1.3	Top side bearing for auger	1 per auger
1.4	Bottom side bearing for auger	1 per auger
2	Support	2
3	PTO shaft (connection)	1
4	PTO shaft (link)	1
5	Drive roller	2
6	Tensioning roller	2

Tab. 5-2 Grease nipple locations

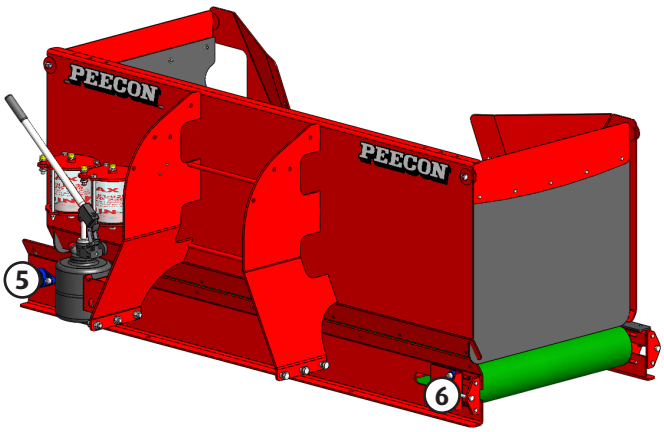


Fig. 5-4 Grease nipple locations for the front/ rear unloading belt

6 Glossary

Towing vehicle	The vehicle that moves the feed mixer to another position. This will usually be a tractor.
Clutch shaft	The drive shaft or power take-off shaft, also referred to as PTO. This connects the drive of the towing vehicle to the gearbox of the trailer.
Machine hours	A machine hour is equal to a regular hour, i.e. 60 minutes. The machine hour is the active time of the machine; this designates effective hours of use.
Oil flow rate	This value is usually expressed as l/min. This value indicates the oil volume per time unit.
Synthetic oil	Synthetic oils offer improved performance since they have been produced through a higher cost chemical process than the process used when producing mineral oil.
Mineral oil	Mineral base oils are derived from crude oil that has been refined in a refinery where the fractions with useful lubrication qualities have been separated and any unwanted ingredients, such as wax, have been removed.
Control slide valve	A control slide valve is a slide valve that determines or changes the flow direction of the oil. A control slide valve always has a neutral position when it is inactive.
Shear pin	A shear pin is a safety facility that has been designed to break under a mechanical overload, e.g. to prevent costly parts from being damaged. This means that the shear pin is sacrificed; it can be seen as the mechanical equivalent of an electric fuse.

Tab. 6-1 Glossary

7 Troubleshooting list

Faults and problems may still occur, even if proper maintenance is carried out at regular intervals. You will find the possible faults divided into two categories (mechanical/ hydraulic or electrical) plus a short description below to help you troubleshoot any faults yourself.

7.1 Mechanical/ hydraulic fault

Fault	Cause	Possible solution
No hydraulic function available	• The hydraulic hoses have not been connected properly. • The oil supply is blocked. • The tractor's oil reservoir is empty. • Oil pressure on the tractor too low.	• Connect the hoses correctly. • Check the circuit. • Top up the reservoir. • Contact your dealer.
Irregular discharge	• The door opening is too large;	• reduce the door opening to achieve an optimum, even discharge.
The machine does not mix properly	• Adjust the PTO shaft speed. • If necessary, change the loading sequence in order to optimise the mixing process.	• Lower your speed by throttling down. • Check the loading sequence. (see SS4.6).
The side unloading belt does not work.	• The oil supply is blocked. • The tractor's oil reservoir is empty. • Oil pressure on the tractor too low. • The control slide valve is blocked.	• Check the circuit. • Top up the reservoir. • Contact your dealer. • Check through manual operation.
The shear pin breaks	• The feed mixer is overloaded • The auger is blocked • The PTO shaft was switched off too abruptly.	• Check why the auger creates too much resistance. • Switch on your PTO shaft carefully.
The feed is cut too finely.	• The mixing/cutting time is too long • The counter knife has been adjusted too harshly	• Shorten the mixing/cutting time. • Adjust the counter knife to a less harsh position.
One of the functions is not available	• The control slide valve is stuck. • The oil supply is blocked.	• Check through manual operation. • Check the circuit.

Tab. 7-1 Mechanical / hydraulic faults list

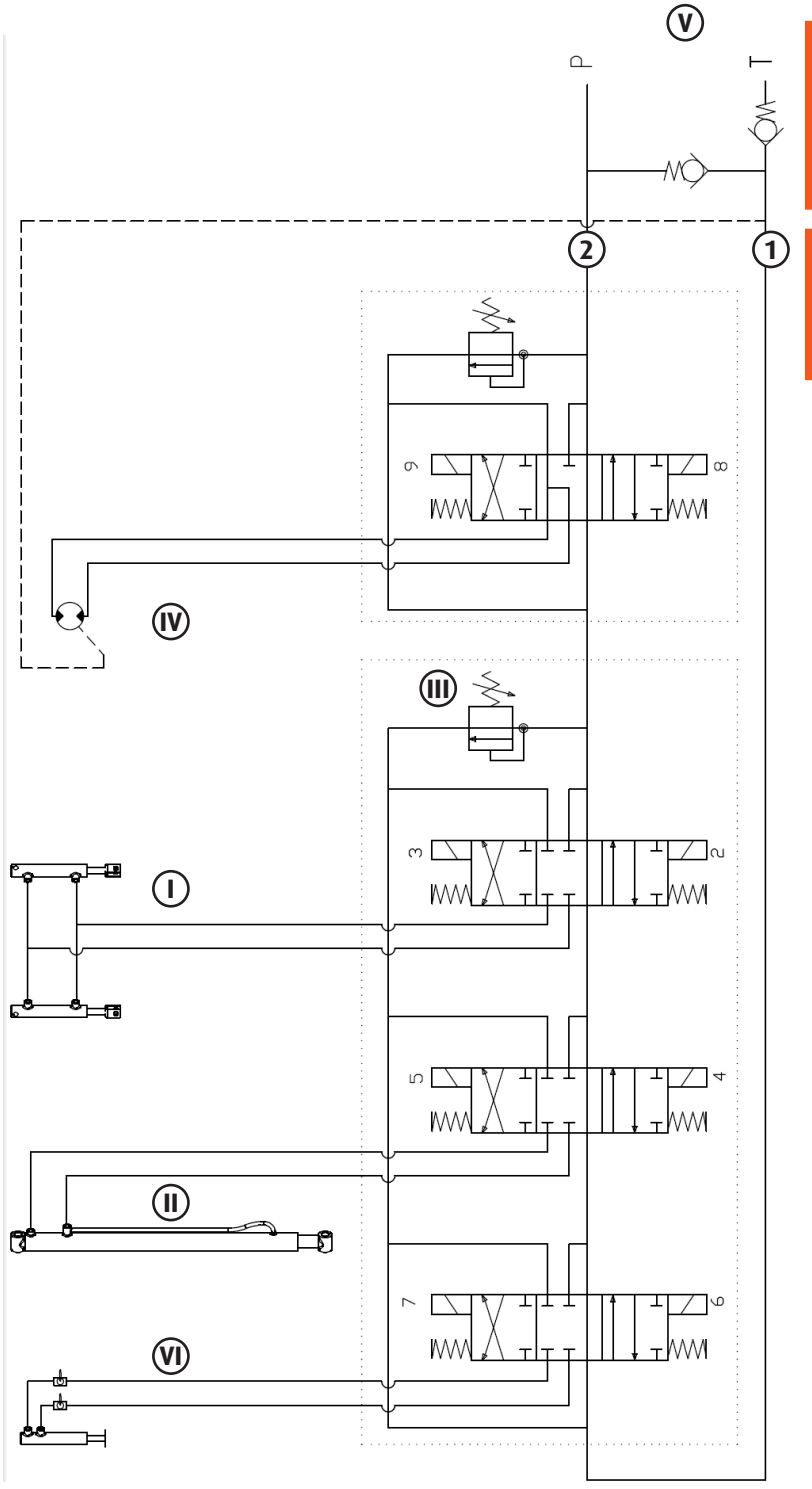
7.2 Electrical fault

Fault	Cause	Possible solution
No function available	• No voltage on the operation controls. • Broken signal cable. • Switch broken. • A fuse has broken.	• Check the voltage. • Get someone to test the cables. • Replace the switch. • Replace the fuse.
Hydraulic valve fails to respond	• No voltage on the operation controls. • Broken signal cable. • Electrical valve is broken. • Switch broken.	• Check the voltage. • Get someone to test the cables. • Have the valve replaced. • Replace the switch.

Tab. 7-2 Electrical faults list

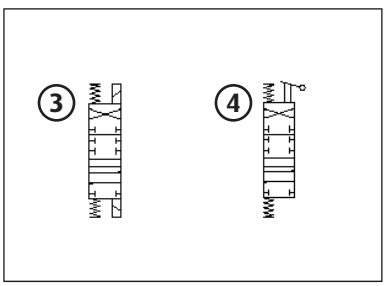
8 System diagrams

8.1 Hydraulic system standard



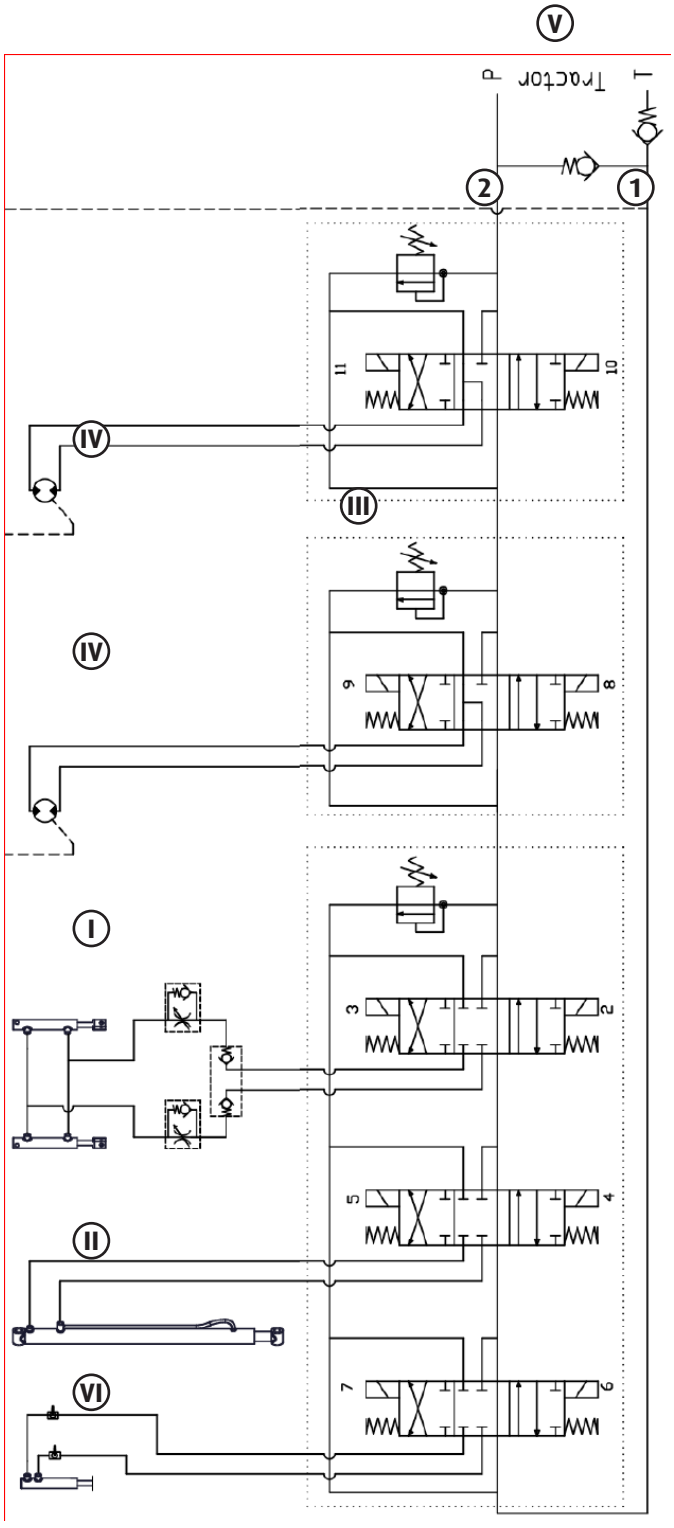
I. Counter knives (optional)
II. Unloading door
III. Pressure relief facility
IV. Hydraulic motor
V. Tractor

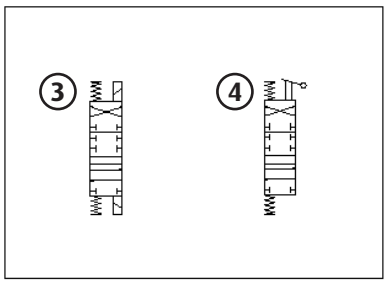
1. Pressure-free return circuit
2. Tractor pressure circuit
3. Electrically operated
4. Manually operated



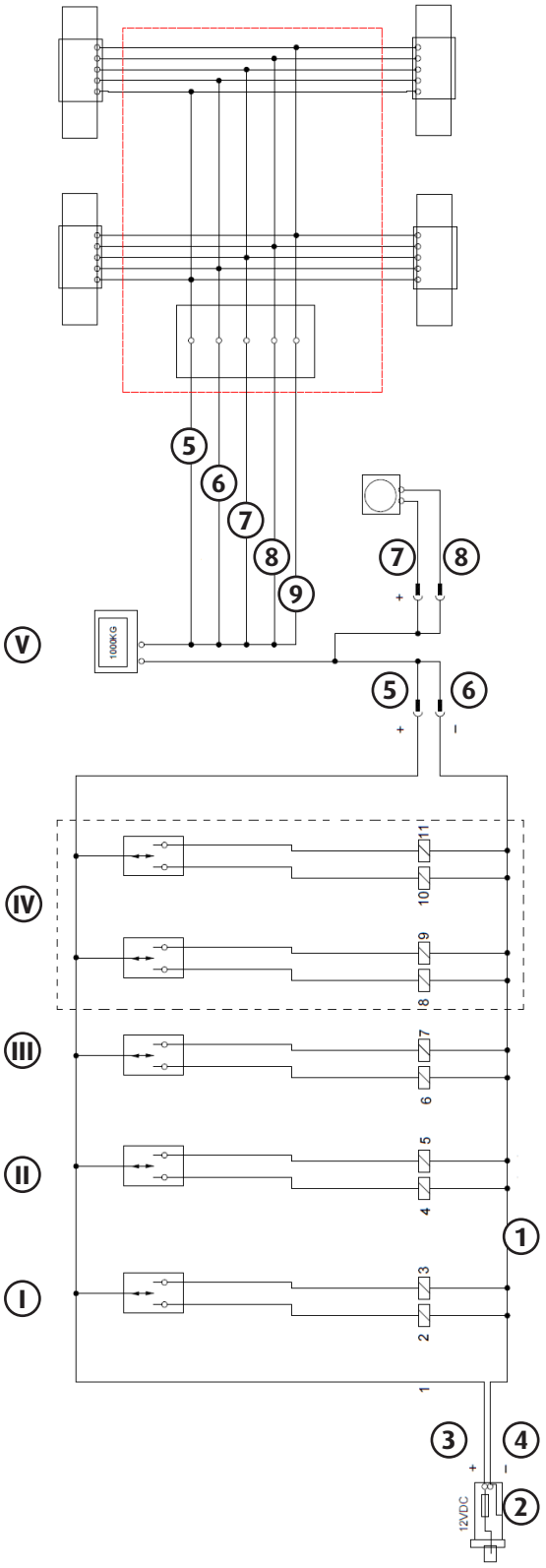
System diagrams

8.2 Hydraulic system Eco +





8.3 Electrical system



I. hydraulic motor
II. Unloading door
III. Counter knife
IV. Expansion / Optional
V. Weighing system

1. Green / yellow
2. Fuse 8A
3. Brown
4. Blue
5. Red
6. Black
7. Green
8. White
9. Protection

System diagrams

8.4 Electrical system

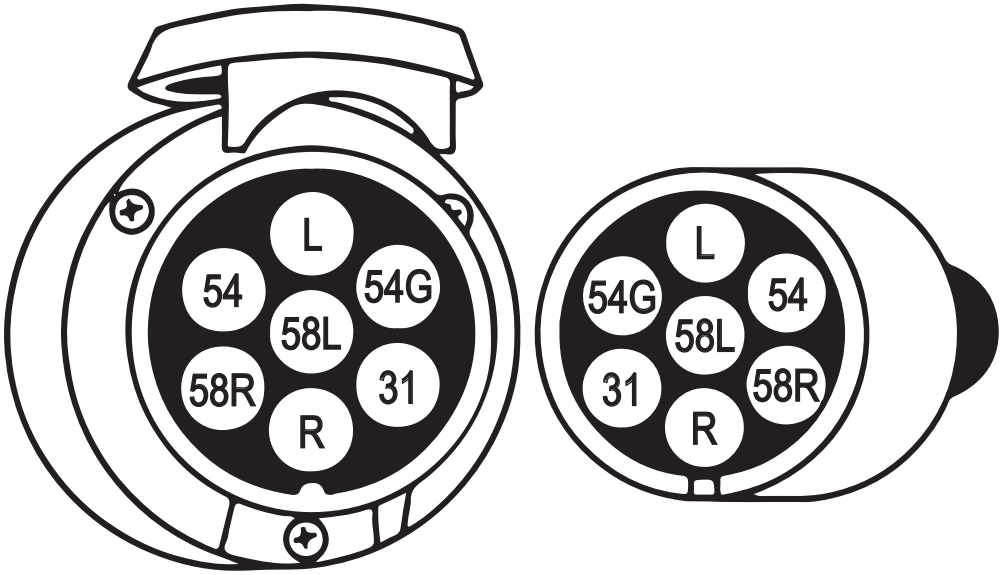


Fig. 8-1 7-pole connector

Pin	Wire colour	Function
L	Yellow	Left-hand indicator
54G	Blue	12V
31	White	Earth
R	Green	Right-hand indicator
58R	Brown	Right-hand light
54	Red	Brake light
58L	Black	Left-hand light

Tab. 8-1 7-pole connector functions

8.5 Notes

Peeters Landbouwmachines B.V.		
Tel +31 (0)76-504 66 66	Munnikenheiweg 47	www.peetersgroup.com
Fax +31 (0)76-504 66 99	4876NE Etten-Leur (NL)	info@peetersgroup.com