1300 Autowrap

1300 Series (1310 S / 1310 SM / 1310 EH / 1320 EH)

Tanco IMPLEMENTS

Innovation in Agricultural Machinery

OPERATOR'S handbook

Model Shown: 1320 EH

1300/V.01-14-ENG

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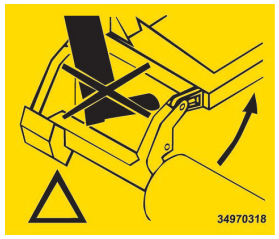
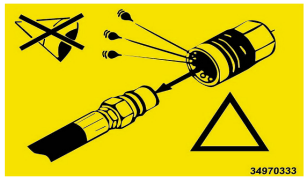
Read Operators Manual
Prior to using machine



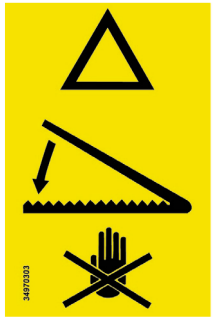
Warning, do not place your
feet between roller arms
and chassis

Ensure all nuts & bolts have
been tightened prior to
operating the machine

Danger from rotating
Prestretcher



Warning, all hoses are
constantly under pressure



Danger keep hands
clear of sharp blades

Danger stay at a safe distance
whilst machine is in operation

Tanco Autowrap Ltd congratulates you on your choice of the TANCO AUTOWRAP bale wrapping machine from the 1300 Model Range. We are certain you will be satisfied with the machine, and that you will have the pleasure of your investment for many years.

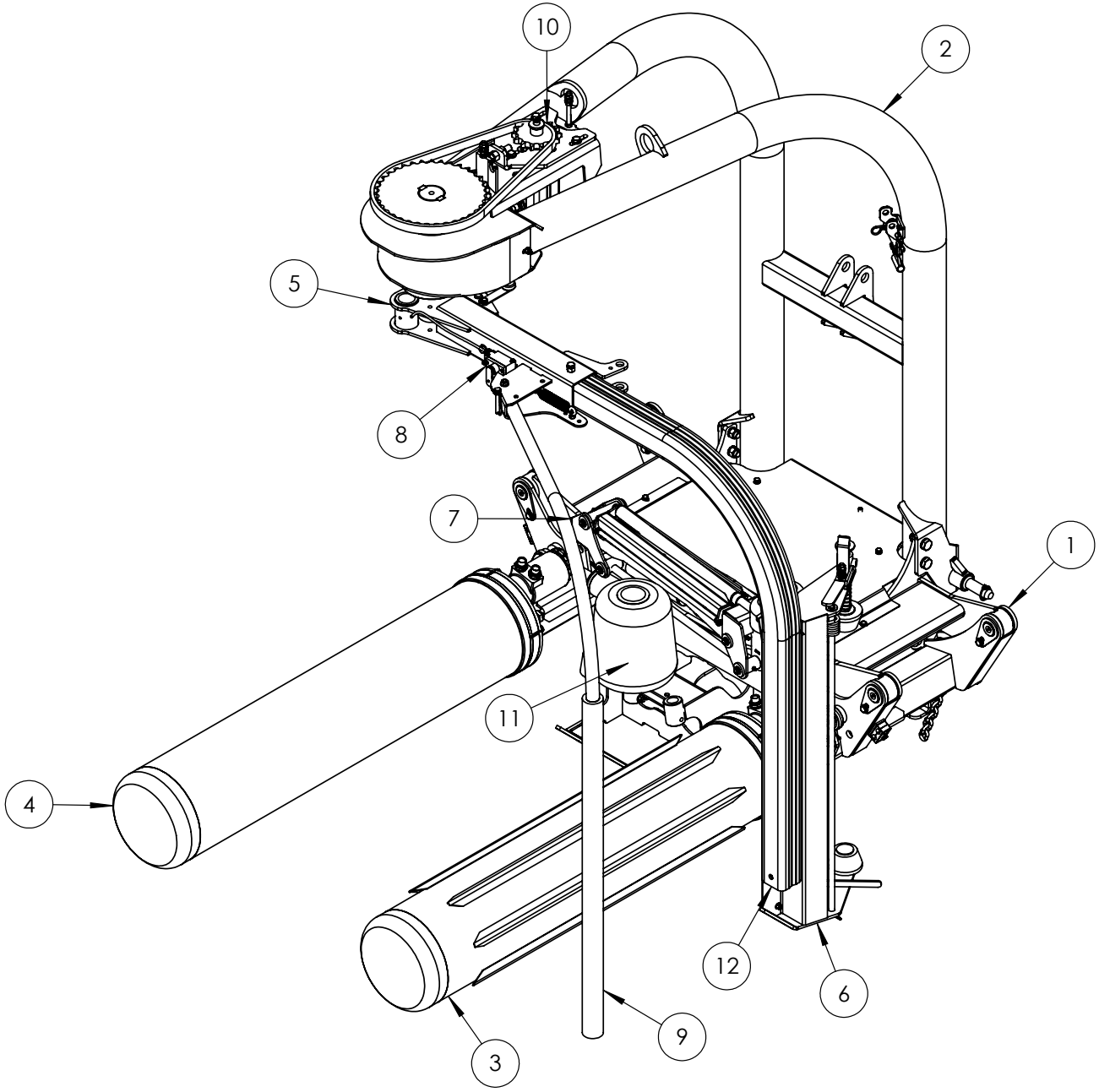
The TANCO AUTOWRAP bale wrapping machine has more features than any other bale wrapping machine available. The 1300 Range includes the 1310 EH / S / SM and 1320 EH models and all can pick up the bale, wrap and stack them without the operator leaving the tractor cab; this is a patented system.

This machine is hydraulically driven by the tractor's hydraulic system and is controlled from the tractor cab by an automatic control unit. The machine can either be mounted to three point linkage, front mounted with quick-couplers to the tractors front loader or on a wheel loader. Then it's possible to stack the bales upon each other. The wrapped bale can be either dropped conventionally to the ground or with the fitting of an optional 'End Tip' the bale can be dropped on its end.

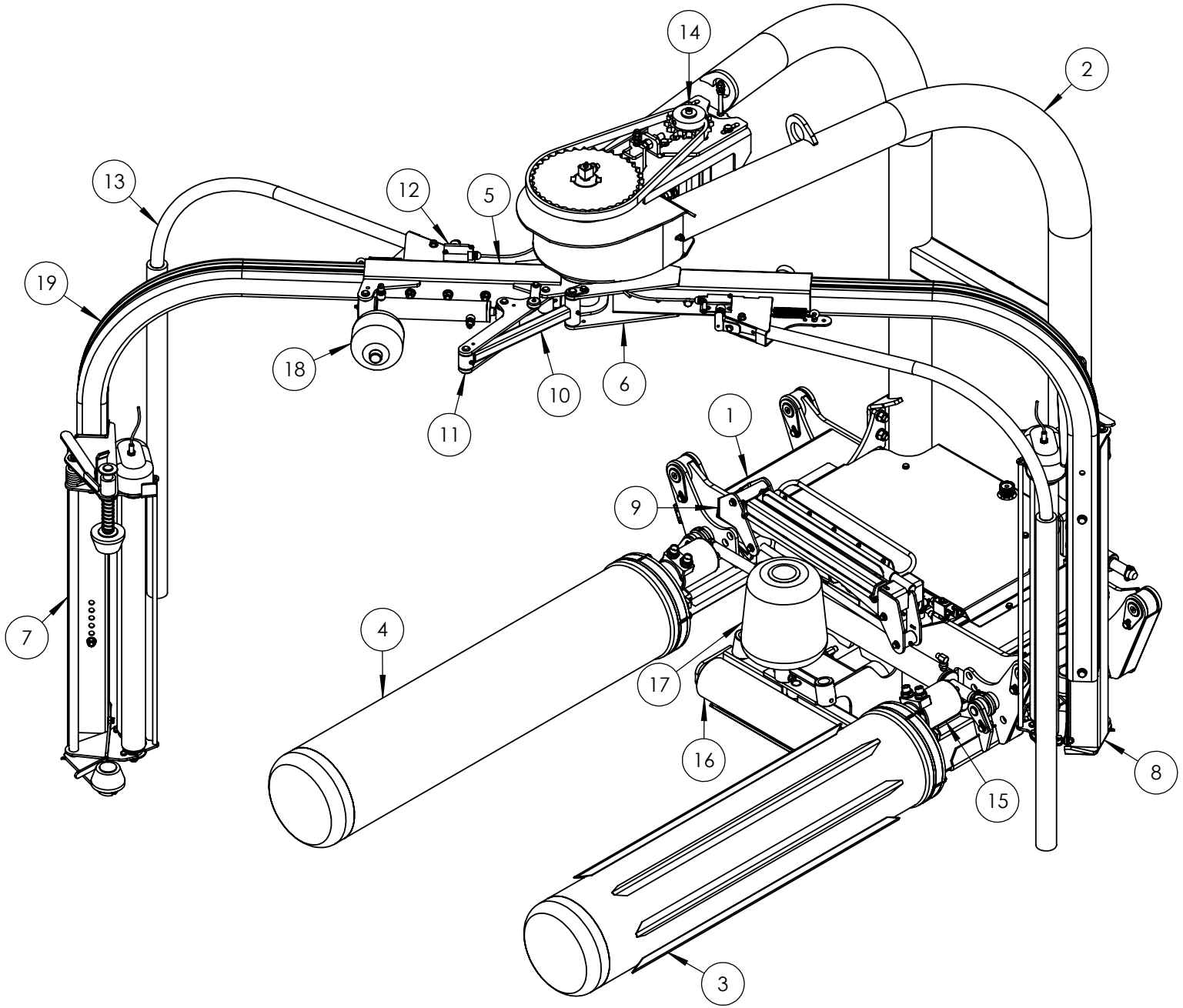
TANCO AUTOWRAP 1300 Range is designed to wrap bales of grass, hay or straw, with nominal diameter of 1.1 - 1.5m, and weights up to (1200kg). The original 1300 model was launched in the mid 1980's and has been developed into the very reliable and safe range of machines we have today.

This manual is meant to explain how TANCO AUTOWRAP 1300 is setup, attached to tractor, used and how it works, and shall together with the spare part's list be a reference for maintenance and troubleshooting. So take good care of this book; it is a part of the machine.

Read carefully through this manual, and especially the safety instructions, before starting the machine. Follow the instructions thoroughly, if problems should occur, check the troubleshooting guide to try to establish the problem. Ask your dealer for advice before you attempt anything that may make the problem worse.



Item No.	Description
1	Main Frame
2	Tower Frame
3	Gripped Roller
4	Smooth Roller
5	Main Wrapping Arm
6	Main Dispenser Assembly
7	Cut & Tie Assembly
8	Safety Switch
9	Emergency Stop Arm
10	Wrap Arm Drive Motor
11	Support Roller
12	Dispenser Mounting Arm



Item No.	Description
1	Main Frame
2	Tower Frame
3	Gripped Roller
4	Smooth Roller
5	Main Wrapping Arm
6	Slave Wrapping Arm
7	Main Dispenser Assembly
8	Slave Dispenser Assembly
9	Cut & Tie Assembly
10	Fixed Linakge
11	Arm Linkage
12	Safety Switch
13	Emergency Stop Arm
14	Wrap Arm Drive Motor
15	Roller Motor
16	End Tip Assembly
17	Support Roller
18	Arm Folding Ram
19	Dispenser Mounting Arm

Technical Specifications	1310 EH Autowrap	1310 S Autowrap	1310 SM Autowrap	1320 EH Autowrap
Height	2270mm	2270mm	2270mm	2270mm
Width	1370mm / 2230mm	1370mm / 2230mm	1370mm / 2230mm	1370mm / 2230mm
Length	2260mm	2260mm	2260mm	2260mm
Weight	655 kg	655 kg	655 kg	690 kg
Wrapping Arm Speed (Recomended)	28 R.P.M	28 R.P.M	28 R.P.M	28 R.P.M
Wrapping Arm Speed (max)	32 R.P.M.	32 R.P.M.	32 R.P.M.	32 R.P.M.
Maximum Bale Diameter	1500mm	1500mm	1500mm	1500mm
Maximum Bale Weight	1200 kg	1200 kg	1200 kg	1200 kg
Capacity	35 Bales per hour (Apx.)	35 Bales per hour (Apx.)	35 Bales per hour (Apx.)	50 Bales per hour (Apx.)
Pre-Stretcher(s)	1 x 750mm Width; 55 & 70% Stretch	1 x 750mm Width; 55 & 70% Stretch	1 x 750mm Width; 55 & 70% Stretch	1 x 750mm Width; 55 & 70% Stretch
Hydraulic Connection	Double + Single + Free Return	Single Working + Free Return	Single Working + Free Return	Single Working + Free Return
Oil Pressure	180 bar	180 bar	180 bar	180 bar
Oil Amount (Max / Min)	50 lts/min / 25 lts/min)	50 lts/min / 25 lts/min)	50 lts/min / 25 lts/min)	50 lts/min / 25 lts/min)
Maximum Counter Pressure	10 bar	10 bar	10 bar	10 bar
Eltectrical Connection	12 V DC	12 V DC	12 V DC	12 V DC

NB: Tanco Autowrap Ltd. reserves the right to modify the construction and/or technical specifications without warning and without rights to changes on already delivered products.

Tanco Autowrap Ltd does not take responsibility for damages that may occur to machine, persons or other equipment, because of the machine NOT being used as described in this manual, or because of the safety precautions NOT being followed.

Emergency Stop
The Tanco Autowrap 1300 Model Range is equipped with a so-called emergency stop on the wrapping arm. This device stops all functions momentarily, but is per definition not an emergency stop, because it does not shut down the inputs. But it has the same function, so we have decided to call it an emergency stop in this manual.

Safety Equipment
Before using the machine, make sure that all guards and covers are securely fitted. The machine must not be operated if a function does not work as described later in this manual.

Become Familiar with the Operations of the Machine
If you are unsure how to operate the machine properly, either use of or maintenance to your Tanco autowrap, please contact your Tanco autowrap dealer.

Adjustments / Maintenance
Turn off the tractor and discharge the oil pressure before performing any adjustment or maintenance on the machine. Remember that a well maintained machine is a safe machine.

⚠ IMPORTANT!
Always make sure nobody is in the hazard area of the wrapping arm when the machine is in-use.

The machine must not be operated by persons who do not know enough about how to safely operate the machine, or by persons under the age of 16 years.

Dangerous Areas
Tanco Autowrap Ltd. has given the safety to the operator the highest priority, but it is still impossible to secure oneself of every danger area on the machine. Therefore we have hilighted below some of the dangers that can occur when using the 1310 / 13200 Tanco Autowrap Bale Wrapper.

- Impact of the Wrapping Arm
During the wrapping process the arm rotates with a speed of 30-32 revolutions per minute around the bale. On the arm is mounted a Film dispenser unit with a plastic roll. The speed on this can give a person serious injuries if one enters the working area of the wrapping arm. To reduce this danger we have mounted an emergency stop device on the wrapping arm; this stops all movement when something comes in the way of it. It is very important that this protection always works and that it should not under any circumstances be disconnected.

- Squeeze Danger Between the Main Frame & Wrapping Arm
As earlier explained, we have a wrapping arm with a Dispenser and a plastic roll. During every revolution the wrapping arm passes the main frame. Here there may occur a squeeze danger if a person stands to close to the main frame when the wrapping arm passes. The distance between the main frame and the wrapping arm is not large enough to give place for a person. Between the pre-stretcher and the bottom frame there can also be a squeeze danger.

- Squeeze Danger Between the Stationary Arm & Wrapping Arm
During the main wrapping process the wrapping arm moves around a stationary arm. Everytime the wrapping arm passes the stationary arm there is a squeeze danger that can be dangerous for the fingers. The distance between the stationary and the wrapping arm is between 25-40 mm. (See Fig. 4.1).

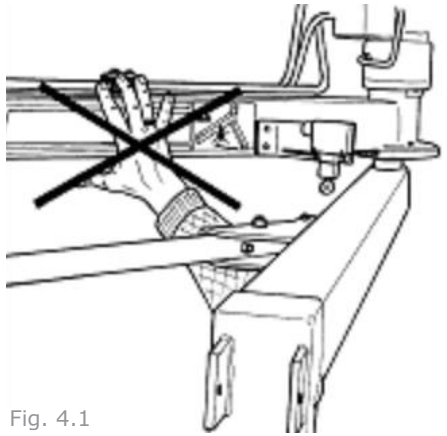


Fig. 4.1

- Squeeze Danger between the Rollers and the Main Frame
During the wrapping process the bale rotates on two rollers. When the rollers are in motion there is a danger of being squeezed.

- Squeeze Danger between Roller Arms and Main Frame (Inwards)
When loading a new bale, the roller arms move towards the main frame, Beware of the danger. eep clear of this area.

- Squeeze Danger between Roller Arms and Main Frame (Outwards)
When loading or unloading a new bale, the roller arms move outwards. Beware of the danger. Keep clear of this area.

- Squeeze Danger Caused by Plastic Automation
At the end of the wrapping process the plastic is cut and held tight until the start of the next wrapping process. When the cutter arm moves down to lock the plastic, there can occur a squeeze danger between the cutter arm and the cutter holder. The cutter blade that cuts the plastic is very sharp; ensure to keep hands away from the cutter. (See Fig. 4.2).

Three Point Mounting
When the machine is mounted on the three point linkage, make sure that the lifting arms are tightened up so there is no sideways movement.

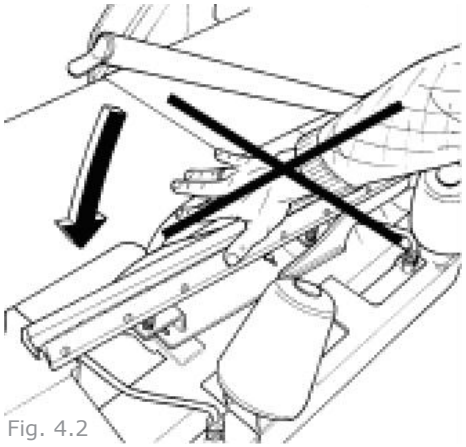


Fig. 4.2

⚠ Front Mounting
If the machine is mounted on a front loader there must be a counterweight fitted to the three point linkage. It must be large enough to give the tractor good stability. Connecting heavy working implements often has an overall negative effect on the tractor's driving and braking capacity.

Transporting
When transporting on a public road there are certain safety measures that must be taken:

- Ensure the machine is in the transport position.
- Ensure the squeeze arm is fully closed.
- Enure that the wrapping arm is not parked overhanging the sides of the machine.
- Ensure that the lights are connected and functioning correctly
- It is recommended that the film rolls be taken off the dispensers for road transport and put on the film carriers on the drawbar. This reduces stress on the machine and reduces the danger of the rolls being accidently falling off on the public road.
- The machine is wide (2660mm) even in tranport position, be aware of this especially on narrow roads.

Bale Wrapping Principles

The advantages of round bale silage are many, and include fewer feed units, a flexible harvesting system, large capacity and the possibility of selling feed units.

In principle, the same fermentation processes occur whether the fodder is placed in a silo or pressed into bales and packed in plastic, i.e. lactic acid fermentation in anaerobic conditions. The oxygen in the bale must be exhausted before fermentation begins.

The grass should be dried to approximately 30-40% solid content. The solid content can be determined by twisting the grass by hand. If drops of liquid are forced out of the grass, the solid content is less than 25%. Low solid content (wet grass) can lead to increased butyric acid fermentation if preservatives are not added to the grass. If the solid content is too high, (over 50%), normal fermentation will not take place and there will be enough oxygen in the bale to produce mould fungus.

The Baler

It is vital that the baler produces compact, well-formed bales, as misshapen bales can be difficult to wrap. Wrapping will also often take longer, thereby increasing the amount of plastic used.

Difficult Bales

When a misshapen bale is wrapped, it will have a tendency to move outwards or inwards on the roller. If the bale begins to move outwards, the machine must be lifted slightly at the rear edge to get the bale to rest against the support roller on the main frame. It can therefore be useful to use a hydraulic top link to make this adjustment easier.

If the bale to be wrapped is conical you must ensure that the sharp end is pointed at the tractor. It will then be easier to get the bale to lie correctly during packing. It is easy for such a bale to "turn" forward in the direction in which it is pointing, and therefore lie against the support rollers. If the bale is lying on a slope it must be picked up from the lower side. A hydraulic top link will again be advantageous.

Types of Plastic

A good type of plastic with good adhesive properties, and which is recommended for bale wrapping, must be used. The thickness of the plastic foil should be at least 25 µ. (25/1,000 mm). In order that the plastic tightens sufficiently around the bale, it is stretched before being wrapped, so it is somewhat thinner when it is put on the bale. With short-term storage (up to eight weeks) it is recommended that bales have a minimum of four layers of plastic at the thinnest points, with at least 52-53% overlap.

For long-term storage, or when the grass is wet when it is wrapped, the bale should have 90-100 µ plastic (six layers) and the same amount of overlap. If thinner plastic is used, more layers should be applied. If it is very hot the plastic will be stretched further, and more layers should be applied. It is better to have slightly too much than too little plastic on the bale.

From experience, light colored plastic produces slightly lower temperatures within the bale, and tends to improve feed quality.

Storage Location

Care should be taken in finding a suitable location for the storage of bales. The storage location should preferably be prepared before the bales are laid out. An elevation close to well-drained roads is recommended. If the wrapped bales are simply placed on stubble there is a danger of the plastic being pierced. A tarpaulin or a thin layer of sand should therefore be laid where the bales are to be stored over the winter.

Bales should be stored in the shade as far as possible. This reduces the danger of air leakage in the bales. A bale which is stored in sunlight and which therefore undergoes greater swings in temperature "pumps in" a great deal of air in comparison to a bale stored in the shade. According to "Teknik for Lantbruket" [Technology for Agriculture] in Sweden, a bale stored in the shade has only 40% of the air leakage of a bale which is stored in sunlight.

Stacking / Protection
If bales are hard and well formed, they can be stacked vertically, but loose and misshapen bales with low solid content should not be stacked higher than one layer, as this could easily cause deformity and the danger of runoff will be increased.

Bales can also be stored on their sides. The layer of plastic is thicker here, providing greater protection against piercing.

Bales should be covered with a tarpaulin or a fine-mesh net to protect against birds and small rodents. If the plastic is pierced, it must be sealed with weatherproof, hard-wearing tape, preferably under the outermost layer of plastic. Ensure that the hole is adequately sealed.

For Best Wrapping Results...

1. Harvest the grass early.

2. Ensure the grass is driedout to 30-40% solid content. If there is a danger of rain, bale and wrap the grass anyway.

3. Take care not to mix any earth in with the grass.

4. Use a baler that produces even, firm bales. Bales 1.2mtrs in width and with a diameter of 1.2-1.5mtrs are preferred sizes.

5. Wrap the bales as soon after baling as possible; never more than two hours afterwards.

6. Use a good plastic type, applying six layers of plastic. This removes the need to use preservatives.

7. Store bales in the shade to reduce the danger of air leakage.

Mounting of the Machine

⚠ Be careful! There is a danger of being crushed when working implements are fitted and connected. Carry out the fitting procedures slowly and carefully, and use separate and approved lifting equipment to make the work easier. Note the section on safety precautions and pay attention to the various safety decals displayed on different parts of the bale wrapper.

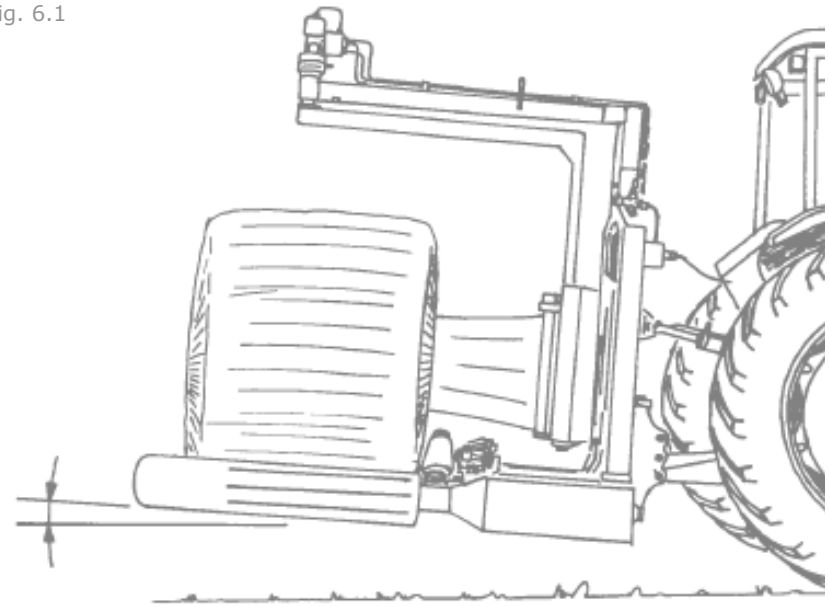
Three Point Linkage

TANCO AUTOWRAP 1300 range is intended for rear mounting to the three point linkage, Category 2. When attached to three point linkage, make sure the machine is level across the tractor. Tighten up and lock the lifting arms so there is no sideways movement.

Top Link

Adjust the top link of the tractor so that the machine is level with the ground. It is recommended to use a hydraulic top link, as this makes it easy to adjust the angle of the machine. During the wrapping process it is recommended to tilt the machine towards the tractor, as this will prevent the bale from falling off the rollers. (See Fig. 6.1).

Fig. 6.1



Front Mounting

This machine can be equipped with attachment brackets for front loader or wheel loader. (Talk to your dealer for information regarding the mounting brackets available).

When front-mounted there must be a large enough counterweight fitted to the three point linkage, this is to secure the tractors stability.

1310 / 1320 EH Control Untit

The EH control units consist of the emergency stop button, a control cable, a fuse and a battery cable. The control unit should be attached to a suitable place in the tractor cab using the suction pad provided.

The Remote Control Unit is not Shock Proof, make sure that is fastened to a soft pad that secures a non-vibratting foundation.

Electrical Connection

The electric supply for the machine's remote control and electro-hydraulic components must come directly from the tractors' 12 volt battery.

The electric wires from the battery must have an area measurement of min. 2,5 mm2. Connection to other contacts on the tractor can cause risk of malfunction and is not recommended.

Note:
Brown leader goes to the Battery's Possitive Pole
Blue leader goes to the Battery's Negative Pole

1310 / 20 EH Control Box

1310 S / SM Control Box

The 1310 S / SM control unit has 6 channel functions with an illuminated 4 digit LCD display, 5 switches to control all functions and an internal alarm. An external alarm is optional.
The instrument is powered on via the vehicle ignition circuit and recalls the function displayed when the instrument was last used.

1310 S / SM Control Box

1310 / 1320 EH Hydraulic Connection
The hydraulic hoses between machine and tractor are equipped with 1/2" ISO Male Quick-Couplers. Ensure the oil pressure has been discharged before you connect the oil hoses using the tractor's hydraulic lever.

To make sure that the bale wrapper works properly, the tractors' oil pressure has to be at least 180 bar. The oil flow should be 15 - 25 liters per minute. The return pressure on the return must be as low as possible, and not exceed 10 bar. This should be measured with a gauge. It is recommended to use one single-working hydraulic outlet and arrange a free return circuit to the oil tank.

If you are unsure of what oil pressure the tractor gives, or what oil pressure the bale wrapper receives, please contact your machinery dealer. Generally all tractors have got some counter-pressure in their hydraulic return systems. Some tractors have more than others.

Note:
The Hose with the Red Cap shall be connected to pressure 'P' and Hose with Blue Cap to the return 'T'.

1310 S Hydraulic Connection
The 1300S machine uses two of the tractors remote valves to operate. One valve operates the wrap arm rotation and cutter, the second valve operates the rollers in (loading) and rollers out (unloading) function. There are 4 no. hydraulic connections between the 1310S machine and the tractor. They are divided into two pairs, one pair are connected to ports on the entry block marked 'P' and 'T'. The second pair are connected to ports marked 'R+ and 'R-'. The hose from P can be connected to either a single or double acting service on the tractor, this is the hydraulic supply for wrap arm rotation and cutter. The hose from T (fitted with a female Q/R coupling) must be connected to a free return to tank. This is the return from the wrap arm rotation and cutter. The Cutter will not operate correctly if this is not a free return.

Hoses from R+ and R- should be connected to a double acting service on the tractor. This is the hydraulic supply for rollers in and rollers out.

Hydraulic Connection1300SM
The 1300 SM is equipped with a two bank, cable operated valve. This requires just two connections, a Feed 'P' and return 'T'. It is recommended that the Return line is connected to a free return point on the tractor as this eliminates the risk of Hydraulic lock. This occurs if you try to send oil in the opposite direction against the non-return valve. This results in pressurized oil between the non-return valve and the quick coupling and prevents connection of the quick coupling. The only way to discharge the pressure is to open the quick coupling using two 27 mm spanners.

Open & Closed Center Hydraulics EH Models
The 1320 hydraulic system can be set up for tractors with Open or Closed Center Hydraulics.

Open Centre Hydraulics
Most tractors have a hydraulic system that gives a continuous output which flows through the valve on the machine and back to tank when no function is operating (Open center).
Note:
The TANCO AUTOWRAP EH Models are set-up for open centre on leaving the factory.

Close Centre Hydraulics
Some tractors (John Deere) have a hydraulic system that require the valve on the machine to allow no flow when no function is operating (Closed Center).
The hydraulic valve can easily be configured to operate in this way.

Simply push and twist the Manual Override on the Master Valve. (See Fig. 6.1)

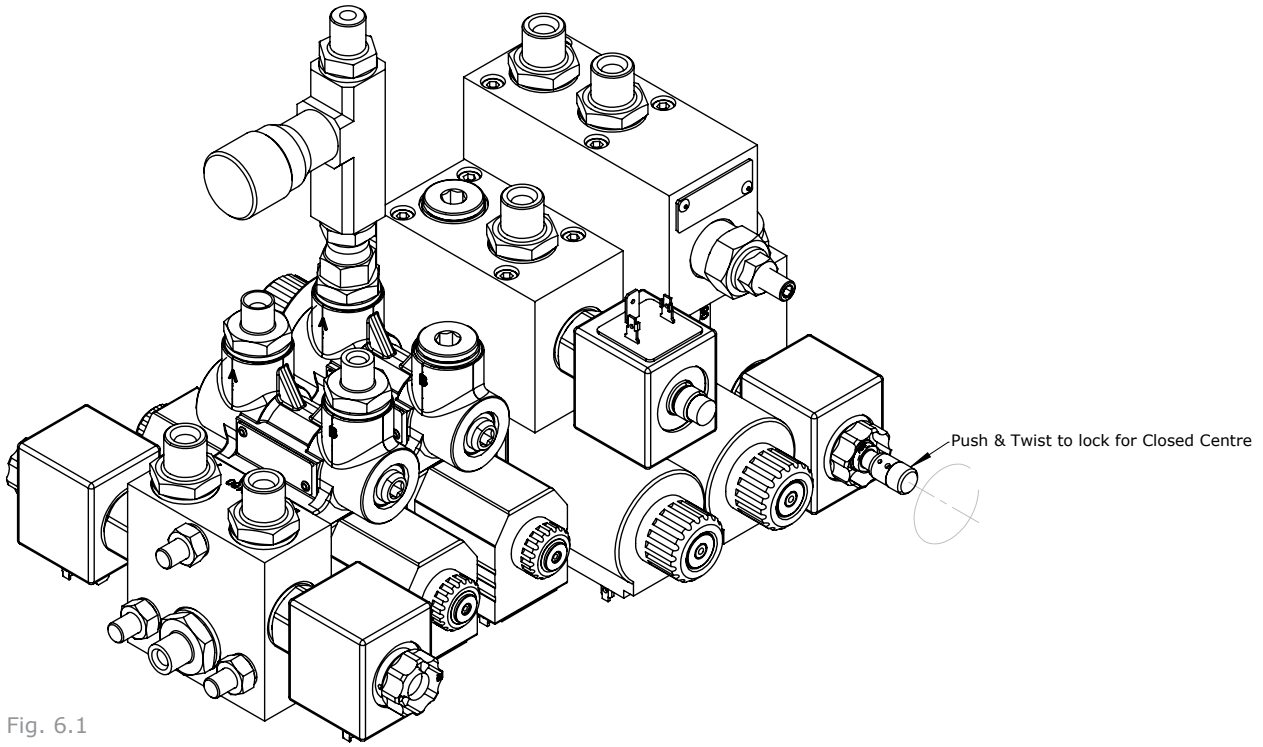


Fig. 6.1

Open & Closed Center Hydraulics SM Model
As with the EH models, the 1310SM is set for open centre hydraulics leaving the factory.
To convert to closed centre a plug on the valve must be changed. This plug is located on the valve just beside the outlet (T line) (See Fig 6.2). Remove the existing one and replace with closed center plug (Part No. Z01-03-A580J).

If you are likely to change frequently between open and closed centered hydraulic systems and special plug incorporating a tap can be ordered.
(Part No. 1008050- closed center tap plug). This is fitted in the same position on the valve.

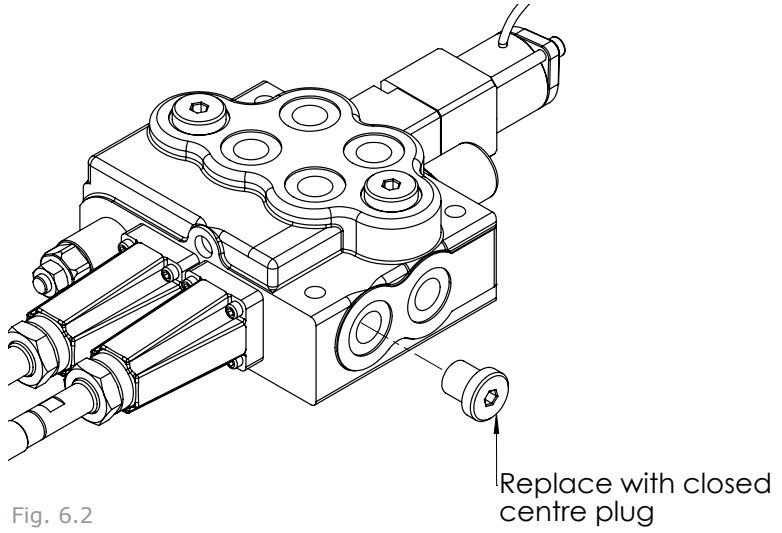


Fig. 6.2

LS Hydraulics
Many modern tractors have a "Load Sensing" (LS) Hydraulic System. This is most efficient as the pump remains on standby, pumping no oil until it gets a signal from the machine. It is possible to run this machine on a load sensing tractor with the standard valve.

Configure the valve for open centers and if possible adjust the flow from the tractor to give ~30 lts/min. This however means that that tractor is constantly pumping and you do not get the benefit of the efficiency of your load-sensing pump.

Tanco Autowrap strongly recommend that if you are running the machine on tractor with LS Hydraulics you fit the optional Load-Sensing Block (see Hydraulic Circuit). With this block fitted a Load sensing signal is transmitted in the form of hydraulic pressure via a hose for the LS Port on the LS Entry Block to the LS Connection on the tractor.

Note:
The LS Entry Block can be configured also to run on any other hydraulic system, open or closed center.

Check List:
Before using the machine it is recommended to follow this check list:

1. Make it a habit to discharge the oil-pressure before connection or disconnection of the hydraulic hoses. (By operating the hydraulic control lever inside the tractor). (Use the tractors hydraulic control lever).

2. Return-oil should be led directly to tank. Beware that if the counter pressure is too high, the security valve on the main block will release some oil. (See Chapter 9).

3. Hose with BLUE CAP = RETURN OIL.

4. Hose with RED CAP = PRESSURE.

5. Tie up loose hoses and Connection Cables so that no squeeze damages occur.

6. Start the tractor and try out the functions. A bale is not required for this test.

7. Check all connections, hoses and couplings. If there is any oil-leakage, it should be rectified immediately.

If any problems should occur, it is most likely that the failure is in the quick-couplers on the tractors pres¬sure and return-connections.

Make sure that both the male and female-couplers opens properly for the oil flow, check these carefully. The best thing to do is to exchange the quick-coupling on the return side and arrange a "free return".

Your TANCO AUTOWRAP bale wrapper has been tested in practical operation in approx. 2 hours at the factory.

Emergency Stop (See Fig. 6.3)
This machine is equipped with a safety guards on the Wrapping Arms, and its operation must be tested before work itself is started.

The Emergency Stop is to prevent the Wrapping Arm from damaging people and objects, when the machine is started and during the wrapping process. It consists of two safety arms that run in front of the film dispensers. When tripped they activate an electric switch, which gives a signal to the control box to activate the emergency stop.

When testing this function, start the Wrapping Arm, hold out an arm or any obstacle. The wrapping arm shall now stop before it hits the arm. Great care must be taken when testing this function.

To restart the machine the obstacle must be removed and the arm must be returned to its original position. The Auto Switch on the control box must be activated again. The wrapping may start again.

⚠ IMPORTANT!
GIVEN THE VELOCITY AND MOMENTUM OF THE ARM IT IS IMPOSSIBLE TO STOP THE WRAP ARM IMMEDIATELY. THE EMERGENCY STOP ARM IS PROVIDED TO HELP REDUCE THE RISK OF SERIOUS INJURY AND GREAT CARE MUST BE TAKEN WHEN OPERATING THIS MACHINE.

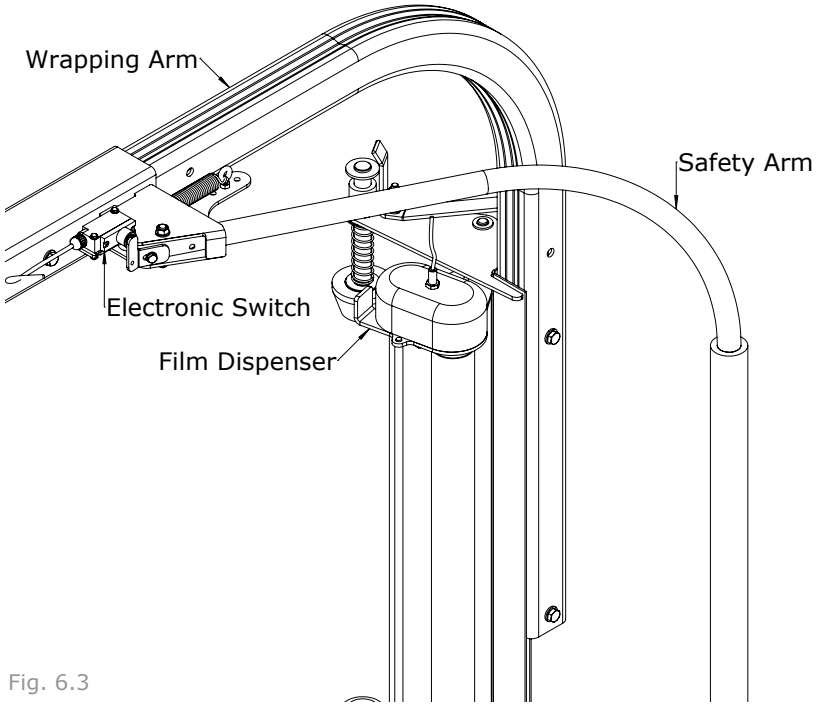


Fig. 6.3

Mounting of Plastic Film (See Fig. 6.4 & 6.5)
When loading a plastic roll, first ensure the Top Cone is pushed up to the latched position, then push back the Dispenser Insert until held in position by the Bottom Latch.

Place the Roll on the Bottom Cone and release the Top Latch.
⚠ BEWARE OF FINGERS!

Pull the film between the rollers on the Dispenser Insert in the direction of the arrow, as shown below. (See also the sticker on the dispenser).

Release the Bottom Latch and allow the rollers to lie against the roll of film.
Pull the film from the roll and tie it to the bale.

Fig. 6.4

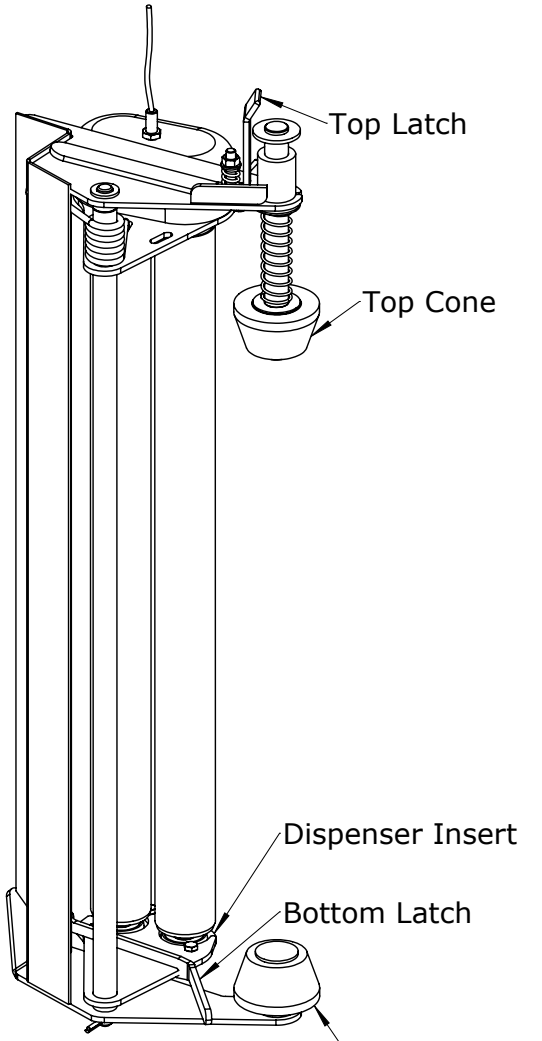


Fig. 6.5

Adjusting the Height of the Dispenser

The standard film dispenser is designed for 750mm film. If using 500 mm film an adaptor is required which must be ordered separately. See parts book and contact your dealer.

The plastic film should hit at the middle of the bale wrapped (Fig. 6.6), and therefore it can be necessary to adjust the height of the pre-stretcher (See Fig. 6.7).

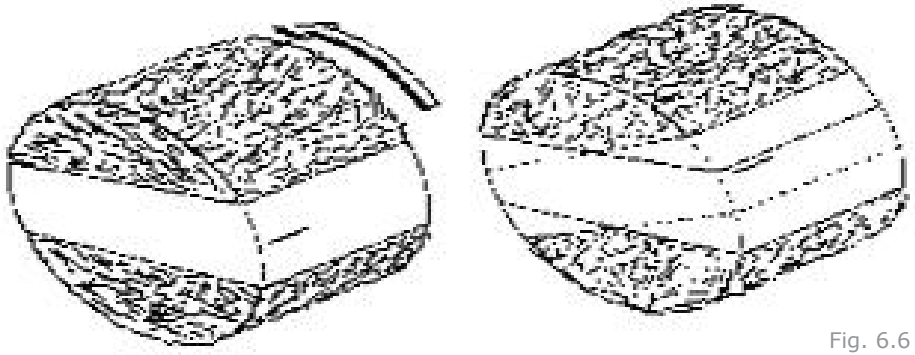


Fig. 6.6

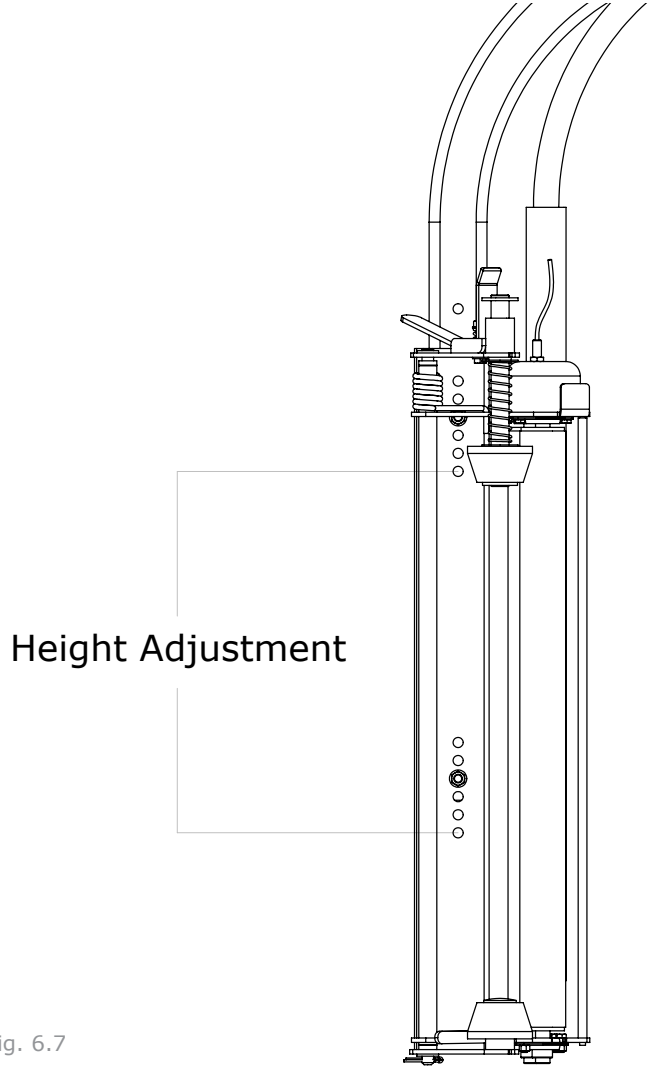


Fig. 6.7

Tanco Dual Stretch Dispenser
All Tanco Autowrap machines are supplied with a patented dual stretch gear system.
This system enables a quick change of stretch levels on the Film Dispenser.

If the Gear Bolt is fitted in Position 1 (See Fig. 6.7), the top set of gears provide the stretch @ 70%.
By removing the Gear Bolt from Position 1 and fitting it in Position 2, the bottom set of gears become the stretch gears giving 32% (for prestretched film) or optionally 55% (for use in hotter climates or with square bales).

Tanco Dispenser Gear Comninations

Inner Gear	Outer Gear	% Stretch
60 Tooth	35 Tooth	70%
58 Tooth	37 Tooth	55%
54 Tooth	41 Tooth	32%

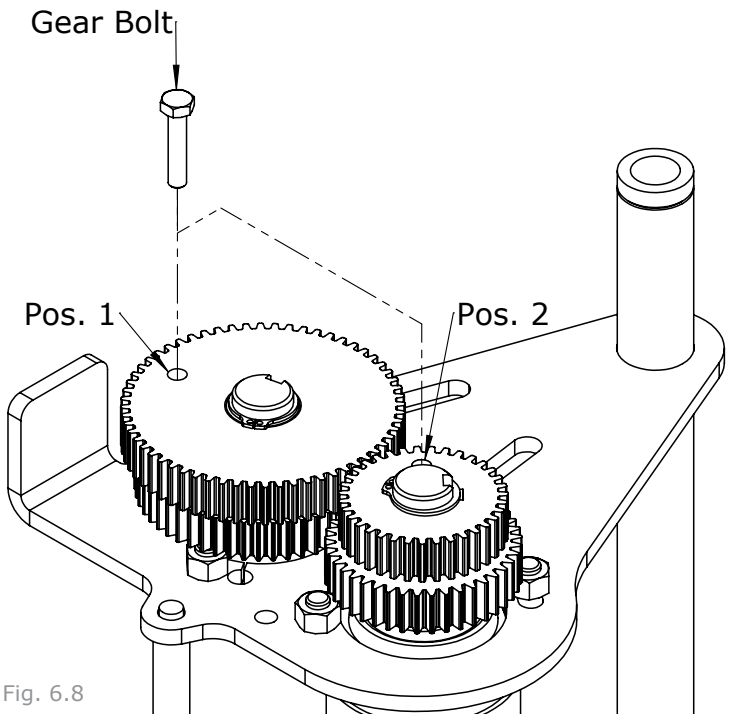


Fig. 6.8

1310 EH / 1320 EH Controller

The Tanco Autowrap Bale Wrap Controller enables the operator to monitor and control the operation of the bale wrapper at any stage of the wrapping cycle. The controller is designed for models: 1300EH, 1320, 1510EH, 1510T, 1514S, and 1514T rotating-arm type wrappers.

There are 2 operating modes – Automatic and Manual. The Automatic Mode permits 'one-touch wrapping' to ease the workload on the operator. The controller is fully programmable to optimise wrapping performance. Bale counts are automatically logged in any one of 10 selectable memory stores, in addition to a grand total memory store.

IMPORTANT SAFETY INFORMATION!

Please read and understand the instructions for using this controller before operating the machine.

This controller is fitted with a push-button type On/Off Emergency Stop switch. Always ensure the controller is switched OFF via this switch before attempting any adjustment or maintenance to the machine.

Please follow ALL other safety instructions given in the manufacturers' Operator's Manual for this machine.

Controller Main Operating Functions & Display

The principal instrument features and operating functions of the Controller are shown in Fig. 7.1 overleaf.

4-Way Menu Switch:
- Set No. of Wraps
- Change / Reset Bale Sub-Total
- Access Operator Setup Menu
- Access Technician Setup Menu
- Access Manual Wrap Arm Fold
(Second Function on L5 / R5)

L1 - Add 1 Wrap to current (or next) bale

L2 - Cut & Grip Film

L3 - Slow Wrap

L4 - Reverse Wrap Arm

L5 - Bale Unload or Arm Unfold

Power On/Off / Emergency Stop

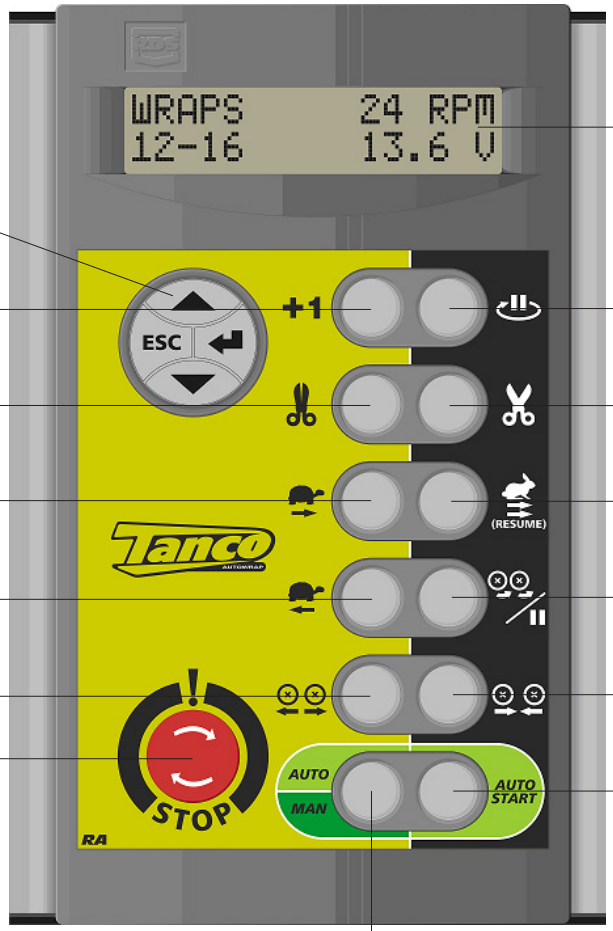


Fig. 7.1

Dispaly; Shows in normal working mode:
- Current No. of Wraps
- Target No. of Wraps
- Wrapping Speed (R.P.M)
- Bale Total (10 Separate Stores)
- Grand Total No. of Bales
- Mode: M (Manual) / A (Automatic)

R1 - Pause Wrapping

R2 - Release Film Grip

R3 - Fast Wrap / Resume Wrap (After Manually Pausing)

R4 - Pause Bale Rotation (During Auto-Wrap Cycle)

R5 - Bale Load or Arm Fold

R6 - Start Automatic Wrapping Cycle; press STOP switch to stop cycle

L6 - Select Opertating Mode: 'M' or 'A'

Operation

Operation in Automatic mode
The controller is generally used in automatic mode for 'one touch wrapping'. Note the controller counts in steps of 2, because for each revolution of the wrapping arm two wraps of film are applied.

1. 'A' on the centre of the display indicates that the controller is set in Automatic mode. If not, press (L6) to select.

2. With the rollers in the open position (step 5), bring the machine up to the bale.

3. Press (R5) to move the rollers to the closed position.

4. Press (R6)switch to commence the automatic wrapping cycle. The wrap arm will first unfold to the straight position. It will then complete the target number of wraps, on the last half revolution the wrap arm will return to the folded position, come to a stop after passing the cutter and reverse to the centre.

5. Press (L5) switch to move the rollers to the open position to unload the bale.

Manually Interrupting an Automatic Wrapping Cycle
Press (R1) to bring the wrapper to a controlled stop. Pressing (R3) will continue the Auto-Wrap cycle from where it stopped.

⚠ For safety reasons; if it is necessary to work on the machine (e.g. in the event of a film break or the film running out), then it is strongly recommended that you then switch the controller off via the red stop button and disengage the machine power source. Pressing (R3) after switching the controller back on will resume the auto-wrap cycle from where it stopped. Unless it is an emergency situation, do not bring the machine to a stop by pressing the red stop button as this will impose unnecessary strain on the machine.

Manual options in Automatic mode
With the controller in automatic mode, the following manual functions are possible.

- Slow Wrap (L3): This button will rotate the wrap arm at slow speed (not during an automatic wrapping sequence).

- Fast Wrap (R3): This button will rotate the wrap arm at normal fast speed. This button will also resume an automatic wrapping cycle if interrupted.

- Reverse Wrap Arm (L4): This button will rotate the wrap arm in reverse at slow speed (not during an automatic wrapping sequence).

- Pause Bale Rotation (R5): Holding down this button during an automatic wrapping sequence will stop the bale rotating and so will add more film to a particular part of the bale. Release the button when sufficient additional film has been applied.

- ADD 1 WRAP (L1): Each time you press this button an additional wrap will be put on the current bale if the wrapping sequence is in progress or onto the next bale if the automatic cycle has not yet been started. You can add as many wraps as required.

- Rollers Out or Wrap Arm Unfold (L5)
This button has two functions; its primary function is to operate rollers out to unload the bale. If the programming factor Roller Out is set to 0.0 in the Operator Setup on the controller then this button must be held down for the duration of the unloading operation. If a time is set for Roller Out then one touch of this button will trigger the function to operate for that time. In M manual mode the button must be held down for the duration of the unloading.

This button also manually performs the wrap arm unfold (to the straight position) function. To get it to change to this function hold down the Esc button (left side on 4 position button) for 5 seconds. ARM will flash on the display. To revert back to the primary function of Roller Out just press the Esc button again, ARM disappears from the display.
In the automatic wrap sequence this unfolding function is performed automatically.

Note the Wrap Arm Fold and Unfold apply to the 1320 Model only.

- Rollers In or Wrap Arm Fold (R5)
This function operates in a similar fashion to the above Roller Out/Wrap Arm Unfold, just both function operate in the opposite direction.

- Pressing the Auto/Start (R6) button during an automatic wrapping sequence (after 4 or more wraps) will finish the sequence on the next rotation of the arm. The arm folding and cutter functions will operate as normal.

Operation in Manual mode
'M' on the display indicates that the controller is set in manual mode. If not, press (L6) to select.
In manual mode you have total control of every stage of the wrapping cycle.

Controller Outputs
The following are the electric solenoid valves powered for each machine function. The vale numbering corresponds to the numbers on the electric cables to the valves.
Note: Valve 7 (Master Valve) is powered for all functions.

Operation	Powered Solenoids		
Loading	7	5	6*
Wrapping:	7	4	
Unloading:	7	5	8
Reverse:	7	9	
Arm Unfold:	7	9	
Arm Fold:	7	11	
Cutter Open:	7	1	
Cutter Close:	7	2	

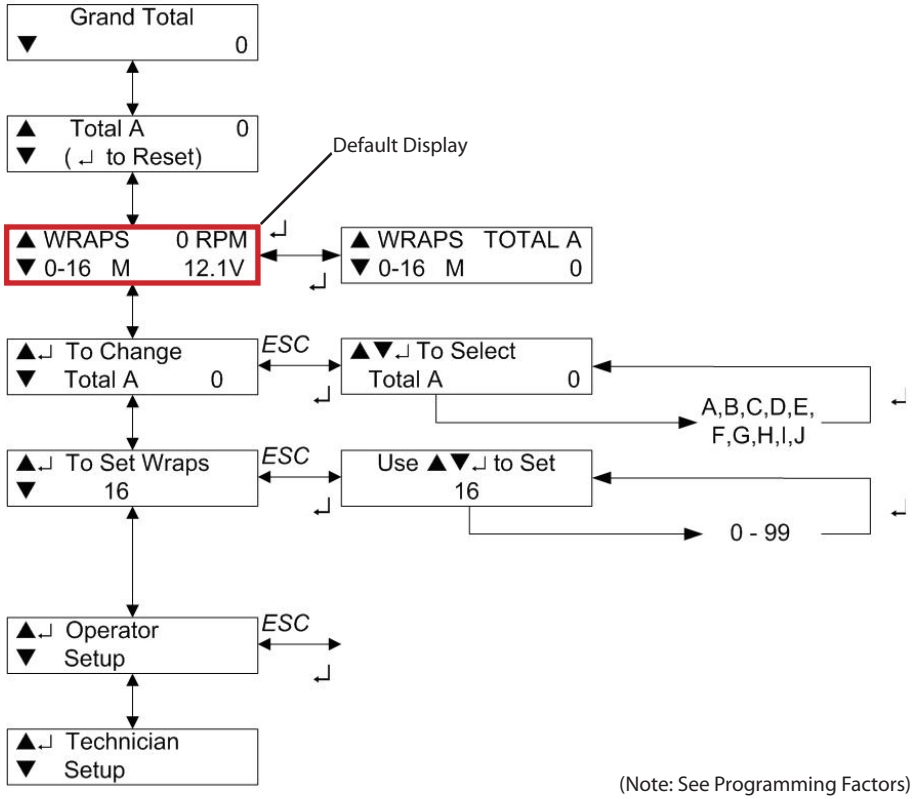
* In fast speed

The Display Menu

The Display menu is divided into 3 sections. At the top level are the settings used during the daily work with the machine – i.e. Store totals and No. of Wraps.
The Operator Setup section enables the operator to perform adjustments to the machine operation – e.g. time duration and time delay settings during the automatic cycle.

The 'Technician Setup' menu is not normally accessible to the operator without a PIN access code. 'Technician Setup' is not covered by this manual.

Use the 4-way switch to navigate the menu. Each menu screen indicates which keys to press to make the settings. The instrument will default back to the main operating display after 30 seconds if no other key is pressed.



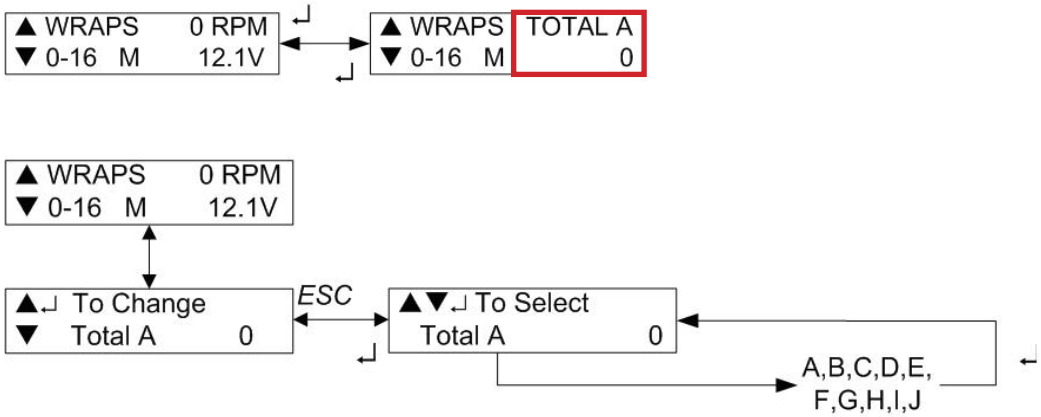
(Note: See Programming Factors)

NOTE: There are additional sequences selectable in the Operator Setup menu but not shown in the table. These sequences are for wrapper models to which this manual does not apply. Please refer to the Operator Setup Menu for further explanation of the Operator Setup functions given in the table above.

Selecting a Store Total
There are 10 individual memory registers labeled 'Store A' to 'Store J' for bale totals. Each time a bale cycle is completed, the currently selected store total and the grand total increments by 1.

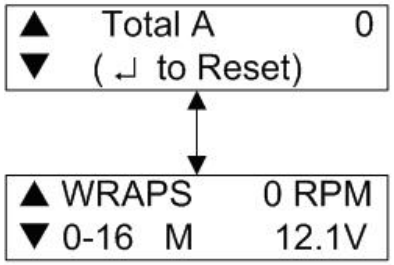
The currently selected store is displayed on one of the two screens selectable in the normal operating mode.

The default setting is Store A. To select a particular store, navigate the display menu using the 4-way switch.



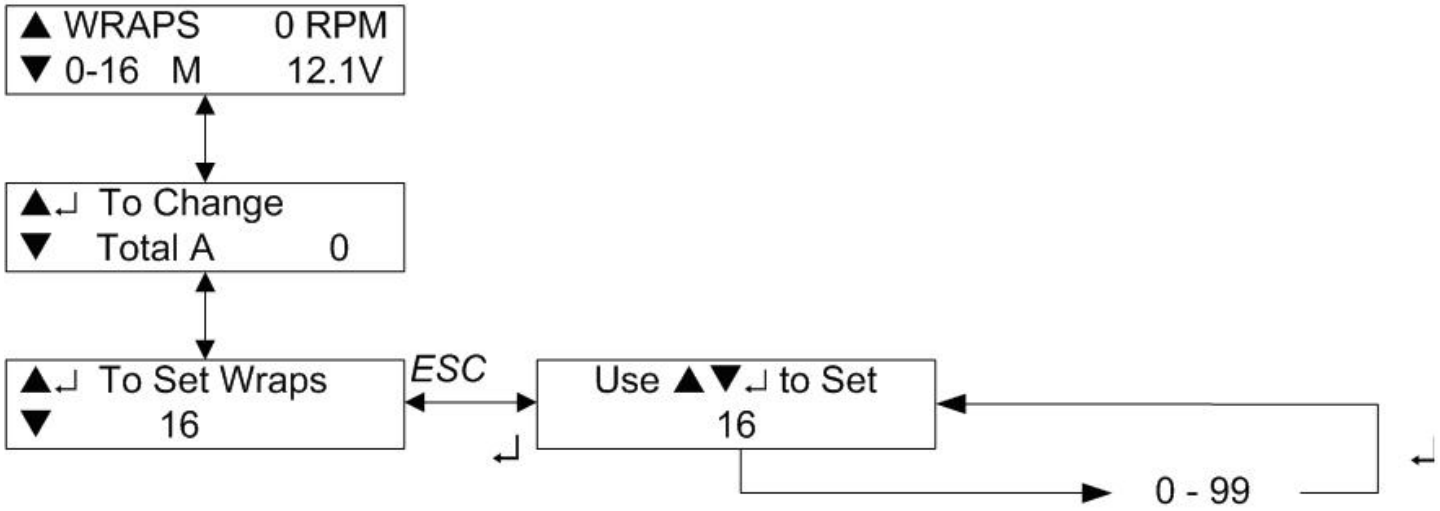
Press the Up/Down arrow keys to select the store, then press the ENTER key to confirm the selection.

Resetting a Store Total to Zero
Stores A to J can be individually reset to zero at any time. The Grand Total store cannot be reset. First select the store to be zeroed, and then navigate the display menu as shown below.



Press the ENTER key to reset.

Setting the Number of Wraps
The default number of wraps is 16. You can set the target number from 0 to 99 by navigating the display menu as shown below.



1320 Programmable Factors - Operator Level

Menu No.	Operator Level	Default	Units	Notes
N/A	Target No. of Wraps	16		
4.01	Contrast	2		
4.02	Film Break	OFF		Switches On or Off Film Break Sensor
4.41	Remote Type	RF		Sets Controller For Remote Control Type (Optional Extra)
4.23	Wraps to Release	*1	Pulses	Number Of Wraps To Cutter Releasing Film
4.25	Release delay	0.5	Seconds	Delay From Wrap Arm Passing Sensor To Cutter Opening
4.26	Delay To Slow	1.0	Seconds	Time From Wrap Arm Passing Sensor On Last Turn To
				Speed Changing From Fast To Slow
4.27	Delay To Stop	1.2	Seconds	Time (Passed Sensor) To Stop The Wrap Arm
4.28	Reverse Time	0.6	Seconds	Time Wrap Arm Reverses At The End Of Wrapping Cycle
4.29	Rotation After	0.0	Seconds	Not used on 1320
4.37	Roller In	0.0	Seconds	Sets Roller In Time For Automatic Loading; If Set To 0.0
				Manual Must Be Held Down For Duration Of Loading
4.38	Roller Out	0.0		Sets Roller Out Time For Automatic Unloading. (As Above)
4.35	Language	English		Sets Controller Language

1320 Programmable Factors - Technician Level (Pin 1,2,3,4)

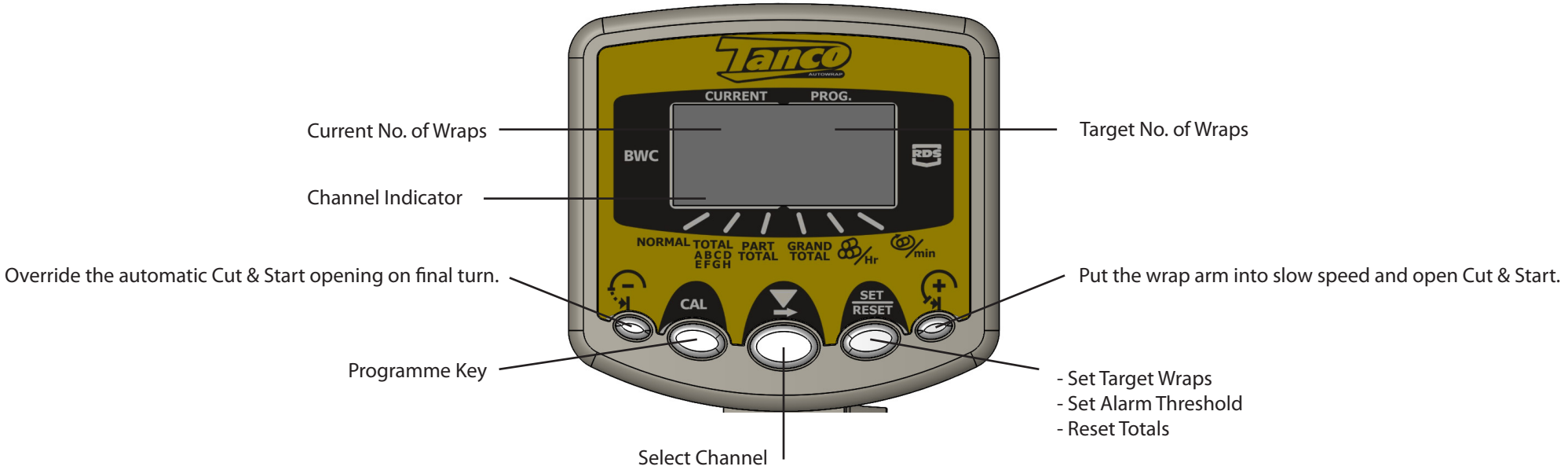
Menu No.	Technician Level	Default	Units	Notes
5.01	Sequence	1300x2		Sets Controller Program For Machine Model
5.15	Slow Start Time	2.5	Seconds	Time Wrap Arm Runs In Slow Speed at Start Of Wrapping
5.16	C&S Open Time	0.4	Seconds	Cutter Opening Time
5.17	C&S Close time 1	3.0	Seconds	Cutter Closing Time During Wrapping
5.18	C&S Close time 2	2.0	Seconds	Cutter Closing Time At End Of Wrapping
5.23	Bale Indexing	Off		Not used on 1320
5.24	Reverse Enabled	YES		Enables / Disables Wrap Arm Reverse Function
5.48	Arm Unfold	2.5	Seconds	Time For Wrap Arm To Unfold to Straight Position At The
				Beginning Of Wrapping
5.49	Delay to Fold	0.5	Seconds	Time After Wrap Arm Speed Changes to Slow Speed
				to Wrap Arm Folding (at End of Wrap Cycle)
5.53	1-D Rolls Stop	1.0	Seconds	Rollers Intermittent Stop Time For 1 Film Wrapping
5.58	1-D Rolls Rot.	1.3	Seconds	Rollers Intermittent Rotation Time For 1 Film Wrapping
5.52	Rot. After Wrap	Off		Not used on 1320
5.25	RPM Alarm	35	Seconds	Maximum Wrapping Arm Speed
5.28	Set Default			Sets Controller Back To Its Default Settings

Operator Setup Menu
The default settings for the machine are developed by Tanco for optimal operation of the machine. However, the operator can change certain parameters in the 'Operator Setup' menu to take account of operational conditions.

Introduction

The instrument has 6 channel functions with an illuminated 4 digit LCD display, 5 switches to control all functions and an internal alarm. An external alarm is optional.
The instrument is normally powered on via the vehicle ignition circuit and recalls the function displayed when the instrument was last used.

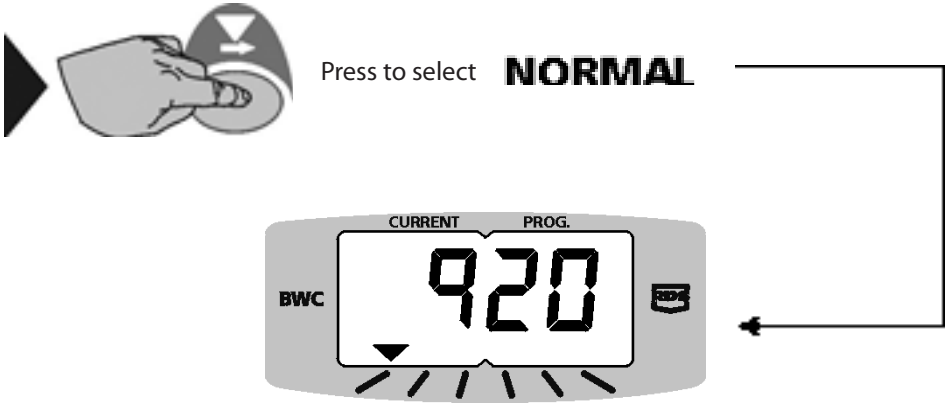
What can it do ?
- Continuously displays the current number of wraps around the bale alongside the desired (Target) number of wraps preset by the operator.
- Sounds an alarm at a preset number of wraps before the target number is reached.
- Automatically senses when the bale wrap sequence ends and records it to each of these memory registers:
    - Grand Total
    - Part Total
    - One of eight selectable Store Totals
- Displays the number of bales wrapped per hour, within any desired time period.
- Displays bale wrapping speed in rpm, and sounds an alarm when a preset speed is exceeded.
- Film break alarm and automatic stop.
- Adjustable turntable stop position.



Controller Channels

Channel 1	NORMAL	'Normal' display (Current/Target no. of Wraps)
Channel 2	TOTAL A B C D E F G H	Store Totals (A – H)
Channel 3	PART TOTAL	Part Total
Channel 4	GRAND TOTAL	Grand Total
Channel 5	Bales/Hr	Bale Wrapping Rate
Channel 6	Bales/min	Bale Wrapping Speed

Channel 1 - Current/Target Wraps Display



The left-hand section shows the current number of wraps and the right hand section shows the target number. When the current number = Target number, the alarm will sound for 2 seconds and the display will flash. (If set, the early warning alarm sounds beforehand). Automatic reset of current number to zero normally occurs 5 seconds after the Target number is reached. If additional wraps are added after the Target number is reached, the current number will continue to advance.

Manually reset No. of Wraps to Zero

Press to select NORMAL

Press and hold

Programme the Target Wraps

Hold continuously

...The 3rd digit flashes

Hold to cycle to the required digit then release, otherwise press once…

...The 4th digit flashes

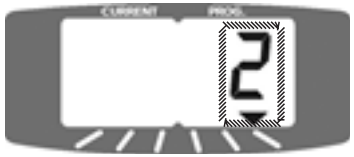
Hold to cycle to the required digit, release all.

Program Early Warning Alarm

An early warning alarm can be programmed to sound from 1 to 9 wraps before the target number is reached. Depending on the setting, the alarm will sound long beeps for up to 8 wraps, short beeps for the final wrap, and then a continuous beep for three seconds. For example, if the bale requires 22 wraps and you want an alarm at 20 wraps, then set the number to 2. To effectively disable the alarm, set the number to 0.

Press to select /min

Hold continuously



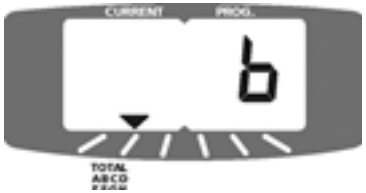
...the 4th digit flashes

Hold to cycle to the required digit, release all.

Channel 2 - Store Totals

When bale wrap is complete, one of eight pre-selected memory store totals; A, b, C, d, E, F, G, or H, is automatically advanced by 1. Store totals can be reset individually.

Press to select TOTAL ABCD EFGH



The fourth digit displays the current store designation for 2 seconds.

The current total for that store then displays for five seconds, then defaults to channel 1.

Press to select TOTAL ABCD EFGH

Select the desired store total (A – H)

This is now the default store, and subsequent bale counts are stored there until another store is selected.

Press to select TOTAL ABCD EFGH

Select the desired store total (A – H)

Press and hold.

Channel 3 – Part Total

When the bale wrap is complete, the part total is automatically advanced by 1. The part total can be reset at any time

Press to select PART TOTAL

Part total displays for 5 seconds then defaults to channel 1.

Press to select PART TOTAL

Press and hold for 5 seconds.

Channel 4 - Grand Total

When the bale wrap is complete, the grand total is automatically advanced by 1. The grand total cannot be reset.

Press to select GRAND TOTAL

Grand total displays for 5 seconds then defaults to channel 1.

Channel 5 - Bale Wrapping Rate

Displays number of bales wrapped per hour. The time period over which the rate is averaged may be re-started at any time.

Press to select Hr

Press to select Hr

Press and hold for 5 seconds.

Channel 6 - Bale Wrapping Speed

Displays instantaneous r.p.m. of the bale wrapper at 3 second intervals in the range 10-99 r.p.m. An overs-peed alarm will sound if the r.p.m. exceeds a pre-programmable limit. The display will default to this channel and flash for the duration of the over-speeding, subse-quently reverting to the 'current/target wraps' display.

Press to select /min

Program the Overspeed Alarm

Switch power on while pressed

Release

The 3rd digit flashes

Hold to cycle to the desired digit, then release, otherwise press once…

The fourth digit flashes

Hold to cycle to the required digit.

Total Reset

If for some reason the data in the instrument is corrupted or the display shows 'PrOg' then the instrument must be totally reset.
- Switch power off.
- Press and hold all 3 control switches.
- Switch power on.
- Release all switches.

All instrument settings should be returned to the factory-set values. If the display shows 'PrOg' again, the instrument may be faulty and must be returned to the manufacturer for inspection and repair.

Programming Level 2

The 1310 S features Automatic Cut and start operation through the control unit. The 1310 SM also has an autostop feature which holds the joystick in position and automatically releases it at the end of the wrap sequence. The settings of these features are programmable in Level 2.
To enter, cut power and power on while holding CAL button. Release after power on. Press and release CAL to advance chevron to next position

To escape from this calibration level, switch power off and on again.

Channel	Function	Default	Range
1	Over speed Alarm*	35	0-99
2	W – Delay after pulse 2 before X	0.5	0-9.9
3	X – C&S Open duration	0.5	0-9.9
4	Y – Delay after Target – 1 before C&S Open	1.0	0-9.9
5	Z – Duration of C&S Open after Target pulse	2.0	0-9.9
6	V – Autostop release delay	0.7	0.0-9.9

[*In normal operation - If the rotation speed in RPM exceeds this number during operation, the alarm will sound for the duration of this condition. Chevron will default to channel 6 and display will flash in this condition. 0.491 Secs Mark and Space. Chevron will revert to channel 1 when speed drops below overspeed limit].

Operating Instructions
We shall now go through a complete wrapping process, from loading to storage place, and explain the practical use of Tanco Autowrap 1300 Range of wrappers.

Fitting Rolls of Film
Remember that the plastic film ends have to be locked in the Cutter/Film holder before starting the wrapping. Take care when doing this.

Bale Height Adjustment
The dispensers should apply the film to the centre of the bale. The 1320 is set up as standard to do this on 1200mm diameter bales with the roller arms fully closed. If larger diameter bales are being wrapped then the arm stop pins should be used to limit the closed height of the rollers, this lowers the height of the bale on the machine. This gives clearance between the top of the bale and the rotating arm and also gets the film applied to the centre of the bale.

Setting the Speed of the Wrapping Arm
The wrapping arm speed is adjusted with a valve (1) located at the rear of chassis adjacent to the oil filter (2). (See 9.1).

Clockwise rotation reduces arm speed, anti clockwise to increase speed. It is recommended that the wrap arm speed is not increased above 30 RPM because above this the warp arm will "catch" more air, and this air may not be able to evacuate from the bale. The result is bad fodder.

NOTE: Max. allowed wrapping arm speed is 35 revolutions per minute.

REMEMBER!
Increased speed of tractor engine does not increase the wrapping speed,
it only increases the oil flow into the system, this may increase the temperature in the
hydraulic system.

Overlap - 1320 EH Model
Overlapping on the 1320 model is set for two rolls of 750mm wide film. The wrap arm and roller speeds are synchronised so the roller speed will automatically change with the arm speed to maintain correct overlapping.

How Many Layers of Plastic Film?
When the bale is completely covered with film, read the counter that displays the number of revolutions done by the wrapping arm. Add 1 to this number and multiply by 2 or 3, depending on how many layers of film you want to have.

* 4 layers - multiply by 2.
* 6 layers - multiply by 3.

As long as you wrap bales with the same diameter, you can stop at the same number every time. It would be recommended as a minimum to apply 18 warps to 1.2m diameter bale.

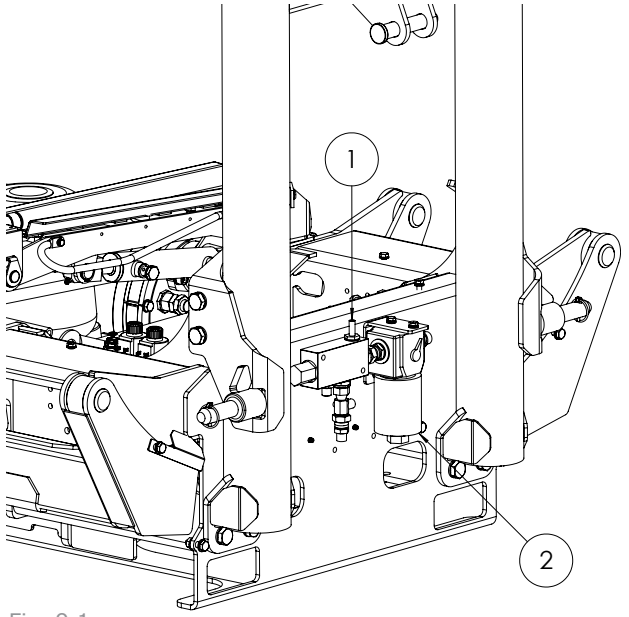


Fig. 9.1

Overlap - 1310 EH / S / SM Models
On all 1310 models the bale roller speed can be independently adjusted relative to the wrap arm speed. T
his allows the film overlapping to be manually adjusted and therefore must be set by the operator. To do this, first set the wrap arm speed as detailed in the previous section.

Load a bale and put a wrap of film on to it. With a marker put a line in the centre of the strip of film on the bale. Adjust the roller speed so this line is just covered by the next strip of film applied. 53% is ideal overlapping. Overlapping should be checked when bale size or bale quality changes.

The speed of the wrapping arm on the 1310 EH model is set by the valve (2) at the rear of the chassis adjancent to the oil filter (1) (clockwise roation reduces the speed), the roller speed can be adjusted by turning the knob of the valve (3) directly below the wrap arm speed adjustment valve (clockwise roation increases the speed) (see Feig 9.2).

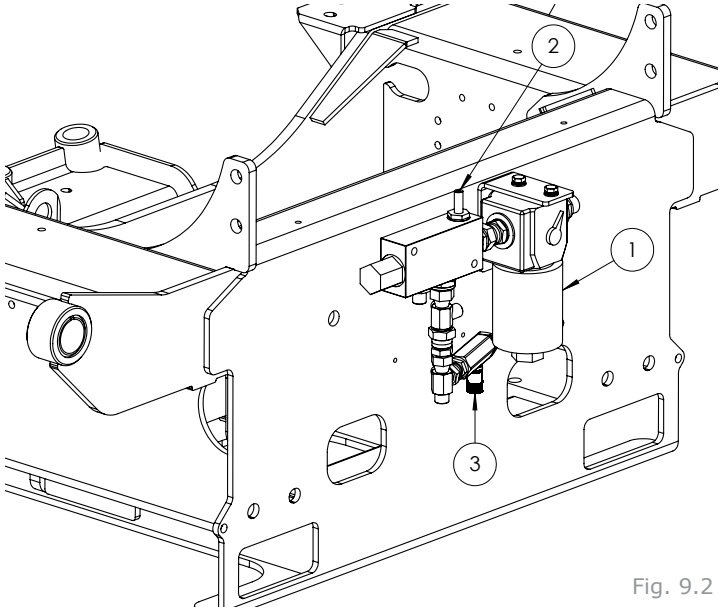


Fig. 9.2

For 1310 S & SM models the wrap arm and roller speeds are controlled by the valve (1) at the rear chassis, one knob (1A) controls the speed of the rollers (clockwise rotation reduced the speed) the second knob (1B) controls the speed of the wrap arm (clockwise rotation reduces the speed) (See Fig 9.3)

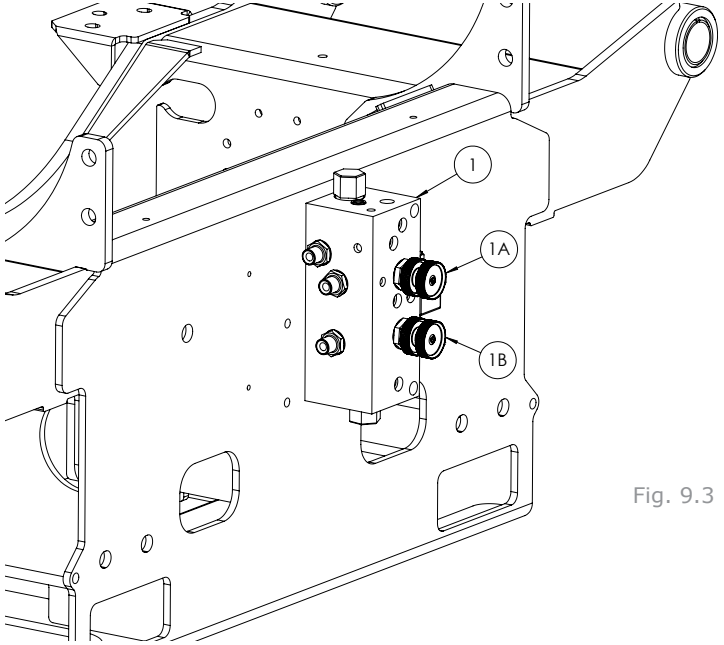


Fig. 9.3

Loading
Set the machine height with the tractor lift arms so there is approximately 300mm clearance between the rollers and the ground. It is very important that the rollers do not hit the ground when loading as this can damage the rollers and overload the roller drive. Open the rollers to the maximum. Drive in under the bale. Close the rollers fully to lift the bale clear of the ground. See Controller Information for setting controller for automatic one touch loading. To ensure that the bale does not creep off the rollers while wrapping it is important that the rollers are inclined towards the tractor, the machine may need to be raised to achieve this.

Start Wrapping
Because of the unique folding design of the 1320 wrapping arm it is easier to operate the wrapping pro¬cess in automatic A mode rather than in M manual. The comments in brackets below are the program¬mable factors on the controller that govern the function that is happening.
The folded wrapping arms should be parked in the centre of the chassis before commencing the auto¬matic wrapping sequence.

The film cutter releases the ends of the films (after, Wraps to Release).
Note the controller counts in steps of 2, because for each revolution of the wrapping arm two wraps of film are applied.

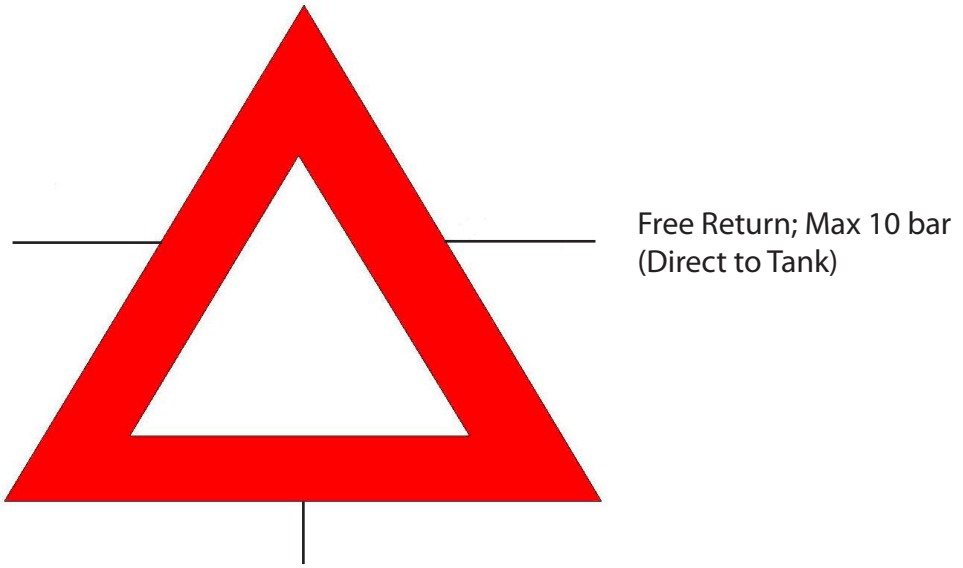
On the last revolution of the wrapping sequence the arm steps down to slow speed (after Delay to Slow time past the sensor).
The wrapping arm folds the dispensers together (after Delay to Fold time).
The cutter opens.
The two dispensers rotate together past the opened cutter (for Delay to Stop time).
The cutter closes (for C&S Close Time 2)
The wrapping arm reverses to the centre of the machine (for Reverse Time)

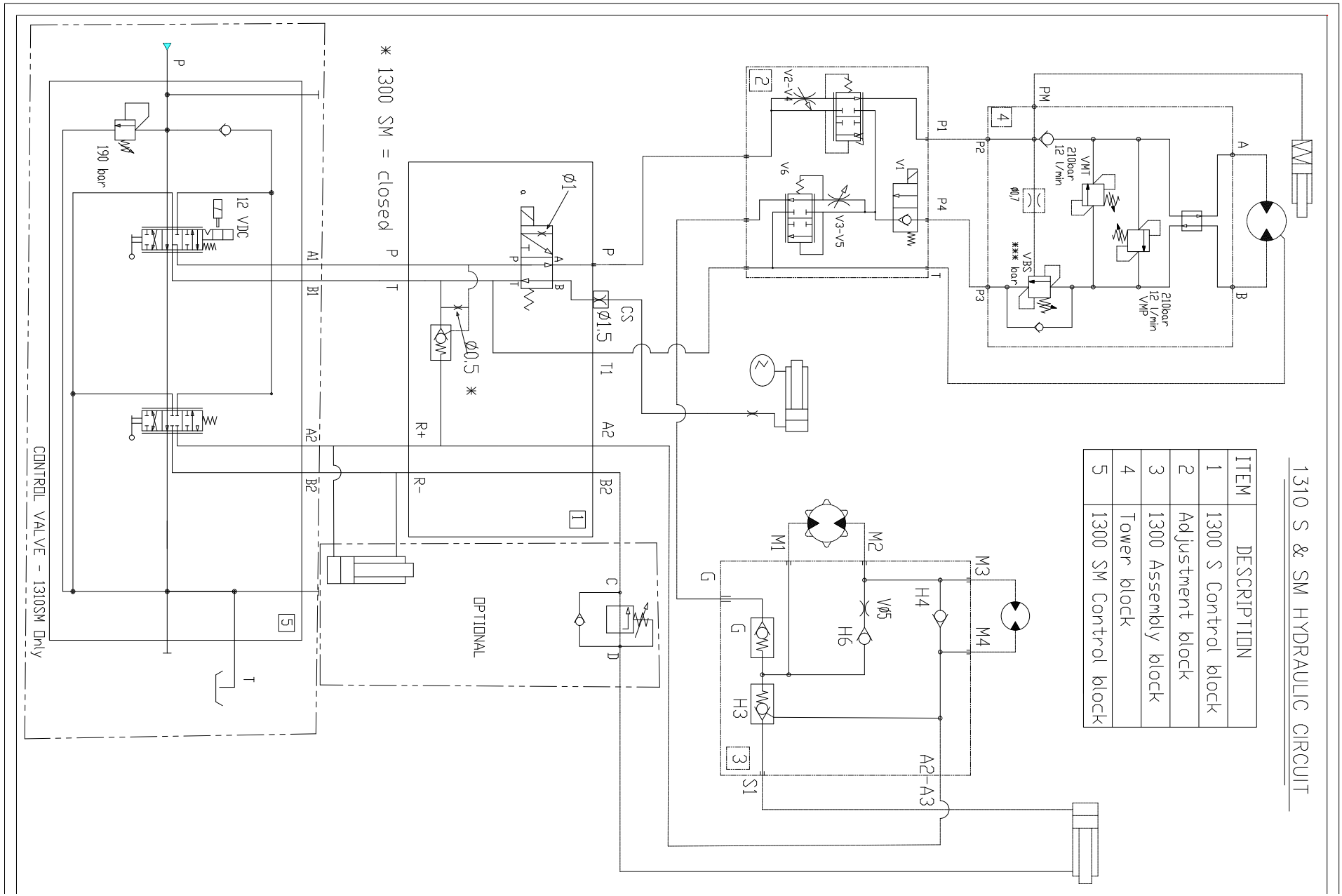
The bale is now ready for unloading.

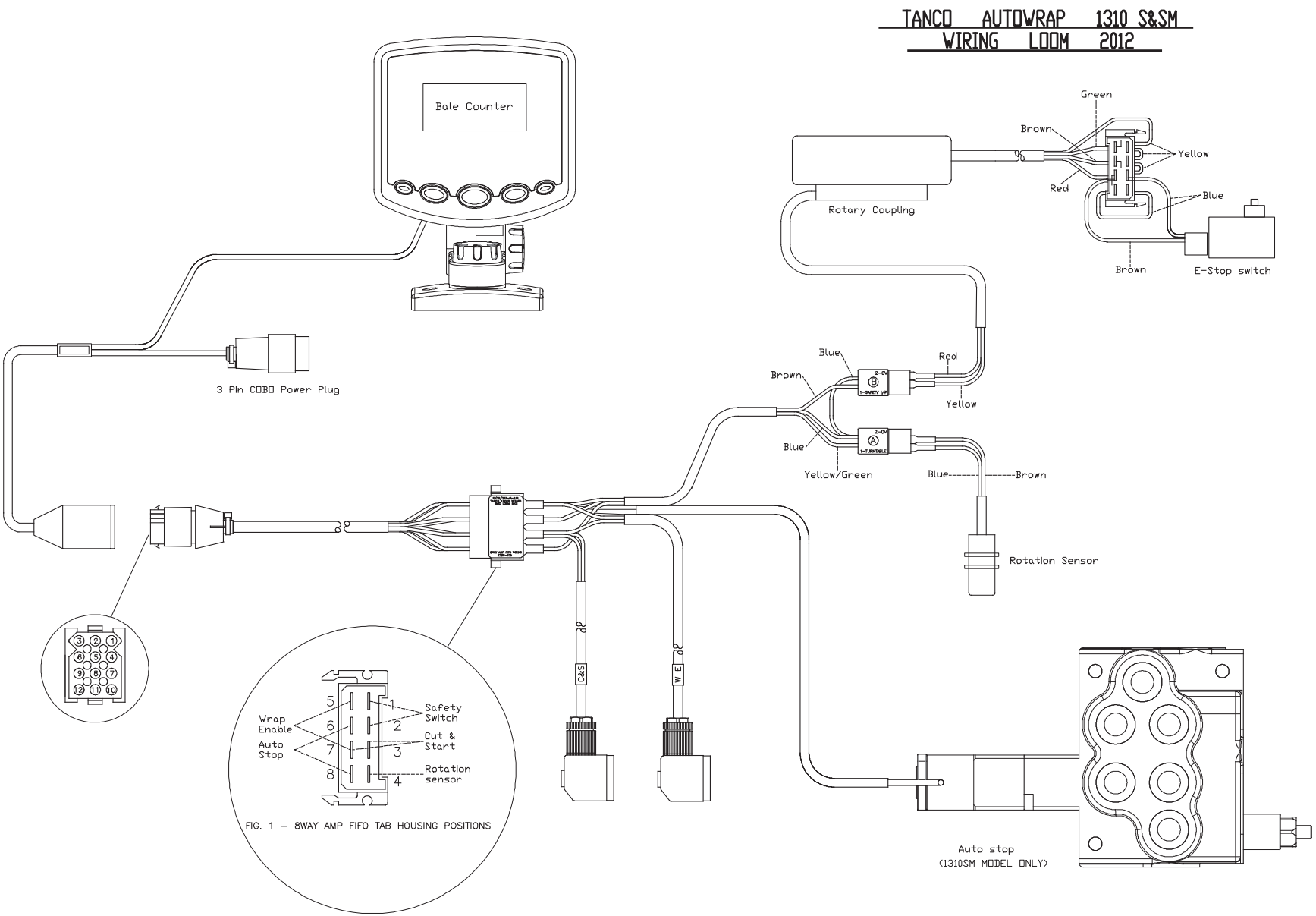
Unloading
As with loading make sure that the rollers do not touch the ground when unloading.

Storage Place
At the storage place the bales should be placed systematically. Start at the right-hand side, and stack to the left. The machine is lowered, but not all the way down to the ground. The rollers must not hit the ground. Push the "rollers out" button to open the rollers and drop the bale to the ground. Drive the trac¬tor carefully away from the bale. Try to avoid touching the bale with the rollers. Place the next bale to the left of the first one so that the loose film end on the last bale will be locked. To be sure we recommend that you check that the film ends are securely fastened, and eventually fasten them a little bit better when you have stacked the bales.
If the machine is front mounted, the bales can be staked upon each other.

Electro-Hydraulics
Note: There are 3 basics, which must ALWAYS be followed if the machine is to function correctly.

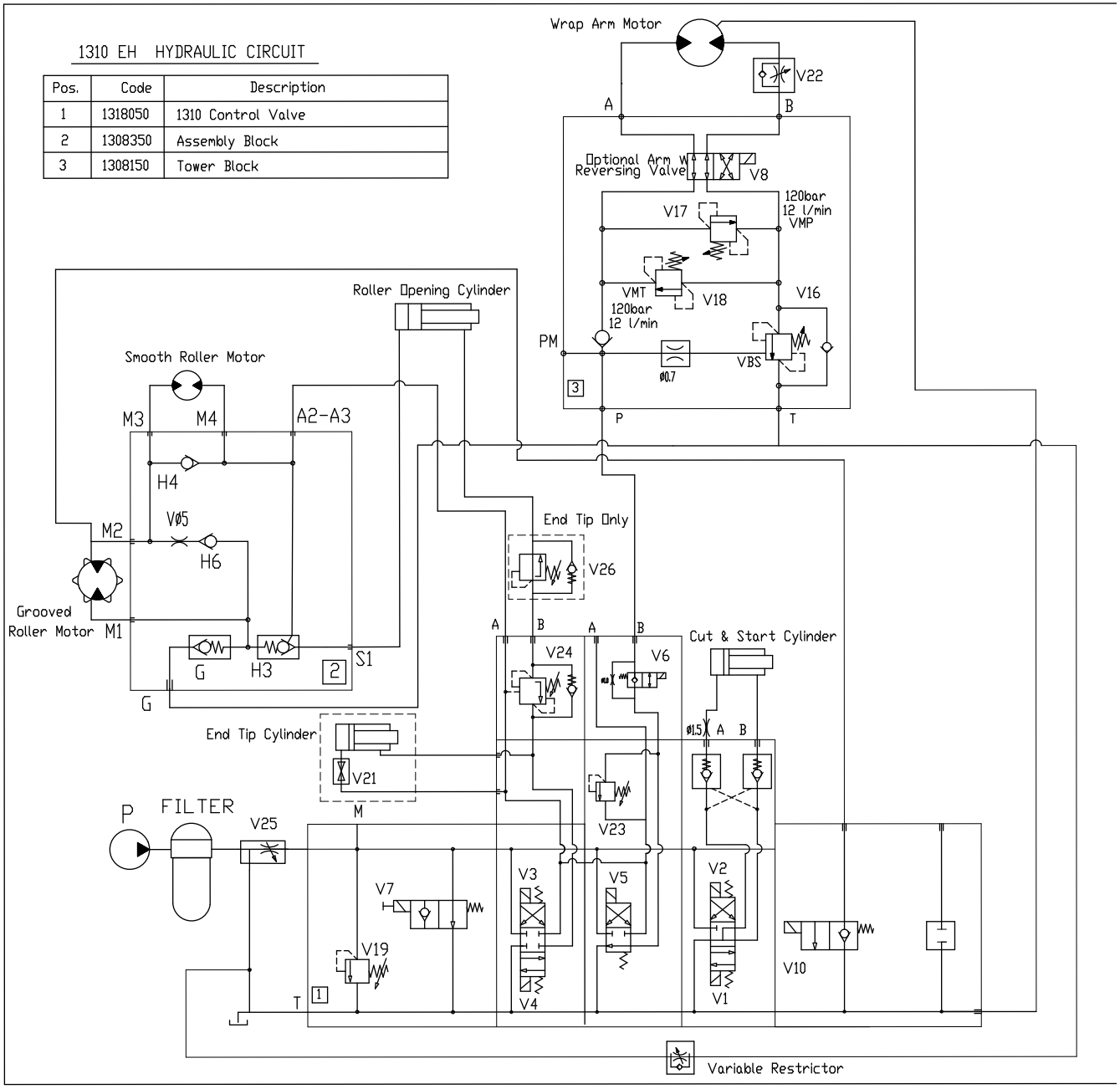


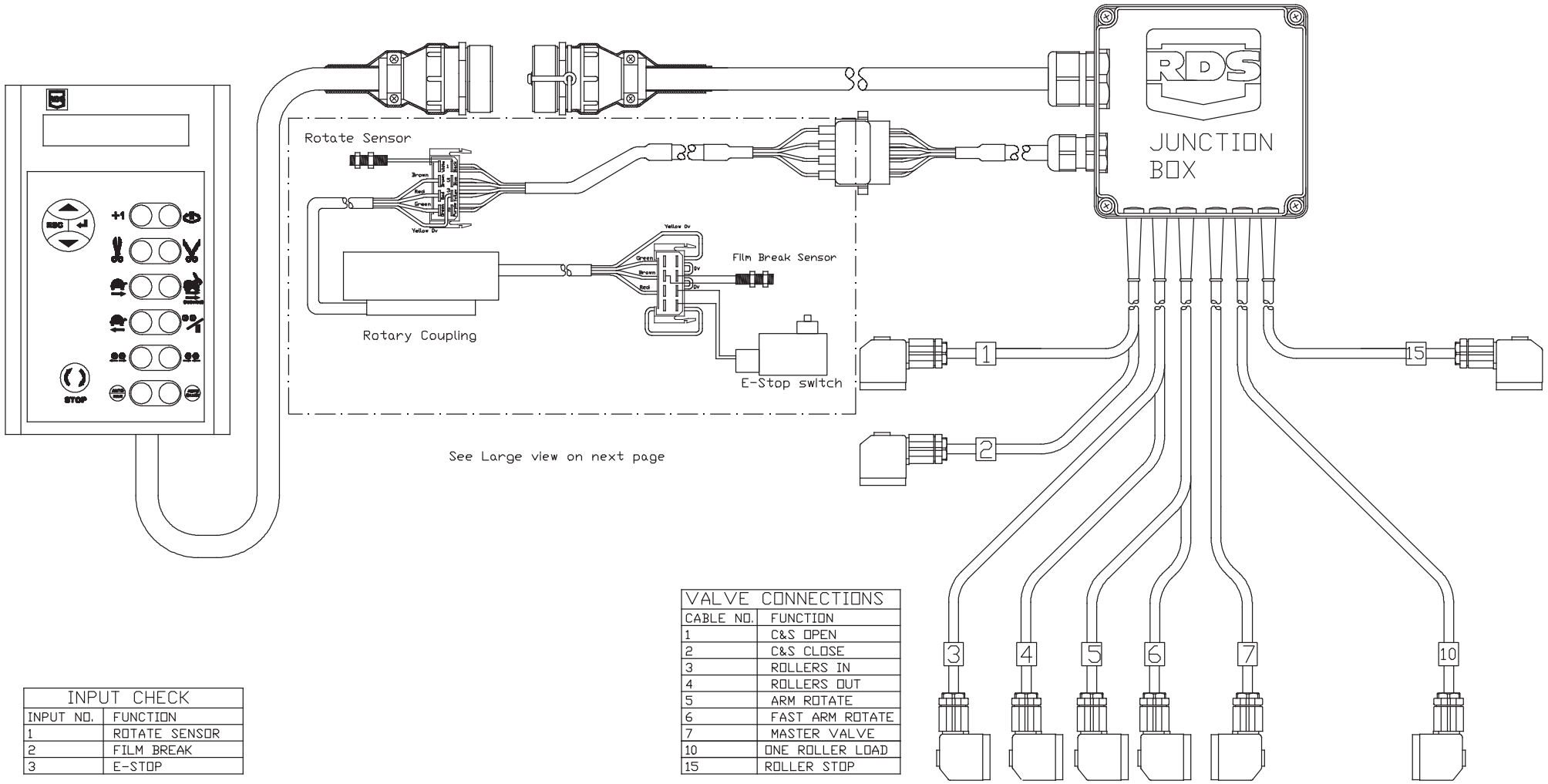

1310 S & SM HYDRAULIC CIRCUIT
ITEM
DESCRIPTION
1
1300 S Control block
2
Adjustment block
3
1300 Assembly block
4
Tower block
5
1300 SM Control block
CONTROL VALVE - 1310SM Only
OPTIONAL
* 1300 SM = closed
190 bar
12 VDC
Ø1
Ø0.5 *
Ø1.5
CS
T1
R+
R-
A1
B1
A2
B2
P
T
V1
V2-V4
V3-V5
V6
P1
P2
P3
P4
PM
A
B
VMT
210bar
12 L/min
Ø0.7
VBS
*** bar
210bar
12 L/min
VMP
M1
M2
M3
M4
G
H3
H4
H6
VØ5
S1
A2-A3
C
D


TANCO AUTOWRAP 1310 S&SM
WIRING LOOM 2012
Bale Counter
3 Pin COBO Power Plug
Rotary Coupling
Green
Brown
Yellow
Red
Blue
Brown
E-Stop switch
Blue
Red
Brown
Yellow
Blue
Yellow/Green
Blue
Brown
Rotation Sensor
C&S
W E
Auto stop
(1310SM MODEL ONLY)
Wrap Enable
Auto Stop
Safety Switch
Cut & Start
Rotation sensor
FIG. 1 – 8WAY AMP FIFO TAB HOUSING POSITIONS

1310 EH HYDRAULIC CIRCUIT

Pos.	Code	Description
1	1318050	1310 Control Valve
2	1308350	Assembly Block
3	1308150	Tower Block

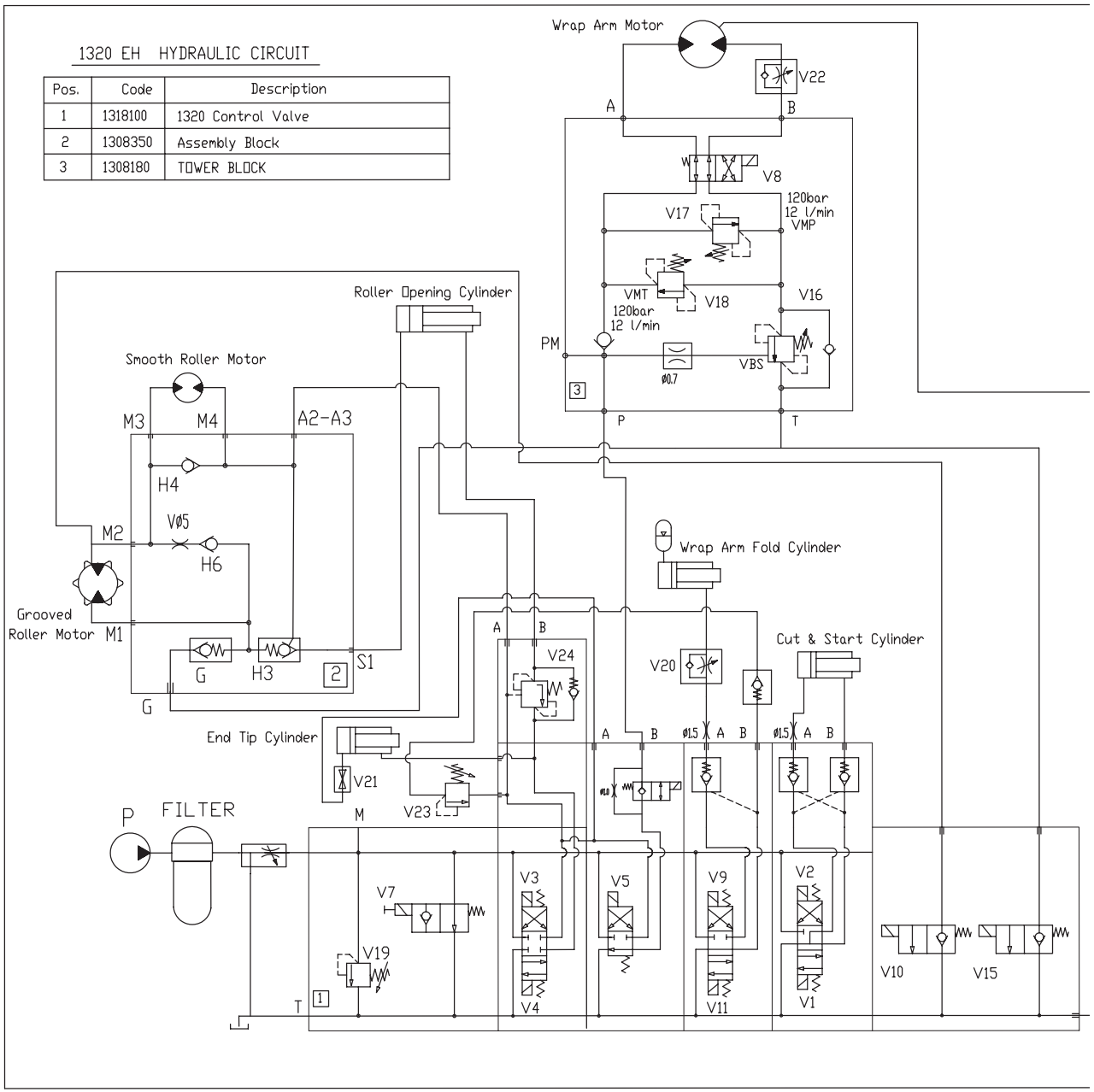


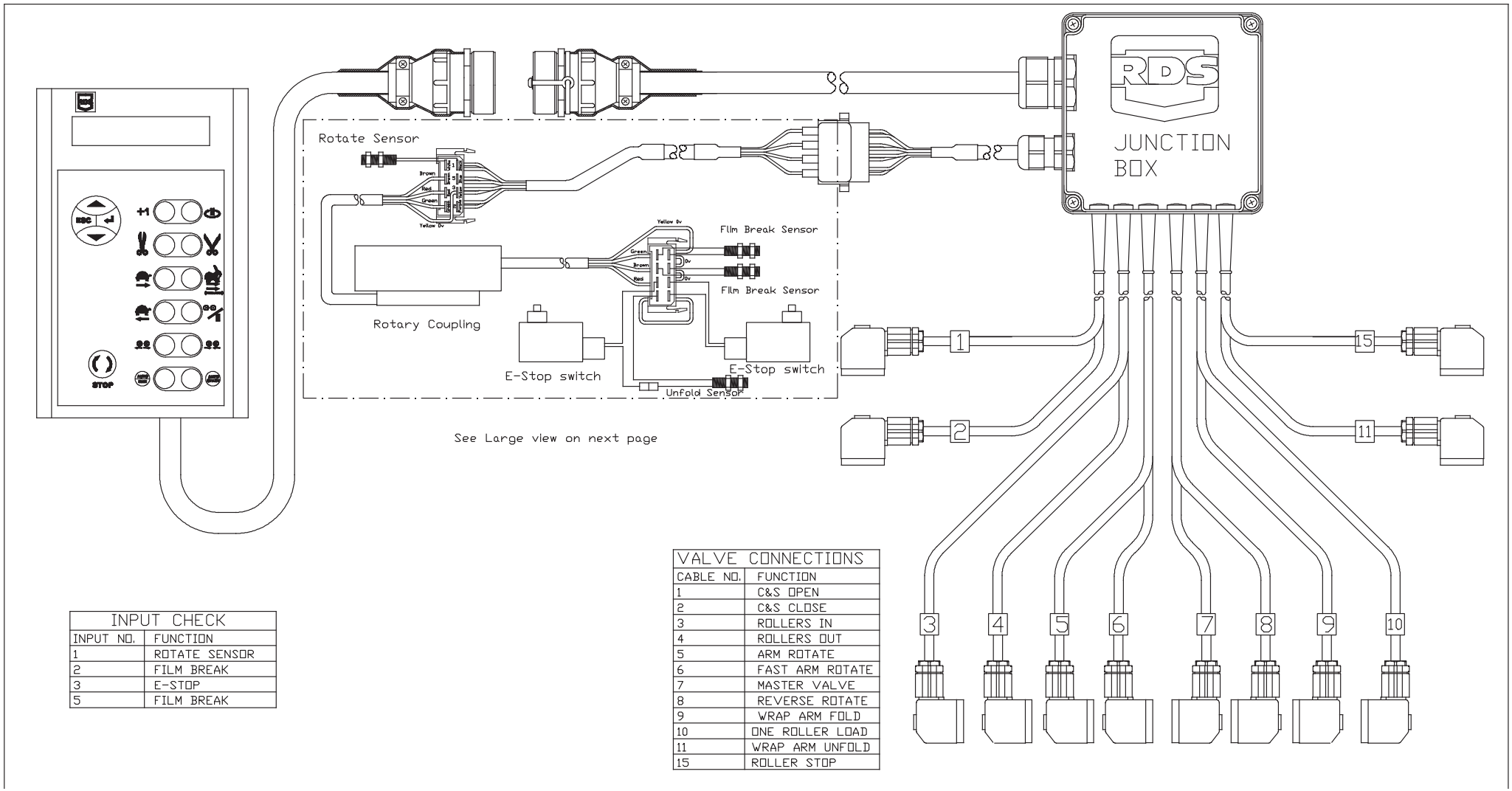


INPUT CHECK	
INPUT NO.	FUNCTION
1	ROTATE SENSOR
2	FILM BREAK
3	E-STOP

VALVE CONNECTIONS	
CABLE NO.	FUNCTION
1	C&S OPEN
2	C&S CLOSE
3	ROLLERS IN
4	ROLLERS OUT
5	ARM ROTATE
6	FAST ARM ROTATE
7	MASTER VALVE
10	ONE ROLLER LOAD
15	ROLLER STOP

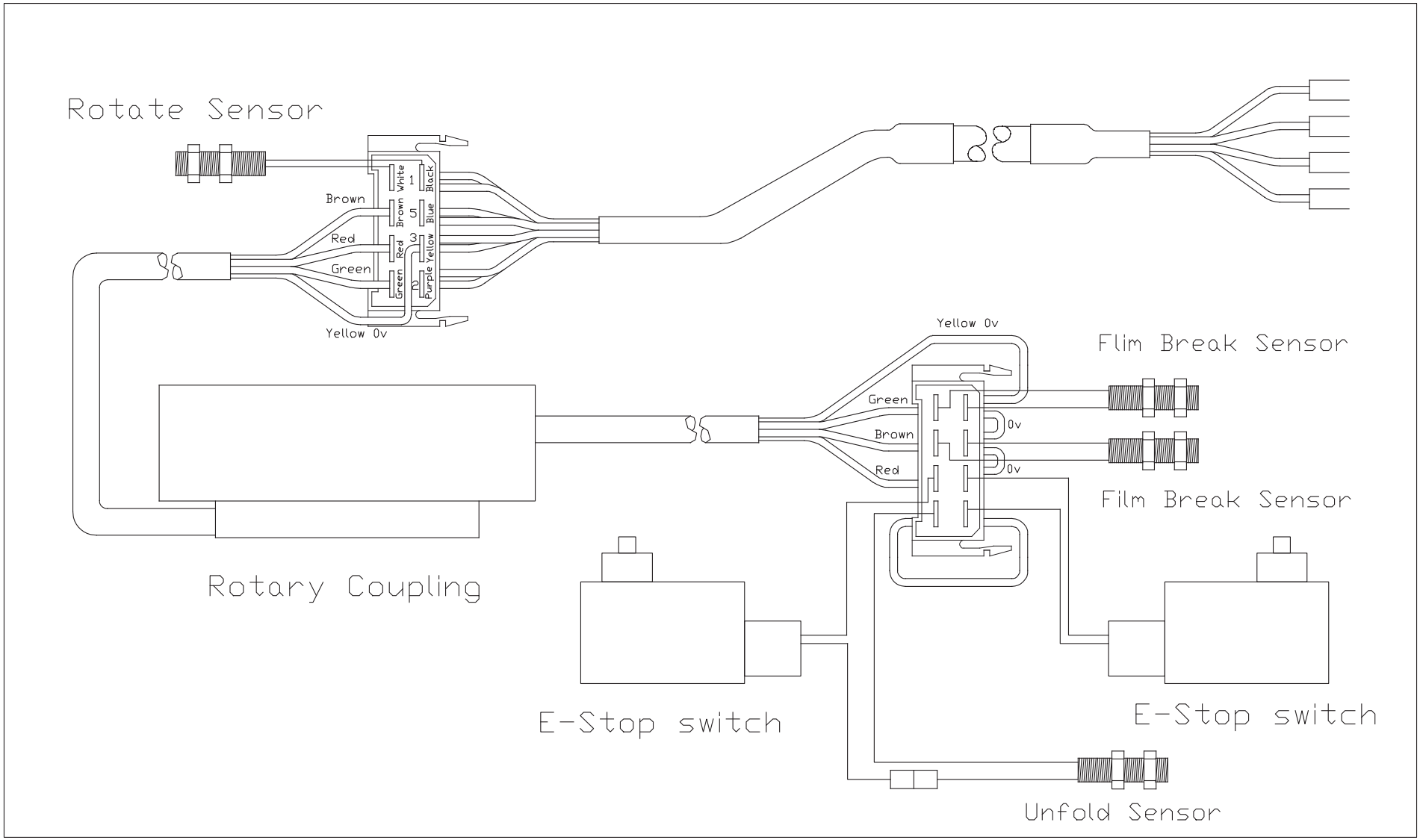
1320 Hydraulic Circuit





INPUT CHECK	
INPUT NO.	FUNCTION
1	ROTATE SENSOR
2	FILM BREAK
3	E-STOP
5	FILM BREAK

VALVE CONNECTIONS	
CABLE NO.	FUNCTION
1	C&S OPEN
2	C&S CLOSE
3	ROLLERS IN
4	ROLLERS OUT
5	ARM ROTATE
6	FAST ARM ROTATE
7	MASTER VALVE
8	REVERSE ROTATE
9	WRAP ARM FOLD
10	ONE ROLLER LOAD
11	WRAP ARM UNFOLD
15	ROLLER STOP


Rotate Sensor
Brown
Red
Green
Yellow 0v
White
Brown
Red
Green
Black
Blue
Yellow
Purple
1
5
3
Rotary Coupling
Yellow 0v
Green
Brown
Red
0v
0v
Flim Break Sensor
Film Break Sensor
E-Stop switch
E-Stop switch
Unfold Sensor

Description Of EH Modles Hydraulics
The 1320 is driven from the hydraulic system of the tractor. The hydraulics of the machine can easily be changed from "Open Center" to "Closed Center" hydraulic system.

The number on the electrical lead to the solenoid corresponds to the valve number. Their functions are as follows:

Valve (1) Cutter Open.
Valve (2) Cutter Close.
These valves open and close the film cutter
To prevent the Cutter creeping open, there is a load holding valve on top of the cutter section of the control valve. There is a 2mm speed control orifice in the bottom port of the cutter section.

Valve (3) Rollers In.
This valve operates rollers in for loading

Valve (4) Rollers Out.
This valve operate rollers out for unloading.

Valve (5) Arm Rotate.
This valve powers the wrap arm and table rollers.

Valve (6) Fast Arm Speed.
At the beginning and end of the wrapping sequence the wrap are goes in to slow speed. This valve is power for fast arm speed. When this vale is not powered the oil to the wrap arm goes the an orifice and so rotates at slow speed.

Valve (7) Master valve.
This valve is powered for every function.

Valve (8) Reversing Valve.
This valve is mounted on the tower valve, it reversed the direction of rotation of the wrap arm.

Valve (9) Wrap arm Fold
This valve folds the wrapping arm from the straight position to the position where both dispensers come together.

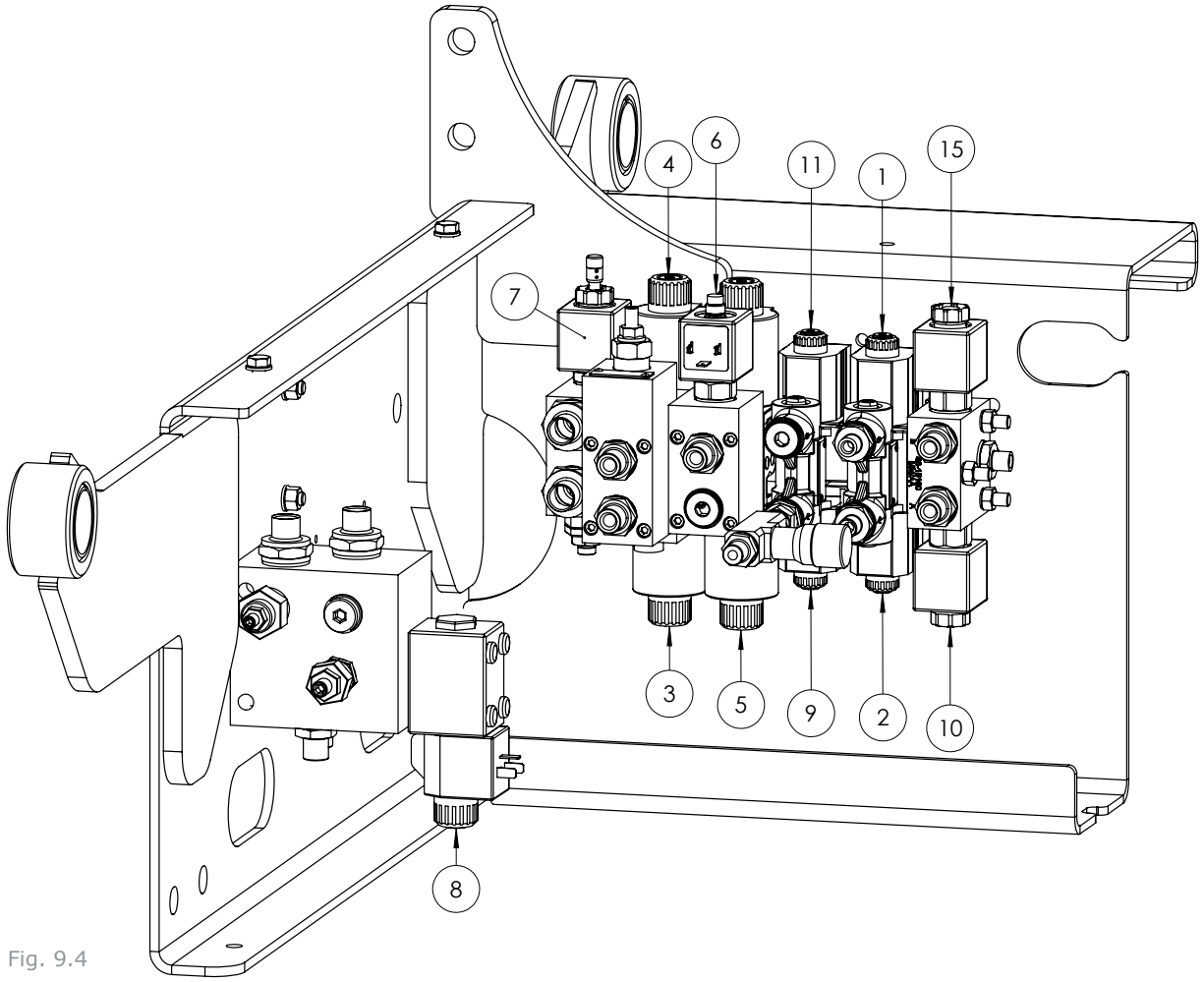


Fig. 9.4

Valve (10) One Roller Load.
This valve is powered during loading, it diverts the oil to tank between the two rollers so that for loading only the drive roller rotates.

Valve (11) Wrap Arm Unfold.
This valve unfolds the wrapping arm to the straight position.

Valve (15) Roller Stop.
This valve stops the rollers turning during an automatic wrapping sequence.
It is pulsed on and off to reduce the roller speed when the film break sensors detect that one film has broken. It can be manually operated by pushing button R4 during wrapping.

Valves 16,17,18 are on the tower block

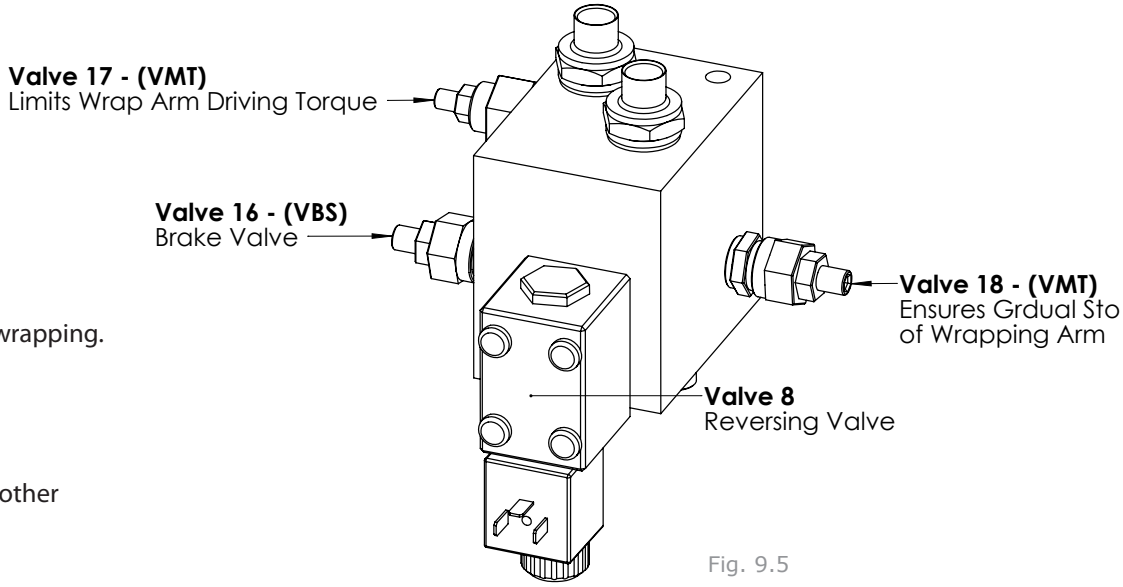


Fig. 9.5

Valve (16) (VBS) Brake valve.
This is a pilot operated (8:1 Ratio) load holding valve. It makes the wrap arm run smoother in hilly conditions and holds the wrap arm in place when parked.

Valve (17)(VMP) Cross Line Relief Valve Forward
This valve limits the max. torque of the wrapping arm. If the inlet pressure exceeds the set value, it relieves the oil across to the outlet side of the motor. It is adjusted so that the pull force on the far end of the arm is approx. 35 KG. If it is set too high acceleration at the beginning of wrapping will be very sharp.

Valve (18)(VMT) Cross Line Relief Valve Reverse
This valve ensures a gradual stop for the wrap arm by limiting the pressure on the outlet side of the motor. If the pressure exceeds the set value, it relieves the oil across to the inlet side of the motor.

Valve(19) Main Relief Valve
The hydraulic system is equipped with a safety relief valve, which is preset to 185 bar. If this pressure is exceeded it opens and allow the oil from the pressure port to the tank port of control valve.

⚠ IMPORTANT:
Valves 16 to 19 have been carefully set in the factory. Incorrect adjustment of these may cause damage to the machine. Always ensure that trained personnel only adjust the settings of these valves.

Check Points Prior to Troubleshooting
There are some general check points that have to be examined first if something is wrong with the machine. There are three basic assumptions that have to be fulfilled for the machine tofunction properly;

1. The oil pressure from tractor should be 180 bar.
2. The return flow of oil has to be as free as possible, max. 10 bar counter pressure.
3. Enough electric power to all functions.

Oil Pressure
In order to check that the oil pressure into the machine is high enough, a guage may be applied to the oil pressure hose, for example on the quick coupler.
If the pressure is less than 180 bar, there will be less power for the functions. The first place you trace this is at the ROLLERS OUT / IN.

Oil Flow
The amount of oil that the tractor delivers should be minimum 15 liters/minute for satisfactory operation of the machine, but it is recommended that it is 25 liters/minute.

Note: (Max. allowed oil amount is 40 liters/minute). Ensure that oil level in tractor's hydraulic system is correct and tractor's oil filter is changed regularly. REMEMBER! Large oil amount will mean that the Valves get hot. (Small Oil Tank will mean insufficient cooling).

Return Pressure
The return pressure can be too high. With high return pressure the machine's functions will get less power. High return pressure means also that you need more power to operate the valves. MAX. ALLOWED RETURN PRESSURE IS 10 BAR. We recommend "free return" directly to the tank.

Electric Power
It is important to check that all functions receive enough electric power. If not, some, or all functions may fail.

- Is the battery voltage high enough?
If the voltage falls below 9 volts the valves will not be able to open.

- Are the cables correctly connected to the battery?
Follow directions in chapter 6.

- Is the connection between battery cable and control unit OK?
Clean off the poles and check the plug.

- Is the connection between remote control unit and machine OK?
Change contacts if any doubt about the condition.

- Is the fuse on the battery cable OK?

PLEASE CONTACT YOUR DEALER IF YOU ARE IN DOUBT ABOUT ANYTHING.
(Remember always to give your dealer the serial number and production year of your machine when contacting dealer and when ordering spare parts).

Procedure of Troubleshooting
If the machine fails to operate correctly it must be determined if the problem is Hydraulic, Mechanical or Electrical.

Solenoid Valves
When checking if the Solenoid valves are receiving electric power, you do this in the following way:

1. Unscrew the nut that holds the solenoid.
2. The solenoid is easy to move without electric power.
3. Push the current function on the remote control. If the solenoid gets power, it will be difficult to move, it "sticks". This is the best and easiest way to check if the solenoid valve is receiving electric power. Another way is to hold a screwdriver up to the magnet. If it "sticks", the solenoid is receiving electric power.

The power supply to the valve can also be measured with a voltmeter, but then the contact must be connected to the solenoid, so it is using power. To have reliable functions, the voltage should not be lower than 11,5 volts, even if the solenoid valve usually works with a little lower voltage.

Only For Solenoid Valves to the Main Functions
If the electric supply is in order and one of the functions fails, the reason can be dirt that tightens or prevents the sliding shaft (spool) from moving.
Try to manoeuver the function manually, by pressing the point of a screwdriver into the end of the valve housing. At the same time the corresponding switch on the control unit has to be operated to get electric power to the master valve. If the function is working again after this, the dirt may have been pushed out in the oil system and the machine can be operated normally again.

⚠ Take care so that the machines moving parts, do not cause damage to persons or objects.

The Machine Does not Function
- Even if the gauge shows enough pressure and there is no reaction in the machine. The reason could be that one, (or both), of the quick-couplers does not open for the oil, in this situation you should change the quick-couplers.

- The counter pressure may be too high.
Max. allowed counter pressure is 10 bar.

Make sure that the open / closed valve is correctly positioned.

Note: Disturbances of this type, a, b or c, are most likely in the first days that the machine is in use.

The Cutter will not Hold the Film
Is the cutter closing fully, if not increase the Cutter Close Duration 2.
If the cutter is creeping open, there may be dirt in the load holding, open and close the cutter a number of times to try to clear this. . If the problem develops over time then it may be due to seal wear in the cutter arms.

The Wrapping Arm will not Rotate
- The bolt that secures the wrapping arm during transport has to be removed so that the wrapping arm can move freely.

- Check valve 1 Screw all the way in and test. Adjust to required power.

- The safety valve, can be leaking, so that the oil is passing by the wrapping arm motor. Dismantle and try out if the sliding shaft can move freely .

- The control valve, may be blocked. Dismantle and check if the valve works normally. Do not use sharp tools.

- Check if the oil motor is working
Ask your dealer for advice BEFORE you make the problems bigger and repairing more difficult

- If the Emergency Stop has been activated. To start the machine the control box must be reset.

The Roller Will not Adjust

- Is the Solenoid valve receiving enough electric power?
When the power source is tapped by several users at ones, the voltage can fall so much that all the functions will cut out, or only the width regulating. Check the power source and measure the voltage.

- Check the Bypass Valve
If this is receiving enough power and has free flow, the problem must lie in the solenoid valve.

Periodic Maintenace
Bearings
All ball-bearings are packed with grease, and do not need any more maintenance.

Pre-Stretchers
If the machine is in daily use, the Gears under the plastic cover on the dispenser should be greased when needed.

Cutters / Film Holders
The cutter / film holder is pre-adjusted from the factory and does not need further adjustments. When replacing spare parts, it is necessary to adjust it. The springs for the U-shaped slot shall be adjusted so that they are almost completely squeezed together when the cutter-arm is all down.

Cleaning
The machine should be cleaned and oiled regularly and at the end of the wrapping season.
⚠ When using high pressure washing apparatus, care must be taken with the electrical installation.
Also make sure that water is not sprayed directly into the bearings, etc. Keep the control box protected from rain and water. If necessary use compressed air to dry electrical components.

Hydraulic Cylinders
Make sure that all hydraulic cylinders are closed when storing the machine.

Quick Couplers
Ensure that the quick couplers are kept clean and apply the dust caps after use.

Storage
The machine should be parked on a dry place during the closed season.

Oil Filter
The oil filter must be changed once a year.

Lubrication (See Fig. 11.1)
The table overleaf outlines the recomended lubrication requirements for components on the 1310 / 1320 models; Note: We recomend that you change the oil in the Tower & Roller motors every 500hrs.

No.	Component	Type	Intervals
1	Width Ram	Grease	10hrs
2	Cut & Tie Ram	Grease	10hrs
3	Arm Folding Ram	Grease	10hrs
4	Wrap Arm Drive*	Oil	50hrs
5	Roller Drive**	Oil	50hrs
6	Dispenser Gears	Oil	50hrs

* Chain & Sprockets
** Sprockets

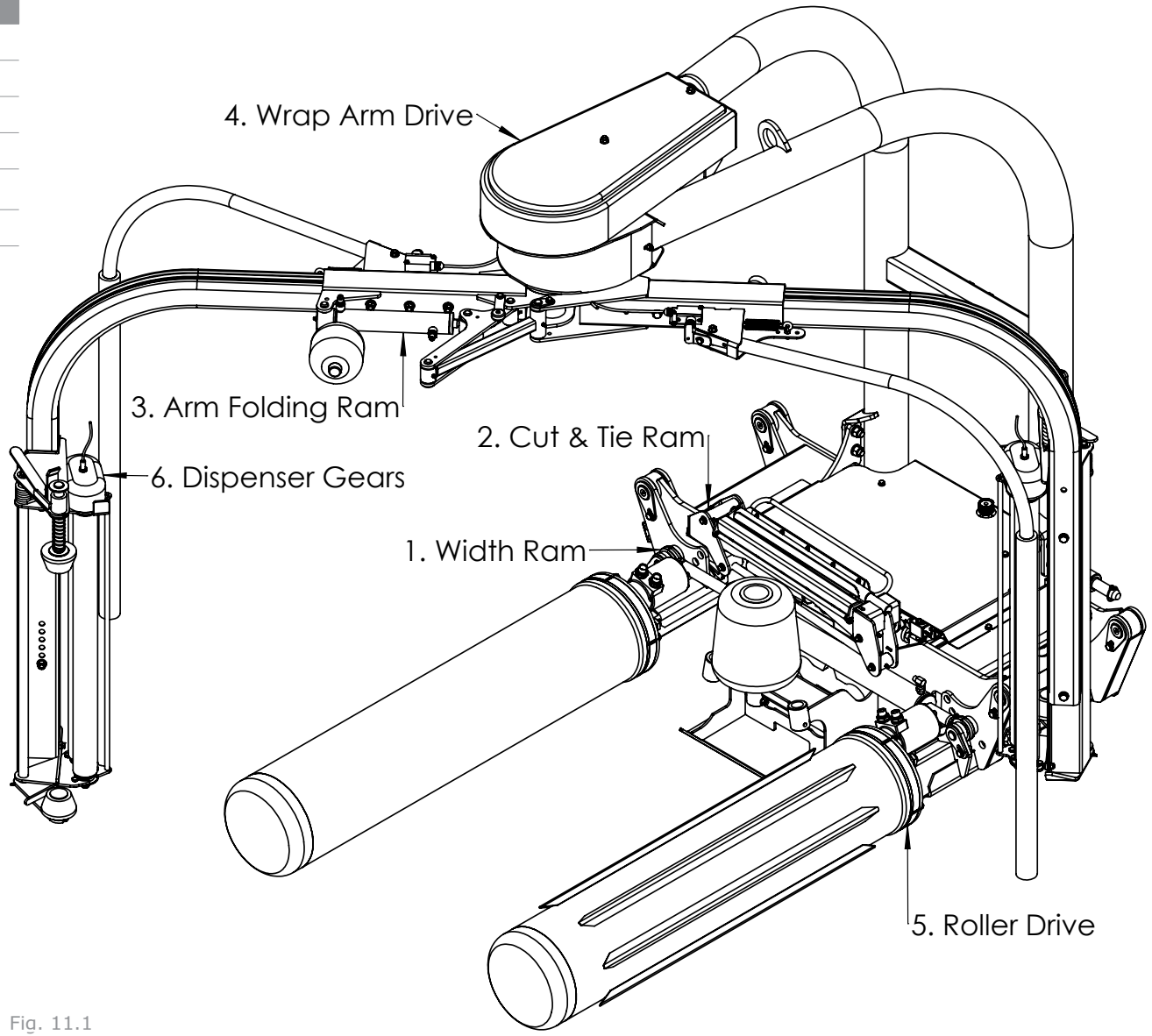


Fig. 11.1

GUARANTEE

Subject to hereunder provided, the sellers undertake to correct either by repair or at their election by replacement any defect of material or workmanship which occurs in any of its goods within twelve months after delivery of such goods to first user, with the exception of contractors or commercial users when warranty period is six months.
In respect of Autowraps the warranty period is for 12 months or 8000 bales, whichever occurs first.

The term goods when used in this document means the article or articles described in invoices as sold by the sellers but dose not include equipment or proprietary parts or accessories not manufactured by the sellers. The sellers, however, undertake to pass on so far as they legally can to the first user the benefit of any warranty given to the sellers by the suppliers of such equipment, parts or accessories.
This understanding shall not apply to:-

(a) Any goods that have been sold by the first user.
(b) Any goods which have been injured by unfair wear and tear, neglect or improper use.
(c) Any goods the identification marks of which have been altered or removed.
(d) Any goods that have not received the basic normal maintenance such as tightening of bolts, nuts, tines, hose connections and fittings and normal lubrication with the recom mended lubricant.
(e) The use of any product on tractors exceeding the recommended horsepower.
(f) Any goods that have been altered or repaired other that on instruction or with the written approval of the seller or to which any part not manufactured or having written approv al by the sellers have been fixed.
(g) Any second-hand goods or parts thereof.

Any allegedly defective part or parts returned to the seller must be sent carriage paid. No claim for repair or replacement will be entertained unless upon discovery of the alleged defect written notification is sent to the Sellers giving, at the same time, the name of the Buyer from whom the goods were purchased and the date of purchase, together with the full details of the alleged defect and the circumstances involved, also the serial number of the machine etc.

The sellers shall be under no liability to their Buyers and first or subsequent users of their goods or to any other person or persons for loss or damage howsoever arising in respect of ei- ther personal injuries or for arising out of, or in any other way connected with or arising from the manufactures sale, handling, repair, maintenance, replacement or use of its goods or the failure or malfunction of any of its goods.
Representation and/or warranties made by any persons (including Buyers and employees and other representatives of the Seller) which are inconsistent or conflicting with these condi- tions are not binding upon the sellers unless given in writing and signed by a director of sales.

CLAIMS

If you wish to make a claim under the guarantee:

1: Immediately, stop using the machine.

2: Consult with your Tanco dealer (supplier). He/She can download a warranty claim form on-line. This should be filled out and e-mailed to distributor and forwarded to relevant contact person in Tanco. Please ensure all relevant information is included on this form

3: Consult with your Tanco dealer (supplier) and have him forward your claim and the damaged item to Tanco.

EC DECLARATION OF CONFORMITY

ACCORDING TO DIRECTIVES 2006/42/EC

CE

Manufacturer:
Tanco Autowrap Ltd
Bagenalstown
Co. Carlow
IRELAND

CERTIFIES THAT THE FOLLOWING PRODUCT:
TANCO AUTOWRAP
MODEL: 1310 S / SM / EH / 1320 EH
SERIAL NO:

To which this declaration relates, corresponds to the essential requirements of the Directive 2006/42/EC.

To conform to these essential health and safety requirements, the provisions of the following harmonized standards were particularly considered:

ISO 12100, EN 294, prEN 703, EN ISO 13857, EN ISO 4254 - 1, prEN 982.

DATE: 01/11/2011

Signed: _____

Con Hourihane, Technical Manager

1310 / 1320 Spare Parts List (English)

We recommend that when you require spare parts you use only original parts.
When ordering spare parts please follow the following steps;

1. Identify the part you require using the detailed drawings.
2. Once you have identified the part you require reference the item number relating to the part on the item list where you will find the part number and description of the part you require. You will be require to give the complete part no and decription when ordering your part(s).
3. When ordering you must give the Serial Number and Model Number of the machine.
4. All orders must go through your local Tanco Dealer, and must be either faxed or e-mailed to Tanco Autowrap.

1310 / 1320 Ersatzteilliste

Wir empfehlen, nur Originalteile als Ersatzteile zu verwenden.
Befolgen Sie bei der Bestellung von Ersatzteilen bitte die folgenden Schritte:

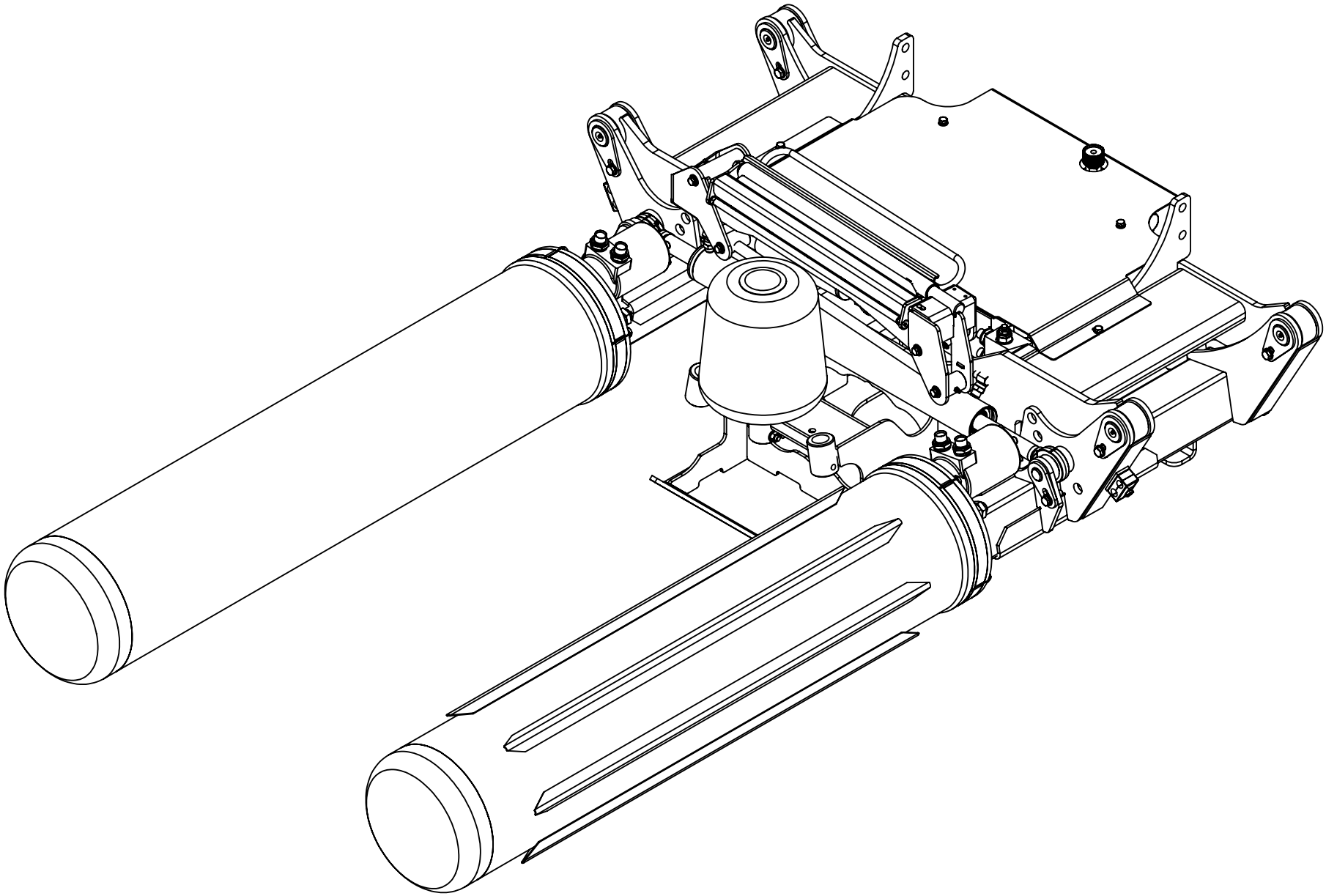
1. Stellen Sie anhand der detaillierten Zeichnungen fest, welches Teil Sie benötigen.
2. Haben Sie das benötigte Teil identifiziert, geben Sie die Teilnummer auf dem Bestellschein an, mit dem Sie das/die Ersatzteil/e bestellen.
3. Geben Sie bei jeder Bestellung die Serien- und die Modellnummer Ihrer Maschine an.
4. Alle Bestellungen müssen über Ihren Tanco-Händler vor Ort erfolgen und müssen Tanco Autowrap als Fax oder E-Mail erreichen.

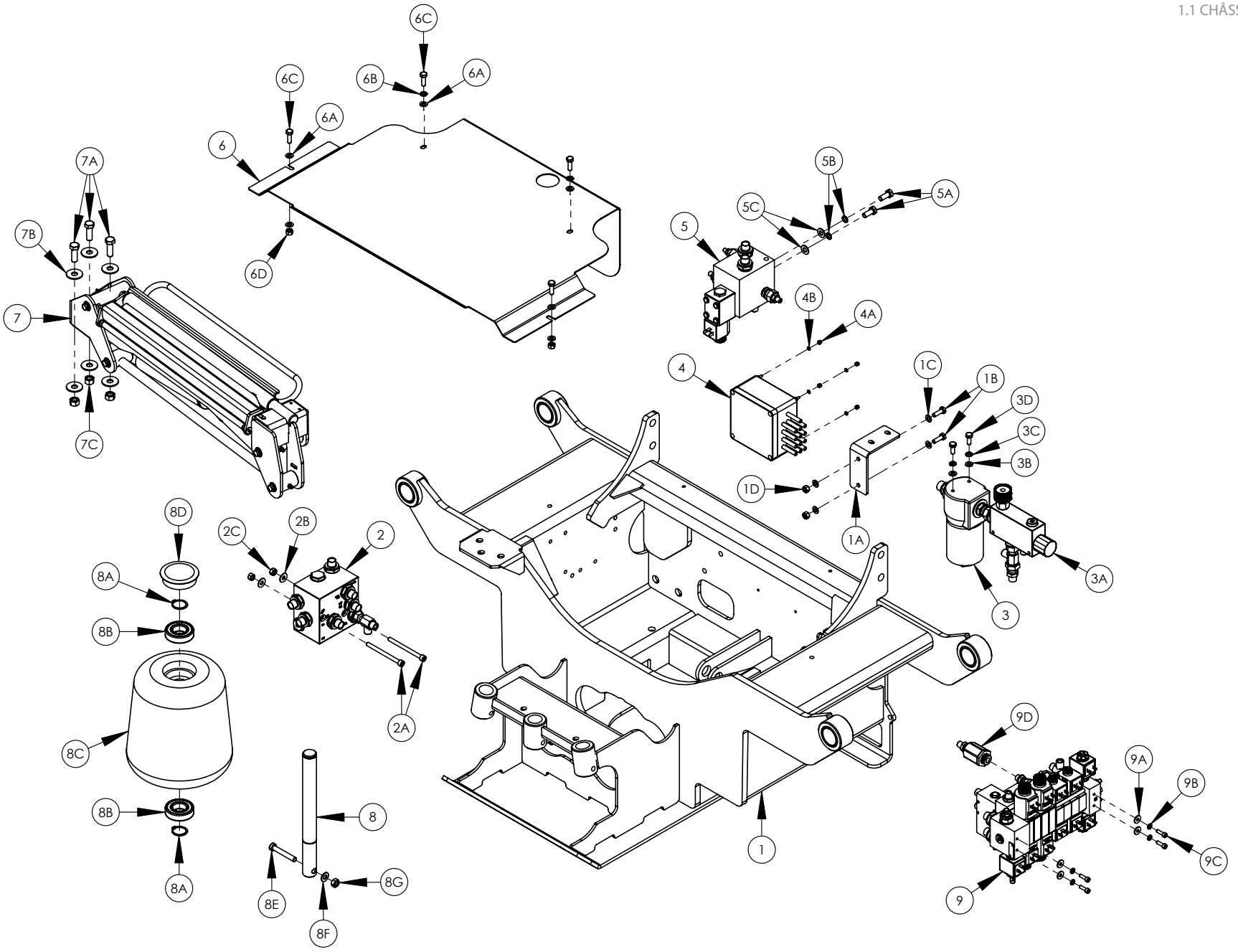
Liste des pièces de rechange 1310 / 1320

Si vous avez besoin de pièces de rechange, nous vous recommandons de n'utiliser que des pièces garanties d'origine.
Pour toute commande de pièces de rechange, veuillez suivre les étapes suivantes :

1. Identifiez la pièce dont vous avez besoin à l'aide des schémas détaillés.
2. Après avoir identifié la pièce dont vous avez besoin, relevez son numéro de référence dans la liste des pièces dans laquelle vous trouverez également la description de la pièce requise. Lors de la commande, vous devez indiquer la référence et la description complètes de la pièce.
3. Lors de la commande, vous devrez mentionner le numéro de série et le numéro de modčle de la machine.
4. Vous devez effectuer toutes les commandes auprès de votre revendeur Tanco local et les faxer ou les envoyer par e-mail à Tanco Autowrap.

CHAPTER	PAGE	BENENNUNG	DESCRIPTION	DESIGNATION
1	3	Fahrgestell-Baugruppe	Chassis Assembly	Châssis
	4	1.1 1320 EH Fahrgestell	1.1 1320 EH Chassis	1.1 Châssis 1320 EH
	6	1.2 1310 EH Fahrgestell	1.2 1310 EH Chassis	1.2 Châssis 1310 EH
	8	1.3 1310 S Fahrgestell	1.3 1310 S Chassis	1.3 Châssis 1310 S
	10	1.4 1310 SM Fahrgestell	1.4 1310 SM Chassis	1.4 Châssis 1310 SM
	12	1.5 1310 / 1320 Walzenarme	1.5 1310 / 1320 Roller Arms	1.5 Bras de rouleaux 1310 / 1320
	14	1.6 1310 / 1320 Ballenanschlag	1.6 1310 / 1320 Bale Stop	1.6 Arrêt de balle 1310 / 1320
	16	1.7 1310 / 1320 Ballenaufsteller *	1.7 1310 / 1320 End Tip *	1.7 Rampe d'extrémité 1310 / 1320 *
	18	1.8 1310 / 1320 Bodenwalze *	1.8 1310 / 1320 Ground Roller *	1.8 Rouleau de sol 1310 / 1320 *
2	21	Schneid- & Bindebaugruppe („Cut & Tie"-Baugruppe)	Cut & Tie Assembly	Ensemble de coupe et d'attache
	22	2.1 Basisbaugruppe	2.1 Base Assembly	2.1 Ensemble base
	24	2.2 Druckarmbaugruppe	2.2 Pressure Arm Assembly	2.2 Ensemble du bras de pression
	26	2.3 Baugruppe oberer Arm	2.3 Top Arm Assembly	2.3 Ensemble du bras supérieur
3	29	Turmbaugruppe	Tower Assembly	Ensemble tour
	30	3.1 Turmrahmen	3.1 Tower Frame	3.1 Châssis de tour
	32	3.2 Turmmotorbaugruppe	3.2 Tower Motor Assembly	3.2 Ensemble moteur tour
	34	3.3 1310 Wickelarmantrieb	3.3 1310 Wrap Arm Drive	3.3 Entraînement du bras d'enrubannage 1310
	36	3.4 1320 Wickelarmantrieb	3.4 1320 Wrap Arm Drive	3.4 Entraînement du bras d'enrubannage 1320
	38	3.5 1310 Vorstreckermontagebügel	3.5 1310 Dispenser Mounting	3.5 Fixation du distributeur 1310
	40	3.6 1320 Vorstreckermontagebügel	3.6 1320 Dispenser Mounting	3.6 Fixation du distributeur 1320
	42	3.7 Sicherheitsarmbaugruppe	3.7 Safety Arm Assembly	3.7 Ensemble du bras de sécurité
	44	3.8 Wickelarm-Parkbügel	3.8 Arm Parking Bracket	3.8 Support de rangement du bras
4	47	Vorstreckerbaugruppe	Dispenser Assembly	Ensemble Distributeur
	48	4.1 Vorstreckereinsatz-Baugruppe	4.1 Dispenser Insert Assembly	4.1 Ensemble insert distributeur
	50	4.2 Baugruppe Vorstrecker, komplett	4.2 Dispenser Complete Assembly	4.2 Ensemble distributeur complet
5	53	Expert & Wizard Controller	Expert & Wizard Controller	Contrôleur Expert &Wizard
	54	5.1 Expert Controller	5.1 Expert Controller	5.1 Contrôleur Expert
	56	5.2 Wizard Controller	5.2 Wizard Controller	5.2 Contrôleur Wizard
		* Optionales Teil	* Optional Part	* Pièce en option

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POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1311100	1	Fahrgestell	Chassis	Châssis	
1A	1315106	1	Bügel	Bracket	Guide-support	
1B	Z26-039S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 20mm
1C	Z10-02-08	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
1D	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
2	1308350	1	Montageblock	Assembly Block	Bloc d'ensemble	
2A	Z13-6-08x100	2	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M8 x 100mm
2B	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
2C	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
3	1308070	1	Ölfilter	Oil Filter	Filtre à huile	
3A	Z01-03-10-A7W	1	Durchflussregler	Flow Regulator	Régulateur de débit	1/2"
3B	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
3C	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
3D	Z26-040B	2	Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 25mm
4	1319000	1	Steuer-Set (Anschlusskasten)	Control Kit (Junction Box)	Kit de commande (boîte de raccordement)	
4A	Z23-04	4	Sicherungsmutter	Locknut	Contre-écrou	M4
4B	Z10-02-04	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M4
5	1308180	1	Turm-Block	Tower Block	Bloc Tour	
5A	Z26-0611S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 25mm
5B	Z12-02-10	2	Federring	Spring Washer	Rondelle à ressort	M10
5C	Z10-02-10	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
6	1311020	1	Ventilabdeckung	Valve Cover	Couvercle de la vanne	
6A	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
6B	Z10-02-08	6	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
6C	Z26-040B	4	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 25mm
6D	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
7	1316100	1	Schneid- & Bindebaugruppe („Cut & Tie"-Baugruppe)	Cut & Start Assembly	Ensemble de l'unité coupe-film	
7A	Z26-083S	3	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 35mm
7B	Z11-02-121	6	Dichtring	Mud Washer	Rondelle de pare-boue	M12
7C	Z23-10	3	Sicherungsmutter	Locknut	Contre-écrou	M12
8	1315108	1	Stützwalzenwelle	Suport Roller Shaft	Arbre du rouleau de support	A30
8A	34240708	2	Seegerring	Cir Clip	Circlip	
8B	34320508	2	Lager	Bearing	Palier	6206 2RS
8C	34340141	1	Kegelwalze	Cone Roller	Rouleau conique	
8D	34450447	1	Kunststoffkappe	Plastic Cap	Capuchon plastique	
8E	Z13-6-10x65	1	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M10 x 65mm
8F	Z10-02-10	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
8G	Z23-10	1	Sicherungsmutter	Locknut	Contre-écrou	M10
9	1318100	1	Steuerventil	Control Valve	Vanne de régulation	
9A	Z11-02-061	4	Dichtring	Mud Washer	Rondelle de pare-boue	M6
9B	Z12-02-06	4	Federring	Spring Washer	Rondelle à ressort	M6
9C	Z13-020-20S	4	Inbuskopf-Set	Allen Head Set	Vis à tête à six pans creux	
9D	Z01-03-1047	1	Drehzahlsteuerventil	Speed Control Valve	Vanne de contrôle de vitesse	1/4"

1.2 1310 EH FAHRGESTELL
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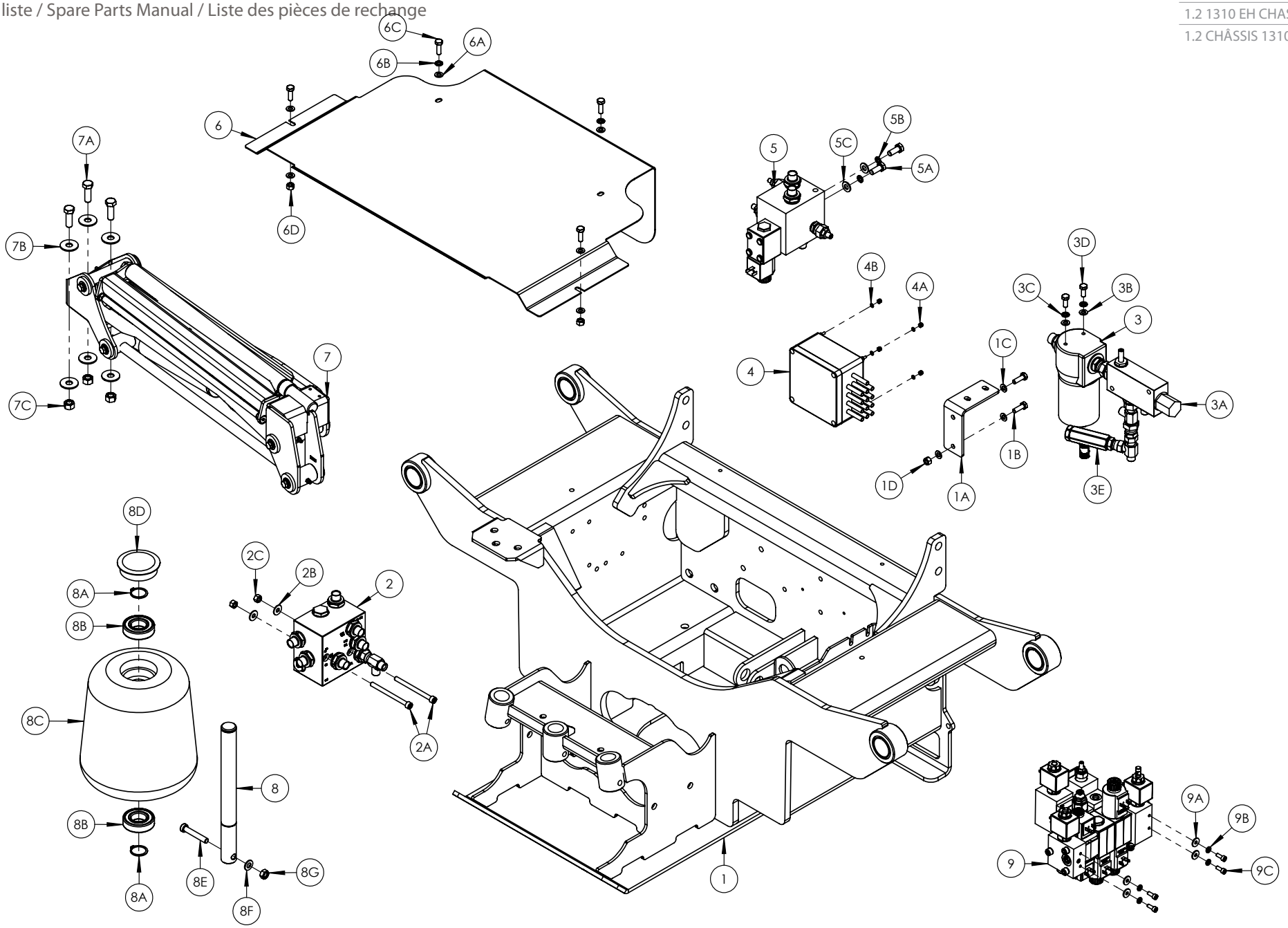
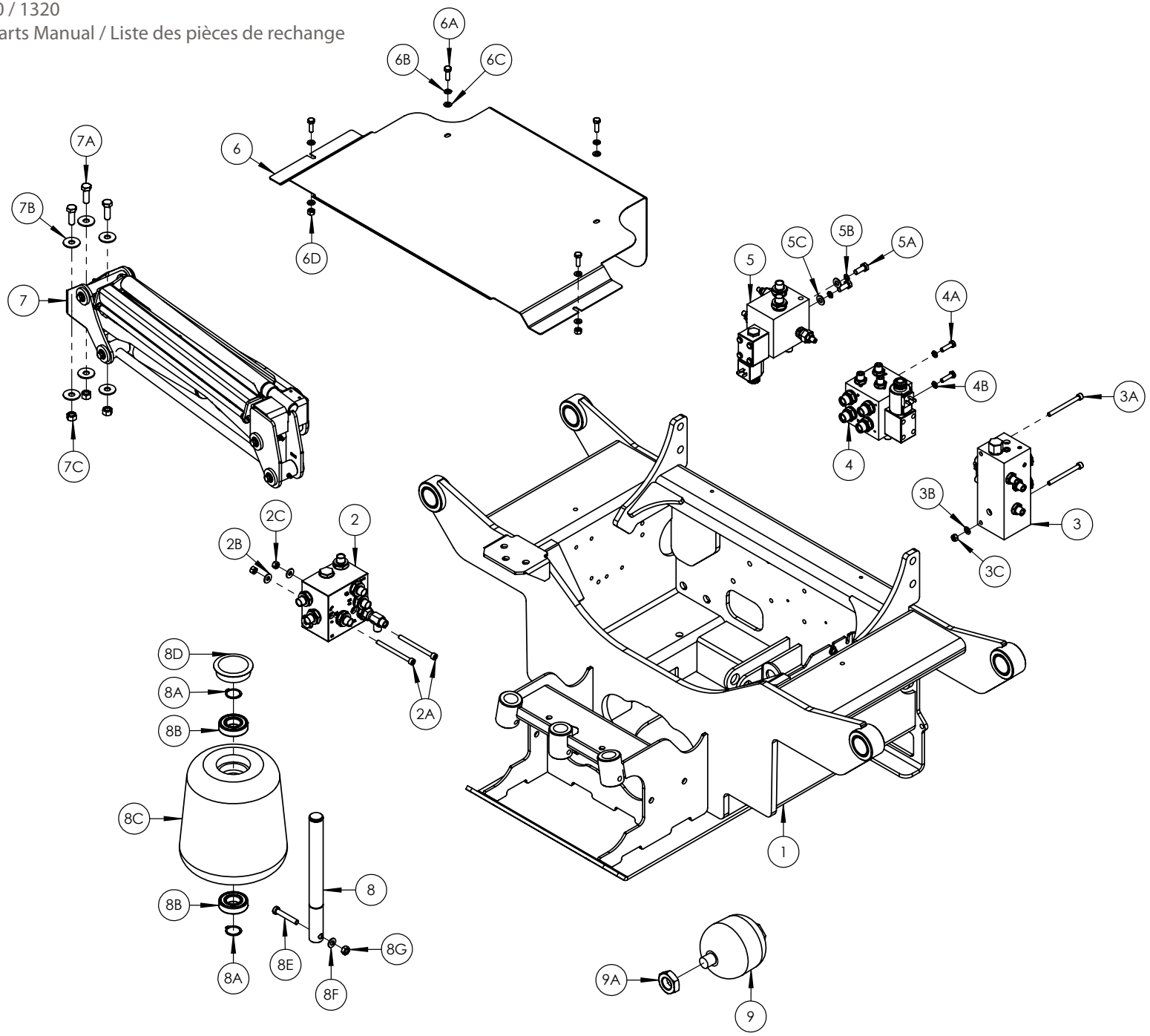
1.2 CHÂSSIS 1310 EH



POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1311100	1	Fahrgestell	Chassis	Châssis	
1A	1315106	1	Bügel	Bracket	Guide-support	
1B	Z26-039S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 20mm
1C	Z10-02-08	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
1D	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
2	1308350	1	Montageblock	Assembly Block	Bloc d'ensemble	
2A	Z13-6-08x100	2	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M8 x 100mm
2B	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
2C	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
3	1308070	1	Ölfilter	Oil Filter	Filtre à huile	
3A	Z01-03-10-A7W	1	Durchflussregler	Flow Regulator	Régulateur de débit	1/2"
3B	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
3C	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
3D	Z26-040B	2	Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 25mm
3E	1318180	1	Durchflussregler	Flow Regulator	Régulateur de débit	
4	1319000	1	Steuer-Set (Anschlusskasten)	Control Kit (Junction Box)	Kit de commande (boîte de raccordement)	
4A	Z23-04	4	Sicherungsmutter	Locknut	Contre-écrou	M4
4B	Z10-02-04	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M4
5	1308180	1	Turm-Block	Tower Block	Bloc Tour	
5A	Z26-0611S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 25mm
5B	Z12-02-10	2	Federring	Spring Washer	Rondelle à ressort	M10
5C	Z10-02-10	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
6	1311020	1	Ventilabdeckung	Valve Cover	Couvercle de la vanne	
6A	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
6B	Z10-02-08	6	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
6C	Z26-040B	4	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 25mm
6D	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
7	1316100	1	Schneid- & Bindebaugruppe („Cut & Tie"-Baugruppe)	Cut & Start Assembly	Ensemble de l'unité coupe-film	
7A	Z26-083S	3	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 35mm
7B	Z11-02-121	6	Dichtring	Mud Washer	Rondelle de pare-boue	M12
7C	Z23-10	3	Sicherungsmutter	Locknut	Contre-écrou	M12
8	1315108	1	Stützwalzenwelle	Suport Roller Shaft	Arbre du rouleau de support	A30
8A	34240708	2	Seegerring	Cir Clip	Circlip	
8B	34320508	2	Lager	Bearing	Palier	6206 2RS
8C	34340141	1	Kegelwalze	Cone Roller	Rouleau conique	
8D	34450447	1	Kunststoffkappe	Plastic Cap	Capuchon plastique	
8E	Z13-6-10x65	1	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M10 x 65mm
8F	Z10-02-10	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
8G	Z23-10	1	Sicherungsmutter	Locknut	Contre-écrou	M10
9	1318050	1	Steuerventil	Control Valve	Vanne de régulation	
9A	Z11-02-061	4	Dichtring	Mud Washer	Rondelle de pare-boue	M6
9B	Z12-02-06	4	Federring	Spring Washer	Rondelle à ressort	M6
9C	Z13-020-20S	4	Inbuskopf-Set	Allen Head Set	Vis à tête à six pans creux	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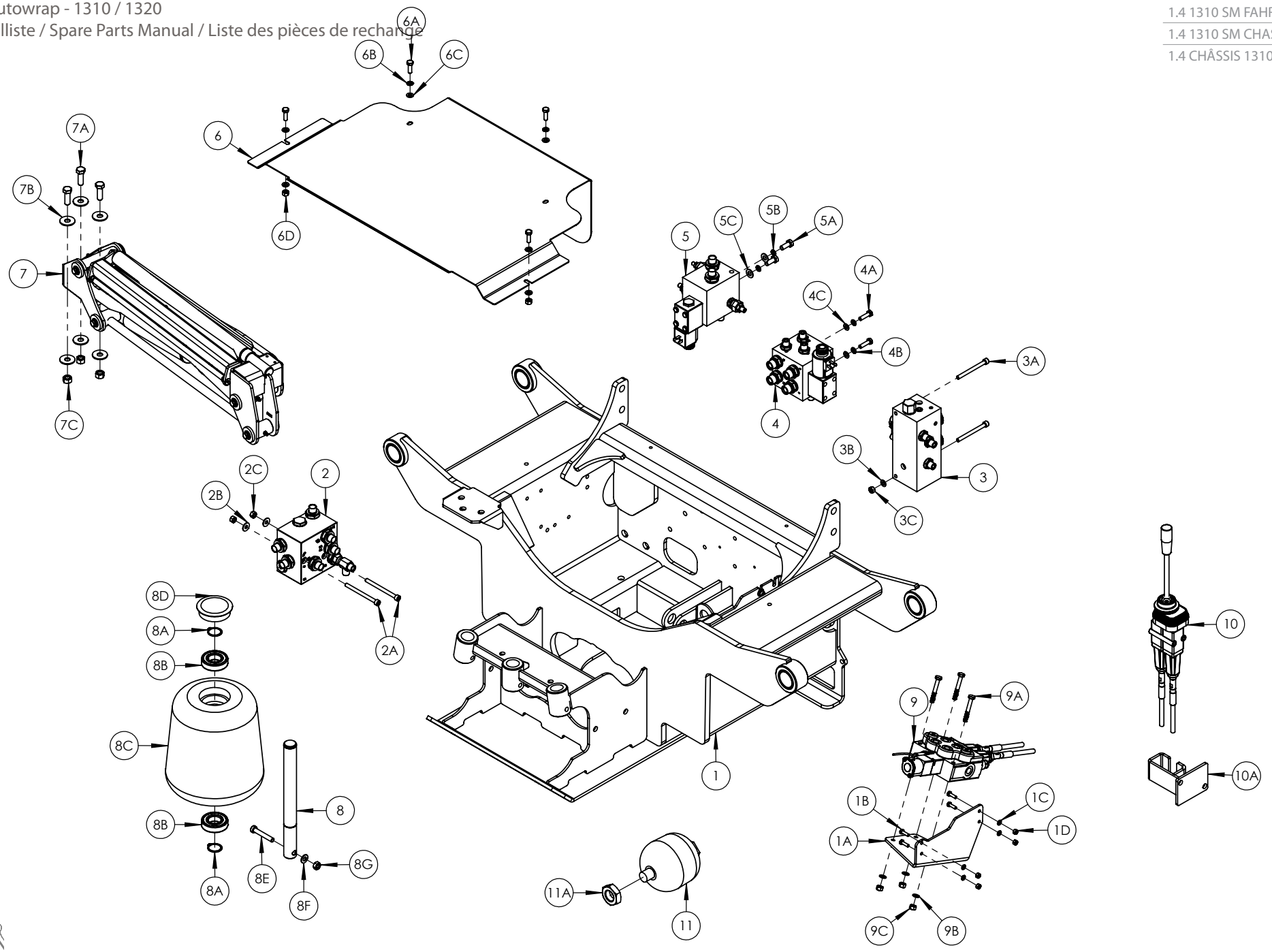
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1311100	1	Fahrgestell	Chassis	Châssis	
2	1308350	1	Montageblock	Assembly Block	Bloc d'ensemble	
2A	Z13-6-08x100	2	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M8 x 100mm
2B	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
2C	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
3	1508020	1	Einstellblock	Adjustment Block	Bloc de réglage	
3A	Z13-6-08x90	2	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M8 x 100mm
3B	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
3C	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
4	1308760	1	Eingangsblock	Entry Block	Bloc d'entrée	
4A	Z26-041S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 30mm
4B	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
4C	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
5	1308180	1	Turm-Block	Tower Block	Bloc Tour	
5A	Z26-0611S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 25mm
5B	Z12-02-10	2	Federring	Spring Washer	Rondelle à ressort	M10
5C	Z10-02-10	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
6	1311020	1	Ventilabdeckung	Valve Cover	Couvercle de la vanne	
6A	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
6B	Z10-02-08	6	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
6C	Z26-040B	4	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 25mm
6D	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
7	1316100	1	Schneid- & Bindebaugruppe („Cut & Tie"-Baugruppe)	Cut & Start Assembly	Ensemble de l'unité coupe-film	
7A	Z26-083S	3	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 35mm
7B	Z11-02-121	6	Dichtring	Mud Washer	Rondelle de pare-boue	M12
7C	Z23-10	3	Sicherungsmutter	Locknut	Contre-écrou	M12
8	1315108	1	Stützwalzenwelle	Suport Roller Shaft	Arbre du rouleau de support	A30
8A	34240708	2	Seegerring	Cir Clip	Circlip	
8B	34320508	2	Lager	Bearing	Palier	6206 2RS
8C	34340141	1	Kegelwalze	Cone Roller	Rouleau conique	
8D	34450447	1	Kunststoffkappe	Plastic Cap	Capuchon plastique	
8E	Z13-6-10x65	1	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M10 x 65mm
8F	Z10-02-10	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
8G	Z23-10	1	Sicherungsmutter	Locknut	Contre-écrou	M10
9	1508160	1	Druckspeicher	Accumulator	Accumulateur	.7L - 50bar
9A	Z001-242	1	Mutter	Nut	Écrou	M28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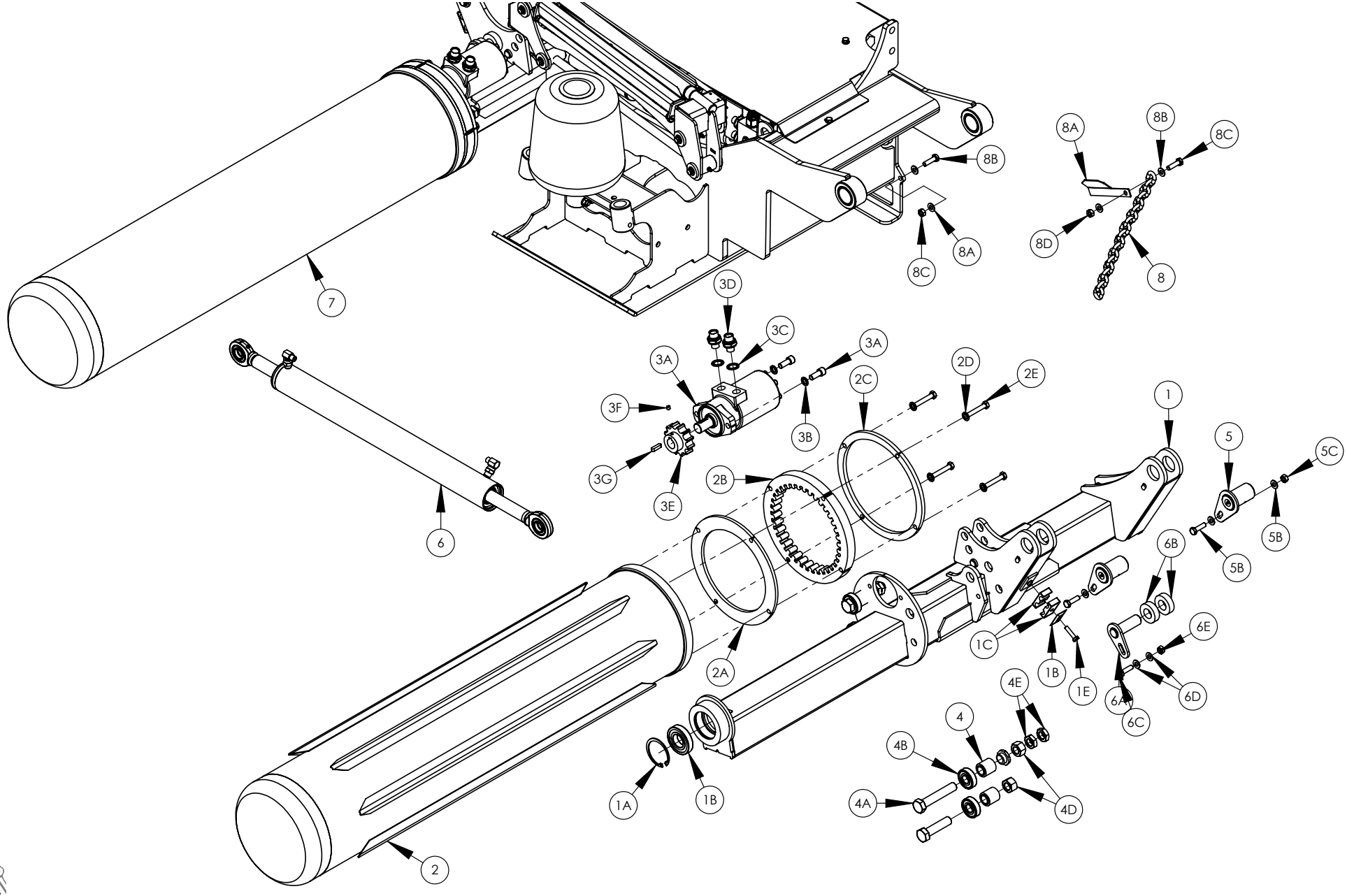
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1311100	1	Fahrgestell	Chassis	Châssis	
1A	1311025	1	Bügel	Bracket	Guide-support	
1B	Z26-020S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M6 x 20mm
1C	Z10-02-06	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M6
1D	Z23-06	2	Sicherungsmutter	Locknut	Contre-écrou	M6
2	1308350	1	Montageblock	Assembly Block	Bloc d'ensemble	
2A	Z13-6-08x100	2	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M8 x 100mm
2B	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
2C	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
3	1508020	1	Einstellblock	Adjustment Block	Bloc de réglage	
3A	Z13-6-08x90	2	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M8 x 100mm
3B	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
3C	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
4	1308760	1	Eingangsblock	Entry Block	Bloc d'entrée	
4A	Z26-041S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 30mm
4B	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
4C	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
5	1308180	1	Turm-Block	Tower Block	Bloc Tour	
5A	Z26-0611S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 25mm
5B	Z12-02-10	2	Federring	Spring Washer	Rondelle à ressort	M10
5C	Z10-02-10	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
6	1311020	1	Ventilabdeckung	Valve Cover	Couvercle de la vanne	
6A	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
6B	Z10-02-08	6	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
6C	Z26-040B	4	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 25mm
6D	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
7	1316100	1	Schneid- & Bindebaugruppe („Cut & Tie"-Baugruppe)	Cut & Start Assembly	Ensemble de l'unité coupe-film	
7A	Z26-083S	3	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 35mm
7B	Z11-02-121	6	Dichtring	Mud Washer	Rondelle de pare-boue	M12
7C	Z23-10	3	Sicherungsmutter	Locknut	Contre-écrou	M12
8	1315108	1	Stützwalzenwelle	Suport Roller Shaft	Arbre du rouleau de support	A30
8A	34240708	2	Seegerring	Cir Clip	Circlip	
8B	34320508	2	Lager	Bearing	Palier	6206 2RS
8C	34340141	1	Kegelwalze	Cone Roller	Rouleau conique	
8D	34450447	1	Kunststoffkappe	Plastic Cap	Capuchon plastique	
8E	Z13-6-10x65	1	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M10 x 65mm
8F	Z10-02-10	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
8G	Z23-10	1	Sicherungsmutter	Locknut	Contre-écrou	M10
9	1308780	1	Hebelsteuerventil	Lever Control Valve	Vanne de contrôle de levier	
9A	Z26-047B		Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 60
9B	Z10-02-08	3	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
9C	Z23-08	3	Sicherungsmutter	Locknut	Contre-écrou	M8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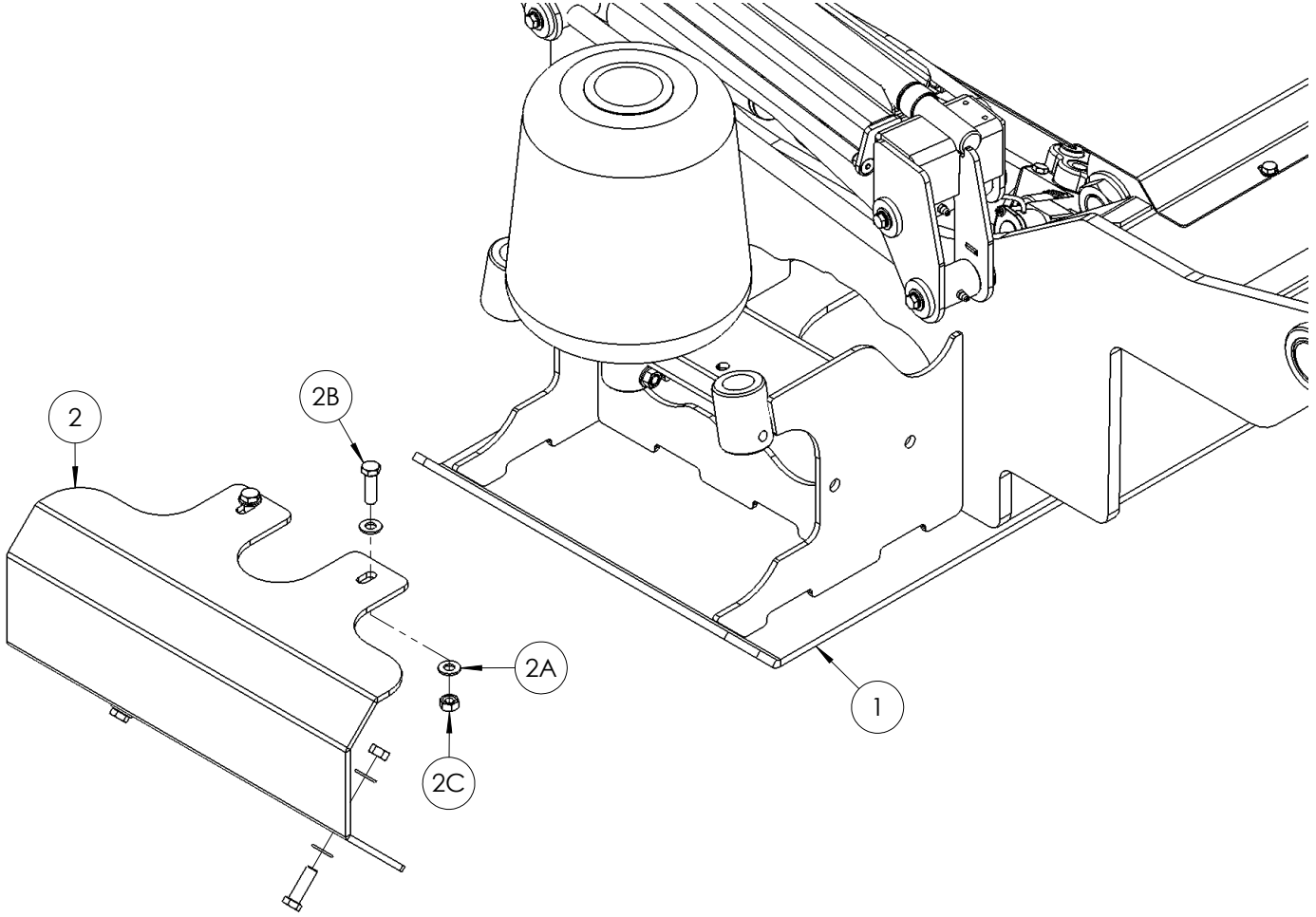
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1312200	1	Walzenrahmen (links)	Roller Arm Frame Left	Cadre bras de rouleau (gauche)	
1A	34321521	1	Kugellager	Ball Bearing	Roulement à billes	1726207 2RS1
1B	34240100	1	Seegerring	Cir Clip	Circlip	1-72 Internal
1C	z01-24-26	2	Rohrschelle	Pipe Clamp	Collier de serrage	15mm
1D	z01-24-28	1	Doppelschellenoberteil	Double Clamp Top	Haut double bride	18mm
1E	Z26-042S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 35mm
2	34911049	1	Greifer-Tragwalze	Gripped Roller	Rouleau à dents	
2A	34360519	1	Mittlere Ringwalze	Ring Roller Middle	Centre de rouleau annelé	
2B	34810044	1	Walzenzahnkranz	Roller Sprocket	Pignon des rouleaux	
2C	34360523	1	Ringwalzenabdeckung	Ring Roller Shield	Protection du rouleau annelé	
2D	Z12-02-10	4	Federring	Spring Washer	Rondelle à ressort	M10
2E	Z26-067B	4	Sechskantschraube	Hex Bolt	Boulon Hex	M10 x 60mm
3	1308802	1	Walzenantriebsmotor	Roller Drive Motor	Moteur d'entraînement des rouleaux	
3A	Z13-6-12X30	2	Inbusschraube	Allen Head Bolt	Boulon Vis Allen	M12 x 30mm
3B	Z12-02-12	2	Federring	Spring Washer	Rondelle à ressort	M12
3C	Z01-04-03	2	Profildichtring (Dowty Washer)	Dowty Washer	Rondelle Dowty	1/2"
3D	Z01-06-06-08	2	MM Adapter	MM Adaptor	Adaptateur MM	3/8" x 1/2" BSP
3E	34810042	1	Zahnkranz	Sprocket	Pignon	12T (3/4")
3F	Z28-008	1	Gewindestift	Grub Screw	Vis sans tête	M8 x 10mm
3G	34270111	1	Keilstahl	Key Steel	Clavette acier	8 x 7 x 30mm
4	34105718	4	Buckelnabenlager (Boss Bearing)	Boss Bearing	Roulement Boss	
4A	Z26-1691B	2	Sechskantschraube	Hex Bolt	Boulon Hex	M20 x 110mm
4B	34321529	4	Lager	Bearing	Palier	361204 R SKF
4C	34351006	2	Excenternabenbuckel	Eccentric Boss	Moyeu excentrique	
4D	Z23-20	4	Sicherungsmutter	Locknut	Contre-écrou	M20
4E	34232901	4	Mutterbacke	Half Nut	Demi-écrou	M20
4F	Z26-167B	2	Sechskantschraube	Hex Bolt	Boulon Hex	M20 X 80mm
5	1315102	2	Drehzapfen	Pivot Pin	Axe d'articulation	
5A	Z26-063S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 35mm
5B	Z10-02-10	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
5C	Z23-10	2	Sicherungsmutter	Locknut	Contre-écrou	M10
6	1318170	1	Breitenzylinder	Width Cylinder	Cylindre transversal	
6A	1315104	1	Zylinderstift	Cylinder Pin	Axe du vérin	
6B	1315105	2	Breitenabstandhalter	Width Ram Spacer	Entretoise d'espacement	
6C	Z26-063S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 35mm
6D	Z10-02-10	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
6E	Z23-10	1	Sicherungsmutter	Locknut	Contre-écrou	M10
7	34911048	1	Tragwalze, glatt	Smooth Roller	Rouleau lisse	8 x 24mm x 19 Link
8	1315112	1	Legierte Kette	Alloy Chain	Chaîne d'alliage	
8A	1315115	1	Kettenablener	Chain Deflector	Déflecteur de chaîne	
8B	Z10-02-10	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
8C	Z26-063S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 35mm
8D	Z23-10	2	Sicherungsmutter	Locknut	Contre-écrou	M10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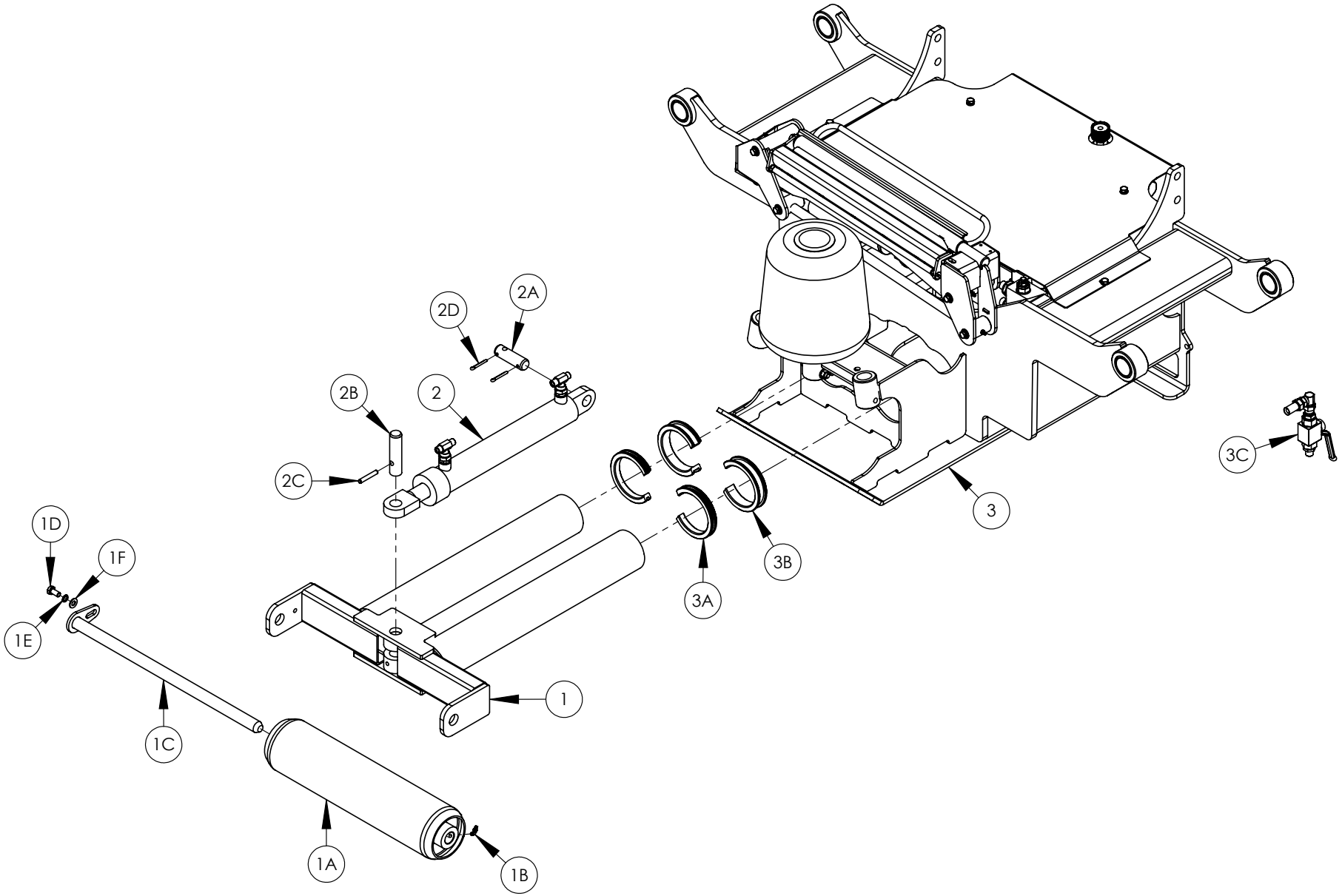
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1311100	1	Fahrgestell	Chassis	Châssis	
2	1311015	1	Ballenanschlagprofil	Bale Stop Profile	Profilé d'arrêt de balle	
2A	Z10-02-10	8	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
2B	Z26-063S	4	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 35mm
2C	Z23-10	4	Sicherungsmutter	Locknut	Contre-écrou	M10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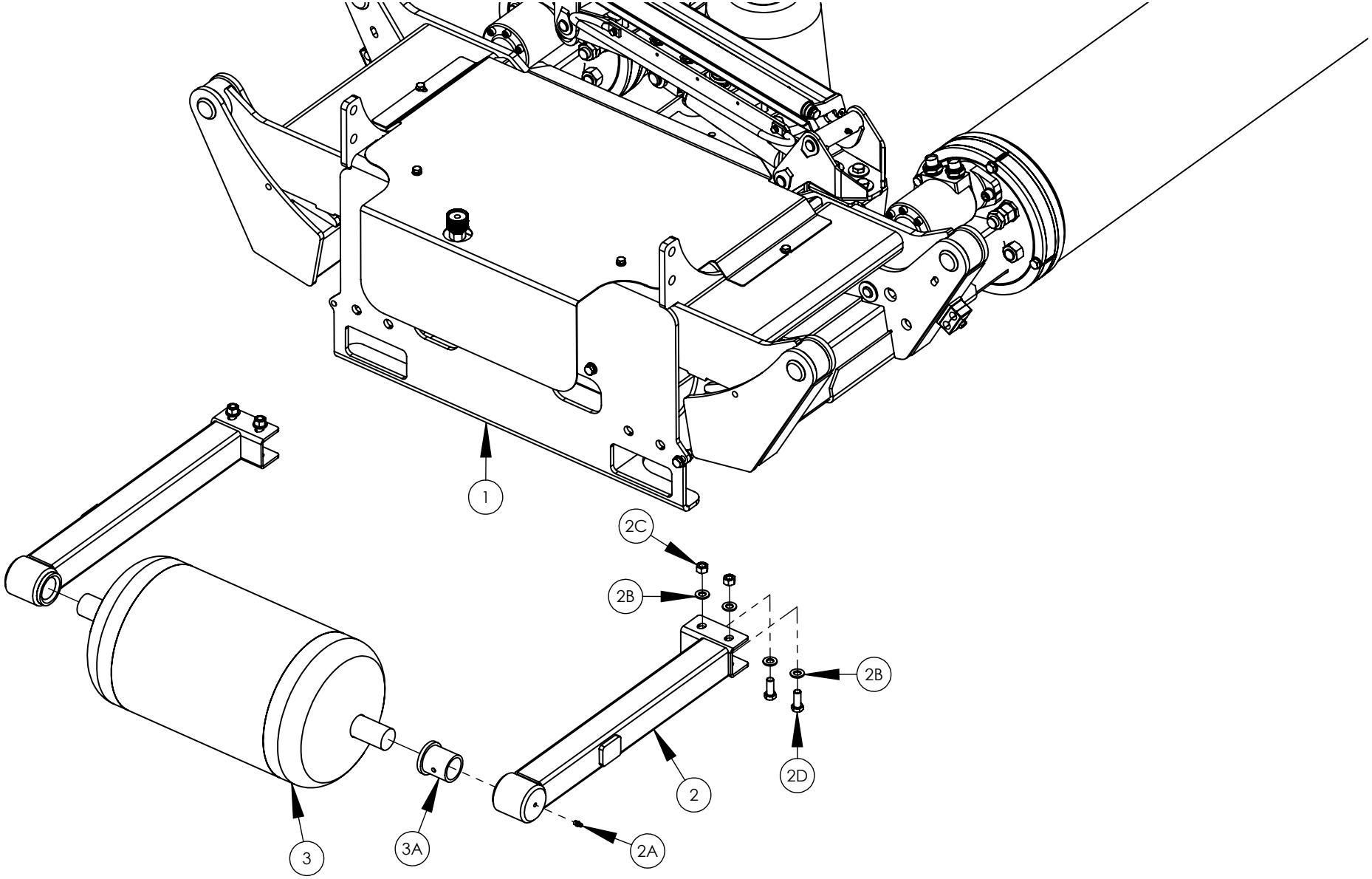
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1301390	1	Schieberrahmen	Pusher Frame	Cadre directeur	
1A	1301380	1	Ballenaufstellerwalze	End Tip Roller	Rouleau d'extrémité	
1B	34061915	2	Schmiernippel	Grease Nipple	Raccord graisseur	M8
1C	1301393	1	Walzenbolzen	Roller Pin	Axe du rouleau	
1D	Z26-060S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 20mm
1E	Z12-02-10	1	Federring	Spring Washer	Rondelle à ressort	M10
1F	Z10-02-10	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
2	34001482	1	Ballenaufsteller-Zylinder	End Tip Cylinder	Vérin d'extrémité	
2A	1301386	1	Zylinderstift	Cylinder Pin	Axe du vérin	
2B	1301387	1	Zylinderstift	Cylinder Pin	Axe du vérin	
2C	Z03-20-09	1	Rollenbolzen	Roll Pin	Axe du rouleau	M8 x 50mm
2D	Z03-21-145	2	Sicherungssplint	Split Pin	Goupille fendue	3/16 Ø x 1 1/4"
3	1311100	1	Fahrgestellrahmen	Chassis Frame	Cadre châssis	
3A	1311021	2	Schieberführung A	Pusher Guide A	Glissière directrice A	
3B	1311022	2	Schieberführung B	Pusher Guide B	Glissière directrice B	
3C	Z01-16-06	1	Absperrventil	Shut-Off Valve	Vanne d'arrêt	3/8"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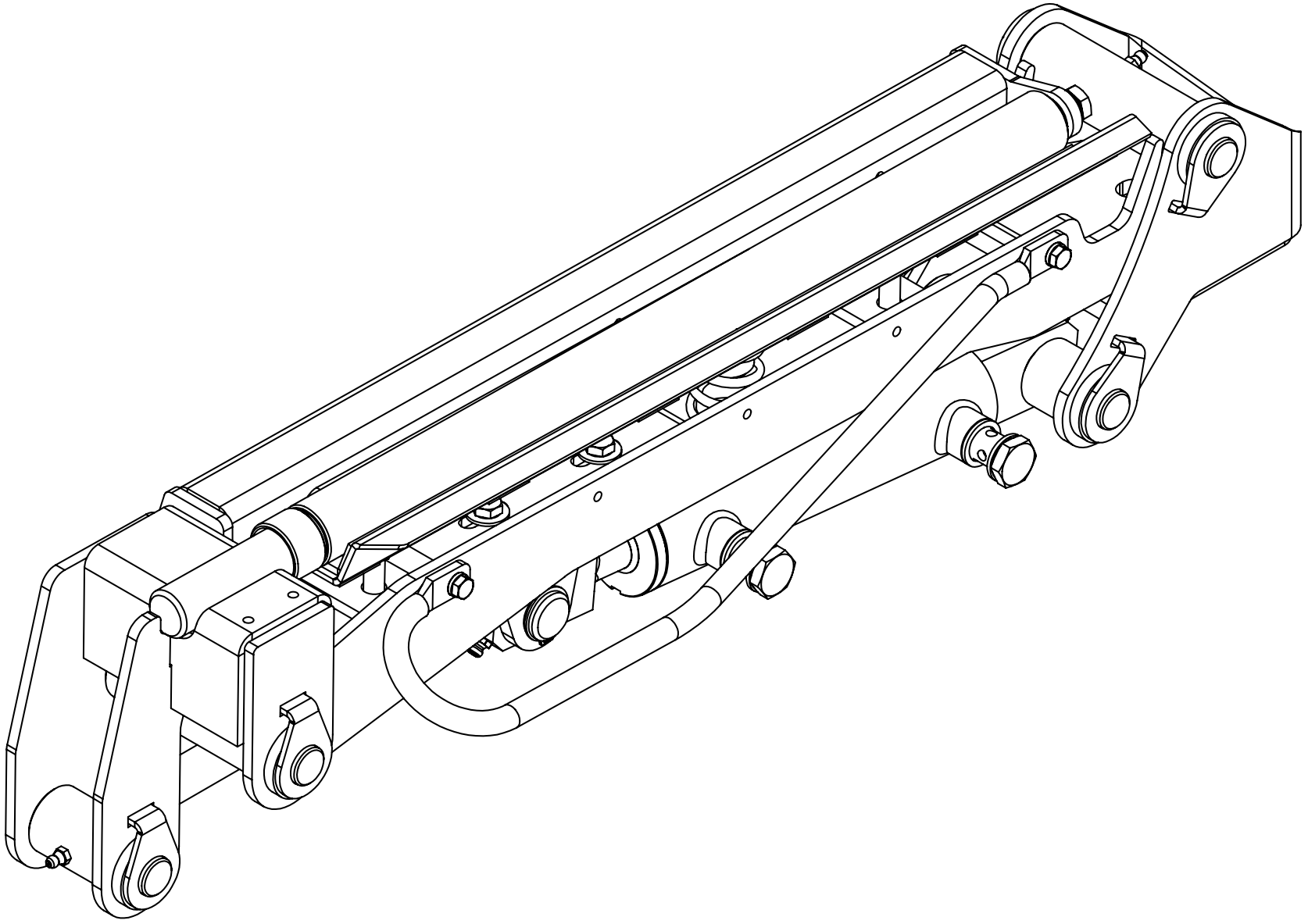
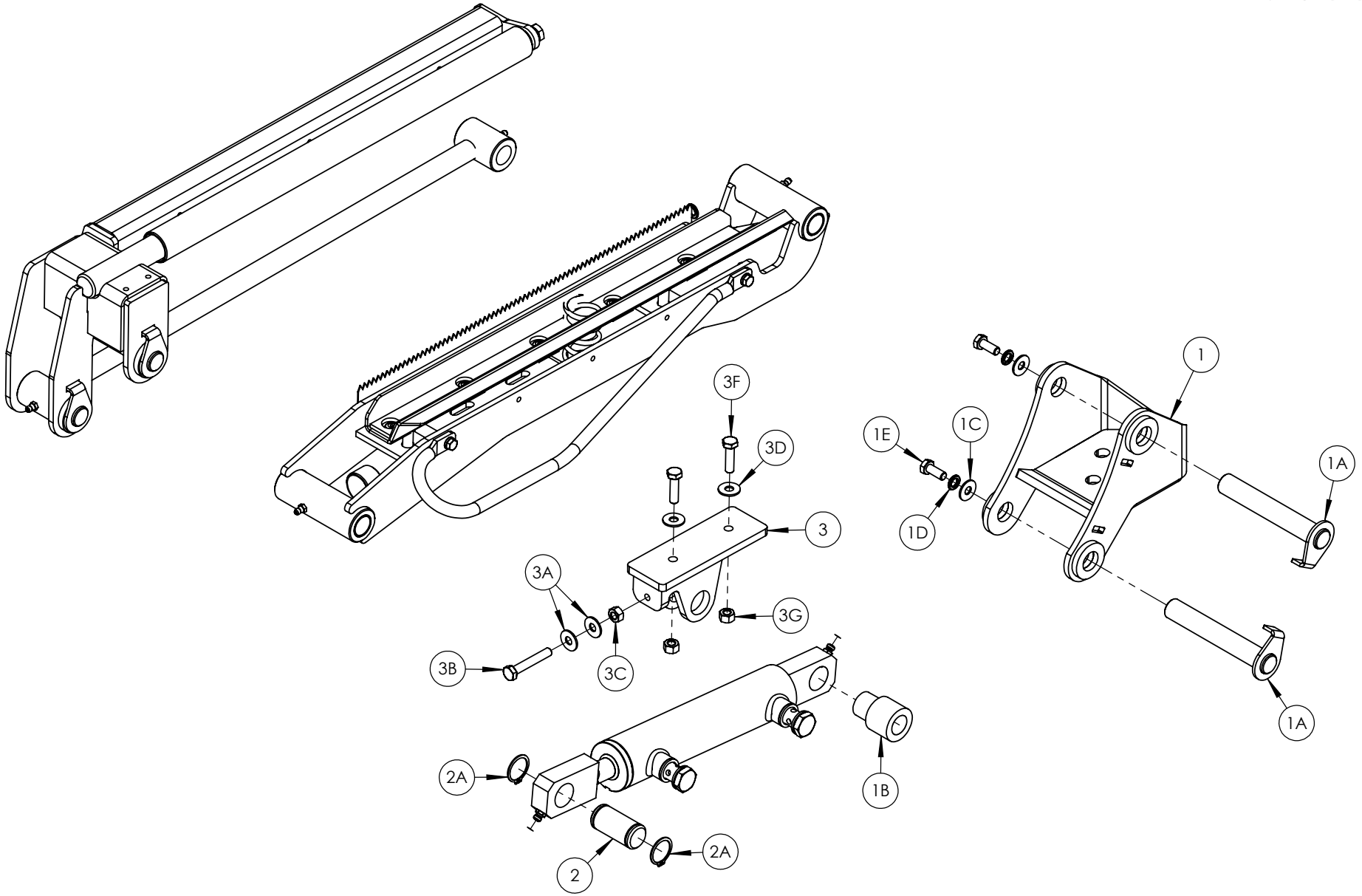
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1311100	1	Fahrgestell	Chassis	Châssis	
2	1311065	2	Walzenmontagebügel	Roller Mounting Bracket	Support de fixation des rouleaux	
2A	34060800	2	Schmiernippel	Grease Nipple	Raccord graisseur	M8
2B	Z10-02-12	8	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M12
2C	Z23-12	4	Sicherungsmutter	Locknut	Contre-écrou	M12
2D	Z26-082S	4	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 30mm
3	1501585	1	Bodenwalze	Ground Roller	Rouleau de sol	
3A	34360503	2	Walzenbuchse	Roller Bush	Bague de rouleau	

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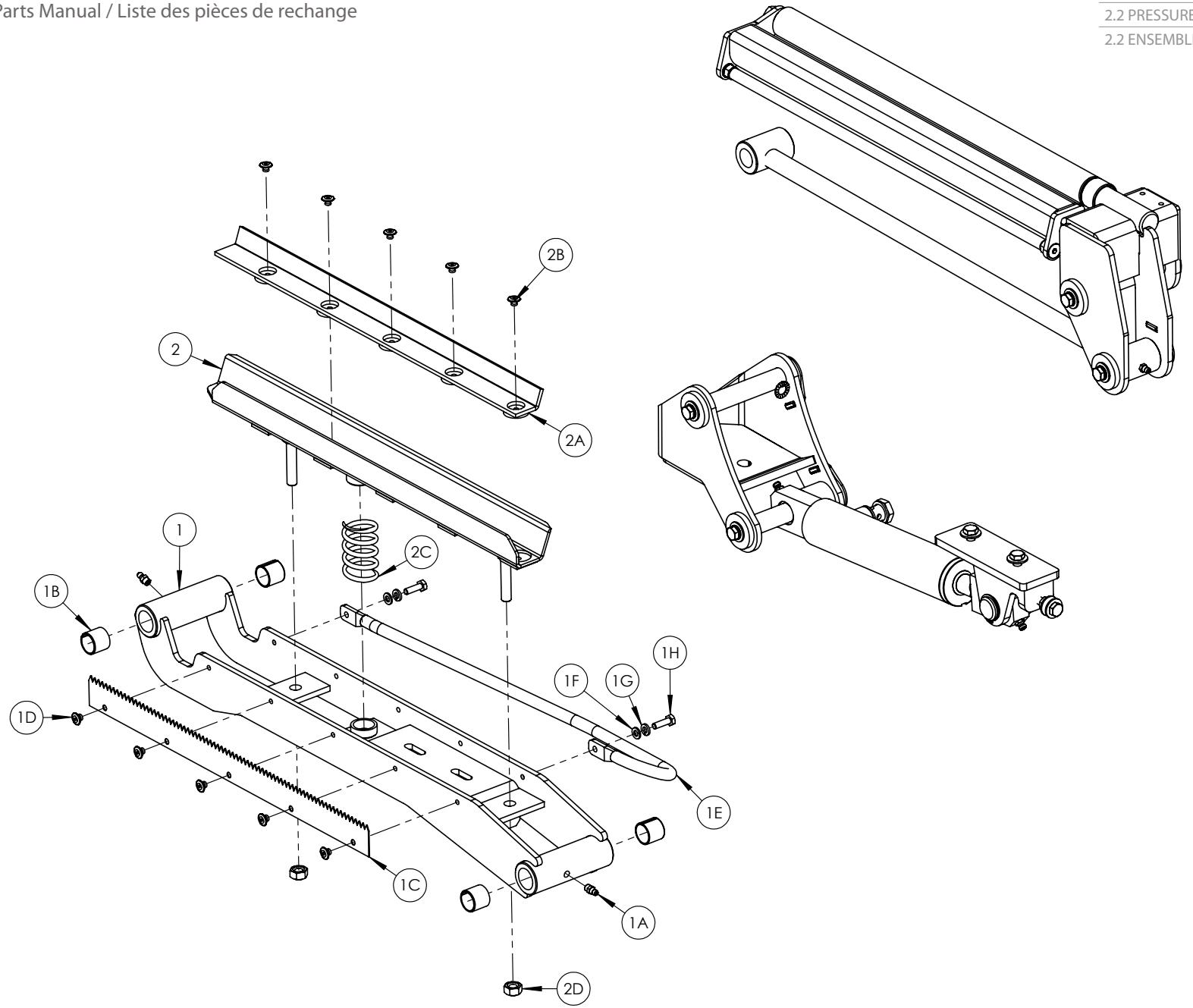
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1316010	1	Schneid- & Bindebasis („Cut & Tie"-Basis)	Cut & Tie Base	Base coupe et attache	
1A	1406080	2	Drehzapfen (lang)	Pivot Pin (Long)	Axe d'articulation (Long)	
1B	1406035	1	Abstandhalter	Spacer	Entretoise	
1C	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
1D	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
1E	Z26-039S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 20mm
2	1308151	1	Zylinder	Cylinder	Vérin	
2A	34060800	2	Schmiernippel	Grease Nipple	Raccord graisseur	M8 x 1.25
2B	34105631	1	Zylinderstift	Cylinder Pin	Axe du vérin	
2C	Z28-525	2	Seegerring	Circlip	Circlip	M25 Ext.
3	34920525	1	Zylindereinstellvorrichtung	Cylinder Adjuster	Réglage de vérin	
3A	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
3B	Z26-045S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 50mm
3C	Z18-08	1	Sechskantmutter, glatt	Plain Hex Nut	Écrou plein Hex	M8
3D	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
3E	Z26-041S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 30mm
3F	Z23-08	2	Sechskantmutter	Hex Nut	Écrou hexagonal	M8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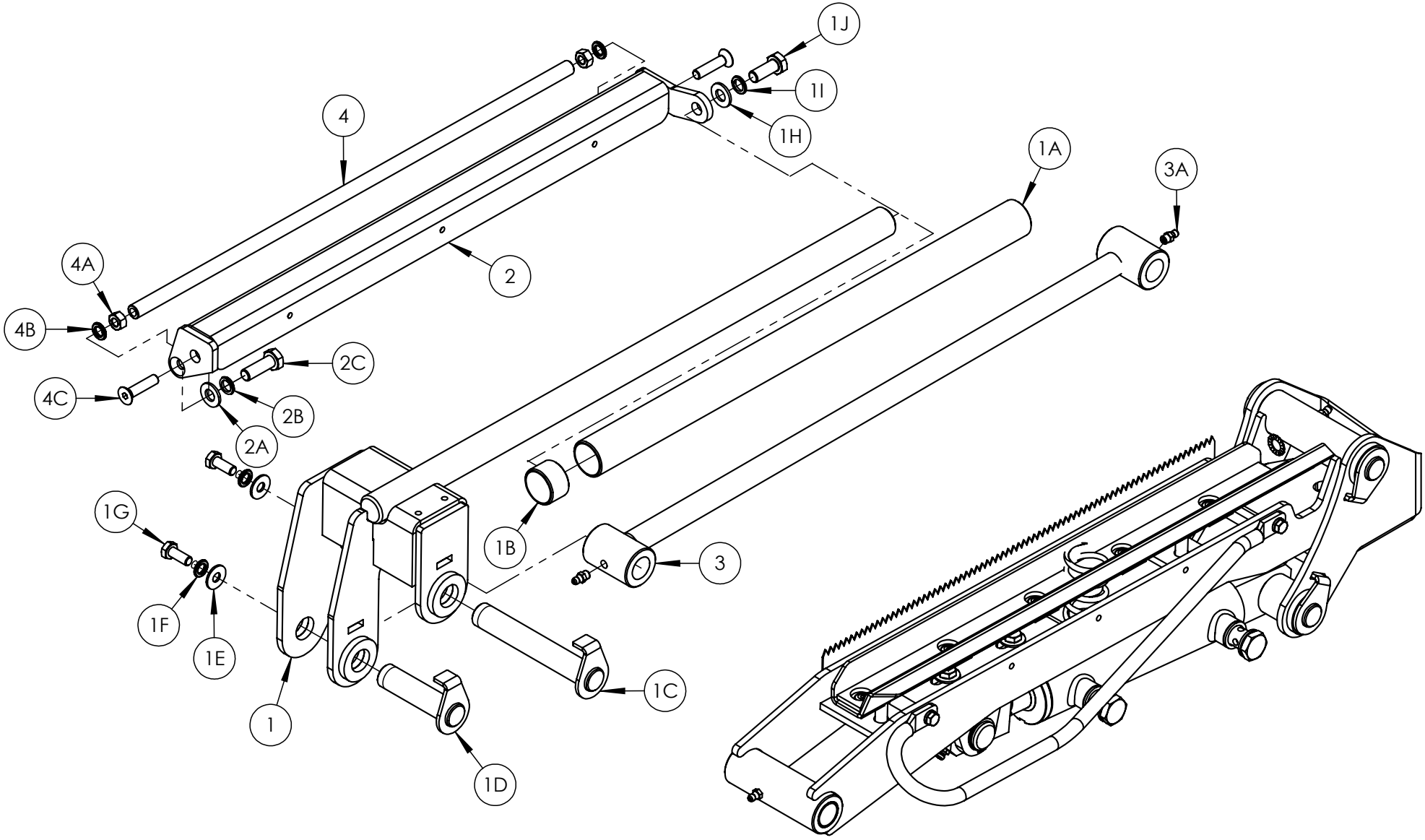
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1406112	1	Hubarm	Lift Arm	Bras de relevage	
1A	34060800	2	Schmiernippel	Grease Nipple	Raccord graisseur	M8 x 1.25
1B	1406074	1	Schneidklinge	Blade	Racleur	
1C	Z03-25-05	5	Blindniet	Pop Rivet	Rivet Pop	4.8 x 16mm
1D	1406075	1	Foliensammelbalken	Film Gathering Bar	Barre d'enroulage du film	
1E	Z10-02-06	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M6
1F	Z12-02-06	2	Federring	Spring Washer	Rondelle à ressort	M6
1G	Z26-020S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M6 x 20mm
2	1406101	1	Druckplatte	Pressure Plate	Cale	
2A	1406706	1	Gummiplatte	Rubber Strip	Bande de caoutchouc	
2B	Z03-25-05	5	Blindniet	Pop Rivet	Rivet Pop	4.8 x 16mm
2C	1406078	1	Druckfeder	Pressure Spring	Ressort à pression	
2D	Z23-10	2	Sicherungsmutter	Locknut	Contre-écrou	M10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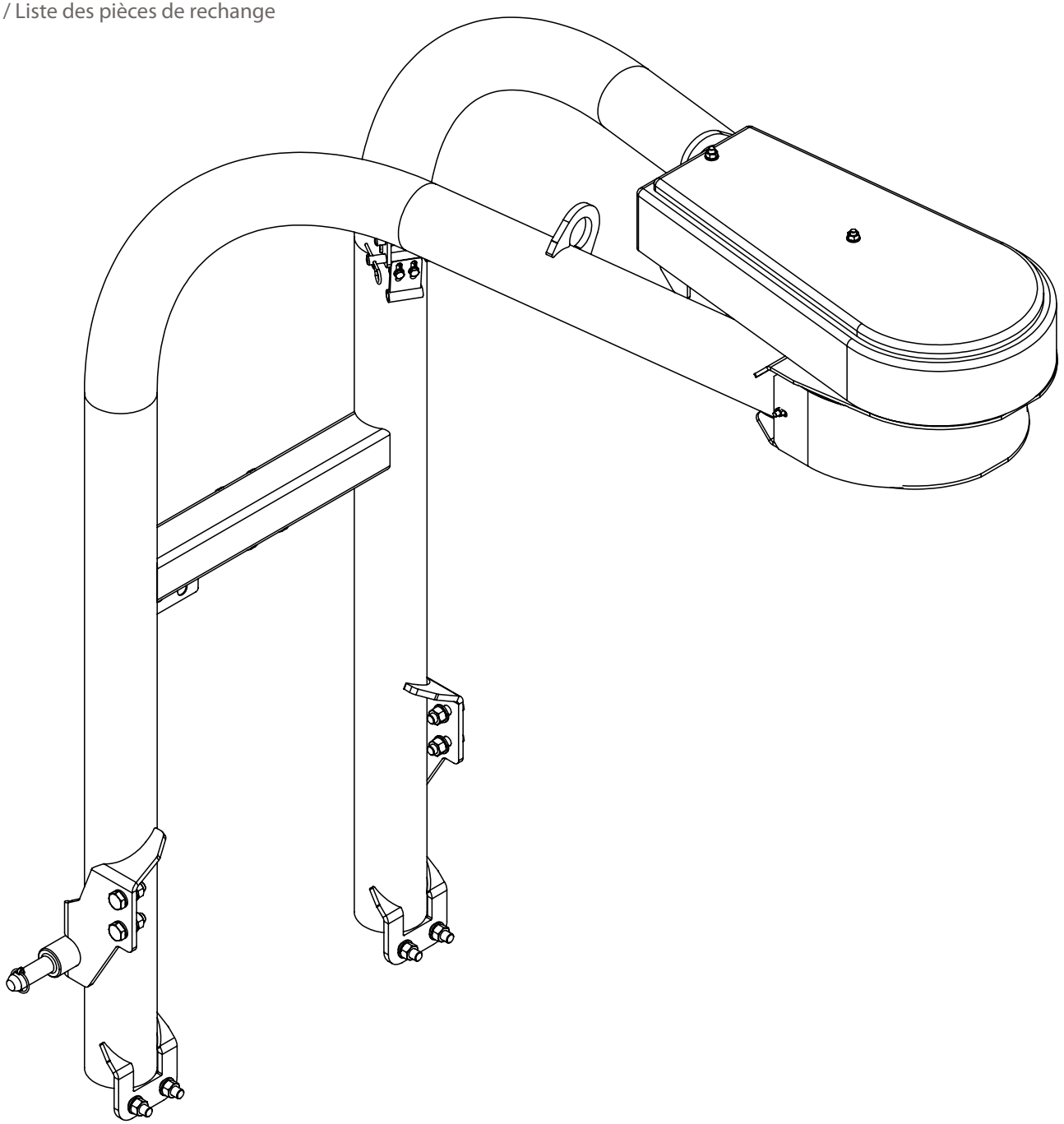
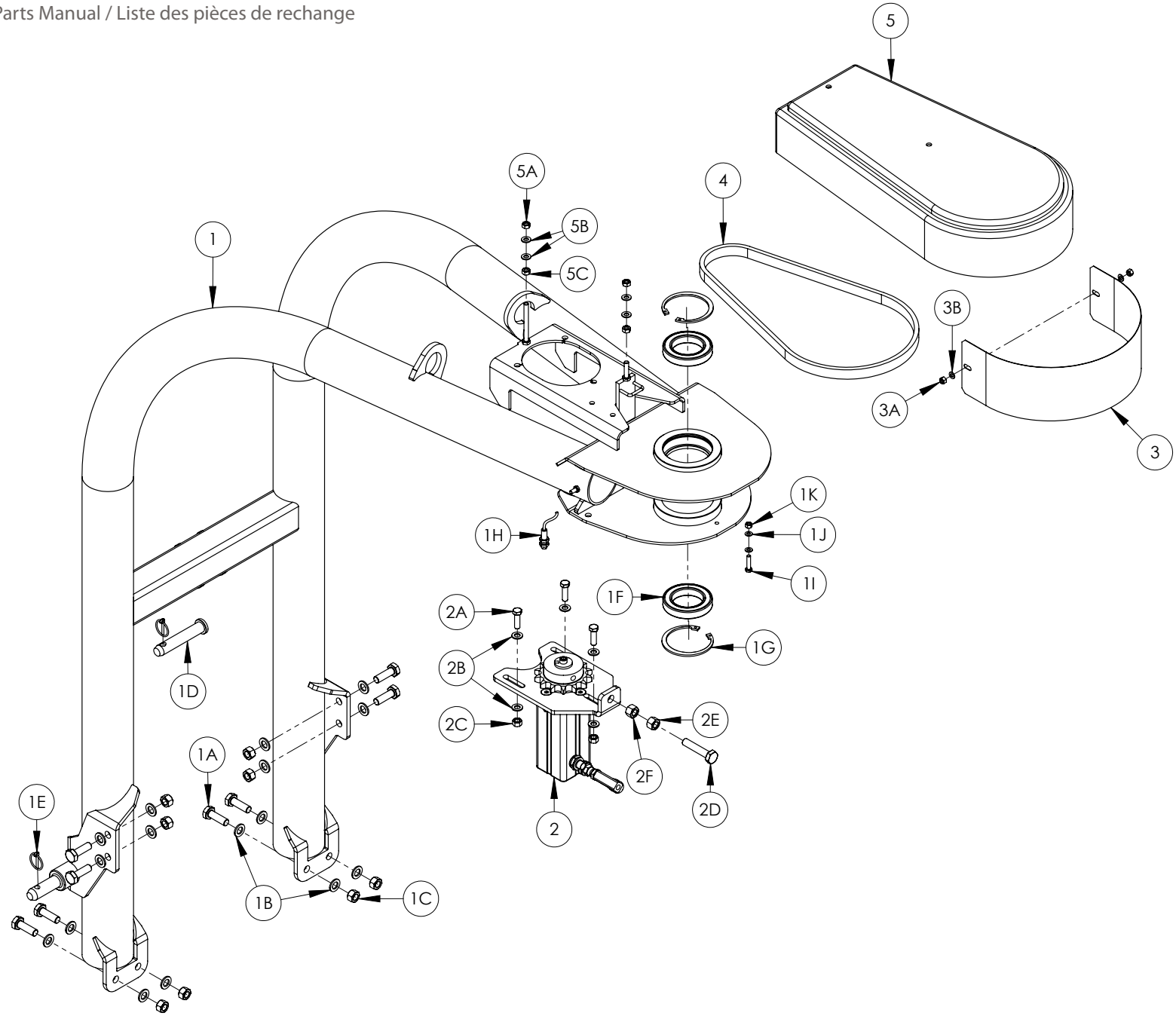
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1406113	1	Pulldown-Arm	Pull Down Arm	Bras d'abaissement	
1A	1406077	1	Rändelwalze	Knurled Roller	Rouleau moleté	
1B	1406085	1	Drehzapfen (kurz)	Pivot Pin (Short)	Axe d'articulation (Court)	
1C	1406080	1	Drehzapfen (lang)	Pivot Pin (Long)	Axe d'articulation (Long)	
1D	Z11-02-081	2	Dichtring	Mud Washer	Rondelle de pare-boue	M8
1E	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
1F	Z26-039S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 20mm
1G	Z10-02-10	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
1H	Z12-02-10	1	Federring	Spring Washer	Rondelle à ressort	M10
1I	Z26-0611S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M10 x 25mm
2	1406065	1	Oberer Arm	Top Arm	Bras supérieur	
2A	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
2B	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
2C	Z18-08	1	Sechskantmutter, glatt	Plain Hex Nut	Écrou plein Hex	M8
2D	Z26-041S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 30mm
3	1406102	1	Verbindungsarm	Connecting Arm	Bras de connexion	
3A	34060800	2	Schmiernippel	Grease Nipple	Raccord graisseur	M8 x 1.25
4	1406068	1	Folienrolle	Film Roller	Bobine de film	
4A	Z18-08	2	Sechskantmutter, glatt	Plain Hex Nut	Écrou plein Hex	M8
4B	Z12-02-08	2	Federring	Spring Washer	Rondelle à ressort	M8
4C	Z13-5-08X35	2	Inbussenkkopf-Set	Countersunk Allen Head Set	Vis noyée à tête à six pans creux	M8 x 35mm

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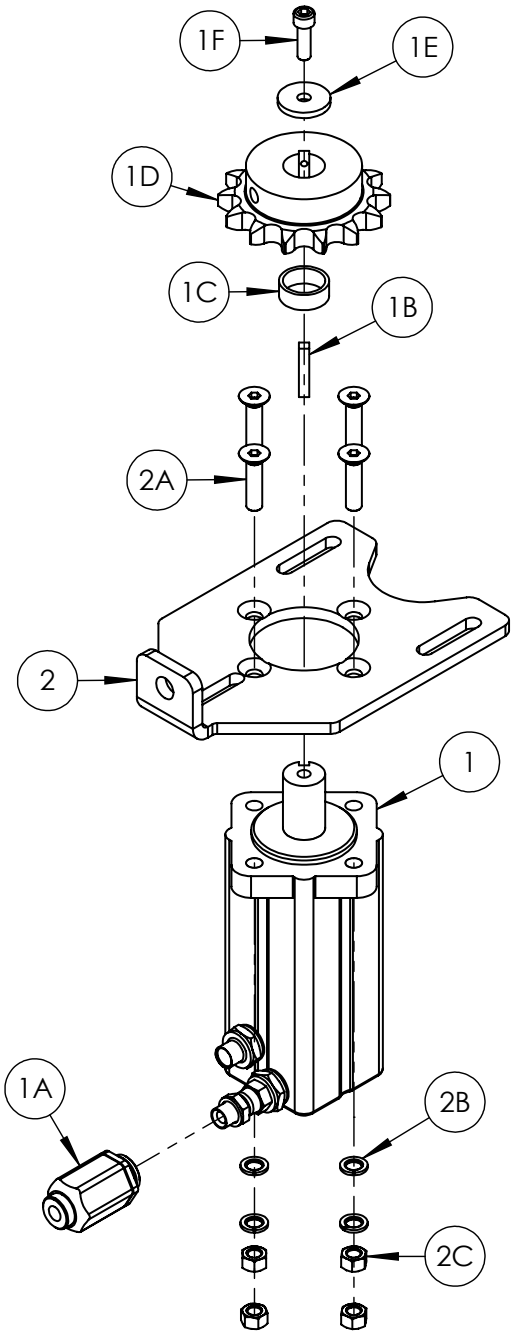
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1303000	1	Turmrahmen	Tower Frame	Châssis de tour	
1A	Z31B-064	8	Sechskant-Set	Hex Set	Vis de régl. Hex	M16 x 45mm
1B	Z10-02-16	16	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M16
1C	Z20-10	8	Sicherungsmutter	Locknut	Contre-écrou	M16
1D	34105635	1	Scharnierstift, oben	Top Link Pin	Goupille de barre de poussée	
1E	Z03-22-06	3	Klappsplint	Linch Pin	Clavette d'essieu	7/16"
1F	1404052	2	Lager	Bearing	Palier	6014 2RS
1G	1404051	2	Seegerring	Circlip	Circlip	Int. 110mm
1H	1309203	1	RDS-Sensor	RDS Sensor	Capteur RDS	
1I	Z26-042S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 35mm
1J	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M6
1K	Z23-08	1	Sicherungsmutter	Locknut	Contre-écrou	M6
2	Z01-02-RF200	1	Turmmotor	Tower Motor	Moteur tour	
2A	Z26-084S	3	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 35mm
2B	Z10-02-12	6	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M12
2C	Z23-12	3	Sicherungsmutter	Locknut	Contre-écrou	M12
2D	Z26-12915	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M16 x 80
2E	Z18-16	1	Sechskantmutter, glatt	Plain Hex Nut	Écrou plein Hex	M16
2F	Z23-16	1	Sicherungsmutter	Locknut	Contre-écrou	M16
3	1404076	1	Turm, vordere Abdeckung	Tower Front Cover	Couvercle frontal tour	
3A	Z12-02-10	2	Federring	Spring Washer	Rondelle à ressort	M8
3B	Z11-02-101	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
4	Z09-AW9	1	1" BS Kette (56 Glieder)	1" BS Chain (56 Links)	Chaîne BS 1" (56 liens)	1" 56 Links
5	1404450	1	Kettendeckel	Chain Cover	Protection de la chaîne	
5A	Z23-10	2	Sicherungsmutter	Locknut	Contre-écrou	M10
5B	Z10-02-10	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
5C	Z18-10	2	Sechskantmutter, glatt	Plain Hex Nut	Écrou plein Hex	M10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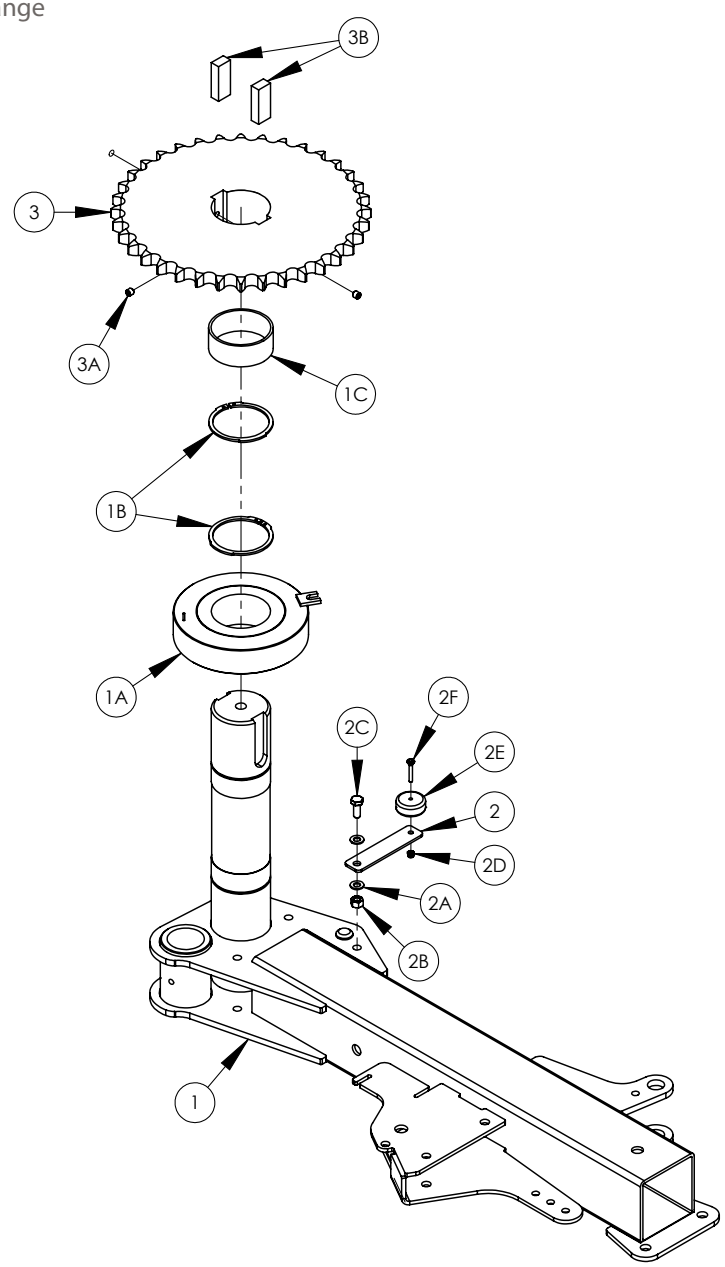
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	Z01-02-RF200	1	Turmmotor	Tower Motor	Moteur tour	
1A	Z01-03-1046	1	Drehzahlsteuerventil	Speed Control Valve	Vanne de contrôle de vitesse	3/8"
1B	WD64-053		Keilstahl	Key Steel	Clavette acier	5/16" x 5/16" x 45mm
IC	1503172	1	Motorabstandhalter	Motor Spacer	Entretoise moteur	
1D	1315301	1	Zahnkranz	Sprocket	Pignon	1" x 14T
1E	WD623-071	1	Kragen/Manschette	Collar	Collier	
1F	Z13-4-32	1	UNC Zylinderkopfschraube	UNC Socket Cap Screw	Vis six pans creux UNC	1 1/4" x 3/8"
2	1503247	1	Motoranbauplatte	Motor Mounting Plate	Plaque de fixation du moteur	
2A	Z13-5-12X50	4	Inbussenkkopf-Set	Countersunk Allen Head Set	Vis noyée à tête à six pans creux	M12 x 50mm
2B	Z12-02-12	4	Federring	Spring Washer	Rondelle à ressort	M12
2C	Z23-12	4	Sicherungsmutter	Locknut	Contre-écrou	M12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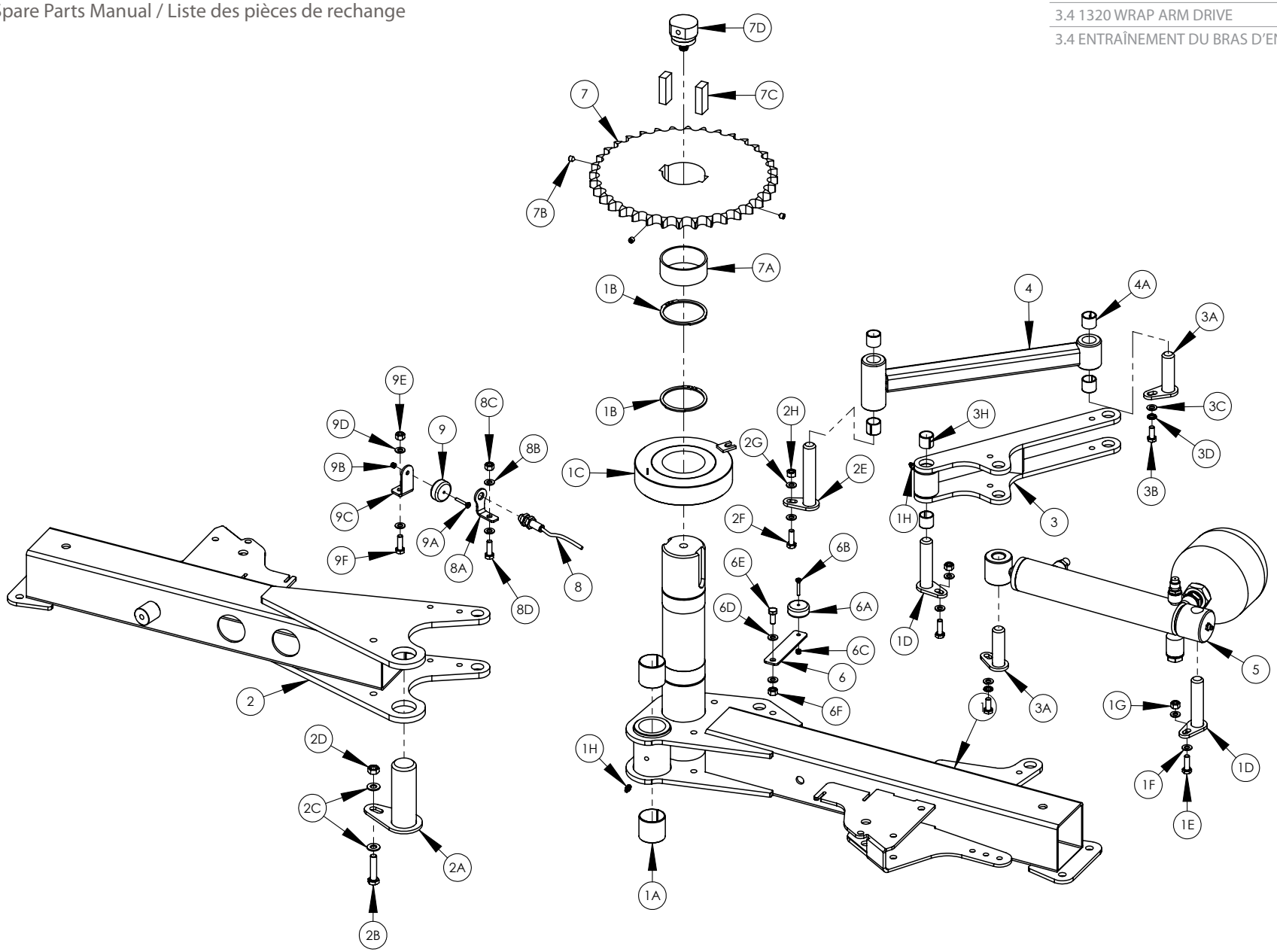
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1314100	1	Hauptwickelarmanbau	Main Wrap Arm Mounting	Montage du bras d'enrubannage principal	
1A	1319100	1	Drehkranz	Slew Ring	Couronne de rotation	
1B	1404053	2	Seegerring	Circlip	Circlip	Ext. 67mm
1C	1403075	1	Abstandhalter	Spacer	Entretoise	
2	1315109	1	Magnetmontagebügel	Magnet Bracket	Support de l'aimant	
2A	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
2B	Z23-08	1	Sicherungsmutter	Locknut	Contre-écrou	M8
2C	Z26-039S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 20mm
2D	Z23-04	1	Sicherungsmutter	Locknut	Contre-écrou	M4
2E	1309201	1	RDS-Magnet	RDS Magnet	Aimant RDS	
2F	Z13-5-04X30	1	Inbussenkkopf-Set	Countersunk Allen Head Set	Vis noyée à tête à six pans creux	M4 x 30mm
3	1404010	1	Zahnkranz	Sprocket	Pignon	1" x 36T
3A	Z18-008	3	Gewindestift	Grub Screw	Vis sans tête	M8 x 10mm
3B	1404024	2	Keilstahl	Key Steel	Clavette acier	20 x 12 x 50mm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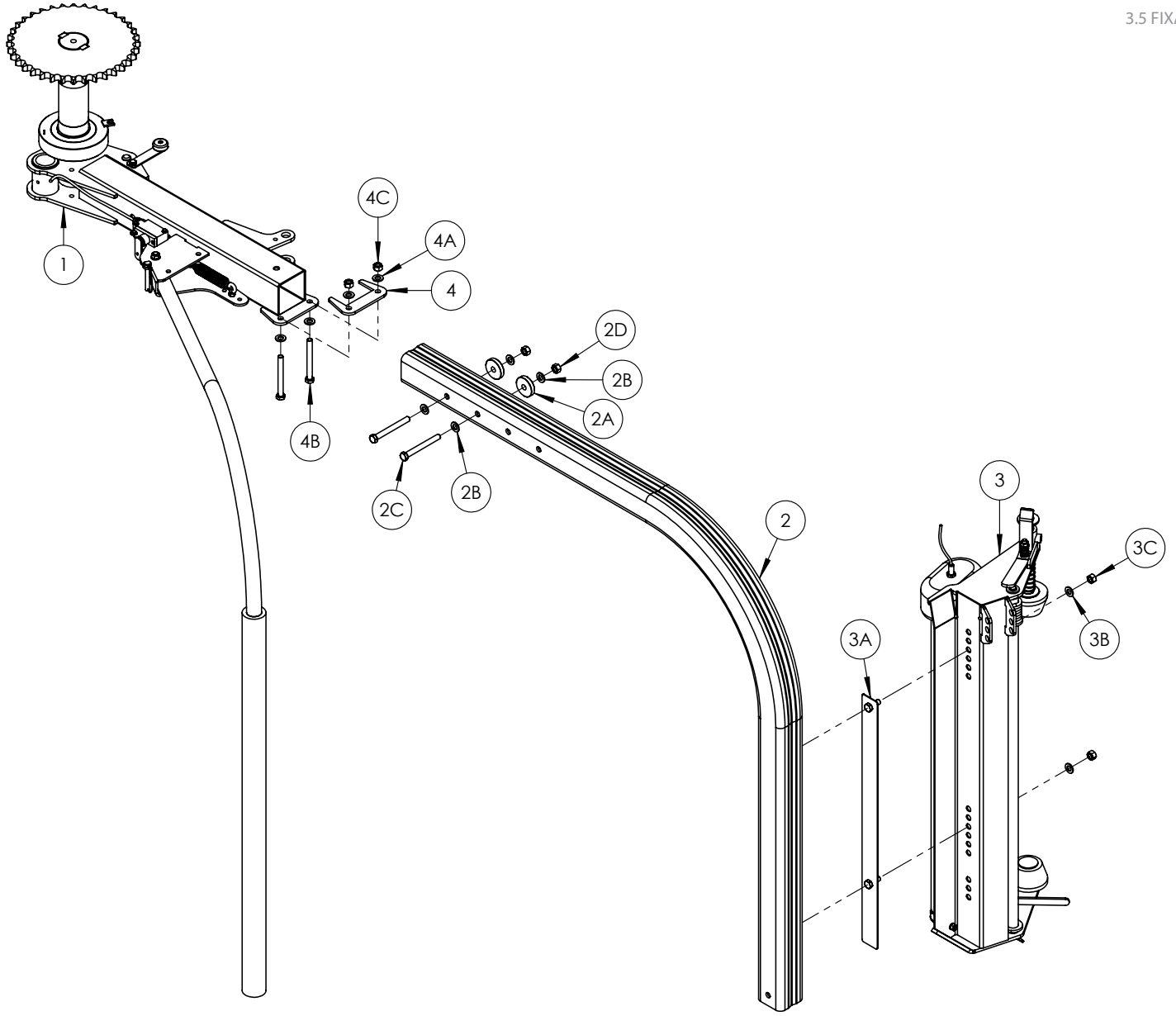
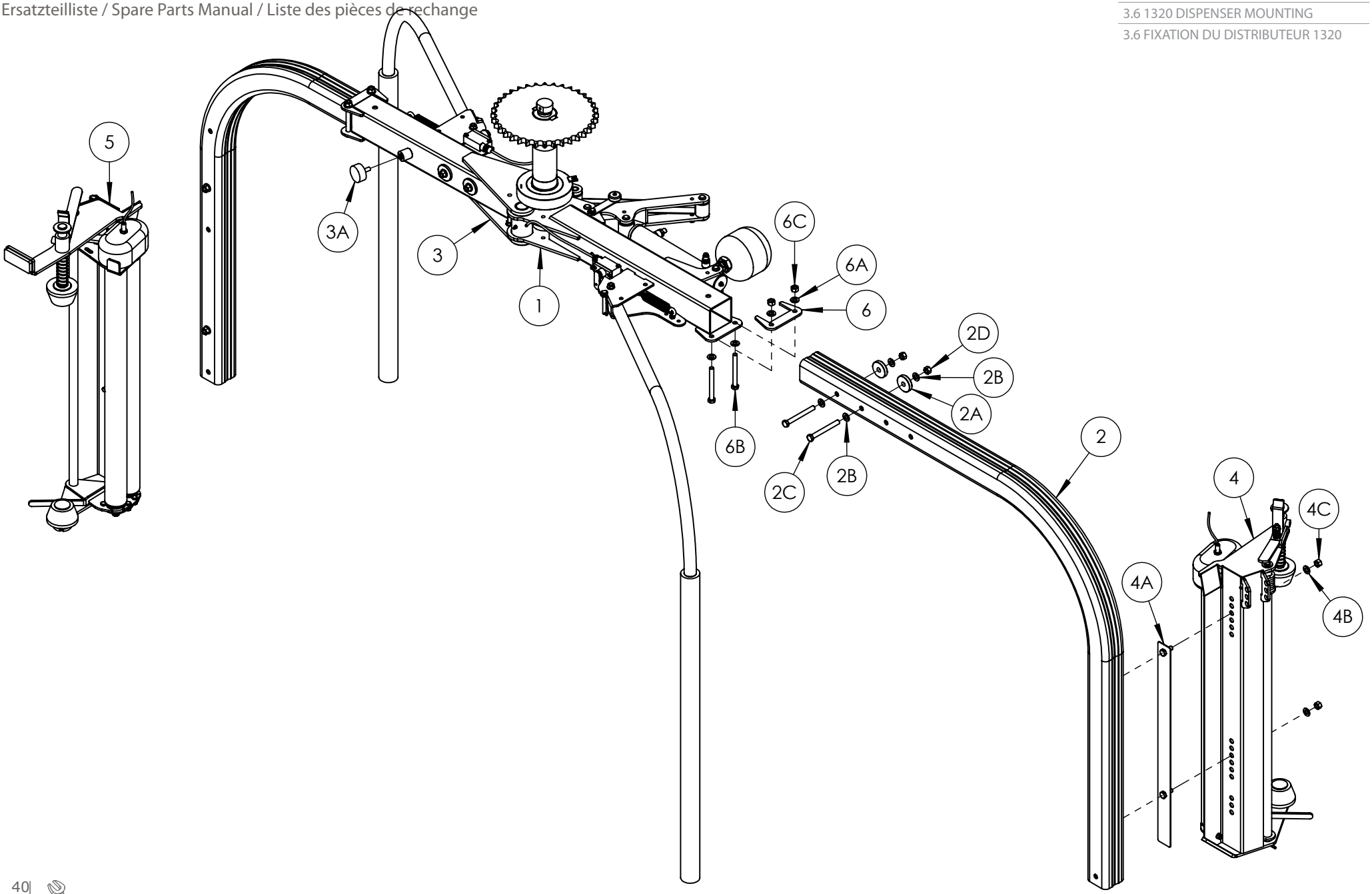
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1314100		Hauptwickelarmanbau	Main Wrap Arm Mounting	Montage du bras d'enrubannage principal	
1A	Z03-20-27		DX Buchse	DX Bush	Douille DX	40mm ID x 40mm
1B	1404053		Seegerring	Circlip	Circlip	Ext. 67mm
1C	1319100		Drehkranz	Slew Ring	Couronne de rotation	
1D	1315405		Zylinderstift	Cylinder Pin	Axe du vérin	
1E	Z26-040B		Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 25mm
1F	Z10-02-08		Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
1G	Z23-08		8 mm Sicherungsmutter	8mm Locknut	Contre-écrou 8 mm	M8
1H	34060800		Schmiernippel	Grease Nipple	Raccord graisseur	M8 x 1.25
2	1314200		Nebenwickelarmanbau	Slave Wrap Arm Mounting	Montage du bras d'enrubannage esclave	
2A	1315409		Drehzapfen	Pivot Pin	Axe d'articulation	
2B	Z26-062B		Sechskantschraube	Hex Bolt	Boulon Hex	M10 x 30mm
2C	1303004		Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
2D	Z23-10		Sicherungsmutter	Locknut	Contre-écrou	M10
2E	1315403		Gestängestift	Lnkage Pin	Goupille de barre	
2F	Z26-040B		Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 25mm
2G	Z10-02-08		Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
2H	Z23-08		Sicherungsmutter	Locknut	Contre-écrou	M8
3	1314400		Stationäre Gestängebaugruppe	Fixed Linkage Assembly	Attelage fixe	
3A	1315407		Zylinderstift	Cylinder Pin	Axe du vérin	
3B	Z26-039S		Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 20mm
3C	Z10-02-08		Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
3D	Z12-02-08		Federring	Spring Washer	Rondelle à ressort	M8
3E	Z26-040B		Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 25mm
3F	Z10-02-08		Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
3G	Z23-08		Sicherungsmutter	Locknut	Contre-écrou	M8
3H	z03-20-32		DX Buchse	DX Bush	Douille DX	20mm ID x 20mm
4	1314300		Gestängebaugruppe	Linkage Assembly	Ensemble Attelage	
4A	Z03-20-32		DX Buchse	DX Bush	Douille DX	20mm ID x 20mm
4B	34060800		Schmiernippel	Grease Nipple	Raccord graisseur	M8 x 1.25
5	1318171		Faltzylinder	Folding Cylinder	Vérin de repliage	
6	1315109		Magnetmontagebügel	Magnet Bracket	Support de l'aimant	
6A	1309201		RDS-Magnet	RDS Magnet	Aimant RDS	
6B	Z13-5-04X30		Inbussenkkopf-Set	Countersunk Allen Head Set	Vis noyée à tête à six pans creux	M4 x 30mm
6C	Z23-04		Sicherungsmutter	Locknut	Contre-écrou	M4
6D	Z10-02-08		8 mm Unterlegscheibe	8mm Flat Washer	Rondelle plate 8 mm	
6E	Z26-039S		Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 20mm
6F	Z23-08		Sicherungsmutter	Locknut	Contre-écrou	M8 x 20mm
7	1404010		Zahnkranz	Sprocket	Pignon	1" x 36T
7A	1403075		Abstandhalter	Spacer	Entretoise	
7B	Z18-008		Gewindestift	Grub Screw	Vis sans tête	M8 x 10mm
7C	1404024		Keilstahl	Key Steel	Clavette acier	20 x 12 x 50mm
7D	1318176		Drehkupplung	Rotary Coupling	Couplage rotatif	
8	1309202		Sensorbaugruppe	Sensor Assembly	Ensemble de capteur	
8A	1315116		Sensormontagebügel	Sensor Bracket	Support de capteur	
8B	Z10-02-08		Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
8C	Z23-08		Sicherungsmutter	Locknut	Contre-écrou	M8
8D	Z26-040B		Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 25mm
9	1309201		Magnet	Magnet	Aimant	
9A	Z13-5-04X30		Inbussenkkopf-Set	Countersunk Allen Head Set	Vis noyée à tête à six pans creux	M4 x 30mm
9B	Z23-04		Sicherungsmutter	Locknut	Contre-écrou	M4
9C	1315117		Magnetmontagebügel	Magnet Bracket	Support de l'aimant	
9D	Z10-02-08		Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
9E	Z23-08		Sicherungsmutter	Locknut	Contre-écrou	M8
9F	Z26-040B		Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 25mm

3.5 1310 VORSTRECKERMONTAGEBÜGEL
3.5 1310 DISPENSER MOUNTING
3.5 FIXATION DU DISTRIBUTEUR 1310



POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1314100	1	Hauptwickelarm/Dreharm	Main Rotating Arm	Bras rotatif principal	
1A	Z26-082S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 30mm
2	1404009	2	Wickelarm	Wrap Arm	Bras d'enrubannage	
2A	1314013	2	Unterlegscheibe	Washer	Rondelle plate	50mm OD x M12 ID
2B	Z10-02-12	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M12
2C	Z26-093B	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 110mm
2D	Z23-12	2	Sicherungsmutter	Locknut	Contre-écrou	M12
3	1314610	1	Standard Vorstreckerbaugruppe	Standard Dispenser Assembly	Ensemble Distributeur standard	
3A	1405015	1	Vorstreckermontagebügel	Dispenser Mounting Bracket	Support de fixation du distributeur	
3B	Z10-02-12	6	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
3C	Z23-12	3	Sicherungsmutter	Locknut	Contre-écrou	M12
4	1314015	1		Clamping Plate		
4A	Z10-02-12	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M12
4B	Z26-093B	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 110mm
4C	Z23-12	2	Sicherungsmutter	Locknut	Contre-écrou	M12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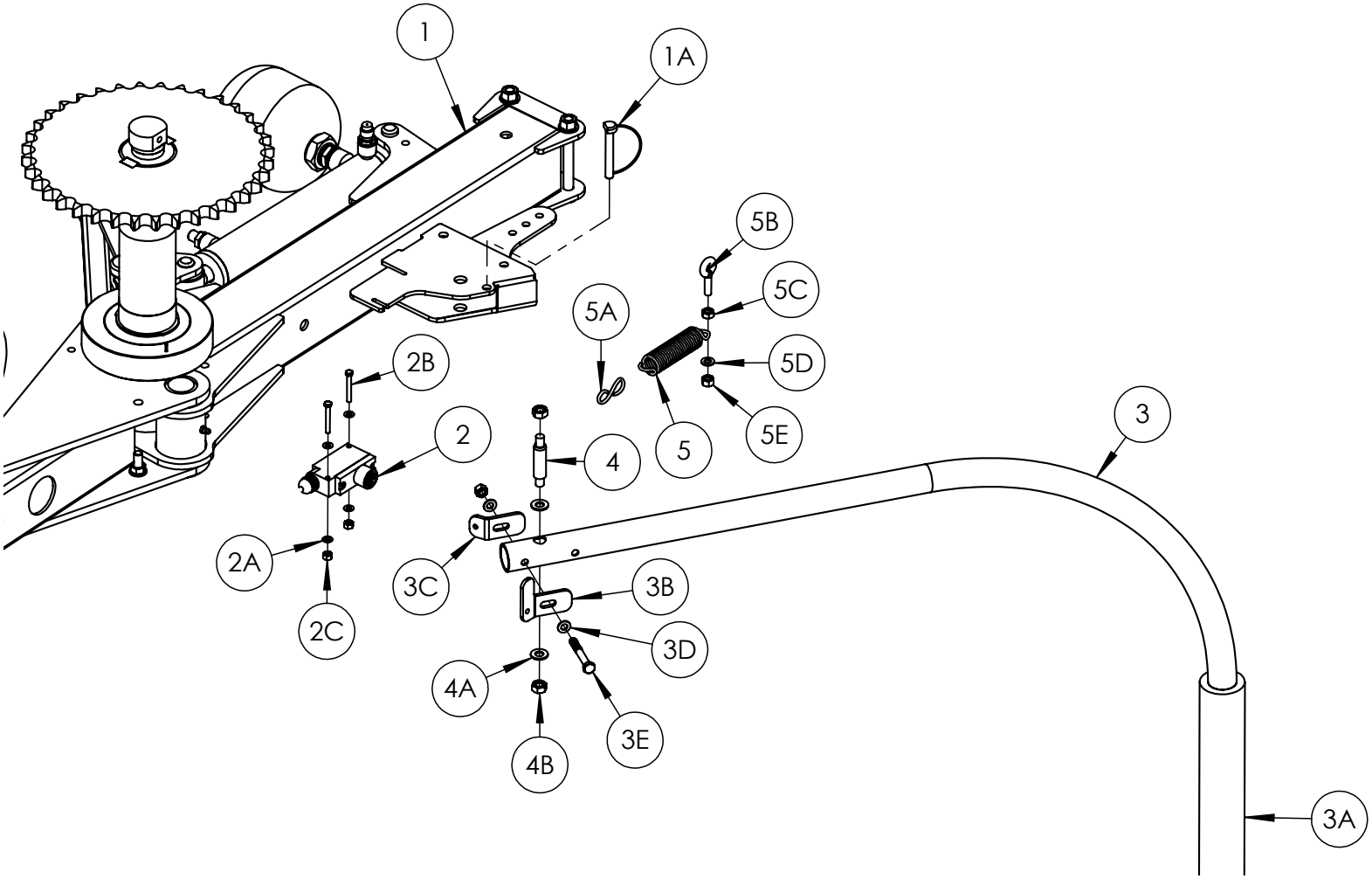
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1314100	1	Hauptwickelarm/Dreharm	Main Rotating Arm	Bras rotatif principal	
1A	Z26-082S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 30mm
2	1404009	2	Wickelarm	Wrap Arm	Bras d'enrubannage	
2A	1314013	2	Unterlegscheibe	Washer	Rondelle plate	50mm OD x M12 ID
2B	Z10-02-12	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M12
2C	Z26-093B	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 110mm
2D	Z23-12	2	Sicherungsmutter	Locknut	Contre-écrou	M12
3	1314200	1	Nebenwickelarm/Dreharm	Slave Rotating Arm	Bras rotatif esclave	
3A	Z10-28	1	Gummistoßdämpfer	Rubber Buffer	Tampon caoutchouc	50 x 30mm
4	1314610	1	Standard Vorstreckerbaugruppe	Standard Dispenser Assembly	Ensemble Distributeur standard	
4A	1405015	1	Vorstreckermontagebügel	Dispenser Mounting Bracket	Support de fixation du distributeur	
4B	Z10-02-12	6	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
4C	Z23-12	3	Sicherungsmutter	Locknut	Contre-écrou	M12
5	1314510	1	Neben-Vorstreckerbaugruppe	Slave Dispenser Assembly	Ensemble Distributeur esclave	
4	1314015	1		Clamping Plate		
4A	Z10-02-12	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M12
4B	Z26-093B	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M12 x 110mm
4C	Z23-12	2	Sicherungsmutter	Locknut	Contre-écrou	M12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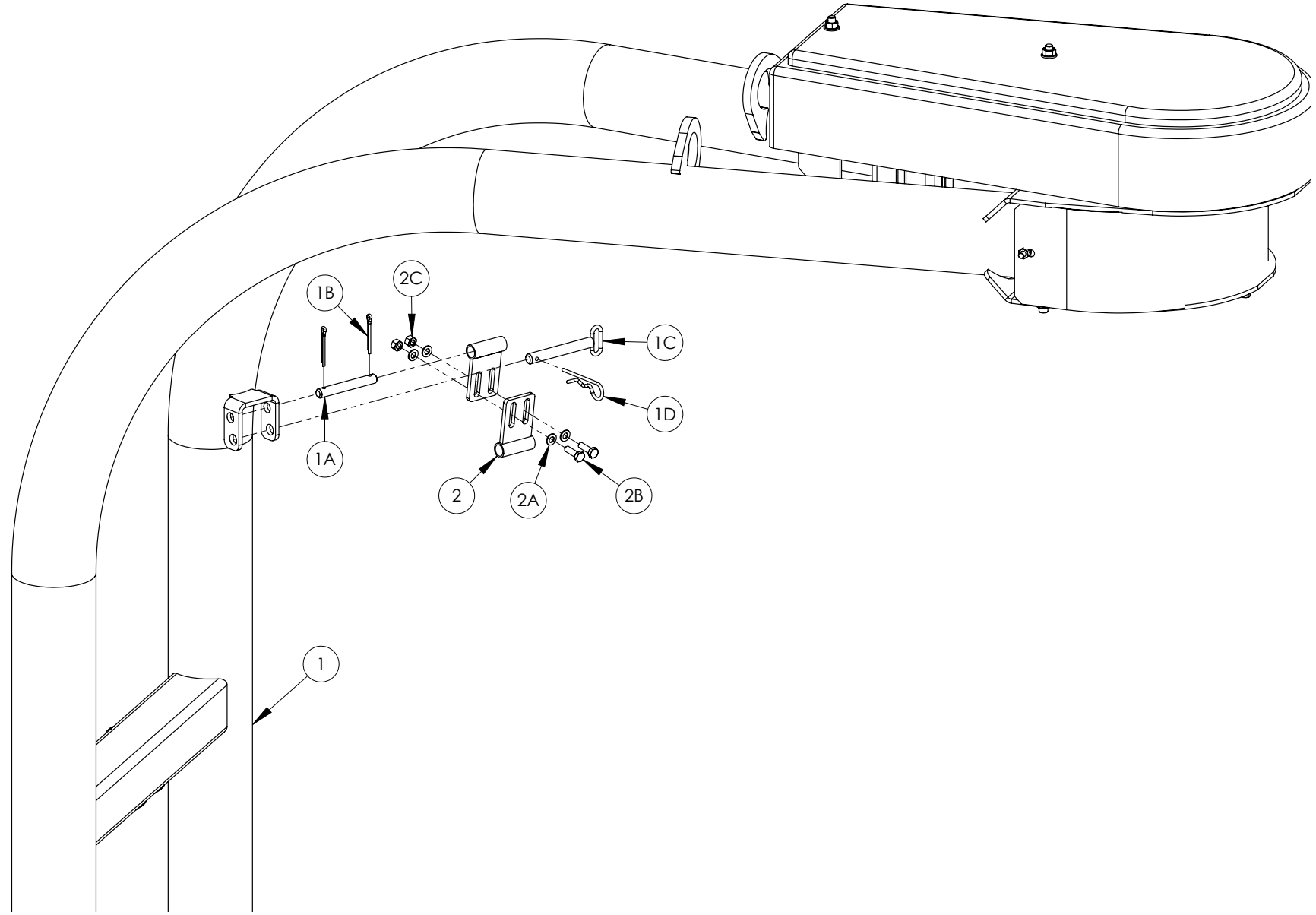
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1314100	1	Hauptwickelarm/Dreharm	Main Rotating Arm	Bras rotatif principal	
1A	Z03-22-07	1	Gebogener Klappsplint	Curved Linch Pin	Clavette d'essieu courbe	3/8"
2	34950179	1	Sicherheitsschalter	Safey Switch	Interrupteur de sécurité	
2A	Z10-02-05	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M5
2B	Z26-0137S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M5 X 40mm
2C	Z23-05	2	Sicherungsmutter	Locknut	Contre-écrou	M5 X 40mm
3	1315107	1	Not-Aus Armhebel	Emergency Stop Arm	Bras d'arrêt d'urgence	
3A	34480020	1	Not-Aus Armhebel, Deckel	Emergency Stop Arm Cover	Protection du bras d'arrêt d'urgence	
3B	1404013	1	Schalterauslöser	Switch Activator	Activateur de l'interrupteur	
3C	34670152	1	Not-Aus Armhebel, Bügel	Emergency Stop Arm Bracket	Support du bras d'arrêt d'urgence	
3D	Z10-02-08	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	8mm
3E	Z26-047B	1	Sechskantschraube	Hex Bolt	Boulon Hex	M8 x 60mm
3F	Z23-08	1	Sicherungsmutter	Locknut	Contre-écrou	M8
4	34105651	1	Drehzapfen	Pivot Bolt	Vis d'articulation	M10
4A	Z10-02-10	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
4B	Z23-10	2	Sicherungsmutter	Locknut	Contre-écrou	M10
5	34430300	1	Feder	Spring	Ressort	
5A	34660111	1	S-Haken	S Hook	Crochet S	
5B	34119043	1	Augenschraube/Einschrauböse	Eye Bolt	Boulon à œil	M8 x 25mm
5C	Z18-08	1	Sechskantmutter	Hex Nut	Écrou hexagonal	M8
5D	Z10-02-08	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
5E	Z23-08	1	Sicherungsmutter	Locknut	Contre-écrou	M8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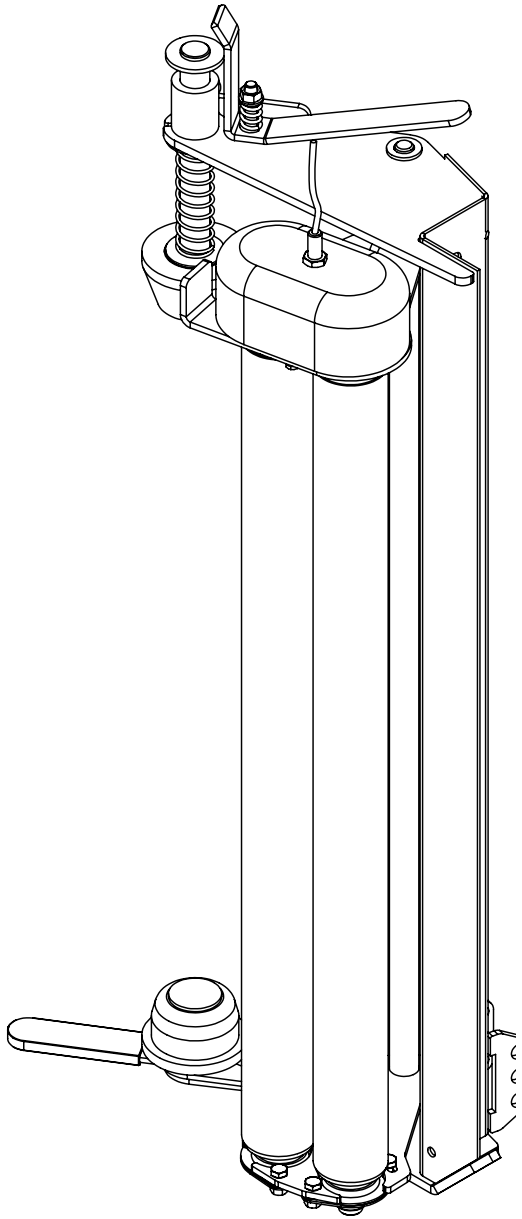
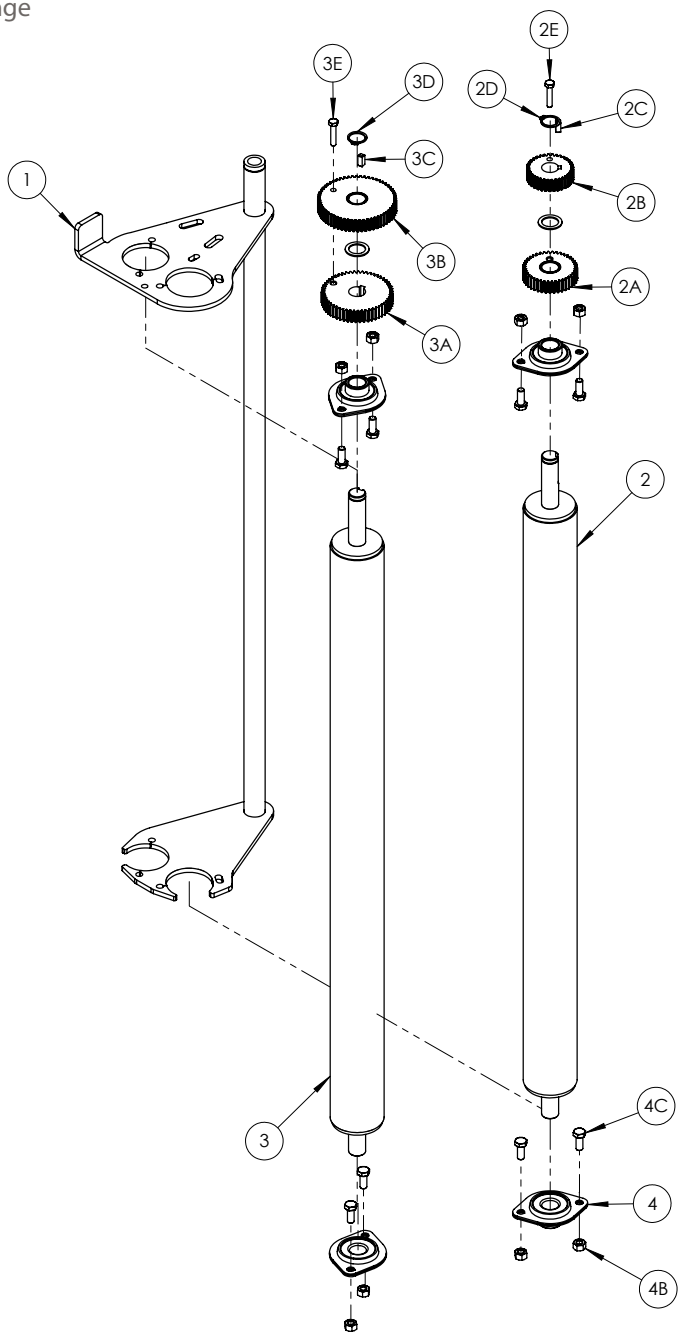
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1313100	1	Turmrahmen	Tower Frame	Châssis de tour	
1A	34105677	1	Halterscharnierstift	Retainer Hinge Pin	Axe du dispositif d'arrêt	
1B	34220200	2	Sicherungssplint	Split Pin	Goupille fendue	4mm x 36mm
1C	34105676	1	Sicherungsstift	Locking Pin	Goupille d'arrêt	
1D	Z36-02	1	'R' Clip	'R' Clip	Clip « R »	4mm
2	1313015	2	Wickelarmsicherung	Wrap Arm Lock	Loquet du bras d'enrubannage	
2A	Z10-02-08	4	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M8
2B	Z26-040S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 25mm
2C	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8

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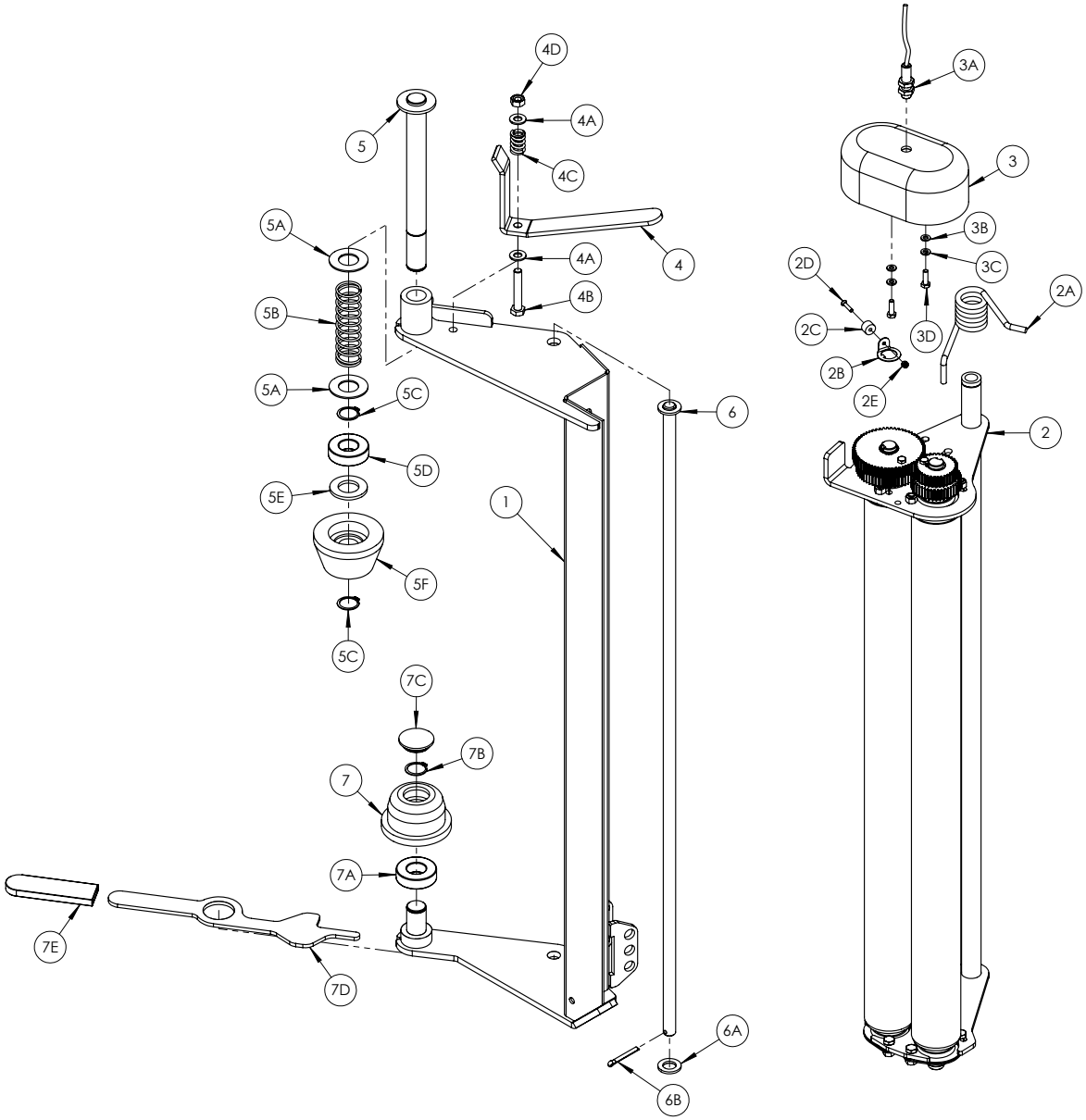
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1505001	1	RA Walzenanbaurahmen	RA Roller Mounting Frame	Cadre de fixation des rouleaux RA	
2	1305120	1	Walze, innen	Inner Roller	Rouleau intérieur	
2A	1305104	1	Zahnrad	Gear	Engrenage	37 T
2B	1305102	1	Zahnrad	Gear	Engrenage	35 T
2C	1305123	1	Keilstahl	Key Steel	Clavette acier	6 x 6 x 15mm
2D	Z28-520	1	Seegerring	Cir Clip	Circlip	A20
2E	Z26-022S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M6 x 30mm
3	1305121	1	Außenwalze	Outer Roller	Rouleau extérieur	
3A	1305101	1	Zahnrad	Gear	Engrenage	60 T
3B	1305103	1	Zahnrad	Gear	Engrenage	58 T
3C	1305123	1	Keilstahl	Key Steel	Clavette acier	6 x 6 x 15mm
3D	Z28-520	1	Seegerring	Cir Clip	Circlip	A20
3E	Z26-022S	1	Sechskant-Set	Hex Set	Vis de régl. Hex	M6 x 30mm
4	1305122	4	Lager	Bearing	Palier	SLFL 20A
4A	Z26-039S	8	Sechskant-Set	Hex Set	Vis de régl. Hex	M8 x 20mm
4B	Z23-08	8	Sicherungsmutter	Locknut	Contre-écrou	M8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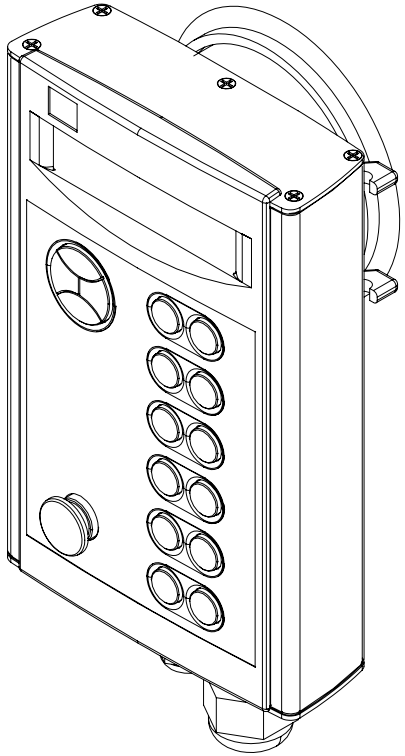
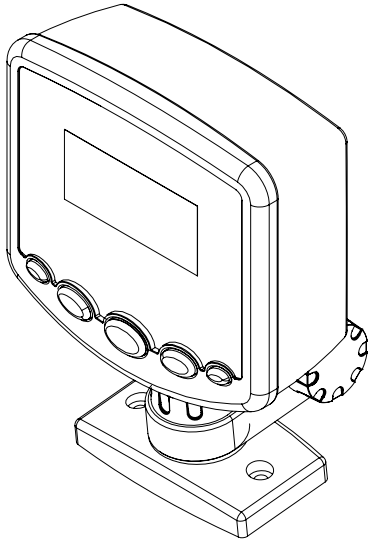
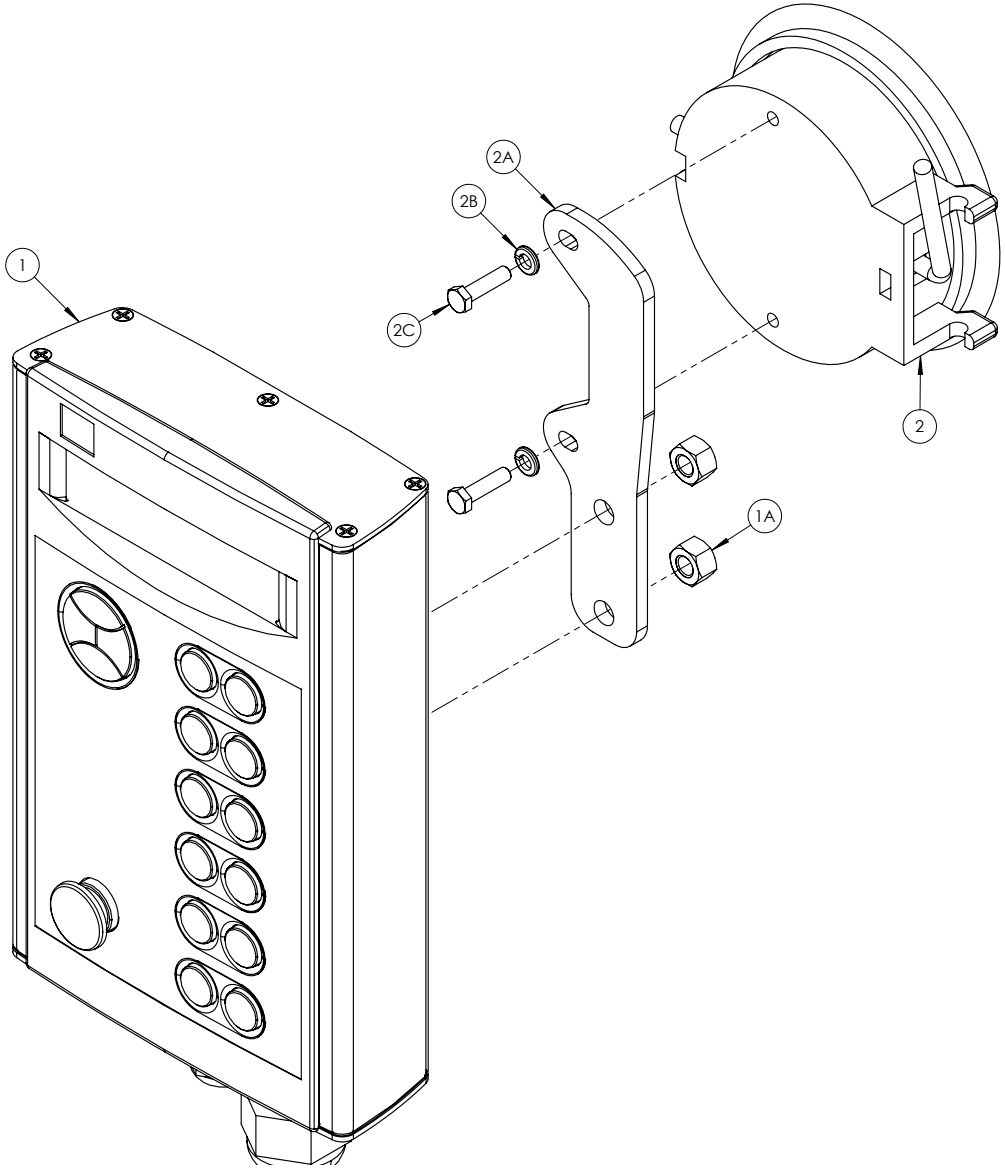
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1314500	1	Vorstrecker Standardrahmen	Standard Dispenser Frame	Cadre distributeur standard	
	1314600	1*	Nebenvorstreckerrahmen	Slave Dispenser Frame	Cadre distributeur esclave	1320 Only
2	1305100B	1	Einsatzbaugruppe	Insert Assembly	Insert	70/55%
2A	1305034	1	Torsionsfeder	Torsion Spring	Ressort de torsion	
2B	WD404-052	1	Magnetmontagebügel	Magnet Bracket	Support de l'aimant	
2C	D606C-M	1	Sensormagnet	Sensor Magnet	Aimant de capteur	
2D	Z13-5-04X20	1	Inbussenkkopf-Set	Countersunk Allen Head Set	Vis noyée à tête à six pans creux	M4 x 20mm
2E	Z23-04	1	M4 Sicherungsmutter	M4 Locknut	Contre-écrou M4	
3	1305125	1	Zahnraddeckel	Gear Cover	Carter d'engrenage	
3A	1309203	1	Sensorkabel	Sensor Cable	Câble capteur	4Mtr
3B	Z10-02-06	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M6
3C	Z12-02-06	2	Federring	Spring Washer	Rondelle à ressort	M6
3D	Z26-020S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M6 x 20mm
4	1305026	1	Arretierung, oben	Top Latch	Loquet supérieur	
4A	Z10-02-10	2	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M10
4B	Z26-067B	1	Sechskantschraube	Hex Bolt	Boulon Hex	M10 x 60mm
4C	1305027	1	Druckfeder	Compression Spring	Ressort à compression	
4D	Z23-10	1	Sicherungsmutter	Locknut	Contre-écrou	M10
5	1305022	1	Obere Welle	Top Shaft	Arbre supérieur	
5A	Z11-02-25	2	Unterlegscheibe, flach (niedrige Beanspruchung)	Flat Washer (Light Duty)	Rondelle plate (travail léger)	M25 L.D.
5B	1305021	1	Druckfeder	Compression Spring	Ressort à compression	
5C	Z28-525	2	Seegerring	Circlip	Circlip	Ext. M25
5D	Z06-AWRB	1	Lager	Bearing	Palier	6205-ZZ LDK
5E	Z10-02-25	1	25 mm Unterlegscheibe, flach (hohe Beanspruchung)	25mm Flat Washer (Heavy Duty)	Rondelle plate 25 mm (travail lourd)	
5F	1305019	1	Nylonkonus	Nylon Cone	Cône en nylon	
6	1405007	1	Einsatz, Montagestift	Insert Mounting Pin	Goupille de fixation de l'insert	
6A	Z10-02-16	1	Unterlegscheibe, flach	Flat Washer	Rondelle plate	M16
6B	Z03-21-14	1	Sicherungssplint	Split Pin	Goupille fendue	3/16" x 1 1/2"
7	1405006	1	Nylonkonus, unten	Bottom Nylon Cone	Cône en nylon inférieur	
7A	Z06-AWRB	1	Lager	Bearing	Palier	6205-ZZ LDK
7B	Z28-525	1	25 mm externer Seegerring	25mm External Circlip	Circlip extérieur 25 mm	Ext. M25
7C	Z32-15F	1	Kunststoffkappe	Plastic Cap	Capuchon plastique	37mm
7D	2005005	1	Entriegelungsbügel	Release Bracket	Ergot de dégagement	
7E	Z32-165	1	Plastikgriff	Plastic Grip	Embout plastique	



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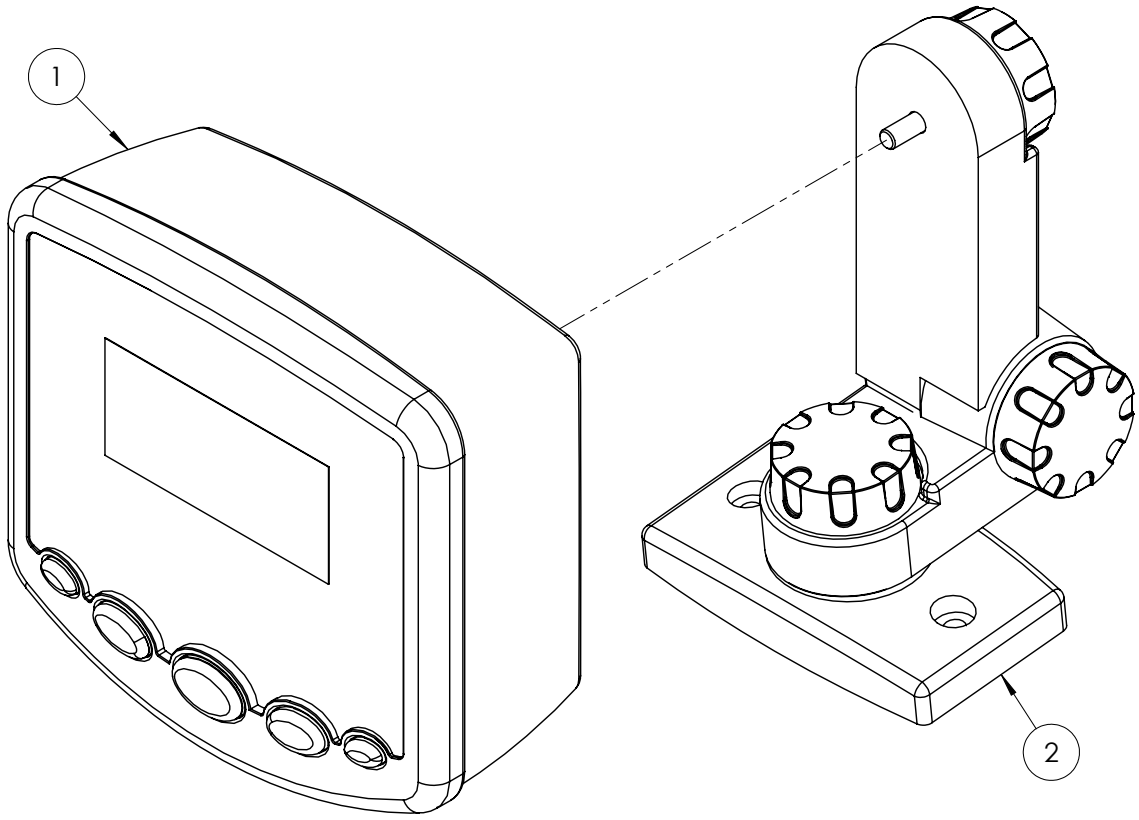
POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1309006*	1	RA Expert Steuereinheit	RA Expert Control Unit	Contrôleur Expert RA	
*	1319050	-	1310 EH Steuer-Set, komplett	1310 EH Complete Control Kit	Kit de commande complet 1310 EH	
*	1319000	-	1320 EH Steuer-Set, komplett	1320 EH Complete Control Kit	Kit de commande complet 1320 EH	
1A	Z23-08	2	Sicherungsmutter	Locknut	Contre-écrou	M8
2	1309012	1	Saugnapf	Suction Cup	Ventouse	
2A	1309011	1	Montagebügel	Mounting Bracket	Support de fixation	
2B	Z12-02-05	2	Federring	Spring Washer	Rondelle à ressort	M5
2C	Z26-017S	2	Sechskant-Set	Hex Set	Vis de régl. Hex	M5 x 20mm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POS. NR. POS. NR. POS. NO.	TEILE NR. PART NR. PIECE NO.	STUCK QUANTITY QUANTITEE	BENENNUNG	DESCRIPTION	DESIGNATION	TECHNISCHE ANGABEN TECHNICAL DATA DONNEES TECHNIQUES
1	1209003*	1	Wizard Steuereinheit	Wizard Control Unit	Unité de commande Wizard	
*	1309050	-	1310 S / SM Steuereinheit-Set, komplett	1310 S / SM Complete Control Kit	Kit de commande complet 1310 S / SM	
2	1209005	1	Wizard Montagebügel-Set	Wizard Mounting Bracket Kit	Kit de fixation de l'unité de commande Wizard	