



**Important:** Read all the operating and maintenance instructions in this manual before assembly (EC Machinery Directive 98/37)



# ***EASY RAKE SUPER STAR 16-18-20 Series***



## **USER AND MAINTENANCE MANUAL**

### **Assembly instructions Spare Parts**

**CE DECLARATION OF CONFORMITY**

The Manufacturer **ENOAGRICOLA ROSSI s.r.l.**  
Headquartered at via Cortonese s.n. - 06018  
Calzolaro di Umbertide (PG) - Italy

**Declares under its sole responsibility that the machine**

**EASY RAKE SUPER STAR PULL TYPE**

.....  
*General and commercial name*

**EASY RAKE  
SUPER STAR  
16-18-20**

.....  
*Series/model*

**2010**

.....  
*Year of  
manufacture*

**conforms** to the essential health and safety requirements of Machine Directive 2006/42/EC

We have taken into account the following EN standards to ensure conformity with the above Directives:

**EN 349** (1993) + **A1** (2008) - **EN ISO 4254-1** (2008)  
**EN ISO 4254-10** (2010) - **EN 11684** (1995)  
**EN 12100-1** (2003) + **A1** (2009) - **EN 12100-2** (2003) + **A1** (2009)  
**EN ISO 12965** (2003) + **A1** (2004) + **A2** (2009)  
**EN ISO 13857** (2008) - **EN 14121-1** (2007)

**We hereby authorize** Mr Massimo Giovannini  
Via Cortonese s.n. - 06018 Calzolaro di Umbertide (PG) - Italy

**to draw up the respective Technical Dossier**

Calzolaro di Umbertide, .....

GIOVANNINI ADELMO

.....  
*Legal Representative*

**ENOAGRICOLA ROSSI s.r.l.**  
06018 Calzolaro di Umbertide Perugia Italy  
Tel. (39) 075-930 22 22 - Telefax (39) 075-930 23 28  
e-mail: [enorossi@enorossi.it](mailto:enorossi@enorossi.it) - [info@enorossi.it](mailto:info@enorossi.it)  
website: <http://www.enorossi.it> - <http://www.enoagricolarossi.com>

**Machine Directive and harmonized standards**

The EASY RAKE SUPER STAR pull type are designed in accordance with the provisions of Machine Directive **2006/42/EC** and conform to the following harmonized standards in particular:

**EN 349:** Safety of Machinery – Minimum gaps to avoid crushing parts of the body (1993) + **A1** (2008)

**EN ISO 4254-1:** Agricultural machines – general safety requirements for the design and construction of agricultural self-propelled ride-on machines and mounted, semi-mounted or trailed machines (2008)

**EN ISO 4254-10:** Agricultural machines – mounted, semi-mounted, trailed or self-propelled agricultural machines – Part 10: rotary tedders, rotary rakes and rotary tedder-rakes (2010)

**EN ISO 11684:** Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Safety signs and hazard pictorials – General principles (1995)

**EN 12100-1:** Safety of machinery – Basic concepts, general principles for design – Part 1: Basic terminology, methodology (2003) + **A1** (2009)

**EN 12100-2:** Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles (2003) + **A1** (2009)

**EN 12965:** Tractors and machinery for agriculture and forestry. Power take-off (PTO) drive shafts and their guards. Safety (2003) + **A1** (2004) + **A1** (2009)

**EN 13857:** Safety of machinery – Safety distances to prevent hazard zones being reached by lower limbs (2008)

**EN 14121-1:** Safety of machinery – Risk assessment principles (2007)

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## INTRODUCTION

### A1 About hay rakes

The hay rake is an agricultural device used to collect cut forage. The “**Easy Rake**” models produced by our company, all trailer-type, comprise a flexible, sturdy frame enabling use on any type of land, even if extremely irregular or on a slope. The main component is the rake wheel, 14 of which make up the device. Each wheel is separate from the other and comprises a shock absorbing spring for the wheel to perfectly follow the surface of the land.

The hay rake has to be attached to an agricultural tractor for it to work. The arms and stars move hydraulically and the entire rake is trailed by the tractor to which it is attached. Operation and use of the rake is described in greater detail in the relative chapter.

### A2 About the manual

The **ENOROSSI** firm (the “Manufacturer”) designed and created the device in accordance with the relative safety standards to ensure the safety of personnel and the entire operating system.

Each rake is supplied with a copy of this manual, which the operator must read in full before using the equipment. The manual contains all information relating to transportation, use and maintenance of the equipment, as well as relative safety instructions.

Poor knowledge of the operating system can lead to accidents and therefore damage to the equipment. Although the Manufacturer provides the Customer with all information relating to the rake's operation, use and maintenance, the Customer is still expected to read this manual and take note of all the instructions herein.

The manual provides all basic instructions on how to ensure optimum working and safety conditions, but the most important factors to ensure the device's good working order are the operator's experience and common sense.

The manual was drawn up on the basis of both the rake models' current technical and structural characteristics and does not take previous similar models into account. The Manufacturer therefore reserves the right to modify models in production in the interest of improving the product or in accordance with any new legislation (Machinery Directive) without obligation for adapting previous models.

This manual is integral to the rake and must therefore be kept intact, clean and in good condition, and stored in a container, either on the frame of the equipment or in the tractor cabin, where it can be readily accessed for consultation.

The manual must be kept in its container if the rake is placed out of service. Ask the Manufacturer for a duplicate copy if the original manual is lost.

Please contact the Manufacturer for any clarifications relating to the instructions in this manual. If the translated copy of this manual is unclear in any way, the valid text of reference is the original one in Italian.

Symbols used in this manual:

- **WARNING**, with associated pictogram, indicates potential danger and therefore the need for the operator to exercise caution and common sense;
- **IMPORTANT** indicates that the operator must be aware of the matter referred to;
- **Note** indicates that the information referred to can facilitate the operator's work.



### A3 Warranty

The Manufacturer's warranty guarantees that all parts of the rake are free of defects as they are all tested before delivery to the Customer. The warranty is valid for a year (or for whatever duration is stipulated in the purchase contract) from the date specified in the fiscal delivery document, but is not valid during transportation as the Customer is responsible for its shipment. The warranty does not cover commercial components that are covered by the warranty of their original manufacturer.



The Customer, upon receipt of the shipment, must check the entire structure for any signs of damage and that the components are intact and none are missing. Any claims must be made to the Manufacturer in writing within 8 (eight) days of receiving the rake. Any components found to be defective within the period of the warranty will be replaced by the Manufacturer free of charge. Only the Manufacturer or technician employed by the Manufacturer is entitled to check the defect. Spare parts remain the property of the Manufacturer. The warranty does not however cover faults caused by improper use of the rake, the operator's negligence, accidents or normal wear and tear

**The warranty is forfeited when:**

- The manual's instructions are not followed;
- The necessary maintenance is not carried out;
- The Customer modifies the equipment without the Manufacturer's prior written consent;
- The spare parts used are not type approved.

**A4 EC certification and identification**



An identification plate is affixed to each machine. Details on the plate are:

- The rake's model (and/or version);
- Serial number;
- Tractor's power capacity (kw);
- Overall weight (kg);
- Year of manufacture.

You must have this information at hand when requesting assistance and spare parts.

**IMPORTANT**

It is strictly forbidden to alter and/or erase the data on the serial plate. The operator must check legibility of the data on a regular basis and inform the Manufacturer if it becomes in any way illegible. The Manufacturer will then replace the old plate with a new one bearing the same data.

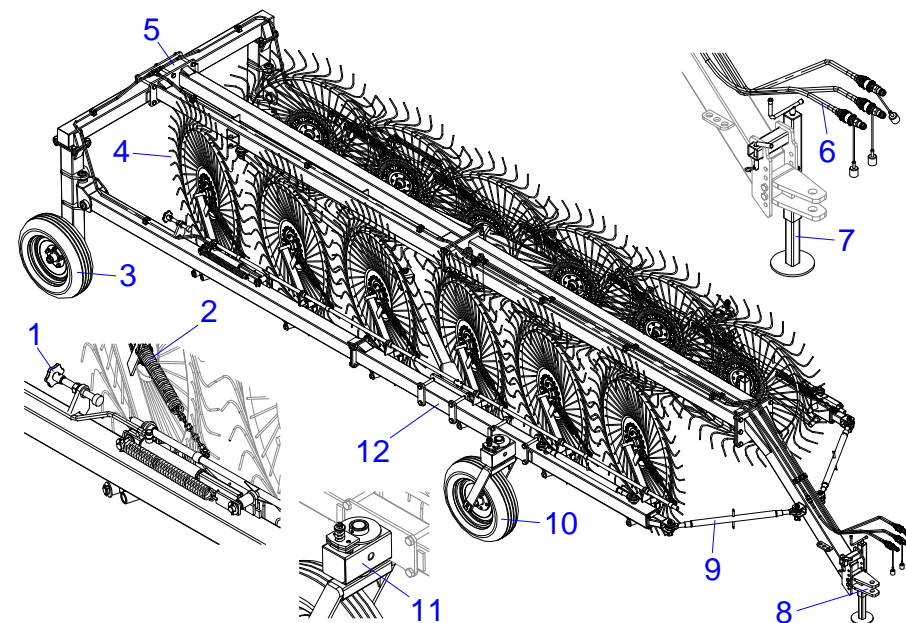
|   |                                |  |
|---|--------------------------------|--|
| <b>ENOAGRICOLA ROSSI s.r.l.</b>   |                                |  |
| <b>CALZOLARO DI UMBERTIDE - PERUGIA -</b>   |                                |  |
|  | ANNO <input type="text"/>      | Kg <input type="text"/>  |
|   |                                |  <b>MADE IN ITALY</b> |
| MODELLO <input type="text"/>  | MATRICOLA <input type="text"/> | Kw <input type="text"/>  |

The EC mark indicates that the Manufacturer has complied with the health and safety regulations, adopted by the EU countries, and known as the “**Machinery Directive**”. This means that the Manufacturer designed and created the equipment in full compliance with all the requisites on use of the rake and avoidance of all possible risks and hazards associated with the same. The rake can therefore be freely distributed throughout Europe providing it features this mark and relative declaration of conformity.

## A5 Main components and technical specifications

1. Mechanical end stop (to adjust the rake wheel to the ground)
2. Shock absorbing spring
3. Rear wheel
4. Rake wheel
5. Frame
6. Hydraulic quick couplings
7. Supporting foot
8. Tractor coupling device
9. Tie rod (for road circulation)
10. Front wheel
11. Device to limit pivoting of the front wheel
12. Side arm

| Model     | Stars |       |       | Width          |                  | Wheels    |    | HP    | Weight |
|-----------|-------|-------|-------|----------------|------------------|-----------|----|-------|--------|
|           | N°    | Teeth | Ø cm  | Work config cm | Trnspt config cm | Type      | N° |       |        |
| Easy RAKE | 16    | 40    | 149,5 | 970            | 280              | 205/70.15 | 8  | 50/60 | 2.250  |
| Easy RAKE | 18    | 40    | 149,5 | 1.060          | 280              | 205/70.15 | 8  | 50/60 | 2.390  |
| Easy RAKE | 20    | 40    | 149,5 | 1.150          | 280              | 205/70.15 | 8  | 50/60 | 2.549  |
|           |       |       |       |                |                  |           |    |       |        |
|           |       |       |       |                |                  |           |    |       |        |
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## SAFETY

### B1 General regulations

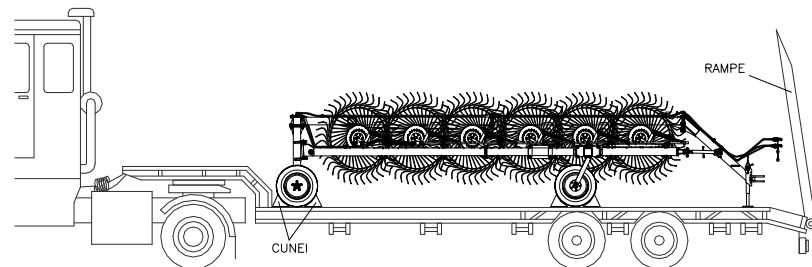
This manual describes the safety regulations to be followed when using the rake. As most work-related accidents occur due to non-compliance with the most basic of safety regulations, **it is obligatory** to read this manual before carrying out any work with the rake and to follow all the instructions.

The equipment must be used by qualified adult personnel trained in its use. **The Manufacturer therefore does not cover accidents caused by the operator's negligence and/or non-compliance with the safety instructions. This also forfeits the Manufacturer's responsibility and the rake's warranty.**



### B2 Handling and transportation

- **Transportation (delivery):** the device is fully dismantled and placed in a crate for transportation. The Customer can then re-assemble the parts quickly and easily on receipt, following the well detailed instructions. If the rake is sold or transferred to another user, the rake can be dismantled by following the instructions in reverse order, although it can also be delivered fully assembled. The rake can also be easily transported by road on a suitable means of transport, as illustrated below.



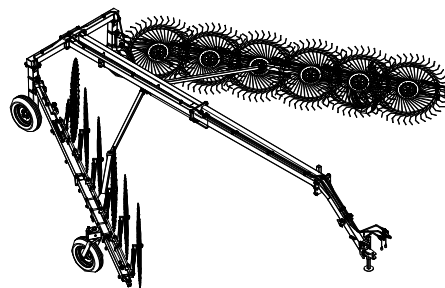
The rake is loaded or unloaded via a ramp attached to the vehicle. The equipment, when ready for transportation, is reversed onto the vehicle, then harnessed in place and fitted with all necessary safety devices for transportation.

### WARNING

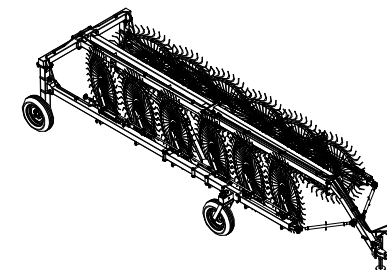
**Loading and unloading must always be carried out with all due precautions as they can entail a certain element of risk.**

#### Always take the following precautions:

- Loading/unloading must be carried out on a flat surface and at a safe distance from slopes or ditches;
  - Always ensure the ramps are strong enough to withstand the rake's weight (given on the identification plate), are firmly attached to the vehicle and are parallel to each other and perpendicular with the edge of the vehicle;
  - Ensure the ramps are clean, without any traces of oil, grease or ice;
  - Never change direction when moving the rake onto or off the vehicle. If this does become necessary, bring the rake back down to change its trajectory.
- **Transportation (by road):** as this is a trailer-type device, it can only be transported if attached to an agricultural tractor. In this case, the device must always be in **its transportation configuration for transportation** either by road or in the fields, as illustrated below. This configuration is necessary as the device can be up to 10 metres in width in its working configuration.



WORKING CONFIGURATION



TRANSPORTATION CONFIGURATION

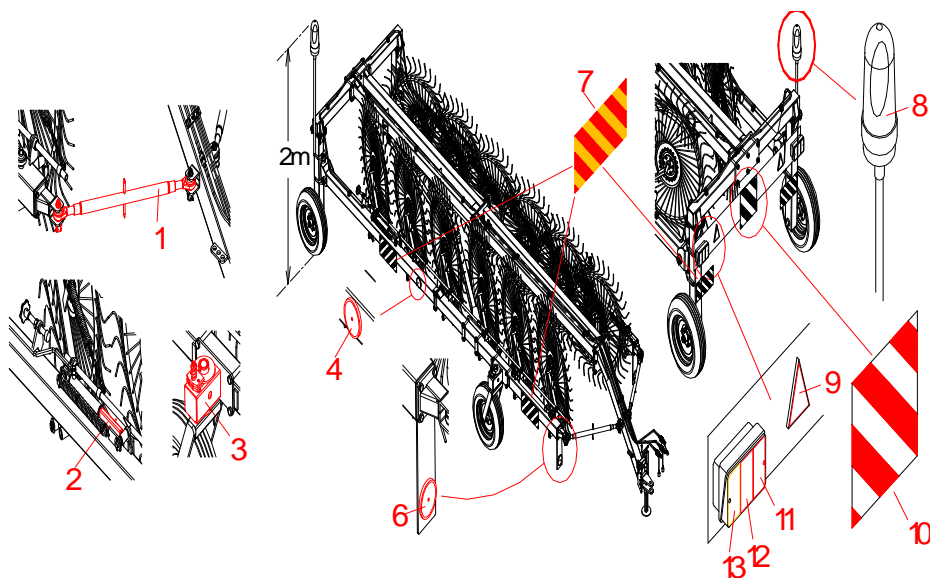


You must remember that the transportation configuration entails closing the side arms and fitting the equipment with the following safety devices:

- Tie rods (1) to be fitted in position on the arms and frame, and locked in place with their relative safety pins;
- End stop device (2) to be inserted on the rod of the jack (to prevent it from retracting) and blocked with its respective safety pin;
- Device (3) on the front wheels to limit their movement;

You must also comply with your national road regulations.

- **Installation:** the device must only be installed on agricultural tractors with universal three-point hitch system at the back and with hydraulic lift.



#### IMPORTANT

The tractor must also, by law, be fitted with a protective roll-bar or ROPS or FOPS cabin. **It is strictly forbidden to install the rake device on a tractor without the required protection.**

Prior to installation, however, the Customer must check the tractor's operating and maintenance manual to ensure the tractor is suited for use and operation of the rake, and whether ballasts are needed to prevent unbalancing that could cause it to tip over.

Instructions on installing the tiller and making the hydraulic connections are given below.





**Use:** the rake must only be put to the use for which it was intended: to rake up cut forage. **Any other use is therefore improper and forbidden.** The rake's technical characteristics must also not be altered in any way to modify performance **otherwise the warranty will be forfeited immediately and the Manufacturer will refuse all responsibility.**

The rake must be used in conditions ensuring good light and visibility. We recommend you do not work when light and visibility is poor as this can compromise normal levels of safety. Recommence work only when light and visibility is good again.

The rake does not require special attention during use as it is not operated directly, being trailed by the tractor; the operator must, however, ensure that no persons or animals come too close in the interest of their safety.

In any case, the rake must only be operated by qualified and well trained adult personnel who have read the instructions in this manual. Safety is of paramount importance for personnel operating, repairing or maintaining the device. As the instructions given in this manual cannot cover all possible working situations and related risks, personnel must always act with caution and with common sense.

The operator must take the following precautions when using the rake device:

- The tractor must not be left running or unguarded, not even for short periods. The operator must always switch off the tractor's engine and take the key with him;
- The rake device is relatively quiet and does not require use of acoustic protection (ear plugs, ear muffs, etc), although this may not be the case with the tractor. We therefore recommend you check this in the tractor's operation and maintenance manual.

### B3 Operator's responsibilities and safety

Safety is of primary importance to personnel operating the rake device and therefore each operator is directly responsible for controlling the rake's operation, maintenance, repairs and/or use of spare parts or consumable materials. This means the aforementioned personnel must never delegate their work to operators without the necessary requisites.

#### The Manufacturer assumes no liability for:

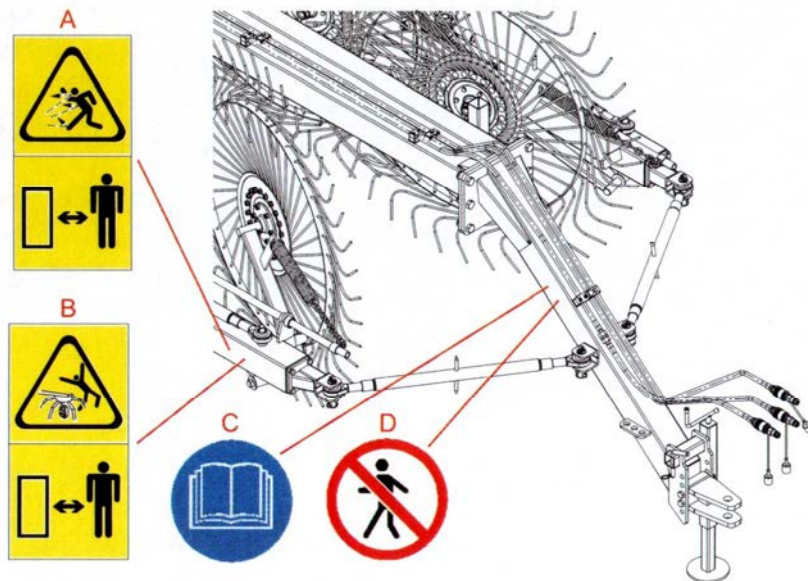
- Improper or incorrect use of the rake device that can cause harm to persons and animals or damage to objects and the actual rake;
- Employment of personnel who have not received proper training and/or has not read and understood the instructions in this manual;
- Lack of or insufficient maintenance;
- Use of spare parts that are not type approved or not compatible with the rake model;

In addition to the instructions in this manual, personnel are given visual aids in the form of labels (shown in the illustration) attached to the front of the rake device indicating the necessary safety precautions. These labels are designed to attract the operator's attention and indicate the level of risk.

These labels, however, differ in shape and colour according to the instructions. Personnel must therefore know that a circular label indicates an **obligation** (blue and white) or a **prohibition** (red, white and black), and a triangular label indicates a **hazard** (yellow and black). Rectangular labels feature the hazard or prohibition symbol but also indicate the safety precautions to be taken.

Warnings given on the labels:

- a. **Risk of flying objects.** Objects in the field of operation may be caught and thrown by the teeth of the rotating rake wheels;
- b. **Risk of snagging.** As the rake wheel rotates, there is a risk that the teeth snag on the operator's clothes or other objects on the operator's body.



### IMPORTANT

Warning labels and pictograms must be replaced if they become faded and risk becoming illegible. In this case, the operator must not use the rake until any faded labels are replaced with new ones. It is also strictly forbidden to remove the pictograms and labels from the equipment. Should this occur, the Manufacturer assumes no liability as the rake no longer meets the safety requirements for which it was designed and created.

- c. **Obligation** to read the user and maintenance manual;
- d. **Prohibition** for unauthorized persons to stand or move in the rake's field of operation when the rake is being used. Persons must keep at a safe distance and should they need to move in the rake's field of operation, they must do taking all due precautions;

## INSTALLATION

### C1 Rake assembly

As mentioned above, the equipment is fully dismantled for delivery to the Customer. The rake can be assembled quickly and easily following the user-friendly instructions (see Page 18). Assembly must be carried out on a flat surface prepared especially for the purpose. Assembly operators must be knowledgeable of installation safety regulations and work with all due care and attention.

The rake, once it has been assembled, can be installed or hitched to a tractor.

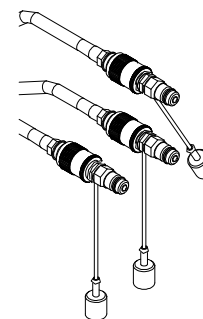
### C2 Hitching to the tractor

The rake can be hitched to the attachment of any agricultural tractor. To do so, the operator must move the rake slowly to a position where the joints can be easily aligned (1).

#### IMPORTANT

The holes in the tractor's attachment must be aligned with those on the rake's attachment with maximum care and attention.

When the tractor is near the rake's attachment (type 1 or 2 – see picture), the operator turns the lever on the foot support (2) to lift or lower the rake's attachment and insert it in the tractor's attachment. The operator can then insert the locking pin (3) through the attachment holes, as illustrated below, and secure it in place with the relative safety pin (4).

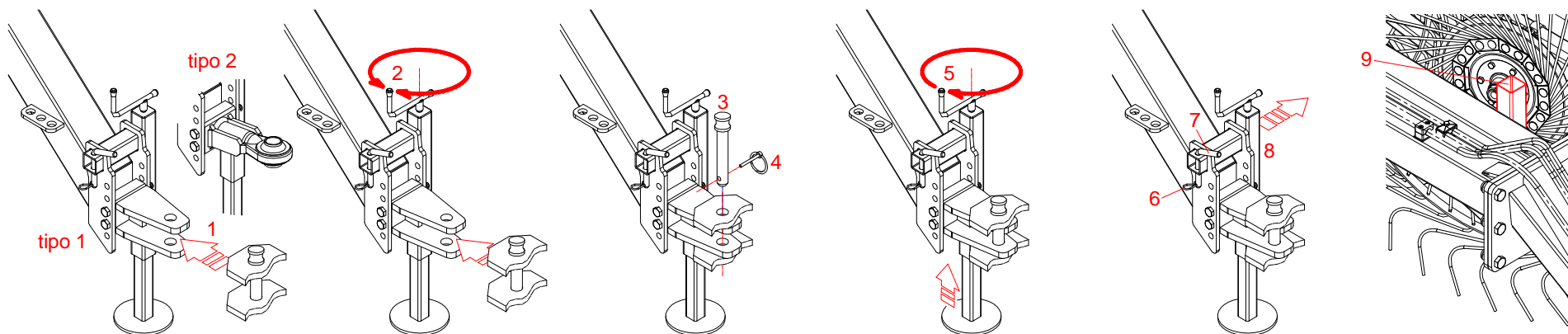


Next, the operator turns the lever (5) to lift the foot support off the ground, completing the tractor-rake attachment procedure. The foot support can then be removed from its housing and inserted in the housing on the frame.

The operator therefore has to extract pin (6) to free pin (7), extract the latter from the holes of the foot support and remove the foot support from its housing (8). The foot support can then be placed in the housing on the frame (9) and fastened with pin (7) and its relative safety pin.

### C3 Hydraulic connections

- The rake wheels are lowered and lifted by retracting and extending a jack, while the side arms are opened and closed hydraulically by another jack. Both jacks are powered by the tractor's auxiliary circuit and therefore commanded by their respective levers in the cabin. As a result, these functions can only be carried out if the jack connections





are made (quick couplings, as illustrated) to their corresponding attachments on the tractor's auxiliary circuits.

#### **C4 Removal**

To remove the rake from the tractor, follow the above instructions in reverse order. The hydraulic connections have to be removed before the actual rake.

#### **C5 Storing the rake**

The Customer must set aside a large and easily accessible area on his premises where the rake can be stored. How to store the rake:

- Park the rake in a safe area set apart for the purpose. The area must be flat and even;
- Install the foot support supplied with the rake and stored in its relative housing on the frame, near the attachment;
- Detach the rake from the tractor, following the instructions in paragraph C2 and C3 in reverse order;
- Chock the wheels;
- Place protective material over the rake.



## OPERATION and USE

### Δ1 Preliminary information

Suitable and optimal use of the rake not only helps avoid accidents but is also the only way to ensure high yield and make use of the rake's full potential and performance.

The rake must be used by trained adult personnel knowledgeable of the instructions in this manual and on the labels. Safety is of paramount importance for the personnel that operate, repair and maintain the equipment. As the instructions given cannot possibly cover all possible working situations, personnel must always exercise caution and common sense.

Before the tractor can transport the rake to the work area, it is advisable to carry out the following preliminary checks:

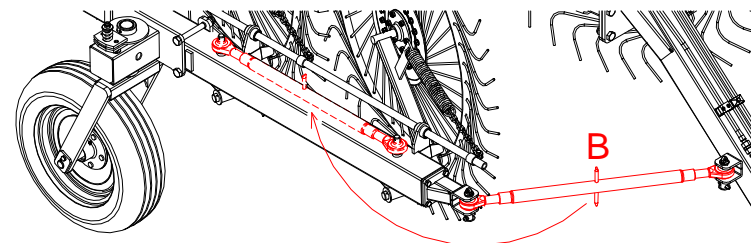
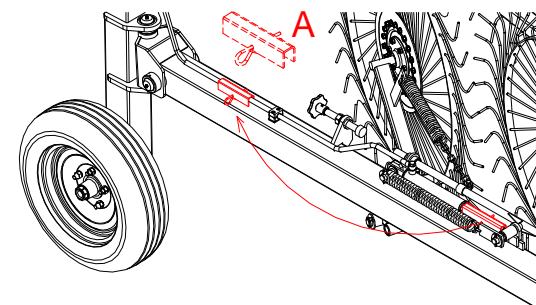
- Ensure all the parts of the rake are in their intended position and are securely fitted;
- Ensure the rake is fitted properly to the tractor;
- Check efficiency of all the protection devices;
- Carry out the daily maintenance checks described in the relative paragraph. **Note:** *should the rake be returned to service after a long period of inactivity, ensure it has been properly maintained and that it has not been damaged in any way by poor weather or storage conditions.*

### Δ2 Operation and use

The rake must be taken to the work area in keeping with the instructions in paragraph B2 "Handling and Transportation".

The tractor driver is personally responsible for the general procedure of conveying the rake and must therefore prepare the rake for transportation as follows:

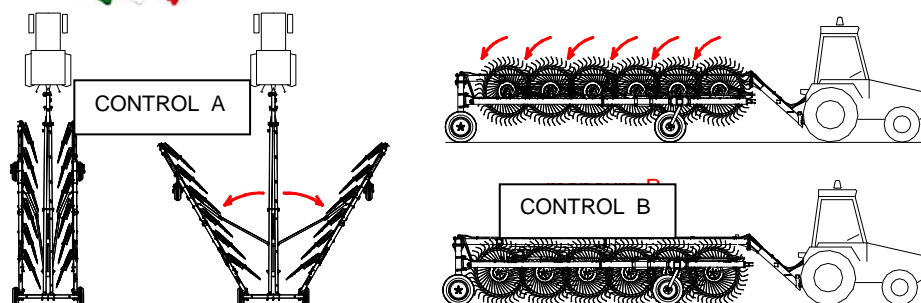
- Firstly, the operator must remove any safety devices that need to be removed for transportation, i.e. The jacks' end stop devices (**B**) and the arms' tie rods (**A**):



- **End stop device:** remove the safety pin to free the device, lift the latter from the jack rod and move it further back, as shown in the illustration. Re-fasten the device with the safety pin (do one side at a time);
- **Arms' tie rods:** remove the safety pin from the locating pin and remove the latter from its housing. Repeat the same procedure on the other side of the tie rod and then remove it from the rake's pinned supports. Move the tie rod to the points on the frame shown in the illustration. Screw the body of the tie rod into place at the new points.

- After removing the safety devices, the operator uses the respective controls in the cabin to fully open the rake's arms (**control A**) into the working configuration, and then lower the rake wheels (**control B**), which all move together, as shown in the illustration.





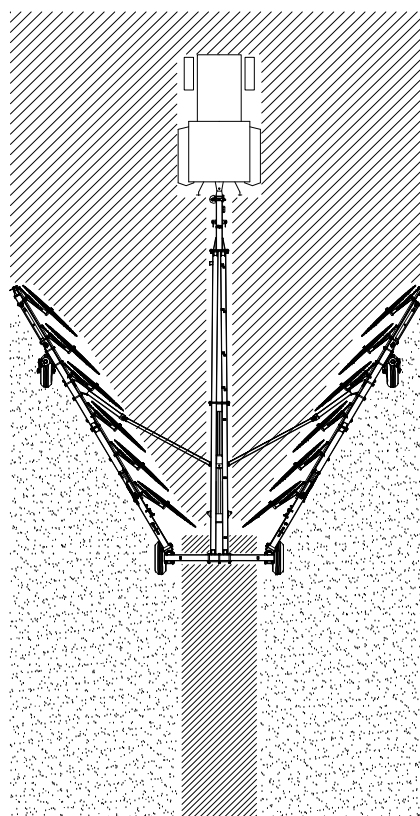
The rake is now ready for use. It is extremely easy to operate as it just has to be hitched to the tractor which trails it in the required direction. The rake wheels, which have been adjusted according to the type of ground, turn as they are pulled along and the teeth collect the cut forage.

The rake's working configuration, as illustrated, allows the cut forage to be collected and conveyed into a single central swath. This configuration, which can reach 10 metres for some models, considerably simplifies the process thereby reducing end costs.

#### IMPORTANT

You must remember that the tractor must drive in a more or less straight line. To **change direction** a few metres before the end of the field, the driver needs to apply the command to lift the rake wheels and close the side arms.

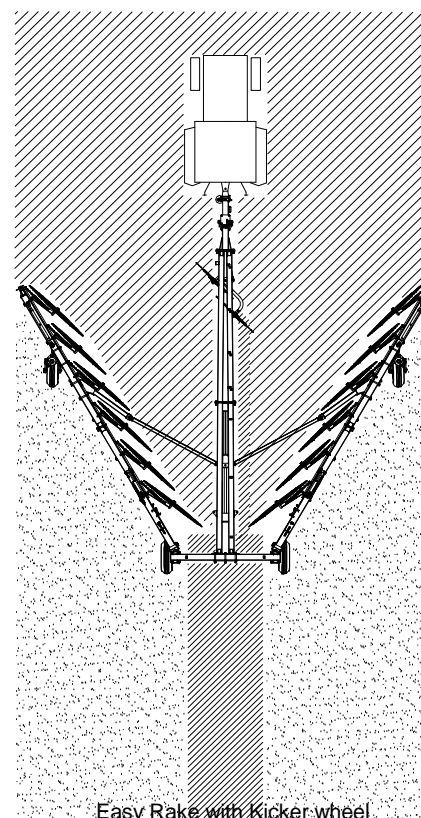
Only after the rake wheels have been lifted and the arms are closed can the operator change the tractor's direction, which requires several maneuvers.



Once the operator has turned the tractor, he can apply the command to re-open the side arms and then lower the rake wheels to continue the work.

To move the forage in the central swath, one or more additional rake wheels need to be installed at the centre of the frame. A set of additional rake wheels can be supplied with the Easy Rake series (the set, shown in the illustration, is called **Kicker wheel** and is available on request).

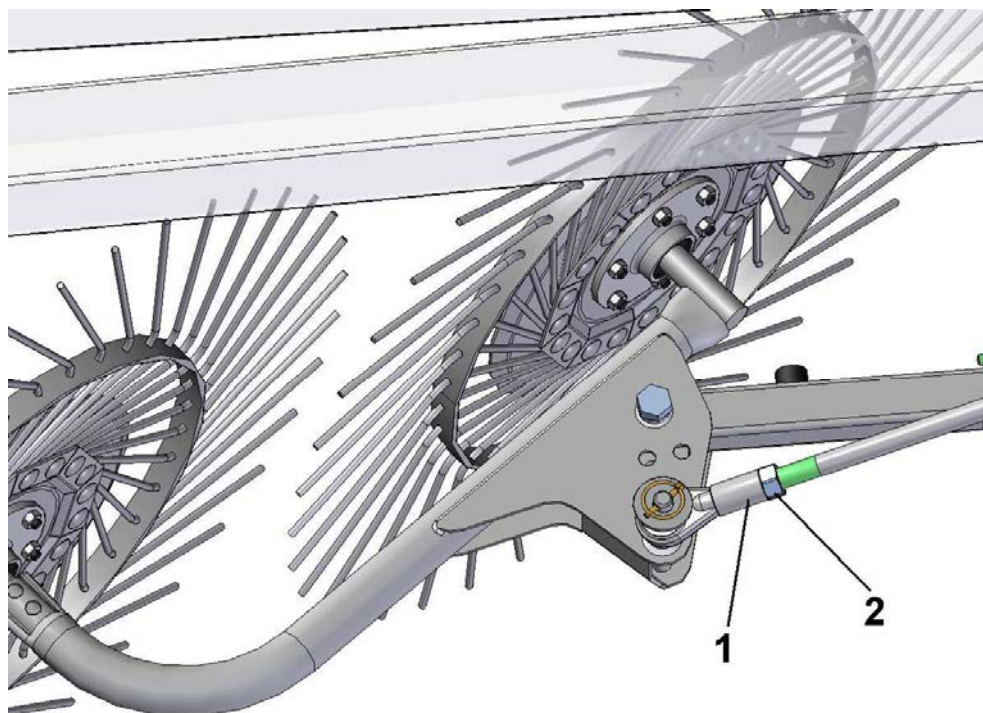
**Swath adjustment:** the swath can be narrowed by moving the two rear rake wheel arms, as indicated in the illustration by the arrow.



Easy Rake with Kicker wheel







Kicker wheel

## Kicker wheel adjustment

After installing the kicker wheel (assembly instructions on page 40), the rake wheels can be better adapted to the ground by adjusting their inclination in relation to the direction in which they move:

Loosen the counter nut (pos 2) and screw or unscrew the bushing (pos 3) to increase or decrease inclination of the two rake wheels.

- 1) Decreased inclination FIG. 1: hay is discharged better from the rake wheels, but the ground isn't cleared as efficiently.
- 2) Increased inclination FIG. 2: hay isn't discharged as efficiently from the rake wheels, but the ground is cleared better.



Figure 1



Figure 2

Prior to work breaks (even short ones) the operator must always:

- **Switch off the tractor's engine**
- **Apply the parking brake**
- **Place the gear stick in neutral**
- **Remove the keys from the ignition;**

When the operator has finished work for the day, he must place the rake back in its transportation configuration before returning the tractor to its parking area.

Rake storage instructions are given in paragraph C5.



## MAINTENANCE

### E1 Maintenance instructions

The Manufacturer has drawn up a rake maintenance schedule based on functional tests. This schedule, if followed assiduously by the Customer, can maintain the rake's working efficiency and capacity without risk of damage. The operator, who must be a qualified technician of working age, must follow these rules:

- All maintenance and repairs must never be left unfinished or postponed;
- The operator must never rely on his memory alone, but always read and follow the instructions in this manual without fail;
- The operator must install a **"Maintenance in progress"** sign in a prominent position on the tractor's dashboard before starting work. This ensures the operator's safety and can prevent damage to the rake.
- All maintenance must be carried out on a flat and well lit surface, with the rake standing in a stable position and the tractor at standstill, with the parking brake applied, the engine off and the keys removed from the ignition;
- Tools for maintenance must be used in accordance with relative accident prevention regulations. Equipment must not, therefore, be put to improper use, e.g. do not use petrol instead of detergent, or pliers instead of a wrench;
- Only use spare parts that are type approved or recommended by the Manufacturer.

After maintenance or repairs, always clear the area of any water, oil, grease, dirty cloths, tools and any other material.

### IMPORTANT

Take extra care when checking for leaks of pressurized fluid as the fluid can leak out of tiny, virtually invisible holes, burn through skin and cause

serious infections. You must therefore use safety glasses with side protection and a piece of cardboard or wood to look for leaks.

### E2 Scheduled maintenance

Scheduled maintenance is purely informative and depends on normal operating conditions. It may therefore differ in relation to the type of service, working environment (which may be dusty), the season, etc. Maintenance should be stepped up the tougher the machine's operating conditions.

#### E2.1 Checks on a daily basis

Checks to be carried out on a daily basis:

- Check condition of all the labels;
- Check condition of all the fittings (tightness of connections, condition of sleeves and leaks or overflowing of hydraulic oil);
- Use a grease pump to re-fill all the greasers on the equipment, or apply grease with a brush where necessary;
- Ensure all the nuts and bolts are properly fastened.

#### E2.2 Checks on a monthly basis or per 50 hours' operation

Checks to be carried out on a monthly basis or per 50 hours' operation:

- Check condition of all the labels;
- Check condition of all the fittings (tightness of connections, condition of sleeves and leaks or overflowing of hydraulic oil);
- Check presence and condition of fasteners and safety devices;
- Ensure all the nuts and bolts are properly fastened;
- Check condition of the entire structure.

#### E2.3 Checks on an annual basis or per 500 hours' operation

Checks to be carried out on an annual basis or per 500 hours' operation:

- Check condition of all the fittings (tightness of connections, condition of sleeves and leaks or overflowing of hydraulic oil);
- Check presence and condition of fasteners and safety devices;
- Ensure all the nuts and bolts are properly fastened;
- Check condition of the entire structure.



### E3 Lubrication

To top up the greasers, remove their protection caps (if present), remove all traces of dust and then use the pump to inject the grease. Afterwards, use a cloth to remove any excess grease on the greasers. Use a brush to apply grease wherever there aren't any greasers.

All grease top-up points on the rake are indicated by labels like the one shown in the illustration.



#### IMPORTANT

To avoid pollution, it is strictly forbidden to dispose of oil, lubricants, filter cartridges or other noxious materials in the environment. Comply with all regulations in force on disposal of liquid and solid substances.

### E4 Troubleshooting

|  |                                    |  |
|--|------------------------------------|--|
| The jack activation command does not respond | Hydraulic oil level low            | Top up oil level   |
|  | Hydraulic system piping is damaged | Replace piping   |
|  | Hydraulic pump is damaged          | Replace pump   |
|  | Filter is clogged                  | Replace filter   |
| The jacks only move intermittently           | Air in the hydraulic circuit       | Operate the pump at no load for a few minutes, using the jacks, to expel any air in the hydraulic circuit. |

|  |                         |                         |
|--|-------------------------|-------------------------|
| The jacks move even when the command isn't given | Jack seals are worn out | Replace seals           |
| Overheated oil                                   | Filter is clogged       | Replace filter          |
|  | Pipes are crushed       | Check and replace pipes |
|  | Oil level low           | Top up oil level        |
| Oil loss   | Slow connection         | Squeeze the pipe        |
|  | Worn out seal           | Replace the seal        |

**Note:** contact the Manufacturer about any faults or trouble not mentioned in the table.

### E5 Machine demolition: disposal of materials

When the rake is placed out of service, you must make harmless all parts that could pose a safety risk to persons, animals and the environment when sent for disposal. Materials that make up the rake and should be set aside for segregated disposal are:

- Iron
- Hydraulic oil
- Rubber
- Plastics

These materials must be disposed of in compliance with relative national legislation in force.



## Machine assembly instructions

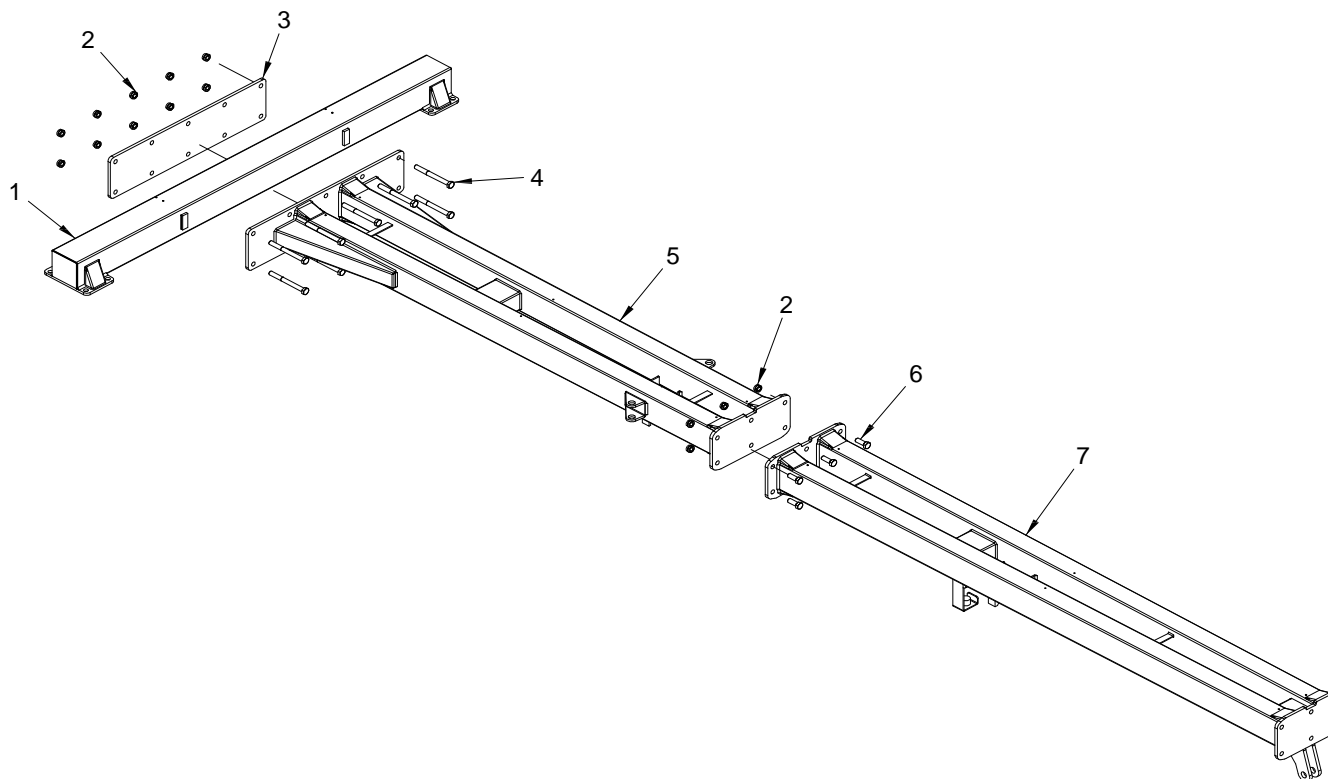
### Assembly 1

For Easy-Rake SUPER STAR 16-18-20

IM1 ERS 16-18-20

- A) Connect the cross drawbar Pos. 1 to the rear pullbar Pos. Fix the 920x230x15 plate Pos. 3 using the 10 T.E. M20x200 screws Pos. 4 and the M20 self-locking nuts Pos. 2.

- B) Connect the central pullbar Pos. 7 with the rear pullbar Pos. 5. Fix using the T.E. M20x55 screws Pos. 6 and the M20 self-locking nuts pos. 2.





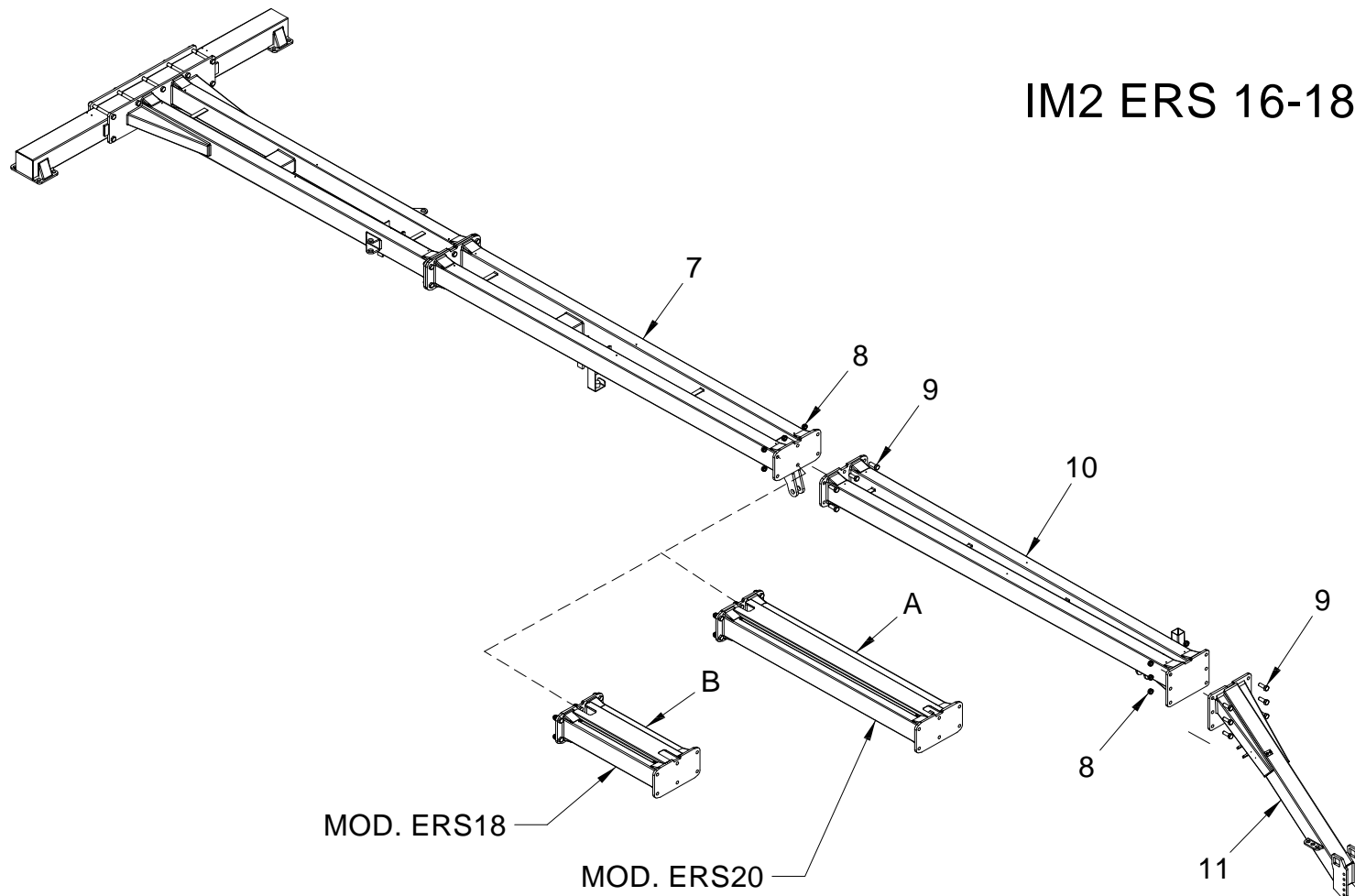
## Assembly 2

### For Easy-Rake SUPER STAR 16-18-20

IM2 ERS 16-18-20

A) Connect the pullbar Pos. 10 with the rear pullbar Pos. 7. Fix using the six T.E. M20x55 screws Pos. 9 and the M20 self-locking nuts pos. 8.

B) Connect the front pullbar Pos. 11 with the pullbar Pos. 10. Fix using the six T.E. M20x55 screws Pos. 9 and the M20 self-locking nuts pos. 8.

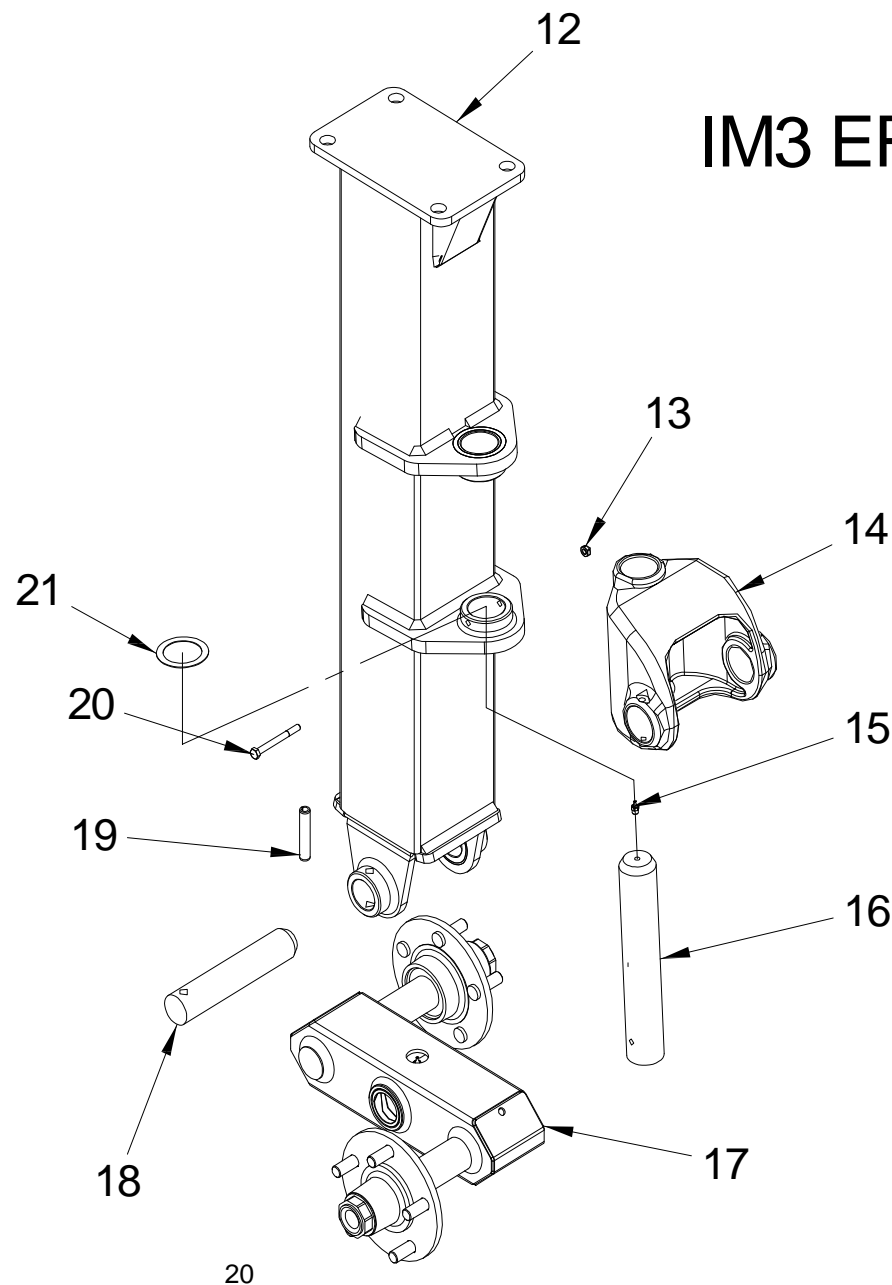


## Assembly 3

### For Easy-Rake SUPER STAR 16-18-20

- A) Assemble the joint for the right and left frame Pos. 14 into the right and left leg support Pos. 12, by placing the antisiezure fifth wheel AS 5070 Pos. 21 under the joint bush and on the leg support bracket. Insert pin  $\varnothing 50 \times 297$  Pos. 16 and fix it with T.E. M8x80 screw Pos. 20 and M8 self-locking nut Pos. 13.
- B) Assemble the tandem axle Pos. 17 in leg support Pos. 12, insert pin  $\varnothing 42 \times 220$  Pos. 18. Fix with circlip  $\varnothing 14 \times 75$  Pos. 19.

IM3 ERS16-18-20







## Assembly 4

### For Easy-Rake SUPER STAR 16-18-20

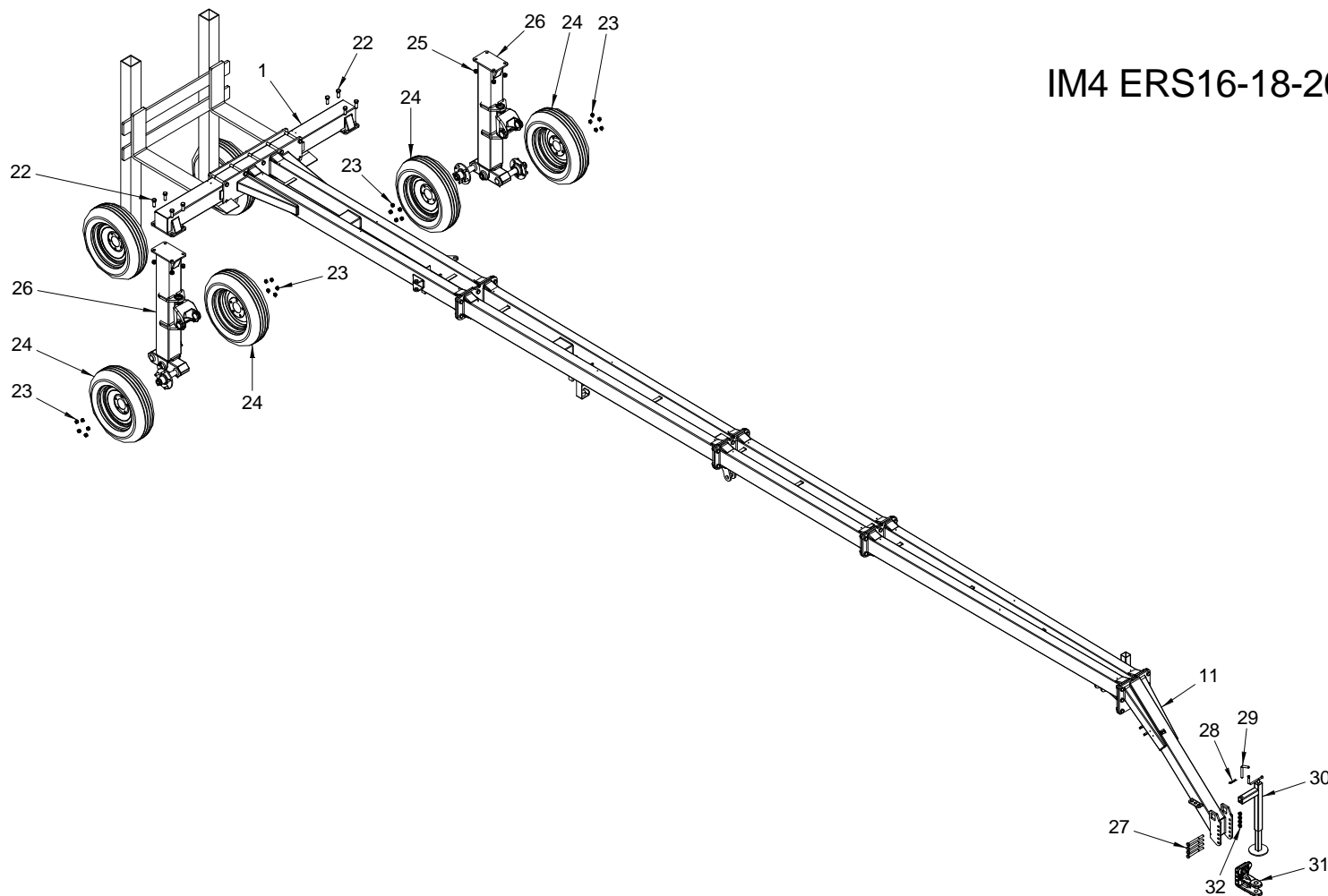
- A) Use a lifting truck to raise the already assembled cross drawbar, already assembled with the rear pullbar, the central drawbar and the front drawbar. The front part of the pullbar must stay on the ground making sure it is all very stable.

Assemble the right and left leg support Pos. 26, by fixing them to the cross drawbar Pos. 1, with the T.E. M20x55 screws Pos. 22 and M20 self-locking nuts Pos. 25.

Assemble the four rubber treaded wheels Pos. 24 and fix them with screw nuts Pos. 23.

Assemble the foot Pos. 30, by fixing it with the pin Ø 15 Pos. 29. Fix the split-pin to R Pos. 28.

- B) Assemble the pull hitch Pos. 31 and fix it using the T.E. M16x170 screws Pos. 27 and M 16 self-locking nuts Pos. 28.



IM4 ERS16-18-20

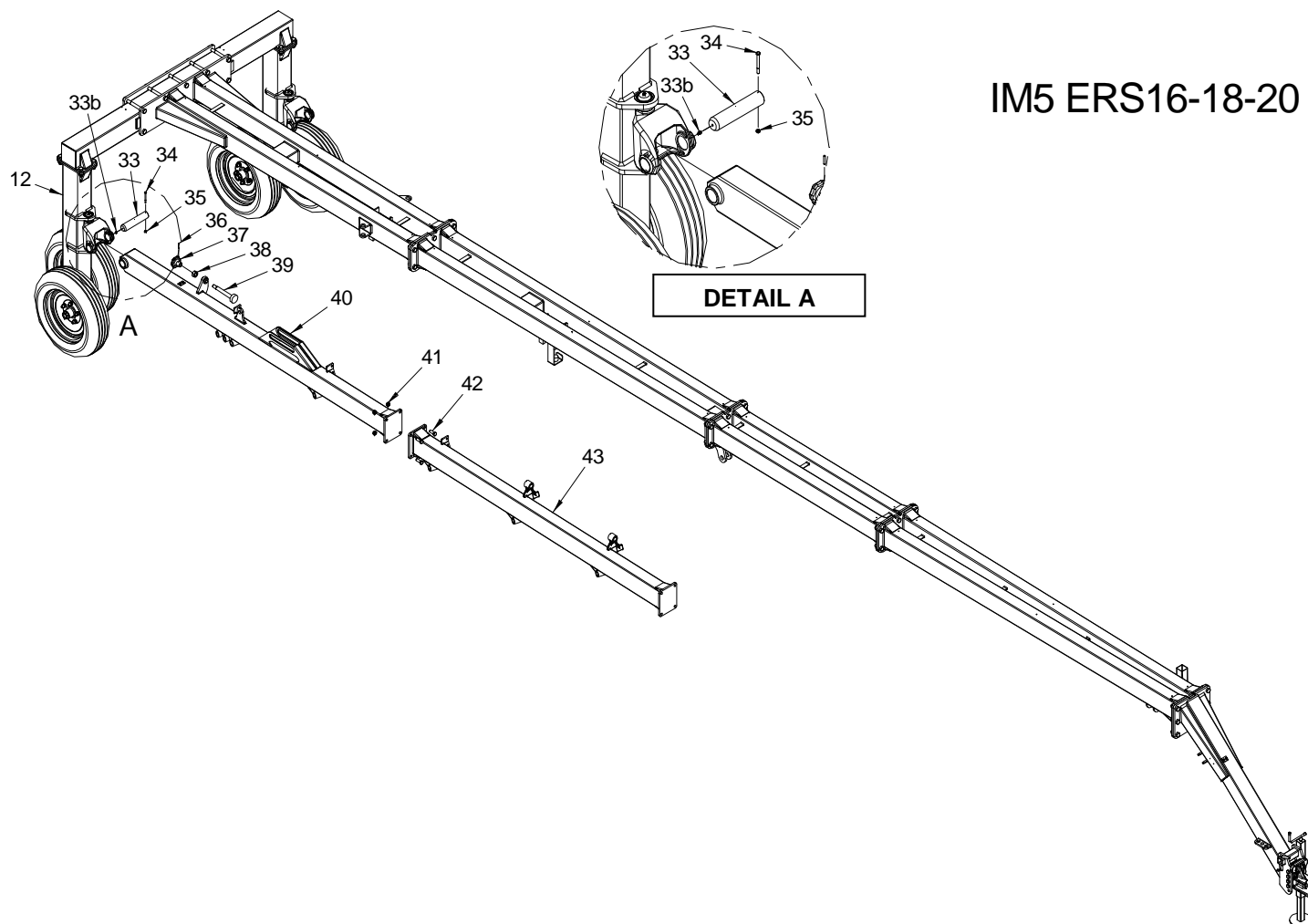
## Assembly 5

### For Easy-Rake SUPER STAR 16-18-20

A) Assemble the two rear frames, right and left Pos. 40, by fixing them to the two leg supports with the pin joints  $\varnothing 50 \times 225$  Pos. 33 (see detail A). Fix pin  $\varnothing 50$  Pos. 33, with screw T.E. M8x80 screw Pos. 34 and M8 self-locking nut Pos. 35. Assemble in the two  $\varnothing 50 \times 225$  pins the two M8x1 Pos. 33b greasing nipples (see detail A).

B) Assemble spacer screw M24x222 Pos. 39; tighten M24 hex counter-nut Pos. 38 in the screw and assemble the hand wheel Pos. 37. Fix with circlip  $\varnothing 6 \times 36$  Pos. 36.

C) Assemble the two front right and left frames Pos. 43. Fix the front frames to the rear frames Pos. 43 with T.E. M16x45 screws Pos. 42 and M16 self-locking nuts Pos. 41.



IM5 ERS16-18-20



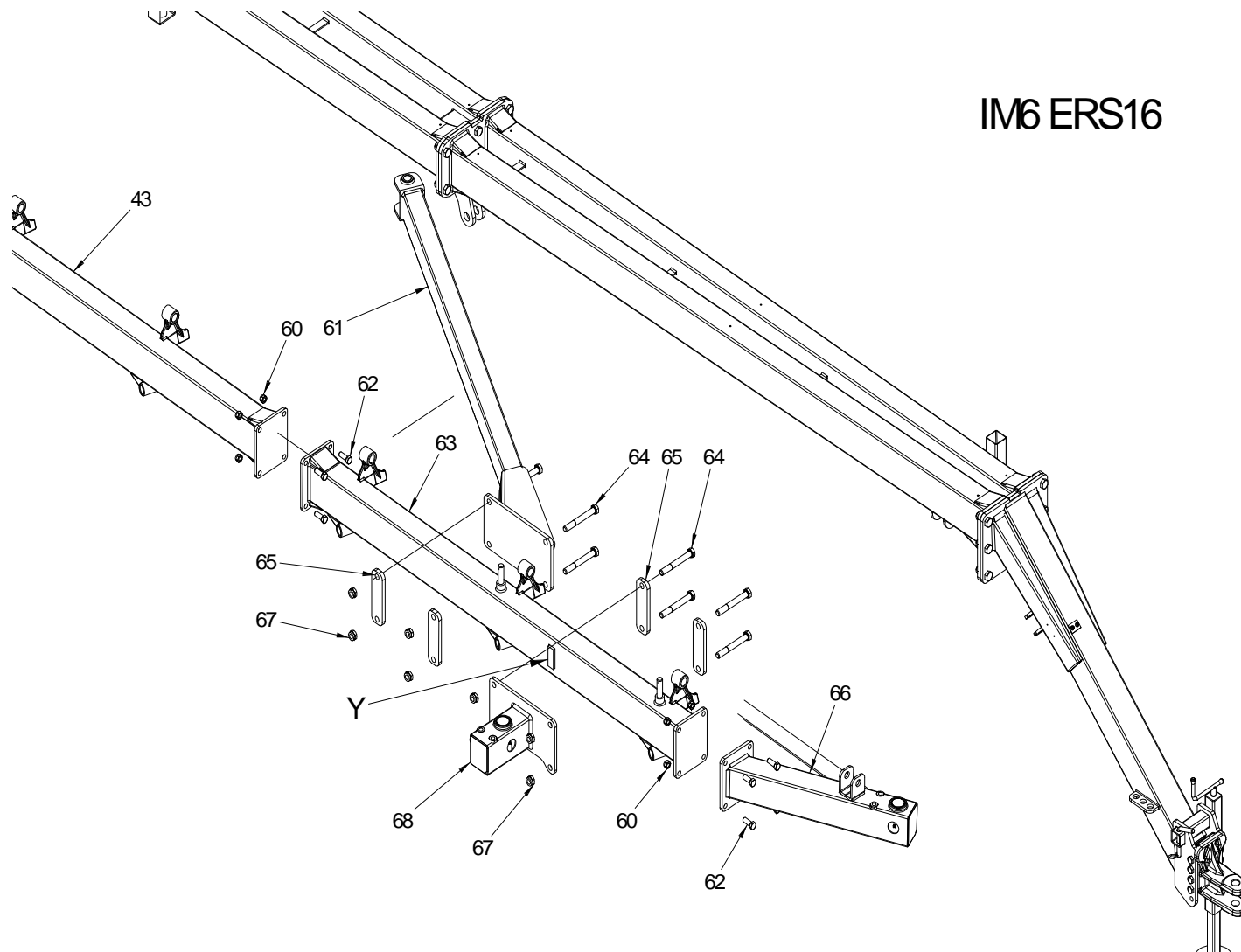
## Assembly 6

### For Easy-Rake SUPER STAR 16

IM6 ERS16

- A) Assemble the front right frame Pos. 63 with frame Pos. 43. Fix with T.E. M16x45 screws Pos. 62 and M16 self-locking nuts Pos. 60.
- B) Assemble the front wheel support Pos. 66. Fix it with T.E. M16x45 screws Pos. 62 and M16 self-locking nuts Pos. 60.
- C) Assemble the right elbow Pos. 61, by placing it in the front frame at the centre of the two vertical stops, situated inside the front frame Pos. 63.
- D) Fix the elbow with fixing plates 60x15x210 Pos. 65 using the T.E. M20x160 screws Pos. 64 and M20 self-locking nuts Pos. 67.
- E) Assemble the pivoting wheel support Pos. 68 in the front frame, placing it in front of the vertical stop indicated by the symbol Y. Fix using the two fixing brackets 60x15x210 Pos. 65. Fix the brackets with T.E. M20x160 screws Pos. 64 and M20 self-blocking nuts pos. 67.

N.B: repeat the same operations also for the left frame.



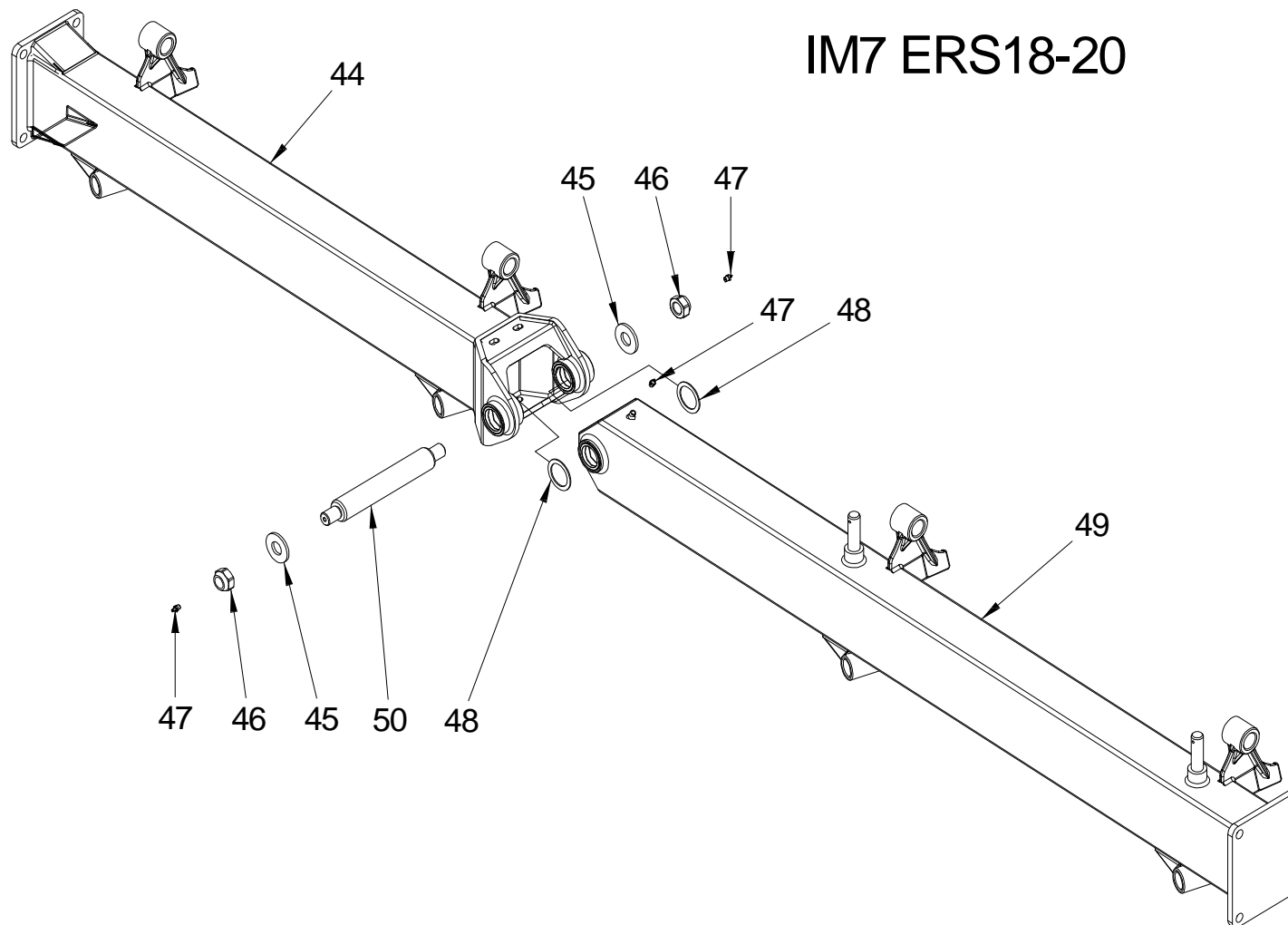
## Assembly 7

### For Easy-Rake SUPER STAR 18-20

A) Assemble the right mobile frame Pos. 49. Fix using pin  $\varnothing 40 \times 296$  Pos. 50 placing the two nylon washers  $\varnothing 41 \times 60 \times 2.5$  Pos. 48. Fix the pin Pos. 50 with washers  $\varnothing 25 \times 55 \times 5$  Pos. 45 and M24 self-locking nut Pos. 46.

B) Assemble the two M8x1 greasing nipples Pos.47 in the pin Pos. 50.

N.B: repeat the same operations for the left mobile frame.



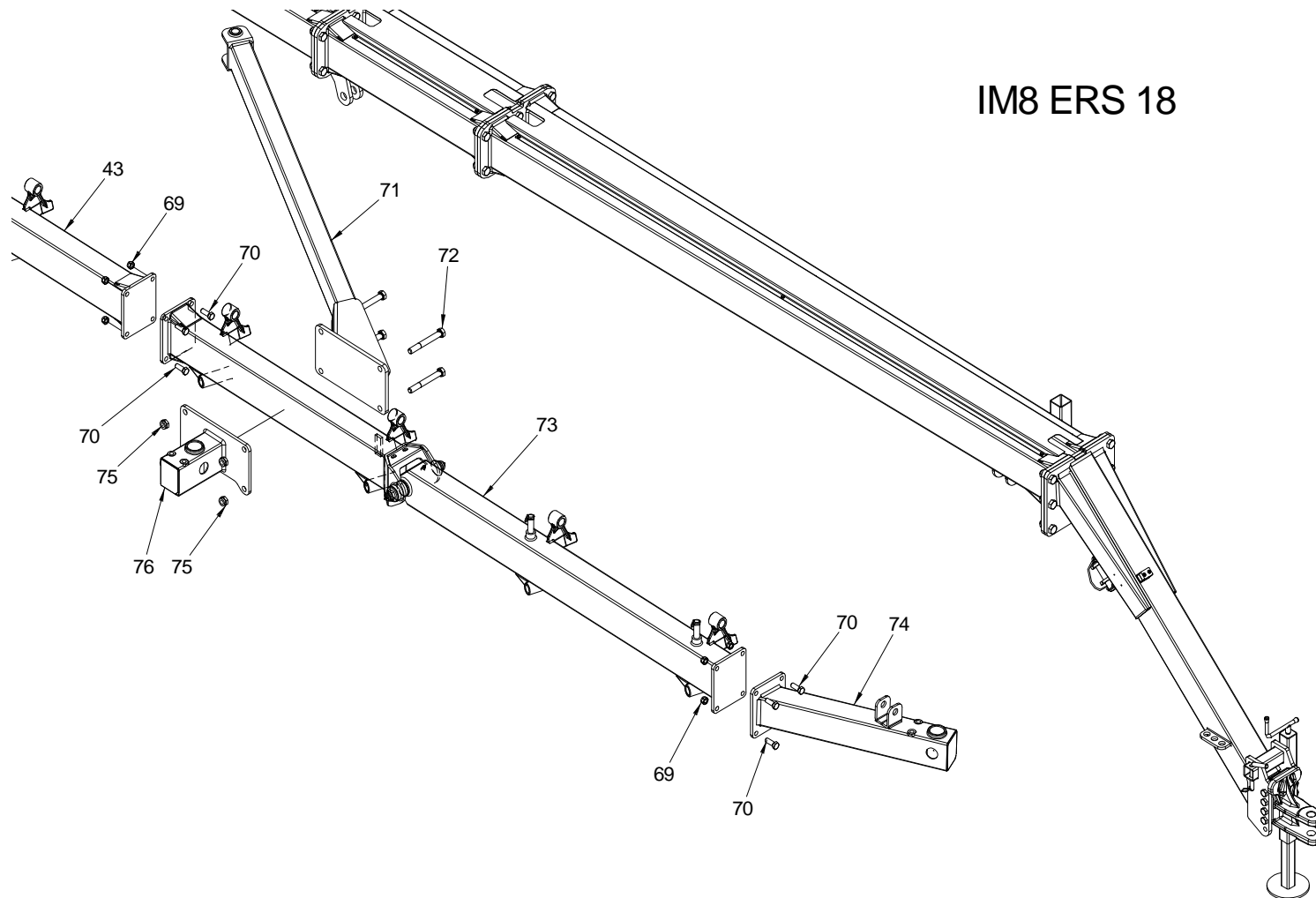


## Assembly 8

### For Easy-Rake SUPER STAR 18

IM8 ERS 18

- A) Assemble the front pivoting support Pos. 73 to the frame Pos. 43. Fix the two frames with T.E. M16x45 screws Pos. 70 and M16 self-locking nuts Pos. 69.
- B) Assemble the front wheel support Pos. 74 and fix it to the frame Pos. 73 using T.E. M16x45 screws Pos. 70 and M16 self-locking nuts Pos. 69.
- C) Assemble the right elbow Pos. 71, in the front frame Pos. 73 positioning it at the centre of the two vertical stops, situated inside the fixed front frame Pos. 73.
- D) Fix the right elbow Pos. 71, by assembling the wheel support Pos. 76. Fix using T.E. M20x160 screws Pos. 72 and M20 self-locking nuts Pos. 75.

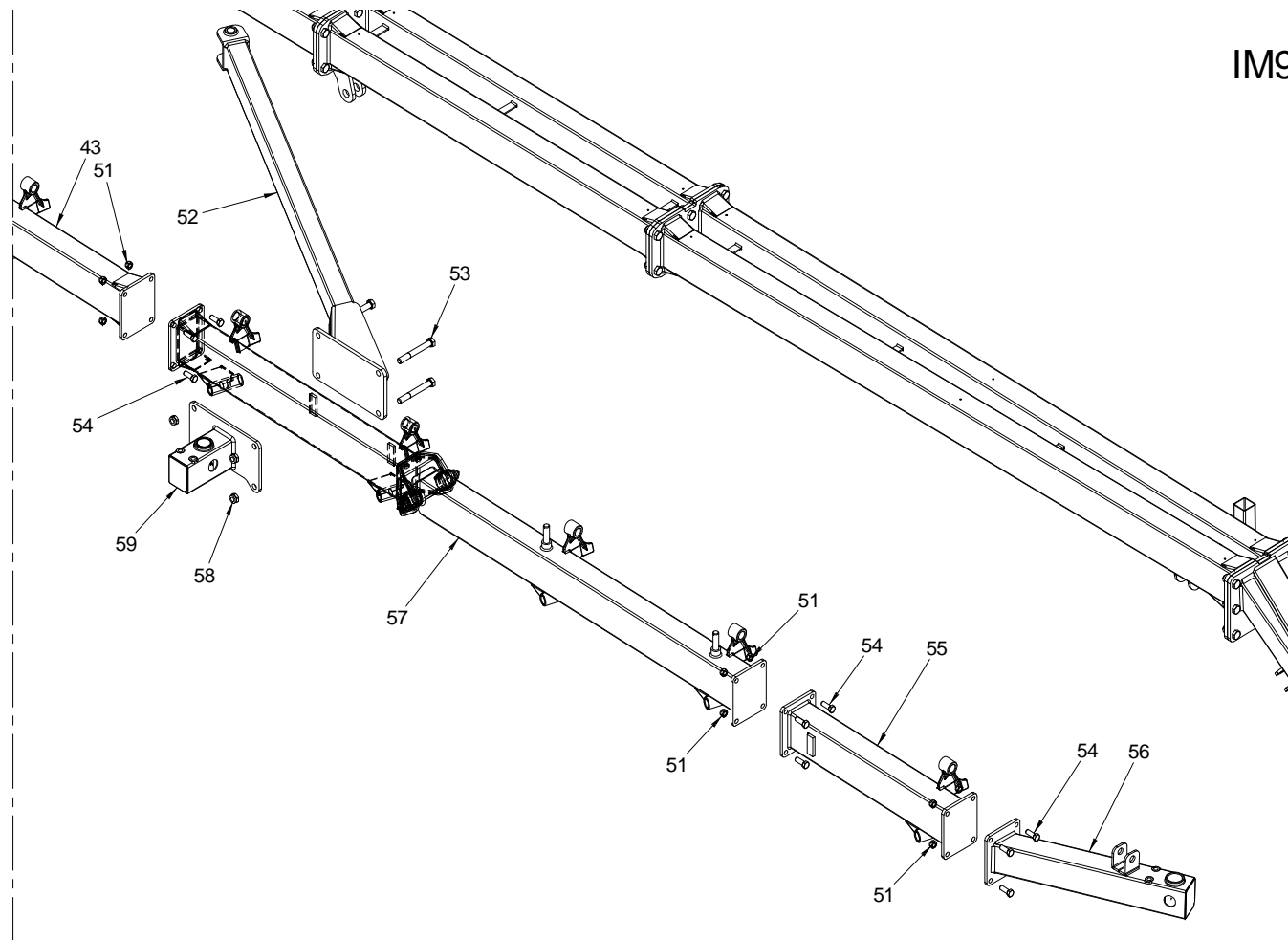


## Assembly 9

### For Easy-Rake SUPER STAR 20

IM9 ERS 20

- A) Assemble the front jointed tie-rod Pos. 57 to the frame Pos. 43. Fix using T.E. M16x45 screws Pos. 54 and M16 self-locking nuts Pos. 51.
- B) Assemble the frame extension Pos. 55. Fix it with T.E. M16x45 screws Pos. 54 and M16 self-locking nuts Pos. 51.
- C) Assemble the front wheel support Pos. 56 and fix it to the frame Pos. 55 using T.E. M16x45 screws Pos. 54 and M16 self-locking nuts Pos. 51.
- D) Assemble the right elbow Pos. 52, in the fixed frame, positioning it at the centre of the two vertical stops, situated inside the fixed front frame Pos. 57.
- E) Fix the elbow Pos. 52, by assembling the wheel support Pos. 59. Fix using T.E. M20x160 screws Pos. 53 and M20 self-locking nuts Pos. 58.

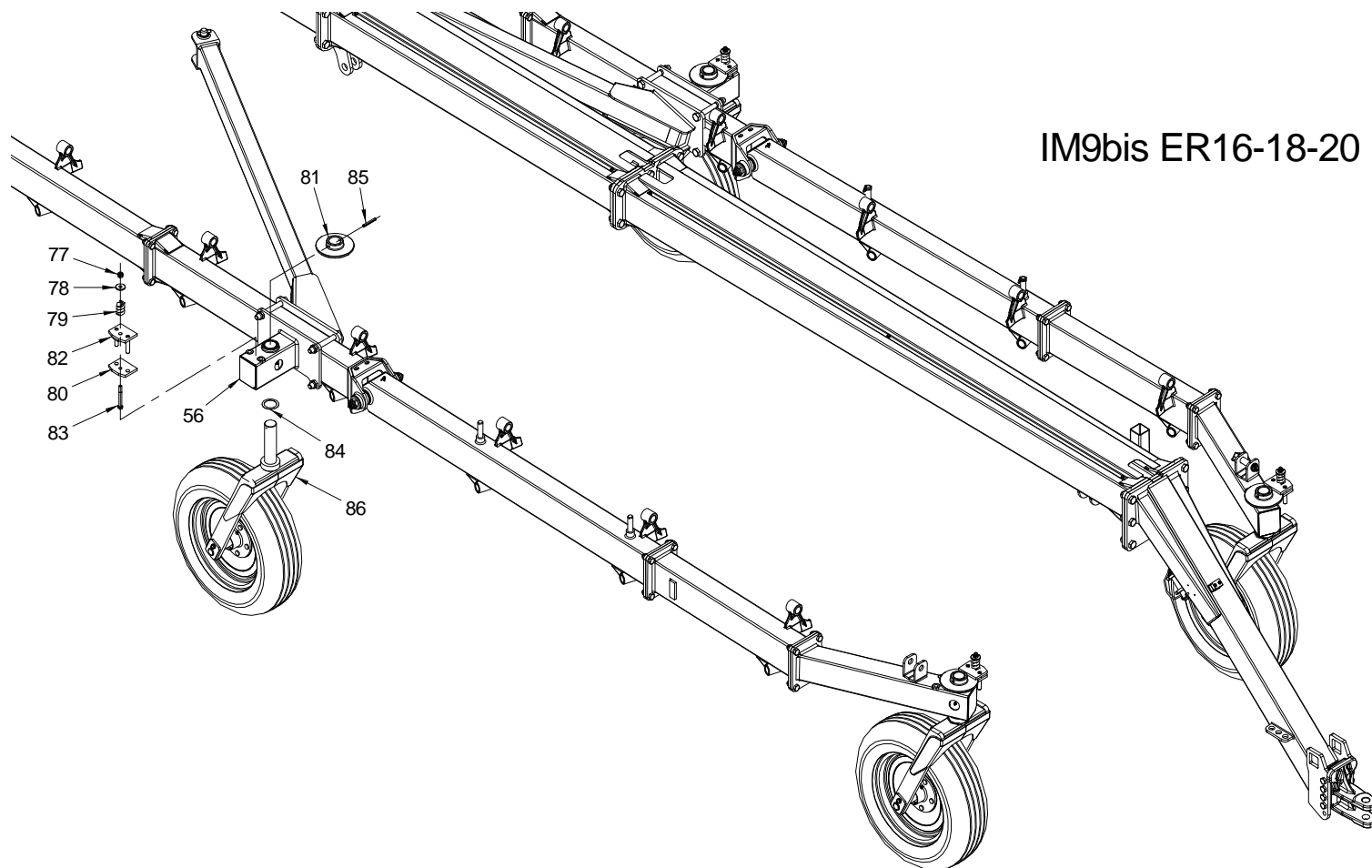




## Assembly 9 bis

### For Easy-Rake SUPER STAR 16-18-20

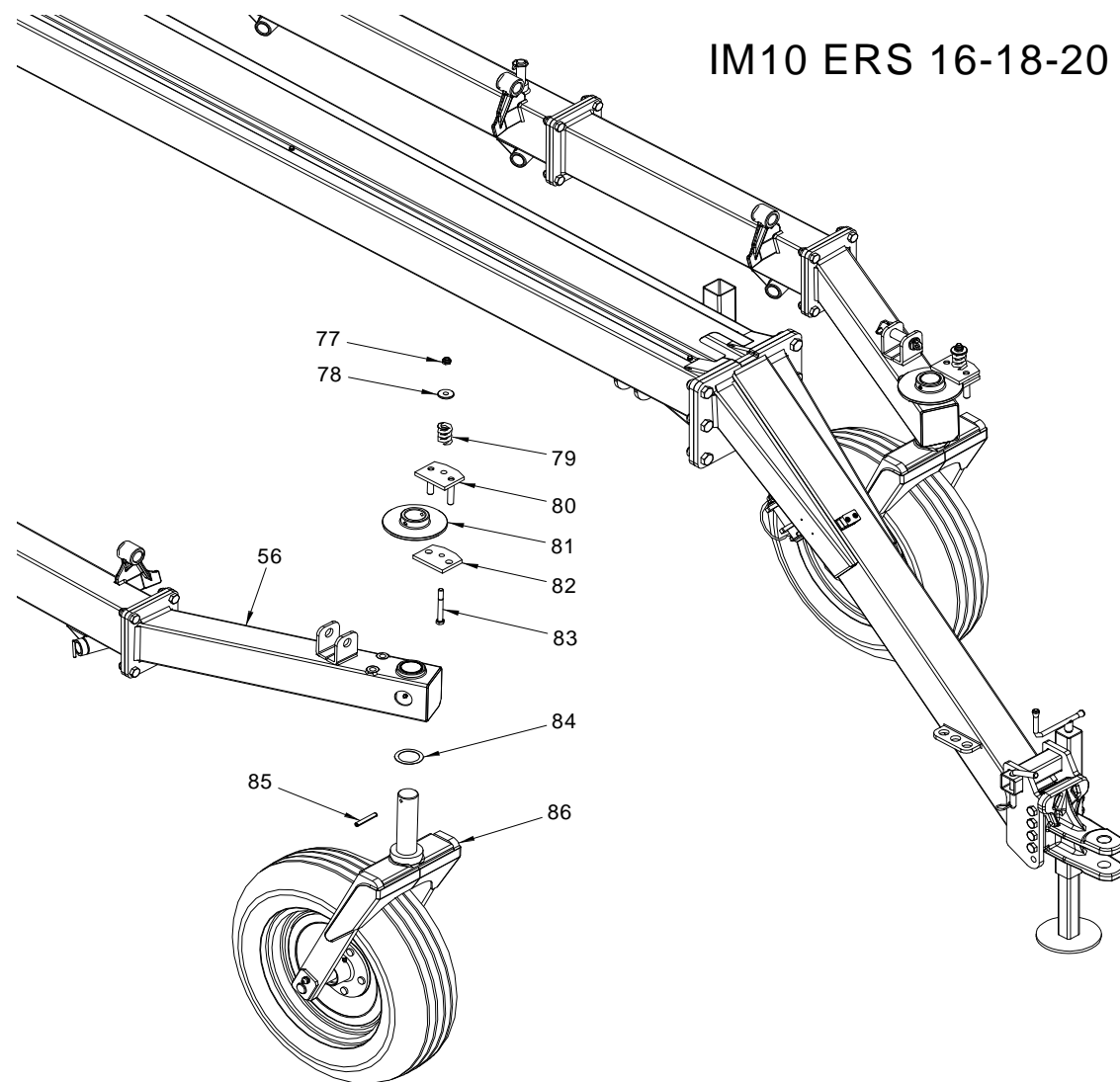
- A) Insert the fifth-wheel AS 50-70 Pos. 84 in the pin Ø50 Pos. 86 of the pivoting wheel.
- B) Assemble the two wheels with pivoting fork Pos. 86 in the support Pos. 56
- C) Assemble the brake disc pos. 81 and fix using circlip 10x70 Pos. 85.
- D) Assemble the T.E. M12x100 D) screw Pos. 83, together with clamps Pos. 80 and 82; assemble spring Ø38x56 Pos. 79, washer Ø10x40 Pos. 78 and M12 self-locking nut Pos. 77 (SEE ASSEMBLY INSTRUCTIONS 10).





## Assembly 10

For Easy-Rake SUPER STAR 16-18-20

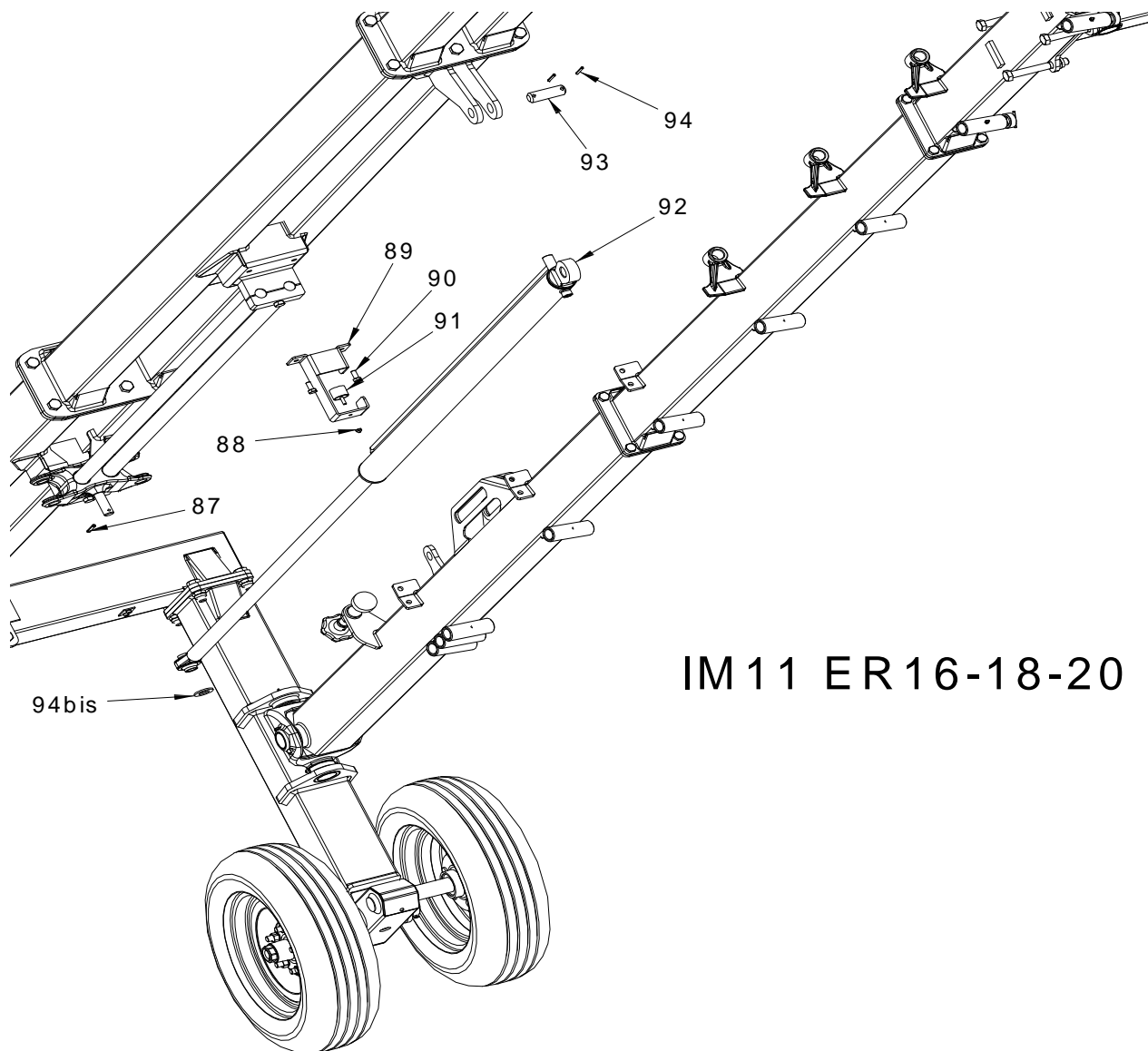




## Assembly 11

### For Easy-Rake SUPER STAR 16-18-20

- A) Assemble the jack support Pos. 89 and fix with T.E. M12x25 Pos. 90 screws. Assemble the rubber foot Pos. 91 and clamp with M8 nut M8 Pos. 88
- B) Fix the hydraulic cylinder Pos. 92 and fix with pin Ø30x100 Pos. 93. Fix pin Pos. 93 with circlips Ø8x50 Pos. 94. Insert the rod side of the hydraulic cylinder Pos. 92, in the slide pin; fix using washer Ø27 Pos. 94/bis and circlip Ø8x50 Pos. 87.



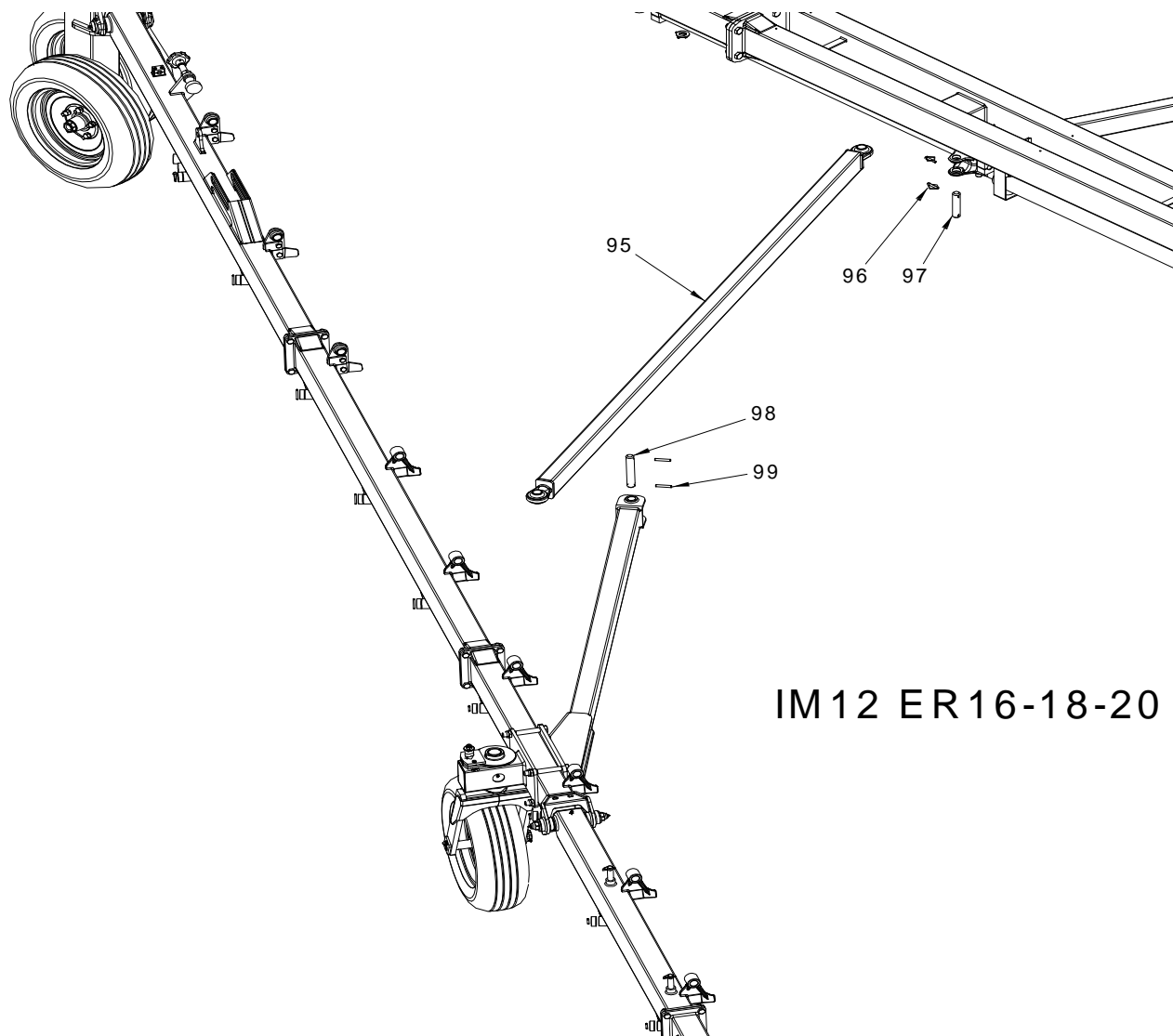
IM 11 ER 16-18-20



## Assembly 12

### For Easy-Rake SUPER STAR 16-18-20

- A) Assemble the rod Pos. 95 and fix it in the elbow side with pin  $\varnothing 30 \times 175$  Pos. 98 and circlips  $\varnothing 10 \times 60$  Pos. 99. Fix the rod Pos. 95 in the slide side with pin  $\varnothing 30 \times 135$  Pos. 97 and snap pins  $\varnothing 8$  Pos. 96.



IM12 ER16-18-20

## Assembly 13

### For Easy-Rake SUPER STAR 16-18-20

Star movement bars assembly:

- A) Assemble the hydraulic cylinder Pos. 108 and fix it in the frame with the pin  $\varnothing 25 \times 62$  Pos. 114. Fix pin  $\varnothing 25 \times 62$  Pos. 114 with spring pins  $\varnothing 5 \times 100$  Pos. 102. Assemble the bushing/bar pin Pos. 107 in the hydraulic cylinder rod Pos. 108 together with the two nylon bushings Pos. 113.
- B) Assemble the rear bar Pos. 106, assemble the first mobile bar Pos. 103 and the first chain clamp Pos. 104. Insert the bar Pos. 106 into the bush/pin Pos. 107 and fix using T.E. M8x50 screws Pos. 105 and M8 nuts Pos. 111. Assemble the second bar passage Pos. 103 and the second chain clamp Pos. 104. Assemble the third bar passage and the third chain clamp. Fix the bar passages using T.E. M12x35 screws Pos. 101 and M12 nuts Pos. 100. Fix the bar Pos. 106 in the bush/pin Pos. 107 and fix using T.E. M8x50 screws Pos. 105 and M8 nuts Pos. 111.
- C) Assemble the junction bush  $\varnothing 34 \times 80$  Pos. 112. Assemble the star movement bar  $\varnothing 26 \times 2600$  Pos. 110 and fix using T.E. M8x50 screws Pos. 105 and M8 nuts Pos. 111.

N.B: the exact position of the chain clamps Pos. 104, must be in front of the mobile bar passages and the fixed bar passages Pos. 103 103/A and positioned at a distance of 25 mm. as indicated in figure C (star hydraulic cylinder raised Pos. 108 in closed position) (SEE ASSEMBLY INSTRUCTIONS 13 BIS).

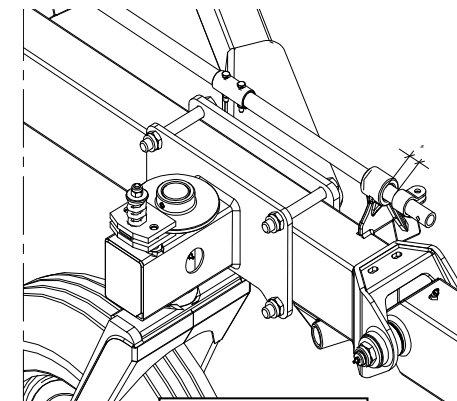
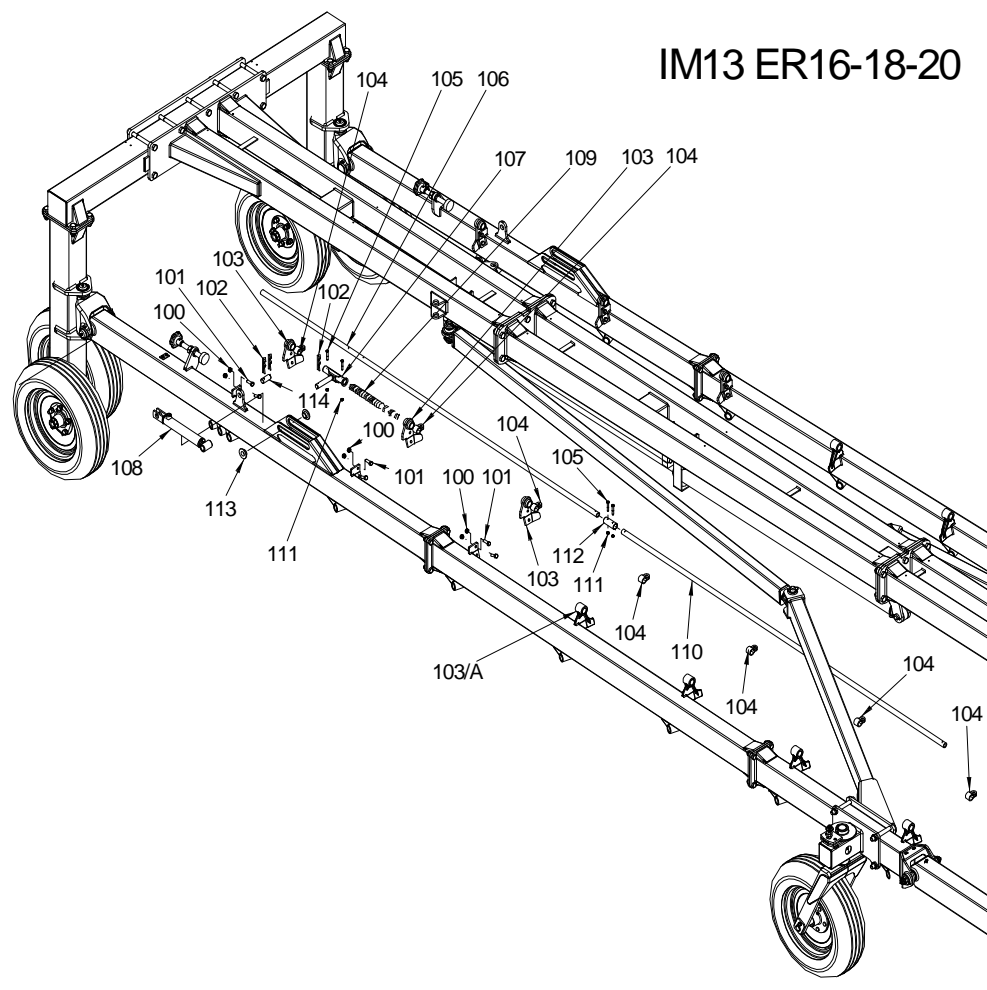
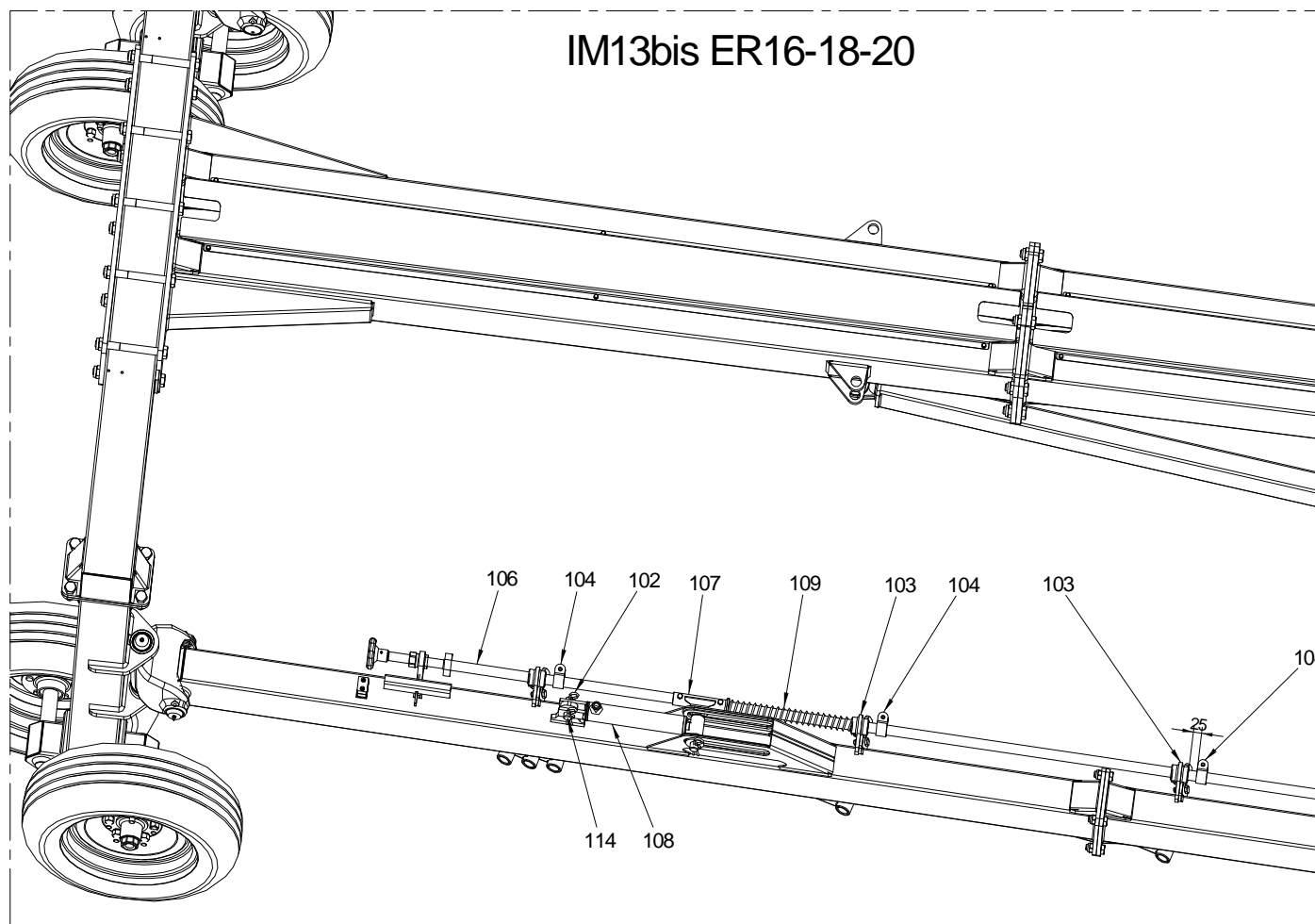


Figure C



## Assembly 13 bis

For Easy-Rake SUPER STAR 16-18-20

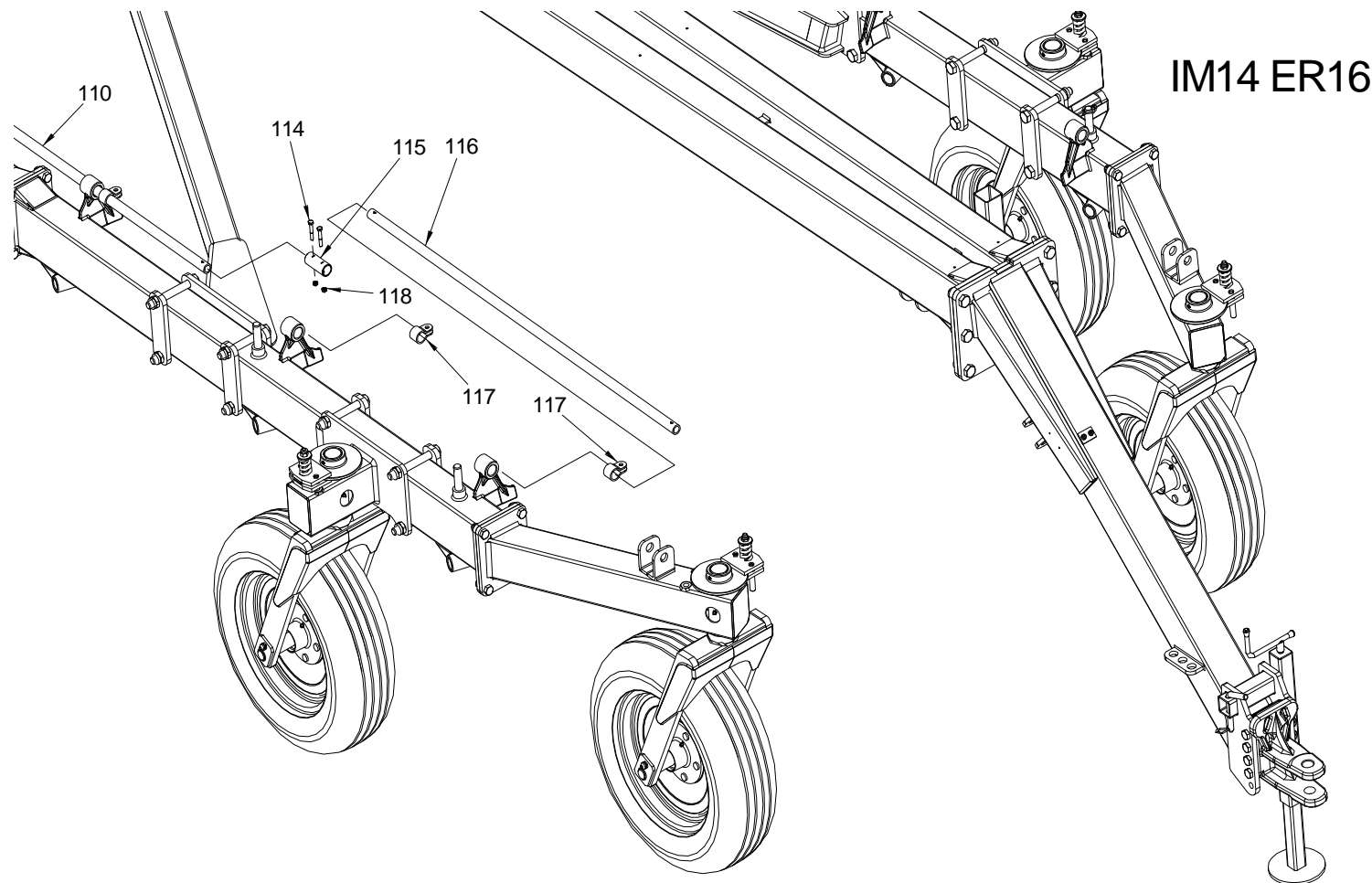




## Assembly 14

### For Easy-Rake SUPER STAR 16

- A) Connect the bush  $\varnothing 34 \times 80$  Pos. 115, to the bar Pos. 110. Assemble the star movement bar  $\varnothing 26 \times 1370$  Pos. 116 (for mod. 16). Fix using T.E. M8x50 screws Pos. 114 and screw M8 nuts Pos. 118.



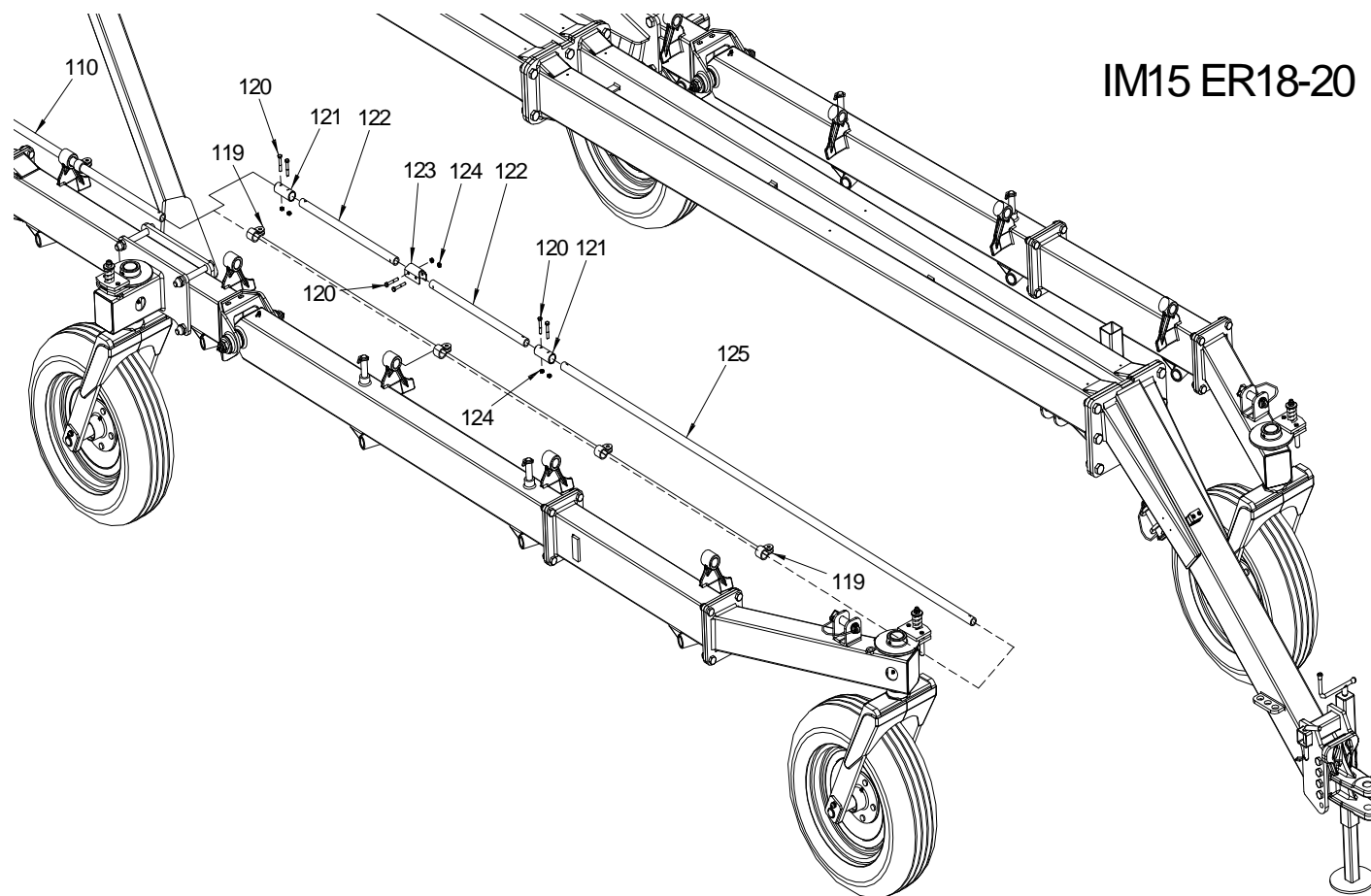
## Assembly 15

### For Easy-Rake SUPER STAR 18-20

- A) Assemble the bar Ø26x515 Pos. 122 and connect it to the rear bar Pos. 110 using the bush Ø34x80 Pos. 121.
- B) Connect the two bars Ø26x515 Pos. 122 with the joint bracket Pos. 123 and fix using T.E. M8x50 screws Pos. 120 and M8 nuts Pos. 124.

Assemble front bar Ø26x1370 Pos. 125 for model 18 stars (Easy Rake Super Star 18).

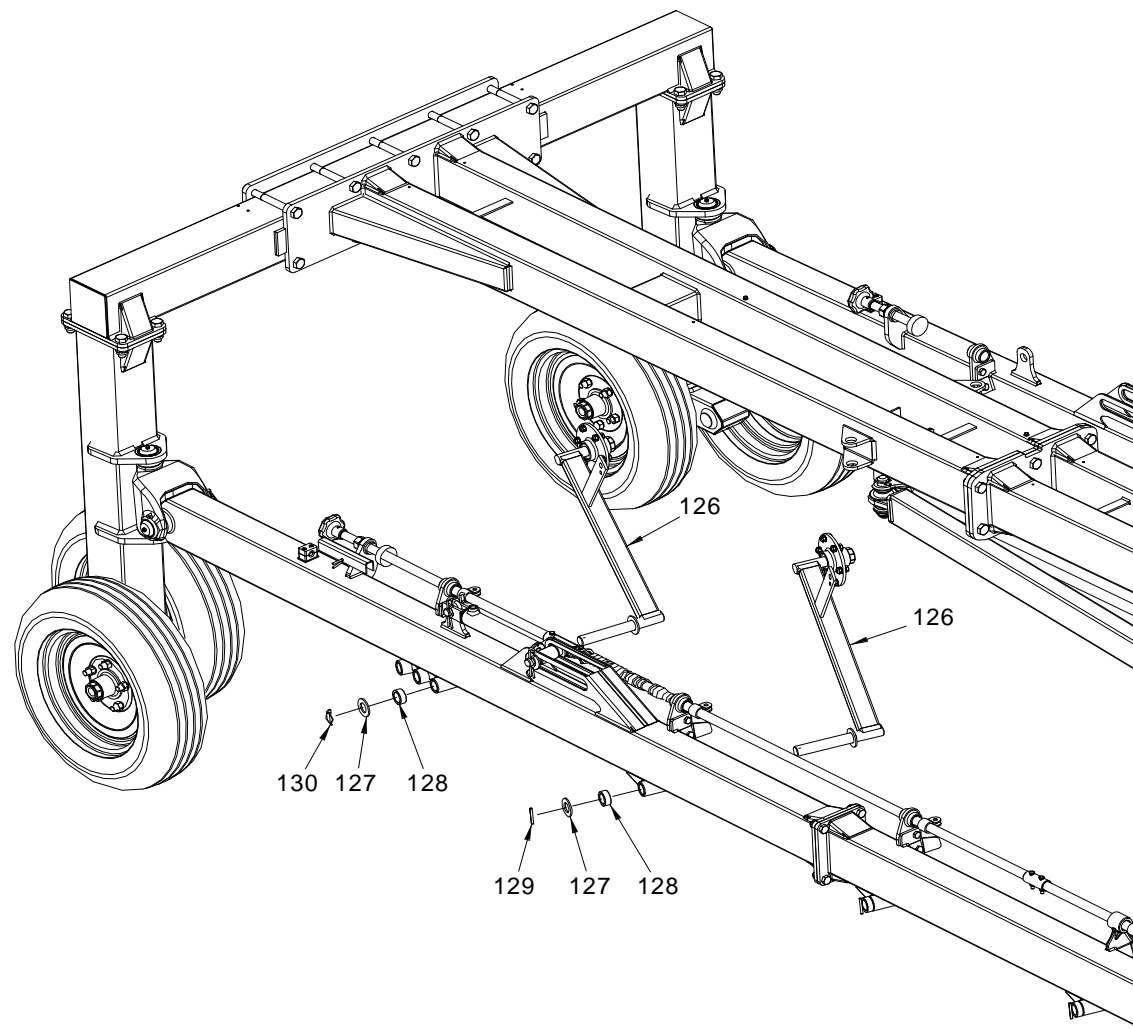
Assemble front bar Ø26x2240 Pos. 125 for model 20 stars (Easy Rake Super Star 20).



## Assembly 16

### For Easy-Rake SUPER STAR 16-18-20

- A) Assemble right and left arms Pos. 126
- Insert the pin Ø30 the spacer Ø30.5x44x21 Pos.128.
  - Fix the first arm using the snap pin Ø5 Pos. 130.
  - Fix the other arms using the circlip Ø6x50.



IM16 ERS 16-18-20

## Assembly 17

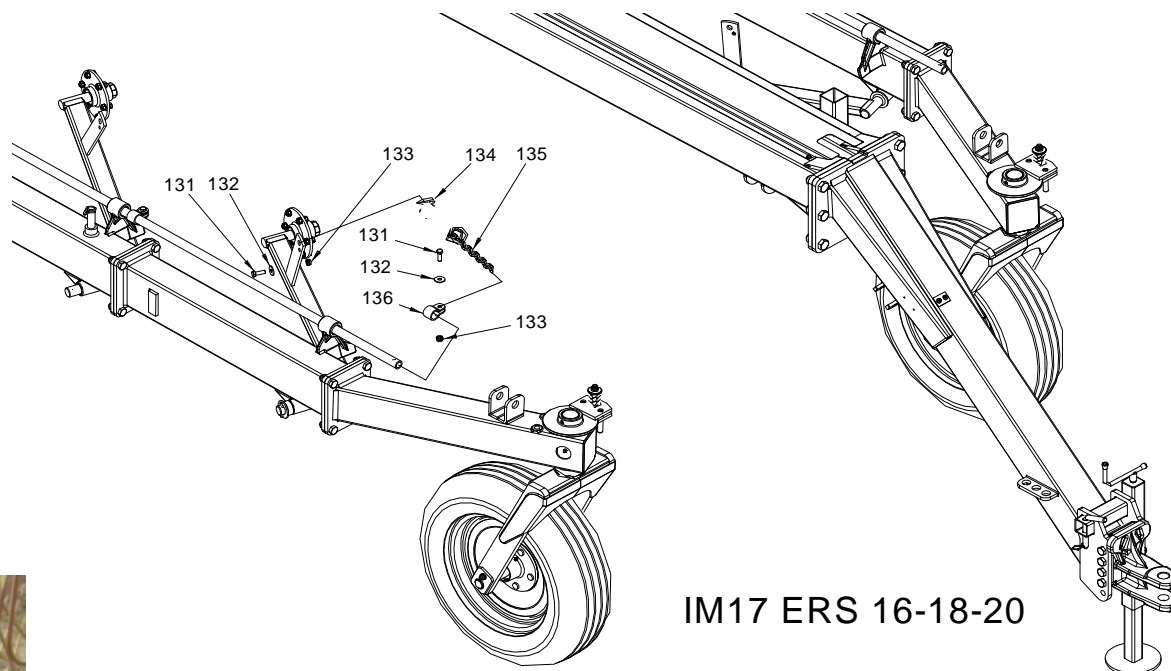
### For Easy-Rake SUPER STAR 16-18-20

- Assemble the springs  $\varnothing 50 \times 200$  Pos. 134, by inserting the spring hook into the arm bracket (FIGURE C). The other spring hook must be inserted into the fifth ring in the chain counting from the clamp Pos. 136, keeping the spring hook facedown (see FIGURE C of the assembled spring).
- The first ring in the chain is locked to the arm bracket using the T.E. M10x30 screw Pos. 131, the washer  $\varnothing 10 \times 30$  Pos. 132 and M10 self-locking nut Pos. 133 FIGURE C.
- The last ring in the chain is locked to the outside of the clamp Pos. 136 (FIGURE C) using the T.E. M10x30 screw Pos. 131, the washer  $\varnothing 10 \times 30$  Pos. 132 and M10 self-locking nut Pos. 133.

N.B: always place the chain clamp Pos. 136 at a 25 mm. distance, as indicated in figure D. In figure C the stars are raised and the hydraulic jack is withdrawn.



FIGURE C



IM17 ERS 16-18-20

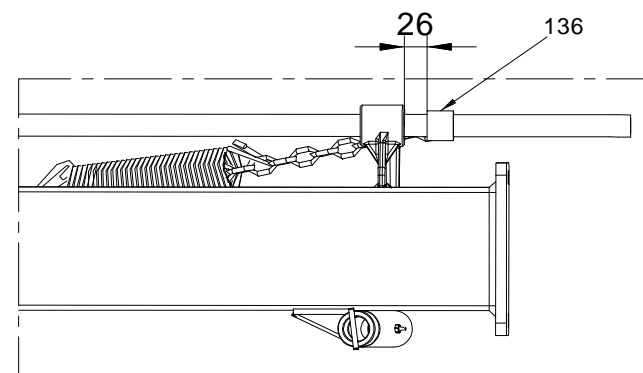


FIGURE D

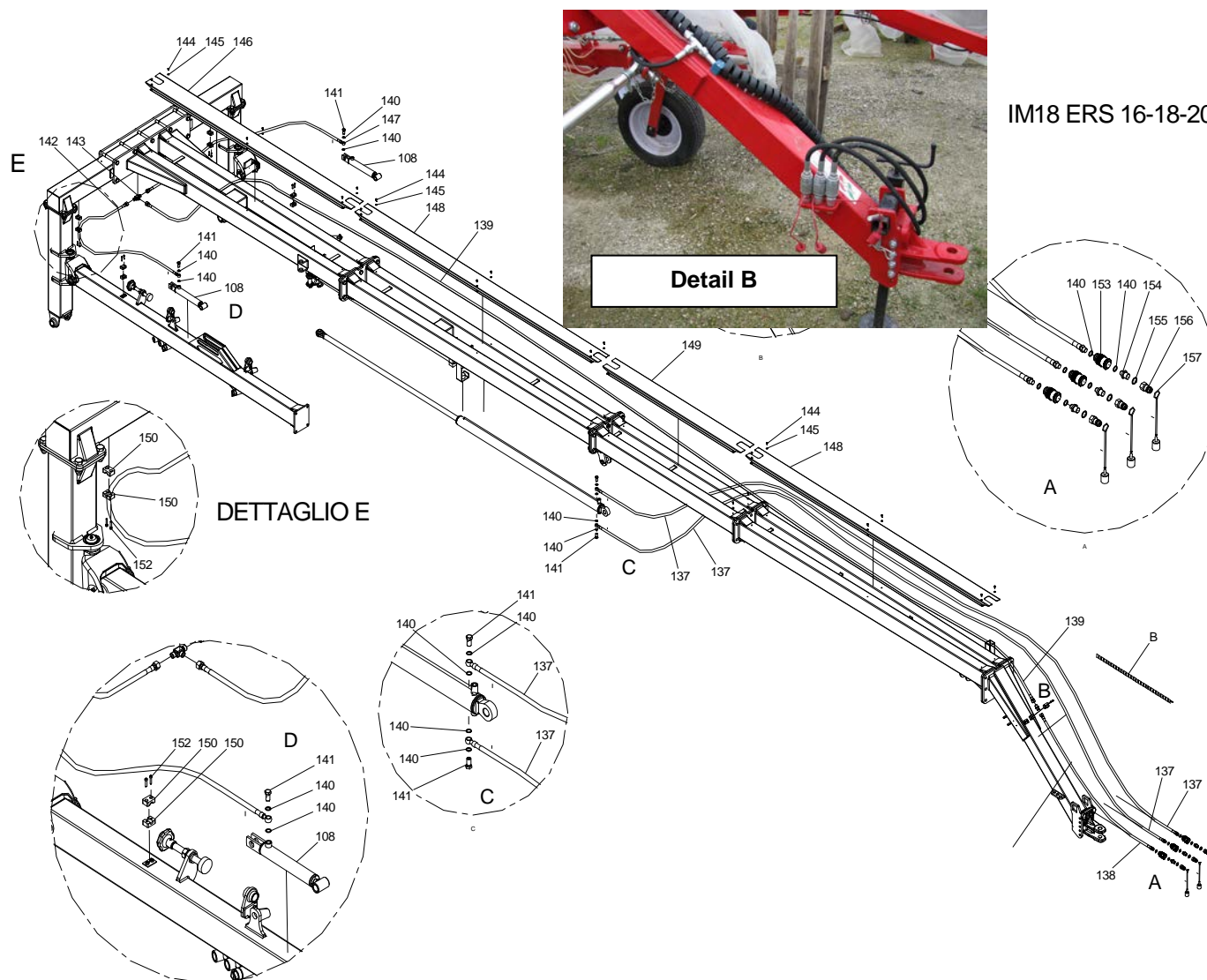


## Assembly 18

### For Easy-Rake SUPER STAR 16-18-20

#### Assembly of hydraulic hoses:

- A) Assemble the two rear hydraulic hoses Lg. 2500 Pos. 142 and connect them to the two hydraulic cylinders Pos. 108.
    - Fix the hoses on the cylinder side with the 3/8 drilled screws Pos. 141 and the 3/8 washers Pos. 140 (see detail D).
    - Connect the two rear hoses with 1/2 T Pos. 143.
    - Fix the hoses to the rear crossbar with single hose clamps Ø14 Pos. 150 and M6x28 screws Pos. 152 (for model E. R. Super Star 16-18-20) (see detail E).
  - B) Assemble the long conductor hose, star jack Lg. 8300 Pos. 139 for 16 stars Mod.
    - Assemble the long conductor hose, star jack Lg. 9200 Pos. 139 for 18 stars Mod.
    - Assemble the long conductor hose, star jack Lg. 10050 Pos. 139 for 20 stars Mod.
  - C) Assemble the short conductor hose, star jack Lg. 2510 Pos. 138 for 16-18-20 stars Mod.
  - D) Assemble the two hoses to the double acting hydraulic cylinder Lg. 5540 Pos. 137 for 16 stars mod.
    - Assemble the two hoses to the double acting hydraulic cylinder Lg. 6410 Pos. 137 for 18 stars mod.
    - Assemble the two hoses to the double acting hydraulic cylinder Lg. 7280 Pos. 137 for 20 stars mod.
    - Fix the hoses on the double acting cylinder side with the 3/8 drilled screws Pos. 141 and the Ø3/8 washers Pos. 140 (see detail C).
- IMPORTANT:** carefully tighten all hydraulic hoses in order to avoid oil leakage.
- E) Fix the hydraulic hoses with plastic straps, fixing them at transversal supports level present in the centre of the pullbar.
  - F) Wind the hydraulic hoses protection spiral in the front part of the pullbar (see detail B).
  - G) Assemble the pullbar lids Pos. 146-148-149 and fix them using T.E. M6x10 screws Pos. 144 and washers Ø6 Pos. 145.

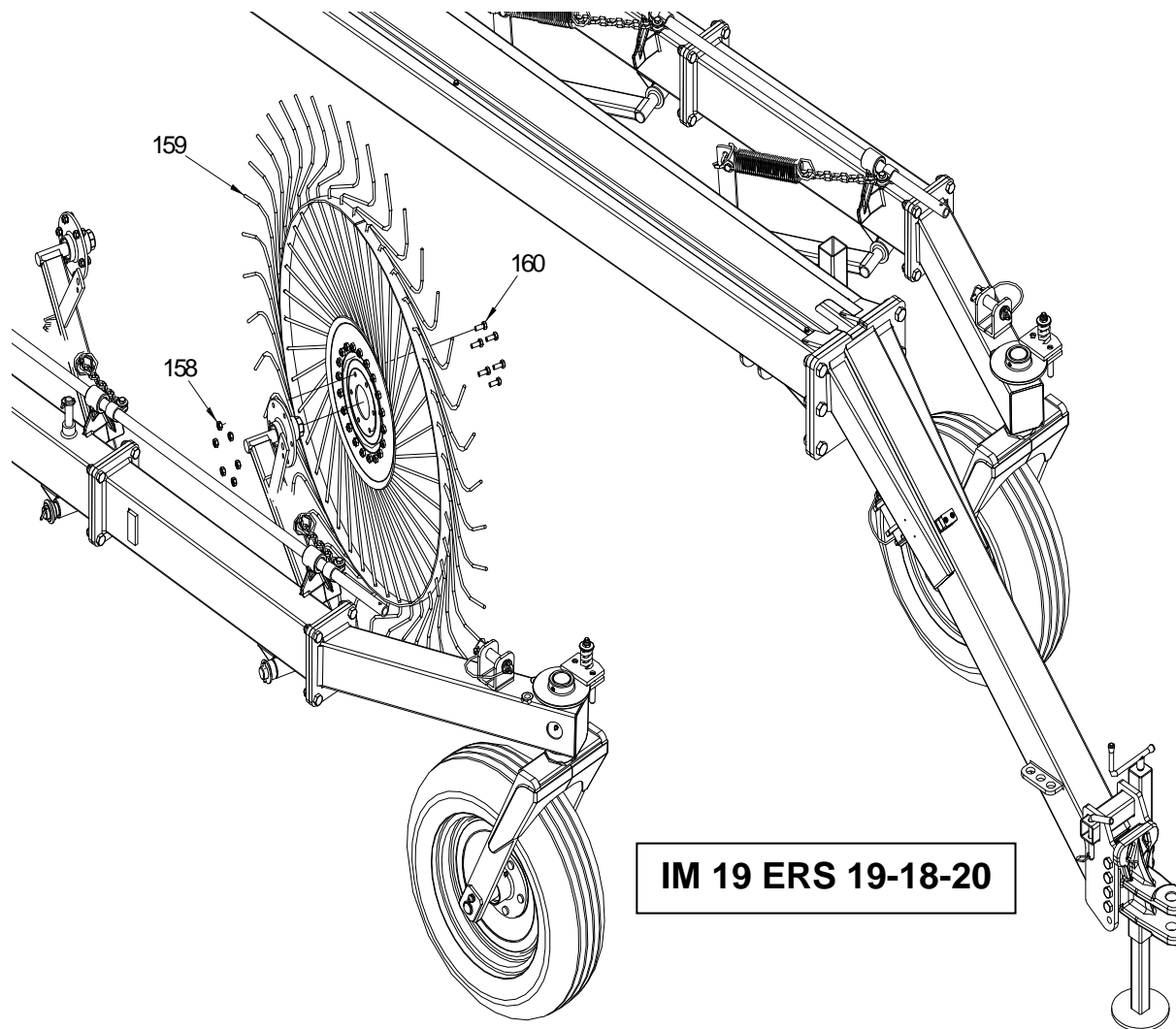




## Assembly 19

### For Easy-Rake SUPER STAR 16-18-20

- A) Assemble the right and left star wheels Pos. 159.  
Fix them to the arm hub with T.E. M10x25 screws  
Pos. 160 and M10 self-locking nuts Pos. 158.



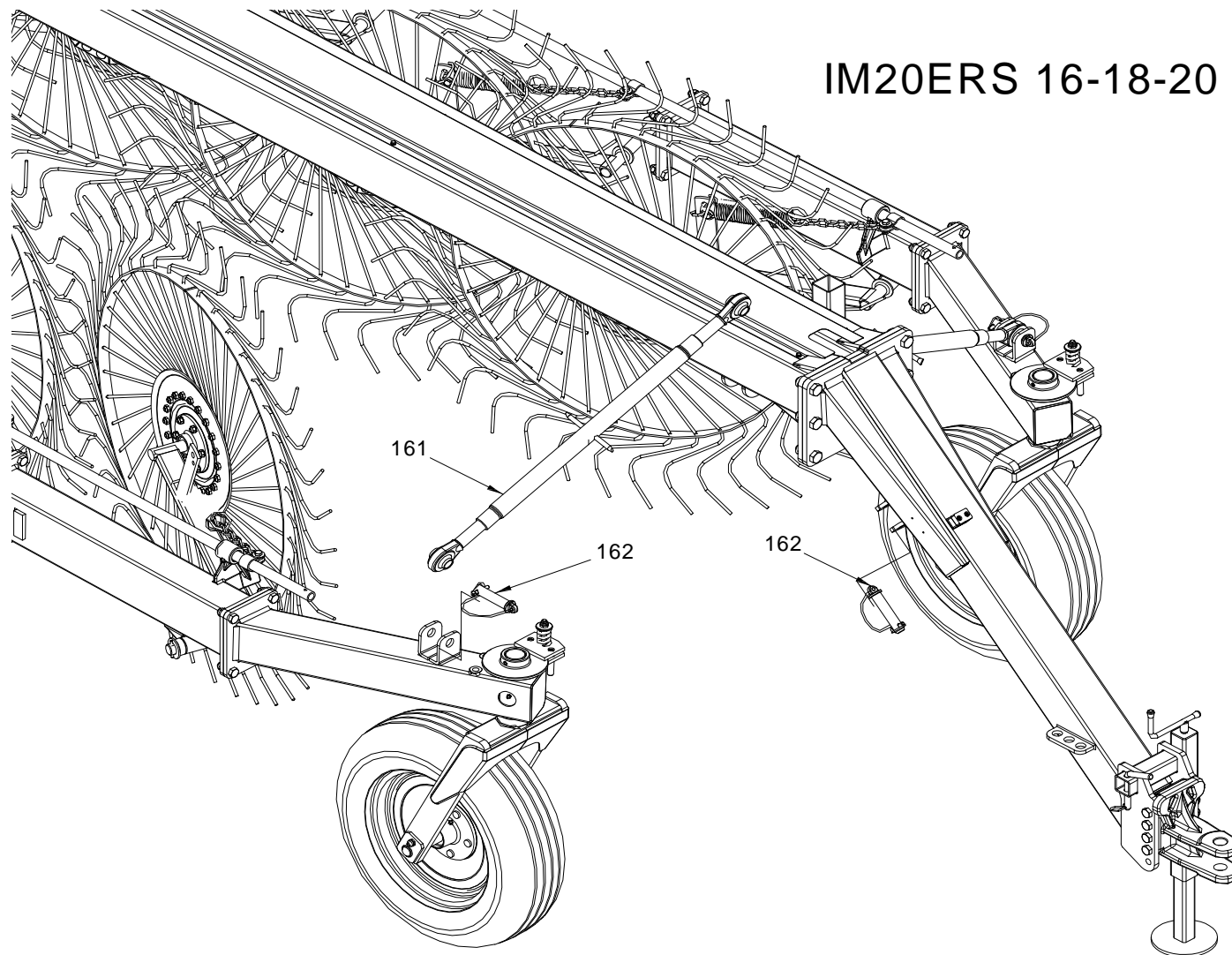


## Assembly 20

### For Easy-Rake SUPER STAR 16-18-20

#### Assembly of the transport bars:

- A) The transport bars Pos. 161 must be hitched to the two side frames and the central pullbar using the relative pins Ø25x100 Pos. 162.







## Assembly 21

For Easy-Rake SUPER STAR 16-18-20

### Assembly of the central stars (optional)

- A) Connect the fixed frame Pos. 190, to the front pullbar Pos. 11, fix using the plate 174x240x10 Pos. 164, T.E. M16x160 screws Pos. 163 and M16 self-locking nuts Pos. 165. The best position of the fixed frame Pos. 190, with respect to the front pullbar Pos. 11, is obtained when the axle of the two star wheels is perfectly parallel to the ground FIG. A, i.e. the two star wheels must have the same weight on the ground.
- B) Connect the tilting frame Pos. 175 to the fixed frame Pos. 190; fix using the pin  $\varnothing 30 \times 190$  Pos. 172 and the T.E. M8x55 screw Pos. 174 and M8 nut pos. 173.
- C) Assemble the hydraulic cylinder Pos. 167 and fix it using the T.E. M14x70 screws Pos. 169. Tighten using M14 nuts pos. 168.
- D) Connect the spring Pos. 188.
- E) Assemble the stars holder arm Pos. 178 and fix it to the tilting frame Pos. 175 using the T.E. M20x110 screw Pos. 176 and M20 nut Pos. 177.
- F) Assemble the retractable rod Pos. 185 and fix it using the T.E. M18x80 screw Pos. 189. On the opposite side, fix using the washer  $\varnothing 20$  Pos. 186 and snap pin  $\varnothing 5$  Pos. 187
- G) Assemble the two central stars Pos. 181, respecting the unload direction of the hay (Fig. A).

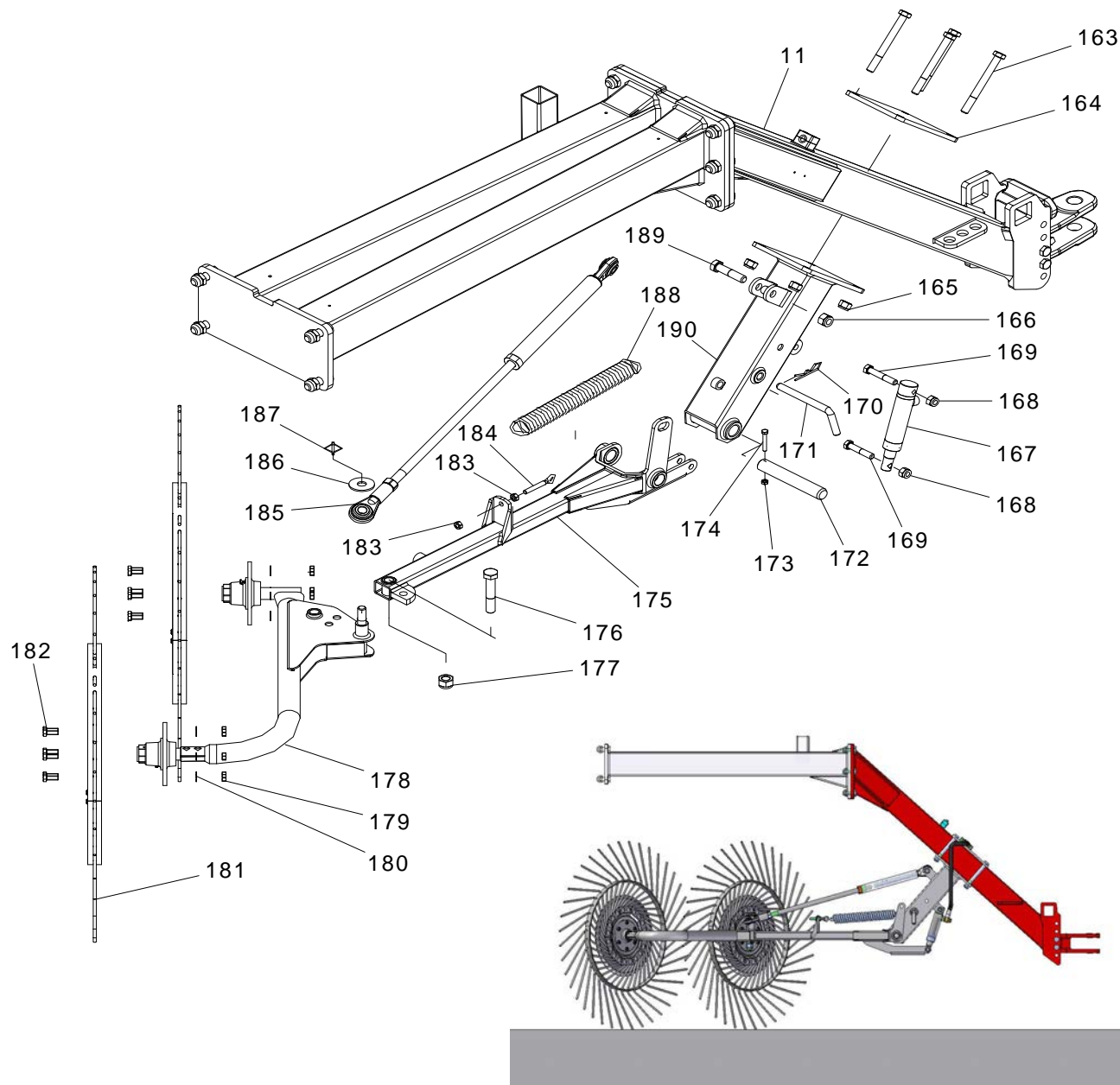


FIGURE A

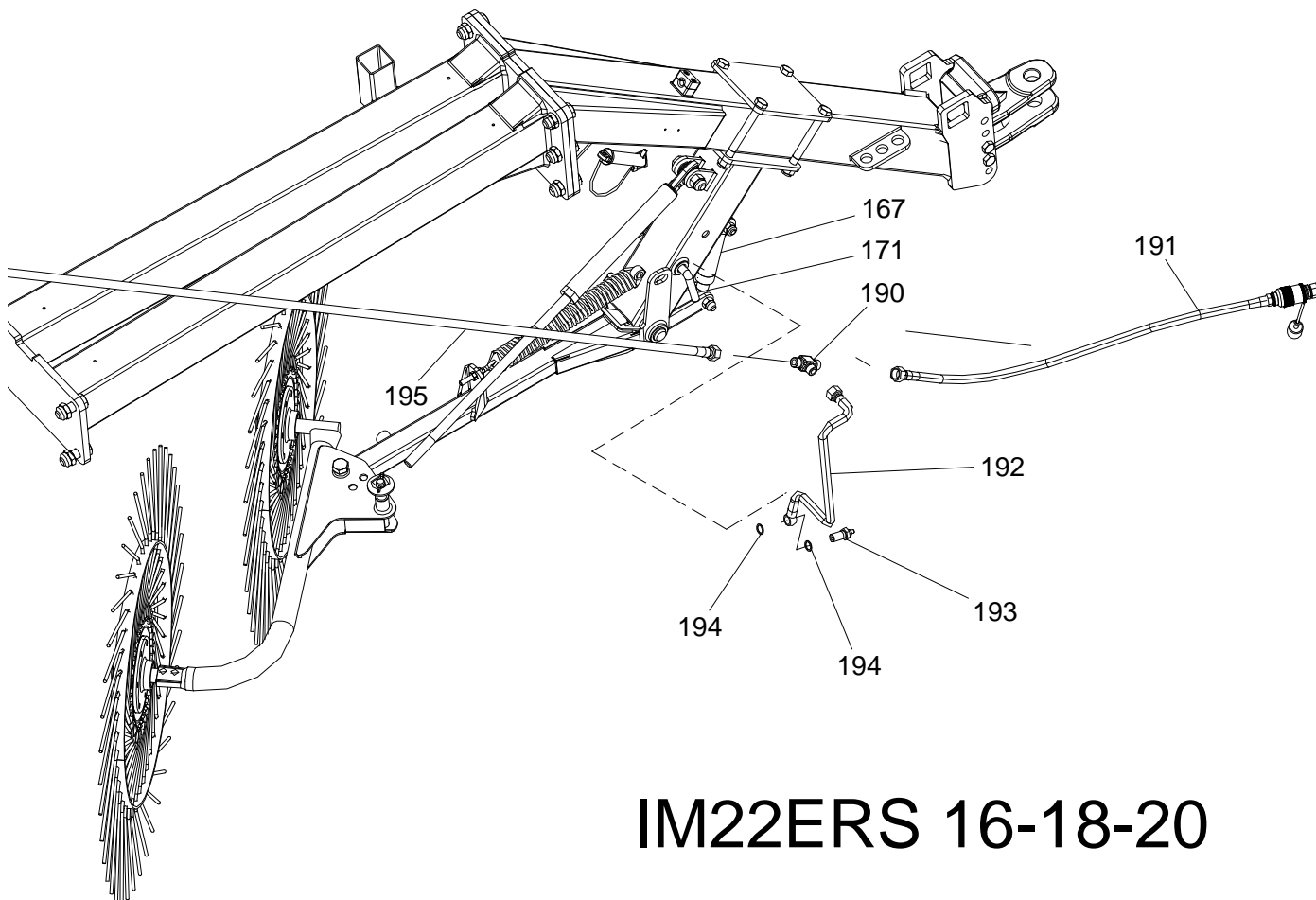


## Assembly 22

### For Easy-Rake SUPER STAR 16-18-20

#### Assembly of the hydraulic circuit for central rods (OPTIONAL).

- A) Assemble the  $\frac{1}{2}$  GAS male 3-way fitting Pos. 190, in the  $\frac{5}{16}$  hydraulic hose LG: 550 mm. Pos. 192.
- B) Insert the hose, Pos. 192, between the  $\varnothing 5/16$  LG. 1600 hose Pos. 191 and the  $\varnothing 5/16$  hose pos. 195, having removed the  $\frac{1}{2}$  GAS nipple.
- C) Connect the hose Pos. 192 to the hydraulic cylinder Pos. 167 page 40, via the  $\frac{3}{8}$  throttle screw Pos. 193
- D) Raise the two star wheels, pushing oil from the tractor into the hydraulic hose Pos. 191 (all of the star wheels of the two frames will raise simultaneously).
- E) Regulate the lift speed of the star wheels via the  $\frac{3}{8}$  GAS throttle valve Pos. 193.
- F) For the road transport phase, block the two star wheels in high position using the  $\varnothing 16$  lock pin Pos. 9 Page 171.



IM22ERS 16-18-20



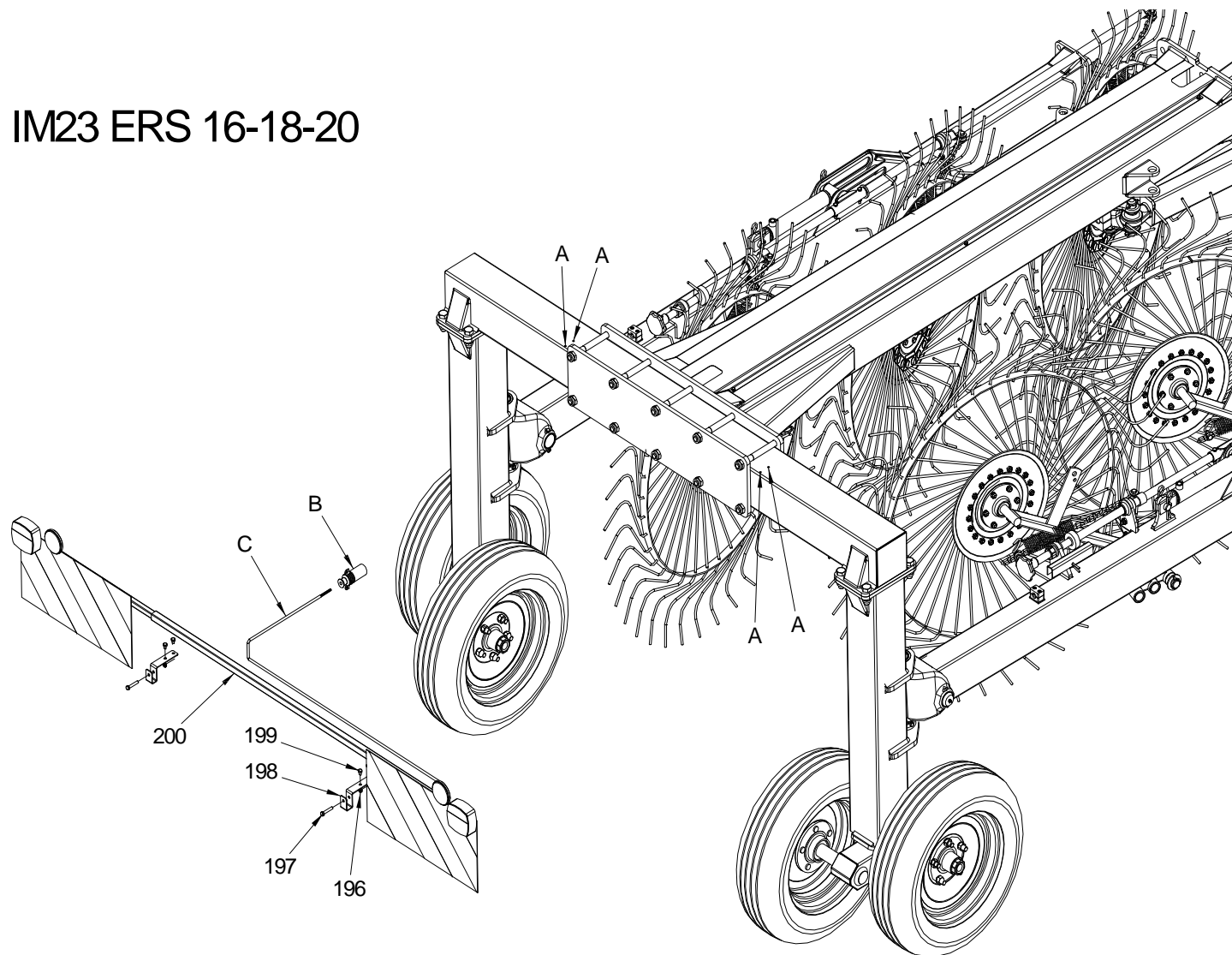
## Assembly 23

For Easy-Rake SUPER STAR 16-18-20

### Assembly of transport lights kit (OPTIONAL)

- A) Assemble the two support brackets Pos. 198 in the towing bar in points A. Fix the two brackets using T.E. M8x10 screws Pos. 199. Fix the lights kit using T.E. M8x45 screws Pos. 197. The electric cable C and the plug B must pass through the centre of the rear pullbar and be fixed using the plastic straps.

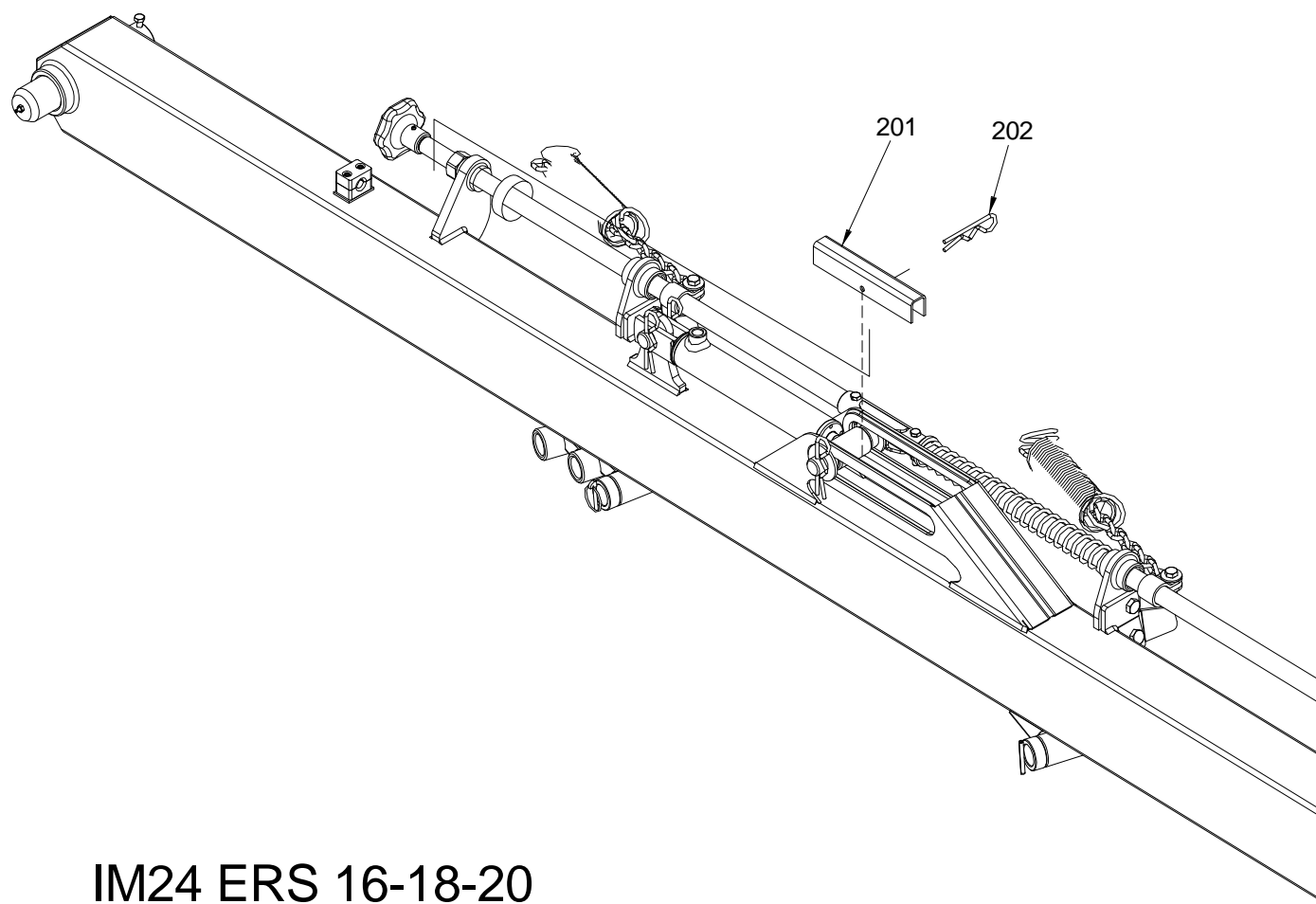
IM23 ERS 16-18-20





## Assembly 24

For Easy-Rake SUPER STAR 16-18-20



IM24 ERS 16-18-20





## Spare parts

When ordering spare parts please make photostats of this order form, fill out and mail or fax it directly to us at this address:

**ENOAGRICOLA ROSSI srl - Calzolaro di Umbertide - Perugia - Italy**

**Tel. 075 / 930 22 22    Telefax 075 / 930 23 28**

enorossi@enorossi.it - Info@enorossi.it

<http://www.enorossi.it> - [www.enoagricolarossi.it](http://www.enoagricolarossi.it) - [www.enoagricolarossi.com](http://www.enoagricolarossi.com)

To ensure prompt assistance and replacement of parts always supply below required information, thank you.

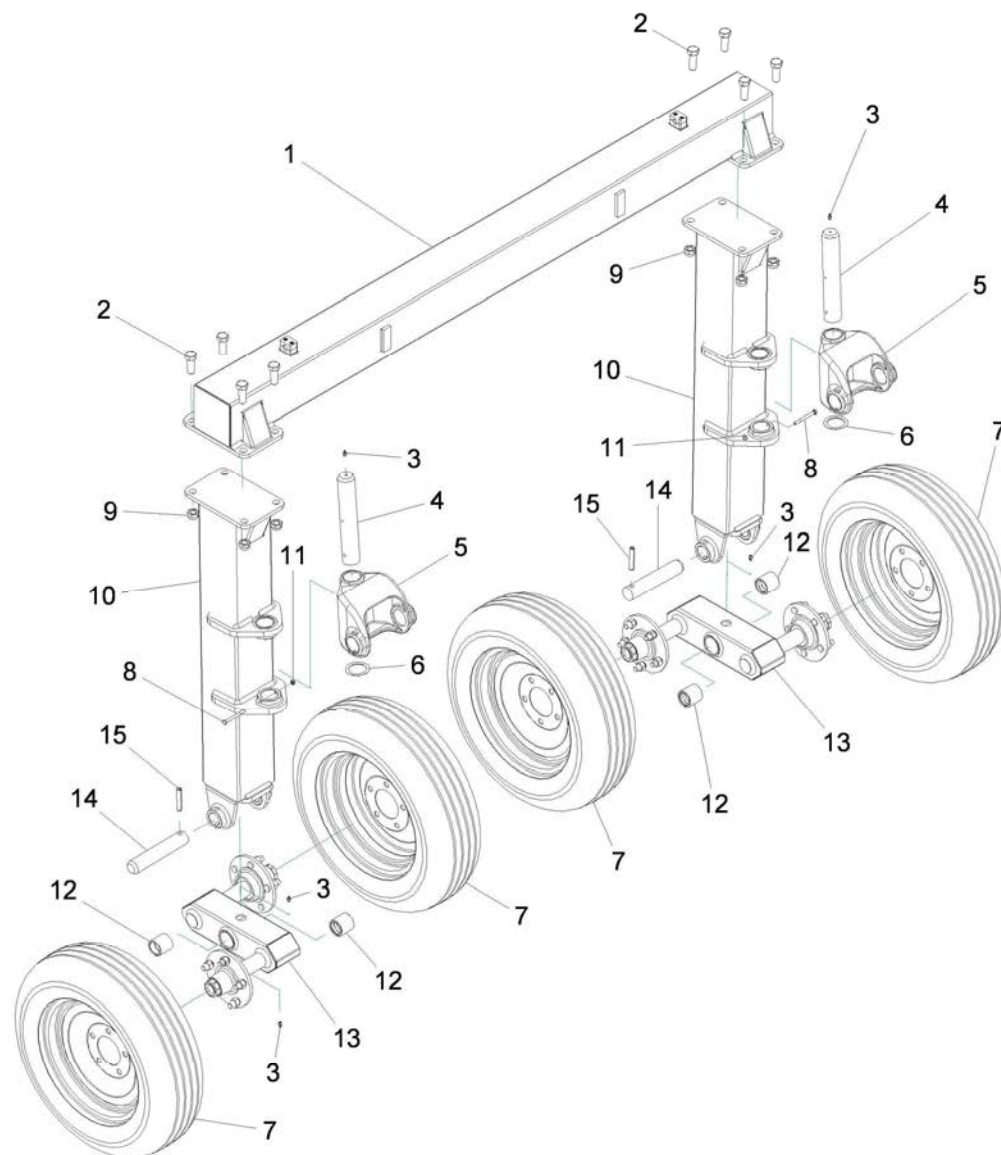
| Company name                                    |             |             |          |
|---|-------------|-------------|----------|
| Invoice address                                 |             |             |          |
| Country   |             |             |          |
| Destination of goods<br>If different from above |             |             |          |
| Pos.  | Code number | Description | Quantity |
|   |             |             |          |
|   |             |             |          |
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## Spare Parts

Table 1 cod. 19010542

EASY RAKE SUPER STAR 16-18-20

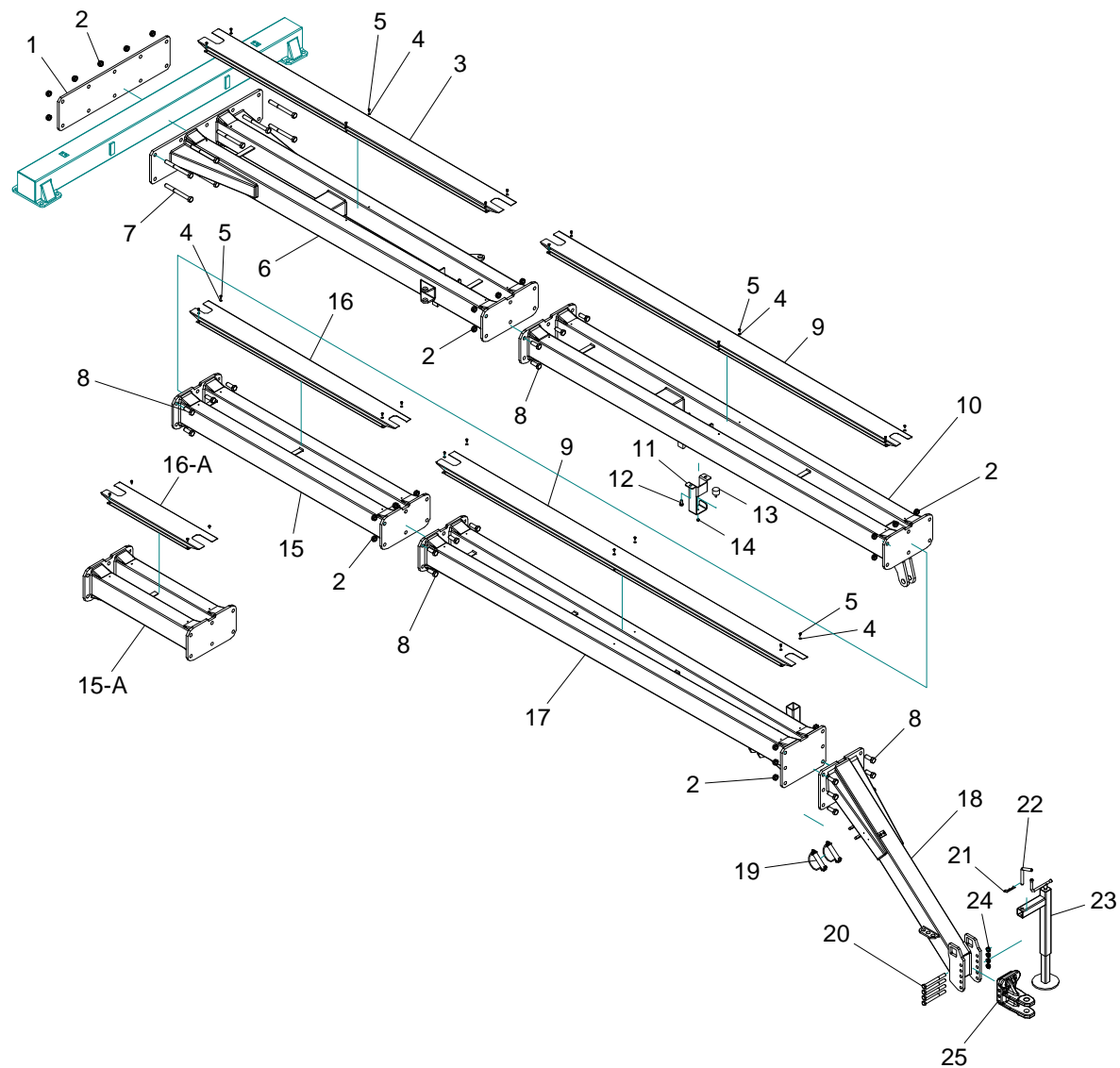




Rev. 0 04.10



**Table 2 cod.19010543**  
**EASY RAKE SUPER STAR 16-18-20**



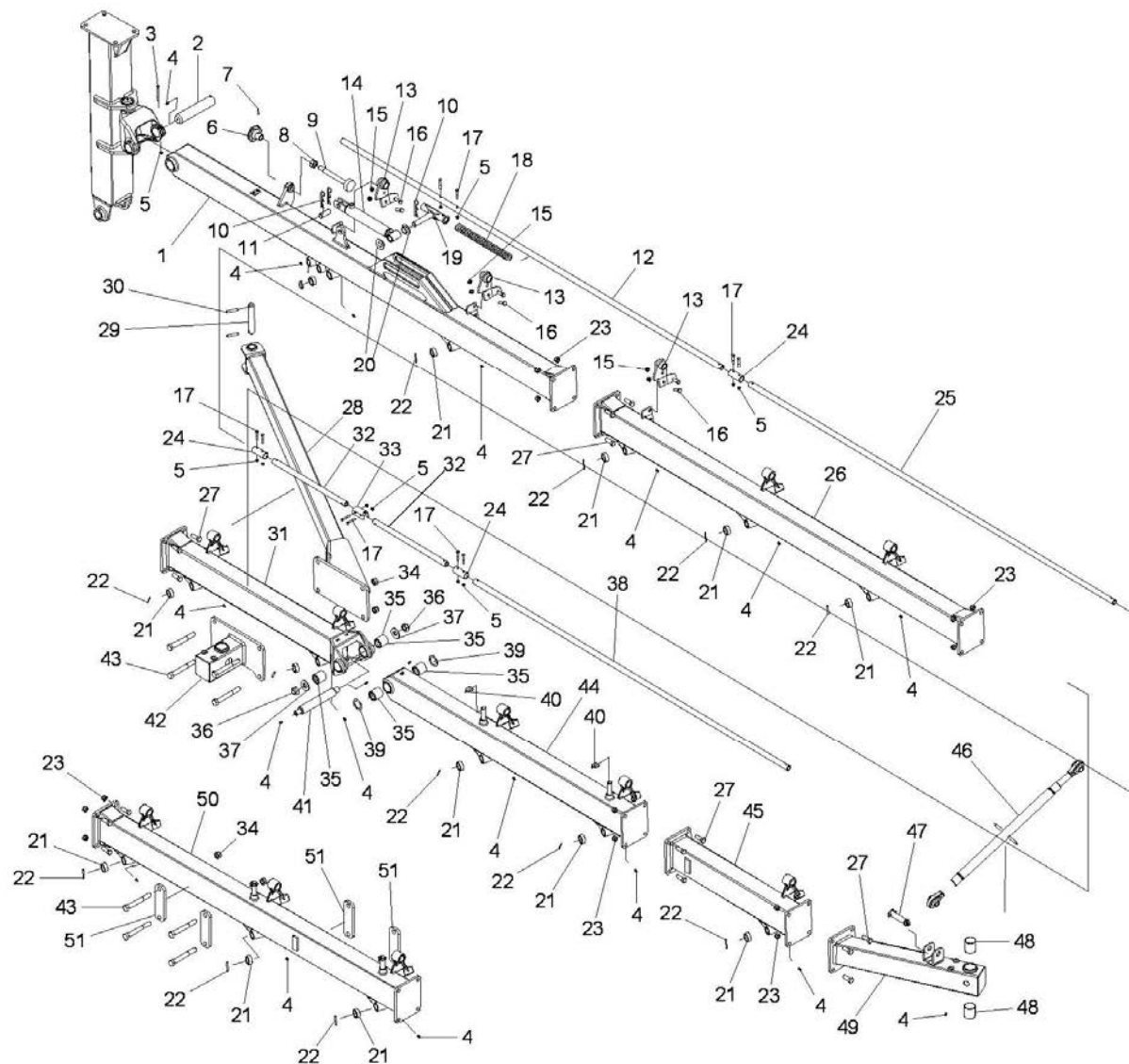


**Table 2 cod. 19010543 - EASY RAKE SUPER STAR 16-18-20**

| POS. | CODE     | DESCRIPTION                      | DESCRIZIONE                      |
|------|----------|----------------------------------|----------------------------------|
| 1    | 18032629 | FASTENING PLATE                  | Piastra di giunzione             |
| 2    | 3020216  | SELF LOCKING NUT M20             | Dado autoblocc. M20              |
| 3    | 18032630 | HYDRAULIC HOSE CARTER            | Carter tubi idraulici            |
| 4    | 3030158  | WASHER M6                        | Rondella M6                      |
| 5    | 3011290  | SCREW T.E. M6X10                 | Vite T.E. M6x10                  |
| 6    | 18032631 | PULL BAR                         | Timone posteriore                |
| 7    | 3011700  | SCREW T.E. M20X200               | Vite T.E. M20x200                |
| 8    | 3011694  | SCREW T.E. M20X55                | Vite T.E. M20x55                 |
| 9    | 18031717 | HYDRAULIC HOSE CARTER            | Carter tubi idraulici            |
| 10   | 18032632 | DRAWBAR                          | Timone centrale                  |
| 11   | 18031768 | SUPPORT FOR HYDRAULIC CYLINDER   | Appoggio per martinetto          |
| 12   | 3011255  | SCREW T.E. M12X25                | Vite T.E. M12x25                 |
| 13   | 12660316 | BUFFER PAD                       | Piedino antivibrante             |
| 14   | 3020209  | SELF LOCKING NUT M8              | Dado autoblocc. M8               |
| 15   | 18032634 | PULL BAR E.R. SS 20              | Timone aggiuntivo E.R. SS 20     |
| 15/A | 18032635 | PULL BAR E.R. SS 18              | Timone aggiuntivo E.R. SS 18     |
| 16   | 18031758 | HYDRAULIC HOSE CARTER E.R. SS 20 | Carter tubi idraulici E.R. SS 20 |
| 16/A | 18031760 | HYDRAULIC HOSE CARTER E.R. SS 18 | Carter tubi idraulici E.R. SS 18 |
| 17   | 18032633 | DRAWBAR                          | Timone                           |
| 18   | 18032064 | FRONT DRAWBAR                    | Timone di traino                 |
| 19   | 12310306 | CLIP PIN                         | Coppiglia                        |
| 20   | 3010308  | SCREW T.E. M16X170               | Vite T.E. M16x170                |
| 21   | 3040202  | SPLIT PIN R 5X100                | Coppiglia a R 5x100              |
| 22   | 12120104 | PIN                              | Spina                            |
| 23   | 18032039 | JACK                             | Piede di appoggio                |
| 24   | 3020204  | SELF LOCKING NUT M16             | Dado autoblocc. M16              |
| 25   | 18032040 | PULL BAR LINKAGE                 | Attacco di traino                |
|      |          |                                  |                                  |
|      |          |                                  |                                  |
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Table 3 cod. 19010544  
EASY RAKE SUPER STAR 16-18-20





**Table 3 cod. 19010544 - EASY RAKE SUPER STAR 16-18-20**

| POS. | CODE     | DESCRIPTION                        | DESCRIZIONE                       |
|------|----------|------------------------------------|-----------------------------------|
| 1    | 18032636 | LEFT REAR FRAME                    | Telaio posteriore sinistro        |
| 1A   | 18032637 | RIGHT REAR FRAME                   | Telaio posterior destro           |
| 2    | 12060863 | PIVOT PIN D.50 LG.225              | Perno snodo verticale D.50 LG.225 |
| 3    | 3011695  | SCREW T.E. M8X80                   | Vite T.E. M8x80                   |
| 4    | 3090101  | GREASER M8X1                       | Ingrassatore diritto M8x1         |
| 5    | 3020209  | SELF LOCKING NUT M8                | Dado autoblocc. M8                |
| 6    | 18031179 | REGOLATION KNOB                    | Volantino                         |
| 7    | 3080102  | SPRING PIN 6X36                    | Spina elastica 6x36               |
| 8    | 3020337  | NUT M24                            | Dado M24                          |
| 9    | 18031066 | SPACER SCREW 24MA                  | Vitone distanziere                |
| 10   | 3040202  | SPLIT PIN R 5X100                  | Coppiglia a R 5x100               |
| 11   | 12070441 | PIN                                | Spinotto                          |
| 12   | 18032638 | RAKING WHEEL ADJUSTMENT BAR L.2710 | Barra sollevamento stele L.2710   |
| 13   | 18032113 | BRACKET LEFT                       | Passaggio barra sinistro          |
| 13A  | 18032112 | BRACKET RIGHT                      | Passaggio barra destro            |
| 14   | 12770101 | HYDRAULIC CYLINDER                 | Cilindro idraulico                |
| 15   | 3020202  | SELF LOCKING NUT M12               | Dado autoblocc. M12               |
| 16   | 3011216  | SCREW T.E. M12X35                  | Vite T.E. M12x35                  |
| 17   | 3011692  | SCREW T.E. M8X50                   | Vite T.E. M8x50                   |
| 18   | 11010628 | ARM SPRING                         | Molla barra movim. stelle         |
| 19   | 18031769 | SUPPORT ARM                        | Supporto barra                    |
| 20   | 18032137 | BUSHING                            | Boccola movim. Cilindro stelle    |
| 21   | 18032639 | SPACER                             | Distanziale per braccetto         |
| 22   | 3080113  | SPRING PIN 6X50                    | Spina elastica 6x50               |
| 23   | 3020204  | SELF LOCKING NUT M16               | Dado autoblocc. M16               |
| 24   | 18030435 | BUSHING                            | Boccola di giunzione              |
| 25   | 18032640 | RAKING WHEEL ADJUSTMENT BAR L.2600 | Barra anteriore L.2600            |
| 26   | 18032641 | LEFT CENTRAL FRAME                 | Telaio central sinistro           |
| 26A  | 18032642 | RIGHT CENTRAL FRAME                | Telaio central destro             |
| 27   | 3011645  | SCREW T.E. M16X45                  | Vite T.E. M16x45                  |
| 28   | 18032643 | LEFT FRAME ELBOW ARM               | Gomito sinistro                   |
| 28A  | 18032644 | RIGHT FRAME ELBOW ARM              | Gomito desro                      |
| 29   | 12060866 | PIN Ø30 L.178                      | Perno per gomito Ø30 L.178        |
| 30   | 3080107  | SPRING PIN 10X60                   | Spina elastica10x60               |



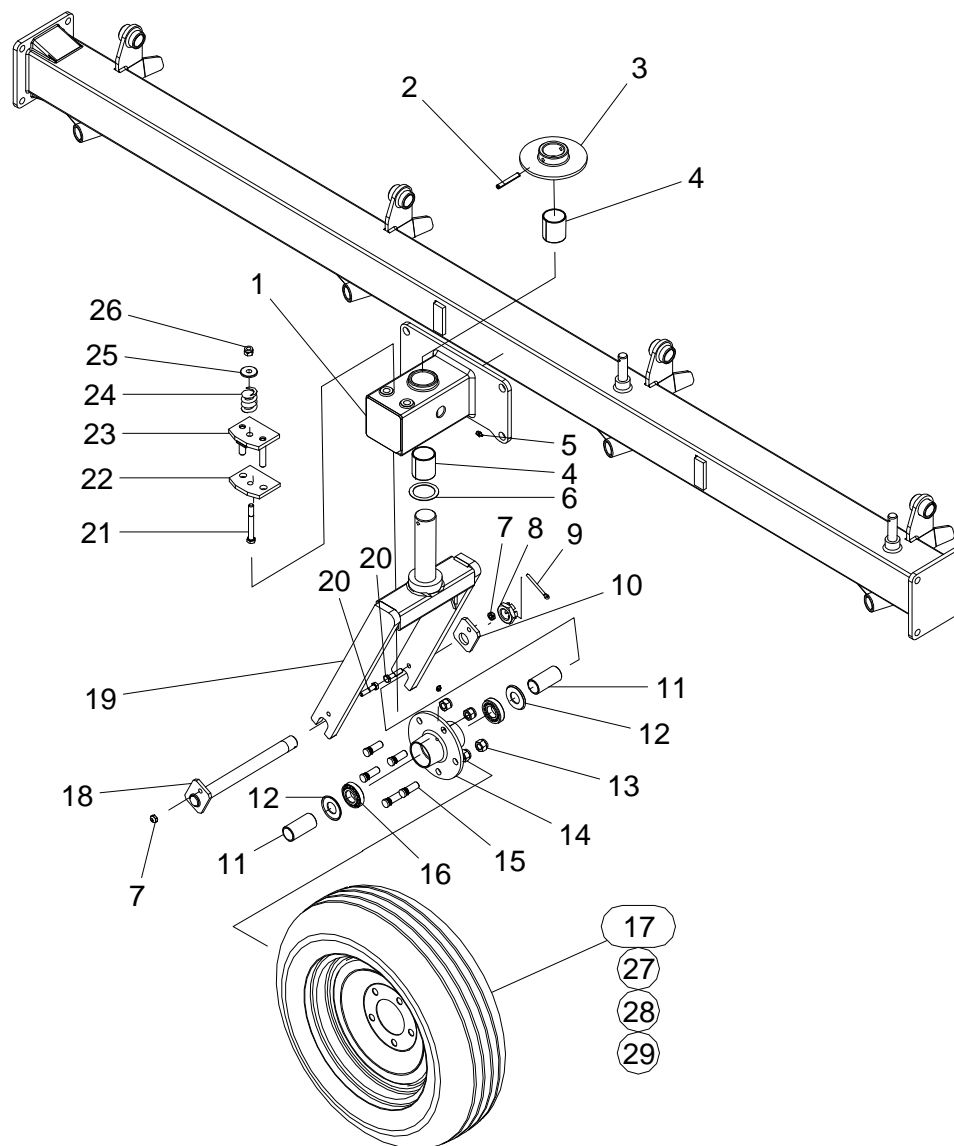
**Table 3 cod. 19010544 - EASY RAKE SUPER STAR 16-18-20**

| POS. | CODE     | DESCRIPTION                                   | DESCRIZIONE                          |
|------|----------|---|--------------------------------------|
| 31   |          | LEFT FRONT FRAME                              | Telaio anteriore fisso sinistro      |
| 31A  | 18032646 | RIGHT FRONT FRAME                             | Telaio anterior fisso destro         |
| 32   | 18032647 | RAKING WHEEL ADJUSTMENT BAR L.515             | Barra anterior L.515                 |
| 33   | 18031702 | CLAMP   | Staffa di giunzione                  |
| 34   | 3020216  | SELF LOCKING NUT M20                          | Dado autoblocc. M20                  |
| 35   | 12071204 | BUSHING                                       | Boccola snodo                        |
| 36   | 3020337  | NUT M24                                       | Dado M24                             |
| 37   | 1013519  | Washer 55-25-5                                | RONDELLA 55-25-5                     |
| 38   | 18032036 | RAKING WHEEL ADJUSTMENT BAR L.2240 E.R. SS 20 | Barra anteriore L.2240 E.R. SS 20    |
| 38/A | 18032649 | RAKING WHEEL ADJUSTMENT BAR L.1370 E.R. SS 18 | Barra anteriore L.1370 E.R. SS 18    |
| 39   | 18031766 | Washer 60x41x2.5                              | RONDELLA 60X41X2.5                   |
| 40   | 3080201  | SPLIT PIN                                     | Spina a scatto                       |
| 41   |          |   |                                      |
| 42   | 18032648 | WHEEL SUPPORT                                 | Supporto ruota                       |
| 43   | 3010758  | SCREW T.E. M20X160                            | Vite T.E. M20x160                    |
| 44   | 18032650 | LEFT FRONT FRAME                              | Telaio anteriore mobile anteriore SX |
| 44A  | 18032651 | RIGHT FRONT FRAME                             | Telaio anteriore mobile anterior DX  |
| 45   | 18032652 | LEFT FRAME                                    | Telaio aggiuntivo sinistro           |
| 45A  | 18032653 | RIGHT FRAME                                   | Telaio aggiuntivo destro             |
| 46   |          | TRANSPORT BAR                                 | Tirante per trasporto                |
| 47   | 12310306 | PIN   | Perno                                |
| 48   | 12070440 | BUSHING GLYCODUR                              | Boccola Glycodur                     |
| 49   | 18032654 | LEFT WHEEL SUPPORT                            | Supporto ruota frontale SX           |
| 49A  | 18032655 | RIGHT WHEEL SUPPORT                           | Support ruota frontale DX            |
| 50   | 18032656 | LEFT FRONT FRAME                              | Telaio anteriore SX                  |
| 50A  | 18032657 | RIGHT FRONT FRAME                             | Telaio anteriore DX                  |
| 51   | 18032658 | ELBOW ARM ATTACHMENT BRACKETS                 | Piastra fissaggio gomito             |
|      |          |   |                                      |
|      |          |   |                                      |
|      |          |   |                                      |
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**Table 4 cod. 19010545 - EASY RAKE SUPER STAR 16-18-20**



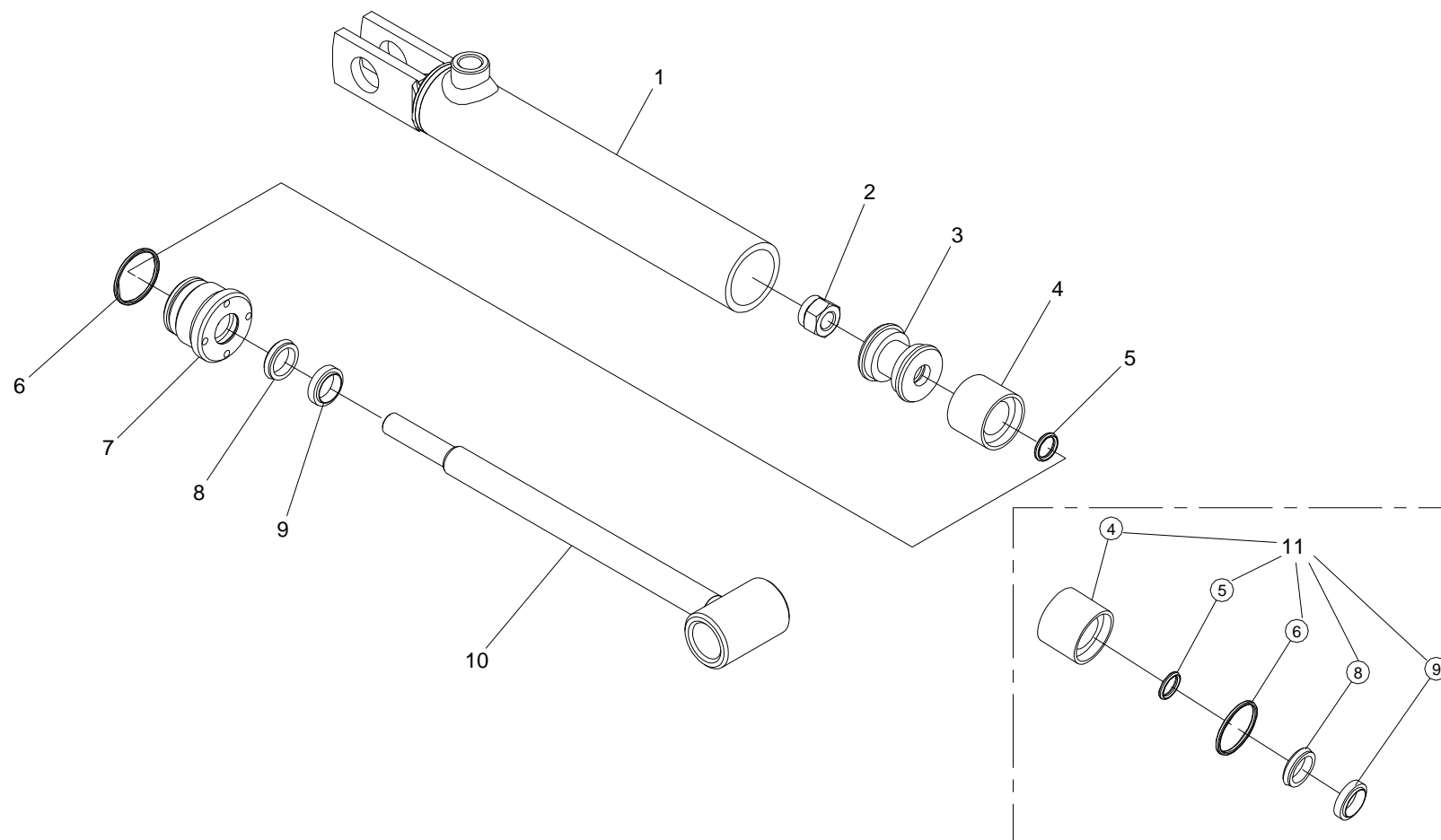


**Table 4 cod. 19010545 - EASY RAKE SUPER STAR 16-18-20**

| POS. | CODE     | DESCRIPTION               | DESCRIZIONE                  |
|------|----------|---------------------------|------------------------------|
| 1    | 18032664 | WHEEL SUPPORT             | Supporto ruota               |
| 2    | 3080117  | SPRING PIN 10X70          | Spina elastica 10x70         |
| 3    | 18032051 | BRAKING DISC              | Disco freno per ruota        |
| 4    | 12070440 | NYLON BUSH 505560         | Boccola Glycodur 50 55 60    |
| 5    | 3090101  | GREASE ZERK 8MB           | Ingrassatore diritto 8x1     |
| 6    | 12280007 | SPACER AS 5070            | Ralla 50 70                  |
| 7    | 3020201  | SELF LOCKING NUT 10MA     | Dado autoblocc. M10          |
| 8    | 3020219  | NUT 30MB                  | Dado ad intaglio M30x2       |
| 9    | 3040106  | ROLL PIN 6X60             | Coppiglia 6x60               |
| 10   | 18031001 | LOCK WASHER               | Piastrina                    |
| 11   | 12070421 | BUSH 38X78                | Boccola distanziale          |
| 12   | 10011308 | DUST COVER 30X62          | Anello di tenuta 35 72 2.5   |
| 13   | 3020218  | STUD BOLT NUT 16MB        | Dado autoblocc. M16          |
| 14   | 12150110 | HUB                       | Mozzo                        |
| 15   | 3011609  | STUD BOLT M16             | Vite godronata M16           |
| 16   | 12240144 | BEARING 30206             | Cuscinetto 30x62x17.25       |
| 17   | 12170108 | COMPLETE WHEEL 205/70 R15 | Ruota 205/70 R15             |
| 18   | 18031002 | FORK PIN                  | Perno fissaggio mozzo        |
| 19   | 18032665 | WHEEL FORK                | Forcella per ruota           |
| 20   | 3011281  | SCREW TE M10X45           | Vite T.E. M10x45             |
| 21   | 3011214  | SCREW TE M12X100          | Vite T.E. M12x100            |
| 22   | 18031128 | LOWER BRAKE PAD           | Pasticca inferiore per freno |
| 23   | 18031126 | UPPER BRAKE PAD           | Pasticca superiore per freno |
| 24   | 11010602 | BRAKE SPRING              | Molla a compressione         |
| 25   | 12880413 | WASHER D.40               | Rondella per molla           |
| 26   | 3020202  | SELF LOCKING NUT 12MA     | Dado autoblocc. M12          |
| 27   | 2050113  | COMPLETE HUB              | Mozzo completo               |
|      |          |                           |                              |
|      |          |                           |                              |
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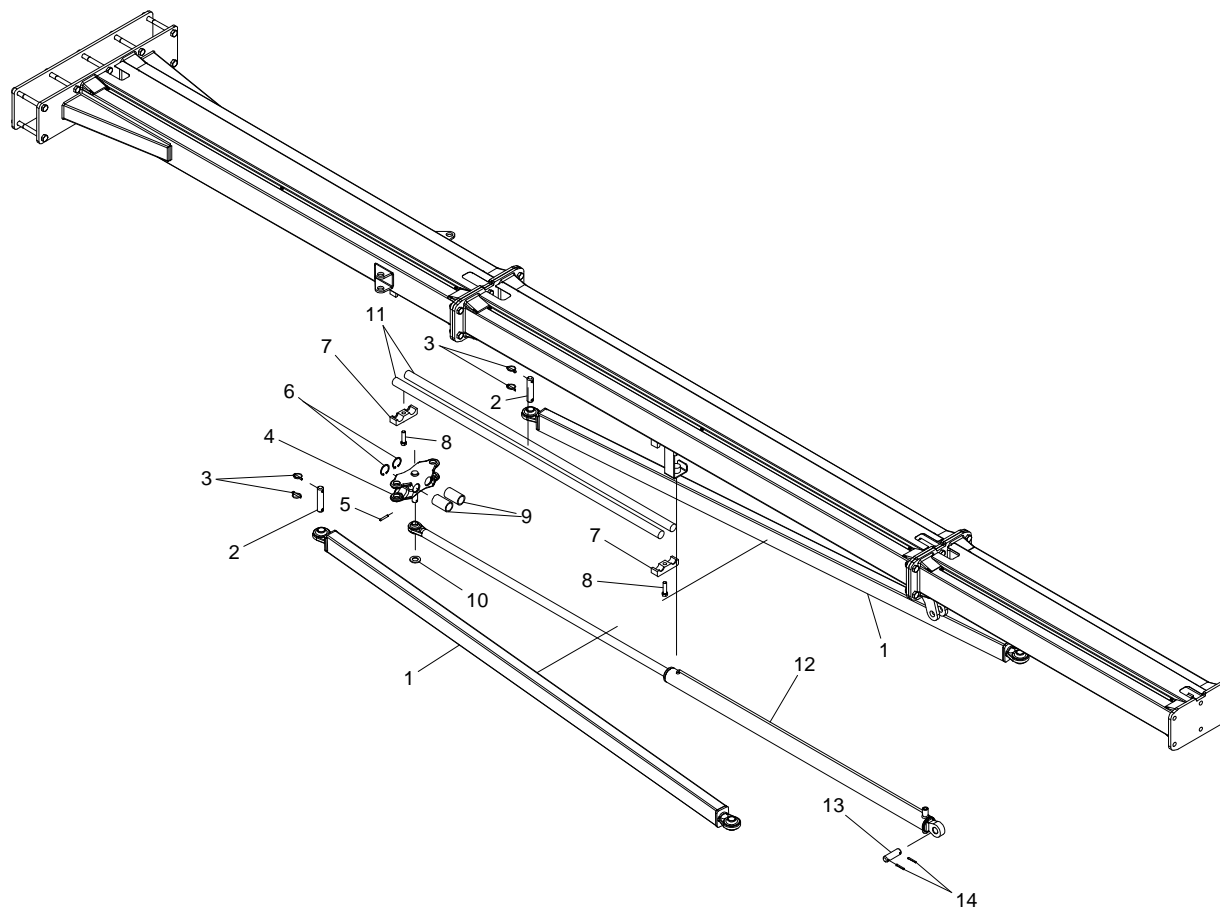
**Table 5 cod. 19010514 - EASY RAKE SUPER STAR 16-18-20**



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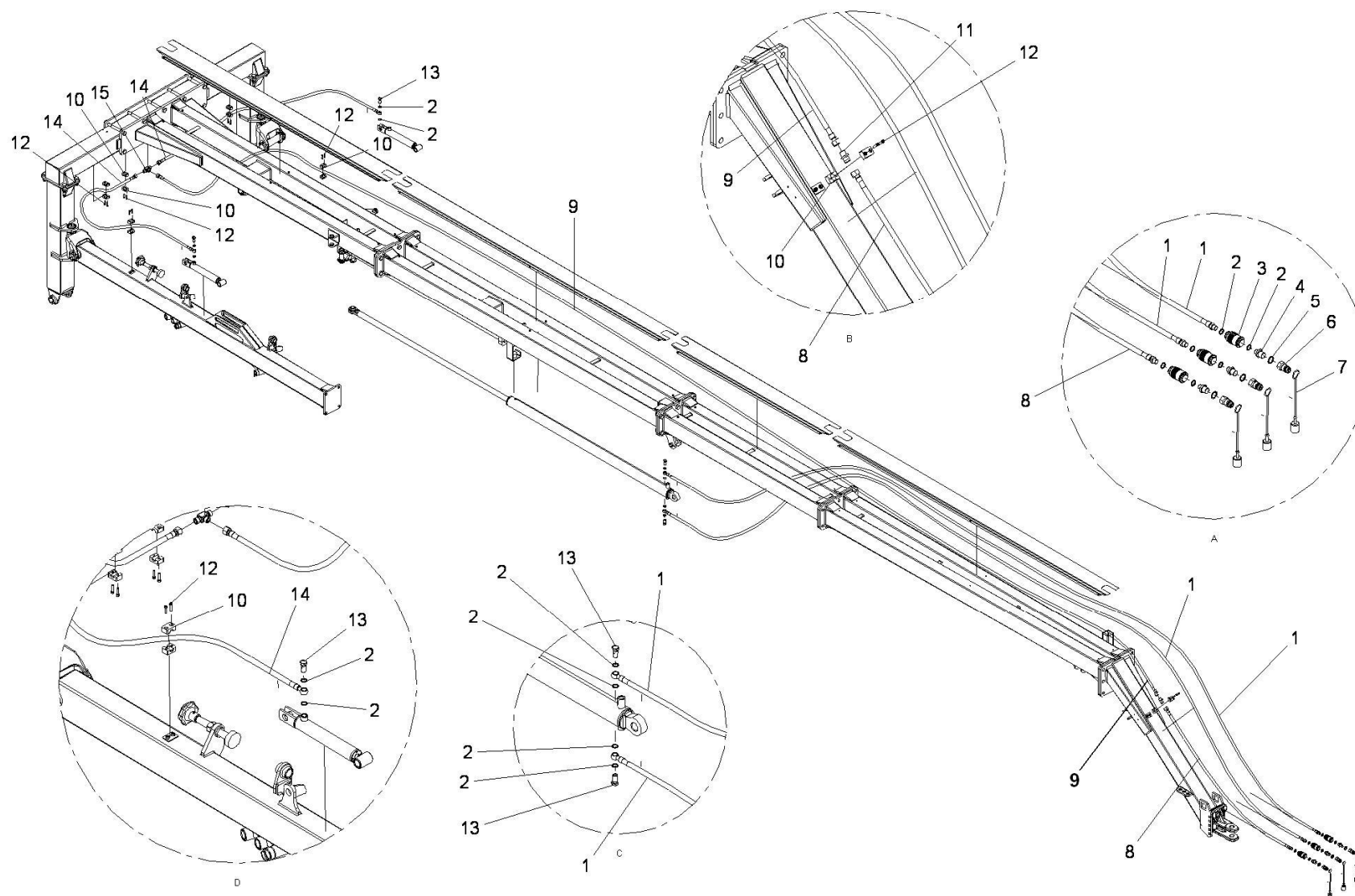
**Table 6 cod. 19010546 - EASY RAKE SUPER STAR 16-18-20**





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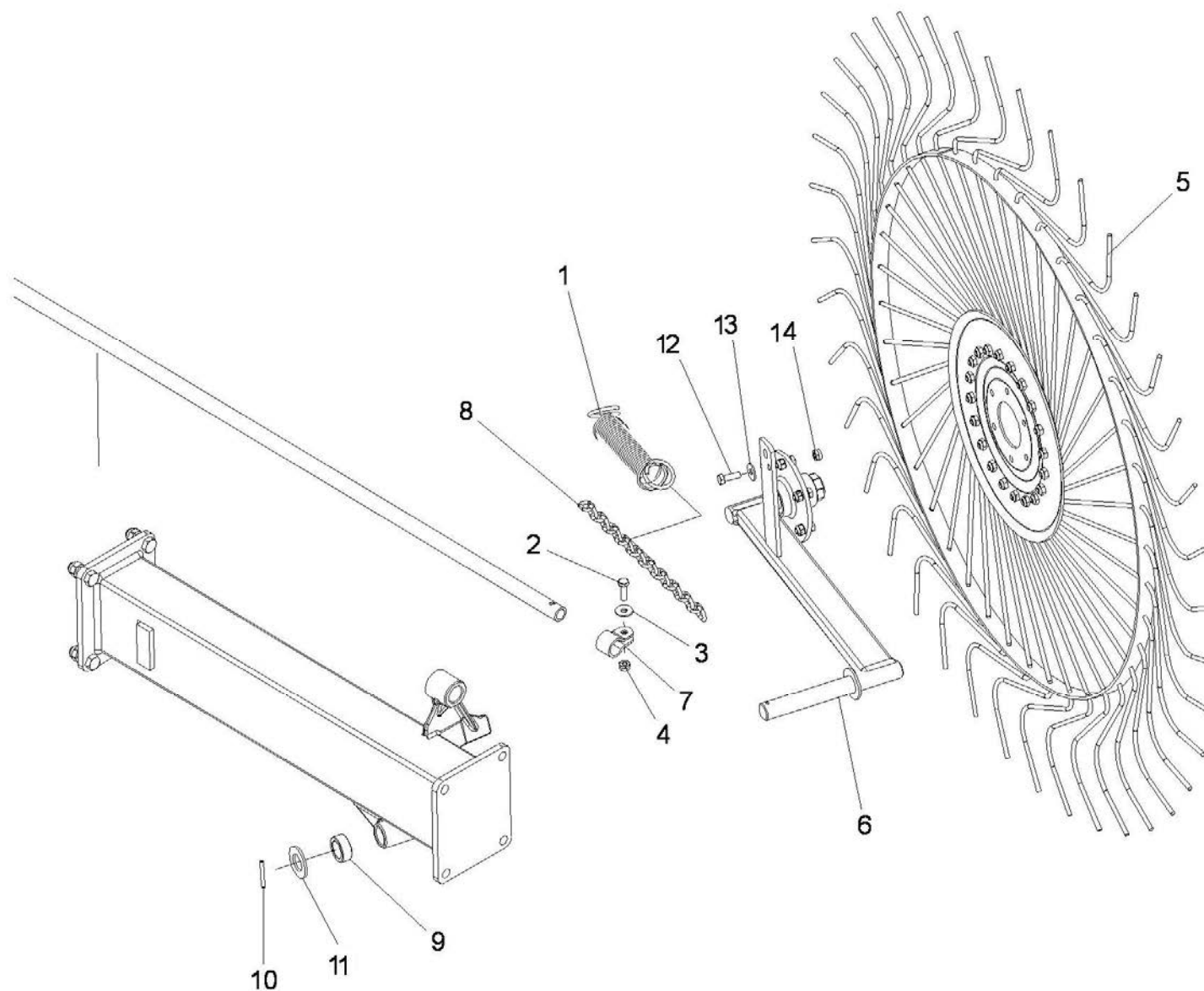
**Table 7 cod. 19010547 - EASY RAKE SUPER STAR 16-18-20**



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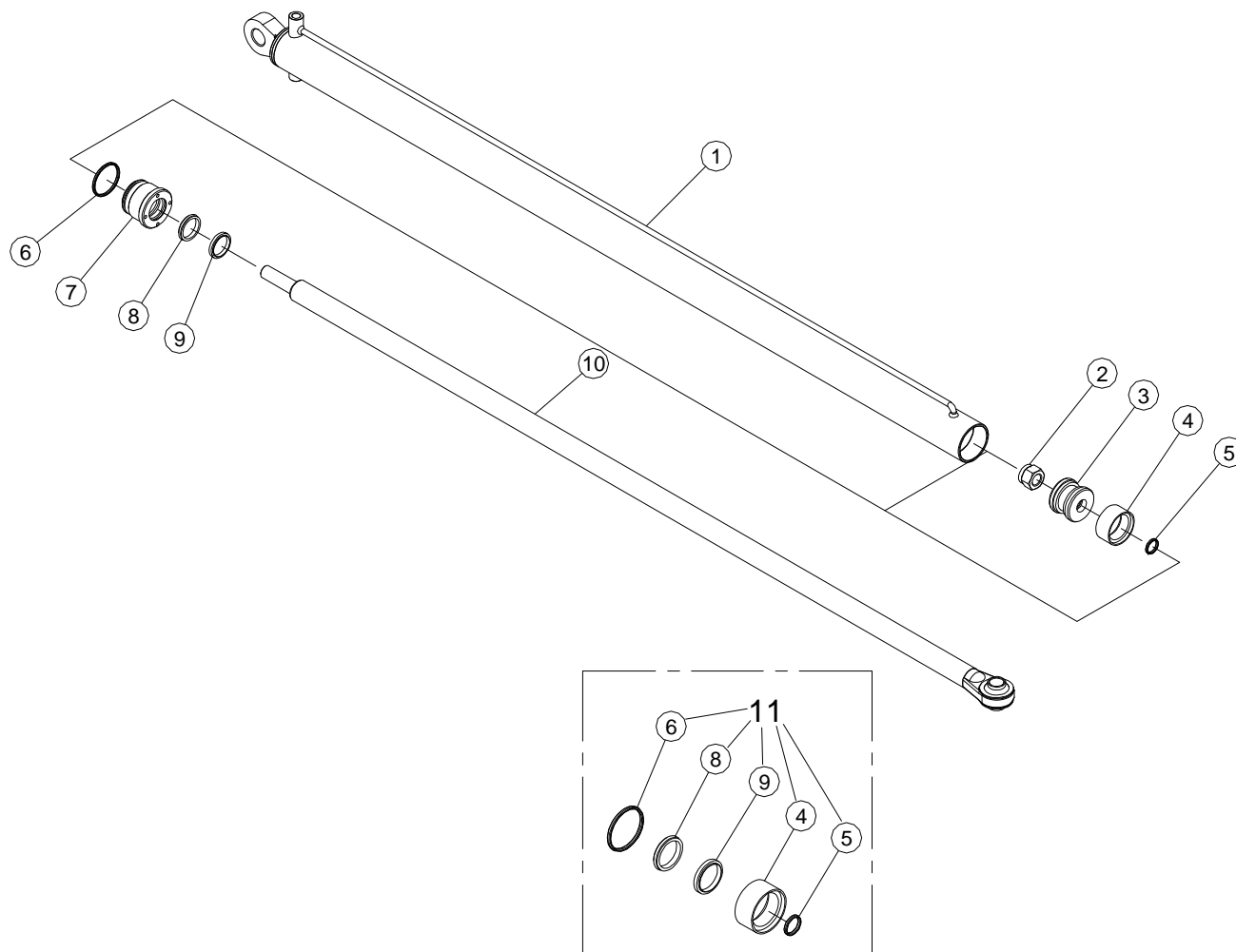


**Table 8 cod. 19010548 - EASY RAKE SUPER STAR 16-18-20**



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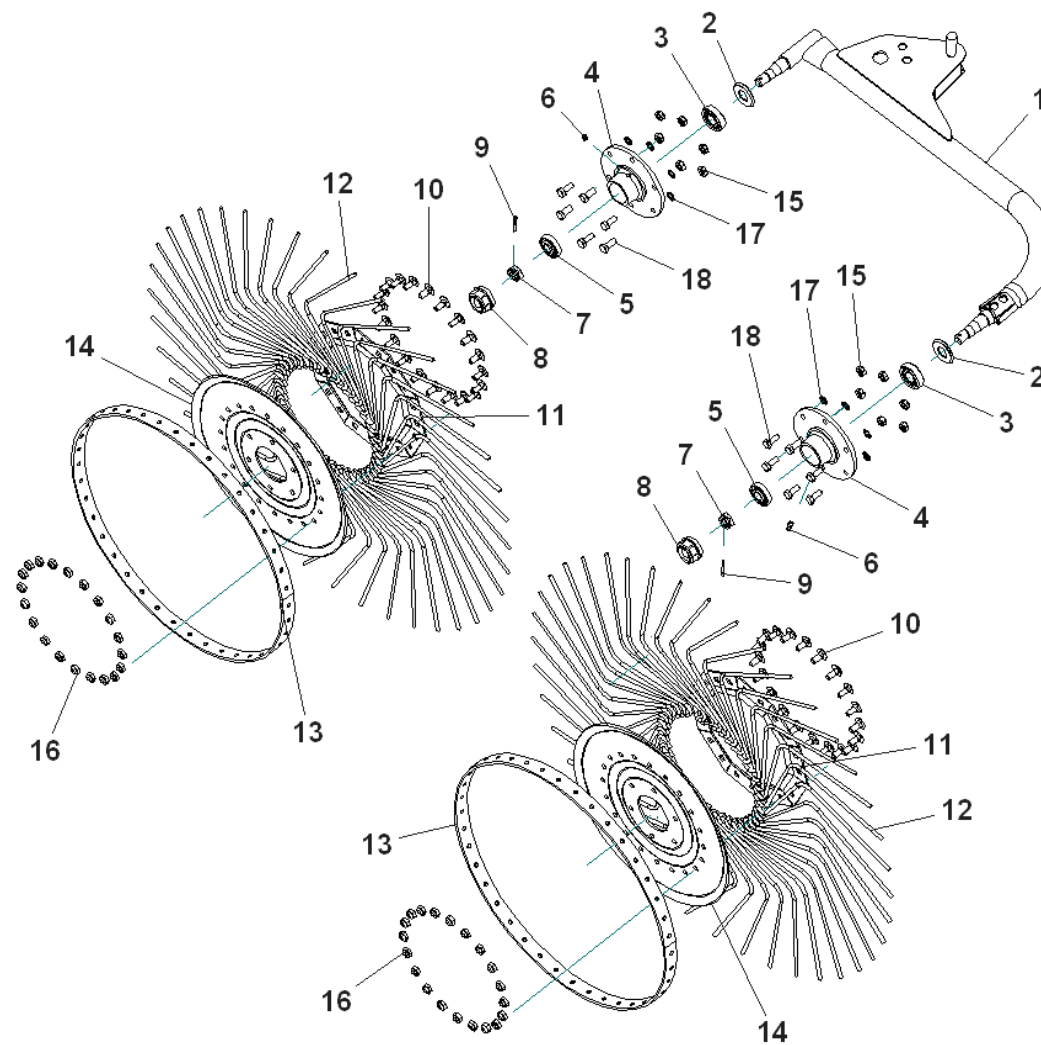
**Table 9 cod. 19010549 - EASY RAKE SUPER STAR 16-18-20**

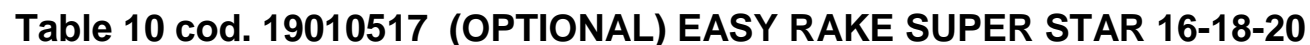


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**Table 10 cod. 19010517 (OPTIONAL) EASY RAKE SUPER STAR 16-18-20**



Rev. 0 04.10



## **ENOAGRICOLA ROSSI s.r.l.**

06010 Calzolaro di Umbertide Perugia Italia

Tel. (39) 075-930 22 22 - Telefax (39) 075-930 23 28

e-mail: [enorossi@enorossi.it](mailto:enorossi@enorossi.it) – [info@enorossi.it](mailto:info@enorossi.it)

web: <http://www.enorossi.it> - <http://www.enoagricolarossi.com>