



FANTUZZI  
REGGIANE

**MI-JACK**

**CONT *stacker***

# Operator & Maintenance Manual

**MJ 45 KL**

Created at



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## **OPERATOR'S RESPONSIBILITIES**

Safety must always be the first priority of the operator.

He must always refrain from operating the truck on detecting any condition which might jeopardise safety, inform his superior and take suitable action to remove the cause of the condition.

He must know how to consult the load capacities chart and, before attempting to lift each load, he must be certain that the truck can lift it safely.

He must be alert, physically fit and must not be under the influence of alcohol, drugs or medication which could affect his eyesight, hearing or reflexes.

When visibility does not allow optimum control of the operations, or when working in hazardous areas (presence of electric lines, pipes, people, etc.), the operator must deploy a signaller.

The operator must only follow the signals given by the designated signaller.

The operator must, however, at all times obey any signal to stop given by anyone working on the site.

## **WARRANTY**

Fantuzzi-Reggiane S.p.A. guarantees the machine against defects, as well as the materials supplied and their putting into service and calibration in accordance with the time schedule and methods agreed at the time of purchase.

The warranty does not cover damage sustained as a result of accidental breakage, tampering, negligence and carelessness on the part of the User, or unauthorised modifications to the machine or any operations prohibited by this manual.

## **AFTER-SALES SERVICE**

The User is required to inform Fantuzzi-Reggiane S.p.A. and receive approval prior to replacing any parts or carrying out any modifications.

We recommend that only original replacement parts are used.

Fantuzzi-Reggiane S.p.A. is always available for assistance, routine or major servicing, advice on maintenance of the truck and for clarification of any of the information contained in or omitted from this manual.

**TECHNICAL SPECIFICATIONS CS 42 - 45 KM**

1		Manufacturer		FANTUZZI			
2		Model		TYPE	CS 42 Km	CS 45 Km	
3		Weight empty		Kg.	70000	72000	
4		Propulsion		Electrical, Diesel, Petrol, Gas	Diesel		
5		Tyres		V=Solid tyre - L=Tyres	F/R	L/L	
6		Wheels (x=drive)		Number	F/R	4/2	
7		Materials		Arm	Weldox 700 Fe 510 D (Fe 52) Weldox 700 / Fe 510 D		
				Chassis			
				Spreader			
8		Noise		Outside / In cab	dB (A)		
9		Performance		Speed empty / loaded	km/h		
10		Spreader		Telescopic type 20' - 40'		SRP 45	
				Rotation		degrees	-95° / +185°
				Side shift		mm.	-800 / +800
				Lateral oscillation		degrees	+ / - 3°
11		Steering		Hydraulic - Servo-assisted			
		Drive axle		With epicyclic reduction gears			
12		Tyres		Number front /rear		4/2	
				Size on front		18.00 - 25	18.00 - 25
				Size on rear		18.00 - 25	18.00 - 25
				Inflation pressure		bar	10
13		Service brakes		Front	Disc oil bath		
				Rear	Optional		
		Parking brake		Mechanical release			
14		Battery		Voltage / capacity	V/Ah	24 / 200	
15		Motor		See Motor Table			
16		Transmission		Hydrodynamic with torque converter			
17		Clutch		Power-Shift		Power-Shift	
18		Gear selector		Forward / Reverse	No.	4 / 4	
19		Hydraulic cooling system		Yes		Yes	
20		Controls		servo-assisted			
21		Tank capacity		Hydraulic fluid		litres	
				Fuel		850	
						500	

1932/E

## **SECTION 2 • GENERAL SAFETY**

### **GENERAL INFORMATION**

SMT.0016.E00

Your safety and the safety of others in the work area of the machine is a direct result of your correct operation of this machine.

Know the location, positions and functions of all the controls. Make sure you check all controls in a safe, clear area before you work the machine.

Read this manual completely and make sure you understand the contents. Make sure you understand, for example, the characteristics of speed, stability, brakes, steering, etc., of this machine.

If you have any questions, contact Service Assistance department FANTUZZI-REGGIANE Spa.

Always keep this manual with your machine. It is recommended that you make copies of the safety guidelines in this manual and put these copies in the work area.

If this manual is lost or the signs on the machine deteriorate the operator should ask for a replacement from the manufacturer. FANTUZZI-REGGIANE Spa will not be held responsible for any damage caused due to any delays in requesting a substitute copy.

SMT.0016.E00

### **LOCAL LAWS**

SMT.0017.E00

The safety information in this manual does not replace any other rules or laws for safety that are used in your area. Know the local rules or laws for safety. Make sure that your machine has the correct equipment to operate according to these rules or laws.

SMT.0017.E00

### **USING COMMON SENSE**

SMT.0018.E00

All safety hazards that can possibly arise cannot be foreseen and noted in this manual. You must always use common sense and apply the general as well as the specific safety precautions.

SMT.0018.E00

## SECTION 3 • GROUNDCREW SAFETY GUIDELINES

### COMMUNICATION BETWEEN OPERATOR AND GROUNDCREW

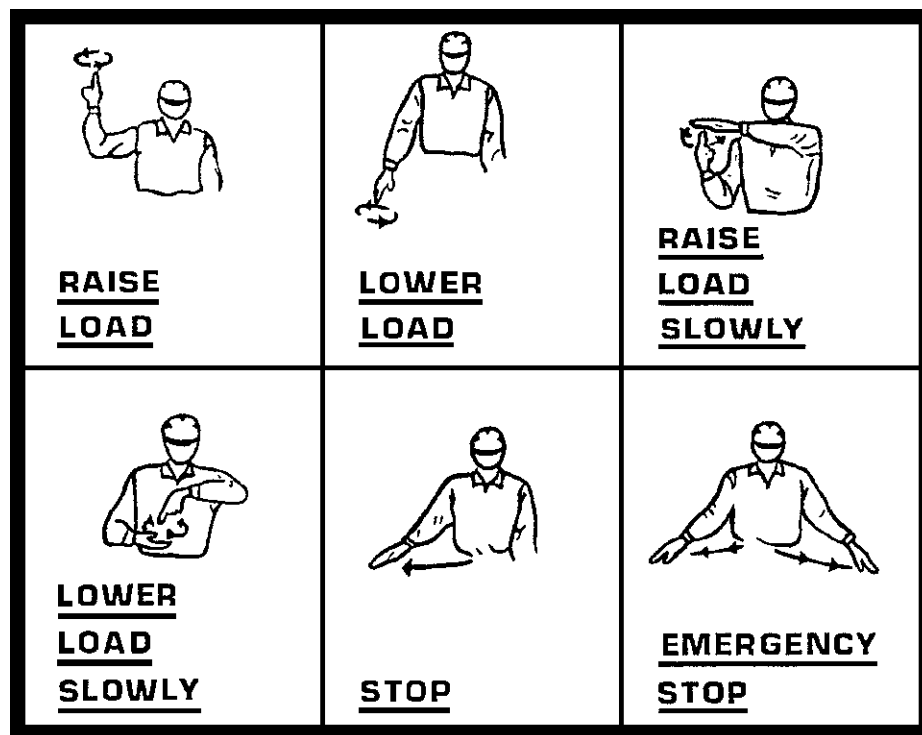
SMT.0048.E00

All directional references are given as viewed from the operator's seated position.

If ground persons are used in conjunction with the operation of this machine, clear and precise communication between the operator and the groundcrew is a must for safe and proficient machine operation.

The following signals are normally used with machine operation. The operator and groundcrew should review them together prior to operating to ensure accurate communication and to establish an "ALL CLEAR FOR MOVING THE MACHINE" signal.

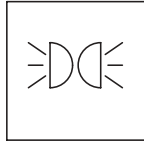
SMT.0048.E00



1020

## INSTRUMENTS (Indicator lights)

### Side light indicator

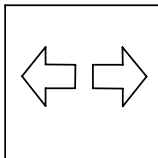


1523

**Function:**

Indicates that the headlights are on. SMT.0082.E01

### Direction indicators working indicator

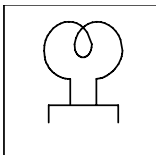


1522

**Function:**

Indicates that one of the turn indicators is on. SMT.0089.E01

### Glow plug preheating indicator



1520

**Use:**

Preheat the glow plugs before starting the motor, for not longer than 5 secs.

SMT.0088.E01

### Stabiliser-outriggers raised indicator



1379

**Function:**

Indicates the stabilisers-outriggers are raised.

SMT.0285.E01

### Stabilisers-outriggers lowered indicator



1378

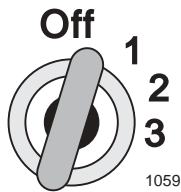
**Function:**

Indicates the stabilisers-outriggers are lowered.

SMT.0286.E01

## KEYS

### Ignition key



**Function:**

Start the machine motor.

**How to use:**

OFF - All circuits off, the key can be taken out.

- 1- Controls and instruments on.
- 2- Motor glow-plug pre-heating (leave in this position for at most 5 seconds.).
- 3- Start motor (automatic return to pos. 1).

**Note:**

If the motor fails to start at first try, repeat the procedure.

SMT.0552.E00

### Auxiliary emergency pump ignition key (optional)

Use in case of fault in diesel engine or hydraulic system. By turning this key to the right, the emergency pump is started, making possible arm, stabiliser and moving cab movements. Do not leave on longer than necessary so as not to discharge the batteries.

SMT.0529.E00

### Gear change mode selection key

**Function:**

For selecting either manual or automatic gear change.

**Use:**

To switch from automatic to manual gear change, turn the key to the right while the machine is at a halt, with gear lever in "neutral" position

SMT.0309.E01

### Key for opening/closing spreader with twistlocks secured (optional)

**Note on operation:**

This key has been fitted for the sole purpose of using equipment that requires switch of spreader opening mode from automatic to manual, whatever the condition of the twistlocks.

During container handling, this key must be turned to the left to prevent damage to the hydraulic circuit.

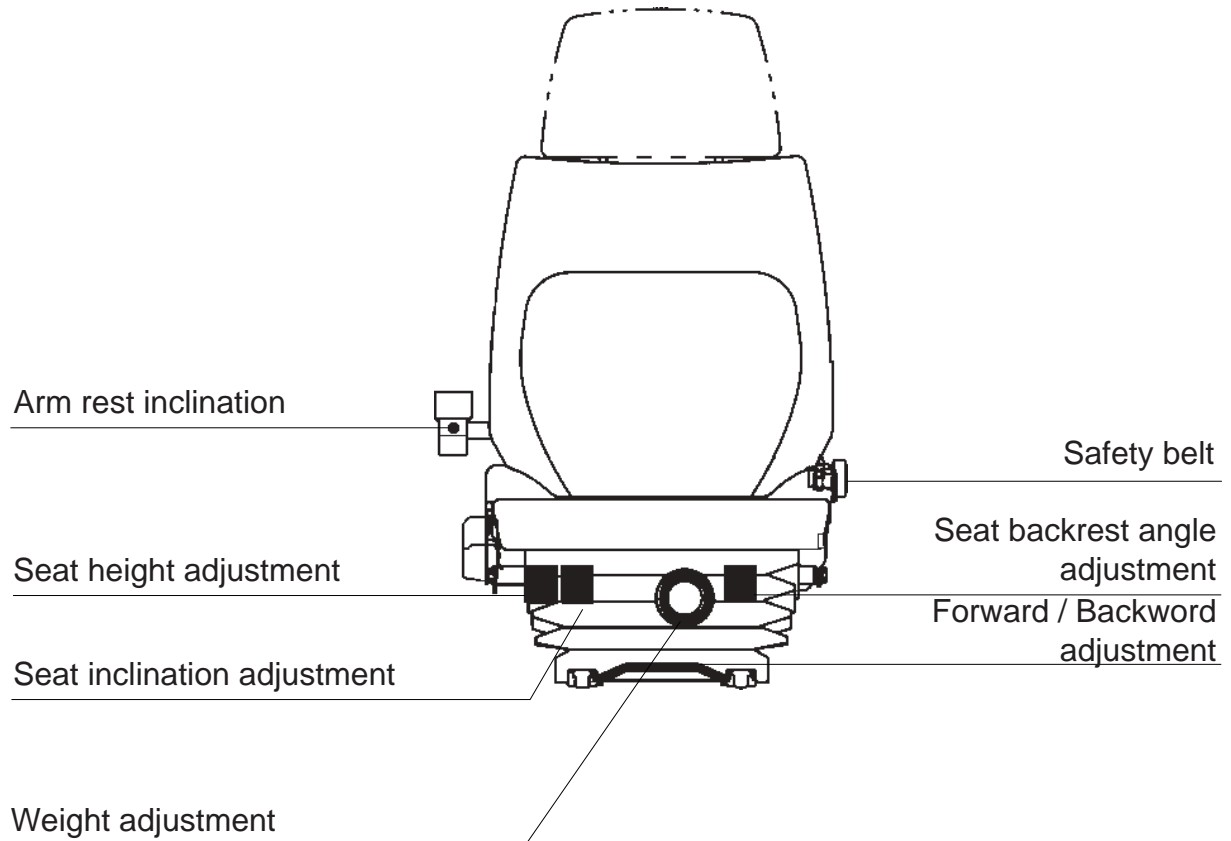
**Operation:**

By turning the key to the right, approval is given to change the spreader opening even with the twistlocks secured, also obtaining, by means of the specific spreader opening-closing button, the selection of a width between 20' and 40'.

With the key turned to the left, change in spreader opening is only allowed with the twistlocks released in 20' or 40' selection.

SMT.0562.E00

## SEAT ADJUSTMENTS



### 1. Adjusting seat height

Turn the knob anticlockwise to lift the seat.  
Turn the knob clockwise to lower the seat.

### 2. Adjusting the seat dampers

Push the lever to the right to increase damper resistance.  
Push the lever to the left to reduce damper resistance.

### 3. Distance of seat from control panel

Lift the metal bar and slide the seat.

### 4. Inclining the seat back

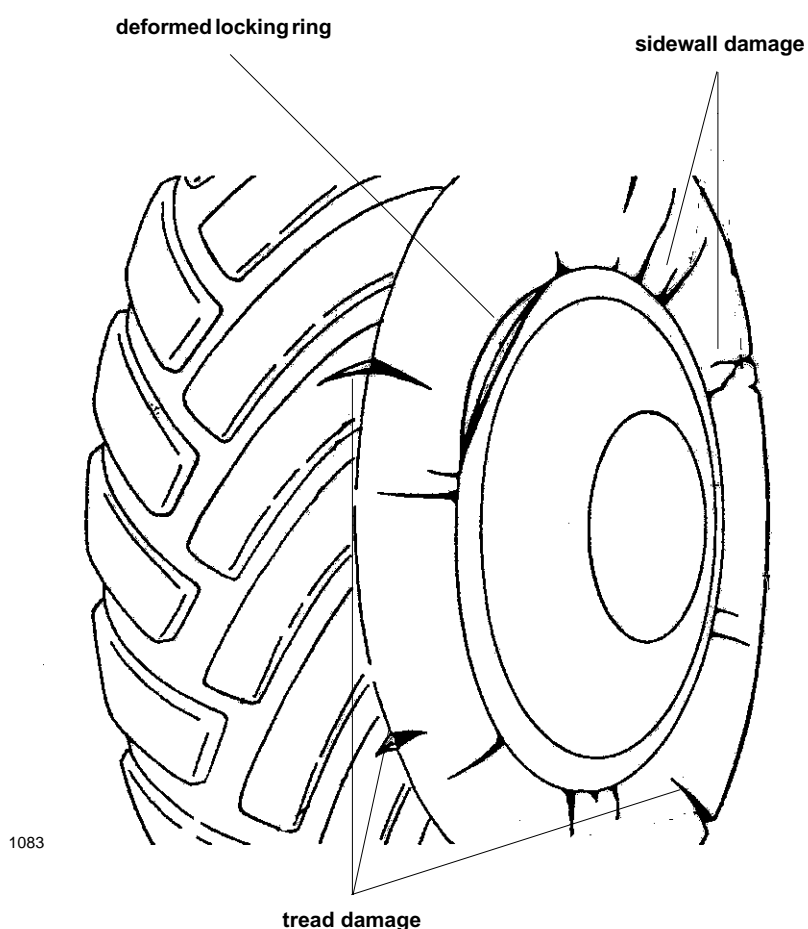
Lift the lever and regulate the back position as required.

SMT.0254.E01

## Tyres

Carry out a sight check of the pressure, the tread and the sides of the tyres. In case of faults, the tyre will have to be carefully inspected by maintenance personnel before being used. Also make sure that the rim and hub cap are not deformed.

SMT.0136.E01



### WARNING

**A dislodged locking ring or exploding tire can be deadly to anyone close to the tire or in the path of the dislodged, flying ring. Only properly trained persons are to service the tires.**

SMT.0137.E00

## MACHINE HEATING UP PROCEDURE

If the machine motor has been shut off or has cooled down, this will have to be heated up gradually so the coolant and the motor and transmission oil are brought to operating temperature.

Recommended operating temperature:

Diesel engine coolant: 60 – 70 °C

Transmission oil: 80 – 90 °C

SMT.0157.E01

## Container stacking procedure

**NOTE:** Drive carefully when transporting loads. Avoid sudden braking and changes of direction

1. Move slowly up to the container on which to place the load.
2. Lift the load above the container which will act as a support
3. Centre the load above the container.
4. Rest the load on the container. Wait for the red light to come on to check whether the load is well supported and then proceed with the next operation. Otherwise, lift the spreader and repeat the operation.
5. Release the twistlocks. Wait for the green light to come on to check whether all the twistlocks have been actually released. Otherwise, hook the twistlocks back on, lift the spreader and repeat the previous operation.
6. Slowly lift the spreader until the twistlocks have completely come out of the corner housings.
7. Back the truck up slowly
8. Lower the spreader, being careful not to collide with obstacles.

SMT.0630.E00



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# Maintenance Manual

**MJ 45 KL**

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## **1.4 SYSTEM MAINTENANCE**

### **Introduction**

This paragraph shows some of the basic concepts for servicing the systems. It is best to read the following information carefully before referring to the single chapters of the manual.

According to the DIN 31051 standard, the concept of “maintenance” includes the following fields of activity:

### **Preventive maintenance**

Preventive maintenance comprises all those jobs keyed to maintaining the desired condition, meaning the reduction during working life of the so-called wear reserve.

### **Inspection**

Inspection comprises jobs aimed at recognising actual condition, meaning the identification of the reasons and procedures whereby the wear reserve is reduced.

### **Restoration**

Restoration comprises jobs keyed to obtaining the desired condition, meaning offsetting the reduction in performance and restoring the wear reserve.

### **Programming maintenance**

Maintenance work must be scheduled and performed according to the importance of system functions, the required operating pace (which can go from intermittent service to continuous use over several shifts), the entity of the consequences of a possible fault (from the single system with secondary duties up to the system forming part of a process line, where a fault in a single component can cause stoppage of the entire line) and finally, according to the desired degree of reliability. During the first hours of machine operation, it is especially important to schedule a complete control of all the machine parts. Such inspections will then be performed according to the maintenance table schedule.

### **Hydraulic systems**

In hydraulic systems, the reduction of wear reserve can take the following shapes:

- increase of play between cursors and relevant housings
- wear of dynamic seals
- erosion of control edges
- bearing fatigue
- increase of play between bearings and shafts
- cavitation damage on pumps and valves
- chemical alterations to fluid.

## 2.1 HOW TO REFER TO THE MAINTENANCE INSTRUCTIONS

The maintenance tables consist of a list of checks to be made for routine machine maintenance. In the first column on the left, called points to be checked, the number and title appears of the chapter concerning the part of the machine to be checked. The second column shows the type of job to be done. The third column provides an approximate reference to job frequency in work hours. If the machine is not used on a regular basis, the work hours shown on the table are reached over a long period of time. To avoid problems due to ageing of materials, a maximum period of time should be considered, after which the indicated job should be performed. The indication "(1)" on the table means the job must be done at least once a year. The indication "(2)" means the job must be done by skilled staff.

Please remember that "standard" preventive routine maintenance schedules are:

- \_ 250h
- \_ 500h
- \_ 1500h
- \_ 3000h

For preventive special maintenance, these are (approx.):

- \_ 6000h
- \_ 12000h
- \_ 24000h.

Such schedules can be changed depending on the type of machine and on how hard the environmental and operating conditions are.

SMT.0495.E01

<b>FILLING TABLE CS 45 KL - CS 45 KS - RS 50 - RS 55</b>			
<b>USE</b>	<b>QUANTITY</b>	<b>NAME</b>	<b>QUALITY</b>
ENGINE	See Engine Manual	ESSO LUBE XT 301 (diesel engine)  UNIFLO (gasoline engine)	SAE 15W - 40 API CG - 4/SG  15W - 40
TRANSMISSION	Clark 36000 48 Lt. 12.68 US Gal. 10.57 UK Gal.	Range "1" (0° ÷+ 60° )	
		ESSO LUBE XD-3+	C4 GRADE 30 C3 GRADE 30 MIL-L-2104C Grade 30
	Clark 40000 50 Lt. 13.20 US Gal. 11.00 UK Gal.	Range "2" (-25° ÷+ 60° )	
		ESSO ATF FLUID-D	C4 GRADE 10 C3 - GRADE 10 MIL-L-2104C GRADE 10 MIL-L-2104D GRADE 10
Caterpillar 960/970 59 Lt. 15.59 US Gal. 13.00 UK Gal.	ESSO TORQUE FLUID 30	TO-2 US MILITARY MIL-L-21	
DIFFERENTIAL HUBS	100 Lt. 26.42 US Gal. 22.03 UK Gal.	ESSO GEAR OIL LSA 90  ESSO GEAR OIL GX 85W - 140 (Range > 0° )	SAE 90 API GL - 5 MIL - L - 2105 D  SAE 85W - 140 API GL - 5 MIL - L - 2105 D
HYDRAULIC SYSTEM	950 Lt. 251.00 US Gal. 209.25 UK Gal.	ESSO TORQUE FLUID 56 (temperate climates)	SAE 80W API GL - 4
		ESSO TORQUE FLUID 62 (hot climates)	SAE 80W API GL - 4
		ESSO INVAROL EP 32 (cold climates)	SAE 75W API GL - 4
SEPARATE BRAKES COOLING OIL CIRCUIT (If Present)	60 Lt. 15.85 US Gal. 13.22 UK Gal.	ESSO TORQUE FLUID 56 (temperate climates)  ESSO TORQUE FLUID 62 (hot climates)	SAE 80W API GL - 4
SPREADER REDUCTION OIL MOTOR UNIT	2.5 Lt. 0.66 US Gal. 0.55 UK Gal.	ESSO ATF FLUID-D	C4 GRADE 10 C3 - GRADE 10 MIL-L-2104C GRADE 10 MIL-L-2104D GRADE 10
FUEL	580 Lt. 153.24 US Gal. 127.75 UK Gal.	DIESEL FUEL (See Engine Manual)	DIESEL FUEL FILTERED (See Engine Manual)
BEARINGS	As Required	ESSO BEACON EP2	ISO DIN 51 825 (3) KP 2K ISO 3498 XM 2
ANTI-FREEZE	Supplied with 40% of anti-freeze	ESSO ANTIFREEZE PERMANENT	20% (fino a - 9° ) 30% (fino a - 17° ) 40% (fino a - 26° ) 50% (fino a - 38° ) 55% (fino a - 46° )

## 5.1 TRANSMISSION

### Function

The transmission and torque converter, together with the diesel engine, transmit movement, through the cardan shaft, to the differential axle.

### Safety precautions



Before starting inspection, make sure the diesel engine is off, the power switch is disengaged and the machine is stable and braked.

The level of the transmission oil must be checked at a temperature of 82 - 85 °C, with motor running at low revs.

Allow the transmission to cool before performing any maintenance jobs

### Service

Check the oil level: Perform a daily check to ensure the level is on FULL.

Changing the oil filter: every 500 hours.

Changing the oil: every 1500 hours.

Make reference to the specific transmission manual for further details on maintenance and troubleshooting.

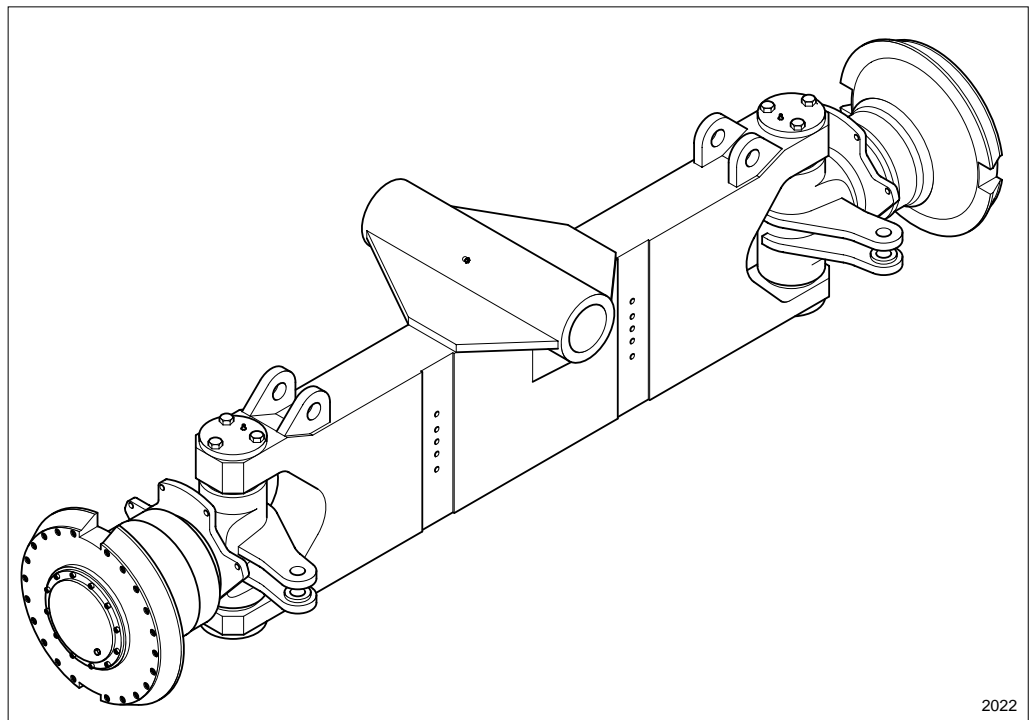
SMT.0481.E01

## 7.1 STEERING AXLE

### Function

The steering system is servo-assisted by power-steering linked to an hydraulic cylinder on the axle itself. Cylinder movement is transmitted to two connecting rods fitted on the hubs.

The axle can feature stabiliser cylinders and brake discs on the wheel hubs (optional).



### Safety precautions

Before starting the inspection: make sure the diesel engine is off, the power disconnecting switch is disengaged and the machine is stable and braked.

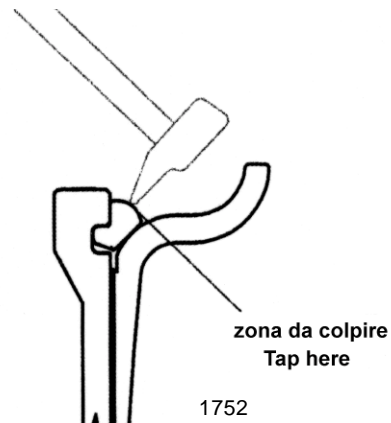
Lifting: if the machine is lifted by means of special hydraulic jacks in order to perform maintenance operations, place wedges under the wheels of the front axle and further supports under the machine support points.

Before beginning work: (including removal of wheels) completely deflate the tyres. Never stand directly in front of the tyre when deflating or inflating.

### Fifth Stage

Using a hammer, tap the snap ring to seat it correctly. Check that it is tight against the wheel (see drawing), then proceed with the final inflation.

SMT.0344.E00

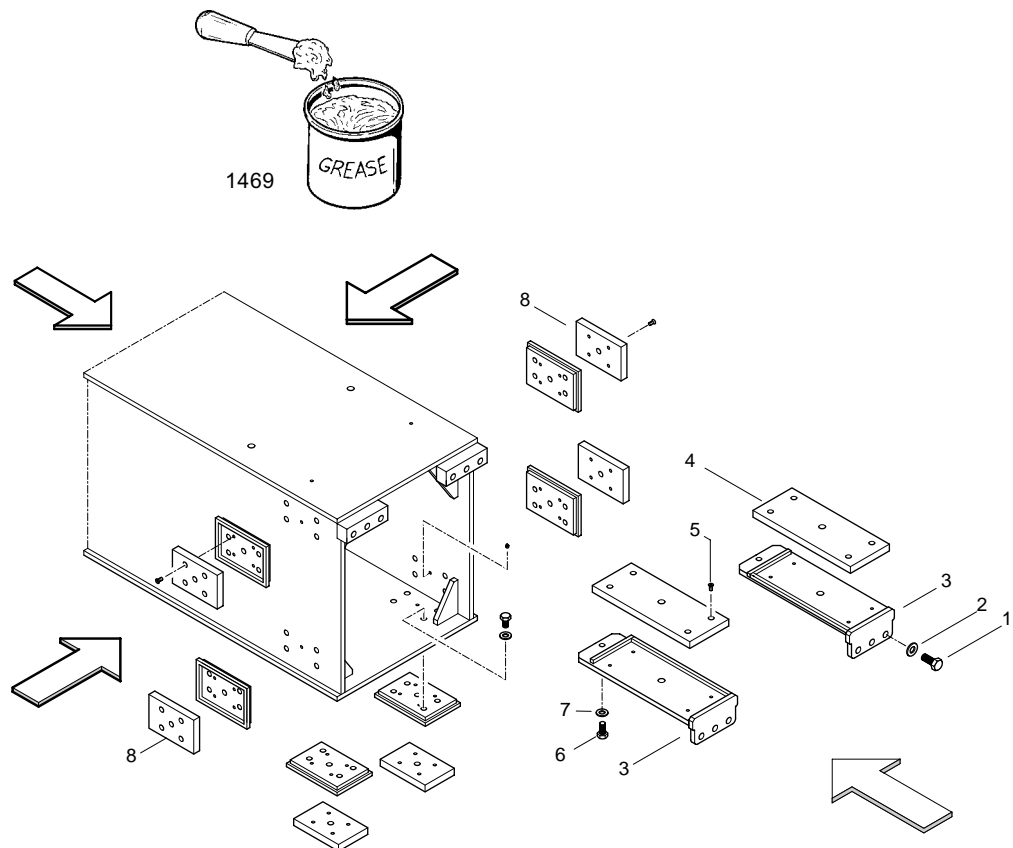


Replacing the moving arm sliding blocks: replace every 1500 work hours, proceeding as follows:

- Rest the arm with spreader on a container, without raising the load.
- Loosen the screws (1) and (6), removing the sliding block support (3).
- Loosen the locknuts (5) and remove the worn sliding blocks.
- Before fitting the new sliding block, make sure there is no dirt in the housing that could impair the perfect alignment of the sliding block itself.
- Correctly position the sliding block and tighten the screws (5).
- The wear on side sliding blocks (8) is less than that of the upper and lower sliding blocks. It is nonetheless best to replace these.

After replacement, grease the sliding blocks as previously described, pull out the arm and apply a slight film of grease on the surfaces indicated in the illustration below.

SMT.0497.E00



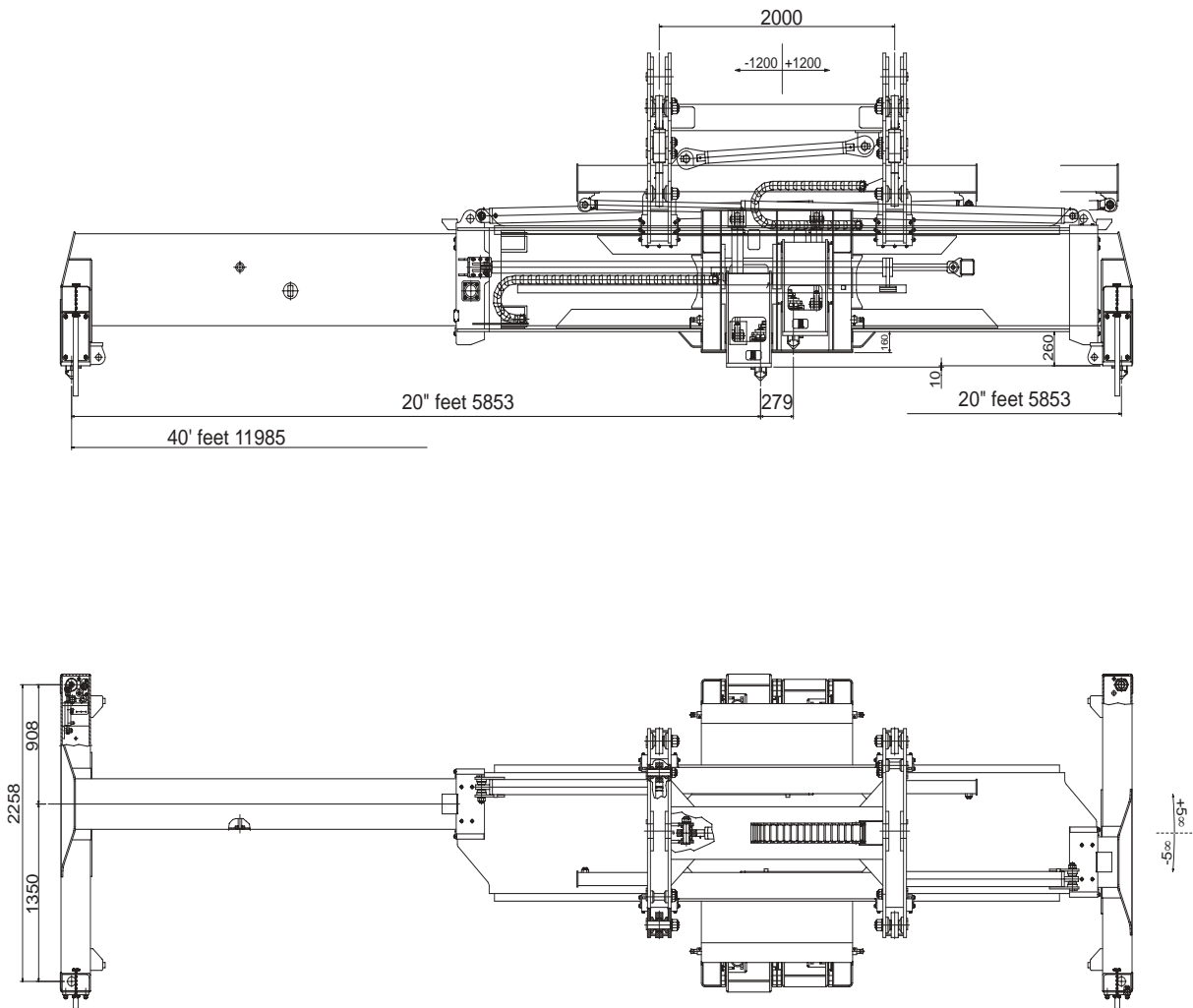
1883

## 10.2 TECHNICAL SPECIFICATIONS SRP2-55TL

**Spreader Type:**

FANTUZZI SRP2-55TL  
compatible with container  
ISO 20' – 40'

**Dimensions**



2404

Testing the fluid: The hydraulic fluid is best tested periodically by specialised laboratories. Chemical tests will show any faults as regards fluid wear and consequent possible malfunctions of the hydraulic system.

A sight check alone will give a rough idea as it will show whether the fluid is more or less clear, any change in colour compared to the new fluid and whether there are any deposits on the bottom of the sump.

Air filter: Check the air filters on the sump and replace the cartridges when these are blocked.

Fluid filters: The re-flow fluid filters on the top part of the sump feature an electrical blockage indicator. The blocked filter sign appears on the monitor in the operator's cab. If the filters are blocked, replace the filter cartridges. In any case, even if the filters do not feature an indicator, the cartridges will have to be replaced fairly often to prevent the by-pass valves openings or the destruction of the blocked cartridges.

SMT.0474.E00

## 12.3 ELECTRICAL CONTROLS

### Function

The efficiency of the electrical controls, such as the control keyboard, joysticks and joystick switches, is crucial for machine operation.

### Safety precautions



Before starting inspection, it is best to make sure no one can start up the machine, unless an express request is made in this sense.

### Service

Efficiency check: The functional check of the electrical controls and relevant indicators must be done daily by the operator. Any malfunctions must be immediately notified to the maintenance personnel.

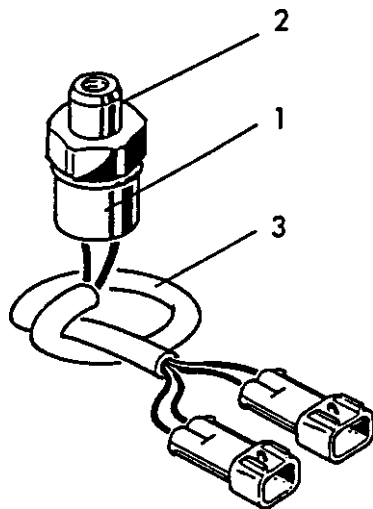
Fastening check: Check the integrity and fastening of the controls and relevant connections: cables, connectors, terminals.

Checking and cleaning: Check and clean switches and electric boards.

SMT.0484.E00

### 13.9 PRESSURE SWITCH TRINARY

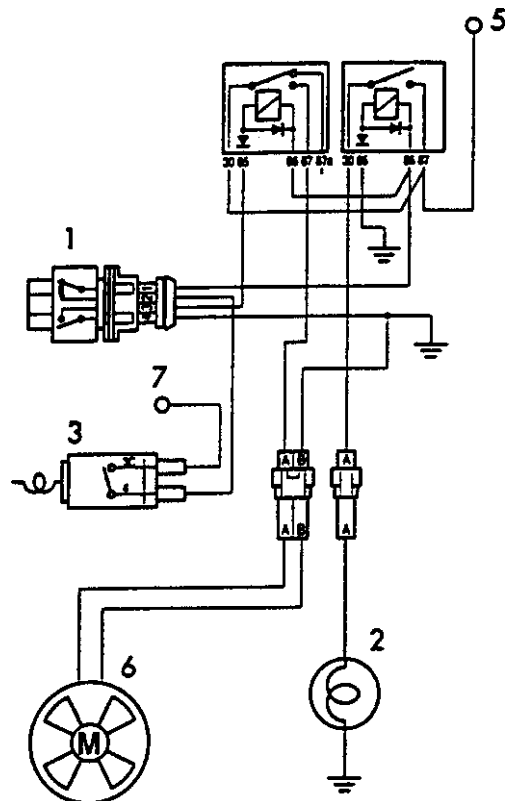
Refer to this electrical schematics to see how the pressure switch "TRINARY" is linked to the electrical system. SMT.0190.E00



1451

- 1 - Body
- 2 - Joint
- 3 - Wiring

SMT.0513.E00



1452

- 1 - Pressure switch "Trinary"
- 2 - Electromagnetic clutch
- 3 - Thermostat
- 4 - Relays
- 5 - Battery
- 6 - Condenser fan
- 7 - From A/C button

SMT.0514.E00

## 15.1 TROUBLESHOOTING

### FUNCTION

The troubleshooting procedure is a guide for the most common cases of machine malfunction.

To reduce machine stoppages to a minimum, the nature and location of the fault must be determined as quickly as possible. In many cases, mechanical faults can be determined visually .



### SAFETY PRECAUTIONS

Warning notices: always read and follow the general safety regulations shown in this manual and the warning notices on the machine itself.

Protections: persons charged with inspecting, servicing and repairing the machine must wear protective clothing, accident-prevention footwear, eyewear, gloves and a helmet. Before proceeding, it is also necessary to inform the operators, by means of special warning notices, that the machine is not operative as it is undergoing maintenance.








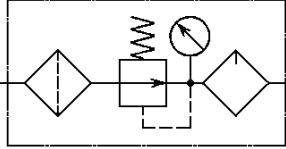


Hydraulic pipes: before disconnecting the hydraulic pipes, lower the spreader so the hydraulic circuit no longer has to bear any weight.

SMT.0425.E00

PROBLEM	PROBABLE FAULT	REMEDY
<p>Pump without pressure. 6</p> <p>SMT.0003D.E00</p>	<p>Pump blocked. 6</p> <p>Pump speed too low. 6</p> <p>Oil offtake to tank. 6</p> <p>Faulty pressure gauge or pressure gauge duct closed. 6</p> <p>SMT.0003C.E00</p>	<p>Remove the pump and check whether there is any trapped dirt or over-viscous oil. 6</p> <p>Check minimum speed. 6</p> <p>Check the pressure in the circuit. Check the open-centre valves or other valves that drain into the tank. 6</p> <p>Remedy; eliminate the impurities blocking the pressure gauge outlet. 6</p> <p>SMT.0003R.E00</p>



<p>variatore variable speed drive unit variateur Hydrokompaktgetriebe</p>			
<p>cilindri cylinders vérins Zylinder</p>		DETAILED	SIMPLIFIED
<p>cilindro a semplice effetto single acting cylinder vérin à simple effekt einfachwirkender Zylinder</p>	<p>Backing stroke: by unknow force</p> <p>by a spring</p>		
<p>cilindro a doppio effetto double acting cylinder vérin à double effet doppeltwirkender Zylinder</p>	<p>simply rod</p> <p>twice rod</p>		
<p>cilindro differenziale differential cylinder vérin différentiel Differentialzylinder</p>			
<p>cilindri con ammortizzatore cylinders with cushion vérins avec amortisseur Zylinder mit Dämpfung</p>			
<p>cilindro con ammortizzatore non regolabile cylinder with fixed cushion vérin avec amortisseur fixe Zylinder mit nicht verstellbarer Dämpfung</p>	<p>from one side only</p> <p>both side</p>		

<p>filtri, separatori, lubrificatori e apparecchi diversi filters, water traps, lubricators and miscellaneous apparatus filtres, lubrificateurs et appareillages divers Filter, Wasserabscheider, Schmier-und Wartungsgerate</p>		
<p>filtro filter filtre Filter</p>		
<p>separatore di condensa water trap purgeur Wasserabscheider</p>	<p>manual discharge  automatic discharge</p>	 
<p>filtro con spurgo filter with water trap filtre avec purgeur Filter mit Wasserabscheider</p>	<p>manual discharge  automatic discharge</p>	 
<p>essiccatore air dryer déshydrateur Trockner</p>		
<p>lubrificatore lubricator lubrificateur Oler</p>		
<p>gruppo di condizionamento conditioning unit groupe de conditionnement Wartungseinheit</p>		 
<p>scambiatori di calore heat exchangers échangeurs de chaleur Warmeausaustauscher</p>		
<p>riscaldatore heater réchauffeur Vorwarmer</p>	<p>the arrows show the warm bringing</p>	

- **HYDRAULIC SYSTEM**
  
- **ELECTRICAL SYSTEM**

**MI-JACK shall have no liability with respect to . . . repairs improperly performed or replacements improperly installed [or] use of replacement parts or accessories not conforming to MI-JACK's specifications which adversely affect performance or durability [or] alterations or modifications not recommended or approved in writing by MI-JACK.**

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LEGENDA

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FUSES AND RELAYS LIST  
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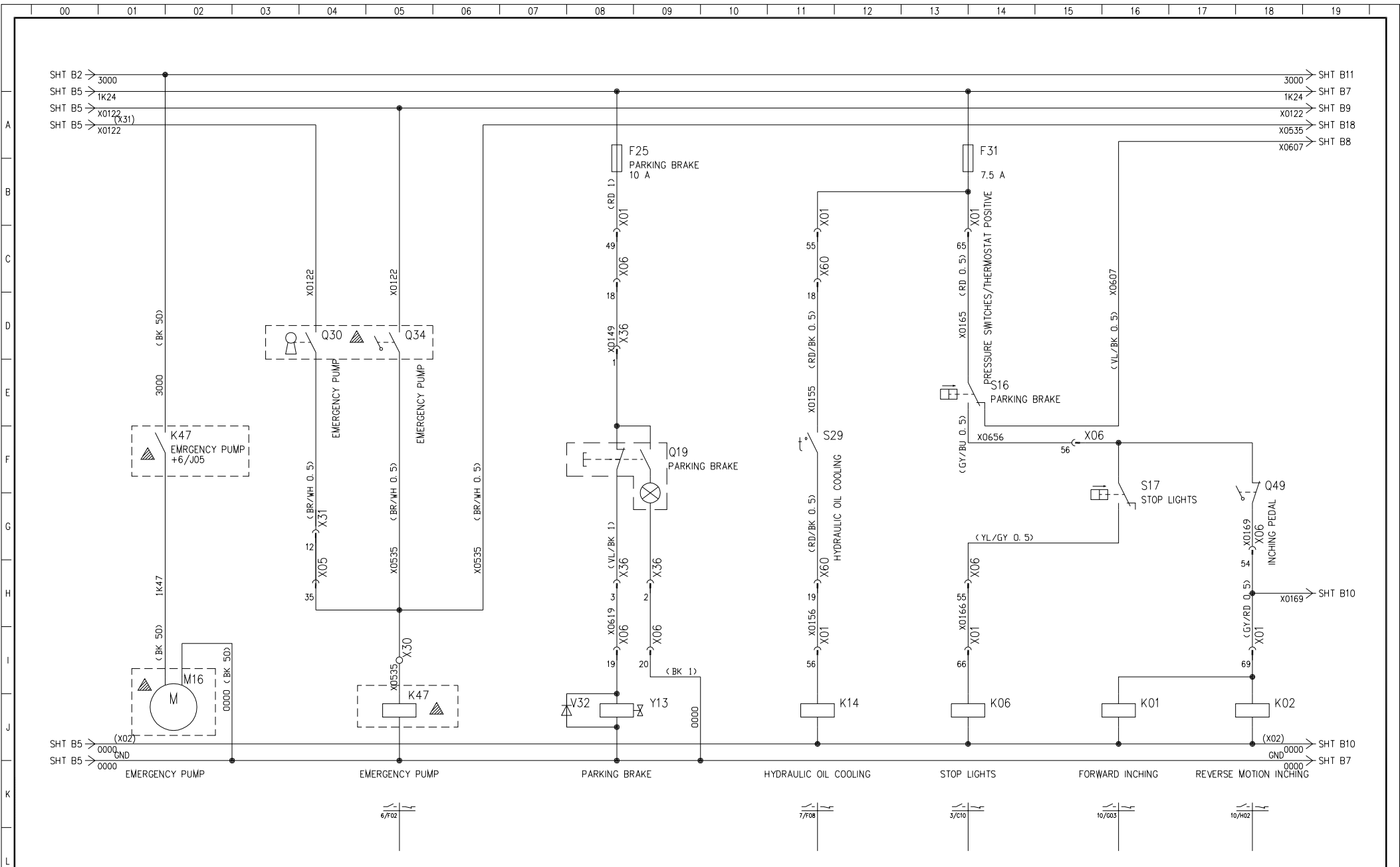
CABIN GENERAL LAYOUT (COMPONENT PARTS DESCRIPTION)  
CABIN GENERAL LAYOUT (COMPONENT PART NUMBER & CODE)  
STEERING COLUMN LAYOUT  
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SPREADER FUCTIONAL WIRING DIAGRAM

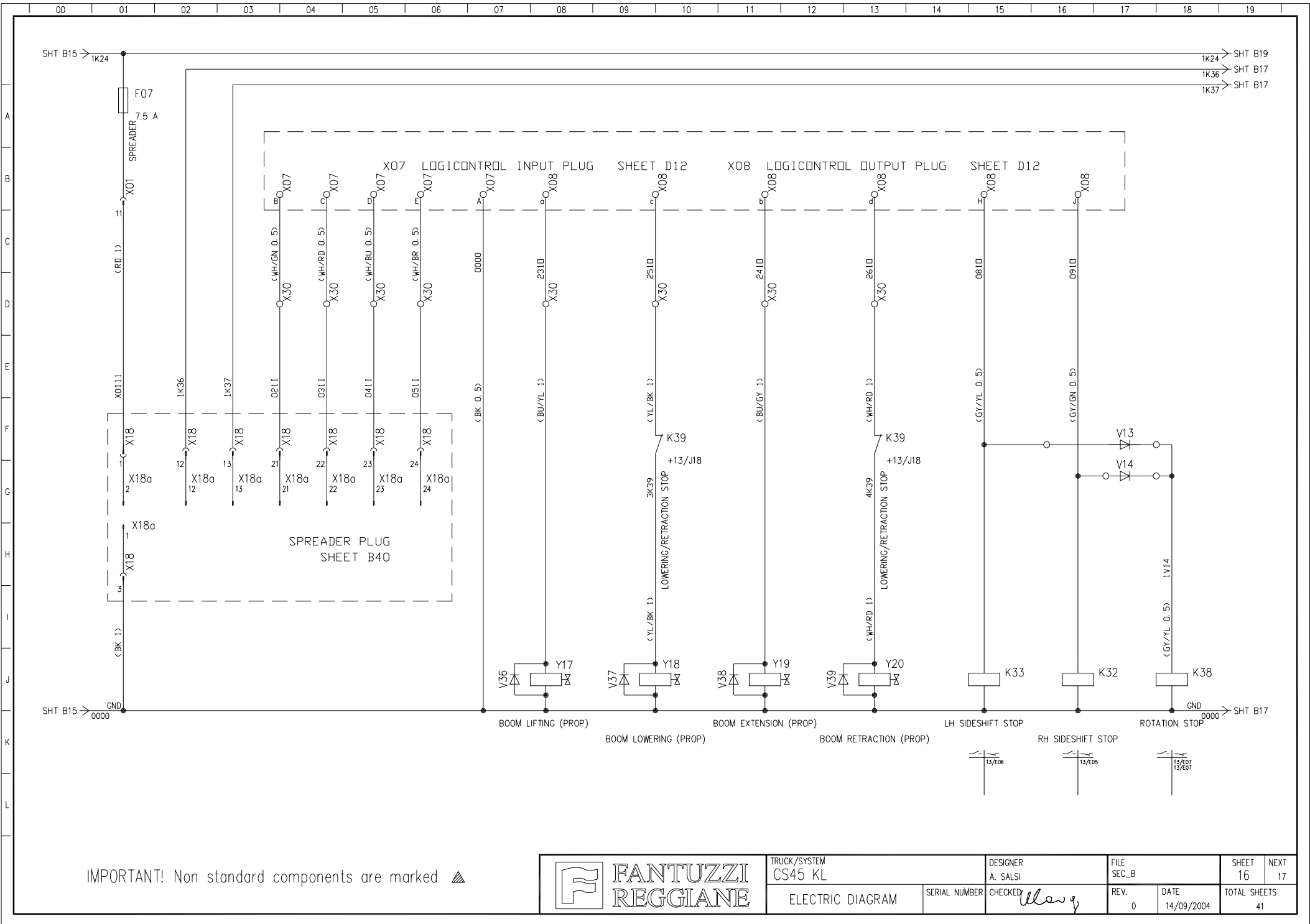
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 <b>FANTUZZI REGGIANE</b>	TRUCK /SYSTEM CS45 KL		DESIGNER A. SALSI	FILE SEC_A	SHEET 2	NEXT 3
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IMPORTANT! Non standard components are marked

<b>FANTUZZI REGGIANE</b>	TRUCK/SYSTEM CS45 KL	DESIGNER A. SALSI	FILE SEC_B	SHEET 6	NEXT 7
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IMPORTANT! Non standard components are marked ▲

	TRUCK/SYSTEM CS45 KL		DESIGNER A. SALSI	FILE SEC_B	SHEET 16	NEXT 17
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# COMPONENT LIST

## F FUSES

ID.	COORDINATES	DESCRIPTION	PART NUMBER	REMARKS	COMPART.
F32	7/A06	computer supply	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F33	7/A03	1° 12Vdc power supply	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F34	4/C02	work lights 1, 2 positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F35	4/C04	work lights 3, 4 positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F36	4/C08	work lights 5, 6 positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F37	4/C06	stabilizer work lights positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F38	4/C10	spreader work lights positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F39	4/C12	work lights on beams positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F40	18/B06	steer light	2080.010.0005	warning lamp p.n. 2080.020.0002	8
F41	3/A01	parking lights positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F42	3/A05	low beams positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F43	3/C06	high beams positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F44	3/C08	additional high beams positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F45	3/A10	stop lights positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F46	4/C14	backing lights positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F47	4/C16	additional backing lights positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F48	4/C18	additional backing lights positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F49	7/A08	hydraulic oil electro-fan positive	2080.010.0004	warning lamp p.n. 2080.020.0002	8
F52	2/B15	ignition	2080.010.0006	warning lamp p.n. 2080.020.0002	8
F53	2/E17	glow plug preheating positive	2080.010.0005	warning lamp p.n. 2080.020.0002	8
F55	2/B11	starter key positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F56	7/A10	greasing pump positive	2080.010.0003	warning lamp p.n. 2080.020.0002	8
F60	11/B02	Powertronic supply	2080.010.0014	warning lamp p.n. 2080.020.0002	8
F61	11/B12	Powertronic supply	2080.010.0006	warning lamp p.n. 2080.020.0002	8
F62	11/F10	throttle pedal supply	2080.010.0014	warning lamp p.n. 2080.020.0002	8

COMPARTMENT SEE SHEET B37	1 CABIN	5 BATTERY COMPARTMENT
	2 HEATER BOX	6 ENGINE COMPARTMENT
	3 BOOM	7 RADIATOR COMPARTMENT
	4 /	8 ELECTRIC BOX COMPARTMENT



TRUCK/SYSTEM CS45 KL		DESIGNER A. SALSI	FILE SEC_B	SHEET 26	NEXT 27
ELECTRIC DIAGRAM	SERIAL NUMBER	CHECKED <i>Ulan</i>	REV. 0	DATE 14/09/2004	TOTAL SHEETS 41

# COMPONENT LIST

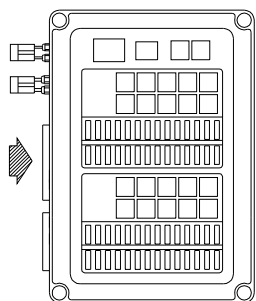
## Y SOLENOID VALVES

ID.	COORDINATES	DESCRIPTION	PART NUMBER	REMARKS	COMPART.
Y01	10/J09	forward gear		see gearbox manual	6
Y02	10/J15	reverse motion gear		see gearbox manual	6
Y03	10/J13	second gear		see gearbox manual	6
Y04	10/J12	third gear		see gearbox manual	6
Y05	10/J11	fourth gear		see gearbox manual	6
Y06	12/J11	boom lifting	1N.1025032200		6
Y07	12/J13	boom extension	1N.1025032200		6
Y08	12/J14	boom lowering	1N.1025032200		6
Y09	12/J16	boom retraction	1N.1025032200		6
Y11	12/J18	spreader oil delivery	1N.1025032200		6
Y12	11/J03	engine stop		see engine manual	6
Y13	6/J08	parking brake	4S.M015804		7
Y14	7/J15	high speed	1N.1025902210		6
Y15	7/J16	high speed	1N.1025902210		6
Y16	7/J08	hydraulic oil cooling	2266.115.0001		7
Y17	16/J08	boom lifting (proportional)	1N.1025032200		6
Y18	16/J10	boom lowering (proportional)	1N.1025032200		6
Y19	16/J11	boom extension (proportional)	1N.1025032200		6
Y20	16/J13	boom retraction (proportional)	1N.1025032200		6
Y24	18/J12	cabin forward	2L.271-0002		7
Y25	18/J14	cabin backward	2L.271-0002		7
Y31	7/J18	high speed	1N.1025902210		6
Y40	18/J16	sliding cabin	2L.271-0002		7
Y43	7/J12	lifting speed booster			6
Y44	7/J13	extension speed booster			3
Y45	10/J05	high speed low RPM			6

COMPARTMENT SEE SHEET B37	1	CABIN	5	BATTERY COMPARTMENT
	2	HEATER BOX	6	ENGINE COMPARTMENT
	3	BOOM	7	RADIATOR COMPARTMENT
	4	/	8	ELECTRIC BOX COMPARTMENT



TRUCK / SYSTEM CS45 KL		DESIGNER A. SALSI	FILE SEC_B	SHEET 36	NEXT 37
ELECTRIC DIAGRAM	SERIAL NUMBER	CHECKED <i>Ulan</i>	REV. 0	DATE 14/09/2004	TOTAL SHEETS 41

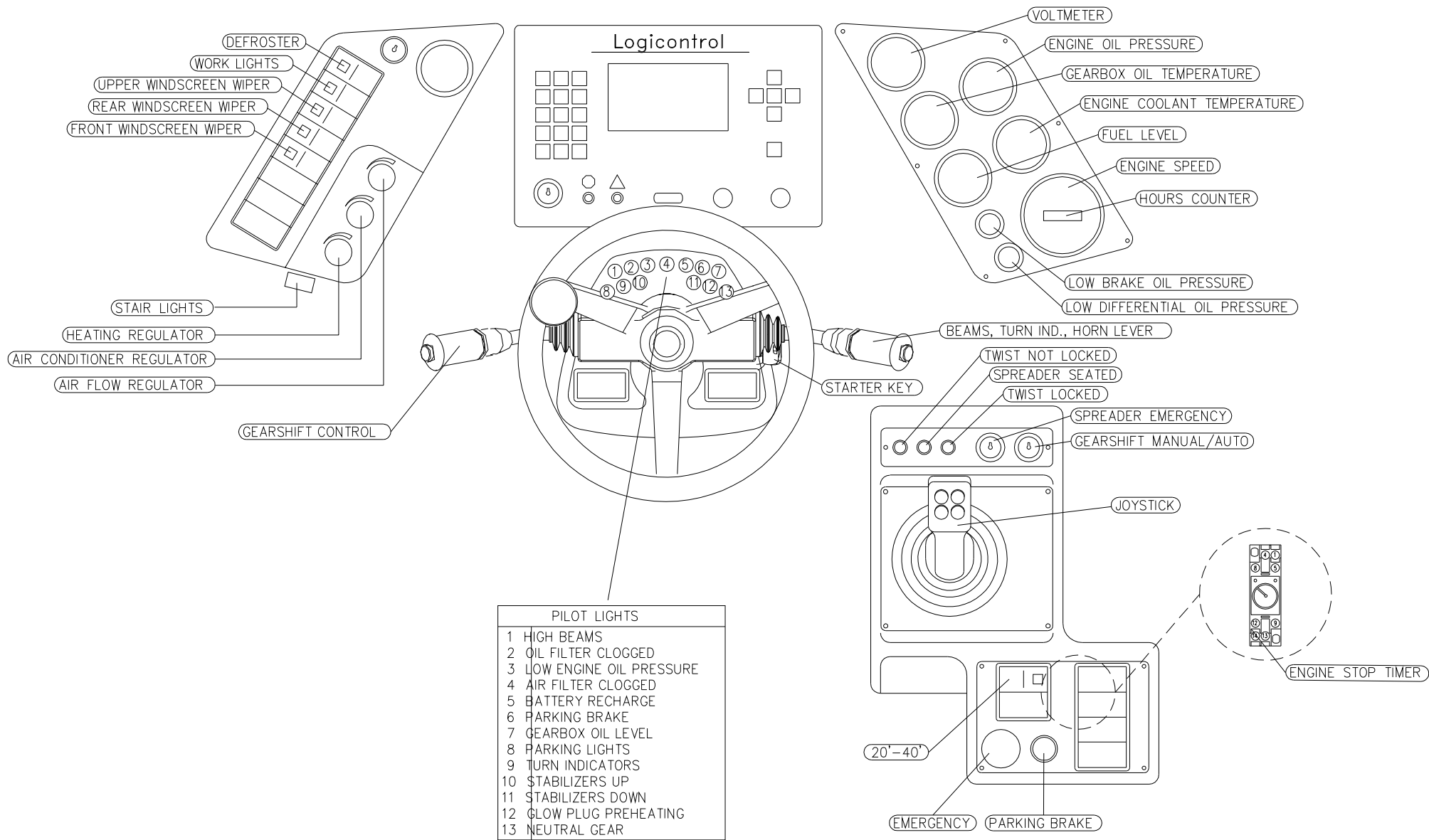


PIN	FUNCTION	WIRE	COL./ SEC.
1	air conditioner electro-fan 1	X0101	rd/bu 1,5
2	air conditioner electro-fan 2	X0102	rd/bu 1,5
3	air conditioned trinary positive	X0103	bu 0,5
4	air conditioner electro-fans relay command (from trinary)	X0104	bu/rd 0,5
5	air conditioner compressor relay command (from trinary)	X0105	gn 0,5
6	air conditioner compressor command (from relay)	X0106	gn 1
7	cabin positive	X0107	rd 1,5
8	engine stop s.v. positive	X0108	rd 1
9	piggyback legs pushbuttons positive	X0109	rd 1
10	joystick and dead man board positive	X0110	br 0,5
11	spreader positive	X0111	rd 1
12	piggyback positive	X0112	rd 1
13	stabilizer sensors positive	X0113	br 0,5
14	charging cells, cable reel, inclinometer positive	X0114	rd 1
15	antitipping device positive	X0115	rd 1
16	joystick board positive	X0116	rd 1
17	stabilizer board positive	X0117	rd 1
18	piggyback board positive	X0118	rd 1
19	disposable positive	X0119	rd 1
20	high speed positive	X0120	rd 1
21	pushbuttons, keys, pilot lights on armrest panel positive	X0121	rd 1
22	dashboard positive (instruments, pilot lights, switch)	X0122	rd 1
23	work lights relays command (from pushbutton)	X0123	rd/bk 0,5
24	gearshift control and gearshift electronic device positive	X0124	rd 1
25	forward motion signal from gearshift control (to inching relay)	X0125	bu 0,5
26	reverse motion signal from gearshift control (to inching relay)	X0126	br 0,5
27	forward motion signal from inching relay	X0127	bu 0,5
28	reverse motion signal from inching relay	X0128	br 0,5
29	beams lever positive	X0129	rd 1
30	parking lights command from beams lever to relay	X0130	bu 0,5
31	lh front parking light positive (from relay)	X0131	bu/bk 0,5
32	lh rear parking light positive (from relay)	X0132	bu/bk 0,5
33	rh front parking light positive (from relay)	X0133	bu 0,5
34	rh rear parking light positive (from relay)	X0134	bu 0,5
35	low beams command from beams lever to relay	X0135	gy/bk 0,5

**POWER ELECTRIC BOX**  
X01 70-pole plug



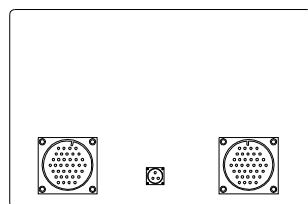
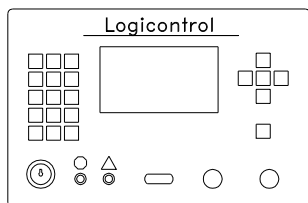
TRUCK/SYSTEM CS45 KL		DESIGNER A. SALSI	FILE SEC_C	SHEET C 5	NEXT C 6
ELECTRIC DIAGRAM	SERIAL NUMBER	CHECKED <i>Ulevi</i>	REV. 0	DATE 14/09/2004	TOTAL SHEETS 13



# DASHBOARD LAYOUT



TRUCK/SYSTEM CS45 KL		DESIGNER A. SALSÌ	FILE SEC_D	SHEET D 2	NEXT D 3
ELECTRIC DIAGRAM	SERIAL NUMBER	CHECKED <i>Uley</i>	REV. 0	DATE 14/09/2004	TOTAL SHEETS 17



PIN	DESCRIPTION	WIRE #	WIRE COLOUR/SEC.
A	GROUND	0000	BK 0.5
B	SPREADER LH FRONT SIDE SEATED	0211	WH/GN 0.5
C	SPREADER RH FRONT SIDE SEATED	0311	WH/RD 0.5
D	SPREADER LH REAR SIDE SEATED	0411	WH/BU 0.5
E	SPREADER RH REAR SIDE SEATED	0511	WH/BR 0.5
F	TWIST LOCKED	0611	BU 0.5
G	TWIST NOT LOCKED	0711	RD 0.5
H	20' POSITION	0811	WH/BK 0.5
J	30' POSITION (disposable)	0911	BU/BK 0.5
K	40' POSITION	1011	YL/GN 0.5
L	LOW ENGINE COOLANT LEVEL	1111	YL/RD 0.5
M	LOW ENGINE OIL PRESSURE	1211	GY/RD 0.5
N	DEAD MAN	1311	OR/BK 0.5
P	STABILIZERS UP (not used)	1411	OR 0.5
R	PIGGYBACK LEGS DOWN (disposable)	1511	BR/YL 0.5
S	PIGGYBACK LEGS CLAMPED (disposable)	1611	PK 0.5
T	LOW FUEL LEVEL	1711	VL/WH 0.5
U	-		
V	-		
W	-		
X	-		
Z	-		
a	-		
b	-		
c	-		
d	-		
e	ENGINE COOLANT TEMPERATURE	2711	GY/GN 0.5
f	GEARBOX OIL TEMPERATURE	2811	RD/GN 0.5
g	ENGINE OIL TEMPERATURE	2911	GY/YL 0.5
h	INCLINOMETER	3011	GN/BK 0.5
j	CABLE REEL	3111	GN/BK 0.5
k	RH CHARGING CELL	3211	YL/BK 0.5
m	LH CHARGING CELL	3311	YL 0.5
n	-		
p	-		
r	ENGINE SPEED	3611	OR/RD 1
s	TRANSMISSION SPEED	3711	GY/BU 0.5

X07 - ANTITIPPING DEVICE INPUT PLUG



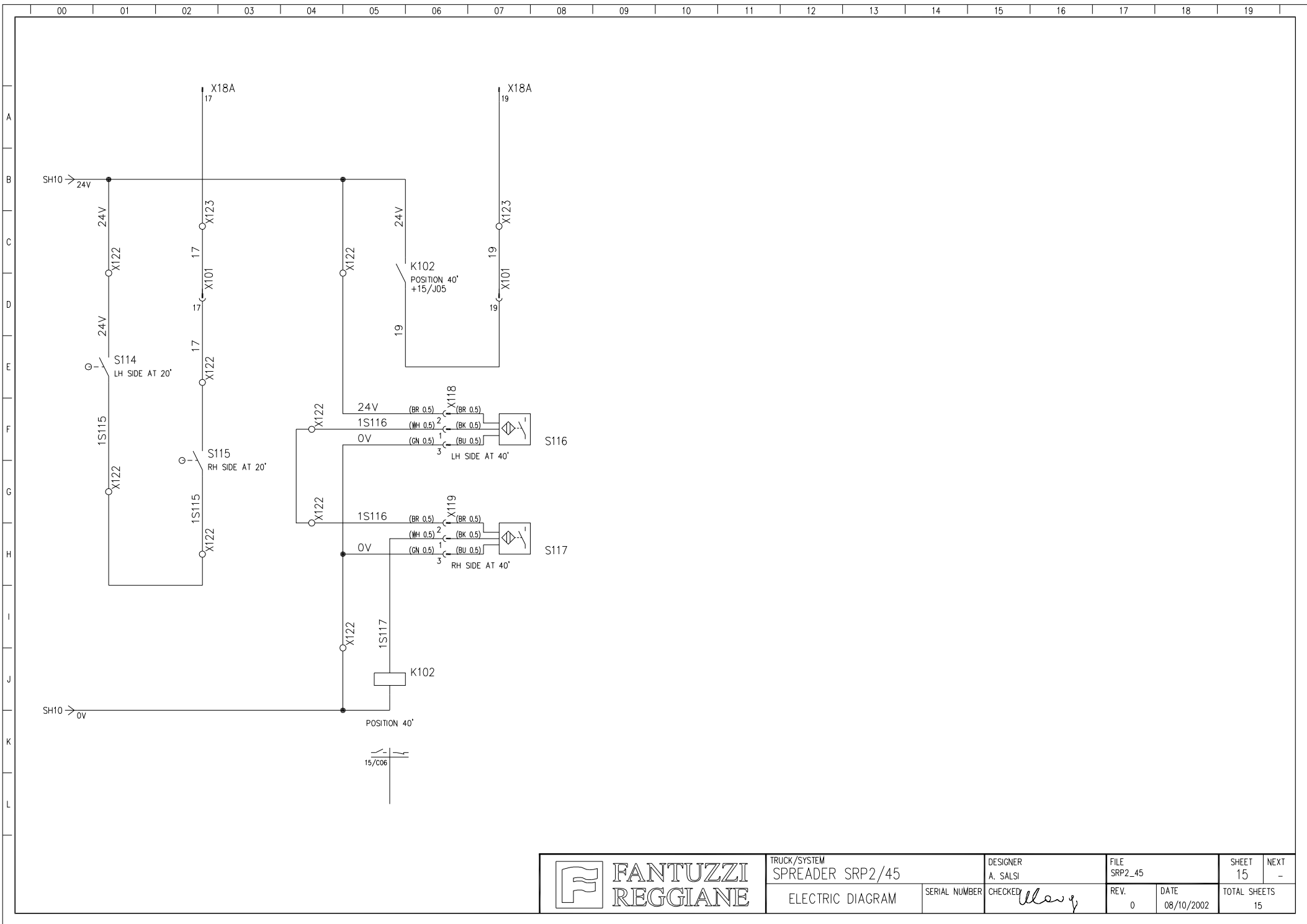
TRUCK/SYSTEM CS45 KL		DESIGNER A. SALSI	FILE SEC_D	SHEET D 12	NEXT D 13
ELECTRIC DIAGRAM	SERIAL NUMBER	CHECKED <i>Uley</i>	REV. 0	DATE 10/10/2003	TOTAL SHEETS 17

NAME	FUNCTION	PART NUMBER
E101	SPREADER SEATED P.L.	22040163
E102	TWIST NOT LOCKED P.L.	22040165
E103	TWIST LOCKED P.L.	22040164
K101	ROTATION LIMITING RELAY	2055.932001
K102	40' POSITION RELAY	2056.932002
K102	40' POSITION RELAY	2056.932002
K110	SLOW ROTATION TIMER	2055.040.0001
S102	RH REAR SIDE SEATED SENSOR	2056.000.0001
S103	RH FRONT SIDE SEATED SENSOR	2056.000.0001
S104	LH REAR SIDE SEATED SENSOR	2056.000.0001
S105	LH FRONT SIDE SEATED SENSOR	2056.000.0001
S106	RH REAR TWIST NOT LOCKED SENSOR	2056.000.0001
S107	RH FRONT TWIST NOT LOCKED SENSOR	2056.000.0001
S108	LH REAR TWIST NOT LOCKED SENSOR	2056.000.0001
S109	LH FRONT TWIST NOT LOCKED SENSOR	2056.000.0001
S110	RH REAR TWIST LOCKED SENSOR	2056.000.0001
S111	RH FRONT TWIST LOCKED SENSOR	2056.000.0001
S112	LH REAR TWIST LOCKED SENSOR	2056.000.0001
S113	LH FRONT TWIST LOCKED SENSOR	2056.000.0001
S114	LH SIDE AT 20' LIMIT SWITCH	2D4B1116
S115	RH SIDE AT 20' LIMIT SWITCH	2D4B1116
S116	LH SIDE AT 40' SENSOR	2055.080.0004
S117	RH SIDE AT 40' SENSOR	2055.080.0004
S120	LOWERING STOP SENSOR	2055.080.0004
S121	LOWERING STOP SENSOR	2055.080.0004
S122	CW 30° ROTATION LIMIT SWITCH	2D4B1116
S123	ACW 30° ROTATION LIMIT SWITCH	2D4B1116
S124	CW MAX ROTATION LIMIT SWITCH	2D4B1116
S125	ACW MAX ROTATION LIMIT SWITCH	2D4B1116
S126	ARM INCLINATION SENSOR	2056.000.0001
X18A	SPREADER 24 PINS PLUG	2082.010.0017
X101	24 PINS PLUG	2082.010.0017
X102	ARM PILOT LIGHT 6 PINS PLUG	2082.010.0006
X103	SENSOR 3 PINS PLUG	2082.040.0065
X104	SENSOR 3 PINS PLUG	2082.040.0065
X105	SENSOR 3 PINS PLUG	2082.040.0065

NAME	FUNCTION	PART NUMBER
X106	SENSOR 3 PINS PLUG	2082.040.0065
X107	SENSOR 3 PINS PLUG	2082.040.0065
X108	SENSOR 3 PINS PLUG	2082.040.0065
X109	SENSOR 3 PINS PLUG	2082.040.0065
X110	SENSOR 3 PINS PLUG	2082.040.0065
X111	SENSOR 3 PINS PLUG	2082.040.0065
X112	SENSOR 3 PINS PLUG	2082.040.0065
X113	SENSOR 3 PINS PLUG	2082.040.0065
X114	SENSOR 3 PINS PLUG	2082.040.0065
X115	SENSOR 3 PINS PLUG	2082.040.0065
X116	SENSOR 3 PINS PLUG	2082.040.0065
X117	SENSOR 3 PINS PLUG	2082.040.0065
X118	SENSOR 3 PINS PLUG	2082.040.0065
X119	SENSOR 3 PINS PLUG	2082.040.0065
X120	LH SIDE ELECTRIC BOX JUNCTION BOX	
X121	RH SIDE ELECTRIC BOX JUNCTION BOX	
X122	MAIN ELECTRIC BOX JUNCTION BOX	
X123	ELECTRIC BOX ON ROTATOR JUNCTION BOX	
X201	SPREADER BOARD JUNCTION BOX	
X202	SPREADER BOARD JUNCTION BOX	
X203	SPREADER BOARD JUNCTION BOX	
X204	SPREADER BOARD JUNCTION BOX	
X205	SIDE ELECTRIC BOX 7 PINS PLUG	2082.040.0048
X206	SIDE ELECTRIC BOX 7 PINS PLUG	2082.040.0048
Y101	TWIST LOCK S.V.	2266.100.0036
Y102	TWIST UNLOCK S.V.	2266.100.0036
Y103	SPREADER EXPAND S.V.	2266.100.0036
Y104	SPREADER EXPAND S.V.	2266.100.0036
Y105	SPREADER RETRACT S.V.	2266.100.0036
Y106	SPREADER RETRACT S.V.	2266.100.0036
Y107	RH SIDESHIFT S.V.	2266.100.0036
Y108	LH SIDESHIFT S.V.	2266.100.0036
Y114	ROTATION BRAKE S.V.	29860519
Y115	CW ROTATION S.V.	2266.962001
Y116	ACW ROTATION S.V.	2266.962001
Y117	SLOW ROTATION S.V.	-



TRUCK/SYSTEM SPREADER SRP2/45	DESIGNER A. SALSI	FILE SRP2_45	SHEET 5	NEXT 6
ELECTRIC DIAGRAM	SERIAL NUMBER	CHECKED <i>Uly</i>	REV. 0	DATE 08/10/2002
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TRUCK/SYSTEM  
SPREADER SRP2/45

ELECTRIC DIAGRAM

DESIGNER  
A. SALSI

CHECKED *U...*

FILE  
SRP2\_45

REV.  
0

SHEET  
15

DATE  
08/10/2002

NEXT  
-

TOTAL SHEETS  
15

## INFORMATIONS A RAPPELER POUR TOUTE COMMANDE DE PIECES DETACHEES

Les commandes de pièces détachées doivent comprendre les informations suivantes:

- Type et numéro de série de la machine
- Numéro de code (E) et le nom (G) des pièces
- Quantité commandée pour chaque pièce



Si les numéros de code des pièces ne figurent pas, indiquer sur la commande le numéro du tableau (B) et de référence (C)

Le Constructeur décline toute responsabilité pour d'éventuelles erreurs résultant d'un manque d'informations.

## BESTELLBEZEICHNUNG

In der Bestellbezeichnung von Ersatzteilen sind folgende Angaben erforderlich:

- Modell und Sachnummer der Maschine
- Code (E) und Bezeichnung (G) der Teile
- Menge pro Teil.



Ohne Code aufgeführte Teile sind bei der Bestellung ersatzweise durch die Nummer der Übersicht (B) und die entsprechende Position (C) zu bezeichnen.



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SUB GROUPS NUMBER INDEX  
INDEX DES PLANCHES  
TAFELVERZEICHNIS  
INDICE DE LAS TABLAS

**501272**

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REAR AXLE  
ESSIEU ARRIÈRE  
HINTERACHSE  
EJE POSTERIOR
- 25.A010.076**      **COMPONENTI PONTE STERZANTE**  
STEERING AXLE COMPONENTS  
COMPOSANTS DU PONT DE DIRECTION  
KOMPONENTEN LENKBRÜCKE  
COMPONENTES DEL PUESTE DE LA DIRECCION
- 25.A010.078**      **COMPONENTI PONTE STERZANTE**  
STEERING AXLE COMPONENTS  
COMPOSANTS DU PONT DE DIRECTION  
KOMPONENTEN LENKBRÜCKE  
COMPONENTES DEL PUESTE DE LA DIRECCION
- 25.A020.001**      **FUSELLO A SNODO**  
STEERING KNUCKLE  
FUSÉE ARTICULÉE  
GELENK-ACHSZAPFEN  
MAMANGUETA ARTICULADA
- 25.B010.006**      **MOZZO RUOTA**  
HUBA  
MOYEUROUE  
NABE  
CUBO
- 25.C010.005**      **PINZA FRENO**  
BRAKE CALIPER  
PINCE FREIN  
BREMSZANGE  
MORDAZA DE FRENO

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**INDICE DELLE TAVOLE**  
 SUB GROUPS NUMBER INDEX  
 INDEX DES PLANCHES  
 TAFELVERZEICHNIS  
 INDICE DE LAS TABLAS

**501272**

- 35.B195.033**      **IMPIANTO IDRAULICO RAFFREDDAMENTO RADIATORE MOTORE**  
 HYDRAULIC SYSTEM COOLING SYSTEM ENGINE RADIATOR  
 INSTALLATION HYDRAULIQUE REFROIDISSEMENT RADIATEUR DU MOTEUR  
 HYDRAULIKANLAGE DER LAUFKÜHLUNG VOM WASSER KÜHLER  
 INSTALACION HIDRÁULICA ENFRIAMIENTO RADIATOR DEL MOTOR
- 40.A010.004**      **PEDALE FRENO**  
 BRAKE PEDAL  
 PÉDALE DE FREIN  
 BREMSPEDAL  
 PEDAL DEL FRENO
- 40.A010.006**      **VALVOLA DI FRENATURA**  
 BRAKE VALVE  
 MAÎTRE-CYLINDRE  
 BREMSVENTIL  
 VÁLVULA DE FRENADO
- 40.A010.013**      **PEDALE FRENO**  
 BRAKE PEDAL  
 PÉDALE DE FREIN  
 BREMSPEDAL  
 PEDAL DEL FRENO
- 45.A001.012**      **IMPIANTO ELETTRICO (ACCESSORI)**  
 ELECTRIC SYSTEM ( ACCESSORIES)  
 INSTALLATION ELECTRIQUE (ACCESSOIRES)  
 SCHALTBILD (ZUBEHÖR)  
 INSTALACION ELECTRICA (ACCESORIOS)
- 45.A001.024**      **IMPIANTO ELETTRICO (ACCESSORI)**  
 ELECTRIC SYSTEM ( ACCESSORIES)  
 INSTALLATION ELECTRIQUE (ACCESSOIRES)  
 SCHALTBILD (ZUBEHÖR)  
 INSTALACION ELECTRICA (ACCESORIOS)



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- 90.A020.002**      **FISSAGGIO CILINDRO SOLLEVAMENTO**  
 LIFT CYLINDER MOUNT  
 FIXATION DU VÉRIN DE LEVAGE  
 HUBZYLNDERBEFESTIGUNG  
 FIJACIÓN DEL CILINDRO DE ELEVACION
- 90.A030.003**      **FISSAGGIO CILINDRO SFILO**  
 EXTENSION CYLINDER MOUNT  
 FIXATION DU VÉRIN D'EXTENSION  
 BEFESTIGUNG AUSZUGZYLINDER  
 FIJACIÓN DEL CILINDRO DE EXTENSIÓN
- 90.A040.008**      **PATTINI BRACCIO MOBILE**  
 MOBILE BOOM PADS  
 PATINS DU BRAS TÉLESCOPIQUE  
 GLEITSCHUHE FÜR BEWEGLICHEN AUSLEGER  
 PATINES DEL BRAZO MÓVIL
- 90.A050.003**      **PATTINI BRACCIO FISSO**  
 FIXED BOOM PADS  
 PATINS DE LA GRUE FIXE  
 GLEITSCHUHE FÜR FESTEN AUSLEGER  
 PATINES DEL BRAZO FIJO
- 90.A060.006**      **FISSAGGIO SPREADER**  
 SPREADER MOUNT  
 FIXATION DU SPREADER  
 SPREADER-BEFESTIGUNG  
 FIJACIÓN DEL SPREADER
- 90.A080.001**      **CATENA PORTA TUBI**  
 TUBE SUPPORT CHAIN  
 CHAINE PORTE-TUBES  
 LEITUNGSTRÄGFERKETTE  
 CADENA PORTATUBOS

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2347.100.0010	50.F010.057		2419.095.0001	50.F020.008		2420.010.0017	45.B010.018	
2347.100.0011	50.F010.057		2419.099.0001	50.F020.008		2420.010.0018	45.B010.018	
2368.020.0003	90.A080.001		2419.100.0001	50.F020.008		2420.010.0023	70.E010.019	
2368.020.0008	20.A020.022		2419.105.0001	50.F020.008		2420.010.0026	70.E010.019	
2368.020.0010	20.A030.016		2419.115.0001	50.F020.008		2420.010.0027	70.E010.021	
2378.000.0001	30.G010.099		2419.120.0001	50.F020.008		2420.010.0033	45.D010.009	
2378.000.0001	30.G010.100		2419.125.0001	50.F020.008		2425.050.0002	50.C010.018	
2393.145502	05.A010.022		2419.135.0001	50.F020.008		2426.055.0001	30.B010.011	
2393.145502	70.F010.073		2419.135.0002	50.F020.007		2426.070.0004	30.C010.017	
2410.010.0013	35.A200.019		2419.135.0002	50.F020.008		2426.070.0005	30.C010.017	
2410.010.0020	20.F010.031		2419.135.0003	50.F020.007		2426.070.0011	30.C010.017	
2410.010.0031	45.D010.009		2419.135.0003	50.F020.008		2426.070.0011	30.C010.017	
2419.010.0009	50.F010.038		2419.140.0001	50.F020.008		2426.070.0026	20.B020.014	
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2419.020.0003	45.D010.009		2419.315.0009	45.D010.009		2426.150.0001	25.A010.076	
2419.090.0001	50.F020.008		2419.320.0001	45.A001.043		2426.150.0003	20.D010.001	

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2900.080.0005	20.D020.004		2900.080.0013	20.D200.071		2900.111.0007	90.A060.006	
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2900.080.0005	90.A060.006		2900.080.0017	20.C010.007		2900.111.0009	20.C020.004	
2900.080.0005	20.A010.019		2900.080.0018	20.C010.007		2900.111.0009	70.A010.034	
2900.080.0006	20.C020.004		2900.080.0020	20.C010.007		2900.111.0009	90.A040.008	
2900.080.0006	70.A010.034		2900.080.0021	20.D020.004		2900.111.0009	90.A050.003	
2900.080.0007	70.A010.034		2900.111.0001	80.A030.001		2900.111.0010	90.A040.008	
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2900.080.0008	70.D010.060		2900.111.0002	70.D010.060		2900.111.0010	25.T010.004	
2900.080.0008	35.A195.006		2900.111.0002	70.D010.071		2900.111.0011	35.A010.126	
2900.080.0008	70.D010.071		2900.111.0003	20.B020.009		2900.111.0011	35.A030.018	
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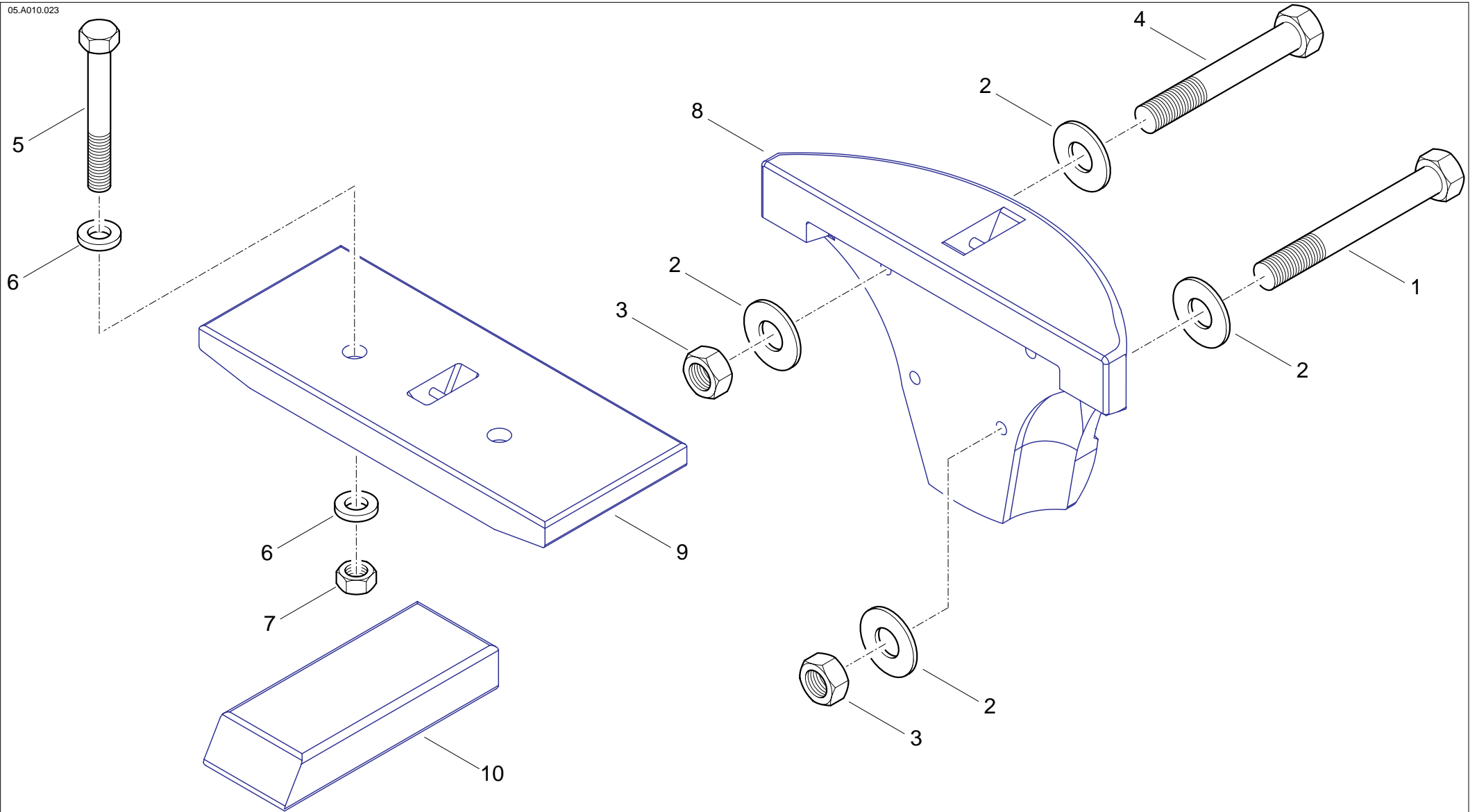
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2C.249934	75.C030.013		2C.250259	75.C030.010		2C.47K3	75.C030.009	
2C.249935	75.C030.009		2C.250259	75.C030.011		2C.47K3	75.C030.011	
2C.249936	75.C030.008		2C.250259	75.C030.012		2C.47K3	75.C030.015	
2C.249936	75.C030.011		2C.25E13	75.C030.015		2C.47K5	75.C030.014	
2C.24K13	75.C030.003		2C.25K30014	75.C030.015		2C.47K6	75.C030.015	
2C.24K3	75.C030.014		2C.25K60204	75.A030.001		2C.47K6	75.C030.016	
2C.24K3	75.C030.014		2C.26E09	75.C030.013		2C.47K6	75.C030.016	
2C.24K5	75.C030.003		2C.2C712	75.C030.005		2C.47K7	75.C030.015	
2C.24K5	75.C030.003		2C.2C824	75.C030.007		2C.47K7	75.C030.015	
2C.24K6	75.C030.002		2C.302602	75.C030.005		2C.47K7	75.C030.016	
2C.24K6	75.C030.003		2C.40K4	75.C030.003		2C.4E5	75.C030.002	
2C.250090	75.C030.004		2C.42G404	75.C030.015		2C.4E5	75.C030.002	
2C.250215	75.C030.011		2C.456294	75.C030.014		2C.4E5	75.C030.002	
2C.250226	75.C030.014		2C.47K3	75.C030.002		2C.4E5	75.C030.002	
2C.250227	75.C030.014		2C.47K3	75.C030.002		2C.4E5	75.C030.002	
2C.250228	75.C030.014		2C.47K3	75.C030.002		2C.4E6	75.C030.003	

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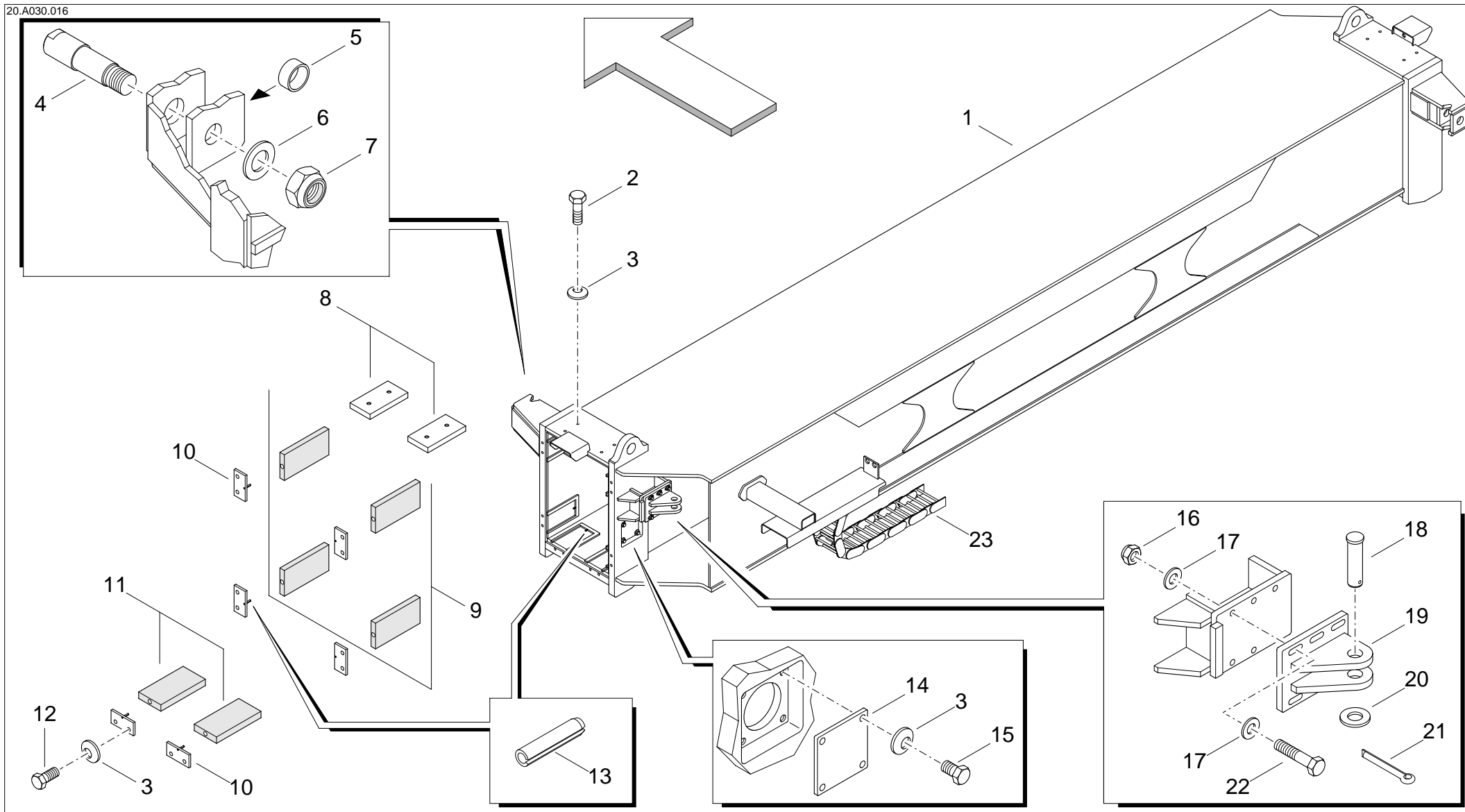
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N8048T	70.F010.073							
N8326T	20.F010.031							
N8666T	20.A020.022							
N8667T	20.A020.022							
N9979T	20.A030.016							
N9991T	20.A030.016							
P0009T	20.A020.022							
P0680T	20.A010.019							
P1162T	25.A010.078							
P1166T	25.A020.001							
P1377T	50.C010.018							
P1896T	20.A010.019							
VTEM24X2XL70	90.A010.003							

05.A010.023



**ZAVORRA**  
COUNTERWEIGHT  
CONTREPOIDS  
GEGENWICHT  
LASTRE

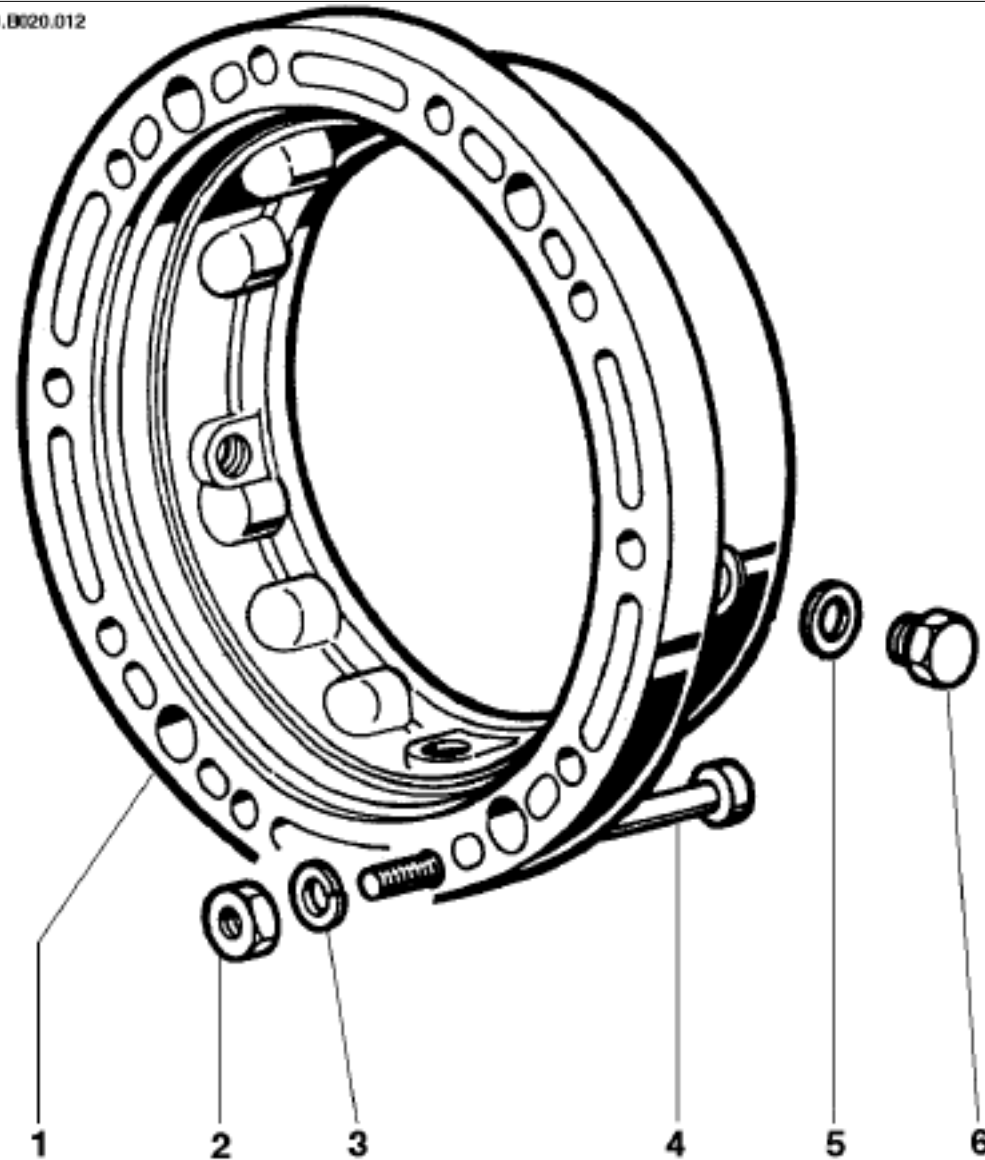
Tav. Tab. Taf.	<b>05.A010.023</b>	09/04 <b>0</b>
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**TRAVE CENTRALE**  
 FIXED FRAME  
 BRAS FIXE CENTRAL  
 ZENTRALER FESTER ARM  
 BRAZO FIJO CENTRAL

Tav. Tab. Taf.	<b>20.A030.016</b>	09/04
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20.B020.012

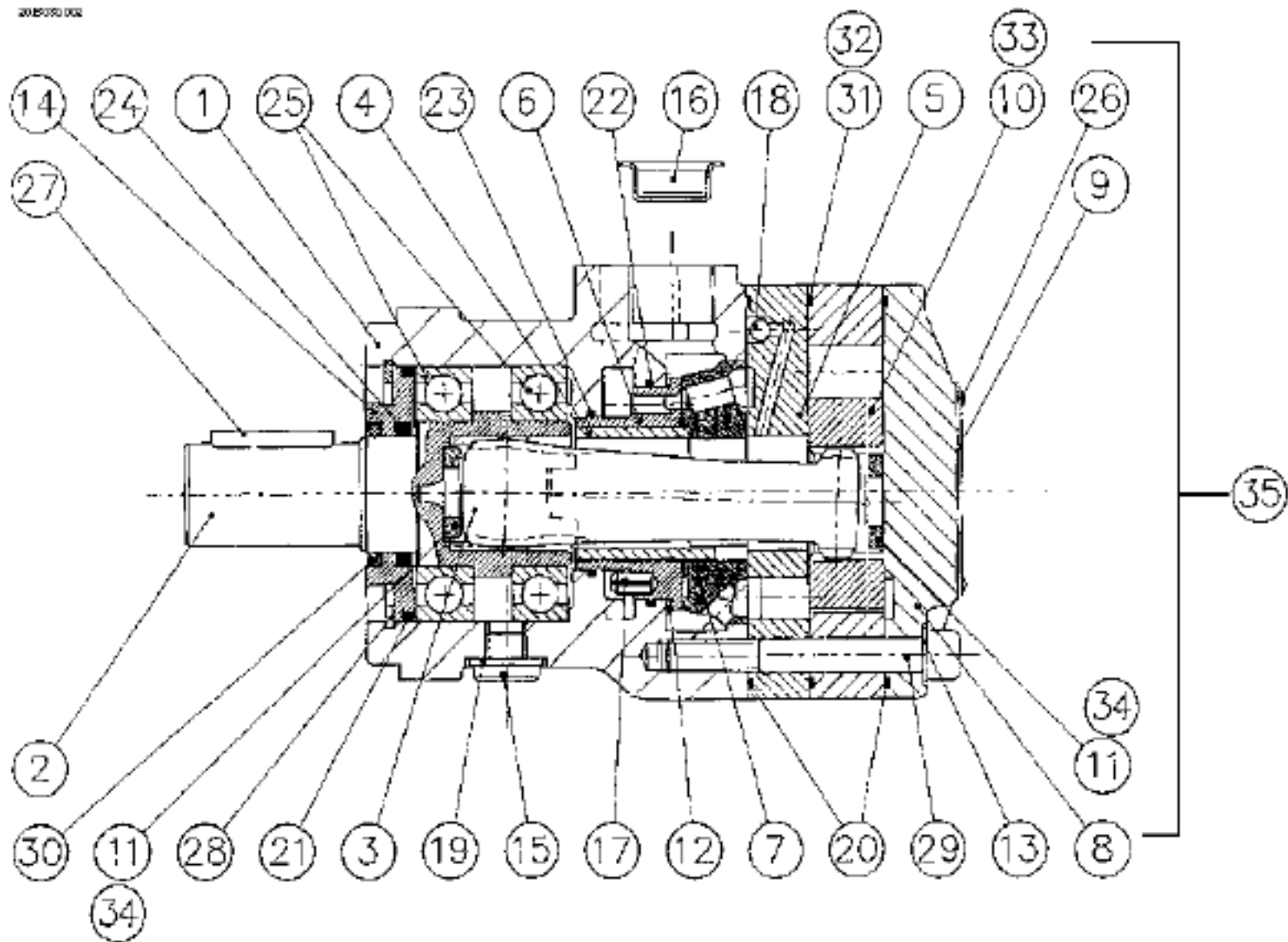


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**RIDUTTORE ROTAZIONE**  
REDUCTION GEAR  
REDUCTEUR  
UNTERSETZUNGSGETRIEBE  
REDUCTOR

Tav. Tab. Taf.	<b>20.B020.012</b>	09/04 <b>0</b>
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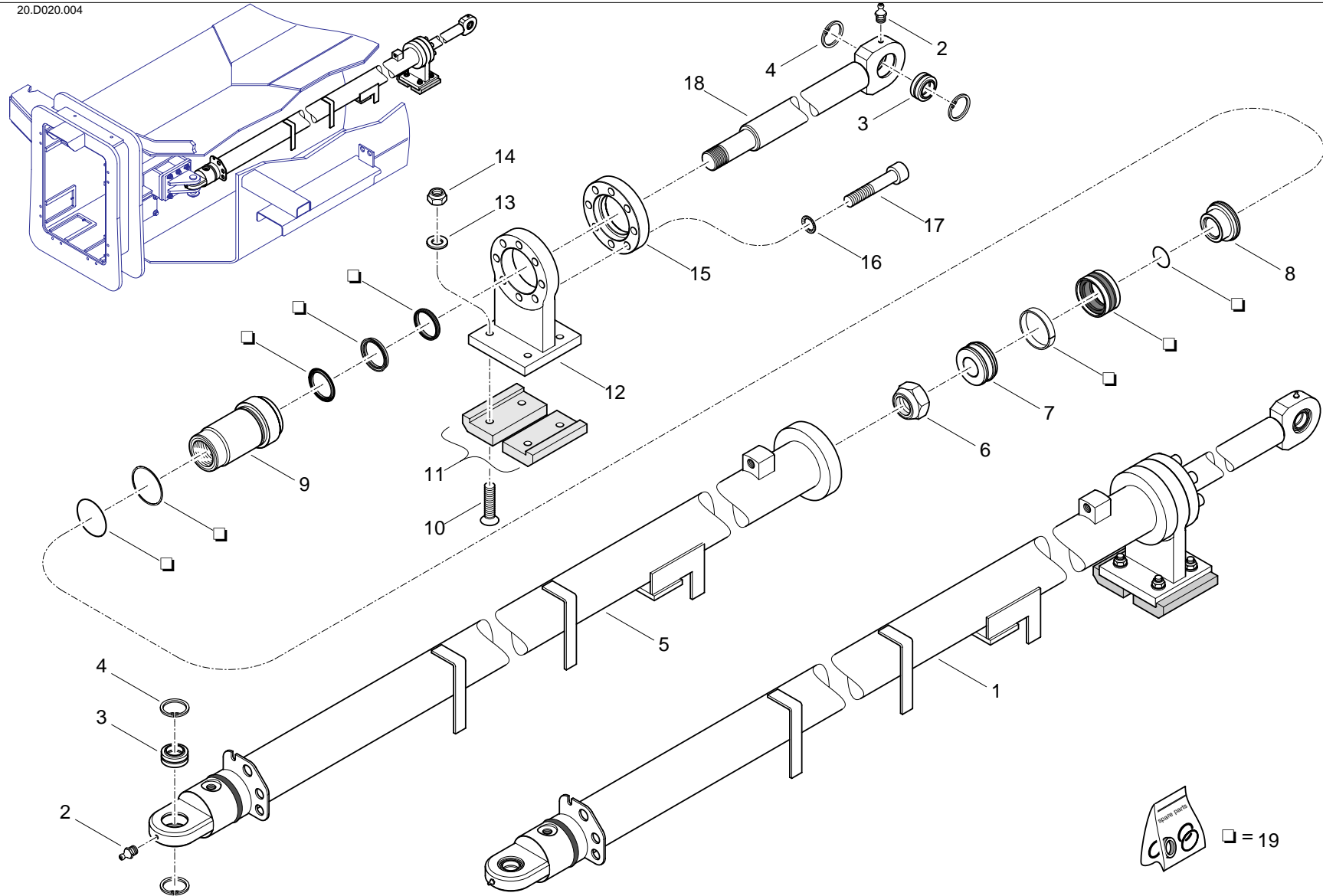


fantozzi  
**MI-JACK**

**MOTORE IDRAULICO**  
HYDRAULIC MOTOR  
MOTEUR HYDRAULIQUE  
HYDROMOTOR  
MOTOR HIDRAULICO

Tav. Tab. Taf.	<b>20.B030.002</b>	09/04 <b>0</b>
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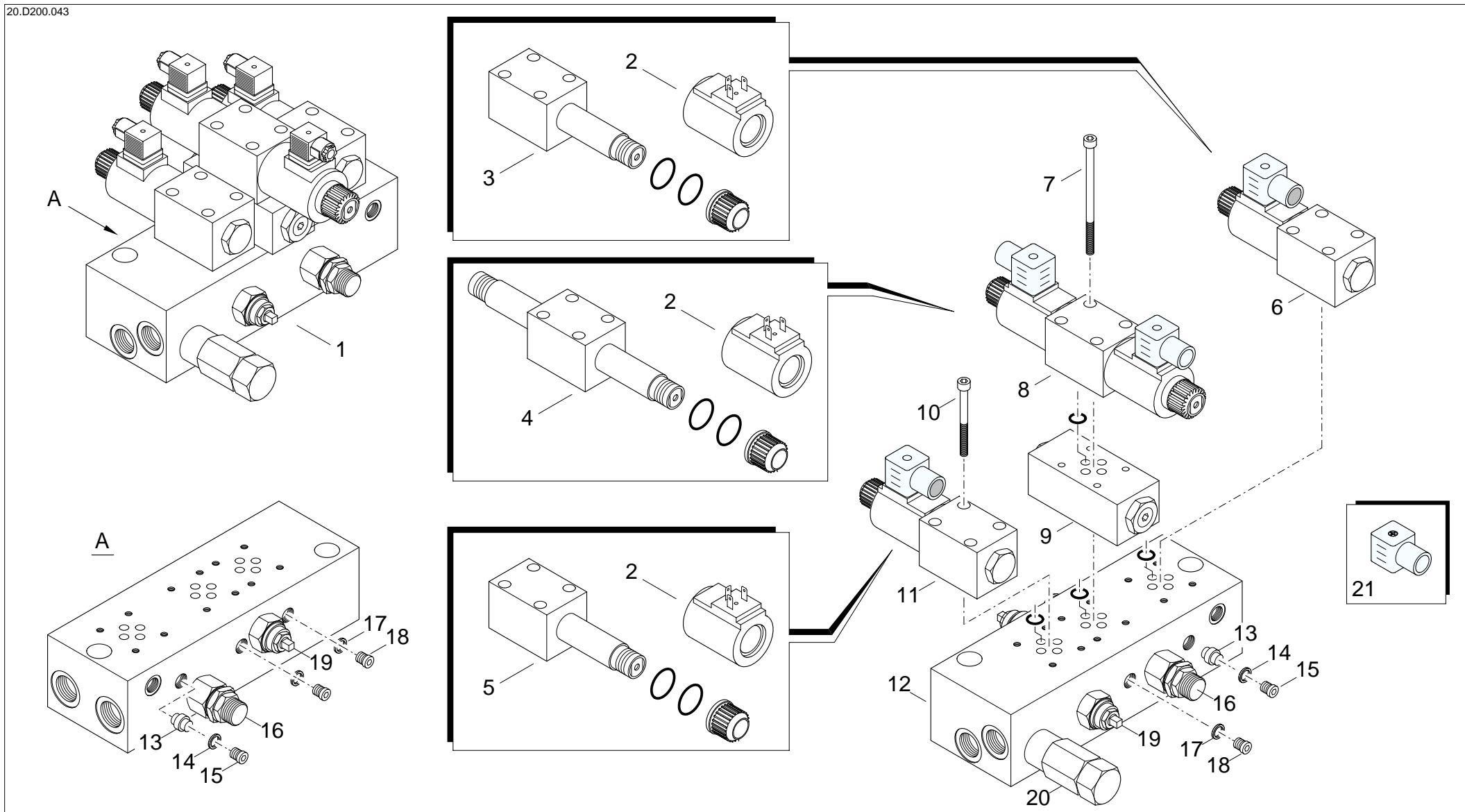
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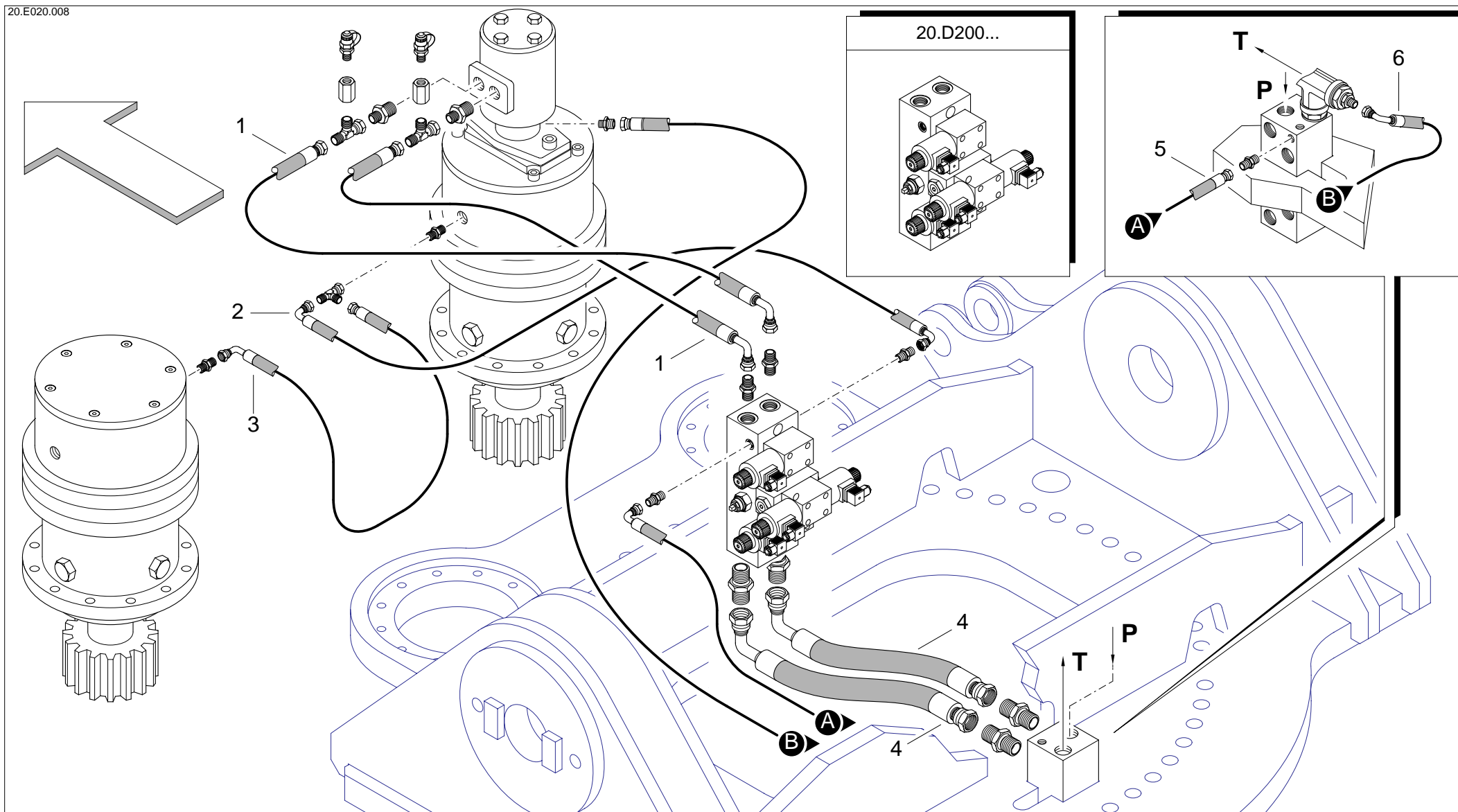
tantuzzi  
**MI-JACK**

**CILINDRO SFILÒ**  
EXTENSION CYLINDER  
VERIN D'EXTENSION  
AUSFAHRZYLINDER  
CILINDRO DE EXTENSION

Tav. Tab. Taf.	<b>20.D020.004</b>	09/04 <b>0</b>
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**GRUPPO ELETTROVALVOLE**  
 SOLENOID UNIT  
 GROUPE ÉLECTROSOUPAPES  
 MV-EINHEIT  
 GRUPO ELECTROVÁLVULAS



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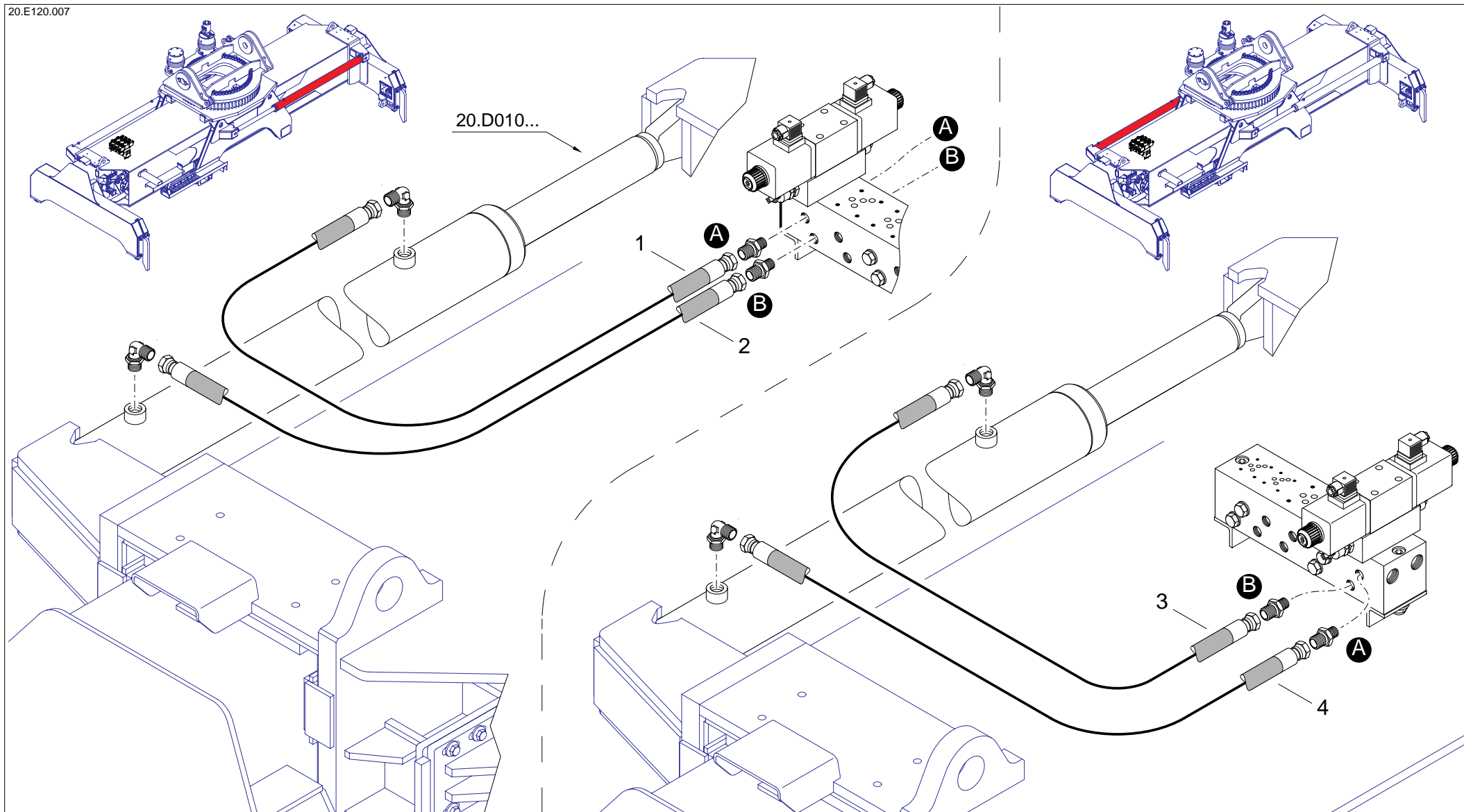
**IMPIANTO IDRAULICO (TUBAZIONI GRUPPO ROTAZIONE)**  
 HYDRAULIC SYSTEM (ROTATION GROUP HOSES)  
 INSTALLATION HYDRAULIQUE (TUBULURES GROUPE ROTATION)  
 HYDRAULIKANLAGE (DREHUNGSGRUPPE)  
 INSTALACION HIDRAULICA (TUBERIA GRUPO DE ROTACION)

Tav.  
Tab.  
Taf.

**20.E020.008**

09/04

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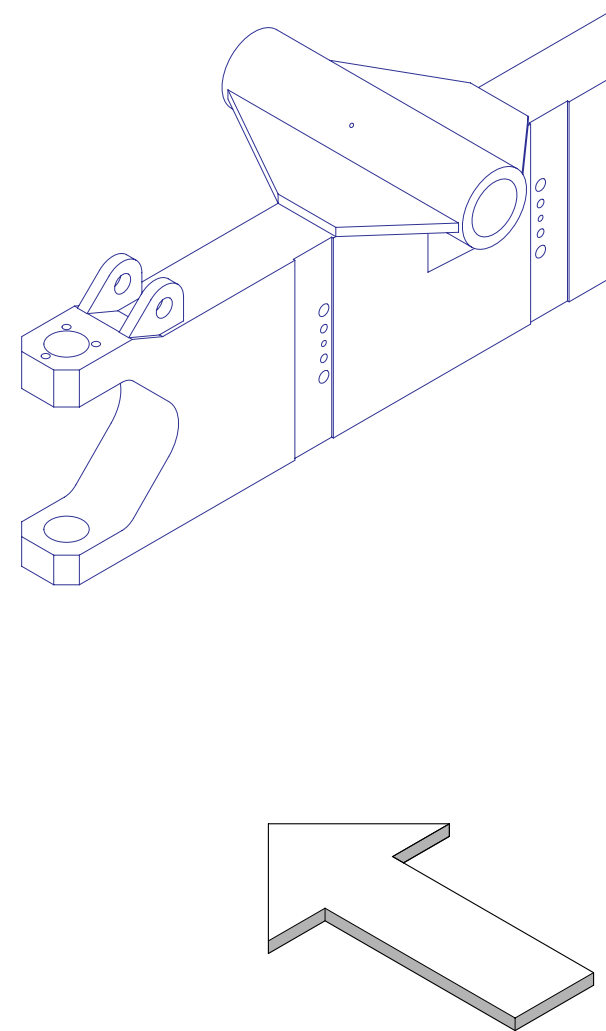
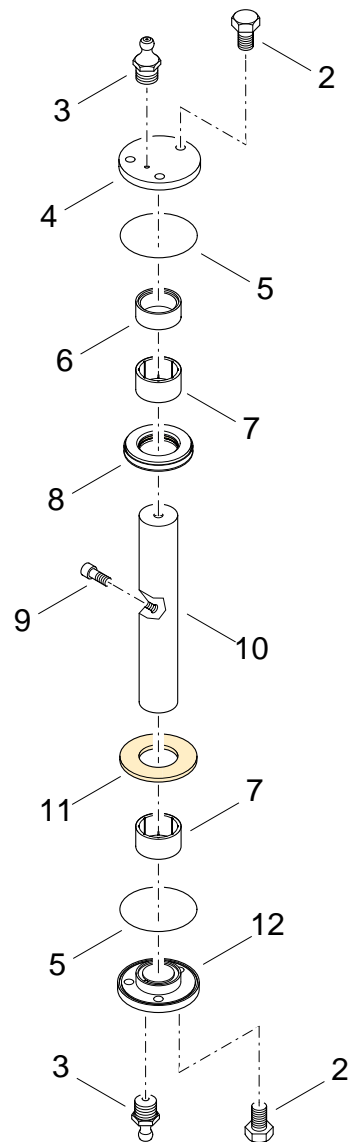
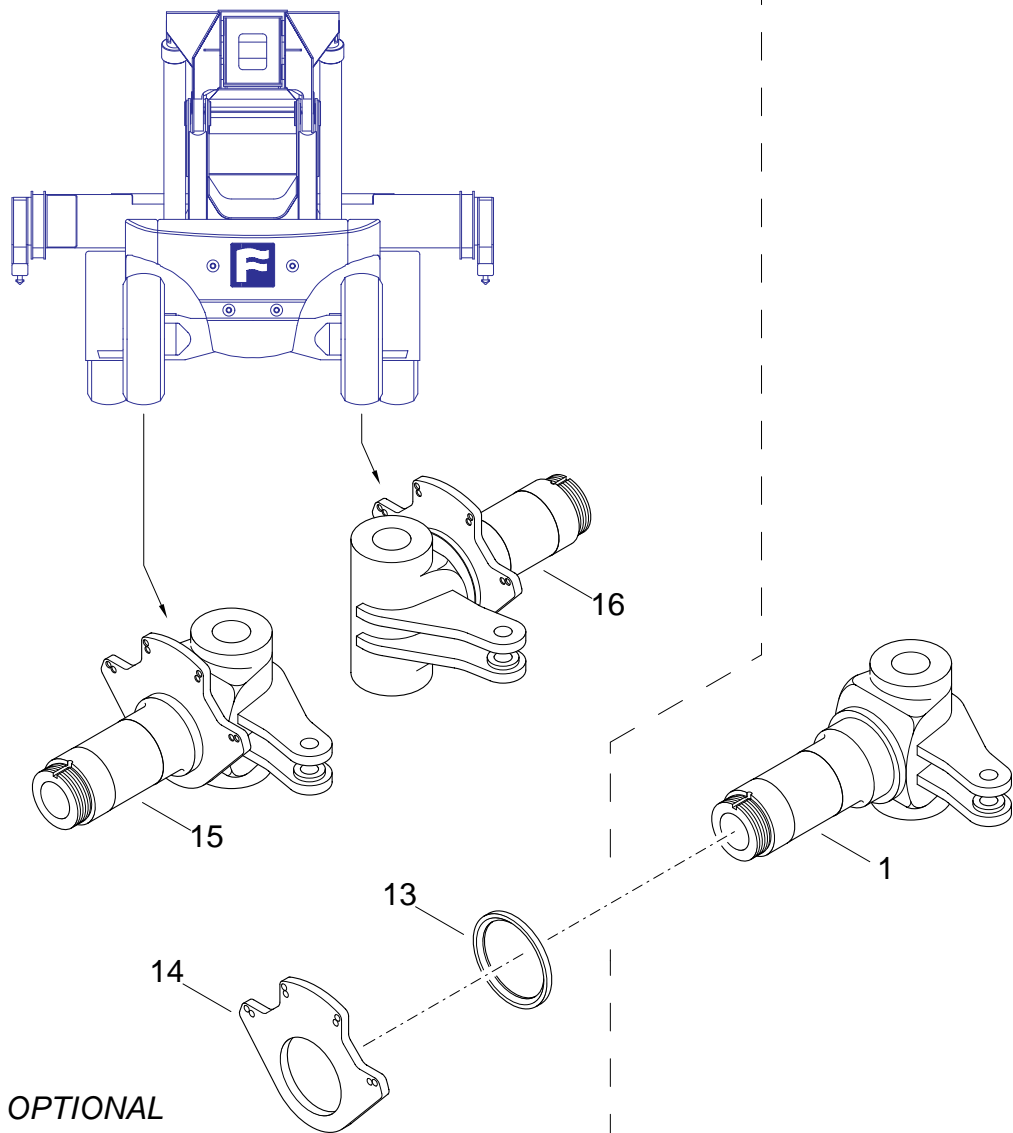
**IMPIANTO IDRAULICO (TUBAZIONI CILINDRI TRASLAZIONE)**  
 HYDRAULIC SYSTEM (SIDE-SHIFTING CYLINDERS HOSES)  
 INSTALLATION HYDRAULIQUE (TUBULURES VERINS DE TRANSLATION)  
 HYDRAULISCHER SEITENSCHUB  
 INSTALACION HIDRAULICA (TUBERIA CILINDROS DE TRASLACION)

Tav.  
Tab.  
Taf.

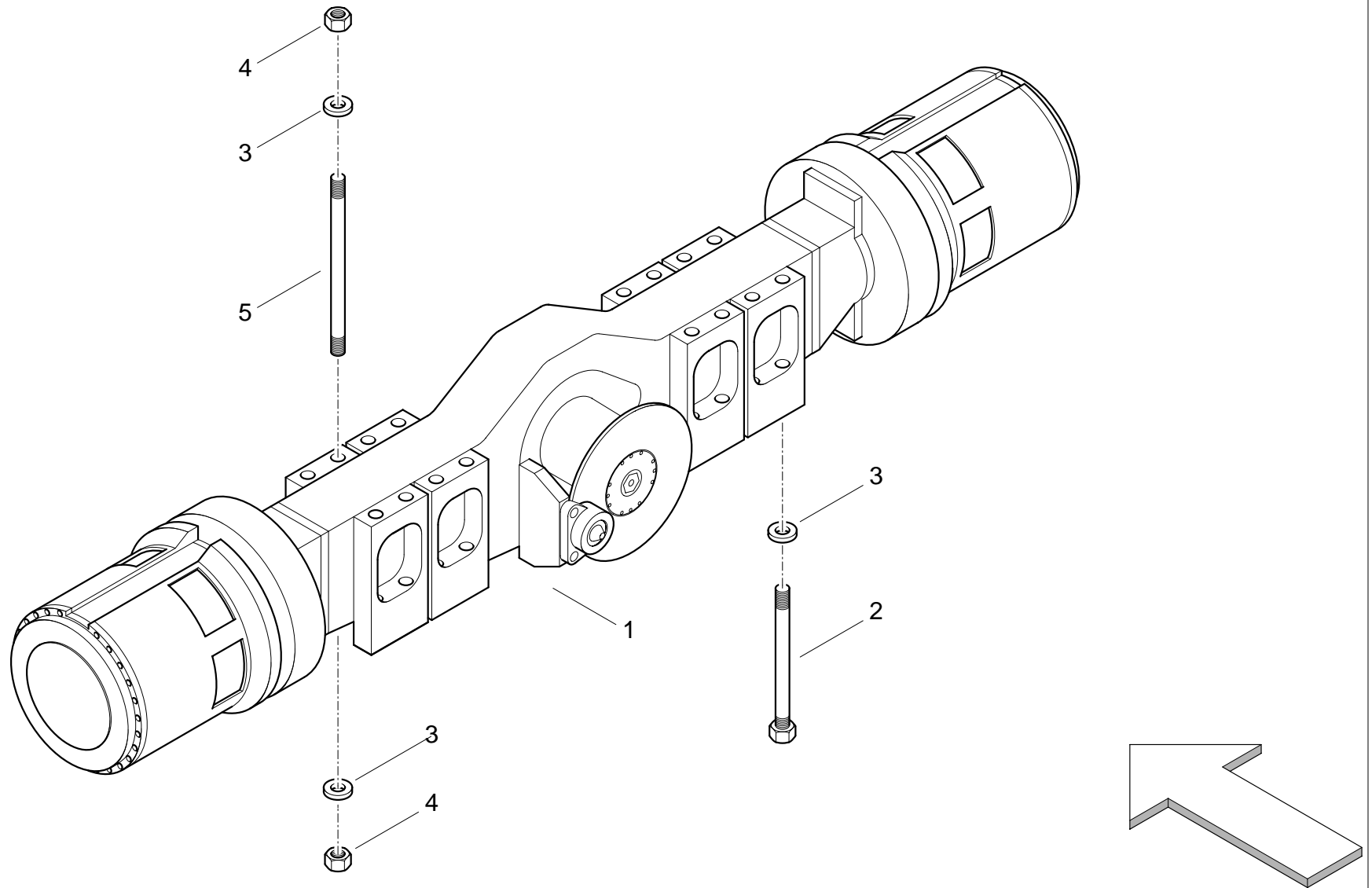
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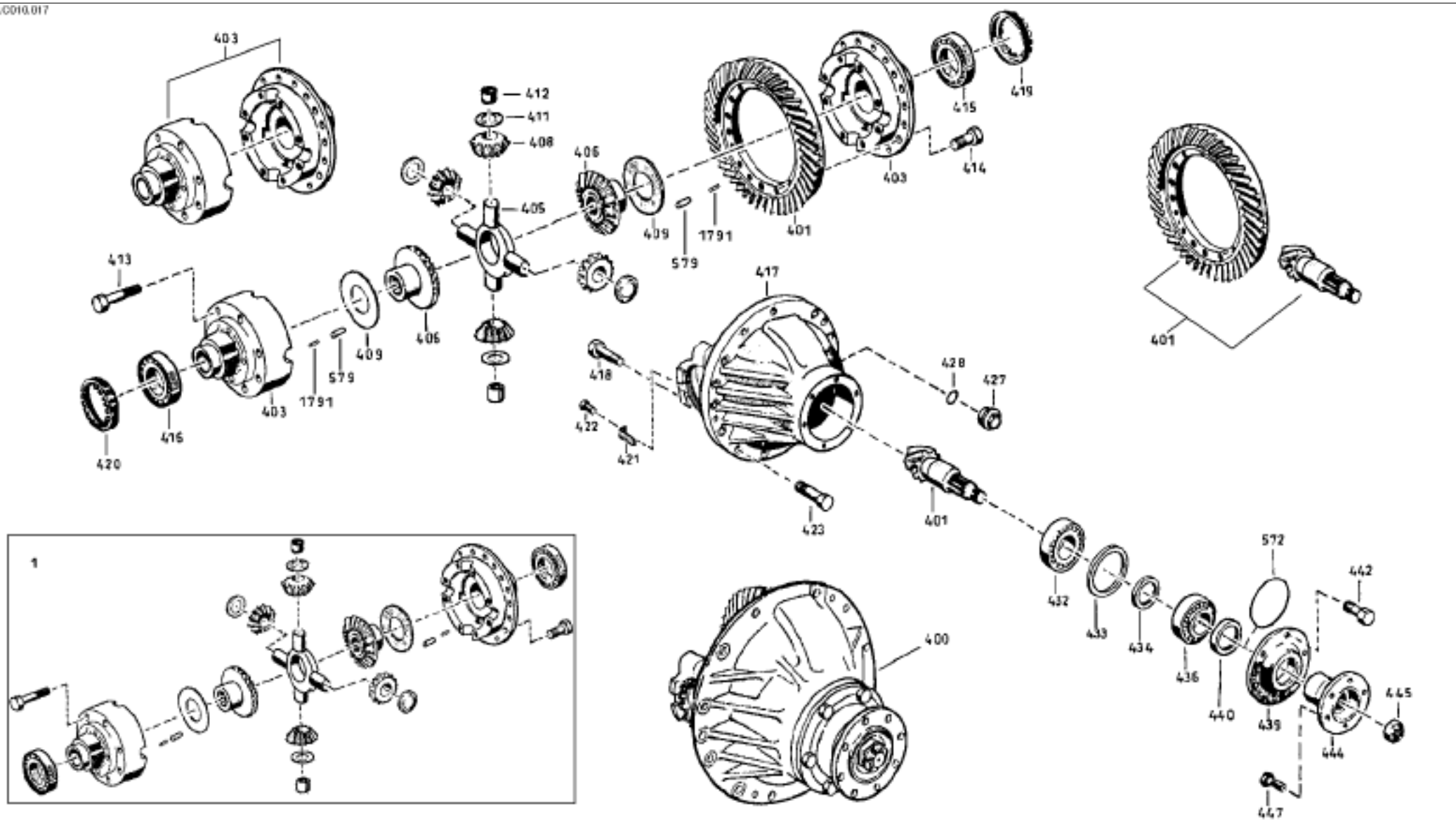
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 STEERING KNUCKLE  
 FUSÉE ARTICULÉE  
 GELENK-ACHSZAPFEN  
 MAMANGUETA ARTICULADA



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**MI-JACK**

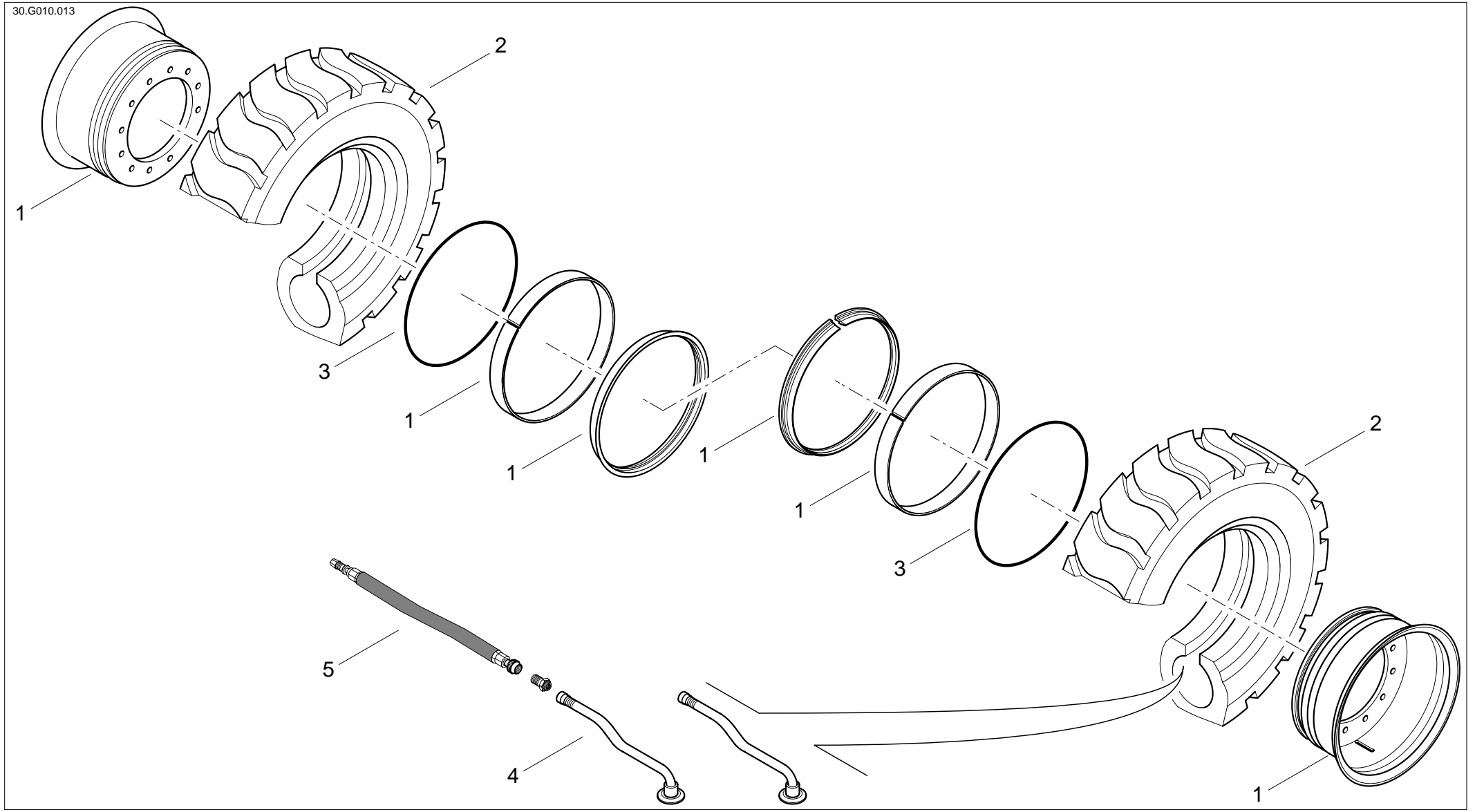
**COMPONENTI PONTE FISSO**  
FIXED AXLE COMPONENTS  
COMPOSANTS DU PONT FIXE  
KOMPONENTEN FESTE BRÜCKE  
COMPONENTES DEL PUENTE FIJO

Tav. Tab. Taf.	<b>30.A010.011</b>	09/04
		<b>0</b>



**DIFFERENZIALE**  
 DIFFERENTIAL AXLE  
 PONT DIFFERENTIEL  
 DIFFERENTIAL  
 DIFERENCIAL

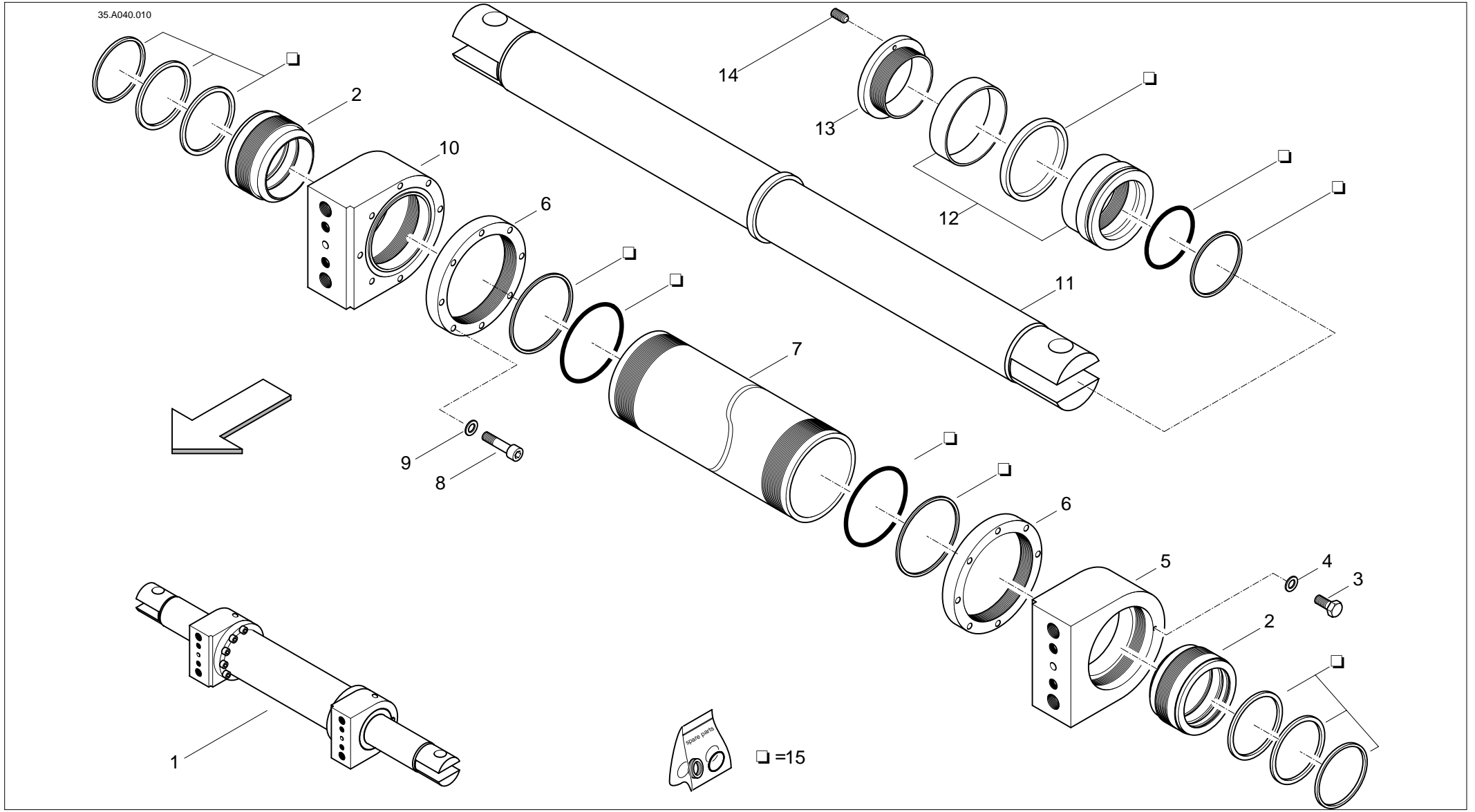
30.G010.013



**RUOTE ANTERIORI**  
FRONT WHEELS  
ROUES AVANT  
VORDERRÄDER  
RUEDA ANTERIORI

Tav. Tab. Taf.	<b>30.G010.099</b>	09/04 <b>0</b>
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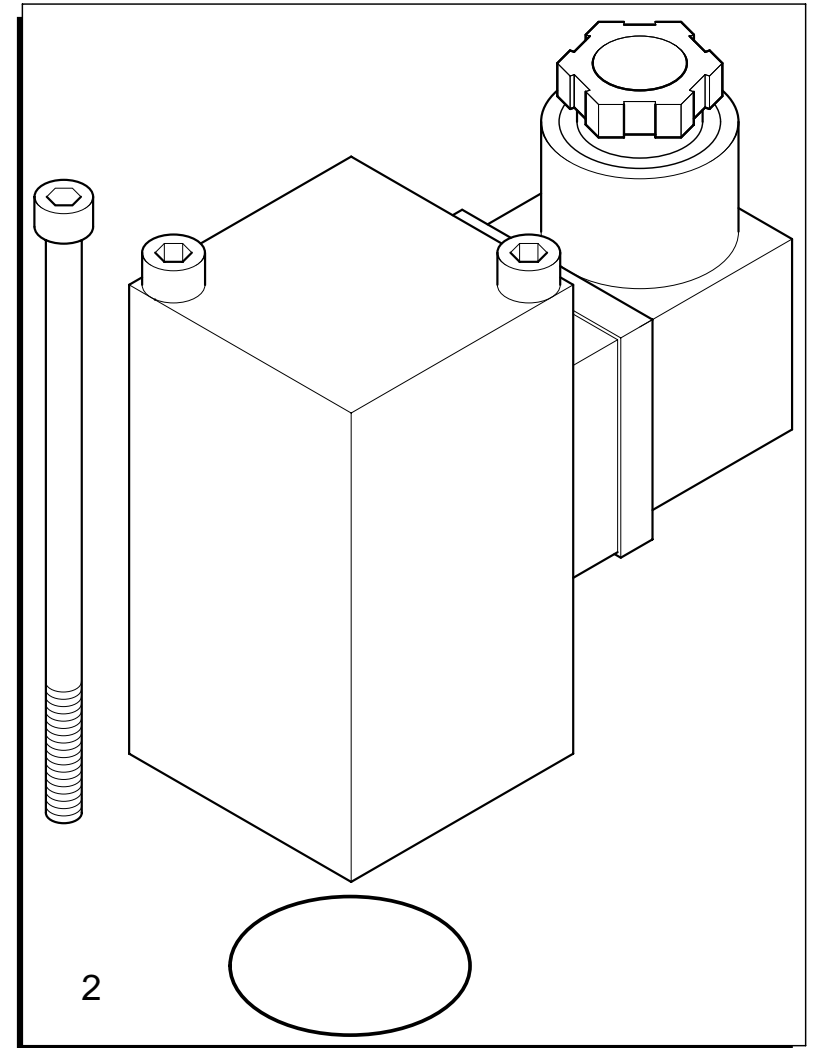
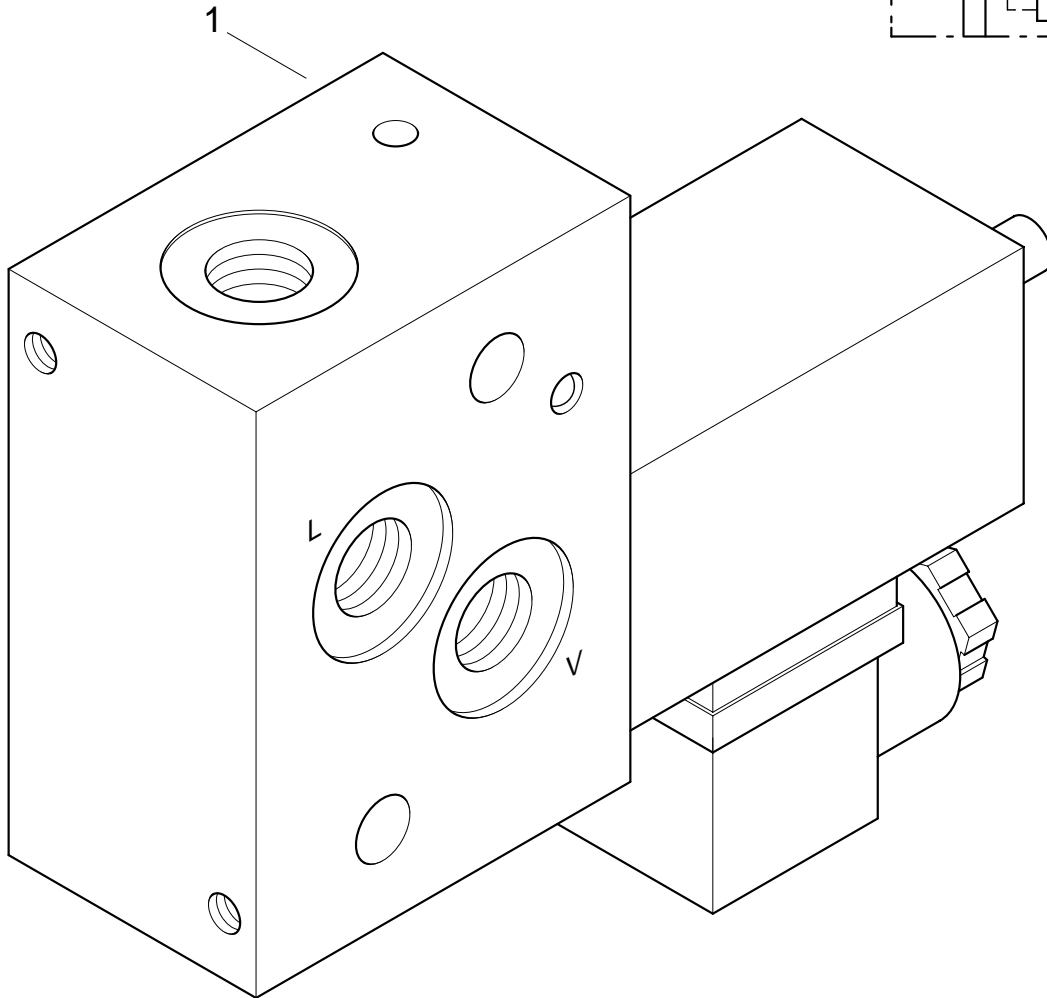
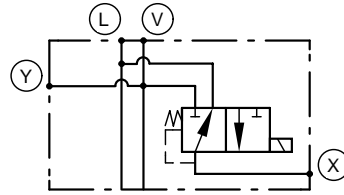
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**CILINDRO STERZO**  
STEERING CYLINDER  
VERIN DE DIRECTION  
LENKZYLINDER  
CILINDRO DE DIRECCION

Tav. Tab. Taf.	<b>35.A040.010</b>	09/04 <b>1</b>
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35.A181.006

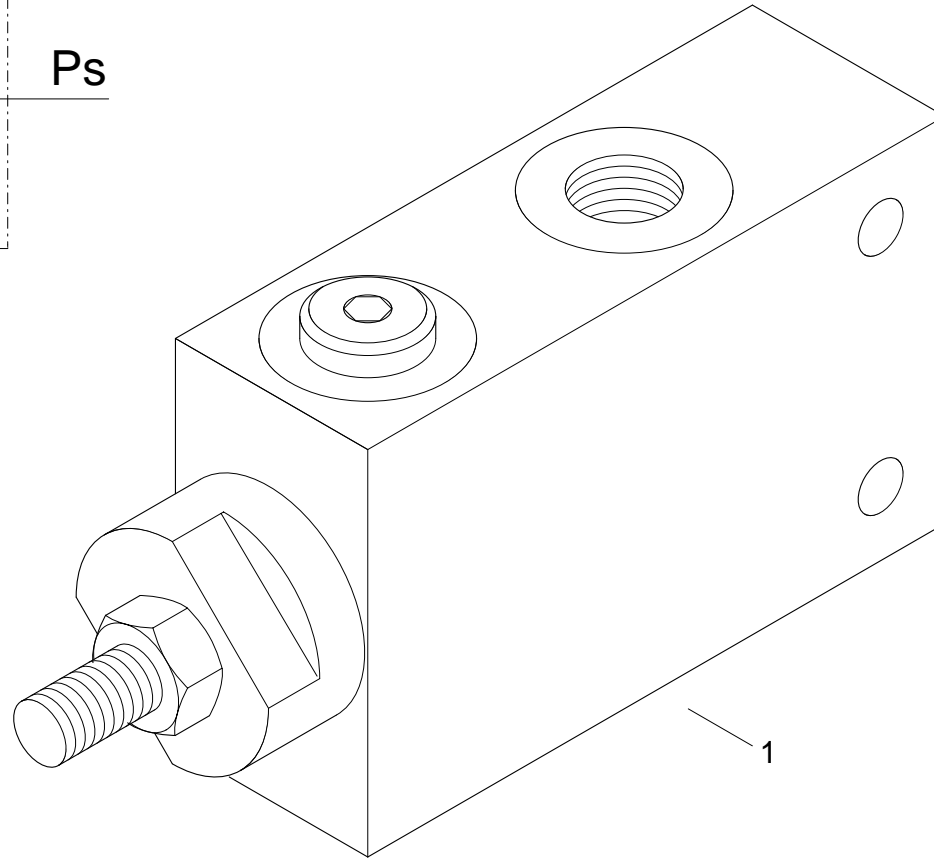
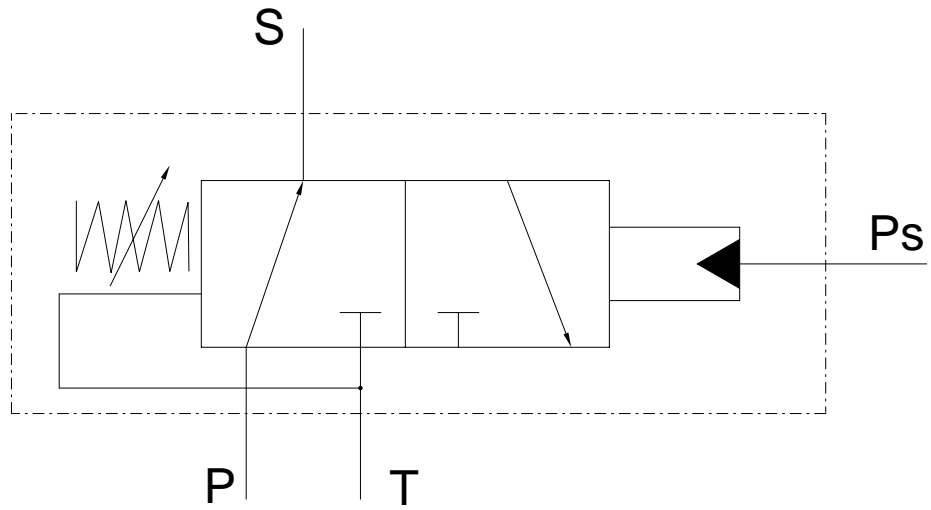


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**MI-JACK**

**ELETTROVALVOLA**  
SOLENOID VALVE  
ÉLECTROVALVE  
ELEKTROVENTIL  
VÁLVULA ELÉCTRICA

Tav. Tab. Taf.	<b>35.A181.006</b>	09/04 <b>0</b>
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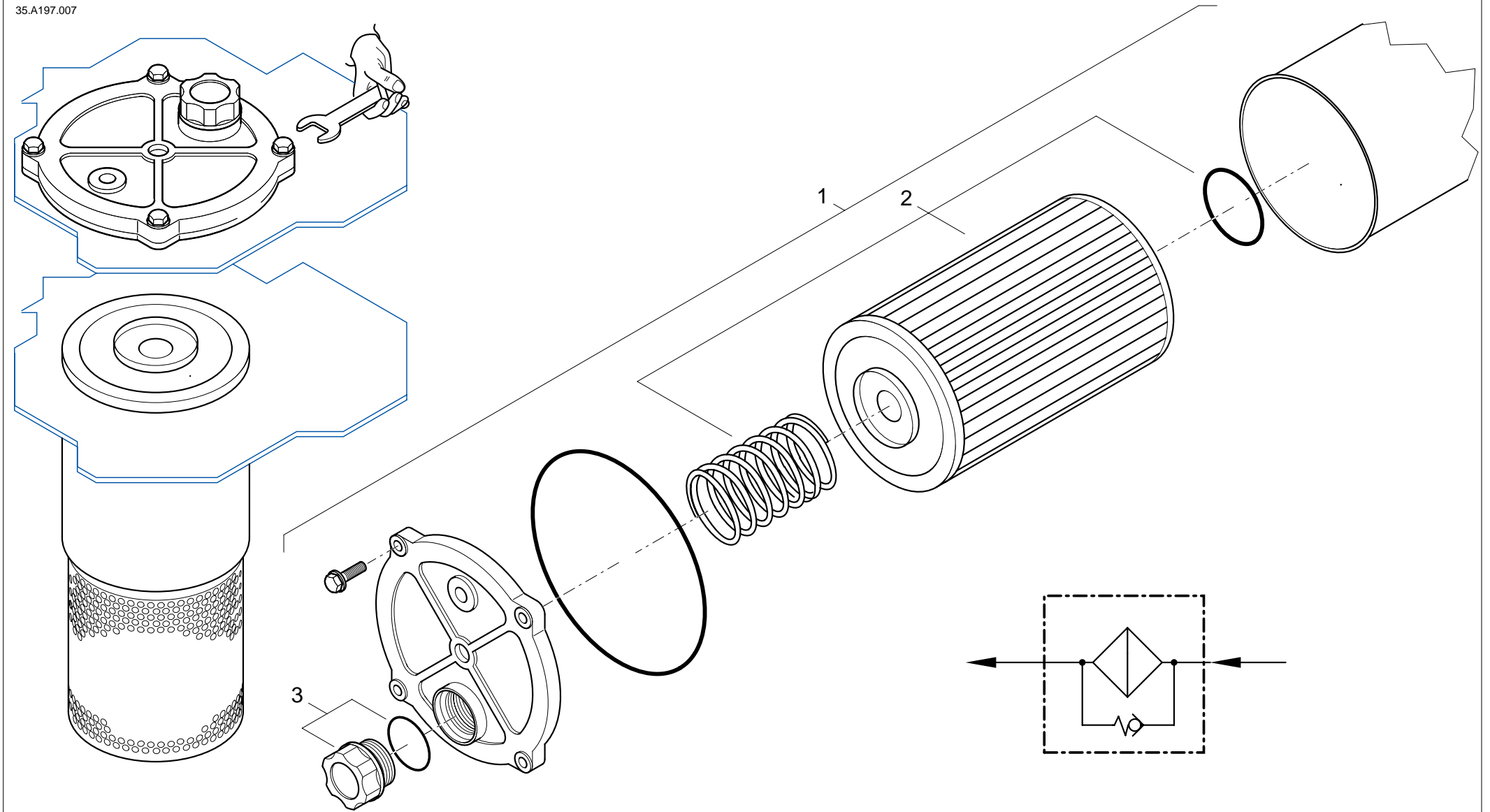


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**VALVOLA DI SEQUENZA**  
PRESSURE CHECK VALVE  
SOUPAPE  
SOUPAPE CONTRÔLE PRES.  
VÁLVULA  
FOLGEVENTIL  
VÁLVULA CONTROL PRESIÓN

Tav. Tab. Taf.	<b>35.A182.015</b>	09/04 <b>0</b>
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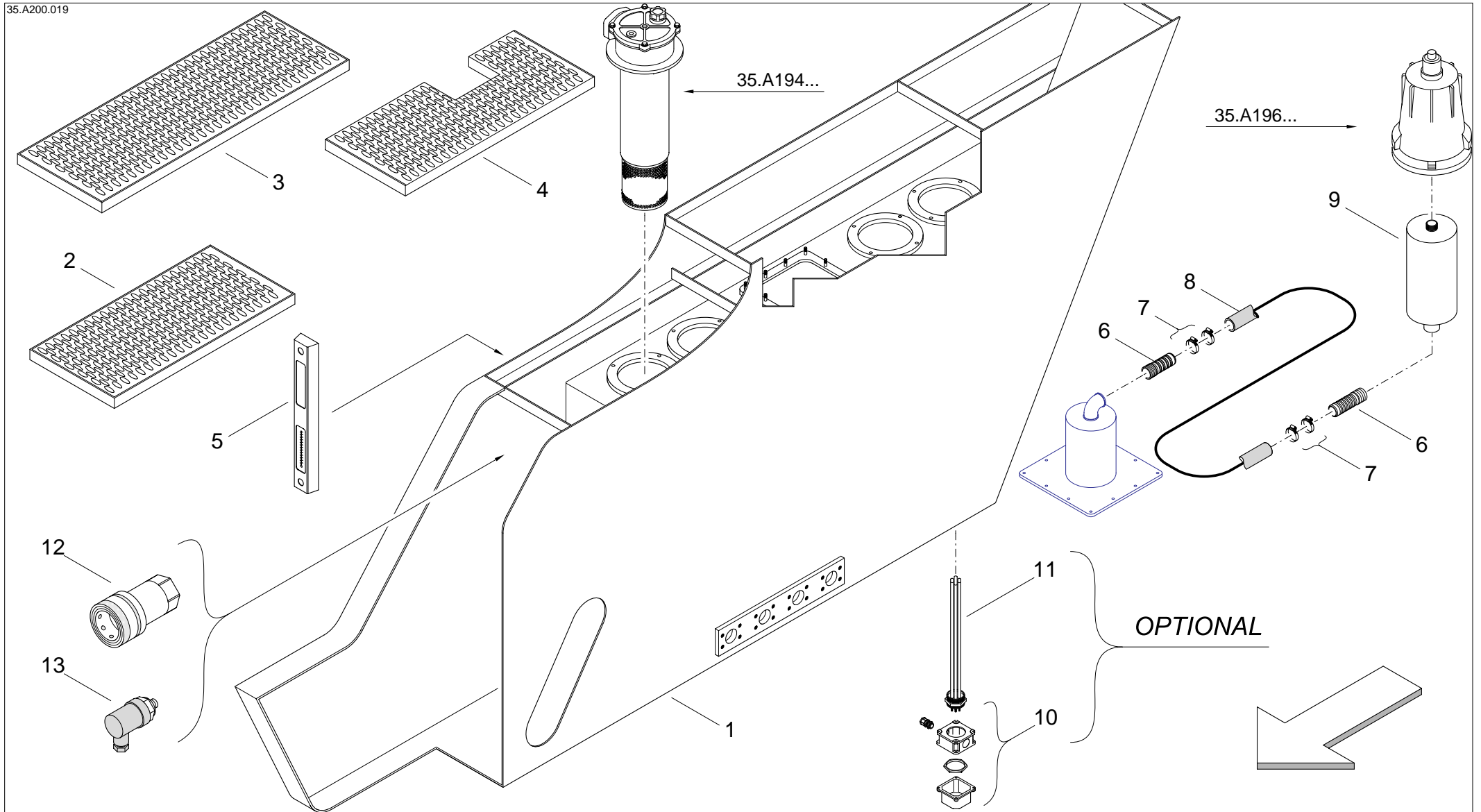


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**MI-JACK**

**FILTRO OLIO**  
OIL FILTER  
FITRE À HUILE  
SCHMIERÖLFILTER  
FILTRO DE ACEITE

Tav. Tab. Taf.	<b>35.A194.007</b>	09/04 <b>0</b>
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35.A200.019



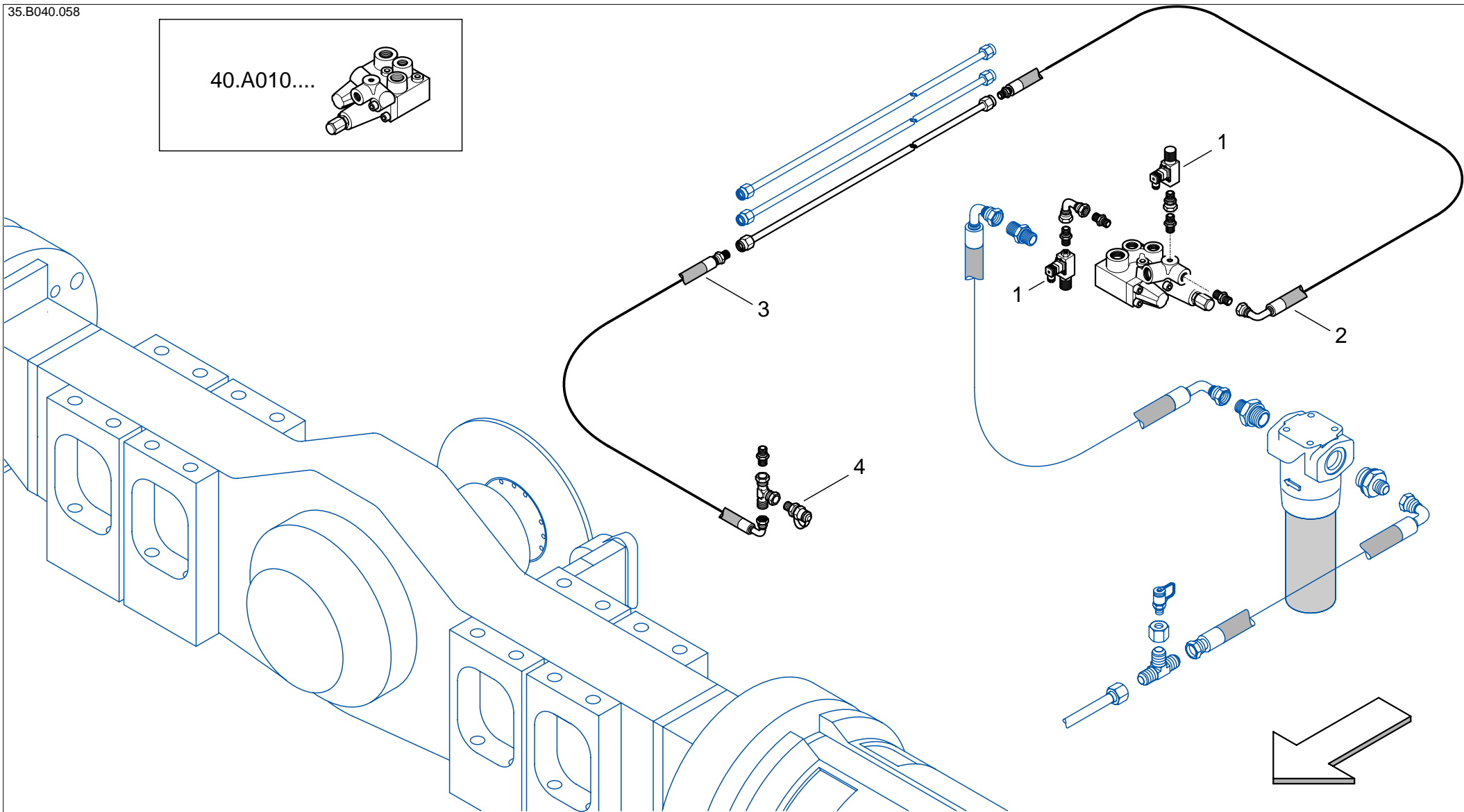
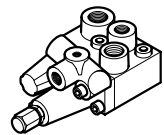
tantuzzi  
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**SERBATOIO OLIO IDRAULICO**  
HYDRAULIC OIL TANK  
RESERVOIR HUILE HYDRAULIQUE  
HYDRAULIKÖLBEHÄLTER  
DEPOSITO ACEITE HIDRAULICO

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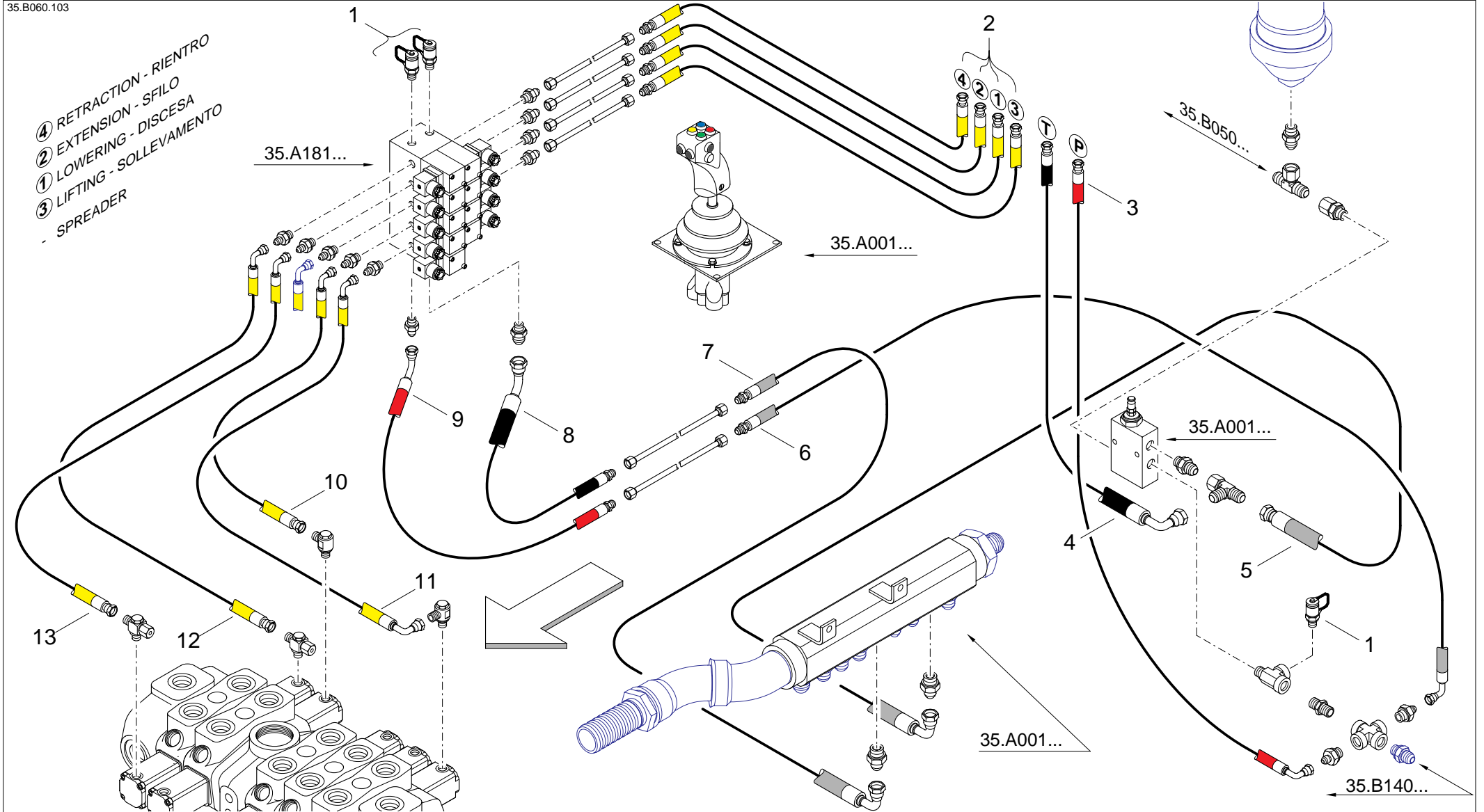
40.A010....



**IMPIANTO IDRAULICO FRENO DI STAZIONAMENTO**  
PARKING BRAKE HYDRAULIC SYSTEM  
INSTALLATION HYDRAULIQUE FREIN DE STATIONNEMENT  
HYDRAULIKANLAGE STANDBREMSE  
INSTALACIÓN HIDRÁULICA FRENO DE ESTACIONAMIENTO

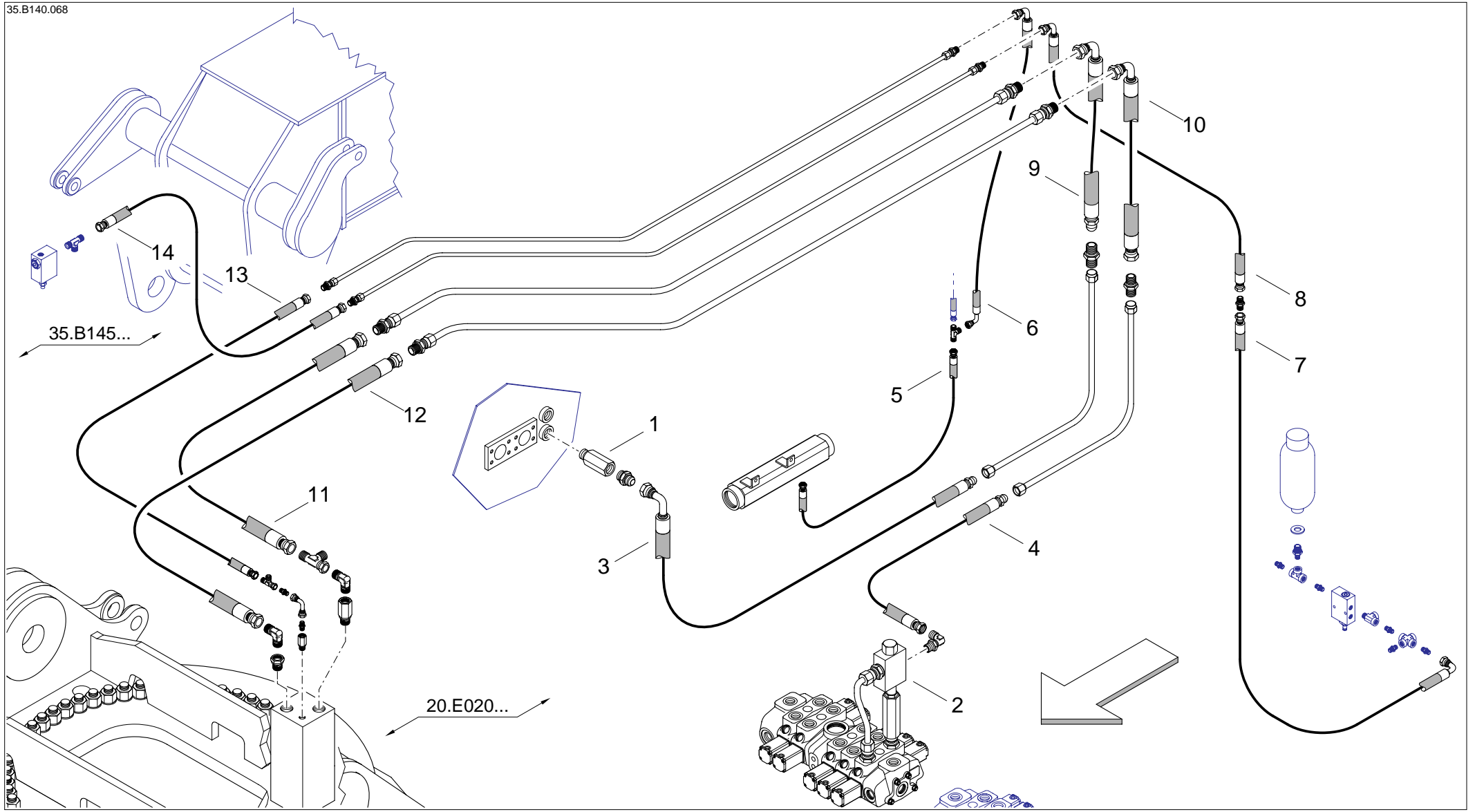
Tav. Tab. Taf.	<b>35.B040.086</b>	09/04 <b>0</b>
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- ④ RETRACTION - RIENTRO
- ② EXTENSION - SFILO
- ① LOWERING - DISCESA
- ③ LIFTING - SOLLEVAMENTO
- SPREADER



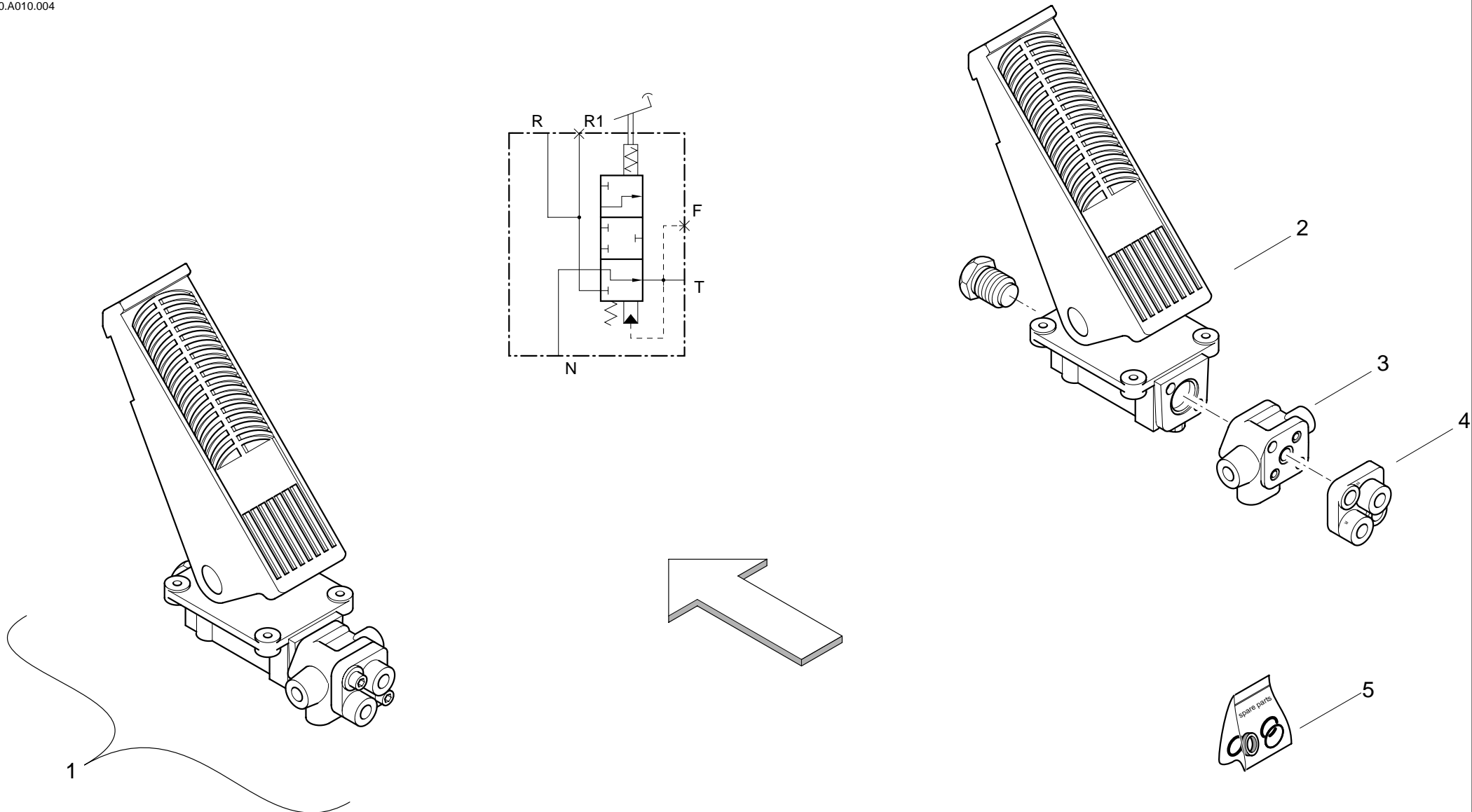
**IMPIANTO IDRAULICO COMANDI CON JOYSTICK**  
 JOYSTICK COMMANDS HYDRAULIC SYSTEM  
 INSTALLATION HYDRAULIQUE COMMANDE AVEC MANETTE DE JEU  
 HYDRAULIKANLAGE DER JOYSTICK-STEUERUNGEN  
 INSTALACIÓN HIDRÁULICA MANDOS CON JOYSTICK

35.B140.068



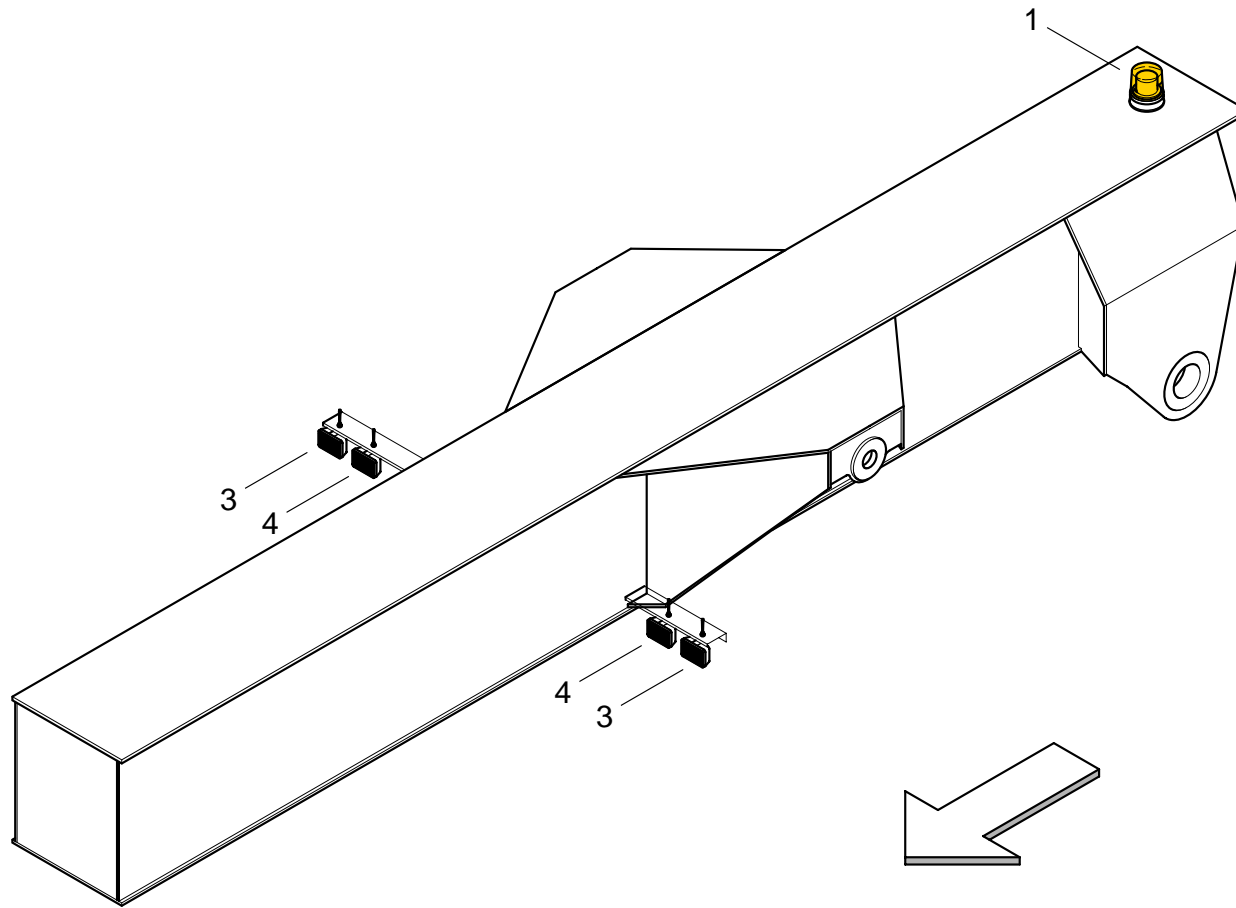
**IMPIANTO IDRAULICO ALIMENTAZIONE SPREADER**  
SPREADER FEED HYDRAULIC SYSTEM  
INSTALLATION HYDRAULIQUE ALIMENTATION ÉPANDEUSE  
HYDRAULIKANLAGE DER SPREADER-VERSORGUNG  
INSTALACIÓN HIDRÁULICA ALIMENTACIÓN REPARTIDOR



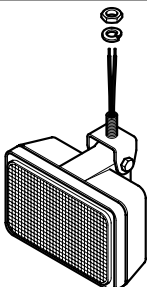
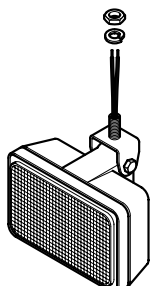
Tav. Tab. Taf.	<b>35.B140.074</b>	09/04 <b>0</b>
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**PEDALE FRENO**  
 BRAKE PEDAL  
 PÉDALE DE FREIN  
 BREMSPEDAL  
 PEDAL DEL FRENO

Tav. Tab. Taf.	<b>40.A010.004</b>	09/04
		<b>1</b>



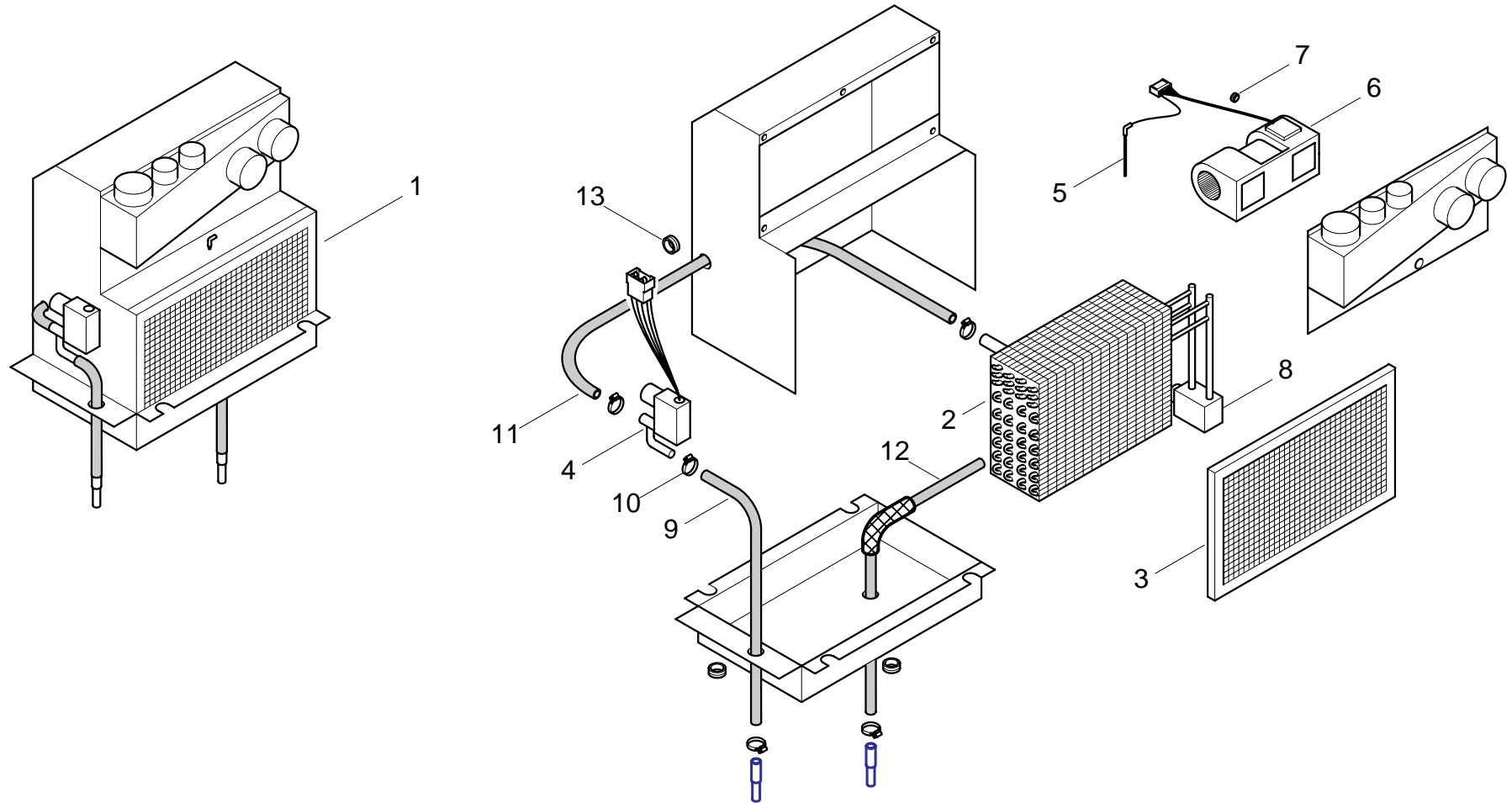
<p>1</p> 	<p>2</p> 
<p>3</p>  <p>Beam Type: Narrow Flood 30'Wx40'L</p>	
<p>4</p>  <p>Beam Type: Wide Flood 50'Wx30'L</p>	



**IMPIANTO ELETTRICO (ACCESSORI)**  
 ELECTRIC SYSTEM (ACCESSORIES)  
 INSTALLATION ELECTRIQUE (ACCESSOIRES)  
 SCHALTBILD (ZUBEHÖR)  
 INSTALACION ELECTRICA (ACCESORIOS)

<b>Pos.</b>	<b>Part No</b>	<b>Q.ty</b>	<b>Description</b>
27	3F.2010126	2	gasket
28	3F.3005194	1	glass
29	3F.2000127	1	windscreen wiper blade
30	3F.2000174	1	windscreen wiper arm
31	3F.3100751	1	cover
32	3F.3101442	1	plate
33	3F.2000067	1	windscreen wiper mot.
34	3F.2010308	1	gasket
35	3F.2000206	1	pipe
36	3F.2010127	1	gasket
37	3F.2010202	1	grille
38	3F.2010126	1	gasket
39	3F.3107550	1	panel
40	3F.3107238	1	panel
41	3F.3100746	1	upright
42	3F.3100873	1	panel
43	3F.3100754	1	panel
44	3F.3100755	1	panel
45	3F.2000129	1	windscreen wiper blade
46	3F.3003922	1	glass
47	3F.3003921	1	glass
48	3F.2010126	1	gasket
49	3F.3900092	1	window
50	3F.3100750	1	cover
51	3F.3106145	1	upright
52	3F.3400010	1	base

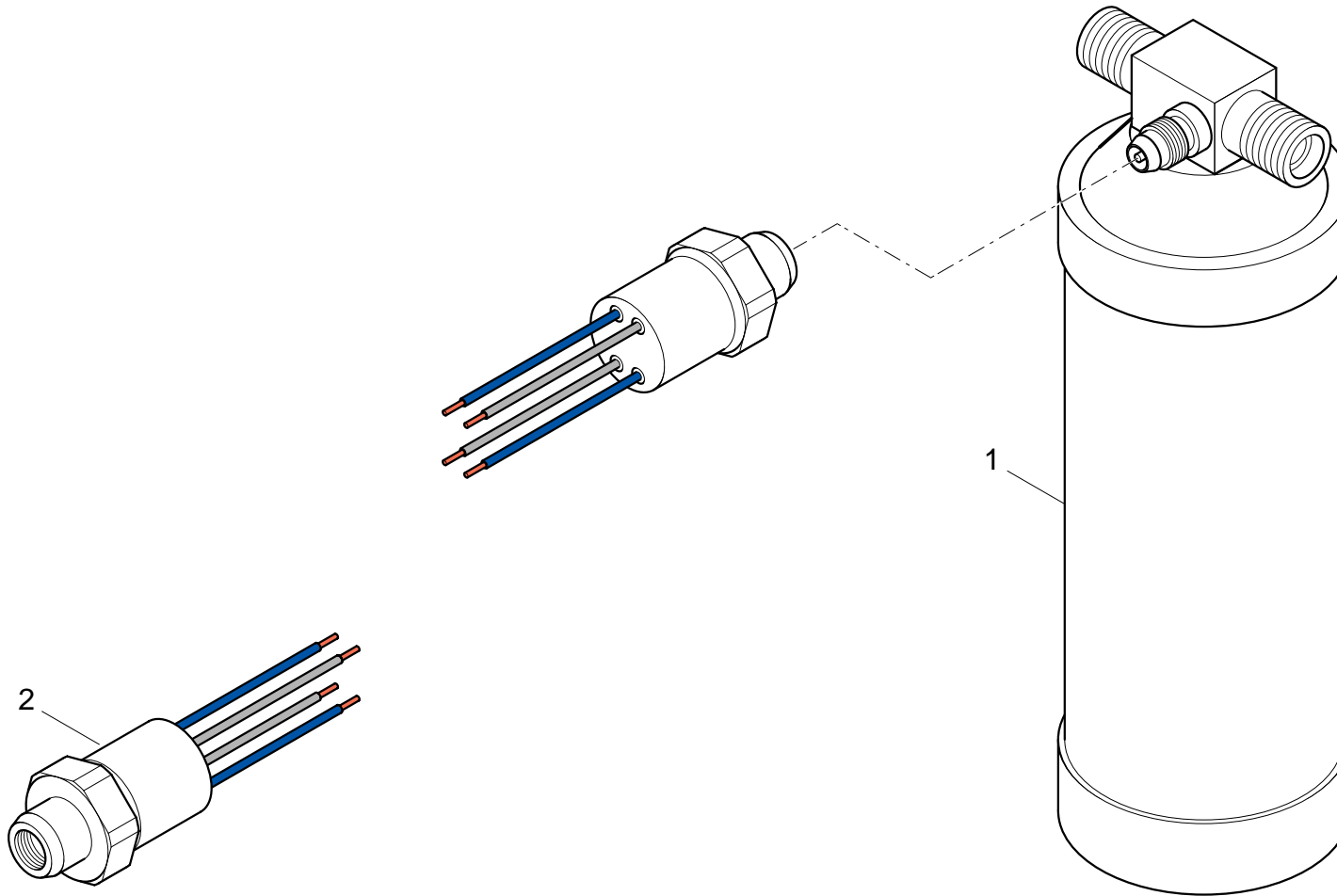
50.E020.005



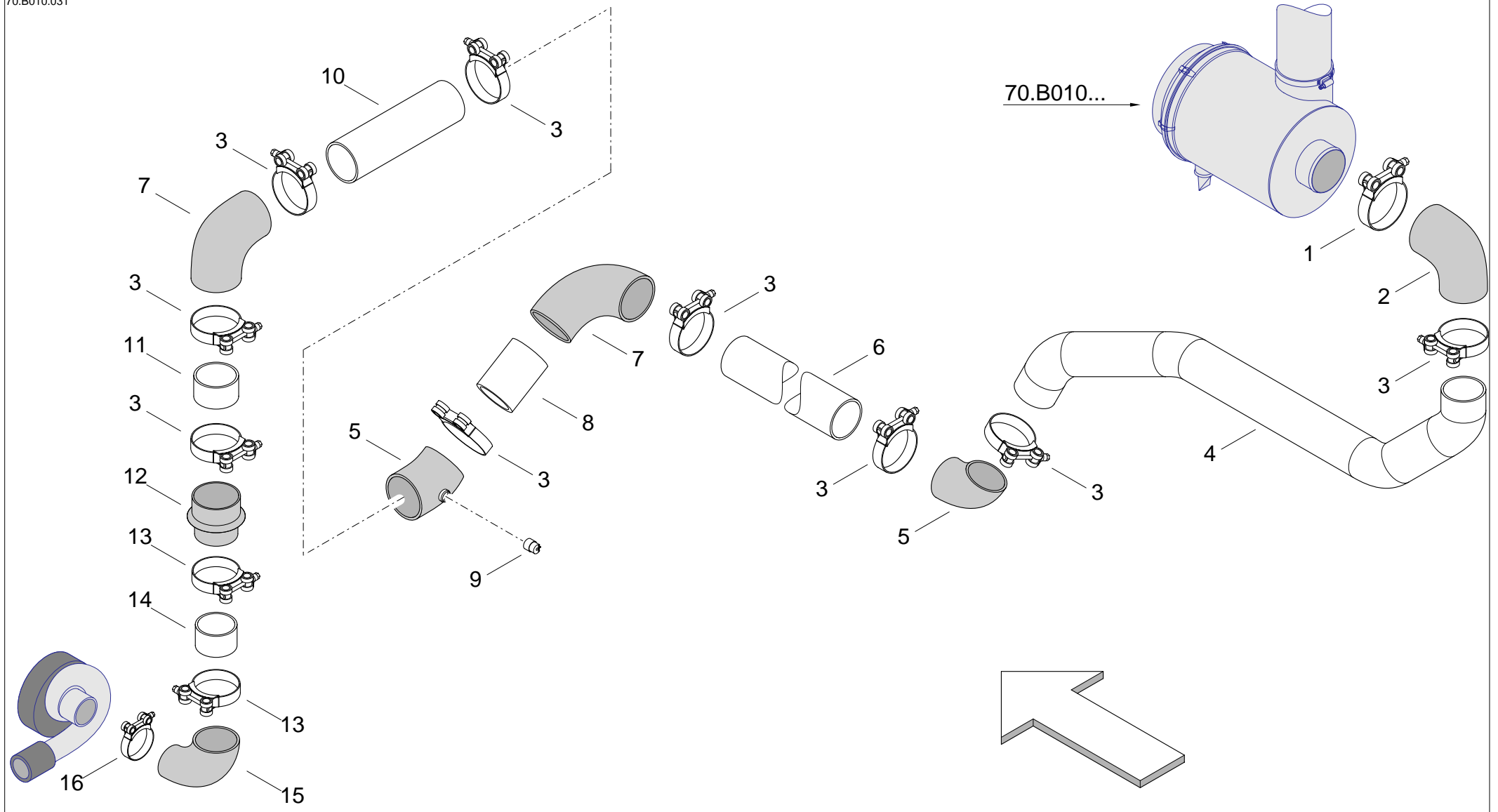
tantuzzi  
**MI-JACK**

**GRUPPO EVAPORATORE**  
COOLER UNIT  
ENSEMBLE ÉVAPORATEUR  
VERDAMPFER GRUPPE  
GRUPO VAPORIZADOR

Tav. Tab. Taf.	<b>50.E020.005</b>	09/04 <b>0</b>
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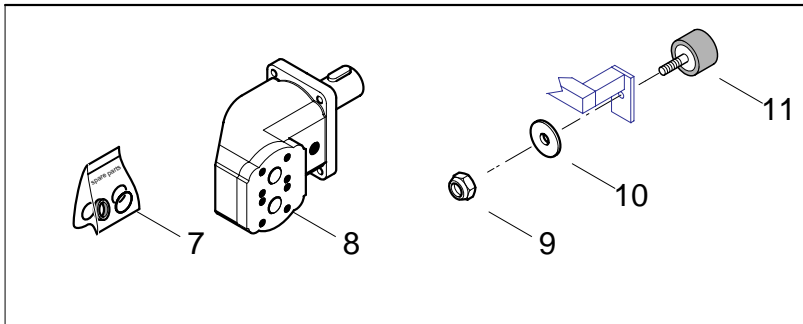
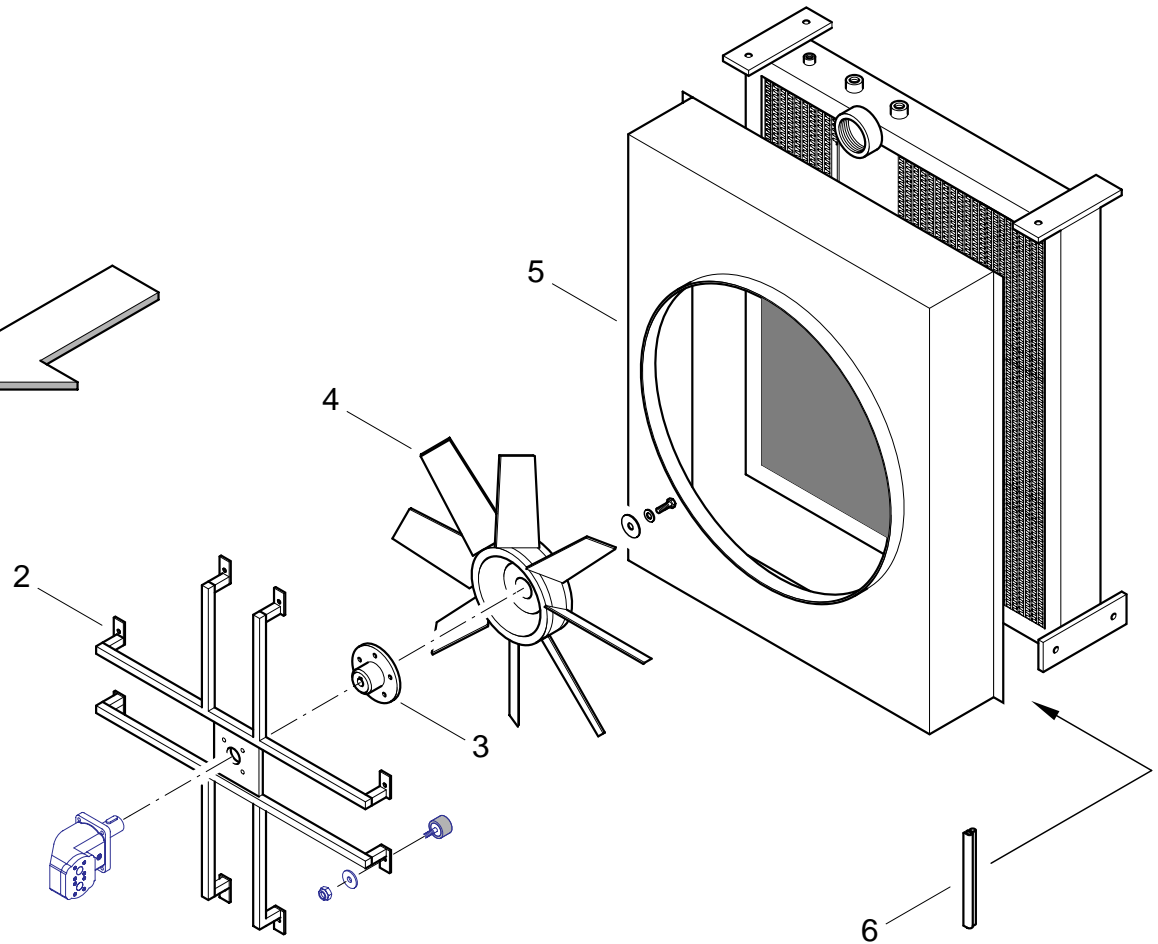
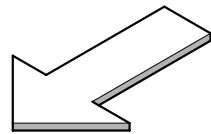
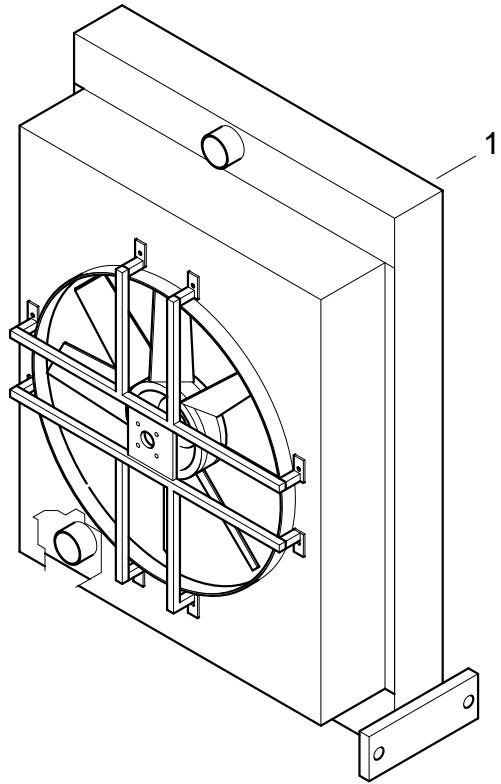




**ASPIRAZIONE ARIA MOTORE**  
 MOTOR AIR INDUCTION  
 ASPIRATION AIR MOTEUR  
 ANSAUGUNG MOTORLUFT  
 ASPIRACIÓN DE AIRE DEL MOTOR

Tav. Tab. Taf.	<b>70.B010.031</b>	09/04
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70.D010.061

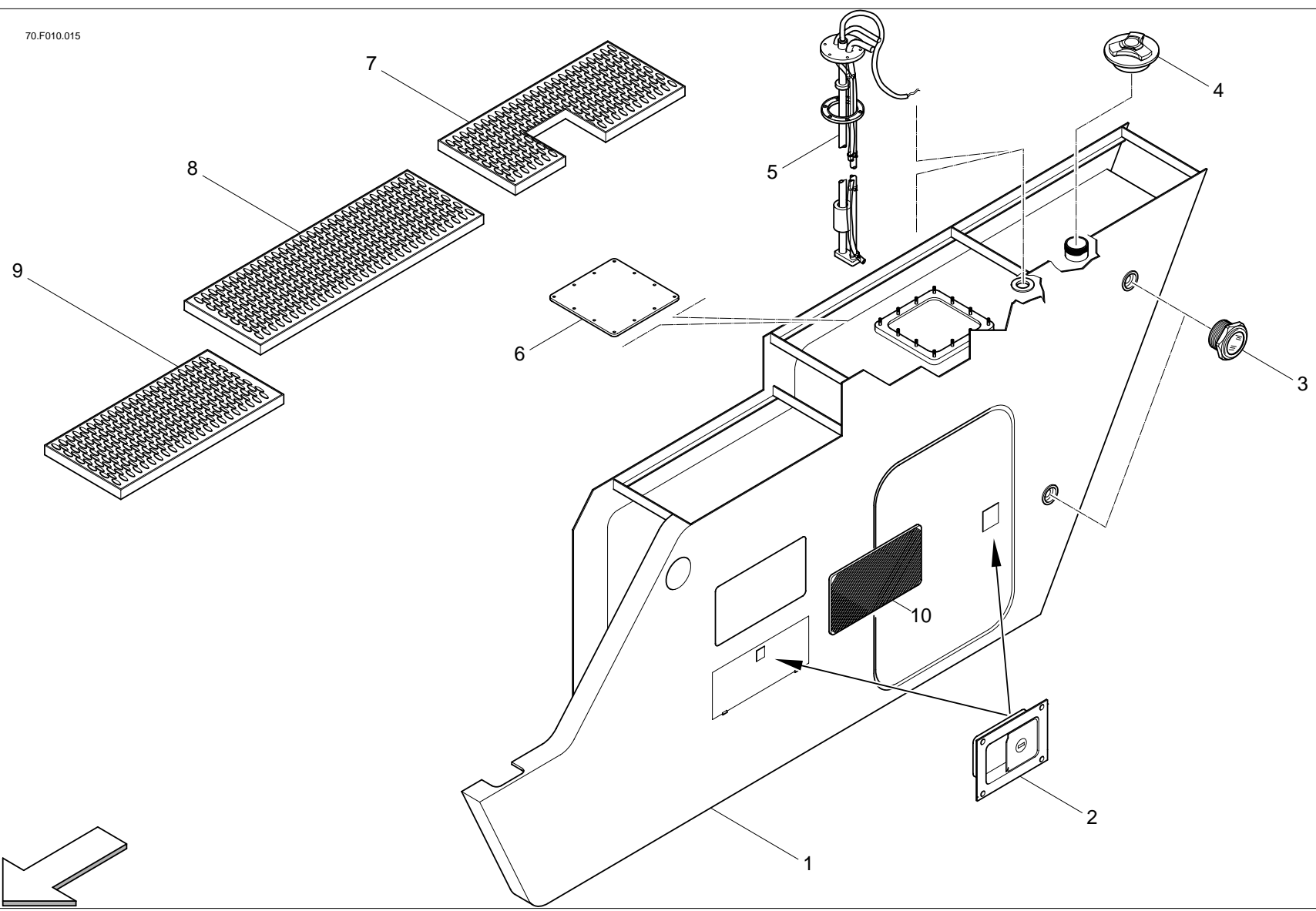


**fantuzzi**  
**MI-JACK**

**RADIATORE**  
COOLER  
RADIATEUR  
KÜHLER  
RADIADOR

Tav. Tab. Taf.	<b>70.D010.061</b>	09/04 <b>0</b>
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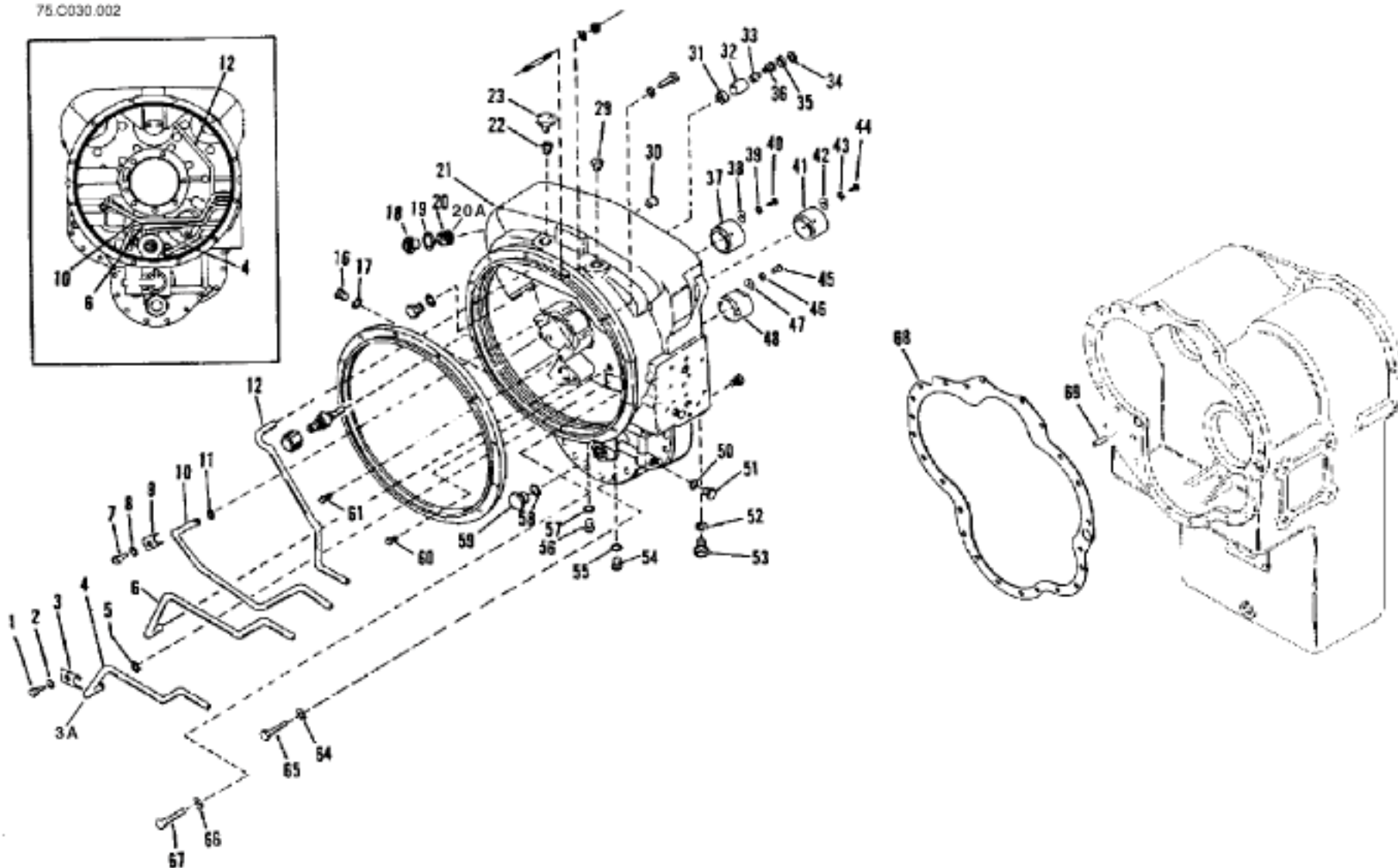
70.F010.015



**SERBATOIO COMBUSTIBILE**  
FUEL TANK  
RESERVOIR COMBUSTIBLE  
KRAFTSTOFFTANK  
DEPOSITO COMBUSTIBILE

Tav. Tab. Taf.	<b>70.F010.073</b>	09/04 <b>0</b>
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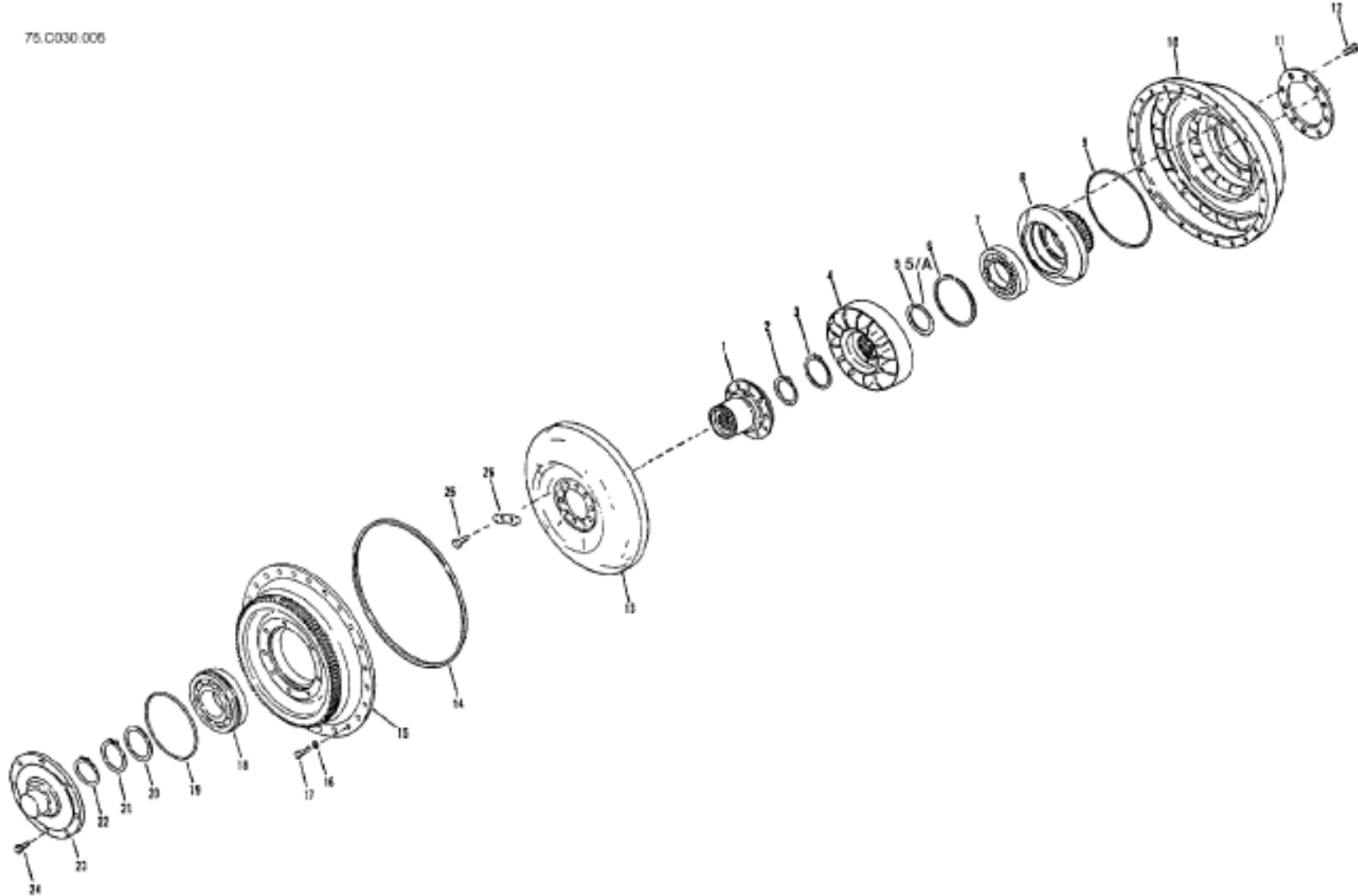
75.C030.002



**ASSIEME CARTER CONVERTITORE**  
CARTER CONVERTER ASSEMBLY  
ENSEMBLE DU CARTER CONVERTISSEUR  
CARTER UMSETZER  
CONJUNTO CÁRTER CONVERTIDOR

Tav. Tab. Taf.	<b>75.C030.002</b>	09/04 <b>0</b>
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75.C030.005

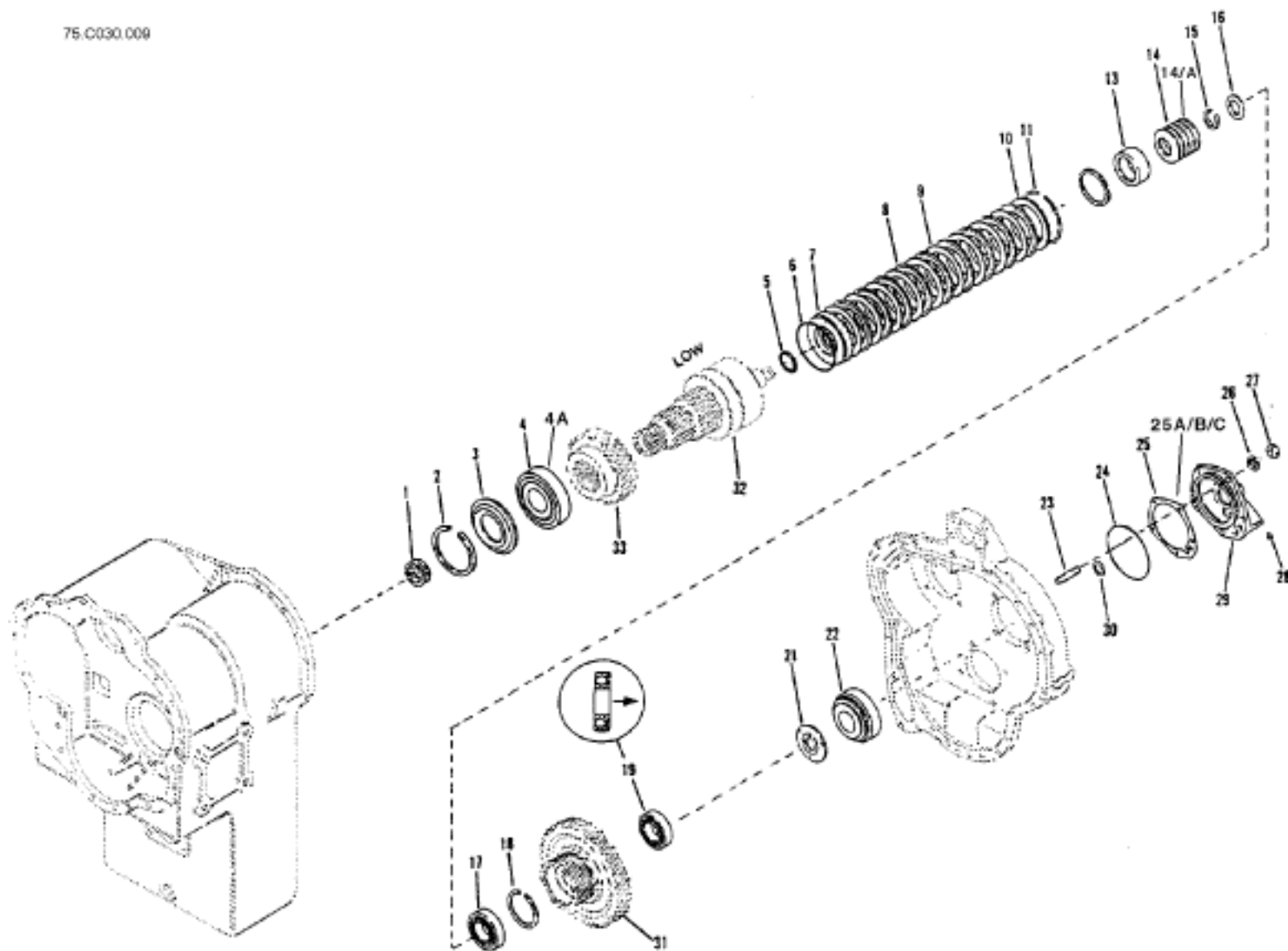


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**MI-JACK**

**GRUPPO TURBINA**  
TURBINE ASSEMBLY  
GROUPE DE LA TURBINE  
TURBINE GRUPPE  
GRUPO TURBINA

Tav. Tab. Taf.	<b>75.C030.005</b>	09/04 <b>0</b>
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75.C030.009



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**GRUPPO FRIZIONI 1ª VELOCITÀ**

1 SPEED CLUTCH ASSEMBLY

GRUPE DES FRICTIONS DE 1 VITESSE

ERSTE GESCHWINDIGKEIT KUPPLUNGSGRUPPE

GRUPO EMBRAGUES 1ª VELOCIDAD

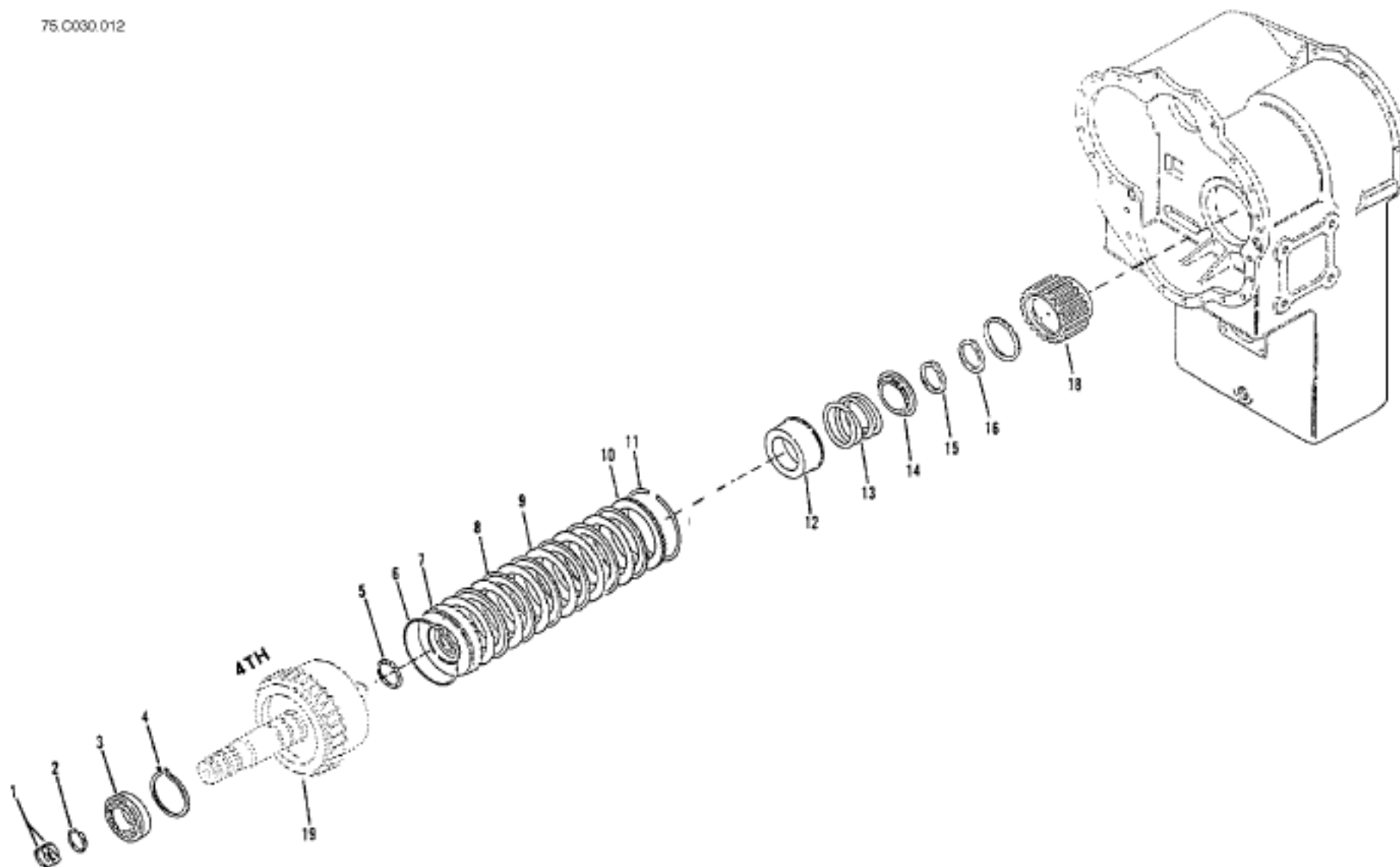
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**75.C030.009**

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75.C030.012

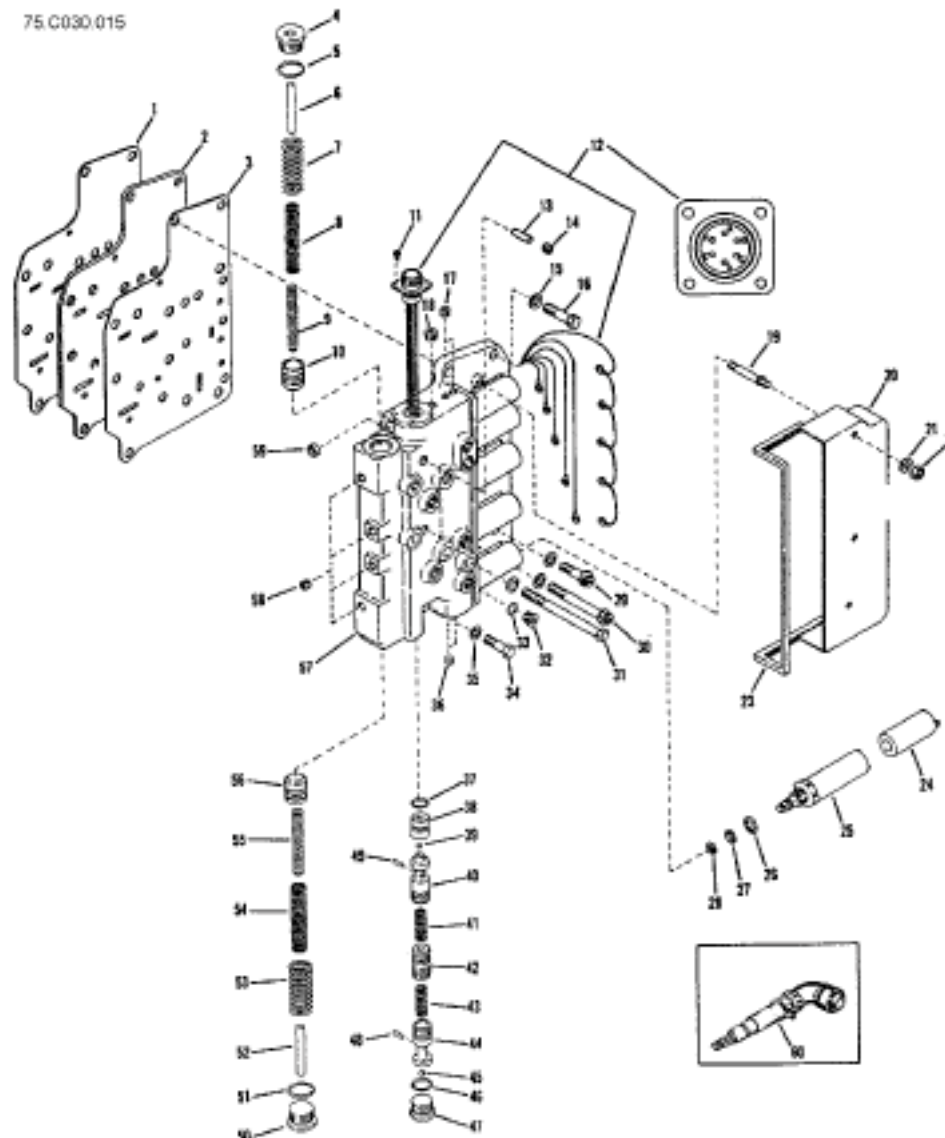


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**GRUPPO FRIZIONI 4ª VELOCITÀ**  
4 SPEED CLUTCH ASSEMBLY  
GROUPE DES FRICTIONS DE 4 VITESSE  
VIERTE GESCHWINDIGKEIT KUPPLUNGSGRUPPE  
GRUPO EMBRAGUES 4ª VELOCIDAD

Tav. Tab. Taf.	<b>75.C030.012</b>	09/04 <b>0</b>
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75.C030.015



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**ELETTRODISTRIBUTORE**  
ELECTRODISTRIBUTOR  
ÉLECTRODISTRIBUTEUR  
ELEKTROVERTEILER  
ELECTRODISTRIBUIDOR

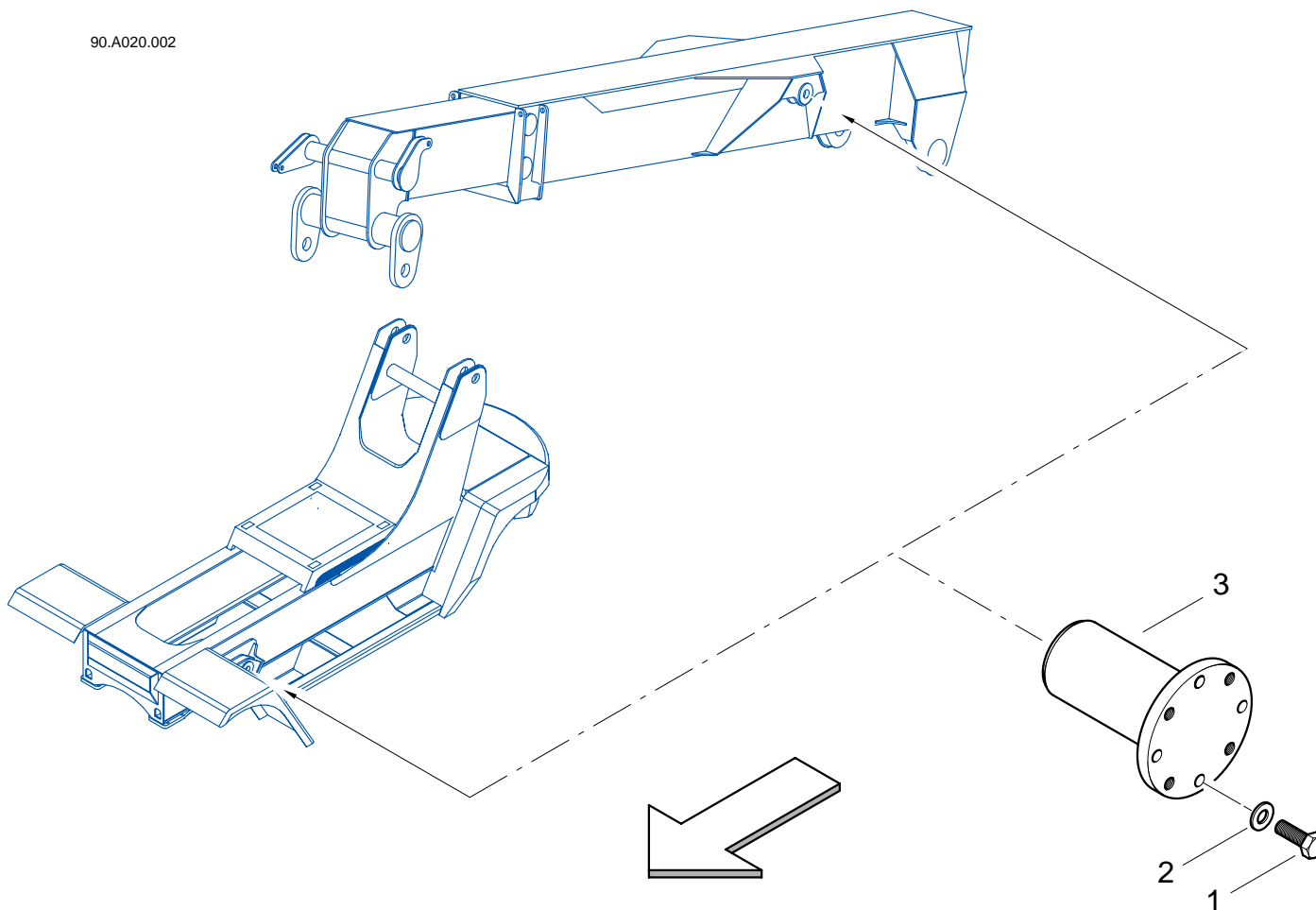
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90.A020.002



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**FISSAGGIO CILINDRO SOLLEVAMENTO**  
LIFT CYLINDER MOUNT  
FIXATION DU VÉRIN DE LEVAGE  
HUBZYLNDERBEFESTIGUNG  
FIJACIÓN DEL CILINDRO DE ELEVACION

Tav. Tab. Taf.	<b>90.A020.002</b>	09/04 <b>0</b>
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