



Installation, operation and maintenance

Handbook



Puller-Tensioner Model: **AFB506**

ATTENZIONE

Per motivi di sicurezza durante il trasporto la macchina è fornita senza olio idraulico e senza carburante. Nel presente fascicolo troverete informazioni sulle caratteristiche e le quantità richieste. In caso di dubbio consultare la TESMEC.

WARNING

The machine is supplied without hydraulic oil and fuel during transport for precautionary measures. Please refer to this manual for all information regarding the characteristics and quantities required. Should you have any doubt, please get in touch with TESMEC.

ATTENTION

Pour mesures de sécurité, pendant le transport la machine est livrée sans huile hydraulique et sans carburant.

Référez-vous à ce manuel pour renseignements nécessaires sur les caractéristiques et quantités. En cas de doute veuillez contacter TESMEC.

ATENCION

Por motivos de seguridad la máquina se transporta sin aceite hidráulico y sin combustible. En el presente fascículo encontrarán informaciones acerca de las características y de las cantidades requeridas. En caso de dudas, consultar a TESMEC.

ATENÇÃO

Por razões de segurança durante o transporte, a máquina é fornecida sem óleo hidráulico e combustível. No presente folheto poderão encontrar as informações sobre as características e as quantidades requeridas.

Caso tenham alguma dúvida, rogamos-lhes pôr-se em contacto com a TESMEC.

ACHTUNG

Aus Sicherheitsgründen während des Transportes, wird die Maschine ohne Öl und Kraftstoff geliefert. Im vorliegenden Gebrauchsanweisungsheft werden Sie Informationen über die Eigenschaften und Mengen des Öls finden.

Wenn Sie im Zweifel sind, fragen Sie TESMEC um Rat.

ПРЕДУПРЕЖДЕНИЕ

Из соображений безопасности, при поставке машина транспортируется без рабочей жидкости в гидравлической системе и топлива.

Пожалуйста, пользуйтесь настоящим руководством для получения любых сведений, касающихся характеристик и заправочных емкостей.

В случае каких-либо сомнений, пожалуйста, свяжитесь с компанией TESMEC.



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PULLER-TENSIONER

Model: AFB506

Serial number

.....

Manufacturing year

.....

Working order

.....

USE AND MAINTENANCE INSTRUCTIONS



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2. GENERAL DATA AND PRESCRIPTIONS

2.1 MANUFACTURER

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2.2 COMMUNICATIONS WITH THE MANUFACTURER

For any information related to the machine (use, maintenance, spare parts) always state Model, Serial Number, Manufacturing Year and Order. Those data can be found in the machine-identifying table.

2.3 TYPOLOGY AND USING FIELD

Puller-tensioner mod. AFB506 is suitable to recover or to string one or two conductors, even with optical fibers, granting a fine regulation both of the maximum and of the minimum pull.

The machine is controlled by a hydraulic system that allows the machine to automatically work in PULLER or in TENSIONER mode. Each couple of bull-wheels can be independently controlled.

The machine is equipped with a load pre-setting system: this system keeps the pre-set value, automatically adjusting the speed depending on the friction and unexpected loads that may develop along the line. Even at "0" speed the system keeps the rope in tension at the pre-set value.

The performances are the same in puller and tensioner mode.

The bull-wheels' grooves are made of nylon interchangeable sectors.

The machine is equipped with quick coupling for the connection to all types of reel winders and reel elevators made by Tesmec.

This machine should be equipped as optional with a totally new generation of electronics controls that allow to use multiple similar machines connected between them for multi-conductors stringing operations.

2.4 PERFORMANCES

	HIGH PULL	LOW PULL (OPT)
Max. pull	45 kN – 10.000 lb x 2 or 90 kN – 20.000 lb x 1	14 kN – 3.000 lb x 2
Speed at max pull	2,4 km/h – 1,5 mph	/
Max. speed	5 km/h – 3,1 mph	5 km/h – 3,1 mph
Pull at max. speed	22 kN – 5000 lb x 2 or 44 kN – 10.000 lb x 1	/
Min. pull	/	3 kN – 650 lb x 2



ATTENTION: the use with ropes or conductors with diameter lower than the max. admitted one, causes the reduction of the max. applicable pull in comparison with the min. working load granted by the rope or by the conductor.

Performances are referred to the machine without optional, at sea level and at 20°C.

2.5 TECHNICAL CHARACTERISTICS

Bull-wheels diameter:	1500 mm
Maximum conductor diameter:	40 mm
Maximum rope diameter:	18 mm
Diesel engine:	104 kW – 140 hp – 2400 rpm – turbocharged, after-cooler, electronic type
Electrical system:	12 V
Transmission:	hydraulic closed circuit with cooling system for hydraulic oil
Mechanical transmission 3 positions:	neutral – maximum ratio (HIGH PULL) – minimum ratio (LOW PULL) (standard for the 1 st transmission – optional package for the 2 nd transmission)
Safety brakes:	negative and self-acting type
Meter-counter:	2 electronic type
Axle:	rigid type with mechanical stationary brake for towing at max. speed of 30 km/h – 18,6 mph
Dimensions:	length – 4075 mm – 160,4 in width – 2360 mm – 92,9 in height – 2800 mm – 110,2 in
Mass without oil:	6500 kg – 14300 lb

Updating & technical characteristic changes without notice are possible.

2.6 ACOUSTIC EMISSION

Level of continuous sound pressure at the operator's position (UNI 9432) Lep = 85 dB(A)

2.7 GENERAL PRESCRIPTIONS FOR THE MACHINE USE

- Only authorized and trained personnel must use the machine.
Trained personnel are intended to be the person who has received a qualified training from the using Company or, as alternative, from the manufacturer.
- Machine must be used **only** for the work it was designed for.
- Machine cannot be used with non-authorized personnel on the working site.
- For safety reasons, during transport machine comes without hydraulic oil and fuel.
Characteristics and required quantities are listed in the present manual.
- For any doubt concerning use, functioning, maintenance or everything else, contact the After-sale Service of the manufacturer.

2.8 GENERAL PRESCRIPTIONS FOR THE OPERATOR CHARGED OF THE MACHINE USE

- Operator **has** to know safety directives for accident prevention in force in the machine using country, for a correct use of the same.
- The operator in charge with the installation and maintenance of the machine must use **suitable clothes** to the working site and to the situation where he finds himself; in particular, he must avoid the use of very large clothes, chains, bracelets, rings or whatever can get entangled with moving parts of the machine.
- The operator has to use the necessary protecting devices (i.e. gloves, boots, helmet, etc.).
It is compulsory the use of personal protecting devices for hearing.
- The operator must not carry out on his own initiative operations or interventions that are not up to him.
- The operator must carefully follow danger and/or prohibition prescriptions contained in the instruction manual or indicated on the machine.
- The working area of the operator has to be cleaned from possible oil or liquids wastes and free of materials or equipment that may be considered as an obstacle for the operator work.
- The operator **must absolutely avoid** the direct inhalation of the exhaust gas of the endothermic engine.

2.9 GENERAL PRESCRIPTIONS FOR THE OPERATOR CHARGED OF THE MACHINE MAINTENANCE

- a. **It is absolutely forbidden** to carry out any work of maintenance, adjustment or setting on units while stringing (except for the operations indicated in the present manual).
- b. Before carrying out any maintenance operations, **stop** the energy feeding (except for the cases indicated in the present manual) and wait till the cooling of the elements subjected to heating.
- c. All the maintenance operations of the machine must be carried out with machine on a level surface and not under load.
- d. Authorized and trained personnel must carry out all the maintenance operations, ordinary and not ordinary. Trained personnel are intended to be the person who has received a qualified training from the using Company or, as alternative, from the manufacturer.
- e. The operator in charge with the maintenance of the machine must use suitable clothes to the working site and to the situation where he finds himself; in particular, he must avoid the use of very large clothes, chains, bracelets, rings or whatever can get entangled with moving parts of the machine.
- f. The operator has to use the necessary protecting devices (i.e. gloves, boots, helmet, etc.).
- g. All the maintenance operations, ordinary and not ordinary, must be effectuated respecting the prescriptions indicated in the present manual or following technical indications written by the manufacturer. The non-respect of the prescribed restrains relieves the manufacturer from any responsibility causing also the loss of warranty.

2.10 KNOWLEDGE AND CARE OF THE INSTRUCTION MANUAL

- a. The information contained in the instruction manual applies to all the operators charged with the use and/or the maintenance of the machine.
- b. The instruction manual **is not** a training manual.
- c. Before using the machine, the chief of the job site and the operator **must** read the instruction manual.
- d. The chief of the job site **is obliged** to inform all the operators about the instructions contained in the manual.
- e. The user **must** carefully follow the instructions listed in the present manual.
- f. Before using the machine, the operator **must** be able to use it and **has** to exactly know the positions and the functioning of all the controls.
- g. The chief of the job site **must** verify that the instructions contained in the manual are applied.
- h. The instruction manual **must** be kept, in order to be consulted, for all the life of the machine and also when it is given to another user.
- i. The instruction manual **must** be kept in a sheltered and dry place.



**ATTENTION: present manual belongs exclusively to the manufacturer.
The reproduction, event partial, of the text is forbidden.**

2.11 ENVIRONMENTAL CONDITIONS OF USE

- a. Temperature: from -12°C to +40°C.
- b. Relevant moisture: from 30% to 90% ± 5%.
- c. Weather conditions: any (in line with working conditions).
- d. Natural and/or artificial lighting of the working site.

2.12 TEMPERATURE LIMITS FOR HYDRAULIC OIL

When using the machine, always remember to respect the following temperature limits that can be reached with hydraulic oil as function of the working condition.

TEMPERATURE LIMITS FOR HYDRAULIC OIL (°C)				
Working condition	Hydraulic oil viscosity			
	VG 22	VG 32	VG 46	VG 68
Minimum temperature running in neutral position	-21	-14	-7	-1
Minimum temperature running in full load	8	16	24	32
Maximum temperature running in full load	48	57	67	76
Maximum temperature running in neutral position	63	73	83	93

For additional information concerning the hydraulic oil, see chapter "Maintenance" and the attached comparative table of the oils used on the machine.

2.13 USE NOT ALLOWED

The machine **must not be used**:

- for lifting persons and/or goods
- in grounds on which the machine cannot be positioned and anchored in a proper way
- in areas with brushwood or other materials presence that can be easily set on fire
- in closed/unventilated sites or, however, not sufficiently airy (tunnel or similar)
- in sites with presence of gas that can be easily set on fire or explosives
- in sites with presence of explosive materials
- on aircraft, crafts, floating platforms and similar
- for structure demolition, shafts felling or similar
- for pulling flexible elements that can be highly lengthening, which allow elastic power accumulation
- with ropes or conductors having a bigger diameter than the one specified in present manual
- when engine is off and adherence units are moving
- with inhibited or broken safety devices installed on the machine
- when winding on the bull-wheels ropes and/or conductors having a smaller diameter as a succession of ropes and/or conductors having a bigger diameter
- for handling trucks or other moving equipment.



PROHIBITION: is not allowed to install on board radio equipments. These could create electronic equipment malfunctions, putting the personnel at serious risk.

2.14 RESPONSIBILITY

The use of the machine for scopes different from those foreseen on paragraph 2.3 (Typology and using field), even if not well described in this manual, has to be considered extremely **dangerous** and then **forbidden**.

The non-respect of the prescribed restrains causes a situation of improper use for technical and persons safety purposes and relieves the manufacturer from any responsibility, civil or penal, in case of accidents to persons or damages to things, causing the loss of warranty.

The manufacturer responsibility declines even when one of the following situations happens:

- for the consequences caused by tampering and/or modifications carried out without the manufacturer's written acceptance (in this case the operator becomes the manufacturer with relevant obligations and responsibilities, both civil and penal)
- for the use of not original spare parts
- for bad maintenance
- for the use with disconnected safety devices
- for the connection to machines and/or plans not produced and not directly authorized by the manufacturer in a written acceptance.

2.15 APPLIED NORMS

If the machine is commercialized in C.E. responds to the following regulatory framework:

2006/42/CE Norm of referring to the laws of the machine.

2014/30/UE Norm of electromagnetic compatibility member.

If the machine is commercialized outside the C.E. was made reference to the following regulatory framework:

2006/42/CE Norm of referring to the laws of the machine.

2014/30/UE Norm of electromagnetic compatibility member.

3. TRANSPORT AND POSITIONING INSTRUCTIONS

3.1 MACHINE LIFTING

For the machine lifting use only devices as overhead traveling cranes or lift trucks, with a capacity suitable for the mass to be lifted.

The devices used for the machine lifting (ropes, cables, hooks, etc.) have to be exactly dimensioned as compared to the mass to be lifted and have to be connected to the proper elements foreseen on the machine (table 2, pos. 2).

During machine lifting operations, the presence of persons on the machine is strictly forbidden.



DANGER: the non-respect of the above mentioned conditions may cause dangerous situations as well as damages to the machine with the consequent decline of any warranty condition.

3.2 TRANSPORT TYPOLOGIES AND PACKAGE

Transport by land by truck

The machine comes without all the liquids that can be set on fire and protected in the most exposed and delicate parts by means of cardboard and/or plywood and/or polyethylene extensible film. To fix the machine on the platform of the transporting unit, use nailed wedges and/or metal brackets and/or tie rods.

Transport by sea in wooden cases or container

The machine comes without all the liquids that can be set on fire; metal parts are protected with waterproof wax.

To fix the machine on the package, use nailed wedges and/or metal brackets and/or tie rods. At the inside, the wooden case foresees a protection with tarpaper.

Materials usually used for the package are:

- ⇒ wooden
- ⇒ nails and/or steel screws
- ⇒ cardboard and/or paper
- ⇒ polyethylene extensible film
- ⇒ adhesive tape.

3.3 UNPACKING

When receiving the machine verify the integrity of the package; advise immediately the manufacturer and the person in charge of the transport (even with photos) when possible damages due to transport or tampering with removal, even partial, of the content happen.

Verify if the supplied material corresponds to the ordered one; immediately advise the manufacturer if there are some discrepancies.

In case of transport on wooden case, remove, in sequence, the upper cover and lateral panels, before removing the machine.

During unpacking operations, avoid any shock to the structure or to the machine units, in order to avoid any damage to the machine itself.




ATTENTION: the elimination of packaging materials must be effectuated in conformity with the norms in force in the using country.

3.4 ASSEMBLY OPERATIONS

Assemble the tires in the suitable seats.

3.5 TRANSPORT ON TRAILER

Machine is suitable for road towing in the job site at max. speed of 30 km/h – 18,6 mph.

 **PROHIBITION: machine is not suitable for public road towing.**

Possible displacements on trailer in the working site must be carried out by a connection to the towing unit by means of the towing eye on the drawbar.


The used towing unit must be homologated for towing trailers with mass and dimensions as per the described machine.

The connection to the towing unit has to be carried out only by means of the towing eye on the drawbar (table 2, pos. 12).

Before transport operation, lift and block in releasing position the rear supporting point (table 2, pos. 11) and the front plough (table 2, pos. 14) acting on the suitable lever (table 1, pos. 19) and inserting the safety pin (table 2, pos. 13) (NOTE: this operation has to be effectuated with running engine).

Check the inflation pressure of tires (6 bars – 87 psi).

During machine transport on trailer operations, nobody must stay in the machine itself.

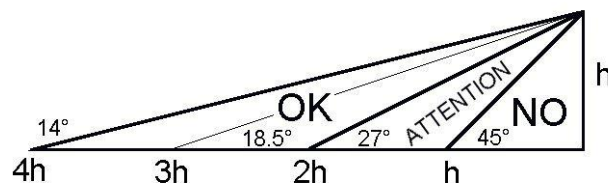
 **ATTENTION:** dangerous situations during towing if the tires inflation pressure and the speed limits are not respected may happen.

When transporting on truck or trailer, verify if the machine has been fixed on the platform of the transporting unit with nailed wedges and/or metal brackets and/or tie rods.

3.6 POSITIONING AND ANCHORING

Positioning and anchoring of the machine have to be carried out only by trained personnel, verifying if the ground grants the foreseen stability, support and anchoring.

The machine has to be placed in a distance from the first pole or trestle for the rope passage (or conductor) included between 2 and 4 times the height h of the pole itself (see diagram here below).



It is possible to use the machine at a distance from the pole included between 1 and 2 times the height of the pole itself. In this case, the anchorage described thereafter must be over dimensioned of 125% compared to the reported data and some moorings must be provided on the front side of the machine.

 **PROHIBITION: when the distance between the machine and the pole is lower than the height of the pole itself, the machine cannot be used.**

Machine anchoring sequence is the following:

- a. align the machine with the pull as much as possible.
- b. anchor the machine using the connections (table 3, pos. 4) and adjusting the tension uniformly: use suitable anchoring ropes with working load equal to 130% of the max. foreseen pull for the machine.
- c. position the supporting point (table 2, pos. 11).
- d. properly position the plough (table 2, pos. 14) by removing the safety pin (table 2, pos. 13), adjusting the tension by means of the valve (table 1, pos. 28) and acting on the plough control lever (table 1, pos. 19) (NOTE: this operation has to be effectuated with running engine).



IMPORTANT: before starting stringing operations, we suggest to test the pull, reaching the max. value expected for these operations, in order to check the carried out anchoring and the machine settling. It is better to have the rear anchoring slightly released so that the machine can freely settle.

- e. put the anchoring ropes under tension using the suitable turnbuckles (if necessary, anchor the machine also in the front).
- f. block the machine axle acting on the hand-wheel (table 2, pos. 10).



ATTENTION: the non-respect of the foreseen anchoring operations may cause dangerous situations during machine use.

Around the machine must be a free space of at least 2-m to make easier the operations of use, adjustment, maintenance, etc.


Be sure that around the radiator (endothermic motor, hydraulic oil) cooling air can freely circulate. Otherwise overheating situations with damage for the installed components may happen.



DANGER: machine has not a proper grounding device; for the system machine-rope-conductor in the job site, it is necessary to foreseen a grounding device on the towing rope or on the conductors.

4. INSTRUCTION FOR USE – STAND-ALONE MACHINE

4.1 PRESCRIPTIONS FOR THE OPERATOR

-  **PROHIBITION:** it is forbidden to walk or stop in front or backward the machine and/or under the towing rope due to a constant residual risk of crushing in case of a possible giving in of the rope or of the anchoring.

Daily, before starting the work, check:


- if the protection and safety devices are activated and functioning
- if the connections with power unit are in good conditions
- if the machine liquids levels are in conformity with the indications in maintenance chapter
- if the anchoring conditions are in conformity with the indications of this manual.

4.2 CONTROLS

Position and meaning of the elements on the control panel are described in the enclosed table 1.

4.3 PRELIMINARY OPERATIONS


- Load the rope on the bull-wheels as shown on tables 3 and 4 positioning the entry guiding rollers (table 2, pos. 3) in the most suitable position.

 **ATTENTION:** do not use excessively lubricated or greased ropes because possible adherence problems on the bull-wheels with a consequent sliding of the ropes themselves may arise.

 **DANGER:** please pay attention to the risk to be squeezed during the operations above described.

- Lubricate the gears before each starting of the machine operating on the greaser's lever (table 3, pos. 2) and verifying this operation by means of the inspection doors (table 3, pos. 1).
- Position both the levers of the mechanical transmission (table 2, pos. 21-22) into the proper ratio:
 - ⇒ high pull (max. 2x4500 daN – 10116 lb) (table 3, pos. 8A)
 - ⇒ low pull (max. 2x1400 daN – 3147 lb) (table 3, pos. 8C)

 **ATTENTION:** this operation must be carried out only with stopped machine and without applied loads.

 **PROHIBITION:** when positioning the mechanical transmission levers on low pull (table 3, pos. 8C) on the panel switch on the red lights (table 1, pos. 29-35), which advice that the machine cannot absolutely be used as puller but only as tensioner.

4.4 MACHINE SET-UP

Before the use, the machine must be set in stand-alone using mode, operating on the control panel (table 1).

- insert and turn the ignition key (table 1, pos. 17) in "1" position
- wait up to the multifunction display switch on (table 1, pos. 14)
- on the electronic multifunction display press the (*) key
- on the screen page "MACHINE ID:" set the number "1" by using the up (▲) or down (▼) key
- press the return key (↵) to save the settings



NOTE: in case of stand-alone using mode the ID of the machine must always be set at 1

- on the screen page "BULL WHEELS PIN CONNECTION?" set the "YES" or "NO" option, depending on the configuration of use (table 5, pos. 1), by using the up (▲) or down (▼) key



- press the return key (↵) to save the settings.

When the machine is used in stand-alone configuration the two plug connectors must be closed with the related caps


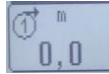

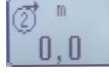


4.5 ELECTRONIC MULTI-FUNCTIONS DISPLAY PAGES

The electronic multifunction display shows 4 working pages:

1. METER COUNTER & SPEED PAGE





This page shows the speed and the meter counter for each independent circuit

-  speed of capstan nr.1
-  meter counter of capstan nr.1
-  speed of capstan nr.2
-  meter counter of capstan nr.2



2. RPM & DIESEL ENGINE PAGE





This page shows the rpm of the diesel engine in the center and 4 percentage check icons on the edges:

-  diesel engine water cooling temperature
-  hydraulic oil temperature
-  diesel engine oil pressure
-  diesel engine fuel level



3. DIESEL ENGINE DATA PAGE

This page shows 4 percentage check icons of diesel engine data:

-  diesel engine torque output
-  hydraulic oil temperature
-  diesel engine fuel consumption
-  diesel engine fuel level



4. HOUR COUNTER PAGE

This page shows the working hour of the diesel engine in the center and 4 percentage check icons on the edges:



diesel engine rpm



hydraulic oil temperature



diesel engine torque output



diesel engine fuel level



Switch from one page to the other one by using the up (▲) or down (▼) key

4.6 MACHINE START-UP

After the set-up of the machine, operate from the control panel (table 1) for the start-up.

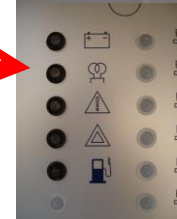
a. completely open the valves (table 1, pos. 24-26-28).

b. insert and turn the ignition key (table 1, pos. 17) in "1" position

c. therefore, wait till the pre heating glow plugs lights turn off (table 1, pos. 3).

d. turn the ignition key in start position. Once the engine is started, release the ignition key.

e. The engine rpm can be regulated using the accelerator (table 1, pos. 18) and can be read on the proper display page on the electronic multi-function display as described before





NOTE: when working in cold climates, heat the hydraulic oil by letting the engine idle for 15 minutes and slightly closing the valves (table 1, pos. 24-26) till a pressure of 50 bars – 725 psi can be read on the manometers (table 1, pos. 23-25).

ONCE THE DIESEL ENGINE HAS BEEN STARTED, IT IS NECESSARY TO CONTROL THAT:

- a. The pressure of the feeding circuits, shown on the manometers (table 1, pos. 31-37), must never drop below 22 bars – 320 psi.
Otherwise, stop the machine and immediately contact the after-sales service of Tesmec S.p.A.
- b. The hydraulic oil temperature, shown on the proper display page on the electronic multi-function display (table 1, pos. 14), doesn't exceed 70°C.
This is the maximum acceptable value for the hydraulic components in case the oil used is suitable for these temperatures. If other kinds of oils are used, the maximum acceptable working temperature depends on their characteristics in relation also with the viscosity limits imposed by the hydraulic pumps and motors (see paragraph 2.12).
- c. The clogging filters lamps (table 1, pos. 6-7-8) are not switched on when the oil is hot.
However, it may happen that the lights are switched on during the first phases of the work, when the hydraulic oil is cold: it depends from the viscosity of the cold oil and not from the filters clogging. In this case, wait for the lights to switch off before carrying out any maneuver.
The filters cartridges must be replaced only if the lights are switch on also when the oil is hot (about 50°C).



ATTENTION: when starting a cold machine, after preheating the hydraulic oil as previously described, begin stringing operations limiting the maximum working performances for at least the first 15 minutes, that means to keep at half accelerator the Diesel rpm and don't exceed the 30% of the maximum stringing speed.



ATTENTION: in case of high external temperature (>30°C), it is necessary, in case of stoppages, to let the Diesel engine run with the radiator fan of the hydraulic oil engaged at maximum speed (valve table 1, pos. 28 completely closed).

4.7 PULL CONTROL SETTING

The machine is equipped with two pull control devices for the control of the max. pull value on the line:

1. PULL LIMITING DEVICE that stops the machine when reaching the max. pull
2. PULL PROGRAMMING DEVICE that adjusts the bull-wheels rotation when reaching the pre-set pull till the bull-wheels stop or reversal keeping the applied pull on the line.

4.7.1 PULL LIMITING DEVICE SETTING

With the suitable pawl, connected to the dynamometers (table 1, pos. 30-36), move the red arrow in correspondence of the max. pulling value that has not to be exceeded.

When the pre-set pull value is reached, the machine stops automatically and the diesel engine turns off while the negative brakes automatically connect with the consequent stop of the bull-wheels rotation. When the pull value is exceeded the pilot lamp (table 1, pos. 9) on the control panel switches on.


4.7.2 PULL PROGRAMMING DEVICE SETTING



ATTENTION: THE OPERATIONS TO SET THE PULL MUST BE CARRIED OUT WITH STARTED DIESEL ENGINE BUT WITH STOPPED MACHINE.

- Start the diesel engine and set the engine at about 1600 rpm.
- Move the selectors (table 1, pos. 32-38) on position ② (rightwards – red light on).



- Gently move towards  (downwards) the levers (table 1, pos. 34-40).



- Turn the knobs (table 1, pos. 33-39) till on the manometer ring nut (table 1, pos. 30-36) can be read the pull value that must not be exceeded.



ATTENTION: the red arrow of the pull limiting device (paragraph 4.7.1) has to be positioned at a higher value than the one pre-set with the PULL PROGRAMMING DEVICE to avoid the machine stop.

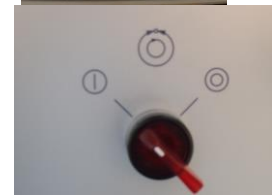


DANGER: when using the machine as a tensioner set the automatic pull limiting device on the maximum bottom of scale value to avoid dangerous stopping that could be extremely dangerous and generate serious damages.





- Gently move the levers (table 1, pos. 34-40) to central position (neutral position).



- Re-place the selectors (table 1, pos. 32-38) on position ① (leftwards).



Once reached the pre-set pull, the bull-wheels automatically slow down, stop or reverse the movement keeping the pull.

-  **ATTENTION:** when turning the knobs (table 1, pos. 33-39), during working operations new pull values can be set suitable to the new position of the knob.
-  **ATTENTION:** before starting the work, check if the selectors (table 1, pos. 32-38) are on  position. It is forbidden to move the selectors during working operations because extremely dangerous situations because the machine immediately stops may happen.
-  **ATTENTION:** when working with coupled bull-wheels, to set the parameters for **PULL CONTROL** it is necessary to operate with the controls on the right side of the control panel. The new parameters are applied to both the hydraulic circuits at the same time.


4.8 CONNECTION MACHINE - HYDRAULIC HEAD OR REEL WINDER


Machine can feed 2 reel elevators with hydraulic head or 2 reel winders made by Tesmec, both functioning as tensioner and puller.

Each hydraulic head (or each reel winder) has a connecting kit consisting of two pipes.

Each of these pipes has to be connected to the proper rapid coupler making care to connect them properly (otherwise the installation will not work).

- a. Connect the hoses of the reel elevators to the rapid couplers (table 2, pos. 8 and table 5).

 **ATTENTION:** it is important that, before connecting the rapid couplers, the operator has checked their cleanliness as the introduction of dirt into the hydraulic circuit can create very serious damages.

 **ATTENTION:** the rapid couplers must be connected before putting the circuit under pressure.


4.9 BACK PULL OF THE HYDRAULIC HEAD OR OF THE REEL WINDER SETTING

Set the valves (table 1, pos. 24-26) to the minimum necessary value, checking the pressure on the relevant manometers (table 1, pos. 23 and 25).

Generally, a pressure of 50 bars – 725 psi is set when the machine is tensioning (min. pressure 20 bars – 290 psi, max. pressure 70 bars – 1015 psi) and a pressure of 80 bars – 1160 psi when the machine is recovering (min. pressure 50 bars – 725 psi, max. pressure 120 bars – 1740 psi).

In both cases, the pressure depends on the dimensions and on the weight of the reel and on the requested counter pull.

 **NOTE:** if no reel elevator is connected, open the valves (table 1, pos. 24 and 26) till the minimum pressure can be read on the manometer.

 **NOTE:** it is important to operate this setting to the minimum necessary value in function of the work that must be carried out (recovery or stringing). In particular, during the final setting of the conductors, it is necessary to raise the pressure during recovering and lower it during stringing. On the contrary, due to the different influence of the mechanic and hydraulic efficiency, at the same set pressure possible counter pull values sensibly different may arise.

To stop a reel elevator, it is sufficient to close the corresponding valve (table 5, pos. 4).

4.10 USE OF THE MACHINE WITH INDEPENDENT BULL-WHEELS (1-2)


- a. Check if the coupling pin of the bull-wheels (table 4, pos. 1) is disengaged.
If not, disengage the pin by removing the little covers and using the proper key.
- b. Set the selector (table 1, pos. 42) to "INDEPENDENT BULL-WHEELS" position (leftwards).



- c. Speed up the Diesel engine by the accelerator (table 1, pos. 18) till a maximum of 2400 rpm.

- d. Adjust the hydraulic oil radiator by the valve (table 1, pos. 28).



- e. Move the levers (table 1, pos. 34-40) to  position (downwards) to set the pull value on each bull-wheel and the recovery or release speed of the rope.



NOTE: this way, the bull-wheels are completely independent; it is possible to control two independent ropes, each one with a max. pull of 45 kN – 10116 lb.

Now the machine is ready for working automatically: each independent circuit can detect if the rope tension is lower than the pre-set one (therefore it starts recovering) or if it is higher than the pre-set one (therefore it starts braking while stringing).


Pull values can be read on the two scales engraved on the ring nut of each dynamometer (table 1, pos. 30-36).



NOTE: vacuum brakes engage automatically when the levers (table 1, pos. 34-40) are moved to central position.



WARNING: do not move the levers (table 1, pos. 34-40) fast from working position to central neutral position. This operation could damage the negative safety brakes discs that have to bear a heavy load.

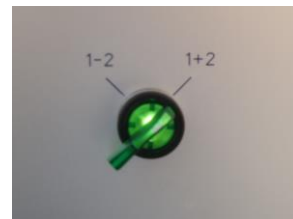
By moving the levers (table 1, pos. 34-40) to  position (upwards), ropes can be manually strung (without control on the pull).



ATTENTION: never touch the selectors (table 1, pos. 32-38) while the machine is working.

4.11 USE OF THE MACHINE WITH MECHANICALLY CONNECTED BULL-WHEELS (1+2)

- a. Check if the coupling pin of the bull-wheels (table 4, pos. 1) is connected.
If not, insert the pin by removing the little covers and using the proper key.
- b. Set the selector (table 1, pos. 42) to "CONNECTED CIRCUITS" position (rightwards).




- c. Speed up the Diesel engine by the accelerator (table 1, pos. 18) till a maximum of 2400 rpm.



- d. Adjust the hydraulic oil radiator by the valve (table 1, pos. 28).



- e. Move the levers (table 1, pos. 34-40) to  position (downwards) to set the pull value on each bull-wheel and the recovery or release speed of the rope.



NOTE: this way, the bull-wheels 1 and 2 are connected; it is possible to control one rope with max. pull of 90 kN – 20232 lb or two connected ropes each one with a max. pull of 45 kN – 10116 lb.

Now the machine is ready for working automatically: each independent circuit can detect if the rope tension is lower than the pre-set one (therefore it starts recovering) or if it is higher than the pre-set one (therefore it starts braking while stringing).



NOTE: in this case, although the lever (table 1, pos. 34) is not active, the dynamometer (table 1, pos. 30) and the relevant electric pull control device are working.
Therefore, both the electric pull control devices must be set as previously described.


Pull values can be read on the two scales engraved on the ring nut of each dynamometer (table 1, pos. 30-36).



NOTE: vacuum brakes engage automatically when the lever (table 1, pos. 40) is moved to central position.



WARNING: do not move the lever (table 1, pos. 40) fast from working position to central neutral position. This operation could damage the negative safety brakes discs that have to bear a heavy load.

By moving the levers (table 1, pos. 34-40) to  position (upwards), ropes can be manually strung (without control on the pull).



ATTENTION: never touch the selector (table 1, pos. 38) while the machine is working.

4.12 USE OF THE MACHINE WITH HYDRAULICALLY CONNECTED BULL-WHEELS (1+2)

a. Check if the mechanical transmission of the bull-wheel no. 1 is set on the ratio: high pull – yellow pilot lamp switching off (table 1, pos. 29)



b. Set the selector (table 1, pos. 42) to "CONNECTED CIRCUITS" position (rightwards).




c. Speed up the Diesel engine by the accelerator (table 1, pos. 18) till a maximum of 2400 rpm.



d. Adjust the hydraulic oil radiator by the valve (table 1, pos. 28).



e. Move the levers (table 1, pos. 34-40) to  position (downwards) to set the pull value on each bull-wheel and the recovery or release speed of the rope.



NOTE: this way, the bull-wheels 1 and 2 are hydraulically connected; it is possible to control 2 ropes at the same time, each one with max. pull of 45 kN, operating on a single control lever.


Now the machine is ready for working automatically: each independent circuit can detect if the rope tension is lower than the pre-set one (therefore it starts recovering) or if it is higher than the pre-set one (therefore it starts braking while stringing).



NOTE: in this case, although the lever (table 1, pos. 34) is not active, the dynamometer (table 1, pos. 30) and the relevant electric pull control device are working. Therefore, both the electric pull control devices must be set as previously described.

Pull values can be read on the two scales engraved on the ring nut of each dynamometer (table 1, pos. 30-36).

 **NOTE:** vacuum brakes engage automatically when the lever (table 1, pos. 40) is moved to central position.

 **WARNING:** do not move the lever (table 1, pos. 40) fast from working position to central neutral position. This operation could damage the negative safety brakes discs that have to bear a heavy load.

Pull values can be read on the two scales engraved on the ring nut of each dynamometer (table 1, pos. 30-36).




 **ATTENTION:** never touch the selector (table 1, pos. 38) while the machine is working.

4.13 USING OF TENSION SYNCHRONIZER DEVICE

The machine is equipped with a tension synchronizer device that connects the bull-wheels 1-2, operating on the selector (table 1, pos. 43) (rightwards).



The use of the tension synchronizer device provides the alignment of the conductors during stringing operations when the machine is working as a tensioner with mechanically independent capstans.

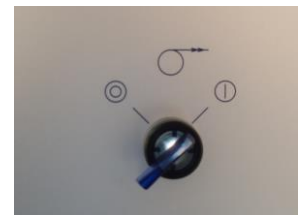
 **ATTENTION:** when using the synchronizer, the mechanical connection (pin) between the bull-wheels has not to be connected.
The machine has to work in mechanically independent configuration.

 **ATTENTION:** when connecting two bull-wheels with the tension synchronizer, we suggest working with the tension values nearest to each other.

4.14 USING OF ELECTRONIC SPEED SYNCHRONIZER DEVICE (OPTIONAL)

The machine could be provided with an electronic speed synchronizer device as a optional package;

To activate operate on the selector (table 1, pos. 45) (rightwards)



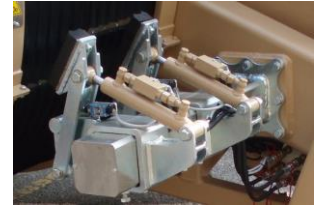
To use this device, the machine has to be set in “Hydraulically connected bull-wheels” as described in chapter 4.12.


The device doesn't work when using the machine with totally independent bull-wheel, as described in chapter 4.10.

This device allows to have the same recovering speed of each independent bull-wheels 1-2, when the machine is working as a puller with mechanically independent bull-wheels.


4.15 ROPE LOCKING CLAMP (OPTIONAL)

The rope locking clamp allows blocking the rope end towards the reel winder and therefore the operations for removing the reel are speed up.



To engage the rope locking clamp, turn the selector (table 1, pos.21-22) on  position (leftwards - blocked – no light) and keep them in position for a few second to allow the complete closing of the clamp.



To dis-engage the rope locking clamp, turn the selector (table 1, pos.21-22) on  position (rightwards – free – green light) and keep them in position for a few second to allow the complete opening of the clamp.



When the machine is set with hydraulically connected capstan (selector table 1, pos.42 rightwards) the selector (table 1, pos.21) operate on both the rope clamps.

4.16 POINTS TO REMEMBER

- The pressure of the feeding circuit (table 1, pos. 31 and 37) must be higher than 22 bar – 320 psi: otherwise, the stationary brakes will be damaged.
- Adjust the pull of the reel elevators with hydraulic head (table 1, pos. 24 and 26) at minimum indispensable value: otherwise, the hydraulic oil will be uselessly heated and dangerous counter pulls may arise.
- In hot climates, during stoppages, let the Diesel engine running with the radiator fan (table 1, pos. 28) engaged at maximum speed.
- Before beginning the works, check the levels.
- Do not work with the hydraulic oil temperature higher than 80°C.
- After an emergency intervention of the negative safety brake, verify the condition of the brake discs.
- Remember to use the values indicated on the “puller” scale for the recovery phases and those indicated on the “tensioner” scale for the stringing phases.
- When using the machine as tensioner, position the 2 automatic pull limiting devices (table 1, pos. 30-36) on the maximum bottom of scale value, to avoid dangerous stopping. This operation is absolutely indispensable when the tensioner machine works with a puller without automatic pull limiting device.
- The connecting operations of the mechanical reduction gears (table 2, pos. 21-22 and/or table 3, pos. 8) have to be made only with stopped machine.

4.17 END OF OPERATIONS

At the end of the operations, discharge the ropes-conductors tension using the control levers (table 1, pos. 34 and 40) in releasing position.
Then turn off the engine operating on the ignition key.

5. INSTRUCTION FOR USE – CONNECTED MACHINES

5.1 GENERAL ASPECTS

This machines could be equipped with an electronic connection package as an optional device.

This device allows to use multiple machines connected between them, controlled and operated by a single operator for the main working parameters (basically speed, pull, diesel engine rpm).

It is possible to connect up to 6 machines between them, with possibility to work in independent bull-wheels configuration (equal to 12 independent ropes working at the max pull of each single circuit) or connected bull-wheels (equal to 6 independent ropes working at the max pull of twin connected circuits).

Tesmec suggest to use this configuration device on machine working at the puller station, to allow to recover multiple ropes or conductors with the same speed.

Tesmec doesn't suggest to use this configuration on machine working at the tensioner station, to allow to manage each single conductor with independent control.

To use the machines with electronic connections between them, they must be set all in the same way:

- Pin connected or disconnected in all the machines
- Gear-box configuration in HIGH-PULL mode in all the machines

The machines must be numbered with ID number (see next chapter) from 1 to the number of total connected machines starting from right to left, looking at the machines from the back (reel-winder position). The last machine, positioned on the right, is the master machine. See table 7 as example.

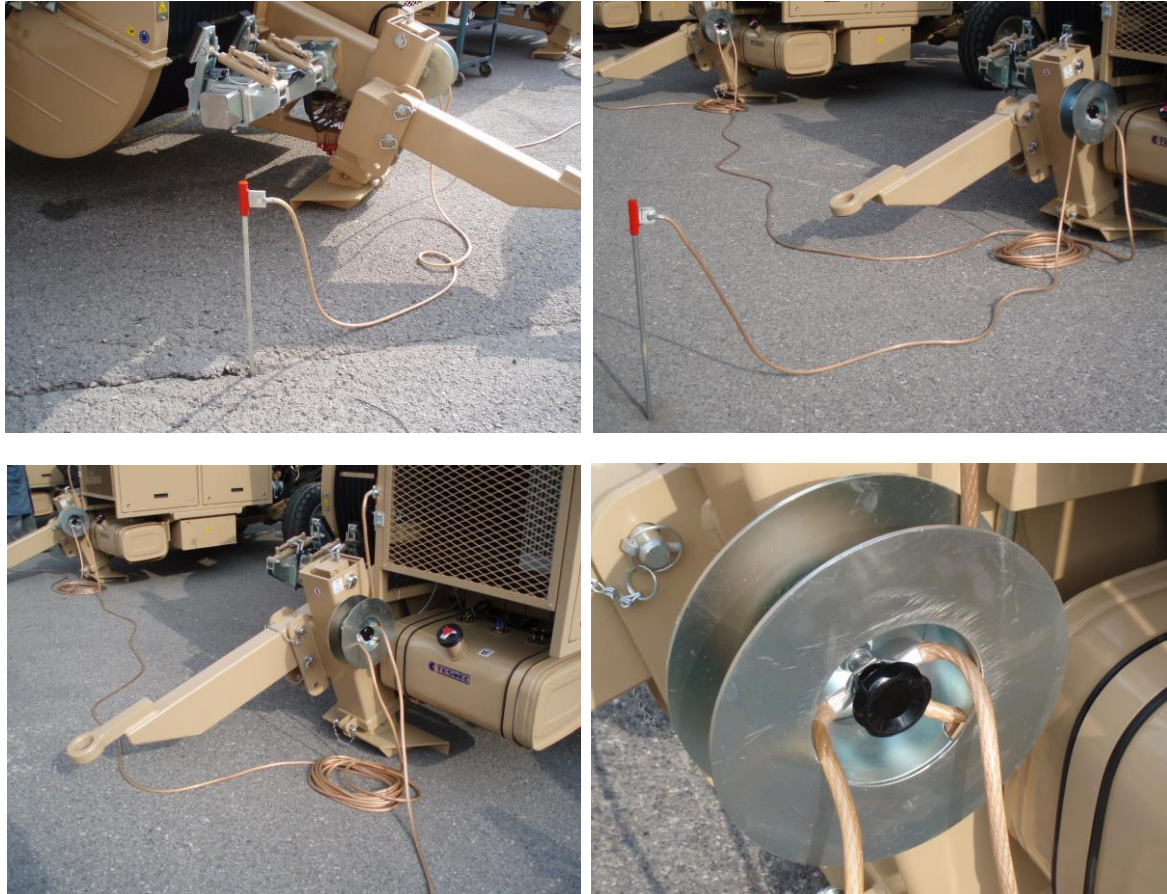
The machines must be connected through a special connecting cable; the un-used plugs on the first and on the last machine (right and left) must always be closed with the related caps.

To grant the continuous connection of the machines, a special protection device must be provided for the connection cables, to avoid accidental disconnection of the communication between the machines.



It is necessary to provide a correct grounding of each machine, to avoid trouble at the electronic devices. For this reason, each machine is equipped with a special grounding device that must be connected prior to switch on each machine.

The correct grounding configuration is realized with a grounding stakes (see table 7) to be placed on the ground in front at the machine, and a connecting ground cable, that must connect all the ground stakes between them.



Prior to operate the set-up of the machines, check that:

- The machines are connected through the special connecting cable
- The ground devices are installed and connected
- The gear-box configuration is HIGH-PULL in each machine

5.2 MACHINES SET-UP

Before the use the machine must be set in connected mode by assign to each machine the correct ID number, starting from left to right, as described in the previous chapter.

- a. insert and turn the ignition key (table 1, pos. 17) in "1" position
- b. wait up to the multifunction display switch on (table 1, pos. 14)
- c. on the electronic multifunction display press the (*) key
- d. on the screen page "MACHINE ID:" set the correct number by using the up (▲) or down (▼) key
- e. press the return key (↵) to save the settings

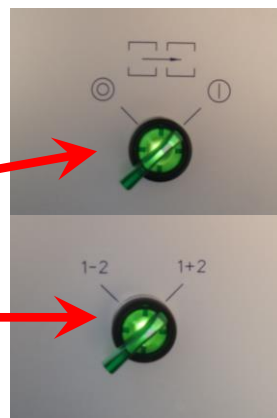


NOTE: the ID of the machines must be set from 1 to the total number of connected machines starting from left to right (looking at the machines from the back – reel-winder position)

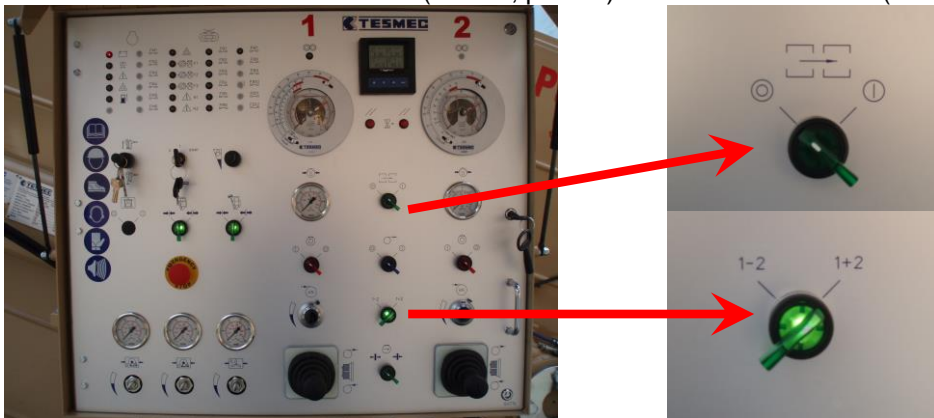
- h. on the screen page “BULL WHEELS PIN CONNECTION?” set the “YES” or “NO” option, depending on the configuration of use, by using the up (▲) or down (▼) key



- i. press the return key (↵) to save the settings
j. set each machine in connection configuration, except the final one, by turning rightwards the selector (table 1, pos. 42-44)



k. on the last machine the selector (table 1, pos.44) must be set leftwards (NO connection).



5.3 CONNECTED MACHINES OPERATIONS

When using connected machines, the following controls effect on all machines when operated from the master machine:

- Speed control (joy-stick)
- Pull-adjusting control (potentiometer)
- Negative brake open – close selector
- Diesel engine accelerator
- Rope-clamp selector

When using connected machines, the following controls must be operated on each single machine:

- Reel-winder working pressure
- Hydraulic oil cooling fan pressure
- Reset of meter counter
- Pull limiting device in the dynamometers
- Main front plough position

5.4 PULL CONTROL SETTING

5.4.1 PULL LIMITING DEVICE SETTING

With the suitable pawl, connected to the dynamometers (table 1, pos. 30-36), move the red arrow in correspondence of the max. pulling value that has not to be exceeded.

The pre-set value must be the same for all the machines connected, and must be set on each single machine.

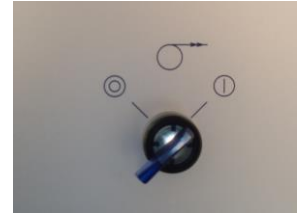
5.4.2 PULL PROGRAMMING DEVICE SETTING

The setting must be operated at the last circuit of the last connected machine and will effect on all the machines.

The operation sequence is the same described on the stand alone using mode chapter 4.7.2.

5.5 USING OF ELECTRONIC SPEED SYNCHRONIZER DEVICE (OPTIONAL)


The machine could be provided with an electronic speed synchronizer device as an optional package; to activate operate on the selector (table 1, pos. 45) (rightwards) on the master machine.




This device allows to have the same recovering speed of each independent bull-wheels of each connected machines, when they are working as a puller in connected machines configuration.

5.6 ROPE LOCKING CLAMP (OPTIONAL)

When the machine is connected the proper selector on the master machine operate on all the clamps of the connected machines.

To engage the rope locking clamp, turn the proper selector on the master machine (table 1, pos.21 or 22) on  position (leftwards - blocked – no light) and keep it in position for a few second to allow the complete closing of the clamp.

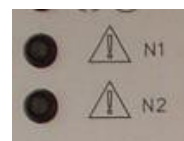


To dis-engage the rope locking clamp, turn the proper selector on the master machine (table 1, pos.21 or 22) on  position (rightwards – free – green light) and keep it in position for a few second to allow the complete opening of the clamp.



5.7 ALARM CONDITION WHEN USING CONNECTED MACHINES

When using connected machines some situation generates alarm condition with switch on of the alarm light on the main control panel of the machine where the alarm is generated.



5.7.1 STRINGING LENGTH ERROR

When the electronic speed synchronizer system is active, an eventual difference of stringing length on the independent ropes larger than a default value programmed (generally 6 m) generate an error and the stringing operations stops on all the connected machines.

To reset the alarm, move the joystick to neutral on the master machine and dis-engaged the speed synchronized selector; check the cause of the alarm on the line (ex. Operation of the pull programming system and arrest of one rope line) before to re-start.

5.7.2 SWITCH ON THE MACHINE WITH CONTROL NOT IN NEUTRAL

When the machine is switched on with joystick not in neutral position, an alarm is generated and the capstans don't move.

5.7.3 EMERGENCY STOP

Pressing the emergency stop in one of the connected machines generate the stop of the engine of the single machine where the stop has been activated and the stop of the movement of all the remaining connected machines, where the diesel engine remains switched on.

To reset the alarm, move the joystick to neutral on the master machine before to dis-engaged the emergency stop on the machine in emergency situation.

5.7.4 CAN-BUS DIS-CONNECTION BETWEEN THE MACHINES

In case the connection cables between the machine may disconnect (ex. removing plugs, accidental cutting of one cable, ...), the stringing operations stops on all the connected machines.

To reset the alarm, move the joystick to neutral on the master machine and check the cause of the fault.

5.7.5 ROPE-CLAMP POSITION

In case one of the rope-clamp is not completely open (electrical switch pressed and green light switched on), none of the ropes can moves on all the connected machines.

5.7.6 GEAR-BOX LOW-PULL POSITION

In case one of the gear-boxes is in a low-pull position, (electrical switch pressed and green light switched on), none of the ropes can moves on all the connected machines.

5.7.7 CONNECTION MACHINE SELECTOR

In case one of the connection machine selector is changed to off (leftwards) while connected machine are running, all the machines will stop.

5.7.8 COMPONENT FAULT

In case of fault in one of the joystick & potentiometers component, the system switches on default parameters with alarm indicator on control panel (L1 or L2).

In case of fault on pull adjusting solenoid valve the system only shows alarm indicator on control panel (L1 or L2).

6. SAFETY CONDITIONS

6.1 SAFETY DEVICES

Machine has been equipped with the following safety devices:

1. load-limiting device with automatic stop of the endothermic engine once the max. pre-set load value has been exceeded
2. mechanical negative safety brake for movement stop in case of lack of hydraulic pressure
3. timing case and protections on moving parts, where technologically possible.



DANGER: it is absolutely forbidden the use of the machine without protecting timing cases or with damaged/disconnected safety devices.



ATTENTION: after a serious emergency use of the negative safety brake, check the wear condition of the discs and the efficiency of the brake itself; if necessary, replace the brake discs before re-using the machine.

6.2 EMERGENCY STOP DEVICE

The specific mushroom push button for emergency stop that directly intervenes on the endothermic engine carries out the emergency stop function (table 1, pos. 41).

The power generator locking causes the intervention of the vacuum brakes and, consequently, the complete machine stop.



ATTENTION: use the emergency stop device **ONLY** in danger situations for the operators' safety.



It is **FORBIDDEN** to use this device for the normal stopping of machine working activities.

6.3 PERIODIC OPERATIONS

Daily, before starting the work, the operator **has** to verify the functionality of the machine safety and protecting devices.



ATTENTION: do not modify for any reason safety devices of the machine because the manufacturer declines any responsibility as consequence of the non-functioning of the same.

6.4 RESIDUAL RISKS

During the machine use there are still the following residual risks:

1. **Sudden break of the rope-conductor.** The break of the rope or of the conductor causes sudden movements of the machine and a whip effect of the rope or conductor section connected to the machine.

To reduce to min. the risks the operator has to:

- ⇒ check the rope and replace it as soon as appear some defects or wear signs
- ⇒ respect the working positions indicated in the manual.

2. **Sudden break of the anchoring stakes.** The sudden break of the anchoring stakes causes the machine instability and sudden movements of the same.

To reduce to min. the risks the operator has to:

- ⇒ periodically check the anchoring stakes and replace them as soon as appear some defects or wear signs
- ⇒ follow the anchoring indications described in the present manual
- ⇒ respect the working positions indicated in the manual.

- 3. Entangling or dragging in the accessible rotating units.** It is not technologically possible to foreseen covering in correspondence of some rotating units (i.e. winding of the rope or of the conductor on the bull-wheels and on the driving gears), due to an excessive restriction of the machine functionality and operative functions.
To reduce to min., the risks the operator has to:
- ⇒ avoid any possible contact with the machine rotating units except for the control devices
 - ⇒ respect the prescriptions indicated in the present manual concerning wearing and the necessary safety devices.
- 4. Limbs crushing during loading or removal of the rope-conductor.** These operations have a large risk margin due to the use of mechanical parts to be moved.
To reduce to min., the risks the operator has to:
- ⇒ know the directives for accident prevention and apply them.
- 5. Electrostatic discharges.** The machine has not a proper grounding device for this reason, during stringing operations, it is possible to have dangerous electrostatics discharges on ropes and conductors.
To reduce to min., the risks the operator has to:
- ⇒ know the directives for accident prevention and apply them
 - ⇒ check if the job site has a suitable grounding device for the machine-rope-conductor's system.
- 6. Inhalation of the endothermic engine exhausting gas.** The machine discharge exhausting gas of the endothermic engine combustion.
To reduce to min., the risks the operator has to:
- ⇒ respect the working positions indicated in the manual
 - ⇒ respect the indications of Attention and Prohibition indicated in the present manual
 - ⇒ if necessary, use safety devices for the respiratory tracts.
- 7. Control lever that can be blocked in working position.** For functional reasons and comfort in the use the control lever does not foreseen the return to zero when released; anyway the machine is equipped with two security devices which prevent the creation of dangerous situations: electric limiting device of the pull on the dynamometer, which stops the power station when the pre-set value is reached, and load pre-setting device, which maintains the programmed pull automatically adjusting the working speed.
To reduce to min., the risks the operator has to:
- ⇒ put the pull electric limiting device on a value just higher than the value obtained with the pull adjusting valves (see par. 4.5)
 - ⇒ operate the desired pull setting as described in the manual (see par. 4.5).

7. MAINTENANCE

7.1 GENERAL PRESCRIPTIONS



ATTENTION: possible repairs not carried out by the manufacturer and not allowed by a written authorization relieve the manufacturer for any responsibility in case of accidents to persons or damages to things and/or to the machine, causing also the loss of warranty.

7.2 LEVELS CONTROL

For safety reasons, during the transport machine comes without hydraulic oil and fuel.
Fill the levels as per the following table:

	<i>Quantity</i>
a. Hydraulic oil level (table 2, pos. 6)	<i>280 l – 74 gal</i>
b. Engine oil level (see enclosed engine booklet)	
c. Reduction gear oil level (table 3, pos. 7)	<i>1.6 l – 0,4 gal</i>
d. Stationary brake oil level (table 3, pos. 9)	<i>0.3 l – 0,08 gal</i>
e. Coupler oil level (table 2, pos. 15)	<i>1.4 l – 0,37 gal</i>
f. Fuel level (table 2, pos. 19)	<i>90 l – 24 gal</i>
g. Gears' grease (table 3, pos. 2)	<i>2 kg – 4,4 lb</i>



ATTENTION: the non-respect of the correct levels causes serious damages to the installed components.



DANGER: do not ingest hydraulic, combustible and cooling liquids because injurious to health and potentially lethal.

7.3 TIRES INFLATION PRESSURE

Tires inflation pressure has to be of 6 bars – 87 psi.



ATTENTION: the non-respect of tires inflation pressure causes dangerous situations during transport operations.

7.4 SUGGESTED LUBRICANTS

The manufacturer tests the machine with the following oils and lubricants:

- a. hydraulic circuit and negative brake: IP HYDRUS OIL 46 (ISO HM 46)
- b. mechanical reduction gears, coupler and differential gear: IP MELLANA 220 (ISO CKC 220).

Possible different trademarks must be chosen based on the enclosed table "SUGGESTED LUBRICANTS". It is possible to use different trademarks but with same characteristics and ISO specifications. When using oil with characteristics and ISO specifications different from the ones declared during test, completely empty out the hydraulic circuit.



ATTENTION: the use of lubricants not in conformity with the technical specifications indicated in the present manual seriously damages the machine components and, consequently, the warranty conditions are not valid.

7.5 ENDOTHERMIC ENGINE MAINTENANCE

For the specific maintenance of the engine, see the enclosed use and maintenance booklet.
For filling the fuel, use the filling cap on the tank (table 2, pos. 19).

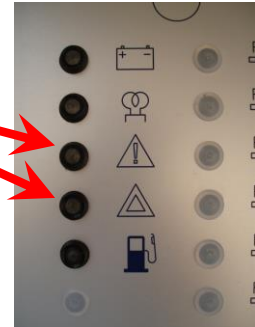


DANGER: to fill the fuel turn off the engine; before carrying out any operation let the engine be cooled.

7.5.1 DIAGNOSTIC OF ELECTRONIC DIESEL ENGINE

The machine is equipped with a diesel engine at completely electronic management.

Possible engine alarms originated by the electronic gear case of the diesel engine are indicated by the lighting of one or both the pilot lamps (table 1, pos. 4-5).



The alarm codes can be visualized by the technical assistance service of Diesel Engine Manufacturer Company by the use of the proper diagnostic device, or by the operator by the multi-function display monitor on the control panel (table 1, pos. 14).

The diagnostic trouble code is included in the diesel engine instruction manual enclosed at the present manual.

To reset the engine alarms on the suitable device, after the intervention on the engine and having solved the present anomaly, it is necessary to switch-off and then restart the machine.

7.6 HYDRAULIC CIRCUIT MAINTENANCE

- Change the hydraulic oil after 500 working hours and, then, every 1500 hours (or in any case every year).
- To discharge the exhaust hydraulic oil, use the suitable tap (table 2, pos. 7) placed on the bottom of the tank.



DANGER: let the hydraulic oil be completely cooled before removing it and always use the suitable safety wears (gloves, etc.).



ATTENTION: the discharge of the exhaust oils has to be effectuated in conformity with the laws in force in the relevant using country.

- Fill the oil in the tank by means of the suitable filler (table 2, pos. 5).



ATTENTION: make maximum care when filling to make sure no foreign matter, which could cause irreparable damages to the circuit's components, enters along with the oil; if possible filter the oil with a 10 μ m filter.

- Periodically check the tank level (table 2, pos. 6).
If necessary, fill up with the same oil up to maximum level.
- Replace the filters' cartridges (table 2, pos. 4 and 9) after 500 working hours and, then, every 1500 hours (or every year at least).
- Check the oil filters clogging by means of the pilot lamps (table 1, pos. 6-7-8).
If necessary, replace the cartridges making care of the following filtering degrees:
 - ⇒ suction filter (table 2, pos. 9): 10 μ
 - ⇒ return filter (table 2, pos. 4): 25 μ

For further maintenance operations of installed hydraulic components (pumps and motors), refer to the enclosed documentation.

7.7 REDUCTION GEARS – STATIONARY BRAKES – COUPLER – DIFFERENTIAL GEAR MAINTENANCE

- a. Change the oil of the reduction gears, stationary brakes, coupler and of the differential gear after 50 working hours and, then, every 500 hours (or every year at least).
- b. To discharge the exhaust oil of the reduction gear and of the stationary brake, use the suitable caps on the lower part of the casing of the same (table 3, pos. 6 and 11).
For the coupler use the suitable cap (table 2, pos. 16).



DANGER: let the hydraulic oil be completely cooled before removing it and always use the suitable safety wears (gloves, etc.).



ATTENTION: the discharge of the exhaust oils has to be effectuated in conformity with the laws in force in the relevant using country.

- c. Fill the oil of the reduction gear and of the stationary brake by means of the suitable caps on the upper part of the casing of the same (table 3, pos. 5 and 10).
For the coupler use the suitable cap (table 2, pos. 15).



ATTENTION: make maximum care when filling to make sure no foreign matter, which could cause irreparable damages to the circuit's components, enters along with the oil.

For further maintenance operations of installed mechanical components, refer to the enclosed documentation.

7.8 RADIATOR'S MAINTENANCE

At least once a year, or more in case of use in dusty places, foreseen a blowhole with compressed air of the radiant mass of the radiators.



ATTENTION: to carry out this operation the person in charge of the maintenance, besides wearing all the protecting devices already described in this manual, has also to wear a device for protecting respiratory organs.

7.9 GREASING

Grease 2-3 times per day the bull-wheels using the suitable lever (table 3, pos. 2); check the crowns greasing from the timing case doors (table 3, pos. 1).

Weekly grease all the other parts subjected to sliding or rotation that not foreseen a forced lubrication or an automatic greasing.

Use IP ATHESIA GR2 (ISO XBCEA 2) grease or equivalent of another trademark based on the enclosed "SUGGESTED LUBRICANTS" table.

7.10 OTHER PERIODIC OPERATIONS

When cleaning the machine, avoid direct jets of water or steam on the components of the electric system of the machine and on the control panel.

For other periodic operations, refer to the summary table for the ordinary maintenance (see next paragraph).

7.11 SUMMARY TABLE FOR ORDINARY MAINTENANCE

In this table are listed main operation of periodic maintenance and relevant intervals.

Component	Object	Interval				
		Daily	50 h	250 h	500 h	1500 h
Diesel engine (***)	Engine oil	CL		ST		
	Oil filter			ST		
	Cooling liquid	CL				ST
	Air filter			VF		ST
	Fuel	CL				
	Fuel filter				ST	
Hydraulic circuit	Hydraulic oil	CL			ST1	ST(*)
	Filters	VF			ST1	ST(*)
Negative brakes	Oil	CL	ST1		ST(*)	
	Discs		VF1(**)		VF(**)	
Reduction gears	Oil	CL	ST1		ST(*)	
Coupler	Oil	CL	ST1		ST(*)	
Bull-wheels	Gears	GR				
Plough	Cylinder		GR			
Axle	Tires pressure		VF			
	Stationary brake		GR			

Legend:

CL Check the level (and possible filling up)

GR Grease

ST Replace

ST1 Replace (only for the first time)

VF Check

(*) Or in any case every year

(**) Check each emergency intervention of the brake

(***) For further information see the engine booklet

8. HOW TO DISABLE THE MACHINE

8.1 TRANSPORT

Before transporting the machine, empty any liquid that can be set on fire contained in the machine (oils).

Transport must be effectuated as per the specifications described in chapter 3 (Transport and positioning instructions).

8.2 EXTENDED SERVICE STOP

When foreseeing an extended service stop (two months at least) protect the external parts with waterproof wax and empty the fuel tank.

During service stop, start the machine at least once every two months and let the machine idle for one hour at least, so that the oil enters in the hydraulic system and to prevent the gaskets drying.

We recommend stocking the machine under a roof; do not cover the machine with pieces of cloth and/or plastic materials that cause an excessive increase of temperature and humidity.

If the machine does not work for a year or more, before re-starting the machine it is necessary to replace the hydraulic oil and filters of the hydraulic circuit.

8.3 STRIPPING

Machine stripping has to be carried out by the manufacturer or by a specialized factory.

All stripping operations have to be effectuated in conformity with the norms in force for accidents prevention.

Waste materials have to be divided for typology (i.e. iron scrap, aluminum, plastic, rub, etc.) and disposed of by means of authorized structures in conformity with the laws in force in the using country.

Exhausted oils and polluting substances have to be disposed of by means of authorized structures in conformity with the laws in force in the using country.

9. ENCLOSED DOCUMENTS

9.1 TABLES

Table 1.4	Control panel
Table 2.5	General assembly – Lateral view
Table 3.4	General assembly – Upper view 2 conductors
Table 4.1	Bull-wheels connecting system
Table 5.1	Rapid couplers for hydraulic heads connection
Table 6.3	General assembly – Upper view 1 conductor
Table 7.1	ID machines sequence (optional)
Table 8.1	Hydraulic braking system (optional)
Comparative table for suggested oils and greases	

9.2 SYSTEMS

153980	Feeding group assembly drawing
429460	Electric system
432210	Functional hydraulic system
638300	Lubricating system
641600	Bull-wheels assembly drawing
644361	Battery assembly drawing
645540	Reduction gears assembly drawing
647720	Control panel assembly drawing
649160	Meter counter assembly drawing
649171	Frame assembly drawing
649260	Coverings assembly drawing
A17-00031	Nylon roller assembly drawing

9.3 OTHER DOCUMENTS

Manual for engine use and maintenance JOHN DEERE 4045HF285



PULLER-TENSIONER MOD. AFB506

TABLES



- 24050 Grassobbio (Bg) via Zanica, 17/O
Tel. 0039 / 035 / 4232911
Fax 0039 / 035 / 4522445
E-mail: info@tesmec.it

- 24060 Endine Gaiano (Bg) via Pertegalli
Tel. 0039 / 035 / 825024
Fax 0039 / 035 / 826375
E-mail: info@tesmec.it

TABLE 1.4

- 1) Generator light.
- 2) Fuel level light..
- 3) Pre-heating glow plugs light.
- 4) Engine WARNING pilot light.
- 5) Engine ALARM pilot light.
- 6) Clogging filters light.
- 7) Clogging filters light.
- 8) Clogging filters light.
- 9) Max. pull light.
- 10) Circuit 1 alarm light.
- 11) Circuit 2 alarm light.
- 12) Engine fuses (FM) light.
- 13) Electrical circuit fuses (FB) light.
- 14) Multi-functional display.
- 15) Meter-counter capstan 1 reset push-button.
- 16) Meter-counter capstan 2 reset push-button.
- 17) Ignition key.
- 18) Accelerator.
- 19) Front plough lifting.
- 20) Compressor control selector (optional).
- 21) Rope-clamp 1 control selector (optional).
- 22) Rope-clamp 2 control selector (optional).
- 23) Hydraulic head no. 1 manometer.
- 24) Hydraulic head no. 1 adjusting valve.
- 25) Hydraulic head no. 2 manometer.
- 26) Hydraulic head no. 2 adjusting valve.
- 27) Hydraulic oil cooling fan manometer.
- 28) Hydraulic oil cooling fan (& front plough) adjusting valve.
- 29) Low pull position light gear-box no. 1.
- 30) Bull-wheel no. 1 dynamometer.
- 31) Feeding manometer no. 1.
- 32) Selector for bull-wheel 1 pull setting.
- 33) Adjusting knob for pull-tension no. 1.
- 34) Bull-wheel no. 1 pump control lever.
- 35) Low pull position light gear-box no. 2 (optional).
- 36) Bull-wheel no. 2 dynamometer.
- 37) Feeding manometer no. 2.
- 38) Selector for bull-wheel 2 pull setting.
- 39) Adjusting knob for pull-tension no. 2.
- 40) Bull-wheel no. 2 pump control lever.
- 41) Emergency push button.
- 42) Selector for by-pass circuits connection.
- 43) Tension synchronizer 1-2 selector.
- 44) Connected machines selector (optional).
- 45) Speed synchronizer selector (optional).

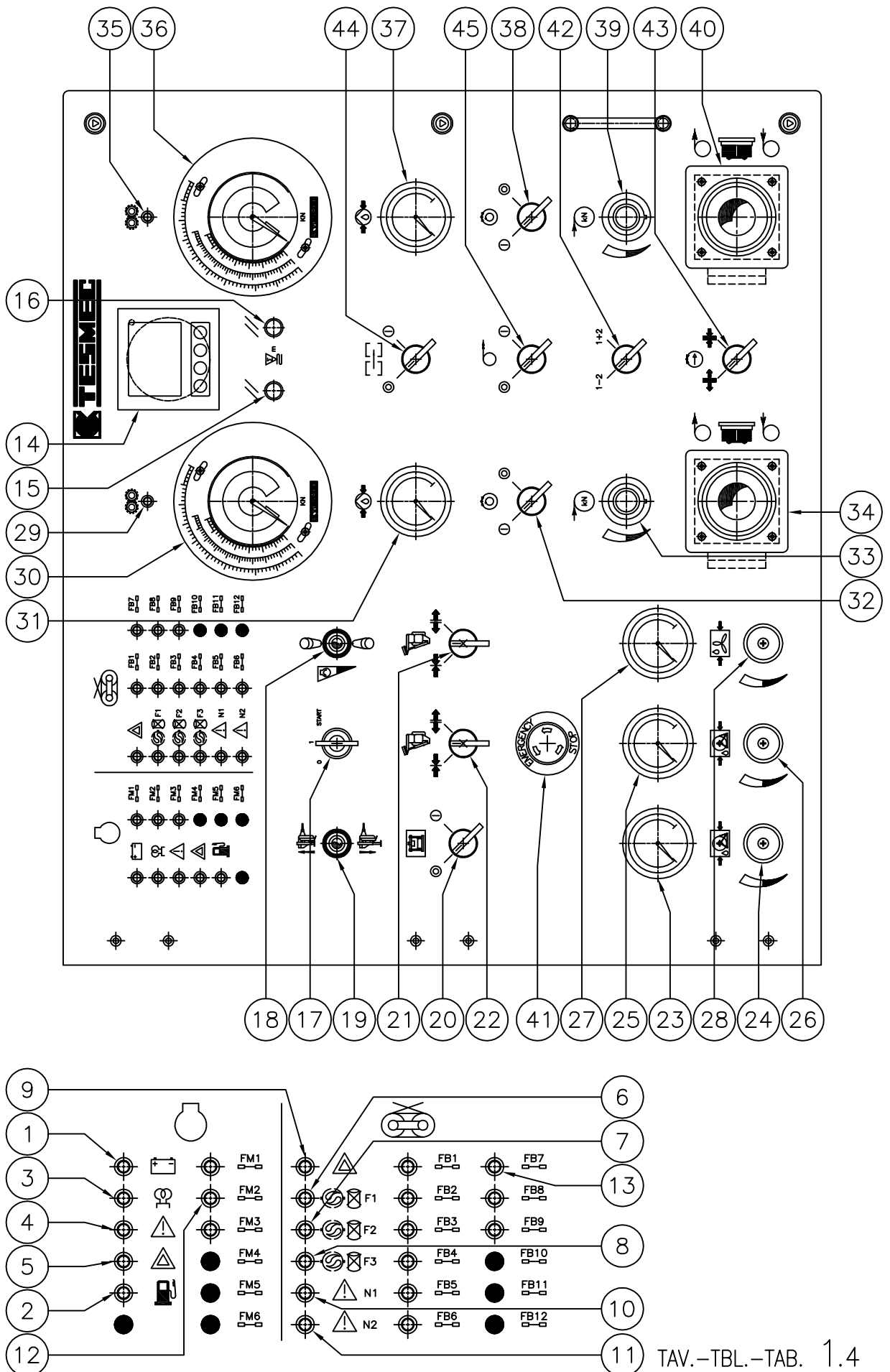


TABLE 2.5

- 1) Air suction filter for diesel engine.
- 2) Machine lifting point.
- 3) Inlet rollers.
- 4) Hydraulic oil return filter.
- 5) Hydraulic oil filling cap.
- 6) Hydraulic oil level.
- 7) Hydraulic oil draining plug.
- 8) Rapid couplers (see table 5).
- 9) Hydraulic oil suction filters.
- 10) Axle hand-wheel.
- 11) Rear stabilizer.
- 12) Towing hook.
- 13) Safety pin.
- 14) Plough.
- 15) Filling cap and coupler oil level.
- 16) Coupler oil draining plug.
- 17) Battery box.
- 18) Pin inspection door (see table 4).
- 19) Fuel filling cap.
- 20) Battery dis-connection.
- 21) Mechanical transmission lever for bull-wheel 1 (see table 3, pos. 8).
- 22) Mechanical transmission lever for bull-wheel 2 (see table 3, pos. 8 – optional).
- 23) Warning alarm blinker (optional).
- 24) Rope clamp quick connections (optional).
- 25) Ground cable storage drum (optional).
- 26) Ground stakes (optional).

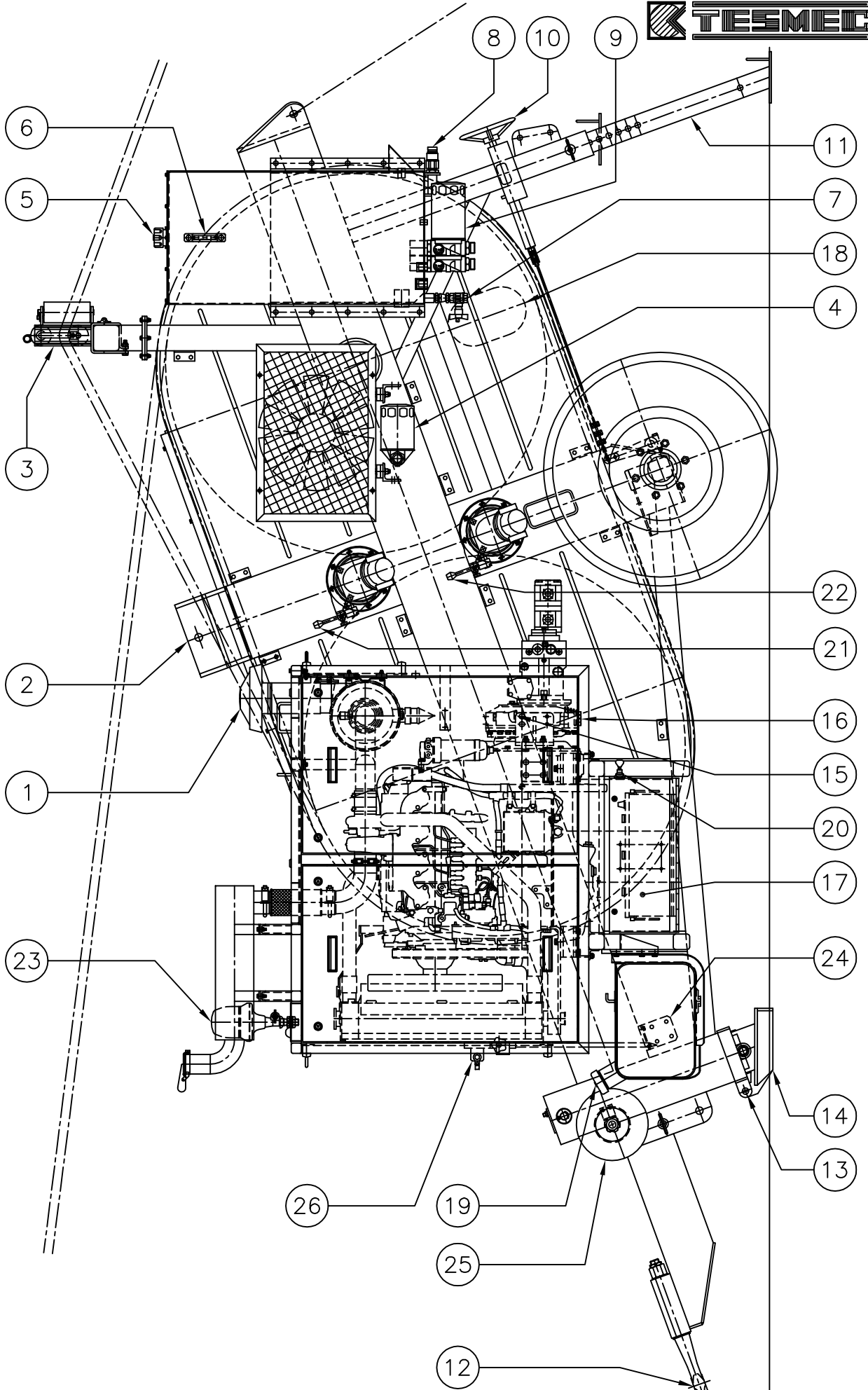


TABLE 3.4

- 1) Inspection doors for crowns lubrication.
- 2) Manual greasing pump.
- 3) Control panel (see table 1).
- 4) Machine anchoring.
- 5) Reduction gear oil filling cap.
- 6) Reduction gear oil draining plug.
- 7) Reduction gear oil level.
- 8) Mechanical transmission lever: A= high pull, B= neutral, C= low pull.
- 9) Negative brake oil level.
- 10) Negative brake oil filling cap.
- 11) Negative brake oil draining plug.
- 12) Diesel engine cooling liquid filling cap.
- 13) Diesel engine oil filling cap.
- 14) Rope clamp devices (optional).

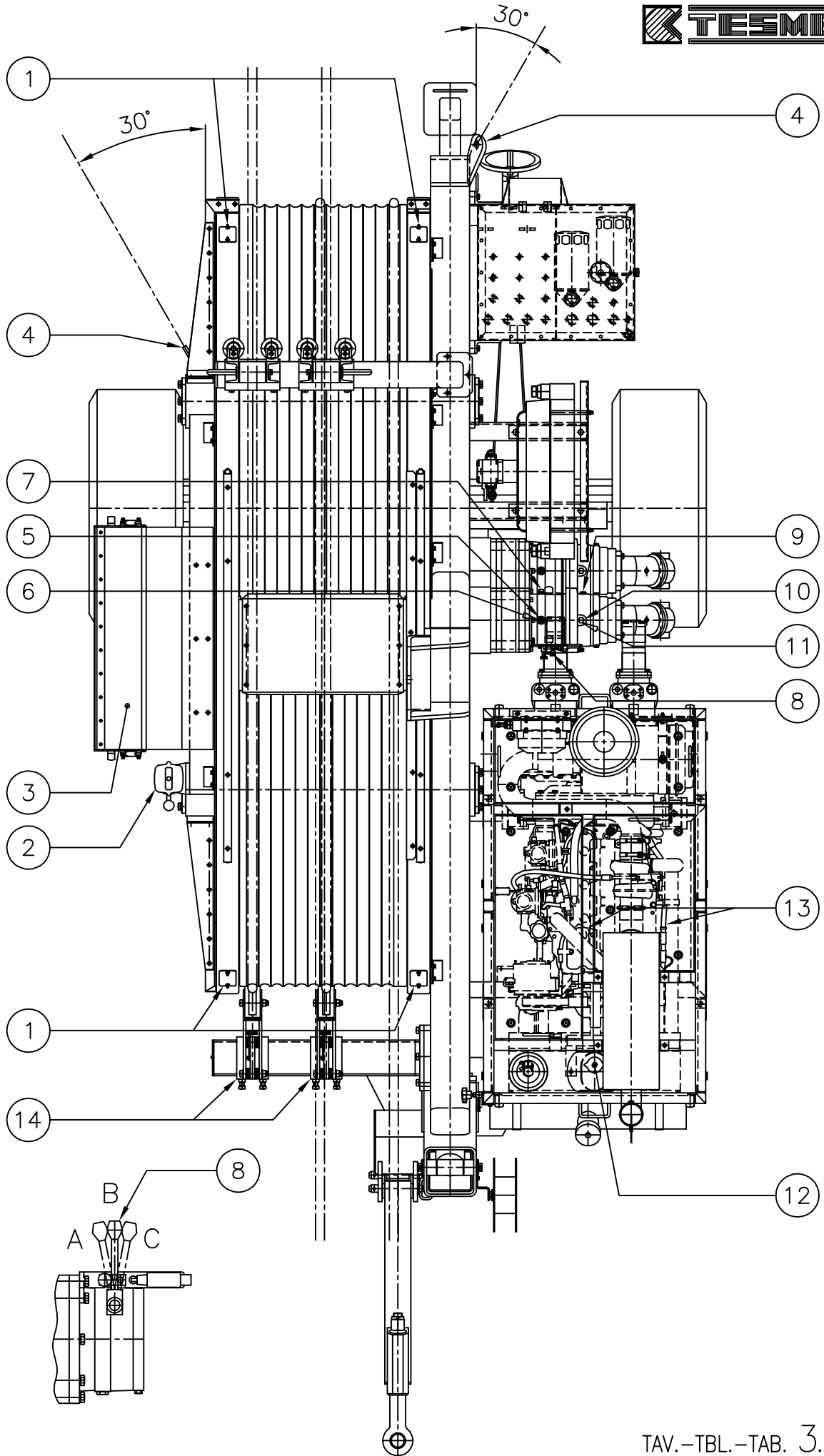


TABLE 4.1

- 1) Pin.
- 2) Referring point.
- 3) Referring point.
- 4) Nylon sector.
- 5) Fixing key for sectors.
- 6) Keys fixing screw.

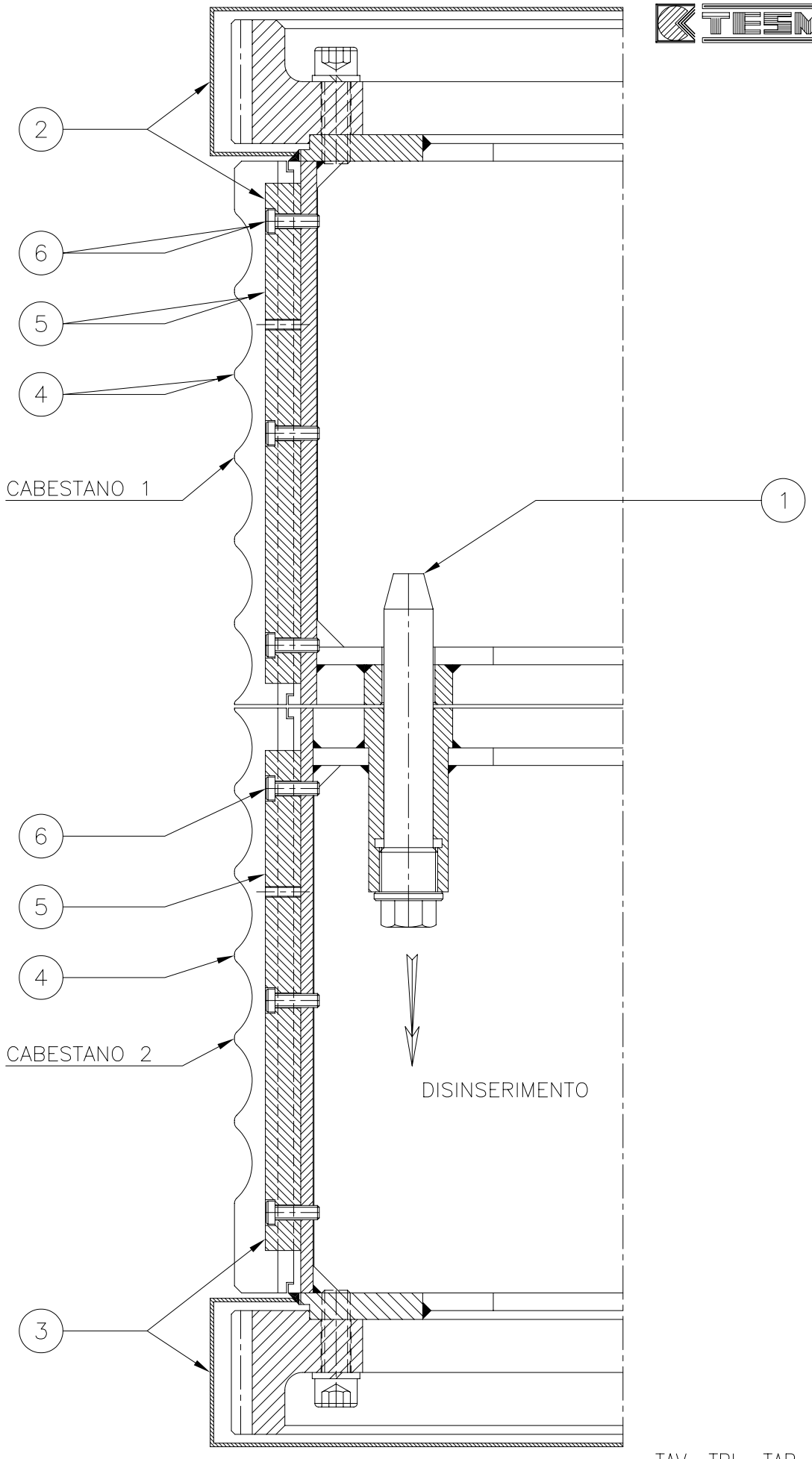
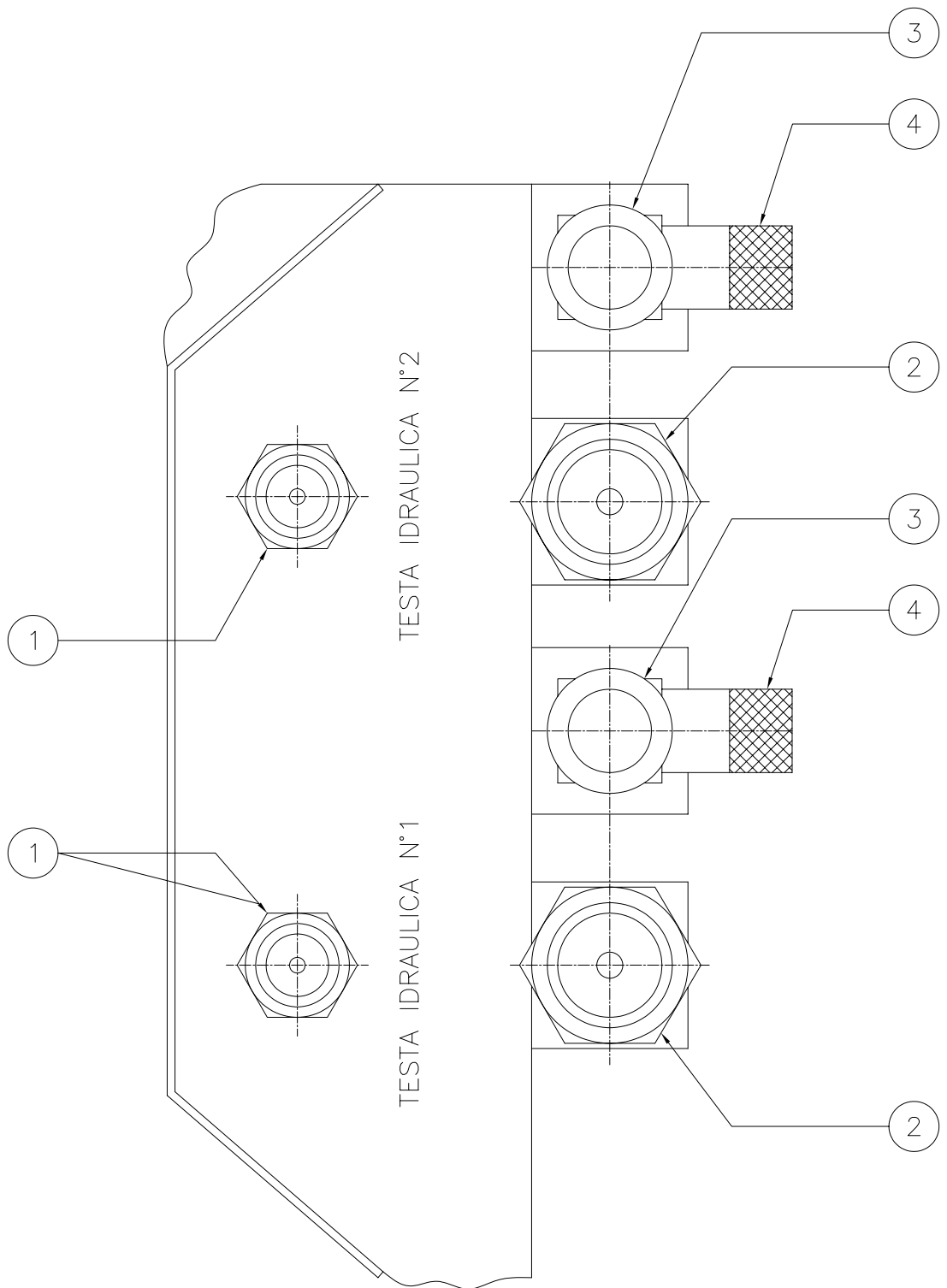


TABLE 5.1

- 1) Draining rapid coupler.
- 2) Low-pressure rapid coupler.
- 3) High-pressure rapid coupler.
- 4) Valve for reel rotation stop.





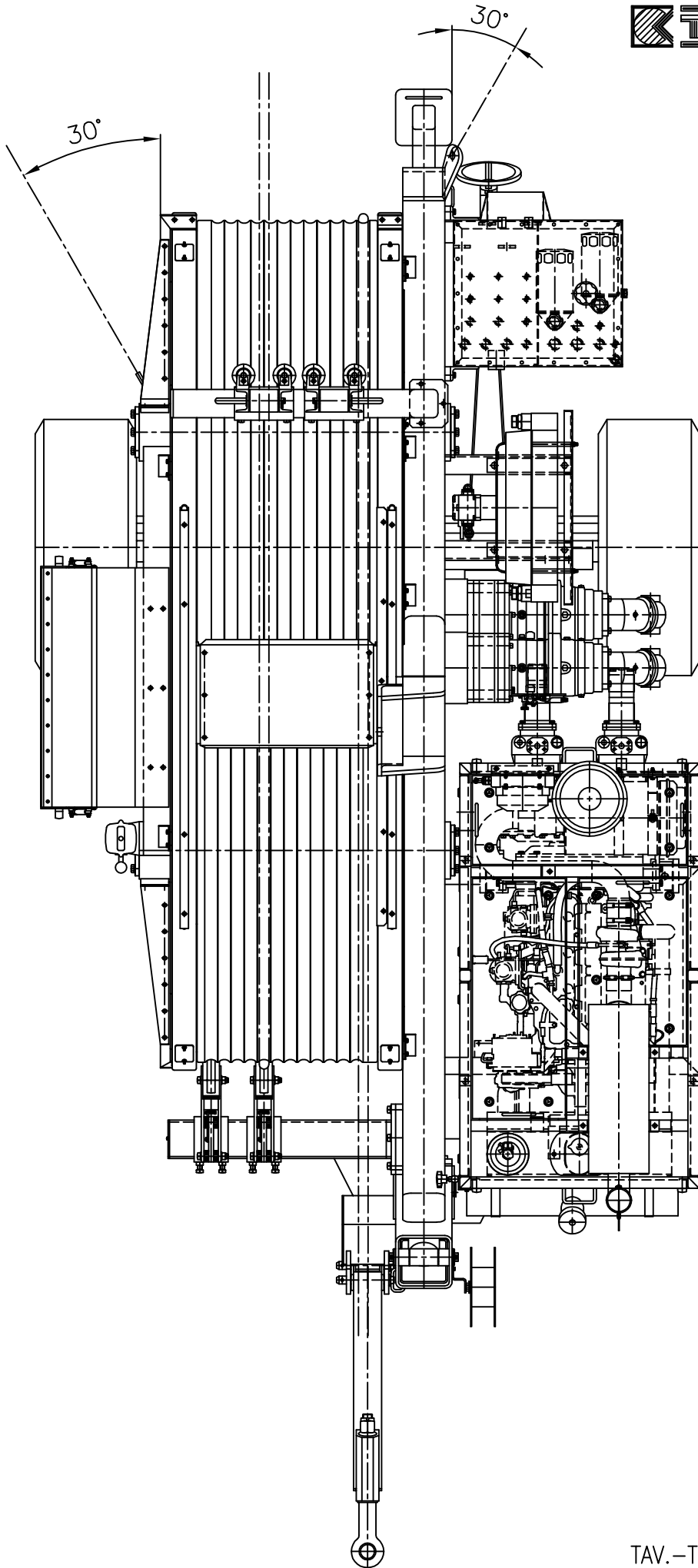
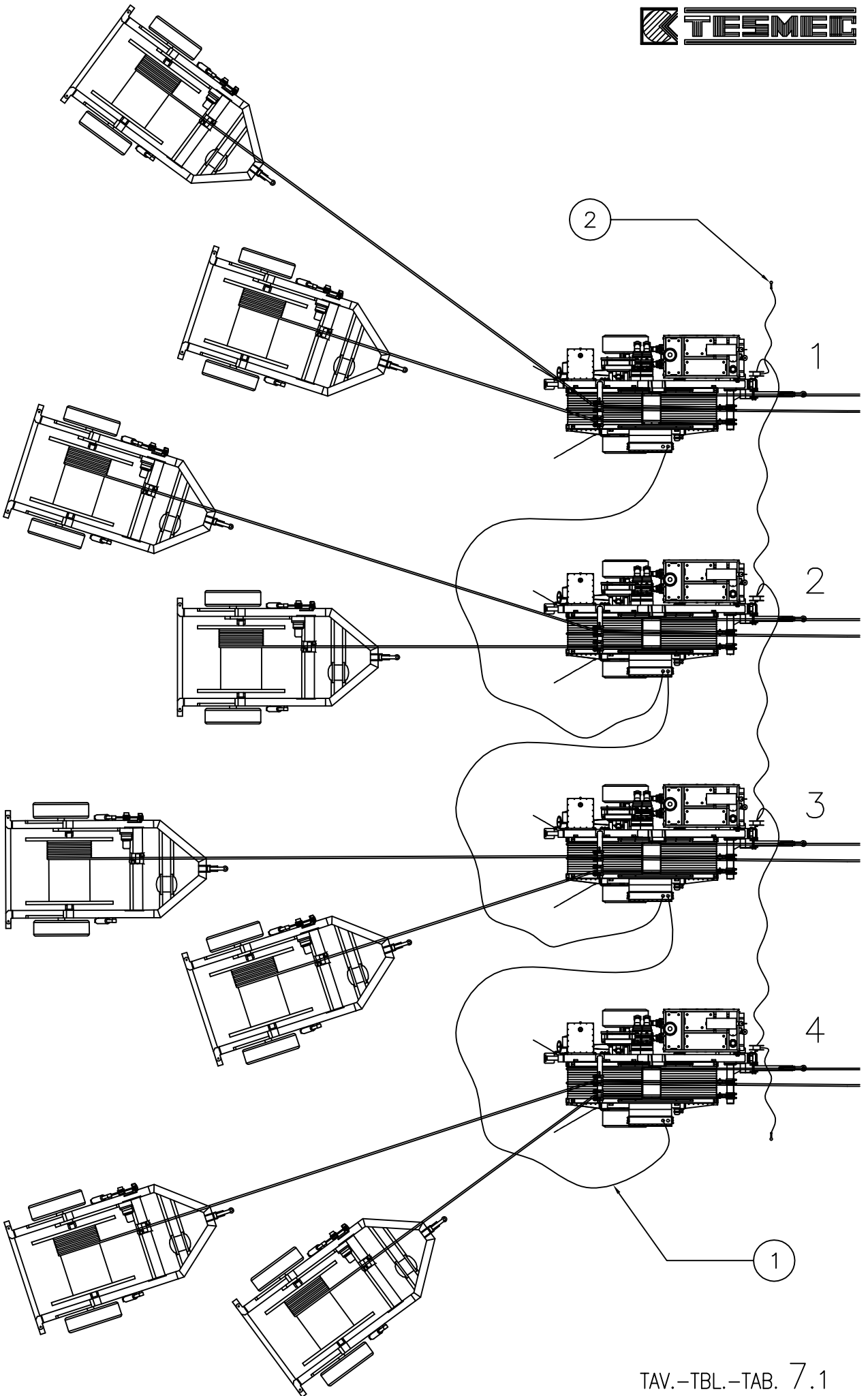




TABLE 7.1

- 1) Machine connection cable.
- 2) Machine ground cable.

ARGANO FRENO - PULLER TENSIONER - TREUIL FREINEUSE - Mod. AFB 506 AFB506_7_1

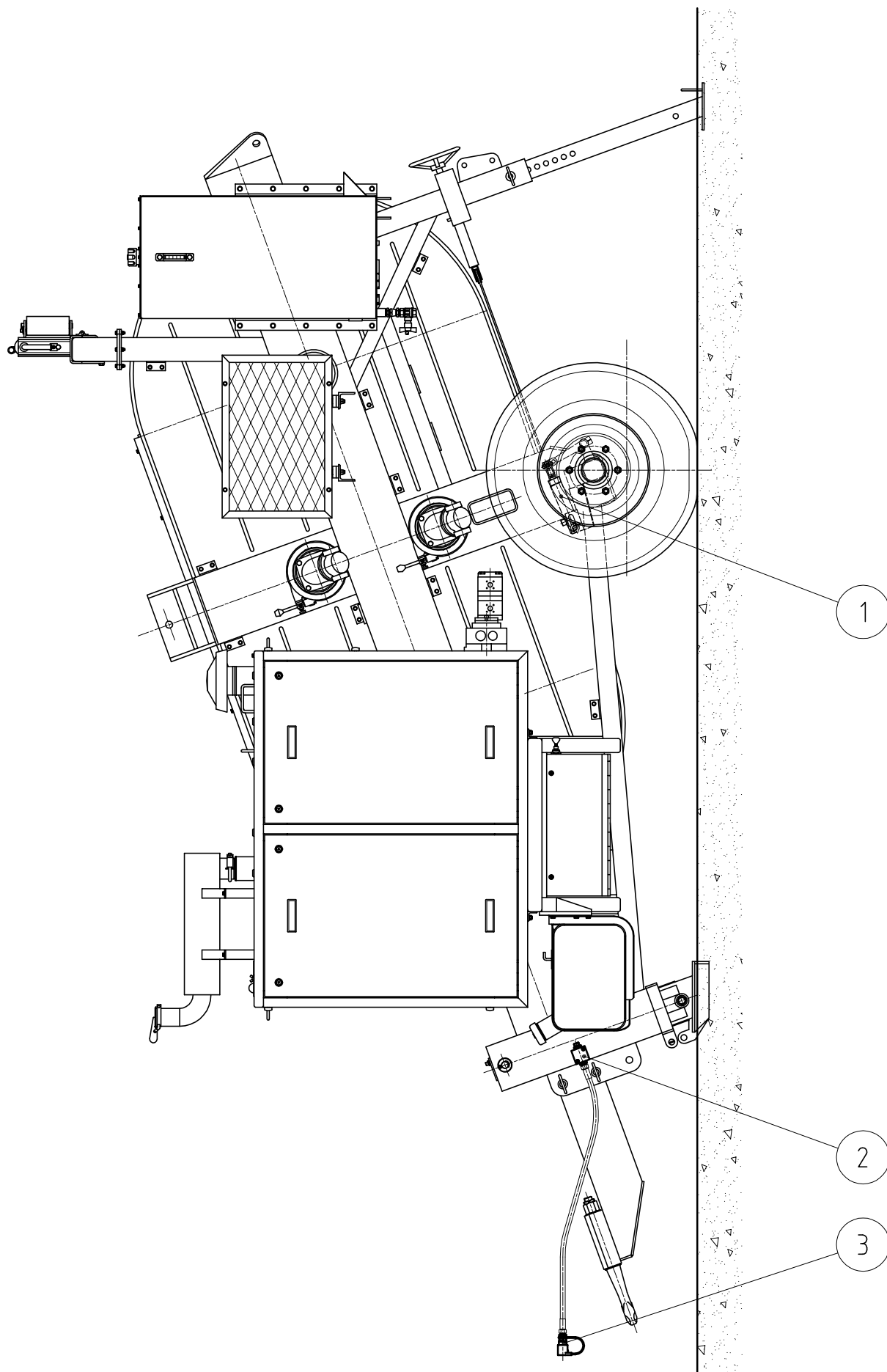




PULLER
Model: AFB506

TABLE 8.1

- 1) Hydraulic cylinder.
- 2) Connecting block.
- 3) Quick coupler.





Comparative table of suggested oils and greases

TYPE	HYDRAULIC CIRCUIT OIL FOR ENVIROMENTAL CONDITION:				REDUCTION UNIT - COUPLERS REDUCTION UNIT OIL FOR ENVIROMENTAL CONDITION:				GREASING
	ARTIC	WINTER	SUMMER	TROPICAL	ARTIC	WINTER	SUMMER	TROPICAL	GREASE FOR EACH AMBIENT
VISCOSITY (ISO 3448)	VG 22	VG 32	VG 46	VG 68	VG 100	VG 150	VG 220	VG 320	NLGI 2
AGIP	OSO 22	OSO 32	OSO 46	OSO 68	BLASIA 100	BLASIA 150	BLASIA 220	BLASIA 320	GR MU EP 2
API	APILUBE CIS 22	APILUBE CIS 32	APILUBE CIS 46	APILUBE CIS 68	DT 100	DT 150	DT 220	DT 320	PGX 2
ARAL	ARAL VITAM GF 22	ARAL VITAM GF 32	ARAL VITAM GF 46	ARAL VITAM GF 68	DEGOL BG 100	DEGOL BG 150	DEGOL BG 220	DEGOL BG 320	ARALUB HL 2
AVIA	AVILUB RSL 22	AVILUB RSL 32	AVILUB RSL 46	AVILUB RSL 68	AVILUB RSX 100	AVILUB RSX 150	AVILUB RSX 220	AVILUB RSX 320	-
BP	ENERGOL HLP 22	ENERGOL HLP 32	ENERGOL HLP 46	ENERGOL HLP 68	ENERGOL GR-XP 100	ENERGOL GR-XP 150	ENERGOL GR-XP 220	ENERGOL GR-XP 320	GREASE LTX 2
CASTROL	HYSPIN AWS 22	HYSPIN AWS 32	HYSPIN AWS 46	HYSPIN AWS 68	ALPHA SP 100	ALPHA SP 150	ALPHA SP 220	ALPHA SP 320	SUPERGREASE 2
CHEVRON	EP HYDRAULIC 22	EP HYDRAULIC 32	EP HYDRAULIC 46	EP HYDRAULIC 68	COMPOUND GEAR 100	COMPOUND GEAR 150	COMPOUND GEAR 220	COMPOUND GEAR 320	DURALITH EP 2
ELF	ELFOLNA DS 22	ELFOLNA DS 32	ELFOLNA DS 46	ELFOLNA DS 68	REDUCTELF SP 100	REDUCTELF SP 150	REDUCTELF SP 220	REDUCTELF SP 320	ROLEXA 2
ESSO	NUTO H 22	NUTO H 32	NUTO H 46	NUTO H 68	SPARTAN EP 100	SPARTAN EP 150	SPARTAN EP 220	SPARTAN EP 320	BEACON 2
FINA	HYDRAN 22	HYDRAN 32	HYDRAN 46	HYDRAN 68	GIRAN 100	GIRAN 150	GIRAN 220	GIRAN 320	MARSON EP L2
FUCHS	RENOLIN MR 5	RENOLIN MR 10	RENOLIN MR 15	RENOLIN MR 20	-	RENEP COMPOUND 104	-	RENEP COMPOUND 108	-
GULF	HARMONY 22 AW	HARMONY 32 AW	HARMONY 46 AW	HARMONY 68 AW	-	EP LUBRICANT HD 150	EP LUBRICANT HD 220	EP LUBRICANT HD 320	CROWN EP 2
IP	HYDRUS OIL 22	HYDRUS OIL 32	HYDRUS OIL 46	HYDRUS OIL 68	MELLANA 100	MELLANA 150	MELLANA 220	MELLANA 320	ATHESIA EP GR 2
KLUBER	LAMORA 22	LAMORA 32	LAMORA 46	LAMORA 68	LAMORA 100	LAMORA 150	LAMORA 220	LAMORA 320	CENTOPLEX 2 EP
MOBIL	DTE 22	DTE 24	DTE 25	DTE 26	-	MOBILGEAR 629	MOBILGEAR 630	MOBILGEAR 632	MOBILUX EP 2
Q8	HAYDIN 22	HAYDIN 32	HAYDIN 46	HAYDIN 68	GOYA 100	GOYA 150	GOYA 220	GOYA 320	REMBRANDT EP 2
ROLOIL	LI 22	LI 32	LI 46	LI 68	EP 100	EP 150	EP 220	EP 320	LITEX EP 2
SHELL	TELLUS 22	TELLUS 32	TELLUS 46	TELLUS 68	OMALA 100	OMALA 150	OMALA 220	OMALA 320	SUPERGREASE EP2
SYNECO	-	PACEMAKER 32	PACEMAKER 46	PACEMAKER 68	-	PACEMAKER RODI 12	-	PACEMAKER RODI 24	SINT GREASE EP 2
TAMOIL	HYDRAULIC OIL 22	HYDRAULIC OIL 32	HYDRAULIC OIL 46	HYDRAULIC OIL 68	CARTER EP 100	CARTER EP 150	CARTER EP 220	CARTER EP 320	TAMLITH GREASE EP2
TEXACO	RANDO HD 22	RANDO HD 32	RANDO HD 46	RANDO HD 68	MEROPA 100	MEROPA 150	MEROPA 220	MEROPA 320	MULTIFAK EP 2
TOTAL	AZOLLA ZS 22	AZOLLA ZS 32	AZOLLA ZS 46	AZOLLA ZS 68	CARTER EP 100	CARTE EP 150	CARTER EP 220	CARTER EP 320	MULTIS EP 2
VALVOLINE	ELIOS HVI 22	ELIOS HVI 32	ELIOS HVI 46	ELIOS HVI 58	ELIOS EP 100	ELIOS EP 150	ELIOS EP 220	ELIOS EP 320	LITHIUM BASE EP 2



PULLER-TENSIONER MOD. AFB506

ENCLOSED DOCUMENTS



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- 24060 Endine Gaiano (Bg) via Pertegalli
Tel. 0039 / 035 / 825024
Fax 0039 / 035 / 826375
E-mail: info@tesmec.it

IMPORTANTE

Per qualsiasi informazione riguardante questa macchina/attrezzatura (utilizzo, manutenzione, ricambi) citare sempre Modello, Numero di matricola, Commessa, Anno di fabbricazione rilevabile nella targa d'identificazione della macchina.

Questo manuale non descrive le procedure di tesatura, né si è cercato di dare istruzioni all'utilizzatore sui metodi di tesatura.

Il contenuto di questo manuale prevede unicamente un testo di base per l'uso, manutenzione e l'elenco dei pezzi di ricambio della macchina stessa e come s'intende e si suggerisce di utilizzarla. Saranno graditi suggerimenti da parte degli Utilizzatori per migliorare questa pubblicazione. Scriveteci all'indirizzo sottoindicato.

IMPORTANT NOTE

State always "Model, Serial Number and Manufacturing Year" of the machine/equipment in case you need information on use, maintenance and spare parts. The a/m data can be found on the identification plate of the machine itself.

This is not a stringing procedures manual, and no attempt is made or implied herein to instruct the user in stringing methods.

The contents of this manual are intended as base line for operation, maintenance and part list of the unit as it stands alone and as it is intended and anticipated to be used. Recommendation by the individual user for improving this publication is encouraged and should be forwarded to the address on this page.

IMPORTANT

Indiquer toujours le modèle, le numéro de série et l'année de fabrication de la machine/équipement même, en demandant à TESMEC renseignements sur l'utilisation, l'entretien et les pièces de rechange. Ces informations se trouvent sur la plaque d'identification de la machine.

Ce manuel ne décrit pas les procédures de déroulage, ni on a tache de donner instructions à l'Utilisateur sur les méthodes de déroulage.

Le contenu de ce manuel prévoit seulement un texte pour l'utilisation, l'entretien et la liste de pièces de rechange et comme TESMEC conseille d'utiliser la machine même. Pour chaque suggestion pour améliorer cette machine, écrire à l'adresse au-dessous.

IMPORTANTE

Para cualquier información relativa a esta máquina/equipo (utilización, mantenimiento, repuestos) citar siempre Modelo, Número de serie, Orden de compra, Año de fabricación que se hallan en la tarjeta de identificación de la máquina.

Este manual no describe los procedimientos de tensado y tampoco se ha tratado de dar instrucciones al utilizador acerca de los métodos de tensado. El contenido de este manual prevé únicamente un texto básico para el uso, mantenimiento y el listado de repuestos de la misma máquina y cómo se pretende y se sugiere utilizarla. Se apreciarán sugerencias por parte de los utilizadores para mejorar esta publicación. Nos pueden escribir a la dirección indicada abajo.

IMPORTANTE

Para qualquer informação a respeito desta máquina/equipamento (utilização, manutenção, peças sobresselentes) citar sempre o Modelo, o Número de Série, a Encomenda, o Ano de fabrico, dados que podem ser encontrados na placa de identificação da máquina.

Este manual não descreve os procedimentos de entesadura, tão pouco foi nossa intenção dar instruções ao utilizador sobre os métodos de entesadura. O conteúdo deste manual de instruções prevê unicamente um texto básico para o uso, a manutenção e a lista das peças sobresselentes da mesma máquina e como se entende e se sugere utilizá-la.

Serão muito bem aceitas sugestões por parte dos Utilizadores, no intento de melhorar esta publicação.

Escrevam-nos no endereço abaixo indicado.

WICHTIG

Geben Sie für alle Informationen über diese Maschine/Ausrüstung (Verwendung, Wartung, Ersatzteile) immer Modell, Matrikelnummer, Bestellung und Baujahr an, was Sie dem Identifizierungsschild der Maschine entnehmen können.

Dieses Handbuch beschreibt nicht die Verfahren des Spannsens, und es wurde auch nicht versucht, dem Verwender Anleitungen über die Methoden des Spannsens zu geben. Der Inhalt dieses Handbuchs enthält allein einen Basistext für den Gebrauch und die Wartung, die Ersatzteilliste der Maschine und außerdem, welche Verwendung für sie bezweckt und empfohlen wird.

Wir freuen uns über Tipps von Seiten der Verwender, um diese Veröffentlichung zu verbessern.

Schreiben Sie uns an unten angegebene Adresse.

ВАЖНОЕ ПРИМЕЧАНИЕ

Всегда следует указывать «модель, серийный номер и год выпуска» машины/оборудования в случае, если вам необходима информация по эксплуатации, техническому обслуживанию и запасным частям. Вышеупомянутые данные можно найти на паспортной табличке на самой машине.

Руководство по эксплуатации не является руководством по методикам натяжения, и в нем не делается никаких попыток инструктирования пользователя способам натяжения, и они не подразумеваются.

Цель настоящего руководства состоит только в том, чтобы дать описание эксплуатации и технического обслуживания, а также список запасных частей машины, и указать ее назначение и рекомендуемое использование. Рекомендации отдельных пользователей по улучшению данной публикации приветствуются, и их следует направлять по адресу, указанному в руководстве.



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Telefax 0039 / 035 / 4522445
E-mail: info@tesmec.it

- 24060 Endine Gaiano (Bg) via Pertegalli
Tel. 0039 / 035 / 825024
Telefax 0039 / 035 / 826375
E-mail: info@tesmec.it

64923

41308030

25110008

26021008

13210065

64924

05309019

05309029

64925

V00-4500-111

V00-4500-022

V00-4500-021

V00-4600-017

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26021012

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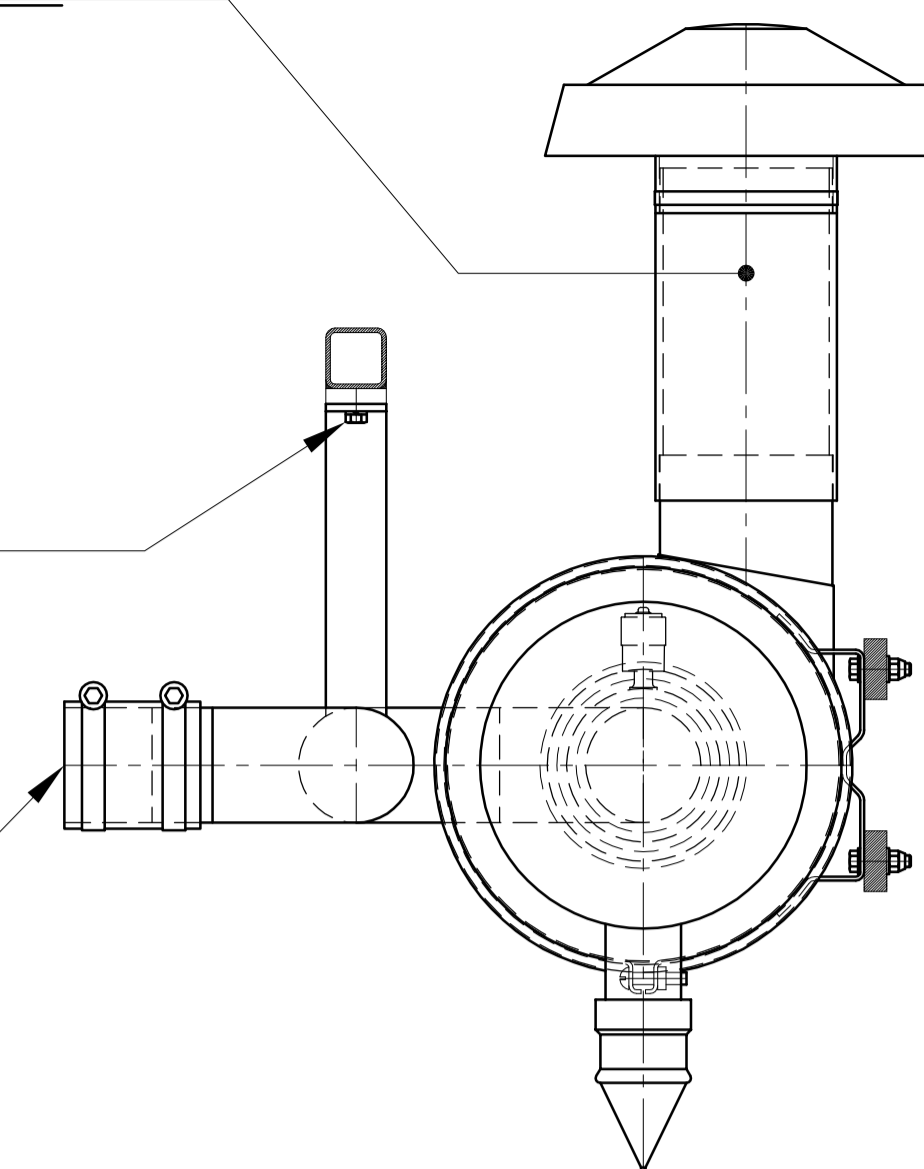
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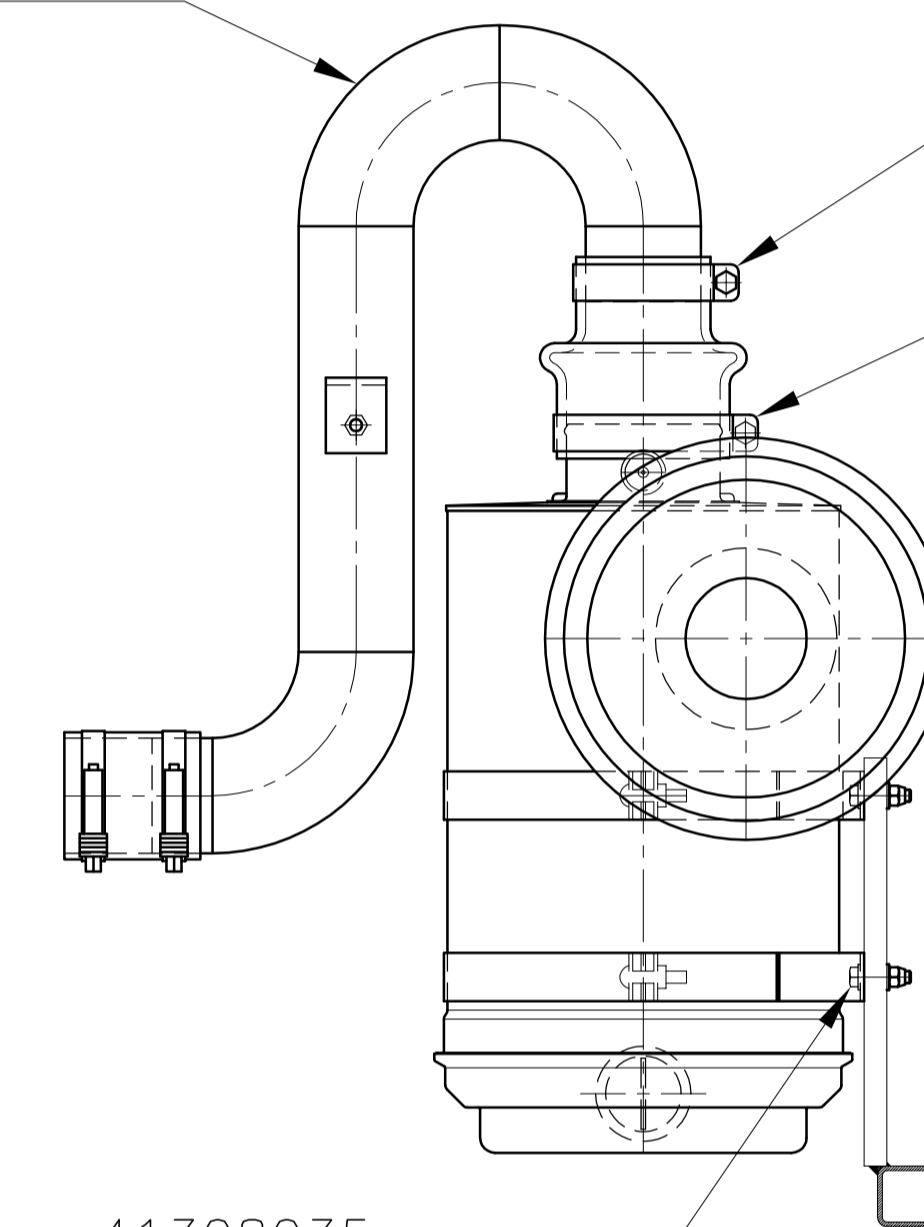
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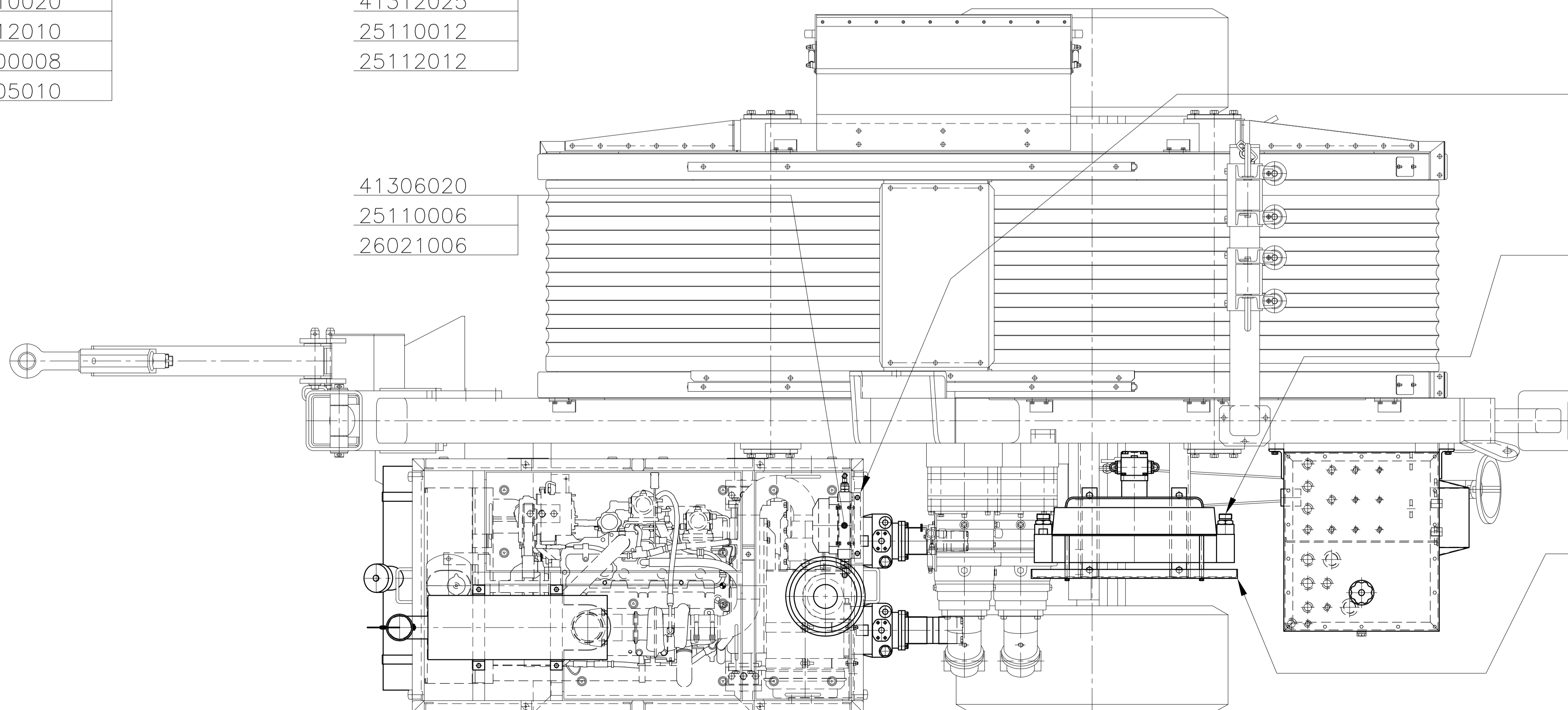
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26021008

PARTICOLARE "A"

SCALA 1:5



CODICI e DISEGNI NELLE (parentesi) NON SONO LEGATI A QUESTO ASSIEME			
	VISTO Ing. Oscar	MACCHINA ARGANO FRENO	MODELLO AFB 506 149
	DISEGNO Tagliaferri T.	GRUPPO ALIMENTAZIONE	
TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE.	DATA 02-12-2014	DENOMINAZIONE ASSIEME MONTAGGIO	NUMERO DISEGNO 15398 0
SALDATURE IN ACCORDO CON - WPS 1 + 9	PRESSIONE ~000.0 Kg.	SCALE 1:10	
GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE			
LAV. MECCANICHE UNI EN 22768-f H CARPENTERIA UNI EN 22768-c K			

Il disegno è proprietà della TESMEC s.p.a. A termini di legge si vieta tassativamente la riproduzione e la divulgazione a terzi.

Table Of the board

<u>Nominal Tension :</u> Vn =	<u>Frequency :</u> f =		
<u>Powers, Currents, Protections And Type Lines Feeding :</u>			
<u>Reference Line</u>	<u>Origin Protection Line</u>	<u>Powers And Currents Line</u>	<u>Notes</u>
+1	-F1		
+2	-F2		
+3	-F3		
+4	-F4		
+5	-F5		
+6	-F6		
+7	-F7		
+8	-F8		
+9	-F9		
+10	-F10		
+11	-F11		
+12	-F12		
<u>Structure of the Board :</u>			
<u>Minimal Degree of the Protection :</u>			

Notes:

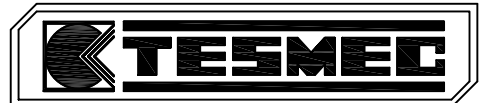
10			
09			
08			
07			
06			
05			
04			
03			
02			
01			
REV	REVIEW	DATE	SIGN

SERIES :

WORKING ORDER : 429460

CUSTOMER : AFB 506 120

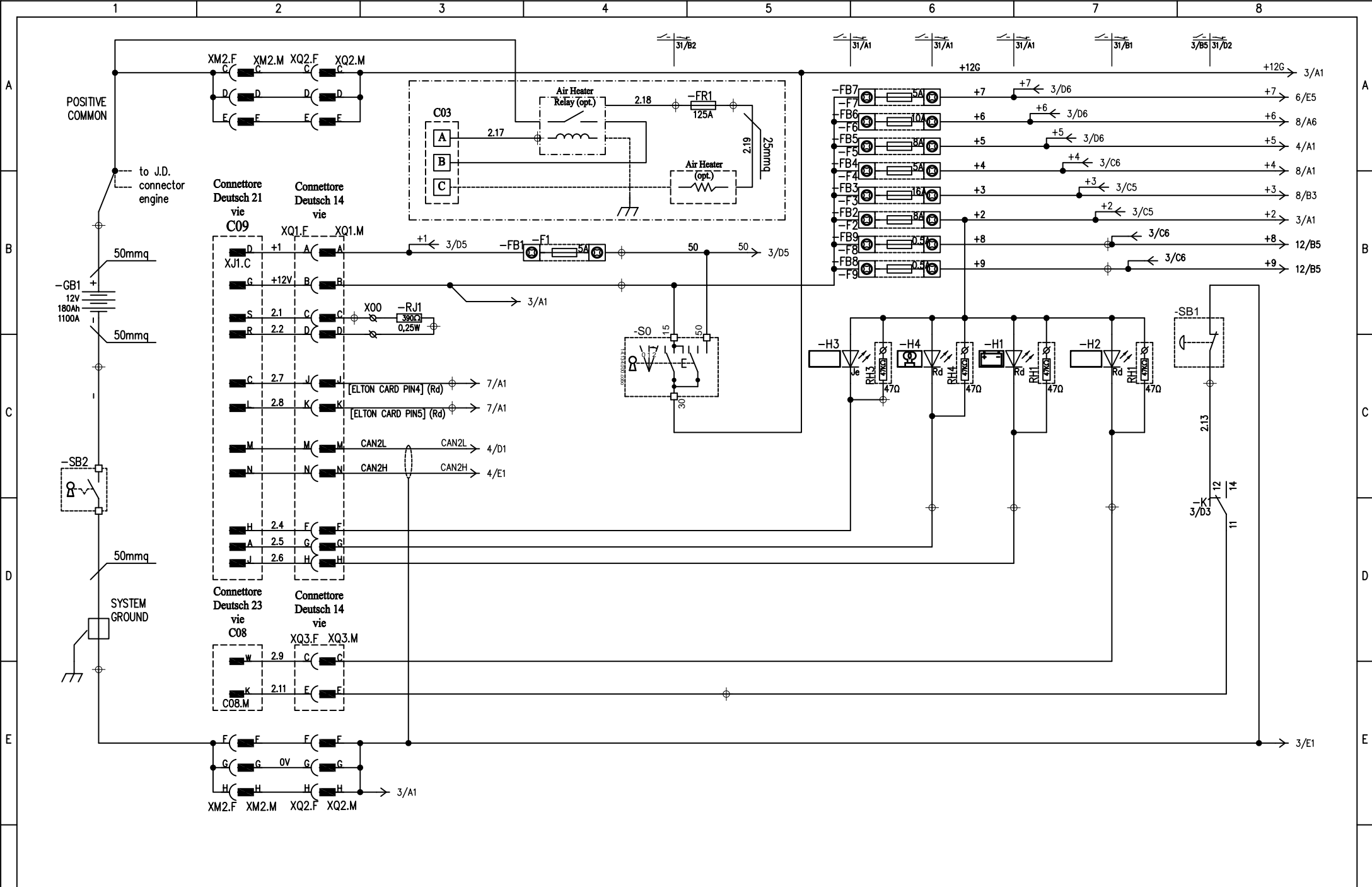
	DATE	SIGNATURE
DRAFTSMAN	29/03/2010	<i>Facoetti</i>
VERIFIED		<i>Maurizio Vitali</i>
APPROVED		<i>Ing. Oscar</i>
LOG. PROD.		



AFB 506 120

<u>PRESETTINGS :</u>	<u>EQUIPMENT :</u>
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<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

<u>ARCHIVES FILES:</u>	<u>SHEET</u>
\\ TESMEC5 \ EGPSchemiElettrici \ 429460.DWG \\ TESMEC5 \ TES.PLOT \ 40000 \	1
TOTAL SHEET	84



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Electric scheme

ENGINE INTERFACE

Drawn: Facchetti

Drawing Nr. 429460
 Archive Nr. 40000.0

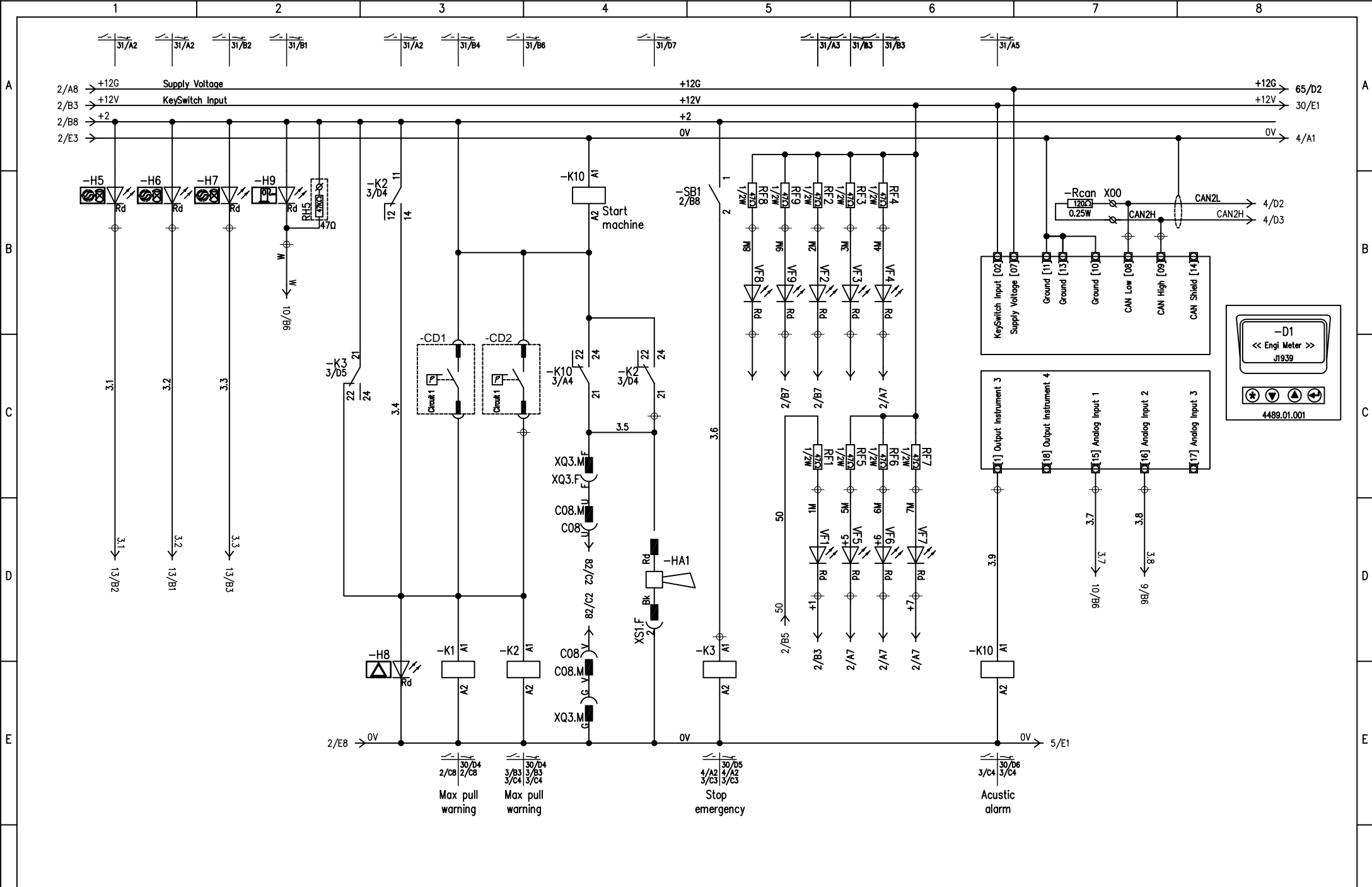
Sheet 2 of 84

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Checked : Ing. Oscar

Date: 29/03/2010

Following 3



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Electric scheme

INSTRUMENTS

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 3 of 84

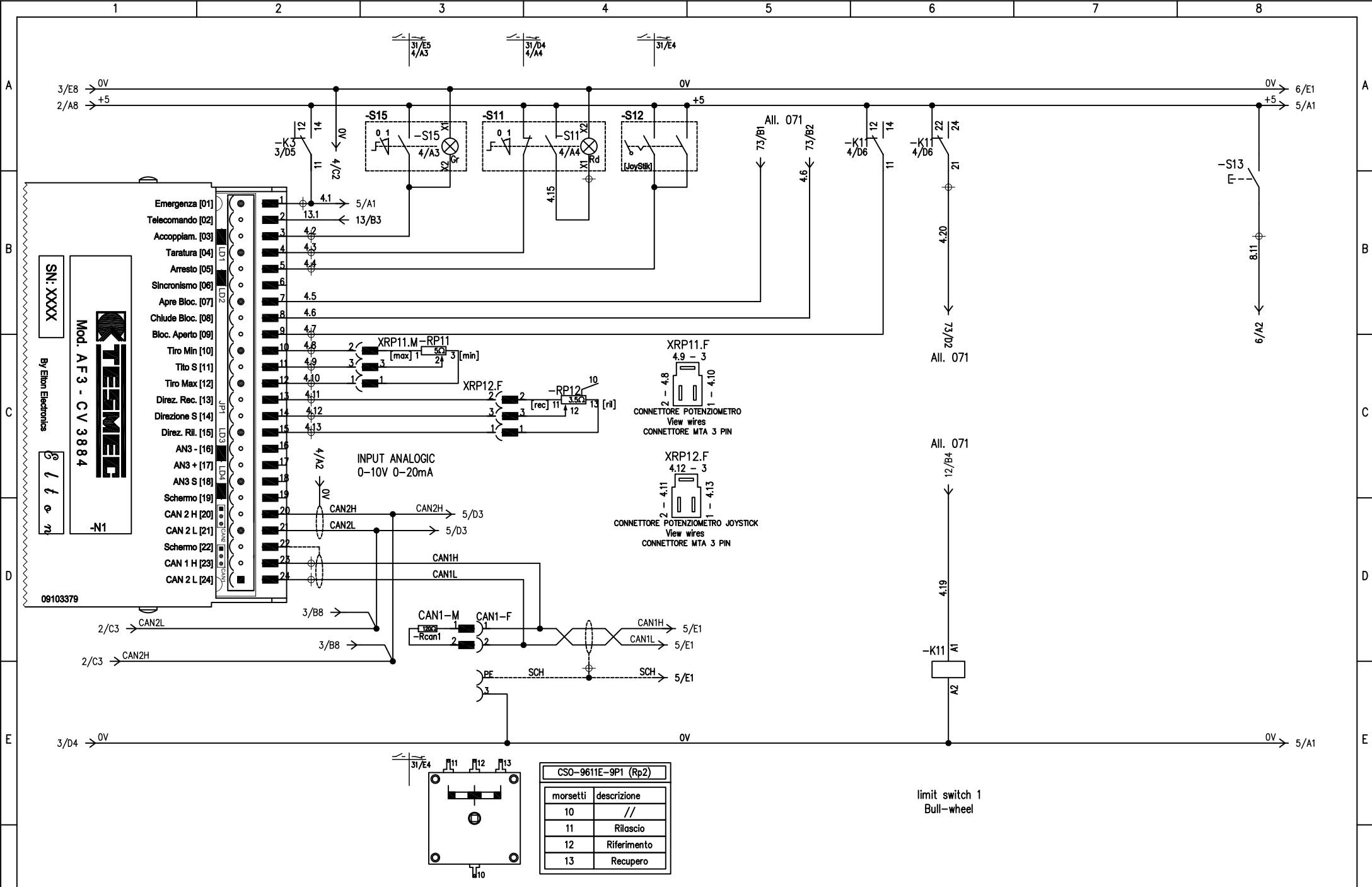
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Date: 29/03/2010

Following 4



- Emergenza [01]
- Telecomando [02]
- Accoppiam. [03]
- Taratura [04]
- Arresto [05]
- Sincronismo [06]
- Apri Bloc. [07]
- Chiude Bloc. [08]
- Bloc. Aperto [09]
- Tiro Min [10]
- Tiro S [11]
- Tiro Max [12]
- Direz. Rec. [13]
- Direzione S [14]
- Direz. Ril. [15]
- AN3 - [16]
- AN3 + [17]
- AN3 S [18]
- Schermo [19]
- CAN 2 H [20]
- CAN 2 L [21]
- Schermo [22]
- CAN 1 H [23]
- CAN 2 L [24]

INPUT ANALOGIC
0-10V 0-20mA

CONNETTORE POTENZIOMETRO
View wires
CONNETTORE MTA 3 PIN

CONNETTORE POTENZIOMETRO JOYSTICK
View wires
CONNETTORE MTA 3 PIN

CSO-9611E-9P1 (Rp2)	
morsetti	descrizione
10	//
11	Rilascio
12	Riferimento
13	Recupero

limit switch 1
Bull-wheel

SN: XXXX
Mod. AFB - CV 3884
By Elton Electronics
TESMEC
-N1

09103379



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UNIT 1: INPUT

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 4 of 84

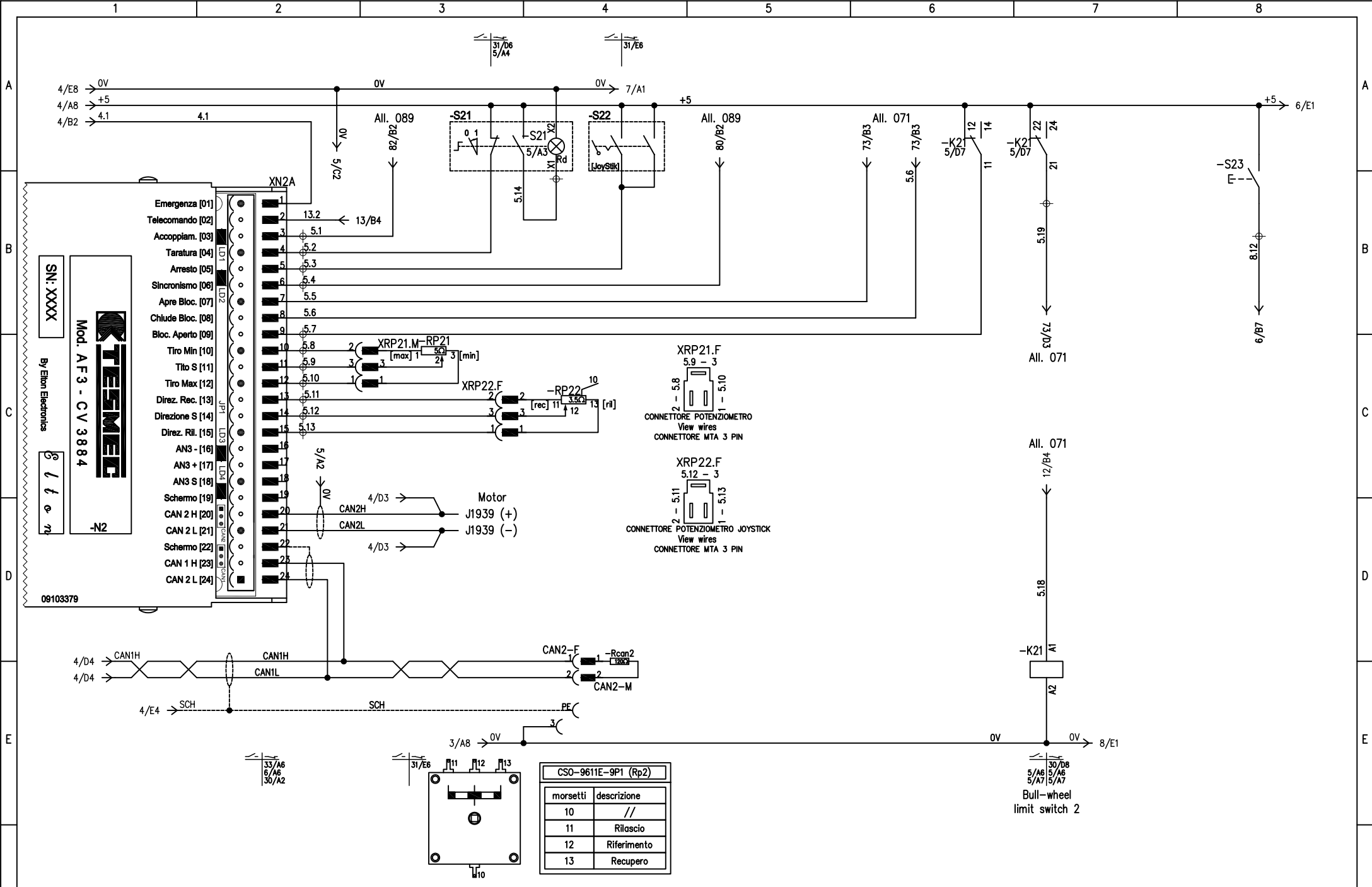
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Electric scheme

UNIT 2: INPUT

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 5 of 84

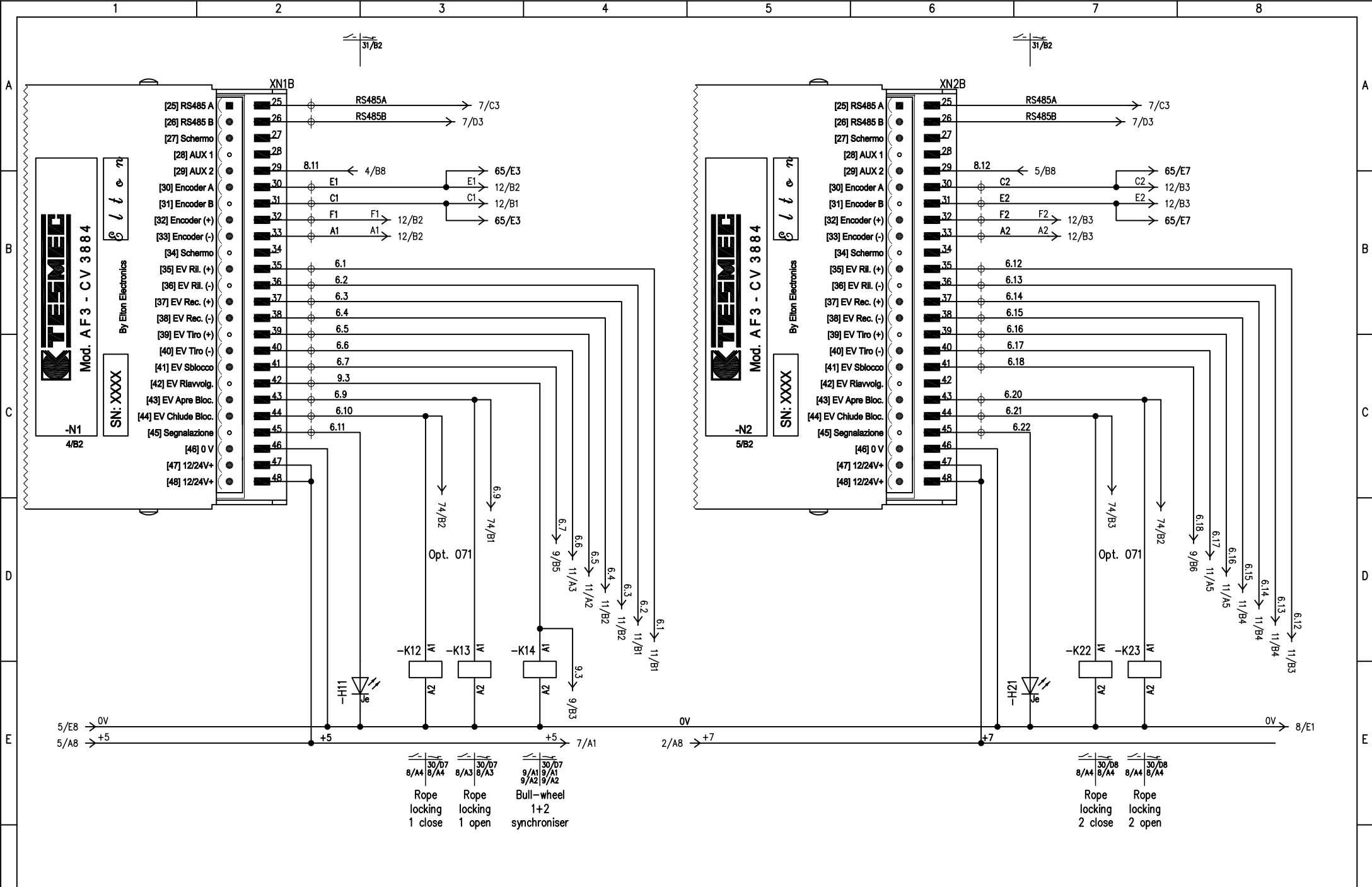
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Electric scheme

UNIT 1-2: OUTPUT

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 6 of 84

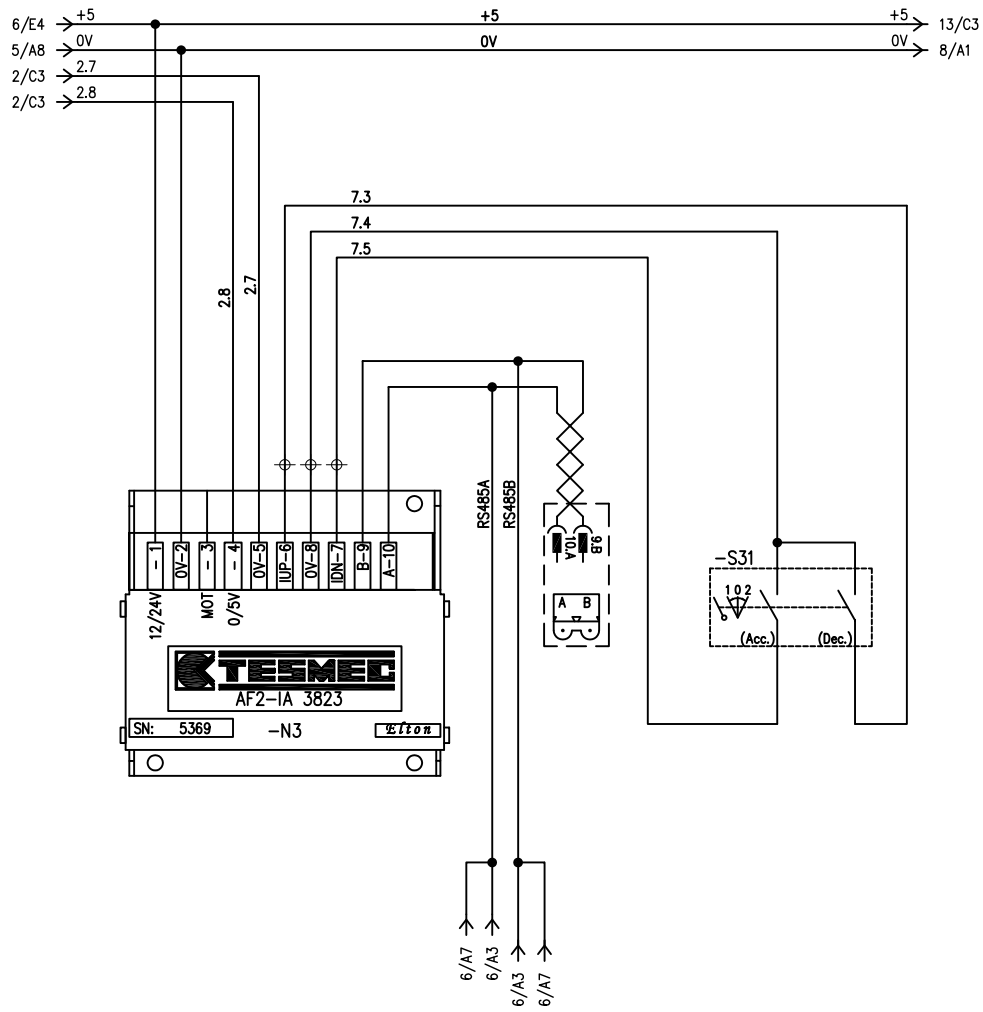
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Electric scheme

ELECTRIC ACCELERATOR

Drawn: Facoetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 7 of 84

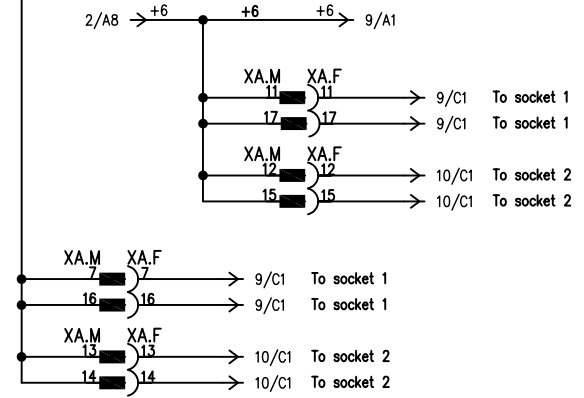
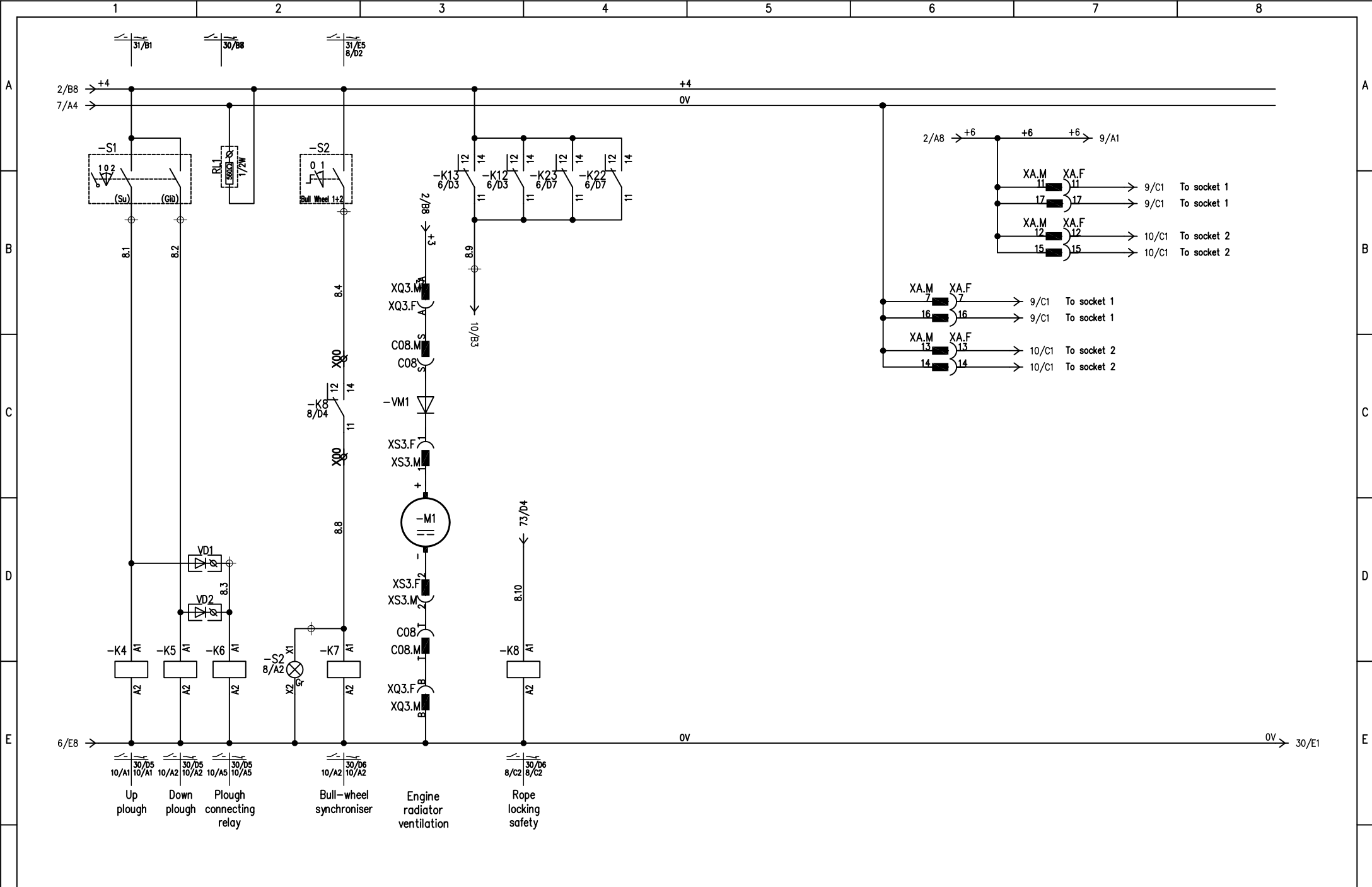
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Electric scheme

MACHINE CONTROL

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 8 of 84

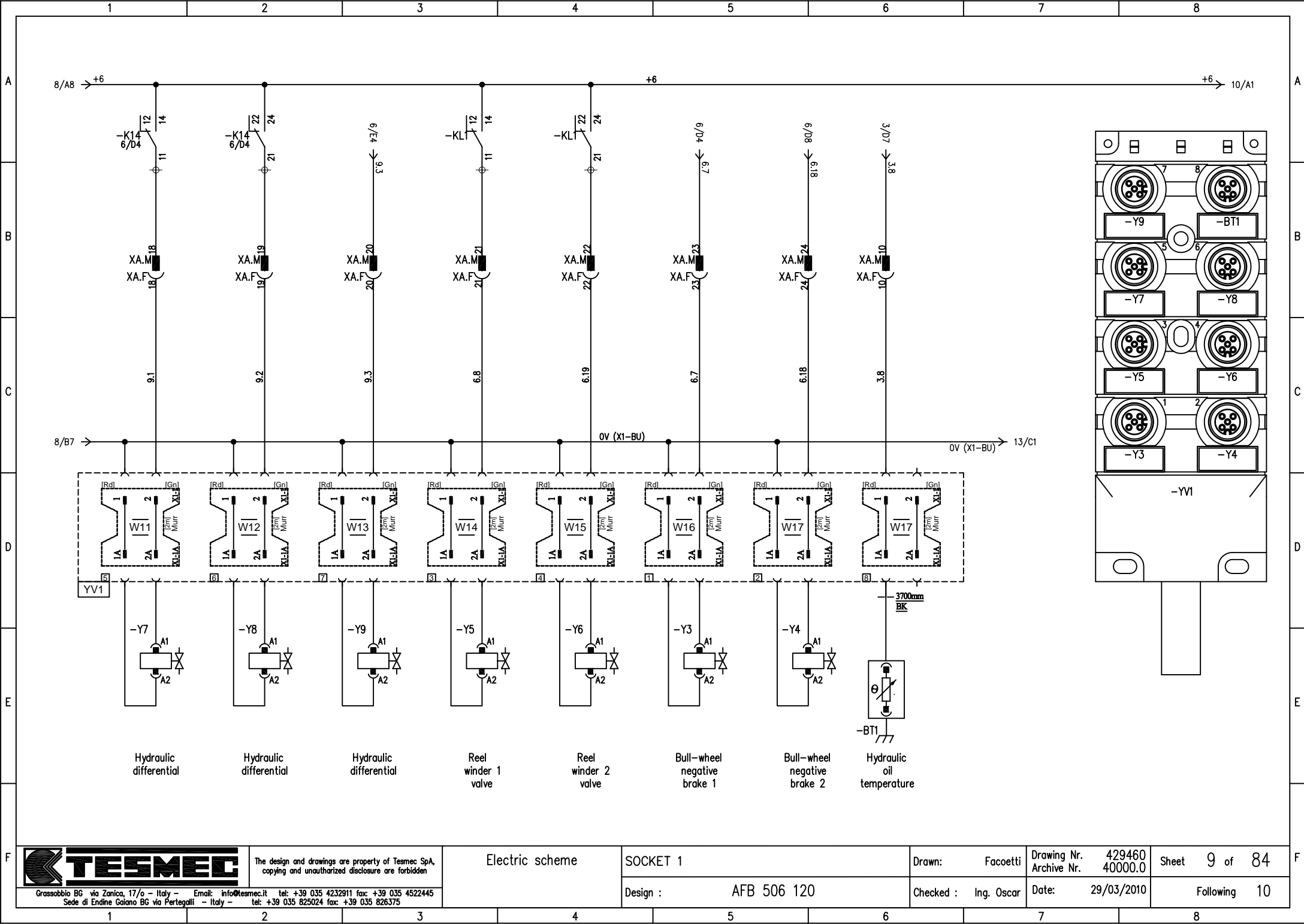
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Electric scheme

SOCKET 1

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 9 of 84

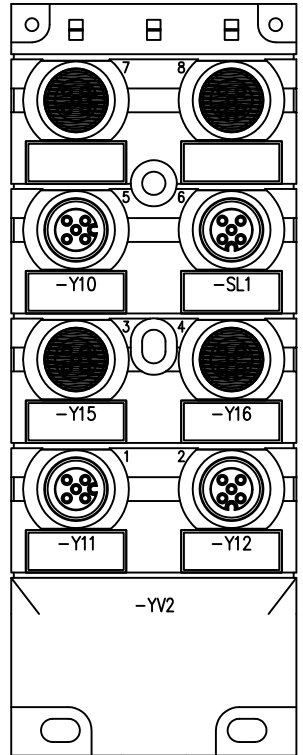
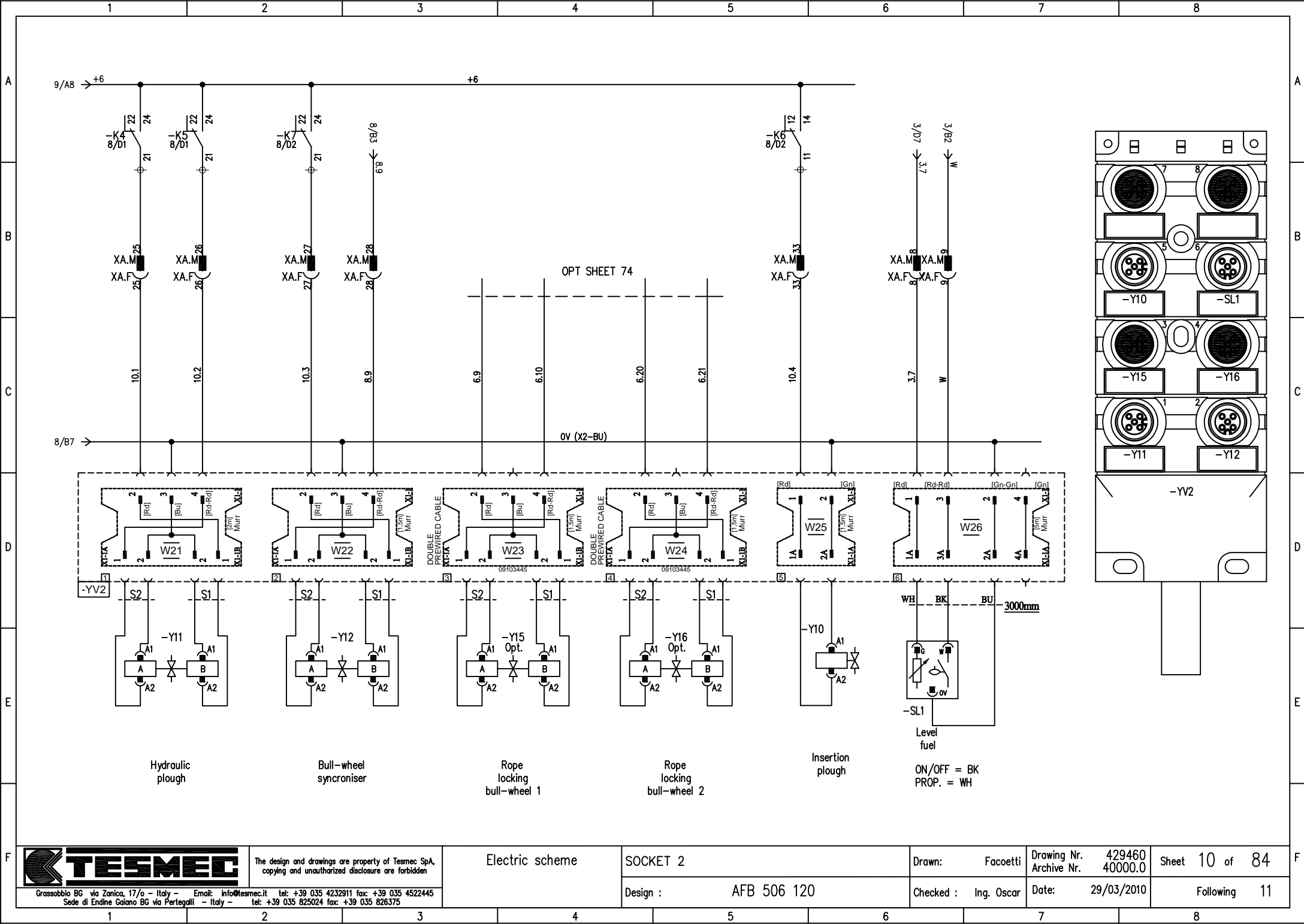
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Electric scheme

SOCKET 2

Design : AFB 506 120

Drawn: Facchetti

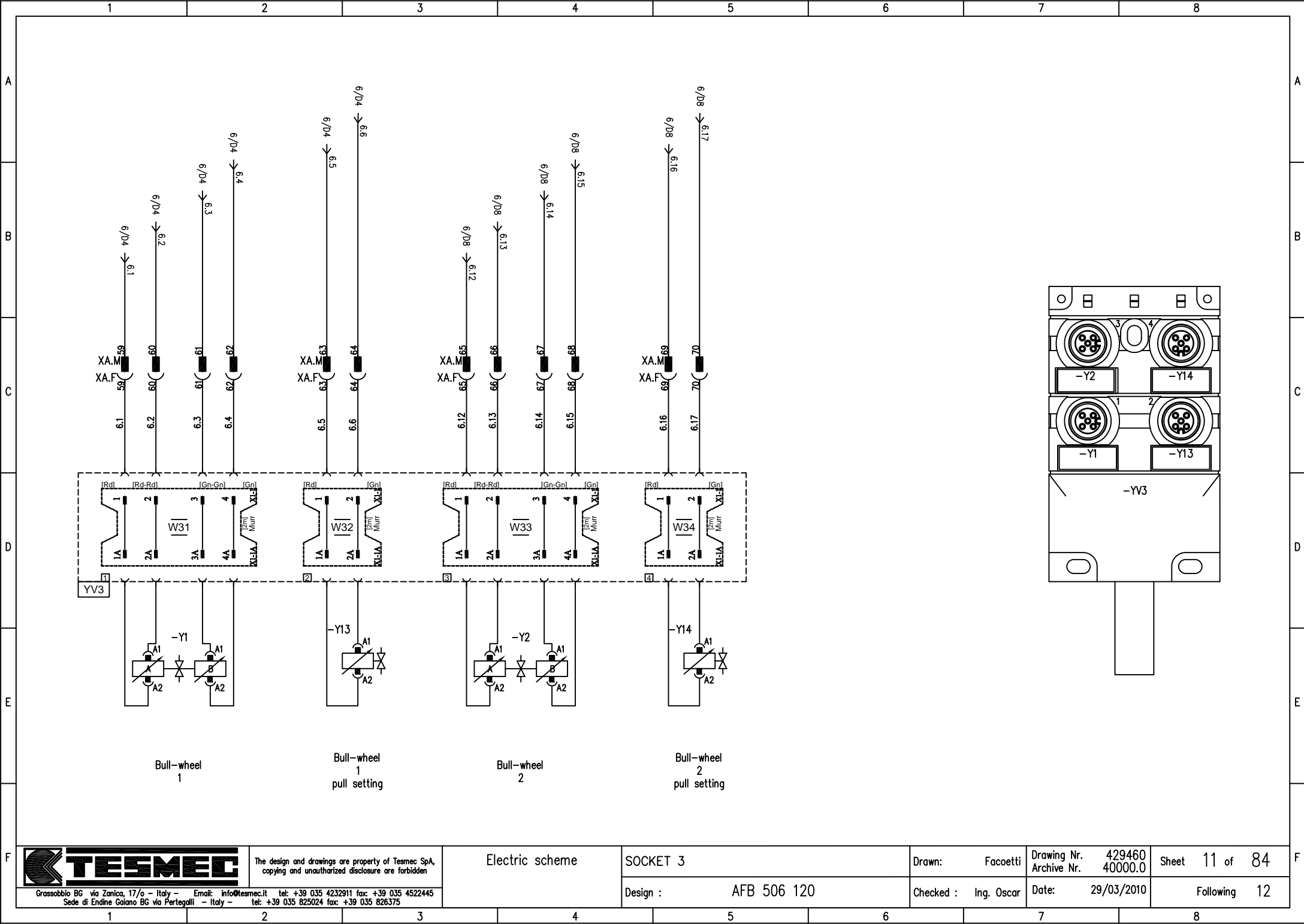
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Drawing Nr. 429460
 Archive Nr. 40000.0

Date: 29/03/2010

Sheet 10 of 84

Following 11



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Electric scheme

SOCKET 3

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 11 of 84

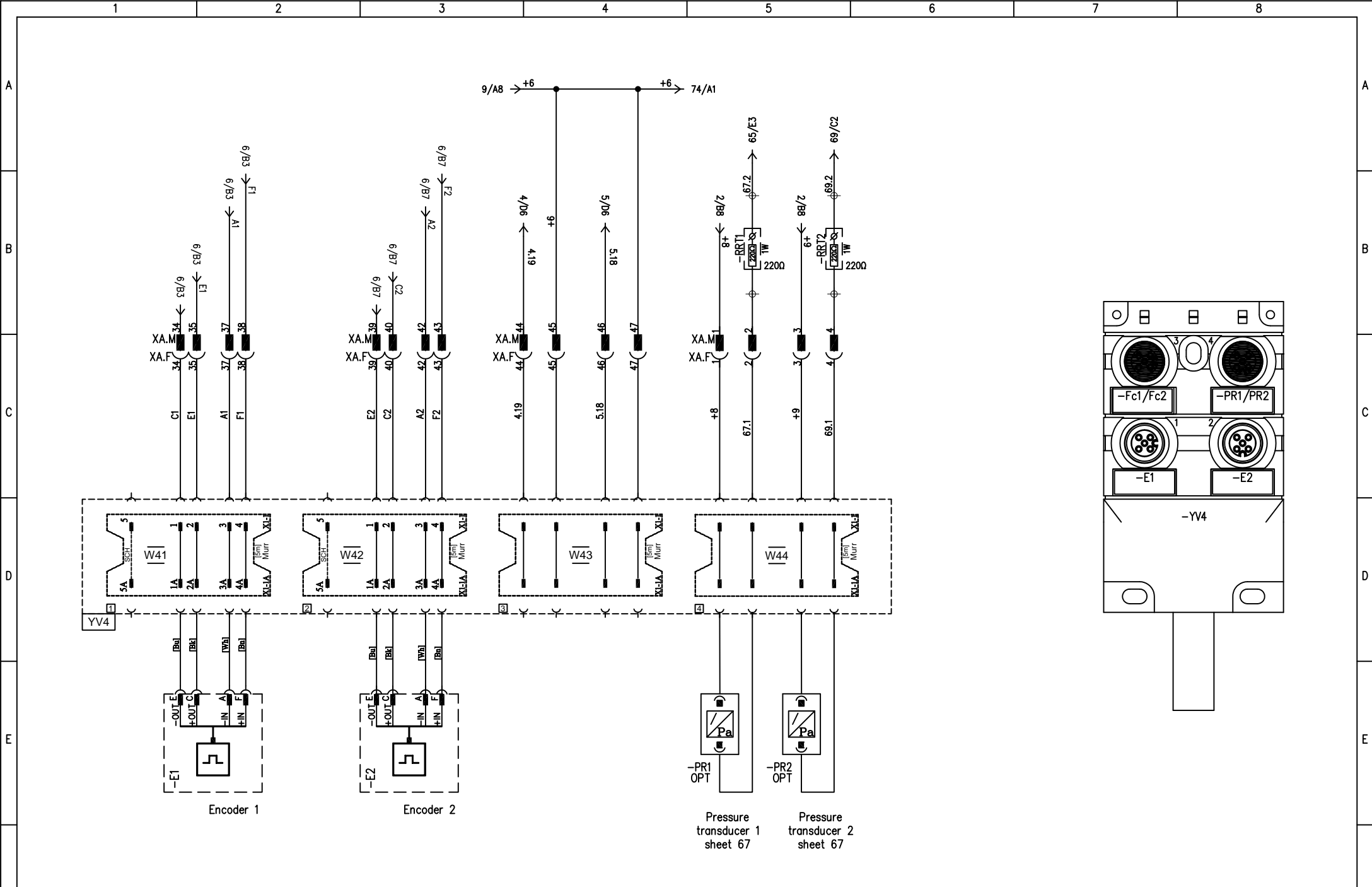
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Electric scheme

SOCKET 4

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 12 of 84

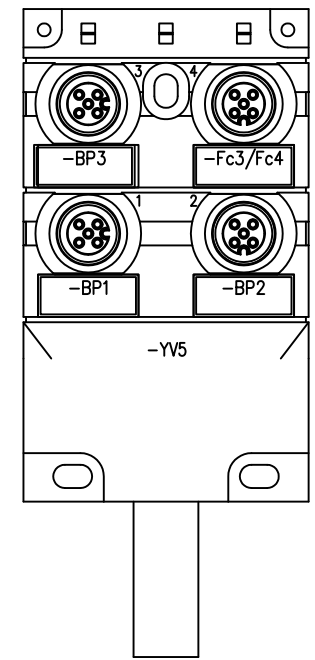
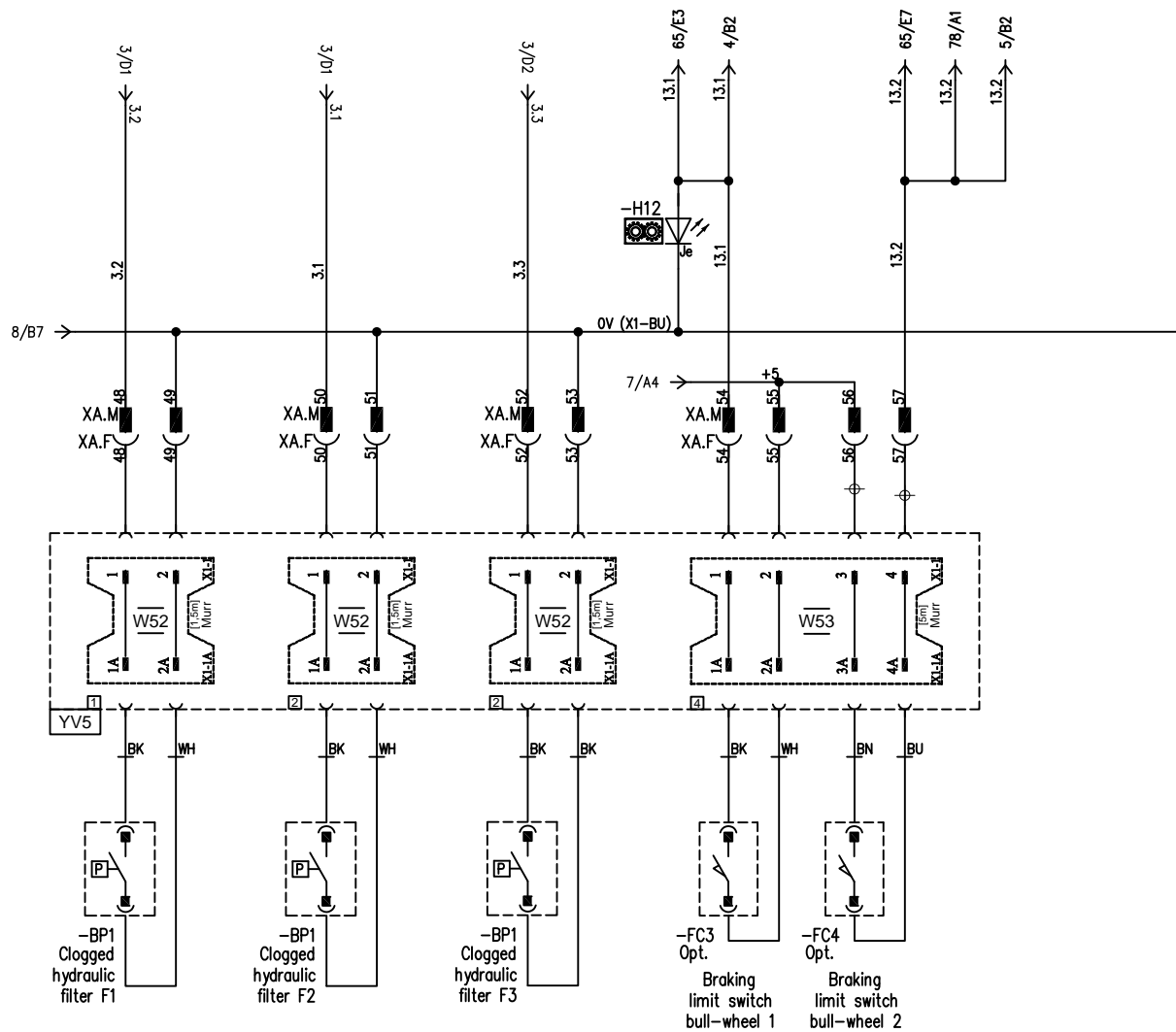
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Electric scheme

SOCKET 5

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 13 of 84




















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


















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Following 14

1	2	3	4	5	6	7	8		
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción				
A	-BP1	99999999	13/E1 IDRAULIC.PART.....(CODICE IDRAULICO)	 FILTRO IDRAULICO F1 INTASATO	<u>clogged f1 hydraulic filter</u>			A	
	-BP2	99999999	13/E2 IDRAULIC.PART.....(CODICE IDRAULICO)	 FILTRO IDRAULICO F2 INTASATO	<u>clogged f2 hydraulic filter</u>				
	-BP3	99999999	13/E2 IDRAULIC.PART.....(CODICE IDRAULICO)	 FILTRO IDRAULICO F3 INTASATO	<u>clogged f3 hydraulic filter</u>				
B	-BT1	09102046	9/E6 TRASM.TEMP.12/24V-40/120-M14X1,5-VDO 810	 SENSORE TEMPERATURA OLIO IDRAULICO	<u>hydraulic oil temperature probe</u>			B	
	CAN1-F	09103427	4/D3 CONNETTORE FEMMINA DA PANNELLO 5 PIN	 CAN 1 JOINT					
	-	09103429	4/D3 TAPPO X CONNETTORE FEMMINA 5 PIN						
	CAN1-M	09103428	4/D3 CONNETTORE MASCHIO VOLANTE 5 PIN	 CAN 1 JOINT					
C	-	09103430	4/D3 TAPPO X CONNETTORE MASCHIO 5 PIN					C	
	CAN2-F	09103427	5/E4 CONNETTORE FEMMINA DA PANNELLO 5 PIN	 CAN 2 JOINT					
	-	09103429	5/E4 TAPPO X CONNETTORE FEMMINA 5 PIN						
	CAN2-M	09103428	5/E4 CONNETTORE MASCHIO VOLANTE 5 PIN	 CAN 2 JOINT					
D	-	09103430	5/E4 TAPPO X CONNETTORE MASCHIO 5 PIN					D	
	CAN3-F	09102934	4/D2 CONNETTORI 3 VIE DEUTSCH DT 04-3P	 CAN 3 JOINT					
	-	09105090	4/D2 BLOCCA CONTATTI MASCHIO COD:W3P DEUTSCH						
E	CAN3-M	09102933	4/D2 CONNETTORI 3 VIE DEUTSCH DT 06-3S	 CAN 3 JOINT				E	
	-	09102783	4/D2 FERMO SECOND. FEMMINA DEUTSCH W3S						
	-CD1	99999999	3/C3 IDRAULIC.PART.....(CODICE IDRAULICO)	 CONTATTO DINAMOMETRO CIRCUITO 1	<u>circuit 1 dynamometer contact</u>				
	-CD2	99999999	3/C4 IDRAULIC.PART.....(CODICE IDRAULICO)	 CONTATTO DINAMOMETRO CIRCUITO 2	<u>circuit 2 dynamometer contact</u>				
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden	Electric scheme	COMPONENTS LIST	Drawn: Facchetti	Drawing Nr. 429460 Archive Nr. 40000.0	Sheet 14 of 84	F
	Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375				Design : AFB 506 120	Checked : Ing. Oscar	Date: 29/03/2010	Following 15	

	1	2	3	4	5	6	7	8	
	Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción			
A	-D1	09103390	3/B6	DISPLAY GRAFICO J1939 ENGINETER DSF	DISPLAY MULTIFUNZIONE "ENGI METER"	multifunction display "engi meter"			
	-E1	09101700	12/E1	ENCODER HOHNER H6626A.36/100 (-20ø)	ENCODER 1	encoder 1			
	-E2	09101700	12/E3	ENCODER HOHNER H6626A.36/100 (-20ø)	ENCODER 2	encoder 2			
B	-F1	09100214	2/B4	FUSIBILE VETRO 5X20 5,0 A	PROTEZIONE LINEA	power line protection			
	-F2	09100355	2/B6	FUSIBILE VETRO 5X20F 8,0 A RAPIDO	PROTEZIONE LINEA	power line protection			
	-F3	09100356	2/B6	FUSIBILE VETRO 5X20F 15,0 A RAPIDO	PROTEZIONE LINEA	power line protection			
	-F4	09100214	2/B6	FUSIBILE VETRO 5X20 5,0 A	PROTEZIONE LINEA	power line protection			
C	-F5	09100355	2/A6	FUSIBILE VETRO 5X20F 8,0 A RAPIDO	PROTEZIONE LINEA	power line protection			
	-F6	09100829	2/A6	FUSIBILE VETRO 5X20 10,0 A	PROTEZIONE LINEA	power line protection			
	-F7	09100214	2/A6	FUSIBILE VETRO 5X20 5,0 A	PROTEZIONE LINEA	power line protection			
D	-FB1	09101872	2/B4	PORTAFUSIBILE CABUR 5X20 SFRPT	MORSETTO PORTAFUSIBILE	fuses holder terminal			
	-FB2	09101872	2/B6	PORTAFUSIBILE CABUR 5X20 SFRPT	MORSETTO PORTAFUSIBILE	fuses holder terminal			
	-FB3	09101872	2/B6	PORTAFUSIBILE CABUR 5X20 SFRPT	MORSETTO PORTAFUSIBILE	fuses holder terminal			
	-FB4	09101872	2/B6	PORTAFUSIBILE CABUR 5X20 SFRPT	MORSETTO PORTAFUSIBILE	fuses holder terminal			
E	-FB5	09101872	2/A6	PORTAFUSIBILE CABUR 5X20 SFRPT	MORSETTO PORTAFUSIBILE	fuses holder terminal			
	-FB6	09101872	2/A6	PORTAFUSIBILE CABUR 5X20 SFRPT	MORSETTO PORTAFUSIBILE	fuses holder terminal			
	-FB7	09101872	2/A6	PORTAFUSIBILE CABUR 5X20 SFRPT	MORSETTO PORTAFUSIBILE	fuses holder terminal			
F	-Fc3	09102712	13/E4	FINECORSO VL AZ8112 MATSUSHITA	FINECORSO DI FRENATURA CABESTANO 1	fine braking limit switch bull-wheel 1			
		The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme		COMPONENTS LIST		Drawn: Facchetti	
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						Checked : Ing. Oscar		Date: 29/03/2010	
								Sheet 15 of 84 Following 16	

1	2	3	4	5	6	7	8						
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción								
A	-FR1	09104195	2/A4 FUSIBILE 125A MEGAVAL		PROTEZIONE LINEA	<u>power line protection</u>							
	-	09102840	2/A4 PORTAFUSIBILE MTA 01.00380 MEGAVAL										
B	-GB1	48106800	2/B1 BATTERIA 12V 180AH 1100A EXIDE COD.680/1		BATTERIA DI AVVIAMENTO	<u>starting battery</u>							
	-	09101584	2/B1 MORSETTO BATT. POLO POSITIVO CAVO 50 MMQ										
	-	09101585	2/B1 COPRIMORSETTO POLO POSITIVO BATT. ROSSO										
	-	09101586	2/B1 MORSETTO BATT. POLO NEGATIVO CAVO 50 MMQ										
	-	09101587	2/B1 COPRIMORSETTO POLO NEGATIVO BATT. NERO										
C	-H1	09102846	2/C7 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA ALLARME GENERATORE	<u>generator alarm pilot lamp</u>							
	-H2	09102846	2/C7 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA ALLARME AVARIA MOTORE	<u>alarm damages motor pilot lamp</u>							
	-H3	09102848	2/C6 INDICATORE LED GIALLO 12VC SERIE677 MARL		SPIA PREALLARME AVARIA MOTORE	<u>engine failure pre-alarm pilot lamp</u>							
	-H4	09102846	2/C6 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA PRERISCALDO MOTORE	<u>engine preheater pilot lamp</u>							
D	-H5	09102846	3/B1 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA FILTRO IDRAULICO F1 INTASATO	<u>clogged hydraulic filter f1 pilot lamp</u>							
	-H6	09102846	3/B1 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA FILTRO IDRAULICO F2 INTASATO	<u>clogged hydraulic filter f2 pilot lamp</u>							
	-H7	09102846	3/B2 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA FILTRO IDRAULICO F3 INTASATO	<u>clogged hydraulic filter f3 pilot lamp</u>							
E	-H8	09102846	3/D3 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA ALLARME TIRO MASSIMO	<u>max. pull alarm pilot lamp</u>							
	-H9	09102846	3/A2 INDICATORE LED ROSSO 12VC SERIE677 MARL		SPIA RISERVA CARBURANTE	<u>fuel reserve pilot lamp</u>							
	-H11	09102848	6/E3 INDICATORE LED GIALLO 12VC SERIE677 MARL		SPIA ALLARME SCHEDA	<u>card warning light</u>							
F	-H12	09102848	13/B3 INDICATORE LED GIALLO 12VC SERIE677 MARL		RELE SPIA RIDUTTORE FRENATURA RIDOTTA	<u>low tension position gearbox pilot lamp relay</u>							
		The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme		COMPONENTS LIST		Drawn: Facchetti		Drawing Nr. 429460 Archive Nr. 40000.0		Sheet 16 of 84	
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375						Design : AFB 506 120		Checked : Ing. Oscar		Date: 29/03/2010		Following 17	

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
A	-H21	09102848	6/E7	INDICATORE LED GIALLO 12VC SERIE677 MARL	SPIA ALLARME SCHEDA	card warning light	
	-HA1	09101642	3/D4	SIRENA PIEZOELETTRICA 12V -DEAR-	SEGNALAZIONE ACUSTICA	acoustic signaling	
	-K1	09103174	3/D3	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	RELE ALLARME TIRO MAX	max. pull warning relay	
B	-	09102616	3/D3	MODULO..DIODO+LED..6~24V..FINDER.99.01.9			
	-	09103235	3/D3	ZOCCOLETTO.SERIE.40.....FINDER.95.05			
	-K2	09103174	3/D4	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	RELE ALLARME TIRO MAX	max. pull warning relay	
	-	09102616	3/D4	MODULO..DIODO+LED..6~24V..FINDER.99.01.9			
C	-	09103235	3/D4	ZOCCOLETTO.SERIE.40.....FINDER.95.05			
	-K3	09103174	3/D5	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	RELE ARRESTO EMERGENZA	emergency-stop relay	
	-	09102616	3/D5	MODULO..DIODO+LED..6~24V..FINDER.99.01.9			
	-	09103235	3/D5	ZOCCOLETTO.SERIE.40.....FINDER.95.05			
D	-K4	09103174	8/D1	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	RELE COMANDO SALITA VOMERE	plough rise control relay	
	-	09102616	8/D1	MODULO..DIODO+LED..6~24V..FINDER.99.01.9			
	-	09103235	8/D1	ZOCCOLETTO.SERIE.40.....FINDER.95.05			
E	-K5	09103174	8/D1	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	RELE COMANDO DISCESA VOMERE	plough descent control relay	
	-	09102616	8/D1	MODULO..DIODO+LED..6~24V..FINDER.99.01.9			
	-	09103235	8/D1	ZOCCOLETTO.SERIE.40.....FINDER.95.05			
F	-K6	09103174	8/D2	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	RELE ABILITAZIONE VOMERE	plough connecting relay	



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Electric scheme

COMPONENTS LIST

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 17 of 84

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375


Design : AFB 506 120




















Checked : Ing. Oscar


Date: 29/03/2010


Following 18


1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
A	- 09102616	8/D2	MODULO..DIODO+LED..6~24V..FINDER.99.01.9				
	- 09103235	8/D2	ZOCCOLETTO.SERIE.40.....FINDER.95.05				
	-K7	09103174	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]		RELE TIRO SINGOLO / BINATO	<u>single / double pull relay</u>	
B	- 09102616	8/D2	MODULO..DIODO+LED..6~24V..FINDER.99.01.9				
	- 09103235	8/D2	ZOCCOLETTO.SERIE.40.....FINDER.95.05				
	-K8	09103174	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]		RELE SICUREZZA BLOCCAFUNE	<u>rope locking clamp safety relay</u>	
C	- 09102616	8/D4	MODULO..DIODO+LED..6~24V..FINDER.99.01.9				
	- 09103235	8/D4	ZOCCOLETTO.SERIE.40.....FINDER.95.05				
	-K10	09103174	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]		RELE SEGNALAZIONE ACUSTICA	<u>siren relay</u>	
D	- 09102616	3/D6	MODULO..DIODO+LED..6~24V..FINDER.99.01.9				
	- 09103235	3/D6	ZOCCOLETTO.SERIE.40.....FINDER.95.05				
	-K11	09103174	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]		RELE FINECORSA CABESTANO 1	<u>bull-wheel 1 limit switch relay</u>	
	- 09102616	4/D6	MODULO..DIODO+LED..6~24V..FINDER.99.01.9				
E	- 09103235	4/D6	ZOCCOLETTO.SERIE.40.....FINDER.95.05				
	-K12	09103174	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]		RELE BLOCCAFUNE 1 CHIUSO	<u>rope locking device 1 close relay</u>	
	- 09102616	6/D3	MODULO..DIODO+LED..6~24V..FINDER.99.01.9				
	- 09103235	6/D3	ZOCCOLETTO.SERIE.40.....FINDER.95.05				
F	-K13	09103174	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]		RELE BLOCCAFUNE 1 APERTO	<u>rope locking device 1 open relay</u>	
		The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme		COMPONENTS LIST	
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375				Design : AFB 506 120		Drawn: Facchetti Drawing Nr. 429460 Archive Nr. 40000.0 Sheet 18 of 84	
				Checked : Ing. Oscar		Date: 29/03/2010 Following 19	

1	2	3	4	5	6	7	8						
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción								
A	- 09102616	6/D3	MODULO..DIODO+LED..6~24V..FINDER.99.01.9	↗ ↘									
	- 09103235	6/D3	ZOCCOLETTO.SERIE.40.....FINDER.95.05	↗ ↘									
	-K14	09103174	6/D4	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	↗ ↘	RELE SINCRONIZZATORE 1+2	synchroniser 1+2 relay						
B	- 09102616	6/D4	MODULO..DIODO+LED..6~24V..FINDER.99.01.9	↗ ↘									
	- 09103235	6/D4	ZOCCOLETTO.SERIE.40.....FINDER.95.05	↗ ↘									
	-K21	09103174	5/D6	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	↗ ↘	RELE FINECORSIA CABESTANO 2	bull-wheel 2 limit switch relay						
C	- 09102616	5/D6	MODULO..DIODO+LED..6~24V..FINDER.99.01.9	↗ ↘									
	- 09103235	5/D6	ZOCCOLETTO.SERIE.40.....FINDER.95.05	↗ ↘									
	-K22	09103174	6/D7	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	↗ ↘	RELE BLOCCAFUNE 2 CHIUSO	rope locking device 2 close relay						
D	- 09102616	6/D7	MODULO..DIODO+LED..6~24V..FINDER.99.01.9	↗ ↘									
	- 09103235	6/D7	ZOCCOLETTO.SERIE.40.....FINDER.95.05	↗ ↘									
	-K23	09103174	6/D7	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	↗ ↘	RELE BLOCCAFUNE 2 APERTO	rope locking device 2 open relay						
E	- 09102616	6/D7	MODULO..DIODO+LED..6~24V..FINDER.99.01.9	↗ ↘									
	- 09103235	6/D7	ZOCCOLETTO.SERIE.40.....FINDER.95.05	↗ ↘									
	-KL1	09103174	3/B4	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	↗ ↘	RELE MACCHINA AVVIATA	start machine relay						
F	- 09102616	3/B4	MODULO..DIODO+LED..6~24V..FINDER.99.01.9	↗ ↘									
	- 09103235	3/B4	ZOCCOLETTO.SERIE.40.....FINDER.95.05	↗ ↘									
	-M1	00000000	8/C3	ENGINE.PART.....(CODICI MOTORE)	↗ ↘	MOTORE VENTILAZIONE RADIATORE	engine radiator ventilation						
		The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme		COMPONENTS LIST		Drawn: Facchetti		Drawing Nr. 429460 Archive Nr. 40000.0		Sheet 19 of 84	
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375				Design : AFB 506 120		Checked : Ing. Oscar		Date: 29/03/2010		Following 20			


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Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción			
A	-N1	09103379	4/B2 SCHEDA AF3-CV 3844 ELTON		SCHEDA COMANDO POMPA CABESTANO 1	<u>bull-wheel 1 pump control card</u>		
	-N2	09103379	5/B2 SCHEDA AF3-CV 3844 ELTON		SCHEDA COMANDO POMPA CABESTANO 2	<u>bull-wheel 2 pump control card</u>		
	-Rcan	09102905	3/B7 RESISTENZA 120 OHM 0,25W RS 135-780		RESISTENZA CANBUS	<u>canbus resistance</u>		
B	-Rcan1	09102905	4/D3 RESISTENZA 120 OHM 0,25W RS 135-780		RESISTENZA TERMINALE CAN	<u>canbus cablehead resistance</u>		
	-Rcan2	09102905	5/E4 RESISTENZA 120 OHM 0,25W RS 135-780		RESISTENZA TERMINALE CAN	<u>canbus cablehead resistance</u>		
	RF1	09105004	3/C5 RESISTENZA 47.0 OHM 1/2W RS.149-638		RESISTENZA CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	<u>resistance signalling circuit for machine fuse</u>		
	RF2	09105004	3/B5 RESISTENZA 47.0 OHM 1/2W RS.149-638		RESISTENZA CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	<u>resistance signalling circuit for machine fuse</u>		
C	RF3	09105004	3/B6 RESISTENZA 47.0 OHM 1/2W RS.149-638		RESISTENZA CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	<u>resistance signalling circuit for machine fuse</u>		
	RF4	09105004	3/B6 RESISTENZA 47.0 OHM 1/2W RS.149-638		RESISTENZA CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	<u>resistance signalling circuit for machine fuse</u>		
	RF5	09105004	3/C6 RESISTENZA 47.0 OHM 1/2W RS.149-638		RESISTENZA CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	<u>resistance signalling circuit for machine fuse</u>		
	RF6	09105004	3/C6 RESISTENZA 47.0 OHM 1/2W RS.149-638		RESISTENZA CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	<u>resistance signalling circuit for machine fuse</u>		
D	RF7	09105004	3/C6 RESISTENZA 47.0 OHM 1/2W RS.149-638		RESISTENZA CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	<u>resistance signalling circuit for machine fuse</u>		
	RH1	09102502	2/C7 RESISTENZA 4.7KOHM 1/2W RS 149-773		RESISTENZA	<u>resistance</u>		
	RH3	09102502	2/C6 RESISTENZA 4.7KOHM 1/2W RS 149-773		RESISTENZA	<u>resistance</u>		
E	RH4	09102502	2/C6 RESISTENZA 4.7KOHM 1/2W RS 149-773		RESISTENZA	<u>resistance</u>		
	RH5	09102502	3/B2 RESISTENZA 4.7KOHM 1/2W RS 149-773		RESISTENZA	<u>resistance</u>		
	-RJ1	09102294	2/B3 RESISTENZA 390 OHM 0,33W RS 131-205		RESISTENZA	<u>resistance</u>		
	RL1	09102498	8/B2 RESISTENZA 560.0 OHM W RS.132-438		RESISTENZA DI CARICO	<u>load resistor</u>		
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden.		Electric scheme		COMPONENTS LIST	
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Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción									
A	-RP11	09102609	4/C3	POTENZIOMETRO ROTAT. 5K MOD.535	↙ ↘	POTENZIOMETRO	potentiometer							
	-	09100668	4/C3	MANOPOLA DIAM. 40MM	↙ ↘									
	-RP12	00000000	4/C3	ENGINE.PART.....(CODICI MOTORE)	↙ ↘	POTENZIOMETRO	potentiometer							
B	-RP21	09102609	5/C3	POTENZIOMETRO ROTAT. 5K MOD.535	↙ ↘	POTENZIOMETRO	potentiometer							
	-	09100668	5/C3	MANOPOLA DIAM. 40MM	↙ ↘									
	-RP22	00000000	5/C3	ENGINE.PART.....(CODICI MOTORE)	↙ ↘	POTENZIOMETRO	potentiometer							
	-S0	09102990	2/C5	INTERRUT.AVV.MOT.CHIAVE..COBO 14.134.000	↙ ↘	INTERRUTTORE AVVIAMENTO MOTORE	ignition key							
C	-S1	09101196	8/A1	MANIP. 3POS.2INSTAB. CEMA P9 MMN2T	↙ ↘	MANIPOLATORE COMANDO VOMERE	plough control manipulator							
	-S2	09101229	8/A2	SELETT.2POS.FISSE VERDE CEMA P9 MSADOV	↙ ↘	SELETTORE SINCRONIZZATORE CABESTANO 1-2	selector for synchroniser 1-2 bull-wheel							
	-	09101192	8/A2	CONTATTO.NA.....CEMA...P9..B10VN	↙ ↘									
	-	09101193	8/A2	CONTATTO.NA/NC.....CEMA...P9..B11VN	↙ ↘									
D	-	09101203	8/A2	ALIMENTAZIONI.....CEMA...P9..PDNVO	↙ ↘									
	-S11	09101216	4/A4	SELETT.2POS.STAB.ROSSO CEMA P9 MSADOR	↙ ↘	SELETTORE IMPOSTAZIONE TIRO CABESTANO 1	bull-wheel 1 pull setting selector							
	-	09101192	4/A4	CONTATTO.NA.....CEMA...P9..B10VN	↙ ↘									
	-	09101193	4/A4	CONTATTO.NA/NC.....CEMA...P9..B11VN	↙ ↘									
E	-	09101203	4/A4	ALIMENTAZIONI.....CEMA...P9..PDNVO	↙ ↘									
	-S12	09101127	4/A4	MANIPOLATORE CSO-9611E-9P1 SEMPLICE	↙ ↘	MANIPOLATORE COMANDO CABESTANO 1	bull-wheel 1 manipulator control							
	-S13	09103426	4/A8	PULSANTE LUMINOSO ROSSO IP67 RS 184-9115	↙ ↘	PULSANTE RESET CONTAMETRI 1	pushbutton for reset meter-counter 1							
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme		COMPONENTS LIST		Drawn: Facchetti		Drawing Nr. 429460 Archive Nr. 40000.0		Sheet 21 of 84	
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Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción			
A	-S15	09101229	4/A3	SELETT.2POS.FISSE VERDE CEMA P9 MSADOV	SELETTORE DIFFERENZIALE IDRAULICO 1+2	1+2 hydraulic differential selector		
	-	09101192	4/A3	CONTATTO.NA.....CEMA...P9..B10VN				
	-	09101193	4/A3	CONTATTO.NA/NC.....CEMA...P9..B11VN				
B	-	09101203	4/A3	ALIMENTAZIONI.....CEMA...P9..PDNVO				
	-S21	09101216	5/A3	SELETT.2POS.STAB.ROSSO CEMA P9 MSADOR	SELETTORE IMPOSTAZIONE TIRO CABESTANO 2	bull-wheel 2 pull setting selector		
	-	09101192	5/A3	CONTATTO.NA.....CEMA...P9..B10VN				
	-	09101193	5/A3	CONTATTO.NA/NC.....CEMA...P9..B11VN				
C	-	09101203	5/A3	ALIMENTAZIONI.....CEMA...P9..PDNVO				
	-S22	09101127	5/A4	MANIPOLATORE CSO-9611E-9P1 SEMPLICE	MANIPOLATORE COMANDO CABESTANO 2	bull-wheel 2 manipulator control		
	-S23	09103426	5/A8	PULSANTE LUMINOSO ROSSO IP67 RS 184-9115	PULSANTE RESET CONTAMETRI 2	pushbutton for reset meter-counter 2		
D	-SB1	09101190	2/B8	PULSANTE.STOP.....CEMA...P9.MER4RN	PULSANTE ARRESTO EMERGENZA	emergency stop push button		
	-	09100941	2/B8	TARGHETTA STOP				
	-	09101193	2/B8	CONTATTO.NA/NC.....CEMA...P9..B11VN				
E	-SB2	09103095	2/C1	INTERRUT.STACCABATT.UNI..COBO.13.007.000	STACCABATTERIA	disconnected battery		
	-	09103096	2/C1	CHIAVE COBO 13007005				
	-SL1	09103392	10/E6	GALLEGGIANTE 6 FORI ON+PROP 200-600 DSF	SENSORE LIVELLO CARBURANTE	level fuel probe		
	VD1	09102619	8/D2	MORSET.DOPPIO+DIODO SAK[DK4D 4840.6 WDM]	MORSETTO SINGOLO CON DIODO	single terminal with diode		
	VD2	09102619	8/D2	MORSET.DOPPIO+DIODO SAK[DK4D 4840.6 WDM]	MORSETTO SINGOLO CON DIODO	single terminal with diode		
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme COMPONENTS LIST	Drawn: Facchetti Checked: Ing. Oscar	Drawing Nr. 429460 Archive Nr. 40000.0 Date: 29/03/2010	Sheet 22 of 84 Following 23
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1		2		3		4		5		6		7		8		
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Q.tà Tot.	Funzione	Componente	Traduzione - Traduction Übersetzung - Traducción									
A	VF1	09102846	3/D5	INDICATORE LED ROSSO 12VC SERIE677 MARL	1	LED CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	led signalling circuit for machine fuse									A
	VF2	09102846	3/B5	INDICATORE LED ROSSO 12VC SERIE677 MARL	1	LED CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	led signalling circuit for machine fuse									
	VF3	09102846	3/B6	INDICATORE LED ROSSO 12VC SERIE677 MARL	1	LED CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	led signalling circuit for machine fuse									
B	VF4	09102846	3/B6	INDICATORE LED ROSSO 12VC SERIE677 MARL	1	LED CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	led signalling circuit for machine fuse									B
	VF5	09102846	3/D6	INDICATORE LED ROSSO 12VC SERIE677 MARL	1	LED CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	led signalling circuit for machine fuse									
	VF6	09102846	3/D6	INDICATORE LED ROSSO 12VC SERIE677 MARL	1	LED CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	led signalling circuit for machine fuse									
	VF7	09102846	3/D6	INDICATORE LED ROSSO 12VC SERIE677 MARL	1	LED CIRCUITO SEGNALAZIONE PROTEZIONI MACCHINA	led signalling circuit for machine fuse									
C	W11	09103435	9/D1	CONNETTORE M12 "A" 1SOLEN+LED L=1,0 MURR	1	SINGLE PREWIRED CABLE										C
	W12	09103448	9/D2	CONNETTORE M12 "A" 1SOLEN+LED L=2,0 MURR	1	SINGLE PREWIRED CABLE										
	W13	09103448	9/D3	CONNETTORE M12 "A" 1SOLEN+LED L=2,0 MURR	1	SINGLE PREWIRED CABLE										
D	W14	09103435	9/D3	CONNETTORE M12 "A" 1SOLEN+LED L=1,0 MURR	1	SINGLE PREWIRED CABLE										D
	W15	09103435	9/D4	CONNETTORE M12 "A" 1SOLEN+LED L=1,0 MURR	1	SINGLE PREWIRED CABLE										
	W16	09103435	9/D5	CONNETTORE M12 "A" 1SOLEN+LED L=1,0 MURR	1	SINGLE PREWIRED CABLE										
	W17	09103435	9/D5	CONNETTORE M12 "A" 1SOLEN+LED L=1,0 MURR	1	SINGLE PREWIRED CABLE										
E	W18	09103446	9/D6	CONNETTORE M12 + 4 FILI L=5,0 MURR	1	PIN to PIN PREWIRED CABLE										E
	W21	09103454	10/D1	CONNETTORE M12 "A" 2SOLEN+LED L=2,0 MURR	1	DOUBLE PREWIRED CABLE										
	W22	09103445	10/D3	CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR	1	DOUBLE PREWIRED CABLE										
F	W25	09103445	10/D5	CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR	1	SINGLE PREWIRED CABLE										F
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	Sigla	Codice	Pos.	Descrizione da Archivio Materiali ^{Opto} / _{Tox}	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción			
A	W26	09103446	10/D6	CONNETTORE M12 + 4 FILI L=5,0 MURR		PIN to PIN PREWIRED CABLE			
	W31	09103444	11/D1	CONNETTORE M12 1:1 2SOLEN+LED L=2,0 MURR		PIN to PIN PREWIRED CABLE			
	W32	09103448	11/D2	CONNETTORE M12 "A" 1SOLEN+LED L=2,0 MURR		SINGLE PREWIRED CABLE			
B	W33	09103444	11/D3	CONNETTORE M12 1:1 2SOLEN+LED L=2,0 MURR		PIN to PIN PREWIRED CABLE			
	W34	09103448	11/D5	CONNETTORE M12 "A" 1SOLEN+LED L=2,0 MURR		SINGLE PREWIRED CABLE			
	W41	09103440	12/D1	CONNETTORE M12 + 4 FILI+SCH L=5,0 MURR		PIN to PIN PREWIRED CABLE			
	W42	09103440	12/D3	CONNETTORE M12 + 4 FILI+SCH L=5,0 MURR		PIN to PIN PREWIRED CABLE			
C	W51	09103445	13/D1	CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR		DOUBLE PREWIRED CABLE			
	W52	09103442	13/D2	CONNETTORE M12 X PRESSOSTATO L=1,5 MURR		PREWIRED CABLE FOR PRESSURE SWITCH			
	W53	09103446	13/D4	CONNETTORE M12 + 4 FILI L=5,0 MURR		PIN to PIN PREWIRED CABLE			
D	X00	09101171	8/C2	MORSETTO DOPPIO SAK [DK4 3554.6 WDM]		MORSETTO DOPPIO CIRCUITO COMANDO	<u>double terminal for command circuit</u>		
	XA.F	09102936	8/B7	CONNETT.PORTAFEMMINE DRC 16-70SA DEUTSCH		CONNETTORE DISTRIBUZIONE MACCHINA	<u>machine feeder joint</u>		
	-	09102938	8/B7	COPERTURA POSTERIORE "BOOTS" DRC 70-BT					
	XA.M	09103136	8/B8	CONNETT.PORTAMASCHI DRC 12-70PA DEUTSCH		CONNETTORE DISTRIBUZIONE MACCHINA	<u>machine feeder joint</u>		
E	XJ1.C	09102770	2/B2	CONNETTORE PORTAFEMMINE DEUTSCH HD 23		CONNETTORE "J1" J.Deere [opt.]	<u>j.deere "j1" joint [opt.]</u>		
	XM2.F	09102788	2/A2	CONNETTORE PORTAFEMMINE DEUTSCH 8PIN		CONNETTORE POTENZA MACCHINA	<u>power joint machine</u>		
	XM2.M	09102787	2/A2	CONNETTORE PORTAMASCHI DEUTSCH 8PIN		CONNETTORE POTENZA MACCHINA	<u>power joint machine</u>		
F	XN1A	09103417	4/B2	CONNETTORE VOLANTE CRIMP PHOENIX 1809035		ELTON CARD 1 TAP (IN)			
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						Checked : Ing. Oscar		Date: 29/03/2010	
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Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción								
A	- 09103418	4/B2	CONTATTO FEMMINA MSTBC-MT 0,5-1,0	2A 2A									
	- 09103419	4/B2	SIGLATURA SK 5,08/3,8:FORTL.ZAHLEN	1 1									
B	XN1B	09103417	6/B2	CONNETTORE VOLANTE CRIMP PHOENIX 1809035	1 1	ELTON CARD 1 TAP (OUT)							
	- 09103418	6/B2	CONTATTO FEMMINA MSTBC-MT 0,5-1,0	2A 2A									
	- 09103419	6/B2	SIGLATURA SK 5,08/3,8:FORTL.ZAHLEN	1 1									
	XN2A	09103417	5/B2	CONNETTORE VOLANTE CRIMP PHOENIX 1809035	1 1	ELTON CARD 2 TAP (IN)							
	- 09103418	5/B2	CONTATTO FEMMINA MSTBC-MT 0,5-1,0	2A 2A									
C		- 09103419	5/B2	SIGLATURA SK 5,08/3,8:FORTL.ZAHLEN	1 1								
	XN2B	09103417	6/B6	CONNETTORE VOLANTE CRIMP PHOENIX 1809035	1 1	ELTON CARD 2 TAP (OUT)							
	- 09103418	6/B6	CONTATTO FEMMINA MSTBC-MT 0,5-1,0	2A 2A									
	- 09103419	6/B6	SIGLATURA SK 5,08/3,8:FORTL.ZAHLEN	1 1									
D	XQ1.F	09102765	2/B2	CONNETTORE PORTAFEMMINE DEUTSCH HD 36	1 1	CONNETTORE INTERFACCIA MOTORE	<u>engine connecting socket</u>						
	XQ1.M	09102765	2/B2	CONNETTORE PORTAFEMMINE DEUTSCH HD 36	1 1	CONNETTORE INTERFACCIA MOTORE	<u>engine connecting socket</u>						
E	XQ2.F	09102788	2/A2	CONNETTORE PORTAFEMMINE DEUTSCH 8PIN	1 1	CONNETTORE POTENZA MACCHINA	<u>power joint machine</u>						
	XQ2.M	09102787	2/A2	CONNETTORE PORTAMASCHI DEUTSCH 8PIN	1 1	CONNETTORE POTENZA MACCHINA	<u>power joint machine</u>						
	XQ3.F	09102765	2/E2	CONNETTORE PORTAFEMMINE DEUTSCH HD 36	1 1	CONNETTORE DISTRIBUZIONE MACCHINA	<u>machine feeder joint</u>						
	XQ3.M	09102765	2/E2	CONNETTORE PORTAFEMMINE DEUTSCH HD 36	1 1	CONNETTORE DISTRIBUZIONE MACCHINA	<u>machine feeder joint</u>						
F	XS1.F	09100421	3/D4	CONNETTORE 2 VIE PORTAFEMMINE MTA4410180	1 1	CONNETTORE SIRENA	<u>siren joint</u>						
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	1	2	3	4	5	6	7	8
	Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
A	XS3.F	09100421	8/C3	CONNETTORE 2 VIE PORTAFEMMINE MTA4410180	CONNETTORE VENTOLA RADIATORE	radiator fan joint		
	XS3.M	09100422	8/C3	CONNETTORE 2 VIE PORTAMASCHI MTA4410170	CONNETTORE VENTOLA RADIATORE	radiator fan joint		
B	-Y1	99999999	11/E1	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA PROPORZIONALE COMANDO CABESTANO 1	proportional solenoid valve for bull-wheel 1 control		
	-Y2	99999999	11/E4	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA PROPORZIONALE COMANDO CABESTANO 2	proportional solenoid valve for bull-wheel 2 control		
	-Y3	99999999	9/E5	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA FRENO NEGATIVO CABESTANO 1	bull-wheel 1 negative brake solenoid valve		
	-Y4	99999999	9/E6	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA FRENO NEGATIVO CABESTANO 2	bull-wheel 2 negative brake solenoid valve		
C	-Y5	99999999	9/E3	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA COMANDO RIAVVOLGITORE 1	reel winder 1 solenoid valve control		
	-Y6	99999999	9/E4	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA COMANDO RIAVVOLGITORE 2	reel winder 2 solenoid valve control		
	-Y7	99999999	9/E1	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA DIFFERENZIALE IDRAULICO	hydraulic differential solenoid valve		
D	-Y8	99999999	9/E2	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA DIFFERENZIALE IDRAULICO	hydraulic differential solenoid valve		
	-Y9	99999999	9/E3	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA DIFFERENZIALE IDRAULICO	hydraulic differential solenoid valve		
	-Y10	99999999	10/E5	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA ABILITAZIONE VOMERE/PRESSA/VENTOLA RADIATORE	insertion hydraulic plough/compressor/fan radiator solenoid valv		
	-Y11	99999999	10/E1	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA COMANDO VOMERE	hydraulic plough control solenoid valve		
E	-Y12	99999999	10/E2	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA SINCRONIZZATORE CABESTANO	bull-wheel synchroniser solenoid valve		
	-Y13	99999999	11/E3	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA REGOLAZIONE TIRO CABESTANO 1	bull-wheel 1 pull setting solenoid valve		
	-Y14	99999999	11/E5	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTRORVALVOLA REGOLAZIONE TIRO CABESTANO 2	bull-wheel 2 pull setting solenoid valve		
	-YV1	V00-2232-015	9/D8	MULTIPRESA X8 ELETTROV. 1 SOL. L=5M MURR	PRESA X 8 ELETTROVALVOLE A 1 SOLENOIDE	socket for 4 solenoid valve with 1 solenoid		



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Electric scheme

COMPONENTS LIST

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Drawing Nr. 429460
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Sheet 26 of 84

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 27

1

2

3

4

5

6

7

8

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
-YV2	09103443	10/A8	TAPPO M12 X MULTIPRESE 58627 MURR	2/2	TAPPO COPRIFORO "MURR"	"murr" closing cap	
-YV2	V00-2232-015	10/D8	MULTIPRESA X8 ELETTROV. 2 SOL. L=5M MURR	1/1	PRESA X 8 ELETTROVALVOLE A 2 SOLENOIDI	socket for 4 solenoid valve with 2 solenoid	
-YV3	V00-2232-014	11/D8	MULTIPRESA X4 ELETTROV. 1:1 MURR	1/1	PRESA X 4 ELETTROVALVOLE A "PIN TO PIN"	socket "pin to pin" for 4 solenoid valve	
-YV4	V00-2232-014	12/D8	MULTIPRESA X4 ELETTROV. 1:1 MURR	1/1	PRESA X 4 ELETTROVALVOLE A "PIN TO PIN"	socket "pin to pin" for 4 solenoid valve	
-YV4	09103443	12/B8	TAPPO M12 X MULTIPRESE 58627 MURR	1/1	TAPPO COPRIFORO "MURR"	"murr" closing cap	
-YV5	V00-2232-014	13/D8	MULTIPRESA X4 ELETTROV. 1:1 MURR	1/1	PRESA X 4 ELETTROVALVOLE A "PIN TO PIN"	socket "pin to pin" for 4 solenoid valve	
-YV5	09103443	13/B8	TAPPO M12 X MULTIPRESE 58627 MURR	1/1	TAPPO COPRIFORO "MURR"	"murr" closing cap	
C							
D							
E							
F							



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Electric scheme

COMPONENTS LIST

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Drawing Nr. 429460
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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120


Checked : Ing. Oscar

Date: 29/03/2010

Following 28

1	2		3		4	
Distinta Materiali a Schema						
Codice	Nuova Codifica	Descrizione da Archivio			Q.ta	U.M.
Serial Number	New Serial Number	Materiali			Tot.	
Descrizione da Archivio Materiali						
00000000		ENGINE.PART.....(CODICI MOTORE)			3	N
09100214		FUSIBILE VETRO 5X20	5,0	A	3	N
09100355		FUSIBILE VETRO 5X20F	8,0	A RAPIDO	2	N
09100356		FUSIBILE VETRO 5X20F	15,0	A RAPIDO	1	N
09100421		CONNETTORE 2 VIE PORTAFEMMINE MTA4410180			2	N
09100422		CONNETTORE 2 VIE PORTAMASCHI MTA4410170			1	N
09100829		FUSIBILE VETRO 5X20	10,0	A	1	N
09101127		MANIPOLATORE CS0-9611E-9P1 SEMPLICE			2	N
09101171		MORSETTO DOPPIO SAK [DK4 3554.6 WDM]			2	N
09101190		PULSANTE.STOP.....CEMA...P9.MER4RN			1	N
- 09100941		TARGHETTA STOP			1	N
- 09101193		CONTATTO.NA/NC.....CEMA...P9..B11VN			1	N
09101196		MANIP. 3POS.2INSTAB.	CEMA	P9 MMN2T	1	N
09101216		SELETT.2POS.STAB.ROSSO	CEMA	P9 MSADOR	2	N
- 09101192		CONTATTO.NA.....CEMA...P9..B10VN			2	N
- 09101193		CONTATTO.NA/NC.....CEMA...P9..B11VN			2	N
- 09101203		ALIMENTAZIONI.....CEMA...P9..PDNVO			2	N
09101229		SELETT.2POS.FISSE VERDE	CEMA	P9 MSADOV	2	N
- 09101192		CONTATTO.NA.....CEMA...P9..B10VN			2	N
- 09101193		CONTATTO.NA/NC.....CEMA...P9..B11VN			2	N
- 09101203		ALIMENTAZIONI.....CEMA...P9..PDNVO			2	N
09101642		SIRENA PIEZOLETTICA 12V -DEAR-			1	N


5	6		7		8	
Distinta Materiali a Schema						
Codice	Nuova Codifica	Descrizione da Archivio			Q.ta	U.M.
Serial Number	New Serial Number	Materiali			Tot.	
Descrizione da Archivio Materiali						
09101700		ENCODER HOHNER H6626A.36/100 (-20ø)			2	N
09101872		PORTAFUSIBILE CABUR 5X20	SFRPT		7	N
09102046		TRASM.TEMP.12/24V-40/120-M14X1,5-VDO 810			1	N
09102294		RESISTENZA 390 OHM 0,33W RS 131-205			1	N
09102498		RESISTENZA 560.0 OHM W RS.132-438			1	M
09102502		RESISTENZA 4.7KOHM 1/2W RS 149-773			5	N
09102609		POTENZIOMETRO ROTAT.	5K	MOD.535	2	N
- 09100668		MANOPOLA DIAM. 40MM			2	N
09102619		MORSET.DOPPIO+DIODO SAK[DK4D 4840.6 WDM]			2	N
09102712		FINECORSA VL AZ8112	MATSUSHITA		1	N
09102765		CONNETTORE PORTAFEMMINE	DEUTSCH	HD 36	4	N
09102770		CONNETTORE PORTAFEMMINE	DEUTSCH	HD 23	1	N
09102787		CONNETTORE PORTAMASCHI	DEUTSCH	8PIN	2	N
09102788		CONNETTORE PORTAFEMMINE	DEUTSCH	8PIN	2	N
09102846		INDICATORE LED ROSSO 12VC SERIE677 MARL			15	N
09102848		INDICATORE LED GIALLO 12VC SERIE677 MARL			4	N
09102905		RESISTENZA 120 OHM 0,25W RS 135-780			3	N
09102933		CONNETTORI 3 VIE DEUTSCH DT 06-3S			1	N
- 09102783		FERMO SECOND. FEMMINA DEUTSCH W3S			1	N
09102934		CONNETTORI 3 VIE DEUTSCH DT 04-3P			1	N
- 09105090		BLOCCA CONTATTI MASCHIO COD:W3P DEUTSCH			1	N
09102936		CONNETT.PORTAFEMMINE DRC 16-70SA DEUTSCH			1	N

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				Design : AFB 506 120	Checked : Ing. Oscar	Date: 29/03/2010

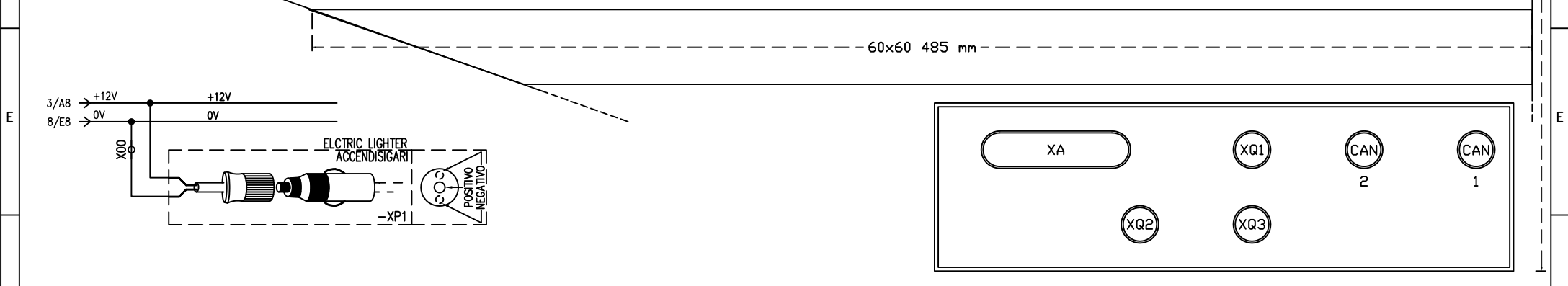
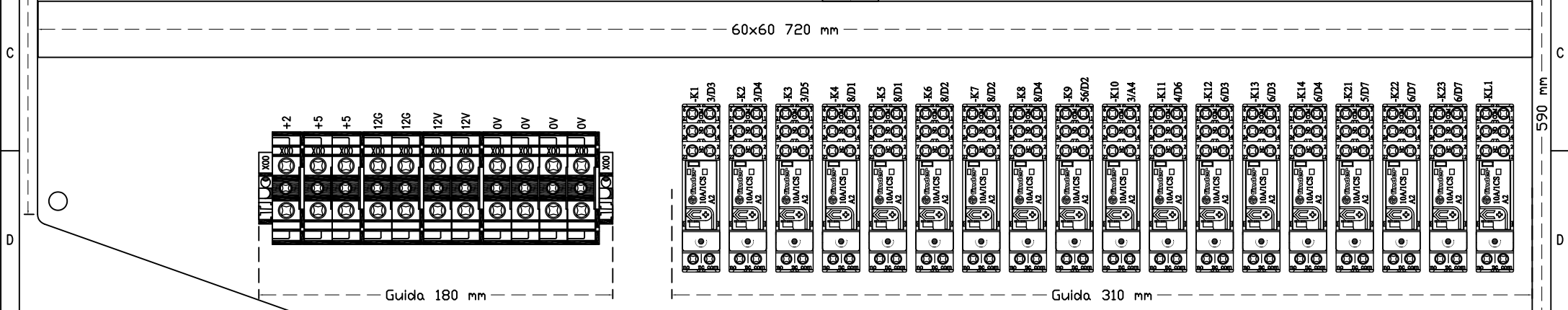
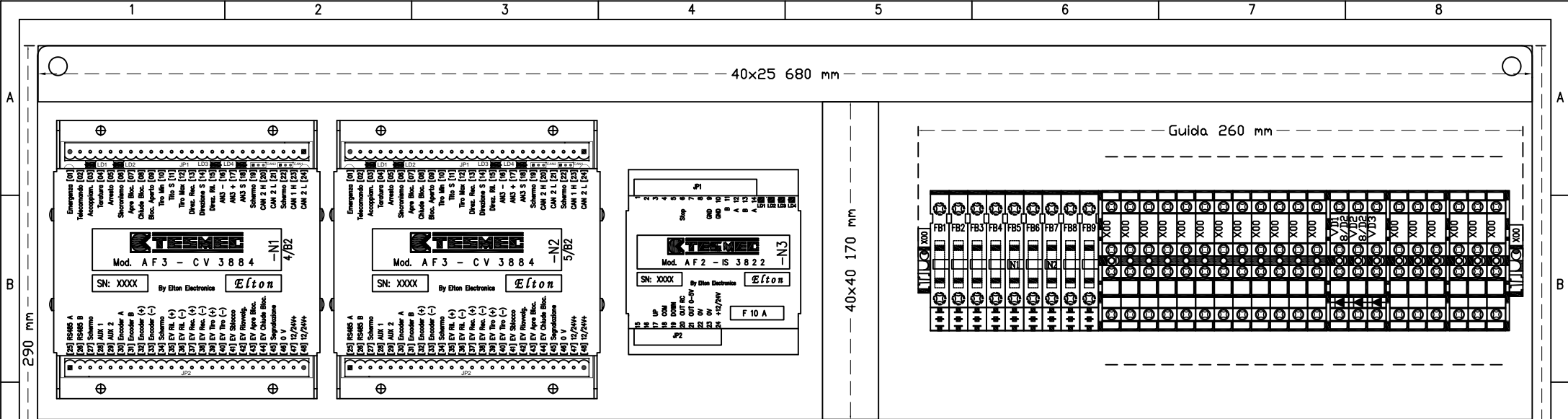
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1	2		3	4	
Distinta Materiali a Schema					
Codice	Nuova Codifica	Descrizione da Archivio		Q.tà	U.M.
Serial Number	New Serial Number	Materiali		Tot.	
Descrizione da Archivio Materiali					
- 09102938		COPERTURA POSTERIORE "BOOTS" DRC 70-BT		1	N
09102990		INTERRUT.AVV.MOT.CHIAVE..COBO 14.134.000		1	N
09103095		INTERRUT.STACCABATT.UNI..COBO.13.007.000		1	N
- 09103096		CHIAVE COBO 13007005		1	N
09103136		CONNETT.PORTAMASCHI DRC 12-70PA DEUTSCH		1	N
09103174		RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]		17	N
- 09102616		MODULO..DIODO+LED..6~24V..FINDER.99.01.9		17	N
- 09103235		ZOCCOLETTO.SERIE.40.....FINDER.95.05		17	N
09103379		SCHEDA AF3-CV 3844	ELTON	2	N
09103390		DISPLAY GRAFICO J1939	ENGMETER DSF	1	N
09103392		GALLEGGIANTE 6 FORI ON+PROP 200-600	DSF	1	N
09103417		CONNETTORE VOLANTE CRIMP PHOENIX 1809035		4	N
- 09103418		CONTATTO FEMMINA MSTBC-MT 0,5-1,0		96	N
- 09103419		SIGLATURA	SK 5,08/3,8:FORTL.ZAHLEN	4	N
09103426		PULSANTE LUMINOSO ROSSO IP67 RS 184-9115		2	N
09103427		CONNETTORE FEMMINA DA PANNELLO 5 PIN		2	N
- 09103429		TAPPO X CONNETTORE FEMMINA	5 PIN	2	N
09103428		CONNETTORE MASCHIO VOLANTE 5 PIN		2	N
- 09103430		TAPPO X CONNETTORE MASCHIO	5 PIN	2	N
09103435		CONNETTORE M12 "A" 1SOLEN+LED L=1,0 MURR		5	N
V00-2232-015		MULTIPRESA X8 ELETTRV. 1 SOL. L=5M MURR		2	N

5	6		7	8	
Distinta Materiali a Schema					
Codice	Nuova Codifica	Descrizione da Archivio		Q.tà	U.M.
Serial Number	New Serial Number	Materiali		Tot.	
Descrizione da Archivio Materiali					
V00-2232-014		MULTIPRESA X4 ELETTRV. 1:1 MURR		3	N
09103440		CONNETTORE M12 + 4 FILI+SCH L=5,0 MURR		2	N
09103442		CONNETTORE M12 X PRESSOSTATO L=1,5 MURR		1	N
09103443		TAPPO M12 X MULTIPRESE	58627 MURR	4	N
09103444		CONNETTORE M12 1:1 2SOLEN+LED L=2,0 MURR		2	N
09103445		CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR		3	N
09103446		CONNETTORE M12 + 4 FILI L=5,0 MURR		3	N
09103448		CONNETTORE M12 "A" 1SOLEN+LED L=2,0 MURR		4	N
09103454		CONNETTORE M12 "A" 2SOLEN+LED L=2,0 MURR		1	N
09103455		MULTIPRESA X8 ELETTRV. 2 SOL. L=5M MURR		1	N
09104195		FUSIBILE 125A	MEGAVAL	1	N
- 09102840		PORTAFUSIBILE MTA 01.00380	MEGAVAL	1	N
09105004		RESISTENZA 47.0 OHM 1/2W RS.149-638		7	N
48106800		BATTERIA 12V 180AH 1100A EXIDE COD.680/1		1	N
- 09101584		MORSETTO BATT. POLO POSITIVO CAVO 50 MMQ		1	N
- 09101585		COPRIMORSETTO POLO POSITIVO BATT. ROSSO		1	N
- 09101586		MORSETTO BATT. POLO NEGATIVO CAVO 50 MMQ		1	N
- 09101587		COPRIMORSETTO POLO NEGATIVO BATT. NERO		1	N
99999999		IDRAULIC.PART.....(CODICE IDRAULICO)		19	N

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			Design : AFB 506 120	Checked : Ing. Oscar	Date: 29/03/2010	Following 30	

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Electric scheme

ELECTRIC BOARD TOPOGRAPHIC

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 30 of 84

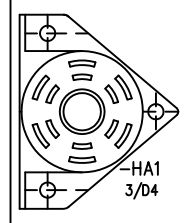
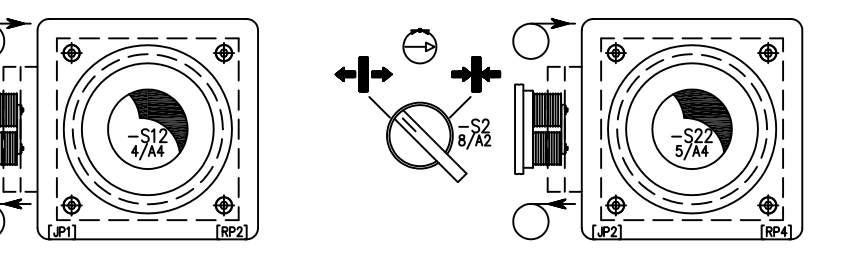
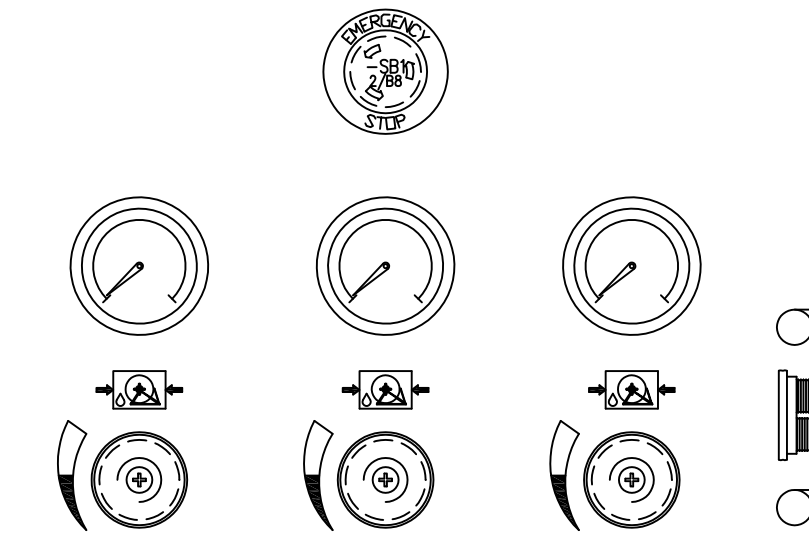
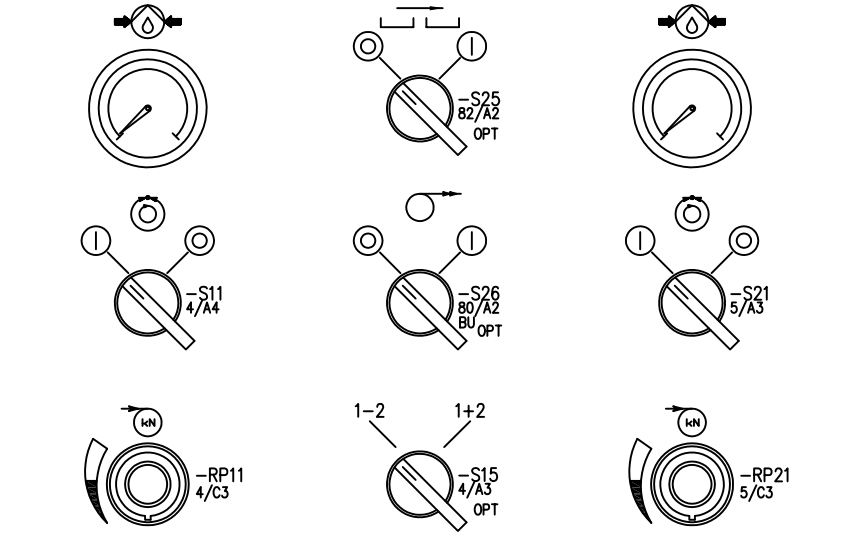
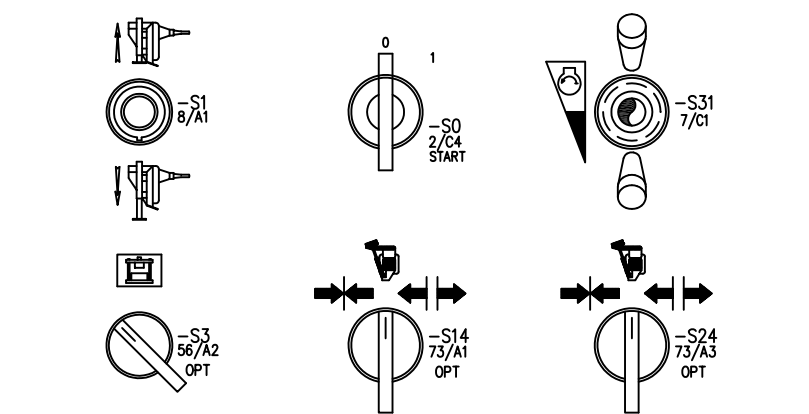
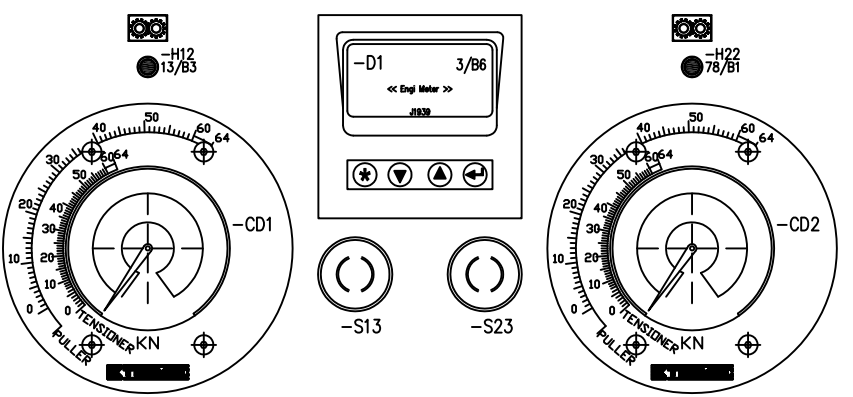
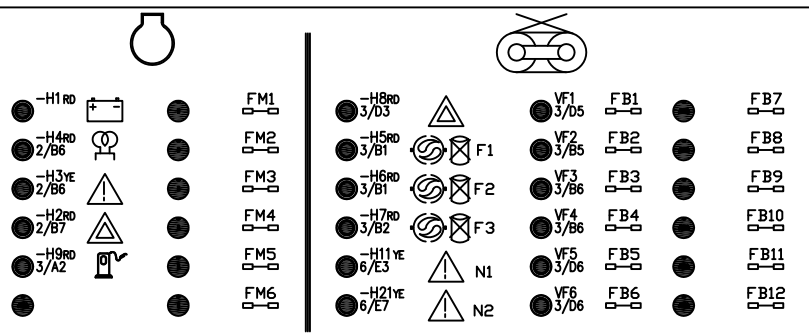
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Design : AFB 506 120

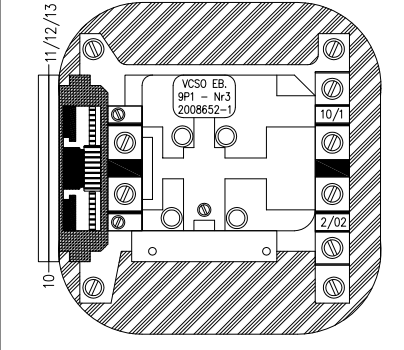
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Following 31



!
WIRE THE JOYSTICK
RESPECTING
THE DRAWING DIRECTION
(CONTROL PANEL REAR SIDE)



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Electric scheme

CONTROL PANEL TOPOGRAPHIC

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Sheet 31 of 84

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Sede di Endine Gaiuno BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120

Checked : Ing. Oscar

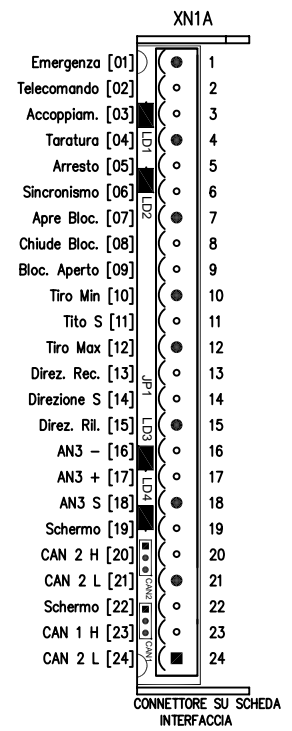
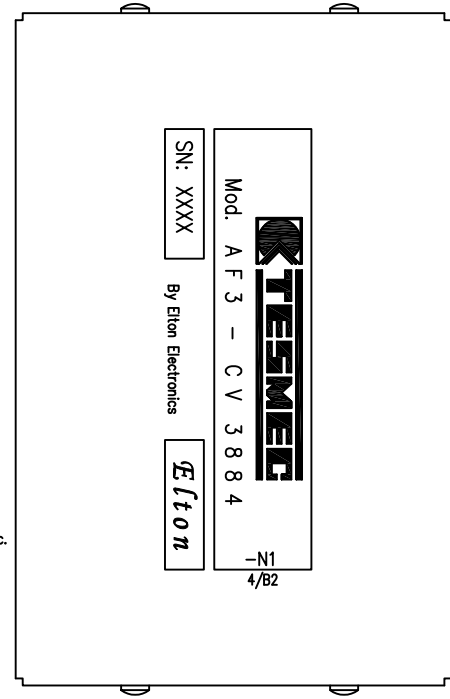
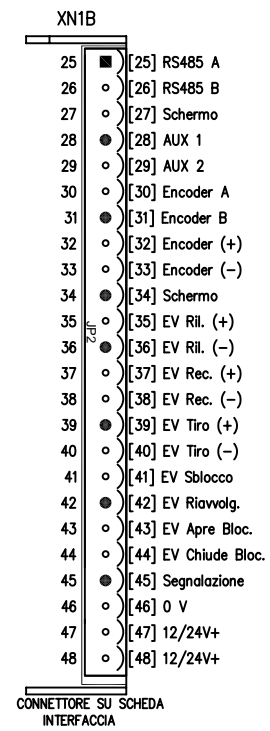
Date: 29/03/2010

Following 32

XN1A
 CONNETTORE SCHEDA ELTON
 PRESA SCHEDA ELTON 1

ELTON CARD 1 JOINT
 ELTON CARD 1 TAP

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	4.1	4/B2				
2	13.1	4/B2				
3	4.2	4/B2				
4	4.3	4/B2				
5	4.4	4/B2				
6						
7	4.6	4/B2				
8	4.7	4/B2				
9	4.8	4/C2				
10	4.9	4/C2				
11	4.10	4/C2				
12	4.11	4/C2				
13	4.12	4/C2				
14	4.13	4/C2				
15	4.14	4/C2				
16						
17						
18						
19						
20	CAN2H	4/D2				
21	CAN2L	4/D2				
22	SCH1	4/D2				
23	CAN1H	4/D2				
24	CAN1L	4/D2				
25	RS485A	6/A2				
26	RS485B	6/A2				
27						
28						
29	8.11	6/B2				
30	E1	6/B2				
31	C1	6/B2				
32	F1	6/B2				
33	A1	6/B2				
34						
35	6.1	6/B2				
36	6.2	6/B2				
37	6.3	6/B2				
38	6.4	6/B2				
39	6.5	6/C2				
40	6.6	6/C2				
41	6.7	6/C2				



42	9.3	6/C2			
43	6.9	6/C2			
44	6.10	6/C2			
45	6.11	6/C2			
46	0V	6/C2			
47	+5	6/C2			
48	+5	6/C2			



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Electric scheme

UNIT 1 TOPOGRAPHIC

Drawn: Facchetti

Drawing Nr. 429460
 Archive Nr. 40000.0

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Design : AFB 506 120

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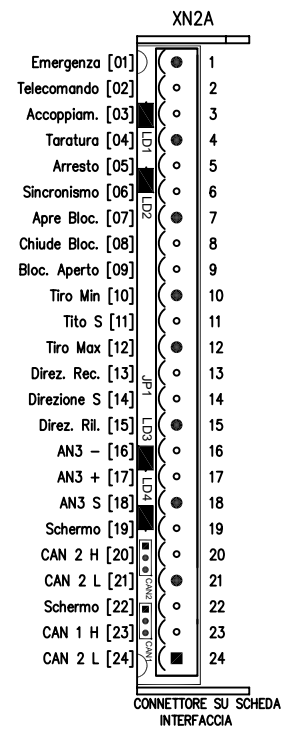
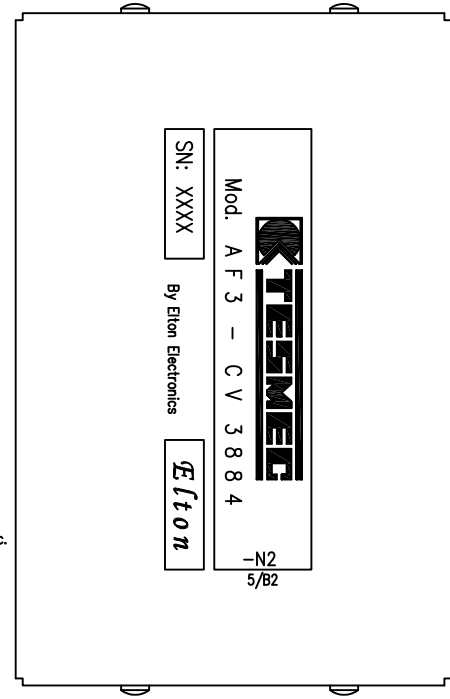
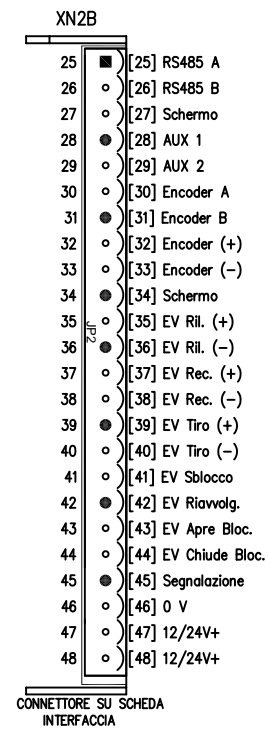
Date: 29/03/2010

Following 33

XN2A
 CONNETTORE SCHEDA ELTON
 PRESA SCHEDA ELTON 1

ELTON CARD 1 JOINT
 ELTON CARD 1 TAP

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	4.1	5/B2				
2	3.2	5/B2				
3	5.1	5/B2				
4	5.2	5/B2				
5	5.3	5/B2				
6	5.4	5/B2				
7	5.5	5/B2				
8	5.6	5/B2				
9	5.7	5/C2				
10	5.8	5/C2				
11	5.9	5/C2				
12	5.10	5/C2				
13	5.11	5/C2				
14	5.12	5/C2				
15	5.13	5/C2				
16						
17						
18						
19						
20	CAN2H	5/D2				
21	CAN2L	5/D2				
22	SCH3	5/D2				
23	CAN1H	5/D2				
24	CAN1L	5/D2				
25	RS485A	7/A2				
26	RS485B	7/A2				
27						
28						
29	8.12	6/B6				
30	C2	6/B6				
31	E2	6/B6				
32	F2	6/B6				
33	A2	6/B6				
34						
35	6.12	6/B6				
36	6.13	6/B6				
37	6.14	6/B6				
38	6.15	6/B6				
39	6.16	6/C6				
40	6.17	6/C6				
41	6.18	6/C6				



42					
43	6.20	6/C6			
44	6.21	6/C6			
45	6.22	6/C6			
46	0V	6/C6			
47	+7	6/C6			
48	+7	6/C6			



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Electric scheme

UNIT 2 TOPOGRAPHIC

Drawn: Facchetti

Drawing Nr. 429460
 Archive Nr. 40000.0

Sheet 33 of 84

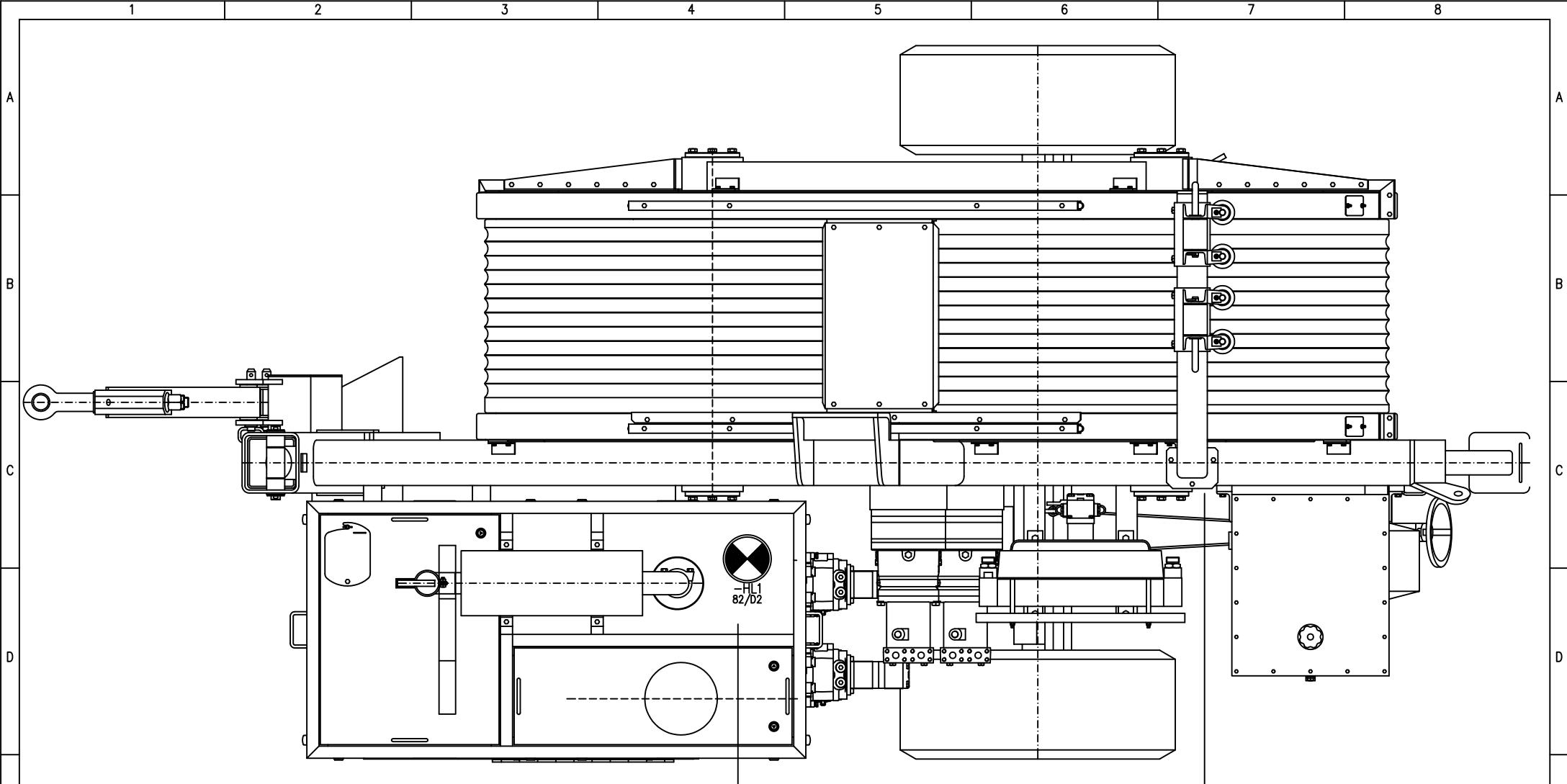
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445
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Design : AFB 506 120

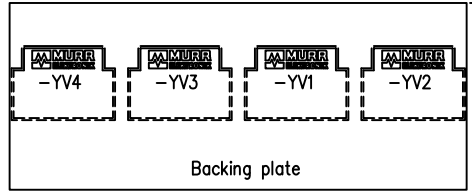
Checked : Ing. Oscar

Date: 29/03/2010

Following 34



Layout socket



Backing plate



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Electric scheme

ARRANGEMENT MULTISOCKETS

Drawn: Facchetti

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Archive Nr. 40000.0

Sheet 34 of 84

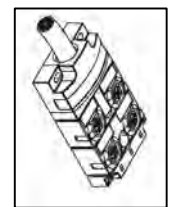
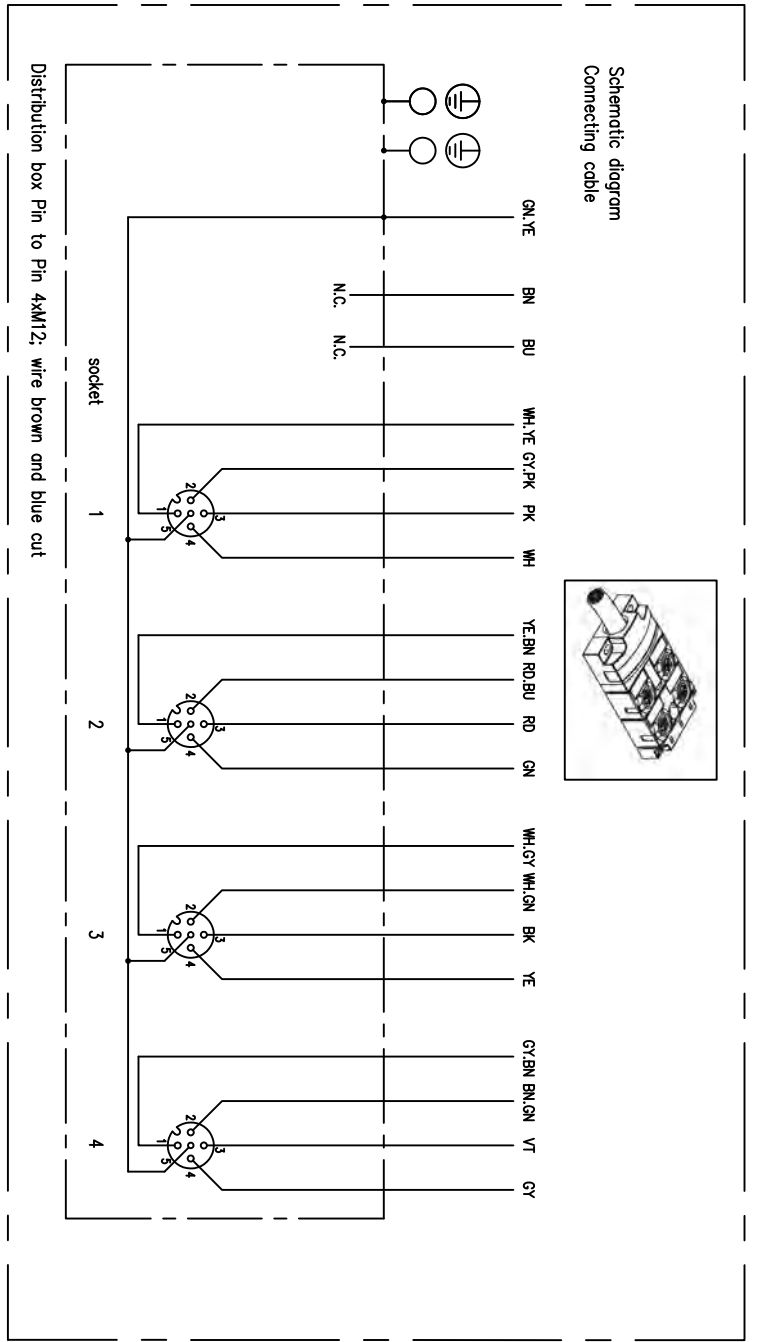
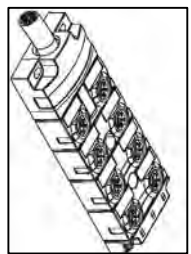
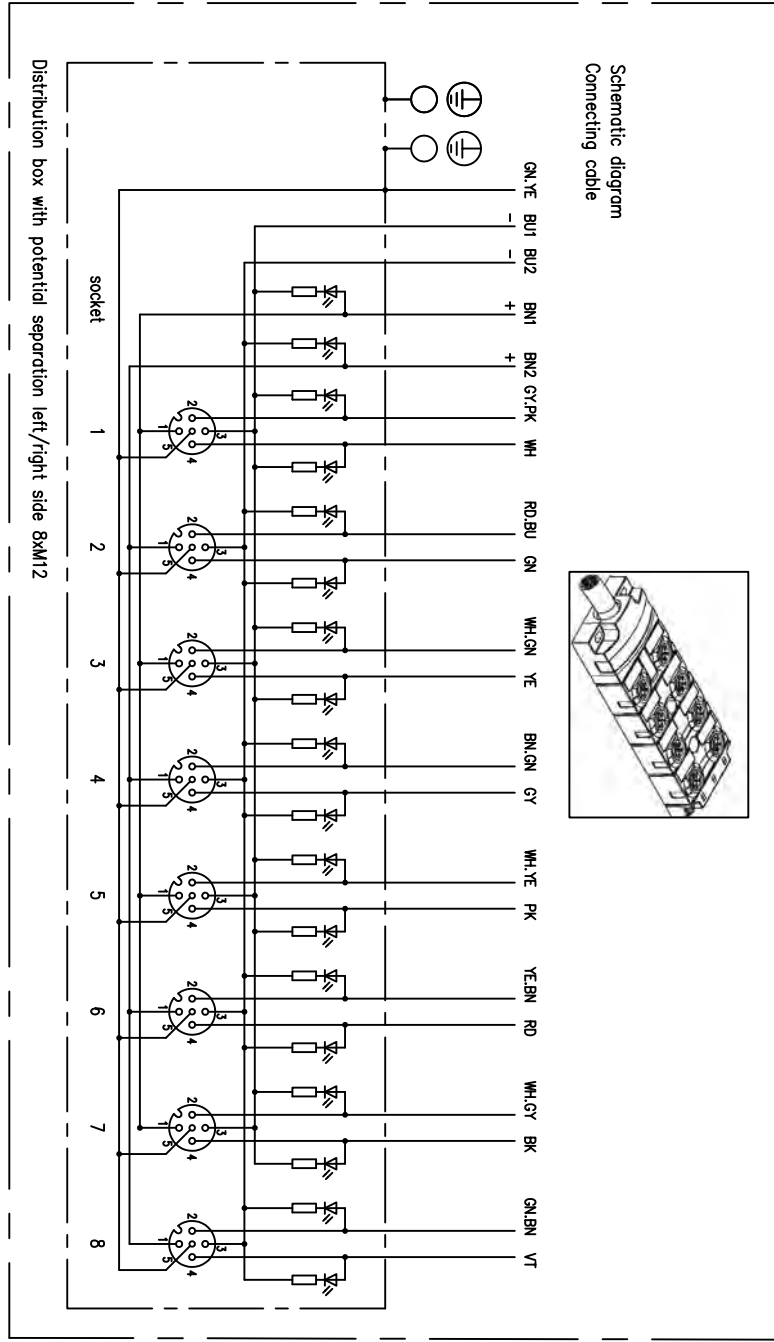
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Design : AFB 506 120

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Date: 29/03/2010

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Electric scheme

WIRING MULTISOCKETS

Design : AFB 506 120

Drawn: Facchetti

Checked : Ing. Oscar

Drawing Nr. 429460
Archive Nr. 40000.0

Date: 29/03/2010

Sheet 35 of 84

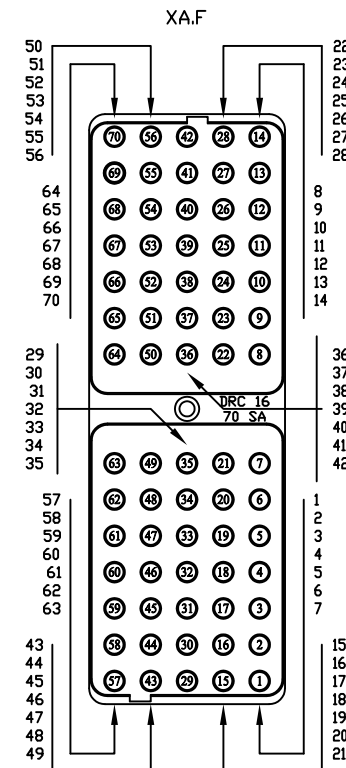
Following 36

XA.F
CONNETTORE DISTRIBUZIONE MACCHINA
FEMALES-HOLDER JOINT 70-WAYS
Tipo DRC 70SA

Pin	Wire	Position	Section	Colour	Designation
1	+8	12/C5		GN	SOCKET 4 - PR1
2	67.1	12/C5		GY-BN	SOCKET 4 - PR1
3	+9	12/C5		GY	SOCKET 4 - PR2
4	69.1	12/C5		YE-BN	SOCKET 4 - PR2
5					
6					
7	0V	8/B6		BU2	COMMON - SOCKET 1
8	3.7	10/B6		YE-BN	SOCKET 2- SL1
9	W	10/B6		RD	SOCKET 2- SL1
10	3.8	9/B6		VT	SOCKET 1- BT1
11	+6	8/B7		BN1	COMMON + SOCKET 1
12	+6	8/B7		BN2	COMMON + SOCKET 2
13	0V	8/B6		BU2	COMMON - SOCKET 2
14	0V	8/B6		BU1	COMMON - SOCKET 2
15	+6	8/B7		BN1	COMMON + SOCKET 2
16	0V	8/B6		BU1	COMMON - SOCKET 1
17	+6	8/B7		BN1	COMMON + SOCKET 1
18	9.1	9/B1		PK	SOCKET 1 - Y3
19	9.2	9/B2		RD	SOCKET 1 - Y4
20	9.3	9/B3		BK	SOCKET 1 - Y5
21	6.8	9/B3		YE	SOCKET 1 - Y6
22	6.19	9/B4		GY	SOCKET 1 - Y7
23	6.7	9/B5		WH	SOCKET 1 - Y8
24	6.18	9/B6		GN	SOCKET 1 - Y9
25	10.1	10/B1		WH	SOCKET 2 - Y11
26	10.2	10/B2		GY-PK	SOCKET 2 - Y11
27	10.3	10/B2		GN	SOCKET 2 - Y12
28	8.9	10/B3		RD-BU	SOCKET 2 - Y12
29	6.9	74/B1		YE	SOCKET 2 - Y15
30	6.10	74/B2		WH-GN	SOCKET 2 - Y15
31	6.20	74/B2		GY	SOCKET 2 - Y16
32	6.21	74/B3		GN-BN	SOCKET 2 - Y16
33	10.4	10/B5		PK	SOCKET 2 - Y10
34	E1	12/C1		BN1	SOCKET 4 - E1
35	C1	12/C2		BU1	SOCKET 4 - E1
36	10.5	56/B3		WH-YE	SOCKET 2 - Y17
37	A1	12/C2		WH	SOCKET 4 - E1
38	F1	12/C2		YE	SOCKET 4 - E1
39	E2	12/C3		GN-BN	SOCKET 4 - E2
40	C2	12/C3		BU2	SOCKET 4 - E2
41					
42	A2	12/C3		BN2	SOCKET 4 - E2
43	F2	12/C3		BU-RD	SOCKET 4 - E2

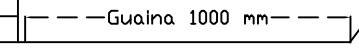
XA.F
CONNETTORE DISTRIBUZIONE MACCHINA
FEMALES-HOLDER JOINT 70-WAYS
Tipo DRC 70SA

Pin	Wire	Position	Section	Colour	Designation
44	4.19	12/C4		PK-GY	SOCKET 4 - FC1
45	+6	12/C4		GN-YE	SOCKET 4 - FC1
46	5.18	12/C4		WH-GN	SOCKET 4 - FC2
47	+6	12/C4		WH-YE	SOCKET 4 - FC2
48	3.2	13/C1		BU1	SOCKET 5 - BP1
49	0V (X1-BU)	13/C1		WH	SOCKET 5 - BP1
50	3.1	13/C2		BU2	SOCKET 5 - BP2
51	0V (X1-BU)	13/C2		BN2	SOCKET 5 - BP2
52	3.3	13/C3		VT	SOCKET 5 - BP3
53	0V (X1-BU)	13/C3		YE-GN	SOCKET 5 - BP3
54	13.1	13/C3		GN	SOCKET 5 - FC3
55	+5	13/C4		GY-BN	SOCKET 5 - FC3
56	+5	13/C4		YE-BN	SOCKET 5 - FC4
57	13.2	13/C4		GY	SOCKET 5 - FC4
58					
59	6.1	11/C1		YE	SOCKET 3 - Y1
60	6.2	11/C1		WH	SOCKET 3 - Y1
61	6.3	11/C2		BN1	SOCKET 3 - Y1
62	6.4	11/C2		BU	SOCKET 3 - Y1
63	6.5	11/C2		BU2	SOCKET 3 - Y13
64	6.6	11/C3		BN-GN	SOCKET 3 - Y13
65	6.12	11/C3		WH-YE	SOCKET 3 - Y2
66	6.13	11/C4		WH-GN	SOCKET 3 - Y2
67	6.14	11/C4		GY-PK	SOCKET 3 - Y2
68	6.15	11/C4		YE-GN	SOCKET 3 - Y2
69	6.16	11/C5		GN	SOCKET 3 - Y14
70	6.17	11/C5		GY	SOCKET 3 - Y14



SERIES INSERT ARRANGEMENTS
Polarity Contacts Side
CONNETTORE DISTRIBUZIONE MACCHINA
FEMALES-HOLDER JOINT 70-WAYS

- YV1 10x1 [3300mm]
- YV2 10x1 [3300mm]
- YV3 10x1 [3300mm]
- YV4 10x1 [3300mm]
- YV5 10x1 [2700mm]



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Electric scheme

XA TOPOGRAPHIC

Drawn: Facchetti

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 Archive Nr. 40000.0

Sheet 36 of 84

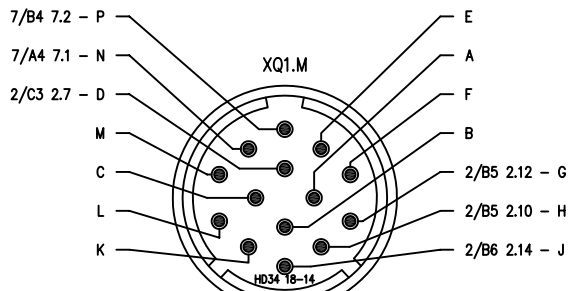
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Design : AFB 506 120

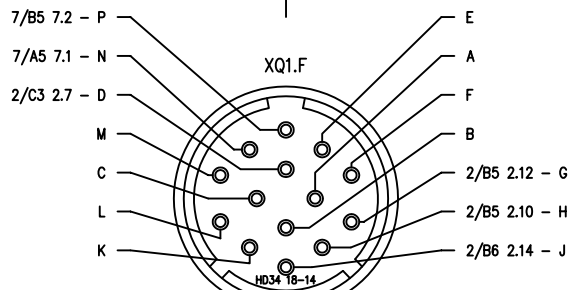
Checked : Ing. Oscar

Date: 29/03/2010

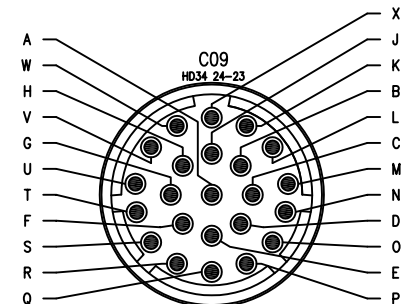
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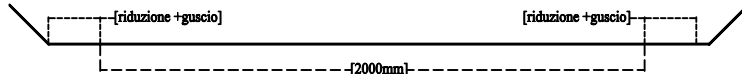
SERIES INSERT ARRANGEMENTS
Polarità Vista Lato Contatti
CONNETTORE DISTRIBUZIONE MACCHINA
MALES-HOLDER JOINT 14-WAYS



SERIES INSERT ARRANGEMENTS
Polarità Vista Lato Contatti
CONNETTORE DISTRIBUZIONE MACCHINA
FEMALES-HOLDER JOINT 14-WAYS



SERIES INSERT ARRANGEMENTS
Polarità Vista Lato Contatti
CUMMINS ENGINE CONNECTING SOCKET
MALES-HOLDER JOINT 23-WAYS



XQ1.F						
FEMALES-HOLDER JOINT 14-WAYS CONNETTORE INTERFACCIA MOTORE Tipo HD36 18-14SN						
* NEL CONNETTORE C09 SPOSTARE IL FILO GRIGIO 9.18 DA PIN "N" IN PIN "H"						
Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
A	+1	2/B2			RD	D 422
B	+12V	2/B2			RD	G +12V
C	2.1	2/B2				S 914 B
D	2.2	2/C2			VT	R 947
E						
F	2.4 *	2/D2			GY	M 918
G	2.5	2/D2			YE	A 474
H	2.6	2/D2				J 412
J	2.7	2/C2				C 914 A
K	2.8	2/C2				L 915
L						
M	CAN2L	2/C2				M 911 A
N	CAN2H	2/C2			BU	N 918
P						

XJ1.C		
CONNETTORE "J1" J.Deere [opt.] FEMALES-HOLDER JOINT 23-WAYS Tipo HD 36-24-23ST		
Pin	Wire	Colour
A	474	GY
B		
C	914A	YE
D	422	RD
E		
F		
G	+12V	RD
H	918	GY
K		
J	412	RD
L	915	GN
M	911A	BN
N	918	BU
O		

XJ1.C		
CONNETTORE "J1" J.Deere [opt.] FEMALES-HOLDER JOINT 23-WAYS Tipo HD 36-24-23ST		
Pin	Wire	Colour
P		
Q		
R	947	VT
S	914B	YE
T		
U		
V		
W		
X		



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Electric scheme

XM1 XQ1 TOPOGRAPHIC

Drawn: Facchetti

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Sheet 37 of 84

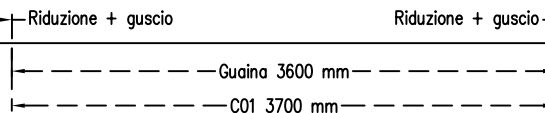
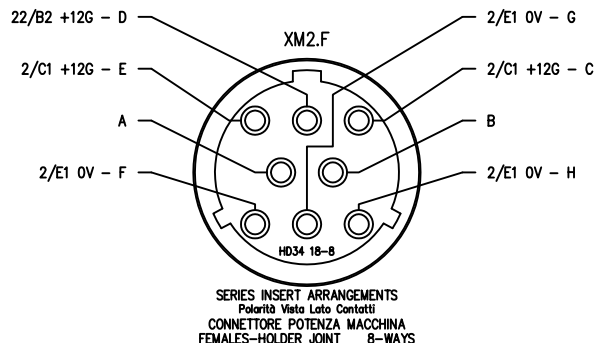
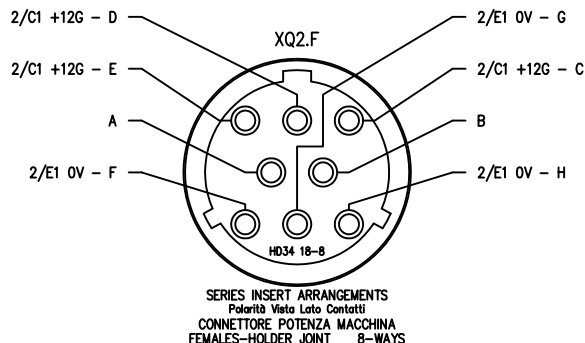
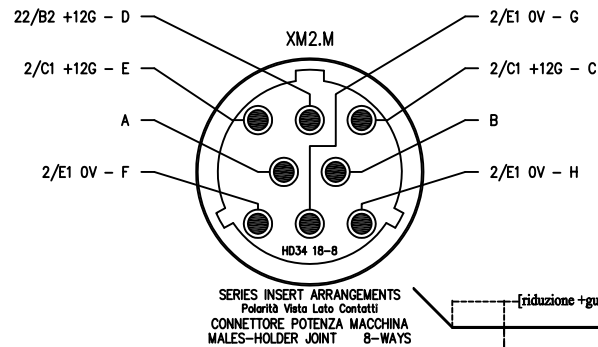
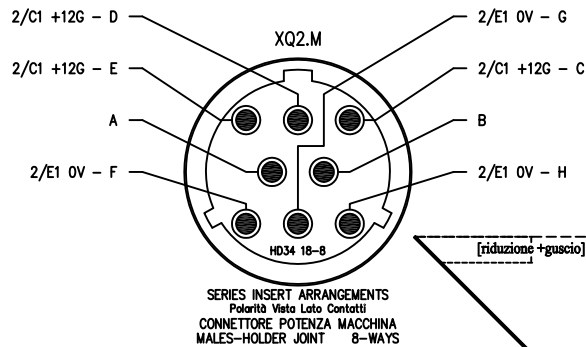
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Sede di Endine Gaiuno BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 38



XQ2.M

MALES-HOLDER JOINT 8-WAYS
 CONNETTORE POTENZA MACCHINA
 Tipo HD 34 18-8PN

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
A						
B						
C	+12G	2/A2		2,5		
D	+12G	2/A2		2,5		
E	+12G	2/A2		2,5		ENGINE
F	0V	2/E2		2,5		
G	0V	2/E2		2,5		
H	0V	2/E2		2,5		ENGINE

XM2.M

MALES-HOLDER JOINT 8-WAYS
 CONNETTORE POTENZA MACCHINA
 Tipo HD 34 18-8PN

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
A						
B						
C	+12G	2/A2	1700	2,5	RD	
D	+12G	2/A2	1700	2,5	RD	
E	+12G	2/A2	1700	2,5	RD	ENGINE
F	0V	2/E2	1500	2,5	BK	
G	0V	2/E2	1500	2,5	BK	
H	0V	2/E2	1500	2,5	BK	



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Electric scheme

XM2 XQ2 TOPOGRAPHIC

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Sheet 38 of 84

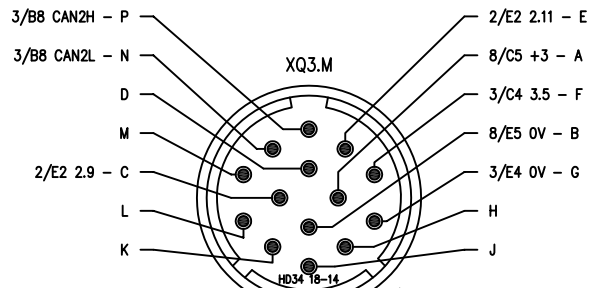
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Design : AFB 506 120

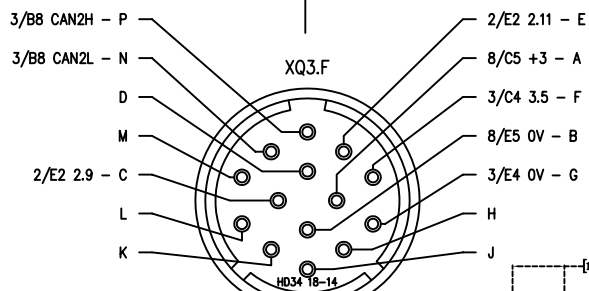
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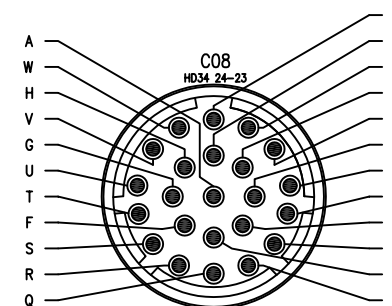
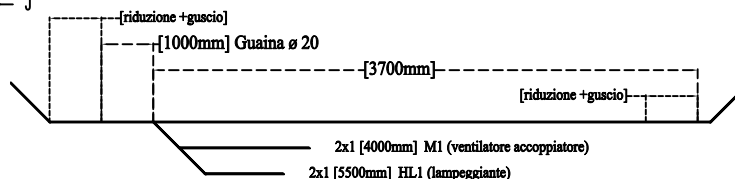
Following 39



SERIES INSERT ARRANGEMENTS
Polarità Vista Lato Contatti
CONNETTORE DISTRIBUZIONE MACCHINA
MALES-HOLDER JOINT 14-WAYS



SERIES INSERT ARRANGEMENTS
Polarità Vista Lato Contatti
CONNETTORE DISTRIBUZIONE MACCHINA
FEMALES-HOLDER JOINT 14-WAYS



SERIES INSERT ARRANGEMENTS
Polarità Vista Lato Contatti
CONNETTORE DISTRIBUZIONE MACCHINA
MALES-HOLDER JOINT 23-WAYS

XQ3.F CONNETTORE DISTRIBUZIONE MACCHINA FEMALES-HOLDER JOINT 14-WAYS Tipo HD36 18-14SN					
Pin	Wire	Position	Section	Colour	Designation
A	+3	8/C3			RADIATOR VENTILATION
B	0V	8/E3			RADIATOR VENTILATION
C	2.9	2/E2			ALARM ENGINE
D					
E	2.11	2/E2			STOP ENGINE
F	3.5	3/C4			FLASHING
G	0V	3/E4			FLASHING
H					
J					

C08.M CONNETTORE DISTRIBUZIONE MACCHINA FEMALES-HOLDER JOINT 14-WAYS Tipo HD36 18-14SN		
Pin	Wire	Colour
S	+3	8/C3
T	0V	8/E3
W	2.9	2/E10
D		
K	2.11	2/E10
U	3.5	3/C4
V	0V	3/E4
H		
J		



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Electric scheme

XM3 XQ3 TOPOGRAPHIC

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Archive Nr. 40000.0

Sheet 39 of 84

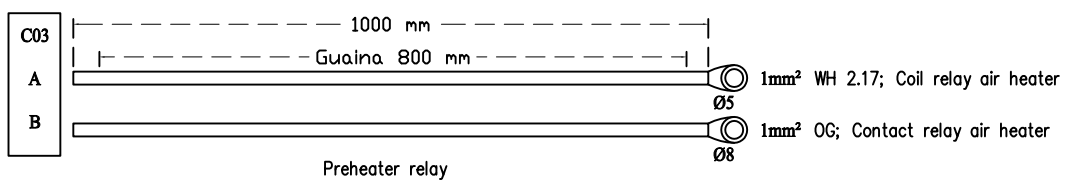
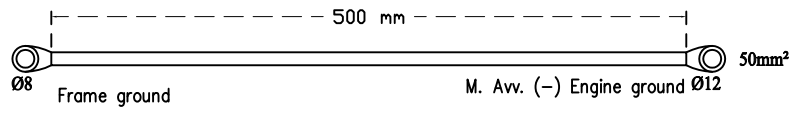
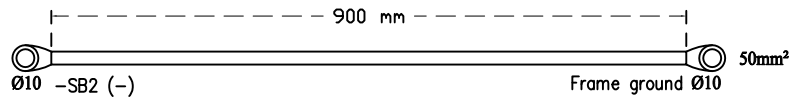
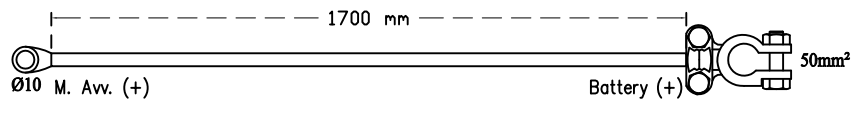
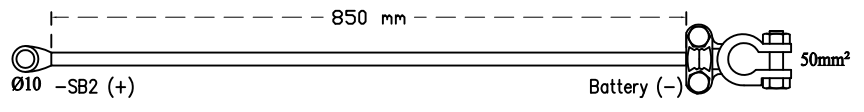
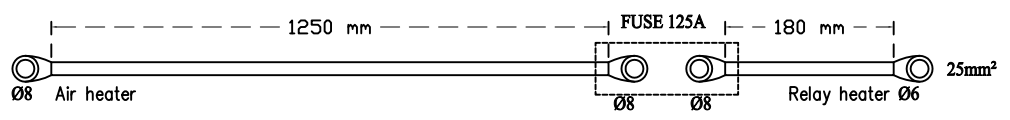
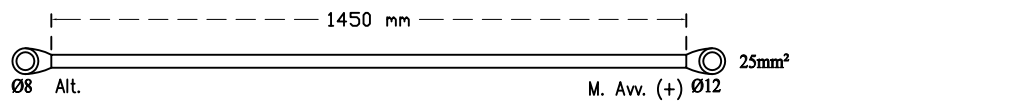
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445
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Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 40



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Electric scheme

CONNECTING WIRED

Drawn: Facchetti

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Sheet 40 of 84

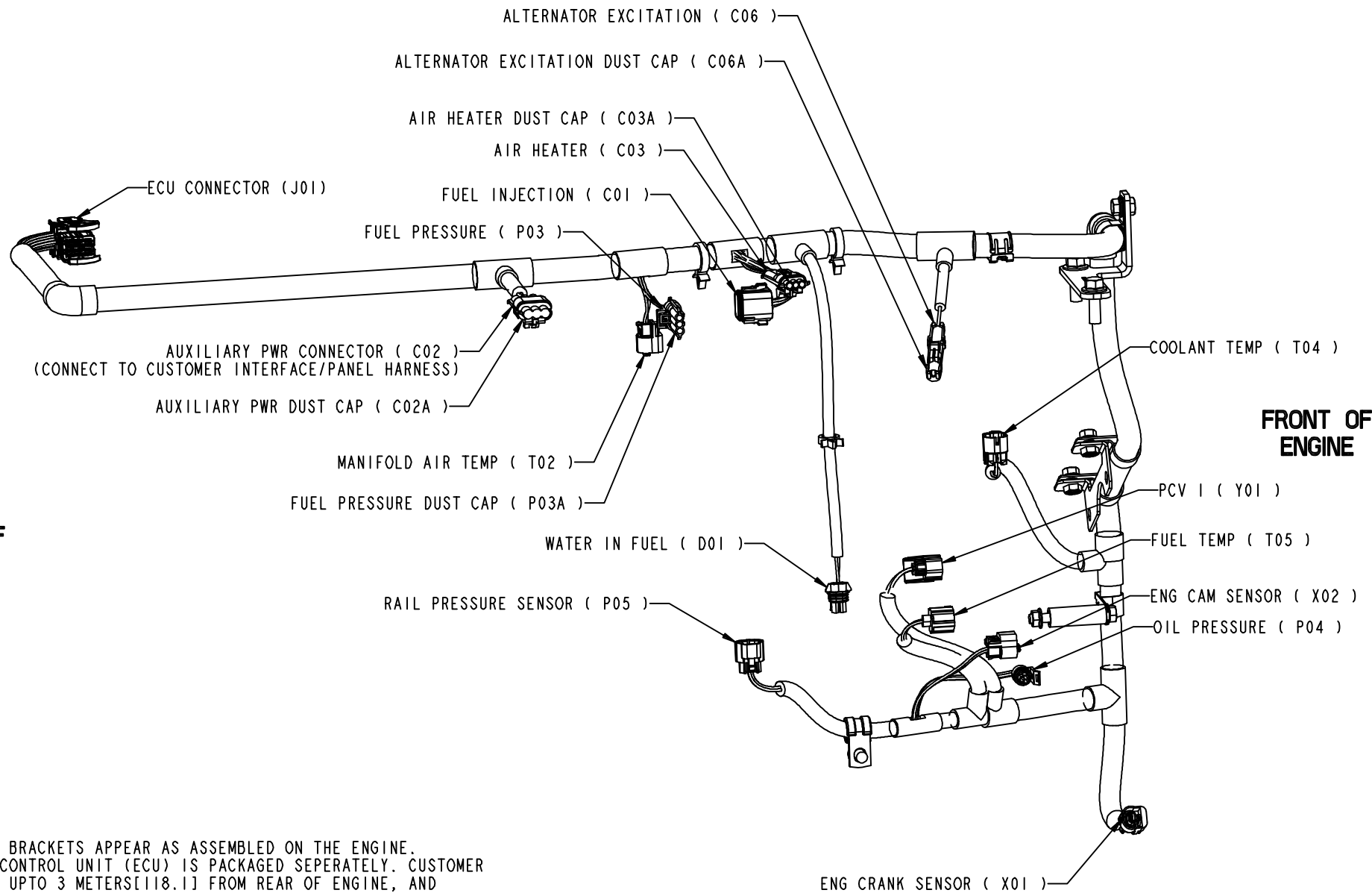
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Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 41



▷ REAR OF ENGINE

FRONT OF ENGINE

3. HARNESS AND BRACKETS APPEAR AS ASSEMBLED ON THE ENGINE.
2. ELECTRONIC CONTROL UNIT (ECU) IS PACKAGED SEPARATELY. CUSTOMER LOCATES ECU UP TO 3 METERS [118.1] FROM REAR OF ENGINE, AND PROVIDES MOUNTING HARDWARE.
1. WIRING HARNESS AND ELECTRONIC CONTROL UNIT (ECU) AMY BE FACTORY ASSEMBLED OR PACKAGED SEPARATELY DEPENDING UPON THE OPDEPED OPTION CODE



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Electric scheme

J. DEERE WIRING

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 41 of 84

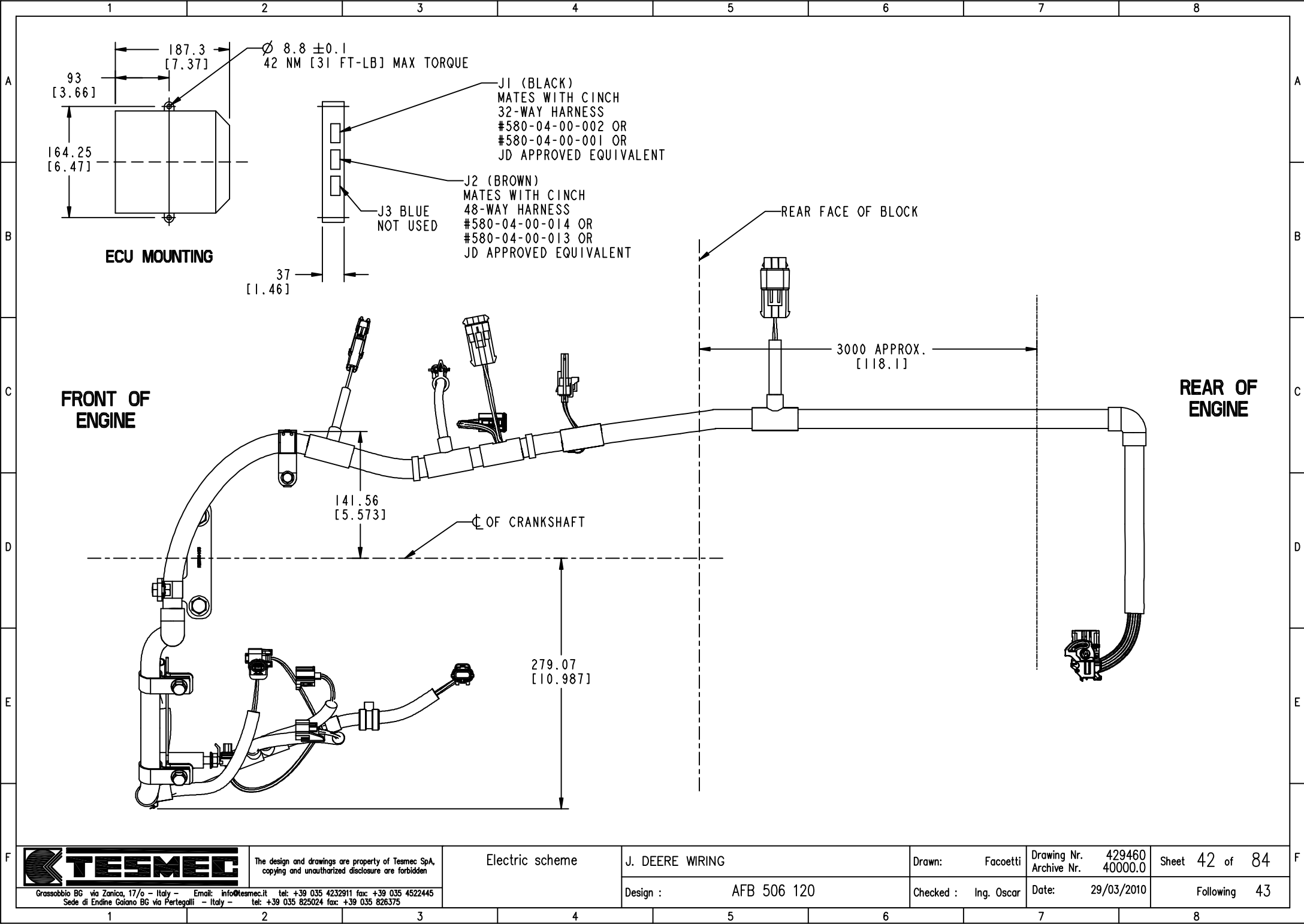
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Design : AFB 506 120

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Date: 29/03/2010

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 Sede di Engine Galano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Electric scheme

J. DEERE WIRING

Drawn: Facchetti

Drawing Nr. 429460
 Archive Nr. 40000.0

Sheet 42 of 84

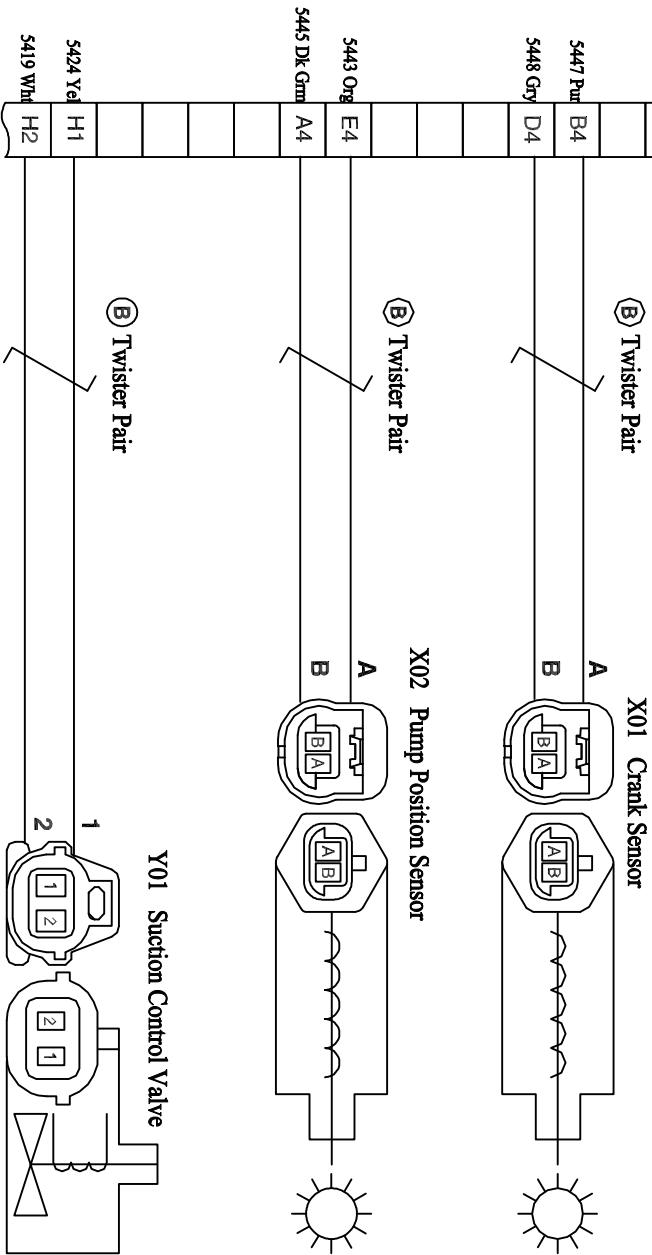
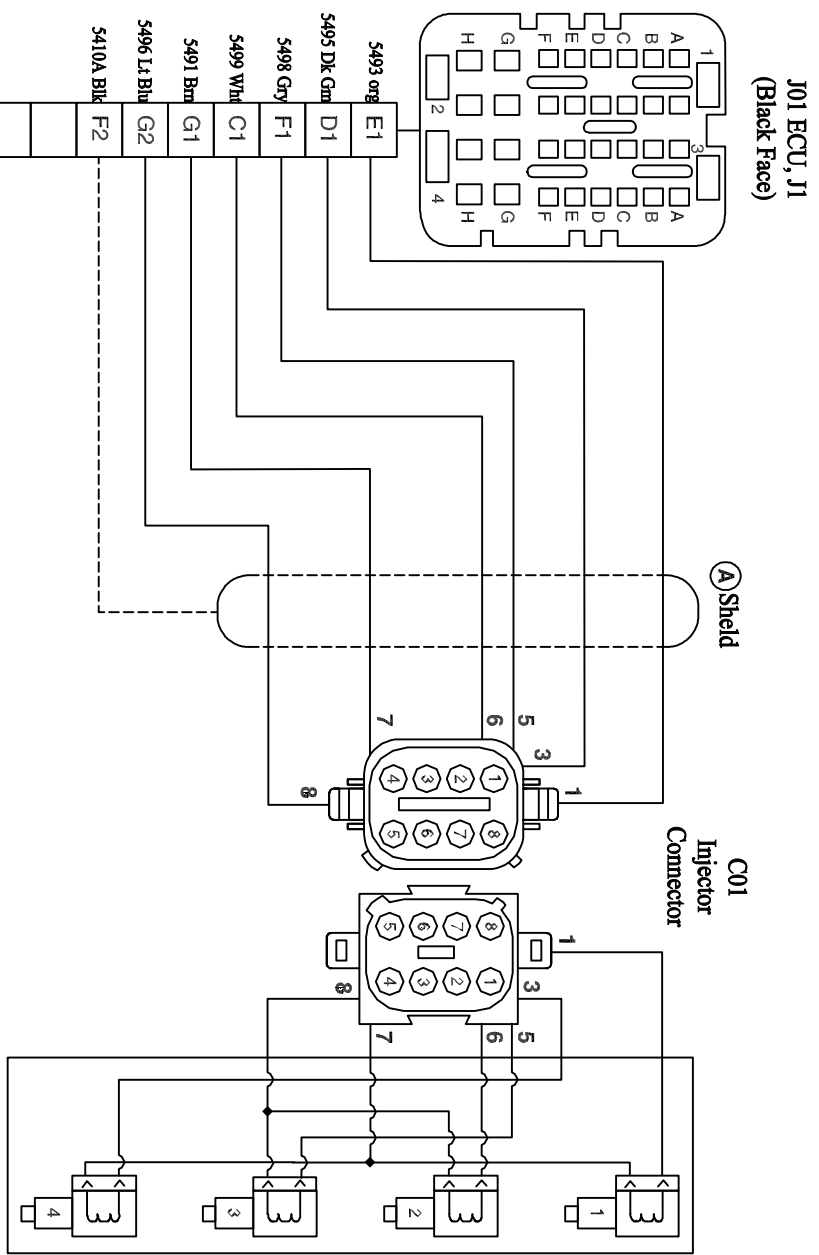
Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 43

Specifiche tecniche per la diagnosi



<p>A- Protezione B- Doppino</p> <p>C01- Connettore Iniettore J01- ECU, J1 (lato nero)</p> <p>J1-44-[5445 Verde scuro] Impulso posizione pompa</p> <p>J1-B4-[5447 Viola] Impulso posizione pompa</p> <p>J1-C1-[5499 Bianco] Impulso iniezione iniettore 2</p>	<p>J1-D1-[5495 Verde scuro] Impulso iniezione iniettore 4</p> <p>J1-D4-[5448 Grigio] Ritorno posizione albero a gomiti</p> <p>J1-E1-[5493 Arancio] Impulso iniezione iniettore 1</p> <p>J1-B4-[5443 Arancio] Ritorno iniezione pompa</p> <p>J1-F1-[5498 grigio] Impulso iniezione iniettore 3</p>	<p>J1-F2-[5410A Nero] Protezione cavi</p> <p>J1-G1-[5491 Marrone] Iniettore 1 e alim. 4</p> <p>J1-G2-[5496 Azzurro] Alim. Iniettori 2 e 3</p> <p>J1-H1-[5424 Giallo] Alta Potenza valvola di comando aspirazione pompa HP</p>	<p>J1-H2-[5419 Giallo] Bassa potenza valvola di comando aspirazione pompa HP</p> <p>X01- Sensore albero a gomiti</p> <p>X02- Sensore di posizione pompa</p> <p>Y01- Valvola di comando aspirazione</p>
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Electric scheme

J. DEERE WIRING

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

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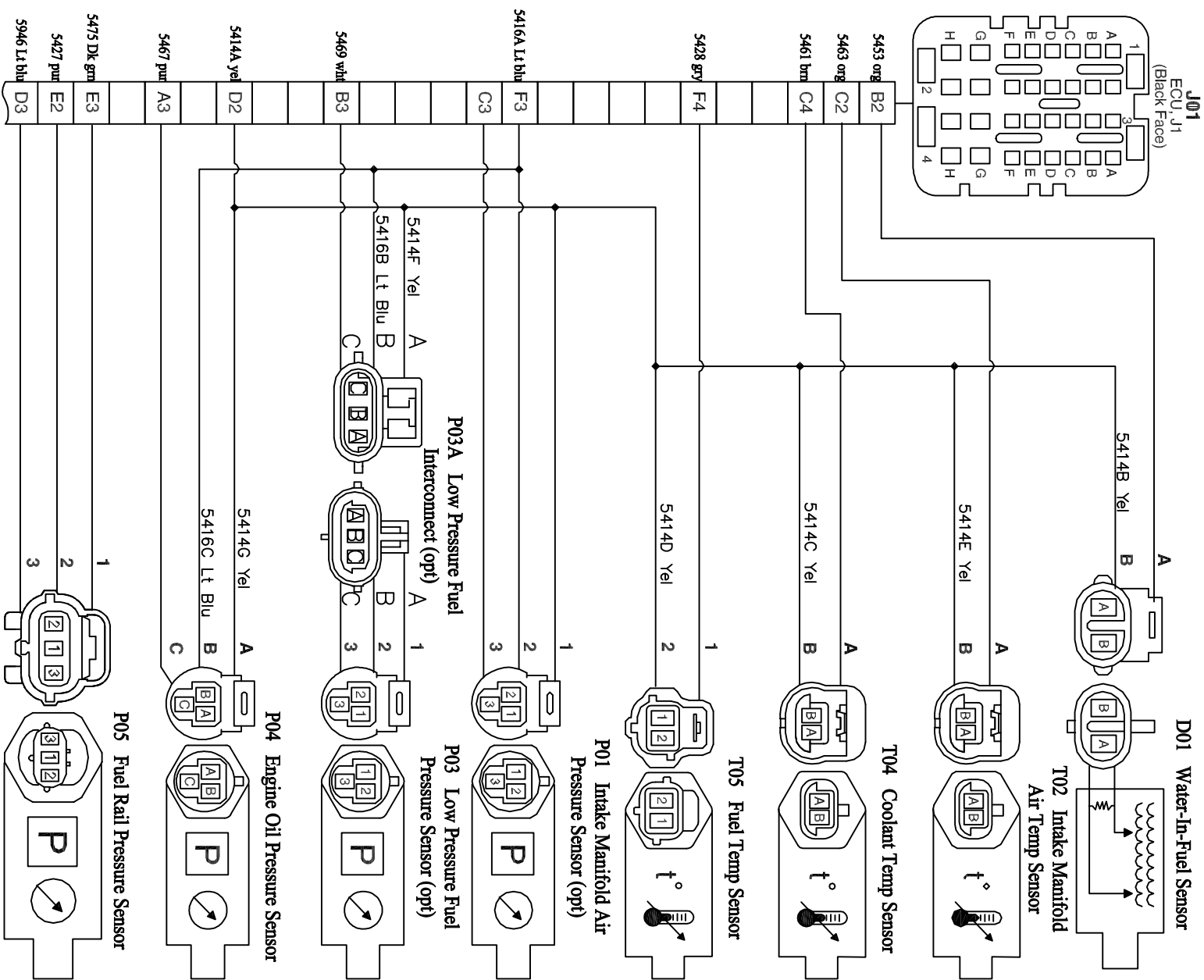
Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 44

Specifiche tecniche per la diagnosi



D01- Sensore di rilevamento acqua nel combustibile
J01-ECU, J1 (lato nero)
J1-A3-[5467 Viola] Segnale di pressione olio motore
J1-B2-[5453 Arancio] Segnale di acqua nel combustibile
J1-B3-[5469 Bianco] Segnale di pressione combustibile
J1-C2-[5463 Arancio] Segnale di temperatura aria collettore di aspirazione
J1-C3-Segnale di pressione aria collettore di aspirazione

J1-C4-[5461 Marrone] Segnale temperatura liquido di raffreddamento
J1-D2-[5414A Giallo] Alimentazione 2B a 5V, ritorno
J1-D3-[5946 Azzurro] Alimentazione 1 a 5V (+)
J1-E2-[5427 Arancio] Alimentazione 1 a 5V, ritorno
J1-E3-[5475 Verde scuro] Segnale di pressione condotto combustibile

J1-F3-[5416A Azzurro] Alimentazione 2B a 5V (+)
J1-F4-[5428 Grigio] Segnale temperatura combustibile
P01- Sensore di pressione aria collettore di aspirazione (opt)
P03- Sensore di pressione combustibile a bassa pressione (opt)
P03A- opt. Interconnessione sensore di pressione combustibile a bassa pressione

P04- Sensore di pressione olio motore
P05- Sensore di pressione condotto combustibile
T02- Sensore di temperatura aria collettore di aspirazione
T04- Sensore di temperatura liquido di raffreddamento
T05- Sensore di temperatura combustibile

Electric scheme

J. DEERE WIRING

Drawn: Facchetti

Drawing Nr. 429460
 Archive Nr. 40000.0

Sheet 44 of 84

Design : AFB 506 120

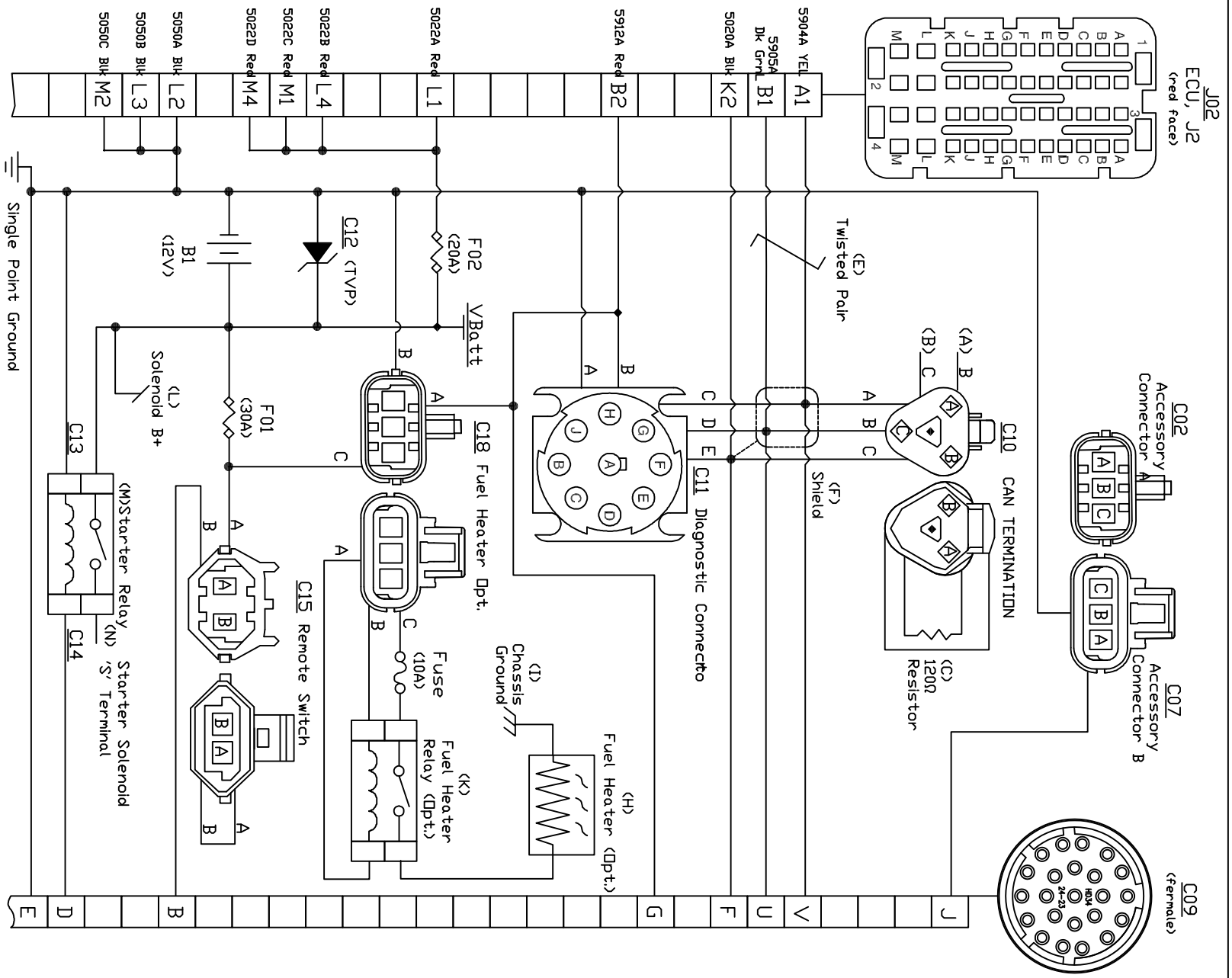
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Following 45



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 Sede di Endine Goltano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375



- A--Vedere schema (6)
- B--Eccitazione dell'alternatore
- C--Resistenza 120 Ω
- D--Vedere schema (5)
- E--Doppio
- F--Protezione
- G--Vedere schema (4,5)
- H--Riscaldatore del combustibile
- I--Massa relai
- J--Fusibile (10A)
- K--Rele riscaldatore del combustibile (opt.)
- L--Solenoido B+
- M--Rele di avviamento

- N--Terminale solenoide 'S' motorino di avviamento
- O--Punto singolo di massa
- B1--12V
- C02--Connettore A accessorio
- C07--Connettore B accessorio
- C09--Connettore 21 contatti
- C10--Terminale CAN
- C11--Connettore da tensioni
- C12--Protezione da tensione Transistori (TVP)
- C15--Interruttore comando a distanza
- C18--Opt. riscaldatore

- F01--30A
- F02--20A
- J02--ECU, J2 [lato rosso]
- J2-A1--[5904A Giallo] CAN alta
- J2-B1--[5912A Verde] CAN basso
- J2-B2--[5904A Rosso] Chiave di accensione/interruttore di avviamento
- J2-K2--[5020A Nero] Sch CAN
- J2-L1--[5022A Rosso] Polo positivo batteria

- J2-I2--[5050A Nero] Polo negativo batteria
- J2-I3--[5050B Nero] Polo negativo batteria
- J2-L4--[5050B Rosso] Polo positivo batteria
- J2-M1--[5022C Rosso] Polo positivo batteria
- J2-M2--[5022C Nero] Polo positivo batteria
- J2-M1--[5022C Rosso] Polo negativo batteria
- J2-M1--[5022C Rosso] Polo positivo batteria
- VBatt--Polo positivo batteria



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Electric scheme

J. DEERE WIRING

Design : AFB 506 120

Drawn: Facchetti

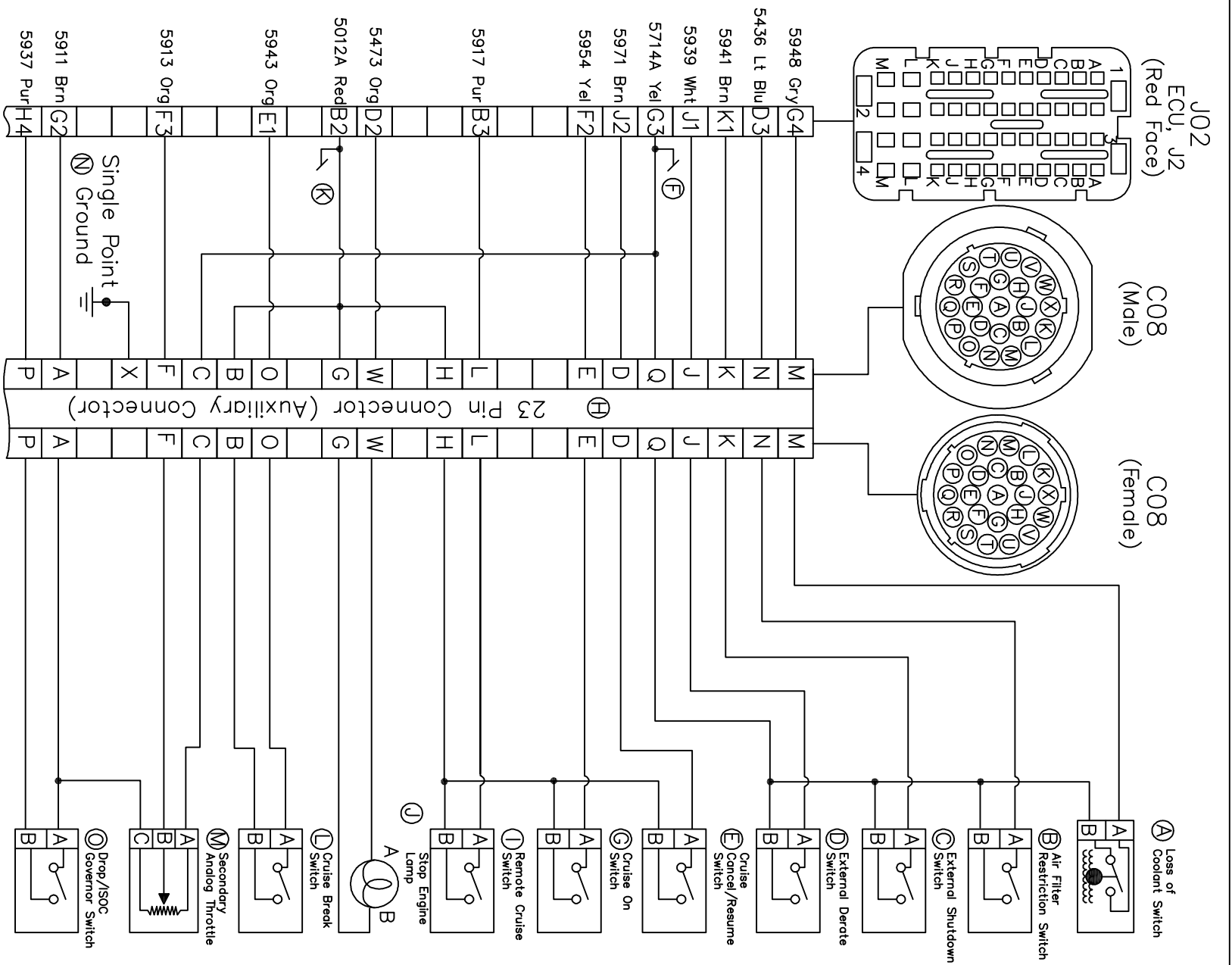
Checked : Ing. Oscar

Drawing Nr. 429460
 Archive Nr. 40000.0

Date: 29/03/2010

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Following 46



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|---|--|---|---|
| <p>A–Interruttore di perdita del liquido di raffreddamento</p> <p>B–Interruttore di segnalazione inasamento filtro aria</p> <p>C–Interruttore di arresto esterno</p> <p>D–Interruttore di riduzione esterna</p> <p>E–Interruttore Cancellata/Ripristina Cruise</p> <p>G–Interruttore ON Cruise</p> <p>H–Connettore a 23 contatti</p> <p>I–Interruttore comando a distanza Cruise</p> <p>J–Spia arresto motore</p> <p>L–Interruttore freno</p> | <p>M–Acceleratore analogico secondario</p> <p>N–Punto singolo di massa</p> <p>O–Interruttore variazione regime/isocrona</p> <p>C08–Connettore a 23 contatti</p> <p>J02–ECU, J2 (lato rosso)</p> <p>J2-B2–[5012A Rosso] Chiave di accensione / interruttore di avviamento</p> <p>J2-B3–[5917 Viola] Interruttore ON/OFF comando a distanza Cruise</p> <p>J2-D2–[5473 Arancio] Ritorno spia arresto motore</p> | <p>J2-D3–[5436 Azzurro] Interruttore di segnalazione inasamento filtro aria</p> <p>J2-E1–[5943 Arancio] Interruttore del freno Cruise</p> <p>J2-F2–[5954 Giallo] Interruttore ON/OFF Cruise</p> <p>J2-F3–[5913 Arancio] Segnale acceleratore analogico secondario</p> <p>J2-G2–[5911 Marrone] Alimentazione 2A a 5V (+)</p> <p>J2-G3–[5714A] Giallo Alimentazione 2A a 5V (-)</p> | <p>J2-G4–[5948 Grigio] Interruttore basso livello del liquido di raffreddamento</p> <p>J2-H4–[5937 Viola] Interruttore variazione regime/isocrona</p> <p>J2-J1–[5939 Bianco] Interruttore di riduzione esterna</p> <p>J2-J2–[5971 Marrone] Interruttore Cancellata / Ripristina Cruise</p> <p>J2-K1–[5941 Marrone] Interruttore di arresto esterno</p> |
|---|--|---|---|



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Electric scheme

J. DEERE WIRING

Design : AFB 506 120

Drawn: Facchetti

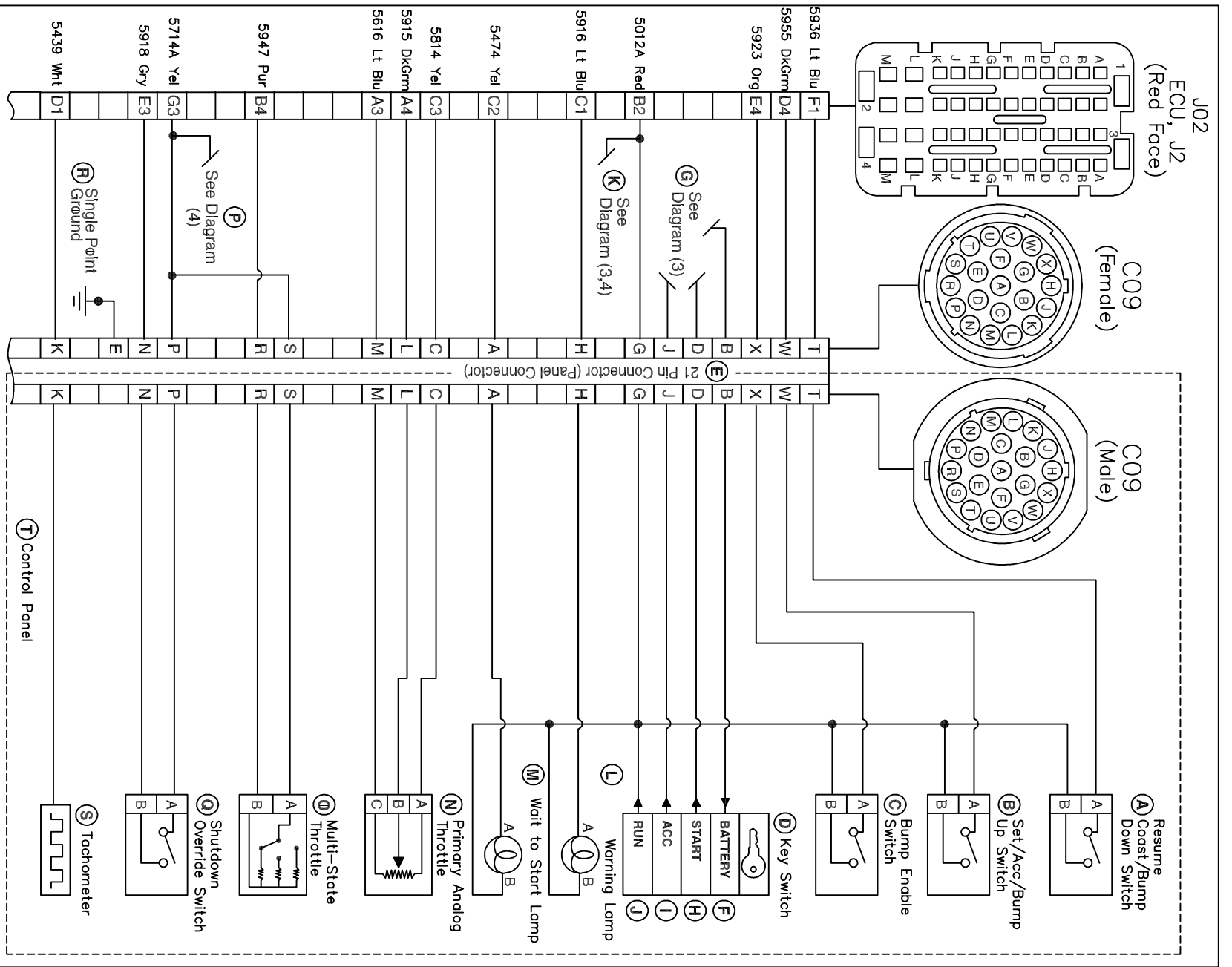
Checked : Ing. Oscar

Drawing Nr. 429460
 Archive Nr. 40000.0

Date: 29/03/2010

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Following 47



- A--Interruttore di ripristino corsa in folle/abbassamento regime
- B--Interruttore di impostazione accelerazione/aumento regime
- C--Interruttore di abilitazione variazione regime
- D--Interruttore a chiave
- E--Comettore a 21 contatti
- F--Batteria
- G--Vedere schema 3
- H--Avvio
- I--Accessorio
- J--Accensione
- K--Vedere Schema
- L--Spia di segnalazione

- M--Spia attesa di avvio
- N--Acceleratore analogico principale
- O--Acceleratore multistato
- P--Vedere schema 4
- Q--Interruttore di esclusione arresto
- R--Punto singolo di massa
- S--Contagiri
- T--Pannello di comando
- C09--Comettore a 21 contatti
- J2--ECU, J2 (lato rosso)
- J2-A3--[5616 Azzurro]
- Alimentazione 3 a 5V (+)
- J2-A4--[5915 Verde] Segnale acceleratore analogico.

- J2-B2--[5012A Rosso] Chiave di accensione
- J2-B4--[5947 Viola] Segnale Acceleratore multistato
- J2-C1--[5916 Azzurro] Ritorno comando spia attesa di avvio
- J2-C2--[5474 Giallo] Ritorno comando spia attesa di avvio
- J2-C3--[5814 Giallo] Alimentazione 3 a 5V (-)
- J2-D1--[5439 Bianco] Uscita impulso contagiri
- J2-D4--[5955 Verde] Interruttore di impostazione/acc./aumm. regime

- J2-E3--[5913 Arancio] Segnale acceleratore analogico secondario
- J2-E4--[5923 Arancio] Interruttore di abilitazione variazione regime
- J2-F1--[5936 Azzurro] Interruttore di ripristino corsa in folle / abbassamento regime
- J2-G3--[5714A Giallo] Alimentazione 2A a 5V (-)



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Electric scheme

J. DEERE WIRING

Drawn: Facchetti

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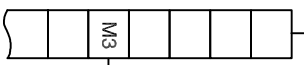
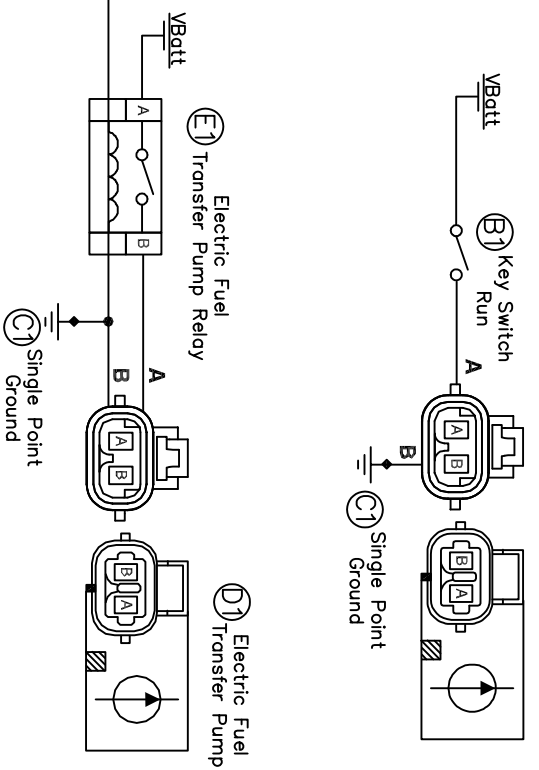
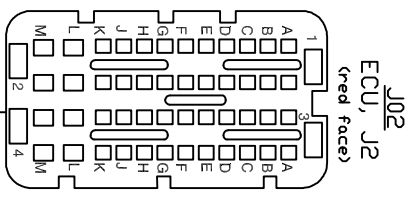
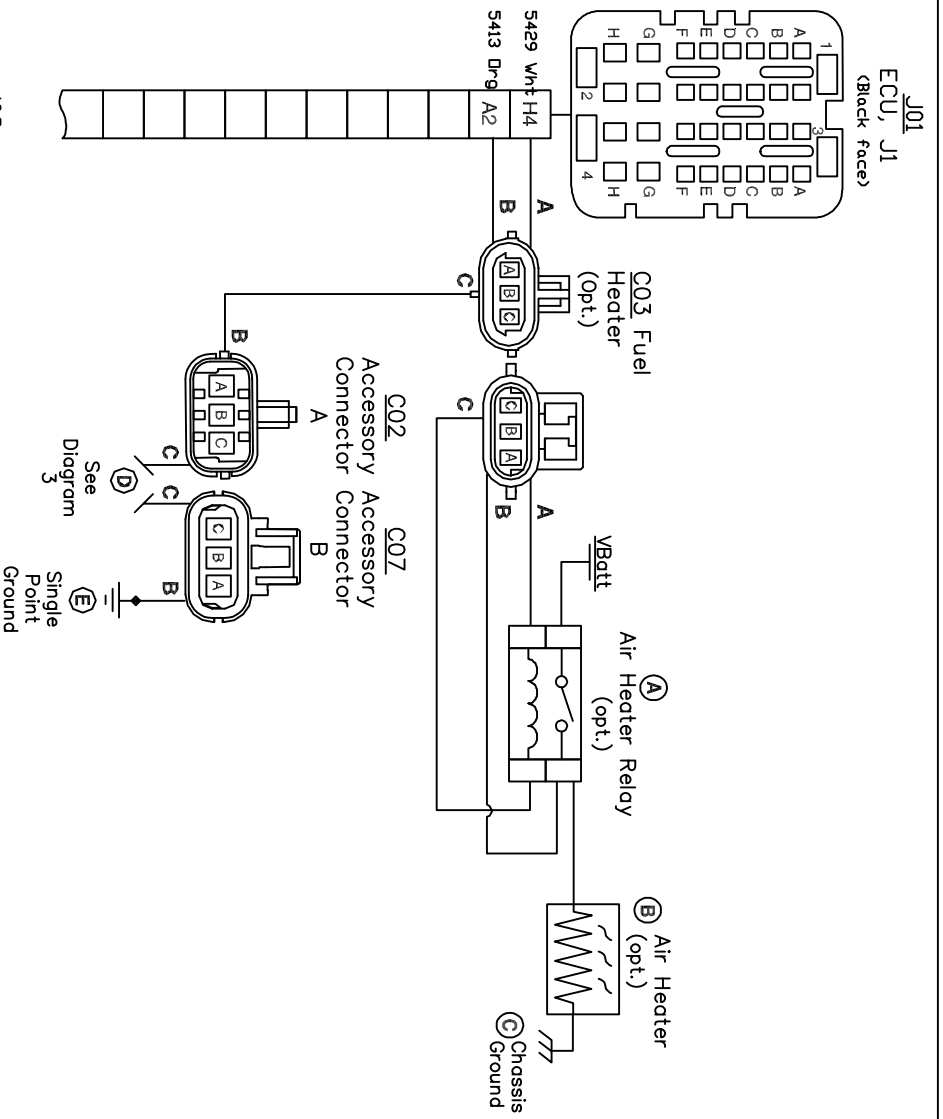
Sheet 47 of 84

Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 48



- A--Relè riscaldatore aria
- B--Riscaldatore aria
- C--Massa
- D--Punto singolo di massa
- C02--Connettore A accessorio
- C03--Opz. riscaldatore aria
- C07--Connettore B accessorio
- J01--ECU, J1 (lato nero)
- J1-A2--[5413 Arancio] Stato relè riscaldatore aria
- J1-H4--[5429 Bianco] Comando Relè riscaldatore aria
- VBatt--Polo positivo batteria

- A1--Elettropompa di alimentazione combustibile
- B1--Interruttore a chiave RUN
- C1--Punto singolo di massa
- D1--Elettropompa di alimentazione combustibile
- E1--Relè elettropompa di alimentazione combustibile
- J2-M3--Relè pompa alimentazione combustibile
- VBatt--Polo positivo batteria



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Electric scheme

J. DEERE WIRING

Drawn: Facchetti

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Archive Nr. 40000.0

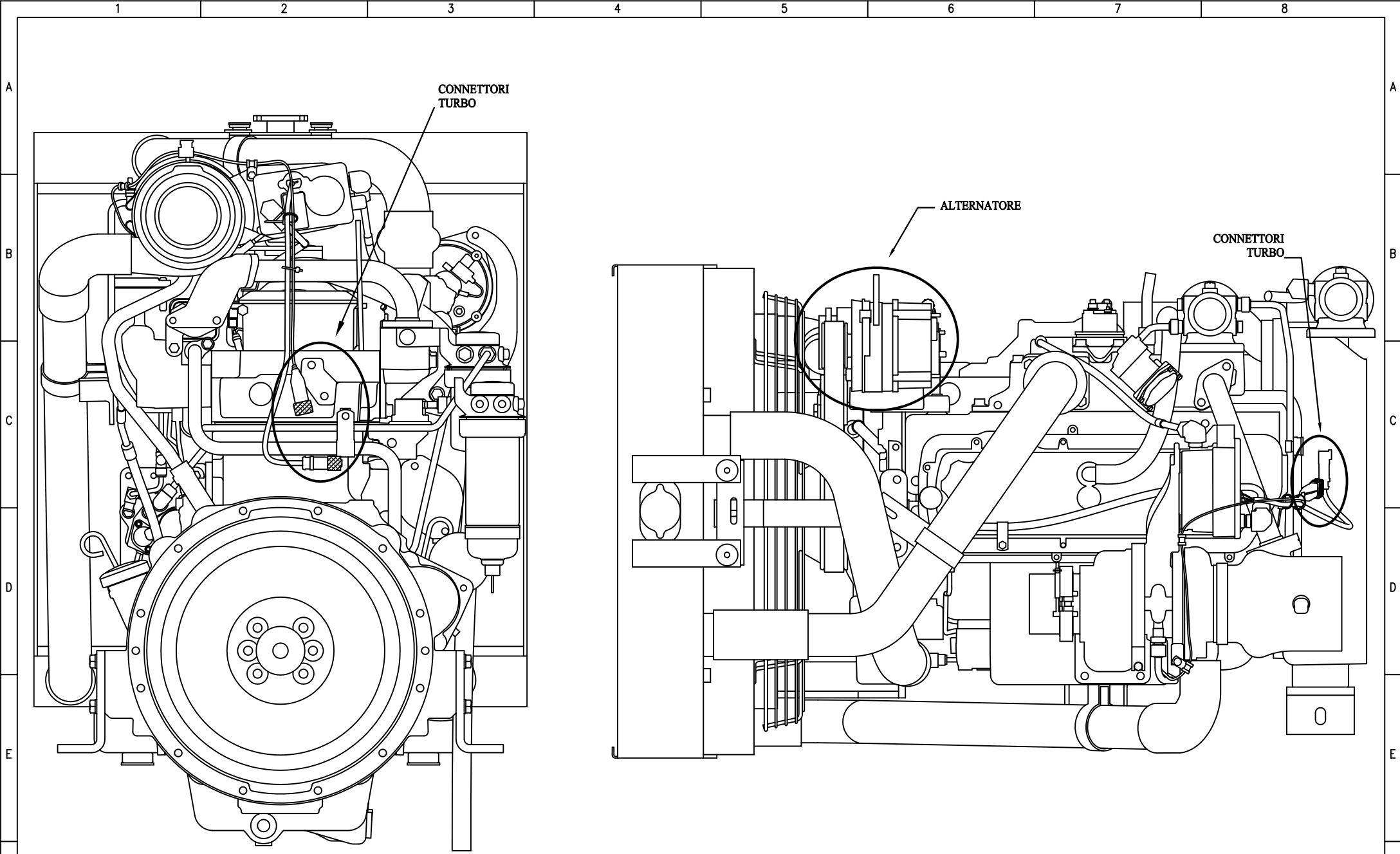
Sheet 48 of 84


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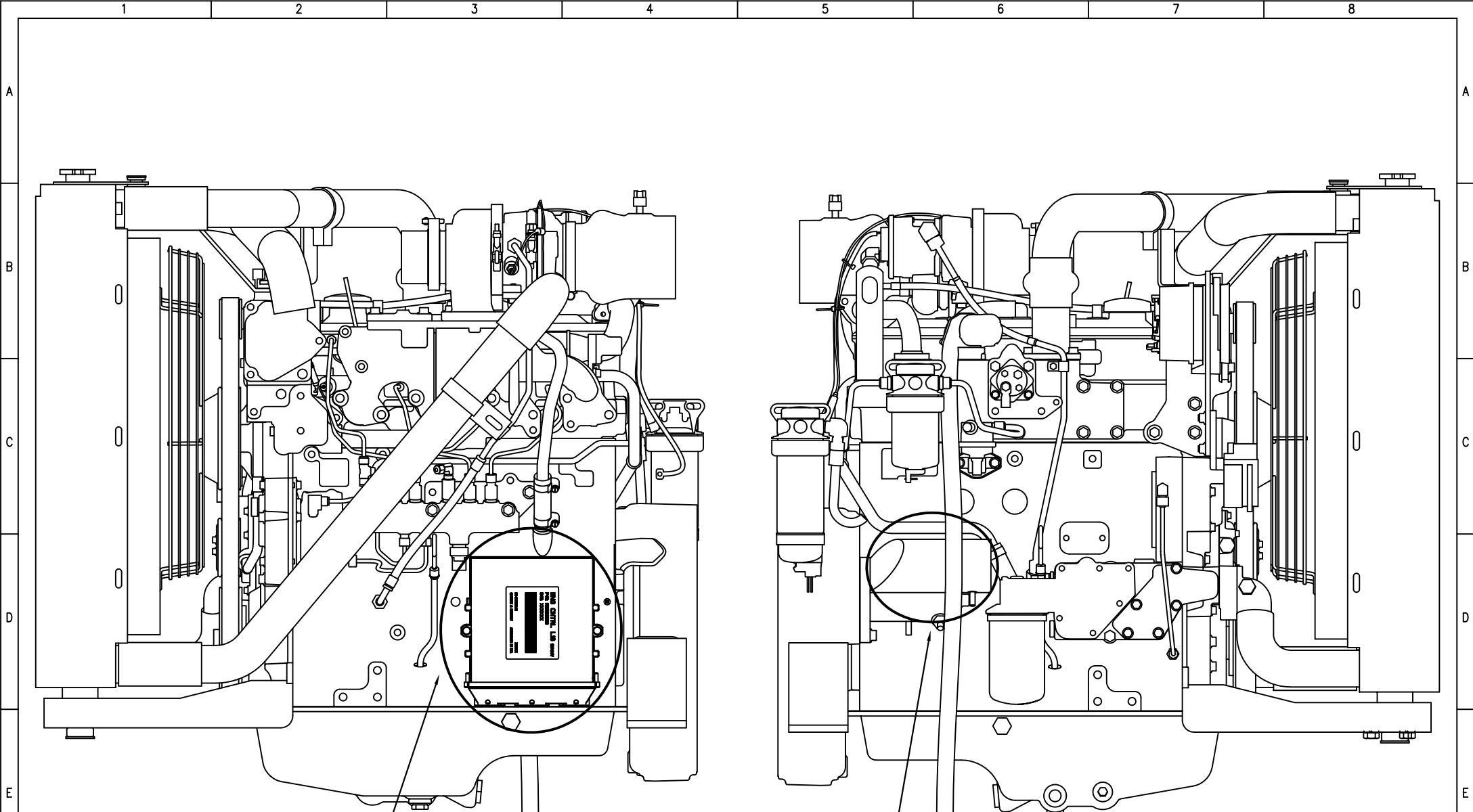
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Following 49



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				<p>Design : AFB 506 120</p>	<p>Checked : Ing. Oscar</p>	<p>Archive Nr. 40000.0</p>



CENTRALINA
MOTORE

MOTORINO
AVVIAMENTO



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Electric scheme

J. DEERE ENGINE TOPOGRAPHIC

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

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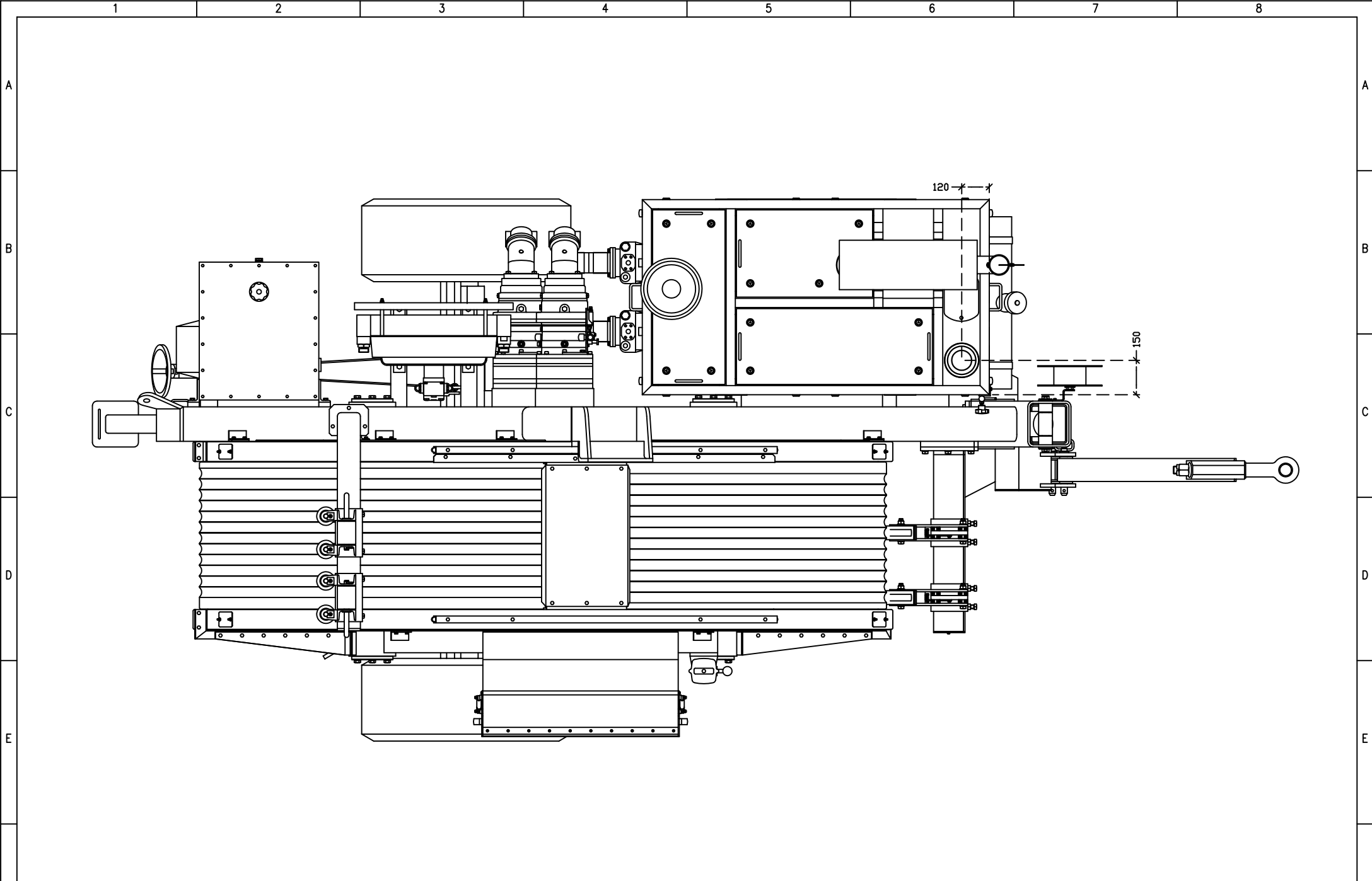
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445
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Following 51



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Electric scheme

J. DEERE ENGINE TOPOGRAPHIC

Drawn: Facchetti

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Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 52

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F



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Electric scheme

LIGHTING DEVICE TOPOGRAPHIC

Drawn: Facchetti

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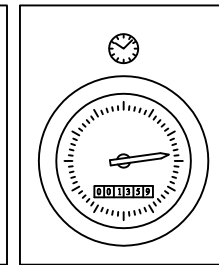
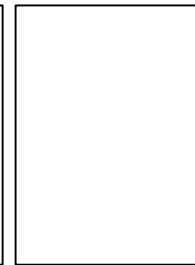
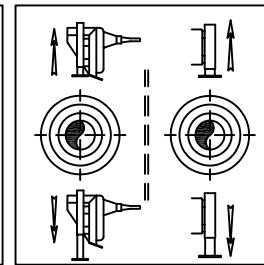
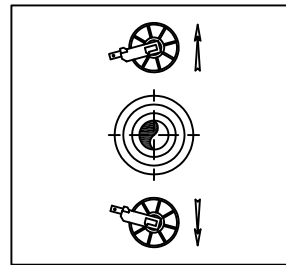
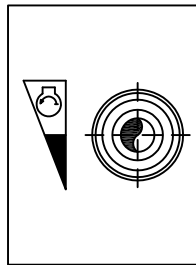
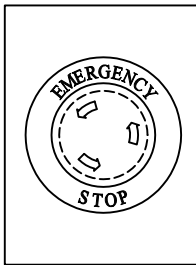
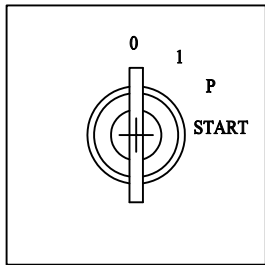
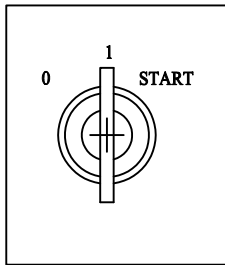
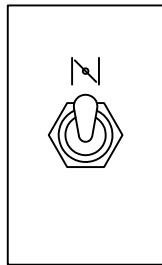
Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 53

	1	2	3	4	5	6	7	8
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Leva Starter
Starter Switch
Interruptor Starter

Chiave Avviamento Motore
Engine Starting Switch
LLave Arranque Motor

Chiave Avviamento Motore con Preriscaldamento
Diesel Engine Starting Switch With PreHeat
LLave Arranque Motor con Pre calentamiento

Pulsante Arresto Emergenza
Emergency Stop Push Button
Pulsador Paro De Emergencia

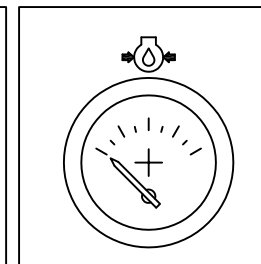
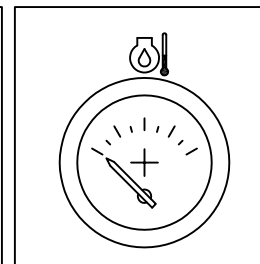
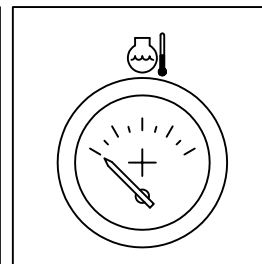
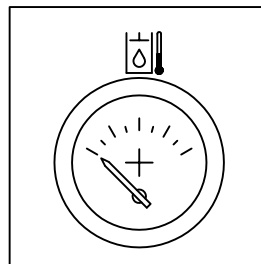
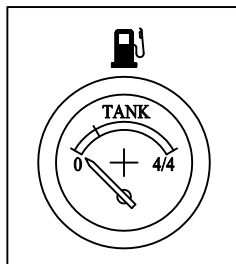
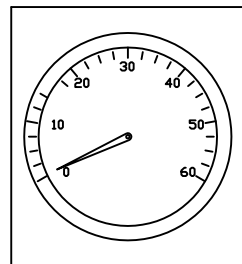
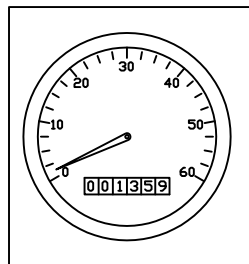
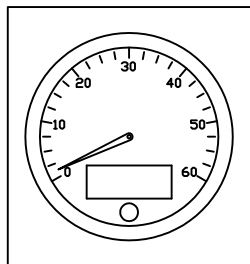
Manipolatore Acceleratore
Accelerator Control
Manipulador Acelerador

Manipolatore Salita / Discesa Cilindro Riavvolgitore
Reel Winder Cylinder Rise/Descent
Manipulador Subida/Bajada Cilindro Enroccador

Manipolatore Comando Vomere/Stabilizzatore
Plough /Stabilizer Control
Manipulador Mando Estabilizador

-
-
-

Contaore
Hour Counter
CuentaHoras



Contagiri & Contaore Motore [CAN-Bus]
Diesel Engine Hour & RPM Counter
Cuenta Horas & Cuenta Revoluciones

Contagiri & Contaore Motore
Diesel Engine Hour & RPM Counter
Cuenta Horas & Cuenta Revoluciones

Contagiri Motore
RPM Counter
Cuenta Revoluciones

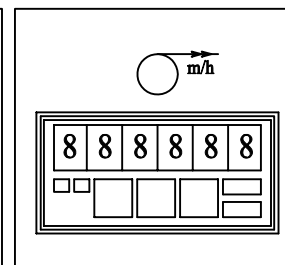
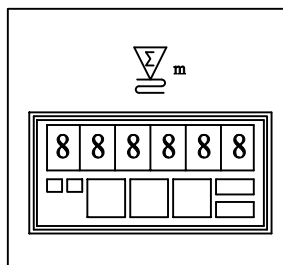
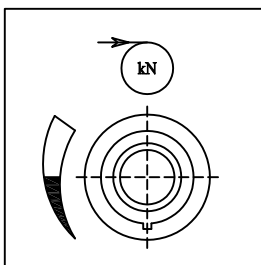
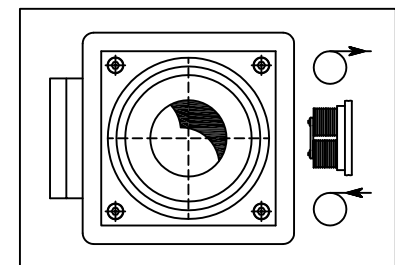
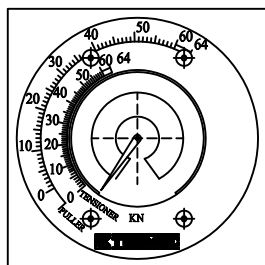
Indicatore Livello Carburante
Fuel Level Gauge
Indicador Nivel Carburante

Indicatore Temperatura Olio Idraulico
Hydraulic Oil Temperature Gauge
Indicador Temperatura Aceite

Indicatore Temperatura Acqua Motore Diesel
Engine Water Temperature Gauge
Indicador Temperatura Agua Motor

Indicatore Temperatura Olio Motore Diesel
Diesel Engine Oil Temperature Gauge
Indicador Temperatura Aceite Motor

Manometro Pressione Olio Motore Diesel
Diesel Engine Oil Pressure Gauge
Manómetro Presión Aceite Motor



Dinamometro
Dynamometer
Dinámometro

Manipolatore Comando Cabestani
Bull-Wheel Control
Manipulador Mando Cabrestante

Potenziometro Regolazione Tiro
Pull Control Potentiometer
Potenciómetro Regulación Tiro

Contametri
Counter-Meter
CuentaMetros

Visualizzatore Velocità di Stendimento
Stringing Speed Display
Visualizador Velocidad Extensión

-
-
-

-
-
-



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Electric scheme

LEGEND SYMBOLS

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

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Sede di Endine Gaiuno BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120

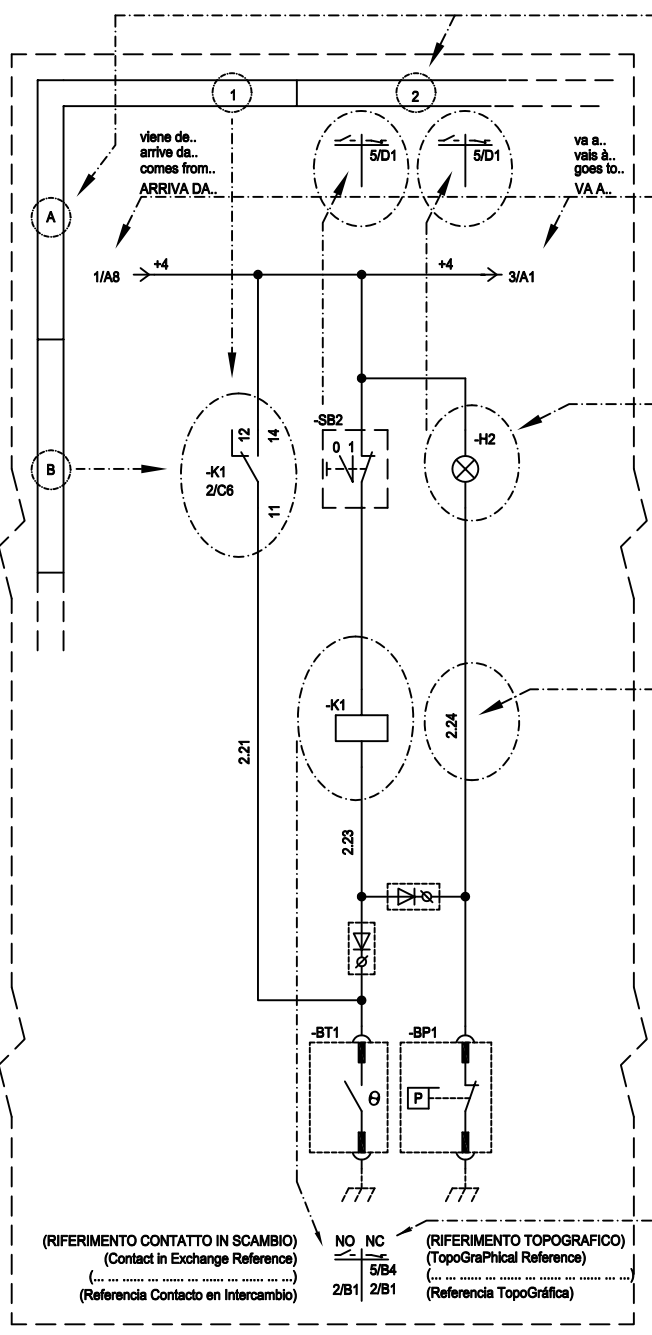
Checked : Ing. Oscar

Date: 29/03/2010

Following 54

	1	2	3	4	5	6	7	8
A								
B	Selettori Differenziali Idraulici Hydraulic Differentials Selectors Selector Diferenciales Hidráulicos -	Selettore Generale Freni Negativi General Selector For Negative Brakes Selector General Frenos Negativos -	Selettore Sblocco Freno Negativo Negative Brake Release Selector Selector Desbloqueo Freno Negativo -	Selettore Velocità Macchina Speed Machine Selector Selector Velocidad Máquina -	Selettore Impostazione Tiro Pull Setting Selector Selector Ajuste Tiro -	Selettore Pressa Hydraulic Press Selector Selector Prensa -	Selettore Automatico / Manuale Ventilatore Automatic/Manual Fan Selector Selector Automático/Manual Ventilador -	Selettore Ventilatore o Pressa Fan/Press Hydraulic Selector Selector Ventilador Prensa -
C		-		-	-	-	-	
D	Selettore Sincronizzatore Synchroniser Selector Selector Sincronizador -	-	Selettore Blocca Fune Rope Locking Clamp Selector Selector Bloquea Cuerda -	-	-	-	-	Selettore Inserimento Marce Riduttore GearBox Connecting Selector Selector Inserción Marchas Reductoras -
E				-				
F	Selettore Automatico / Manuale Riavvolgitore Automatic / Manual Reel Winder Selector Selector Automático/Manual Recogedor -	Selettore Automatico / Manuale Cavalletti Automatic/Manual Reel Elevator Selector Selector Automático/Manual Caballetes -	Esclusione Circuito Cavalletti Reel Elevator Exclusion Circuit Exclusión Circuito Caballetes -	-	Selettore Sincronismo Cabestani Selector for Synchronism Selector Sincronismo -	Selettore Accoppiamento Macchine Machines Connection Selector Selector Acoplamiento Máquinas -	Spia Accoppiamento Macchine Machines Connection Pilot Lamp Señalador Acoplamiento Máquinas -	Spia Attenzione Comando Manuale Inserito Pilot Lamp Warning For Manual Engaged Control Señalador Atención Mando Manual Insertado -

* Lp= Ridotta - Low - Reducida N = Folle - Neutral - Punto Muerto Hp= Normale - Nominal - Nominal



COORDINATE DI PAGINA:

ASSE X: NUMERICA
ASSE Y: ALFABETICA

page coordinates:

axis x: numerical
axis y: alphabetical

coordenadas de página:

tabla x: numéricas
tabla y: alfabética

CROSS-REFERENCE FILO:

INDICA I RIMANDI NUMERICI DI UN NUMERO DI FILO.

FORMATO DI LETTURA:
PAGINA/COORDINATA Y + COORDINATA X
EX: 3/A1 PAGINA 3 COORDINATE A 1

wire cross-reference:

it indicates the numerical cross-references of a wire number

reading format:
page/coordinate Y + coordinate X
EX: 3/A1 page 3 coordinates A 1

cross-referencia hilo:

indica las referencias numéricas de un número de hilo

formato de lectura:
página/coordenada Y + coordenada X
EX: 3/A1 página 3 coordenadas A 1

SIGLATURA COMPONENTI:

NORME EN 61346

- => SEGNO DI PREFISSO
H => LETTERA DI CODIFICA OGGETTI:
IDENTIFICA LA CLASSE DI APPARTENENZA
2 => NUMERAZIONE DI IDENTIFICAZIONE OGGETTI.

components initialing:

norms EN 61346

- => sign of prefix
H => letter of objects coding:
it identifies the belongings class
2 => Identificating numeration of objects.

marcación componentes:

normas EN 61346

- => señal de prefijo
H => letra de codificación de objetos:
it identifies the belongings class
2 => Identificating numeration of objects.

NUMERAZIONE FILI

FORMATO LETTURA: EN 61175

EX: 2.24
2 => NUMERO PAGINA ORIGINE FILO
. => SEGNO DI SEPARAZIONE
24 => NUMERO DI IDENTIFICAZIONE FILO

wires numeration:

reading format: EN 61175

EX: 2.24
2 => origin wire number page
. => sign of separation
24 => wire identification number

numeración hilos:

formato lectura: EN 61175

EX: 2.24
2 => número página origen hilo
. => signo de separación
24 => número de identificación hilo

CROSS-REFERENCE SIMBOLO:

INDICA LA PRESENZA DI CONTATTI, SPIE E LA POSIZIONE SUI TOPOGRAFICI MACCHINA DEL SIMBOLO A CUI E' RIFERITO (SLAVE). SOLITAMENTE SE POSIZIONATO NELLA PARTE BASSA DEL FOGLIO INDICA RELÉ, MENTRE NELLA PARTE ALTA COMANDI MACCHINA. (SELETTORI, MANIPOLATORI..)
IL FORMATO DI LETTURA E' UGUALE AI "REFERENCE-FILO", DA SEGNALARE IL CASO PARTICOLARE DEI CONTATTI IN SCAMBIO CHE OCCUPANO SIA LA COLONNA NO CHE NC (CONTATTO APERTO/CONTATTO CHIUSO).

symbol cross-reference:

it indicates the presence of contacts, pilot lamps and the position on the machine topographical of the symbol to which it is referred (slave). Generally it is positioned in the lower part of the sheet it indicates relay, while in the upper part machine controls (selectors, manipulators..)
the reading format is equal to the "wire-reference", to signal the particular case of the contacts in exchange that occupy both the column "no" and "nc" (open contact/closed contact)

cross-referencia símbolo:

indica la presencia de contactos, luces y la posición en los topográficos máquina del símbolo a que se refiere (slave). Generalmente si se sitúa en la parte baja de la hoja indica relé, mientras en la parte alta mandos máquina (selectores, manipuladores..)
el formato de lectura es igual que "reference-hilo", cabe señalar el caso particular de los contactos en intercambio que ocupan sea la columna "no" que "nc" (contacto abierto/contacto cerrado)



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Electric scheme

LEGEND READING GRAFT

Drawn: Facchetti

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Sheet 55 of 84

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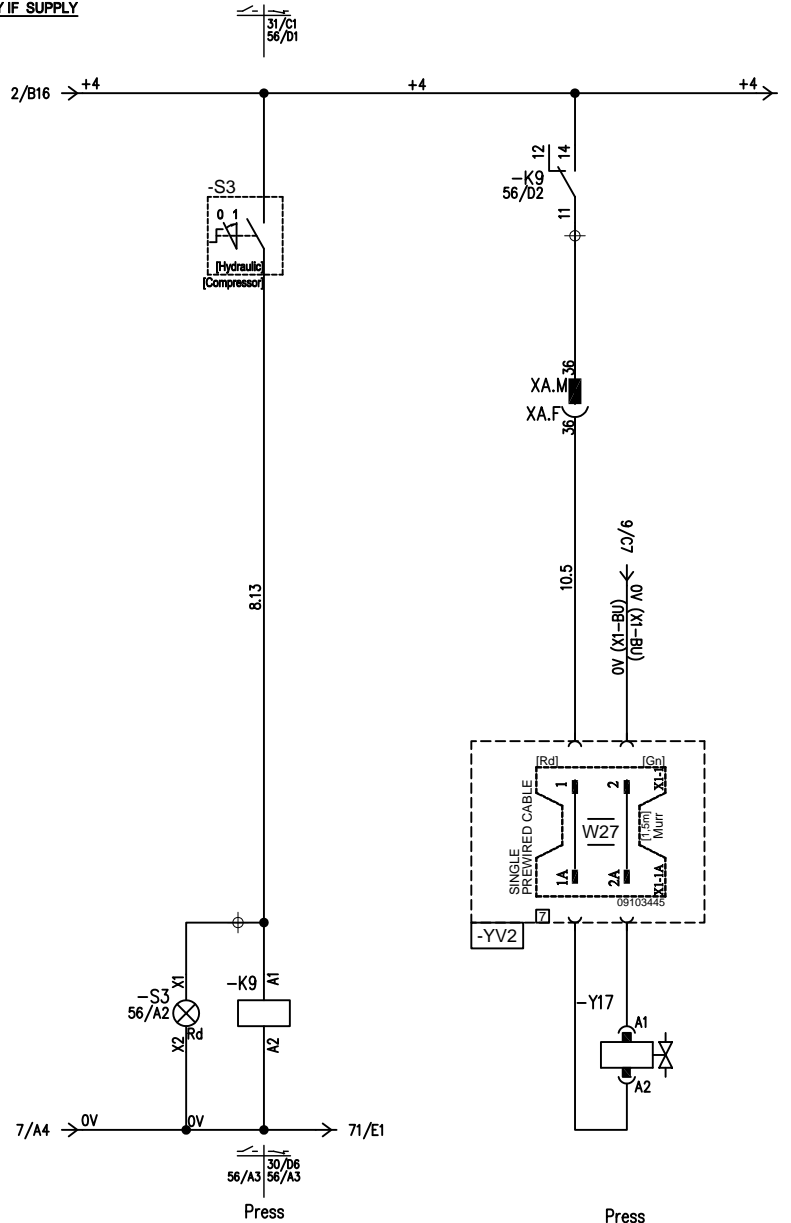
Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 56

OPT. 005
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OPT. 005 PRESS

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Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 57

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
A	-K9	09103174	40/D2	RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	RELE PRESSA 1	compressor 1 relay	
	-	09102616	40/D2	MODULO..DIODO+LED..6~24V..FINDER.99.01.9			
	-	09103235	40/D2	ZOCCOLETTO.SERIE.40.....FINDER.95.05			
B	-S3	09101216	40/A2	SELETT.2POS.STAB.ROSSO CEMA P9 MSADOR	SELETTORE PRESSA 1	press 1 selector	
	-	09101192	40/A2	CONTATTO.NA.....CEMA...P9..B10VN			
	-	09101193	40/A2	CONTATTO.NA/NC.....CEMA...P9..B11VN			
	-	09101203	40/A2	ALIMENTAZIONI.....CEMA...P9..PDNVO			
C							
D							
E							
F							



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Electric scheme

COMPONENTS LIST

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 57 of 84

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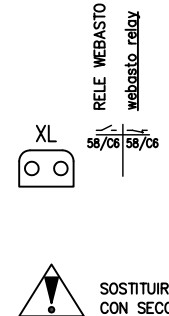
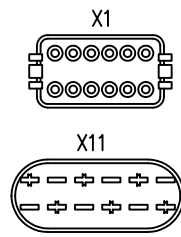
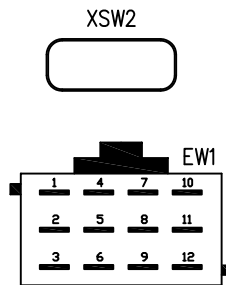
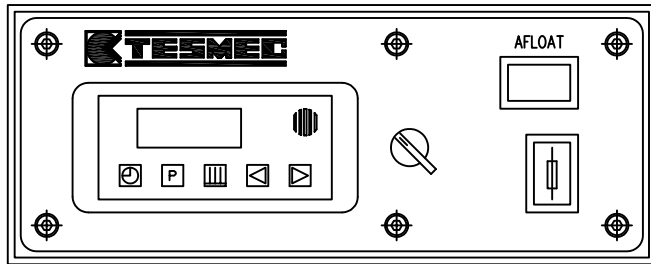
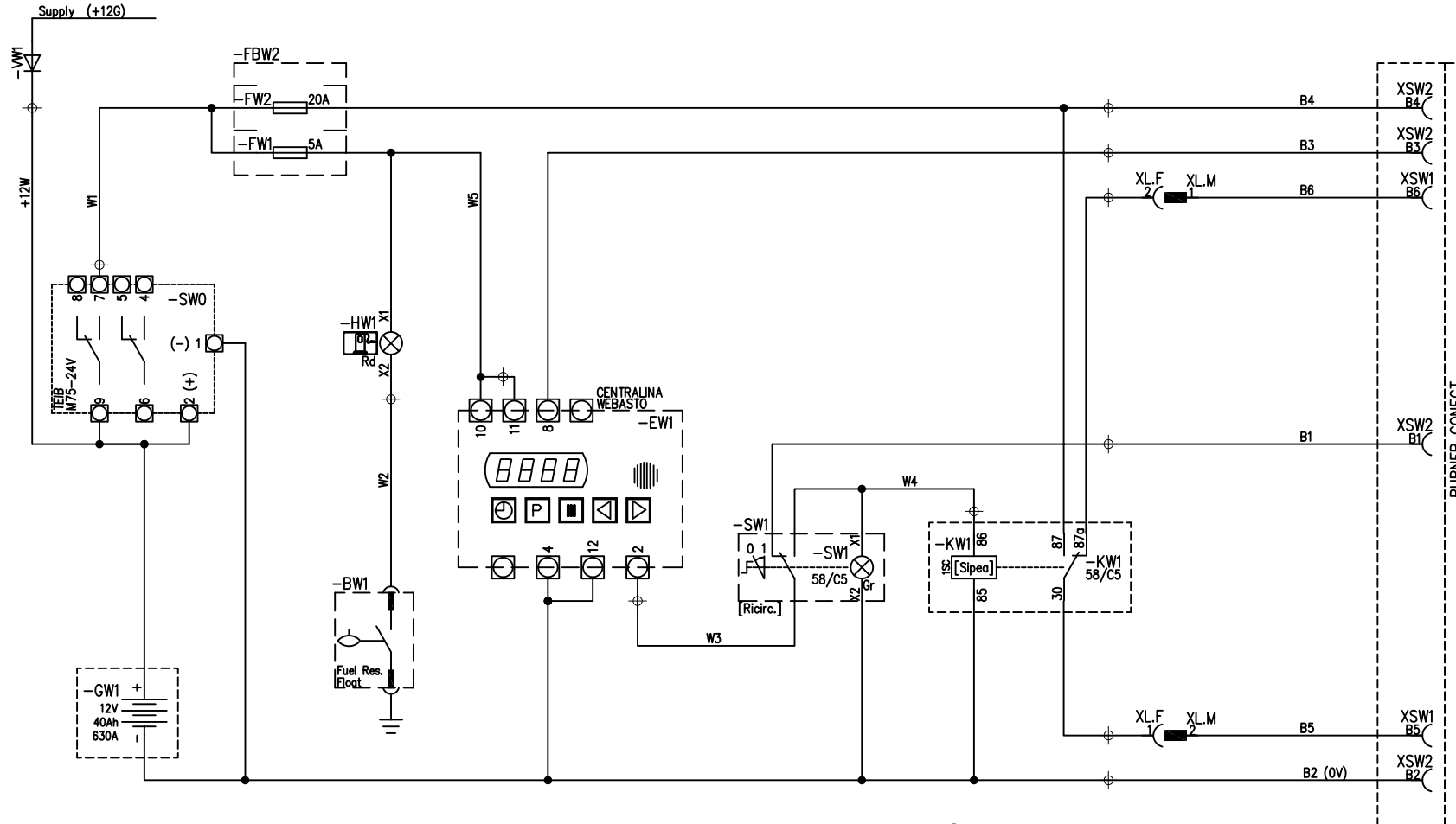
Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 58

OPT. 037
ONLY IF SUPPLY



! SOSTITUIRE BATTERIA MACCHINA BASE
CON SECONDA BATTERIA IN DISTINTA PRERISCALDO



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Electric scheme

OPT. 037 ARTIC KIT

Design : AFB 506 120

Drawn: Facchetti

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Drawing Nr. 429460
Archive Nr. 40000.0

Date: 29/03/2010

Sheet 58 of 84

Following 59

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
A	-BW1	09102134	44/D3	SPIA RISERVA CARBURANTE	^ / ^	GALLEGGIANTE RISERVA CARBURANTE	fuel reserve float
	-EW1	00000000	44/C3	ENGINE.PART.....(CODICI MOTORE)	^ / ^	CENTRALINA WEBASTO	webasto gearcase
	-FBW2	09102689	44/A2	PORTAFUSIBILI A LAME 6 VIE MTA 0100560	^ / ^	PORTAFUSIBILE A LAME 6 VIE	6-ways blade fuses holders
B	-FW1	09101381	44/B2	FUSIBILE A LAME...5A.....UNIVAL	^ / ^	PROTEZIONE CENTRALINA WEBASTO	gearcase webasto protection
	-FW2	09102692	44/A2	FUSIBILE A LAME...20A.....UNIVAL	^ / ^	PROTEZIONE DI LINEA	line protection
	-GW1	48100620	44/D2	BATTERIA 12V-40AH-630A NSB40 NORTHSTAR	^ / ^	BATTERIA 1 WEBASTO	webasto 1 battery
C	-	09101584	44/D2	MORSETTO BATT. POLO POSITIVO CAVO 50 MMQ	^ / ^		
	-	09101585	44/D2	COPRIMORSETTO POLO POSITIVO BATT. ROSSO	^ / ^		
	-	09101586	44/D2	MORSETTO BATT. POLO NEGATIVO CAVO 50 MMQ	^ / ^		
	-	09101587	44/D2	COPRIMORSETTO POLO NEGATIVO BATT. NERO	^ / ^		
D	-HW1	09102134	44/B3	SPIA RISERVA CARBURANTE	^ / ^	SPIA LIVELLO CARBURANTE WEBASTO	webasto fuel level pilot lamp
	-KW1	09100057	44/C5	RELE 12V 15A/30A 1SC SIPEA 601958	^ / ^	RELE WEBASTO	webasto relay
	-SW0	09102326	44/B1	RELE VOLTMETRICO SERIE M75 24VCC TEIB	^ / ^	RELE DI MINIMA TENSIONE	minimum voltage relay
E	-SW1	09101229	44/C5	SELETT.2POS.FISSE VERDE CEMA P9 MSADOV	^ / ^	SELETTORE RICIRCOLO	recycle selector
	-	09101192	44/C5	CONTATTO.NA.....CEMA...P9..B10VN	^ / ^		
	-	09101193	44/C5	CONTATTO.NA/NC.....CEMA...P9..B11VN	^ / ^		
	-	09101203	44/C5	ALIMENTAZIONI.....CEMA...P9..PDNVO	^ / ^		
F	-SW1	09102304	44/C5	LAMPADA BA 7S T2 12V 2 W	^ / ^		



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Electric scheme

COMPONENTS LIST

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Sheet 59 of 84

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Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

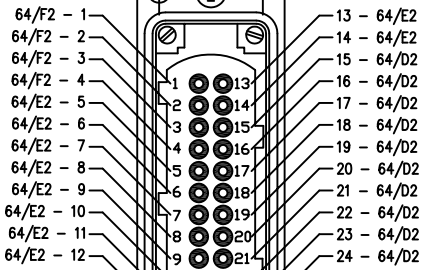
Following 60

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Qta Tot	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción	
-VW1	09101843	44/A1	DIODO SKN70/12 SEMIKRON RS 656-451	1 1	DIODO	diode	
XL.F	00000000	44/B6	ENGINE.PART.....(CODICI MOTORE)	1 1	PRESA INTERFACCIA WEBASTO	webasto interface socket	
XL.M	00000000	44/B6	ENGINE.PART.....(CODICI MOTORE)	1 1	PRESA INTERFACCIA WEBASTO	webasto interface socket	
XSW1	00000000	44/D7	ENGINE.PART.....(CODICI MOTORE)	1 1	PRESA INTERFACCIA WEBASTO	webasto interface socket	
XSW2	00000000	44/A7	ENGINE.PART.....(CODICI MOTORE)	1 1	PRESA INTERFACCIA WEBASTO	webasto interface socket	



OPT. 051
ONLY IF SUPPLY

XRC.M



SERIES INSERT ARRANGEMENTS

Polarità Vista Lato Contatti

XRC PRESA INTERFACCIA RADIOCOMANDO / COMANDO A DISTANZA
MALES-HOLDER JOINT 24-WAYS

BULL-WHEEL 2 PULL
SETTING SELECTOR
(REMOTE CONTROL)

ACCELERATOR
CONTROL MANIPULATOR
(REMOTE CONTROL)

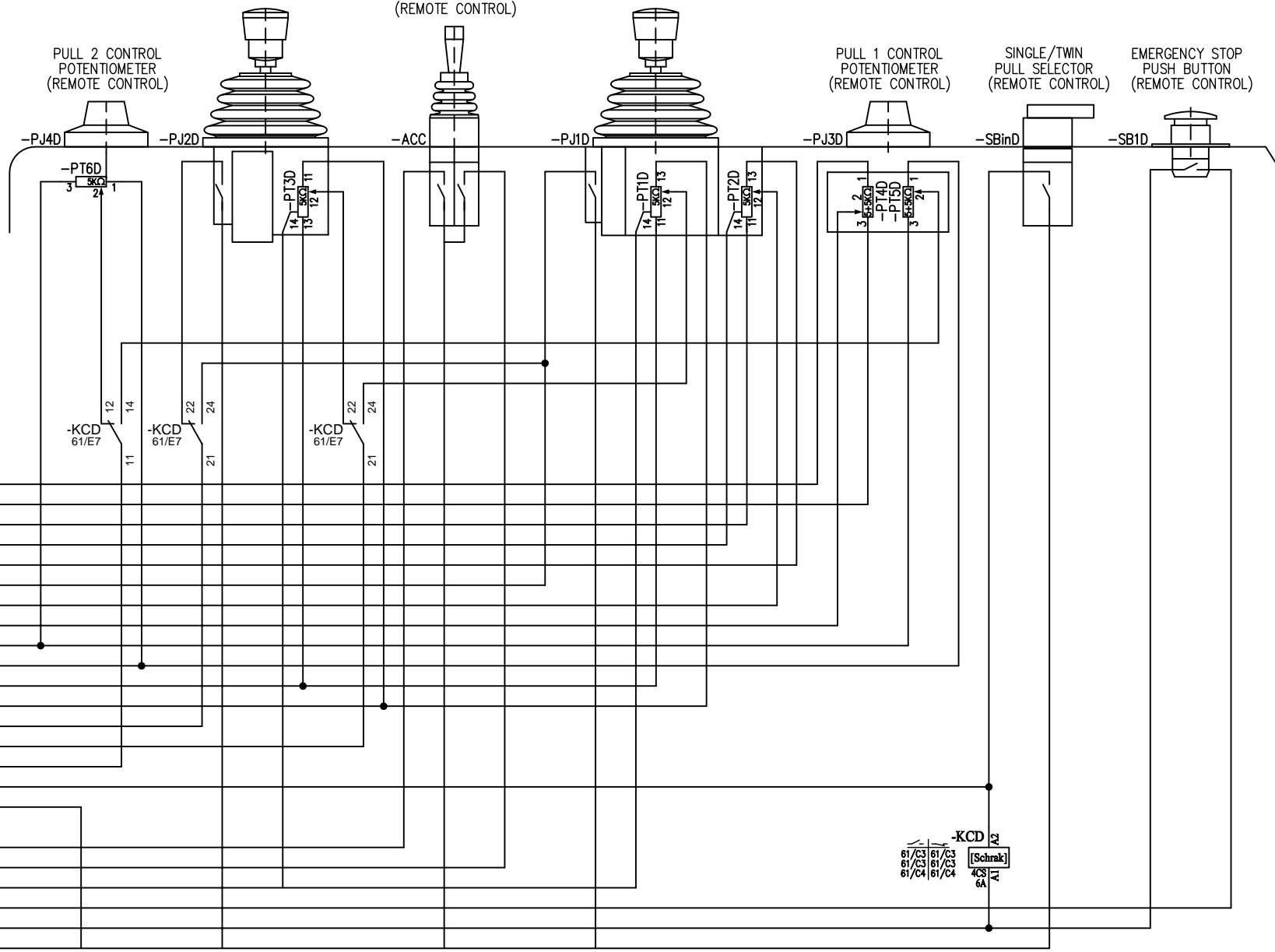
BULL-WHEEL 1 PULL
SETTING SELECTOR
(REMOTE CONTROL)

PULL 2 CONTROL
POTENTIOMETER
(REMOTE CONTROL)

PULL 1 CONTROL
POTENTIOMETER
(REMOTE CONTROL)

SINGLE/TWIN
PULL SELECTOR
(REMOTE CONTROL)

EMERGENCY STOP
PUSH BUTTON
(REMOTE CONTROL)



- POTENZIOMETRO FRENATURA 2 XRC.F 24 () XRC.M 24 ()
- POTENZIOMETRO FRENATURA 2 XRC.F 23 () XRC.M 23 ()
- POTENZIOMETRO CIRCUITO 2 ARGANO XRC.F 22 () XRC.M 22 ()
- 4 FILO POTENZIOMETRO CIRCUITO 2 XRC.F 21 () XRC.M 21 ()
- POTENZIOMETRO CIRCUITO 2 ARGANO XRC.F 20 () XRC.M 20 ()
- circuit 2 brake XRC.F 19 () XRC.M 19 ()
- PILOTAGGIO POMPA CIRCUITO 2 XRC.F 18 () XRC.M 18 ()
- FRENATURA CIRCUITO 2 XRC.F 17 () XRC.M 17 ()
- POTENZIOMETRO FRENATURA 1 XRC.F 16 () XRC.M 16 ()
- POTENZIOMETRO FRENATURA 1 XRC.F 15 () XRC.M 15 ()
- POTENZIOMETRO CIRCUITO1 ARGANO XRC.F 14 () XRC.M 14 ()
- POTENZIOMETRO CIRCUITO1 ARGANO XRC.F 13 () XRC.M 13 ()
- circuit 1 brake XRC.F 12 () XRC.M 12 ()
- PILOTAGGIO POMPA CIRCUITO 1 XRC.F 11 () XRC.M 11 ()
- FRENATURA CIRCUITO 1 XRC.F 10 () XRC.M 10 ()
- SINGOLO-BINATO XRC.F 9 () XRC.M 9 ()
- ABILITAZIONE COMANDO XRC.F 8 () XRC.M 8 ()
- COMANDO ACCELERATORE XRC.F 7 () XRC.M 7 ()
- COMANDO ACCELERATORE XRC.F 6 () XRC.M 6 ()
- COMANDO DECELARAZIONE XRC.F 5 () XRC.M 5 ()
- 4 FILO POTENZIOMETRO CIRCUITO 1 XRC.F 4 () XRC.M 4 ()
- ARRESTO EMERGENZA XRC.F 3 () XRC.M 3 ()
- 0Vcc XRC.F 2 () XRC.M 2 ()
- 24Vcc XRC.F 1 () XRC.M 1 ()

-KCD 61/E7
61/C3 61/C3
61/C3 61/C3
61/C4 61/C4
4CS 6A
[Schrack]



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Electric scheme

OPT. 051 REMOTE CONTROL

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Archive Nr. 40000.0

Sheet 61 of 84

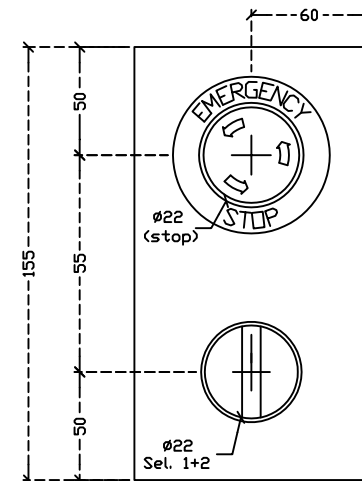
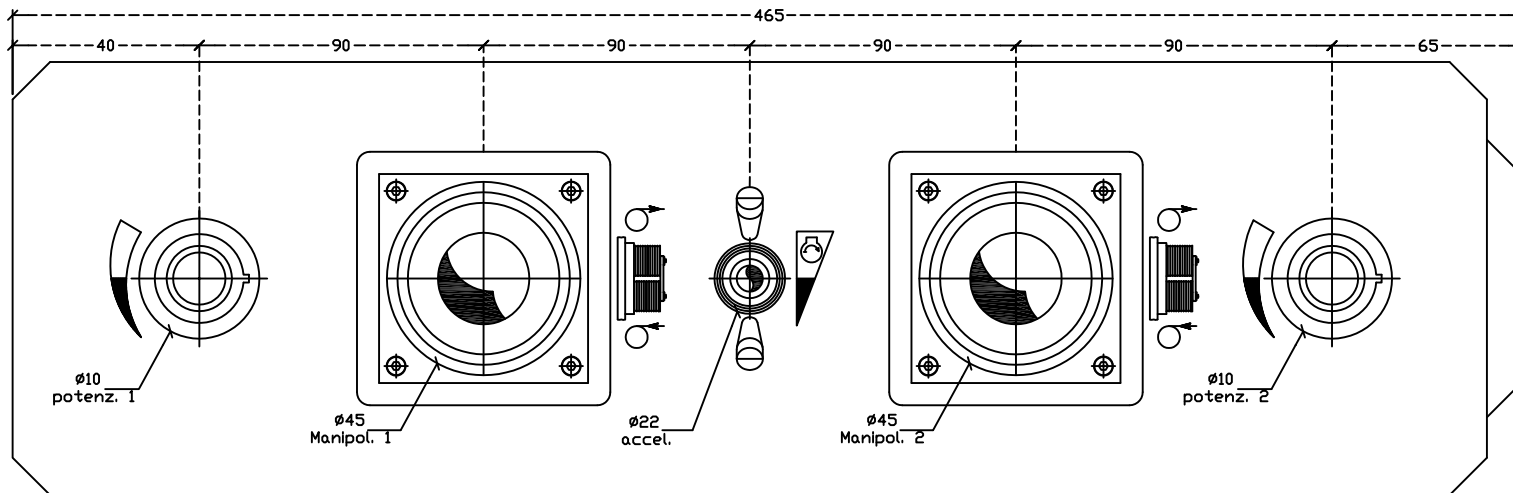
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Design : AFB 506 120

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Date: 29/03/2010

Following 62



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OPT. 051 REMOTE CONTROL

Drawn: Facoetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 62 of 84


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Design : AFB 506 120

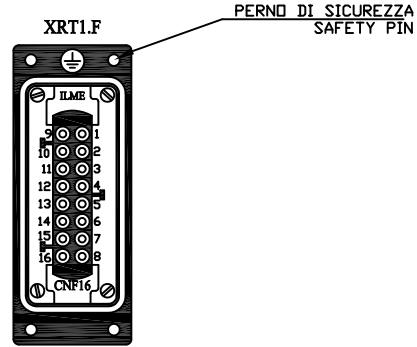
Checked : Ing. Oscar

Date: 29/03/2010

Following 63

	1	2	3	4	5	6	7	8		
	Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción				
A	-ACC	09101196	42/B4	MANIP. 3POS.2INSTAB. CEMA P9 MMN2T	MANIPOLATORE COMANDO ACCELERATORE (COMANDO DISTANZA)	accelerator manipulator control (remote control)				
	-KCD	09102836	42/E7	RELE 24V 6A 4SC SCHRACK PT570024	RELE ABILITAZIONE COMANDO DISTANZA	remote control connecting relay				
	-	09102838	42/E7	ZOCCOLO ES 15/4 N SCHRACK						
B	-PJ1D	00000000	42/B5	ENGINE.PART.....(CODICI MOTORE)	SELETTORE IMPOSTAZIONE TIRO CABESTANO 1 (COMANDO DISTANZA)	bull-wheel 1 pull setting selector (remote control)				
	-PJ2D	00000000	42/B4	ENGINE.PART.....(CODICI MOTORE)	SELETTORE IMPOSTAZIONE TIRO CABESTANO 2 (COMANDO DISTANZA)					
	-PJ3D	09101151	42/B7	POTENZIOMETRO ROTAT. 5K+5K MOD.535	POTENZIOMETRO CONTROLLO TIRO 1 (COMANDO DISTANZA)	pull 1 control potentiometer (remote control)				
	-PJ4D	09101151	42/B3	POTENZIOMETRO ROTAT. 5K+5K MOD.535	POTENZIOMETRO CONTROLLO TIRO 2 (COMANDO DISTANZA)	pull 2 control potentiometer (remote control)				
C	-PT1D	09101732	42/B5	POTENZIOMETRO PD550 5K0/5KO X MANIP.CS0	POTENZIOMETRO	potentiometer				
	-PT2D	09101732	42/B6	POTENZIOMETRO PD550 5K0/5KO X MANIP.CS0	POTENZIOMETRO	potentiometer				
	-PT3D	09101732	42/B4	POTENZIOMETRO PD550 5K0/5KO X MANIP.CS0	POTENZIOMETRO	potentiometer				
	-PT4D	09101173	42/B7	POTENZIOMETRO ROTAT. 5K+5K MOD.534	POTENZIOMETRO	potentiometer				
D	-PT5D	09101173	42/B7	POTENZIOMETRO ROTAT. 5K+5K MOD.534	POTENZIOMETRO	potentiometer				
	-PT6D	09101172	42/B3	POTENZIOMETRO ROTAT. 5K MOD.534	POTENZIOMETRO	potentiometer				
	-SB1D	09101190	42/B8	PULSANTE.STOP.....CEMA...P9.MER4RN	PULSANTE ARRESTO EMERGENZA (COMANDO DISTANZA)	emergency stop push button (remote control)				
E	-	09100941	42/B8	TARGHETTA STOP						
	-	09101193	42/B8	CONTATTO.NA/NC.....CEMA...P9..B11VN						
	-SBinD	09101229	42/B7	SELETT.2POS.FISSE VERDE CEMA P9 MSADOV	SELETTORE TIRO SINGOLO/BINATO (COMANDO DISTANZA)	single/twin pull selector (remote control)				
	-	09101192	42/B7	CONTATTO.NA.....CEMA...P9..B10VN						
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme COMPONENTS LIST		Drawn: Facchetti Drawing Nr. 429460 Archive Nr. 40000.0		Sheet 63 of 84	
	Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375				Design : AFB 506 120		Checked : Ing. Oscar Date: 29/03/2010		Following 64	

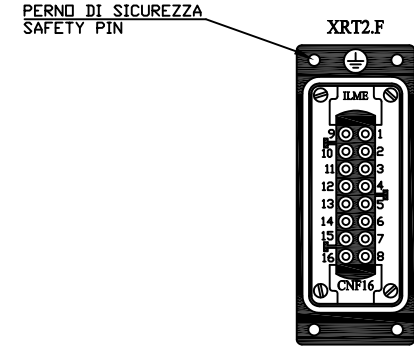
1		2		3		4		5		6		7		8			
Sigla	Codice	Pos.	Descrizione da Archivio Materiali		Qta Tot	Funzione Componente					Traduzione - Traduction Übersetzung - Traducción						
A	- 09101193	42/B7	CONTATTO.NA/NC.....CEMA...P9..B11VN		1 1												
	- 09101203	42/B7	ALIMENTAZIONI.....CEMA...P9..PDNVO		1 1												
	XRC.F	09100100	42/D2	FRUTTO PRESA CNF 24	ILME	1 1	PRESA INTERFACCIA RADIOCOMANDO/COMANDO A DISTANZA					<u>remote / radio control interface socket</u>					
B	XRC.M	09100101	42/D2	FRUTTO SPINA CNM 24	ILME	1 1	PRESA INTERFACCIA RADIOCOMANDO/COMANDO A DISTANZA					<u>remote / radio control interface socket</u>					
C																	
D																	
E																	
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden			Electric scheme			COMPONENTS LIST			Drawn: Facchetti		Drawing Nr. 429460 Archive Nr. 40000.0		Sheet 64 of 84	
	Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375					Design : AFB 506 120			Checked : Ing. Oscar		Date: 29/03/2010		Following 65				



SERIES INSERT ARRANGEMENTS
Polarity Seen Side Contacts

PERNO DI CODIFICA ILME CR20
CODICE 09101245 2xSPINA/PRESA

⊙	⊙	CONFIGURAZIONE
⊙	⊙	COMANDO
M	F	DISTANZA / RADIO
⊙	⊙	CONFIGURAZIONE
⊙	⊙	REGISTRATORE TIRO



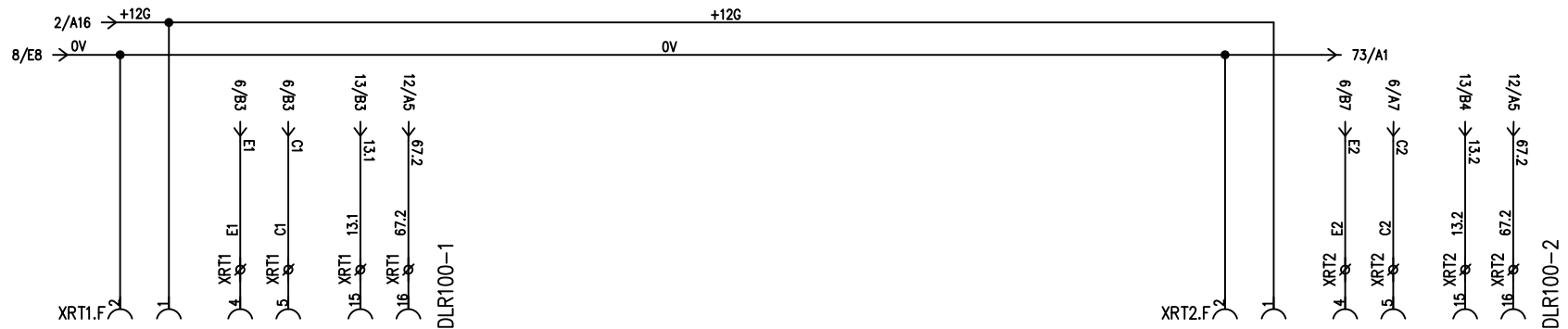
SERIES INSERT ARRANGEMENTS
Polarity Seen Side Contacts

XRT1.F
PRESA INTERFACCIA REGISTRATORE DI TIRO

Pin	Wire	Colour
1	+12G	65/E2
2	0V	65/E2
4	E1	65/E2
5	C1	65/E2
15	13.1	65/E3
16	67.2	65/E3

XRT2.F
PRESA INTERFACCIA REGISTRATORE DI TIRO

Pin	Wire	Colour
1	+12G	65/E7
2	0V	65/E6
4	E2	65/E7
5	C2	65/E7
15	13.2	65/E7
16	69.2	65/E8



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Electric scheme

OPT. 053 ELECTRONIC FIRE RECORDING

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120

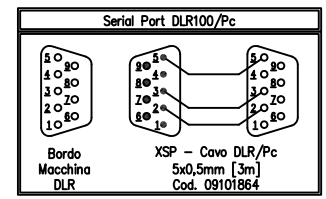
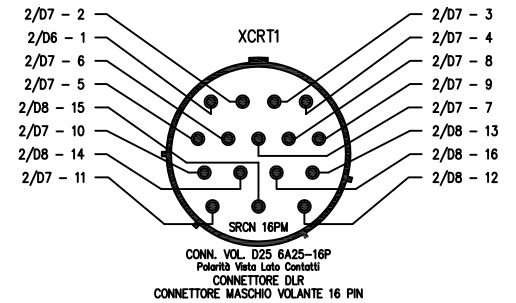
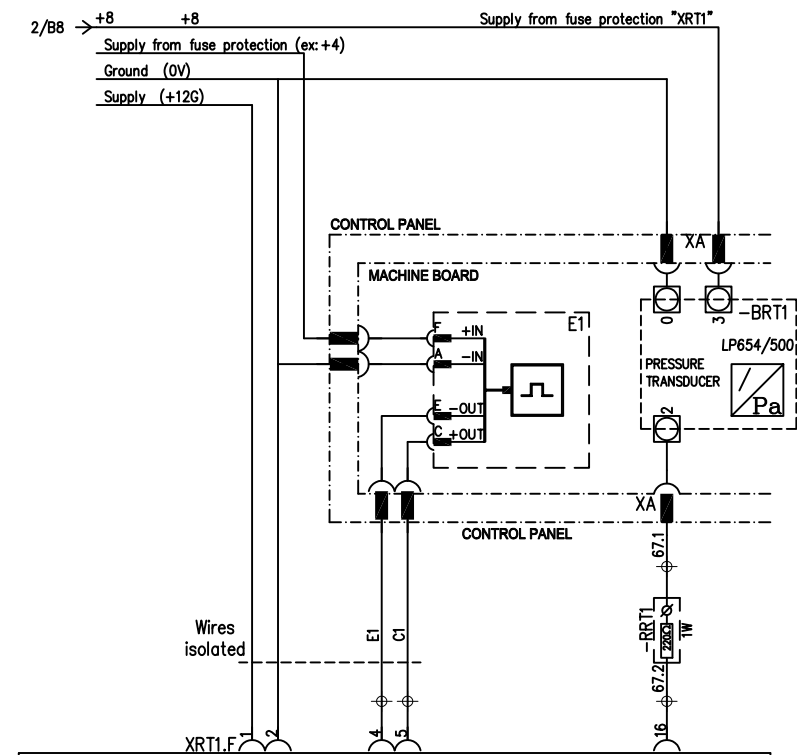
Checked : Ing. Oscar

Date: 29/03/2010

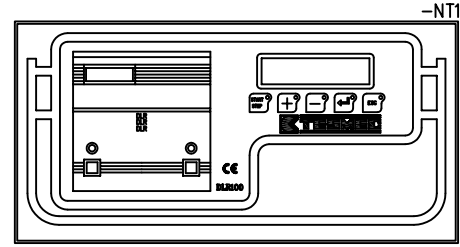
Following 66

	1	2	3	4	5	6	7	8
	Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Qta Tot	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción	
A	XRT1	09103146	42/E1	FUSIBILE VETRO 5X20 0,5 A	1 1	PROTEZIONE TRASDUTTORE DI PRESSIONE	protection pressure transductor	
	-	09101872	42/E1	PORTAFUSIBILE CABUR 5X20 SFRPT	1 1			
	XRT2	09103146	42/E6	FUSIBILE VETRO 5X20 0,5 A	1 1	PROTEZIONE TRASDUTTORE DI PRESSIONE	protection pressure transductor	
B		-	09101872	42/E6	PORTAFUSIBILE CABUR 5X20 SFRPT	1 1		
C								
D								
E								
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme		COMPONENTS LIST	
	Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375				Design : AFB 506 120		Drawn: Facchetti Drawing Nr. 429460 Archive Nr. 40000.0 Sheet 66 of 84	
					Checked : Ing. Oscar		Date: 29/03/2010 Following 67	
	1	2	3	4	5	6	7	8

OPT. 053
ONLY IF SUPPLY



linea	descrizione
+12/24V	PIN.15 Chiave Accensione (-S0)
+12/24G	PIN.30 Chiave Accensione (-S0)
0V	Massa
+6	Linea protetta da fusibile 7,5A



XRT1.M

FRUTTO PRESA CNM 16

PRESA INTERFACCIA REGISTRATORE DI TIRO

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	+12G					
2	0V					
4	E1					
5	C2					
3						
6						
16	TRAS	12/B6				
13						
10						
9						
11						
12						
7						
8						
15	Fc1	12/B4				

CXT - CAVO DLR 10X0,5mm [3m]
COD. 09101863

XCRT1

CONNETTORE MASCHIO VOLANTE 16 PIN

PROLUNGA TIRO

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1						
2						
3						
4						
5						
6						
9						
10						
11						
12						
13						
14						
15						
16						
7						

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	+12G					
2	0V					
4	E1					
5	C2					
3						
6						
16	TRAS	12/B6				
13						
10						
9						
11						
12						
7						
8						
15	Fc1	12/B4				

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	Grigio / Rosa					
2	Verde					
3	Viola					
4	Nero					
5						
6						
9	Rosso					
10	Grigio					
11	Bianco					
12	Rosa					
13	Marrone / Verde					
14						
15						
16						
7						



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Electric scheme

OPT. 053 DLR 100

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 67 of 84

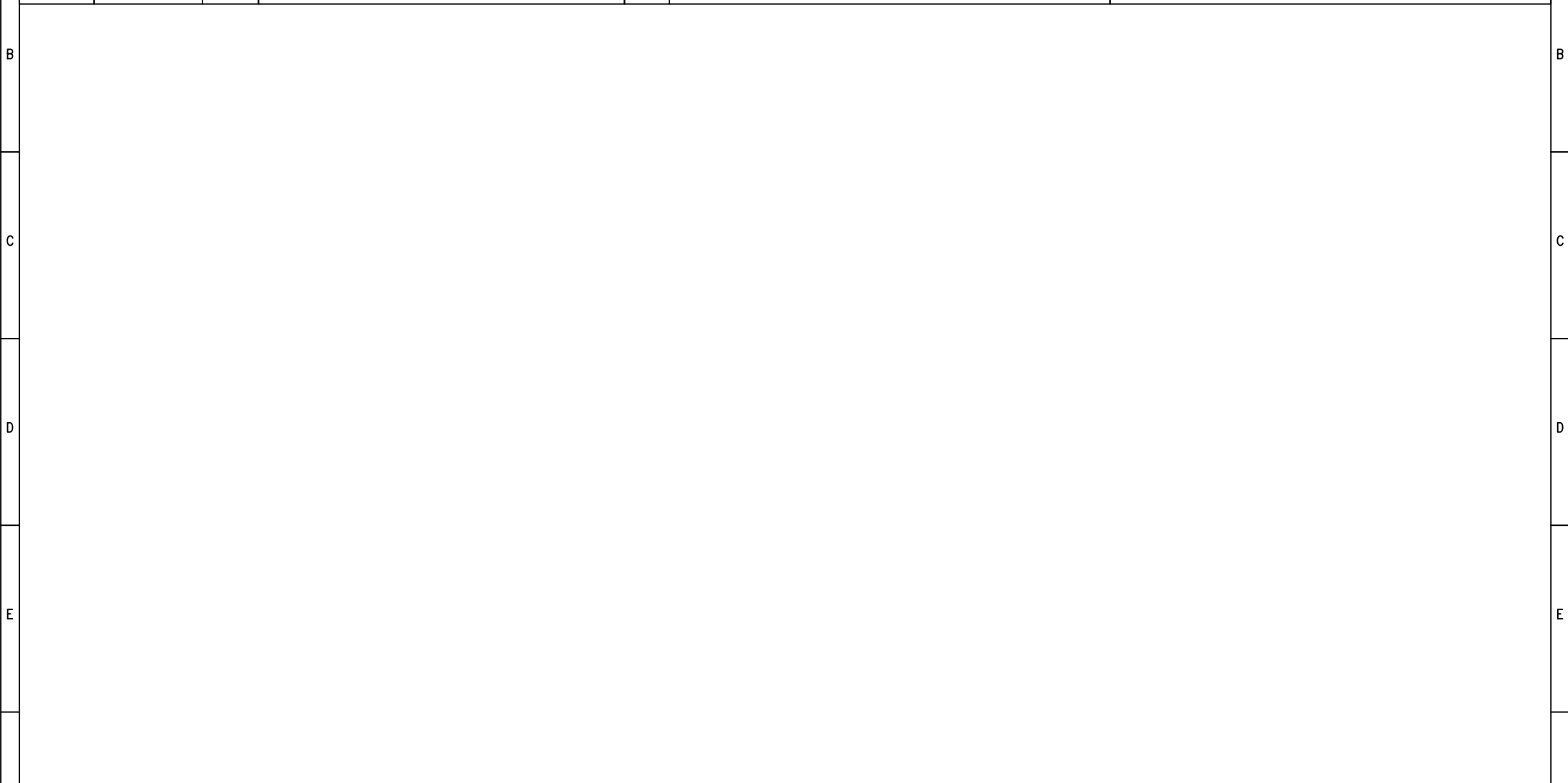
Design : AFB 506 120


Checked : Ing. Oscar

Date: 29/03/2010

Following 68

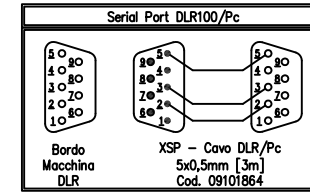
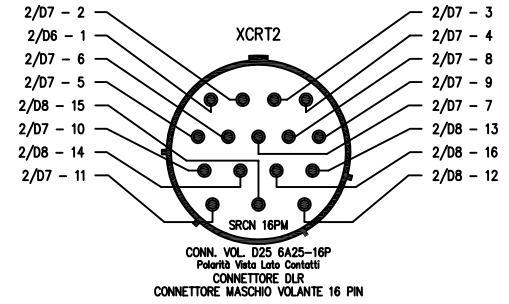
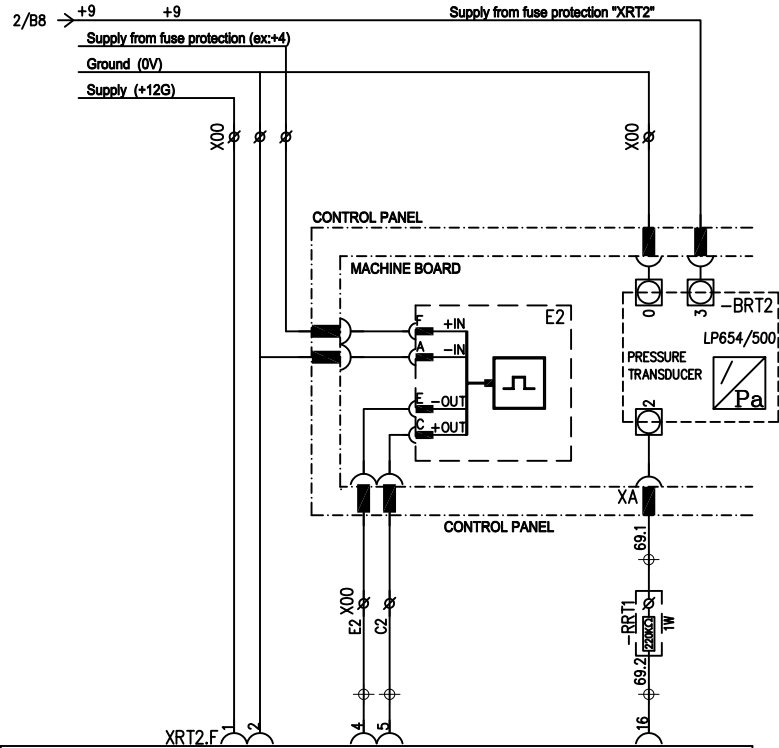
1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
-BRT1	09100414	44/B3	TRASDUTTORE PRESSIONE LP654/500 (EX 624)	TRASDUTTORE PRESSIONE	pressure transducer		
-NT1	09101862	44/D7	REGISTRATORE DI TIRO DLR100	DLR			
-RRT1	09101231	44/C3	RESISTENZA 220 OHM 1.00W RS131-794	RESISTENZA REGISTRATORE DI TIRO	pull recording unit resistance		



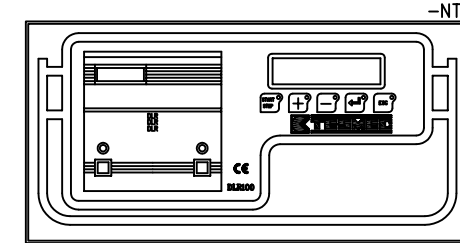
	The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden	Electric scheme	COMPONENTS LIST	Drawn: Facchetti	Drawing Nr. 429460	Sheet 68 of 84
			Design : AFB 506 120	Checked : Ing. Oscar	Archive Nr. 40000.0	

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 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

OPT. 053
ONLY IF SUPPLY



linea	descrizione
+12/24V	PIN.15 Chiave Accensione (-S0)
+12/24G	PIN.30 Chiave Accensione (-S0)
0V	Massa
+6	Linea protetta da fusibile 7,5A



XRT2.M
FRUTTO PRESA CNM 16
PRESA INTERFACCIA REGISTRATORE DI TIRO

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	+12G					
2	0V					
4	E1					
5	C2					
3						
6						
16	TRAS	12/B6				
13						
10						
9						
11						
12						
7						
8						
15	Fc1	12/B4				

CXT - CAVO DLR 10X0,5mm [3m]
COD. 09101863

XCRT2
CONNETTORE MASCHIO VOLANTE 16 PIN
PROLUNGA TIRO

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1						
2						
3						
4						
5						
6						
9						
10						
11						
12						
13						
14						
15						
16						
7						

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	+12G					
2	0V					
4	E1					
5	C2					
3						
6						
16	TRAS	12/B6				
13						
10						
9						
11						
12						
7						
8						
15	Fc1	12/B4				



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Electric scheme

OPT. 053 DLR 100

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120


Checked : Ing. Oscar

Date: 29/03/2010

Following 70

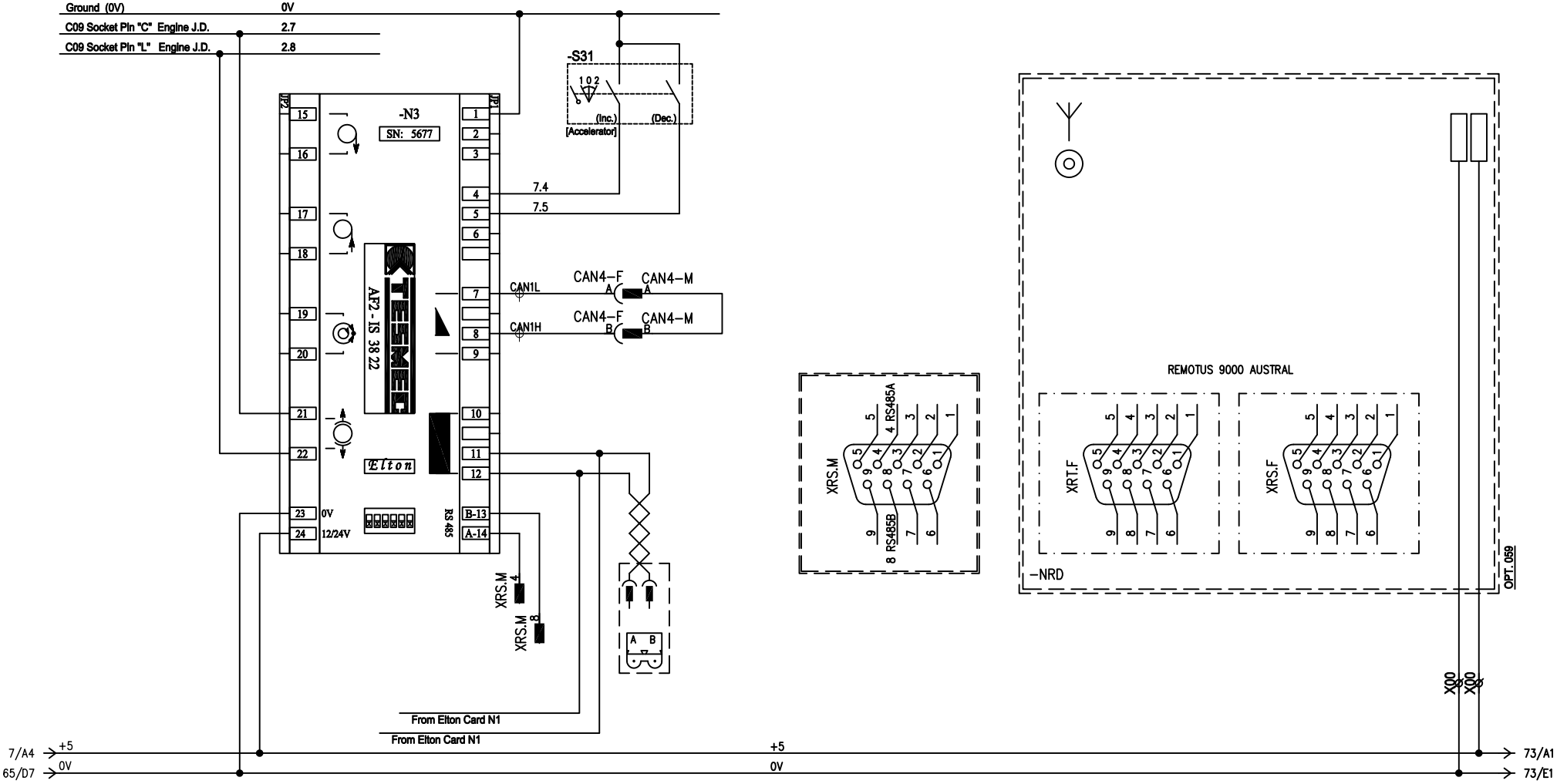
1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Q.tà Tot	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción	
-BRT2	09100414	46/B3	TRASDUTTORE PRESSIONE LP654/500 (EX 624)	1 1	TRASDUTTORE PRESSIONE	pressure transducer	
-NT2	09101862	46/D7	REGISTRATORE DI TIRO DLR100	1 1	DLR		
-RRT2	09101231	46/C3	RESISTENZA 220 OHM 1.00W RS131-794	1 1	RESISTENZA REGISTRATORE DI TIRO	pull recording unit resistance	



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			Design : AFB 506 120	Checked : Ing. Oscar	Archive Nr. 40000.0	

Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445
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Ground (0V)	0V
C09 Socket Pin "C" Engine J.D.	2.7
C09 Socket Pin "L" Engine J.D.	2.8



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Electric scheme

OPT. 059 RADIO CONTROL

Drawn: Facoetti

Drawing Nr. 429460
Archive Nr. 40000.0

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Sede di Enidine Galiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120

Checked : Ing. Oscar

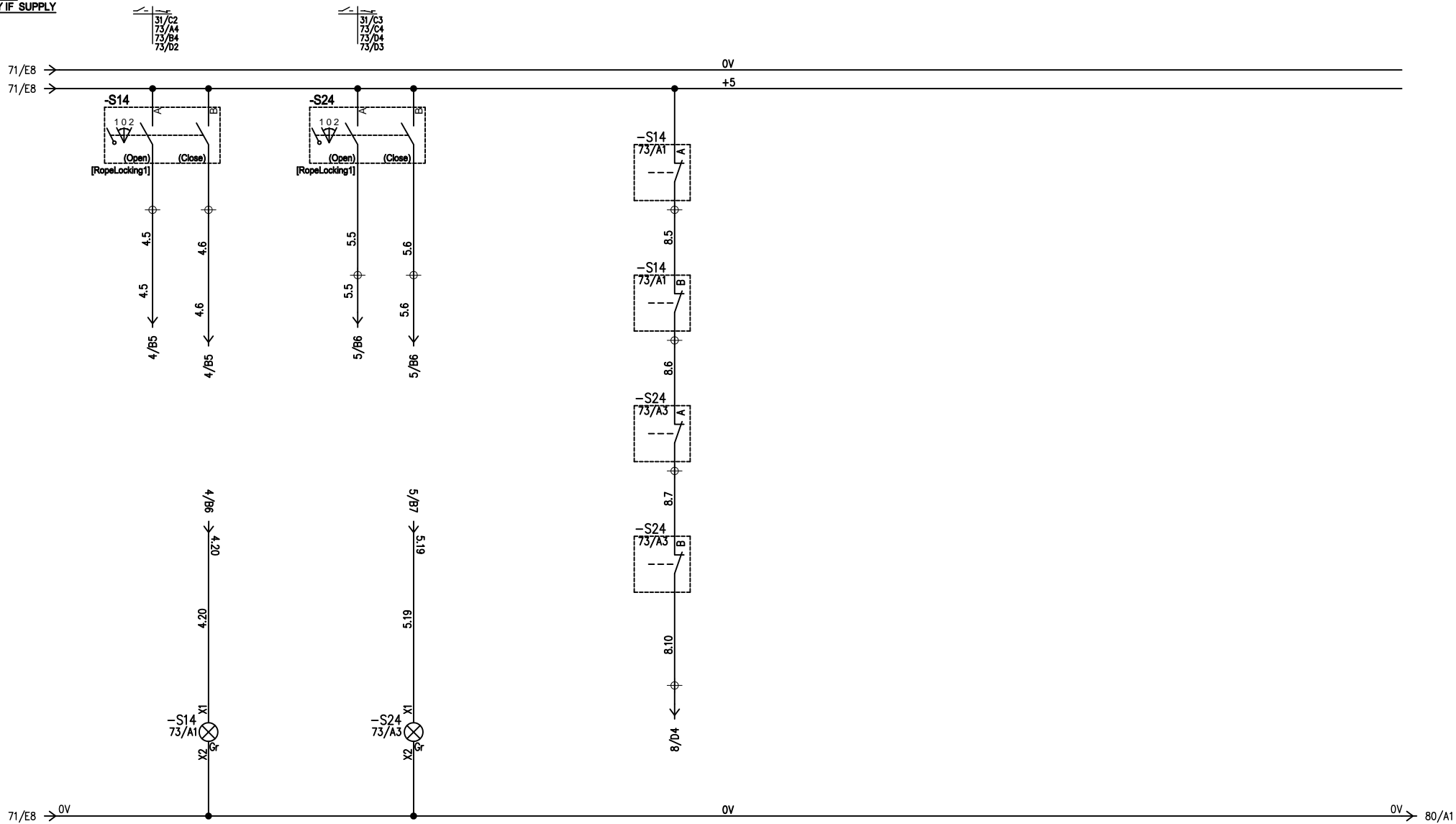
Date: 29/03/2010

Following 72

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Q.tà / Tot	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción	
-N3	09103232	48/B3	SCHEDA AF2-IS 3822 ELTON	1 / 1	SCHEDA ACCELERATORE	accelerator card	
XRS.M	09101790	48/D4	CONNETTORE "D" 9P M SALD.TORN. DM.9SP.TW	1 / 1	PRESA INTERFACCIA RADIOCOMANDO/COMANDO A DISTANZA	remote / radio control interface socket	
	- 09101791	48/D4	GUSCIO X CONNETTORE "D" 9P DF.9HT.TW	1 / 1			
CAN4-F	09102934	71/C4	CONNETTORE CAN 4	1 / 1	CONNETTORE CAN 4		
CAN4-M	09102961	71/C4	CONNETTORE CAN 4	1 / 1	CONNETTORE CAN 4		



OPT. 071
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Electric scheme

OPT. ROPE LOCKING

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

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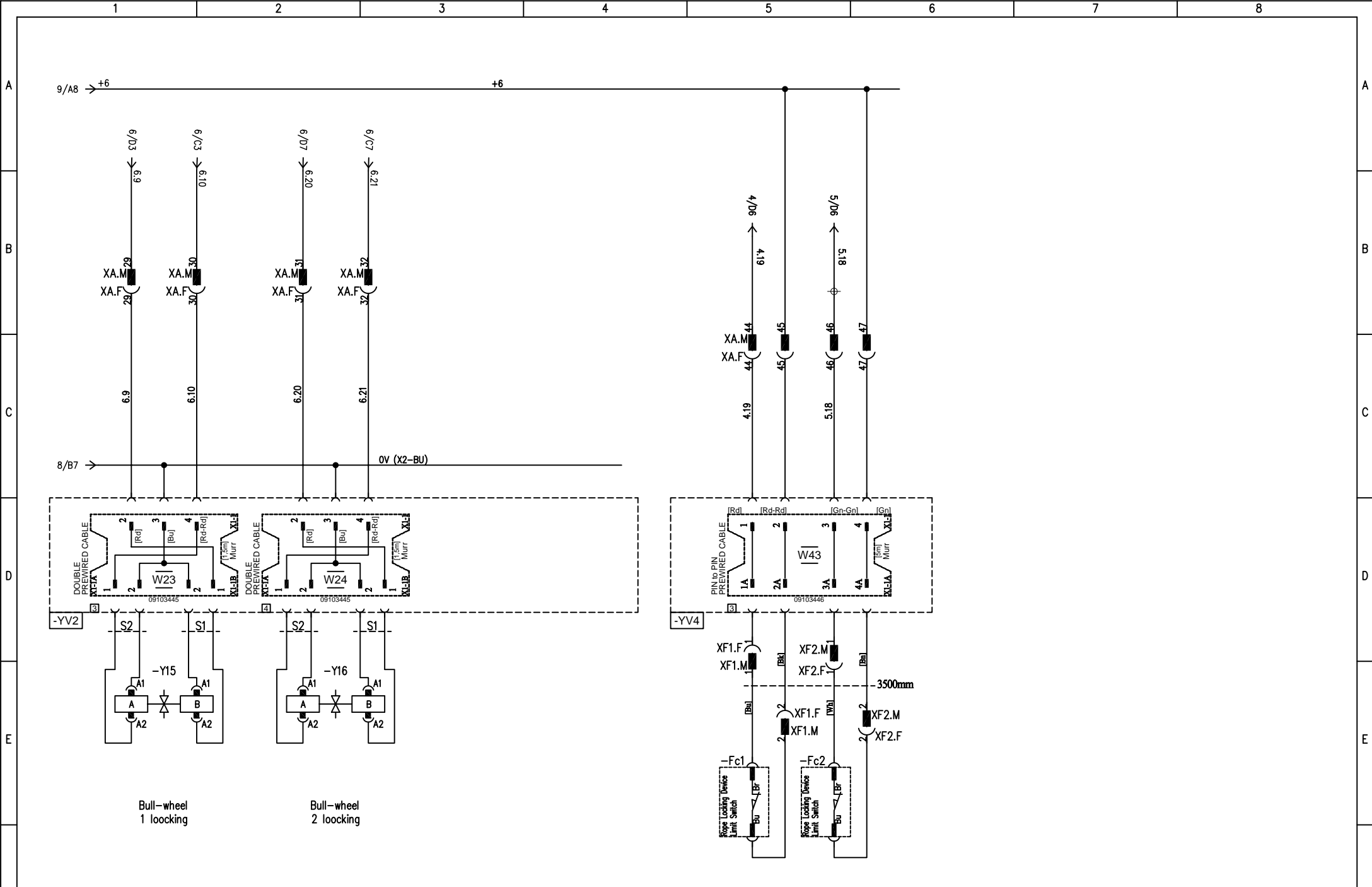
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445
Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

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Electric scheme

OPT. ROPE LOCKING

Drawn: Facoetti

Drawing Nr. 429460
Archive Nr. 40000.0

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Grassobio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445
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Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010


Following 75

1	2	3	4	5	6	7	8		
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción				
A	-Fc1	09102712	51/E5 FINECORSA VL AZ8112 MATSUSHITA	1/1	FINECORSA BLOCCAFUNE CABESTANO 1	bull-wheel 1 rope locking device limit switch			
	-Fc2	09102712	51/E5 FINECORSA VL AZ8112 MATSUSHITA	1/1	FINECORSA BLOCCAFUNE CABESTANO 1	bull-wheel 1 rope locking device limit switch			
	-K8	09103174	50/D4 RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	1/1	RELE SICUREZZA BLOCCAFUNE	rope locking clamp safety relay			
B	-	09102616	50/D4 MODULO..DIODO+LED..6~24V..FINDER.99.01.9	1/1					
	-	09103235	50/D4 ZOCCOLETTO.SERIE.40.....FINDER.95.05	1/1					
	-K21	09103174	50/D2 RELE..12V..8A.2SC FINDER [CIRC.STAMPATO]	1/1	RELE FINECORSA CABESTANO 2	bull-wheel 2 limit switch relay			
	-	09102616	50/D2 MODULO..DIODO+LED..6~24V..FINDER.99.01.9	1/1					
C	-	09103235	50/D2 ZOCCOLETTO.SERIE.40.....FINDER.95.05	1/1					
	-S14	09101440	50/A1 SELETT.3POS.INST. VERDE CEMA P9 MSAZ3V	1/1	SELETTORE COMANDO BLOCCAFUNE 1	rope locking clamp 1 selector			
	-	09101193	50/A1 CONTATTO.NA/NC.....CEMA...P9..B11VN	2/2					
	-	09101203	50/A1 ALIMENTAZIONI.....CEMA...P9..PDNVO	1/1					
D	-S24	09101440	50/A3 SELETT.3POS.INST. VERDE CEMA P9 MSAZ3V	1/1	SELETTORE COMANDO BLOCCAFUNE 1	rope locking clamp 1 selector			
	-	09101193	50/A3 CONTATTO.NA/NC.....CEMA...P9..B11VN	2/2					
	-	09101203	50/A3 ALIMENTAZIONI.....CEMA...P9..PDNVO	1/1					
E	W23	09103445	51/D1 CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR	1/1	DOUBLE PREWIRED CABLE				
	W24	09103445	51/D2 CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR	1/1	DOUBLE PREWIRED CABLE				
	W25	09103445	51/D3 CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR	1/1	SINGLE PREWIRED CABLE				
	W27	09103445	51/D4 CONNETTORE M12 "A" 2SOLEN+LED L=1,5 MURR	1/1	SINGLE PREWIRED CABLE				
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme		COMPONENTS LIST		
Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375				Design : AFB 506 120		Drawn: Facchetti Checked : Ing. Oscar		Drawing Nr. 429460 Archive Nr. 40000.0 Date: 29/03/2010 Sheet 75 of 84 Following 76	

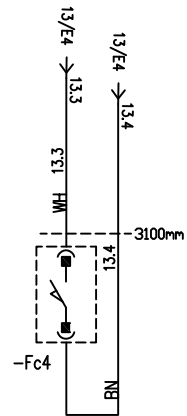
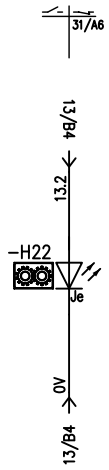
1	2	3	4	5	6	7	8	
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción			
A	W43	09103446	51/D5	CONNETTORE M12 + 4 FILI L=5,0 MURR	1 1	PIN to PIN PREWIRED CABLE		
	XA.F	09102936	51/B1	CONNETT.PORTAFEMMINE DRC 16-70SA DEUTSCH	1 1	CONNETTORE DISTRIBUZIONE MACCHINA	machine feeder joint	
	-	09102938	51/B1	COPERTURA POSTERIORE "BOOTS" DRC 70-BT	1 1			
B	XA.M	09103136	51/B1	CONNETT.PORTAMASCHI DRC 12-70PA DEUTSCH	1 1	CONNETTORE DISTRIBUZIONE MACCHINA	machine feeder joint	
	XF1.F	09102708	51/D5	CONNETTORE PORTAFEMMINE 4P AMP SUPERSEAL	1 1	CONNETTORE MORSA	clamp limit joint	
	-	09102705	51/D5	CONTATTO FEMMINA S.1,0/1,5 AMP SUPERSEAL	A A			
	-	09102726	51/D5	GOMMINO PASSACAVO 2,6/3,3 AMP SUPERSEAL	B B			
C	XF1.M	09102709	51/D5	CONNETTORE PORTAMASCHI 4P AMP SUPERSEAL	1 1	CONNETTORE MORSA	clamp limit joint	
	-	09102703	51/D5	CONTATTO MASCHIO S.1,0/1,5 AMP SUPERSEAL	A A			
	-	09102726	51/D5	GOMMINO PASSACAVO 2,6/3,3 AMP SUPERSEAL	B B			
D	XF2.F	09102708	51/E6	CONNETTORE PORTAFEMMINE 4P AMP SUPERSEAL	1 1	CONNETTORE MORSA	clamp limit joint	
	-	09102705	51/E6	CONTATTO FEMMINA S.1,0/1,5 AMP SUPERSEAL	A A			
	-	09102726	51/E6	GOMMINO PASSACAVO 2,6/3,3 AMP SUPERSEAL	B B			
E	XF2.M	09102709	51/E6	CONNETTORE PORTAMASCHI 4P AMP SUPERSEAL	1 1	CONNETTORE MORSA	clamp limit joint	
	-	09102703	51/E6	CONTATTO MASCHIO S.1,0/1,5 AMP SUPERSEAL	A A			
	-	09102726	51/E6	GOMMINO PASSACAVO 2,6/3,3 AMP SUPERSEAL	B B			
	-Y10	99999999	51/E3	IDRAULIC.PART.....(CODICE IDRAULICO)	1 1	ELETTRORVALVOLA ABILITAZIONE VOMERE/PRESSA/VENTOLA RADIATORE	insertion hydraulic plough/compressor/fan radiator solenoid valv	
	-Y15	99999999	51/E1	IDRAULIC.PART.....(CODICE IDRAULICO)	1 1	ELETTRORVALVOLA CILINDRO BLOCCAFUNE 1	bull-wheel 1 locking rope device control solenoid valve	
F			The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden		Electric scheme COMPONENTS LIST		Drawn: Facchetti Drawing Nr. 429460 Archive Nr. 40000.0 Sheet 76 of 84	
				Design : AFB 506 120		Checked : Ing. Oscar Date: 29/03/2010 Following 77		

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
-Y16	99999999	51/E2	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTROVALVOLA CILINDRO BLOCCAFUNE 2	bull-wheel 2 locking rope device control solenoid valve		
-Y17	99999999	51/E4	IDRAULIC.PART.....(CODICE IDRAULICO)	ELETTROVALVOLA COMANDO PRESSA	compressor control solenoid valve		



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			Design : AFB 506 120	Checked : Ing. Oscar	Archive Nr. 40000.0	

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 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375



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Electric scheme

opt. 084 2° gearbox

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 78 of 84

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120


Checked : Ing. Oscar

Date: 29/03/2010

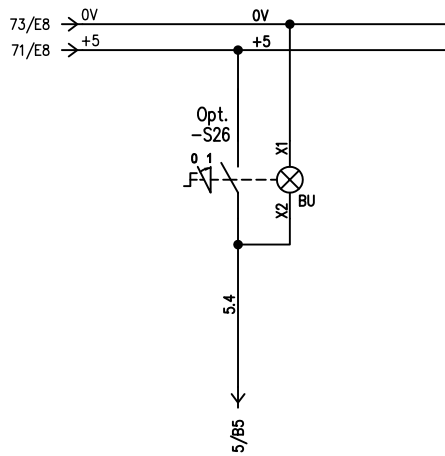
Following 79

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción		
-Fc4	09102712	55/D2	FINECORSVA VL AZ8112 MATSUSHITA	FINCORSVA DI FRENATURA CABESTANO 2	fine braking limit switch bull-wheel 2		
-H22	09102848	55/A2	INDICATORE LED GIALLO 12VC SERIE677 MARL	RELE SPIA RIDUTTORE FRENATURA RIDOTTA	low tension position gearbox pilot lamp relay		



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			Design : AFB 506 120	Checked : Ing. Oscar	Archive Nr. 40000.0	

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Electric scheme

OPT. 088 SYNCRONISER SPEED

Drawn: Facoetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 80 of 84

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

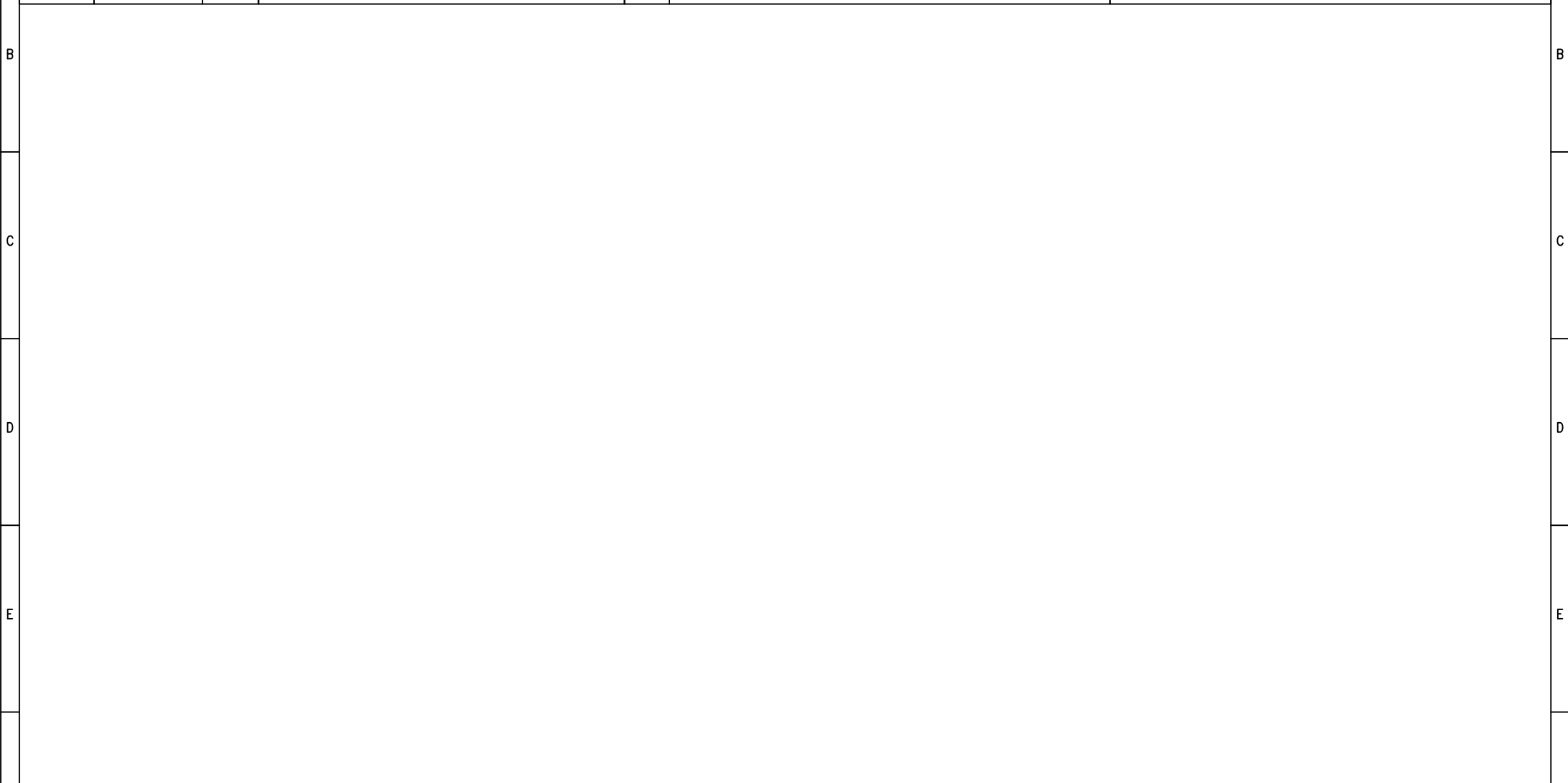
Design : AFB 506 120


Checked : Ing. Oscar

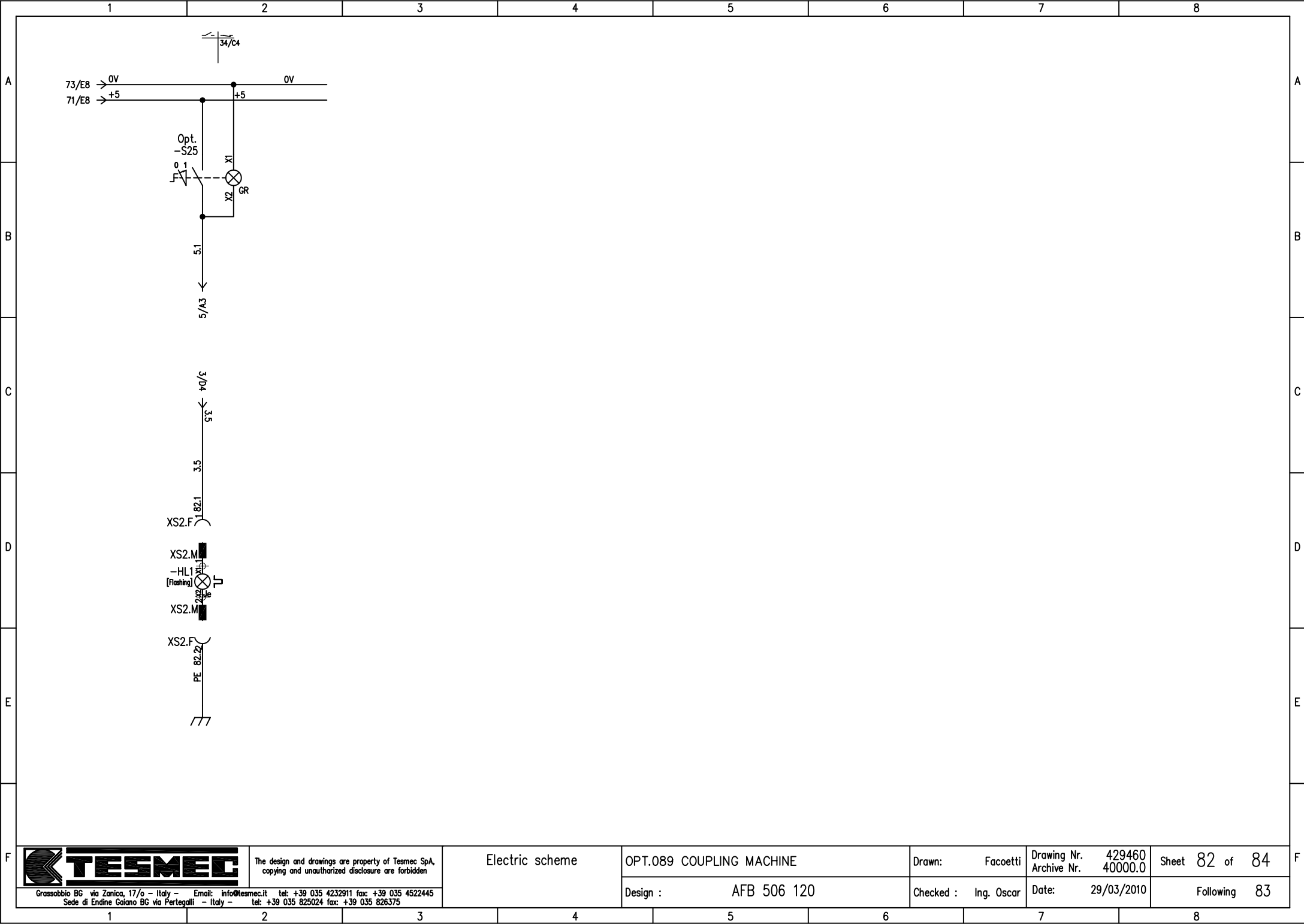
Date: 29/03/2010

Following 81

1	2	3	4	5	6	7	8
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Q.tà Tot	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción	
-S26	09101448	57/A2	SELETT.2POS.FISSE BLU CEMA P9 MSADOL	1 1	SELETTORE SINCRONISMO DI VELOCITA	speed synchronizing selector	
-	09101192	57/A2	CONTATTO.NA.....CEMA...P9..B10VN	2 2			
-	09101203	57/A2	ALIMENTAZIONI.....CEMA...P9..PDNVO	1 1			



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		Design : AFB 506 120	Checked : Ing. Oscar	Archive Nr. 40000.0	



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Electric scheme

OPT.089 COUPLING MACHINE

Drawn: Facoetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 82 of 84

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

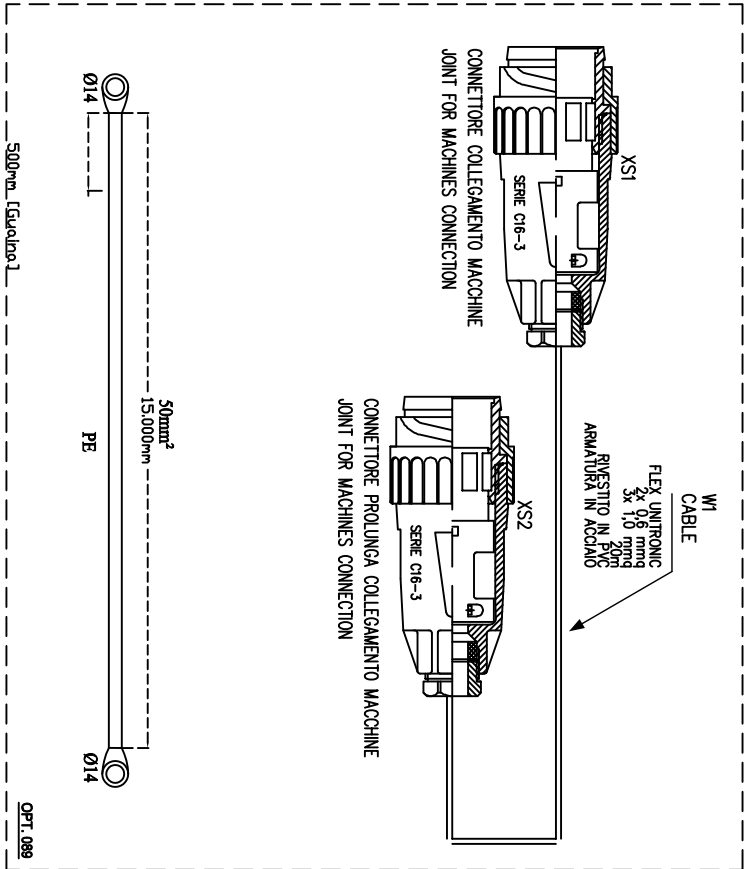
Design : AFB 506 120

Checked : Ing. Oscar

Date: 29/03/2010

Following 83

OPT. 089
ONLY IF SUPPLY



Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	CAN1H	4/D3				
2	CAN1L	4/D3				
3	0V	4/E3				
4						
5	SCH	4/E3				

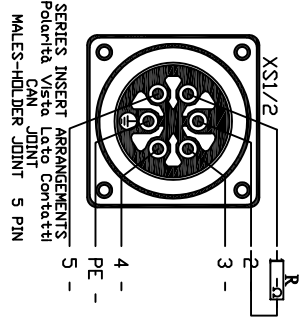
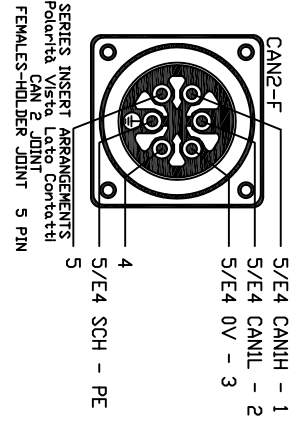
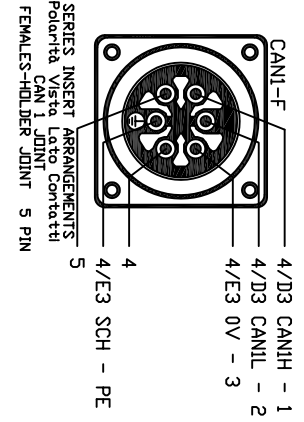
CAN1-F
CONNETTORE CAN 1

Tipo SERIE C16-3 AMPHENOL

Pin	Filo	Posizione	Lunghezza (mm)	Sezione (mmq)	Colore	Designazione
1	CAN1H	5/E4				
2	CAN1L	5/E4				
3	0V	5/E4				
4						
5	SCH	5/E4				

CAN2-M
CONNETTORE CAN 2

Tipo SERIE C16-3 AMPHENOL



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Electric scheme

OPT.089 COUPLING MACHINE

Drawn: Facchetti

Drawing Nr. 429460
Archive Nr. 40000.0

Sheet 83 of 84

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Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375

Design : AFB 506 120


Checked : Ing. Oscar

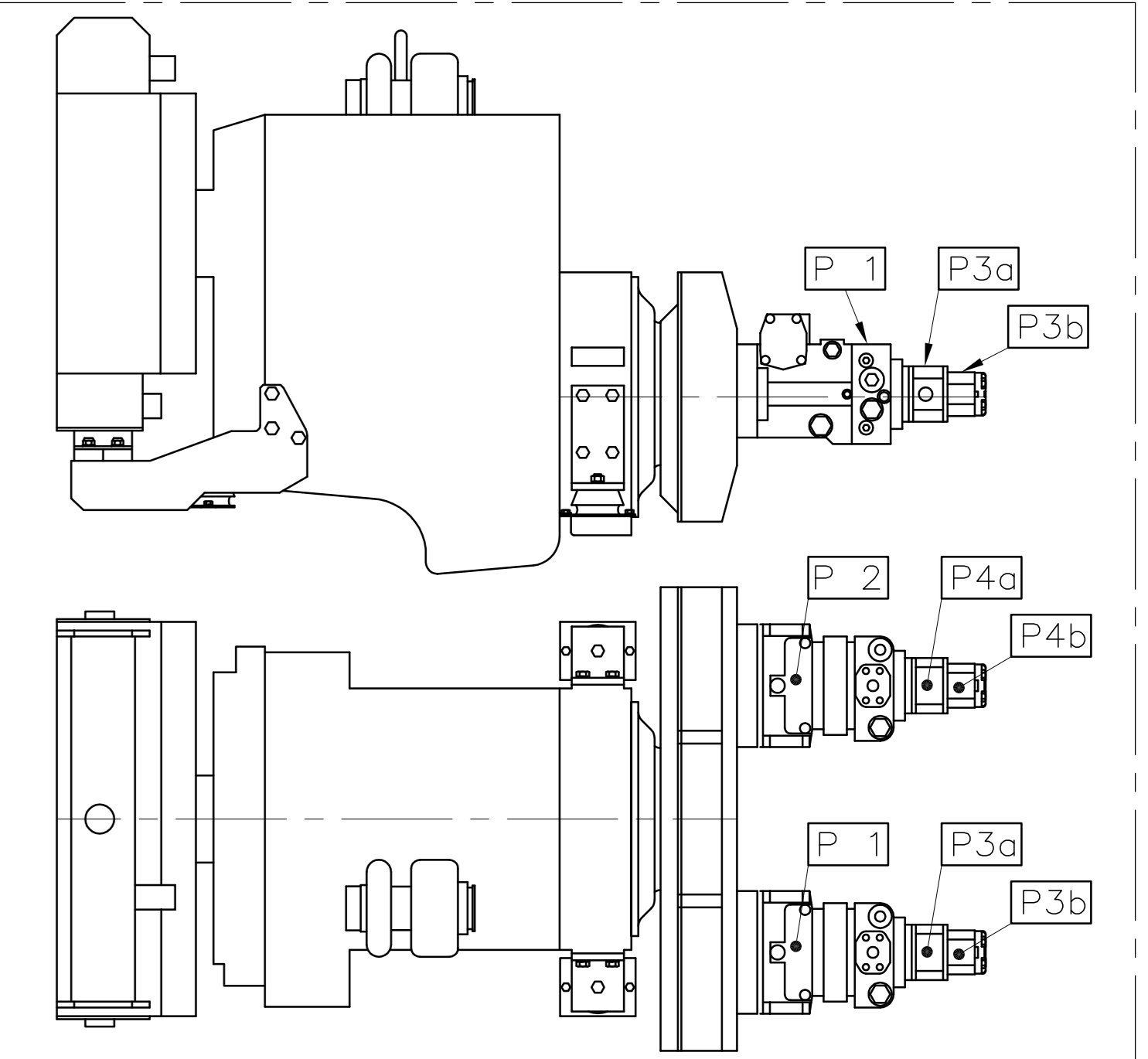
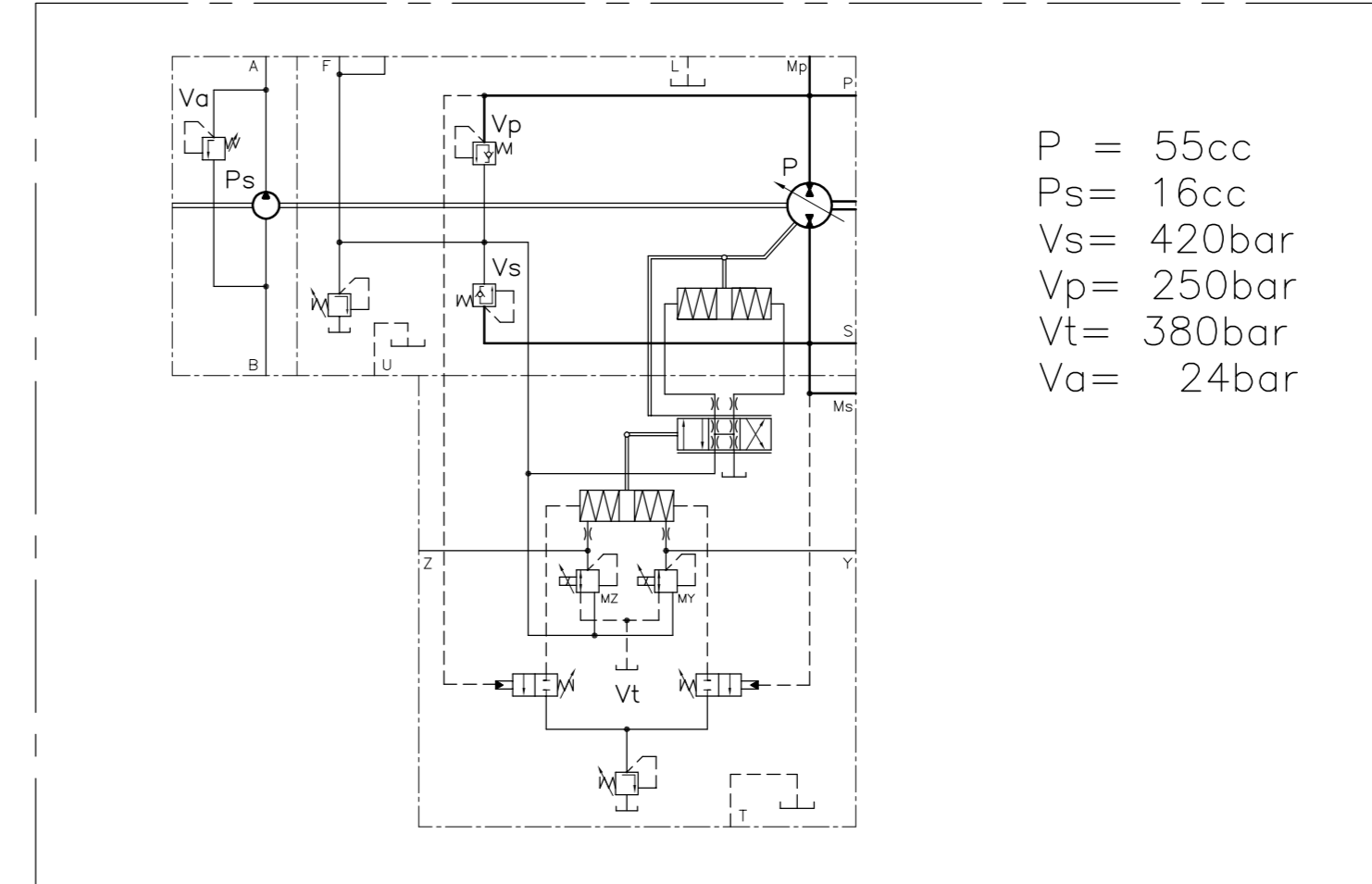
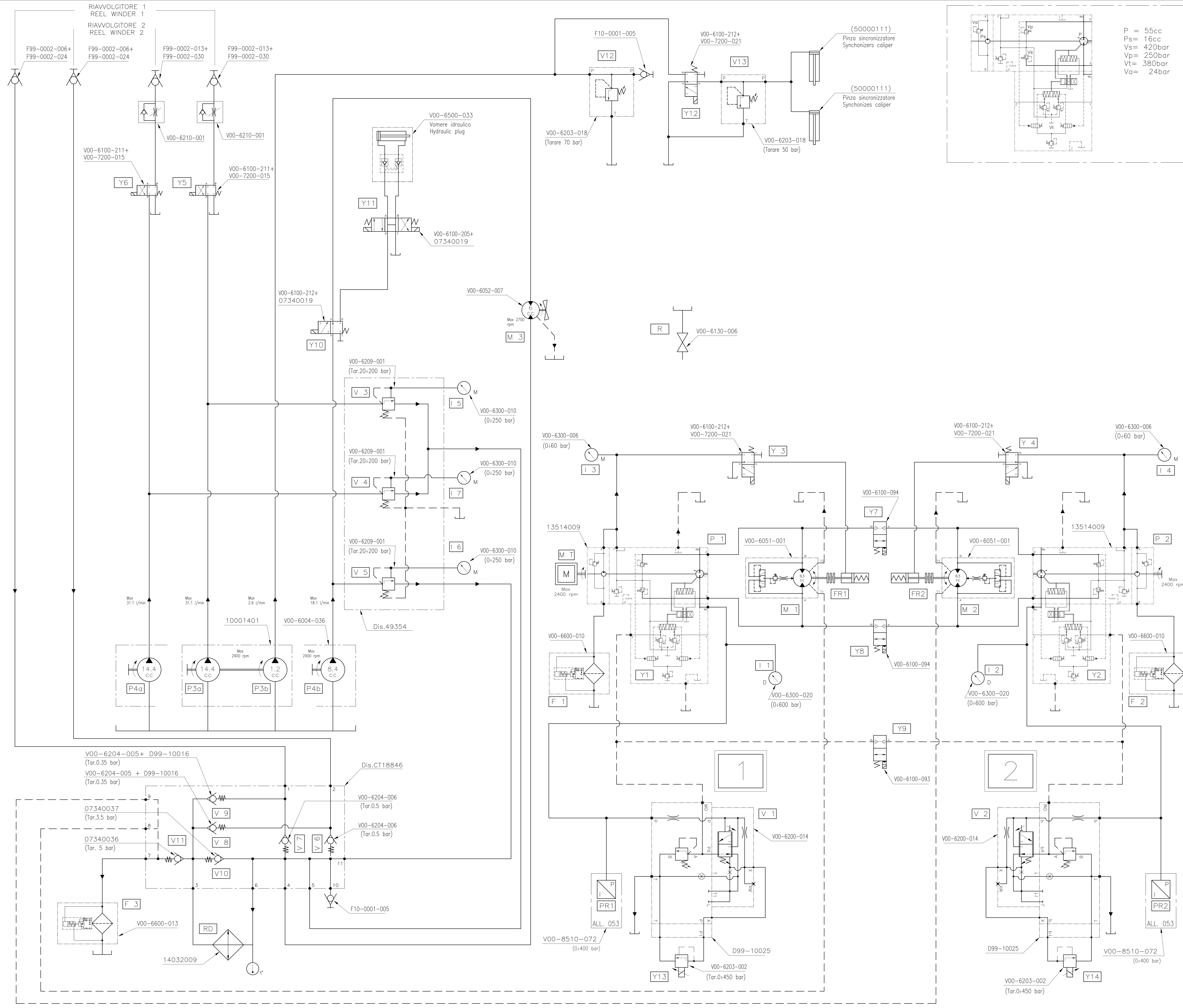
Date: 29/03/2010

Following 84

1	2	3	4	5	6	7	8	
Sigla	Codice	Pos.	Descrizione da Archivio Materiali	Funzione Componente	Traduzione - Traduction Übersetzung - Traducción			
A	-HL1	09102473	61/D2	LAMPADA XENON "REVOLUX" 35.0106.0000COBO	Λ Λ	LAMPEGGIATORE	flashing	A
	-	09102474	61/D2	SUPPORTO TUBOLARE XENON 35.001.520 COBO	Λ Λ			
	-S25	09101229	61/A2	SELETT.2POS.FISSE VERDE CEMA P9 MSADOV	Λ Λ	SELETTORE ACCOPPIAMENTO MACCHINE	selector for coupling machines	
B		-	09101192	61/A2	CONTATTO.NA.....CEMA...P9..B10VN	Λ Λ		B
		-	09101193	61/A2	CONTATTO.NA/NC.....CEMA...P9..B11VN	Λ Λ		
		-	09101203	61/A2	ALIMENTAZIONI.....CEMA...P9..PDNVO	Λ Λ		
	W1	09103420	62/C3	CAVO FLES. 2X0,60+3X1,0 UNITRONIC RIVEST	Λ Λ	CAVO COLLEGAMENTO MACCHINE	cable for machines connection	
C	XS1	09103428	62/B3	CONNETTORE MASCHIO VOLANTE 5 PIN	Λ Λ	CONNETTORE COLLEGAMENTO MACCHINE	joint for machines connection	C
		-	09103430	62/B3	TAPPO X CONNETTORE MASCHIO 5 PIN	Λ Λ		
	XS2	09103428	62/C3	CONNETTORE MASCHIO VOLANTE 5 PIN	Λ Λ	CONNETTORE PROLUNGA COLLEGAMENTO MACCHINE	extension socket for machines connection	
D		-	09103430	62/C3	TAPPO X CONNETTORE MASCHIO 5 PIN	Λ Λ		D
	XS2.F	09100421	61/E2	CONNETTORE 2 VIE PORTAFEMMINE MTA4410180	Λ Λ	CONNETTORE DISPOSITIVO LAMPEGGIANTE	lighting device joint	
	XS2.M	09100422	61/D2	CONNETTORE 2 VIE PORTAMASCHI MTA4410170	Λ Λ	CONNETTORE DISPOSITIVO LAMPEGGIANTE	lighting device joint	

E

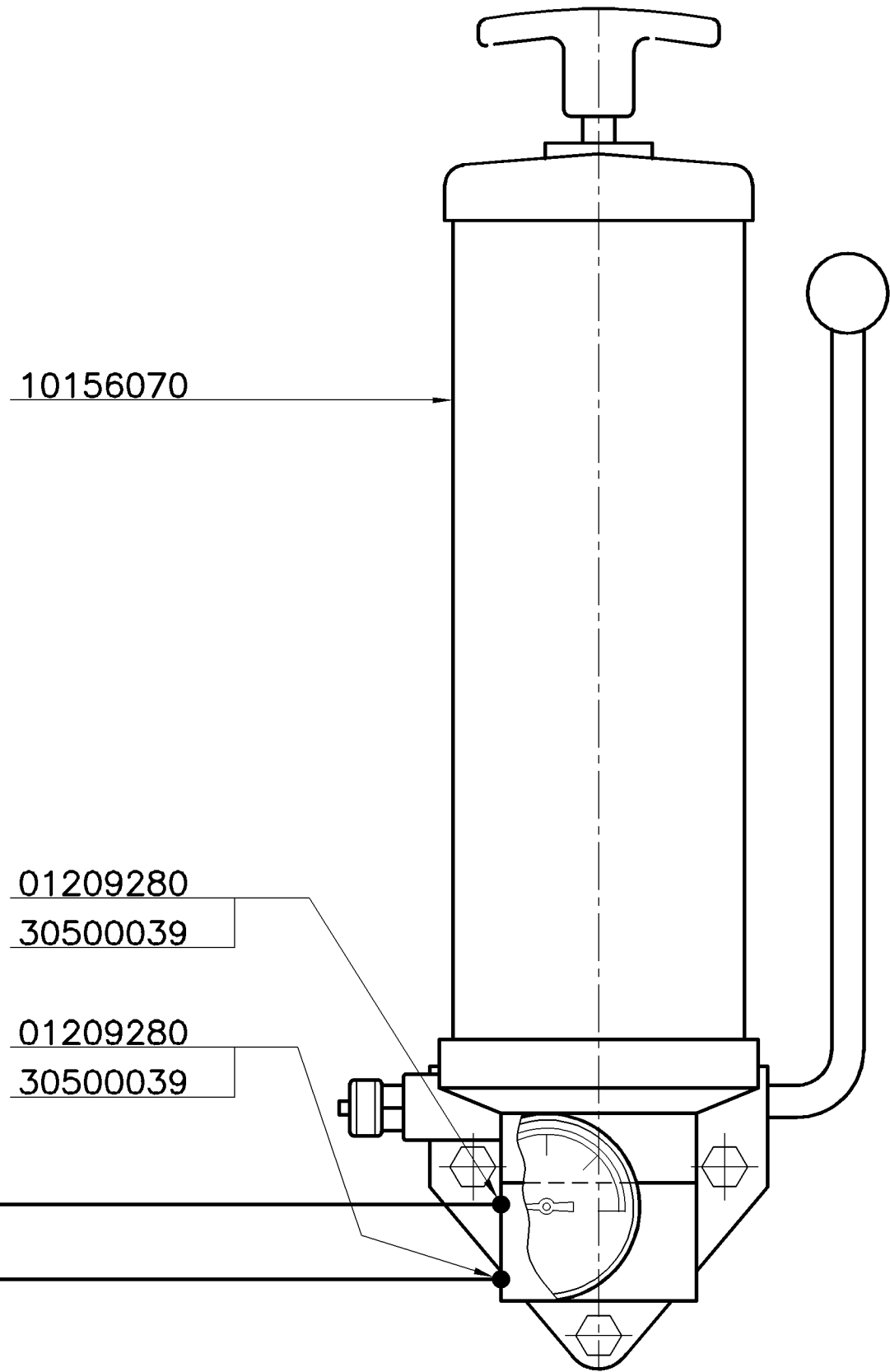
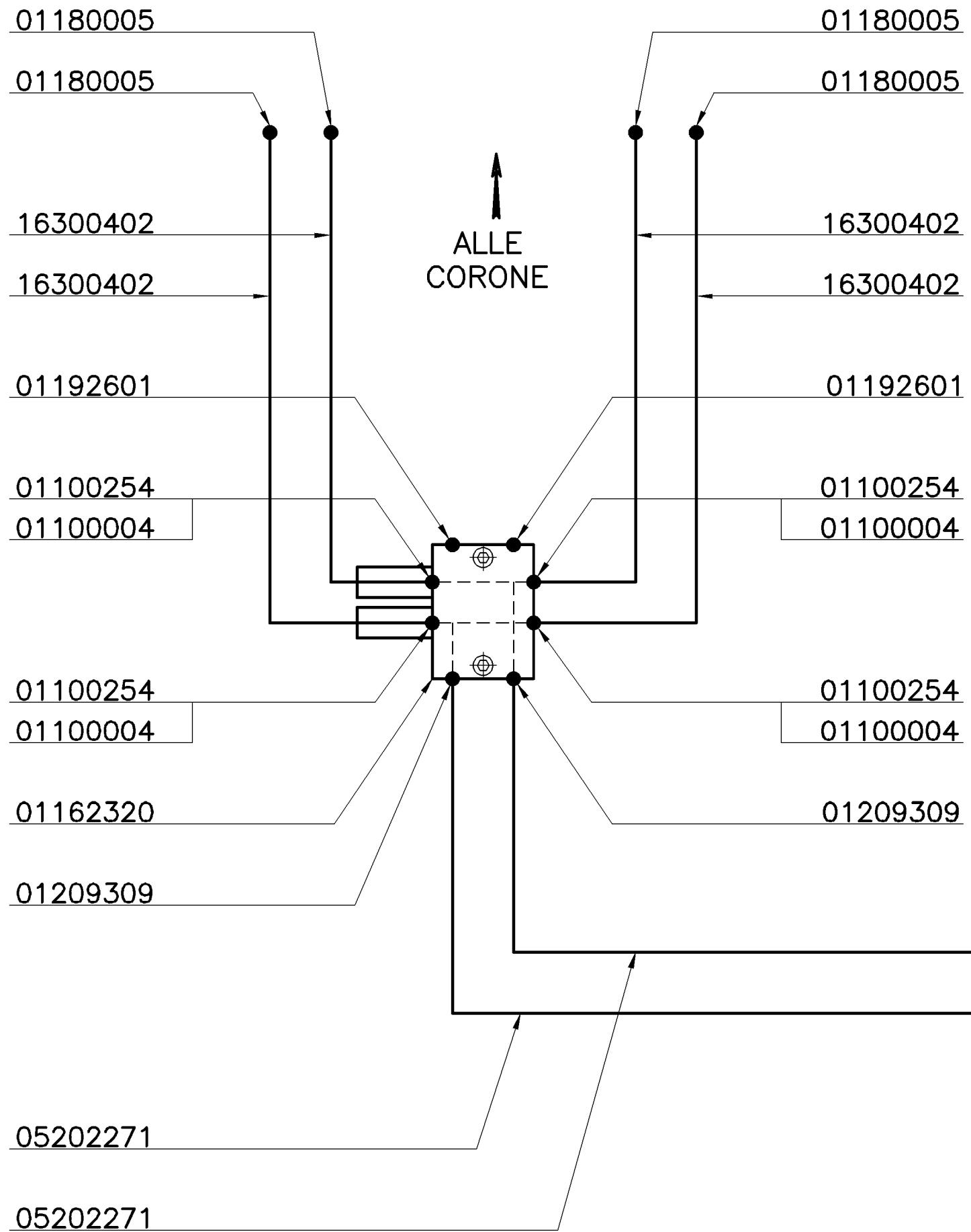
 <p>The design and drawings are property of Tesmec SpA, copying and unauthorized disclosure are forbidden</p> <p>Grassobbio BG via Zanica, 17/a - Italy - Email: info@tesmec.it tel: +39 035 4232911 fax: +39 035 4522445 Sede di Endine Gaiano BG via Pertegalli - Italy - tel: +39 035 825024 fax: +39 035 826375</p>	Electric scheme	COMPONENTS LIST	Drawn: Facchetti	Drawing Nr. 429460	Sheet 84 of 84
		Design : AFB 506 120	Checked : Ing. Oscar	Archive Nr. 40000.0	



- V00-6600-013 Filtro completo 1 Pz. Hydraulic filter 1 Pcs.
- V00-6600-024 Cartuccia 1 Pz. Disposable filter 1 Pcs.
- 03010024 Intasatore 1 Pz. Clogging filter 1 Pcs.
- V00-6600-010 Filtro completo 1 Pz. Hydraulic filter 1 Pcs.
- V00-6600-011 Cartuccia 1 Pz. Disposable filter 1 Pcs.
- V00-8510-008 Intasatore 1 Pz. Clogging filter 1 Pcs.

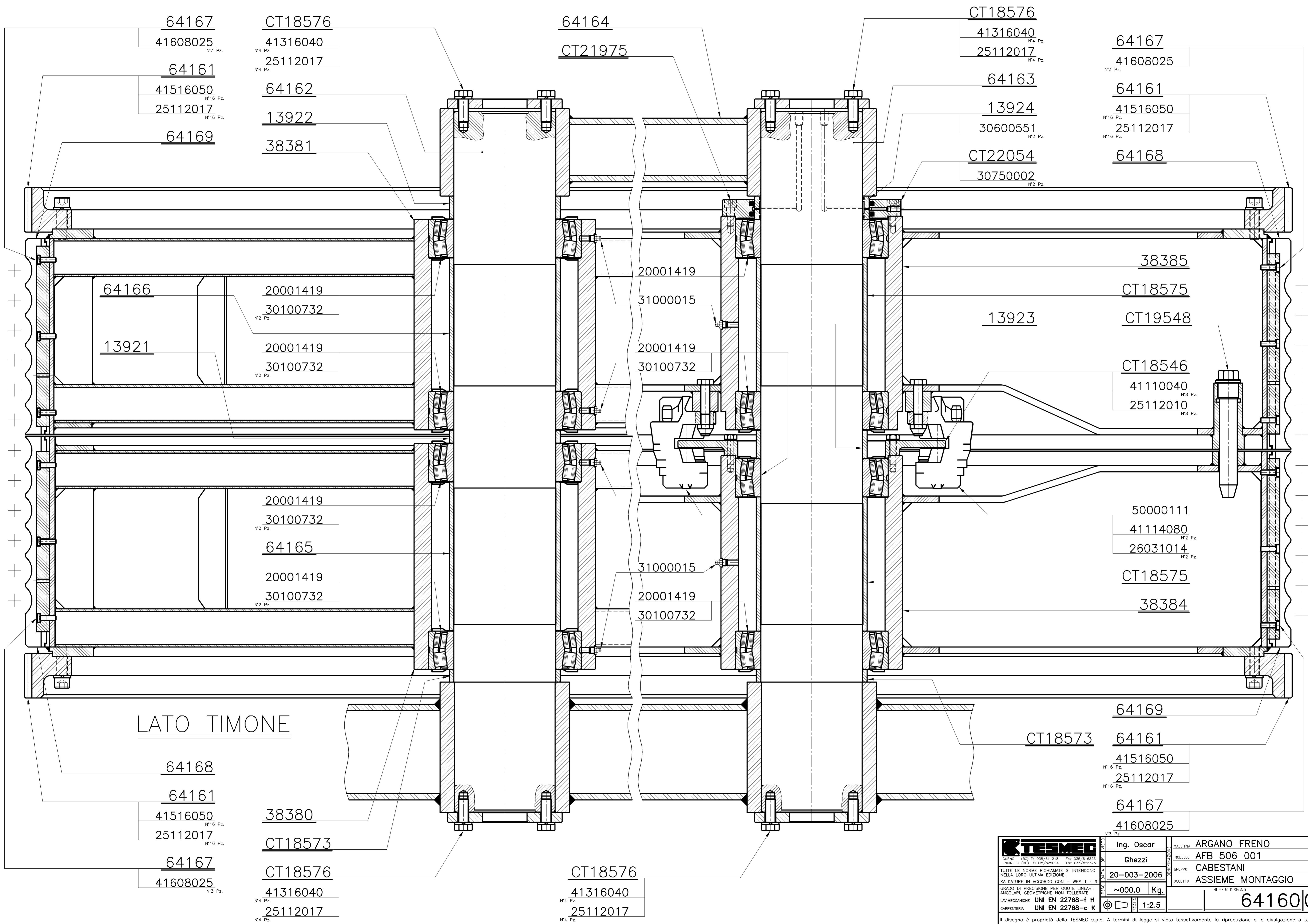
Y14	VALVOLA PROPORZIONALE REGOLAZIONE TIRO CABESTANO 2	BULL WHEEL 2 FULL REGULATION PROPORTIONAL VALVE
Y13	VALVOLA PROPORZIONALE REGOLAZIONE TIRO CABESTANO 1	BULL WHEEL 1 FULL REGULATION PROPORTIONAL VALVE
Y12	ELETTROVALVOLA COMANDO CILINDRI SINCRONIZZATORE	SYNCHONIZER CYLINDERS SOLENOID VALVE
Y11	ELETTROVALVOLA COMANDO VOMERE IDRAULICO	HYDRAULIC PLUG SOLENOID VALVE - VOMERE IDRAULICO
Y10	ELETTROVALVOLA COMANDO VENTOLA RADIATORE	MOTOR FAN RADIATOR - HYDRAULIC PLUG SOLENOID VALVE
Y9	ELETTROVALVOLA DIFFERENZIALE IDRAULICO	HYDRAULIC DIFFERENTIAL SOLENOID VALVE
Y8	ELETTROVALVOLA DIFFERENZIALE IDRAULICO	HYDRAULIC DIFFERENTIAL SOLENOID VALVE
Y7	ELETTROVALVOLA DIFFERENZIALE IDRAULICO	HYDRAULIC DIFFERENTIAL SOLENOID VALVE
Y6	ELETTROVALVOLA COMANDO RIAVVOLGITORE 2	REELWINDER 2 CONTROL SOLENOID VALVE
Y5	ELETTROVALVOLA COMANDO RIAVVOLGITORE 1	REELWINDER 1 CONTROL SOLENOID VALVE
Y4	ELETTROVALVOLA APERTURA FRENO NEGATIVO CABESTANO 2	VACUUM-BRAKE BULL WHEEL 2 OPENING SOLENOID VALVE
Y3	ELETTROVALVOLA APERTURA FRENO NEGATIVO CABESTANO 1	VACUUM-BRAKE BULL WHEEL 1 OPENING SOLENOID VALVE
Y2	ELETTROVALVOLA PROPORZIONALE COMANDO RUOTE D'ADERENZA 2	BULL WHEEL 2 PROPORTIONAL SOLENOID VALVE CONTROL
Y1	ELETTROVALVOLA PROPORZIONALE COMANDO RUOTE D'ADERENZA 1	BULL WHEEL 1 PROPORTIONAL SOLENOID VALVE CONTROL
V13	VALVOLA DI REGOLAZIONE CILINDRI SINCRONIZZATORI	SYNCHONIZER CYLINDERS REGULATION PRESSURE VALVE
V12	VALVOLA DI REGOLAZIONE CILINDRI SINCRONIZZATORI	SYNCHONIZER CYLINDERS REGULATION PRESSURE VALVE
V11	VALVOLA DI NON RITORNO	CHECK VALVE
V10	VALVOLA DI NON RITORNO BY-PASS RADIATORE	RADITOR BY-PASS CHECK VALVE
V9	VALVOLA DI NON RITORNO	CHECK VALVE
V8	VALVOLA DI NON RITORNO	CHECK VALVE
V7	VALVOLA DI NON RITORNO	CHECK VALVE
V6	VALVOLA DI NON RITORNO	CHECK VALVE
V5	VALVOLA DI REGOLAZIONE MOTORE VENTOLA RADIATORE E VOMERE IDRAULICO	FAN RADIATOR REGULATION AND HYDRAULIC PLUG REGULATION PRESSURE VALVE
V4	VALVOLA DI REGOLAZIONE RIAVVOLGITORE 2	REELWINDER 2 REGULATION PRESSURE VALVE
V3	VALVOLA DI REGOLAZIONE RIAVVOLGITORE 1	REELWINDER 1 REGULATION PRESSURE VALVE
V2	VALVOLA SEQUENZA REGOLAZIONE TIRO CABESTANO 2	BULL WHEEL 2 FULL REGULATION SEQUENCE VALVE
V1	VALVOLA SEQUENZA REGOLAZIONE TIRO CABESTANO 1	BULL WHEEL 1 FULL REGULATION SEQUENCE VALVE
Rd	RADIATORE OLIO IDRAULICO	HYDRAULIC OIL RADIATOR
R	RUBINETTO SCARICO OLIO IDRAULICO	HYDRAULIC OIL DRAIN PLUG VALVE
P4b	POMPA ALIMENTAZIONE MOTORE VENTOLA RADIATORE E VOMERE IDRAULICO	FAN RADIATOR MOTOR AND HYDRAULIC PLUG FEED PUMP
P4a	POMPA RIAVVOLGITORE 2	REELWINDER 2 FEED PUMP
P3b	POMPA ALIMENTAZIONE CILINDRI SINCRONIZZATORE	SYNCHONIZER CYLINDERS FEED PUMP
P3a	POMPA RIAVVOLGITORE 1	REELWINDER 1 FEED PUMP
P2	POMPA ALIMENTAZIONE M2	M2 FEED PUMP
P1	POMPA ALIMENTAZIONE M1	M1 FEED PUMP
M3	MOTORE MOTORE VENTOLA RADIATORE	FAN RADIATOR MOTOR
M2	MOTORE CABESTANO 2	BULL WHEEL 2 MOTOR
M1	MOTORE CABESTANO 1	BULL WHEEL 1 MOTOR
M17	MANOMETRO PRESSIONE LAVORO RIAVVOLGITORE 2	FAN RADIATOR WORKING PRESSURE MANOMETER
M16	MANOMETRO PRESSIONE MOTORE VENTOLA RADIATORE	REELWINDER 2 WORKING PRESSURE MANOMETER
M15	MANOMETRO PRESSIONE LAVORO RIAVVOLGITORE 2	REELWINDER 2 WORKING PRESSURE MANOMETER
M14	MANOMETRO PRESSIONE SOVRALIMENTAZIONE POMPA P2	P2 PUMP BOOST FEEDING PRESSURE MANOMETER
M13	MANOMETRO PRESSIONE SOVRALIMENTAZIONE POMPA P1	P1 PUMP BOOST FEEDING PRESSURE MANOMETER
M12	MANOMETRO PRESSIONE LAVORO P2	P2 WORKING PRESSURE MANOMETER
M11	MANOMETRO PRESSIONE LAVORO P1	P1 WORKING PRESSURE MANOMETER
FR2	FRENO NEGATIVO CABESTANO 2	VACUUM-BRAKE BULL WHEEL 2
FR1	FRENO NEGATIVO CABESTANO 1	VACUUM-BRAKE BULL WHEEL 1
F3	FILTRO RITORNO	RETURN FILTER
F2	FILTRO ASPIRAZIONE POMPA P2	P2 PUMP SUCTION FILTER
F1	FILTRO ASPIRAZIONE POMPA P1	P1 PUMP SUCTION FILTER
PR2	TRASDUTTORE DI PRESSIONE	PRESSURE TRANSDUCER
PR1	TRASDUTTORE DI PRESSIONE	PRESSURE TRANSDUCER
POS	DESCRIZIONE	DESCRIPTION

TESMEC Ing. Oscar Locatelli
 MODELLO AFB 506 150
 DATA 06-02-2014
 SCALELLA 1:1
 432210

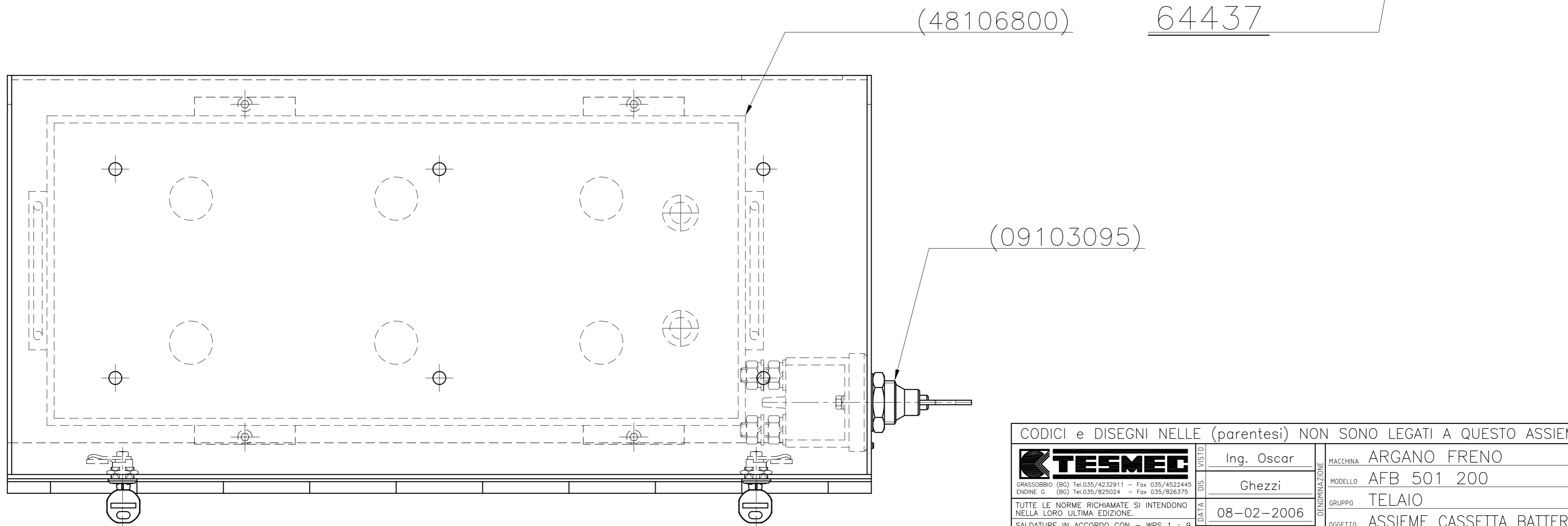
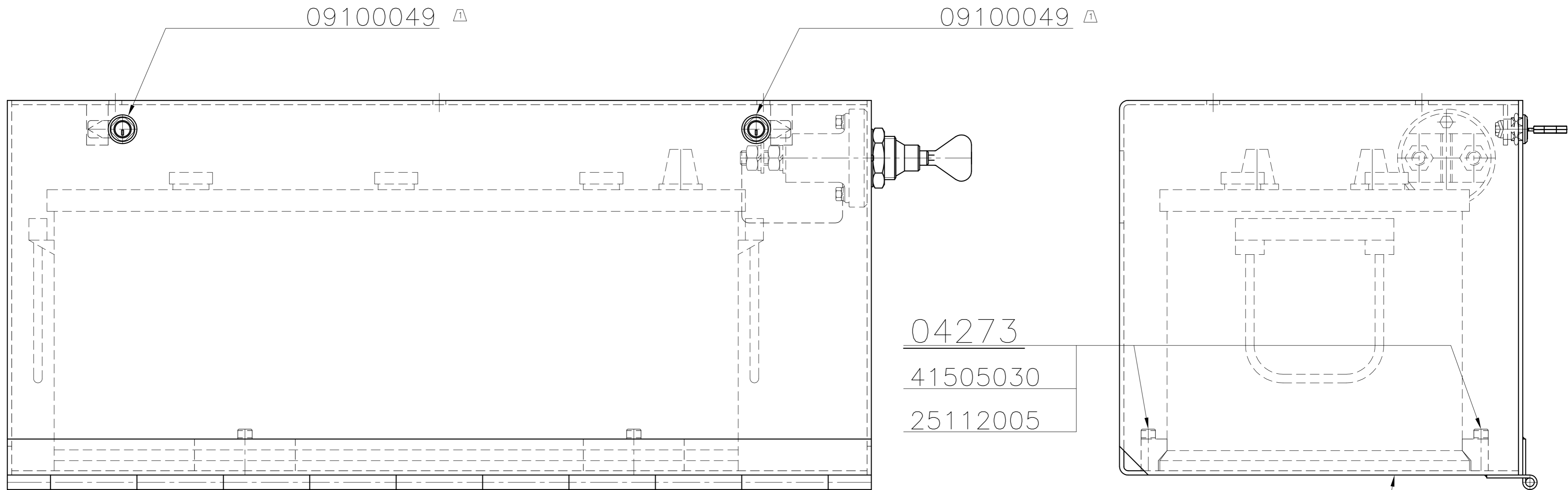


	VISTO Ing. Oscar	DENOMINAZIONE MACCHINA ARGANO FRENO MODELLO AFB 501 100 GRUPPO IMP. LUBRIFICAZIONE OGGETTO SCHEMA IMPIANTO
	DIS. Ghezzi	
DATA 21-11-2001	PESO ~000.0 Kg.	
SCALA 1:2.5		
TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE. SALDATURE IN ACCORDO CON - WPS 1 ÷ 9 GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE LAV.MECCANICHE UNI ISO 2768-f H CARPENTERIA UNI ISO 2768-c K		NUMERO DISEGNO 63830 0

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TESMEC <small>CURNO - (BO) Tel. 055/811218 - Fax 055/816323 ENGINE G (BO) Tel.055/825024 - Fax 055/825373</small> TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE. SALDATURE IN ACCORDO CON - WPS 1 + 9 GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE LAV. MECCANICHE UNI EN 22768-f H CARPENTERIA UNI EN 22768-c K	Ing. Oscar Ghezzi	MACCHINA ARGANO FRENO MODELLO AFB 506 001
	20-003-2006 ~000.0 Kg.	GRUPPO CABESTANI OGGETTO ASSIEME MONTAGGIO
	1:2.5	NUMERO DISEGNO 641600
	Il disegno è proprietà della TESMEC s.p.a. A termini di legge si vieta tassativamente la riproduzione e la divulgazione a terzi.	

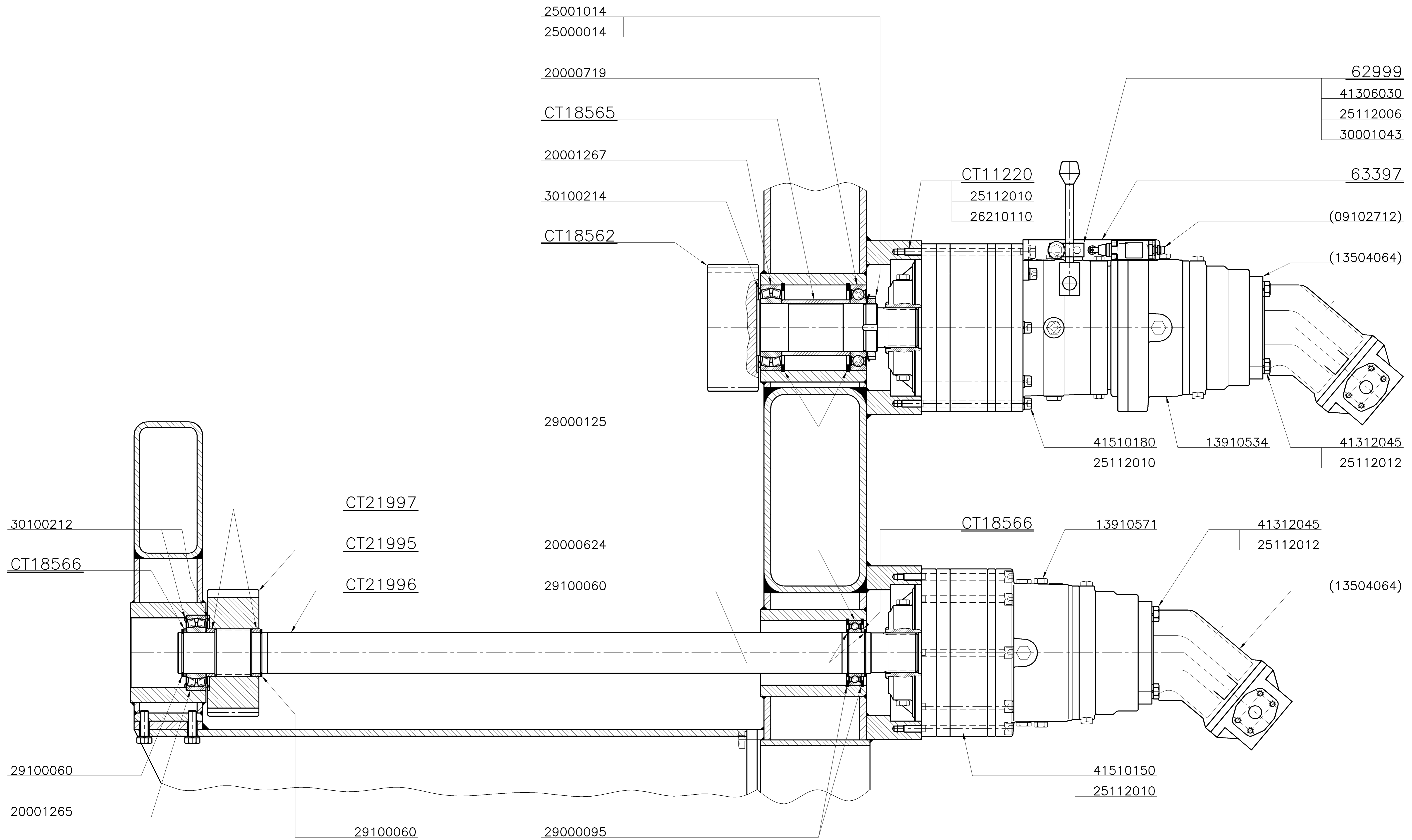


CODICI e DISEGNI NELLE (parentesi) NON SONO LEGATI A QUESTO ASSIEME

TESMEC		Ing. Oscar		MACCHINA ARGANO FRENO	
GRASSOBBIO (BG) Tel.035/4232911 - Fax 035/4522445 ENDINE G (BG) Tel.035/825024 - Fax 035/826375		Ghezzi		MODELLO AFB 501 200	
TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE.		08-02-2006		GRUPPO TELAIO	
SALDATURE IN ACCORDO CON - WPS 1 ± 9		~000.0 Kg.		OGGETTO ASSIEME CASSETTA BATTERIA	
GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE		SCALA 1:2		NUMERO DISEGNO	
LAV.MECCANICHE UNI EN 22768-f H				64436 1	
CARPENTERIA UNI EN 22768-c K					

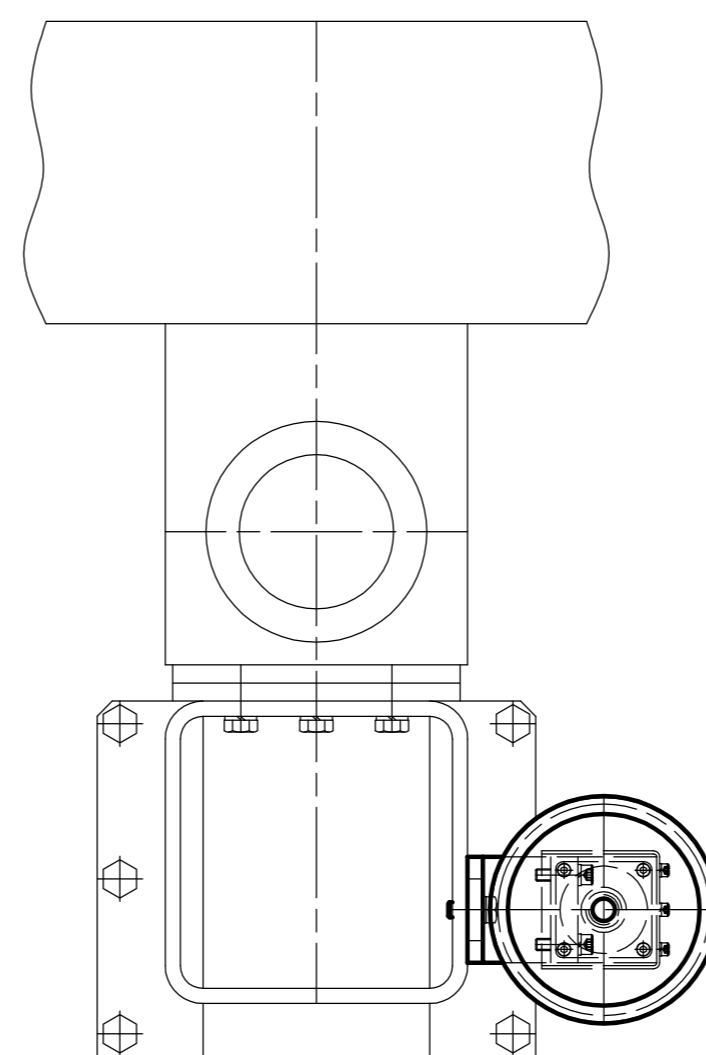
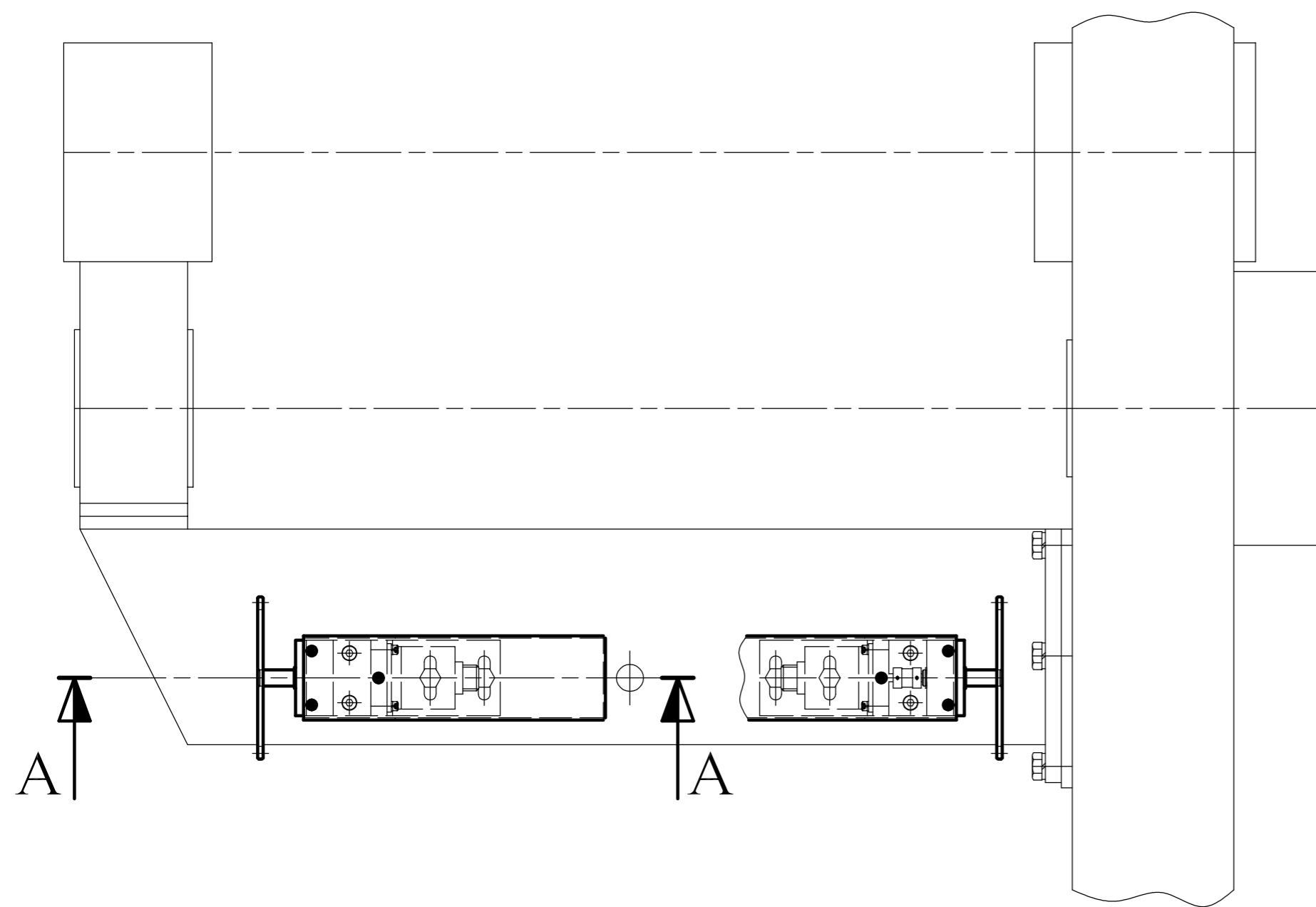
Il disegno è proprietà della TESMEC s.p.a. A termini di legge si vieta tassativamente la riproduzione e la divulgazione a terzi.

REVISIONI	DESCRIZIONE
1	03/04/2009 Esposito Sostituito chiusura cod: 09101275 con cod: 09100049.



CODICI e DISEGNI NELLE (parentesi) NON SONO LEGATI A QUESTO ASSIEME			
		Ing. Oscar	MACCHINA ARGANO FRENO
<small>GRASSANO (BO) Tel.035/4232911 - Fax.035/4522445 <small>ENGINE S.p.A. (BO) Tel.035/823024 - Fax.035/823070</small> </small>		Ghezzi	MODELLO AFB 501 212
<small>TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE.</small>		05-07-2006	GRUPPO RIDUTTORI
<small>SALDATURE IN ACCORDO CON - WPS 1 - 9</small>		~000.0 Kg.	OGGETTO ASSIEME MONTAGGIO
<small>GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE</small>		1:2.5	NUMERO DISEGNO 645540
<small>LAVORI MECCANICI UNI EN 22768-f H <small>CARPENTERIA UNI EN 22768-c K</small> </small>			

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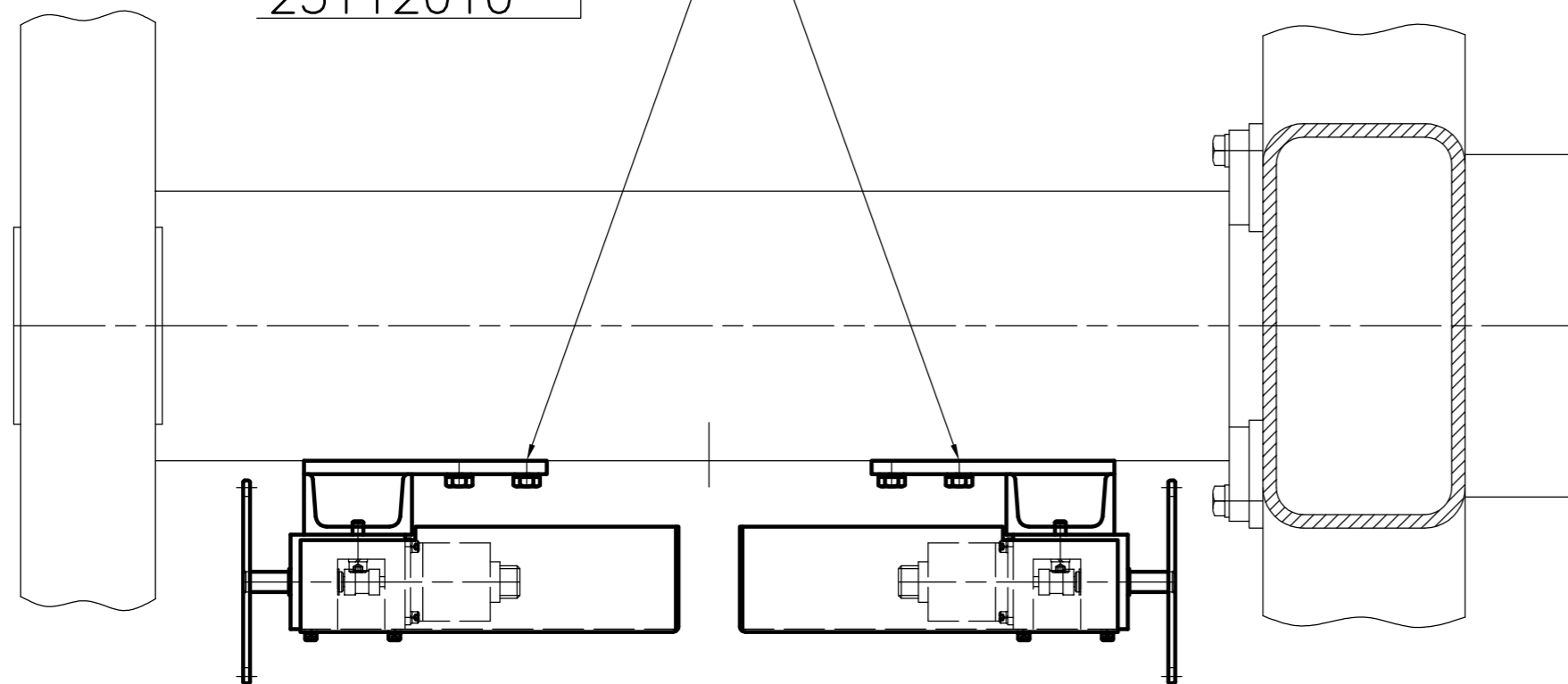


LATO TIMONE →

64039

41310025

25112010



38080

38484

38021

41505012

25112005

04200001

29100015 N°2 PEZZI

20000578 N°2 PEZZI

29000032 N°2 PEZZI

41508030 N°2 PEZZI

25112008

(09101700)

41505012

25112005

SEZIONE "A - A"

SCALA 1:2

CODICI e DISEGNI NELLE (parentesi) NON SONO LEGATI A QUESTO ASSIEME

TESMEC		DIS. VISTO	Ing. Oscar	MACCHINA	ARGANO FRENO
GRASSOBBIO (BG) Tel.035/4232911 - Fax 035/4522445 ENDINE G (BG) Tel.035/825024 - Fax 035/826375		DIS.	Ghezzi	MODELLO	AFB 516 001
TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE.		DATA	04/03/2008	GRUPPO	CONTAMETRI
SALDATURE IN ACCORDO CON - WPS 1 ÷ 9		PESO		OGGETTO	ASSIEME MONTAGGIO
GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE		SCALA	1:5	(FOGLIO)	NUMERO DISEGNO
LAV.MECCANICHE UNI EN 22768-f H				1 di 1	649160
CARPENTERIA UNI EN 22768-c K					

Il disegno è proprietà della TESMEC s.p.a. A termini di legge si vieta tassativamente la riproduzione e la divulgazione a terzi.

REF.64436

41308025

25110008

26021008

CT22000

25110030

25408045

(48116)

70572

25406050

70753

30003066

CT21999

CT22001

29100030

30003068

32221

62856

64918

REF.63633

VERSIONE CABESTANI NYLON

REF.64205

VERSIONE CABESTANI ACCIAIO

14481

41308035

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34020007

63823

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25112012

63824

41314040

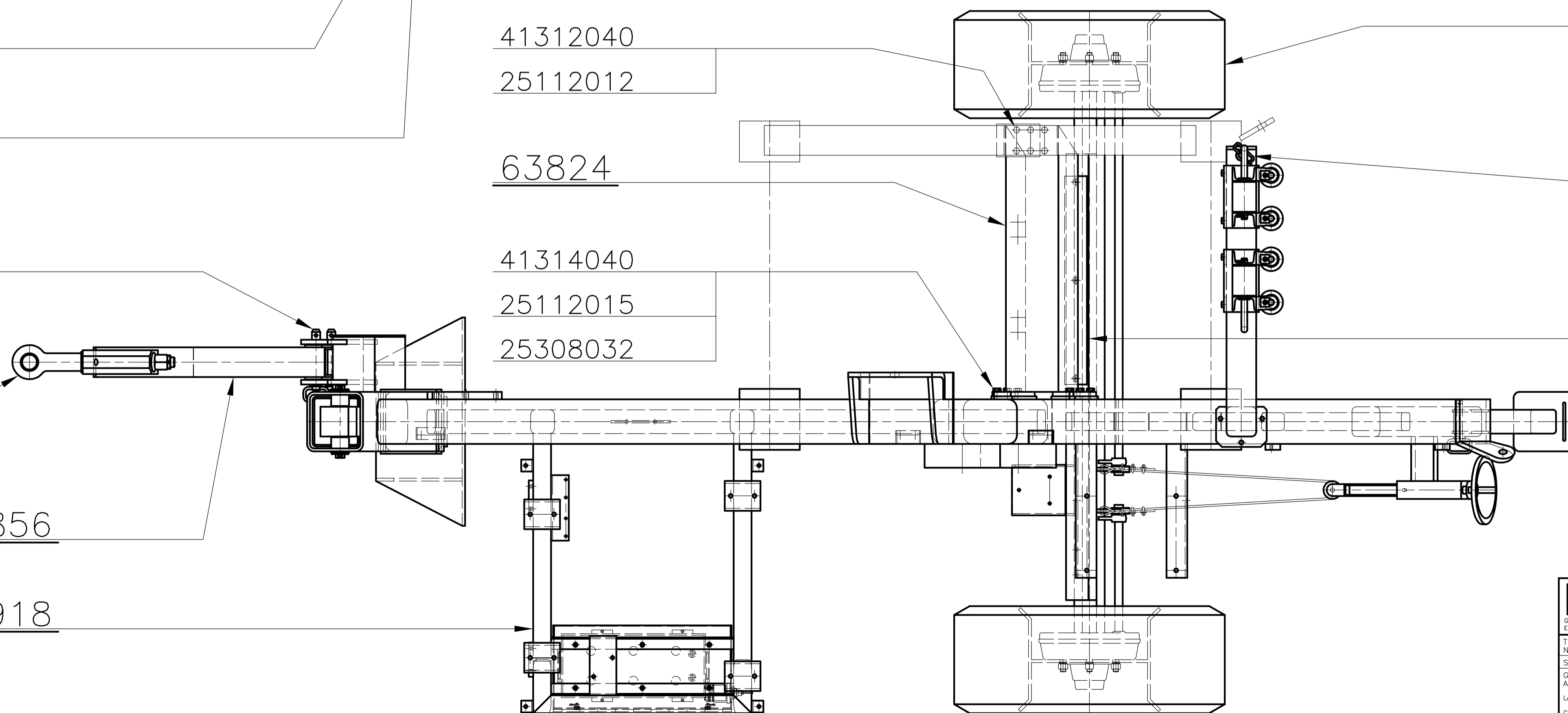
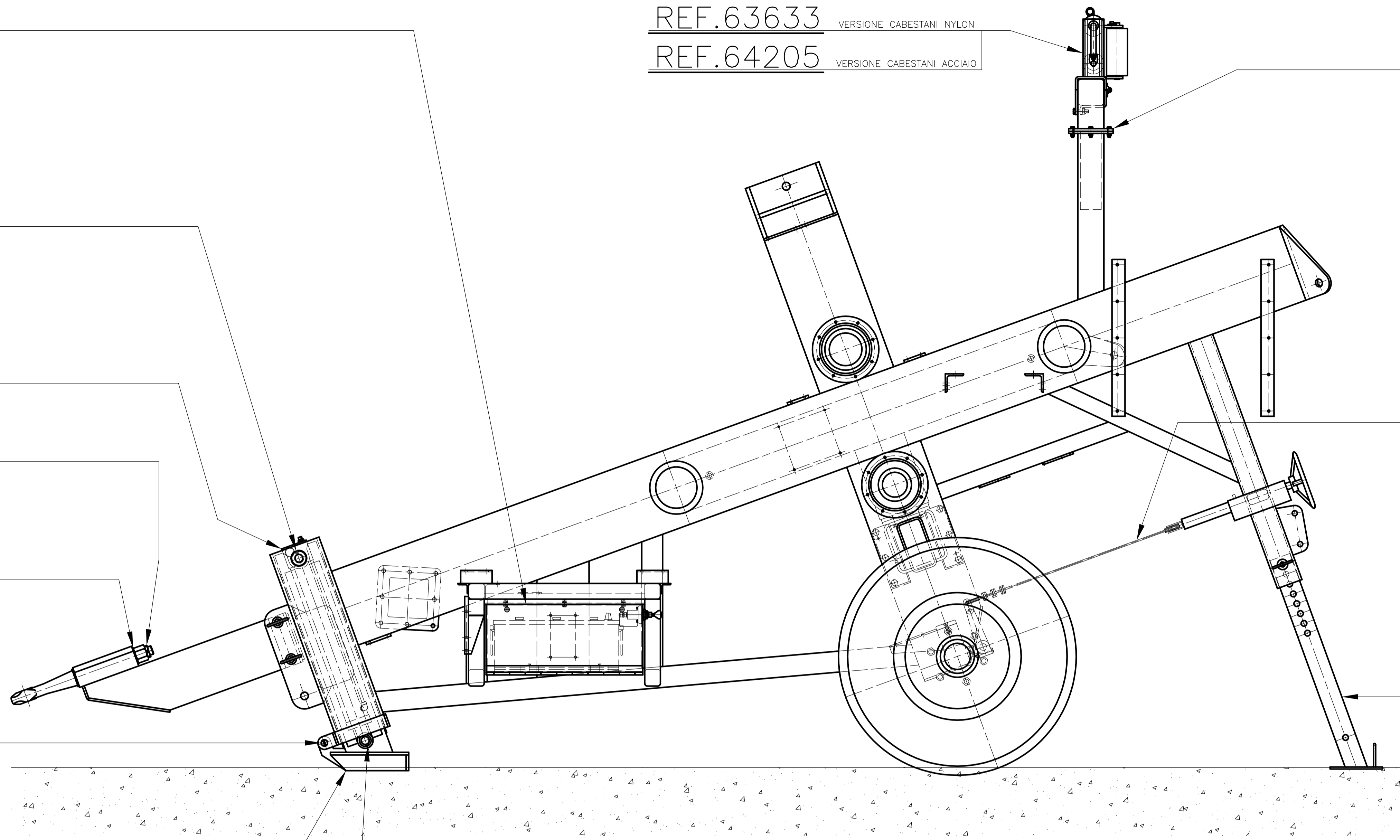
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25308032

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42710030



TESMEC <small>GRASSANO (BO) Tel. 035/4232911 - Fax 035/452445 ERNIE' (BO) Tel. 035/925024 - Fax 035/925373</small> TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE. SALDATURE IN ACCORDO CON - WPS 1 + 9 GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE LAV. MECCANICHE UNI EN 22768-f H CARPENTERIA UNI EN 22768-c K	Ing. Oscar Ghezzi	MACCHINA ARGANO FRENO MODELLO AFB 516 001
	05/03/2008	GRUPPO TELAIO
	Kg.	OGGETTO ASSIEME MONTAGGIO
	1:10	NUMERO DISEGNO 649171 (FOGLIO 1 di 1)

Il disegno è proprietà della TESMEC s.p.a. A termini di legge si vieta tassativamente la riproduzione e la divulgazione a terzi.

64192
41308015
25112008

64928
13904
09102563
09101456
34014014

64434
30002276

41308030
25110008
26021008

64927
42710060
25110010
26021010

64929
13904
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34014014

64928
13904
09102563
09101456
34014014

64149
41308015
44108015

64932
13904
09102563
09101456

64195
41108040
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41308015
25112008

41308030
25110008
26021008

64195
41108040
25112008

VISTA DA "X"

CT19485
26201106

CT22004
41308020
25112008

41308030
25110008
26021008

64197
41308020
25112008

X

64196
41308020
25112008

CT16709
26201106

CT19484
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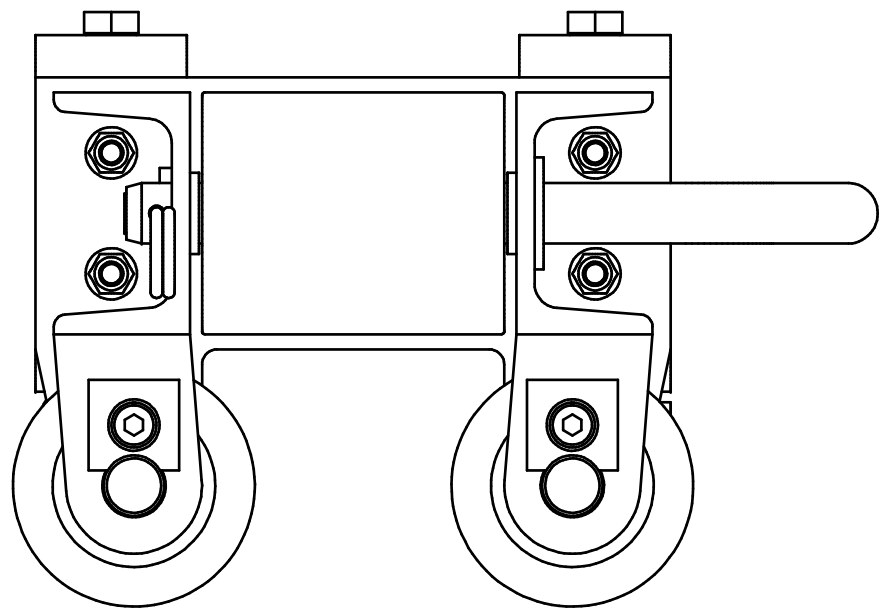
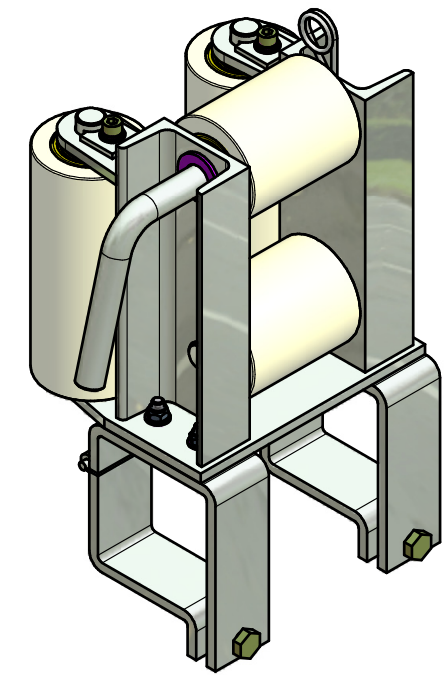
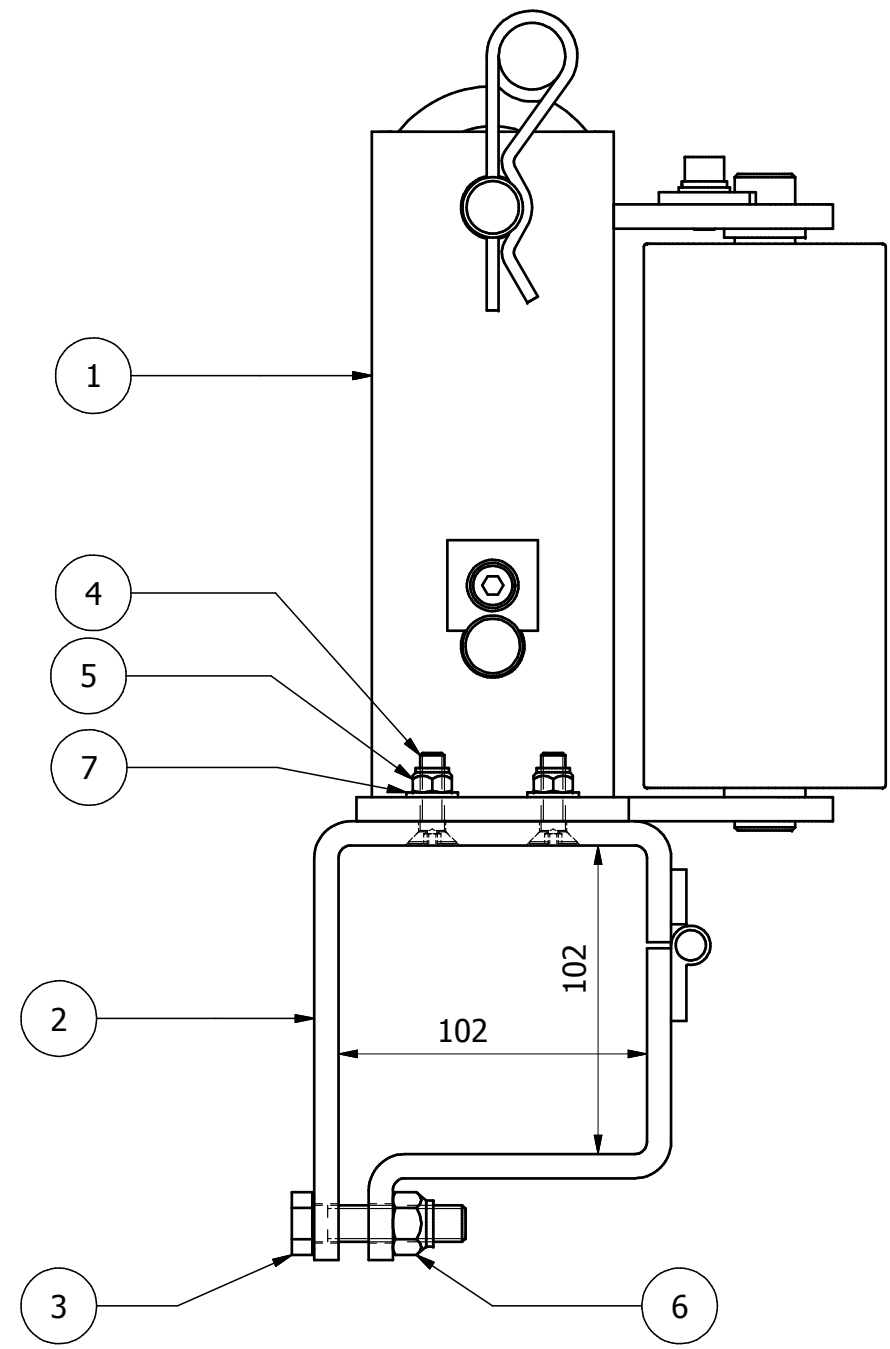
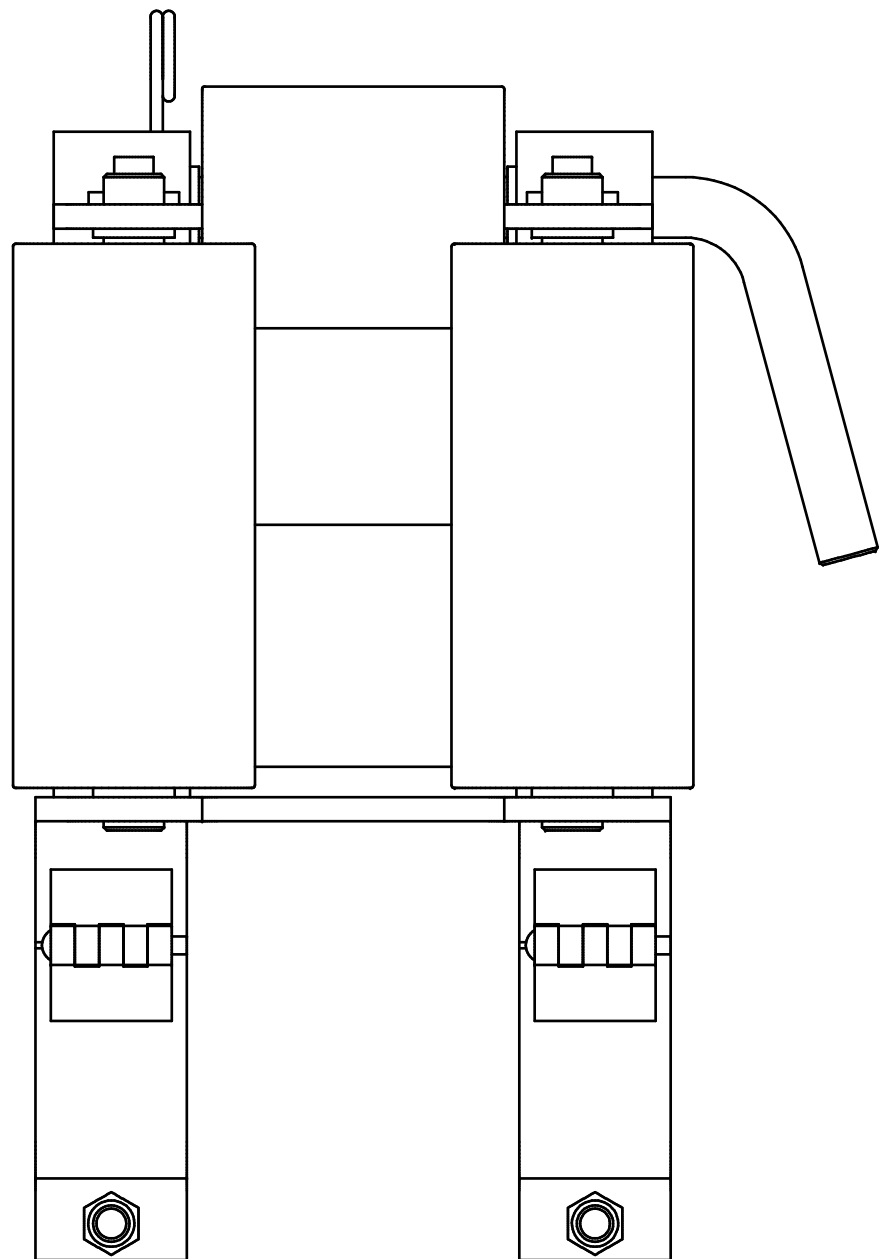
64933
30002276

64931
13904
09102563
09101456

CODICI e DISEGNI NELLE (parentesi) NON SONO LEGATI A QUESTO ASSIEME			
TESMEC GRASSOBBIO (BG) Tel.035/4232911 - Fax 035/4522445 ENGINE P (BG) Tel.035/929024 - Fax 035/929379 TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE. SALDATURE IN ACCORDO CON - WPS 1 e 9 GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE LAV. MECCANICHE UNI EN 22768-f H CARPENTERIA UNI EN 22768-c K	Ing. Oscar	MACCHINA	ARGANO FRENO
	Ghezzi	MODELLO	AFB 516 001
25-03-2008	DEFINIZIONE	GRUPPO	COPERTURE
~000.0 Kg.	OGGETTO	ASSIEME MONTAGGIO	NUMERO DISEGNO
1:10	64926 0		

Il disegno è proprietà della TESMEC s.p.a. A termini di legge si vieta tassativamente la riproduzione e la divulgazione a terzi.

DATE	SYM	REVISION RECORD	DR	CK
				.
				.
				.



7	H81-1008-002	ROSETTA - ISO 7089 - TE - 8 - 100 HV - Z [] WASHER	4	0 kg
5	H77-1008-011	DADO - UNI 7473 - M 8 - GR. 8 - Z - AUTOB. [] LOCKNUT	4	0 kg
4	H58-1008-030	VITE - M 8 x 30 - ISO 10642 - 10.9 - Z - TSEI [] BOLT	4	0 kg
6	H77-1012-015	DADO - UNI 7473 - M 12 - GR. 8 - Z - AUTOB. [] LOCKNUT	2	0 kg
3	H50-1012-050	VITE - M 12 x 50 - ISO 4017 - 8.8 - Z [] BOLT	2	0.1 kg
2	D00-02446	COLLARE SUPPORTO RULLI 50 x 118 x 145 [] CLAMP	2	1.5 kg
1	A17-00027	ASSIEME RULLIERA SINGOLA - NYLON [] ASSEMBLY	1	11.2 kg
ITEM	CODE	DESCRIPTION	QTY	WEIGHT

<p>GRASSOBBIO (BG) Tel.035/4232911 - Fax 035/4522445 ENDINE G (BG) Tel.035/825024 - Fax 035/826375</p> <p>TUTTE LE NORME RICHIAMATE SI INTENDONO NELLA LORO ULTIMA EDIZIONE.</p> <p>SALDATURE IN ACCORDO CON - WPS 1÷9</p> <p>GRADO DI PRECISIONE PER QUOTE LINEARI, ANGOLARI, GEOMETRICHE NON TOLLERATE</p> <p>LAV.MECCANICHE UNI EN 22768-f H CARPENTERIA UNI EN 22768-c K</p>	DIS. VISTO		DENOMINAZIONE ARGANI FRENI - FRENI VARI - ASSIEME RULLIERA SINGOLA NYLON QUADRO 100
	DATA	15/10/2012	
	PESO	14.54 kg	(FOGLIO)
	SCALA		1 / 1
		A17-00031	

Il disegno è proprietà della TESMEC s.p.a. A termini di legge si vieta tassativamente la riproduzione e la divulgazione a terzi.