

# SPIDER 20.95

(all version)

## IMPIANTO ELETTRICO General electric diagram

30/06/2021 – Aggiunto schema per antientrapment

24/05/2021 – Aggiunto schema per motore IGX390–QZHW e scambiate uscite CPU (acceleratore e inverter enable)

03/02/2021– Aggiunto relè preriscaldamento candellette bordo motore, eliminato dal q.base. Eliminato temporizzatore Kubota.

17/02/2020– Eseguite correzioni su inversione direzione movimenti aerei

22/01/2020– invertita la descrizione per rot. DX e SX per versione definitiva adesivi. Spostata YV125 in parallelo a YV127

29/01/2019– invertita la descrizione per rot. DX e SX per scambio tubi corrado

SCH\_01 – Aggiunti m12 in navicella che sostituiscono il pressacavo

La norma IEC 60757 indica le abbreviazioni internazionali dei colori dei conduttori, come mostra la tabella sotto.

IEC 60757 norm indicates the international abbreviation for conductor colours, as shown below.

COLORS(en)		COLORI(ita)
black	bk	nero
brown	bn	marrone
red	rd	rosso
orange	og	arancio
yellow	ye	giallo
green	gn	verde
blue	bu	blu
violet	vt	viola
gray	gy	grigio
white	wh	bianco
pink	pk	rosa
turquoise	tq	turchese

Schema aggiornato alle nuove normative Europee EN280:2013 ed EN13849-1  
Updated according to the European laws EN280:2013 and EN13849-1

**PLATFORM**  
BASKET

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TIPOLOGIA	SCHEMA FUNZIONALE	DATA	30.06.2021
MACCHINA/MODELLO	SPIDER 20.95	DISEGNATORE	S.S.
DENOMINAZIONE	IMPIANTO ELETTRICO (tutte le versioni)	GRUPPO	ELECTRIC (90)
DIS. N. 4969060002_SCH_01			



MOTORE ALIMENT. MOTORE 220V  
ELETTR.110V-220V e LINEA NAVICELLA  
110V-220V Electric 220V Electric motor  
motor and cage line feeding

INT.MAGN.TER.DIFF.  
MOTORE A 220V  
220V motor safe  
switch

0

1

2

3

4

5

6

7

8

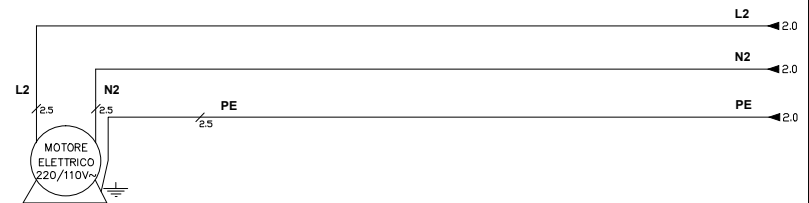
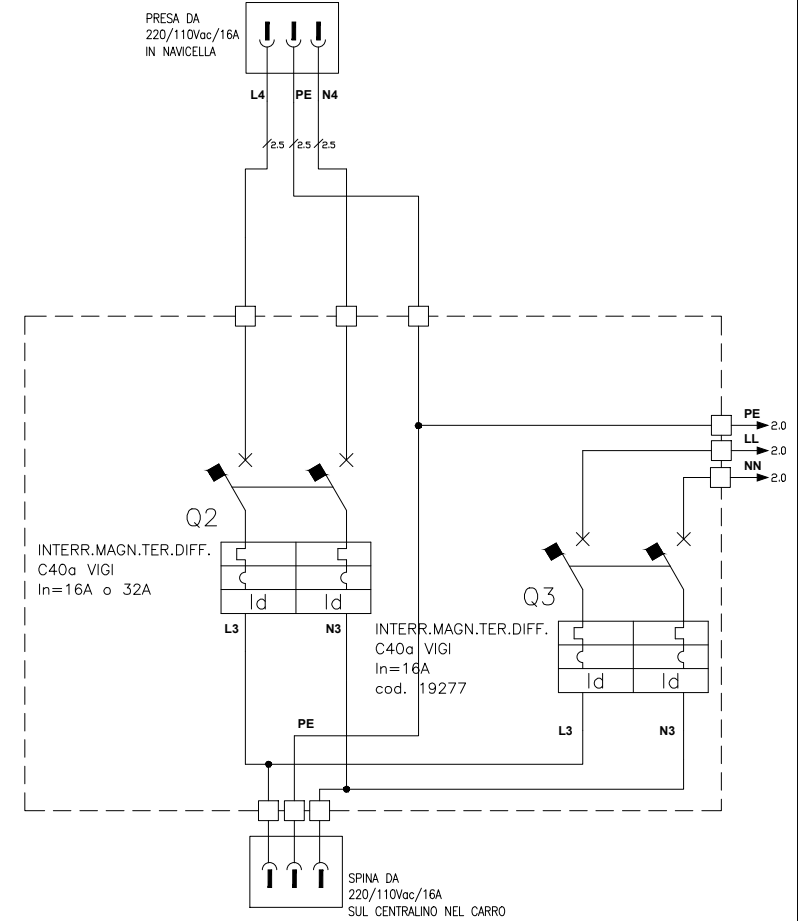
9

VANO BATTERIE E MOTORI  
Batteries and diesel/electric engine case

PRESA DA  
220/110Vac/16A  
IN NAVICELLA



L4 PE N4  
/2.5 /2.5 /2.5



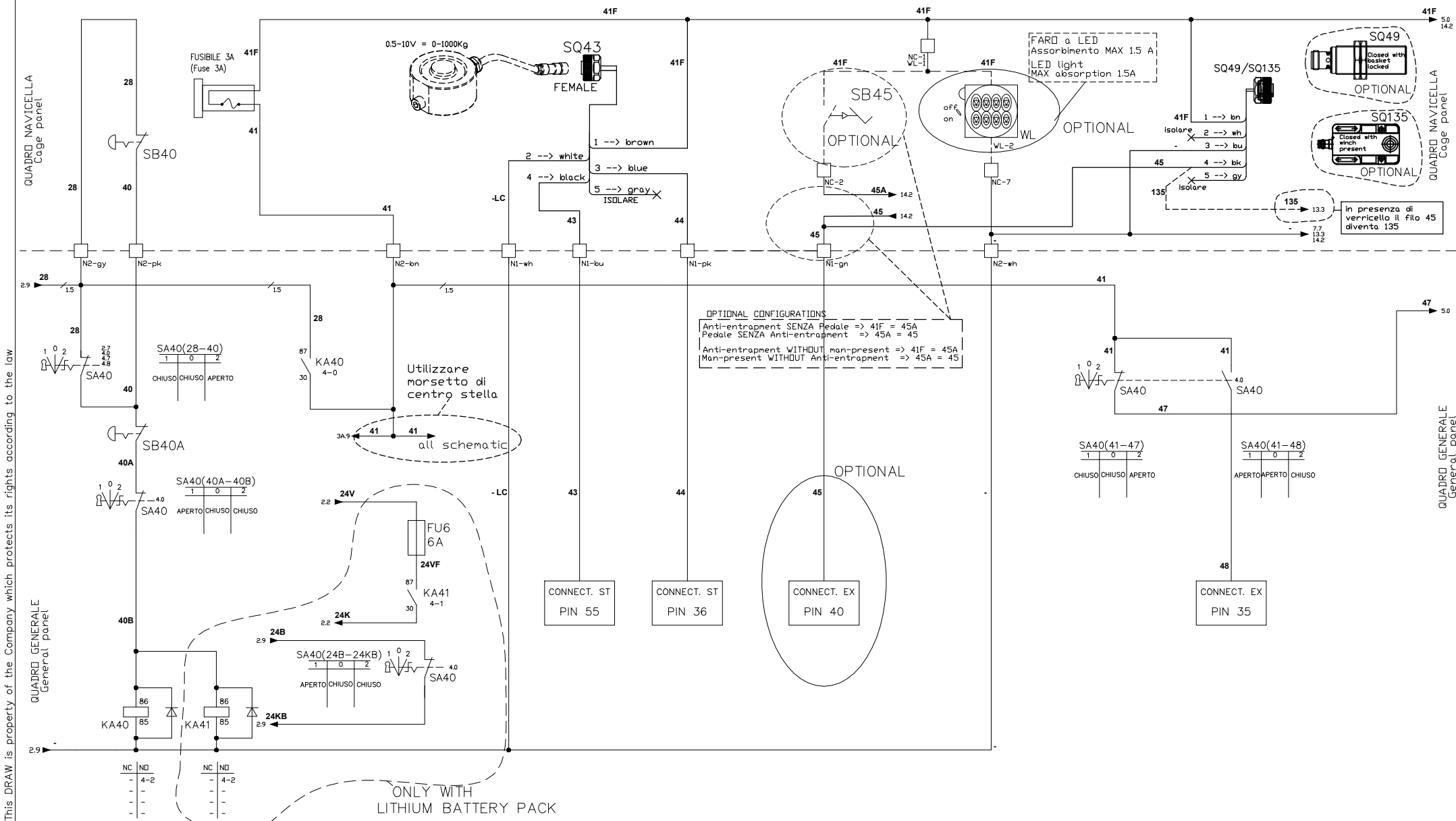
QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA'  
CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE  
This DRAW is property of the Company which protects its rights according to the law



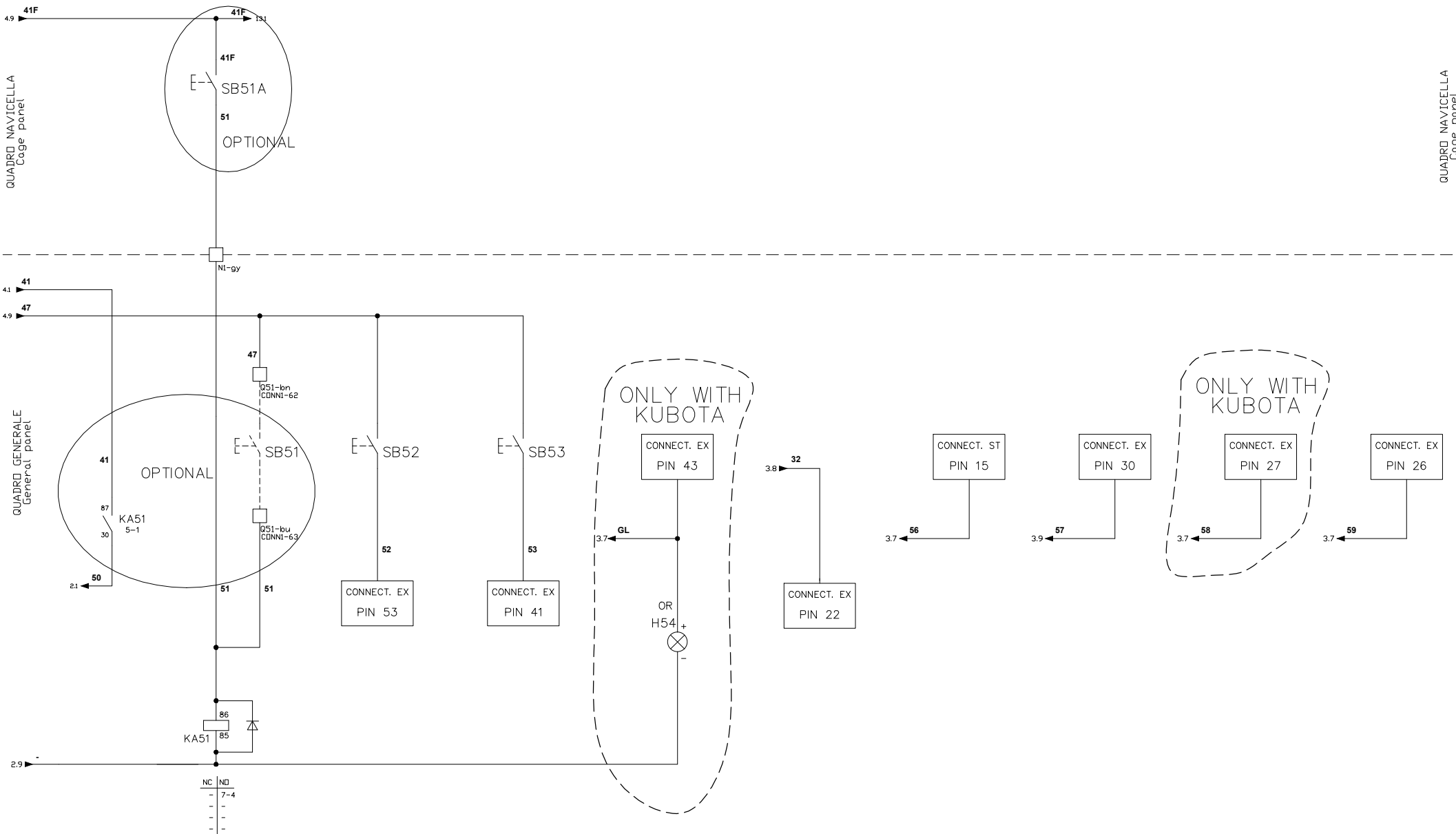




SERIE EMERGENZE (Emergency series)	RELE' ALIMENTAZ. GENERALE (General feeding relè)	POSITIVO SOTTO CHIAVE INVERTER (Inverter start key switch)	SENSORE CARICO IN NAVICELLA 1 (Cage load sensor 1)	SENSORE CARICO IN NAVICELLA 2 (Cage load sensor 2)	PEDALE UOMO PRESENTE (optional) (Operator present pedal (optional))	FARO DI LAVORO (optional) (Working lamp (optional))	SELEZIONE COMANDI BASE (Base commands selection)	SELEZIONE COMANDI NAVICELLA (Cage commands selection)	MICRO NAVICELLA INTERBLOCCATA (Cage locked sensor)
0	1	2	3	4	5	6	7	8	9



COMANDO TELERUTTORE EL.POMPA 12V EMERGENZA Contactor for emergency el.pump	PULSANTE AVVIO DIESEL/220V DA TERRA Diesel/220V start button from ground	PULSANTE PRERISCALDO DA TERRA Glow (Heater) button from ground	PIA PRERISCALDO CANDELETTE DA TERRA Glow (Heater) lamp from ground	MOTORE IN MOTO Engine started signal	COMANDO ACCELER. MOT. A SCOPPIO Engine accelerator command	COMANDO SOLENOIDE SPEGNIMENTO Engine stop command	POSITIVO PER ALTERNATORE Output for alternator ignition	AVVIAM. MOTORE A SCOPPIO Engine START	
0	1	2	3	4	5	6	7	8	9



QUADRO NAVICELLA  
Cage panel

QUADRO NAVICELLA  
Cage panel

QUADRO GENERALE  
General panel

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE  
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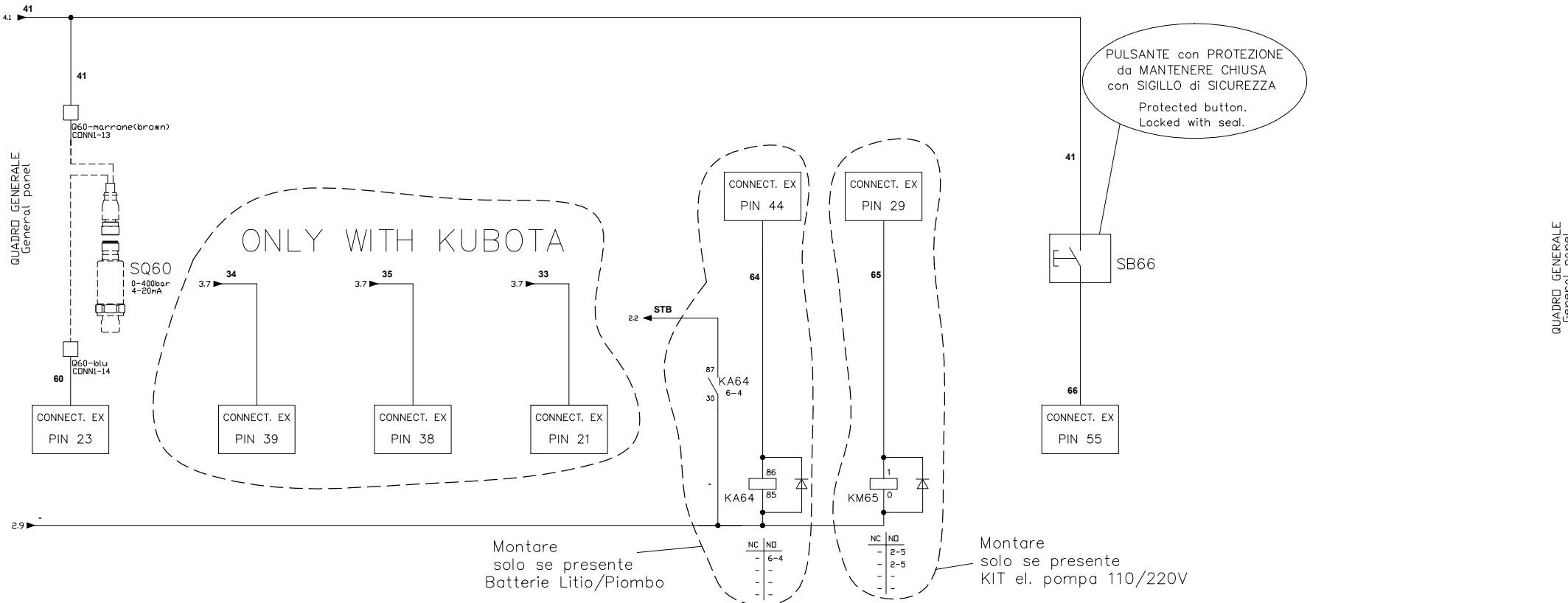
NC	ND
-	7-4
-	-
-	-
-	-



PRESSOSTATO GENERALE Pressure sensor	INPUT CENTRAL. LIV. GASOLIO Fuel level signal to CPU	SEGNALAZ. TEMP. (KUBOTA) Max temperature (Kubota)	SEGNALE BULBO OLIO Oil bulb signal	SEGNALE COMANDO START INVERTER Inverter START command signal	TEL. MOT. ELETTR. IN MOTO Start electric motor	BYPASS SOVRACCARICO (SOLO EMERGENZA) Overload bypass (Emergency rescue)			
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA  
Cage panel

QUADRO NAVICELLA  
Cage panel



QUADRO GENERALE  
General panel

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General panel

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE  
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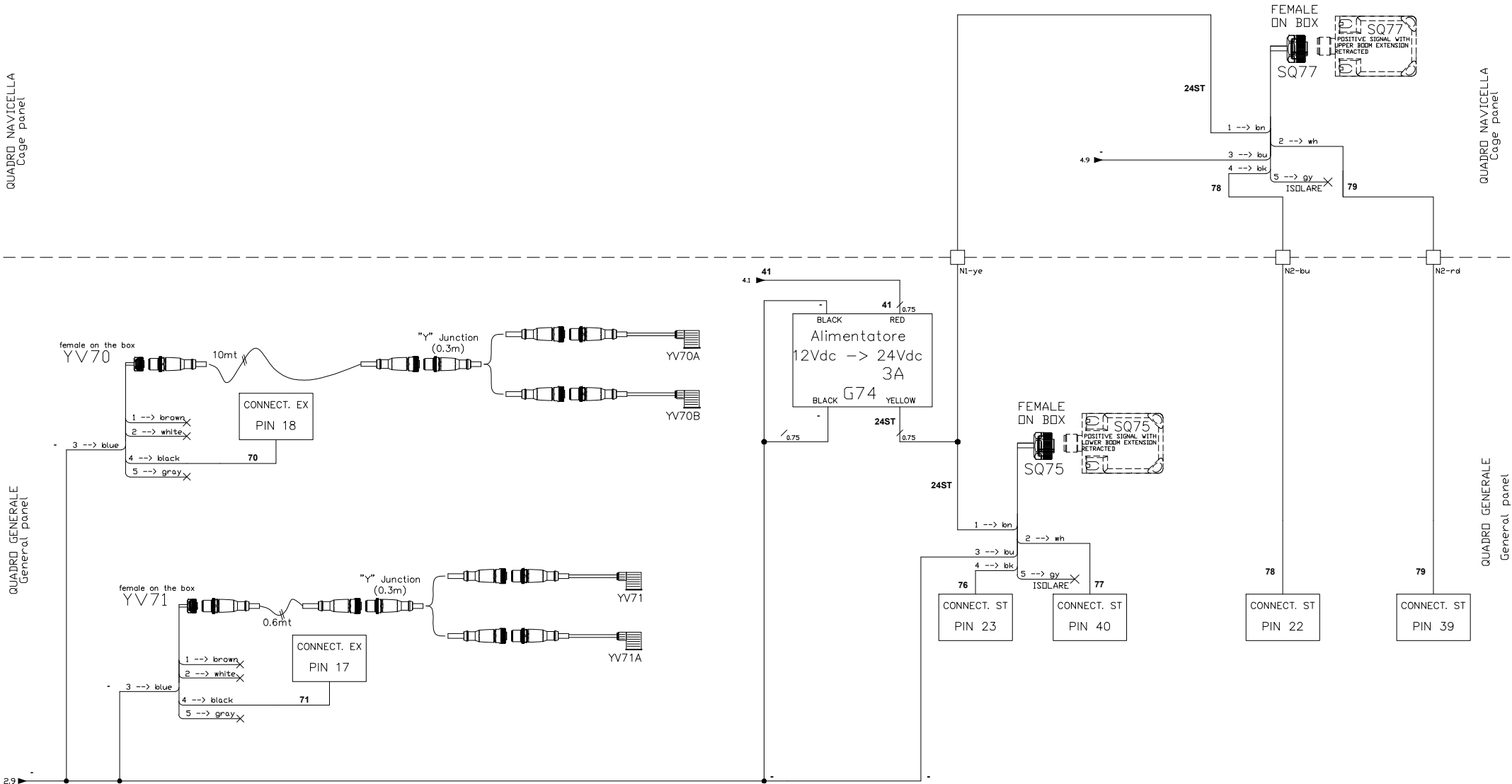
			COMANDO VALVOLA RIALLINEAM.TESTATA Boom alignment command valve	COMANDO VALVOLE SCAMBIO ROTAZ./BILAN Basket rot./Basket lev. exchange valve	ALIMENTATORE 12->24 PER INDUT.IFM 12->24V boom exten. IFM inductive sensors	SEGN.1 SFILO BRACCIO INFERIORE RIENTRATO Lower boom extension retracted sensor 1	SEGN.2 SFILO BRACCIO INFERIORE RIENTRATO Lower boom extension retracted sensor 2	SEGN.1 SFILO BRACCIO SUPERIORE RIENTRATO Upper boom extension retracted sensor 1	SEGN.2 SFILO BRACCIO SUPERIORE RIENTRATO Upper boom extension retracted sensor 2
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA  
Cage panel

QUADRO NAVICELLA  
Cage panel

QUADRO GENERALE  
General panel

QUADRO GENERALE  
General panel



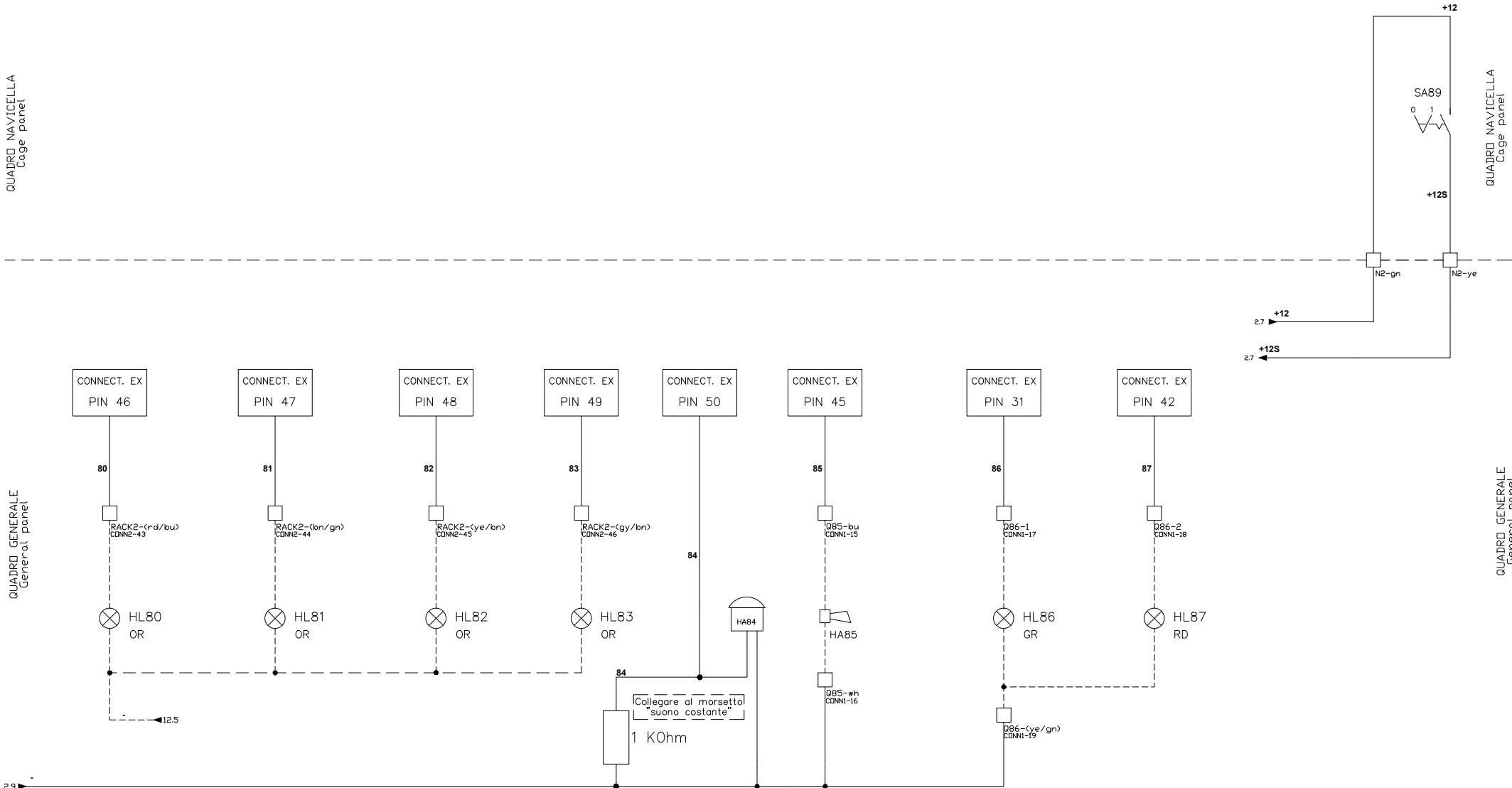
SPIA STABIL. 1 A TERRA Stabilizer 1 on ground lamp	SPIA STABIL. 2 A TERRA Stabilizer 2 on ground lamp	SPIA STABIL. 3 A TERRA Stabilizer 3 on ground lamp	SPIA STABIL. 4 A TERRA Stabilizer 4 on ground lamp	COMANDO SEGNAL. ACUSTICA A TERRA Acoustic signal command	CLACSON Acoustic adviser	SEGNAL. MACCHINA RICOVERATA Machine completely closed signal	SEGNAL. SOVRACC. e RIBALTAMENTO Overload and tipping signal		SELETTORE DIESEL/220V 220V/Diesel Selector
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA  
Cage panel

QUADRO GENERALE  
General panel

QUADRO NAVICELLA  
Cage panel

QUADRO GENERALE  
General panel



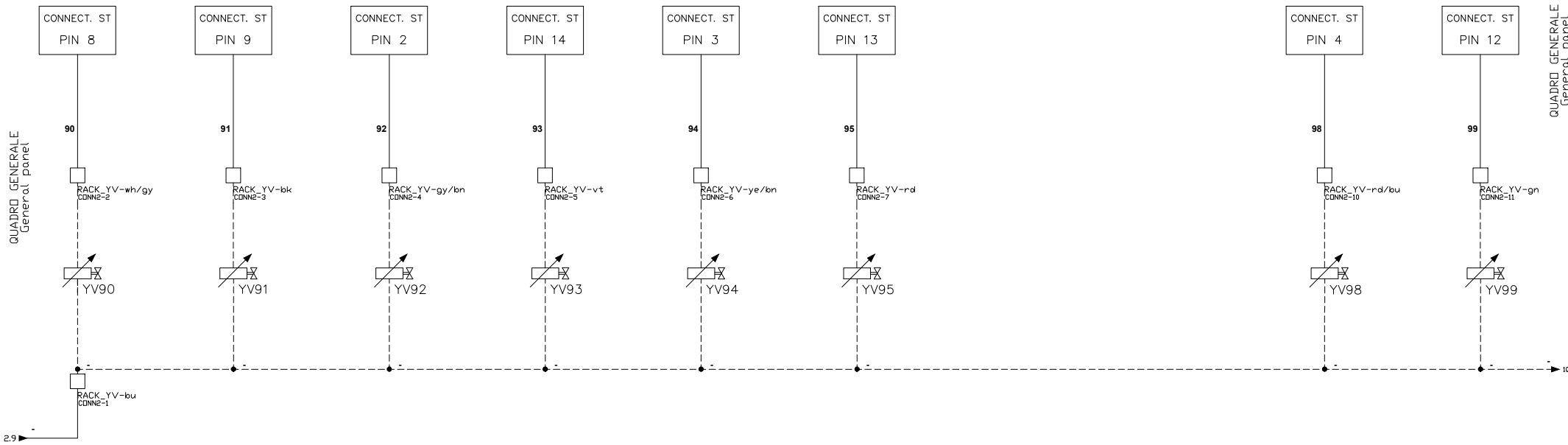
2.9

COMANDO PROPORZ. TRAS. CING. SX AVANTI Left track forward proportional comm.	COMANDO PROPORZ. TRAS. CING. SX INDIETRO Left track backward proportional comm.	COMANDO PROPORZ. SALITA STABIL. 1 Stabilizer 1 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 1 Stabilizer 1 lowering proportional comm.	COMANDO PROPORZ. SALITA STABIL. 2 Stabilizer 2 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 2 Stabilizer 2 lowering proportional comm.			COMANDO PROPORZ. SALITA STABIL. 3 Stabilizer 3 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 3 Stabilizer 3 lowering proportional comm.
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA  
Cage panel

QUADRO NAVICELLA  
Cage panel

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE  
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QUADRO GENERALE  
General panel

QUADRO GENERALE  
General panel

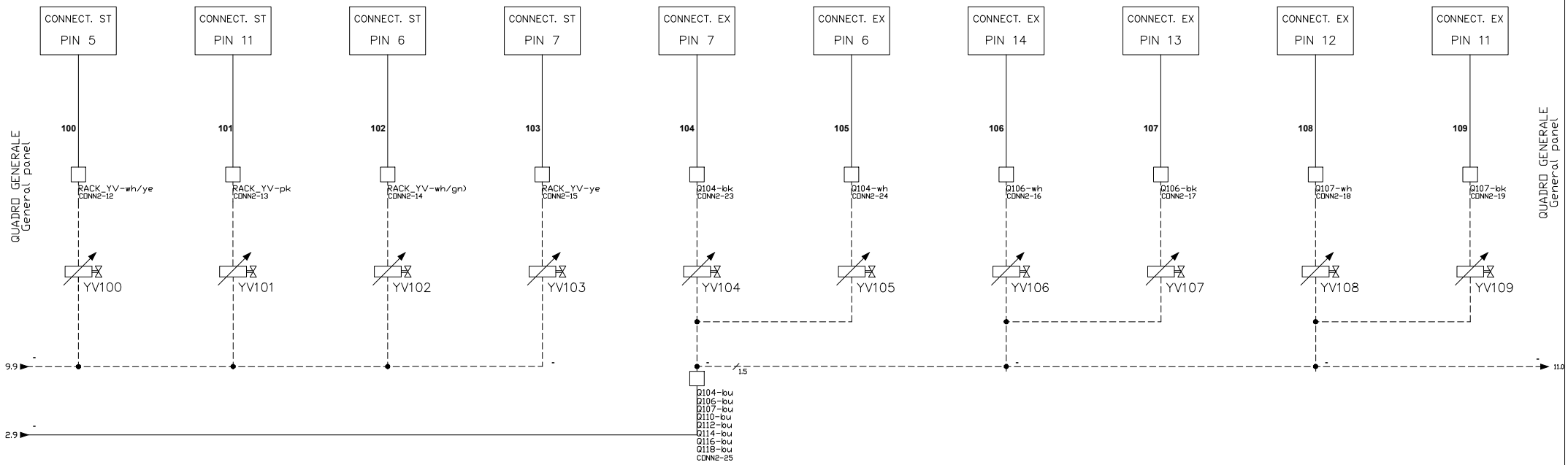
COMANDO PROPORZ. SALITA STABIL. 4 Stabilizer 4 raising proportional comm.	COMANDO PROPORZ. DISCESA STABIL. 4 Stabilizer 4 lowering proportional comm.	COMANDO PROPORZ. TRAS. CING. DX AVANTI Right track forward proportional comm.	COMANDO PROPORZ. TRAS. CING. DX INDIETRO Right track backward proportional comm.	COMANDO PROPORZ. ROTAZ. CESTA DESTRA Cage right rot. proportional comm.	COMANDO PROPORZ. ROTAZ. CESTA SINISTRA Cage left rot. proportional comm.	COMANDO PROPORZ. DISCESA BRACCIO INF. Lower boom lowering proportional comm.	COMANDO PROPORZ. SALITA BRACCIO INF. Lower boom raising proportional comm.	COMANDO PROPORZ. DISCESA BRACCIO SUP. Upper Boom lowering proportional comm.	COMANDO PROPORZ. SALITA BRACCIO SUP. Upper Boom raising proportional comm.
0	1	2	3	4	5	6	7	8	9

COMANDO PROPORZ. LEVEL.CESTO AVANTI Cage level forward proportional comm.	COMANDO PROPORZ. LEVEL.CESTO INDIETRO Cage level backward proportional comm.
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QUADRO NAVICELLA  
Cage panel

QUADRO NAVICELLA  
Cage panel

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE  
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QUADRO GENERALE  
General panel

QUADRO GENERALE  
General panel

COMANDO PROPORZ. RIENTRO SFILO SUP. Upper Extension-in proportional comm.	COMANDO PROPORZ. USCITA SFILO SUP. Upper Extension-out proportional comm.	COMANDO PROPORZ. DISCESA JIB Jib closing proportional comm.	COMANDO PROPORZ. SALITA JIB Jib opening proportional comm.	COMANDO PROPORZ. ROT. COLONNA DX Column rotation left proportional comm.	COMANDO PROPORZ. ROT. COLONNA SX Column rotation right proportional comm.	COMANDO PROPORZ. RIENTRO SFILO INF. Lower Extension-in proportional comm.	COMANDO PROPORZ. USCITA SFILO INF. Lower Extension-out proportional comm.	VALVOLA SCARICO MOVIMENTI AEREI Dump valve for aerial movements	
0	1	2	3	4	5	6	7	8	9

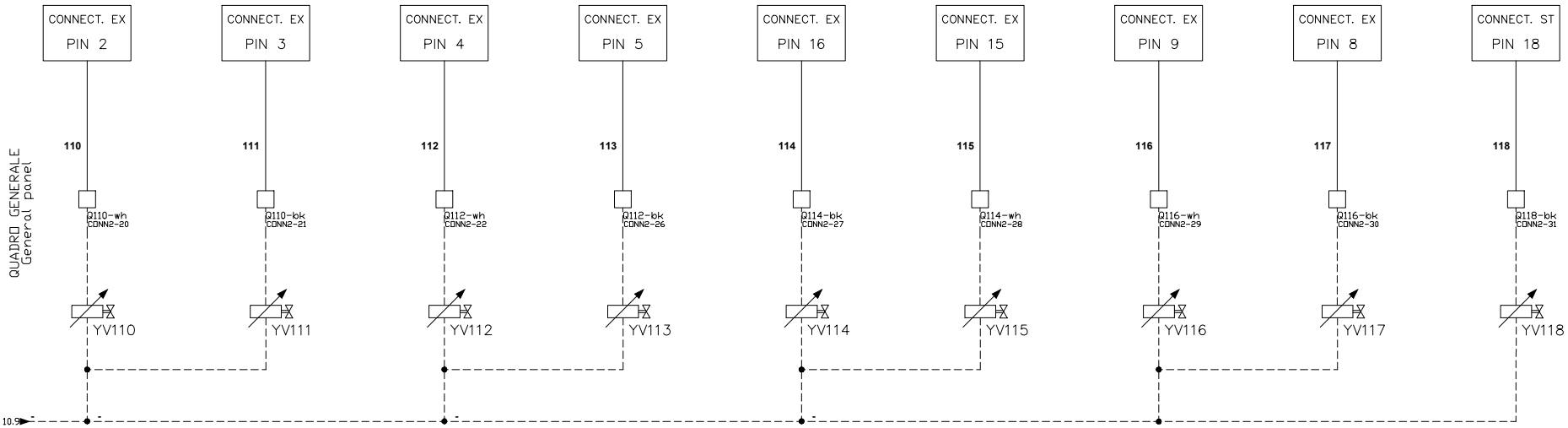
QUADRO NAVICELLA  
Cage panel

QUADRO NAVICELLA  
Cage panel

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE  
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QUADRO GENERALE  
General panel

QUADRO GENERALE  
General panel



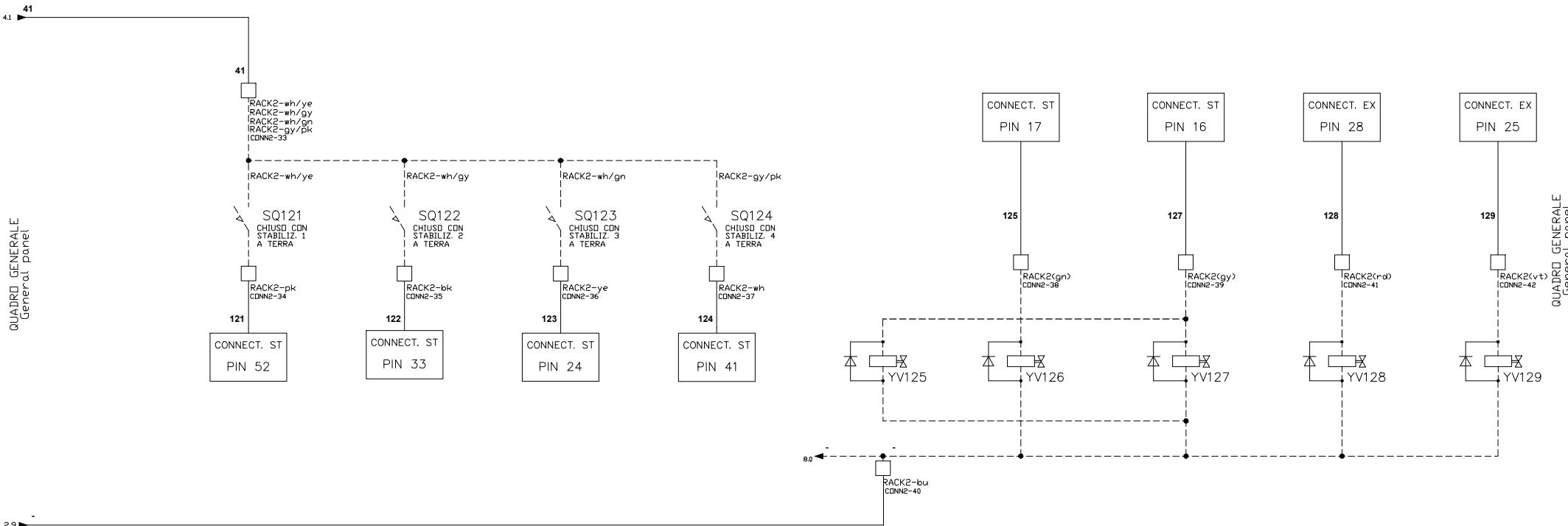
	SEGNALE PIEDE 1 A TERRA Stabilizer 1 on ground signal	SEGNALE PIEDE 2 A TERRA Stabilizer 2 on ground signal	SEGNALE PIEDE 3 A TERRA Stabilizer 3 on ground signal	SEGNALE PIEDE 4 A TERRA Stabilizer 4 on ground signal	COMANDO VALVOLA SCAMBIO CARRO DX/MOV. AEREI Chassis(right)/Aereal movem. exchange valve comm.	COMANDO VALVOLA SCARICO Cingolo Sinistro (singolo elem.) Left crawlers (single element) dump valve YV126	COMANDO VALVOLA SCARICO Cingolo Destro+Stab. Right crawlers+Stab. dump valve	COMANDO VALVOLA RADD. VELOCITA' CINGOLI Double speed valve command	VALVOLA RADDOPPIO MOVIMENTI AEREI Double speed valve for aerial part
0	1	2	3	4	5	6	7	8	9

QUADRO NAVICELLA  
Cage panel

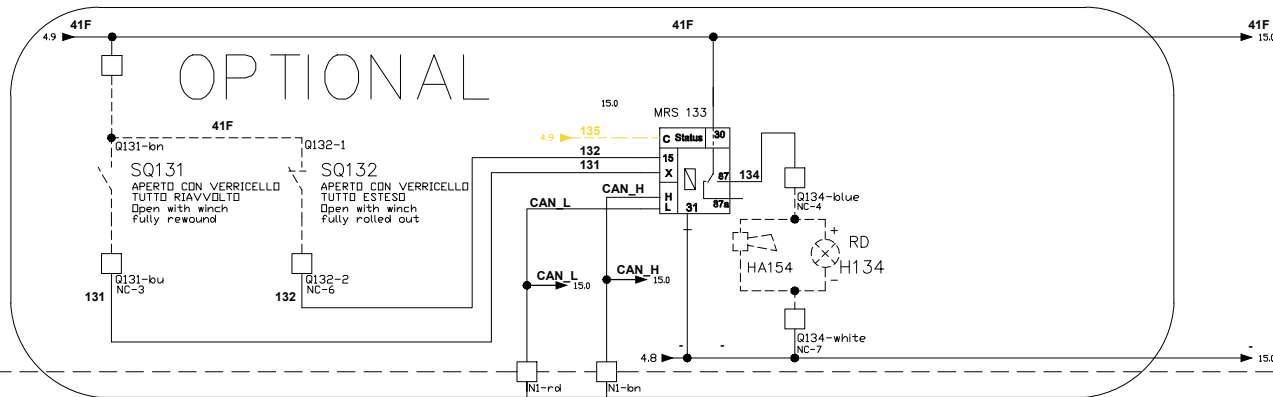
QUADRO NAVICELLA  
Cage panel

QUADRO GENERALE  
General panel

QUADRO GENERALE  
General panel

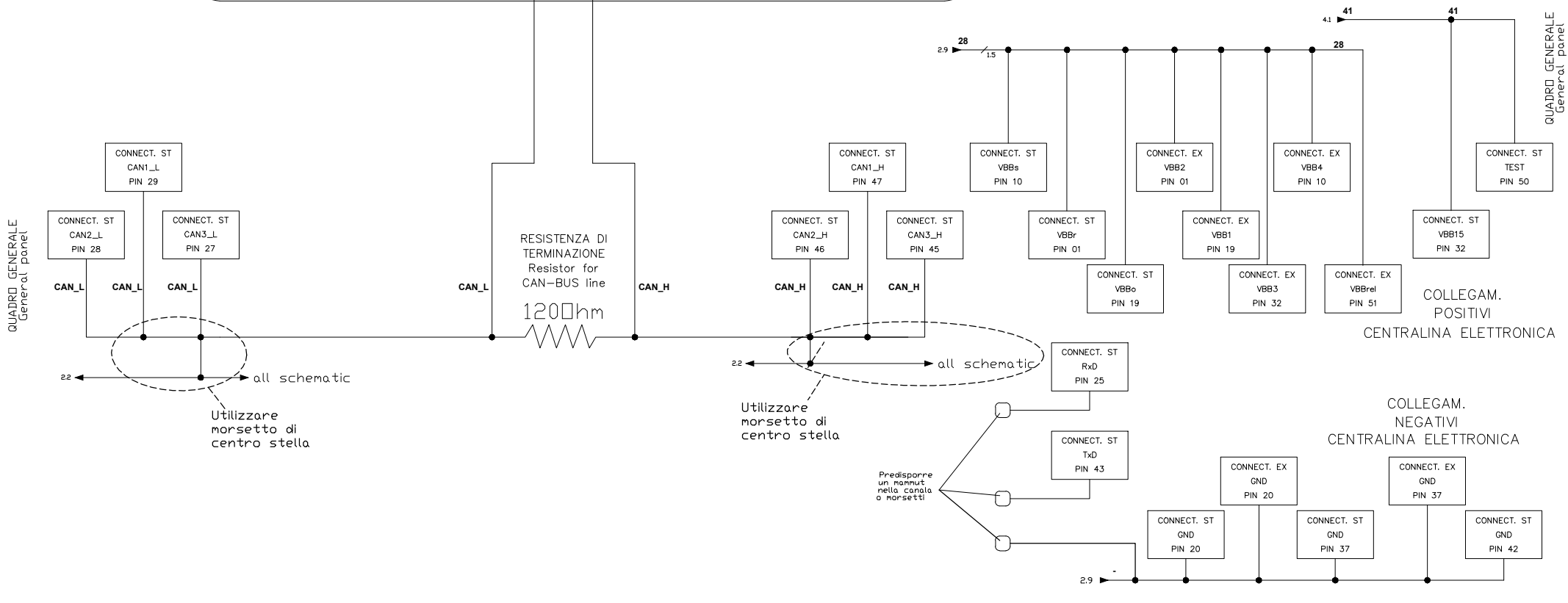


LIVELLO BASSO LINEA CAN-BUS CAN BUS (low side)	MICRO VERRICELLO TUTTO RIAVVOLTO Winch fully rewound	MICRO VERRICELLO TUTTO ESTESO Winch fully rolled out	CENTRALINA PER VERRICELLO Electronic card for winch	SPIA e CICALINO SOVRACC. VERRICELLO Winch overload lamp and buzzer		LIVELLO ALTO LINEA CAN-BUS CAN BUS (high side)	POSITIVI ALLA CENTRALINA Positive to the electronic board		NEGATIVI ALLA CENTRALINA Negative to electronic board
0	1	2	3	4	5	6	7	8	9



QUADRO NAVICELLA  
Cage panel

QUADRO NAVICELLA  
Cage panel



QUADRO GENERALE  
General panel

QUADRO GENERALE  
General panel

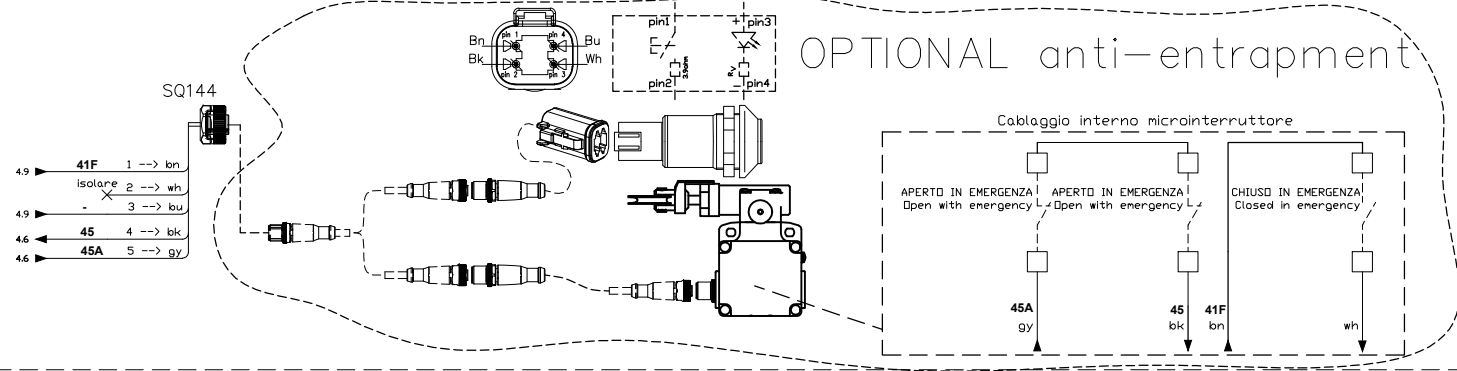
COLLEGAM.  
POSITIVI  
CENTRALINA ELETTRONICA

COLLEGAM.  
NEGATIVI  
CENTRALINA ELETTRONICA

QUESTO DISEGNO E' PROPRIETA' DELLA NOSTRA SOCIETA' CHE TUTELERA' I PROPRI DIRITTI A TERMINI DI LEGGE  
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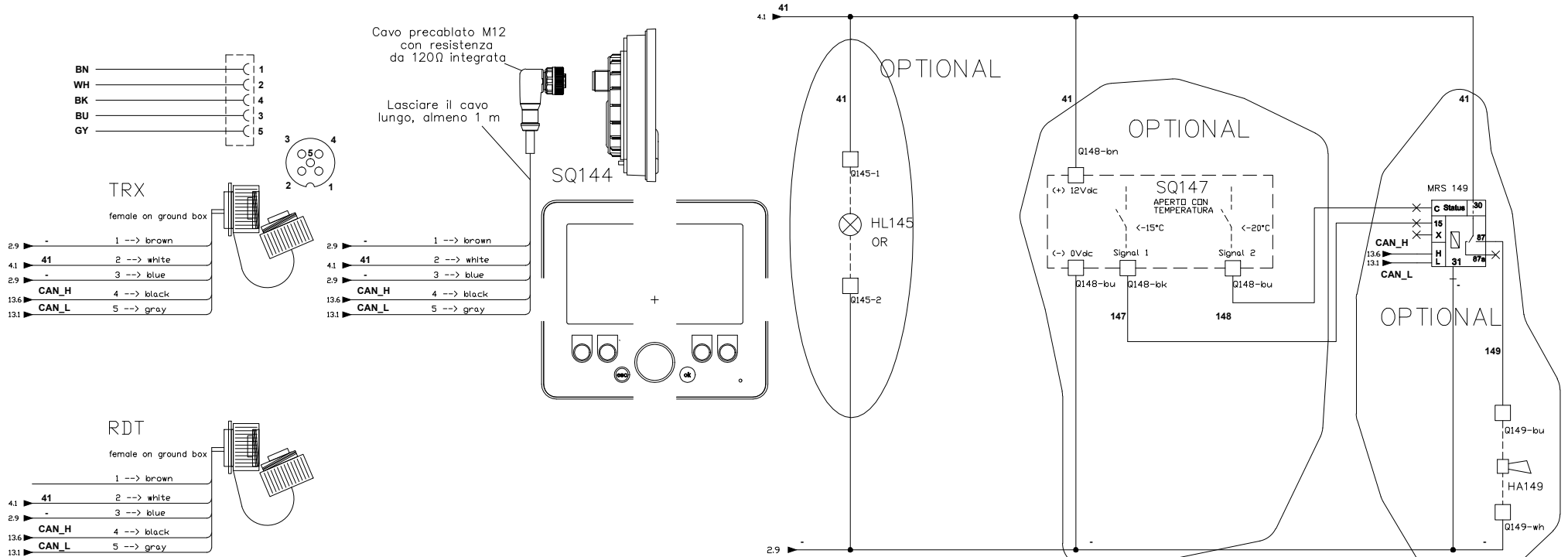
CONNESSIONE CENTRALINA --> PC PC --> ELEC. BOARD CONNECTION	DISPLAY	ANTI-INTRAPPOLAMENTO Anti-entrapment		RESET ANTI-INTRAPPOLAMENTO Anti-entrapment reset	LAMP. MACCHINA IN LAVORO Machine on work beacon		MODULO e SENSORE TEMPERATURA AMBIENTE Module + Ambient temperature sensor		SEGNAL. ACUSTICA MOVIMENTI Movements acoustic signal
0	1	2	3	4	5	6	7	8	9



QUADRO NAVICELLA

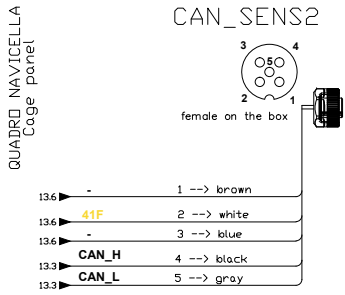
QUADRO NAVICELLA  
Cage panel

QUADRO GENERALE  
General panel

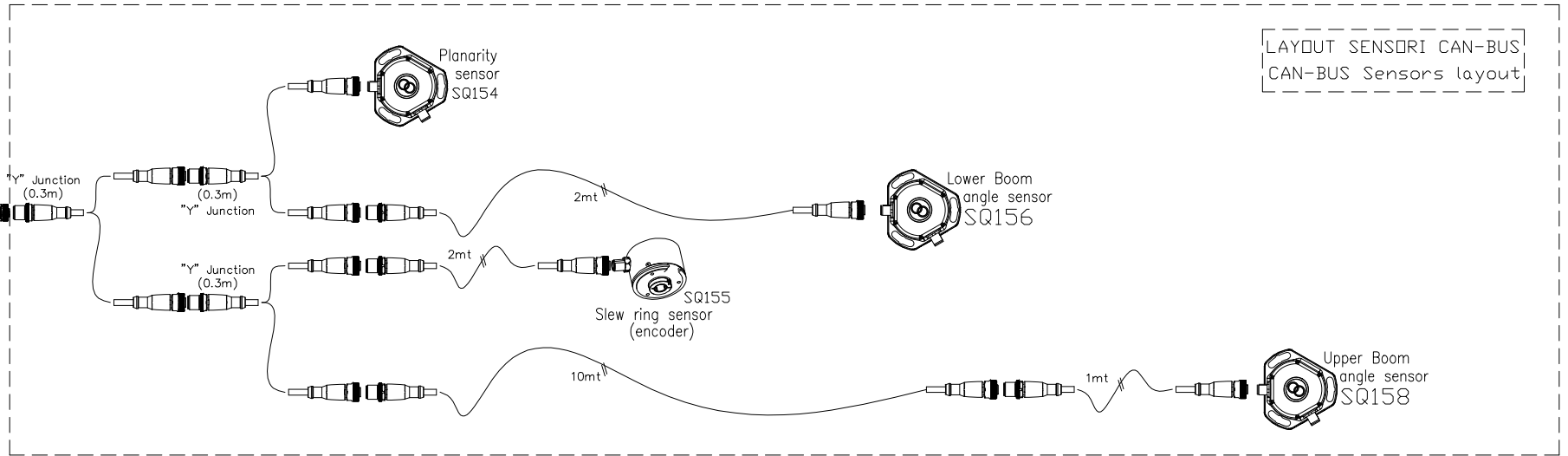
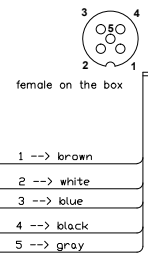


QUESTO DISEGNO È PROPRIETÀ DELLA NOSTRA SOCIETÀ CHE TUTELERÀ I PROPRI DIRITTI A TERMINI DI LEGGE. This DRAW is property of the Company which protects its rights according to the law.

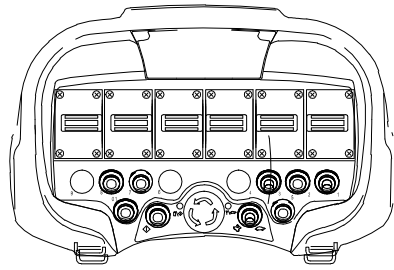
CONNESSIONE SENSORI CAN-BUS CAN-BUS sensors connection				INDICATORE PLANARITA' (X/Y) Planarity indicator (X/Y)	SENSORE ANGOLO RALLA Slew ring angle sensor	SENSORE ANGOLO BRACCIO INF. Lower boom angle sensor		SENSORE ANGOLO BRACCIO SUP. Upper boom angle sensor	
0	1	2	3	4	5	6	7	8	9



CAN\_SENS

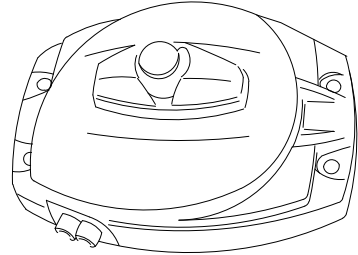


QUADRO NAVICELLA  
Cage panel



Pulsantiera fissa (Fixed remote control)

TELE version G3



CBL\_A

Pin no.	Colour/Function
1	Brown / DV1+
2	White/Power supply+12/24Vdc
3	Blue / GND / CAN_GND
4	Black / CAN_HIGH
5	Grey / CAN_LOW

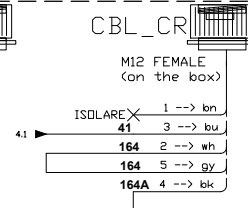
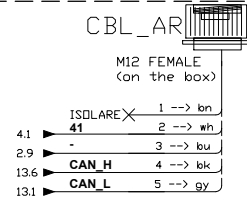
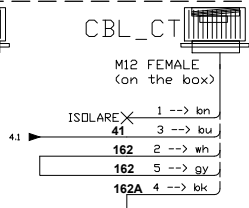
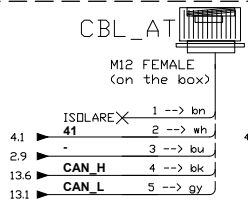
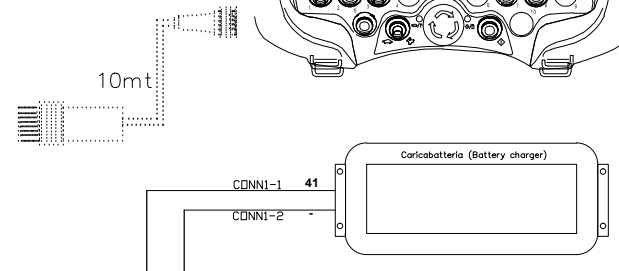
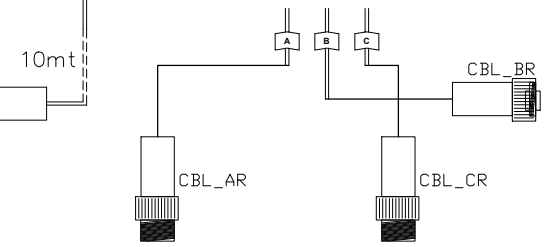
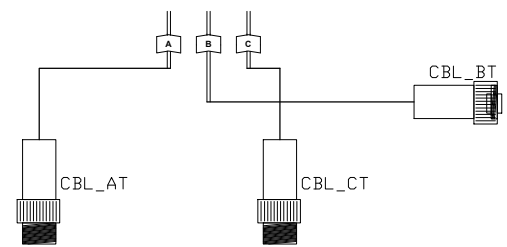
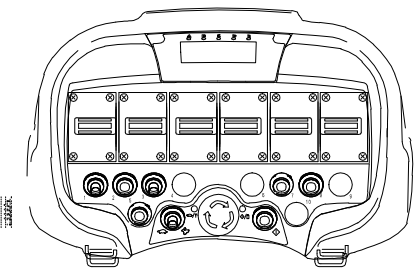
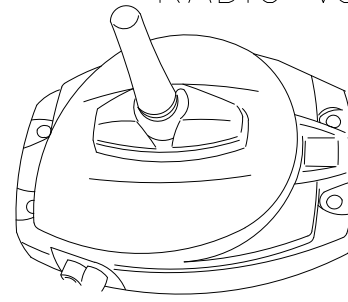
CBL\_B

Pin no.	Colour/Function
1	Brown / Data
2	White / GND
3	Blue / RS232 TX
4	Black / RS232 RX
5	Grey / Supply output/CAB+

CBL\_C

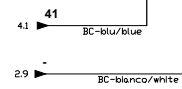
Pin no.	Colour/Function
1	Brown / DV2+
2	White / LOOP1_OUT
3	Blue / LOOP1_IN
4	Black / LOOP2_OUT
5	Grey / LOOP2_IN

RADIO version G3



CONNECT. ST  
PIN 38

CONNECT. ST  
PIN 21



# LEGENDA COMPONENTI

## Components legend

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

- SB40 => Emergency push-button (cage position)
- SB40A => Emergency push-button (ground position)
- SA40 => General Key
- SB45 => Footswitch (OPTIONAL)
- SP43 => Basket load cell (doubled inside)
- SQ60 => Pressure sensor
- SQ121 => Microswitch staibilizer 1 "on ground"
- SQ122 => Microswitch staibilizer 2 "on ground"
- SQ123 => Microswitch staibilizer 3 "on ground"
- SQ124 => Microswitch staibilizer 4 "on ground"
- SQ144 => Display (Ground panel)
- SQ154 => Planarity sensor (chassis level)
- SQ155 => Turret angle sensor (doubled inside)
- SQ156 => Lower boom angle sensor (doubled inside)
- SQ158 => Upper boom angle sensor (doubled inside)
- SB66 => Emergency Rescue button
- KM65 => Main contactor for 230V electric motor

### HOW TO FIND COMPONENTS IN THE SCHEMATICS

Example:

