Wheel Play Detector 547SP

(single plate for pit use)

Operator, Installation & Maintenance Manual

INDEX

0 FOREWORD

0.1. HOW TO READ AND USE THIS MANUAL

This Manual is the official document that provides the necessary instructions for use and maintenance of the Machine to which it refers.

The information contained in this Manual is correct at time of printing and can be changed without prior notification. The Manufacturer will not be held responsible for damage to property or persons due to any misuse of the Play Detector.

0.2. IMPORTANCE OF THE MANUAL

This Manual must be considered as integral part of the Play Detector.

The Manual should be kept for the entire useful life of the Play Detector.

The Manual should accompany the Play Detector if sold or transferred. In this case the seller should inform the Manufacturer of the transfer by letter or fax.

In addition to all useful information for operators, the Manual contains in specific chapters all wiring, pneumatic and hydraulic diagrams, for any kind of control, maintenance and repair operations.

0.3. CONSERVATION OF THE MANUAL

The Manual should be kept in a safe place protected from humidity and excessive heat.

Consult the Manual in such a way as not to damage all or part of its contents.

Do not tear pages out of the Manual.

0.4. CONSULTING THE MANUAL

The Manual has been drawn up according to the indications in **Machine Directive 2006/42/CE**

It is basically composed of:

A. The cover page with identification
B. Index of chapters
C. Alphabetical index by subjects
D. Instructions for use of Play Detector.
E. Drawings of single and assembled parts.
F. Tables of Spare Parts
G. Enclosures

A - Cover page

The cover in stiff colored cardboard identifies the Play Detector that this Manual refers to.
The cover contains:

The Manufacturer’s Logo
Type of Play Detector
Appointed Service Dealer

B - Index of Chapters

The Index of Chapters lists the topics covered by the Manual.

C - Index

The Index details the Chapters extending the research of subtitles topic by topic.

D - Instructions for use of Play Detector

This part of the Manual provides a detailed description of how the Play Detector functions, the operations to perform to use it properly, instructions for installation, safety recommendations, procedures for intervention of the operator.

E - Drawings of single and assembled parts

This part contains the main construction drawings and assembled drawings relative to the various parts of the Play Detector.

F - Tables of Spare Parts

These Tables, that refer to the drawings provided in the previous chapter, identify the parts of the relative sections indicating the number installed and the recommended number of spare parts for replacement.

G - Enclosures

This part contains all the technical documents relative to the parts purchased from suppliers and used by the Manufacturer in the construction of the Play Detector. References in the text of the Manual will facilitate their consultation.

0.5. UPDATING THE MANUAL

In case of substantial modifications to the Play Detector, the Manufacturer will provide the Customer with a new version of the Manual in which all the modifications to the Machine will be included.

The previous version will then be withdrawn by the Manufacturer in order to ensure the proper congruence between the Play Detector and the Manual.

0.6. REQUESTING A NEW MANUAL

If this Manual should be lost or damaged, the client can request a copy from the Manufacturer.

Please fax the request with identification data of Play Detector shown on the plate applied to its structure. This will incur an administration charge.

1 GENERAL REMARKS

With the use of advanced tecnology and engineering, combined with reliable components make the Play Detector one of the best available in the market place today.

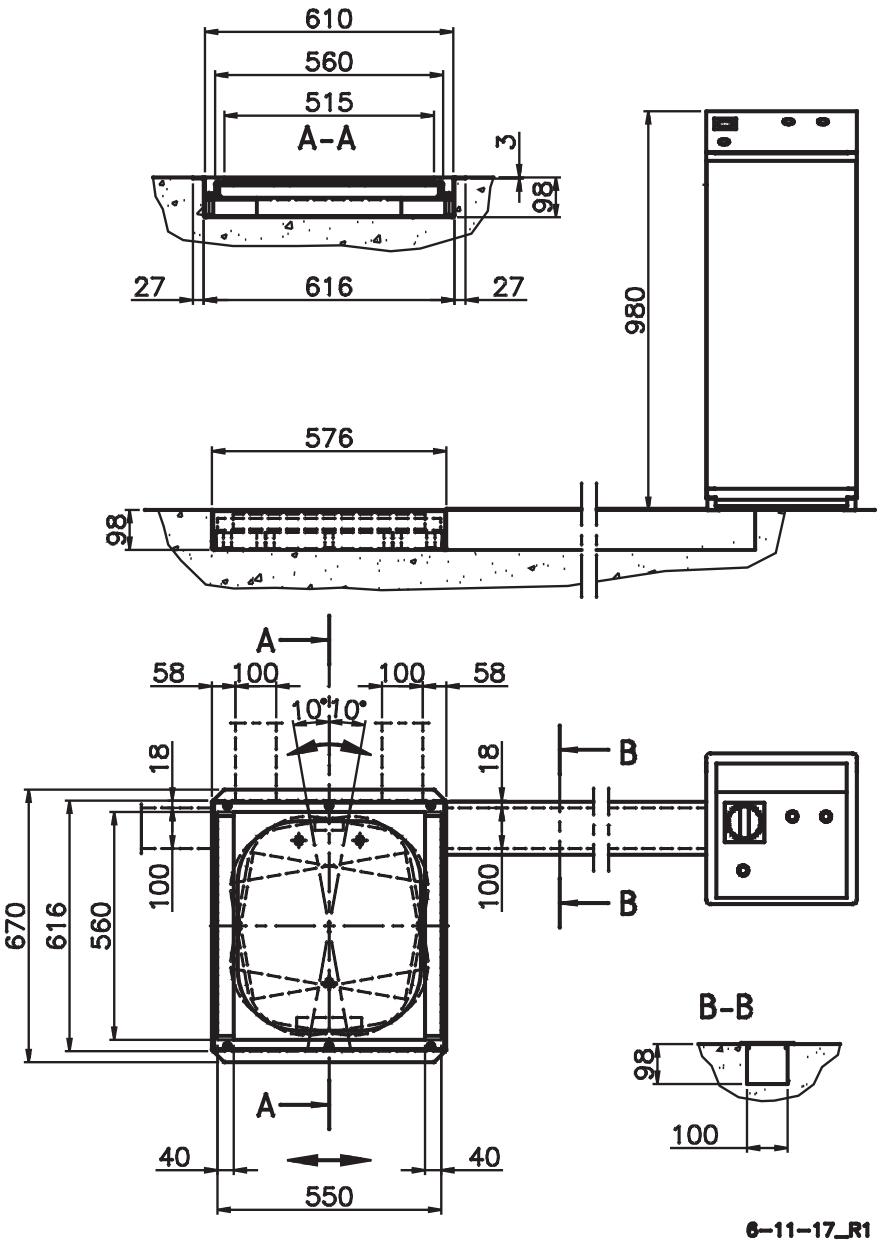
1.1. CHARACTERISTICS

Max Capacity of the plate	Kg.	1300
Max. stroke platform	mm	± 40
Max. angle platform	°degree	± 10
Max Thrust of the plate	kN	8,00
Weight	Kg.	75
Power supply	V.	230/400 50 Hz
Motor	Kw.	3 threephase
	Kw.	2,2 singlephase
PUMP		2.5 CC
Maximum oil pressure	Bar	250
Nominal Motors Absorption	A.	11 threephase
Working temperature	°c	-10 ÷ + 55
Humidity		30 ÷ 95% (without condensation)
Noise	dB (A)	< 75

1.2. LIMITATIONS ON USE

The Play Detector should be used in environments **free from explosive hazards.**

PLAY DETECTOR DIMENSIONS



FLOOR

The play detector must be installed on a horizontal concrete bed with a minimum thickness of 180 mm with resistance of 25 N/mm^2 minimal.

1.3. IDENTIFICATION DATA

The identification data for the Play Detector is displayed on an aluminum plate fastened in a visible place on the Machine.

1.4. SERVICE

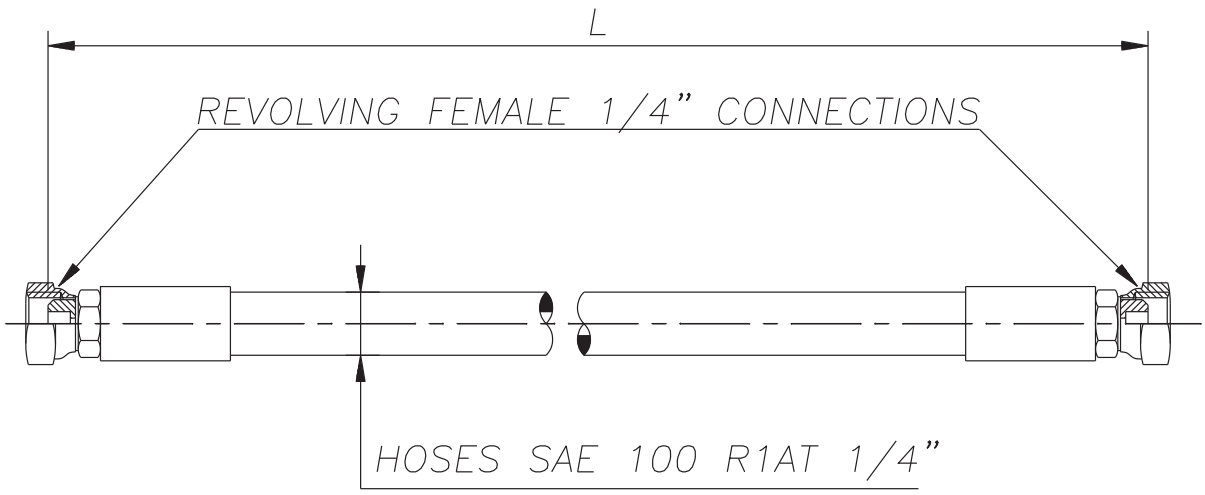
The Manufacturer guaranteese The Play Detector for a period of 12 months from the date of installation.

Service is guaranteed by the Manufacturer (or authorized local distributor, if any).

2 INSTALLATION

For e safe installation of the Play Detector, we recommend to follow the instruction here below:
Verify that the max pressure of the main hydraulic unit do not exceed 250 bar.
Verify that the main supply line suppots 230V - 50Hz - 1Ph, or 400V - 50Hz - 3Ph.

HOSES LENGTH

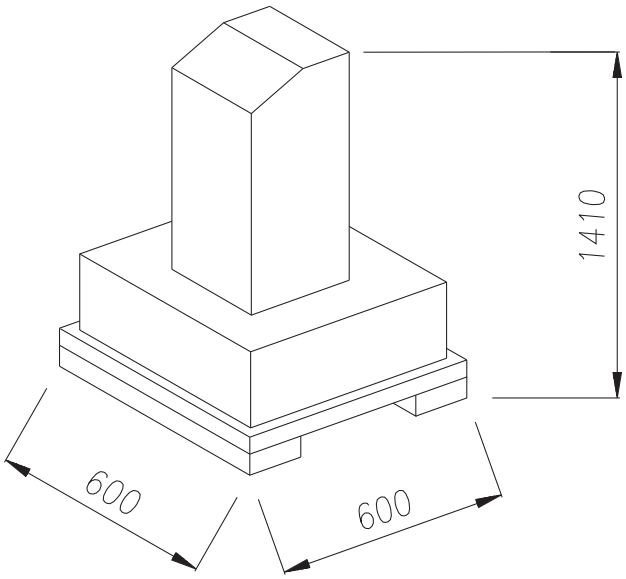


LENGTH HOSES "L" IS DEFINITE FROM THE INSTALLATION DISTANCES

2.1. TRANSPORTATION OF THE PLAY DETECTOR

During all the preparation and unloading insure that the Play Detector be carried out in full respect of the regulations in effect.

Here below can be found the main dimensions of the packaging when the Play Detector is purchased separately.



2.2. INSPECTION OF COMPONENTS

On receipt of the shipment, it is very important to inspect the material received.

Particular attention should be given to:

Documents vs. Goods : no. of packages
Weight and dimensions

Physical state of goods :Condition of packages
Absence of damage

The goods should be inspected with the maximum care in the presence of the carrier because, in spite of the extreme care used by the Manufacturer in the selection of packing materials, there is always the possibility of damage occurring during shipment.

In this connection we point out that the goods are shipped at the buyer's risk, therefore the manufacturer is not responsible for damage during transport.

2.3. *INSTALLATION OF THE PLAY DETECTOR*

Prepare the recess space where the plates of the play detector and the electrical channel for the connections are to be installed (see **PLAY DETECTOR DIMENSIONS**).

Place platform plate inside the recess.

Place the control box with hand-lamp at the correct distance from the play detector plate.

Take out the electric cables and connect the hydaulic hoses tu the control unit and rubber hoses

Connect the electrical cables and electrovalves to the control unit

CAUTION TAKE CARE OF ELECTRIC CABLES

The qualified operator assigned to perform these operations should make sure that non authorized persons be present at the installation site.

2.4. *CONNECTION TO POWER UNIT*

Before connecting the unit, make sure that:
the power supply plant is equipped with the protection devices required by current standards in the country where the machinery is installed.

- the power supply line has the following cross section:

Voltage 400V, three-phase minimum 1,5 mm
Voltage 230V, three-phase minimum 1,5 mm
Voltage 230V, single-phase minimum 2,5 mm

- the voltage oscillations are within the tolerance range set forth by the specifications.

It is up to the user to ascertain that the power mains comply with international and local safety standards. The Manufacturer is not responsible for damage due to "Non-Conformity" of the electrical system. The manufacturer will not be liable for any malfunctioning caused by disturbance from other equipment.

It is essential to make the "*EARTH CONNECTION*", using a 0,03A differential switch, and checking its correct functioning by means of an appropriate measuring device.

2.5. *REMOVING AND DISPOSING OF THE PLAY DETECTOR*

In order to facilitate disposal of the different play detector components, they should be sorted into categories. Consider the components are special waste materials and that they must be disposed of by specialized companies in compliance with current local regulations.

3 DESCRIPTION OF THE PLAY DETECTOR

3.1. BEFORE STARTING OPERATION OF THE PLAY DETECTOR

Ensure all hydraulic connections are correct as per hydraulic circuit diagram.

You are now ready to operate with the play detector.

3.2 OPERATION

Ensure a qualified operator to be the only person within the operating perimeter of the Play Detector is clear of any obstructions.

The torch is fitted with 2 push buttons and a selector switch:
- one push button directional left (sliding/rotating plate)
- one push button directional right (sliding/rotating plate)
- the selector switch (sliding or rotating plate)

These push buttons operate solenoid C13 and C14 (see electric scheme)

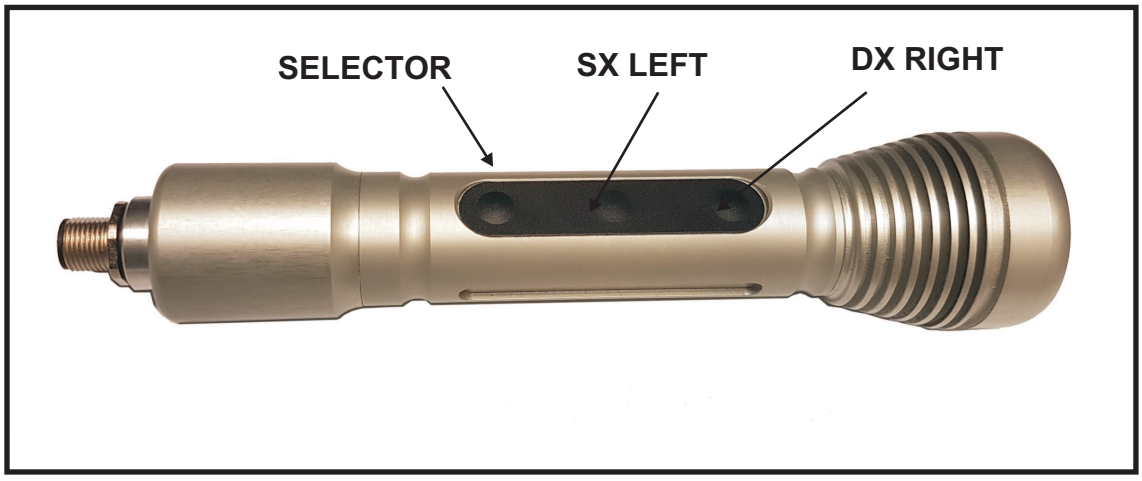
The selector switch is able to provide sliding or rotating plate selection.

The sequence of operation is in accordance with the current issue of:

THE MOT INSPECTION MANUAL Car and Light Commercial vehicle Testing

Do not perform tests on the vehicle or do anything else that could apply traction to the wheels.

Do not load any vehicle, exceeding the rated working capacity of the Play Detector.



4 SAFETY DEVICES

The Play Detector has been manufactured in compliance with the provisions issued by "Machine Directive 2006/42/CE" and all the following harmonized standards

4.1. PRECAUTIONS

For the safety of the operator the following general rules should be adhered to:

- The Play Detector should be used only by authorized personnel.

It is important to remember that the sliding plates of the Play Detector are potentially dangerous and can cause severe injuries.

A. It is essential for the operator to have complete visibility of the working area whilst he operates under the vehicle.

B. Make sure the vehicles to be tested do not exceed the maximum capacity of the Play Detector.

Before lifting a vehicle, make sure the front wheels are straight.

The work area should be free from non authorized persons.

Do not apply external forces on the vehicle when lifted (Traction, lifting, etc.)

Check the stability of the vehicle before any kind of operation.

4.2. SAFETY DEVICE

The Play Detector has been designed in conformity with the European Standards and provided with the following features.

Never disconnect the safety devices for any reason. Otherwise the Manufacturer will not be responsible for any damage to property or persons caused by similar negligence.

- Fixed flow limiter (to limit max cylinder speed).
- Mechanical stops at the end of each plate stroke.
- Maximum pressure valve
- Dead man controls

4.3. TROUBLE SHOOTING TABLE

SYMPTOM	POSSIBLE CAUSE	REMEDY
Plates are sliding very slowly, even without load.	Dirt in restrictor screw.	Unscrew delivery hose "P" from the valve block remove M8 allen screw clean with cleaning fluid and blow out with air gun. Check pressure of relief valve.
Platform is sliding or rotating very slowly, even without load.	Dirty part inside the aluminium solenoid block.	Unscrew nipple ¼" from delivery hose from aluminuim block (made in RILSAN plastic). There is inside a small black screw M8 with an hexagonal female key, which has an opening diameter 0,8 mm. Check whether this orifice is free or has some dirty part which create obstacle to oil flow.
One movement (sliding or rotating) working regularly, the other doesn't work at all.	Problem in the hand-lamp selector. It doesn't switch on C11 and C12	Check whether with selector on hand-lamp you hear the "tic" which signals the on-switching of both C11 and C12. Check connection on board of solenoid valves, or into the main connector of hand-lamp.
Both plate work in one direction only.	One pushbutton is broken or contacts are failing.	Open the hand-lamp and verify the pushbutton and its contacts.
Sliding or rotating plate work in one direction only.	One of the pushbutton is broken or contacts are failing.	Remove push button cover (on torch) and check push button switches.

5 MAINTENANCE

Due to the simplicity of construction and operation of the Play Detector, it requires very little maintenance.

It should be sufficient to follow the few simple rules as listed below to ensure reliable performance.

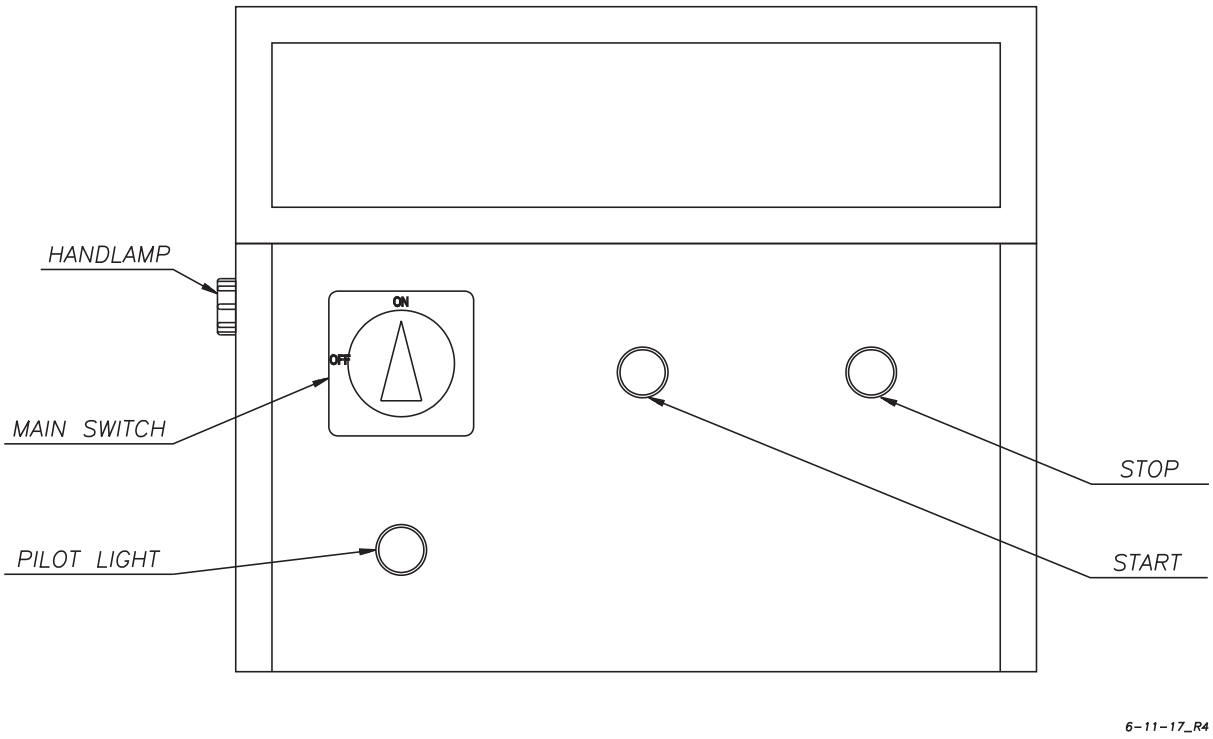
We strongly recommend every 6 months that the Play Detector be thoroughly cleaned and serviced, sliders be replaced if necessary to enhance safe and prolonged operations.

Check that other electrical and mechanical parts are in good condition, clean and lubricate as required.

CAUTION !
WHILE DISPOSING USED OILS AND LUBRICANTS REFER TO THE LOCAL RUNNING REGULATION.

5.1. CONTROLS AND CALIBRATION

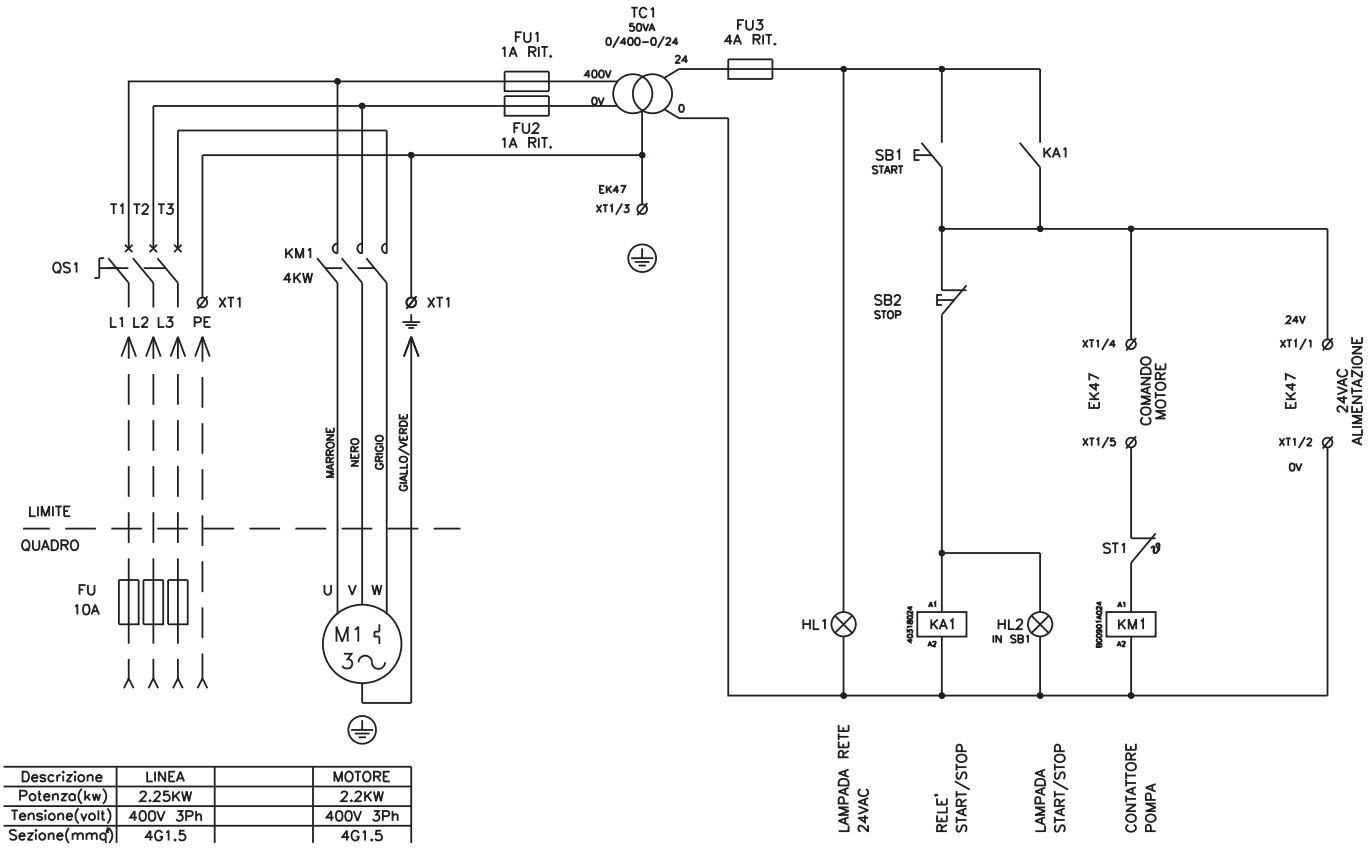
The following checks must be made every 6 months:
- Check solenoid connectors.
- Check all hydraulic hoses and connections.
- Check all internal electric connections are secured correctly.



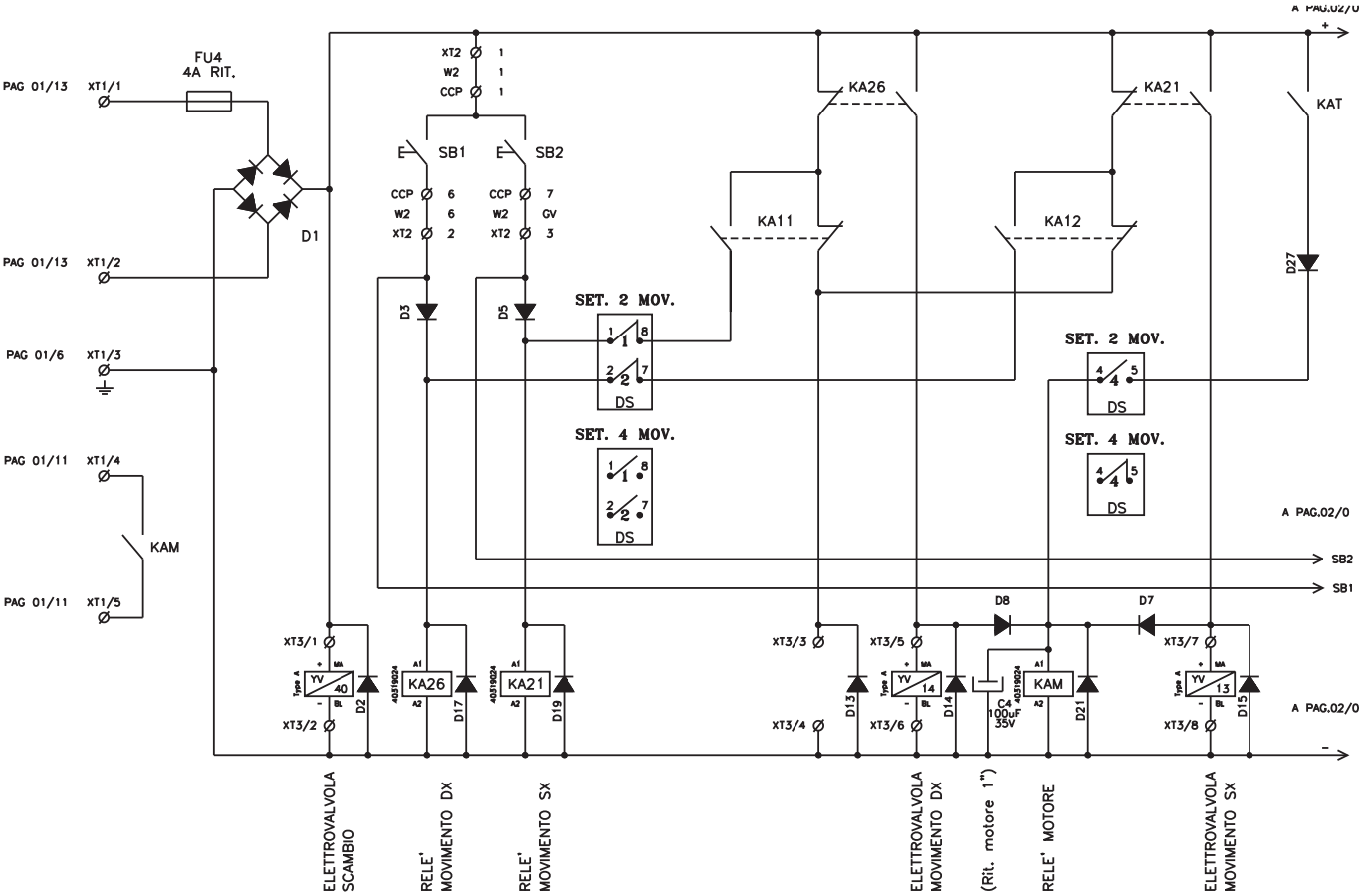
6 ANNEXES – PARTS LIST

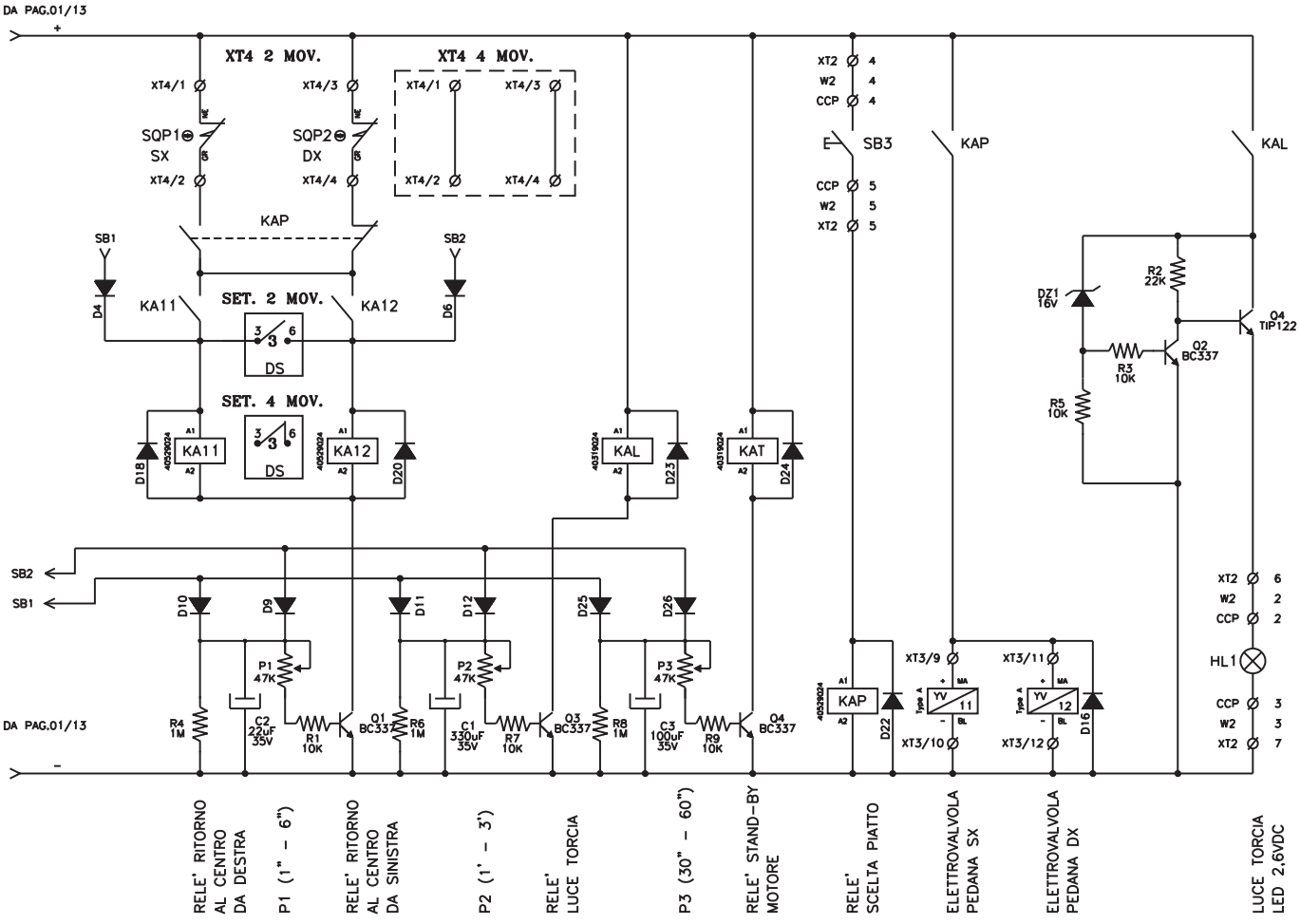
WIRING DIAGRAMS AND HYDRAULIC

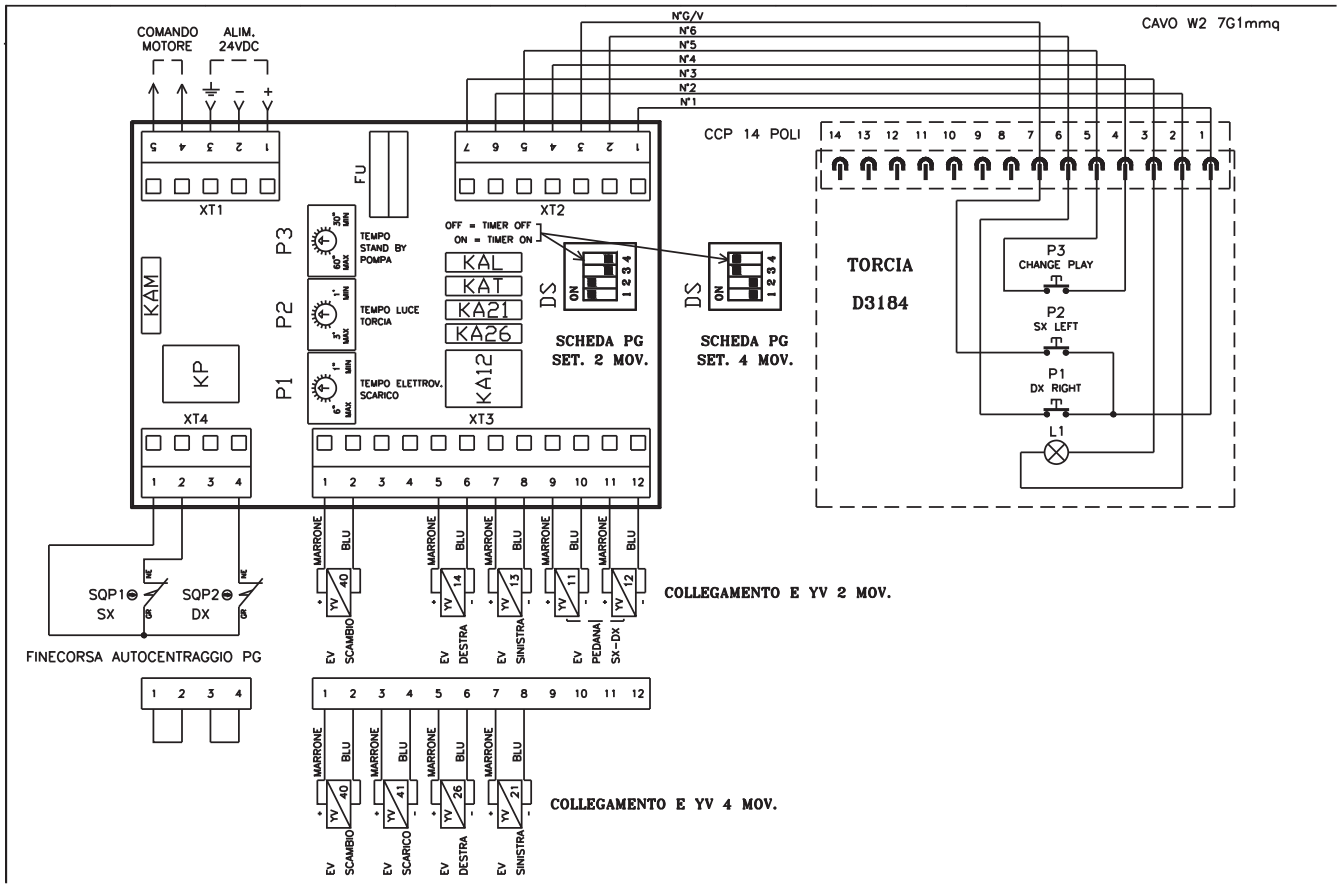
THREE-PHASE wirning diagram



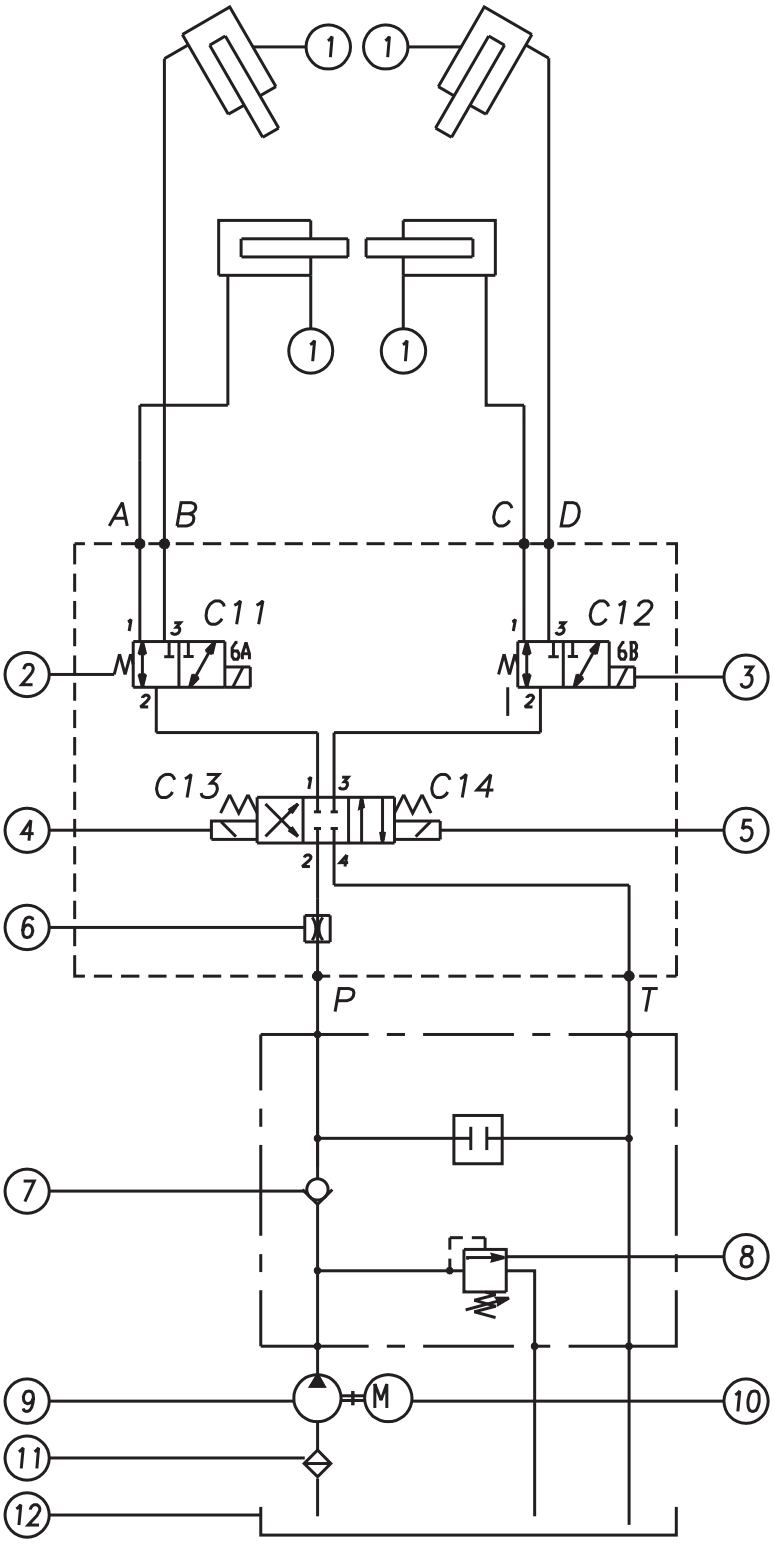
Descrizione	LINEA		MOTORE
Potenza(kw)	2.25KW		2.2KW
Tensione(volt)	400V 3Ph		400V 3Ph
Sezione(mmq)	4G1.5		4G1.5



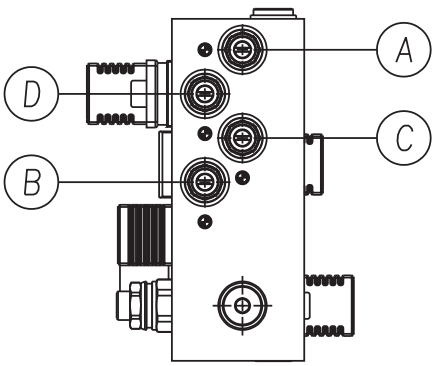

DA PAG.01/13
XT4 2 MOV.
XT4 4 MOV.
SQP1 SX
SQP2 DX
KAP
SB1
SB2
SET. 2 MOV.
KA11
KA12
DS
SET. 4 MOV.
KAL
KAT
SB3
R1 10K
R2 22K
R3 10K
R4 1M
R5 10K
R6 1M
R7 10K
R8 1M
R9 10K
C1 330uF 35V
C2 22uF 35V
C3 100uF 35V
P1 47K
P2 47K
P3 47K
Q1 BC337
Q2 BC337
Q3 BC337
Q4 BC337
Q4 TIP122
DZ1 16V
HL1
RELE' RITORNO AL CENTRO DA DESTRA
P1 (1" - 6")
RELE' RITORNO AL CENTRO DA SINISTRA
P2 (1' - 3')
RELE' LUCE TORCIA
P3 (30" - 60")
RELE' STAND-BY MOTORE
RELE' SCELTA PIATTO
ELETTROVALVOLA PEDANA SX
ELETTROVALVOLA PEDANA DX
LUCE TORCIA LED 2,6VDC

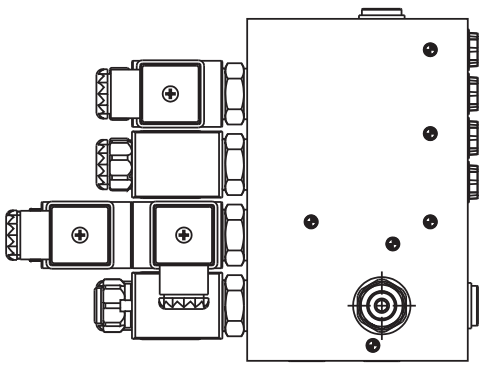

COMANDO MOTORE
ALIM. 24VDC
CAVO W2 7G1mmq
CCP 14 POLI
XT1
XT2
XT3
XT4
FU
KAM
KP
KA12
KAL
KAT
KA21
KA26
TEMPO STAND BY POMPA
TEMPO LUCE TORCIA
TEMPO ELETTROV. SCARICO
OFF = TIMER OFF
ON = TIMER ON
SCHEDA PG SET. 2 MOV.
SCHEDA PG SET. 4 MOV.
TORCIA D3184
P3 CHANGE PLAY
P2 SX LEFT
P1 DX RIGHT
L1
SQP1 SX
SQP2 DX
FINECORSA AUTOCENTRAGGIO PG
COLLEGAMENTO E YV 2 MOV.
COLLEGAMENTO E YV 4 MOV.
SCAMBIO
DESTRA
SINISTRA
PEDANA SX-DX
SCARICO

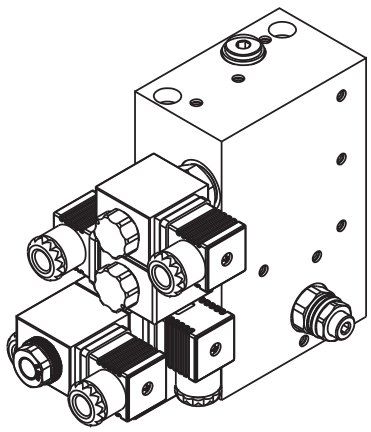
HYDRAULIC SCHEME

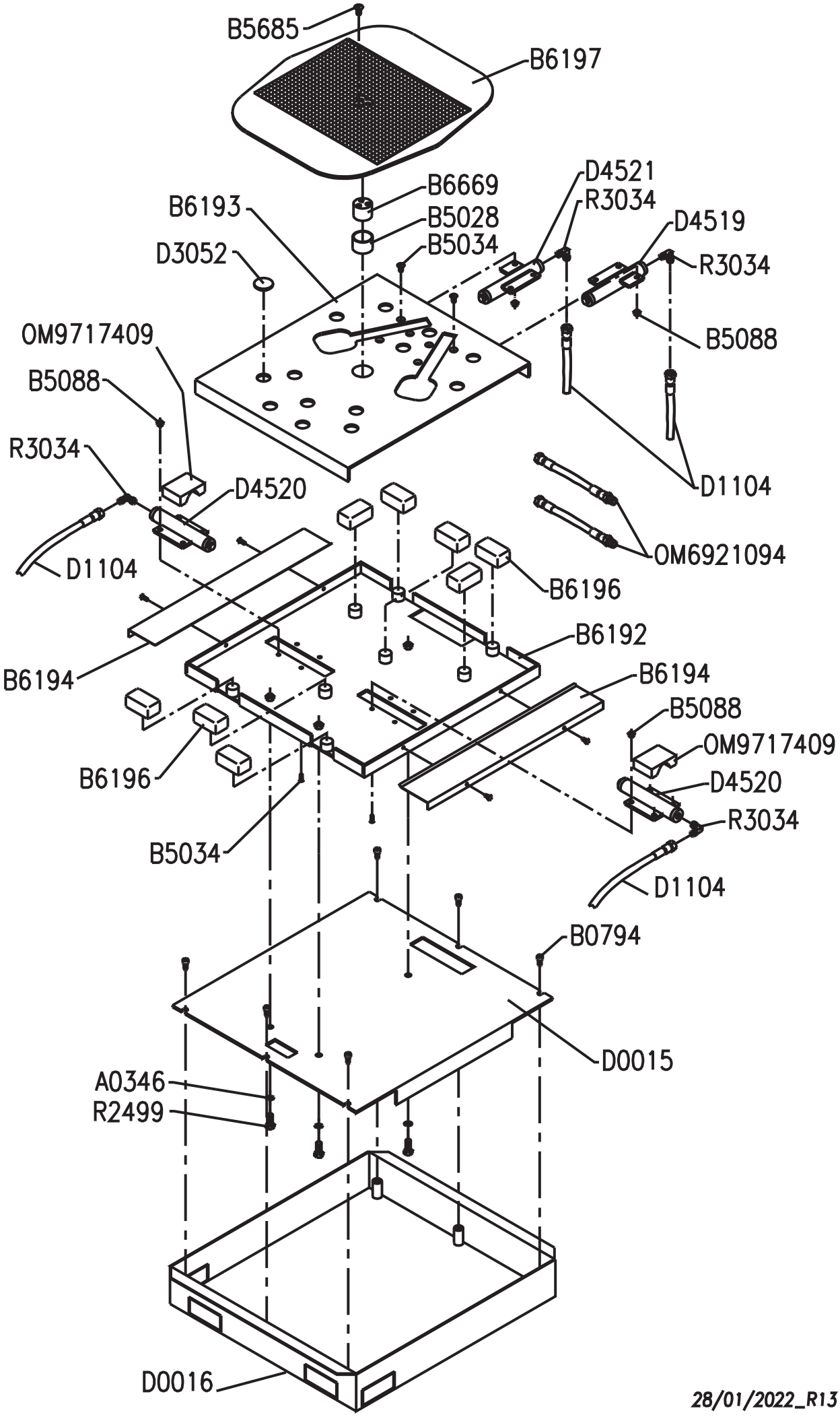


1	Cylinder
2	Solenoid valve
3	Solenoid valve
4	Solenoid valve
5	Solenoid valve
6	Flow control valve
7	Check valve
8	Maximum pressure valve
9	Pump
10	Motor
11	Suction filter
12	Oil tank









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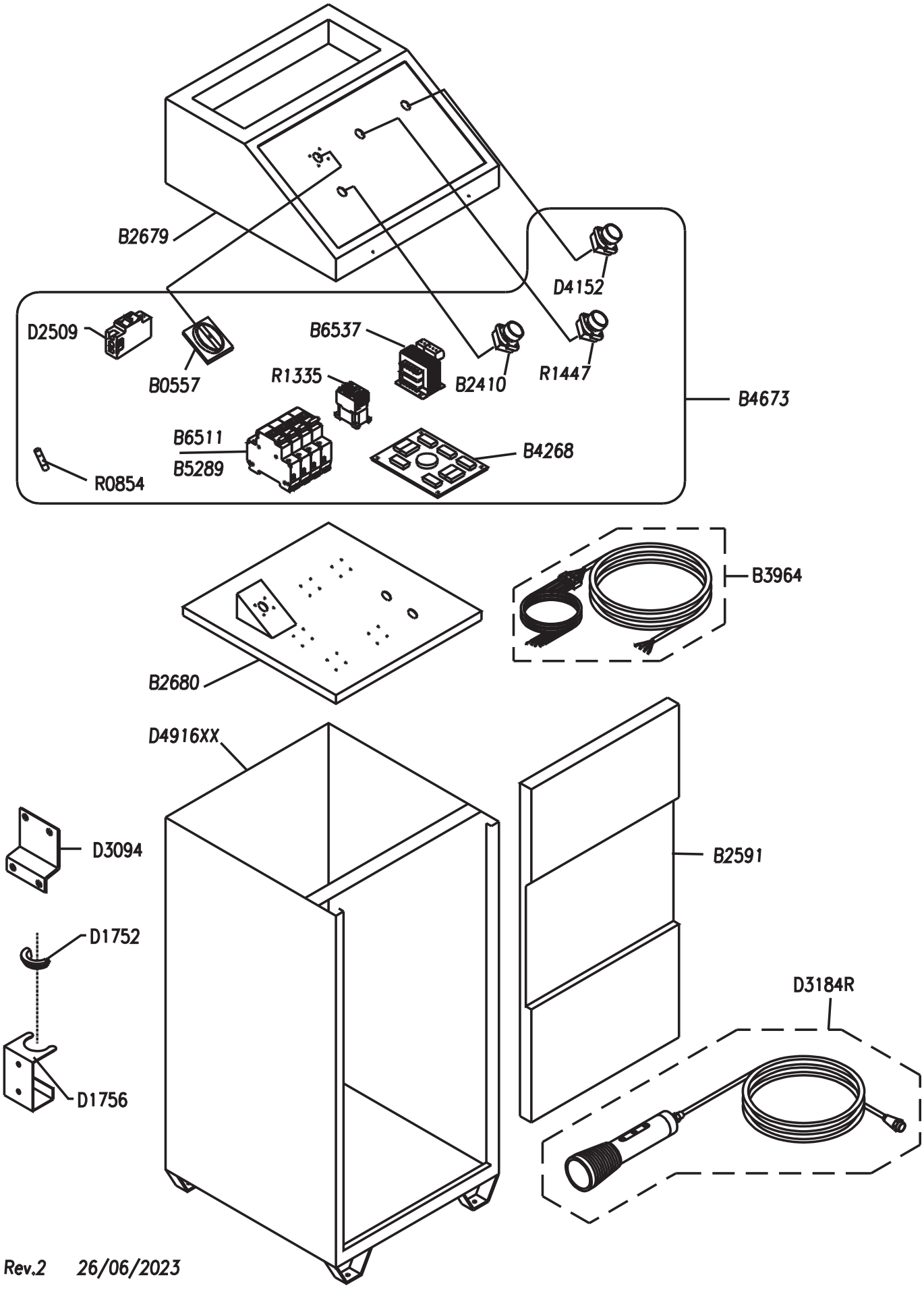
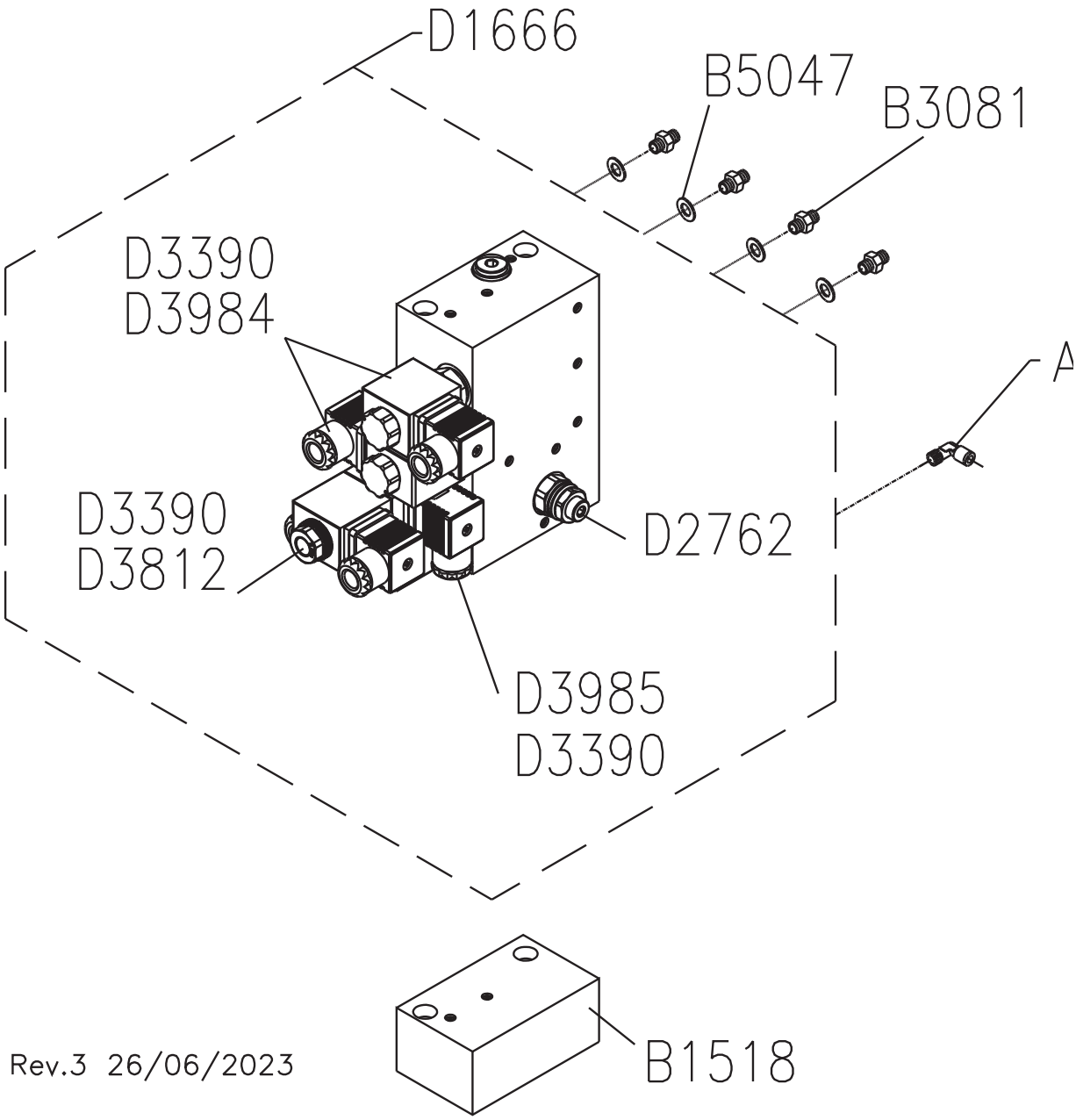
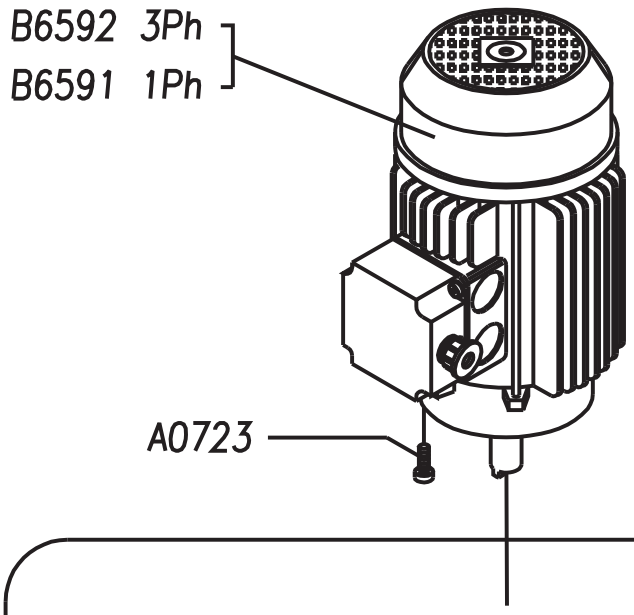


Rev.2 26/06/2023

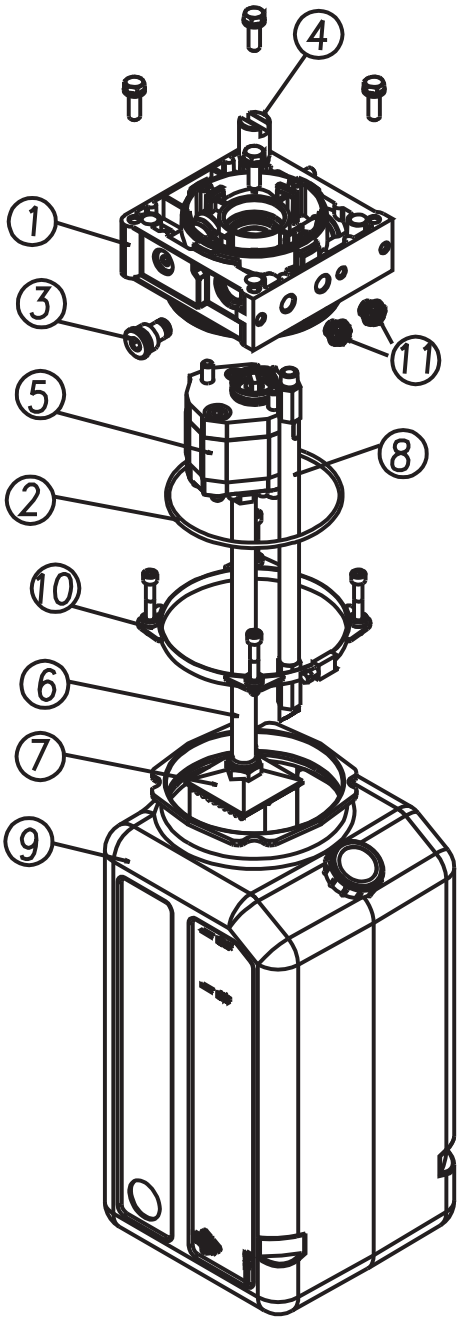


Rev.3 26/06/2023



D3362 3Ph

D3363 1Ph



D3762

1	D4168
2	D0248
3	B5450
4	D3589
5	R2235
6	R2236
7	R1342
8	B5431
9	B5433
10	R1767
11	B4867

17/09/2019_R5

Part Code	Sugg	Description
A0328		L-SHAPED COUPLING 1/4" M FOR PIPE Ø 8
A0346		WASHER 12 X 24 UNI 6592
A0723		SCREW
B0557	*	MASTER SWITCH ASSEMLY 3LD1118-OTB53
B0794		SCREW TCCE M10X20 UNI 5931 ZB
B1518		VALVE BODY B15
B2410	*	WITHE LAMP 24V
B2591		CABINET FRONT DOOR
B2679		CONTROL PANEL
B2680		SUPPORT ELECTRICAL COMPONENTS
B3081		1/4" NIPPLES
B3964		ELECTRIC WIRES KIT
B4268		ELECTRIC BOARD
B4673		ELECTRIC CONTROL PANEL
B4867		PLUG
B5028	*	BUSHING Ø40X44X30MBI CB85 402
B5034		SCREW TSPEI M8X12 UNI 5933
B5047	*	GASKET WITH 1/4" SEAL
B5088		NUT M8 UNI 7474
B5289	*	FUSE 10X38 1A AM
B5431		DRAIN PIPE
B5433		TANK
B5450		PLUG
B5685		SCREW
B6192		BASE
B6193		SLIDING PLATE
B6194		CASING
B6196		SLIDING PAD
B6197		ROTATING PLATE
B6511		FUSE CARRIER 10X38 WIMEX PCH10X38
B6537	*	TRANSFORMER 0-230-400 0-24V 50VA
B6591	*	MOTOR B14 230/50-60 1PH 2,2KW-K3
B6592	*	MOTOR B14 230-400/50T 3KW 4CO.K3
B6669		PIN
D0015		PLATE
D0016		FRAME
D0248		O'RING
D1104		PIPE "A"
D1666		HYDRAULIC ASSEMBLY PG2M '14
D1752		HAND-LAMP ADAPTER
D1756		HAND-LAMP COUPLER
D2509		RELAY
D2762		MAX PRESSURE VALVE
D3052		SLIDE PAD

D3094		HYDRAULIC ASSEMBLY SUPPORT
D3184R		TORCH FOR PLAY DETECTOR
D3362		HYDR.POWER UNIT
D3363		HYDR.POWER UNIT
D3390	*	SOLENOID VALVE COIL
D3589		CONNECTING PUMP K3
D3762		OIL POWER UNIT
D3812		VALVE
D3984		ELECTRO-VALVE VED-016-32-08A-A-10
D3985		ELECTRO-VALVE VED-016-43-08
D4152		RED PUSH-BUTTON
D4168		MANIFOLD
D4519		CYLINDER
D4520		CYLINDER
D4521		CYLINDER
D4916XX		CABINET
OM6921 094		FLEXIBLE HOSE
OM9717 409		PAD
R0854		FUSE HOUSING 5X20 4A RIT
R1335	*	CONTACTOR AEG 4KW 24AC NO MIG262
R1342	*	AIR FILTER
R1447		LIGHT PUSH BUTTON
R1767		TANK FASTENING KIT
R2235	*	PUMP 2,5CC
R2236		SUCTION PIPE
R2499		SCREW M12X20 UNI 5739
R3034		“L” CONNECTION M/M 1/4"
Z_RICA MBI		* = RECOMMENDED SPARE PARTS

GARAGE EQUIPMENT ASSOCIATION LIMITED
2/3 Church Walk, Daventry, Northamptonshire NN11 4BL UK
tel: +44 (0) 1327 312616 fax: +44 (0) 1327 312606
email: info@gea.co.uk website: www.gea.co.uk

CERTIFICATE OF ACCEPTANCE

PLAY DETECTORS FOR TESTING STEERING & SUSPENSION

Play Detector Make and Model:

OMA 547 SP

EINAP15240A0909036--

Suitable to test:

Classes IV, VL & VII

Service Period:

12 monthly

Must only be used when part of an Automated Test Lane (ATL)

This is to certify that the above Play Detectors meet the requirements of the VOSA 2005 MOT Play Detector Specification. They are therefore acceptable for performing steering and suspension tests when part of an Automated Test Lane (ATL).

23 September 2009

Chief Executive **Date**

For and on behalf of the Garage Equipment Association (GEA), administrators of the VOSA equipment approval scheme

For Manufacturers/Importers use

I certify that the test equipment of the above make and model, bearing the serial number: .....

is installed in VTS No: ..... and is suitable for MOT testing.

VTS Details:

Name .....

Address .....

.....

Postcode .....

Supplier's Details:

Name ..... Position .....

Signature ..... Company .....

Registered in London No. 2891852

Dichiarazione di conformità - Declaration of Conformity
Konformitätserklärung - Déclaration de conformité
Declaración de conformidad - Overensstemmelseserklæring
Samsverserklæring - Överensstämmande intyg
EG-Conformiteitsverklaring

WERTHER INTERNATIONAL S.p.A.
Via F.Brunelleschi, 12 - 42124 CADE' (Reggio Emilia) Italy
Tel.+39/0522/9431 (r.a.) Fax +39/0522/941997

con la presente dichiariamo che
déclare par la presente que
hereby we declare that the
hiermit erklären wir,
por la presente declara,
Vi erklærer hermed,
Vi erklærer herved,
Vi förklarer härmed
verklaren hiermee,

547SP-547SPF

I	è stato costruito in conformità alle direttive 2006/42/CE -2014/30/UE	zostal wyprodukowany zgodnie z zasadami dokumentów 2006/42/CE -2014/30/UE	**PL**
GB	has been manufactured in conformity with the directives 2006/42/CE -2014/30/UE	er fremstillet i overensstemmelse med bestemmelserne i 2006/42/CE -2014/30/UE	**DK**
F	a été construit en conformité avec les directives 2006/42/CE -2014/30/UE	är framställt i överensstämelse med bestämelser i RÅDETS DIREKTIV 2006/42/CE- 2014/30/UE	**S**
D	wurde entsprechend den Richtlinien 2006/42/CE - 2014/30/UE -	Producten zijn gefabriceerd in overeenstemming met de richtlijn 2006/42/CE -2014/30/UE	**NL**
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