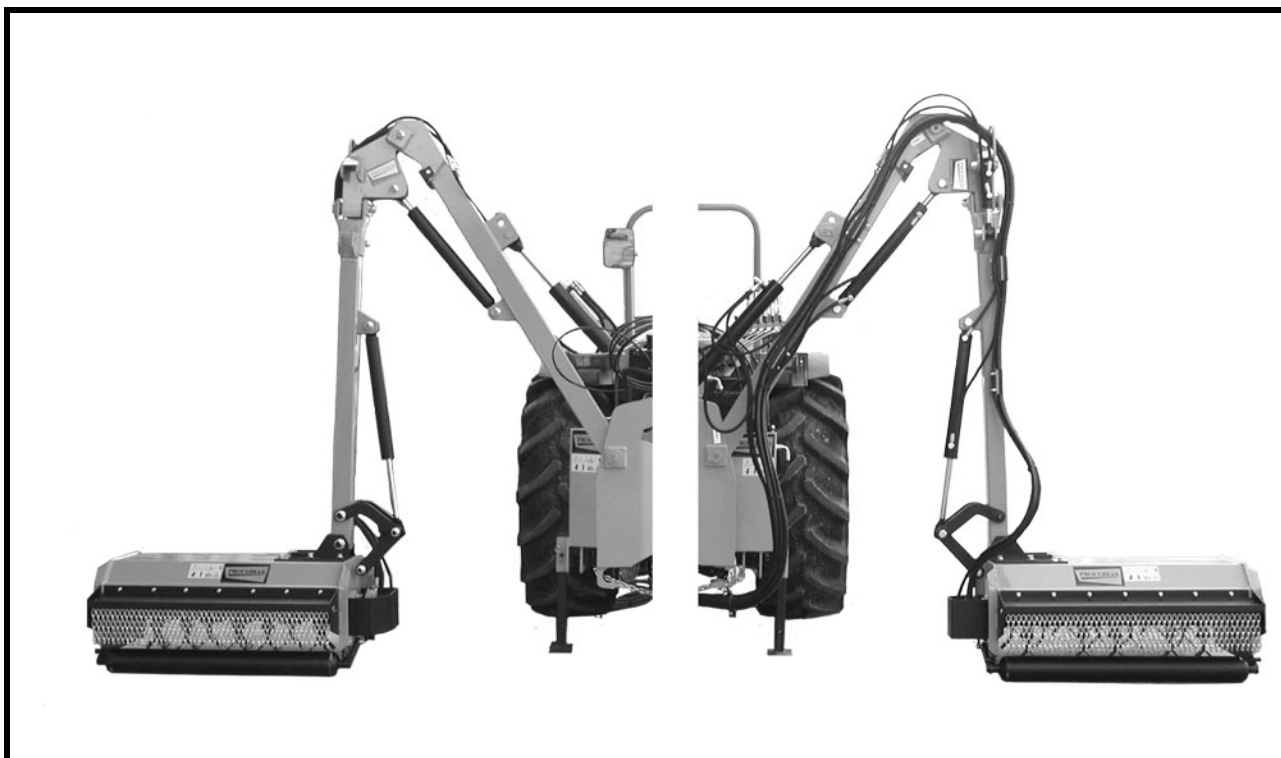


PROCOMAS



CE OPERATORS MANUAL
USE AND MAINTENANCE
FOR THE FOLLOWING MACHINE
HYDRAULIC FLAIL MOWER BS821DS

PROCOMAS srl

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CONFORMITY CE DECLARATION

**In conformity with CEE directive 98/37/CE
(That include the directives 89/392/CEE, 91/368/CEE)
PROCOMAS S.r.l. Via Vegri 241 45036 Ficarolo (RO)
Herewith we certify that this equipment, mark
PROCOMAS**

Model.....

Registration number

Sold on

is in conformity with the essential safety requirement and health protection regarding the directive CEE 98/37/CE and the “EEC Machinery directive”

Calza Lara
Legale Rappresentante

**CE MANUAL
INSTRUCTION FOR USE AND MAINTENANCE OF THE MACHINE
HYDRAULIC FLAIL MOWER WITH ARM
MOD. BS821DS**

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GENERAL SPECIFICATIONS

PROCOMAS hydraulic flail mower with arm serie **BS821DS**, are arranged for to be applied front or back and for to work on the **right and on the left without any modification.**

Designed and made with raw materials of first quality; Machine operation is completely hydraulic, resulting in an extremely easily handled, reliable and versatile implement with a vast range of work; good relation quality - price.

TECHNICAL DETAILS

- **PTO 540/rpm by request 1000/rpm**
- **Application hydraulic lifting 1[^] category.**
- **Double pump with high performance group 2+2**
- **Reversible rotor**
- **Flail mower arranged for to work RIGHT and LEFT**
- **Arm rotation 200°**
- **Oil tank with lt 90**
- **Hydraulic circuit max pressure 180 bar**
- **Power absorbed HP 26 (19 Kw)**

BY REQUEST

Oil cooler mounted

Hydropneumatic compensator

Back lights

SPECIFICATIONS						
Model	Arm mt	Flail Working Width cm	Flail Nr.	Dimension cm	Tourns rotor	Weight Kg.
BS821DS30F81	3,33	80	32	160x160-H225	3.000	495
BS821DS30F101	3,53	100	40	160x160-H225	3.000	505
BS821DS35F81	3,83	80	32	160x160-H250	3.000	515
BS821DS35F101	4,05	100	40	160x160-H250	3.000	25
BS821DS40F81	4,33	80	32	160x160-H275	3.000	535
BS821DS40F101	4,53	100	40	160x160-H275	3.000	545

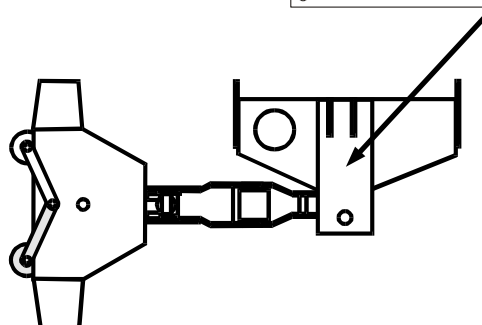
IDENTIFICATION PLATE

Each single piece of equipment, is equipped with an identification plate which bears:

- Manufacturers mark;
- Name, business name and address of the Manufacturer;
- Type of machine;
- Registration of the machine;
- Year of manufacture;
- Mass, in Kilograms.

These informations must always be quoted whenever assistance or spare parts are needed.

MOD.	BS821DSF81	MADE IN ITALY
MATR.	100	CE
P.D.F. g/min	540	Massa Kg 400 Anno 2002
Lubrificazione		Agip
Comando idrodinamico		AGIP CSO 46
Scatola Inganaggi		AGIP ROTAMIP 80W90
Lubrificazione a grasso		AGIP GRASU EP 2



INTRODUCTION FOR MANUAL USE

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

RIGHT-HAND AND LEFT-HAND side are determined by facing the direction the implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the specification or identification number section. Accurately record all numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

BEFORE DELIVERING THIS MACHINE, your dealer performed a predelivery inspection to ensure best performance.

THIS LAWN MOWER IS DESIGNED SOLELY for use in customary mowing operations ("INTENDED USE"). Use in any other way is considered as contrary to the intended use. The manufacturer accepts no liability for damage or injury resulting from this misuse, and these risks must be borne solely by the user. Compliance with and strict adherence to the conditions of operation, service and repair as specified by the manufacturer also constitute essential elements for the intended use.

THIS LAWN MOWER SHOULD BE OPERATED, serviced and repaired only by persons familiar with all its particular characteristics and acquainted with the relevant safety rules (accident prevention). The accident prevention regulations, all other generally recognized regulations on safety and occupational medicine and the road traffic regulations must be observed at all times.

Any arbitrary modifications carried out on this cutter will relieve the manufacturer of all liability for any resulting damage or injury.

SAFETY

UNDERSTAND SIGNAL WORDS

A signal word _ DANGER, WARNING, or CAUTION _ is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your dealer.

- Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.
- Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.
- If you do not understand any part of this manual and need assistance, contact your dealer or the manufacturer.

TAVOLA n° 4

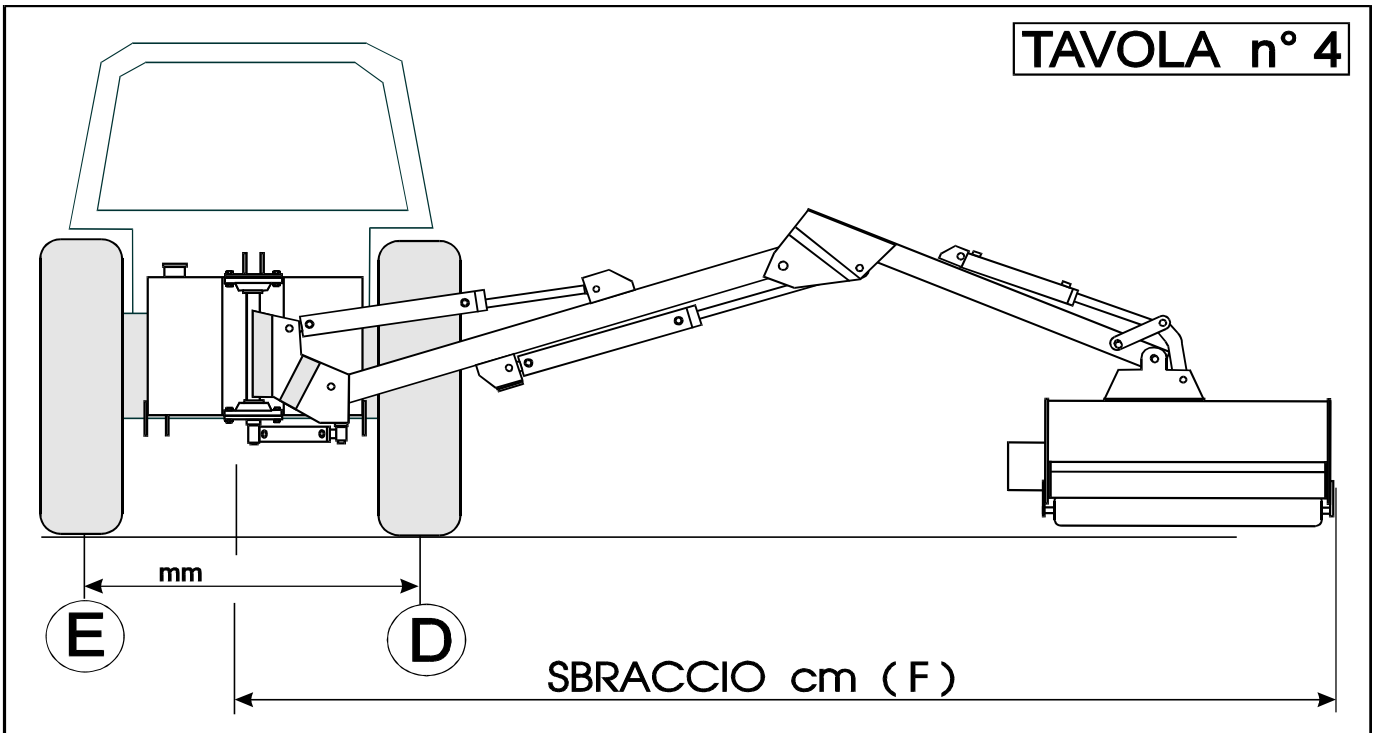
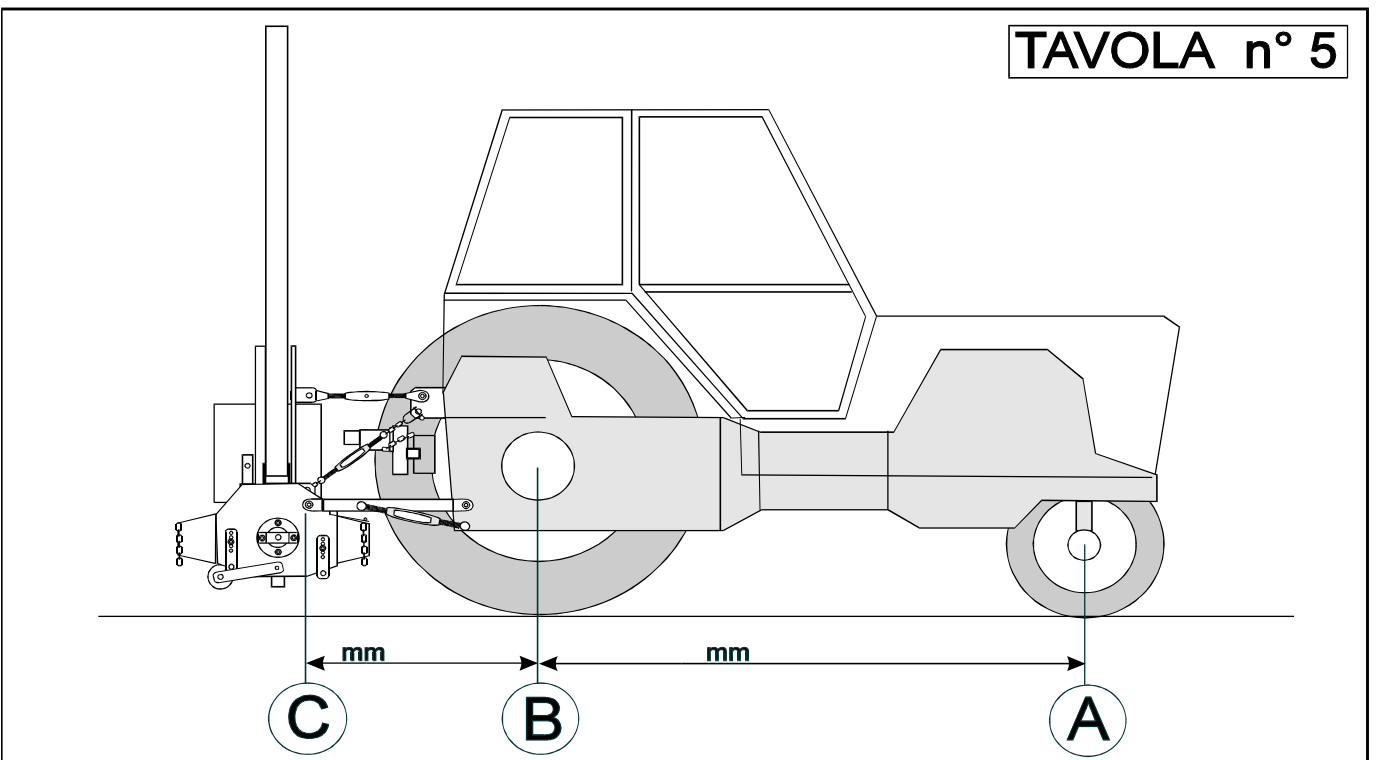


TAVOLA n° 5

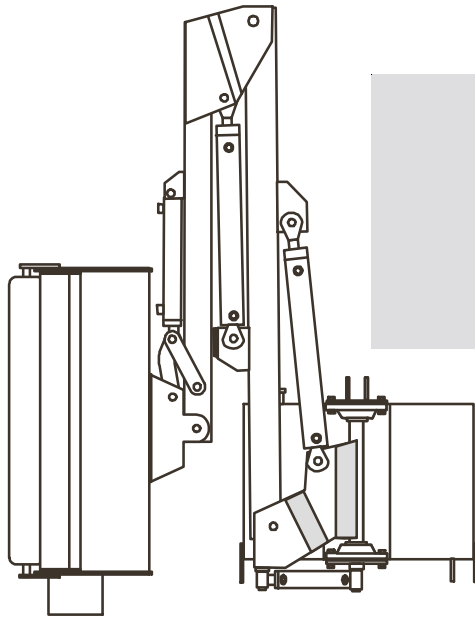


LIST n° 6

Model	Weight Kg	Min. Weight Tractor	Min Power Tractor
BS821DS30F81	495	1700	HP 30 / (KW 22)
BS821DS30F101	505	1700	HP 30 / (KW 22)
BS821DS35F81	515	2000	HP 40 / (KW 29,4)
BS821DS35F101	525	2000	HP 40 / (KW 29,4)
BS821DS40F81	535	2500	HP 50 / (KW 36,7)
BS821DS40F101	545	2500	HP 50 / (KW 36,7)

DANGER SIGNS

- 1) Before operating carefully read the instruction booklet.
- 2) Avoid injury from thrown objects. Stay clear while engine is running.
- 3) Danger of getting squashed during working.
- 4) Avoid injury from rotating blades. Do not put hands or feet under or into mower when engine is running.
- 5) Danger of getting squashed during the maintenance operations.

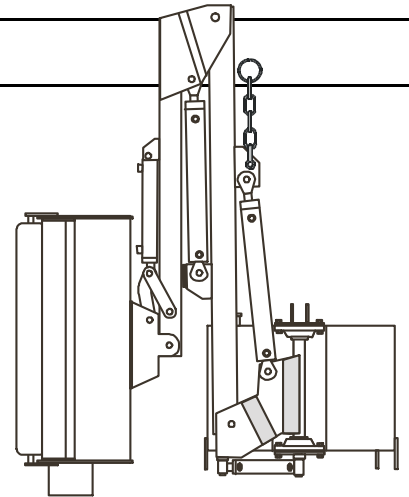


HANDLING

If the machine is handled, it must be lifted by hooking onto the appropriate holes with a suitable winch or crane of sufficient capacity. Because of the danger involved, this operation should be carried out by trained and responsible personnel. The mass of the machine is on the identification plate.

Stretch the rope to keep the machine level.

The hook points can be detected by finding the "hook" symbol (see the picture)



SAFETY REGULATIONS AND ACCIDENT PREVENTION

Thoroughly read all the instructions before using the machine. Contact the technicians of the manufacturer in case of doubt.

The Manufacturer declines all and every responsibility for failure to comply with the following safety and accident preventing provisions.

- 1)** Comply with the instructions given by the danger symbols in this handbook and affixed to the lawn mower.
- 2)** Never ever touch any moving part.
- 3)** Operations and adjustments to the implement must always be carried out when the engine is off and tractor braked.
- 4)** It is absolutely forbidden to carry passengers or animals on the implement.
- 5)** It is absolutely forbidden for person without a driving license, inexpert persons or those in precarious health conditions to drive the tractor with the implement mounted.
- 6)** Strictly comply with all the recommended accident preventing measures described in this handbook.
- 7)** Before starting the tractor and implement, always check that all safety devices guarding transport and use are in a perfect conditions.
- 8)** The instruction labels affixed to the machine give useful advice on how to prevent accidents.
- 9)** Always comply with the highway code in force in your country when travelling on public roads.
- 10)** Always become familiar with the controls and their operation before starting work.
- 11)** Always wear suitable clothing; never ever wear loose garments or those with edges that could in some way become caught up in rotating parts or moving mechanisms.
- 12)** Before operating the implement, check all around the machine to see that there are no persons (particularly children) or domestic animals nearby and that visibility is optimum.
- 13)** Take the utmost care during the implement coupling and release phases.
- 14)** Never ever leave the driving seat whilst the tractor is moving.
- 15)** Only begin work with the implement after having checked that all guards are in a good condition, installed and in their safety positions.
- 16)** Before engaging the P.T.O., check that the R.P.M. rate is that prescribed.
- 17)** It is absolutely forbidden to stand within the operative range of the machine where there are moving parts.
- 18)** It is absolutely forbidden to use the implement without guards.
- 19)** Take great care to ensure that the cardan shaft is correctly assembled and safe.
- 20)** Before engaging the P.T.O., ensure that there are no persons or animals in the field of action of the machine and that the selected running rate corresponds to the permissible value. Never exceed the recommended maximum P.T.O. rate.
- 21)** Never engage the P.T.O. when the engine is off.

APPLICATION OF THE HEDGE HYDRAULIC MOWER TO THE TRACTOR.

Please verify that:

- * the 3 point hydraulic power lift is suitable for the total weight of the hydraulic hedge mower
- * the PTO is in conformity with r.p.m. required and sense of rotation,
- * the power of tractor (HP) is enough to minimum power request.

AFTER to have CAREFULLY READ THIS MANUAL USE AND MAINTENANCE and that of the tractor, proceed as follow.

ATTENTION: all operations listed below must be effected by qualified people and must only be carried out with the utmost care in compliance with the instructions. It is essential to disengage the tractor P.T.O. and switch off the engine; always wear suitable clothing and safety gloves; PAY ATTENTION to not crush hands and feet.

Insert the two thorns in the inferior holes being fixed therefore the two inferior arms of the lift device, to insert the appropriate elastic pins supplied in equipment in the two pins.

Fix the 3-point with the appropriate pin, insert the elastic pin in equipment in the pin, adjust its length so that the carrying chassis of the arm is perpendicular.

Carry to the wished height the arm, set in motion the tractor and acting on the hydraulic power lift; it is advised to raise it so that the PTO of the hydraulic arm is to the same height of that one of the tractor.

stop the tractor, turn off the engine, remove the key from the dashboard, make sure that it is held still and proceed with assembly of the two couplings.

Fix the command unit to the tractor using the supplied screws into a position near to the driver seat and comfortable for the operator.

Remove the arms' locking bar.

Having finished assembly, carry out the following checks:

Hydraulic oil level in the tank.

Oil level in the booster.

That the arm is lubricated throughout.

At this point it is possible to try the equipments switch on the power take-off.

STICKERS APPLIED ON THE MACHINE BS821DS



NORMS FOR ROAD CIRCULATION

During the transfer phase it is mandatory to stop all moving organs in the equipment, always install safety blocks supplied to fix the arm and the chopper, turn off the power take-off and make sure that it cannot accidentally switch on.

Check headlamp adjustment which may have altered due to the load.

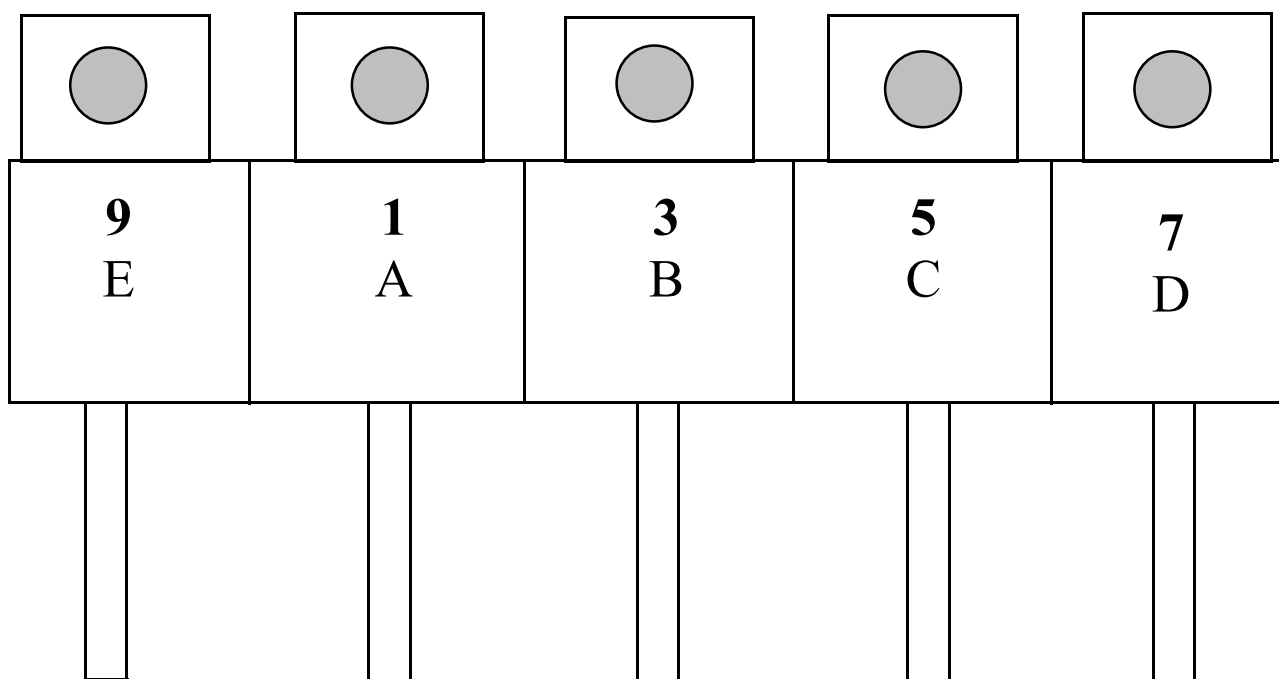
Check the backlights for road circulation, mount a light cluster bar (homologated) which must be attached to the back of the arm, supplied by us as a requested accessory.

On the back there must be a retro reflecting white and red signboard.

Check that the machine's overall size does not surpass the dimensions or weights allowed by the Highway Code.

Never leave the machine with the engine on; even for short breaks, switch the engine off.

CONTROLS SPECIFICATIONS



Lever - A

- 1) Lowering first arm.
- 2) Lifting first arm.

Lever - B

- 3) Inclination flail mower on the low.
- 4) Inclination flail mower on the high

Lever - C

- 5) Closing second arm.
- 6) Opening second arm.

Lever - D

- 7) Rotation arm.
- 8) Rotation arm.

Lever - E

- 9) Rotation right rotor shaft.
- 10) Rotation left rotor shaft SX.

INSTRUCTIONS FOR USING THE COMMANDS

Lever E is equipped with a movement selector which does not allow the direction of rotation to be accidentally inverted as it is imperative to first select the type of rotation of the hoe holder shaft.

WARNING, before carrying out hoe holder shaft inversion, it is indispensable to make sure that the shaft is completely immobile.

IT IS DANGEROUS, to carry out inversion of rotation of the hoe holder shaft when it is still moving.

Commands A, B and C are used individually and slowly, never use rapid movements.

For commands by flexible cable the bending radius should not be less than 300mm

NORMS FOR USING THE HYDRAULIC FLAIL MOWER WITH ARM

The hydraulic flail mower with arm is only to be used for cutting grass, canes and small hedges; it is not to be used for different tasks, particularly as a lifting means. We would remind you that it is opportune to adjust the tractor's speed according to type, grade, quantity of material to be cut and general conditions of the surrounding land and environment: it is the fore recommended to adopt moderate speed and in any case never to travel over a speed of 3 km/h.

We would remind you that tow work in ideal conditions, the P.D.F. revolutions should be kept at 450/500 revs/m.

Never work with the slicing apparatus off the ground.

In the case of rough ground or in the presence of foreign bodies of any kind (stones, bottles, cans or other) be very careful as they can lead to dangerous conditions both for the operator and exposed people.

Never put your hands and feet near to the rotating parts, it is dangerous.

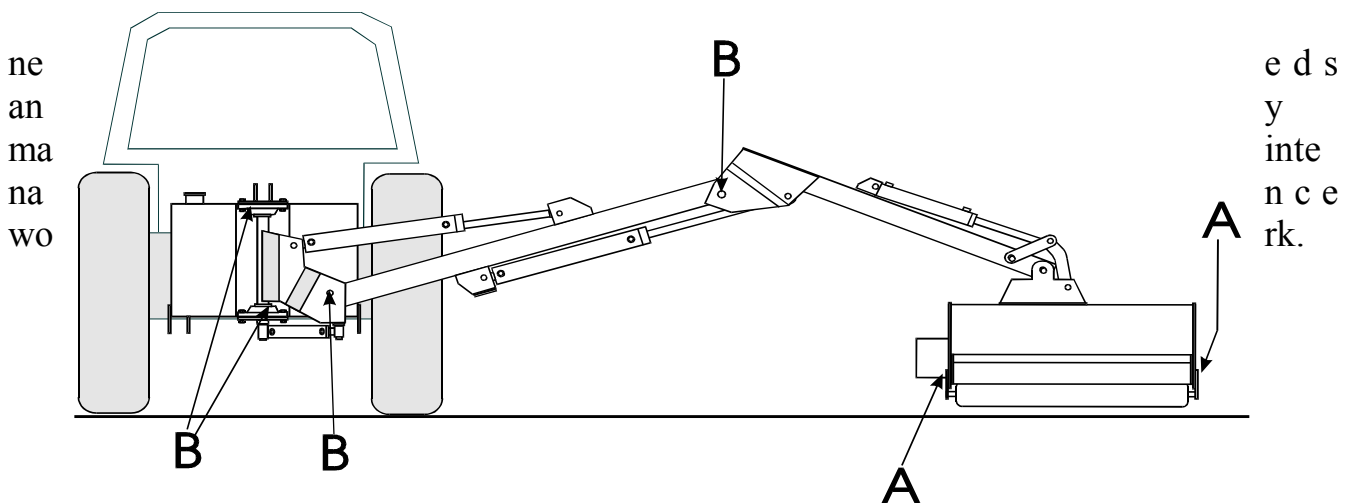
Never introduce foreign bodies into the points of rotation or the rotor blade.

Avoid the presence of people or animal near to the worked areas.

We recommend the use of original spare parts

When work is finished, it is a good habit to always clean the machine and check if it

LUBRIFICATION AND GREASING



B

LUBRICATION OF THE MACHINE

Recommended oil for the gear box	- AGIP ROTRA MP 80W90
Recommended oil for hydraulic control	- AGIP OSO 46

Quantity oil on the gear box	- Lt. 0,4
------------------------------	-----------

Quantity oil on the hydraulic circuit	- Lt 95
---------------------------------------	---------

GREASING OF THE MACHINE

Recommended grease for lubrication	- AGIP GR MU EP2
------------------------------------	------------------

Pos. A, table. 8, Points of greasing every 4 hour of work.

Pos. B, table. 8, Points of greasing every 16 hour of work.

PERIODIC MAINTENANCE

BEFORE BEGINNING WORK

Check that the screws are tightened and the various organs and components are fixed properly; **AFTERWARDS**

Do not work with the engine in maximum revolutions for the first 4 hours of work.

Do not make the p.t-o. run at maximum speed, even afterwards.

AFTER THE FIRST 100 HOURS OF OPERATION.

Carry out oil replacement in the pump booster. Then every 300 hours.

FOR THE FOLLOWING EVERY 40 HOURS OF WORK.

Check the oil level in the pump booster using the transparent cap. Check the hydraulic oil level with the indicator light located on the tank.

Dismantle and clean the oil filter cartridge, if it is damaged, replace it.

We recommend checking the oil level more frequently when working in very dusty and damp areas.

All used oils are to be gathered and delivered to companies authorised by the used oil consortium.

WASHING THE MACHINE

After each working day, it is best to clean the machine carefully. We recommend washing it with a jet of water and to use brushes and spatulas to remove earth, grass and any other foreign bodies.

These operation should always be carried out with the power take-off detached, the tractor still and engine off and in conditions of maximum safety.

Carry out greasing and lubrication in the various points as indicated.

Replace or repair damaged or worn parts.

BLADE REPLACEMENT

Carry out all the operations described below with the tractor idle and held still, the engine turned off and power take-off turned off, being very careful not to crush you hands and feet. Always use protective gloves.

N.B. USE ORIGINAL SPARE PARTS

A) Place the flail mower into a vertical position and rest it on the ground.

B) Unscrew the hoe fixing nuts.

C) Remove the worn blades

D) Replace the blades respecting the exact assembly position; all the blades must be present, even only one missing causes the shaft to lose balance and makes conditions dangerous.

E) Tighten the fixing screws and nuts on the blades.

F) Once work is completed, make the rotor shaft turn inserting the command from the driver's seat.

WARRANTY

PROCOMAS S.r.l. guarantees a period of guarantee of TWELVE months from the date of delivery on items with factory faults.

Parts that are damaged by careless maintenance or tampering by the user will not be replaced free of charge. Cardanic transmissions, bearings and belts wherever existent adhere to the respective manufacturer's conditions of guarantee.

All delivery, packing and labour costs are charged to the buyer.

Return of the material: will come about only subject to written authorisation and establishment PROCOMAS S.r.l. of Ficarolo (RO)

Changes made to the machine by the buyer **nullify the guarantee.**

The engine guarantee, wherever existent, is given by the relative manufacturer.

For technical-administrative reasons, spare parts are invoiced at the time of delivery; acknowledgement of any guarantee comes about after reception and verification of the damaged item.

The Court of Rovigo is competent in the case of dispute.

SPARE PARTS

We recommend that you always assemble and request original spare parts.

Orders for spare parts must be carried out specifying the following:

MACHINE MODEL _____

REGISTRATION NUMBER _____

Date of purchase _____

n° spare p.list	n°position	Identification part	code	Quantity

Also specify:

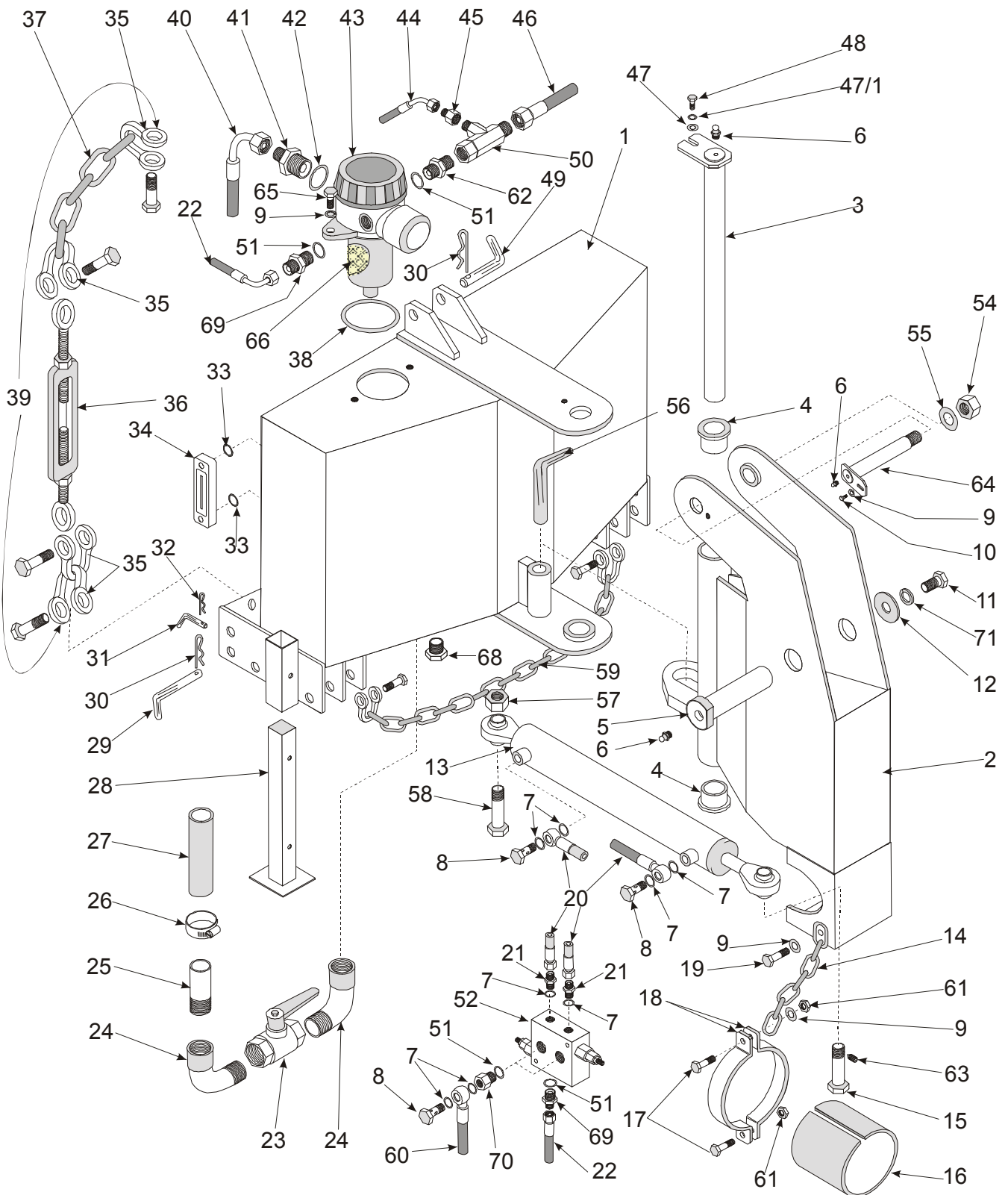
Your Company name _____

Address: _____

T.V.A registration number _____

Way of transpor _____

Spare parts list N°27/8

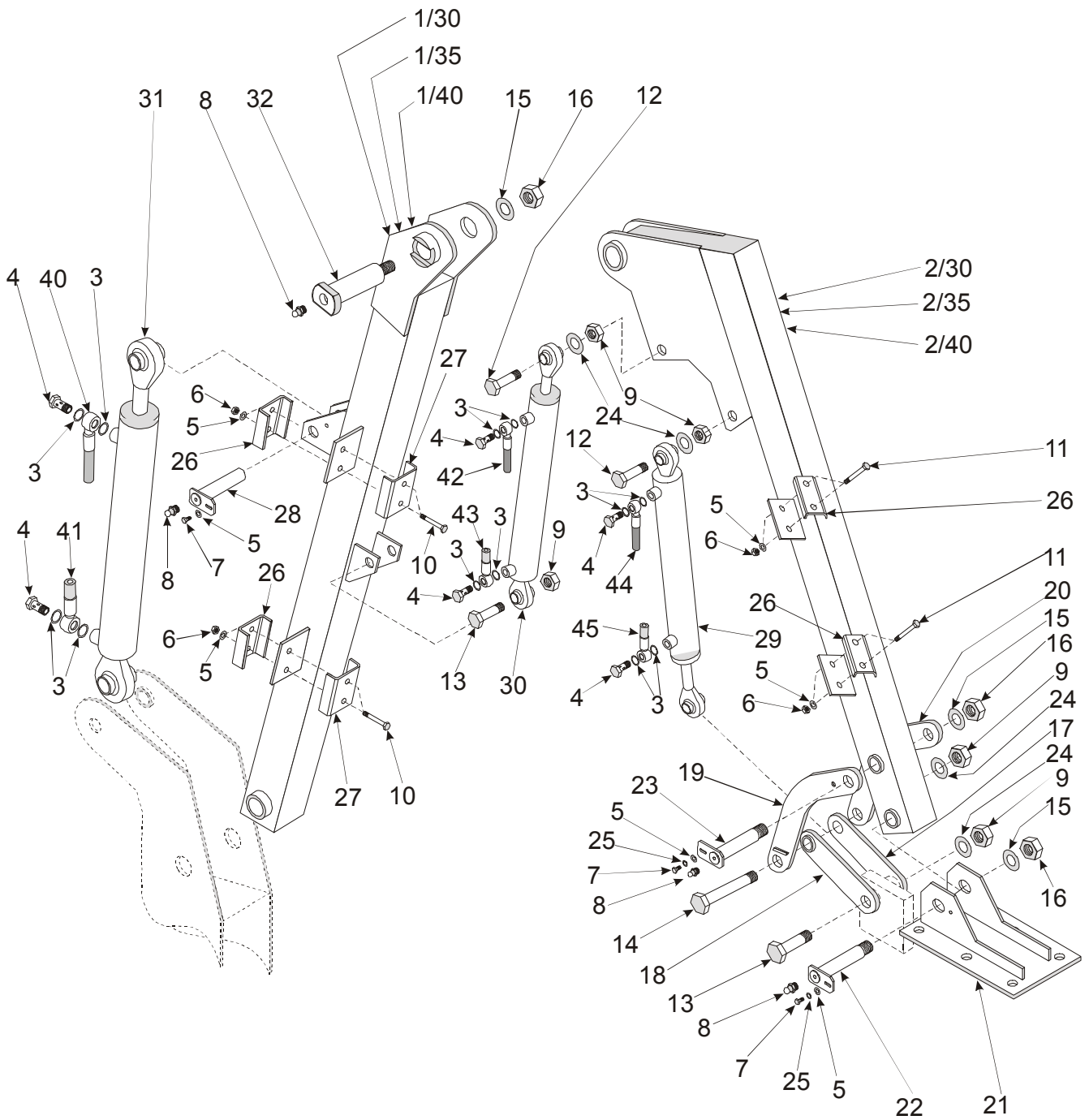


FRAME OIL TANK FOR BS821DS30/35/40

LEGEND SPARE PARTS LIST N. 27/8

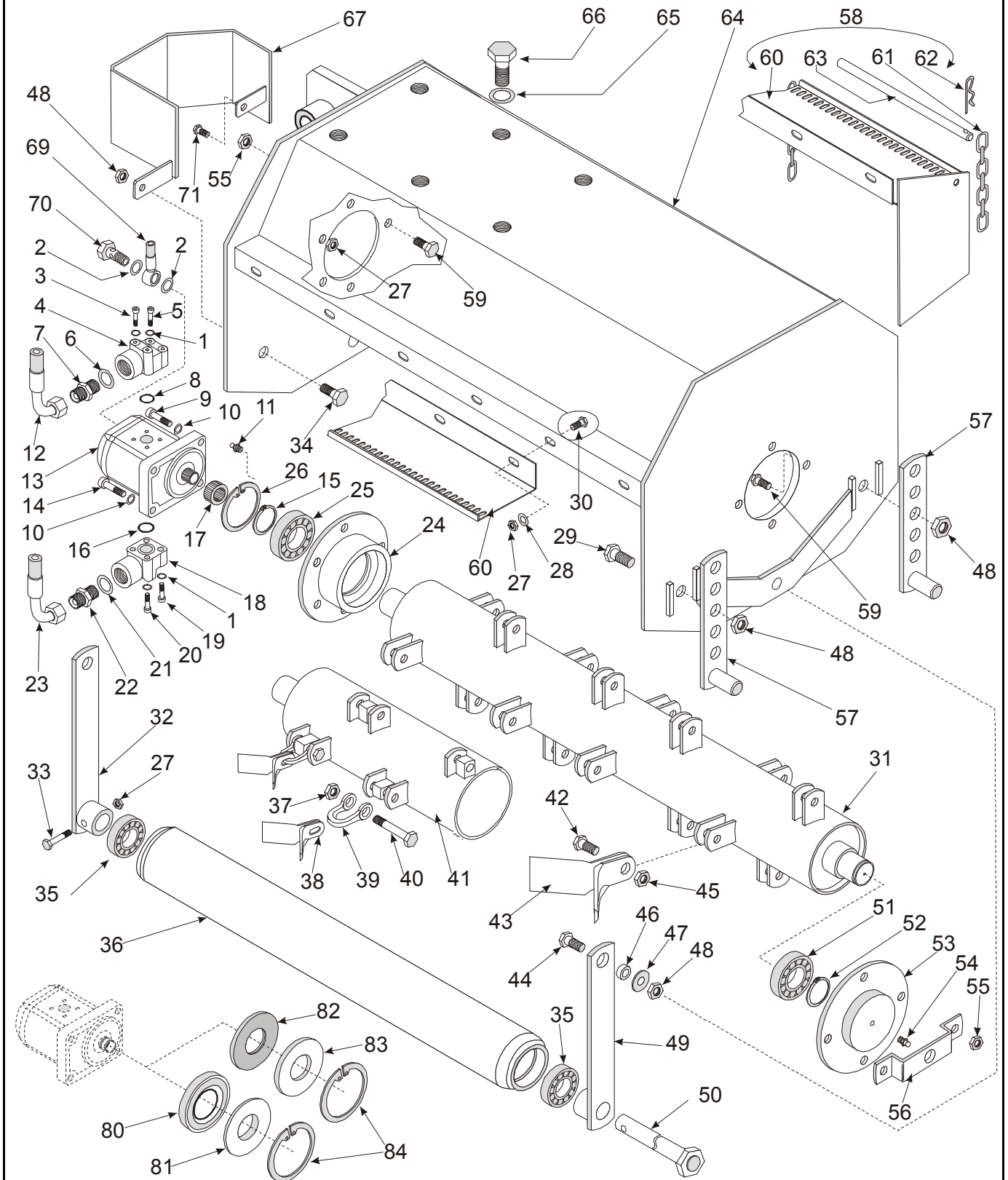
POS.	Specification	Piece	CODE PART	POS.	Specification	Piece	CODE PART
1	Telaio portante	1	03 BS82.84	38	Guarnizione filtro FIO100	1	24 OR185
2	Cerniera rotazione br.	1	03 BS82.85	39	Tenditore completo BS821	2	02 BS82.17/3
3	Perno attacco cerniera	1	02 BS80.04	40	Tubo ritorno distrib.SD4/1	1	73 T8/22C
4	Boccola acc.Øint.40	2	01 U120.40.50.4A	40\1	Tubo ritorno da radiatore	1	73 T8/22D
5	Perno Ø 40 attacco br.	1	01 BS80.32/8	41	Nipples riduz. M 1" -M1/2"	1	70 NRM10M12
6	Ingrassatore M6 diritto	4	43 INGR6D	42	Rondella rame da 1"	1	70 RR10
7	Rondella rame 1/4"	10	70 RR14	43	Filtro in scarico completo	1	74 HHD10243
8	Vite per occhio 1/4"	4	70 VPO14	44	Tubo drenaggio BS821DS30	1	73 T8/28T
9	Rondella piana Ø 8 zn	6	40 RP8ZN	44\1	Tubo drenaggio BS821DS35	1	73 T8/26T
10	Vite TE UNI 5739	1	41 TEM8X16ZN	44\2	Tubo drenaggio BS821DS40	1	73 T8/27T
11	Vite TE UNI 5738	1	41 TEMB20X1,5X35	45	Nipples riduz. M 1/4"-F3/8"	1	70 NRM14F38
12	Rondella piana speciale	1	01 TS530.41	46	Tubo ritorno distrib.SD5/4	1	73 T8/22E
13	Cilindro rotazione cern.	1	10 U155.69	47	Rondella piana	1	40 RP10/30ZN
14	Catena filo Ø 5x 5 anelli	1	46 CAT5X5	47\1	Rondella grover	1	40 RG10ZN
15	Vite TE per cil.rotaz.(st.)	1	01 U114.19.100	48	Vite TE ZN UNI 5739	1	41 TEM10X30ZN
16	Gomma protezione tubi	1	01 BS82.21/1	49	Perno terzo punto	1	01 U108.19.80
17	Vite TE UNI 5739	2	41 TEM8X30ZN	50	Raccordo T MM3/8"-FG3/8"	1	70 RTMM38FG38
18	Staffa portatubi	1	02 BS82.21	51	Rondella rame 3/8"	5	70 RR38
19	Vite TE UNI 5739	1	41 TEM8X20ZN	52	Valvola sicurezza 1/4"	1	77 VADDL VA38
20	Tubo da valv.a cil rot.(st.)	2	73 T8/26U	54*	Dado autobloc.	1*	42 DAUTM24X2
21	Nipplo doppio M-M1/4"	2	70 NM14	55*	Rondella piana Ø 24 zn	1*	40 RP24ZN
22	Tubo scarico da valvola	1	73 T8/26Z	56	Perno bloccaggio rotaz.	1	01 U108.25.100
23	Rubinetto a sfera 1"	1	72 SS10	57	Dado autobloccante	1	42 DAUTM20
24	Curva 90° M-F1"	1+1	72 C90MF10	58	Vite TE x cil.rot.lato pist.	1	01 U114.19.150
25	Tronchetto fil 1"(Ø33)	1	72TRF10X80	59	Kit sostegno tubi	1	01 BS82.22
25\1	Tronchetto fil 3/4"(Ø27)	1	72TRF34X80	60	Tubo da distr.a valvola		
25\2	Nipplo riduz.M1"-F3/4"	1**	72 NRM10F34		per rotaz.cerniera	2	73 T8/26V
26	Fascietta stringit.Ø26/38	1	70 FAS0A	61	Dado autobloccante	2	42 DAUTM8
26\1	Fascietta stringit.Ø32/52	1	70 FAS1	62	Nipplo doppio M-M-3/8"	1	70 NM38
27	Tubo aspirazione 25/35	m.1,5*	73 TA25/35	63	Grano M10X20 UNI 5927	1	41 GRM10X20
27\1	Tubo aspirazione 32/43	m.1,5*	73 TA32/43	64	Perno cilin.sollev (pist)	1	01 U105.25.165
28	Piede di appoggio	2	02 BS82.09/4	64/1*	Perno fil.cilin.sollev (pist)	1*	01 U111.25.185
29	Perno per sollev. 3 p.ti	2	01 U108.22.80	65	Vite TE UNI 5739	2	41 TEM8X25ZN
30	Copiglia a molla diam.3	3	43 CMB3	66	Cartuccia filtro (IKRON)	1	74 HHC01404
31	Perno per piedino	2	01 U116.14.90	68	Tappo scarico M1/2" cn	1	72 TFM12C
32	Copiglia a molla diam.2	2	43 CMB2	69	Nipplo riduz.M3/8"-M1/4"	2	70 NRM38M14
33	Guarnizione per livello olio	2	24 OR3050	70	Nipplo riduz M3/8"-F1/4"	2	70 NRM38F14
34	Livello olio con termometro	1	74 LVOT127/10	71	Rondella grover Ø 20 zn	1	40 RG20ZN
35	Grillo zincato diam.12	8	46 GZ12				
36	Tenditore con occhi	2	46 TZOO16				
37	Catena filo Ø 10	2	46 CAT10X5				

S.Parts list N°28/5



ARM BS821		DS30	DS35	DS40	TAVOLA N 28 / 5
LEGEND SPARE PARTS LIST N. 28/5					
POS.	SPECIFICATION	PIECE	PIECE	PIECE	CODE PART
1\30	Primo braccio per BS821 DS30	1	-	-	03 BS82.30/1
1\35	Primo braccio per BS821 DS35	-	1	-	03 BS82.30/2
1\40	Primo braccio per BS821 DS40	-	-	1	03 BS82.40/2
2\30	Secondo braccio per BS821DS30	1	-	-	03 BS82.31/2
2\30	Secondo braccio per BS821DS30	-	1	-	03 BS82.31/3
2\30	Secondo braccio per BS821DS30	-	-	1	03 BS82.31/4
3	Rondella rame da 1/4"	12	12	12	70 RR14
4	Vite forata per occhio 1/4"	6	6	6	70 VPO14
5	Rondella piane diam.8 zn	3+8	3+12	3+16	40 RP8ZN
6	Dado autobloccante M8	4	6	8	42 DAUTM8
7	Vite T.E.UNI 5739 M8x20 ZN	3	3	3	41 TEM8X20ZN
8	Ingrassatore M6x1 diritto	4	4	4	43 INGR6D
9	Dado autobloccante M20	5	5	5	42 DAUTM20
10	Vite T.E.UNI 5737 M8x60 zn	2	4	4	41 TEM8X60ZN
11	Vite T.E.UNI 5737 M8x40 zn	2	2	4	41 TEM8X40ZN
12	Vite TE ø19 per cilindro (n.f.u.60)	2	2	2	01 U114.19.100
13	Vite TE ø19 per cilindro (n.f.u.65)	2	2	2	01 U114.19.100
14	Vite per leverismo T.E.ø19 x140 (n.f.u.110)	1	1	1	01 U114.19.140
15	Rondella piana diam.24 zn	3	3	3	40 RP24ZN
16	Dado autobloccante MB24x2	3	3	3	42 DAUTMB24X2
17	Leva diritta rotazione attrezzo	1	1	1	01 BS82.05
18	Leva diritta rotazione attrez. +fermo x vite TE	1	1	1	01 BS82.05/1
19	Leva curva per rotaz.attrezzo+fermo x perno	1	1	1	01 BS82.06/1
20	Leva curva per rotaz.attrezzo	1	1	1	01 BS82.06
21	Piastra attacco al braccio	1	1	1	02 F80.04/2
22	Perno attacco trincia al braccio	1	1	1	01 U111.25.145
23	Perno attacco leve curve al braccio	1	1	1	01 U111.25.145
24	Rondella piana diam.20 zn	5	5	5	40 RP20ZN
25	Rondella grover diam.8 zn	3	3	3	40 RG8ZN
26	Staffa per tubi flessibili da 1/2"	2	3	4	01 BS82.07
27	Staffa per tubi flessibili da 1/4"	1	2	2	01 BS82.07/1
28	Perno lato stelo per cilindro sollev.	1	1	1	01 U105.25.85
29	Cilindro rotazione attrezzo (con stelo ø25) (vedi tav.102)	1	1	1	10 U155.02
30	Cilindro snodo braccio (con stelo ø 30) (vedi tav 102/1)	1	1	1	10 U155.02/1
31	Cilindro alzata primo braccio(vedi tav.103/1)	1	1	1	10 U155.03/1
32	Perno ø 30 x snodo braccio BS821	1	1	1	01 BS80.33/7
40	Tubo da distr.a cil.sollev.br.(lato stelo) DS30/35/40	1	1	1	73 T8/22M
41	Tubo da distr.a cil.abbass.br.(lato pist.)DS30/35/40	1	1	1	73 T8/26P
42	Tubo a cil.chiusura snodo braccio DS30 (lato st)	1	-	-	73 T8/28L
42\1	Tubo a cil.chiusura snodo braccio DS35 (lato st)	-	1	-	73 T8/26L
42\2	Tubo a cil.chiusura snodo braccio DS40 (lato st)	-	-	1	73 T8/27L
43	Tubo a cil.apertura snodo braccio DS30 (lato pist)	1	-	-	73 T8/28I
43\1	Tubo a cil.apertura snodo braccio DS35 (lato pist)	-	1	-	73 T8/26I
43\2	Tubo a cil.apertura snodo braccio DS40 (lato pist)	-	-	1	73 T8/27I
44	Tubo a cil. inclin.attrezzo (lato pist.)DS30	1	-	-	73 T8/28H
44\1	Tubo a cil. inclin.attrezzo (lato pist.)DS35	-	1	-	73 T8/26H
44\2	Tubo a cil. inclin.attrezzo (lato pist.)DS40	-	-	1	73 T8/27H
45	Tubo a cil. inclin.attrezzo DS30 (lato stelo)	1	-	-	73 T8/28G
45\1	Tubo a cil. inclin.attrezzo DS35 (lato stelo)	-	1	-	73 T8/26G
45\2	Tubo a cil. inclin.attrezzo DS40 (lato stelo)	-	-	1	73 T8/27G

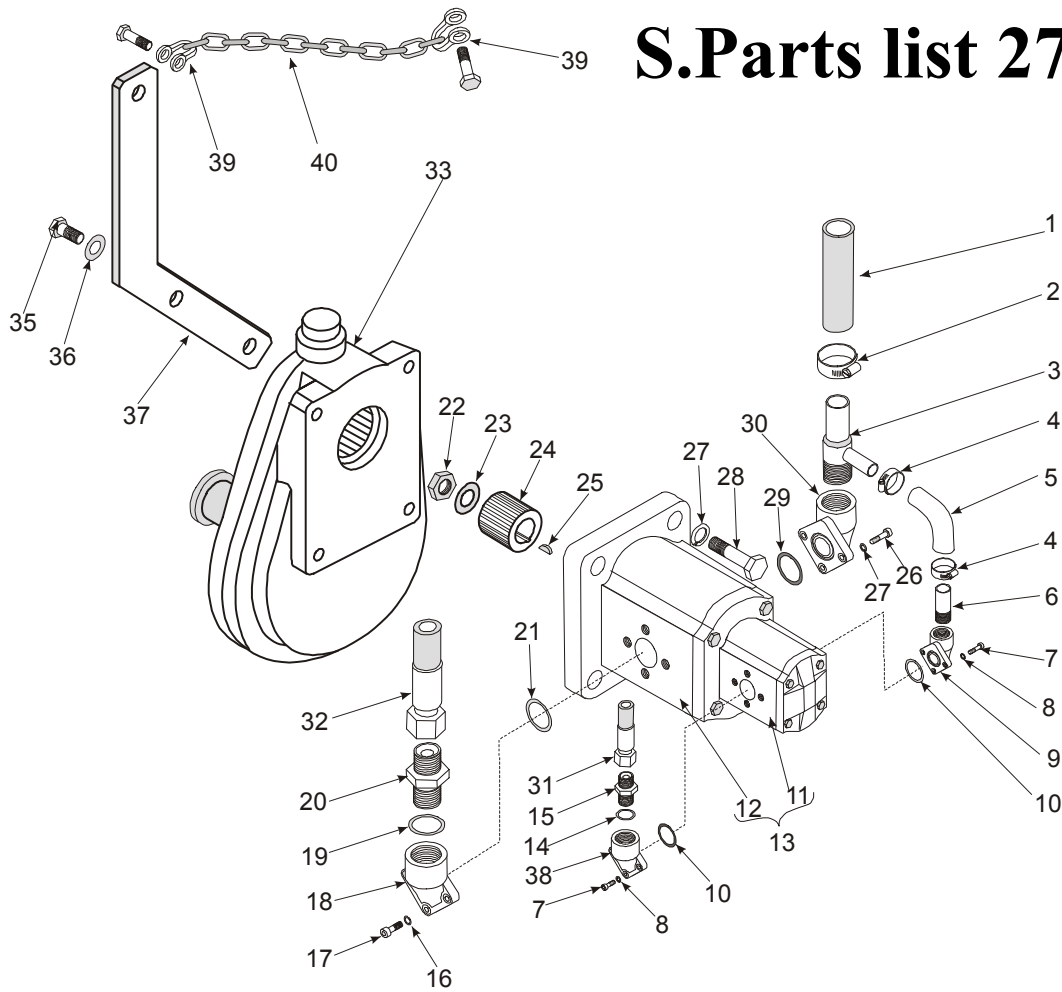
S.Parts list N°29/2



FLAIL MOWER MODEL F81-F101
LEGEND SPARE PARTS LIST N. 29/2

Pos	SPECIFICATION	N°	CODE PART	Pos	SPECIFICATION	N°	CODE PART
1	Rondella grover	8	40 RG6	41	Albero rotore F5- F80	1*	04 F5 F80
2	Rondella rame	2	70 RR14	41\1	Albero rotore F5-FL100	1*	04 F5 FL100
3	Vite T.C.E.I	2	41 TCEIM6X45	42	Vite T.E.	16-20	42 TEMB16X1,5X50
4	Raccordo gomito l=35	1	78 1GB12	43	Coltelli 40X6 foro 16	32-40	07 U150.21
5	Vite T.C.E.I	2	41 TCEIM6X30	44	Vite TE	2	41 TEM12x50ZN
6	Rondella rame	1	70 RR12	45	Dado autobloccante	16-20	42 DAUTMB16X1,5B
7	Nipplo	1	70 NM12	42+45	Vite con dado autobl	16-20	07 U151.01/C
8	Guarnizione OR	1	24 OR3075	46	Distanziale	2	01 U125.20.13.13
9	Vite T.E.	2	41 TEM8X30	47	Rondella piana	2	40 RP12/36/8ZN
10	Rondella grover	4	40 RG8ZN	48	Dado autobloccante	6	42 DAUTM12
11	Ingrassatore M6 a 90°	2	43 INGR6/90	49	Staffa attacco rullo	1	02 F80.15/2
12	Tubo ritorno/mandata	1	73 T8/22B	50	Perno rullo per F81	1	02 F80.14/1
13	Motore rever.16 cc/giro	1	76 PLM16R	50\1	Perno rullo per F101	1	02 FL100.14/1
13\1	Motore rever.20 cc/giro	1	76 PLM20R	51	Cuscinetto	1	20 2206 2RS
14	Vite T.E.	2	41 TEM8X45	52	Seeger diam.est.	1	26 SDE30
15	Seeger diam.est.	1	26 SDE40	53	Supporto cuscinetti est.	1	01 RT70.07
16	Guarnizione OR	1	24 OR3087	54	Ingrassatore diritto	2	43 INGR6D
17	Semigiunto motore	1	01 F80.16	55	Dado autobloccante	7	42 DAUTM10
18	Raccordo gomito l=40	1	78 2GB34	56	Protezione ingrassatore	1	01 RT70.23
19	Vite T.C.E.I	2	41 TCEIM6X35	57	Staffa appoggio rullo	4	02 F80.15/3
20	Vite T.C.E.I	2	41 TCEIM6X55	58	Prot.ant.compl. F81	1	04 F80.08/3/4
21	Rondella rame	1	70 RR34	58\1	Prot.ant.compl.F101	1	04 FL100.08/3/4
22	Nipplo riduzione	1	70 NRM34M12	59	Vite T.E.	4	41 TEM10X30
				59\1	Vite T.E.	2	41 TEM10X35
23	Tubo mandata /ritorno	1	73 T8/22R	60	Protezione ant.F81	2	02 F80.08/3
24	Supporto lato motore id.	1	01 F80.06	60\1	Protezione ant.F101	2	02 FL100.08/3
25	Cuscinetto	1	20 1208	61	Catena d.5-anelli 7	39-49	45 CAT21ZN5/7
26	Seeger diam.int.80	1	26 SDI80	62	Copiglia a molla ø 2	4	43 CMB2
27	Dado autobloccante	13-15	42 DAUTM8	63	Perno catene F81	2	01 F80.08/4
28	Rondella piana	10-12	40 RP8ZN	63\1	Perno catene F101	2	01 FL100.08/4
29	Vite T.E.	3	41 TEM12X30ZN	64	Carter per F81	1	03 F80.01/6
30	Vite T.E.	10-12	41 TEM8X20	64\1	Carter per F101	1	03 FL100.01/6
31	Albero rotore compl F81	1	04 F2 F80	65	Rondella grover	6	40 RG14ZN
31\1	Albero rotore compl F101	1	04 F2 FL100	66	Vite TE	6	41 TEM14X25ZN
32	Staffa attacco rullo + foro	1	02 F80.15/1	67	Carter motore	1	02 F80.03
33	Vite T.C.E.I.	1	41 TCEIM8X45	69	Tubo drenaggio	1	73 T8/22T
34	Vite T.E.	1	41 TEM12X35ZN	70	Vite per occhio	1	70 VPO14
35	Cuscinetto	2	22 6204 2RS	71	Vite T.E.	1	41 TEM10X35
36	Rullo aperto per F81	1	03 RT80.09				
36\1	Rullo aperto per F101	1	03 RT100.09				
37	Dado autobloccante UNF	16-20	42 DAUT7/16UNF	80	Paraolio motore gr.2	1	24 PARPGR2
38	Coltelli con asola 40X8	32-40	07 U150.35	81	Piastrina rinforzo par.	1	24 PIGR2
39	Grilli acciaio ø 7/16"	16-20	07 U150.28	82	Paraolio variseal	1*	24 PARVAR2
40	Vite T.E.7/16" UNF	16-20	07 U151.04	83	Piastrina x variseal	1*	24 PIGVAR2
37+ 40	Vite T.E.con dado 7/16"	16-20	07U151.04/C	84	Seeger øint.30	1	26 SDI30

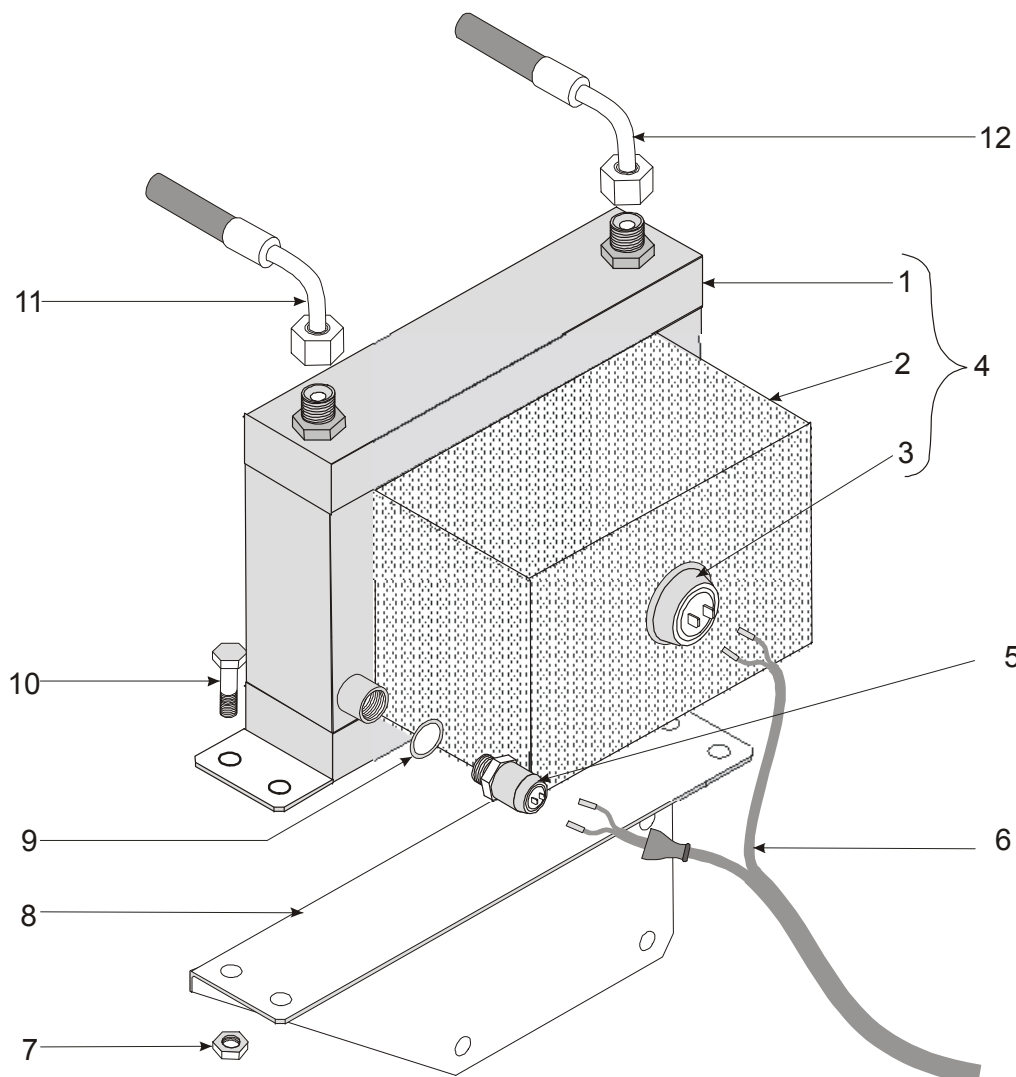
S.Parts list 27/11



PUMP GROUP 2+1 FOR BS 821DS30/35/40 LEGEND SPARE PARTS LIST N. 27/11

Pos	SPECIFICATION	PIECE	CODE PART	Pos	SPECIFICATION	P.	CODE PART
1	Tubo aspirazione	mt.1,5*	73 TA25/35	23	Rondella speciale x mozzo	1	40 RS2
2	Fascietta diam.26/38	2	70 FAS0A	24	Mozzo scanalato gr.2	1	79 MO2/14
3	Collettore aspirazione	1	02 BS82.08	25	Linguetta a	1	43 LD2
4	Fascietta diam.22/32	2	70 FAS0	26	Vite M8X25	3	41 TCEIM8X25
5	Tubo aspirazione	cm.60*	73 TA20/30	27	Rondella grover diam.8	3+4	40 RG8
6\1	Vite per occhio da 1/2"	1**	70 VPO12	28	Vite M8X35 ZN	4	41 TEM8X35ZN
6\2	Rondella rame 1/2"	1**	70 RR12	29	Guarnizione per raccordo	1	24 OR132
7	Vite T M6x20	6	41 TCEIM6x20	30	Raccordo a gomito	1	78 2G34
8	Rondella grover diam.6	6	40 RG6	31	Tubo da pompa gr.1	1	73 T8/22F
9	Raccordo a gomito	1	78 1G12	32	Tubo da pompa gr.2 a distr.	1	73 T8/22A
10	Guarnizione per raccordo	2	24 OR121	33	Moltiplicatore gr.2 per	1	35 MLT2FR3,8
11	Seconda pompa gr.1	1	75 PL10.5D/2	35	Vite TE M10 x 25	2	41 TEM10X25ZN
12	Prima pompa	1	75 PL20.25D/1/1	36	Rondella grover ø10 zn	2	40 RG10ZN
13	Pompa doppia per	1	75 PLP20.25+10.5D	37	Staffa posteriore attacco	1#	01 BS72.11
14	Rondella rame da 3/8"	1	70 RR38	38	Raccordo a gomito l = 30	1	78 1G38
15	Nipples riduzione	1	70 NRM38M14	39	Grillo zn ø 12 con perno	2	46 GZ12
15\1	Nipples doppio	1#	70 NM38	40	Spezzone catena zn	1	46 CAT10X...
16	Rondella grover 6	3	40 RG6	41	Vite M6x22	3	41 TCEIM6X22
17	Vite M6x20	3	41 TCEIM6x20	42	Rondella grover diam.6	3	40 RG6
18	Raccordo a gomito	1	78 1G12	43	Guarnizione per raccordo	1	24 OR121
19	Rondella rame da 1/2"	1	70 RR12	44	Raccordo a gomito	1	78 1G38
20	Nipples doppio M 1/2"	1	70 NM12				
21	Guarnizione per raccordo	1	24 OR121				
22	Dado 12 x 1,5 basso	1	42 DMB12X1,5B				

S.Parts list 27/4

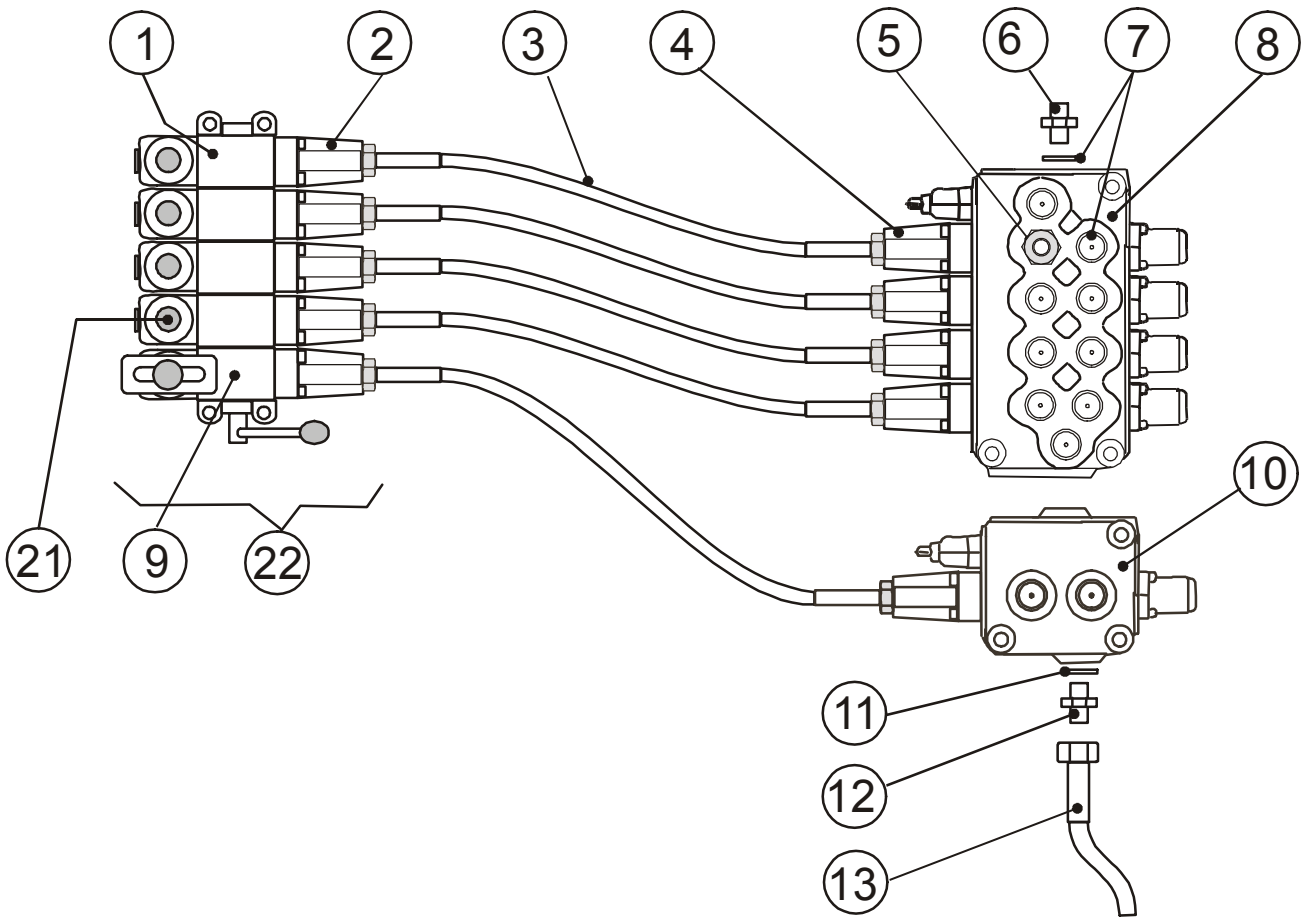


AIR-OIL HEAT EXCHANGER FOR BS820DS

LEGEND SPARE PARTS LIST N. 27/4

POS.	SPECIFICATION	PIECES	CODE PART
1	Scambiatore di calore (solo pacco radiante)	1	74 RO100
2	Rete protezione elettroventola per RO100 MV1	1	74 RERO100
3	Elettroventola 12 V DC per RO100 MV1	1	74 VRO100-12V
4	Scambiatore di calore compl. monoventola -12 VDC	1	74 RO100MV1-12V
5	Bulbo per scambiatore 50°- 60° C -12 V DC	1	74 BLB60
6	kit impianto elettrico scambiatore x BS820	1	37 IEROBS820
7	Dado autobloccante M 8	4	DAUTM8
8	Staffa per supporto scambiatore	1	01 BS82.02.17/3
9	Rondella rame ø int.22 per bulbo	1	70 RR22
10	Vite T.E.UN 5739 M8 X20 ZN	4	41 TEM8X20ZN
11	Tubo ritorno da distributore a scambiatore	1	73 T8/22C
12	Tubo da radiatore a filtro	1	73 T8/22D
	Kit scambiatore completo per BS820 DS	1	04 SCBS820DS

S.Parts list N°27/5

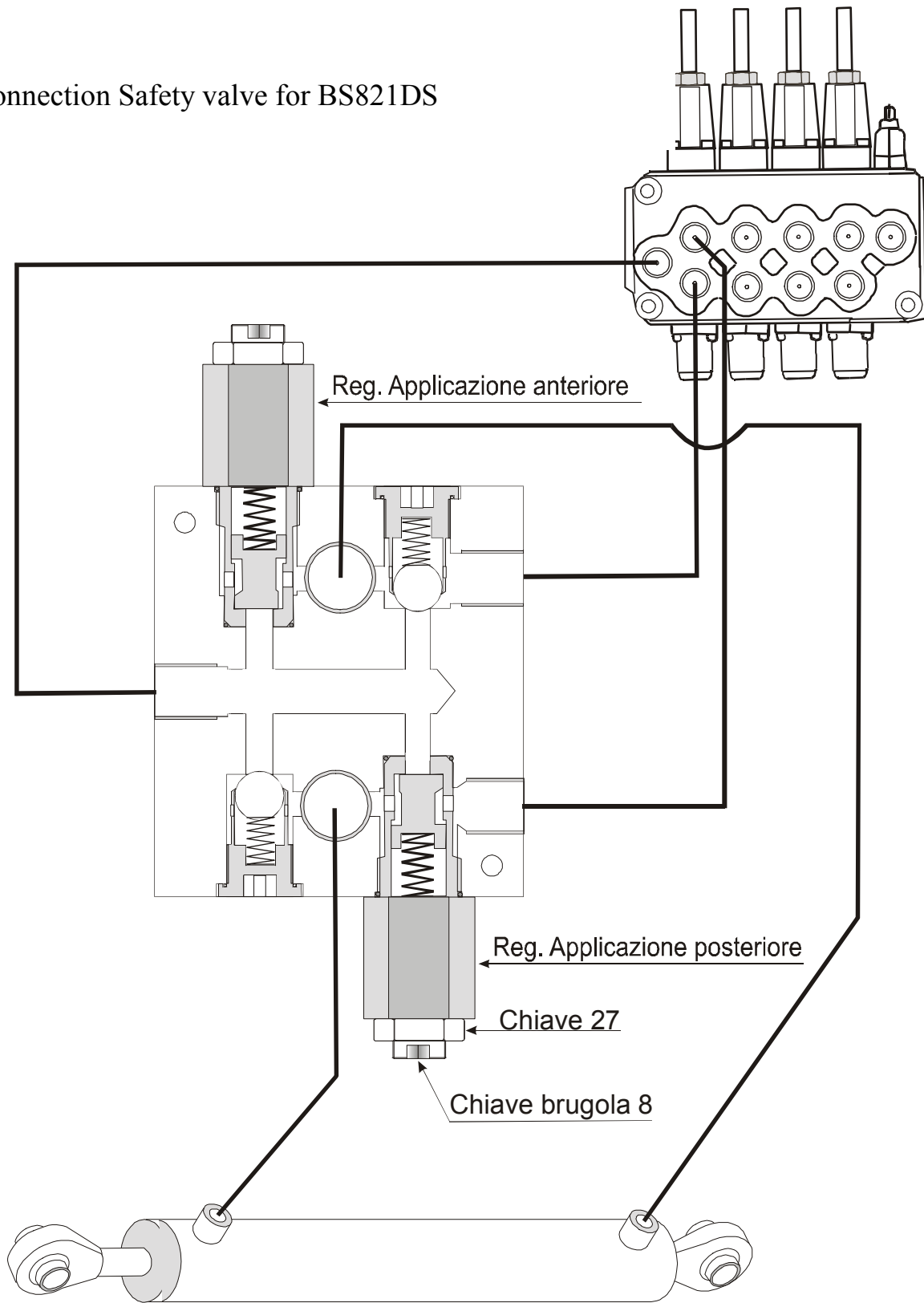


CABLE CONTROLS FOR BS821 F81 / F101 LEGEND SPARE PARTS LIST N. 27/5

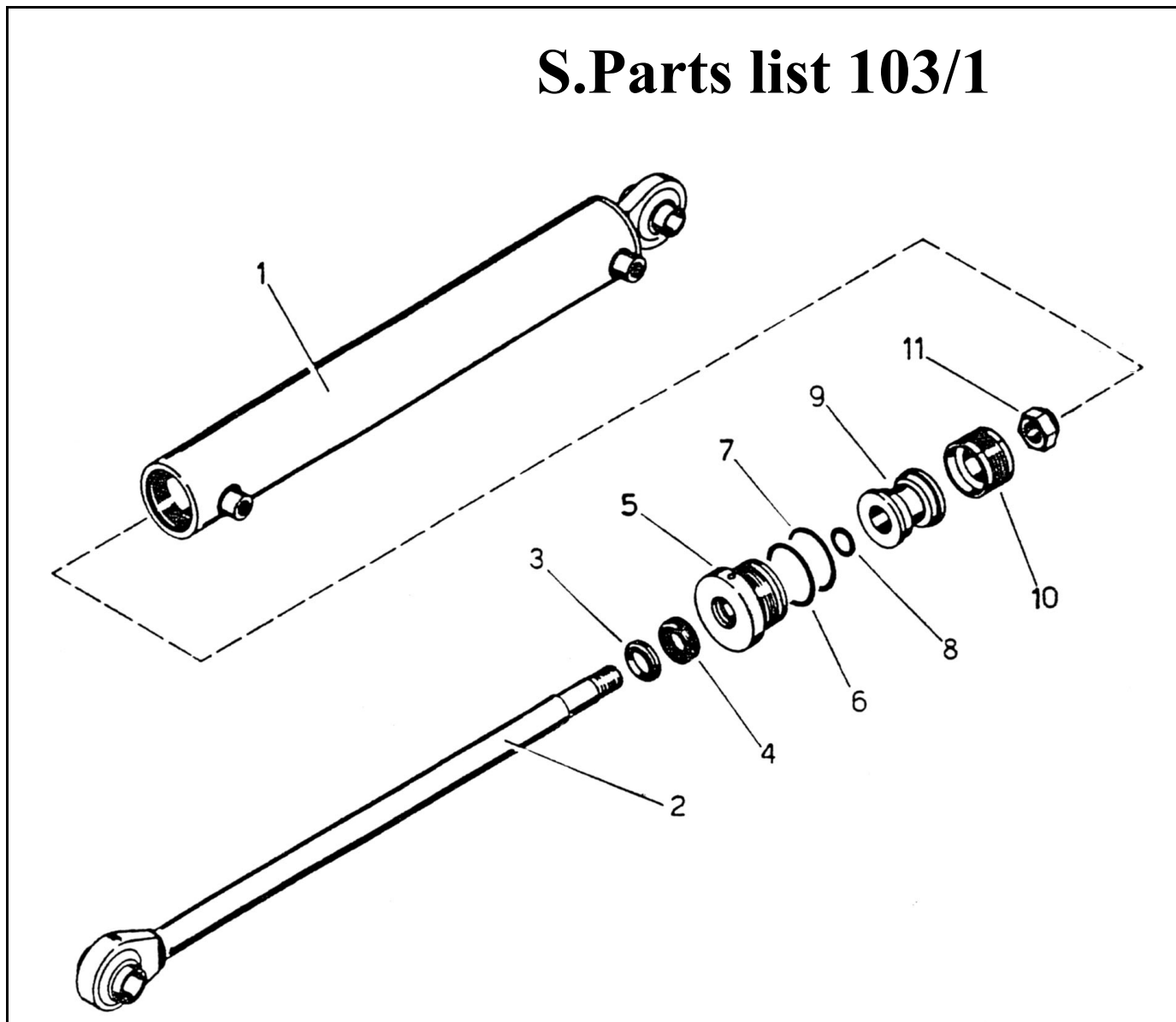
Pos	SPECIFICATION	CODE	Pos	SPECIFICATION	CODE
1	Kit attacco leva	77 TCC5	11	Rondella rame 1/2"	70 RR12
2	Kit attacco cavo	77 KGR5	12	Nipplo	70 NM12
3	Cavo flessibile	77 CF2500	13	Tubo ritorno distr.	73 T8/22C
4	Kit attacco cavo	77 KTC5	21	Asta leva M10x200	77 AL01M10X20
5	Nipplo riduzione	70 NRM38M14	22	Gruppo leve a 5 elem con disp.anti-invers.cabl.	77 TCC5/5ULEB
6	Nipplo	70 NM38	1-10	Gruppo distributori per BS821	
7	Rondella rame 3/8"	70 RR38		con cavi L=2500 e	
8	Distributore a 4 el.	77 VCD20/4 18X4		blocco leve cablato	77 D54+D41TC25X5
9	Kit leva anti inversione	77 TCC5/1UL			
10	Distributore 1 elemento	77 VCD25/1 211/12			

S.Parts list N°27/8/1

Connection Safety valve for BS821DS



S.Parts list 103/1

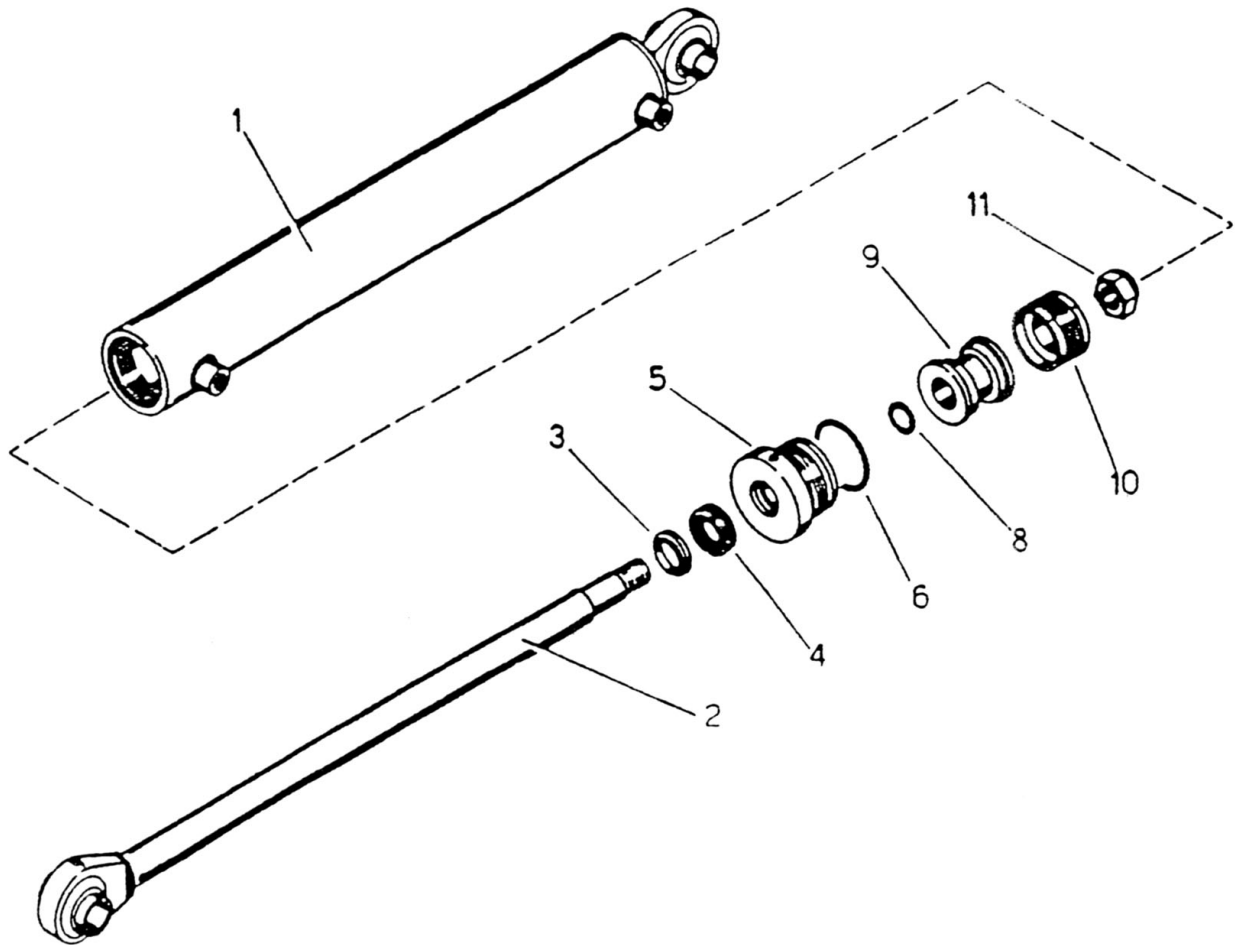


CYLINDER BORE DIAM. 60 SHAFT DIAM. 30 STROKE 480 CODE U155.03/1

LEGEND SPARE PARTS LIST N. 103/1

POS.	SPECIFICATION	PIECE	CODE PART
1	Camicia cil. ales 60 corsa 480	1	10 U154.02/03/1
2	Stelo diam.30 per corsa 480	1	10 U154.01/03
3	Raschiatore per stelo diam.30 (rif.Polypac)	1	24 WRM118149
4	Guarnizione per stelo diam.30 (Rif.Polypac)	1	24 B/NE1157118
5	Testina guida stelo diam.30 ales.60	1	10 U153/60/30
6	Guarnizione OR (= Rif.Polypac OR 228)	1	24 OR161
8	Guarnizione OR (= Rif.Polypac OR 118)	1	24 OR3087
9	Pistone per cilindro ales. 60	1	10 U152/60/30
10	Guarnizione su pistone ales.60	1	24 DBM236173
11	Dado autobloccante MB20 x 1,5 ALTO	1	42 DAUTMB20X1,5
	Serie completa guarnizioni cil.ale.60 stelo 30	1	24 U155/60/30
	Cilindro completo ales.60 stelo 30 corsa 480	1	10 U155.03/1

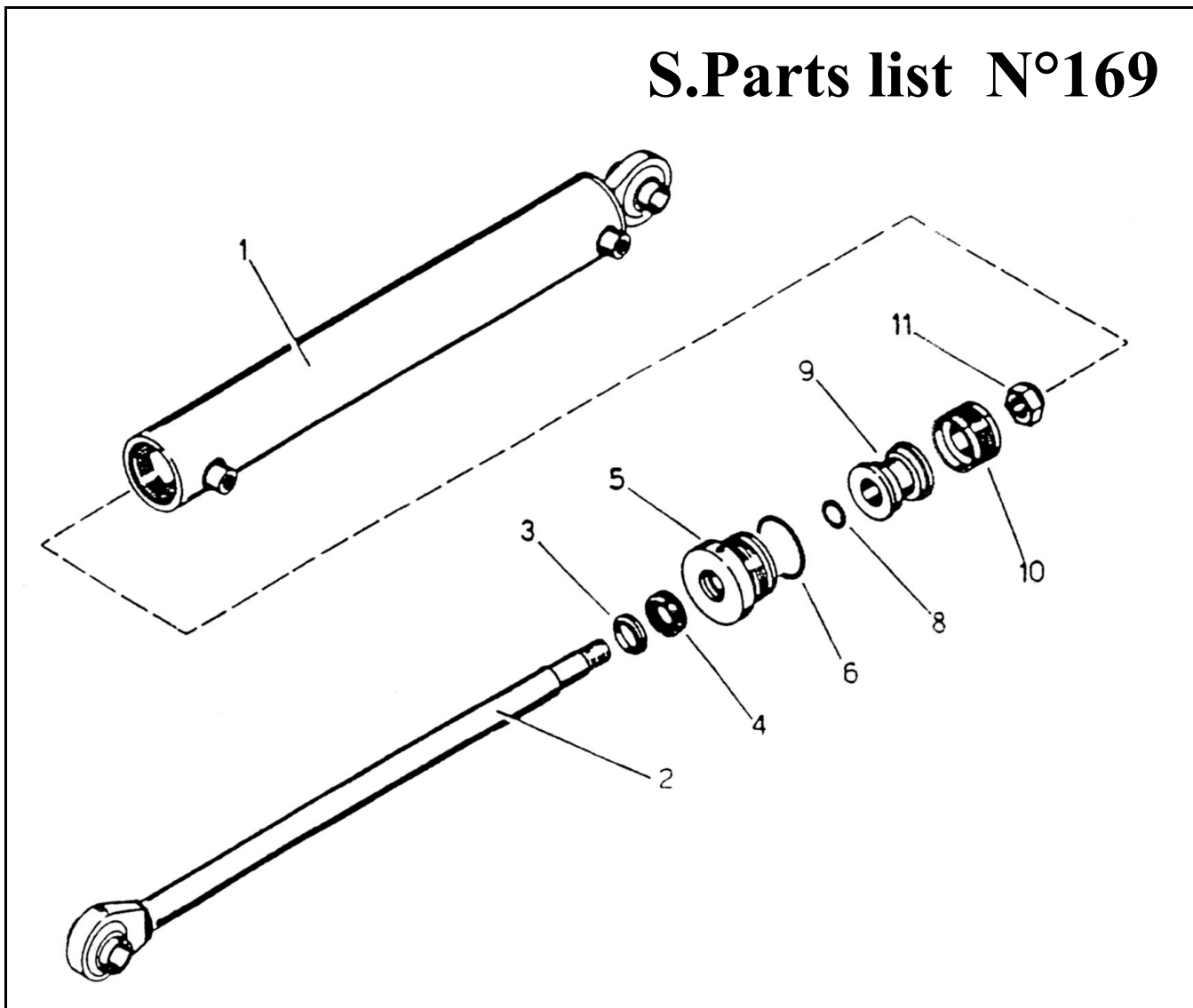
S.Parts list N° 102-102/1



CYLINDER BORE DIAM. 50 SHAFT DIAM. 25 STROKE 400 CODE U155.02
CYLINDER BORE DIAM. 50 SHAFT DIAM. 30 STROKE 400 CODE U155.02/1

LEGEND SPARE PARTS LIST N. 102 102/1				
POS.	SPECIFICATION	PIECE	PIECE	CODE PART
1	Camicia cil. ales 50 corsa 400	1	1	10 U154.02/02
2	Stelo diam.25 per corsa 400	1	-	10 U154.01/02
2\1	Stelo diam.30 per corsa 400	-	1	10 U154.01/02/1
3	Raschiatore per stelo diam.25 (rif.Polypac)	1	-	24 WRM098129
3\1	Raschiatore per stelo diam.30 (rif.Polypac)	-	1	24 WRM118149
4	Guarnizione per stelo diam.25 (Rif.Polypac)	1	-	24 B/NE1129098/1
4\1	Guarnizione per stelo diam.30 (Rif.Polypac)	-	1	24 B/NE1157118
5	Testina guida stelo diam.25 ales.50	1	-	10 U153/50/25
5\1	Testina guida stelo diam.30 ales.50	-	1	10 U153/50/30
6	Guarnizione OR (Rif.Polypac)	1	1	24 OR4187
8	Guarnizione OR (Rif.Polypac)	1	1	24 OR3081
9	Pistone per cilindro ales. 50	1	1	10 U152/50/25
10	Guarnizione su pistone ales.50	1	1	24 DBM196133
11	Dado autobloccante MB20 x 1,5	1*	1*	42 DAUTMB20X1,5
	Serie completa guarnizioni cil.al.50 st.25	1	-	24 U155/50/25
	Serie completa guarnizioni cil.al.50 st.30	-	1	24 U155/50/30
	Cilindro completo ales.50 stelo 25 corsa 400	1	-	10 U155.02
	Cilindro completo ales.50 stelo 30 corsa 400	-	1	10 U155.02/1

S.Parts list N°169



CYLINDER BORE DIAM. 50 SHAFT DIAM. 30 STROKE 210 CODE U155.69

LEGEND SPARE PARTS LIST N. 169

POS.	SPECIFICATION	PIECE		CODE PART
1	Camicia cil. ales 50 corsa 210	1		10 U154.02/69
2	Stelo diam.30 per corsa 210	1		10 U154.01/69
3	Raschiatore per stelo diam.30 (rif.Polypac)	1		24 WRM118149
4	Guarnizione per stelo diam.30 (Rif.Polypac)	1		24 B/NEI157118
5	Testina guida stelo diam.30 ales.50	1		10 U153/50/30
6	Guarnizione OR (Rif.Polypac)	1		24 OR4187
8	Guarnizione OR (Rif.Polypac)	1		24 OR3081
9	Pistone per cilindro ales. 50	1		10 U152/50/25
10	Guarnizione su pistone ales.50	1		24 DBM196133
11	Dado autobloccante MB18 x 1,5	1		42 DAUTMB18X1,5
	Serie completa guarnizioni cil.al.50 st.30	1		24 U155/50/30
A	Cilindro completo ales.50 stelo 30 corsa 210	1		10 U155.69