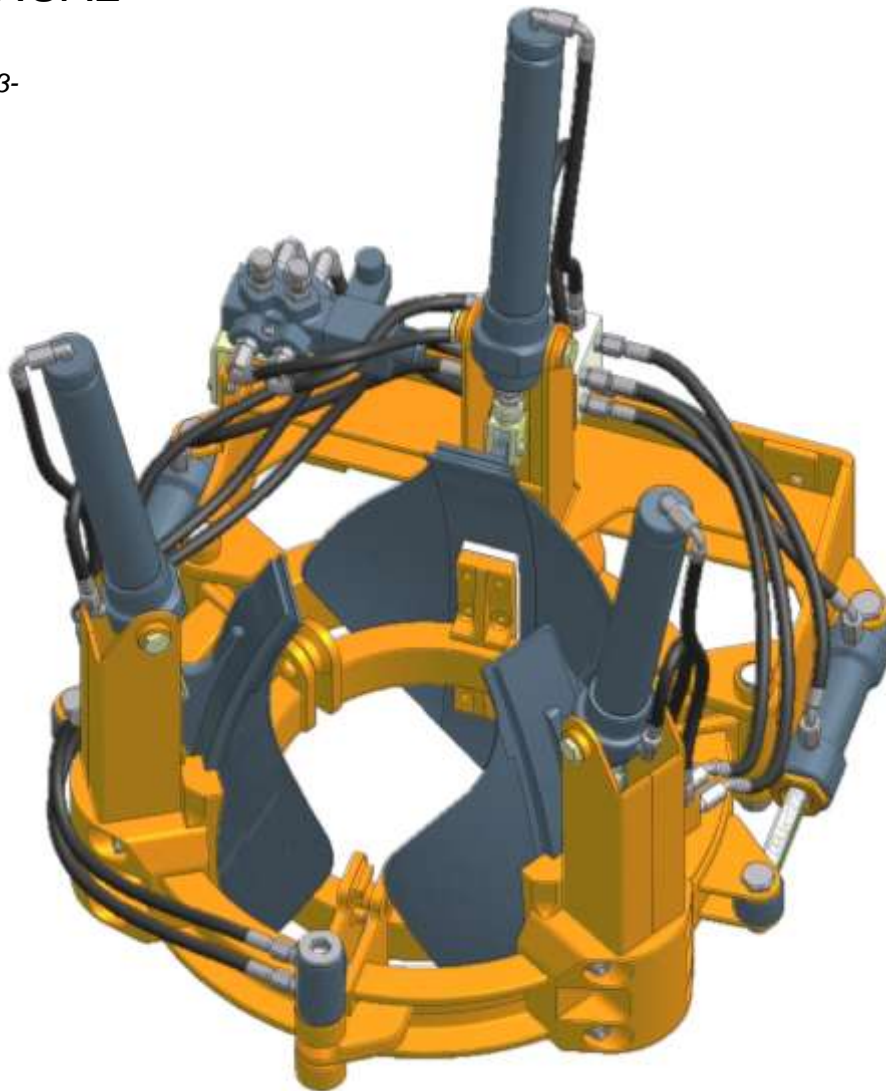


OPTIMAL 350



I. MANUAL

350023-



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Germany

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WARNING Operator must have read and understood instructions before running the tree spade. Untrained operators can cause injury or death.



Safety Alert Symbol:

This symbol is used for important safety messages. When you see this symbol, follow the message to avoid personal injury or death.

-  Never use tree spade without instructions. See machine signs (decals), and Operation & Maintenance Manual of tree spade. The operation instructions for power unit must be followed.
-  Before starting operations, bolts and hydraulic fittings must be checked to make sure they are free of damage and well tightened. Defective or loose hose pipes might cause serious injuries and therefore must be replaced immediately.
-  The operator is responsible for ensuring that no person is near the tree spade when in operation.
-  No one should be underneath the raised tree spade or near shearing and pinching areas, or near any hydraulic components. We are advising the user that due to their functional positions and movements the danger areas cannot be furnished with protective guards.
-  Keep bystanders well away from work area.
-  Do not perform any manual work on the tree or shrub when it is inside the tree spade. In particular, do not check the position of the tree or shrub by hand or feet when it is inside the tree spade. Do not tie the tree or shrub when it is near or inside the machine.
-  When sight is limited, an assistant should direct the operator by hand signals.
-  When driving, the tree spade should be in the lowest possible position. When moving and working on public roads, the traffic rules and regulations must be adhered to.
-  Never leave power unit with engine running or with lift arms up.
-  To park, engage parking brake and put tree spade flat on the ground.
-  When doing cleaning, maintenance or repair work, lower the tree spade to the ground and stop the engine of the power unit.
-  Never modify equipment. Use only original spare parts approved by manufacturer for this particular model tree spade.
-  When digging, it might happen that a stone gets caught between two blades and the blades get bent. This causes tremendous tension in the steel blade. Do not try to release the stone by means of a crow bar or other tools. Place the digging head again into the planting hole and retract the blades. Thereby the stone will come loose and the blades which got a high degree of bending strength will regain their former shape. After that the root ball can be dug again.
-  The operator must be sure that the ground he is going to dig is free from any underground installations such as cables, pipes or any other utilities or dangerous matter. Damaging such underground installations or matter is dangerous and might result in serious injury or death.
-  Safety stickers have been placed on the tree spade to warn the user of possible dangers. In case a safety sticker has been worn or destroyed, it must be replaced immediately. Safety stickers can be ordered with your distributor or the manufacturer.



PELIGRO

NO SE ACERQUE A LA
ZONA DE MOVIMIENTO
CUANDO ESTÁ
EN FUNCIONAMIENTO

AVISO

EVÍTESE LA HERIDA
No se acerque
ni la unidad elevada
ni la transplantadora

AVISO

EVÍTESE LA HERIDA
¡No se acerque!
Está estructura
mueve hacia afuera

PELIGRO

MAQUINARIA EN MOVIMIENTO
MANTENGA MANOS Y PIES
ALEJADOS



DANGER

KEEP AWAY
FROM SWING AREA
WHEN IN OPERATION

WARNING

AVOID INJURY
Stay Clear
Of
Elevated Unit
And Tree Spade

WARNING

AVOID INJURY
Stay Clear!
This structure
swings outward

DANGER

MOVING MACHINERY
KEEP HANDS AND
FEET CLEAR

1. Operating Specifications

Description	Tree Spade OPTIMAL 350	
Serial Number	350	
Capacity	upper root ball diameter	36 cm (14,2")
	root ball depth	30 cm (12")
dimesions of basic machine	height	78 cm (31")
	width, gate closed	69 cm (27")
	width, gate open	99 cm (39")
	clearance between open gate	48 cm (19")
weight	basic machine, empty	150 kg (330 lbs.)
rated type of attachment	attachment by means of back plate to skid steer loader or excavator	
	the power unit must be equipped with an auxiliary double-acting hydraulic circuit for implements: working pressure: 140 – 160 bar (2010 – 2300 lbs/in²) oil flow rate 25 - 40 l/min. (7 – 11 GPM)	
controls	electro-hydraulic valves, rotary control switch	
field of application	tree nurseries, gardens	

2. Assembly

⚠ IMPORTANT: When doing assembly work, heed relevant instructions of manufacturers of power unit!

2.1. Back plate

The tree spade is attached to the power unit by means of a back plate. The back plate is procured from the manufacturer of the power unit, or it might be fabricated according to the drawings and instructions of the manufacturer of the power unit.

The back plate is to be furnished with borings $\varnothing 18$ as per drawing page 12. At these attachment points the tree spade is bolted tightly to the back plate.

2.2 Installation of Electro-Hydraulic Control

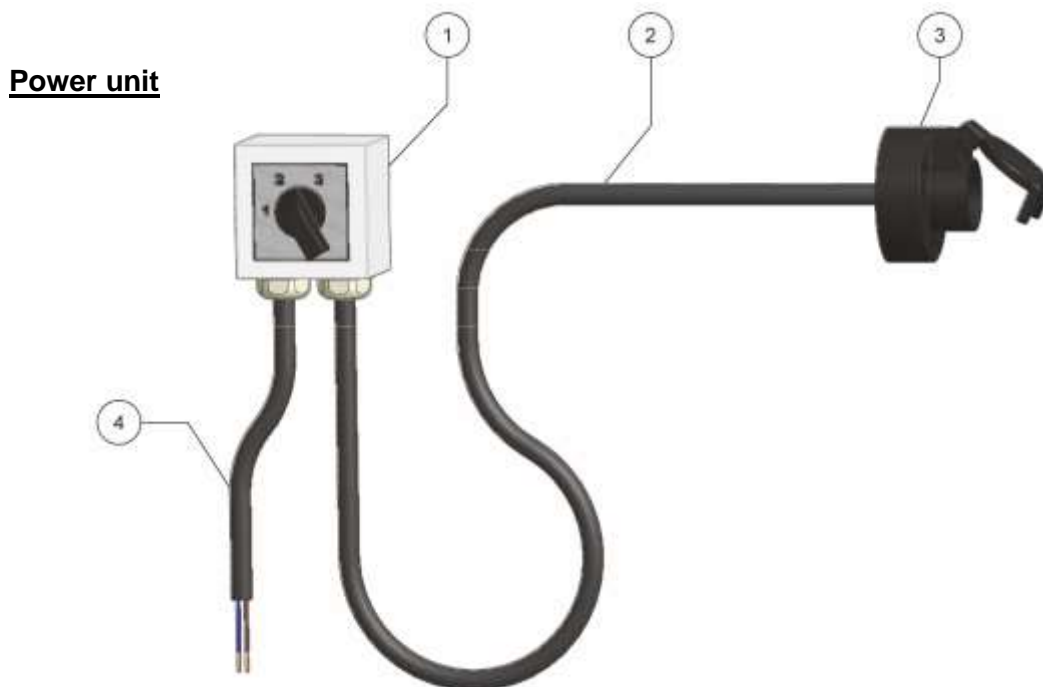
The item numbers in the brackets refer to below diagram.

2.2.1 Install rotary switch (item 1) at suitable and dry location in the power unit, e.g. on the instrument panel.

2.2.2 Connect two-pole cable (item 4) to the power supply of the power unit (12 V). (The brown wire is negative, the blue wire is positive).

2.2.3 Install three-pole female plug (item 3) next to the quick-connect of the hydraulic supply.

Now the tree spade and the power unit are ready for operation.



3. Putting into Service

The tree spade with the back plate is attached and secured to the power unit.

Both the hydraulic connecting hoses of the tree spade are to be connected to the hydraulic disconnect of the auxiliary hydraulic circuit of the power unit.

The plug of the electric control cable is to be plugged into the socket on the power unit

Make sure that hydraulic working pressure and oil flow of power unit meets the requirements as laid down in the operating specifications on page 5.



IMPORTANT:

The hydraulic disconnect of the tree spade and the power unit must match and must be connected properly. Faulty connections are extremely dangerous.

When operating the power unit, follow the instructions of the operating manual of the power unit !

4. Operating Instructions



IMPORTANT:

The Operator must be a reliable person. Before commencing production work, he or she must study these operating instructions thoroughly.

The following safety instructions must be observed:

It is the operator's prime duty to ensure that any persons must stay clear off the danger area. Special care must be taken that no one is ever under the raised tree spade, or near the potential shearing and pinching areas, or near the opened gate, near the spades or near any hydraulic components.

Do not perform any manual work at the tree or shrub when it is inside the tree spade. In particular, do not check the position of the tree or shrub by hand or feet when it is inside the tree spade. Do not bind the tree or shrub when it is near or inside the machine.

When sight is limited, an assistant should direct the operator by hand signals.

Before starting to work with the tree spade, make sure the hydraulic fittings and the bolts are properly tightened and are free from any defects.

4.1 The Controls

The electro-hydraulic controls are to be operated as follows:

Rotary Switch

function 1 : gate lock

function 2 : frame

function 3 : blades

Work Movement

open / close

open / close

up / down

The function required is preset with the rotary switch and then activated by the manual control valve of the auxiliary hydraulic circuit of the power unit.



4.2 **Operation**

First lower the tree spade by means of the lift arms of the power unit the blade points are about 20 cm (8") above the ground.

Preset function 1 "gate lock" with rotary switch, and activate "unlock" with manual control. Then preset function 2 "gate" and activate "open" with manual control. Now the gate opens.

Drive the tree spade with gate opened towards the tree. When the tree is positioned in the centre of the main frame, preset function 2 "gate" and activate "close".

Then preset function 1 "gate lock" and activate "lock".

Locking the frame before starting the digging operation is of utmost importance and must never be omitted !

If the gate is not locked properly, the frame may be bent!

With the gate closed, lower the tree spade to the ground and bring it in a horizontal position. Check again if tree is positioned in the centre of the frame and correct, if necessary.

If the loader is equipped with rear stabilizers, extend rear stabilizers with the appropriate control valve of the loader.

Preset function 3 "blades" and actuate "down" with manual valve. Now the blade cylinders force the blades into the soil.

When the tree spade begins to lift in the process of digging, retract the blades and then continue digging. Never tilt the tree spade forward and backward with the tilting cylinder of the power unit.

Once all spades have been completely pressed into the soil, the tree spade with the planting material inside is lifted out of the ground by means of the lift arms of the power unit.

When operation of the tree spade is finished, put rotary switch into idle position by setting item 1 at rotary switch.



IMPORTANT:

When moving and working on public roads, the traffic rules and regulations must be adhered to.

When driving, the tree spade should be in the lowest possible position.

When digging, it might happen that a stone gets caught between two blades and the blades get bent. This causes tremendous tension in the steel blade. Do not try to release the stone by means of a crow bar or other tools.

Place the digging head again into the planting hole and retract the blades. Thereby the stone will come loose and the blades which got a high degree of bending strength will regain their former shape. After that the root ball can be dug again.

4.3 Releasing the Tree

When transplanting or root-balling, lower the tree spade by means of the lift arm, retract spades (function 3 "blades" , control valve "up") then unlock gate (function 1 "gate lock", control valve "unlock").

Finally open the gate (preset function 2 "gate", manual control "open") and reverse the loader.

5. Care and Maintenance

5.1 Blade Guides

The blades are furnished with plastic linings which slide on steel guides. Once the plastic lining is worn to the point that the heads of the countersunk screws are flush with the surface of the plastic linings, they must be replaced to prevent the screws from damaging the guides.



IMPORTANT: Keep the guides clean.

5.2 No Lubrication

All sliding surfaces and bearings are made of plastic and do not require any lubrication.

5.3 Hydraulic Oil Supply

Check level of hydraulic oil regularly. For checking, retract all blades "up" and lower the tree spade to the ground. If in that position the oil level is below the mark of the sight glass, oil must be refilled.

5.4 Hydraulic Hoses

All hydraulic hoses must be inspected at least once per year. Damaged hoses must be replaced. All hoses must be replaced latest 6 years they have been initially installed..

5.5 Hydraulic Cylinders

When the tree spade is not used for more than 2 weeks, all piston rods of the hydraulic cylinders must be cleaned and then sprayed with a preserving oil.



IMPORTANT:

Tree spade must be lowered to the ground and switched off when doing cleaning, maintenance or repair work !

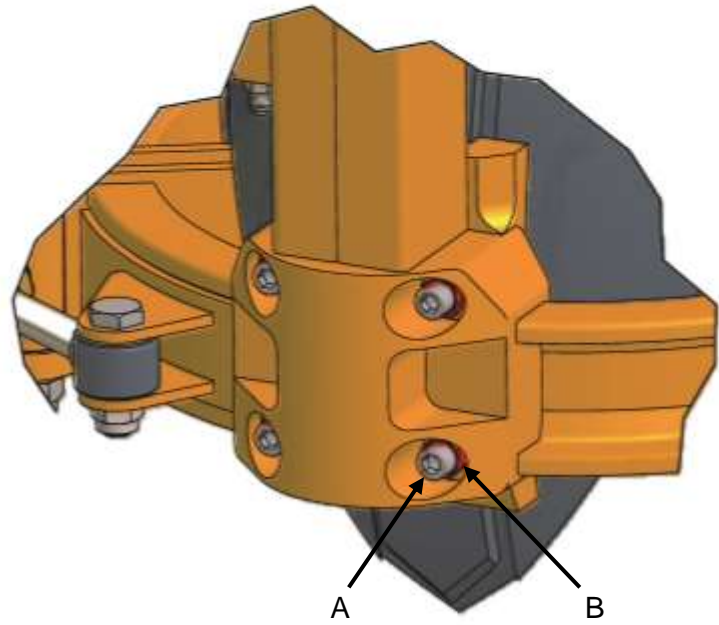
Use original spare parts only !

The tree Spade must be inspected by an expert on operational safety once per year !

Do not alter the design of the tree spade without having consulted the manufacturer !

Check screws regularly on tight fit. Tighten firmly, if necessary !

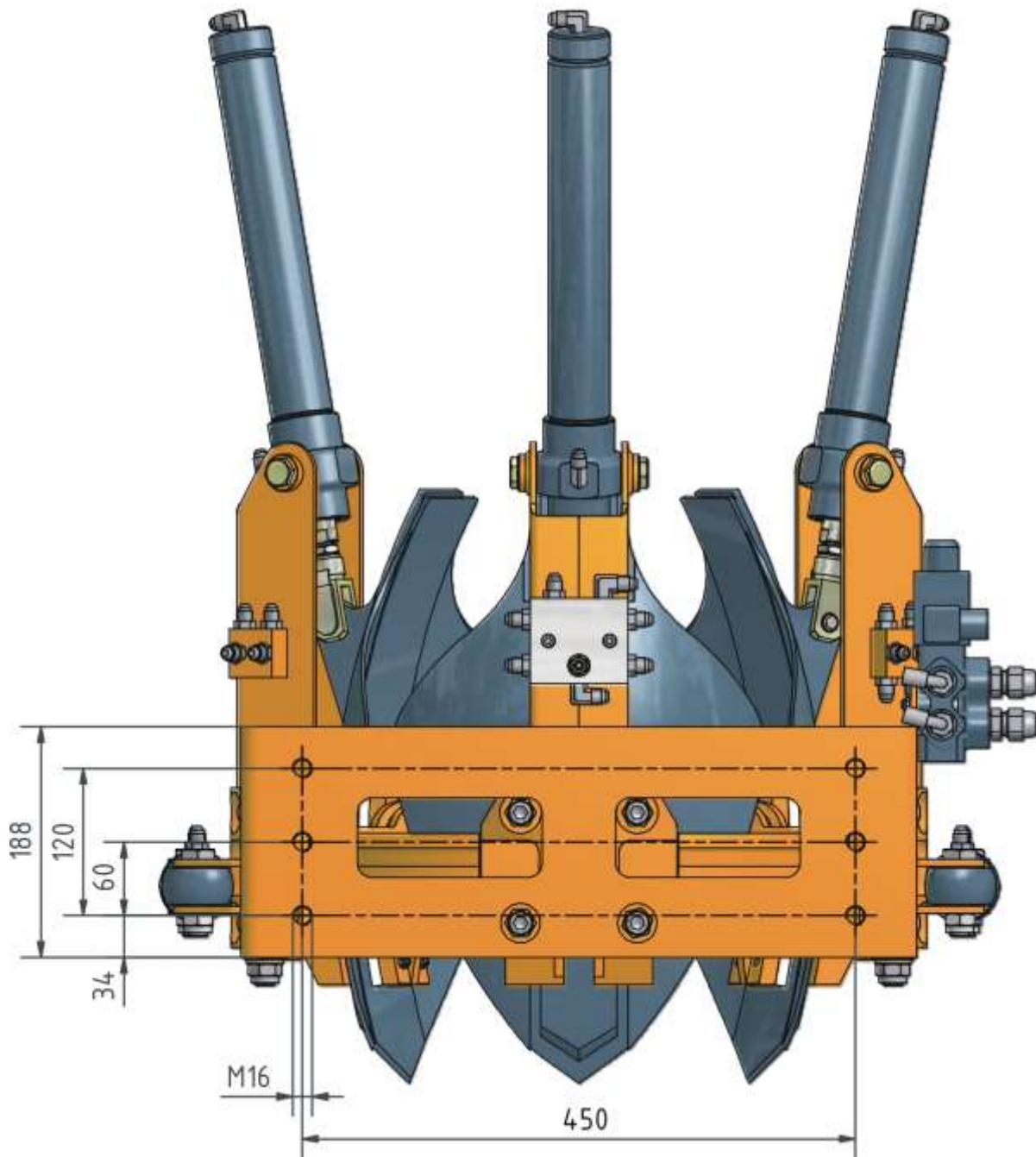
5.6 Adjusting Blades



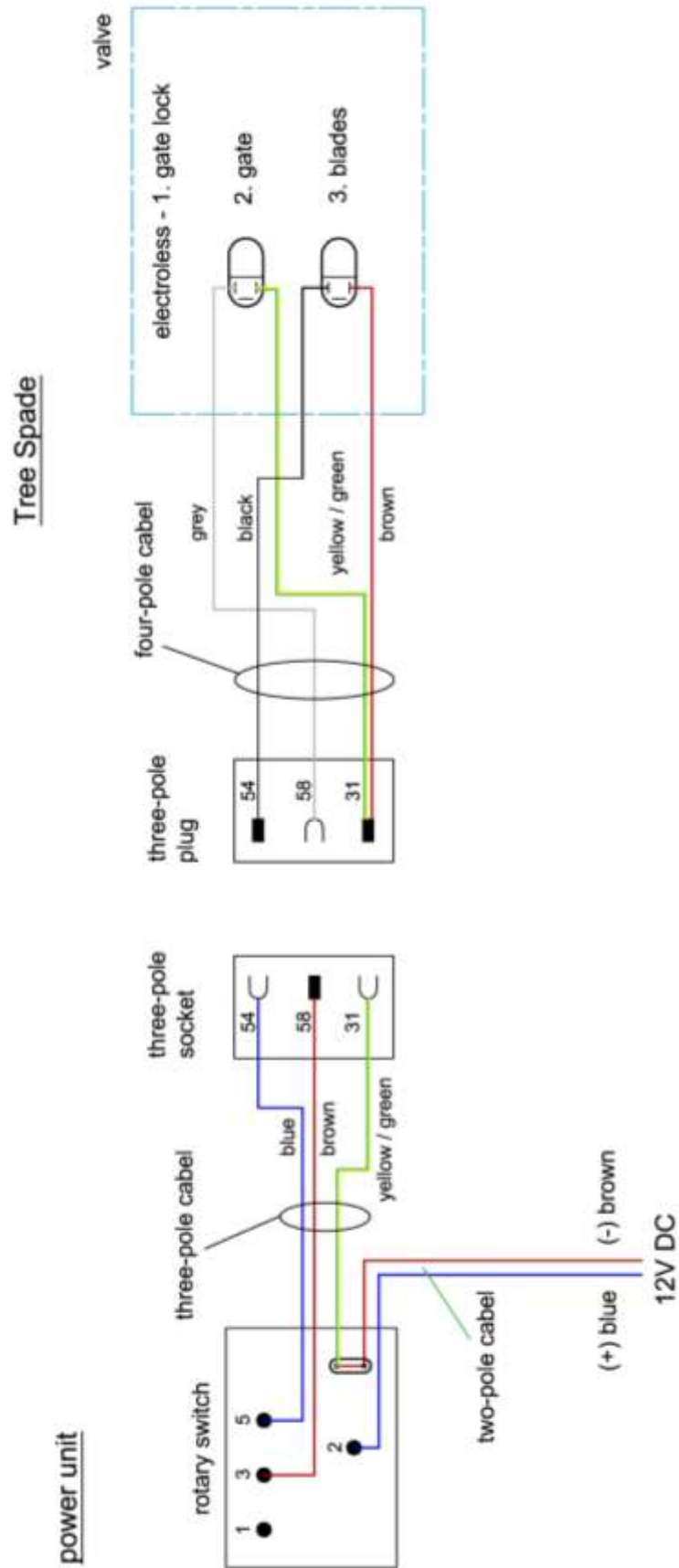
1. Loosen screws A (M12x70)
2. Adjust blades with threaded bushes B (SW22), so that they come in proper position.
3. Tighten screws A (M12x70) (Torque 85 Nm).

6. Appendix

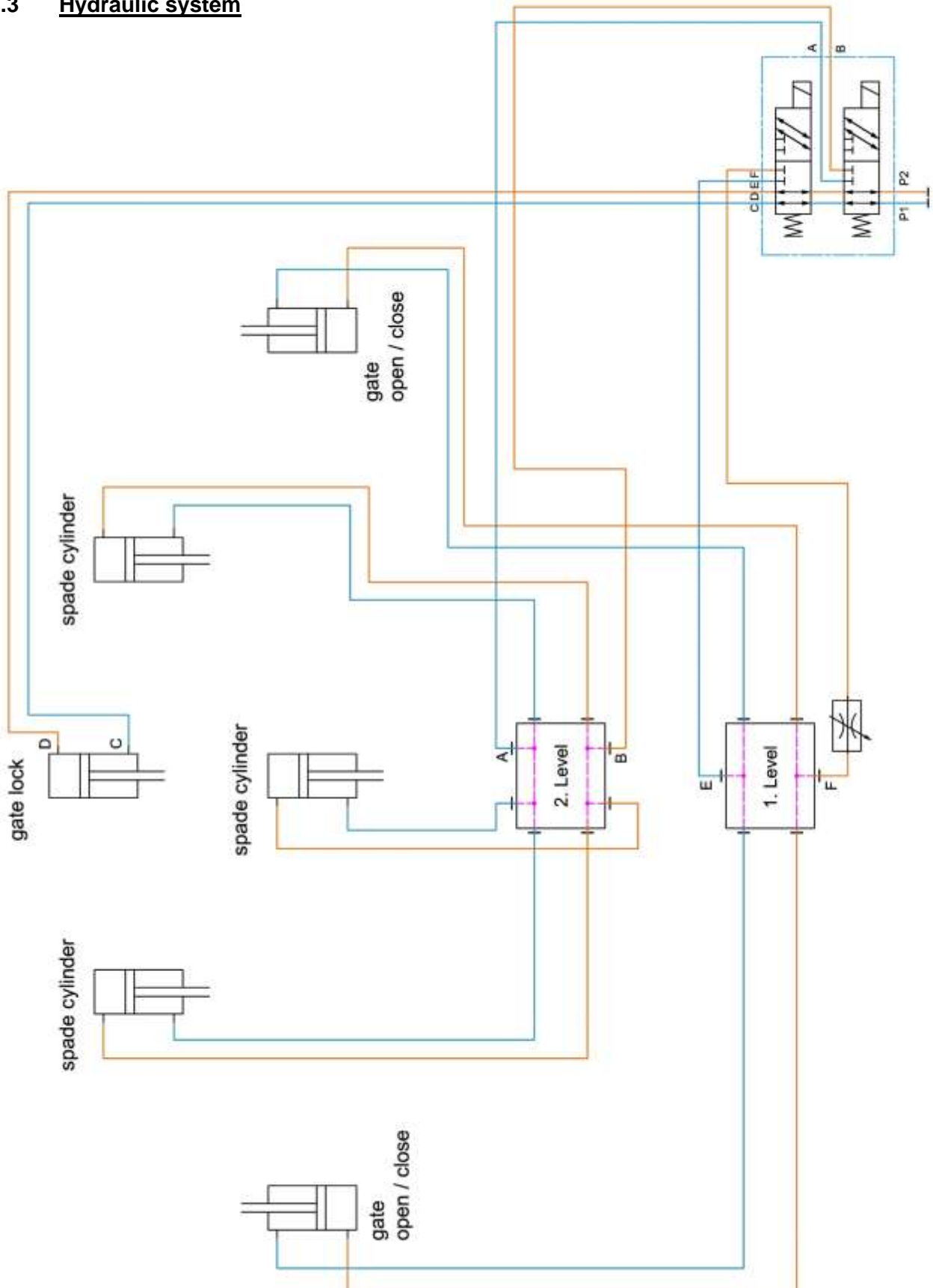
6.1 Attachment points



6.2 Electrical connection diagram



6.3 Hydraulic system

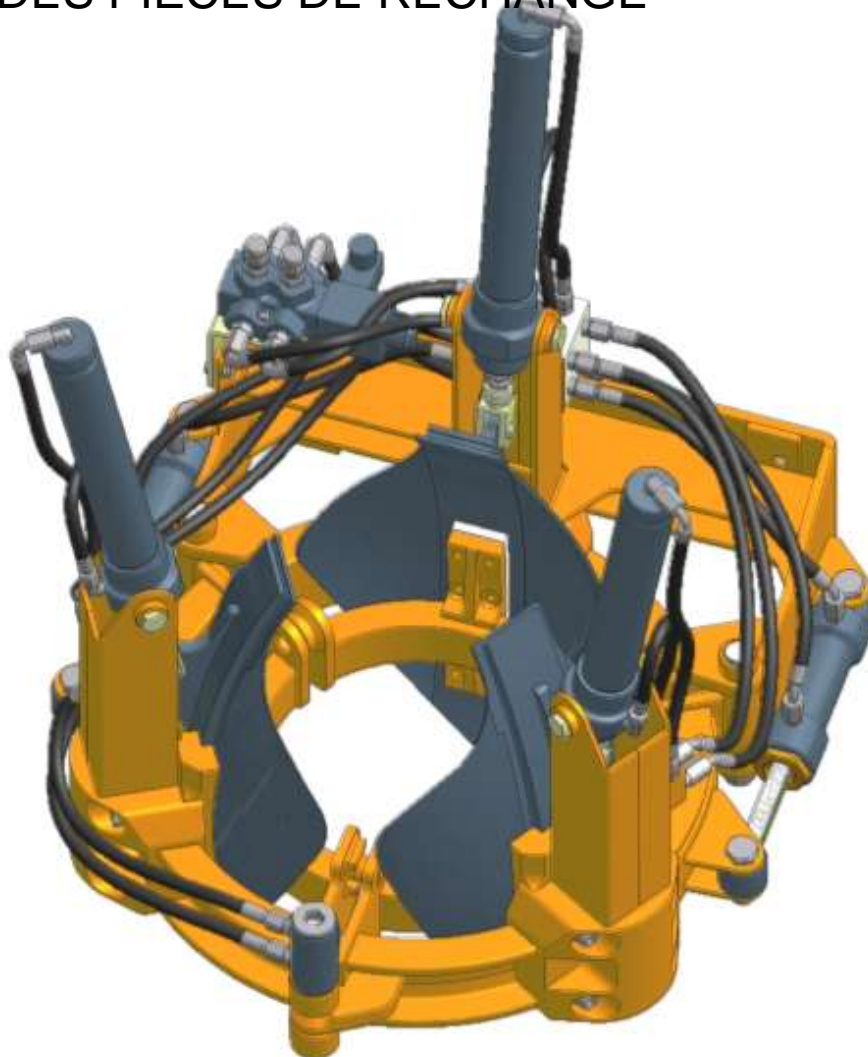


OPTIMAL 350



II. ERSATZTEILLISTE SPARE PARTS LIST LISTE DES PIÈCES DE RECHANGE

350023-

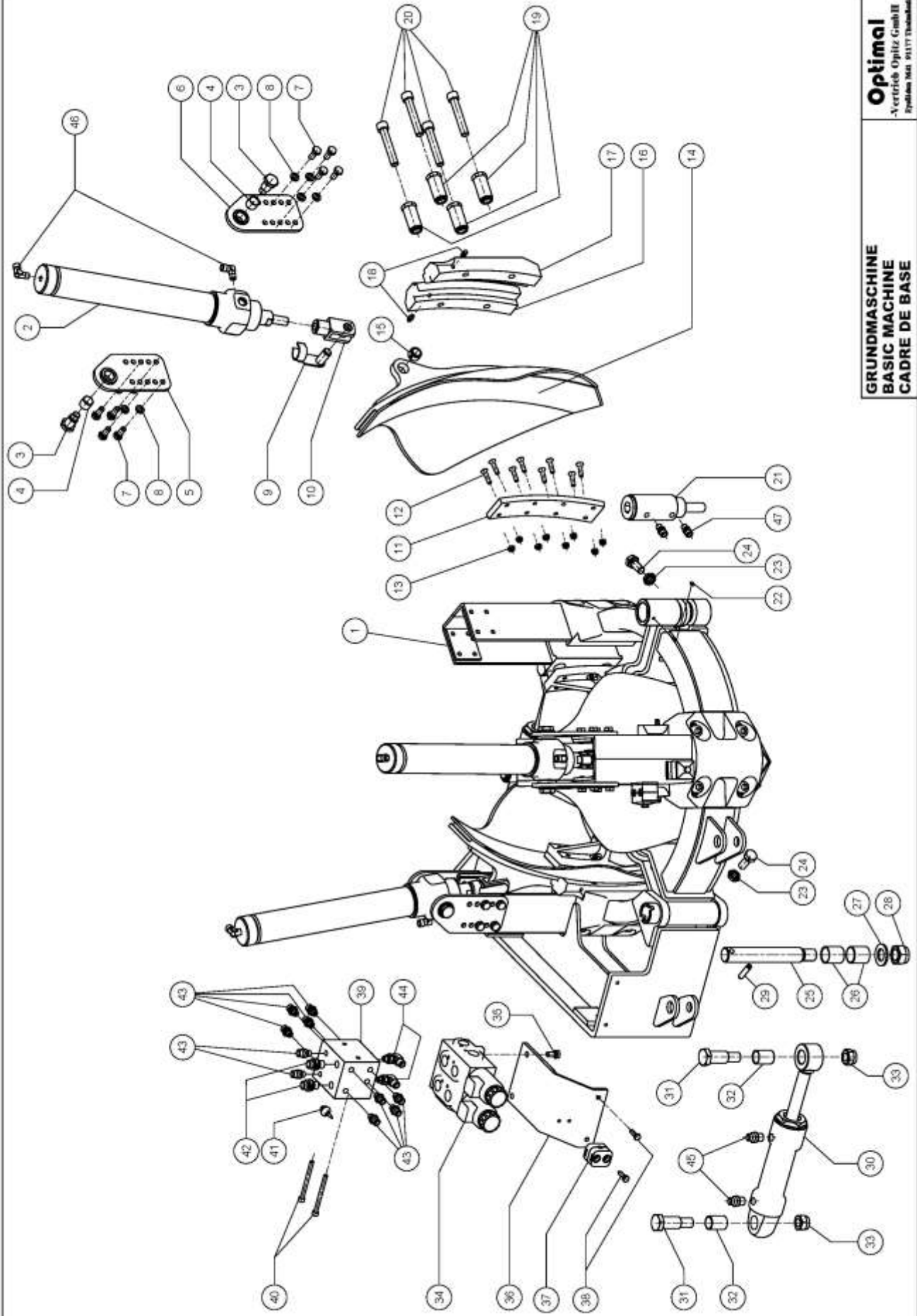


Hersteller – Manufacturer - Fabricant:

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web: www.opitz-optimal.com

Ersatzteilliste - Spare Parts List - Liste De Pièces De Rechange Tafel - Table - Feuille 1



GRUNDMASCHINE
BASIC MACHINE
CADRE DE BASE

Optimal
 Vertrieb Optiz GmbH
 Pöchlarn, A-3411

Tafel - Table - Feuille 1**OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Grundmaschine / Basic Machine / cadre de base**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
1	1	Grundmaschine 350 main frame cadre de base	2000350013
2	3	Spatenzylinder 350 spade cylinder 350 vérin de bêche	3010100070
3	6	Schwenkbolzen adjustment pin arbre à rotule	3070350020
4	6	Lagerbuchse GSM-1618-15 bush GSM-1618-15 douille	544161815
5	3	Lagerplatte, re. mounting plate, right plaque de montage, droite	3180350260, RE
6	3	Lagerplatte, li. mounting plate, left plaque de montage, gauche	3180350260, LI
7	24	Schraube M 8 x 20 DIN 933 hex head screw M 8 x 20 vis M 8 x 20 DIN 933	50108020933
8	24	Federring M 8, DIN 127 spring washer DIN 127 rondelle élastique	50608
9	3	Federklappbolzen 14 x 28 locking pin goupille à ressort	5071428
10	3	Gabelkopf DIN 71752, G 14 x 28 fork joint tête fourche	5074140

Tafel - Table - Feuille 1**OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Grundmaschine / Basic Machine / cadre de base**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
11	3	Kunststoffleiste plastic guide patin en plastique	3060350010
12	24	Schraube M 6 x 30 DIN 7991 countersunk socket screw M 6 x 30 vis M 6 x 30 DIN 7991	501060307991
13	24	Sicherungsmutter M 6 nut M 6 DIN 985 écrou de serrage	502060985
14	3	Spaten kpl. spade complete bêche complète	3160350050
15	3	Einspannbuchse 14 x 20 x 13, tapered bush entretoise	506142013
16	3	Spatenführung außen, rechts guide RH, outside guide de bêche extérieur, droit	3060350021
17	3	Spatenführung außen, links guide LH, outside guide de bêche extérieur, gauche	3060350031
18	6	Schmiernippel grease nipple boulon graisseur	59908H1M6
19	12	Einstellschraube M22x1,5 Adjustment screw vis de réglage	3140350010
20	12	Schraube M 12 x 70 DIN 912 socket head screw M 12 x 70 vis M 12 x 70	50112070912

Tafel - Table - Feuille 1**OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Grundmaschine / Basic Machine / cadre de base**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
21	1	Verriegelungszyl. 350, HZ25/16 gate lock cylinder vérin de verrouillage	3010300091
22	1	Schraube M 5 x 10, vz. DIN 914 screw M 5 x 10 DIN 914 vis M 5 x 10 DIN 914	50105010914
23	3	Mutter M12 DIN 934 nut M 12 DIN 934 écrou M 12 DIN 934	502120934
24	3	Schraube M 12 x 30 DIN 933 hex head screw M 12 x 30 vis M 12 x 30 DIN 933	50112030933
25	2	Scharnierbolzen ø25 hinge pin axe de charnière	3070350050
26	4	Lagerbuchse GSM-2528-30 bush GSM-2528-30 douille	544252830
27	2	Scheibe DIN 125, 21 mm washer 21 mm rondelle	506920
28	2	Sicherungsmutter M 20 x 1,5 DIN 985 nut M 20 x 1,5 DIN 985 écrou de serrage	50220150985
29	2	Spannhülse 8 x 36, DIN 1481 spring-type straight pin 8 x 36 DIN 1481 douille de serrage	506798351481
30	2	Öffnungszylinder gate cylinder vérin d'ouverture	3010200041

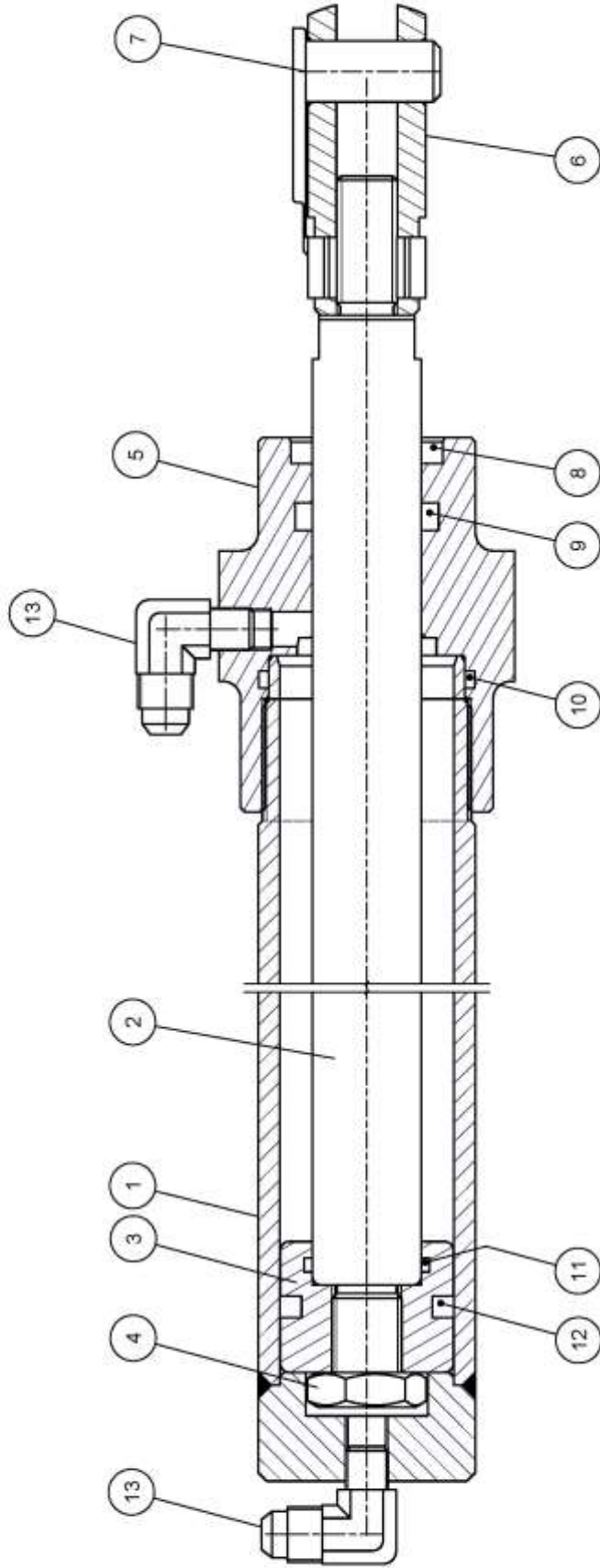
Tafel - Table - Feuille 1**OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Grundmaschine / Basic Machine / cadre de base**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
31	4	Ansatzschraube M16/ø20f7 shoulder bolt M 16 contre écrou	3140650010
32	4	Lagerbuchse GSM-2023-30 bush GSM-2023-30 douille	544202330
33	4	Sicherungsmutter M 16 DIN 985 nut M 16 DIN 985 écrou de serrage	502160985
34	1	Umschaltventil valve valve	547044
35	2	Schraube M 8 x 16 hex head screw M 8 x 16 vis M 8 x 16	501080167991
36	1	Halter f. Steuerventil bracket for valve Maintien pour valve	3150350035
37	1	Rohrschelle pipe clamp collier bout simple	510RAPR-108
38	2	Schraube M 6 x 20 hex head screw M 6 x 20 vis M 6 x 20	50106020933
39	1	Ölverteiler oil manifold distributeur d'huile	3050350010
40	2	Schraube M 6 x 70 DIN 912 socket head screw M 6 x 70 vis M 6 x 70 DIN 912	50106070912

Tafel - Table - Feuille 1**OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Grundmaschine / Basic Machine / cadre de base**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
41	1	Ventilschraube M 8 mit Mutter setting screw with sealing nut vis de valve avec écrou	515179842
42	2	Verschraubung gerade union Raccord fileté droit	515GE8LR
43	10	Verschraubung gerade union Raccord fileté droit	515GE6LR
44	2	Winkelverschraubung 1/8 ellbow union 1/8 coude fileté 1/8	515WE6LR1/8K
45	4	Verschraubung gerade union Raccord fileté droit	515GE6LR1/4K
46	6	Winkelverschraubung 1/8 ellbow union 1/8 coude fileté 1/8	515WE6LR1/8K
47	2	Verschraubung gerade union Raccord fileté droit	515GE6LR1/8K

Ersatzteilliste - Spare Parts List - Liste De Pièces De Rechange Tafel - Table - Feuille 2



**SPATENZYLINDER
SPADE CYLINDER
VERIN DE BÈCHE**

Optimal
Vertrieb OptiLiz GmbH
Eysenack Str. 41/77 Thunhausen

Tafel - Table - Feuille 2**OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Spatenzylinder / spade cylinder / vérin de bêche**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
1	1	Zylinderrohr, geschw. 40/25 cylinder body corps de vérin	3020400080
2	1	Kolbenstange ø 25 x 450 piston rod Tige de piston	3030250061
3	1	Kolben 40 25 230 piston piston	3124025230
4	1	Mutter M 16 x 1,5 DIN 936 nut M 16 x 1,5 DIN 936 écrou M 16 x 1,5 DIN 936	50216150936
5	1	Führungsbuchse, HZ 40/25 guide bush HZ 40/25 douille de guidage HZ 40/25	3114025020
6	1	Gabelkopf DIN 71752, G 14 x 28 re., vz. fork joint tête fourche	5074140
7	1	Federklappbolzen 14 x 28 locking pin goupille à ressort	5071428
8	1	Abstreifer P7 - 25 (W4-25) scraper racloir	5160325
9	1	Stangendichtung S 8 - 25 (blau!) piston rod seal joint de tige de piston	5160225
10	1	O-Ring 45 x 3 o-ring o-ring	517045030

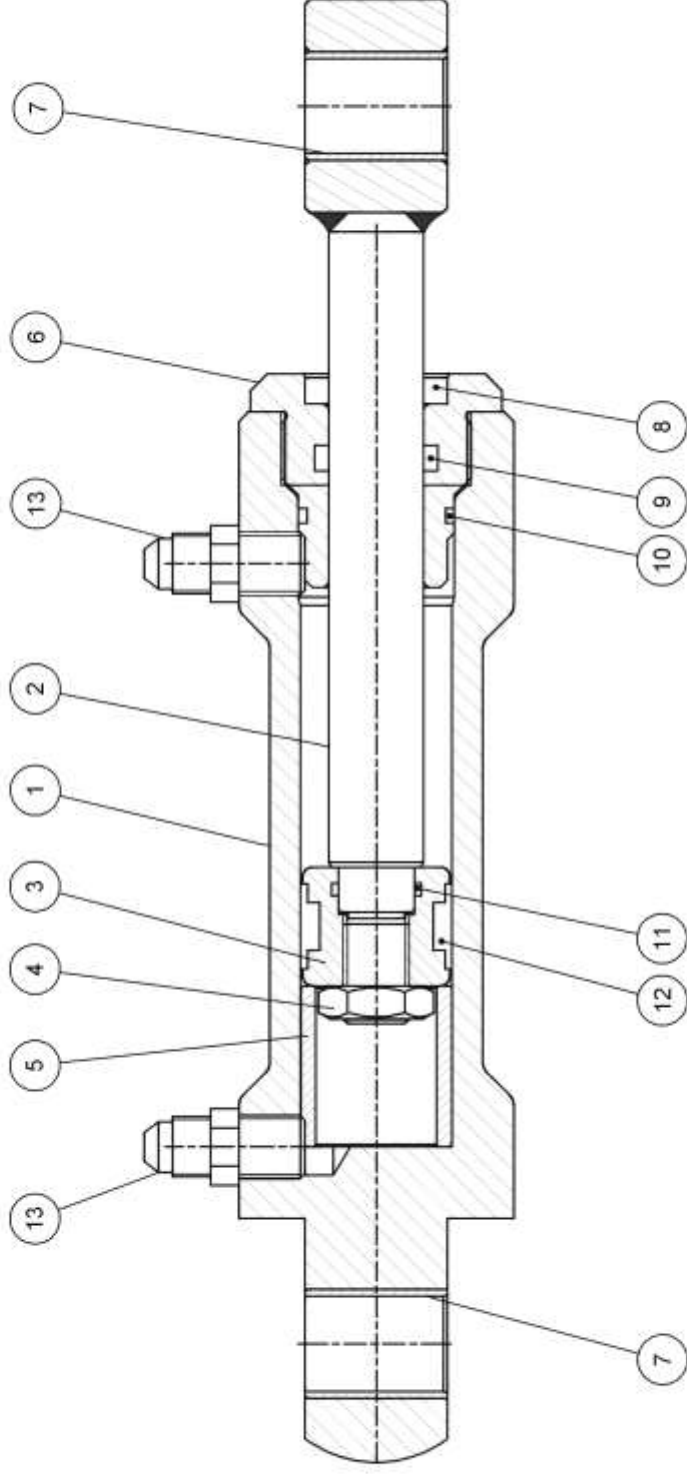
Tafel - Table - Feuille 2

OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE

Spatenzylinder / spade cylinder / vérin de bêche

<u>Pos.</u>	<u>Menge</u>	<u>Bezeichnung</u>	<u>ET-Nummer</u>
<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>Part Number</u>
<u>Pos.</u>	<u>Quantité</u>	<u>Description</u>	<u>Numéro de commande</u>
11	1	O-Ring 25 x 2,5 o-ring o-ring	5170250025
12	1	Kolbendichtsatz OMK40 piston seal joint de piston	5160140
13	2	Verschraubung union boulonnerie	515WE6LR
		Dichtsatz seal kit jeu de joints	516004025603

Ersatzteilliste - Spare Parts List - Liste De Pièces De Rechange Tafel - Table - Feuille 3



ÖFFNUNGSZYLINDER
GATE CYLINDER
VERIN D'OUVERTURE

Optimal
 Vertrieb Optilix GmbH
 Erntebad 3045 91177 Thurnhofen

Tafel - Table - Feuille 3

OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE

Öffnungszylinder / gate cylinder / vérin d'ouverture

<u>Pos.</u>	<u>Menge</u>	<u>Bezeichnung</u>	<u>ET-Nummer</u>
<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>Part Number</u>
<u>Pos.</u>	<u>Quantité</u>	<u>Description</u>	<u>Numéro de commande</u>
1	1	Zylinderrohr cylinder body corps de vérin	3020320020
2	1	Kolbenstange ø 20 x 171, geschw. piston rod tige de piston	3030200020
3	1	Kolben, HZ 32/20 piston piston	3123220010
4	1	Mutter M 14 x 1,5 DIN 936 nut M 14 x 1,5 DIN 936 écrou M 14 x 1,5 DIN 936	50214150936
5	1	Distanzbuchse spacer boulon d'entretoisement	3110350010
6	1	Führungsbüchse, HZ 32/20 guide bush boite de guidage	3113220010
7	2	Lagerbuchse GSM-2023-30 bush GSM-2023-30 coussinet-2023-30	544202330
8	1	Abstreifer scraper racleir	5160320
9	1	Stangendichtung piston rod seal joint de tige de piston	5160220
10	1	O-Ring 28 x 2.5 o-ring 28 x 2,5 o-ring 28 x 2,5	5170280025

Tafel - Table - Feuille 3

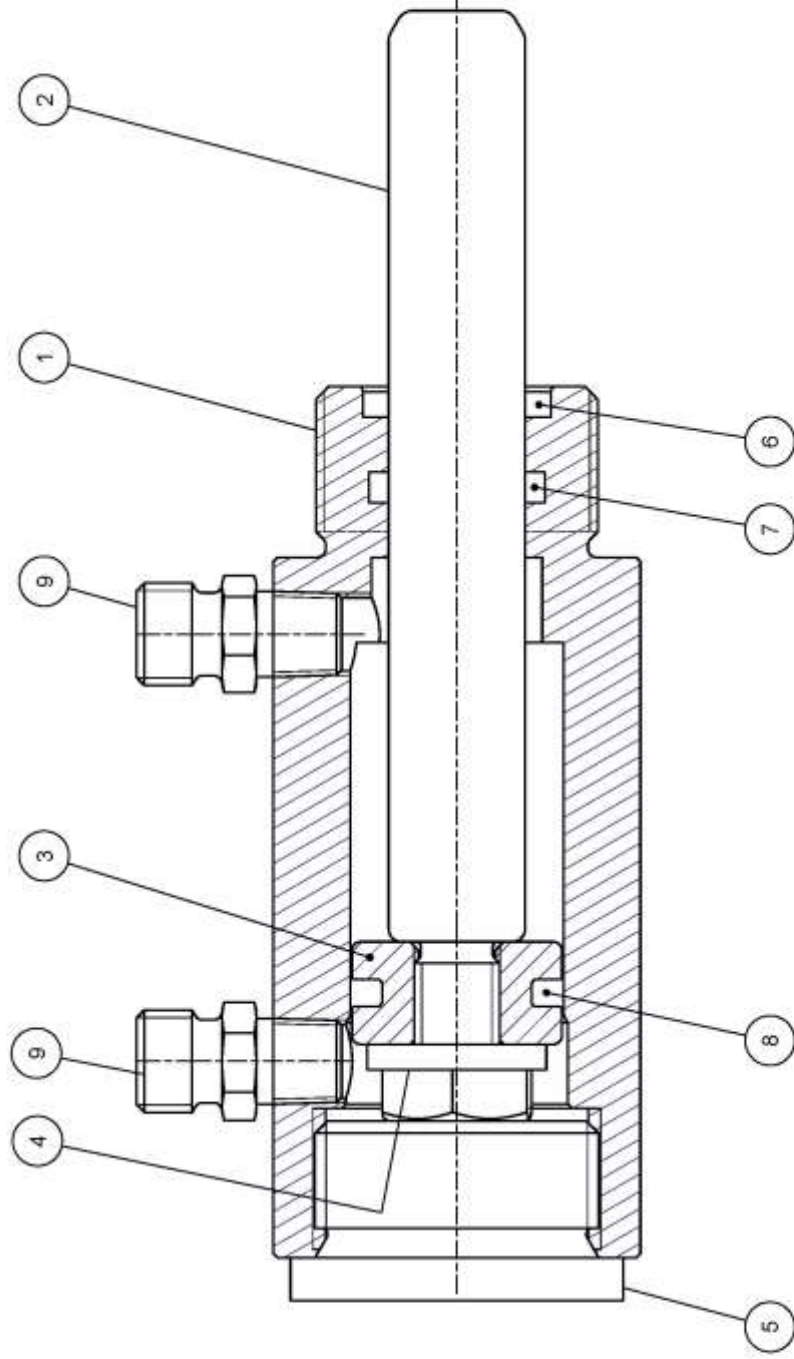
OPTIMAL 350

ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE

Öffnungszylinder / gate cylinder / vérin d'ouverture

<u>Pos.</u>	<u>Menge</u>	<u>Bezeichnung</u>	<u>ET-Nummer</u>
<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>Part Number</u>
<u>Pos.</u>	<u>Quantité</u>	<u>Description</u>	<u>Numéro de commande</u>
11	1	O-Ring 16 x 2 o-ring 16 x 2 o-ring 16 x 2	5170160020
12	1	Kolbendichtsatz 2x24 piston seal joint de piston	5160132
13	2	Verschraubung union boulonnerie	515GE6LR1/4K
		Dichtsatz seal kit jeu de joints	516003220601

Ersatzteilliste - Spare Parts List - Liste De Pièces De Rechange Tafel - Table - Feuille 4



VERRIEGELUNG SZYL.
GATE LOCK CYLINDER
VERIN DE VERROUILLAGE

Optimal
Vertrieb Optix GmbH
Eysenackstr. 111/117 Thunhausen

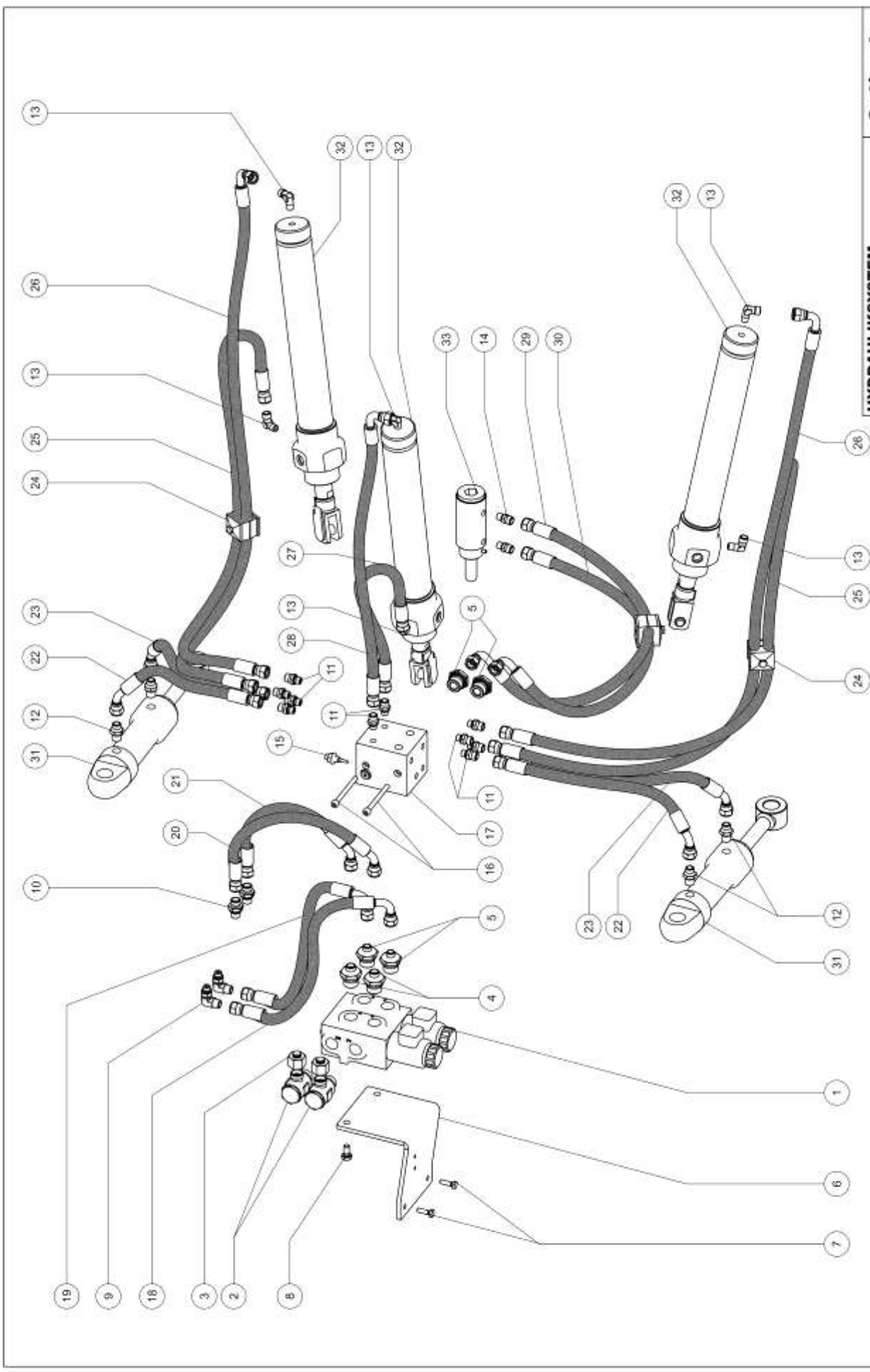
Tafel - Table - Feuille 4

OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE

Verriegelungszyylinder / gate lock cylinder / vérin de verrouillage

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
1	1	Zylinderrohr cylinder body corps de vérin	3020250021
2	1	Kolbenstange piston rod tige de piston	3030160030
3	1	Kolben piston piston	3122516010
4	1	Sicherungsmutter M10x1 nut M10x1 écrou de serrage	502101999
5	1	Verschraubung VSTI union boulonnerie	515VSTI1
6	1	Abstreifer scraper racleir	5160316
7	1	Stangendichtung RS 16/20,6 piston rod seal joint de tige de piston	51602016206
8	1	Kolbendichtung piston seal tige de piston	5160125
9	2	Verschraubung union boulonnerie	515GE6LR1/8K
		Dichtsatz seal kit jeu de joints	516002516621

Ersatzteilliste - Spare Parts List - Liste De Pièces De Rechange Tafel - Table - Feuille 5



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 Vertriebs Optiz GmbH
 Eybäcker 1413 91177 Tübingen

**HYDRAULIKSYSTEM
 HYDRAULIC SYSTEM
 SYSTÈME HYDRAULIQUE**

Tafel - Table - Feuille 5

OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE

Hydrauliksystem - hydraulic system - Système hydraulique

<u>Pos.</u>	<u>Menge</u>	<u>Bezeichnung</u>	<u>ET-Nummer</u>
<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>Part Number</u>
<u>Pos.</u>	<u>Quantité</u>	<u>Description</u>	<u>Numéro de commande</u>
1	1	Umschaltventil valve valve	547044
2	2	Verschraubung WH12LR union WH12LR Raccord fileté droit WH12LR	515WH12LR1/2
3	2	Verschluss plug Bouchon	515BUZ12L
4	2	Verschraubung gerade union Raccord fileté droit	515GE8LR1/2
5	4	Verschraubung gerade union Raccord fileté droit	515GE6LR1/2
6	1	Halter f. Steuerventil bracket for valve Maintien pour valve	3150350035
7	2	Schraube M 6 x 20 hex head screw M 6 x 20 vis M 6 x 20	50106020933
8	2	Schraube M 8 x 16 hex head screw M 8 x 16 vis M 8 x 16	501080167991
9	2	Winkelverschraubung 1/8 ellbow union 1/8 coude fileté 1/8	515WE6LR1/8K
10	2	Verschraubung gerade union Raccord fileté droit	515GE8LR

Tafel - Table - Feuille 5

OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE

Hydrauliksystem - hydraulic system - Système hydraulique

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
11	10	Verschraubung gerade union Raccord fileté droit	515GE6LR
12	4	Verschraubung gerade union Raccord fileté droit	515GE6LR1/4K
13	6	Winkelverschraubung 1/8 ellbow union 1/8 coude fileté 1/8	515WE6LR1/8K
14	2	Verschraubung gerade union Raccord fileté droit	515GE6LR1/8K
15	1	Drosselschraube oil flow adjuster vis de réglage	515179842
16	2	Schraube M 6 x 70 socket head screw M 6 x 70 vis M 6 x 70	50106070912
17	1	Ölverteiler oil manifold distributeur d'huile	3050350010
18	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061040013
19	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061036013
20	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061038012

Tafel - Table - Feuille 5**OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Hydrauliksystem - hydraulic system - Système hydraulique**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
21	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061032012
22	2	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061039012
23	2	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061043012
24	3	Rohrschelle pipe clamp collier bout simple	510112 + 5100DP-B1
25	2	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061116011
26	2	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061129013
27	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061042011
28	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061053013
29	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061077013
30	1	Hydraulikschlauch NW6 hydraulic hose Tuyau hydraulique	513061076013

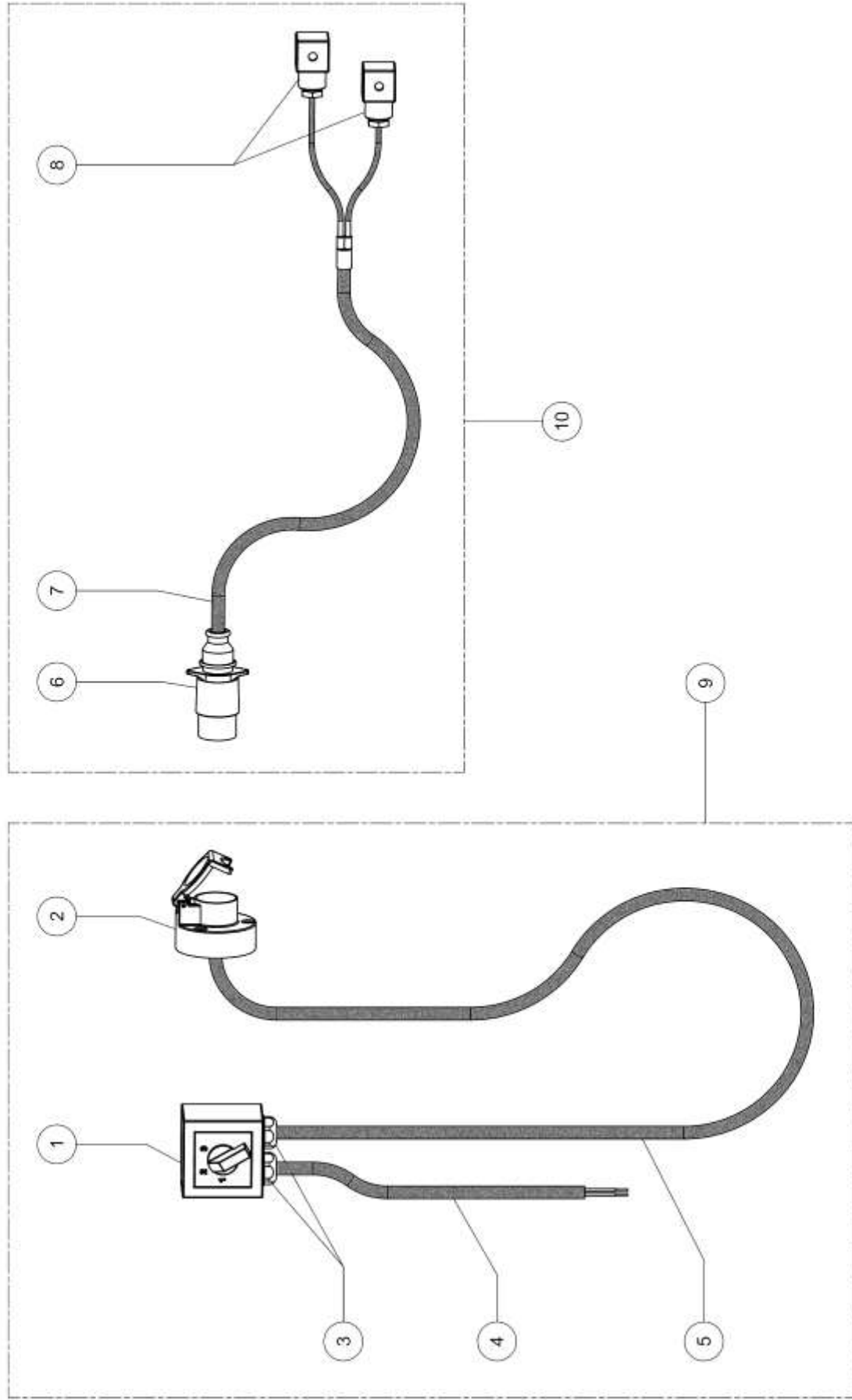
Tafel - Table - Feuille 5

OPTIMAL 350
ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE

Hydrauliksystem - hydraulic system - Système hydraulique

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
31	2	Öffnungszylinder gate cylinder vérin d'ouverture	3010200041
32	3	Spatenzylinder 350 spade cylinder 350 vérin de bêche	3010100070
33	1	Verriegelungszyl. 350, HZ25/16 gate lock cylinder vérin de verrouillage	3010300091
34	2	Öffnungszylinder gate cylinder vérin d'ouverture	3010200041

Ersatzteilliste - Spare Parts List - Liste De Pièces De Recharge Tafel - Table - Feuille 6



**STEUERTEIL
CONTROL BOX
BOITIER DE CONTRÔLE**

Optimal
Vertrieb Optiz GmbH
Kraibitz 9411 91177 Heidenau/IG

Tafel - Table - Feuille 6**OPTIMAL 350****ERSATZTEILLISTE - SPARE PARTS LIST - PIÈCES DE RECHANGE****Steuerteil – control box – boîtier de contrôle**

<u>Pos.</u> <u>Item</u> <u>Pos.</u>	<u>Menge</u> <u>Quantity</u> <u>Quantité</u>	<u>Bezeichnung</u> <u>Description</u> <u>Description</u>	<u>ET-Nummer</u> <u>Part Number</u> <u>Numéro de commande</u>
1	1	Drehschalter 1,2,3 rotary switch 1,2,3 commutateur rotatif	5470A230-521
2	1	Steckdose 3-polig 3-pole socket Fiche 3 pôles	5998JB001943
3	2	Kabelverschraubung M20x1,5 straight cable fitting boulon de câble	5121100000
4	1	Kabel 2x1,5 – 150cm (59") cable 2x1,5 – 150cm (59") Câble 2x1,5 – 150cm (59")	5122015
5	1	Kabel 3x1,5 – 550cm (216") cable 3x1,5 – 550cm (216") Câble 3x1,5 – 550cm (216")	5123015
6	1	Stecker 3-polig 3-pole plug Prise 3 pôles	5998JA001919
7	1	Kabel 4x1,5 – 200cm (79") cable 4x1,5 – 200cm (79") Câble 4x1,5 – 200cm (79")	5124015
8	2	Standard – Stecker standard plug Prise standard	54743650
9	1	3-fach Schaltteil, kpl. switch 3 function, with wiring harness Commande complète 3 positions	201330005
10	1	Elektroteil, kpl. electro-distribution box compl. wired Pièce électrique	2014035011



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Optimal-Vertrieb Opitz GmbH ("Opitz") warrants that this product will be free from defects in material and workmanship for a period of 6 months from the date of purchase (the "Warranty Period"). If, during the Warranty Period, this product proves to be defective, Opitz will remedy the defect by either repairing or replacing the product or any of its defective parts, at Opitz's option.

If you need warranty service, you must, prior to the lapse of the Warranty Period, file a claim, together with proof of purchase and your original Warranty Certificate received at the purchase of the product, with Prichard's Nursery Equipment, LLC; P.O. Box 250; Harrison, TN 37341-0250; USA. After a warranty claim is properly filed, Opitz or its designated representative will evaluate the warranty claim. This warranty is conditioned upon your reasonable cooperation with Opitz in the evaluation of your warranty claim and the implementation of any remedy. When supplying replacement product or parts under this warranty, Opitz reserves the right to substitute product or parts of comparable value and design for any discontinued designs. This warranty is not transferable and applies only to the original consumer purchaser.

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This warranty shall apply only to product that is purchased and used within the United States. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

Date of Sale: Product Sold:

Product Serial Number: Expiration Date of the Warranty:

Name and Address of Buyer:

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Signature of Buyer: