



# *black splitter*

Holzspalter · Baggerspalter

## Original Operating Instructions

### Black Splitter



**Type: S2**

Keep next to the Black Splitter for future use!

**Year of manufacture: 2012**



|                                   |                    |                          |
|-----------------------------------|--------------------|--------------------------|
| Manufacturer: Black Splitter GmbH | Zum Ritzenhagen 9a | 34508 Willingen, Germany |
| Date of issue: 27.12.2011         |                    | Change index: 02         |

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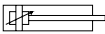


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## 1.0 Safety

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### 1.1 General

This operating instruction manual contains basic instructions which must be observed during installation, operation and maintenance. They must therefore be read by operatives, specialist workshop and set up technicians before commissioning.

The Black Splitter has undergone a safety and acceptance inspection. Nevertheless when using it dangers can arise for the user or third parties, respectively the Black Splitter and other material property can be damaged in the following cases:

- \* use by untrained or uninstructed personnel
- \* incorrect use of equipment
- \* incorrect maintenance or repair

Improper operation or misuse poses a risk for

- \* the operative (danger of injury)
- \* the Black Splitter and other property of the operator
- \* the efficiency of the machine

Along with the general information listed in this "**Safety**" section, the specific safety instructions included in other sections shall also be observed.

**The operating instruction manual must always be available at the place of use of the machine.**

All those involved with the installation, commissioning, operation maintenance and repair of the machine shall

- follow this operating instruction manual exactly.

**For your safety!**



## 1.0 Safety

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### 1.2 Significance of symbols



The safety instructions included in the operating instruction manual which can result in a risk to persons if ignored are identified with the general hazard symbol.



Caution: hot surface



Keep a sufficiently safe distance from the swivel zone of the machine



Wear enclosed footwear



Wear protective gloves



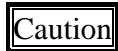
Operating instruction manual



# 1.0 Safety

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## 1.2 Significance of symbols



You will find this symbol on safety instructions which, if ignored, can result in risks for the machinery and its functions.



Represents advice or instructions which will make work easier and ensure safe operation



**Figure 1: Black Splitter**



## 1.0 Safety

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### 1.3 Danger of non-compliance with safety notes

Non-compliance with safety information can invalidate any damage compensation claims.

In individual cases non-compliance can, for instance, cause the following dangers:

- \* failure of important machinery functions
- \* mechanical and electrical risk for personnel

### 1.4 Personal safety equipment

On the Black Splitter the setting up work, the commissioning and the operating of the machine is only allowed to be carried out with the stipulated protective gear.



**Enclosed footwear must always be worn when working with the Black Splitter.**



**Protective gloves must always be worn when changing the screw tip.**



## 1.0 Safety

---

### 1.5 Safety instructions

#### Safety regulations

1. Avoid damage to hydraulic lines.
2. Protect the hydraulic lines against sharp edges.
3. If the machine is not being used, interrupt the hydraulic supply.
4. Always disconnect the hydraulic supply to the machine if, testing and maintenance tasks have to be carried out.
5. Do not remove the protective covers and screws.

#### Safety precautions

1. The Black Splitter is only allowed to be operated with the stipulated pressure.
2. All repair and maintenance work on the machine must be carried out by a specialist workshop.
3. Set up work may only be carried out by a set up technician.
4. All operating and fitting personnel are only allowed to commission the Black Splitter with closed footwear.





## 1.0 Safety

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### 1.5 Safety instructions

#### General information and precautions

1. Use the Black Splitter exclusively for the purpose described in section "1.6 Correct use of equipment".
2. Never work with a damaged Black Splitter.  
Have the Black Splitter checked for faults immediately. All maintenance and repairs must be carried out by a specialist workshop.
3. Store the Black Splitter only in a clean dry place.

#### Machine-specific regulations

1. The Black Splitter is only suitable for splitting and transporting logs.
2. The Black Splitter must only be operated with hydraulic oil.
3. Always observe safety instructions.
4. It is compulsory to read the operating instruction manual before assembling or removal the Black Splitter.
5. The correct set-up of the Black Splitter is described in detail in the operating instruction manual in section "**3.0 Operation**".
6. The care - and maintenance of the machine is described in detail in the operating instruction manual in section

**5.0 Care and maintenance (operator)**

**6.0 Maintenance/repair (operator)**



## 1.0 Safety

### 1.6 Correct use of equipment

The Black Splitter is only suitable for splitting and transporting logs.



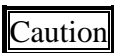
**Figure 2: Splitting logs**



**Figure 3: Transporting logs**

| Type | max. pressure | Length | Width | Height | Volume                   | Weight    |
|------|---------------|--------|-------|--------|--------------------------|-----------|
| S2   | 180-260 bar   | 80 cm  | 23 cm | 35 cm  | 518 cm <sup>3</sup> /rev | ca. 109kg |
|      | 180-230 bar   |        |       |        | 666 cm <sup>3</sup> /rev |           |
|      | 180-210 bar   |        |       |        | 801 cm <sup>3</sup> /rev |           |
|      | 180-380 bar   |        |       |        | 801 cm <sup>3</sup> /rev |           |

The Black Splitter is connected with the carrier, e.g. forklift truck, tractor, wheel loader, yard loader or excavator, by means of a mounting plate.



**When splitting, high forces must not be applied by the carrier.**

Any alternative or additional use is considered improper use of the Black Splitter.

The operative/operator is responsible for any damage to the machine.

The same applies for unauthorised changes or manipulations of the Black Splitter.



## 1.0 Safety

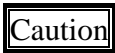
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### 1.6 Correct use of equipment

Correct use of equipment also includes compliance with instructions for

- \* safety
- \* operation
- \* maintenance, repair and troubleshooting

as described in this operating instruction manual.



**The Black Splitter must be repaired exclusively by a specialist workshop.**

The Black Splitter has undergone **a safety inspection and a final inspection.**

Unauthorised conversion or changing of the machine is **prohibited** on safety grounds!

The conditions for use, maintenance and repairs in this operating instruction manual shall be **strictly** adhered to.

### 1.7 Hazards caused by accessories

The addition of accessories must not disable any safety equipment on the Black Splitter.

**The safety equipment must always be in place.**



## 1.0 Safety

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### 1.8 Residual hazards

Despite compliance with all safety conditions, use of the Black Splitter may still involve residual hazards.

**Everyone who works on and with the machine must be aware of these dangers, and must follow the instructions which prevent these residual risks leading to accidents or damage.**



**Never remove protective covers or disable them by modifying the Black Splitter.**



**Caution: hot surface on the screw tip**



**Keep a sufficient distance from the swivel zone of the machine.**



**Protective gloves must always be worn when changing the screw tip.**



## 1.0 Safety

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### 1.9 Workplace Black Splitter

**Zone 1:** The operative is responsible that there are no persons within a sufficient distance of the Black Splitter's workplace.

**Zone 1**

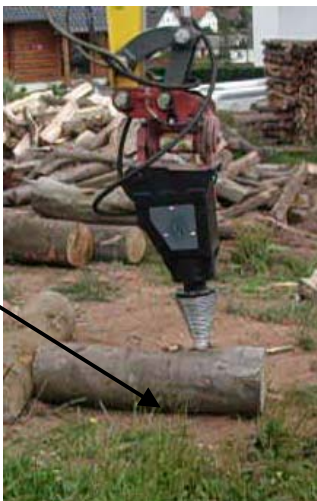


Figure 4: Workplace Black Splitter



**Keep a sufficiently safe distance from the swivel zone of the machine.**



# 1.0 Safety

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## 1.10 Authorized persons



The minimum age for operatives is **18 years**.

The responsibilities for different operations on the Black Splitter shall be clearly defined and complied with.

Unclearly defined responsibilities are a **safety risk**.

Operatives may not start the Black Splitter unless they have read, understood and signed the operating instruction manual.

**Operatives** => Persons who have read and understood the operating instruction manual.

**Maintenance personal** => Operatives

**Repair personnel** => Persons from a specialist workshop

Any personnel under instruction of any kind must be under the constant supervision of an experienced qualified staff member while working on the machine!

## 1.11 Confirmation of the operators

The signature of the operator is confirmation of familiarity with the basic occupational safety and accident prevention regulations and that instruction has been received in the handling of the machinery and that s/he has read.

Date: \_\_\_\_\_ (Signature): \_\_\_\_\_

Date: \_\_\_\_\_ (Signature): \_\_\_\_\_

Date: \_\_\_\_\_ (Signature): \_\_\_\_\_

Date: \_\_\_\_\_ (Signature): \_\_\_\_\_

Date: \_\_\_\_\_ (Signature): \_\_\_\_\_



## 1.0 Safety

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### 1.12 Operator



The operator is obliged to ensure that persons working on the Black Splitter are familiar with the basic occupational safety and accident prevention regulations and have received **instruction** in the handling of the machinery. The operator shall additionally ensure that all maintenance and assembly is carried out by maintenance personnel who have studied the operating instructions carefully and are sufficiently well-informed.

#### The operator must



- \* ensure all operatives have constant access to the operating instruction manual.
- \* make sure, and have this confirmed with a signature, that the operating personnel have read the operating instructions and understood them.
- \* instruct the operatives, the set up technicians the maintenance personnel and the electrical engineers about the Black Splitter and document this instruction.
- \* complete the faults list in section 4.4 and make this available to Black-Splitter GmbH.
- \* provide personal safety equipment for use and maintenance of the Black Splitter.
- \* provide additional instruction about residual hazards of the Black Splitter.
- \* check at regular intervals that operatives are working safely.
- \* at least every two years check that the Black Splitter safety markings comply with regulations.



## 1.0 Safety

### 1.13 Safety precautions at the Black Splitter

The hydraulic lines connected to the Black Splitter must be attached to the upper opening using the cable ties supplied.

Cable tie



Figure 5: Attachment of the hydraulic hoses

In addition, after the first splitting operation (after approx. 2 - 3 hours of splitting operation), the bolts on the hydraulic motor and on the screw cone have to be checked and retightened. In order to access the bolts on the hydraulic motor, the protective cover on the side has to be disassembled.

Mounting bolts







## 1.0 Safety

### 1.14 Safety equipment

#### Safety equipment



- \* must not under any circumstances be altered, removed or
- \* circumvented by modifications to the Black Splitter.

#### Protective cover



Figure 6: Side protective cover on Black Splitter

### 1.15 Noise level

The noise measurement on the Black Splitter was measured for the workplace at a distance of 1 m from the machine surface and 1.60 m above the ground.

The sound pressure level of the Black Splitter is below **80 dB(A)**.  
During the working process a higher sound-pressure level is generated.

At a sound-pressure level of between **80 dB(A)** and **85 dB(A)**

#### the operator shall



- \* provide hearing protection information and instruction.
- \* provide the operative with ear protectors.
- \* at regular intervals carry out precautionary medical check-ups to monitor the operator's hearing.



## 1.0 Safety

### 1.16 Checking safety equipment

Use the checklist for regular inspections of the safety equipment:

#### 1.17 Checklist for safety equipment

Before starting up the machine, check that all safety equipment is correctly fitted and fully operable.

Safety equipment may only be removed

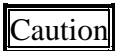
- \* after stopping the machine
- \* securing the machine against restarting



**The general inspection instructions and function tests shall be carried out without production material.**

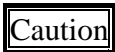
**Ensure immediate remedy of any faults found on lines and safety equipment!**

#### Checking intervals



- \* at the start of each shift
- \* after any maintenance or repair

#### Check the following



- \* prescribed condition
- \* secure attachment
- \* prescribed function

### 1.17 Black Splitter safety equipment checklist

#### *General checks*

|                       |                          |
|-----------------------|--------------------------|
| Side protective cover | Fitted and screwed tight |
| Screw connection      | Fitted and screwed tight |
| Hydraulic lines       | Fitted and screwed tight |
| Cylinder              | Fitted and screwed tight |

Check date: \_\_\_\_\_ Checked by (Signature): \_\_\_\_\_



## **1.0 Safety**

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### **1.18 Unapproved modification and spare parts manufacture**

Refurbishment or changes to the Black Splitter are only admissible by arrangement with the manufacturer. The manufacturer is Black-Splitter GmbH. Original spare parts and manufacturer-authorised accessories contribute to safety. There can be no liability accepted for the consequences of using other parts.

### **1.19 Storage place for the operating instructions**



The operating instructions must be always kept available next to the Black Splitter.



## 2.0 Transport/installation/dismantling

### 2.1 Layout diagram



Figure 7: Black Splitter



Figure 8: Black Splitter with excavator attachment

### 2.2 Technical data

#### *Data Black Splitter*

|                     |                             |
|---------------------|-----------------------------|
| Dimensions          | L 80 cm x B 23 cm x H 35 cm |
| Screw cone diameter | 200 mm or 245 mm            |
| Weight              | approx. 109 kg              |

#### *Hydraulic motor*

|                          |                                      |             |
|--------------------------|--------------------------------------|-------------|
| Hydraulic motor CPMV 500 | Displacement 518cm <sup>3</sup> /rev | 180-260 bar |
| Hydraulic motor CPMV 630 | Displacement 660cm <sup>3</sup> /rev | 180-230 bar |
| Hydraulic motor CPMV 800 | Displacement 801cm <sup>3</sup> /rev | 180-210 bar |
| Hydraulic motor EPMV 800 | Displacement 801cm <sup>3</sup> /rev | 180-380 bar |

#### *Important connection information*

When connected to a depressurised line (leakage oil line), the max. pressure has to be reduced by 30 bar. The screw tip can then only be turned in one direction.

### 2.3 Goods incoming check

Check the packaging for visible damage.

If the Black Splitter is supplied with visibly undamaged packaging but with concealed damage, contact Black-Splitter GmbH immediately and document the damage. (Pictures)



## 2.0 Transport/installation/removal

### 2.4 Safety information for transport

Always wear a hard hat, safety gloves and safety shoes when working with the machine!



Always use suitable and tested hoisting gear!

Use only suitable slinging equipment such as e.g. sling ropes or hoisting straps!

When choosing the hoisting gear and slinging equipment always take into account the maximum lifting capacities!



**Never stand below suspended loads!**

Always ensure that the machine is transported without knocks or sudden movements.

Always use suitable, standardised and tested hoisting equipment (forklift, truck, mobile crane, gantry crane) and hoists (slings, hoisting straps, chains)



**Figure 9: Lifting straps on the Black Splitter**

Please find dimensions and weights in technical data (see section 2.2).



## **2.0 Transport/installation/removal**

### **2.5 Transport/storage**

The Black Splitter must only be transported with a forklift or lifting truck.  
The Black Splitter should only be stored in a place protected from the weather.

### **2.6 Set up and connection**

The hydraulic motor must only be permanently connected with the machine switched off.

Agreement of the technical data must be verified prior to connecting the hydraulic hoses (nameplate and operating instructions). The hydraulic lines must be properly attached to the hydraulic motor.



**Figure 10: Connections of the hydraulic motor**

### **Important connection information**

When connected to a depressurised line (leakage oil line), the max. pressure has to be reduced by 30 bar. The screw tip can then only be turned in one direction.

### **General instructions:**

For safety reasons, do not loosen pipe screw connections, other connections or equipment while the Black Splitter is under pressure.

### **Cleanliness:**

Extreme cleanliness shall be observed throughout all operations.



## **2.0 Transport/installation/removal**

### **2.7 Welding the mounting plate with excavator attachment**

The quick-change excavator attachment must only be affixed to the mounting plate by a specialist welding company.

The mounting plate must then be screwed to the Black Splitter with the four M16x25 mounting bolts.



**Figure 11: Mounting plate with excavator attachment**

### **2.8 Operating the Black Splitter for the first time**

Ensure that the machine can be started safely and that there is no one in the danger area.

Check for potential collisions.

Once all tests have been concluded satisfactorily, the machine can be operated.

Pay attention that no high forces are applied by the carrier.



## 2.0 Transport/installation/removal

### 2.9 Dismantling the Black Splitter

Note the following points when dismantling the Black Splitter.

- Cordon off a sufficiently large area for the removal.
- Depressurise all pressure units.
- Disconnect all hydraulic lines from the Black Splitter.
- Only use load carrying equipment with sufficient load-bearing capacity.

All persons involved in the removal of the Black Splitter

- must be familiar with the basic occupational safety and accident prevention regulations

During removal, it shall be ensured that substances which pose a threat to the groundwater such as greases, oils, detergents containing solvents etc. do not contaminate the floor or reach the mains drainage system.

These substances must be collected in appropriate containers, stored, transported and disposed of appropriately.



**National regulations on environmental safety and occupational safety and information from the lubricant manufacturer govern the handling and use of lubricants. These regulations shall be complied with.**

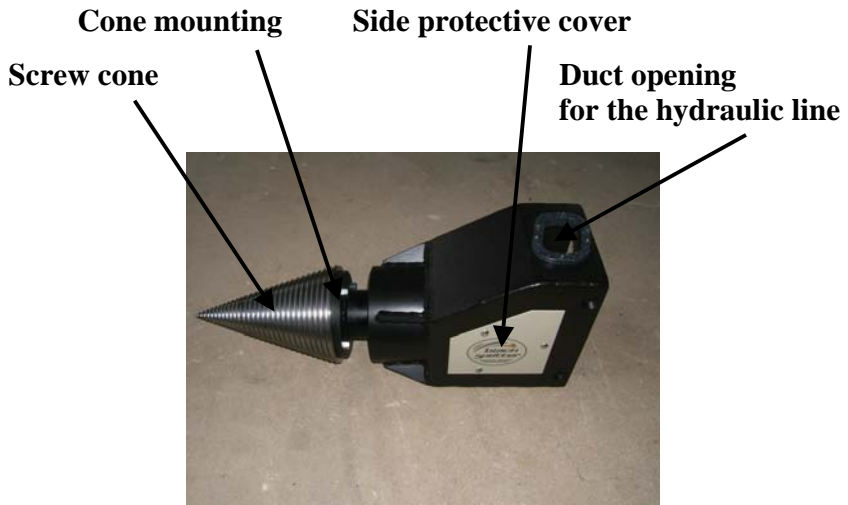




## 3.0 Operation

### 3.1 Overview diagram

#### Black Splitter



Motor mounting  
Hydraulic motor  
Mounting plate with excavator attachment





## **3.0 Operation**

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### **3.2 Safety information for operation**

The Black Splitter may only be operated when it is in perfect technical condition and only for its intended purpose, taking into consideration safety aspects and dangers and following these safety instructions.

The Black Splitter may only be started up when fully assembled and ready for operation.

The Black Splitter may only be operated when all safety equipment (see section 1.15) is present and fully operable!

The prescribed personal safety equipment must be used during operation.

The machine shall be checked once every shift for externally visible damage or faults!

Any changes (including changes in the operating behaviour) shall be reported immediately to the responsible office or person!

If necessary, shut down the Black Splitter immediately and secure.

In the event of a malfunction, shut down the Black Splitter immediately and secure!

Faults shall be remedied immediately by qualified specialist personnel.

If leaving the machine, ensure that operating personnel switch it off and secure it against being switched on again by unauthorised personnel.



## 3.0 Operation

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**Have you read and understood the operating instruction manual, particularly section 1, Safety and safety equipment?  
You are not allowed to use the Black Splitter before doing so.**

### 3.3 Before commissioning

Before commissioning, check that the values on the rating plate are identical with the connected loads of the Black Splitter.

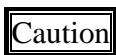
The Black Splitter must be correctly mounted, set up and connected to all lines.

- \* Switch on the Black Splitter ready for operation and place additional logs in front of the excavator guard to protect against impact.



**Figure 12: Logs in front of the excavator guard to protect against impact**

- \* Then transport the logs in front of the impact protection and split them.



**No high forces must be applied by the carrier during splitting.**



## 3.0 Operation

---

### 3.4 Set up



**Set up of the Black Splitter may only be carried out by set up personnel.**



**The hydraulic supply always has to be switched off and locked when changing the screw tip.**



**Protective gloves must always be worn when changing the screw tip.**

#### 3.4.1 Replacing the screw cone

Before the screw cone can be changed, the four M12x40 mounting bolts on the screw cone must be loosened. The screw cone can then be changed. The four mounting bolts must then be tightened again. In addition, after the first splitting operation (after approx. 2 - 3 hours of splitting operation) the bolts on the hydraulic motor and on the screw cone have to be checked and retightened.



**Figure 13: Two-part screw cone**

#### Screw cone mounting



**Figure 14: Screw cone mounted on the Black Splitter**



## **3.0 Operation**

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### **3.5 Functional description**

## **Function**

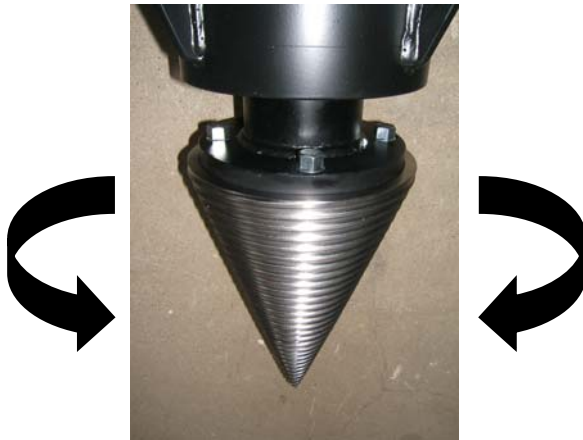
#### **Function 1. Turning screw cone counterclockwise**

By operating the switching unit on the excavator unit, the Black Splitter and therefore the screw cone can be turned counterclockwise.

#### **Function 2. Turning screw cone clockwise**

By operating the switching unit on the excavator unit, the Black Splitter and therefore the screw cone can be turned clockwise.

#### **Function 3. = Stopping the screw cone**



**STOP**

**Caution**

**The power of the hydraulic motor is predefined.  
Please contact Black-Splitter GmbH  
if you require a different power.**



## 4.0 Faults

---

### 4.1 Safety instructions for troubleshooting



**For troubleshooting purposes it may be necessary for the hydraulic supply to be switched on. Reaching into the machine when it is moving during troubleshooting is strictly forbidden.**

The workplace has to be adequately cordoned off!

If the machine has been completely shut down for working on faults, it has to secure against inadvertent start-up.

Workshop equipment appropriate to the work being carried out is absolutely essential when undertaking troubleshooting operations.

Any screwed connections loosened during the troubleshooting process must always be re-tightened!

If safety equipment is dismantled during repair work, it shall be refitted and, re-checked immediately after completion of the repair work.

### 4.2 Troubleshooting

\* Interrupt the hydraulic supply.

\* **Rectify problem**

\* Put the machine back into operation.

If there are no other problems, the Black Splitter can be restarted.

Do not restart the Black Splitter if the fault recurs. Instead have it checked immediately by an expert

Note

**If the fault is rectified by a specialist workshop, the respective fault must be entered in the "Fault list" (Chapter 4.4) and be made available to Black-Splitter GmbH.**



## 4.0 Faults

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### 4.3 Malfunction checklist

#### 4.3.1 Screw cone

| Fault                 | Possible causes       | Rectification                        |
|-----------------------|-----------------------|--------------------------------------|
| No splitting function | Screw damaged or worn | Check screw and replace as necessary |

#### 4.3.3 Operation

| Fault       | Possible causes                 | Rectification                    |
|-------------|---------------------------------|----------------------------------|
| No function | Failure of the hydraulic supply | Check hydraulic supply and lines |

### 4.4 Fault list

Model: \_\_\_\_\_ Serial-Nr.: \_\_\_\_\_

| Date | Description of fault | Hours run | Signature |
|------|----------------------|-----------|-----------|
|      |                      |           |           |
|      |                      |           |           |
|      |                      |           |           |
|      |                      |           |           |
|      |                      |           |           |
|      |                      |           |           |



## 5.0 Maintenance activity (user)

### 5.1 Maintenance schedule

| WHAT?                | WHEN?                    | WHO?      |
|----------------------|--------------------------|-----------|
| Grease screw cone    | Each splitting operation | Operative |
| Protective equipment | Daily                    | Operative |
| Clean the machine    | Weekly                   | Operative |

**Report any damage immediately!**



Prior to any maintenance work, disconnect the machine from the hydraulic supply and secure at the main switch to prevent it from being reactivated.

- Grease the screw cone**  
 The screw cone has to be sprayed with grease and therefore protected against rust after every splitting operation.
- Check protective equipment**  
 The protective covers on the sides must be checked for damage. Have any faults on the protective equipment rectified immediately.
- Clean the machine**  
 Interrupt and lock hydraulic feed.  
 This makes inadvertent start-up impossible. Life threatening injuries are possible otherwise.

- Environmental protection**

Oily rags must be collected and disposed of in a way compatible with the environment and the surroundings.



**National regulations on environmental safety and occupational safety and information from the lubricant manufacturer govern the handling and use of lubricants. These regulations shall be complied with.**





## **6.0 Maintenance/repair (operator)**

### **6.1 Safety information for repair and maintenance**



**Maintenance and repair to the Black Splitter must only be carried out by maintenance personnel who have adequately informed themselves about the hazards of repair and maintenance work by studying the operating instruction manual.**

The intervals for recurring inspections, which are prescribed or specified in the operating instruction manual, must be observed.

The maintenance and repair area has to be adequately cordoned off where necessary!

Any screw connections loosened during maintenance and repair work must always be retightened!

If safety equipment is dismantled during maintenance and repair work, it shall be refitted and re-checked immediately after completion of the maintenance and repair work!



## 6.0 Maintenance/repair (operator)

### 6.2 Maintenance schedule

| WHAT?           | WHEN?                    | WHO?     |
|-----------------|--------------------------|----------|
| Hydraulic line  | Each splitting operation | Operator |
| Motor mounting  | Monthly                  | Operator |
| Cone mounting   | Monthly                  | Operator |
| Mounting plate  | Monthly                  | Operator |
| Hydraulic motor | Monthly                  | Operator |

#### Report any damage immediately!



Prior to any maintenance work, disconnect the machine from the hydraulic supply and secure at the main switch to prevent it from being reactivated

- **Check the hydraulic hose**  
Thy hydraulic hoses must be checked for damage and leakage.
- **Check the motor mounting**  
Check that the bolts on the hydraulic motor are tight and retighten.  
The protective covers on the sides must be removed for this purpose.
- **Check the cone mounting**  
Check that the bolts on the screw cone are tight and retighten.
- **Check mounting plate**  
The mounting plate must be checked for damage and tight fit to the Black Splitter.
- **Check hydraulic motor**  
Check the hydraulic motor for leakage.



National regulations on environmental safety and occupational safety and information from the lubricant manufacturer govern the handling and use of lubricants. These regulations shall be complied with.

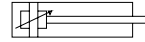


**7.0 Repair/maintenance (maintenance list)** Sample

**7.1 Maintenance record**

Model: \_\_\_\_\_ Serial No.: \_\_\_\_\_

| <b>Date</b> | <b>Description of the work</b> | <b>Hours run</b> | <b>Signature</b> |
|-------------|--------------------------------|------------------|------------------|
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |
|             |                                |                  |                  |



## 8.0 Hydraulics

---

### 8.1 Safety instructions for the hydraulics

Work on hydraulic equipment must only be carried out by qualified specialist personnel with knowledge and experience of hydraulics in this specialist area.

All lines, hoses and screw connections must be regularly checked for leakage and external signs of damage!

Damaged parts must be replaced immediately!

Hydraulic hoses must be replaced every 6 years even if there is no damage.

System sections and pressure lines must be depressurised prior to commencing repair work!

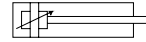
#### **Caution!**

**The Black Splitter must be depressurised prior to maintenance and repair work.**

When working on hydraulics, inadvertent switching on must be prevented with additional measures.

#### **Caution**

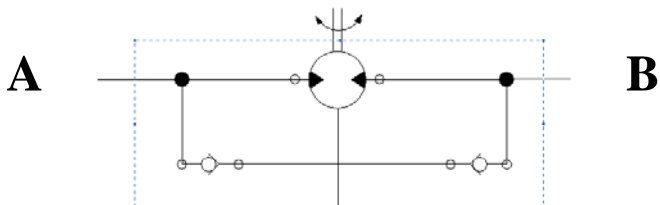
Hydraulic motors must only be replaced by a **specialist workshop**.



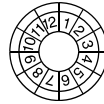
## 8.0 Hydraulics

### 8.2 Hydraulics plan with parts list

#### Hydraulic motor



|                          |                  |             |
|--------------------------|------------------|-------------|
| Hydraulic motor CPMV 500 | Displacement 518 | 1000-002-06 |
| Hydraulic motor CPMV 630 | Displacement 666 | 1000-002-07 |
| Hydraulic motor CPMV 800 | Displacement 801 | 1000-002-08 |
| Hydraulic motor EPMV 800 | Displacement 801 | 1000-002-09 |



## **9.0 Spare parts and consumables list**

### **9.1 Spare parts order and customer service**

We expressly refer you to the fact that we cannot check or approve spare parts and accessories which are not supplied by us. The installation and/or the use of such products can therefore change specified design characteristics and have a negative effect on the machine under certain circumstances. We cannot be held liable for the consequences of using unapproved spare parts.

#### **Important in all enquiries:**



Note all data on your machine's rating plate and please provide the rating plate data in the event of a query or a spare part order.

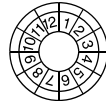


**Black Splitter GmbH**  
**Zum Ritzenhagen 9**  
**34508 Willingen, Germany**

**Telephone: +49 (0) 5632 - 45950**  
**Telefax: +49 (0) 5632 - 966621**

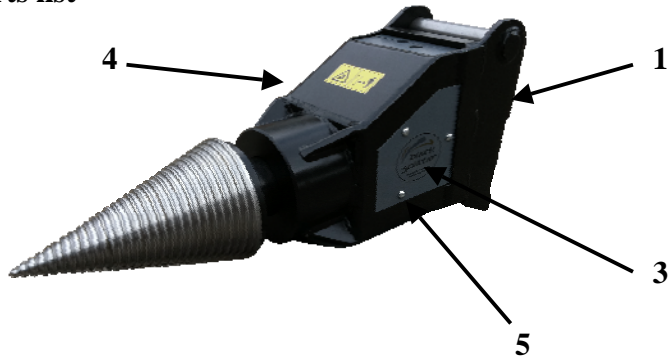
**E-Mail: [info@blacksplitter.de](mailto:info@blacksplitter.de)**

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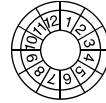
## 9.0 Spare parts and consumables list

### 9.2 Spare parts list



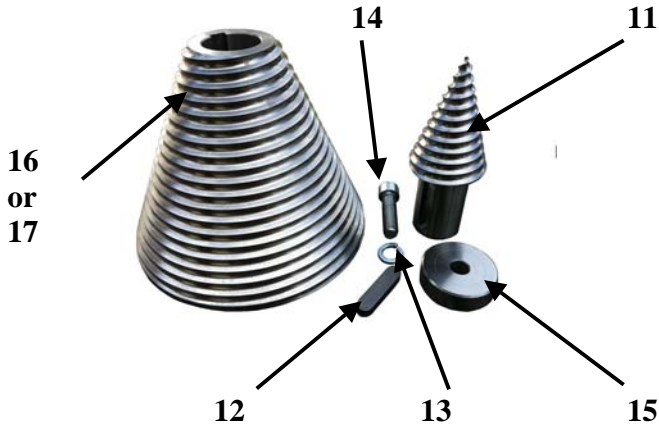
|   |                  |             |
|---|------------------|-------------|
| Mounting plate for excavator attachment |                  | 1000-002-01 |
| Mounting plate mounting set 4x M16x25   |                  | 1000-002-02 |
| Left side protective cover              |                  | 1000-002-03 |
| Right side protective cover             |                  | 1000-002-04 |
| Protective cover mounting set 3 x M8x17 |                  | 1000-002-05 |
| Hydraulic motor CPMV 500                | Displacement 518 | 1000-002-06 |
| Hydraulic motor CPMV 630                | Displacement 666 | 1000-002-07 |
| Hydraulic motor CPMV 800                | Displacement 801 | 1000-002-08 |
| Hydraulic motor EPMV 800                | Displacement 801 | 1000-002-09 |
| Motor mounting set 4 x M16              |                  | 1000-002-10 |



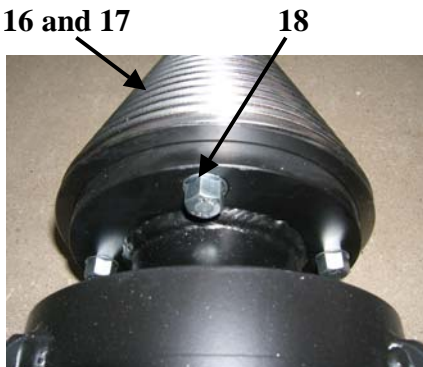


## 9.0 Spare parts and consumables list

### 9.2 Spare parts list



|                                 |             |
|---------------------------------|-------------|
| Screw tip                       | 1000-002-11 |
| Parallel key                    | 1000-002-12 |
| Spring washer                   | 1000-002-13 |
| Bolt M16                        | 1000-002-14 |
| Washer                          | 1000-002-15 |
| Screw cone diameter 200mm       | 1000-002-16 |
| Screw cone diameter 245mm       | 1000-002-17 |
| Cone mounting set 4x M12x40     | 1000-002-18 |
| Hydraulic hose duct opening PVC | 1000-002-19 |



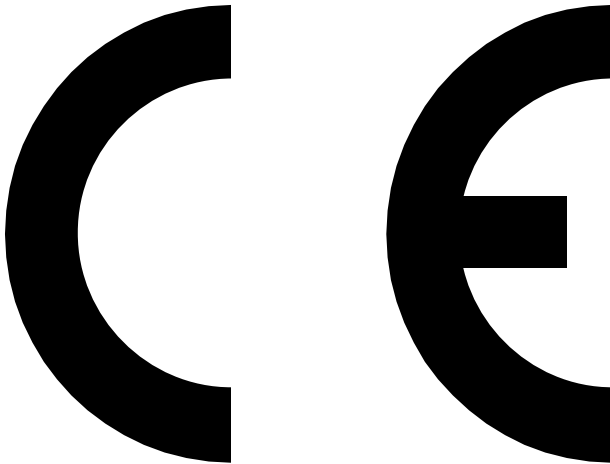




## **10.0 Conformity declaration**

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### **10.1 Proof of conformity**





## Konformitätserklärung Anhang II A *Declaration of Conformity*

Wir, Fa. **Black-Splitter GmbH**

*We, the company **Black-Splitter GmbH***

(Name des Anbieters / *supplier's name*)

**Zum Ritzhagen 9, 34508 Willingen, Germany**

(Anschrift / *address*)

erklären in alleiniger Verantwortung, dass das Produkt  
*declare our sole responsibility that the product*



**Black Splitter**

**Year of manufacture: 10/2011**

**Type: S2**

**Machine No.:**

(Bezeichnung, Typ / *name, type*)

auf das sich diese Erklärung bezieht, mit der/den folgender/en  
Normen/en oder normativen Dokument/en übereinstimmt.

*to wich this declaration relates is in conformity with the following standard/s  
or other normative document/s.*

**DIN EN ISO 12100, Safety of machinery**

Titel und/oder Nr. sowie Ausgabedatum der Norm/en oder der anderen normativen Dokumente /  
(*Title and/or number and date of issue of the standard/s or other normative document/s*)

Gemäß den Bestimmung der Richtlinien  
*according to the provisions of the Directive/s*

**2006/42 EG (Maschinen-Richtlinie / *Engine directive*)**

(Titel und/oder Nr. sowie Ausgabedatum der Norm/en /  
(*Title and/or number and date of issue of the standard/s*)

The technical documentation and hazard assessment was created  
and documented by Stefan Padovan (CE representative), Im  
Lonscheid 36, 58135 Hagen (Germany).

**Black-Splitter GmbH**

**Willingen, den 01.10.2011**

(Ort und Datum der Ausstellung /  
*date of issue*)

**Management**

(Name und Unterschrift des Befugten / *place and  
name and signature of authorized person*)