

**BBC**  
BROWN BOVERI

High-voltage  
current transformers  
types ADK and AOT

Installation  
and maintenance instructions

contents

1. Mounting and dimensions of the transformer

2. Dimensions

3. Mounting

4. Maintenance

9202190465 920116  
PDR ADOCK 05000424  
S PDR

## Mounting and connecting to installation

1. Mount the unit on a wall or ceiling. The unit should be mounted in a well-ventilated area. The distance between the unit and the wall/ceiling should be at least 100mm.

## Operation

1. Turn on the power switch. The unit will start to operate. The fan will start to rotate and the light will turn on.

## Maintenance

1. Clean the unit regularly. Use a soft cloth to wipe the surface. Do not use abrasive cleaners.

## Minor Troubleshooting

1. If the unit does not start, check the power switch and the power supply. 2. If the fan does not rotate, check the fan motor and the fan blades. 3. If the light does not turn on, check the light bulb and the light switch. 4. If the unit is noisy, check the fan blades and the fan motor. 5. If the unit is not cooling properly, check the fan blades and the fan motor. 6. If the unit is not heating properly, check the fan blades and the fan motor. 7. If the unit is not working properly, please consult your dealer. 8. The fan blades can be changed and they are sold in our store.

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## Specifications

1. Power: 100W 2. Voltage: 220V 3. Frequency: 50Hz 4. Dimensions: 100mm x 100mm x 100mm 5. Weight: 1kg 6. Material: Plastic 7. Color: White 8. Finish: Glossy 9. Warranty: 1 year 10. Price: \$100

STANDARD

1940

1000  
1000  
1000  
1000  
1000

**BBC**  
BROWN BOVL III

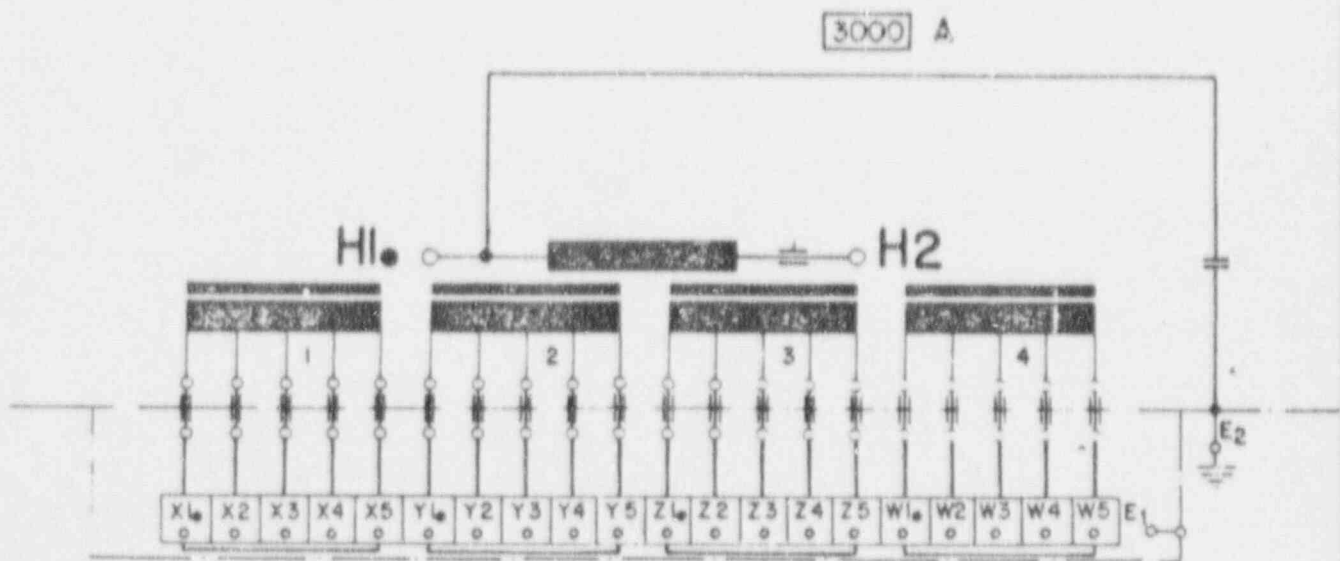
STROMWANDLER  
CURRENT TRANSFORMER  
TRANSFORMATEUR DE COURANT

|                     |                |
|---------------------|----------------|
| Instruction book No | CH - A 046416E |
| Ambient temperature | 30°C           |
| Total weight approx | 7615 lbs       |
| Net approx          | 2625 lbs       |

|                   |              |                       |                |
|-------------------|--------------|-----------------------|----------------|
| SER HA 384415     | 432          | dat 1982              | Typ AOK 550 MA |
| IC/MSV 55U        | kV 60        | Hz 40                 | kA 3           |
| BIL 1800          | kV Full wave |                       | 108 kA         |
| 1, 2, 3, 4        |              |                       |                |
| 3000 / 5 A MR     |              |                       |                |
| C 800             |              |                       |                |
| RF 2              |              |                       |                |
| ANSI C 57.13-1978 |              | Contract No PAV 2-151 |                |

Schéma de connexions

Connection diagram



Achtung Hochspannung bei offenen Sekundärwicklungen  
Attention high voltage with open circuited secondaries  
Attention haute tension si enroulements secondaires

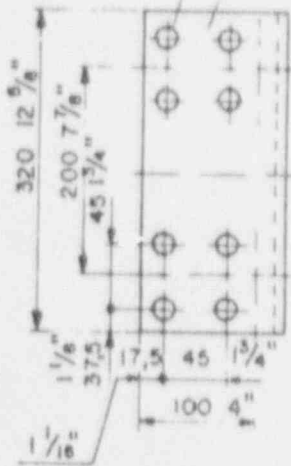
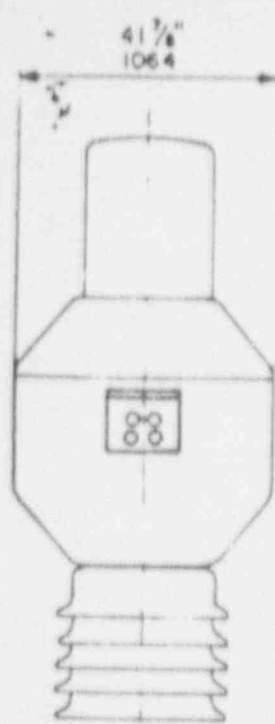
| Amperes | Anschluss<br>Connection<br>Raccord | Verbindung<br>Connection<br>Connexion | Sekundär / Secondary / Secondaire |                        |                        |                        |   |   |
|---------|------------------------------------|---------------------------------------|-----------------------------------|------------------------|------------------------|------------------------|---|---|
|         |                                    |                                       | 1                                 | 2                      | 3                      | 4                      | 5 | 6 |
| 3000    | H1 - H2                            | —                                     | 5 X1 <sub>e</sub> - X5            | 5 Y1 <sub>e</sub> - Y5 | 5 Z1 <sub>e</sub> - Z5 | 5 W1 <sub>e</sub> - W5 |   |   |
| 2500    |                                    |                                       | 5 X1 <sub>e</sub> - X4            | 5 Y1 <sub>e</sub> - Y4 | 5 Z1 <sub>e</sub> - Z4 | 5 W1 <sub>e</sub> - W4 |   |   |
| 2200    |                                    |                                       | 5 X1 <sub>e</sub> - X3            | 5 Y1 <sub>e</sub> - Y3 | 5 Z1 <sub>e</sub> - Z3 | 5 W1 <sub>e</sub> - W3 |   |   |
| 2000    |                                    |                                       | 5 X2 - X5                         | 5 Y2 - Y5              | 5 Z2 - Z5              | 5 W2 - W5              |   |   |
| 1500    |                                    |                                       | 5 X2 - X4                         | 5 Y2 - Y4              | 5 Z2 - Z4              | 5 W2 - W4              |   |   |
| 1200    |                                    |                                       | 5 X2 - X3                         | 5 Y2 - Y3              | 5 Z2 - Z3              | 5 W2 - W3              |   |   |
| 1000    |                                    |                                       | 5 X1 <sub>e</sub> - X2            | 5 Y1 <sub>e</sub> - Y2 | 5 Z1 <sub>e</sub> - Z2 | 5 W1 <sub>e</sub> - W2 |   |   |
| 800     |                                    |                                       | 5 X3 - X5                         | 5 Y3 - Y5              | 5 Z3 - Z5              | 5 W3 - W5              |   |   |
| 500     |                                    |                                       | 5 X4 - X5                         | 5 Y4 - Y5              | 5 Z4 - Z5              | 5 W4 - W5              |   |   |
| 300     |                                    |                                       | 5 X3 - X4                         | 5 Y3 - Y4              | 5 Z3 - Z4              | 5 W3 - W4              |   |   |

Schaltschema

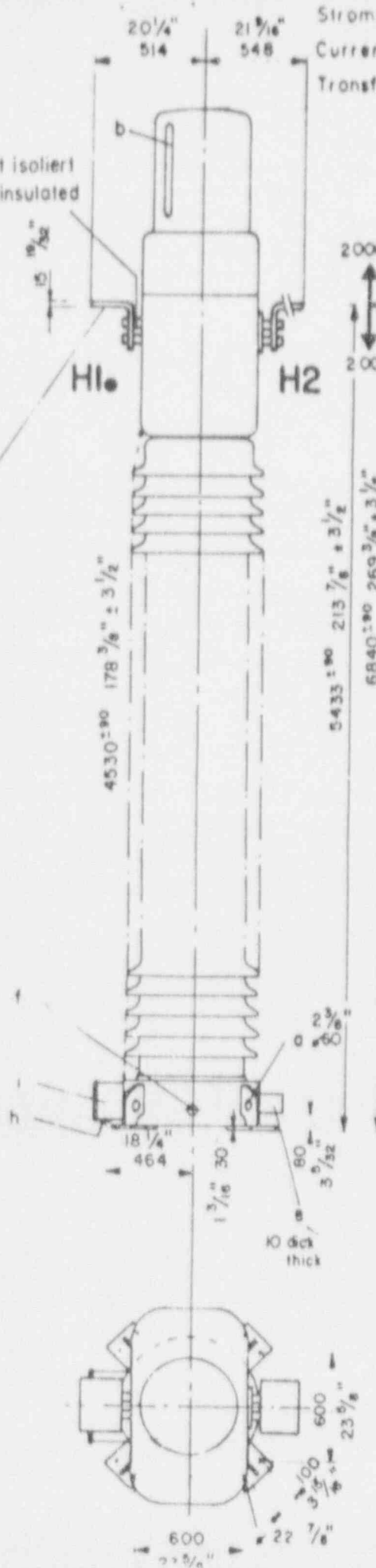
Massbild

Dimensio. sketch

Croquis d'encombrement



Nicht isoliert  
Not insulated



Stromwandler

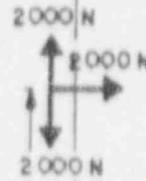
Current transformer

Transformateur de courant

AOK 550MA

Wandler mit Öl  
Transformer with oil 7615 lbs  
Transformateur avec huile

Öl  
Oil 2625 lbs  
Huile



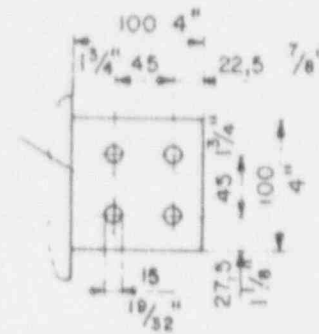
Zugehörige Zeichnungen  
Corresponding drawings  
Desins correspondants

- a Aufhängung UTM 90107  
Suspension
- b Ölstandanzeiger HAMM 428531  
Oil level gauge  
Indicateur niveau d'huile

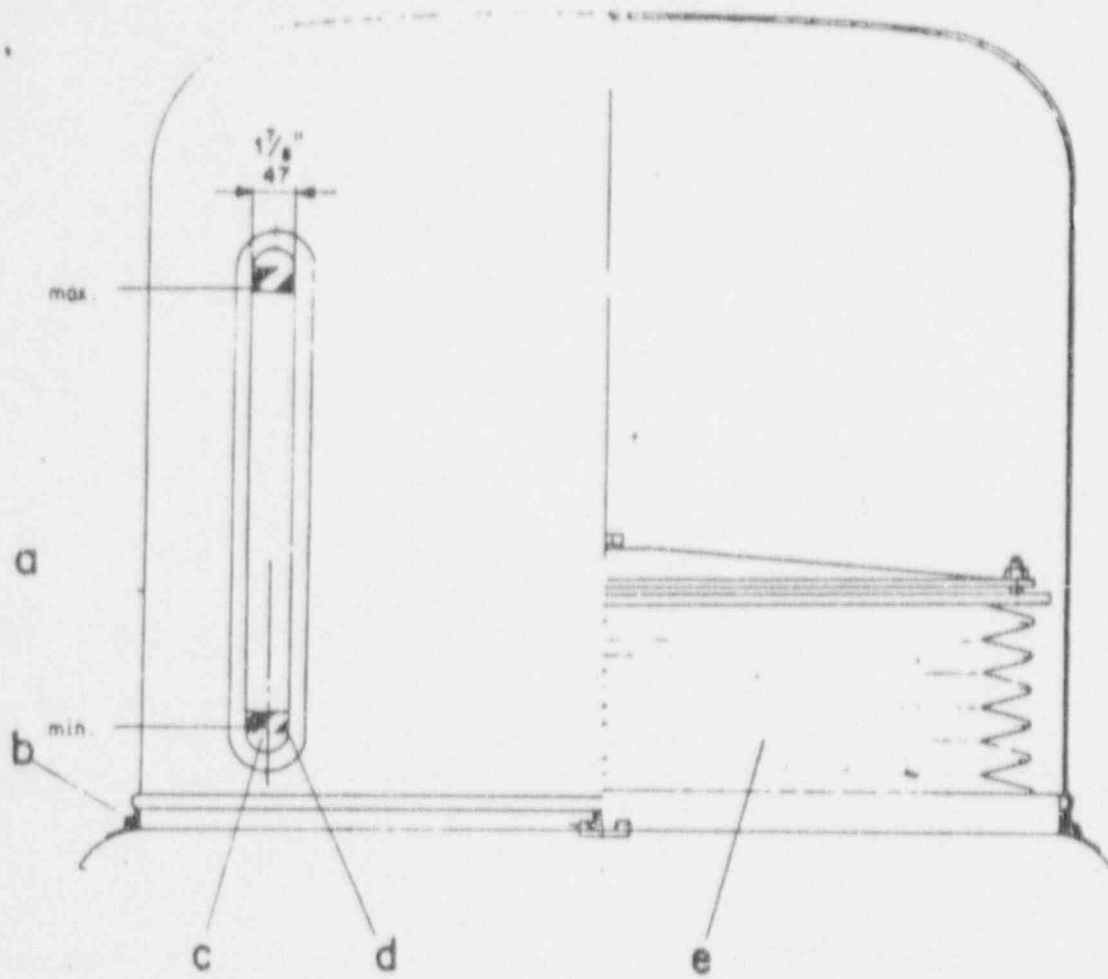
- e Erdungstasche  
Earth plate  
Plaque de terre
- f Ölablass TM 409885  
Oil drain  
Vis de vidange d'huile

- h Kabeleinführung  
Cable inlet  
Entrée de câble

- i Klemmenkasten HAMM 428532  
Terminal box  
Boîte à bornes



|       |            |                     |
|-------|------------|---------------------|
| ★ BBC | P 300      |                     |
|       | Gezeichnet | BO-06-17 Dr. Frenck |
|       | Geprüft    | 80-06-17            |



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- e Faltenbalg
- d Zeiger
- c Glas
- b Stift
- a Haube

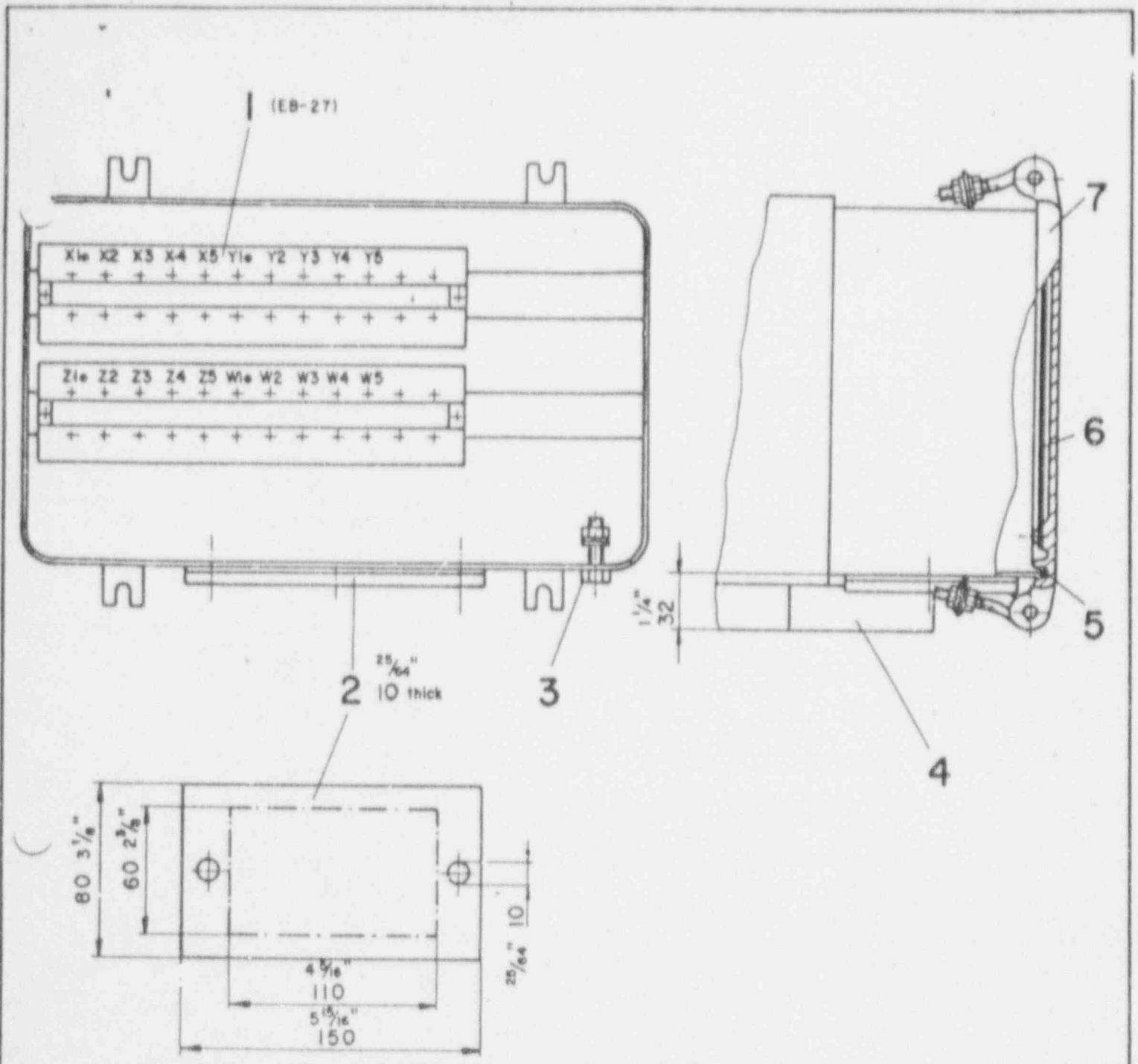
- Bellow
- Pointer
- Glass
- Pin
- Cap

- Soufflet élastique
- Indicateur
- Verre
- Fiche
- Capot

Anschlusskopf

Ersetzt durch  
Ersatz für

Abmstab Gezeichnet 8006 13 *Tietze*



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|   |              |                |
|---|--------------|----------------|
| 7 | Deckel       | Cover          |
| 6 | Schalttafel  | Diagram plate  |
| 5 | Dichtung     | Gasket         |
| 4 | Fussplatte   | Sole plate     |
| 3 | Erdung       | Earth          |
| 2 | Kabelstützen | Cable end box  |
| 1 | Klemmenblock | Terminal block |



Klemmenkasten

Ersetzt durch  
Ersatz für

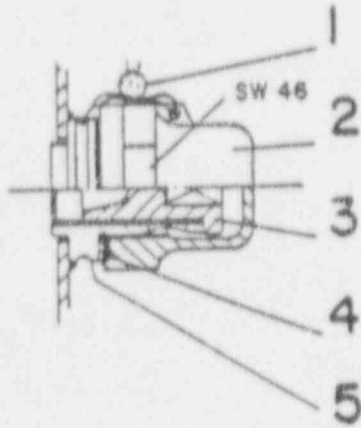
Momentab Gezeichnet 80-06-13 J. A. C. ut  
16 11

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Fig.1 Geschlossen Closed Fermé



- |   |                 |           |               |
|---|-----------------|-----------|---------------|
| 1 | Plombe          | Seal      | Plomb         |
| 2 | Kappe           | Cap       | Bouchon       |
| 3 | Verschluesschr. | Cap screw | Bouchon à vis |
| 4 | Dichtung        | Packing   | Joint         |
| 5 | Stutzen         | Flange    | Tubulure      |

Fig.2 Oelprobe Oil sampling Prélèvement d'huile

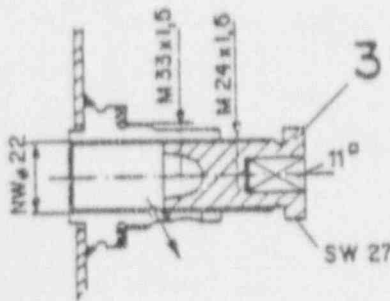
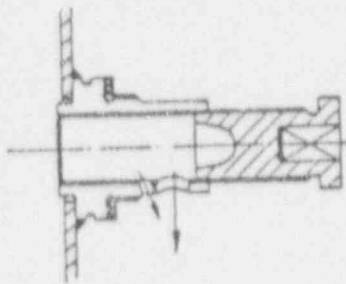
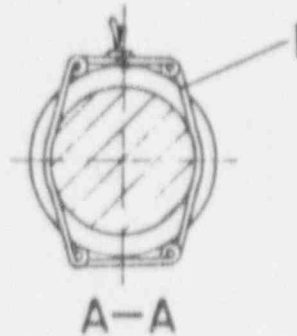
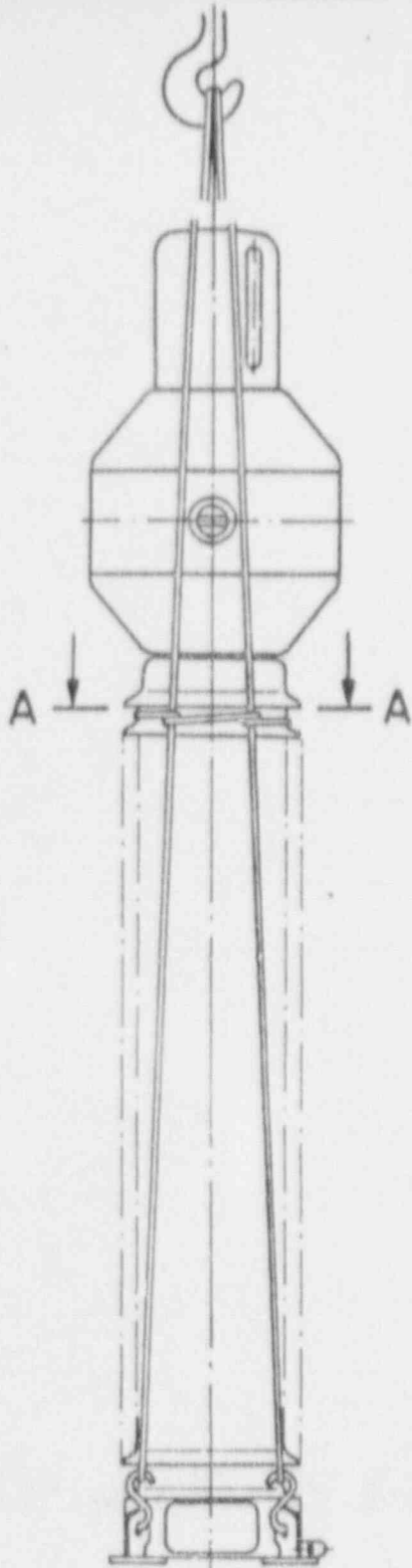


Fig.3 Offen Open Ouvert







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|   |                 |                 |
|---|-----------------|-----------------|
|   |                 |                 |
|   |                 |                 |
|   |                 |                 |
|   |                 |                 |
|   |                 |                 |
|   |                 |                 |
|   |                 |                 |
|   |                 |                 |
|   |                 |                 |
| I | Sicherungssseil | Safety rope     |
|   |                 | Corde de sùreté |

Aufhàngung für Messwandler  
Suspension for instrument Trans.

|                             |                       |            |
|-----------------------------|-----------------------|------------|
| Ersetzt durch:              |                       |            |
| Ersatz für: Zeich'g gl. Nr. |                       |            |
| Massstab                    | Gezeichnet: 17. 9. 80 | <i>Kul</i> |
|                             | Geprüft:              |            |
|                             | Gesehen: 16. 9. 80    | <i>Buh</i> |

Ab.: A) *KED*  
12 9 80 B. 1. 80

BBC Brown, Boveri & Company, Ltd.  
CH-5401 Baden/Switzerland

Division A

## High-voltage instrument transformers types AOT, AOK and AOS

for installation indoors and outdoors with bellow-type oil seal, non-pressurized and without gas cushions

Packed for transport  
in *horizontal* position

Instruction No. HAMM 90150 E /a

### Instructions for transport and storage

#### 1. Insurance, damages, damage report

Before expiry of the transport insurance, the instrument transformers should be examined by the addressee at the destination indicated in the Brown, Boveri & Co. despatch document as also in the insurance policy for possible damages e.g. oil traces, damaged packing and porcelain.

Damages should be reported immediately to the transport insurance company and the sales department of Brown, Boveri & Co., Baden/Switzerland, giving the packing number. A report concerning the damages should be obtained from the inspector of the transport insurance company and sent to the sales department of Brown, Boveri & Co., Baden/Switzerland.

It is recommended that the client obtains a full insurance cover from the factory to the site.

#### 2. Storage

##### 2.1 Horizontal storage

If nothing else has been agreed upon, the packed instrument transformers can be stored for up to a year in the horizontal position provided the following storage conditions are met:

- Ambient temperature  $-10^{\circ}\text{C} \dots +40^{\circ}\text{C}$ ,
- protected from climatic influences and extreme humidity, e.g. rain, puddles, dew, putrefaction, snow and icing,
- protected from damage by insects.

Depending on the local weather we recommend a storage hall, or covering with tarpaulin or plastic sheets, or placing on solid rafters, etc., or all these together.

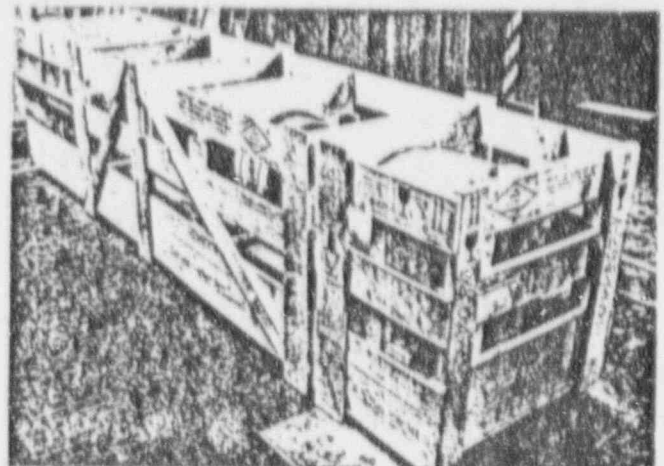
##### 2.2 Vertical storage

If after arrival at site, the instrument transformers are heaved into the upright position and made ready for taking into service as per the instructions "Raising of instrument transformers from the horizontal transport position into the upright position", then they can be stored outdoors or unprotected places for indefinitely long periods without requiring any special measures.

#### 3. Transport after storage

Before retransporting the packed instrument transformers after a long storage, the packing should be checked for possible damages due to breaks, wood-rotting, damage by insects, etc. In case of damages suitable remedial measures should be taken. In any case attention should be paid to the fact that, depending on the storage conditions, the packing may have lost some of its load carrying capacity and the packed unit must be correspondingly more carefully transported. The instrument transformers should be raised from the horizontal into the upright position according to the separate instructions "Raising of instrument transformers from the horizontal transport position into the upright position".

~~Lifting of the packed transformers by means of the lugs provided on the case cover or the case front for heaving into the upright position is not permitted.~~  
For further transport in the horizontal position the instrument transformers must be repacked, in the reverse order, for such transport in accordance with the instructions "Raising of instrument transformers from the horizontal transport position into the upright position".



BROWN BOVERI

The case is closed for transport.

111251

Instructions for Unpacking, Completion  
and Raising in vertical position

Klassierung

AOK

Text

Unterlagen-Nr.

1. Unpacking
2. Completion of transformer
3. Raising into vertical position
4. Detaching cradle
5. Suspension

1. Unpacking (Fig. 1)

1.1 Opening the crate

1.1.1 Open the top of the horizontal crate

1.1.2 Remove the protective foil and the wooden bracing to enable the cradle B with the transformer to be lifted upwards out of the crate.

1.2 Removing out of the crate

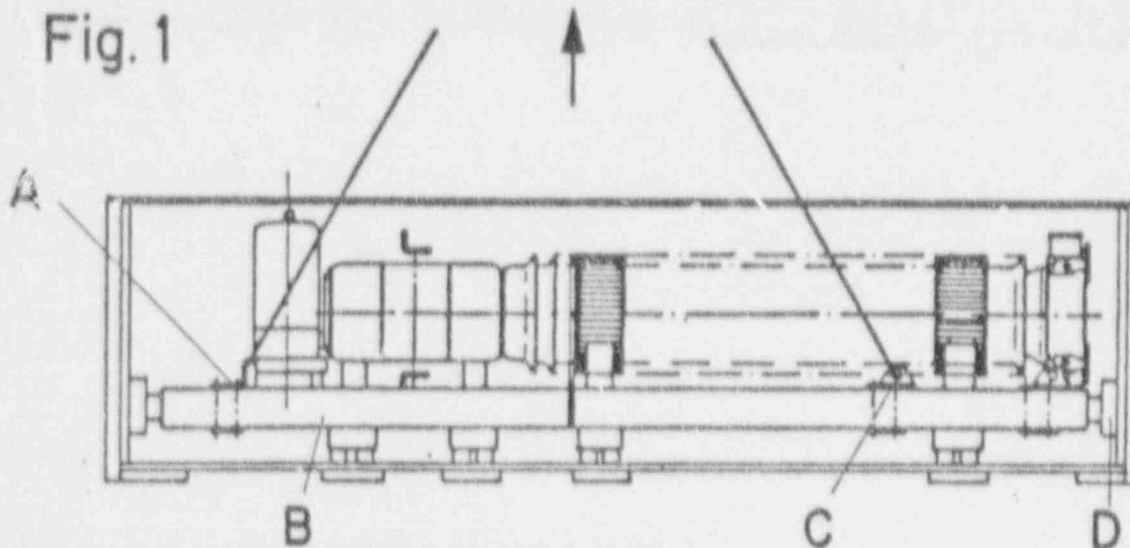
1.2.1 Check the screw connections at suspension lugs C and at carrier A. Tighten if necessary.

1.2.2 Lift cradle B with the transformer out of the crate by means of suspension lugs A, C.

If the crate also rises → 1.2.3

1.2.3 Knock out distance piece D.

Fig. 1

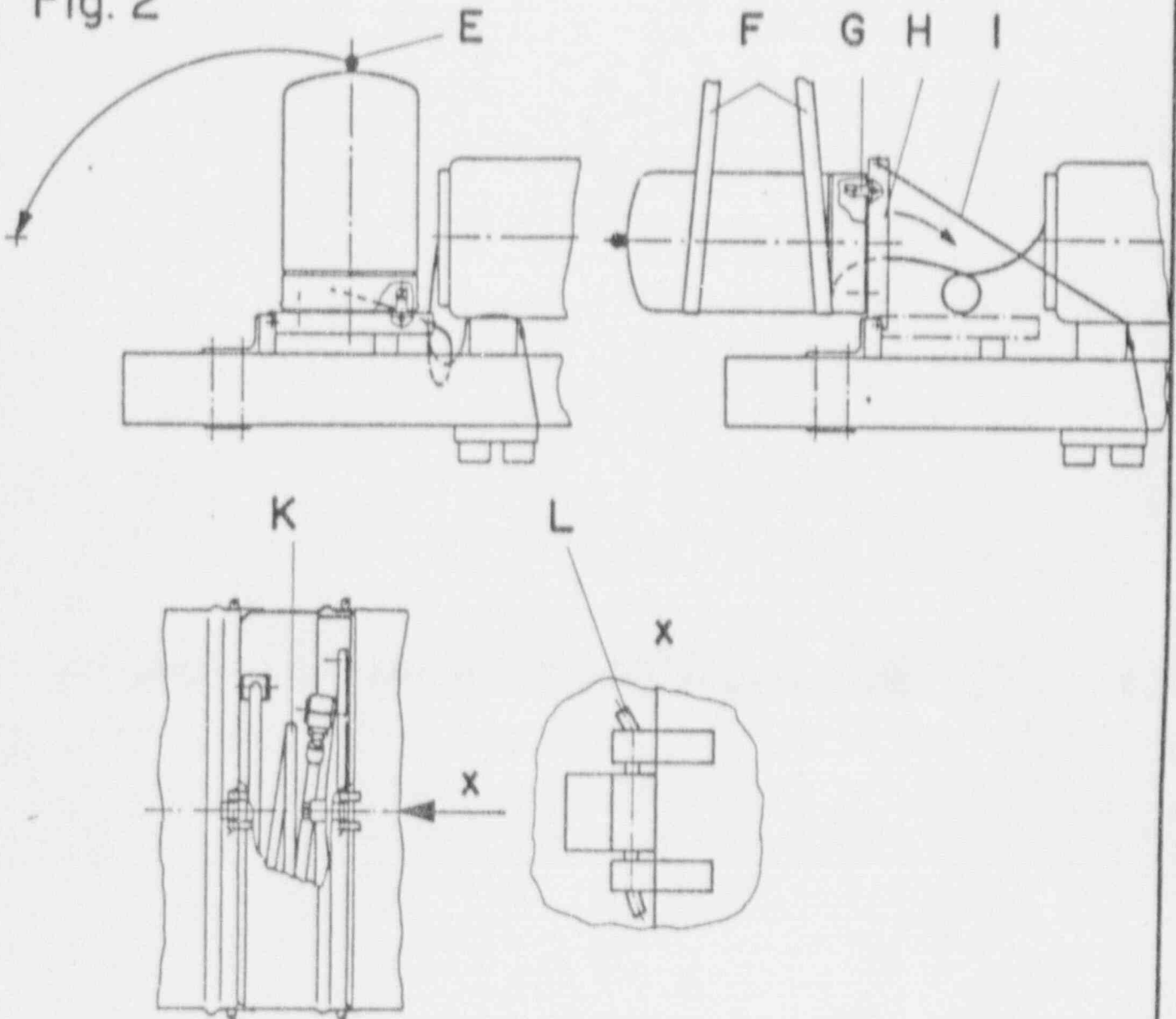


Im Fall der Feh-  
lermeldung und der  
Lieferung einer  
anderen Variante  
des Produktes  
sind die  
Anweisungen  
für die  
Verwendung  
des Produktes  
zu beachten.  
Die  
Anweisungen  
sind  
in  
deutscher  
Sprache  
abgedruckt.  
Die  
Anweisungen  
sind  
in  
deutscher  
Sprache  
abgedruckt.

## 2. Completion of transformer

- 2.1 Turn top of head into horizontal position until it hangs on tilt-protection I. Turn at lug E by hand or by crane depending on size.
- 2.2 Suspend top of head at crane by means of 2 ropes F.
- 2.3 Remove the screw connections G, turn back flap H.
- 2.4 Fix top of head horizontally at head by means of pins L. Pay attention to hose K when assembling top of head with head.

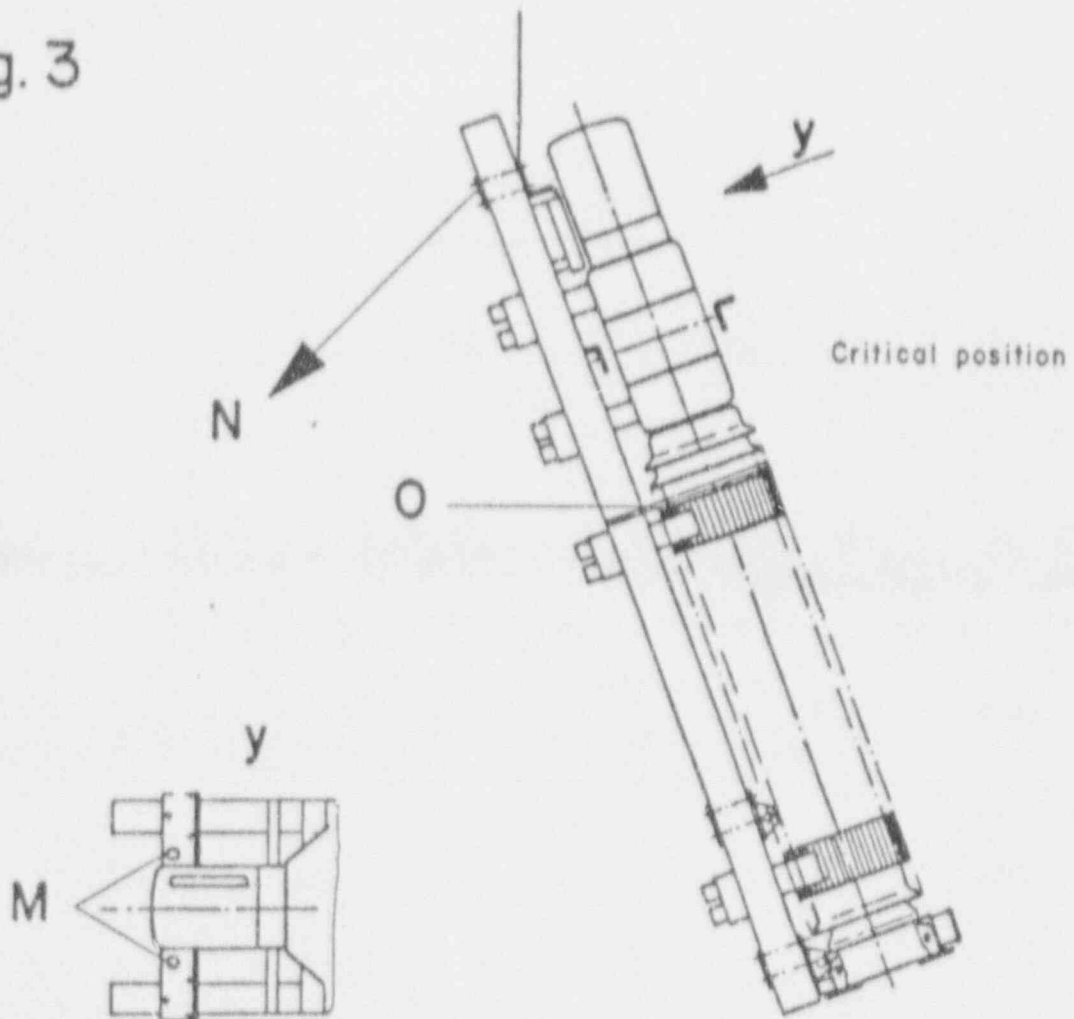
Fig. 2



### 3. Raising into vertical position

- 3.1 Insert (shortest possible) rope in both holes M.
- 3.2 Check screw connections of transformer foot to cradle. Tighten if necessary.
- 3.3 Erect by crane up to critical position.
- 3.4 Final erection after critical position by moving the crane alternately in vertical and horizontal direction.
- 3.5 Further erection after critical position (overturning) can be damped by tow-rope N.
- 3.6 On cradle, transformer is secured against overturning by means of tilt-protection O.
- 3.7 Do not raise transformer with cradle at cradle !  
(At your own risk)

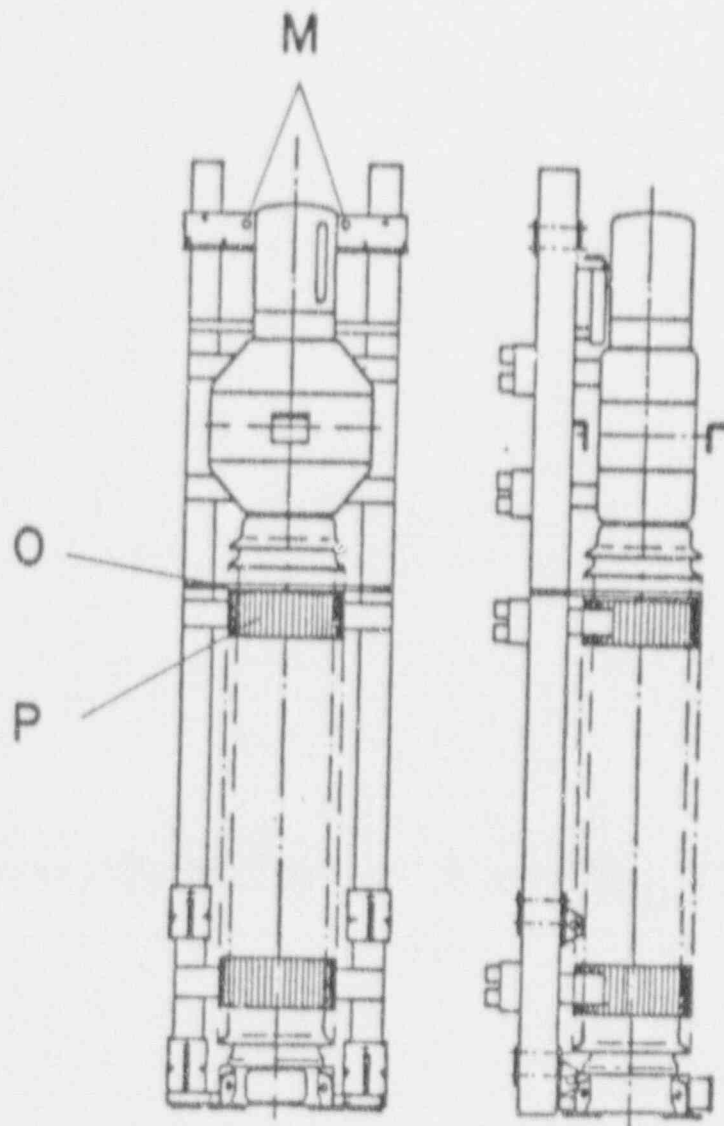
Fig. 3



#### 4. Detaching cradle

- 4.1 Ropes remain in the holes M
- 4.2 Detach tilt-protection O
- 4.3 Detach insulator-protection P
- 4.4 Remove screw connection between transformer foot and cradle
- 4.5 Remove cradle by crane

Fig. 4



## 5. Suspension

- 5.1 Suspension of transformer and vertical transport in accordance with Fig.
- 5.2 Further according to separate instructions "Erection and Operation".

Fig. 5

