

VISIT TO BBC MANNHEIM ON 20/21 APRIL 1970

Summary of discussions with Messrs. Klocke and Bieder

1. Modifications and supplements

- 1.1 Presentation of new coil design.
Four types of drawings for QF1, QF2, QDD and QDU.
This requires as well four types of blocks.
- 1.2 BBC changed distance between insulated part of conductor and brazed joint from 10 to 12 mm.
Total length from core remains 57 mm.
- 1.3 Bleeding valves suppressed; not necessary.
- 1.4 Adapter for water hoses added Type 01 BT-12-SP 3/4" Gummi-Maag (stainless steel).
- 1.5 Thickness of bus bar for cable connection changed from 20 to 15 mm.
- 1.6 Correction strips will be tested to earth and against each other.
Test voltage 1 kV rms 1 min.
- 1.7 Small plate indicates type of quadrupole and serial number. BBC sign placed on connection side.

2. Tools and measuring equipment

- 2.1 Drawings almost finished; fabrication started.
- 2.2 Stacking frame :
4 cylinders, one for each gap, will be used. The cylinders are made from two parts. In addition,

adjustable guides on the four corners are foreseen which will be adjusted to nominal dimensions after stacking. Pressure applied by 10 hydraulic cylinders of 20 tons each.

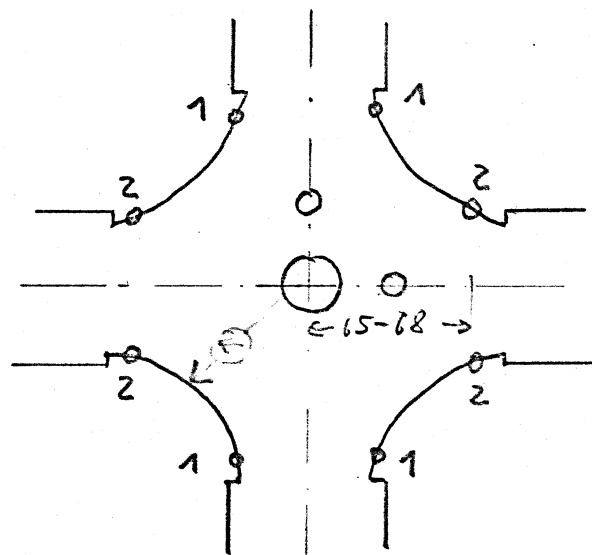
2.3 Design of tools for coil forming and positioning in iron core have not yet been discussed.

2.4 Checking of laminations

A similar system as proposed in our specifications was adopted. However, instead of one microscope mounted on a movable disc, four microscopes with fixed positions will be used.

Microscope : type Hensolt Wetzlar Metami 40
scale division 0.02 mm

The jig allows to measure in two steps 2 points on each of the four profiles per gap :



In addition the radius will be measured with a dial indicator positioned in the centre bore.

2.5 Measuring of twist and sagitta of the core

The core will be placed horizontally on a template supported by 3 blocks of equal height. All measurements can be made with a dial indicator between template and core.

BBC has to check if a template of sufficient size is available.

3. Planning

Only some main dates are given in the following :

| | <u>Ready (in weeks):</u> |
|-----------------------------------|--------------------------|
| Dies | 42 (October 15) |
| Laminations stamped and insulated | 48 (November 25) |
| Core | 50 (December 10) |
| Tools for coils | 35 (August 26) |
| Coil elements | 50 (December 10) |
| Delivery | 4 (January 30 1971) |

M. Giesch

Distribution :

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