



*The Engineering Professions Association
Of Namibia*

YOUNG ENGINEERS' CONSTRUCTION PROJECT

EPA Young Engineers' Construction Project 1996
Lifting Electromagnet

The only entry received was that of the Deutsche Höhere Privatschule, after a number of schools withdrew from the competition at the last moment. The members of the school's team, "Attractive Dudes", were:

- Bruno Buys
- Gundo Haacke
- Erik Lund
- Walter Voigts
- Assisting Teacher: Rolf Schell

Although the team became the winners by default, they nevertheless deserve to be congratulated for a very well designed and constructed electromagnet.

Any worthy engineering design should be functional, adhere closely to the design specifications, avoiding both under- as well as over-design, and be economical. The team has managed to meet all of these criteria excellently. The lifting force exerted by the team's electromagnet exceeded the design specification of 25 kg by about 10%, and in this regard even came closer to the specification than the professionally constructed reference electromagnet. What impressed the judges in particular, was the use of old oil cans for the fabrication of the magnet's core lamella. This was ideal in several respects:

- best-suited material (mild steel);
- thin lamella;
- thin electrical insulation material between lamella (printed outer surface of tins); and
- recycling of materials.

Had there been a competition as planned, the team would definitely have been very strong contenders, and although winners by default, they have truly earned their prize.