

DET NORSKE VERITAS

APPROVAL OF MANUFACTURER

CERTIFICATE

CERTIFICATE NO. AMM-2120

This is to certify that

Edelstahlwerke Buderus AG
Wetzlar, Germany

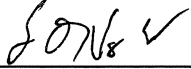
is an approved manufacturer of
Steel Forgings

in accordance with
Det Norske Veritas' Rules for Classification Pt. 2

and the following particulars:

Steel types	Carbon and carbon-manganese, Alloy, Stainless
Max. weight	55 000 kg
Remarks	<ul style="list-style-type: none">○ Including steelmaking.○ Including clean steel forgings of grade 18CrNiMo 7-6 (EN 10084), see details on page 2.


Place and date
Høvik, 2004-12-03
for DET NORSKE VERITAS AS


John Olav Nøkleby
Head of Section

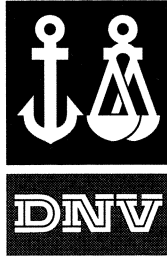


Local Office
DNV Essen

This Certificate is valid until
2008-12-31


Isak Andersen
Surveyor

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



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Particulars of the approval:

1. Clean steel forgings of grade 18CrNiMo 7-6 (EN 10084) are qualified for approved applications. The steels are to comply with the DNV rules Pt. 2, Ch. 2, Sec. 5 (A309).
2. Blanks cut from forged bars of “clean steel forgings” (see pt. 1 above) to a diameter of max. 1450 mm are qualified to be equivalent with “high grade” separate forgings with respect to fatigue endurance limits for gears. Ref. DNV rules Pt. 4, Ch. 2, Sec. 3 (A205), Pt. 4, Ch. 4, Sec. 2 (B207) and (C202).
3. Free form forged crankshafts of “clean steel forgings” (see pt. 1 above) are qualified for approved applications. The forgings are to be regarded as “Super clean forged steel” as described in the DNV Classification Notes No. 41.3. Ref. DNV Rules Pt. 4, Ch. 2, Sec. 3 (B100-B200).

JA