
British Standard: Aerospace Series

Specification for

23% chromium-nickel-tungsten corrosion-resisting steel castings

(Cr 23, Ni 11, W 3)

1. Inspection and testing procedure

This British Standard shall be used in conjunction with the relevant sections of British Standard HC 100 as follows:

Re-melting stock	Sections 1 and 2
Precision castings	Sections 1 and 3
Sand castings	Sections 1 and 4
Centrifugal castings	Sections 1 and 5

2. Chemical composition

The re-melting stock and castings shall contain:

Element	%	
	min.	max.
Carbon	—	0.25
Silicon	0.5	2.0
Manganese	—	1.0
Phosphorus	—	0.04
Sulphur	—	0.04
Chromium	20.0	25.0
Nickel	10.0	13.0
Tungsten	2.0	3.5

3. Condition

Castings shall be supplied in the as cast condition or, if required by the purchaser, heat treated.

4. Heat treatment

Heat treatment shall consist of annealing by heating uniformly at a temperature between 1000 °C and 1100 °C for 2 h and cooling in a suitable manner.

Gr 1

British Standards Institution · 2 Park Street · London W1A 2BS

Telephone 01-629 9000
Telex 266933

HC 103 : 1974

5. Ferrite content

Where it is considered necessary to assist weldability and it is specified by the purchaser, the ferrite content of each melt shall be assessed. The method of assessment shall be agreed with the purchaser and the ferrite content shall be between 3 % and 10 %.

This British Standard, having been approved by the Aerospace Industry Standards Committee, was published under the authority of the Executive Board on 10 May, 1974.

© British Standards Institution, 1974

ISBN: 0 580 08412 4

Copyright

Users of British Standards are reminded that copyright subsists in all BSI publications. No part of this publication may be reproduced in any form without the prior permission in writing of BSI. This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols and size, type or grade designations. Enquiries should be addressed to the BSI Secretariat.

Contract requirements

Attention is drawn to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

Revision of British Standards

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. **It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.**

The following BSI references relate to the work on this standard:
Committee reference ACE/60 Draft for comment 72/35126 DC