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SPECIFICATION FOR BAR STEEL Ø 25mm BASED ON BS 970: ALLOY 230M07

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2023-01-23
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AMENDMENT HISTORY

Issue	Details	Job No	Done by	Date
2	The "A" was removed and replaced by an "M". Alloy 220A07 was removed, the newest revision BS 970 Part 3:1991 removed the 220 Alloy. Alloy 230M07 was updated with the newest chemical composition.	E2/003/23MC	I.P. [Signature]	2023-01-23

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TABLE OF CONTENTS

PARA	SUBJECT	PAGE No
1.	SCOPE	4
2.	APPLICABLE DOCUMENTS	4
3.	REQUIREMENTS	4
3.1	General material requirements	4
3.1.1	Product characteristics	4
3.1.2	Chemical, mechanical and metallurgical properties	4
3.1.2.1	Chemical composition	4
3.1.2.2	Mechanical properties	4
3.1.2.3	Metallurgical properties	4
3.1.3	Workmanship	4
4.	QUALITY ASSURANCE PROVISIONS	5
4.1	Responsibility for inspection	5
4.2	Special tests and examinations	5
4.3	Quality conformance inspection	5
4.3.1	Lot information	5
4.4	Test methods	6
5.	PREPARATION FOR DELIVERY	6
5.1	Packing	6
5.2	Package marking	6
5.3	Documentation for delivery	6
6.	NOTES	6

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BAR STEEL Ø 25mm BASED ON BS 970: ALLOY 230M07

1. **SCOPE**

- 1.1 This specification covers bar steel, free cutting, based on BS 970: 230M07 that conforms to this specification.

2. **APPLICABLE DOCUMENTS**

- 2.1 BS 970 : Part 3 : Alloy 230M07

3. **REQUIREMENTS**3.1 **General material requirements**

The material shall be supplied as bright bar in the cold drawn or peeled condition.

3.1.1 **Product characteristics**

- 3.1.1.1 The material shall be supplied as bars with plain ends in lengths of 3 m ± 2 cm

- 3.1.1.2 The diameter shall be 25 mm +0
-0,13 mm

- 3.1.1.3 Out of roundness shall not exceed 1,5 mm/meter

3.1.2 **Chemical, mechanical and metallurgical properties**3.1.2.1 **Chemical composition**

ELEMENT	SPECIFICATION (%)
Carbon (C)	0,15 maximum
Silicon (Si)	0,05 maximum
Manganese (Mn)	0,90 – 1,30
Sulphur (S)	0,25 – 0,35
Phosphorus (P)	0,090 maximum

3.1.2.2 **Mechanical properties**

Not applicable

3.1.2.3 **Metallurgical properties**

The material must be free from macroscopic inclusions.

3.1.3 **Workmanship**

- 3.1.3.1 The material must be free from rust and handling marks.

- 3.1.3.2 Surface defects up to a maximum depth of 2% of the bar diameter is acceptable.

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4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection

- 4.1.1 Unless otherwise specified in the contract or order, the supplier is responsible for the performance of all inspection requirements as specified herein.
- 4.1.2 Except as otherwise specified, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements.
- 4.1.3 The purchaser or his representative reserves the right of inspection of Laboratory Certificates of raw materials and components used for the manufacture of the material.
- 4.1.4 The supplier shall be responsible for making available to the purchaser all facilities necessary if required, for inspection of the material.
- 4.1.5 The supplier will be responsible for the implementation of an applicable quality management system to assure the appropriate quality of the product. The purchaser reserves the right to audit the supplier's production facilities at all times to ascertain whether quality requirements are being met.

4.2 Special tests and examinations

Not applicable.

4.3 Quality conformance inspection

4.3.1 Lot information

A lot shall consist of one or more batches of material produced by one manufacturer in accordance with the same specifications under one continuous set of operating conditions. All material must be of the same cast or heat.

If the quantity is such that more than one cast is required, material of the same cast shall be grouped together. Each case or bundle shall be clearly identifiable as to the relevant cast number.

The supplier shall ensure that all deliveries to the end user are fully traceable by lot number and that identification records be supplied to the end user to match lot numbers with inspection records.

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DATE 2023-07-14

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4.4 Test methods

4.4.1 Not applicable.

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5. PREPARATION FOR DELIVERY5.1 Packing

5.1.1 To be strapped in bundles suitable for forklift handling using 4 evenly spaced steel straps. The maximum mass shall not exceed 1 000 kg unless otherwise agreed between the supplier and purchaser.

5.1.2 In the case of an overseas supplier the bundles shall be packed in a seaworthy condition using suitable wooden boxes secured by steel straps. The gross mass of the strapped boxes may not exceed 1 100 kg.

5.1.3 All bars must have a suitable coating of oil to prevent rust before, during transit and storage of at least 6 months under normal storage conditions.

5.1.4 If containers are used for transportation of the material, open top containers must be used. The wooden boxes must be properly stacked in the container with spaces of ± 150 mm between them.

5.2 Package marking

All bundles, boxes and/or containers to be legibly and durably marked with the following details on suitable labels:

5.2.1 Document and order number.

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5.2.2 Name of supplier.

DATE 2023-07-14

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COPY5.3 Documentation for delivery

The following documents must be forwarded with each consignment of material:

5.3.1 The original specification, which accompanied the order in the case of a single consignment or the final consignment of, staggered deliveries.

5.3.2 A certificate of conformance/analysis stating all the results of the tests conducted by the supplier during manufacture and final acceptance.

5.3.3 Certificate of acceptance issued by the end user or his duly representative or a letter from the end user for the release of the consignment for shipment in the case of an overseas supplier.

5.3.4 The supplier's delivery note shall clearly state the relevant order and document number.

6. NOTES

If the supplier of the material is not the original manufacturer, the full name and address of the manufacturer must be supplied in writing during tender.