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# METRIC AND INCH UNITS

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## BRITISH STANDARDS INSTITUTION

BRITISH STANDARDS HOUSE, 2 PARK STREET, LONDON, W.1

0 AMOS

3 S. 107, February, 1969  
(Superseding British Standard 2 S.107)

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BRITISH STANDARD: AEROSPACE SERIES  
SPECIFICATION FOR  
3% NICKEL-CHROMIUM-MOLYBDENUM  
CASE-HARDENING STEEL

NOTE. The specified chemical composition, heat treatment and tensile properties comply with A.I.C.M.A. Recommendation FE. PL. 71 (for material heat treated to a tensile strength of 110/140 kgf/mm<sup>2</sup>).

### 1. INSPECTION AND TESTING PROCEDURE

1.1 This British Standard shall be used in conjunction with the relevant sections of British Standard 3 S.100 as follows:

Bars for machining.

Sections One and Two

Billets and bars for forging.

Sections One and Five

Forgings:

Sections One and Six

Case-hardened parts.

Sections One and Eight

1.2 Sulphur printing or deep etching tests. Samples shall be selected in accordance with British Standard 3 S.100, Section One, 7.2.1.

### 2. PROCESS OF MANUFACTURE

The material shall be manufactured by an electric process, unless otherwise agreed between the manufacturer and the purchaser in accordance with British Standard 3 S.100, Section One, 3.1.

### 3. CHEMICAL COMPOSITION

The steel shall contain:

| Element    | %    |       |
|------------|------|-------|
|            | min. | max.  |
| Carbon     | 0.12 | 0.17  |
| Silicon    | 0.15 | 0.40  |
| Manganese  | 0.30 | 0.60  |
| Phosphorus | -    | 0.025 |
| Sulphur    | -    | 0.020 |
| Chromium   | 0.80 | 1.10  |
| Molybdenum | 0.20 | 0.30  |
| Nickel     | 3.00 | 3.50  |

### 4. SURFACE DRESSING

The material shall be overall dressed in accordance with the requirements of British Standard 3 S.100, Section One, 5.1.

Price 4/- net