

**GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
RESEARCH AND DEVELOPMENT ORGANISATION
DIRECTORATE OF AERONAUTICS(R&D)**

TYPE APPROVAL No : 640

ISSUED TO : M/s MISHRA DHATU NIGAM LIMITED
KANCHANA BAGH P.O., HYDERABAD-500 058

FOR : CASE CARBURISING LOW ALLOY STEEL
MDN LA 1 (12X2H4AW) HOT ROLLED BARS

CO-ORDINATED BY : RCMA (MATERIALS), HYDERABAD

This is to certify that Case Carburising Low Alloy Steel MDN LA-1 (12X2H4AW) Hot Rolled Bars have been designed and developed by M/s Mishra Dhatu Nigam Limited, Hyderabad. It has met all the test requirements laid down by Directorate of Aeronautics in Test Schedule for No. CRE/REP/1073, dated 1.5.81. The components manufactured from MDN LA-1(12X12H4AW) may, however, require separate testing based on the functional requirements/end use.

2. This approval is contingent upon :

- i) Composition and source of supply of raw materials being as per the Annexure-II and processing parameters as detailed in Annexure IIIA to IVD of type record vide report No. MDN/AMD/TA/010, DATED 31.12.90.
- ii) Batches from series production conforming to the requirements as laid down in collaborators production specifications.
- iii) Quality control aspects of bulk production being cleared by DTD&P (Air), Ministry of Defence.
- iv) Compliance of a repeat Type Approval tests should be carried out as called for by the Directorate of Aeronautics whenever sufficient reasons warrant.


3. This type approval is valid so long as consistency of quality in series production is maintained.

4. Prior approval of this Directorate has to be obtained if this type approval or production process is to be transferred to any other agency or if any changes in annexures or in type records are to be effected.

Encl : Appendix 'A'

No. : AERO/RD-132/117/6/3

Date : 12th Sep. 1991


(K.SRINIVASA)
Director of Aeronautics