

**GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
RESEARCH AND DEVELOPMENT ORGANISATION
DIRECTORATE OF AERONAUTICS**

TYPE APPROVAL No : 269

ISSUED TO : M/s HINDUSTAN AERONAUTICS LTD.,
BANGALORE COMPLEX.

FOR : **COMPRESSOR ROTOR BLADES OF ORPHEUS
ENGINES**

CO-ORDINATED BY : RCMA (ENGINES)

This is to certify that compressor rotor blades produced from indigenous forgings developed by M/s Hindustan Aeronautics Ltd., Bangalore Complex at their Foundry & Forge Division for use on Orpheus series of engines have satisfied all the test requirements laid down by the Directorate of Aeronautics. These forgings may be used for the manufacture of compressor rotor blades for Orpheus series of engines as per the details given at appendix-I. Sample compressor rotor blades so far produced shall however have to undergo component fatigue testings and satisfy requirements laid down at appendix-II.

2. This approval is contingent upon the composition and size of bar stock, heat treating and forging parameters, sampling, checking and accepting standards as given at appendix III, being the same during production as have been followed during type approval testing.
3. The type approval number must be quoted in all relevant documents.
4. This approval is also contingent upon the quality control aspects of bulk production being cleared by D.T.D.&P(Air), Ministry of Defence, New Delhi and additional tests if any called for by the Directorate of Aeronautics from time to time during production.
5. Prior approval of this Directorate will have to be obtained if this type approval is transferred to any other agency or if changes in type record as contained in appendix I, II & III are made.

Encl : Appendix 'I' II and III

No. : AERO/RD-132/106/5

Date : 7 Dec. 1978


Cp Capt

(SC GUPTA)

Offg. Director of Aeronautics