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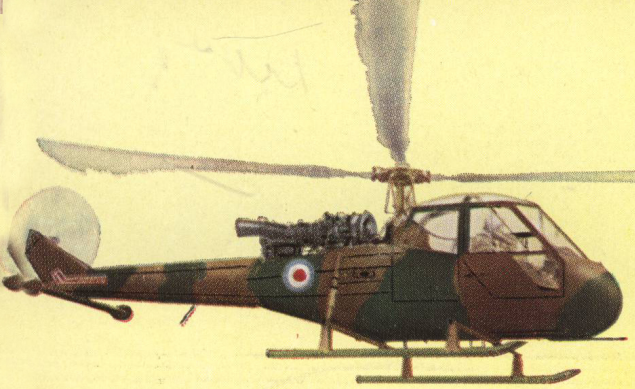
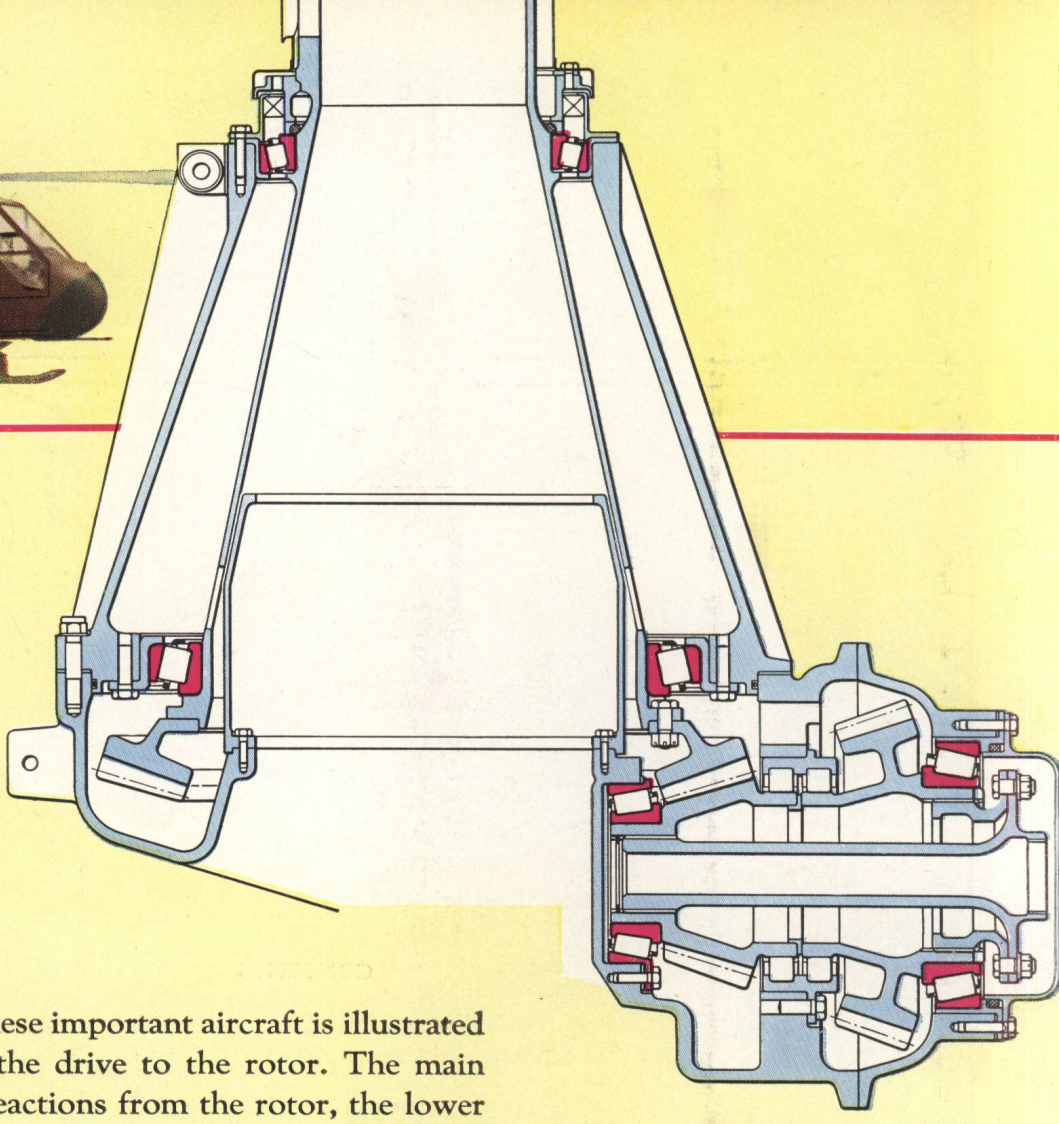
TWELVE SHILLINGS AND SIXPENCE MONTHLY

4 HAMILTON PLACE LONDON W1





ON THE WESTLAND 'WASP' AND P531

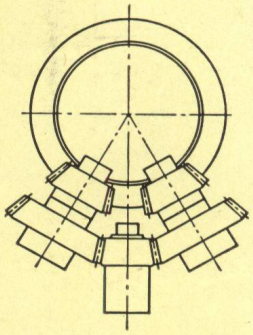
THE secondary gearbox of these important aircraft is illustrated in the drawings, and takes the drive to the rotor. The main rotor bearings take all the reactions from the rotor, the lower bearing sustaining the whole weight of the aircraft when in flight.

An interesting feature is the construction of each intermediate shaft: the two bevels are coupled by a splined 'quill' with a flanged connection; this construction provides a fine vernier adjustment to time the bevels in load-sharing relationship, and in addition provides some torsional elasticity and accommodates any minute radial misalignment.

Fine axial adjustment of bevels and pre-load of the Timken bearings is effected by shims behind the flange of the small bearing and the end cover: there is also, between the bevel bosses, a selected washer which transmits the pre-load.

The design embodies 42 Timken bearings, including those in the tail-rotor gearbox and the rotor-blade flapping and drag hinges.

British Timken, Duston, Northampton, Division of The Timken Roller Bearing Company. Timken bearings manufactured in England, Australia, Brazil, Canada, France and U.S.A.



As is shown in the above diagram, a bevel gear on the input shaft meshes with a larger bevel on each of two intermediate shafts; these in turn have smaller bevel gears meshing with the crown wheel on the rotor shaft, giving an overall reduction. In this way the drive is taken off the input bevel at two places, and received by the crown wheel at two places.

TIMKEN®

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tapered roller bearings