

HANOVER SHOW . . .

HSD propellers are used on the Transall military transport and the Atlantic maritime reconnaissance aircraft. The automatic check-out equipment developed by HSD and known as TRACE (Tape-controlled Recording Automatic Checkout Equipment) has already been bought by the French and British Governments and is used for checking-out flight control systems on the Buccaneer. It has also been ordered by the Admiralty for the dockyard testing of electronic components removed from ships and by BOAC for testing flight control systems removed from the VC10 and the Boeing 707. A design study is proceeding for the TSR.2. Also featured on the stand is the HSD fuel control unit as used on the Bristol Siddeley Gnome engine. This is the "third hand" for the pilot which automatically maintains a constant rotor speed.

HSD air conditioning units featured are similar to those installed on the Trident, the Short Belfast and the HS.125. Hawker Siddeley Dynamic equipment is installed on many other British aircraft ranging from the Lightning to the Victor bomber.

The Blue Streak first-stage launcher, built by Hawker Siddeley Dynamics, is featured in a display by ELDO (European Launcher Development Organisation).

The third Hawker Siddeley company represented is High Duty Alloys Ltd. which is showing a range of forgings in aluminium, titanium, steel and nickel alloys.

Henschel Flugzeug-werke AG, Postfach 724, 35 Kassel 2, West Germany.

Henschel now specialize in the helicopter field with inspection, repair, spares supply and production of special test installations. The last-named include test stands for Alouette II main rotor blades, and for transmissions of S-58s, Alouettes and Super Frelon. Workstands and special fixtures are also produced.

Hewlett-Packard Ltd, Dallas Road, Bedford, Beds, England.

Displayed by Hewlett-Packard are the HP 241A, 411A, 608C and 616A and the Boonton 8900B. Respectively these items are a push-button oscillator; an RF millivoltmeter; a VHF signal generator; a UHF signal generator; and a peak power calibrator. The last-named is made by Boonton Radio Co (a division of Hewlett-Packard) of Green Pond Road, Rockaway, New Jersey, USA.

Hispano Suiza, Bois-Colombes, Seine, France.

For the seventh time Hispano Suiza are taking part in the Hanover Fair. On one stand the company presents the main landing gear for the Breguet 1150 Atlantic, the maritime patrol aircraft designed for NATO and built in co-operation by France, Germany and Benelux. "It must be recalled in this connection," they state, "that Hispano Suiza is also manufacturing the Tyne engine within the framework of a European Consortium consisting of Rolls-Royce (20 per cent of production), MAN Turbomotoren GmbH (28 per cent), FN (Fabrique Nationale d'Armes) (8 per cent) and Hispano Suiza (44 per cent)." The company is also responsible for Tyne assembly and testing for all Tyne engines used in the Atlantic, while MAN assemble and test all engines used on the Transall C-160.

The company further states: "Hispano Suiza has also in development, to satisfy the requirements of supersonic aircraft, several

types of pumps capable of operating at high temperatures, in particular a pump designed to meet the specifications of the Concord supersonic transport.

"In the field of aircraft wheels and brakes, the products displayed include the Atlantic wheel and brake equipment, and wheels and brakes developed for the Mirage III V; this brake is of a novel design specially developed by Hispano Suiza for use on this project. Also shown are some components of our flexible drive, such as a new type of coupling.

"Production of a new component has been taken up by Hispano Suiza, namely the manufacture of rotary wing structures which is carried out at Bugatti's plant in Molsheim. These are structures made of wood, produced under a licence from Parsons, and used as spares for Vertol helicopters.

"Other Hispano Suiza components are exhibited on the stand of Westfälische Metall-Industrie KG: in particular the Hydrostandard units built by that firm under a licence from Hispano Suiza, and other items, all constructed under Hispano licence, for the Atlantic project, carried out within the scope of the German-French co-operation programme."

H. M. Hobson Ltd, Hobson Works, Fordhouses, Wolverhampton, Staffs.

Hobson products on show are as follows: powered flying controls, Types 540, 541, 542, 543, 544 and 545; flap control units Types 551 and 546; screw jacks Types 552 and 475; nozzle control unit Type 553; control gearing unit Type 554; friction brake Type 507; fuel booster pump and canister (pump Type 436 Mk 2, canister Type 535); tailplane trim actuator Type 495; feel simulator control Type 505; constant-speed alternator drive Type 403; fuel flow proportioner Type 440; twin flap control Type 377; slat control Type 526; electro-hydraulic actuator Type 214; constant pressure pumps Types 240, Y.387, 518 and 236; hydraulic motors Types 197, 434 and 433; motor-pump units Type 293, 292, 379, 495 and 537; hydraulic pump Type 180; hand pump Type 228; power pack Type 276; and "Everac" hydrostatic chuck. There is also a selection of aircraft springs.

Hoffman and Co GmbH, 82 Rosenheim 2, Kuepferlingstrasse 15, West Germany.

In addition to their usual fixed-pitch wooden propellers Hoffman are exhibiting three new items: an adjustable metal propeller for small aircraft; a large adjustable or controllable blade for STOL or VTOL aircraft (about 16ft in diameter); and a new develop-



Hoffman & Co GmbH stand (Hanover 1962)

ment of an electrically controllable propeller for turboprops of 600-700 h.p.

Hoffman undertake the repair and overhaul of propellers of any design, and including the following makes; Aero, Aeromatic, Airscrew, Argus, Beech, Centrala Flygwerkstaden, Fairey, Flottorp Hamilton, Hartzell, Heine, Infanger and McCauley.

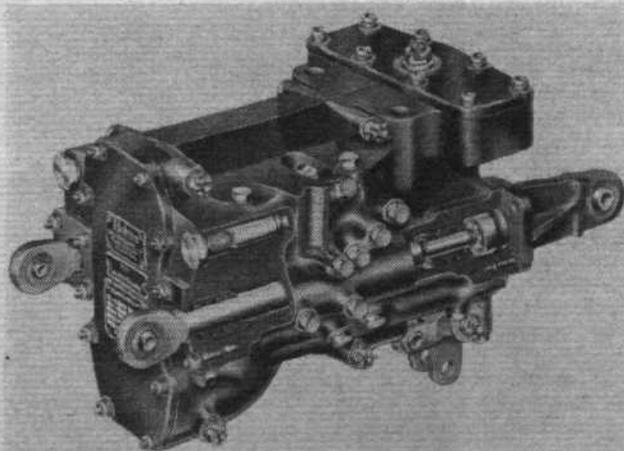
The Hoffman Manufacturing Co Ltd, PO Box No 7, Chelmsford, Essex, England.

Representative examples of the wide range of ball and roller bearings manufactured by Hoffman are displayed. This is the first time Hoffman has exhibited at Hanover and the company is sharing a stand with the Société Nouvelle de Roulements, of Annecy, France.

Hoffman manufactures a full range of ball, roller, needle roller and taper roller bearings. The company also makes precision and miniature bearings, railway axle boxes and motor suspension units, together with balls and rollers of all sizes. High-speed, miniature, self-aligning and duplex bearings are displayed on the stand and engineers from the parent company are available to discuss technical requirements and bearing problems.

Imperial Metal Industries (Kynoch) Ltd, PO Box 216, Birmingham 6, England.

Imperial Metal Industries, Europe's largest manufacturers of titanium, specialize in the development and production of titanium alloys for the aircraft industry. Eight IMI titanium alloys are already available, conforming to British (DTD), French (AICMA and AFNOR), German (BWB) and other European specifications. Among other "new" metals being evaluated by IMI, specially developed niobium alloys show particular promise for certain high temperature aero engine applications.



Hobson Type 553 nozzle control unit