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This Month

BERMUDA 2

AIRLINE PERFORMANCE

COMPETITIVE AIR TRAVEL

The latest evaluated design data from Engineering Sciences Data Unit....

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Engineering Sciences Data Unit (ESDU) is a unique organisation that provides authoritative evaluated data for designers working in aeronautical, chemical, mechanical, structural and other engineering fields. These data are produced as *Data Items*, each of which is the result of a critical evaluation of the

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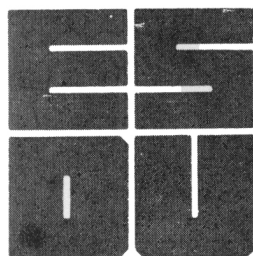
The latest ESDU Data Items to be issued are :

| Data Item No. | Title |
|---------------|---|
| 76001 | The response of flexible structures to atmospheric turbulence. |
| 76003 | Geometric properties of cranked and straight tapered wing planforms. |
| 76004 | Vapour pressures and critical points of liquids. VII : halogenated ethanes and ethylenes. |
| 76005 | Kinematic and dynamic data for crank-rocker and slider-crank linkages. |
| 76006 | Vapour pressures and critical points of liquids. VIII : additional halogenated ethanes and ethylenes. |
| 76007 | Fatigue strength of longitudinal fillet weld attachments and joints in steels under axial loading. |
| 76008 | Drag of transverse rows of spherically-headed rivets immersed in a turbulent boundary layer at subsonic and supersonic speeds. |
| 76009 | Thermal conductivity of liquid halogenated aliphatic hydrocarbons. |
| 76010 | Heat capacity and enthalpy of liquids. II : halogenated methanes. |
| 76011 | First approximation to take-off field length of multi-engined transport aeroplanes. |
| 76012 | Thermodynamic properties of isopropyl alcohol. |
| 76013 | Elastic stresses and deflections under uniform pressure of flat rectangular sandwich panels, all edges simply supported (isotropic face plates and orthotropic cores of zero flexural stiffness). |
| 76014 | Estimation of end endurance and construction of constant amplitude SN curves from related data corrected for notch and mean stress effects. |
| 76015 | Aerodynamic centre of wing-fuselage combinations. |
| 76016 | Generalisation of smooth continuous stress-strain curves for metallic materials. |
| 76017 | Thermal conductivity of liquid n-alkyl esters of monobasic n-alkanoic acids. |
| 76018 | The friction component of pressure gradient for two-phase gas or vapour/liquid flow through straight pipes. |
| 76019 | Estimation of fatigue crack growth rates and residual strength of components using linear elastic fracture mechanics. |
| 76020 | Estimation of peak values of discrete frequency noise from isolated rotors and propellers. |
| 76021 | Dynamic viscosity of carbon dioxide gas and liquid. |
| 76022 | Elastic stresses and deflections under uniform pressure of flat rectangular |

| Data Item No. | Title |
|---------------|---|
| 76023 | sandwich panels ; long edges clamped, short edges simply supported (isotropic face plates and orthotropic cores of zero flexural stiffness). |
| 76024 | Buckling of struts. Lipped and unlipped channel sections. |
| 76025 | Vapour pressures and critical points of liquids. IX : C ₂ to C ₁₁ aliphatic ethers and three aromatic ethers. |
| 76026 | Vapour pressures and critical points of liquids. X : C ₁ to C ₁₈ aliphatic amines. |
| 76027 | Lift and drag due to spoiler operation in the ground run. |
| 76028 | Introduction to design and performance data for diffusers. |
| 76029 | Lift-interference and blockage corrections for two-dimensional subsonic flow in ventilated and closed wind-tunnels. |
| 76030 | A guide on the design and selection of dry rubbing bearings. |
| 76031 | Thermal conductivity of carbon dioxide gas and liquid. |
| 76032 | Fatigue crack propagation in low and medium strength low alloy steel plate, bar and forgings. |
| 76033 | Fatigue strength of longitudinal welded joints. Symmetrical section I-beams, web to flange welds and T-sections. |
| 76034 | Subsonic base drag of cylindrical bodies with conical boat-tails. |
| 77001 | Estimation of thrust for take-off performance calculations : turbo-jet and turbo-fan engines. |
| 77002 | Effect of intake total pressure loss on net thrust at take-off : turbo-jet and turbo-fan engines. |
| 77003 | Design of parallel axis spur and helical gears – geometric design. |
| 77004 | Elastic stresses and deflections under uniform pressure of flat rectangular sandwich panels ; all edges clamped (isotropic face plates and orthotropic cores of zero flexural stiffness). |
| 77005 | Fatigue life estimation under variable amplitude loading. (To be used in conjunction with Item Nos 76014 and 76016.) |
| 77006 | Fatigue crack propagation in high strength low alloy steel plate, bar and forgings. |
| 77007 | Thermal conductivity of liquid dialkyl ethers. |
| 77008 | Heat capacity and enthalpy of liquids. III : halogenated ethanes and ethylenes. |
| 77009 | Pressure losses in curved ducts : single bends. |
| 77009 | Pressure losses in curved ducts : interaction factors for two bends in series. |

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Cover picture:

The re-negotiation of the original Bermuda Agreement was initiated by the UK Government as it was felt that British airlines deserved a bigger slice of the total trans-Atlantic cake. In this issue five authors examine, from both the American and British viewpoints, the probable effects of Bermuda 2 on the long haul scene. The cover shows Concorde, photographed by Arthur Gibson, on the ramp at John F. Kennedy Airport, New York.

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