

MISCELLANEOUS EXAMPLES

2.1. SMALL MAIN ENGINE FOR LUXURY YACHT

Enquiry Vibracoustics were asked to design a main engine mounting system, to meet stringent vibration requirements, for a new luxury yacht that was to be used for Corporate entertainment.

Problem There were no standard mounts available that provided the required isolation levels to achieve the specification.

Solution Vibracoustics offered a standard non-captive high deflection industrial mount, modified specifically for marine use incorporating an internal fail-safe device and provision for height adjustment. (Product Group 50 modified)
The mounts were positioned to provide differing mount stiffness in the axial, lateral and vertical directions to achieve acceptable isolation levels in all six natural vibration modes.

2.2. ISOLATED MAIN ENGINE AND C.P. GEARBOX FOR LUXURY KETCH

Enquiry Vibracoustics were asked to provide an isolation system for engine and C.P. gearbox complete with flexible coupling to isolate gear noise.

Problem The solution must achieve good isolation suitable for a luxury vessel and accommodate thrust whilst avoiding interference with the C.P. gearbox operation.

Solution The MTU 393kW engine was mounted on a semi-flexible suspension (Product Group 47) and the Korsor C.P. gearbox mounted in a stiffened cradle on an Ultrabush arrangement. (Product Group 10). The arrangement was completed by a special 106 SA coupling with special pool and propeller shaft hub. (Product Group 80).

2.3. INVESTIGATION AND RECTIFICATION OF VIBRATION PROBLEM ON RESEARCH VESSEL

Enquiry An Electric propulsion, ocean going research survey ship experienced vibration problems on the Main Engine Generators causing vibration interference on sensitive measuring equipment.

Problem Vibracoustics Engineers carried out a preliminary survey of the vessel and determined that the Main Generator Anti-vibration mounts were causing the vibration problem.

Solution Vibracoustics Engineers planned and supervised the work of stripping down four off 30 tonne Engines, lifted the engines to enable the mounts to be removed. Refurbished the mountings on board the ship and correctly re-installed the units to the original specification. (Product Group 48)

2.4. FIRE PUMP EXHAUST PIPE WORK SUSPENSION SYSTEM FOR AN F.P.U.

Enquiry Vibracoustics were successful in tendering for the design and supply of a fire pump exhaust suspension system to meet stringent contractual requirements, to be installed on a Floating Production Unit to operate in the North Sea Oil Fields.

Problem The exhaust was lightweight and manufactured from thin gauge Stainless Steel. It was also routed around various existing pieces of equipment giving rise to extensive design problems.

Solution Vibracoustics assigned a project manager to oversee the complete project, designing special mounts where necessary for each pipe section. All designs, calculations, fabrications, documentation and certification for all the elements was controlled by Vibracoustics Project Engineers. Finally the Project Manger supervised the critical phases of installation to ensure the required isolation performance was achieved. (Product Groups 70,71)



For applications and technical assistance please refer to VIBRACOUSTICS Ltd.

Vibracoustics is continually seeking to improve products and reserves the right to change designs and specification without prior notice or alteration of literature.

Consultants . Designers . Manufacturers . Suppliers

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