

Smaller, quieter – less restriction

Less pollution

SILENTOR

More power

Patented technology since 1972



ALSTOMS Engines Ltd. manufacturing facility at Hazel Grove Stockport, home to the world renowned Mirrlees Blackstone range of engines has occupied its present site since the early nineteen thirties. Now, surrounded by housing and with a large hospital as a close neighbour, ALSTOM Engines Ltd. ever mindful of their responsibilities to the local community have worked particularly hard and invested heavily, to reduce noise emissions from their works.

All their engines are comparatively large, and the new MB430M is no exception, currently the most powerful medium speed engine designed and built in the U.K. With an output of 15627 BKW at 600 RPM the unattenuated exhaust noise is not only loud, but embodies a significant amount of low frequency energy. Low frequency noise, can present major problems, as this type of noise travels great distances, and can set up disturbing resonances in confined spaces, known as standing waves. Apart from annoying vibrations, persons subjected to such low frequency noise can suffer feelings of nausea, and sickness.

To deal effectively with low frequency noise, conventional exhaust silencers are usually large, and of the reactive type, dimensions being governed by the wavelengths of the particular frequencies involved. The size is further dictated by the amount of the exhaust gas flow, which, in the case of the MB430M amounts to approximately one hundred and fifty tons per hour.

Coupled to the need for a low restriction or back pressure against the gas flow, designers would find themselves tightly constrained by conventional technology.

To handle with these constraints, ALSTOM Engines Ltd. Mirrlees Blackstone have in the past used the best technology available to them, and as a consequence have on their site some of, if not the largest silencers, in current use on diesel engine in the UK.

However, their latest test bed silencers for their new engine, are now some 40% smaller in volume than their existing units, with greater attenuation and lower back pressure thanks to Silentor of Denmark.

Utilising their well proven, and highly efficient, aerodynamic diffuser technology, Silentor deal effectively with the low frequency noise, whilst avoiding the back pressure penalties imposed by conventional silencing techniques.