

Technology Development Board has entered into an agreement on 24th March 2018 with M/s Abilities India Piston and Rings Ltd, New Delhi for financial Assistance for the project “Technology Adaption and Manufacturing of BS VI Quality Standard Piston”.

The company was founded over 40 years ago and today is a leader in the production of pistons and rings for automobiles (two and three wheelers), chainsaws, brush cutters, agriculture sprayers and compressors. It is a major supplier to OEMs for many reputed vehicles and engine manufacturers in India and abroad, including Japan, USA, China and Europe. Currently 60 % of the total turnover of the company is from exports.

The company has adopted, and is also enhancing, a new technology for Electroless plating of Nickel Phosphorous Boron (Ni-P-B) Coating on intricate shaped light weight pistons to enable conformance to BS IV standards at a globally competitive price. The coating has unique features and is also suitable for Indian conditions. The process has no generation of fumes/smokes, has lower energy consumption and requires lesser amount of water. It has good tribological properties due to dendritic/amorphous structure that retains oil by capillary action (self-lubricating property/ anti galling). The technology will support the OEMs to meet new emission norms since the new designed pistons will be 10% -15% less in weight. Also the thermal barrier, Nickel based coating, will provide enhanced thermal and tribological properties like low coefficient of friction, high wear resistance and high corrosion resistance.

The new technology pistons are presently being successfully used globally in auto and off high segment applications such as high speed garden and lawnmower engines and high end bikes. The present process is a cost effective technology compared to other global competitors and is a green and energy saving technology. This can be seen as a better solution considering the increased use of non-fossil alternate fuels.



Exchanging the Loan Agreement with M/s Abilities India Pistons & Rings Ltd., Delhi

#TDB support # M/s Abilities India Pistons & Rings Ltd., Delhi for “Technology Adaption & Manufacturing of BS VI Quality Standard Pistons”.