

## Al-7.5%Mg 벌크소재의 정수압 압출특성에 관한 연구

윤창용<sup>†</sup>(경희대) · 이경엽\* · 이상목\*(한국생산기술연구원) · 박훈재 · 김응주**A Study on the Hydrostatic Extrusion Characteristics for Al-7.5%Mg nano-grained bulk material**

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**Key Words:** Hydrostatic Extrusion(정수압압출), Bulk Matial(벌크소재)**Abstract :** This paper deals with the hydrostatic extrusion to make the nano-grained bulk material. Hot hydrostatic extrusion was performed using the hipped bulk Al-7.5%Mg. in order to investigate the effect of the hot hydrostatic extrusion on the nano-grained material. Tensile and compressional properties of the hipped and the extruded materials were compared to each other. The micro-structures of both materials were also examined.

## 선박용 디젤기관의 크랭크핀 볼트 파손사고에 대한 연구

김종호<sup>†</sup>(한국해양대)**A Case Study on the Failure of Crank Pin Bolts for Marine Diesel Engine**

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**Key Words:** Marine Diesel Engine(선박용 디젤기관), Crank Pin Bolt(크랭크핀 볼트), Connecting Rod Bolt(연접봉 볼트), Failure(파손), Fatigue Fracture(피로파괴), Ductile Fracture(연성파괴), Metal Flow(금속 섬유소), Thread Rolling(전조),**Abstract :** Any failure of crank pin bolt of marine diesel engine must be regarded as serious, and any steps which can be taken to prevent such failure are desirable.

The purposes of this study is to investigate and to analyse the failure causes of crank pin bolt of marine diesel engine. If this paper has accomplished that end it can be counted as being of some slight value to the marine industry.