

Radoljub Tomić, Ph.D. IHP "PRVA PETOLETKA", R&D, Trstenik, Yugoslavia

THE NATURAL FREQUENCY ANALYSIS OF THE GEAR PUMP HOUSING WITH HIGH PRESSURE

UDC: 62.213.3; 531.3.

In this paper, the theoretical aspects of dynamic structural analysis are considered and a numerical example is analyzed for the gear pump housing with high pressure. The basic model of the structure is based on the 3D elements in COSMOS software.

The results of natural frequencies and modes of oscillations are represented in graphic forms.

*Key words: gear pump housing, dynamic analysis, natural frequency,
modes of oscillations*

ANALIZA SOPSTVENIH FREKVENCI KUĆIŠTA ZUPČASTE PUMPE VISOKOG PRITISKA

U radu je teorijski analizirano kućište zupčaste pumpe visokog pritiska sa teorijskog aspekta dinamičkih metoda strukturalne analize i dati su numerički primeri. Struktura je modelirana 3D elementima u programskom paketu COSMOS. Rezultati sopstvenih frekvenci i modovi oscilovanja su grafički predstavljeni.

*Ključne reči: kućište zupčaste pumpe, dinamička analiza, sopstvene frekvence,
modovi oscilovanja.*