

ABSTRACT. In this paper we study operators of the form  $M(\phi) = T(\phi) + H(\phi)$  where  $T(\phi)$  and  $H(\phi)$  are the Toeplitz and Hankel operators acting on  $\ell_2$ . We investigate the connection between Fredholmness and invertibility of  $M(\phi)$  for functions  $\phi \in L^\infty(\mathbb{T})$ . Using this relationship we establish necessary and sufficient conditions for the invertibility of  $M(\phi)$  with piecewise continuous  $\phi$ . Finally, we consider several stability problems related to  $M(\phi)$ , in particular the stability of the finite section method.