

HIGHER TECHNICAL INSTITUTE

MCHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

DESIGN AND MANUFACTURING OF AN
IMPACT RESISTANCE KINETIC PROJECTILE

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Design and manufacturing of an impact resistant
kinetic projectile

By

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Project report

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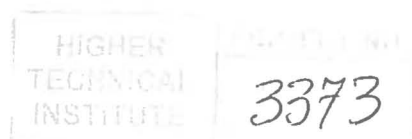
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ABSTRACT

The purpose of this project was to study and manufacturing an impact resistant kinetic projectile. In case of us the projectile that examine is a bullet *12.7mm (.50in)*

The shape, aerodynamic of bullet is not change but the inside and the main frame (body) are examine.

The general ideas is to replace the hard steel of bullet with tungsten alloys.

Tungsten alloys will give highest penetration compering with the regular prototype. Penetration is very importance to achieve , because the technology today has made cover plates with steels for chariots. The object is to achieve as high degree of penetration and make as possible the highest damage to the enemy.

At first the general ideas of bullet was to kill the enemy as possible and make the highest wound at human body for this use bullet like *7.62 mm and 5.6 mm* are for use.

One of the major strategies in battle was not to kill the enemy soldier but make it a large wound so the others soldier will try to help the wood soldier or try to carried away or other will scare so morale will be down.

Examine this bullet *5.6-7.62mm* we seen other use of bullet.

The internal frame of bullet is having lead and the abject of lead is to cut the éntails of human body as passing throughout.

Another object of lead is to effect infect when stay in body. Is most common that lead is a radiation material so must keep cover.

The major use of lead is that is one of the heavier material so is giving a weight in bullet to fly far away.

The *12.7mm* bullet is in the middle of two categories.

Is the larger diameter (*5.6mm, 7.62mm, 12.7mm*) in normal type of bullet that can be use to kill soldier with common structure like the one with lead.

The second categories are the bullet that ,the use is not only to kill soldier but they use them to destroy any battle machine like aeroplane, soldier carried car and other defence staff with protect structure.

This size *12.7* in this category is the smallest.

To be in the middle is having a major advantage *12.7mm* is having sub-categories for many different use.

In this project we are going to observe the sub-category that dealing with the penetration.