A Numerical study on ballistic performance of RHA steel plate against 7.62 mm AP Projectile

Reviewer 1: --

1. In several sections sentences has spelling and grammar mistakes, which needs to be corrected.
2. In several sections sentences has space problem, which needs to be corrected.
3. Proper sentence construction in several sections to be modified.

Actual	Suggested
The ballistic behaviour of RHA is appraised	The ballistic behavior *of* RHA is appraised
Projectile with hardened steel core.	*Projectile with the hardened steel core*
thickness by conducting a series of simulation	*thicknesses by conducting a series of simulations*
ballistic limit properties with lower weight to get high	ballistic limit properties with a lower weight to get a high
study the influence of ballistic impact	study the influence of the ballistic impact
knowledge on failure mechanism should be	knowledge of the failure mechanism should be
time and cost in conducting multiple	time and cost of conducting multiple
though it cannot completely eliminate trials	though it cannot eliminate trials
of the critical aspects in the simulation	of the critical aspects of the simulation
values are fitted so as to match with	values are fitted to match
the results shows that simulation with	the results show that simulation with
on three defeating mechanism of the target	three defeating mechanisms of the target
hardness against 7.62mm AP projectile were determined	hardness against 7.62mm AP projectile was determined
having hardness of 50HRC gives the best ballistic	having a hardness of 50HRC gives the best ballistic
AP projectile at normal impact angle	AP projectile at a normal impact angle

considered for front layer, namely, alumina	considered for the front layer, namely
consideredfor backing layer, namely, aluminium	considered for the backing layer, namely, aluminum
the available experimental data from literature.	the available experimental data from the literature.
based on probabilistic distribution of perforation	based on the probabilistic distribution of perforation
plates were 20-30% thicker if probability of perforation	plates were 20-30% thicker if the probability of perforation
The authors investigated the scope of damage	The authors investigated the scope of the damage
by means of service shot test	using a service shot test
armour steel plates of same thickness	armour steel plates of the same thickness
protection in case of light armoured vehicles	protection in the case of light armored vehicles.
at normal angle of incidence, using ANSYS	at a normal angle of incidence, using ANSYS
one to one representation of full projectile model	one to one representation of the full projectile model
the material behaviour of the steel targets	the material behavior of the steel targets
with copper sheath. The core has diameter	with a copper sheath. The core has a diameter
with the mass of 5.3g. The mass of projectile	with a mass of 5.3g. The mass of the projectile
penetration is only due to hard steel core	penetration is only due to the hard steel core
armor plate to provide necessary level	armor plates to provide the necessary level
RHA differ as behaviour of plate thickness	RHA differ as to the behaviour of plate thickness
finite elements modelling of projectile	finite element modeling of the projectile
The projectile is modelled as steel	The projectile is modeled as steel
The target plate is modelled as circular	The target plate is modeled as a circular
main interest is the behaviour of impacted	main interest is the behavior of the impacted
Contact condition used between plates and	The contact condition used between plates and
connectivity was applied using pure Lagrangian	connectivity was applied using a pure Lagrangian

failure based erosion criteria is used for	failure based erosion criteria are used for
respectively, but increased projectile length	respectively, but the increased projectile length
the comparison with available experimental	the comparison with the available experimenta
Thus the approximation of projectile	Thus the approximation of the projectile
there is no change in depth of	there is no change in the depth of
projectile with initial velocity of 854 m/s	projectile with an initial velocity of 854 m/s.
thickness works conducted earlier at	thickness work conducted earlier
Thevelocity graph of simplified projectile model with initial	The velocity graph of the simplified projectile model with an initia
The ductile cavity formation behaviour	The ductile cavity formation behavior
it is clearly seen that the projectile penetrates	it is seen that the projectile penetrates

Comments to Editor :

1. After modifying the content, paper can be accepted for possible publication.

Reviewer 2: --

1. Paper should be written in JMCMS Journal format.
2. References and in-text citations are not in JMCMS format. More references should be included and sequentially/adequately arranged, as cited in the text.
3. In many places, sentences are started with abbreviations. When it is introduced for the first time, the full form should be given.
4. Authors need to Modify Abstract and conclusion more appropriately.
5. In section three, sentences end with few numbers of the full stop, which needs to be removed.
6. Conflict of interest regarding article should be mention in the text.

Comments to Editor :

1. After modifying the content, paper can be accepted for possible publication.

Reviewer 3: --

1. Paper should be written in JMCMS Journal format.
2. References and in-text citations are not in JMCMS format. More references should be included and sequentially/adequately arranged, as cited in the text.
3. Authors need to describe the literature survey in introduction section more elaborately
4. The Abstract and conclusion are needed to be Modified in accordance to fulfill the paper aim.
5. Conflict of interest regarding article should be mention in the text.

Comments to Editor :

1. After modifying the content, paper can be accepted for possible publication.

Regards
Editorial Manager

[Note: This is a computer-generated Report hence, no need of any Signature.]