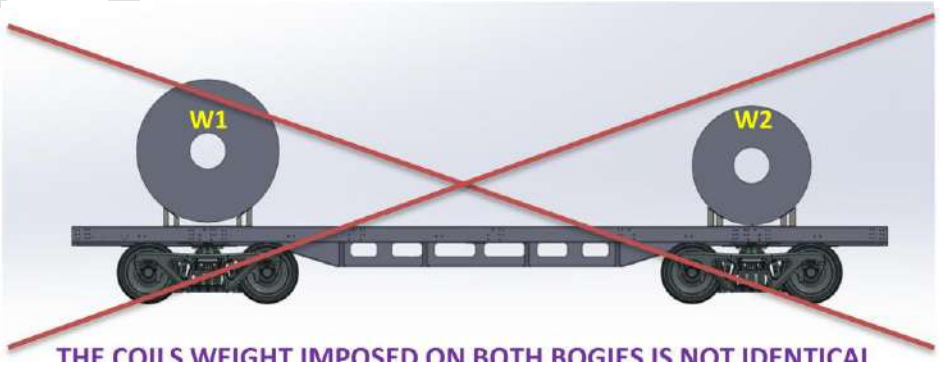
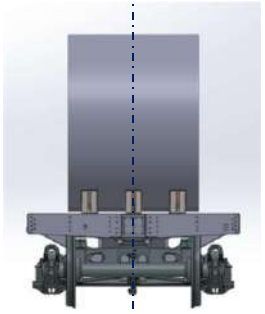
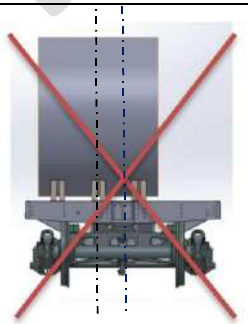
# DOs & DON'Ts FOR LOADING OF STEEL CONSIGNMENT ON WAGONS

(Note: Please refer these guidelines with Compendium of Loading diagram on wagon (Rev. 2) issued vide Letter No. MW/ Loading & Securing dated 13/12/2024)

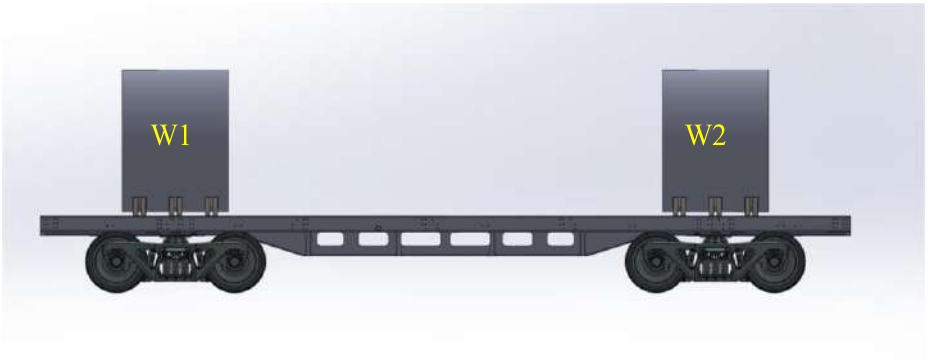
<table>
<tr><th colspan="2">ORIENTATION OF COIL : COIL EYE TO PLATFORM</th></tr>
<tr><th>DOs</th><th>DON'Ts</th></tr>
<tr><td>  <br>CLEARANCE BETWEEN WAGON FLOOR AND BOTTOM OF THE STEEL COIL Minimum 18mm (3/4inch)</td><td>  <br>BOTTOM OF THE STEEL COIL TOUCHING THE WAGON FLOOR</td></tr>
<tr><td> 

<br>THE COILS WEIGHT IMPOSED ON BOTH BOGIES SHOULD BE IDENTICAL.<br>MAXIMUM DIFFERENCE IN COILS WEIGHT, SHOULD NOT BE MORE THAN 2 TON (W1-W2 ≤ 2T)</td><td> 

<br>W1 W2</td></tr>
</table>

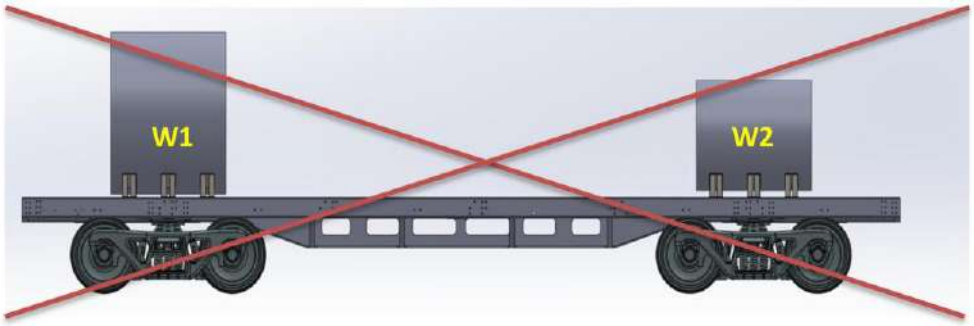
| | |
|---|---|
| | THE COILS WEIGHT IMPOSED ON BOTH BOGIES IS NOT IDENTICAL.<br>MAXIMUM DIFFERENCE IN COILS WEIGHT, IS MORE THAN 2 TON (W1-W2 > 2 T) |
| THE COIL LOADING SHOULD BE SYMMETRICAL ABOUT THE<br>  <br>LONGITUDINAL AXIS<br>OF THE WAGON |  <br>THE COIL LOADING IS NOT SYMMETRICAL ABOUT THE LONGITUDINAL AXIS OF THE WAGON |

| ORIENTATION OF COIL : COIL EYE TO ENGINE | |
|---|---|
| DOs | DON'Ts |



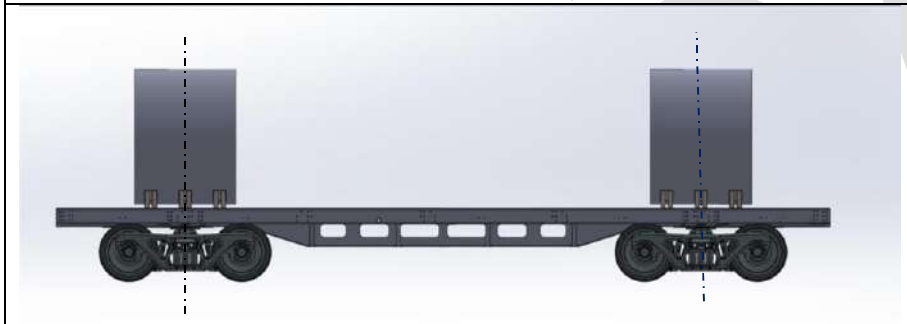

THE COILS WEIGHT IMPOSED ON BOTH BOGIES SHOULD BE IDENTICAL.

MAXIMUM DIFFERENCE IN COILS WEIGHT, SHOULD NOT BE MORE THAN 2 TON (W1-W2 ≤ 2T)

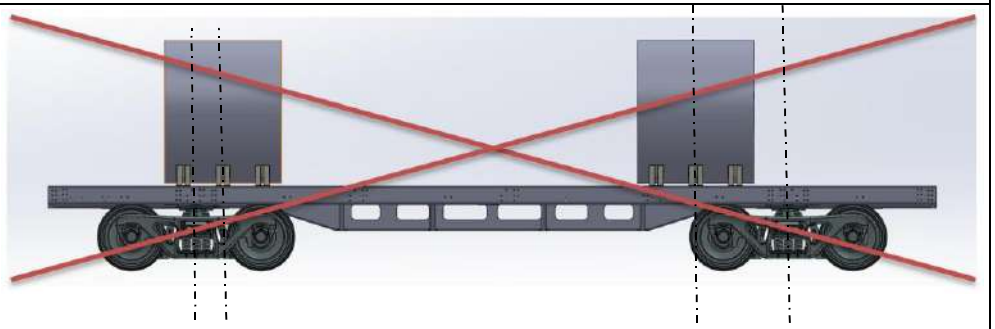



THE COILS WEIGHT IMPOSED ON BOTH BOGIES IS NOT IDENTICAL.

MAXIMUM DIFFERENCE IN COILS WEIGHT, IS MORE THAN 2 TON (W1-W2 > 2 T)

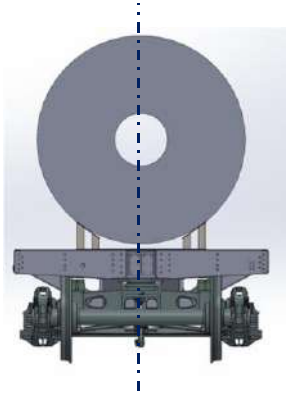


THE COIL CENTRE LINE IS COINCIDING WITH BOLSTER CENTRE LINE (i.e. SYMMETRICAL LOADING)

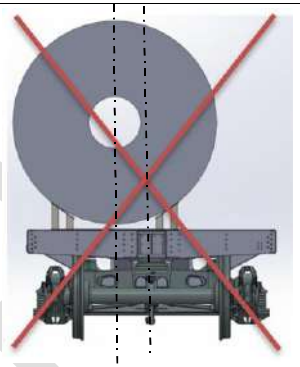


THE COIL CENTRE LINE IS NOT COINCIDING WITH BOLSTER CENTRE LINE (i.e. ASYMMETRICAL LOADING)

THE COIL LOADING SHOULD BE SYMMETRICAL ABOUT



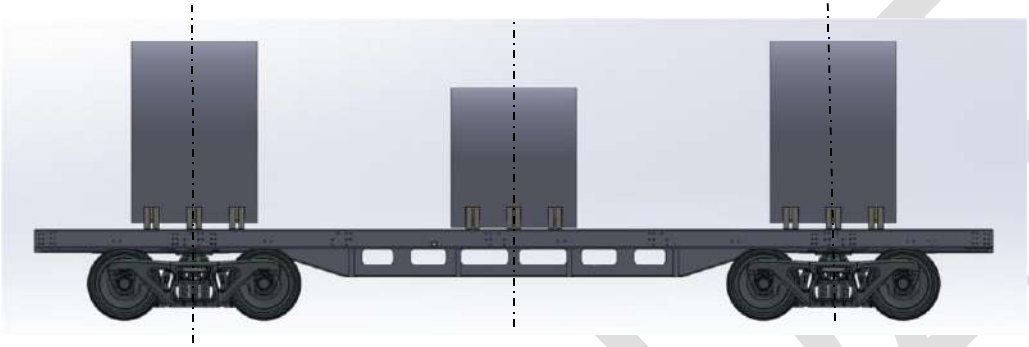
LONGITUDINAL AXIS OF THE WAGON.



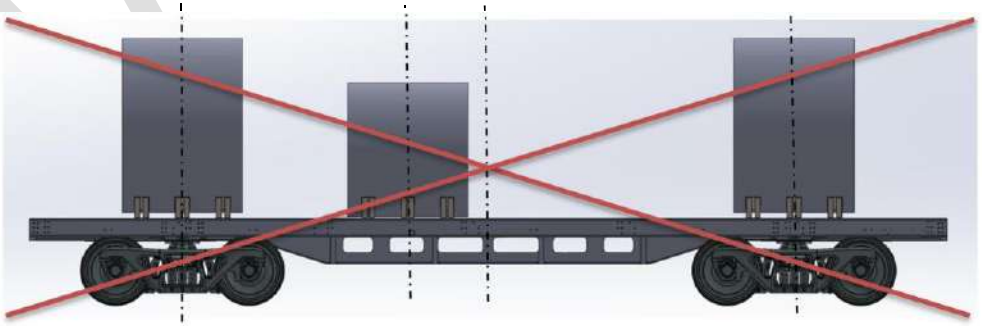
THE COIL LOADING IS NOT SYMMETRICAL ABOUT THE LONGITUDINAL AXIS OF THE WAGON

## DOs

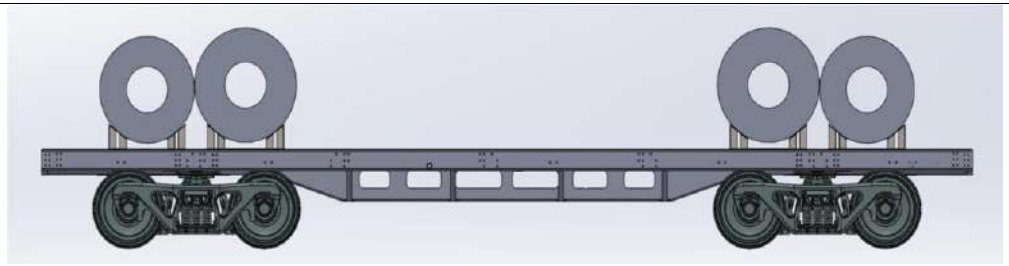
## DON'Ts



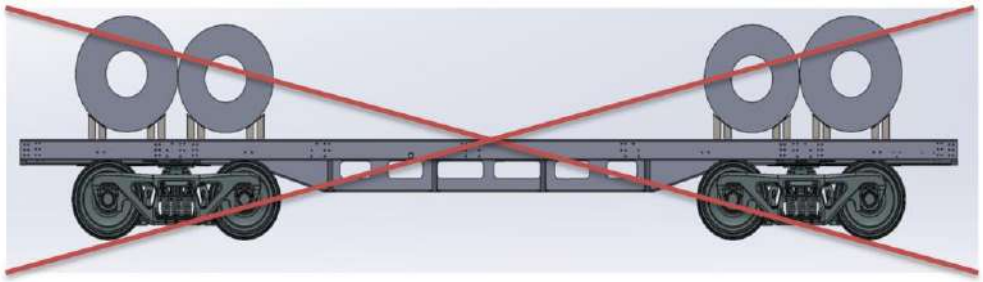
THE COIL CENTRE LINE IS COINCIDING WITH WAGON CENTRE LINE (SYMMETRICAL LOADING)



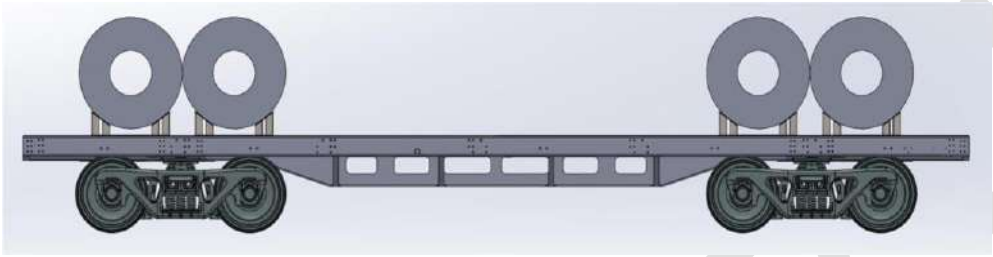
THE MIDDLE COIL CENTRE LINE IS NOT COINCIDING WITH WAGON CENTRE
LINE (ASYMMETRICAL LOADING)



IN CASE OF UNITIZED COIL LOAD, HEAVIER COIL SHOULD BE LOADED TOWARDS
THE CENTRE OF WAGON



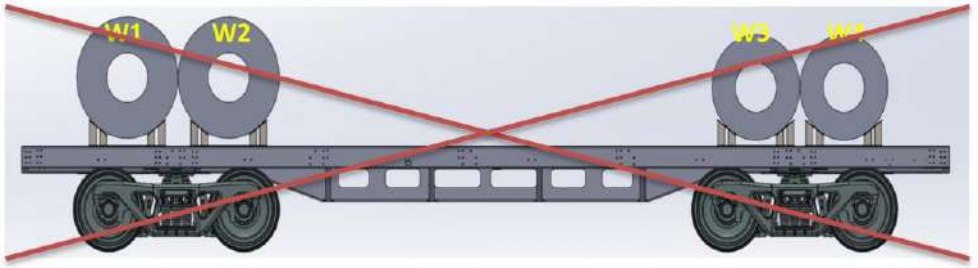
IN THIS CASE OF UNITIZED COIL LOADING, LIGHTER COIL IS LOADED
TOWARDS THE CENTRE OF WAGON



W1 W2 W3 W4

THE UNITIZED COILS WEIGHT IMPOSED ON BOTH BOGIES SHOULD BE IDENTICAL.

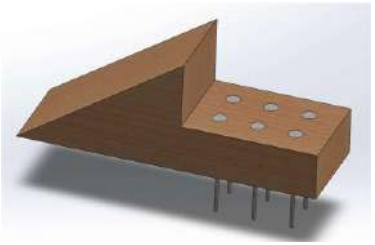
MAXIMUM DIFFERENCE IN UNITIZED COILS WEIGHT, SHOULD NOT BE MORE THAN 2 TON
$(W1+W2) - (W3+W4) \leq 2T$

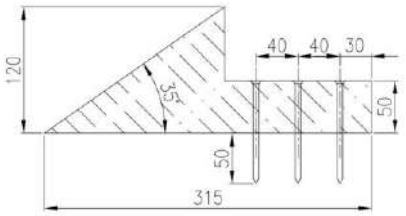



THE UNITIZED COILS WEIGHT IMPOSED ON BOTH BOGIES IS NOT IDENTICAL.

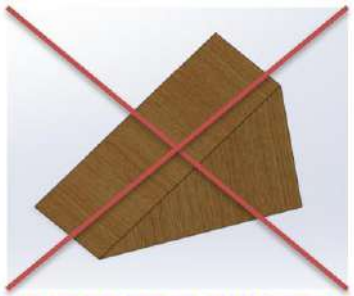
MAXIMUM DIFFERENCE IN UNITIZED COILS WEIGHT, IS MORE THAN 2 TON
$(W1+W2) - (W3+W4) > 2T$

| DOs | DON'Ts |
|---|---|





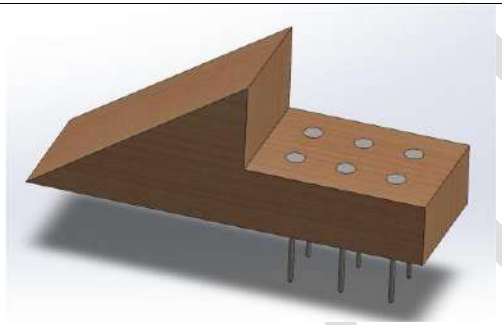

WOODEN WEDGE WITH NAILS SHOULD BE USED TO SECURE THE STEEL COIL ON WOODEN CRADLE



SECURING ARRANGEMENT OF WEDGE ON WOODEN CRADLE IS MISSING.

# RECOMMENDED ITEMS FOR LOADING AND SECURING OF STEEL CONSIGNMENTS


WOODEN CRADLE



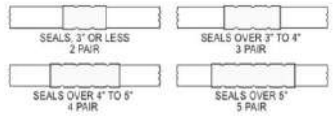
WOODEN WEDGE WITH NAILS

REFERENCE SPECIFICATION OF STEEL STRAP :
EN13247:2001

HIGH TENSION STEEL STRAPS ARE USED FOR LASHING AND BINDING

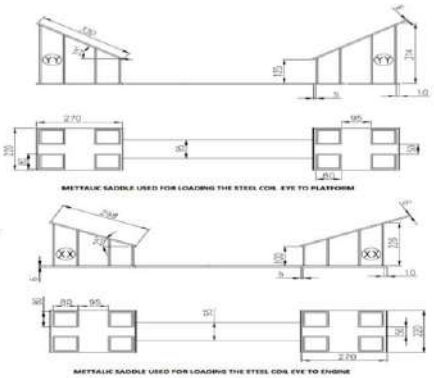
| WIDTH X THICKNESS (mm) | MINIMUM BREAKING STRENGTH (KN) |
|---|---|
| 31.75 x 1.27 | 43 |

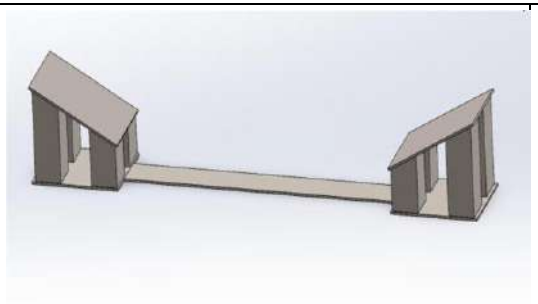
TENSIONAL STEEL STRAP




MINIMUM TWO NO. OF CRIMPS SHALL BE APPLIED. PROPER FORMED SEAL JOINTS ARE ESSENTIAL TO ACHIEVE MAXIMUM BAND HOLDING STRENGTH. FOR CRIMP OR NOTCH TYPE JOINTS, THE APPROPRIATE TYPE OF SEAL AND PRESCRIBED NUMBER OF CRIMPS OR NOTCH PAIRS MUST BE APPLIED.

NOTCH CONDITION ON STRAP JOINT





METALLIC SADDLE SHALL BE AS PER RDSO DRAWING NO.WD-24036-S-01

METALLIC SADDLE

STEEL COIL LOADED ON WOODEN CRADLE

STEEL COIL LOADED ON METALLIC SADDLE

# LOADING OF BAG COMMODITY IN COVERED WAGON

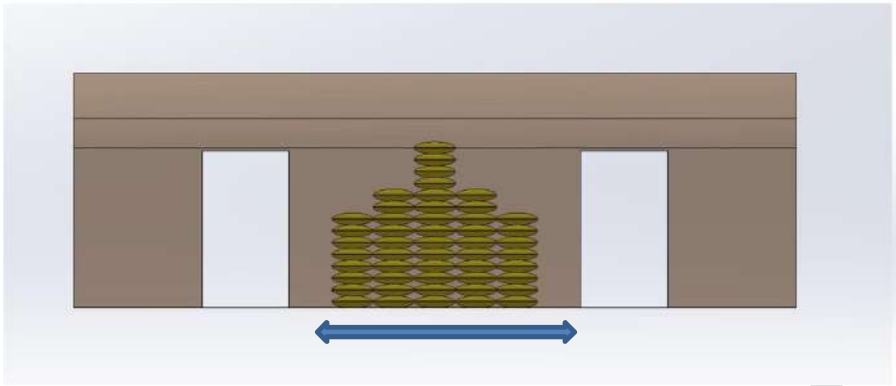
&

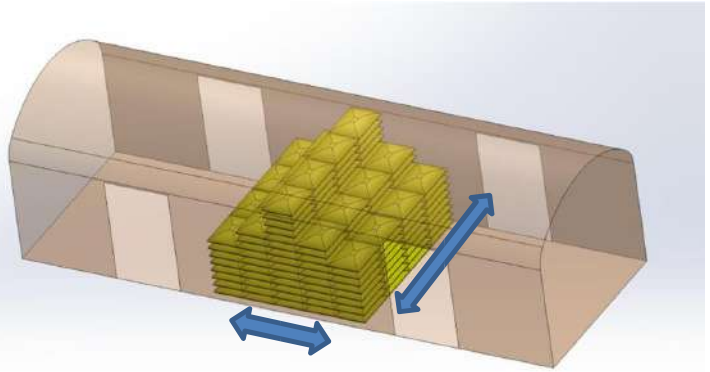
# DOs & DON'Ts FOR LOADING/UNLOADING OF BAG COMMODITY IN COVERED WAGONS

(Please refer RDSO letter no.MW/BCNHL dt.13.01.2025 for correct loading/unloading procedure for covered wagon)

STAGE-01:

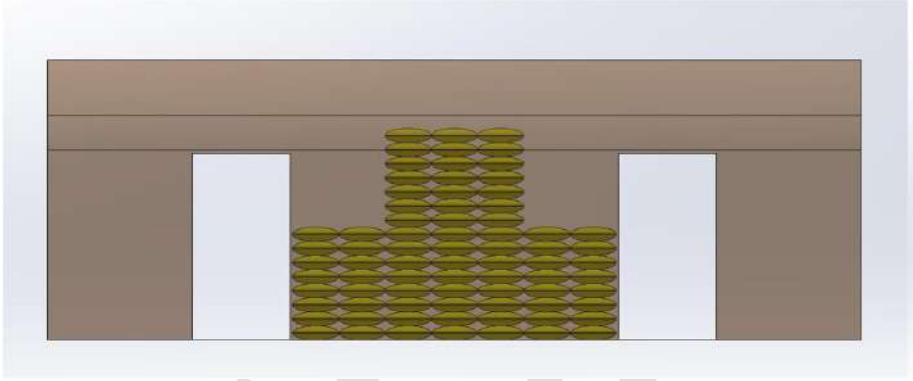
STARTS LOADING OF BAGS FROM MIDDLE OF WAGON AND LOAD SYMMETRICALLY TOWARDS END WALLS AND SIDE WALLS.

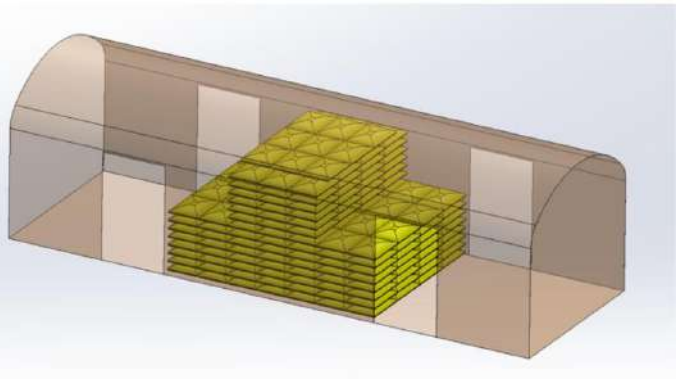




STAGE-02:

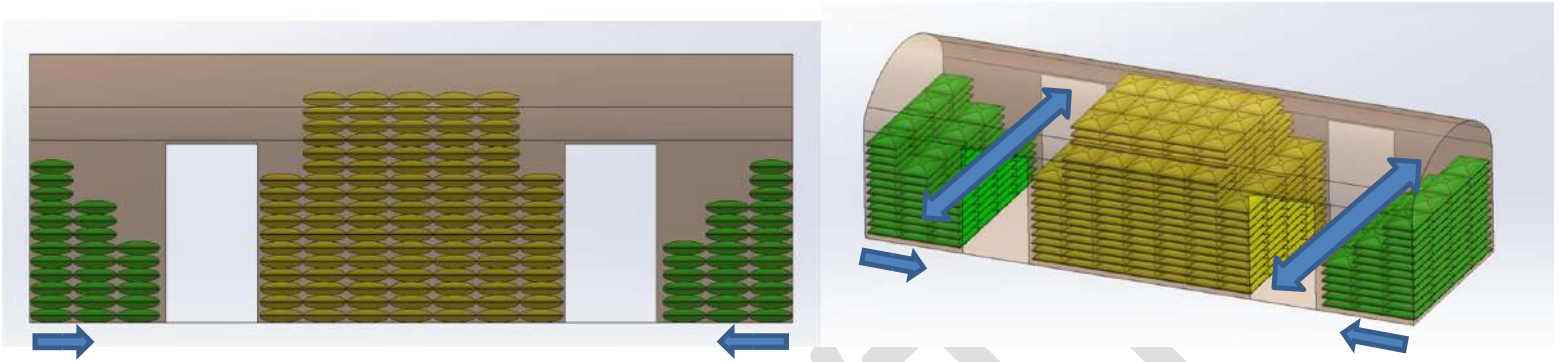
LOADING/UNLOADING OF BAGS SHALL BE DONE IN UNIFORM MANNER BY LOADING/UNLOADING OF ONE COMPLETE LAYER OF BAGS AT A TIME.





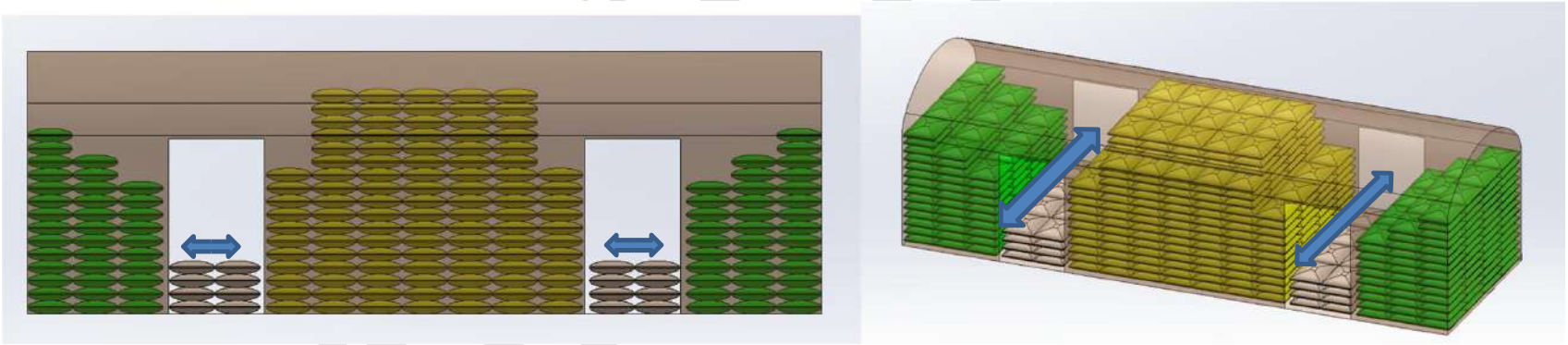
STAGE-03:

AFTER COMPLETION OF LOADING IN CENTRE PORTION (YELLOW COLOURED BAGS), LOADING ON BOTH ENDS (GREEN COLOURED BAGS) SHALL BE STARTED SIMULTANEOUSLY IN UNIFORM MANNER.



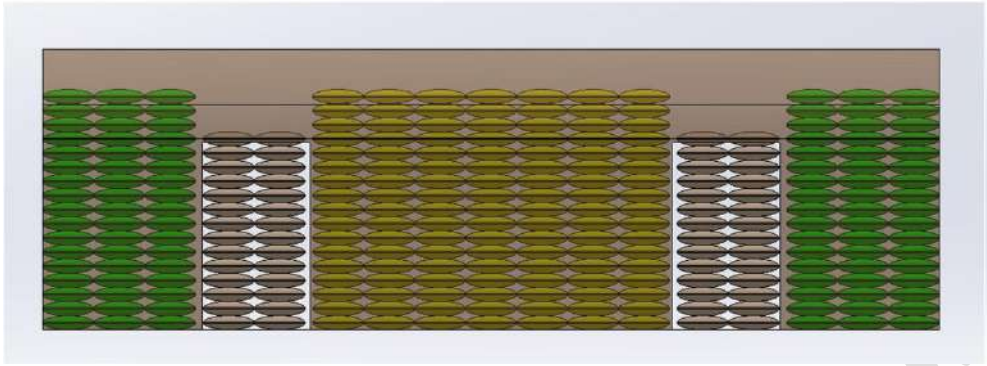
STAGE-04:

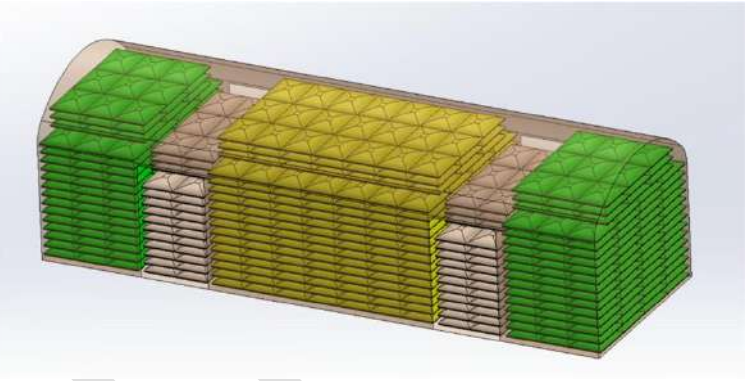
AFTER COMPLETING END PORTION LOADING, LOADING IN DOOR WAYS AREA (BROWN COLOURED BAGS) SHALL BE DONE SIMULTANEOUSLY IN UNIFORM MANNER.



STAGE-05:

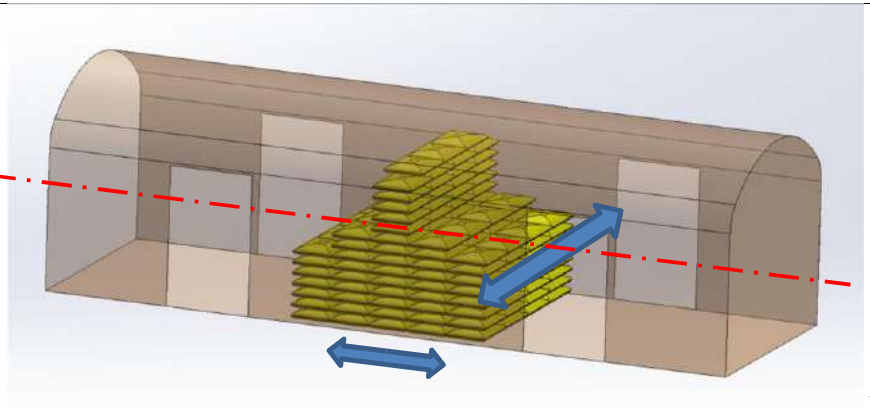
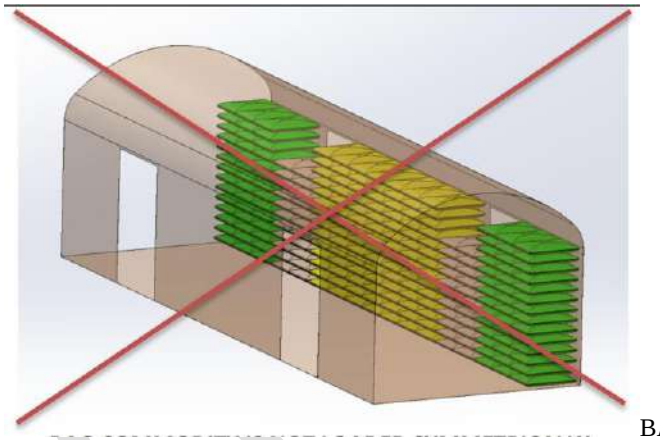
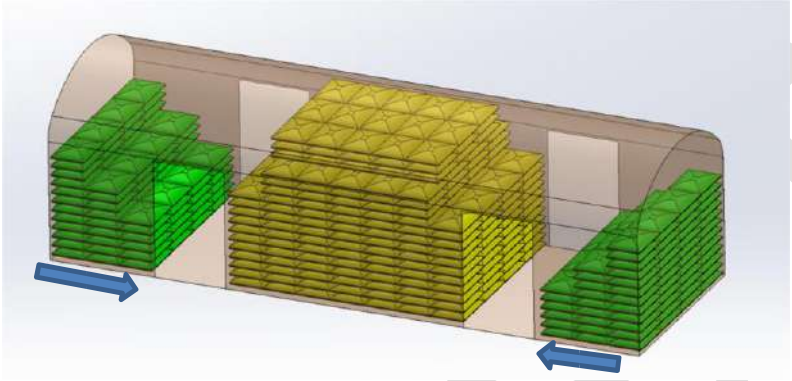
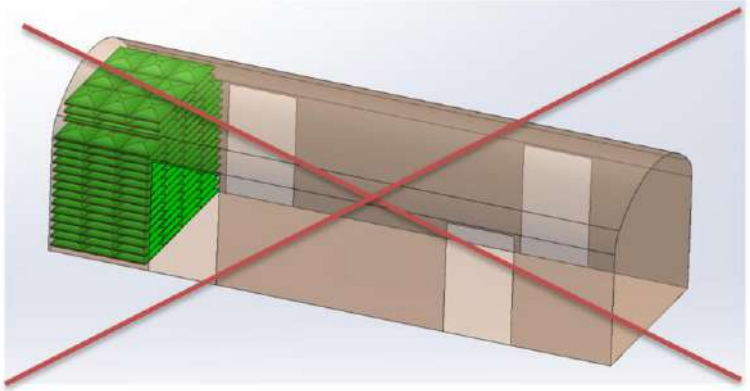
LOADING DIAGRAM ISSUED BY RDSO SHALL BE FOLLOWED FOR DETAILS LIKE TOTAL NUMBER OF BAGS, NUMBER OF STACKS, GAP ETC.



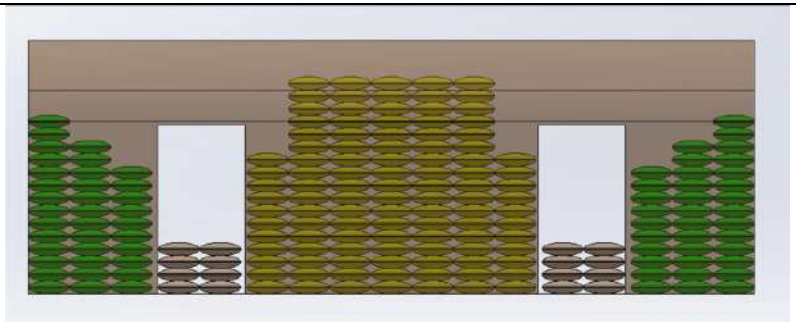
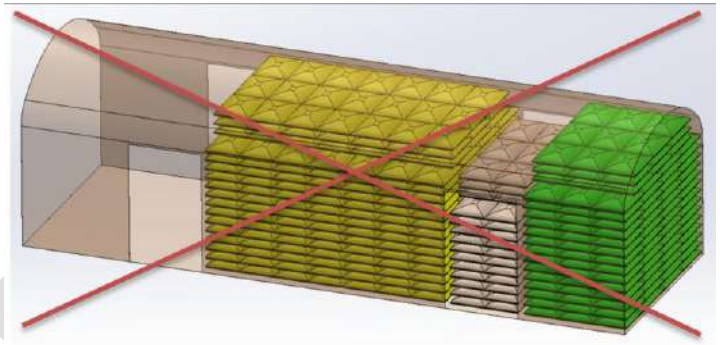
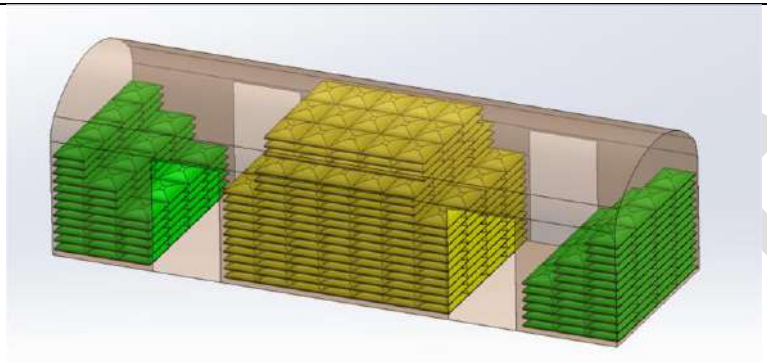
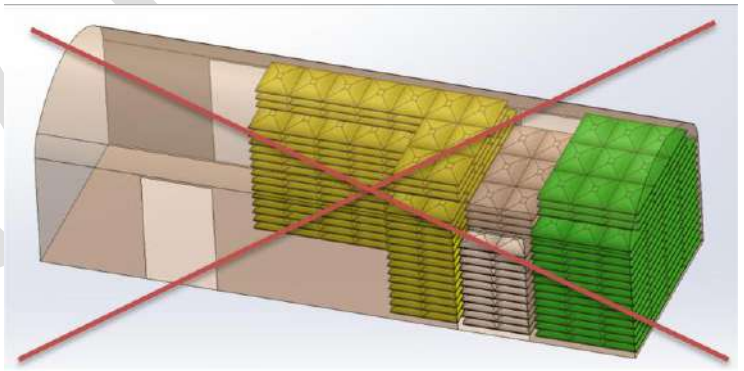
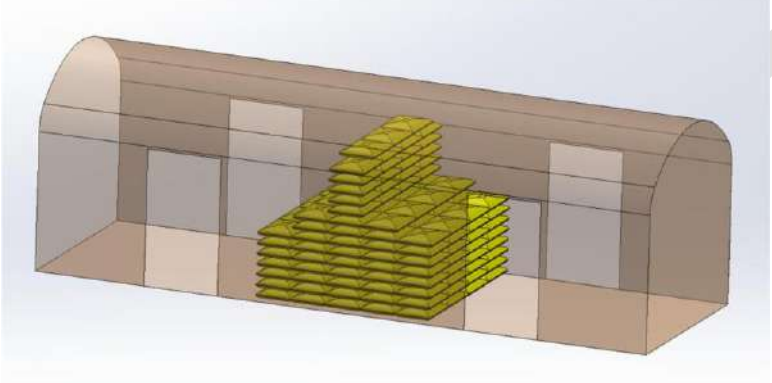
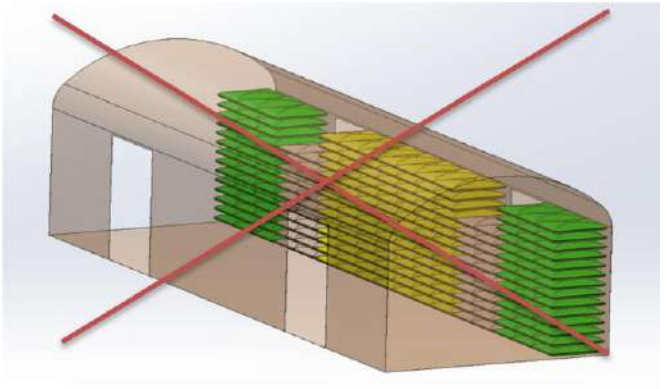


## DOs & DON'Ts OF BAG CONSIGNMENT LOADING/UNLOADING IN COVERED WAGONS

| LOADING OF BAG COMMODITY IN COVERED WAGON | |
|---|---|
| DOs | DON'Ts |

| | |
|---|---|
|  <br>BAG COMMODITY SHOULD BE LOADED FROM BOTH DOORS AND LOAD SHOULD BE SYMMETRICAL ABOUT THE LONGITUDINAL CENTRE LINE OF WAGON. |  <br>BAG COMMODITY IS NOT LOADED SYMMETRICALLY. |
|  <br>BAG COMMODITY SHOULD BE LOADED FROM BOTH DOORS IN MID PORTION OF WAGON AND THEN END PORTION SHOULD BE LOADED SIMULTANEOUSLY. |  <br>LOADING OF BAG COMMODITY UNSYMMETRICALLY, BEING DONE AT ONE END. |

| UNLOADING OF BAG COMMODITY FROM COVERED WAGON | |
|---|---|
| DOs | DON'Ts |

| | |
|---|---|
|  <br>STARTS UNLOADING BAG COMMODITY FROM DOORS SIMULTANEOUSLY AND THEN STARTS UNLOADING FROM END PORTION. ONE COMPLETE STACK SHOULD BE UNLOADED AT A TIME. |  <br>UNSYMMETRICAL UNLOADING MAY LEAD TO UNBALANCED LOAD DISTRIBUTION IN WAGON/TILTING ETC. |
|  <br>AFTER DOOR PORTION BOTH ENDS SHALL BE UNLOADED SIMULTANEOUSLY IN UNIFORM MANNER BY REMOVING ONE COMPLETE STACK AT A TIME. |  <br>UNSYMMETRICAL UNLOADING. |
|  <br>CENTRE PORTION OF WAGON SHALL BE UNLOADED AT LAST IN UNIFORM MANNER BY REMOVING ONE COMPLETE STACK AT A TIME. |  <br>UNSYMMETRICAL UNLOADING. |