



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35.



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DEPARTMENT OF AUTOMOBILE ENGINEERING

COURSE NAME : 19AUE308 - SPECIAL VEHICLES

III YEAR /VI SEMESTER

Unit 4- Cranes and Special Utility Vehicle

Topic 4 : Fork Lift Truck - Alternative Front End Attachments



CONTENT



- Introduction to Fork Lift Truck.
- Need for Fork Lift Truck attachments
- Fork lift Attachments
 - Fork Extension
 - Barrel Fork
 - Squeeze Clamp
 - Jib arm
 - Shovel Bucket
 - Boom



INTRODUCTION



- Forklift is a small industrial vehicle, having a power operated forked platform attached at the front.
- It can be raised and lowered for insertion under a cargo to lift or move it.
- Forklifts serve the needs of various industries including warehouses etc.
- Forklifts are powered by electric battery or combustion engines.

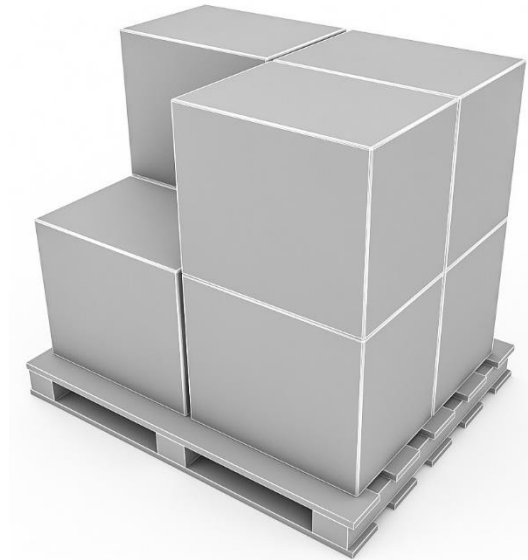




NEED FOR FORK LIFT ATTACHMENTS



- The materials are available in different shapes.
- It is tough to carry the load with normal fork.
- So for carrying the load which is in different shapes, the different attachments were used.





VARIOUS FORKLIFT ATTACHMENTS



- Fork Extension
- Barrel Fork
- Squeeze Clamp
- Jib arm
- Shovel Bucket
- Boom





FORK EXTENSION



- It is attached to the regular forks for added lifting capacity and stability.
- Forklift extenders make it easier for trucks to handle large and odd-shaped loads.
- They also provide stability and reduce the risk of damage to the load.





FORK EXTENSION



- It offers a cost-effective way to get more length.
- They are best suited for occasional large loads that need a longer fork.
- Fork extensions are made for light bulky loads.
- If the load exceeds the maximum load center, longer forklifts are safer than fork extensions.





BARREL FORK



- It is difficult to grab the cylindrical object by using conventional fork.
- Barrel fork is attached to the fork lift truck to grab cylindrical object.
- It make it easier for trucks to handle cylindrical object.





BARREL FORK



- The main advantage is that the cylindrical object is grabbed tightly.
- So, the material handling is good compared to the normal fork.
- It is used in warehouses.





SQUEEZE CLAMP



- It is difficult to grab the improper shaped object by using conventional fork.
- Squeeze clamp is attached to the fork lift truck to grab improper shaped objects.
- It make it easier for trucks to improper shaped objects.





SQUEEZE CLAMP



- The material handling is good compared to the normal fork.
- It is used in warehouses.
- It can grab the objects of all shapes.





JIB ARM



- Jib arm is used to carry the materials and transport to required place
- It is used to hold the weight objects for more time.
- The material is carried by means of a hook.





SHOVEL BUCKET



- The Shovel bucket is used to carry and transport the loosen materials.
- It is used in warehouses.
- Easy to handle





BOOM



- The Boom is attached to the forklift truck to grab the object in the height places.
- It provides the variant heights.
- Used in Warehouses





REFERENCE



- ❖ <https://en.wikipedia.org/wiki/Forklift>
- ❖ <https://www.youtube.com/watch?v=ZcATrAwOG64&t=35s>
- ❖ <https://www.youtube.com/watch?v=d1aIuUkvzcE>



1. What is the use of Squeeze clamp
2. Mention the attachment used to grab cylindrical objects.
3. What is the name of the attachment used to carry lengthy objects?

ASSESSMENT





THANK YOU !!!