



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35.



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Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.

DEPARTMENT OF AUTOMOBILE ENGINEERING

COURSE NAME : 19AUE308 - SPECIAL VEHICLES

III YEAR /VI SEMESTER

Unit 3- Agricultural Vehicles

Topic : Paddy Plantation Machine



CONTENT



- Introduction
- Need for Paddy Plantation Machine
- Components
- Construction & Working
- Advantages & Disadvantages
- Applications
- Manufacturing Companies



INTRODUCTION



- It is a specialized transplanter fitted to transplant rice seedlings onto paddy field.
- Mainly two types of rice transplanter used namely riding type and walking type.
- Rice transplanters were first developed in Japan in the 1960s.
- In Japan, development and spread of rice transplanters progressed rapidly during the 1970s and 1980s.





NEED FOR PADDY PLANTATION MACHINE



- Paddy Plantation normally needs more man power.
- The increase of man power increases the operating cost.
- Manual process requires more time.
- In order to overcome this, the paddy Plantation machine can be used.

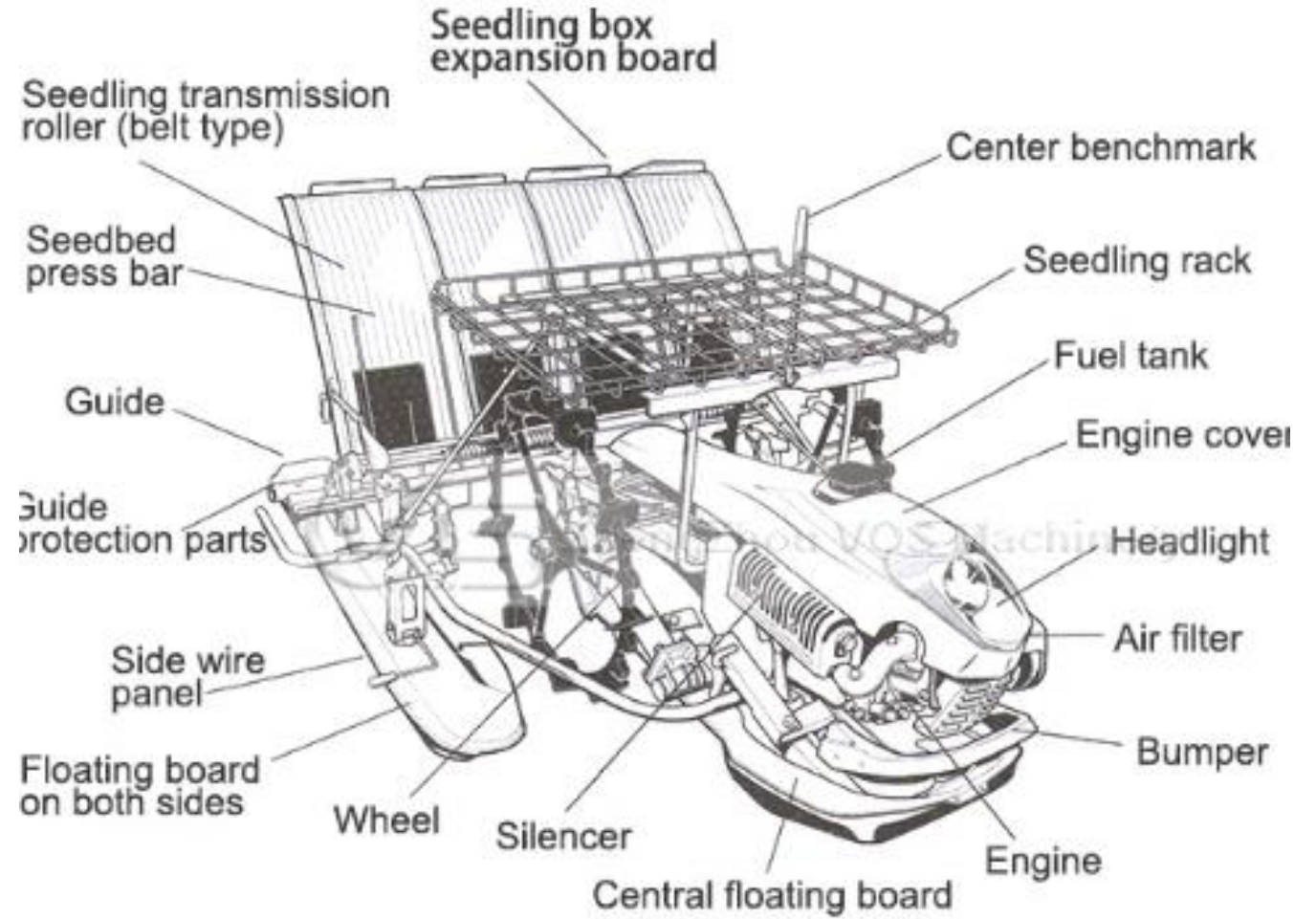




COMPONENTS



- A seedling tray
- Plural pickup forks
- A seedling tray shifter





CONSTRUCTION



- The rice transplanter consists of prime mover, transmission, engine, float, lugged wheels, seedling tray, seedling tray shifter, pickup fork and pickup fork cleaner.
- The planting depth and hill-to-hill spacing can be adjusted.
- Automatic depth control helps in maintaining uniform planting depth.
- The machine has safety clutch mechanism, which prevents break down of planting device from the impact against stones in the field.





WORKING PRINCIPLE



- For operation, the machine is transported to the field and mat type nursery is loaded in the tray of the transplanter.
- The machine is put in transplanting mode and operated in the puddle field.
- If the transplanting is in order the machine is operated in normal transplanting operation.





ADVANTAGES



- Easy to Harvest
- Reduces Harvesting Time
- Reduces man power





DISADVANTAGES



- Requires proper maintenance.
- High Cost.





APPLICATION



- For the purpose of planting paddy in the field





MANUFACTURING COMPANIES



- Kubota
- Sakthiman
- Yanmar



Kubota



1. Mention the components of Paddy Plantation Machine.
2. Why Paddy Plantation Machine is needed?
3. What is the cost of Paddy Plantation Machine?

ASSESSMENT





REFERENCE



- ❖ https://en.wikipedia.org/wiki/Rice_transplanter
- ❖ https://www.youtube.com/watch?v=lmRbq_SV4C4



THANK YOU !!!