

Averagely Two Bottom Reversible Plough

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Abstract - In the field of agriculture there is a remarkable development, the farmers are using plough, harvester, tractors and advance farm equipment's. Plough is one of the very important agricultural equipment and thus the various parts of plough such as frame, shaft, tilting mechanism, mould board should be reliable and strong. In this project, various parameters are identified for optimum design of two bottom reversible plough. We have done the design of existing shaft and checked the existing design of shaft. Also the modeling of shaft is done for further analysis.

- 3) Step link Decrease when furrowing
- 4) Fan Slop-Decrease Tractor Load Decrease
- 5) When Rotating small amount of rest /stop then start rotating
- 6) Box Bar increasing capacity less.
- 7) Affordable Price

1.INTRODUCTION

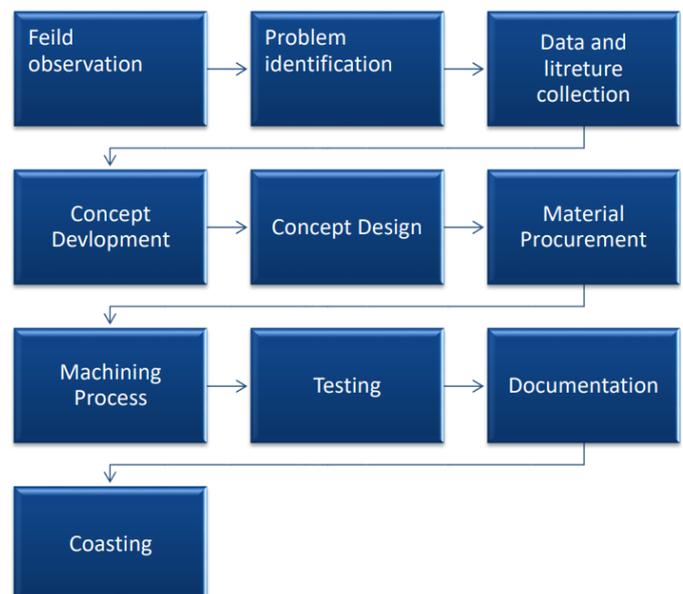
In last few decades we all are witnessing the development in each and every field of life. In the field of agricultural also we had seen remarkable development, farmers of developed nations are now a day's using harvester, tractor, advance machine tools and advance farm equipment's but country like India most of the farmers are still using traditional method of farming may be because of poor financial conditions or unavailability of cheap and reliable farm equipment's. Farmers are facing the various problems with the agricultural equipment's viz. High cost, heavier in weight, less reliable, etc, it's also observed that the agricultural equipment's are mostly manufactured by local manufacturing companies and they do not having any R & D facilities also they manufactured the equipment without applying any type of scientific tools, techniques and methods. Therefore there is a need of improved agricultural tools so that it does not get failed at the time of uses.

2. Objective

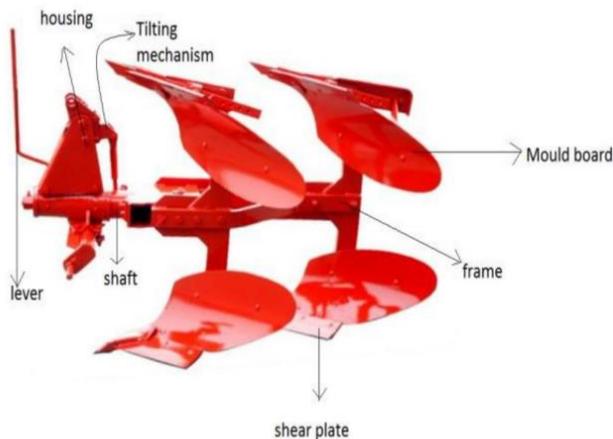
Our aim is to manufacture an affordable plough for farmers so that we can giving more benefits –

- 1) Consume less fuel
- 2) Fever time for Furrowing- Area of furrow Assembly increase

3.METHODOLOGY



5. EXPERIMENTAL SETUP



3.5.1 3D model of Averagely Two Bottom Reversible Plough

6. COMPONENTS

Components are used for manufacturing the plough are:

Sr.no	Components
1.	Tyne
2.	Shaft
3.	Housing
4.	Centre Shaft Rod and Hub
5.	Front Link Bracket Assembly
6.	Top link with U bracket
7.	Fan
8.	J Hook
9.	Stopper Shaft
10.	Spring
11.	Lever
12.	Nut and Bolts

7. WORKING

Firstly we want to attached our plough with tractor by using hydraulic bars with side pin of plough. When we want to furrow land then adjust a horizontal and vertical step link for proper working of plough. then select a side we have to turn a soil by furrow assembly. Then tractor starts and furrowing starts when one round completed after furrowing then we want to tilting a plough by one side for the purpose of common side of soil turning .then we press the lever and tilting mechanism occur. Sometimes we have to increase depth of soil then pressed hydraulic lever by manually same process carry on.

8. EXPECTED OUTCOMES

- Decrease consumption of fuel as compared to other Plough.
- Decrease in furrowing time.
- Tractor run very smoothly. (i.e Run time speed is constant)
- Two time lever press problem solved.
- Cheaper in price than other companies plough.
- Driver will be happy when furrowing.
- Same cultivation result as similar as bullock farming.

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