Abstract: A trash compactor designed for public use is powered by a photovoltaic cell array. This allows the trash compactor to be placed in locations where no power is available, but with frequent human traffic. The compaction feature allows the unit to be emptied less often than a typical trash container. The trash compactor can include a storage system to store power for compaction cycles. A removable bin allows easy removal of the compacted trash. The Solar-Powered Waste Management Bin is a microcontroller-based project that proposes a great improvement of a simple trashcan, which emphasizes the use of solar energy. The concept of this project is about Green Engineering in which the design, commercialization and use of process and products are feasible and economical while minimizing the risk to human health and the environment. In order to achieve the proposed project, RTC will be used.

Keywords: fabrication; hopper; bearing cap; agricultural separator; solar power.

I. INTRODUCTION

The energy of consolidated reaper is typically 9-107 kW, so the machine model ought to be coordinated with the field range. On the off chance that the field is level and tremendous, the vast consolidated sort is great decision, in actuality, a little one is better. As per encouraging way, rice join collector can be partitioned into half-bolstering consolidate reaper and entire sustaining join gatherer. The nature contrast is in various dealing with method for rice straw. For half-nourishing rice collector, just the rice ears are included in the sifting gadget; the documented stubble is low to 6-10 cm. While this kind of join collector is of convoluted sifting and passing on plan, so it is costly and subject to blame. The entire encouraging join gatherer include both rice ears and straw into sifting gadget, after the straws are pulverized, they will be released in the land field. Entire encouraging paddy gathering hardware is of generally low cost and great execution.

There are principally two sorts of forward gadget for rice gatherer, wheel sort and elastic belt sort. The wheel sort is adaptable and vitality sparing while as the wheel has little reaching zone with land, so it makes much weight and do harm to soil. So you can pick the wheel sort gatherer when the land is little and of sandy soil. For elastic belt sort gatherer, it puts low weight to land field and appropriate for expansive wet paddy field with clayed soil. Consolidate reaping hardware coordinates cutting, sifting and cleaning process with high programmed degree. While for some limited reasons, a few regions are habituated to procuring paddy first to dye and after that sift freely. For along these lines, we suggest rice gatherer.
This report aims to capture the key findings following testing of small-scale rice threshing machines with local farmers in rural Karnataka. By reducing the labor intensity of the threshing process, these machines can help to alleviate pressure on rice farmers caused by a labor shortage in the region. Based on discussions with farmers, a number of key factors which determine the suitability of small scale threshers have been developed. Of particular importance are overall threshing rate, portability, cost and performance across different rice varieties. One feed-in threshing machine and two hold-on threshing machines were tested at four different farms. Quantitative measurements of both machine and hand threshing rate were conducted, and a cost analysis was completed. The results of this investigation indicate that a hold-on thresher has good potential to be used by small farms in this region. This machine has a high overall output rate as four people may thresh simultaneously, is about twice as fast as hand threshing, works well across many rice varieties, and is competitively priced. The quality and accessibility of oats in the worldwide market is profoundly reliant on the sifting procedure.

A wrong choice of sifting conditions which for this situation are the machine and product parameters prompts low sifting execution and grain misfortune. Grain/sifting misfortune is measured as far as grain harm while sifting execution is measured as far as sifting proficiency, thresher limit and sifting misfortune. In Africa and all the more particularly Nigeria, the yearly utilization of grain is quick expanding. This rate has tested the indigenous agriculturists' creation volume and is bit by bit getting up to speed with the worldwide market generation. The conspire as appeared in figure 1 beneath clarifies it all. Scheme of oat request and supply framework investigation show the main accessible alternative left with is to consider the increase of nourishment supplies by bringing more zone under grain development or by decreasing post gather misfortunes. As indicated by a most moderate gauge around 10% of the oats collected in creating nations are lost yearly this recommends endeavors ought to be diverted towards limiting misfortunes in post-collect of grains.

II. LITERATURE REVIEW

Study of the Influence of Crop, Machine & Operating Parameters on Performance of Cereal Threshers Engr. C.O. Osueke (Ph.D., Post Ph.D.) Senior Lecturer, Landmark University, Omu-Aran, Kwara State, Nigeria. [1]

Threshing as a post-harvest operation is as old as man. The evolution of mechanical threshers to secure the ever growing consumption of cereal has been hindered by several factors which have leads to low performance of several developed threshers. It has been discovered and observed by various researchers that performance of cereal threshers is highly dependent on the value of its working parameters. This work gives an insight into influence of crop, machine and operating parameters on
performance of cereal threshers using a computer aided software for simulation of these parameter values. The parameters were varied at six levels and the simulations were performed by varying each parameter while the rest parameters were kept constant. It was observed that threshing efficiency increased for all increasing values of cylinder speed and bulk density, decreased for all increasing values of feed rate and concave clearance, and increased for increasing values of moisture content up to 17% and decreased afterwards. Also threshing loss was found to increase for all increasing values of feed rate and concave clearance, decreased for all increasing values of cylinder speed and bulk density, and decreased for all increasing values of moisture content up to 17% and then increased afterwards, similar effects on the efficiency and losses was observed in the capacity and unthreshed grain cases respectively. Thresher capacity and rate of unthreshed grain also showed significant reactions as these parameters were varied.

Development of grain threshers based on ergonomic design criteria Adarsh Kumara et all. [2]

Threshers are used extensively on Indian farms for threshing grains, but are involved in a significant proportion of limb crush injuries. International safety standards are somewhat difficult to enforce because manufacture of machines is done at widely dispersed local workshops. Locally made machines are used for crop production and post-harvesting operations, with a great deal of manual work. This technical note reports the results of a study to develop a cost effective, improved design for safe operation of threshers based on ergonomic principles.

Development of a Rice Threshing Machine Olugboji O.A. Department of Mechanical Engineering, Federal University of Technology Minna, Niger State, Nigeria. [3]

This paper deals with the development of a rice threshing machine. Available evidence suggests that the mode of threshing rice in the rural areas in Nigeria is by traditional use of hand beating of the paddy. This method is time wasting, energy sapping and often the grains are broken. The developed rice thresher has the ability to winnow the premature grains and leaves, which are often lighter, thus, leaving aside the massy grains that, will be collected. It is also capable of reducing time wastage, reduction in breakage of the grains and separation of the stalk from the grains. From the design calculation, the total power required to comb off grains from stalk is 267.04 W and to be driven by a 1.5 HP electric motor.

III. MANUFACTURING PROCESS

Fabricating procedures are the means which crude materials are changed into a last item. The assembling procedure starts with the formation of the materials from which the outline is made. These materials are then altered through assembling procedures to wind up noticeably the required part. Fabricating procedures can incorporate treating, (for example, warm treating or covering), machining, or reshaping the material. The assembling procedure likewise incorporates tests and checks for quality affirmation amid or after the assembling, and arranging the creation procedure preceding assembling.

A. METAL CUTTING

Metal cutting or machining is the procedure of by expelling undesirable material from a piece of metal as chips. Cutting procedures work by bringing on break of the material that is prepared. More often than not, the bit that is cracked away is in little estimated pieces, called chips. Regular cutting procedures incorporate sawing, molding (or arranging), introducing, penetrating, granulating, turning and processing. In spite of the fact that the real machines, devices and procedures for cutting look altogether different from each other, the fundamental system for creating the crack can be comprehended by only a basic model called for orthogonal cutting.
In all machining forms, the work piece is a shape that can altogether cover the last part shape. The goal is to remove the abundance material and get the last part. This slicing as a rule requires being finished in a few stages in each progression, the part is held in an apparatus, and the uncovered bit can be gotten to by the device to machine in that bit. Basic apparatuses incorporate tight clamp, cinches, 3-jaw or 4-jaw hurls, and so on. Each position of holding the part is known as a setup. At least one cutting operation might be performed, utilizing at least one cutting devices, in every setup. To change starting with one setup then onto the next, we should discharge the part from the past apparatus, change the installation on the machine, clip the part in the new position on the new apparatus, set the directions of the machine device as for the new area of the part, and lastly begin the machining operations for this setup.

Subsequently, setup changes are tedious and costly, thus we ought to attempt to do the whole cutting procedure in a base number of setups; the undertaking of deciding the arrangement of the individual operations, gathering them into (a base number of) setups, and assurance of the installation utilized for every setup, is called prepare arranging.

B. SAWING

Cold saws will be saws that make utilization of a circular saw blade to slice through different sorts of metal, including sheet metal. The name of the saw needs to do with the move that makes put amid the cutting procedure, which figures out how to keep both the metal and the sharp edge from ending up noticeably excessively hot. A cool saw is fueled with power and is generally a stationary sort of saw machine rather than a compact kind of observed.

The circular saw blades used with a frosty saw are regularly built of high speed steel. Steel sharp edges of this sort are impervious to wear even under day by day use. The final product is that it is conceivable to finish various cutting activities before there is a need to supplant the sharp edge. High speed steel edges are particularly valuable when the saws are utilized for slicing through thicker segments of metal.

Alongside the rapid steel sharp edges, a chilly saw may likewise be outfitted with a cutting edge that is tipped with tungsten carbide. The final product is that it is conceivable to finish various cutting activities before there is a need to supplant the sharp edge. This sort of sharp edge development likewise opposes wear and tear. One noteworthy distinction is that tungsten tipped cutting edges can be re-honed now and again, amplifying the life of the edge. This kind of cutting edge is a solid match for use with sheet metal and other metallic parts that are moderately thin in plan. The final product is that it is conceivable to finish various cutting activities before there is a need to supplant the sharp edge.
C. WELDING

Welding is a procedure for joining comparable metals. Welding joins metals by softening and combining 1, the base metals being joined and 2, the filler metal connected. Welding utilizes pinpointed, limited warmth input. Most welding includes ferrous-based metals, for example, steel and stainless steel. Weld joints are normally more grounded than or as solid as the base metals being joined. Welding is utilized for making lasting joints. It is utilized as a part of the make of vehicle bodies, flying machine outlines, railroad wagons, machine outlines, basic works, tanks, furniture, boilers, general repair work and ship building.

D. OPERATION

A few welding procedures depend on warming with an electric circular segment, just a couple are considered here, beginning with the most seasoned, straightforward bend welding, otherwise called protected metal curve welding or stick welding. In this procedure an electrical machine (which might be DC or AC, however these days is generally AC) supplies current to an anode holder which conveys a cathode which is regularly covered with a blend of chemicals or flux. An earth link interfaces the work piece to the welding machine to give an arrival way to the current. The weld is started by tapping ('striking') the tip of the anode against the work piece which starts an electric circular segment.

The high temperature created (around 6000 °C) right away delivers a liquid pool and the finish of the cathode constantly dissolves into this pool and structures the joint. The administrator needs to control the crevice between the anode tip and the work piece while moving the cathode along the joint.

In the protected metal curve welding process the “stick” cathode is secured with an expelled covering of flux. The warmth of the curve dissolves the flux which produces a vaporous shield to keep air far from the liquid pool and furthermore flux fixings respond with undesirable pollutions, for example, surface oxides, making a slag which buoy to the surface of the weld pool. This structures an outside layer which secures the weld while it is cooling. At the point when the weld is frosty the slag is chipped off.

The procedure can’t be utilized on steel more, slender than around 3mm and being a spasmodic procedure it is appropriate for manual operation. It is broadly utilized as a part of jobbing shops and for on location steel development work. An extensive variety of anode materials and coatings are accessible empowering the procedure to be connected to most steels, warmth opposing compounds and many sorts of cast iron.

E. DRILLING

Drilling is a cutting process that utilizes a drill bit to cut or grow an opening of circular cross-section in strong materials. The boring apparatus is a rotary cutting device, frequently multipoint. The bit is pressed against the work piece and pivoted at rates from hundreds to thousands of revolutions for each moment. This powers the bleeding edge against the work piece, cutting off chips from the gap as it is penetrated. The geometry of the regular bend penetrate apparatus (called boring
tool) is unpredictable; it has straight cutting teeth at the base these teeth do a large portion of the metal cutting, and it has bended cutting teeth along its tube shaped surface.

The notches made by the helical teeth are called woodwinds, and are helpful in driving the chips out from the opening as it is being machined. Plainly, the speed of the tip of the bore is zero, thus this district of the device can't do much cutting. In this way it is normal to machine a little gap in the material, called a middle gap, before using the bore. Focus gaps are made by unique drills called focus drills; they likewise give a decent path to the boring tool to get adjusted to the area of the focal point of the opening. There are many diverse sorts. Drilling is a cutting process that utilizations a drill bit to cut or grow an opening of circular cross-section in strong materials. The boring apparatus is a rotary cutting device, frequently multipoint. The bit is pressed against the work piece and pivoted at rates from hundreds to thousands of revolutions for each moment.

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![Fig.4: Drilling Operation](image)

When all is said in done, drills for cutting milder materials have littler point edge, while those for cutting hard and weak materials have bigger point edge; In the event that the Length/Diameter proportion of the gap to be machined is substantial, then we require an exceptional managing support for the penetrate, which itself must be long; such operations are called weapon boring. This procedure is utilized for openings with distance across of few mm or more, and L/D proportion up to 300.

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These are utilized for making barrels of weapons; Penetrating is not valuable for little distance across gaps (e.g. < 0.5 mm), since the apparatus may soften and stall out up the work piece; Usually, the span of the gap made by a penetrate is marginally bigger than the deliberate distance across of the bore – this is primarily a result of vibration of the device axle as it turns, conceivable misalignment of the bore with the shaft pivot, and some different variables; For tight measurement control on gap breadth, we first bore a gap that is marginally littler than required size (e.g. 0.25 mm littler), and afterward utilize an uncommon
sort of penetrate called a reamer. Reaming has low material expulsion rate, low profundity of cut, however gives great measurement precision.

F. ASSEMBLY

An assembly line is a manufacturing process (most of the time called a progressive assembly) in which parts (usually interchangeable parts) are added as the semi-finished assembly moves from work station to work station where the parts are added in sequence until the final assembly is produced. The high temperature created (around 6000 °C) right away delivers a liquid pool and the finish of the cathode constantly dissolves into this pool and structures the joint. The warmth of the curve dissolves the flux which produces a vaporious shield to keep air far from the liquid pool and furthermore flux fixings respond with undesirable pollutions, by mechanically moving the parts to the assembly work and moving the semi-finished assembly from work station to work station, a finished product can be assembled much faster and with much less labor than by having workers carry parts to a stationary piece for assembly.

IV. COMPONENTS AND DESCRIPTION

A. HOPPER

The capacity, angle of repose of parchment coffee and space are important factors considered. A square frustum at the top and bottom respectively, with each side inclined at 45° to the horizontal is welded on a 100mm high square box placed to one end of the circumference of the threshing drum cover. The final product is that it is conceivable to finish various cutting activities before there is a need to supplant the sharp edge. High speed steel edges are particularly valuable when the saws are utilized for slicing through thicker segments of metal. The hopper was also incorporated with a feed cover regulating slide which is adjustable through a bolt. The hopper was made up of mild steel plate with trapezoidal shape to serve as outlet for the material. One noteworthy distinction is that tungsten tipped cutting edges can be re-honed now and again, amplifying the life of the edge. It was designed such that materials to be grated fall on the auger with gravity.

![Fig.5: Hopper](image)

B. SEPARATOR DRUM

The component consists of a hollow drum, shaft and steel flaps. One shaft 25mm in diameter is centrally welded to each of the pipe. 18 pieces of 5mm thick rubber flap were helically arranged in 3 rows on the circumference of the pipe. The steel flaps are bolted to short pieces of 4mm thick metal plates welded to the circumference of the pipe. The drum rotated in perforated semi-circular concave constructed from 2mm sieve metal plate. The drum rotates inside the concave to detach the hull from the beans through impact and rubbing actions.
C. THE GRAIN OUTLET

This is placed directly below the cleaning chamber to appropriately discharge separated beans. It is 120mm X 80mm and inclined of 45° to the horizontal at lower end.

D. POWER TRANSMISSION SYSTEM

The design is based on the power requirement of various component, economics and relevant theories. It involves the use of different sizes of pulley and length of V belts as dictated by the required speeds and power. Power transmission unit consist of rotor directly connected to the shaft of the grating machine. The machines consist of two bearings, which reduce the wearing and tearing of the auger and shaft. The bearing holds the auger in position and allows transmission of force.

E. PULLEY

A pulley is a wheel on an axle or shaft that is designed to support movement and change of direction of a cable or belt along its circumference. Pulleys are used in a variety of ways to lift loads, apply forces, and to transmit power. In nautical contexts, the assembly of wheel, axle, and supporting shell is referred to as a "block."

Pulleys are also assembled as part of belt and chain drives in order to transmit power from one rotating shaft to another.

A belt and pulley system is characterized by two or more pulleys in common to a belt. This allows for mechanical power, torque, and speed to be transmitted across axles. If the pulleys are of differing diameters, a mechanical advantage is realized. A belt drive is analogous to that of a chain drive, however a belt sheave may be smooth (devoid of discrete interlocking members as would be found on a chain sprocket, spur gear, or timing belt) so that the mechanical advantage is approximately given by the ratio of the pitch diameter of the sheaves only, not fixed exactly by the ratio of teeth as with gears and sprockets.

In the case of a drum-style pulley, without a groove or flanges, the pulley often is slightly convex to keep the flat belt centered. It is sometimes referred to as a crowned pulley. Though once widely used on factory line shafts, this type of pulley is still found driving the rotating brush in upright vacuum, in belt sanders and band saws. Agricultural tractors built up to the early 1950s generally had a belt pulley for a flat belt (which is what Belt Pulley magazine was named after). It has been replaced by other mechanisms with more flexibility in methods of use, such as power take-off and hydraulics.

Similarly, as the measurements of gears (and, correspondingly, their number of teeth) decide a gear ratio and along these lines the speed increments or diminishments and the mechanical advantage that they can convey, the distances across of pulleys
decide those same factors. Cone pulleys and step pulleys (which work on a similar standard, in spite of the fact that the names have a tendency to be connected to level belt adaptations and V belt renditions, separately) are an approach to give various drive proportions in a belt-and-pulley framework that can be moved as required, similarly as a transmission provides this capacity with a gear train that can be moved. V belt step pulleys are the most widely recognized way that drill presses deliver a scope of shaft velocities.

F. STAND

This is a supporting frame and made up of mild steel.

G. BEARING WITH BEARING CUP

The bearings are pressed smoothly to fit into the shafts because if hammered the bearing may develop cracks. Bearing is made up of steel material and bearing cap is mild steel.

A metal roller essentially comprises of four sections: an internal ring, an external ring, the balls and the enclosure or separator. To expand the contact zone and allow bigger burdens to be conveyed, the balls keep running in curvilinear notches in the rings. The sweep of the furrow is somewhat bigger than the span of the ball, and an extremely slight measure of outspread play must be given. The bearing is hence allowed to modify itself to little measures of precise misalignment between the collected shaft and mounting.

The separator keeps the balls equitably divided and keeps them from touching each other on the sides where their relative speeds are the best. Metal balls are made in a wide assortment of sorts and sizes. Single-column spiral orientation are made in four arrangements, additional light, light, medium, and substantial, for each drag, as delineated in Fig.8.

Fig.8: Ball Bearing

H. DC MOTOR

In fig.9 the conductor is appeared as diverting a current from the watcher, however the field because of the N and S shafts has been evacuated. There is no development of the conductor amid the over two conditions. In figure 4.8 the current conveying conductor is put in the attractive field.

The field because of the current in the conductor bolsters the primary field over the conductor, however contradicts the fundamental field underneath the conductor. The outcome is to build the flux thickness into the area specifically over the conductor and to decrease the flux thickness in the locale straightforwardly beneath the conductor.
It is found that a compel follows up on the conductor, attempting to push the conductor downwards as appeared by the bolt. Presently consider a solitary turn curl conveying a present as appeared in the figure 4.8. In perspective of the reasons given over, the loop side A will be compelled to move downwards, though the curl side B will be compelled to move upwards. The strengths following up on the curl sides and B will be of same size. Be that as it may, their bearing is inverse to each other. As the curl is twisted on the armature center which is upheld by the course, the armature will now turn. The commutator intermittently turns around the course of current move through the armature. Hence the armature will have a ceaseless turn.

How about we begin by taking a gander at the general arrangement of a basic 2-shaft DC electric engine. A straightforward engine has 6 sections, as shown in fig.9.

- An armature or rotor
- A commutator
- Brushes
- An axle
- A field magnet
- A DC power supply of some sort

I. EXHAUST FAN

J. FRAME

This is made of mild steel material. The whole parts are mounted on this frame structure with the suitable arrangement. Boring of bearing sizes and open bores done in one setting so as to align the bearings properly while assembling. Provisions are made to cover the bearings with grease.
K. WORKING PRINCIPLE

Sifting might be finished by beating the grain utilizing a flail on a threshing floor. Another conventional technique for sifting is to make jackasses or bulls stroll in circles on the grain on a hard surface. A present day rendition of this in a few ranges is to spread the grain on the surface of a nation street so the grain might be sifted by the wheels of passing vehicles.

Hand sifting was difficult, with a bushel of wheat taking around the hour. In the late eighteenth century before sifting was motorized, it took around one-fourth of horticultural work. Wind winnowing is an agricultural method created by old societies for separating grain from chaff.

It is likewise used to expel weevils or different vermin from put away grain. Threshing, the slackening of grain or seeds from the husks and straw, is the progression in the refuse expulsion prepare that precedes winnowing. "Winnowing the refuse" is a typical expression in its least complex frame it includes tossing the blend into the air so that the wind overwhelms the lighter debris, while the heavier grains fall down for recuperation. Strategies included utilizing a winnowing fan (a moulded wicker container shaken to raise the waste) or utilizing an instrument (a winnowing fork or scoop) on a heap of reaped grain.

L. Power Calculation

\[
\text{Force} = 158 \text{ N} \\
\text{Torque} = \text{Force} \times \text{Radial distance} \\
= 158 \times 7.5 \times 10^{-3} \\
= 1.189 \text{ N-m} \\
= \frac{2 \pi NT}{60}
\]
Power = 186.76 W

Therefore,

186.76 W = 0.25 HP

Therefore,

To run the rotating drum, we have required 0.25 HP motor.

M. DISCUSSION

This machine was about twice as fast as hand threshing per person, and has the highest overall output rate. Threshing rate was above 200 sudis/hr under most conditions and was less sensitive to sudis properties than the Chinese machine. Pedal powered threshing was slightly slower than motor powered threshing. The machine is heavy, and requires one or more people to handle and scatters paddy to a similar extent as hand threshing. Slightly more straw is mixed with the output than with hand threshing, and when one person threshed a one person is enough to sweep straw away from the output. Thick sudis had to be splayed broadly to ensure the center panicles where threshed.

N. PERFORMANCE

Machine separating 110 to 140 sudis/hr.

Therefore, for 1 minute 2 sudis from machine threshing.

We weigh the paddy per sudis, it is approximately 200 to 300gm.

Therefore, for 1 minute, paddy removal from the sudis, it is 500gm.

Therefore, for 1 hour, it is 30kg.

Table. I: Paddy Removal Rate

<table>
<thead>
<tr>
<th>TRIAL NUMBER</th>
<th>TIME TAKEN IN (minute)</th>
<th>PADDY REMOVAL FROM SUDI IN (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>5</td>
<td>120</td>
<td>60</td>
</tr>
</tbody>
</table>

Fig.13: Model of Agriculture Separator
Table II: Number of Sudi by Machine Threshing

<table>
<thead>
<tr>
<th>TRIAL NUMBER</th>
<th>TIME TAKEN IN (minute)</th>
<th>NUMBER OF SUDI BY MACHINE THRESHING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>62</td>
</tr>
<tr>
<td>3</td>
<td>60</td>
<td>125</td>
</tr>
<tr>
<td>4</td>
<td>90</td>
<td>187</td>
</tr>
<tr>
<td>5</td>
<td>120</td>
<td>249</td>
</tr>
</tbody>
</table>

COMPARISON BETWEEN HAND WORK AND MACHINE WORK

Table III: Comparison between Hand Work and Machine Work

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>BY HAND</th>
<th>BY MACHINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COST</td>
<td>N/A</td>
<td>6250</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>N/A</td>
<td>10KG</td>
</tr>
<tr>
<td>SIZE</td>
<td>N/A</td>
<td>(750×200×700) mm</td>
</tr>
<tr>
<td>POWER REQUIREMENT</td>
<td>N/A</td>
<td>0.25HP MOTOR</td>
</tr>
<tr>
<td>OPERATING SPEED (rpm)</td>
<td>N/A</td>
<td>1500</td>
</tr>
<tr>
<td>NO OF OPERATORS</td>
<td>NO LIMIT</td>
<td>1</td>
</tr>
<tr>
<td>RATE/PERSON(Sudi/hr)</td>
<td>NO LIMIT</td>
<td>125</td>
</tr>
<tr>
<td>OVERALL RATE(Sudi/hr)</td>
<td>NO LIMIT</td>
<td>125</td>
</tr>
<tr>
<td>OVERALL OUTPUT in Kg/hr</td>
<td>NO LIMIT</td>
<td>30</td>
</tr>
</tbody>
</table>

V. CONCLUSION

This project work has given us a brilliant open door and experience, to utilize our restricted information. We picked up a considerable measure of down to earth information with respect to, arranging, buying, amassing and machining while at the same time doing this project work. We feel that the venture work is a decent answer for extension the doors between the organization and the businesses.

We are pleased that we have finished the work with the constrained time effectively. The DESIGN AND FABRICATION OF AGRICULTURE SEPARATOR MACHINE is working with attractive conditions. We can ready to comprehend the challenges in keeping up the resiliencies and furthermore the quality. We have done to our capacity and ability making most extreme utilization of accessible offices.

In conclusion comments of our project work, let us include a couple of more lines about our impression extend work. Hence we have built up an "AGRICULTURE SEPARATOR MACHINE" which moves up the dividers of tall structures at a critical ease which might be utilized for a few applications. By utilizing more strategies, they can be adjusted and created by the applications.

VI. SCOPE OF FUTURE IMPROVEMENT

The newly designed agricultural separator will reduce the work of the formers. These machine itself avoid the hand threshing. The agricultural separator can work in any climate. And these machine will also decrease the need of skilled workers. It also helps the customers to determine the depending upon its performance. It is a portable kind of machine, it can be lifted by hand only, so the machine can be move one place to another place easily. All these modification can be done in future which will result in decreases the investment of the formers.

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