



M P AGRO

THE M.P. STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LIMITED
PANCHANAN, 3rd FLOOR, MALVIYA NAGAR, BHOPAL
PHONE - 0755-2551652, 2551756, 2761392 FAX 0755-2557305,
EMAIL: mpagrohobpl@gmail.com WEBSITE: www.mpagro.org

ONLINE RCO DOCUMENT

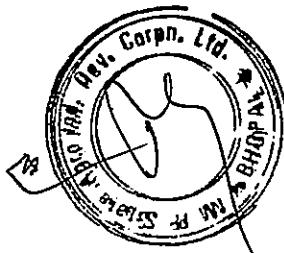
FOR SUPPLY OF
BULLOCK-DRAWN AGRICULTURAL
IMPLEMENTS, MANUALLY OPERATED
AGRICULTURAL IMPLEMENTS
AND GRAIN BINS FOR
YEAR 2026-27 AND ABOVE

DUE ON 21.08.2026

RCO DOCUMENT FEES

Rs. 11000 + 1980 (18%GST) = 12980

(Twelve Thousand Nine Hundred Eighty Only) Shall be paid online.



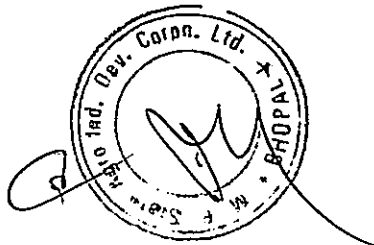


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CORPORATION LIMITED**

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Phone (0755) - 2551652, 2551756, 2551807, Fax: 0755-2557305

LIST OF ANNEXURE OF RATE CONTRACT OFFER DOCUMENT

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 Phone (0755)- 2551652, 2551756, 2761392, Fax: 0755-2557305

HO : MKTG/BD Impl /2026-27/

Dated: -----

RCO NOTICE

FOR SUPPLY OF BULLOCK-DRAWN (बैलचलित) AGRICULTURE IMPLEMENTS, MANUALLY OPERATED (हस्तचलित) AGRICULTURE IMPLEMENTS AND GRAIN BINS

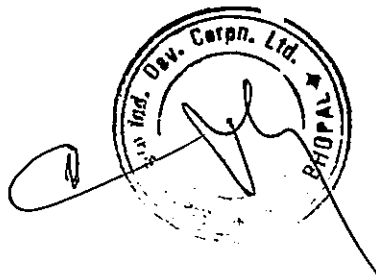
Online RCO are invited for supply of Bullock-drawn Agriculture Implements, manually operated agricultural implements and Grain Bins from manufacturers selected on the basis of eligibility criteria for the year 2026-27 onwards.

RCO documents can be purchased by paying RCO fee Rs. 11000 + 1980 (18% GST) = 12980 (Twelve Thousand Nine Hundred Eighty Rs Only) each online up to following date :-

S.N.	Name of Item	Last Date to Submit	EMD
01.	SUPPLY OF BULLOCK-DRAWN AGRICULTURE IMPLEMENTS, MANUALLY OPERATED AGRICULTURE IMPLEMENTS AND GRAIN BINS	21.08.2026	50,000/-
1- MSME & STARTUP Entrepreneurs of Madhya Pradesh are Exempted for EMD. But the Successful Bidder Must have to Submit Rs 50000/- as a Security Deposit at the time of Agreement with Corporation. 2- MSME and, STARTUP Belongs Out of Madhya Pradesh Must have to Deposit Rs 50000/- as Earnest Money Deposit Otherwise Their Offer will be Reject.			

The detailed RCO and other information can be seen at Corporation's website www.mpagro.org and www.mptender.gov.in. Further amendments/information, if any, will be published only on above websites. No further notification will be made in the newspapers.

MANAGER (MKTG)





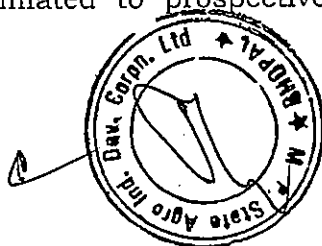
**THE MADHYA PRADESH STATE AGRO INDUSTRIES DEVELOPMENT
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**DISCLAIMER & ABBREVIATIONS, DEFINITIONS AND
INTERPRETATION**

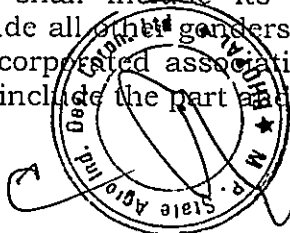
A. DISCLAIMER:

1. The information contained in this RCO Document has been prepared solely for the purpose of providing information to the interested parties, and is not in any way binding on MP AGRO.
2. By accessing this RCO Document, prospective Bidder agrees that MP AGRO will not be liable for any direct or indirect loss arising from the use of the information and the material contained in this RCO Document.
3. Prospective Bidder's access to the information does not imply a license to reproduce and / or distribute information contained therein and Bidder not allowed to any such act without the prior written approval of MP AGRO.
4. In case any prospective Bidder finds any discrepancy or omission in any part of the RCO Document and/or the bidder has any doubt to its meaning, the bidder should notify the same to MP AGRO through post or email at least 5 days prior to the date of opening of RCO. MP AGRO cannot be held liable for the delay in receipt of such suggestions/information. MP AGRO may clarify and send instruction to all bidders for correction through portal / Website, if necessary. However, it does not entitle the bidder to seek any extension of the opening date of RCO.
5. Information received against any discrepancy (up to prescribed date and time as mentioned above) will be examined and, if any amendments required, the same will be uploaded as Corrigendum with RCO document. If no amendments are required, the Bidder will have no right to raise any objection.
6. It shall be understood that every endeavor has been made to avoid any error which can materially affect the basis of the RCO and All bidder shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.
7. The submission of RCO will be deemed to imply that the Bidder fully understands the scope of work involved and has read and understood all conditions of the RCO document as well as his liabilities and responsibilities in respect of the RCO.
8. The Corporation reserves the right to reject any or all of the offers submitted in response to this RCO at any stage without assigning any reasons whatsoever.
9. The Corporation also reserves the right to change any or all the provisions of this RCO. Such changes would be intimated to prospective bidders through above website only.

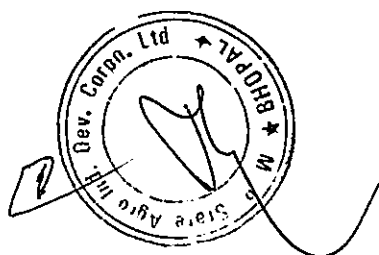


B. ABBREVIATIONS, DEFINITIONS AND INTERPRETATION

01. The Corporation/MP AGRO means M.P. State Agro Industries Development Corporation Ltd.
02. Beneficiary/Consignee means the person/department wish to purchase the items through this Corporation.
03. Application forms/the document means Application forms and all other relevant annexure/documents
04. Applicant/Bidder/firm means the manufacturer who submits RCO agreeing all the terms and conditions of the RCO for supply of Items as per RCO document and the supply order.
05. EMD means Earnest Money Deposit and SD means Security Deposit.
06. Managing Director means the Competent Authority of MP State Agro Industries Development Corporation Ltd Bhopal to take decision for this RCO.
07. RCO means - Rate Contract Offer
08. DOH means - Director of Horticulture, and DAH means Director of Agriculture, Government of Madhya Pradesh.
09. "Contract" means and includes the invitation to RCO, instructions to Bidder, RCO, acceptance of RCO, Conditions to Contract, particulars and the other conditions specified in the acceptance of RCO and includes repeated orders which have been accepted or acted upon by the/ for the Supplier and a formal agreement, if executed. Contract shall be governed by the Laws of India in force.
10. The "Suppliers" , "Bidders" or "Offerer" means the person, firm or company with whom the order for the supply is placed and shall be deemed to include the suppliers' successors (approved by MP AGRO) representatives, heirs, executors and administrators, as the case may be, unless excluded by the terms of the contract;
11. "The Inspecting Agency" means an Government Agency/Department to Inspect materials or services authorized by QCI approved third party inspection Agency, Govt. Agency such as DGS&D / RITES / CIPET /EIL / IR-Class / PDIL/ Government Engineering College or any Government Technical Department or any Government institution..
12. "The Purchaser" means the MP STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LIMITED, (MP AGRO) or the Government agency intend to purchase the items.
13. "Materials" means the goods specified in the contract which the Supplier has agreed to supply under the contract;
14. "Test" means such test as is prescribed by the particulars or considered necessary by the MP AGRO performed or made by the inspecting agency acting under an order issued by MP AGRO.
15. Words importing the singular shall include its plural and vice versa, words importing any gender shall include all other genders, words importing persons shall include bodies, corporate, unincorporated associations and partnerships and vice versa. References to whole shall include the part and vice versa.



16. The Courts of the place from where the acceptance of the RCO has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of the contract.
17. A person signing the RCO or any other document in respect of the Contract on behalf of the supplier without disclosing his authority to do so shall be deemed to warrant that he has authority to bind the Supplier. If it is discovered at any time that the person who signed the documents has no authority to do so, MP AGRO may, without prejudice to any other right or remedy, cancel the contract and make or authorize for purchase of the materials from other supplier/source at the risk and cost of such supplier besides hold such person liable for all costs and damages of MP AGRO arising from the cancellation of the contract including any loss which MP AGRO may sustain on account of such purchase.
18. For all purposes of the contract, including arbitration there under, the address of the Supplier mentioned in the RCO shall be address to which all communications addressed to the Supplier shall be sent, unless the Supplier has notified change by a separate letter containing no other communication and sent by registered post to MP AGRO. The Supplier shall be solely responsible for the consequence of an omission to notify any change of address in the manner aforesaid.
19. Terms and expression not herein defined shall have the meanings assigned to them in the Indian Sale of Goods Act, 1930 (as amended) or the General Clauses Act, 1897 (as amended), or the Indian Contract Act, 1872 (as amended), as the case may be.
20. Contract shall be governed by the Laws of India for time being in force.





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TITLE, TIME SCHEDULE, RCO FEE & EMD

**TITLE: FOR SUPPLY OF BULLOCK-DRAWN (बैलचलित) AGRICULTURE
IMPLEMENTS, MANUALLY OPERATED (हस्तचलित) AGRICULTURE
IMPLEMENTS AND GRAIN BINS FOR 2026-27 AND ONWARDS**

(A)
(B) **TIME SCHEDULE:**

Stages of Bidding	Scheduled time	Scheduled Date
Purchase of RCO	upto 2.00 PM	21.08.2026
PRE BID MEETING	At 01.00 PM	04.08.2026
Date of Bid Submission Start	From 10 AM	07.08.2026
Last date of submission	upto 05.00 PM	21.08.2026
Opening of technical bid	upto 06.00 PM	21.08.2026
Financial Bid of the successful bidders will be opened on the date decided by the Corporation which will be intimated to bidders / published on the websites.		

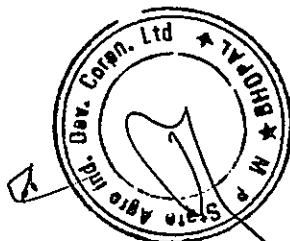
Each stage will take place on the date and time mentioned against them. However if the date and time is changed/ postponed information in this regard will be published on corporation website www.mptender.gov.in

(C) **RCO FEE & EMD:**

The RCO invited under e-RCO system and bidding process will have following steps:

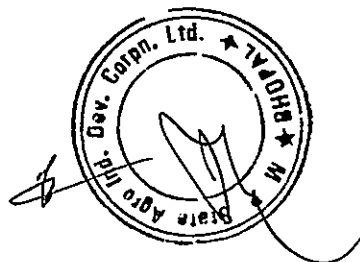
RCO FEE	Rs. 11000 + 1980 (18%GST) = 12980 (Twelve Thousand Nine Hundred Eighty Only) shall be paid online. (Non Refundable)
EARNEST MONEY DEPOSIT	1. Earnest Money Deposit (EMD) of Rs.50,000/- (Fifty thousand only) for each implements shall be deposited by the due date along with the offers. 2. Non-submission or partial submission of EMD along with online RCO documents shall be liable for rejection.

Note : If RCO is cancelled or RCO of any Bidder is rejected. EMD amount so deposited will be refunded online. No interest shall be paid on EMD amount.



(A) **ELIGIBILITY: FOR SUPPLY OF BULLOCK-DRAWN (बैलचलित) AGRICULTURE IMPLEMENTS, MANUALLY OPERATED (हस्तचलित) AGRICULTURE IMPLEMENTS AND GRAIN BINS FOR 2026-27 AND ONWARDS**

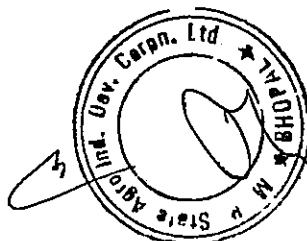
S.N.	ELIGIBILITY	DOCUMENT TO BE UPLOADED
1.	RCO documents (Page 01 to 144)	RCO documents duly signed on (Page 01 to 142) with office seal affixed.
2.	Bidder should be manufacturer for the RCO item	Certificate from Industry department / District Industrial Centre (DIC)/ Single Point Registration Certificate of NSIC/UDYAM Registration Certificate issued by Ministry of Micro Medium & Small Enterprises .
3.	Bidder should have valid Registration Certificate issued by the Director, Agriculture Engineering, Govt of MP	Valid Registration Certificate, issued by the Directorate of Agriculture Engineering, MP for all the items for which RCO is submitted.
4.	Bidder should have valid feasibility Report for Manufacturing of RCO items	Valid feasibility report for manufacturing of RCO items by those Government Department/ Govt. Agency which is approved by the Quality Council of India /N.A.B.C.B., any Government Engineering College, any Government Technical Department or Government institution Like Govt. Polytechnic Collage, MSME Training Center. Govt ITI etc will also be Considered or approved by Divisional Agriculture Engineer Bhopal/indore/Gwalior/Jabalpur/Satna/Sagr The Fesiblity Report must contain following details. a.Name and full address of Production Unit b.Detailed of Machinery Installed in Production Unit. c.Production Capacity of Unit. d. Either Production Unit in Running Condition or not.



S.N.	ELIGIBILITY	DOCUMENT TO BE UPLOADED
5.	The Total Cumulative Turnover of the Bidder for the Last Three financial Years i.e. (2022-23, 2023-24 and 2024-25) in Fabrication Items should not less than be 1 (One) crores . 1- - Startup of M.P. have been granted Complete Exemption on Turn over. Bidder Should Provide Valid Startup Recognition Certificate issued by DPIIT (Depatment for Promotion of industry and internal trade) 2 - MSME of M.P. will get 25 Lakhs Relaxation in Total Turn over . 3. Offrrers participating only for implements shown in ANNEXURE - IV (B) (I), from serial number 1- 19 are Exempted for Turnover.	A certificate issued by Chartered Accountant with UDIN Number showing Turnover for the last three financial years, i.e. (2022-23,2023-24,2024-25) .
6.	Other necessary requirements for eligibility shall be as mentioned in Rate Contract BID document (RCO)	• Application form duly filled as par Annex - VI • Valid proof of authority to signing the document in case of Partnership Firm and Limited Firm • GST Registration certificate • Affidavit from the Bidder that their firm has never ever been blacklisted by any Govt./Semi Govt. organization or agency till date Annex - X • Letter of Undertaking & Declaration on Rs/- 500 non judicial Stamp Anex- VIII
7.	Valid BIS Certificate	• For ISI marked Hand operated chaff-cutters, bidder should have a valid certificate issued by the Bureau of Indian Standards

(I) PROVISION FOR SCHEDULED CASTE/TRIBE AND WOMEN ENTREPRENEURS

According to the policy of the state government, SC/ST offerers, who will be presented with a certificate related to special registration in the District Industry Center NSIC/UDYAM Registration Certificate who will be found eligible as per the online rate contract offer conditions, will be given opportunity of minimum 25% of the business (as per clause 23.4 of prescribed policy, M.P. Dated 13 /01/2023), out of which, 4 percent participation will be ensured in the business. Similarly, according to Clause 23.1(1) of the Store Purchase Rule, out of minimum 25 percent participation of 3 percent in the business, it will be ensured to purchase from micro and small enterprises owned by women. To get the above facility/priority, it is mandatory to submit self-attested copies of related documents along



with RCO. This system will be valid only in those cases where firm orders are received from the government. In case of purchase by the farmer, the farmer will have full right to choose.

(II) Provision to the Startup . According to the provisions of rule 14.1 of the *Madhya Pradesh Store Purchase, 2015* (as amended in 2022), the qualified M.P. Startup offerer exempted for Earnest money Deposit (EMD), and rule 22(1) qualified Startup offerer may be exempted experience and turnover. To get the above facility it is mandatory to submit self-attested copy of Startup Certificate issued by Department of Industrial Policy and Promotion (DIPP) under the Ministry of Commerce and Industry along with RCO.

Startup of M.P.

- (a) Exempted for Earnest money Deposit (EMD).
- (b) Startup of M.P. have been granted **Complete Exemption on Turn over**. Bidder Should Provide Valid Startup Recognition Certificate issued by DPIIT (Department for Promotion of industry and internal trade)
- (c) Participating only for implements shown in ANNEXURE - IV (B) (I) from serial number 1-19 are Exempted for Turnover.

(III) Provision for MSME

According to the provisions of rule 14.1 of the *Madhya Pradesh Store Purchase, 2015* (as amended in 2022), the qualified MSME of M.P. offerer exempted for Earnest money Deposit (EMD) only, To get the above facility it is mandatory to submit self-attested copy of Udyam Registration Certificate issued by Ministry of Micro, Small and Medium Enterprises along with RCO.

MSME of M.P.

- (a) Exempted for Earnest money Deposit (EMD).
- (b) will get 25 lakhs Relaxation in Turnover **MANUALLY OPERATED AGRICULTURAL IMPLEMENTS, BULLOCK-DRAWN AGRICULTURAL IMPLEMENTS AND Grain Bins.**
- (c) Participating only for implements shown in ANNEXURE - IV (B) (I) from serial number 1-19 are Exempted for Turnover.

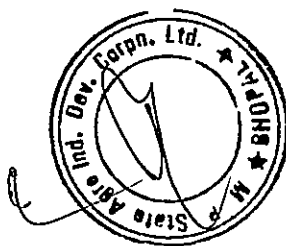
IV) NON-ELIGIBILITY TO PARTICIPATE IN THE RCO DUE TO PENDING COURT CASE/DISPUTE

The offers of such bidders shall not be accepted with whom any court case and/or dispute are pending with the Corporation, other Government department or any other organization/agency. Offers of such bidders shall also not be accepted with whom any criminal case is also pending. **if the offerer has any Serious Dispute with the Corporation or Black listed by the Corporation regarding the supply of any other material or any other RCO then the same will be considered against the offerer for this RCO.**

(V) Exemption for Turn over

The offerers who will participate only in MANUALLY OPERATED AND BULLOCK DRAWN IMPLEMENTS Shown in ANNEXURE - IV (B) (I) from serial number 1-19, are Exempted for Turnover.

Startup of M.P. have been granted **Complete Exemption on Turn over**. Bidder Should Provide Valid Startup Recognition Certificate issued by DPIIT (Department for Promotion of industry and internal trade)



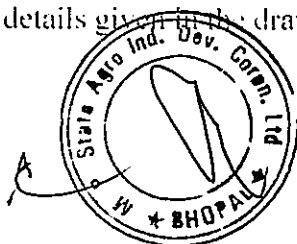
(B) MINIMUM TECHNICAL SPECIFICATION OF MANUALLY OPERATED AND BULLOCK DRAWN IMPLEMENTS:

<u>(I) BULLOCK-DRAWN IMPLEMENTS :-</u>	<u>MANUALLY OPERATED IMPLEMENT</u>
1. AUTOMATIC SEED CUM FERTI. DRILL (3-FURROW) 2. SINGLE DORA 3. BUND FORMER 4. MULTI TOOL FRAME 5. REVERSIBLE PLOUGH 6. NIMADI PANJI DHAL 7. IMPROVED NIMAR (KHARGONE) HAL <u>MANUALLY OPERATED IMPLEMENT</u> 8. MAIZE SHELLER 9. SERRATED SICKLE 10. SOYA WEEDER 11. G.N. DECORTICATOR 12. HAND WHEEL HOW CYCLE TYPE 13. SEED TREATMENT DRUM 14. CONO WEEDER 15. MULTI WEEDER 16. GRAIN BINS (5 QTL)	17. GRAIN BINS (10 QTLS) 18. 16. GRAIN BINS (12 QTL) 19. 16. GRAIN BINS (20 QTL) 20. PORTABLE SOLID BIO MASS COOK STOVE (CHULHA) ISI MARKED <u>(II) MANUALLY OPERATED IMPLEMENT :-</u> 21. WINNOWING FAN (I) 22. WINNOWING FAN (II) 23. LOW.LIFT.PUMP (HAND OPERATED) 24. LOW.LIFT.PUMP (PEDAL) 25. MANUALLY OPERATED CHAFF CUTTER (ISI MARKED) IS (7898: 2001) 26. MANUALLY OPERATED CHAFF CUTTER (NON ISI MARKED) 27. SPIRAL SEED GRADER (7 DISC) 28. SEED PLANTER (DIBBLER) MANUALLY OPERATED

- 1- **Bullock-drawn Automatic Seed cum Fertilizer Drill (3 Furrows) – CIAE Type :** Bullock drawn automatic seed cum fertilizer drill (3 furrows) CIAE Type is made out of Iron and Steel and can be pulled/operated by a pair of bullocks. The over all dimension of automatic seed cum fertilizer drill is 852 mm height x 992 mm width x 1140 mm length, approximate weight 50kg. suitable for sowing of crops i.e. Wheat, Gram, Soyabean, Mustard, Maize, etc. The design, dimension and the material of all the components, i.e. Alluminium body fluted roller, drive chains, sprocket, drive wheel, seed box (20 gauge GP sheet), fertilizer box (20 gauge GP sheet) furrow opener etc. used for making for automatic seed drill should be conforming to parameters of these items approved by CIAE, Nabibag, Bhopal.

- 2- **Bullock drawn Single Dora (Malwa Type):** Bullock drawn single Dora (Malwa type) is made up of Iron and Steel material i.e. MS pipe 80mm, cutting blade (pans), handle pipe 32mm and Frame of MS Angle etc. whole assembly is mounted on frame and can be pulled by a pair of Bullock. Approximate weight is 7kg. This implement is suitable for conducting weeding operation of cotton, maize and other crops. The design, dimension and material of all components of single Dora should be as per details given in the drawing and specifications.

- 3- **Bullock drawn Bund Former with Foot rest:** Bullock drawn Bund Former is made up of 2 adjustable forming board (MS sheet 3.15mm) attached to braces (front & rear) (made of MS flat 50x5mm) Frame (flat 50x5mm) Handle (MS pipe 30mm), having foot rest (MS sheet 3.15mm), etc. Whole assembly is mounted on frame and can be pulled by a pair of Bullock. The overall dimension: 1000mm x 865mm x 800mm. Approximate weight is 21kg. Bund Former is used for making bunds for irrigation purpose in various crops, i.e. Wheat, Potato, Nustard etc. The design, dimension and iron an steel materials of all components of Bund Former should be as per the details given in the drawing and specification.



- 4- **Bullock drawn Multi Toolbar Frame (Carrier):** Multi toolbar frame (carrier) is a set of common frame (toolbar carrier unit) having detachable bullock drawn implements/tools i.e. (a) Bakhar (b) 2/3 Furrow seed drill (c) Mini cultivator (d) Plough & Ridger three type (f) Dora Weeder (double) along with suitable frame with accessories (approximate weight 50kg) . The design, dimension and material of all components of Multi Tool Frame Implements/Tools should be as per details given in the drawing and specification. The implement can perform all cultivation operation.

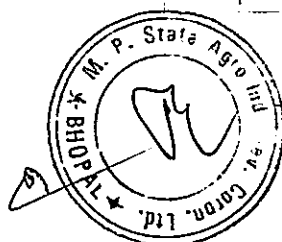
- 5- **Reversible Plough (Bullock drawn):** It is a 2 bottom reversible plough bullock drawn type. It is used for continuous plough purposes. The continuous plough operation can be performed by using another set of plough bottoms in doing end to end field operations. The overall dimension of reversible plough is 890mm H x 1570mm L x 620mm W, approximate weight 30.8kg. The design, dimension and material of all components of Reversible Plough should be as per details given in the drawing and specifications.

6- **Specification of Bullock Drawn Nimadi Panji Dhall:**

no	Name of Component	Qty	LxWxH cm	Weight	remark
1	Panji frame (with beam)	1 nos	40x6x0.5	17.300 kg	
2	Panji	3 nos	34x32x0.30	14.100 kg	4.700 kg
3	Tynes support	2 nos	(30+100)x6x1	3.400 kg	1700 kg
4	pass	1 nos	75x6.5x0.5	3.000 nos	
5	Dhall Blade	2 nos		6.000 kg	3.000 kg per nos
6	Gripper	1 nos	60 cm	1.300 kg	
7	Spanner	1 nos			18- 22 gm
		11 nos		45.100 kg	

7- **Specification of Bullock Drawn Improved Nimar (khargone) HAL**

No	Name of Component	Qty	Weight	Material
1	Base Support	1	1.682 kg	Steel Mild
2	Base Plate	1	1.678 kg	Steel Mild
3	Base Rec pipe	1	0.646 kg	Steel Mild
4	Base Strip without Hole	1	0.120 kg	Steel Mild
5	Base Strip with Hole	1	1.113 kg	Steel Mild
6	Base inclined Pipe	1	0.078 kg	Steel Mild
7	Blade	1	0.851 kg	Steel Mild
8	Base Beam Link	2	0.269 kg	Steel Mild
9	Base Handle Link	2	1.494 kg	Steel Mild
10	Handle Beam Link	2	0.857 kg	Steel Mild
No	Name of Component	Qty	Weight	Material
11	Handle Support Plate	4	0.030 kg	Steel Mild
12	Funnel Pipe	1	0.592 kg	Stainless Steel
13	Funnel	1	0.041 kg	ABS Plastic
14	Handle Pipe	1	0.216 kg	Steel Mild
15	Handle Support Plate 2	1	0.069 kg	Steel Mild
16	Beam	1	7.010 kg	Steel Mild
17	Handle Guide Strip	1	0.045 kg	Steel Mild



8- **Specification of Hand Operated Octagonal Maize Sheller:** The CIAE type powder coated Octagonal Maize Sheller is made up of 20 guage M.S. Sheet. It consist of 4 MS sheet pieces which are suitably bent to form Octagonal shape and one inside end have taper edge (17mm to 11mm) called inbuilt fin. These 4 pieces are riveted by 4 pairs of 2 rivets at suitable dinstance to form octagonal shape. Overall dimension is 72x63x58mm, approximate weight 200grams. The design, dimension and the material of components of Maize Sheller should be conforming to the parameters approved by CIAE, Nabibag, Bhopal.

9- **Specification of Serrated Sickle:** Hand operated serrated sickle made out of taper forged imported steel having carbon 0.55 % having teethed in the inner ide of the blade for efficient friction cutting action and the teeth are hardened to 50-55 HRC with handle made out of hard seasoned wood duly polished by anti-corrosive paint and suly packed in the corrugated box, approximate weight 250gm. excluding the packing.

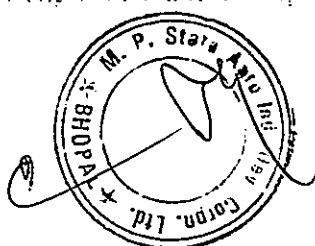
10- **Manually Operated Soyabean Weeder:** Manually operated soybean weeder is made up of Iron & steel having 2 wheels, axle, type assembly and cutting blade made up of MS Rod and Steel material. Whole assembly is mounted on frame of MS Angle and can be pulled through handle pipe made out of 25mm MS pipe. The overall dimensionis 107xm x 188cm x 58cm., approximate weight is 5.25kg. This implement is suitable for conducting weeding operation of soyabean crop. The design, dimension and material of all components of Soyabean Weeder should be as per details given in the drawing and specification

11- **Hand Operated Ground Nut Decorticator:** Manually operated Ground Nut Decorticator is made up of Iron & Steel material having 3 cast iron shoes, 1 M.S. Sieve, oscillating arm & handle, M.S.axle and C.R. sheet. The whole assembly is fitted on a frame made out of M.S. angle 25x25x3mm, Fla. 25x5, 12x3 and M.S. Rod 10mm. The overall dimension: 1090mm x 500mm x 250mm and approximate weight is 14 Kg. This implement is suitable for decortication of Ground Nut crop which crushes & removes upper shell (layer) of ground nut and separates nuts from ground nut crop through sieve. The design, dimension and material of all components of Ground Nut Decorticator should be as per details given in the drawing and specification.

12- **Hand Wheel How Cycle Type:**

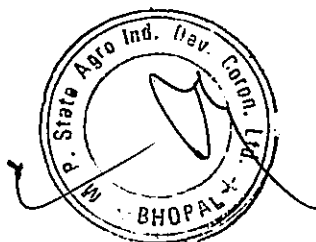
S.No.	Name of part	Material	Size in mm	Qty
1.	FORK	M.S. PLAT	570x24x5 mm	1 No.
		HOLE	9mm dia	5 Nos.
2.	U-FRAME	M.S. BAR	360x120x8 mm	1 No.
		M.S. PLAT	90x25x5 mm	2 Nos.
		HOLE	8 mm	2 Nos.
3.	MAIN FRAME	M.S. PLAT	320x25x5 mm	2 Nos.
		HOLE	10 mm	6 Nos.
4.	SHOVEL	M.S. SHEET	290x118 mm x 3mm thick	1 No.
5.	CYCLE WHEEL	PIV. STEEL	620	1 No.
	TYRE-TUBE	RUBBER	Suitable for the Cycle Wheel	1 No.
6.	FRAME	M.S. PLAT	250x25x3 mm	1 No.
7.	PIPE	STEEL PIPE	25x10 mm	2 Nos.

13- **Specification of Hand Oprated seed Treatment Drum:** Manually operated Capacity 10 Kg. Diameter of drum 345 mm. Length of Drum 580 mm. Material-M.S. Sheet Frame Length x with x height 800mm x 535mm x 758 mm. Angle Material M.S. Angle. Length of handle 270 mm. Length of handle clip 95 mm. Material of handle M.S.. Height of



Handle above the ground Maximum-1028 minimum-488 mm. Opening for side filling Length x width 345mm x 172 mm. Opening for unloading Length x width 345mm x 172 mm,

- 14- Specification of Hand Operated cono weeder. Manually operated with 2 cone made of MS sheet 115x45x120 mm. Blade made of MS sheet 85x30 mm of 12 in numbers. Patti made of MS sheet 125x30 mm. Centre bolt and nut made of M 12 . Frame of the wheel made of Ms Pipe -1. 200x22x2 mm. Pipe - 2. 40x3.4x3 mm and pipe -3, 100x28x3 mm. float assembly Made of Ms Pipe 630x22x2 mm. Support made of Ms Plate 300x12x4 mm, Float made of Ms Sheet 330x133x2. Total height 1400 mm . Weight 5-6 kg Capacity ha per day 0.18.
- 15- Specification of Hand Operated Multi weeder. Manually operated Multi weeder Handle Ms Pipe 25 mm round 5 ft Long with PVC Handle ,Four types of blade used with 12 mm square bar MS sheet Blade.
- 16- : Specification of 5 quintal grain storage bin: Shape - cylindrical Height-47 inches, Diameter 33 inch. Weight - 17 kg (Approximate). Used material - Pre painted galvanized iron sheet Sheet thickness -0.40 mm Nut bolt-5 pieces (6mm). Chest Handel - 2 pieces (4inches) .Trunk lock-2inch. sakal (1 piece) 16 number sakal (1 piece) Bottom ring thickness - 16 gauge.
- 17- :Specification of 10 quintal grain storage bin: Shape - cylindrical Height-70 inches, Diameter 38 inch. Weight - 31 kg (Approximate). Used material - Pre painted galvanized iron sheet Sheet thickness -0.40 mm Nut bolt-10 pieces (6mm). Chest Handel - 2 pieces (4inches) .Trunk lock-2inch. sakal (1 piece) 16 number sakal (1 piece) Bottom ring thickness - 16 gauge.
- 18- :Specification of 12 quintal grain storage bin; Shape - cylindrical Height-88 inches, Diameter 47.50 inch. Weight - 38kg (Approximate). Used material - Pre painted galvanized iron sheet Sheet thickness -0.45 mm Nut bolt-14 pieces (6mm). Chest Handel - 2 pieces (4inches) .Trunk lock-2inch. sakal (1 piece) 16 number sakal (1 piece) Bottom ring thickness - 16 gauge.
- 19- :Specification of 20 quintal grain storage bin; Shape - cylindrical Height-70 inches, Diameter 38 inch. Weight - 55 kg (Approximate). Used material - Pre painted galvanized iron sheet Sheet thickness -0.50 mm Nut bolt-18 pieces (6mm). Chest Handel - 2 pieces (4inches) .Trunk lock-2inch. sakal (1 piece) 16 number sakal (1 piece) Bottom ring thickness - 16 gauge.
- 20- Specification of Portable Solid Bio mass cook Stove (Chulha) ISI Marked IS 13152:2013
Specification of Portable Solid Bio mass cook Stove (Chulha) ISI Marked as per IS 13152:2013.
- 21- Specification of Hand Operated Winnowing Fan Type-I: Manually operated with 4 blades made out of 20 guage CR sheet mounted on stand base frame made out of 37x37x3 MS angle. gear, pinion, plumber block made out of cast iron. bearing size 6204 as per details given in the drawing and specification. Overall dimension is 560x715x1200mm, approximate weight 23kg).
- 22- Specification of Winnoing Fan (manual) Type-II: Winnowing fan (mnual) Type-II made up of 1.6mm thick 3 Nos. aluminam blades (end sizes 130mm-160mm & 473mm long) and MS Frame. MS Structure. MS stand and support and fan guard is made up of angle 30x30x3, angle 20x20x3 MS rod 6mm. Fan assembly ith Ci Pedetal. CI big and small gear & CI Fly wheel 19mm dia gear shafts through 6203 size bearings is fitted with suitable nut bolts, flangers and clamps as given in the drawings. The overall size is 1235L x 460W x 1720 H. approximate weight 32Kg. The design, dimension and material of all components of winnowing fan should be as per details given in the drawing and specifications.



23- Specification of Hand Operated Low Lift Pump with Stand: Single cylinder reciprocating diaphragm type, fixed discharge head, suction head maximum 7.5 meter having discharge 3000/6000 LPH at head 7.5m/2m. Suction pipe PVC pipe, flexible 6.0 meter long (65mm dia weight 5.5 kg approximate). Cylinder dia 316mm (made of 3.15 mm MS sheet), stroke 108mm, handle (MS) length 2M. Height 820mm, width 500mm, Rubber components to be used of superior quality rubber suitable for diaphragm of pump.

Pump body and structure should be duly painted with primer of superior quality (i.e. J&N/Asian/British/Berger paints) as base coat and with green paint of superior quality (i.e. J&N/Asian/British/Berger paints) as top coat sufficient thick to form perfect anti-corrosive layer. Pump to be supplied with all accessories, approximate weight 44kg.

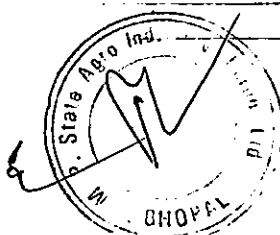
24- Specification of Pedal Operated (Low Lift Pump) with stand: Double cylinder, single acting vertical reciprocating pedal operated pump suitable to lift water from depth upto 15 feet, discharge as laid down by International Development Enterprises (minimum 3000 litre / maximum 6000 litre power hour). Cylinder made out of 2.5mm thick MS sheet having internal diameter 125mm, length of cylinder 230mm stroke length 110mm along with PVC flexible suction pipe (40mm dia) 20 feet long. Rubber components made of rubber of superior quality: the material of other component of pump will be as under:-

S.No.	Name of components	Approximate size	Material
1-	Cylinder	2.5mm thick	MS sheet
2-	Treadle	Flat 40x5 mm	MS sheet
3-	Foot Holder	2.5mm thick	MS sheet
4-	Stabilizing strut	Angle 25x25x3	MS
5-	Piston & Piston plate	Standard	MS
6-	Collar & Drop bar	Standard	MS
7-	Junction box	Standard	MS
8-	Sleeves	Standard	G.I.
9-	Rubber components superior quality rubber suitable for diaphragm.		
10-	PVC pipe (40mm dia) 20 feet length, weight 2.6kg approximate, flexible pipe		

Pump body & structure should be duly painted with primer of superior quality (i.e. J&N/Asian/British/Berger paint) as base coat and with green paint of superior quality (i.e. J&N/Asian/British/Berger paint) as top coat sufficient thick to form perfect anti-corrosive layer. Pump to be supplied with all accessories, approximate weight 27kg.

25- Specification of Manually Operated Chaff Cutter (ISI Marked) AS PER IS (7898: 2001)

no	Parts	Material	Applicable IS Standard IS no
1	Fly wheel	Cast Iron Dia -1250 mm has two Arms Each Provided by one Square Hole For Fixing Handle Hole Dia-20 mm	210
2	Handle Grip	Hard or Minimum Hard wood	399
3	Handle Support	Mild Steel	2062



4	Frame	Cast Iron	210
5	Cover Plate	Cast Iron Rod L - 225 mm, Teeth - 11	210
6	Sher Plate	Cast Iron L- 207 mm, W - 145 mm, Teeth - 12	210
7	Feed Rolls	Cast Iron Outer L- 207 mm, Outer Dia- -75 mm	210
8	Spring	Spring Steel L- 9 mm, outer Dia- 20 mm, Wire Dia - 2.50 mm	4454 (Part -I)
9	Bush Bearing	Brass	407
10	Worm and Worm Gear	Cast Iron Worm Outer Dia-75 mm Outer Length-80 mm Worm Gear Outer Dia 125 -133 mm, Teeth - 11-13 nos	210
11	Leg	Mild Steel	2062
12	Leg Support	Mild Steel	2062

no	Parts	Material	Applicable IS Standard IS no
13	Fingers if Separate	Cast Iron	210
14	Shaft and Axle	Mild Steel Shaft L- 400 mm Dia - 30 mm	2062
15	Feeding Trough	G.I. L- 900 mm	399
		Mild Steel	2062
16	Blade Cover	Mild Steel	2062
17		Plastic	-
18	Stand	Leg section made of Angle Section 50x560x2mm H-750 mm, L- 600 mm, W - 550	
19	Weight	80 - 84 Kg	

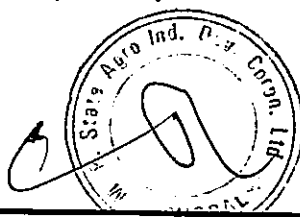
Cast Iron Head (wt-37-39 Kg) should be fitted with new standard bearing ISI Mark (ABC/NBC/SKF/Tata). Cast Iron Wheel size 4' dia (25-26 Kg) Mild Steel Stand (12-14 Kg) Parnala made of 26 Gauge GP/CR Sheet (1 Kg). 2 Nos. ISI Blade (1511-1979) made of high carbon steel having hardness of 40-45 HRC as per ISI No. 1586-1968 Standard accessories, handle, nuts bolts, spanners, 10" flat file (JK or Scissors make), PVC Oil Can 100 ml (Cuppi) and 4 Nos. 6" long foundation bolts of 8 mm dia with nuts & total weight of Chaff Cutter - 80 - 84 Kg.

Main Shaft:- The one end of the main shaft shall be rigidly attached at the centre hole of flywheel and other end may be supported on a plumber block. The length and diameter of the shaft shall be 400 mm and 30 mm respectively. Plumber block shall be provided with bush or ball bearing.

Worm:- The worm shall be fitted on the main shaft. The hole size of the worm shall be such that it should push fit on the main shaft the outer diameter and length of the worm shall be 75 mm or 80 mm and 155 mm respectively. The pitch of the worm shall be 25 mm. It shall be provided with two holes for proper fixing to the shaft. The distance of centre of hole from the end of the worm shall be 50 mm or 13 mm.

Worm Gears:- There shall be two gears: one located at upper side and other at the lower side of the worm. The outer diameter of the gears (see in Fig. 6) shall be 125 mm or 133 mm and there shall be 15 teeth in each gear. At the option of the purchaser the gears may have 11 or 13 teeth. The gear shall be attached with axles by hexagonal bolts.

Feed Rolls:- There shall be two feed rolls. The length and outer diameter of the rolls shall be 207 mm and 75 mm or 85 mm respectively. Each roll shall have eight projections on



circumferential periphery. The lower roll shall have || full teeth and upper roll 10 full and two half teeth on lengthwise fixing the axles.

Stand

Stand shall consist of four legs, leg supports and one finger in each leg. The leg shall be made of angle section of minimum 50 mm x 50mm x 2 mm size. The leg support may be detachable or riveted with the leg. The fingers may be a separate component attached to the leg or may be made by taking out at the bottom of each leg. The total height, length and width of the stand shall be minimum of 750 mm, 600 mm and 550 mm respectively. In one of the legs a hole of 10 mm shall be provided at a point coinciding with the hole made in the rim of the fly wheel.

Allowable deviations tot dimensions without steatites tolerance shall be as given in IS 2102

The bearings shall be completely enclosed and shall have provision for lubrication.

Provision shall be provided to change the inclination of the plane of the cutting knives to the plane of rotation of fly wheel to avoid feed interference.

Provision to change the direction of rotation of feed rolls should be provided.

Hooks at suitable places may be provided for lifting the chaff cutter for easy movement.

The maximum height of cranking from ground level shall be within 800 to 200 mm. The cranking radius shall be 250 to 350 mm.

All the three sides of shear plate shall be in one plane.

The blades shall conform to IS 1511

Front Safety Guard

A front safety guard shall be fitted to each knife blade tightly as a safety device.

Gear Cover

Worm and pinion assembly shall be covered by a metal sheet as shown in

Warning Roller

A warning roller which is covered by a metal sheet with spring shall be fitted just before the feeding rollers as an alternate to cover roller.

Covered Chute

The trough on the shear plate side shall be covered upto a length of 450 mm minimum

Blade Cover

Each blade shall be covered with a cover of specified shape and dimension of the blade.

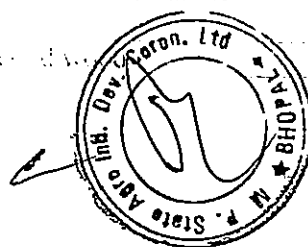
Marking

Each Chaff Cutter Shall be Marked as follows:-

Manufacturers Name or Trade Name shall include the batch number.

26- Specification of Manually Operated Chaff Cutter (Non-ISI Marked):- AS PER IS (7898: 2001)

no	Parts	Material	Applicable IS Standard IS no
1	Fly wheel	Cast iron or steel with two Arms Each Provided with a handle for Easy Handling	210
2	Handle Grip	Hardwood or metal	399



3	Handle Support	Mild Steel	2062
4	Frame	Cast Iron	210
5	Cover Plate	Cast Iron Rod L - 225 mm, Teeth - 11	210
6	Sher Plate	Cast Iron L- 207 mm, W - 145 mm, Teeth - 12	210
7	Feed Rolls	Cast Iron Outer L- 207 mm, Outer Dia- -75 mm	210
8	Spring	Spring Steel L- 9 mm, outer Dia- 20 mm, Wire Dia - 2.50 mm	4454 (Part -I)
9	Bush Bearing	Brass	407
10	Worm and Worm Gear	Cast Iron Worm Outer Dia-75 mm Outer Length-80 mm Worm Gear Outer Dia 125 -133 mm, Teeth - 11-13 nos	210
11	Leg	Mild Steel	2062
12	Leg Support	Mild Steel	2062
13	Fingers if Separate	Cast Iron	210
14	Shaft and Axle	Mild Steel Shaft L- 400 mm Dia - 30 mm	2062
15	Feeding Trough	G.I. L- 900 mm	399
16	Blade Cover	Mild Steel	2062
17		Mild Steel	2062
18	Stand	Plastic	-
19	Weight	Leg section made of Angle Section 50x560x2mm H-750 mm L- 600 mm. W - 550 80 - 84 Kg	

Cast Iron Head (wt-37-39 Kg) should be fitted with new standard bearing ISI Mark (ABC/NBC/SKF/Tata). Cast Iron Wheel size 4" dia (25-26 Kg) Mild Steel Stand (12-14 Kg) Parnala made of 26 Gauge GPCB Sheet - 2 Nos. ISI Blade (1511-1979) made of high carbon steel having hardness of 40-45 HRC as per ISI No. 1586-1968 Standard accessories, handle, nuts bolts, spanners, 10" dia. UK or Scissors make). PVC Oil Can 100 ml (Cuppi) and 4 Nos. 6" long foundation bolts 1/2" dia with nuts & total weight of Chaff Cutter - 80 - 84 Kg.

27- Specification of Spiral Seed Grader (7 Disc)

S.No.	Name of part	Material	Size in mm	QTY
1	OVERALL WEIGHT 41.50 KG	OVERALL HEIGHT- 2200 MM	OVERALL DIA- 650 MM	1
2	SHEET WT-24.50 KG INNER SPIRAL	GALVANISED SHEET 26 GAUGE WT-10.560 KG	LENGTH-5200 MM. OUTSIDE DIA-390 MM. INSIDE DIA-275 MM	4 SET (1 SET = 6 SPIRAL)
3	OUTER SPIRAL	GALVANISED SHEET 26 GAUGE WT-10.60 KG	1350X610 MM	1 SET (5 NO)
4	HOPPER	GALVANISED SHEET 26 GAUGE	655X210 MM WT - 2.16 KG	1
5	RING	SUPPORT RING MF FLATS	655X25X3 MM WT - 1.40 KG	1
		SUPPORT PATH MF FLATS	25X3X70	3
6	INNER OUTLET	GALVANISED SHEET 26 GAUGE	390X140X(40- 85)	1
7	OUTER OUTLET	GALVANISED SHEET 26 GAUGE	WT - 0.46 KG 390X(275- 135)X(75-50) WT - 0.56 KG	1

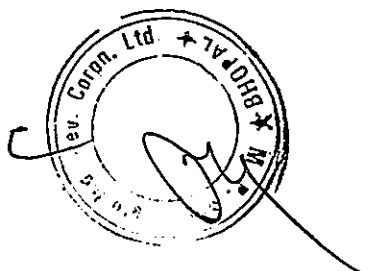


8	CENTER PIPE	MS SQ PIPE WT- 6.78 KG	75X3X1905 MM	1
9	STAND	MS SQ PIPE WT- 5.46 KG	25X25X2200 MM	3
10	BASE	MS PATTI WT - 3.62 KG	32X5X655 MM	1
11		MS SHEET WT-3.62 KG	25X3X320 MM	6
12	INNER SPIRAL BOTTOM COVER	GALVANISED SHEET 26 GAUGE	485X210 MM	1

28- Specification of Seed Planter (Dibbler) Manually operated

S.No.	Name of part	Material	Size in mm	QTY
1	Side round disc	Plastic	390 mm Dia	2
2	Internal cover and outer Cover	Plastic	2 mm thick 88 mm dia and 105 mm dia	2
3	Bearing	6807 RS		3
4	Bearing in gear box	6900-ZZ		3
		6805-2RS		1
5	Gear box Type of gear & teeth Driven gear Main Gear Ideal Gear Brush Gear	Star gear		7 teeth 13 teeth 40 teeth 14 teeth 20 teeth
6	Over all Dimentions		Length 1270 mm Wirth 510 mm Height 810 mm Weight 9.0 kg	
7	No of Major Seed disc			1
8	No of internal small disc			3
9	Handle	MS	Length -1065 mm. Wirth-220 mm,	
10	Levelling Rod	MS	Length -215 mm Dia -7.0 mm	1
11	Seed box	Transparent Plastic Moulding Trapezoidal shape	260x225x100 mm Thikness - 3mm	1

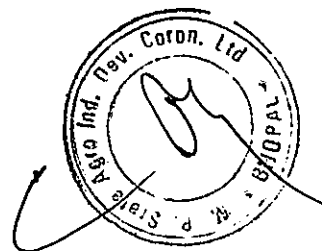
Seal & Signature of Offerer



ANEXURE - V

MANDATORY DOCUMENTS TO BE UPLOADED

01	RCO documents duly signed on each page with office seal affixed. (Page 01 to -----)
02	Copy of Manufacturing Certificate issued by District Industries Centre (DIC) /Single Point Registration with NSIC / UDYAM Registration Certificate issued by Ministry of Micro Medium & Small Enterprises.
03	Valid Registration Certificate, issued by the Directorate of Agriculture Engineering, Govt. MP for all the items for which RCO is submitted.
04	Valid feasibility report for manufacturing of RCO items by those Government Department/Govt. Agency which is approved by the Quality Council of India /N.A.B.C.B., any Government Engineering College, any Government Technical Department or Government institutions Like Govt. Polytechnic Collage, MSME Training Center. Govt ITI etc will also be Considered . The Feasibility Report must contains following details. a. Name and full address of Production Unit b. Detailed of Machinery Installed in Production Unit. c. Production Capacity of Unit d. Either Production Unit in Running Condition or not.
05	A certificate issued by Chartered Accountant with UDIN Number showing Turnover for the last three financial years, i.e. (2022-23, 2023-24 and 2024-25)
06	Application form duly filled up per Annexure - VI
07	Valid proof of authority to signing the document in case of Partnership Firm and Limited company.
08	GST Registration certificate.
09	Affidavit from the Bidder that their firm has never ever been blacklisted by any Govt. organization, semi Govt. organization or any corporation till date. Annexure - X
10	Letter of Undertaking & Declaration on 500 Rs stamp Annexure - VIII
11	Electricity Bills of last three months.
12	Financial Bid as per schedule Annexure - IX
13	Self attested copy of NEFT/RTGS slip through which the EMD, if any, is deposited into the bank account of the Corporation.
14	For ISI marked Hand operated chaff-cutters, bidder should have a valid certificate issued by the Bureau of Indian Standards (BIS)



ANNEXURE - VI

APPLICATION FORM

To

Managing Director
M P State agro Industries Development Corporation Ltd
3rd Floor, Panchanan Bhawan Malviya Nagar
Bhopal

Sub :- RCO Document for supply of **BULLOCK-DRAWN** (बैलचलित) **AGRICULTURE IMPLEMENTS, MANUALLY OPERATED** (हस्तचलित) **AGRICULTURE IMPLEMENTS AND GRAIN BINS FOR 2026-27 AND ONWARDS**

Dear Sir,

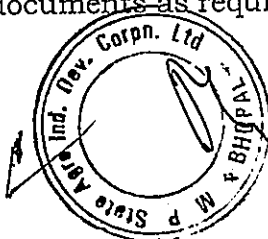
Kindly accept our application for RCO Document for supply of **BULLOCK-DRAWN** (बैलचलित) **AGRICULTURE IMPLEMENTS, MANUALLY OPERATED** (हस्तचलित) **AGRICULTURE IMPLEMENTS AND GRAIN BINS FOR 2026-27 AND ONWARDS** in the state of Madhya Pradesh. I am submitting application and details as under.

1	Name & Address of the Applicant Firm			
	If Proprietorship			
	a) Name of Proprietor			
	b) Full Address			
	c) PAN number /GSTN No			
	If Partnership			
	a) Name of partners and their address	1.	2.	3.
	b) Is partnership deed registered If yes then date of registration (attach copy of deed)	Yes / No Date		
	If Limited or Pvt. Limited Company under Indian Companies Act 1956.			
	Limited or Private Limited			
	Registered Office Address			
	Date of Certificate of in Corporation			
2	If LLP			
	a) Name & Address of Partners			
	b) Certificate of registration			
	c) Copy of agreement/MOU mentioning liability of the Partner.			
3	Location of Production units			
4	Year of Establishment of the units.			
5	Name, Designation & Mobile Number of Contact Person,			
6.	Name of Person Singing the RCO (In Case Of Authorized Person Specific Power of Attorney has to be submitted)			
7	Details of BIS license obtained	S.N.	BIS License No	Date of Validity
8	Details of Turnover for last Three financial years for item quoted (Rs in Lakhs)	Year	Total Turn Over	
		2022-23		
		2023-24		
		2024-25		

I hereby confirm that all the above information is true to the best of my knowledge & belief. All the documents as required in the documents as enclose.

Date

Seal & Signature of Offerer



CONDITIONS OF RATE CONTRACT

1. PROCEDURE FOR RCO:

- 1.1 The Corporation invites RCO for supply of Material mentioned in **Annexure - III**.
- 1.2 Only one RCO will be accepted from one Applicant / Firm. If any individual participating in the BID, representing more than one firm in one or different names and it comes to MP AGRO'S knowledge at any point of time, all such BID will not be entertained and shall be liable for rejection.
- 1.3 RCO documents can be purchased online.
- 1.4 It is the discretion of the Managing Director of the corporation to accept/reject the application without assigning any reason thereof.
- 1.5 Bidder should have to submit the hard copy of documents as per corporation requirement or at the time of Agreement.
- 1.6 The M.P. State Agro-Industries Development Corporation Ltd, will not be responsible delay in receipt of Bid on any account whatsoever. If BID is received after specific date and time, even if the delay is caused in postal transit, or any other reason whatsoever, the same shall not be considered and the BID will be rejected.
- 1.7 Telegraphic/Fax BID, or BID received over fax, e-mail etc. shall not be considered.
- 1.8 M.P. Agro hereby disclaims all liabilities of third party prospective purchasers with respect to quality, service and defect in the items to be supplied by the bidder shall be solely responsible to provide efficient service and to fulfil all defect and quality standards of the items to be supplied.

2. SUBMISSION OF RCO:

- 2.1 Corporation Invites RCO for supply of implements as mentioned in **(Annexure IV)**.
- 2.2 Self attested copies of all Mandatory Documents and RCO fees details (cost of documents) and EMD can be submit online. before last date and time of submission of BID.

3. OPENING OF TECHNICAL BID:

Document received in the RCO online will be opened on due date and time as mentioned in **(Annexure III)**

4. DELAY IN SUBMISSION:

The Corporation will not be responsible for any delay on any account in receipt of RCO. If the BID is received after the specific date and time, even if the delay in receipt was caused in postal transit or any other reason, what so ever, the same will not be accepted for further process.



5. CHANGE IN OPENING SCHEDULE:

RCO will be opened on due date and time as mentioned in (Annexure-III) point B in the presence of the representative of firms who wishes to be present. However if the date and time of opening of Technical Bid is changed due to any unforeseen reason the revised date and time of opening will be displayed on Portal/website of the corporation.

6. MODUS OPERANDI FOR THE PURCHASE & SALES OF THE ITEMS & QUOTING RATES BY BIDDER:

- (i) MP AGRO will buy material for onward sale to various Govt. Deptt. and/or Farmers of Madhya Pradesh as per requirement.
- (ii) Bidders are required to quote their selling rate to MP AGRO with the intention that MP AGRO will load its own margin (5% + GST) to the final prices quoted by Bidders.
- (iii) Bidders are required to upload their rates in the format prescribed for it. Shown in the financial Bid.
- (iv) Rate list to be uploaded shall be the rates with GST & rate without GST. MP AGRO margin & GST shall not be included in the format.
- (v) Rates offered to MP AGRO should not be treated as rates to end user. Instead MP AGRO will work as dealer of the manufacturer. Manufacturer will be free to appoint their Sales Representative, other Dealer for after sales service & stocking purposes etc. Manufacturer can also incur expenses for sales promotion etc. as per their own policy.
- (vi) On several occasions manufacturers do not quote lower rate to MP AGRO due to price fall Clause executed by them with other organization. Difference between price quoted to MP AGRO & price quoted to other organization (for ultimate consumer) must be differentiated clearly that rate quoted to MP AGRO is the dealer rate.
- (vii) MP AGRO will have full liberty to reduce or increase its margin at any time without consent from bidder. Managing Director's decision will be final & binding for all parties.

7. ACCEPTANCE OF OFFER FOR RATE CONTRACT:

The Counter offer will be issued by the Corporation only to those offerers whose offer rates are within the limit of L-1+15%.

8. EXECUTION OF AGREEMENT :

- (a) The Corporation will intimate the successful Bidder regarding acceptance and request him to execute the agreement in given time limit. In case the Bidder fails to execute agreement within the prescribed time limit, the EMD submitted along with the RCO shall stand forfeited.
- (b) The successful Bidder shall have to execute an agreement as per Annexure-XI with the Corporation on non-judicial stamp paper of Rs. 1000/- (to be purchased by the Bidder)



9. **EARNEST MONEY DEPOSIT:**

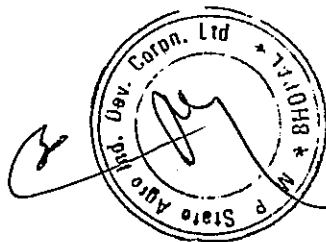
- A.
- (i) RCO should accompany EMD as per clause C (**Annexure-III**)
 - (ii) Earnest Money of all unsuccessful Bidders will be returned.
 - (iii) No interest is payable on the amount of Earnest Money at the time of refund.
 - (iv) **MSME & STARTUP** Entrepreneurs of Madhya Pradesh are Exempted for EMD. But the Successful Bidder Must have to Submit Rs 50000/- as a Security Deposit at the time of Agreement with Corporation.
 - (v) **MSME and, STARTUP** Belongs Out of Madhya Pradesh Must have to Deposit Rs 50000/- as Earnest Money Deposit Otherwise Their Offer will be Reject.

B. **Earnest Money shall be forfeited if :-**

- (i) Deposit (EMD) is liable to be forfeited if the bidder withdraws or amends or impairs or derogates from the bid in any respect within the validity of the bid or is open for acceptance whether originally fixed or extended.
- (ii) No interest shall be payable by the Purchaser on the Earnest Money/Bid Guarantee to the Bidder.
- (iii) The Earnest Money shall remain deposited (**if the bidder is neither Having MSME or Startup Certificate**) with the Purchaser during the validity period as mentioned, from the date of opening of RCO. If the validity of the offer is extended, EMD validity period deemed extended.
- (iv) Earnest money of successful Bidder will be adjusted as Security Deposit (SD) (**if the bidder is neither Having MSME or Startup Certificate**) on execution of the agreement. (such Bidder will become supplier).

10. **SECURITY DEPOSIT:**

- (i) **The successful Bidder will have to necessarily submit @ 50000/- Rs/- Security Deposit in the form of Demand Draft at the time agreement.**
- (ii) The Security Deposit will remain with the corporation during the currency of the contract and until successful execution of all the order placed during the currency of the contract and will be refunded to the supplier without interest in case of no dispute and after getting clearance/NOC from District Managers of the Corporation /purchasing officer.
- (iii) Security deposit will be forfeited in case of failure of supply of the material as mentioned in the purchase order, in time and as per the approved specifications, or for breach of any terms and condition of the agreement as well as RCO document.



11. MINIMUM TECHNICAL SPECIFICATIONS OF ITEMS

Minimum Technical specifications of the items covered in this RCO are the same as they are defined in (Annexure - IV).

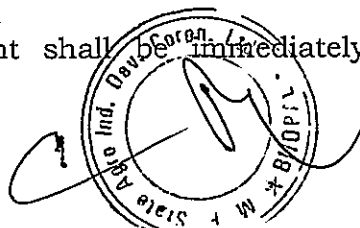
12. PLACEMENT OF ORDER

Head Office / Regional Manager / Branch Manager of the Corporation shall place purchase order to the approved supplier.

13. SCHEDULE AND MODE OF SUPPLY / DELIVERY

The Bidder has to supply and deliver the ordered quantity within time period as mentioned in the order issued by the Deputy Director Agriculture or the order issued by the Regional Manager of the Corporation. Failure of the Supplier for timely supply, or non Supply of the material shall lead to forfeiture of Security Deposit and the RCO shall stand cancelled and agreement shall be terminated and Supplier shall be black listed/ debarred from supplies through the corporation for 1-5 years. Corporation can also claim loss of goodwill as deemed fit and the same shall be payable by the Bidder. MP Agro shall not be liable toward the first manufacturer. In case the manufacturer is unable to supply or refuses to supply the RCO Material as per the work order issued by MP Agro, then in such a case the Work order may be Cancelled and the material can be procured from any other Registered vendor and difference amount if any may also be recovered from the original Vendor.

- (a) If the indenting authority suffers any loss due to inordinate delay in effecting supply/ dispatch or arrival of the material at the destination, the same shall be the responsibility of the Bidder who shall make good the entire loss suffered by the indenting authority. The Managing Director will assess and intimate the Bidder the extent of loss, and the same will be acceptable to the Bidder. The supplier shall ensure that the ordered material being supplied by him reach the consignee at destination in good condition. As such it will be the sole responsibility of the supplier to ensure desired quality and standard of the material.
- (b) The ordered item as specified in order shall be in conformity with approved size and quality specifications mentioned in **Annexure-IV**, of the RCO and elsewhere in the RCO documents. Material shall be supplied in batches in any or all the sizes and in quantities as per delivery schedule ordered by the ordering authority of the Corporation. The delivery schedule may however be revised by the ordering authority, if warranted by exigency of the work of the Corporation. The successful Bidder shall be bound to effect deliveries in accordance with the changed supply schedule without claiming revision in rates. The dates of supply shall be the date on which the consignment reaches the required destination.
- (c) Ordered item may required to be supplied to the consignee through District Manager office of the corporation as per dispatch order to be given by the Regional Manager of the Corporation, securely packed so as to withstand rough handling and protection from vagaries of nature during transit.
- (d) Relevant Delivery Challan shall be sent free and direct to the consignee (s) freight paid. The order No. of Corporation should be mentioned in the bill, against which the material is supplied.
- (e) The M.P. State Agro-Industries Development Corporation Limited shall not be responsible for damages, losses, thefts, pilferage, fire, accidents and demurrages etc. if any, incurred to the consignment during transit and these shall be borne by the supplier.
- (f) The dispatch of consignment shall be immediately communicated to the



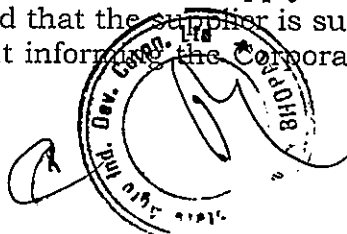
indenting Regional Manager/Distt. Manager of Corporation and consignee with the relevant details of Challan and Bill Nos.

- (g) **Transit Insurance:** The Supplier will arrange for Transit Insurance and Material supplied should be covered under Transit insurance for Road Risk, Theft, Pilferage, and Non Delivery Risk (R RTPND).
- (h) **Compliance of statutory conditions/regulations:** The manufacturer shall be bound to follow the statutory conditions/obligations/ regulations as issued by the State Government/Central Government or the appropriate authority in the execution of work allotted under this Rate Contract Offer.
- (i) **Rates Disparity Clause:** If at any stage during the validity of the rate contract/during the term of the agreement, M.P. State Agro-Industries Development Corporation Limited receives the lowest supply rate offer from any other manufacturer (other than the manufacturer who is already supplying the items), then the corporation shall provide an opportunity to the manufacturer already supplying the materials to supply the items at the lowest rate offered by other manufacturer. If the manufacturer already supplying items refuse to supply on the said lowest rate, then the corporation shall be at liberty to take supply from the supplier who quoted lowest rates.
- (j) **Margin Enhancement Clause:** The corporation reserves its right at any time during the validity of the agreement / Rate Contract to make amendments in the 5% margin of the corporation in the financial interest of the corporation.
- (k) The bidder has to provide sample of the Items offered in the RCO to the Branch Manager, MP AGRO immediately on demand for inspection and testing of the implement by the Engineers of the Directorate of Agriculture Engineering /or CIAE, Bhopal in case of Bullock Drawn or Hand Operated implements and Directorate of Agriculture /Director of Horticulture Bhopal in case of ISI Marked Drip and Sprinkler . No charges will be paid for such inspection to the bidder.
- (l) The bidder has to install metal plate on all the implements giving following information:-

a) Name of Implement	b) Name and address of manufacturer
c) Year of manufacturing	d) Model/Make of implement
e) Net Weight	f) Any other information.

If the above mentioned information is not found on the metal plates and plaques during inspection, such agricultural equipment may be rejected, for which the Corporation will not be held responsible.

- (m) The bidder will have to supply agricultural equipment through the district office of the corporation and deliver it to the block level or the designated place in the districts of the state. The inspection of the equipment at the manufacturing site/storage site or near the beneficiary will be done on random basis by the inspection agency or Government agency including Agriculture Engineering/CIAE. If the quality of the material is not found to be as per the technical standards, the entire lot will be rejected and further action will be taken.
- (n) It will be necessary for the suppliers contracted by the Corporation to supply the Items to the Government Departments/agencies of the State at the rates approved by the Corporation only after the supply order is duly issued through the Corporation. If it is found that the supplier is supplying the Items through any other department without informing the Corporation, then the Corporation



will be able to cancel the approved rates of such supplier and confiscate the earnest money deposited. In case of confiscation of the earnest money for such act by the supplier, the Managing Director of the Corporation can also debar the concerned firm from making supplies through the Corporation for 1 to 5 years.

- (o) Accepting the rates offered by the Corporation will not mean that the suppliers should do business directly with any department considering these approved rates as the approved rates for the state of Madhya Pradesh. The rates accepted by the Corporation will not be considered as "approved rates" for any legal purpose. If any business is done on the approved rates of the Corporation without the knowledge of the Corporation, the Corporation will not be responsible for it in any way. Every bidder is expected to inform the concerned department in writing about the terms and conditions of the contract entered into with the Corporation before doing business.
- (p) It is necessary to supply the material at the designated place as per the order through the District Office of the Corporation within the time limit mentioned in the supply order. This time limit can also be reduced as per exigency of supply.
- (q) According to the ordered quantity, the entire responsibility of delivering it to the prescribed department/place through the district office of the corporation will be on the concerned supplier.
- (r) In case the supplier does not supply the material within the prescribed time limit, and consent of the concerned receiving department for the supply of material is not received, the supply order may be cancelled.
- (s) If there is delay in delivery by the supplier and the department/corporation suffers loss due to the delay and the loss, if any will be recovered by the Corporation from the supplier's earnest money and/or pending payments. The amount of loss will be determined by the Managing Director of the Corporation which will be accepted by the supplier.

14. WARRANTEE:

The Bidder has to declare minimum One Years warrantee for Item supplied by the supplier having any manufacturing defect from the date of received of the implement . In case of complaint / defect the supplier shall have to arrange repair /replacement within 10 days from the date of receipt of intimation. The Corporation shall have right to recover the cost or expenditure of loss whatsoever, on this account from the future bills of the supplier or from the security deposit or from any other amount due to the supplier or out of the security or any deposit made by the supplier in other Government Organization. **The Corporation can also Blacklist the Supplier and debarred the supplier from doing the business with the corporation for 1-5 years.**

15. TRAINING, if any:

If required the supplier will impart training to the selected nominated person of purchaser and the concerned person/staff/officers of the Corporation for proper operation and maintenance of Items Supplied.

16. AFTER SALE SERVICE:

- a. The company must provide after sales service during warranty period.
- b. Supplier shall also ensure that proper after sales services are available to the customers.
- c. The supplier shall also make arrangements for repair and after sale service required on continuous basis after expiry of the warranty period and shall ensure that the repairs/maintenance cost incurred by the purchaser are minimum.



17. RIGHT TO REFUSE/REJECT THE SUPPLIES:

- (a) Ordered item shall conform to the quantities and specifications (as per **Annexure-IV**) mentioned in supply order. The Corporation reserves the right to refuse to accept the supplied item, if found:-
 - (i) Inferior in quality & not in proper packing/design or not conforming to the specifications mentioned in **Annexure- IV**.
 - (ii) Other than specified and ordered by the Corporation,
OR
 - (iii) For any other sufficient reason at its discretion.
- (b) In case the supply of item is rejected / the supply not accepted, the items so supplied, shall be lifted by the supplier at his own cost within the period granted by the M. P. State Agro-Industries Development Corporation Limited and in no case Corporation shall be liable for the supply not accepted.
- (c) If the material fails in the testing.

18. DEFECTIVE SUPPLIES:

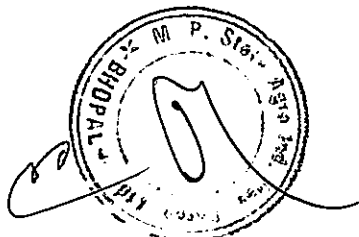
The supplier shall replace the defective material or any other part found defective or prematurely worn out within 7 days within warranty period from the date of sale to the consumer, free of cost. If it is proved that Bidder has intentionally supplied machine/equipments of improper quality or not ready to replace or had not replaced defective machines / equipments during the specified period or in a genuine time period as required minimum, corporation shall be free to black list the Bidder for 1 to 5 years and forfeited the Security Deposits Bidder shall be bound to refund the amount received in lieu of such defective supplies made by the Bidder.

19. PAYMENT:

- (a) The Corporation will make the payment normally within 15 days on payment after payment condition to the supplier only after receipt of bills along with satisfactory report duly signed by the consignee/ beneficiary with Third Party Inspection Report, and after statutory deduction of taxes and corporation margin.
- (b) In case these items are supplied to the farmer under various government schemes for providing subsidy, the farmer's share so received by the corporation shall be payable to the supplier only after receipt of bills along with satisfactory report duly signed by the consignee/ beneficiary with Third Party Inspection Report, and after statutory deduction of taxes and corporation margin.

20. PRICE ESCALLATION CLAUSE:

The variation in price is allowed if any variation is occurred in GST slab & any levies/taxes by Regulatory authority. Bidder may revise rates accordingly under intimation to corporation.



21. RANDOM TESTING OF IMPLEMENTS:

Corporation may select sample by random checking of any or all components of implement received at the destination / site and send it to any recognized institute for testing. The cost of such testing including the cost of material shall be borne by the supplier.

22. BRAND NAME:

The Bidder is entitled to claim only one brand name for the purpose of this contract. Regarding brand name, certificate of brand name, if any, issued by competent authority for this purpose should be made available, however the Corporation will not be liable for any dispute on account of brand name or of any kind.

23. SUBMISSION OF REQUIRED DOCUMENT:

It is obligatory for the Bidder to submit all the necessary documents as mentioned in *Annexure-V* and mentioned elsewhere in RCO document. All formats should be filled in completely. *All the necessary documents should be enclosed duly self- attested.*

24. ACCEPTANCE/REJECTION OF RCO:

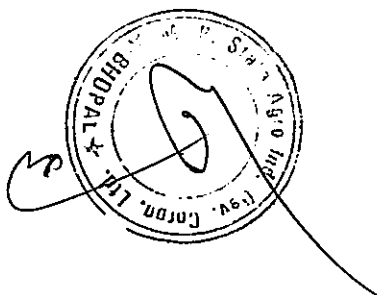
The Managing Director of the Corporation reserves the right to accept or reject any or all the RCO without assigning any reason whatsoever at any time prior to the award of the contract, without incurring any liability to the affected Bidder and any obligation to inform the affected Bidder of the grounds.

All the offers shall be examined on the basis of bid and supporting documents submitted online and in case, any of the documents is not in readable/printable form, the offer may be rejected without intimation to the offerer/bidder. Please ensure to upload clear, proper and complete documents while submitting the bid.

25. FORCE MAJEURE CLAUSE:

FMC will be applicable in the following circumstances -

- (a) Natural phenomenon including but not limited to weather condition, floods, draught, earthquake and epidemics.
- (b) Acts of government authority domestic or foreign including but not limited to war declared or properties, quarantine restriction.
- (c) Accidents or distraction including but not limited to fire, explosion breakdowns at essential machinery equipment and power shortage.



26. PURCHASE PREFERENCE:

The following rules are applicable only on those items & product which will be approved by committee constituted by M.P. Govt. store purchase rule 2015 (revised 2022) against rule 31 as per store purchase rule.

- (a) In case lowest rate received from the Bidder situated out of Madhya Pradesh. As per the provision made in State Purchase rule 25 to 50 percent (according to the production capacity) will be placed with bidder/bidders whose Production unit situated in Madhya Pradesh (Micro/ Small Industries) and who quoted Rates in bend of L-1+15% (First three bidders of Madhya Pradesh), only if, they are agreeable to supply the material in time and on lowest rate so received. Price preference of any kind will not be allowed (This clause will be applicable to only those Manufacturers of Madhya Pradesh if the place of Manufacturing is situated in Madhya Pradesh)
- (b) As per the policy of the State Government in respect of purchase of items through Micro / Small Industries purchase preference, minimum to the extent of 4% out of 25% of the required quantity shall be given to those manufacturing units of M.P belonging to the SC/ST entrepreneurs. A self-certified copy of certificate issued by the District Trade Industries Center (D.T.I.C) in this regard should be attached at the time of submission of tender. Price preference of any kind will not be allowed.
- (c) As per the policy of the State Government in respect of purchase preference, minimum to the extent of 3% out of 25% of the required quantity shall be given to those manufacturing units of M.P belonging to Female entrepreneurs (Ownership). Preference will be given to Micro / Small Industries run female Self Help Group A self-certified copy of certificate issued by the District Trade Industries Center (D.T.I.C) in this regard should be attached at the time of submission of tender. Price preference of any kind will not be allowed.

27. TO IMPOSE PENALTIES:

In case the supplier does not produce the ordered material within the specified time limit the penalty will be imposed as under

No.	PERIOD	RATE OF PENALTY IMPOSED
1	1 st to 2 nd week	0.25% per week
2	3 rd to 4th week	0.50% per week
3	in Case the supplier refuse or fails to supply the ordered material	Cancelling the supply order and termination of Agreement and Black listing for 1-5 years

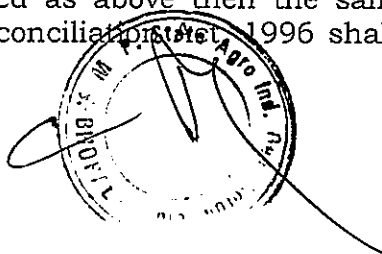
28. CORPORATION AS DEALER:

Corporation shall become Authorized Dealer of the company after execution of agreement with the company during the currency of Rate Contract.

29. ARBITRATION:

As far possible, all dispute arising out of this agreement will be settled by the mutual discussion and decision taken by the General Manager Marketing of the Corporation will be final and binding on both the parties.

In case dispute is not settled as above then the same shall be referred to the arbitration. Arbitration and conciliation Act, 1996 shall apply to the proceedings



before the Managing Director of the Corporation who shall be sole arbitrator. The decision of the arbitrator shall be final and binding on the parties. Venue of Arbitration shall be Bhopal and shall be governed by Arbitration and Conciliation act, 1996.

30. RCO EVALUATION:

During RCO evaluation, MP AGRO may, at its discretion, ask the Bidder for a clarification of its RCO and the documents attached thereto. The request for clarification and response shall be in writing or Verble.

31. VALIDITY OF RCO RATES:

The rates finalized against this RCO shall be valid for a period of 3 (three) months from the date of issue of first circular for approved rates. The MP Agro have rights to cancel the approved rates and/or RCO even before completion of its validity period. It will also be at the sole discretion of MP AGRO to extend validity period of prevailing rates until new rates are circulated.

32. MINOR MISTAKES IN RCO:

M.P. AGRO may waive any minor nonconformity, or irregularity in a RCO document that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder. Right to waive mistake shall remain with Managing Director of MPAGRO.

33. TRANSFERABILITY:

RCOs are not transferable.

34. RIGHT TO ACCEPT OR REJECT RATE CONTRACT OFFER:

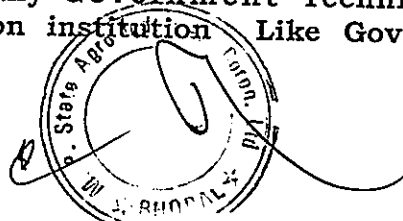
MP AGRO reserves the right to reject or accept any rate contract in whole or in part on account of credentials, technical capability, past performance or any other evaluation criteria to ensure uninterrupted supply of material. The decision of MP AGRO in this regard will be final and MP AGRO is not liable to assign any reasons for the decision.

35. PARALLEL RATE CONTRACT:

MP AGRO reserves the right (a) to enter into parallel rate contract(s) simultaneously or at any time during the period of the rate contract with more Bidders as MP AGRO may think fit, and (b) to place ad-hoc contract or contracts simultaneously at any time during the period of this contract with more supplier(s)/Bidder(s) for such quantity and such item as the competent authority of MP AGRO (whose decision shall be final) may determine.

36. INSPECTION FOR QUALITY:

- (i) Third party inspection of RCO items by those Government Agency which approved by Quality Council of India /N.A.B.C.B. such as DGS&D (under Department of commerce & industries Govt of India), RITES (Enterprises of Department of Railways Govt of India), PDIL (Organization under Department of Chemical and fertilizer Govt of India), ICAR - CIAE (Institute under the Department of Agriculture Govt of India), EIC (under Department of commerce & industries Govt of India), CIPET (under Department of Chemical and fertilizer Govt of India), EIL (Public Enterprises under petroleum & Natural gas Department Govt of India), IR-Class (Subsidiary firm of Indian Register of Shipping) or any Government Engineering College, any Government Technical Department or any Government institution institution Like Govt. Polytechnic Collage,



MSME Training Center. Govt ITI at the location where the material is supplied. The inspection cost shall be borne by the supplier.

- (ii) To certify any materials or part thereof submitted for inspection that they are in accordance with the contract owing to the adoption of any unsatisfactory method of manufacture; MP State Agro may discretionally exercise the power to constitute a committee consisting of external subject matter experts for the purposes of inspection of materials supplied by the manufacturer.
- (iii) To reject any materials submitted as not being in accordance with the particulars/ terms and conditions of the RCO and supply order.
- (iv) To reject the whole of the installment, if after inspection of such portion thereof as it may in its discretion thinks fit, it is satisfied that the same is unsatisfactory.
- (v) The Inspecting Officer's decision as regards the rejection shall be final and binding on the Supplier.
- (vi) MP AGRO reserves the right to inspect the materials to be dispatched / in Transit / already delivered at any time and at anywhere. MP AGRO also have rights to inspect the raw materials used for manufacturing, process of manufacturing, quality policy fixed and testing facilities for the product to be supplied by the supplier at the supplier's premises.
- (vii) Cost of Test: The supplier is liable to pay for any Test done on the product
- (viii) Supplied for conformity on quality.

37. RISK PURCHASE CLAUSE:

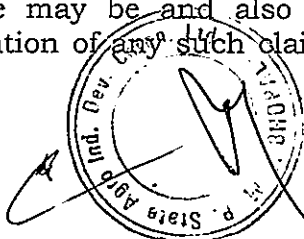
MP AGRO reserves the right to make emergent purchase in case of failure of supply/ rejected supply either in part or full as per demand placed by the MP AGRO and amount paid of such purchases should be adjusted from the supplier's Bill and may take following punitive actions..

- a) The occurrence of such events 3 times during the contract period will lead to cancellation of contract by MP AGRO at any time after serving warning on each such event. The cancellation of contract will automatically come into effect from the last working hour of a scheduled delivery date after serving the last warning. On such event of cancellation

he supplier will be black listed and will not be allowed to participate in any RCO / supply contract for a period of one year. On event of cancellation of contract the security deposit available with MP AGRO for the contract will be forfeited.

38. WITHHOLDING AND LIEN IN RESPECT OF SUMS CLAIMED:

Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the Contractor, MP AGRO shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from security, if any, deposited by the Contractor and for the purpose aforesaid, MP AGRO shall be entitled to withhold the said cash security deposit or the security, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claims. In the event of the security being



insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, MP AGRO, shall be entitled to withhold and have lien to retain to the extent of the such claimed amount or amounts, from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same contract or any other contract with MP AGRO pending finalization or adjudication of any such claim.

39. CORRUPT PRACTICES:

Supplier is expected to observe the highest standard of ethics during the execution of this RCO. If the supplier has engaged in corrupt or fraudulent practices, in competing for or in executing the contract, MP AGRO may, after giving 14 days notice to the supplier, terminate the Contract. In pursuit of this policy, MP AGRO:-

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action in the procurement process or in Contract execution; and
 - (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of MP AGRO and includes collusive practices among bidders (prior to or after bid submission) designed to get itself short listed for participating in the bidding process, to establish bid prices at artificial, non-competitive levels and to deprive MP AGRO of the benefits of free and open competition;
- b. Will reject a proposal for award if it determines that the Bidder being considered for award has engaged in corrupt or fraudulent practices in competing for the Contract.
- c. In the same manner as above, if bidder observes any corrupt practices or "fraudulent practice" in MP AGRO, he should report to Managing Director only.

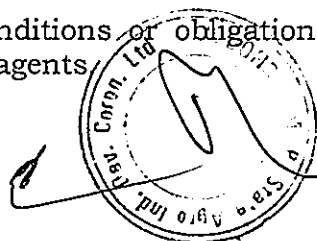
40. BREACH OF CONTRACT:

Any breach of the terms & conditions mentioned in this RCO document by the Supplier, or any one employed by him or acting on his behalf (whether with or without the knowledge of the Supplier) or the committing of any offence by the Supplier or by any one employed by him or acting on his behalf under Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1988 or any other act enacted for the prevention of corruption by public servants shall entitle MP AGRO to cancel the contract and all or any other contracts with the Supplier and to recover from the Supplier the amount of any loss arising from such cancellation.

41. TERMINATION OF CONTRACT AND BLACK LIST OF SUPPLIER :

MP AGRO may terminate the Contract or Black list the supplier or debar the supplier from doing the business with the corporation for 1-5 years in following event of default:

- (i) Breach of any of the terms or conditions or obligation of Contract on part of Supplier / his employees / agents.



- (ii) Any major material alteration in the agreed upon specification (if any) of the product to be supplied without the authorization of MP AGRO and / or competent authority or non Supply or delay in Supply in the Reference of Point no 27.
- (iii) MP AGRO at their discretion may call for any record to satisfy them regarding supply of material to catering units. The supplier shall extend every possible help and provide document related to the subject, to MP AGRO, failing which it may amount to breach of agreed terms and conditions of the contract.
- (iv) The Supplier being adjudged bankrupt/ insolvent or a trustee/ receiver being appointed on the Supplier.
- (v) Repudiation of agreement by Supplier or otherwise evidence of intention not to be bound by the agreement.
- (vi) MP AGRO at their discretion may call for any record to satisfy them regarding the supply and Supplier will provide every help failing which it may amount to breach of condition of the Contract.

42. AMENDMENTS TO BID INVITATION:

The MP AGRO reserves the right, to make revisions or amendments to the bid documents, when deemed necessary, prior to the closing date of the bid, through proper notification or web-site. The bidders must watch MP AGRO web site for any such amendments. The MP AGRO shall be at liberty to consider extending the date set for the bid opening by such a number of days as in the opinion of the MP AGRO will enable the bidder's to revise their bids.

43. NEGOTIATIONS:

it is clarified that normally the Corporation will make no negotiation on the RCO and therefore the Bidders should quote their lowest prices only. However the Managing Director of the Corporation may decide to give counter offer on the lowest rate to other bidders as decided by him.

44. AUTHORITY TO SIGN BID DOCUMENTS:

A person signing the RCO or any other document in respect of the Contract on behalf of the supplier without disclosing his authority to do so shall be deemed to warrant that he has authority to bind the Supplier. If it is discovered at any time that the person so signing has no authority to do so, MP AGRO may, without prejudice to any other right or remedy of MP AGRO, cancel the contract and make or authorize making of a purchase of the materials at the risk and cost of such person, and hold such person liable to MP AGRO for all costs and damages arising from the cancellation of the contract including any loss which MP AGRO may sustain on account of such purchase.

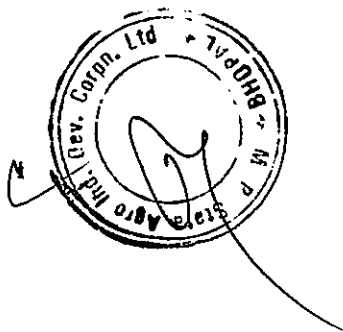


45. **SUPPLY THROUGH AUTHORISED DEALER**

The Chaff cutters manufacturers, having manufacturing unit out of Madhya Pradesh can appoint their authorized dealer/distributor for supply and providing after sales service during warranty.. The dealer/distributor can also raise bills and accept payment, in case the manufacturer agreed to do so. For this purpose, the manufacture shall submit a certificate in the prescribed format along with the RCO documents, certifying as their authorized dealer for the state of Madhya Pradesh. only manufacturer will participate in RCO/Tender and manufacturer will execute the agreement with the Corporation further The manufacture is solely responsible for timely supply and providing after sales service as per terms and conditions agreed upon.

46. Only Bhopal Court shall have jurisdiction.

MANAGER MARKTING



**THE MADHYA PRADESH STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION
LIMITED**

LETTER OF UNDERTAKING AND DECLARATION

We hereby submit RCO for the supply
of -----
-----conforming to the
Specifications as mentioned in RCO.

We undertake to supply such quantities of material as per specification mentioned in RCO, as we may be called upon to supply and install under the conditions here-to enclosed during the allotted period from the date of execution of the agreement on the rates agreed upon, at the places to be specified by the M.P. State Agro Industries Development Corporation Limited within the specified delivery period.

We undertake that our firm has neither been Blacklisted/Debarred by any Government / Government Undertaking / Bank nor penalized on the same ground. We also undertake that no legal proceeding is pending in any Courts on the same grounds.

We hereby agree to abide by and fulfill all the terms and conditions of contract annexed hereto and in default thereof to forfeit and pay to the M.P. State Agro Industries Development Corporation Limited, the penalties or sum of money mentioned in the said conditions.

The sum of Rs. 50,000.00 (Fifty thousands) in the form online Payments or any of the form specified in the Rate Contract RCO Documents is herewith forwarded as Earnest Money which shall be retained by The MP State Agro Industries Development Corporation Limited, on account of Security Deposit as specified in the clause 9 of the said conditions of contract, should this RCO be accepted.

"I have read and fully understood the terms and conditions of supplies etc. mentioned in the documents.

Name :

Designation:

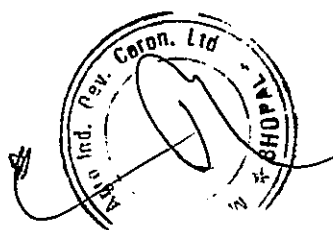
(Signature with Office Seal)

Witness:

1.

2.

NOTE: This Certificate should be furnished on Rs 500 non judicial Stamp.

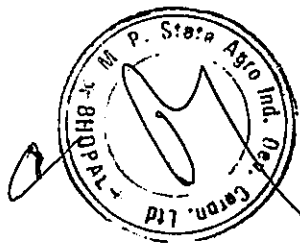


ANNEXURE - IX
**THE MADHYA PRADESH STATE AGRO INDUSTRIES DEVELOPMENT
CORPORATION LIMITED**

"PANCHANAN" 3rd FLOOR, MALAVIYA NAGAR, BHOPAL
Phone (0755)- 2551652, 2551756, 2761392, Fax: 0755-2557305

**FINANCIAL BID FORMAT FOR BULLOCK-DRAWN (बैलचलित) AGRICULTURE IMPLEMENTS,
MANUALLY OPERATED (हस्तचलित) AGRICULTURE IMPLEMENTS AND GRAIN BINS FOR
2026-27 AND ONWARDS**

S.N.	ITEM DESCRIPTION	UNIT	HSN CODE	BASIC RATE	GST %	GST Amount	PURCHASE PRICE TO MP AGRO
1	AUTOMATIC SEED CUM FERTI. DRILL (3-FURROW)	1					
2	SINGLE DORA	1					
3	BUND FORMER	1					
4	MULTI TOOL FRAME	1					
5	REVERSIBLE PLOUGH	1					
6	NIMADI PANJI DHAL	1					
7	IMPROVED NIMAR (KHARGONE) HAL	1					
8	MAIZE SHELLER	1					
9	SERRATED SICKLE	1					
10	SOYA WEEDER	1					
11	G.N. DECORTICATOR	1					
12	HAND WHEEL HOW CYCLE TYPE	1					
13	SEED TRETMENT DRUM	1					
14	CONO WEEDER	1					
15	MULTI WEEDER	1					
16	GRAIN BIN 5 QTLS	1					
17	GRAIN BINS 10 QTLS	1					
18	GRAIN BINS 12 QTLS	1					
19	GRAIN BINS 20 QTLS2013	1					
20	PORTABLE SOLID BIO-MASS (COOK STOVE CHULHA) ISI MARK IS 13152 : 2013	SMALL	1				
		MEDIUM	1				
		LARGE	1				
21	WINNOWING FAN (I)	1					
22	WINNOWING FAN (II)	1					
23	LOW.LIFT.PUMP (HAND OPERATED)	1					
24	LOW.LIFT.PUMP (PEDAL)	1					
25	MANUALLY OPERATED CHAFF CUTTER (ISI MARKED) IS (7898: 2001)	1					
26	CHAFF CUTTER (NON ISI)	1					
27	SPIRAL SEED GRADER (7DISC)	1					
28	SEED PLANTER (Dibbler) MAMUALLY OPERATED	1					


Seal & signature of the Bidder

ANNEXURE - X

DECLARATION OF BLACKLISTING

I/We M/S hereby declare that neither I/We nor our Start-up or a parent, subsidiary or associate Company under direct or indirect common parent is/are presently not been placed on any Black list / Debar/Penalized by any Public Sector Company in India or by any Department of State or Central Government and that there is no pending inquiry by any Public Sector Company in India or by any Department of State or Central Government, against us or a parent, subsidiary or associate Company as aforesaid in India. in respect of criminal, corrupt or fraudulent practice(s), is NIL.

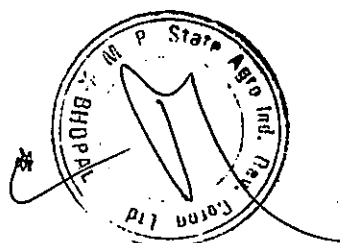
It is understood that if this Declaration is found to be false, MP AGRO shall have the right to reject my/our proposal, and if the proposal has resulted in an investment, the investment agreement is liable to be terminated without prejudice to any other right or remedy (including Black list / Debar/Penalized) available to MP AGRO.

Place:

Date:

**Seal & Signature of the
Bidder or their authorized
Representative**

NOTE: This declaration should be furnished on company's "Letter Head"



ANNEXURE - XI

DRAFT AGREEMENT

(THIS AGREEMENT TO BE FURNISHED AFTER THE BID IS ACCEPTED ON NON JUDICIAL STAMP RS. 1000/-)

This agreement made at Bhopal this day of, between The Madhya Pradesh State Agro-Industries Development Corporation, having registered office at 'Panchanan, 3rd Floor, Malviya Nagar, Bhopal, M.P. hereinafter referred to as 'Corporation' which expression shall unless repugnant to the context or meaning there of include its successors and assigns on the one part.

AND

M/s. having its office at
----- acting through its (hereinafter referred to as the Supplier
which expression unless repugnant to the context and meaning there of includes its assigns,
successors and administrations on the other part.

WHEREAS the Corporation invited Rate Contract Offer for supply of -----

----- for the year 2026-27 on the terms and conditions envisaged in the terms schedule issued
with the Rate Contract RCO Document and purchased by the supplier.

AND WHEREAS the supplier has accepted each and every term and condition contained in the
Rate Contract RCO Document, while submitting his RCO. The supplier has agreed to supply of
quality materials and equipments on consignment basis on the terms and conditions of this
agreement to the Corporation.

AND WHEREAS the Corporation accepted the RCO submitted by the supplier vide its letter of
acceptance no. dated ----- in consideration of the mutual premises and
undertakings hereinafter specified and for other good and valuable consideration this agreement
witness and is hereby agreed on the conditions of the RCO and the following documents shall form
and be constructed a part of the Agreement Deed: -

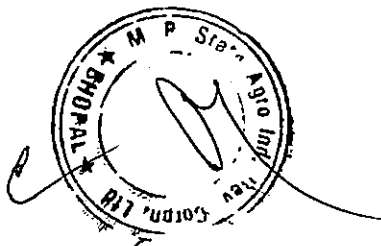
- a) The terms & conditions of the Rate Contract Document
- b) Specifications of material
- c) The letter of acceptance dated -----
- d) The RCO submitted by the supplier.
- e] The rates mentioned in annexure to agreement.

The aforesaid documents shall be taken as complementary and mutually explanatory of one
another but in case of discrepancies and ambiguities shall take precedence in the order set out
above. In this regard the decision of Managing Director, M.P. State Agro-Industries Development
Corporation Limited shall be final.

For Supplier Signature with Office Seal	For M.P. STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LTD MANAGER MARKETING
---	---

Witnesses

1.



FORMAT FOR C.A. CERTIFICATE FOR TURN OVER

We have verified the books of accounts and other relevant records of
M/s ----- Based on
my verification and as per the information and explanation given to
us, we certify financial turnover of M/s -----
----- as under :-

Year	Turnover Rs In Lakhs
Financial Year 2022-23	
Financial Year 2023-24	
Financial Year 2024-25	
Total	

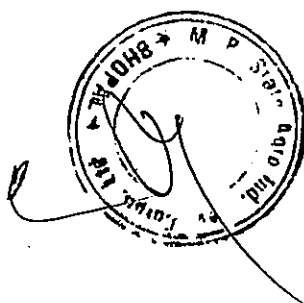
For
Chartered Accountant
Seal and Signature

Place :

UDIN No.

Date :

(to be submitted on CA's letter head)



FORMAT FOR SIGNING AUTHORITY ON THE FIRMS LETTER HEAD

To,
The Manager,
M.P.S.A.I.D.C, IIIrd Floor,
Panchanan Bhavan, Malviya Nagar,
Bhopal.

Sub : Regarding signing authority.

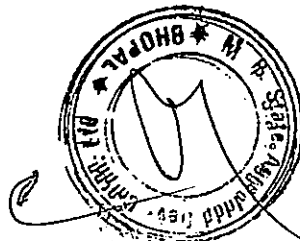
I/We undersigned in the capacity of
Proprietor/ Partner/ Board of Director of the firm M/s
having office at hereby authorize our employee
named Shri holding the position of
to sign in the RCO and related document on behalf of the firm.

Signing person on the document
Name:
Designation and Seal.

Attested and authorised by :-

Proprietor/ Partner/ Board of Director.
Name :-
Designation and Seal

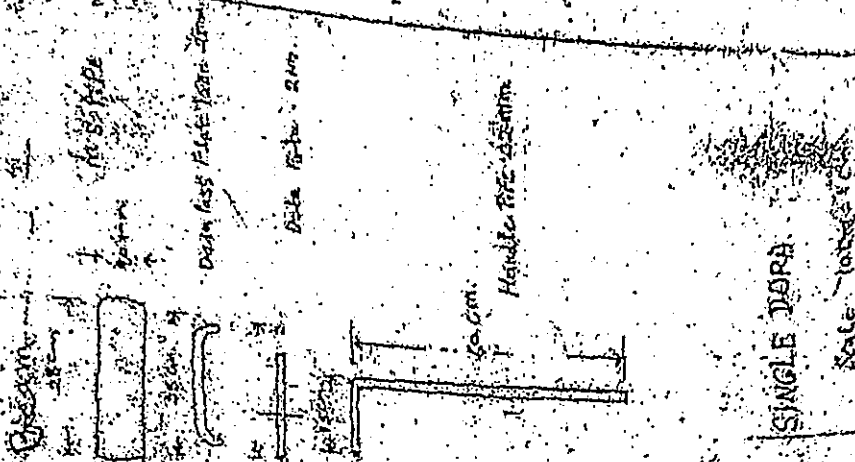
Seal of the Firm



SINGLE-DORA

712
413

FIG. 1. CO-CHIEF
FIG. 2. 1 073425134-6
JULY 26 1912 131

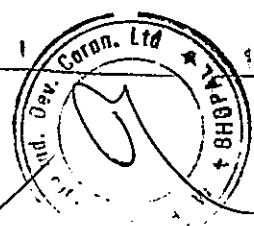
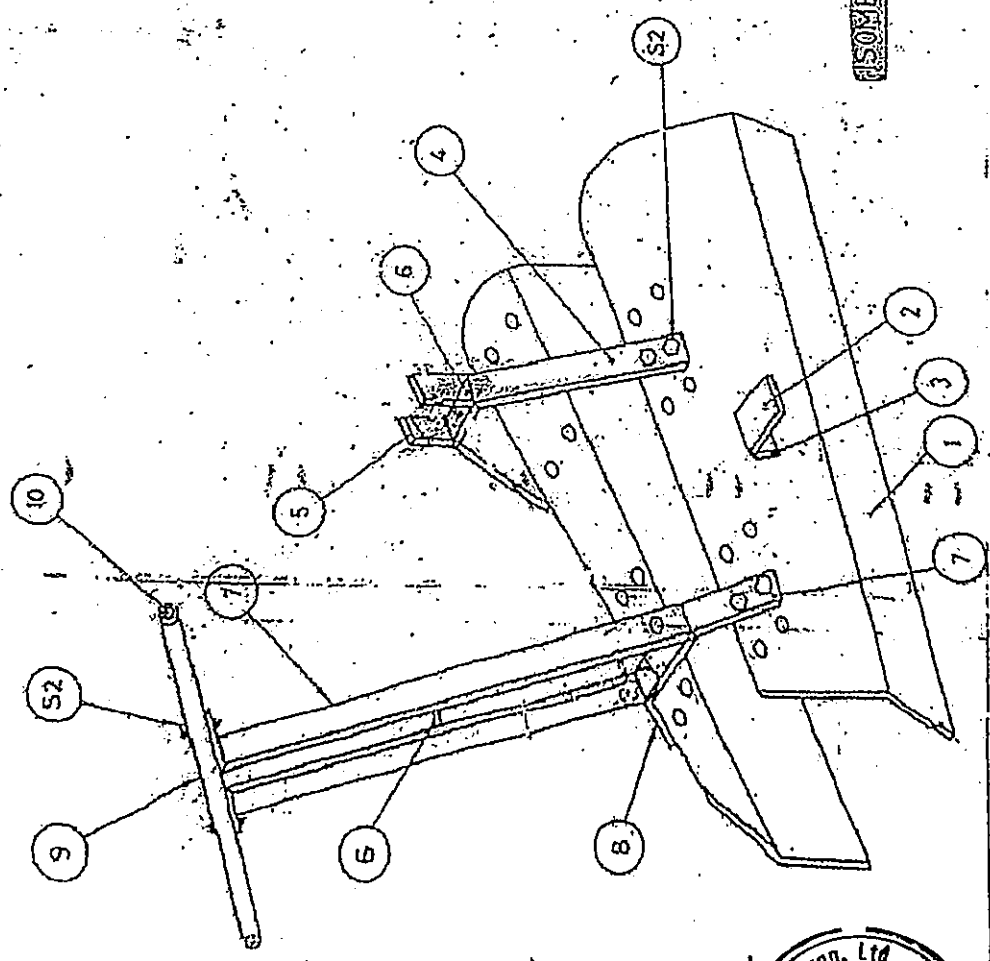


42

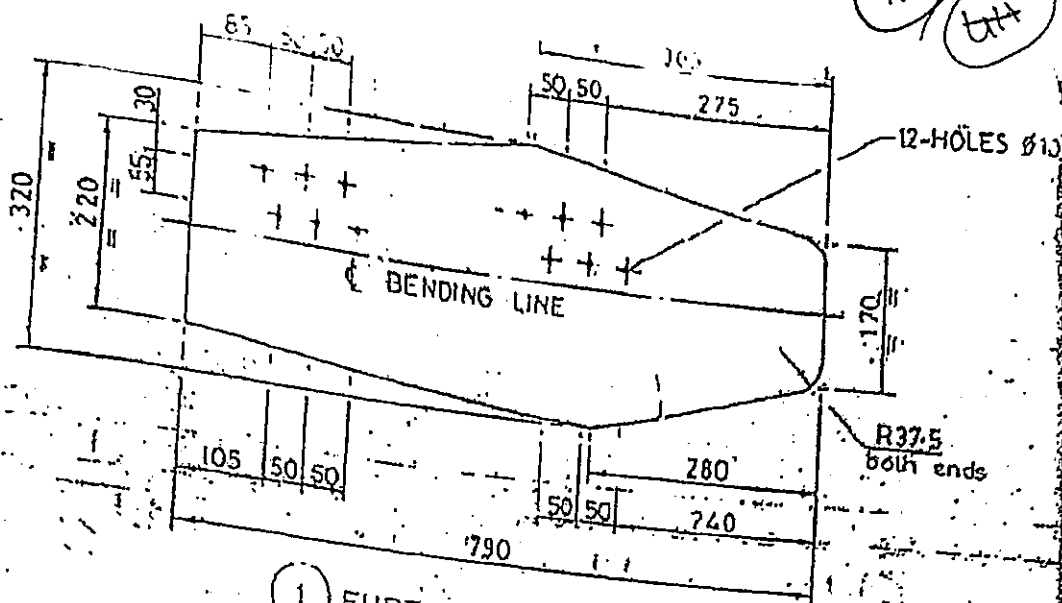
711
412

ISOMETRIC VIEW OF EXHIBIT CARRIER

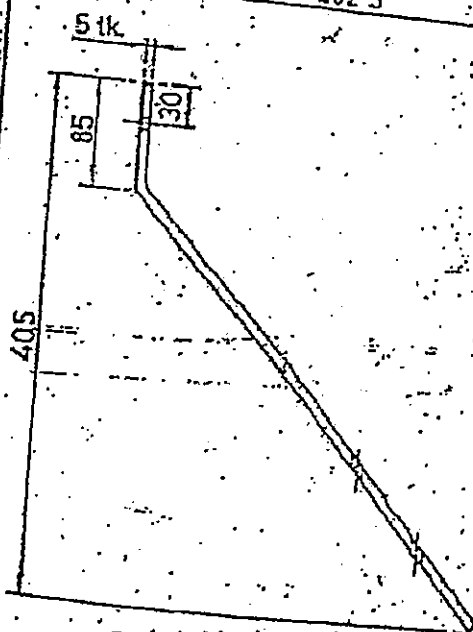
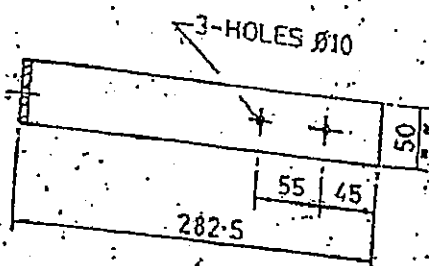
OVERALL HEIGHT 1000 m m.
WIDTH 865 m m.
LENGTH (Without beam) 800 m m.



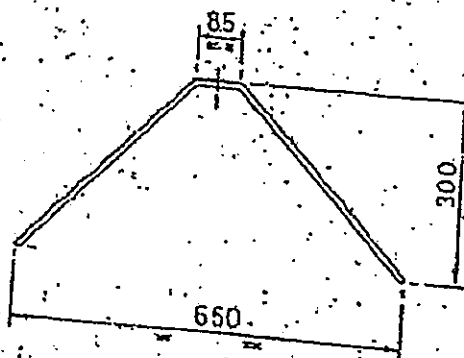
87
43



1 FURROW OPENER
SCALE-1:7.5



4 TYNE FRONT
SCALE-1:5

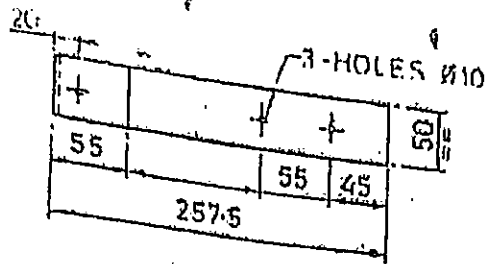


5 FRONT TYNE SUPPORT
SCALE-1:10

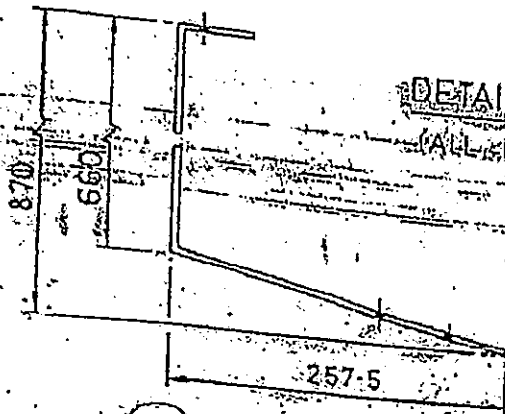
DETAILS OF BUND FARMER
(ALL DIMENSIONS ARE IN m. m.)



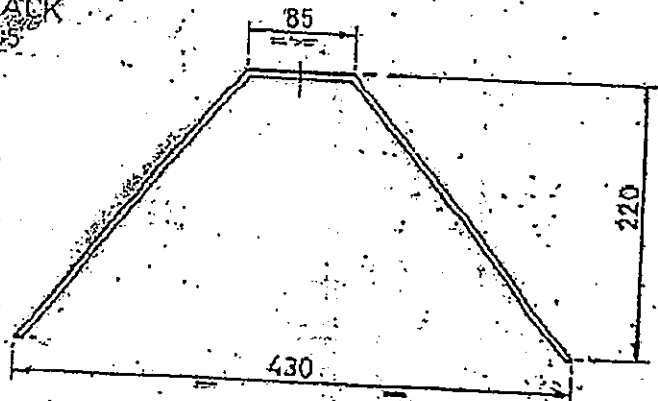
709
410



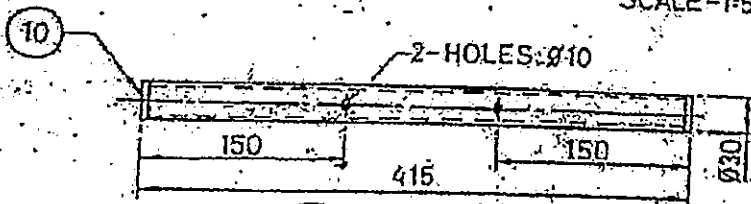
DETAILS OF BUND FARMER
(ALL DIMENSIONS ARE IN mm)



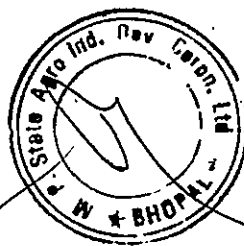
7 TYNE - BACK
SCALE-1:5



8 BACK TYNE SUPPORT
SCALE-1:5



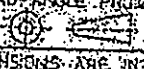
9 HANDLE
SCALE-1:5



59
4145

708
469

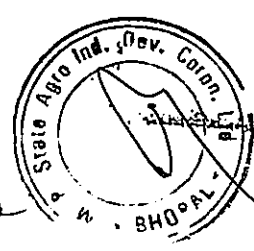
S1		HEX NUT & BOLT		M.H.S.		412x50mm	
S. T. A. N. D. A. R. D. P. A. R. T. S.							
9	HANDLE						
8	BACK TYNE SUPPORT						0304151012511
7	TYNE BACK			2	M.S. FLAT		50x51x130mm
6	SUPPORT FLAT			2	M.S. FLAT		50x51x101mm
5	FRONT TYNE SUPPORT			2	M.S. FLAT		50x51x101mm
4	TYNE FRONT			2	M.S. FLAT		50x51x101mm
3	FLAT SUPPORT			2	M.S. FLAT		50x51x101mm
2	FLAT SUPPORT			2	M.S. FLAT		50x51x101mm
1	FLAT SUPPORT			2	M.S. FLAT		50x51x101mm
REM. NO.	FLAT SUPPORT			2	M.S. FLAT		50x51x101mm

AGRICULTURE ENGINEER RESEARCH M.P. BHOPAL			
STD. UNDESPECIFIED TOLERANCE		TITLE	
STRAIGHT 1/16" IN.		BAND FARMER	
ANGULAR 1/16"		DESIGN BY	SCALE: AS STATED
USED: THIRD ANGLE PROJECTION		DRAWN BY	USED IN
		CHECKED BY	BAND FARMER
ALL DIMENSIONS ARE IN INCHES		APPROVED BY	DESIGN NO. 5 (EX-82)

48 50

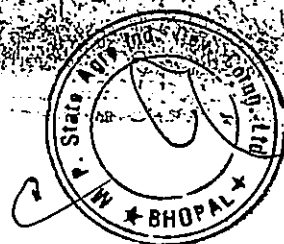
60

46



BULLOCK DRAWN MULTITool BAR FRAME

S.No.	Item	Parts & Dimension	Weight (In Kg.)
	Noir Frame	i) MS Angle 50 x 5 ii) MS Flat 49 x 11 iii) MS Pipe 32 mm iv) MS Flat 18 x 4 v) MS Round 6 mm vi) Nut + Bolt + Washer	3.000 Kg 9.000 Kg 2.000 Kg 0.600 Kg 0.300 Kg 0.800 Kg
	Bakher	i) Tyres ii) Bakher Pass iii) MS Angle 40 x 5 & 35 x 5	2.000 Kg 2.400 Kg 3.000 Kg
	Dora	i) MS Angle 50 x 5 ii) MS Round 6 mm iii) Dora Tyres (2 Nos.) iv) Dora Pass (2 Nos.)	0.500 Kg 0.100 Kg 0.900 Kg 0.600 Kg
	Tiffan	i) MS Angle 35 x 5 ii) MS Angle 40 x 5 iii) MS Square 50 x 5 iv) MS Square 40 x 20 v) Tiffan Tyres (3 Nos.) vi) MS Pipe 25 mm (3 Nos.) vii) MS Funel (3)	1.400 Kg 1.600 Kg 0.500 Kg 1.000 Kg 3.300 Kg 0.900 Kg 0.450 Kg
	Ploogh	i) MS Sheer 10mm ii) MS Angle 50 x 5 (18) iii) MS Angle 40 x 5 iv) MS Round 8 mm v) MS Square 18 x 4 vi) MS angle 40 x 5 vii) MS Angle 35 x 5 viii) MS Square 40 x 40 ix) Nut + Bolt + Colatic	3.000 Kg 1.500 Kg 2.000 Kg 0.600 Kg 3.000 Kg 3.500 Kg 2.050 Kg
	Total		50.000 Kg



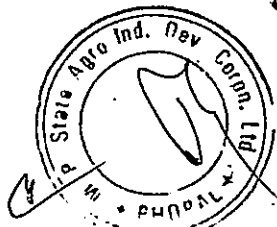
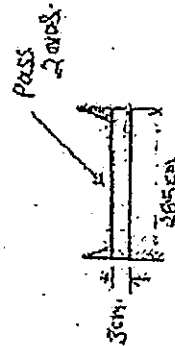
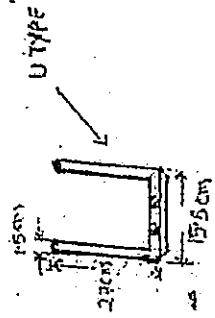
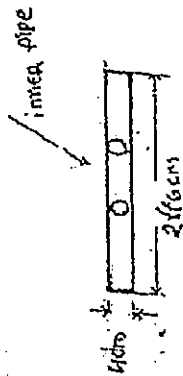
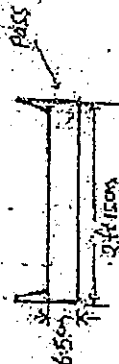
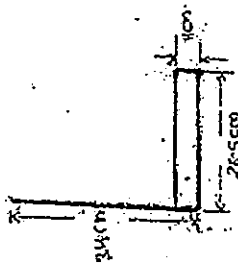
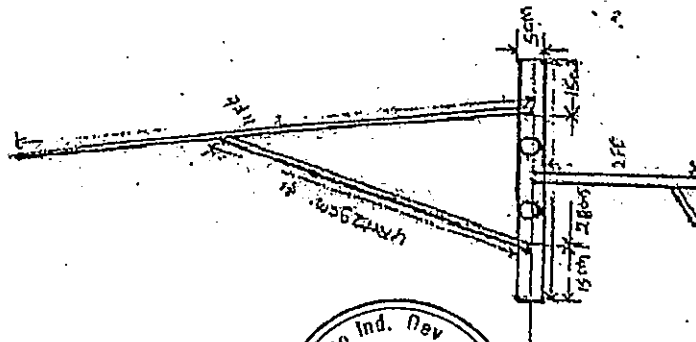
[A] MULTI FRAM

WIDTH = 5 mm

[B] L TYPE ZEAR
2 nos. FITTED

BAKED

[C] DOUBLE DORS



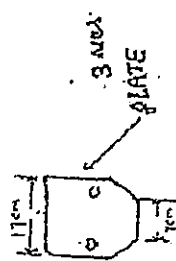
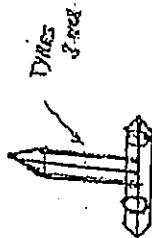
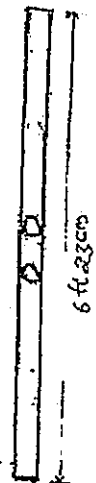
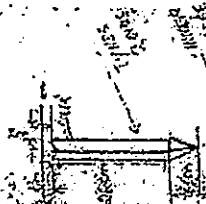
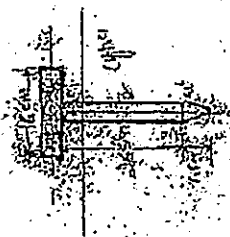
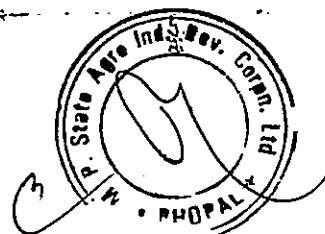
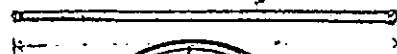
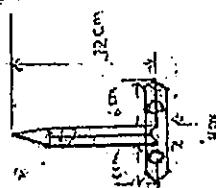
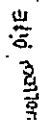
54

418

(9)

706
607

[2] TIFARRA

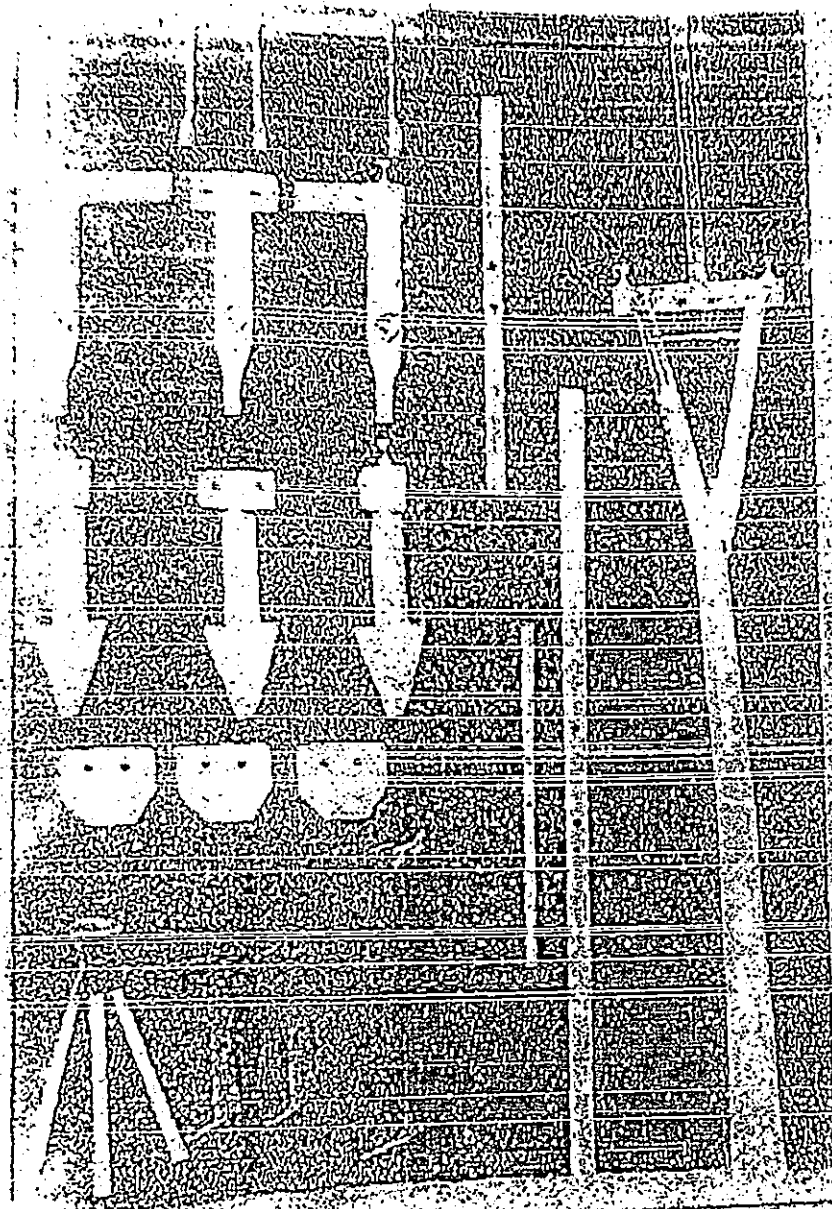


55

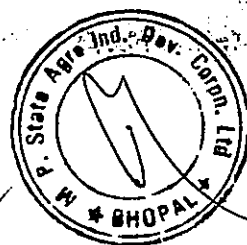
705
706

704
HAS

BULLOCK DRAWN MULTI TOOL BAR FRAME



58
30

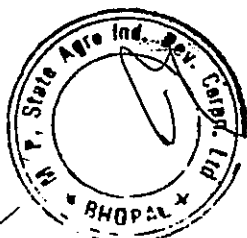


763

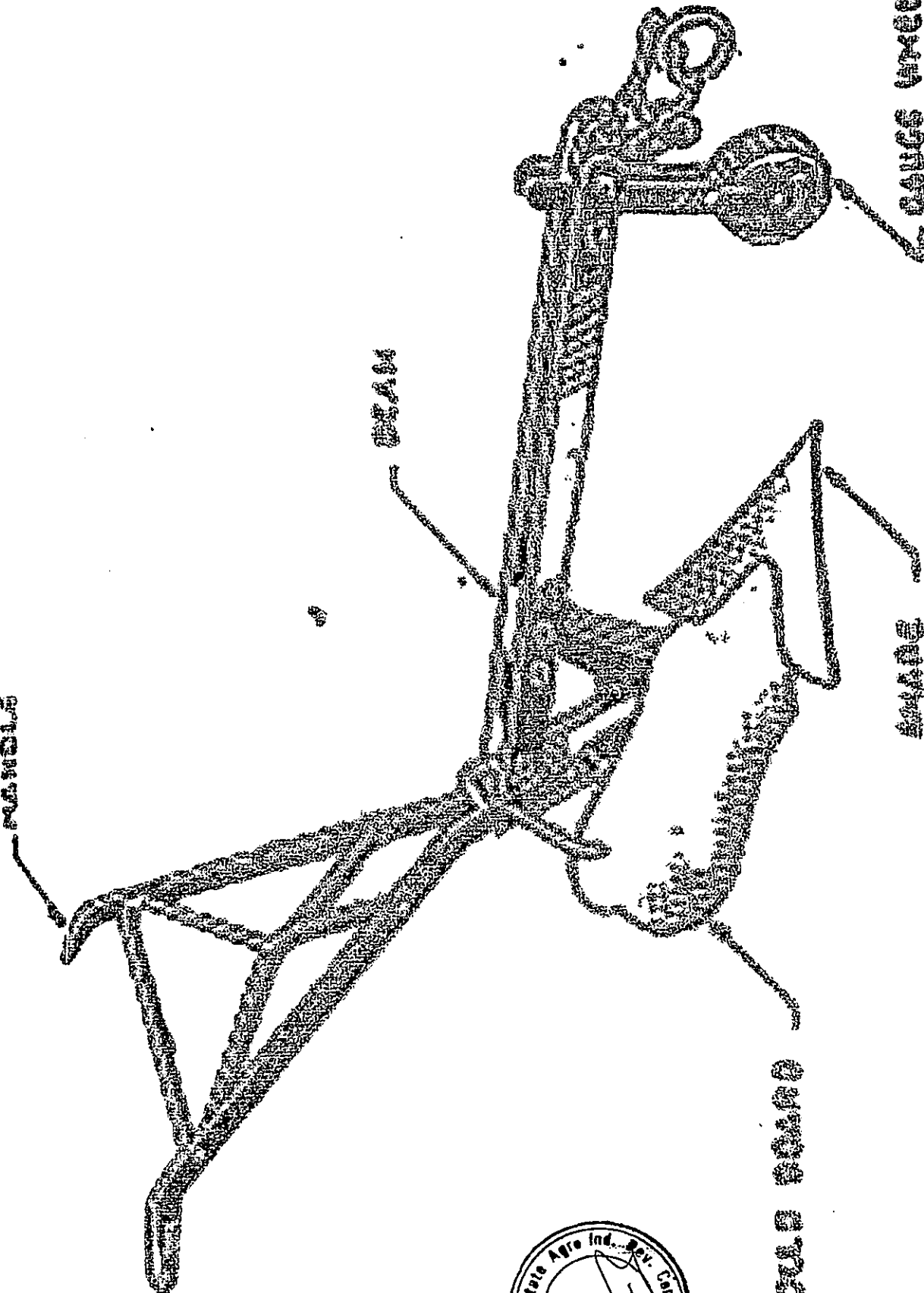
12000 30000

12000 30000

12000 30000

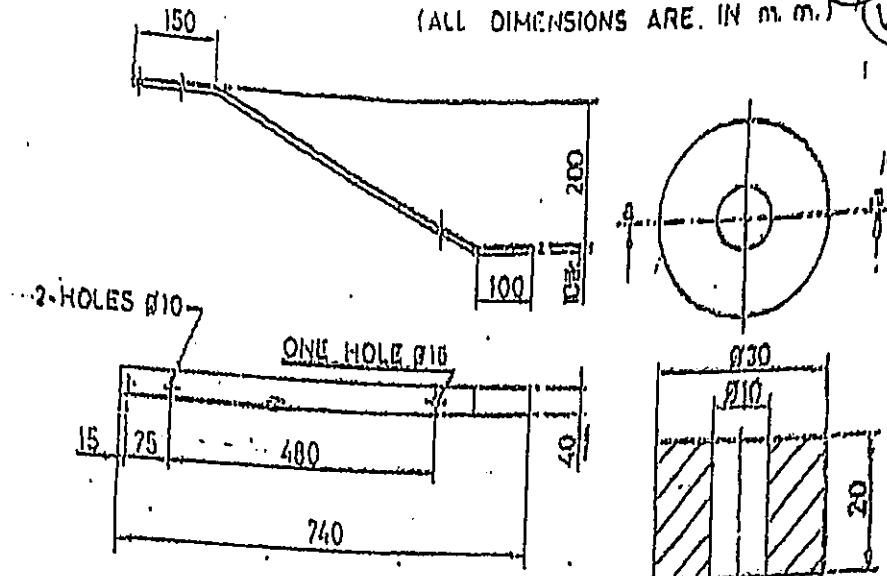


50A



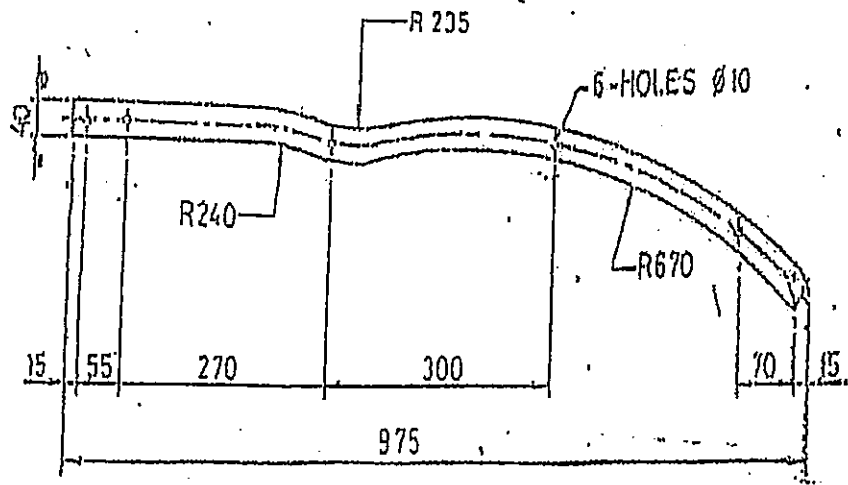
(ALL DIMENSIONS ARE IN m.m.)

702
L204

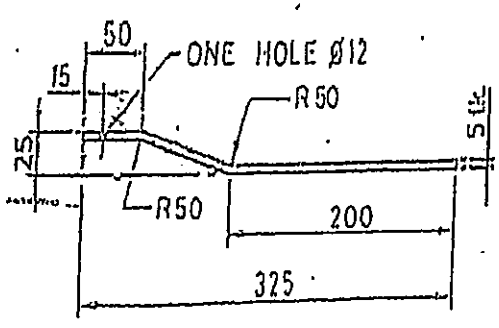


1 HANDLE
SCALE-1:10

2 FRAME BUSH
SCALE-1:1

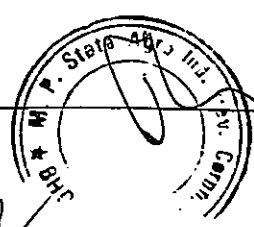


4 FRAME
SCALE-1:7.5



5 WHEEL BRACKET
SCALE-1:5

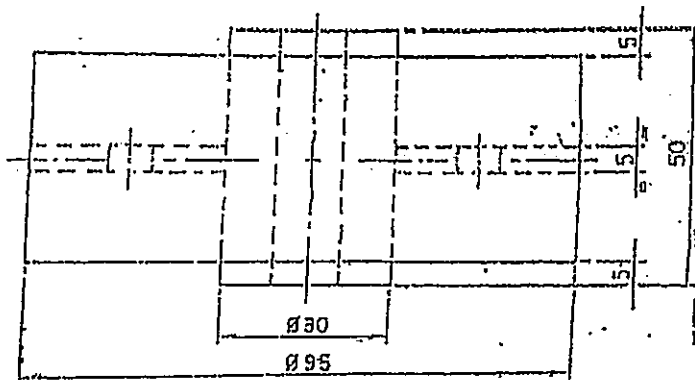
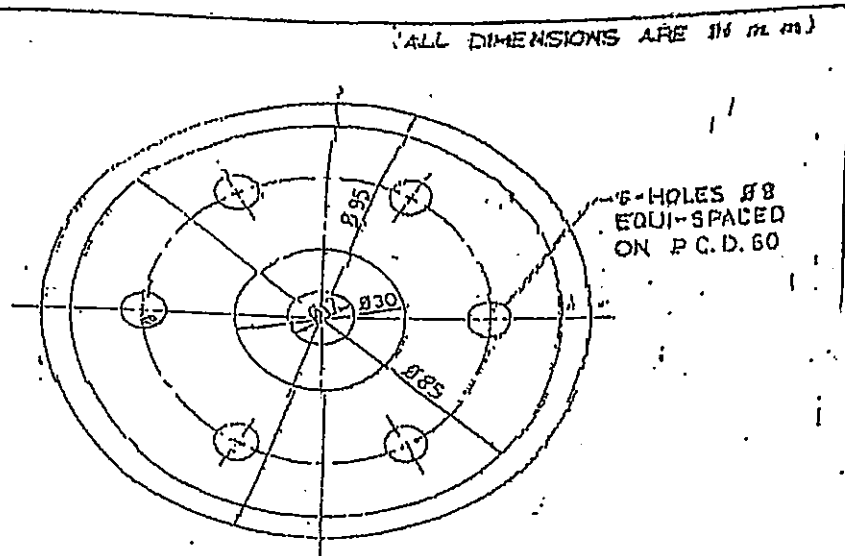
DETAILS OF
MOUNTING BOARD PLUGH
(REVERSIBLE TYPE)



48

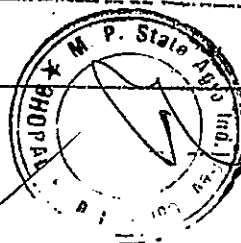
51

701
403



6 WHEEL (SPECIAL TYPE)
SCALE 1:1

DETAILS OF MOULD BOARD PLOUGH
(REVERSIBLE TYPE)



760
4/10/23

परिशिष्ट 2 अं (क)

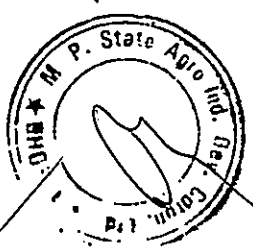
अभियंत्रिकी मापदण्ड :-

निमाड़ी पंजी ढाल कृषि यंत्र

क्रमांक	पुर्ज का नाम	मात्रा	लम्बाई चौड़ाई सेमी	वजन किग्रा	रिपाक
1	पंजी फ्रेम (बोम सहित)	1 नग	40×6×0.5	17.300	-
2	पंजी	3 नग	34×32×0.3	14.100	4.700 किलोग्राम प्रतिनग
3	टाइन्स सपोर्ट	2 नग	(30+10)×6×1	3.400	1.700 किलोग्राम प्रतिनग
4	पास	1 नग	75×6.5×0.5	3.000	-
5	ढाल ब्लेड	2 नग	-	6.000	3.000 किलोग्राम प्रतिनग
6	रुबना (ग्रीपर)	1 नग	60	1.300	-
7	फीट स्पेनर (पाना)	1 नग	-	-	18 घाय 22
	योग	11 नग	--	45.100	-

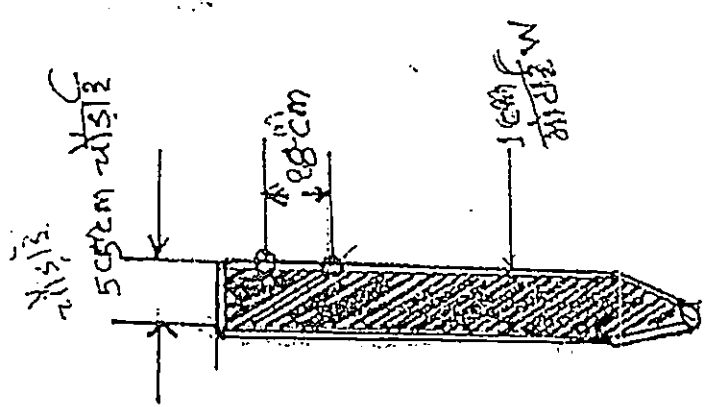
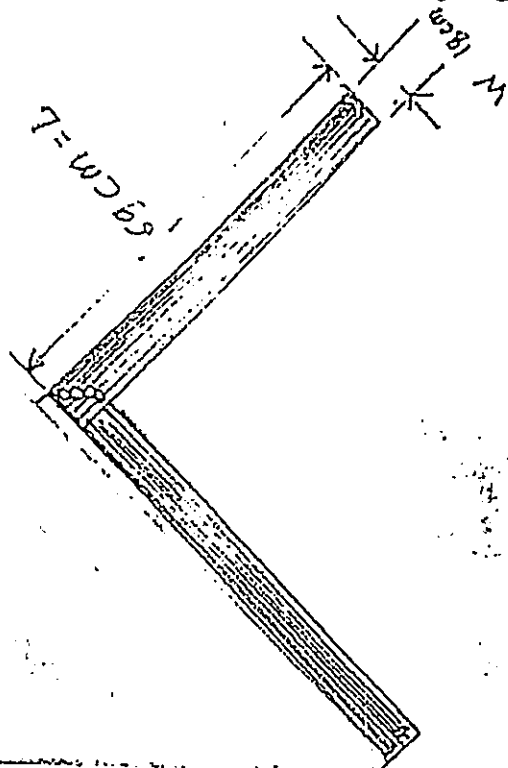
यांत्रिकी सहायक
कृषि अभियंत्रिकी खरगोन

परियोजना संचालक "आला"
जिला खरगोन

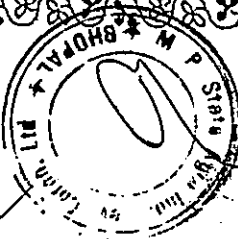


53

698
400



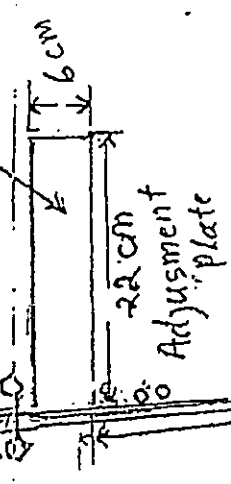
आनंदवन मयाट पट्टी (अनग)



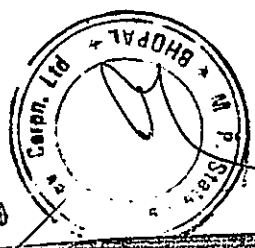
L Type tool

2 nos. feet

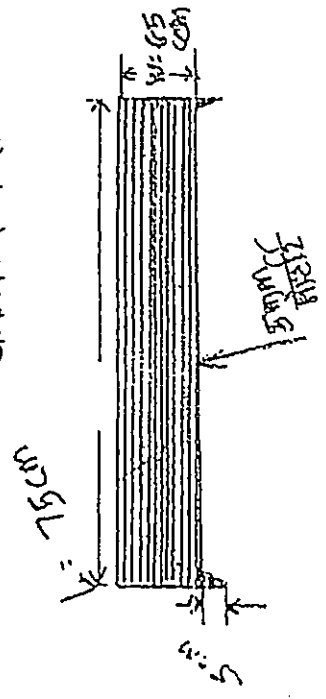
अपतानाई
Hollow pipe



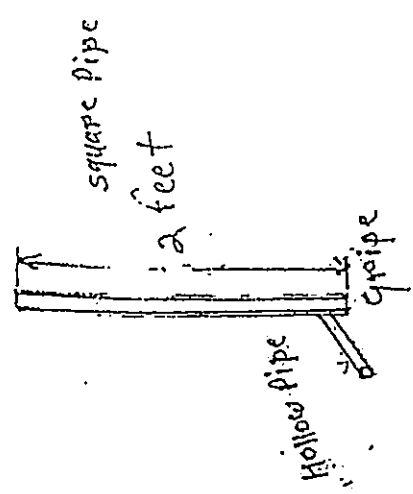
अपतानाई



अपतानाई

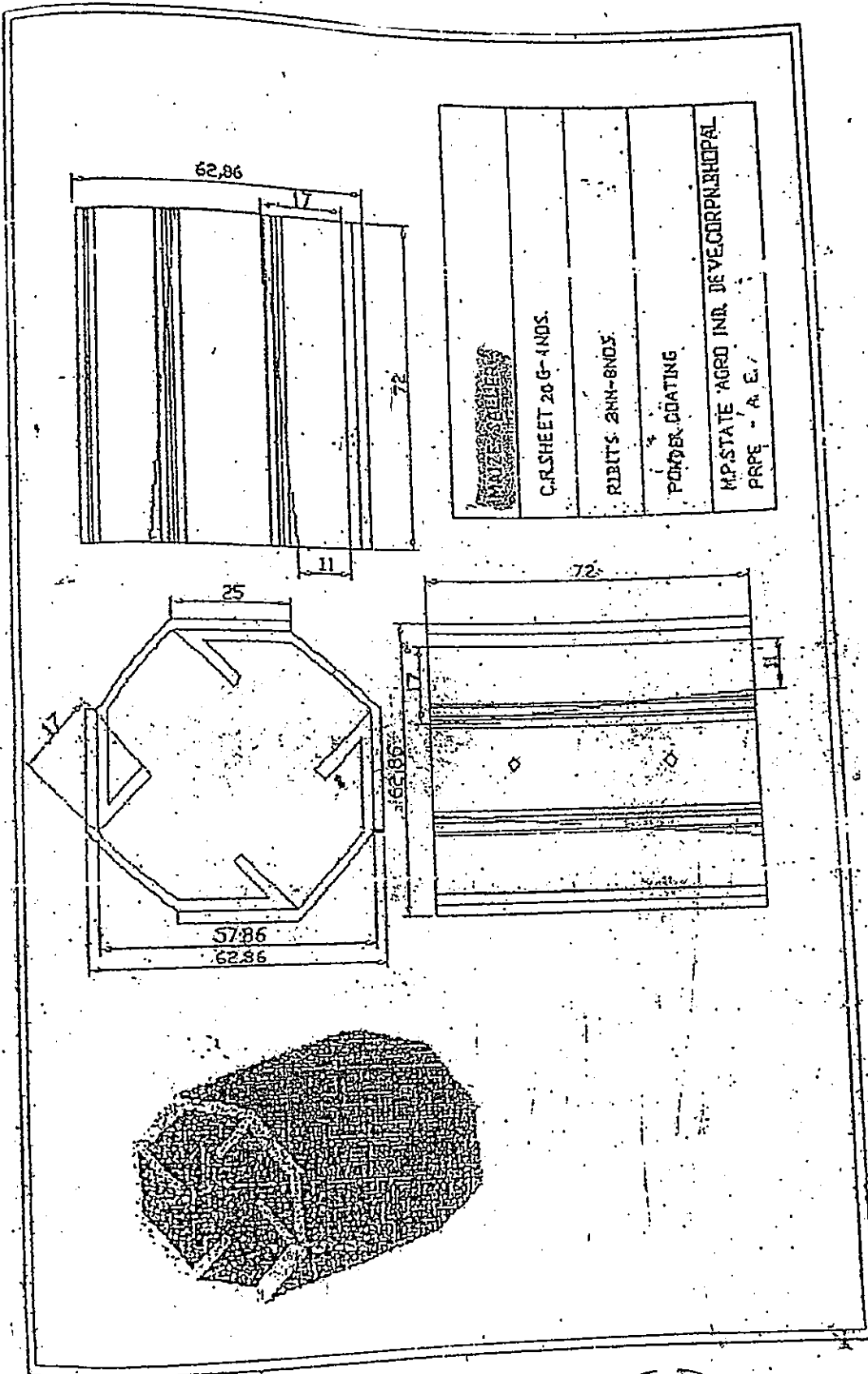


[7]



परिशिष्ट - 2 "अ"
MAIZE-SELLER

688
 398



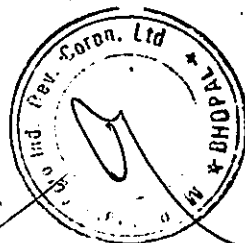
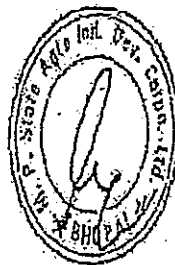
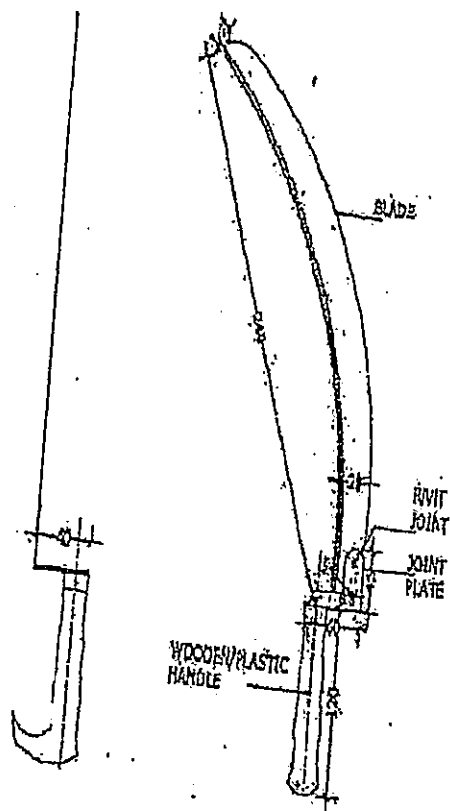
657 33



SERRATED SICKLE

687
289

MINIMUM SPECIFICATION OF SERRATED SICKLE (APPROXIMATE WEIGHT 250 GM)

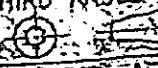


SOYBEAN-WEEDER

686

388

QTY	PARTICULARS	QTY	MATERIALS	SPECIFICATION
58	HEX. NUT	2	M.S.	M10
52	HEX NUT & BOLT	1	M.S.	M8 x 60 lg
51	HEX NUT & BOLT	1	M.S.	M8 x 60 lg
S T A N D A R D P A R T S				
16	HEIGHT ADJUST SECTOR	2	M.S. FLAT	25 x 5 x 125 lg
15	SIDE FLAT	1	M.S. FLAT	25 x 10 x 85 lg
14	FRAME BOTTOM ANGLE	2	M.S. ANGLE	25 x 25 x 3 x 85 lg
13	FRAME ANGLE	2	M.S. ANGLE	25 x 25 x 3 x 230 lg
12	CUTTING BLADE	1	LEAF SPRING	30 x 4 x 220 lg
11	TYNE	1	M.S. BOL. BAR	16 50 x 170 lg
10	RIM	2	M.S. ROD	10 x 65 lg
	SPORE	5	M.S. ROD	10 x 80 lg
8	AXL	1	M.S. ROD	10 x 25 x 140 lg
7	BUSH	12	M.S. ROD	10 x 25 x 20 lg
6	CLAMP	1	M.S. FLAT	10 x 6 x 114 lg
5	EYE BOLT	1	AS SHOWN	
4	TYNE ASSLY	1		
32	BUSH	12	M.S. ROD	10 x 25 x 20 lg
31	M.S PIPE	1		10 x 25 x 230 lg x 186
3	HANDLE	1		
2	FRAME ASSLY	1		
1	GROUND WHEEL ASSLY	1		
E A L B R I C H A S T E D P L A N E S T S				
QTY	PARTICULARS	QTY	MATERIALS	SPECIFICATION

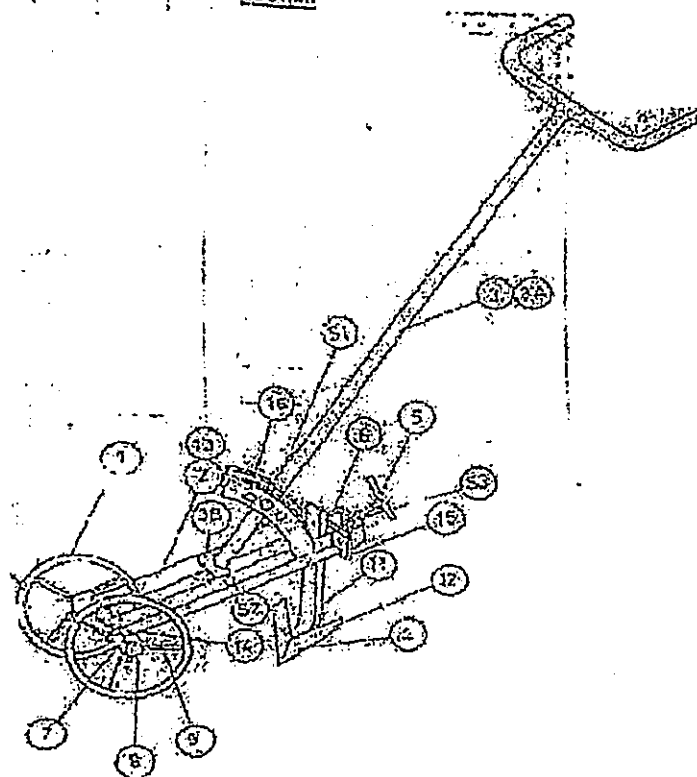
AGRICULTURE ENGINEER RESEARCH CAMP BHOPAL			
STD UNSPECIFIED TOLERANCE:		TITLE: SOYBEAN-WEEDER	
STRAIGHT ± 0.1 mm		DESIGN BY	SCALE - AS STATED
ANGULAR $\pm 1^\circ$		ORNB BY	USED IN
USED THIRD ANGLE PROJECTION:		CHKD BY	SOYBEAN-WEEDER
		APPR BY	DRG/HOZ/RI/24/22/10



685
387

61

OVER-ALL HEIGHT	1070mm
LENGTH	1880mm
WIDTH	580mm

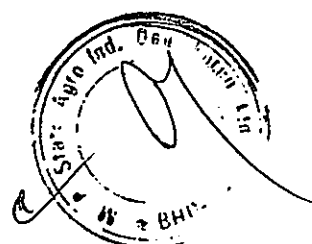


ISOMETRIC VIEW OF SOYBEAN HARROW

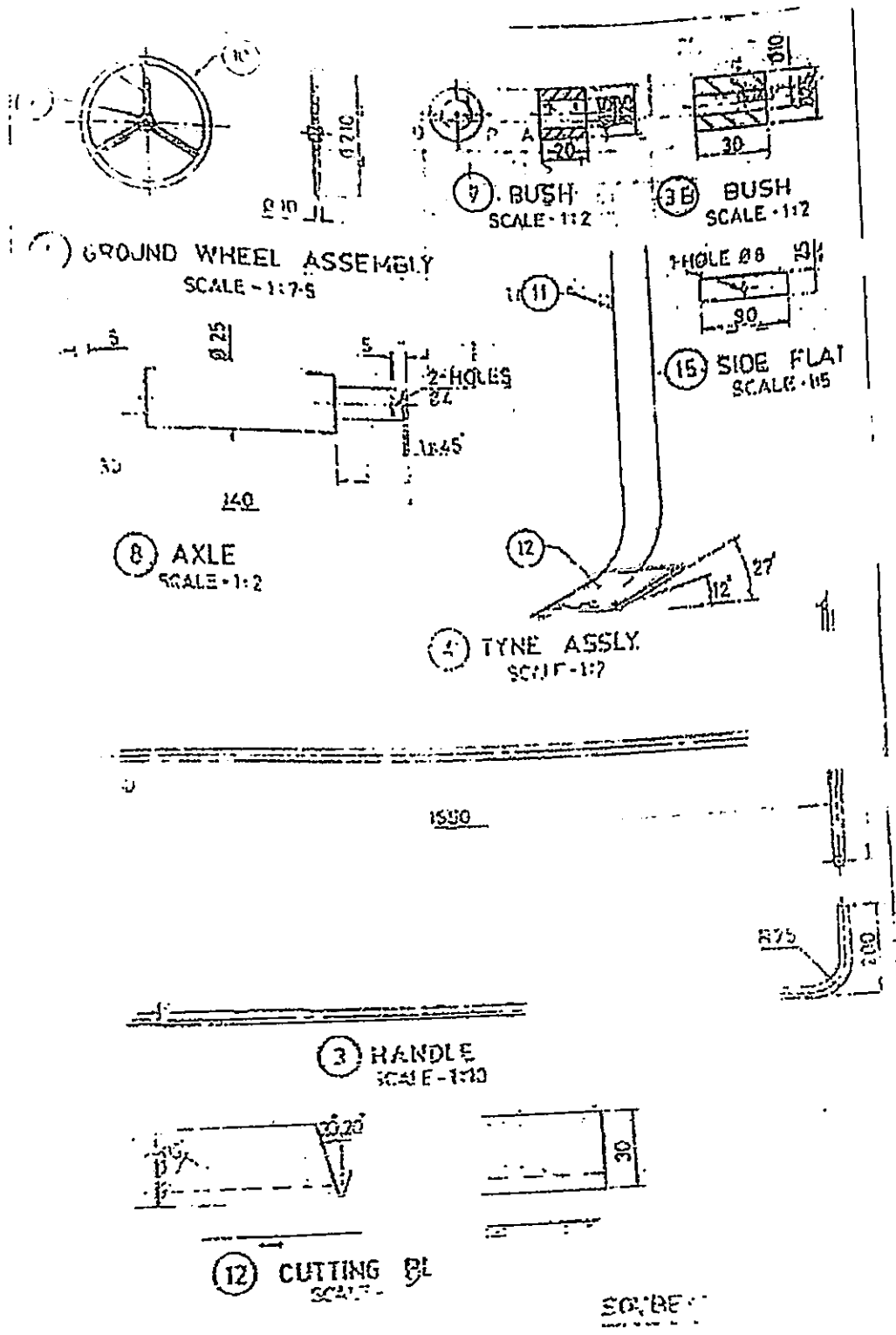
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53

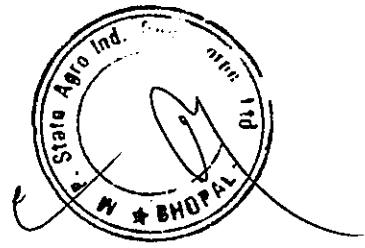
62



684 386

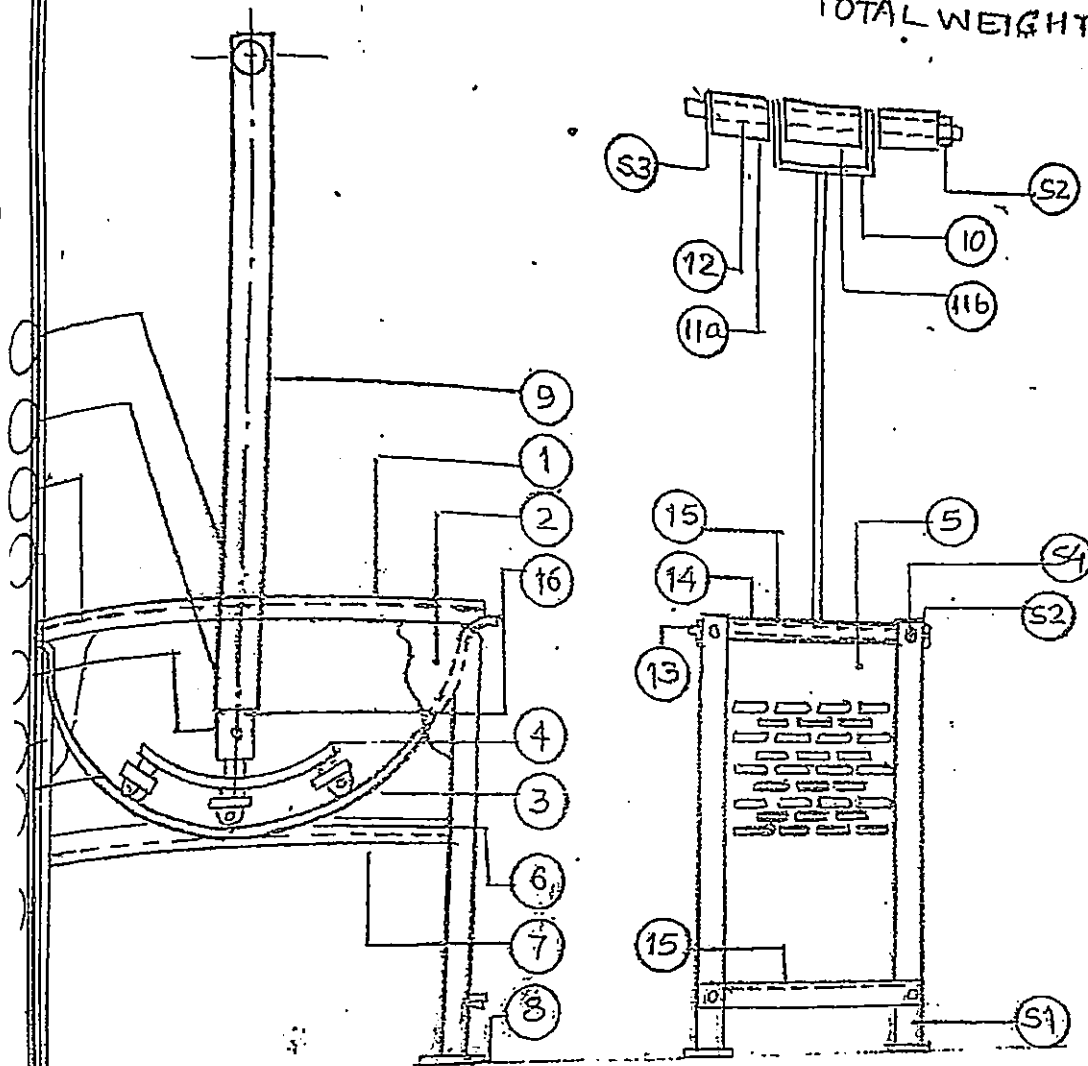


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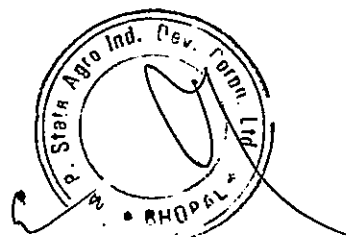


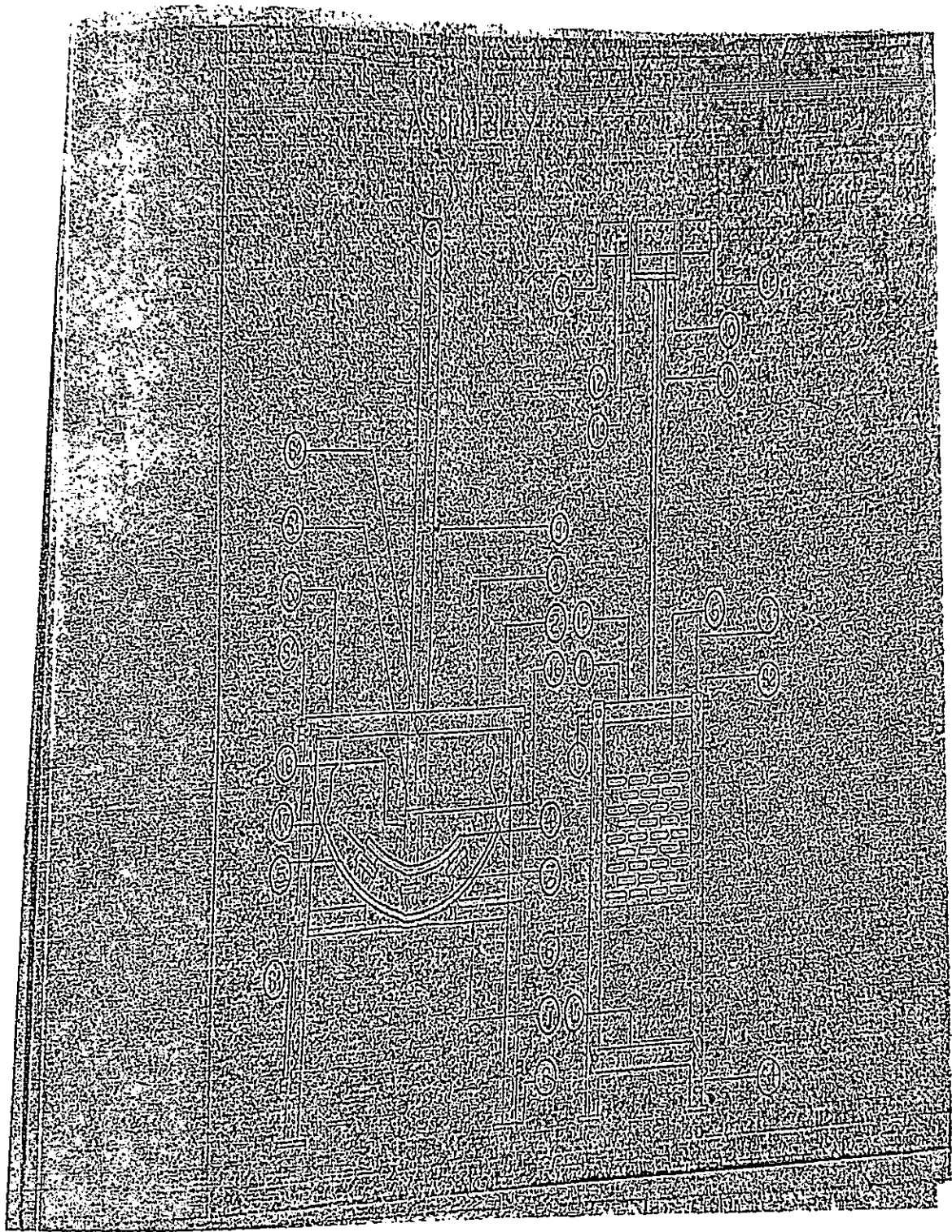
ASSEMBLY Ground Nut Decorticator Implement

OVER ALL HEIGHT.
LENGTH -
WIDTH -
TOTAL WEIGHT -

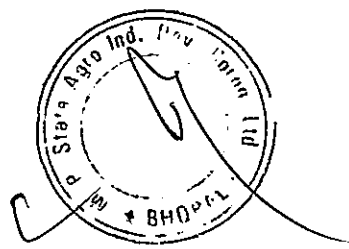


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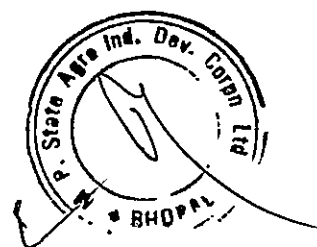
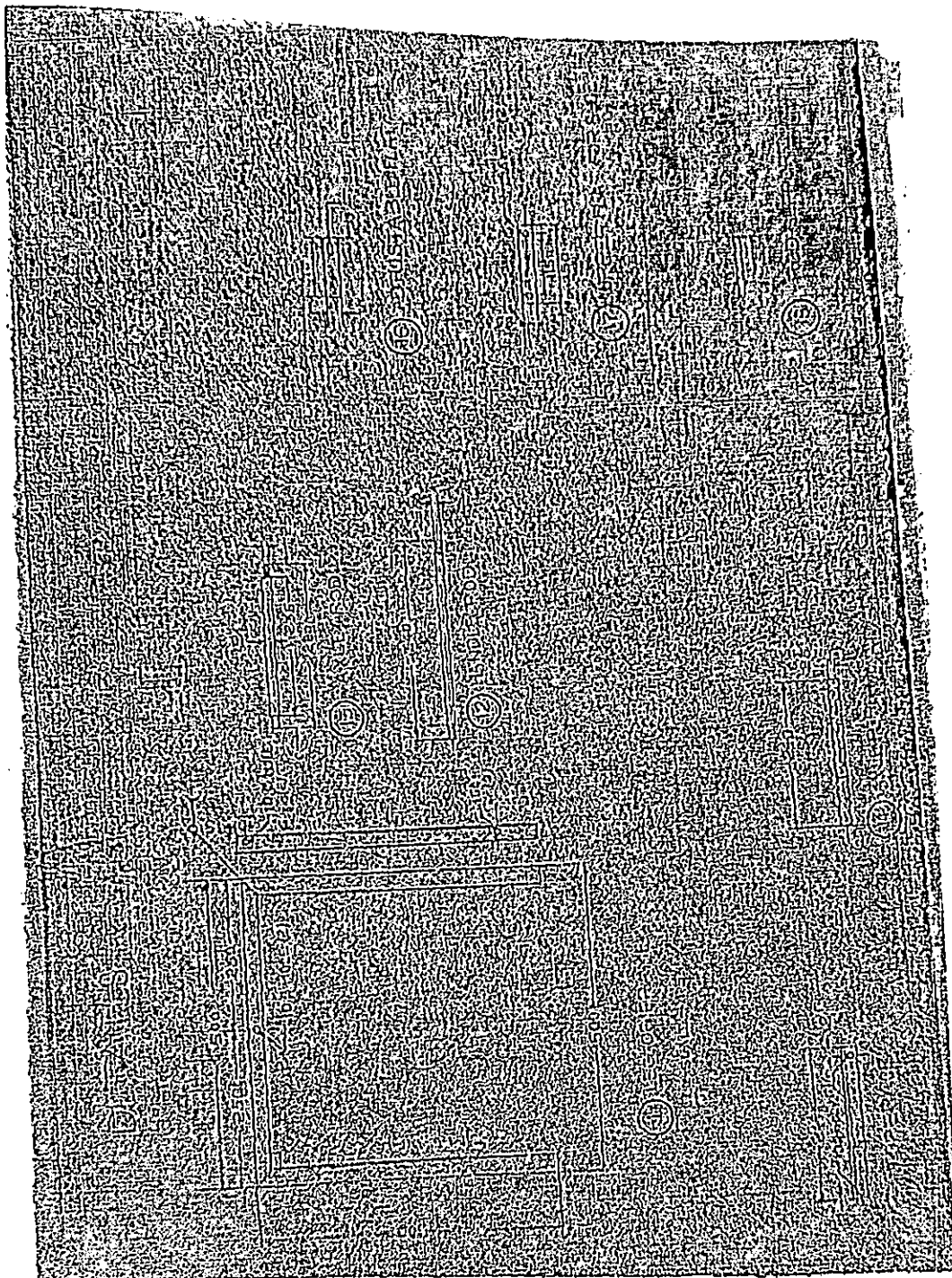


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681

383



(72)

680

680

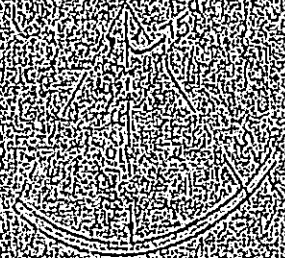
(10) ARITHMOL

(17) ANGLE IRON

WOODEN LIP WOODEN CHIE

(18)

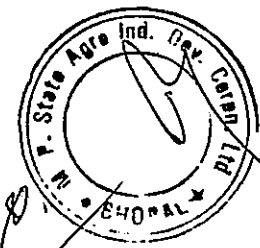
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(15) BOTTOM BRAG

(14)

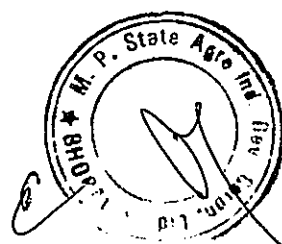
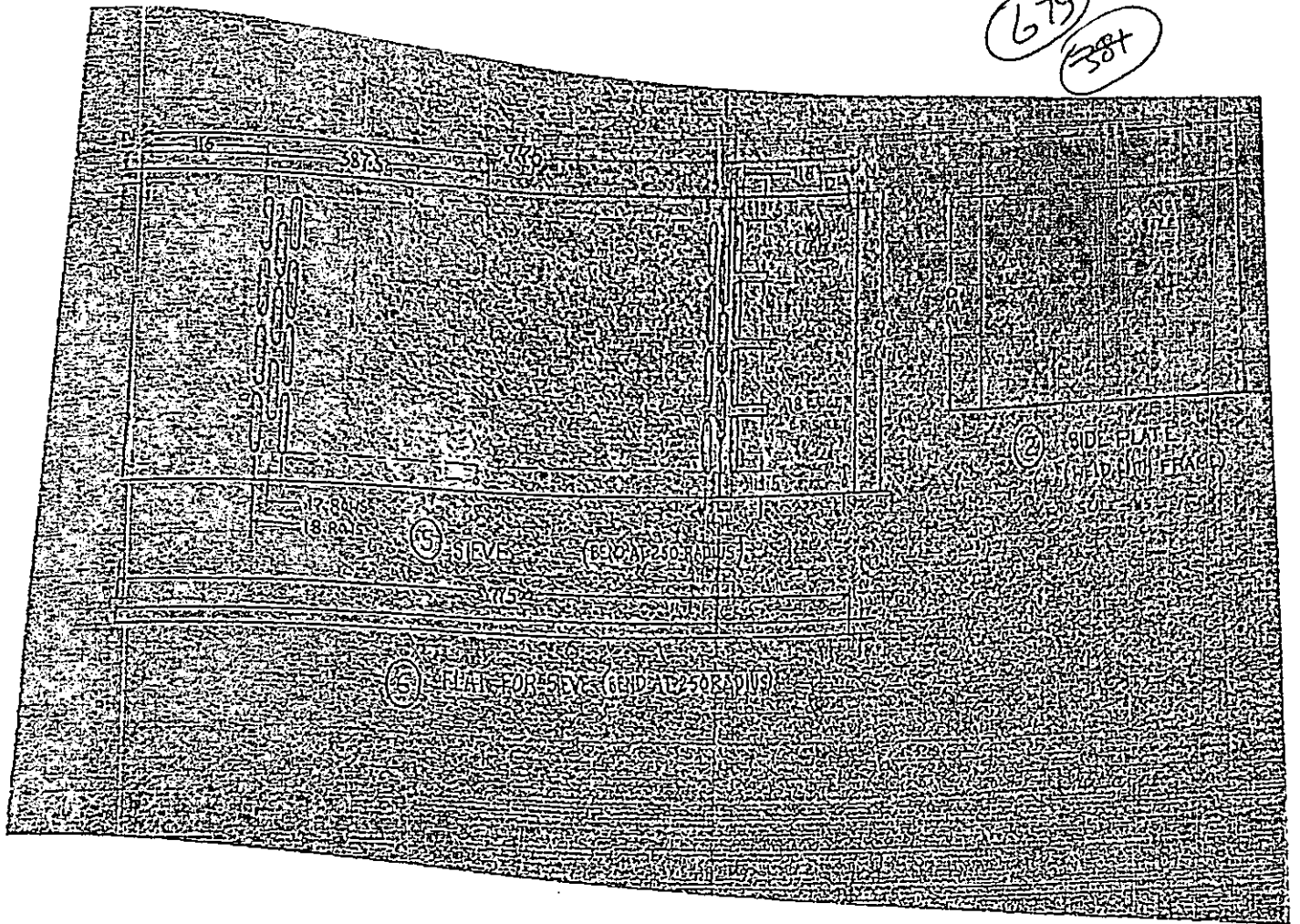
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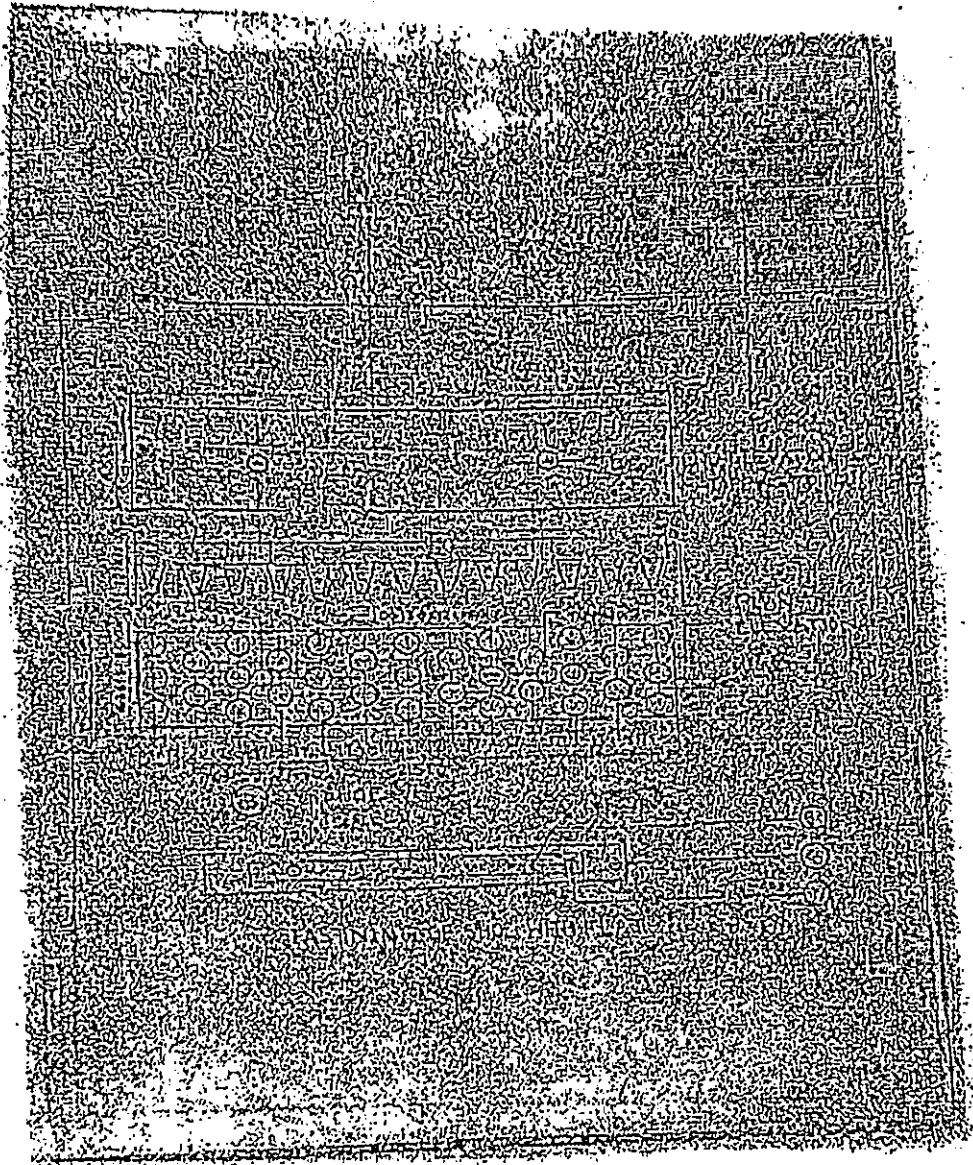


68

(73)

(679)
(381)

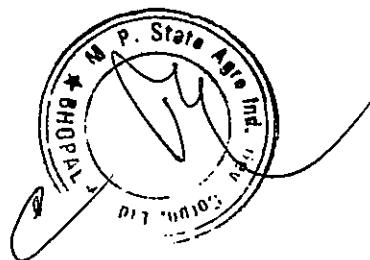




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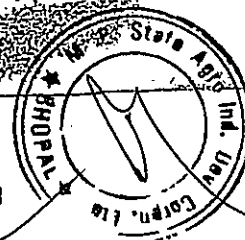
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(75)



HAND WHEEL HOE SPECIFICATION

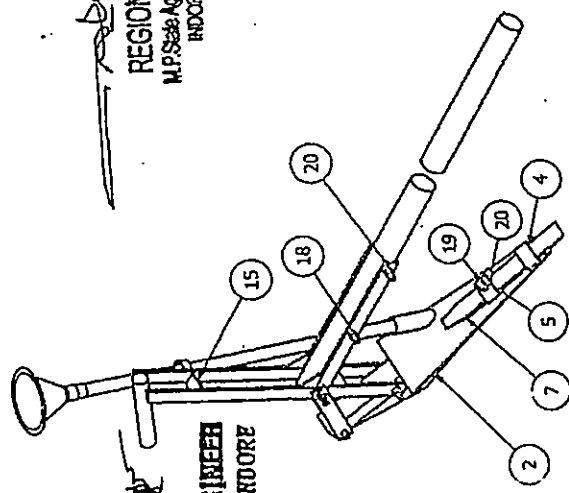
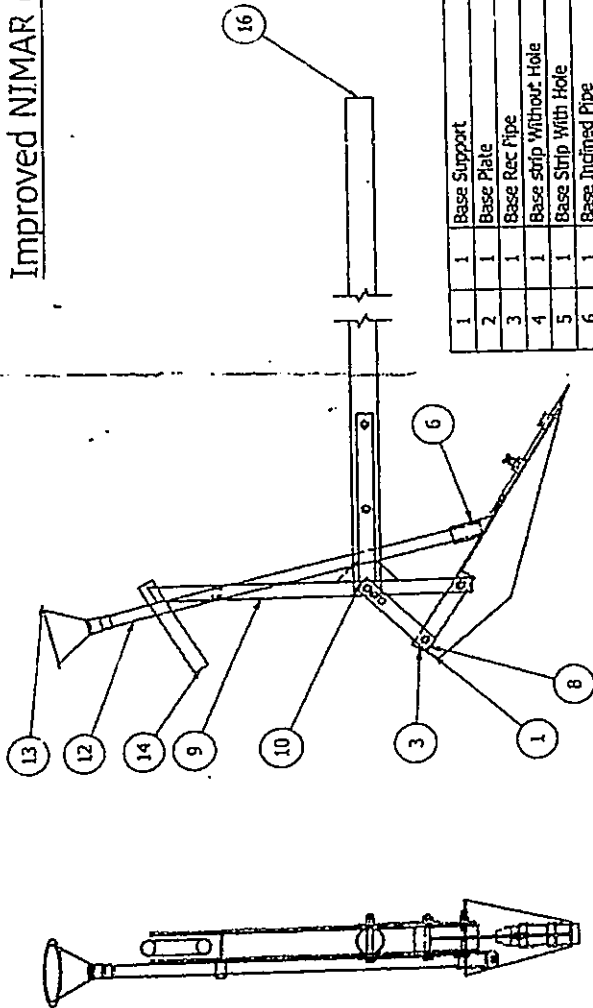
S.N.	Name	Material	Size in mm	Qty.
1.	FORK	MS FLAT	570X24X5 mm	1 No.
		Hole	Ø9mm Dia	5 No.
2.	U FRAME	MS BAR	360X120XØ8 mm	1 No.
		MS FLAT	90X25X 5 mm	2 No.
		Hole	Ø8 mm	2 No.
3.	MAIN FRAME	MS FLAT	820x25x5mm	2 No.
		Hole	Ø10 mm	6 No.
4.	SHOVEL	MS SHEET	200X118MM X3 mm Thick	1 No.
		Hole	Ø9 mm	2 No.
5.	Cycle Wheel	Rim Steel	Ø620	1 No.
		Tyre Tube Rubber		
6.	FRAME	MS FLAT	1100x25x3mm	1 No.
	Pipe	Conduit Pipe	Ø24x140mm	2 No.
			Cycle Wheel Hoe	3



(26)

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379

Improved NJMAR (Khargone) HAL

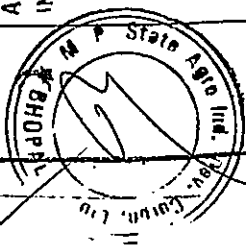


ITEM	QTY	PART NUMBER	MASS	MATERIAL
PARTS LIST				
1	1	Base Support	1.682 kg	Steel, Mild
2	1	Base Plate	1.678 kg	Steel, Mild
3	1	Base Rac Pipe	0.646 kg	Steel, Mild
4	1	Base strip Without Hole	0.120 kg	Steel, Mild
5	1	Base Strip With Hole	0.113 kg	Steel, Mild
6	1	Base Inclined Pipe	0.078 kg	Steel, Mild
7	1	Blade	0.851 kg	Steel, Mild
8	2	Base-Beam Link	0.269 kg	Steel, Mild
9	2	Base-Handle Link	1.494 kg	Steel, Mild
10	2	Handle-Beam Link	0.857 kg	Steel, Mild
11	4	Handle support plate	0.030 kg	Steel, Mild
12	1	Funnel Pipe	0.592 kg	Stainless Steel
13	1	Funnel	0.041 kg	ABS Plastic
14	1	Handle Pipe	0.216 kg	Steel, Mild
15	1	Handle Support Plate2	0.069 kg	Steel, Mild
16	1	Beam	7.010 kg	Steel, Mild
17	1	Handle Guide Strip	0.045 kg	Steel, Mild
18	5	ISO 4017 - M12 x 100	0.103 kg	Stainless
19	1	ISO 4017 - M12 x 30	0.042 kg	Steel, 440C
20	6	ISO 4034 - M12	0.019 kg	Steel, 440C
Total Mass: 18.2 Kg				

REGIONAL MANAGER
M.P. State Agro Ind. Dev. Corp. Ltd.
INDORE (M.P.) 462 002

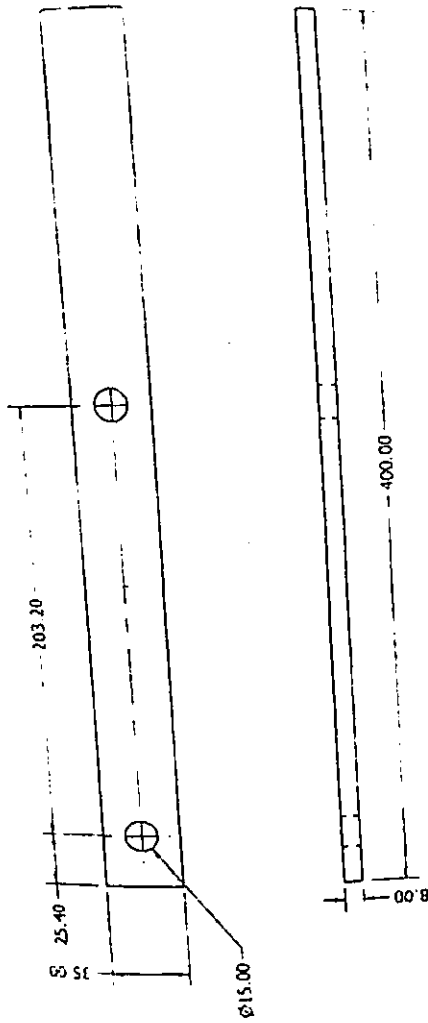


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696
398

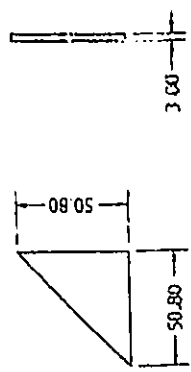
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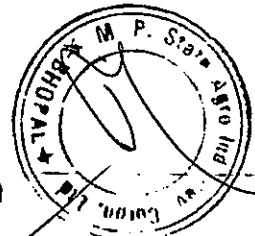
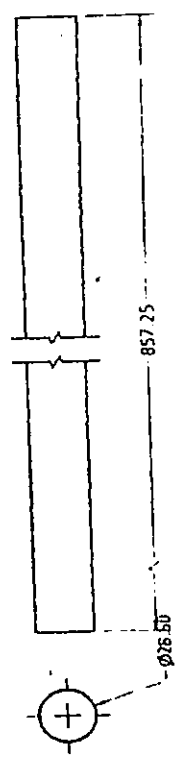
Handle-Beam Link

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STRUCTURE ENGINEER
MOORE - DIVISION, INDORE

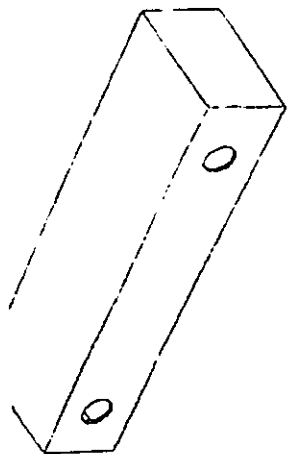
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MPS&S Agro and Dev. Corpn. Ltd.
INDORE (M.P.) 452 002



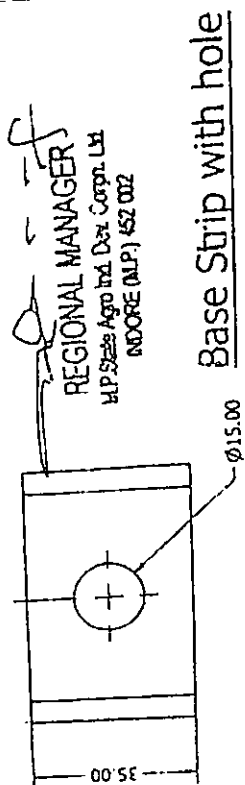
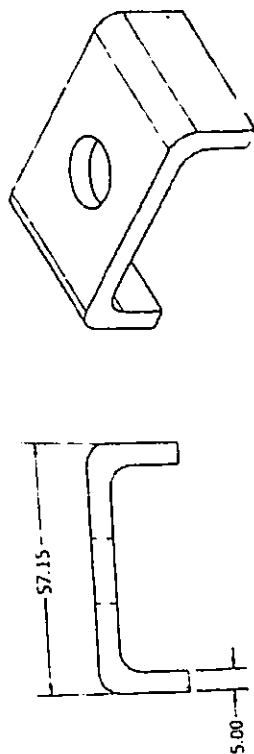
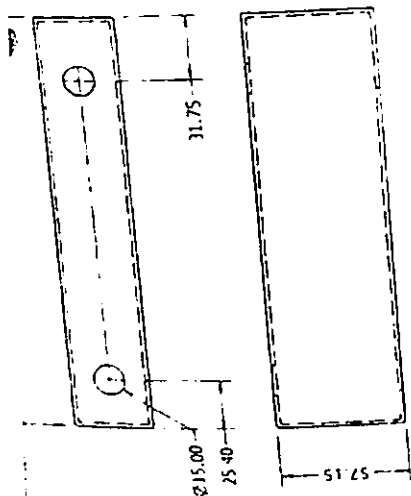
Handle Support Plate



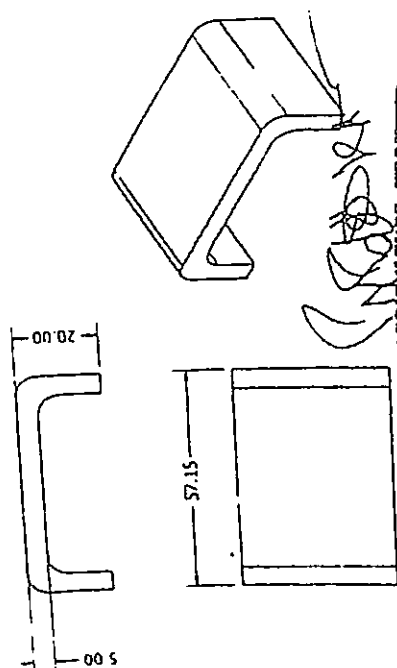
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Drawn By	Sudhanshu	ENGINEERING CAD INSTITUTE	
Checked By		AS: 1000-1000	
Approved By			
Scale	MTS	Sheet no	06 of 07
Dwg No		Handle-Beam Link, Handle Support Plate, Furnish Price	



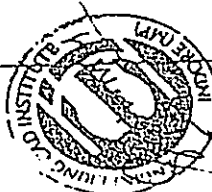
Base Rec Pipe



Base Strip with hole



Base Strip without hole



Date	24/05/2016	Project name	Agro Khargone Hal
Drawn By	Sudhanshu	ENGINEERING CAD INSTITUTE	
Checked By		INDORE (N.P.) 452 002	
Approved By			
Scale	MTS	Sheet no	03 of 07
Dwg No		Base Rec Pipe Base Strip without hole, Base strip with hole	

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H.P. State Agro Ind. Dev. Corp. Ltd.
INDORE (N.P.) 452 002

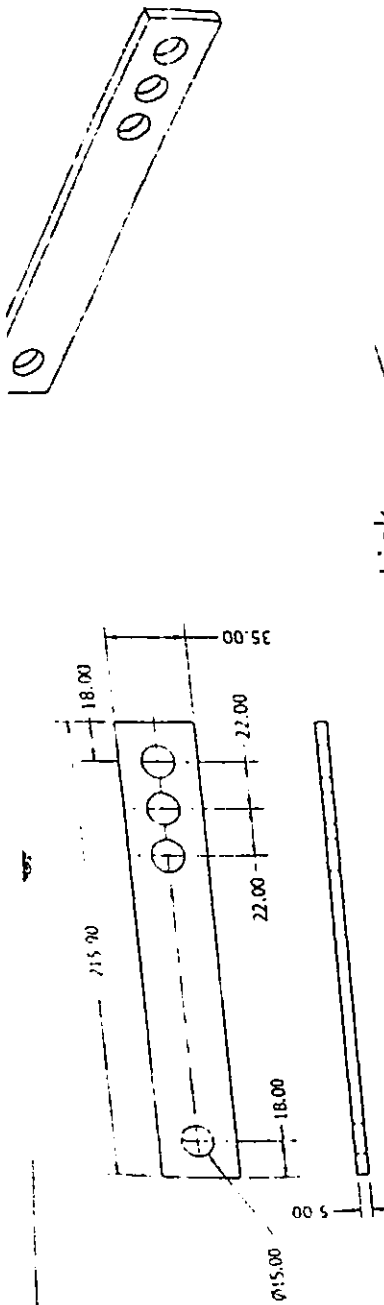
AGRICULTURE ENGINEER
INDORE



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694

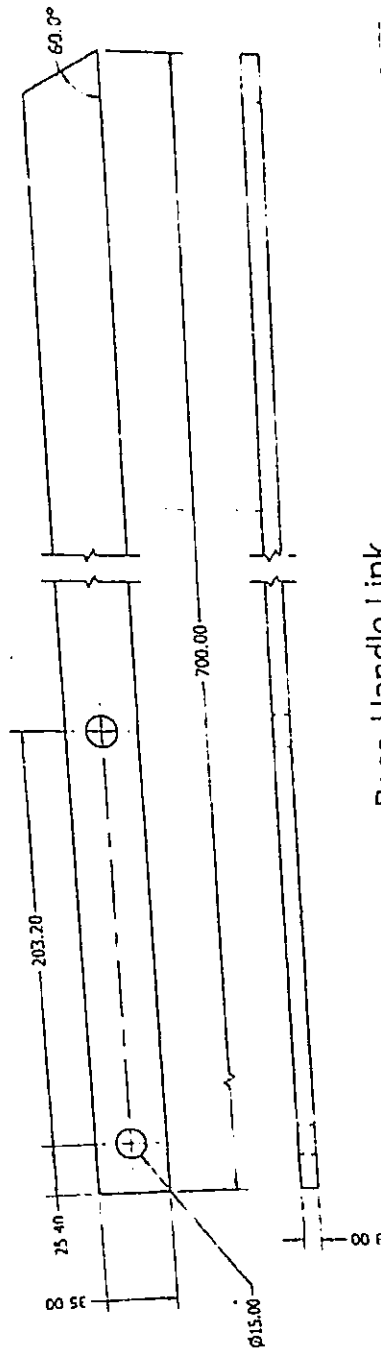
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Base-Beam Link

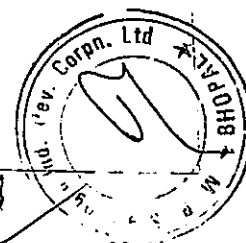
REGIONAL MANAGER
H.P. Sate Agro Ind. Dev. Corp. Ltd.
INDORE (M.P.) 452 002

ENGINEER
INDORE - 452 002



Base-Handle Link

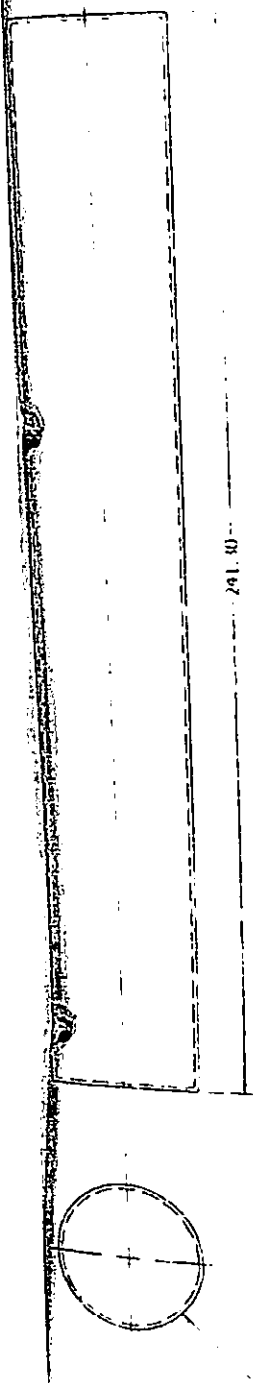
Date	24/05/2016	Project name	Agro Khargone Ind.
Drawn By	Sudhanshu	ENGINEERING CAD INSTITUTE	
Checked By		211 Industrial Road, B. B. Road, Indore	
Approved By		Sheet no	3 of 07
Scale	NTS	Base-Beam Link	
Dwg No		Base-Handle Link	



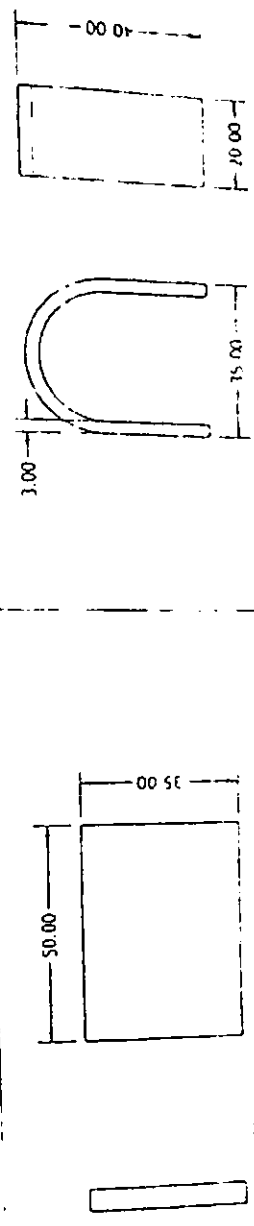
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693
395

692
29/11

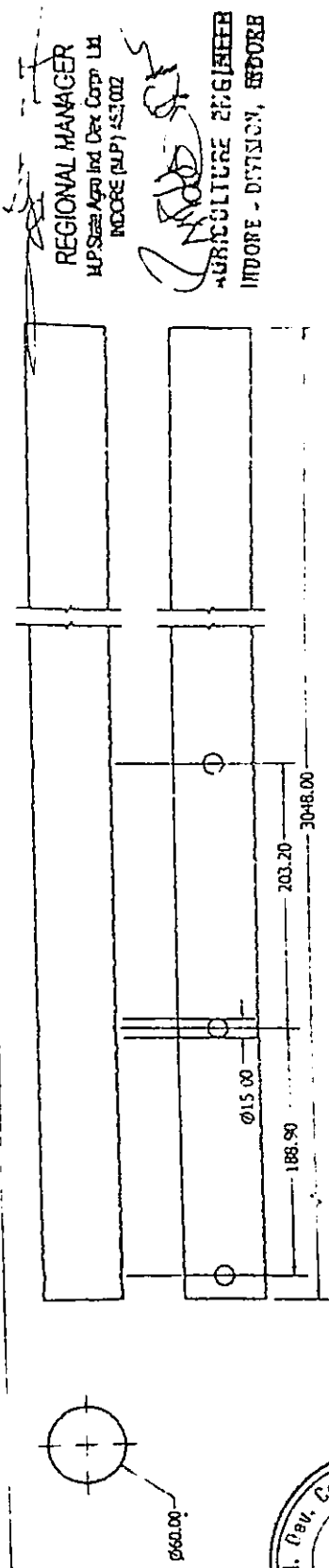


Handle Pipe



Handle Support Plate 2

Handle Guide Strip



Beam

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H.P. State Agro Ind. Dev. Corp. Ltd.
INDORE (M.P.) 451002

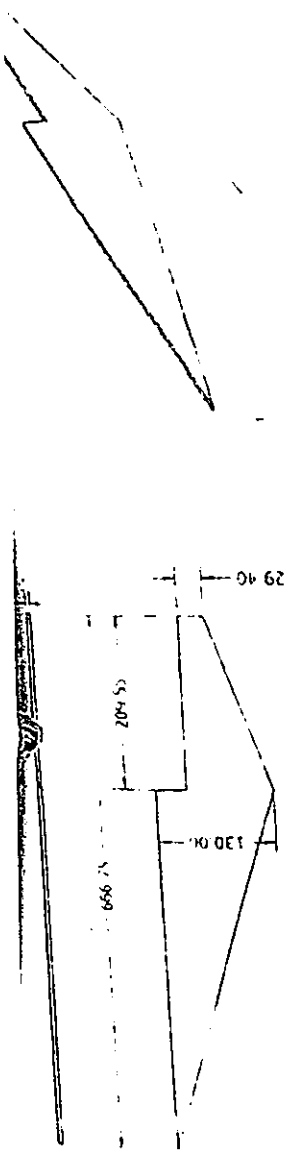
INDORE
AGRICULTURE ENGINEER
INDORE - DIVISION, INDORE



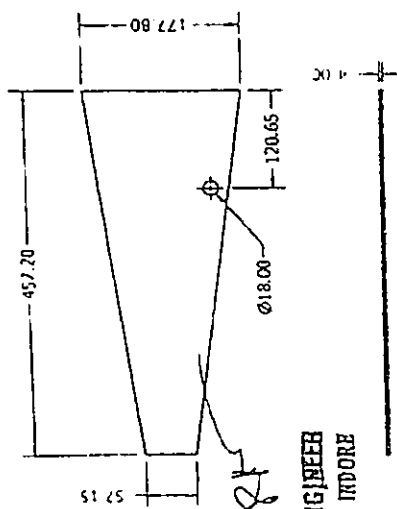
Date	24/05/2016	Project name	Agro Ind. Dev. Corp. Ltd.
Drawn By	Sudhanshu	ENGINEERING CAD INSTITUTE	INDORE (M.P.)
Checked By			
Approved By			
Scale	NTS	Sheet no.	01 of 01
Dwg No.		Handle Pipe, Handle Support Plate 2, Beam, Handle Guide Strip	



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Base Support

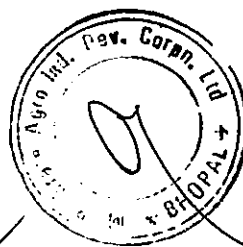


Base Plate

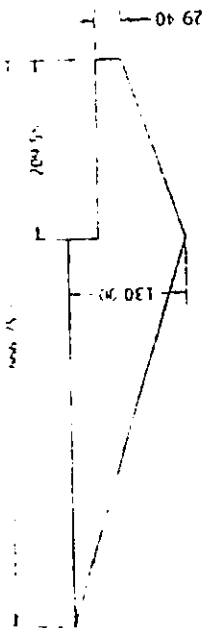
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INDORE - DIVISION, INDORE

REGIONAL MANAGER
HP Sata Agro Ind. Dev. Corp. Ltd.
INDORE (M.P.) 452 002

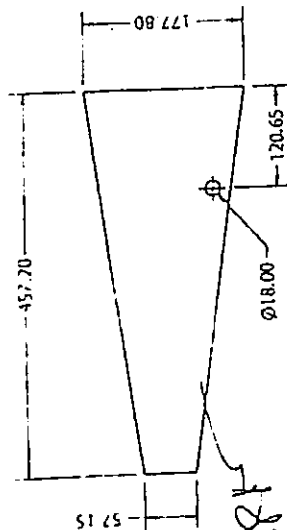
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Drawn By	Sudharshu	ENGINEERING CAD INSTITUTE	
Checked By			
Approved By			
Scale	NTS	Sheet No	02 of 07
Drawn By		Base Support, Base Plate	



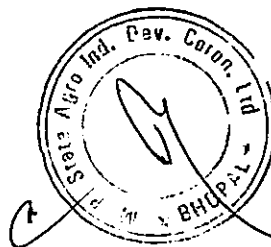
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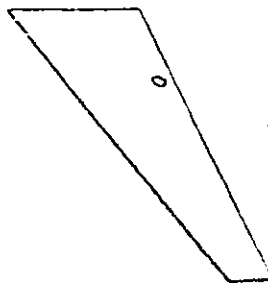
Base Support



[Signature]
AGRICULTURE ENGINEER
 INDORE DIVISION, INDORE



Base Plate

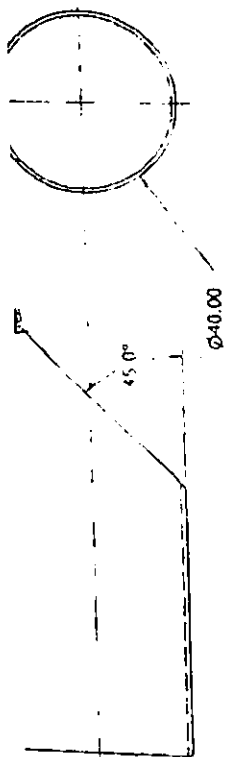


[Signature]
REGIONAL MANAGER
 M.P. State Agro Ind. Dev. Corp. Ltd.
 INDORE (M.P.) 452 002

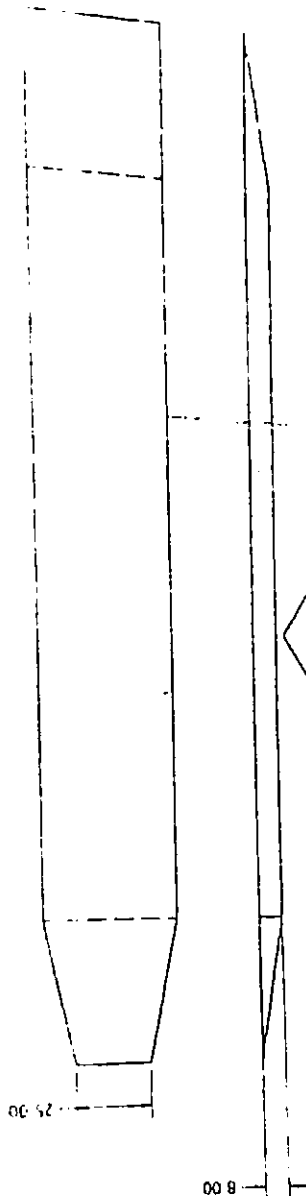
Date	24/05/2015	Project name	agro engineering ind
Drawn By	Sudharshu	ENGINEERING CAD INSTITUTE	
Checked By			
Approved By			
Scale	1:1.5	Sheet No.	25 of 27
Draw No.		Base Support	Sub: Type

690
 392

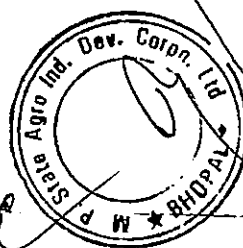
(637)



Base Inclined Pipe



Blade



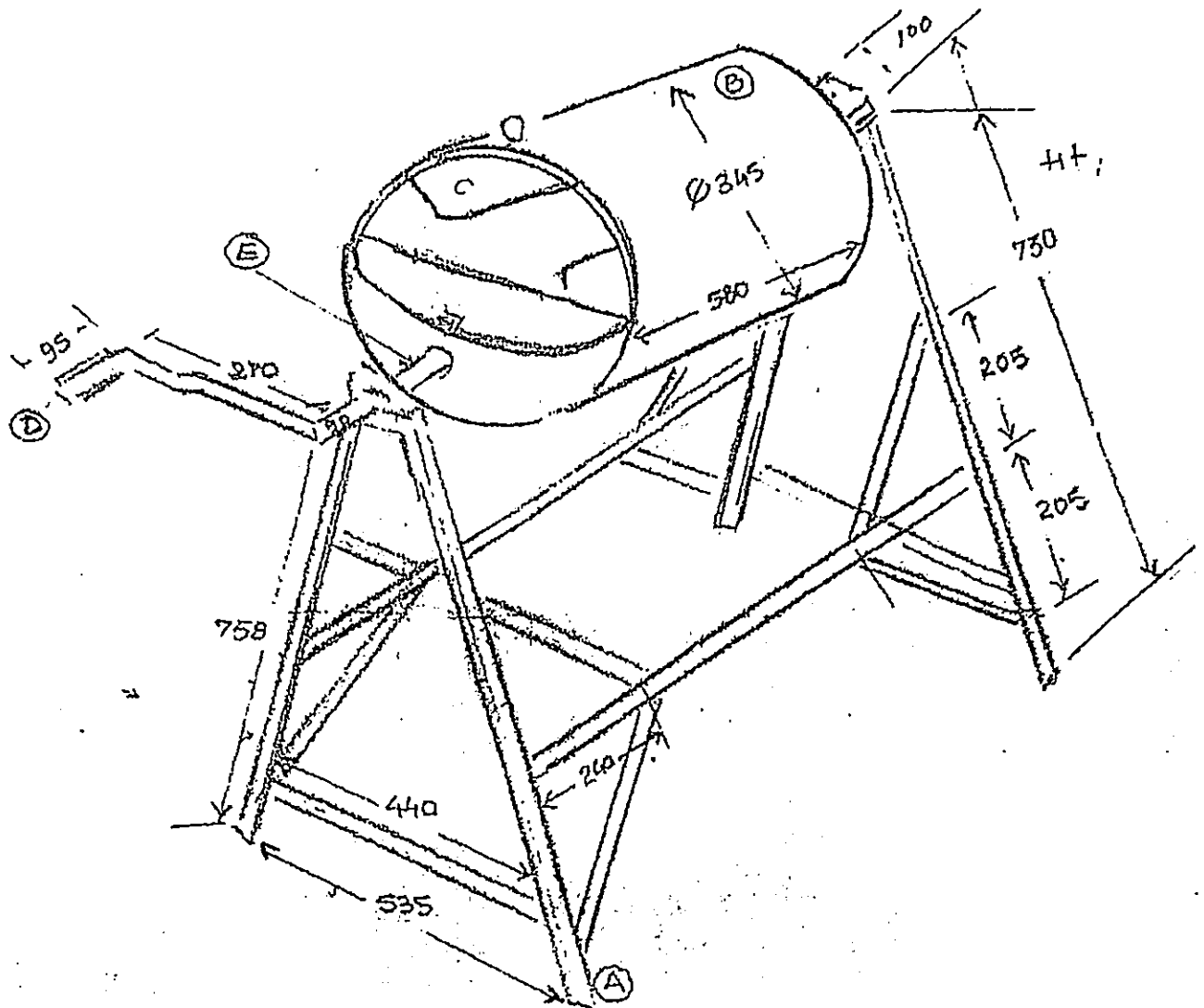
REGIONAL MANAGER
M.P. State Agro Ind. Dev. Corp. Ltd.
Bhopal (M.P.) 462 002

AGRICULTURE ENGINEER
VEGET. DIVISION, INDORE

Date	24/05/2016	Project name	Agro Khargone Hill
Drawn By	Sudhanthu		ENGINEERING CAD INSTITUTE
Checked By			31, Lakshmi Nagar, Indore, Madhya Pradesh
Approved By			Ag. Khargone Hill
Scale	MTS	Sheet No	04 of 07
Dwg No			Base Inclined Pipe Blade

689
391

SEED TREATMENT DRUM

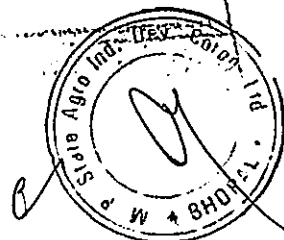


SPECIFICATION

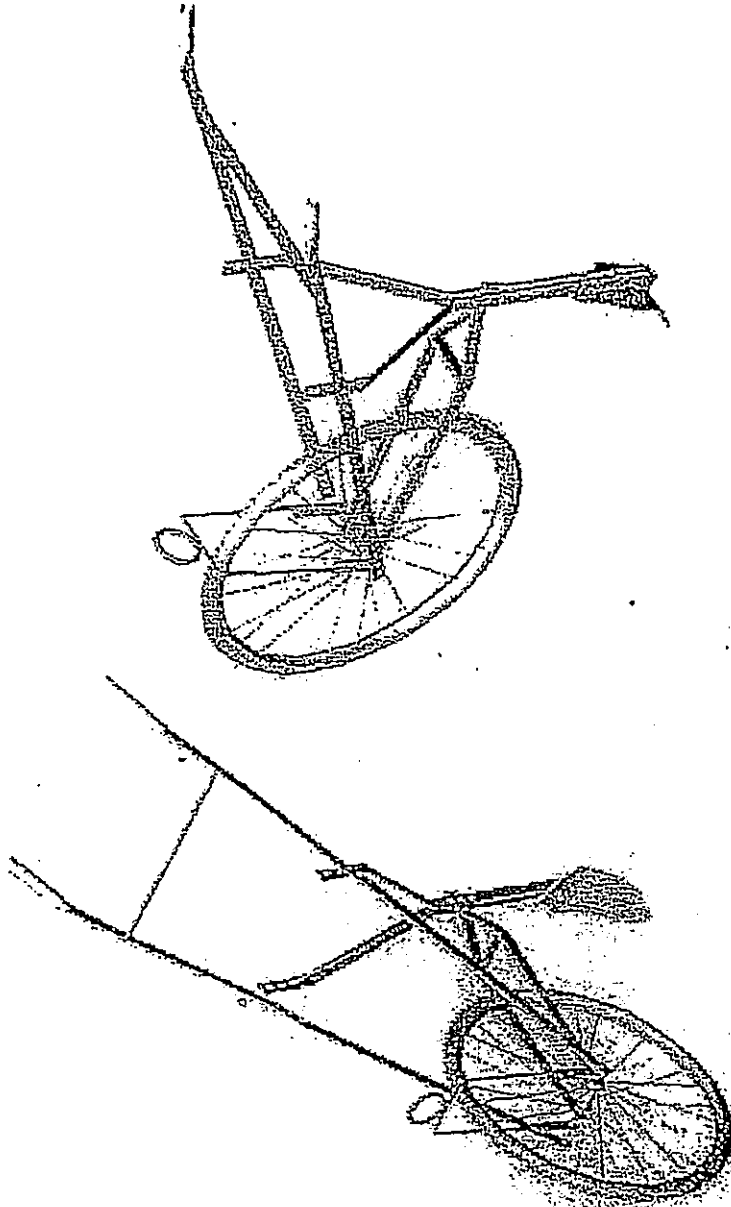
STAND
DRUM PAINTED:-
FIN
HANDLE
DRUM PIPE
Weight

M/S Angle 25 x 25 x 3 Front & side Support M.S. Flate 25 x
M.S. Sheet 1 mm (20 swg), Drum - G.I. sheet 1 mm (20 swg)
M.S. Sheet 1 mm x 525 x 75 mm-3 Nos
M.S Pipe Ø25 ~~mm~~ and Flate 25 x 5 mm
M.S. Pipe 910 x Ø25 x 3 with braket
16.5 kgs approximant

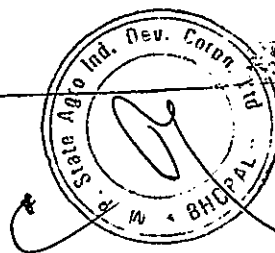
(83) 84



CYCLE WHEEL HOE



77

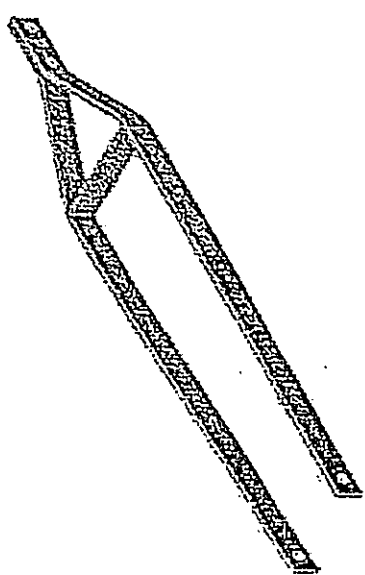


676
378

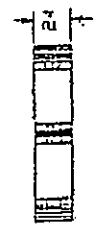
625
377

FORK

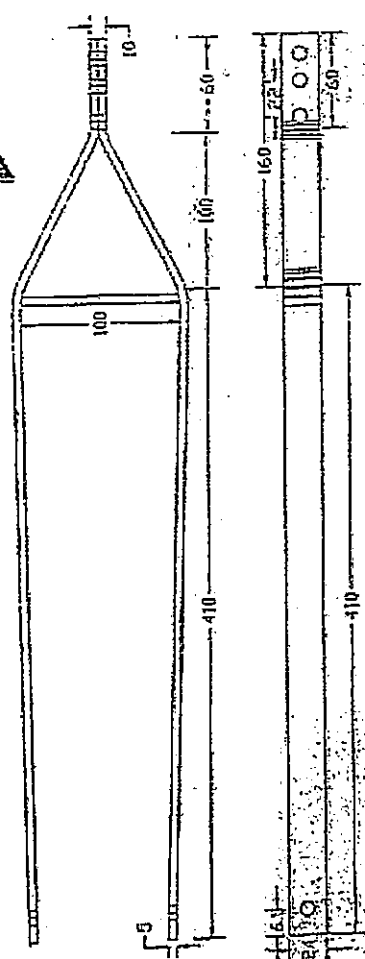
TOP VIEW



SIDE VIEW

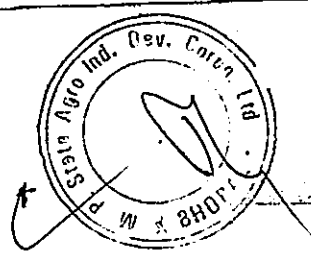


FRONT VIEW



FORK	M5 FLAT	570X24X5 mm	1 No.
	Holes	Ø9mm Dia	5 No.

Cycle Wheel Floe 4

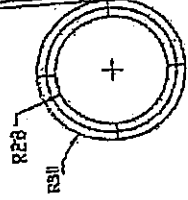


82)

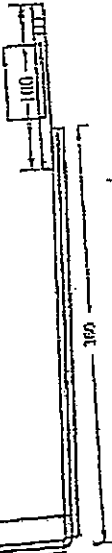
674
326

U FRAME

TOP VIEW



120



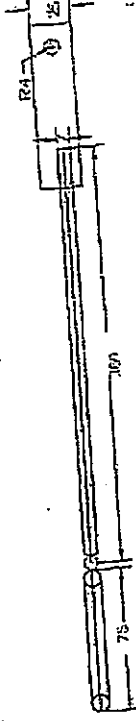
100

300

SIDE VIEW



25



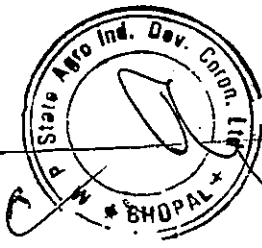
75

100

FRONT VIEW

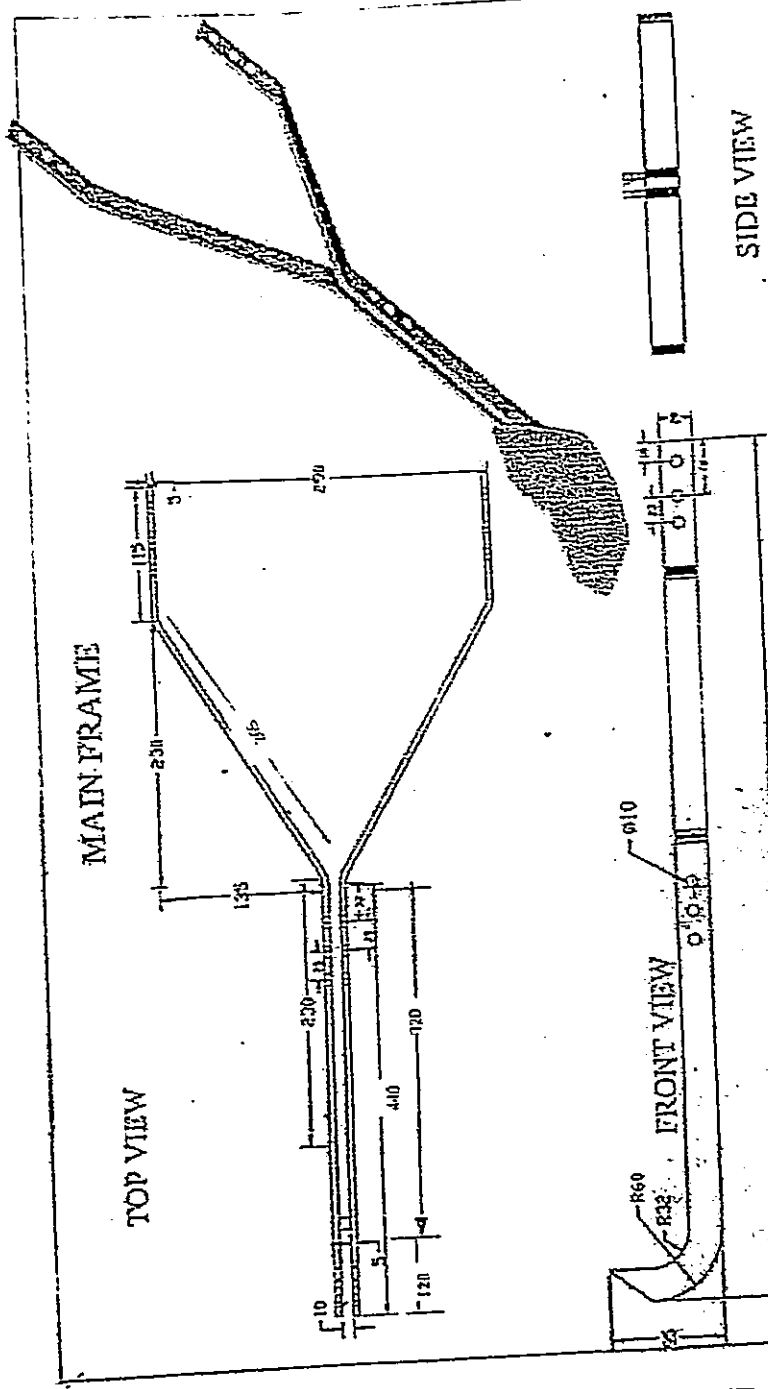
U FRAME	MS BAR	360X120XØ8 mm	1 No.
	MS FLAT	90X25X 5 mm	2 No.
	Hoile	Ø8 mm	2 No.

Cycle Wheel Hoe 5

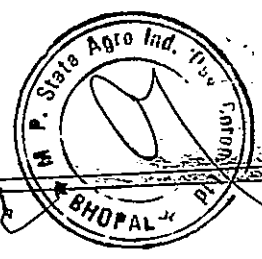


78

673
374

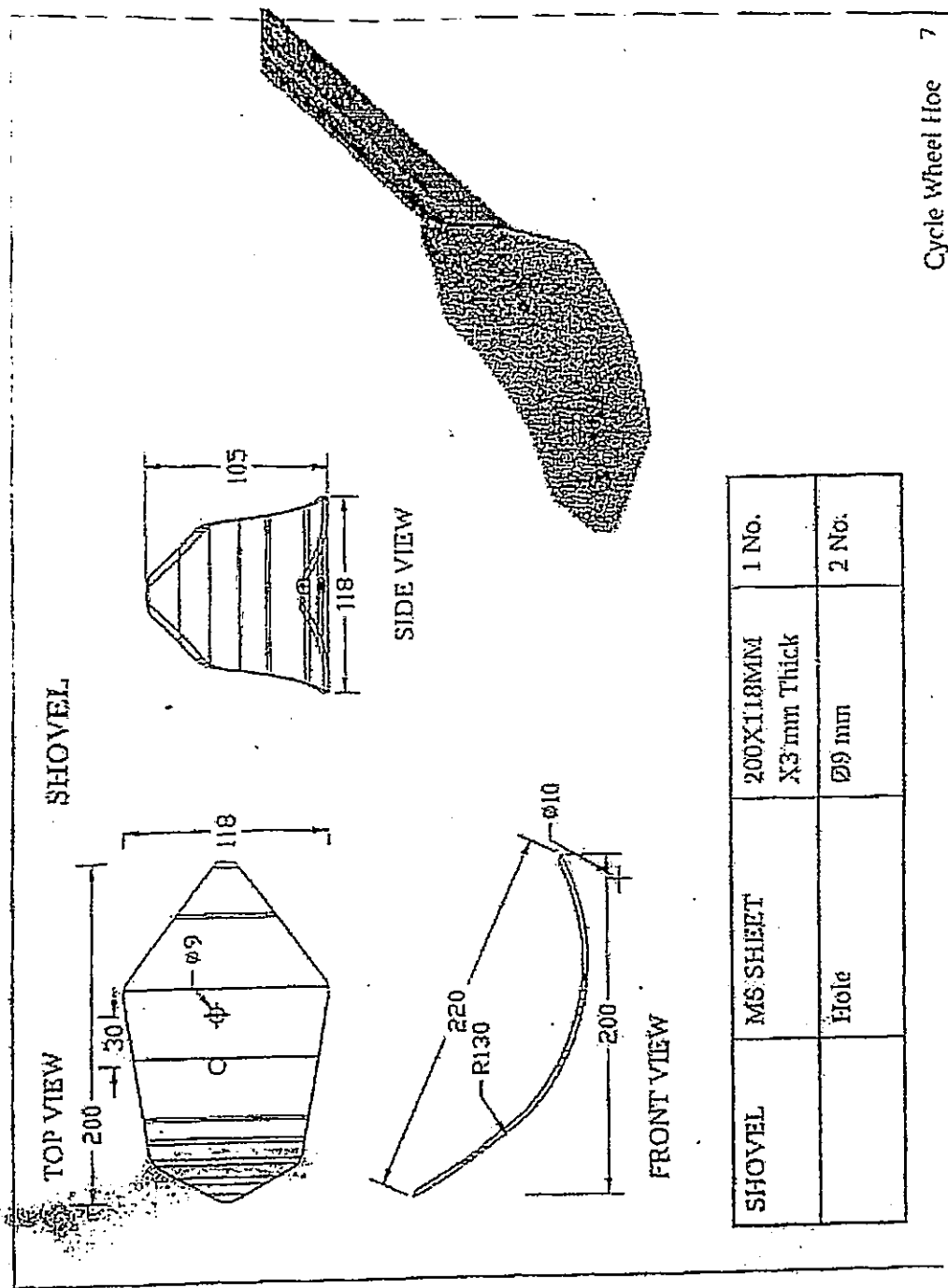


MAIN FRAME	MS PLAT	820x25x5mm	2 No.
	Hole	Ø10 mm	6 No.



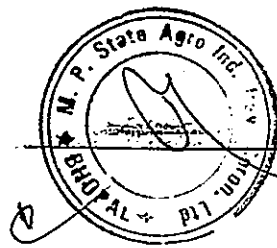
680 (ST)

(672)
(375)

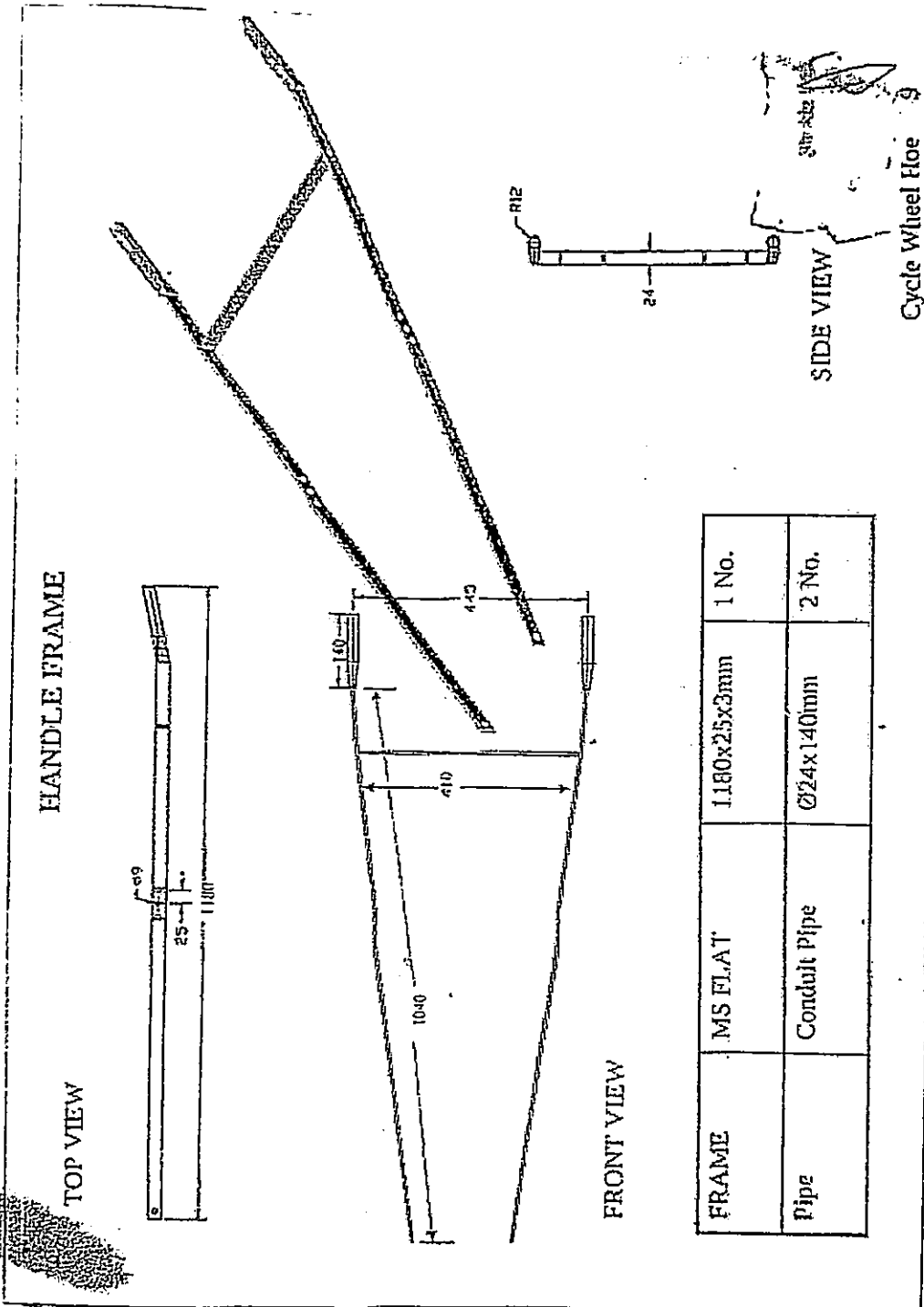


Cycle Wheel Hoe 7

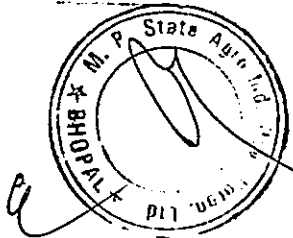
(797)
(80)



671
373

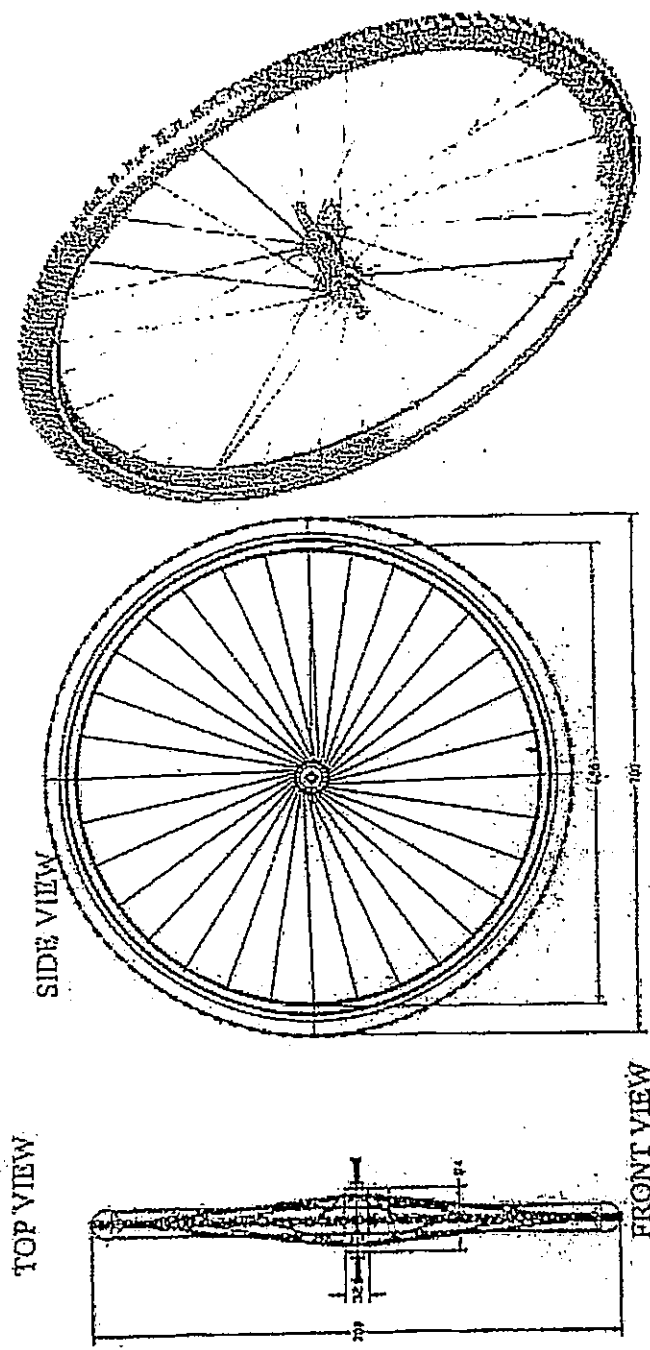


(81) 82



670
222

CYCLE WHEEL



TOP VIEW

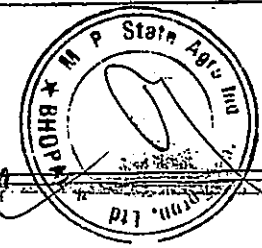
SIDE VIEW

FRONT VIEW

Cycle Wheel	Rim Steel	Ø620	1 No.
	Tyre Tube Rubber		

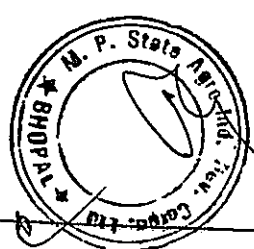
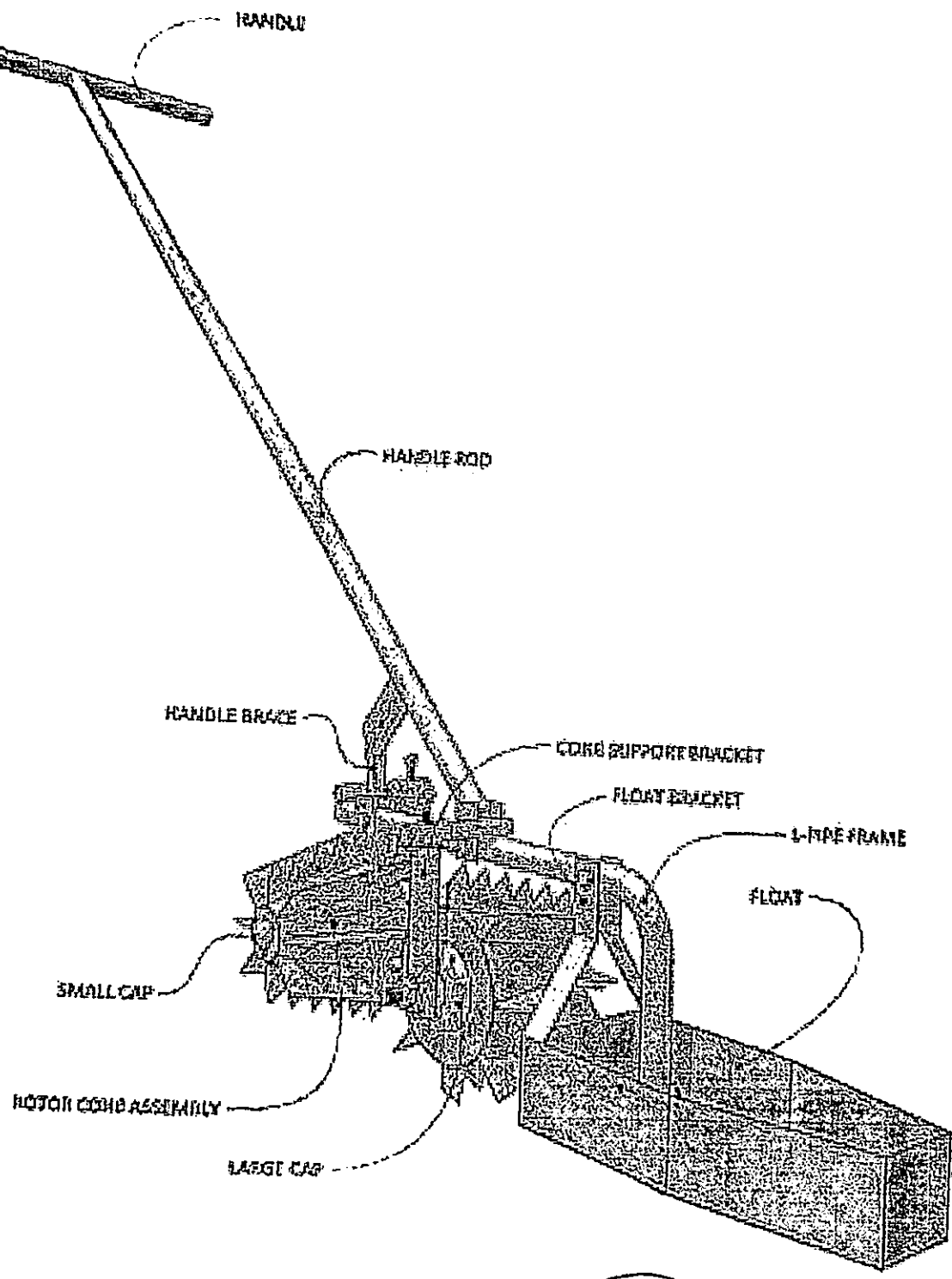
Cycle Wheel Hwa R

(22) 83

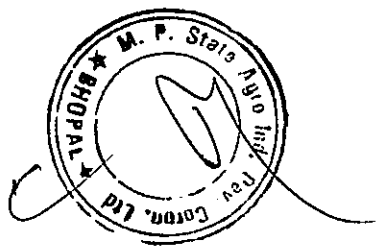
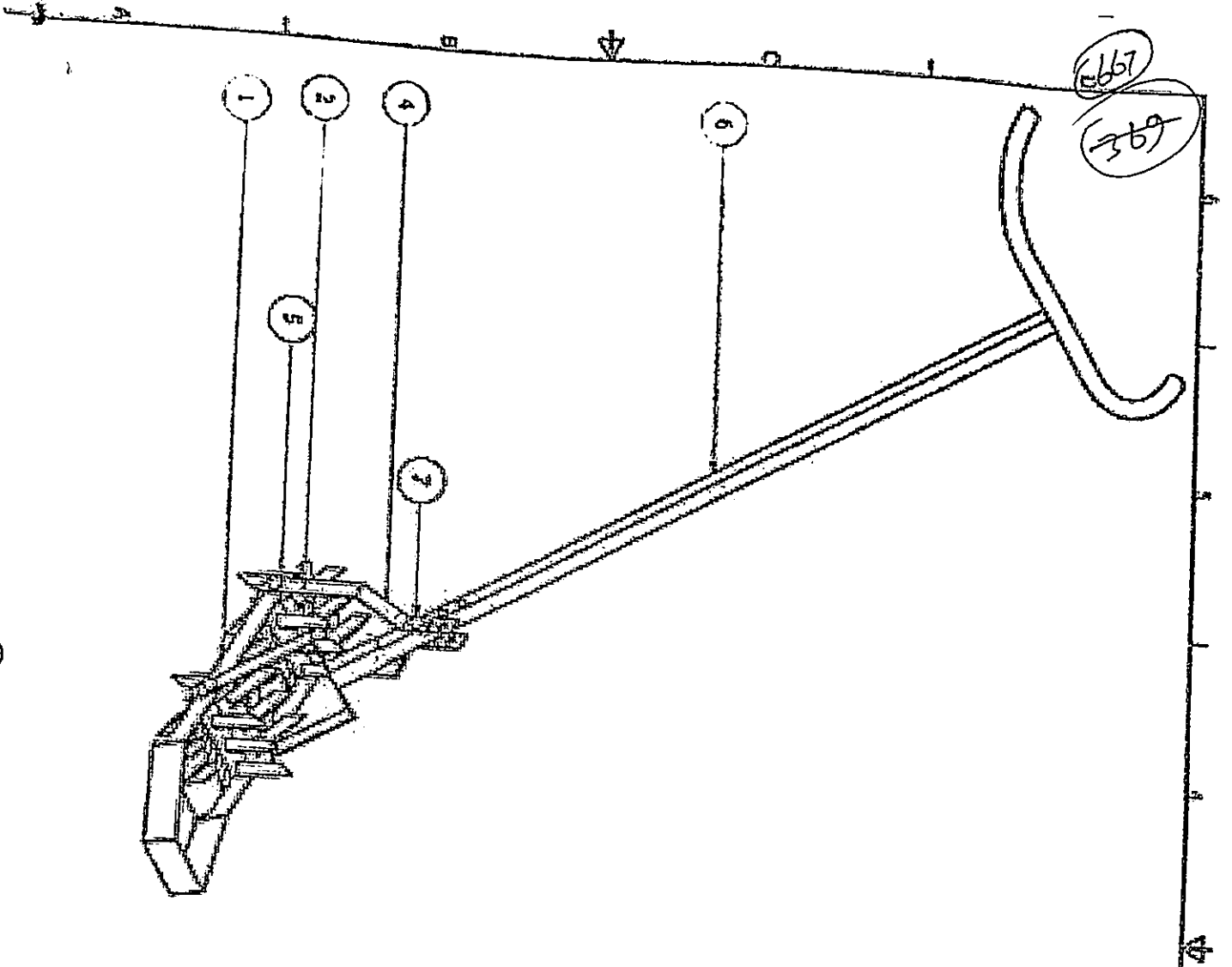


668
370

6020 W. 200 S. 2



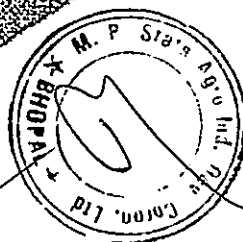
(85)



(86)

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	Frame	
2	1	Timing drum	
3	1	Mut valve	
4	1	Timing support	
5	1	Bolt M12 x 150	
6	1	Washer	
7	1	Wash M12 x 50	
Drawn by	Checked by	Approved by	Scale
Aditya Datta			1:1
Tapan Kumar Verma			

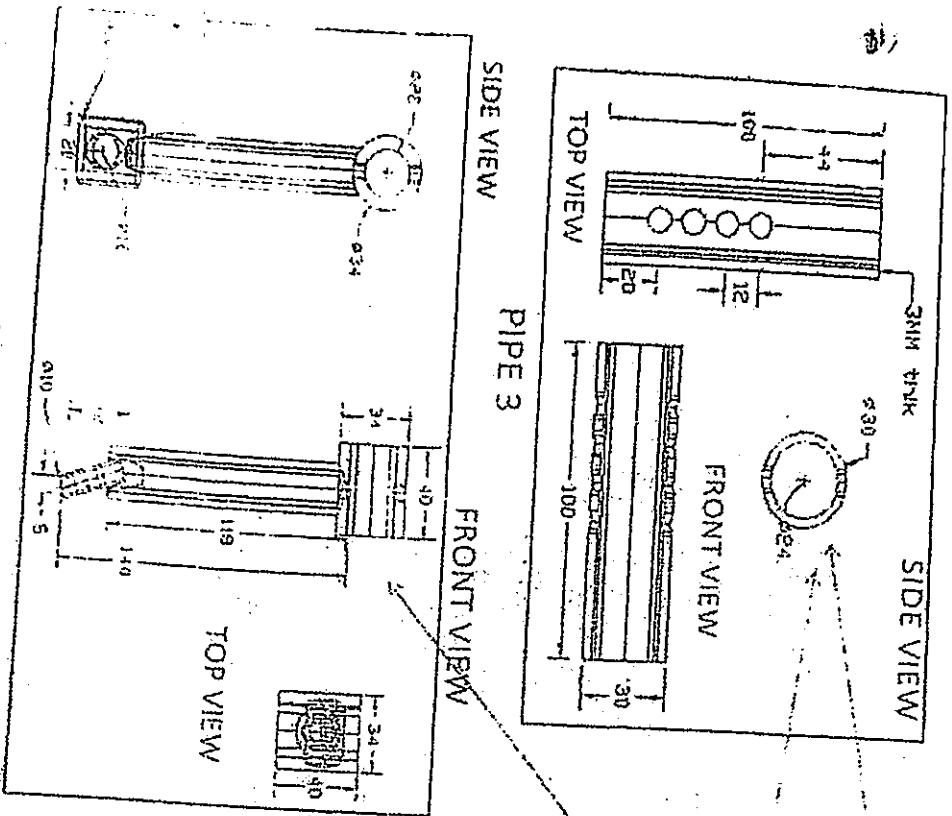
368



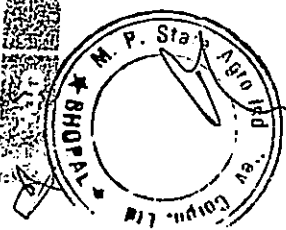
PIPE 1 & 2

FRAME FOR WHEEL

PIPE 3



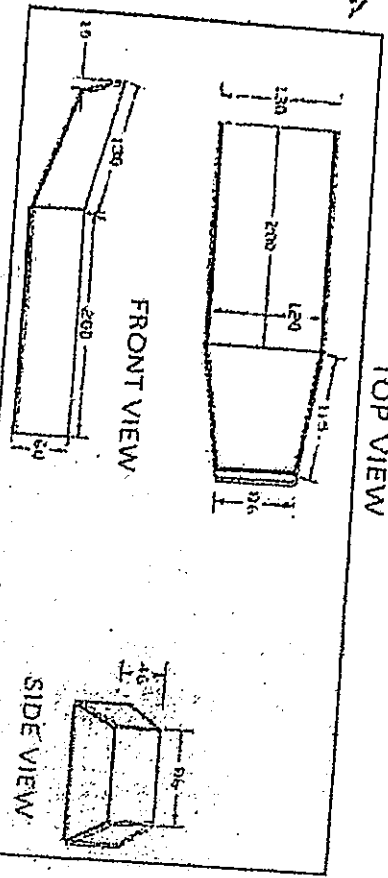
PIPE 1	MS PIPE	200XΦ22X2	2
PIPE 2	MS PIPE	40XΦ34X3	2
PIPE 3	MS PIPE	100XΦ28X3	2



664
366

FLOAT

TOP VIEW

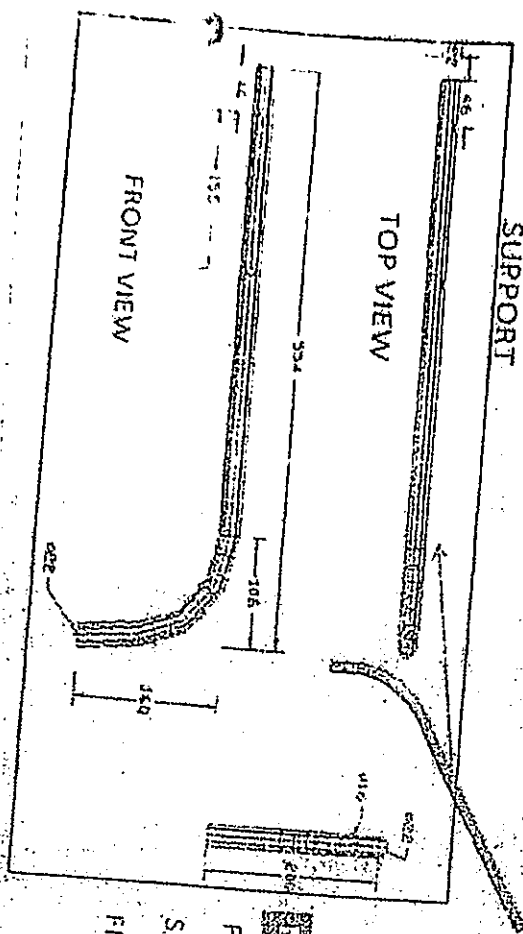


FLOAT ASSEMBLY

SUPPORT

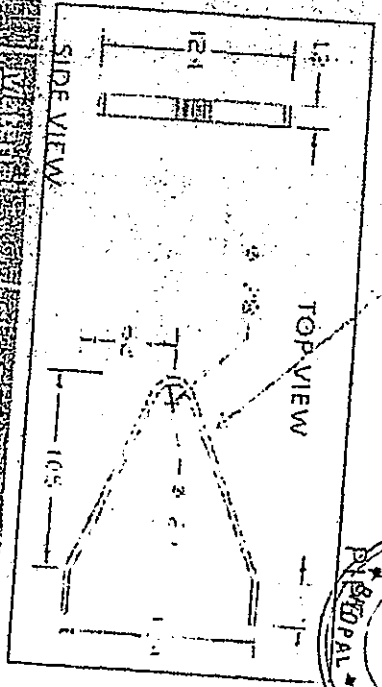
TOP VIEW

FRONT VIEW



SIDE VIEW

TOP VIEW



PIPE

MS PIPE

630X422X2

SUPPORT

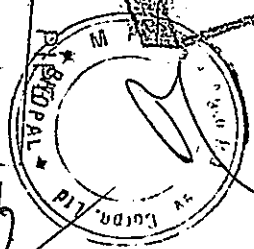
MS PLATE

300X12X4

FLOAT

MS SHEET

330X130X2

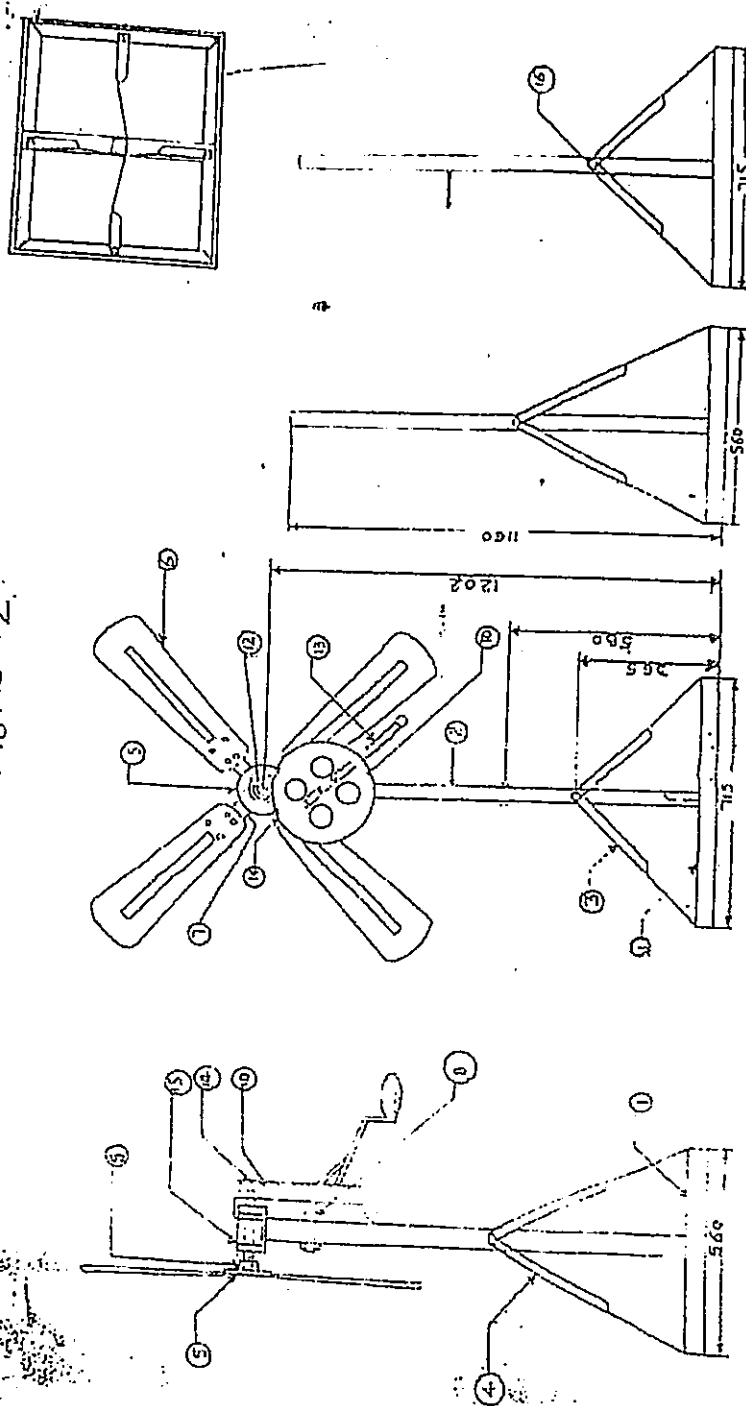


168

WINNOWER-FAN TYPE

364 662

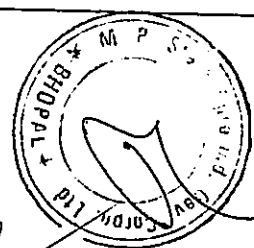
DRG NO - 2



MAIN ASSEMBLY
SCALE 1:10

STAND ASSEMBLY

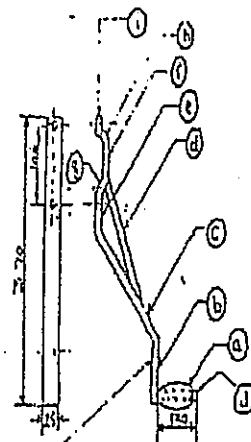
M.P. STATE AGRO INDUSTRIES DEVELOPMENT CORPN LTD	
BHOPAL - M.P. INDIA	
STUDY TITLE	
MILNUTURES II	
ANGULAR 1.1°	
DRN BY	SCALE - M.T.S.
CHKD BY	DESIGN BY



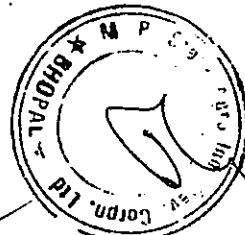
84/83

16

661
~~363~~

[illegible]

- (U) GEAR HOUSING ASSEMBLY
- | | |
|---------------------|--------------------|
| (A) HANDLE GRIP 100 | (B) 300X130L (4 S) |
| (C) 220X235 FLAT | (D) 100X235 FLAT |
| (E) 50X25 FLAT | (F) 50X25X5 FLAT |
| (G) 25X25 FLAT | (H) 25X25X5 FLAT |



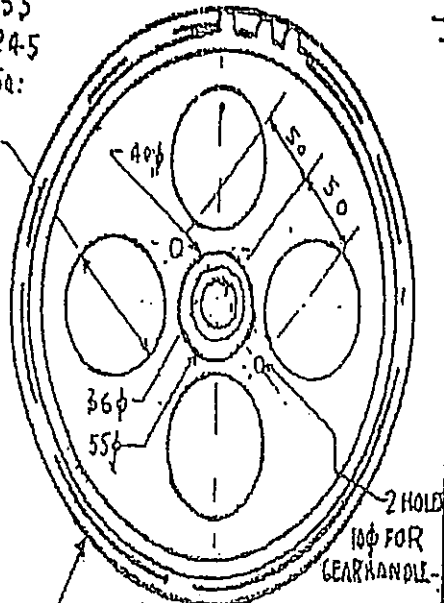
DRG No. 2 D

660

362

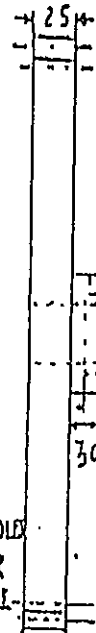
O.D. = 255
R.D. = 245
P.D. = 250

4 HOLES 56φ
ON 135φ

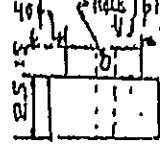


NO OF TEETH - 100

10 SPUR GEAR



R.D. = 45φ
O.D. = 47.55φ

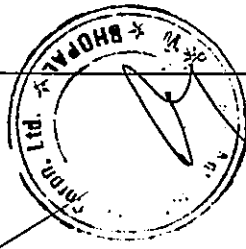


15φ
55φ
PINION TEETH
= 20
PINION

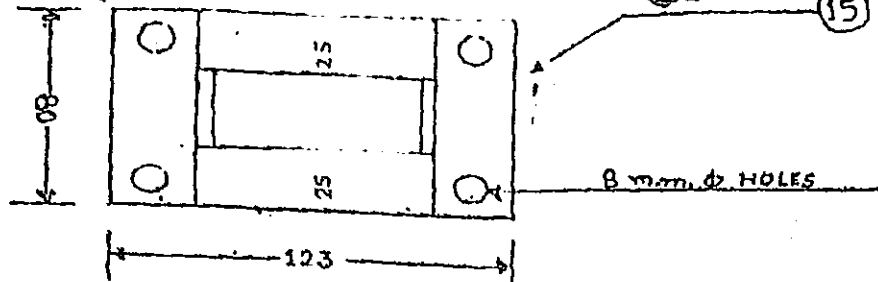
12	PINION	1	C.I.	55φ x 25mm	
10	SPUR GEAR	1	C.I.	255 x 25mm	
SNO	PARTICULAR	NO OFF	MAT.	SIZE	WEIGHT
THE M.P. STATE AGRO INDUSTRIES DEV. CORPN LTD BHOPAL, M.P., INDIA					
STD. TOLERANCE			SPUR GEAR & PINION		
ANGULAR ± 1°			DRN BY	Adarsh	SCALE IN TS
THIRD ANGLE PROJEC			CHKD BY	Supriya	USED IN WINNOWER
			APP BY		FAN
ALL DIMENSIONS IN MM			REV ON		ORGNO - 1-A4



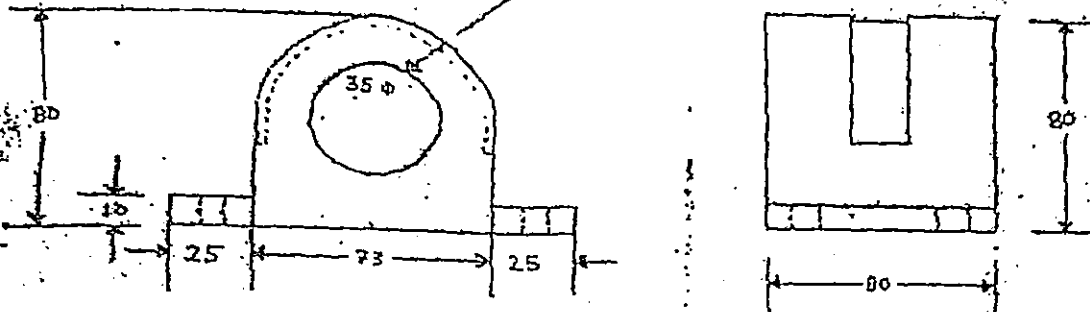
36



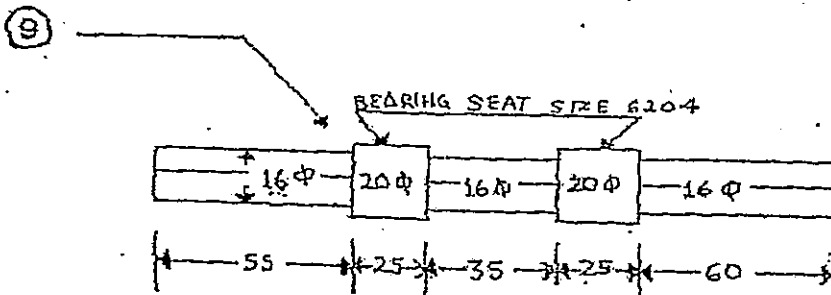
(93)



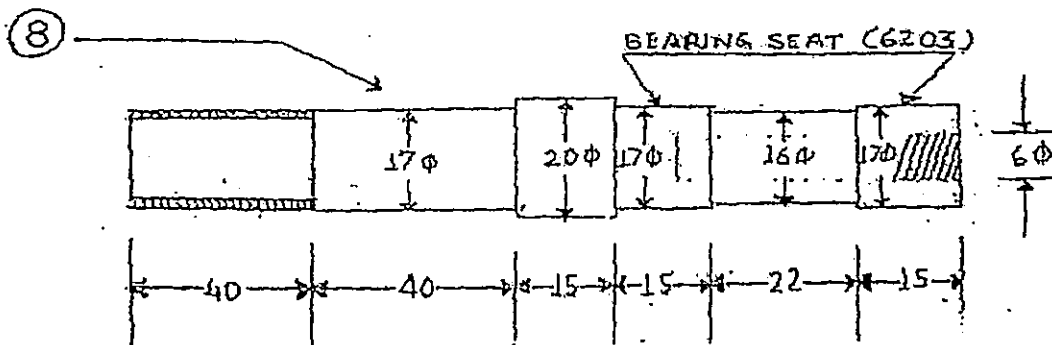
HOLE SUITABLE FOR BEARING SIZE 6204.



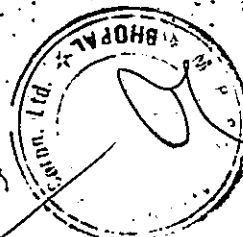
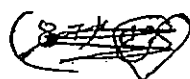
PLUMMER BLOCK



BLADE SHAFT. 200 M.M. LONG.



GEAR SHAFT 147 M.M. LONG.



658
360

GEARED FAN (MANUAL) (TYPE)

Specification of "GEARED FAN" (MANUAL)

1. General

Name of implement : GEARED FAN
Type of implement : Manually
Size of implement : 9000-cm² area
Power source : Manually

2. Construction Details (Ref. Fig. 1 & 2)

2.1 Stand

: Trapezoidal shape type welded construction made out of angle iron 30 x 30 x 3 mm in which across top size 235 x 235mm with 4 holes, bottom size 690 x 450 mm & 800 mm height from ground level. Angle iron support should be welded four sides 260mm height from ground level.

2.2 Structure

: Rectangular box type welded construction made out of MS angle 30 x 30 x 3 mm in which bottom face with 4 holes which according to top holes of stand. Four pedal stake should be fitted on top face so that center distance between shaft 195mm and one shaft keep 100 mm from right end of box.

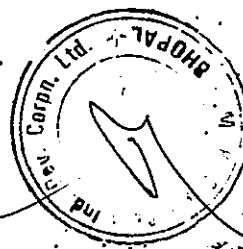
Size (mm)

: 385 x 300 x 150

Method of fixing stand and

Structure

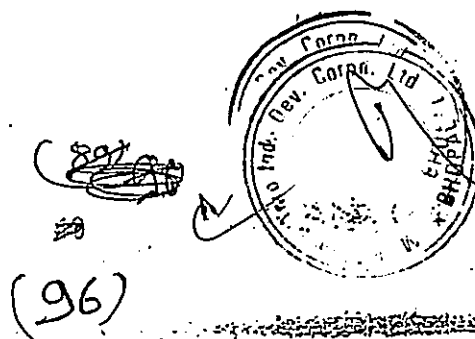
: Nuts & bolts fit them.



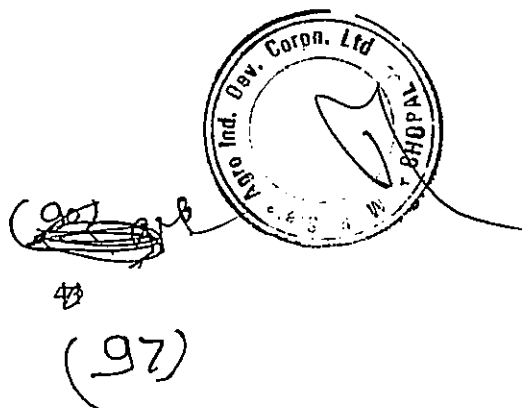
(95)

657
258

- 2.3 Safe guard :-
Material : 6-mm diameter MS rod
Size (mm)
-Diameter : 1185
-Width of guard : 160
-Diameter of small forward ring: 260 mm
- Nos. of 'L' type rod : 16 nos.
- 2.4 Horizontal support :-
Material : 20 x 20 x 3 mm MS angle
Size : 1235-mm length with two holes for fitting on structure 60 mm from top face. Two holes at the end of angle for safe guard clamping.
- 2.5 Vertical support :-
Material : 20 x 20 x 3 mm MS angle
Size : 1235-mm length with slot 20 mm from 500 mm of one end. Two holes at the end of angle for safe guard clamping.
- 2.6 Clamp :-
Type : 'L' type from MS angle
-Size : 4 nos. 20x 6 x 3 mm x 30mm length with hole.
- 2.7 Flange :-
Type : Bush type Flange
Material : Cast iron
Size : 105 mm diameter x 12 mm thickness & 30 mm bush height with 16 mm dia. O.H. hole.

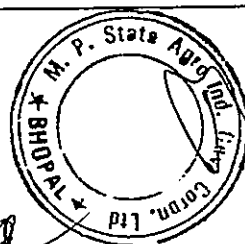


- (358) 656
- 2.8 Connector
Material : MS
Length : 105 mm
Thickness : 3 mm with three holes of 60 at PCD 72 mm
- 2.9 Blade fig. 1
Material : Aluminum
Length : 473 mm
Width : 130 mm at one end & 160 mm second end
Thickness : 1.6 mm (16 SWG) with three holes of 60 at one end with required curvature
- 2.10 Shaft for small Gear
Material : 19 mm diameter of MS round bar
Length : 320 mm
Construction : Distance between bearing no. 6203 is 108 mm from 75 mm of one end. Counter should be done for gear, Flywheel & flange.
- 2.11 Shaft for Big Gear
Material : 19 mm diameter of MS round bar
Length : 320 mm
Construction : Distance between bearing no. 6203 is 108 mm from 30 mm of one end. Counter should be done for big gear & faces for handle.
- 2.12 Bearing
Material : Bearing steel
Size : 6203 no.
- 2.13 Pedestal
Material : Cast iron



1257 6SS

- Size : Bearing 6203 should be fitted
Base size -130 x 25 x 12 mm thickness and
center distance of bearing 52 mm.
- 2.14 Bearing coverall :-
Material : PP
- 2.15 Big Gear:-
Material : Cast iron
Size (mm)
PCD : 252 mm
No. of teeth : 120
Width of gear : 23 mm
Arm thickness : 13 mm (4 nos.)
- 2.16 Small Gear:-
Material : Cast iron
Size (mm)
PCD : 52 mm
No. of teeth : 25
Width of gear teeth : 25mm
- 2.17 Flywheel :-
Material : Cast iron
Size (mm)
Outer Diameter : 260 mm
Width of flywheel : 23 mm
Arm thickness : 13 mm (4 nos.)
- 2.18 Handle:-
Material : Cast iron
Length : 275 mm



256 (654)

11

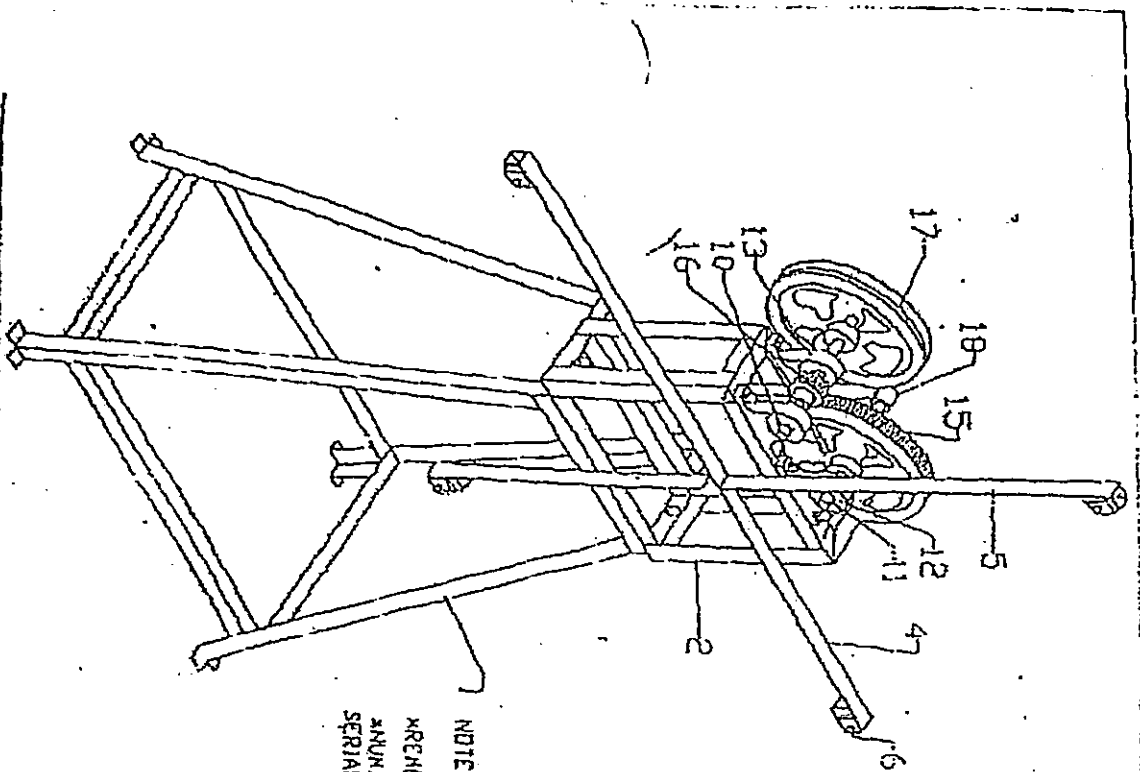
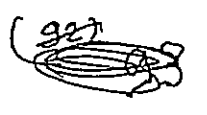
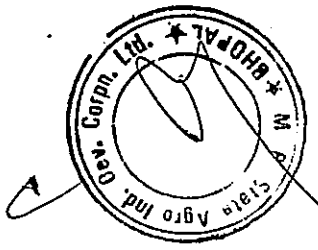


FIGURE 1
GEARED FAN

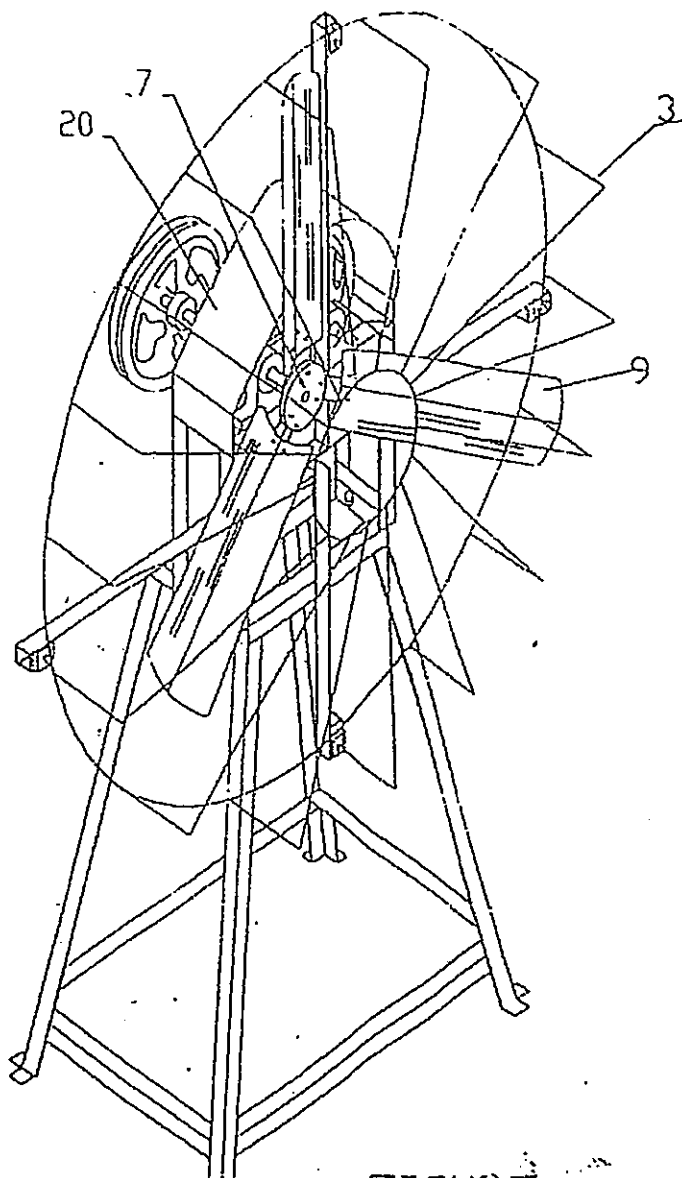
NOTE: ALL DIMENSIONS ARE IN M.M.
REMOVE SHARP EDGES & CORNERS.
NUMBER SHOULD BE GIVEN AS PER SPECIFICATION
SERIAL NUMBER.



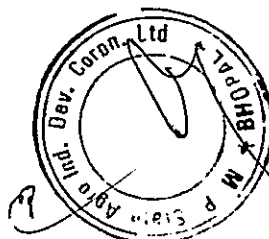
(99)

355 653

MANUALLY GEARED FAN



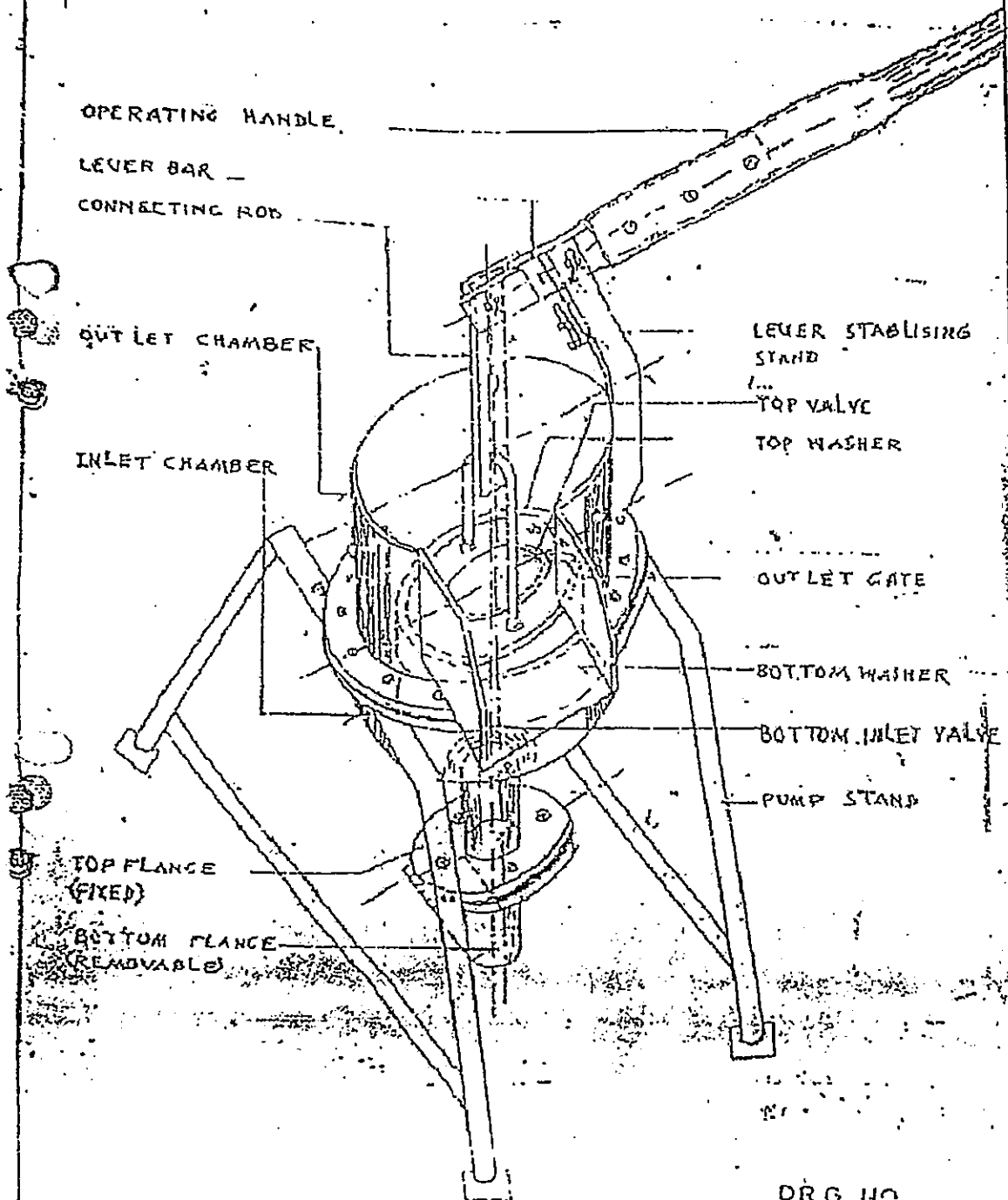
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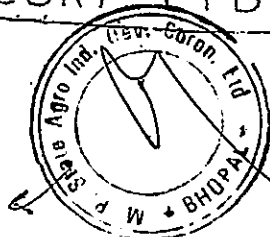
254 652

LOW LIFT HAND PUMP

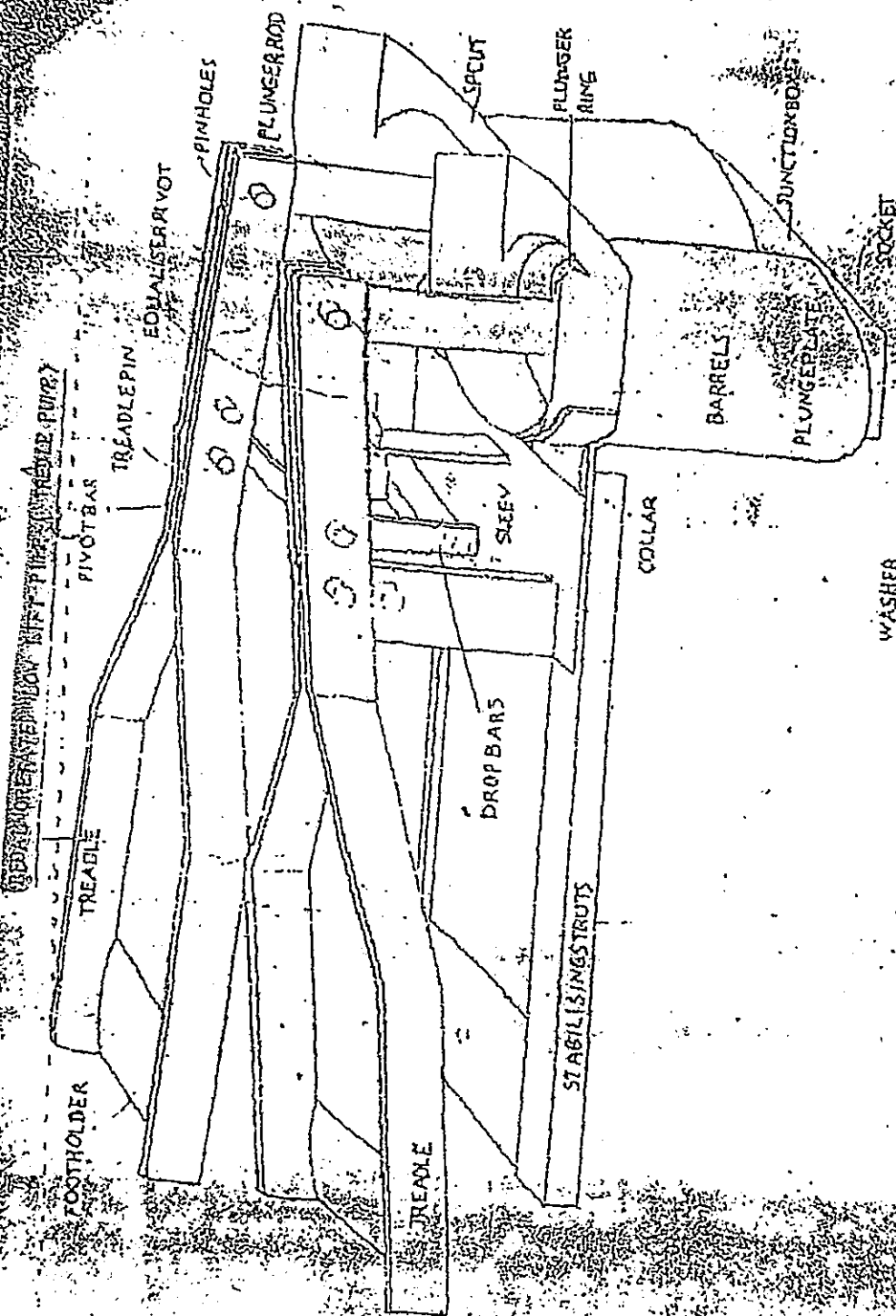
ISOMETRIC VIEW



DRG. NO. M P STATE AGRO IND. DEV. CORP. LTD.



(101)



65
253



(102)

CHAFF CUTTER IS 7898

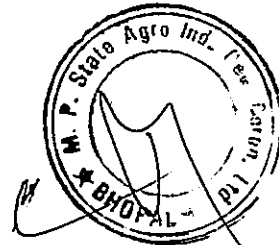
Annexure - I 84

IS 7898 : 2001
(Reaffirmed 2012)

भारतीय मानक
मानव-चालित चारा काटने की मशीन — विशिष्टि
(दूसरा पुनरीक्षण)

Indian Standard
MANUALLY-OPERATED CHAFF CUTTER —
SPECIFICATION
(*Second Revision*)

ICS 65.060.50



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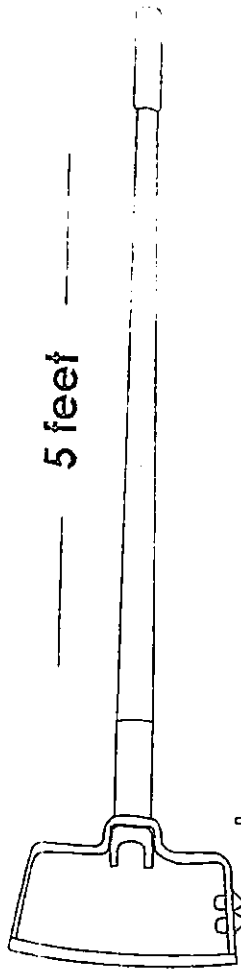
BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110067

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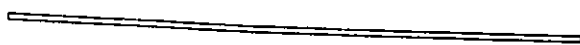
Multi Vader Hand Operated



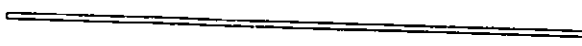
5 feet



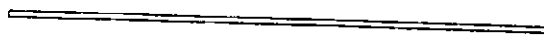
Handle



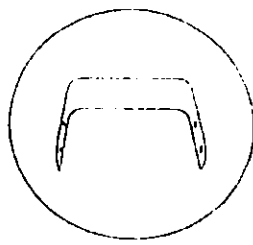
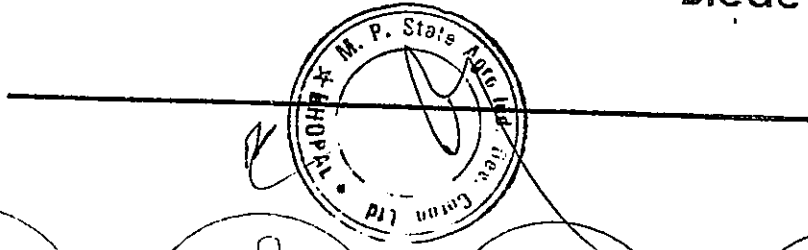
M.S. Pipe
Heavy Duty



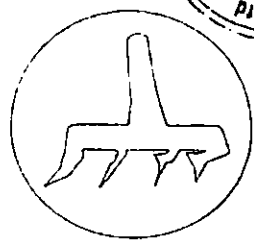
Nut Bolt



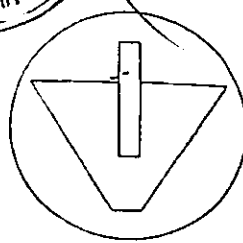
Blade Hardness



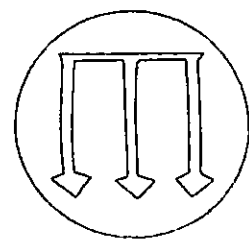
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Indian Standard

MANUALLY-OPERATED CHAFF CUTTER — SPECIFICATION (Second Revision)

1 SCOPE

This standard specifies material, construction and other requirements for manually-operated chaff cutter (see Fig. 1).

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to

revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title
210 : 1993	Grey iron castings (<i>fourth revision</i>)
399 : 1963	Classification of commercial timbers and their zonal distribution
407 : 1981	Brass tubes for general purposes (<i>third revision</i>)

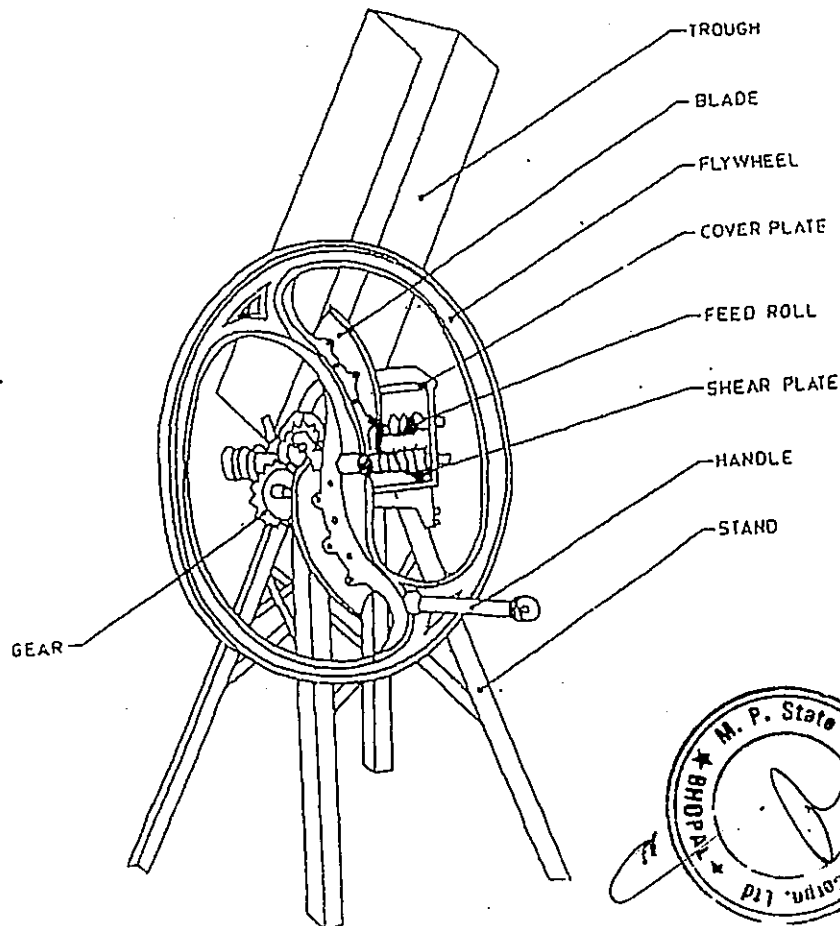
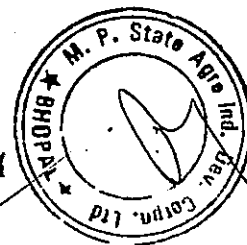


FIG. 1 Typical Drawing of Manually-Operated Chaff Cutter

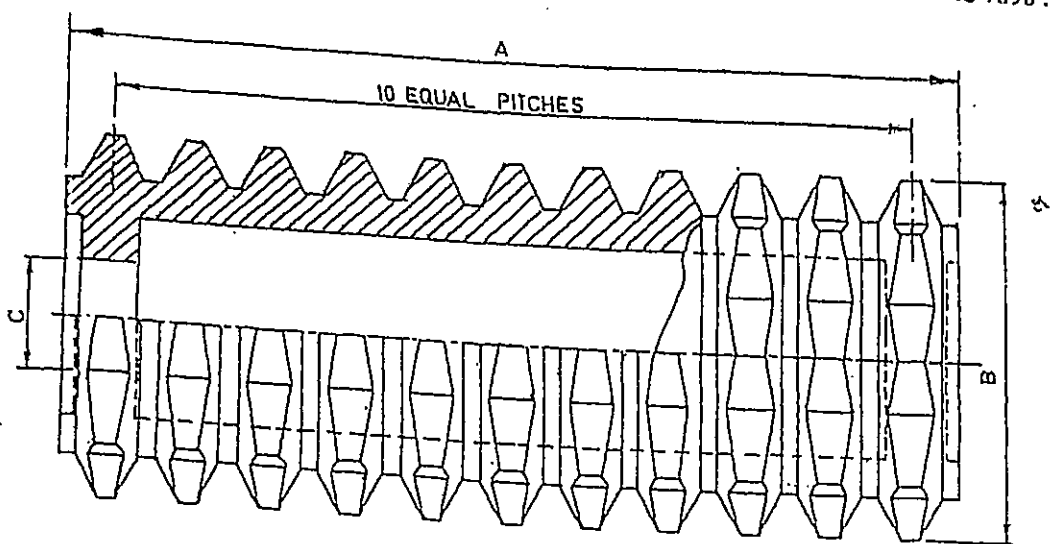
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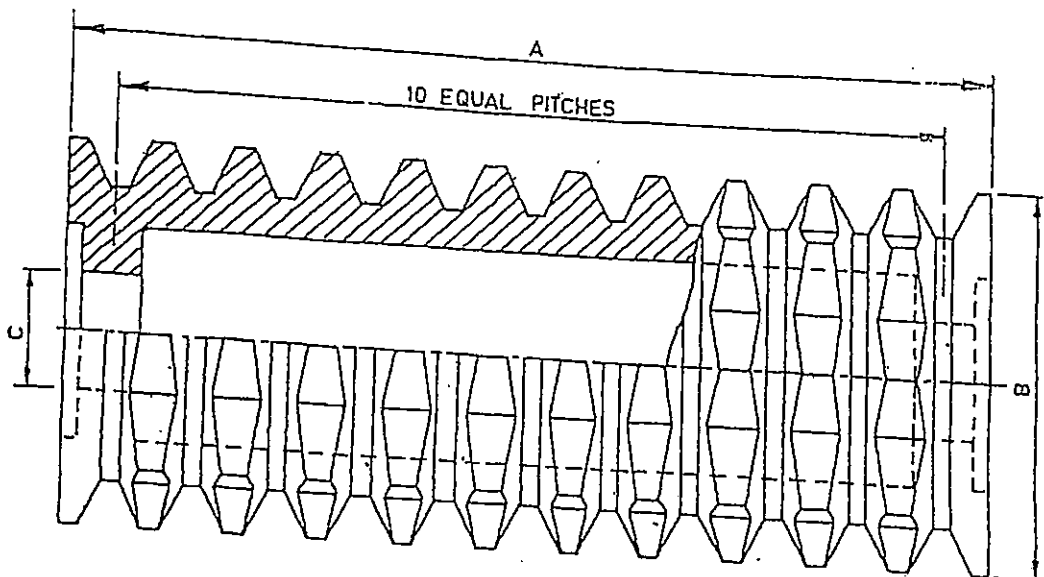


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7A LOWER FEED ROLLER



7B UPPER FEED ROLLER

FIG. 7 FEED ROLLERS

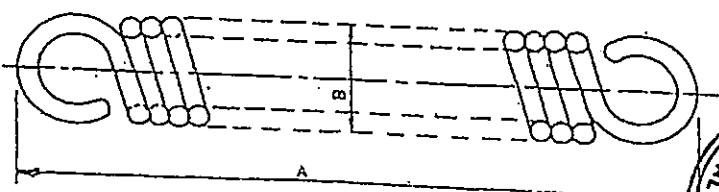
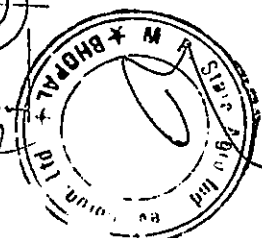


FIG. 8 SPRING

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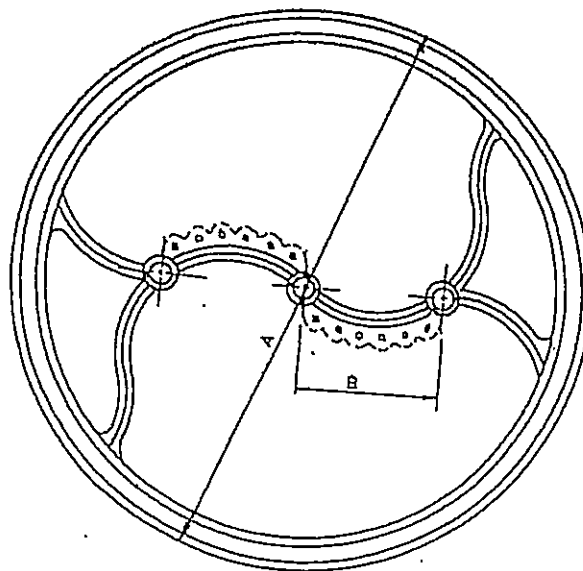


FIG. 3 FLYWHEEL

5.3 Main Shaft

The one end of the main shaft shall be rigidly attached at the centre hole of flywheel and other end may be supported on a plumber block. The length and diameter of the shaft (see A and B in Fig. 4) shall be 400 mm and 30 mm respectively. Plumber block shall be provided with bush or ball bearing.

5.4 Worm

The worm shall be fitted on the main shaft. The hole size of the worm (see A in Fig. 5) shall be such that it should push fit on the main shaft. The outer diameter and length of the worm (see B and C in Fig. 5) shall be 75 mm or 80 mm and 155 mm respectively. The pitch of the worm (see D in Fig. 5) shall be 25 mm. It shall be provided with two holes for proper fixing to the shaft. The distance of centre of hole from the end of the worm (see E in Fig. 5) shall be 50 mm or 13 mm.

NOTE— The pitch of the worm at both ends shall be 25 mm but teeth at one end may be double start to enable to have two chopping length by reversing the worm.

5.5 Worm Gears

There shall be two gears; one located at upper side and other at the lower side of the worm. The outer diameter of the gears (see A in Fig. 6) shall be 125 mm or 133 mm and there shall be 15 teeth in each gear. At the option of the purchaser the gears may have 11 or 13 teeth. The gear shall be attached with axles by hexagonal bolts.

5.6 Feed Rolls

There shall be two feed rolls. The length and outer diameter of the rolls (see A and B in Fig. 7) shall be 207 mm and 75 mm or 85 mm respectively. Each roll shall have eight projections on circumferential periphery. The lower roll shall have 11 full teeth and upper roll 10 full and two half teeth on lengthwise fixing the axles (see C in Fig. 7).

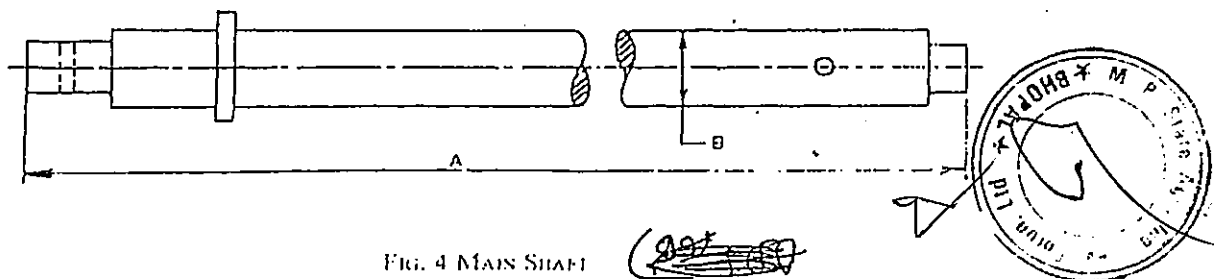


FIG. 4 MAIN SHAFT

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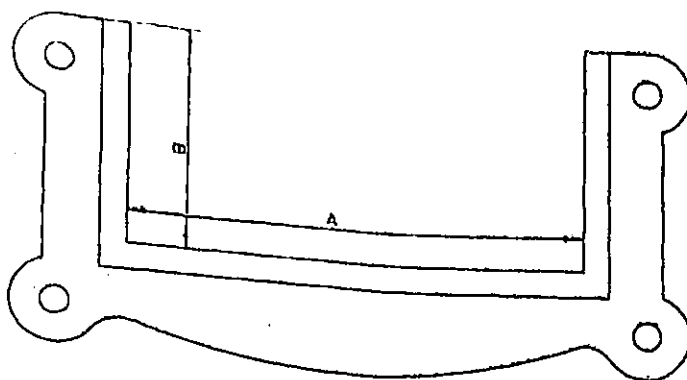


FIG. 9 SHEAR PLATE

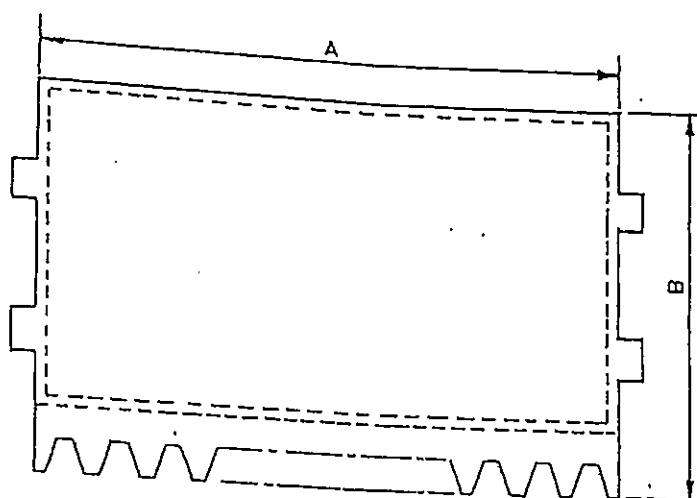


FIG. 10 BACK PLATE

5.12 Stand

Stand shall consist of four legs, leg supports and one finger in each leg. The leg shall be made of angle section of minimum 50 mm x 50 mm x 2 mm size. The leg support may be detachable or riveted with the leg. The fingers may be a separate component attached to the leg or may be made by taking out at the bottom of each leg. The total height, length and width of the stand (see 1, B and C in Fig. 11) shall be minimum of 750 mm, 600 mm and 550 mm respectively. In one of the legs a hole of 10 mm shall be provided at a point coinciding with the hole made in the rim of the fly wheel.

5.13 Allowable deviations for dimensions without specified tolerance shall be as given in IS 2102 (Part 1).

6 OTHER REQUIREMENTS

6.1 The worm gears should as far as possible, be

enclosed and should preferably be run on an oil trough.

6.2 The bearings shall be completely enclosed and shall have provision for lubrication.

6.3 Provision shall be provided to change the inclination of the plane of the cutting knives to the plane of rotation of fly wheel to avoid feed interference.

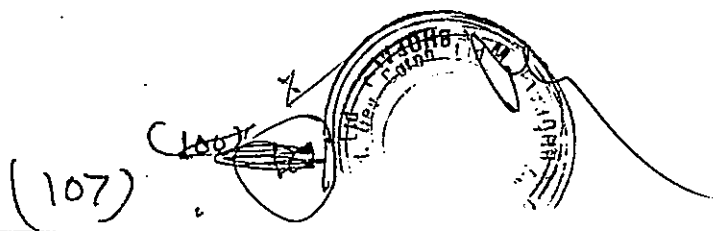
6.4 Provision to change the direction of rotation of feed rolls should be provided.

6.5 Hooks at suitable places may be provided for lifting the chaff cutter for easy movement.

6.6 The maximum height of cranking from ground level shall be within 800 to 900 mm. The cranking radius shall be 250 to 350 mm (see B in Fig. 3).

6.7 All the three sides of shear plate shall be in one plane.

6.8 The blades shall conform to IS 1511.



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6.9 Operational manual giving operational, maintenance, assembly instructions and adjustments shall be supplied by the manufacturer with each chaff cutter. Instructions for safe operation of chaff cutter shall also be provided.

7 TESTS

7.1 Idle Run Test

Fix the chaff cutter on level and preferably on hard surface. Operate it for 30 minutes. During the operation, observation shall not show the following:

- Presence of any marked oscillation,
- Presence of knocking or rattling sound,
- Obstructions in running of shafts in bearings, and
- Any marked unusual wear or slackness in any component.

7.2 Test for Variation in Cut Length

7.2.1 Installation

Fix the chaff cutter firmly on the level and preferably hard surface. Set the clearance between blade and shear plate and make other adjustments in accordance with the manufacturer's recommendations for cutting a particular length of the chaff.

7.2.2 Fodder

Take sufficient quantity of fodder to be cut. The fodder should be of same variety and free from roots. The length of the fodder should, as far as possible, be the same.

7.2.3 Theoretical Length

The theoretical length of the fodder to be cut shall be

obtained by the following formula:

$$x = \frac{n}{N} \times \frac{22 \times D}{7 \times R}$$

where

- x = Length of cut, mm;
 n = rev/min of feed roll;
 N = rev/min of fly wheel;
 D = Diameter of the feed roll; and
 R = Number of blades.

7.2.4 Operation

Operate the fly wheel of the chaff cutter at 50 rev/min and feed the fodder manually. Ensure that the feeding is done continuously and covers full width and height of the throat. The feeding should be done from root side of the fodder. While feeding, a rigid plastic pipe of diameter of 12 mm to 15 mm and 2 m in length shall be fed along with the fodder. Duration of the operation shall be such that at least 25 pieces of plastic pipes are cut.

7.2.5 Measurement

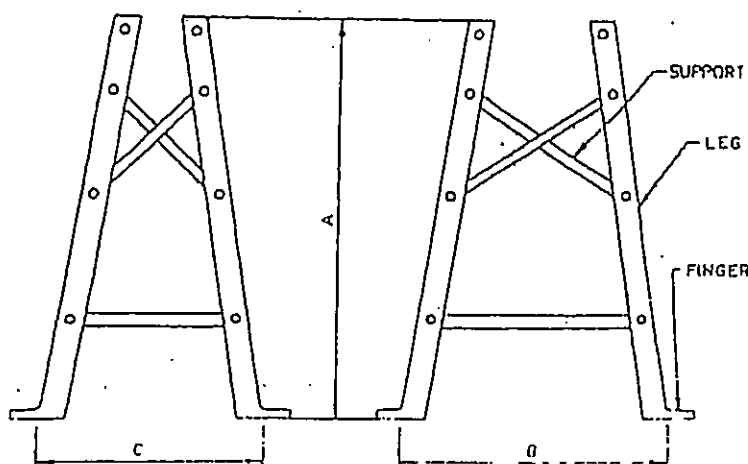
Select 25 pieces of plastic pipe and measure the length of each piece in mm. Obtain the average length of cut.

7.2.6 Observation

Compare the average measured length of cut with the theoretical length (see 7.2.3). The variation in length shall be not more than 5 percent.

8 SAFETY REQUIREMENT

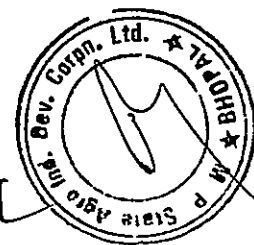
8.1 Each manually-operated chaff cutter shall be



(108)

FIG. 11 STAND

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8.1.2 Front Safety Guard

A front safety guard shall be fitted on each knife blade tightly as a safety device (see Fig. 14).

8.1.3 Gear Cover

Worm and pinion assembly shall be covered from all the sides by a metal sheet as shown in Fig. 13.

8.1.4 Warning Roller

A warning roller which is a sort of idler roller with spring (see Fig. 15) shall be fitted just before the feeding rollers as an alternate to cover chute (see 8.1.5).

8.1.5 Covered Chute

The trough on the shear plate side shall be covered upto a length of 450 mm minimum (see 8.1.4).

8.1.6 Blade Cover

Each blade shall be covered with a cover. A typical shape and dimension of the blade cover is given in Fig. 16.

8.1.7 A minimum cautionary notice worded as follows shall be written in vernacular language legibly on a label preferably fixed on the main body of the chaff cutter:

- Do not wear loose dress, bangles, watch, etc, while feeding the fodder;
- Do not smoke and light fire near dry fodder being cut;
- Do not work under the influence of intoxicants like liquor, opium, etc;
- Children and aged persons should be discouraged for working;
- Do not push small fodder by hand, use pushing device;
- Put the cover on blade after completing the work;
- Lock the flywheel with the locking pin after work; and
- Never bring hand near feed rolls and open blade.

9 WORKMANSHIP AND FINISH

9.1 All the components of the chaff cutter shall be free from cracks and such other defects that may be detrimental for their use.

9.2 The cast iron components shall not be porous. Welding, if done, shall also not be porous.

9.3 All exposed metallic surfaces shall be free from rust and may be painted, if required.

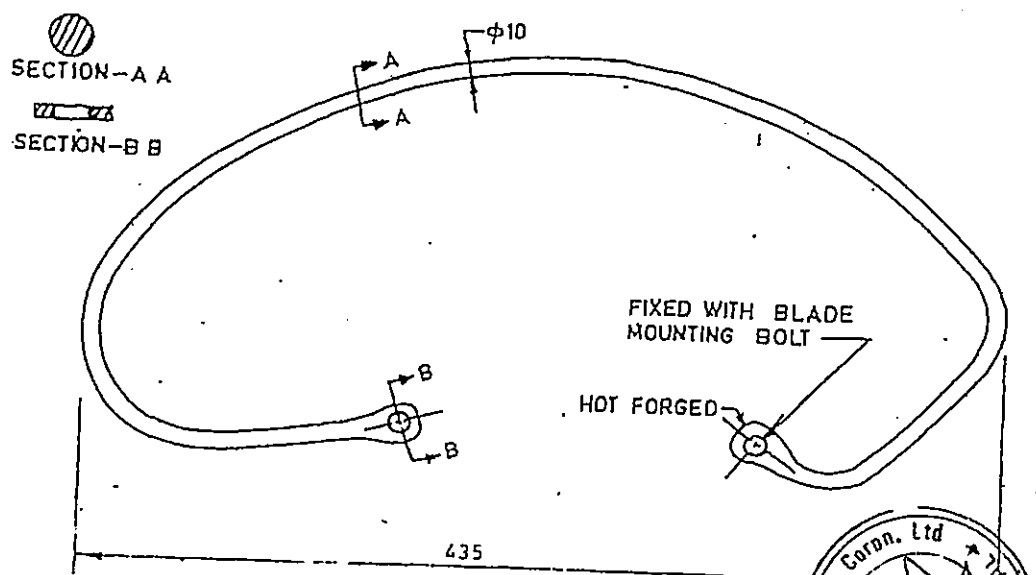
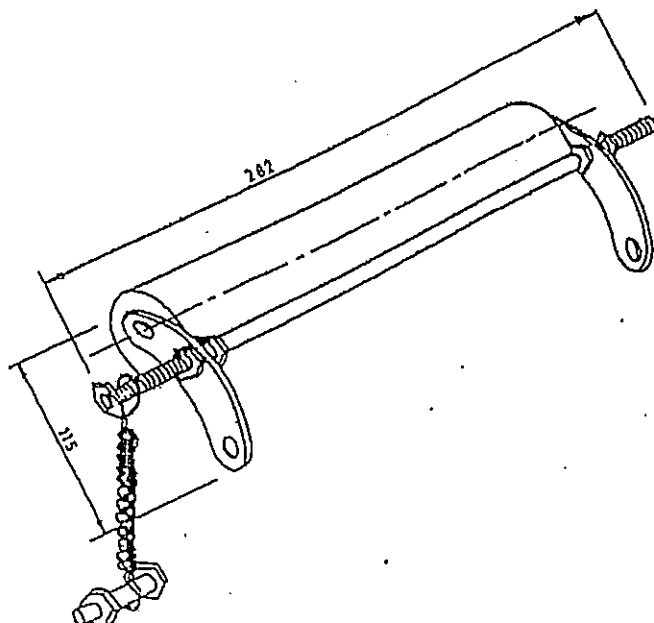
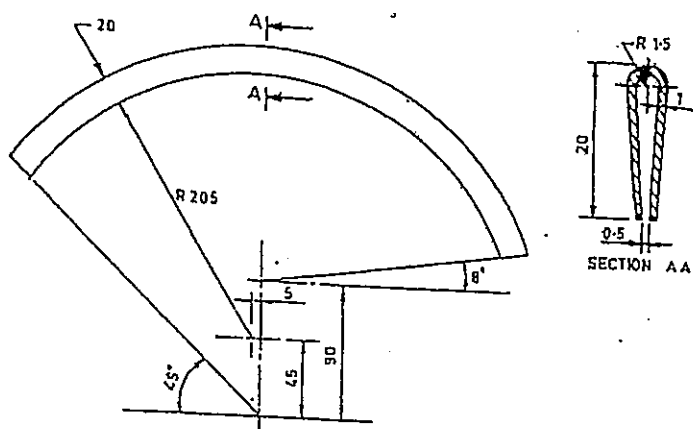


FIG. 14 FRONT SAFETY GUARD



All dimensions in millimetres.
FIG. 15 WARNING ROLLER



All dimensions in millimetres.
FIG. 16 BLADE COVER

10 MARKING AND PACKING

10.1 Marking

Each chaff cutter shall be marked with the following particulars.

- a) Manufacturer's name or registered trade-mark, and

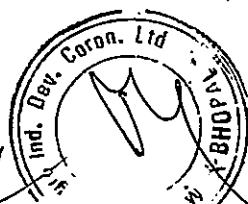
- b) Code and batch number.

10.2 BIS Certification Marking

Each chaff cutter may also be marked with the Standard Mark.

10.2.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act, 1986*

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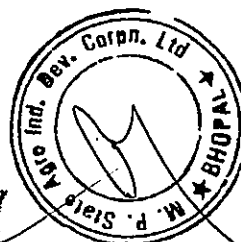


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**MINIMUM SPECIFICATION OF MANUALLY OPERATED NON ISI CHAFF CUTTER
(HEAVY DUTY) HAND OPERATED
AS PER IS (7898: 2001) STANDARD :-**

S.No.	Parts	Material	Applicable Indian Standard IS No.
1	Flywheel	Cast Iron	210
2	Handle grip	Hard or Medium Hard wood	399
3	Handle Support	Mild Steel	2062
4	Frame	Cast iron	210
5	Cover plate	Cast Iron	210
6	Shear Plate	Cast Iron	210
7	Feed rolls	Cast Iron	210
8	Spring	Spring Steel	4454 (Part-I)
9	Bush bearing	Brass	407
10	Worm and Worm gear	Cast iron	210
11	Leg	Mild Steel	2062
12	Leg support	Mild Steel	2062
13	Fingers, if separate	Cast Iron	210
14	Shaft and axles	Mild Steel	2062
15	Feeding trough	Timber	399
16	Blade Cover	Mild Steel	2062
		Mild Steel	2062
		Plastics	-

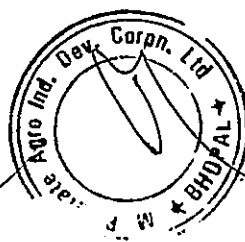
Cast Iron Head (wt-37-39 Kg) should be fitted with new standard bearing ISI Mark (ABC/NBC/SKF/Tata). Cast Iron Wheel size 4' dia (25-26 Kg) Mild Steel Stand (12-14 Kg). Pamala made of 26 Gauge GP/CR Sheet (1 Kg), 2 Nos. ISI Blade (1511-1979) made of high carbon steel having hardness of 40-45 HRC as per ISI No. 1586-1968 Standard accessories, handle, nuts bolts, spanners, 10" flat file (JK or Scissors make), PVC Oil Can 100 ml (Cuppi) and 4 Nos. 6" long foundation bolts of 8 mm dia with nuts & total weight of Chaff Cutter - 80 - 84 Kg.



(111)
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DESIGN SPECIFICATION AND DIMENSIONS OF PARTS

S.NO.	PARTS	DIMENSION (In mm)
	HANDLE	DIA. 15 L-500
1	FLY WHEEL	DIA-1250 HAS TWO ARMS EACH PROVIDED BY ONE SQUARE HOLE FOR FIXING THE HANDLE HOLE DIA-10MM
2	MAIN SHAFT	L-400
3	WORM	DIA-30
4	WORM GEARS	OUTER DIA-75 OUTER LENGTH-80
5	FEED ROLLS	TWO IN NOS. OUTER DIA-125-133 TEETH IN GEAR 11-13
6	SPRINGS	TWO IN NOS OUTER L-207 OUTER DIA-75
7	COVER PLATE	TWO IN NOS L-9 OUTER DIA-20 WIRE DIA-2.5
8	BACK PLATE	ROD L-225 TEETH-11
9	FEEDING TOUGH	L-207 W-145 TEETH-12
10	STAND	L-900 THE LEG SECTION MADE OD ANGLE SECTION 50X50X2 H-750 L-600 W-550
11	Weight	80-84 kg.



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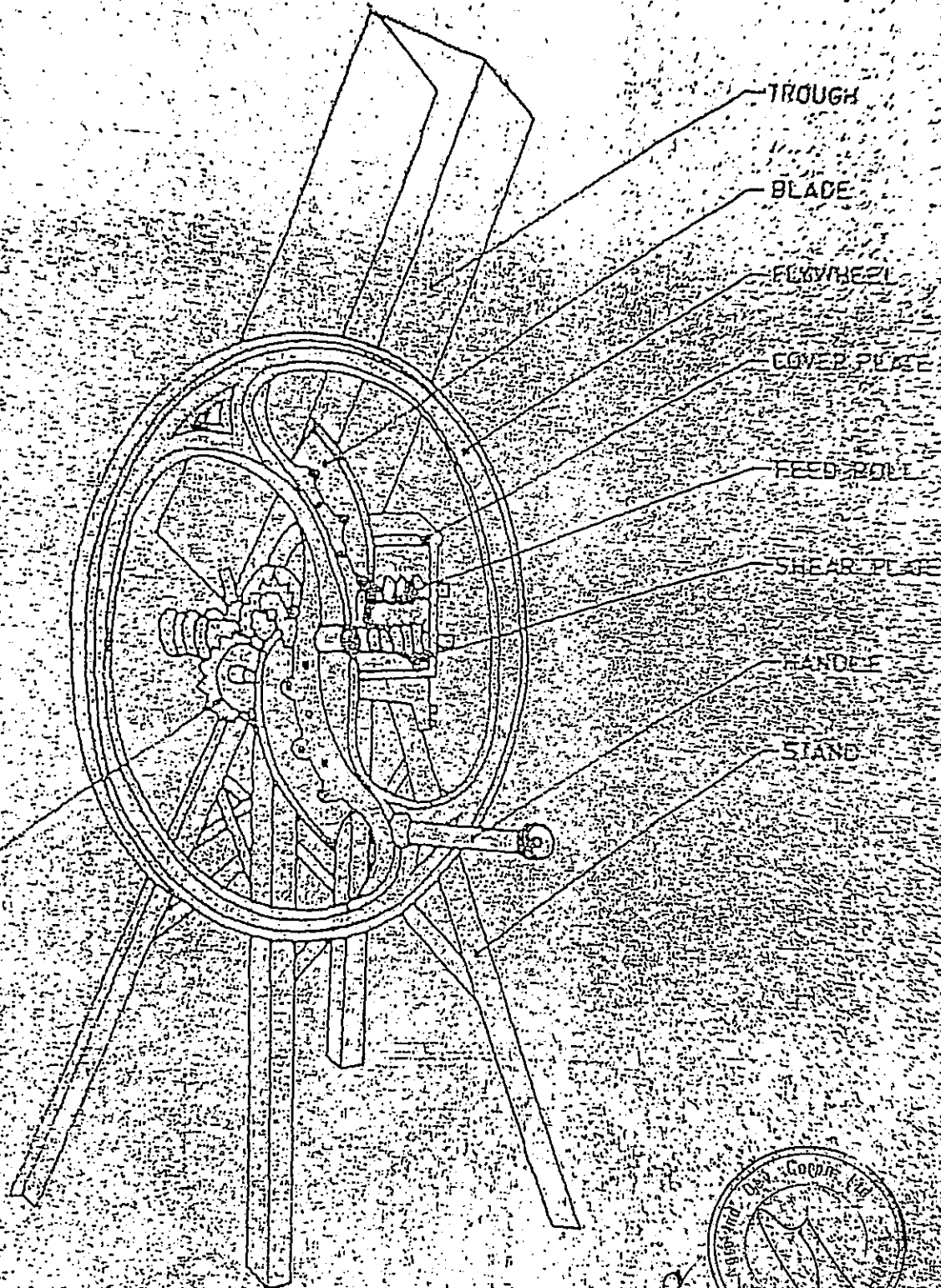
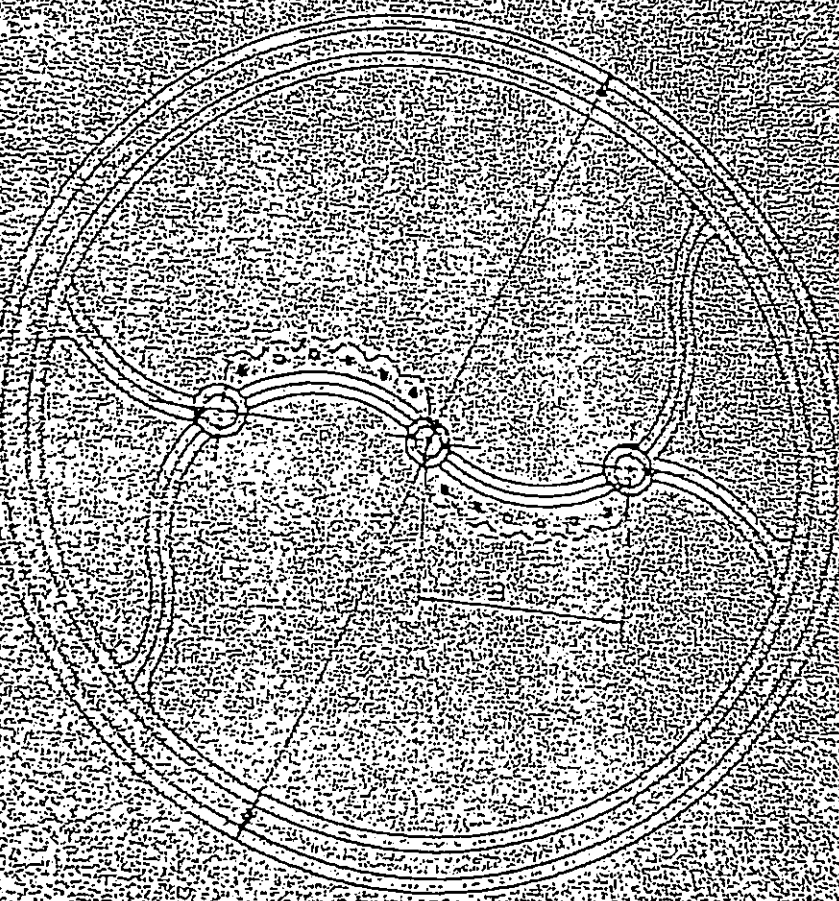
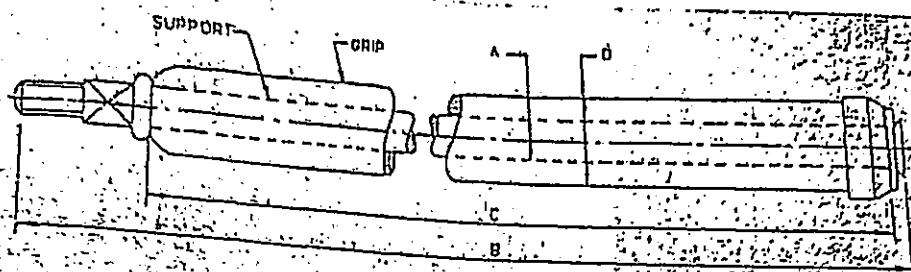


FIG. 1 TYPICAL DRAWING OF MANUALLY-OPERATED CHAFF CUTTER



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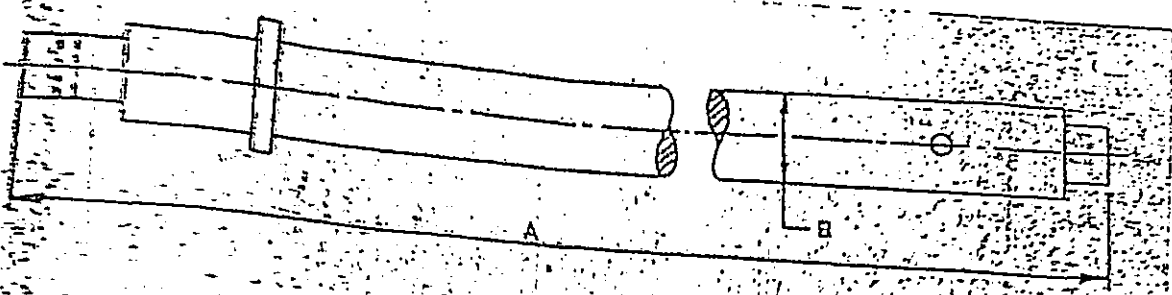


FIG. 4 MAIN SHAFT

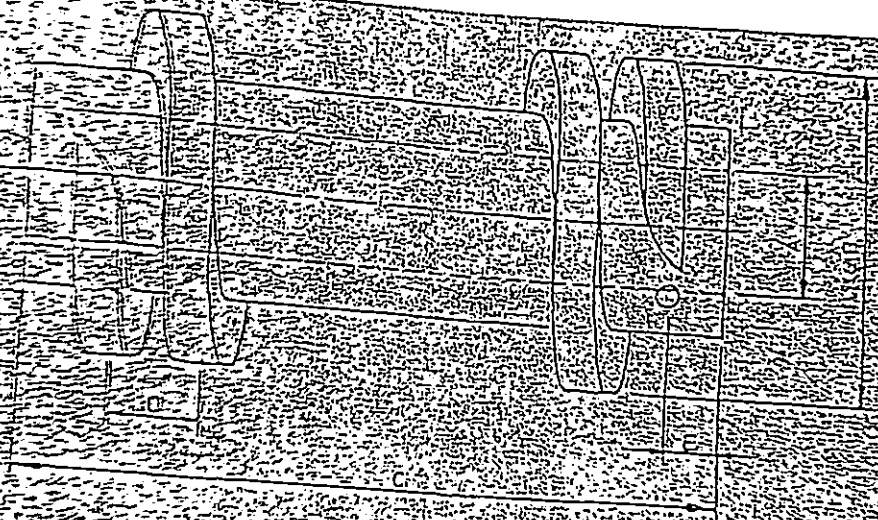


FIG. 5 WORM

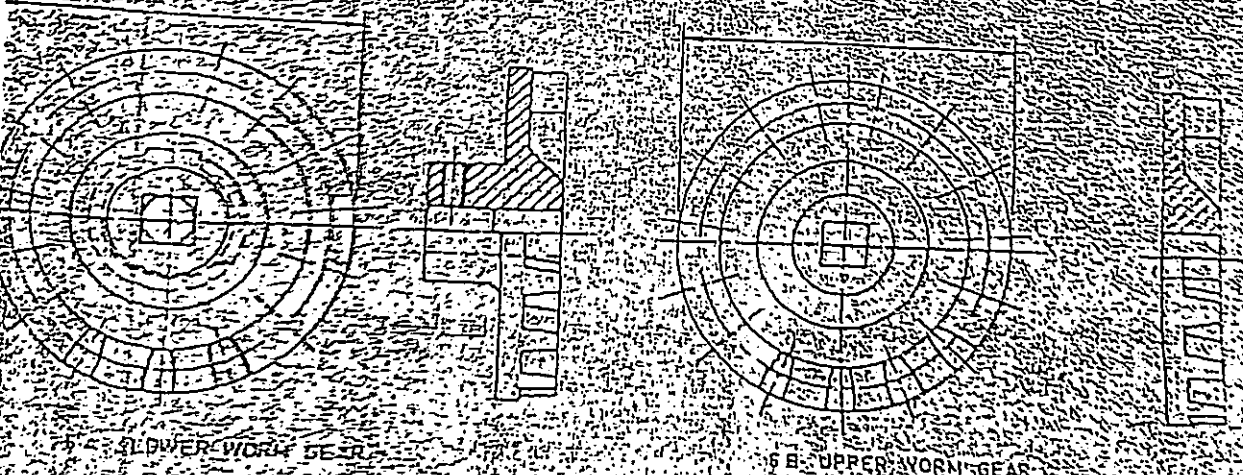


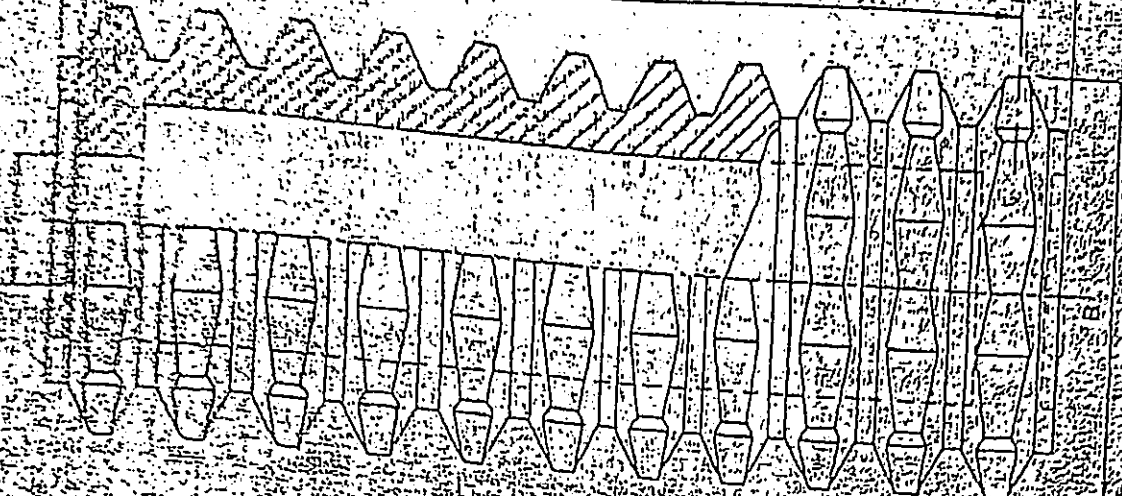
FIG. 6 WORM GEAR

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M. P. STEIN
PAT. NO. 1,155,000
APR 1935

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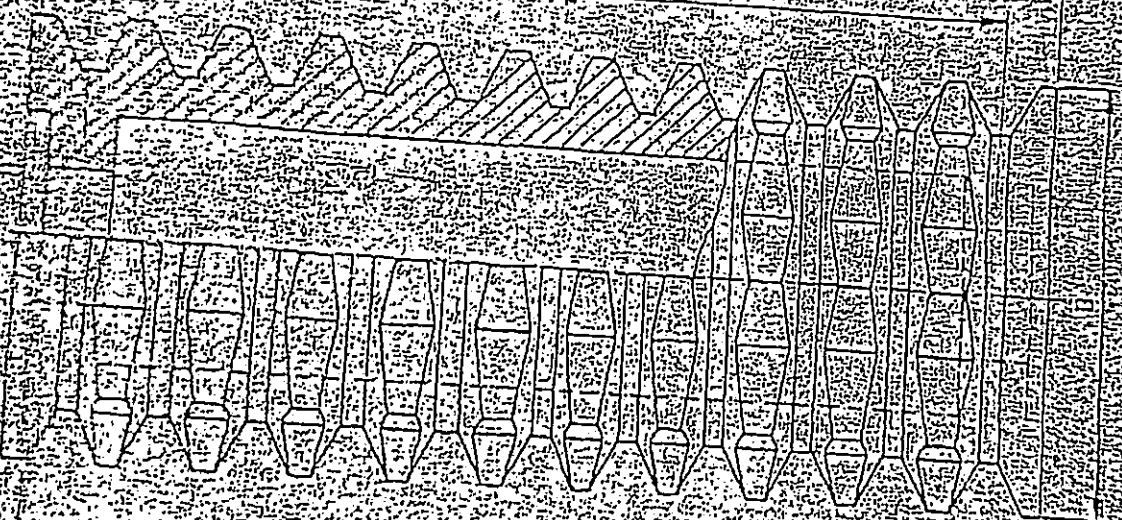
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10 EQUAL PITCHES



7A LOWER FEED ROLLER

10 EQUAL PITCHES



7B UPPER FEED ROLLER

FIG. 7 FEED ROLLERS

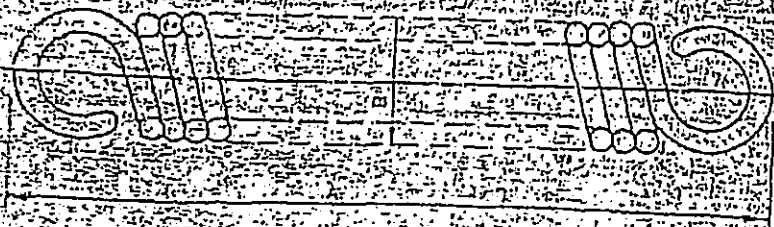


FIG. 8 SPRING

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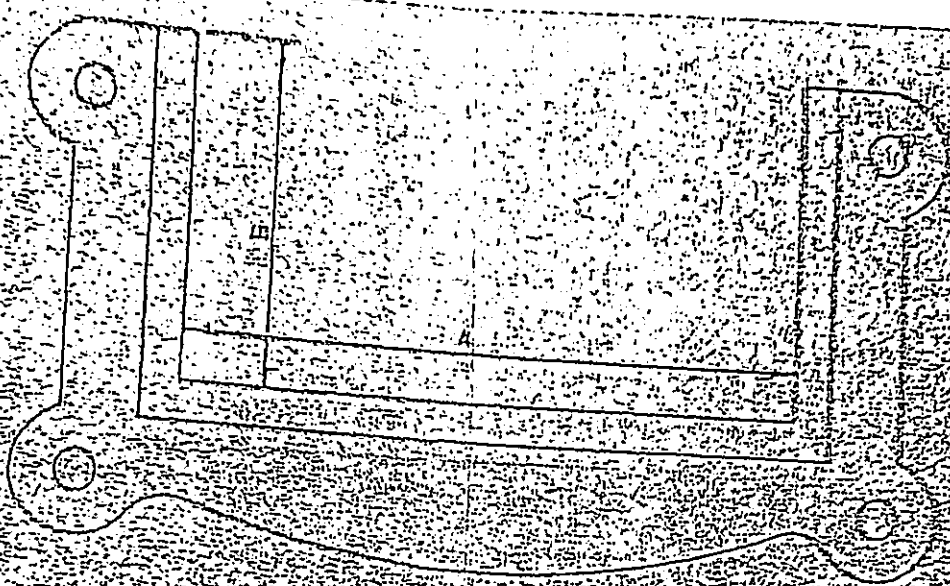
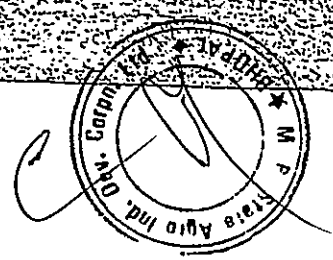


FIG. 2 SIDE VIEW

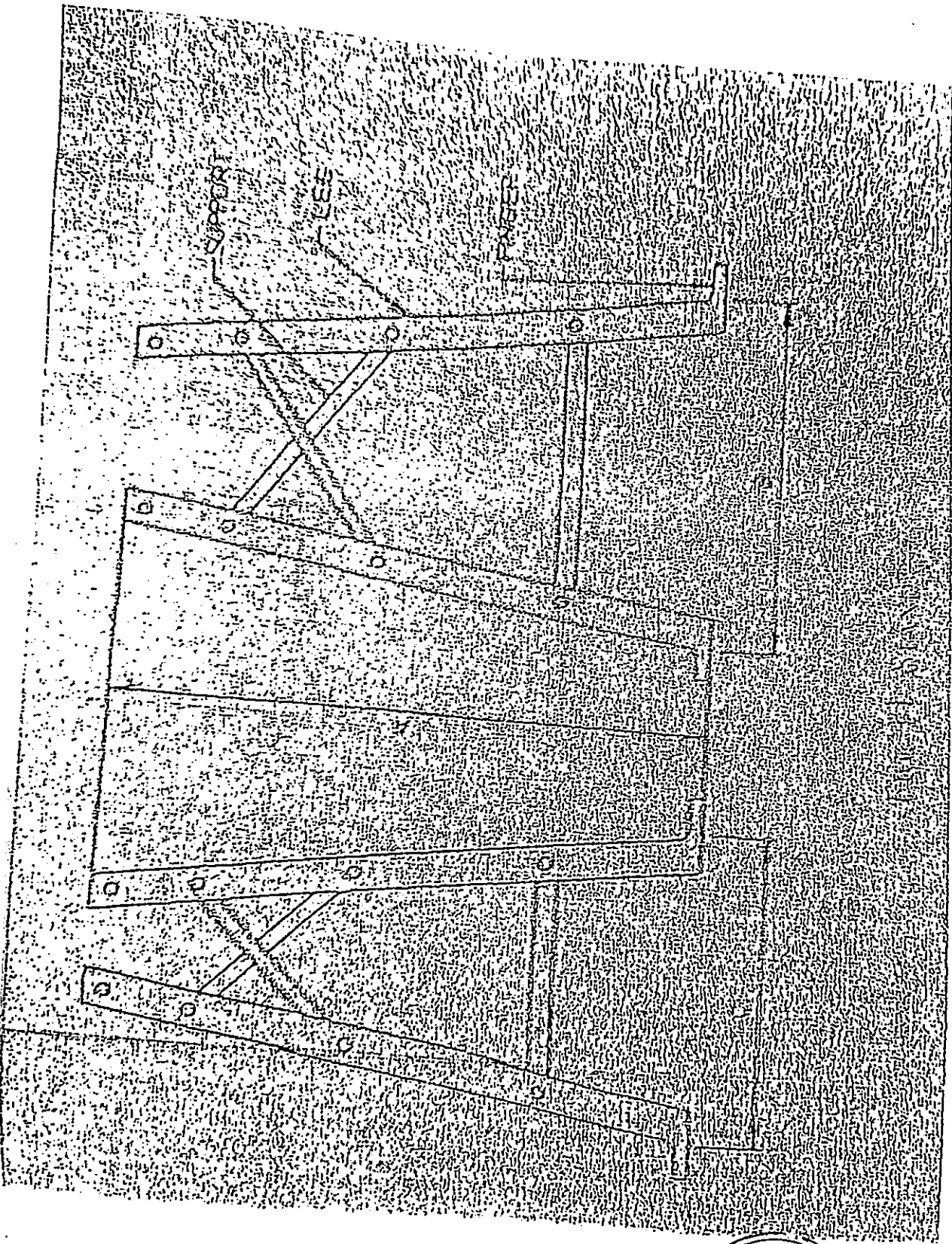


FIG. 10 BACK VIEW

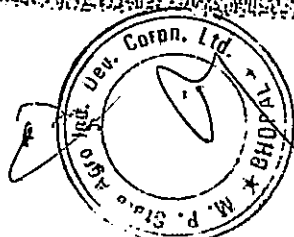
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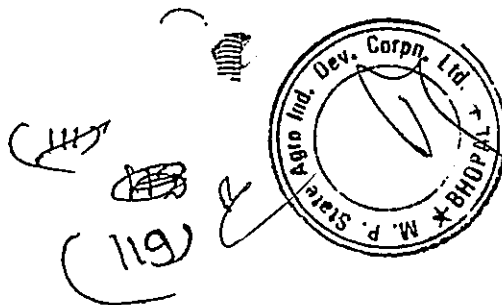
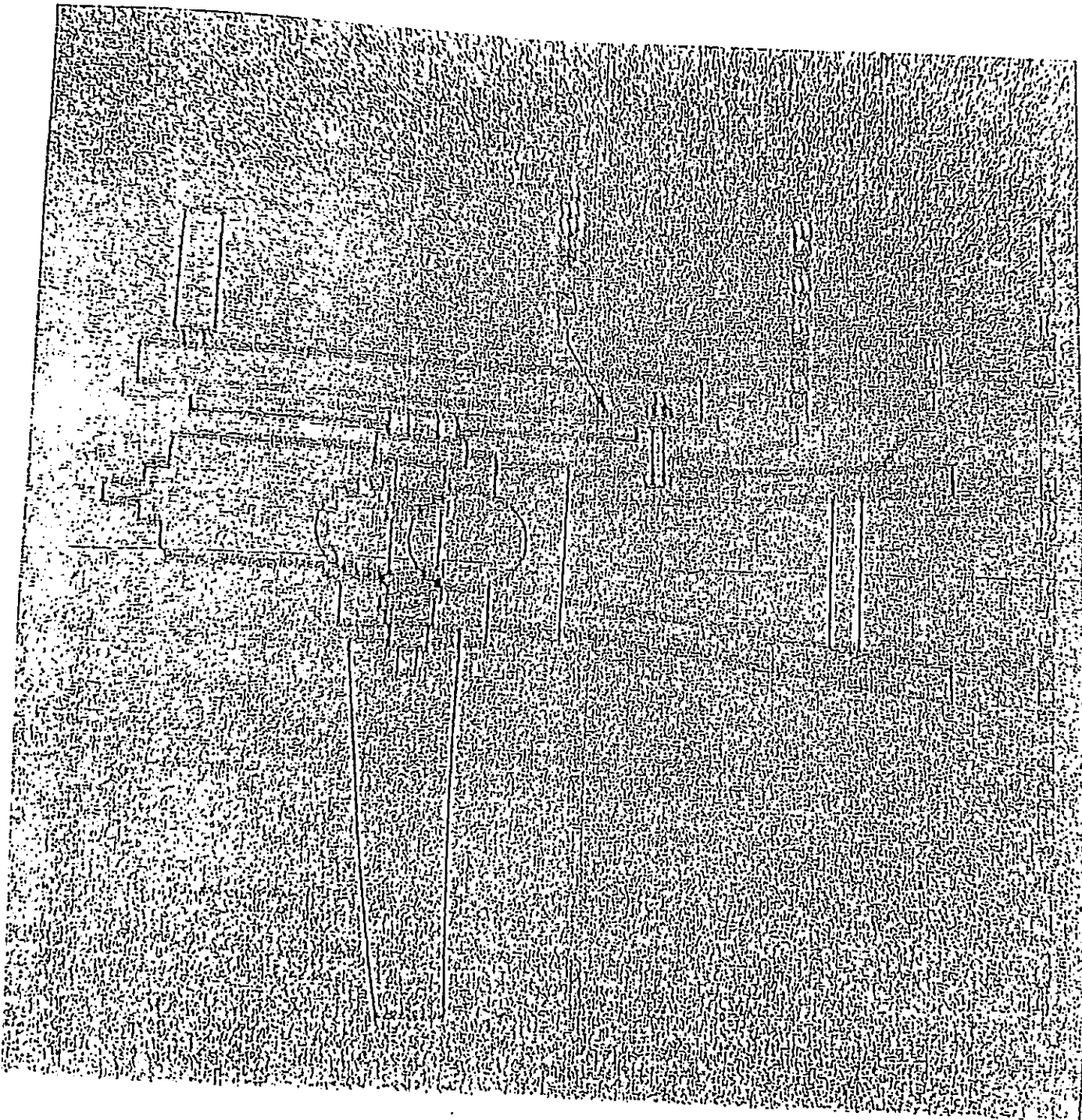
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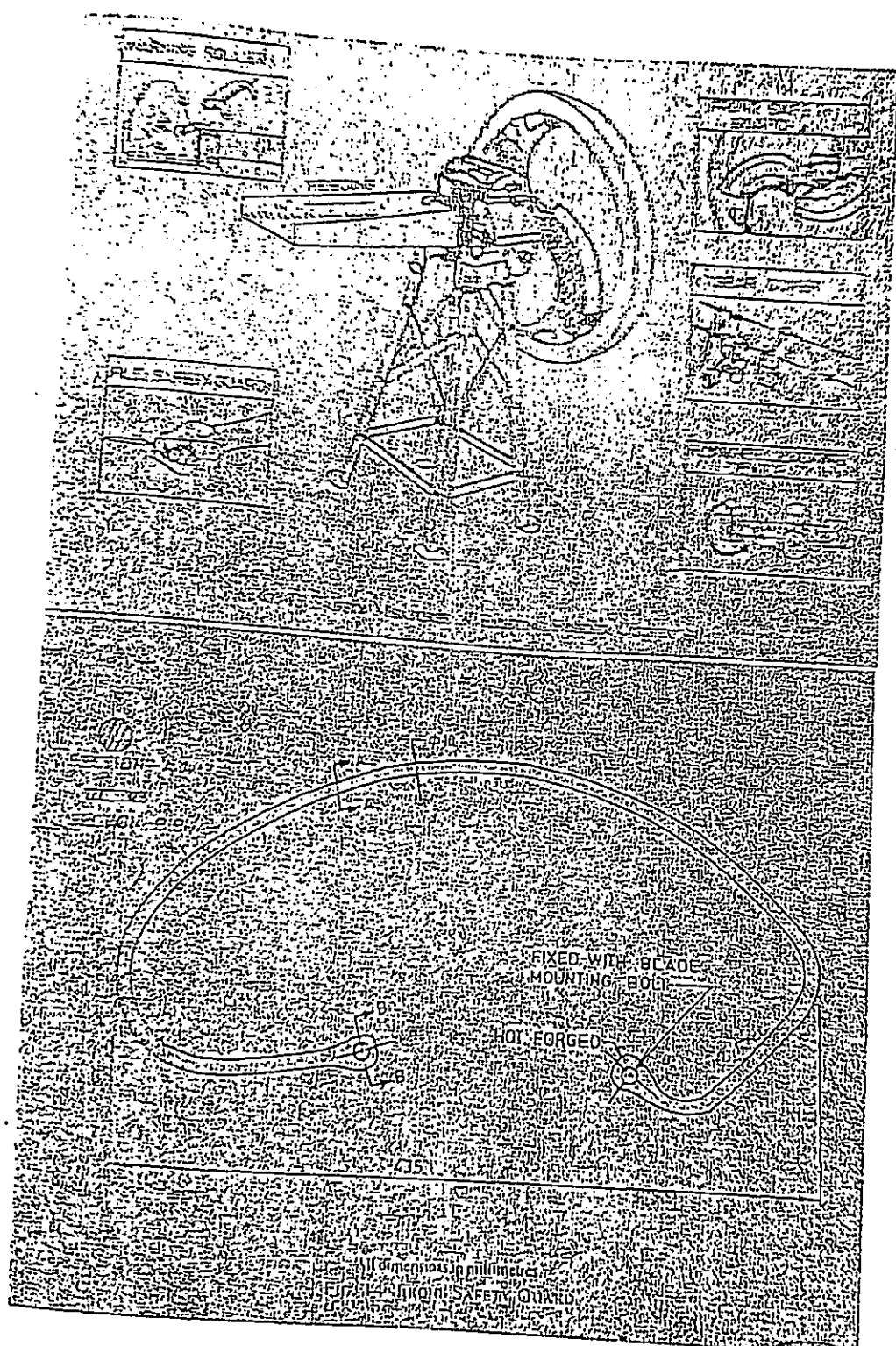
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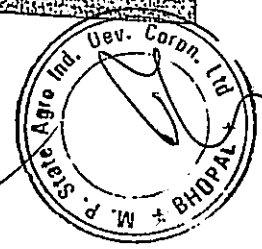
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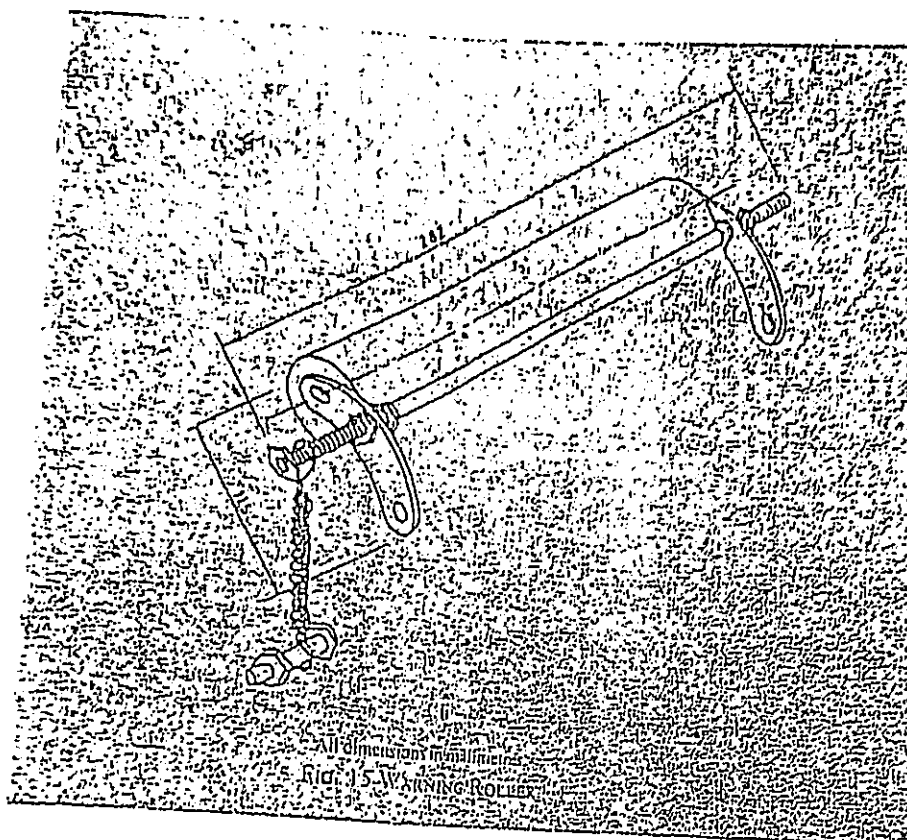
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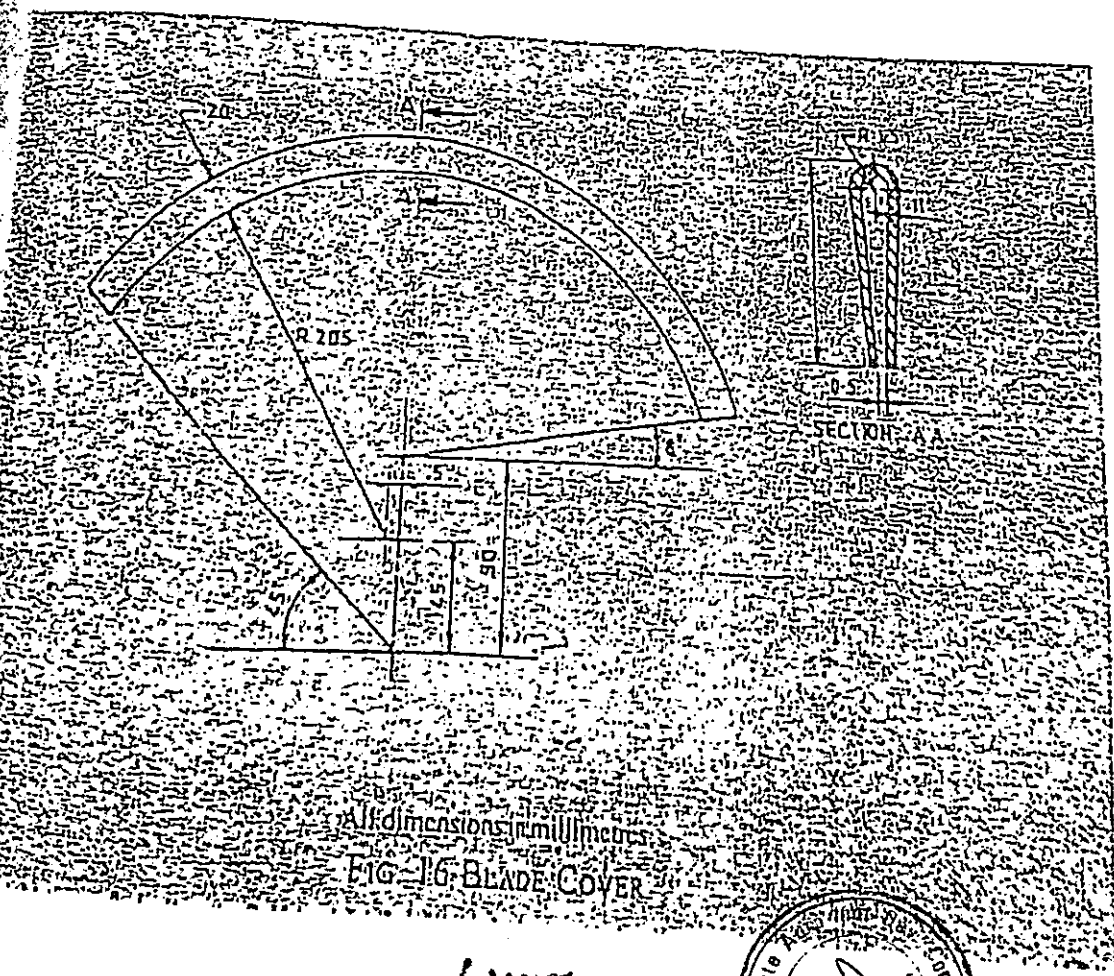
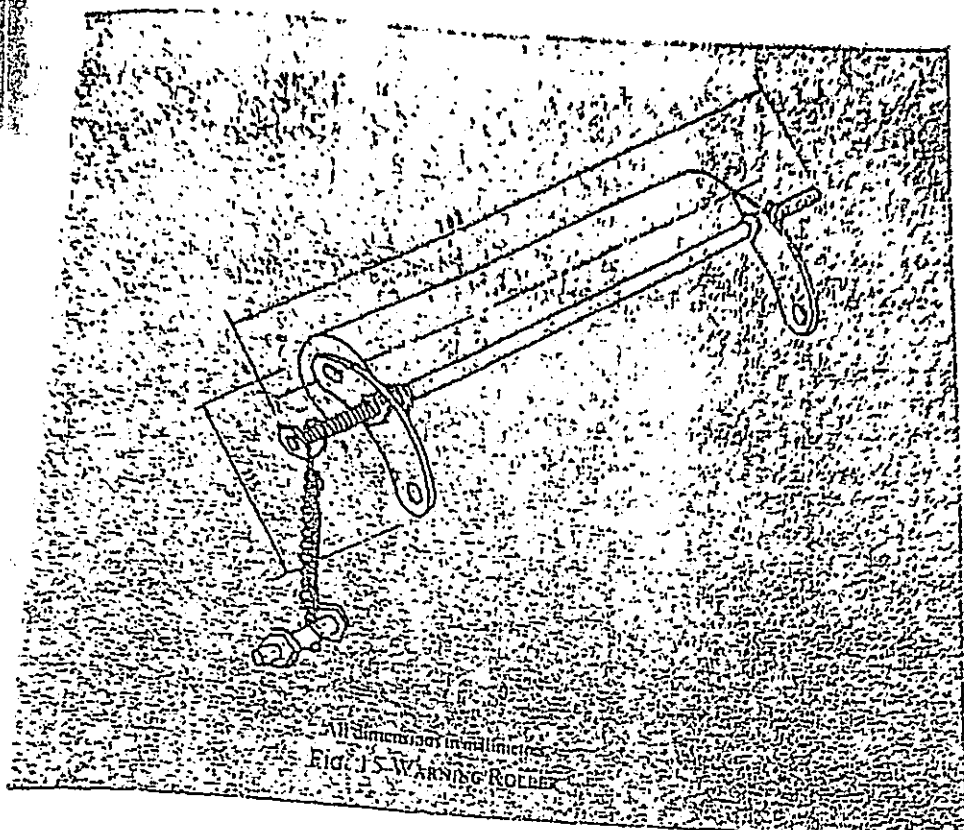
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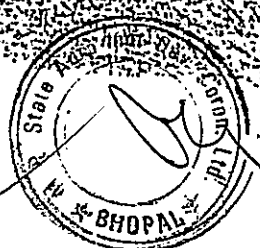
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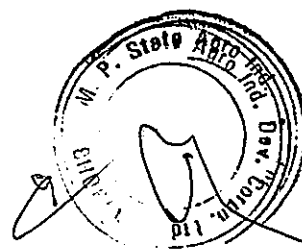
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TRANSIT GRADER (7 Disc)

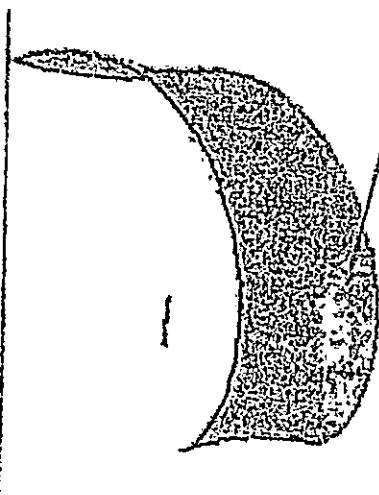
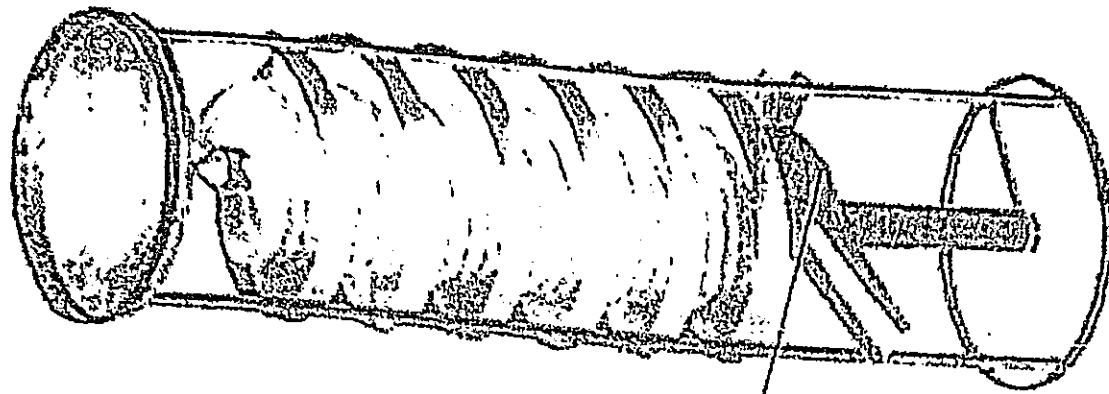
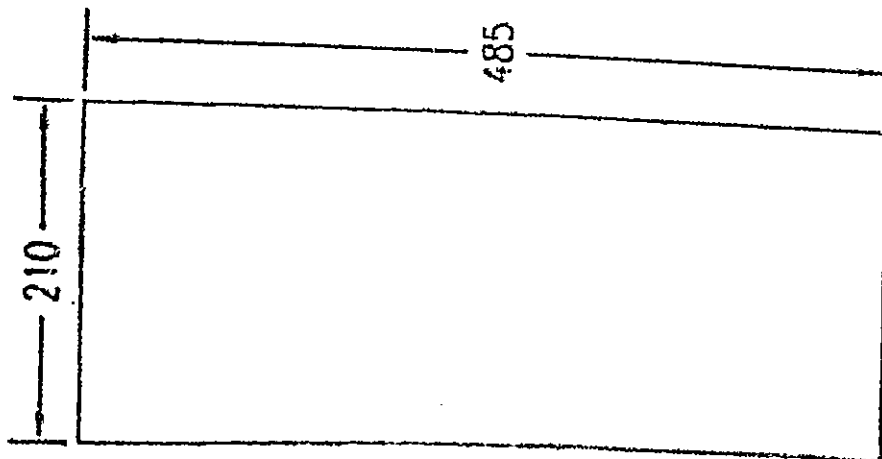
630

S.No.	Name of part	Material	Size In mm	QTY
1	OVERALL WEIGHT-41.50 KG	OVERALL HEIGHT-2200 MM	OVERALL DIA-650 MM	1
2	SHEET WT-24.50 KG INNER SPIRAL	GALVANISED SHEET 26 GAUGE, WT-10.560 KG	LENGTH-5200 MM, OUTSIDE DIA-390 MM, INSIDE DIA-275 MM	4 SET (1 SET = 6 SPIRAL)
3	OUTER SPIRAL	GALVANISED SHEET 26 GAUGE, WT-10.60 KG	1350X610 MM	1 SET (5 NO)
4	HOPPER	GALVANISED SHEET 26 GAUGE	655X210 MM WT - 2.16 KG	1
5		SUPPORT RING MF FLATS	655X25X3 MM WT - 1.40 KG	1
6	INNER OUTLET	SUPPORT PATTI MF FLATS	25X3X70	3
7	OUTER OUTLET	GALVANISED SHEET 26 GAUGE	390X140X(40-85) WT - 0.46 KG	1
8	CENTER PIPE	GALVANISED SHEET 26 GAUGE	390X(275-135)X(75-50) WT - 0.56 KG	1
9	STAND	MS SQ PIPE WT- 6.78 KG	75X3X1905 MM	1
10	BASE	MS SQ PIPE WT- 5.46 KG	25X25X2200 MM	3
11		MS PATTI WT - 3.62 KG	32X5X655 MM	1
12	INNER SPIRAL BOTTOM COVER	MS SHEET WT-3.62 KG	25X3X320 MM	6
		GALVANISED SHEET 26 GAUGE	485X210 MM	1



INNER SPIRAL BOTTOM COVER

TOP VIEW



FRONT VIEW

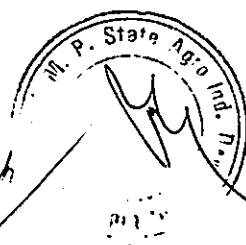
NAME	MATERIAL	SIZE/THICKNESS	QTY
INNER SPIRAL BOTTOM COVER	GALVANISED ST. (26 GAUGE)	485x210	1

(629)

332

(485)

(123)



TOP VIEW

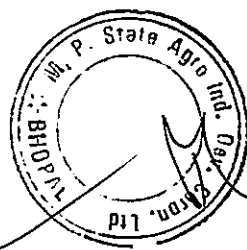
CENTER PIPE

CAP

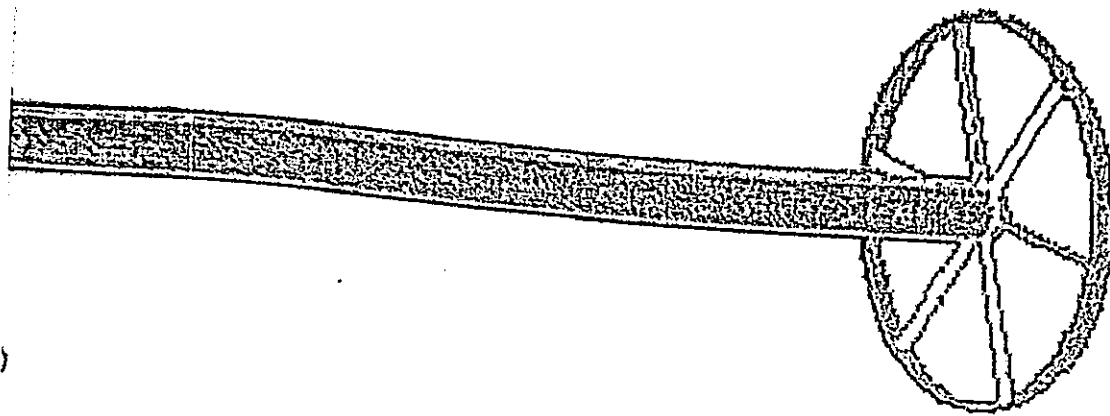
60

Ø75

1905



FRONT VIEW



ITEM NO.	DESCRIPTION	QTY
CENTER PIPE	MS PIPE (DIA. 3") WT. - 6.78 KG.	1

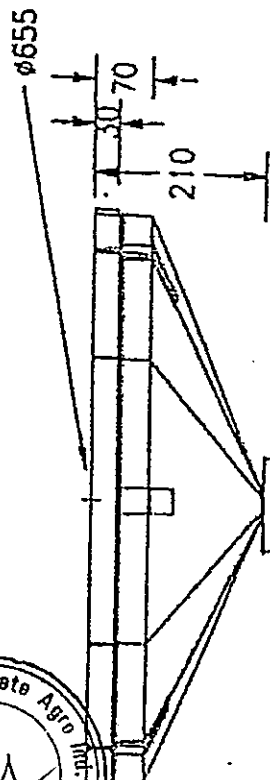
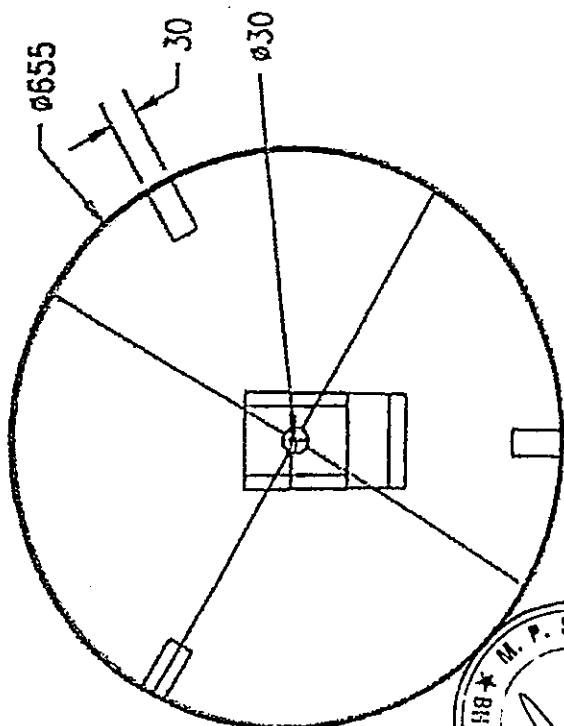
(628)

331

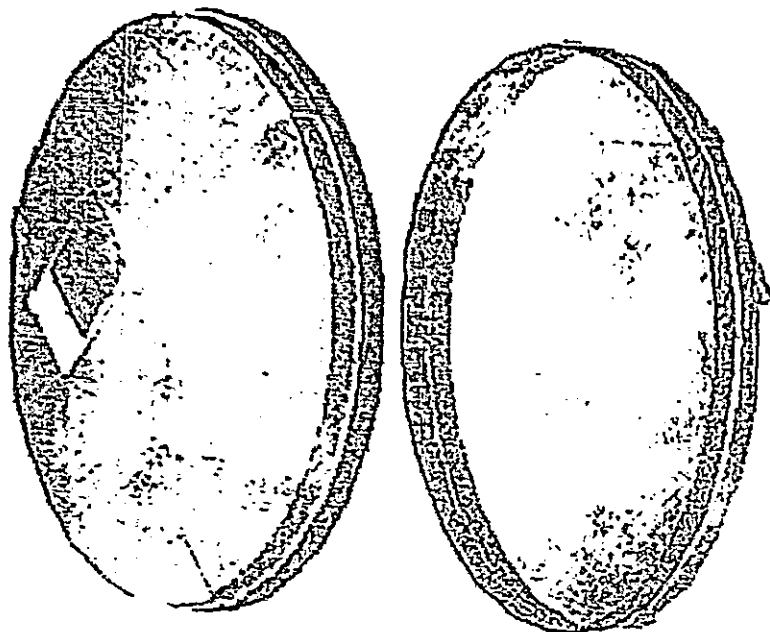
(146)
(124)

HOPPER

TOP VIEW



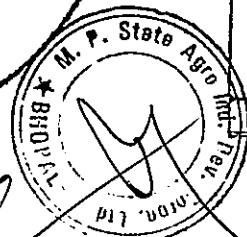
FRONT VIEW



NAME	MATERIAL	SIZE (MM)	QTY
HOPPER	GALVANISED ST. (26 GAUGE)	Φ655x210 Wt- 2.16 Kg	1
	SUPPORT RING MS FLAT	Φ655x25x3 Wt- 1.40 Kg	1
	SUPPORT PATTI MS FLAT	25x3x70	3

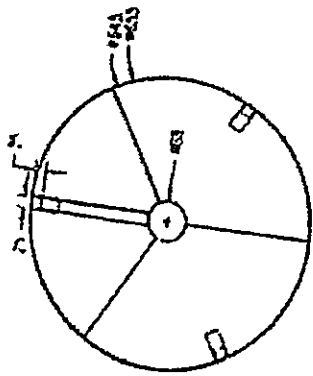
627

328

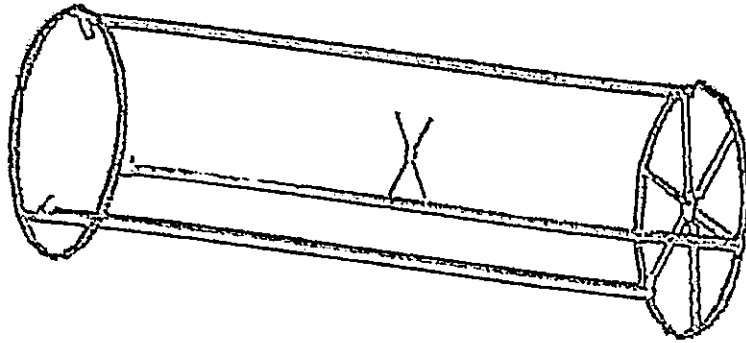


(125)

TOP VIEW



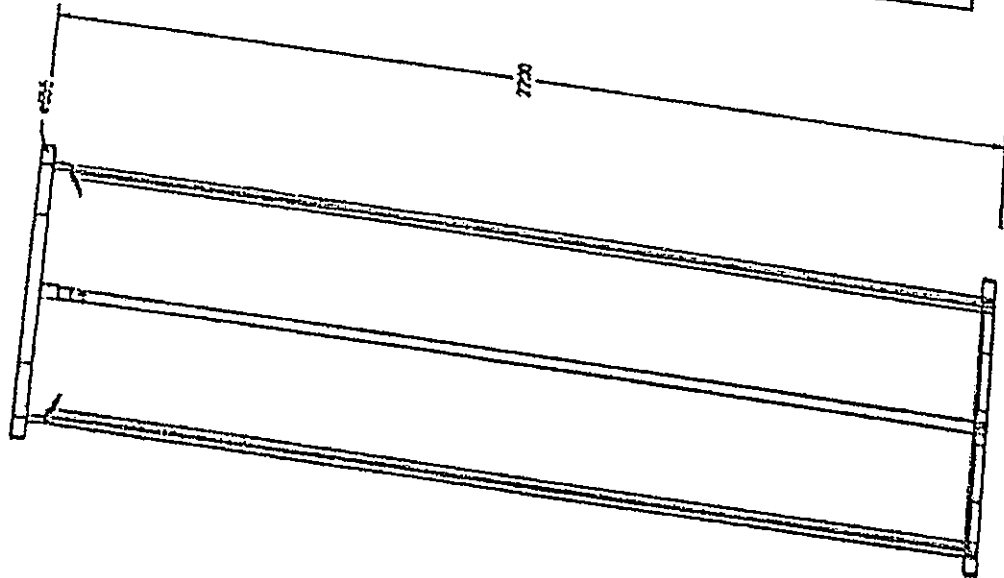
STAND



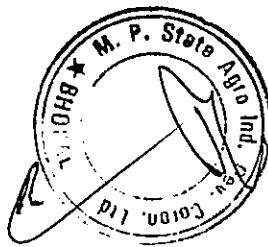
4.1 103

Fi

FRONT VIEW



(118)
(126)



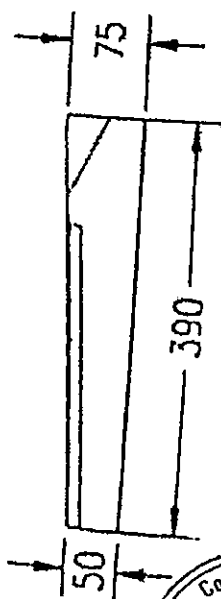
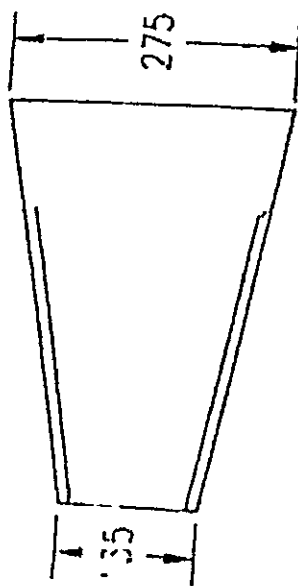
NAME	MATERIAL	SIZE/MM	QTY
STAND	MS SQ. PIPE WT. - 5.46Kg	25X25X2200	3
BASE	MS PATTI WT. - 3.62 Kg	32X5X655Ø	1
	MS SHEET	25X3X320	6

626
398

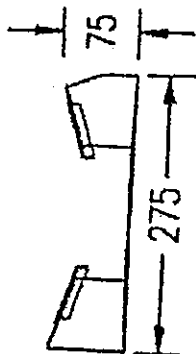
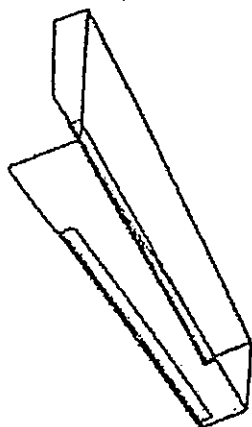
SPIRAL SEPARATOR-10

OUTER OUTLET

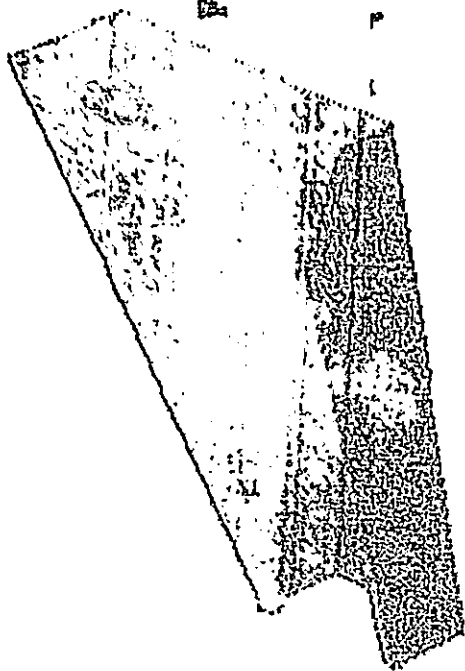
TOP VIEW



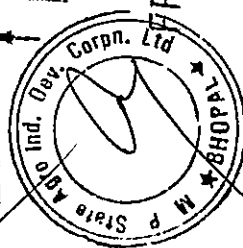
FRONT VIEW



SIDE VIEW



NAME	MATERIAL	SPECIMIN	QTY
OUTER	GALVANISED ST.	390x(275-135)x(75-50)	1



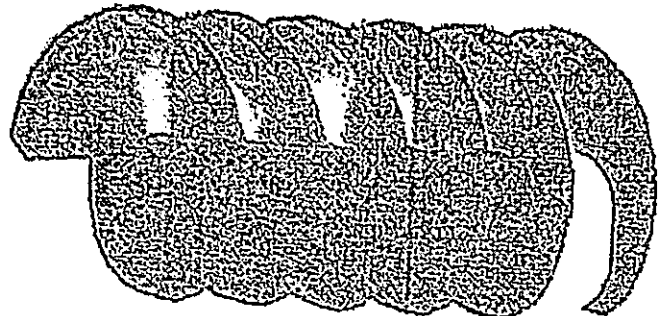
(127)

625
390

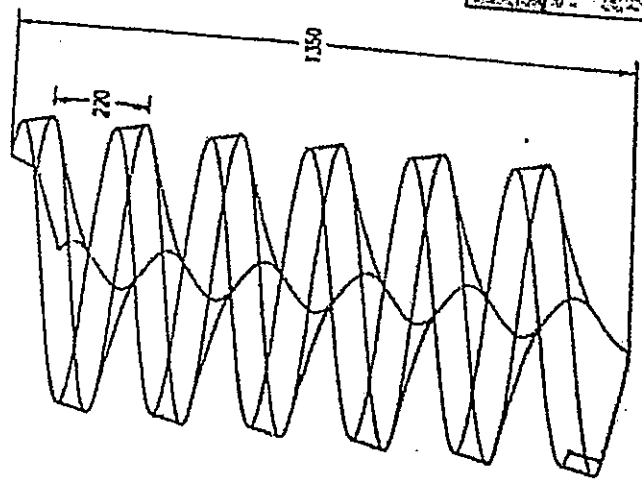
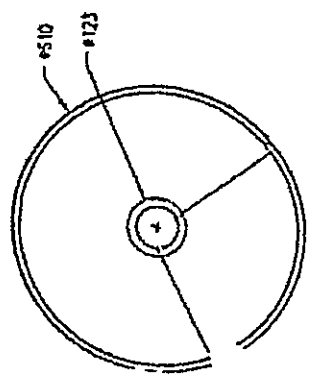
624

327

OUTER SPIRAL



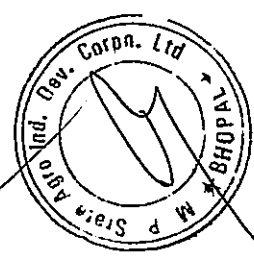
TOP VIEW



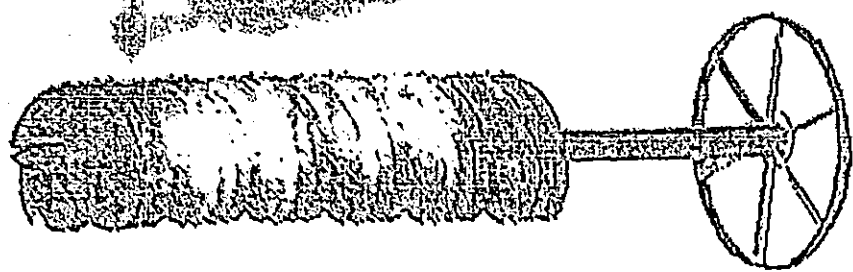
FRONT VIEW

NAME	MATERIAL	SIZE IN MM	QTY
OUTER SPIRAL	GALVANISED SHEET 26 GAUGE WEIGHT 10.6	1350x6100	1 set (5 No.)

(120) 122
(128)

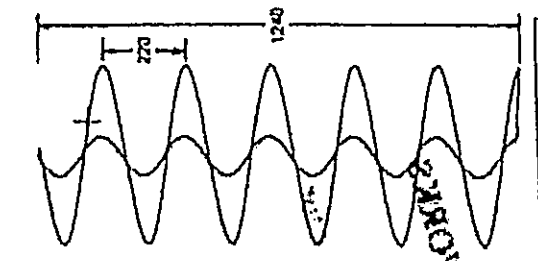
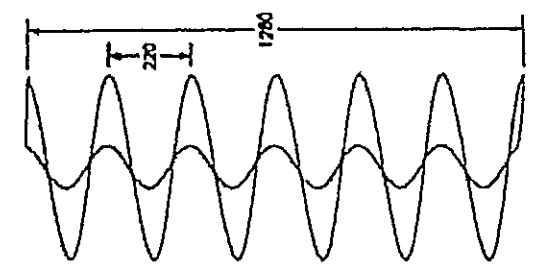
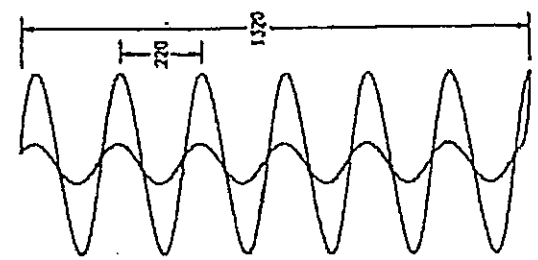
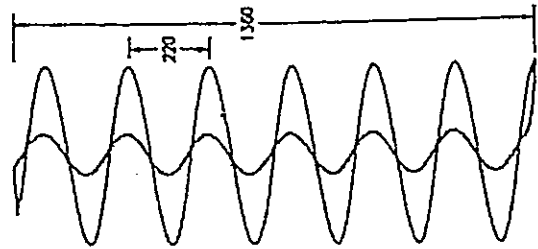
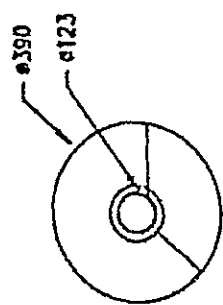
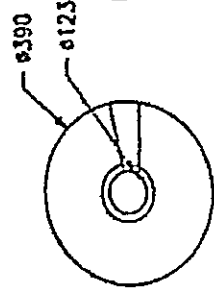
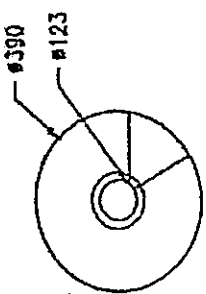
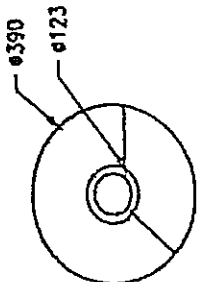


623
328



INNER SPIRAL

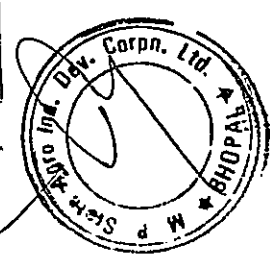
TOP VIEW



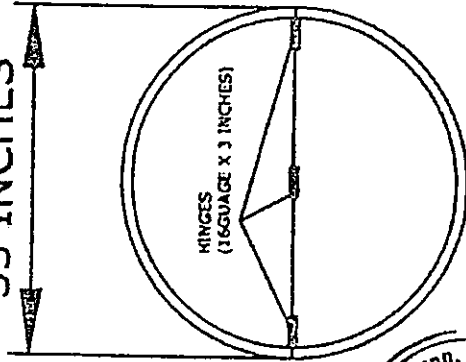
FRONT VIEW

SPECIFICATION	
INNER SPIRAL	4 SET (1 SET = 6 SPIRAL)
GALVANISED SHEET 26 GAUGE WT. -10.560 KG.	LENGTH 1280+1320 +1360=5200 OUTSIDE Φ 390 INSIDE Φ 123

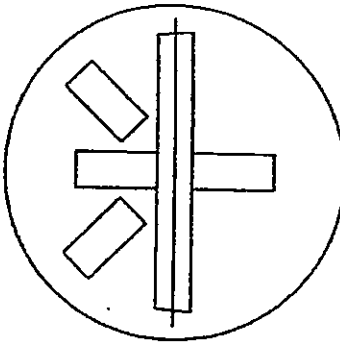
(129)



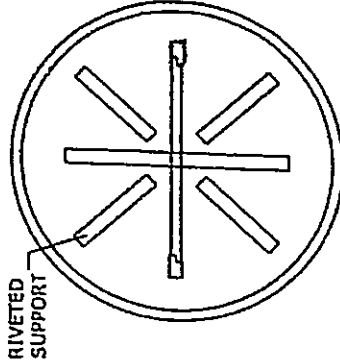
33 INCHES



TOP VIEW

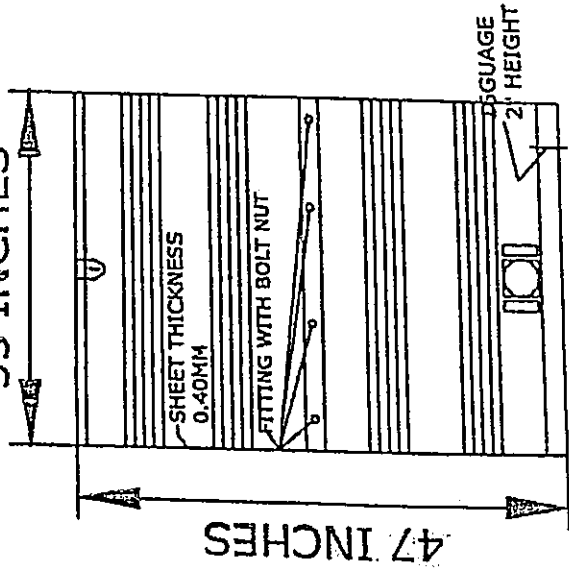


LID INSIDE VIEW

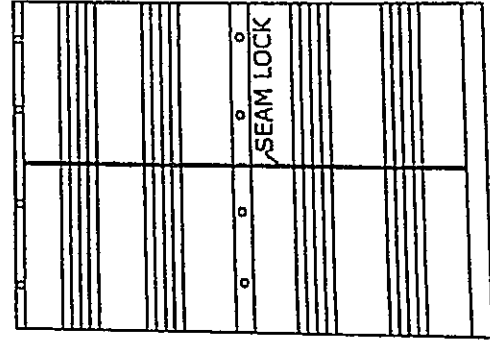


BOTTOM VIEW

33 INCHES



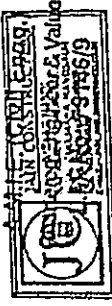
FRONT ELEVATION



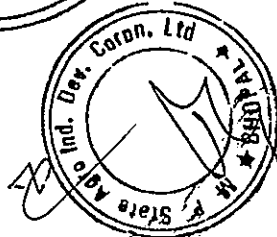
SIDE ELEVATION

PROPOSED PLAN FOR
ANAJ BHANDARAN KOTHI
5.0 QUINTAL

ANIL JAIN



622



30

30 INCHES

HINGES
(16 GAUGE X 3 INCHES)

TOP VIEW

[illegible]

FRONT ELEVATION

LID FITTED WITH SCREW

SIDE ELEVATION

LID INSIDE VIEW

BOTTOM VIEW

PROPOSED PLAN FOR
ANAJ BHANDARAN KOTHI
10.0 QUINTAL

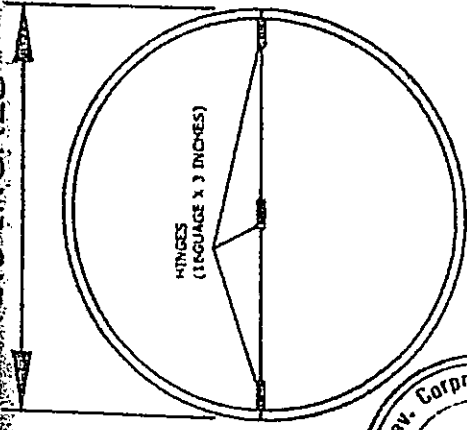
ANIL JAIN



62

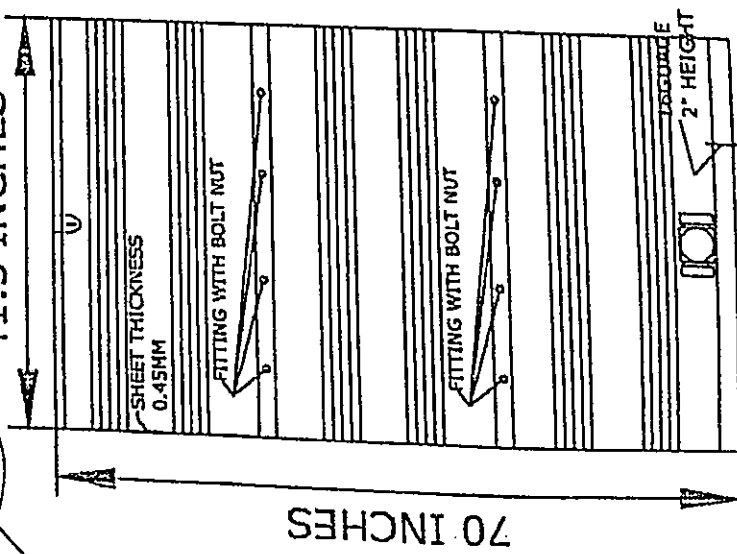
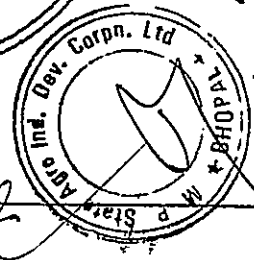


131

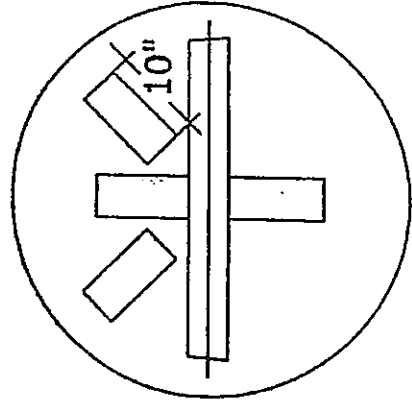


TOP VIEW

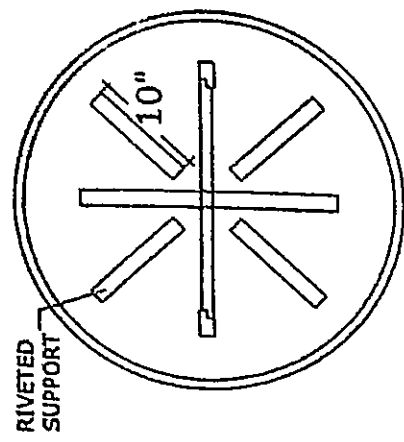
41.5 INCHES



FRONT ELEVATION

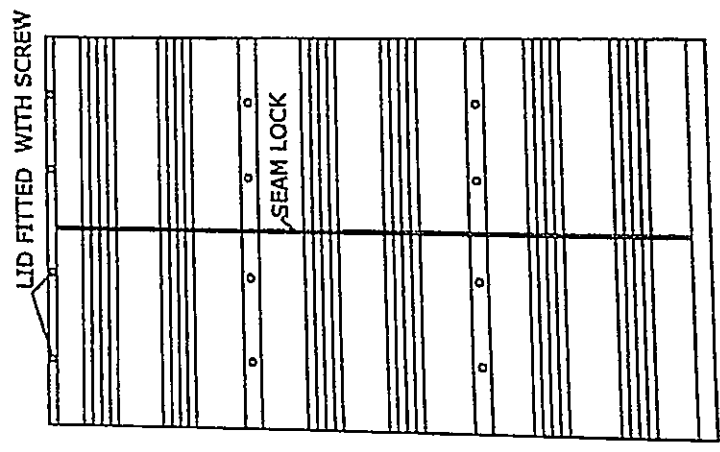


LID INSIDE VIEW



BOTTOM VIEW

RIVETED SUPPORT



SIDE ELEVATION

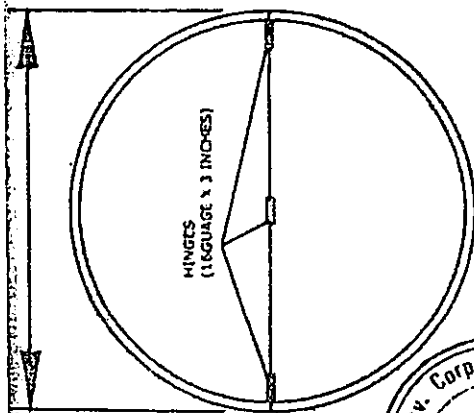
PROPOSED PLAN FOR
ANAJ BHANDARAN KOTHI
12.0 QUINTAL

ANIL JAIN

A.M.I.E. (Civil Engg.)
Chartered Engineer & Valuer

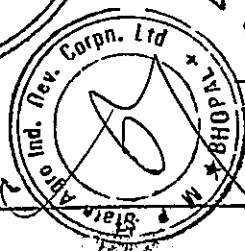


320

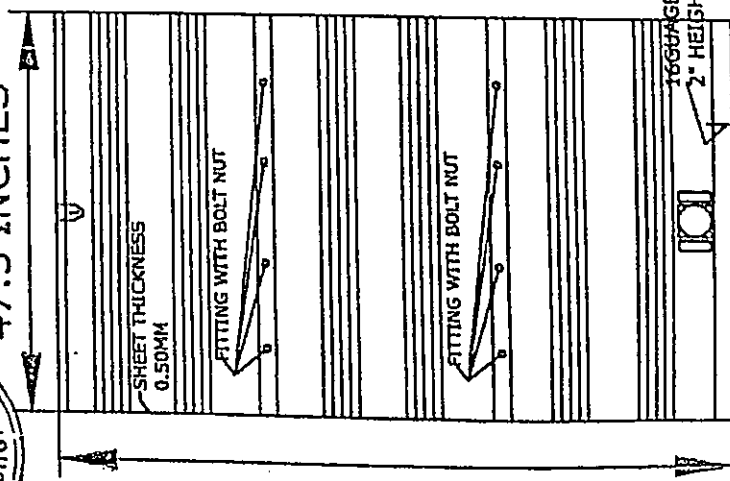


TOP VIEW

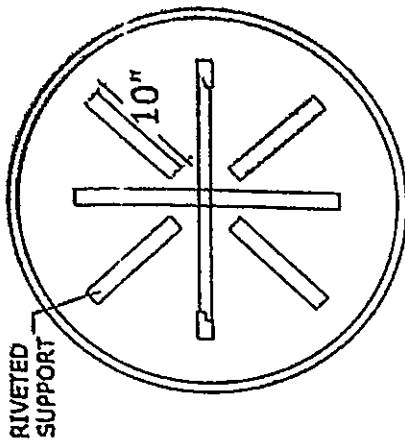
47.5 INCHES



88 INCHES

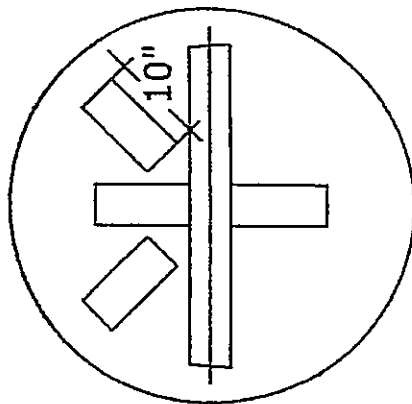


FRONT ELEVATION

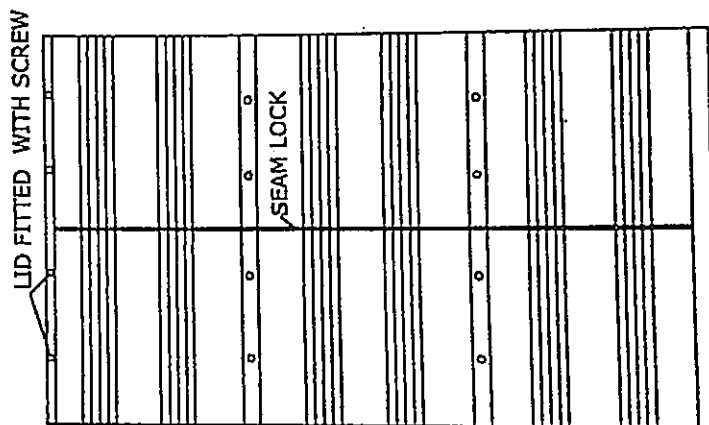


RIVETED SUPPORT

BOTTOM VIEW



LID INSIDE VIEW



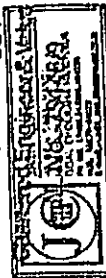
SIDE ELEVATION

**PROPOSED PLAN FOR
ANAJ BHANDARAN KOTHI**

20.0 QUINTAL

ANIL JAIN

A.M.I.E. (Civil Engg.)



69

618

IS 13152 (Part 1) : 2013

भारतीय मानक
सुवाहय ठोस बायो-मास कुकस्टोव (चूल्हा)
(पहला पुनरीक्षण)

Indian Standard
PORTABLE SOLID BIO-MASS COOKSTOVE (CHULHA)
(*First Revision*)

ICS 97.040.20

© BIS 2013

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 2013

Price Group 9

SUNSHINE GRAPHICS: 2012_669

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6 SIZE

The cookstove (*Chulha*) shall be of the following sizes based on the corresponding heat and power output rating:

A. Domestic cookstove (*Chulha*)

Power output rating	0.5 to 3.0 kW _a
Size	Power output rating kW
Small	Above 0.5 and up to 1.0
Medium	Above 1.0 and up to 2.0

Large

Above 2.0 and up to 3.0

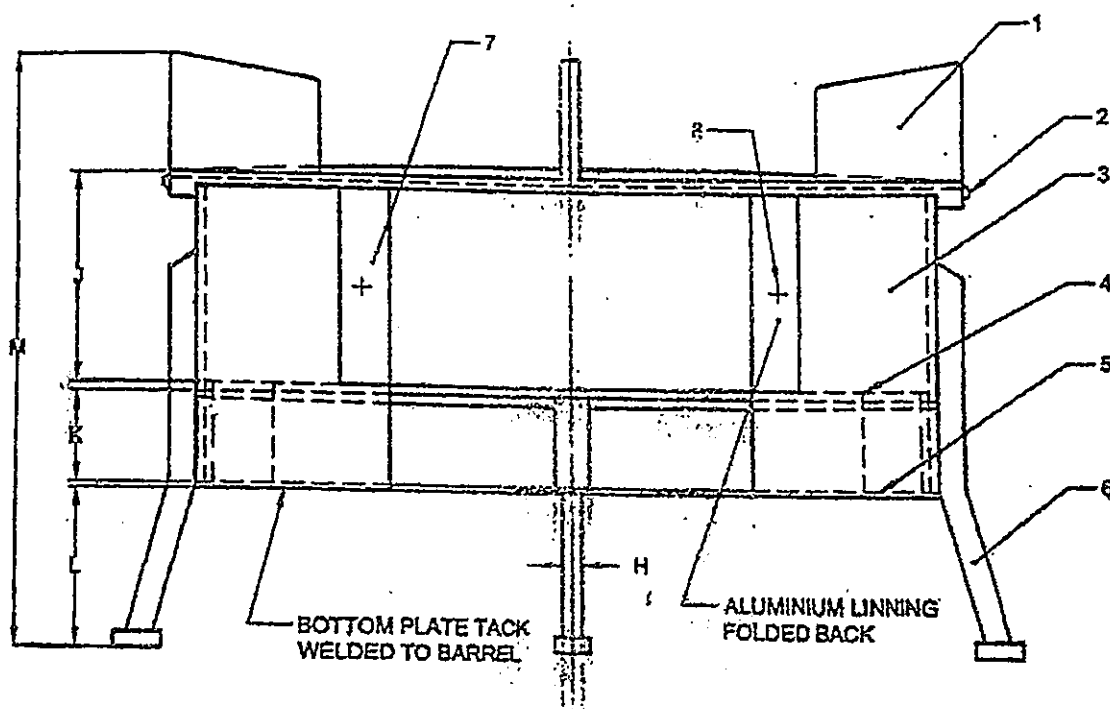
B. Community/Commercial cookstoves (*Chulha*)

Power output rating

Above 3 to 10 kW_a

7 MATERIALS

7.1 Different parts of the cookstove shall be made from the materials by referring relevant Indian Standards to meet the required performance parameters and 5 000 h of burning cycles or 5 years of durability whichever is



DIMENSIONS	H	J	K	L	M
MEDIUM SIZE TYPE 2	8	88	33	67	246
TYPE 1	8	88	33	67	242
LARGE SIZE TYPE 1	10	110	40	85	269

8	2	RIVET
7	1	ALUMINIUM LINNING
6	3	LEG
5	1	BOTTOM PLATE
4	1	GRATE
3	1	BARREL
2	3	SCREW
1	1	TOP PLATE
PART No.	QNTY.	DESCRIPTION

NOTES

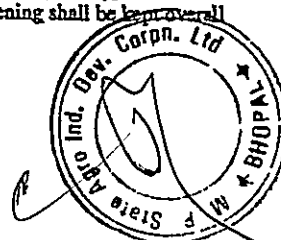
1 Avoid sharp edges, slots shall be rounded off suitably.

2 Cast iron top plate shall be made in cup shape and shall be fixed from outside to the barrel. Appropriate pan support shall be provided in casting to accommodate smaller/larger and round/flat shapes of pots. The total area of slot opening shall be kept overall height of the outer pot support to be kept as per dimensions.

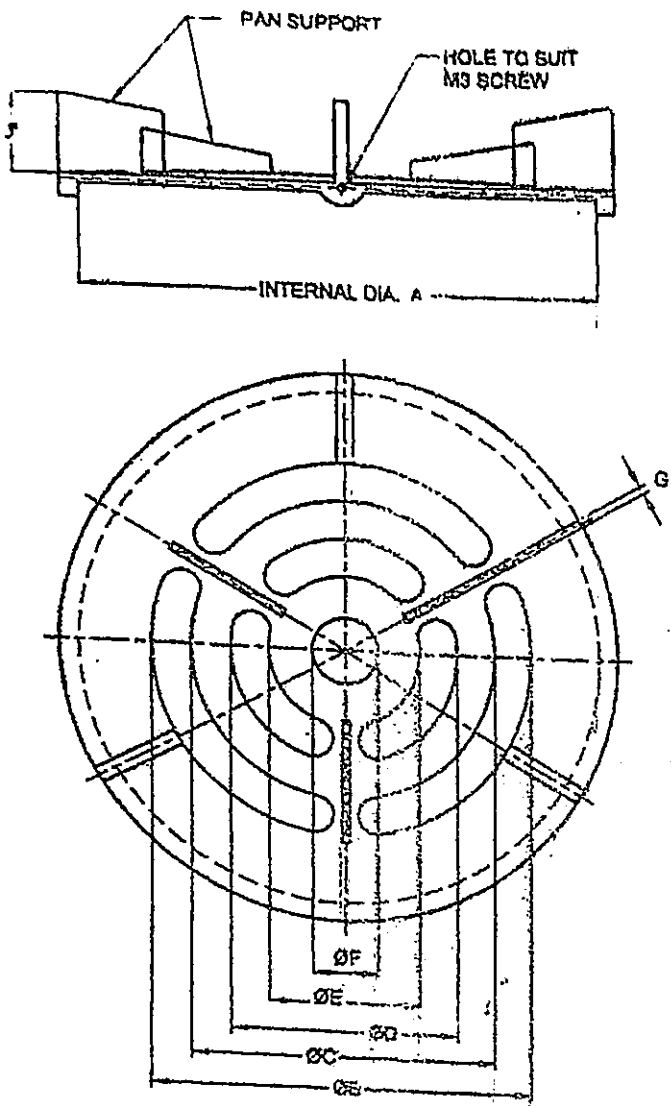
3 Legs of *Chulha* and the legs of cast iron grate shall be 120° apart.

All dimensions in millimetres.

FIG. 1 SOLID BIO-MASS COOK STOVE DESIGN 'A'



616



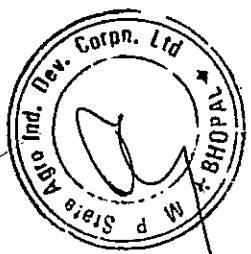
DIMENSIONS	A	B	C	D	E	F	G	I
MEDIUM SIZE TYPE 2	240	160	128	96	64	28	12	40
TYPE 1	240	160	128	96	64	28	12	40
LARGE SIZE TYPE 1	300	200	160	120	80	35	16	50

2A Top Plate

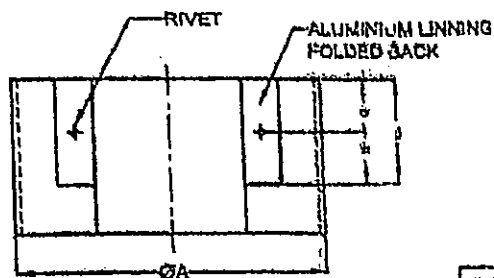
All dimensions in millimetres.

FIG. 2 DETAIL OF SOLID BIO-MASS COOKSTOVE DESIGN 'A' — (Continued)

136

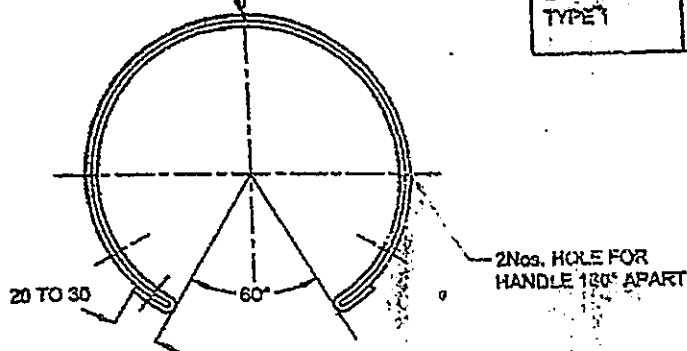


(615)



DIMENSIONS	A	J
MEDIUM SIZE TYPE 2	240	88
TYPE 1	240	88
LARGE SIZE TYPE 1	300	110

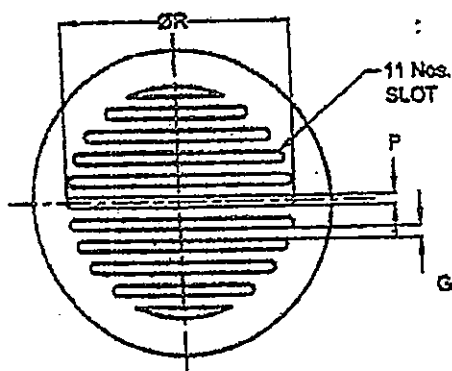
3 Nos. HOLES FOR M3 SCREW 120° APART



2B Barrel



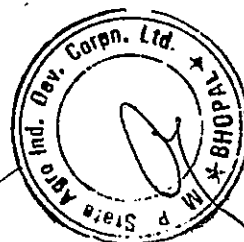
DIMENSIONS	K	P	Q	R
MEDIUM SIZE TYPE 2	33	8.5	9.5	188.5
TYPE 1	33	8.5	9.5	188.5
LARGE SIZE TYPE 1	40	11	12	241



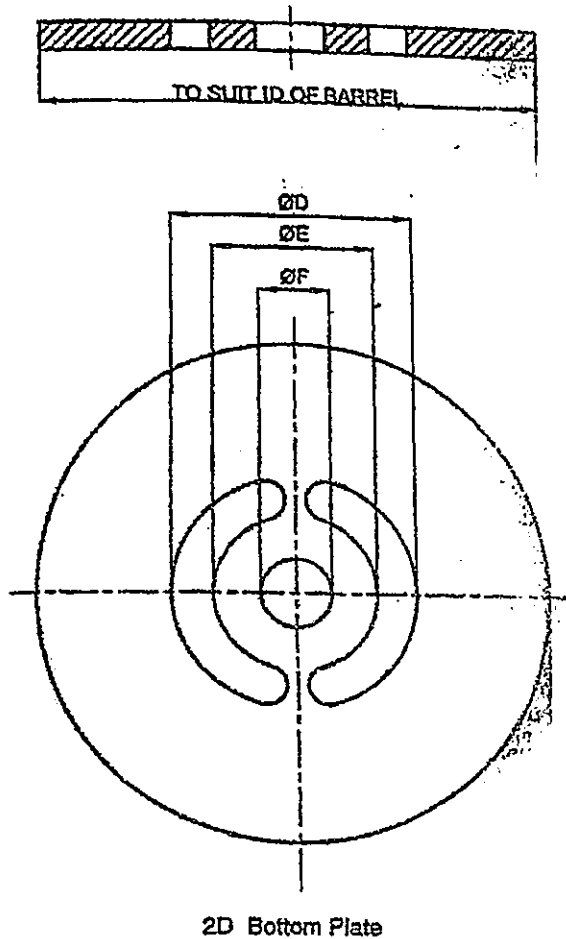
2C Grate

All dimensions in millimetres.

FIG. 2 DETAIL OF SOLID BIO-MASS COOKSTOVE DESIGN 'A' — (Continued)



614



DIMENSIONS	D	E	F
MEDIUM SIZE TYPE 2	96	64	28
TYPE 1	96	64	28
LARGE SIZE TYPE 1	120	80	35

All dimensions in millimetres.

FIG. 2 DETAIL OF SOLID BIO-MASS COOKSTOVE DESIGN 'A' — (Concluded)

higher. Relevant Indian Standards of materials are given in Table 1 which is for guidance only.

3 DIMENSIONS AND TOLERANCES

3.1 Some typical designs of solid biomass cookstoves are given in Fig. 1 to Fig. 4 for reference.

3.2 Tolerance

Dimensional tolerances shall be ± 3 percent, where not specified. However, for cast iron and ceramic components, if the value comes less than 1 mm then the tolerance shall be ± 1 mm.

4 MANUFACTURE AND WORKMANSHIP

4.1 Various components of the cookstoves shall be manufactured as per standard engineering practices.

4.2 The construction of the cookstoves shall be sturdy

so that while in actual use on level floor they do not get shaky or yield at any point.

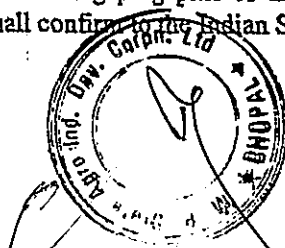
9.3 Electric/Battery and other components shall confirm to Indian Standards or equivalent International Standards available for similar components.

9.3.1 Battery

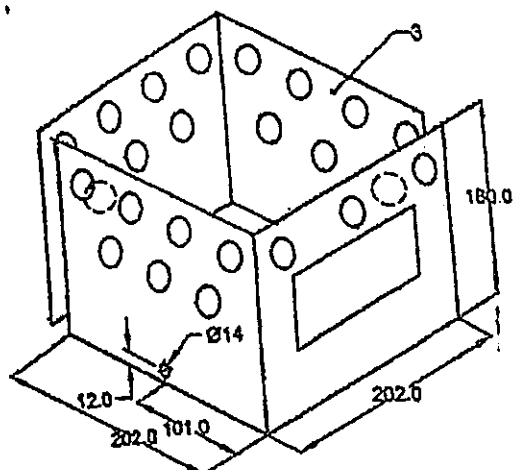
- Battery shall not be more than 3 W/kW input power of the stove
- Battery shall be usable for a minimum 4 h without recharging

9.3.2 Charging

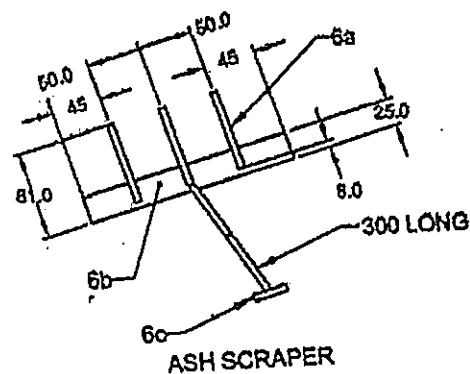
- Charging time shall not be more than 6 h.
- Connecting plug pins of the charging unit shall conform to the Indian Standards.



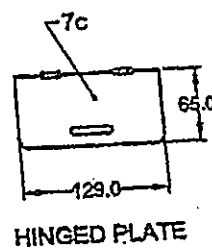
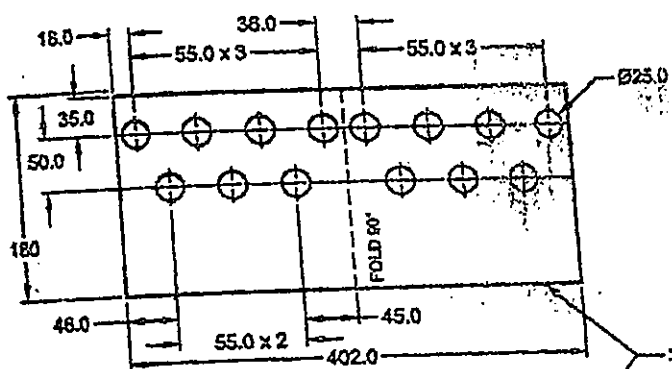
613



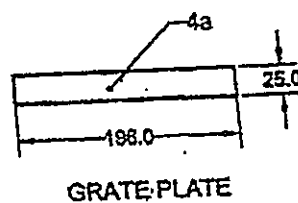
COMBUSTION CHAMBER



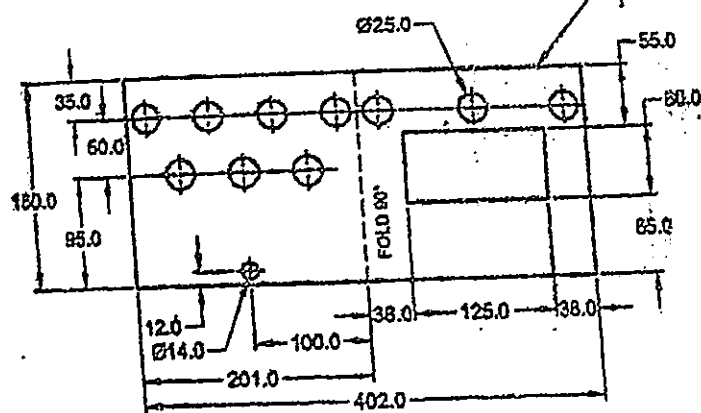
ASH SCRAPER



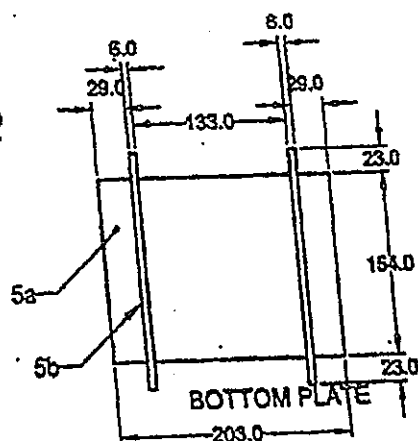
HINGED PLATE



GRATE PLATE



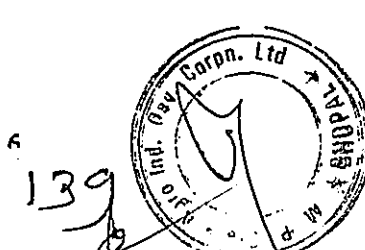
COMBUSTION CHAMBER



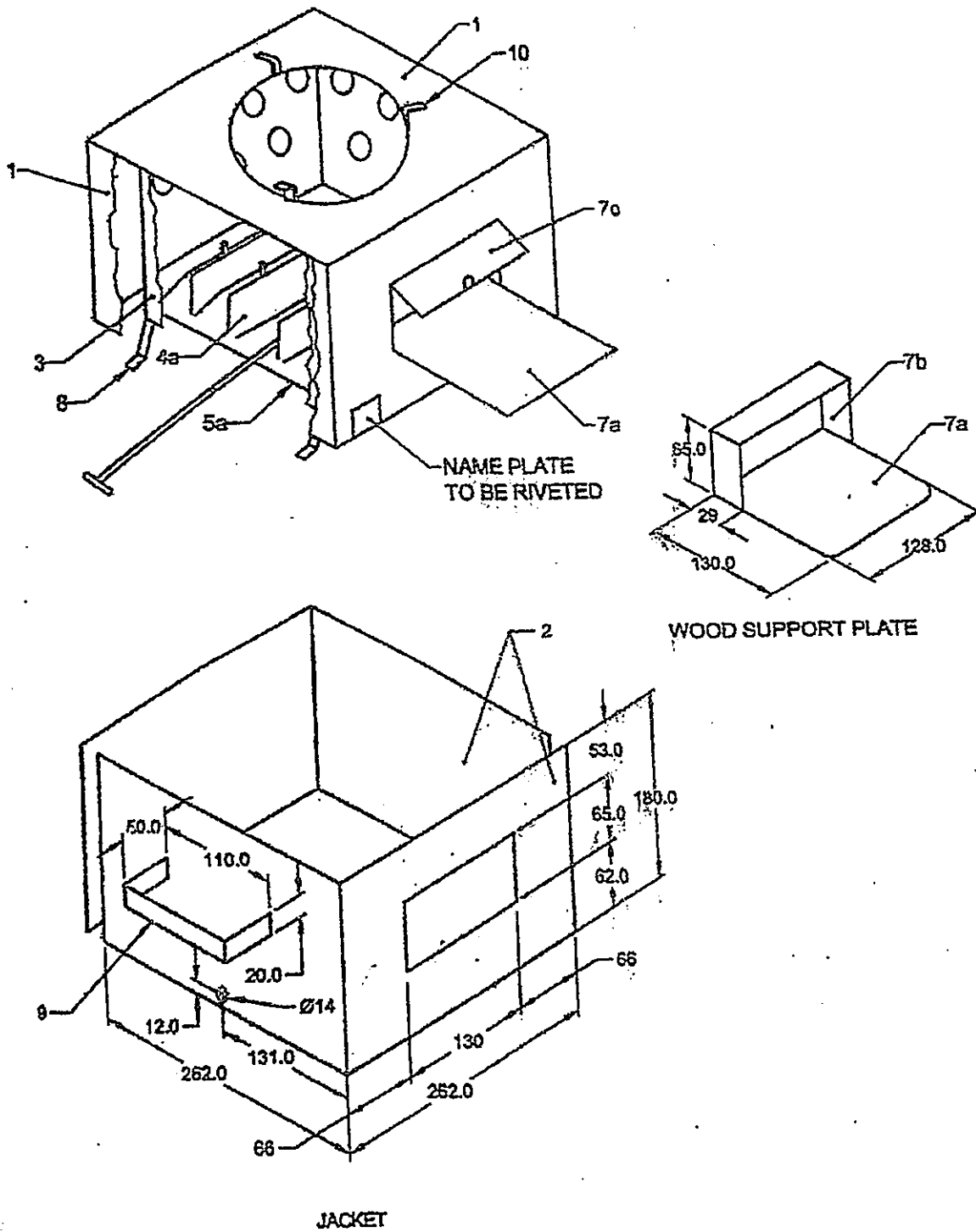
BOTTOM PLATE

All dimensions in millimetres.

FIG. 3 SOLID BIO-MASS COOKSTOVE DESIGN 'B' — (Continued)

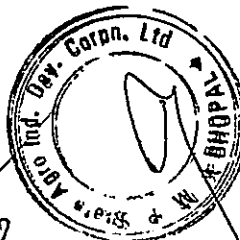


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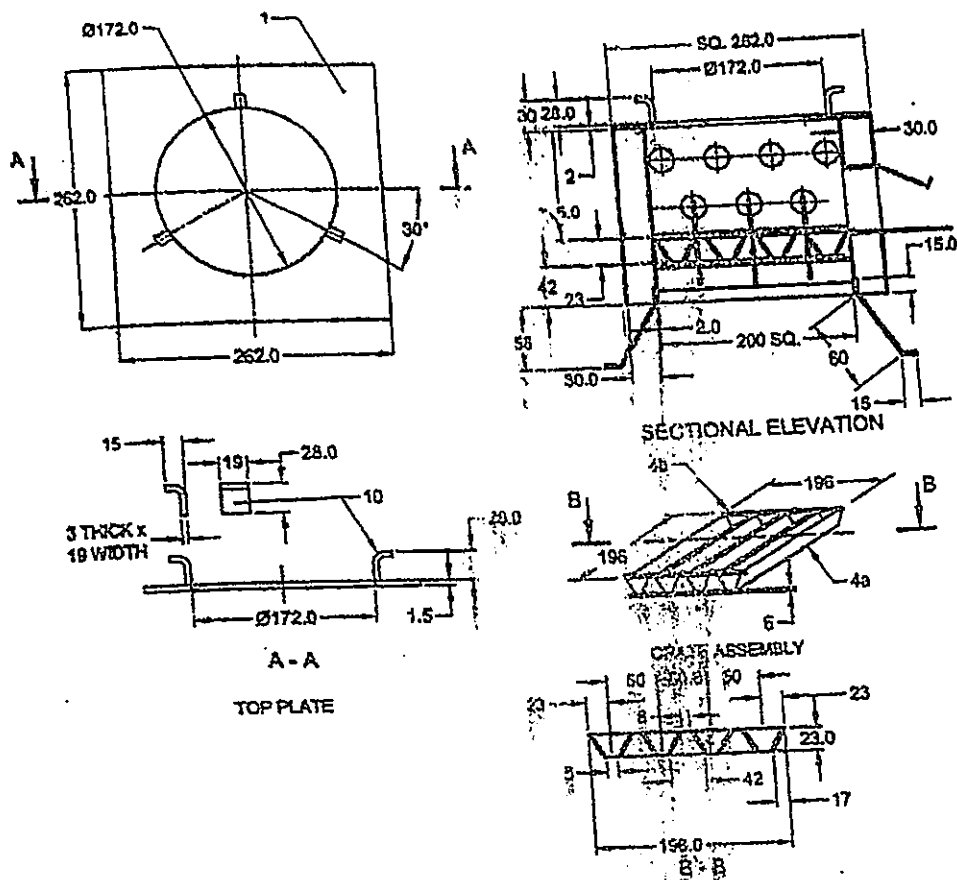
All dimensions in millimetres.

FIG. 3 SOLID BIO-MASS COOKSTOVE DESIGN 'B' — (Continued)



7 140

611



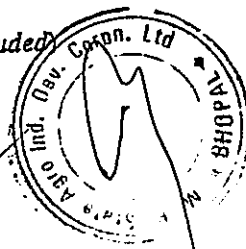
Part No.	Description	No. Reqd	Thickness, mm
10	Vessel Support	3	3 x 19 Flat
9	Handle (Insulated)	2	3 x 19 Flat
8	Leg	4	3 x 19 Flat
7c	Hinged Plate	1	1
7b	Plate	1	1
7c	Wood Support Plate	1	1.6
6c	Rod (for Ash Scraper)	1	46
6b	Plate	1	2
6d	Ash Scraper Finger	3	46
5b	Rod	2	46
5d	Bottom Plate	1	2
4b	Rod	4	46
4d	Crate Plate	8	3
4	Grate	1	3
3	Combustion Chamber	1	1.6
2	Jacket	1	1
1	Top Plate	1	1.6

NOTES

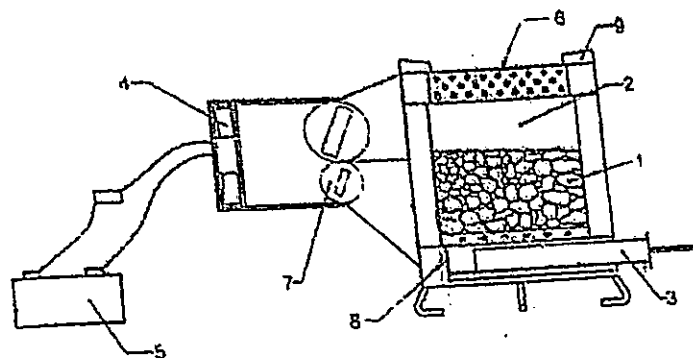
- 1 All dimension in millimetres.
- 2 Approx weight of finished Chulha: 5.7 kg.
- 3 Scale: not to scale.
- 4 Material: Mild steel (M.S.).
- 5 Ash Scraper to be provided in right side of Chulha.
- 6 Welding: Minimum fillet: 3.5 mm, Length: 6 mm, Distance between welding spots: 40 mm.
- 7 Handles shall be insulated
- 8 Power output rate: Wood = 15 kw/h, Dungcake = 1.65 kw/h.

All dimensions in millimetres.

FIG. 3 SOLID BIO-MASS COOKSTOVE DESIGN 'B' --- (Concluded)



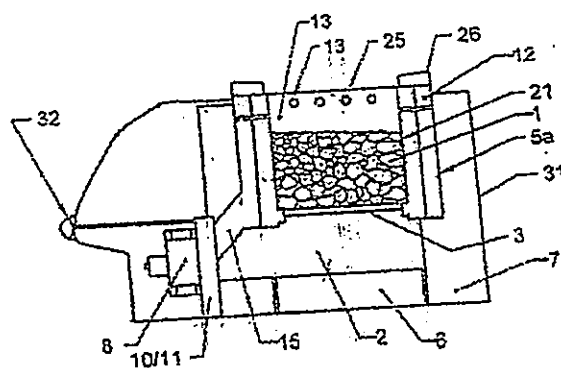
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Legend

- | | |
|-----------------------|------------------------|
| 1) Biomass | 6) Secondary Air Holes |
| 2) Combustion Chamber | 7) Power Valve Control |
| 3) Ash Tray | 8) Perforated Sheet |
| 4) Fan | 9) Vessel Stand |
| 5) Power Supply | |

4A Solid Bio-Mass Cookstove Design 'C' with Battery

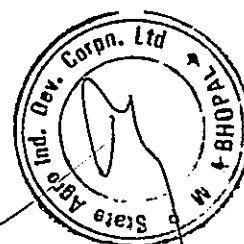


4B Solid Bio-Mass Cookstove Design 'C' without Battery

Part No.	Description	Part No.	Description
1.	Fuel	12.	Air manifold or annular chamber
2.	Air flow chamber	13.	Secondary air holes
3.	Variable height grate	14.	Regulator
4.	Combustion chamber	15.	Duct
5.	Outer chamber	18.	Top of the chamber
5a.	Outer chamber with annular space	20.	Potentiometer
6.	Ash removal tray	21.	Ceramic block insulation
7.	Stove	25.	Top plate with a central hole
8.	Fan	26.	Vessel support
9.	Rechargeable battery	30.	Stove stand
10.	Secondary air valve	31.	Outer container
11.	Primary air valve	51.	Ash tray handle

All dimensions in millimetres.

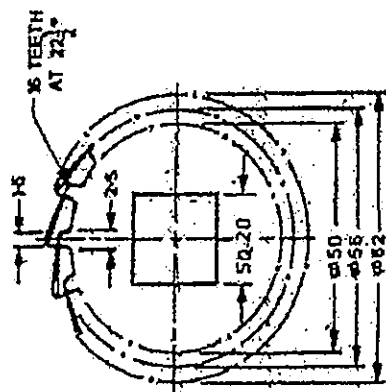
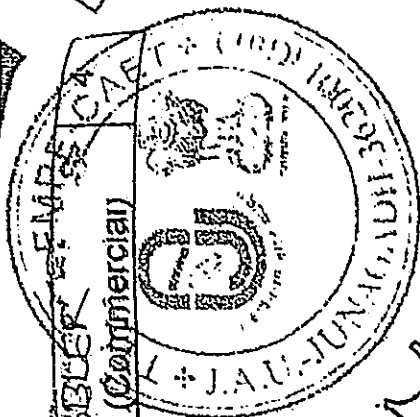
FIG. 4 SOLID BIO-MASS COOKSTOVE DESIGN 'C'



TTCFM

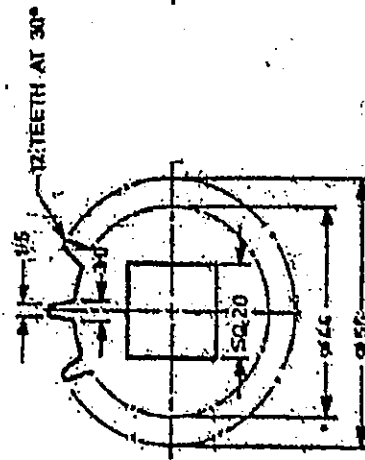
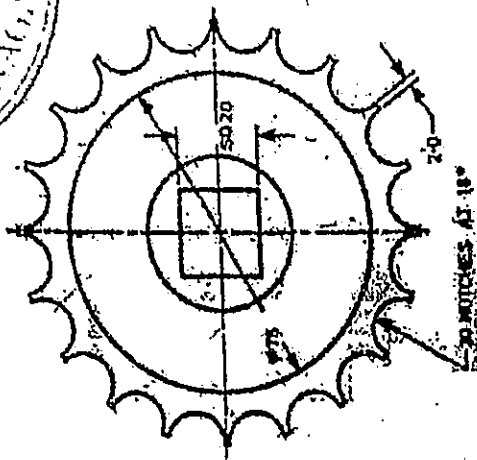
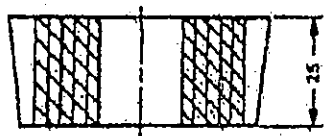
TTCFM/J/B/281/1276

SEED PLANTER (MANUALLY DRAWN) "PIE-BEER"
12-HAND PUSH ROTARY MULTI SEEDER (Commercial)



All dimensions in millimetres.

FIG. 24 SEED FEED ROLLER (Type 1)



All dimensions in millimetres.

FIG. 25 SEED FEED ROLLER (Type 2)



All dimensions in millimetres.

FIG. 26 SEED FEED ROLLER (Type 3)

