

## BULLOCK DRAWN MULTI TOOL BAR FRAME

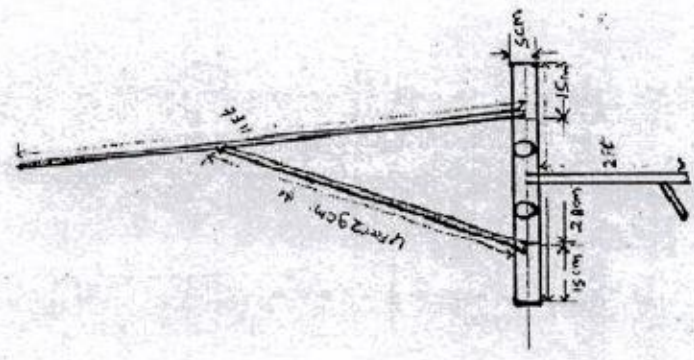
S.No.	Item	Parts & Dimension	Weight (In Kg.)
1.	Moin Frame	i) MS Angle 50 x 5 ii) MS Flat 49 x 11 iii) MS Pipe 32 mm iv) MS Flat 18 x 4 v) MS Round 6 mm vi) Nut + Bolt + Washer	3.000 Kg. 9.000 Kg. 2.000 Kg. 0.600 Kg. 0.300 Kg. 0.800 Kg.
2.	Bakher	i) Tynes ii) Bakher Pass iii) MS angle 40 x 5 & 35 x 5	2.000 Kg. 2.400 Kg. 3.000 Kg.
3.	Dora	i) MS Angle 50 x 5 ii) MS Round 6 mm iii) Dora Tynes (2 Nos.) iv) Dora Pass 9" (2 Nos.)	0.500 Kg. 0.100 Kg. 0.900 Kg. 0.600 Kg.
4.	Tiffan	i) MS Angle 35 x 5 ii) MS Angle 40 x 5 iii) MS Sangle 50 x 5 iv) MS Square 40 x 20 v) Tiffan Tynes (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.
5.	Ploogh	i) M.S. Sheet 10mm ii) MS Angle 50 x 5 (18") iii) MS Angle 40 x 5 iv) M.S. Round 8 mm M.S. Bar 18 x 4 v) MS Angle 40 x 5 MS Angle 35 x 5 vi) MS Square 40 x 40 vii) Nut + Bolt + Colour	3.000 Kg. 1.500 Kg. 2.000 Kg. 0.600 Kg. 3.000 Kg. 3.500 Kg. 2.050 Kg.
		<b>Total</b>	<b>50.000 Kg.</b>

# BULLOCK DRAWN MULTI TOOL BAR FRAME

(4)

[A] MULTI FRAM

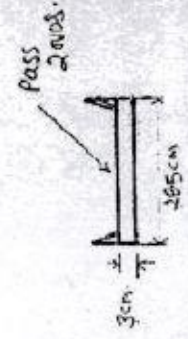
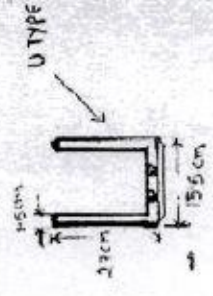
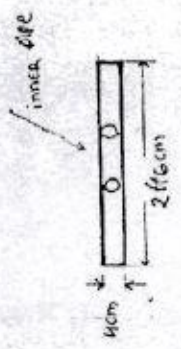
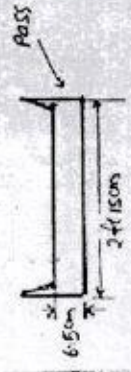
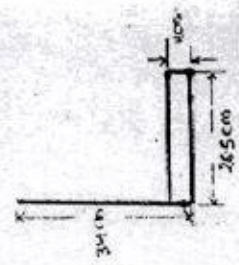
WIDTH = 5 mm



[B] L TYPE TOOL  
2 nos. fitted

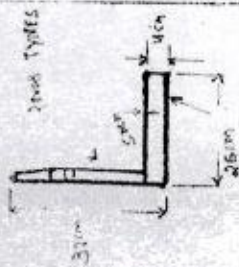
BAKHAR

[C] DOUBLE DORA

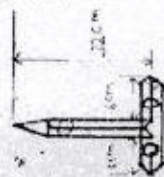


BULLOCK DRAW, MULTI TOOL BAR FRAME

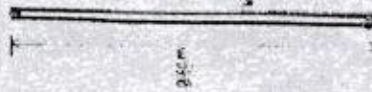
[A] TIFFAY



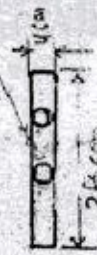
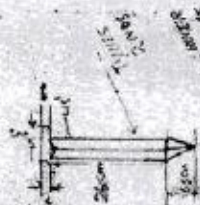
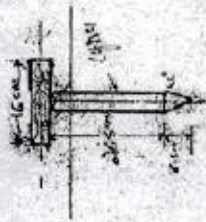
HOLLOW PIPE



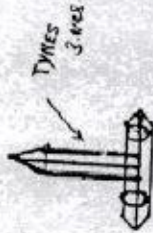
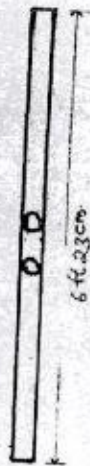
ROUND PIPE 3 INCH



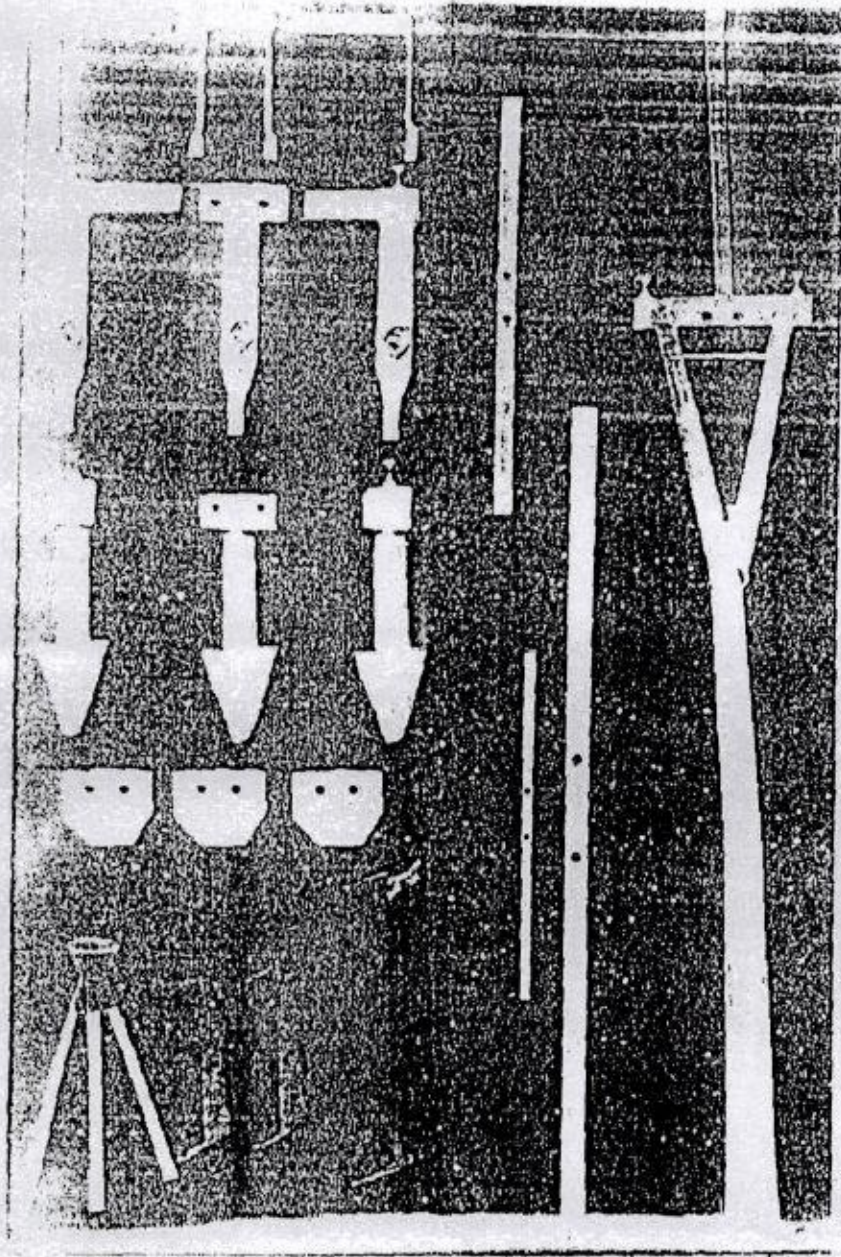
[B] CULTIVATOR

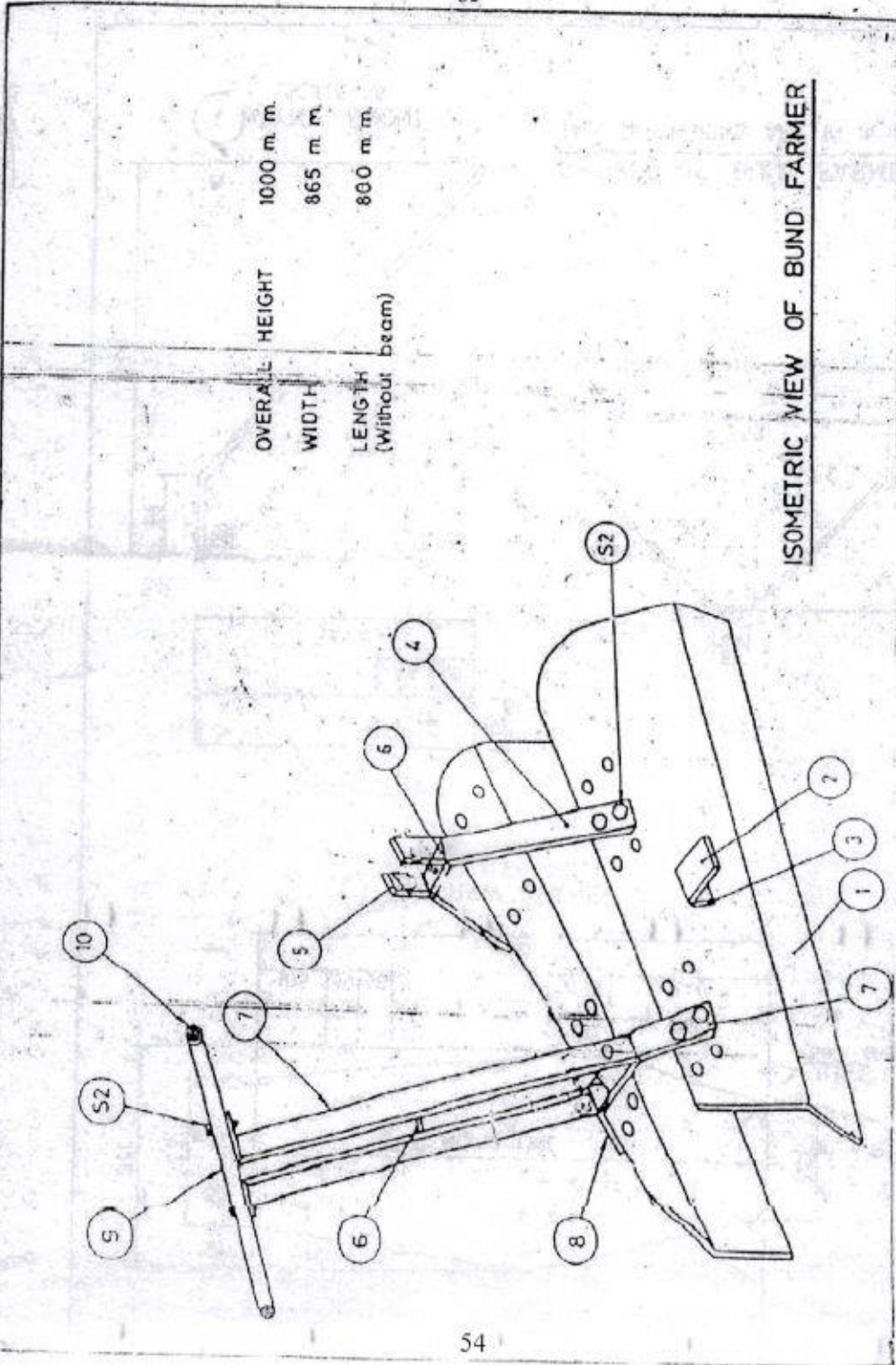


[C] TIFARA

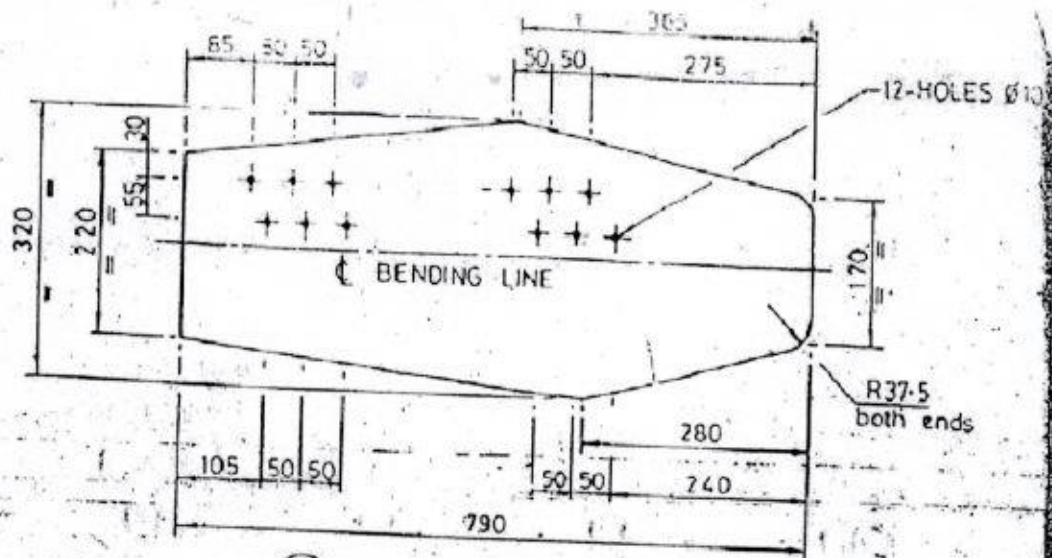


BULLOCK DRAWN MULTI TOOL BAR FRAME

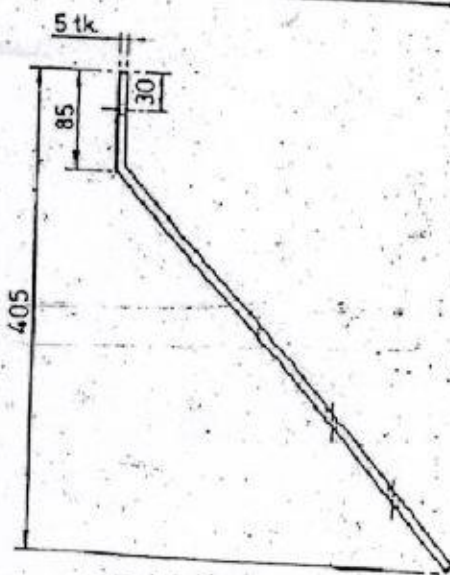
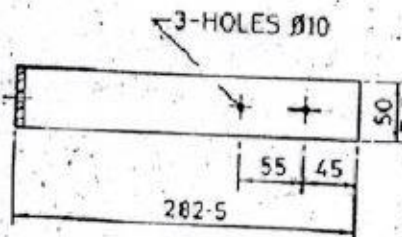




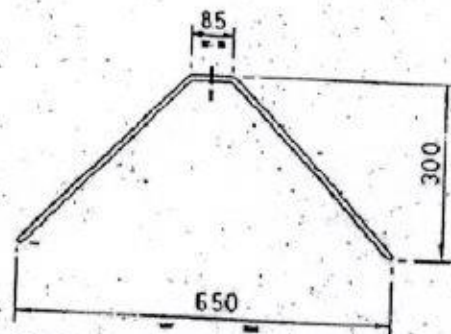
ISOMETRIC VIEW OF BUND FARMER



① FURROW OPENER  
SCALE-1:7.5

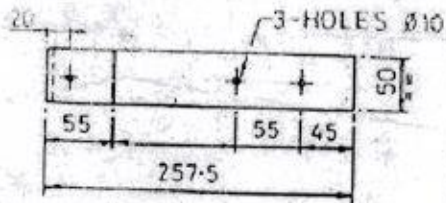


④ TYNE FRONT  
SCALE-1:5

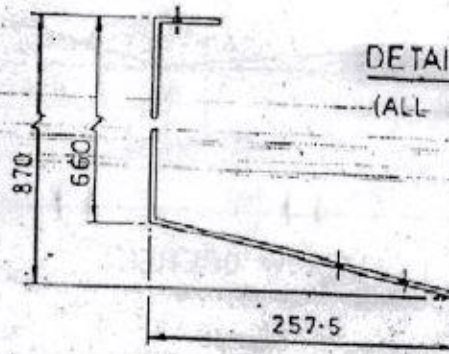


⑤ FRONT TYNE SUPPORT  
SCALE-1:10

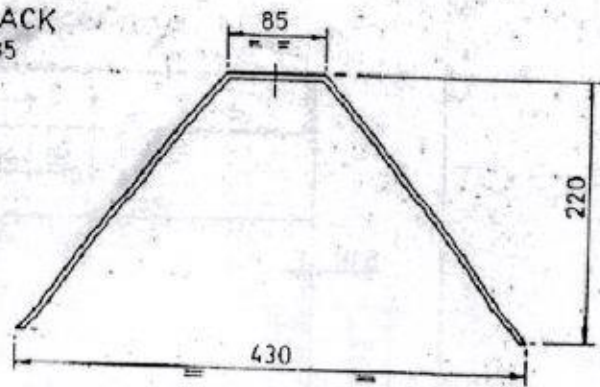
DETAILS OF BUND FARMER  
(ALL DIMENSIONS ARE IN m. m.)



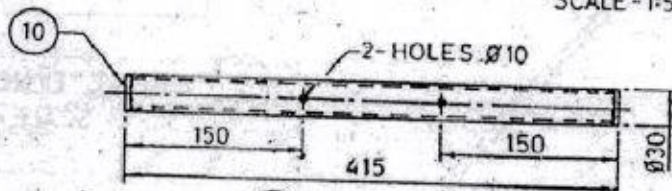
**DETAILS OF BUND FARMER**  
 (ALL DIMENSIONS ARE IN m.m.)



7 TYNE - BACK  
 SCALE - 1:5



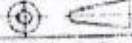
8 BACK TYNE SUPPORT  
 SCALE - 1:5

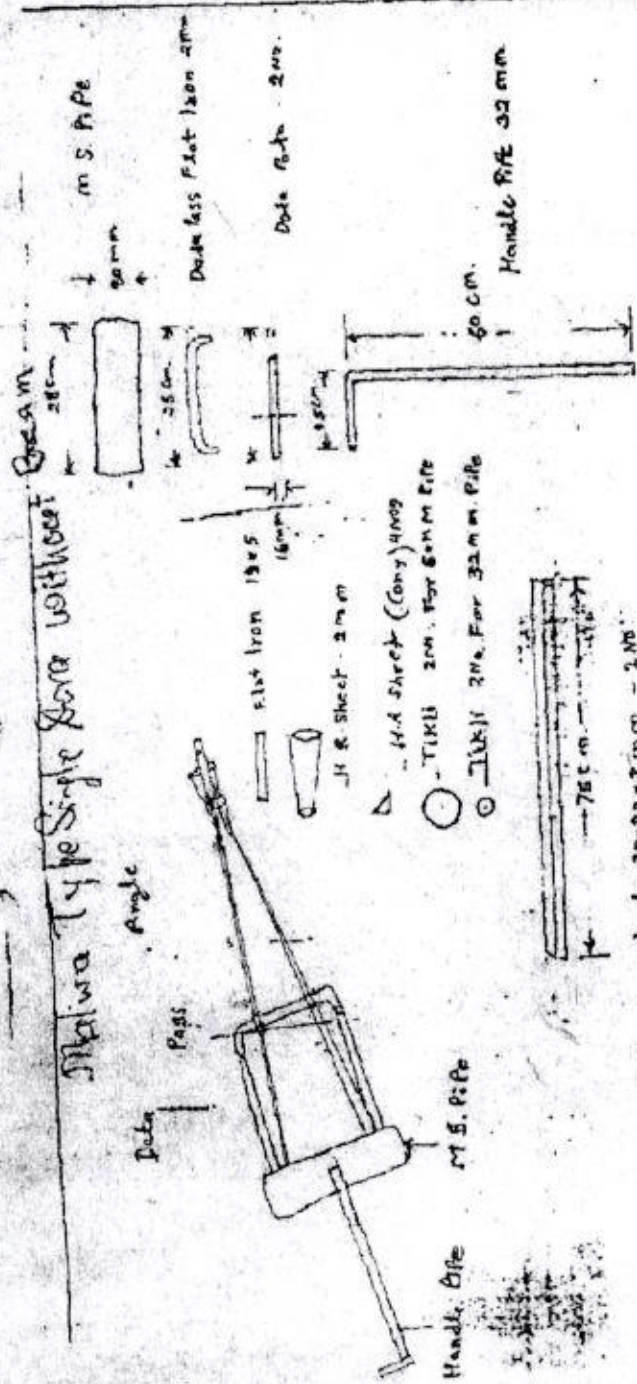


9 HANDLE  
 SCALE - 1:5

4)

ITEM NO.	PARTICULARS	QTY	MATERIAL	SPECIFICATION
52	HEX NUT & BOLT		10 H.S.	M10 x 50 mm
S T A N D A R D P A R T S				
9	HANDLE		M.S. PIPE	Ø 30 x 415 lg x 2.51k
8	BACK TYNE SUPPORT		M.S. FLAT	50 x 5 x 410 lg
7	TYNE - BACK	2	M.S. FLAT	50 x 5 x 1015 lg
6	SUPPORT FLAT	3	M.S. FLAT	40 x 5 x 90 lg
5	FRONT TYNE SUPPORT	1	M.S. FLAT	50 x 5 x 200 lg
4	TYNE - FRONT	2	M.S. FLAT	50 x 5 x 75 lg
3	FURROW OPENER FLAT	2	M.S. FLAT	25 x 5 x 80 lg
2	FURROW OPENER SUPPORT	4	P.T.O. SHEET	110 x 150 mm x 3.1k
1	FURROW OPENER	2	P.T.O. SHEET	220 x 250 mm x 3.1k
F A U R C A T I E D P A R T S				
ITEM NO.	PARTICULARS	QTY	MATERIAL	SPECIFICATION

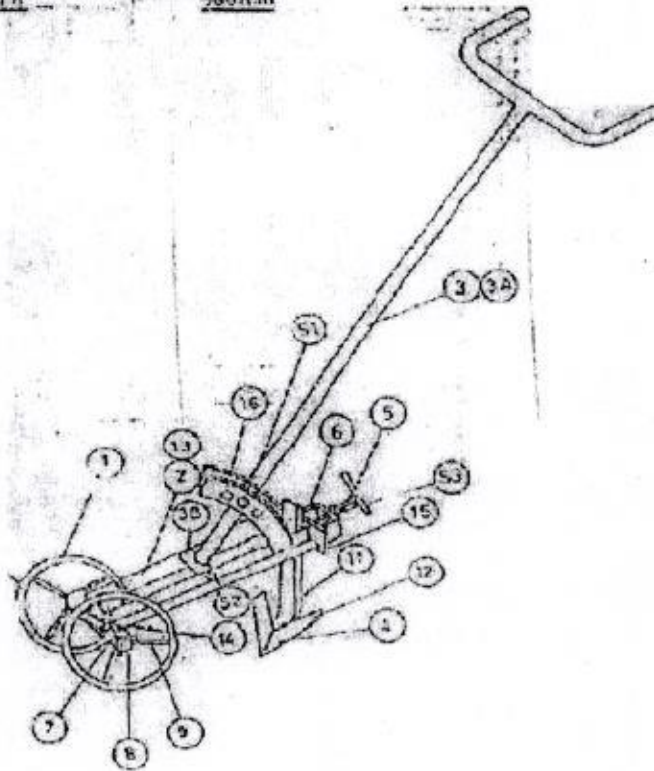
AGRICULTURE ENGINEER RESEARCH M P BHOPAL			
STD UNSPECIFIED TOLERANCE	TITLE: BUND FARMER		
STRAIGHT 1/16 IN	DESIGN BY	SCALE: AS STATED	
ANGULAR 1/16	DRAWN BY	USED IN	
USED THIRD ANGLE PROJECTION	CHECKED BY	BUND FARMER	
	APPROVED BY	DRG NO. 5 (BA-ED)	
ALL DIMENSIONS ARE IN mm.			



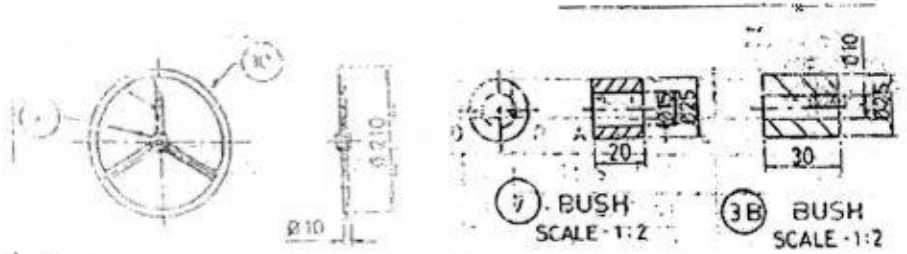
SINGLE DORA

Scale 100mm = 1cm

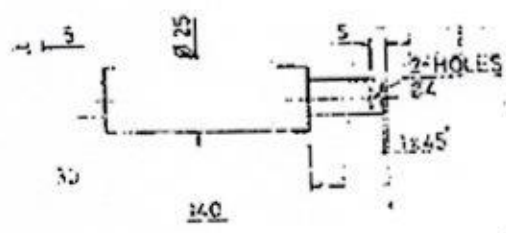
OVER-ALL HEIGHT	1070 mm
LENGTH	210 mm
WIDTH	580 mm



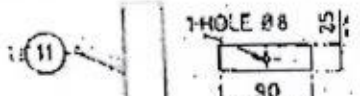
OMETRIC VIEW OF OYBEAN WLLD



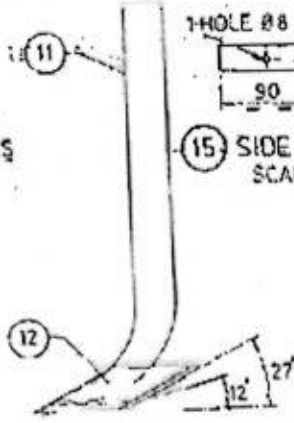
GROUND WHEEL ASSEMBLY  
SCALE - 1:7.5



8 AXLE  
SCALE - 1:2



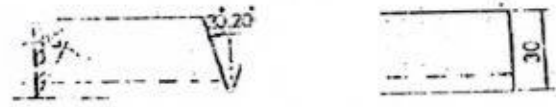
15 SIDE FLAT  
SCALE - 1:5



4 TYNE ASSLY.  
SCALE - 1:2

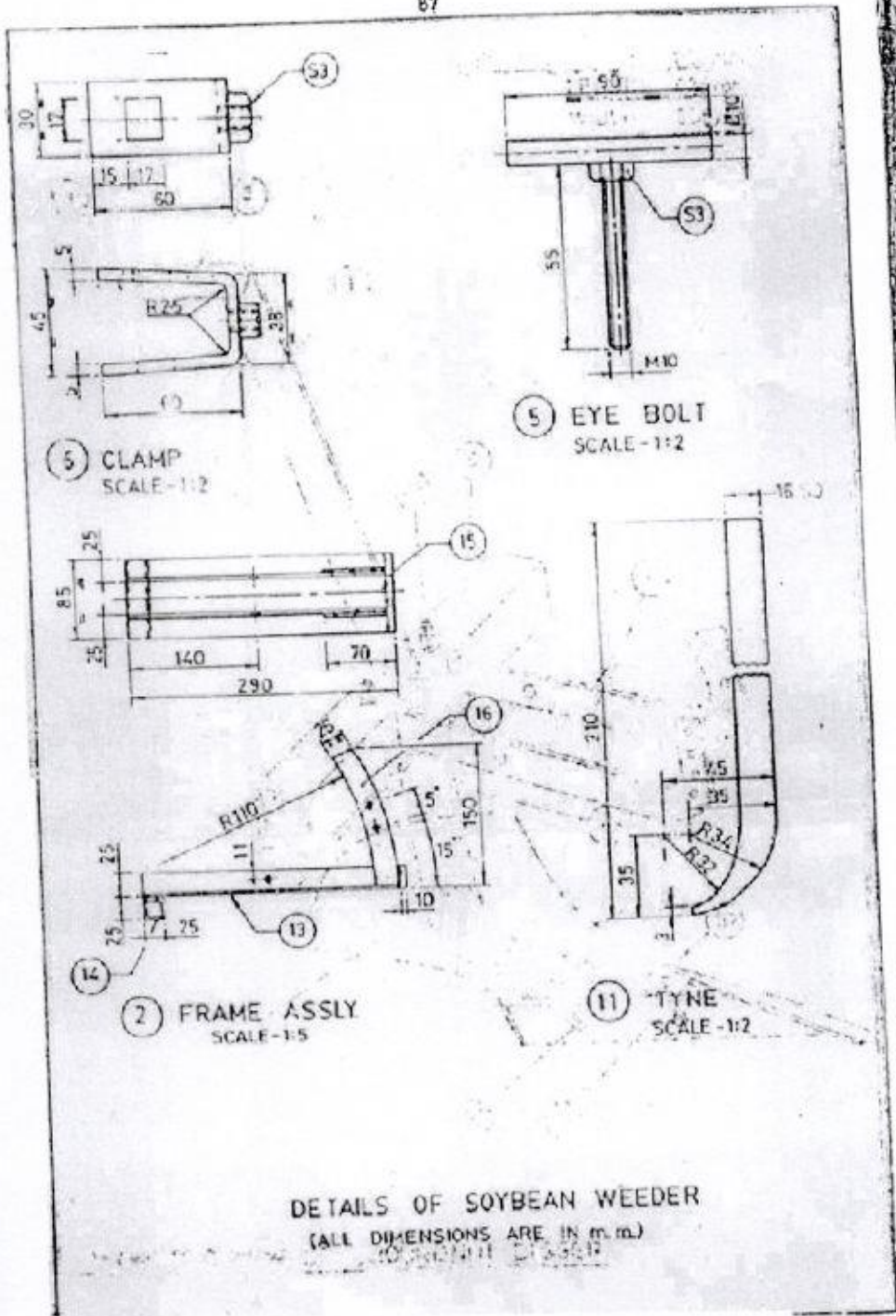


3 HANDLE  
SCALE - 1:10



12 CUTTING BIT  
SCALE - 1:10

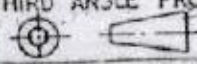
EQ. 88

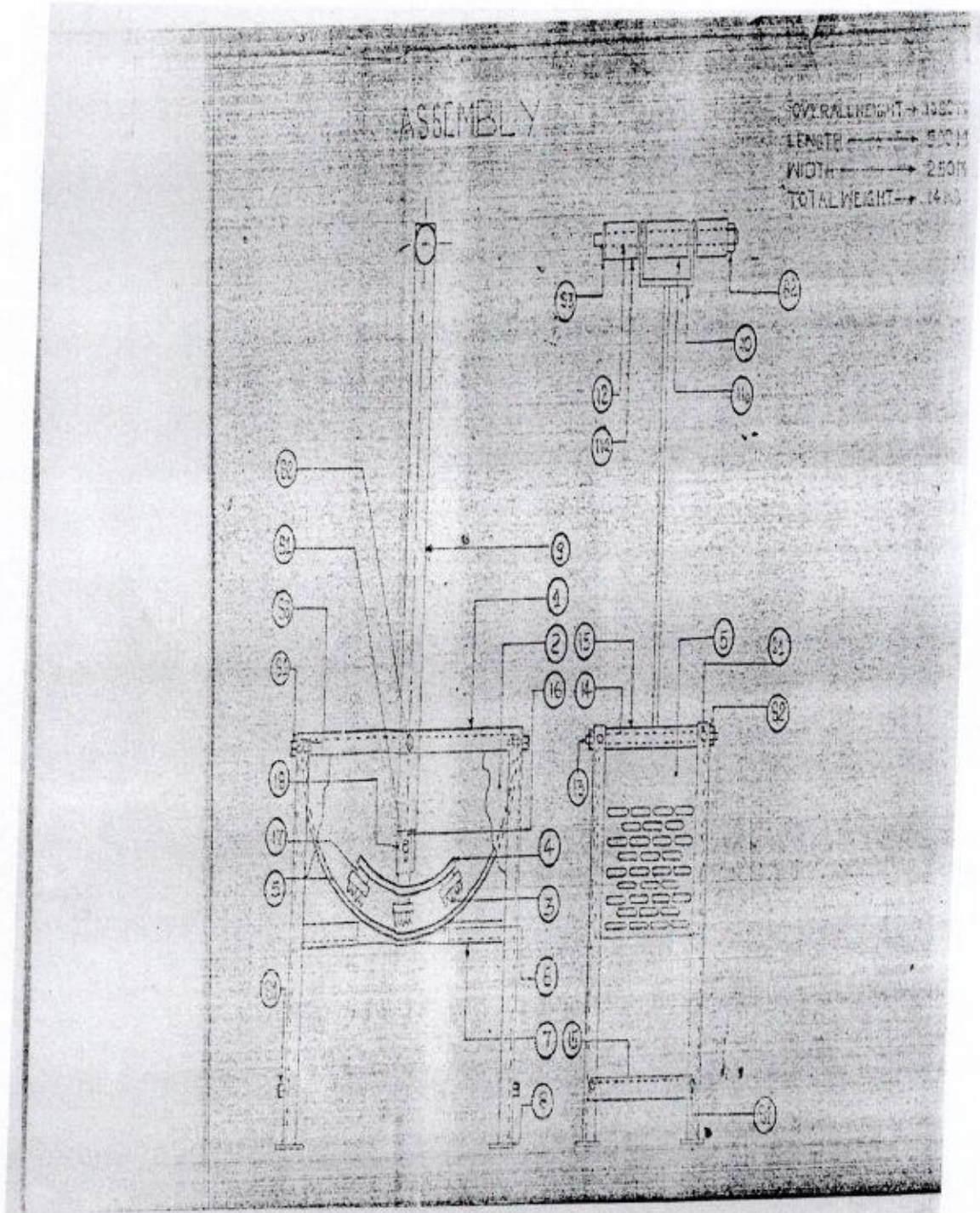


DETAILS OF SOYBEAN WEEDER  
(ALL DIMENSIONS ARE IN m.m.)

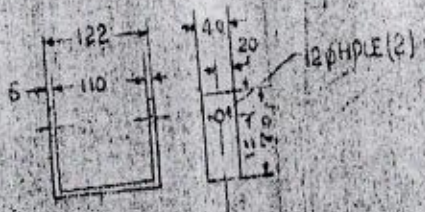
88

S3	HEX NUT	2	M.S.	M10
S2	HEX NUT & BOLT	1	M.S.	M8 x 50 lg
S1	HEX NUT & BOLT	1	M.S.	M8 x 65 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 128 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 250 lg
12	CUTTING BLADE	1	LEAF SPRING	30 x 4 x 220 lg
11	TYNE	1	M.S. SQ. BAR	16 SQ. x 90 lg
10	RIM	2	M.S. ROD	Ø 10 x 659-4 lg
	SPOKE	6	M.S. ROD	Ø 10 x 80 lg
8	AXLE	1	M.S. ROD	Ø 25 x 140 lg
7	BUSH	2	M.S. ROD	Ø 25 x 20 lg
6	CLAMP	1	M.S. FLAT	30 x 6 x 114 lg
5	EYE BOLT	1	M.S.	AS SHOWN
4	TYNE ASSLY	1	M.S.	
3B	BUSH	1	M.S. ROD	Ø 25 x 30 lg
3A	M.S. PIPE	1	M.S.	Ø 25 x 2320 lg x 18G
3	HANDLE	1		
2	FRAME ASSLY	1	M.S.	
1	GROUND WHEEL ASSLY	2	M.S.	
F A B R I C A T E D P A R T S				
ITEM NO	PARTICULAR	QTY	MATERIAL	SPECIFICATION

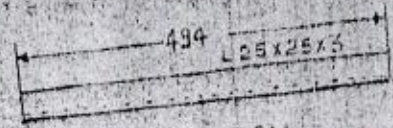
AGRICULTURE ENGINEER RESEARCH M P BHOPAL			
STD UNSPECIFIED TOLERANCE STRAIGHT ±1m.m ANGULAR 1°		TITLE SOYBEAN WEEDER	
USED THIRD ANGLE PROJECTION: 		DESIGN BY	SCALE - AS STATED
		DRN. BY	USED IN SOYBEAN WEEDER
		CHKD BY	DRG. NO. Z1(21A, 21B, 21C, 21D)
		APPD BY	



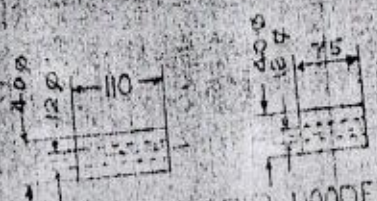




⑩ GRIP HOLDER  
SCALE - 1:1



⑦ ANGLE IRON  
(FOR COVER SUPPORT)  
SCALE - 1:5

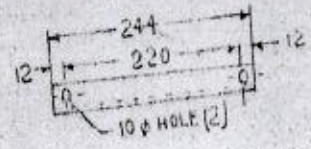


WOODEN GRIP WOODEN GRIP

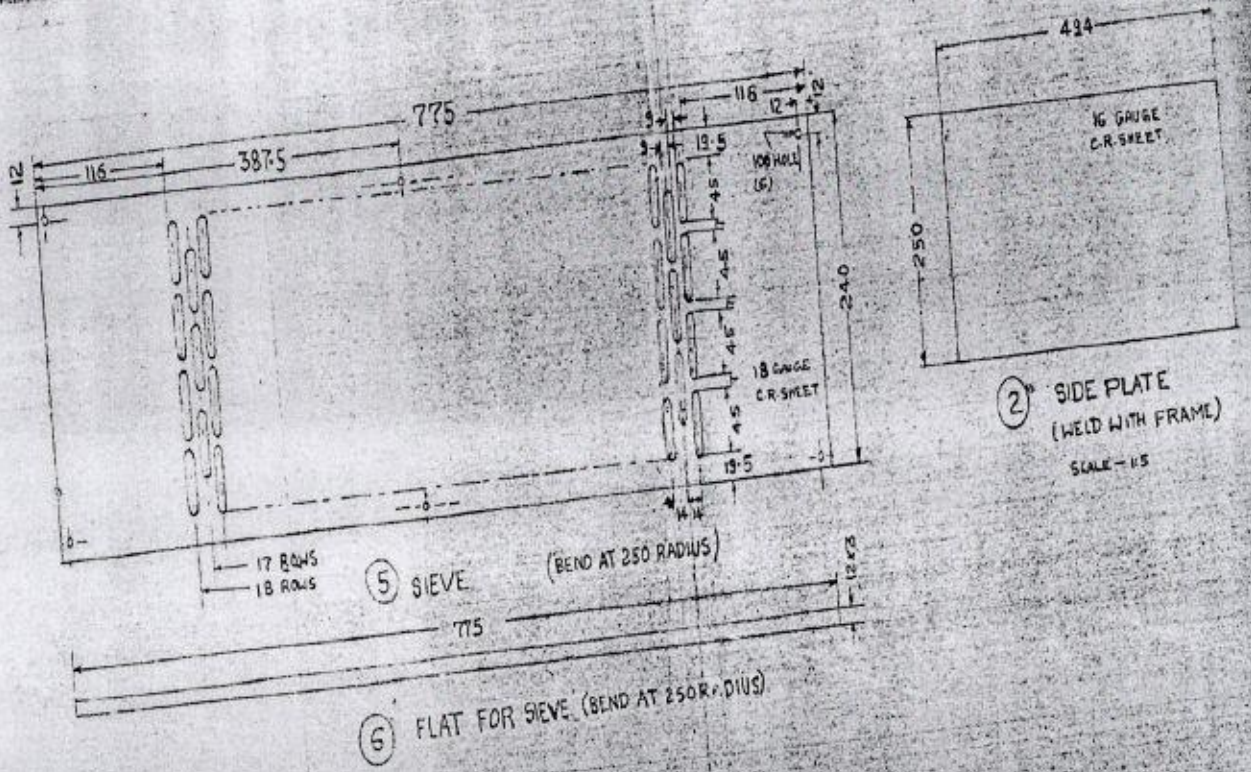
⑪b SCALE - 1:5  
⑪a

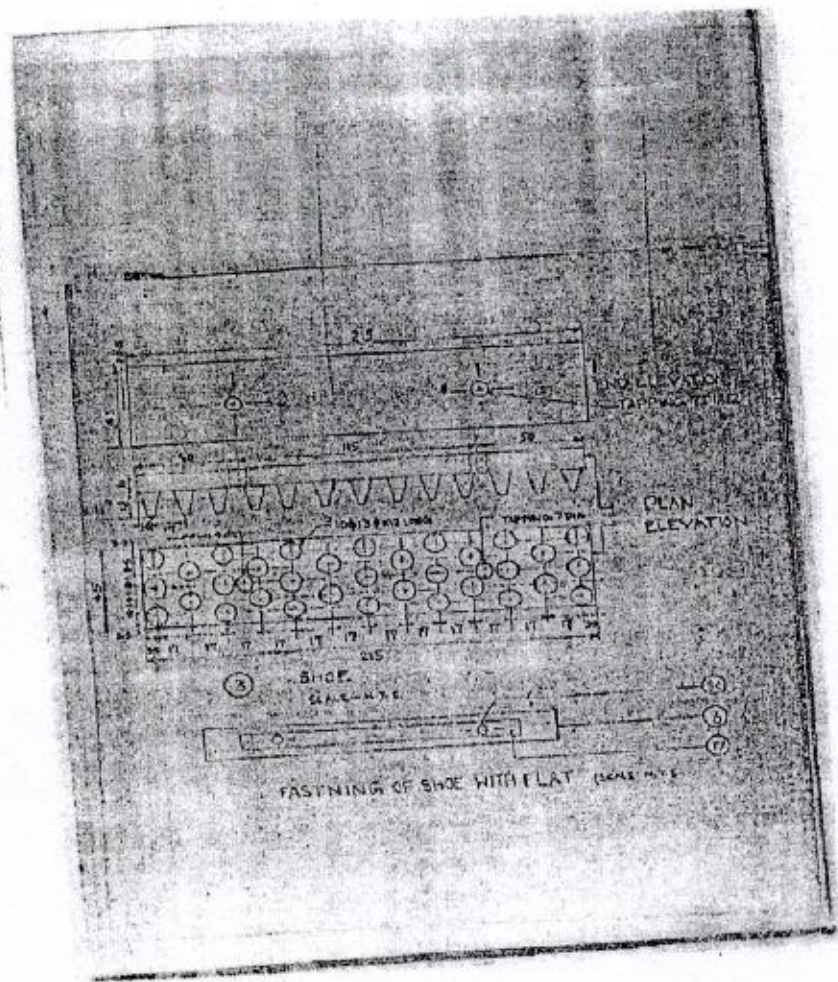


④ SHOE HOLDER  
SCALE - 1:5



⑮ BOT TOM BRACE  
SCALE - 1:5





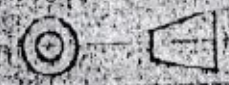
B4	HEX NUT & BOLT	6	M.S.	M-8 X 25 LG
B3	WASHER & B	5	M.S.	5 LG
B2	NUT M.S.	4	M.S.	M-10
B1	HEX NUT & BOLT M-8	8	M.S.	M-8 X 25 LG

STANDARD PARTS

18	ROD SUPPORT	2	M.S. ROD	8.5 X 45 LG
17	CURBER FLAT	3	M.S. FLAT	25 X 7 X 160 LG
16	ADJUSTABLE FLAT	1	M.S. FLAT	45 X 5 X 70 LG
15	TORZ BOTTOM BRACE	2-2	M.S. ANGLE	25 X 25 X 3 X 24 LG
14	AXLE PIPE	1	M.S. PIPE	10 X 1240 LG
13	AXLE ROD	1	M.S. ROD	10 X 250 LG
12	GRIP ROD (W/ WOOD GRIP)	1	M.S. ROD	10 X 340 LG
11b	WOODEN GRIP	1	JANGLE WOOD	40 X 100 LG
11a	WOODEN GRIP	2	JANGLE WOOD	40 X 75 LG
10	GRIP HOLDER	1	M.S. FLAT	40 X 6 X 250 LG
9	HANDLE (OSCILLATING)	1	M.S. FLAT	40 X 6 X 700 LG
8	TIKLI	4	M.S. SHOT	4 P. DIA 100 LG
7	ANGLE IRON	2	M.S. ANGLE	25 X 25 X 3 X 24 LG
6	FLAT FOR SIEVE	2	M.S. FLAT	12 X 6 X 725 LG
5	SIEVE	1	CR. SHEET	240 X 175 X 180
4	SPOL HOLDER	1	M.S. FLAT	32 X 6 X 210 LG
3	SHOL	5	CASTING	40 X 10 X 25 LG
2	SIDE PLATE	2	CR. SHEET	250 X 90 X 160
1	LEGS OF FRAME	2	M.S. ANGLE	25 X 25 X 3 X 1500
50	PARTICULAR	NO OFF	MATERIAL	SIZE

AGRICULTURE ENGINEER RESEARCH MP BHOPAL

GROUND NUT DECORTICATOR

	DRN BY	<i>[Signature]</i>	SCALE AS SHOWN
	CHK BY	<i>[Signature]</i>	USED IN
	APP BY	<i>[Signature]</i>	DATE 27-5-81
	DESIGN BY		DRG NO. 21
ALL DIMENSIONS IN MM	REV ON		

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

<b>S.No.</b>	<b>Parts</b>	<b>Material</b>	<b>Applicable Indian Standard IS No.</b>
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
		Mild Steel	2062
16	Blade Cover	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), Parnala made of 26 Guage 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.

- Note: (a) Rate alongwith make may be clearly mentioned for above item.  
 (b) Sample of above implement is available at Agriculture Engg. Workshop, Barhwai, Bhopal. The same may be checked for any clarification before submission of tender offer.  
 (c) Offerers will have to submit sample of above implement/ equipments for which firm has quoted rates within 15 days of submission /opening of offer

Seal & Signature of Offerer

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

<b>S.No.</b>	<b>Parts</b>	<b>Material</b>	<b>Applicable Indian Standard IS No.</b>
1	Flywheel	Cast Iron	210
2	Handle grip	Hard or Medium Hard wood	399
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13	Fingers, if separate	Cast Iron	210
14	Shaft and axles	Mild Steel	2062
15	Feeding trough	Timber	399
		Mild Steel	2062
16	Blade Cover	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), Parnala made of 26 Guage 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.

- Note: (a) Rate alongwith make may be clearly mentioned for above item.  
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Seal & Signature of Offerer

ANNEXURE - 2 (3)

A

M.P. STATE AGRO-INDUSTRIES DEVELOPMENT CORPORATION LIMITED HEAD  
OFFICE : BHOPAL

**DESCRIPTION OF SPIRAL SEED GRADER - 7 DISC (HAND OPERATED)**

- |    |                             |   |                              |
|----|-----------------------------|---|------------------------------|
| 1. | Overall dimension           | : | 65.0 cm x 65.0 cm x 220.0 cm |
| 2. | Diameter of Spiral Grader   | : | 65.0cm                       |
| 3. | Height of the Spiral Grader | : | 220.0 cm                     |
| 4. | Weight                      | : | 36.5 Kg (approx.)            |
| 5. | Capacity                    | : | 200 Kg per hour(approx.)     |

## 6. Material used :

- (i) GI Sheet 0.4 mm thick
- (ii) M.S. Square Pipe (25 mm x 25 mm)
- (iii) M.S. Round Pipe ISI Mark (75 mm OD)
- (iv) M.S. Flat 37 mm x 3 mm

7. **Construction** : 7 DISCs are made of G.I. Sheet (.4 mm ) are spirally connected around Round pipe (75 mm OD) located in centre of equipment as shown in figure. All Discs are guided by 6 square pipes (25 mm x 25 mm) and base support is made up of flat 37 x 3 mm.

8. **Operation** : Operation is very simple & noise free and no power is required. Seeds / Grains are fed through top disc (Hopper) which moves down through 6 spiral discs.

9. **Accessories**: Grader should be supplied with adjustable feeder plates - 3 Nos having central hole dia. 14 mm, 25 mm, & 38 mm suitable for grading of mustered Tuar & Soyabean crop respectively.

Bold / Healthy seed separates out due to gravity & can be collected from 13 mm outlet and unhealthy seeds / waste can be collected from 10mm outlet at the bottom.

Note : Sample of above implements is available at C. I.A.E. Nabibag , Bhopal, which may be seen for any clarification before submission of offer, if required .