TECHNICAL SPECIFICATIONS OFAGRICULTURAL IMPLEMENTS

23. LASER LEVELER



GENERAL

1.	Type	Semi trailed
2.	Application	Used for earthmoving and precision land leveling
3.	Power Requirement	55 HP or above
4.	Hitching	Tow hook attached with tractor over PTO (part of tractor)50hp
5.	Tyres	No.4 tyres with 6.50-14 (10 Ply)
6.	Rolling Capacity	≥ 1.0 cubic meter
7.	Bearings	04 Nos. tapered roller with grease housing 02 Nos. Size 7511 & 7509 or 32209 & 32211 or equivalent with external dust cover seal

OVERALL DIMENSIONS

8.	Length	4150 mm ± 20 mm
9.	Height	1600 mm ± 20 mm
10.	Width	2470 mm (8 ft.) ± 20 mm
11.	Weight	900 kg ± 10 kg

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MATERIAL SPECIFICATION

I. Bucket

12.	Body	2440*700*7 mm M.S. sheet bucket height 700 mm, reinforced at top with Z-type sheet made from 2440*380*7 mm M.S. sheet
13.	Internal Side Walls	02 Nos. 700*215*10 mm M.S. sheet welded to bucket body
14.	External Side Walls	02 Nos. 700*565*10 mm M.S. sheet bolted to internal side walls. reinforced at front with 750*60 mm L-Key bend
15.	External Adjustable Side Walls	02 Nos. 500*125*10 mm M.S. sheet bolted with external side walls adjustable according to scrapper angle
16.	Braces	02 Nos. 570*50*7 mm M.S. flat
17.	Cutting Edge	Reversible double side edge 2430*150*16 mm
18.	Draw Bar pipe	M.S pipe138 mm dia. 2030 mm long, 5 mm wall thickness. Ends closed with M.S. plates 140*140*15 mm
19.	Draw bar Tong	02 Nos. 230*100*15 mm M.S. plates reinforced with 02 Nos. 360*60*12 mm M.S. plate
20.	Draw Bar Hook	Forged steel 350 mm long hook outer dia. 100-110 mm, inner hole dia.40 mm, out pipe dia. 80 mm wall thickness 6 mm (02 Nos. M.S. plates 230*100*15 mm)

II. Diagonal links

21.	Eyeball screws	02 Nos. left hand threads, 38 mm dia., 02 Nos. right hand threads 38 mm dia.
22.	Pipe	02 Nos. M.S pipe 58 mm dia. 1370 mm long, 4 mm wall thickness including eye ball and screw
23.	Eyeballs	04 Nos.
24.	Pins	04 Nos. M.S. round 23 mm dia. 125 mm long with safety pins
25.	Links Buckets (on pipe)	Upper plates 02 Nos., 152*100*15 mm welded to draw bar pipe with lower 01 No. M.S. plate (lower)345*100*15 mm with pin holes
26.	Links Buckets (on bucket)	04 Nos. M.S. plates 100*85*15 mm welded to the bucket plate & side walls, with pin holes
27.	Tow bar coupling	02 Nos. M.S. plates welded to pipe 420*150*10 mm
28.	Attachment	02 Nos. M.S. plates 540*200*10 mm welded to bucket body, with adjustable tow bar height, 02 Nos. bolts 25 mm dia., 02 Nos. reinforcement plates 390*100*10 mm from lower side, 01 No. 200*200*6 mm M.S. plates welded at bucket base for reinforcement of above plate, 02 Nos., reinforcement plates 670*100*10 mm at top

III. Hydraulic Assembly

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29.	Electric mast attachment base	M.S. pipe 100 mm dia., 1000 mm long, , 3 mm wall thickness with extendable SS pipe (operated by DC electric motor) compatible to mount receiver at top
IV.	**Electric Mast**	
30.	Length	1450 mm, extended up to 2250 mm (approx.) provided with control box to be mounted at tractor raise or lower the receiver height
31.	Weight	25 kg±10%
32.	Foundation	Inverted U-type 300*200*10 mm M.S. plate/channel adjustable base for fixing electric mast
V.	**Hydraulic Jack Rear Attachments**	
33.	Frame	02 Nos. 800*85*18 mm M.S. flat L-shaped or angle that makes right position of jack welded to bucket on Z-reinforcement sheet at center. 01 No. bolt/pin 28 mm dia. 200 mm long, with scraper pipe. 02 Nos., M.S. flat 200*85*18 mm welded in line with above two pieces below Z-reinforcement sheet along bucket curve
34.	Hydraulic Jack	01 No. 90 mm dia. 410 mm long, piston dia. 40 mm double acting with two jacks pins M.S. round 28 mm dia. 140 mm and 190 mm long,
35.	H-Frame Boxes	02 Nos. 200*200*6 mm MS sheet, 800 mm long. Ends closed with 04 Nos., MS sheet 200*200*6 mm and 01 No. box, MS sheet 200*200*6 mm, 800 mm long each
36.	Coupling Assembly	02 Nos. hooks, 40 mm hole dia. 120 mm long, and M.S. sheet 140*40 mm. 02 Nos. M.S. plates 200*40*40 mm welded at bolt ends of H-frame to fix the above hooks. 02 Nos. pins, 40 mm dia., 145 mm long 02 Nos. M.S. plates 200*120*25 mm welded below Z-reinforcement present on bucket at two places to hold above 02 Nos. hooks, having 40 mm dia. hole for fixing pins
37.	Hydraulic jack Bracket	02 Nos., M.S. plates 200*80*15 mm welded to H-frame reinforced at base with M.S. plate 170*170*6 mm
38.	Axle attachment	02 Nos. M.S. sheet 430*270*10 mm and L-key bend measuring 65 mm
39.	Axle	01 No. M.S. square/round bar 2050*63 mm with ends to mount 04 Nos., bearings bolted to H-frame using 200*50*16 mm flats welded with axle.
40.	Hydraulic Hoses/ delivery hose	02 Nos., hydraulic pipe minimum pressure 3500 PSI inner dia. 12-13 mm of suction/delivery hoses of 15 ft. length

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		each
41.	Hoses for cylinder	02 Nos. hydraulic pipe minimum pressure 3500 PSI inner dia. 12-13 with 4 feet long each
VI.	**Solenoid Control Valve**	
42.	Type	Electric control spool type
43.	Compatibility	For Hydraulic control of LASER scrapper
44.	Power source	12 V DC through LASER control panel
45.	Operating pressure	500-3000 psi (max.)
46.	Flow control valve	1 inch line

MISCELLANEOUS

47.	Paint	Double coating after red oxide and surface finish
48.	Nut & Bolt	To be tightened with spring washers
49.	Bearings	SKF/ NTN or equivalent
50.	Modifications	To be carried of free of cost, if required
51.	Warranty	1 year for parts and service 5 years for parts supply on payment