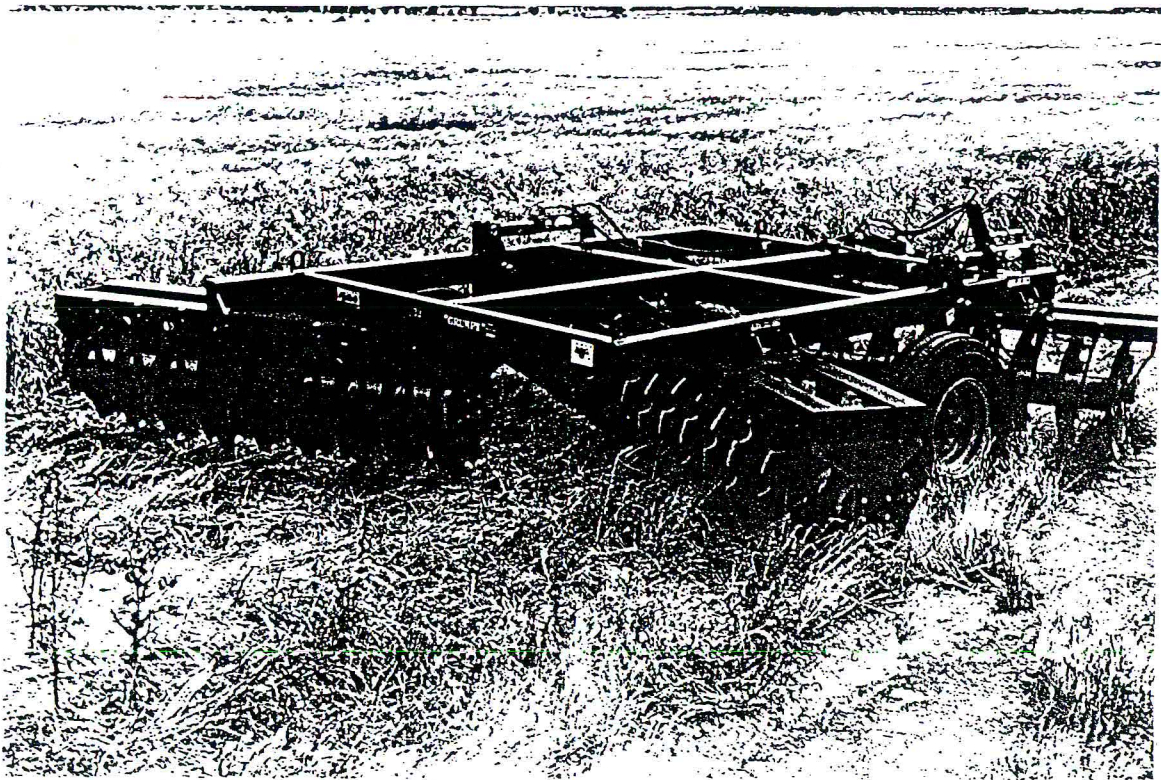


GRIZZLY

SPARE PARTS

MANUAL

GRUMPY
SERIES 2



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GRUMPY SERIES II

SPECIFICATIONS

WORKING WIDTH	<u>G28</u>	<u>G32</u>	<u>G36</u>
OVERALL WIDTH	3.2M (10'6")	3.6M (12')	4.1M (13'6")
TRANSPORT WIDTH	3.8M (12'5")	4.2M (14')	4.7M (15'6")
WEIGHT	3.35M (11')	3.78M (12'4")	4.15M (13'6")
	1750KG	1985KG	2232KG

GANG AXLE USED		GANG BOLT USED	
NO. OF DISCS	PART NO.	NO. OF DISCS	PART NO.
3	MJBHA673A	3	FAAHA525
4	MJBHA911A	4	FAAHA765
5	MJBHB149A	5	FAAHB000
6	MJBHB387A	6	FAAHB240

TOOL KIT (SUPPLIED WITH PLOUGH TECA0000)

CHAGH000	DISC LOCK SPANNER	1
TDFSA000	30MM COMBINATION SPANNER	1
TFCBMP00	TOOL ASSEMBLY 19MM & 24 MM	1

TYRE & RIM ASSEMBLY

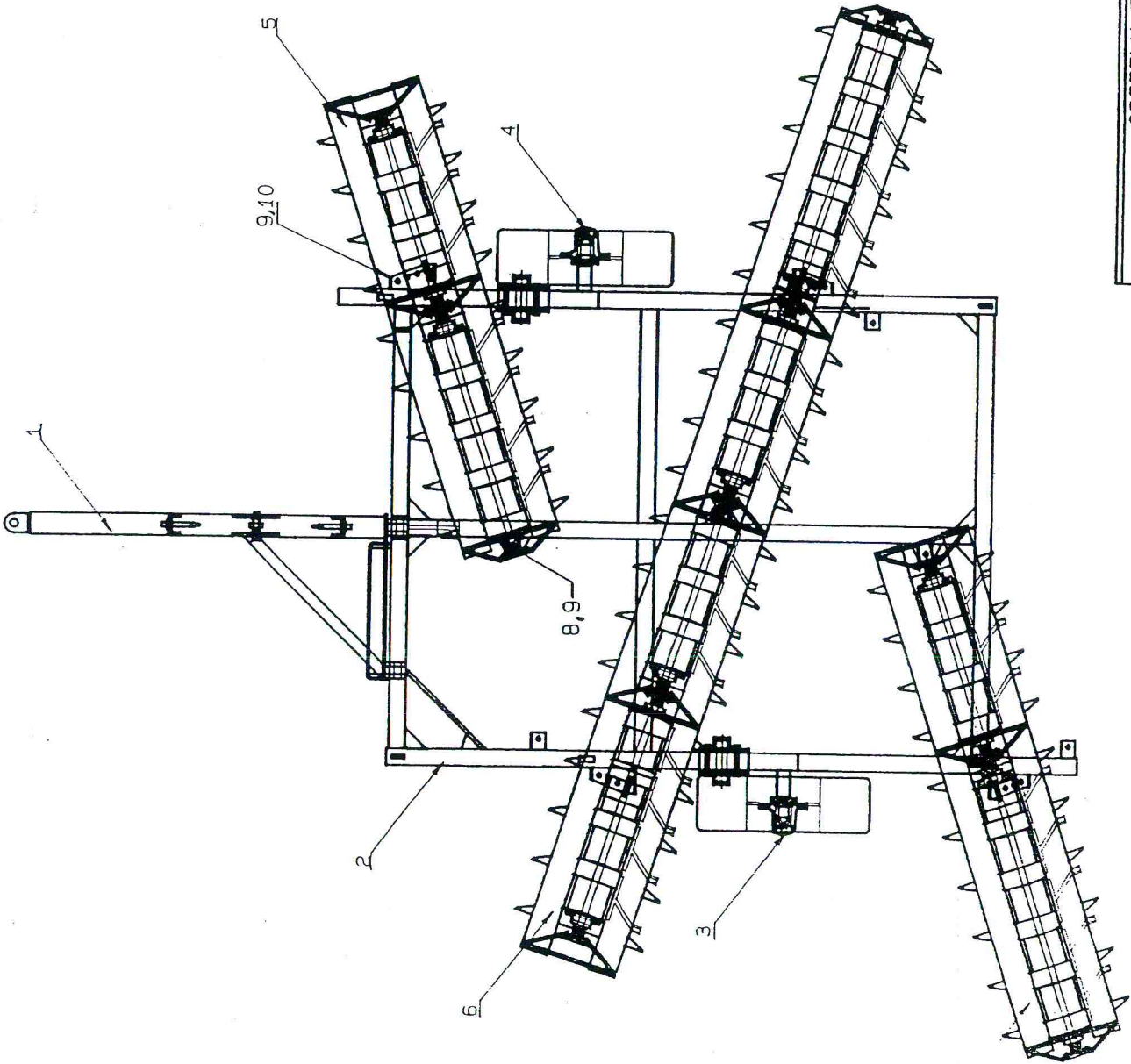
1.	WSJddb00	RIM & TYRE ASSEMBLY
1:1	WEJjt000	8 X 16 H60 RIM
1:2	WFDJv000	9 X 16 8 PLY TYRE

OPTION

GDEG0001 - HYDRAULIC PITCH CONTROL - REFER PAGE 17

GRUMPY SERIES II

<u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	GHEA0001	PULL ASSEMBLY	1
2	GCE028	MAIN FRAME	1
3	GJEA0010	WHEEL LIFT ASSEMBLY L.H.	1
4	GJEA0010	WHEEL LIFT ASSEMBLY R.H.	1
5	GANG NO.1	GANG NO.1	1
6	GANG NO.2	GANG NO.2	1
7	GANG NO.3	GANG NO.3	1
8	FABJA065	BOLT M20	3
9	FFBJA000	NUT	7
10	FWBJA055	BOLT M20 WITH WASHER	4



3

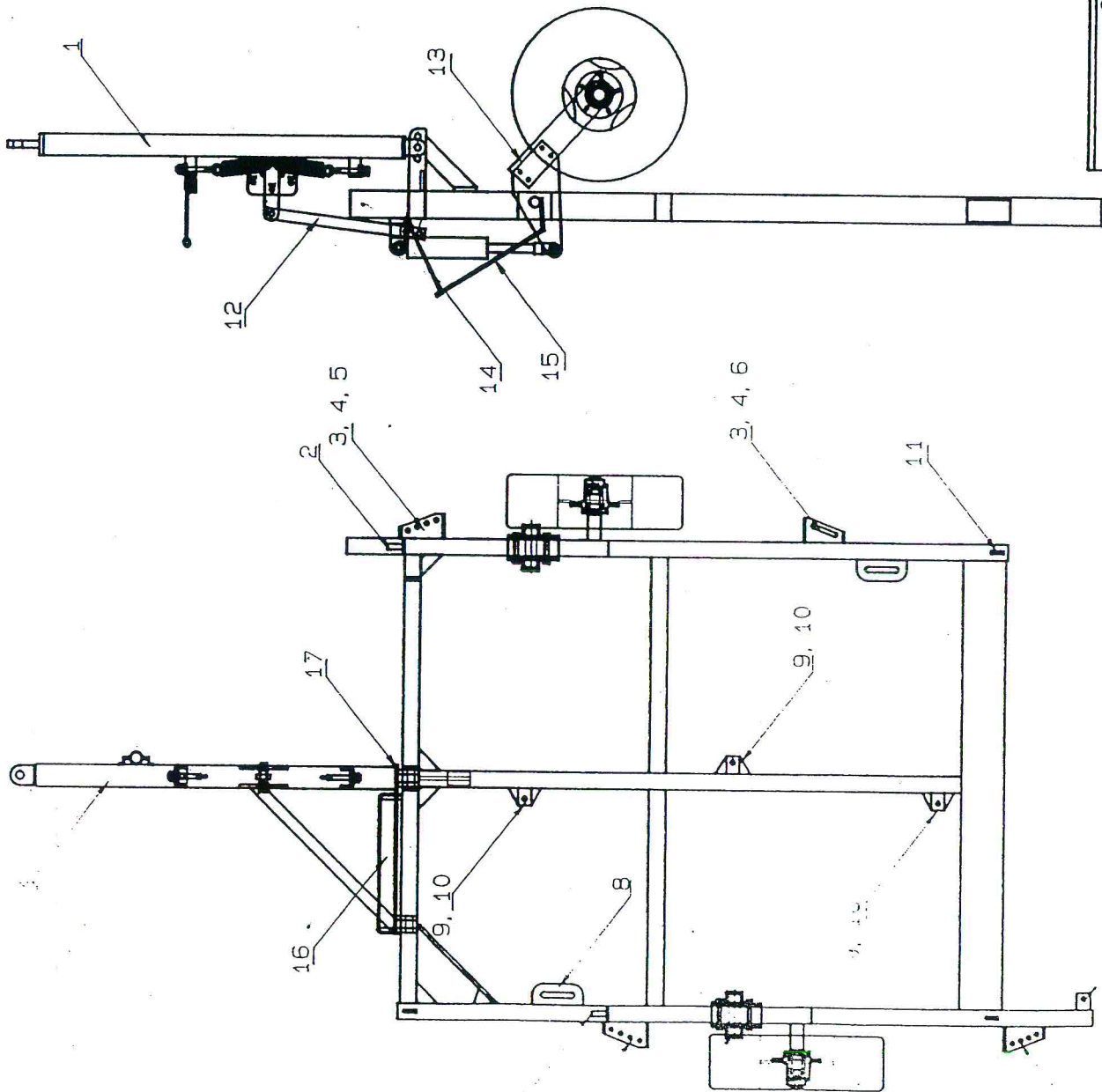
GRIZZLY ENGINEERING PTY. LTD	
TITLE: GRUMPY SERIES II.36 PLATE ASSY KITS.	
PART NO.	
SCALE: 1:21.678	DATE: 6.07.89
DRG NO: GCE036	

GRUMPY SERIES II

MAIN FRAME B.O.M.

<u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	GHEA0001	PULL ASSEMBLY	1
2	CBBEM000	RAM LUG	2
3	CABCE000	SLOT GUSSET (SMALL)	4
4	CABCE001	SLOT GUSSET (LARGE)	4
5	LBCHA140	SERIES OF HOLES	2
6	LACHA140	SLOT	1
7	LBCHA120	SERIES OF HOLES	1
8	LADJA100	SLOT	2
9	CJAZE002	PIVOT GUSSET	6
10	MAHJA080B	PIVOT	4
11	CBBZH001	LIFTING LUG	4
12	GDEG0002	LEVEL ARM ASSEMBLY (PAIR)	1
13	GJEA0010	WHEEL LIFT ASSEMBLY L. & R.	2
14	GNBEC000	DEPTH GAUGE	1
15	GNBEC002	DEPTH POINTER	1
16	GNBHE000	TOOL BOX	1
17	CBBCM000	FRAME LEVEL LUG	1

NOTE: GDEG0001 OPTIONAL HYDRAULIC PITCH CONTROL CAN BE
FITTED IN LIEU OF ITEM 12.

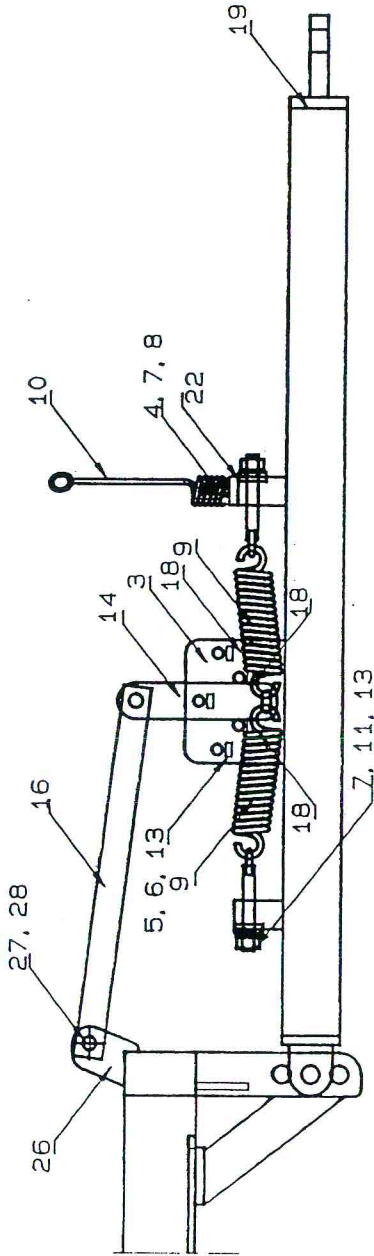


GRIZZLY ENGINEERING PTY. LTD	
TITLE: GRUMPY SERIES II. HARD METRIC.	
PART NO. 28PLATE ASSY KITS.	
SCALE: 1:21.678	DATE: 6.07.89
DRG NO: GCE028	

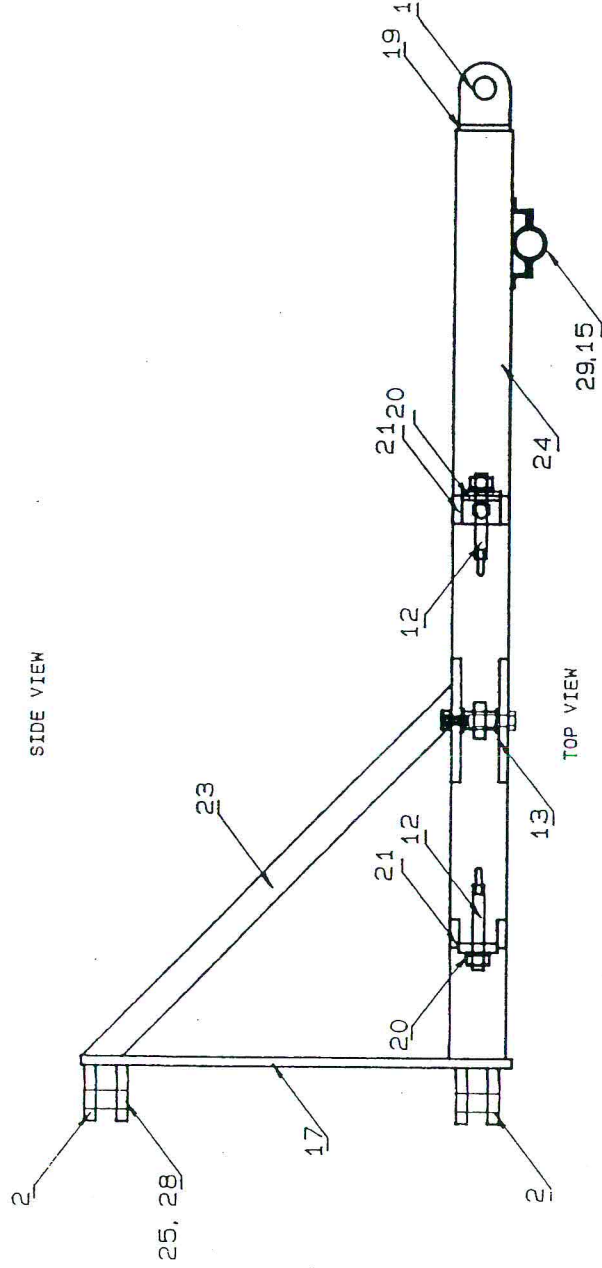
GRUMPY SERIES II

PULL ASSEMBLY

<u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	CBCCP000	PLATE 32mm PULL TONGUE C	1
2	CBCFJ000	PLATE 20mm PULL BACK LUG F,G,H	4
3	CGCCH000	PLATE 16mm SWIV LUG L/G PULL	2
4	FABJA040	BOLT M20 X 40 GRADE 8.8 ZP	1
5	FABJA130	BOLT M20 X 130 GRADE 8.8 ZP	3
6	FFBJA000	NUT NYLOC M20	3
7	FFAJA000	NUT BLACK M20	3
8	FMCJG000	WASHER 20 ID X 40 OD X 4.5mm STRL	2
9	FHKKA230	SPRING 230mm X 10mm X 47mm	2
10	FHKNA440	SPRING TYPE HOSE HOLDER	1
11	FFDJA000	HALF NUT 20mm ZINC PLATED	2
12	FVCAA000	EYE BOLT, M20 X 140	2
13	FMAJE000	F/WASHER 20ID X 41OD X 3mm	4
14	GKCAA000	TOGGLE ARM ASSY PULL LG SRS 2	1
15	GKEE0001	PARKING JACK CLAMP GRUMPY	1
16	GDEG0002	LEVEL ARM ASSEMBLY PAIR	1
17	MADMA770	FLAT 75 X 8 (770mm) LONG	1
18	MAEEA025	FLAT 25 X 10 (25mm)	5
19	MAFEA085	FLAT 25 X 12 (85mm) LONG	2
20	MAGHA070A	FLAT 50 X 16 (70mm)	2
21	MAGHA085	FLAT 50 X 16 (85mm)	4
22	MAEHA075	FLAT 50 X 10 (75mm)	1
23	MGGFA931	SHS 51 X 51 X 4.9 (931mm) ANGLE	1
24	MHHHB634	RHS 102 X 76 X 6.3 (1.634mm)	1
25	FGBPA095	PULL PIN	2
26	CBBCM000	FRAME LEVEL LUG	1
27	FGBKA075	PIN 1" (75mm)	2
28	FKAEA000	6mm LYNCH PIN	4
29	GKEE0000	GRUMPY PARKING JACK	1



SIDE VIEW



TOP VIEW

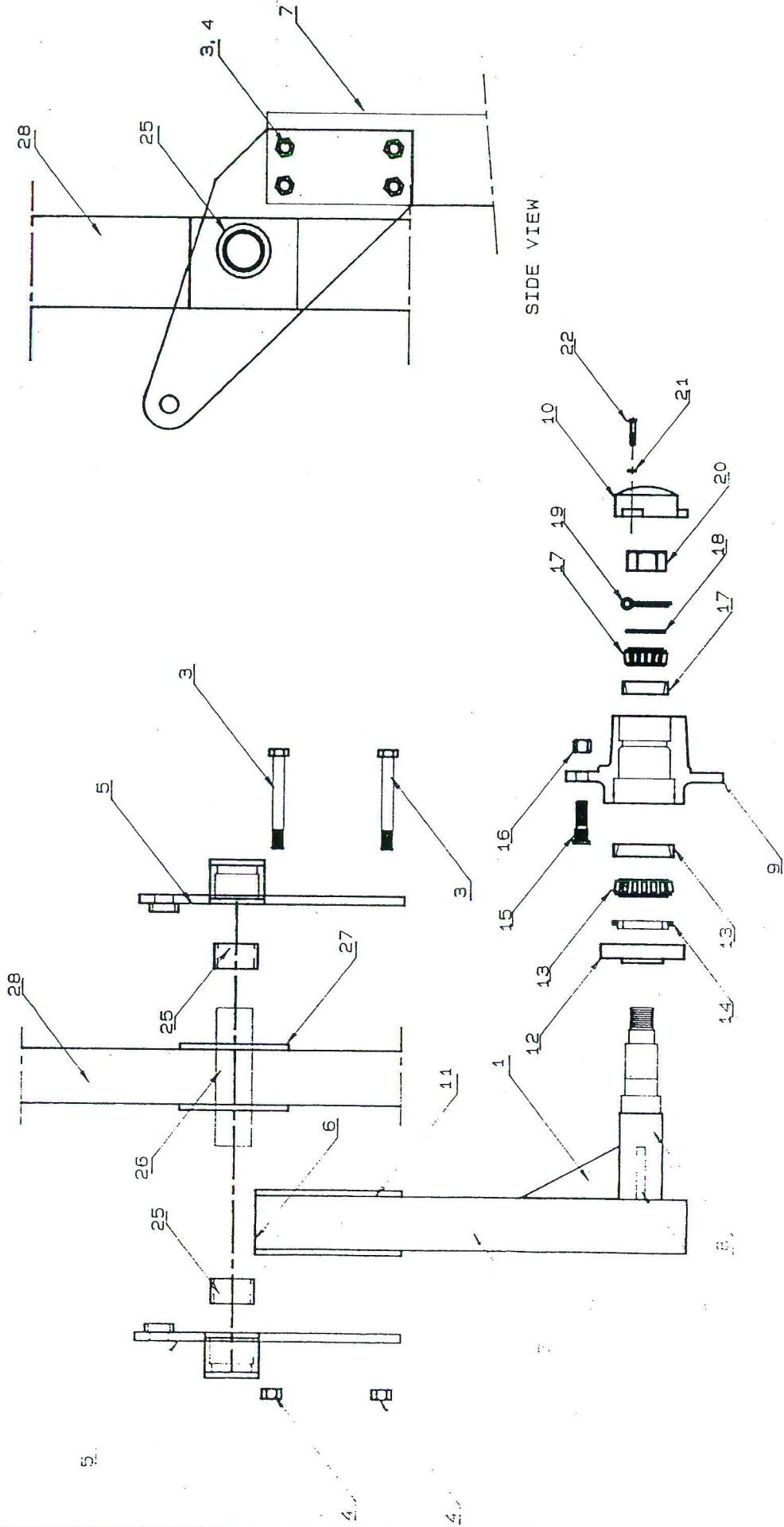
GRIZZLY ENGINEERING PTY. LTD	
TITLE: L/G & GRUMPY SERIES II PULL ASSY.	
PART NO. GHEA0001	
SCALE: 1: 9.487	DATE: 25-10-89 DRG NO: GHEA0001

GRUMPY SERIES II

WHEEL ASSEMBLY LEFT & RIGHT

<u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	CAEEG000	PLATE 12mm GUSSET STUB AXLE	1
2	CJAZG000	PLATE 12mm TRIANGLE 100 X 150	1
3	FABHA140	BOLT M16 X 140 GRADE 8.8	4
4	FFBHA000	NUT NYLOC M16	4
5	GJEB0003	E W/A SIDE PLATE L&R SERIES 2	2
6	MAAJA095	FLAT 65 X 3 (95mm)	1
7	MHHHA598	RHS 102 X 76 (598mm)	1
8	WAJAA265	STUB AXLE BARE FOR GRUMPY 60mm	1
9	WJJAA000	HUB H60 B TYRE BRG. KIT	1
10	WKJAA000	CAP FOR H60 HUB	1
11	MAEPA200	FLAT 100 X 10 X 200	2
12	BNJAA000	DUST COVER	1
13	BBGAA000	BEARING FOR H60 HUB LARGE	1
14	BNJBA000	SEAL FOR H60 HUB	1
15	FDBHA000	STUD WHEEL 5/8 X 1 7/8	5
16	FFFHA000	NUT WHEEL 5/8	5
17	BCJAA000	BEARING FOR H60 HUB SMALL	1
18	FMASAK00	FLAT WASHER	1
19	FKCEAO63	SPLIT PIN	1
20	FFCPA000	NUT SLOTTED 1 1/4 UNF	1
21	FMBDCB00	WASHER SPRING 6mm	3
22	FABDA016	BOLT M6 X 16	3
25	BJEGA035	VESCONITE BUSH	2
26	MDDEA190	ROUND 50mm	1
27	MADPA150	FLAT 100 X 8	4
28	MHHND190	FRAME BEAM	1

NOTE: ITEMS 13, 14, 17 AND 19 MAKE UP H60 BEARING KIT -
BAJAA000.



SIDE VIEW

EXPLODED VIEW.

GRIZZLY ENGINEERING PTY. LTD	
TITLE: GRUMPY SERIES II-WHEEL ASSY KIT.	
PART NO. GJEA0011	
SCALE: 1:5.929	DATE: 26-10-89
DRG NO: GJEA0011	

GANG NO. 1

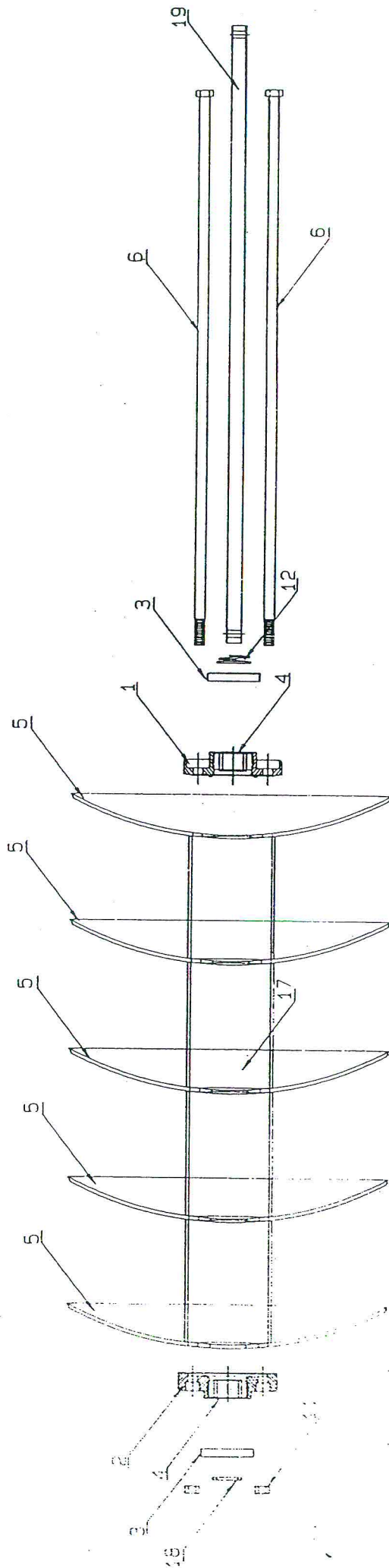
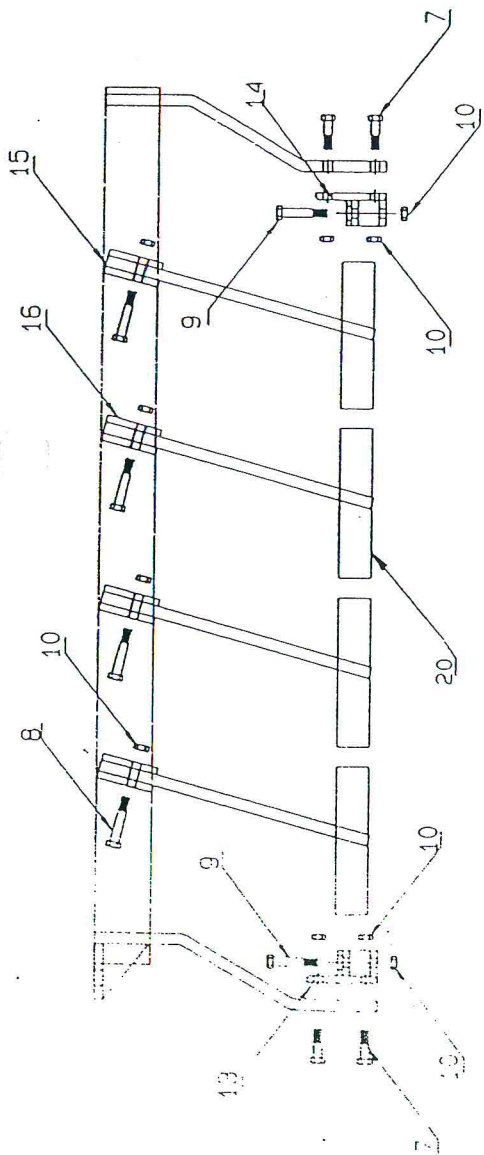
DESCRIPTION

PART NO.

NO.

1	BEB080B0	LEAD BEARING HOUSING
2	BFB080B0	THRUST BEARING HOUSING
3	BNSTA000	METAL COVER FOR 28mm BEARING
4	BPAAB001	BEARING 28.57 ID X 80 OD
5	D24DSB03	DISC 24" X 6mm SCALLOPED 4BLT
6	FAAHB000	BOLT M16 X 1000 GRADE 5.5
7	FABGA040	BOLT M12 X 40 GRADE 8.8
8	FABGA050	BOLT M12 X 50 GRADE 8.8
9	FABGA065	BOLT M12 X 65 GRADE 8.8
10	FFBGA000	NUT NYLOC M12
11	FFBHA000	NUT NYLOC M16
12	FHCPA035	SPRING CONICAL
13	GECDB000	AXLE CARRIER LEFT (CAST)
14	GECEB000	AXLE CARRIER RIGHT (CAST)
15	GFBA0210	SCRAPER ASSY LEFT
16	MADGA079A	SCRAPER LUG
17	MECPA230	230 SPOOL
18	MGFEA010	10mm SPACER
19	MJBHB149A	22mm 5 DISC GANG AXLE
20	MCCHA210	SCRAPER PAD

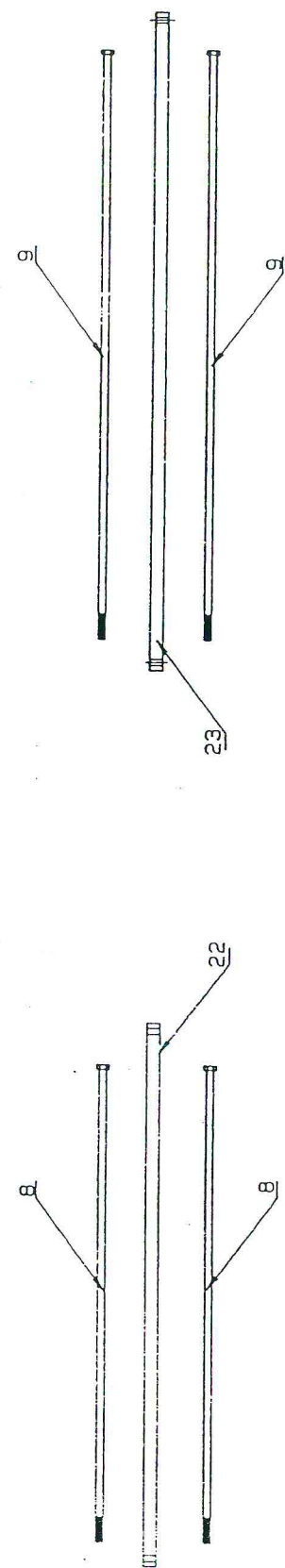
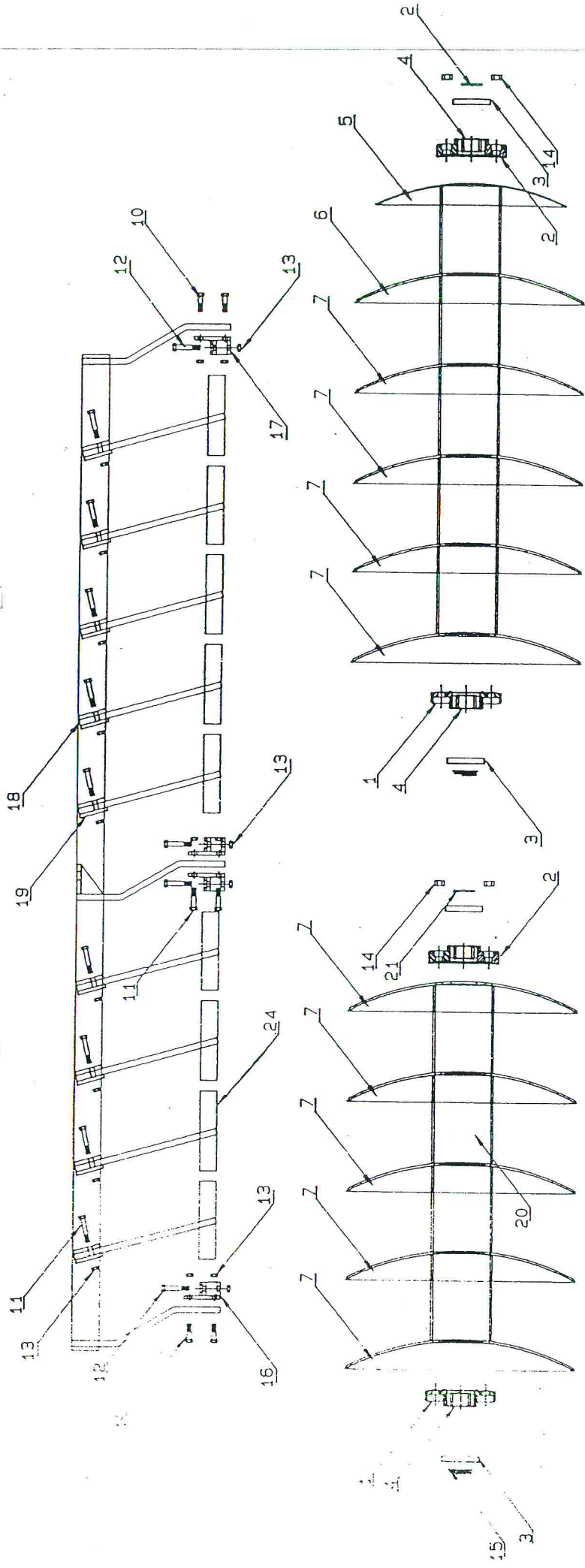
GANG AXLE USED		GANG BOLT USED	
NO. OF DISCS	PART NO.	NO. OF DISCS	PART NO.
3	MJBHA673A	3	FAAHA525
4	MJBHA911A	4	FAAHA765
5	MJBHB149A	5	FAAHB000
6	MJBHB387A	6	FAAHB240



GRIZZLY ENGINEERING PTY. LTD	
TITLE: SPARE PARTS- GRUMPY GANG.1.	
PART NO. 20 PLATE.	
SCALE: 1:7.684	DATE: 6-11-89
DRG NO: GANG.1.	

GANG NO. 2

<u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	BEB080B0	LEAD BEARING HOUSING
2	BFB080B0	THRUST BEARING HOUSING
3	BNSTA000	METAL COVER FOR 28mm BEARING
4	BPAAB001	BEARING 28.57 ID X 80 OD
5	D20BSB03	DISC 20" X 4mm FILLER 4BLT
6	D22CSB06	DISC 22" X 5mm SCALLOPED 4BLT
7	D24DSB03	DISC 24" X 6mm SCALLOPED 4BLT
8	FAAHB000	BOLT M16 X 1000 GRADE 5.5
9	FAAHB240	BOLT M16 X 1240 GRADE 5.5
10	FABGA040	BOLT M12 X 40 GRADE 8.8
11	FABGA050	BOLT M12 X 50 GRADE 8.8
12	FABGA065	BOLT M12 X 65 GRADE 8.8
13	FFBGA000	NUT NYLOC M12
14	FFBHA000	NUT NYLOC M16
15	FHCPA035	SPRING CONICAL
16	GECDB000	AXLE CARRIER LEFT (CAST)
17	GECEB000	AXLE CARRIER RIGHT (CAST)
18	GFBBA210	SCRAPER ASSY RIGHT
19	MADGA079A	SCRAPER LUG
20	MECPA230	230 SPOOL
21	MGFEA010	10mm SPACER
22	MJBHB149A	28mm 5 DISC GANG AXLE
22.23	MJBHB387A	28mm 6 DISC GANG AXLE
23	MJBHB625B	28mm 7 DISC GANG AXLE
24	MCCHA210	SCRAPER PAD

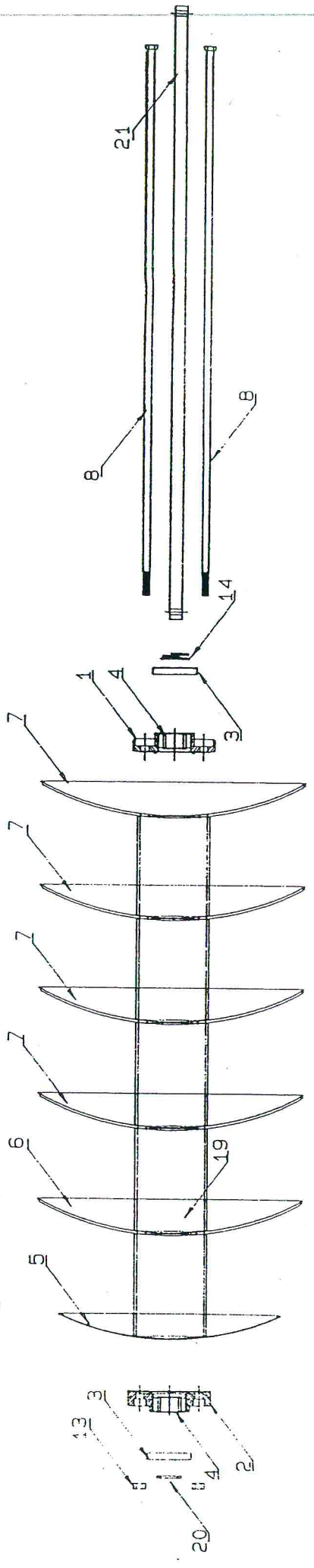
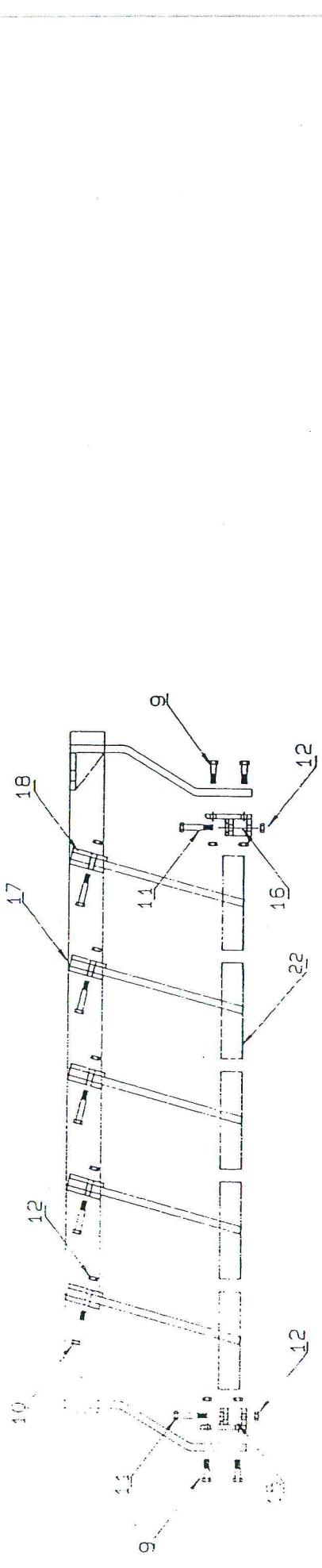


13

GRIZZLY ENGINEERING PTY. LTD
 TITLE: SPARE PARTS- GRUMPY GANG.2.
 PART NO. 20 PLATE.
 SCALE: 1: 10.806 DATE: 7-11-89 DRG NO: GANG.2.

GANG NO. 3

<u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	BEB080B0	LEAD BEARING HOUSING
2	BFB080B0	THRUST BEARING HOUSING
3	BNSTA000	METAL COVERING FOR 28mm
4	BPAAB001	BEARING 28.57 ID X 80 OD
5	D20BSB03	DISC 20" X 4mm FILLER 4BLT
6	D22CSB06	DISC 22" X 5mm SCALLOPED 4BLT
7	D24DSB03	DISC 24" X 6mm SCALLOPED 4BLT
8	FAAHB240	BOLT M16 X 1240 GRADE 5.5
9	FABGA040	BOLT M12 X 40 GRADE 8.8
10	FABGA050	BOLT M12 X 50 GRADE 8.8
11	FABGA065	BOLT M12 X 65 GRADE 8.8
12	FFBGA000	NUT NYLOC M12
13	FFBHA000	NUT NYLOC M16
14	FHCPA035	SPRING CONICAL
15	GECEB000	AXLE CARRIER LEFT (CAST)
16	GECEB000	AXLE CARRIER RIGHT (CAST)
17	GFBAA210	SCRAPER ASSY LEFT
18	MADGA079A	SCRAPER LUG
19	MECPA230	230 SPOOL
20	MGFEA010	10mm SPACER
21	MJBHB625B	28mm 7 DISC GANG AXLE
22	MCCHA210	SCRAPER PAD



GRIZZLY ENGINEERING PTY. LTD			
TITLE: SPARE PARTS- GRUMPY GANG.3.			
PART NO. 20 PLATE.			
SCALE: 1: 9.306	DATE: 7-11-89	DRG NO: GANG.3.	

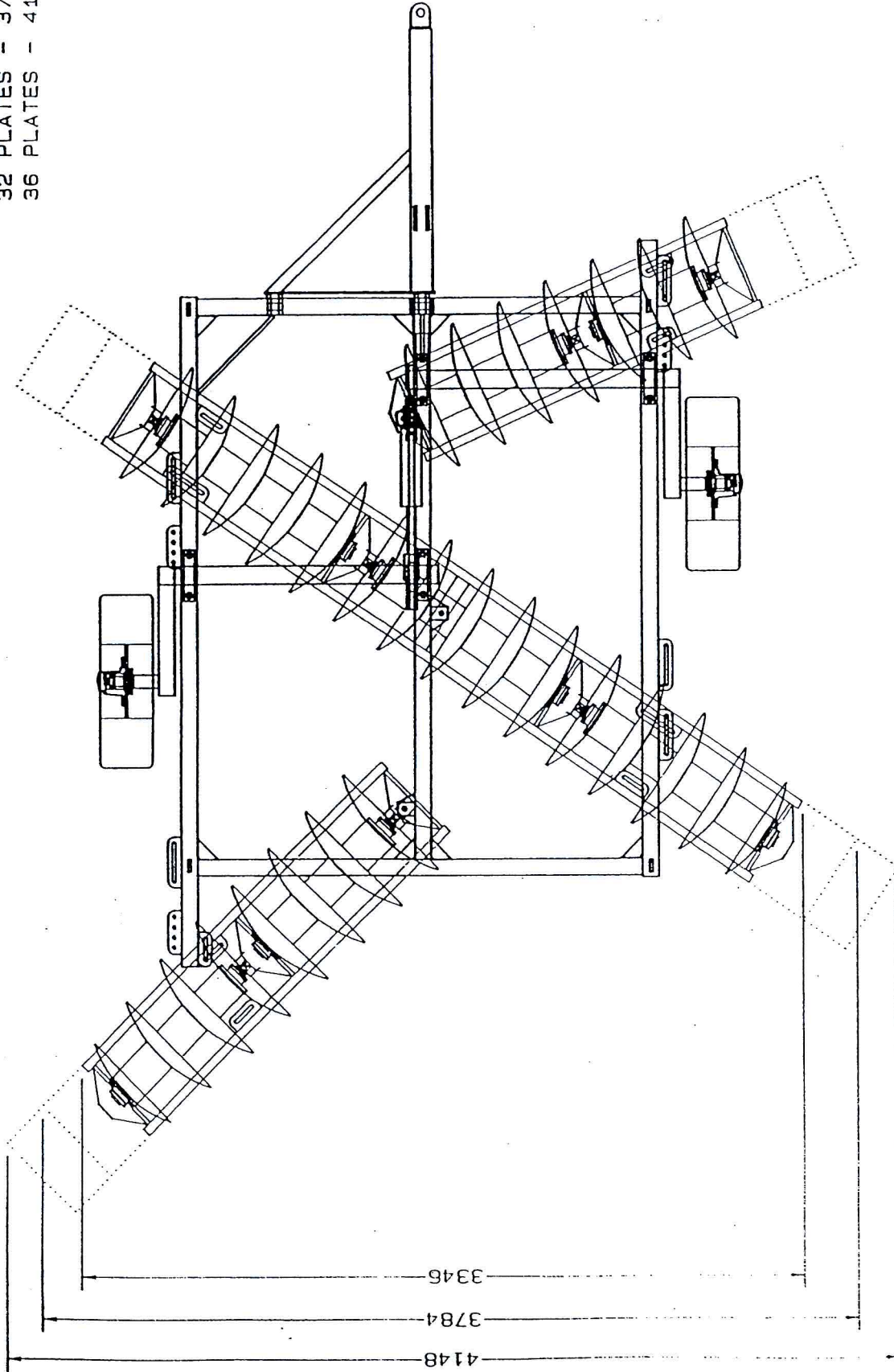
GRUMPY SERIES II

HYDRAULIC KIT - HFEAB000

<u>NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	FABEA045	BOLT M8 X 45 GRADE 8.8	6
2	HGCAF300	HOSE (5,300) HHAKBU07 HHAKMU07	1
3	HGCAD400	HOSE (3,400) HHAKBU07 BOTH ENDS	1
4	HGCAE400	HOSE (4,400) HHAKBU07 HHAKMU07	1
5	HHABAM07	FITTING U.N O RING J,I	4
6	HHDMNW07	QUICK RELEASE COUPLING	4
7	HJBCA000	CLAMP SHELL 3/4-3/4	12
8	HJBFA000	TOP PLATE FOR 3/4 CLAMP	6
9	HRAAA185	TRANSPORT BLOCK (185mm)	1
10	HRBAA235	TRANSPORT BLOCK (235mm)	1
11	HZA300/08	HYDRAULIC CYL. 3" X 8"	1
12	HZA325/08D	HYD.CYL. 3.25" X 8" D/S	1
13	<u>GDEG0001</u>	<u>OPTIONAL HYDRAULIC PITCH CONTROL</u>	<u>1</u>
14	HYA300/08	HYD. CYL. 3.00 X 8 1" PINS	1
15	HHABAM07A	FITTING 90o ELBOW RESTRICTOR	1
16	HGCCCC400	HOSE (2,400) HHAKBU07 HHAKMU07	1
17	HGCCCC600	HOSE (2,600) HHAKBU07 HHAKMU07	1

MACHINE WIDTH

- 28 PLATES - 3346 MM (10.97 FT)
- 32 PLATES - 3784 MM (12.4 FT)
- 36 PLATES - 4148 MM (13.6 FT)



NR	QTY	PART, MATERIAL	DIMENSIONS	PART NO.
GRIZZLY ENGINEERING PTY				
TITLE: GRUMPY - DIMENSIONS IN TRANSPORT				
RT NO				
SCALE		1:20	DATE: 10.10.88	DRG NO. GMWGF

Single level Bill of Materials

Stock item	Description	Quantity	R.R.Price
GTE00000	MIN SPARE PARTS FOR GRUMPY GRIZ		\$
BAJAA000	M60 BEARING KIT 2 BEARINGS, 1 SEAL, 1 O RING & 1 SPLIT PIN	1.0000	38.38 EA
BJEGA035	VESCONITE 50 ID X 60 OD X 35 MM	2.0000	7.76 EA
BNSTA000	METAL COVER FOR 28MM BEARING USED FOR GANGS	2.0000	4.80 EA
BPAAB001	BEARING 28.57 ID X 80 OD	2.0000	27.80 EA
FABGA050	SPHER SELF ALLIGN' SQUARE	4.0000	0.71 EA
FABGA065	BOLT M12 X 50 GRADE 8.8 ZP H/T	4.0000	0.84 EA
FFBGA000	BOLT M12 X 65 GRADE 8.8 ZP H/T	8.0000	0.22 EA
FHCPA035	NUT NYLOC M12 SPRING CONICAL	2.0000	1.40 EA
CFBAA210	41 ID X 68 OD 3 MM WIRE FOR DUST COVER		
GFRBA210	B,C,D & E SCRAPER ASSY LEFT GRUMPY L/GRUMPY H/LINKAGE	1.0000	15.78 EA
MCFEA010	B,C,D & E SCRAPER ASSY RIGHT GRUMPY L/GRUMPY H/LINKAGE	1.0000	15.78 EA
BPAAB000	SHS 38 X 38 X 4 (10MM) LITTLE GRUMPY SPACER SERIES 2 BEARING 27.57 X 85.72	2.0000	1.94 EA
BEF080B0	CYLINDRICAL (OLD TYPE) LEAD BEARING HOUSING SR'S 2 BEARING FITTED (OLD TYPE)		28.40 EA
BFB080B0	THRUST BEARING HOUSING SR'S 2 BEARING FITTED (OLD TYPE)		84.58 EA
			84.58 EA



Single level Bill of Materials

Stock item	Description	Quantity	R.R.Price
GTC00000	MIN SPARE PARTS FOR L/GRUMPY GRIZ		\$
BACAA000	U25 BEARING KIT	1.0000	27.50 EA
	2 BEARING & 1 SEAL		
BJEGA035	VESCONITE 50 _± X 60 _± X 35 MM	4.0000	7.76 EA
BNSTA000	METAL COVER FOR 28MM BEARING	2.0000	4.80 EA
	USED FOR GANGS		
BPAAB001	BEARING 28.57 _± X 80 _±	2.0000	27.80 EA
	SPHER SELF ALIGN' SQUARE		
FABGA050	BOLT M12 X 50 GRADE 8.8 ZP H/T	4.0000	0.71 EA
FABGA065	BOLT M12 X 65 GRADE 8.8 ZP H/T	4.0000	0.84 EA
FFBGA000	NUT NYLOC M12	8.0000	0.22 EA
FHCPA035	SPRING CONICAL	2.0000	1.40 EA
	41 _± X 68 _± 3mm WIRE		
	FOR DUST COVER		
GFBAA210	B,C,D & E SCRAPER ASSY LEFT	1.0000	15.78 EA
	GRUMPY L/GRUMPY H/LINKAGE		
GFBBA210	B,D,D & E SCRAPER ASSY RIGHT	1.0000	15.78 EA
	GRUMPY L/GRUMPY H/LINKAGE		
MGFEA010	SHS 38 X 38 X 4 (10MM)	2.0000	1.94 EA
	LITTLE GRUMPY SPACER SERIES 2		
WKCA0000	DUST CAP FOR HT HUB	1.0000	5.00 EA
BPAAB000	BEARING 27.57 X 85.72		28.40 EA
	CYLINDRICAL (OLD TYPE)		
FHNJA160	SPRING 160MM X 12MM X 57MM		33.00 EA
BEB080B0	LEAD BEARING HOUSING-BEARING		84.85 EA
	FITTED SR'S 2		
BFB080B0	THRUST BEARING HOUSING-BEARING		84.58 EA
	FITTED SR'S 2		