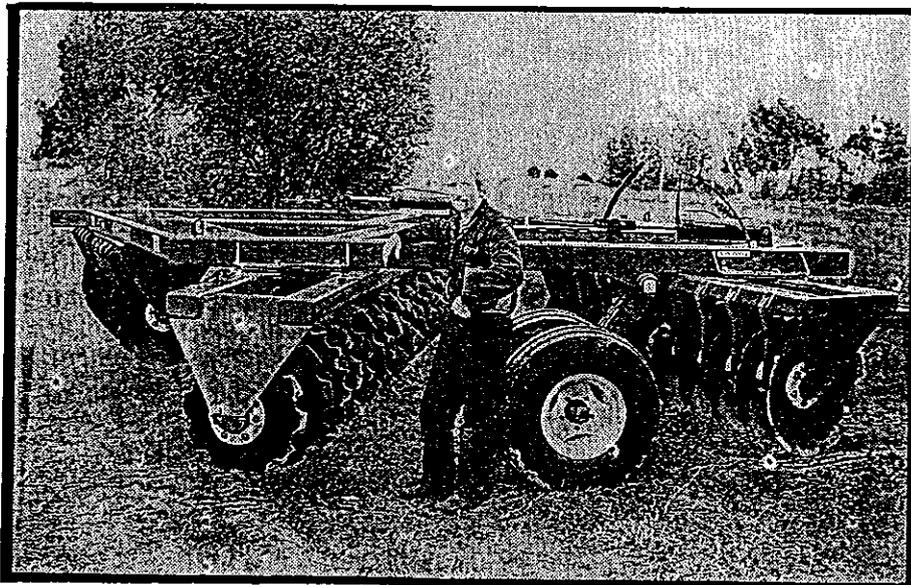


# **GRIZZLY**

## **SPARE PARTS MANUAL**

HEAVY SERIES

24-28 PLATE



HEAVY SERIES H24-28 PLATE

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HEAVY SERIES H24-28 PLATE

SPECIFICATIONS

"HG" SERIES

|             |                          |                             |
|-------------|--------------------------|-----------------------------|
| WIDTH       | <u>HG24</u><br>2.7M (9') | <u>HG28</u><br>3.2M (10'6") |
| HORSE POWER | 75-110                   | 90-125                      |

ROWCROPPER

|             |                              |                              |                               |
|-------------|------------------------------|------------------------------|-------------------------------|
| WIDTH       | <u>HG20R</u><br>2.9M (11'6") | <u>HG24R</u><br>3.5M (11'6") | <u>HG28R</u><br>4.1M (13' 6") |
| HORSE POWER | 80-120                       | 10-150                       | 120-180                       |

TOOL KIT SUPPLIED WITH PLOUGH - TEHE0000

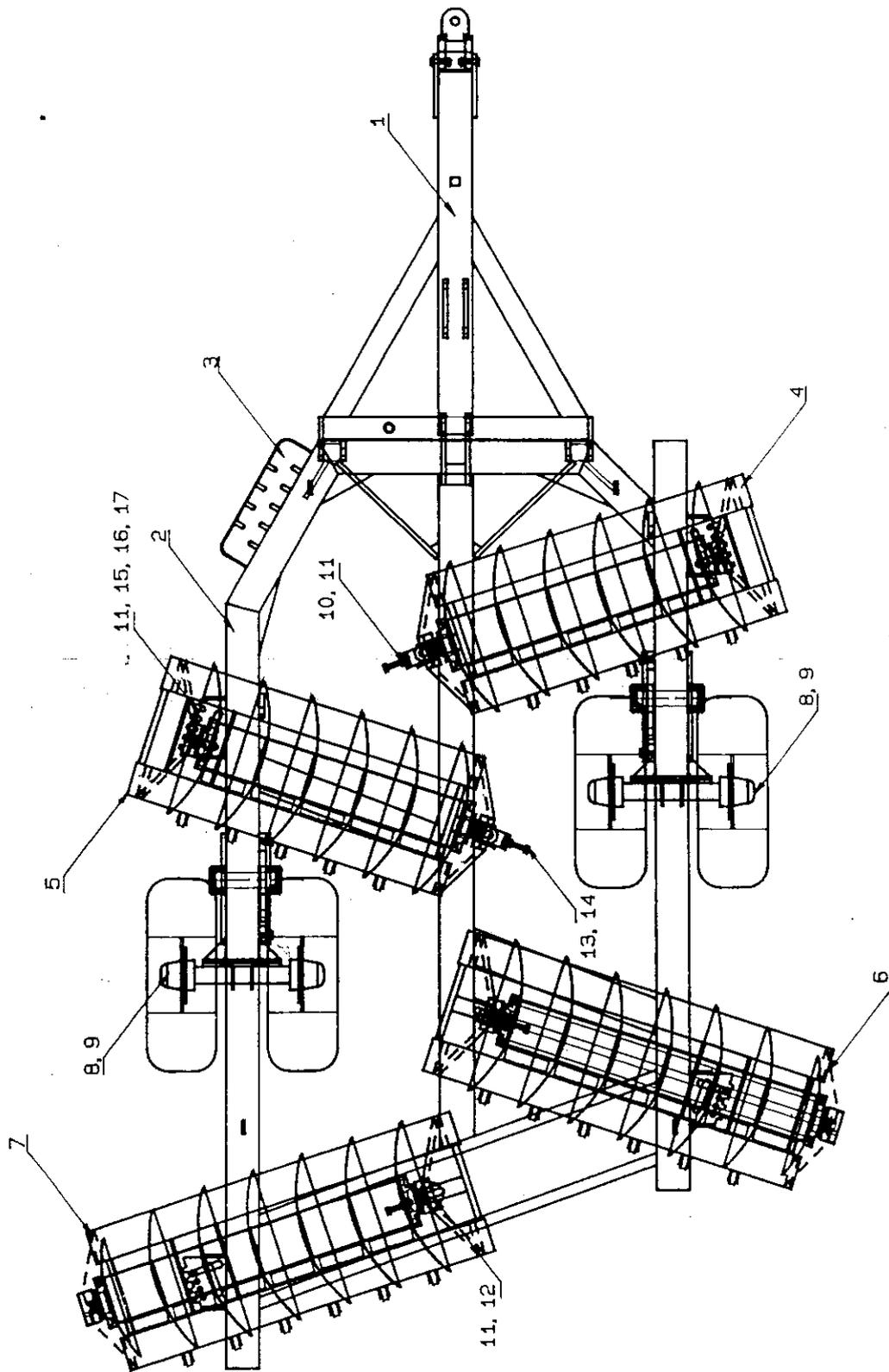
|          |                         |   |
|----------|-------------------------|---|
| CHAGH000 | DISC LOCK SPANNER       | 1 |
| CHCFG000 | LEVELING SYSTEM SPANNER | 1 |
| MGACA500 | SHS 25 X 25             | 1 |
| TDBCA000 | GANG ANGLE ADJUST TOOL  | 1 |
| TFBCXA00 | TOOL ASSY 46MM SOCKET   | 1 |
| TFBCPS00 | TOOL ASSY 24MM & 30MM   | 1 |

HEAVY SERIES H24-28 PLATE

ASSEMBLY KIT - GAH024

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>             | <u>QTY.</u> |
|------------|-----------------|--------------------------------|-------------|
| 1          | GHGA0000        | PULL ASSEMBLY HEAVY            | 1           |
| 2          | GCH024-28       | FRAME ASSEMBLY                 | 1           |
| 3          | GNBHF000        | TOOL BOX                       | 1           |
| 4          | H24G1           | GANG NO.1                      | 1           |
| 5          | H24G2           | GANG NO.2                      | 1           |
| 6          | H24G3           | GANG NO.3                      | 1           |
| 7          | H24G4           | GANG NO.4                      | 1           |
| 8 *        | WMJAA675        | H60 HUB & STUB ASSY 9.00 DUALS | 2           |
| 9 *        | WSJDDB00        | RIM & TYRE ASSY 9.00 X 16      | 4           |
| 10         | FACNA080        | BOLT M30                       | 3           |
| 11         | FFBNA000        | NUT NYLOC M30                  | 8           |
| 12         | FACNA110        | BOLT M30                       | 1           |
| 13         | FEBJA110        | SET SCREW M20                  | 4           |
| 14         | FFDJA000        | HALF NUT M20                   | 4           |
| 15         | FACNA090        | BOLT M30                       | 3           |
| 16         | FGBKA065        | PIN 1"                         | 4           |
| 17         | FMASGM00        | WASHER                         | 4           |

NOTE: \* CHANGE HAS BEEN MADE. REFER TO MASTER FILE.



3

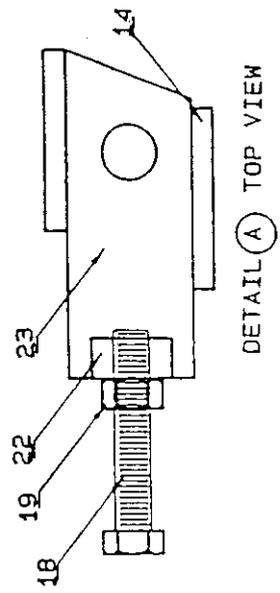
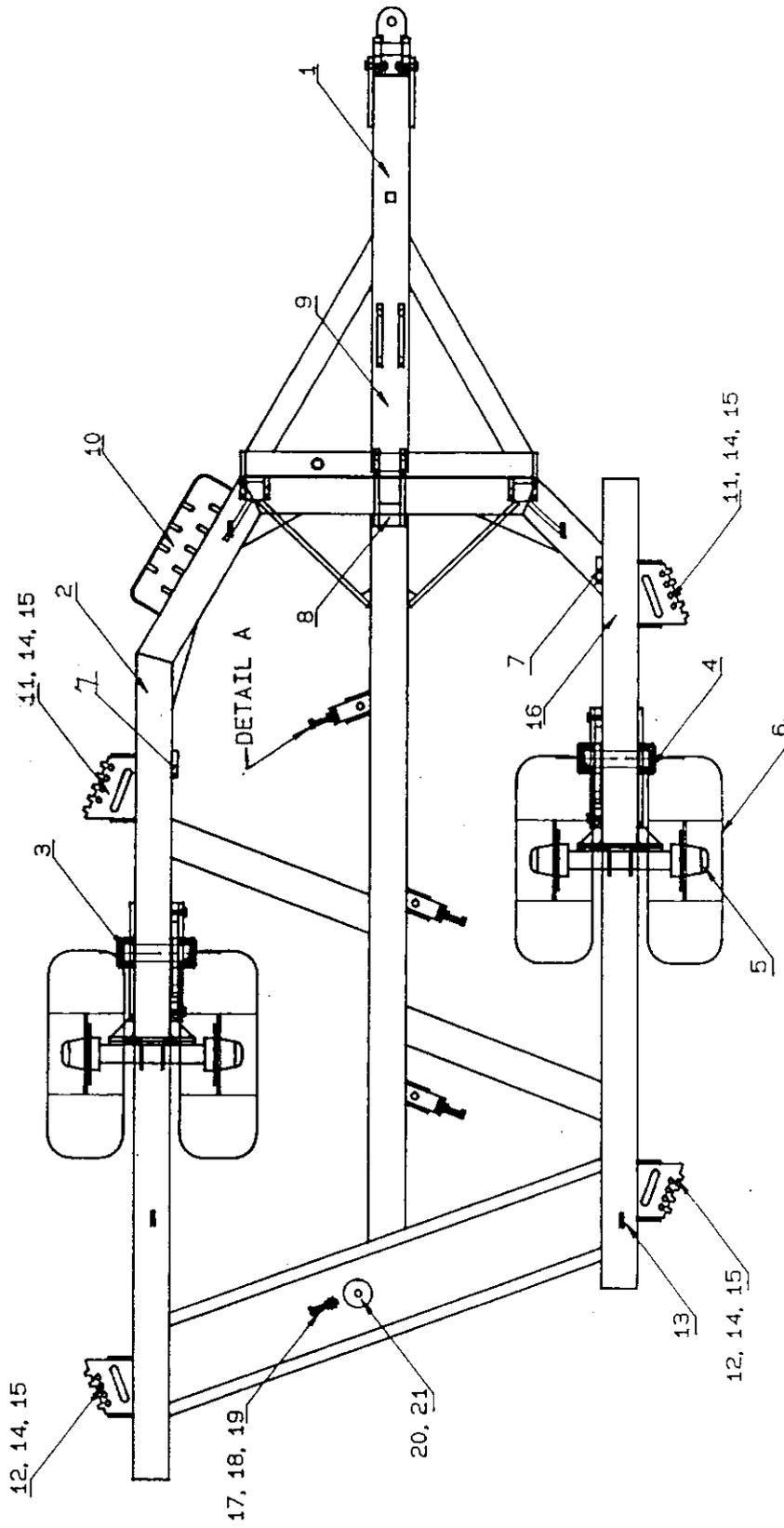
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|------------------------------|---------------|
| GRIZZLY ENGINEERING PTY. LTD |               |
| TITLE: "H" 24 PLATE          |               |
| PART NO.                     |               |
| SCALE: 1:21                  | DATE: 14-9-89 |
| DRG NO: 6AH024               |               |

HEAVY SERIES H24-28 PLATE

MAIN FRAME - GCH024-28

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>             | <u>QTY.</u> |
|------------|-----------------|--------------------------------|-------------|
| 1          | GHGA0000        | PULL ASSEMBLY HEAVY            | 1           |
| 2          | GCH24-28        | FRAME ASSEMBLY                 | 1           |
| 3          | GJHA0002        | WHEEL LIFT ASSEMBLY LEFT       | 1           |
| 4          | GJHA0001        | WHEEL LIFT ASSEMBLY RIGHT      | 1           |
| 5 *        | WMJAA675        | H60 HUB & STUB ASSY 9.00 DUALS | 2           |
| 6 *        | WSJDDB00        | H60 RIM & TYRE ASSY 9.00 X 16  | 4           |
| 7          | CBBHM001        | RAM LUG                        | 2           |
| 8          | CBBFJ000        | TOP LEVEL LUG                  | 2           |
| 9          | GDFE0000        | LEVELING SYSTEM                | 1           |
| 10         | GNBHF000        | TOOL BOX                       | 1           |
| 11         | LBFJA145        | LINK 145MM                     | 2           |
| 12         | LBFJA119        | LINK 119MM                     | 2           |
| 13         | CBBZJ000        | LIFTING LUG                    | 4           |
| 14         | CJAZG000        | GUSSET 12MM                    | 10          |
| 15         | CABGG003        | GUSSET 12MM                    | 4           |
| 16         | GNBEF000        | DEPTH GAUGE S24-100            | 1           |
| 17         | CBBHJ002        | ADJUST LUG (SMALL)             | 1           |
| 18         | FEBJA110        | BOLT M20                       | 4           |
| 19         | FFAJA000        | NUT BLACK M20                  | 4           |
| 20         | CBBHJ000        | REAR PIVOT                     | 1           |
| 21         | FUBKA000        | PLUG 3" GALVINIZED             | 1           |
| 22         | CBBHJ001        | ADJUST LUG (LARGE)             | 3           |
| 23         | CBBHM000        | PIVOT LUG                      | 3           |

NOTE: \* CHANGE HAS BEEN MADE. REFER TO MASTER FILE.



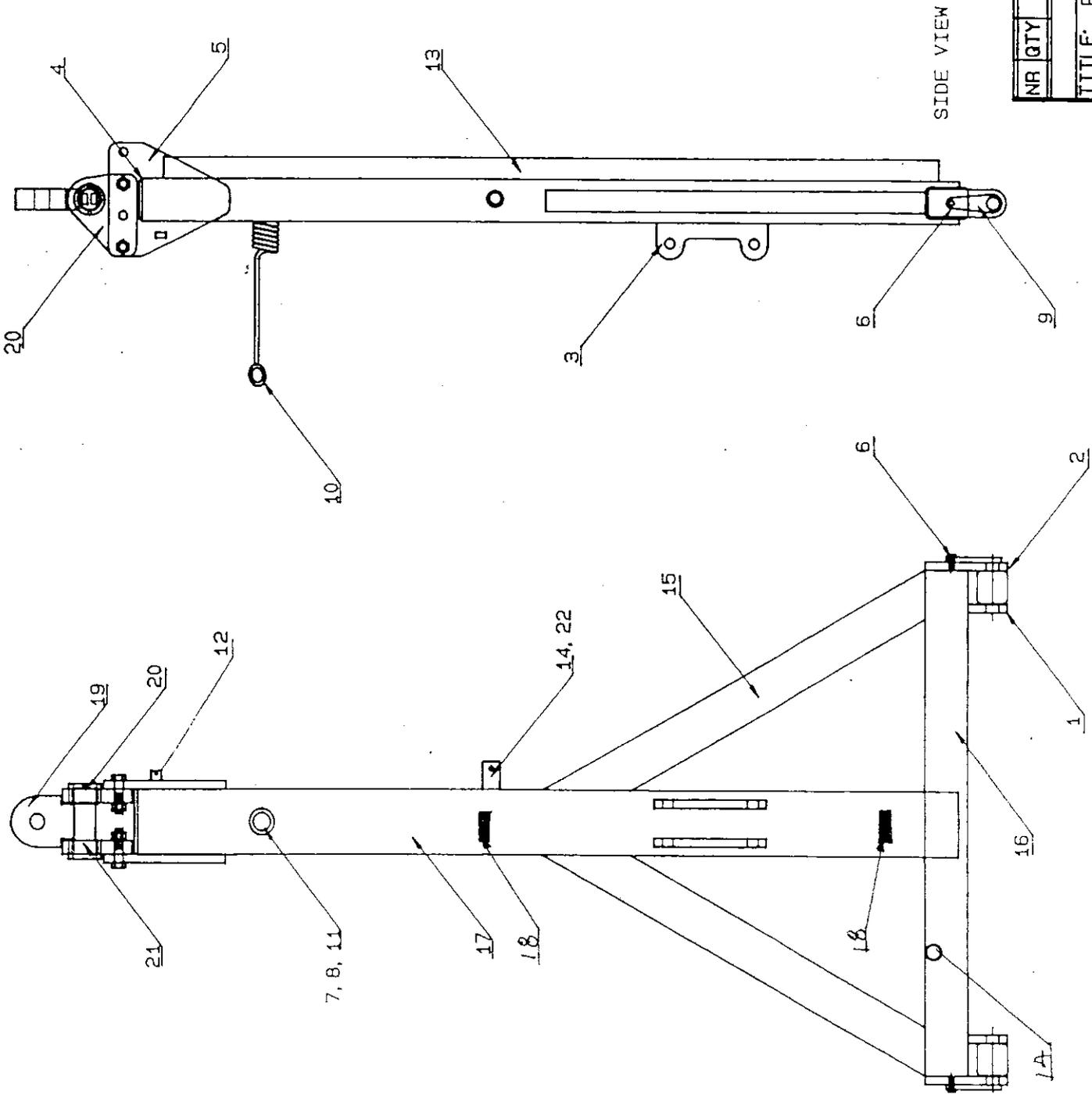
DETAIL (A) TOP VIEW

|                              |               |
|------------------------------|---------------|
| GRIZZLY ENGINEERING PTY. LTD |               |
| TITLE: "H" 24 PLATE          |               |
| PART NO.                     |               |
| SCALE: 1:21                  | DATE: 14-9-89 |
| DRG NO: GAH024               |               |

HEAVY SERIES H24-28 PLATE

PULL ASSEMBLY GHGA0000

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>             | <u>QTY.</u> |
|------------|-----------------|--------------------------------|-------------|
| 1          | CBCFJ000        | PULL BACK LUG INNER            | 2           |
| 2          | CBCFJ001        | PULL LUG OUTER                 | 2           |
| 3          | CBCFJ002        | LEVEL LUG PULL                 | 2           |
| 4          | CFBFE000        | END PLATE                      | 1           |
| 5          | CGCFJ000        | PULL SIDE PLATE                | 2           |
| 6          | FABGA025        | BOLT M12                       | 2           |
| 7          | FABJA045        | BOLT M20                       | 1           |
| 8          | FFBJA000        | NUT NYLOC M20                  | 1           |
| 9          | FBPA135         | PULL PIN                       | 2           |
| 10         | FHKNA440        | SPRING HOSE HOLDER             | 1           |
| 11         | FMAJE000        | F/WASHER 20 ID X 40 OD         | 2           |
| 12         | MAEEA025        | FLAT 25 X 10                   | 1           |
| 13         | MAEHB950        | FLAT 50 X 10                   | 2           |
| 14         | MECFA065A       | PIPE                           | 2           |
| 15         | MHHGB864        | RHS                            | 2           |
| 16         | MHHHB200        | RHS                            | 2           |
| 17         | MHKPB950        | PULL BEAM (RHS)                | 1           |
| 18         | HJBHA000        | BASE PLATE FOR 3/4 HYD HOSE    | 1           |
| 19         | GPEBA000        | PULL TONGUE FLOPPY 40MM X 70MM | 2           |
| 20         | GNDMF001        | S PULL SIDE PLATE RIGHT        | 1           |
| 21         | GNDMF000        | S PULL SIDE PLATE LEFT         | 1           |
| 22         | GKFE0000        | "S" PARKING JACK               | 1           |



SIDE VIEW

| NR                      | QTY | PART, MATERIAL | DIMENSIONS    | PART NO.         |
|-------------------------|-----|----------------|---------------|------------------|
| GRIZZLY ENGINEERING PTY |     |                |               |                  |
| TITLE: PULL ASSY HEAVY  |     |                |               |                  |
| PART NO GHGA0000        |     |                |               |                  |
| SCALE 1:10              |     |                | DATE: 23.8.89 | DRG NO. GHGA0000 |

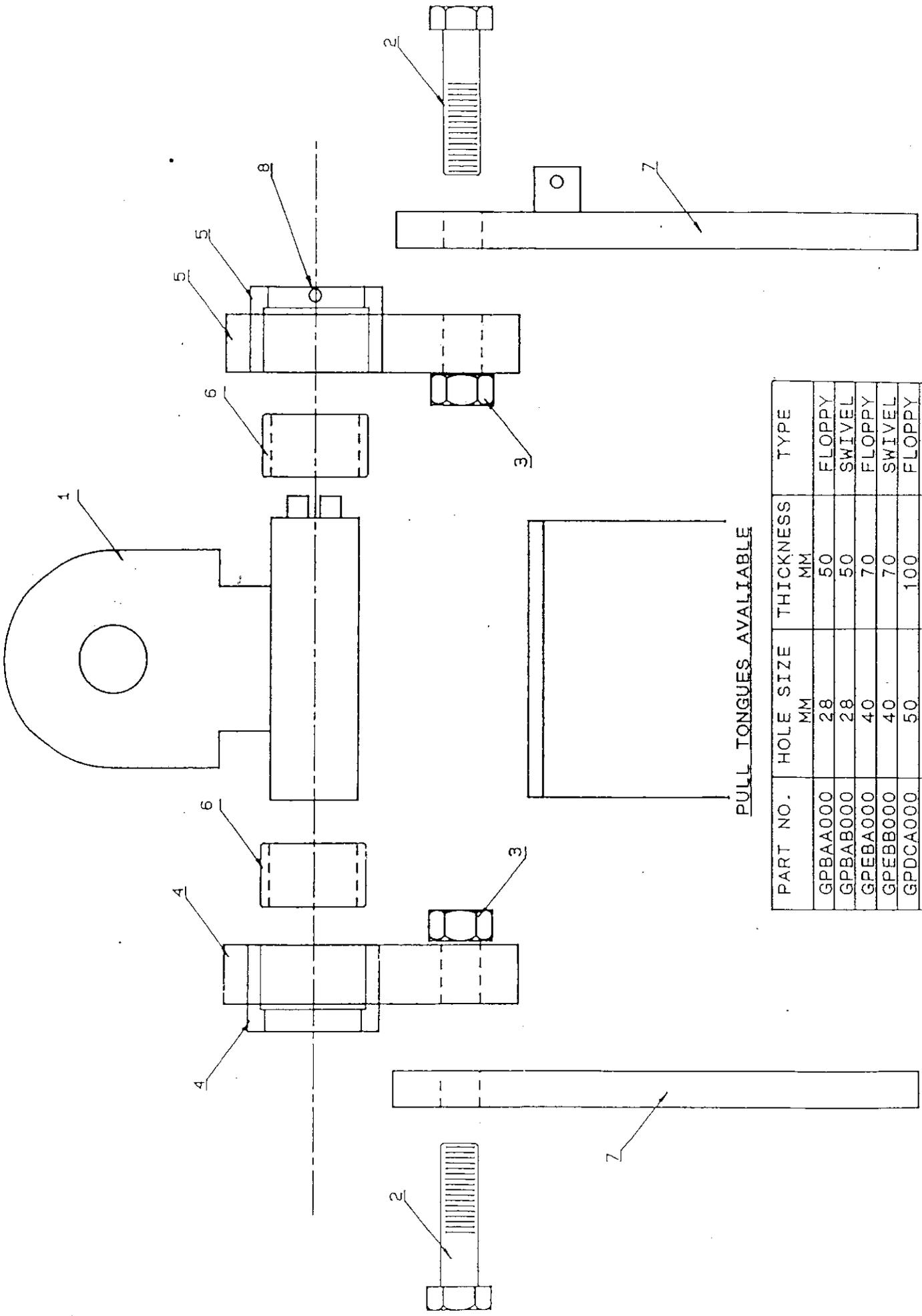
7

TOP VIEW

"H" SERIES

PULL TONGUE AND SIDE PLATES - GPB000000

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>             | <u>QTY.</u> |
|------------|-----------------|--------------------------------|-------------|
| 1          | GPEBA000        | FLOPPY PULL TONGUE 40 X 70MM   | 1           |
| 2          | FABJA080        | M20 BOLT                       | 4           |
| 3          | FFBJA000        | M20 NYLOC NUT                  | 4           |
| 4          | GNDMF000        | "S" PULL SIDE PLATE ASSY LEFT  | 1           |
| 5          | GNDMF001        | "S" PULL SIDE PLATE ASSY RIGHT | 1           |
| 6          | BJEAO035        | VESCONITE BUSH                 | 2           |
| 7          | CGCFJ000        | PULL SIDE PLATE                | 2           |
| 8          | FKBCA000        | R CLIP (HAIR PIN)              | 1           |



PULL TONGUES AVAILABLE

| PART NO. | HOLE SIZE<br>MM | THICKNESS<br>MM | TYPE   |
|----------|-----------------|-----------------|--------|
| GPBAA000 | 28              | 50              | FLOPPY |
| GPBAB000 | 28              | 50              | SWIVEL |
| GPEBA000 | 40              | 70              | FLOPPY |
| GPEBB000 | 40              | 70              | SWIVEL |
| GPDCA000 | 50              | 100             | FLOPPY |
| GPDCB000 | 50              | 100             | SWIVEL |

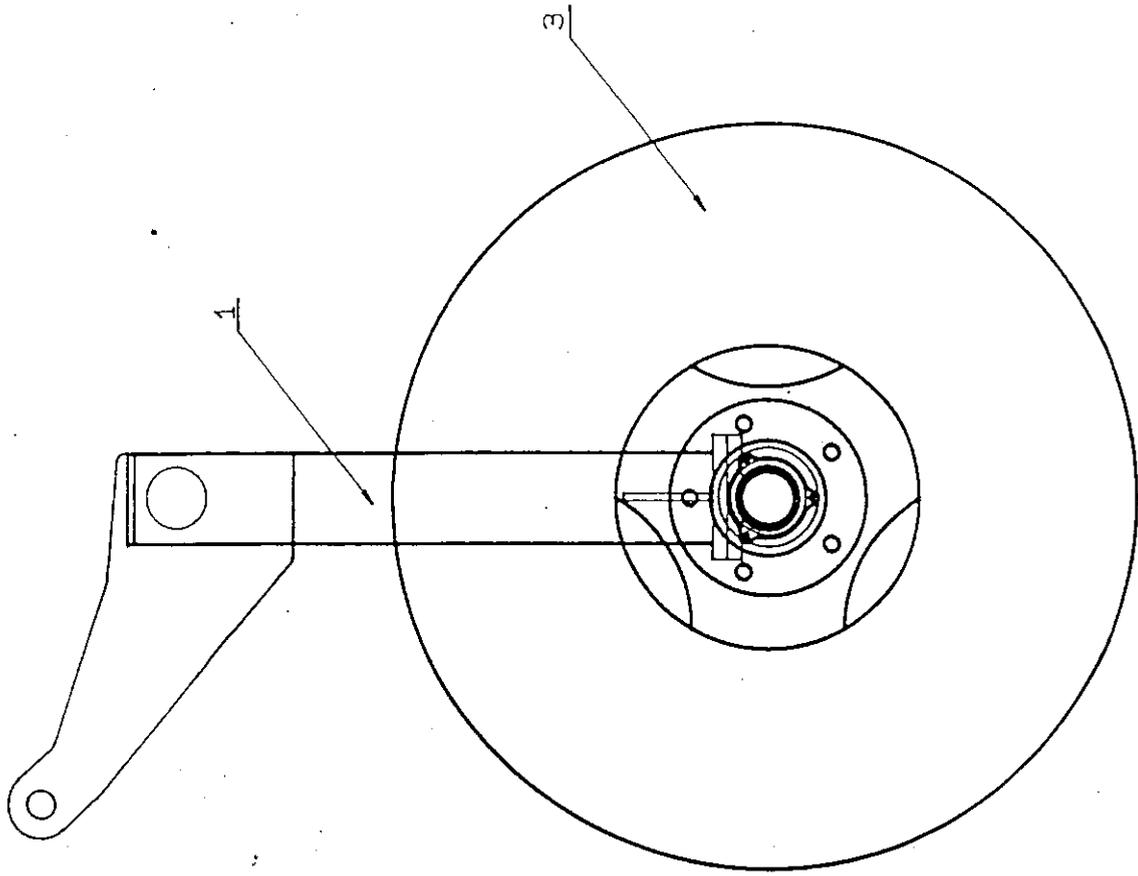
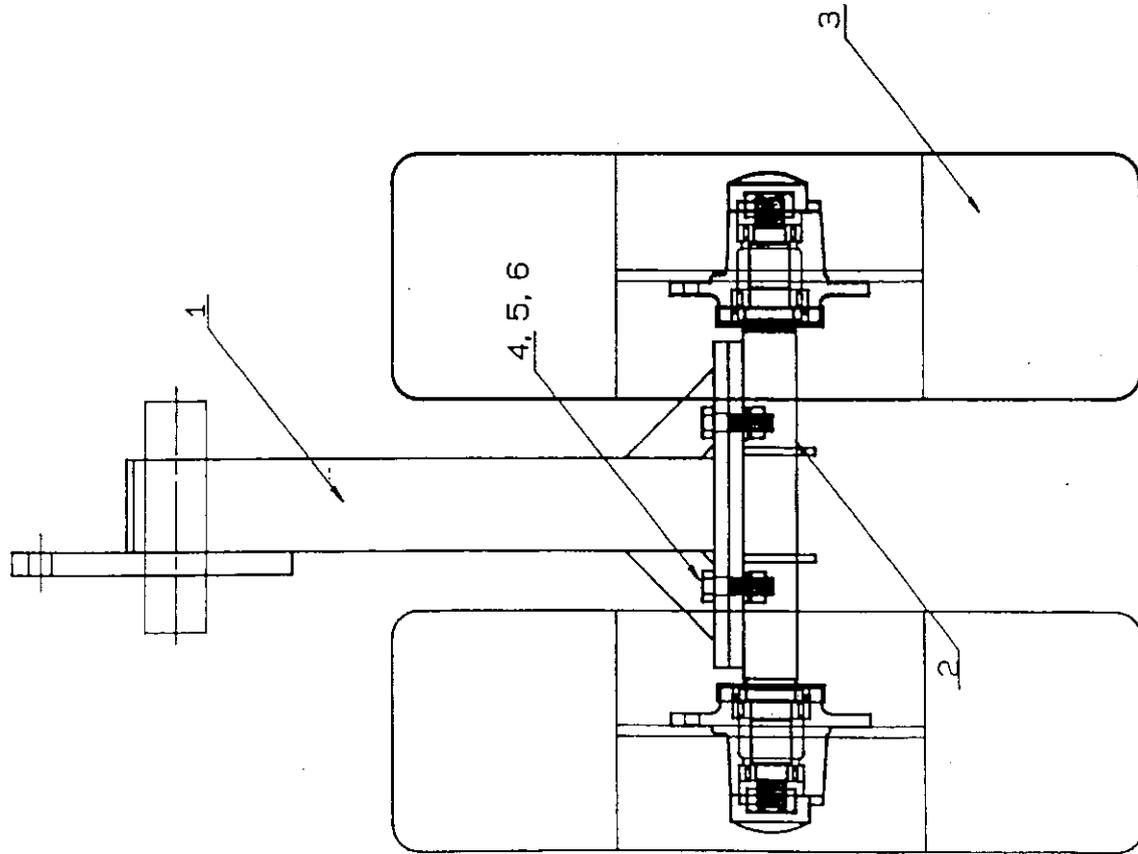
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|----------------------------------|-------------------------|------------|----------|
| QTY                              | PART, MATERIAL          | DIMENSIONS | PART NO. |
|                                  | GRIZZLY ENGINEERING PTY |            |          |
| TITLE: PULL TONGUE & SIDE PLATES |                         |            |          |
| PART NO: VARIOUS                 |                         |            |          |

"H" SERIES FW56/64 PLATE

WHEEL ASSEMBLY H60

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>                 | <u>QTY.</u> |
|------------|-----------------|------------------------------------|-------------|
| 1          | GJHA0001        | WHEEL LIFT ASSEMBLY LEFT           | 1           |
| 2          | WMJAA675        | HUB & STUB ASSY H60 9.00 DUALS     | 1           |
| 3          | WSJDDB00        | H60 RIM & TYRE ASSY 9.00 X 16 8PLY | 2           |
| 4          | FABJA065        | BOLT M20                           | 4           |
| 5          | FFBJA000        | NYLOC NUT M20                      | 4           |
| 6          | FMCJG000        | WASHER 20 ID X 40 OD               | 4           |

NOTE: CHANGE HAS BEEN MADE. REFER TO MASTER FILE.



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| NR | QTY | PART, MATERIAL             | DIMENSIONS     | PART NO.     |
|----|-----|----------------------------|----------------|--------------|
|    |     | GRIZZLY ENGINEERING PTY    |                |              |
|    |     | TITLE: WHEEL ASSY S-SERIES | 9.00           | DUELS        |
|    |     | PART NO                    |                |              |
|    |     | SCALE 1:6                  | DATE: 19.09.88 | DRG NO. SWTV |

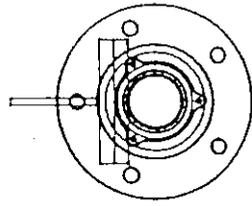
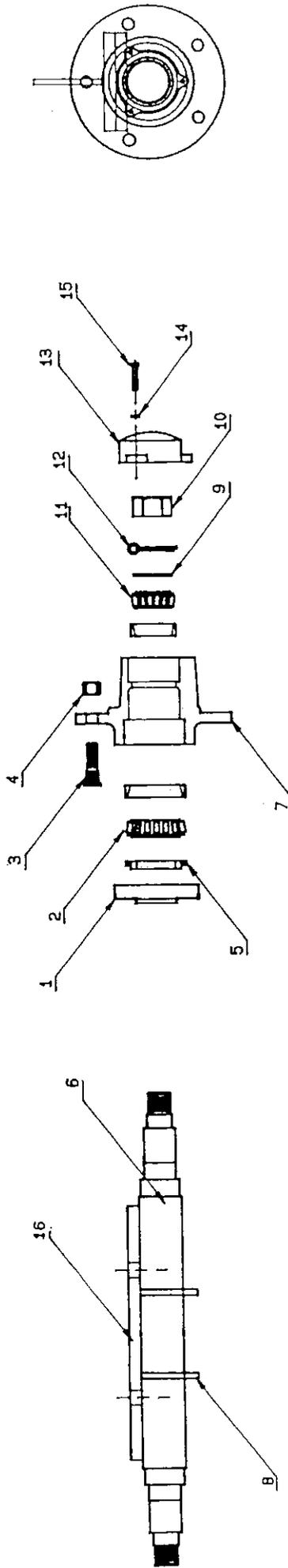
"H" SERIES H24-28 PLATE

HUB & STUB ASSEMBLY - WMJAA675

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>              | <u>QTY.</u> |
|------------|-----------------|---------------------------------|-------------|
| 1          | BNJAA000        | DUST COVER                      | 1           |
| 2          | BBGAA000        | BEARING FOR H60 HUB LARGE       | 1           |
| 3          | FDBHA000        | STUD WHEEL 5/8 X 1 7/8          | 5           |
| 4          | FFFHA000        | NUT WHEEL 5/8                   | 5           |
| 5          | BNJBA000        | SEAL FOR H60 HUB                | 1           |
| 6          | WAJBA675        | H60 STUB AXLE BARE 9 X 16 DUALS | 1           |
| 7          | WJJAA000        | HUB H60 BRG KIT FITTED          | 1           |
| 8          | CAEGE001        | GUSSET H60 AXLE                 | 2           |
| 9          | FMASAK00        | FLAT WASHER                     | 1           |
| 10         | FFCPA000        | NUT SLOTTED                     | 1           |
| 11         | BCJAA000        | BEARING FOR H60 HUB SMALL       | 1           |
| 12         | FKCEA063        | SPLIT PIN                       | 1           |
| 13         | WKJAA000        | CAP FOR H60 HUB                 | 1           |
| 14         | FMBDCB00        | WASHER SPRING 6MM               | 3           |
| 15         | FABDA016        | BOLT M6                         | 3           |
| 16         | CGEFH000        | AXLE BASE PLATE 16MM            | 1           |

NOTE:

- WBJBA675 H60 STUB AXLE ASSY CONSISTS OF ITEMS 6, 8 & 16.
- BAJAA000 H60 BEARING KIT CONSISTS OF ITEMS 2, 5, 11 & 12.
- MACHINES BUILT PRE 1987 MAY HAVE H40 OR H50 HUB AND STUBS FITTED. REFER MASTER FILE FOR MORE INFORMATION.



13

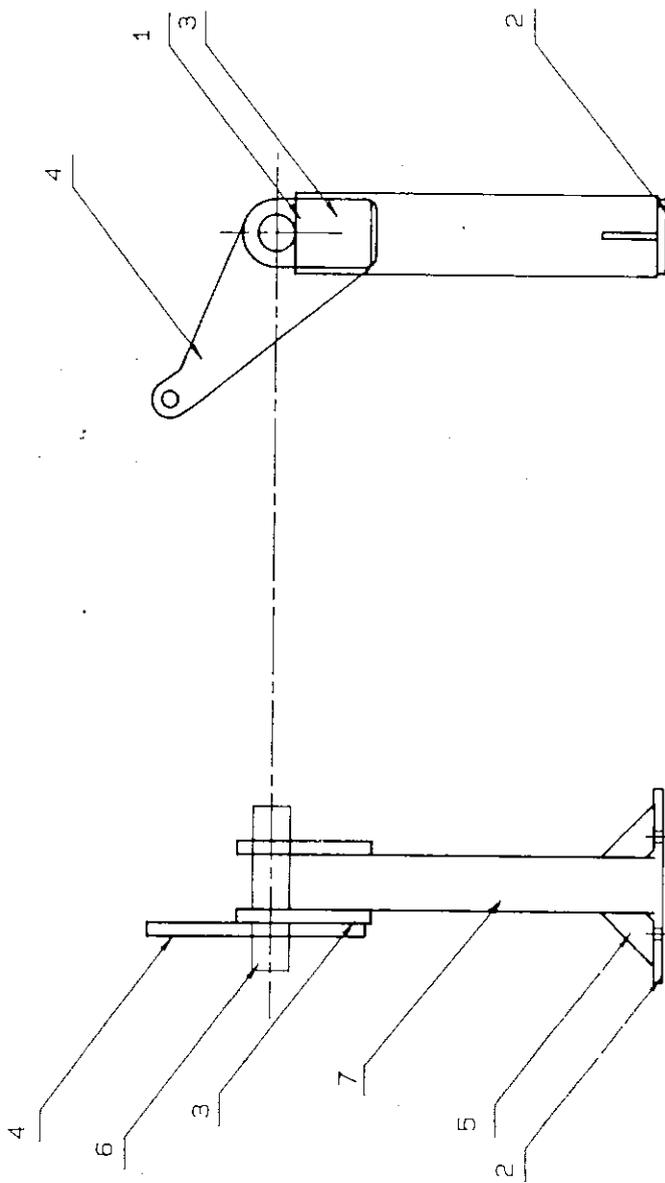
| NR                                 | QTY | PART, MATERIAL  | DIMENSIONS | PART NO.         |
|------------------------------------|-----|-----------------|------------|------------------|
| GRIZZLY ENGINEERING PTY            |     |                 |            |                  |
| TITLE: HUB & STUB ASSY. 9.00 DUELS |     |                 |            |                  |
| PART NO WMJAA675, WBJBA67          |     |                 |            |                  |
| SCALE 1: 6                         |     | DATE: 24. 8. 89 |            | DRG NO. WMJAA675 |

HEAVY SERIES

WHEEL LIFT ASSEMBLY LEFT - GJHA0002

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>     |
|------------|-----------------|------------------------|
| 1          | CFBFE000        | END CAP 8MM            |
| 2          | CGEFH000        | AXLE BASE PLATE 16MM   |
| 3          | CGEHM000        | BUILD PLATE            |
| 4          | CGEHM001        | WHEEL ASSY LIFTING ARM |
| 5          | CJAZG000        | GUSSET                 |
| 6          | MDDJA305        | ROUND                  |
| 7          | MHKPA662        | WHEEL ASSY LEG         |

NOTE: - GHGA0002 WHEEL LIFT ASSEMBLY LEFT IS A MIRROR IMAGE OF  
GHGA0001 WHEEL LIFT ASSEMBLY RIGHT.



ELEVATION

SIDE VIEW

| NR                            | QTY | PART, MATERIAL | DIMENSIONS    | PART NO.         |
|-------------------------------|-----|----------------|---------------|------------------|
| GRIZZLY ENGINEERING PTY       |     |                |               |                  |
| TITLE: WHEEL ASSY. "H" SERIES |     |                |               |                  |
| PART NO GJHA0001              |     |                |               |                  |
| SCALE 1:10                    |     |                | DATE: 24.8.89 | DRG NO. GJHA0001 |

HEAVY SERIES H24-28 PLATE

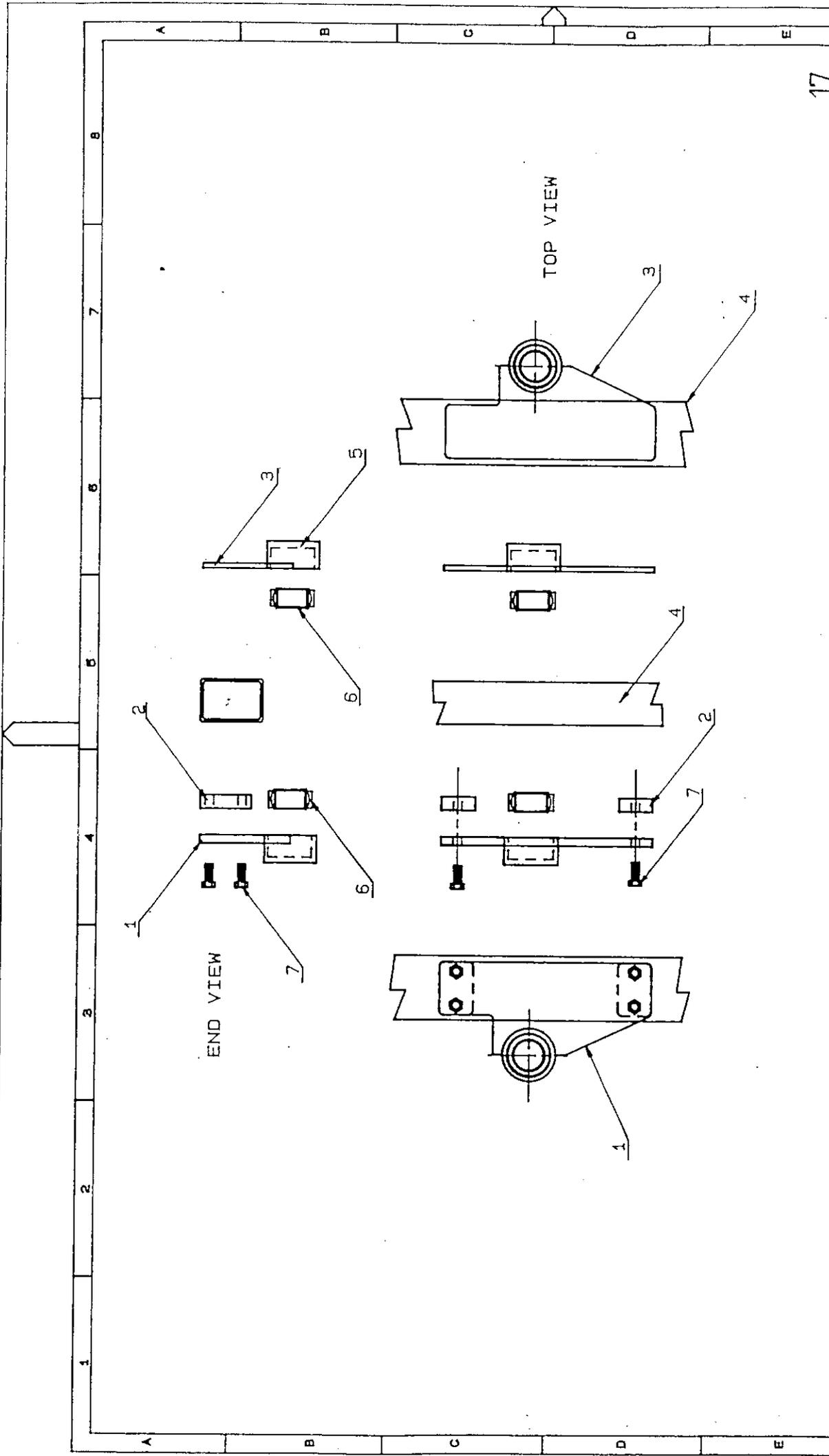
WHEEL LIFT SIDE PLATE ASSEMBLY

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>                | <u>QTY.</u> |
|------------|-----------------|-----------------------------------|-------------|
| 1          | GJHB0000R       | W/A SIDE PLATE ASSY INNER (RIGHT) | 1           |
| 2          | CCEFP000        | W/A SPACER BLOCKS                 | 2           |
| 3          | GJHB0001R       | W/A SIDE PLATE ASSY OUTER (RIGHT) | 1           |
| 4          | MHHND600        | MAIN FRAME BEAM                   | 1           |
| 5          | MFWYA065A       | BALL BUSH HOUSING                 | 2           |
| 6          | BDMZA000        | BALL BUSHING                      | 2           |
| 7          | FABJA045        | BOLT M20                          | 4           |

NOTE: - GJHB0000L - W/A SIDE PLATE ASSY INNER LEFT.

- GJHB0001L - W/A SIDE PLATE ASSY OUTER LEFT.

- LEFT AND RIGHT SPECIFY WHICH SIDE OF THE MACHINE THE WHEEL ASSEMBLY IS LOCATED.



17

GRIZZLY ENGINEERING.

TITLE  
WHEEL ASSY. SIDE PLATE  
BEARING ASSY.

DRAWN  
G. BAILEY

CHECKED

APPROVED

DATE  
27-6-90

SCALE  
NO SCALE

DRAWING NO.  
AS1100

SIDEASSY  
A3

ALL DIMENSIONS IN MILLIMETERS.  
TOLERANCES

LINEAR  $\pm 0.05$

ANGULAR  $\pm 0.5$

CHANGE  
BY CKD

AMENDMENTS.

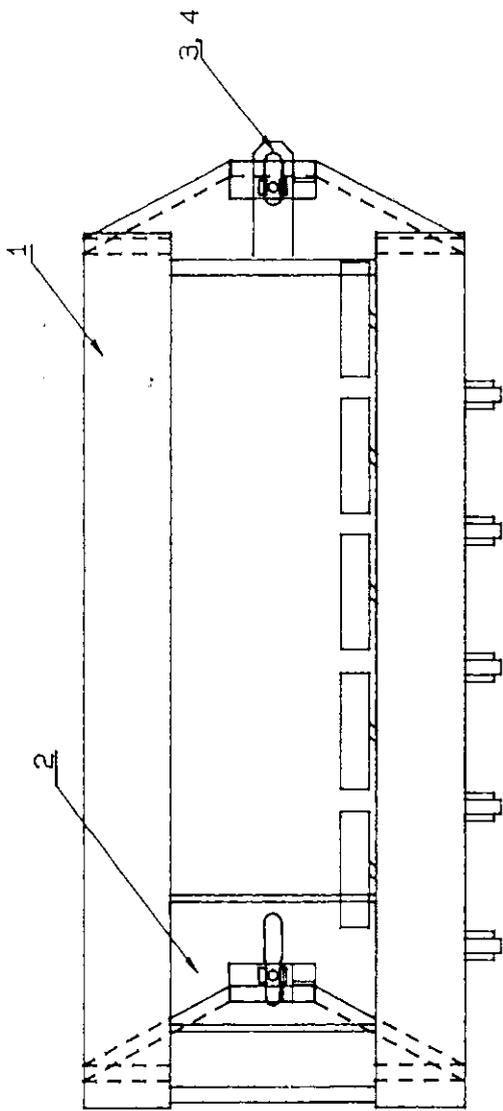
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|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

HEAVY SERIES H24-28

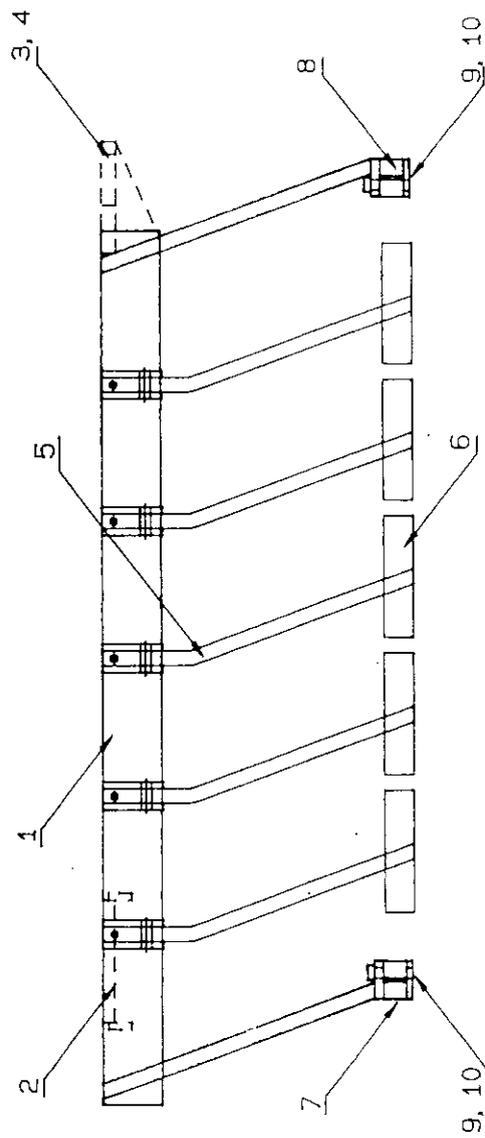
GANG NO. 2 ASSEMBLY - H24G2

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>           |
|------------|-----------------|------------------------------|
| 1          | H24G2           | GANG FRAME                   |
| 2          | LAEJA105        | SLOT 105MM                   |
| 3          | CAAHG001        | PIVOT LUG GUSSET             |
| 4          | CBAHM000        | PIVOT LUG                    |
| 5 *        | GFHBA210        | SCRAPER ASSEMBLY HEAVY RIGHT |
| 6 *        | MCCHA210        | SCRAPER PAD                  |
| 7          | GEGDA000        | AXLE CARRIER SINGLE LEFT     |
| 8          | GEGEA000        | AXLE CARRIER SINGLE RIGHT    |
| 9          | FABHA085        | BOLT M16                     |
| 10         | FFBHA000        | NUT NYLOC M16                |

NOTE: \* GFJBA250 - SCRAPER ASSEMBLY RIGHT ROWCROPPER  
\* MCDNA250 - SCRAPER PAD ROWCROPPER



TOP VIEW



BACK ELEVATION

19

GRIZZLY ENGINEERING PTY. LTD

TITLE: GANG ASSY "H" 24 NO. 2

PART NO.

SCALE: 1: 9.255

DATE: 13-9-89

DRG NO: H2462

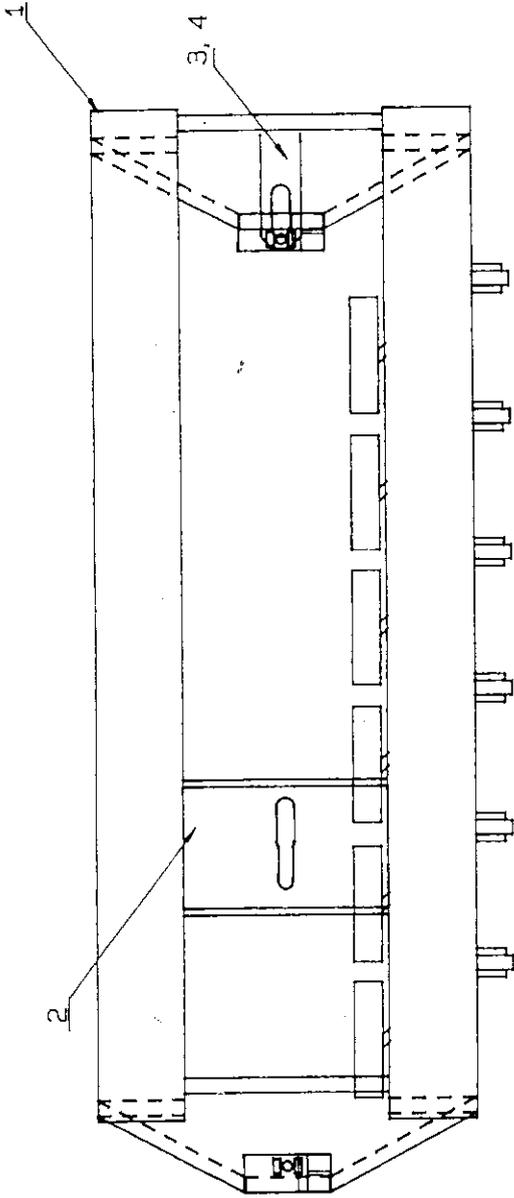
HEAVY SERIES H24-28 / ROWCROPPER

GANG NO.4 ASSEMBLY - H24G4

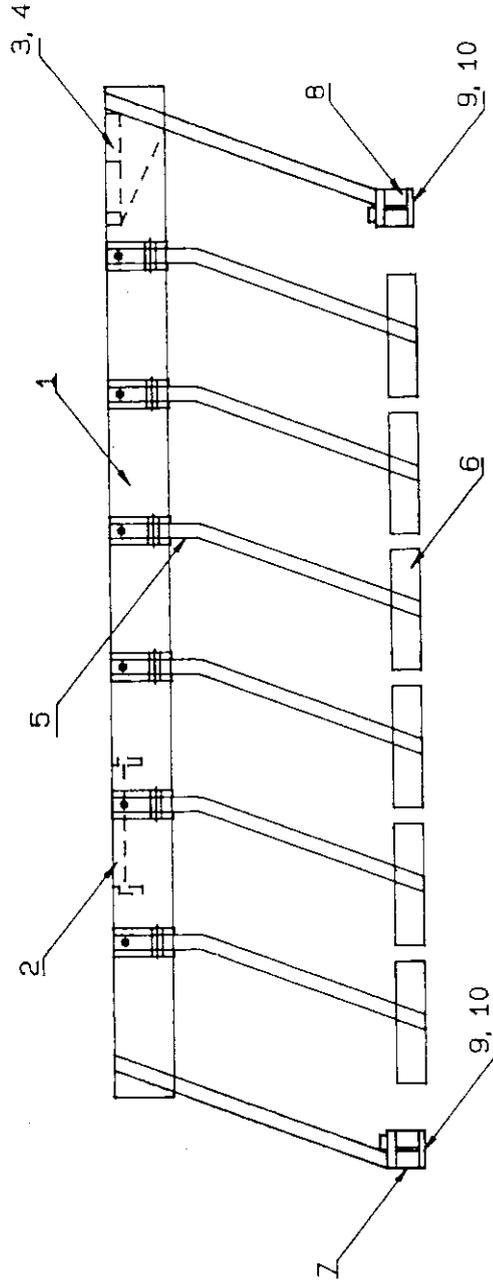
| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>          |
|------------|-----------------|-----------------------------|
| 1          | H24G4           | GANG FRAME                  |
| 2          | LAEJA105        | SLOT 105MM                  |
| 3          | CAAHG001        | PIVOT LUG GUSSET            |
| 4          | CBAHM000        | PIVOT LUG                   |
| 5 *        | GFHAA210        | SCRAPER ASSEMBLY HEAVY LEFT |
| 6 *        | MCCHA210        | SCRAPER PAD                 |
| 7          | GEGDA000        | AXLE CARRIER SINGLE LEFT    |
| 8          | GEGEA000        | AXLE CARRIER SINGLE RIGHT   |
| 9          | FABHA085        | BOLT M16                    |
| 10         | FFBHA000        | NUT NYLOC M16               |

NOTE: \* GFJAA250 - SCRAPER ASSEMBLY LEFT ROWCROPPER

\* MCDNA250 - SCRAPER PAD ROWCROPPER



TOP VIEW



BACK ELEVATION

21

|                              |               |
|------------------------------|---------------|
| GRIZZLY ENGINEERING PTY. LTD |               |
| TITLE: GANG ASSY "H" 24 NO.4 |               |
| PART NO.                     |               |
| SCALE: 1:9.255               | DATE: 13-9-89 |
| DRG NO: H2464                |               |

GANG AXLES USED

| NO. OF DISC | 2 HOLES   | 1 HOLES   | PART NO. |
|-------------|-----------|-----------|----------|
| 3           | MJAMA707A | MJAMA688  |          |
| 4           | MJAMA944A | MJAMA925A |          |
| 5           | MJAMB181A | MJAMB162A |          |
| 6           | MJAMB418A | MJAMB399A |          |
| 7           | MJAMB655A | MJAMB636A |          |
| 8           | MJAMB892A | MJAMB873  |          |

HEAVY SERIES H24-28

GANG ASSEMBLY

DESCRIPTION

| NO. | PART NO. |
|-----|----------|
| 1   | FAAJB260 |
| 2   | GEGDA000 |
| 3   | MGGFA004 |
| 4   | FHCPA035 |
| 5   | BNTAA001 |
| 6   | BPBBA000 |
| 7   | BGB100B1 |
| 8   | BHB100B1 |
| 9   | D26DSB26 |
| 10  | MEGRA230 |
| 11  | CBAFM000 |

6 DISC GANG BOLT M20  
 AXLE CARRIER SINGLE LEFT  
 4MM SPACER  
 GANG SPRING  
 DUST COVER SERIES 11  
 GANG BEARING 38 X 100 SPHERICAL  
 LEAD BEARING HOUSING SERIES II  
 THRUST BEARING HOUSING SERIES II  
 DISC  
 285MM SPOOL  
 AXLE CARRIER KISSING

GANG BOLTS USED

| NO. OF DISC | PART NO. |
|-------------|----------|
| 3           | FAAJA550 |
| 4           | FAAJA790 |
| 5           | FAAJB020 |
| 6           | FAAJB260 |
| 7           | FAAJB490 |
| 8           | FAAJB730 |

NOTE: SERIES I

BGB100B1  
 BHB100B0  
 BNTAA000

BEARING HOUSINGS AND DUST COVER LISTED BELOW.

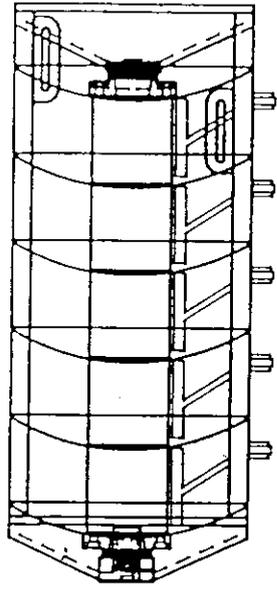
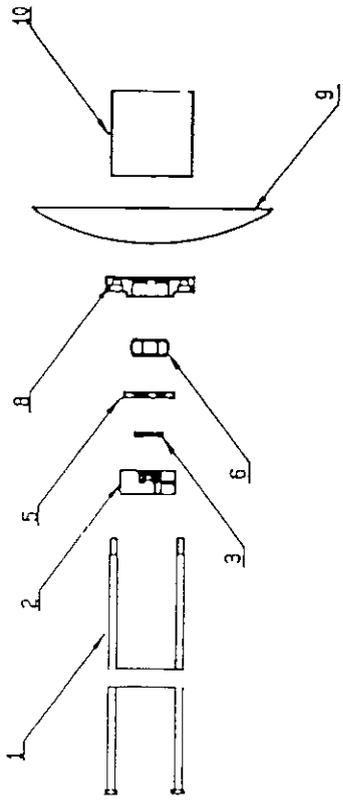
LEAD BEARING HOUSING, SERIES I  
 THRUST BEARING HOUSING, SERIES I  
 DUST COVER WITH NEOPRENE INSERT, SERIES I

FOR MORE INFORMATION ON BEARING HOUSING ASSEMBLIES REFER TO MASTER FILE

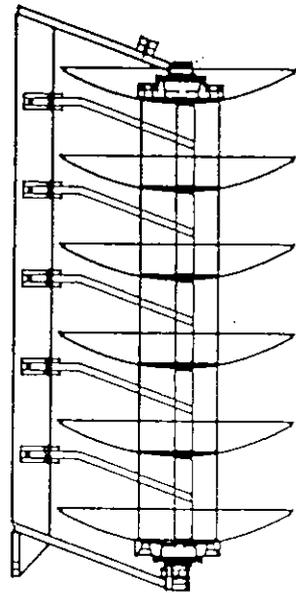
NOTE:

ROWCROPPER GANG ASSEMBLY IS ON NEXT PAGE

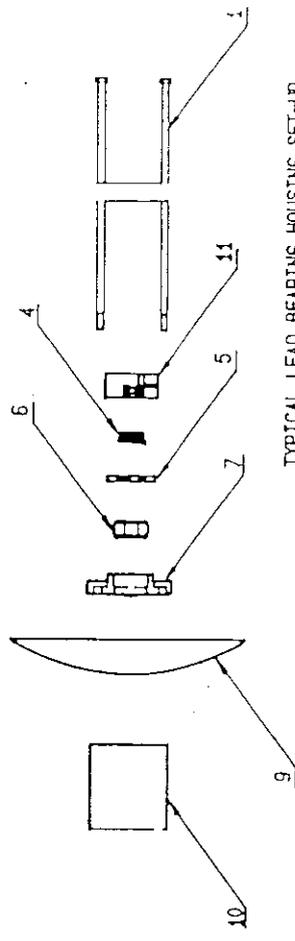
TYPICAL THRUST BEARING HOUSING SET-UP  
ON "S" SERIES MACHINES.



TOP VIEW



BACK ELEVATION



TYPICAL LEAD BEARING HOUSING SET-UP  
ON "S" SERIES MACHINE.

|                                 |              |
|---------------------------------|--------------|
| GRIZZLY ENGINEERING PTY. LTD    |              |
| TITLE: GANG ASSY "S" 48-64 NO.2 |              |
| PART NO.                        |              |
| SCALE: 1:14.8                   | DATE: 4.9.89 |
| DRG NO: S48G2                   |              |

GANG AXLES USED - ROWCROPPER

| NO OF DISCS | PART NO.  |           |
|-------------|-----------|-----------|
|             | 2 HOLES   | 1 HOLE    |
| 3           | MJAMA878A | MJAMA859A |
| 4           | MJAMB172A | MJAMB153A |
| 5           | MJAMB466A | MJAMB447A |
| 6           | MJAMB760A |           |
| 7           | MJAMC054A |           |

"H" SERIES

GANG ASSEMBLY, ROWCROPPER

NO.      PART NO.      DESCRIPTION

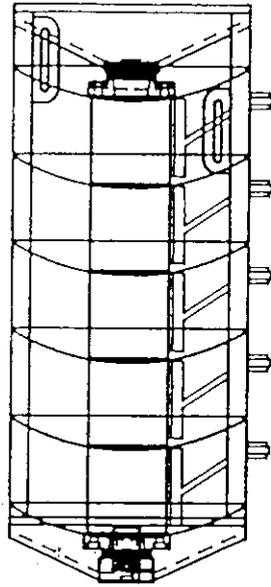
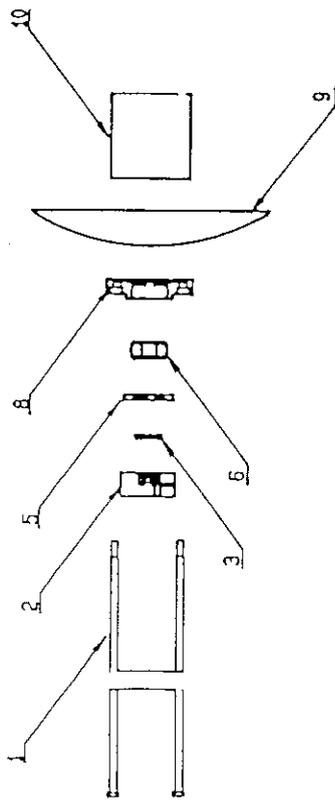
- 1      FAAJB550      6 DISC GANG BOLT M20
- 2      GEGDA000      AXLE CARRIER SINGLE LEFT
- 3      MGGFA004      4MM SPACER
- 4      FHCPA035      GANG SPRING
- 5      BNTAA001      DUST COVER SERIES II
- 6      BPBBA000      GANG BEARING 38 X 100 SPHERICAL
- 7      BGB100B1      LEAD BEARING HOUSING SERIES II
- 8      BHB100B1      THRUST BEARING HOUSING SERIES II
- 9      D28FSB02      DISC 28" X 10mm
- 10      MEGRA285      230MM SPOOL
- 11      CBAFM000      AXLE CARRIER KISSING

GANG BOLTS USED - ROWCROPPER

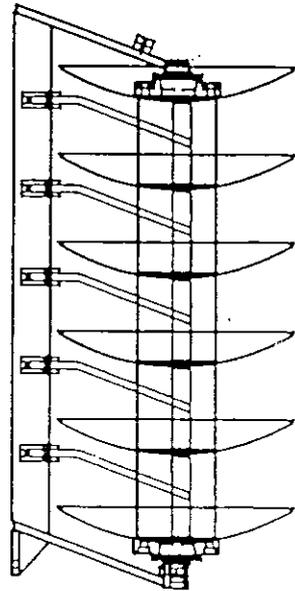
| NO OF DISCS | PART NO. |
|-------------|----------|
| 3           | FAAJA670 |
| 4           | FAAJA970 |
| 5           | FAAJB260 |
| 6           | FAAJB550 |
| 7           | FAAJB844 |

- NOTE:
- SERIES I      BEARING HOUSINGS AND DUST COVER LISTED BELOW.
  - BGB100B0      LEAD BEARING HOUSING, SERIES I
  - BHB100B0      THRUST BEARING HOUSING, SERIES I
  - BNTAA000      DUST COVER WITH NEOPRENE INSERT, SERIES I
  - FOR MORE      INFORMATION ON BEARING HOUSING ASSEMBLIES REFER TO THE MASTER FILE

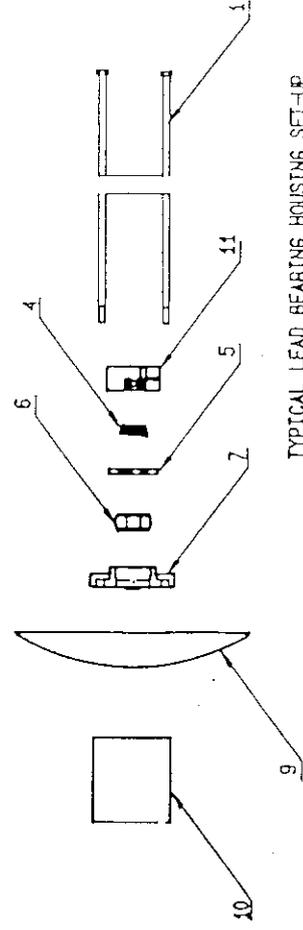
TYPICAL THRUST BEARING HOUSING SET-UP  
ON "S" SERIES MACHINES.



TOP VIEW



BACK ELEVATION



TYPICAL LEAD BEARING HOUSING SET-UP  
ON "S" SERIES MACHINE.

|                              |                          |
|------------------------------|--------------------------|
| GRIZZLY ENGINEERING PTY. LTD |                          |
| TITLE:                       | GANG ASSY "S" 48-64 NO.2 |
| PART NO.                     |                          |
| SCALE:                       | 1:14.8                   |
| DATE:                        | 4.9.89                   |
| DRG NO:                      | S4862                    |

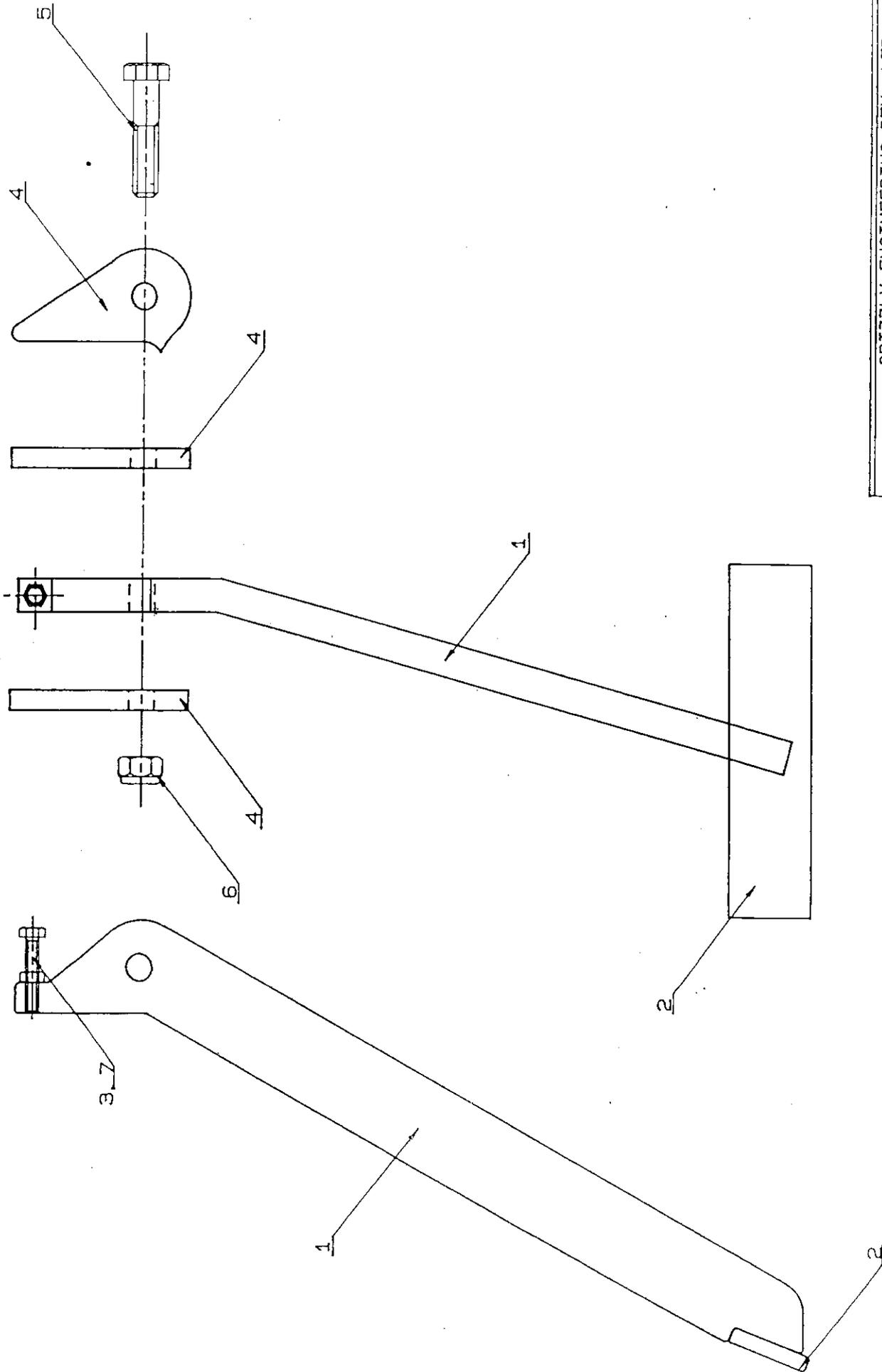
HEAVY SERIES H24-28 PLATE

SCRAPER ASSEMBLY LEFT HEAVY - GFHAA210

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>    |
|------------|-----------------|-----------------------|
| 1          | GFHAA210        | SCRAPER ASSEMBLY LEFT |
| 2          | MCCHA210        | SCRAPER PAD           |
| 3          | FEBEA035        | SET SCREW M8          |
| 4          | CBAGG000        | SCRAPER LUG           |
| 5          | FABHA070        | BOLT M16              |
| 6          | FFBHA000        | NYLOC NUT M16         |
| 7          | FFAEA000        | BLACK NUT M8          |

NOTE:

GFHBA210 -- SCRAPER ASSEMBLY RIGHT, HEAVY.  
GFJAA250 -- SCRAPER ASSEMBLY LEFT, ROWCROPPER  
GDJBA250 -- SCRAPER ASSEMBLY RIGHT, ROWCROPPER  
MCDNA250 -- SCRAPER PAD ROWCROPPER



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|                                    |                |                  |  |
|------------------------------------|----------------|------------------|--|
| GRIZZLY ENGINEERING PTY. LTD       |                |                  |  |
| TITLE: SCRAPER ASSEMBLY LEFI HEAVY |                |                  |  |
| PART NO GFHAA210                   |                |                  |  |
| SCALE: 1:2.31                      | DATE: 26.10.89 | DRG NO: CGFFJ000 |  |

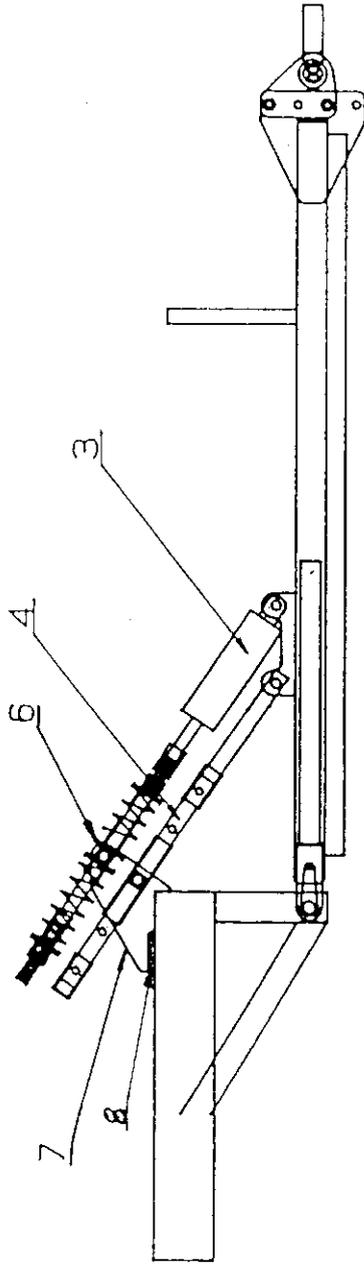
HEAVY SERIES H24/28 PLATE

"S" FOLDING PULL OPTIONS (SPULL)

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>                     |
|------------|-----------------|--|
| 1          | GDFE0000        | LEVELING ROD                           |
| 2          | GDFE0001        | LOCK UP ASSEMBLY - (LEVELING ROD)      |
| 3          | GDFG0000        | HYDRAULIC PITCH CONTROL                |
| 4          | GDFE0002        | LOCK UP ASSEMBLY - (HYD PITCH CONTROL) |
| 5          | GDFJA000        | HYDRAULIC ACCUMULATOR                  |
| 6 *        | GKFA0001        | SWIVEL ASSEMBLY "S" M24 BOLTS          |
| 7 *        | CBBFJ000        | TOP LEVEL LUG                          |
| 8          | MAGPA136        | FLAT                                   |

NOTE: GKFA0000 SWIVEL ASSEMBLY TO SUIT MACHINES PRE SERIAL NO. 487 (M20 BOLTS).

CBBFJ001 TOP LEVEL LUG TO SUIT MACHINES PRE SERIAL NO.487 (M20 BOLTS).



HYDRAULIC PITCH CONTROL  
WITH LOCK-UP

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|                              |               |                |  |
|------------------------------|---------------|----------------|--|
| GRIZZLY ENGINEERING PTY. LTD |               |                |  |
| TITLE: "S" FOLDING PULL      |               |                |  |
| PART NO.                     |               |                |  |
| SCALE: 1:14                  | DATE: 20.9.89 | DRG NO: SFPULL |  |

"H" SERIES

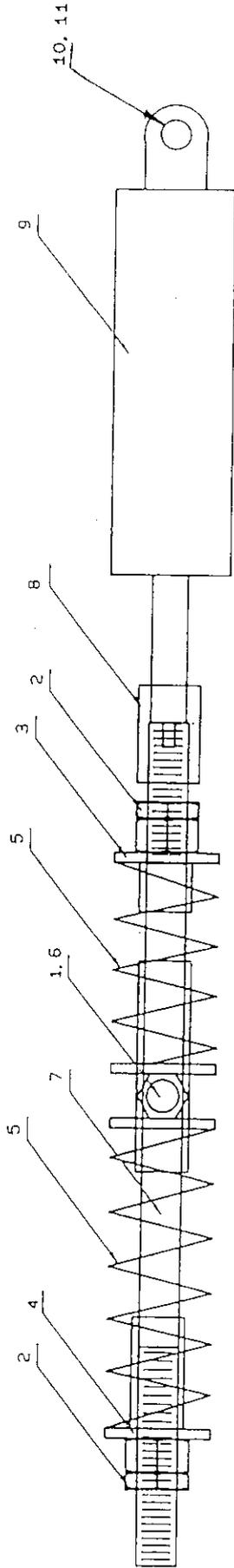
HYDRAULIC PITCH CONTROL - GDFG0000

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>             | <u>QTY.</u> |
|------------|-----------------|--------------------------------|-------------|
| 1          | FABKA050        | BOLT M24                       | 2           |
| 2          | FFDPA000        | HALF NUT 1-1/4 BSW             | 2           |
| 3          | FFGPA040        | SPRING ASSEMBLY NUT 40MM       | 1           |
| 4          | FFGPA090        | SPRING ASSEMBLY NUT 90MM       | 1           |
| 5          | FHNPA240        | SPRING 240MM                   | 2           |
| 6          | * GKFA0001      | "S" SWIVEL ASSEMBLY 24MM BOLTS | 1           |
| 7          | FPJPA760        | THREADED BARE 760MM            | 1           |
| 8          | HHFEZ000        | ADAPTOR (CROSS RAM)            | 1           |
| 9          | HYC250/06       | HYD CYL 2.5" X 6" CROSS        | 1           |
| 10         | FGBKA135        | PIN 1"                         | 1           |
| 11         | FMCMG000        | F/WASHERS                      | 4           |

LEVEL ROD ASSEMBLY

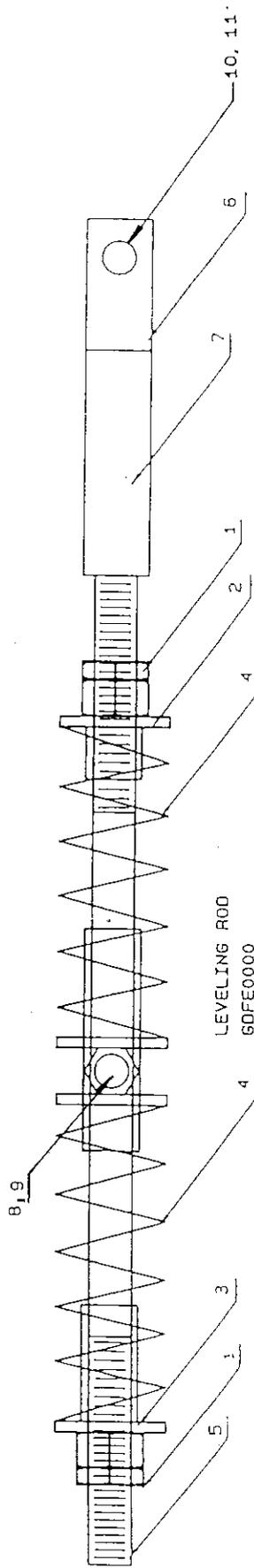
|    |            |                                |   |
|----|------------|--------------------------------|---|
| 1  | FFDPA000   | HALF NUT 1-1/4 BSW             | 2 |
| 2  | FFGPA040   | SPRING NUT ASSY 40MM           | 1 |
| 3  | FFGPA090   | SPRING NUT ASSY 90MM           | 1 |
| 4  | FHNPA240   | SPRING 240MM                   | 2 |
| 5  | FPJPA760   | THREADED BAR 760MM             | 1 |
| 6  | MAEHA100B  | FLAT 50 X 10                   | 2 |
| 7  | MJAPA270A  | SQUARE 50 X 50                 | 1 |
| 8  | * GKFA0001 | "S" SWIVEL ASSEMBLY 24MM BOLTS | 1 |
| 9  | FABKA050   | BOLT M24                       | 2 |
| 10 | FGBKA135   | PIN 1"                         | 1 |
| 11 | FMCMG000   | F/WASHER                       | 4 |

NOTE: \* CHANGE HAS BEEN MADE



HYD PITCH CONTROL OPTN.

GDFG0000



LEVELING ROD

60FE0000

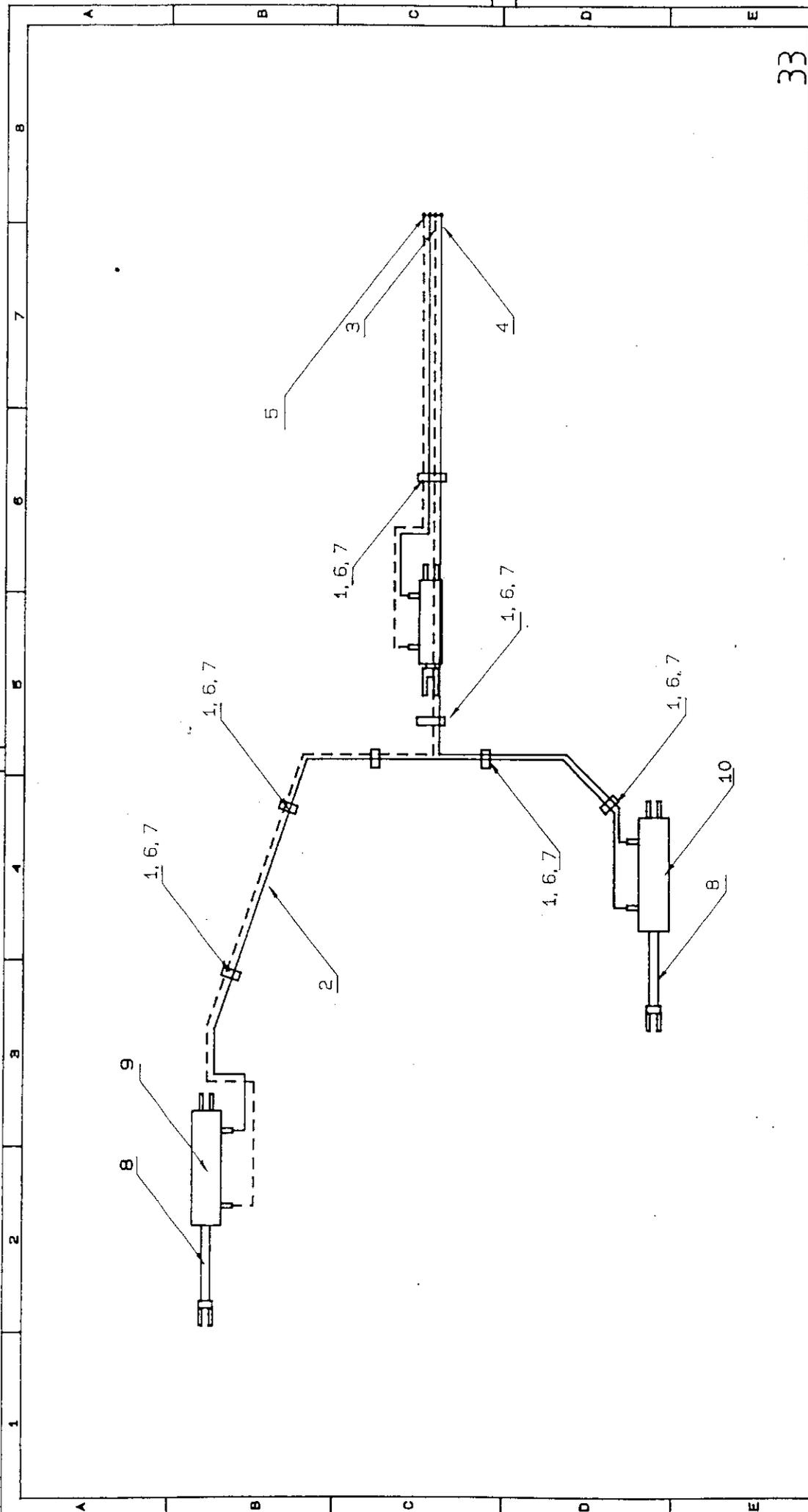
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|                         |     |                |            |                  |
|-------------------------|-----|----------------|------------|------------------|
| NR                      | QTY | PART. MATERIAL | DIMENSIONS | PART NO.         |
| GRIZZLY ENGINEERING PTY |     |                |            |                  |
| TITLE: LEVELING ROD     |     |                |            |                  |
| PART NO GDFE0000        |     |                |            |                  |
| SCALE 1:3               |     | DATE: 19.04.89 |            | DRG NO. GDFE0000 |

"S" SERIES H24-28 PLATE

HYDRAULIC KIT - HFHAC000

| <u>NO.</u> | <u>PART NO.</u> | <u>DESCRIPTION</u>             | <u>QTY.</u> |
|------------|-----------------|--------------------------------|-------------|
| 1          | FABEA045        | BOLT M8 X 45 GRADE 8.8         | 8           |
| 2          | HGCCD300        | HOSE (3,300) HHAKBU07 BOTH END | 1           |
| 3          | HGCAG700        | HOSE (6,700) HHAKBU07 HHAKMU07 | 1           |
| 4          | HGCAF500        | HOSE (5,500) HHAKBU07 HHAKMU07 | 1           |
| 5          | HHDMNW07        | QUICK RELEASE COUPLING 3/4"    | 4           |
| 6          | HJBCA000        | CLAMP SHELL 3/4-3/4            | 16          |
| 7          | HJBFA000        | TOP PLATE FOR 3/4 CLAMP        | 8           |
| 8          | HRDBA285        | TRANSPORT BLOCK (280MM)        | 2           |
| 9          | HZP325/12       | HYDRAULIC CYL 3.25" X 12"      | 1           |
| 10         | HZP350/12D      | HYD CYL 3.5" X 12" D/STOP      | 1           |



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|   |      |                            |     |
|---|------|----------------------------|-----|
| GRIZZLY ENGINEERING.  |      | 6. BAILEY                  |     |
| TITLE   |      | "S" 24PL HYDRAULIC SYSTEM. |     |
| DRAWN   |      | ---                        |     |
| CHECKED   |      | ---                        |     |
| APPROVED  |      | ---                        |     |
| DATE  |      | 3-7-90                     |     |
| SCALE   |      | NO SCALE                   |     |
| DRAWING NO.   |      | HFFA2001                   |     |
| AMENDMENTS.   |      | A3                         |     |
| ALL DIMENSIONS IN MILLIMETERS.<br>TOLERANCES<br>LINEAR $\pm 0.5$<br>ANGULAR $\pm 0.5$ |      | AS1100                     |     |
| ISSUE   | DATE | ZONE                       | BY  |
|   |      |                            | CKD |
|   |      | CHANGE                     |     |

