



OWNER'S MANUAL



FARM GRAPPLE PARTS and INSTRUCTIONS

For Models:

GF3X

GF3U

GF4X

GF4W

1242 ARIZONA AVE.
LARCHWOOD, IA 51241
1-800-570-8205

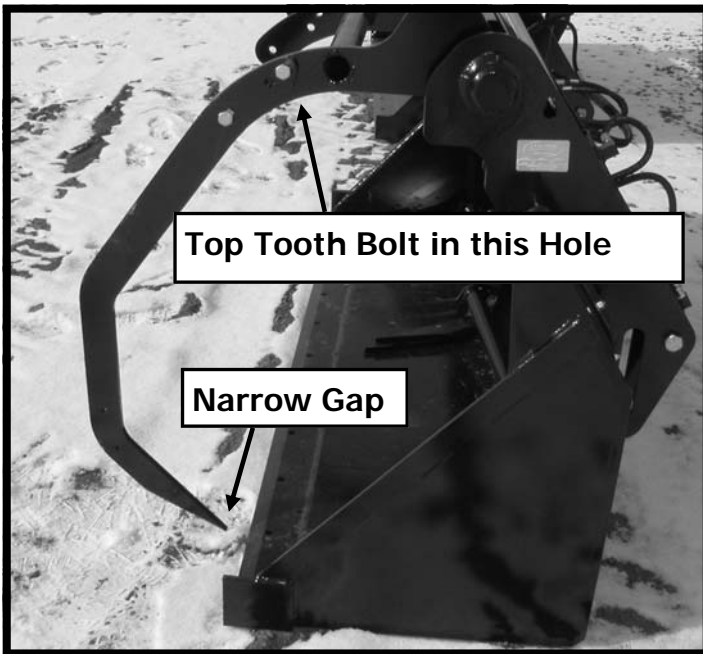


What Model do you have?

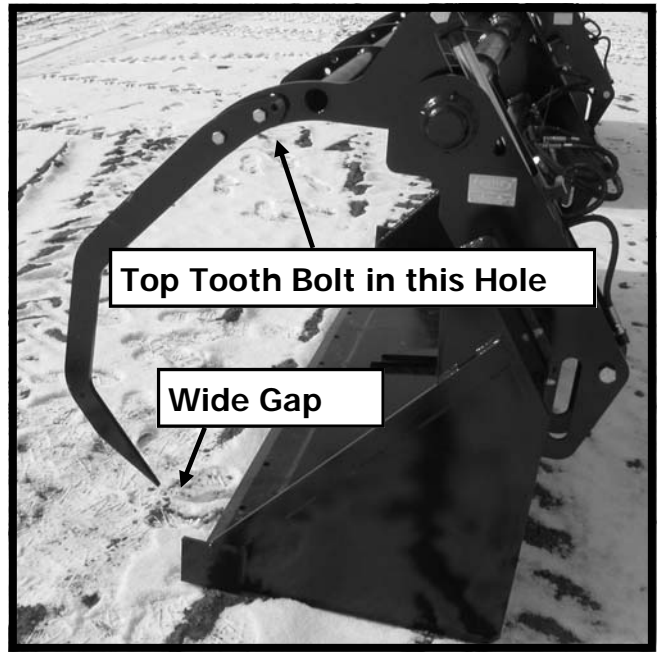




YOUR GRAPPLE HAS AN ADJUSTABLE CLOSING GAP



STANDARD SETTING



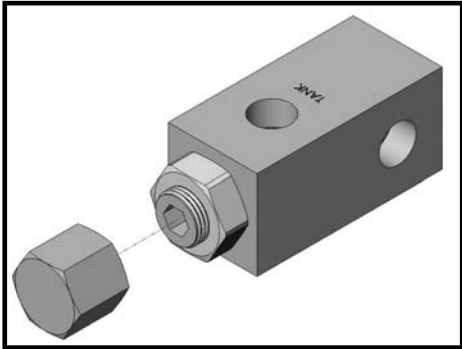
WIDE-GAP SETTING

FOR COMPLETE DIMENSIONS OF YOUR GRAPPLE...

Turn to the "Grapple Specification" page near the end of this booklet.

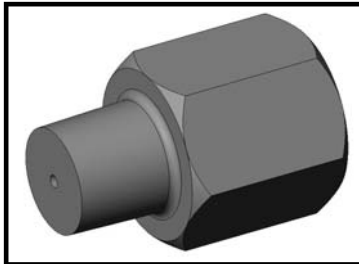


ATTENTION



All Miller Twin-Cylinder Farm Grapples are equipped with a pressure Relief Valve. The relief valve has an adjustable pressure setting between 1000-2500 psi. It comes pre-set from the factory at approximately 2300 psi. This should be more than enough pressure to handle large bales. Without the relief valve, tractors with high-pressure systems (2750 psi and above) eventually bend and distort the grapple teeth, even though the teeth are fabricated from high-strength steel.

To adjust your relief valve, refer to Schematic RD-1837-H.



All Miller Farm Single Cylinder Grapples are equipped with an Orifice. The orifice regulates the flow of hydraulic fluid to the grapple cylinder. Without the orifice, the grapple will open and close too quickly and the wear & tear on the grapple will increase dramatically.

See the appropriate “Plumbing” Schematic for your grapple to determine the location and part number for your orifice or Relief Valve.

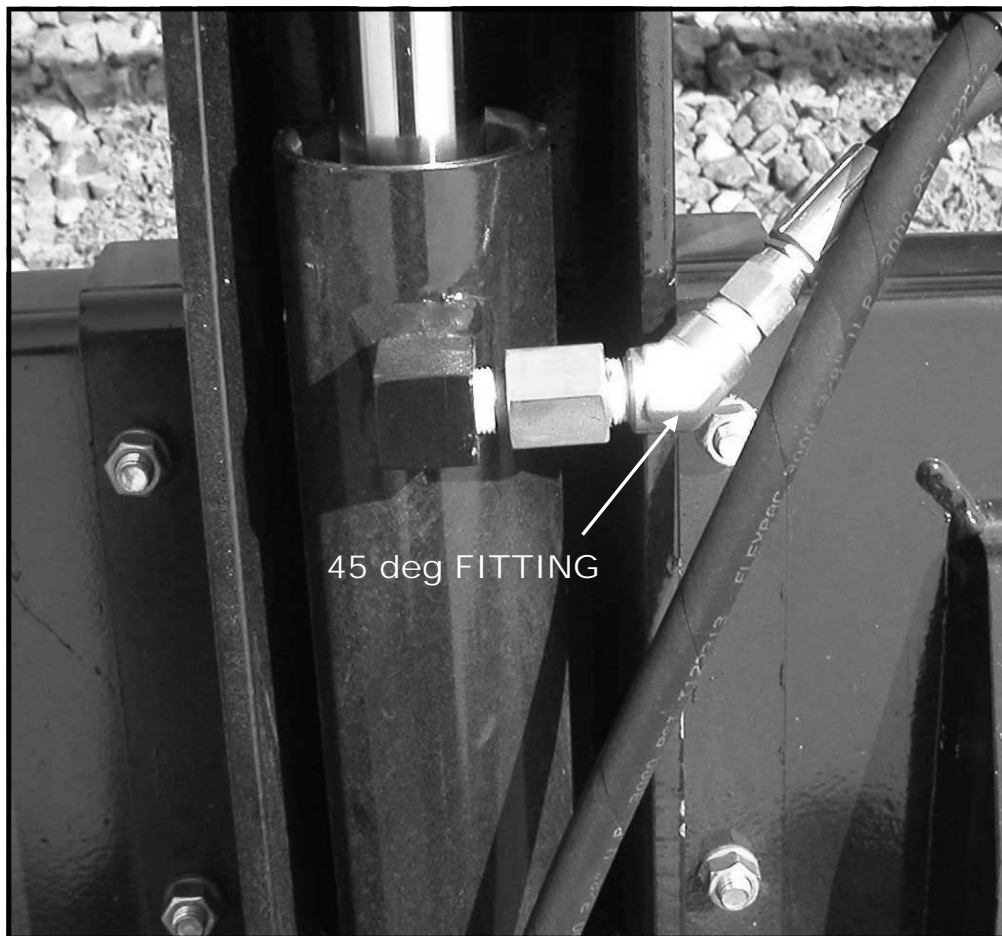


IF YOU REMOVE OR MODIFY YOUR ORIFICE OR RELIEF VALVE, YOUR WILL VOID THE WARRANTY ON YOUR GRAPPLE.





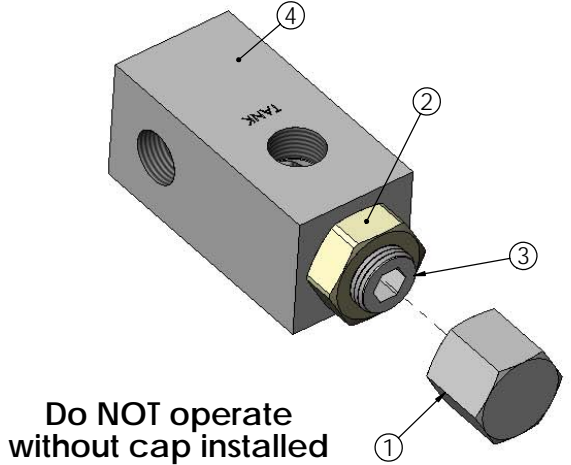
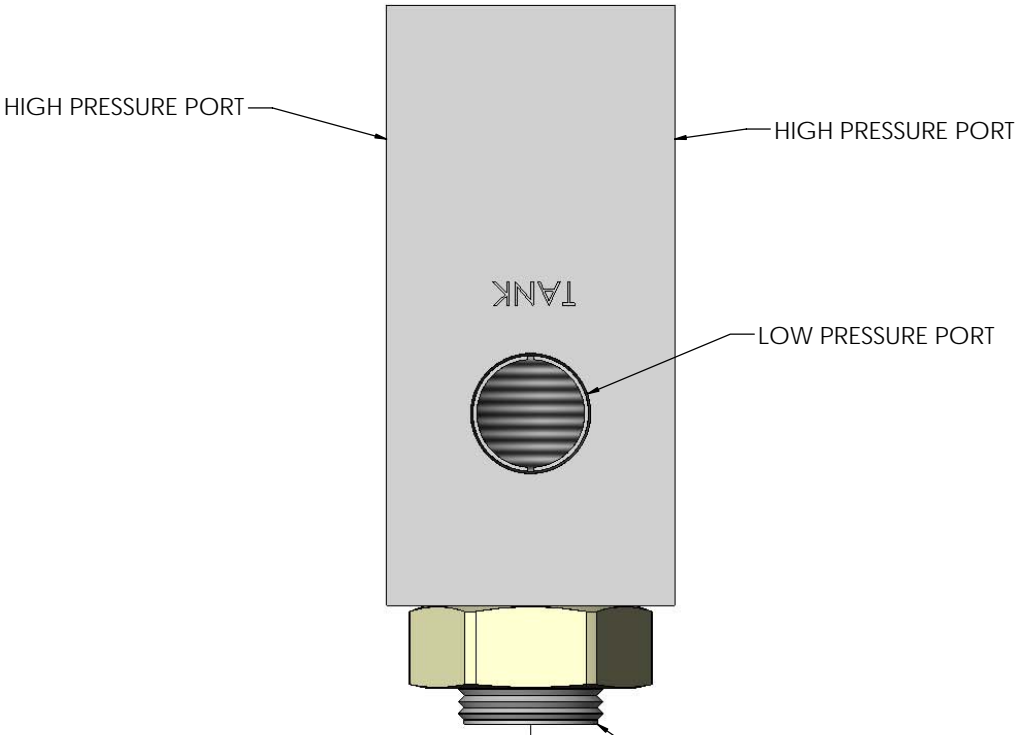
ATTENTION
Owners of GF3X & GF3XU Grapples



POSITION OF 45 degree FITTING ON 3-TINE GRAPPLES.

If this fitting is not installed, or not pointed in the right direction, the hose will hit the mainframe arm when the bucket is rolled back and the grapple is open. This fitting is required on **ALL LOADERS** equipped with a 3-Tine grapple, except the P-12.

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|---------------------|------|
| 1 | RDR-CP | CAP | 1 |
| 2 | RDR-JN | JAM NUT, 3/4-16 UNF | 1 |
| 3 | RDR-SS | SET SCREW | 1 |
| 4 | RDR-B38 | VALVE BODY, 3/8 NPT | 1 |



Do NOT operate without cap installed

MAX. PRESSURE (ABOUT 2500 PSI) ACHIEVED WHEN 2 THREADS OF SET SCREW ARE STICKING OUT BEYOND THE JAM NUT. GENERAL RULE OF THUMB IS A 100 psi REDUCTION IN PRESSURE FOR EVERY 1/4 TURN OUT OF THE SET SCREW.

DO NOT SCREW SET SCREW IN SO FAR THAT THERE ARE NO THREADS LEFT TO SCREW ON CAP. THE CAP IS NECESSARY TO PREVENT LEAKAGE BY THE SET SCREW.

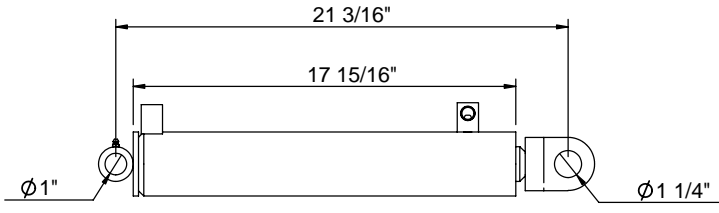
better built
MILLER
farm loaders

SCHEMATIC

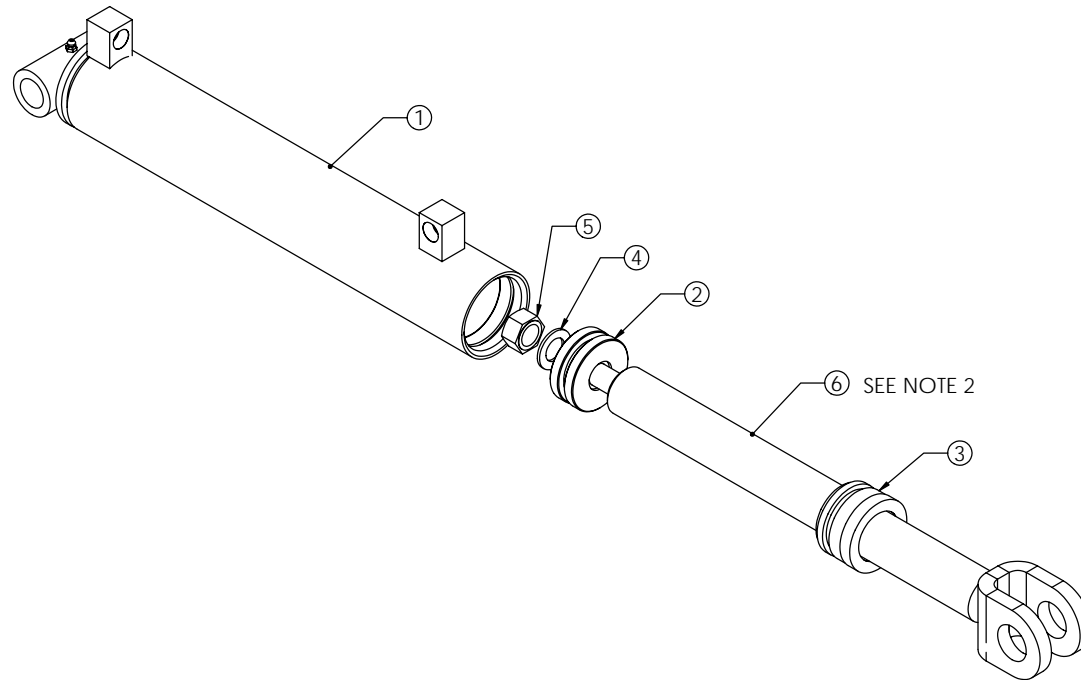
RELIEF VALVE, ADJ. 1000-2500 PSI

DWG. NO. RD1837-H

WEIGHT: 1.991 DATE 2/10/2005 SHEET 1 OF 1



| ITEM NO. | PART NUMBER | DESCRIPTION | EXPLODED/QTY. |
|----------|----------------|---|---------------|
| 1 | CY-046-LT | TUBE ASSY, GF4X GRAPPLE, 14-IN. STK, ORIF, LH | 1 |
| 2 | CP-PS-2575-P | PISTON, 2.500, PH | 1 |
| 3 | CP-GS-2516-S | GLAND, 2516 SHORT-TAIL, STAINLESS | 1 |
| 4 | HW-WS-12-A | WASHER, 3/4, SAE, PLAIN | 1 |
| 5 | HW-NS-12-E | NUT, 3/4-16 UNF, GRC, TL | 1 |
| 6 | CY-013-D | ROD ASSY, FARM GRAPPLE, 1-5/8 x 14 STROKE | 1 |
| 7 | CP-KT-2516-PSS | P-KIT, 2.500 POLY-H, with Stainless Snap Ring | 1 |



CY-046-L
 CYLINDER, FARM GRAPPLE, LH

- NOTES:
1. PACKING KIT SHOWN IN PART LIST, BUT NOT SHOWN IN DRAWING.
 2. CYLINDERS MADE PRIOR TO MARCH '05 HAD A STEEL SNAP RING AND A DUCTILE IRON GLAND.

ALL DIMENSIONS IN INCHES

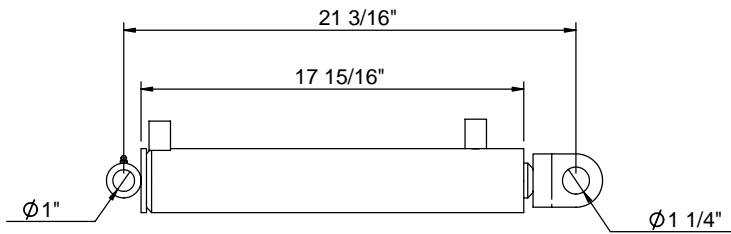
| | |
|-------------|-------------|
| BORE ϕ | 2.500 |
| ROD ϕ | 1.625 |
| STROKE | 13-5/8" |
| PORT STYLE | 3/8 NPT |
| WEIGHT: | 27.249 LBS. |

SCHEMATIC

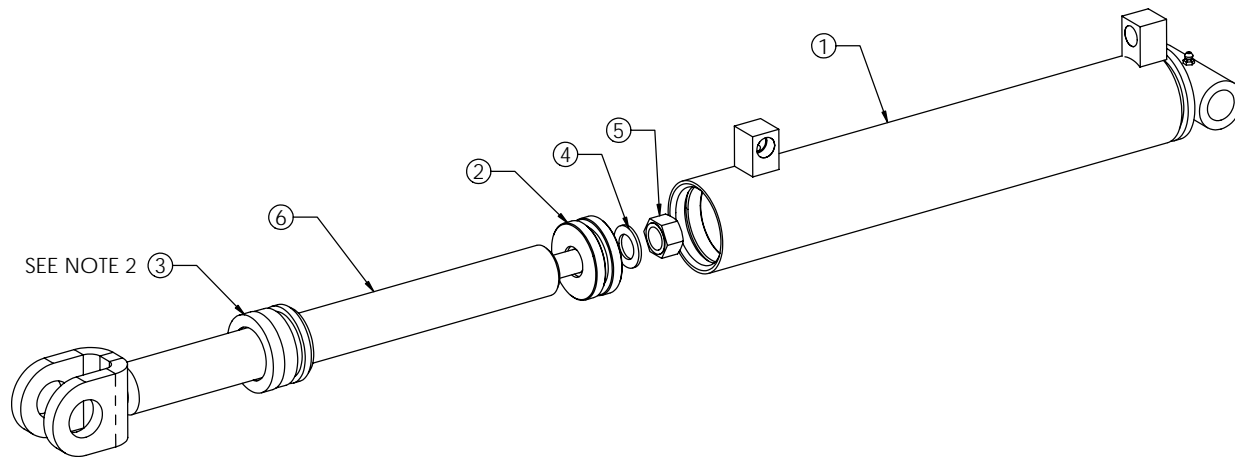
CYLINDER, FARM GRAPPLE, LH

DWG. NO. **CY-046-L**

DATE Wednesday, May 03, 2000 12:10:44 PM



| ITEM NO. | PART NUMBER | DESCRIPTION | EXPLODED/QTY. |
|----------|----------------|---|---------------|
| 1 | CY-046-RT | TUBE ASSY, GF4X GRAPPLE, 14-IN. STK, ORIF, RH | 1 |
| 2 | CP-PS-2575-P | PISTON, 2.500, PH | 1 |
| 3 | CP-GS-2516-S | GLAND, 2516 SHORT-TAIL, STAINLESS | 1 |
| 4 | HW-WS-12-A | WASHER, 3/4, SAE, PLAIN | 1 |
| 5 | HW-NS-12-E | NUT, 3/4-16 UNF, GRC, TL | 1 |
| 6 | CY-013-D | ROD ASSY, FARM GRAPPLE, 1-5/8 x 14 STROKE | 1 |
| 7 | CP-KT-2516-PSS | P-KIT, 2.500 POLY-H, with Stainless Snap Ring | 1 |



SEE NOTE 2 ③

CY-046-R
CYLINDER, GRAPPLE, RH

NOTES:

1. PACKING KIT SHOWN IN PART LIST, BUT NOT SHOWN IN DRAWING.
2. CYLINDERS MADE PRIOR TO MARCH '05 HAD A STEEL SNAP RING AND A DUCTILE IRON GLAND.

ALL DIMENSIONS IN INCHES

| | |
|-------------|-------------|
| BORE ϕ | 2.500 |
| ROD ϕ | 1.625 |
| STROKE | 13-5/8" |
| PORT STYLE | 3/8 NPT |
| WEIGHT: | 27.249 LBS. |



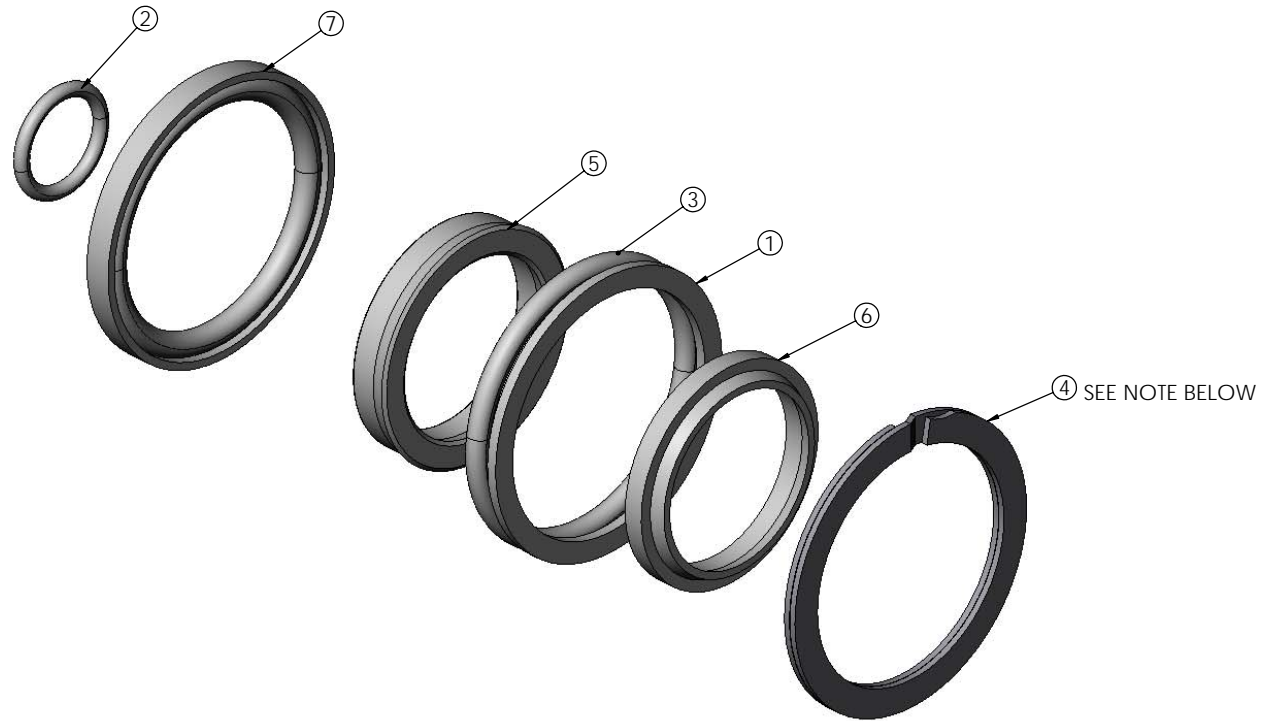
SCHEMATIC

CYLINDER, GRAPPLE, RH


DWG. NO. **CY-046-R**

DATE Wednesday, May 03, 2000 12:10:44 PM

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|--------------|---------------------------------------|------|
| 1 | CP-BU-330A | B/U WASHER, 2.500 OD x .188 x .090 | 1 |
| 2 | CP-RG-210 | O-RING, 1.000 OD x 0.125 | 1 |
| 3 | CP-RG-330 | O-RING, 2.500 OD x 0.188 | 1 |
| 4 | CP-SR-2500SS | SNAP-RING, 2.50 BORE, STAINLESS STEEL | 1 |
| 5 | CP-UC-1625-3 | SEAL, U-CUP, 1.625 ID x .188 x .375 | 1 |
| 6 | CP-WP-1625 | WIPER, 1.625 ROD, TYPE "D" | 1 |
| 7 | CP-PH-2500-G | SEAL, POLY-HONE PKG, 2.500 OD | 1 |

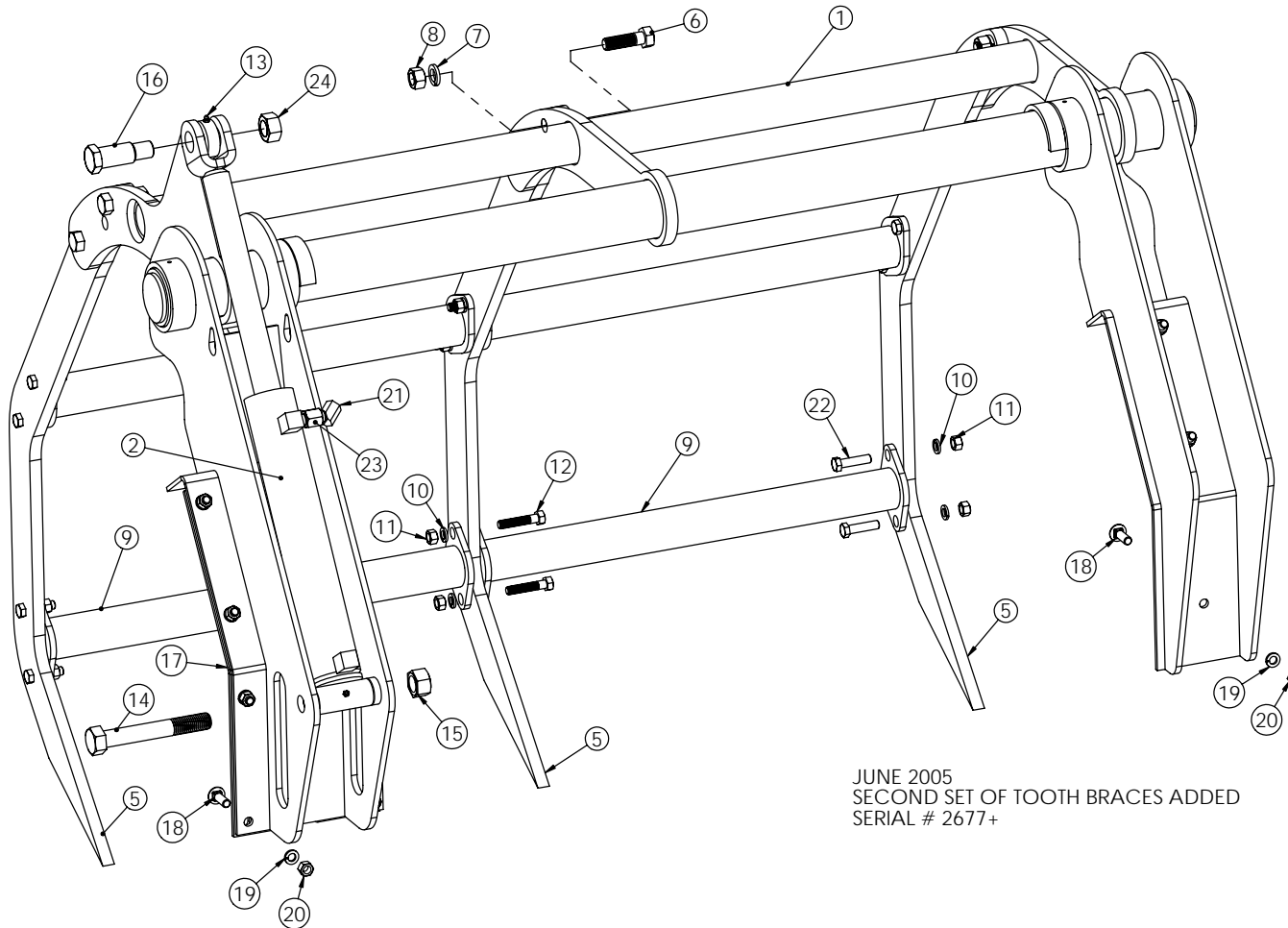


NOTE
 STAINLESS STEEL SNAP RINGS USED ON ALL FARM GRAPPLES STARTING IN FEB. '05. OLDER CYLINDERS CAN BENEFIT FROM THE USE OF THIS SNAP RING, AS IT IS MUCH EASIER TO WORK WITH. STAINLESS STEEL GLANDS ALSO STARTED BEING USED IN FEB '05.

| | |
|---|---|
|  | SCHEMATIC |
| | P-KIT, 2.500 POLY-H, with Stainless Snap Ring |
| PACKING KIT #: CP-KT-2516-PSS | |
| WEIGHT: LB. | DATE Thursday, May 04, 2000 8:10:44 AM |
| SHEET 1 OF 1 | |

| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|-----------------------------------|-------------|
| 1 | GF3X-A | WELDED FRAME, GF3X-GF3XU GRAPPLE | 1 |
| 2 | CY-046-L | CYLINDER, LH | 1 |
| 5 | GF-TX075 | TOOTH, GF4X GRAPPLE, 3/4 THICK | 3 |
| 6 | HW-BS-12-0250-C | BOLT, 3/4-10 X 2 1/2 UNC, G8 ZN | 6 |
| 7 | HW-LS-12-B | LOCKWASHER, 3/4, G8, HI-ALLOY | 6 |
| 8 | HW-NS-12-C | NUT, 3/4-10, G8, ZC | 6 |
| 9 | GF3X-TB | TOOTH BRACE, 3-TINE GRAPPLE | 4 |
| 10 | HW-LS-08-A | LOCKWASHER, 1/2, MED, ZN | 12 |
| 11 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 12 |
| 12 | HW-BS-08-0250-A | BOLT, 1/2-13 x 2-1/2 LONG, GR5 ZN | 4 |
| 13 | HW-ZK-001 | ZERK FITTING, 1/4-28 UNF | 1 |
| 14 | HW-BS-16-0700-B | BOLT, 1-8 X 7 UNC, G8 ZN | 1 |

| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|--|-------------|
| 15 | HW-NS-16-H | NUT, 1-8 UNC, GR. 8, TOP LOCK, ZN | 1 |
| 16 | PN-04000-D10 | PIN, MAINLIFT CYLINDER | 1 |
| 17 | GF4XQ-20 | DOUBLER PLATE, GF4Q GRAPPLE | 1 |
| 18 | HW-BS-0150-B | BOLT, CARRIAGE 1/2 x 1-1/2, G5 ZN | 11 |
| 19 | HW-LS-08-A | LOCKWASHER, 1/2, MED ZN | 11 |
| 20 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 11 |
| 21 | SF-5503-06 | STREET ELBOW, 45 DEGREE, STEEL | 1 |
| 22 | HW-BS-08-0200-A | BOLT, 1/2-13 UNC, GR5 ZN, 2" LONG | 8 |
| 23 | CP-RF06078SS | RESTRICTOR ORIFICE, 3/8 NPT, 0.078, SS | 1 |
| 24 | HW-NS-16-E | NUT, 1-14 UNF GR8 TL, ZN | 1 |




GRAPPLE HOSES (NOT SHOWN)

P-12 LOADER
LONG HOSE PART# HS-06-088-A
SHORT HOSE PART# HS-06-072-A

GL/GP25 & GL/GP30 LOADERS
LONG HOSE PART# HS-06-097-A
SHORT HOSE PART# HS-06-081-A

JUNE 2005
SECOND SET OF TOOTH BRACES ADDED
SERIAL # 2677+



MILLER
farm loaders

SCHEMATIC

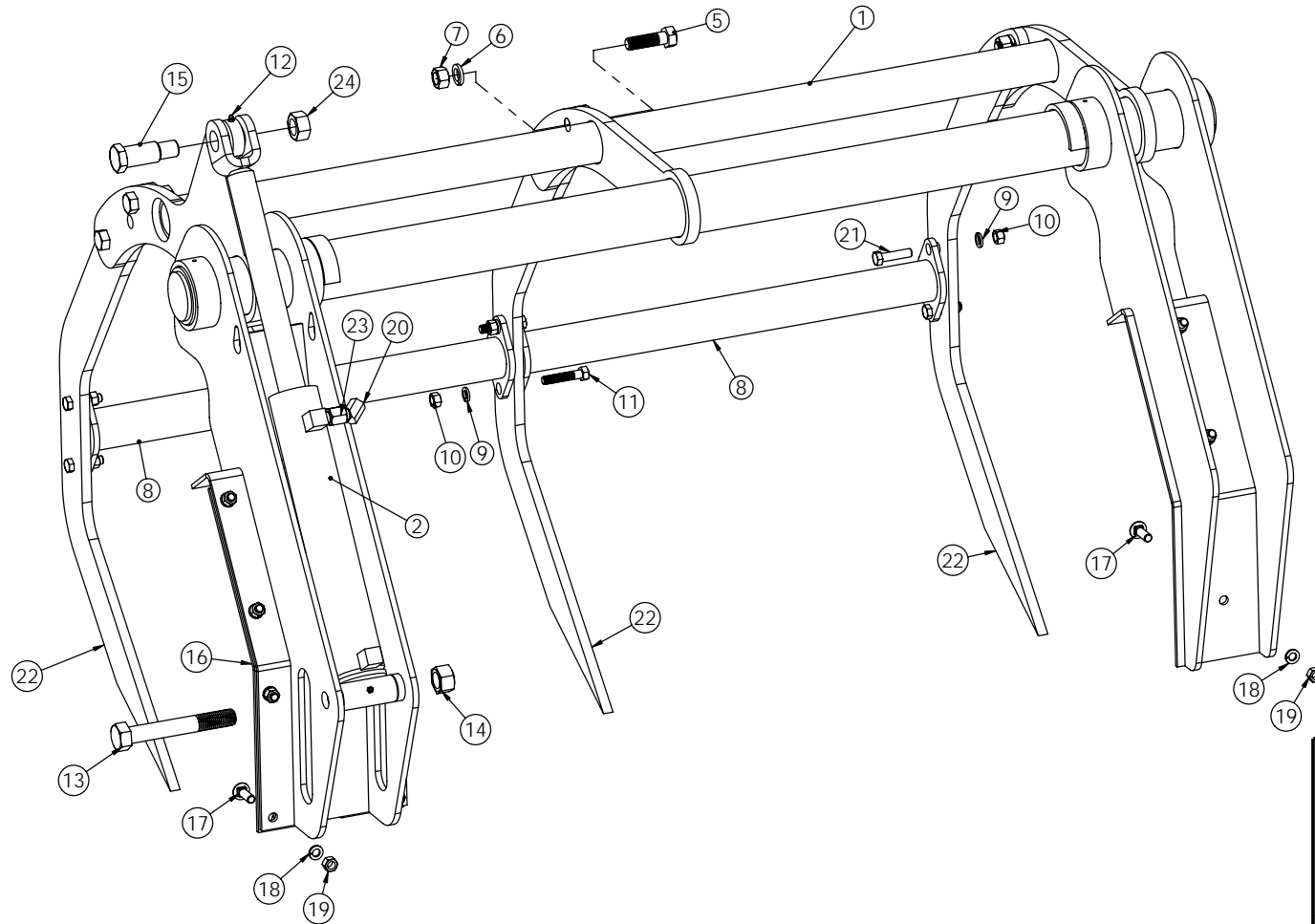
GRAPPLE, MODEL GF3X

DWG. NO. GF3X

WEIGHT: 510.692 LB.
DATE Thursday, May 02, 2002 10:01:27 AM
SHEET 1 OF 1

| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|-----------------------------------|-------------|
| 1 | GF3X-A | WELDED FRAME, GF3X-GF3XU GRAPPLE | 1 |
| 2 | CY-046-L | CYLINDER, LH | 1 |
| 3 | CY-013-D | ROD ASSY, FARM GRAPPLE | 1 |
| 4 | CP-GL-2516-S | GLAND, 2516 SHORT-TAIL | 1 |
| 5 | HW-BS-12-0250-C | BOLT, 3/4-10 X 2 1/2 UNC, G8 ZN | 6 |
| 6 | HW-LS-12-B | LOCKWASHER, 3/4, G8, HI-ALLOY | 6 |
| 7 | HW-NS-12-C | NUT, 3/4-10, G8, ZC | 6 |
| 8 | GF3X-TB | TOOTH BRACE, 3-TINE GRAPPLE | 2 |
| 9 | HW-LS-08-A | LOCKWASHER, 1/2, MED, ZN | 6 |
| 10 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 6 |
| 11 | HW-BS-08-0250-A | BOLT, 1/2-13 x 2-1/2 LONG, GR5 ZN | 2 |
| 12 | HW-ZK-001 | ZERK FITTING, 1/4-28 UNF | 1 |

| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|--|-------------|
| 13 | HW-BS-16-0700-B | BOLT, 1-8 X 7 UNC, G8 ZN | 1 |
| 14 | HW-NS-16-H | NUT, 1-8 UNC, GR. 8, TOP LOCK, ZN | 1 |
| 15 | PN-04000-D10 | PIN, MAINLIFT CYLINDER | 1 |
| 16 | GF4XQ-20 | DOUBLER PLATE, GF4Q GRAPPLE | 1 |
| 17 | HW-BS-0150-B | BOLT, CARRIAGE 1/2 x 1-1/2, G5 ZN | 11 |
| 18 | HW-LS-08-A | LOCKWASHER, 1/2, MED ZN | 11 |
| 19 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 11 |
| 20 | SF-5503-06 | STREET ELBOW, 45 DEGREE, STEEL | 1 |
| 21 | HW-BS-08-0200-A | BOLT, 1/2-13 UNC, GR5 ZN, 2" LONG | 4 |
| 22 | GF-TX625 | TOOTH, GF3XU GRAPPLE | 3 |
| 23 | CP-RF06078SS | RESTRICTOR ORIFICE, 3/8 NPT, 0.078, SS | 1 |
| 24 | HW-NS-16-E | NUT, 1-14 UNF GR8 TL, ZN | 1 |



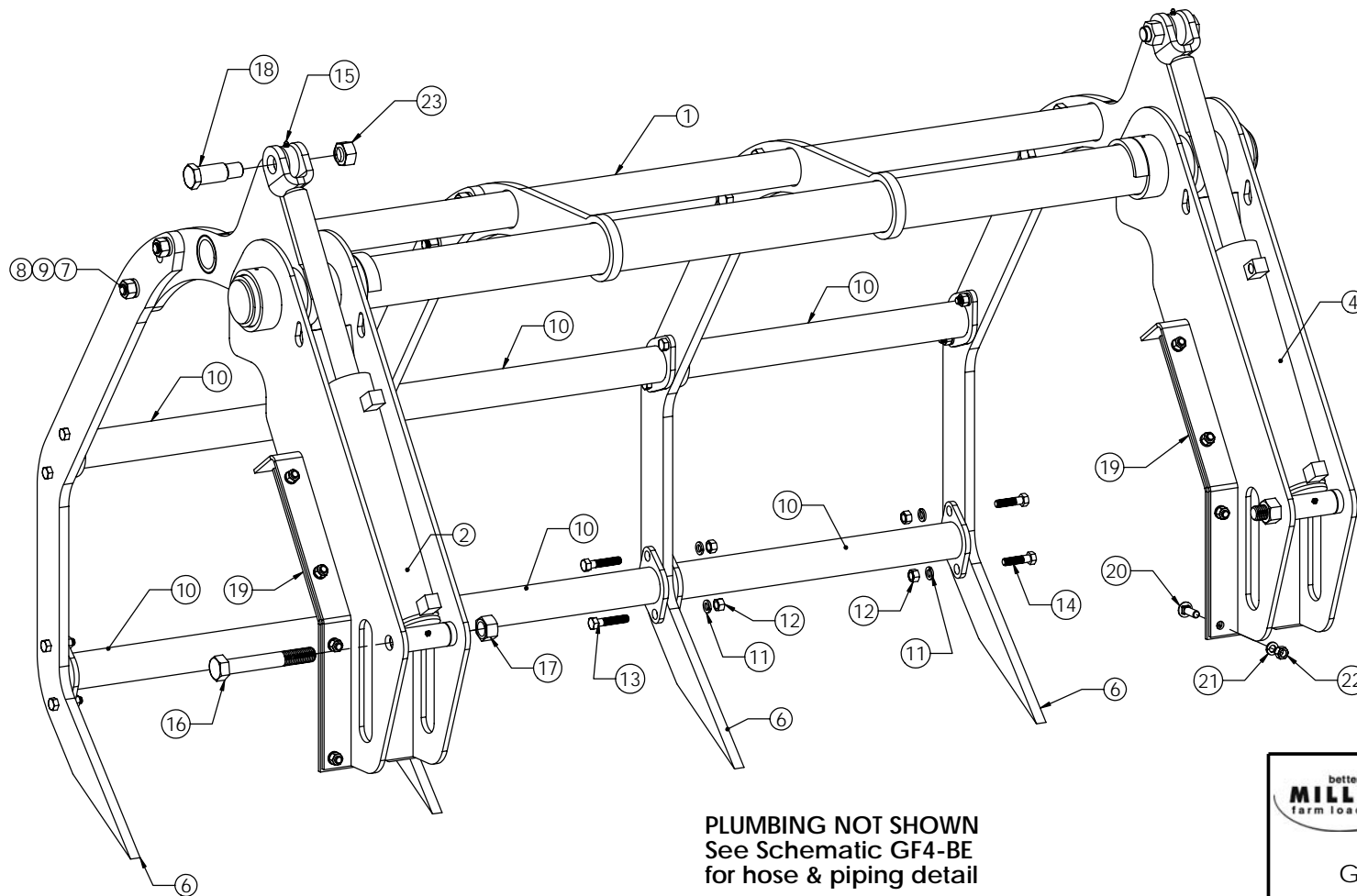
GRAPPLE HOSES (NOT SHOWN)

G15 & G20 LOADER
LONG HOSE PART# HS-06-088-A
SHORT HOSE PART# HS-06-072-A

| | | |
|---------------------|---|--------------|
| | SCHEMATIC | |
| | GRAPPLE, MODEL GF3XU | |
| DWG. NO. GF3XU | | |
| WEIGHT: 447.460 LB. | DATE Thursday, May 02, 2002 10:01:27 AM | SHEET 1 OF 1 |

| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|---------------------------------|-------------|
| 1 | GF4X-A | WELDED ASSEMBLY, GF4X GRAPPLE | 1 |
| 2 | CY-046-L | CYLINDER, LH | 1 |
| 4 | CY-046-R | GRAPPLE CYLINDER, RH | 1 |
| 6 | GF-TX075 | TOOTH, GF4X GRAPPLE, 3/4 THICK | 4 |
| 7 | HW-BS-12-0250-C | BOLT, 3/4-10 X 2 1/2 UNC, G8 ZN | 8 |
| 8 | HW-LS-12-B | LOCKWASHER, 3/4, G8, HI-ALLOY | 8 |
| 9 | HW-NS-12-C | NUT, 3/4-10, G8, ZC | 8 |
| 10 | GF4X-TB23 | TOOTH BRACE, 4-TINE GRAPPLE | 6 |
| 11 | HW-LS-08-A | LOCKWASHER, 1/2, MED, ZN | 16 |
| 12 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 16 |

| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|-----------------------------------|-------------|
| 13 | HW-BS-08-0250-A | BOLT, 1/2-13 x 2-1/2 LONG, GR5 ZN | 8 |
| 14 | HW-BS-08-0200-A | BOLT, 1/2-13 X 2 UNC, G5 ZN | 8 |
| 15 | HW-ZK-001 | ZERK FITTING, 1/4-28 UNF | 2 |
| 16 | HW-BS-16-0700-B | BOLT, 1-8 X 7 UNC, G8 ZN | 2 |
| 17 | HW-NS-16-H | NUT, 1-8 UNC, GR. 8, TOP LOCK, ZN | 2 |
| 18 | PN-04000-D10 | PIN, MAINLIFT CYLINDER | 2 |
| 19 | GF4XQ-20 | DOUBLER PLATE, GF4Q GRAPPLE | 2 |
| 20 | HW-BS-0150-B | BOLT, CARRIAGE 1/2 x 1-1/2, G5 ZN | 16 |
| 21 | HW-LS-08-A | LOCKWASHER, 1/2, MED ZN | 16 |
| 22 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 16 |
| 23 | HW-NS-16-E | NUT, 1-14 UNF GR8 TL, ZN | 2 |



PLUMBING NOT SHOWN
See Schematic GF4-BE
for hose & piping detail



SCHEMATIC

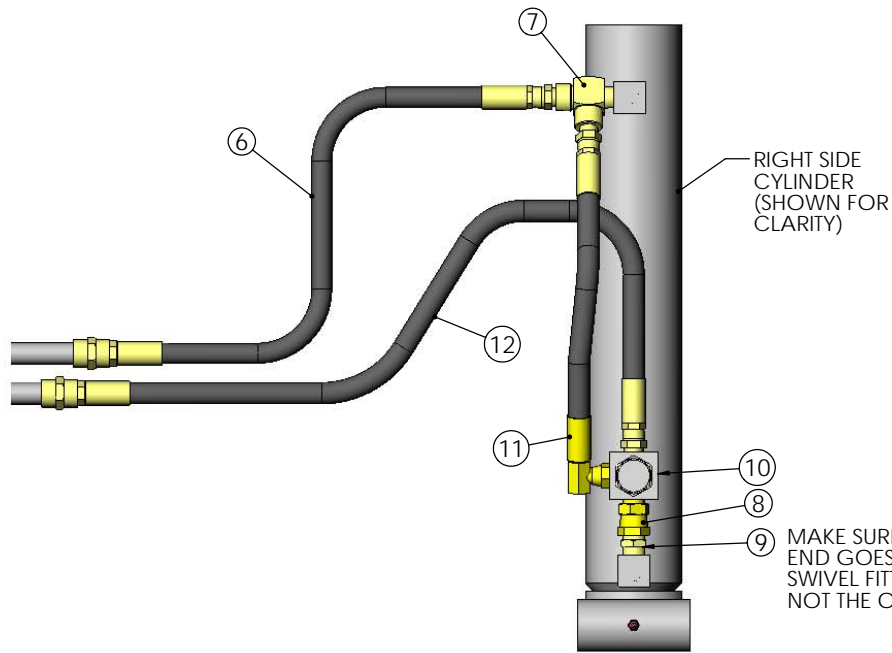
GRAPPLE, MODEL GF4X

DWG. NO. GF4X

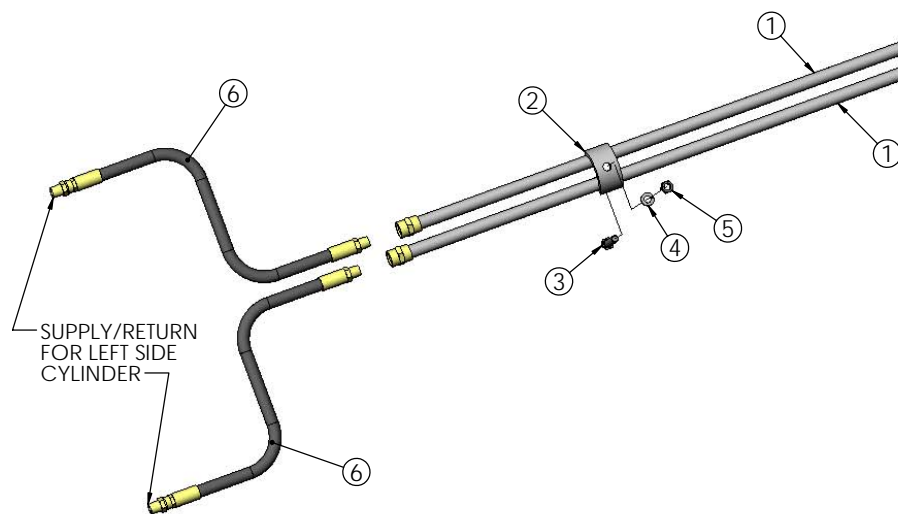
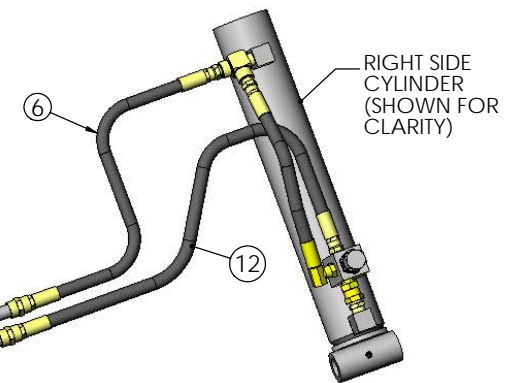
WEIGHT: 667.471

DATE 6/10/2005

SHEET 1 OF 1



| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-----------------|-----------------------------------|------|
| 1 | HP-GF4 | PIPE ASSEMBLY, 4 TOOTH GRAPPLE | 2 |
| 2 | GF4T-16 | PIPE BRACKET, 4T GRAPPLE | 2 |
| 3 | HW-BS-06-0200-A | BOLT, 3/8-16 UNC, GR5 ZN, 2" LONG | 2 |
| 4 | HW-LS-06-A | LOCKWASHER, 3/8, ZN | 2 |
| 5 | HW-NS-06-A | NUT, 3/8-16 UNC TL, ZN | 2 |
| 6 | HS-06-025-A | HOSE, 3/8 MP-MPX, 25-IN. LONG | 3 |
| 7 | SF-5602-06 | STREET TEE, 3/8 NPT | 1 |
| 8 | SF-1404-06-06 | MALE SWIVEL ADAPTER, -3/8 NPT | 1 |
| 9 | SF-5404-06 | HEX PIPE NIPPLE, 3/8 NPT | 1 |
| 10 | RD1837-H | RELIEF VALVE, ADJ. 1000-2500 PSI | 1 |
| 11 | HS-06-0115-A | HOSE, 3/8 MPX-MPX90, 11-1/2" LONG | 1 |
| 12 | HS-06-025-A | HOSE, 3/8 MP-MPX, 25-IN. LONG | 1 |



GF4X Grapple

APPLICATIONS:
GF4X grapples made from
June '05 - Current

Serial # Range: 2635, 2688 - Current



SCHEMATIC

GF4X PLUMBING KIT "BE"

DWG. NO. GF4-BE

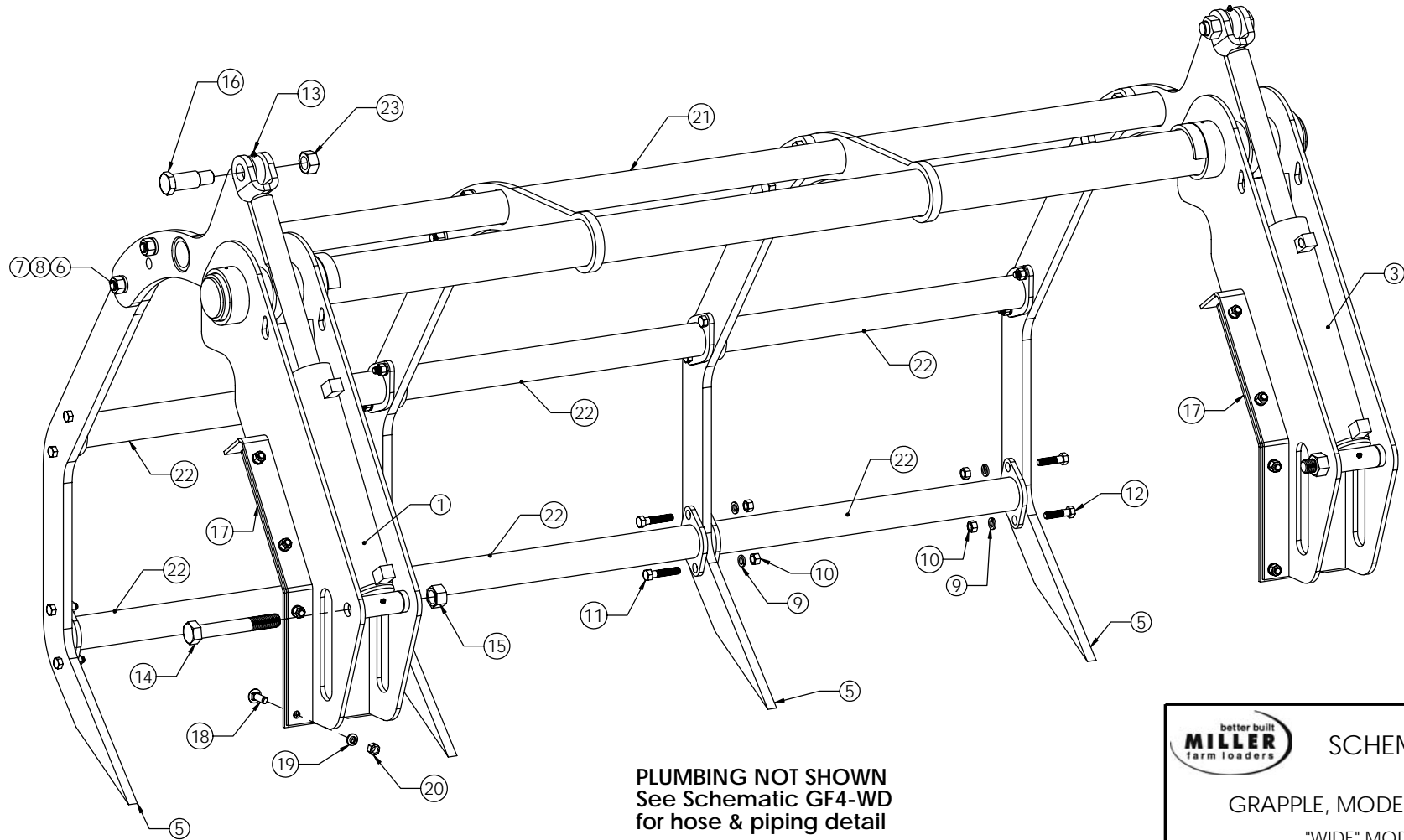
WEIGHT:

DATE Tuesday, February 08, 2005 10:12:34 AM

SHEET 1 OF 1

| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|-----------------------------------|-------------|
| 1 | CY-046-L | CYLINDER, LH | 1 |
| 3 | CY-046-R | CYLINDER, RH | 1 |
| 5 | GF-TX075 | TOOTH, GF4X GRAPPLE, 3/4 THICK | 4 |
| 6 | HW-BS-12-0250-C | BOLT, 3/4-10 X 2 1/2 UNC, G8 ZN | 8 |
| 7 | HW-LS-12-B | LOCKWASHER, 3/4, G8, HI-ALLOY | 8 |
| 8 | HW-NS-12-C | NUT, 3/4-10, G8, ZC | 8 |
| 9 | HW-LS-08-A | LOCKWASHER, 1/2, MED, ZN | 16 |
| 10 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 16 |
| 11 | HW-BS-08-0250-A | BOLT, 1/2-13 x 2-1/2 LONG, GR5 ZN | 8 |
| 12 | HW-BS-08-0200-A | BOLT, 1/2-13 X 2 UNC, G5 ZN | 8 |

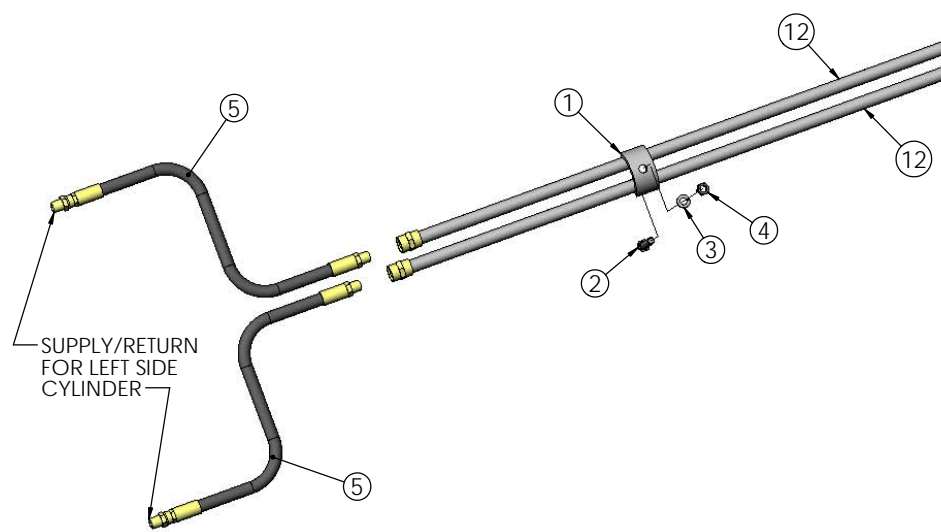
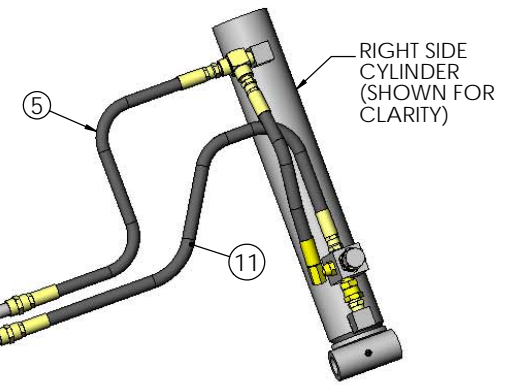
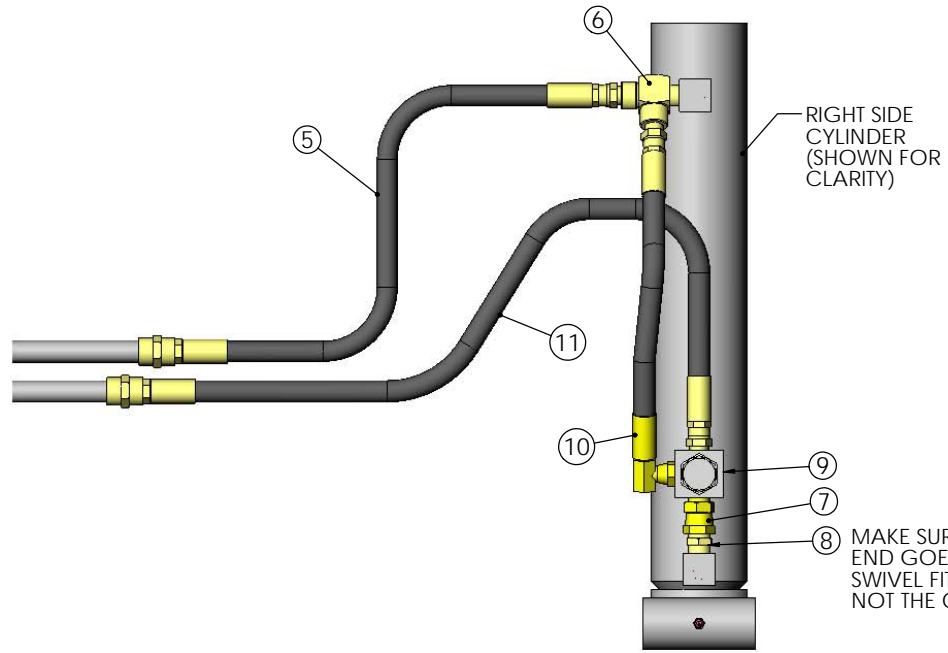
| ITEM NO. | PART NUMBER | DESCRIPTION | Closed/QTY. |
|----------|-----------------|-----------------------------------|-------------|
| 13 | HW-ZK-001 | ZERK FITTING, 1/4-28 UNF | 2 |
| 14 | HW-BS-16-0700-B | BOLT, 1-8 X 7 UNC, G8 ZN | 2 |
| 15 | HW-NS-16-H | NUT, 1-8 UNC, GR. 8, TOP LOCK, ZN | 2 |
| 16 | PN-04000-D10 | PIN, MAINLIFT CYLINDER | 2 |
| 17 | GF4XQ-20 | DOUBLER PLATE, GF4Q GRAPPLE | 2 |
| 18 | HW-BS-0150-B | BOLT, CARRIAGE 1/2 x 1-1/2, G5 ZN | 16 |
| 19 | HW-LS-08-A | LOCKWASHER, 1/2, MED ZN | 16 |
| 20 | HW-NS-08-A | NUT, 1/2-13 UNC, ZN | 16 |
| 21 | GF4W-A | WELDED ASSEMBLY, GF4W GRAPPLE | 1 |
| 22 | GF4W-TB | TOOTH BRACE, GF4W GRAPPLE | 6 |
| 23 | HW-NS-16-E | NUT, 1-14 UNF GR8 TL, ZN | 2 |



PLUMBING NOT SHOWN
See Schematic GF4-WD
for hose & piping detail

| | | |
|-----------------|-------------------------------------|--------------|
| | SCHEMATIC | |
| | GRAPPLE, MODEL GF4W "WIDE" MODEL | |
| DWG. NO. | GF4W | |
| WEIGHT: 700.430 | DATE 6/13/2005 | SHEET 1 OF 1 |


| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-----------------|-----------------------------------|------|
| 1 | GF4T-16 | PIPE BRACKET, 4T GRAPPLE | 2 |
| 2 | HW-BS-06-0200-A | BOLT, 3/8-16 UNC, GR5 ZN, 2" LONG | 2 |
| 3 | HW-LS-06-A | LOCKWASHER, 3/8, ZN | 2 |
| 4 | HW-NS-06-A | NUT, 3/8-16 UNC TL, ZN | 2 |
| 5 | HS-06-025-A | HOSE, 3/8 MP-MPX, 25-IN. LONG | 3 |
| 6 | SF-5602-06 | STREET TEE, 3/8 NPT | 1 |
| 7 | SF-1404-06-06 | MALE SWIVEL ADAPTER, -3/8 NPT | 1 |
| 8 | SF-5404-06 | HEX PIPE NIPPLE, 3/8 NPT | 1 |
| 9 | RD1837-H | RELIEF VALVE, ADJ. 1000-2500 PSI | 1 |
| 10 | HS-06-0115-A | HOSE, 3/8 MPX-MPX90, 11-1/2" LONG | 1 |
| 11 | HS-06-025-A | HOSE, 3/8 MP-MPX, 25-IN. LONG | 1 |
| 12 | HP-GF4W | PIPE ASSEMBLY, WIDE FRAME GRAPPLE | 2 |



GF4W Grapple

APPLICATIONS:
GF4W grapples made from
June '05 - Current

Serial # Range: units after 2688



better built
MILLER
farm loaders

SCHEMATIC

GF4W PLUMBING KIT "WD"

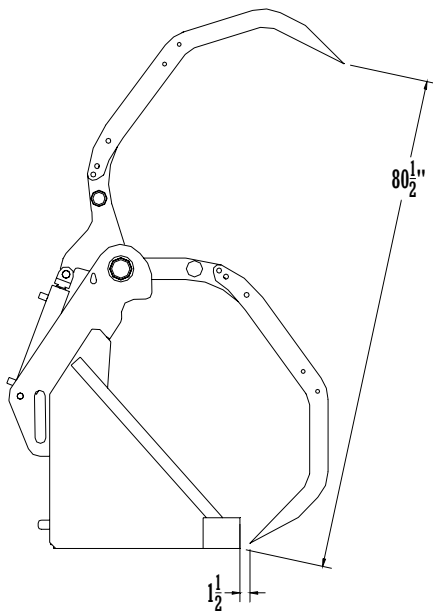
DWG. NO. GF4-WD

WEIGHT:
DATE Tuesday, February 08, 2005 10:12:34 AM
SHEET 1 OF 1

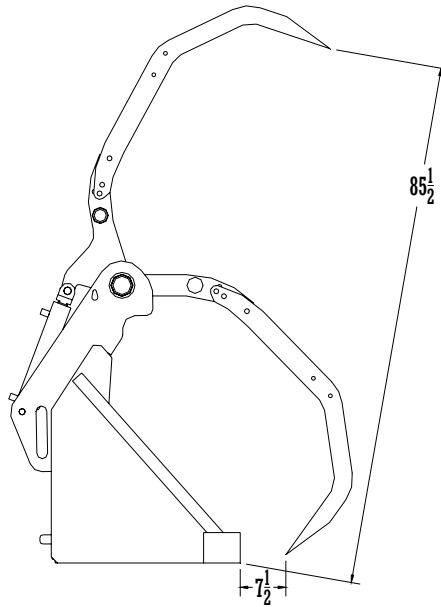


Grapple Specifications

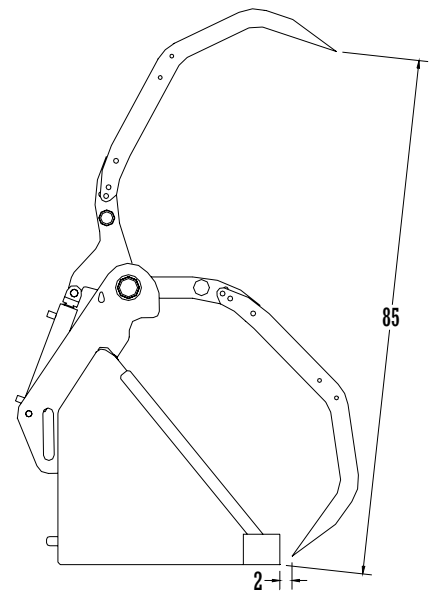
| GRAP- PLE | Applicable Loaders | Adjustable Closing Gap? | Quick Dismount? | No. of Cylinders | No. of Tines | Width between Outermost Tines | Tine Material | Weight |
|--------------|---|----------------------------|--------------------|---------------------|-----------------|----------------------------------|------------------|--------|
| GF4X | P-12, GL25, GP25, GL30, GP30, PL-5 | Yes | No | 2 | 4 | 72" | 3/4 Gr. 50 Steel | 640# |
| GF4Q | GL25, GP25, GL30, GP30, PL-5 | Yes | Yes | 2 | 4 | 72" | 3/4 Gr. 50 Steel | 730# |
| GF4W | New Holland 7614 Loader with Miller Bucket | Yes | No | 2 | 4 | 83" | 3/4 Gr. 50 Steel | 665# |
| GF3X | P-12, GL25, GP25, GL30, GP30, PL-5 | Yes | No | 1 | 3 | 60" | 3/4 Gr. 50 Steel | 490# |
| GF3XU | G15, G20 | Yes | No | 1 | 3 | 60" | 5/8 Gr. 50 Steel | 485# |



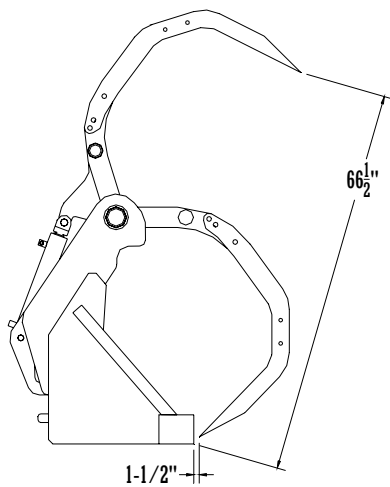
**NARROW GAP SETTING
STD CAPACITY BUCKET**
GF4X, GF4XQ, GF3X Grapples



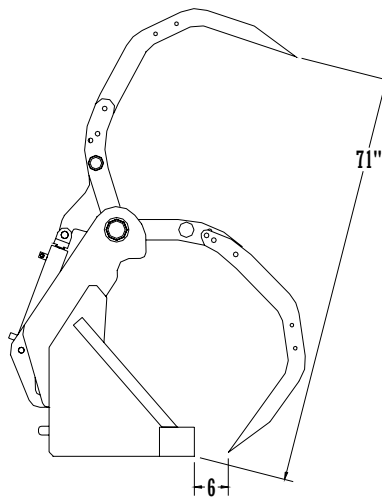
**WIDE GAP SETTING
STD CAPACITY BUCKET**
GF4X, GF4XQ, GF3X Grapples



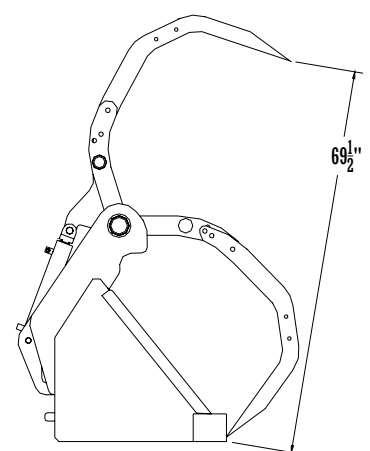
**WIDE GAP SETTING
HIGH CAPACITY BUCKET**
GF4X, GF4XQ, GF4W, GF3X Grapples



**NARROW GAP SETTING
STD CAPACITY BUCKET**
GF3XU Grapple



**WIDE GAP SETTING
STD CAPACITY BUCKET**
GF3XU Grapple



**WIDE GAP SETTING
HIGH CAPACITY BUCKET**
GF3XU Grapple



WARRANTY

Dec 2004

ALL PRODUCTS MANUFACTURED BY MILLER LOADERS, INCORPORATED (**MLI**) EXCEPT THE CHROME-PLATED PIVOT PINS USED ON GREASELESS LOADERS, ARE GUARENTEED TO THE ORIGINAL PURCHASER FOR A PERIOD OF ONE YEAR FROM THE DAY OF PURCHASE AGAINST ANY DEFECTS IN MATERIALS AND WORKMANSHIP OF FARM LOADERS AND ATTACHMENTS THAT ARE USED IN NORMAL FARM OPERATIONS. THE CHROME-PLATED PIVOT PINS USED ON GREASELESS LOADERS ARE GUARENTEED TO THE ORIGINAL PURCHASER FOR A PERIOD OF FIVE YEARS FROM THE DAY OF PURCHASE AGAINST ANY DEFECTS IN MATERIALS AND WORKMANSHIP OR AGAINST WEAR THROUGH OF THE CHROME FINISH COVERING AT LEAST ONE-QUARTER OF THE PIN SURFACE.

ALL GREASELESS COMPOSITE BEARINGS SOLD BUT NOT MANUFACTURED BY **MLI** ARE GUARENTEED TO THE ORIGINAL PURCHASER FOR A PERIOD OF FIVE YEARS FROM THE DAY OF PURCHASE AGAINST BREAKAGE OR LOSS OF THEIR SELF-LUBRICATING PROPERTY.

THE FIVE YEAR WARRANTY FOR THE CHROME-PLATED PIVOT PINS AND GREASELESS COMPOSITE BEARINGS IS LIMITED TO THE PARTS ONLY. **MLI** IS NOT RESPONSIBLE FOR ANY LABOR NECESSARY FOR THE INSPECTION, REMOVAL, OR REPLACEMENT OF SAID PIVOT PINS AND/OR COMPOSITE BEARINGS.

ALL PARTS SOLD BUT NOT MANUFACTURED BY **MLI** THAT INCLUDE BUT ARE NOT LIMITED TO ZINC-PLATED PINS, HOSES, VALVES, QUICK COUPLERS, PUMPS, TANKS, ETC. ARE COVERED ONLY TO THE EXTENT OF THE MANUFACTURE'S WARRANTY ON THESE ITEMS. **MLI** DOES NOT WARRANTY THESE ITEMS EXPRESSLY OR IMPLIEDLY.

DEFACEMENT OF ANY PART BY WELDING OR OTHERWISE ALTERING, OR EXCESSIVE WEAR ON PINS CAUSED BY LACK OF LUBRICATION, NULLIFIES THE WARRANTY ON THE **MLI** PRODUCT.

MLI ASSUMES NO RESPONSIBILITY AS TO THE PERFORMANCE OR FAILURE OF A TRACTOR'S HYDRAULIC SYSTEM.

THE HYDRAULIC COMPONENTS OF THE **MLI** PRODUCTS ARE GUARENTEED UP TO A PRESSURE OF 3000 POUNDS PER SQUARE INCH AT A MAXIMUM FLOW RATE OF 30 GALLONS PER MINUTE.

MLI ASSUMES NO RESPONSIBILITY FOR THE FAILURE OF THE PURCHASER TO SECURE THE LOADER TO THE TRACTOR PROPER, WHICH INCLUDES PROPER BOLT TIGHTENING AND SECURING OF ALL CONNECTION POINTS.

ALL ITEMS MANUFACTURED BY **MLI** REQUIRING WARRANTY CONSIDERATION MUST BE RETURNED TO **MLI** OR A DESIGNATED REPRESENTATIVE BY THE ORIGINAL PURCHASER. ANY ITEM SO RETURNED BY COMMON CARRIER MUST BE PREPAID FREIGHT.

THE WARRANTIES PROVIDED BY **MLI** AS REFERRED TO ABOVE SHALL BE THE SOLE AND EXCLUSIVE WARRANTIES. THERE SHALL BE NO OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OR ANY OTHER OBLIGATION ON THE PART OF **MLI** WITH RESPECT TO PRODUCTS COVERED BY THIS WARRANTY.

IN NO EVENT SHALL THE WARRANTIES OF **MLI** REQUIRE MORE FROM **MLI** THAN THE REPAIR OR REPLACEMENT OF ANY PART OR PARTS WHICH ARE FOUND TO BE DEFECTIVE WITHIN THE EFFECTIVE PERIOD OF THE WARRANTY, **MLI** SHALL HAVE NO LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

MILLER LOADERS INC, 1242 ARIZONA AVE, LARCHWOOD, IA 51241

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