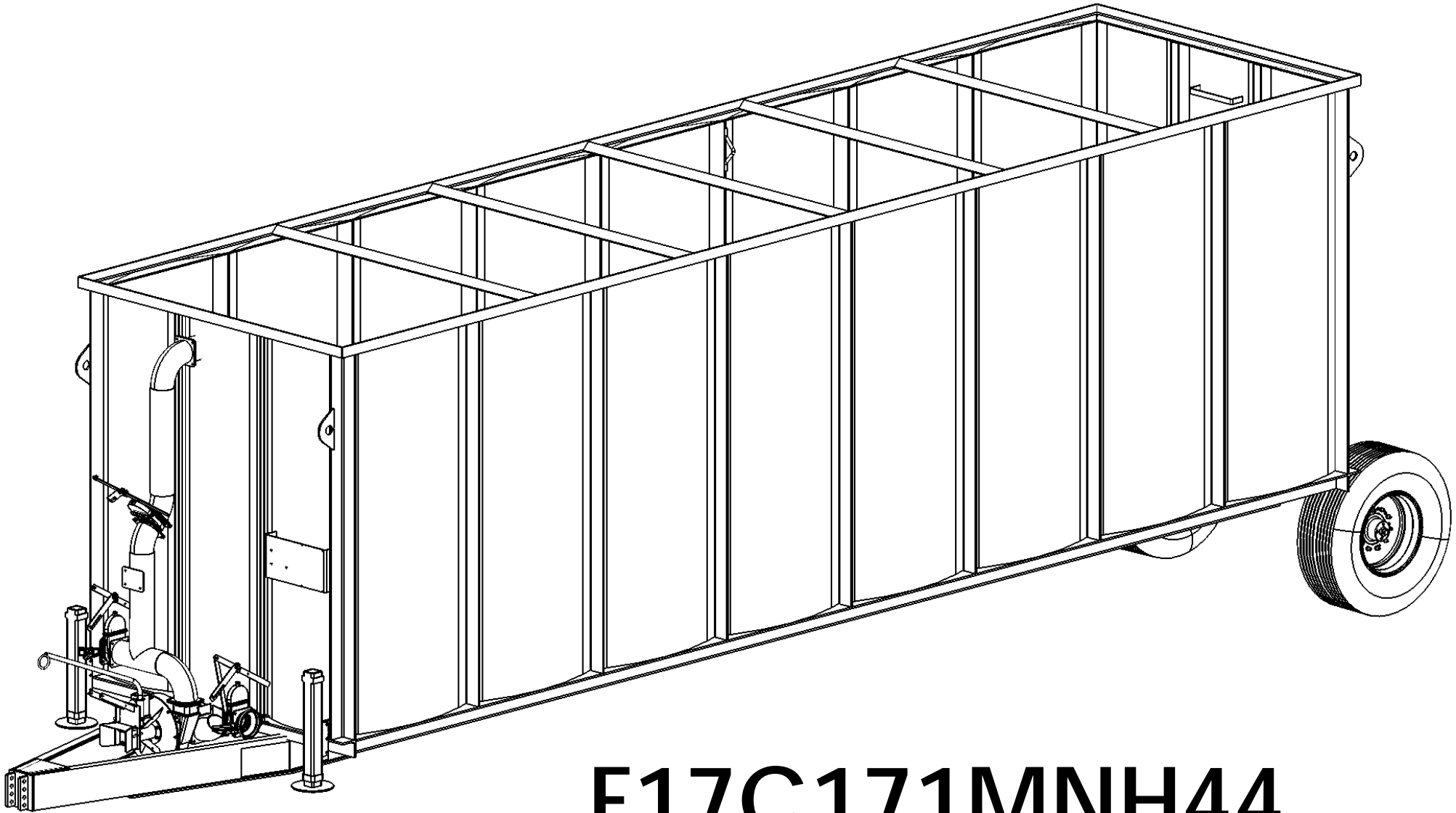


COMPLETE MANUAL



F17C171MNH44

ECO#	REV	NOTES	DATE	DRWN	APR
		RELEASED	03/07		FB
xx		XXXX	xx	xxx	xx

BOOM OPTION
#84830 - 8" BOOM SUB ASSEMBLY

AGITATION OPTION

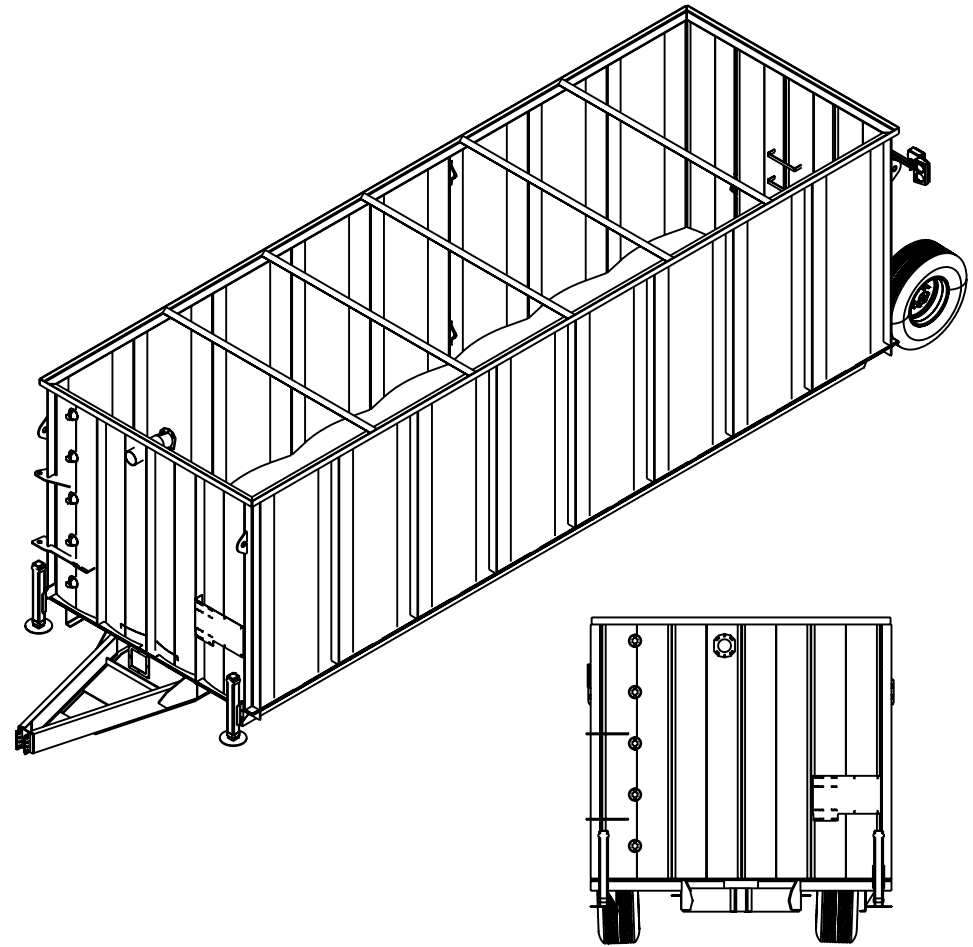
- 2- #80588 3/8" CHAIN
- 2- #15870 BRACKET DISCHARGE TUBE
- 2- #60143 REPAIR LINK 3/8"
- 1- #94485 TOP TUBE 6" DISCHARGE 238"
- 1- #93580 AGITATION FRAC BOLT ON

PUMP ASSEMBLY OPTIONS

- A: #93582 FRAC PUMP ASM -HYD GATE VALVE W/SELFLOAD
A1: #71513 HYD KIT FRAC- MANUAL/JACK & AXLE
- A2: #71498 HYD KIT FRAC- ONETOUCH -TRAC JACK & AXLE
-#71525 ONE TOUCH CONTROL KIT W/ 2 FUNCTION
- A3: #72370 HYD KIT FRAC- ONETOUCH /JACK & AXLE
-#71525 ONE TOUCH CONTROL KIT W/ 2 FUNCTION
- A4: #72365 HYD KIT FRAC- ONETOUCH /BOOM -TRAC JACK & AXLE
-#71525 ONE TOUCH CONTROL KIT W/ 2 FUNCTION
- A5: #72360 HYD KIT FRAC- ONETOUCH /JACK & AXLE /BOOM
-#71525 ONE TOUCH CONTROL KIT W/ 2 FUNCTION
- B: #93585 FRAC PUMP ASM -HYD GATE VALVE W/SELFLOAD
W/ SELFCLEAN *** NOT APPROVED
- C: #93587 FRAC PUMP ASM -MANUAL GATE VALVE W/SELFLOAD
- D: #85194 FRAC PUMP ASM -MANUAL GATE VALVE

HITCH OPTION

- #28388 CLEVIS NON SWIVEL 1.87" PIN
- #25617 CLEVIS NON SWIVEL 2.25" PIN
- #31963 PINTLE NON SWIVEL 1.87" PIN
- #31962 PINTLE NON SWIVEL 2.25" PIN



ITEM #	QTY.	PART #	DESCRIPTION
1	1	84820	FRAC TANK WELD 23000 GAL
2	1	92990	FRAC AXLE ASBY
3	2	92711	JACK HYD ITALIAN w/BRACKET
4	2	36948	HYD CYL 4.0 x 24" W/ 2" ROD
5	1	91350	LIGHT KIT ADJUSTABLE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC.	
WELD	FRACTIONS	DECIMALS	ANGLES
FAB .03	+- 1/32	+- .005	+- 1°
MATERIAL		PART NAME:	
LAST SAVED BY sveenker		FRAC TANK ASBY	
WHERE USED REF7472/REF7473		23,000 GAL CAPACITY	
PROCEDURE	DESIGN	LAST SAVED DATE	DATE
		Monday, March 02, 2009 10:38:19 AM	11/11/08

frac 08 23000 gal SW

8 7 6 5 4 3 2 1

D

C

B

A

D

C

B

8 7 6 5 4 3 2 1

Frac Tank

REF # _____ P.O. # _____ DEALER NAME _____

ORDER # _____

DATE _____ ADDRESS _____

TERMS _____

DATE NEEDED _____ CITY STATE ZIP _____

ORDERED BY _____ PH. _____ FAX _____

FREIGHT _____

Size	Pump Options	Impeller Options	Drive Options	Valve Options	Agitation Options	Jack Options	Transport Axle
E Frac 17 500 23 000	N one S elf Load only D ischarge Only C Discharge & Self Load	17 1/2" STD	N one 1 000 rpm H ydraulic Drive	N one M anual Opt. H ydraulic Opt. R emote Control Opt.	N o Agitation Std. A gitation Opt.	M anual Jacks Std. H ydraulic Jacks Opt.	44 " 445X22.5 & 4" Hubs Std.
							LIST PRICE

Frac Tank _____

PTO Options

- () 1 3/8" - 1000 rpm PN 37492
- () 1 3/4" - 1000 rpm PN 37491

Pump Option _____

Hydraulic Pump Valve Option _____

Rear Sump Options

- () Capped w/4 bolt flange Std. PN 93011
- () With 4" Valve and Manual Handle Opt.
- () With 6" Valve and Manual Handle Opt.
- () Other Specify Opt.

Remote Control Option pn 71525
(includes 1- rec. & 1- "Vac"
& 1- "PSI" Transmitter)

() pn 37606 Additional Vac Transmitter _____

Light Options

- () Turn Signal & Tail Lights PN 91350
- () Working Lights PN

() pn 37597 Additional PSI Transmitter _____

Agitation Option _____

Hitch Options

- () 3 Point Std.
- () Pintle (Truck Style) PN
- () Pintle 1 7/8" Balzer PN
- () Pintle 2 1/4" Balzer PN
- () Clevis 1 7/8" Balzer PN 28388

Hitch Option _____

Hydraulic Jack Standard _____

Axle Option _____

Load Level Indicator

- () 5 - 5" Sight Glasses Std. PN 26736

Light Option _____

Load Level Option _____

Drain Pipe Options _____

Rear Sump Options _____

- () Boom Option 84830SW (Send Short Piece of Hose for end of Boom)

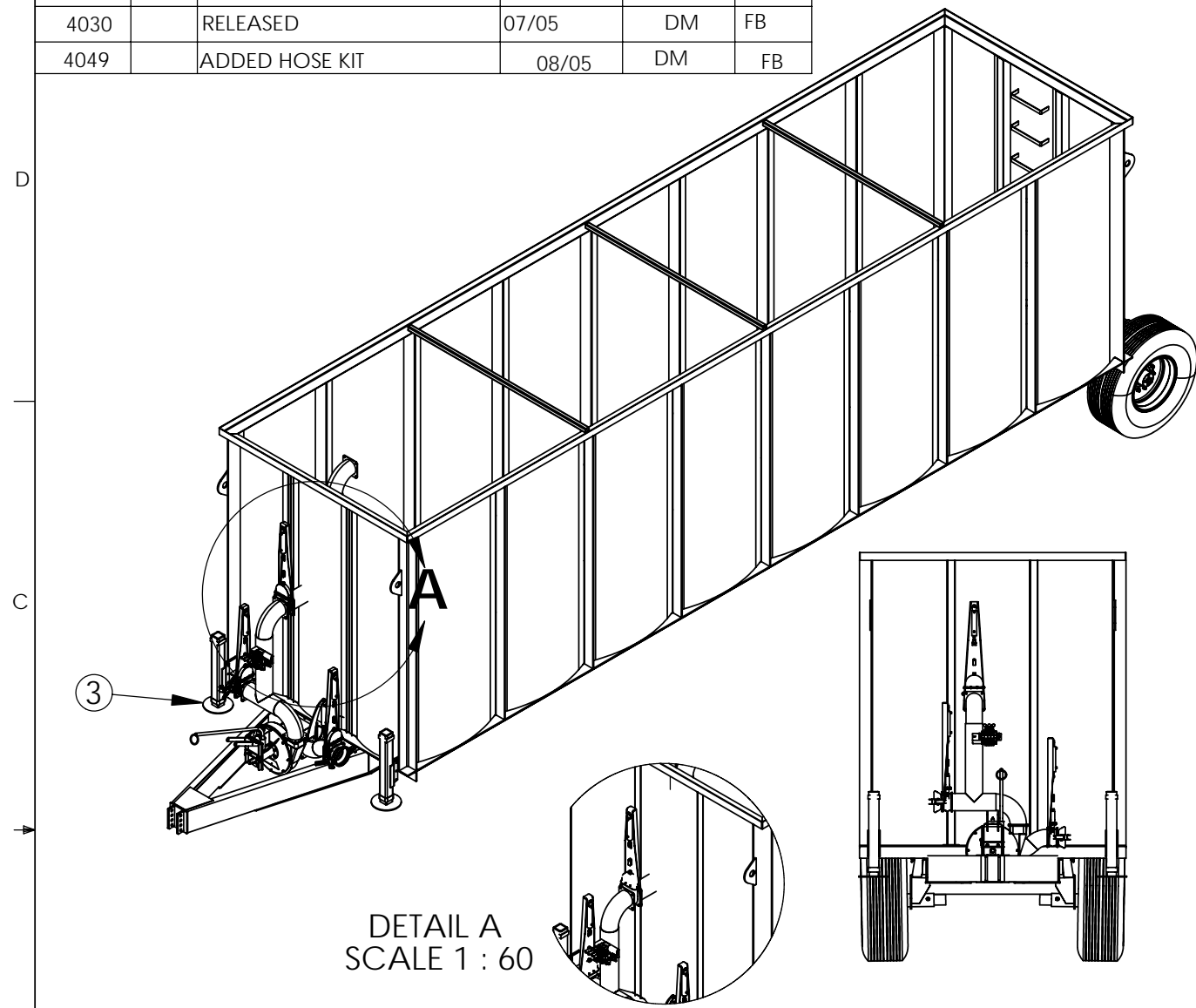
Boom Option _____

Comments and Additional Notes:

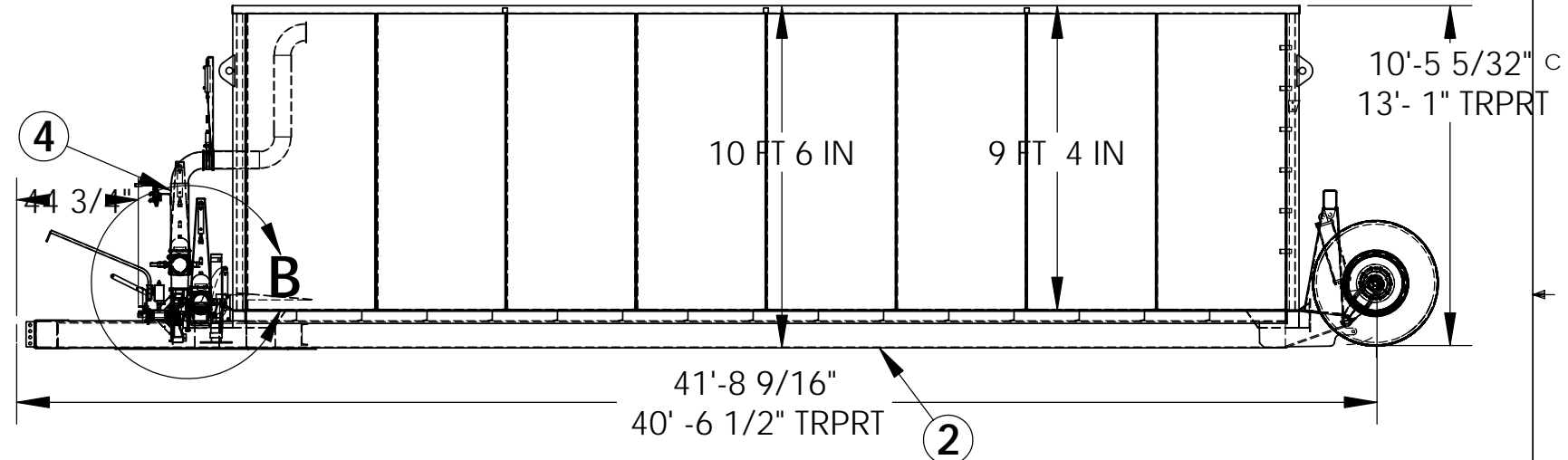
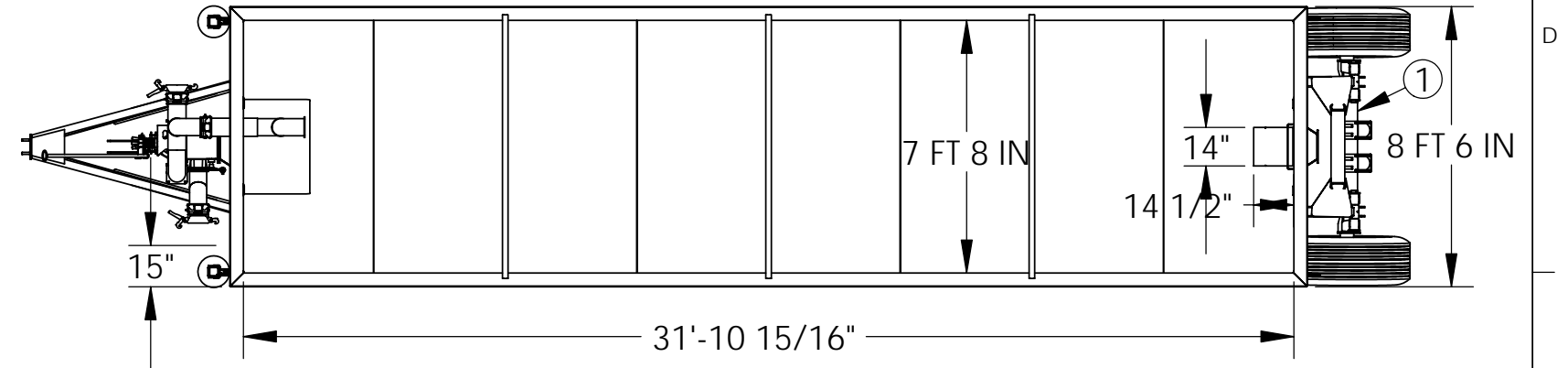
Additional Options _____

ECO#	REV	NOTES	DATE	DRWN	APR
4030		RELEASED	07/05	DM	FB
4049		ADDED HOSE KIT	08/05	DM	FB

THIS EQUIPMENT IS TO BE PULLED BY FARM TRACTOR ONLY



DETAIL A
SCALE 1 : 60

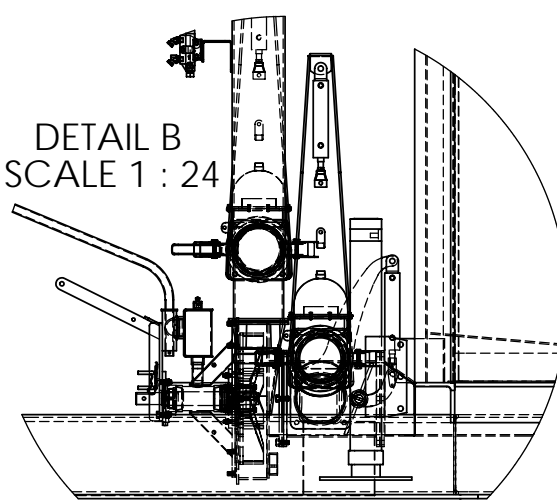


**THIS UNIT SELF LOAD WITH
MANUAL HYD CONTROLS**

AVAILABLE PTO OPTIONS

- 37492 1 3/8-21 (TR) 1 1/2 (IMP)
- 37491 1 3/4-20 (TR) 1 1/2 (IMP)

DETAIL B
SCALE 1 : 24

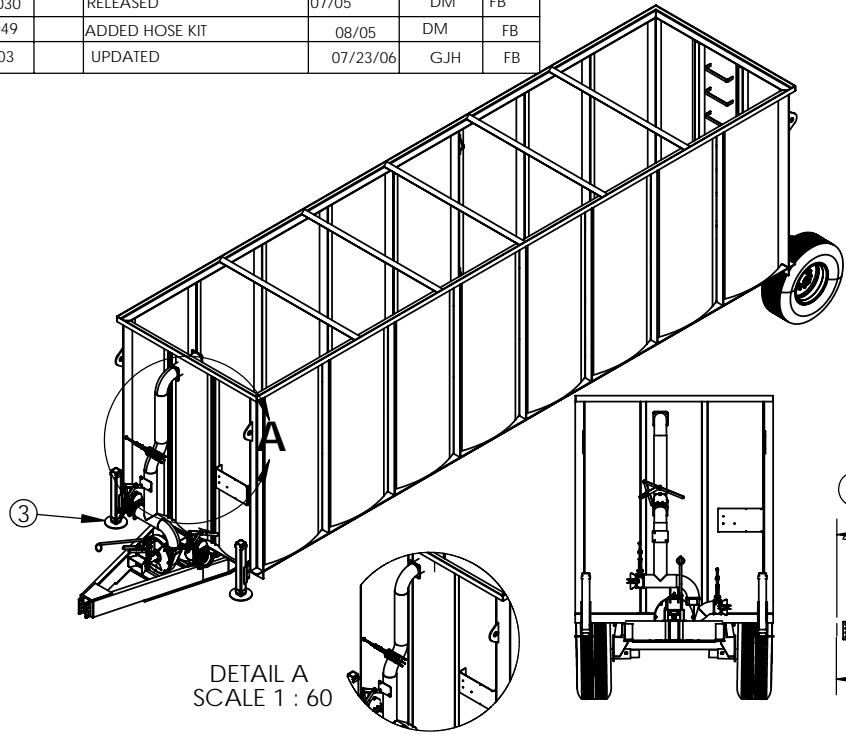


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	92990	FRAC AXLE ASBY
2	1	92980	FRAC TANK WELD
3	2	92711	JACK HYD ITALIAN w/BRACKET
4	1	93000	PUMP ASBY FRAC SELF LOAD
5	1	93027	HOSE KIT FRAC JACK

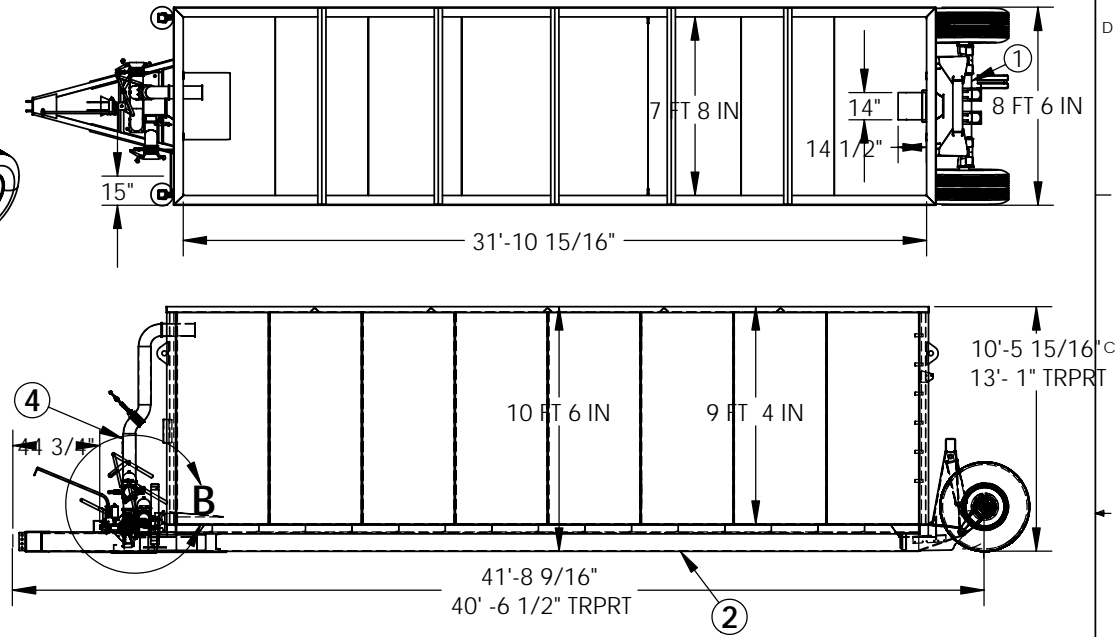
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC. CO. HWY 27 E 507-427-3133 MT. LAKE, MN 800-795-8551
WELD .06	FAB. .03	
MATERIAL	PART NAME:	
WHERE USED	FRAC TANK BASE 8.5'x 9.3'x 32'	
LAST SAVED BY: Julie		17,500 GAL CAPACITY
PROCEDURE	DESIGN	LAST SAVED DATE: Tuesday, August 09, 2005 10:38:11 AM
		DWG NO: F17C171HNNH44 S

ECO#	REV	NOTES	DATE	DRWN	APR
4030		RELEASED	07/05	DM	FB
4049		ADDED HOSE KIT	08/05	DM	FB
4303		UPDATED	07/23/06	G.JH	FB

THIS EQUIPMENT IS TO BE PULLED BY FARM TRACTOR ONLY



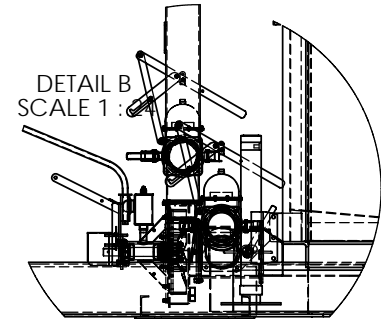
DETAIL A
SCALE 1 : 60



**THIS UNIT SELF LOAD WITH
MANUAL 6" VALVES**

AVAILABLE PTO OPTIONS

- 37492 1 3/8-21 (TR) 1 1/2 (IMP)
- 37491 1 3/4-20 (TR) 1 1/2 (IMP)

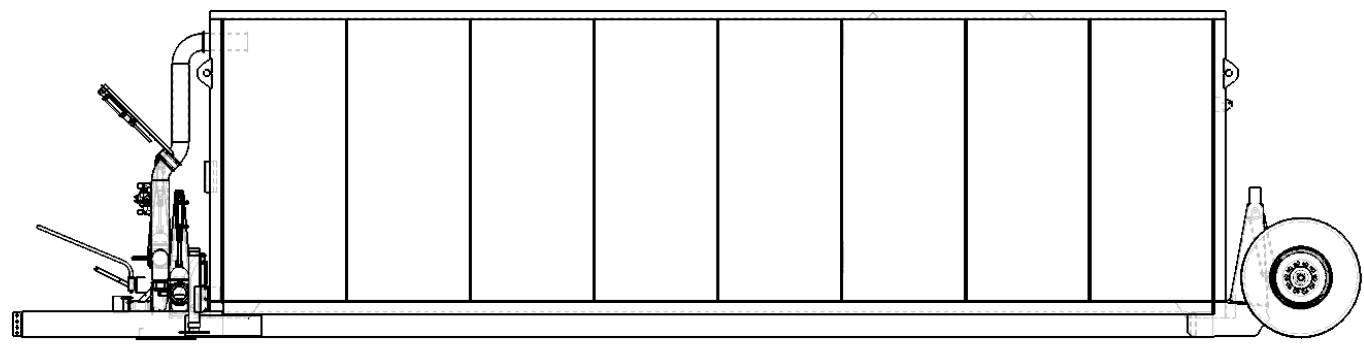
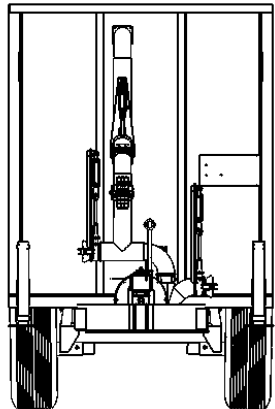
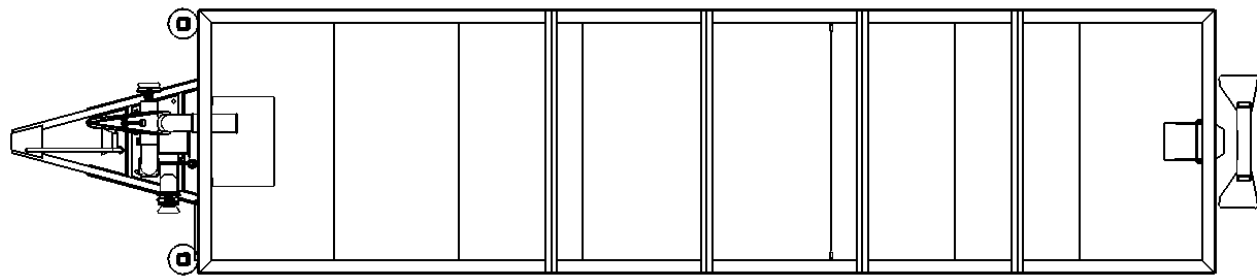
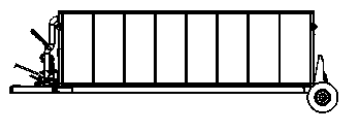


DETAIL B
SCALE 1 :

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	92990	FRAC AXLE ASBY
2	1	92980	FRAC TANK WELD
3	2	92711	JACK HYD ITALIAN w/BRACKET
4	1	93587	PUMP ASBY FRAC SELF LOAD
5	1	93027	HOSE KIT FRAC JACK

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC.	
WELD .06	FAB. .03	CO. HWY 27 E	507-427-3133
		MT. LAKE, MN	800-795-8551
MATERIAL	WHERE USED	PART NAME:	
		FRAC TANK BASE 8.5'x 9.3'x 32'	
		17,500 GAL CAPACITY	
PROCEDURE	DESIGN	LAST SAVED DATE	DWG NO
		Wednesday, July 26, 2006 3:04:51 PM	F17C171MNH44

ECO#	REV	NOTES	DATE	DRWN	APR
4030		RELEASED	07/05	DM	FB
4049		ADDED HOSE KIT	08/05	DM	FB
4199		93582 WAS 93000	03/06	DM	FB
4303		UPDATED BOM	07/23/06	GJH	FB

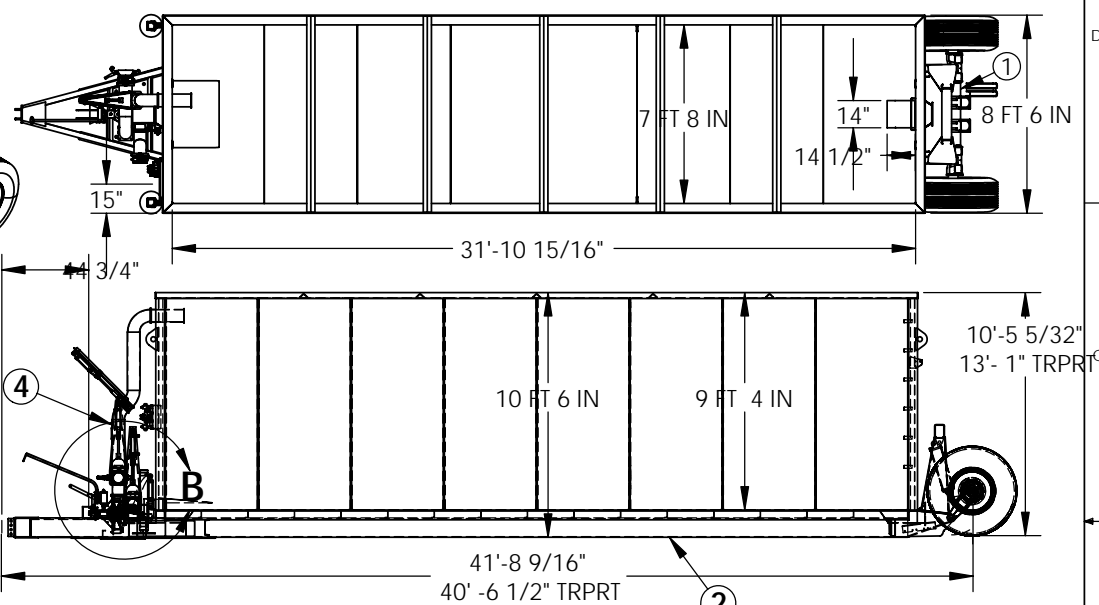
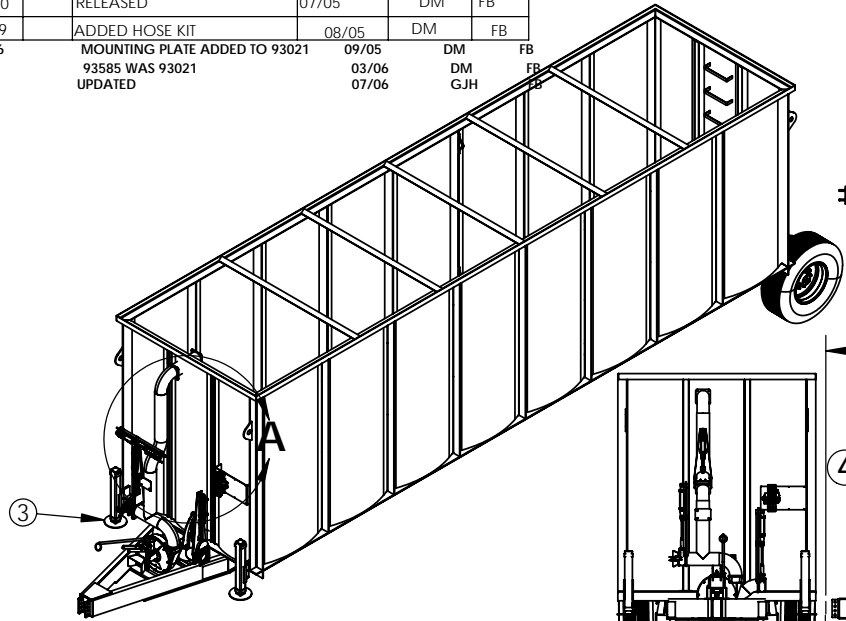


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	92990	FRAC AXLE ASBY
2	1	92980	FRAC TANK WELD
3	2	92711	JACK HYD ITALIAN w/BRACKET
4	1	93582	PUMP ASBY FRAC SELF LOAD
5	1	93027	HOSE KIT FRAC JACK

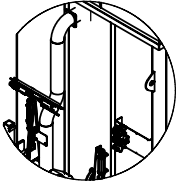
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC.	
WELD .06	FAB. .03	CO. HWY 27 E 507-427-3133 MT. LAKE, MN 800-795-8551	
MATERIAL		PART NAME:	
WHERE USED		FRAC TANK BASE 8.5'x 9.3'x 32'	
LAST SAVED BY Julie		17,500 GAL CAPACITY	
PROCEDURE	DESIGN	LAST SAVED DATE Tuesday, July 25, 2006 2:58:53 PM	DWG NO F17C171HAH44 SW

ECO#	REV	NOTES	DATE	DRWN	APR
4030		RELEASED	07/05	DM	FB
4049		ADDED HOSE KIT	08/05	DM	FB
4076		MOUNTING PLATE ADDED TO 93021	09/05	DM	FB
4199		93585 WAS 93021	03/06	DM	FB
4303		UPDATED	07/06	GJH	FB

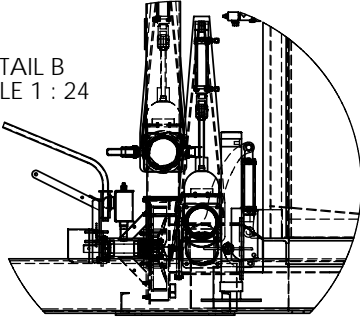
THIS EQUIPMENT IS TO BE PULLED BY FARM TRACTOR ONLY



DETAIL A
SCALE 1 : 60



DETAIL B
SCALE 1 : 24



THIS UNIT SELF LOAD WITH ONE TOUCH CONTROLS

AVAILABLE PTO OPTIONS

- 37492 1 3/8-21 (TR) 1 1/2 (IMP)
- 37491 1 3/4-20 (TR) 1 1/2 (IMP)

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	92990	FRAC AXLE ASBY
2	1	92980	FRAC TANK WELD
3	2	92711	JACK HYD ITALIAN w/BRACKET
4	1	93585	PUMP ASBY FRAC SELF LOAD
5	1	93027	HOSE KIT FRAC JACK

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC.	
WELD .06	FAB. .03	CO. HWY 27 E 507-427-3133 MT. LAKE, MN 800-795-8551	
MATERIAL		PART NAME:	
WHERE USED		FRAC TANK BASE 8.5'x 9.3'x 32'	
LAST SAVED BY Julie		17,500 GAL CAPACITY	
PROCEDURE	DESIGN	LAST SAVED DATE Wednesday, July 26, 2006 1:37:30 PM	DWG NO. F17C171RNH44 S

ECO#	REV	NOTES	DATE	BY	ARP
4030		RELEASED FOR REF7021/7022/7023	07/05	DM	FB
4049		FUNCTION NOTES ADDED	07/05	DM	FB
4199		REPLACES 93020	03/06	DM	FB
4303		UPDATED	07/24/06	GJH	FB

Reference: Hodel Frac Tank #

Hydraulic function description:

First Condition:

Load Frac tank from transport tank

- 1) Open Intake Valve # A & Close Sump Valve # D
- 2) Open Fill/Agitate Valve # B & Close Transfer Valve # C

Second Condition

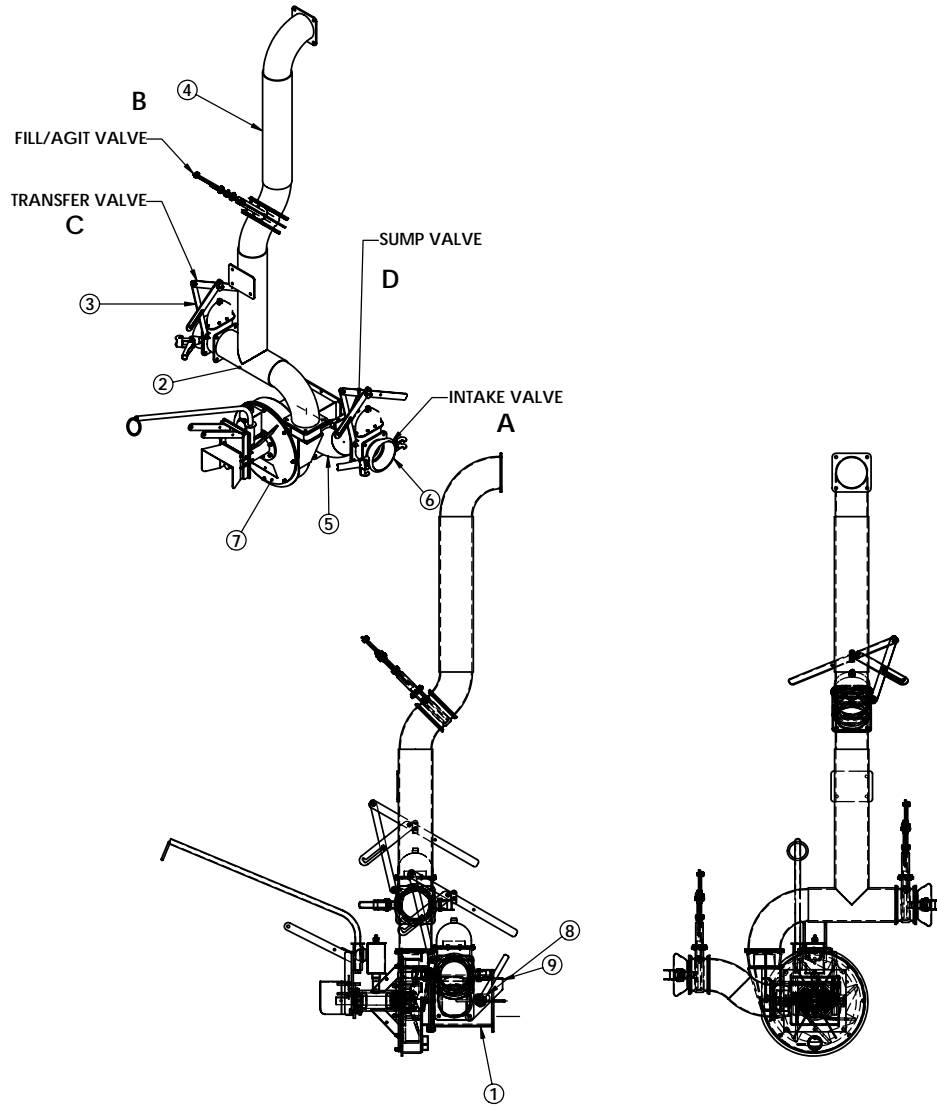
Load Field tank from the Frac tank

- 3) Close Intake Valve # A & Open Sump Valve # D
- 4) Close Fill/Agitate Valve # B & Open Transfer Valve # C

Third Condition:

Load Field tank from transport tank

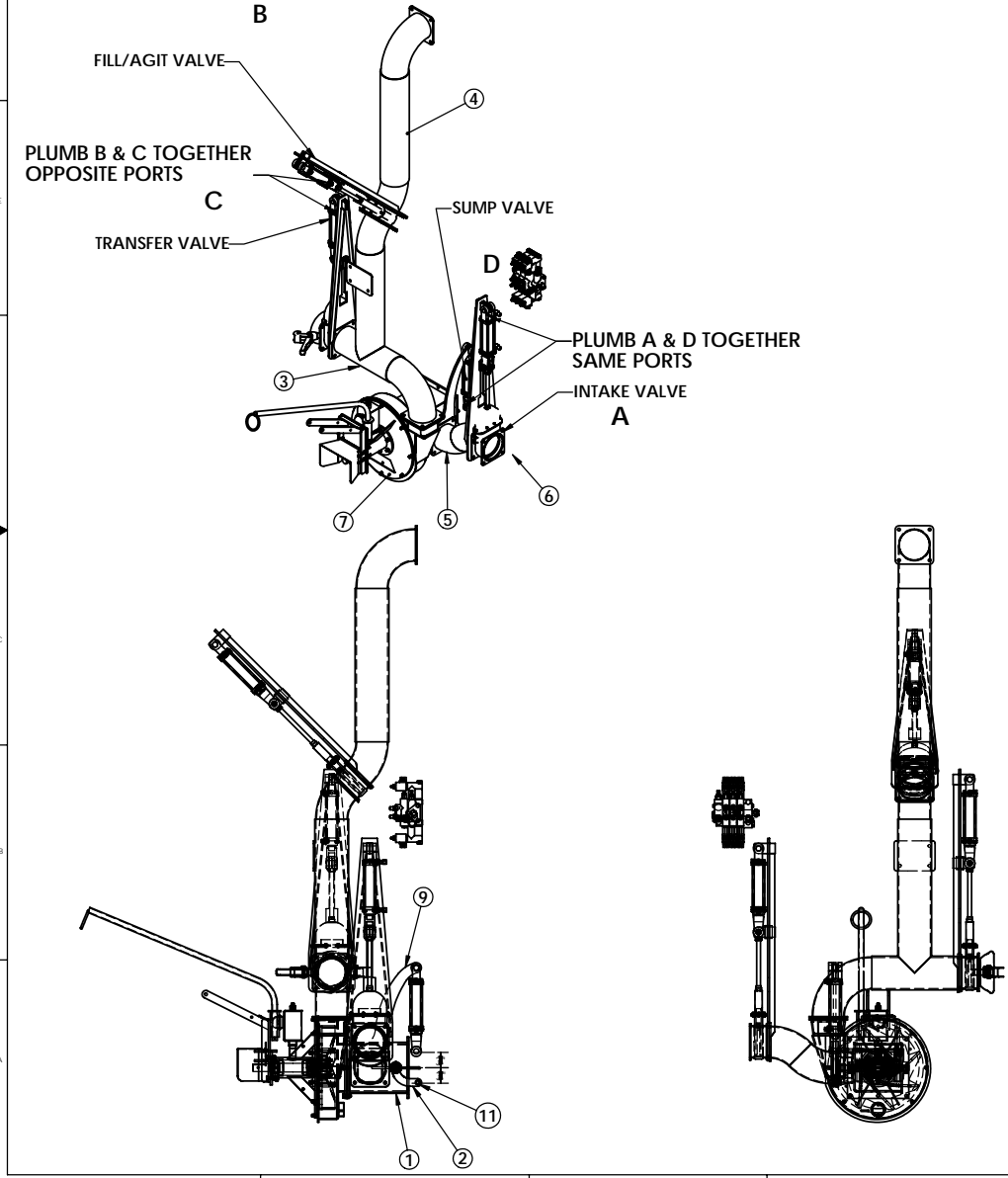
- 5) Open Intake Valve # A & Close Sump Valve # D
- 6) Close Fill/Agitate Valve # B & Open Transfer Valve # C



ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	41508	BUTTERFLY VALVE WELDMENT
2	1	93583	MANIFOLD FRAC SELF LOAD
3	3	6826	Valve 6" w/Handle
4	1	93584	DISCHARGE PIPE 6" w/4-BOLT FLG
5	1	93008	OFFSET w/FLANGES FRAC SELF LOAD
6	2	15564	COUPLER, FLANGED FEMALE
7	1	83724	SLURRY PUMP ASSEMBLY: PTO 17.5" IMPEL
8	1	92566	VALVE HANDLE WELD MANUAL
9	1	92568	HANDLE POSITION BRACKET

LAST SAVED DATE		Tuesday, July 25, 2006 1:37:20 PM	
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG	TITLE	
	APR	PUMP ASBY FRAC SELF LOAD	
NEXT ASSY		w/MANUAL 6" VALVES	
1/REF7022		SIZE	DWG NO
		D	93587 SW
MATERIAL	DATE	SCALE: 1:12	WEIGHT:
	07/05		
		SHEET 1 OF 1	

ECO#	REV	NOTES	DATE	BY	ARP
4199		REPLACES 93021	03/06	DM	FB
4220		93591WAS93010/93588WAS4105/93589WAS93004 DELETE41709/ADDED(2)61137	04/06	DM	FB
4303		REPLACED 93026 WITH 71498 REPLACED 37604 WITH 71525	07/06	GJH	FB



Reference: Hodel Frac Tank # 7210/7211

Hydraulic function description:

First Condition:

Load Frac tank from transport tank

- 1) Open Intake Valve # A & Close Sump Valve # D
Pull left valve lever, sending oil to the rod ends of the two cylinders operating Valve # A & D
- 2) Open Fill/Agitate Valve # B & Close Transfer Valve # C
Pull right valve lever, sending oil to the rod end of the cylinder operating valve # B & to the base end of the cylinder operating Valve # C

Second Condition

Load Field tank from the Frac tank

- 3) Close Intake Valve # A & Open Sump Valve # D
Push left valve lever, sending oil to the base ends of the two cylinders operating Valve # A & D
- 4) Close Fill/Agitate Valve # B & Open Transfer Valve # C
Push right valve lever, sending oil to the base end of the cylinder operating valve # B & to the rod end of the cylinder operating Valve # C

Third Condition:

Load Field tank from transport tank

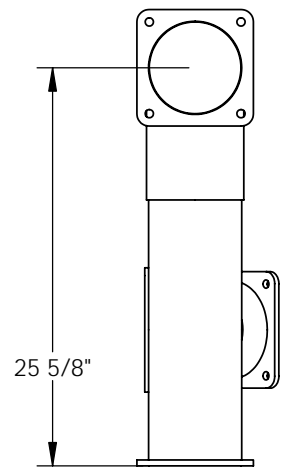
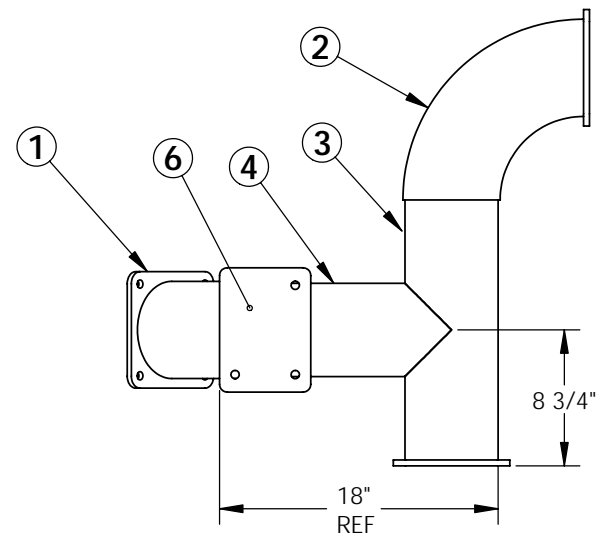
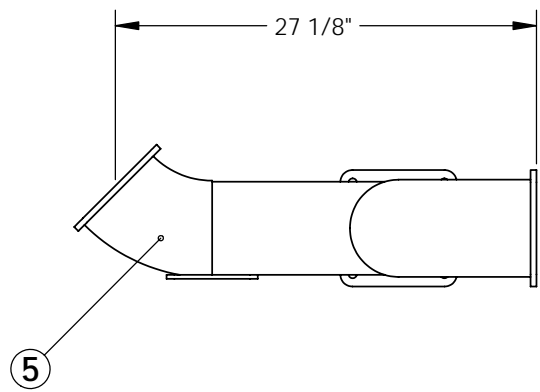
- 5) Open Intake Valve # A & Close Sump Valve # D
Pull left valve lever, sending oil to the rod ends of the two cylinders operating Valve # A & D
- 6) Close Fill/Agitate Valve # B & Open Transfer Valve # C
Push right valve lever, sending oil to the base end of the cylinder operating valve # B & to the rod end of the cylinder operating Valve # C

Relief Valve Pre-Set to 1000 PSI max.

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	41508	BUTTERFLY VALVE WELDMENT
2	1	93001	VALVE HANDLE HYD SELF LOAD
3	1	93583	MANIFOLD FRAC SELF LOAD
4	1	93584	DISCHARGE PIPE 6" w/4-BOLT FLG
5	1	93008	OFFSET w/FLANGES FRAC SELF LOAD
6	2	15564	COUPLER, FLANGED FEMALE
7	1	83724	SLURRY PUMP ASSEMBLY: PTO 17.5" IMPEL
8	1	37605	TRANSMITTER TWO FUNCTION
9	1	93589	CYL BRKT WELD 2x6 TIE-ROD
10	3	93591	VALVE 6" MNT w/o 2x6 TIE-ROD
11	2	61137	BUSHING 25mmOD x 17mmID x 23mmLG
12	1	71498	HYD AND HOSE KIT C COMPLETE
13	1	71525	ONE TOUCH CONTROL BOX W/WIRE HARNESS

LAST SAVED DATE		Wednesday, July 26, 2006 1:37:26 PM	
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG	TITLE	
	APR	PUMP ASBY FRAC SELF LOAD	
NEXT ASSY		w/ONE TOUCH CONTROLS	
1/REF7210/REF7211		SIZE	DWG NO
		D	93585 SW
MATERIAL	DATE	SCALE: 1:12	WEIGHT:
	03/06		

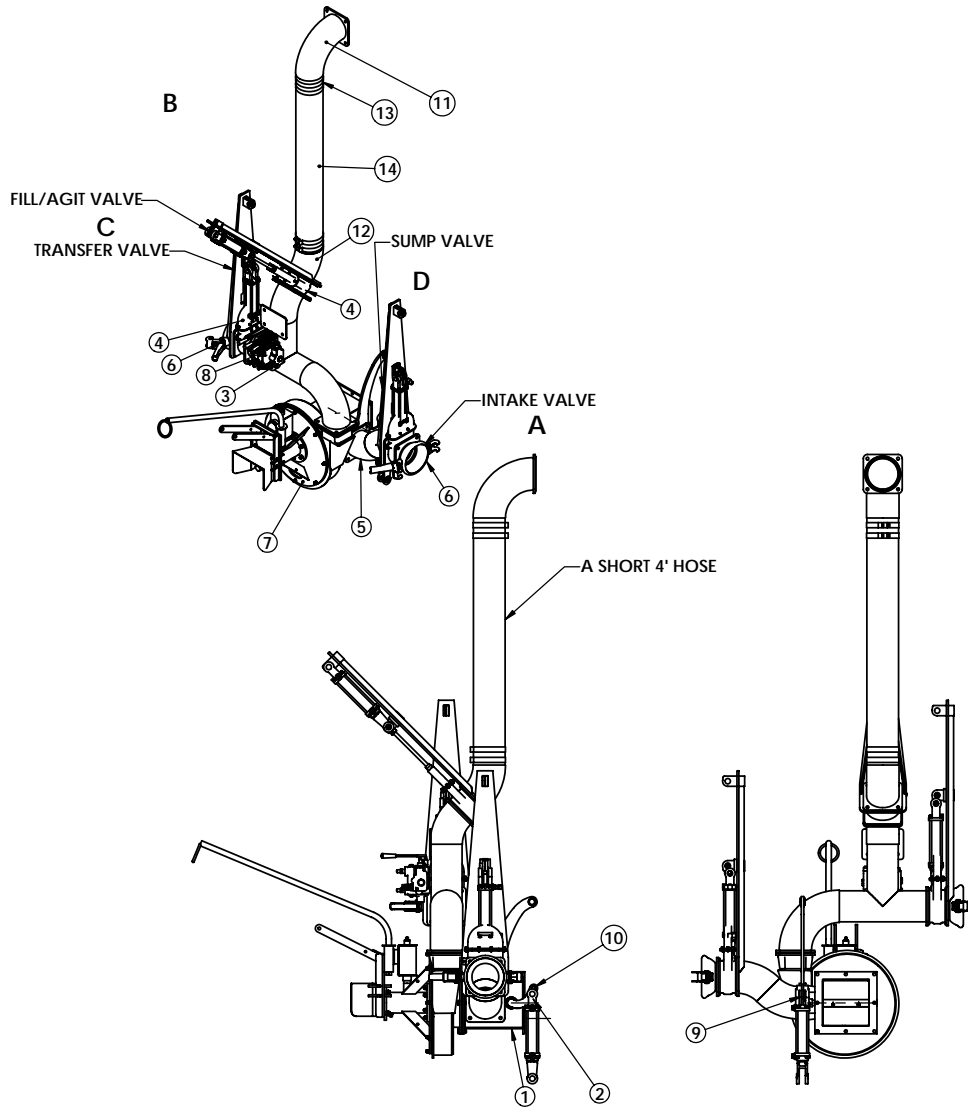
ECO#	REV	NOTES	DATE	DRWN	APR
4030		RELEASED	07/05	DM	FB
4303		71514 WAS 20725	07/21/07	GJH	FB



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	33051	PFL 04.18BC06.00ID07.50SQ0.37THGK
2	1	18877	ELBOW 6" X 7 GA X 90DEG
3	1	66001	PIPE 6.00"x .25" WALL x 16.75" LG -MITRE
4	1	93009	PIPE VERT LOAD 6.0" S40 x 30" LG
5	1	36037	ELBOW 6" X 7GA X 45 DEG
6	1	71514	MOUNTING PLATE MANUAL CONTROL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC.	
WELD .06	FAB. .03	CO. HWY 27 E 507-427-3133 MT. LAKE, MN 800-795-8551	
MATERIAL WELD		PART NAME:	
LAST SAVED BY Julie		MANIFOLD FRAC SELF LOAD	
WHERE 1793000		SHEET 1 OF 1	
PROCEDURE	DESIGN	LAST SAVED DATE	DWG NO
		Wednesday, November 21, 2007 11:22:02 AM	93583 SW

ECO#	REV	NOTES	DATE	BY	ARP
4199		REPLACES 93000	03/06	DM	FB
4220		ITEM 3 WAS 93010	04/06	DM	FB
4303		UPDATED BILL OF MATERIAL REPLACED 93026 WITH 71513	07/06	GJH	FB
4539		REPLACED #93584 WITH (1)#83971 & (1)#84997 AND (4) #16009 & 4' of #33236	12/04/07	JKH	FB



Reference: Dairyland Frac Tank # 7126

Hydraulic function description:

First Condition:

Load Frac tank from transport tank

- 1) Open Intake Valve # A & Close Sump Valve # D
- 2) Open Fill/Agitate Valve # B & Close Transfer Valve # C

Second Condition

Load Field tank from the Frac tank

- 3) Close Intake Valve # A & Open Sump Valve # D
- 4) Close Fill/Agitate Valve # B & Open Transfer Valve # C

Third Condition:

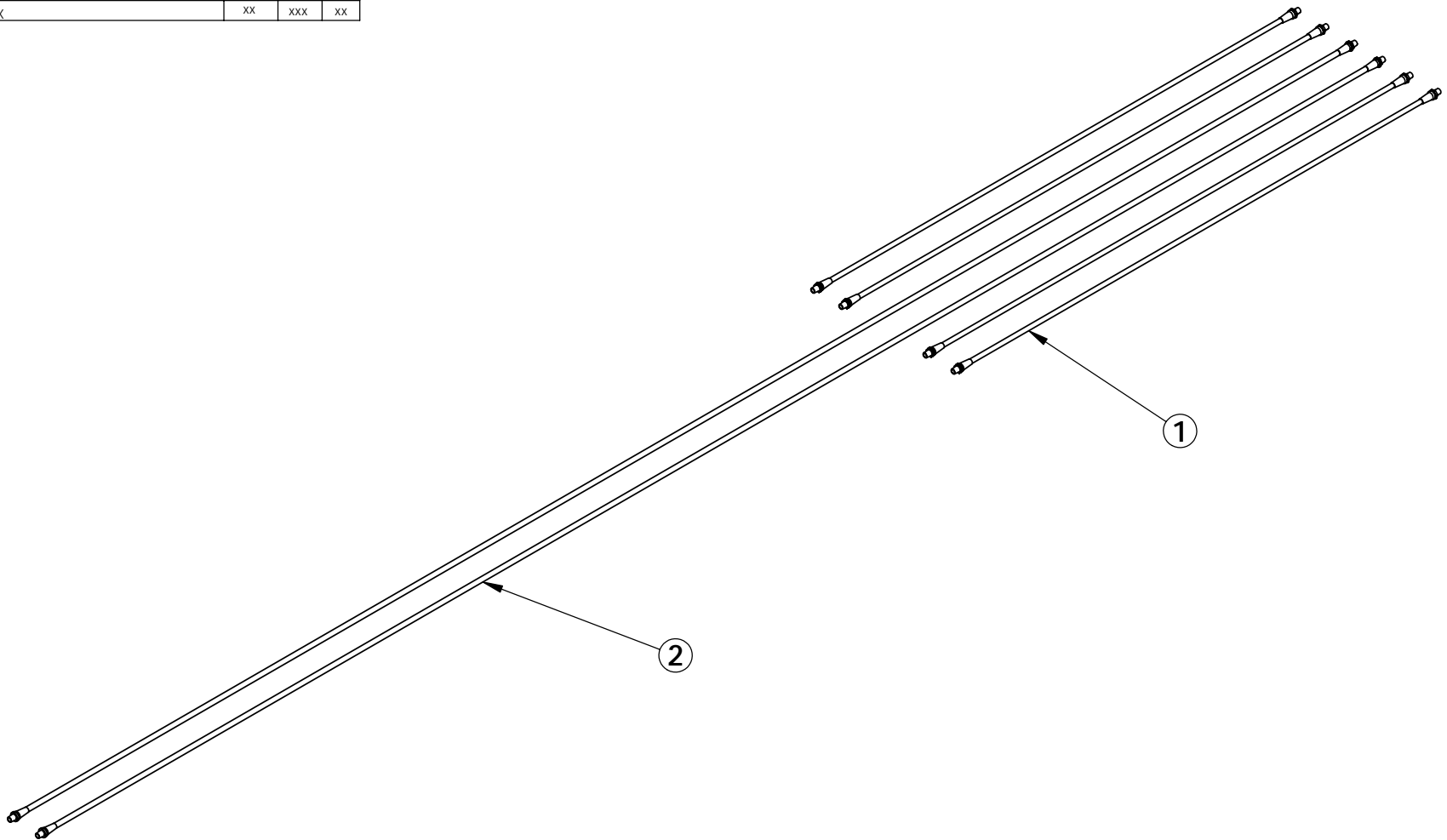
Load Field tank from transport tank

- 5) Open Intake Valve # A & Close Sump Valve # D
- 6) Close Fill/Agitate Valve # B & Open Transfer Valve # C

ITEM #	QTY	PART #	DESCRIPTION
1	1	41508	BUTTERFLY VALVE WELDMENT
2	1	93001	VALVE HANDLE HYD SELF LOAD
3	1	93583	MANIFOLD FRAC SELF LOAD
4	3	93591	VALVE 6" MNT w/o 2x6 TIE-ROD
5	1	93008	OFFSET w/FLANGES FRAC SELF LOAD
6	2	15564	FTG 6"X2HKFMXPFL04.18BC04BHOR
7	1	83724	SLURRY PUMP ASSEMBLY: PTO 17.5" IMPEL
8	1	71513	HYD AND HOSE KIT MANUAL HYD.
9	1	93589	CYL BRKT WELD 2x6 TIE-ROD
10	2	61137	BUSHING 25mmOD x 17mmID x 23mmLG
11	1	83971	FTG ELBOW 6SCH40 x04.18BCOR xHOSE BARB x 90DEG
12	1	84997	FLANGE 4 BOLT, 45 DEG ELBOW & HOSE BARB
13	4	16009	HOSE CLAMP 149-161mm
14	1	33236	6" FLEXITEX HOSE - LAY FLAT
15	2	15621	O'RING, 4" & 6" FLANGED VALVES

LAST SAVED		Tuesday, December 04, 2007 12:19:32 PM	
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG	APR	TITLE
			PUMP ASBY FRAC SELF LOAD w/HYD 6" VALVES(NO LEVER)
NEXT ASSY		1/F17C171HNH44	
SIZE	DWG NO	93582 SW	
D			
MATERIAL	DATE	03/06	
SCALE: 1:12	WEIGHT:		

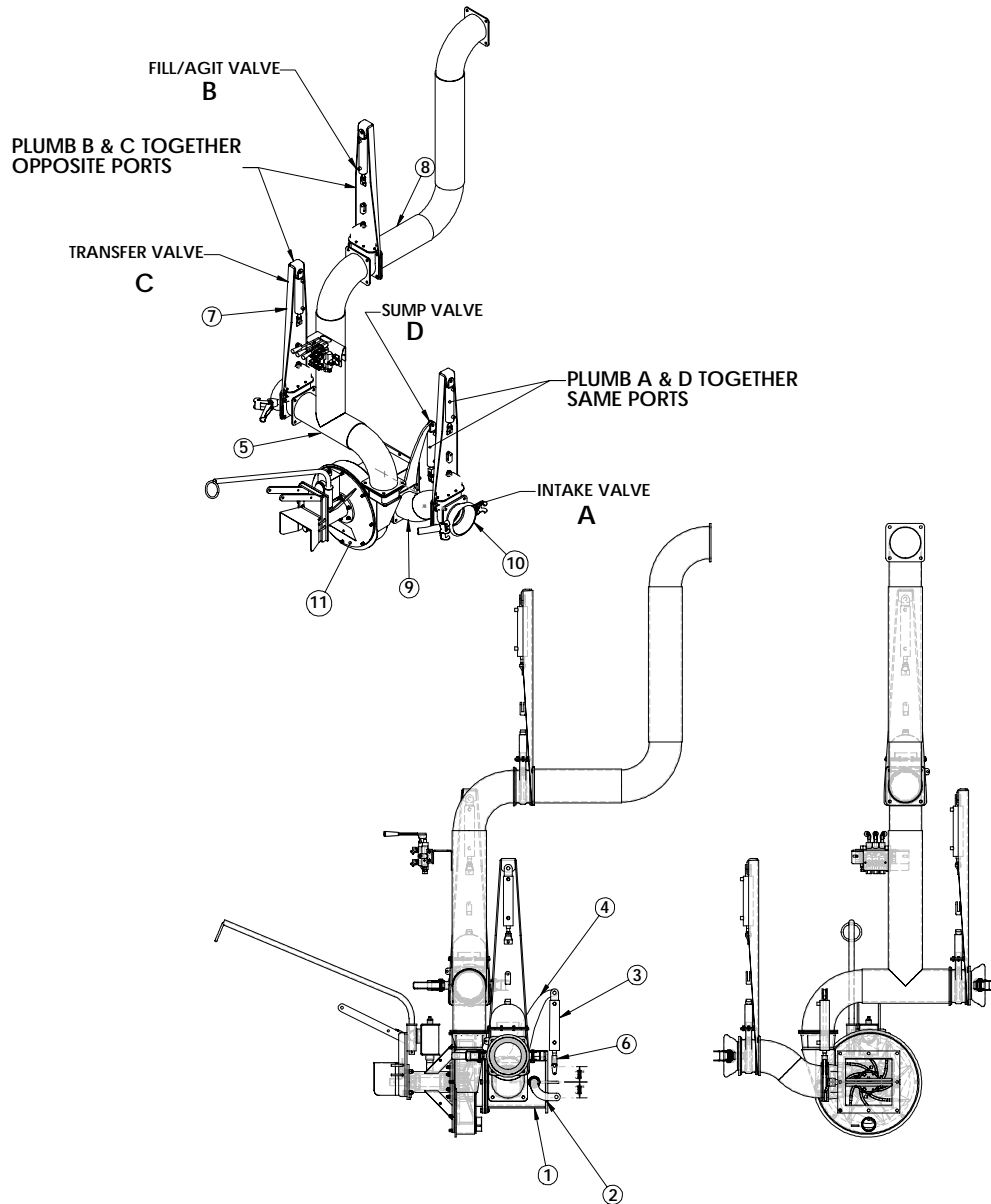
ECO#	REV	NOTES	DATE	DRWN	APR
		RELEASED	08/05	DM	FB
xx		XXXX	xx	xxx	xx



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	4	11997	HOSE HYD .25 x 52"
2	2	13893	HOSE HYD .25MP x .25MPS x 144"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC.	
WELD .06	FAB. .03	CO. HWY 27 E 507-427-3133 MT. LAKE, MN 800-795-8551	
TO ASSEMBLY		MATERIAL	SEE BILL OF MATERIALS
TO PAINT		LAST SAVED BY	Julie SHEET 1 OF 1
WELD		WHERE USED	17C1H44
PROCEDURE	DESIGN	LAST SAVED DATE	Tuesday, August 09, 2005 6:28:00 AM
			DWG NO 93027 SW

ECO#	REV	NOTES	DATE	BY	ARP
4030		RELEASED FOR REF7021/7022/7023	07/05	DM	FB
4049		NOTES ADDED	07/05	DM	FB
4199		REPLACED BY 93582	03/06	DM	FB



Reference: Hodel Frac Tank # 7021

Hydraulic function description:

First Condition:

Load Frac tank from transport tank

- 1) Open Intake Valve # A & Close Sump Valve # D
Pull left valve lever, sending oil to the rod ends of the two cylinders operating Valve # A & D
- 2) Open Fill/Agitate Valve # B & Close Transfer Valve # C
Pull right valve lever, sending oil to the rod end of the cylinder operating valve # B & to the base end of the cylinder operating Valve # C

Second Condition

Load Field tank from the Frac tank

- 3) Close Intake Valve # A & Open Sump Valve # D
Push left valve lever, sending oil to the base ends of the two cylinders operating Valve # A & D
- 4) Close Fill/Agitate Valve # B & Open Transfer Valve # C
Push right valve lever, sending oil to the base end of the cylinder operating valve # B & to the rod end of the cylinder operating Valve # C

Third Condition:

Load Field tank from transport tank

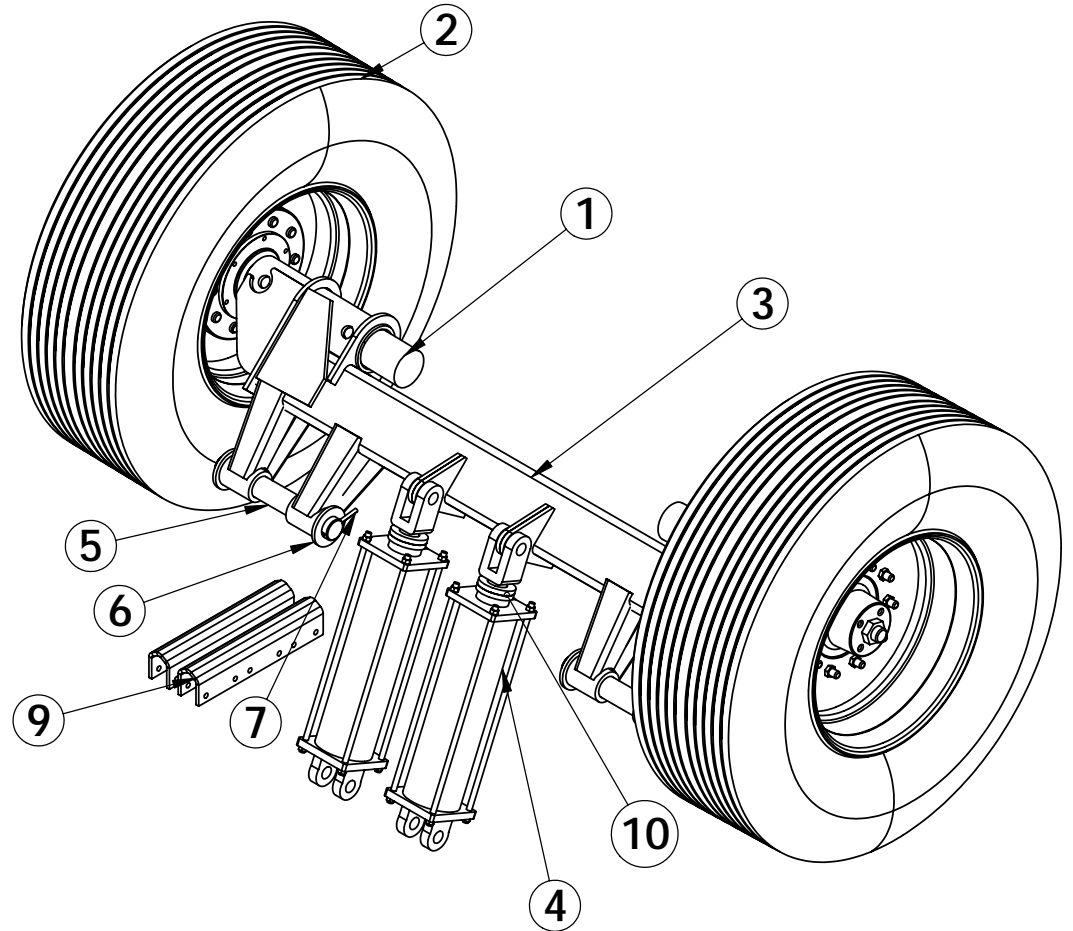
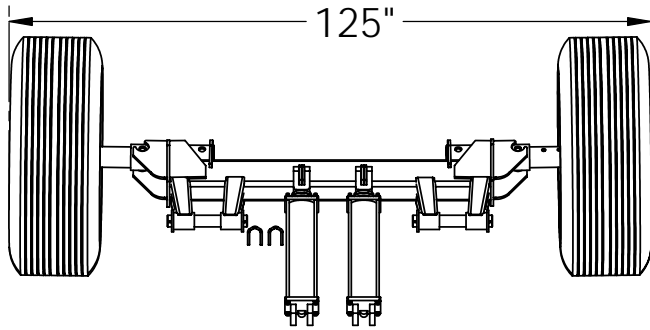
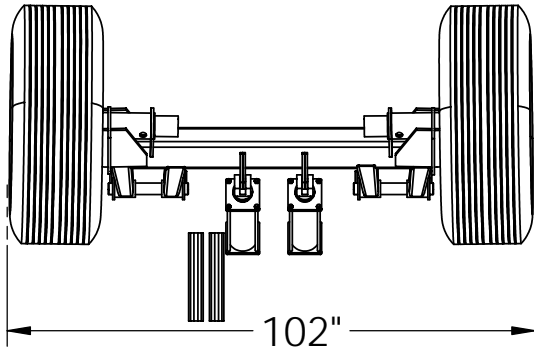
- 5) Open Intake Valve # A & Close Sump Valve # D
Pull left valve lever, sending oil to the rod ends of the two cylinders operating Valve # A & D
- 6) Close Fill/Agitate Valve # B & Open Transfer Valve # C
Push right valve lever, sending oil to the base end of the cylinder operating valve # B & to the rod end of the cylinder operating Valve # C

Set the Relief Valve to 1500 PSI max.

ITEM NO	QTY	PART NO.	DESCRIPTION
1	1	41508	BUTTERFLY VALVE WELDMENT
2	1	93001	VALVE HANDLE HYD SELF LOAD
3	1	4105	Hyd Cyl 1.5 x 6
4	1	93004	CYLINDER MNT SELF LOAD
5	1	93005OLD	MANIFOLD FRAC SELF LOAD
6	1	41709	CLEVIS BRAKE LINKAGE
7	3	93010	VALVE 6" w/HYD CYL DBL ACT & MNT
8	1	93018OLD	DISCHARGE PIPE 6" w/4-BOLT FLG
9	1	93008	OFFSET w/FLANGES FRAC SELF LOAD
10	2	15564	COUPLER, FLANGED FEMALE
11	1	83724	SLURRY PUMP ASSEMBLY: PTO 17.5" IMPEL
12	1	37044	HYDRAULIC VALVE 3 BANK
13	1	93026	HOSE KIT FRAC(MANUAL HYD/REMOTE HYD)

LAST SAVED DATE	Friday, March 24, 2006 2:00:10 PM		
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG APPR	TITLE	PUMP ASBY FRAC SELF LOAD
		SIZE	w/MANUAL HYD CONTROLS
NEXT ASSY	1/REF7021	SIZE	D
		DWG NO	93000 SW
MATERIAL	DATE	SCALE	WEIGHT:
	07/05	1:12	

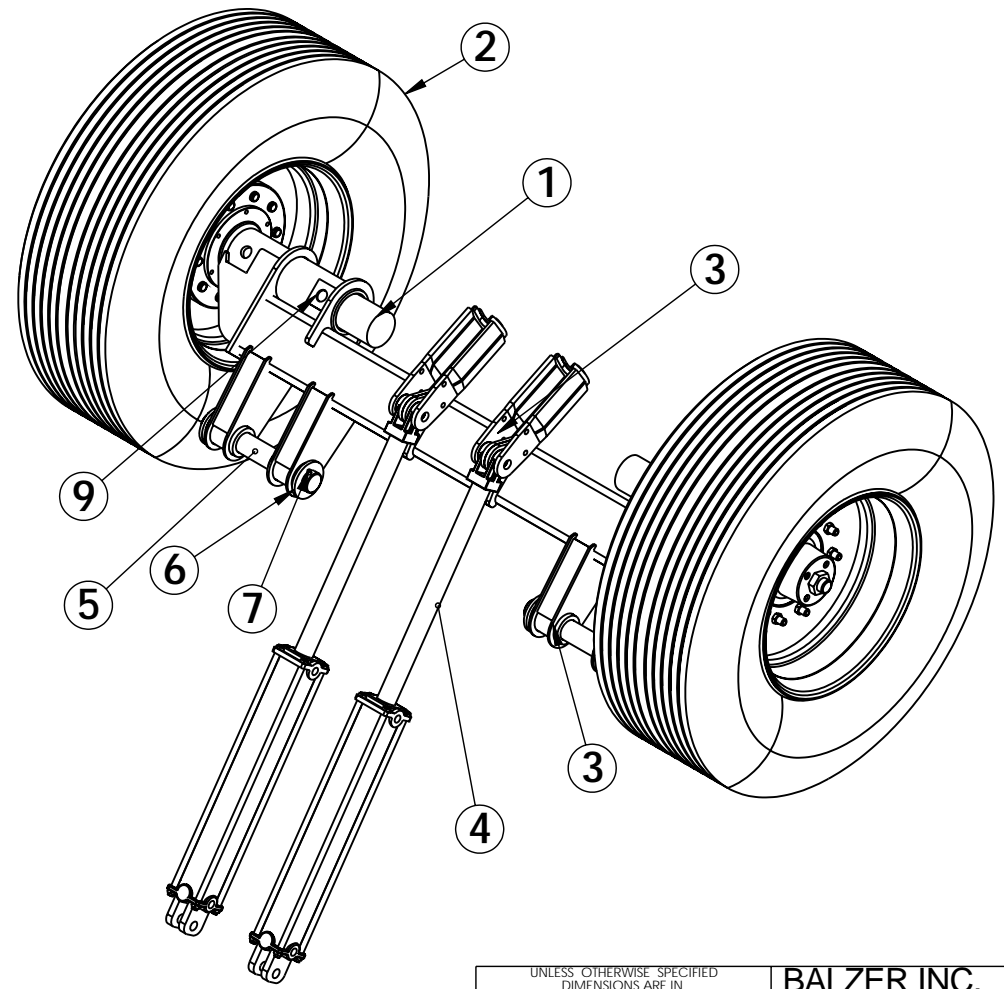
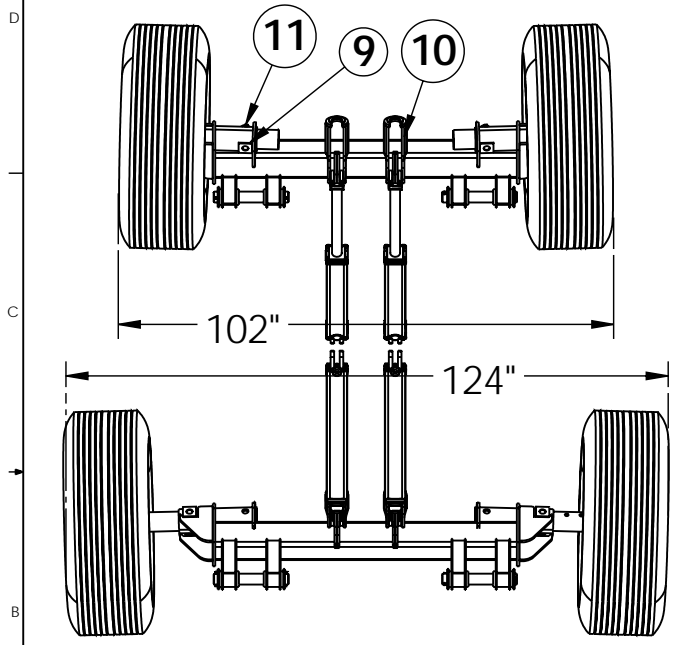
ECO#	REV.	NOTES	DATE	DESIGN	DRWN	APR
4030		RELEASED FOR REF7021(3)	06/05		DM	FB
4049		CHGS TO 92991	07/05	xxx	DM	FB
4303		93225 QTY 2 WAS QTY 4 ADDED (4) #71518	07/21/06		GJH	FB
4340		61244 WAS 71518 PER MIKE H.	09/19/06		GJH	FB



ITEM #	QTY	PART #	DESCRIPTION
1	2	17872	HUB & SPINDLE ASBY 4"/.75-16(10)-11.25"BC
2	2	14246	TIRE & WHEEL ASBY 445/65-22.5 L USED
3	1	92991	AXLE WELDMENT FRAC
4	2	92999	HYD CYLINDER 5 x 18 TIE-ROD
5	2	82769	PIN 2 1/4" x 15 7/16" LONG W/ 3/8"HOLES
6	4	90583	Washer 2.25" ID x 4.18" OD x .37
7	4	81767	ROLL PIN 3/8" x 3" LONG
8	1	93025	HOSE KIT FRAC AXLE
9	2	93225	CYLINDER SPACER
10	4	61244	DONUT 3 3/4" OD x 2 1/32" ID

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC.	
WELD .06	FAB. .03	CO. HWY 27 E 507-427-3133 MT. LAKE, MN 800-795-8551	
MATERIAL ASBY		PART NAME: FRAC AXLE ASBY	
TO FRAC TANK ASSEMBLY		WHERE USED 1/REF7021	
SUB ASSEMBLY		LAST SAVED DATE Tuesday, May 29, 2007 8:40:11 AM	
DESCRIPTION		DWG NO 92990 SW	

ECO#	REV	NOTES	DATE	DRWN	APR
4030		RELEASED FOR REF7021(3)	06/05	DM	FB
4049		CHGS TO 92991	07/05	DM	FB
4303		93225 QTY 2 WAS QTY 4- ADDED (4) #71518	07/21/06	GJH	FB
4340		61244 WAS 71518 PER MIKE H.	09/19/06	GJH	FB
4575		PUT THE 2* AT TRANSPORT POSITION	04/04/08	JKH	FB



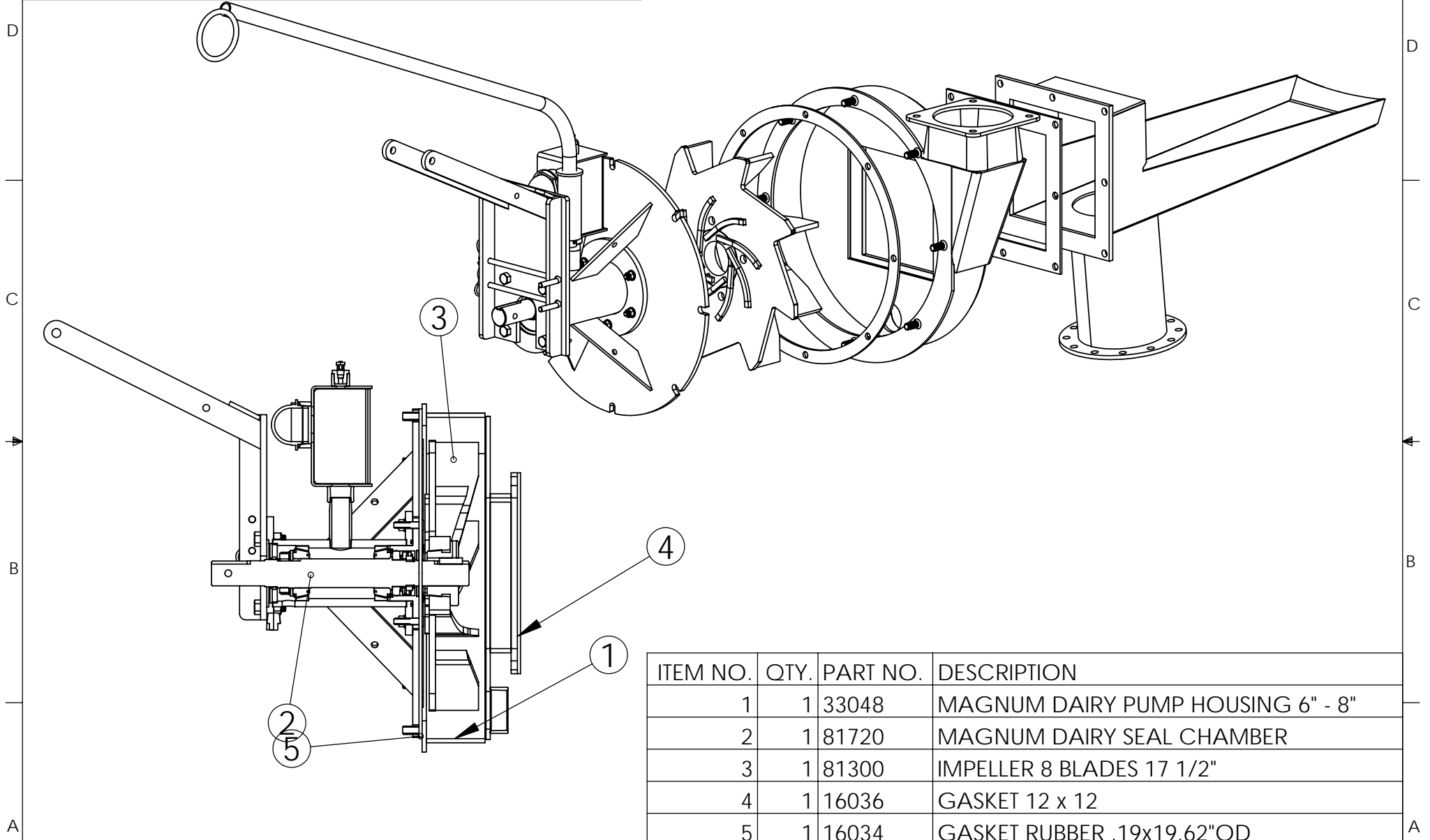
ITEM #	QTY	PART #	DESCRIPTION
1	2	17872	HUB & SPINDLE ASBY 4"/.75-16(10)-11.25"BC
2	2	14246	TIRE & WHEEL ASBY 445/65-22.5 L USED
3	1	92991	AXLE WELDMENT FRAC
4	2	36948	HYD CYL 4.0 x 24" W/ 2" ROD
5	2	82769	PIN 2 1/4" x 15 7/16" LONG W/ 3/8"HOLES
6	4	90583	WASHER 2.25" ID x 4.18" OD x .37"TH
7	4	81767	ROLL PIN .37" x 3.00" LG
8	1	93025	HOSE KIT FRAC AXLE
9	2	60956	PIN 1 1/4" x 6" NON TURNING
10	2	85165	TRANSPORT BRKT FRAC TANK
11	2	65968	LYNCH PIN 5/16"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:			
WELD FAB	FRACTIONS +- 1/32	DECIMALS +- .005	ANGLES +- 1°

BALZER INC.
 CO. HWY 27 E 507-427-3133
 MT. LAKE, MN 800-795-8551

TO FRAC TANK ASSEMBLY		MATERIAL LAST SAVED BY ASBY julie	PART NAME: FRAC AXLE ASBY
SUB ASSEMBLY		WHERE USED 1/REF7021	SHEET 1 OF 1
PROCEDURE	DESIGN	LAST SAVED DATE Tuesday, May 13, 2008 11:20:31 AM	DWG NO 92990 SW

ECO #	REV.	NOTES	DATE	DRWN	APR
XXX		RELEASED	03/28/05	KH	FB
XXX		XXXX	xxx	xxx	xxx



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	33048	MAGNUM DAIRY PUMP HOUSING 6" - 8"
2	1	81720	MAGNUM DAIRY SEAL CHAMBER
3	1	81300	IMPELLER 8 BLADES 17 1/2"
4	1	16036	GASKET 12 x 12
5	1	16034	GASKET RUBBER .19x19.62"OD

BALZER INC.
CO. HWY 27 E
MT. LAKE, MN
507-427-3133

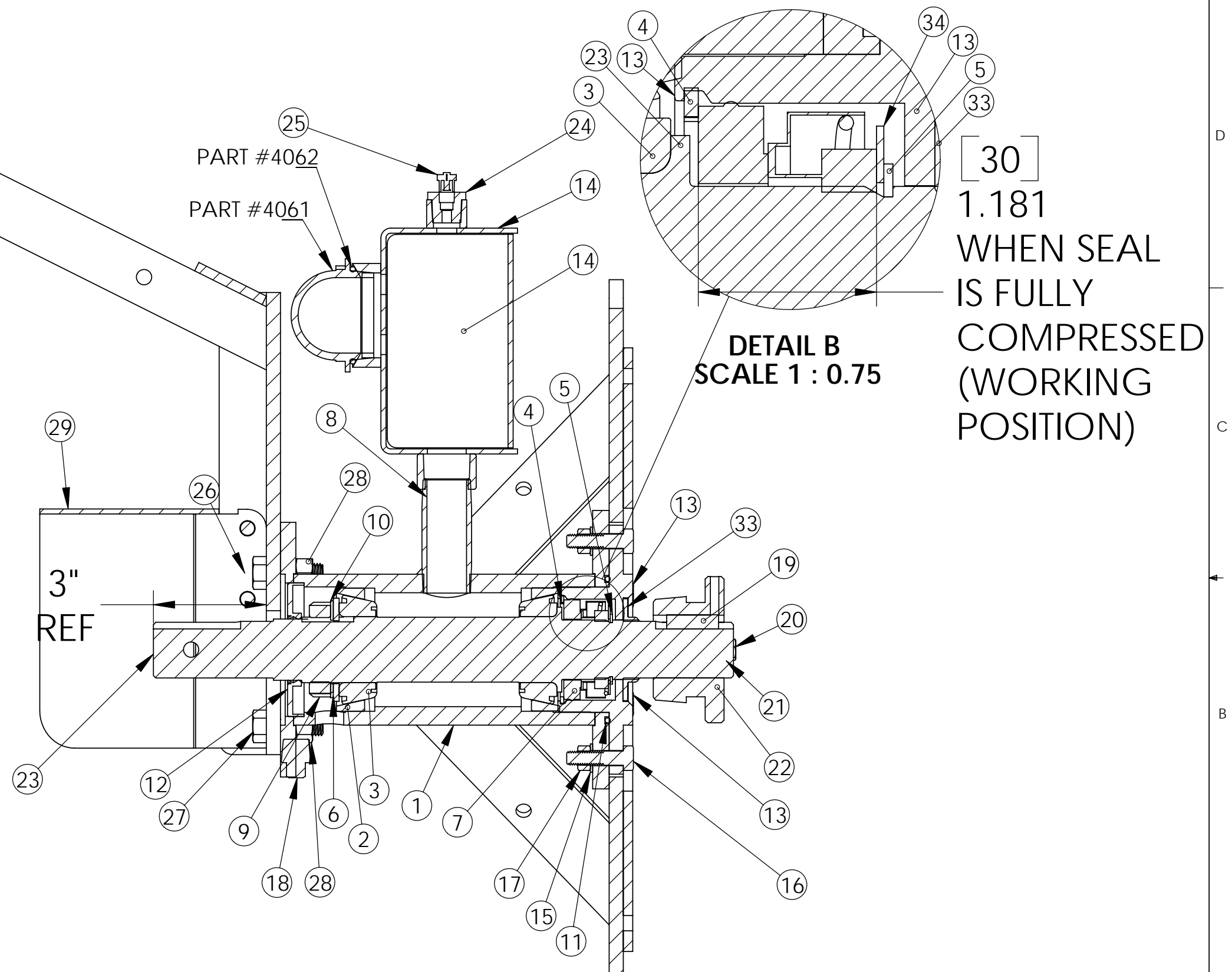
TO ASSEMBLY
 TO PAINT
 WELD
 PROCEDURE DESIGN **DM**

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN
 INCHES & TOLERANCES ARE:
 FRACTIONS +- 1/32
 DECIMALS +- .0005
 ANGLES +- 1
 MATERIAL **SEE BILL OF MATERIALS**
 WHERE USED **SURRY TANKS**
 LAST SAVED DATE **Tuesday, September 27, 2005 10:24:17 AM**

PART NAME **SLURRY PUMP ASSEMBLY; PTO 17.5" IMPEL**
 Don
 DWG. NO. **83724 SW**

ECO#	REV	NOTES	DATE	DRWN	APR
		RELEASED	08/20/03	JKH	FB
3950		REMOVED #81300	03/30/05	JKH	FB

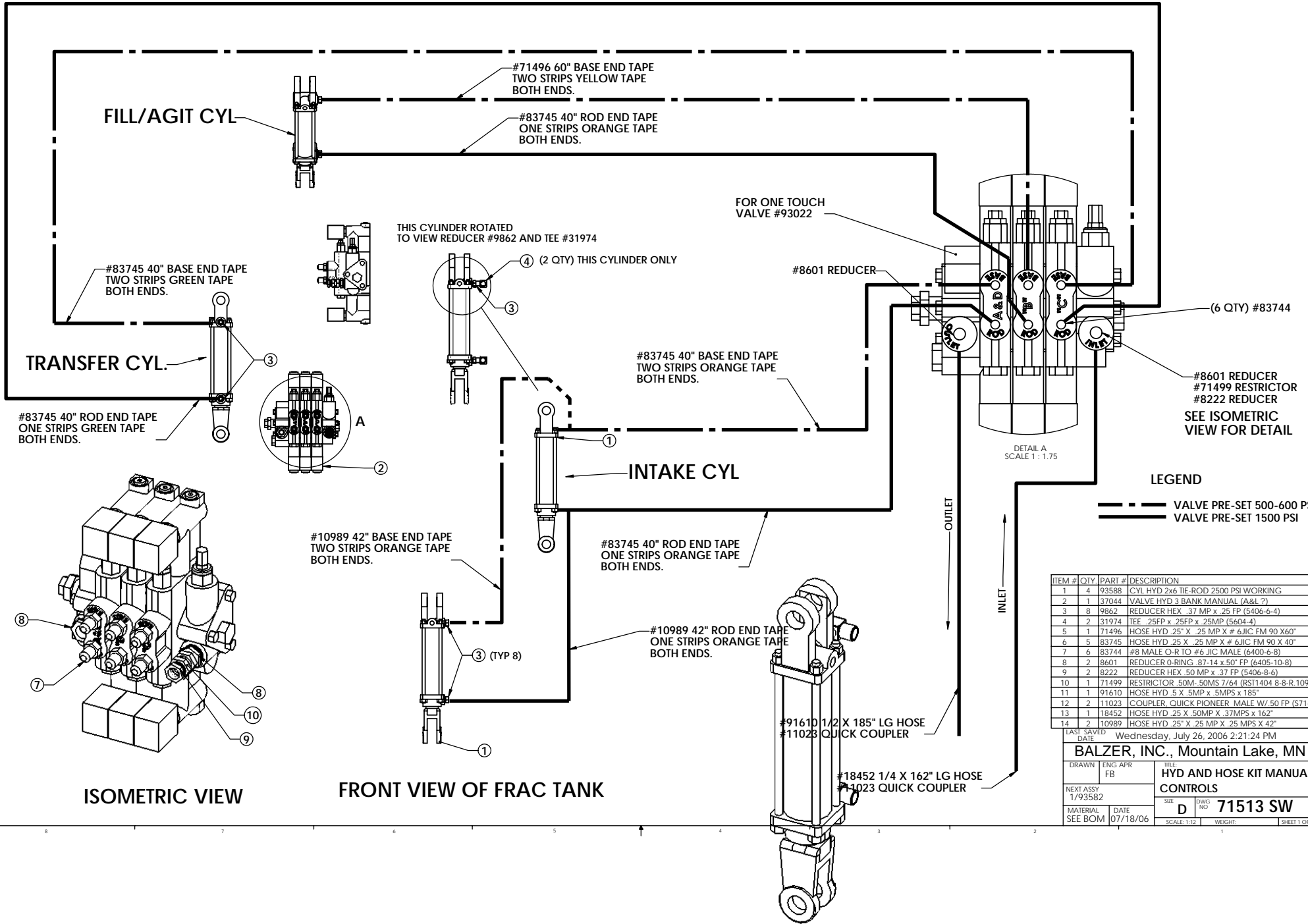
ITEM #	QTY	PART #	DESCRIPTION
1	1	36909	SLURRY PUMP CHAMBER
2	2	8491	BEARING CUP
3	2	40098	BEARING CONE 1.75" TIMKEN
4	1	6509	SNAP RING LARGE
5	1	6506	SNAP RING EXTERNAL
6	1	36919	WASHER 1.75" TONGUED
7	1	50372	SEAL WIDIA ASSY VERTICAL
8	1	36065	NIPPLE 1.0"NPT - 3.0" LONG
9	1	36920	NUT 1.75"-18 CLASS 2B SPANNER
10	1	36921	WASHER 1.75" TANGED STAKING
11	1	36918	O'RING 3.609"ID x .139" THCK
12	1	40095	SEAL BONDED/DOUBLE LIP
13	1	81290	CAP SLURRY SEAL
14	1	36930	OIL RESERVOIR
15	6	37090	FLATE WASHER .37" BRASS
16	6	1208	BOLT, 3/8" UNC 1 1/2" LONG HEX
17	6	2496	NUT, 3/8" TOPLOCK
18	1	8907	PIPE PLUG 1/2" NPT SQ. HEAD
19	1	2400	KEY .37 x .37 x 1.37 LG
20	3	18911	BOLT .31 x 1.87 SS
21	3	1635	LockWasher 5/16"
22	1	81770	OD BUSHING
23	1	81758	SHAFT DAIRY PUMP W/PTO
24	1	13038	Hex Reducer .5MP x .125FP
25	1	13097	BREATHER .12"NPT BRASS, 5#PSI VENT
26	2	2611	HAIR PIN .25 "
27	4	1250	BOLT .5 x 1.5 HEXHEAD
28	4	2539	NUT .5 TOPLOCK
29	1	36933	SHIELD SLURRY
30	1	83075	SHIELD AND PTO SUPPORT
31	1	83078	HOSE HANGER
32	2	83079	PIN .37" DIA x 7 9/16" WORKING
33	1	17054	SEAL RUBBER WASHER
34	1	61441	SHIM 1 5/8" x 18 GA



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE:		BALZER INC. CO. HWY 27 E 507-427-3133 MT. LAKE, MN 800-795-8551
WELD .06	FAB. .03	
MATERIAL SEE BILL OF MATERIALS		PART NAME:
TO ASSEMBLY WHERE USED 1/83721,83722,83724		MAGNUM DAIRY SEAL CHAMBER
SUB ASSEMBLE LAST SAVED BY Julie		PTO ONLY
PROCEDURE	DESIGN DM	DWG NO 81720 SW
LAST SAVED DATE Thursday, March 30, 2006 8:51:46 AM		

ECO#	REV	NOTES	DATE	DRWN	ARP
4303		RELEASED	07/19/06	GJH	FB

FOR FLUID CIRCUIT DIAGRAM SEE SHEET 2

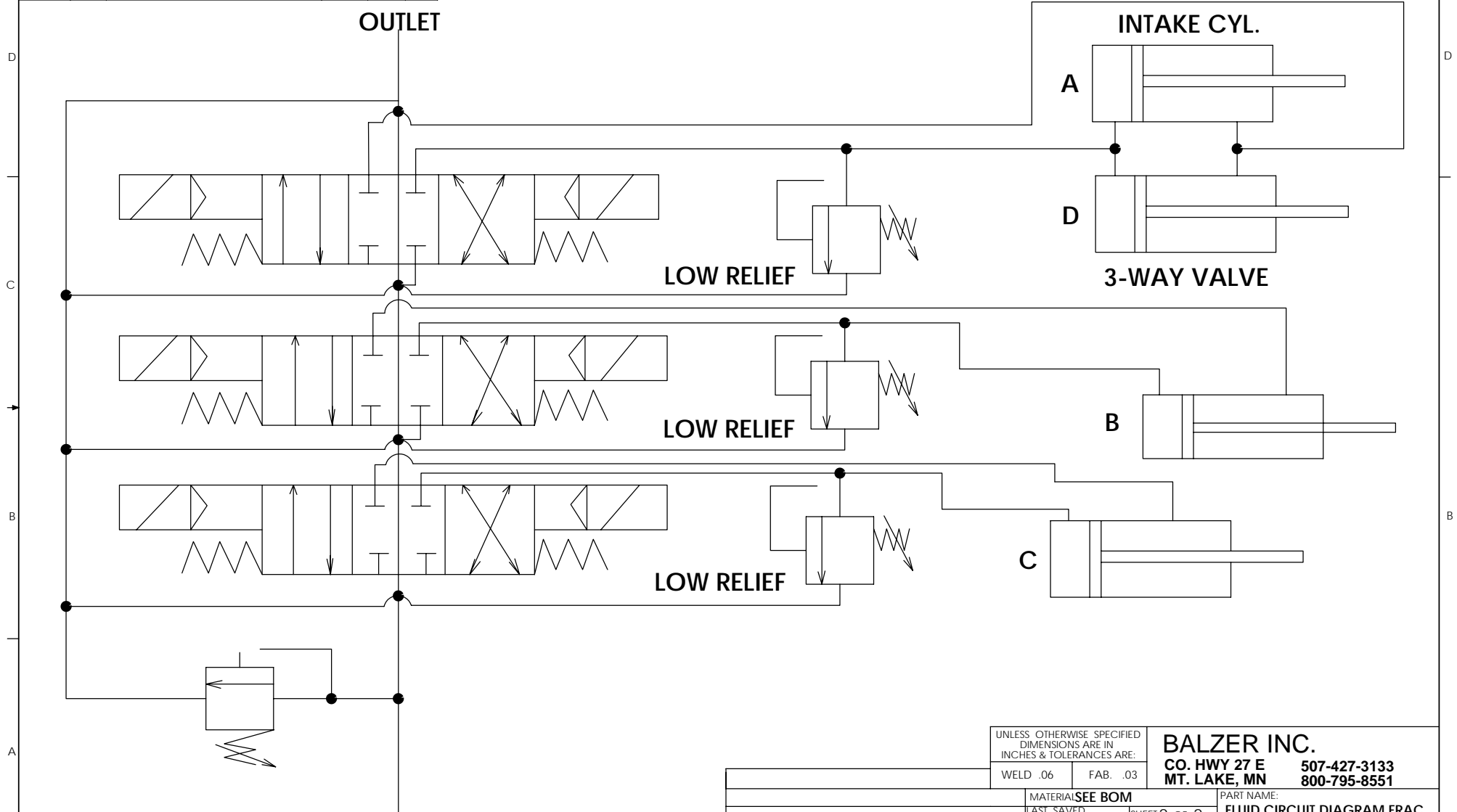


ITEM #	QTY	PART #	DESCRIPTION
1	4	93588	CYL HYD 2x6 TIE-ROD 2500 PSI WORKING
2	1	37044	VALVE HYD 3 BANK MANUAL (A&L ?)
3	8	9862	REDUCER HEX .37 MP x .25 FP (S406-6-4)
4	2	31974	TEE .25FP x .25FP x .25MP (S604-4)
5	1	71496	HOSE HYD .25" X .25 MP X # 6JIC FM 90 X60"
6	5	83745	HOSE HYD .25 X .25 MP X # 6JIC FM 90 X 40"
7	6	83744	#8 MALE O-R TO #6 JIC MALE (6400-6-8)
8	2	8601	REDUCER O-RING .87-14 x .50" FP (6405-10-8)
9	2	8222	REDUCER HEX .50 MP x .37 FP (S406-8-6)
10	1	71499	RESTRICTOR .50M-.50MS 7/64 (RST1404 8-8-R.109)
11	1	91610	HOSE HYD .5 X .5MP x .5MPS x 185"
12	2	11023	COUPLER QUICK PIONEER MALE W/ .50 FP (S71-4)
13	1	18452	HOSE HYD .25 X .50MP X .37MPS x 162"
14	2	10989	HOSE HYD .25" X .25 MP X .25 MPS X 42"

LAST SAVED DATE		Wednesday, July 26, 2006 2:21:24 PM	
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG	APR	TITLE
FB	FB		HYD AND HOSE KIT MANUAL HYD CONTROLS
NEXT ASSY		SIZE	DWG NO
1/93582		D	71513 SW
MATERIAL	DATE	SCALE	WEIGHT
SEE BOM	07/18/06	1:12	

SHEET 1 OF 2

ECO#	REV	NOTES	DATE	DRWN	APR
		RELEASED	07/18/06	FB	
xx		XXXX	xx	xxx	xx



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN
INCHES & TOLERANCES ARE:

WELD .06 FAB. .03

BALZER INC.
CO. HWY 27 E 507-427-3133
MT. LAKE, MN 800-795-8551

MATERIAL **SEE BOM**
LAST SAVED BY **Julie** SHEET **2** OF **2**

PART NAME:
**FLUID CIRCUIT DIAGRAM FRAC
CONTROLS**

WHERE **1793582**
LAST SAVED DATE **Wednesday, July 26, 2006 2:21:24 PM**

PROCEDURE DESIGN LAST SAVED DATE DWG NO **71513 SW**

1500 PSI INLET RELIEF **INLET**

INTAKE CYL.

A

D

3-WAY VALVE

B

C

LOW RELIEF

LOW RELIEF

LOW RELIEF

ECO#	REV	NOTES	DATE	DRWN	ARP
4303		RELEASED	07/19/06	GJH	FB

FOR FLUID CIRCUIT DIAGRAM SEE #71498S

BOOM UP/DOWN

FILL/AGIT CYL

TRANSFER CYL.

#93588
HYD CYL
REF

SUMP CYL

FRONT VIEW OF FRAC TANK

BOOM SWIVEL

INTAKE CYL

JACK CYL

AXLE CYL.

FOR MANUAL
VALVE #37044

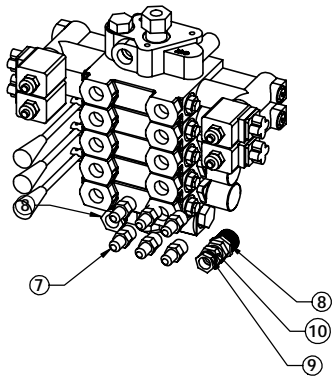
(6 QTY) #83744

#8601 REDUCER

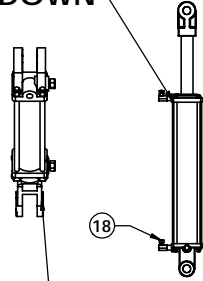
DETAIL A
SCALE 1 : 1.75

#8601 REDUCER
#71499 RESTRICTOR
#8222 REDUCER

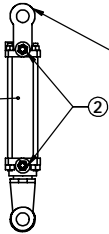
SEE ISOMETRIC
VIEW FOR DETAIL
VALVE PRE-SET 500-600 PSI
VALVE PRE-SET 1000 PSI



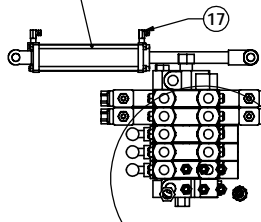
ISOMETRIC VIEW



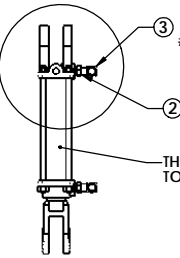
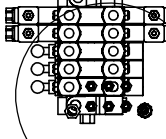
18



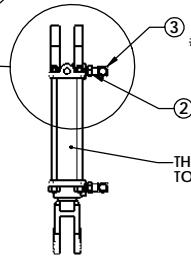
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17



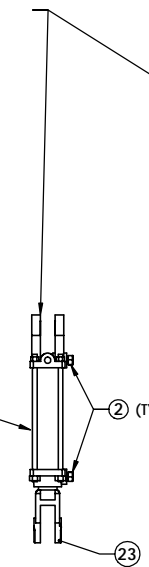
23



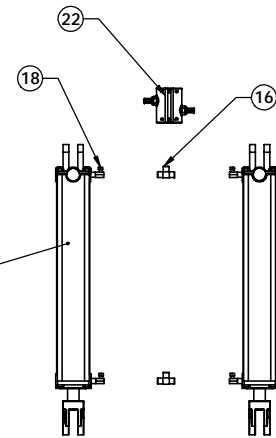
2

#31974 (2 QTY) THIS CYLINDER ONLY

THIS CYLINDER ROTATED
TO VIEW REDUCER #9862 AND TEE #31974



2 (TYP 8)



18

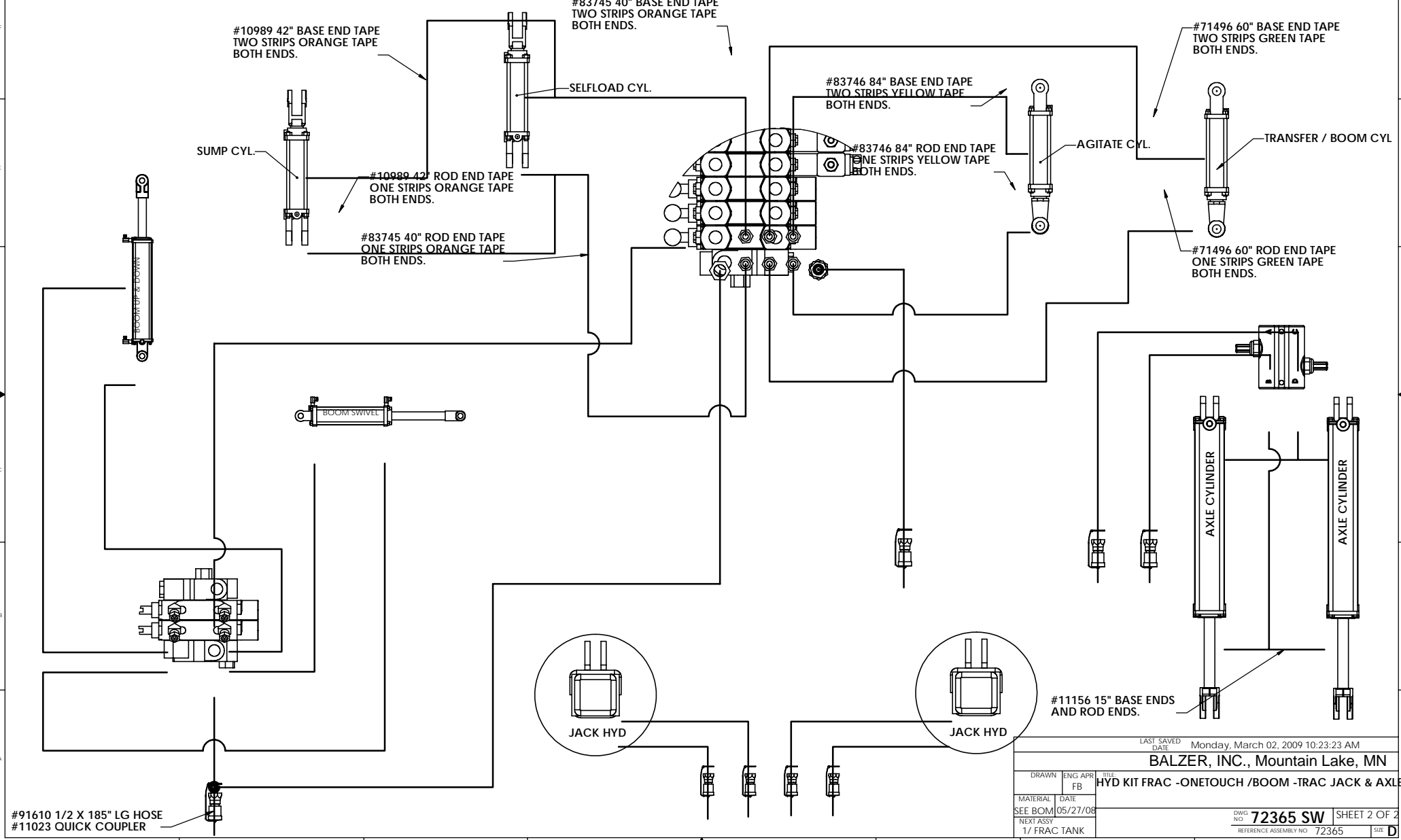
22

16

ITEM #	QTY	PART #	DESCRIPTION
1	1	72520	HYD VALVE 5 BANK 3 MAN. POC / 2 SOL POC
2	8	9862	HYD REDUCER .25" NPTFM x .37" NPTM (5406-6-4)
3	2	31974	TEE .25FP x .25FP x .25MP (5604-4)
4	2	83746	HYD HOSE .25X .25NPTMX .56JICFMS 90DEGX 84"LG
5	2	71496	HYD HOSE .25X .25NPTMX .56JICFMS 90DEGX 60"LG
6	2	83745	HYD HOSE .25X .25NPTMX .56JICFMS 90DEGX 40"LG
7	6	83744	HYD NIPPLE .56JICMX .75ORM (6400-6-8)
8	2	8601	REDUCER O-RING .87-14 x .50" FP (6405-10-8)
9	2	8222	HYD REDUCER .37" NPTFM x .50" NPTM -. (5406-8-6)
10	1	71499	RESTRICTOR .50M-.50MS 7/64 (RST1404 8-8-R-109)
11	1	91610	HYD HOSE .50X .50NPTMX .50NPTMSX 185"LG
12	1	18452	HYD HOSE .25 X .37NPTMSX .50NPTMSX 162"LG
13	2	10989	HOSE HYD .25X .25NPTMX .25NPTMSX 42"LG
14	1	62091	HYD VALVE 2 BANK 1 WORK / 1 MOTOR
15	4	71967	HYD ELBOW .75 ORMX .25FS 45 (6902-8-4)
16	2	9957	TEE .25FP x .25FP x .25FP
17	2	21171	HYD ELBOW .25NPTMSX .37NPTM 90DEG (1501-6-4)
18	6	21201	HYD ELBOW .50NPTMX .25NPTFMS 90DEG (1501-8-4)
19	4	11156	HYD HOSE .25X .25NPTMX .25NPTMSX 18"LG
20	8	11023	HYD MISC PIONEER MALE / .50NPTFM (S71-4)
21	8	28392	HYD MISC PIONEER DUST CAP (S49-4)
22	1	65727	VALVE CROSS OVER RELIEF

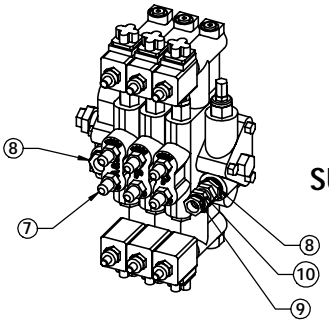
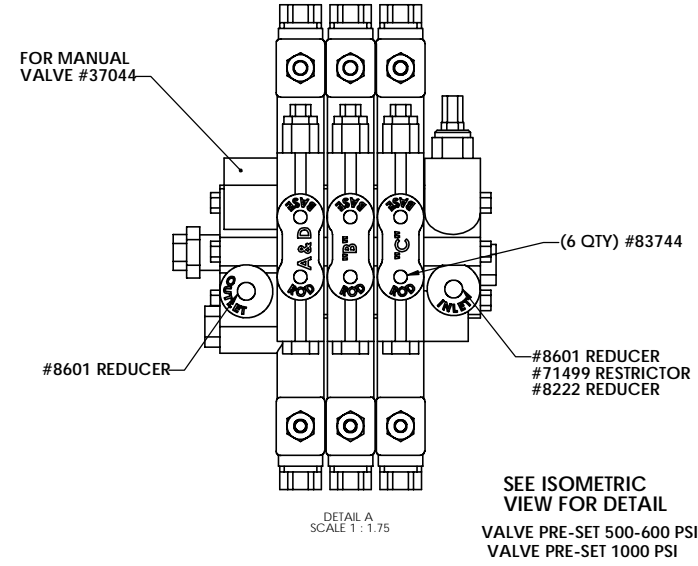
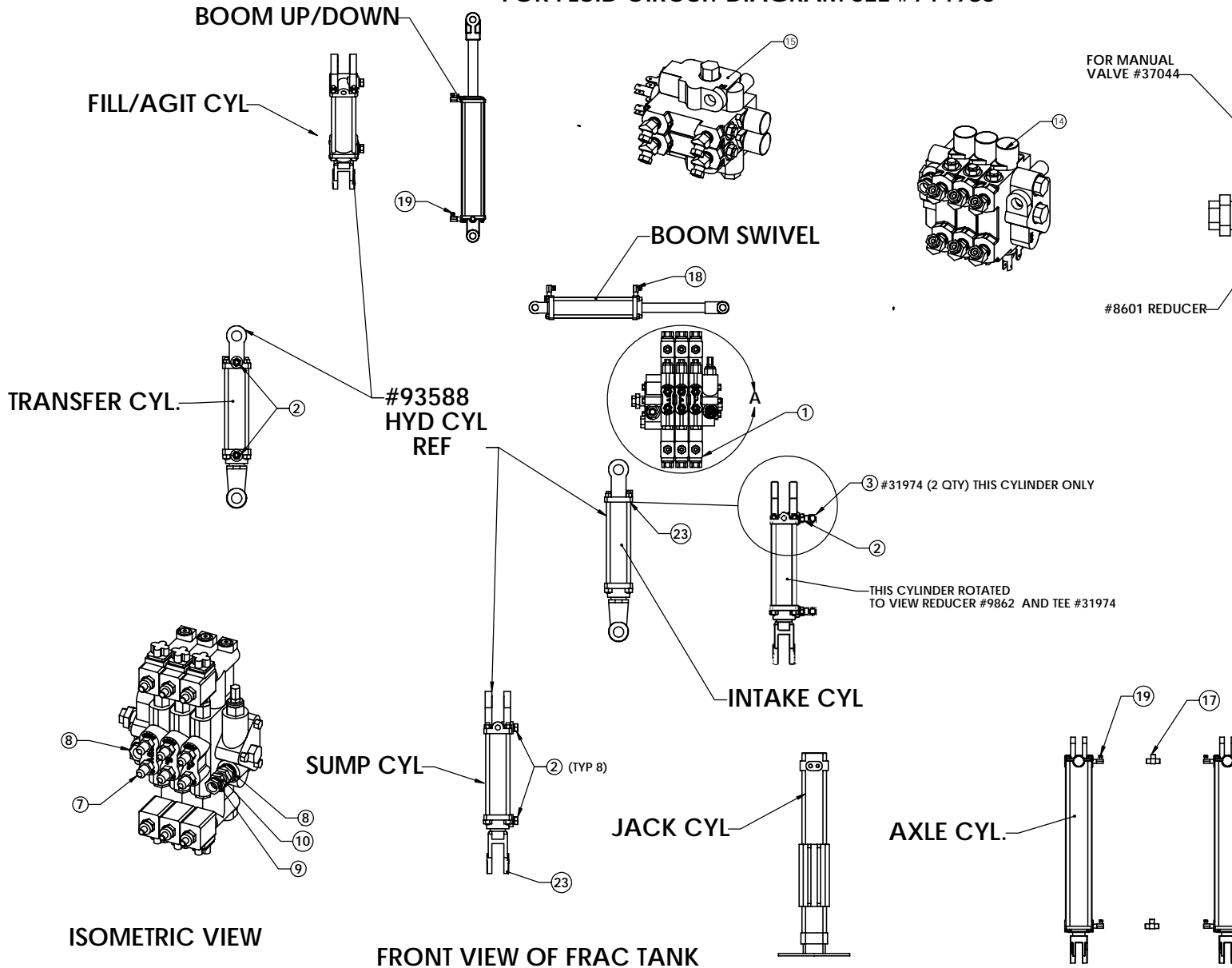
LAST SAVED DATE		Monday, March 02, 2009 10:23:23 AM	
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG APR	TITLE	
FB	FB	HYD KIT FRAC -ONETOUCH /BO	
NEXT ASSY		SIZE	DWG NO
1/ FRAC TANK		D	72365 SW
MATERIAL	DATE	SCALE	WEIGHT:
SEE BOM	05/27/08	1:4	

ECO#	REV	NOTES	DATE	BY	ARP
XXXX		XXXX	XXXX	XXX	XXX
XXX		XXXX	XXXX	XXX	XXX
XXX		XXXX	XXXX	XXX	XXX



DRAWN		ENG APP	TITLE	LAST SAVED DATE
MATERIAL		DATE	HYD KIT FRAC -ONETOUCH /BOOM -TRAC JACK & AXLE	Monday, March 02, 2009 10:23:23 AM
SEE BOM		05/27/08	BALZER, INC., Mountain Lake, MN	
NEXT ASSY		1/ FRAC TANK	DWG NO. 72365 SW	SHEET 2 OF 2
			REFERENCE ASSEMBLY NO. 72365	SIZE D

FOR FLUID CIRCUIT DIAGRAM SEE #71498S



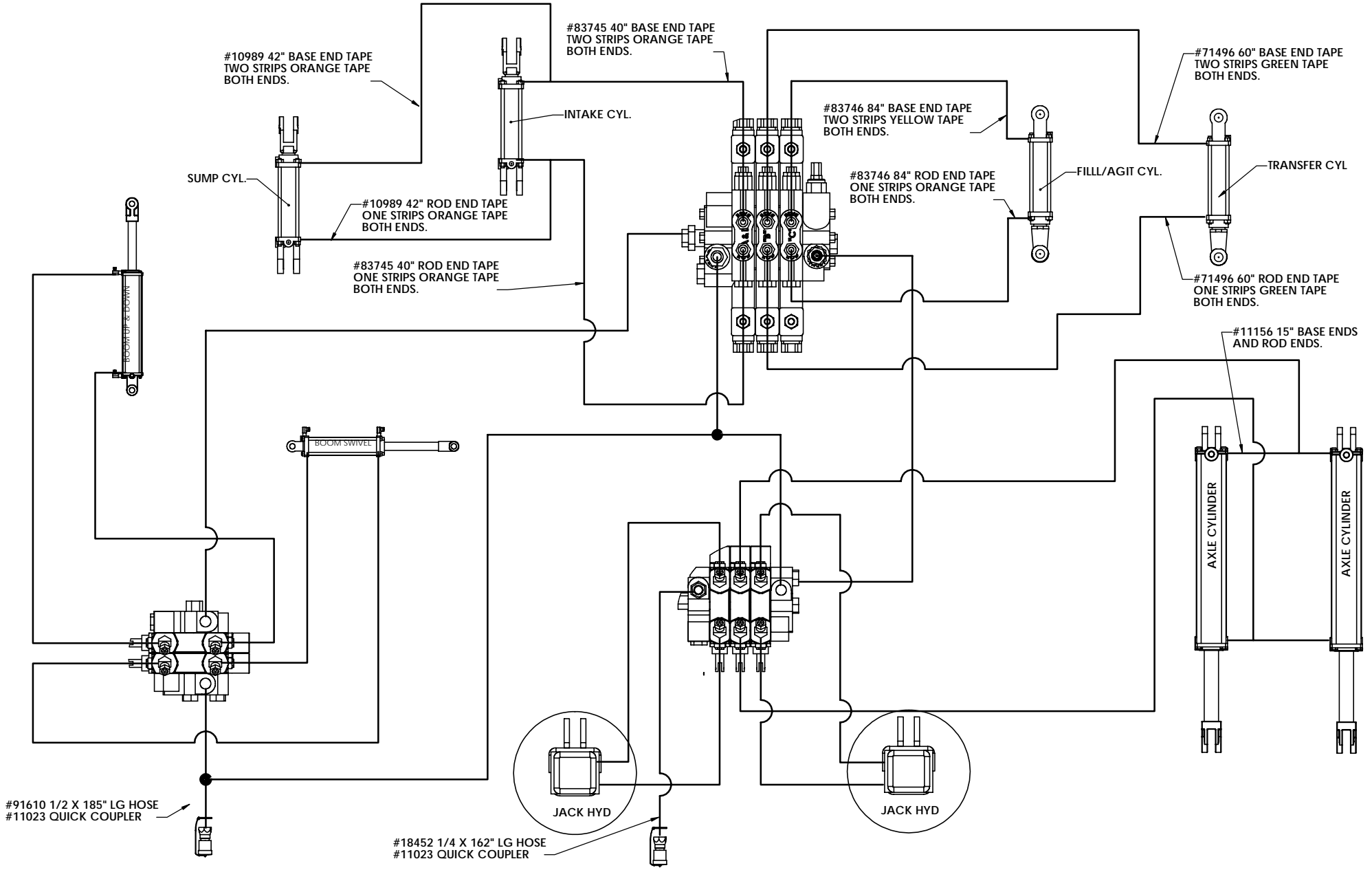
ISOMETRIC VIEW

FRONT VIEW OF FRAC TANK

ITEM #	QTY	PART #	DESCRIPTION
1	1	93022	VALVE HYD SOL 3 BANK (A&L #300171)
2	8	9862	HYD REDUCER .25" NPTFM x .37" NPTM (5406-6-4)
3	2	31974	TEE .25FP x .25FP x .25MP (5604-4)
4	2	83746	HYD HOSE .25x .25NPTMx #6JICFMS 90DEGX 84"LG
5	2	71496	HOSE HYD .25" X .25 MP X # 6JIC FM 90 X60"
6	2	83745	HYD HOSE .25 X .25NPTM X 5.6JICFMS 90DEG X 40"LG
7	6	83744	HYD NIPPLE .56JICMX .75ORM (6400-6-8)
8	3	8601	REDUCER O-RING .87-14 x .50" FP (6405-10-8)
9	3	8222	HYD REDUCER .37" NPTFM x .50" NPTM (5406-8-6)
10	1	71499	RESTRICTOR .50M-.50MS 7/64 (RST1404 8-8-R 109)
11	1	91610	HOSE HYD .5 X .5MP x .5MPS x 185"
12	1	18452	HOSE HYD .25 X .50MP X .37MPS X 162"
13	2	10989	HOSE HYD .25" X .25 MP X .25 MPS X 42"
14	1	71991	VALVE 3 BANK (SVL)
15	1	62091	VALVE 2 BANK (SVL)
16	10	71967	HYD ELBOW .75 ORMX 25FS 45 (6902-8-4)
17	2	9957	TEE .25FP x .25FP x .25FP
18	2	21171	HYD ELBOW .25" NPTFMS x .37" NPTM 90DEG (1501-6-4)
19	6	21201	HYD ELBOW .50NPTMx .25NPTFMS 90DEG (1501-8-4)
20	4	11156	HYD HOSE .25" .25MP X .25 MPS X 15"
21	2	11023	HYD MISC PIONEER MALE / .50NPTFM (S71-4)
22	2	28392	HYD MISC PIONEER DUST CAP (S49-4)

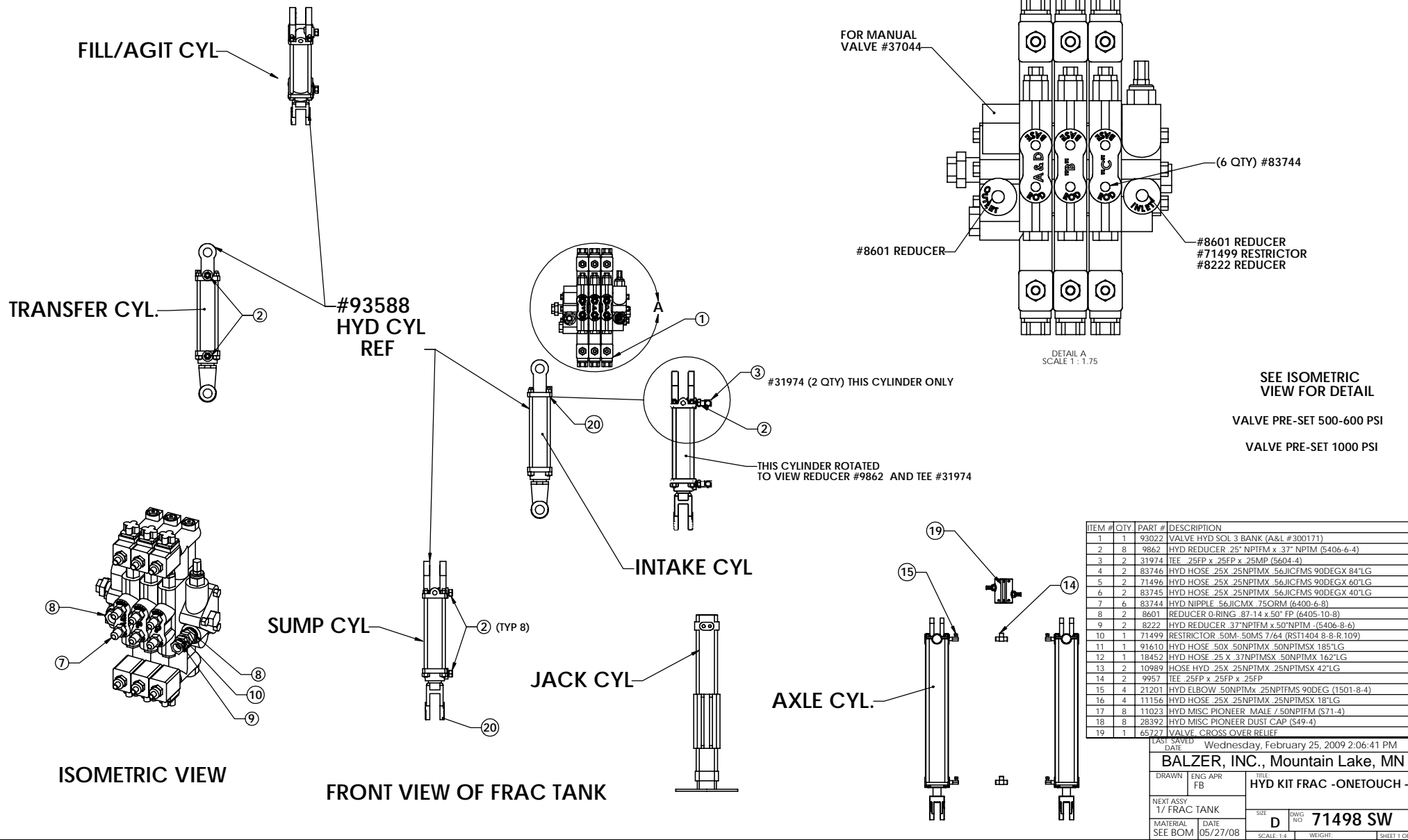
LAST SAVED DATE Monday, June 02, 2008 11:02:22 AM
BALZER, INC., Mountain Lake, MN

TITLE
FRAC BOOM MANUAL HYD JACK AND AXLE LIFT
 SIZE **D** DWG NO **72360a SW**



ECO#	REV	NOTES	DATE	DRWN	ARP
4303		RELEASED	07/19/06	GJH	FB

FOR FLUID CIRCUIT DIAGRAM SEE #71498S



ITEM #	QTY	PART #	DESCRIPTION
1	1	93022	VALVE HYD SOL 3 BANK (A&L #300171)
2	8	9862	HYD REDUCER .25" NPTFM x .37" NPTM (5406-6-4)
3	2	31974	TEE .25FP x .25FP x .25FP (5604-4)
4	2	83746	HYD HOSE .25X .25NPTMX .56JICFMS 90DEGX 84"LG
5	2	71496	HYD HOSE .25X .25NPTMX .56JICFMS 90DEGX 60"LG
6	2	83745	HYD HOSE .25X .25NPTMX .56JICFMS 90DEGX 40"LG
7	6	83744	HYD NIPPLE .56JICMX .75ORM (6400-6-8)
8	2	8601	REDUCER O-RING .87-14 x .50" FP (6405-10-8)
9	2	8222	HYD REDUCER .37"NPTFM x .50"NPTM (5406-8-6)
10	1	71499	RESTRICTOR .50M-.50MS 7/64 (RST1404 8-8-R.109)
11	1	91610	HYD HOSE .50X .50NPTMX .50NPTMSX 185"LG
12	1	18452	HYD HOSE .25 X .37NPTMX .50NPTMX 162"LG
13	2	10989	HOSE HYD .25X .25NPTMX .25NPTMSX 42"LG
14	2	9957	TEE .25FP x .25FP x .25FP
15	4	21201	HYD ELBOW .50NPTMx .25NPTMS 90DEG (1501-8-4)
16	4	11156	HYD HOSE .25X .25NPTMX .25NPTMSX 18"LG
17	8	11023	HYD MISC PIONEER MALE / .50NPTFM (S71-4)
18	8	28392	HYD MISC PIONEER DUST CAP (S49-4)
19	1	65727	VALVE CROSS OVER RELIEF

LAST SAVED DATE Wednesday, February 25, 2009 2:06:41 PM

BALZER, INC., Mountain Lake, MN

DRAWN ENG APR FB TITLE HYD KIT FRAC -ONETOUCH -TRAC

NEXT ASSY 1/ FRAC TANK

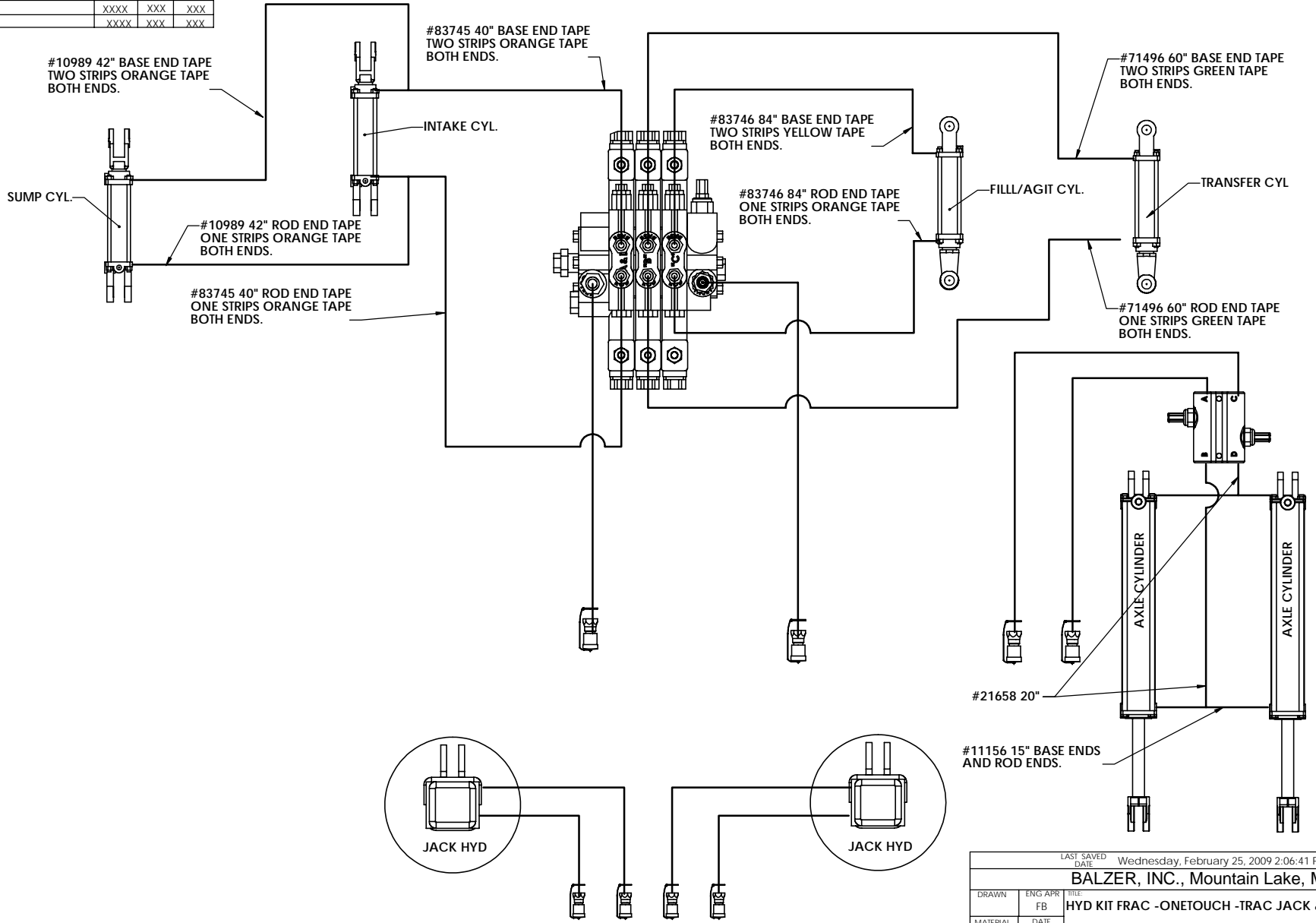
MATERIAL DATE 05/27/08

SEE BOM

SIZE D DWG NO 71498 SW

SCALE: 1:4 WEIGHT: SHEET 1 OF 2

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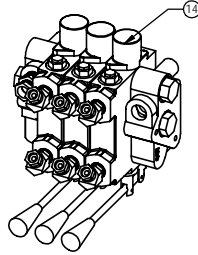


LAST SAVED DATE		Wednesday, February 25, 2009 2:06:41 PM	
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG APR	TITLE	
SEE BOM	FB	HYD KIT FRAC -ONETOUCH -TRAC JACK & AXLE	
MATERIAL	DATE		
1/ FRAC TANK	05/27/08		
NEXT ASSY		DWG NO	SHEET 2 OF 2
		71498 SW	
		REFERENCE ASSEMBLY NO	SIZE
		71498	D

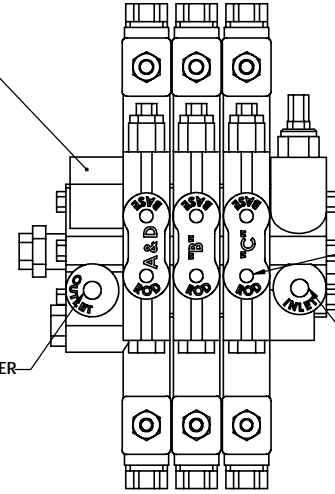
ECO#	REV	NOTES	DATE	DRWN	ARP
4303		RELEASED	07/19/06	GJH	FB

FOR FLUID CIRCUIT DIAGRAM SEE #71498S

FILL/AGIT CYL



FOR MANUAL VALVE #37044

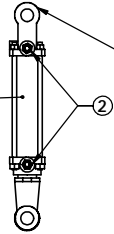


(6 QTY) #83744

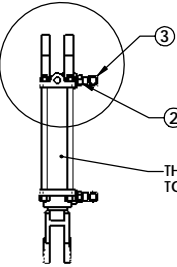
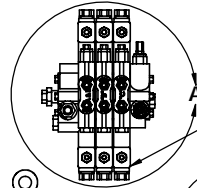
#8601 REDUCER

#8601 REDUCER
#71499 RESTRICTOR
#8222 REDUCER

TRANSFER CYL.



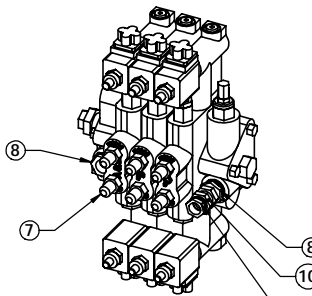
#93588
HYD CYL
REF



#31974 (2 QTY) THIS CYLINDER ONLY

THIS CYLINDER ROTATED
TO VIEW REDUCER #9862 AND TEE #31974

INTAKE CYL



SUMP CYL

(2) (TYP 8)

JACK CYL

AXLE CYL.

FRONT VIEW OF FRAC TANK

ISOMETRIC VIEW

ITEM #	QTY	PART #	DESCRIPTION
1	1	93022	VALVE HYD SOL 3 BANK (A&L #300171)
2	8	9862	HYD REDUCER 25" NPTFM x 37" NPTM (5406-6-4)
3	2	31974	TEE 25FP x 25FP x 25MP (5604-4)
4	2	83746	HYD HOSE 25X 25NPTMX 56JICFMS 90DEGX 84'LG
5	2	71496	HYD HOSE 25X 25NPTMX 56JICFMS 90DEGX 60'LG
6	2	83745	HYD HOSE 25X 25NPTMX 56JICFMS 90DEGX 40'LG
7	6	83744	HYD NIPPLE 56JICMX .75ORM (6400-6-8)
8	3	8601	REDUCER O-RING 87-14 x 50' FP (6405-10-8)
9	3	8222	HYD REDUCER 37" NPTFM x 50" NPTM (5406-8-6)
10	1	71499	RESTRICTOR 50M-50MS 7/64 (RST1404 8-8-R-109)
11	1	91610	HYD HOSE 50X 50NPTMX 50NPTMSX 185'LG
12	1	18452	HYD HOSE 25 X 37NPTMSX 50NPTMX 162'LG
13	2	10989	HOSE HYD 25X 25NPTMX 25NPTMSX 42'LG
14	1	71991	HYD VALVE 3 BANK, 3 MAN POC
15	6	71967	HYD ELBOW 75 ORMX 25FS 45 (6902-8-4)
16	2	9957	TEE 25FP x 25FP x 25FP
17	4	21201	HYD ELBOW 50NPTMX 25NPTFMS 90DEG (1501-8-4)
18	4	11156	HYD HOSE 25X 25NPTMX 25NPTMSX 18'LG
19	2	11023	HYD MISC PIONEER MALE / 50NPTFM (S71-4)
20	2	28392	HYD MISC PIONEER DUST CAP (S49-4)

LAST SAVED DATE Monday, March 02, 2009 9:11:44 AM

BALZER, INC., Mountain Lake, MN

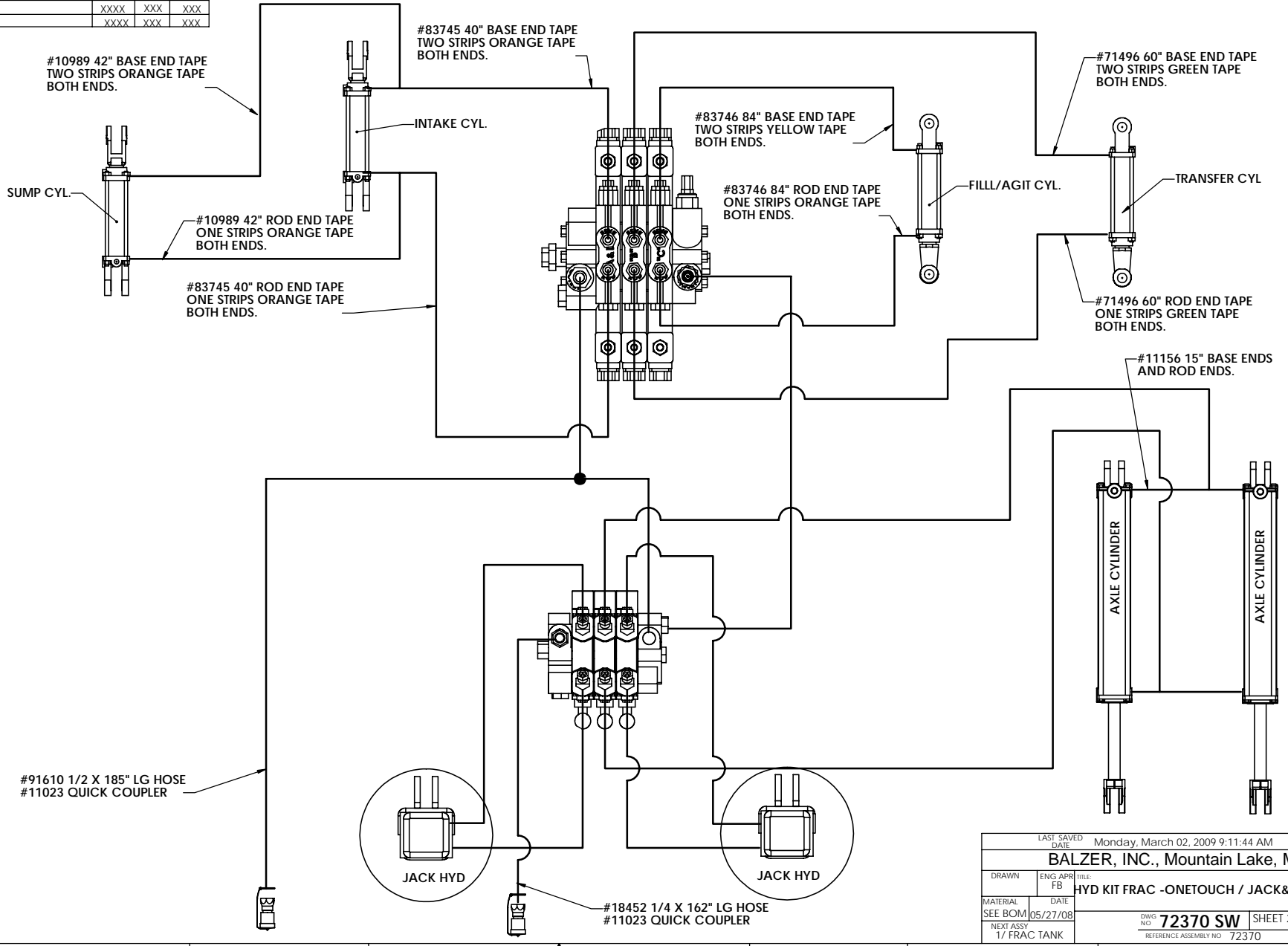
DRAWN ENG APR FB TITLE HYD KIT FRAC -ONETOUCH / JAC

NEXT ASSY 1/ FRAC TANK

MATERIAL DATE 05/27/08 SIZE D DWG NO 72370 SW

SEE BOM SCALE: 1:4 WEIGHT: SHEET 1 OF 2

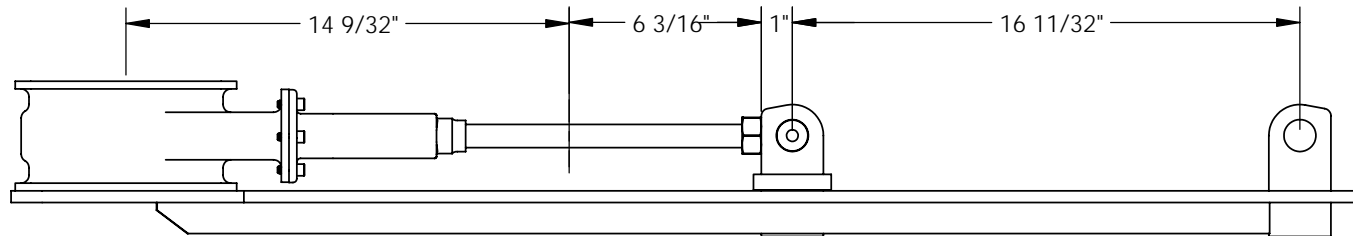
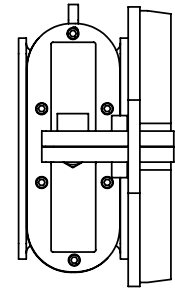
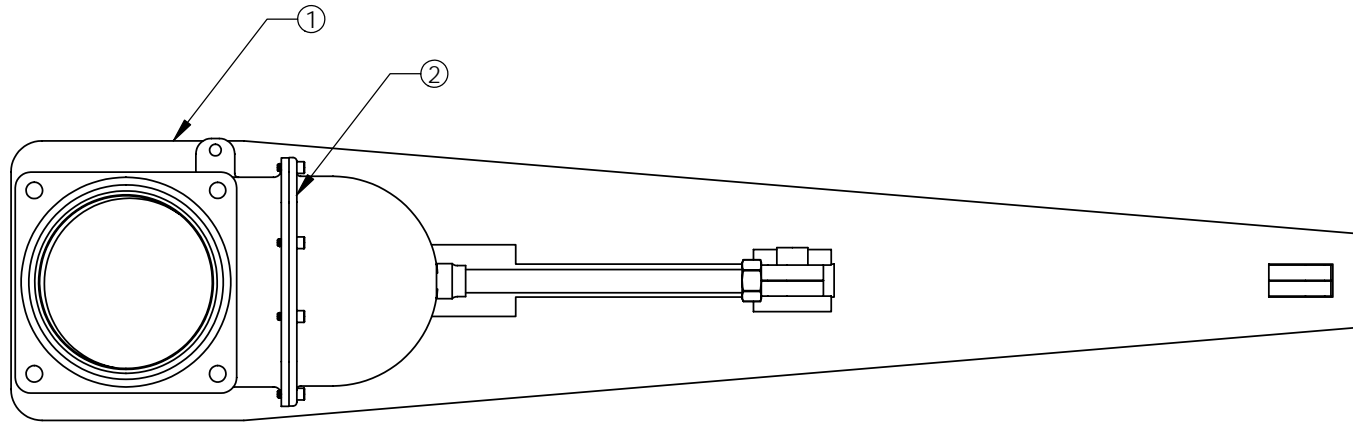
ECO#	REV	NOTES	DATE	BY	ARP
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XXX		XXXX	XXXX	XXX	XXX



LAST SAVED DATE		Monday, March 02, 2009 9:11:44 AM	
BALZER, INC., Mountain Lake, MN			
DRAWN	ENG APPR	TITLE	
SEE BOM	FB	HYD KIT FRAC - ONETOUCH / JACK & AXLE	
MATERIAL	DATE	DWG NO	
1/ FRAC TANK	05/27/08	72370 SW	
NEXT ASSY		REFERENCE ASSEMBLY NO	SIZE
		72370	D

D

ECO#	REV	NOTES	DATE	DRWN	APR
4220		2x6 TIE-ROD/RPLCS 93010 ON 93582/93592	05/06	DM	FB
4277		CHANGES MADE TO 93593	05/06	DM	FB
4303		REMOVED CYL #93588	07/21/06	GJH	FB



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	93592	CYL MNT 6" VALVE 2x6 TIE-ROD
2	1	15616	Valve 6" w/STEM & CLEVIS
3	1	93596	SPACER 1"ODx.31"WALL
4	1	93597	LUG WELD

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN
INCHES & TOLERANCES ARE:

WELD .06 FAB. .03

MATERIAL ASBY

LAST SAVED BY Julie

SHEET 1 OF 1

WHERE 3793585, 93582

LAST SAVED DATE Wednesday, July 26, 2006 2:21:29 PM

BALZER INC.

CO. HWY 27 E 507-427-3133
MT. LAKE, MN 800-795-8551

PART NAME:

VALVE 6" MNT w/o 2x6 TIE-ROD

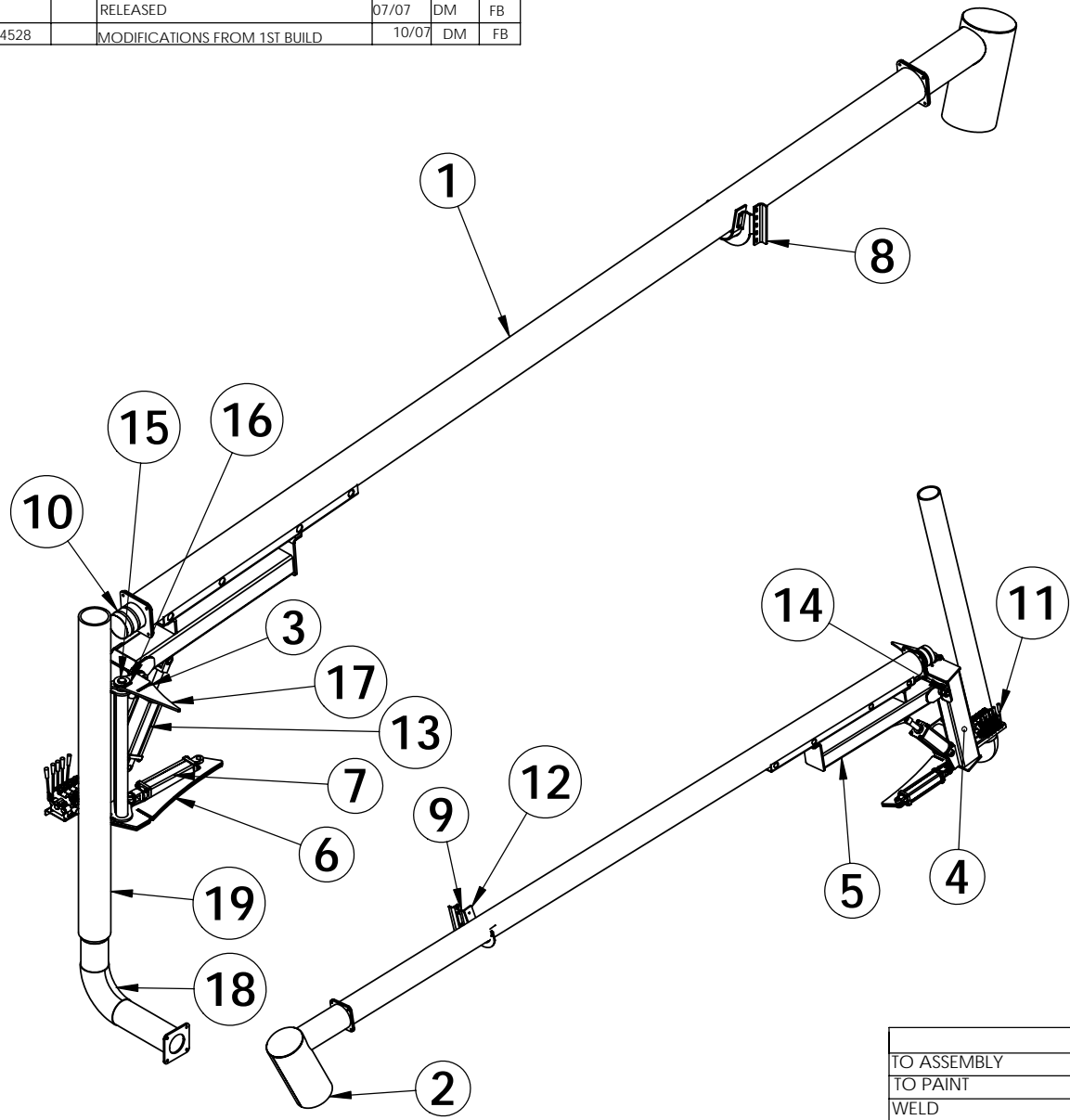
PROCEDURE

DESIGN

DWG NO

93591 SW

ECO#	REV	NOTES	DATE	DRWN	APR
		RELEASED	07/07	DM	FB
4528		MODIFICATIONS FROM 1ST BUILD	10/07	DM	FB



ITEM 11 CONTROL VALVE 71992

- 1ST SPOOL --- LIFT CYLINDER/R VALVE ON BOOM DOWN
- 2ND SPOOL-- SWING CYLINDER ORFICE TO SLOW MOVE
- 3RD SPOOL-- LEFT FOOT
- 4TH SPOOL--- RIGHT FOOT
- 5TH SPOOL--- REAR WHEELS

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	84844	TUBE WELDMENT 20' 8"
2	1	84845	SPOUT WELDMENT 8" BOLT ON
3	1	94720	PIVOT LUG FRAC BOOM UPPER
4	1	94721	PIVOT HINGE WELD
5	1	94726	SPOUT ARM WELD
6	2	94719	PIVOT LUG FRAC BOOM LOWER
7	1	8226	HYD CYL 2.50" BORE x 10.00" STROKE x ROD-TIE
8	1	94733	MOUNTING BRACKET
9	1	94734	SADDLE FRAC BOOM 8"
10	1	94735	FLANGE 4-BLT/6" HOSE BARB
11	1	71992	VALVE 5 BANK
12	1	94737	BELTING RUBBER .37x3
13	1	28295	HYD CYL 4" x 10" TIE ROD
14	1	94738	PIN 1.43SP x 15.5"
15	1	94739	PIN WELDMENT 1.75" DIA x 38" LONG
16	1	2405	KEY .37" x .37" x 2.00" LG
17	1	94717	SUPPORT BRACE UPPER
18	1	15924	ELBOW 6" 90DEG 4BOLT FL.
19	1	94745	HOSE 6" BLACK WIRE RE-INFORCED

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN
INCHES & TOLERANCES ARE:
WELD .04 FRACTIONS DECIMALS ANGLES
FAB. .03 +- 1/32 +- .005 +- 1°

BALZER INC.
CO. HWY 27 E 507-427-3133
MT. LAKE, MN 800-795-8551

TO ASSEMBLY		MATERIALS SEE BILL OF MATERIALS		PART NAME:	
TO PAINT		LAST SAVED BY: Julie		SHEET 1 OF 1	
WELD		WHERE USED: FRAC OPTION		BOOM 8" FRAC ASBY	
PROCEDURE	DESIGN	LAST SAVED DATE: Friday, November 30, 2007 11:03:20 AM		DWG NO: 84830 SW	