

H "A" sign
H sign
RSPH

fat
fats
polins

oil

LEFT

MS18-2-121-A18-0000

0043437735

FID0034447

001 J

RIGHT

MS18-2-121-A18-0000

0043437738

FID0034447

002 J

MSSO-2-G21-F50-1120-2000

003043701V

SERIE-N F00066337001

VERS. J

MSSO-2-G21-F50-1120-2000

0092437994

SERIE-N F00071932001

VERS. J

ENG No. - 79232791

DATA & MFG. - 01/07

MODEL - Q5X15

FAMILY - TCEXL015-AAE

ADVENTURE - 520 @ 2100 RPM

REPL NO - AFE-5201FA/ENCL

E.C.S. - DDI ECM TC CAC

TQLE SPPSO - 600-1200

CPL - 8761

ECU.

P/N - 3408501

S/N - 31015467

D/C - 02192007

ESN - 79232791

E/C - N11832.07

GOV.

STARTER

P/N 3103951

W/E 12V CKI

GEAR PRODUCTS

MOTOR - DP49-1-1214TD-B2-C-C/D-C/D

P/N - 649-00023-1

S/N - 525743-001

ELECTRONIC GAUGES

#07016

TUPLING FARMS
4RSPH W/ 65" - TANK

7/6/2007

SCREEN	1	GROUND DRIVE	10,000#
		LEFT PRIMARY	5,000#
		RIGHT PRIMARY	5,000#
		SECONDARY	5,000#
SCREEN	2	GROUND DRIVE CHARGE	1,000#
		AIRHEAD CHARGE	1,000#
		AIRHEAD CHARGE PRESSURE	1,600 #
		SECONDARY CHARGE	600#
SCREEN	3	AIRHEAD	10,000#
		BRAKE CHARGE	1,000#
		STEERING	3,000#
SCREEN	4	RIGHT STAR	3,000#
		LEFT STAR	3,000#
		STAR TABLE DIST.	3,000#
		CROSS	3,000#
SCREEN	5	SIDE	3,000#
		BIN FILL	3,000#
		BIN UNLOAD	3,000#

#07016

**ELECTRONIC GAUGES
TUPLING FARMS
4RSPH W/ 65" - TANK
ENCLOSURE PINOUTS**

7/6/2007

PLUG #1

PIN #1	1-1	BLACK	GROUND DRIVE
2	1-1	WHITE	GROUND DRIVE
3	1-1	RED	GROUND DRIVE
4	1-2	BLACK	LEFT PRIMARY
5	1-2	WHITE	LEFT PRIMARY
6	1-2	RED	LEFT PRIMARY
7	1-3	BLACK	RIGHT PRIMARY
8	1-3	WHITE	RIGHT PRIMARY
9	1-3	RED	RIGHT PRIMARY
10	1-4	BLACK	SECONDARY
11	1-4	WHITE	SECONDARY
12	1-4	RED	SECONDARY

PLUG #2

PIN #1	1-5	BLACK	GROUND DRIVE CHARGE PRESSURE
2	1-5	WHITE	GROUND DRIVE CHARGE PRESSURE
3	1-5	RED	GROUND DRIVE CHARGE PRESSURE
4	1-6	BLACK	AIR HEAD CHARGE PRESSURE
5	1-6	WHITE	AIR HEAD CHARGE PRESSURE
6	1-6	RED	AIR HEAD CHARGE PRESSURE
7	1-7	BLACK	PRIMARY CHARGE PRESSURE
8	1-7	WHITE	PRIMARY CHARGE PRESSURE
9	1-7	RED	PRIMARY CHARGE PRESSURE
10	2-1	BLACK	SECONDARY CHARGE PRESSURE
11	2-1	WHITE	SECONDARY CHARGE PRESSURE
12	2-1	RED	SECONDARY CHARGE PRESSURE

PLUG #3

PIN #1	2-2	BLACK	AIR HEAD
2	2-2	WHITE	AIR HEAD
3	2-2	RED	AIR HEAD
4	2-3		
5	2-3		
6	2-3		
7	2-4	BLACK	BRAKE CHARGE PRESSURE
8	2-4	WHITE	BRAKE CHARGE PRESSURE
9	2-4	RED	BRAKE CHARGE PRESSURE
10	2-5	BLACK	STEERING
11	2-5	WHITE	STEERING
12	2-5	RED	STEERING

ELECTRONIC GAUGES
TUPLING FARMS
4RSPH W/ 65" - TANK
ENCLOSURE PINOUTS

#07016

7/6/2007

PLUG #4

PIN #1	2-6	BLACK	RIGHT STAR TABLE
2	2-6	WHITE	RIGHT STAR TABLE
3	2-6	RED	RIGHT STAR TABLE
4	2-7	BLACK	LEFT STAR TABLE
5	2-7	WHITE	LEFT STAR TABLE
6	2-7	RED	LEFT STAR TABLE
7	3-1	BLACK	STAR TABLE DISTRIBUTOR
8	3-1	WHITE	STAR TABLE DISTRIBUTOR
9	3-1	RED	STAR TABLE DISTRIBUTOR
10	3-2	BLACK	CROSS
11	3-2	WHITE	CROSS
12	3-2	RED	CROSS

PLUG #5

PIN#1	3-3	BLACK	SIDE
2	3-3	WHITE	SIDE
3	3-3	RED	SIDE
4	3-4	BLACK	BIN FILL
5	3-4	WHITE	BIN FILL
6	3-4	RED	BIN FILL
7	3-5	BLACK	BIN UNLOAD
8	3-5	WHITE	BIN UNLOAD
9	3-5	RED	BIN UNLOAD
10			
11			
12			

PLUG #6

PIN #1	BLACK	BELDEN 8762 TO CAB
2	CLEAR	BELDEN 8762 TO CAB
3	RED	0028 12V DC FROM DISTRIBUTION PANEL
4	BLACK	0015 GROUND TO DISTRIBUTION PANEL



Hydraulics

#07016

Electronic Proportional (EP) Control for Heavy Duty Series 2 Piston Pumps

Model 33
Model 39
Model 46

Model 54
Model 64

1/3/07

The Electronic Proportional (EP) Control is ideal for a wide range of mobile and industrial applications where electrical control of pump displacement is desired. Eaton's robust design incorporates an electronic module, proportional solenoids and a valve assembly.

Pump displacement is controlled by an input command signal which is converted into proportional current output by the electronic module. The proportional solenoid-actuated valve assembly then converts the current output into proportional pump displacement.

Designed to meet the rigorous duty cycle requirements of off-highway equipment, the EP Control utilizes an electronic module encapsulated in an aluminum enclosure and environmentally-sealed Metri-Pack® connectors to assure maximum protection from the elements. The EP Control is designed to resist Electromagnetic Interference (EMI) which could affect proper operation.

The EP Control offers maximum design and application flexibility with two different types of command input options and compatibility with both 12 and 24 Vdc power supplies. Typical input devices include joysticks (1-6 Vdc) and PLCs (\pm 4-20 mA).

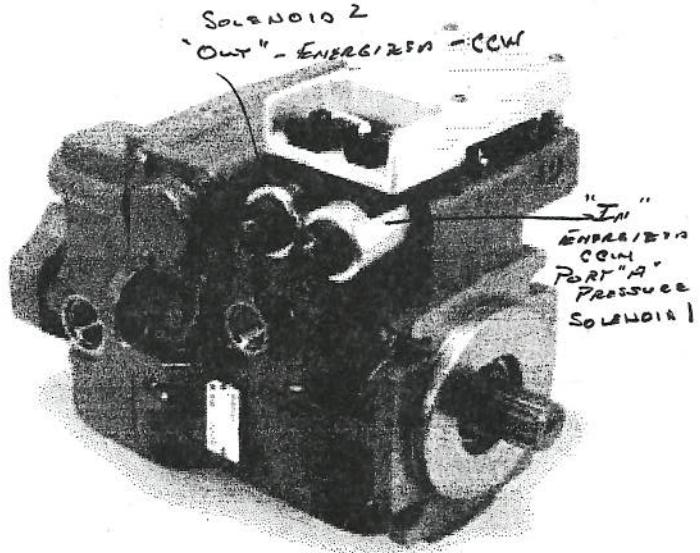
For precise, repeatable operation, closed-loop current control is used to compensate for resistance and voltage changes of the proportional solenoids due to temperature variation. In the event of a power loss or loss of signal, the EP Control automatically returns the pump to neutral. Mechanical feedback of the swashplate position provides closed-loop control to maintain the selected displacement setting over a wide range of operating conditions. Solenoids have integral manual override actuators.

EP Control Features

- Robust, flexible electronic pump control
- Electronic module encapsulated for environmental protection
- Automotive style environmentally sealed Metri-Pack® connectors
- Closed-loop current control compensates for resistance change of the proportional solenoids due to temperature variations
- Return to neutral for loss of power or loss of command input signal
- Mechanical feedback of swashplate position for closed-loop control
- Two choices for command input signal
- Operates from 12 or 24 Vdc power supply
- Ease of installation
- Operating temperature range -40° to +85° C
- On-pump mounting for many installations
- External neutral adjustment
- Manual override capability
- Drive module qualification per SAE J1455, SAE J1113, CISPR 25
- External fuse (customer supplied): 3A

Electronic Module Qualification (Contact Eaton for Specific Levels)

- SAE J1455 - Recommended Environmental Practices for Electronic Equipment Design
 - Humidity/Temperature Extreme Cycling
 - Salt Spray
 - Splash & Immersion
 - Steam Cleaning/High Pressure Wash
 - Vibration
 - Mechanical Shock
 - Temperature Cycling
 - Load Dump Transients
 - Inductive Load Switching Transients
- SAE J1113 - Electromagnetic Susceptibility Measurement Procedures for Vehicle Components
 - EMI/EMC - Conducted & Radiated Immunity
- CISPR 25 - International Electrotechnical Commission "Limits and Methods of Measurement of Radio Disturbance Characteristics for the Protection of Receivers used on Board Vehicles"
 - EMI/EMC - Conducted & Radiated Emissions





Hydraulics

Electronic Proportional (EP) Control for Medium Duty 72400 Piston Pumps

The Electronic Proportional (EP) Control is ideal for a wide range of mobile and industrial applications where electrical control of pump displacement is desired. Eaton's robust design incorporates an electronic module, proportional solenoids and a valve assembly.

Pump displacement is controlled by an input command signal which is converted into proportional current output by the electronic module. The proportional solenoid-actuated valve assembly then converts the current output into proportional pump displacement.

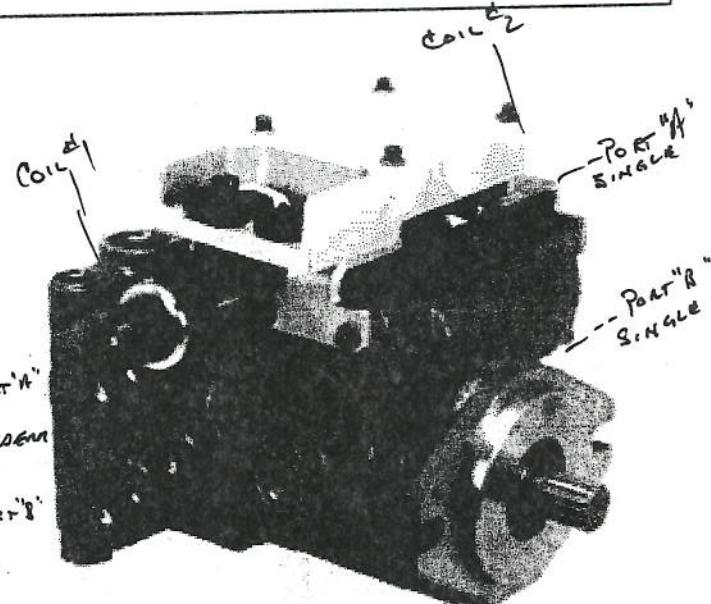
Designed to meet the rigorous duty cycle requirements of off-highway equipment, the EP Control utilizes an electronic module encapsulated in an aluminum enclosure and environmentally-sealed Metri-Pack® connectors to assure maximum protection from the elements. The EP Control is designed to resist Electromagnetic Interference (EMI) which could affect proper operation.

The EP Control offers maximum design and application flexibility with two different types of command input options and compatibility with both 12 and 24 Vdc power supplies. Typical input devices include joysticks (1-6 Vdc) and PLCs (± 4 mA).

For precise, repeatable operation, closed-loop current control is used to compensate for resistance and voltage changes of the proportional solenoids due to temperature variation. In the event of a power loss or loss of signal, the EP Control automatically returns the pump to neutral. Mechanical feedback of the swashplate position provides closed-loop control to maintain the selected displacement setting over a wide range of operating conditions. Solenoids have integral manual override actuators.

EP Control Features

- Robust, flexible electronic pump control
- Electronic module encapsulated for environmental protection
- Automotive style environmentally sealed Metri-Pack® connectors
- Closed-loop current control compensates for resistance change of the proportional solenoids due to temperature variations
- Return to neutral for loss of power or loss of command input signal
- Mechanical feedback of swashplate position for closed-loop control
- Two choices for command input signal
- Operates from 12 or 24 Vdc power supply
- Ease of installation
- Operating temperature range -40° to +85° C
- On-pump mounting for many installations
- External neutral adjustment
- Manual override capability
- Drive module qualification per SAE J1455, SAE J1113, CISPR 25
- External fuse (customer supplied): 3A



1/5/07

ENERGIZED - CW

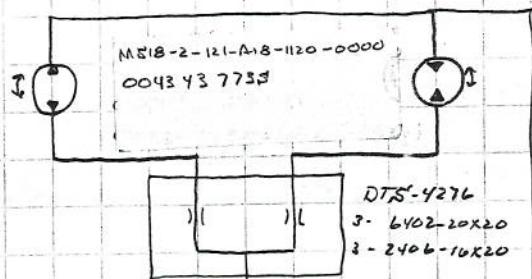
#1 COIL NEXT TO PRESSURE PORTS - "IN"
PRESSURE OUT PORT "A"

#2 COIL AWAY FROM PORTS - "OUT"

Electronic Module Qualification (Contact Eaton for Specific Levels)

- SAE J1455 - Recommended Environmental Practices for Electronic Equipment Design
 - Humidity/Temperature Extreme Cycling
 - Salt Spray
 - Splash & Immersion
 - Steam Cleaning/High Pressure Wash
 - Vibration
 - Mechanical Shock
 - Temperature Cycling
 - Load Dump Transients
 - Inductive Load Switching Transients
- SAE J1113 - Electromagnetic Susceptibility Measurement Procedures for Vehicle Components
 - EMI/EMC - Conducted & Radiated Immunity
- CISPR 25 - International Electrotechnical Commission "Limits and Methods of Measurement of Radio Disturbance Characteristics for the Protection of Receivers used on Board Vehicles"
 - EMI/EMC - Conducted & Radiated Emissions

11/10/07
#07016
TULPING FARMS
4RSPH W/G 5" - TANK - ALFESTAR
TRAILER - LEVELING

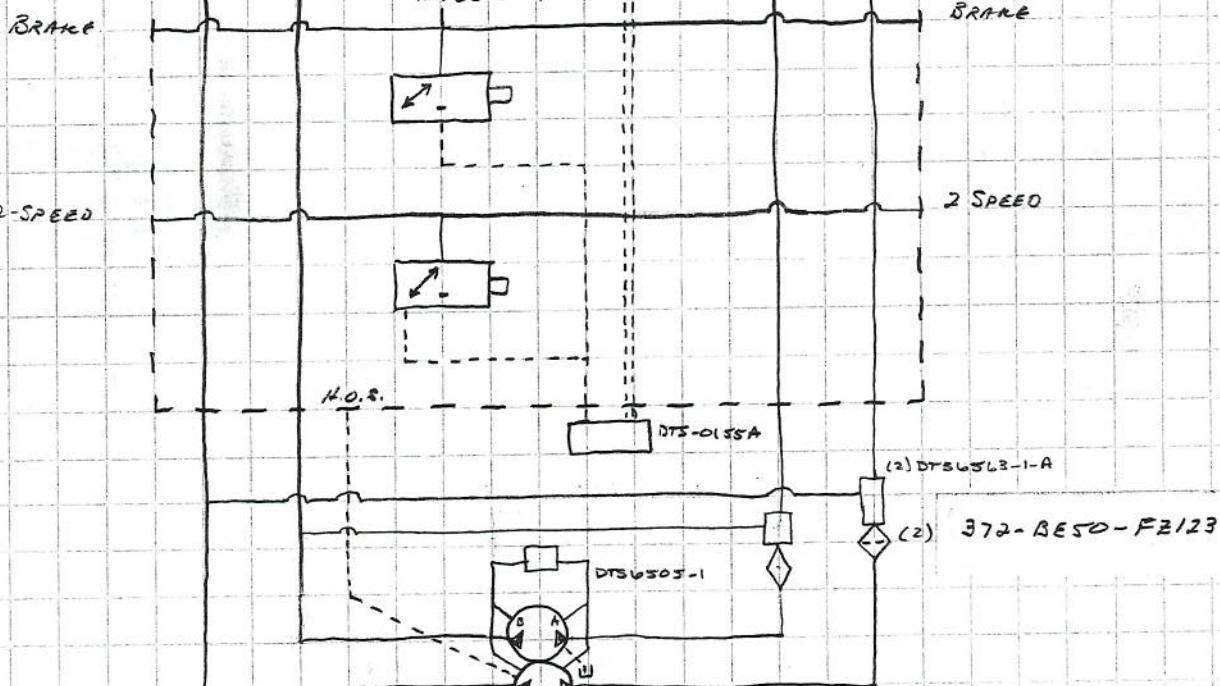


2- 7400-12X22
4- 12P14
4- 63SF12X12
2- 25374.13H

DTS-01500

M550-2G-21-F50-1120-2000
203043701V
(2) CR44758.12
(2) 0000000.11
(2) 63TF16X16
OR/(1) 63SF-16X16
(1) 63UF-16X16

M550-20-2-F50-1120-2000
0092437994
(2) CR44758.12
(2) 0000000.11
(2) 63TF-16X16
OR/(1) 63SF-16X16
(1) 63UF-16X16

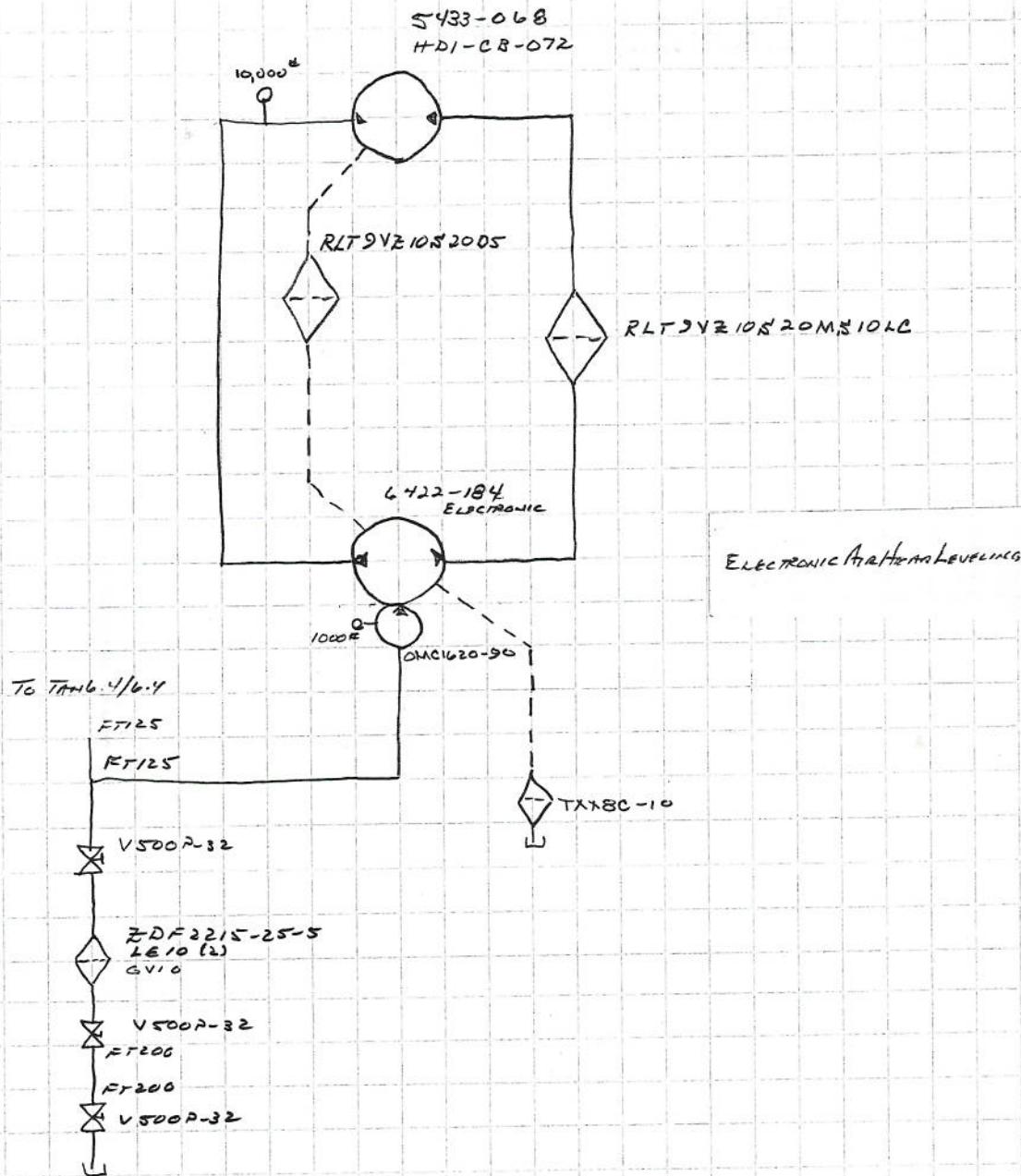


TO SINGLE 6.4

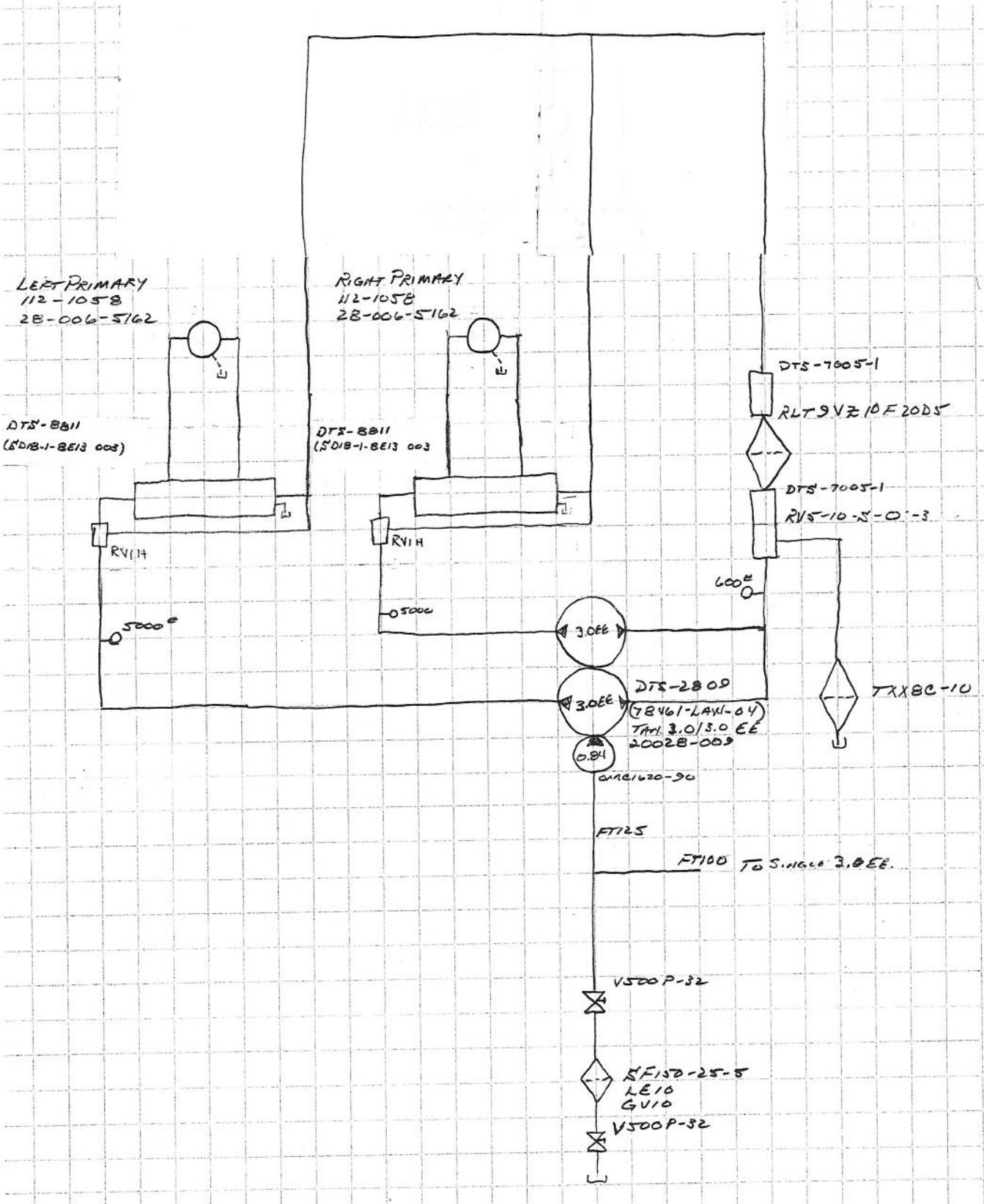
F7105

1/10/07
#07016

TURLING FARMS
MRS PH W/65'-THICK-AFETABLE
ELECTRONIC LEVELING



1/10/07
 #07016
 TULPING FARMS
 4RSAH W/65"-TALL-AFETABLE
 ELECTRONIC LEVELING

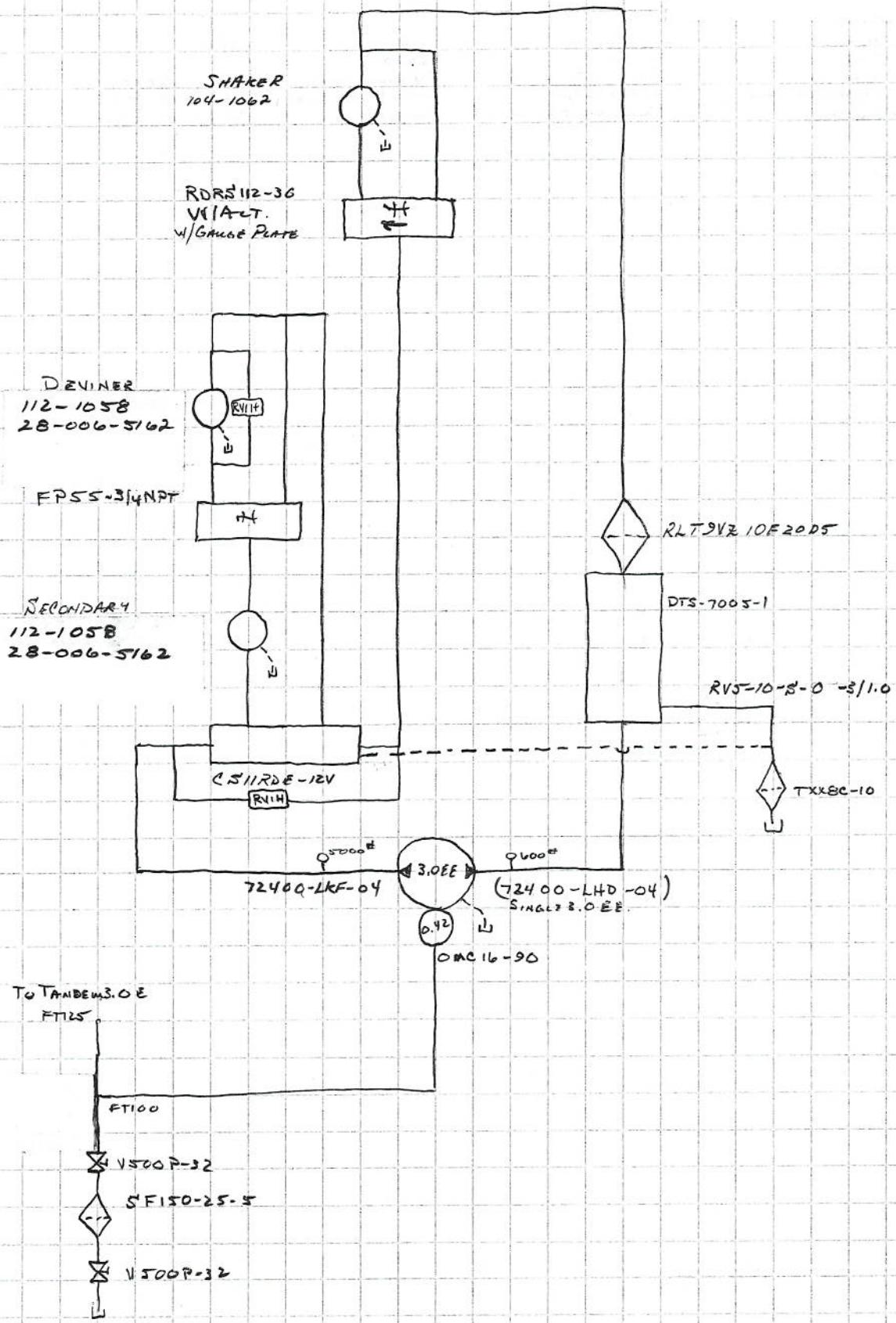


SECONDARY CIRCUIT

1/10/07

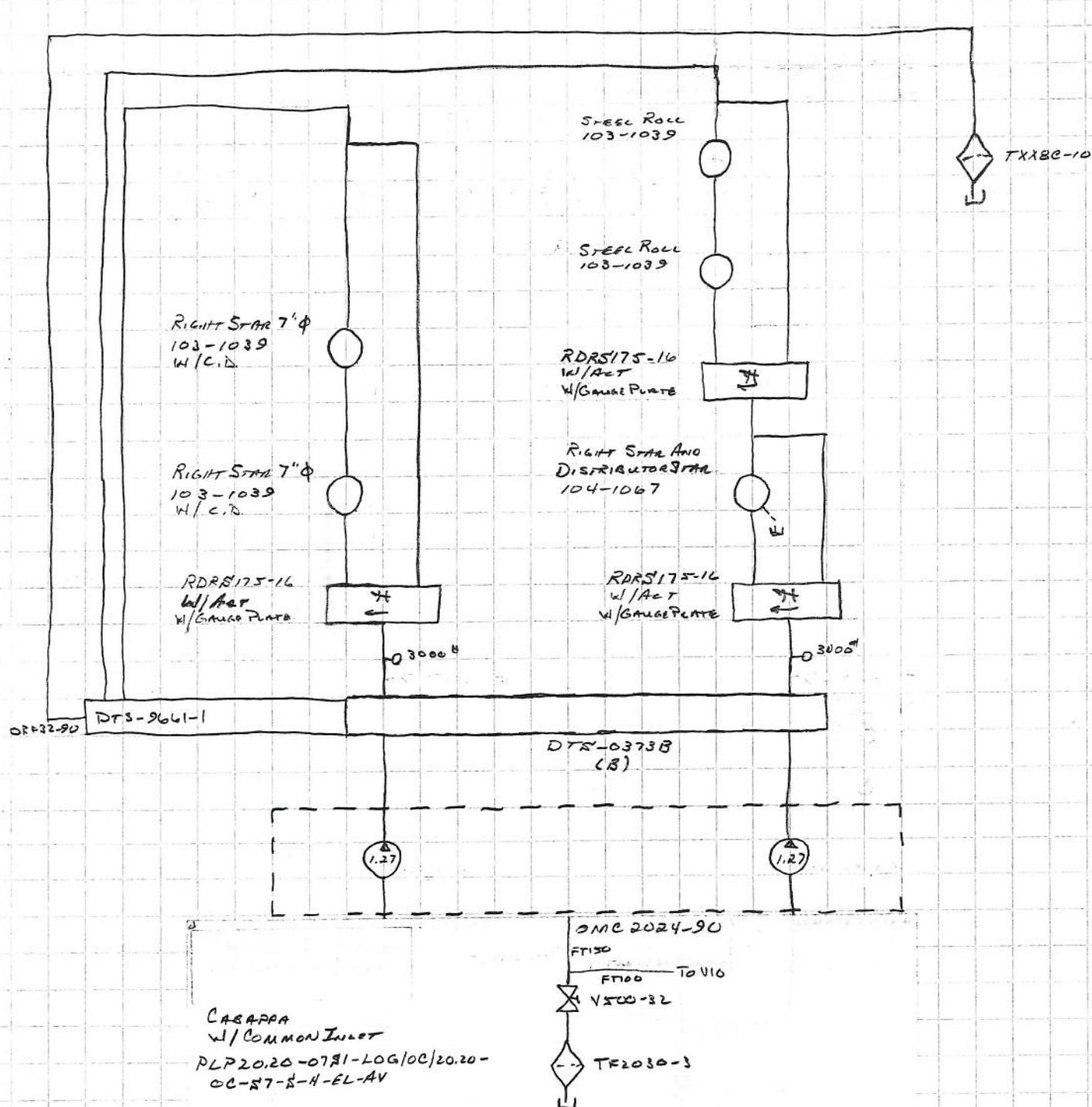
#07016

TUPLING FARMS
4RSIPH W/65"-TANK-ACTABLE
ELECTRONIC LEVELING

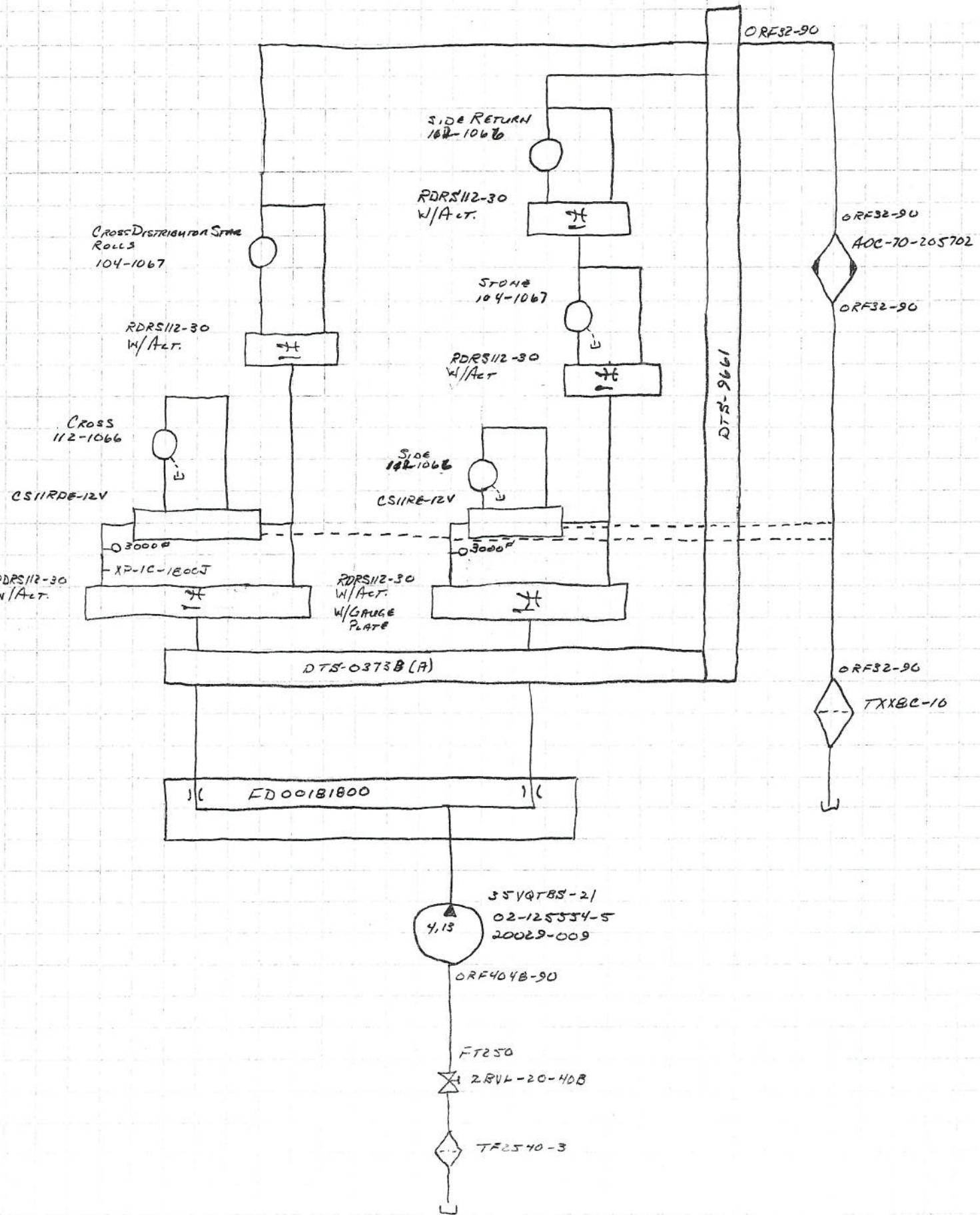


STAR TABLE

1/10/07
07016
TULIP FARM
4RSPHW/65'-TANK-ADJUSTABLE
ELECTRONIC LEVELING

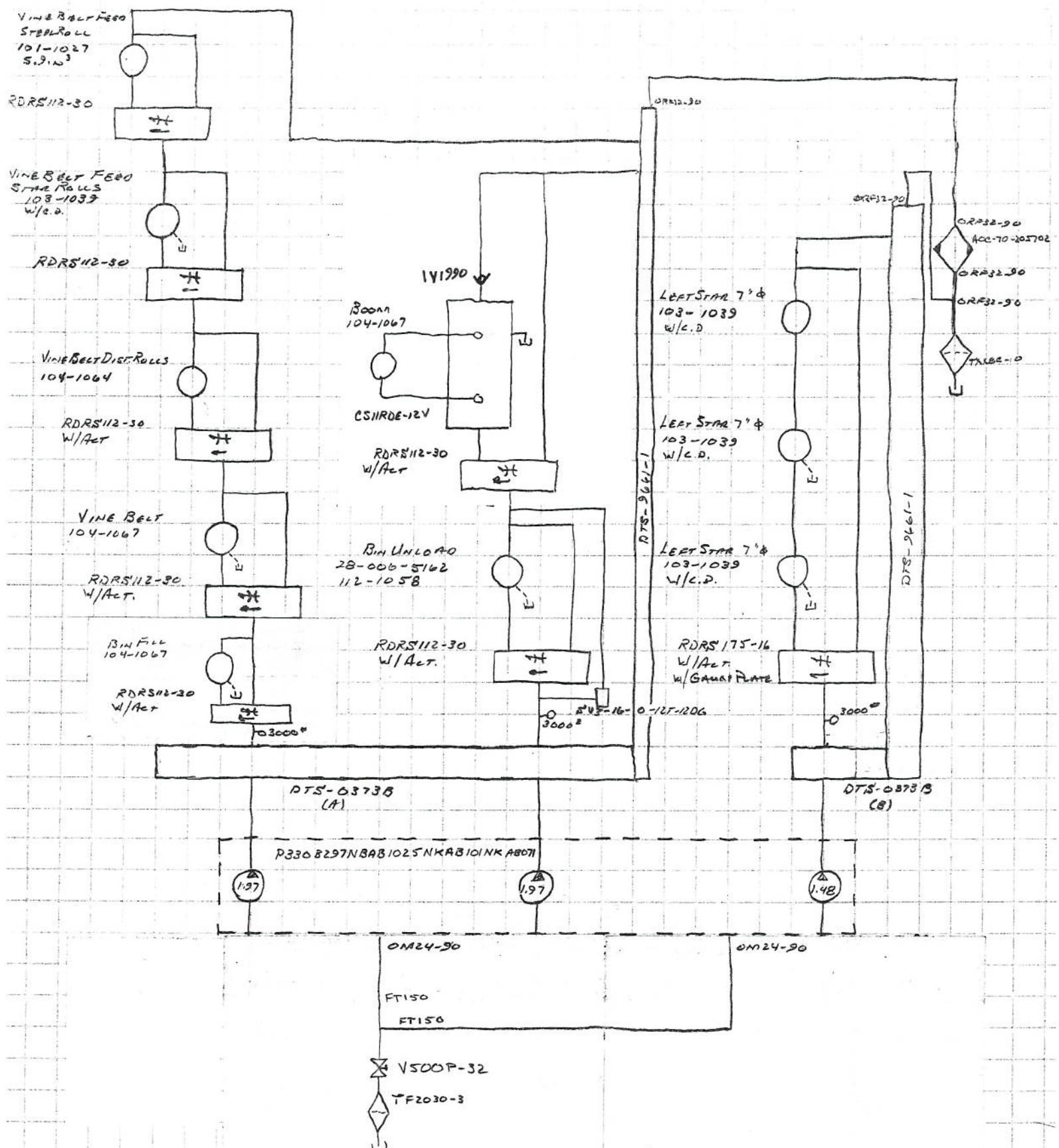


5/20/07 07016
TURLING MRSAT/65'-TANK



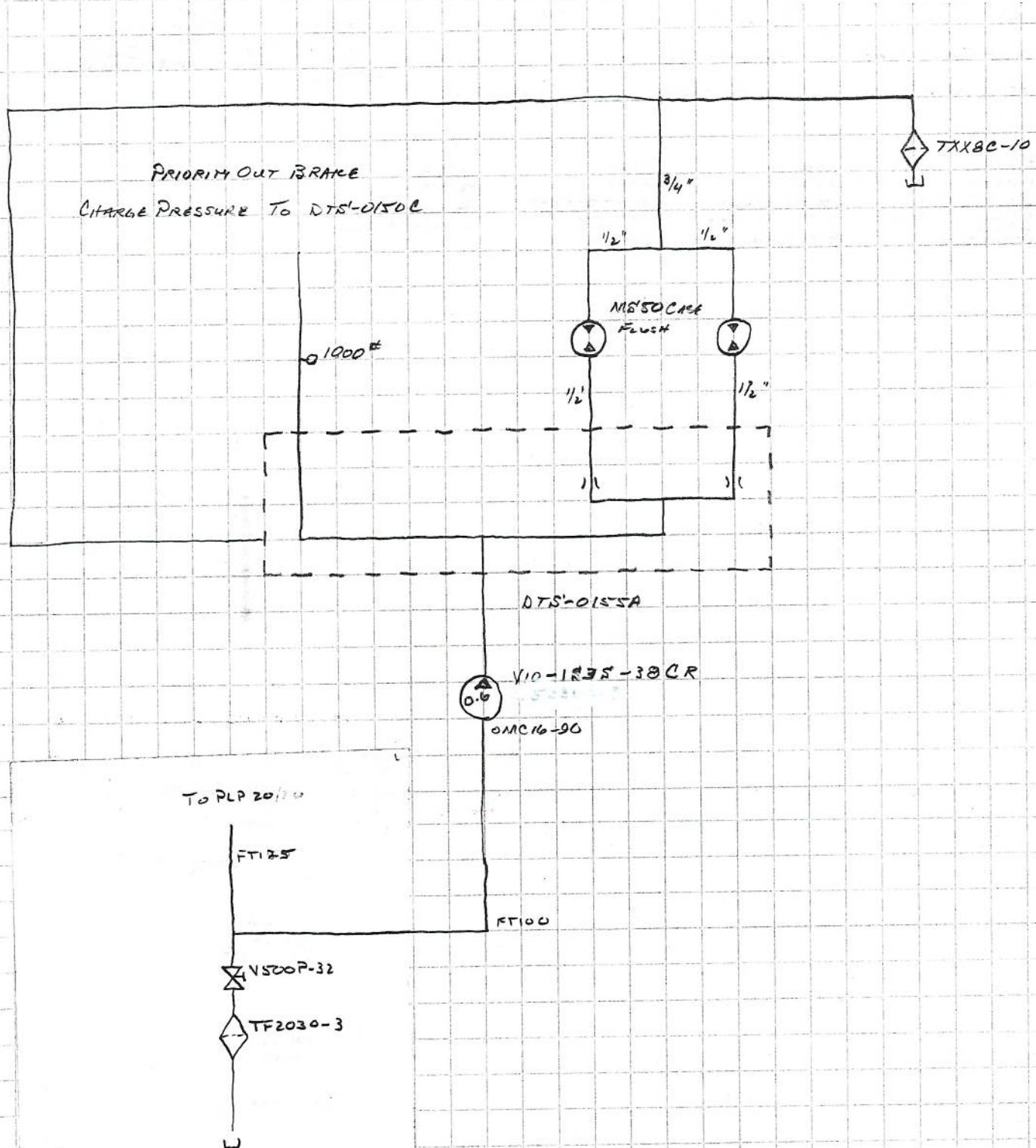
5/30/07 COTONIC
TUPLING YRS PH / 65'-TANK

VINE BELT / BIN UNLOAD / LEFT STAR ROLLS



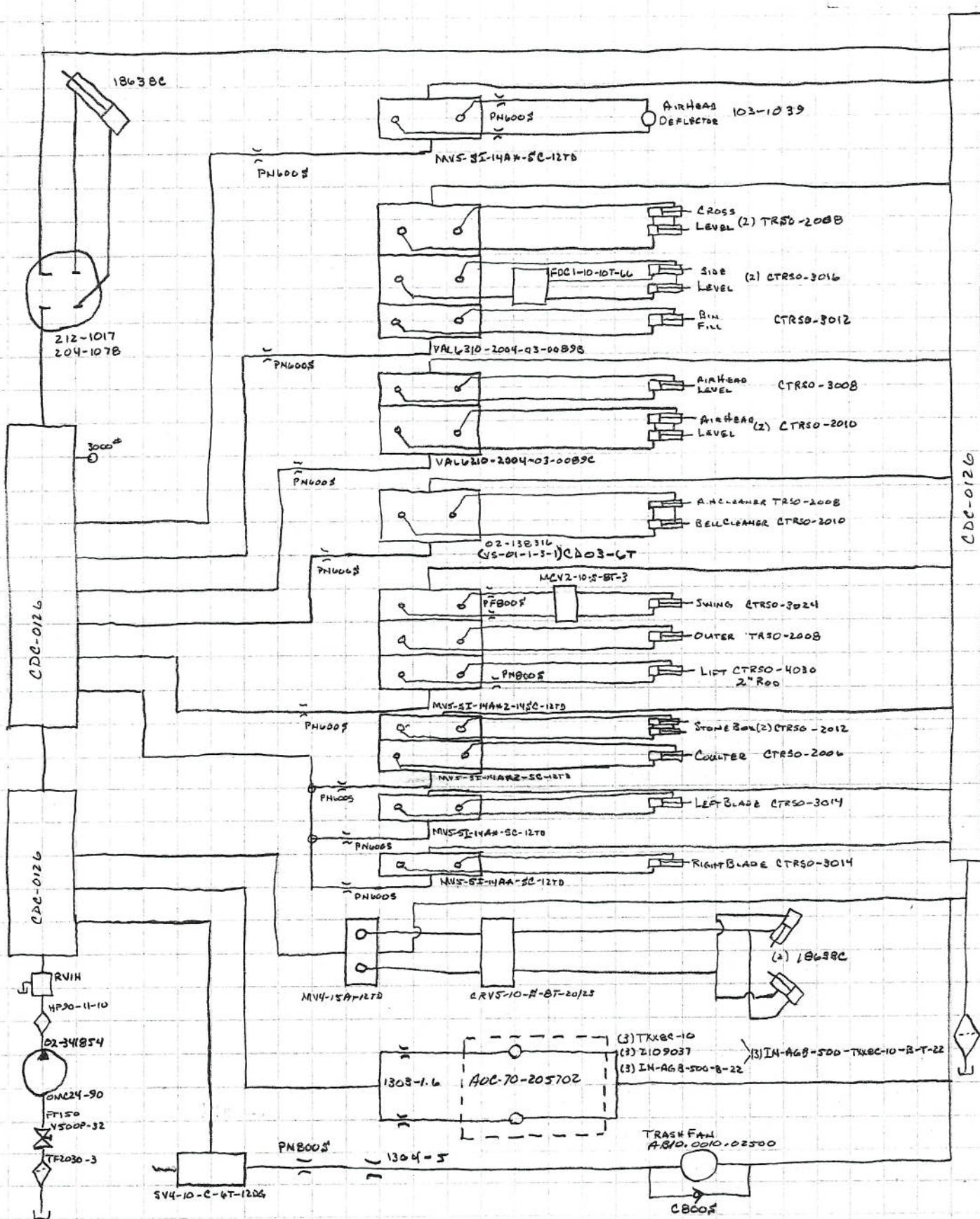
BRAKE CHARGE PRESSURE / CASE FLUSHING

1/10/07
 #07016
 TUPLING FARMS
 MRSFA W/65" TANK-AFETABLE
 ELECTRONIC LEVELING



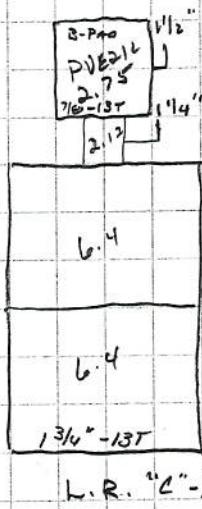
STEERING / VALVE BANK CIRCUITS

1/10/07
#07016
TYPING FARMS
4RSPH V1/03 - TANK-
AFTARL-ELECT. LEVELING

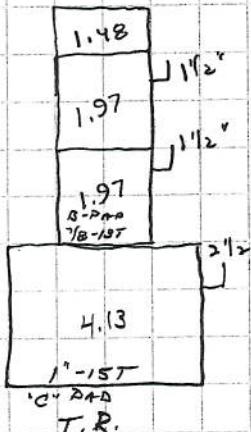


1/10/07 10:01 AM
TURLING FARMS
4RSPH W/6.5" TANK-ACTABLE
ELECTRONIC LEVELING

4"	3"	3"	3"	4"
TF2540-3	TF2030-3	TF2030-3	TF2030-3	4" X 2" Bush
2 1/2" CLSNIP	2" CLSNIP	2" CLSNIP	2" CLSNIP	2" CLSNIP
V500P-32	V500P-32	V500P-32	V500P-32	V500P-32
FT200	FT200	FT200	FT200	2" X 1 1/2" Bush
FT200	FT200	FT200	FT200	1 1/2" CLSNIP
V500P-32	V500P-32	V500P-32	V500P-32	2" F150-25-5
2" CLSNIP	2" CLSNIP	2" CLSNIP	2" CLSNIP	1 1/2" CLSNIP
2" 90° STELL	2" X 1 1/2" Bush			
W43-32 Pk	X 2" X 1 1/2" Bush	X 2" X 1 1/2" Bush	X 2" X 1 1/2" Bush	2" CLSNIP
ZDF2215-25-5	FT150	FT150	FT150	2" TEE X
W43-32 Pk	FT150	FT150	FT150	X 2" X 1 1/4" Bush
2" 90° STELL	* PVE21L	* TRIPLE COM.	* TANDEM PLD	FT125
2" CLSNIP	2" X 1 1/4" Bush	2" X 1 1/4" Bush	2" 90° STELL	* TANDEM 3.0EE
V500P-32	FT125	FT125	FT100	2" X 1 1/4" Bush
2" CLSNIP	FT125	FT125	* V10	FT100
2" TEE X			* TRIPLE COM.	
X 2" X 1 1/4" Bush	O 2" 90° STELL	O 2" 90° STELL	* 3.0EE	
FT125	FT125	FT100		
X 2" X 1 1/4" Bush	O 2" 90° STELL	O 2" X 1 1/4" Bush		
FT125	FT125	FT100		
* T64/64	* L4EE			



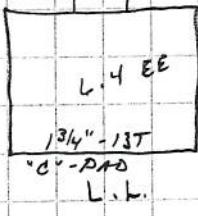
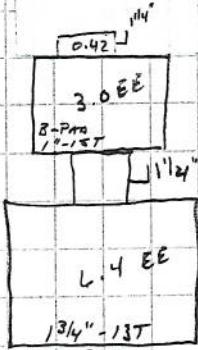
L.R. "C"-PAD



T.R.

GEAR PRODUCTS - 4-HOLE BOX

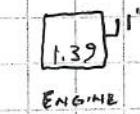
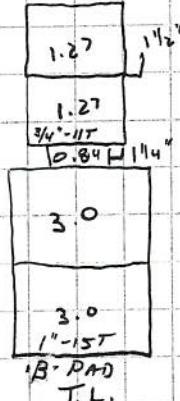
DP 49



L.R - TANDEM L.4 - GROUND DRIVE
PVE21L - STEERING CIRCUIT
L.L. - L.4EE - AIR HEAT
- 3.0EE - SECONDARY

T.R - 35VQTB5 - CROSS
5.0E

TRIPLE COMMERCIAL - BIN/FILL
BIN UNLODO
LEFT START TABLE
TANDEM PLD - RIGHT START TABLE
- RIGHT START DIST. STAR
- BRACE CHARGE PRESSURE



07016
TOPPING
HR SPAH /65°-TANK

MS 18-8

MS 18-8

SIDE
112-1066
RDRS W/ACT
W/GA. PLATE

ELECTRONIC
LEVELING

AIRHEAT
DEELECTOR
101-1037

RDRS 175-16
W/ACT
W/GA. PLATE

2" Ø STEEL ROLL
101-1027
RDRS 112-20

Distr. ROLL
104-1064
RDRS 112-20
W/ACT

BIN/FULL
104-1067
RDRS 112-20
W/ACT

LEFT PRIMARY
112-1068
2B-006-5162
DTS' - BBII

103-1039 LEFT STAR
103-1039 LEFT STAR
103-1039 LEFT STAR
103-1039 LEFT STAR

3.0 E RETURN
112-1066
RDRS W/ACT

STAR BONUS
103-1039
RDRS 112-20
RDRS W/ACT
104-1067
VINE BELT
TEACH FAN #B10.0010-02500

Distr. ROLL
104-1067
RDRS 112-20
W/ACT

MS 50

MS 50

STONE B
104-1067
RDRS W/ACT

SHAKER
104-1068
RDRS 112-20
W/ACT W/GA. PLATE
RIGHT PRIMARY
112-1078
2B-006-5162
DTS' - BBII

SECONDARY
112-1058
2B-006-5162
CS 11 RDRS-12V

RIGHT STAR 103-1039
STEEL 104-1067
STAR 103-1039
STEEL 104-1067
RDRS W/ACT
W/ACT
RDRS W/GA. PLATE

DIST. SMALL 104-1067 RDRS W/ACT
W/GA. PLATE

CROSS RDRS 112-20
112-066 W/ACT

DEVIATOR
112-1058
2B-006-5162
FP 55-314 NPT

BULGE
104-1067
RDRS 112-20
W/ACT

BIN
112-1058
2B-006-5162
RDRS W/ACT

1/10/07
#07016
TUPLING FARMS
4R SPH W/65" TANK-TIFE TABLE
ELECTRONIC LEVELING

MS18-2

MA18-2

