#05006 T&R

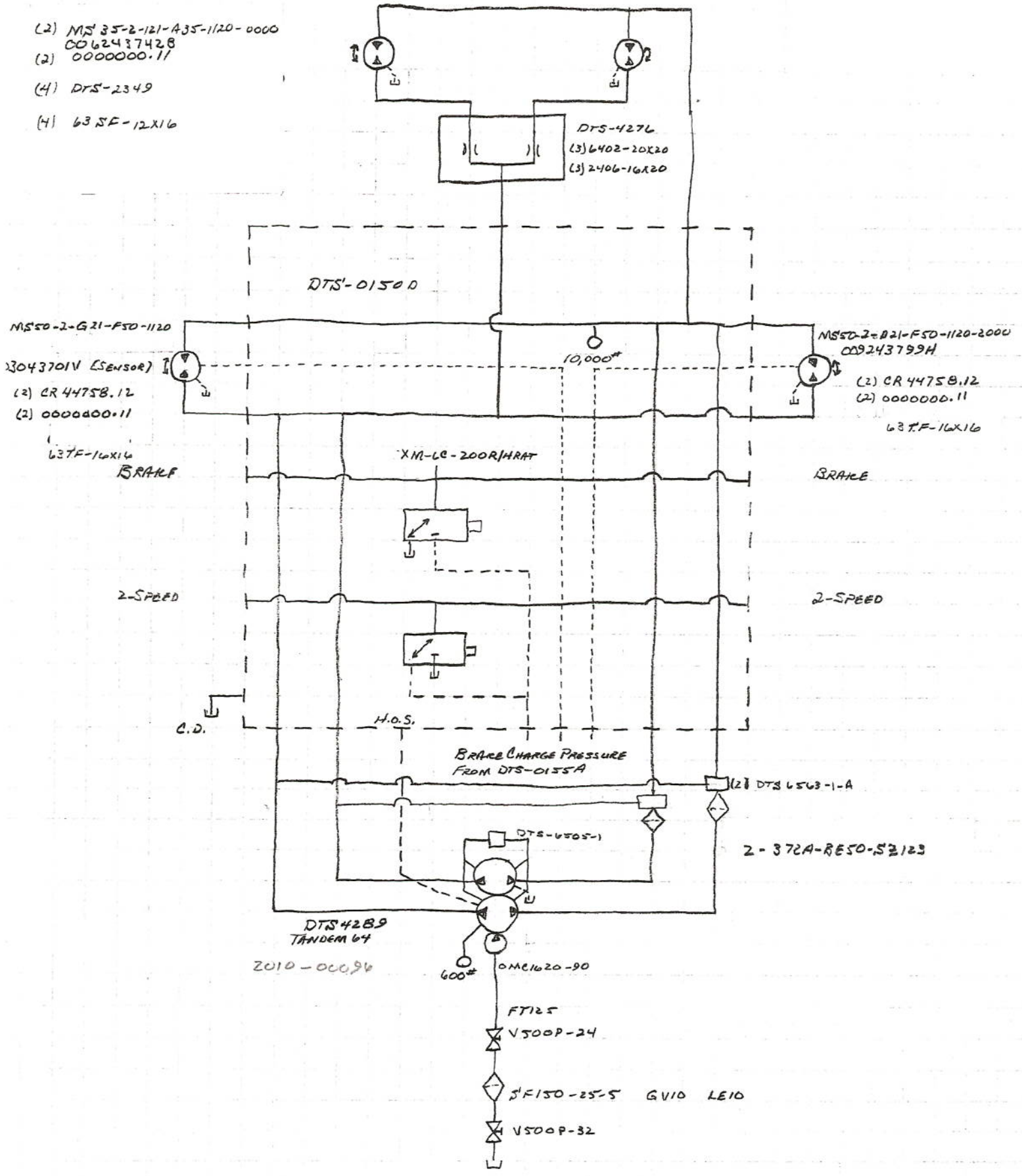
Farms

6RSPPH

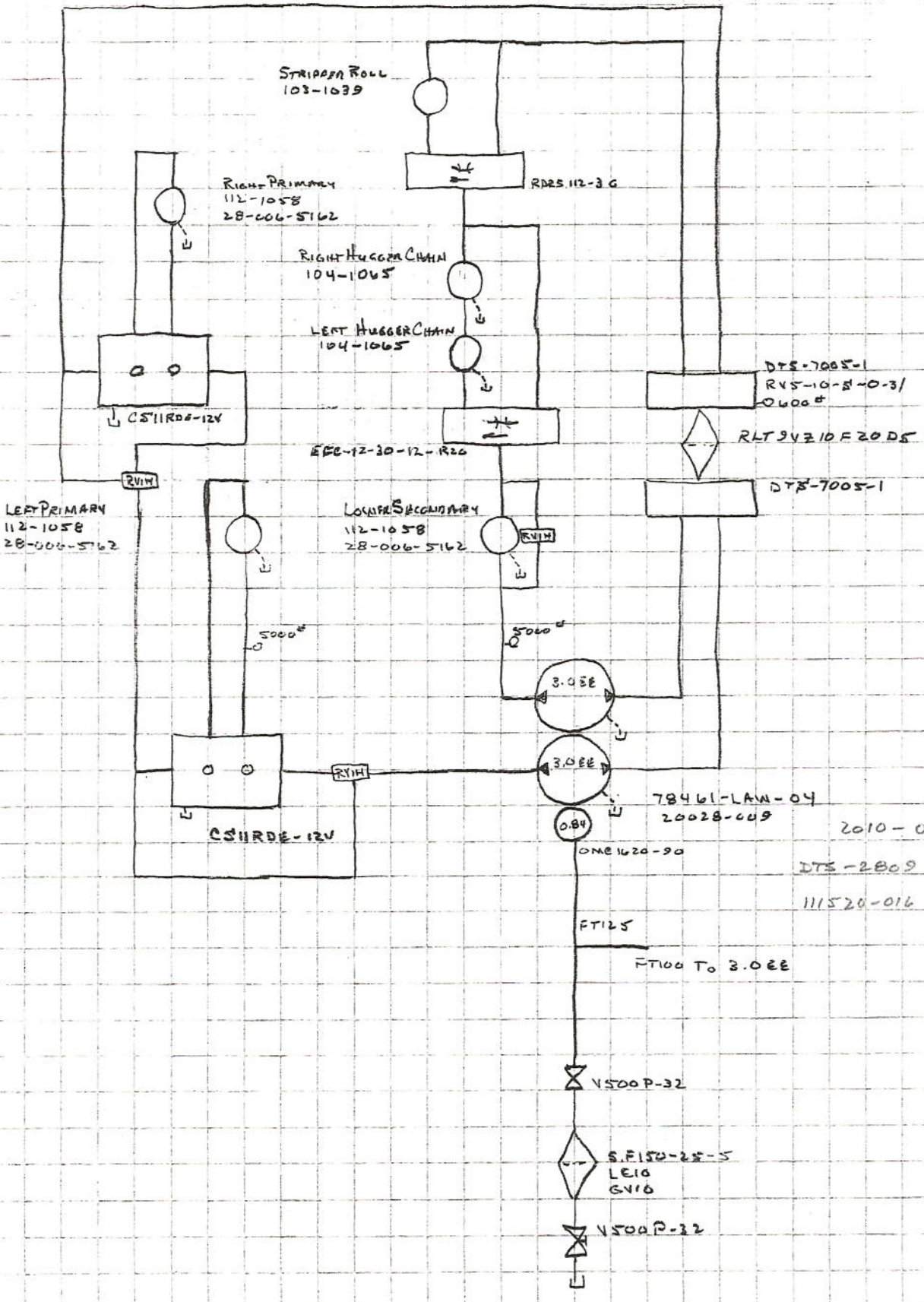
3/8/05
T&R Farms
R05006
6RSPPH

DTS-0150C GROUND DRIVE

(2) MS 35-2-121-A35-1120-0000
CO6243742B
(2) 0000000.11
(4) DTS-2349
(4) 63SF-12X16



12/22/04
#04606
T & R FARMS
6RSPPH
REVISION 12/22/04
1-CS11RDE-12V ADD.

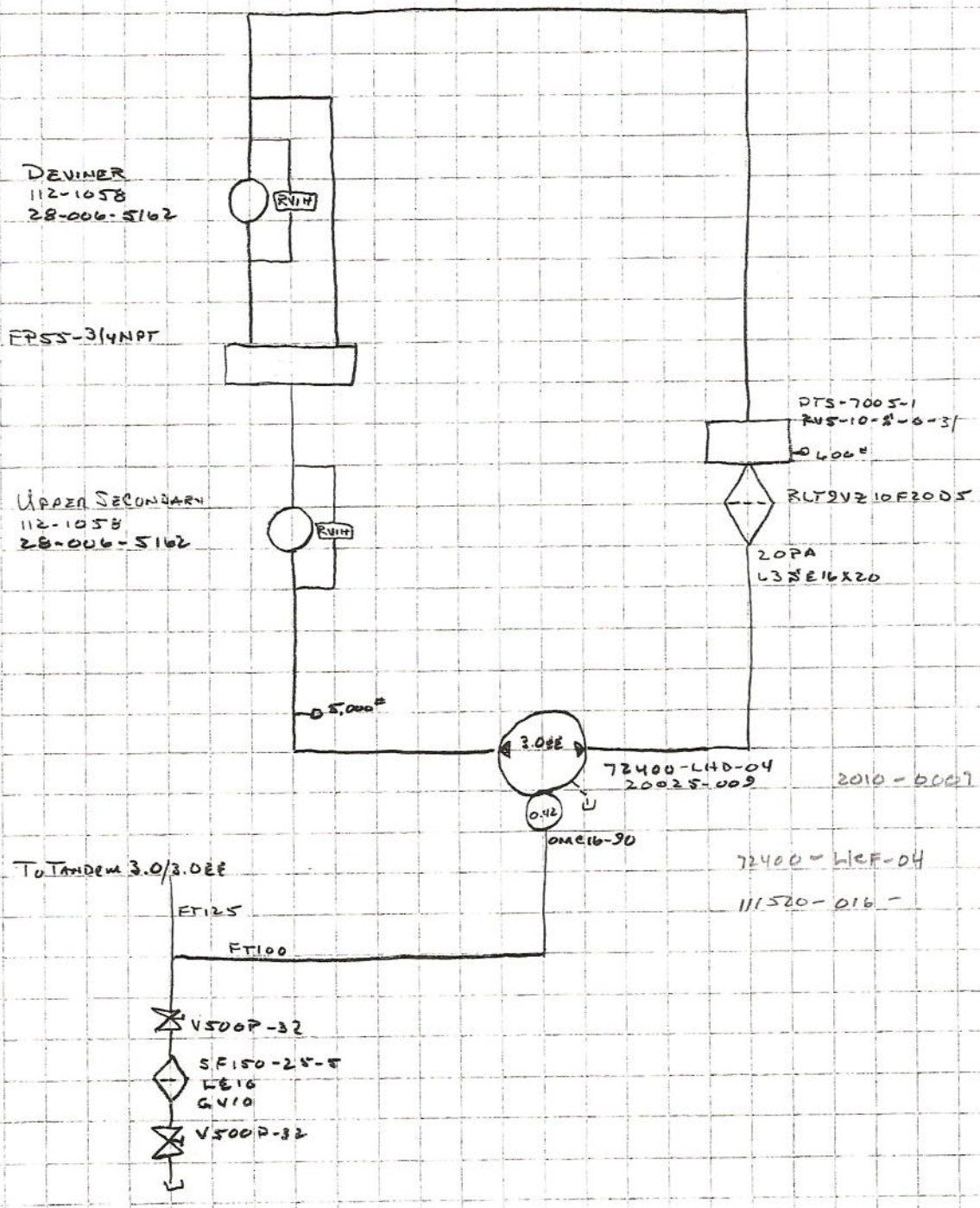


2010-00077

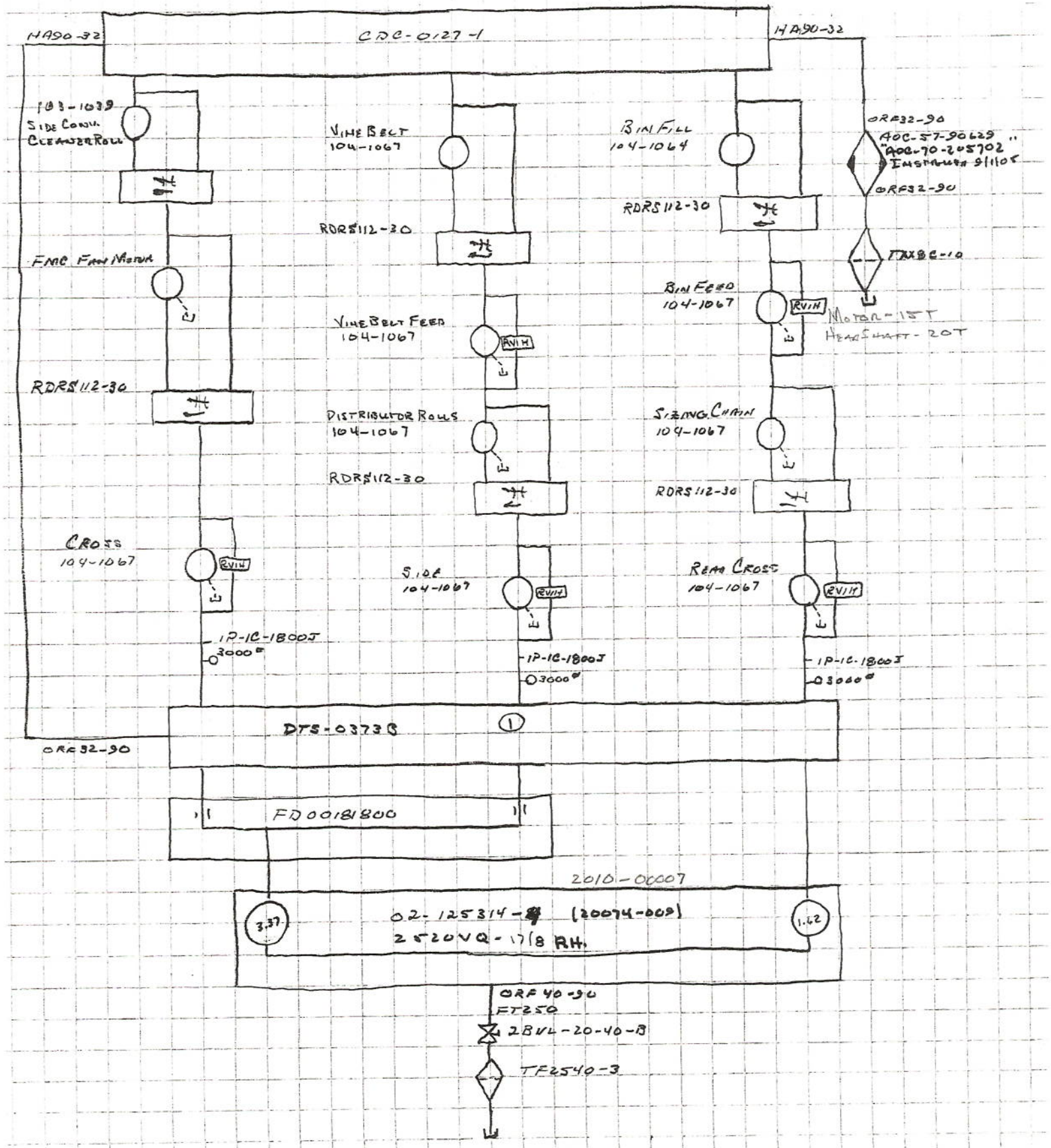
DTS-2809 2010-00092

111520-016 2013-0106

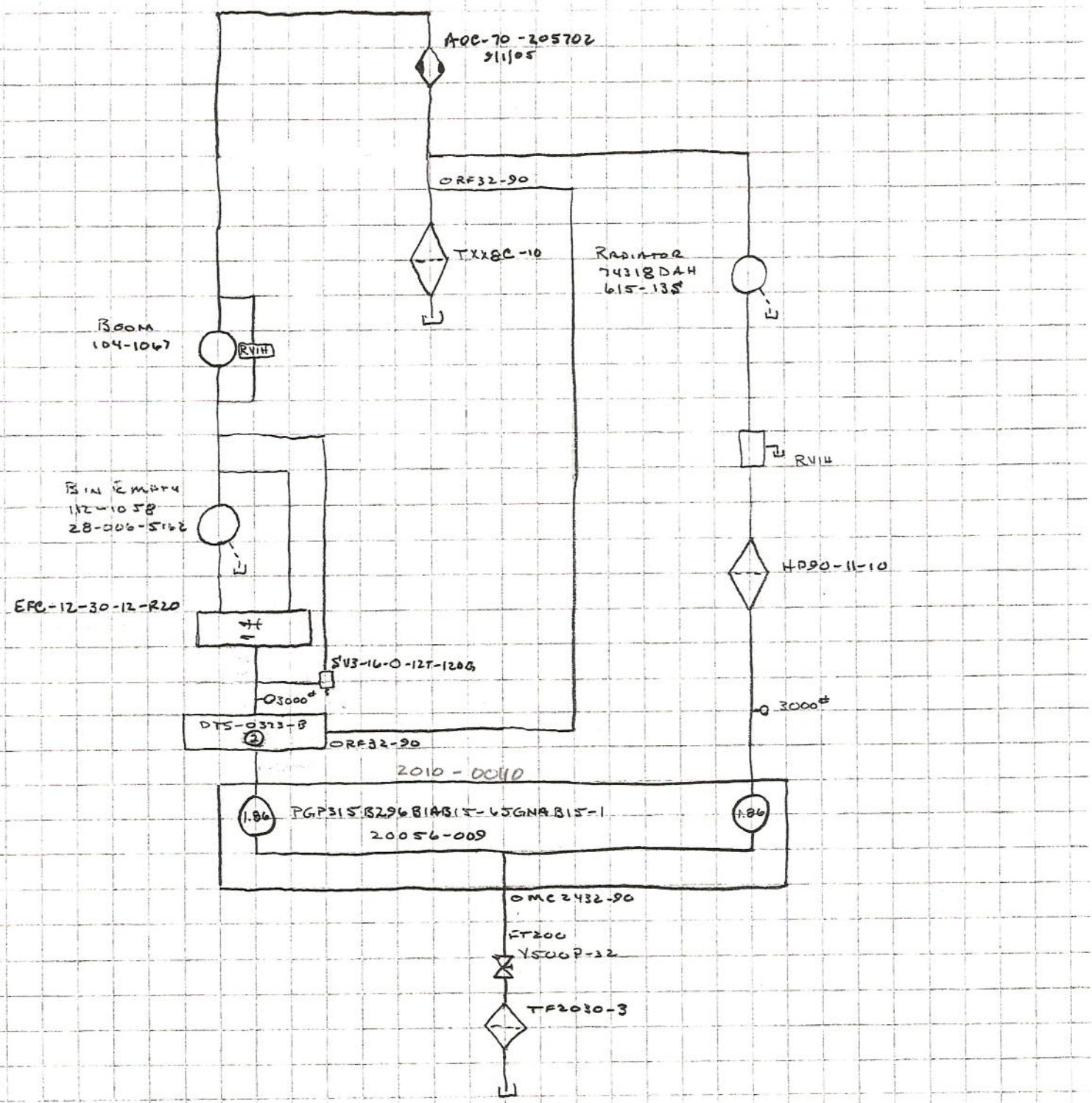
3/8/05
#05206
TER FARMS
GRSPAN



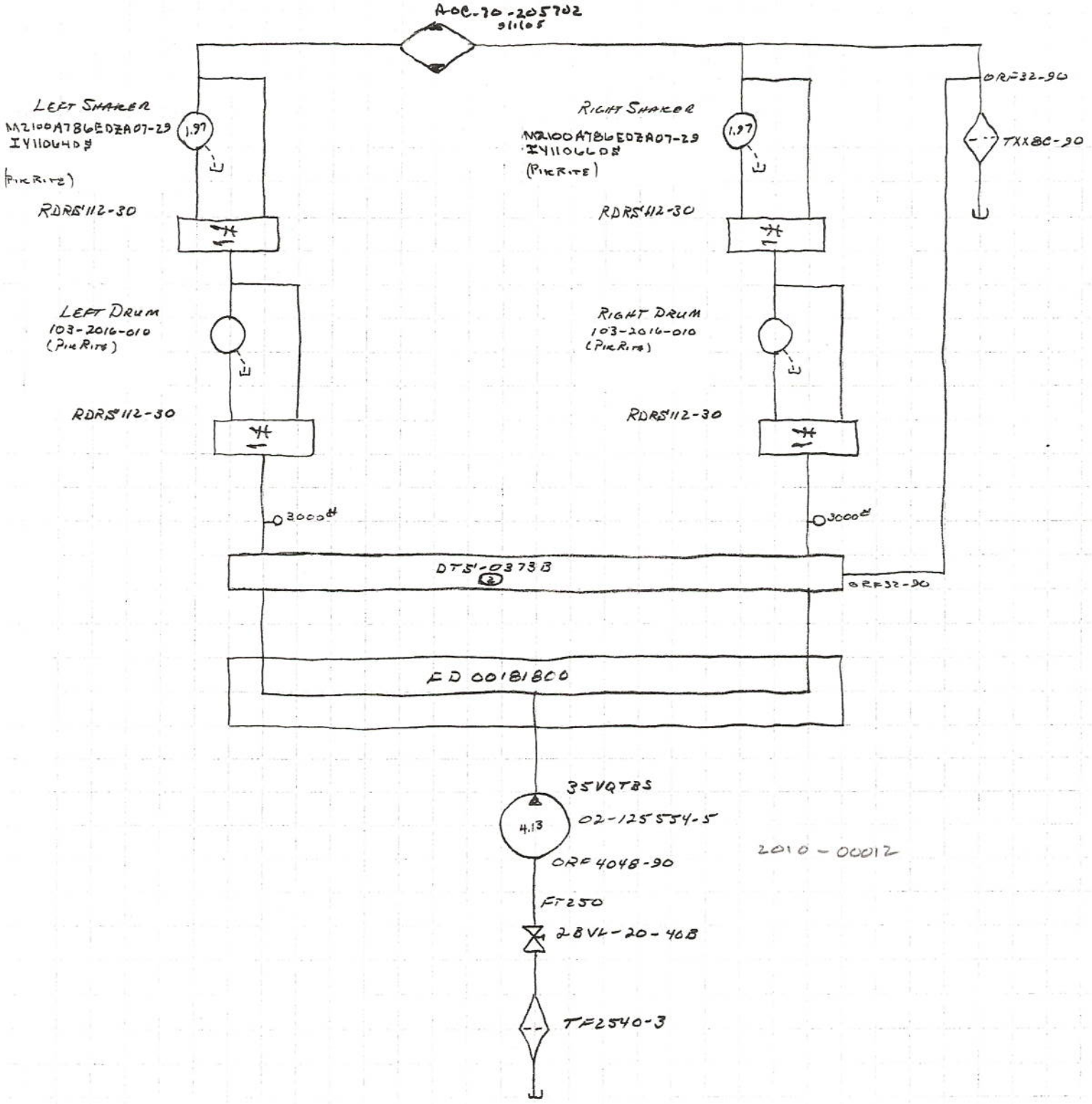
3/8/05
605006
T&R FARMS
GREENH



3/8/05
#05006
T&R FARMS
GREEN

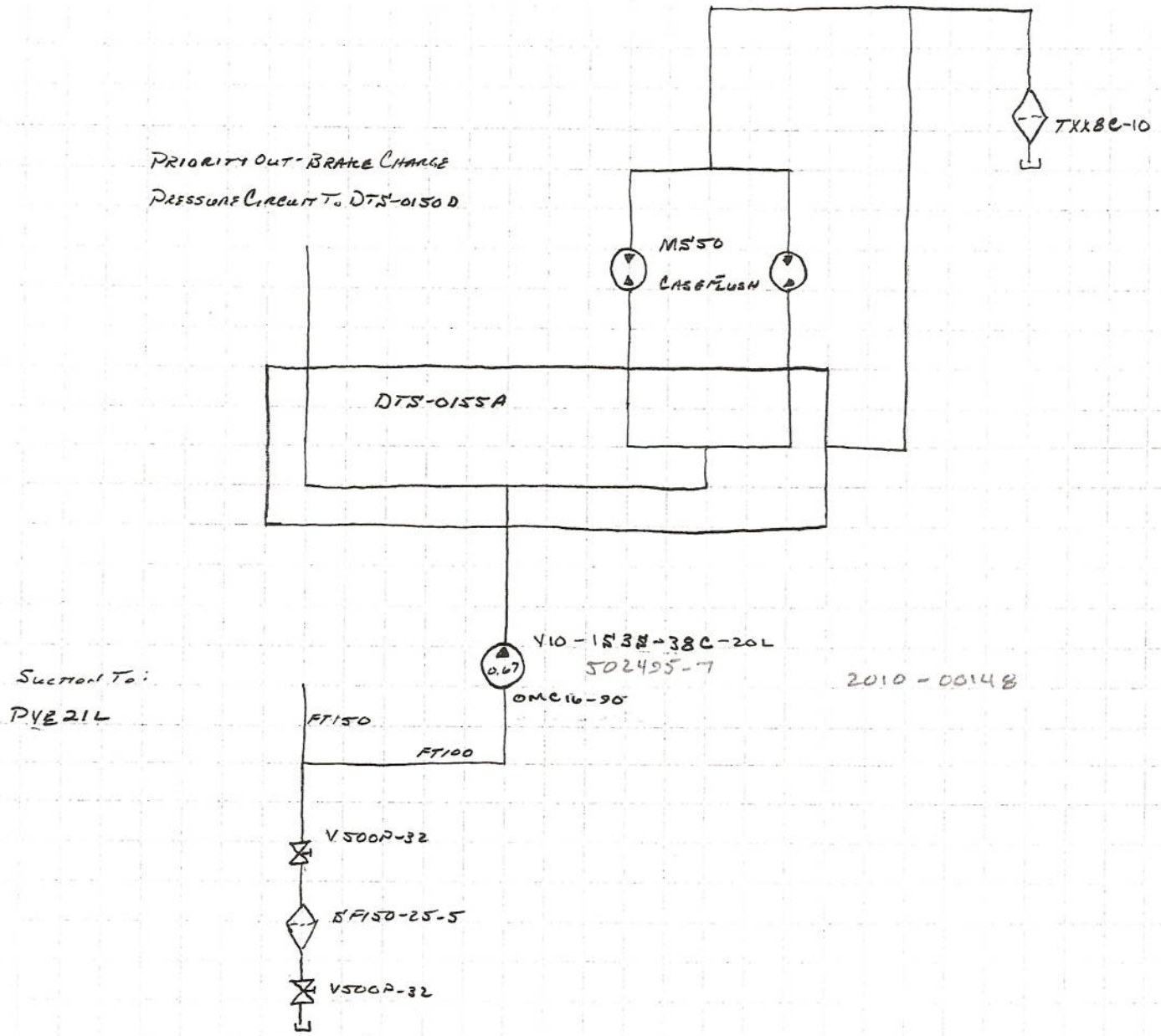


3/8/05
#C5006
T&R FARMS
GRSAAH

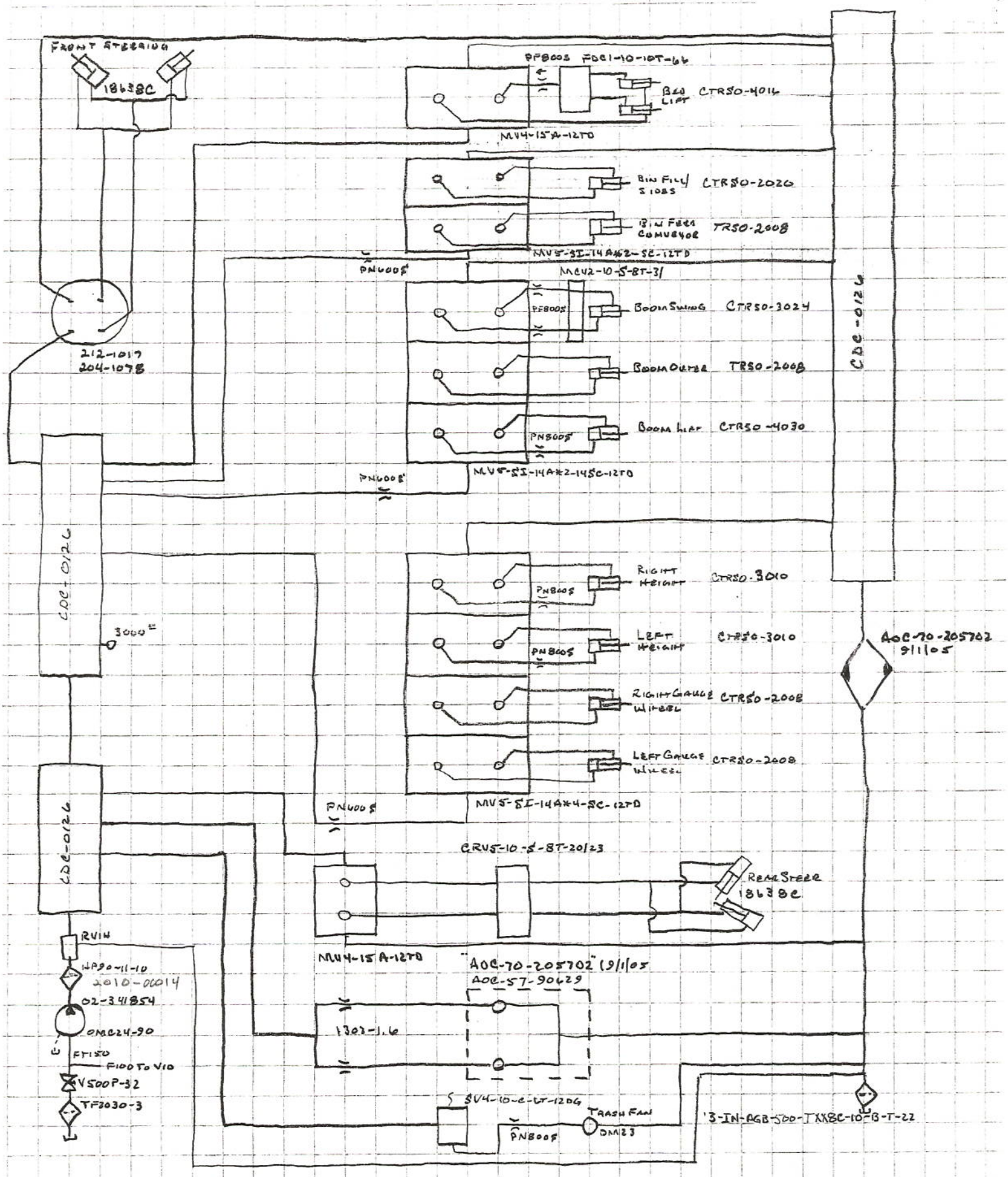


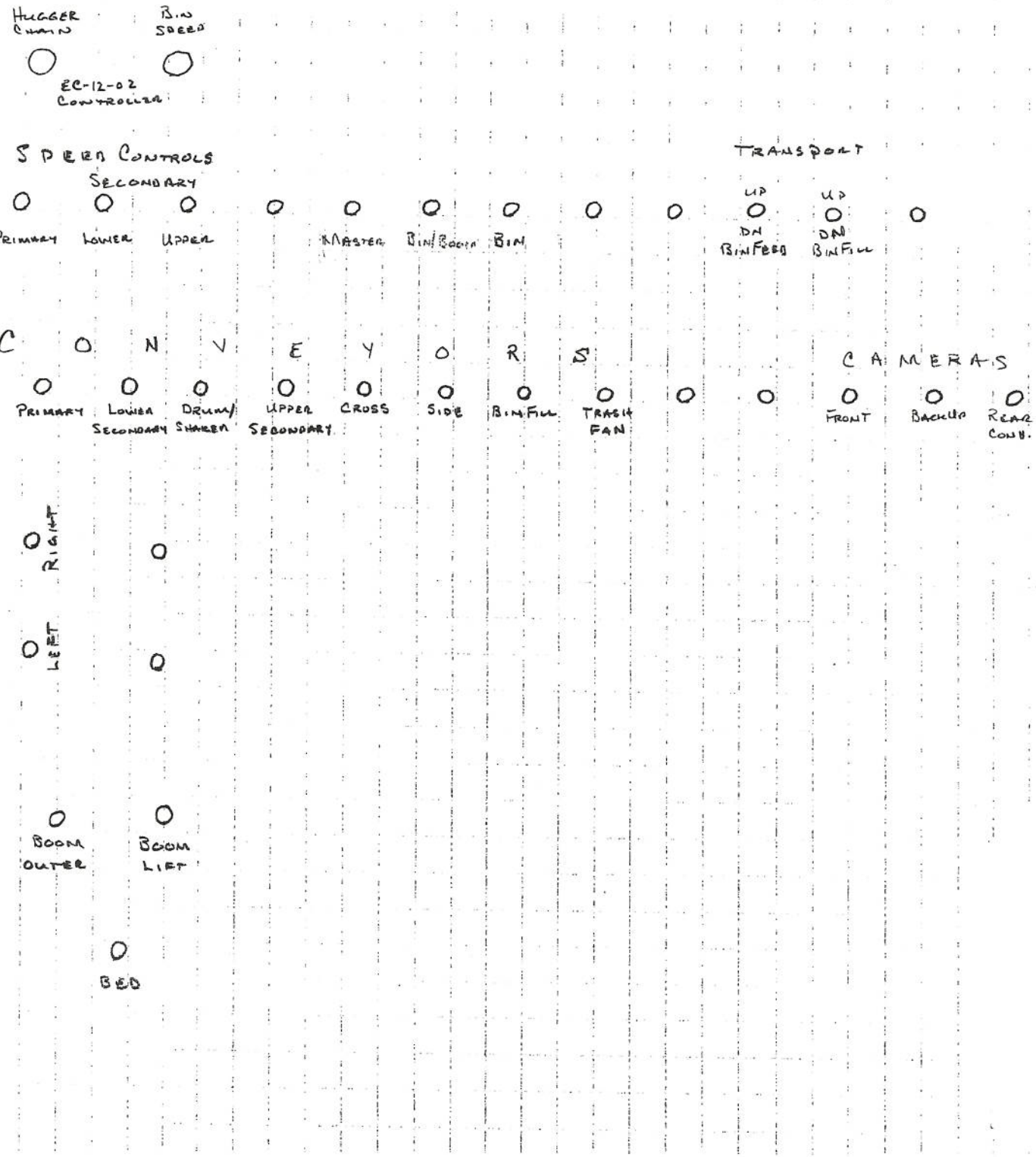
2010 - 00012

3/8/05
#05006
T&R Farms
Diagram

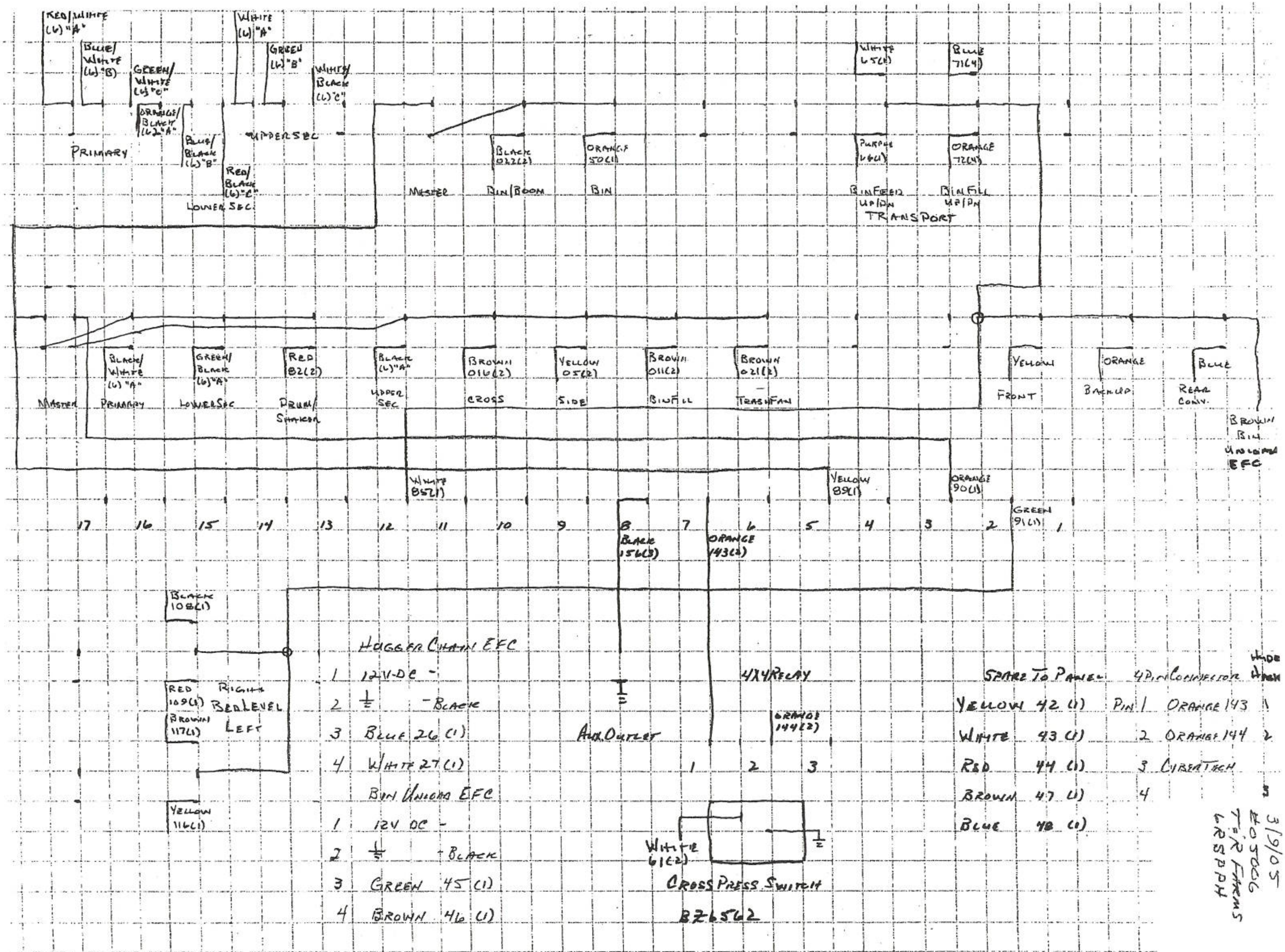


3/8/05 #05006
T&R FARMS 6RSPPH

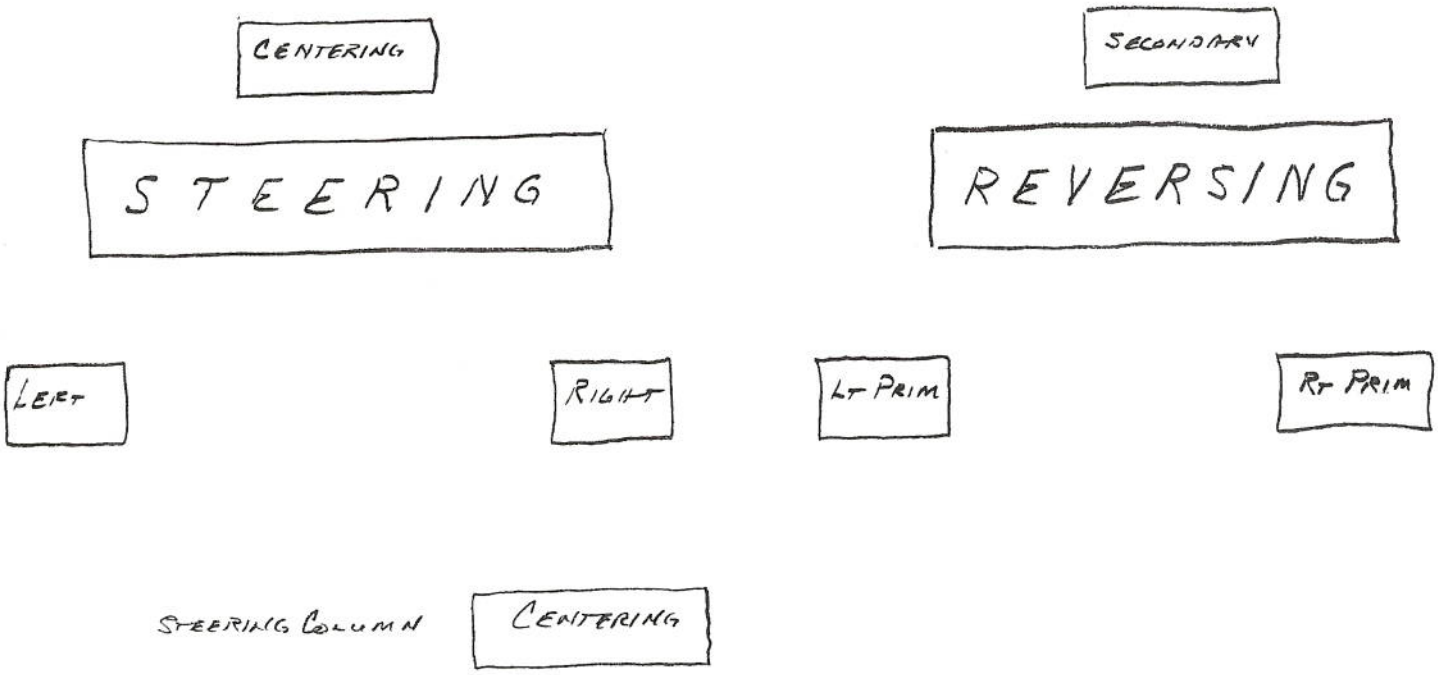




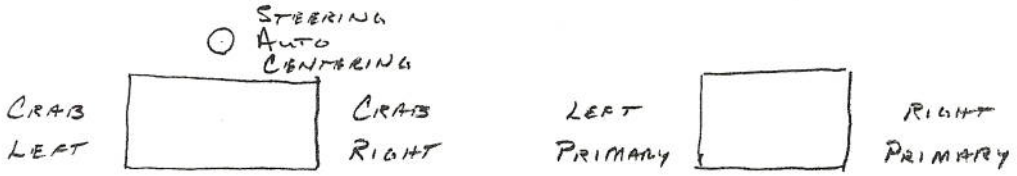
1/17/02
#05006
T&R FARMS
GRESHAM


Red/White (L) "A"
Blue/White (L) "B"
Green/White (L) "C"
Orange/Black (L2) "A"
Blue/Black (L) "B"
Red/Black (L) "C"
White (L) "A"
Green (L) "B"
White/Black (L) "C"
Primary
Upper Sec
Lower Sec
Master
Black 022(2)
Bin/Boom
Orange 50(1)
Bin
White 65(1)
Purple 66(1)
Bin Feed Up/Dn
Blue 71(4)
Orange 72(4)
Bin Fill Up/Dn
Transport
Master
Black/White (L) "A"
Primary
Green/Black (L) "A"
Lower Sec
Red 82(2)
Drum/Shaker
Black (L) "A"
Upper Sec
Brown 016(2)
Cross
Yellow 05(2)
Side
Brown 011(2)
Bin Fill
Brown 021(2)
Trash Fan
Yellow
Front
Orange
Backup
Blue
Rear Conv.
Brown Bin Unload EFC
White 85(1)
Yellow 89(1)
Orange 90(1)
Green 91(1)
17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
Black 156(3)
Orange 143(3)
Black 108(1)
Red 109(1)
Brown 117(1)
Right
Bed Level
Left
Yellow 116(1)
Hogger Chain EFC
1 12V-DC -
2 ⏚ - Black
3 Blue 26 (1)
4 White 27 (1)
Bin Unload EFC
1 12V DC -
2 ⏚ + Black
3 Green 45 (1)
4 Brown 46 (1)
Aux Outlet
4X4 Relay
Orange 144(2)
1 2 3
White 61(2)
Cross Press Switch
BZ6562
Spare To Panel
Yellow 42 (1)
White 43 (1)
Red 44 (1)
Brown 47 (1)
Blue 48 (1)
4 Pin Connector
Pin 1 Orange 143
2 Orange 144
3 Cybertech
4
Hyde Harn
1
2
3
3/9/05
#05006
T&R Farms
6RSPPH

FOOT PEDAL SWITCHES

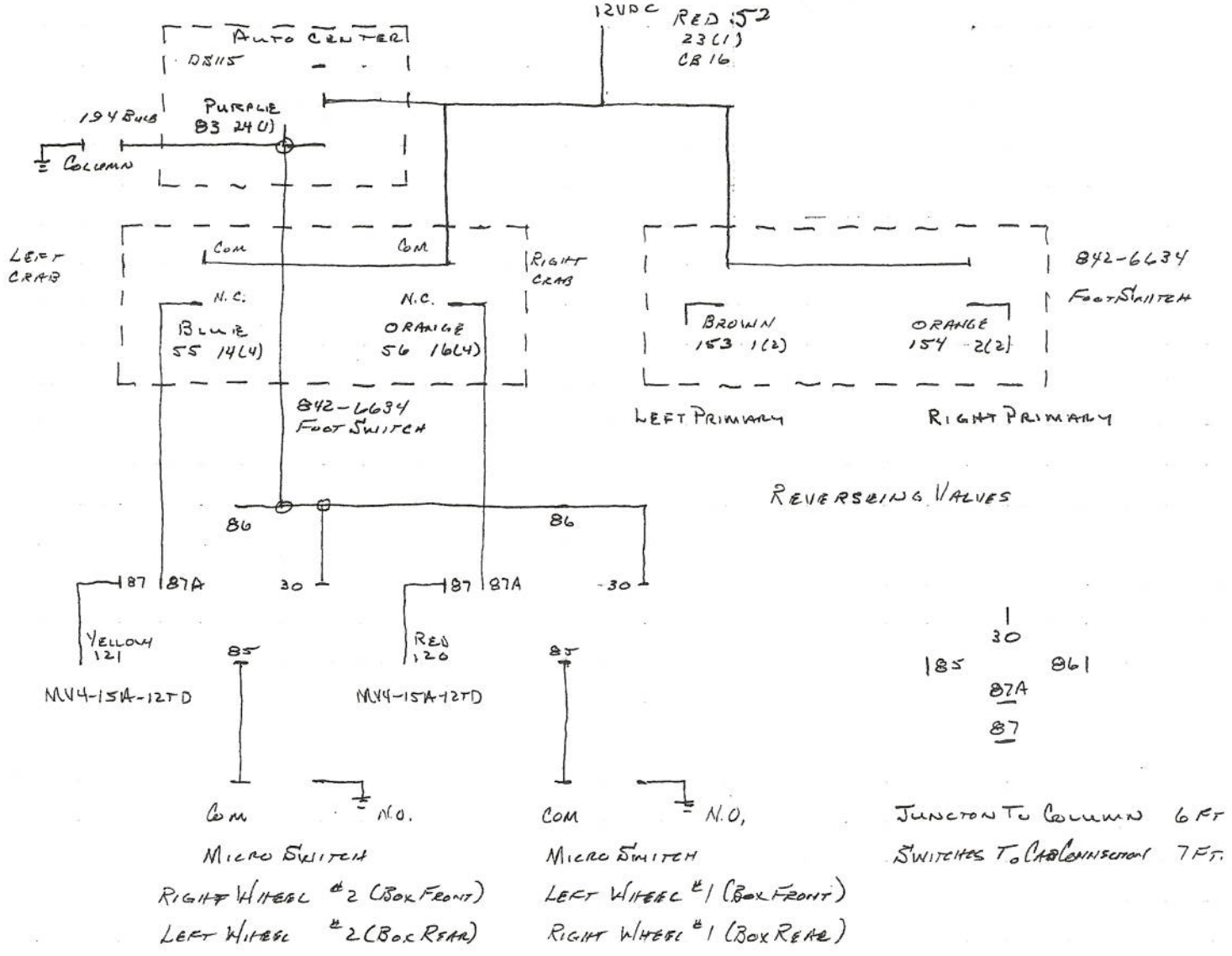


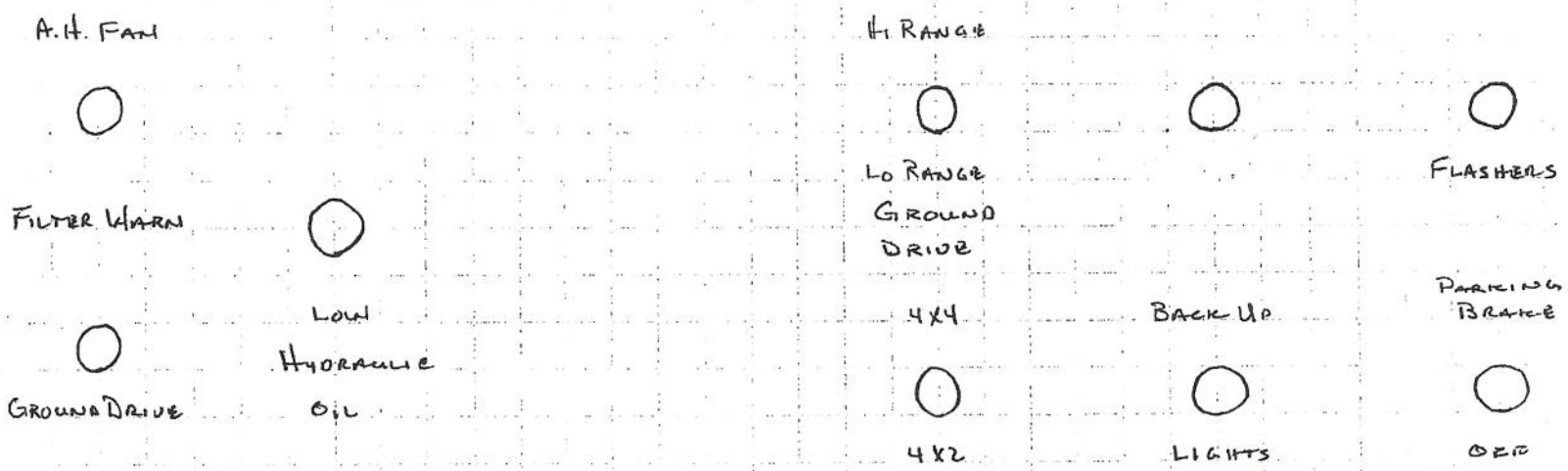
Foot Pedal Switches



Steering
Rear Axle

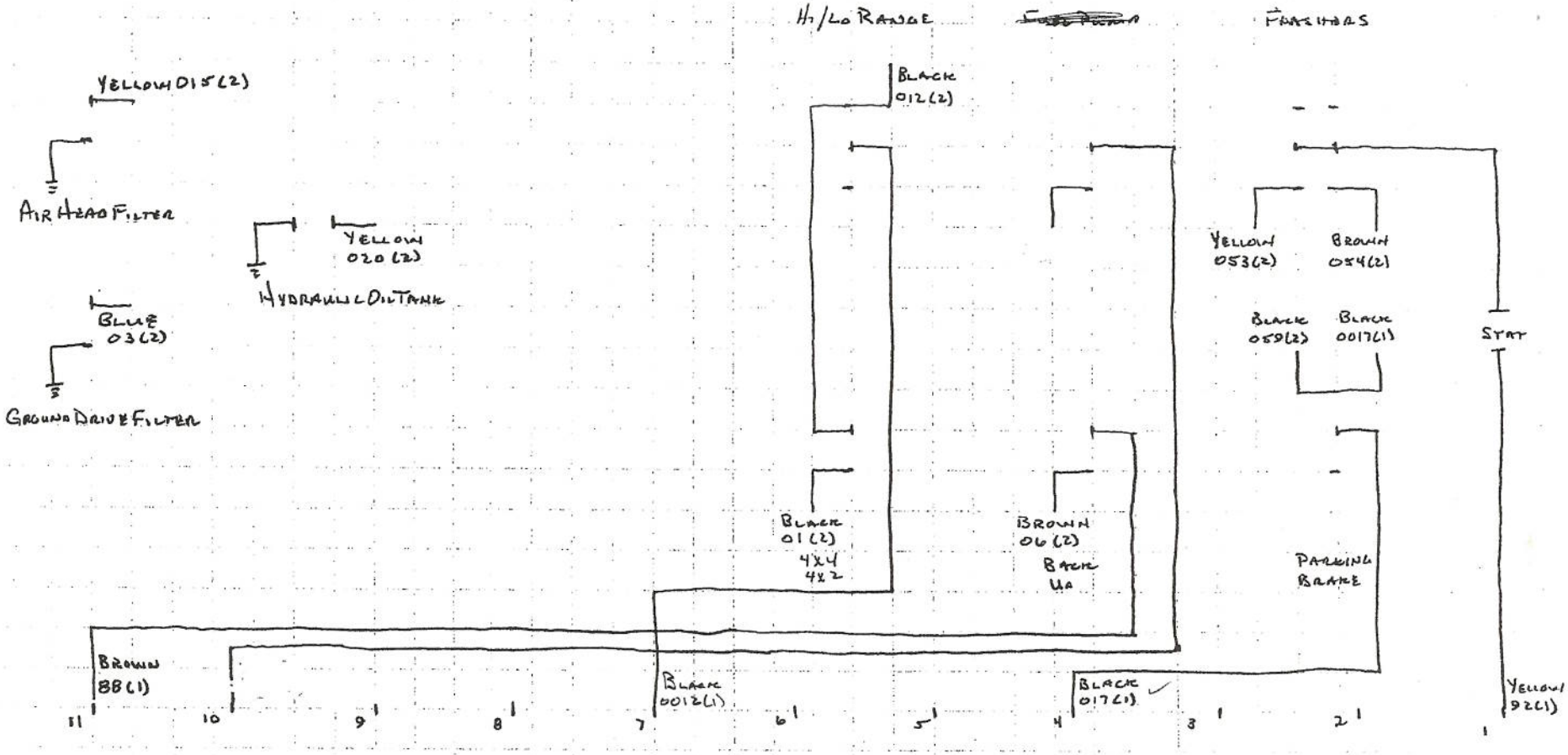
Reversing
Valves





2004 Cat3 Overhead

3/9/05
#05006
T&R Farms
Gresham



Right Side 11 Ft

Left Side 13 Ft

2004 - Cab Overhead

DTS-0150C

5/18/05
#05006
T.R. Farms
Gresham

#05006 6RSPPH T&R FARMS 3/9/2005

PLUG #1

PIN #				
1	YELLOW	92	CB 1 to HAZARD STAT to SWITCH	
2	GREEN	91	CB 2 TO BED LEVEL SWITCHES	
3	ORANGE	90	CB 3 TO MASTER SWITCH	
4	BLACK	017	CB4 to BRAKE, STEER, WARNING, SPEEDOMETER	
5	RED	081	CB 10	
6	YELLOW	89	CB5 to MASTER SWITCH	
7				
8	BLACK	0012	CB7 to 2-SPEED	
9	BLACK	0017	BRAKE SWITCH to BRAKE SOLENOID	
10	BROWN	88	CB11 TO BACK UP LIGHTS SWITCH	
11	WHITE	85	CB12 to ACTUATOR SWITCHES & TRANSPORT SWITCHES	
12	RED	81		
13	PURPLE	28		
14	WHITE	27	HUGGER CHAIN BRAND EFC VALVE	(WHITE / BLACK - CAB)
15	BLUE	26	HUGGER CHAIN BRAND EFC VALVE	(BLUE / WHITE - CAB)
16	ORANGE	46	BIN UNLOAD BRAND EFC VALVE	(ORANGE - CAB)
17	GREEN	45	BIN UNLOAD BRAND EFC VALVE	(GREEN /BLACK- CAB)
18				
19				
20				
21	RED	70	REAR CAMERA ACTUATOR	
22	PURPLE	69	REAR CAMERA ACTUATOR	
23	RED	52	CB 16 to FOOT SWITCHES 12VDC	
24	PURPLE	83	FOOT SWITCHES to STEERING BOX	
25	BLACK	108	RIGHT BED LEVEL SWITCH TO MV5 VALVE	
26	RED	109	RIGHT BED LEVEL SWITCH TO MV5 VALVE	
27	YELLOW	116	LEFT BED LEVEL SWITCH TO MV5 VALVE	
28	BROWN	117	LEFT BED LEVEL SWITCH TO MV5 VALVE	
29				
30	YELLOW	42		
31	WHITE	43		
32	RED	44		
33	BROWN	47		
34	BLUE	48		
35	WHITE	65	BIN FEED LIFT SWITCH TO MV5 VALVE	
36	PURPLE	66	BIN FEED LIFT SWITCH TO MV5 VALVE	
37	ORANGE	50	BIN UNLOAD BYPASS SV3-16-0-12T-12DG SOLENOID	

#05006 **6RSPPH** **T&R FARMS** **3/9/2005**

PLUG 2

PIN #				
1	BROWN	153	LEFT PRIMARY REVERSE	
2	ORANGE	154	RIGHT PRIMARY REVERSE	
3	BLACK	059	PARK SWT. TO 14(5)/15(5) RED 0015 TO SMX TO SV4-10-0	
4				
5				
6				
7	BROWN	54	RIGHT TURN SIGNAL	
8	YELLOW	53	LEFT TURN SIGNAL	
9	BROWN	06	BACK-UP LIGHT SWITCH TO RELAY	
10	BROWN	505	RIGHT WORK LIGHT SWITCH TO RELAY	BROWN 505
11				
12	BLACK	01	4 X 4 SWITCH TO RELAY	
13	BLACK	012	2-SPEED SWITCH TO SOLENOID	
14	BROWN	021	TRASH FAN SWITCH TO SOLENOID	
15	BROWN	011	BIN FILL SWITCH TO DTS-0373B (A) SOLENOID	
16	YELLOW	05	SIDE CONVEYOR SWITCH TO DTS-0373B (A) SOLENOID	
17	BROWN	016	CROSS CONVEYOR SWITCH TO DTS-0373B (A) SOLENOID	
18	RED	82	DRUM / SHAKER SWT. TO 2 DTS-0373B (B) SOLENOIDS	
19				
20				
21	BLUE	03	GROUND-DRIVE HI-PRESSURE FILTER #3 TO LIGHT	
22	YELLOW	020	HYDRAULIC LEVEL SENSOR TO CAB (BZL-12)	
23	WHITE	61	CROSS CONVEYOR PRESSURE SWITCH N.O. TO CAB (BZ 6562)	
24	BLACK	022	BIN / BULK SWT. TO DTS-0373B (B) SOLENOID	
25	ORANGE	143	CB7 TO HYDRO NEUTRAL SWITCH #1	
26	ORANGE	144	HYDRO NEUTRAL SWITCH #2 TO PANEL RELAY	
27				
28	GREEN	607	DTS-0160 TO CAB SPEEDOMETER	GREEN 607
29				
30				
31				
32				
33				
34				
35				
36				
37				

PLUG 3 PIN # [LG 16]			
1	18	RED	CB6 TO WIPER
2	12	RED	CB6 TO RADIO
3	752	YELLOW	HYDRAULIC OIL TANK TEMPERATURE SENDER
4	20	BLACK	GROUND
5	503	BROWN	LIGHT SWITCH ROAD POSITION TO RELAY #5-86
6	22	RED	CB8 TO DOME LIGHT/PANEL/LITE SWT/RADIO MEM (ST87 HOT)
*7	507	BROWN	CAB FIELD LIGHT RELAY TO CAB FIELD LIGHTS #4-30
8	572	BROWN	WORK LIGHT SWITCH TO LEFT WORK LIGHTS RELAYS
9	753	YELLOW	HYD. OIL TANK TEMP. GAUGE TO GRD. AT SENDER
*10	526	BROWN	CAB ROAD LIGHT RELAY TO CAB LIGHTS #5-30
11	652	BLUE	FUEL TANK SENDER TO GAUGE
12	425	GREEN	PRIMARY CIRCUIT TEMP. SENDER
13			
14	504	BROWN	CAB FIELD LIGHT POSITION TO RELAY #4-86
*15	156	BLACK	CB15 TO AUXILLARY OUTLET BOX 12 AWG
16	437	GRN.	PRIM. CIRCUIT TEMP. GAUGE TO GRD. AT SENDER

#05006 6RSPPH T&R FARMS 3/9/2005

PLUG 4

SW#	PIN#						
	1	RED	21	CB7 TO PIN 4 ON GAUGE PANEL			
1	2	BLACK	BLACK	LEFT GAUGE WHEEL MV5 VALVE	ORANGE	110	
1	3	RED	RED	LEFT GAUGE WHEEL MV5 VALVE	BLUE	111	
2	4	ORANGE	ORANGE	RIGHT GAUGE WHEEL MV5 VALVE	WHITE	112	
2	5	BLUE	BLUE	RIGHT GAUGE WHEEL MV5 VALVE	BROWN	113	
3	6	BLK/WHT	YELLOW	BOOM OUTER MV5 VALVE	PURPLE	114	
3	7	RED/WHT	BROWN	BOOM OUTER MV5 VALVE	GREEN	115	
4	8	BLU/WHT	VIOLET	BOOM LIFT MV5 VALVE	RED	118	
4	9	GRN/WHT	GRAY	BOOM LIFT MV5 VALVE	BLACK	119	
5	10	ORG/BLK	WHT/BRN	BOOM SWING MV5 VALVE	ORANGE	29	
5	11	BLU/BLK	WHT/BLK	BOOM SWING MV5 VALVE	BLUE	30	
6	12	RED/BLK	WHT/RED	BLADE MV4 VALVE	WHITE	35	
6	13	GRN/BLK	WHT/YEL	BLADE MV4 VALVE	BROWN	37	
	✓14	BLUE	55	LEFT CRAB FOOT SWITCH TO STEERING BOX RELAY			
	15						
	✓16	ORANGE	56	RIGHT CRAB FOOT SWITCH TO STEERING BOX RELAY			
	17						
	18						
	19	BLUE	71	BIN FILL SWITCH DOWN TO MV5 VALVE			
	20	ORANGE	72	BIN FILL SWITCH UP TO MV5 VALVE			
	21						
	22						
	23						
	24						

COLUMN PLUG

#05006 **6RSPPH** **T&R FARMS** **3/9/2005**

PLUG 5

PIN #				COLUMN PLUG		
1	11	P	RED	ST 87 HOT SIDE TERMINAL	12' 6"	
1	~~12~~		~~RED~~	~~KEY SWITCH " ACC " POSITION~~		
3	13	P	RED	ST 87 IGINITION TERMINALS	12' 6"	
4	502	P	BROWN	POWER FROM TURN STAT	12' 6"	502 TO 507
5	104	P	WHITE	CLUTCH SWITCH N.C. TO RELAY	12' 6"	
14	059	2	BLACK	TO CLUTCH SWITCH N.O. POSITON TO 15 (5)	14'	
✓15	0015		RED	TO SMX SWITCH - "COM" / N.O. ON SMX RED 15 TO SV4 SOLENOID		
18	522	2	BROWN	RIGHT TURN SIGNAL - BROWN 54 ON MACHINE	14'	512 TO 522
20	523	2	BROWN	LEFT TURN SIGNAL - YELLOW 53 ON MACHINE	14'	513 TO 523

RED 11A

—

RED 022

RED 13 [**RED 012** **RED 412**] RED 12

WHITE 104

—

RED 422

(RED 422 FROM POWER VIEW TO START RELAY TO ECU)

RED 13A [**RED 442**] RED 12A

—

ORANGE 924

KEY SWITCH KEYING

POWER VIEW KEY SWITCH KEYING

25-CONDUCTOR CABLE

#05006	6RSPPH		T&R FARMS	3/9/2005
BLACK	1		4X4 RELAY	PANEL
	12	RED	2-SPEED TO CAB	13 (2)
	17	BLUE	BRAKE TO BRAKE SOLENOID	9 (1)
	22	ORANGE	BIN UNLOAD / BULK SWT. TO DTS-0373B (A)	24 (2)
RED	2		STARTER RELAY TO SOLENOID	PANEL
	7	BLACK		
	18	BLUE		
	23	ORANGE		
BLUE	3		GROUND DRIVE FILTER # 3 TO CAB	21 (2)
	8	BLACK	GROUND DRIVE FILTER # 1 TO PANEL CB4	PANEL
	13	RED	ST87 IGN. SIDE TO FUEL SHUTOFF SOLENOID	PANEL
	24	ORANGE	A/C PLUG (ORANGE 914) TO A/C CLUTCH	
ORANGE	4			
	9	BLACK		
	14	RED		
	19	BLUE		
YELLOW	5		SIDE CONV. SWT. TO DTS-0373B (A)	16 (2)
	10	BLACK		
	15	RED		
	20	BLUE	HYDRAULIC OIL LEVEL SENSOR TO CAB	22 (2)
	25	ORANGE	HYDRAULIC OIL LEVEL SENSOR TO PANEL CB4	PANEL
BROWN	6		BACK UP RELAY TO REAR LIGHTS	PANEL
	11	BLACK	BIN FILL SWITCH TO DTS-0373B (A)	15 (2)
	16	RED	CROSS CONV. SWTICH TO DTS-0373B (A)	17 (2)
	21	BLUE	TRASH FAN SWITCH TO SV4-10-0-6T-12DG SOL.	14 (2)

DTS-0373B

1	12VDC
2	GRND.

BRAKE PRESS. SWITCH

1	12V DC
3	N.O.

TEMPERATURE SWITCH

1	12V DC
2	N.C.
3	N.O.

FAIREY FILTER

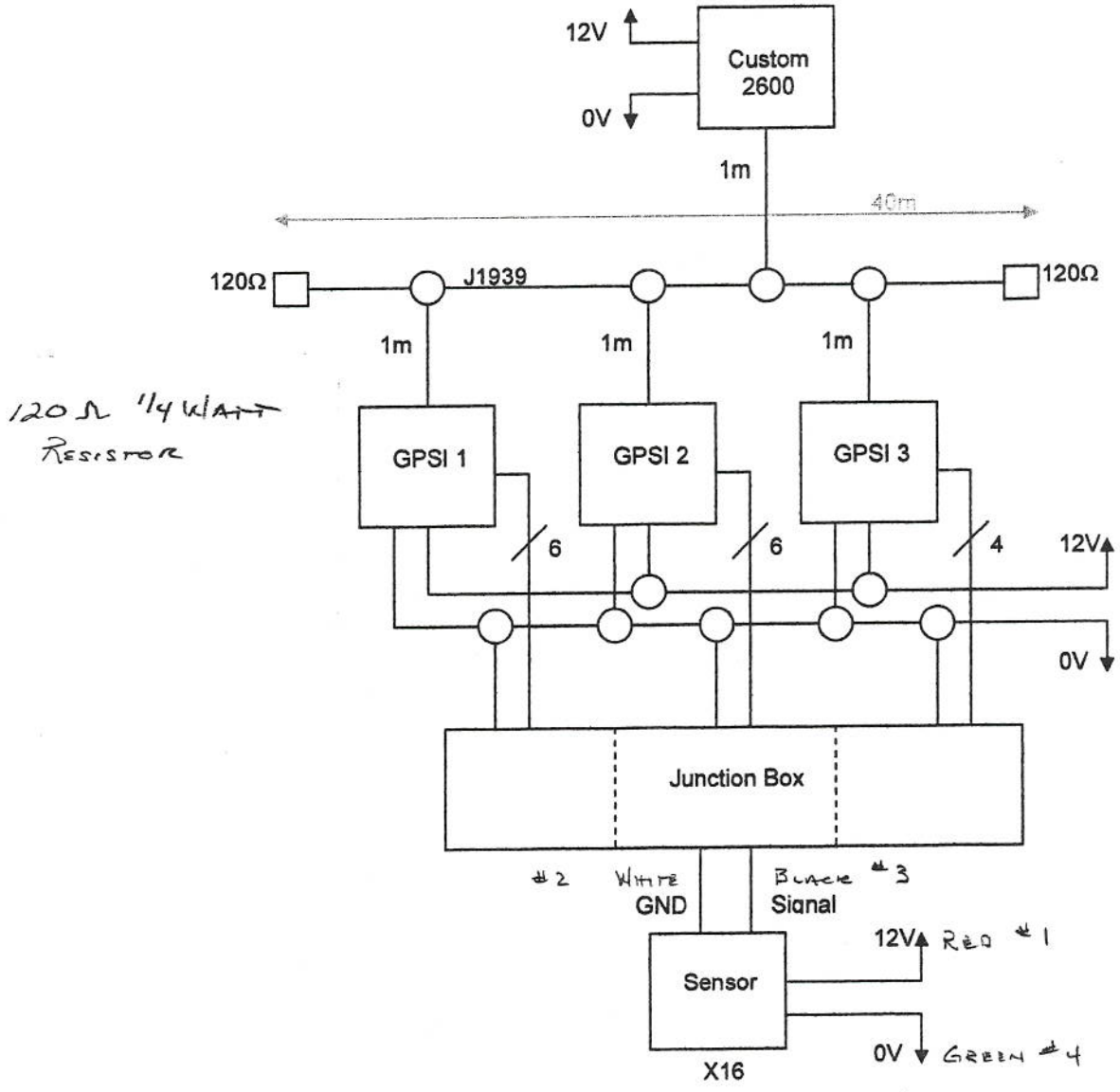
1	12V DC
2	N.C.
3	N.O.

DTS-0160

GREEN 607	INPUT	BLACK
RED CB 4	12V DC	BROWN
GREEN	GROUND	BLUE

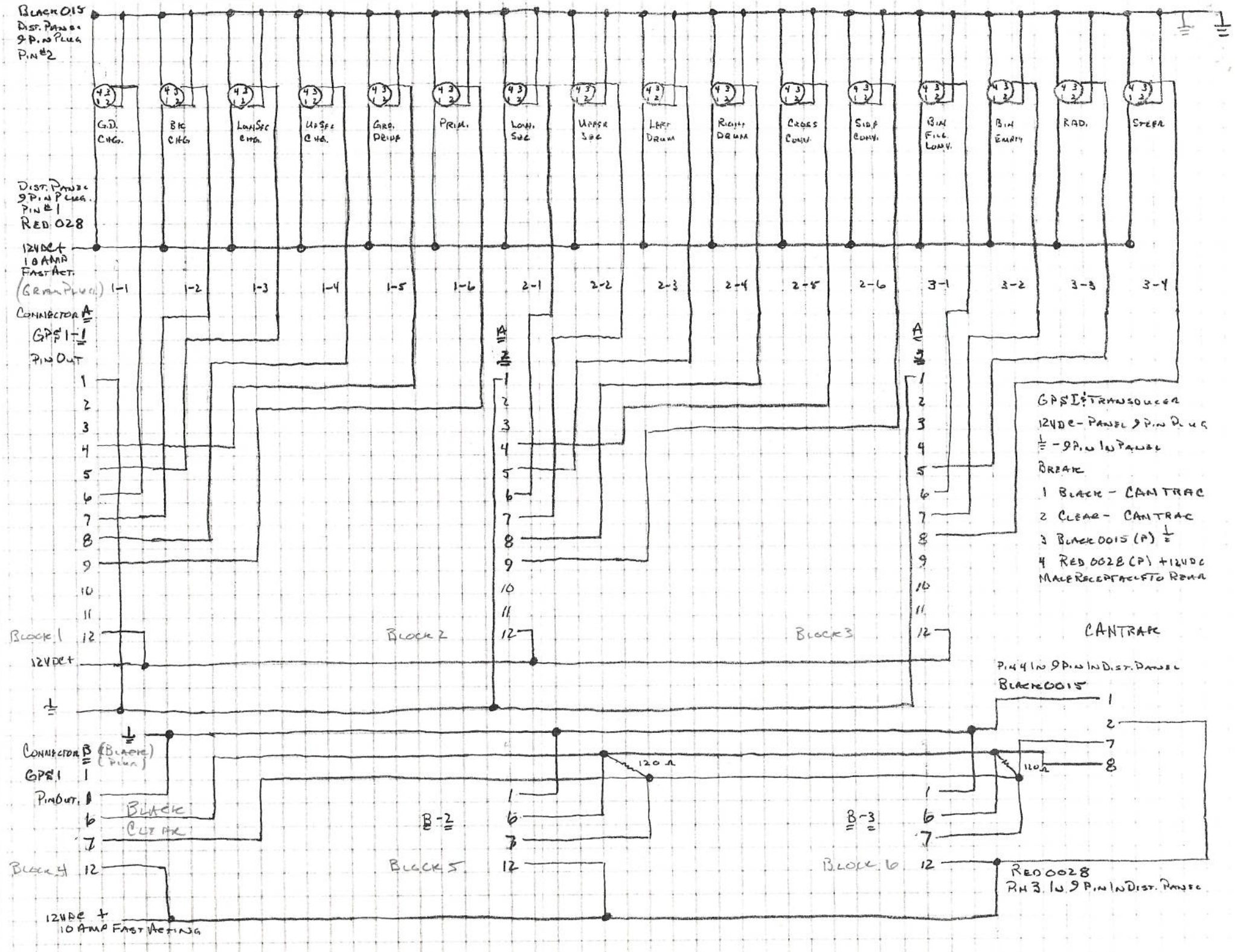
Project : OHIO Power Systems

6 Appendix A – Circuit Block Diagram for CANtrak & GPSI to OHIO Power System's Sensors



The CAN bus should be a shielded twisted pair, with impedance 120Ω. The shield ground should be connected to 0V.
'CAN+' (App.B GPSI Connector B pin 6) and 'CAN HI' (App.C CANtrak pin 8) should be linked.
'CAN –' (App.B GPSI Connector B pin 7) and 'CAN LO' (App.C CANtrak pin 7) should be linked.
GPSI Ground (App.B Connector B pin 1) and CANtrak Ground (App.C CANtrak pin 1) should be common.
GPSI Power (App B Connector B pin 12) should be tied to +12V.

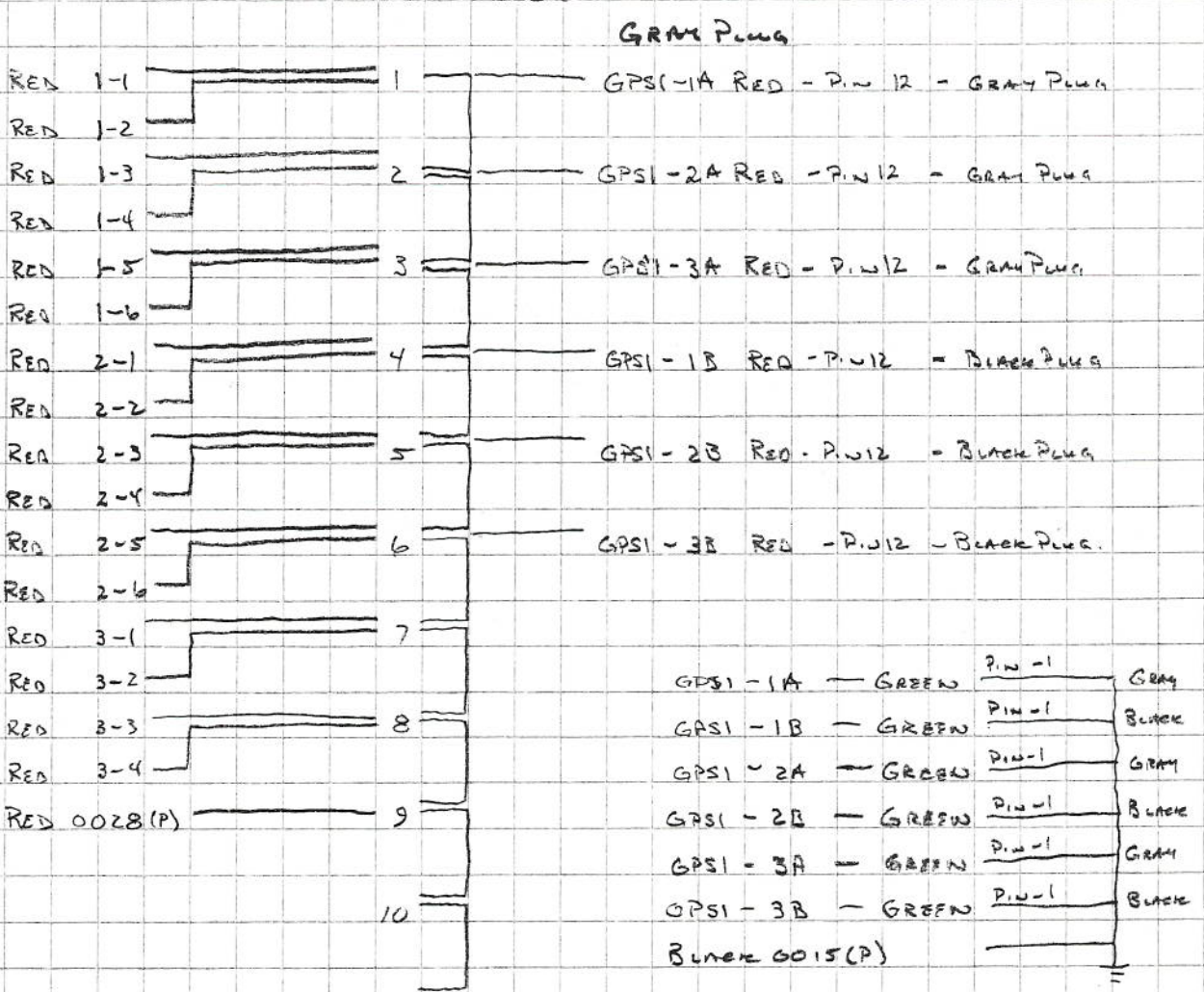
OUT+ of each sensor should be connected to the relevant Analog input on GPSI (see 4.1)
Each sensor's Ground and Earth should be common and IN+ tied to 12V.


BLACK 015
DIST. PANEL 9 PIN PLUG PIN #2
G.D. CHG.
BIG CHG
LOAD SEC CHG.
UNSEC CHG.
GRD. PROP
PROP.
LOAD SEC
UPPER SEC
LEFT DRUM
RIGHT DRUM
CROSS CONV.
SIDE CONV.
BIN FILL CONV.
BIN EMPTY
RAD.
STEER
DIST. PANEL 9 PIN PLUG PIN #1
RED 028
12VDC+ 10 AMP FAST ACT.
(GRAY PLUG)
1-1
1-2
1-3
1-4
1-5
1-6
2-1
2-2
2-3
2-4
2-5
2-6
3-1
3-2
3-3
3-4
CONNECTOR A
GPS I PIN OUT
BLOCK 1
BLOCK 2
BLOCK 3
12VDC+
GPS I TRANSDUCER
12VDC - PANEL 9 PIN PLUG
⏚ - 9 PIN IN PANEL
BREAK
1 BLACK - CANTRAC
2 CLEAR - CANTRAC
3 BLACK 015 (P) ⏚
4 RED 028 (P) +12VDC
MALE RECEPTACLE TO REAR
CANTRAC
PIN 4 IN 9 PIN IN DIST. PANEL
BLACK 015
CONNECTOR B (BLACK PLUG)
GPS I PINOUT
BLACK
CLEAR
BLOCK 4
BLOCK 5
BLOCK 6
B-2
B-3
120 Ω
120 Ω
12VDC + 10 AMP FAST ACTING
RED 028
PIN 3 IN 9 PIN IN DIST. PANEL

3/9/05

GAUGE GPSI's

JUNCTION BLOCK



PANEL 12VDC

BLACK WIRING

GPSI 1

1-1 - 6

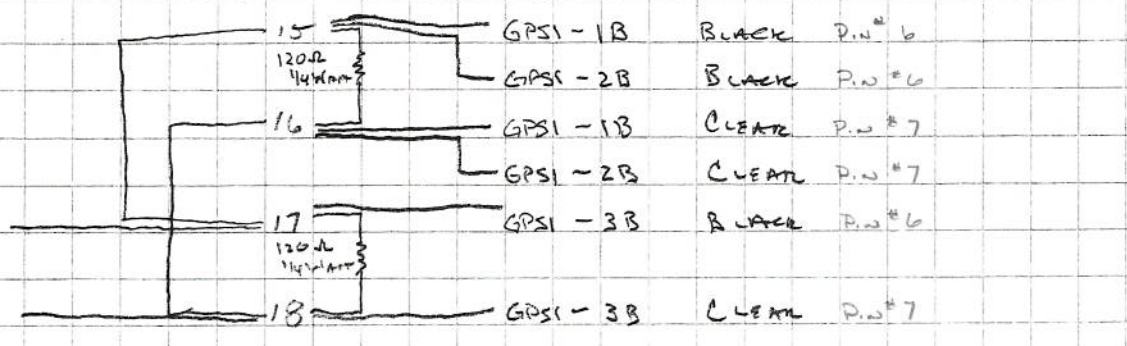
1-2 - 7

1-3 - 5

1-4 - 8

1-5 - 4

1-6 - 9

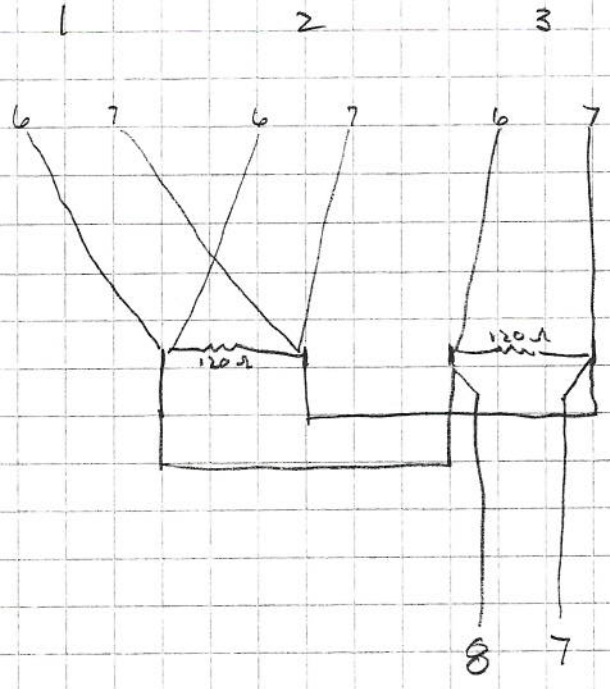


PIN # 8

CONTROL - BLACK

PIN # 7

CONTROL - CLEAR


1
2
3
6
7
6
7
6
7
120 Ω
120 Ω
8
7

Project : OHIO Power Systems

5.1 Sensor Scaling

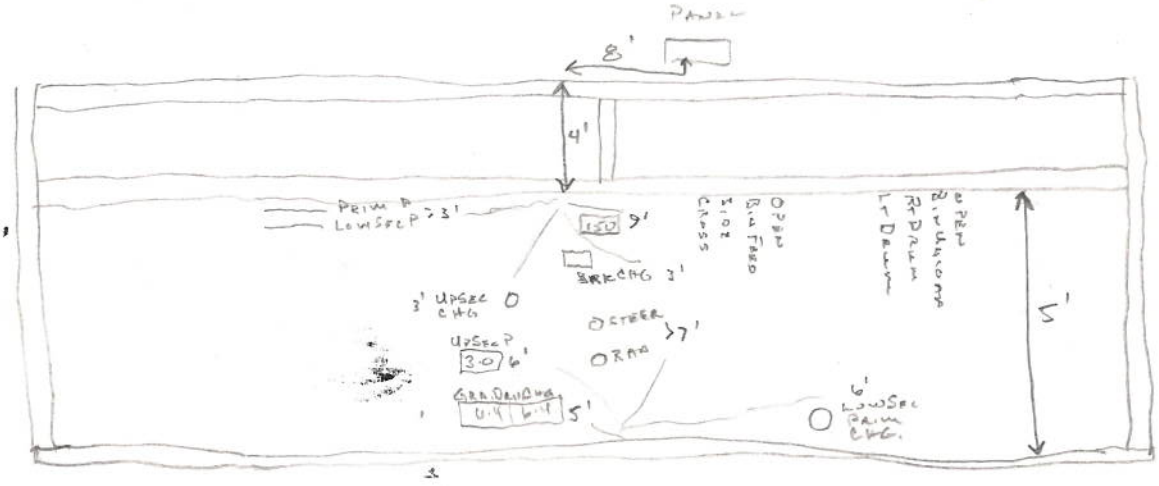
All data scaling for each of the displayed parameters will be done within the CANtrak S/W & the GPSI shall transmit raw (unscaled) data acquired from the sensors.

The pressure sensors are assumed to produce an output signal in the range 0-10V with the max. pressure producing the max. voltage.

The ranges and the scaling factors applied to the parameters described above are detailed below.

Only the initial digits of the part number are specified as the remaining requirements are not known.

GPSI	INPUT	SENSOR	Range	Scaling Factor	Part No.
1	A1	G.D.Charge	0-600 PSI	x * 1.5	1200 S G60 xx x x x x
	A2	Brake Charge	0-600 PSI	x * 1.5	1200 S G60 xx x x x x
	A3	Lower Sec. Charge	0-600 PSI	x * 1.5	1200 S G60 xx x x x x
	A4	Upper Sec. Charge	0-600 PSI	x * 1.5	1200 S G60 xx x x x x
	A5	Ground Drive	0-6000 PSI	x * 15.0	1200 S H60 xx x x x x
	A6	Primary	0-5000 PSI	x * 12.5	1200 S H50 xx x x x x
	A7				
2	A1	Lower Sec.	0-5000 PSI	x * 12.5	1200 S H50 xx x x x x
	A2	Upper Sec.	0-5000 PSI	x * 12.5	1200 S H50 xx x x x x
	A3	Left Drum	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A4	Right Drum	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A5	Cross Conveyor	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A6	Side Conveyor	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A7				
3	A1	Bin Fill Conv.	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A2	Bin Empty	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A3	Radiator	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A4	Steering	0-3000 PSI	x * 7.5	1200 S H30 xx x x x x
	A5				
	A6				
	A7				



7 Appendix B - GPSI Pinouts

The GPSI housing contains 2 Deutsch 12 pin connectors that contain all power & signal connections as detailed below.

Connector A (Grey)	
Signal	Pin Number
1	Ground
2	Switched Input 1
3	Analogue Input 7
4	Analogue Input 5
5	Analogue Input 3
6	Analogue Input 1
7	Analogue Input 2
8	Analogue Input 4
9	Analogue Input 6
10	Switched Input 2
11	Fused +5V Supply Output
12	4.096V Reference Supply Output

Connector B (Black)	
Signal	Pin Number
1	Ground
2	Digital Output
3	Tachometer High Input
4	RS232 Tx
5	* CAN Power Input +
6	CAN Bus High
7	CAN Bus Low
8	* CAN Power Input -
9	RS232 Rx
10	Tachometer Low Input
11	High Voltage Input
12	Power Supply Input +

TRANSDUCER WIRING

PIN # 1	RED	IN +
2	WHITE	COM.
3	BLACK	OUT +
4 (EARTH)	GREEN	EARTH

5 CANtrak 2600 – Sensor Data Display

The CANtrak 2600 will display the sensor data acquired by the GPSI.

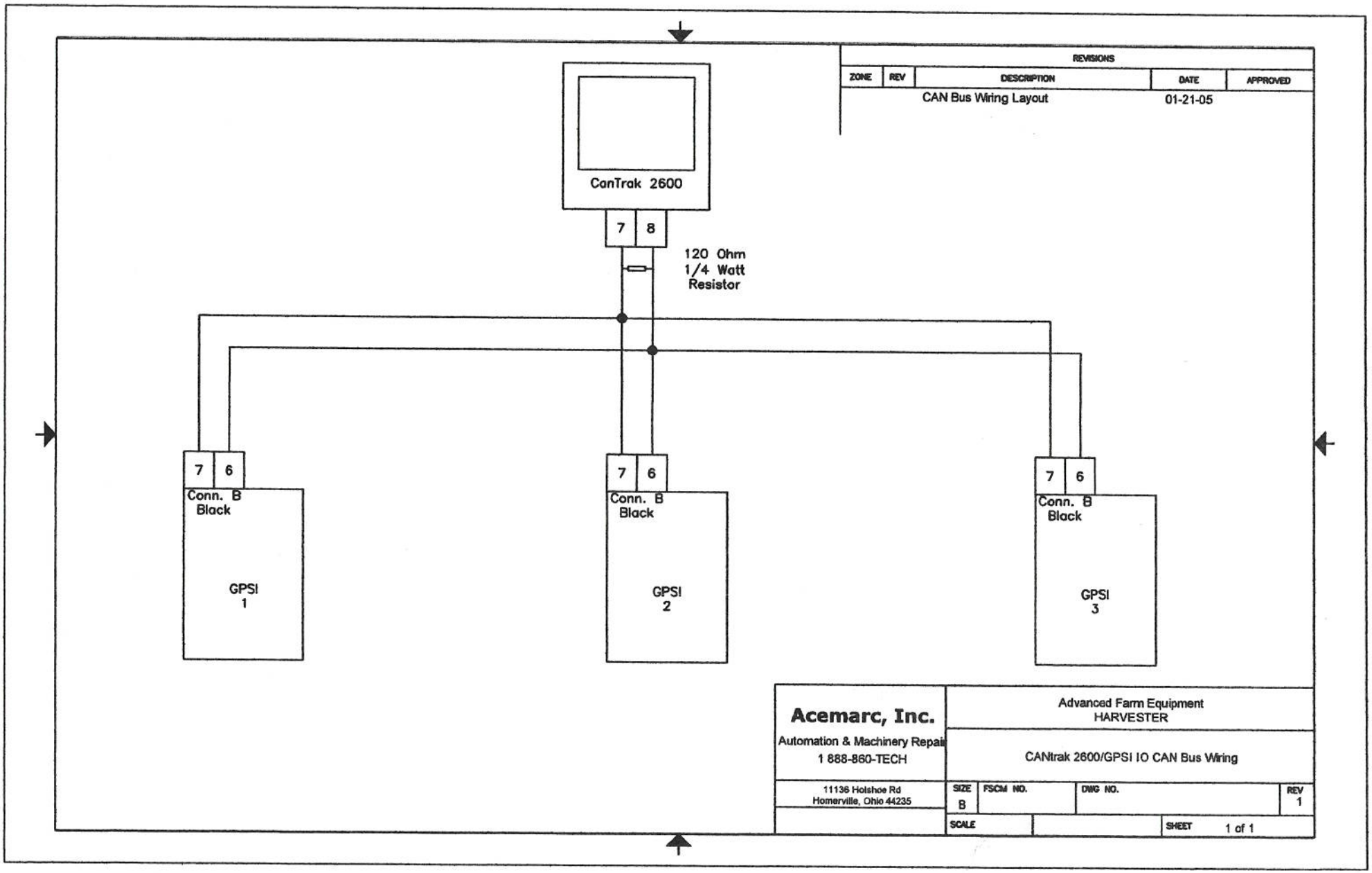
This display will display the following items on four screens. The screens will be navigable through use of back (button 1) and forward (button 2) icons within the button bar.

G.D.Charge	Brake Charge
Lower Sec. Charge	Upper Sec. Charge

Ground Drive	Primary
Lower Sec.	Upper Sec.

Left Drum	Right Drum
Cross Conveyor	Side Conveyor

Bin Fill Conv.	Bin Empty
Radiator	Steering


REVISIONS
ZONE
REV
DESCRIPTION
DATE
APPROVED
CAN Bus Wiring Layout
01-21-05
CanTrak 2600
7
8
120 Ohm
1/4 Watt
Resistor
7
6
Conn. B
Black
GPSI
1
7
6
Conn. B
Black
GPSI
2
7
6
Conn. B
Black
GPSI
3
Acemarc, Inc.
Automation & Machinery Repai
1 888-860-TECH
11136 Holshoe Rd
Homerville, Ohio 44235
Advanced Farm Equipment
HARVESTER
CANtrak 2600/GPSI IO CAN Bus Wiring
SIZE
B
FSCM NO.
DWG NO.
REV
1
SCALE
SHEET
1 of 1

1200 Series / 1600 Series – OEM Transducers Featuring Exceptional Proof Pressure and Stability Specifications

- Gauge, Vacuum, and Compound Pressure Models
- General Purpose and Wash down Enclosures
- High Proof Pressure Achieved by Thicker Diaphragm Construction
- Voltage and Current Output Models

The 1200 Series features stability and toughness via its CVD and ASIC design coupled with a thicker diaphragm. The thicker diaphragm enables these sensors to survive most pressure spikes caused by pump ripple, solenoid valves, etc. The 1600 Series extends the packaging options by providing an all welded stainless steel back end for demanding industrial applications. A modular design allows special ordering of fittings, electrical cables, etc. for OEM applications. The ASIC and CVD technology enables Gems to offer almost any output over any pressure range.

Specifications

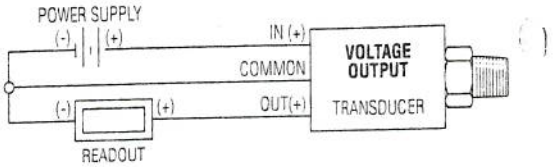
Input	
Pressure Range	Vacuum to 400 bar (6000 psi)
Proof Pressure	4 x Full Scale (FS) (<1% FS Zero Shift)
Burst Pressure	>35 x FS <= 4 bar (60 psi); >20 x FS <=40 bar (600 psi); >5 x FS <= 400 bar (6000 psi)
Fatigue Life	Designed for more than 100 million FS cycles
Performance	
Supply Voltage Sensitivity	0.01% FS/Volt
Long Term Drift	0.2% FS/year (non-cumulative)
Accuracy	0.5% FS typical
Thermal Error	2.0% FS typical
Compensated Temperatures	-20°C to 80°C (-5°F to 180°F)
Operating Temperatures	-40°C to 125°C (-40°F to 260°F) for elec. codes A, B, C, 1 -20°C to 80°C (-5°F to 180°F) for elec. codes 2, D, G, 3 -20°C to 50°C (-5°F to 125°F) for elec. code F temperatures >100°C supply is limited to 24 VDC
Zero Tolerance	1% of span
Span Tolerance	1% of span
Response Time	0.5 ms
Mechanical Configuration	
Pressure Port	see ordering chart
Wetted Parts	17-4 PH Stainless Steel
Electrical Connection	see ordering chart
Enclosure	316 SS, 17-4 PH ss IP65 NEMA 4 for elec. codes A,B,C,D,G,1,2,3 IP67 for elec. codes F IP30 for elec. code "3" with flying leads
Vibration	70g, peak to peak sinusoidal, 5 to 2000 Hz (Random Vibration: 20 to 200 Hz @ ≈20g Peak per MIL-STD.-810E Method 514.4)
Acceleration	100g steady acceleration in any direction 0.032% FS/g for 1 bar (15 psi) range decreasing logarithmically to 0.0007% FS/g for 400 bar (6000 psi) range.
Shock	20g, 11 ms, per MIL-STD.-810E Method 516.4 Procedure I
Approvals	CE, UR (12 ET, 16 ET Intrinsically safe)
Weight	approx. 100 grams (additional; cable 75 g/m)

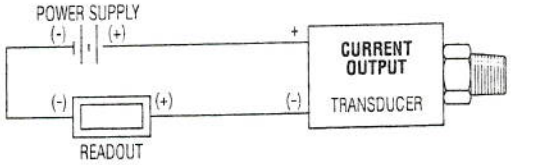
Along with the superiority of the CVD strain gauge, Psibar® transducers incorporate components to leverage the sensing element's strength. The output is a product with a unique balance of performance and value unmatched in today's pressure sensing market.

Individual Specifications

Voltage Output units	
Output	See ordering chart
Supply Voltage (Vs)	1.5 VDC above span to 35 VDC
Min. Load Resistance	(FS output / 2) Kohms
Current Output units	
Output	4-20 mA (2 wire)
Supply Voltage (Vs)	24 VDC, (7-35 VDC)
Max. Loop Resistance	(Vs-7) x 50 ohms

Electrical Connection Cable			**Voltage Units**				**Current Units (4-20 mA)**		
			IN+	COM	OUT+	EARTH	(+)	(–)	EARTH
A, B, G	"DIN"	PIN	1	2	3	4	1	2	4
C	"10-6 Bayonet"	PIN	A	C	B	E	A	B	E
D	"cable"		R	BK	W	DRAIN	R	BK	DRAIN
F	"IP 67 cable"		R	BK	W	DRAIN	R	BK	DRAIN
1	"8-4 Bayonet"	PIN	A	C	B	D	A	B	D
2	"cable"		R	BK	W	DRAIN	R	BK	DRAIN
3	"conduit & cable"		R	BK	W	DRAIN	R	BK	DRAIN





Cable Legend:

R = Red
BL = Blue
BK = Black
W = White
Y = Yellow

Electromagnetic Capability

Meets the requirement for CE marking of EN50081-2 for emissions and EN50082-2 for susceptibility.

Test Data:

- EN61000-4-2 Electrostatic Discharge. 8kV air discharge, 4kV contact discharge. Unit survived.
- ENV50140 Radiated RF Susceptibility. 10V/m, 80MHz-1GHz, 1kHz mod. Maximum recorded output error was <±1%
- ENV50204 Radiated RF Susceptibility to Mobile Telephones. 10V/m, 900MHz. Maximum recorded output error was <±1%.
- EN61000-4-4 Fast Burst Transient. 2kV, 5/50ns, 5kHz for 1 minute. Unit survived.
- ENV50141 Conducted RF Susceptibility. 10Vms, 1kHz mod, 150kHz - 80MHz. Maximum recorded output error was <±1%

Table 1 - Cable Length

Code	Length (M)	Code	Length (M)
U	No Cable Fitted	**M**	40
D	1	**N**	50
E	3	**P**	75
F	5	**Q**	100
G	10	**R**	125
H	15	**S**	150
J	20	**4**	170
K	25	**5**	200
L	30	**6**	225

Monitor Liquid Level with Gems Psibar® Pressure Transducers

- Continuously Monitor Liquid Levels
- Stainless Steel Wetted Parts are Compatible With Most Fluids
- Mount Through Top or Side of Tanks

Gems Psibar® pressure transducers provide a great, cost-effective method for measuring liquid levels. From measuring inventories in process storage tanks to monitoring hot water feed tanks, our design flexibility promotes easy installation, with mounting either through the tank top or from the side.

Getting Started...
Tank content is be determined from the pressure exerted on the sensor, so you need to know the depth ***and*** the specific gravity of the liquid being measured. When these two factors are known, the following equation can be used to determine the pressure range needed to specify an applicable pressure transducer:

Pressure in PSI = Liquid Level (in feet) x (Specific Gravity x 0.433)

Example:
Tank Level:
Pressure in PSI = Liquid Level (in feet) x (Specific Gravity x 0.433)
Pressure in PSI = 30 x (1.0 x 0.433)
Pressure in PSI = 12.99 PSI

Using a Psibar Series 1200, 1600, 2200 or 2600 transducer, specify Pressure Range code **F15** (0-15 PSI).