

MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS

PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK

BREAK SHARP EDGES

Customer Name

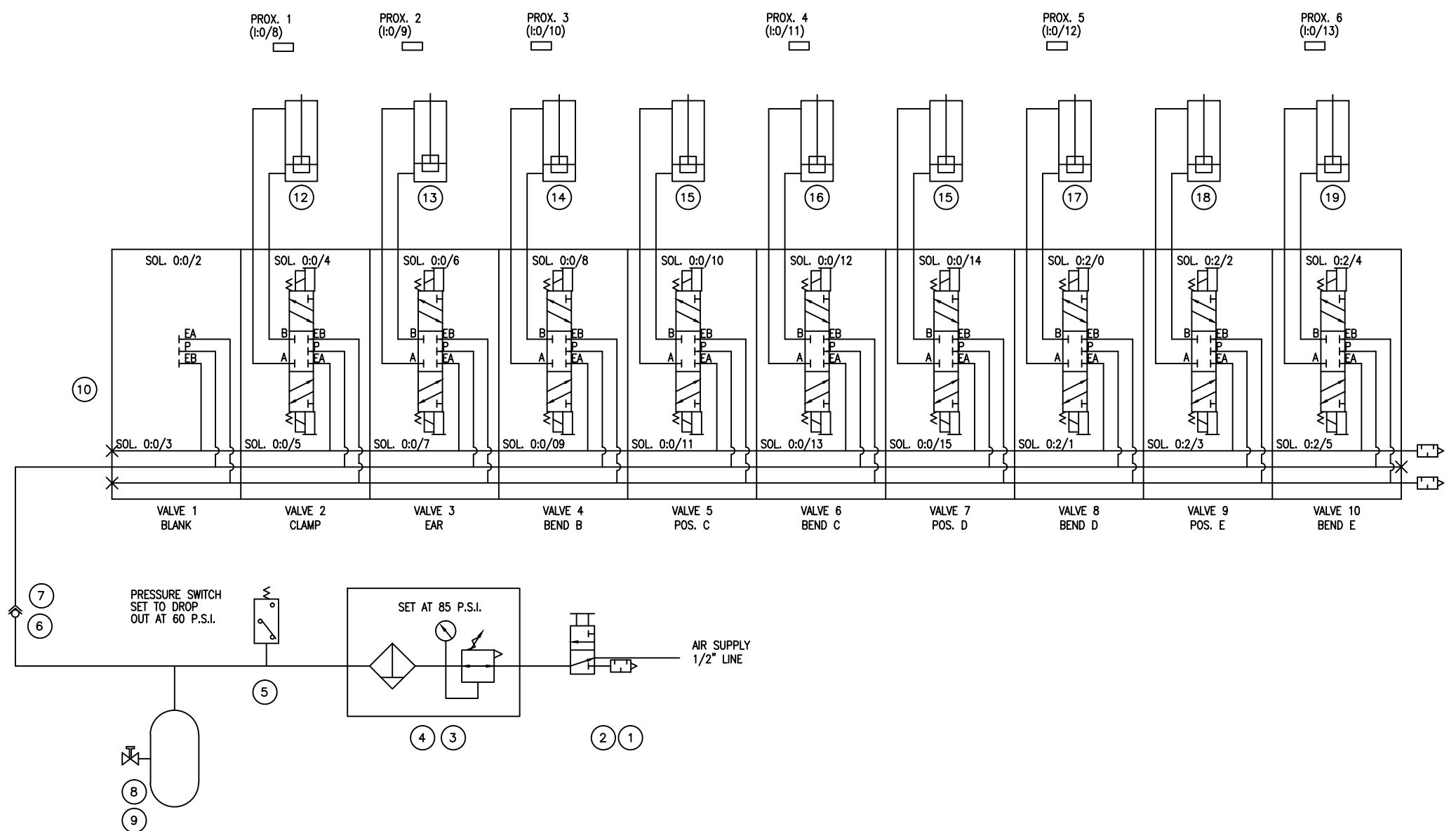
TOOL NAME Power Bender—No. Excel 212
Floor Plan

PART NAME Sample Tube
PART NO. 4196783222

DRAWN BY: Moorman	SHT. 1	SCALE 1/10	FILE NAME SampleFP
DATE: 2-23-1991	OF 1		

DESIGN & BUILD BY: **EXCEL** MACHINE & TOOL INC.
SERIAL NUMBER: 231961

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			



19	1	PARKER	4.00 CD2MA3U13AC X 4.00 AIR CYL. kk=3/4-16 male, A=1.625, LAF=3.00
18	1	PARKER	2.50 CBC2MA3U13AC X 5.00 AIR CYL. kk=1/2-20 male, A=1.125, LAF=2.125
17	1	PARKER	4.00 CD2MA3U13AC X 3.00 AIR CYL. kk=3/4-16 male, A=1.625, LAF=3.00
16	1	PARKER	4.00 CD2MA3U13AC X 2.50 AIR CYL. kk=3/4-16 male, A=1.625, LAF=3.00
15	2	PARKER	2.50 CD2MA3U13AC X 4.50 AIR CYL. kk=1/2-20 male, A=1.125, LAF=2.125
14	1	PARKER	4.00 CBC3MAU13AC X 5.00 AIR CYL. kk=3/4-16 male, A=1.625, LAF=3.00
13	1	PARKER	1.06 DXPSRMB3 X 2.00 cc=5/16-24 male, A=.875, LE=1.50
12	1	PARKER	2.50 CD2MAU13AC X 6.00 AIR CYL. kk=1/2-20 male, A=1.125, LAF=2.125
11	2	SMC	AN-400-N04 EXHAUST SILENCER
10	1	SMC	10 STATION VALVE ASS'Y. CONSISTING OF: (1) 10 STATION MANIFOLD VQ4000 WITH D SHELL STATION 1 BLANK STATION 2-10 VQ4301-3 D SOL.120 VAC COIL WITH 3 METER FEMALE SUB D CONNECTOR CABLE AXT100-DS25-030
9	1	PARKER	DC602-4 DRAIN COCK
8	1	SILVAN	72-12-12-200 12 GALLON AIR TANK
7	1	PARKER	H2F QUICK CONNECT NIPPLE
6	1	PARKER	B16 QUICK CONNECT COUPLER
5	1	SMC	NIS100E-4N04Y-X201 1/2" PRESSURE SWITCH
4	2	SMC	Y400T 1/2" SPACER FOR AIR PREP UNIT
3	1	SMC	AW40-N04BG-Z 1/2" FILTER REGULATOR COMBO
2	1	SMC	VHS40-N04-Z 1/2" LOCK OUT VALVE
1	1	SMC	AN-300-N03 MUFFLER
DET.	QTY.	MAKE	DESCRIPTION

Customer Name

TOOL Power Bender-No. Excel 212
NAME Pneumatic Schematic

PART NAME Sample Tube
PART NO. 4196783222

DRAWN BY:	SHT.	SCALE	FILE NAME
Moorman	1	none	SampleP1
DATE:	OF		
2-23-1991	1		

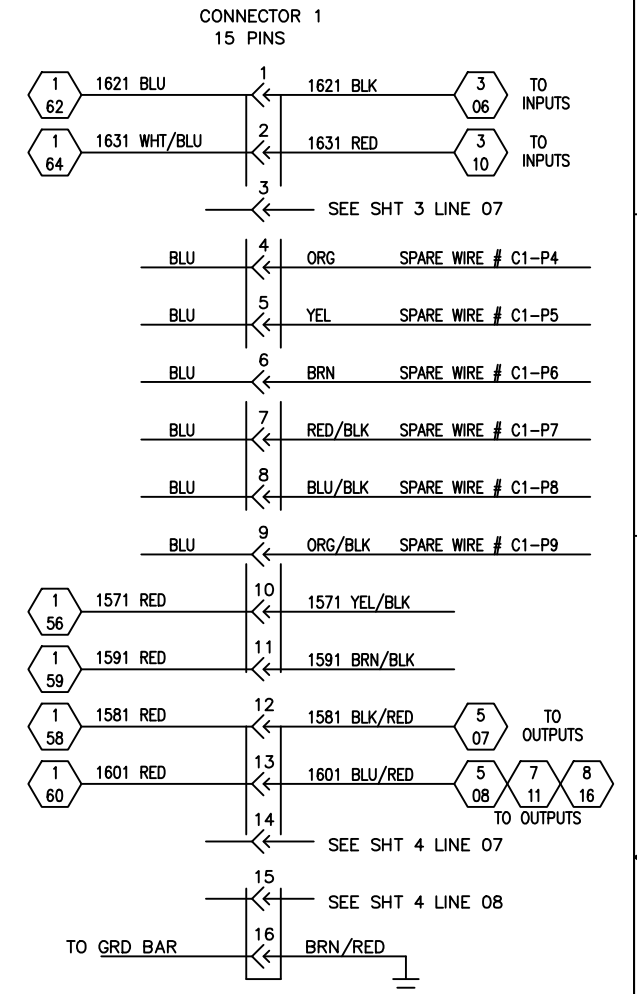
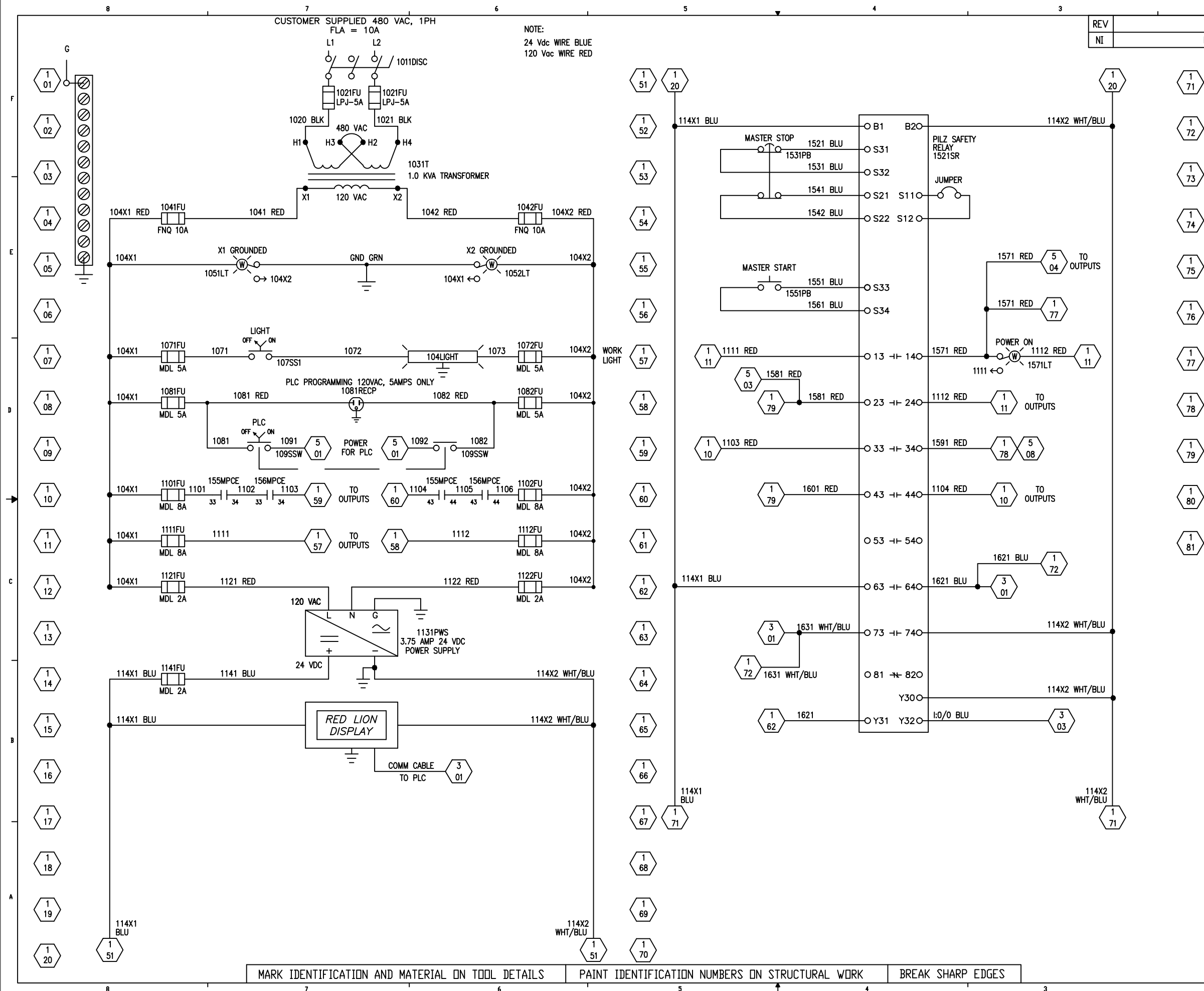
DESIGN & BUILD BY: **EXCEL** MACHINE & TOOL INC. SERIAL NUMBER: 231961

NOTE:
1) PNEUMATICS VALVES
SOL. b EXTENDS CYLINDER
SOL. a RETRACTS CYLINDER

MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			

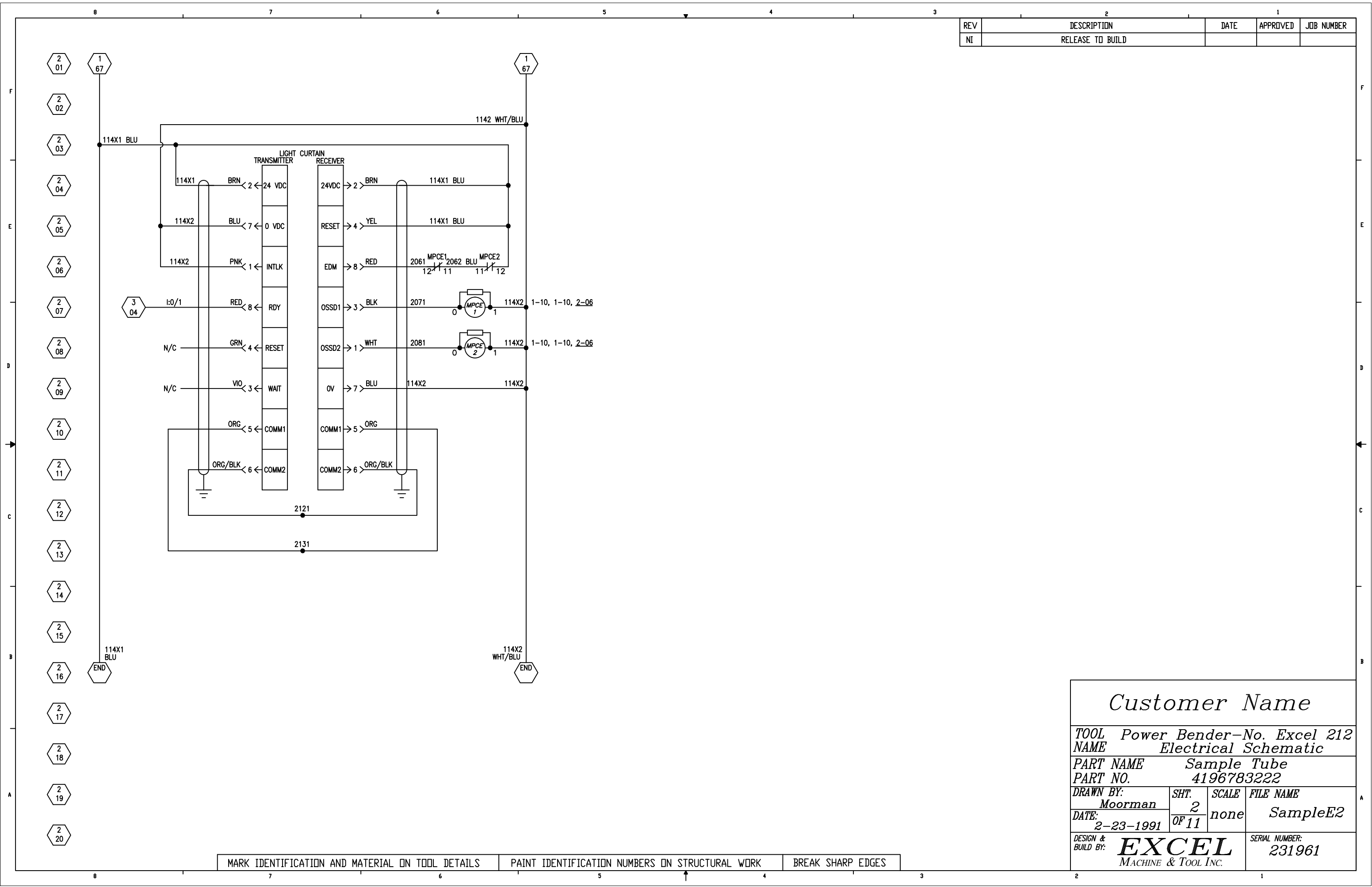
NOTE:
24 Vdc WIRE BLUE
120 Vac WIRE RED



MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

Customer Name			
TOOL NAME Power Bender-No. Excel 212 Electrical Schematic			
PART NAME Sample Tube			
PART NO. 4196783222			
DRAWN BY: Moorman	SHT. 1	SCALE none	FILE NAME SampleE1
DATE: 2-23-1991	OF 11		
DESIGN & BUILD BY: EXCEL MACHINE & TOOL INC.	SERIAL NUMBER: 231961		

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			



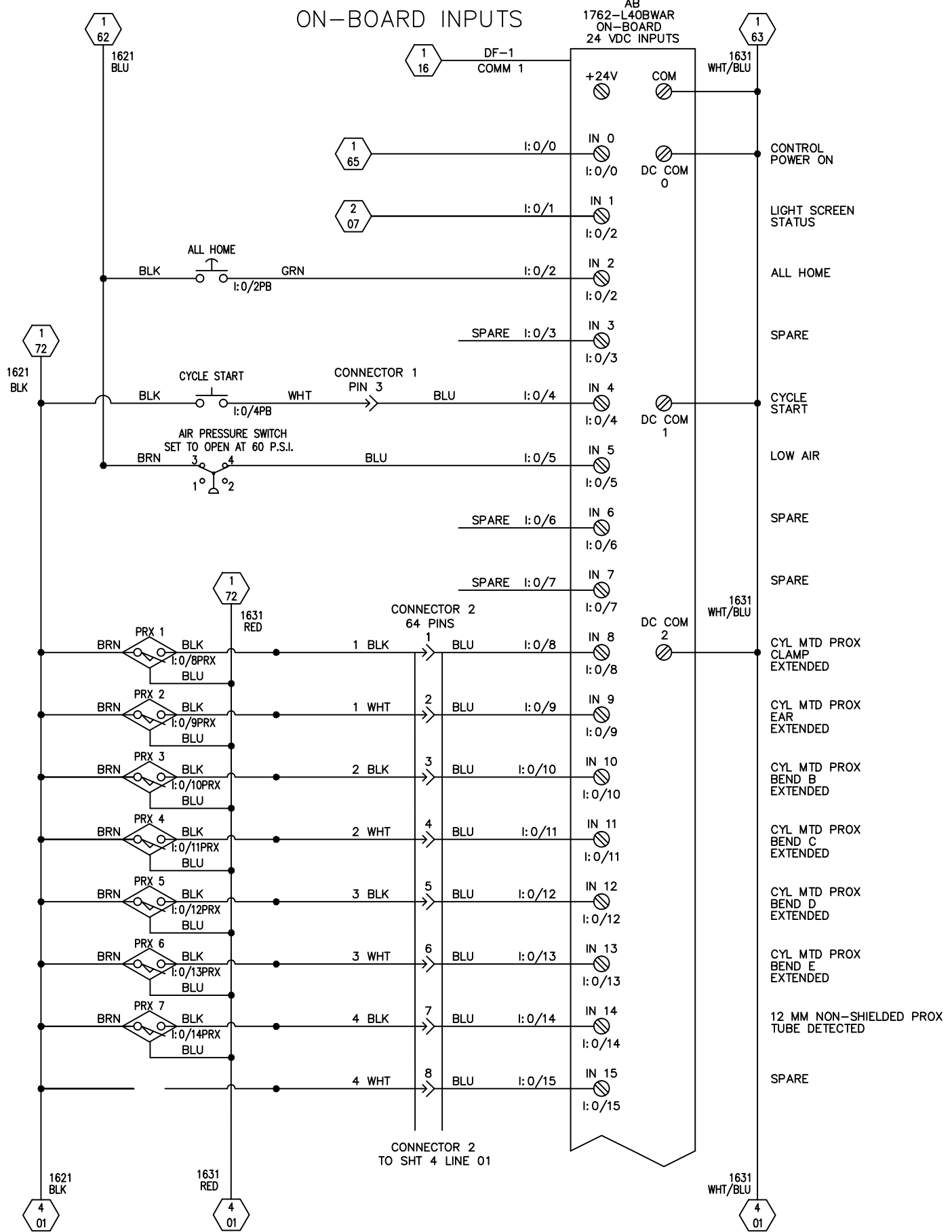
MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

<i>Customer Name</i>			
<i>TOOL NAME Power Bender-No. Excel 212 Electrical Schematic</i>			
<i>PART NAME Sample Tube PART NO. 4196783222</i>			
<i>DRAWN BY: Moorman</i>	<i>SHT. 2</i>	<i>SCALE none</i>	<i>FILE NAME SampleE2</i>
<i>DATE: 2-23-1991</i>		<i>OF 11</i>	
<i>DESIGN & BUILD BY: EXCEL MACHINE & TOOL INC.</i>		<i>SERIAL NUMBER: 231961</i>	

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			

ON-BOARD INPUTS

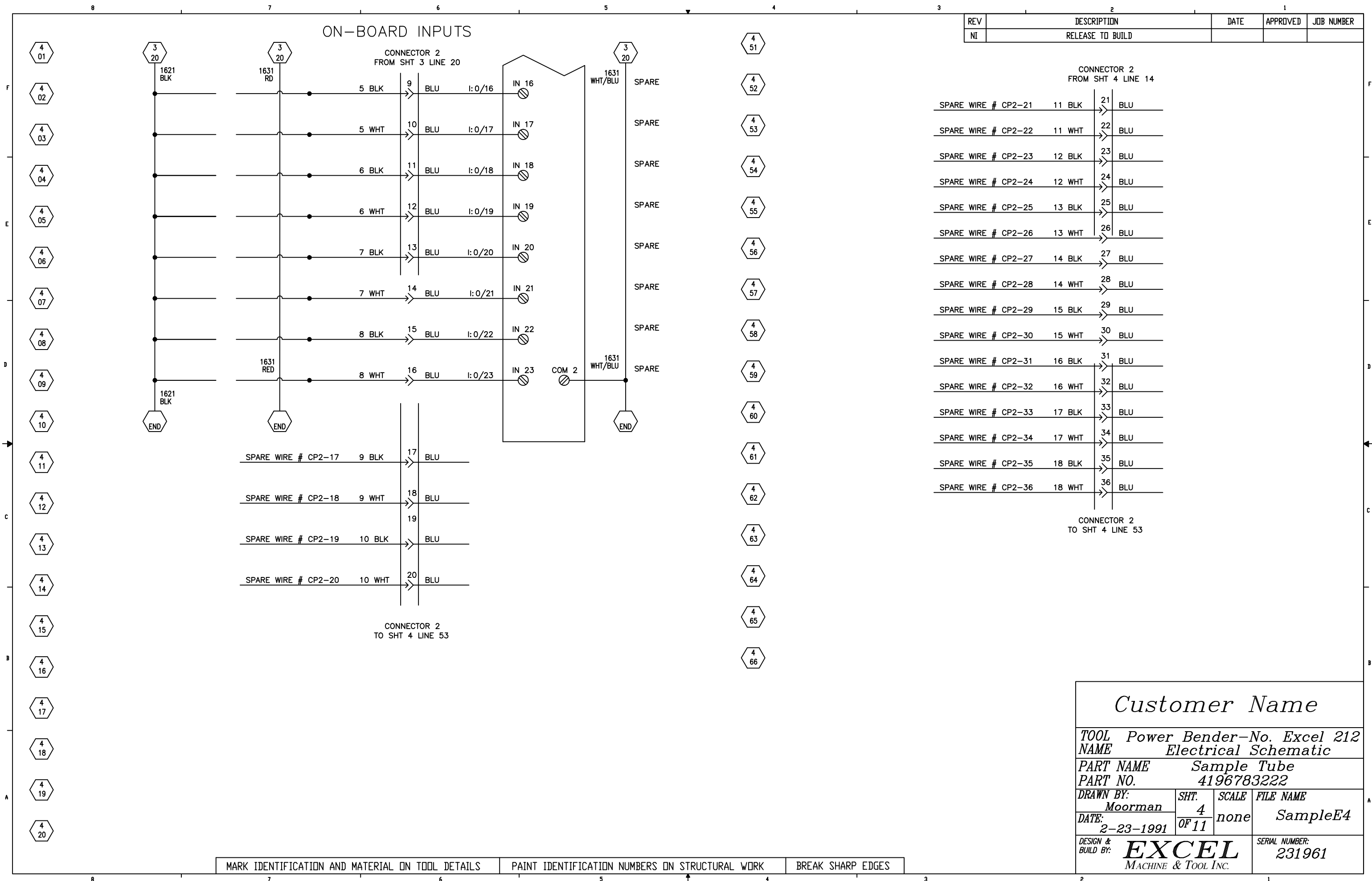
AB
1762-L40BWAR
ON-BOARD
24 VDC INPUTS



MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

<i>Customer Name</i>			
TOOL NAME <i>Power Bender-No. Excel 212</i>			
Electrical Schematic			
PART NAME <i>Sample Tube</i>		PART NO. <i>4196783222</i>	
DRAWN BY:	SHT.	SCALE	FILE NAME
<i>Moorman</i>	<i>3</i>	<i>none</i>	<i>SampleE3</i>
DATE:	OF		
<i>2-23-1991</i>	<i>11</i>		
DESIGN & BUILD BY:	EXCEL		SERIAL NUMBER:
	MACHINE & TOOL INC.		<i>231961</i>

ON-BOARD INPUTS



REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			

CONNECTOR 2 FROM SHT 4 LINE 14			
SPARE WIRE # CP2-21	11 BLK	21	BLU
SPARE WIRE # CP2-22	11 WHT	22	BLU
SPARE WIRE # CP2-23	12 BLK	23	BLU
SPARE WIRE # CP2-24	12 WHT	24	BLU
SPARE WIRE # CP2-25	13 BLK	25	BLU
SPARE WIRE # CP2-26	13 WHT	26	BLU
SPARE WIRE # CP2-27	14 BLK	27	BLU
SPARE WIRE # CP2-28	14 WHT	28	BLU
SPARE WIRE # CP2-29	15 BLK	29	BLU
SPARE WIRE # CP2-30	15 WHT	30	BLU
SPARE WIRE # CP2-31	16 BLK	31	BLU
SPARE WIRE # CP2-32	16 WHT	32	BLU
SPARE WIRE # CP2-33	17 BLK	33	BLU
SPARE WIRE # CP2-34	17 WHT	34	BLU
SPARE WIRE # CP2-35	18 BLK	35	BLU
SPARE WIRE # CP2-36	18 WHT	36	BLU

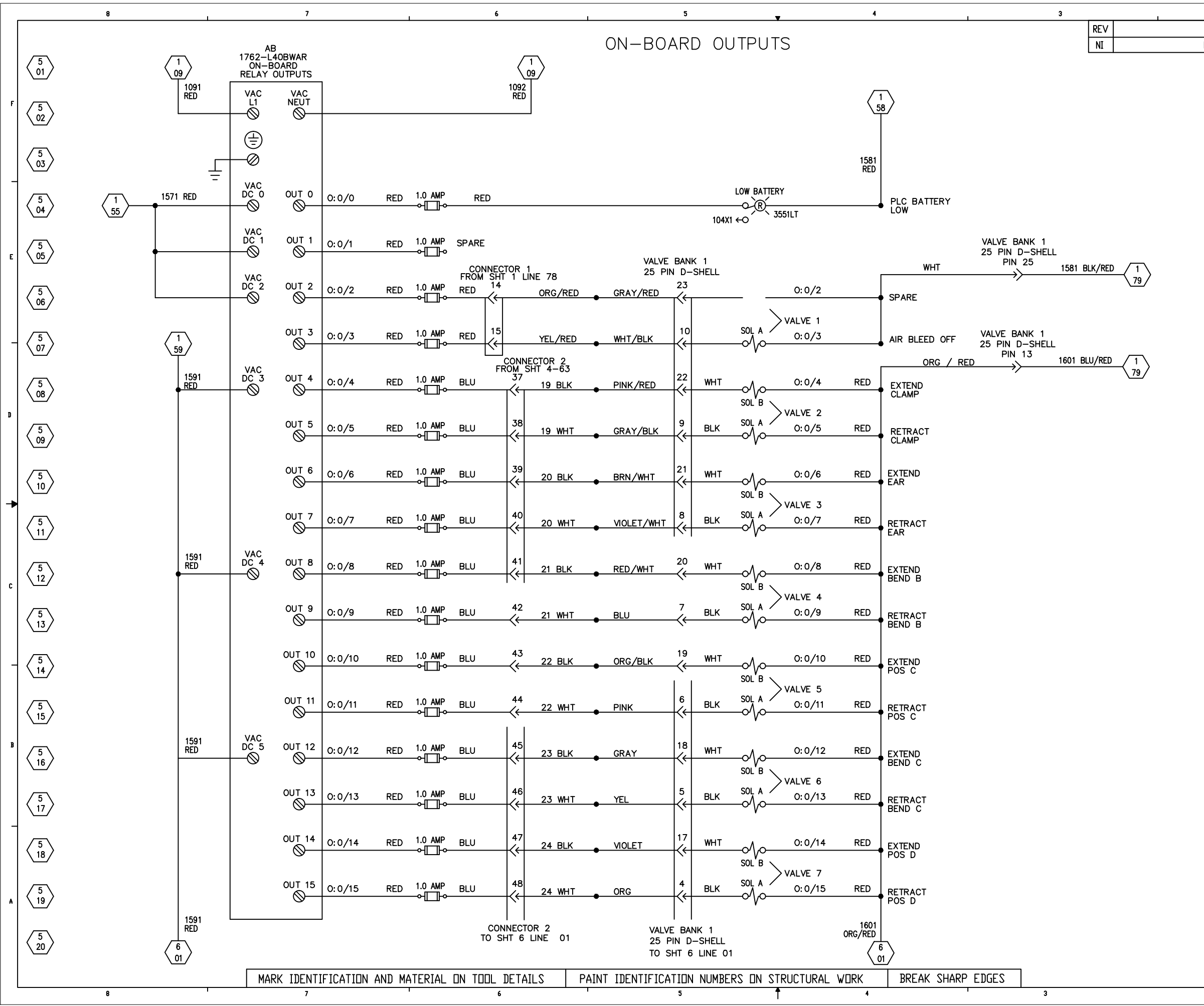
CONNECTOR 2 TO SHT 4 LINE 53

MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

<i>Customer Name</i>			
<i>TOOL NAME Power Bender-No. Excel 212 Electrical Schematic</i>			
<i>PART NAME Sample Tube</i>			
<i>PART NO. 4196783222</i>			
<i>DRAWN BY: Moorman</i>	<i>SHT. 4</i>	<i>SCALE none</i>	<i>FILE NAME SampleE4</i>
<i>DATE: 2-23-1991</i>	<i>OF 11</i>		
<i>DESIGN & BUILD BY: EXCEL MACHINE & TOOL INC.</i>			<i>SERIAL NUMBER: 231961</i>

ON-BOARD OUTPUTS

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			

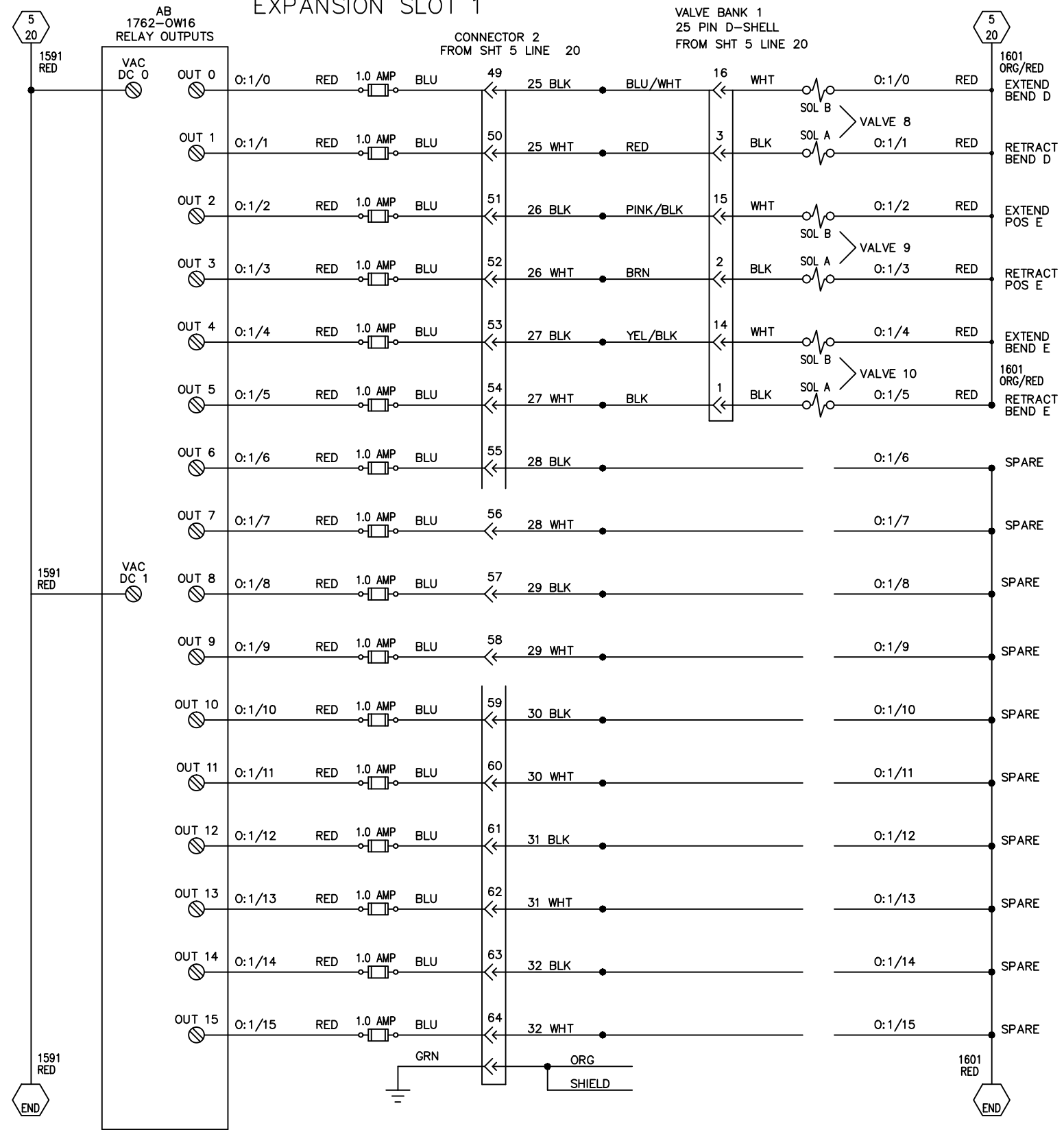


MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

<i>Customer Name</i>			
TOOL NAME <i>Power Bender-No. Excel 212</i>			
Electrical Schematic			
PART NAME <i>Sample Tube</i>			
PART NO. <i>4196783222</i>			
DRAWN BY:	SHT.	SCALE	FILE NAME
<i>Moorman</i>	<i>5</i>	<i>none</i>	<i>SampleE5</i>
DATE:	OF		
<i>2-23-1991</i>	<i>11</i>		
DESIGN & BUILD BY:	EXCEL		SERIAL NUMBER:
	MACHINE & TOOL INC.		<i>231961</i>

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			

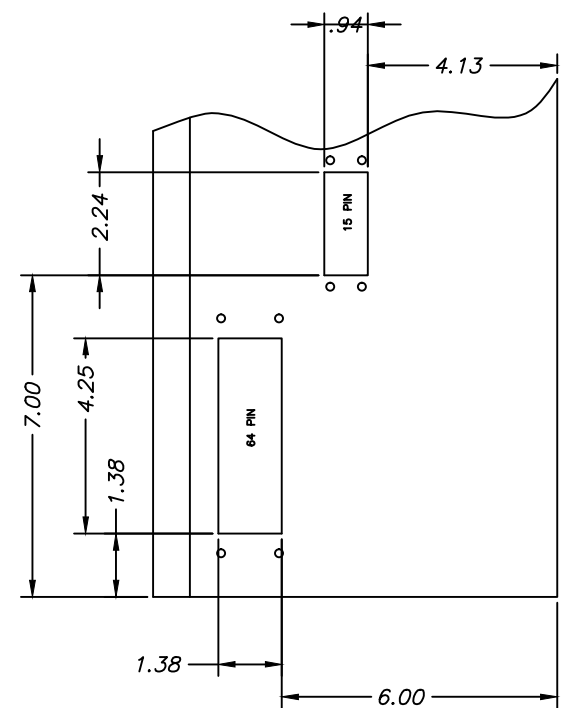
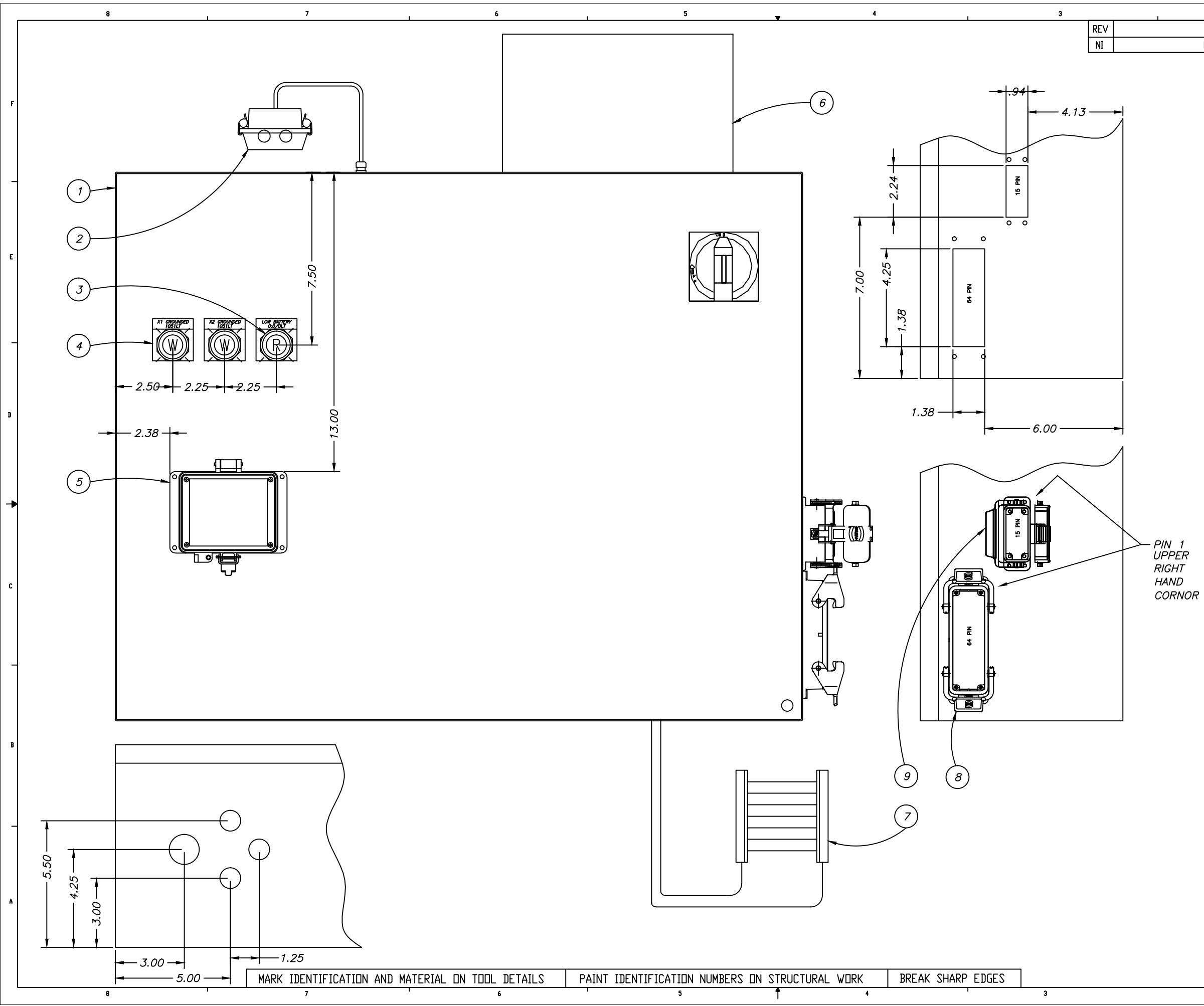
EXPANSION SLOT 1



MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

<i>Customer Name</i>			
TOOL NAME <i>Power Bender-No. Excel 212</i>			
Electrical Schematic			
PART NAME <i>Sample Tube</i>		PART NO. <i>4196783222</i>	
DRAWN BY: <i>Moorman</i>	SHT. <i>6</i>	SCALE <i>none</i>	FILE NAME <i>SampleE6</i>
DATE: <i>2-23-1991</i>	OF <i>11</i>		
DESIGN & BUILD BY: EXCEL <i>MACHINE & TOOL INC.</i>		SERIAL NUMBER: <i>231961</i>	

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			



PIN 1
UPPER
RIGHT
HAND
CORNER

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
10		OMITT	
9C	09 15 000 6201	HARTING CRIMP CONTACT FEMALE 16AWG	16
9B	09 21 015 3101	HARTING HAN 15D CONNECTOR FEMALE SIZE 10A	1
9A	09 20 010 0321	HARTING HOUSING SIZE 10A 15 PINS	1
8C	09 15 000 6204	HARTING CRIMP CONTACT FEMALE 20AWG	65
8B	09 21 064 3101	HARTING HAN 64D CONNECTOR FEMALE SIZE 24B	1
8A	09 30 024 0301	HARTING HOUSING SIZE 24B 64 PINS	1
7D	OP-83181	KEYENCE MOUNTING BRACKET FOR SL SERIES MIDDLE	1
7C	OP-42347	KEYENCE MOUNTING BRACKET FOR SL SERIES 1 PAIR	2
7B	SL-VP15P	KEYENCE 15 METER CABLES PNP 1 PAIR	1
7A	SL-V40H	KEYENCE LIGHT CURTAIN 40 BEAM AXIS 30.7 INCHS	1
6	HS1F1BS	SOLA/HEVI DUTY GENERAL PURPOSE TRANSFORMER 1KVA	1
5	P-A14-K3RFD	GRACE PORT 8-PIN MINI CONNECTION 120 VOLT GFI	1
4	800T-PTH16W	ALLEN BRADLEY PUSH TO TEST WHITE PILOT LIGHT	2
3	800T-PTH16R	ALLEN BRADLEY PUSH TO TEST RED PILOT LIGHT	1
2B	F32T8 / TL735	4FT T12 LIGHT BULBS	2
2A	LB 2 32 MVOLT GEB10IS	FLOESNT LIGHT FIXTURE WRAP AROUND 120 VOLTS	1
1	CSD24308	HOFFMAN ENCLOSURE	1

BILL OF MATERIAL

Customer Name

TOOL NAME Power Bender-No. Excel 212
Electrical Schematic

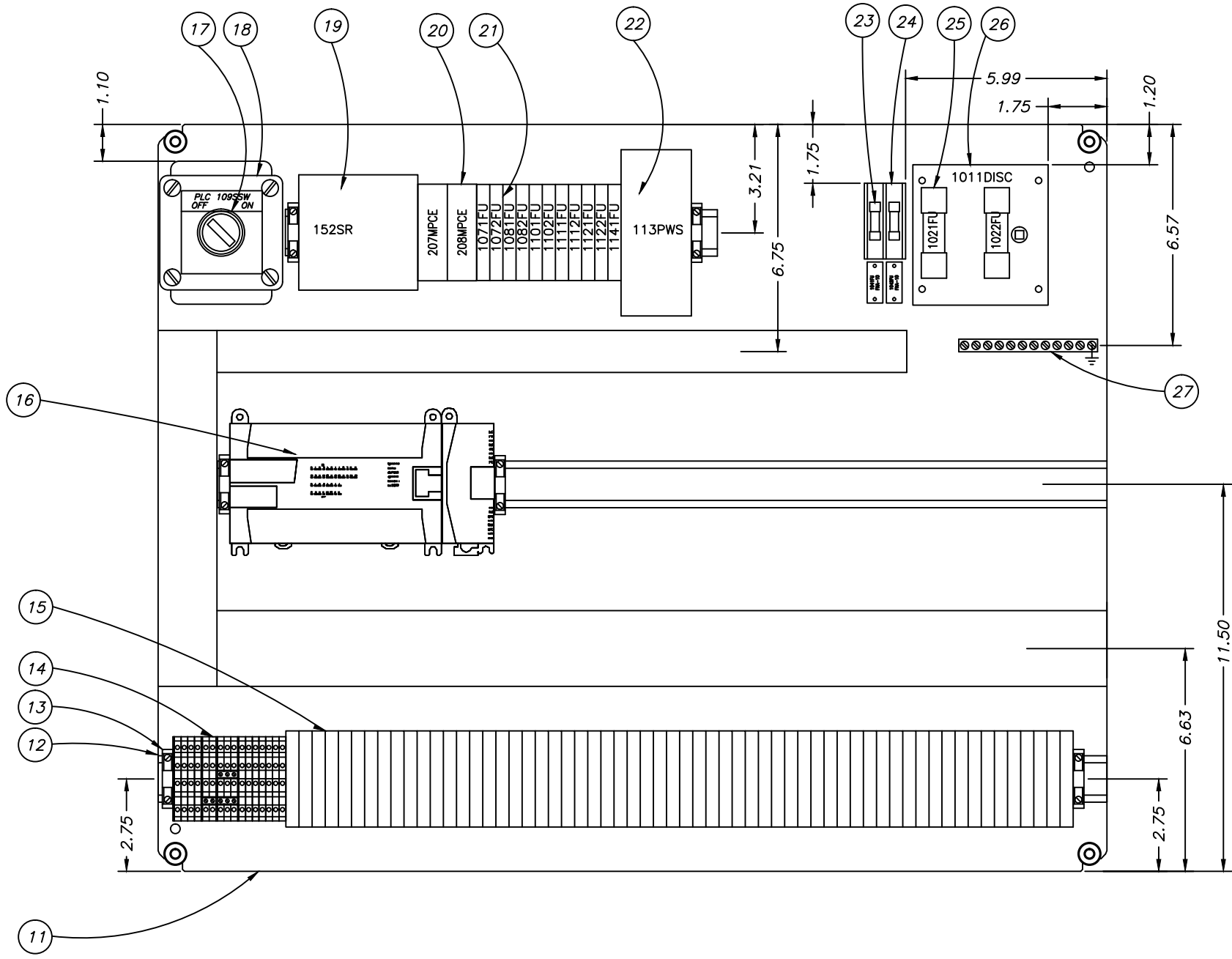
PART NAME Sample Tube
PART NO. 4196783222

DRAWN BY: Moorman	SHT. 7	SCALE none	FILE NAME SampleE7
DATE: 2-23-1991	OF 11		

DESIGN & BUILD BY: **EXCEL** MACHINE & TOOL INC. SERIAL NUMBER: 231961

MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
27	ECGB10	SIEMENS GROUND BAR KIT 10 POS. #14-4	1
26	194R-NJ030P34ER1	ALLEN BRADLEY FUSED DISCONNECT SWITCH	1
25	LPJ-5	BUSSMAN CLASS J 5A FUSE	2
24B	SAMI-7	FINGER SAFE COVER	2
24A	BC6032SQ	BUSSMAN CLASS R FUSE BLOCK	1
23	FRN-R-10	BUSSMAN CLASS R 10A FUSE	2
22	SDN2.5-24-100P	SOLA POWER SUPPLY 60 WATT 24VDC @ 2.5 AMPS	1
21C	MDL-8	TIME DELAY FUSE 8 AMPS 1/4 X 1 1/4	4
21B	MDL-5	TIME DELAY FUSE 5 AMPS 1/4 X 1 1/4	2
21A	MDL-2	TIME DELAY FUSE 2AMPS 1/4 X 1 1/4	3
20	44532-2010	STI FORCE GUIDED RELAY MODULE W/SOCKET	2
19	777083	PILZ SAFETY RELAY PNOZ X3 7NO/1NC	1
18	E-1PB	HOFFMAN 1 HOLE PUSH BUTTON BOX	1
17	800T-H2B	ALLEN BRADLEY SELECTOR SWITCH 2POS 2NO 2NC	1
16F		OMITT	
16E		OMITT	
16D		OMITT	
16C		OMITT	
16B	1762-OW16	ALLEN BRADLEY 16 PT RELAY OUTPUT MODULE	1
16A	1762-L40BWAR	ALLEN BRADLEY 1200 BASE 24 IN/16 OUT 2 PRO. PORTS	1
15B	MDL-1	TIME DELAY FUSE 1 AMPS 1/4 X 1 1/4	28
15A	3004171	PHOENIX FUSE HOLDER FOR 1/4 X 1 1/4	39
14E	3030174	PHOENIX 3 POS TERMINAL JUMPER	2
14D	3030161	PHOENIX 2 POS TERMINAL JUMPER	1
14C	3047293	PHOENIX TERMINAL COVER PLATE	1
14B	3047316	PHOENIX PARTITION PLATE	3
14A	3044636	PHOENIX DOUBLE TERMINAL BLOCK	16
13	3022276	PHOENIX CLIPFIX 35-5 ENDSTOP	6
12	119-DR1	35MM DIN RAIL	1
11	CP3024	HOFFMAN PANEL	1

MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

Customer Name

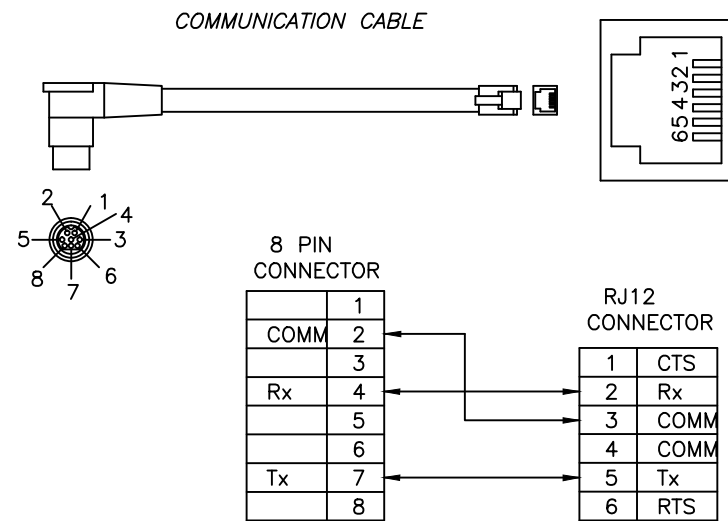
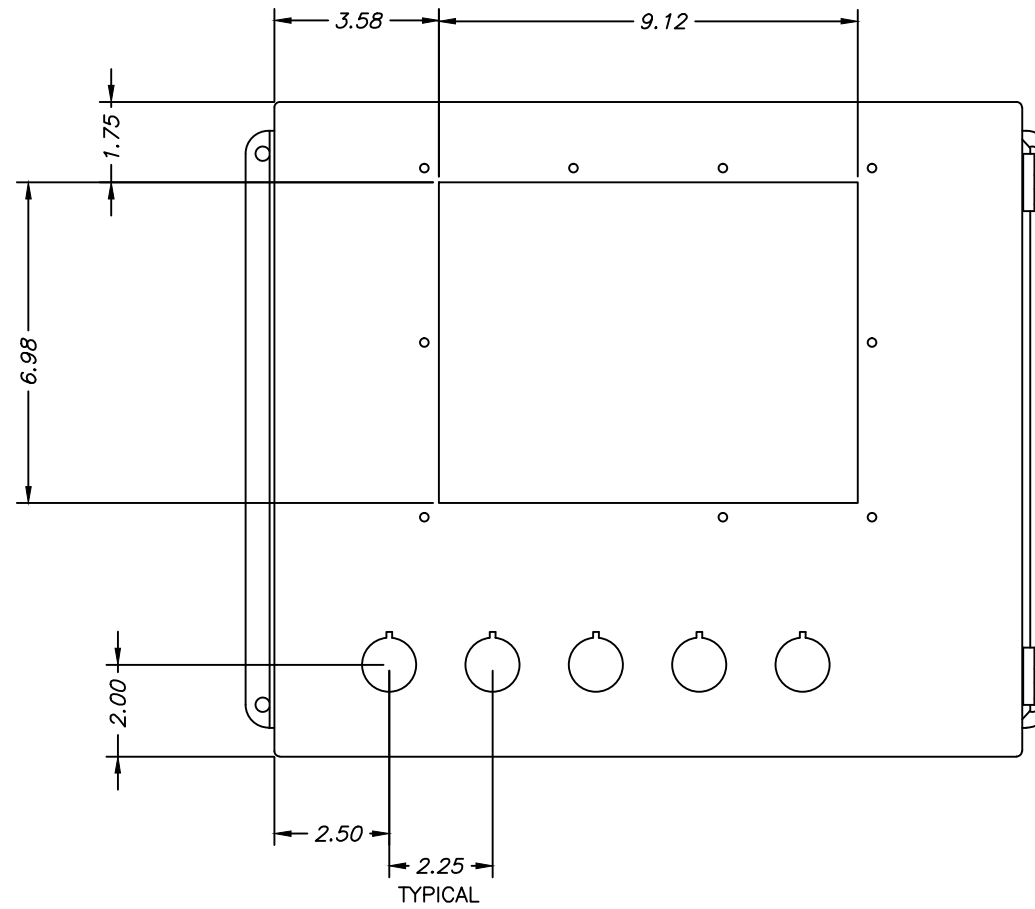
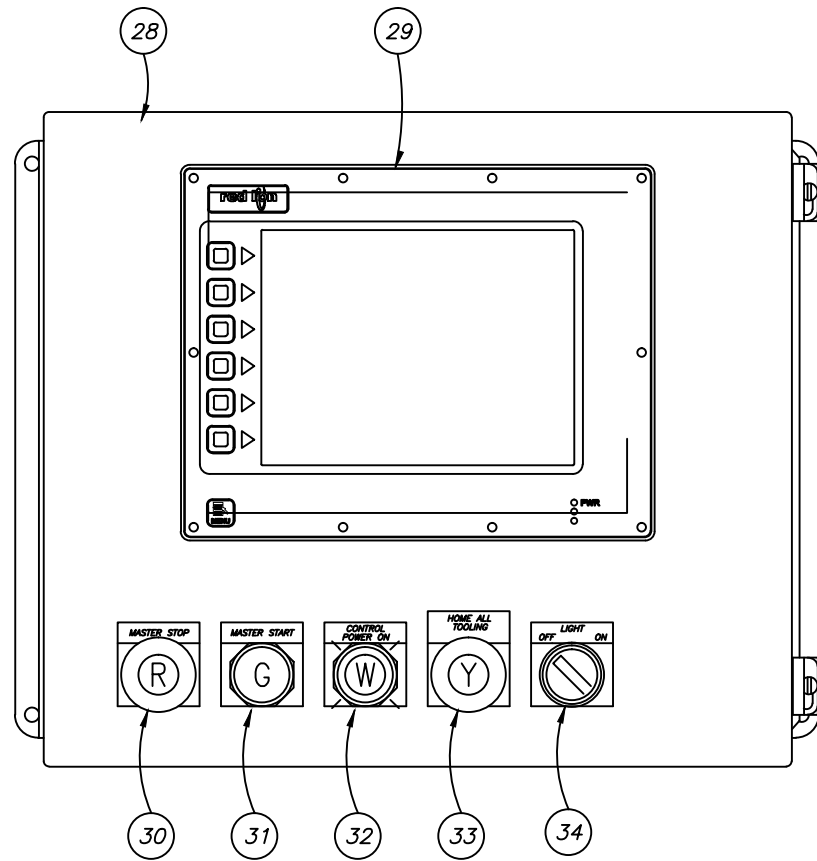
TOOL Power Bender-No. Excel 212
NAME Electrical Schematic

PART NAME Sample Tube
PART NO. 4196783222

<i>DRAWN BY:</i> Moorman	<i>SHT.</i> 8	<i>SCALE</i> none	<i>FILE NAME</i> SampleE8
<i>DATE:</i> 2-23-1991	<i>OF</i> 11		

DESIGN & BUILD BY: EXCEL MACHINE & TOOL INC. *SERIAL NUMBER: 231961*

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
34	800T-H2A	ALLEN BRADLEY SELECTOR SWITCH 2 POSITION	1
33	800T-D9A	ALLEN BRADLEY BUTTON YELLOW MUSHROOM	1
32	800T-PTH16W	ALLEN BRADLEY PUSH TO TEST WHITE PILOT LIGHT	1
31	800T-A1A	ALLEN BRADLEY PUSH BUTTON GREEN FLUSH	1
30	800T-FX6A5	ALLEN BRADLEY BUTTON RED PUSH PULL	1
29E	RJ-11	CRIMP CONNECTOR	1
29D	276-1539	RADIO SHACK D-SUB CONNECTOR HOOD	1
29C	276-1538	RADIO SHACK D-SUB CONNECTOR 9 PIN FEMALE	1
29B	1583A 006100	BELDON 24AWG: 4 PAIR TWISTED CABLE	30
29A	G308C000	RED LION OPERATOER TERMINAL 7.7 INCH SCREEN	1
28	A-1614CHS	HOFFMAN JUNCTION BOX 16 X 14 X 6	1

Customer Name

TOOL NAME Power Bender-No. Excel 212
Electrical Schematic

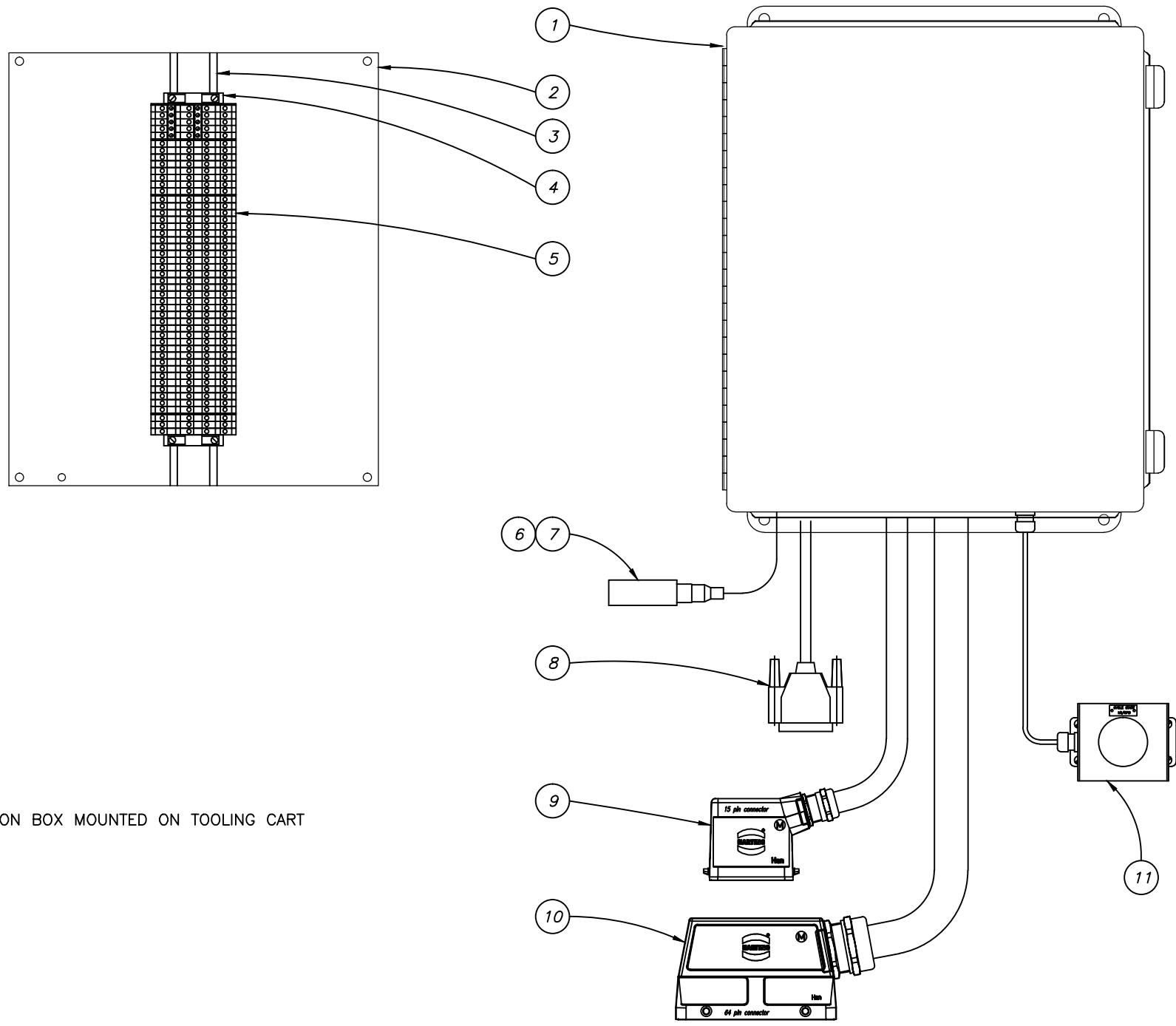
PART NAME Sample Tube
PART NO. 4196783222

DRAWN BY: Moorman	SHT. 9	SCALE none	FILE NAME SampleE9
DATE: 2-23-1991	OF 11		

DESIGN & BUILD BY: EXCEL MACHINE & TOOL INC.	SERIAL NUMBER: 231961
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MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			



JUNCTION BOX MOUNTED ON TOOLING CART

ITEM NO.	PART NUMBER	DESCRIPTION	QNTY
11	800P-S2CG1A	ALLEN BRADLEY PALM BUTTON & GUARD ASSEMBLY	1
10E	1061A0102500	BELDON 20 GAUGE - 36 TWISTED PAIR CABLE	25
10D	19000005096	HARTING CORD GRIP 32MM THREAD 18MM-25MM CORD	1
10C	09150006103	HARTING CRIMP CONTACT MALE 20AWG	65
10B	09210643001	HARTING HAN 64D CONNECTOR MALE SIZE 24B	1
10A	19300240527	HARTING HOOD SIZE 24B 64 PINS	1
9E	27330A	BELDON 16 GAUGE - 16 CONDUCTOR CORD	25
9D	19000005084	HARTING CORD GRIP 20MM THREAD 10MM-14MM CORD	1
9C	09150006101	HARTING CRIMP CONTACT MALE 16AWG	16
9B	09210153001	HARTING HAN 15D CONNECTOR MALE SIZE 10A	1
9A	19200101540	HARTING HOOD SIZE 10A 15 PINS	1
8	ATX100-DS25-030	25 PIN SUB D CONNECTOR - 3M LENGTH	3
7B	U2216-0	TURK 90 DISCONNECT CABLE 3 PIN EUROFAST 6 METER	12
7A	U2159	TURK ST. DISCONNECT CABLE 3 PIN EUROFAST 6 METER	12
6E	M1634806	TURK 12MM NON-SHIELDED 24VDC PNP PROX EUROFAST	2
6D	M1634804	TURK 12MM SHIELDED 24VDC PNP PROX EUROFAST	4
6C	S4621690	TURK CYL. MOUNTED PROX FOR 3 WIRE PNP	2
6B	S4623593	TURK CYL. MOUNTED PROX FOR 5MM SLOT 3 WIRE PNP	16
6A	6970605	TURK CLAMP STRAP WITH HOUSING 1.102-1.535 DIA.	2
5G	3030213	PHOENIX 10 POS TERMINAL JUMPER (cut down to 6)	2
5F	3030190	PHOENIX 5 POS TERMINAL JUMPER	0
5E	3030174	PHOENIX 3 POS TERMINAL JUMPER	0
5D	3030161	PHOENIX 2 POS TERMINAL JUMPER	0
5C	3047293	PHOENIX TERMINAL COVER PLATE	2
5B	3047316	PHOENIX PARTITION PLATE	4
5A	3044636	PHOENIX DOUBLE TERMINAL BLOCK	74
4	3022276	PHOENIX CLIFFIX 35-5 ENDSTOP	4
3	119-DR1	35MM DIN RAIL	1
2	A14P12	HOFFMAN PANEL	1
1	A1412CH	HOFFMAN ENCLOSURE	1

ITEM NO. PART NUMBER DESCRIPTION QNTY

BILL OF MATERIAL

Customer Name

TOOL NAME *Power Bender-No. Excel 212 Electrical Schematic*

PART NAME *Sample Tube*

PART NO. *4196783222*

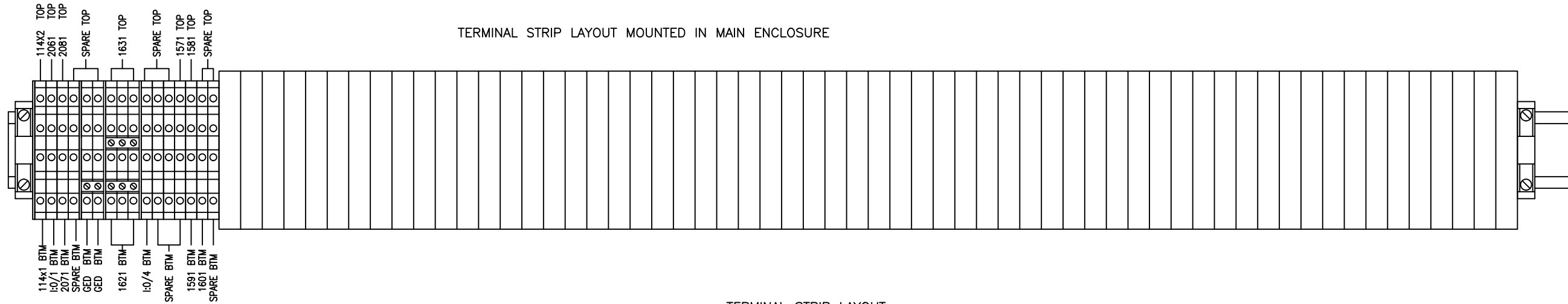
DRAWN BY: <i>Moorman</i>	SHT. <i>10</i>	SCALE <i>none</i>	FILE NAME <i>SampleE10</i>
DATE: <i>2-23-1991</i>	OF <i>11</i>		

DESIGN & BUILD BY: **EXCEL** **MACHINE & TOOL INC.** **SERIAL NUMBER:** *231961*

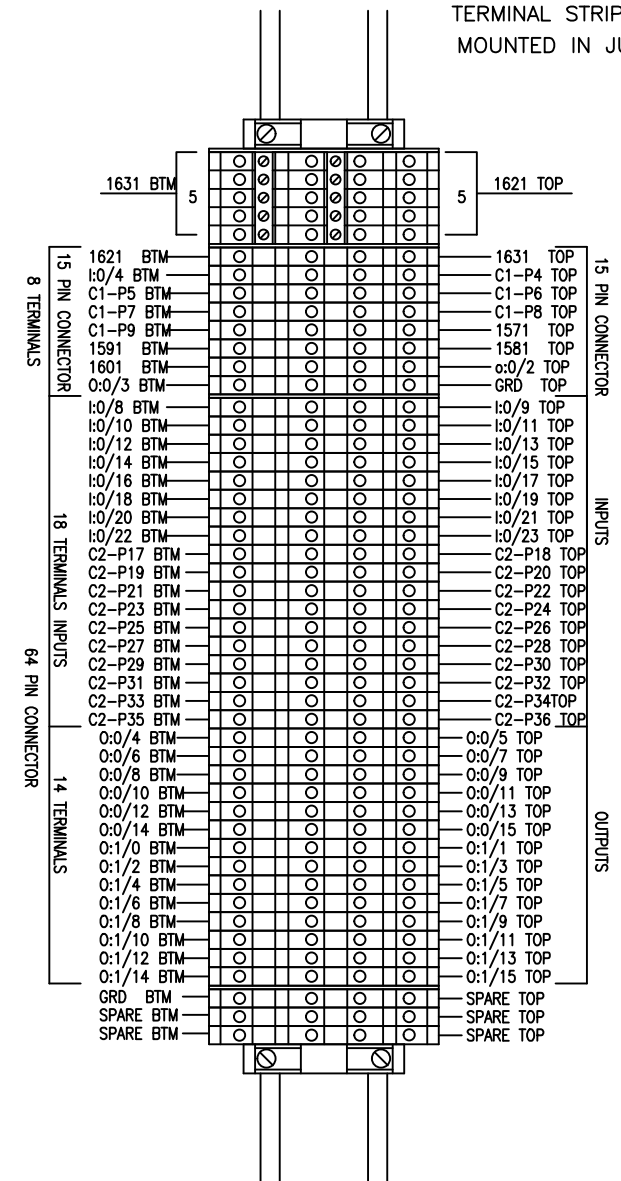
MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES

REV	DESCRIPTION	DATE	APPROVED	JOB NUMBER
NI	RELEASE TO BUILD			

TERMINAL STRIP LAYOUT MOUNTED IN MAIN ENCLOSURE



TERMINAL STRIP LAYOUT MOUNTED IN JUNCTION BOX



Customer Name

TOOL NAME Power Bender-No. Excel 212
Electrical Schematic

PART NAME Sample Tube
PART NO. 4196783222

DRAWN BY: Moorman	SHT. 11	SCALE none	FILE NAME SampleE11
DATE: 2-23-1991	OF 11		

DESIGN & BUILD BY: EXCEL MACHINE & TOOL INC.	SERIAL NUMBER: 231961
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MARK IDENTIFICATION AND MATERIAL ON TOOL DETAILS PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK BREAK SHARP EDGES