

Lane Machine Manual



REV 5:16

Kustodian Plus Specifications

17-5100 Kustodian Plus
Class I - Single Phase
115 Volts, 60 Hz, 15 Amps

17-5150 Kustodian Plus
Class I - Single Phase
230 Volts, 50 Hz, 12 Amps

Machine Dimensions

Width – 55 1/4" (140.34 cm)
Height - 14" (36.83 cm)
Length – 40 3/4" (103.51 cm)
Weight: Kustodian Plus- 309 pounds (140.4 kg)

Manual Part Number: 154-5100
First Edition

CHAPTER 6

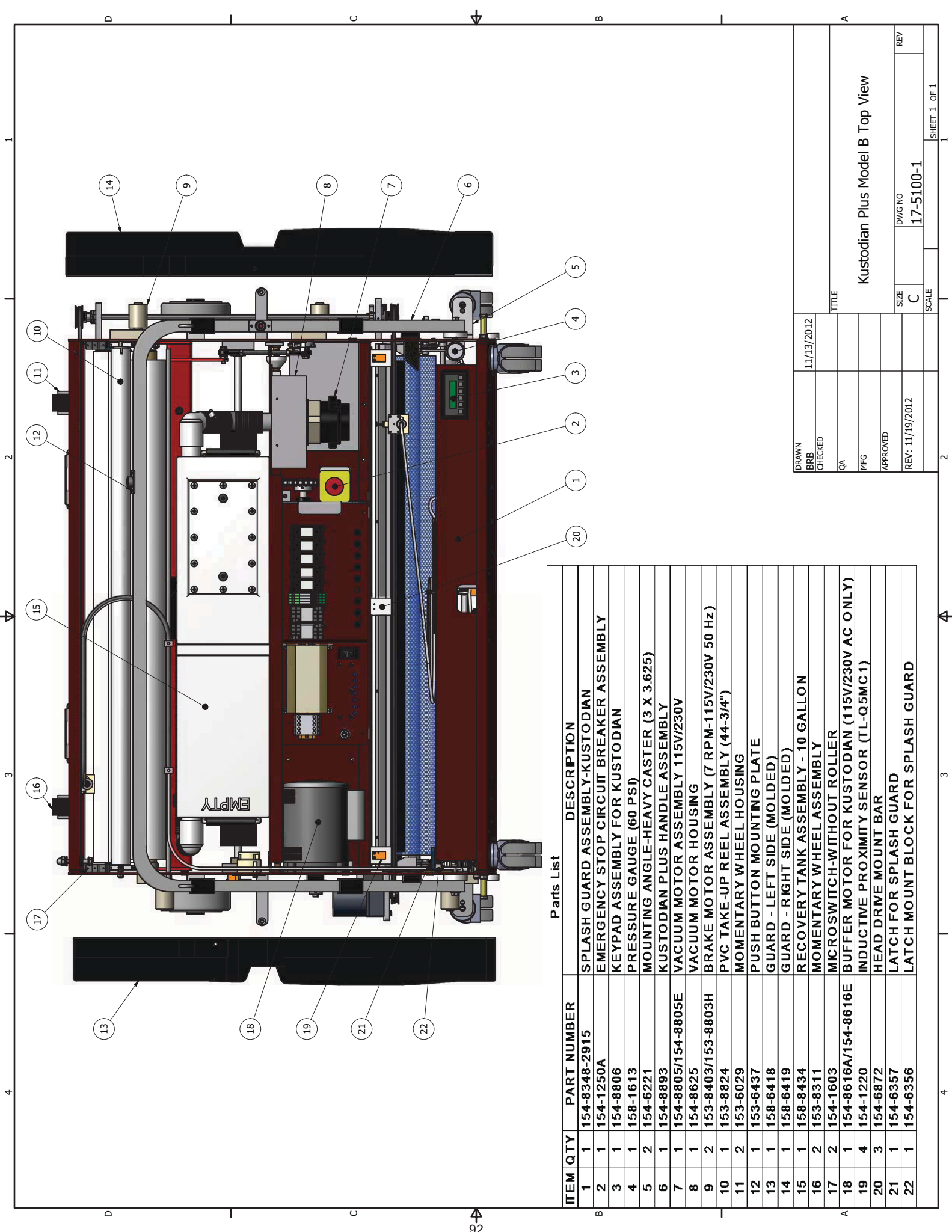


Mechanical Drawings

Machine Descriptions and Part Numbers

The following figures show major systems for the Kustodian Plus and the associated parts:

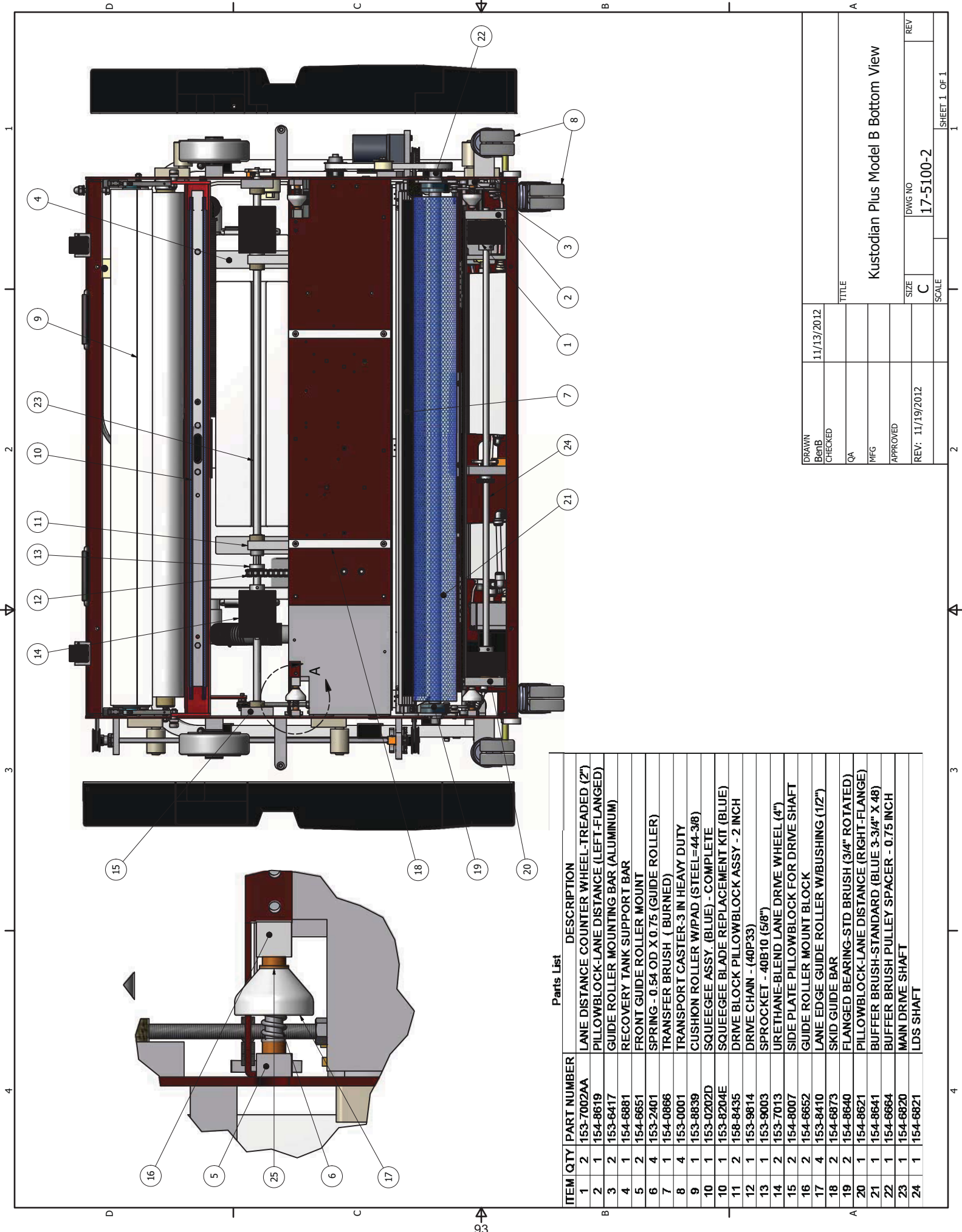
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Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	154-8348-2915	SPLASH GUARD ASSEMBLY-KUSTODIAN
2	1	154-1250A	EMERGENCY STOP CIRCUIT BREAKER ASSEMBLY
3	1	154-8806	KEYPAD ASSEMBLY FOR KUSTODIAN
4	1	158-1613	PRESSURE GAUGE (60 PSI)
5	2	154-6221	MOUNTING ANGLE-HEAVY CASTER (3 X 3.625)
6	1	154-8893	KUSTODIAN PLUS HANDLE ASSEMBLY
7	1	154-8805/154-8805E	VACUUM MOTOR ASSEMBLY 115V/230V
8	1	154-8625	VACUUM MOTOR HOUSING
9	2	153-8403/153-8803H	BRAKE MOTOR ASSEMBLY (7 RPM-115V/230V 50 Hz)
10	1	153-8824	PVC TAKE-UP REEL ASSEMBLY (44-3/4")
11	2	153-6029	MOMENTARY WHEEL HOUSING
12	1	153-6437	PUSH BUTTON MOUNTING PLATE
13	1	158-6418	GUARD - LEFT SIDE (MOLDED)
14	1	158-6419	GUARD - RIGHT SIDE (MOLDED)
15	1	158-8434	RECOVERY TANK ASSEMBLY - 10 GALLON
16	2	153-8311	MOMENTARY WHEEL ASSEMBLY
17	2	154-1603	MICROSWITCH-WITHOUT ROLLER
18	1	154-8616A/154-8616E	BUFFER MOTOR FOR KUSTODIAN (115V/230V AC ONLY)
19	4	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)
20	3	154-6872	HEAD DRIVE MOUNT BAR
21	1	154-6357	LATCH FOR SPLASH GUARD
22	1	154-6356	LATCH MOUNT BLOCK FOR SPLASH GUARD

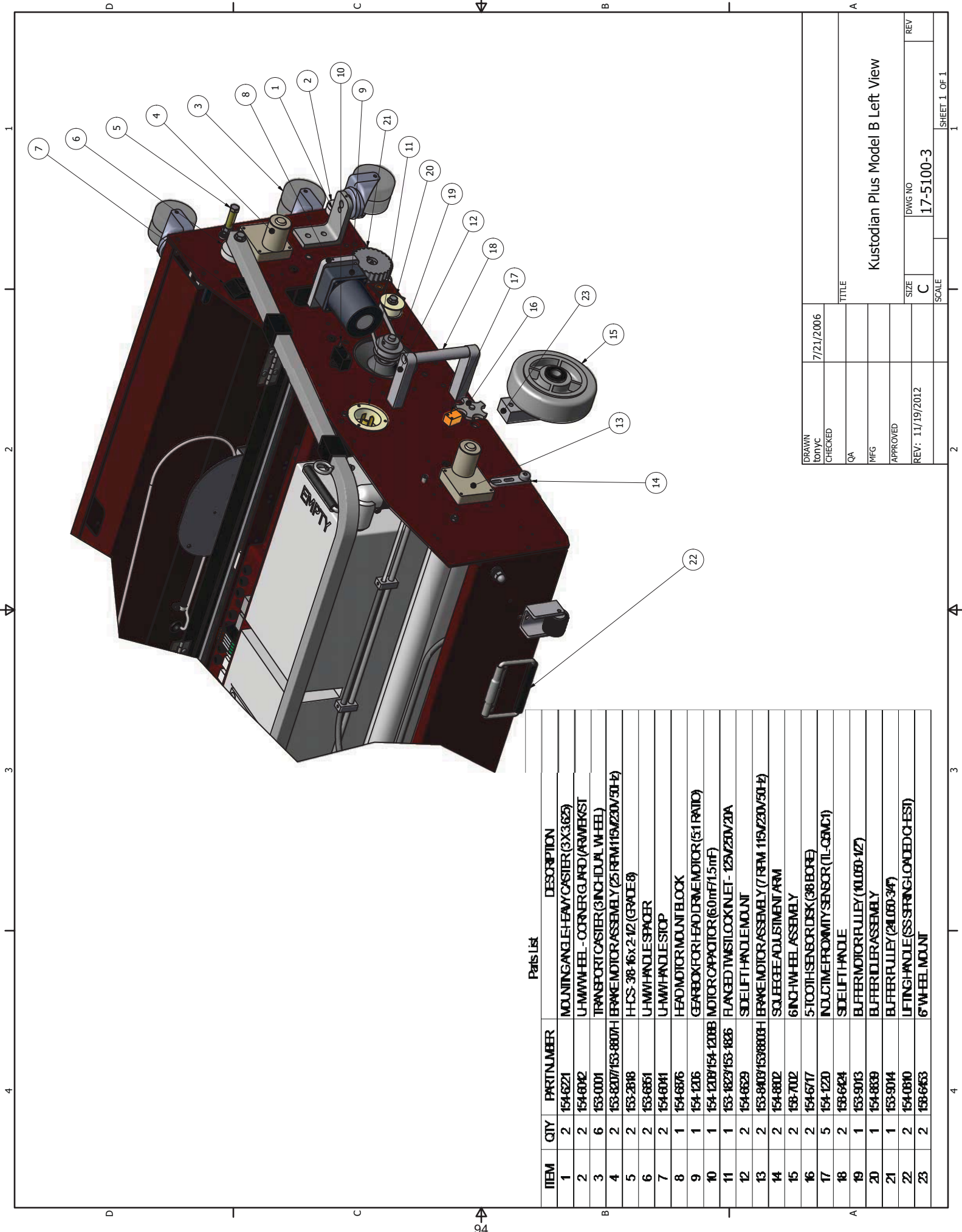
DRAWN	11/13/2012	TITLE	Kustodian Plus Model B Top View	
BRB		QA		
CHECKED		MFG		
		APPROVED		
		REV	SIZE	DWG NO
			C	17-5100-1
			SCALE	SHEET 1 OF 1



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	153-7002AA	LANE DISTANCE COUNTER WHEEL-TREADED (2")
2	1	154-8619	PILLOWBLOCK-LANE DISTANCE (LEFT-FLANGED)
3	2	153-8417	GUIDE ROLLER MOUNTING BAR (ALUMINUM)
4	1	154-8881	RECOVERY TANK SUPPORT BAR
5	2	154-8651	FRONT GUIDE ROLLER MOUNT
6	4	153-2401	SPRING - 0.54 OD X 0.75 (GUIDE ROLLER)
7	1	154-0866	TRANSPORT BRUSH (BURNED)
8	4	153-0001	TRANSPORT CASTER-3 IN HEAVY DUTY
9	1	153-8839	CUSHION ROLLER W/PAD (STEEL=44-3/8)
10	1	153-0202D	SQUEEGEE ASSY. (BLUE) - COMPLETE
11	2	158-8435	SQUEEGEE BLADE REPLACEMENT KIT (BLUE)
12	1	153-9814	DRIVE BLOCK PILLOWBLOCK ASSY - 2 INCH
13	1	153-9003	DRIVE CHAIN - (40P33)
14	2	153-7013	SPROCKET - 40B10 (5/8")
15	2	154-8007	URETHANE-BLEND LANE DRIVE WHEEL (4")
16	2	154-8652	SIDE PLATE PILLOWBLOCK FOR DRIVE SHAFT
17	4	153-8410	GUIDE ROLLER MOUNT BLOCK
18	2	154-8873	LANE EDGE GUIDE ROLLER W/BUSHING (1/2")
19	2	154-8640	SKID GUIDE BAR
20	1	154-8621	FLANGED BEARING-STD BRUSH (3/4" ROTATED)
21	1	154-8641	PILLOWBLOCK-LANE DISTANCE (RIGHT-FLANGE)
22	1	154-8664	BUFFER BRUSH-STANDARD (BLUE 3-3/4" X 48)
23	1	154-8820	BUFFER BRUSH PULLEY SPACER - 0.75 INCH
24	1	154-8821	MAIN DRIVE SHAFT
25	1	154-8821	LDS SHAFT

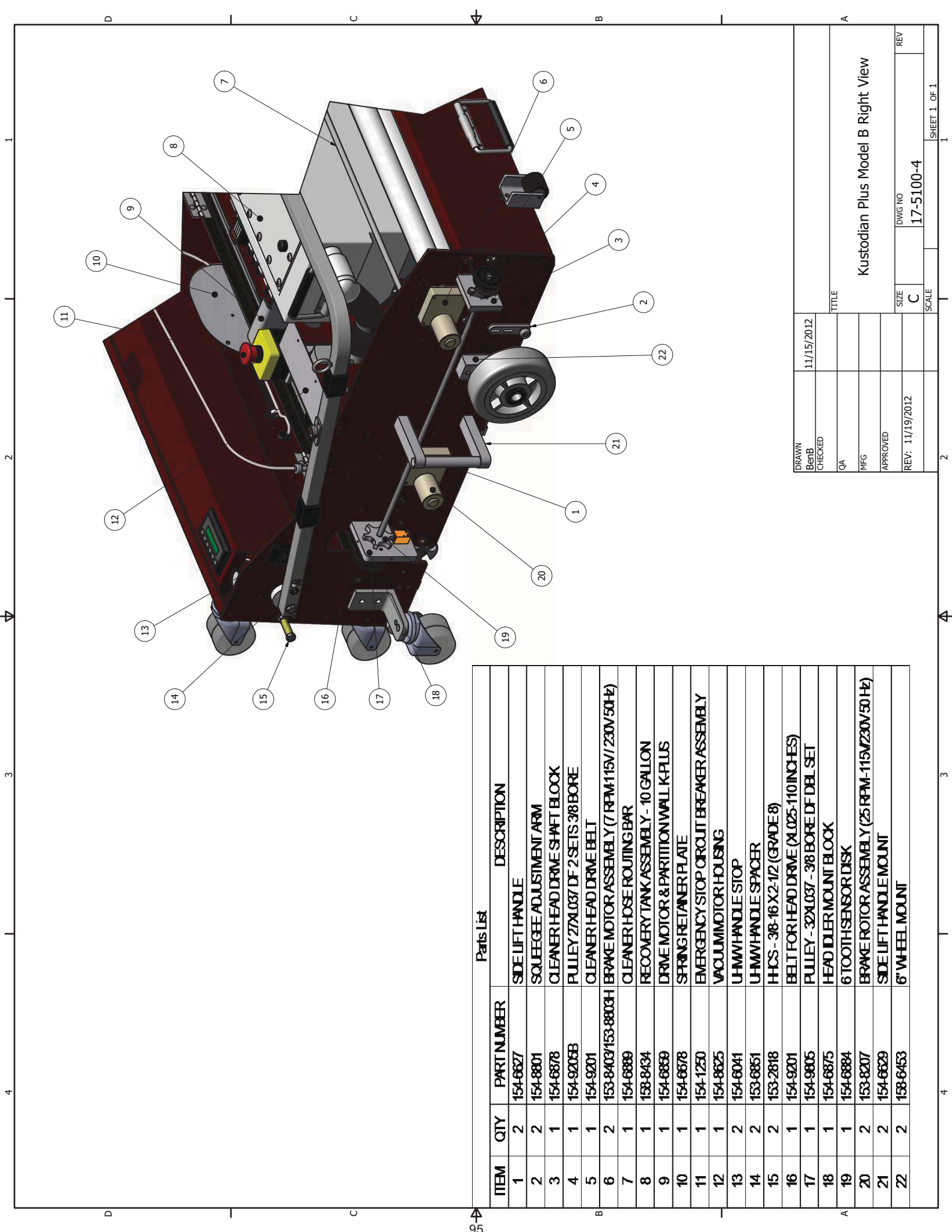
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BenB		QA		
CHECKED		MFG		
		APPROVED		
REV		SIZE	C	DWG NO
	11/19/2012	SCALE		17-5100-2
				SHEET 1 OF 1



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	154-6221	MOUNTING ANGLE HEAVY CASTER (3X3.625)
2	2	154-6042	U-MW WHEEL - CORNER GUARD (ARMERKST)
3	6	153-0001	TRANSPORT CASTER (SINGLE DUAL WHEEL)
4	2	153-8207/153-8807-H	BRAKE MOTOR ASSEMBLY (25 RPM 115/230V 50-Hz)
5	2	153-2818	H-CS 3/8-16x2-1/2 (GRADE 8)
6	2	153-6861	U-MW HANDLE SPACER
7	2	154-6041	U-MW HANDLE STOP
8	1	154-6876	HEAD MOTOR MOUNT BLOCK
9	1	154-1206	GEARBOX FOR HEAD DRIVE MOTOR (5:1 RATIO)
10	1	154-1209/154-1208B	MOTOR CAPACITOR (6.0 mF/1.5 mF)
11	1	153-1823/153-1826	FLANGED W/MS LOCK NUT - 125/250V/20A
12	2	154-6829	SIDE LIFT HANDLE MOUNT
13	2	153-8403/153/8803-H	BRAKE MOTOR ASSEMBLY (7 RPM 115/230V 50-Hz)
14	2	154-8802	SQUEEGEE ADJUSTMENT ARM
15	2	158-7002	6 INCH WHEEL ASSEMBLY
16	2	154-6717	5-TOOTH SENSOR DISK (3/8 BORE)
17	5	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-05MCI)
18	2	158-6424	SIDE LIFT HANDLE
19	1	153-9013	BUFFER MOTOR RULLEY (10/60-1/2)
20	1	154-8839	BUFFER RIDER ASSEMBLY
21	1	153-9014	BUFFER RULLEY (24/60-3/4)
22	2	154-0810	LIFTING HANDLE (SS SPRING LOADED C-EST)
23	2	159-6453	6" WHEEL MOUNT

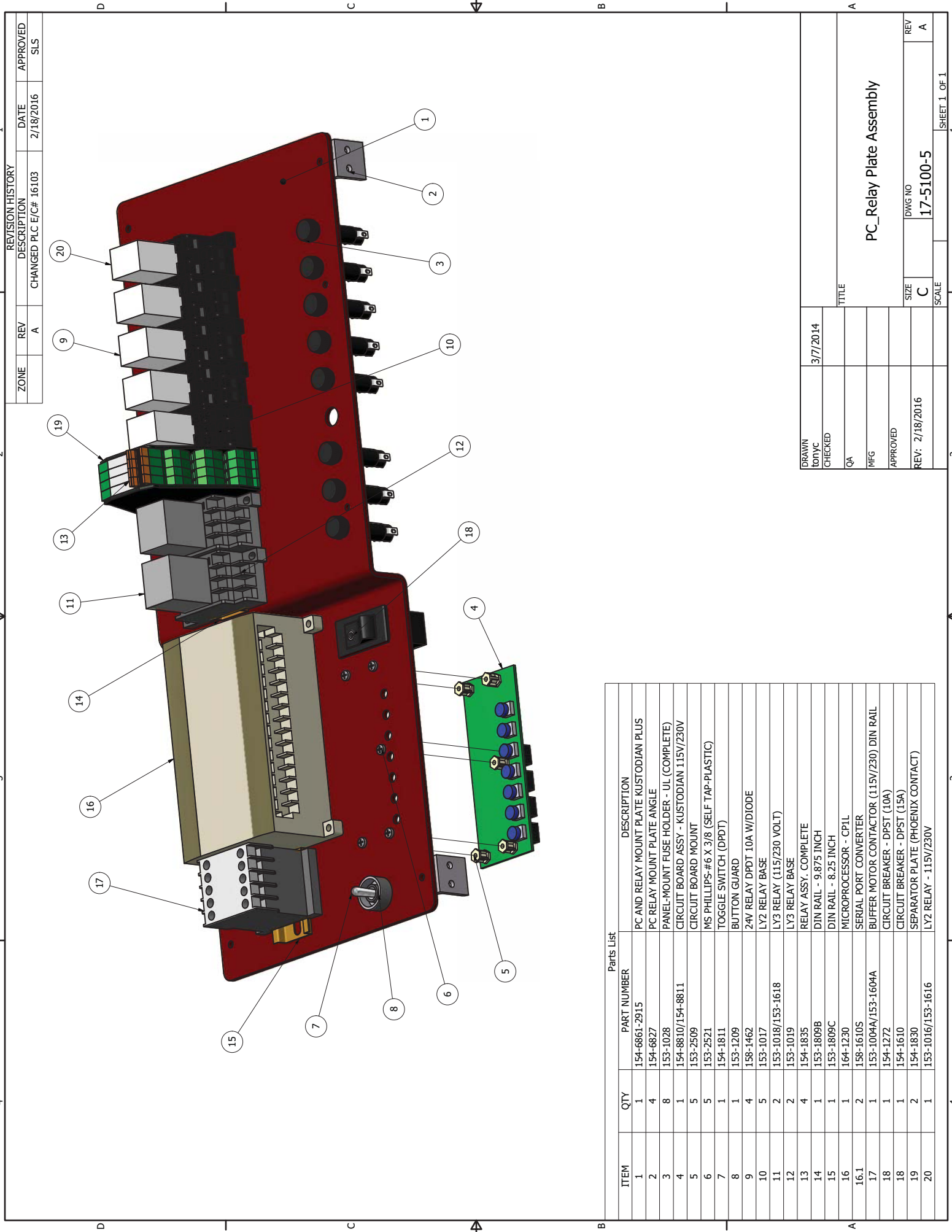
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CHECKED			SIZE	DWG NO
QA			C	17-5100-3
MFG			SCALE	SHEET 1 OF 1
APPROVED				
REV: 11/19/2012				



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	154-6627	SIDE LIFT HANDLE
2	2	154-8801	SQUEEGEE ADJUSTMENT ARM
3	1	154-6878	CLEANER HEAD DRIVE SHAFT BLOCK
4	1	154-9205B	PULLEY 27X.037 DF 2 SETS 3/8 BORE
5	1	154-9201	CLEANER HEAD DRIVE BELT
6	2	153-8403/153-8803H	BRAKE MOTOR ASSEMBLY (7 RPM/115V/ 230V/50 Hz)
7	1	154-6889	CLEANER HOSE ROUTING BAR
8	1	158-8434	RECOVERY TANK ASSEMBLY - 10 GALLON
9	1	154-6859	DRIVE MOTOR & PARTITION WALL K-PLUS
10	1	154-6678	SPRING RETAINER PLATE
11	1	154-1250	EMERGENCY STOP CIRCUIT BREAKER ASSEMBLY
12	1	154-8625	VACUUM MOTOR HOUSING
13	2	154-6041	U-M/W HANDLE STOP
14	2	153-6861	U-M/W HANDLE SPACER
15	2	153-2818	HCS - 3/8-16 X 2-1/2 (GRADE 8)
16	1	154-9201	BELT FOR HEAD DRIVE (X.025-110 INCHES)
17	1	154-9805	PULLEY - 32X.037 - 3/8 BORE DF DBL SET
18	1	154-6875	HEAD IDLER MOUNT BLOCK
19	1	154-6884	6 TOOTH SENSOR DISK
20	2	153-8207	BRAKE ROTOR ASSEMBLY (25 RPM-115M/230V/50 Hz)
21	2	154-6629	SIDE LIFT HANDLE MOUNT
22	2	158-6453	6" WHEEL MOUNT

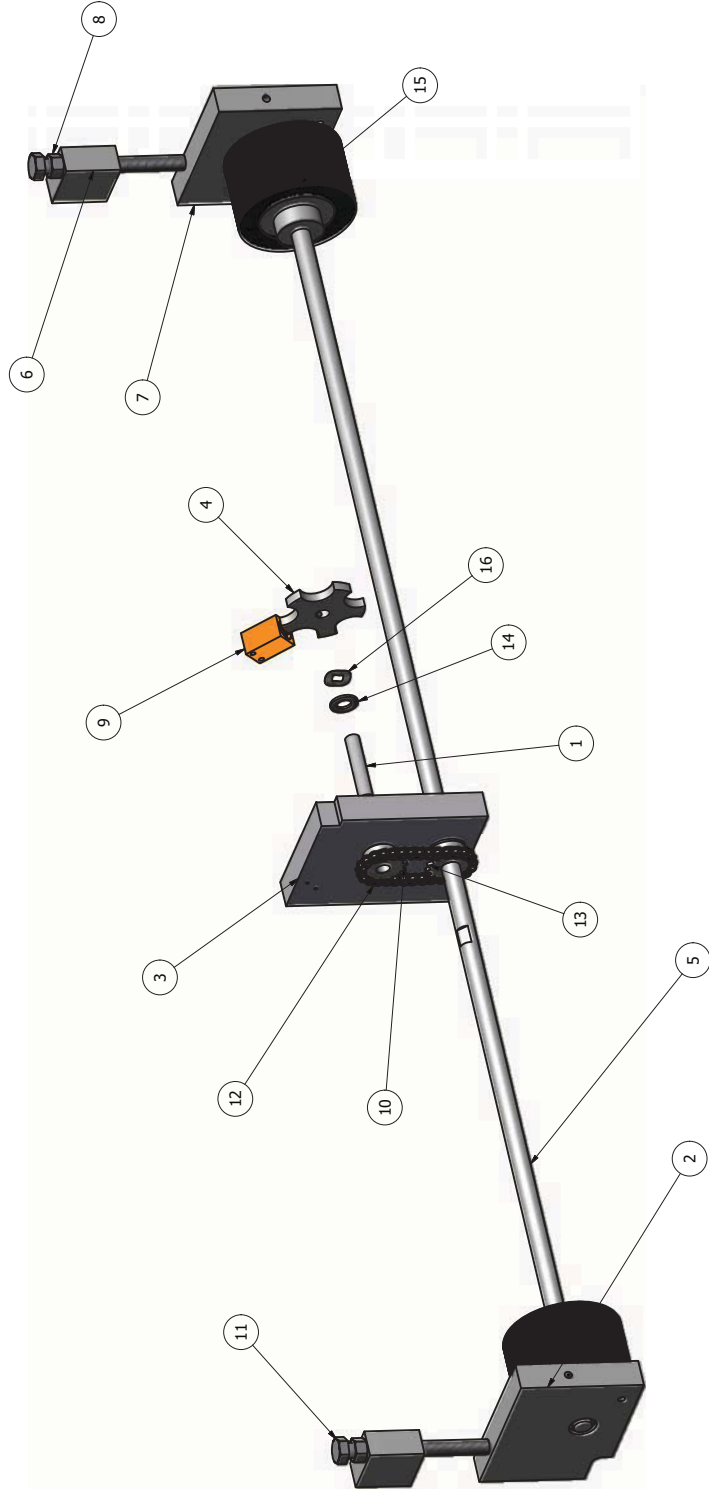
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BenB				
CHECKED				
QA				
MFG				
APPROVED				
REV: 11/19/2012		SIZE	C	DWG NO
				17-5100-4
		SCALE		SHEET 1 OF 1



REVISION HISTORY			
ZONE	REV	DESCRIPTION	DATE
	A	CHANGED PLC E/C# 16103	2/18/2016
			APPROVED
			SLS

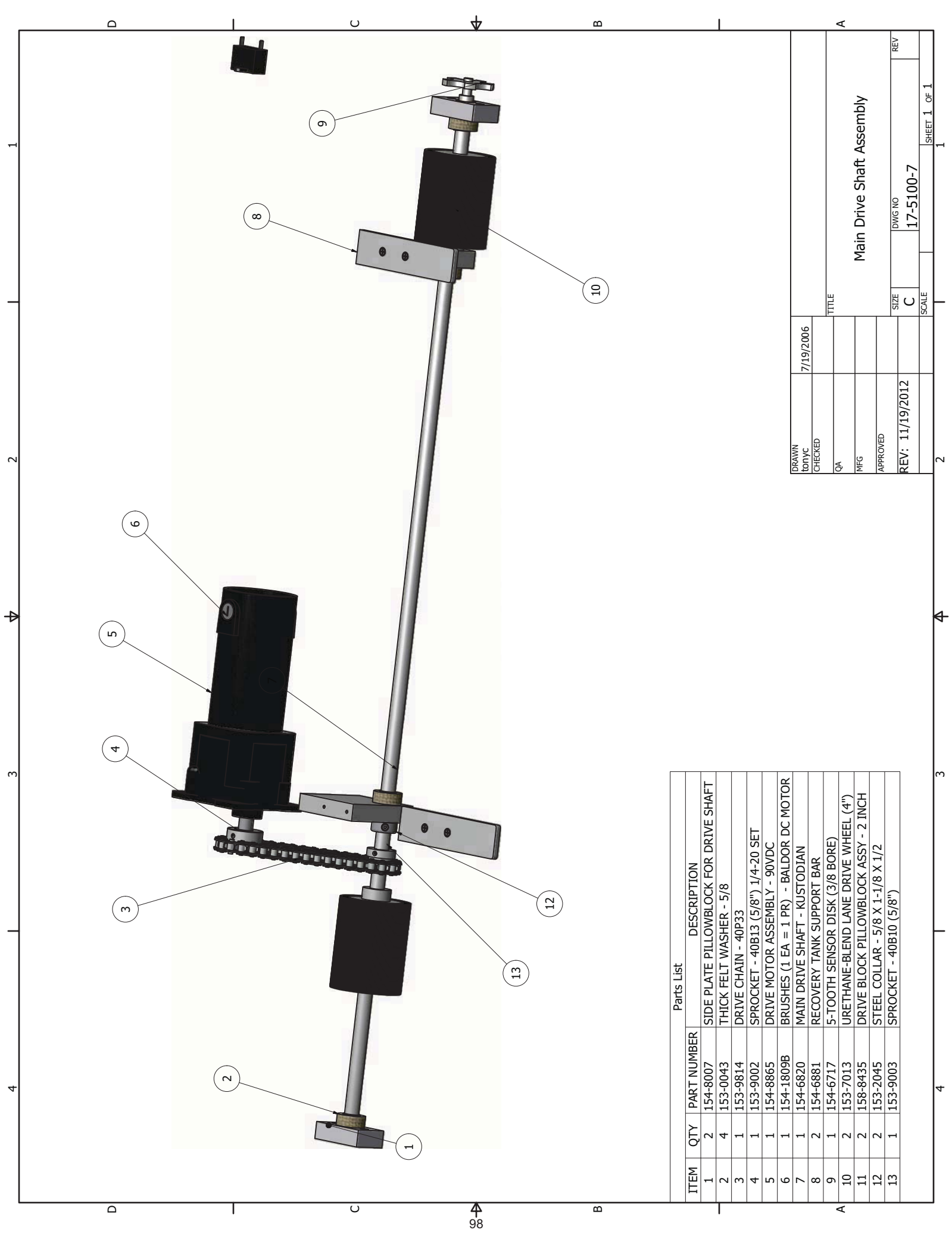
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	154-6861-2915	PC AND RELAY MOUNT PLATE KUSTODIAN PLUS
2	4	154-6827	PC RELAY MOUNT PLATE ANGLE
3	8	153-1028	PANEL-MOUNT FUSE HOLDER - UL (COMPLETE)
4	1	154-8810/154-8811	CIRCUIT BOARD ASSY - KUSTODIAN 115V/230V
5	5	153-2509	CIRCUIT BOARD MOUNT
6	5	153-2521	MS PHILLIPS-#6 X 3/8 (SELF TAP-PLASTIC)
7	1	154-1811	TOGGLE SWITCH (DPDT)
8	1	153-1209	BUTTON GUARD
9	4	158-1462	24V RELAY DPDT 10A W/DIODE
10	5	153-1017	LY2 RELAY BASE
11	2	153-1018/153-1618	LY3 RELAY (115V/230 VOLT)
12	2	153-1019	LY3 RELAY BASE
13	4	154-1835	RELAY ASSY. COMPLETE
14	1	153-1809B	DIN RAIL - 9.875 INCH
15	1	153-1809C	DIN RAIL - 8.25 INCH
16	1	164-1230	MICROPROCESSOR - CPIL
16.1	2	158-1610S	SERIAL PORT CONVERTER
17	1	153-1004A/153-1604A	BUFFER MOTOR CONTACTOR (115V/230) DIN RAIL
18	1	154-1272	CIRCUIT BREAKER - DPST (10A)
18	1	154-1610	CIRCUIT BREAKER - DPST (15A)
19	2	154-1830	SEPARATOR PLATE (PHOENIX CONTACT)
20	1	153-1016/153-1616	LY2 RELAY - 115V/230V

DRAWN	3/7/2014	TITLE	PC_Relay Plate Assembly
CHECKED			
QA			
MFG			
APPROVED			
REV:	2/18/2016	SIZE	C
		DWG NO	17-5100-5
		SCALE	
			SHEET 1 OF 1



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	154-6264	SHAFT FOR TIMING DISK (REMOTE SENSOR)
2	1	154-8621	PILLOWBLOCK-LANE DISTANCE (RIGHT-FLANGE)
3	1	154-8320	PB - LANE DISTANCE (CENTER-PLAIN) - 2001
4	1	154-6717	5-TOOTH SENSOR DISK (3/8 BORE) - 2001
5	1	154-6821	LDS SHAFT - KUSTODIAN
6	2	153-6027	LANE DISTANCE ADJUSTMENT BLOCK
7	1	154-8619	PILLOWBLOCK-LANE DISTANCE (LEFT-FLANGED)
8	1	153-2027	JAM NUT - 3/8-16
9	1	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MCL)
10	1	154-9211	LDS AND TACH SENSOR DRIVE CHAIN (25P29)
11	2	153-2234	HHCS - 3/8-16 X 4 (FULL THREAD)
12	1	153-9010	SPROCKET-25B15 (3/8") 1/4-20 SET
13	1	154-9213	SPROCKET-25B15 (1/2") 1/4-20 SET SCREW
14	4	153-2009	NYLON FLAT WASHER (3/8 - 0.060)
15	2	153-7002AA	LANE DISTANCE COUNTER WHEEL - TREADED (2")
16	1	153-2992	TRIPLE WAVE WASHER (.25" DIA)

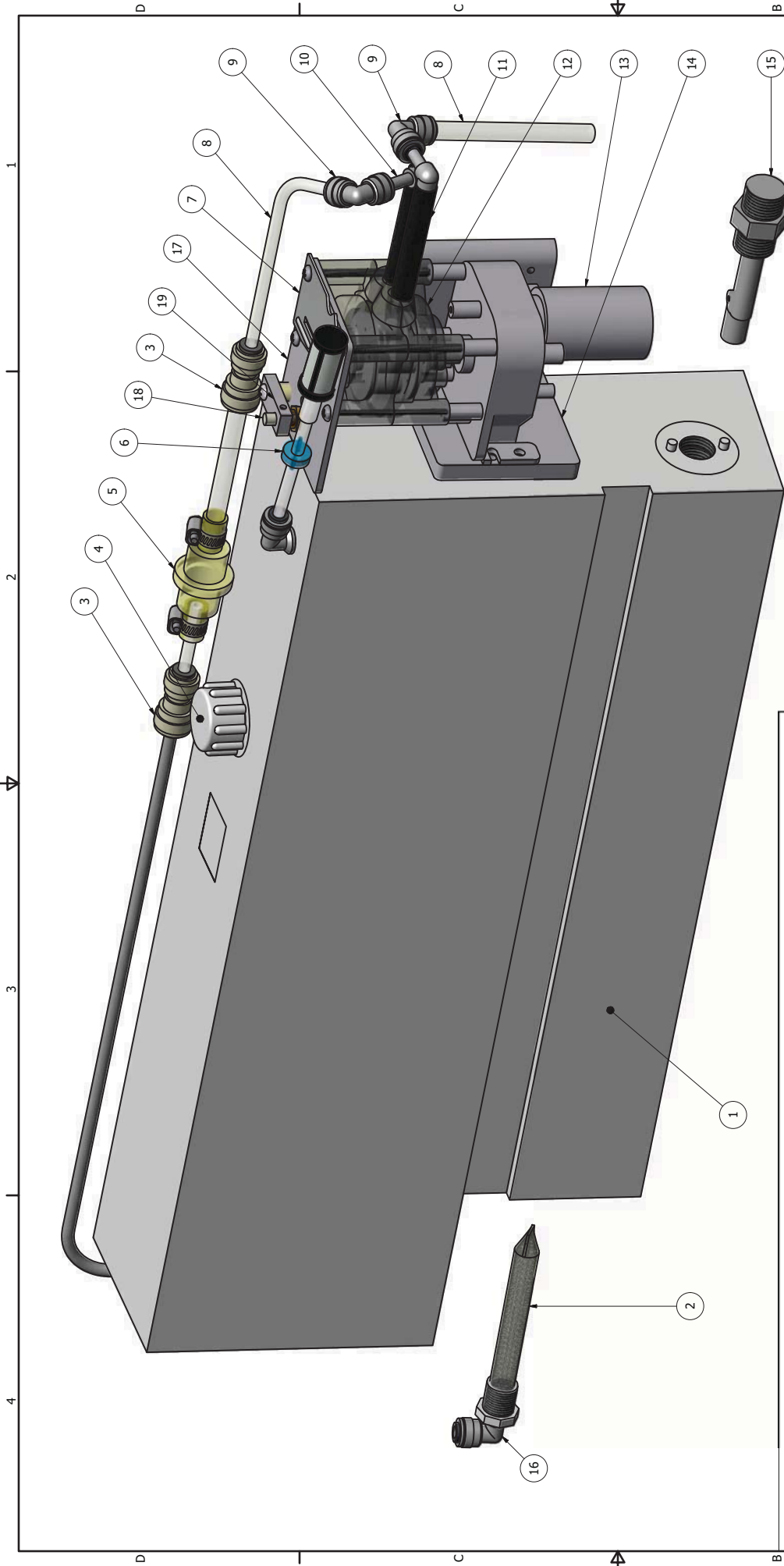
DRAWN	7/20/2006	TITLE	LDS Assembly
CHECKED		DATE	
QA		SCALE	
MFG		SIZE	C
APPROVED		DWG NO	17-5100-6
		REV	



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	154-8007	SIDE PLATE PILLWBLOCK FOR DRIVE SHAFT
2	4	153-0043	THICK FELT WASHER - 5/8
3	1	153-9814	DRIVE CHAIN - 40P33
4	1	153-9002	SPROCKET - 40B13 (5/8") 1/4-20 SET
5	1	154-8865	DRIVE MOTOR ASSEMBLY - 90VDC
6	1	154-1809B	BRUSHES (1 EA = 1 PR) - BALDOR DC MOTOR
7	1	154-6820	MAIN DRIVE SHAFT - KUSTODIAN
8	2	154-6881	RECOVERY TANK SUPPORT BAR
9	1	154-6717	5-TOOTH SENSOR DISK (3/8 BORE)
10	2	153-7013	URETHANE-BLEND LANE DRIVE WHEEL (4")
11	2	158-8435	DRIVE BLOCK PILLWBLOCK ASSY - 2 INCH
12	2	153-2045	STEEL COLLAR - 5/8 X 1-1/8 X 1/2
13	1	153-9003	SPROCKET - 40B10 (5/8")

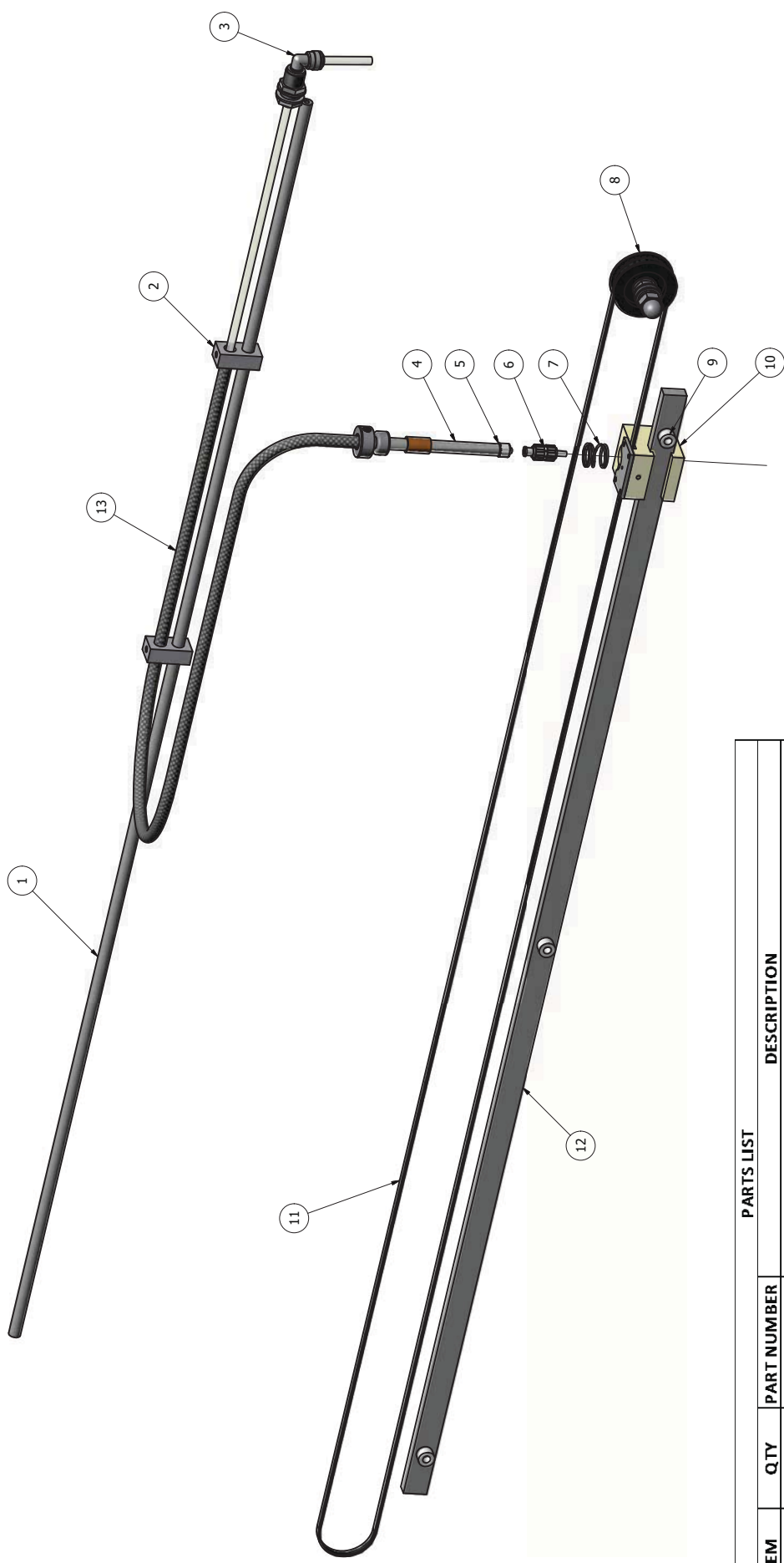
DRAWN lonyc	7/19/2006	TITLE	Main Drive Shaft Assembly	
CHECKED		QA	SIZE	C
		MFG	DWG NO	17-5100-7
		APPROVED	REV	
		REV: 11/19/2012	SCALE	
				SHEET 1 OF 1



PARTS LIST

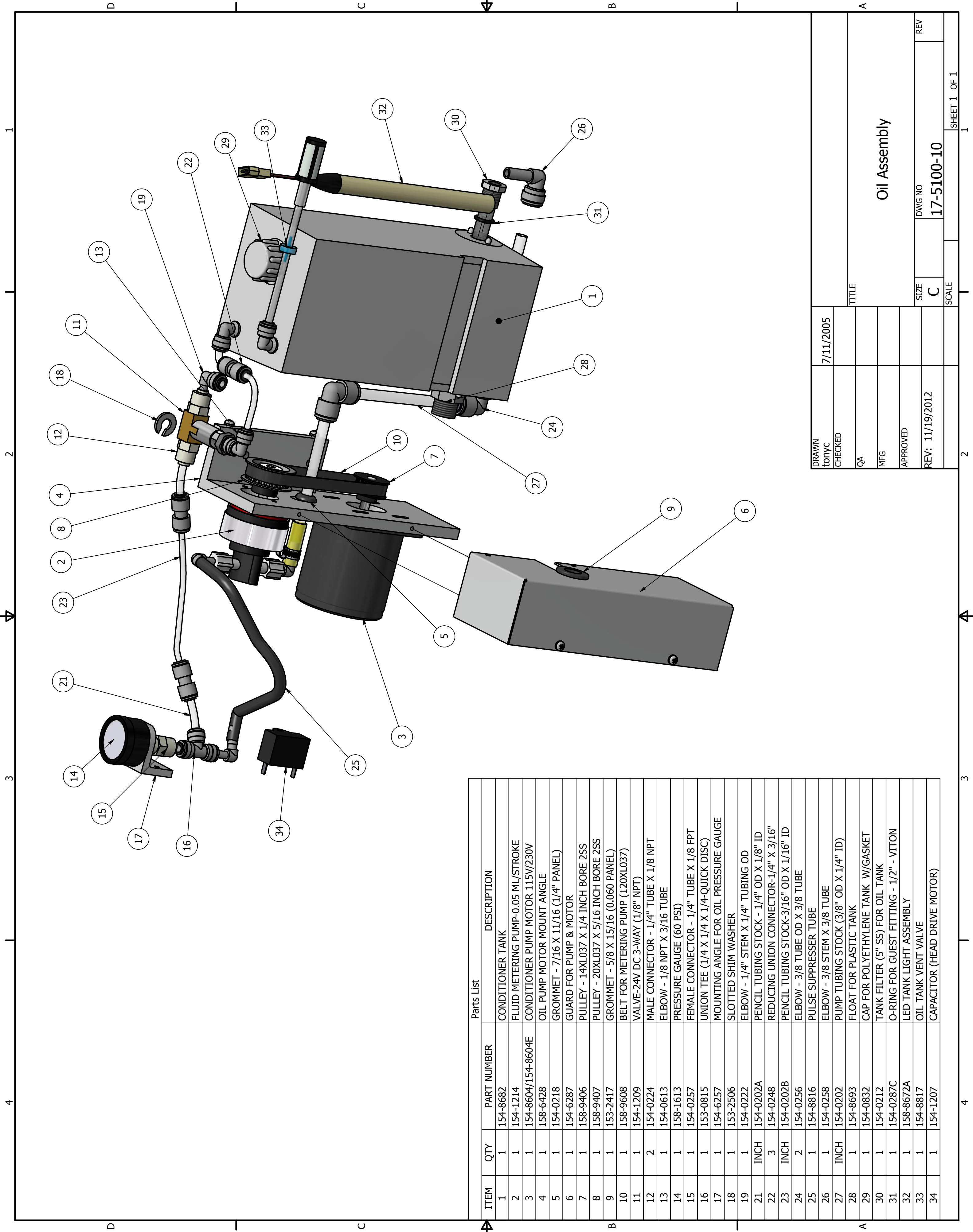
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	158-8433C	CLEANER SUPPLY TANK ASSY - 3.25 GAL (COMP)
2	1	154-0212B	FILTER FOR SUPPLY TANK (5" SS) PVC
3	2	154-0244	REDUCER (3/8" TO 1/4")
4	1	154-0832C	CAP FOR POLYETHYLENE TANKS
5	1	154-8867A	INLINE FILTER ASSEMBLY
6	1	154-8817	MANUAL VENT VALVE ASSEMBLY
7	1	N/A	CLEANER PUMP HOSE LOADING TOOL
8	INCH	154-0202A	PENCIL TUBING STOCK - 1/4"OD X 1/8"ID
9	2	154-0243	ELBOW (90 DEGREE) 1/4 X 1/4 GUEST
10	2	154-0227	ELBOW - TUBE TO HOSE BARB (1/4" X 5/16"ID)
11	1	154-0861B	NEOPRENE TUBING FOR PUMP W/ELBOW S
12	1	154-0860A	PUMP - MASTERFLEX (24V-DC)
13	1	158-8404	CLEANER PUMP DRIVE MOTOR
14	1	154-6865	CLEANER PUMP MOUNT ANGLE
15	1	154-8693	CLEANER FLOAT ASSY
16	1	154-0223	ELBOW (90 DEGREE) 1/4" NPT X 1/4" TUBE
17	1	154-6866A	CLEANER PUMP POTENTIOMETER PLATE
18	1	154-8846	POTENTIOMETER ASSEMBLY - SPEED CONTROL (2.5 OHM)
19	1	158-6432	POTENTIOMETER LOCKING BAR

DRAWN	10/29/2012	TITLE	Cleaner Tank Assembly
BRB			
CHECKED			
QA			
MFG			
APPROVED			
REV: 11/19/2012		SIZE	C
		DWG NO	17-5100-8
		SCALE	
		SHEET 1 OF 1	1



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	154-6889	CLEANER HOSE ROUTING BAR
2	2	154-6888	CLEANER HOSE SPRING MOUNT BLOCK
3	1	154-0222	ELBOW 1/4" STEM X 1/4" TUBING OD
4	1	154-8852	CLEANER HOSE TUBE (4.5 INCH) AND TIP ASSEMBLY
5	1	154-0863	MALE LUER TO HOSE BARB
6	1	164-0012M	CLEANER TIP W/CHECK VALVE
7	1	153-2713	SPRING - OIL TIP RETAINER
8	1	154-9802	PULLEY 27XLO37 DF 2SETS 3/8" BORE
9	3	154-6874	CLEANING HEAD BAR SPACER
10	1	154-6882	CLEANER HEAD
11	1	154-9201	CLEANER HEAD DRIVE BELT
12	1	154-6877	CLEANER HEAD GUIDE BAR
13	1	154-0867	CLEANER HOSE SPRING (3.6")

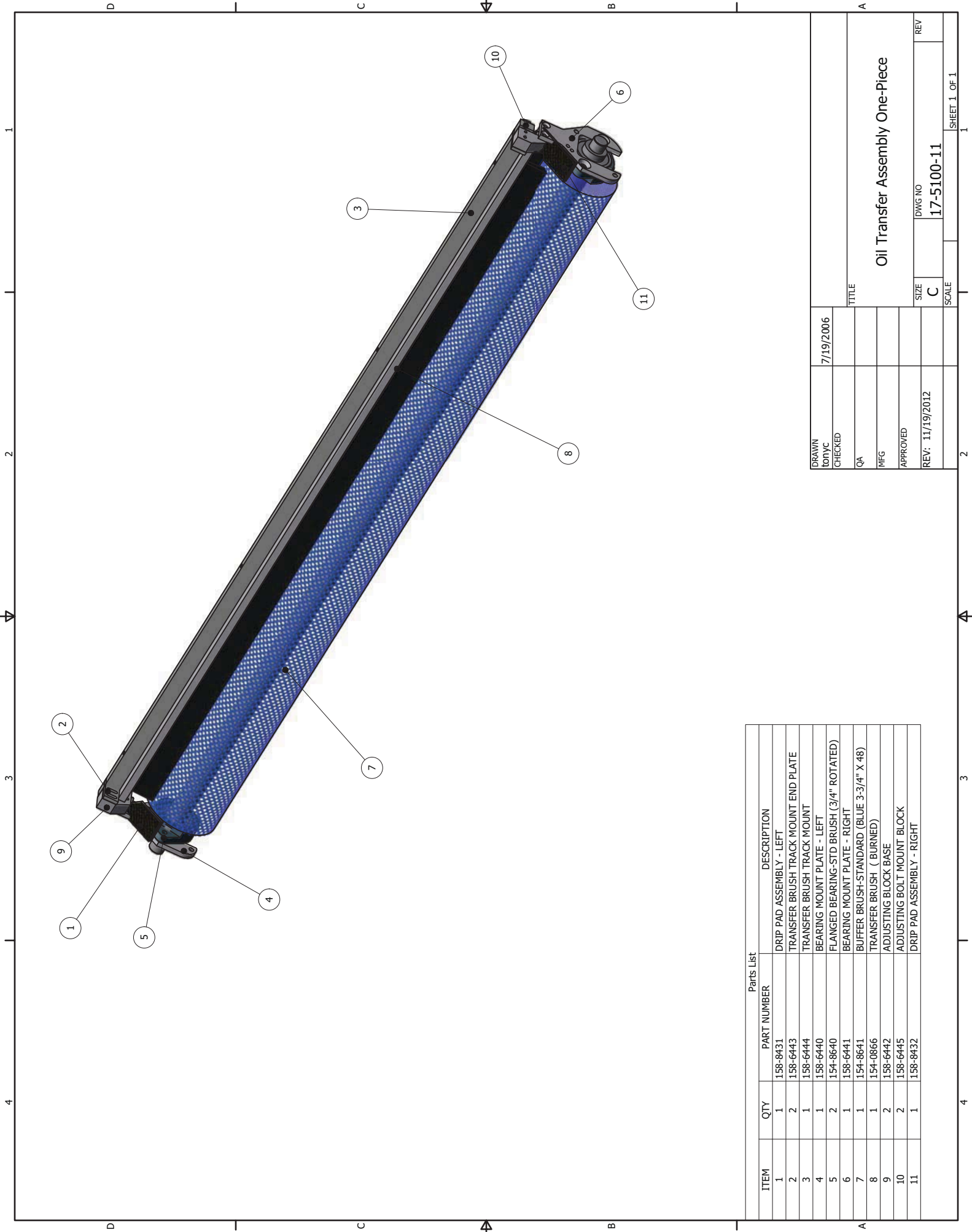
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CHECKED		SIZE	C
QA		DWG NO	17-5100-9
MFG		SCALE	1
APPROVED		REV	
REV: 11/19/2012			



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	154-8682	CONDITIONER TANK
2	1	154-1214	FLUID METERING PUMP-0.05 ML/STROKE
3	1	154-8604/154-8604E	CONDITIONER PUMP MOTOR 115V/230V
4	1	158-6428	OIL PUMP MOTOR MOUNT ANGLE
5	1	154-0218	GROMMET - 7/16 X 11/16 (1/4" PANEL)
6	1	154-6287	GUARD FOR PUMP & MOTOR
7	1	158-9406	PULLEY - 14XL037 X 1/4 INCH BORE 2SS
8	1	158-9407	PULLEY - 20XL037 X 5/16 INCH BORE 2SS
9	1	153-2417	GROMMET - 5/8 X 15/16 (0.060 PANEL)
10	1	158-9608	BELT FOR METERING PUMP (120XL037)
11	1	154-1209	VALVE-24V DC 3-WAY (1/8" NPT)
12	2	154-0224	MALE CONNECTOR - 1/4" TUBE X 1/8 NPT
13	1	154-0613	ELBOW - 1/8 NPT X 3/16 TUBE
14	1	158-1613	PRESSURE GAUGE (60 PSI)
15	1	154-0257	FEMALE CONNECTOR - 1/4" TUBE X 1/8 FPT
16	1	153-0815	UNION TEE (1/4 X 1/4 X 1/4-QUICK DISC)
17	1	154-6257	MOUNTING ANGLE FOR OIL PRESSURE GAUGE
18	1	153-2506	SLOTTED SHIM WASHER
19	1	154-0222	ELBOW - 1/4" STEM X 1/4" TUBING OD
21	INCH	154-0202A	PENCIL TUBING STOCK - 1/4" OD X 1/8" ID
22	3	154-0248	REDUCING UNION CONNECTOR-1/4" X 3/16"
23	INCH	154-0202B	PENCIL TUBING STOCK-3/16" OD X 1/16" ID
24	2	154-0256	ELBOW - 3/8 TUBE OD X 3/8 TUBE
25	1	154-8816	PULSE SUPPRESSOR TUBE
26	1	154-0258	ELBOW - 3/8 STEM X 3/8 TUBE
27	INCH	154-0202	PUMP TUBING STOCK (3/8" OD X 1/4" ID)
28	1	154-8693	FLOAT FOR PLASTIC TANK
29	1	154-0832	CAP FOR POLYETHYLENE TANK W/GASKET
30	1	154-0212	TANK FILTER (5" SS) FOR OIL TANK
31	1	154-0287C	O-RING FOR GUEST FITTING - 1/2" - VITON
32	1	158-8672A	LED TANK LIGHT ASSEMBLY
33	1	154-8817	OIL TANK VENT VALVE
34	1	154-1207	CAPACITOR (HEAD DRIVE MOTOR)

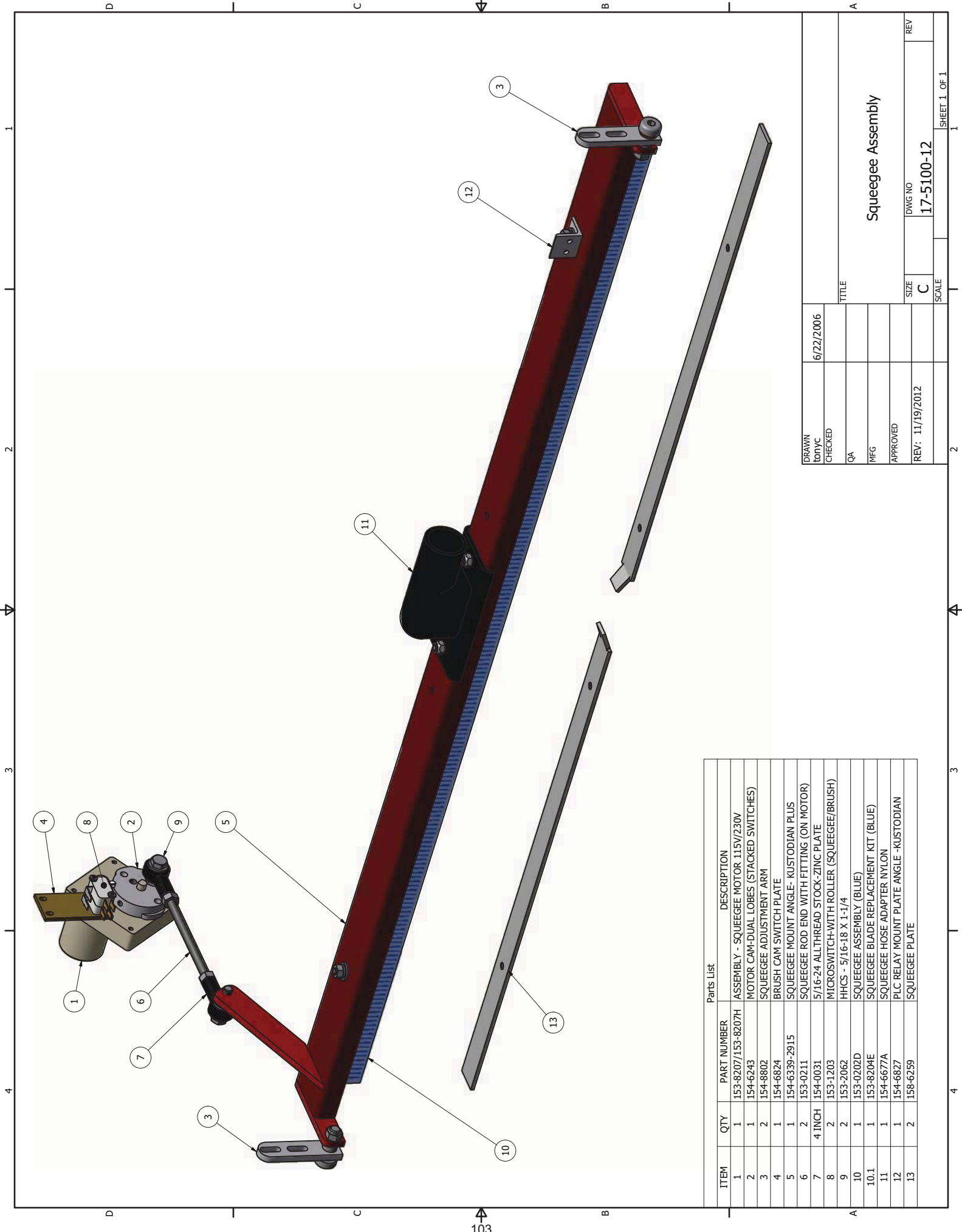
DRAWN	7/11/2005	TITLE	
tonyc		Oil Assembly	
CHECKED		SIZE	C
QA		DWG NO	17-5100-10
MFG		REV	
APPROVED		SCALE	
REV: 11/19/2012			



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	158-8431	DRIP PAD ASSEMBLY - LEFT
2	2	158-6443	TRANSFER BRUSH TRACK MOUNT END PLATE
3	1	158-6444	TRANSFER BRUSH TRACK MOUNT
4	1	158-6440	BEARING MOUNT PLATE - LEFT
5	2	154-8640	FLANGED BEARING-STD BRUSH (3/4" ROTATED)
6	1	158-6441	BEARING MOUNT PLATE - RIGHT
7	1	154-8641	BUFFER BRUSH-STANDARD (BLUE 3-3/4" X 48)
8	1	154-0866	TRANSFER BRUSH (BURNED)
9	2	158-6442	ADJUSTING BLOCK BASE
10	2	158-6445	ADJUSTING BOLT MOUNT BLOCK
11	1	158-8432	DRIP PAD ASSEMBLY - RIGHT

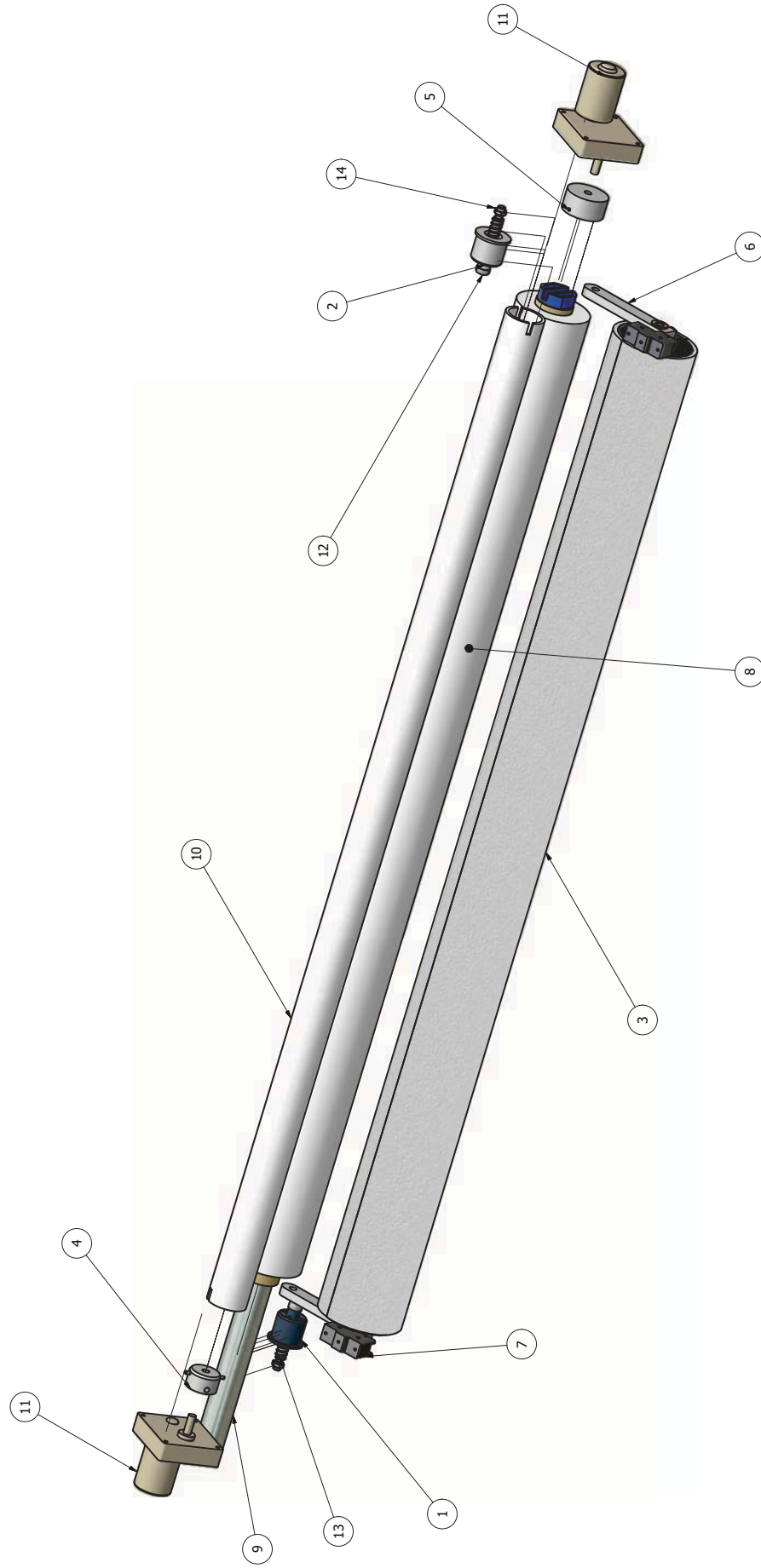
DRAWN tonyc	7/19/2006	TITLE	Oil Transfer Assembly One-Piece	
CHECKED		QA	SIZE	C
		MFG	DWG NO	17-5100-11
		APPROVED	REV	
		REV: 11/19/2012	SCALE	
				SHEET 1 OF 1



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	153-8207/153-8207H	ASSEMBLY - SQUEEGEE MOTOR 115V/230V
2	1	154-6243	MOTOR CAM-DUAL LOBES (STACKED SWITCHES)
3	2	154-8802	SQUEEGEE ADJUSTMENT ARM
4	1	154-6824	BRUSH CAM SWITCH PLATE
5	1	154-6339-2915	SQUEEGEE MOUNT ANGLE- KUSTODIAN PLUS
6	2	153-0211	SQUEEGEE ROD END WITH FITTING (ON MOTOR)
7	4 INCH	154-0031	5/16-24 ALLTHREAD STOCK-ZINC PLATE
8	2	153-1203	MICROSWITCH-WITH ROLLER (SQUEEGEE/BRUSH)
9	2	153-2062	HHCS - 5/16-18 X 1-1/4
10	1	153-0202D	SQUEEGEE ASSEMBLY (BLUE)
10.1	1	153-8204E	SQUEEGEE BLADE REPLACEMENT KIT (BLUE)
11	1	154-6677A	SQUEEGEE HOSE ADAPTER NYLON
12	1	154-6827	PLC RELAY MOUNT PLATE ANGLE -KUSTODIAN
13	2	158-6259	SQUEEGEE PLATE

DRAWN tonyc	6/22/2006	TITLE	Squeegee Assembly	
CHECKED			SIZE	DWG NO
QA			C	17-5100-12
MFG			SCALE	
APPROVED				
REV: 11/19/2012				REV
				1



Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	153-6850	UHMW DUSTER PLUG FOR CARDBOARD CORE
2	1	153-6853	UHMW DUSTER PLUG FOR PVC TAKE-UP REEL
3	1	153-8839	CUSHION ROLLER W/PAD (STEEL=44-3/8)
4	1	153-8202B	DUSTER SOLID DRIVE HUB (PVC-1/4-28)
5	1	153-8201B	DUSTER DRIVE HUB ASSEMBLY (1/4-28)
6	2	153-8420	CUSHION ROLLER PIVOT ARM ASSEMBLY
7	2	154-1603	MICROSWITCH-WITHOUT ROLLER (LARGE-STD)
8	1	153-0047EZ	K2 - DUSTER CLOTH
9	1	153-0429	DMR DUSTER ROLL SUPPORT PIPE (40 INCH)
10	1	153-8824	PVC TAKE-UP REEL ASSEMBLY (44-3/4")
11	2	153-8403/1538803H	BRAKE MOTOR ASSEMBLY (7 RPM-115/230 VOLT)
12	2	153-2807	SHOULDER BOLT-5/16 X 2 (1/4-20)
13	2	153-2808	SPRING - 0.42 OD X 1.25 (DUSTER PLUG)
14	2	153-2020A	LOCKNUT - 1/4-20 (STOVER)

DRAWN	7/20/2006		
CHECKED			
QA			
MFG			
APPROVED			
REV: 11/19/2012			
SIZE	C	DWG NO	17-5100-13
SCALE			
TITLE	Duster Assembly		
REV			

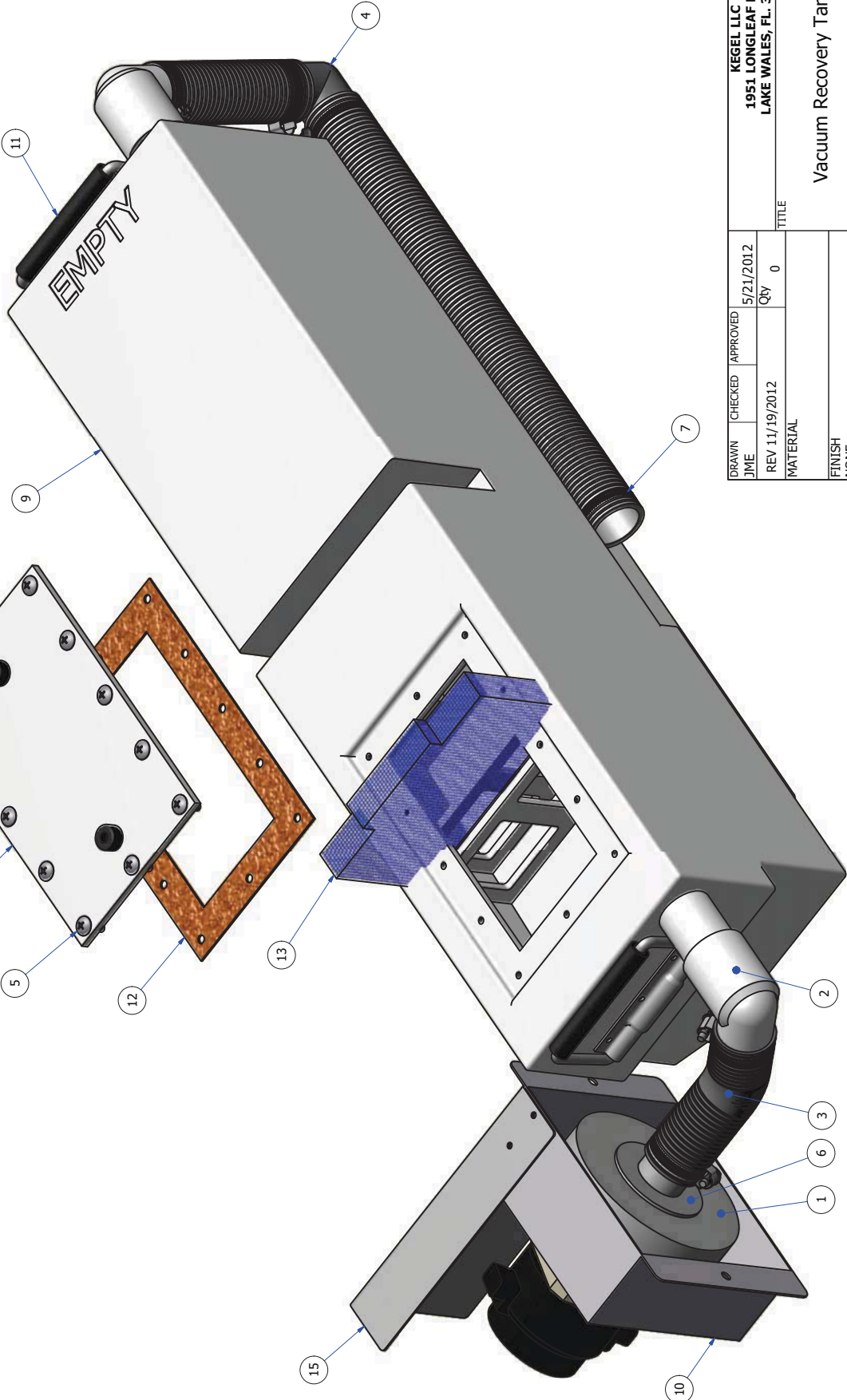


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	154-8637	BUFFER BRUSH LIFTING ASSEMBLY
2	1	154-6824	BRUSH CAM SWITCH PLATE
3	1	153-8207	BRAKE MOTOR ASSEMBLY (25 RPM-115 VOLT)
3	1	153-8807H	BRAKE MOTOR ASSEMBLY (25 RPM-230V 50 HZ)
4	1	154-6243	MOTOR CAM-DUAL LOBES (STACKED SWITCHES)
5	6	153-2801	SHOULDER BOLT-3/8 X 3/8 (5/16-18)
6	2	153-2804	COLLAR - 3/8 X 3/4 X 3/8
7	1	154-8638	BUFFER BRUSH LIFTING LINK - LEFT
8	1	154-8639	BUFFER BRUSH LIFTING LINK - RIGHT
9	2	153-1203	MICROSWITCH-WITH ROLLER (SQUEEGEE/BRUSH)
10	2	153-2801A	SHOULDER BOLT-3/8 X 3/8-CUT (5/16-18)
11	1	154-8837	CAM TO BRUSH LIFTING ROD LINK ASSEMBLY

Parts List

DRAWN	7/20/2006	TITLE	Brush Lift Assembly
CHECKED		QA	
QA		MFG	
APPROVED		REV: 11/19/2012	
REV		SIZE	C
		DWG NO	17-5100-14
		SCALE	
		SHEET	1 OF 1

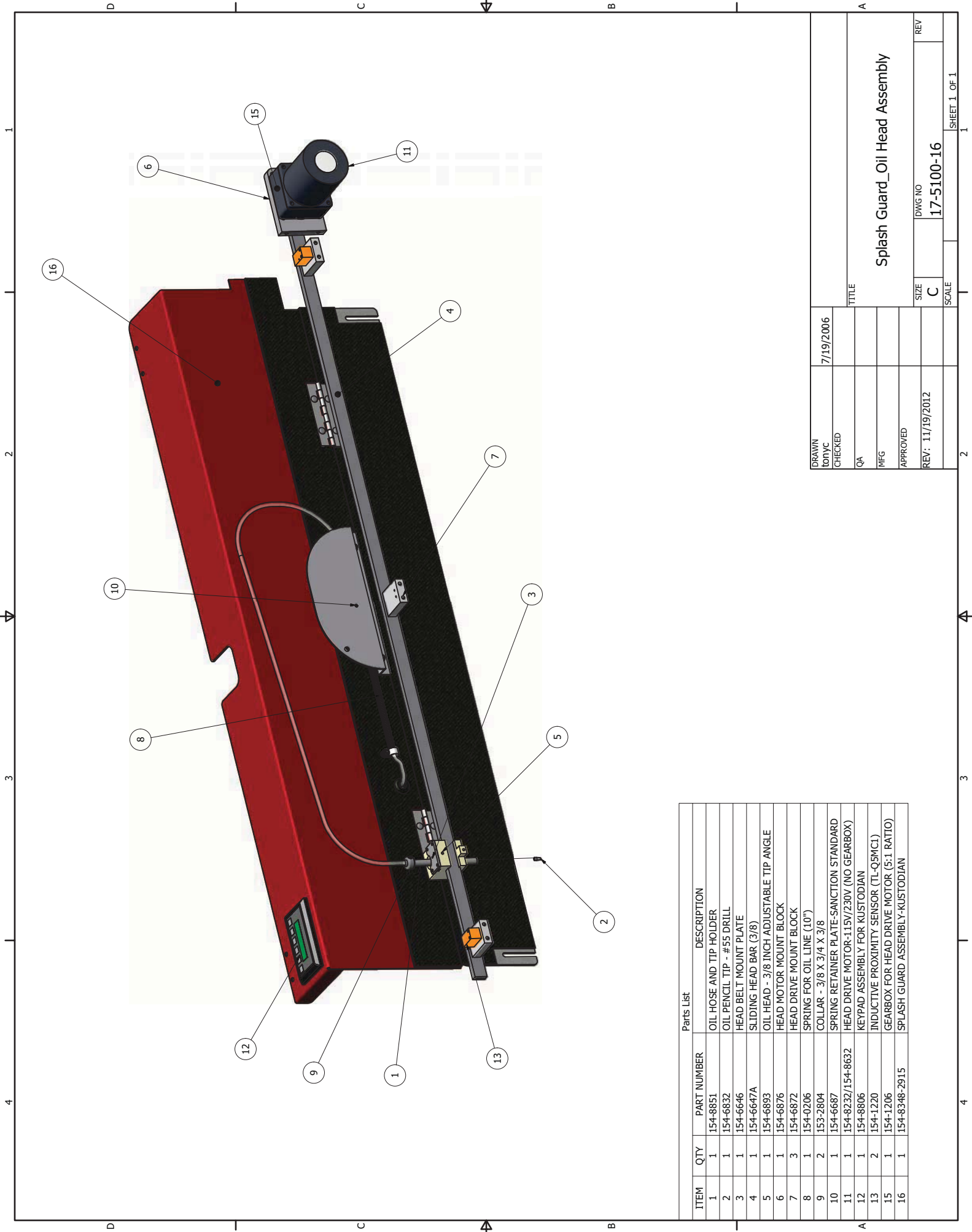
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	158-8407	ASSEMBLY - VACUUM MOTOR
1.1	1	158-1421B	BRUSHES - VACUUM MOTOR 24V
2	2	153-8827T	1-1/4" PVC ELBOW - TANK INLET (NO THREADS)
3	INCH	154-0260	FLEXIBLE VAC HOSE GREY (1-1/2" ID)
4	1	154-0607	PVC ELBOW - 1-1/2" BARB X 1-1/2" BARB
5	12	153-2924	M 5 PHILLIPS - 1/4"-20 X 3/4" TRUSS HEAD
6	1	153-6221M	VACUUM HOSE ADAPTER
7	6	153-2406	HOSE CLAMP (2 INCH)
8	1	158-6448	REC TANK SUB-FLOOR COVER PLATE - 10 GAL
9	1	158-8617	RECOVERY TANK ASSEMBLY - 10 GALLON
10	1	158-8618	VACUUM MOTOR HOUSING
11	2	154-0810	LIFTING HANDLE (SS SPRING-LOADED CHEST)
12	1	158-0405	RECOVERY TANK GASKET
13	1	158-0406	FILTER FOR 10 GALLON RECOVERY TANK
14	2	154-0006A	BUMPER GUARD - POLYURETHANE (13/32)
15	1	158-6709	VACUUM MOTOR GUARD



DRAWN	CHECKED	APPROVED	5/21/2012
JME	REV 11/19/2012		Qty 0
MATERIAL			
FINISH NONE			
TOLERANCES: 3 DECIMALS +/- 0.005 2 DECIMALS +/- 0.010 1 DECIMAL +/- 0.030			
SCALE	IDOC REV	SIZE	REV
		C	17-5100-15
			09/05/06
SHEET 1 OF 1			

KEGEL LLC
1951 LONGLEAF BLVD
LAKE WALES, FL. 33859

TITLE
Vacuum Recovery Tank Assembly



Parts List

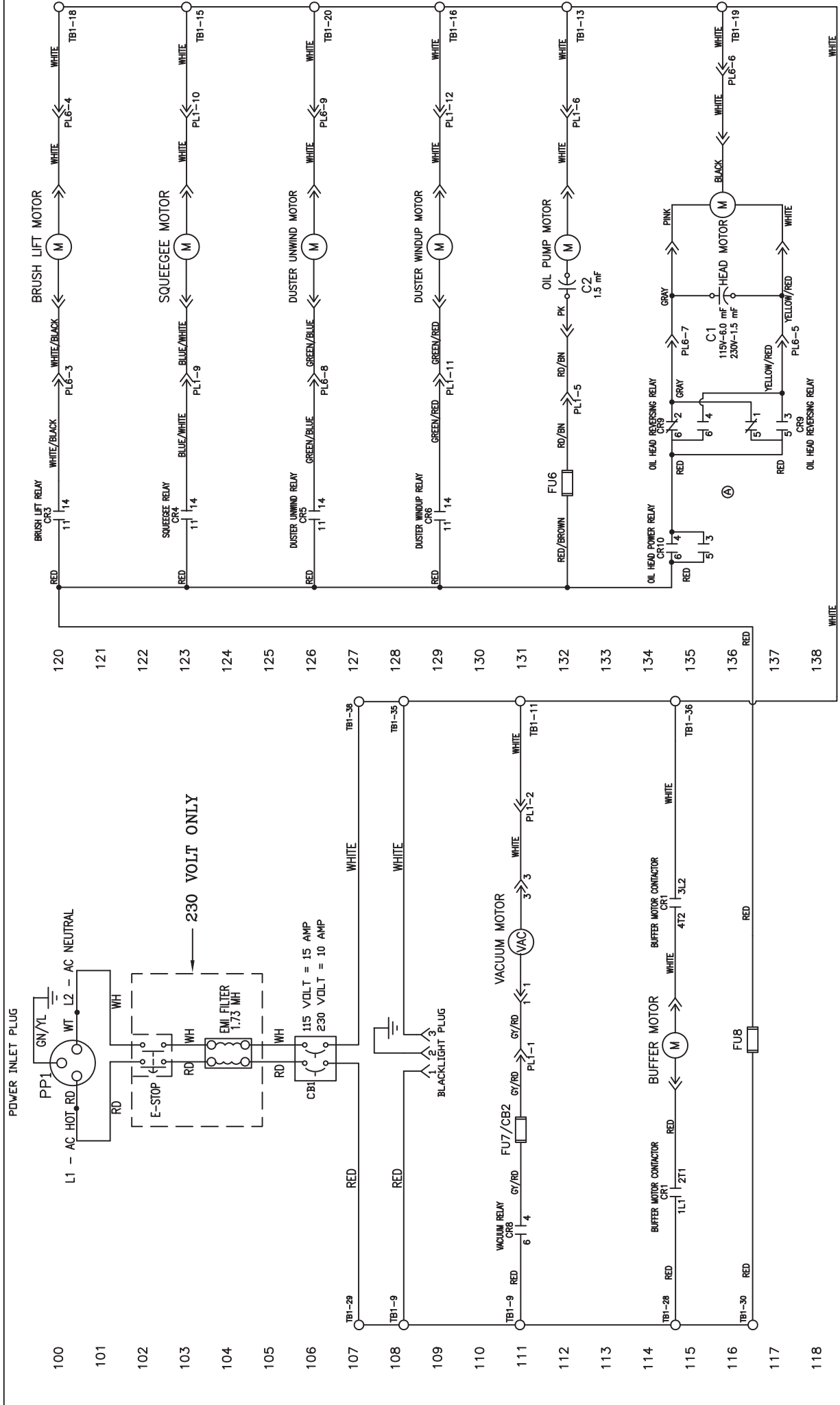
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	154-8851	OIL HOSE AND TIP HOLDER
2	1	154-6832	OIL PENCIL TIP - #55 DRILL
3	1	154-6646	HEAD BELT MOUNT PLATE
4	1	154-6647A	SLIDING HEAD BAR (3/8)
5	1	154-6893	OIL HEAD - 3/8 INCH ADJUSTABLE TIP ANGLE
6	1	154-6876	HEAD MOTOR MOUNT BLOCK
7	3	154-6872	HEAD DRIVE MOUNT BLOCK
8	1	154-0206	SPRING FOR OIL LINE (10")
9	2	153-2804	COLLAR - 3/8 X 3/4 X 3/8
10	1	154-6687	SPRING RETAINER PLATE-SANCTION STANDARD
11	1	154-8232/154-8632	HEAD DRIVE MOTOR-115V/230V (NO GEARBOX)
12	1	154-8806	KEYPAD ASSEMBLY FOR KUSTODIAN
13	2	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)
15	1	154-1206	GEARBOX FOR HEAD DRIVE MOTOR (5:1 RATIO)
16	1	154-8348-2915	SPLASH GUARD ASSEMBLY-KUSTODIAN

DRAWN	7/19/2006	TITLE	Splash Guard_Oil Head Assembly	
CHECKED		QA	SIZE	C
		MFG	DWG NO	17-5100-16
		APPROVED	REV	
		REV: 11/19/2012	SCALE	1
				SHEET 1 OF 1

Kustodian Plus Wiring Diagrams

The following diagrams show wiring schematics for this lane machine. If you have any questions please call 863-734-0200 or email tech@kegel.net.

Motor Wiring.....	109
Output Wiring.....	110
Input Wiring	111
Speed Control.....	112
Terminal Block Layout.....	113
Vacuum Motor Wiring.....	114
Squeegee Motor and Switch.....	115
Speed Tach and LDS Wiring.....	116
Brush Lift Motor and Switch.....	117
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Duster Unwind Motor.....	119
Duster Windup Motor.....	120
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Cleaner Speed Control Wiring.....	124
LED Tank Light Wiring	125



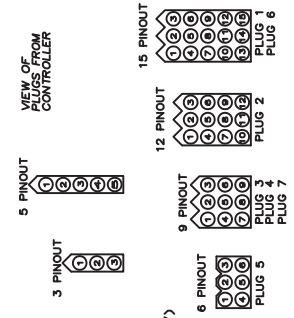
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A		02/25/14	92 PROGRAM WIRING UPDATE E/C# 14130

MATERIAL		DESCRIPTION	
N/A		KEGEL	
N/A		1981 LONGLEAF BLVD. LAKE WALKER, FL 33869 (888) 734-0200	
N/A		DESCRIPTION	
N/A		MOTOR WIRING SCHEMATIC	
N/A		KUSTODIAN PLUS MODEL B	
N/A		DO NOT SCALE DRAWING	
DRAWN BY	DATE	SIZE	QTY/MACHINE PART NUMBER
SLS	06/21/11	C	N/A
APPROVED:	REV DATE	N/A	N/A
HFG	02/25/14	N/A	N/A
REV	REV	SCALE	N/A
A			

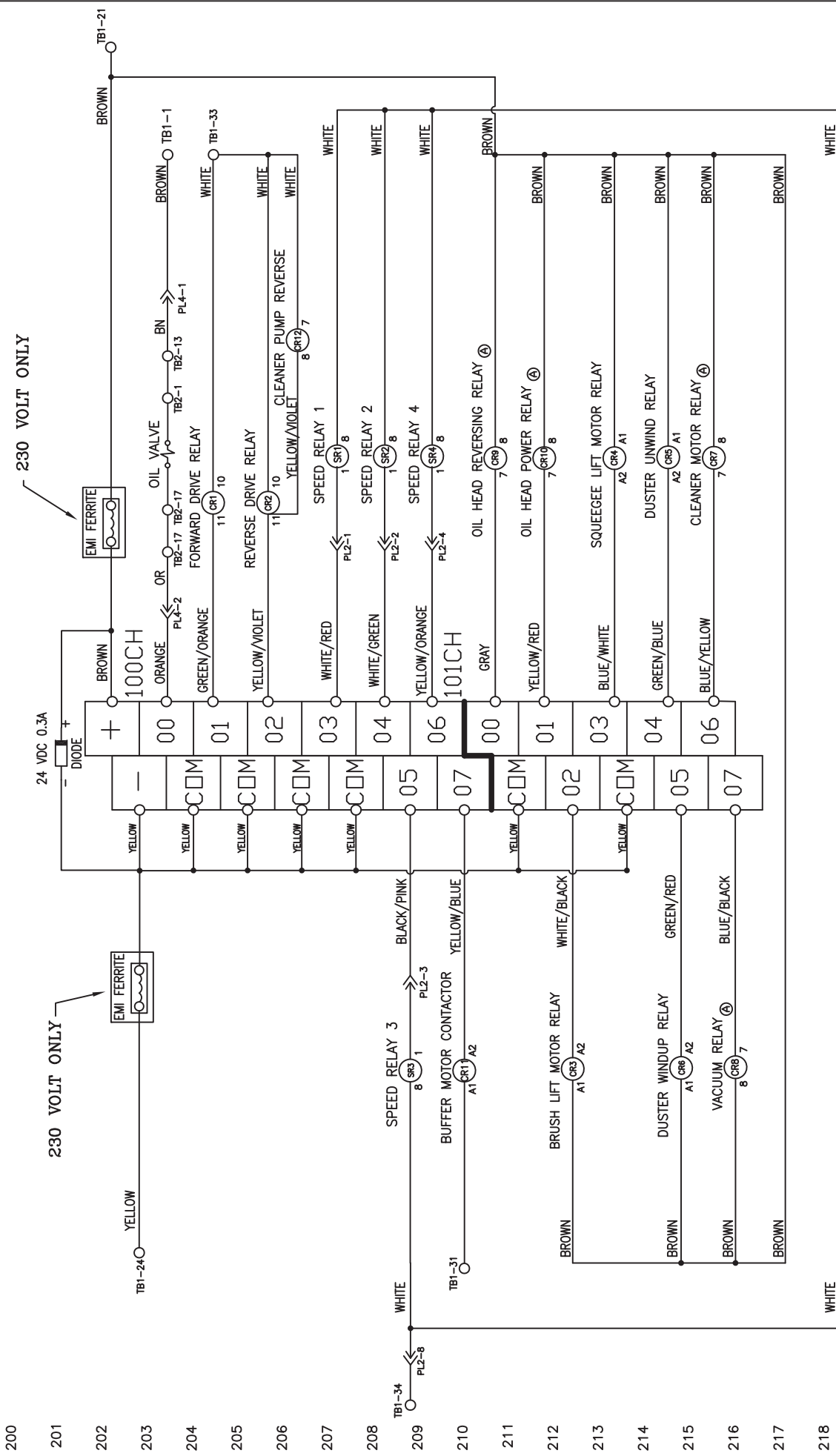
REV	DESCRIPTION
FU1	PLC INPUT POWER (0.5A - 115V) (500mA - 230V)
FU2	PC OUTPUT COMMON (0.5A - 115V) (6.3A - 230V)
FU3	DRIVE MOTOR BOARD L1 (4A - 115V) (4A - 230V)
FU4	DRIVE MOTOR BOARD L2 (4A - 115V) (4A - 230V)
FU5	OIL PUMP MOTOR (0.75A - 115V) (315mA - 230V)
FU6	CLEANER MOTOR (4A - 115V) (1.6A - 230V)
FU7	VACUUM MOTOR (10A - 115V)
FU8	PC RELAY COMMON (4A - 115V) (4A - 230V)

LEGEND

- PL1 - MAIN PLUG - 10-PIN SIDE (15)
- PL2 - DRIVE CIRCUIT BOARD PLUG (12)
- PL3 - DRIVE SPEED BOARD PLUG (9)
- PL4 - PLC INPUT PLUG - 10-PIN SIDE (9)
- PL5 - MAIN PLUG - 7-PIN SIDE (6)
- PL6 - MAIN PLUG - 7-PIN SIDE (15)
- PL7 - DC CLEANER SPEED BOARD PLUG (9)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 -
- TB5 - TERMINAL BLOCK 5 (HANDLE)
- PP1 - POWER INLET PLUG
- C1 - HEAD DRIVE MOTOR CAPACITOR
- C2 - OIL PUMP MOTOR CAPACITOR
- CB1 - CIRCUIT BREAKER (15A-115V)(10A-230V)
- CB2 - VACUUM CIRCUIT BREAKER (8A - 230V)
- CR1 - FORWARD DRIVE RELAY (LY3)
- CR2 - REVERSE DRIVE RELAY (LY3)
- CR3 - BRUSH LIFT MOTOR RELAY
- CR4 - SQUEEGEE LIFT MOTOR RELAY
- CR5 - DUSTER UNWIND MOTOR RELAY
- CR6 - DUSTER WINDUP MOTOR RELAY
- CR7 - CLEANER MOTOR RELAY (LY2 24VDC)
- CR8 - VACUUM RELAY (LY2 24VDC)
- CR9 - OIL HEAD REVERSING RELAY (LY2 24VDC)
- CR10 - OIL HEAD POWER RELAY (LY2 24VDC)
- CR11 - BUFFER BRUSH MOTOR REVERSE RELAY
- CR12 - CLEANER PUMP REVERSE RELAY
- SR1 - SPEED RELAY 1 (PCB)
- SR2 - SPEED RELAY 2 (PCB)
- SR3 - SPEED RELAY 3 (PCB)
- SR4 - SPEED RELAY 4 (PCB)
- VAC - VACUUM MOTOR
- BU - BUFFER MOTOR
- BU1 - BUFFER MOTOR
- BU2 - BUFFER MOTOR
- BU3 - BUFFER MOTOR
- BU4 - BUFFER MOTOR
- BU5 - BUFFER MOTOR
- BU6 - BUFFER MOTOR
- BU7 - BUFFER MOTOR
- BU8 - BUFFER MOTOR



OMRON SYSMAC
CP1L OUTPUTS



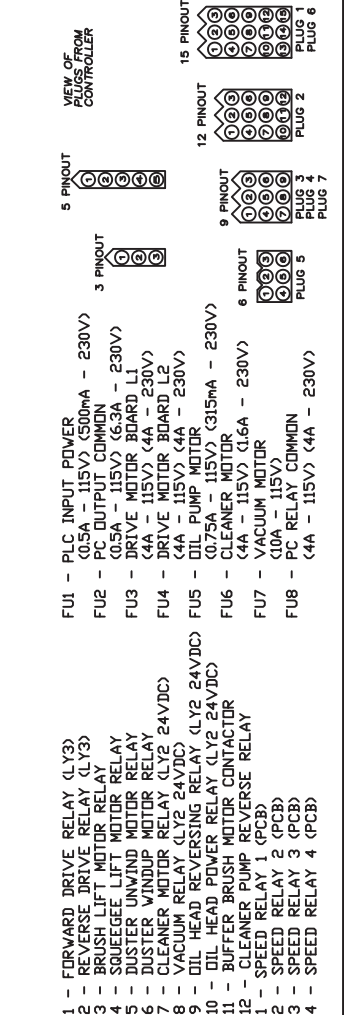
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A		02/25/14	9Z PROGRAM WIRING UPDATE E/C# 14130
B		02/18/16	CHANGED PLC E/C# 16103

MATERIAL		DESCRIPTION	
N/A		KEGEL	OUTPUT WIRING SCHEMATIC
N/A			KUSTODIAN PLUS MODEL B
N/A			DO NOT SCALE DRAWING
N/A			SIZE QTY/MACHINE PART NUMBER
N/A			C N/A ALL 17-51XX MODELS
N/A			SCALE N/A SHEET 2 OF 17

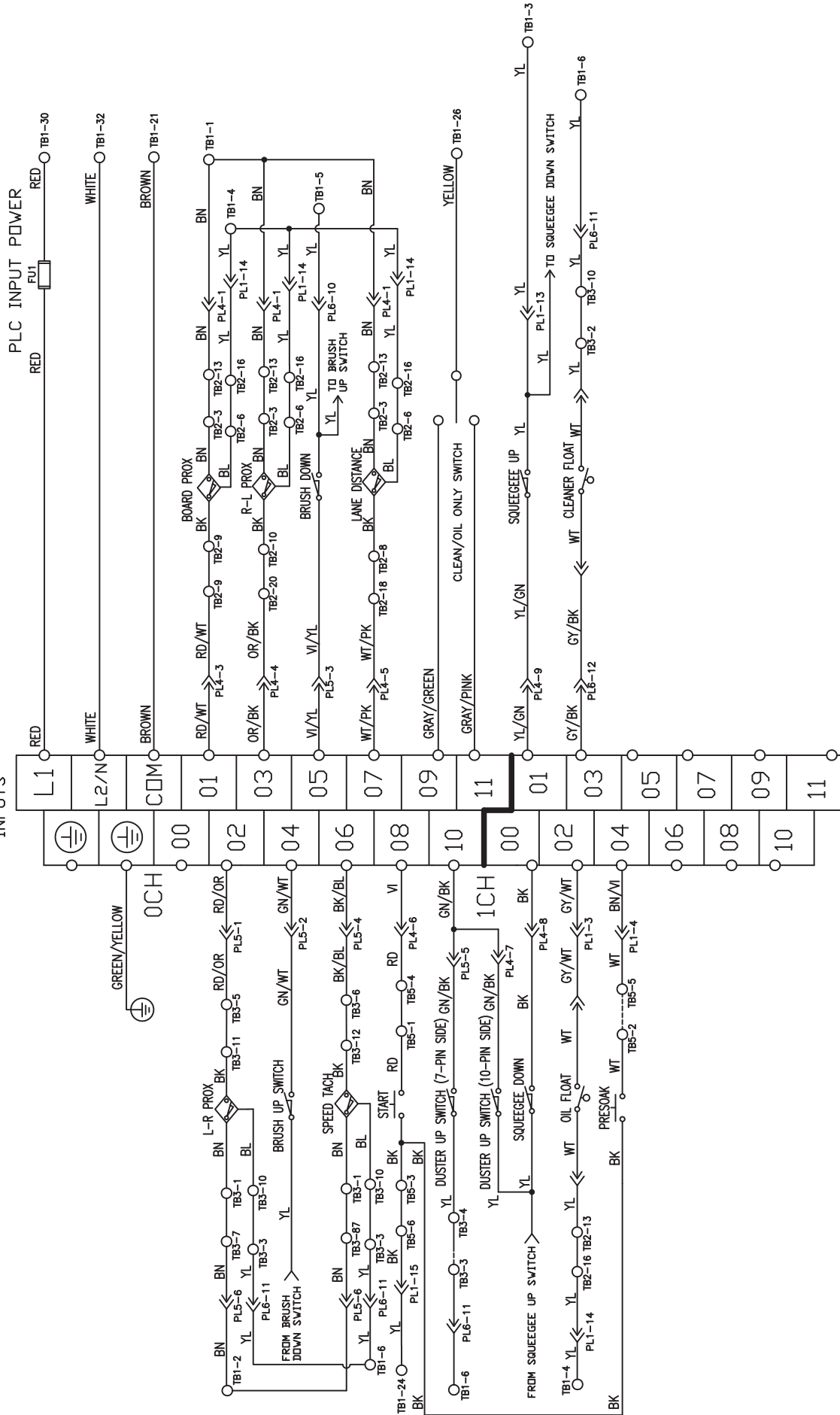
REV	DATE	BY	CHK	APP
1	06/22/11	SLS		
2	02/18/16	HFG		

1981 LONGLEAF BLVD.
LAKE WALKER, TX 75849
(866) 794-0600

- LEGEND**
- PL1 - MAIN PLUG - 10-PIN SIDE (15)
 - PL2 - DRIVE CIRCUIT BOARD PLUG (12)
 - PL3 - DRIVE SPEED BOARD PLUG (9)
 - PL4 - PLC INPUT PLUG - 10-PIN SIDE (9)
 - PL5 - MAIN PLUG - 7-PIN SIDE (6)
 - PL6 - MAIN PLUG - 7-PIN SIDE (15)
 - PL7 - DC CLEANER SPEED BOARD PLUG (9)
 - PL8 - TERMINAL BLOCK 1 (MAIN)
 - PL9 - TERMINAL BLOCK 2 (10-PIN SIDE)
 - PL10 - TERMINAL BLOCK 3 (7-PIN SIDE)
 - PL11 - TERMINAL BLOCK 5 (HANDLE)
 - PL12 - POWER INLET PLUG
 - PL13 - HEAD DRIVE MOTOR CAPACITOR
 - PL14 - OIL PUMP MOTOR CAPACITOR
 - PL15 - CIRCUIT BREAKER (15A-115V)(10A-230V)
 - PL16 - VACUUM CIRCUIT BREAKER (8A - 230V)
- CR1 - FORWARD DRIVE RELAY (LY3)
 - CR2 - REVERSE DRIVE RELAY (LY3)
 - CR3 - BRUSH LIFT MOTOR RELAY
 - CR4 - SQUEEGEE LIFT MOTOR RELAY
 - CR5 - DUSTER UNWIND MOTOR RELAY
 - CR6 - DUSTER WINDUP MOTOR RELAY
 - CR7 - CLEANER MOTOR RELAY (LY2 24VDC)
 - CR8 - VACUUM RELAY (LY2 24VDC)
 - CR9 - OIL HEAD REVERSING RELAY (LY2 24VDC)
 - CR10 - OIL HEAD PUMP MOTOR
 - CR11 - BUFFER BRUSH MOTOR REVERSE RELAY
 - CR12 - CLEANER PUMP REVERSE RELAY
 - CR13 - SPEED RELAY 1 (PCB)
 - CR14 - SPEED RELAY 2 (PCB)
 - CR15 - SPEED RELAY 3 (PCB)
 - CR16 - SPEED RELAY 4 (PCB)
- FU1 - PLC INPUT POWER (0.5A - 115V) (500mA - 230V)
 - FU2 - PC OUTPUT COMMON (0.5A - 115V) (6.3A - 230V)
 - FU3 - DRIVE MOTOR BOARD L1 (4A - 115V) (4A - 230V)
 - FU4 - DRIVE MOTOR BOARD L2 (4A - 115V) (4A - 230V)
 - FU5 - OIL PUMP MOTOR (0.75A - 115V) (315mA - 230V)
 - FU6 - CLEANER MOTOR (4A - 115V) (1.6A - 230V)
 - FU7 - VACUUM MOTOR (10A - 115V)
 - FU8 - PC RELAY COMMON (4A - 115V) (4A - 230V)



DMRDN
SYSMAC
CPIL
INPUTS

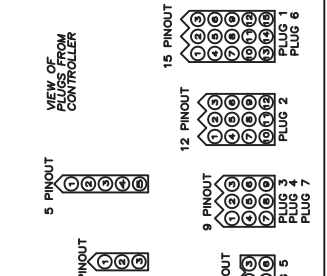


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LEGEND
 PL1 - MAIN PLUG - 10-PIN SIDE (15)
 PL2 - DRIVE CIRCUIT BOARD PLUG (12)
 PL3 - DRIVE SPEED BOARD PLUG (9)
 PL4 - PLC INPUT PLUG - 10-PIN SIDE (9)
 PL5 - MAIN PLUG - 7-PIN SIDE (6)
 PL6 - MAIN PLUG - 7-PIN SIDE (15)
 PL7 - DC CLEANER SPEED BOARD PLUG (9)
 TB1 - TERMINAL BLOCK 1 (MAIN)
 TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
 TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
 TB4 - TERMINAL BLOCK 5 (HANDLE)
 PPI - POWER INLET PLUG
 C1 - HEAD DRIVE MOTOR CAPACITOR
 C2 - OIL PUMP MOTOR CAPACITOR
 CB1 - CIRCUIT BREAKER (15A-115V)(10A-230V)
 CB2 - VACUUM CIRCUIT BREAKER (8A - 230V)

CR1 - FORWARD DRIVE RELAY (LY3)
 CR2 - REVERSE DRIVE RELAY (LY3)
 CR3 - BRUSH LIFT MOTOR RELAY
 CR4 - SQUEEGEE LIFT MOTOR RELAY
 CR5 - DUSTER UNWIND MOTOR RELAY
 CR6 - DUSTER WINDUP MOTOR RELAY
 CR7 - CLEANER MOTOR RELAY (LY2 24VDC)
 CR8 - VACUUM MOTOR RELAY (LY2 24VDC)
 CR9 - OIL HEAD REVERSING RELAY (LY2 24VDC)
 CR10 - BUFFER BRUSH MOTOR CONTACTOR
 CR11 - CLEANER PUMP REVERSE RELAY
 SR1 - SPEED RELAY 1 (PCB)
 SR2 - SPEED RELAY 2 (PCB)
 SR3 - SPEED RELAY 3 (PCB)
 SR4 - SPEED RELAY 4 (PCB)

FU1 - PLC INPUT POWER (0.5A - 115V) (500mA - 230V)
 FU2 - PC OUTPUT COMMON (0.5A - 115V) (6.3A - 230V)
 FU3 - DRIVE MOTOR BOARD L1 (4A - 115V) (4A - 230V)
 FU4 - DRIVE MOTOR BOARD L2 (4A - 115V) (4A - 230V)
 FU5 - OIL PUMP MOTOR (0.75A - 115V) (315mA - 230V)
 FU6 - CLEANER MOTOR (4A - 115V) (1.6A - 230V)
 FU7 - VACUUM MOTOR (10A - 115V)
 FU8 - PC RELAY COMMON (4A - 115V) (4A - 230V)



REV. LTR	DATE	DESCRIPTION
A	02/25/14	9Z PROGRAM WIRING UPDATE E/C # 14130
B	02/18/16	CHANGED PLC E/C# 16103

MATERIAL		DESCRIPTION	
N/A	N/A	KEGEL	INPUT WIRING SCHEMATIC
			KUSTODIAN PLUS MODEL B
			DO NOT SCALE DRAWING
DRAWN BY	DATE	SIZE	QTY/MACHINE PART NUMBER
SLS	06/22/11	C	
APPROVED:	REV DATE	C	
HFG	02/18/16	C	
DWG	B	SCALE	N/A
REV		SHEET	3 OF 17

1961 LONGLEAF BLVD.
 LAKE WALKER, FL 33866
 (866) 794-0900

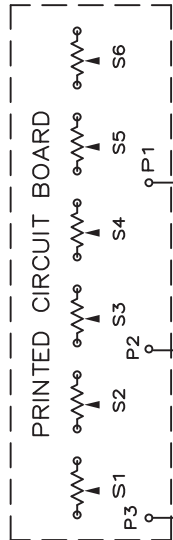
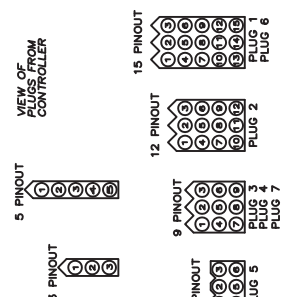
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LEGEND

- PL1 - MAIN PLUG - 10-PIN SIDE (15)
- PL2 - DRIVE CIRCUIT BOARD PLUG (12)
- PL3 - DRIVE SPEED BOARD PLUG (9)
- PL4 - PLC INPUT PLUG - 10-PIN SIDE (9)
- PL5 - PLC INPUT PLUG - 7-PIN SIDE (6)
- PL6 - MAIN PLUG - 7-PIN SIDE (15)
- PL7 - DC CLEANER SPEED BOARD PLUG (9)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 - TERMINAL BLOCK 5 (HANDLE)
- PP1 - POWER INLET PLUG
- C1 - HEAD DRIVE MOTOR CAPACITOR
- C2 - DIL PUMP MOTOR CAPACITOR
- CB1 - CIRCUIT BREAKER (15A-115V)(10A-230V)
- CB2 - VACUUM CIRCUIT BREAKER (6A - 230V)
- CR1 - FORWARD DRIVE RELAY (LY3)
- CR2 - REVERSE DRIVE RELAY (LY3)
- CR3 - BRUSH LIFT MOTOR RELAY
- CR4 - SQUEEGEE LIFT MOTOR RELAY
- CR5 - BUUSTER UNWIND MOTOR RELAY
- CR6 - BUUSTER WINDUP MOTOR RELAY
- CR7 - CLEANER MOTOR RELAY (LY2 24VDC)
- CR8 - VACUUM RELAY (LY2 24VDC)
- CR9 - DIL HEAD REVERSING RELAY (LY2 24VDC)
- CR10 - DIL HEAD POWER RELAY (LY2 24VDC)
- CR11 - BUFFER BRUSH MOTOR CONTACTOR
- CR12 - CLEANER PUMP REVERSE RELAY
- SR1 - SPEED RELAY 1 (PCB)
- SR2 - SPEED RELAY 2 (PCB)
- SR3 - SPEED RELAY 3 (PCB)
- SR4 - SPEED RELAY 4 (PCB)

- FU1 - PLC INPUT POWER (0.5A - 115V) (500mA - 230V)
- FU2 - PC OUTPUT COMMON (0.5A - 115V) (6.3A - 230V)
- FU3 - DRIVE MOTOR BOARD L1 (4A - 115V) (4A - 230V)
- FU4 - DRIVE MOTOR BOARD L2 (4A - 115V) (4A - 230V)
- FU5 - DIL PUMP MOTOR (0.75A - 115V) (315mA - 230V)
- FU6 - CLEANER MOTOR (4A - 115V) (1.6A - 230V)
- FU7 - VACUUM MOTOR (10A - 115V)
- FU8 - PC RELAY COMMON (4A - 115V) (4A - 230V)

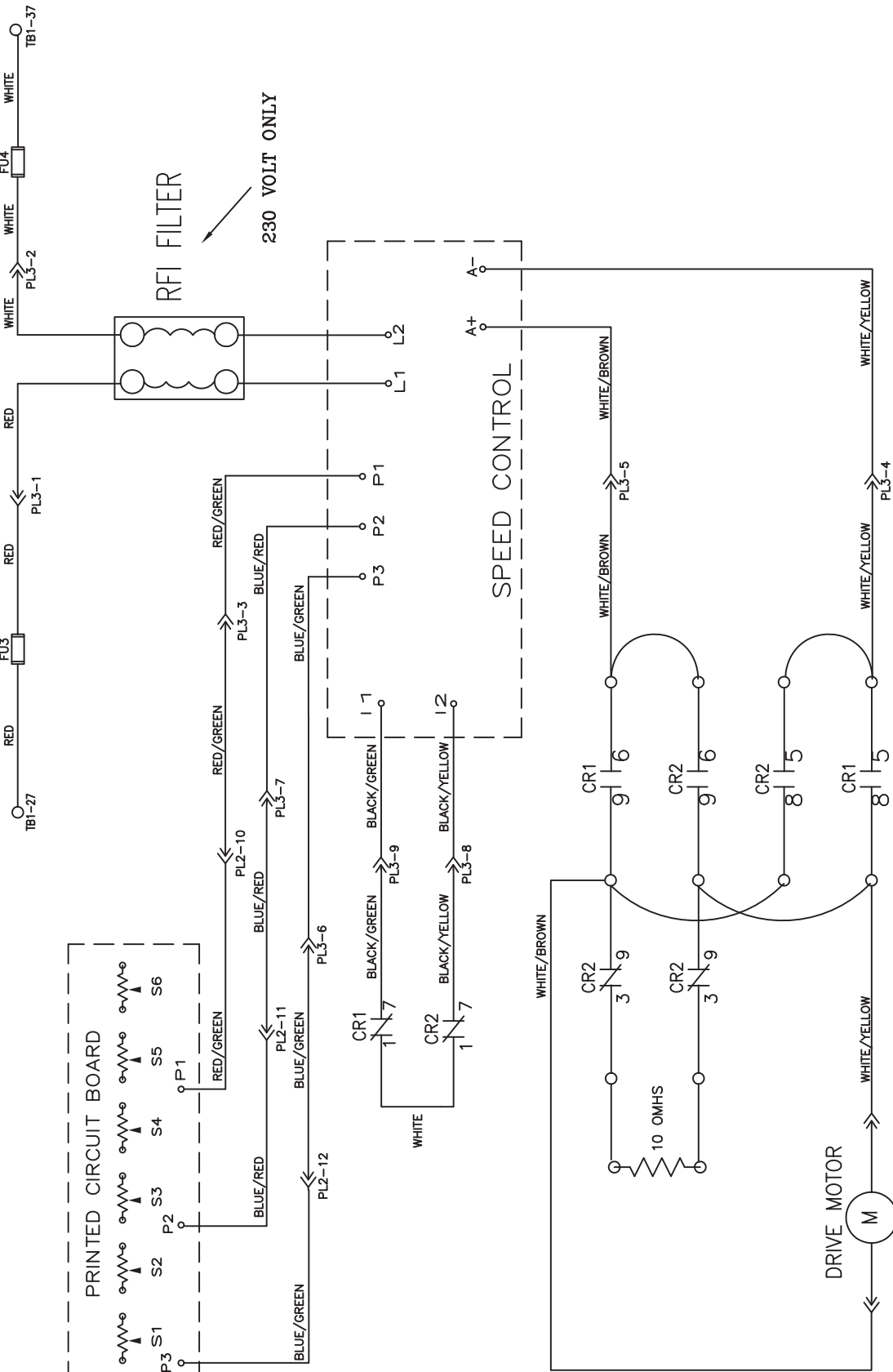


RFI FILTER

230 VOLT ONLY

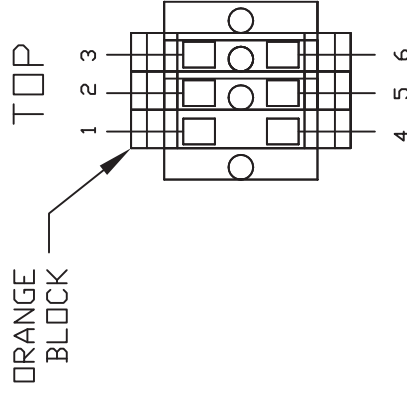
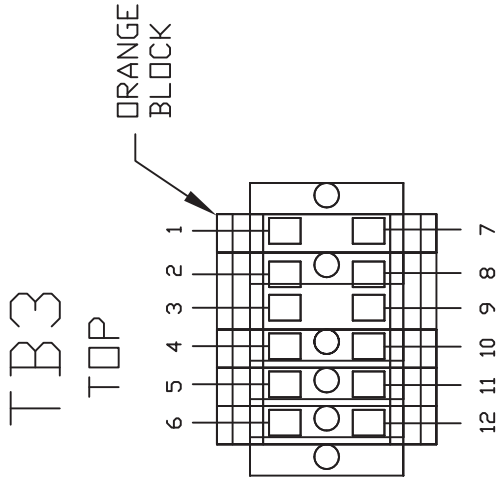
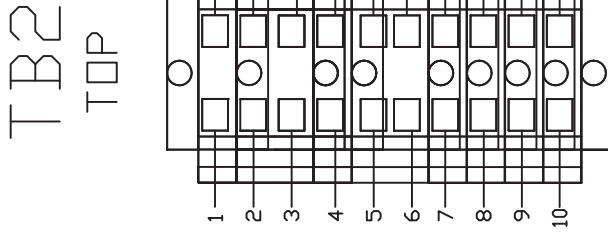
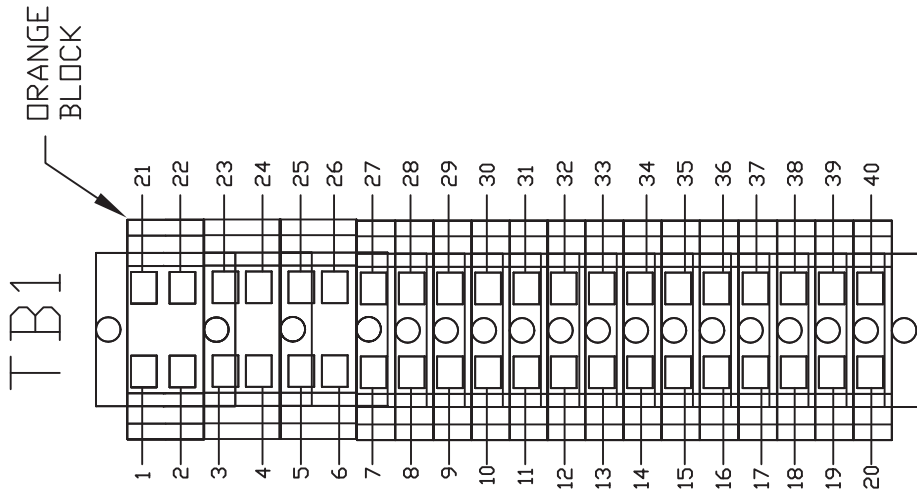
SPEED CONTROL

DRIVE MOTOR



REV	LTR	DATE	DESCRIPTION
A		02/25/14	92 PROGRAM WIRING UPDATE E/C# 14130

MATERIAL		DESCRIPTION	
N/A		KEGEL	SPEED CONTROL SCHEMATIC
		KUSTODIAN PLUS MODEL B	DO NOT SCALE DRAWING
DRAWN BY	DATE	REV DATE	SIZE / MACHINE PART NUMBER
SLS	06/23/11		C N/A ALL 17-51XX MODELS
APPROVED:		HFG	SCALE N/A
DOC	A		SHEET 4 OF 17



LEGEND

- PL1 - MAIN PLUG - 10-PIN SIDE (15)
- PL2 - DRIVE CIRCUIT BOARD PLUG (12)
- PL3 - DRIVE SPEED BOARD PLUG (9)
- PL4 - PLC INPUT PLUG - 10-PIN SIDE (9)
- PL5 - PLC INPUT PLUG - 7-PIN SIDE (6)
- PL6 - MAIN PLUG - 10-PIN SIDE (15)
- PL7 - DC CLEANER SPEED BOARD PLUG (9)
- TB1 - TERMINAL BLOCK 1 (MAIN)
- TB2 - TERMINAL BLOCK 2 (10-PIN SIDE)
- TB3 - TERMINAL BLOCK 3 (7-PIN SIDE)
- TB4 -
- TB5 - TERMINAL BLOCK 5 (HANDLE)
- PP1 - POWER INLET PLUG
- C1 - HEAD DRIVE MOTOR CAPACITOR
- C2 - DIL PUMP MOTOR CAPACITOR
- CB1 - CIRCUIT BREAKER (15A-115V)(10A-230V)
- CB2 - VACUUM CIRCUIT BREAKER (8A - 230V)

- CR1 - FORWARD DRIVE RELAY (LY3)
- CR2 - REVERSE DRIVE RELAY (LY3)
- CR3 - BRUSH LIFT MOTOR RELAY
- CR4 - SQUEEGEE LIFT MOTOR RELAY
- CR5 - DUSTER UNWIND MOTOR RELAY
- CR6 - DUSTER WINDUP MOTOR RELAY
- CR7 - CLEANER MOTOR RELAY (LY2 24VDC)
- CR8 - VACUUM RELAY (LY2 24VDC)
- CR9 - DIL HEAD REVERSE RELAY (LY2 24VDC)
- CR10 - DIL HEAD PUMP MOTOR CONTACTOR
- CR11 - BUFFER PUMP REVERSE RELAY
- SR1 - SPEED RELAY 1 (PCB)
- SR2 - SPEED RELAY 2 (PCB)
- SR3 - SPEED RELAY 3 (PCB)
- SR4 - SPEED RELAY 4 (PCB)

- FU1 - PLC INPUT POWER
- FU2 - PC OUTPUT COMMON - 230V)
- FU3 - (0.5A - 115V) (6.3A - 230V)
- FU4 - DRIVE MOTOR BOARD L1
- FU5 - DRIVE MOTOR BOARD L2
- FU6 - (0.75A - 115V) (315mA - 230V)
- FU7 - CLEANER MOTOR
- FU8 - (4A - 115V) (1.6A - 230V)
- FU9 - VACUUM MOTOR
- FU10 - (0A - 115V)
- FU11 - PC RELAY COMMON
- FU12 - (4A - 115V) (4A - 230V)



REV	LTR	DATE	DESCRIPTION
A		02/25/14	9Z PROGRAM WIRING UPDATE E/C# 14130

MATERIAL	DESCRIPTION
NA	KEGEL TERMINAL BLOCK LAYOUT

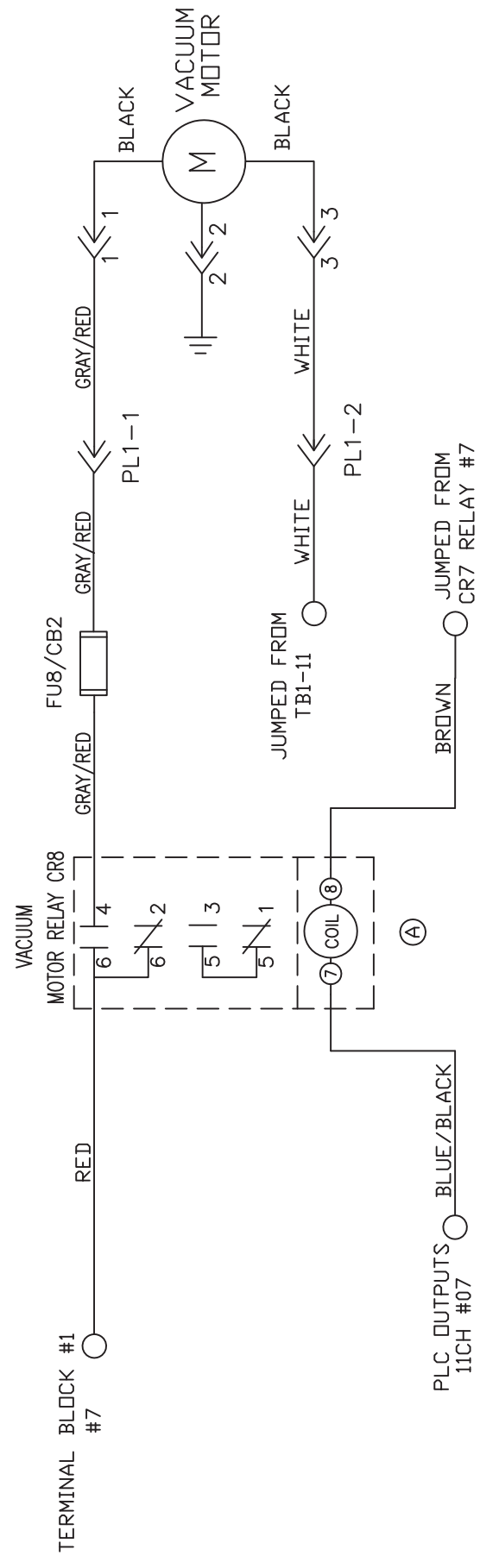
DRAWN BY	DATE	SIZE	QTY/MACHINE PART NUMBER
SLS	06/23/11	C	DO NOT SCALE DRAWING

REV	BY	DATE	SCALE	N/A	SHEET	OF
1	A	02/25/14	N/A		5	17

1981 LONGLEAF BLVD.
LAKE WALKER, FL 33669
(863) 734-0200

REV LTR	DATE	DESCRIPTION
A	02/25/14	9Z PROGRAM WIRING UPDATE E/C# 14130

KEGEL P/N
 FU8-115V-10A 154-1273
 CB2-230V-8A 153-1810



MATERIAL	N/A	
DESCRIPTION	VACUUM MOTOR WIRING KUSTODIAN PLUS MODEL B DO NOT SCALE DRAWING	
DRAWN BY	DATE	1951 LONGLEAF BLVD. LAKE WALES, FL 33869 (888) 734-0200
SLS	06/24/11	
APPROVED:	REV DATE	
HFG	02/25/14	
SIZE	QTY/MACHINE	PART NUMBER
A	N/A	ALL 17-51XX MODELS
SCALE	N/A	SHEET 6 OF 17

TOLERANCES - U.O.S.
 3 DECIMAL = ±.003
 2 DECIMAL = ±.010
 1 DECIMAL = ±.030

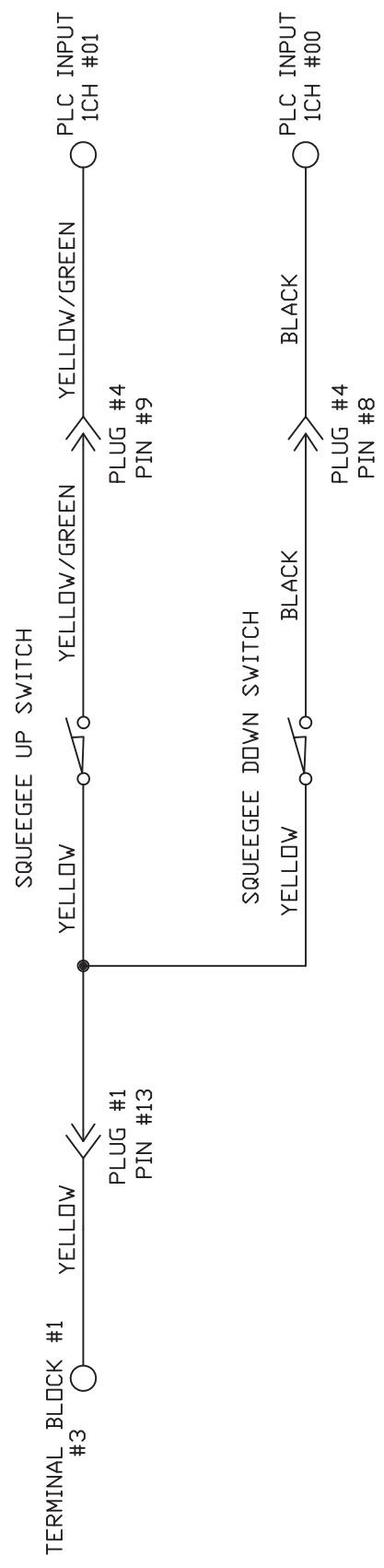
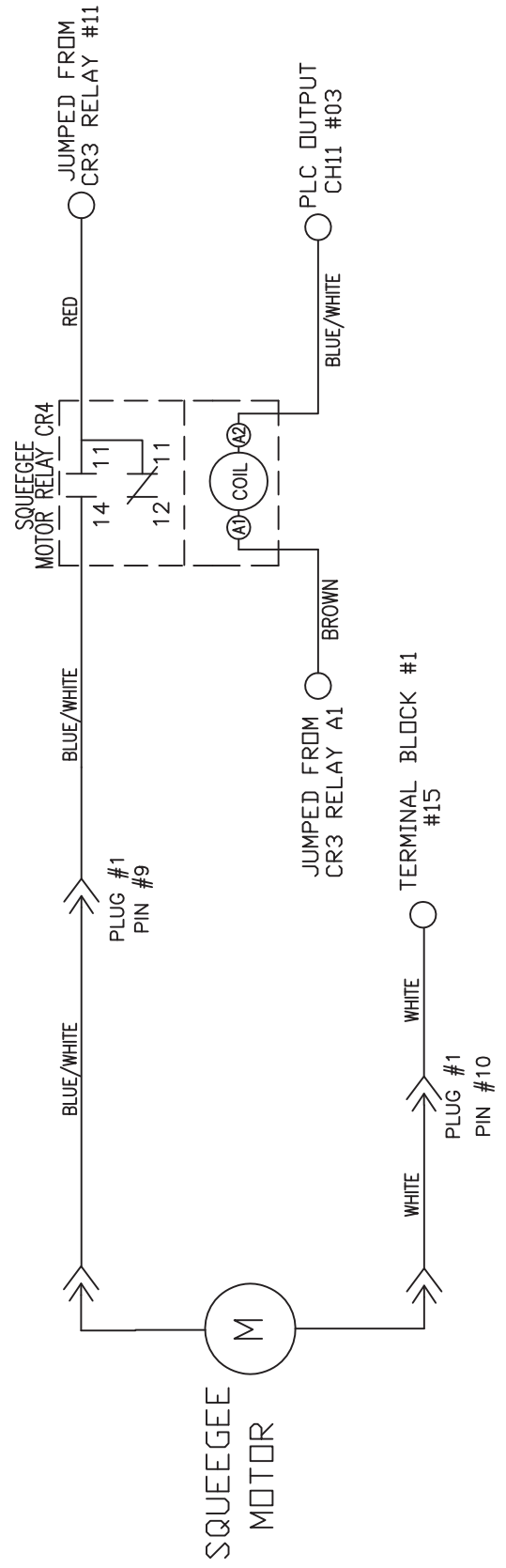
4 3 2 1

D C B A

114

4 3 2 1

REV	LTR	DATE	DESCRIPTION



MATERIAL		N/A	
DRAWN BY	DATE	1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
SLS	06/24/11	THE KEGEL CO. (866) 734-0200	
APPROVED:	REV DATE	DESCRIPTION	
HFG		SQUEEGEE MOTOR & SWITCH WIRING	
DOC		KUSTODIAN PLUS MODEL B	
REV		DO NOT SCALE DRAWING	
		SIZE	QTY/MACHINE PART NUMBER
		A	N/A
		SCALE	N/A
			ALL 17-51XX MODELS
		SHEET	7 OF 17

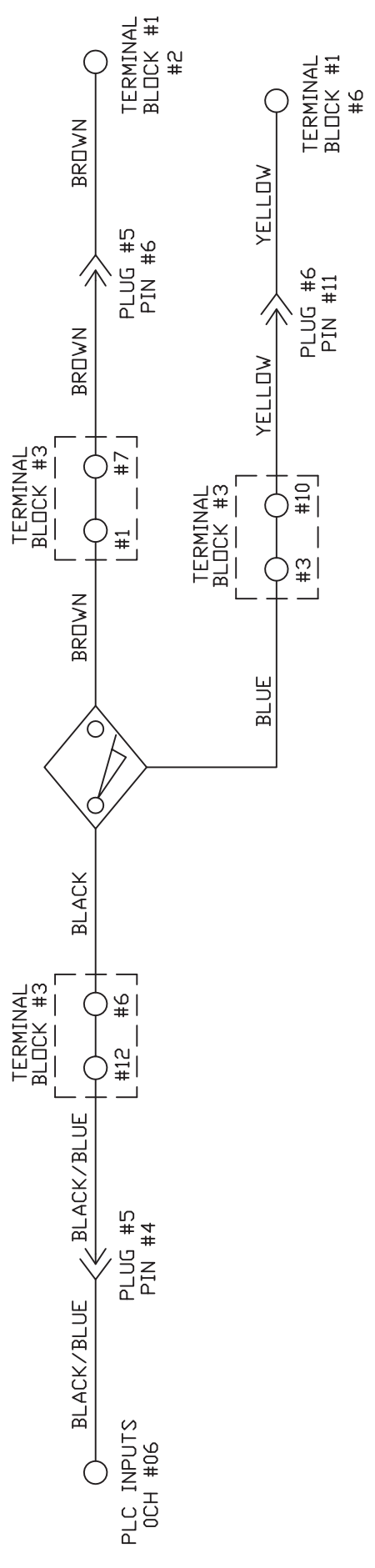
TOLERANCES - U.O.S.
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 2 DECIMAL = ±.010
 1 DECIMAL = ±.030

4 3 2 1

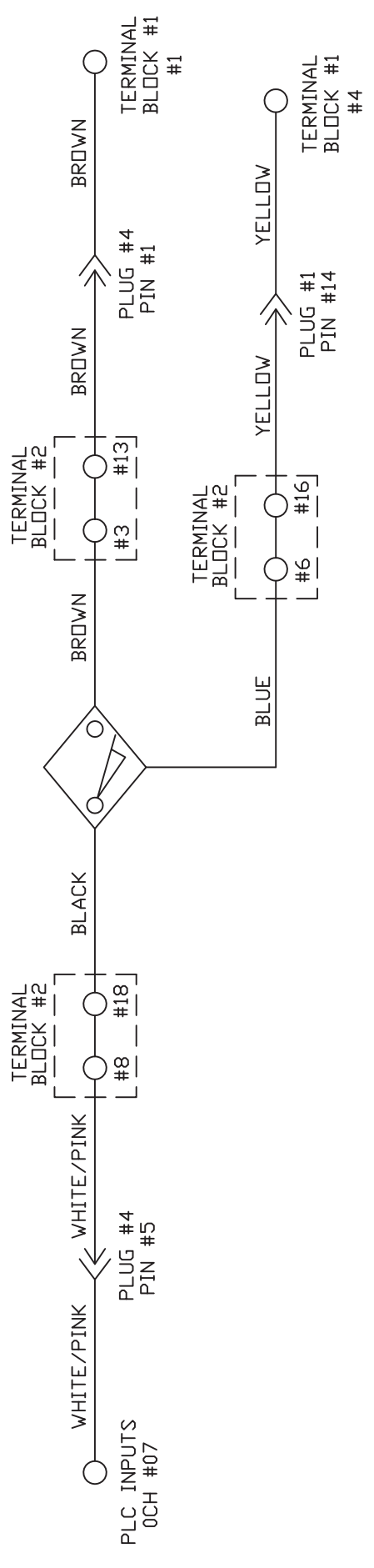
4 3 2 1

REV LTR	DATE	DESCRIPTION

SPEED TACH PROX



LANE DISTANCE PROX



MATERIAL	N/A	THE KEGEL CO.	1951 LONGLEAF BLVD. LAKE WALES, FL 33869
DESCRIPTION	SPEED TACH / LANE DISTANCE WIRING		
DO NOT SCALE DRAWING	KUSTODIAN PLUS MODEL B		
SIZE	QTY/MACHINE	PART NUMBER	
A	N/A	ALL 17-51XX MODELS	
SCALE	N/A	SHEET	8 OF 17

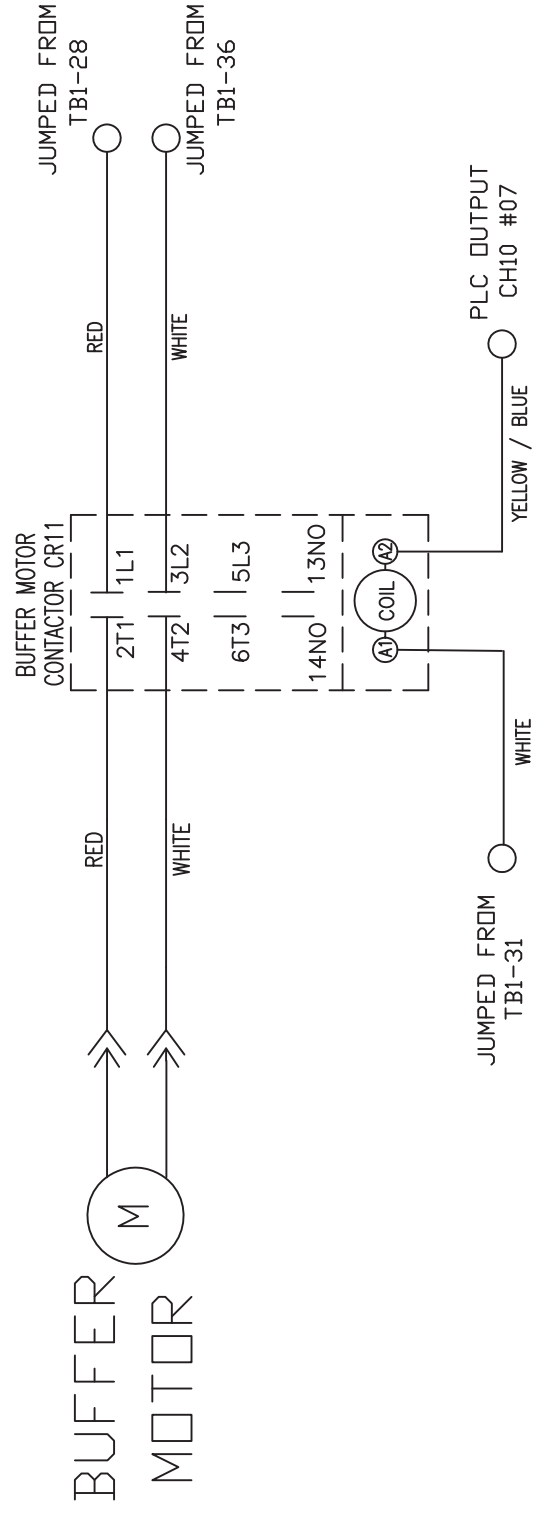
DRAWN BY	DATE
SLS	06/24/11
APPROVED:	REV DATE
HFG	
DOC REV	

TOLERANCES - U.O.S.
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 2 DECIMAL = ±.010
 1 DECIMAL = ±.030

4 3 2 1

4 3 2 1

REV LTR	DATE	DESCRIPTION



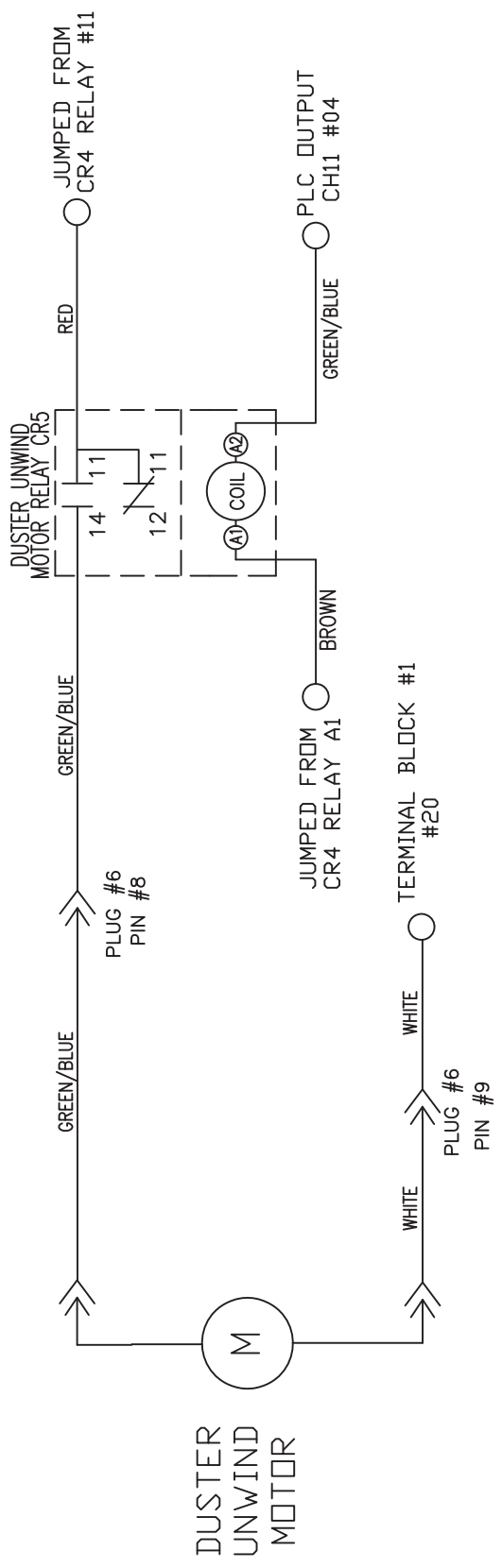
MATERIAL N/A	THE KEGEL CO. 1951 LONGLEAF BLVD. LAKE WALES, FL 33869 (888) 734-0200	
	DESCRIPTION BUFFER MOTOR WIRING KUSTODIAN PLUS MODEL B DO NOT SCALE DRAWING	
DRAWN BY SLS	DATE 06/24/11	SIZE A
APPROVED: HFG	REV DATE	QTY/MACHINE PART NUMBER N/A
DOC REV	SCALE N/A	ALL 17-51XX MODELS SHEET 10 OF 17

TOLERANCES - U.O.S.
 3 DECIMAL = ±.003
 2 DECIMAL = ±.010
 1 DECIMAL = ±.030

4 3 2 1

4 3 2 1

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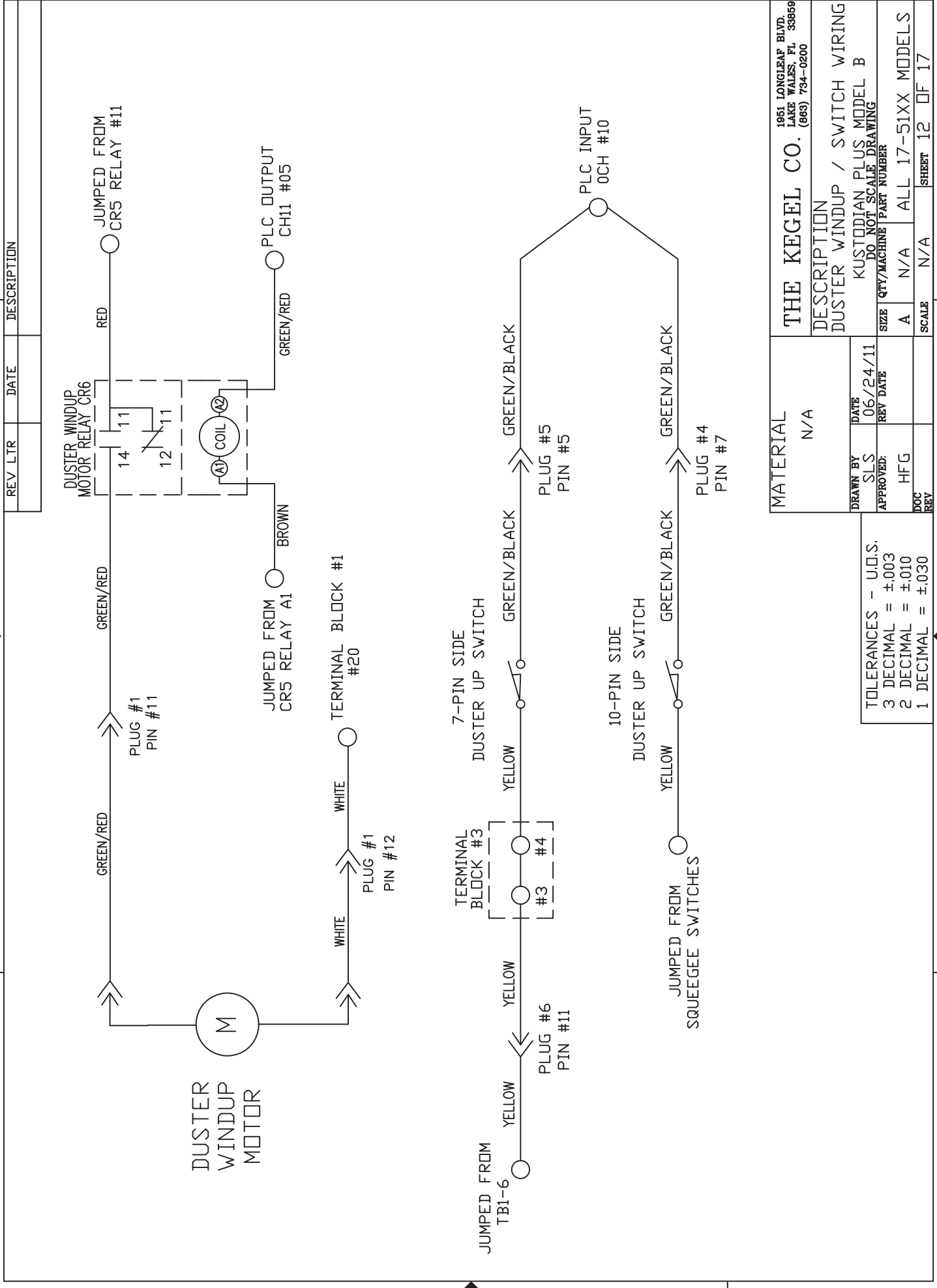


MATERIAL		1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
N/A		THE KEGEL CO. (888) 734-0200	
DRAWN BY	DATE	DESCRIPTION	
SLS	06/24/11	DUSTER UNWIND MOTOR WIRING	
APPROVED:	REV DATE	KUSTODIAN PLUS MODEL B	
HFG		DO NOT SCALE DRAWING	
DOC	REV	SIZE	QTY/MACHINE PART NUMBER
		A	N/A
		SCALE	N/A
			ALL 17-51XX MODELS
			SHEET 11 OF 17

TOLERANCES - U.O.S.
 3 DECIMAL = ±.003
 2 DECIMAL = ±.010
 1 DECIMAL = ±.030

4 3 2 1

4 3 2 1



REV	LTR	DATE	DESCRIPTION

MATERIAL		N/A	
DRAWN BY	DATE	1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
SLS	06/24/11	THE KEGEL CO. (868) 734-0200	
APPROVED:	REV DATE	DESCRIPTION	
HFG		DUSTER WINDUP / SWITCH WIRING	
DOC		KUSTODIAN PLUS MODEL B	
REV		DO NOT SCALE DRAWING	
		SIZE	QTY/MACHINE PART NUMBER
		A	N/A ALL 17-51XX MODELS
		SCALE	N/A
		SHEET 12 OF 17	

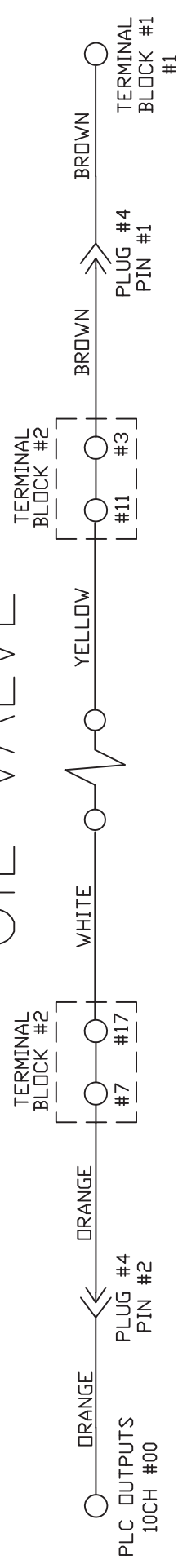
TOLERANCES - U.O.S.
 3 DECIMAL = ±.003
 2 DECIMAL = ±.010
 1 DECIMAL = ±.030

1 2 3 4

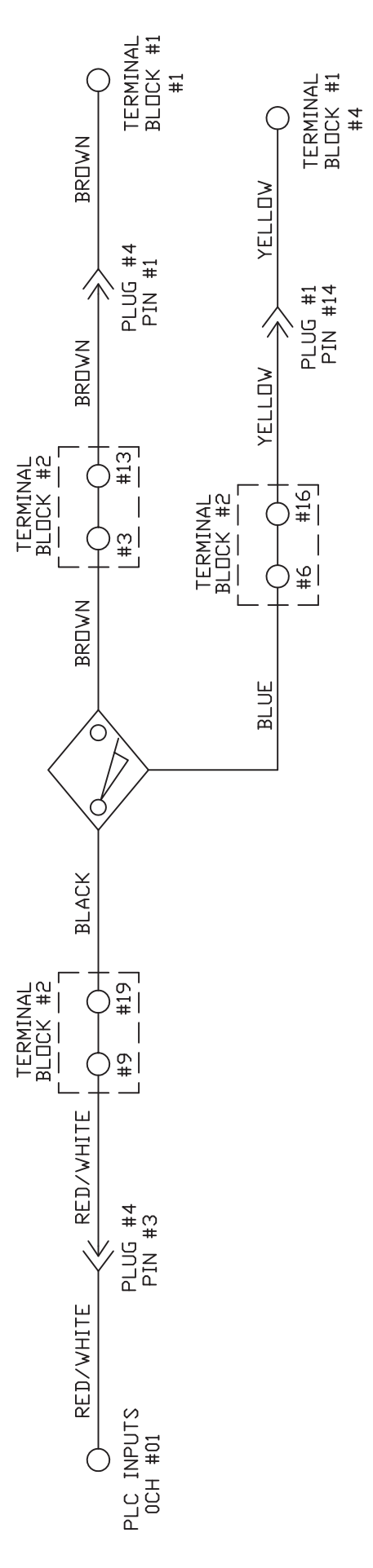
4 3 2 1

REV LTR	DATE	DESCRIPTION

OIL VALVE



BOARD PROX



MATERIAL		THE KEGEL CO. (869) 734-0200 1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
DESCRIPTION	OIL VALVE & BOARD PROX WIRING		
DATE	06/24/11		
REV DATE			
KUSTODIAN PLUS MODEL B DO NOT SCALE DRAWING			
SIZE	QTY/MACHINE	PART NUMBER	
A	N/A	ALL 17-51XX MODELS	
SCALE	N/A	SHEET 13	OF 17

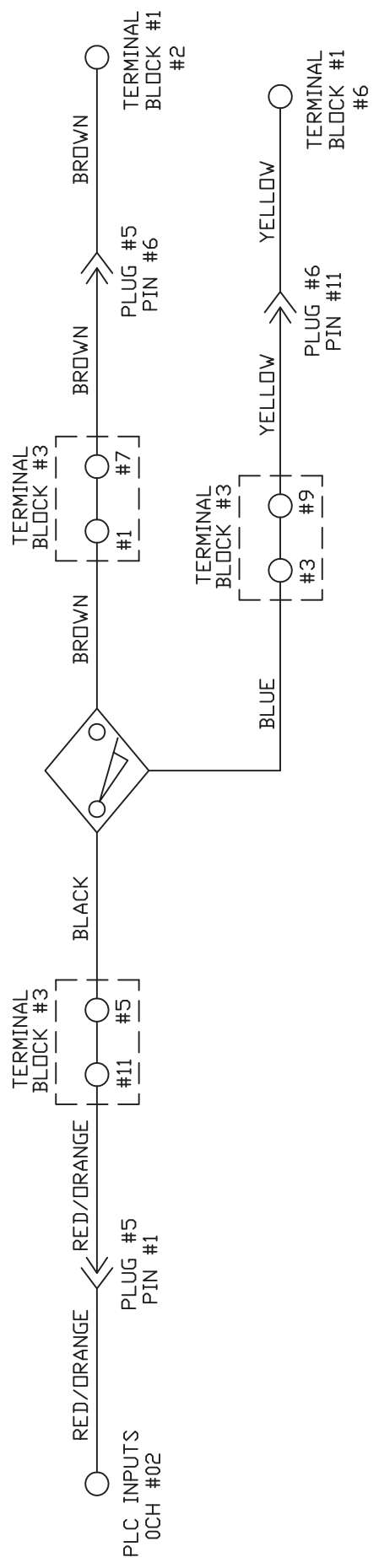
TOLERANCES - U.O.S.	
3	DECIMAL = ±.003
2	DECIMAL = ±.010
1	DECIMAL = ±.030

1 2 3 4

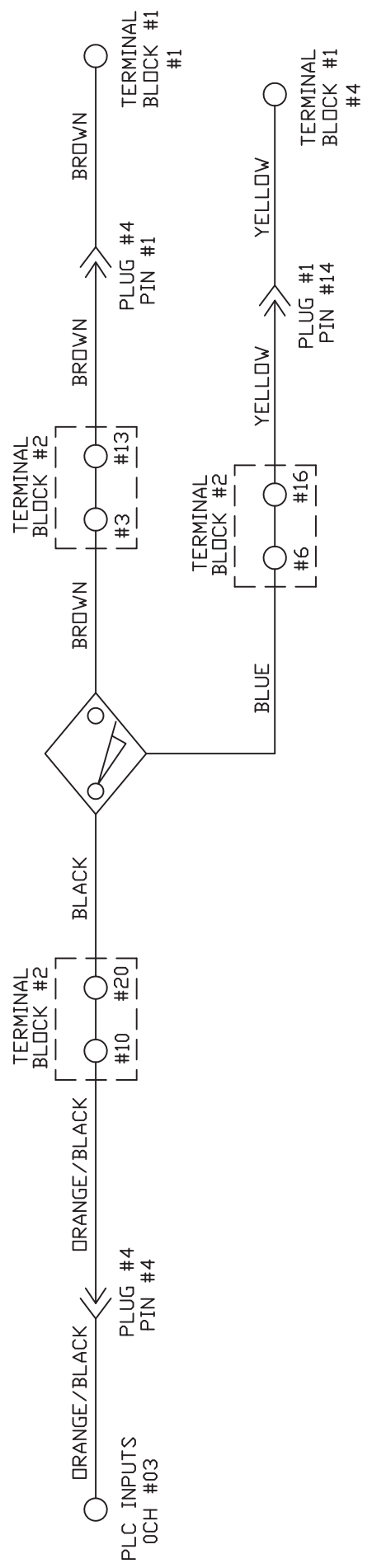
4 | 3 | 2 | 1

REV LTR	DATE	DESCRIPTION

L-R HEAD PROX



R-L HEAD PROX



MATERIAL N/A		1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
DESCRIPTION L-R & R-L PROX WIRING			
KUSTODIAN PLUS MODEL B DO NOT SCALE DRAWING			
DRAWN BY SLS	DATE 06/24/11	SIZE A	QTY/MACHINE PART NUMBER N/A
APPROVED: HFG	REV DATE	SCALE N/A	SHEET 14 OF 17
DOC REV			

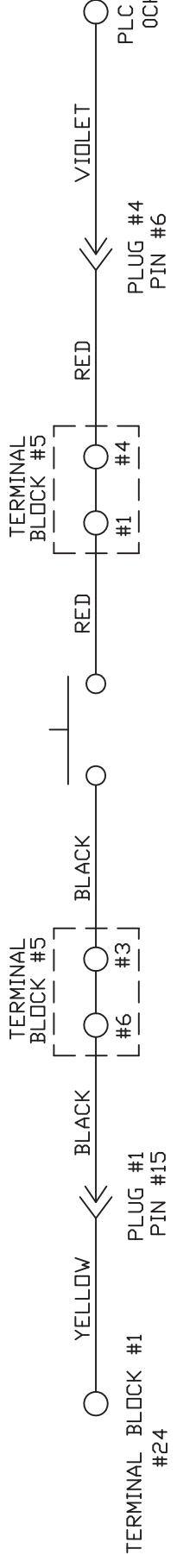
TOLERANCES - U.O.S.	
3	DECIMAL = ±.003
2	DECIMAL = ±.010
1	DECIMAL = ±.030

4 | 3 | 2 | 1

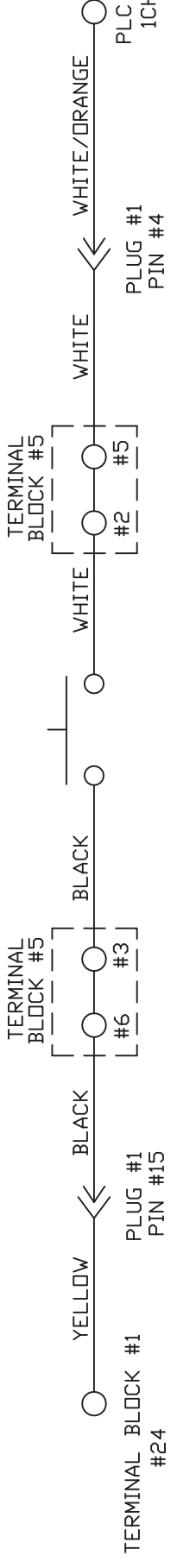
4 3 2 1

REV LTR	DATE	DESCRIPTION

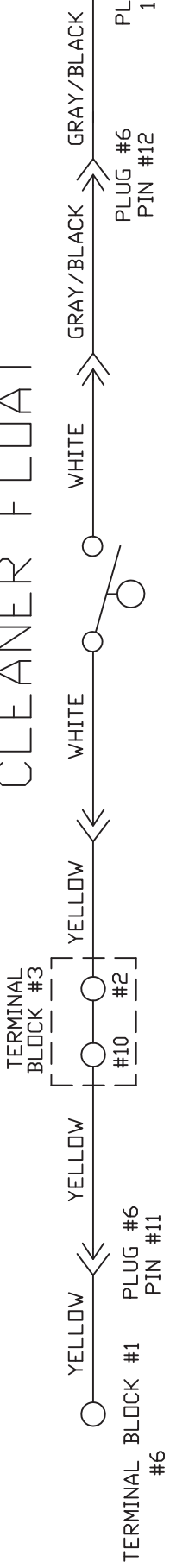
START BUTTON



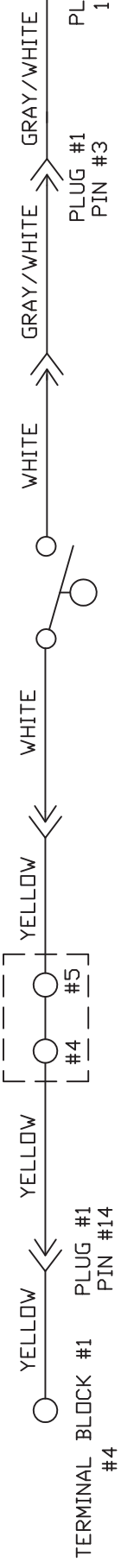
PRESOAK BUTTON



CLEANER FLOAT



OIL FLOAT

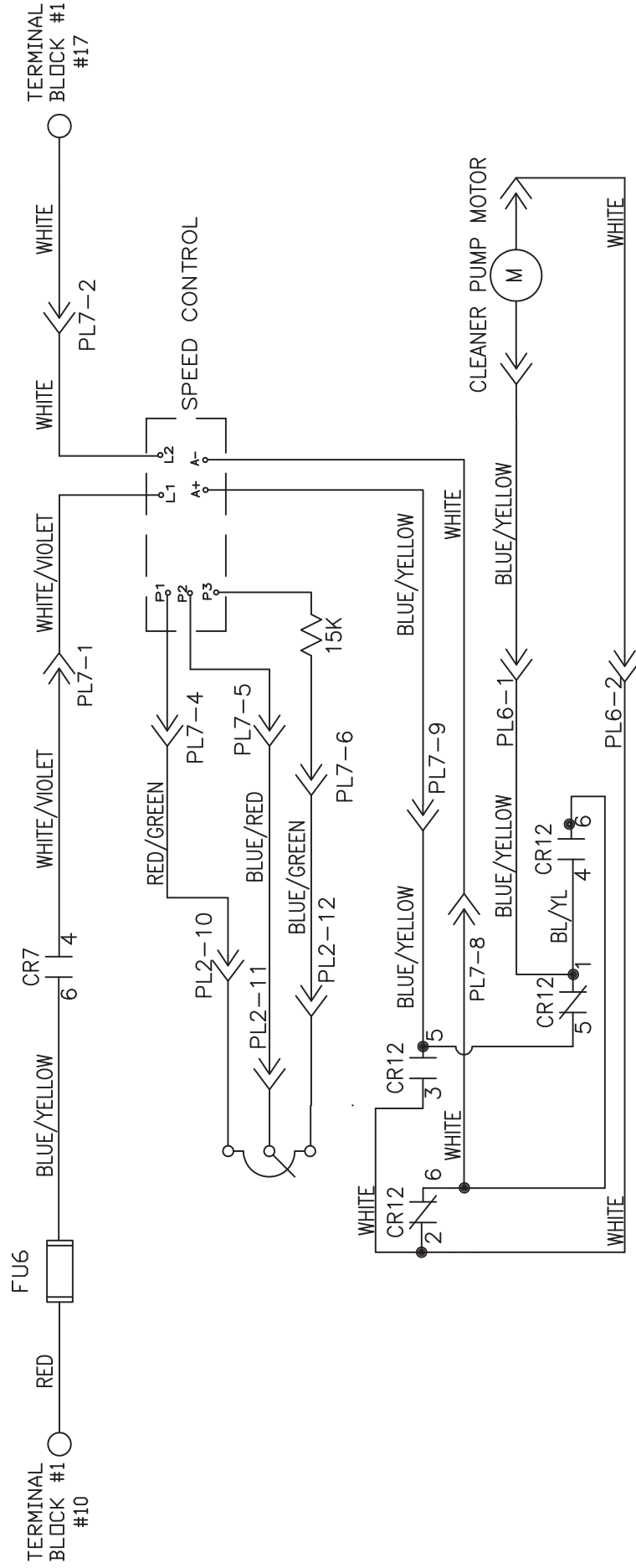


MATERIAL		1951 LONGLEAF BLVD. LAKE WALES, FL 33869	
N/A		THE KEGEL CO. (869) 734-0200	
DRAWN BY	DATE	DESCRIPTION	
SLS	06/27/11	START BUTTON, PRESOAK BUTTON, CLEANER FLOAT & OIL FLOAT	
APPROVED:	REV DATE	DO NOT SCALE DRAWING	
HFG		SIZE	QTY/MACHINE PART NUMBER
DOC		A	N/A
REV		SCALE	N/A
		ALL	17-51XX MODELS
		SHEET	15 OF 17

TOLERANCES - U.O.S.	
3	DECIMAL = ±.003
2	DECIMAL = ±.010
1	DECIMAL = ±.030

4 3 2 1

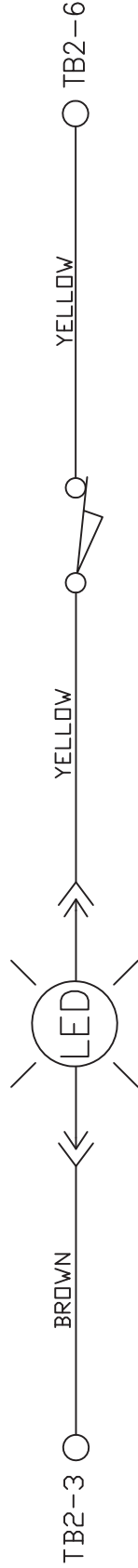
KEGEL P/N
FU6-115V-4A 154-1268
FU6-230V-1.6A 154-1265E



THE KEGEL CO. 1951 LONGLEAF BLVD. LAKE WALES, FL 33869 (888) 734-0200	
MATERIAL	N/A
DESCRIPTION	CLEANER SPEED CONTROL WIRING
KUSTODIAN PLUS MODEL B DO NOT SCALE DRAWING	
DRAWN BY	SLS
DATE	06/27/11
APPROVED:	HFG
REV	
SIZE	A
QTY/MACHINE	N/A
SCALE	N/A
ALL 17-51XX MODELS	
SHEET	16 OF 17

TOLERANCES - U.O.S.
3 DECIMAL = ±.003
2 DECIMAL = ±.010
1 DECIMAL = ±.030

LED TANK LIGHT SWITCH



MATERIAL N/A		THE KEGEL CO. 1951 LONGLEAF BLVD. LAKE WALES, FL 33869 (888) 734-0200	
DRAWN BY SLS	DATE 06/27/11	DESCRIPTION LED TANK LIGHT WIRING	
APPROVED: HFG	REV DATE	KUSTODIAN PLUS MODEL B DO NOT SCALE DRAWING	
DOC REV		SIZE A	QTY/MACHINE PART NUMBER N/A
		SCALE N/A	ALL 17-51XX MODELS SHEET 17 OF 17

TOLERANCES - U.D.S.	
3 DECIMAL = ±.003	
2 DECIMAL = ±.010	
1 DECIMAL = ±.030	

4 3 2 1

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Attaching Parts List

The following pages will help you find fasteners and other attaching parts to help you maintain your lane machine. If you require help finding a part please call (800) 280-2695 or (863) 734-0200.

Visit www.kegel.net for the latest upgrades, parts lists and more. Parts are subject to change.

ATTACHING PARTS LIST

Rev 11:12

FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
1	1	154-8348-2915	SPLASH GUARD ASSEMBLY	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2603	HHCS - 1/4-20 X 3/4	2
1	2	154-1250A	EMERGENCY STOP CIRCUIT BREAKER ASSEMBLY	1
		ATTACHING PARTS		
		153-2001	FLAT WASHER - #6	2
		153-2018	LOCKNUT - 6-32 (NYLOK)	2
		153-2084	MS PHILLIPS - 6-32 X 1	2
		154-1251A	BREAKER FOR E-STOP	2
1	3	154-8806	KEYPAD ASSY	1
		ATTACHING PARTS		
		154-0801	KEYBOARD DECAL - KUSTODIAN	1
1	4	158-1613	PRESSURE GAUGE (0-60 PSI) - 1-1/2 DIA	1
		USE TEFLON TAPE		
		ATTACHING PARTS		
		154-0257	FEMALE CONNECTOR - 1/4" TUBE x 1/8 FPT	1
1	5	154-6221	MOUNTING ANGLE - HEAVY CASTER (3x3.625)	2
		ATTACHING PARTS		
		153-2006	FLAT WASHER - 3/8	4
		153-2016	LOCK WASHER - 3/8	2
		153-2025	HEX NUT - 3/8-16	2
		153-2067	HHCS - 3/8-16 x 1-1/4	2
1	6	154-8893	LANE TO LANE HANDLE ASSEMBLY	1
		ATTACHING PARTS		
		153-2006	FLAT WASHER - 3/8	4
		153-2027	JAM NUT - 3/8-16	2
		153-2815	HHCS - 3/8-16 X 2-1/4 (GRADE 8)	2
		153-6851	UHMW HANDLE SPACER	2
		153-2021A	LOCKNUT - 3/8-16 (STOVER)	1
1	7	154-8805	VACUUM MOTOR ASSEMBLY	1
		154-8805E	VACUUM MOTOR ASSEMBLY	1
		ATTACHING PARTS		
		153-2830	HEX HEAD SELF TAP #10 X 5/8 SCREW	4
1	8	154-8625	VACUUM MOTOR HOUSING - ALUMINUM	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	4
		153-2014	LOCK WASHER - 1/4	2
		153-2023	HEX NUT - 1/4-20	2
		153-2052	HHCS - 1/4-20 X 7/8	2
1	9	153-8403	BRAKE MOTOR ASSEMBLY (7RPM - 115V)	2
		153-8803H	BRAKE MOTOR ASSEMBLY (7RPM - 230V 50Hz)	2
		ATTACHING PARTS		
		153-2604	MS FLAT PHILLIPS - 10-32 X 1/2	2
		153-2091	MS PHILLIPS - 10-32 X 3/4	6
		153-2003	FLAT WASHER - #10	6
		153-2013	LOCK WASHER - #10	6
1	10	153-8824	PVC TAKE-UP REEL ASSEMBLY (44 3/4)	1
1	11	153-6029	MOMENTARY WHEEL HOUSING	2
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	4
		153-2015	LOCK WASHER - 5/16	2
		153-2024	HEX NUT - 5/16-18	2
		153-2061	HHCS - 5/16-18x1	2
1	12	153-6437	PUSH BUTTON MOUNTING PLATE	1
		ATTACHING PARTS		
		153-2013	#10 LOCK WASHER	2
		153-2086A	MS PHILLIPS - 8-32 X 3/8	2

FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
1	13	158-6418	GUARD - LEFT SIDE (MOLDED)	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	5
		153-2010	LOCK WASHER - #10	5
		153-2086	MS PHILLIPS - 8-32 X 5/8	3
		153-2087	MS PHILLIPS - 8-32 X 3/4	2
1	14	158-6419	GUARD - RIGHT SIDE (MOLDED)	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	5
		153-2010	LOCK WASHER - #10	5
		153-2086	MS PHILLIPS - 8-32 X 5/8	2
		153-2087	MS PHILLIPS - 8-32 X 3/4	3
1	15	158-8434	RECOVERY TANK ASSEMBLY - 10 GALLON	1
1	16	153-8311	MOMENTARY WHEEL ASSEMBLY (URETHANE)	2
		ATTACHING PARTS		
		153-2049	SET SCREW - 8-32 X 3/16	1
		153-6006	MOMENTARY LANE ROLLER SHAFT	1
1	17	154-1603	MICROSWITCH - WITHOUT ROLLER (LARGE)	
		ATTACHING PARTS		
		153-2084	MS PHILLIPS - 6-32 X 1	2
		153-2018	LOCKNUT - 6-32 (NYLOK)	2
1	18	154-8616A	BUFFER MOTOR ASSEMBLY (115V-AC ONLY)	1 on 115V
1	18	154-8616E	BUFFER MOTOR ASSEMBLY (230V-AC ONLY)	1 on 230V
		ATTACHING PARTS		
		154-9615	BUFFER BELT	1
		153-2006	FLAT WASHER - 3/8	4
		153-2016	LOCK WASHER - 3/8	4
		153-2066	HHCS - 3/8-16 X 1	4
1	19	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)	5
		ATTACHING PARTS		
		153-2216A	MS PHILLIPS - 4-40 X 7/8	2
1	20	154-6872	HEAD DRIVE MOUNT BAR	3
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2052	HHCS - 1/4-20 X 7/8	2
1	21	154-6357	LATCH FOR SPLASH GUARD	1
		ATTACHING PARTS		
		153-2003	FLAT WASHER - #10	1
		153-2207	MS PHILLIPS - 10-24 X 1-1/4	1
		153-2208	LOCKNUT - 10-24 (NYLOK)	1
		153-2510	NYLON WASHER - 1/4 (0.060)	1
1	22	154-6356	MOUNT BLOCK FOR LATCH	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	2
		153-2013	LOCK WASHER - #10	2
		153-2087	MS PHILLIPS - 8-32 X 3/4	2
2	1	153-7002AA	LANE DISTANCE COUNTER WHEEL-TREADED (2")	2
		ATTACHING PARTS		
		153-2050	SET SCREW - 1/4-28 X 3/8	2
2	2	154-8619	PILLOWBLOCK-LANE DISTANCE (LEFT-FLANGED)	1
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2
		153-2602	HHCS - 5/16-18 X 3/4	2
2	3	153-6417	GUIDE ROLLER MOUNT BLOCK	2
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2

ATTACHING PARTS LIST

Rev 11:12

FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		153-2061	HHCS - 5/16-18 X 1	2
2	4	154-6881	RECOVERY TANK SUPPORT BAR	2
		ATTACHING PARTS		
		153-2806	FLAT HEAD PHILLIPS - 8-32 X 5/8	2
2	5	154-6651	FRONT GUIDE ROLLER MOUNT	2
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2023	HEX NUT - 1/4-20	2
		153-2052A	BHSS - 1/4-20 X 7/8	2
2	6	153-2401	SPRING - 0.54 OD X 0.75 (GUIDE ROLLER)	4
2	7	154-0866	TRANSFER BRUSH ASSEMBLY	1
2	8	153-0001	TRANSPORT CASTER - 3" HEAVY DUTY (3/8")	6
		ATTACHING PARTS		
		153-2006	FLAT WASHER - 3/8	2
		153-2016	LOCK WASHER - 3/8	1
		153-2025	HEX NUT - 3/8-16	1
		153-2067	HHCS - 3/8-16 X 1-1/4	1
2	9	153-8839	CUSHION ROLLER W/PAD (STEEL=44-3/8)	1
2	10	153-0202D	COMPLETE SQUEEGEE ASSEMBLY (2-PIECE BLUE)	1
		153-8204E	SQUEEGEE BLADE REPLACEMENT KIT (BLUE)	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2023	HEX NUT - 1/4-20	2
2	11	158-8435	DRIVE BLOCK PILLOWBLOCK ASSY - 2 INCH	2
		ATTACHING PARTS		
		153-2006	FLAT WASHER - 3/8	2
		153-2016	LOCK WASHER - 3/8	2
		153-2066	HHCS - 3/8-16x1	2
2	12	153-9814	DRIVE CHAIN - (40P33)	1
		ATTACHING PARTS		
		153-9047	40 MASTER LINK	1
2	13	153-9003	SPROCKET	1
2	14	153-7013	URETHANE BLEND LANE DRIVE WHEEL (4")	2
		ATTACHING PARTS		
		153-2819	SET SCREW - 5/16-24 X 3/8 (W/ KNURL)	2
2	15	154-8007	SIDE PLATE PILLOWBLOCK FOR DRIVE SHAFT	2
		ATTACHING PARTS		
		153-2006	FLAT WASHER - 3/8	6
		153-2015	LOCK WASHER - 3/8	4
		153-2024	HEX NUT - 3/8-16	4
		153-2068	HHCS - 3/8-16 X 1-1/2	2
		153-2805A	FHSS - 3/8-16 X 1-1/2	2
2	16	154-6652	GUIDE ROLLER MOUNT BLOCK	2
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2
		153-2061	HHCS - 5/16-18 X 1	2
2	17	153-8410	LANE EDGE GUIDE ROLLER W/BUSHING (1/2")	4
2	18	154-6873	SKID GUIDES	2
		ATTACHING PARTS		
		153-2034	ALUMINUM RIVET (0.187 X 0.450 X 0.375)	2
		153-2035	BLIND RIVET WASHER - 3/16	2
2	19	154-8640	FLANGED BEARING FOR BUFFER BRUSH (3/4" ROTATED)	2

ATTACHING PARTS LIST

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		<i>ATTACHING PARTS</i>		
		153-2009	NYLON FLAT WASHER (3/8 - 0.060)	1
		153-2801	SHOULDER BOLT - 3/8 X 3/8 (5/16-18) BRUSH LIFT	1
2	20	154-8621	PILLOWBLOCK - LANE DISTANCE (RIGHT FLANGE)	1
		<i>ATTACHING PARTS</i>		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2
		153-2602	HHCS - 5/16-18 X 3/4	2
2	21	154-8641	BUFFER BRUSH (BLUE 3-3/4" x 48)	1
		<i>ATTACHING PARTS</i>		
		153-2707	SHCS - 5/16-24 x 3/4	1
		153-2711	FENDER WASHER - 5/16	1
		154-8640	FLANGED BEARING FOR BUFFER BRUSH (3/4" ROTATED)	2
2	22	154-6664	BUFFER BRUSH PULLEY SPACER	1
2	23	154-6820	MAIN DRIVE SHAFT	1
2	24	154-6821	LDS SHAFT	1
		<i>ATTACHING PARTS</i>		
3	1	154-6221	MOUNTING ANGLE - HEAVY DUTY CASTER (3 x 3.625)	2
		<i>ATTACHING PARTS</i>		
		153-2006	FLAT WASHER - 3/8	4
		153-2016	LOCK WASHER - 3/8	2
		153-2025	HEX NUT - 3/8-16	2
		153-2067	HHCS - 3/8-16 x 1-1/4	2
3	2	154-6042	UHMW WHEEL - CORNER GUARD	2
		<i>ATTACHING PARTS</i>		
		153-2004	FLAT WASHER - 1/4	2
		153-2020A	LOCKNUT - 1/4-20 (STOVER)	1
		153-2023	HEX NUT - 1/4-20	1
		153-2053	HHCS - 1/4-20 x 1	1
3	3	153-0001	TRANSPORT CASTER (3" DUAL WHEEL)	6
		<i>ATTACHING PARTS</i>		
		153-2007	FLAT WASHER - 1/2	2
		153-2017	LOCK WASHER - 1/2	1
		153-2026	HEX NUT - 1/2-13	1
		153-2073A	HHCS - 1/2-13 x 1-1/2	1
3	4	153-8207	BRAKE MOTOR ASSEMBLY (25 RPM - 115V)	2 on 115v
		153-8807H	BRAKE MOTOR ASSEMBLY (25 RPM - 230V 50 Hz)	2 on 230v
		<i>ATTACHING PARTS</i>		
		153-2604	MS FLAT PHILLIPS - 10-32 x 1/2	1
		153-2091	MS PHILLIPS - 10-32 X 3/4	3
		153-2003	FLAT WASHER - #10	3
		153-2013	LOCK WASHER - #10	3
3	5	153-2818	HHCS - 3/8-16 x 2-1/2 (GRADE 8)	2
		<i>ATTACHING PARTS</i>		
		153-2006	FLAT WASHER - 3/8	2
		153-2016	LOCK WASHER - 3/8	1
		153-2025	HEX NUT - 3/8-16	1
		153-2027	JAM NUT - 3/8-16	1
		154-0204STK	TYGON TUBING (YELLOW)	INCH
3	6	153-6851	UHMW HANDLE SPACER	2
3	7	154-6041	UHMW HANDLE STOP	2
		<i>ATTACHING PARTS</i>		
		153-2004	FLAT WASHER - 1/4	4
		153-2014	LOCK WASHER - 1/4	2
		153-2023	HEX NUT - 1/4-20	2
		153-2053A	BHSS - 1/4-20 x 1	2
3	8	154-6876	HEAD MOTOR MOUNT BLOCK	1
		<i>ATTACHING PARTS</i>		

FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2052	HHCS - 1/4-20 X 7/8	2
3	9	154-1206	GEARBOX FOR HEAD DRIVE MOTOR (5:1 RATIO)	1
3	10	154-1208	MOTOR CAPACITOR (6.0 Mf)	1
3	10	154-1208B	MOTOR CAPACITOR (1.5 Mf)	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	1
		153-2019	LOCKNUT - 8-32 (NYLOK)	1
		153-2087	MS PHILLIPS - 8-32 X 3/4	1
3	11	153-1823	FLANGED TWISTLOCK INLET - 125V/20A	1
3	11	153-1826	FLANGED TWISTLOCK INLET - 250V/20A	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	3
		153-2019	LOCKNUT - 8-32 (NYLOK)	3
		153-2086	MS PHILLIPS - 8-32 X 5/8	3
3	12	154-6629	SIDE LIFT HANDLE MOUNT	2
		ATTACHING PARTS		
		153-2052	BHSS - 1/4-20 X 7/8	2
		153-2014	LOCK WASHER - 1/4	2
3	13	153-8403	BRAKE MOTOR ASSEMBLY (7 RPM - 115V)	1
3	13	153-8803H	BRAKE MOTOR ASSEMBLY (7 RPM - 230V 50Hz)	1
		ATTACHING PARTS		
		153-2091	MS PHILLIPS - 10-32 X 3/4	4
		153-2003	FLAT WASHER - #10	4
		153-2013	LOCK WASHER - #10	4
3	14	154-8802	SQUEEGEE ADJUSTMENT ARM	2
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2023	HEX NUT - 1/4-20	2
		153-2079	FHMS - 1/4-20 X 1	2
		153-2403	COUNTERSUNK LOCK WASHER - 1/4	2
3	15	153-7002	6" WHEEL ASSEMBLY	2
		ATTACHING PARTS		
		153-2833	WHEEL AXEL - SHOULDER BOLT	2
3	16	154-6717	5 - TOOTH SENSOR DISK - ALUMINUM (3/8 BORE)	1
		ATTACHING PARTS		
		153-2201	SET SCREW - 10-32 X 3/8	1
3	17	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)	4
		FOR ATTACHING PARTS SEE FIG. 1:21		
3	18	154-6627	SIDE LIFT HANDLE	2
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2
		153-2061	HHCS - 5/16-18 X 1	2
3	19	153-9013	BUFFER MOTOR PULLEY (10L050 - 1/2")	1
3	20	154-8839	BUFFER IDLER ASSEMBLY	1
		ATTACHING PARTS		
		153-2739	SHOULDER BOLT - 3/8 X 1 (5/16 THREAD)	2
		154-6841	BELT IDLER MOUNT BAR	1
3	21	153-9014	BUFFER PULLEY (24L050-3/4")	1
		ATTACHING PARTS		
		153-2051	SET SCREW - 1/4-20 X 1/2	1
		153-2005	FLAT WASHER 5/16	3
		153-2531	NYLON WASHER - 3/8 (0.030)	2
		153-2707	SHCS - 51-24 X 3/4	1
		153-2711	FENDER WASHER - 5/16	1

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		158-9608	SPACER - BUSHING 3/4 ID X 1 OD X 3/4 - PLAIN	1
		153-2099	KEYSTOCK - 3/16 X 1/2	1
3	22	154-0810	LIFTING HANDLE (SS SPRING-LOADED CHEST)	2
		ATTACHING PARTS		
		153-2003	FLAT WASHER - # 10	3
		153-2208	LOCK NUT - 10-24 NYLOK	3
		153-2301	MS PHILLIPS - 10-24 X 5/8	3
3	23	158-6453	6" WHEEL MOUNT	2
		ATTACHING PARTS		
		153-2006	FLAT WASHER - 3/8	2
		153-2016	LOCK WASHER - 3/8	2
		153-2067	HHCS - 3/8-16 X 1-1/4	2
4	1	154-6627	SIDE LIFT HANDLE	2
		FOR ATTACHING PARTS SEE FIG. 3:18		
4	2	154-8801	SQUEEGEE ADJUSTMENT ARM	2
		FOR ATTACHING PARTS SEE FIG. 3:14		
4	3	154-6878	CLEANER HEAD DRIVE SHAFT BLOCK	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2603	HHCS - 1/4-20 X 3/4	2
4	4	154-9802	PULLEY (27XL 3/8" BORE W/DBL SET)	1
		ATTACHING PARTS		
		154-6879	HHCS - 1/4-20 X 3/4	1
4	5	154-9201	BELT FOR CLEANER HEAD DRIVE	1
4	6	153-8403	BRAKE MOTOR ASSEMBLY (7 RPM - 115V)	1
4	6	153-8803H	BRAKE MOTOR ASSEMBLY (7 RPM - 230V 50Hz)	1
		FOR ATTACHING PARTS SEE FIG. 3:13		
4	7	154-6889	CLEANER HOSE ROUTING BAR	1
		ATTACHING PARTS		
		153-2003	FLAT WASHER - #10	2
		153-2013	LOCK WASHER - #10	2
		123-2301	MS PHILLIPS - 10-24 X 5/8	2
4	8	158-8434	RECOVERY TANK ASSEMBLY - 10 GALLON	1
4	9	154-6859	DRIVE MOTOR & PARTITION WALL KUSTO PLUS	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	4
		153-2014	LOCK WASHER - 1/4	4
		153-2023	HEX NUT - 1/4-20	4
		153-2079	FHMS - 1/4-20 X 1	4
4	10	154-6687	SPRING RETAINER PLATE	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	4
		153-2019	LOCKNUT - 8-32 (NYLOK)	2
		153-2086	MS PHILLIPS - 8-32 X 5/8	2
4	11	154-1250	EMERGENCY STOP CIRCUIT BREAKER ASSEMBLY	1
		FOR ATTACHING PARTS SEE FIG. 1:2		
4	12	154-8625	VACUUM MOTOR HOUSING - ALUMINUM	1
		FOR ATTACHING PARTS SEE FIG. 1:8		
4	13	154-6041	UHMW HANDLE STOP	2
		FOR ATTACHING PARTS SEE FIG. 3:7		
4	14	153-6851	UHMW HANDLE SPACER	2
4	15	153-2818	HHCS - 3/8-16 x 2-1/2 (GRADE 8)	2
		FOR ATTACHING PARTS SEE FIG. 3:5		

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
4	16	154-9201	BELT FOR CONDITIONER HEAD DRIVE (XL025 - 9 FT)	1
4	17	154-9805	PULLEY - 32XL037 - 33/8 BORE W/ DBL SET	1
		ATTACHING PARTS		
		154-6879	CLEANER HEAD DRIVE SHAFT	1
4	18	154-6875	HEAD IDLER MOUNT BLOCK	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2052	HHCS - 1/4-20 X 7/8	2
4	19	154-6884	6 TOOTH SENSOR DISK	1
		ATTACHING PARTS		
		154-6879	CLEANER HEAD DRIVE SHAFT	1
4	20	153-8207	BRAKE MOTOR ASSEMBLY (25 RPM - 115V)	2 on 115v
4	20	153-8807H	BRAKE MOTOR ASSEMBLY (25 RPM - 230V 50 Hz)	2 on 230v
		FOR ATTACHING PARTS SEE FIG. 3:4		
4	21	154-6629	SIDE LIFT HANDLE MOUNT	1
		ATTACHING PARTS		
		153-2052	BHSS - 1/4-20 X 7/8	2
		153-2014	LOCK WASHER - 1/4	2
4	22	154-6629	SIDE LIFT HANDLE MOUNT	2
		ATTACHING PARTS		
		153-2052	BHSS - 1/4-20 X 7/8	2
		153-2014	LOCK WASHER - 1/4	2
5	1	154-6861-2915	PC/RELAY MOUNT PLATE	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	4
		153-2013	LOCK WASHER - #10	4
		153-2087	MS PHILLIPS - 8-32 X 3/4	4
5	2	154-6827	PC RELAY MOUNT PLATE ANGLE	4
5	3	153-1028	PANEL-MOUNT FUSE HOLDER - UL (COMPLETE)	8 on 115V
5	3	153-1028E	PANEL-MOUNT FUSE HOLDER - IEC (COMPLETE)	8 on 230V
5	4	154-8810	CIRCUIT BOARD ASSEMBLY (115V)	1
5	4	154-8811	CIRCUIT BOARD ASSEMBLY (230V)	1
		ATTACHING PARTS		
		153-2509	CIRCUIT BOARD MOUNT	5
		153-2521	MS PHILLIPS-#6 X 3/8 (SELF TAP-PLASTIC)	5
5	5	153-2509	CIRCUIT BOARD MOUNT	5
5	6	153-2521	MS PHILLIPS-#6 X 3/8 (SELF TAP-PLASTIC)	5
5	7	153-1009	TOGGLE SWITCH (DPDT)	1
		ATTACHING PARTS		
		153-1209	BUTTON GUARD	1
5	8	153-1209	BUTTON GUARD	1
5	9	153-1016D	LY2 RELAY (24VDC)	4
		ATTACHING PARTS		
		153-1020	RELAY CLAMPS	1 PR
5	10	153-1017	LY2 RELAY BASE	8
5	11	153-1018	LY3 RELAY (115V)	2
		153-1618	LY3 RELAY (230V)	2
		ATTACHING PARTS		
		153-1020	RELAY CLAMPS	1 PR
5	12	153-1019	LY3 RELAY BASE	2

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
5	13	154-1835	RELAY ASSEMBLY - COMPLETE (W/RELAY)	4
5	14	153-1809B	DIN RAIL (9-7/8")	1
		ATTACHING PARTS		
		153-2034	ALUMINUM RIVET - 0.187 X 0.450 X 0.375)	2
		153-2035	BLIND RIVET WASHER - 3/16	2
5	15	153-1809C	DIN RAIL (8-1/4")	1
		FOR ATTACHING PARTS SEE FIG. 5:14		
5	16	154-1801	MICROPROCESSOR - CPM2A	1
5	17	153-1004A	BUFFER MOTOR CONTACTOR (115 VOLT)	1 on 115V
5	17	153-1604A	BUFFER MOTOR CONTACTOR (230 VOLT)	1 on 230V
5	18	154-1610	CIRCUIT BREAKER - DPST (15A - 115 VOLT)	1 on 115V
5	18	154-1272	CIRCUIT BREAKER - DPST (10A - 230 VOLT)	1 on 230V
5	19	154-1830	RELAY BASE SEPARATOR PLATE	2
5	20	153-1016	LY2 RELAY (115V)	1
5	20	153-1616	LY2 RELAY (230V)	1
		ATTACHING PARTS		
		153-1020	RELAY CLAMPS	1 PR
6	1	154-6264	SHAFT FOR TIMING DISK (REMOTE SENSOR)	1
6	2	154-8621	PILLOWBLOCK - LANE DISTANCE (RIGHT FLANGE)	1
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2
		153-2602	HHCS - 5/16-18 X 3/4	2
6	3	154-8320	PILLOWBLOCK - LANE DISTANCE SHAFT (CENTER-PLAIN)	1
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2
		153-2602	HHCS - 5/16-18 X 3/4	2
6	4	154-6717	5-TOOTH SENSOR DISK - ALUMINUM (3/8 BORE)	1
		ATTACHING PARTS		
		153-2201	SET SCREW - 10-32 X 3/8	1
6	5	154-6821	LDS SHAFT	1
6	6	153-6027	LANE DISTANCE ADJUSTMENT BLOCK	2
		ATTACHING PARTS		
		153-2005	FLAT WASHER - 5/16	2
		153-2015	LOCK WASHER - 5/16	2
		153-2602	HHCS - 5/16-18 X 3/4	2
6	7	154-8619	PILLOWBLOCK-LANE DISTANCE (LEFT-FLANGED)	1
		FOR ATTACHING PARTS SEE FIG. 6:2		
6	8	153-2027	JAM NUT - 3/8-16	2
6	9	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)	2
		FOR ATTACHING PARTS SEE FIG. 1:21		
6	10	154-9211	LDS AND TACH SENSOR DRIVE CHAIN (25P29)	1
		ATTACHING PARTS		
		153-9045	25 MASTER LINK	1
6	11	153-2234	HHCS - 3/8-16 X 4 (FULL THREAD)	2
6	12	153-9010	SPROCKET - 25B15 (TRANSFER DRIVE & LDS - 3/8")	1
6	13	154-9213	SPROCKET - 25B15 (TACH AND LDS DRIVE 1/2" BORE)	1
6	14	153-2009	NYLON FLAT WASHER (3/8 - 0.060)	4

ATTACHING PARTS LIST

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
6	15	153-7002AA	LANE DISTANCE COUNTER WHEEL-TREADED (2")	2
6	16	153-2992	TRIPLE WAVE WASHER	1
7	1	154-8007	SIDE PLATE PILLOWBLOCK FOR DRIVE SHAFT <i>FOR ATTACHING PARTS SEE FIG. 2:15</i>	2
7	2	153-0043	THICK FELT WASHER - 5/8	4
7	3	153-9814	DRIVE CHAIN - (40P33)	1
			<i>ATTACHING PARTS</i>	
		153-9047	#40 MASTER LINK	1
7	4	153-9002	SPROCKET - 40B13 (5/8")	1
7	5	154-8865	BALDOR DC DRIVE MOTOR ASSEMBLY	1
			<i>ATTACHING PARTS</i>	
		153-2004	FLAT WASHER - 1/4	4
		153-2014	LOCK WASHER - 1/4	4
		153-2052	HHCS - 1/4-20 X 7/8	4
7	6	154-1809B	BRUSHES - DRIVE MOTOR (SOLD AS PAIR)	PAIR
7	7	154-6820	MAIN DRIVE SHAFT	1
7	8	154-6881	RECOVERY TANK SUPPORT BAR <i>FOR ATTACHING PARTS SEE FIG. 2:4</i>	2
7	9	154-6717	5 - TOOTH SENSOR DISK - ALUMINUM (3/8 BORE) <i>FOR ATTACHING PARTS SEE FIG. 3:16</i>	1
7	10	153-7013	URETHANE BLEND LANE DRIVE WHEEL (4") <i>FOR ATTACHING PARTS SEE FIG. 2:14</i>	2
7	11	158-8435	DRIVE BLOCK PILLOWBLOCK ASSY - 2 INCH <i>FOR ATTACHING PARTS SEE FIG. 2:11</i>	2
7	12	153-2045	STEEL COLLAR - 5/8 X 1-1/8 X 1/2	2
7	13	153-9003	SPROCKET	1
8	1	158-8433	CLEANER SUPPLY TANK ASSY - 3.25 GALLON	1
8	1	158-8433C	CLEANER SUPPLY TANK ASSY-3.25 GAL (COMP)	1
			<i>ATTACHING PARTS</i>	
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2603	HHCS - 1/4-20 X 3/4	2
8	2	154-0212B	FILTER FOR SUPPLY TANK (5" SS) PVC	1
8	3	154-0244	REDUCER (3/8 " TO 1/4")	1
8	4	154-0832	CAP FOR POLYETHYLENE TANK W/ GASKET	1
			<i>ATTACHING PARTS</i>	
		154-0832C	CAP FOR POLYETHYLENE TANK	1
		154-0832G	GASKET FOR CAP (154-0832C)	1
8	5	154-0255	IN-LINE FILTER (1/4 BARB X 1/4 BARB)	1
8	5	154-8867A	IN-LINE FILTER ASSEMBLY - KPLUS AND ION	1
8	6	154-8817	MANUAL VENT VALVE ASSEMBLY FOR TANK	1
8	7	N/A	CLEANER PUMP TUBE LOADING TOOL	1
8	8	154-0202A	PENCIL TUBING STOCK - 1/4" OD X 1/8" ID	
8	9	154-0243	ELBOW (90 DEGREE 1/4 X 1/4 GUEST)	2
8	10	154-0227	ELOBW TUBE TO HOSE BARB (1/4" X 5/16" ID)	2

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
8	11	154-0861B	NORPRENE TUBING FOR PUMP W/ ELBOWS	1
8	12	154-0860A	CLEANER PUMP - 24VDC	1
8	13	158-8404	ASSEMBLY - CLEANER PUMP MOTOR - 24VDC	1
		158-8404C	ASSEMBLY - CLEANER PUMP COMPLETE - 24VDC	1
		ATTACHING PARTS		
		153-2002	FLAT WASHER - #8	4
		153-2013	LOCK WASHER - #10	4
		153-2927	MS - PHILLIPS - 8-32 X 2-3/4 (PAN HEAD)	4
8	14	154-6865	CLEANER PUMP MOUNT ANGLE	1
		ATTACHING PARTS		
		153-2003	FLAT WASHER - #10	4
		153-2013	LOCK WASHER - #10	4
		153-2091	MS PHILLIPS - 10-32 X 3/4	4
8	15	154-8693	CLEANER FLOAT ASSY	1
8	16	154-0223	ELOBW (90 DEGREE) 1/4" NPT X 1/4" TUBE	1
8	17	154-6866A	CLEANER PUMP POTENTIOMETER PLATE	1
8	18	154-8846	CLEANER PUMP POTENTIOMETER ASSY - (2.5K)	1
9	1	154-6889	CLEANER HOSE ROUTING BAR	1
		ATTACHING PARTS		
		153-2091	MS PHILLIPS - 10-32 X 3/4	2
		153-2013	LOCK WASHER	2
		153-2003	FLAT WASHER	2
9	2	154-6888	CLEANER HOSE SPRING MOUNT BLOCK	2
		ATTACHING PARTS		
		153-2051A	SET SCREW - 1/4-20 X 1/4	4
9	3	154-0222	ELBOW - 1/4" STEM X 1/4" TUBING OD	1
9	4	154-8852	CLEANER HOSE TUBE AND TIP ASSEMBLY	1
9	5	154-0863	MALE LUER TO HOSE BARB	1
9	6	164-0012M	CLEANER TIP W/ CHECK VALVE	1
9	7	153-2713	SPRING OIL TIP RETAINER	1
9	8	154-9802	PULLEY - 28XL037 - 1/2 BORE NO SET SCREW	1
9	9	154-6874	CLEANING HEAD BAR SPACER	3
9	10	154-6882	CLEANER HEAD	1
9	11	154-9201	CLEANER HEAD TIMING BELT	1
9	12	154-6877	CLEANER HEAD GUIDE BAR	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	3
		153-2014	LOCK WASHER - 1/4	3
		153-2053	HHCS - 1/4-20 X 1	3
		154-6874	CLEANING HEAD BAR SPACER	3
9	13	154-0867	CLEANER HOSE SPRING 36"	1
10	1	154-6725	CONDITIONER TANK (NO FITTINGS)	1
		154-8682	CONDITIONER TANK (COMPLETE)	1
		ATTACHING PARTS		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2603	HHCS - 1/4-20 X 3/4	2
10	2	154-1214	FLUID METERING PUMP - 0.05 ml/STROKE	1
		ATTACHING PARTS		

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		153-2013	LOCK WASHER - #10	2
		153-2086	MS PHILLIPS - 8-32 X 5/8	2
10	3	154-8604	MOTOR FOR METERING PUMP 115V (#4)	1 on 115V
10	3	154-8604E	MOTOR FOR METERING PUMP 230V	1 on 230V
		ATTACHING PARTS		
		153-2013	LOCK WASHER - #10	4
		153-2091	MS PHILLIPS - 10-32 X 3/4	4
10	4	154-6223A	MOUNTING ANGLE - PUMP & MOTOR	1
		ATTACHING PARTS		
		153-2602	HHCS - 5/16-18 X 3/4	2
10	5	154-0218	GROMMET - 7/16 X 11/16 (1/4" PANEL)	1
10	6	154-6287	GUARD FOR PUMP & MOTOR	1
		ATTACHING PARTS		
		153-2013	LOCK WASHER - #10	2
		153-2086A	MS PHILLIPS - 8-32 X 3/8	2
10	7	154-9208	PULLEY - METERING PUMP (12XL-5/16)	1
10	8	154-9607	PULLEY (24XL 5/16" BORE W/SET) 60Hz	1
10	8	154-9614	PULLEY (30XL 5/16" BORE W/SET) 50Hz	1
10	9	153-2417	GROMMET - 5/8 X 15/16 (0.060 PANEL)	1
10	10	154-9202A	BELT FOR METERING PUMP (130XL037) 115V	1 on 115V
10	10	154-9215	BELT FOR METERING PUMP (140XL037) 230V	1 on 230V
10	11	154-1209	VALVE-24V DC 3-WAY (1/8" NPT)	1
		ATTACHING PARTS		
		153-2523	FHMS PHILLIPS - 4-40 X 3/8	2
10	12	154-0224	MALE CONNECTOR - 1/4" TUBE x 1/8 NPT	2
10	13	154-0613	ELBOW - 1/8 NPT X 3/16 TUBE	1
10	14	158-1613	PRESSURE GAUGE (0-60 PSI) - 1-1/2 DIA	1
		FOR ATTACHING PARTS SEE: FIG 1:4		
10	15	154-0257	FEMALE CONNECTOR - 1/4" TUBE X 1/8 FPT	1
10	16	153-0815	UNION TEE (1/4 X 1/4 X 1/4 - QUICK DISCONNECT)	1
10	17	154-6257	MOUNTING ANGLE FOR OIL PRESSURE GAUGE	1
		ATTACHING PARTS		
		153-2087	MS PHILLIPS - 8-32 X 3/4	2
		153-2002	FLAT WASHER - #8	4
		153-2019	LOCKNUT - 8-32 (NYLOK)	2
10	18	153-2506	SLOTTED SHIM WASHER-3/8 (FOR VALVES)	1
10	19	154-0222	ELBOW - 1/4" STEM X 1/4" TUBING OD	1
10	21	154-0202A	PENCIL TUBING STOCK - 1/4" OD X 1/8" ID	INCH
10	22	154-0248	REDUCING UNION CONNECTOR-1/4" X 3/16"	3
10	23	154-0202B	PENCIL TUBING STOCK-3/16" OD X 1/16" ID	INCH
10	24	154-0256	ELBOW - 3/8 TUBE OD x 3/8 TUBE	1
10	25	154-0225	ELBOW - 3/8 TUBE OD X 1/4 NPT	1
10	26	154-0258	ELBOW - 3/8 STEM X 3/8 TUBE	1
10	27	154-0202	PUMP TUBING STOCK - (3/8 OD X 1/4 ID)	INCH
10	28	154-8693	FLOAT FOR PLASTIC TANK	1

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
10	29	154-0832	CAP FOR POLYETHYLENE TANK W/ GASKET	1
		ATTACHING PARTS		
		154-0832C	CAP FOR POLYETHYLENE TANK	1
		154-0832G	GASKET FOR CAP (154-0832C)	1
10	30	154-0212	TANK FILTER (5" SS) FOR OIL TANK	1
10	31	154-0287C	O-RING FOR GUEST FITTING - 1/2 VITON	1
10	32	158-8672A	LED TANK LIGHT ASSEMBLY	1
10	33	154-8817	OIL TANK VENT VALVE	1
10	34	154-1207	CAPACITOR	1
11	1	158-8431	ASSY - DRIP PAD 1PC TRANSFER SYSTEM -LFT	1
		ATTACHING PARTS		
		153-2723	FHMS PHILLIPS - 4-40 X 3/8	2
11	2	158-6443	BRUSH TRACK MOUNT END PLATE	2
		ATTACHING PARTS		
		153-2003	FLAT WASHER - #10	2
		153-2013	LOCK WASHER - #10	2
		153-2091	MS PHILLIPS - 10-32 X 3/4	2
		153-2742	FHMS- 1/4-20 X 1/2	1
11	3	158-6444	BRUSH TRACK MOUNT	1
		ATTACHING PARTS		
		153-2019	LOCKNUT - 8-32 (NYLOK)	4
		153-2501	FLAT HEAD PHILLIPS - 8-32 X 1-1/2	4
11	4	158-6440	BEARING MOUNT PLATE - LEFT	1
		ATTACHING PARTS		
		153-2813	MS FLAT PHILLIPS - 10-32 X 3/4	2
11	5	154-8640	FLANGED BEARING-STD BRUSH (3/4" ROTATED)	2
		ATTACHING PARTS		
		153-2802	FHSS - 5/16-18 X 5/8	2
11	6	158-6441	BEARING MOUNT PLATE - RIGHT	1
		ATTACHING PARTS		
		153-2813	MS FLAT PHILLIPS - 10-32 X 3/4	2
11	7	154-8641	BUFFER BRUSH (BLUE 3-3/4" x 48)	1
		FOR ATTACHING PARTS SEE FIG. 2:21		
11	8	154-0866	TRANSFER BRUSH ASSEMBLY	1
		ATTACHING PARTS		
		153-2019	LOCKNUT - 8-32 (NYLOK)	4
		153-2501	FLAT HEAD PHILLIPS - 8-32 X 1-1/2	4
11	9	158-6442	ADJUSTING BLOCK BASE	2
		ATTACHING PARTS		
		153-2003	FLAT WASHER - #10	2
		153-2013	LOCK WASHER - #10	2
		153-2091	MS PHILLIPS - 10-32 X 3/4	2
11	10	158-6445	ADJUSTING BOLT MOUNT BLOCK	2
		ATTACHING PARTS		
		153-2003	FLAT WASHER - #10	2
		153-2013	LOCK WASHER - #10	2
		153-2091	MS PHILLIPS - 10-32 X 3/4	2
		153-2020	LOCKNUT - 1/4-20 (NYLOK)	2
		153-2932	SET SCREW - 1/4-20 X 1-3/4	1
11	11	158-8432	ASSY - DRIP PAD 1PC TRANSFER SYSTEM -RT	1
		ATTACHING PARTS		
		153-2723	FHMS PHILLIPS - 4-40 X 3/8	2
12	1	153-8207	BRAKE MOTOR ASSEMBLY (25 RPM - 115V)	2 on 115v
12	1	153-8807H	BRAKE MOTOR ASSEMBLY (25 RPM - 230V 50 Hz)	2 on 230v

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		<i>FOR ATTACHING PARTS SEE: FIG 3:4</i>		
12	2	154-6243	MOTOR CAM - DUAL LOBES	1
		<i>ATTACHING PARTS</i>		
		153-2051	SET SCREW - 1/4-20 X 1/2	1
12	3	154-8802	SQUEEGEE ADJUSTMENT ARM	2
		<i>ATTACHING PARTS</i>		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2023	HEX NUT - 1/4-20	2
		153-2079	FHMS - 1/4-20 X 1	2
		153-2403	COUNTERSUNK LOCK WASHER - 1/4	2
12	4	154-6824	BRUSH CAM SWITCH PLATE	1
		<i>ATTACHING PARTS</i>		
		153-2002	FLAT WASHER - #8	4
		153-2019	LOCKNUT - 8-32 (NYLOK)	2
		153-2086	MS PHILLIPS - 8-32 X 5/8	2
		<i>FOR ATTACHING PARTS SEE: FIG 9:2</i>		
12	5	154-6339-2915	SQUEEGEE MOUNT ANGLE - KUSTODIAN	1
		<i>ATTACHING PARTS</i>		
		153-2027A	JAM NUT - 5/16-18	2
		153-2009	NYLON FLAT WASHER (3/8 - 0.060)	2
		153-2303	SHOULDER BOLT-3/8 X 5/8 (5/16-18)	2
12	6	153-0211	SQUEEGEE ROD END WITH FITTING (ON MOTOR)	2
		<i>ATTACHING PARTS</i>		
		153-2214	JAM NUT - 5/16-24	2
		154-0031	5/16-24 ALLTHREAD STOCK	INCH
12	7	154-0031	5/16-24 ALLTHREAD STOCK	INCH
12	8	153-1203	MICROSWITCH W/ROLLER	2
		<i>ATTACHING PARTS</i>		
		153-2505	MS PHILLIPS - 4-40 X 1	2
12	9	153-2062	HHCS - 5/16-18 X 1-1/4	2
12	10	153-0202D	SQUEEGEE ASSEMBLY - BLUE	1
12	10	153-8204E	SQUEEGEE BLADE REPLACEMENT KIT (BLUE)	1
		<i>FOR ATTACHING PARTS SEE: FIG 2:13</i>		
12	11	154-6677A	SQUEEGEE HOSE ADAPTER - NYLON	1
		<i>ATTACHING PARTS</i>		
		<i>USE SILICON WHEN ATTACHING</i>		
		153-2004	FLAT WASHER - 1/4	2
		153-2014	LOCK WASHER - 1/4	2
		153-2023	HEX NUT - 1/4-20	2
		153-2052A	BHSS - 1/4-20 X 7/8	2
12	12	154-6827	PC RELAY MOUNT PLATE ANGLE	1
		<i>ATTACHING PARTS</i>		
		153-2004	FLAT WASHER - 1/4	1
		153-2014	LOCK WASHER - 1/4	1
		153-2023	HEX NUT - 1/4-20	1
13	1	153-6850	UHMW DUSTER PLUG FOR CARDBOARD CORE	1
		<i>ATTACHING PARTS</i>		
		153-2005	FLAT WASHER - 5/16	1
		153-2020A	LOCKNUT - 1/4-20 (STOVER)	1
		153-2535	SHOULDER BOLT - 5/16 X 2-1/4 (1/4-20) DUSTER PLUG	1
		153-2808	SPRING - 0.42 OD X 1.25 (DUSTER PLUG)	1
13	2	153-6853	UHMW DUSTER PLUG FOR PVC TAKE-UP REEL	1
13	3	153-8839	CUSHION ROLLER W/PAD (STEEL=44-3/8)	1
13	4	153-8202B	DUSTER SOLID DRIVE HUB (PVC - 1/4-28)	1
		<i>ATTACHING PARTS</i>		

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		153-2050	SET SCREW - 1/4-28 X 3/8	1
13	5	153-8201B	DUSTER DRIVE HUB ASSEMBLY (1/4-28) <i>FOR ATTACHING PARTS SEE: FIG 13:4</i>	1
13	6	153-8420	CUSHION ROLLER PIVOT ARM ASSEMBLY <i>ATTACHING PARTS</i>	2
		153-2005	FLAT WASHER - 5/16	1
		153-2020A	LOCKNUT 1/4-20 STOVER	1
		153-2408	SHOULDER BOLT - 5/16 X 1/2 1/4-20 THREADS	1
		153-2414	HEX NUT 8-32	1
		153-2090	MS PHILLIPS - 8-32 x 1-1/2	1
13	7	154-1603	MICROSWITCH - WITHOUT ROLLER (LARGE) <i>FOR ATTACHING PARTS SEE: FIG 1:17</i>	2
13	8	153-0047EZ	CLOTH - EZ EXTRUDED REUSABLE CORE	CASE
13	9	153-0429	DMR DUSTER ROLL SUPPORT PIPE (40 INCH)	1
13	10	153-8824	PVC TAKE-UP REEL ASSEMBLY (1/4-28)	1
13	11	153-8403	BRAKE MOTOR ASSEMBLY (7RPM - 115V)	2
13	11	153-8808H	BRAKE MOTOR ASSEMBLY (7RPM - 230V 50Hz) <i>ATTACHING PARTS</i>	2
		153-2091	MS PHILLIPS - 10-32 x 3/4	4
		153-2013	LOCK WASHER #10	4
		153-2003	FLAT WASHER #10	4
13	12	153-2807	SHOULDER BOLT-5/16 X 2 (1/4-20)	2
13	13	153-2808	SPRING - 0.42 OD x 1.25 (DUSTER PLUG)	2
13	14	153-2020A	LOCKNUT - 1/4-20 (STOVER)	2
14	1	154-8637	BUFFER BRUSH LIFTING ASSEMBLY <i>ATTACHING PARTS</i>	1
		153-2804	COLLAR - 3/8 X 3/4 X 3/8	2
14	2	154-6824	BRUSH CAM SWITCH PLATE <i>ATTACHING PARTS</i>	1
		153-2002	FLAT WASHER - #8	4
		153-2019	LOCKNUT - 8-32 (NYLOK)	2
		153-2086	MS PHILLIPS - 8-32 X 5/8	2
14	3	153-8207	BRAKE MOTOR ASSEMBLY (25 RPM-115 VOLT)	1
14	3	153-8807H	BRAKE MOTOR ASSEMBLY (25 RPM-230V 50 Hz) <i>FOR ATTACHING PARTS SEE FIG. 3:4</i>	1
14	4	154-6243	MOTOR CAM - DUAL LOBES (FOR STACKED SWITCHES) <i>ATTACHING PARTS</i>	1
		153-2051	SET SCREW - 1/4-20 X 1/2	1
14	5	153-2801	SHOULDER BOLT - 3/8 X 3/8 (5/16-18) BRUSH LIFT <i>ATTACHING PARTS</i>	1
		153-2027A	JAM NUT - 5/16-18	1
14	6	153-2804	COLLAR - 3/8 X 3/4 X 3/8	2
14	7	154-8638	BUFFER BRUSH LIFTING LINK - LEFT <i>ATTACHING PARTS</i>	1
		153-2027A	JAM NUT - 5/16-18	3
		153-2801	SHOULDER BOLT - 3/8 X 3/8 (5/16-18) BRUSH LIFT	2
		153-9803	FLANGED BUSHING (3/8 X 1/2 X 1/4)	15
14	8	154-8639	BUFFER BRUSH LIFTING LINK - RIGHT <i>FOR ATTACHING PARTS SEE FIG. 13:7</i>	1
14	9	153-1203	MICROSWITCH - WITH ROLLER (SQUEEGEE & BRUSH) <i>ATTACHING PARTS</i>	2
		153-2505	MS PHILLIPS - 4-40 X 1	2

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
14	10	153-2801A	SHOULDER BOLT-3/8 X 3/8-CUT (5/16-18)	2
14	11	154-8837	CAM TO BRUSH LIFTING ROD LINK ASSEMBLY	1
		ATTACHING PARTS		
		153-2027A	JAM NUT - 5/16-18	1
		153-2801	SHOULDER BOLT - 3/8 X 3/8 (5/16-18) BRUSH LIFT	2
15	1	154-8805	VACUUM MOTOR ASSEMBLY - 115V	1
15	1	154-8805E	VACUUM MOTOR ASSEMBLY - 230V	1
		ATTACHING PARTS		
		153-2830	HEX HEAD SELF TAP #10 X 5/8 SCREW	4
		153-0204B	VACUUM MOTOR BRUSHES	PAIR
15	2	153-8827T	1-1/4" PVC ELBOW FOR TANK INLET (NO THREADS)	2
15	3	154-0260	FLEXIBLE VACUUM HOSE STOCK (1-1/2" ID)	INCH
15	4	154-0607	PVC ELBOW - 1-1/2 BARB X 1-1/2 BARB	1
15	5	153-2924	MS PHILLIPS - 1/4-20 X 3/4 TRUSS HEAD	12
15	6	153-6221M	VACUUM WALL ADAPTER	1
		USE SILICON WHEN ATTACHING		
15	7	153-2406	HOSE CLAMP (1-1/2")	6
15	8	158-6448	REC TANK SUB-FLOOR COVER PLATE - 10 GAL	1
		ATTACHING PARTS		
		153-2924	MS PHILLIPS - 1/4-20 X 3/4 TRUSS HEAD	12
15	9	158-8434	RECOVERY TANK ASSEMBLY - 10 GALLON	1
15	10	158-8618	VACUUM MOTOR HOUSING	1
15	11	154-0810	LIFTING HANDLE (SS SPRING LOADED)	2
15	12	158-0405	RECOVERY TANK GASKET	1
15	13	158-0406	FILTER FOR 10 GALLON RECOVERY TANK	1
15	14	154-0006A	BUMPER GUARD - POLYURETHANE (13/32)	2
15	15	158-6709	VACUUM MOTOR GUARD	1
16	1	154-8851	CLEANER HOSE AND TIP HOLDER	1
16	2	154-6832	OIL PENCIL TIP	1
16	3	154-6646	HEAD BELT MOUNT PLATE	1
		ATTACHING PARTS		
		153-2081	MS PHILLIPS - 6-32 x 1/2	4
		153-2504	MS PHILLIPS - 4-40 x 3/8	1
16	4	154-6647A	SLIDING HEAD BAR	1
		ATTACHING PARTS		
		153-2702	FHMS - 1/4-20 X 1 SELF-LOCKING	3
16	5	154-6893	OIL HEAD - ADJUSTABLE TIP ANGLE	1
		ATTACHING PARTS		
		153-2928	MS - PHILLIPS - 8-32 X 1-3/4 (PAN HEAD)	1
		153-2507	FHMS PHILLIPS - 8-32 X 3/4	1
		153-2414	HEX NUT - 8-32	2
16	6	154-6876	HEAD MOTOR MOUNT BLOCK	1
		FOR ATTACHING PARTS SEE: FIG 3:8		
16	7	154-6872	HEAD DRIVE MOUNT BLOCK	3
		FOR ATTACHING PARTS SEE: FIG 1:20		
16	8	154-0206	SPRING FOR OIL LINE (10")	1

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FIGURE NUMBER	INDEX NUMBER	PART NUMBER	PART NAME & DESCRIPTION	QUANTITY NEEDED
		<i>ATTACHING PARTS</i>		
		153-1049E	WIRE HARNESS CLAMP - 3/8	1
		153-2002	FLAT WASHER - #8	1
		153-2019	LOCKNUT - 8-32 (NYLOK)	1
		153-2086	MS PHILLIPS - 8-32 X 5/8	1
16	9	153-2804	COLLAR - 3/8 X 3/4 X 3/8	2
16	10	154-6687	SPRING RETAINER PLATE	1
		<i>FOR ATTACHING PARTS SEE: FIG 4:10</i>		
16	11	154-8232	HEAD DRIVE MOTOR-115V ST (NO GEARBOX)	1
		154-8632	HEAD DRIVE MOTOR-230V STD (NO GEARBOX)	1
		<i>ATTACHING PARTS</i>		
		154-1206	GEARBOX FOR HEAD DRIVE MOTOR (5:1 RATIO)	1
16	12	154-8806	KEYPAD ASSY	1
		<i>FOR ATTACHING PARTS SEE: FIG 1:3</i>		
16	13	154-1220	INDUCTIVE PROXIMITY SENSOR (TL-Q5MC1)	4
		<i>FOR ATTACHING PARTS SEE: FIG 1:19</i>		
16	15	154-1206	GEARBOX FOR HEAD DRIVE MOTOR (5:1 RATIO)	1
		<i>ATTACHING PARTS</i>		
		154-8232	HEAD DRIVE MOTOR-115V ST (NO GEARBOX)	1
		154-8632	HEAD DRIVE MOTOR-230V STD (NO GEARBOX)	1
16	16	154-8348-2915	SPLASH GUARD ASSEMBLY	1
		<i>FOR ATTACHING PARTS SEE: FIG 1:1</i>		