

# 1932ES \ 1532ES ELECTRICAL SCHEMATIC

19' SERIAL #9100101 THROUGH #PRESENT  
 15' SERIAL #9000101 THROUGH #PRESENT

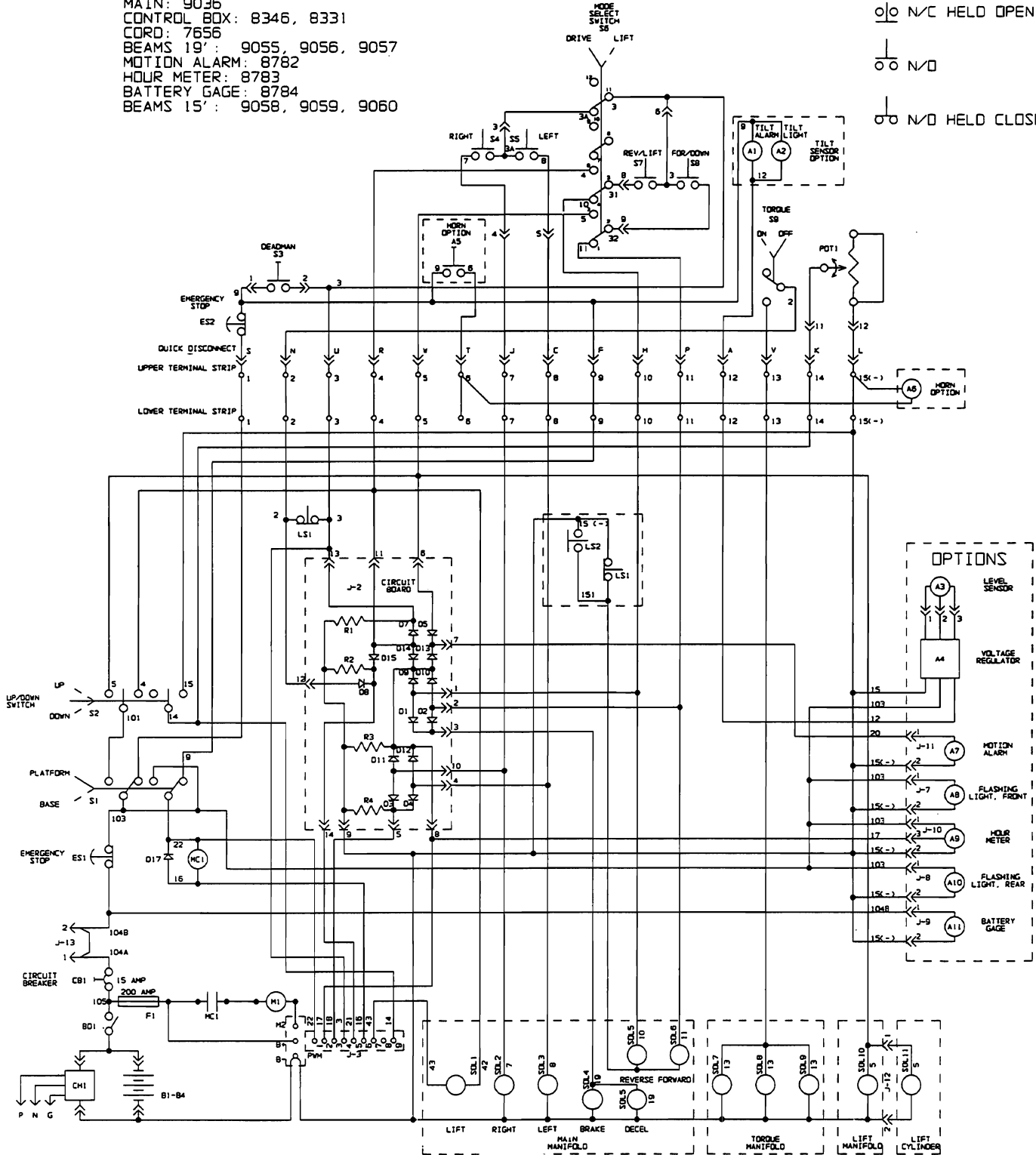
WIRE HARNESS  
 PART NUMBERS:  
 MAIN: 9036  
 CONTROL BOX: 8346, 8331  
 CORD: 7656  
 BEAMS 19': 9055, 9056, 9057  
 MOTION ALARM: 8782  
 HOUR METER: 8783  
 BATTERY GAGE: 8784  
 BEAMS 15': 9058, 9059, 9060

o/o N/C

o/o N/C HELD OPEN

o/o N/O

o/o N/O HELD CLOSED



ART681 R0  
 BM14602  
 10/25/97

Fig. 2-1 1932ES / 1532ES Electrical Schematic

# 1932ES \ 1532ES ELECTRICAL SCHEMATIC

19' SERIAL #9100101 THROUGH #9100400  
 15' SERIAL #9000101 THROUGH #9000126

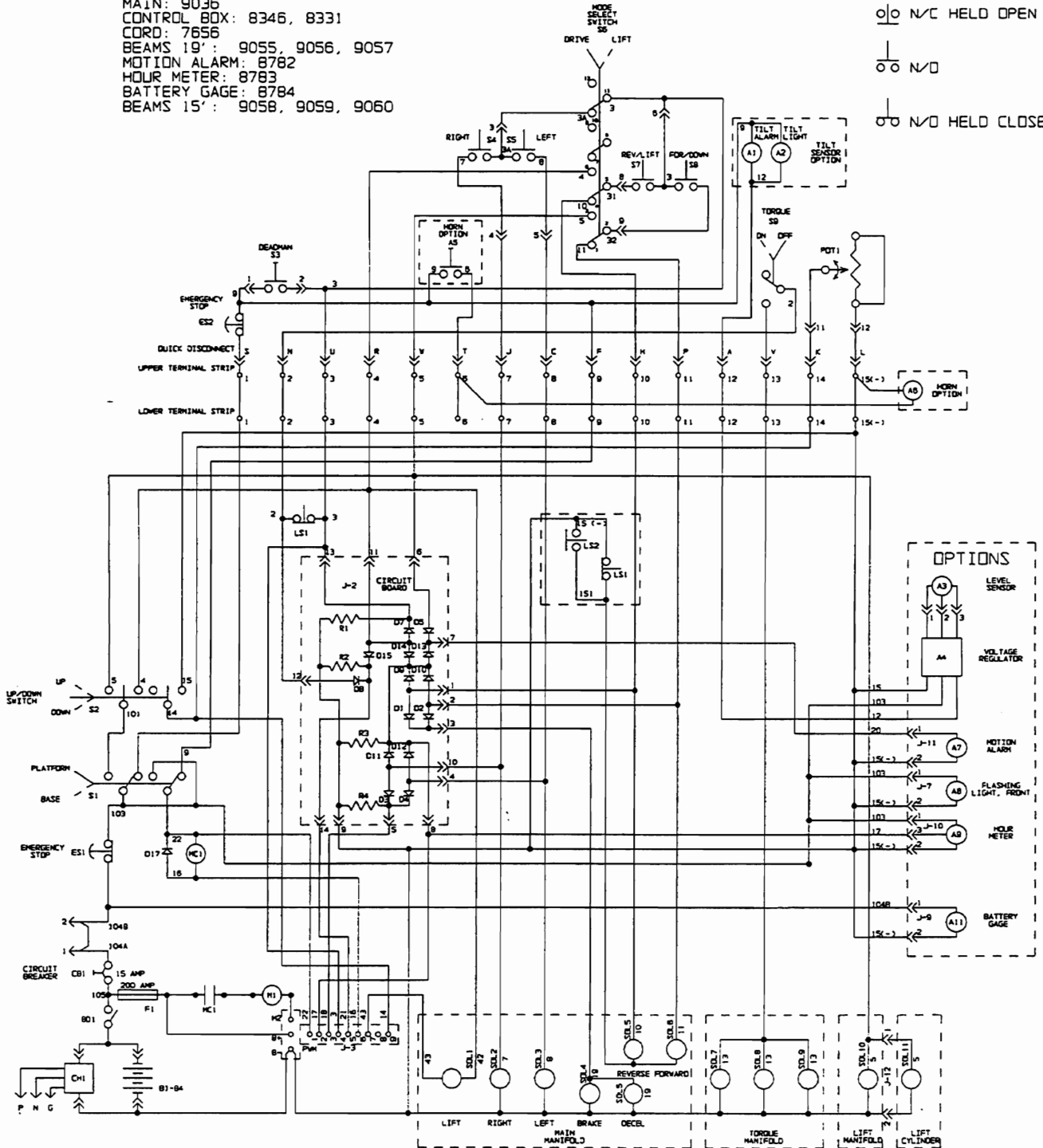
WIRE HARNESS  
 PART NUMBERS:  
 MAIN: 9036  
 CONTROL BOX: 8346, 8331  
 CORD: 7656  
 BEAMS 19': 9055, 9056, 9057  
 MOTION ALARM: 8782  
 HOUR METER: 8783  
 BATTERY GAGE: 8784  
 BEAMS 15': 9058, 9059, 9060

o/o N/C

o/o N/C HELD OPEN

o/o N/D

o/o N/D HELD CLOSED



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 05/20/98

Figure 2-1. 1932ES/1532ES Electrical Schematic

8971R1

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. SWITCH S1 "BASE\PLATFORM SWITCH" MAKES CONTACT FROM THE CENTER TO THE LEFT POSITION WHEN HELD IN THE BASE POSITION AND AUTOMATICALLY RETURNS TO THE PLATFORM POSITION AND MAKES CONTACT TO THE RIGHT POSITION WHEN RELEASED.
2. SWITCH S2 "UP\DOWN SWITCH" MAKES CONTACT FROM THE CENTER TO THE LEFT WHEN THE SWITCH IS HELD IN THE DOWN POSITION AND AUTOMATICALLY RETURNS TO THE CENTER POSITION WHEN RELEASED.
3. SWITCH LS1 BREAKS THE N/C SET OF CONTACTS WHEN THE PLATFORM REACHES APPROXIMATELY 7 FEET.
4. SWITCH LS2 MAKES THE N/C SET OF CONTACTS WHEN THE POTHOLE BARS ARE DOWN AND LOCKED IN PLACE.
5. UNIT SHOWN IN STOWED POSITION WITH POTHOLE BAR IN UP POSITION.

ITEM	PART NO.	QTY.	DESCRIPTION	FUNCTION	LOCATION
A1-A4	13485	1	TILT SENSOR OPTION PACKAGE	WARN WHEN MACHINE IS AT 4 DEG.	UNDER CHARGER & IN CONTROL BOX
A5-A6	13511	1	PLATFORM MOUNTED HORN PACKAGE	OPERATOR ACTIVATED HORN	CONTROL BOX AND UNDER PLATFORM
A7	13856	1	MOTION ALARM PACKAGE	WARN OF A MOVEMENT	BEHIND LOWER CONTROL PANEL
A8	25302	1	FLASHING LIGHT PACKAGE	WARN OF A POWERED UP MACHINE	NEXT TO TANK, NEXT TO CHARGER
A9	13855	1	HOUR METER PACKAGE	RECORD TIME THAT IS MACHINE IS BEING USED	LOWER CONTROL PANEL
A11	13854	1	BATTERY INDICATOR PACKAGE	SHOW BATTERY STATUS	LOWER CONTROL PANEL
B1-B4	XXXX	4	6 VOLT DEEP CYCLE BATTERY	POWER FOR THE MOTOR AND CONTROL CIRCUIT	INSIDE BATTERY COMPARTMENT
B01	8841	1	SWITCH BATTERY DISCONNECT	DISCONNECT ALL ELECTRICAL POWER	MOTOR CABINET
C01	7235	1	CIRCUIT BREAKER - 15 AMP MANUAL	CONTROL CIRCUIT PROTECTION	LOWER CONTROL PANEL
MC1	5957	1	24 VOLT CONTACTOR	ALLOW MOTOR TO TURN ON	MOTOR CABINET
D1-D15 R1-R4	8601	1	CIRCUIT BOARD FOR UNITS W/ SEVCON	DIRECT SIGNALS TO THE PROPER LOCATION	MOTOR CABINET NEAR TERM. STRIP
D17	8368	1	DIODE W/ RING TERMINALS	SUPRESION DIODE	ACROSS CONTACTOR COIL
ES1	7800	1	SWITCH, EMERGENCY STOP	SHUTDOWN ALL MOVING FUNCTIONS	LOWER CONTROL PANEL
ES2	7800	1	SWITCH, EMERGENCY STOP	SHUTDOWN ALL PLATFORM MOVING FUNCTIONS	UPPER CONTROL BOX
F1	8344	1	FUSE, 200 AMP	MAIN LINE FUSE	MOTOR CABINET
LS1	8932	1	SWITCH, LIMIT: DOUBLE POLE	ENABLE HIGH SPEED	UNDER CHARGER
				ENABLE DRIVE IF POTHOLE SYSTEM IS DEPLOYED	
LS2	8776	1	SWITCH, LIMIT: SINGLE POLE	DETECT POTHOLE BAR LOCATION	UNDER CHARGER
M1	8544	1	MOTOR, 24 VOLT, 2 HP	TURN THE HYDRAULIC PUMP	MOTOR CABINET
PWM	8539	1	CONTROLLER, DC 250 AMP	CHANGES THE MOTOR SPEED	MOTOR CABINET
POT1	13527	1	POTENTIOMETER, 20K OHMS	SENSES THE OPERATOR INPUT	UPPER CONTROL BOX
S1	9050	1	SWITCH, TOGGLE 2 POLE 2 POS.	ALLOWS BASE OR PLATFORM CONTROLS TO BE USED	LOWER CONTROL PANEL
S2	5694	1	SWITCH, TOGGLE 2 POLE 3 POS.	ALLOWS LIFT/LOWER FUNCTIONS AT BASE CONTROLS	LOWER CONTROL PANEL
S3	8753	1	SWITCH, PUSH-BUTTON	ENABLES OTHER FUNCTION TO BE USED AT PLATFORM	UPPER CONTROL BOX, HANDLE
S4	8448	1	SWITCH, LIMIT V3	RIGHT TURN SWITCH	UPPER CONTROL BOX, HANDLE
S5	8448	1	SWITCH, LIMIT V3	LEFT TURN SWITCH	UPPER CONTROL BOX, HANDLE
S6	8638	1	SWITCH, TOGGLE 4 POLE 2 POS.	ALLOW EITHER LIFT OR DRIVE FUNCTIONS	UPPER CONTROL BOX
S7	8696	1	SWITCH, LIMIT V7	REVERSE OR LIFT SWITCH	UPPER CONTROL BOX
S8	8696	1	SWITCH, LIMIT V7	FORWARD OR DOWN SWITCH	UPPER CONTROL BOX
S9	5630	1	SWITCH, TOGGLE 1 POLE 2 POS.	TORQUE SWITCH	UPPER CONTROL BOX
SOL1	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES LIFT VALVE	MAIN MANIFOLD
SOL2	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES RIGHT TURN VALVE	MAIN MANIFOLD
SOL3	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES LEFT TURN VALVE	MAIN MANIFOLD
SOL4	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES BRAKE VALVE	MAIN MANIFOLD
SOL5	8914	1	COIL, 24 VOLT 2 SPADE	DECAL VALVE	MAIN MANIFOLD
SOL6	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES REVERSE	MAIN MANIFOLD
SOL7	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES FORWARD	MAIN MANIFOLD
SOL8,9,10	8914	3	COIL, 24 VOLT 2 SPADE	ACTIVATES TORQUE VALVES	TORQUE MANIFOLD
SOL11	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES DOWN VALVE	LIFT MANIFOLD
SOL12	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES DOWN VALVE	LIFT CYLINDER

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Figure 2-1 (cont'd). 1932ES/1532ES Electrical Schematic

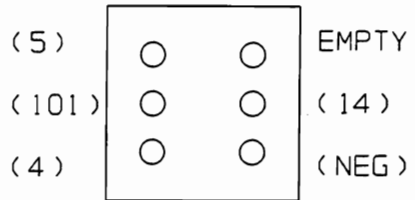
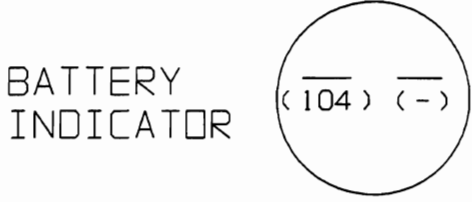
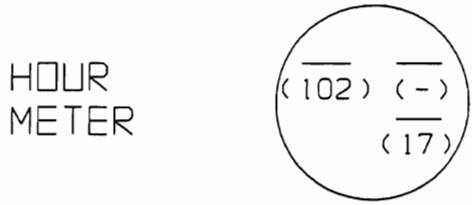
NOTES: (UNLESS OTHERWISE SPECIFIED)

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3. SWITCH LS1 BREAKS THE N/C SET OF CONTACTS WHEN THE PLATFORM REACHES APPROXIMATELY 7 FEET.
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5. UNIT SHOWN IN STOWED POSITION WITH POTHOLE BAR IN UP POSITION.

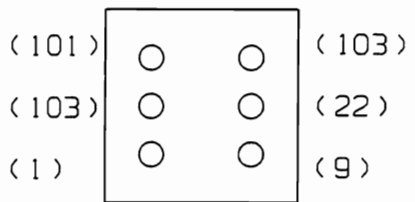
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A8, A10	25302	2	FLASHING LIGHT PACKAGE	WARN OF A POWERED UP MACHINE	NEXT TO TANK, NEXT TO CHARGER
A9	13855	1	HOUR METER PACKAGE	RECORD TIME THAT IS MACHINE IS BEING USED	LOWER CONTROL PANEL
A11	13854	1	BATTERY INDICATOR PACKAGE	SHOW BATTERY STATUS	LOWER CONTROL PANEL
B1-B4	XXXX	4	6 VOLT DEEP CYCLE BATTERY	POWER FOR THE MOTOR AND CONTROL CIRCUIT	INSIDE BATTERY COMPARTMENT
BD1	8841	1	SWITCH BATTERY DISCONNECT	DISCONNECT ALL ELECTRICAL POWER	MOTOR CABINET
CB1	7235	1	CIRCUIT BREAKER - 15 AMP MANUAL	CONTROL CIRCUIT PROTECTION	LOWER CONTROL PANEL
MC1	5967	1	24 VOLT CONTACTOR	ALLOW MOTOR TO TURN ON	MOTOR CABINET
D1-D15 R1-R4	8601	1	CIRCUIT BOARD FOR UNITS W/ SEVCON	DIRECT SIGNALS TO THE PROPER LOCATION	MOTOR CABINET NEAR TERM. STRIP
D17	8368	1	DIODE W/ RING TERMINALS	SUPRESION DIODE	ACROSS CONTACTOR COIL
ES1	7800	1	SWITCH, EMERGENCY STOP	SHUTDOWN ALL MOVING FUNCTIONS	LOWER CONTROL PANEL
ES2	7800	1	SWITCH, EMERGENCY STOP	SHUTDOWN ALL PLATFORM MOVING FUNCTIONS	UPPER CONTROL BOX
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M1	8544	1	MOTOR, 24 VOLT, 2 HP	TURN THE HYDRALIC PUMP	MOTOR CABINET
PWM	8539	1	CONTROLLER, DC 250 AMP	CHANGES THE MOTOR SPEED	MOTOR CABINET
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S3	8753	1	SWITCH, PUSH-BUTTON	ENABLES OTHER FUNCTION TO BE USED AT PLATFORM	UPPER CONTROL BOX, HANDLE
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S5	8448	1	SWITCH, LIMIT V3	LEFT TURN SWITCH	UPPER CONTROL BOX, HANDLE
S6	8638	1	SWITCH, TOGGLE 4 POLE 2 POS.	ALLOW EITHER LIFT OR DRIVE FUNCTIONS	UPPER CONTROL BOX
S7	8696	1	SWITCH, LIMIT V7	REVERSE OR LIFT SWITCH	UPPER CONTROL BOX
S8	8696	1	SWITCH, LIMIT V7	FORWARD OR DOWN SWITCH	UPPER CONTROL BOX
S9	5630	1	SWITCH, TOGGLE 1 POLE 2 POS.	TORQUE SWITCH	UPPER CONTROL BOX
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SOL2	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES RIGHT TURN VALVE	MAIN MANIFOLD
SOL3	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES LEFT TURN VALVE	MAIN MANIFOLD
SOL4	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES BRAKE VALVE	MAIN MANIFOLD
SOL5	8914	1	COIL, 24 VOLT 2 SPADE	DECAL VALVE	MAIN MANIFOLD
SOL6	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES REVERSE	MAIN MANIFOLD
SOL7	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES FORWARD	MAIN MANIFOLD
SOL8,9,10	8914	3	COIL, 24 VOLT 2 SPADE	ACTIVATES TORQUE VALVES	TORQUE MANIFOLD
SOL11	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES DOWN VALVE	LIFT MANIFOLD
SOL12	8914	1	COIL, 24 VOLT 2 SPADE	ACTIVATES DOWN VALVE	LIFT CYLINDER

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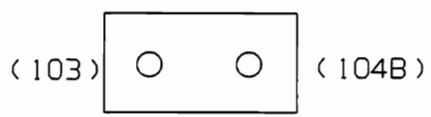
Fig. 2-1 (cont.) 1932ES / 1532ES Electrical Schematic



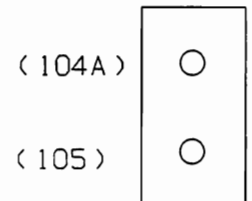
UP/DOWN



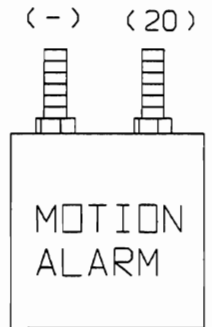
PLATFORM/BASE



EMERGENCY STOP



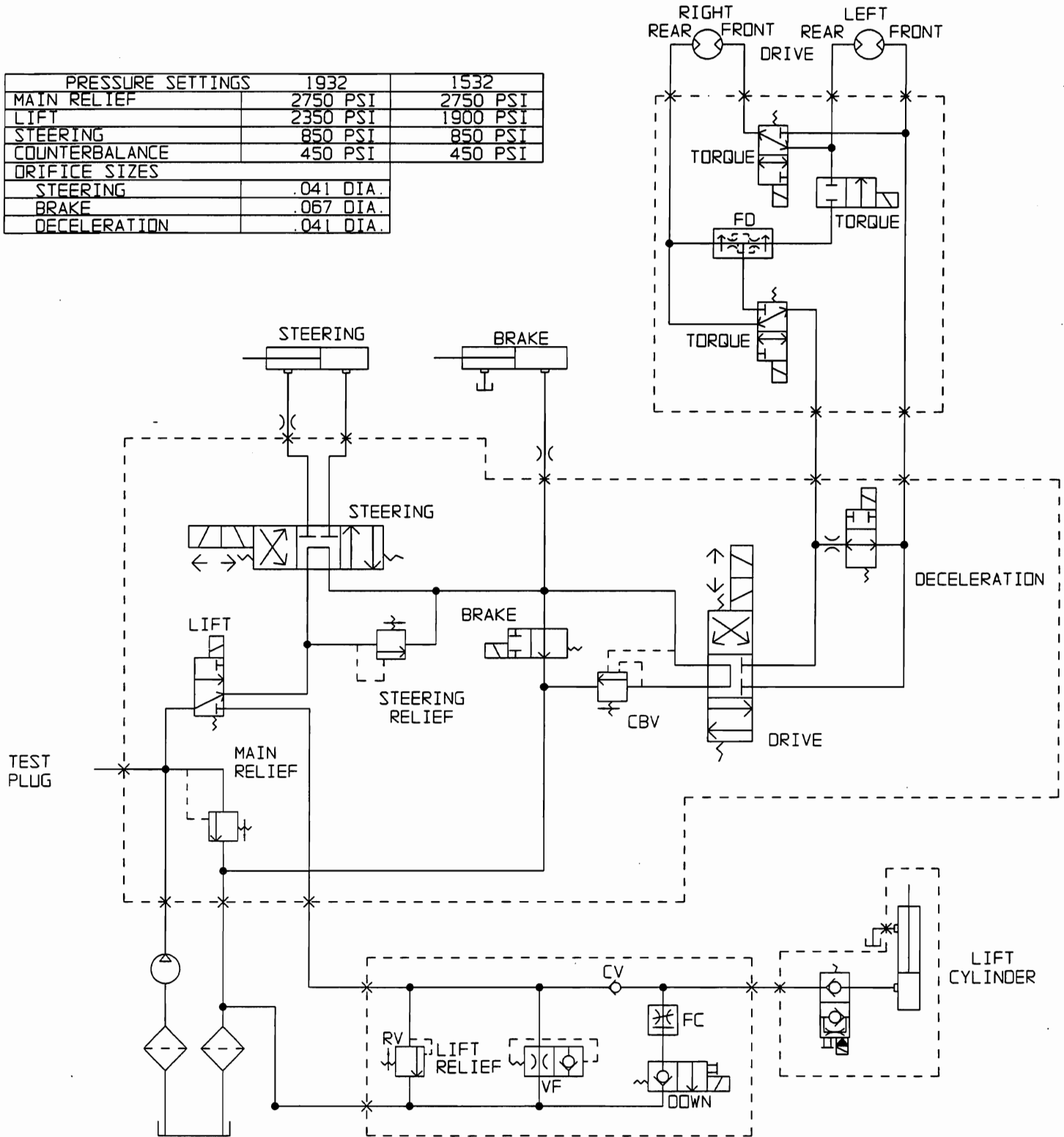
CIRCUIT BREAKER



ART704 R0  
BM14783  
11/3/97

**Fig. 2-1 (cont.) 1932ES / 1532ES Electrical Schematic**

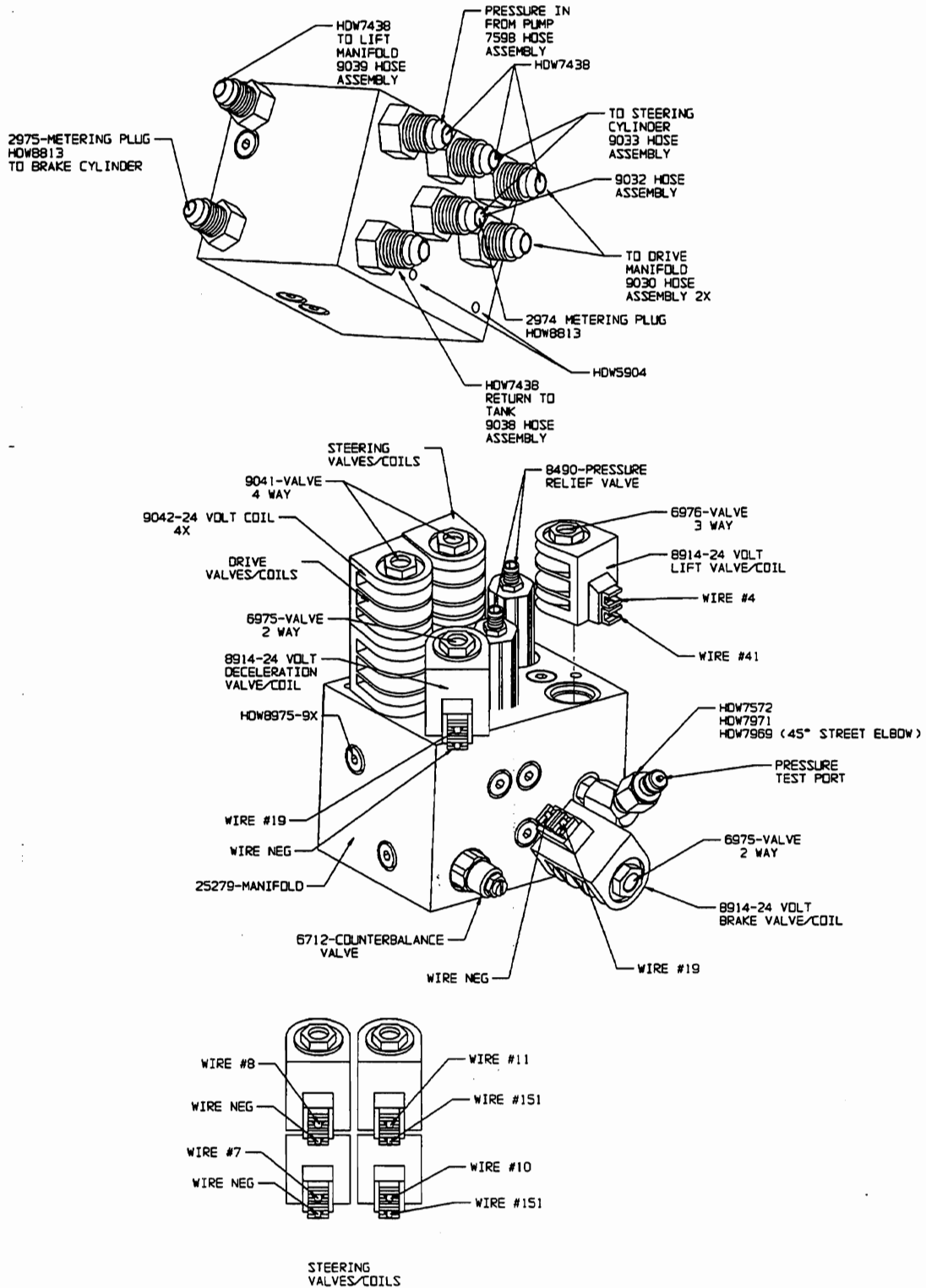
PRESSURE SETTINGS		1932	1532
MAIN RELIEF		2750 PSI	2750 PSI
LIFT		2350 PSI	1900 PSI
STEERING		850 PSI	850 PSI
COUNTERBALANCE		450 PSI	450 PSI
ORIFICE SIZES			
STEERING		.041 DIA.	
BRAKE		.067 DIA.	
DECELERATION		.041 DIA.	



ART699 R0  
 BM14730  
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Fig. 2-2 1932ES / 1532ES Hydraulic Schematic

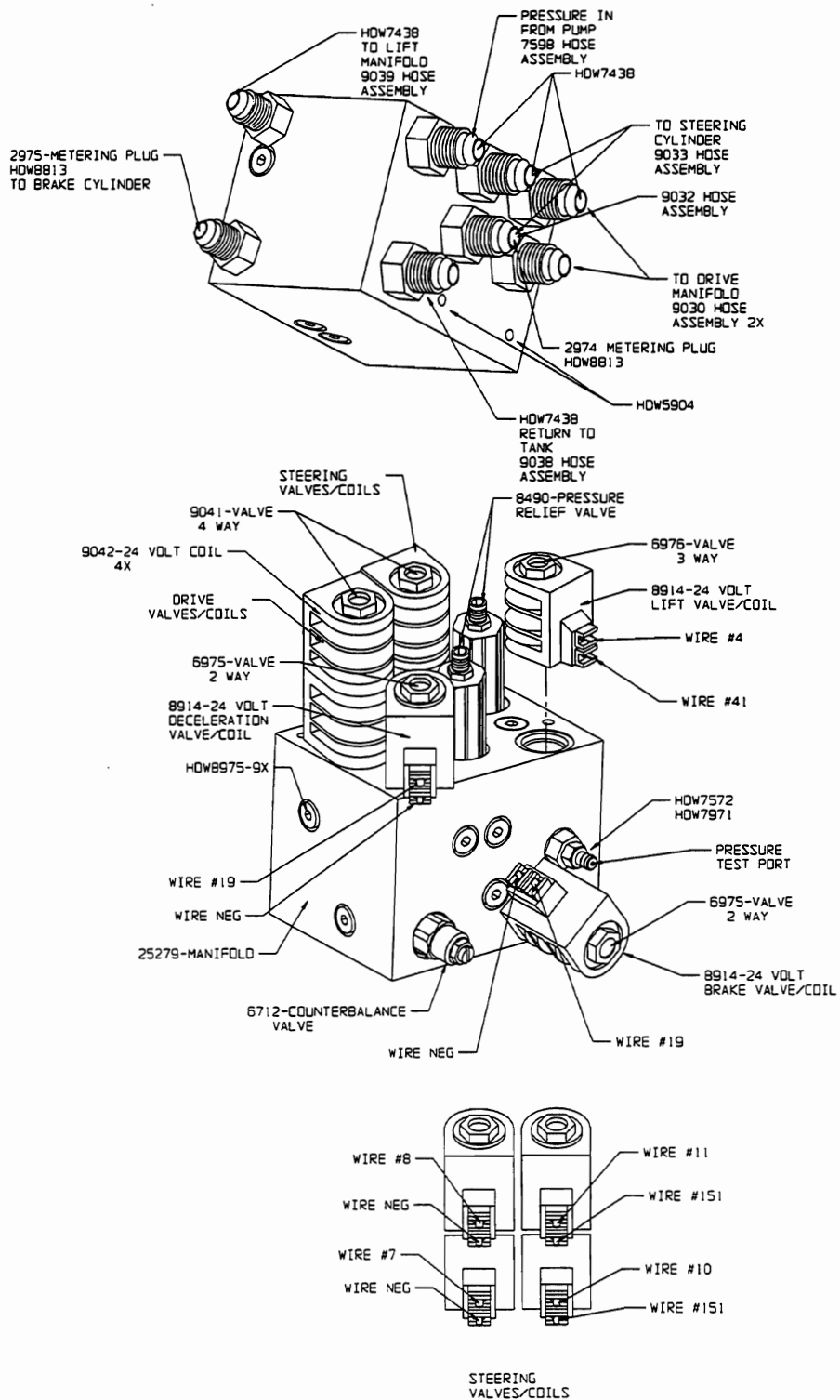
# 25280- MAIN MANIFOLD ASSEMBLY



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Figure 7-3a. 1932ES/1532ES Main Manifold

### 25280- MAIN MANIFOLD ASSEMBLY

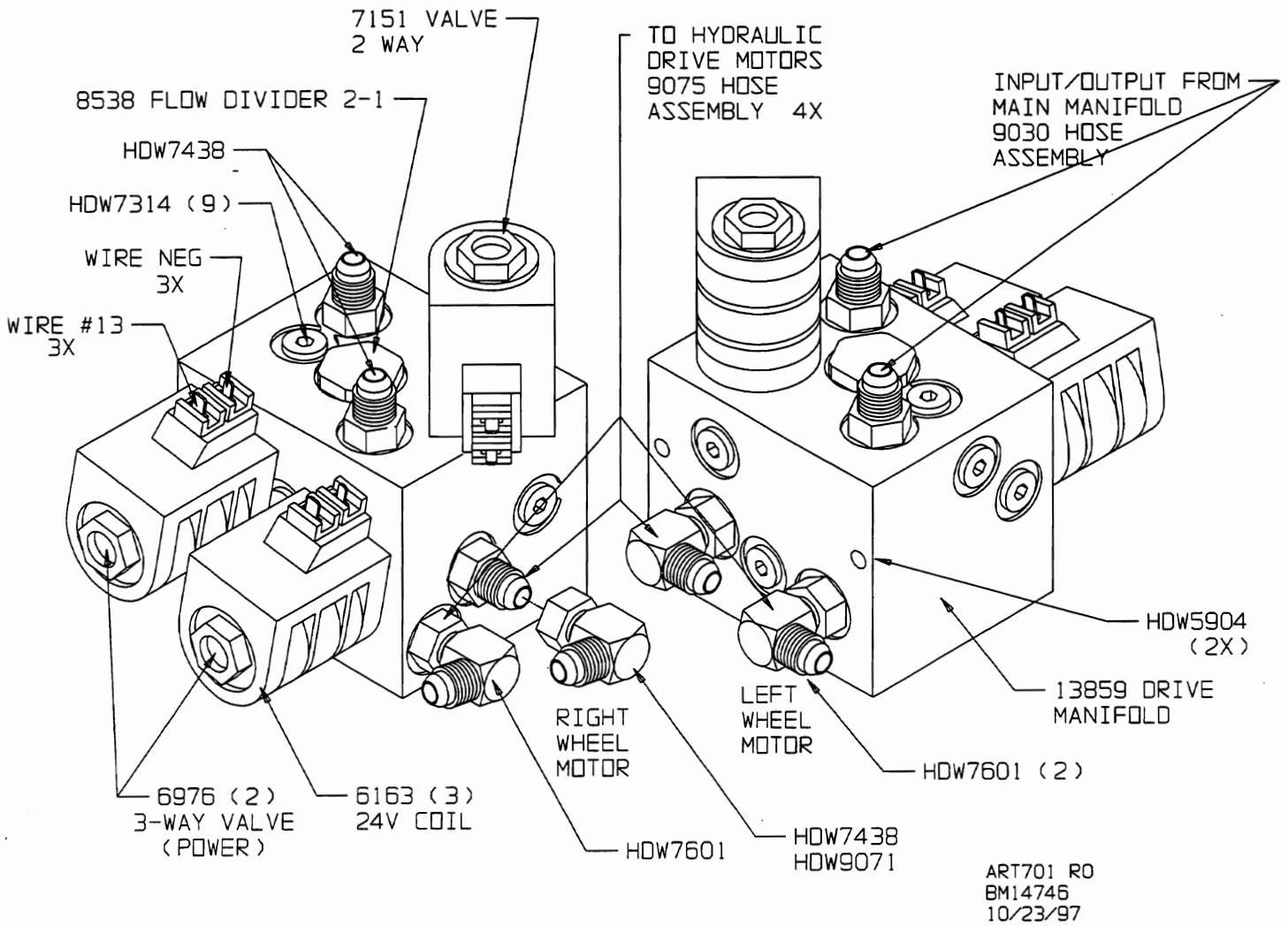


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**Fig. 7-3 1932ES / 1532ES Main Manifold**



# 25304 - DRIVE MANIFOLD



**Fig. 7-4 1932ES / 1532ES Drive Manifold**

# 25304 - DRIVE MANIFOLD

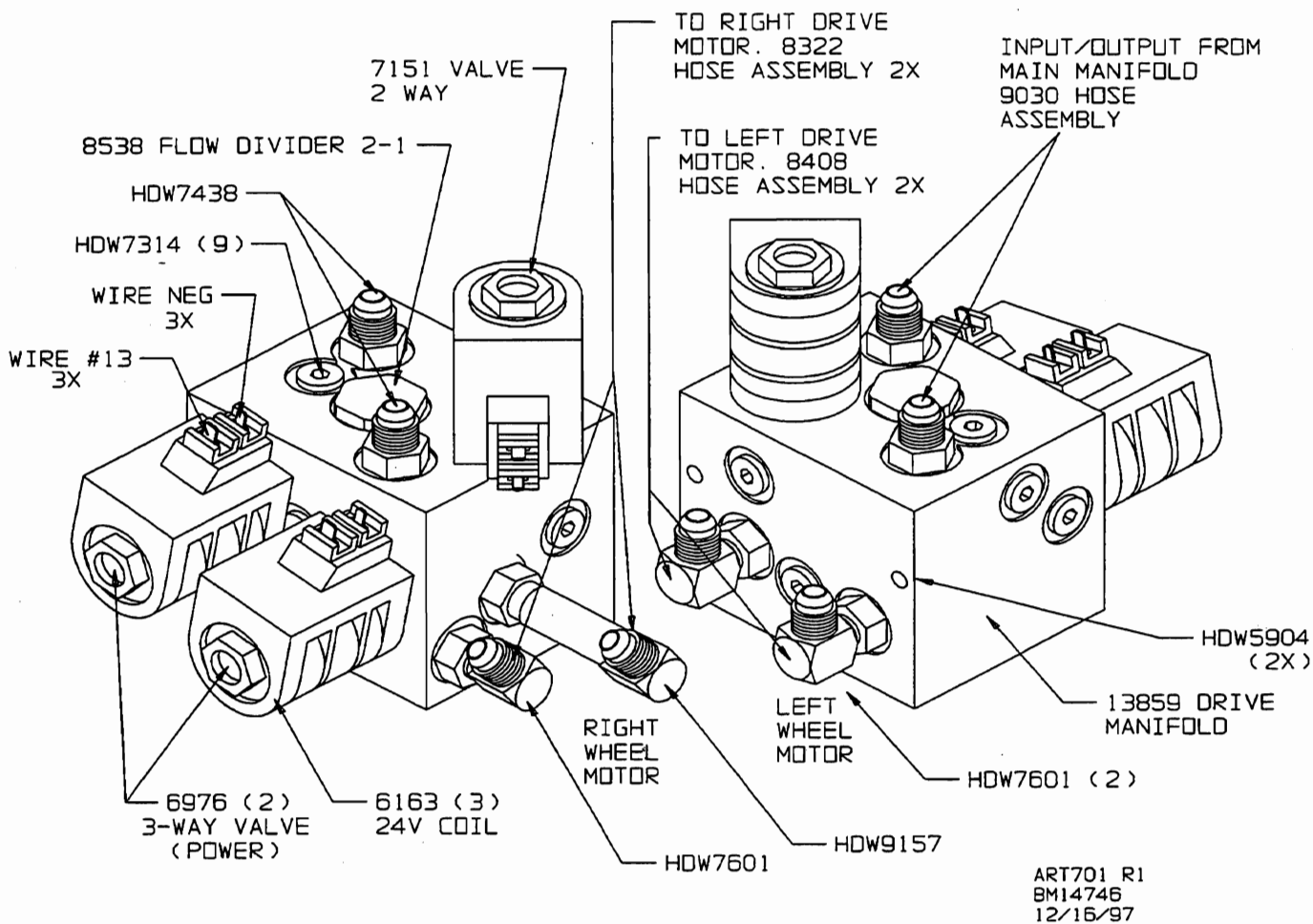
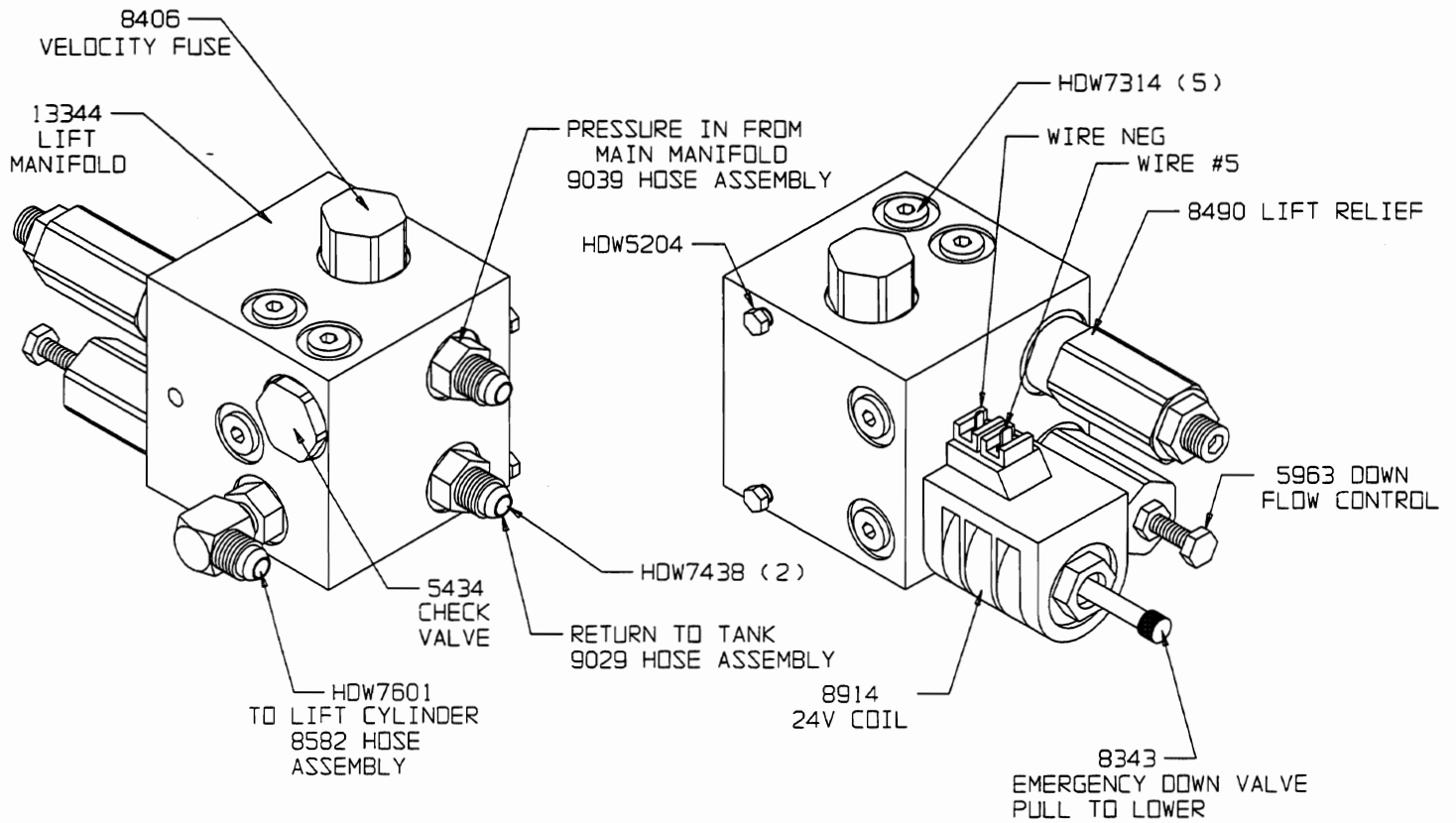


Figure 7-4a. 1932ES/1532ES Drive Manifold

# 13921 - LIFT MANIFOLD



ART700 RO  
 8M14745  
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**Fig. 7-5 1932ES / 1532ES Lift Manifold**