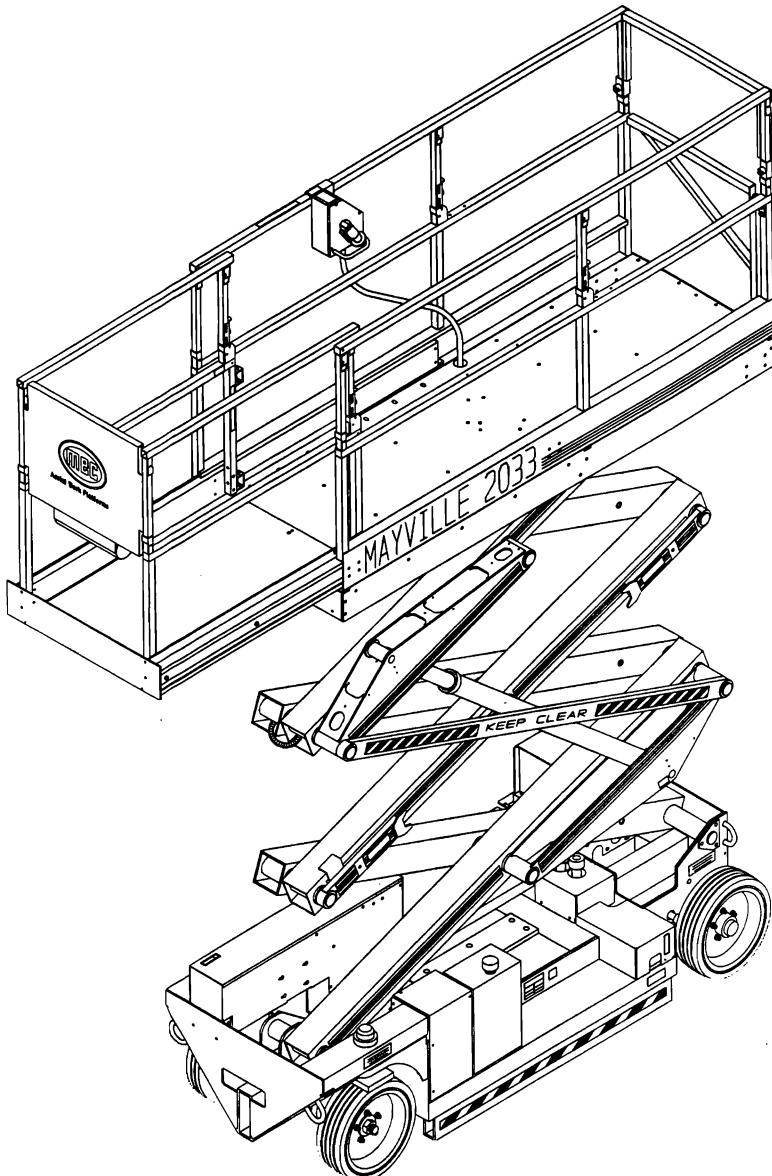


2033, 2033RS



Mayville Engineering Company, Inc.

An Employee Owned Company

Aerial Work Platforms

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Parts & Service Manual



WARNING

FAILURE TO COMPLY WITH SAFETY PRECAUTIONS LISTED IN THIS SECTION MAY RESULT IN MACHINE DAMAGE, PERSONNEL INJURY OR DEATH AND IS A SAFETY VIOLATION.

- REMOVE ALL RINGS, WATCHES, AND JEWELRY WHEN PERFORMING ANY MAINTENANCE.
- DO NOT WEAR LONG HAIR UNRESTRAINED, OR LOOSE FITTING CLOTHING AND NECKTIES WHICH ARE APT TO BECOME CAUGHT ON OR ENTANGLED IN EQUIPMENT.
- OBSERVE AND OBEY ALL WARNINGS AND CAUTIONS ON MACHINE AND IN SERVICE MANUAL.
- KEEP OIL, GREASE, WATER, ETC. WIPED FROM STANDING SURFACES AND HAND HOLDS.
- NEVER WORK UNDER AN ELEVATED PLATFORM UNTIL SAFETY PROPS HAVE BEEN ENGAGED OR PLATFORM HAS BEEN SAFELY RESTRAINED FROM ANY MOVEMENT BY BLOCKING OR OVERHEAD SLING.
- BEFORE MAKING ADJUSTMENTS, LUBRICATING OR PERFORMING ANY OTHER MAINTENANCE, SHUT OFF ALL POWER CONTROLS.
- BATTERY SHOULD ALWAYS BE DISCONNECTED DURING REPLACEMENT OF ELECTRICAL COMPONENTS.
- KEEP ALL SUPPORT EQUIPMENT AND ATTACHMENTS STOWED IN THEIR PROPER PLACE.
- USE ONLY APPROVED, NONFLAMMABLE CLEANING SOLVENTS.



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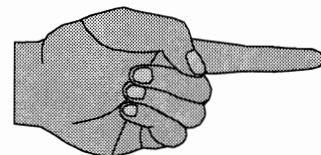
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Notes:



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SPEED LIMIT SWITCH ADJUSTMENT

The speed limit switch (Figure 1A) is actuated when the platform reaches a height of 7 feet. The switch sends a signal to the motor controller to apply slow speed when actuated.

Adjustment is made with platform in the fully down position, as follows:

1. Locate the limit switch at the right hand rear corner under the platform.
2. Adjust the switch downward to compress the plunger against the lug welded on the platform pivot pin.

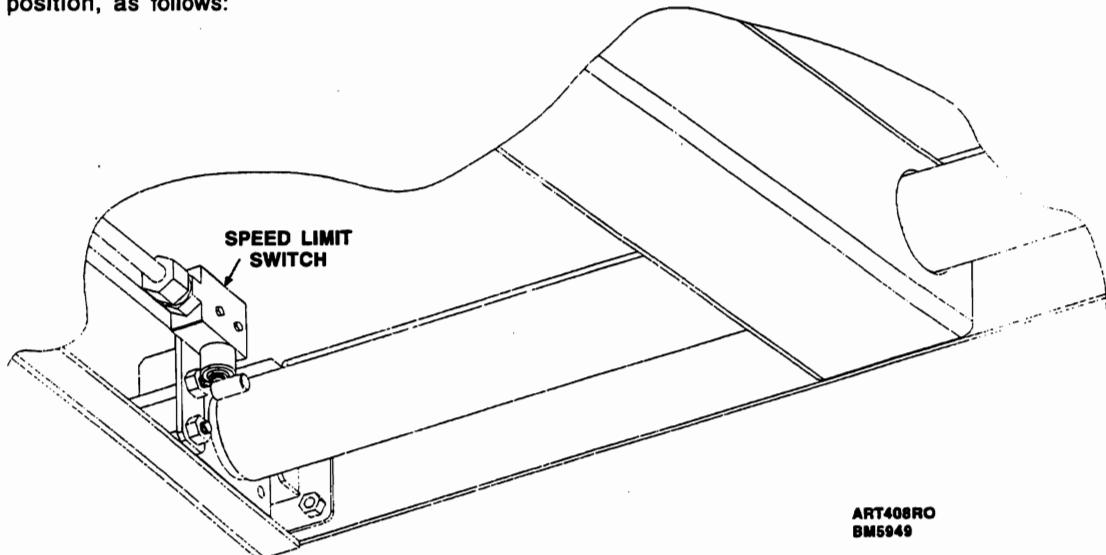
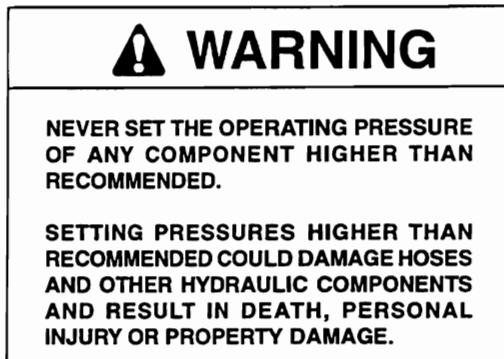


Figure 1A - Speed Limit Switch

HYDRAULIC VALVE ADJUSTMENT**Operating Pressure Relief**

Connect pressure gauge (0-3500 PSI) with female quick disconnect (P/N 8434) to primary test port (P/N 7572) and elevate platform to full extension. Hold switch to UP position until an accurate reading results on the gauge.

If adjustment is needed, set pressure to proper setting provided in the Operation and Safety Manual. Also, refer to the Hydraulic Schematics and Main Manifolds for more information.

Loosen lock nut on relief valve. Turn the adjustment screw *in* to increase the pressure and *out* to decrease the pressure. When set, tighten the lock nut and retest.

Steering Pressure Relief

Plumb a pressure gauge capable of 3000 PSI into the primary test port and energize the steering to full left. Hold switch long enough until an accurate reading results on the gauge.

If adjustment is needed, set pressure to proper setting provided in the Operation and Safety Manual. Also, refer to the Hydraulic Schematics and Main Manifolds for more information.

Loosen lock nut on steering relief valve and turn the adjustment screw *in* to increase the pressure and *out*

to decrease the pressure. When set, tighten the lock nut and retest.

Counter Balance Valve

Install pressure gauge at test port. Remove forward 3 way valve/wire #11 from cavity. Install #10 SAE port plug temporarily in open cavity to seal. Activate forward drive and observe reading.

If adjustment is needed, set pressure to proper setting provided in the Operation and Safety Manual. Also, refer to the Hydraulic Schematics and Main Manifolds for more information.

Loosen the lock nut and turn screw *in* to increase the pressure and *out* to decrease the pressure. When set, tighten the lock nut and retest.

Down Flow Control

The down flow control is adjusted by loosening the lock nut and turning the adjustment bolt *in* to increase the descent speed of the platform and *out* to decrease the descent speed. The descent speed should be 38 seconds from full extension to stowed position.

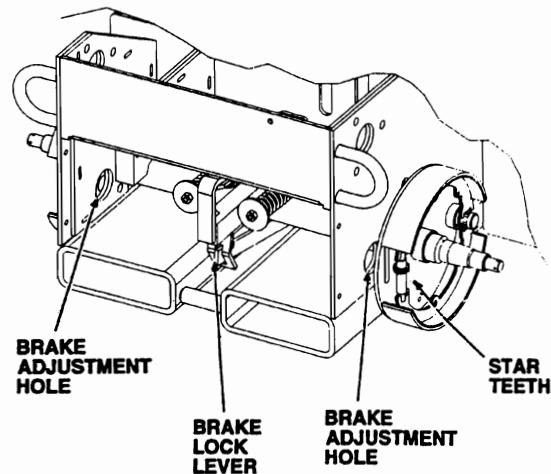
BRAKE ADJUSTMENT**NOTE**

Adjust brakes so that parking brake holds machine on an incline which it is capable of climbing. The machine is designed to have the brake on whenever it is not being driven.

1. Place platform in full down position.
2. Position unit with enough clearance to drive forward at least 12".
3. Locate guard panel at the rear of the unit directly above the fork lift pockets.
4. Remove guard panel using 1/2" wrench or ratchet.
5. Actuate control box drive switch to FORWARD, just far enough to manually lift the brake lock lever and engage into the lock notch.
6. Locate the brake adjustment holes within each panel side.
7. Using a brake adjustment tool (brake spoon), insert the flat blade into the hole and engage the sprocket (star wheel) adjusting teeth.

8. To tighten brake adjustments, turn left side star teeth to the front and right side teeth to the rear. Adjust for approximately 1 inch of return travel on the hydraulic cylinder. Both left and right side spring pull bar should be equal in travel.
9. To test, drive the unit (forward or reverse) at full speed and then fully release the joystick drive handle.
10. Measure the distance the unit coasts before it comes to a complete stop. It should be approximately 12 inches.
11. If fine tuning is required, adjust in 2 click increments.
12. Reinstall the rear guard panel.

NOTE
If brakes require servicing, refer to dealer.



ART412RO
BM5963

Figure 1B - Brake Adjustment

Troubleshooting

GENERAL TROUBLESHOOTING

The Mayville 2033/2033RS is an electric-over-hydraulic operated unit. Therefore, the first step when troubleshooting or repairing a functional defect is to check the electrical side of the system and make sure it is functioning properly. Check that all wiring is in good condition and all terminations are secure and making good contact. Check that all switches, especially limit switches, are in place and functioning properly.

The Mayville 2033/2033RS electrical system is numbered for identification. The numbering system is based on the terminal strip. All wires going through terminal one (1) will be marked as number one (1).

Refer to the appropriate maintenance section in the Operation and Safety Manual for more detailed information regarding any suggested repair or adjustment.

ELECTRICAL AND HYDRAULIC DIAGRAMS

Electrical and Hydraulic diagrams are provided. The diagrams are drawn with the unit in the stowed position, and with not functions actuated. These diagrams are furnished to help a well-trained millwright or maintenance person diagnose an undesired condition.

The switches are depicted in the electrical diagram as seen from the rear of the switch. Dashed line(s) denotes internal contacts.

Illustrations of each of the manifolds are presented following the hydraulic diagram to aid in identifying the individual valves for servicing. The pressures listed in the hydraulic diagram are taken at the test plug point in the hydraulic system.

MOTOR CONTROLLER LED DIAGNOSTIC SYSTEM

The Mayville 2033 is equipped with a motor controller which is monitored by an LED diagnostic system. The LED diagnostic system (Figure 2A) is located on the right hand side of the unit. Release the panel latches and remove panel for access to the diagnostic system.

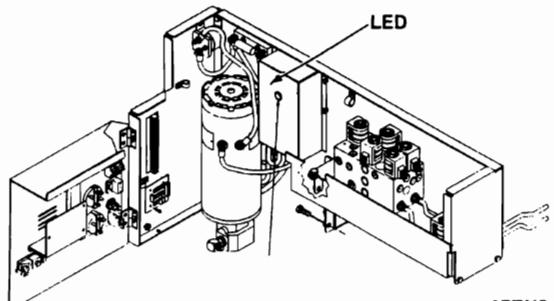


Figure 2A - LED Diagnostics

The number of flashes from the green LED light signals potential problems. See Table 2-1 for specific diagnostics information.

Table 2-1. LED Diagnostics Definitions

LED READING	DIAGNOSIS
1. LED on	Controller is operational
2. LED off	Internal fault
3. 2 flashes	Procedure fault: A) DIRECTION, ENABLE BAR, STEER or LIFT selected at power on. B) DIRECTION, LIFT or STEER selected without ENABLE BAR. C) ENABLE BAR NEUTRAL 5 second time out. Recycle through NEUTRAL to clear.
4. 3 flashes	Motor shorted internally/externally: This includes MOSFET short circuit. This fault shuts down all modes. Recycle through NEUTRAL to clear after repairing shorted motor or controller.

Table 2-1. LED Diagnostics Definitions - Continued

LED READING	DIAGNOSIS
5. 4 flashes	<p>Motor open circuit: This includes MOTOR line contactor welded. This fault shuts down all modes. Key switch recycle to clear. Replace motor or contactor.</p>
6. 5 flashes	<p>Motor neither shorted or open circuit: This includes MOTOR contactor open circuit, MOSFET open circuit and hardware fail-safe trip. This fault shuts down all modes. Key switch recycle to clear. Replace motor, contactor or controller.</p>
7. 6 flashes	<p>Faulty TRACTION accelerator: This includes TRACTION accelerator greater than 15% at power on, and wire off. If wire off occurs during active function, motor speed will default to accelerator fault creep.</p>
8. 7 flashes	<p>Battery voltage fault: This includes battery voltage below 12 volts or exceeds 45 volts. NEUTRAL recycle to clear.</p>
9. 8 flashes	<p>Thermal cutback: This includes MOSFET temperature above 176° F (80° C).</p>
10. 9 flashes	<p>Battery voltage at or below 18 volt fault: This will open the LIFT UP contactor. NEUTRAL recycle to clear.</p>

SERVICE HELPS

If unit is not functioning, check the following items BEFORE calling a service technician:

1. Battery disconnect is pushed in.
2. Key switch is turned on.
3. Circuit breaker is reset.
4. Emergency stop switch is on (base and platform).
5. 20 Amp ground fuse is operational.
6. 200 Amp motor ground fuse is operational.
7. Enable bar is being held in.

ALWAYS check the above items before continuing. The following Troubleshooting Table assumes all of these items have been checked and are functioning properly.

The troubleshooting sequence in the table is presented in a logical order beginning with the most likely and ending with the least likely.

Perform tests for all possible defects to determine the proper input and output of each component. If the result is not satisfactory, reference the probable solution category.

Table 2-2. Troubleshooting Table

PROBLEM	POSSIBLE DEFECT	PROBABLE SOLUTION
1. Motor does not run on any one or more functions.	A. Defective enable switch. B. Defective motor contactor. C. Defective diode board. D. Defective motor controller. E. Faulty wiring to/from component. F. Defective electric motor.	A. Replace enable switch. B. Replace motor contactor. C. Replace diode board. D. Replace motor controller. E. Repair wiring. F. Replace electric motor.
2. Motor runs, but functions are inoperative.	A. Low oil level. B. Defective hydraulic pump. C. Mis-adjusted main relief valve. D. Defective main relief valve. E. Faulty wiring to operating switches.	A. Add oil. B. Replace hydraulic pump. C. Adjust valve. See Specs. Sec. in Operation & Safety Manual. D. Replace main relief valve. E. Repair wiring.
3. Unit does not steer.	A. Defective steering switch(es). B. Defective steering valve coil(s). C. Defective steering valve(s). D. Defective diode board. E. Defective motor controller. F. Faulty wiring to/from steering circuit.	A. Replace steering switch(es). B. Replace steering valve coil(s). C. Replace steering valve(s). D. Replace diode board. E. Replace motor controller. F. Repair wiring.
4. Unit does not drive (forward, reverse or both directions).	A. Defective drive switch(es). B. Defective mode switch. C. Defective drive valve coil(s). D. Defective drive valve(s). E. Defective brake valve coil. F. Defective brake valve. G. Faulty brake cylinder packings. H. Defective counter balance valve. I. Defective diode board. J. Defective motor controller. K. Faulty wiring to/from drive circuit. L. Defective control potentiometer. M. Defective hydraulic drive motor(s).	A. Replace drive switch(es). B. Replace mode switch. C. Replace drive valve coil(s). D. Replace drive valve(s). E. Replace brake valve coil. F. Replace brake valve. G. Replace brake cylinder packings. H. Replace counter balance valve. I. Replace diode board. J. Replace motor controller. K. Repair wiring. L. Replace control potentiometer. M. Replace hydraulic drive motor(s).
5. Torque function inoperative.	A. Platform elevated above 7 feet. B. Speed limit switch misadjusted. C. Defective torque switch. D. Defective torque valve coil(s). E. Defective torque valve(s). F. Defective flow divider. G. Faulty wiring to/from torque circuit.	A. Lower platform to stowed position. B. Readjust speed limit switch. C. Replace torque switch. D. Replace torque valve coil(s). E. Replace torque valve(s). F. Replace flow divider. G. Repair wiring.



Table 2-2. Troubleshooting Table - Continued

PROBLEM	POSSIBLE DEFECT	PROBABLE SOLUTION
6. Platform will not lift.	A. Platform load exceeds capacity rating. B. Defective base lift/lower switch. C. Defective platform lift switch. D. Defective mode select switch. E. Defective pothole limit switch(es). (3 total) F. Misadjusted pothole limit switch(es). G. Defective lift valve coil. H. Defective lift valve. I. Defective diode board. J. Defective motor controller. K. Misadjusted lift relief valve. L. Defective lift relief valve. M. Defective manifold velocity fuse. N. Defective down valve. O. Defective lift cylinder velocity fuse. P. Defective lift cylinder packings. Q. Faulty wiring to/from lift circuit. R. Defective control potentiometer. S. Structural damage.	A. Reduce load weight. B. Replace base lift/lower switch. C. Replace platform lift switch. D. Replace mode select switch. E. Replace pothole switch(es). F. Readjust pothole limit switch(es). G. Replace lift valve coil. H. Replace lift valve. I. Replace diode board. J. Replace motor controller. K. Adjust valve. See Specs. Sec. in Operation & Safety Manual. L. Replace and readjust lift relief valve. M. Replace manifold velocity fuse. N. Replace down valve. O. Replace lift cylinder velocity fuse. P. Replace lift cylinder packings. Q. Repair wiring. R. Replace control potentiometer. S. Consult factory.
7. Platform will not lower.	A. Lift cylinder velocity fuse locked. B. Defective lowering valve coil. C. Defective lowering valve. D. Defective platform lowering switch. E. Defective base lift/lower switch. F. Defective mode select switch. G. Faulty wiring to/from lowering circuit.	A. Activate unit to lift platform 1". Wait 5 seconds before attempting to lower platform. B. Replace lowering valve coil. C. Replace lowering valve. D. Replace platform lowering switch. E. Replace base lift/lower switch. F. Replace mode select switch. G. Repair wiring.
8. Platform "drifts" down.	A. Defective down valve. B. Defective cylinder packings.	A. Clean or replace down valve. B. Replace cylinder packings.
9. Optional DC/AC converter does not activate power tool(s).	A. Variable speed equipment does not activate.	A. Plug in a trouble light to provide a constant current draw.

SYMBOL IDENTIFICATION



BEGINNING OR END



DECISION



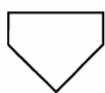
PROCESS



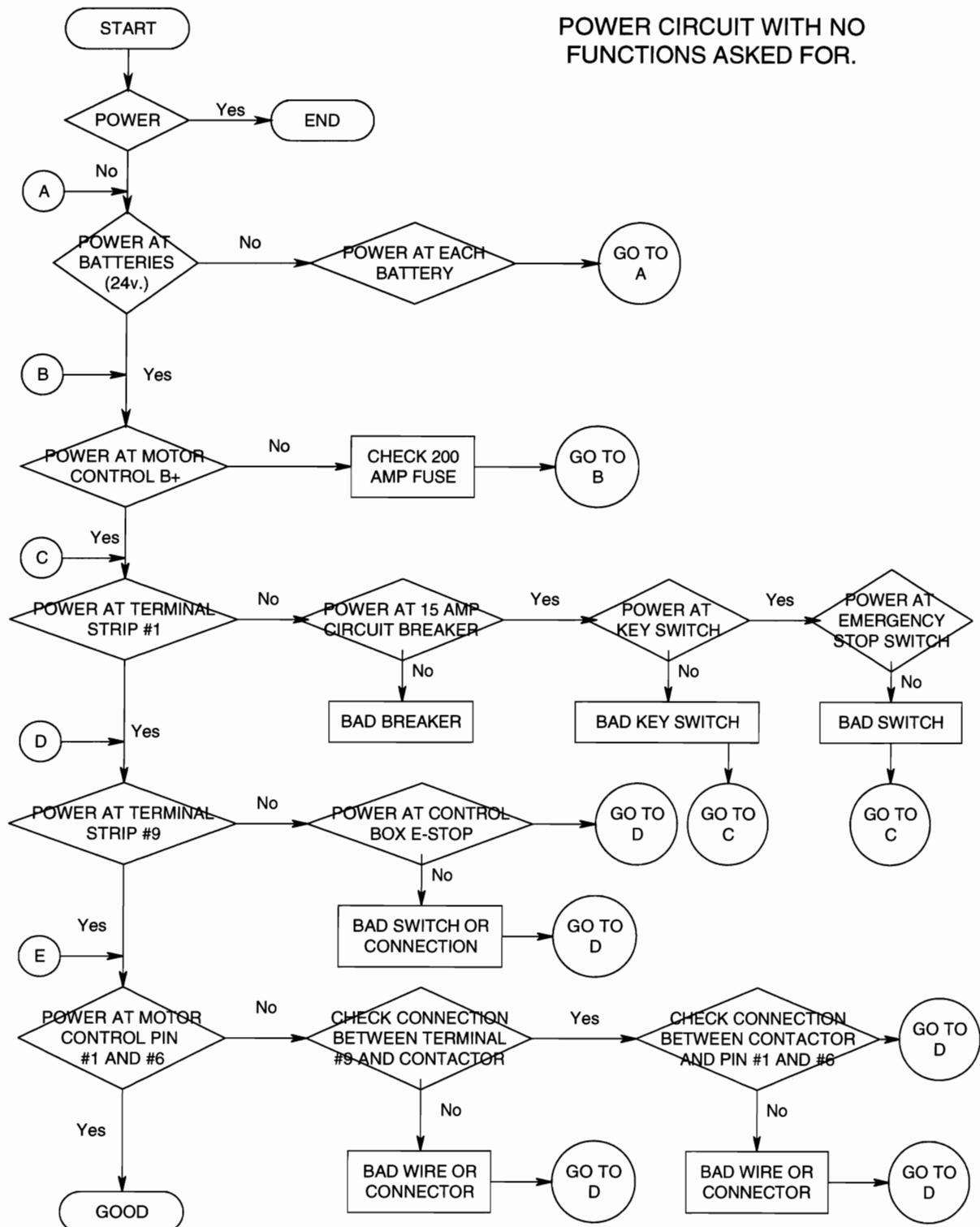
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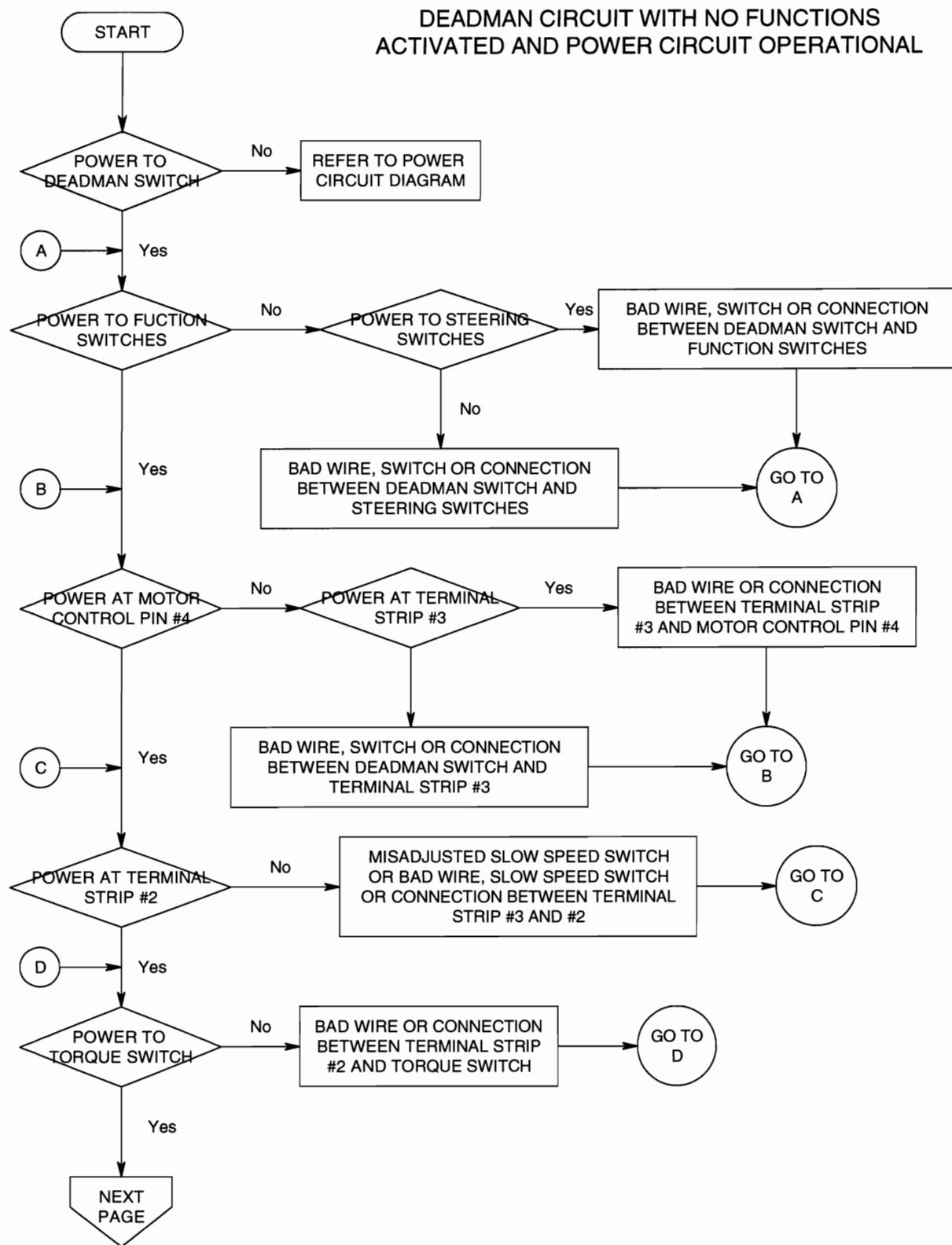


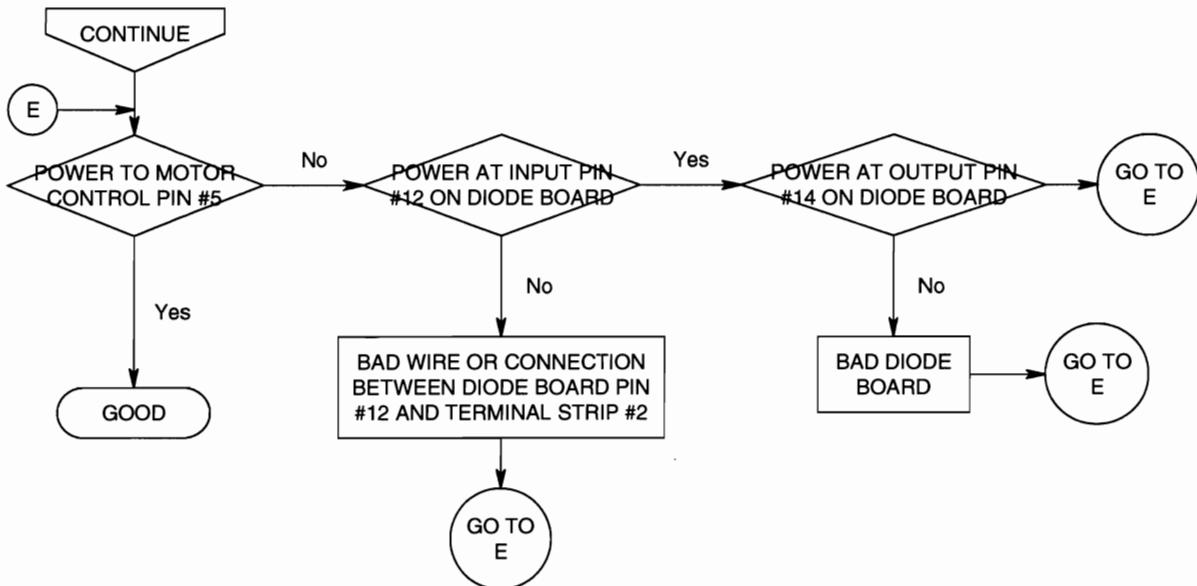
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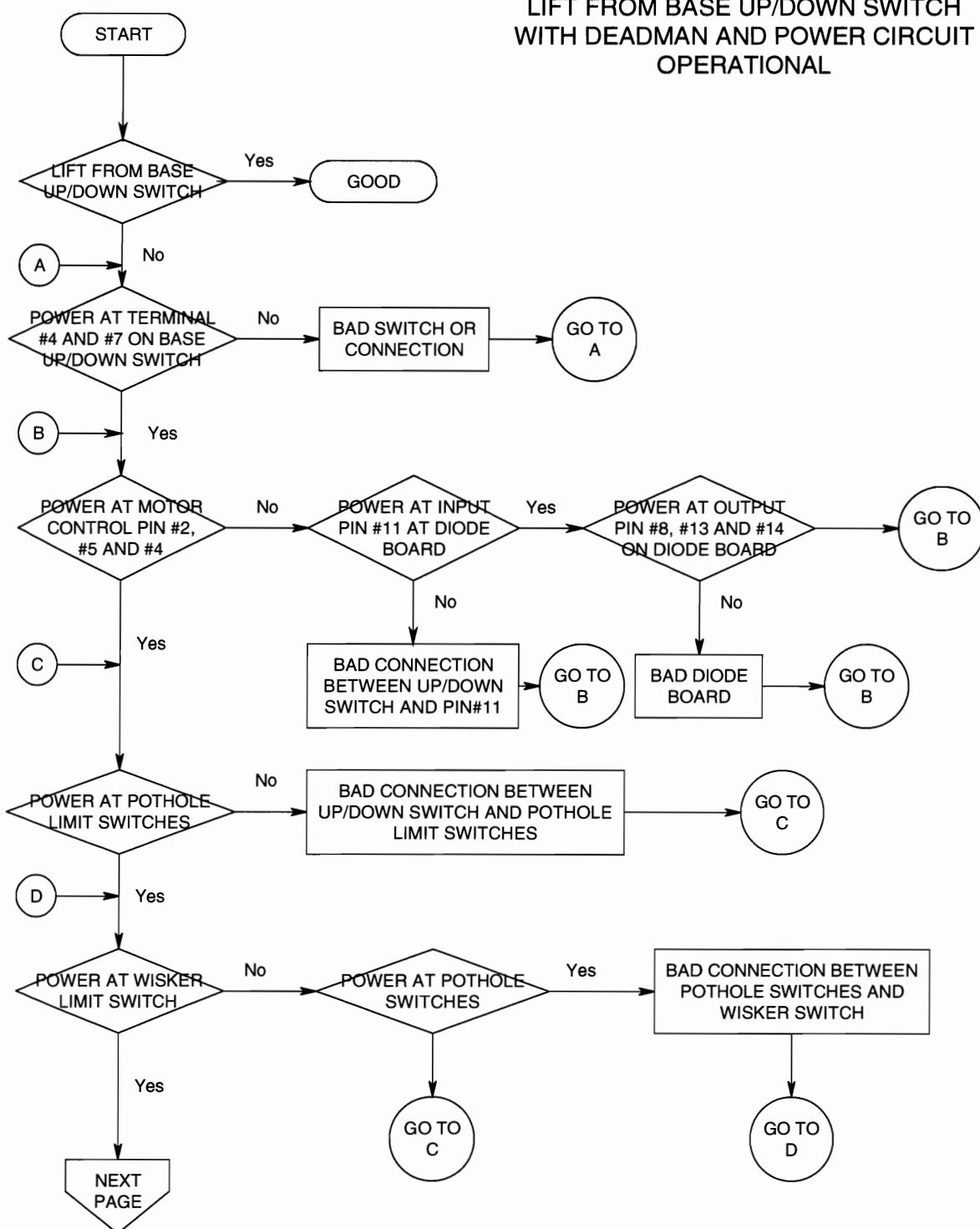
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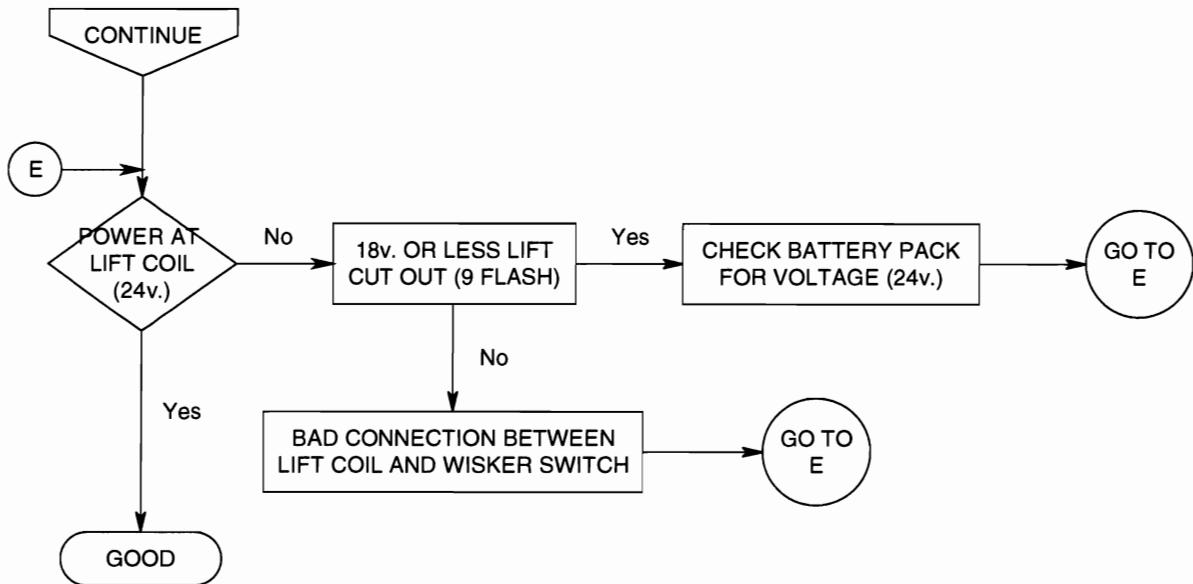




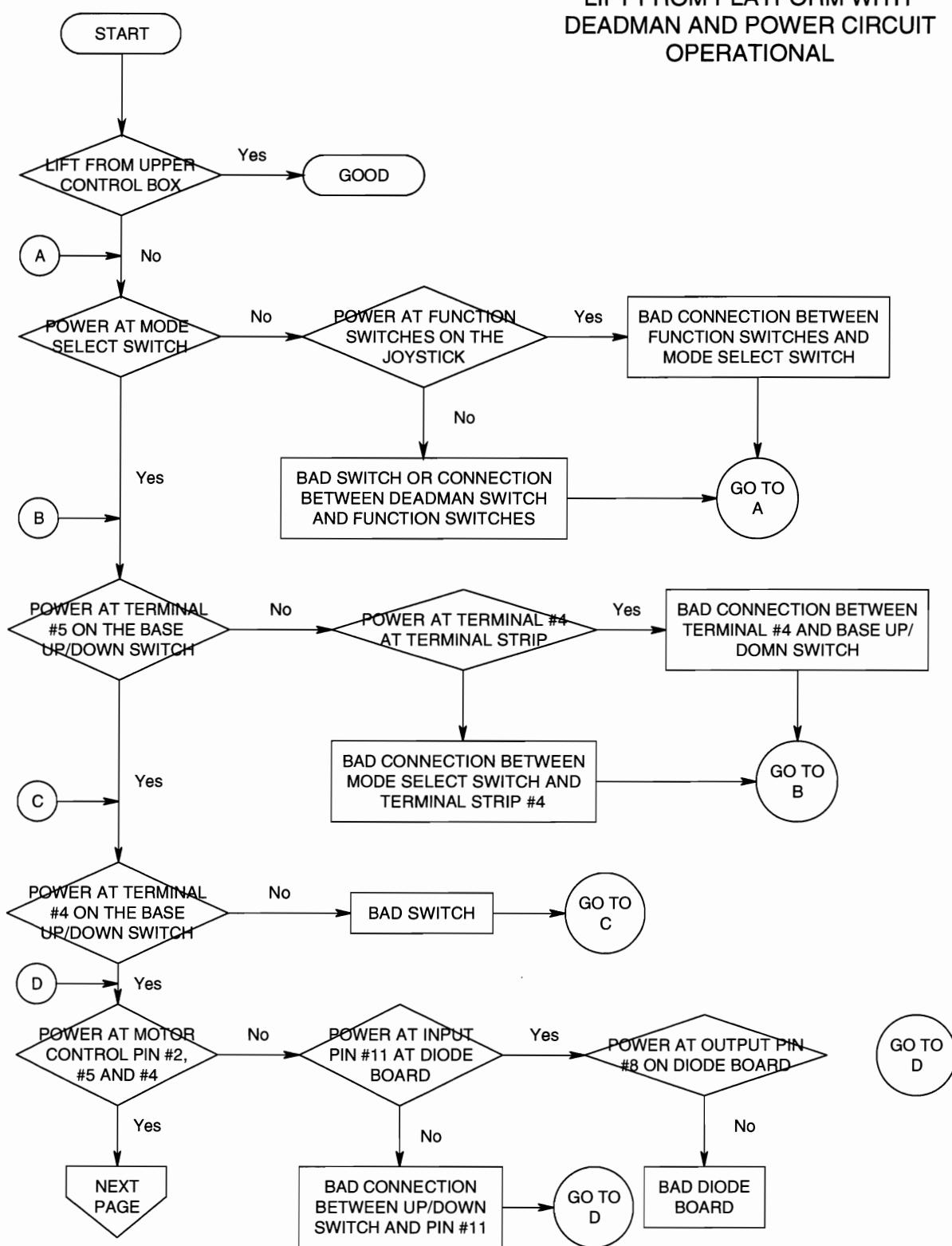


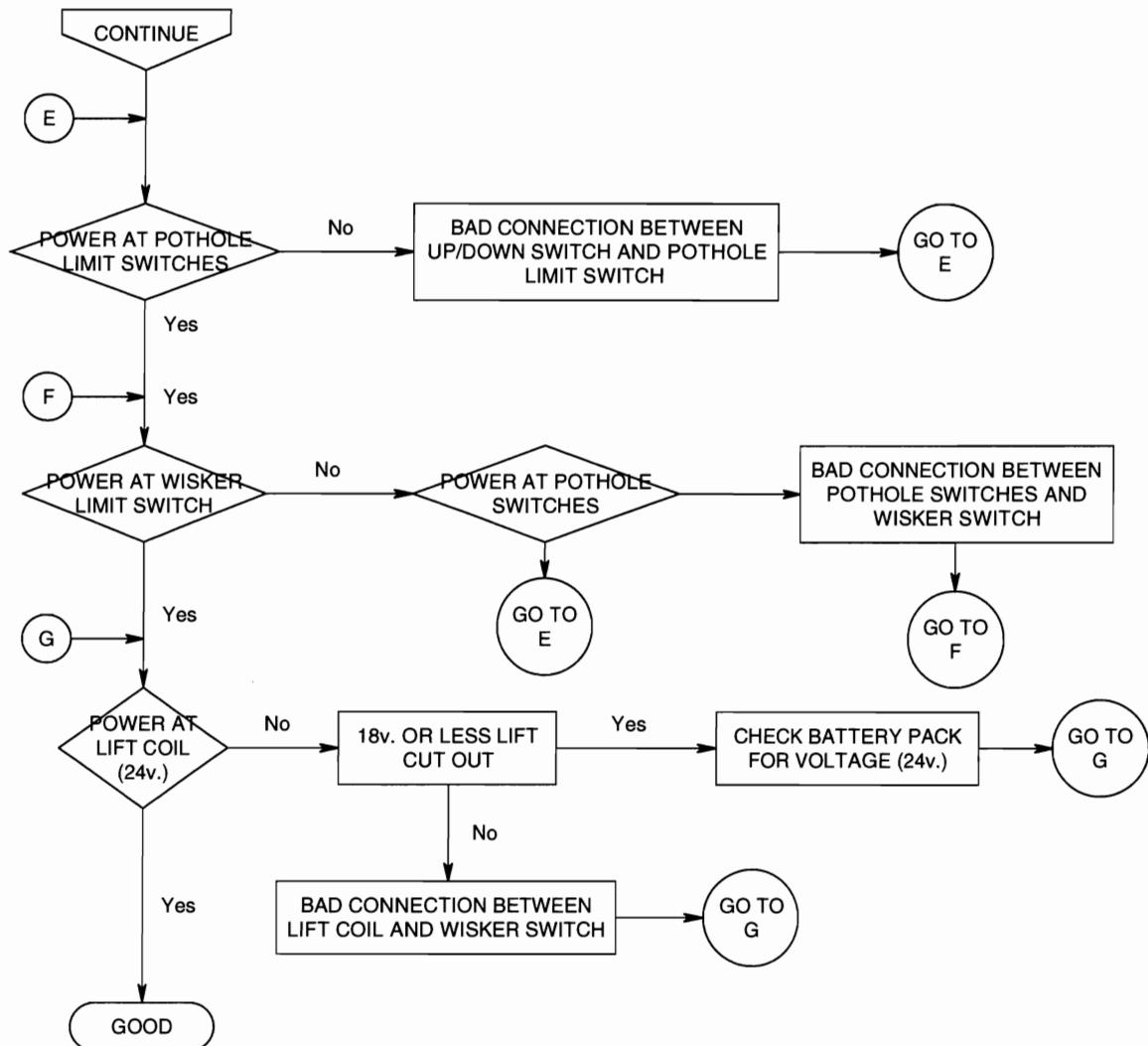
LIFT FROM BASE UP/DOWN SWITCH
WITH DEADMAN AND POWER CIRCUIT
OPERATIONAL

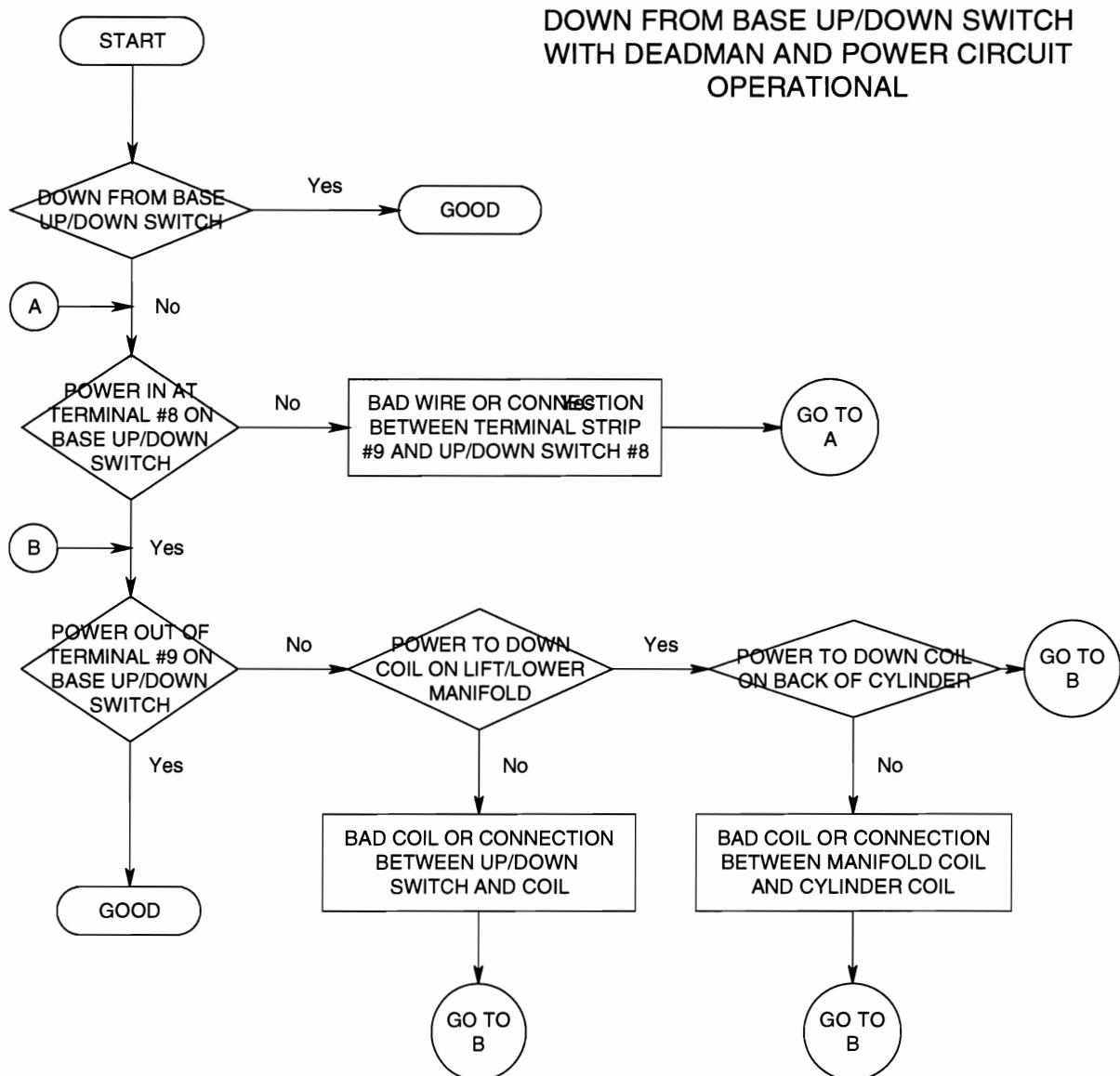


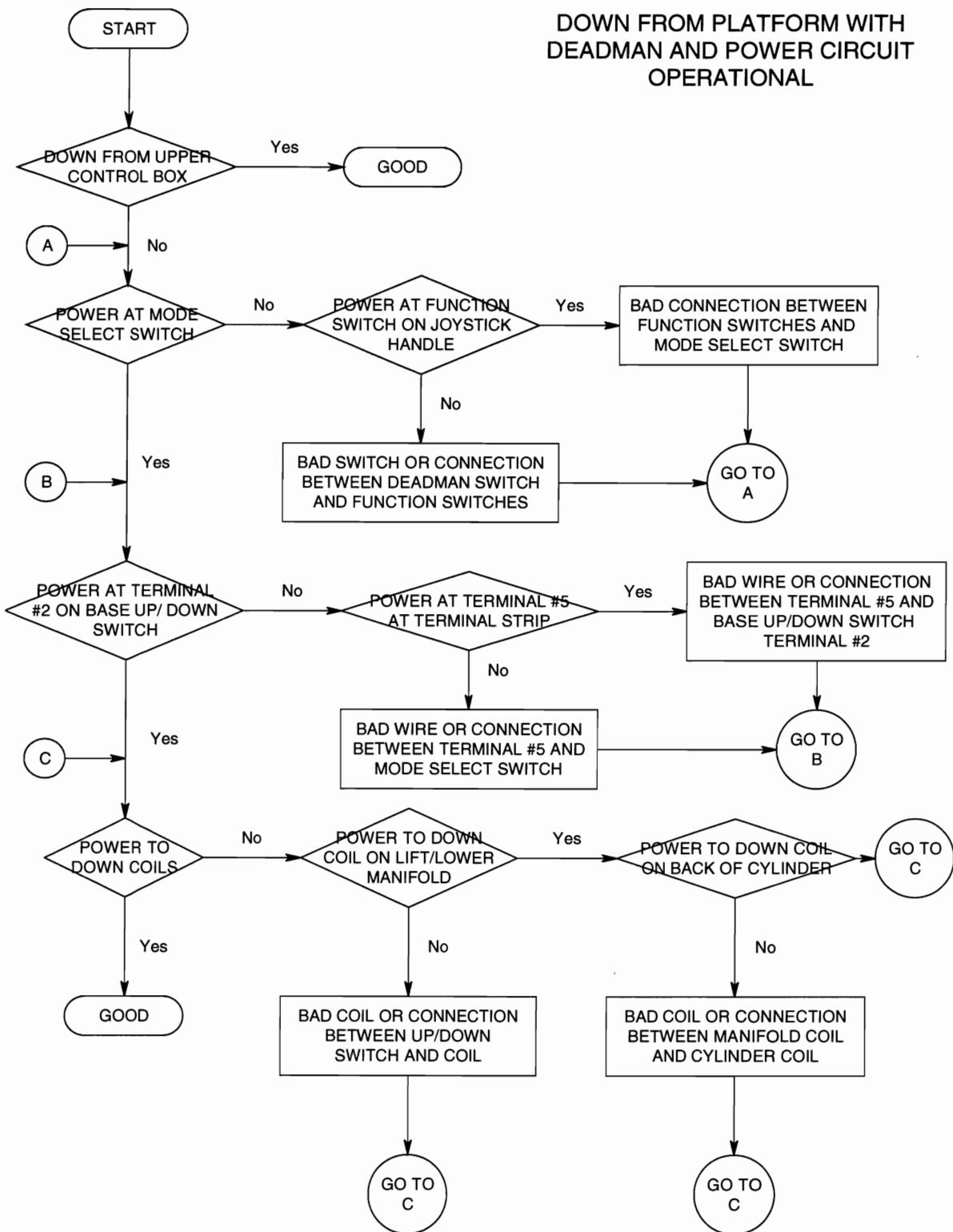


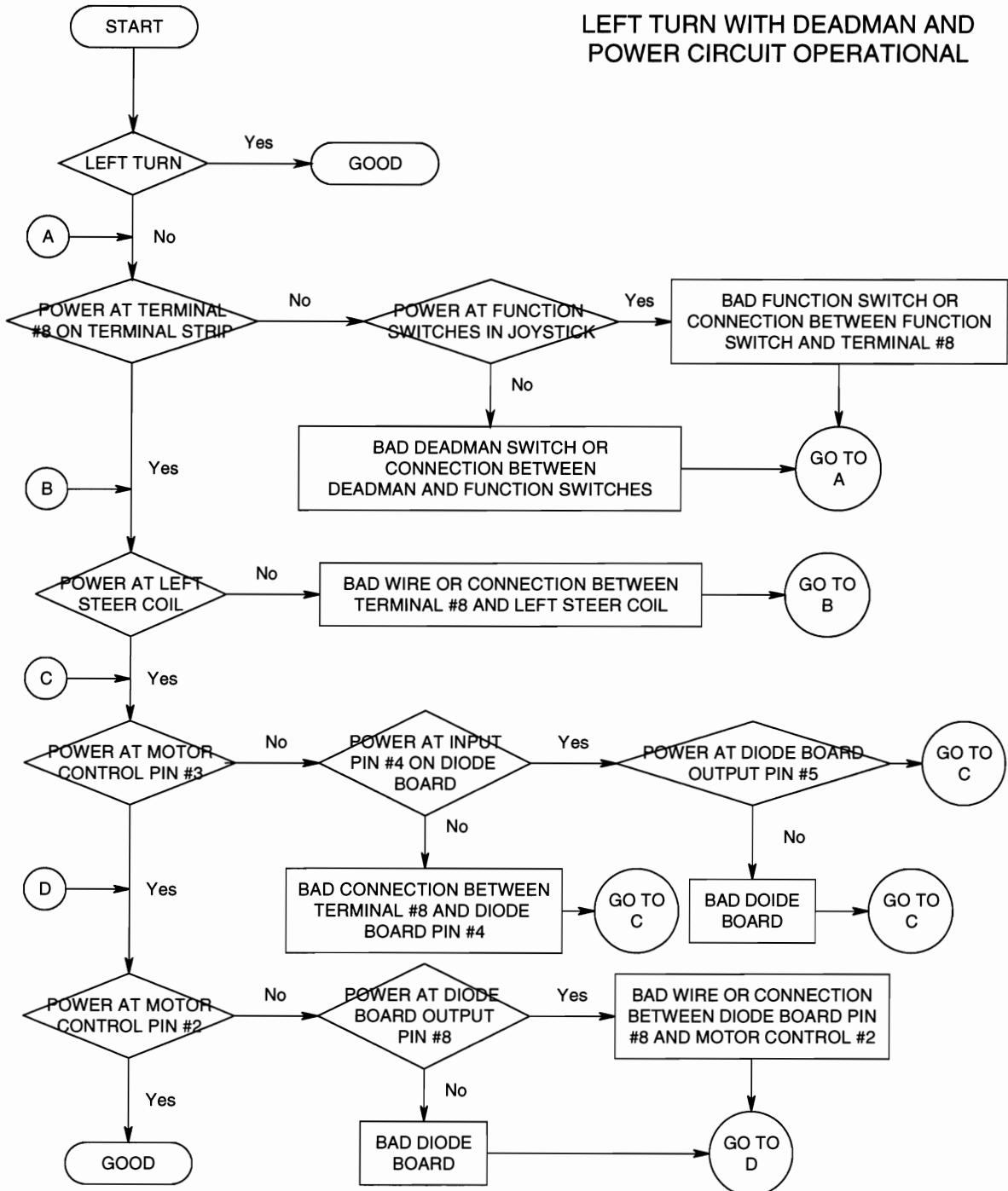
**LIFT FROM PLATFORM WITH
DEADMAN AND POWER CIRCUIT
OPERATIONAL**

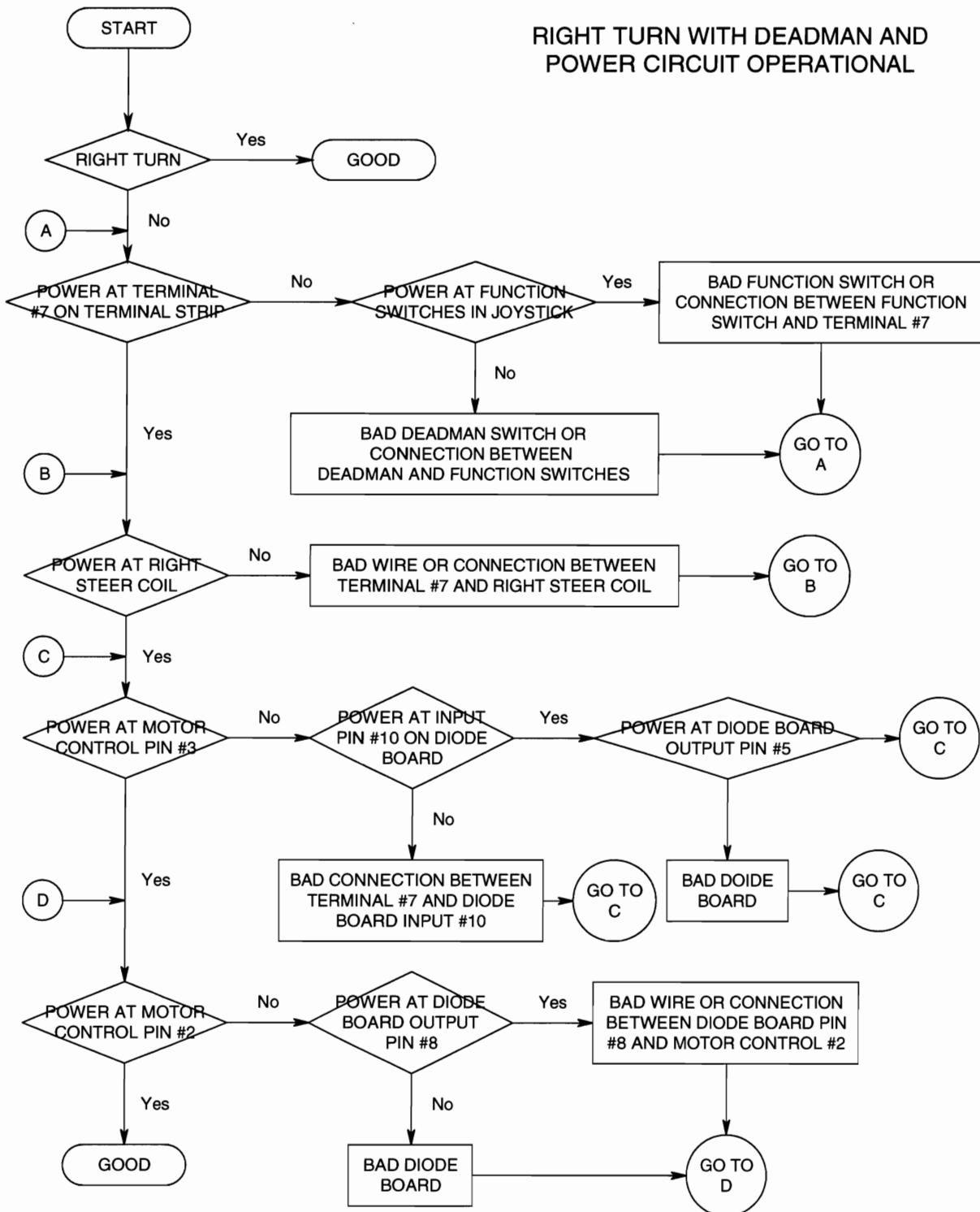


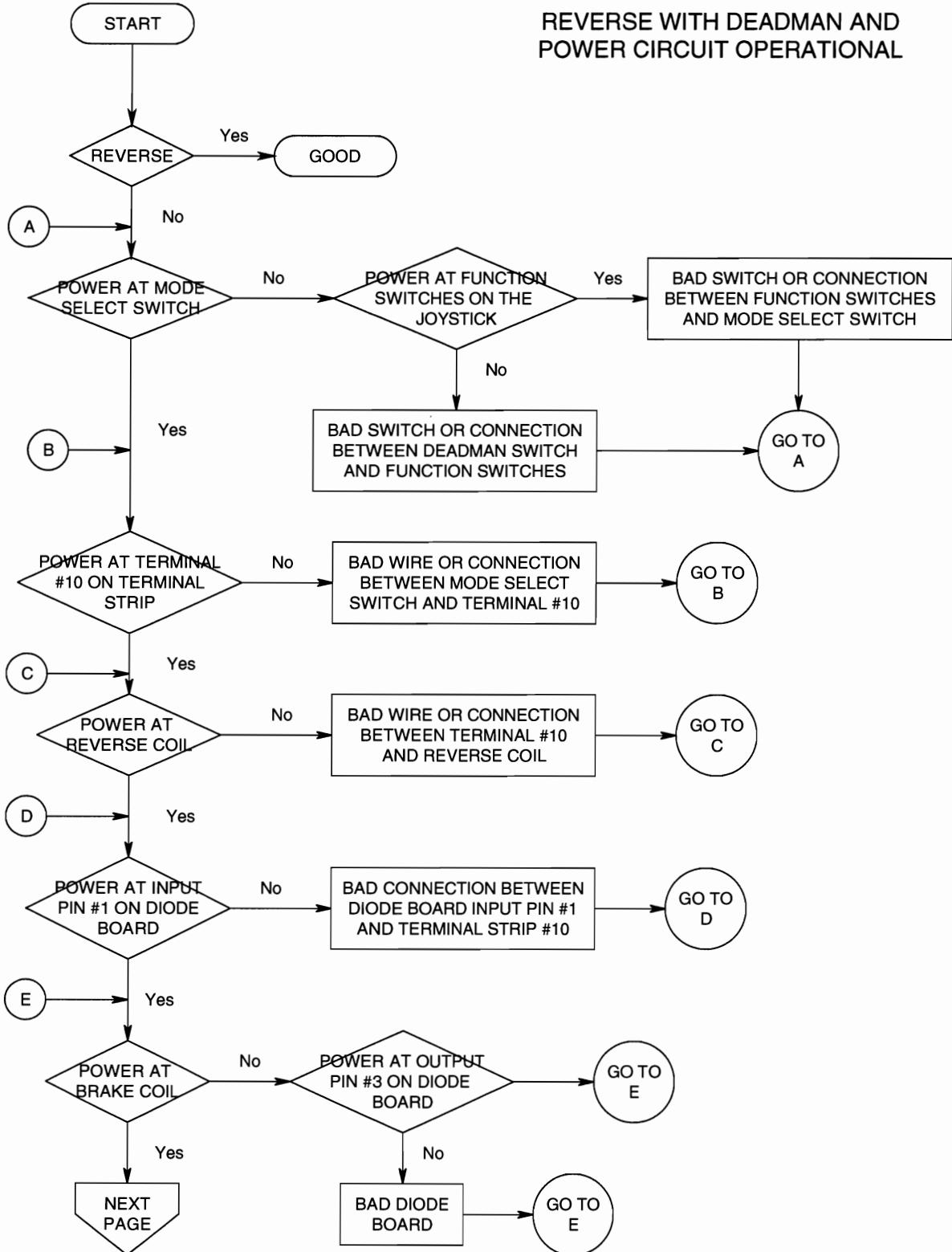


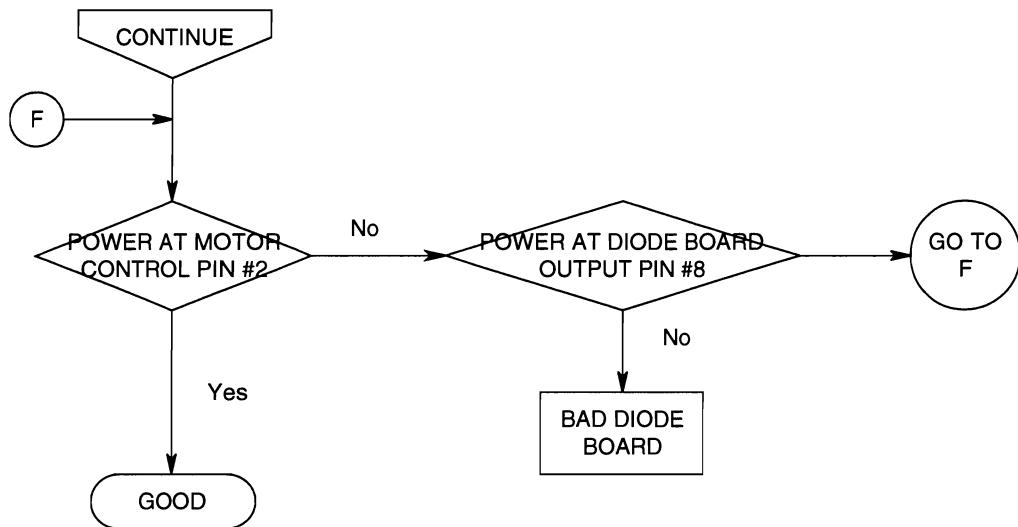


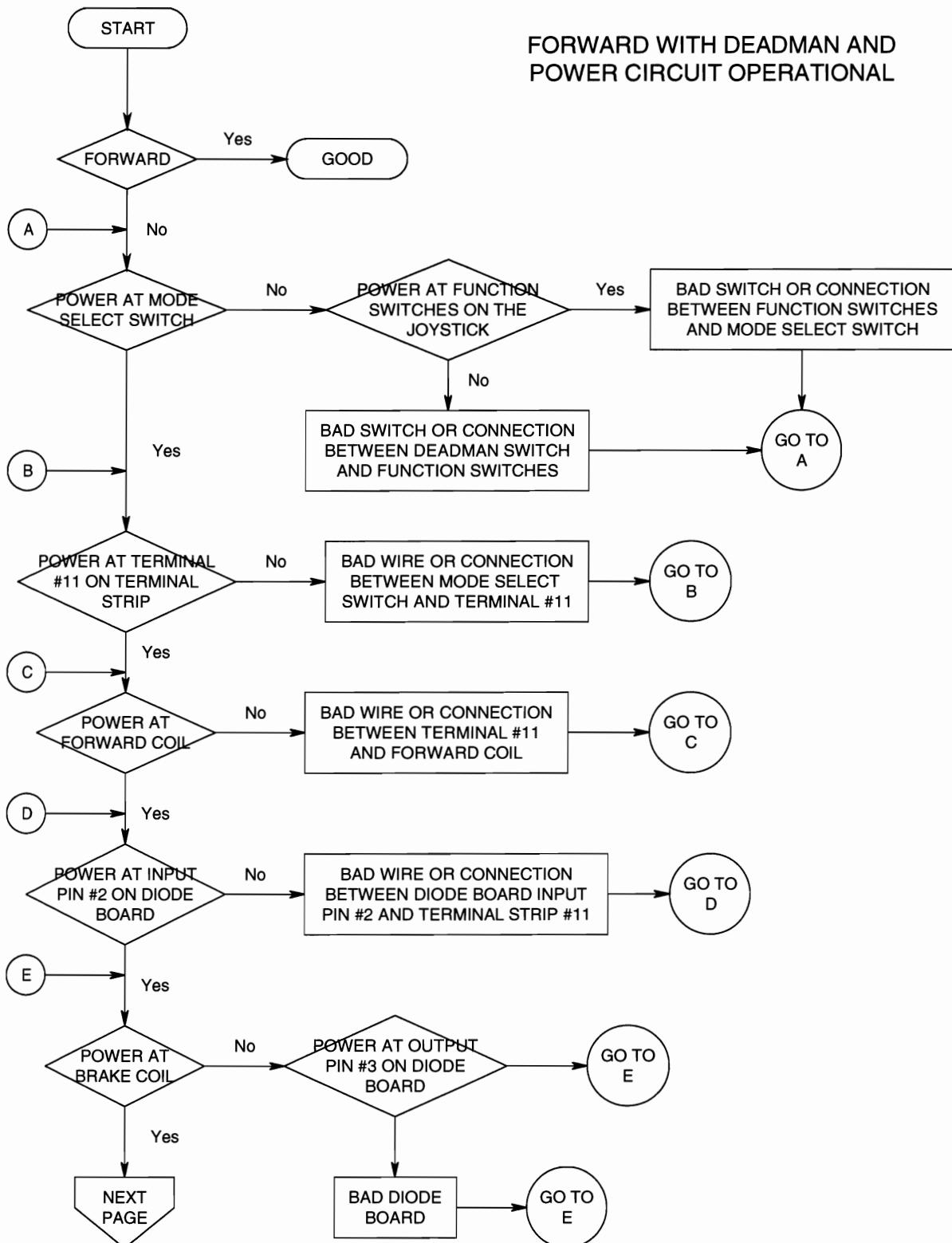


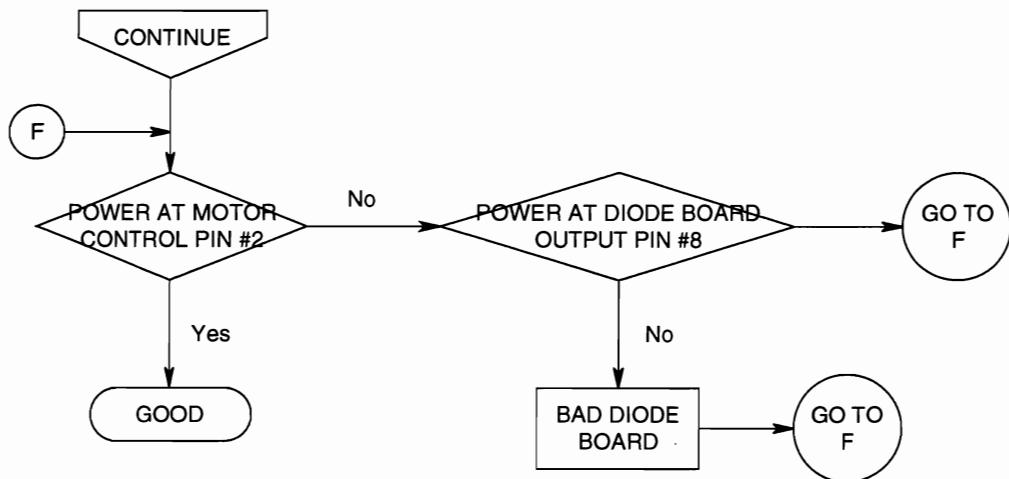




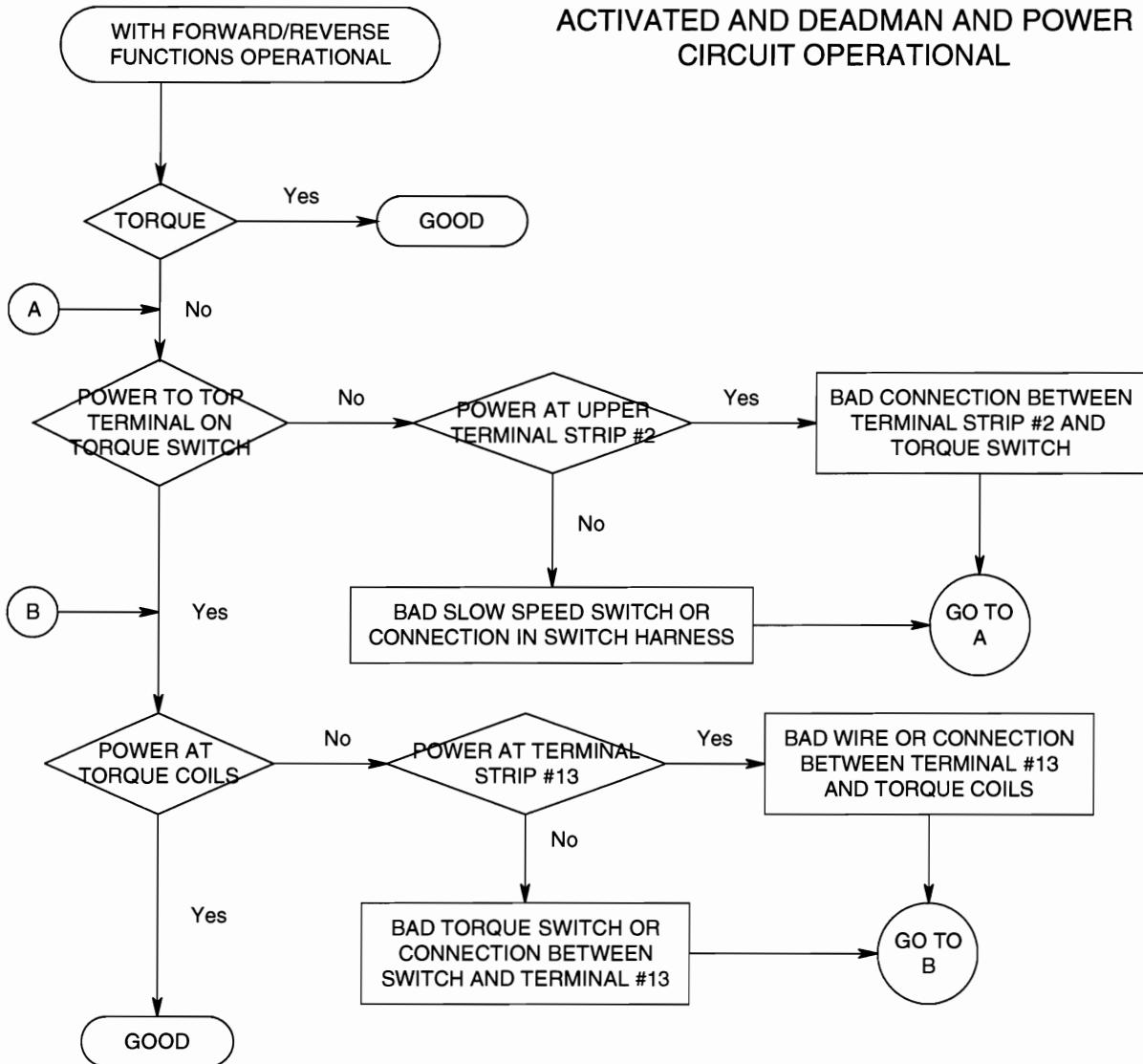


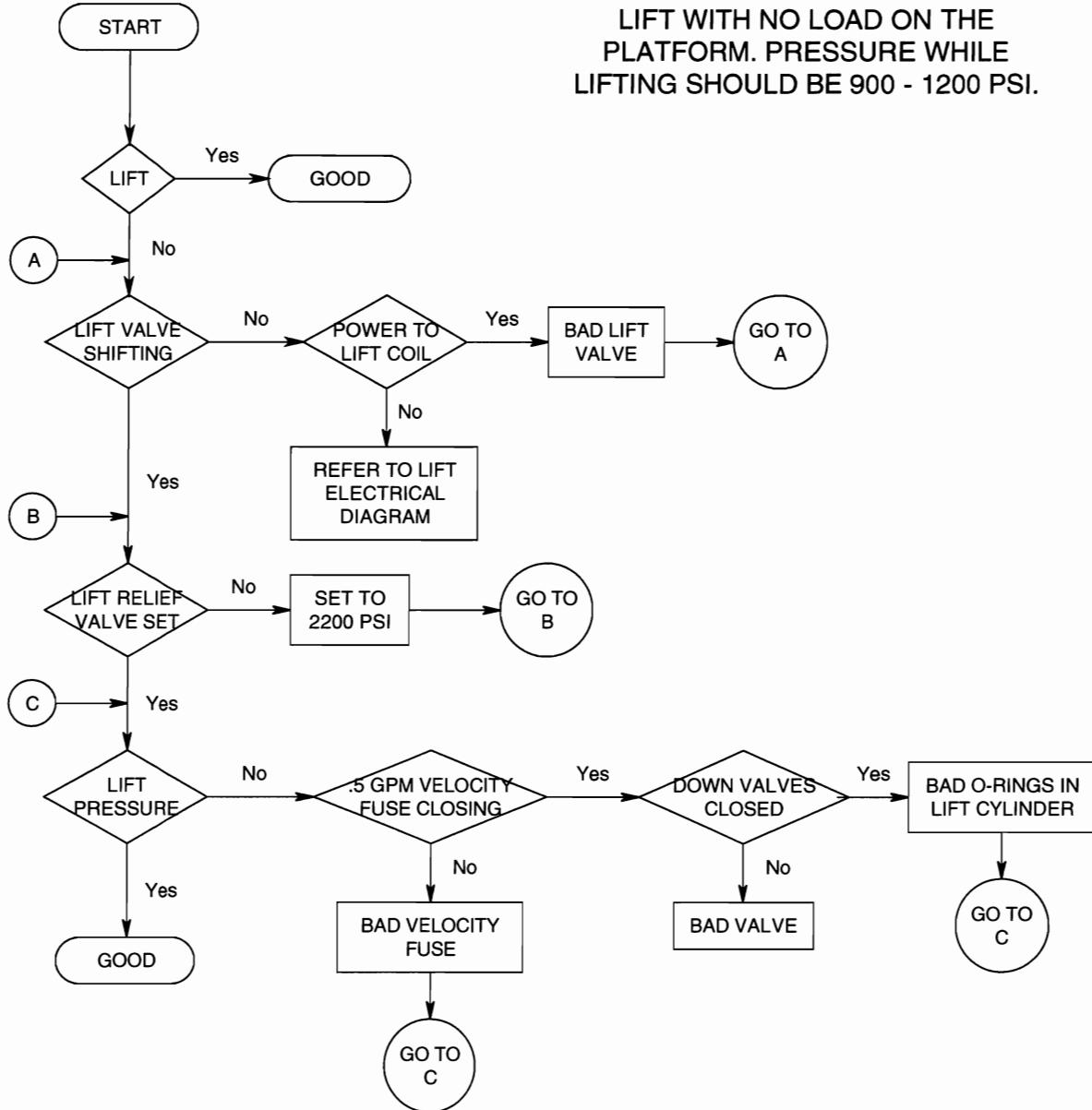


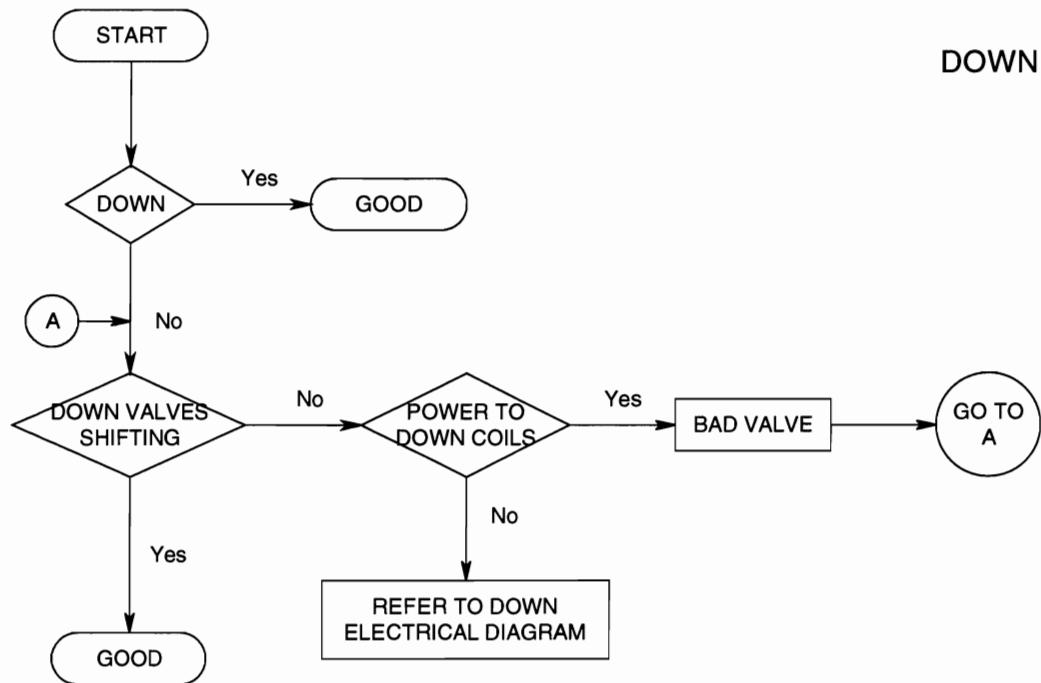


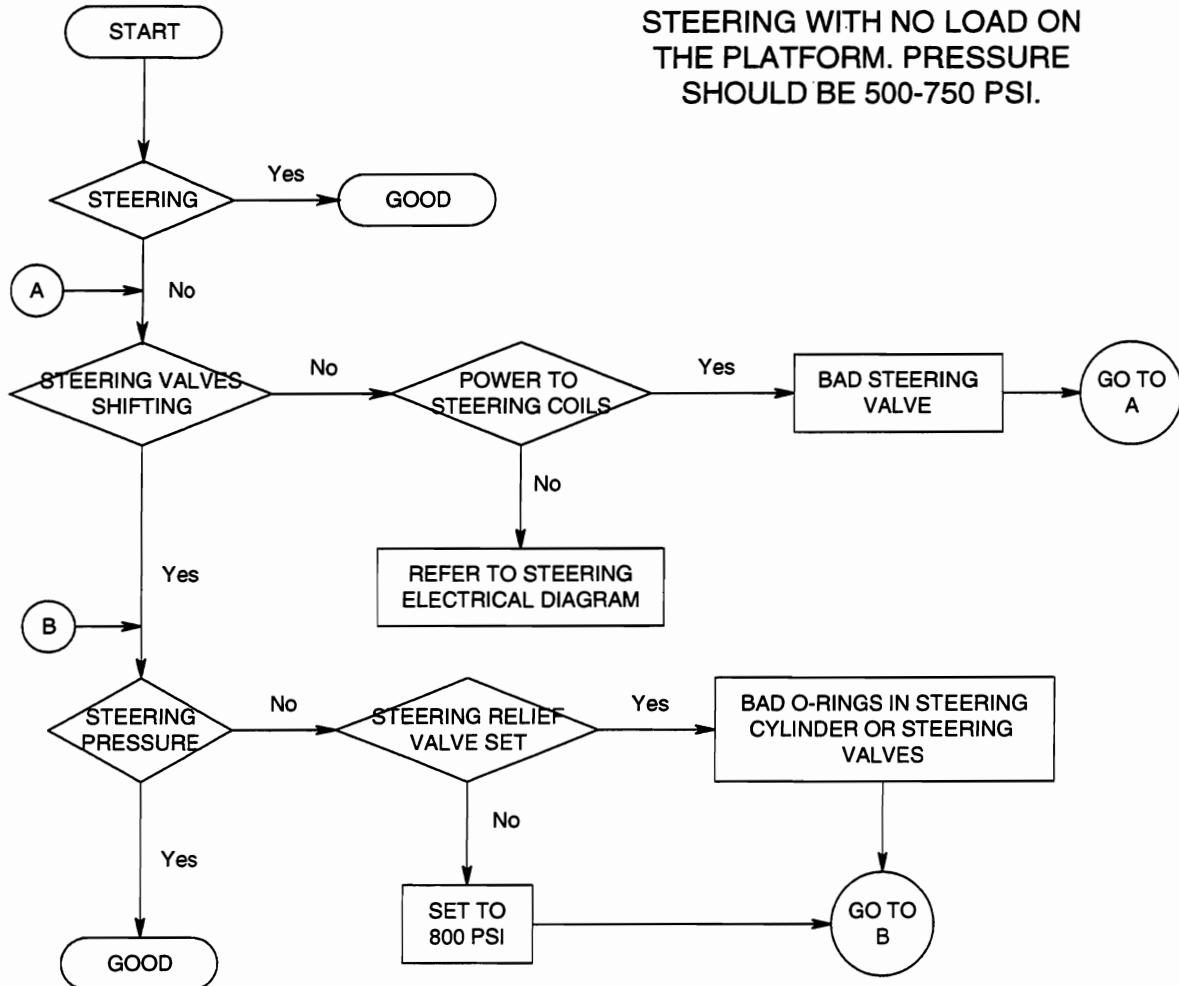


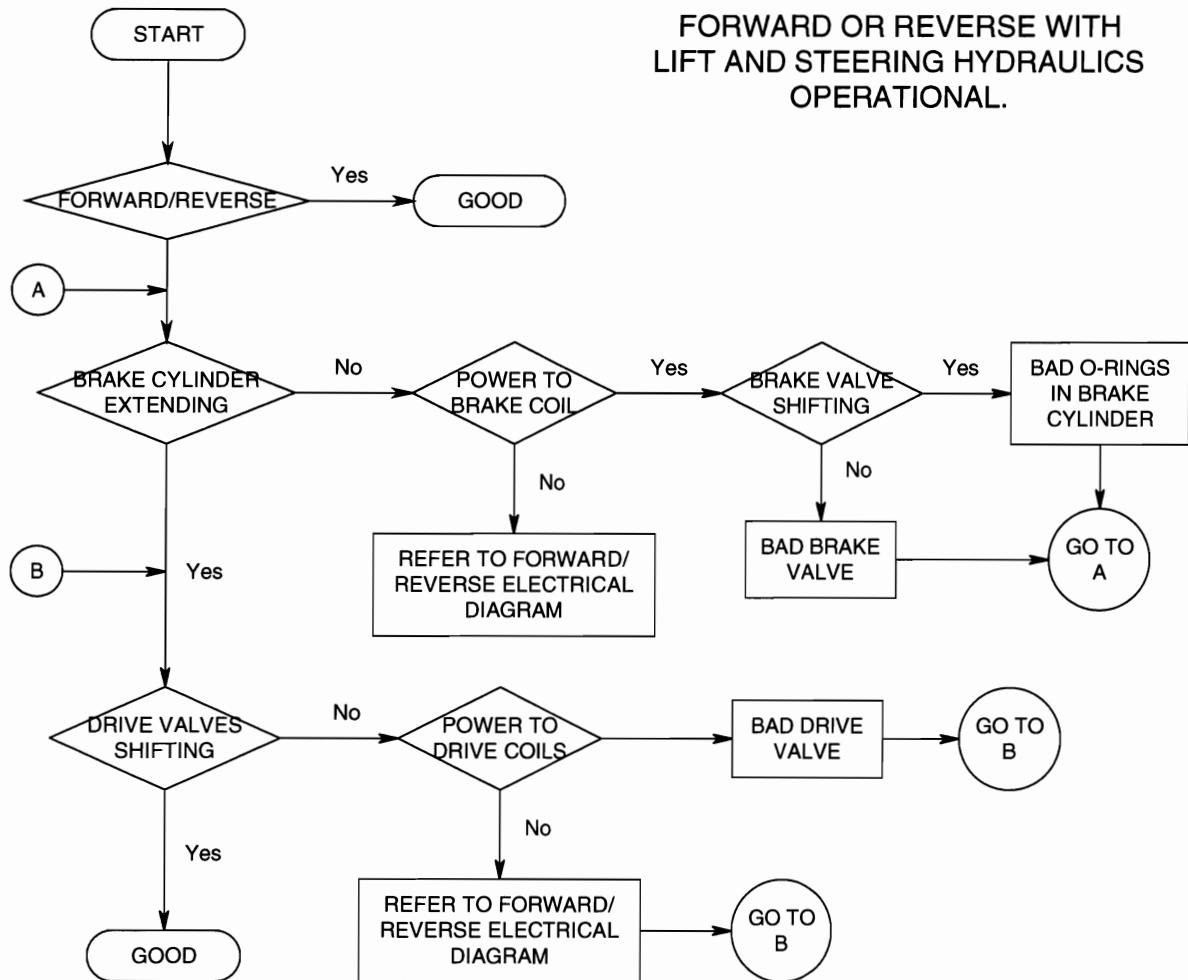
**TORQUE WITH FORWARD OR REVERSE
ACTIVATED AND DEADMAN AND POWER
CIRCUIT OPERATIONAL**

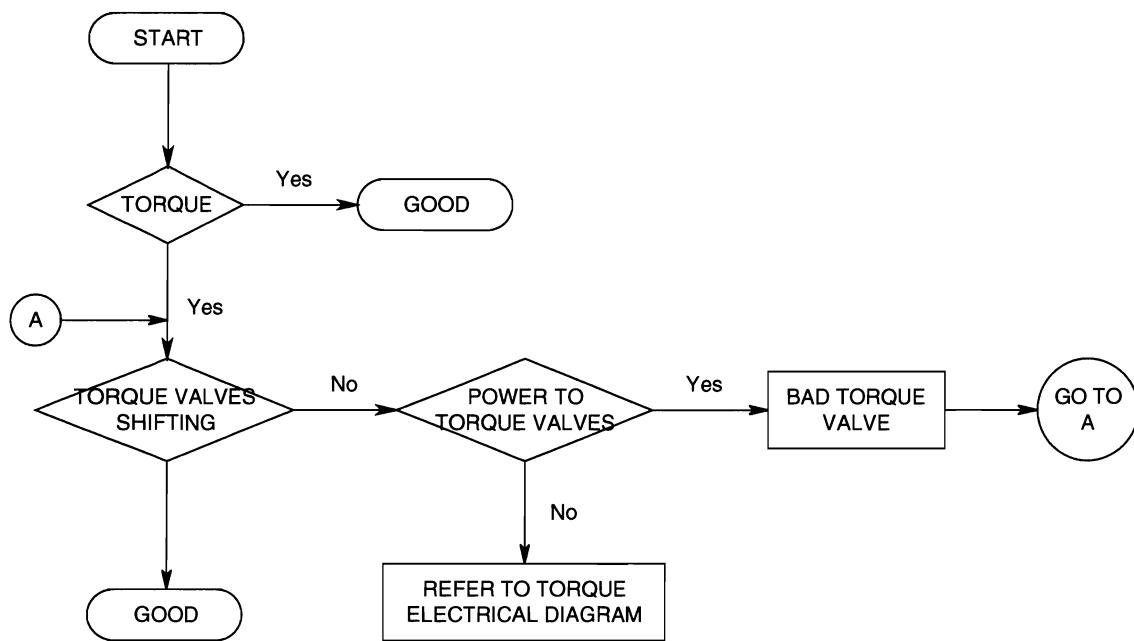












TORQUE FUNCTION WITH FORWARD AND REVERSE OPERATIONAL. WITH ONLY ONE TORQUE VALVE SHIFTING ONE WHEEL WILL TURN FASTER THAN THE OTHER. IT WILL NOT LOCK UP.

PRESSURE SET-UP

MAIN LINE RELIEF

DISCONNECT THE WIRE TO THE FORWARD COIL. THIS WILL ALLOW THE UNIT TO DEAD HEAD AGAINST THE DRIVE VALVE AND DUMP OVER THE MAIN LINE RELIEF VALVE. WITH THE WIRE DISCONNECTED ACTIVATE FORWARD. THE PRESSURE SHOULD READ 2750 PSI. THIS TEST WILL ALSO TEST THE O-RINGS ON EACH VALVE ON THAT CIRCUIT. WITH A BAD O-RING YOU BE UNABLE TO REACH MAIN LINE PRESSURE. ALSO THIS WILL TEST THE MOTOR CONTROLLER. WITH A 2 H.P. ELECTRIC AT MAIN PRESSURE WILL DRAW MORE THAN 200 AMPS AND IF THE MACHINE HAS A 180 AMP OR BAD MOTOR CONTROLLER YOU WILL NOT REACH MAIN LINE RELIEF.

STEERING RELIEF

TO SET STEERING RELIEF DEAD HEAD THE STEERING TO ONE SIDE OR THE OTHER. THIS WILL DUMP OVER THE STEERING RELIEF VALVE. THE PRESSURE SHOULD BE 800 PSI.

LIFT RELIEF

TO SET LIFT RELIEF DEAD HEAD AT FULL EXTENSION. THIS WILL ALLOW THE MACHINE TO DUMP OVER THE LIFT RELIEF VALVE. THE PRESSURE WILL BE 2200 PSI.

COUNTER BALANCE VALVE

THERE IS TWO WAYS TO SET THE COUNTER BALANCE. ONE WAY IS TO JACK THE FRONT END UP AND DO A "NO LOAD" DRIVE. PRESSURE SHOULD BE 550-600 PSI. THE OTHER WAY IS TO TAKE ONE OF THE DRIVE VALVES OUT AND PLUG THE PORT. THIS WILL ALLOW THE FLUID TO DUMP OVER THE COUNTER BALANCE VALVE. ACTIVATE DRIVE AND THE PRESSURE SHOULD BE 450 PSI.

MOTOR CONTROLLER PIN NUMBERS THAT HAVE VOLTAGE WITH EACH FUNCTION OPERATIONAL.

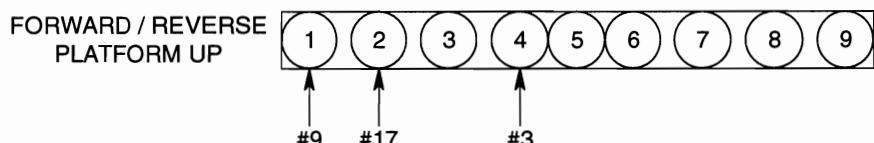
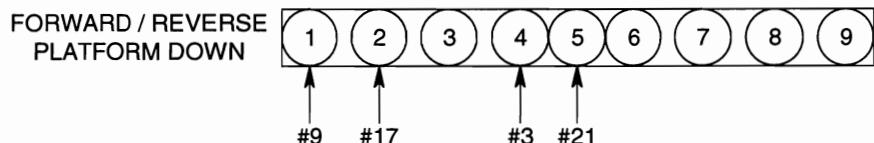
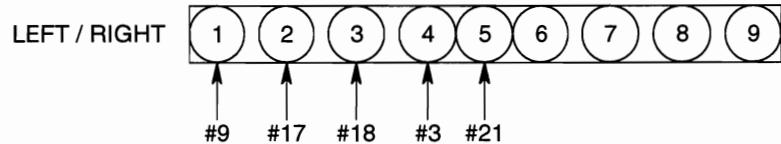
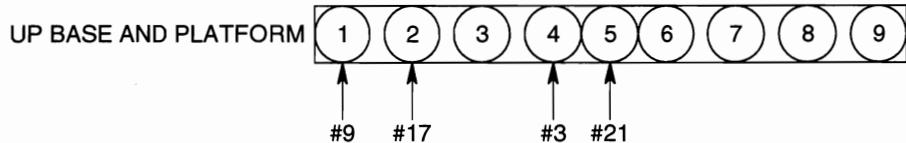
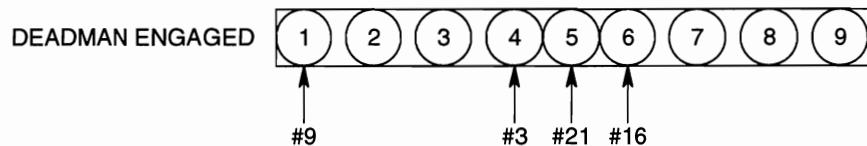
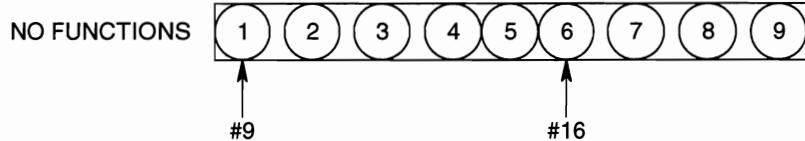


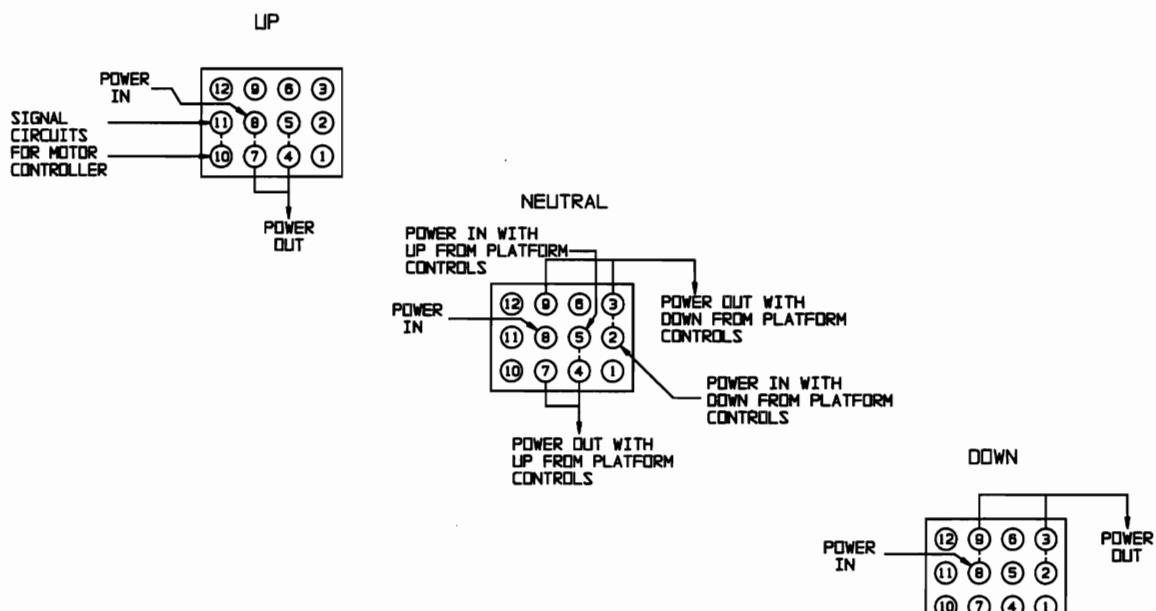
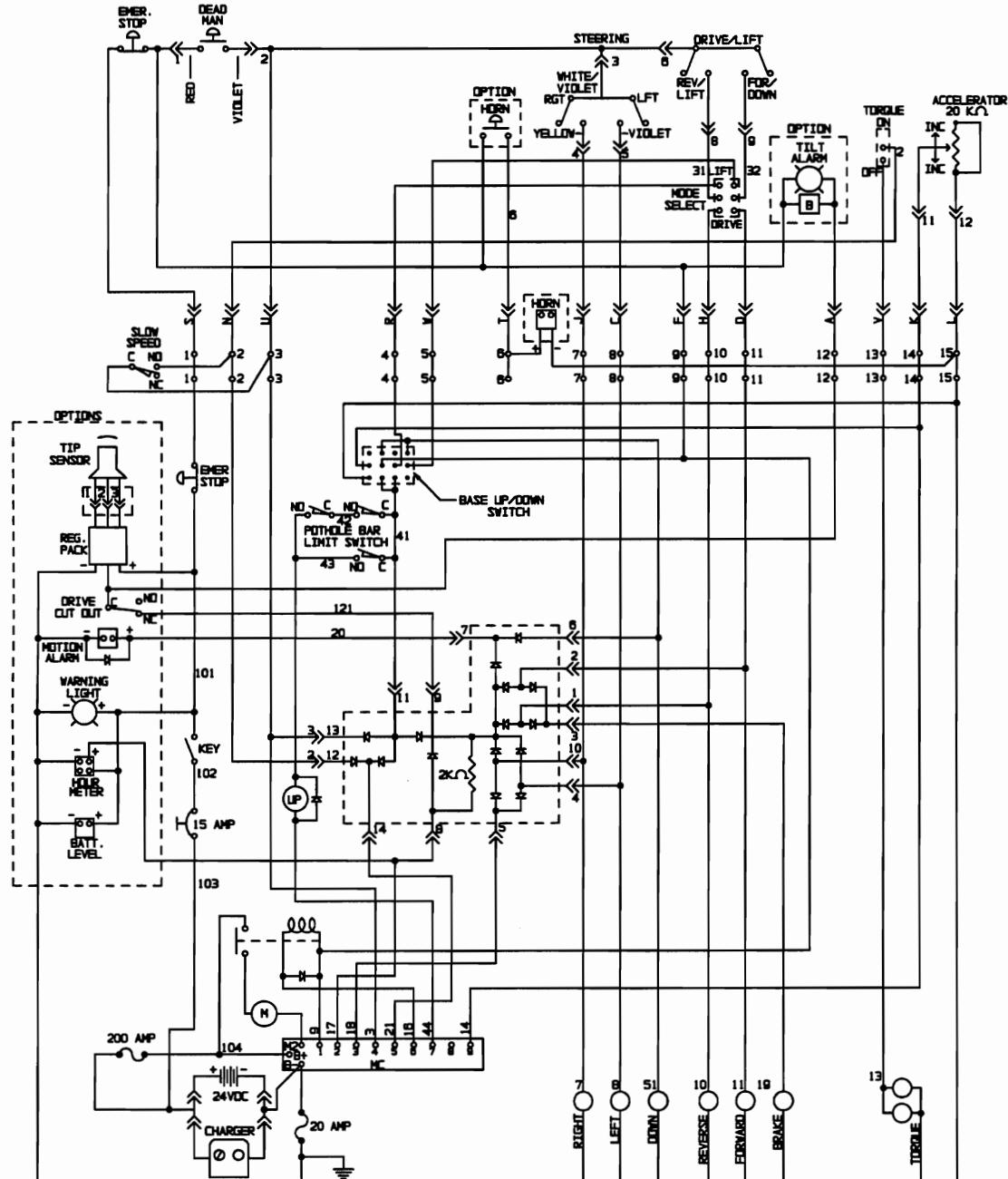
Figure 2B - Base Up/Down Switch Diagram 2033ART413 R0
BM5965

Figure 2C - Electrical Schematic 2033

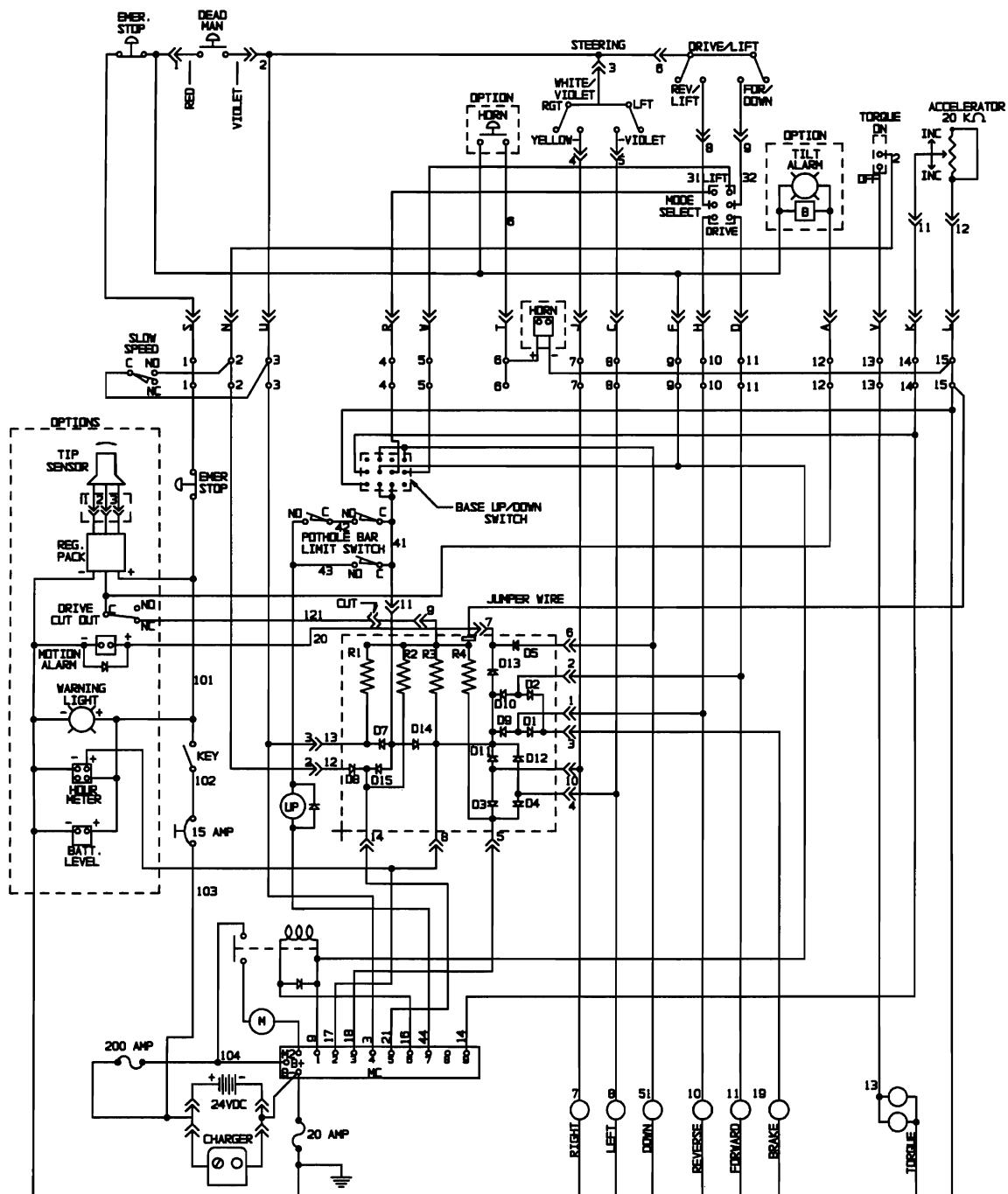
SERIAL #8600101-#8601536



ART515 R0
BM11089

Figure 2D - Electrical Schematic 2033

SERIAL #8601537-#8601572

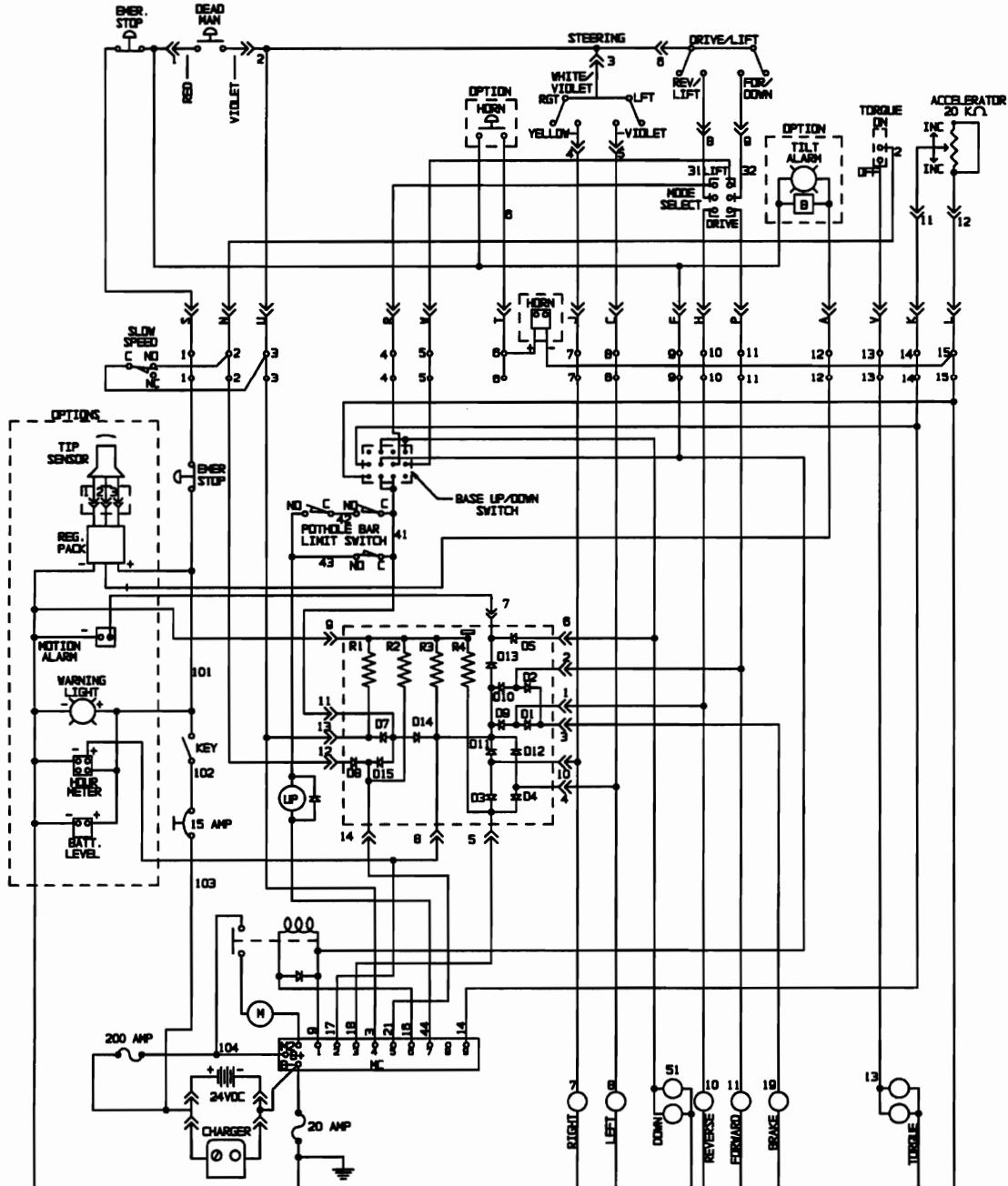


WIRE COLOR KEY (OTHERS CALLED OUT WHERE NEEDED)	COLOR	WIRE #
	RED	1, 6, 11
	BLACK	2, 7, 12
	WHITE	3, 8, 13
	GREEN	4, 9, 14
	BLUE	5, 10, 15

ART516 R0
BM11090

Figure 2E - Electrical Schematic 2033

FOR SERIAL #8601573 THROUGH #8602694



WIRE COLOR KEY	COLOR	WIRE #
(OTHERS CALLED OUT WHERE NEEDED)	RED	1, 6, 11
	BLACK	2, 7, 12
	WHITE	3, 8, 13
	GREEN	4, 9, 14
	BLUE	5, 10, 15

ART354 R7
BM5147

Figure 2F - Electrical Schematic 2033

FOR SERIAL #8602695 THROUGH PRESENT

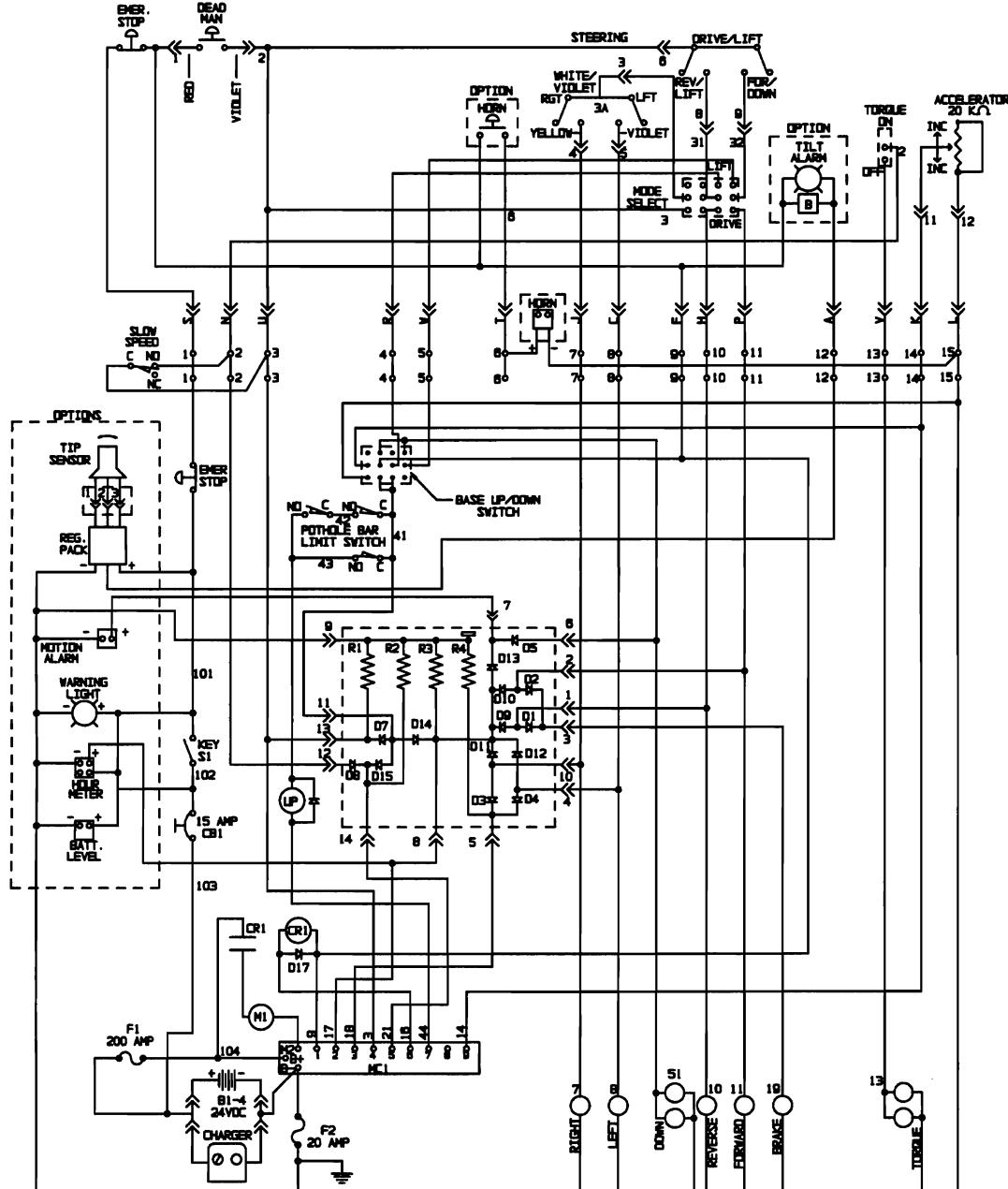
ART541 R1
BM11579

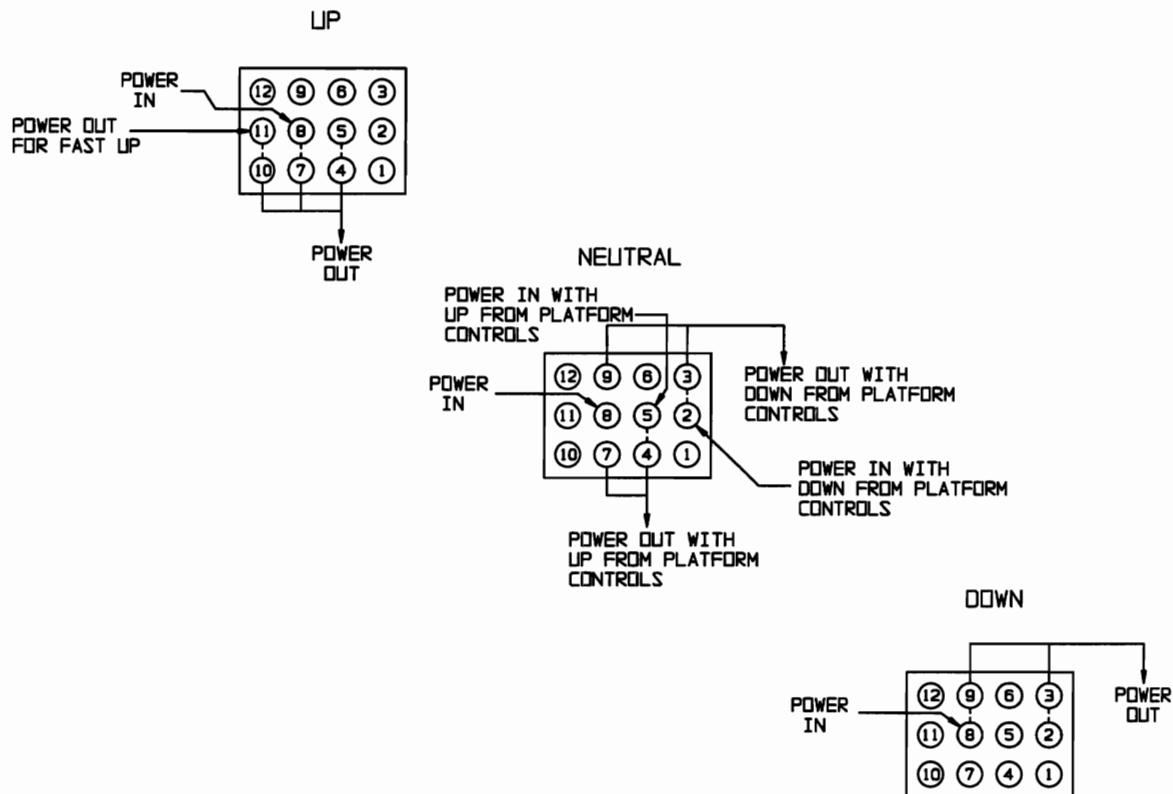
Figure 2G - Base Up/Down Switch Diagram 2033RSART468 R0
BM10381

Figure 2H - Electrical Schematic 2033RS Joystick

FOR SERIAL #8700101 THROUGH 8700646

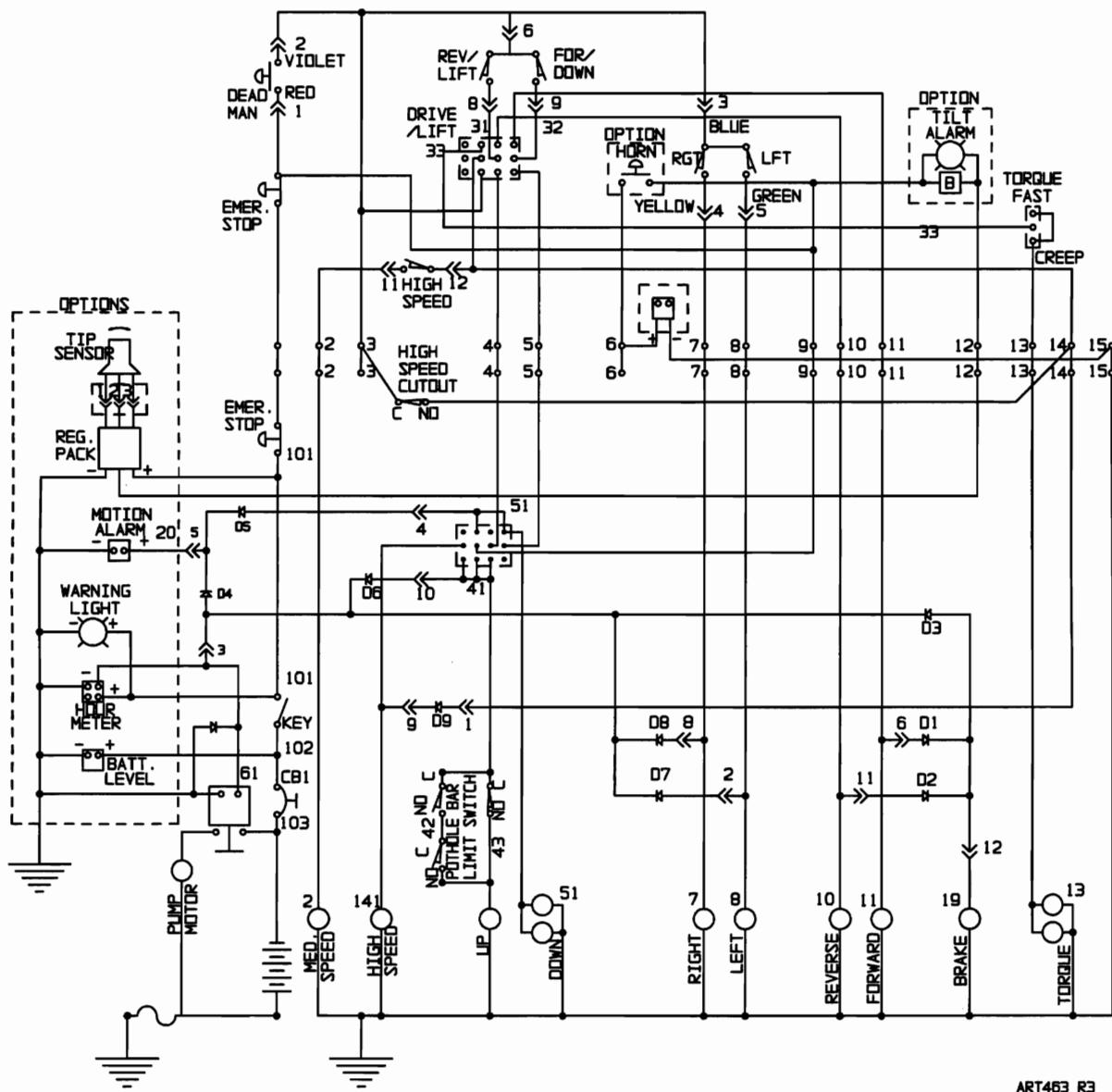
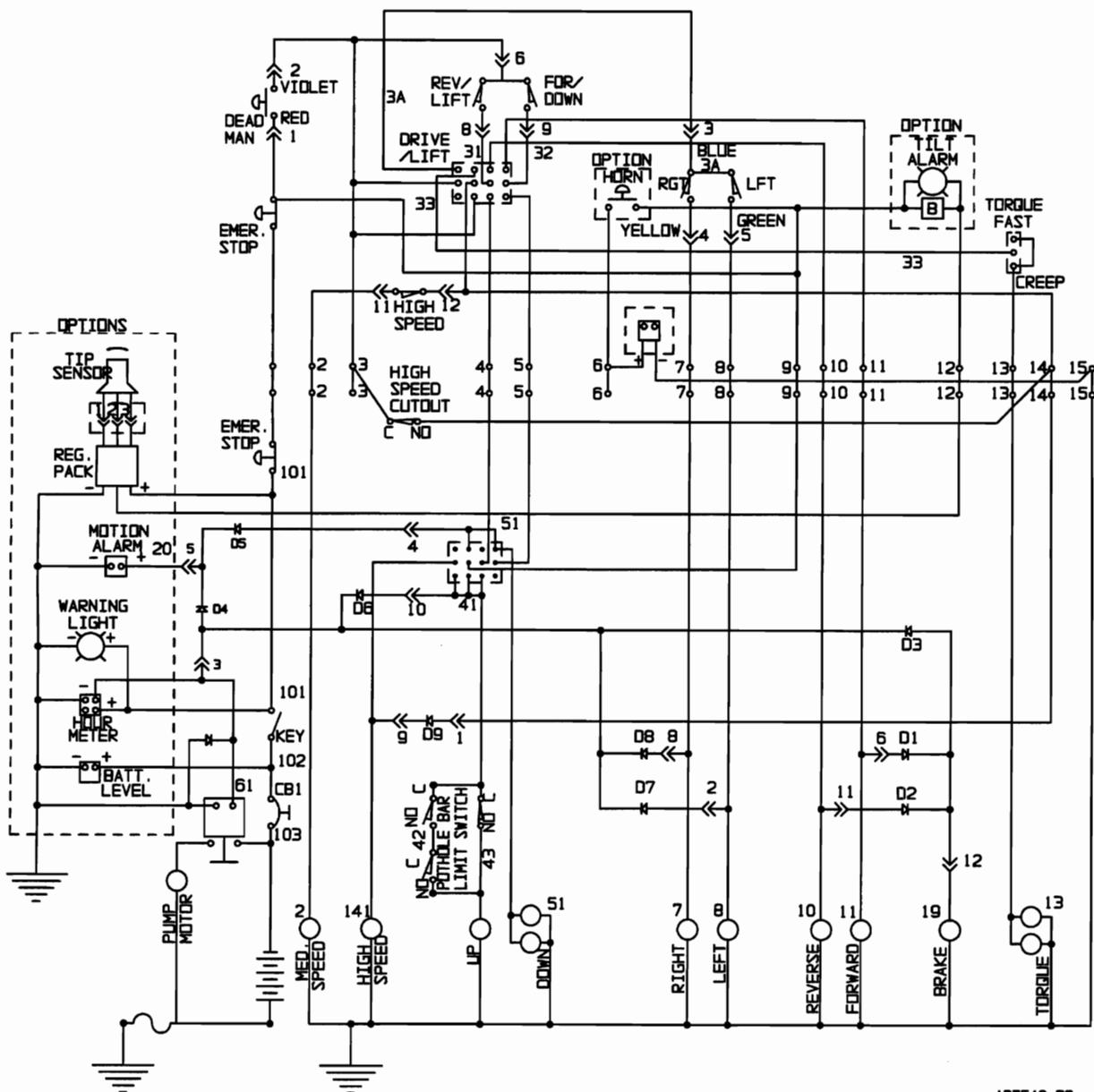
POWER CIRCUITDEADMAN ENGAGED

Figure 2I - Electrical Schematic 2033RS Joystick

FOR SERIAL #8700647 THROUGH PRESENT



ART540 R2
9M11578
5/17/97

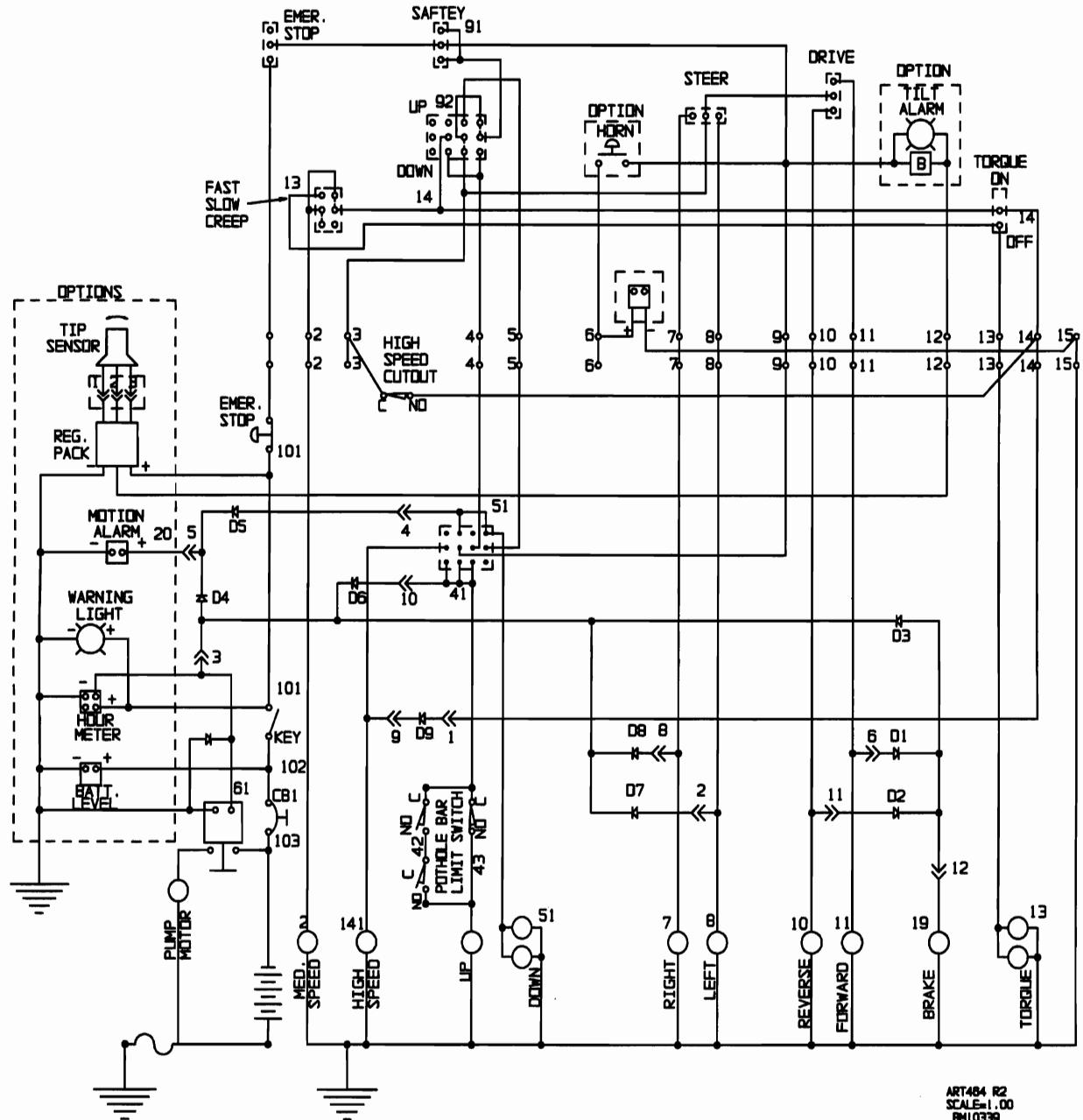
Figure 2J - Electrical Schematic 2033RS Toggle Box

Figure 2K - Hydraulic Schematic 2033

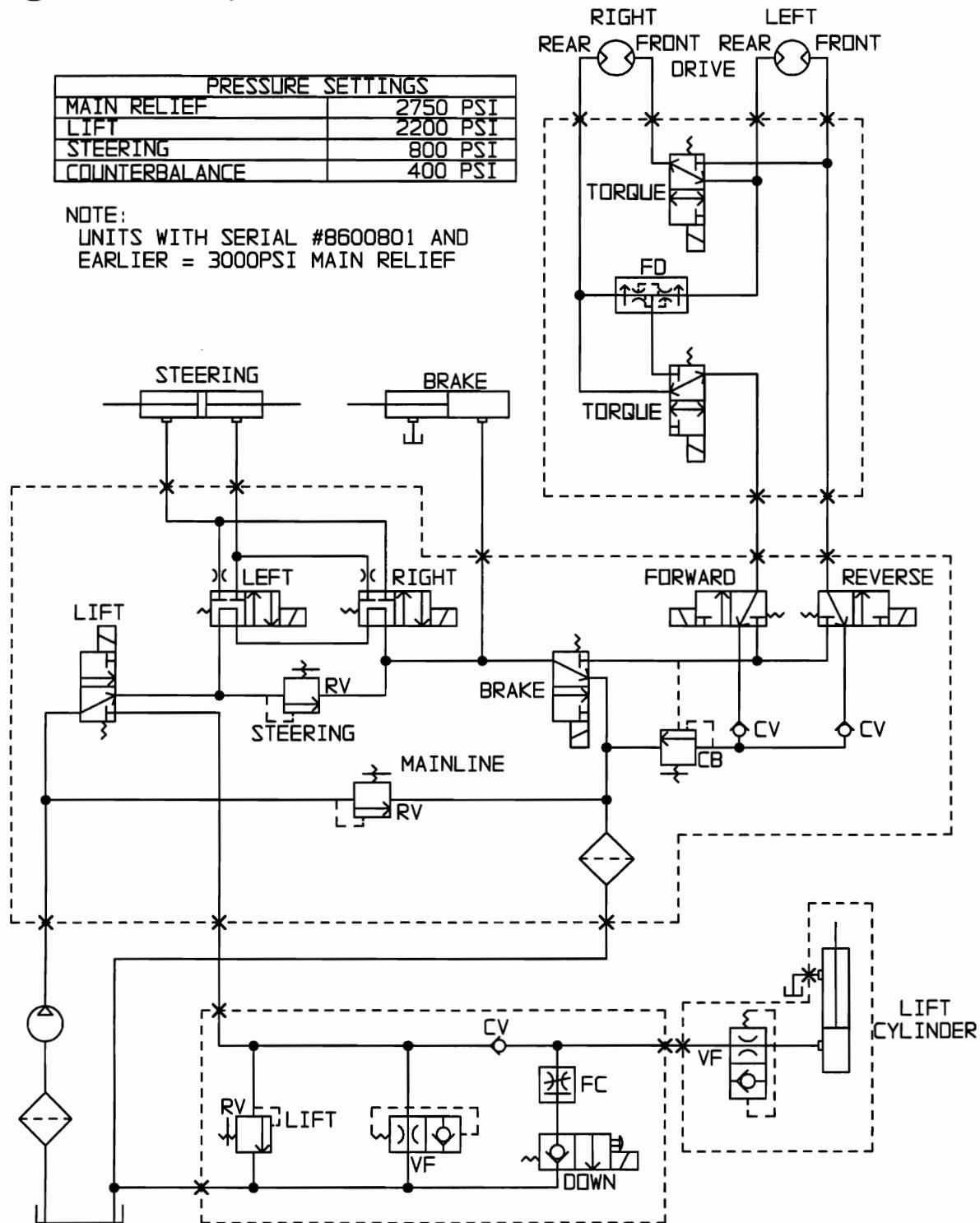
ART370-R6
BMS23B

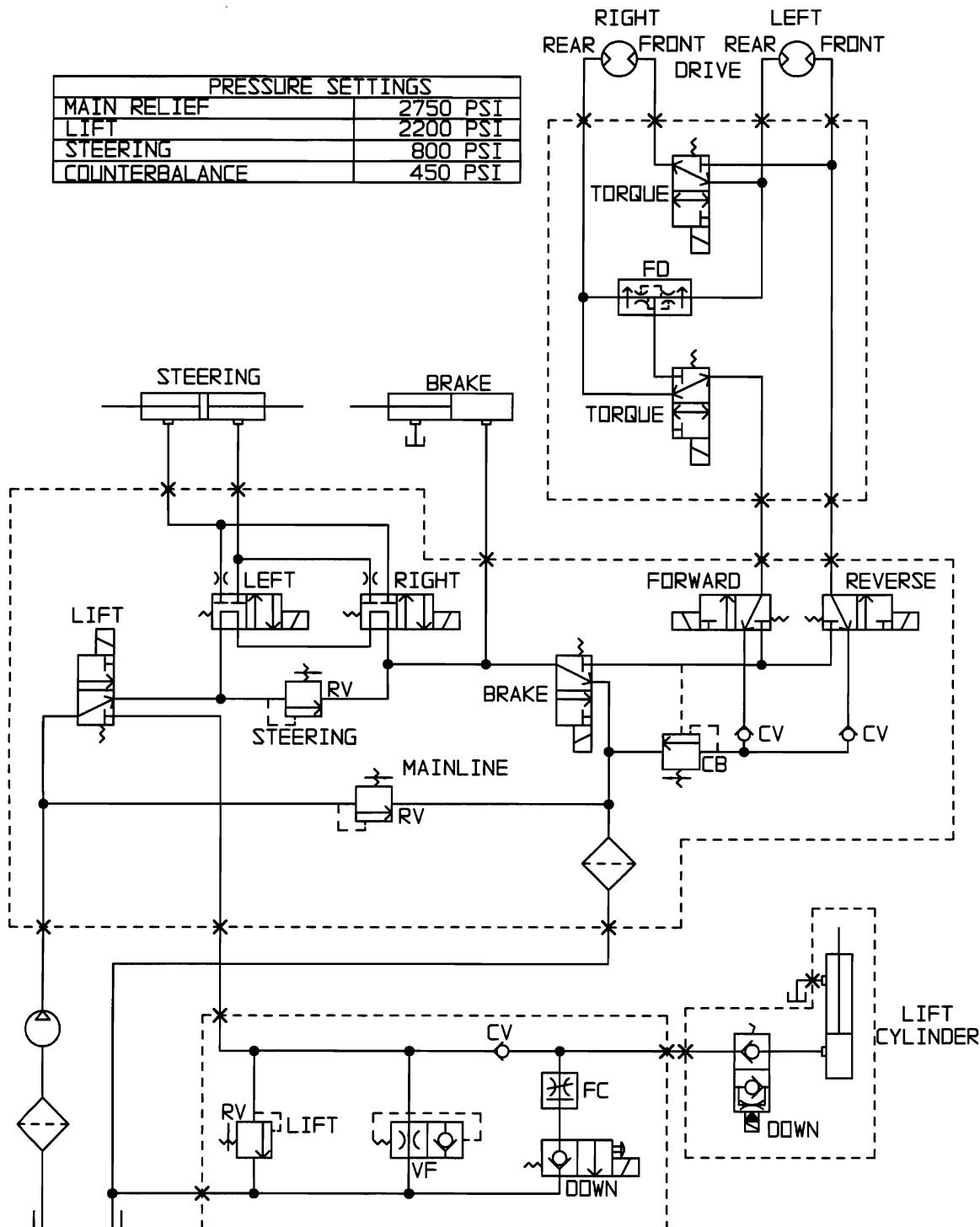
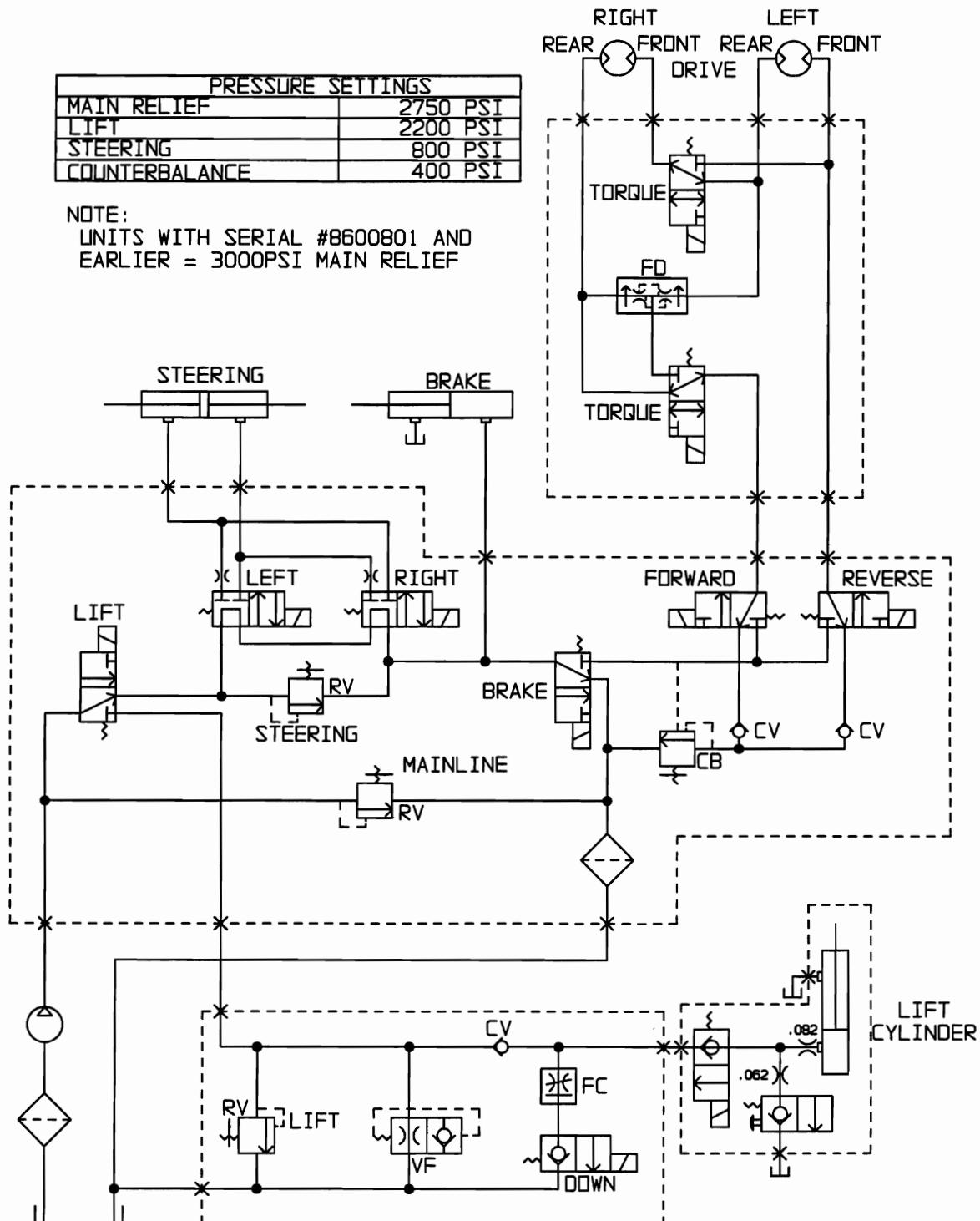
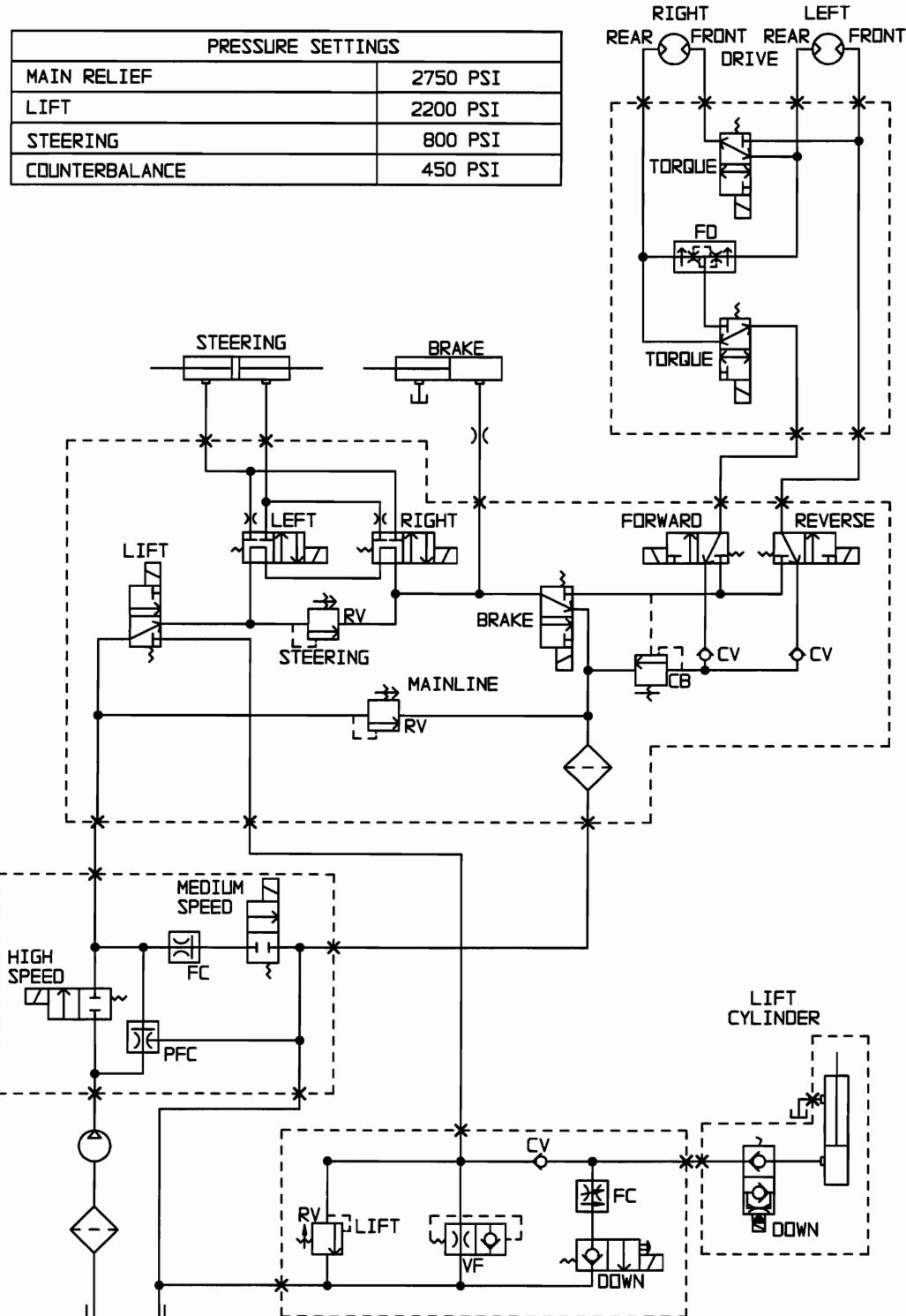
Figure 2L - Hydraulic Schematic 2033ART475-R1
BM10367

Figure 2M - Hydraulic Schematic 2033 European



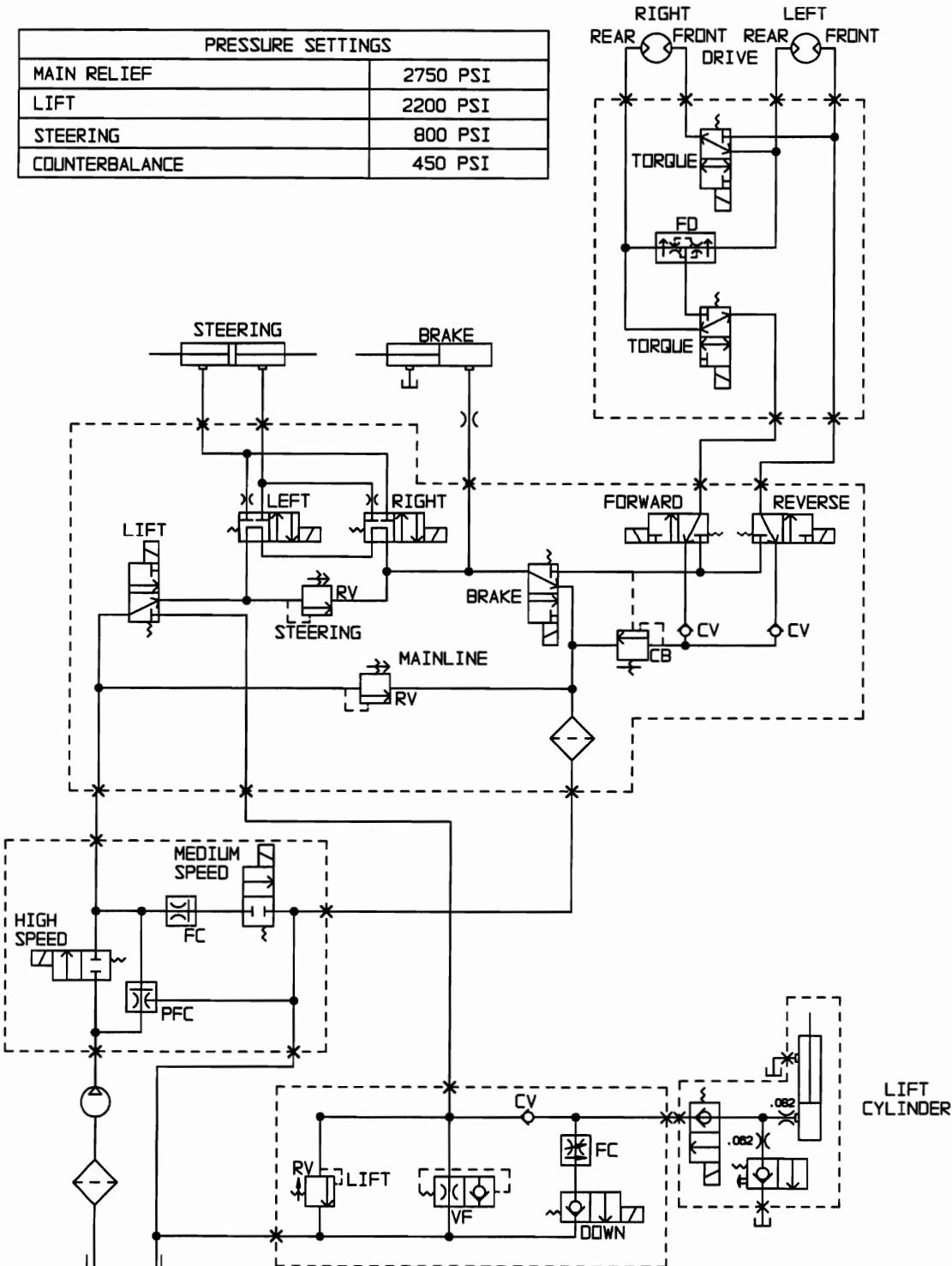
ART477-R2
BM10593

Figure 2N - Hydraulic Schematic 2033RS



ART457 R3
BM10163
10/22/86

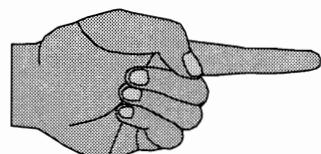
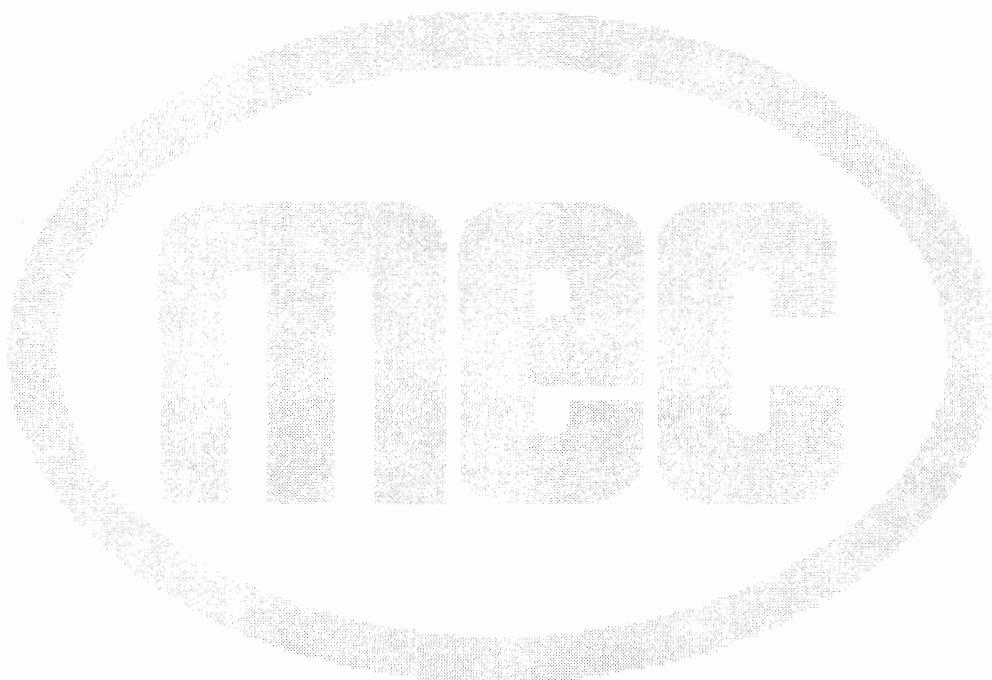
Figure 2O - Hydraulic Schematic 2033RS



ARTS17 R1
EM11101
10/22/96

Control Boxes

Notes:



Next Page

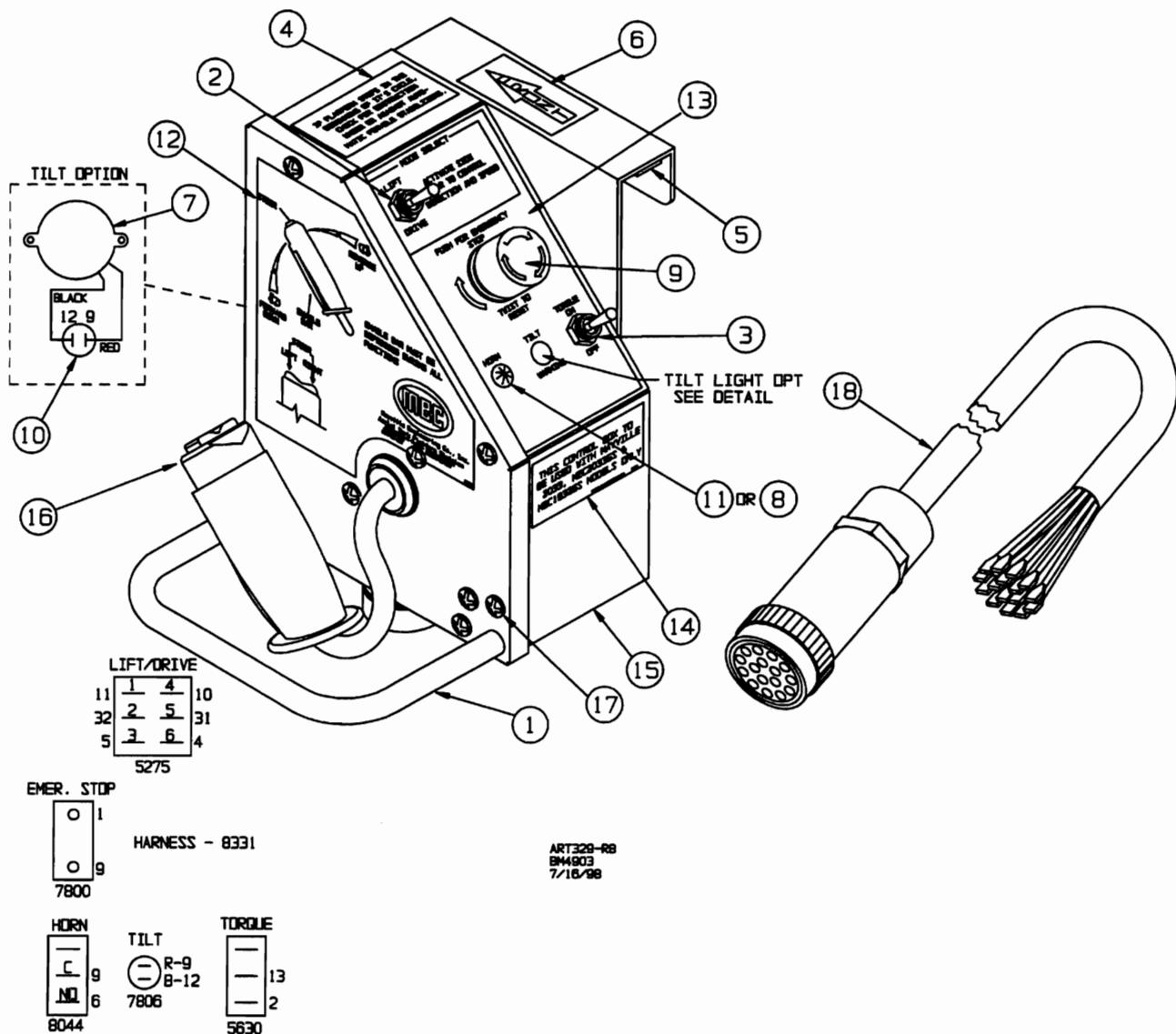
Figure 3A - Control Box Assembly 2033

Figure 3A - Control Box Assembly 2033

13413 - ASSEMBLY WITH NO OPTIONS

13655 - ASSEMBLY WITH HORN

13656 - ASSEMBLY WITH TILT

13657 - ASSEMBLY WITH HORN & TILT

ITEM	PART NO.	QTY.	DESCRIPTION
1	3772	1	COVER WELDMENT - JOYSTICK
2	5275	1	SWITCH, TOGGLE
3	5630	1	SWITCH, TOGGLE
4	8946	1	DECAL - PLATFORM STOPS SHORT
5	6350	1	FOAM TAPE
6	7156	1	DECAL - FRONT
7	7553	1	ALARM, TIP OVER
8	7579	1	PLUG, PLASTIC (TOGGLE HOLE)
9	7800 9345 8083	1 1 1	SWITCH, STOP ASSEMBLY BLOCK-CONTACT N.C. (ABB) OR BLOCK-CONTACT N.C. (TELEMECANIQUE)
10	7806	1	LIGHT, INDICATOR
11	8044	1	SWITCH - MOTION OUTRIGGER
12	8635	1	DECAL - DIRECTIONS JS #2
13	8391	1	DECAL - CONTROL BOX
14	8770	1	DECAL-CNTRL BOX ID-2033 & 2033 ES
15	13406	1	WRAPPER BOX CONTROL - JOYSTICK
16	13647	1	CONTROL ARM ASSEMBLY, JOYSTICK #2
17	HDW7888	9	SCREW, CAP, #10-32 X .50, GRADE 2 CROSS RECESSED TRUSS HEAD
18	7656	1	WIRE HARNESS TO CONTROL BOX CORD

ART329-R8
BM4903
7/16/98

Figure 3B - Joystick Cam Assembly 2033

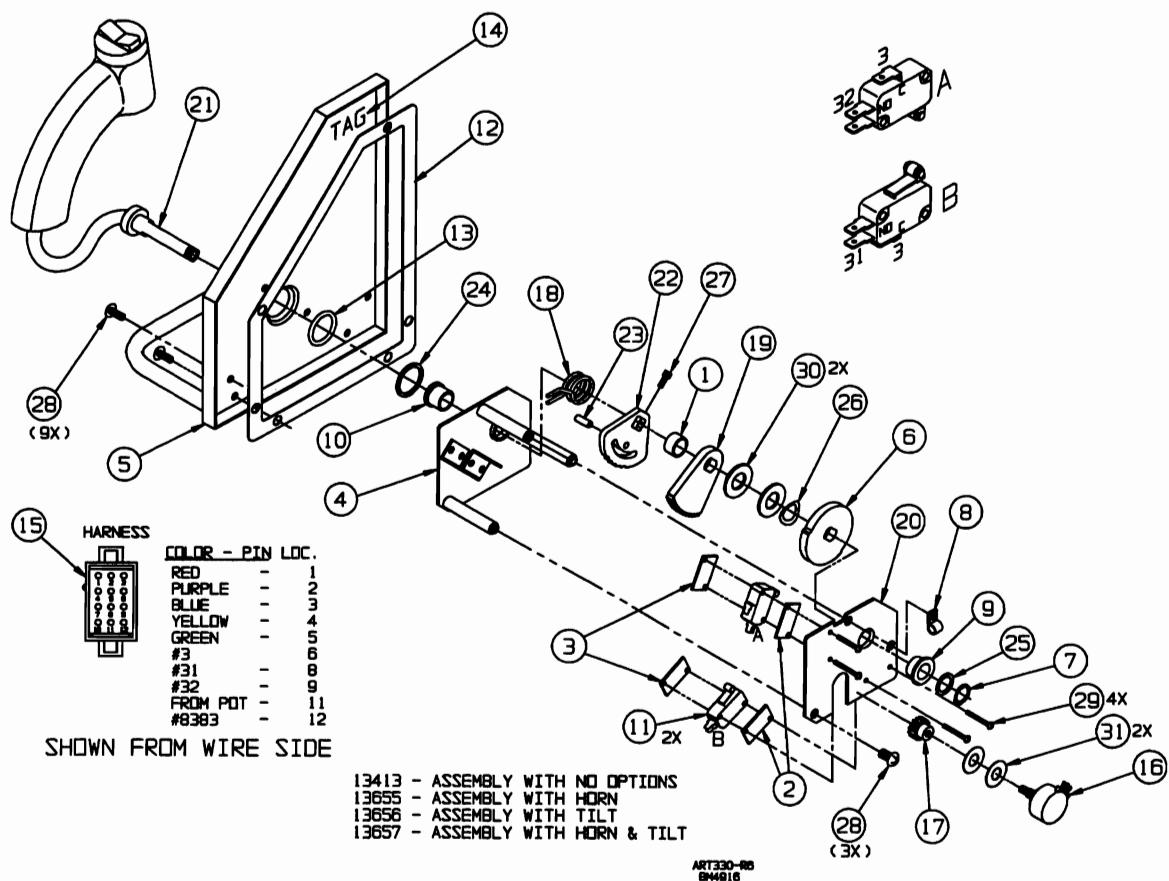


Figure 3B - Joystick Cam Assembly 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	3763	1	SPACER STEP - JOYSTICK
2	3764	2	SPACER PLATE - JOYSTICK
3	3765	2	STRAP PLATE - JOYSTICK
4	3766	1	TOP PLATE WELDMENT - JOYSTICK
5	3772	1	COVER WELDMENT - JOYSTICK
6	3782	1	DIRECTIONAL CAM - JOYSTICK
7	5736	1	RETAINING RING, EXT. .50"
8	6917	1	CABLE CLAMP .25"
9	7818	1	BEARING, BRONZE FLANGED
10	7819	1	BEARING, BRONZE FLANGED
11	8696	2	SWITCH, LIMIT MICRO - V7
12	7875	1	GASKET - JOYSTICK
13	7882	1	O-RING 7/8 ID X 1.125 OD
14	8066	1	TAG, INSPECTION LINE
15	8346	1	WIRE HARNESS - JOYSTICK
16	8383	1	POTENTIOMETER 20K 13527
17	8389	1	GEAR - SPUR
18	8435	1	SPRING TORSION JOYSTICK 2033
19	13402	1	LARGE GEAR - PROP JOYSTICK
20	13403	1	BOTTOM PLATE CONTROL BOX - JS
21	13418	1	ARM ASSEMBLY - JOYSTICK 80°
22	13502	1	CENTERING BRACKET - JOYSTICK
23	100/8348	1	PIN, HOLD DOWN
24	HDW3768	1	FLAT WASH .895 ID X 1.077 OD X .055 THK
25	HDW3771	1	FLAT WASH .50 ID X .688 OD X .033 THK
26	HDW7881	1	BEVEL WASH .531 ID X .795 OD X .011 THK
27	HDW7887	1	CAP SCREW #6-32 .50" GRADE 8
28	HDW7888	12	CAP SCREW #10-32 .50" GRADE 2 TRUSS HD CROSS RECESSED DRIVE
29	HDW8399	4	MACH SCREW #4-40 .62" ROUND HEAD SLOTTED DRIVE
30	HDW8531	2	FLAT WASH B .531 ID X 1.00 OD X .063 THK
31	HDW8567	2	FLAT WASH .380 ID X .844 OD X .048 THK

ART330-R6
BM4916

Figure 3C - Joystick Assembly 2033RS

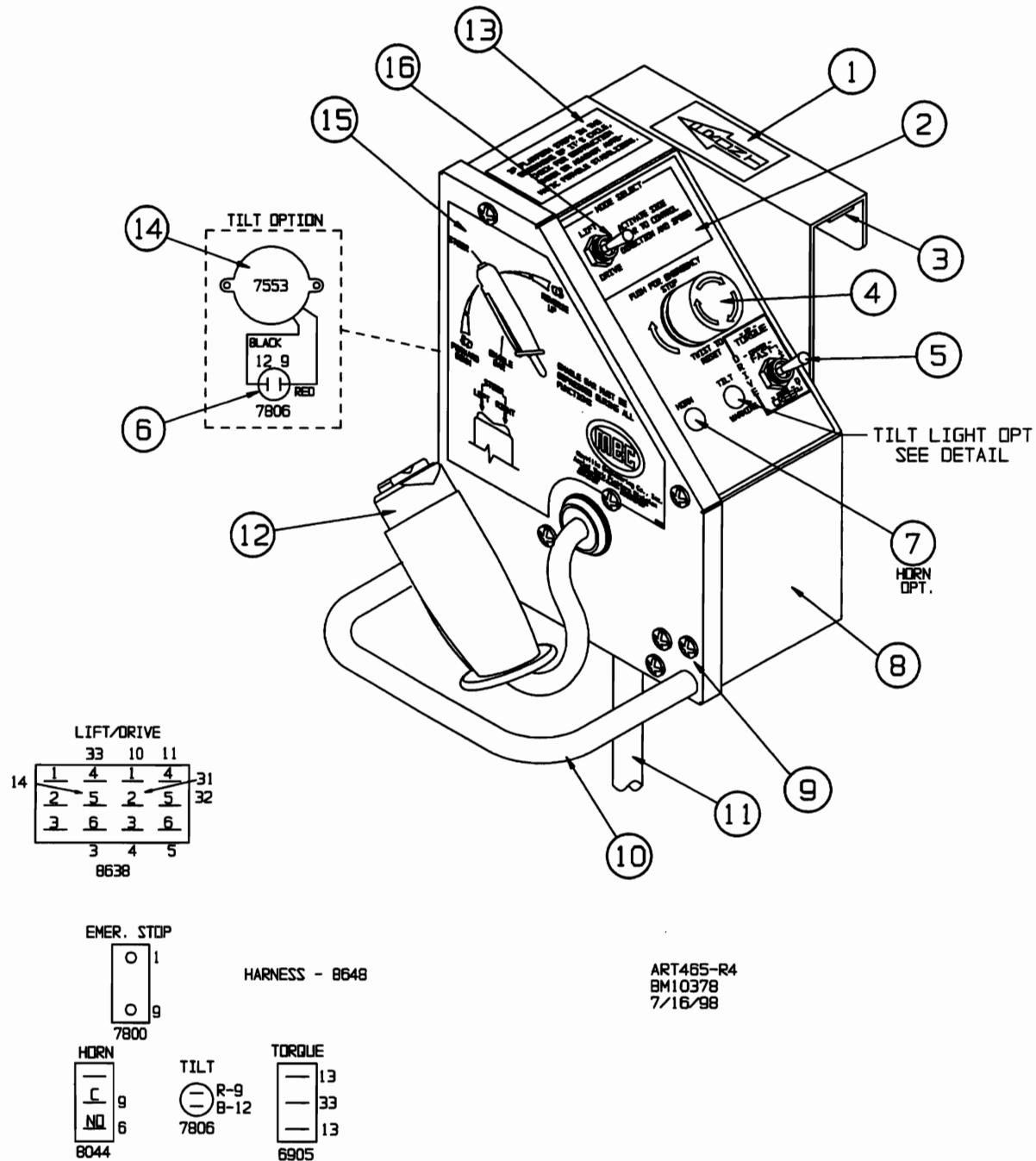


Figure 3C - Joystick Assembly 2033RS

13658 - ASSEMBLY WITH NO OPTIONS

13659 - ASSEMBLY WITH HORN

13660 - ASSEMBLY WITH TILT

13661 - ASSEMBLY WITH HORN & TILT

ITEM	PART NO.	QTY.	DESCRIPTION
1	7156	1	DECAL, FRONT
2	8633	1	DECAL, CONTROL FUNCTION - JS RS
3	6350	1	FOAM TAPE
4	7800 9345 8083	1 1 1	SWITCH-STOP ASSEMBLY BLOCK-CONTACT N.C. (ABB) OR BLOCK-CONTACT N.C. (TELEMECANIQUE)
5	6905	1	SWITCH-TOGGLE
6	7806	1	LIGHT INDICATOR
7	8044	1	SWITCH - MOTION OUTRIGGER
8	13640	1	CONTROL BOX WELDMENT - JS RS
9	HDW7888	9	SCREW, CAP #10-32 X .50, GRADE 2 CROSS RECESSED TRUSS HEAD
10	3772	1	COVER WELDMENT - JOYSTICK
11	8645	1	HARNESS-CONTROL BOX W/STRAIN
12	13647	1	CONTROL ARM ASSEMBLY JS #2
13	8946	1	DECAL (PLATFORM STOPS SHORT)
14	7553	1	ALARM, TIP OVER
15	8635	1	DECAL, DIRECTIONS JS #2
16	8638	1	SWITCH-TOGGLE 4 POLE 2 POS

ART465-R4
BM10378
7/16/98

Figure 3D - Joystick Cam Assembly 2033RS

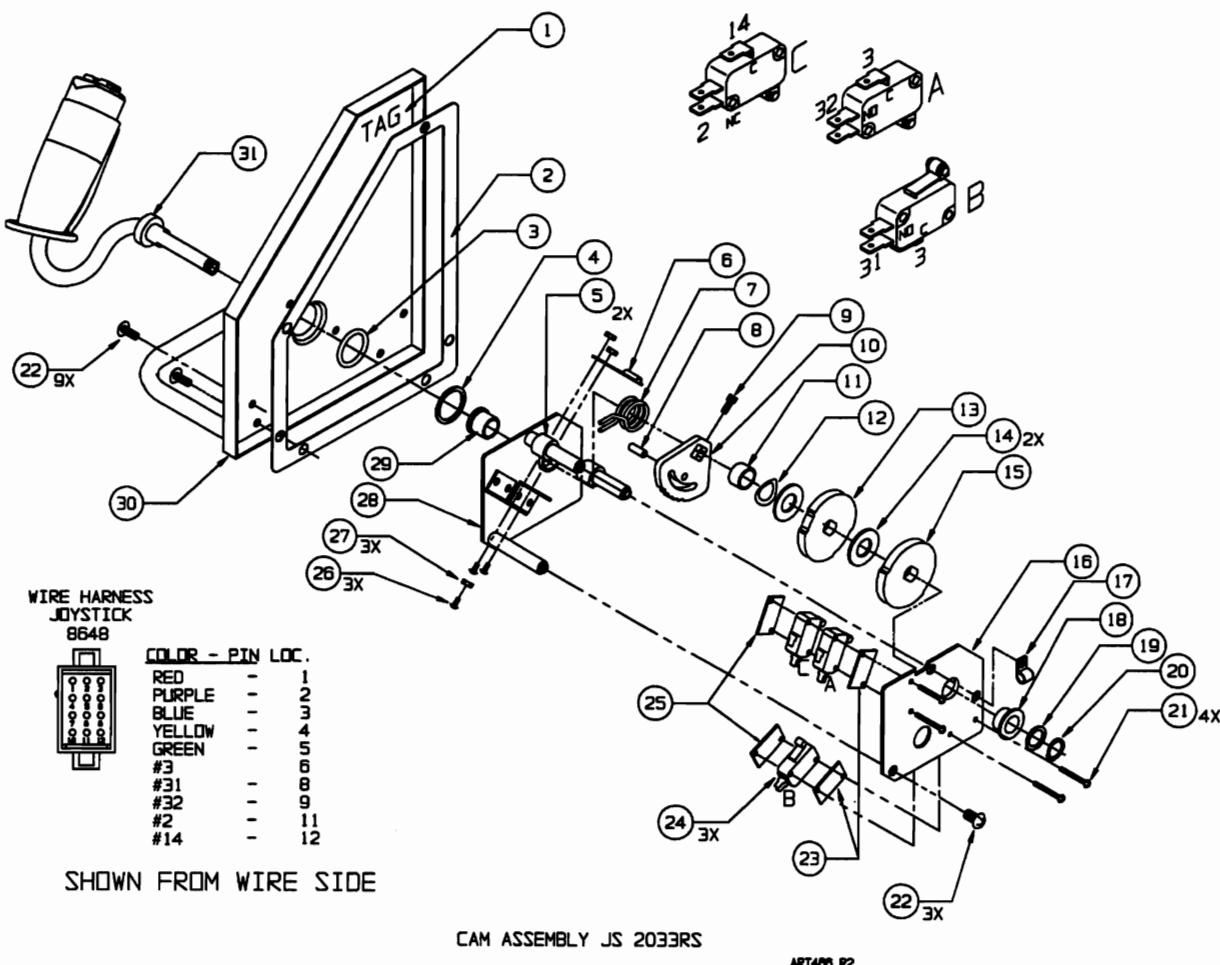


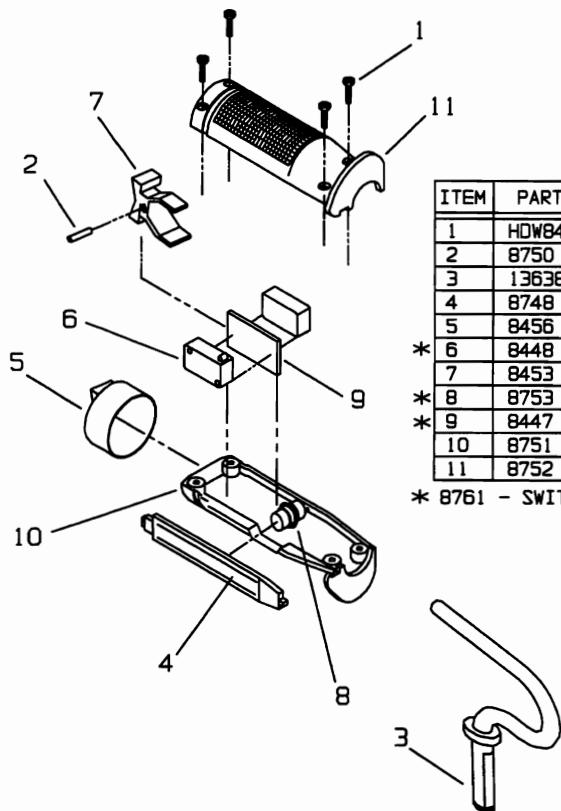
Figure 3D - Joystick Cam Assembly 2033RS

ITEM	PART NO.	QTY.	DESCRIPTION
1	8066	1	TAG, INSPECTION LINE
2	7875	1	GASKET, JOYSTICK
3	7882	1	O-RING, 7/8 ID, 1.125 OD
4	HDW3768	1	WASHER, FLAT, .895 ID, 1.077 OD, .055 THK
5	8655	2	SPACER, STOP-JOYSTICK
6	3770	1	SPRING, SPEED LEVEL-JOYSTICK
7	8435	1	SPRING, TORSION-JOYSTICK
8	100/8348	1	PIN, HOLD DOWN
9	HDW7887	1	SCREW, CAP, #6-32 X .50, GRADE 8
10	13502	1	BRACKET, CENTERING-JOYSTICK
11	3763	1	SPACER, STEP, JOYSTICK
12	HDW7881	1	WASHER, BEVEL, .531 ID, .795 OD, .011 THK
13	3781	1	CAM, SPEED CONTROL-JOYSTICK
14	HDW8531	2	WASHER, FLAT, .531 ID, 1.0 OD, .063 THK
15	3782	1	CAM, DIRECTIONAL-JOYSTICK
16	3759	1	PLATE, TOP, CONTROL BOX-JOYSTICK
17	6917	1	CLAMP, CABLE, 1/4"
18	7818	1	BEARING, BRONZE, FLANGED, .502 ID, .627 OD, 5/16 HIGH
19	HDW3771	1	WASHER, FLAT, .50 ID, .688 OD, .033 THK
20	5736	1	RING, RETAINING, EXT., .50 SHAFT
21	HDW8399	4	SCREW, MACHINE, #4-40 X .62, ROUND HEAD, SLOTTED DRIVE
22	HDW7888	12	SCREW, CAP, #10-3 X .50, GRADE 2, TRUSS HEAD, CROSS RECESSED DRIVE
23	3764	2	PLATE, SPACER-JOYSTICK
24	8696	3	SWITCH, LIMIT, MICRO - V7
25	3765	2	PLATE, STRAP-JOYSTICK
26	HDW7885	3	SCREW, #4-40 X .25, ROUND HEAD, SLOTTED DRIVE
27	HDW7886	3	NUT, KEPS, HEX, #4-40, CLASS 2
28	3766	1	TOP PLATE WELDMENT-JOYSTICK
29	7819	1	BEARING, BRONZE FLANGED, .502 ID, .627 OD, 5/18 HIGH
30	3772	1	COVER WELDMENT-JOYSTICK
31	13647	1	CONTROL ARM ASSEMBLY-JOYSTICK #2

ART466 R2
BM10379

Figure 3E - Joystick Control Handle Assy. 2033 & 2033RS

13647 - CONTROL ASSEMBLY, JOYSTICK

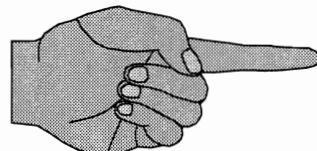


ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW8455	4	SCREW, 6 X 1/2 TAPTITE
2	8750	1	PIN
3	13638	1	CONTROL ARM WITHOUT WIRE
4	8748	1	TRIGGER
5	8456	1	ROCKER BOOT
* 6	8448	2	SWITCH - V3 P-Q
* 7	8453	1	SWITCH ACTUATOR
* 8	8753	1	MOTION SWITCH, ON-OFF
* 9	8447	1	SWITCH SEPARATOR
10	8751	1	GRIP - BOTTOM HALF
11	8752	1	GRIP - TOP HALF

* 8761 - SWITCH ASSEMBLY-INCLUDES WIRING AND ITEMS 6, 8, & 9

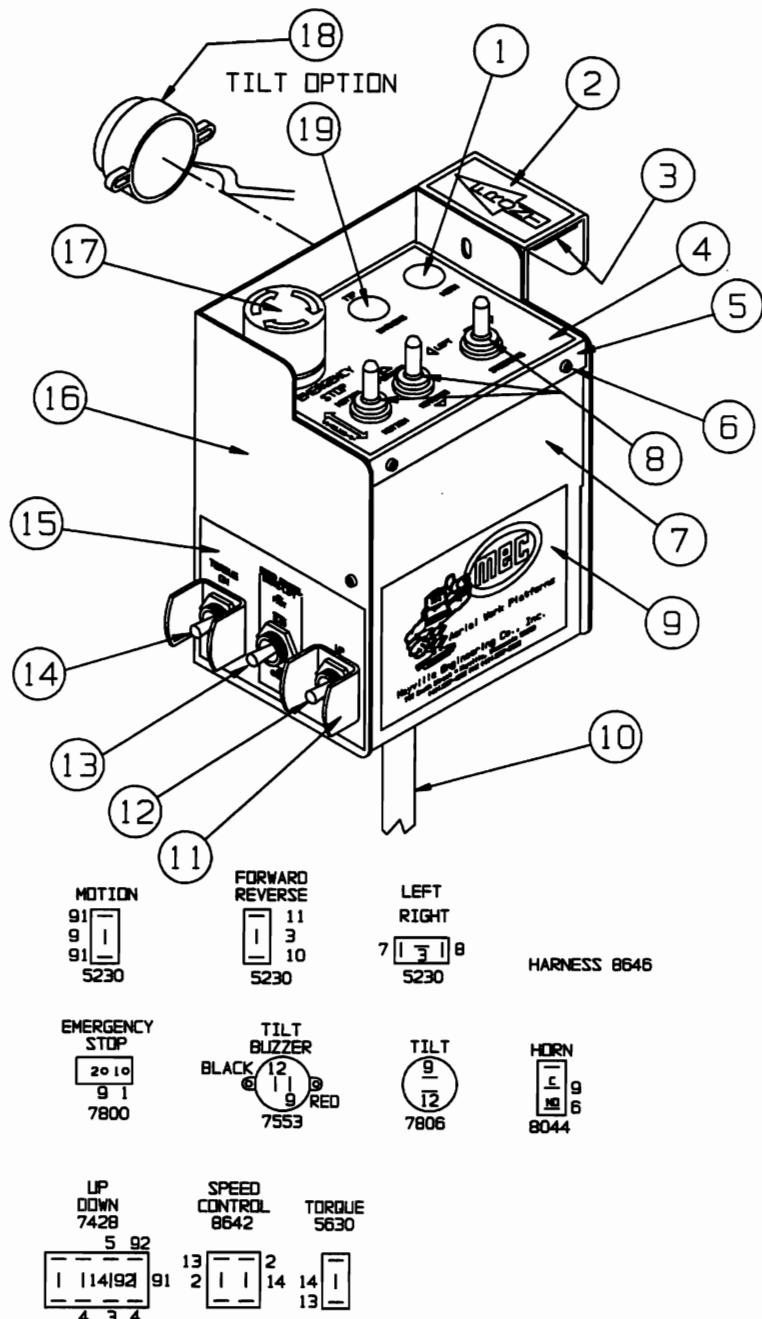
ART1000
B65040
01/04/98

Notes:



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Figure 3F - Toggle Switch Control Box Assy. 2033RS



13662 - ASSEMBLY WITH NO OPTIONS

13663 - ASSEMBLY WITH HORN

13664 - ASSEMBLY WITH TILT

13665 - ASSEMBLY WITH HORN & TILT

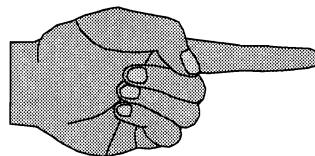
ART467 R2
EM10412
7/16/98

Figure 3F - Toggle Switch Control Box Assy. 2033RS

ITEM	PART NO.	QTY.	DESCRIPTION
1	8044	1	SWITCH - MOTION OUTRIGGER
2	7156	1	DECAL, FRONT
3	6350	1	FOAM TAPE
4	8640	1	DECAL - UPPER CONTROL BOX - RS
5	13644	1	COVER, WITH HORN AND TILT OPT
6	HDW5978	8	SCREW, SELF TAP PAN HEAD, CROSS RECESS DRIVE #6-32 X .25, GRADE 5
7	13652	1	FRONT & BTM PANEL W/1.06 HOLE
8	5230	3	SWITCH, TOGGLE
9	6839	1	DECAL - AWP LOGO
10	8645	1	HARNESS CONTROL BOX W/STRAIN
11	1313	2	SWITCH GUARD
12	7428	1	SWITCH, TOGGLE 3 POSITION
13	8642	1	SWITCH, TOGGLE 2 POLE 3 POS
14	5630	1	SWITCH, TOGGLE
15	8643	1	DECAL - CONTROL BOX SIDE - RS
16	13646	1	WRAPPER CONTROL BOX WELDMENT
17	7800 9345 8083	1 1 1	SWITCH STOP, ASSEMBLY BLOCK-CONTACT N.C. (ABB) OR BLOCK-CONTACT N.C. (TELEMECANIQUE)
18	7553	1	ALARM, TIP OVER
19	7806	1	LIGHT, INDICATOR

ART467 R2
BM10412
7/16/98

Notes:

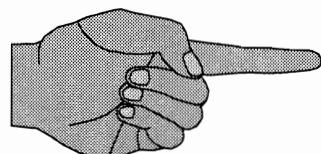
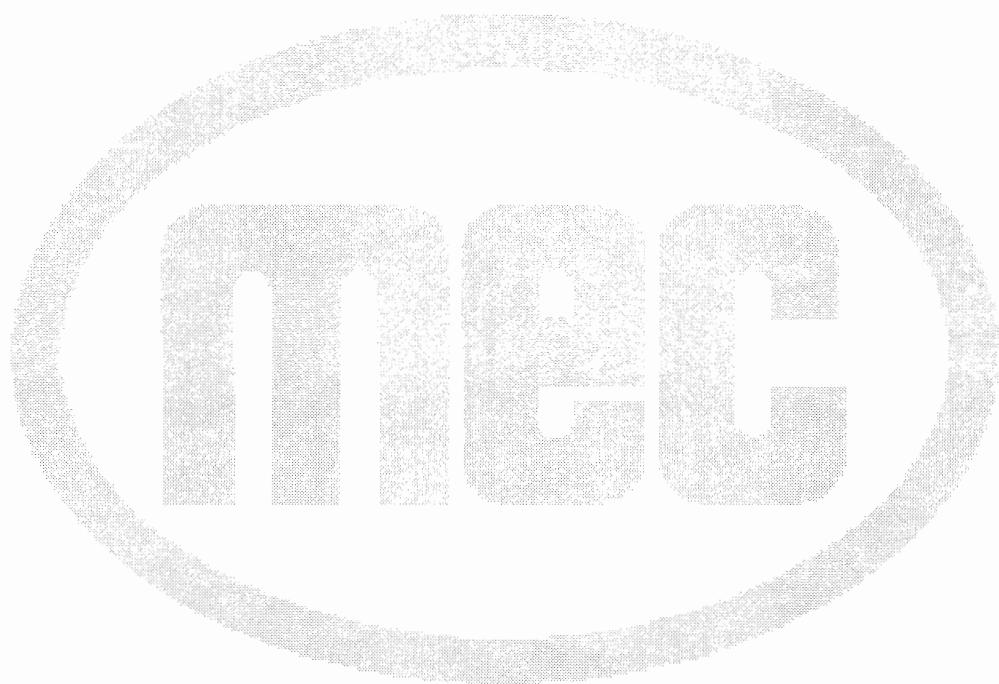


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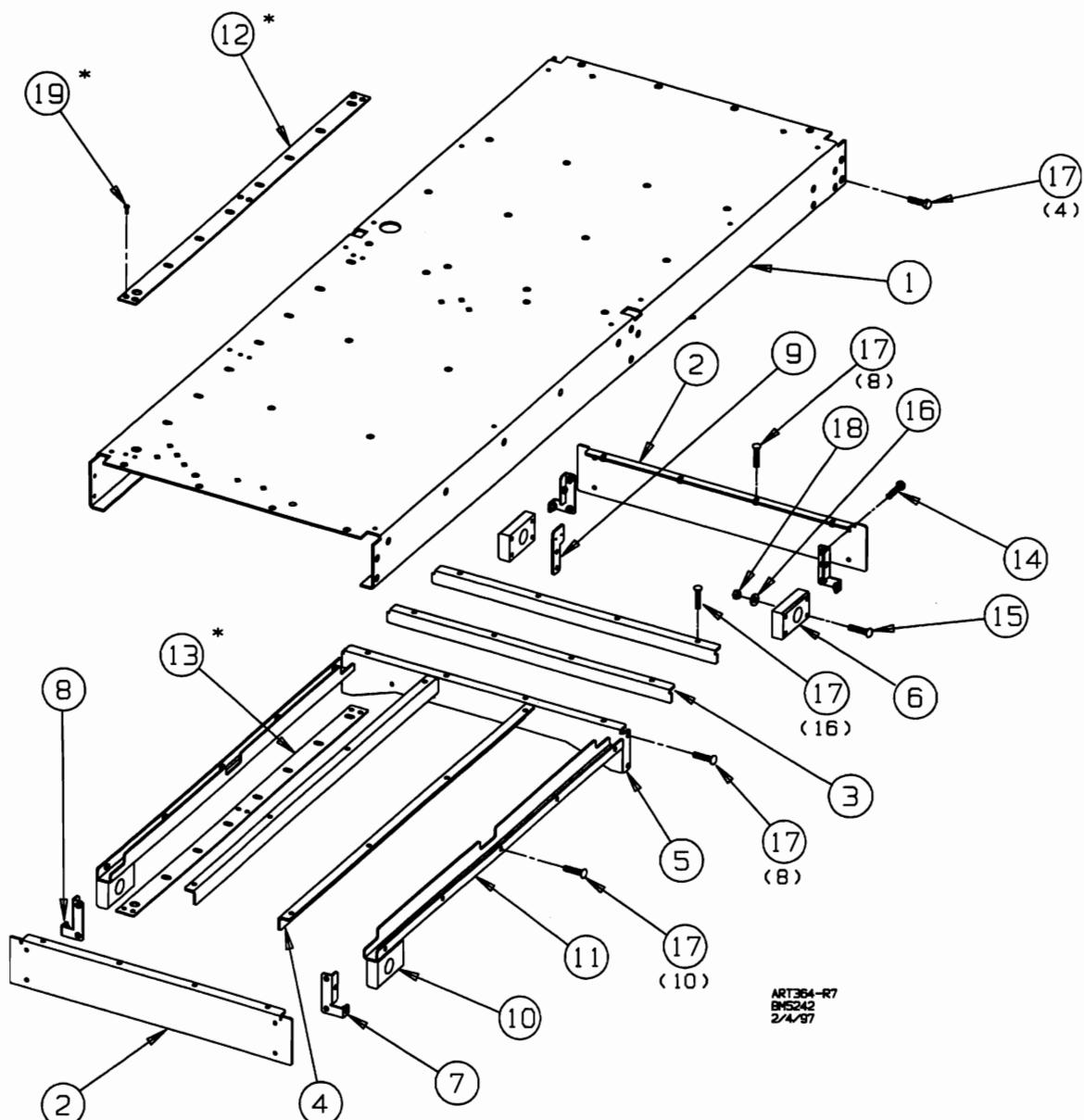
Platform & Rails



Notes:



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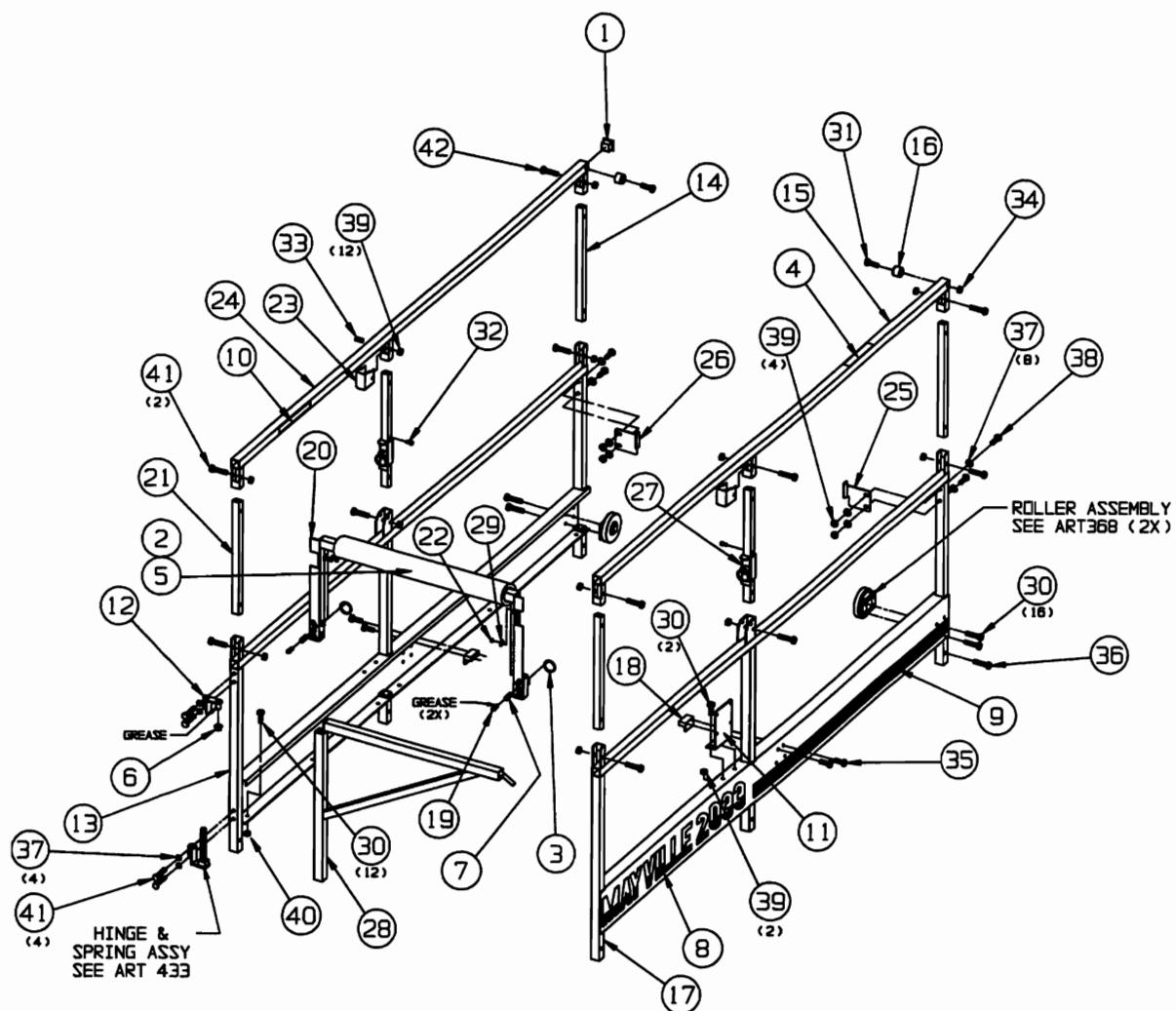
Figure 4A - Platform Assembly 2033

* FOR SERVICE USE ONLY
(ALL THREE PARTS REQ'D)

Figure 4A - Platform Assembly 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	13067	1	PLATFORM - MAIN FLAT
2	13069	2	END SUPPORTS - PLATFORM
3	13070	2	SHORT SUPPORTS - PLATFORM
4	13071	2	LONG SUPPORTS - PLATFORM
5	13108	1	CENTER PLATFORM SUPPORT
6	13115 13825 13820	2 1 1	PLATFORM BLOCK - FIXED (U.S.) LEFT PLATFORM BLOCK-FIXED (EURO) RIGHT PLATFORM BLOCK - FIXED (EURO)
7	13118	2	RAIL SUPPORT - LEFT
8	13217	2	RAIL SUPPORT - RIGHT
9	13424 13484 6715 6456 8330 HDW7684	1 1 1 1 1 2	SLOW SPEED SWITCH ASSEMBLY LIMIT SWITCH BRACKET - SPEED LIMIT SWITCH - SLOW SPEED (NOT SHOWN) STEEL CORD GRIP (NOT SHOWN) WIRE HARNESS ASSEMBLY (NOT SHOWN) SCREW, #6-32 X 1 1/2" LONG (NOT SHOWN)
10	13488 13819 13824	2 1 1	PLATFORM BLOCK - SLIDE (U.S.) RIGHT PLATFORM BLOCK - SLIDE (EURO) LEFT PLATFORM BLOCK - SLIDE (EURO)
11	13489	2	SLIDE BRACKET - PLATFORM
12	13537	1	STRIP, TOP - MAIN PLATFORM
13	13538	1	STRIP, BOTTOM - MAIN PLATFORM
14	HDW5724	8	SCREW 5/16 - 18 X 3/4, GRADE 5
15	HDW8293	8	SCREW, 5/16 -18 X 2.00
16	HDW8294	6	WASHER .328 ID X 1.00 OD X .10THK
17	HDW8295	46	SCREW, 5/16 -18 X 3/4
18	HDW8304	8	HEX TOP LOC NUT 5/16 -18
19	HDW8594	6	SCREW, 1/4 - 20 X 3/4

ART364-R7
BM5242
2/4/97

Figure 4B - Main Platform Rail Assembly 2033

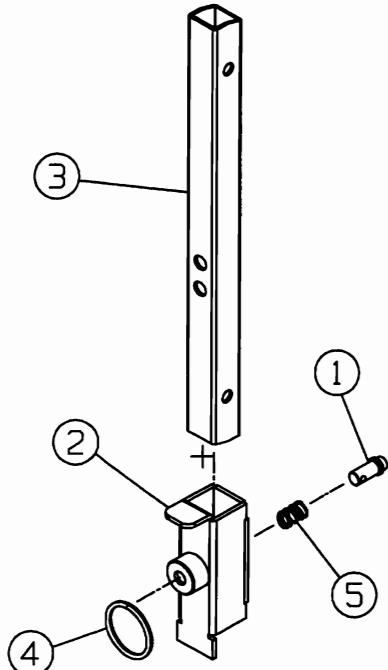
ART370-R10
BNS265
SCALE: .055

Figure 4B - Main Platform Rail Assembly 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	6823	6	CAPLUG 1 1/4" SQ. TUBING
2	7048	1	COVER - RAIL PAD
3	7073	2	SPLIT RING 1.640 OD ZINC
4	7155	1	CONTROL BOX DECAL
5	7805	1	PAD, RAIL
6	8187	1	BEARING, NYLINER .63 ID X .63 LF
7	8376	2	SPRING, COMP .480D X .40ID X .50LG
8	8401	2	DECAL - MODEL 2033
9	8402	2	DECAL RAIL STRIP - 150' ROLL
10	8493	2	DECAL - HAND GRIP AREA
11	11373	1	BRACKET - OUTLET
12	13281	1	MTG. BRKT WELD REAR GATE UPPER
13	13285	1	RAIL WELD LH KPNL MAIN PLAT
14	13288	2	RAIL, END - FOLD DOWN
15	13290	1	RH TOP RAIL WELD FOLD DOWN
16	13291	2	SPACER RAIL
17	13298	1	RAIL WELD RH KPNL MAIN PLAT
18	13373	2	GUIDE - NYLON ROLLER (PLATE)
19	13393	2	PIN, LOCK BRACKET, DRY WALL GATE
20	13394	1	DRYWALL GATE WELDMENT
21	13395	2	RAIL END REAR FOLD DOWN
22	13414	2	SPACER - DRYWALL GATE
23	13479	2	GUARD, RAIL FOLD DOWN
24	13491	1	LH TOP RAIL WELD FOLD DOWN
25	13505	1	FRONT STOP BRKT, RH R/D PLAT
26	13506	1	FRONT STOP BRKT, LH R/D PLAT
27	13526	2	LOCK BRKT ASSY W/TUBE SERVICE
	7073	1	SPLIT RING 1.640 OD ZINC
	8376	1	SPRING, COMP .480D X .40ID X .50LG
	13393	1	PIN, LOCK BRACKET, DRY WALL GATE
	13500	1	LOCK BRKT WELDMENT FOLD-DOWN
	13524	1	RAIL - CENTER FOLD-DOWN
	HDW6455	1	.250-20 .50" SELF TAPPING FORMING HEX WASHER HEAD SLOT DRIVE
28	13576	1	REAR GATE WELDMENT
29	HDW5217	2	WASHER .343ID X .688OD X .063 THK
30	HDW5724	30	CAP SCREW .312-18 .75" GRADE 5
31	HDW6029	2	.250-20 1.50" SELF TAPPING FORMING HEX WASHER HEAD SLOT DRIVE
32	HDW6455	2	.250-20 .50" SELF TAPPING FORMING HEX WASHER HEAD SLOT DRIVE
33	HDW7123	2	CAP SCREW .312-18 1.75" GRADE 5
34	HDW8267	2	HEX TOP LOC NUT .250-20
35	HDW8273	4	CAP SCREW .250-20 1.00" GRADE 5
36	HDW8293	6	MACH SCREW FLAT COUNTER SUNK CROSS RECESSED DRIVE .312-18 2.00"
37	HDW8294	12	WASHER .328 ID X 1.00 OD X .100THK
38	HDW8303	4	CAP SCREW .312-18 2.00" GRADE 5
39	HDW8304	18	HEX TOP LOC NUT .313-18
40	HDW8312	12	HEX NUT .313-18 CLASS 5
41	HDW8486	6	CAP SCREW .312-18 1.87" GRADE 5
42	HDW8489	8	CAP SCREW .312-18 1.62" GRADE 5

ART376-R10
BMS205
SCALE: .055

Figure 4C - Lock Bracket Assembly 2033

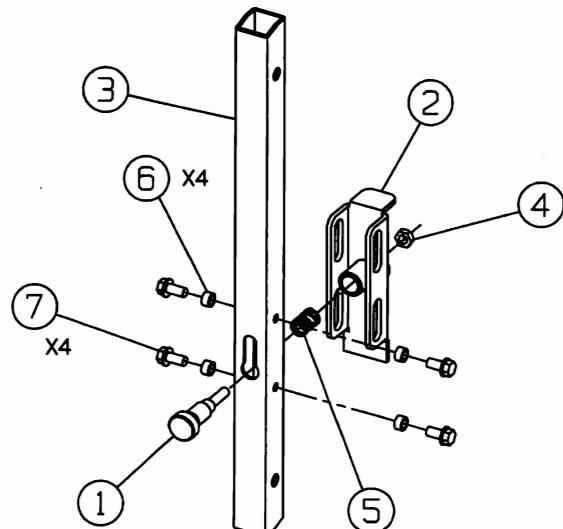


13526 - LOCK BRKT ASSY
MANUFACTURED FROM SERIAL
#8600901 & LATER

CURRENT VERSION

ITEM	PART NO.	QTY.	DESCRIPTION
1	13393	1	PIN LOCK BRKT O WALL GATE
2	13500	1	LOCK BRKT WELDMENT FOLD/DOWN
3	13757	1	RAIL CENTER FOLD/DOWN
4	7073	1	SPLIT RING 1.640 O.D.
5	8376	1	SPRING CMP

ART432 REV 1
SCALE .313
BMG108



LOCK BRKT ASSY
SERVICE PARTS NOT AVAILABLE
ORDER ASSEMBLY 13526

EARLIER VERSION

ITEM	PART NO.	QTY.	DESCRIPTION
1	13294	1	LOCK PIN
2	13299	1	LOCK BRACKET WELDMENT
3	13289	1	RAIL CENTER
4	HDW8267	1	HEX TOP LOC NUT
5	8299	1	SPRING COMP.
6	1006238	4	CAM ROLLER
7	HDW6455	4	BOLT 1/4-20 X .500

ART432 REV 1
SCALE .313
BMG108

Figure 4D - Rear Gate Spring Assembly

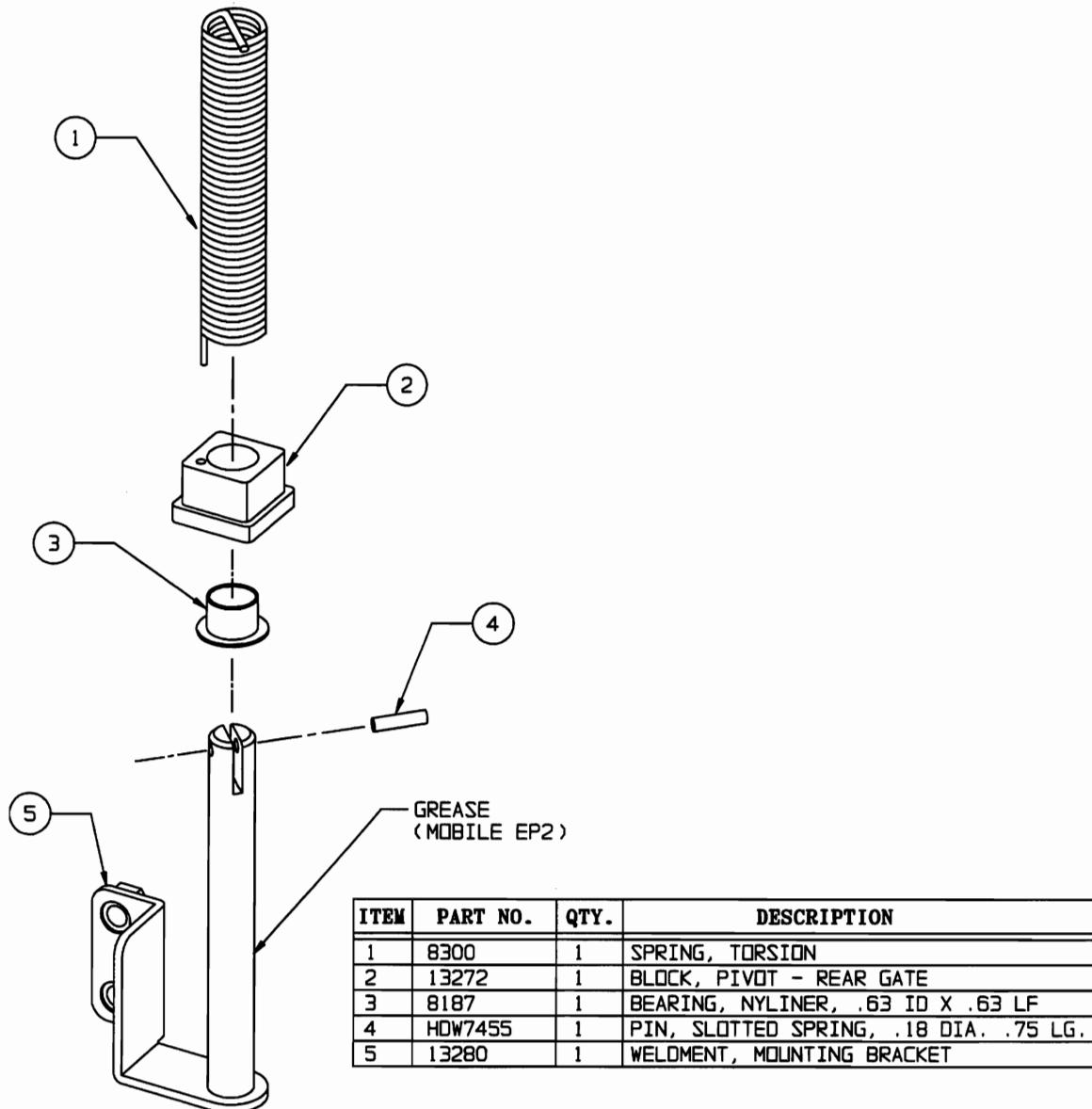
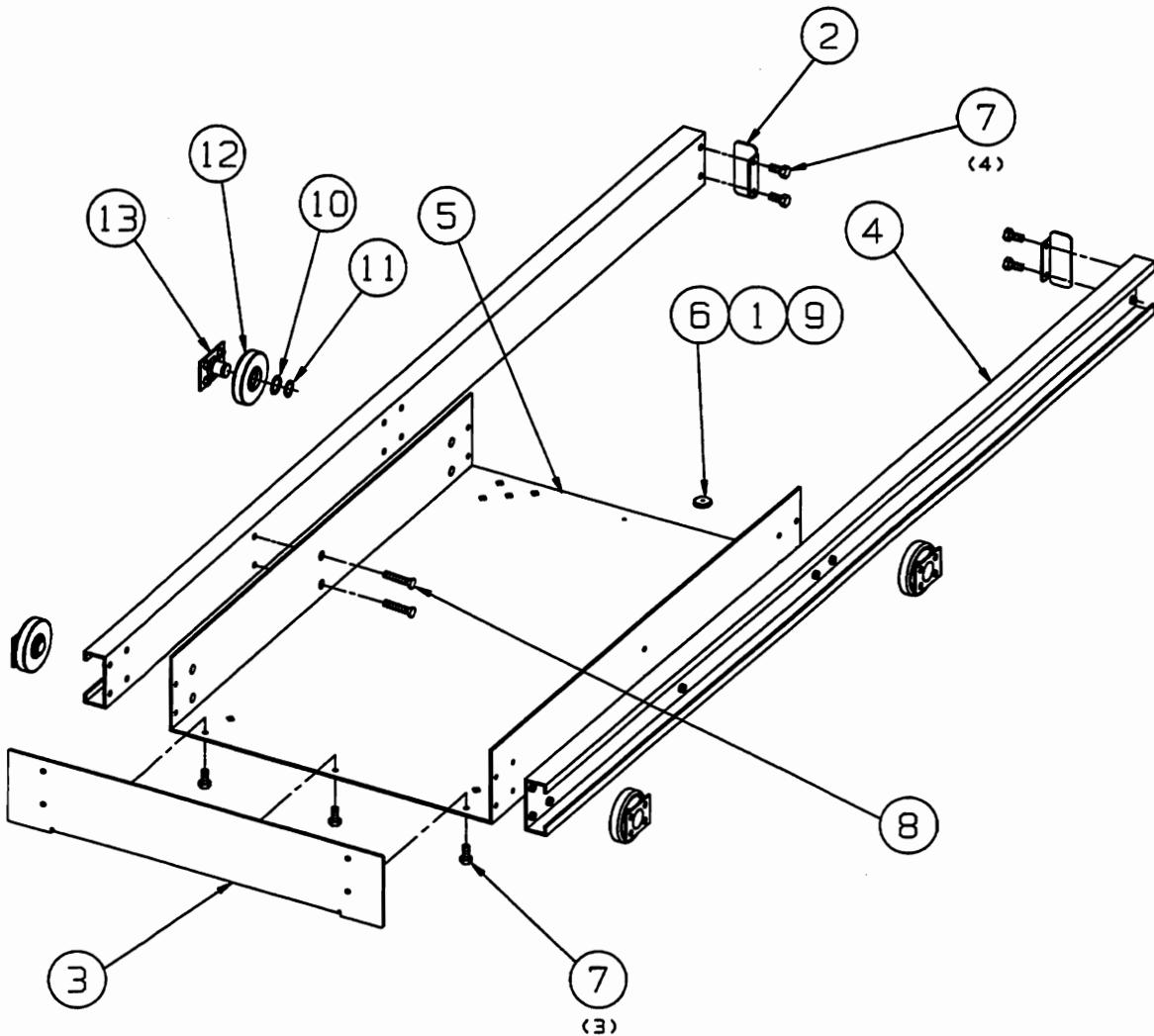
ART433 R1
BM9107

Figure 4E - Extended Platform Assembly 2033

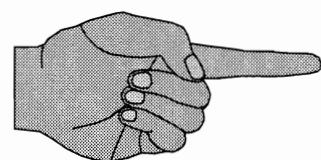


ITEM	PART NO.	QTY.	DESCRIPTION
1	8600	1	(NOT SHOWN) RIVET, SERIES 6 X 64, GRADE 18
2	13223	2	STOP BRACKET, ROLL TRACK PLATFORM
3	13221	1	END CAP - FRONT ROLLOUT PLATFORM
4	13222	2	ROLLER TRACK, ROLLOUT PLATFORM
5	13224	1	ROLLOUT PLATFORM
6	13268	1	SPACER NYLON ROLLOUT PLATFORM
7	HDW5724	7	CAP SCREW .312-18 X .75" GRADE 5
8	HDW8295	12	MACH SCREW FLAT COUNTERSINK CROSS RECESSED DR .312-18 X .75"
9	HDW8298	1	(NOT SHOWN) WASHER, .191 ID X .375 OD X .040 THK
10	HDW8370	4	WASHER 1.015 ID X 1.375 OD X .040 THK
11	5918	4	RETAINING RING - EXT
12	13230	4	ROLLER ROLLOUT PLATFORM
13	13267	4	ROLLER PLATE WELDMENT

ART369-94
05246



Notes:



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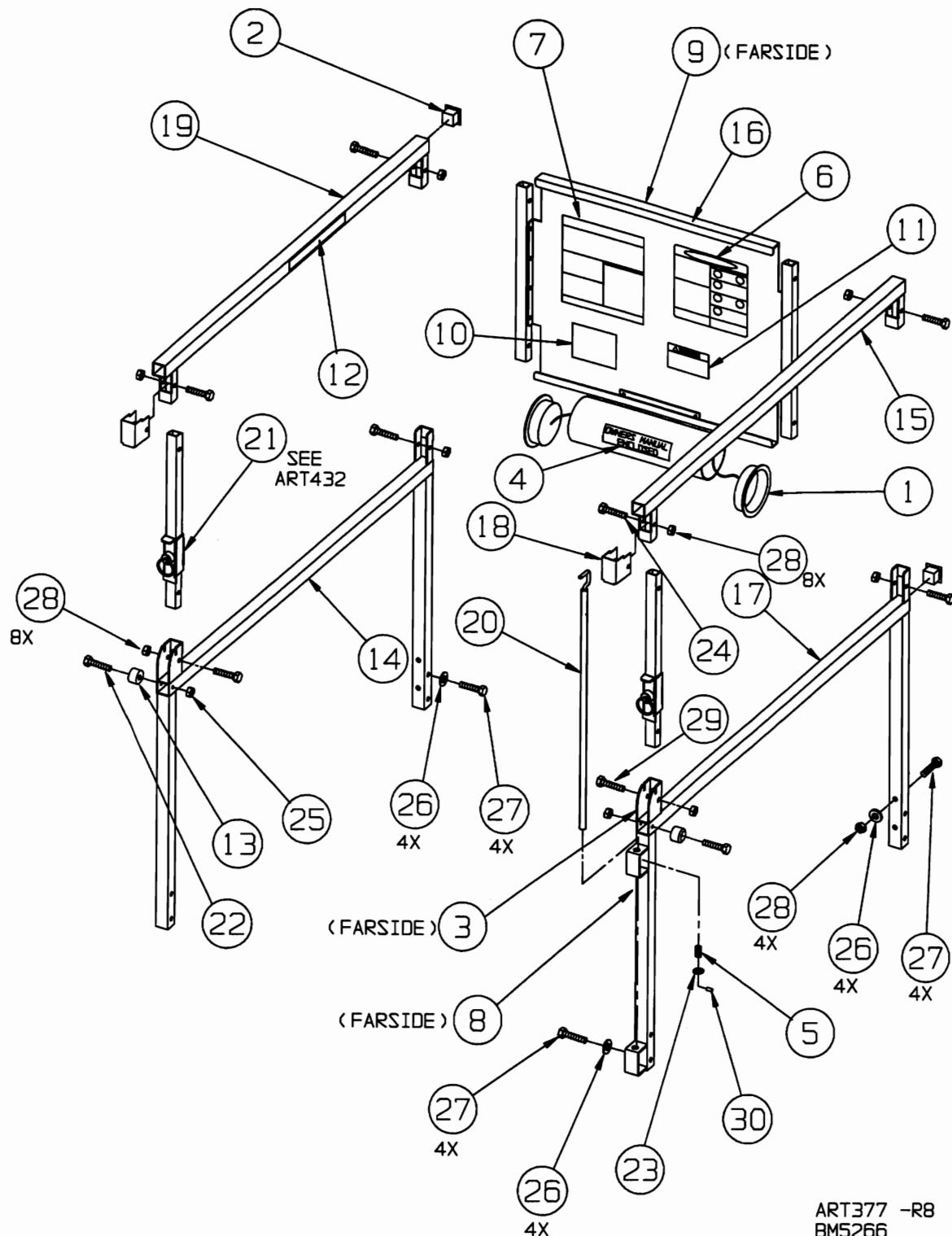
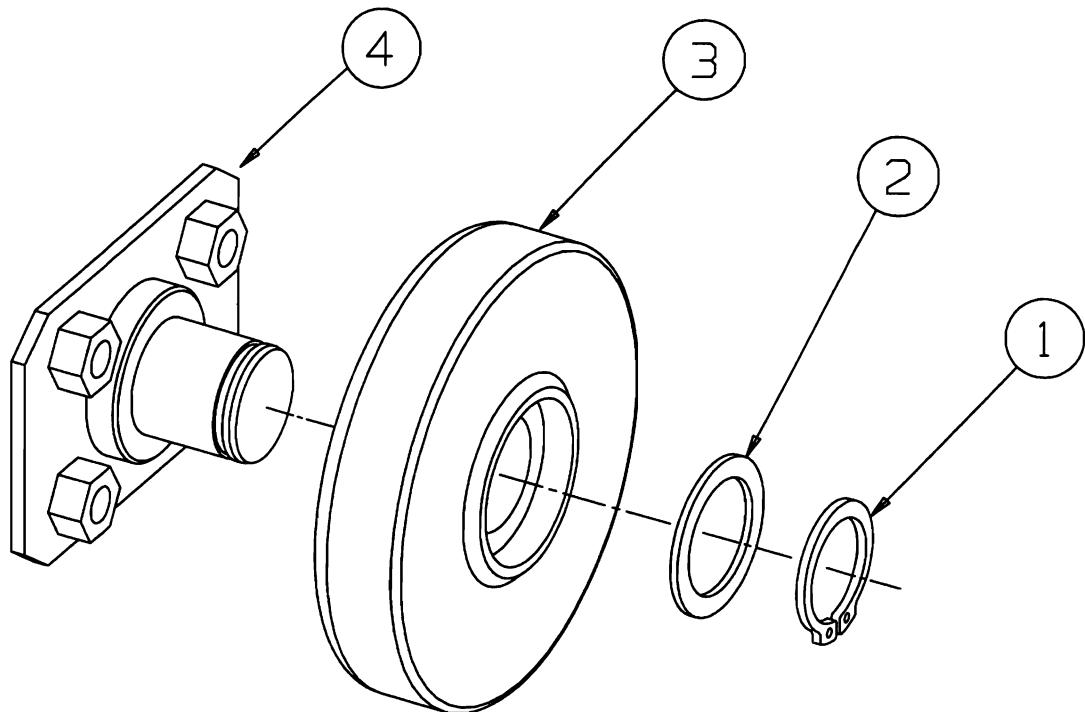
Figure 4F - Extended Platform Rail Assembly 2033

Figure 4F - Extended Platform Rail Assembly 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	3788	1	COVER ASSEMBLY - MANUAL TUBE
2	6823	8	CAPPLUG 1 1/4" SQ. TUBING
3	7157	1	DECAL, LATCH
4	7253	1	DECAL - MANUAL CASE
5	7408	1	SPRING, DECK LOCK
6	7523	1	DECAL-CAUTION-ELEC./TIP OVER HAZARD
7	7527	1	DECAL - CAUTION
8	7685	1	DECAL - PLATFORM LOCK
9	8404	1	DECAL LOGO RAILING, FRONT
10	8405	1	DECAL, CAPACITY 800#
11	8473	1	DECAL - LOCK WARNING
12	8493	2	DECAL - HAND GRIP AREA
13	13291	2	SPACER, RAIL
14	13300	1	SIDE RAIL WELDMENT, LH ROLLOUT PLATFORM
15	13301	1	RH TOP RAIL WELDMENT, ROLLOUT, FOLD DOWN
16	13304	1	FRONT RAIL WELDMENT, ROLLOUT, FOLD DOWN
17	13305	1	SIDE RAIL WELDMENT, RH ROLLOUT PLATFORM
18	13479	2	GUARD, RAIL FOLD DOWN
19	13490	1	LH TOP RAIL WELDMENT, ROLLOUT, FOLD DOWN
20	13495	1	LOCK TUBE WELDMENT, ROLLOUT PLATFORM
21	13526	2	LOCK TUBE BRACKET, ASSEMBLY W/TUBE
	7073	1	SPLIT RING 1.640 OD ZINC
	8376	1	SPRING, COMPRESSION, .48 OD X .41 ID X .50 LG
	13393	1	PIN, LOCK BRACKET, DRY WALL GATE
	13500	1	LOCK BRACKET WELDMENT, FOLD - DOWN
	13524	1	RAIL - CENTER FOLD - DOWN
	HDW6455	1	SCREW, SELF TAP & FORM, HEX WASHER HEAD, SLOT DRIVE, .250-20 X .50, GRADE 5
22	HDW6029	2	SCREW, SELF TAP & FORM, HEX WASHER HEAD, SLOT DRIVE, .250-20 X 1.50, GRADE 5
23	HDW7031	1	WASHER, FLAT, .50 ID .875 OD X .074 THK
24	HDW7123	2	SCREW, CAP, HEX HEAD, .312-18 X 1.75, GRADE 5
25	HDW8267	2	HEX TOP LOC NUT .250-20
26	HDW8294	12	WASHER, FLAT, .328 ID X 1.00 OD X .100 THK
27	HDW8303	12	SCREW, CAP, HEX HEAD, .312 -18 X 2.00, GRADE 5
28	HDW8304	20	NUT, HEX TOP LOC, .312-18, GRADE 5
29	HDW8489	6	SCREW, CAP, .312-18 X 1.62, GRADE 5
30	HDW8513	1	PIN, SLOTTED SPRING, .125Ø X .75 LG

 ART377 -R8
 BMS266

Figure 4G - Extended Platform Roller Assembly 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	5918	1	RETAINING RING, HEAVY DUTY-1.000-EXT.
2	HDW8370	1	WASHER 1.015 ID X 1.357 OD X .062 THK
3	13230	1	ROLLER
4	13267	1	ROLLER PLATE WELDMENT

ART367-R2
BM5245
12/12/96

Figure 4H - Fold Down Rail Update 2033

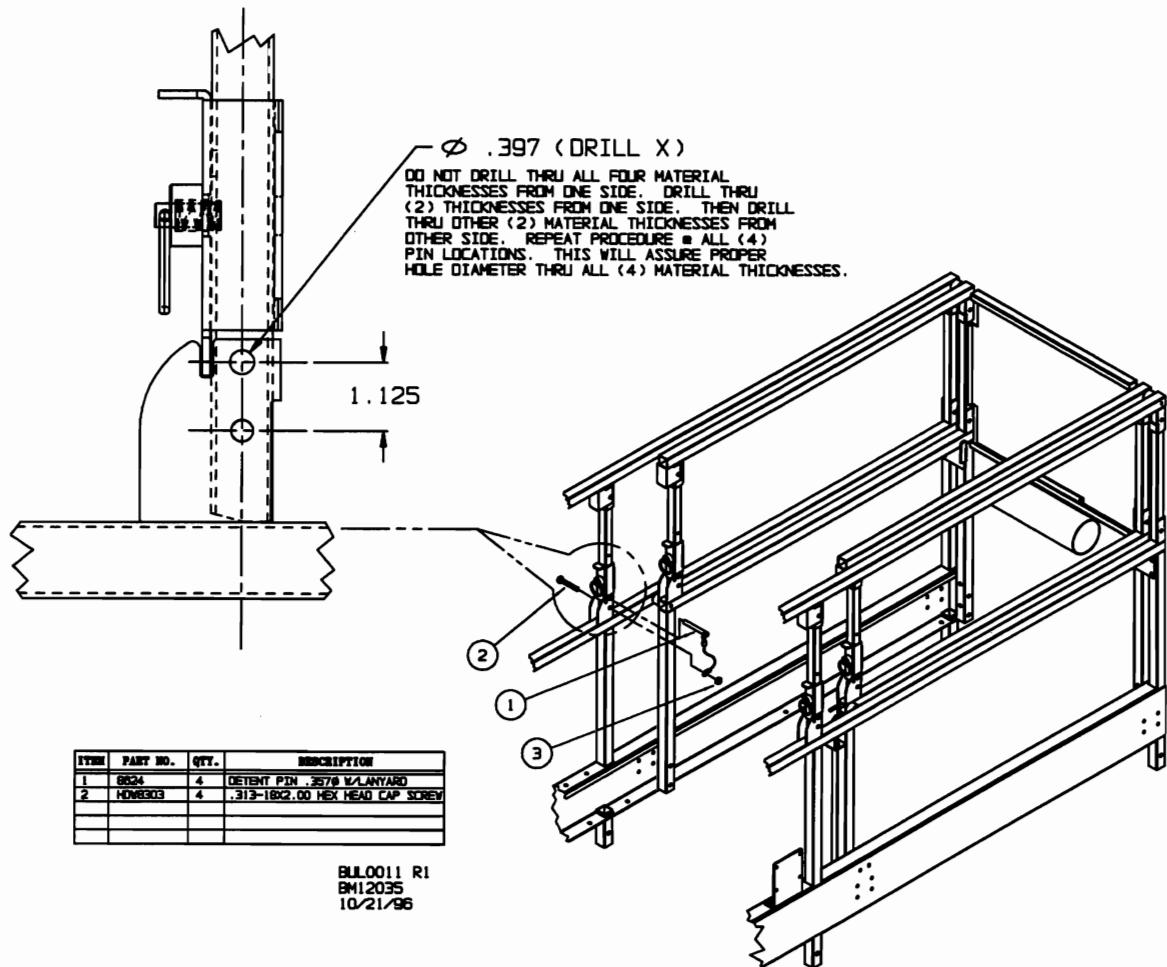


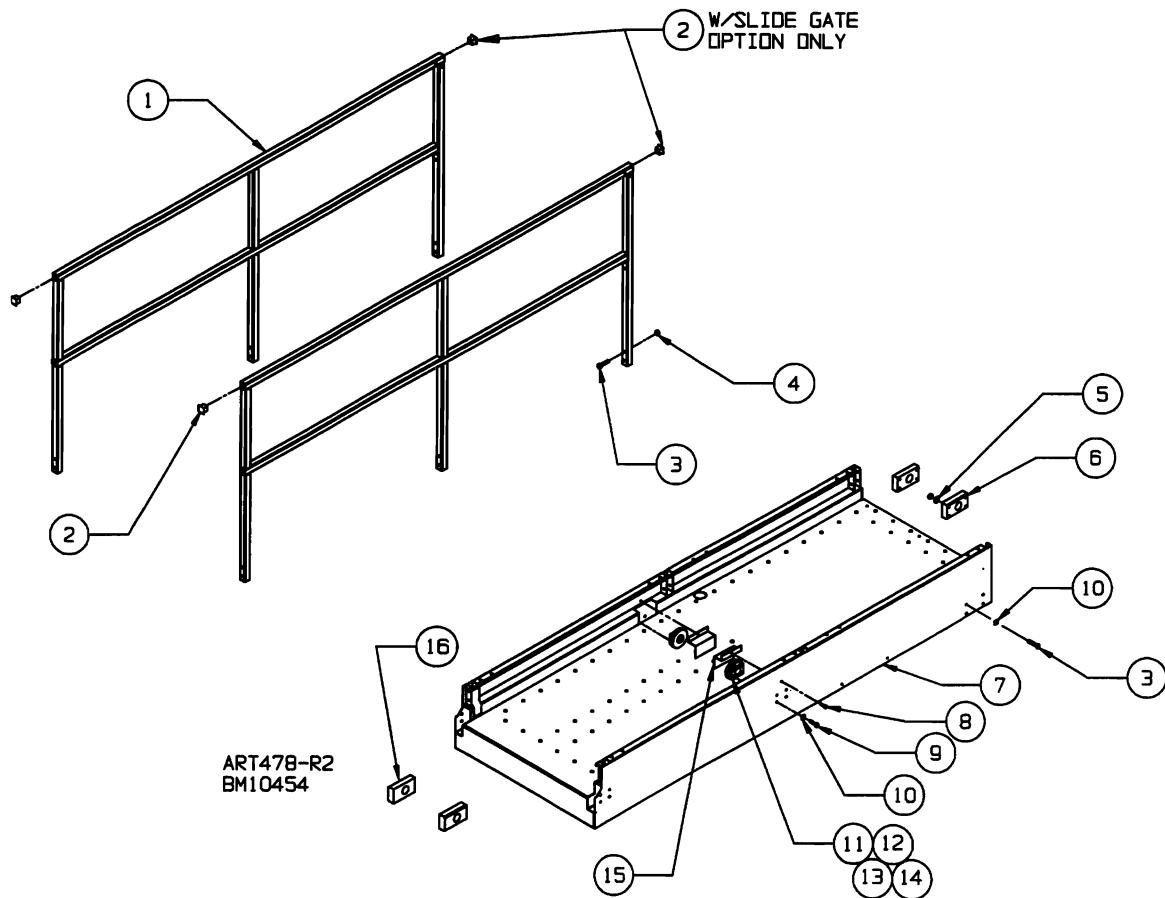
Figure 4I - Main Platform & Rail Assembly 2033RS

Figure 4I - Main Platform & Rail Assembly 2033RS

ITEM	PART NO.	QTY.	DESCRIPTION
1	13608	2	RAIL, MAIN PLATFORM
2	6823	4	CAP PLUG 1 1/4" SQ TUBE
3	HDW8486	20	BOLT 5/16"-18 UNC X 1.87 LG GRADE 5
4	HDW8304	20	LOCK NUT 5/16"-18 GRADE 5
5	HDW8294	8	WASHER FLAT, .328 ID X 1.00 OD X .100 THK
6	13115	2	PLATFORM FIXED END BLOCK
7	8622	1	MAIN PLATFORM
8	HDW6455	2	BOLT 1/4"-20 UNC X .50 LG GRADE 5
9	HDW5724	16	BOLT 5/16"-18 X .75 LG GRADE 5
10	HDW5217	24	WASHER, FLAT, .343 ID X .688 OD X .063 THK
11	13267	4	ROLLER PLATE WELDMENT
12	13230	4	ROLLER
13	HDW8370	4	WASHER, FLAT, 1.015 ID X 1.375 OD X .062 THK
14	5918	4	RETAINING RING
15	13637	2	BRACKET, ROLLER COVER
16	13488	2	PLATFORM SLIDE BLOCK

ART478-R2
BM10454

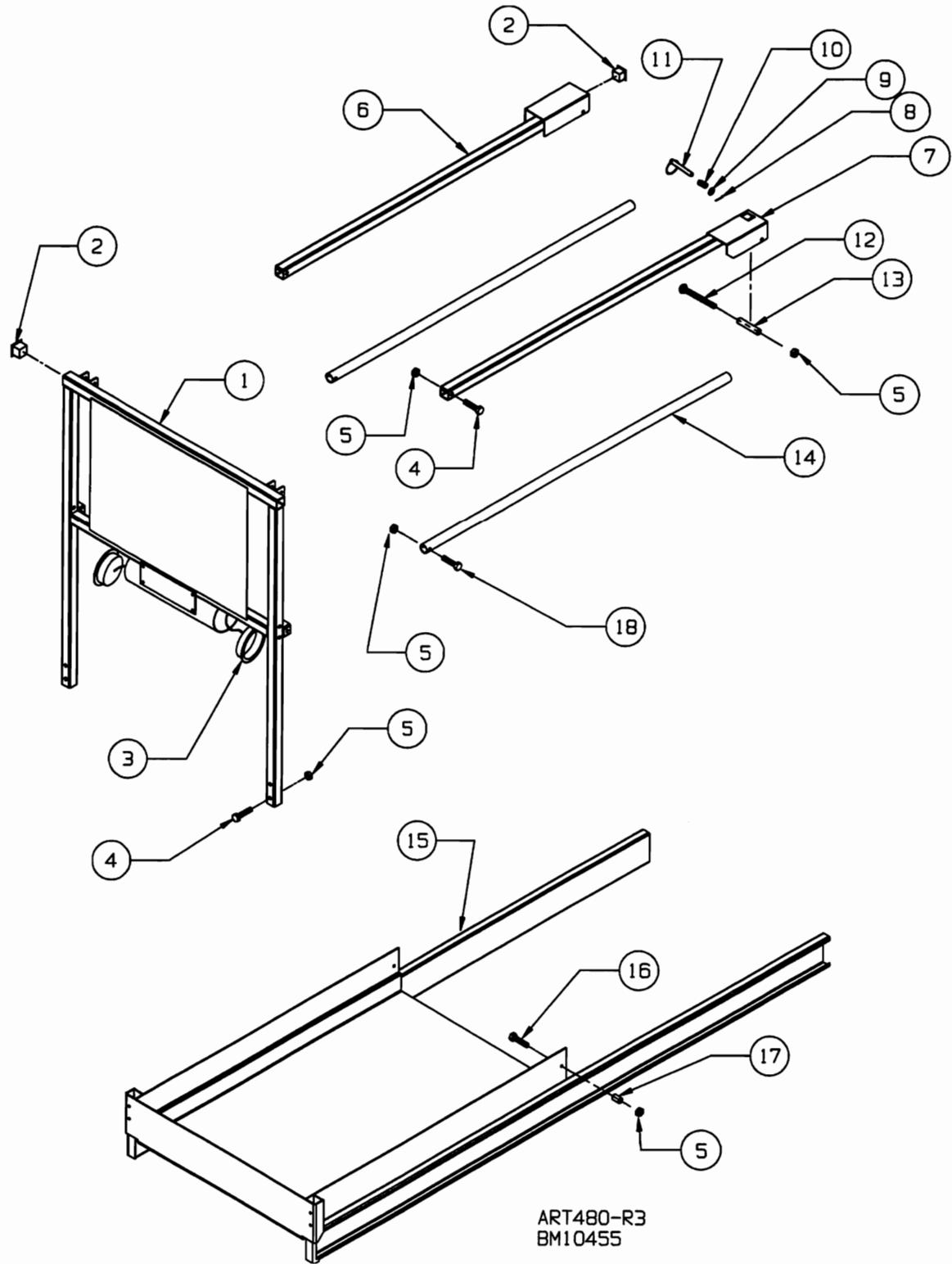
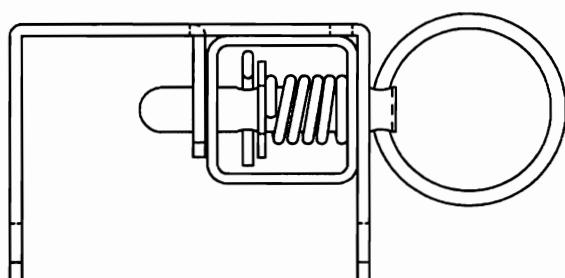
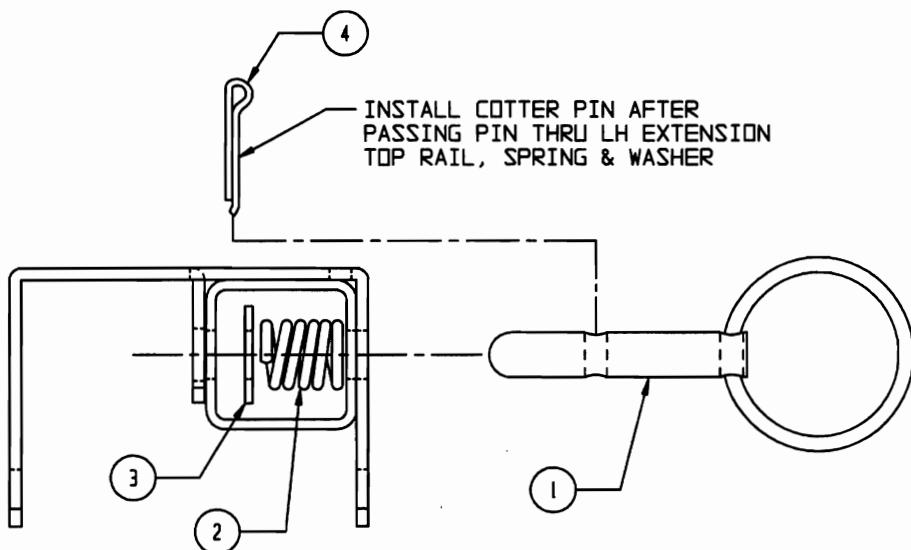
Figure 4J - Extended Platform & Rail Assembly 2033RS

Figure 4J - Extended Platform & Rail Assembly 2033RS

ITEM	PART NO.	QTY.	DESCRIPTION
1	13607	1	FRONT RAIL, EXTENSION PLATFORM
2	6823	4	CAP PLUG 1 1/4" SQ TUBE
3	3788	1	MANUAL TUBE COVER ASSEMBLY
4	HDW8486	6	BOLT 5/16"-18 UNC X 1.87 LG GRADE 5
5	HDW8304	12	LOCK NUT 5/16"-18 GRADE 5
6	13636	1	TOP RH RAIL, EXTENSION PLATFORM
7	13629	1	TOP LH RAIL, EXTENSION PLATFORM
8	HDW8686	1	COTTER PIN, 5/32 X 1.00 LG.
9	HDW24H156	1	WASHER .406 ID X .812 OD X .06 THK
10	8697	1	SPRING .600 OD X .049 DIA X 1.25 LG
11	8625	1	RING PIN 3/8" X 1.925 EFFECTIVE LENGTH
12	HDW8660	2	CARRIAGE BOLT 5/16"-18 UNC X 3.50 LG GRD 5
13	13642	2	SPACER .384 ID X .50 OD X 2.750 LG
14	13606	2	MID RAIL, EXTENSION PLATFORM
15	8623	1	PLATFORM EXTENSION WELDMENT
16	HDW8310	2	BOLT 5/16"-18 UNC X 1.25 LG GRADE 5
17	13643	2	SPACER .384 ID X .50 OD X .750 LG
18	HDW8489	2	BOLT 5/16"-18 UNC X 1.62 LG GRADE 5

ART480-R3
BM10455

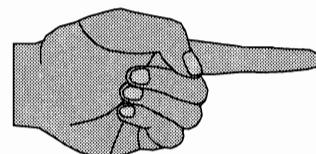
Figure 4K - Extended Platform Lock Pin Assy. 2033RS

ASSEMBLED VIEW

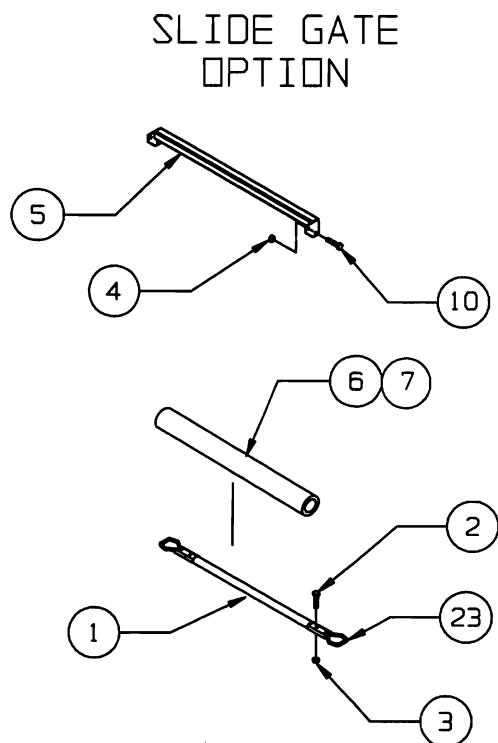
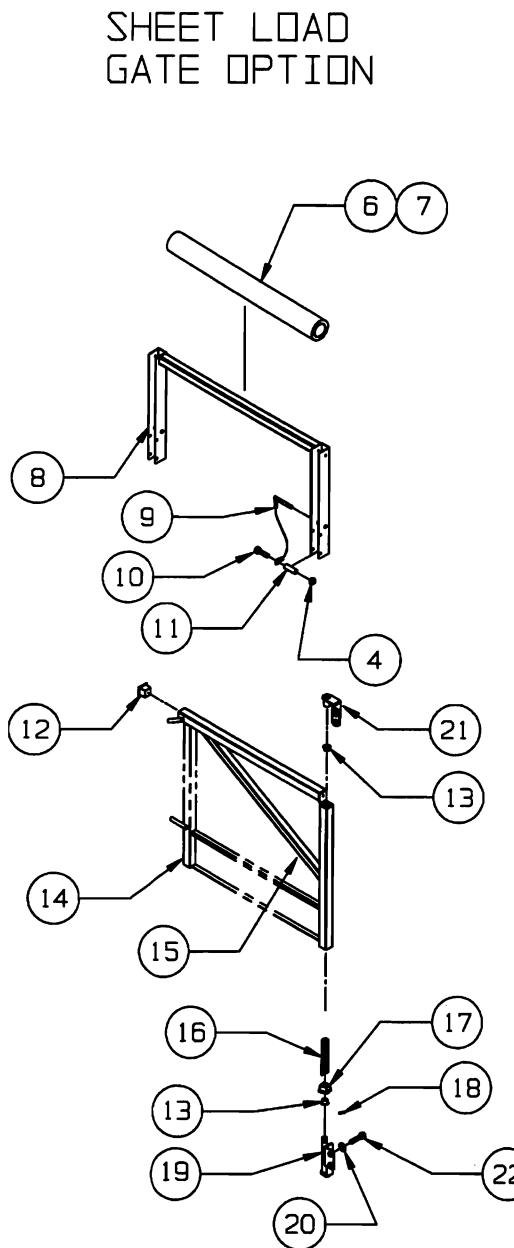
ITEM	PART NO.	QTY.	DESCRIPTION
1	8625	1	.375 RING PIN
2	8697	1	SPRING .50 ID X .60 OD X 1.25 LG
3	HDW24H1303	1	WASHER, .406 ID X .812 OD X .06 THK
4	HDW8686	1	COTTER PIN, 5/32 X 1.00 LG.

BUL0001 R1
BM10981
03/12/96

Notes:



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Figure 4L - Rear Gate Options 2033RS

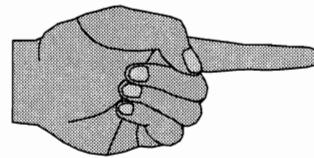
ART488-R2
BM10774

Figure 4L - Rear Gate Options 2033RS

ITEM	PART NO.	QTY.	DESCRIPTION
1	13590	1	TUBE, SLIDE BAR GATE
2	HDW5723	4	BOLT 1/4"-20 UNC X .75 LG GRADE 5
3	HDW6461	4	LOCK NUT 1/4"-20 GRADE 5
4	HDW8304	8	LOCK NUT 3/8"-16 GRADE 5
5	13623	1	REAR RAIL WELDMENT
6	7048	2	RAIL PAD COVER
7	7805	2	RAIL PAD
8	13617	1	SHEET LOAD GATE WELDMENT
9	8624	2	DETENT RING PIN 3/8"
10	HDW8486	8	BOLT 3/8"-16 UNC X 1.87 LG GRADE 5
11	13725	1	SPACER .384 ID X .50 OD X 1.355 LG
12	6823	1	CAP PLUG 1 1/4" SQ TUBE
13	8187	2	BEARING, FLANGED .63 ID X .63 LG
14	13581	1	REAR SWING GATE - EUROPEAN
15	13576	1	REAR SWING GATE
16	8300	1	SPRING, TORSION
17	13272	1	REAR GATE PIVOT BLOCK
18	HDW7455	1	SPRING PIN .18 DIA X .75 LG
19	13610	1	LOWER REAR GATE MOUNTING BRACKET
20	HDW8294	4	FLAT WASHER 3/8"
21	13281	1	UPPER REAR GATE MOUNTING BRACKET
22	HDW8303	4	BOLT 5/16-18 2.00 LG GRADE 5
23	8670	2	END CLIP, SLIDING RAIL

ART488-R2
BM10774

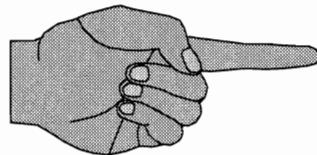
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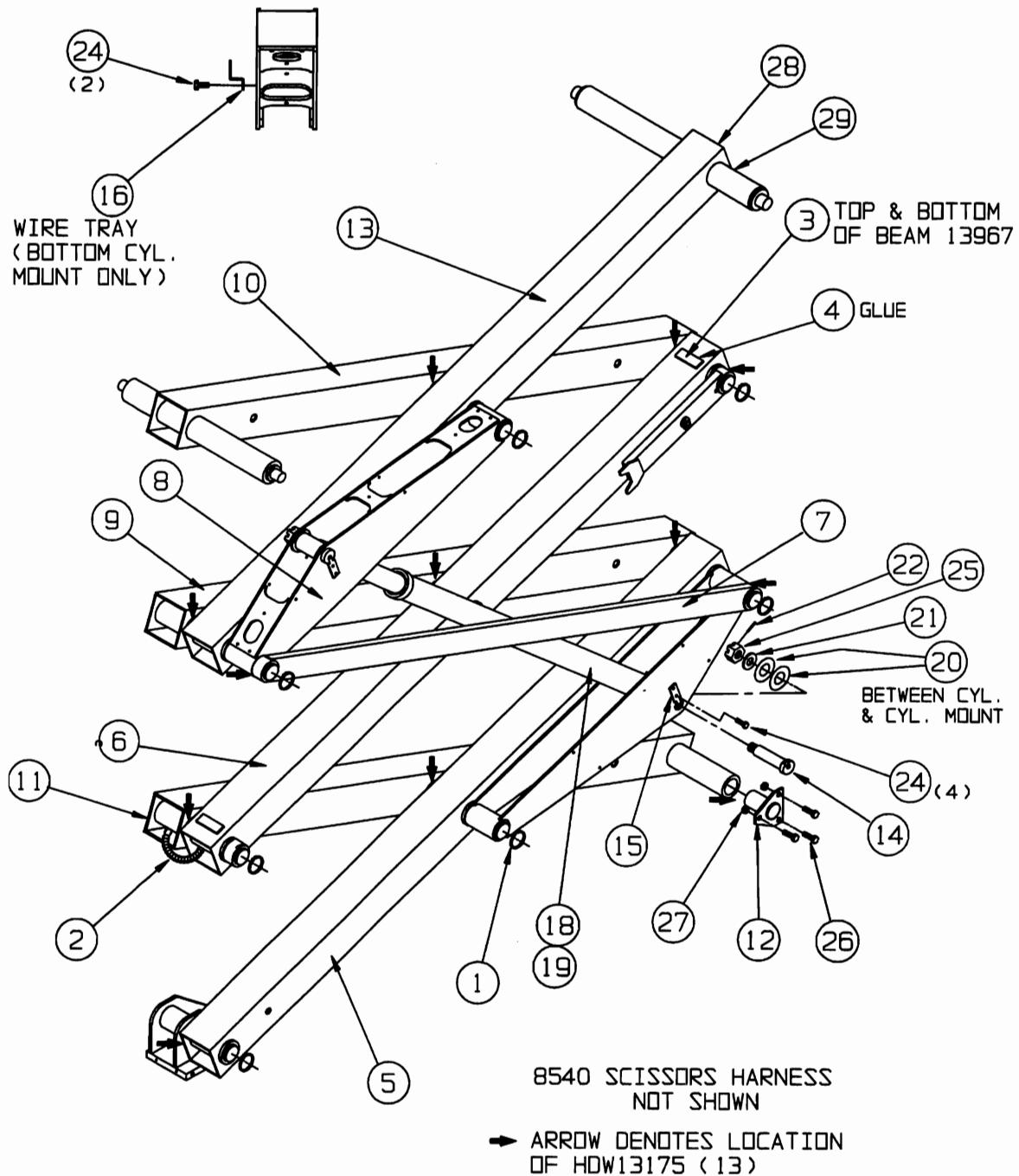
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Scissors & Lift Mech.

Notes:



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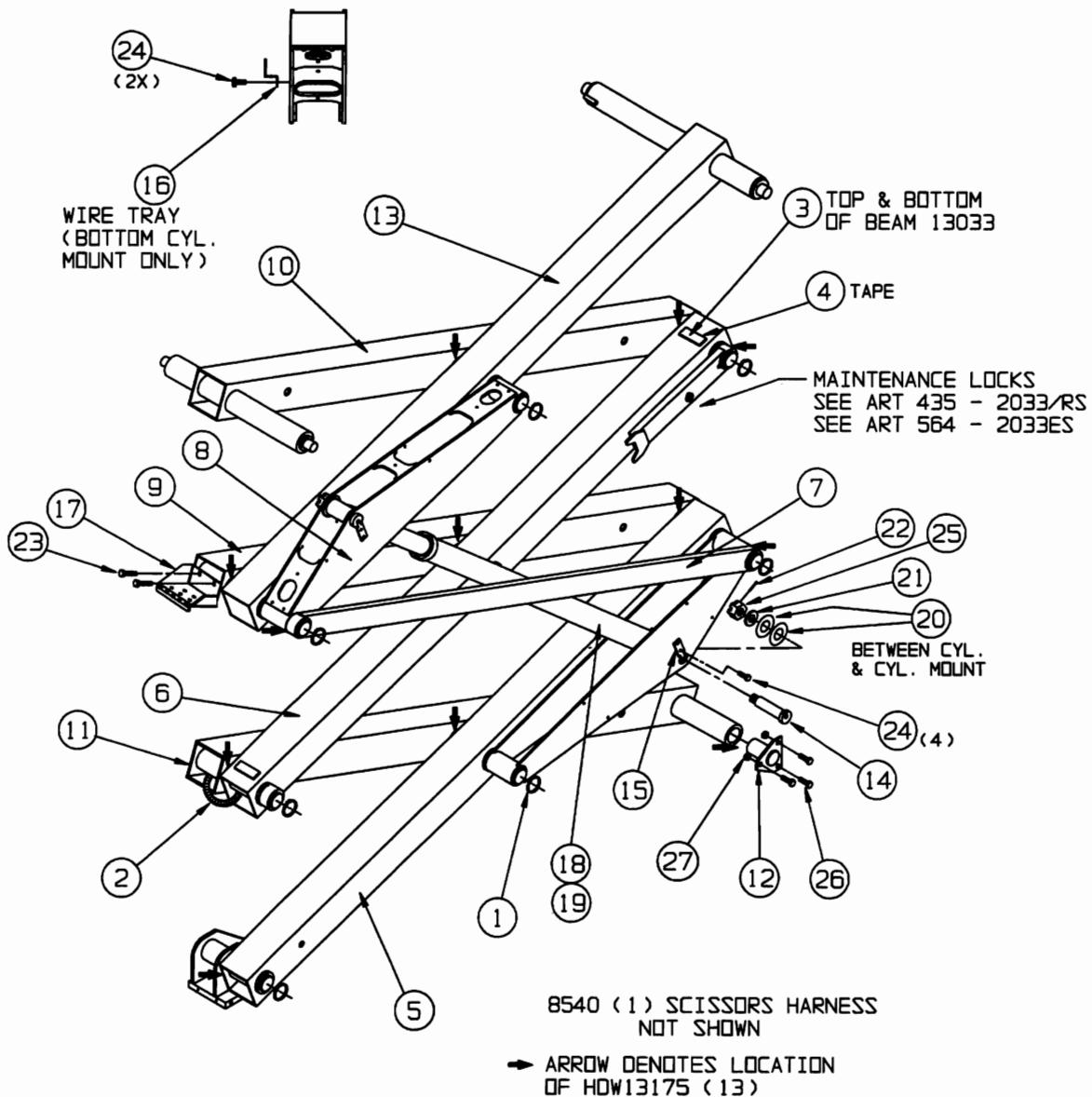
Figure 5A - Scissor Assembly Without Rear Step

ART579-R6
BM12646
3/31/99

Figure 5A - Scissor Assembly Without Rear Step

ITEM	PART NO.	QTY.	DESCRIPTION
1	6701	8	RETAINING RING - 2" SHAFT
2	6840	4	SPRING
3	8616	4	WEAR PADS (GLUE ON)
4	8617	N/A	GLUE, PERMABOND BLK MAGIC 737
5	13966 6669	1 6	BEAM WELDMENT OUTER #170 WITH BEARINGS BEARING-32DU32
6	13967 6669	1 6	BEAM WELDMENT #150 WITH BEARINGS BEARING-32DU32
7	13931	1	BEAM SUPPORT WELDMENT
8	13054	2	CYL. MOUNT WELDMENT
9	13969	1	BEAM WELDMENT W/PINS #140
10	13971	1	BEAM WELDMENT #120 W/PINS
11	13968 6669	1 2	BEAM WELDMENT #160 W/PINS BEARING-32DU32
12	13101	2	PIN WELDMENT STAT. MOUNT
13	13970 6669	1 4	BEAM WELDMENT #130 W/PINS BEARING-32DU32
14	13162	2	CYLINDER MOUNTING PIN
15	13164	2	PIN ACT. PLT-CYL MOUNTING
16	13384	1	TRAY - WIRE - CYL MOUNT
17			
18	8637	1	LIFT CYLINDER
19	13651	1	CYLINDER-LIFT WITH BEARINGS
20	HDW13339	4	WASH 1.385 ID X 2.255 OD X .030 THK
21	HDW3879	2	WASH 1.015 ID X 2.000 OD X .171 THK
22	HDW5787	2	COTTER PIN HAMMERLOC .12Ø 1.50 LG
23			
24	HDW6455	6	SELF TAP SCREW .250-20 .50" GRADE 5
25	HDW6986	2	SLOTTED HEX NUT 1.00-20
26	HDW8283	6	CAP SCREW .500-13 1.50" GRADE 5
27	HDW8457	6	HEX TOP LOC NUT .500-13
28	9147	1	SPRING 1 5/8" X 10" LONG
29	9146	1	CLAMP, 1 13/16", 2 3/4" HOSE

ART579-R6
BM12646
3/31/99

Figure 5B - Scissor Assembly With Rear Step

ART375-R14
BMS264
3/31/99

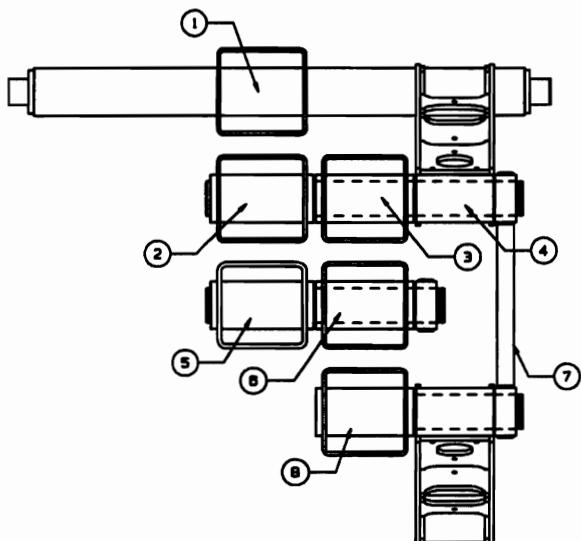
Figure 5B - Scissor Assembly With Rear Step

ITEM	PART NO.	QTY.	DESCRIPTION
1	6701	8	RETAINING RING - 2" SHAFT
2	6840	3	SPRING
3	8616	4	WEAR PADS
4	8785	N/A	DOUBLE COATED TAPE-VBH
5	13966 6669	1 6	BEAM WELDMENT OUTER #170 WITH BEARINGS BEARING, 32DU32
6	13967 6669	1 6	BEAM WELDMENT #150 WITH BEARINGS BEARING, 32DU32
7	13931	1	BEAM SUPPORT WELDMENT
8	13054	2	CYLINDER MOUNT WELDMENT
9	13969	1	BEAM WELDMENT W/PINS #140
10	13971	1	BEAM WELDMENT #120 W/PINS
11	13968 6669	1 2	BEAM WELDMENT #160 W/PINS BEARING, 32DU32
12	13101	2	PIN WELDMENT STAT. MOUNT
13	13138	1	BEAM WELDMENT #130 W/PINS
14	13162	2	CYLINDER MOUNTING PIN
15	13164	2	RETAINING PLATE-CYLINDER
16	13384	1	WIRE TRAY - CYLINDER MOUNT
17	13475	1	REAR STEP
18	8637	1	LIFT CYLINDER
19	13651	1	CYLINDER-LIFT W/BEARINGS
20	HDW13339	4	WASHER, FLAT, 1.385 ID X 2.255 OD X .030 THK
21	HDW3879	2	WASHER, FLAT, 1.015 ID X 2.000 OD X .171 THK
22	HDW5787	2	COTTER PIN HAMMERLOC .12 DIA. X 1.50 LG
23	HDW6433	2	SCREW, 3/8"-16 X 1.00, GRADE 5
24	HDW6455	6	SCREW, 1/4"-20 X 1/2", GRADE 5
25	HDW6986	2	NUT, SLOTTED HEX, 1.00-20
26	HDW8283	6	SCREW, 1/2"-13 X 11/2", GRADE 5
27	HDW8457	6	LOCNUT, 1/2-13
	HDW13175	13	FLAT NYLON WASHER, 2.062 ID X 2.620 OD X .030 THK

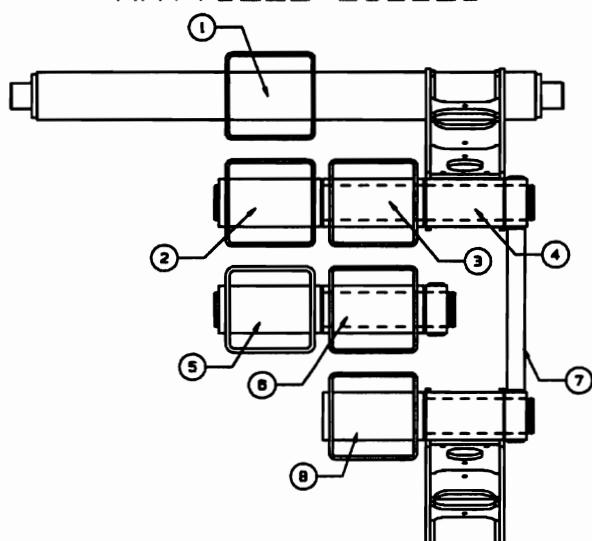
ART375-R14
BMS264
3/31/99

Figure 5C - Scissor Identification

MAYVILLE 2033/RS



MAYVILLE 2033ES



ITEM	PART NO.	QTY.	DESCRIPTION
1	13971	1	BEAM WELDMENT #120 WITH PINS
2	13969	1	BEAM WELDMENT #140 WITH PINS
3	13138	1	BEAM WELDMENT #130 WITH PINS
4	13054	2	CYLINDER MOUNTING WELDMENT
5	13968	1	BEAM WELDMENT #160 WITH PINS
6	13967	1	BEAM WELDMENT #150 WITH BEARINGS
7	13931	1	BEAM SUPPORT WELDMENT
8	13966	1	BEAM WELDMENT OUTER #170 WITH BEARINGS

ART368 RS
BN5880
1/4/99

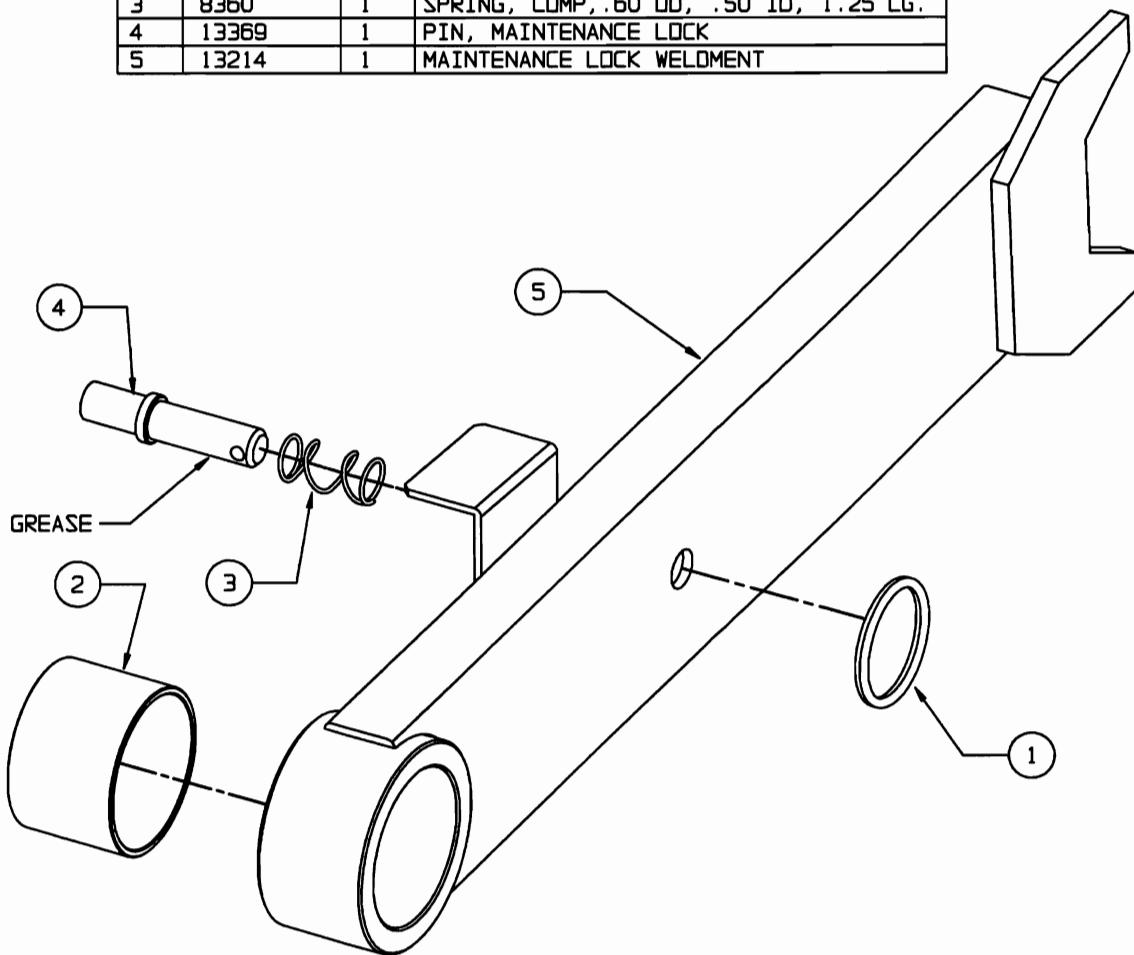
ITEM	PART NO.	QTY.	DESCRIPTION
1	13971	1	BEAM WELDMENT #120 WITH PINS
2	13969	1	BEAM WELDMENT #140 WITH PINS
3	13970	1	BEAM WELDMENT #130 WITH PINS
4	13054	2	CYLINDER MOUNTING WELDMENT
5	13968	1	BEAM WELDMENT #160 WITH PINS
6	13967	1	BEAM WELDMENT #150 WITH BEARINGS
7	13931	1	BEAM SUPPORT WELDMENT
8	13966	1	BEAM WELDMENT OUTER #170 WITH BEARINGS

ART368 RS
BN5880
1/4/99

Figure 5D - Maintenance Lock Assembly

FOR 2033 SERIAL NUMBERS: START - 8602447
 2033RS SERIAL NUMBERS: START - 8700458

ITEM	PART NO.	QTY.	DESCRIPTION
1	7073	1	RING, SPLIT, 1.640 OD, ZINC
2	7440	1	BEARING, 2" DIA. X 1 1/2 LG., 320U24
3	8360	1	SPRING, COMP., .60 OD, .50 ID, 1.25 LG.
4	13369	1	PIN, MAINTENANCE LOCK
5	13214	1	MAINTENANCE LOCK WELDMENT



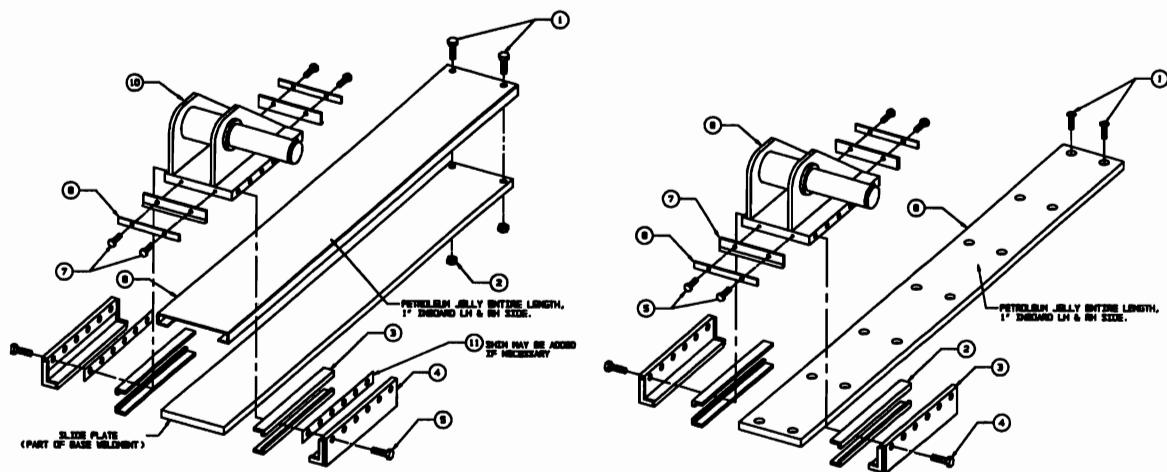
FOR 2033 SERIAL NUMBERS: 8602448 - PRESENT
 2033RS SERIAL NUMBERS: 8700459 - PRESENT

ITEM	PART NO.	QTY.	DESCRIPTION
1	7073	1	RING, SPLIT, 1.640 OD, ZINC
2	8675	1	BEARING, 2.25 OD X 2.00 ID X 1.5 LG
3	8360	1	SPRING, COMP., .60 OD, .50 ID, 1.25 LG.
4	8695	1	PIN, MAINTENANCE LOCK
5	13744	1	MAINTENANCE LOCK WELDMENT

1. ADD DECALS FOR MODEL 2033 PER ART 392
 ADD DECALS FOR MODEL 2033RS PER ART 479.

ART435 R4
 BM9259
 2/13/97

Figure 5E - Slide Shoe Assembly



ITEM	PART NO.	QTY.	DESCRIPTION
1	HDM6310	2	SCREW, CAP, HEX, 5/16-18 X 1.25, GRADE 5
2	HDM6304	2	NUT, LOC, HEX, 5/16-18
3	8162	4	BEARING, LINEAR SLIDE
4	13667	2	SLIDE SIDE RAIL WELDMENT
5	HDM7500	12	SCREW, CAP, HEX, 1/2-13 X 1.25, GRADE 8
6	13652	1	COVER, SLIDE PLATE
7	HDM5723	4	SCREW, SELFTAP, HEX, 1/4-20 X .75
8	13455	2	WIPER RETAINER SLIDE
9	8487	2	WIPER SLIDE
10	13450	1	SLIDE TOP PLATE WELDMENT
11	3771	2	SHIM, SLIDE

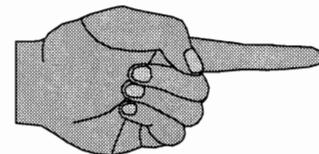
ITEM	PART NO.	QTY.	DESCRIPTION
1	HDM8167	14	SCREW, CAP, FLAT CSK, HEX DRIVE INTERNAL, 3/8-16 X 1.50, GRADE 8
2	8162	4	BEARING, LINEAR SLIDE
3	13453	2	SIDE RAIL WELDMENT
4	HDM7000	12	SCREW, CAP, HEX, 1/2-13 X 1.25, GRADE 8
5	HDM5723	4	SCREW, SELFTAP, HEX, 1/4-20 X .75
6	13455	2	WIPER RETAINER SLIDE
7	8487	2	WIPER SLIDE
8	13450	1	SLIDE TOP PLATE WELDMENT
9	13075	1	PLATE, SLIDE

FOR SERIAL NO.'S 8600430 - 8602099

FOR SERIAL NO. 8602100 - PRESENT

AFT372-47
8602099AFT372-47
8602099

Notes:



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Figure 5F - Lift Cylinder Assembly Domestic

13542 - LIFT CYLINDER W/BEARINGS-US
13544 - STANDARD OPTION (B)

CHANGED AFTER SERIAL NUMBER #8601245

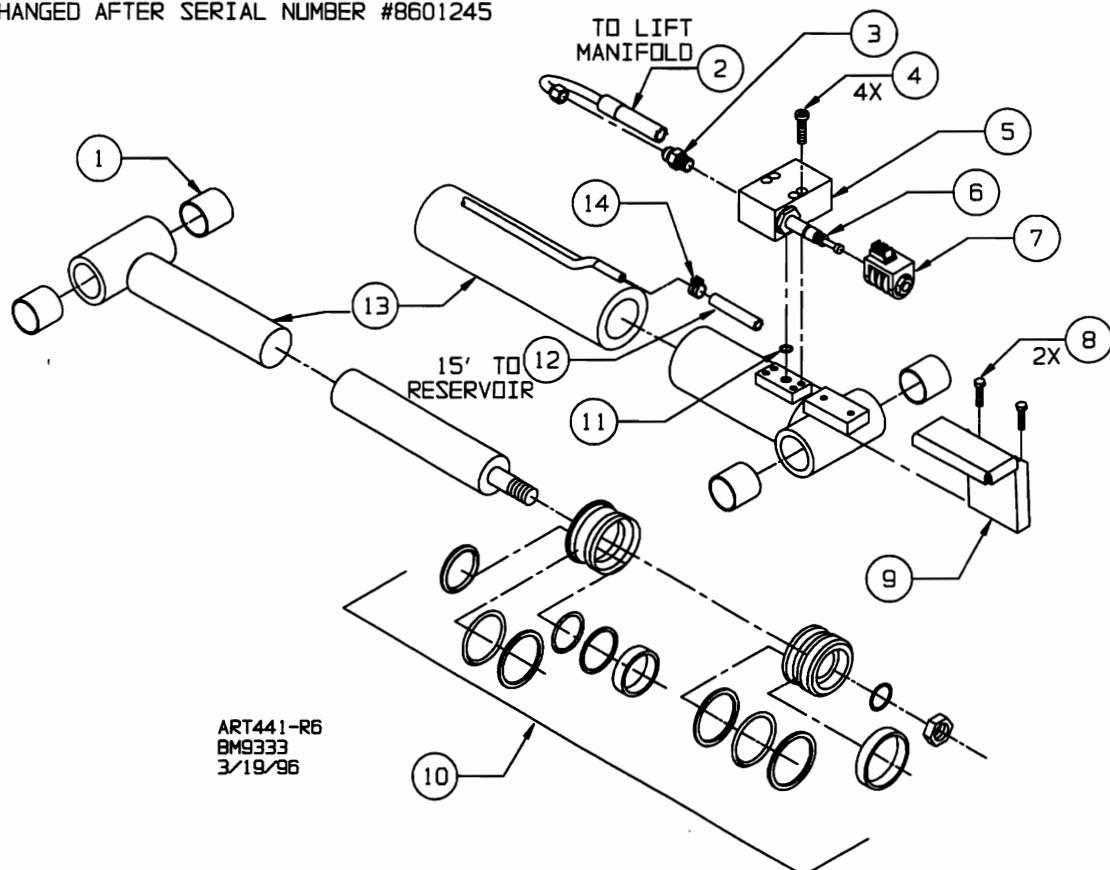


Figure 5F - Lift Cylinder Assembly Domestic

ITEM	PART NO.	QTY.	DESCRIPTION
1	6984	4	BEARING, 22DU26, 1 3/8 ID X 1 5/8" LG.
2	8582	1	HOSE, ASSEMBLY, LIFT CYLINDER
3	HDW7438	1	FITTING, PIPE, ADAPTOR
4	HDW8592	4	SCREW,CAP,SOCKET HD, 1/4-20 X 1.50, GRADE 8
5	13551	1	MANIFOLD, LIFT CYLINDER-STANDARD
6	8595	1	VALVE, 2 WAY, N.C. W/ MANUAL LOCK
7	7833	1	COIL, 24 VOLT, DOUBLE SPADE
8	HDW8663	2	SCREW,CAP,HEX HD, 5/16-18 X 50, GRADE 2
9	13728	1	BRACKET, CYLINDER VALVE GUARD WELDMENT
10	7078	1	KIT, SEAL-LIFT CYLINDER (SERVICE)
11	6426	1	O-RING, MANIFOLD BLOCK
12	6458	1	HOSE, RETURN LINE-15 FT.
13	8581	1	CYLINDER, LIFT
14	7788	1	CLAMP, HOSE
N/A	6787	1	HARNESS, WIRE-DOWN, VALVE (NOT SHOWN)
N/A	6840	1	SPRING, (NOT SHOWN)
N/A	13347	1	MANIFOLD ASSEMBLY-LIFT (NOT SHOWN)

ART441-R6
BM9333
3/19/96

Figure 5G - Lift Cylinder Assembly Europe

13651 - LIFT CYLINDER W/BEARINGS-EUROPE
13539 - EUROPEAN OPTION

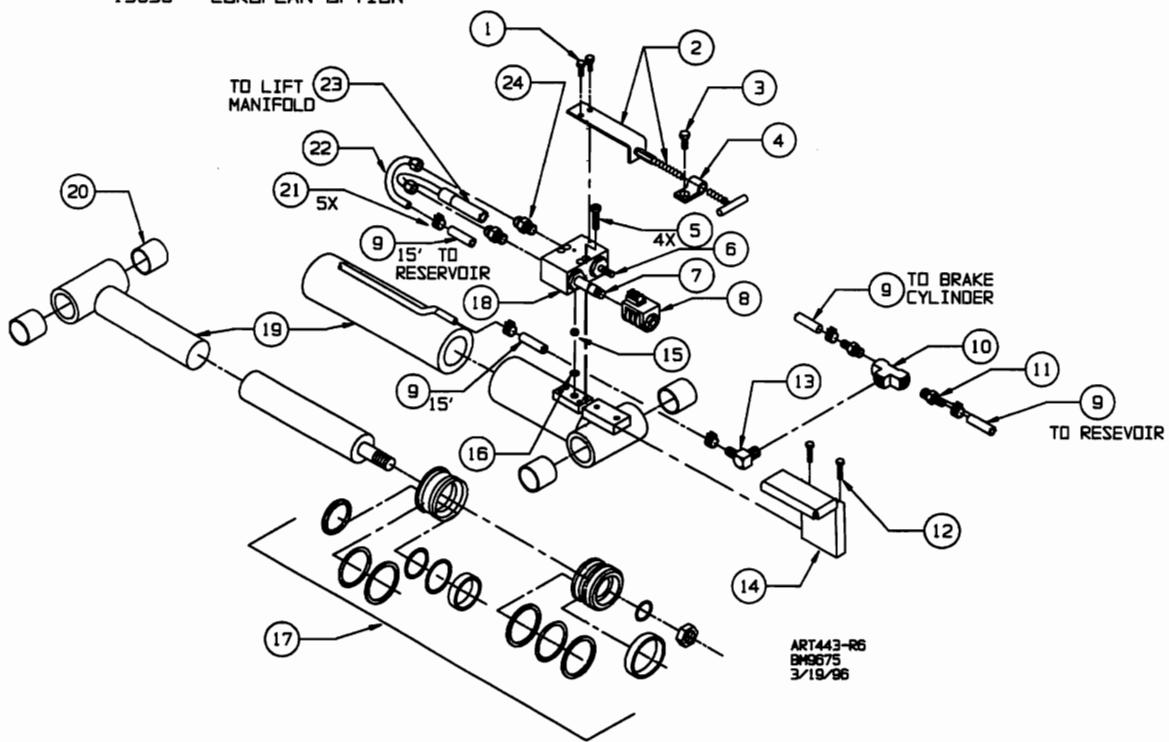


Figure 5G - Lift Cylinder Assembly Europe

ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW8398	2	SCREW,CAP,HEX HD,8-32 X 1/2", GRADE 2
2	3251	1	EMERGENCY DOWN ASSEMBLY
3	HDW5723	1	SCREW, SELFTAP & FORM, HEX HD, 1/4"-20 X 3/4"
4	7038	1	CLAMP, EMERGENCY DOWN TUBE
5	HDW8592	4	SCREW,CAP, SOCKET HD, 1/4"-20 X 1 1/2", GRADE 8
6	5435	1	VALVE, MANUAL PULL
7	6973	1	VALVE, N.C. POPPET, 2-WAY
8	7833	1	COIL, 24 VOLT, DOUBLE SPADE
9	6458	4	HOSE, RETURN LINE, 15 FT
10	HDW8591	1	FITTING, PIPE-TEE
11	HDW6459	2	FITTING, PIPE
12	HDW8663	2	SCREW,CAP,HEX HEAD, 3/8"-18 X 1/2", GRADE 2
13	HDW6727	1	FITTING, PIPE, ELBOW, 90 DEG.
14	13728	1	BRACKET, CYLINDER VALVE GUARD WELDMENT
15	HDW8647	1	PLUG, PIPE FITTING
16	6426	1	O-RING, MANIFOLD BLOCK
17	8639	1	KIT, SEAL, LIFT CYLINDER (SERVICE)
18	13535	1	MANIFOLD, LIFT CYLINDER
19	8637	1	CYLINDER, LIFT, EUROPE
20	6984	4	BEARING, 220U26, 1 3/8" ID X 1 5/8" LONG
21	7788	5	CLAMP, HOSE
22	8583	1	TUBE, ADAPTOR, RETURN DRAIN
23	8582	1	HOSE ASSEMBLY,-LIFT CYLINDER
24	HDW7438	2	FITTING, PIPE ADAPTOR
N/A	6787	1	HARNESS, WIRE DOWN (NOT SHOWN)
N/A	7510	1	SPRING-WIRE PROTECTOR (NOT SHOWN)
N/A	13543	1	MANIFOLD ASEMBLY (NOT SHOWN)

ART443-R6
BM9675
3/19/96

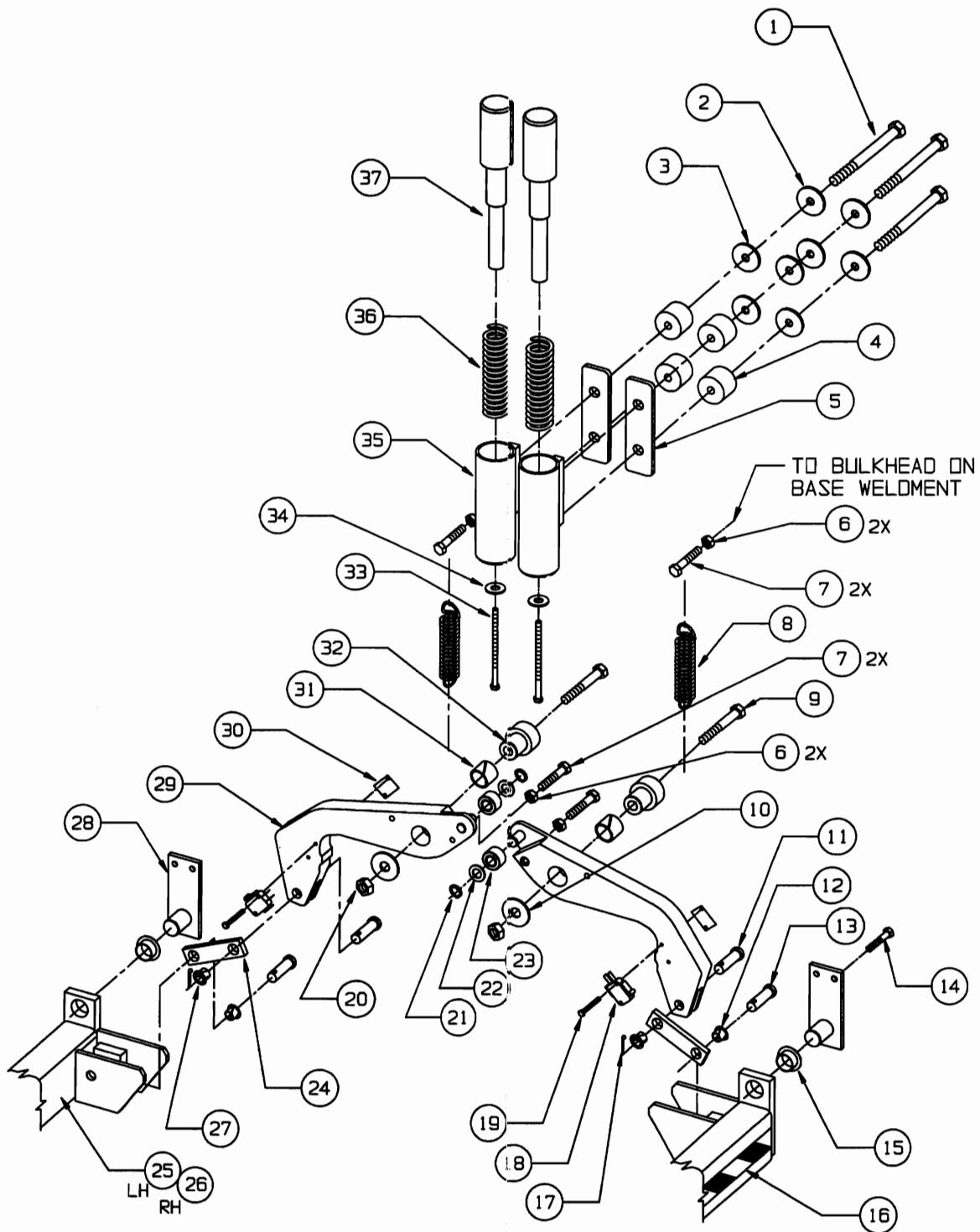
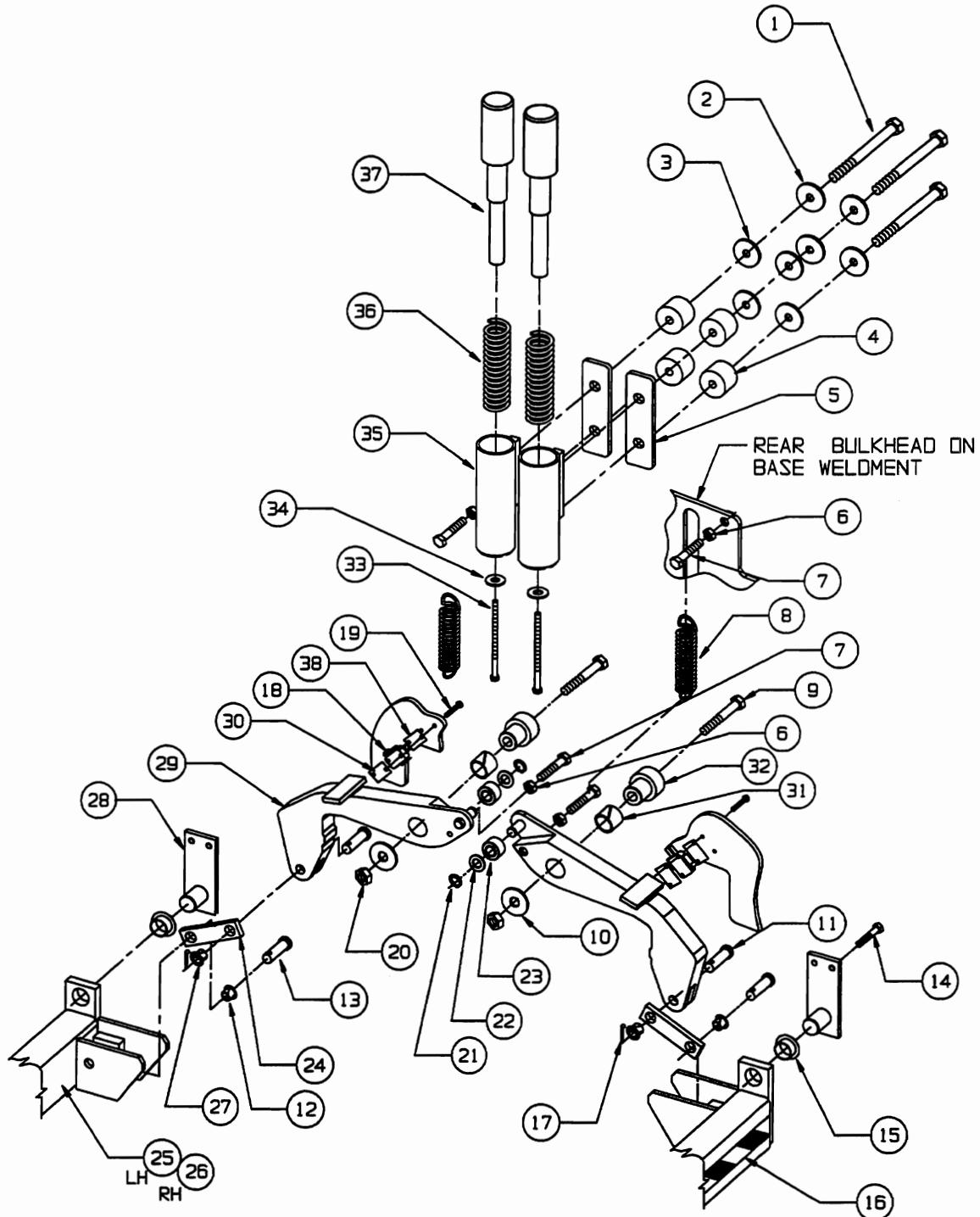
Figure 5H - Pothole Mechanism Assy. Earlier VersionART365-R8
BMS243



Figure 5H - Pothole Mechanism Assy. Earlier Version

ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW8279	4	BOLT, CAP, HEX HD, 3/8-16 X 2.50, GRADE 5
2	HDW13338	4	WASHER, FLAT, ID .391, OD 1.524, .127 THK.
3	HDW13556	4	WASHER, FLAT, PLASTIC, ID .391, OD 1.5, .125 THK
4	8602	4	SPACER, STEPPED, PVC
5	13461	2	PLATE, SLIDE POTHOLE PROT.
6	HDW8312	4	NUT, HEX, 5/16 X 18, GRADE 5
7	HDW8310	4	BOLT, CAP, HEX HD, 5/16-18 X 1.25, GRADE 5
8	8226	2	SPRING, TENSION, .75 X .564 X 5, K9.6+3.5
9	HDW7018	2	BOLT, CAP, HEX HD, 1/2-13 X 3.00, GRADE 5
10	HDW13195	2	WASHER, FLAT, ID .515, OD 1.512, .098 THK
11	HDW5710	2	PIN, CLEVIS, 1/2 X 1.25 LG
12	7200	2	BEARING, 1/2 ID X 1/2 LG, NYLINER
13	HDW8179	2	PIN, CLEVIS, 1/2 X 2.62 LG
14	HDW8273	8	BOLT, CAP, HEX HD, 1/4-20 X 1.00, GRADE 5
15	7015	4	BEARING, FLANGED, NYLINER
16	7982	4	DECAL, SAFETY STRIPE
17	HDW5920	4	PIN, COTTER, HAMMERLOCK, 1/8 X 1.00
18	7834	2	SWITCH, LIMIT, MICRO
19	HDW8430	4	BOLT, MACHINE, RD HD, SLOTTED, 4-40 X 1.75
20	HDW8457	2	NUT, LOC, HEX, 1/2 X 13
21	5736	2	RING, RETAINING, EXTERNAL, 1/2 SHAFT
22	HDW7031	2	WASHER, FLAT, ID .5, OD .875, .074 THK
23	4542	2	ROLLER
24	13770	2	LINK, POTHOLE
25	13766	1	BAR, POTHOLE, LH
26	13767	1	BAR, POTHOLE, RH
27	8181	2	BEARING, 1/2 X 5/16, NYLINER
28	13178	4	PIVOT PIN WELDMENT
29	13192	2	LEVER WELDMENT
30	3765	2	PLATE, STRAP-JOYSTICK
31	8225	2	BEARING, NYLINER, 16L16
32	13194	2	TUBE, PIVOT-POTHOLE LEVER
33	HDW8494	2	BOLT, TAP, HEX HD, 3/8-16 X 2.00, GRADE 5
34	HDW5355	2	WASHER, FLAT, ID .438, OD 1.00, .078 THK
35	13464	2	WELDMENT, ACTUATOR SPRING TUBE
36	13478	2	SPRING, COMP, 1.68 X 1.251 X 7.00
37	13548	2	ROD, ACTUATOR, SPRING PLUNGER

ART365-R8
BM5243

Figure 5I - Pothole Mechanism Assy. Later Version**LATER REVISION**

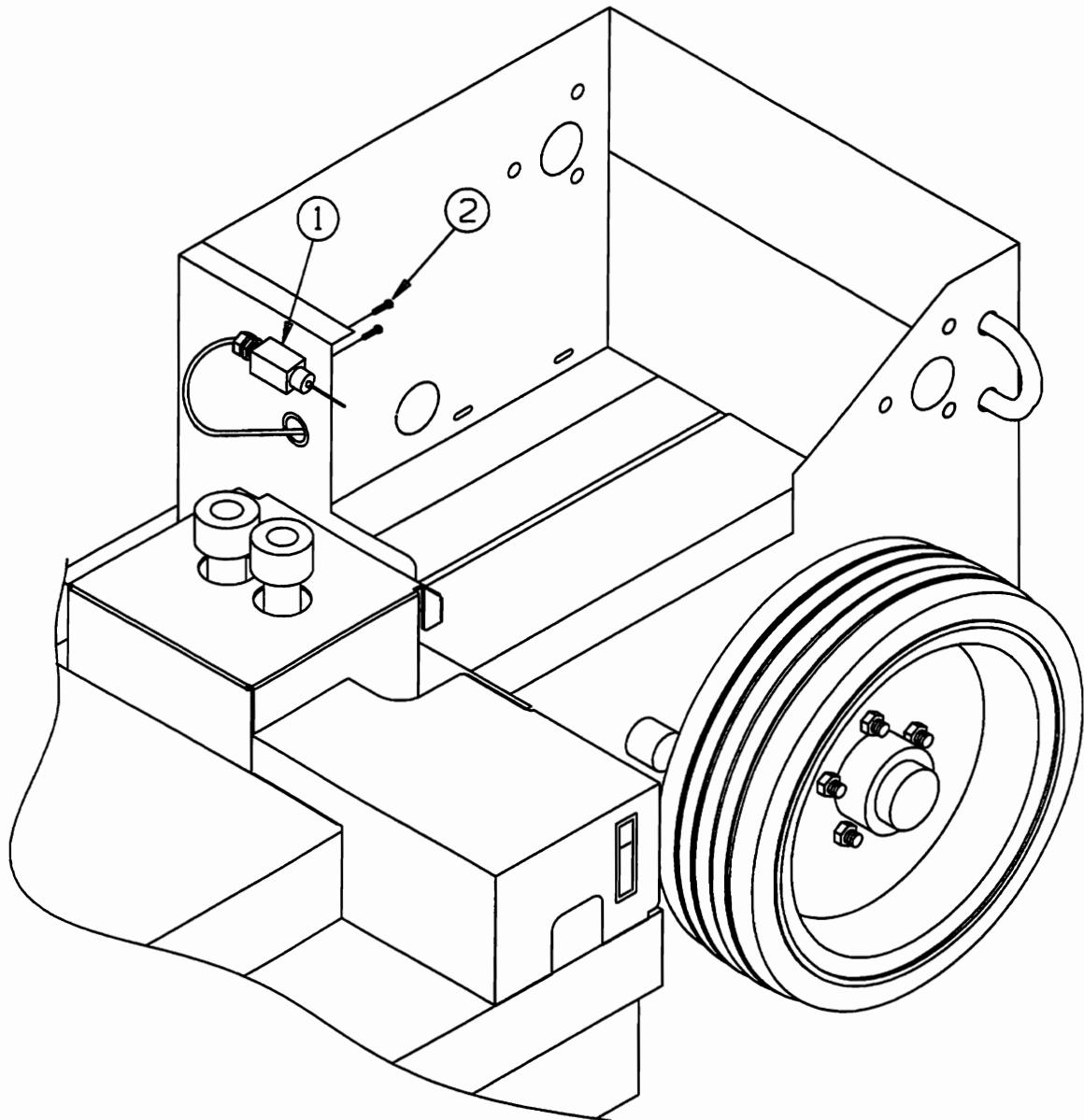
ART514-R2
BH11088
6/19/98



Figure 5I - Pothole Mechanism Assy. Later Version

ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW8279	4	BOLT, CAP, HEX HD, 3/8 X 16, 2.50 LG, GRADE 5, ZI/CL
2	HDW13338	4	WASHER, FLAT, ID .391, OD 1.524, .127 THK, ZI/YEL
3	HDW13556	4	WASHER, FLAT, PLASTIC, ID .391, OD 1.5, .125 THK
4	8602	4	SPACER, STEPPED, PVC
5	13461	2	PLATE, SLIDE POTHOLE PROT.
6	HDW8312	4	NUT, HEX, 5/16 X 18, CLASS 5, ZI/CL
7	HDW8310	4	BOLT, CAP, HEX HD, 5/16 X 18, 1.25 LG, GR. 5, ZI/CL
8	8226	2	SPRING, TENSION, .75 X .564 X 5, K9.6+3.5
9	HDW7018	2	BOLT, CAP, HEX HD, 1/2 X 13, 3.00 LG, GR.5, ZI/CL
10	HDW13195	2	WASHER, FLAT, ID .515, OD 1.512, .098 THK, ZI/YEL
11	HDW5710	2	PIN, CLEVIS, 1/2 X 1.25 LG, ZI/CL
12	7200	2	BEARING, 1/2 ID X 1/2 LG, NYLINER
13	HDW8179	2	PIN, CLEVIS, 1/2 X 2.62 LG, ZI/YEL
14	HDW8273	8	BOLT, CAP, HEX HD, 1/4 X 20, 1.00 LG, GR. 5, ZI/CL
15	7015	4	BEARING, FLANGED, NYLINER
16	7982	4	DECAL, SAFETY STRIPE
17	HDW5920	4	PIN, COTTER, HAMMERLOCK, 1/8 X 1.00, ZI/CL
18	8696	2	SWITCH, LIMIT, MICRO - V7
19	HDW8732	4	BOLT, MACHINE, RD HD, SLOTTED, 4-40, 1.00 LG, ZI/CL
20	HDW8457	2	NUT, LOC, HEX, 1/2 X 13, CLASS B, ZI/CL
21	5736	2	RING, RETAINING, EXTERNAL, 1/2 SHAFT
22	HDW7031	2	WASHER, FLAT, ID .5, OD .875, .074 THK.. ZI/YEL
23	4542	2	ROLLER
24	13770	2	LINK, POTHOLE
25	13766	1	BAR, POTHOLE, LH
26	13767	1	BAR, POTHOLE, RH
27	8181	2	BEARING, 1/2 X 5/16, NYLINER
28	13178	4	WELDMENT, PIVOT PIN
29	13733	2	WELDMENT, LEVER
30	3765	2	PLATE, STRAP
31	8225	2	BEARING, NYLINER, 16L16
32	13194	2	TUBE, PIVOT-POTHOLE LEVER
33	HDW8494	2	BOLT, TAP, HEX HD, 3/8 X 16, 2.00 LG, GR 5, ZI/CL
34	HDW5355	2	WASHER, FLAT, ID .438, OD 1.00, .078 THK, ZI/CL
35	13464	2	WELDMENT, ACTUATOR SPRING TUBE
36	13478	2	SPRING, COMP, 1.68 X 1.251 X 7.00
37	13548	2	ROD, ACTUATOR, SPRING PLUNGER
38	3764	2	SPACER PLATE

ART514-R2
BM1106B
6/19/96

Figure 5J - Limit Switch Assembly

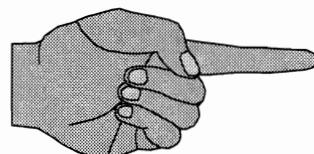
ITEM	PART NO.	QTY.	DESCRIPTION
1	13404	1	WHISKER LIMIT SWITCH
2	HDW8482	2	SCREW, #8-32 X 1 1/2" LONG

ART578 R0
BM12625
1/10/97

Axes

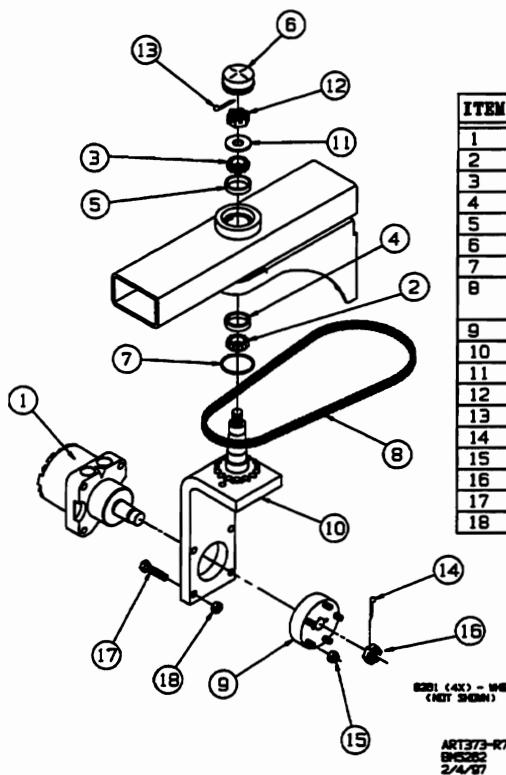


Notes:



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Figure 6A - Front Axle Assembly

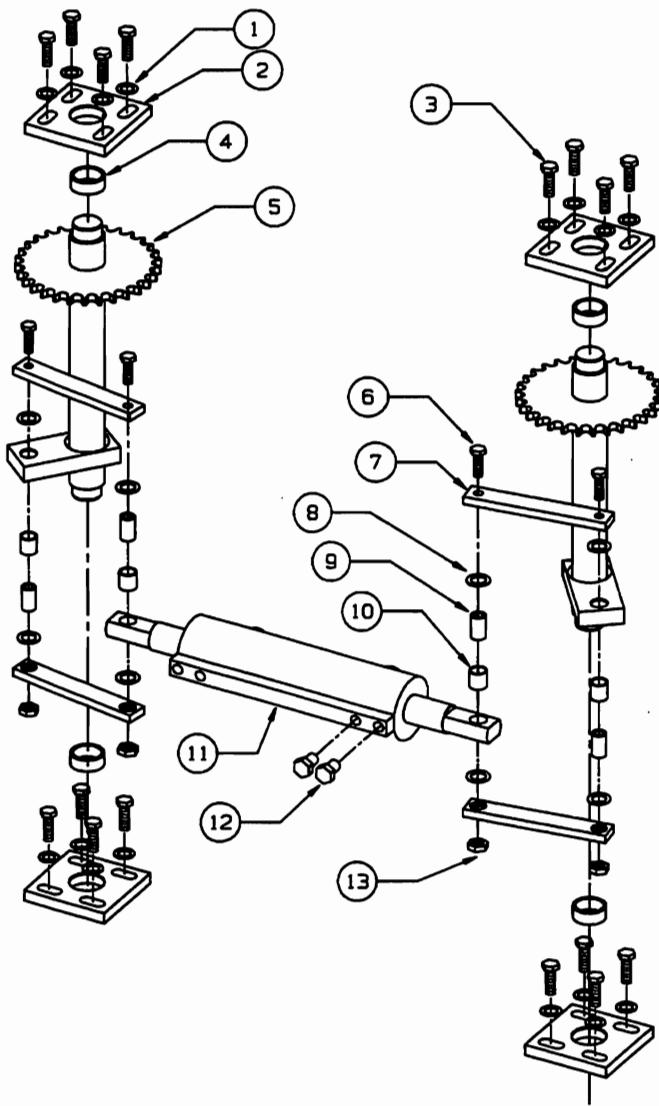


ITEM	PART NO.	QTY.	DESCRIPTION
1	854SP	2	HYDRAULIC WHEEL MOTOR - PAINTED
2	7714	2	BEARING, TAPERED ROLL. 1.5" ID
3	7715	2	BEARING, TAPERED ROLL. 1.25" ID
4	7716	2	RACE, BEARING TAPERED
5	7717	2	RACE, BEARING TAPERED
6	7719	2	CAP, GREASE
7	8159	2	SEAL, GREASE 1-3/4" SHAFT
8	8173 6541	2	CHAIN ROLLER #50, 74 LINKS CHAIN LINK CONNECTOR #50 (REPLACEMENT PART)
9	13374	2	FRONT HUB ASSEMBLY
10	13724	2	WHEEL MOTOR BRACKET WELDMENT
11	HDW3801	2	FLAT WASHER, .765 ID X 2.024 OD X .127 THK
12	HDW5737	2	NUT, SLOTTED HEX, .750-16UNC
13	HDW5738	2	COTTER PIN HAMMER LOCK .180 1.50"
14	HDW5787	2	COTTER PIN HAMMER LOCK .120 1.50"
15	HDW6577	10	HEX LUG NUT .500-20
16	HDW6986	2	SLOTTED HEX NUT 1.00-20
17	HDW7018	8	SCREW, CAP, .500-13 X 3.00, GRADE 5
18	HDW8457	8	HEX TOP LOCK NUT .500-13

ART373-R7
B6262
2/4/07

ART373-R7
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2/4/07

Figure 6B - Steering Assembly

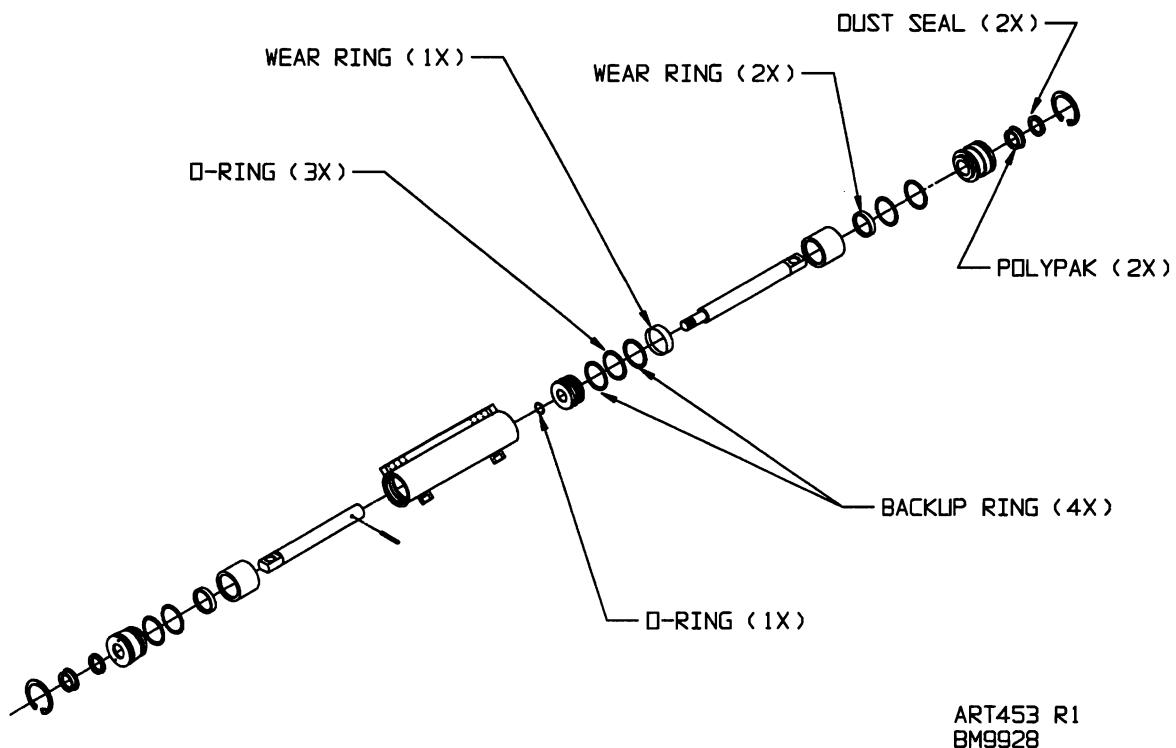


ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW5216	16	WASHER, FLAT, .531 ID, 1.062 OD, .062 THK
2	13251	4	PLATE, LOWER ADJUST. IDLER SHAFT
3	HDW8283	16	BOLT, CAP, HEX HD, 1/2-13 X 1.50, GRADE 5
4	8248	4	BEARING, OILITE, 1.25 X 5
5	13422	2	STEER IDLER SHAFT WELDMENT
6	HDW6434	4	SCREW, CAP, HEX HEAD, 3/8-16 X 2.00, GRADE 5
7	13419	4	LINK, INTERMEDIATE, STEERING
8	HDW13423	8	WASHER, FLAT, .632 ID, 1.008 OD, .030 THK, NYLON
9	13421	4	SPACER
10	8433	4	BEARING, 100LU12
11	8561	1	CYLINDER, DOUBLE END, HYDRAULIC
12	HDW8287	4	BOLT, CAP, HEX HD, 1/2-20 X .75, GRADE 8
13	HDW8268	4	NUT, HEX, LOC, 3/8-16

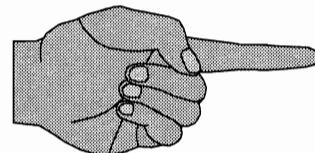
ART374 R4
BM5263
12/22/95

Figure 6C - Steering Cylinder Assembly

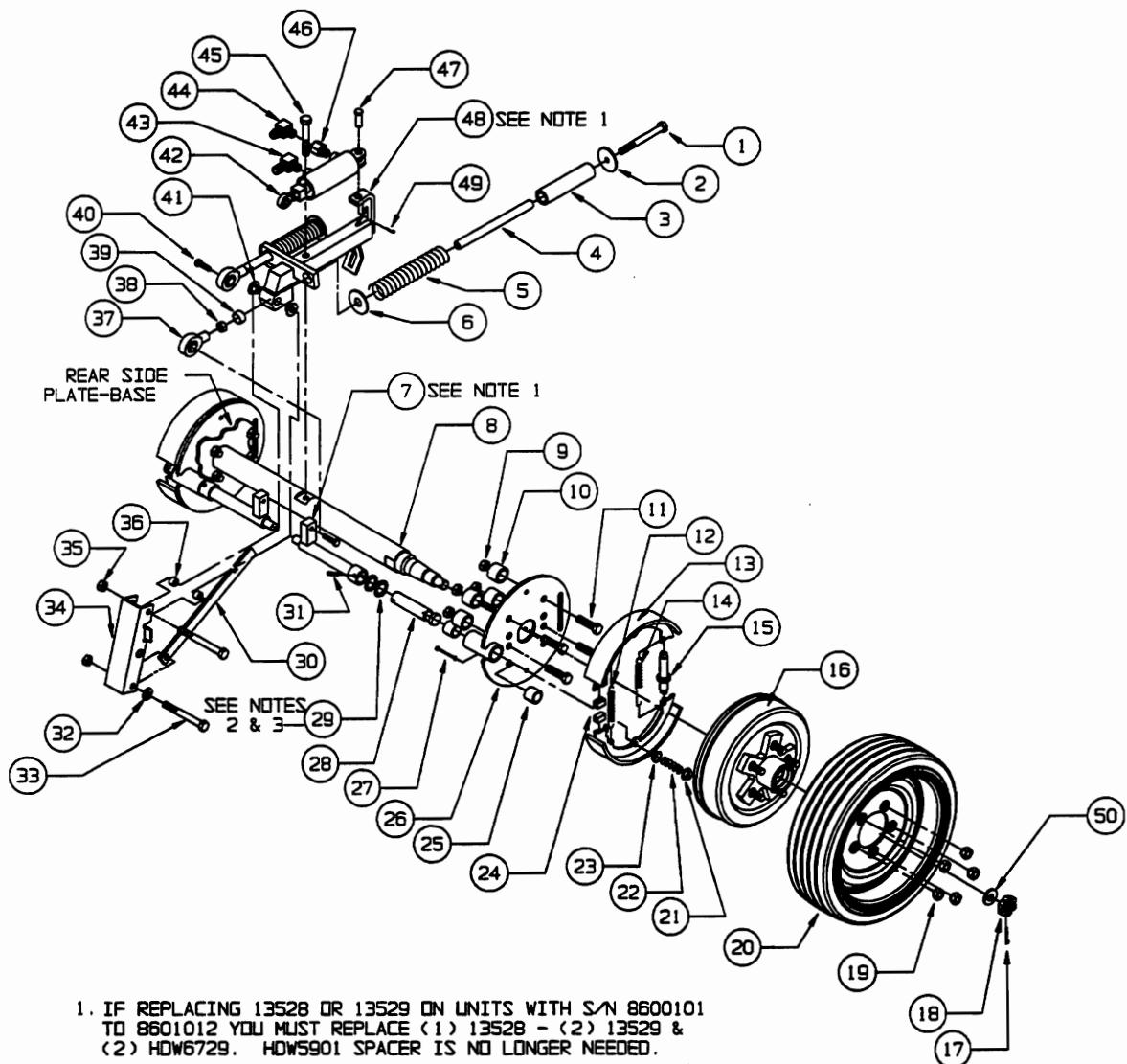
COMPLETE CYLINDER 8561
SEAL KIT 8613



Notes:



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Figure 6D - Rear Axle Assembly

1. IF REPLACING 13528 OR 13529 ON UNITS WITH S/N 8600101 TO 8601012 YOU MUST REPLACE (1) 13528 - (2) 13529 & (2) HDW6729. HDWS901 SPACER IS NO LONGER NEEDED.
2. HDWS901 WAS ADDED AS A SPACER WASHER ON S/N 8600714. HDWS901 MAY BE ADDED IN FIELD.
3. HDWS901 WILL BE OBSOLETE ON S/N 8601013 AND UP.

ART302-80
BMS240
10/22/85



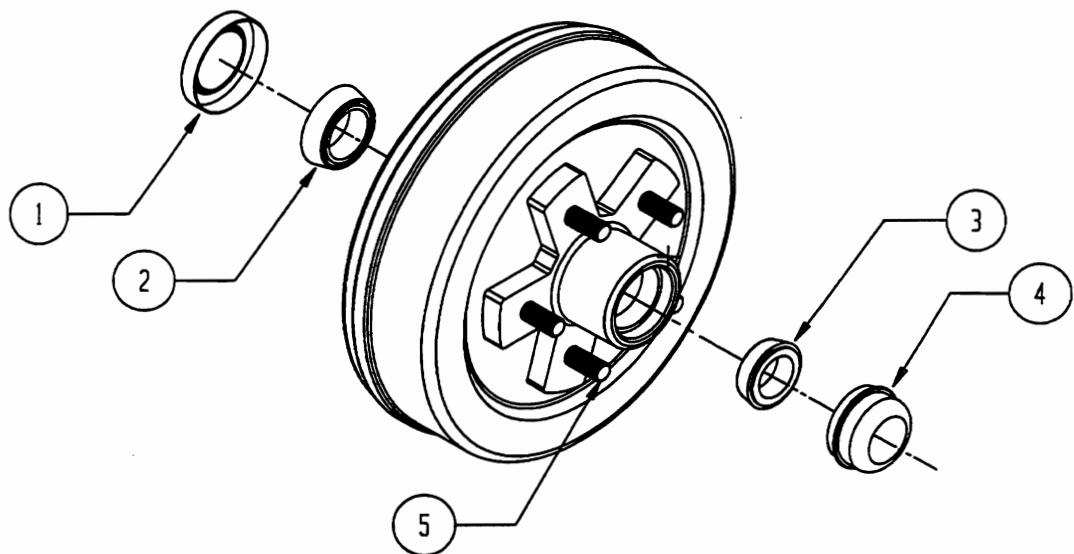
Figure 6D - Rear Axle Assembly

ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW8288	2	BOLT, TAP, 3/8-16 X 3.00 ,GRADE 5
2	HDW13153	2	WASHER, ID .388, OD 2.112, .127 THK
3	13154	2	TUBE, .891 X 1.315 X 5.422
4	13146	2	ROD, BRAKE SPRING
5	8155P	2	SPRING, COMP, 1.933 X 1.367 X 8.5
6	HDW3801	2	WASHER, ID .765, OD 2.024, .127 THK
7	13529	2	BRAKE ACTUATOR ROD WELIMENT
8	13583	1	REAR AXLE
9	HDW8457	8	NUT,LOC,HEX,1/2 X 13
10	13135	8	SPACER, BACK PLATE, BRAKE
11	HDW8284	8	BOLT, CAP,HEX HEAD,1/2-13 X 2.00, GRADE 5
12	6749	2	EXTENSION SPRING, 4.00 LG
13	13090	4	BRAKE PAD WELIMENT
14	7370	2	BRAKE ADJUSTER SPRING
15	7377	2	ADJUSTING SCREW (BRAKE)
16	8704	2	HUB, DRUM W/PACKED BEARINGS
17	HDW5787	2	COTTER PIN,HAMMERLOC,.12 X 1.50
18	HDW5737	2	NUT, SLOTTED,HEX,3/4X16, GRADE 5
19	HDW6677	20	NUT,LUG,1/2 X 20, GRADE 5
20	8261	4	WHEEL-TIRE,NONMARKING,16 X 5 X 11.25
21	7372	4	OUTER HOLD DOWN CUP
22	7374	4	HOLD DOWN SPRING
23	7373	4	INNER HOLD DOWN CUP
24	10090	4	INSERT, BRAKES
25	7092	4	BEARING, 160U12, 1 X 3/4
26	13585	2	BRAKE, BACK PLATE WELIMENT
27	7371	4	HOLD DOWN PINS
28	13150	2	ROD, BRAKE CAM
29	HDW5901	4	WASHER, ID 1.015, OD 1.375, .062 THK
30	13231	1	BRAKE LOCKOUT LEVER
31	HDW6729	2	PIN,SLOTTED,SPRING,1/4 X 1.37
32	HDW5355	1	WASHER, .438 ID, 1.000 OD, .078 THK
33	HDW8311	2	BOLT,CAP,HEX HEAD,7/16-14 X 2.50, GRADE 5
34	13144	1	ACTUATOR BRAKE BRACKET
35	HDW8269	2	NUT,LOC,HEX,7/16 X 14
36	13209	2	SPACER, ID .465, OD .562
37	5679	2	ROD END, STEERING
38	HDW8265	2	NUT, HEX, 3/8 X 24, GRADE 5
39	8190	2	BEARING, BRONZE, .75 ID X .5
40	HDW8276	2	BOLT,CAP,HEX HEAD,3/8-16 X 1.25, GRADE 5
41	8187	2	BEARING, NYLINER, .63 ID X .63 LF
42	13174	1	HYDRAULIC BRAKE CYLINDER ASSEMBLY, 2" STROKE
	13157	1	ROD CYLINDER, BRAKE
	2485	1	CYLINDER WELIMENT, BRAKE
	2493	1	CYLINDER HEAD
	2494	1	PISTON, CYLINDER
	5947	1	SEAL KIT, FOR 5677 & 5678
	6337	1	INTERNAL RETAINING RING
	8163	1	ROD END, MALE, 7/16-20
	HDW6338	1	NUT,LOC,HEX,1/2 X 20
	HDW8266	1	NUT,HEX,7/16 X 20, GRADE 5
43	HDW6727	1	ELBOW, 90 DEG, .25 PIPE THREAD
44	HDW7500	1	ELBOW, 90 DEG, .25 PIPE THREAD
45	HDW6435	1	BOLT,CAP,HEX HEAD,1/2-13 X 2.50, GRADE 5
46	HDW7044	1	PIPE FITTING,SWIVEL,.25 PIPE THREAD
47	HDW5710	1	CLEVIS PIN, .5 X 1.25 LG, ZI/CL
48	13528	1	BRAKE ACTUATOR MOUNT, WELIMENT
49	HDW5920	1	COTTER PIN,HAMMERLOC,.12 X 1.00
50	HDW3799	2	WASHER, ID .767, OD 1.500, .134 THK

ART362-R9
BMS240
10/22/96

Figure 6E - Rear Drum & Hub Assembly

8972 DRUM & HUB
W/ PACKED BEARINGS

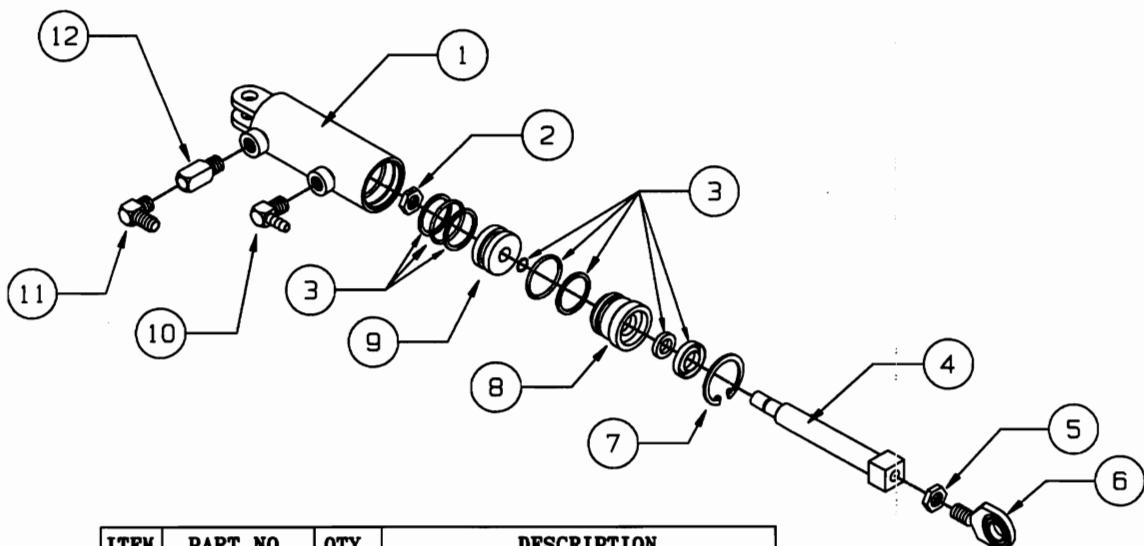


ITEM	PART NO.	QTY.	DESCRIPTION
1	8159	1	SEAL, GREASE, 1-3/4" SHAFT
2	8158	1	BEARING, TAPERED ROLLER, 1-3/8"
3	7932	1	BEARING, TAPERED, R1 1/16 BORE
4	8156	1	CAP, GREASE
5	8705	5	PRESSED STUD, 1/2-20 X 60 DEG. -LNF

ART439 R3
BM9300
5/14/98

Figure 6F - Brake Cylinder Assembly

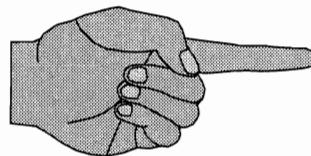
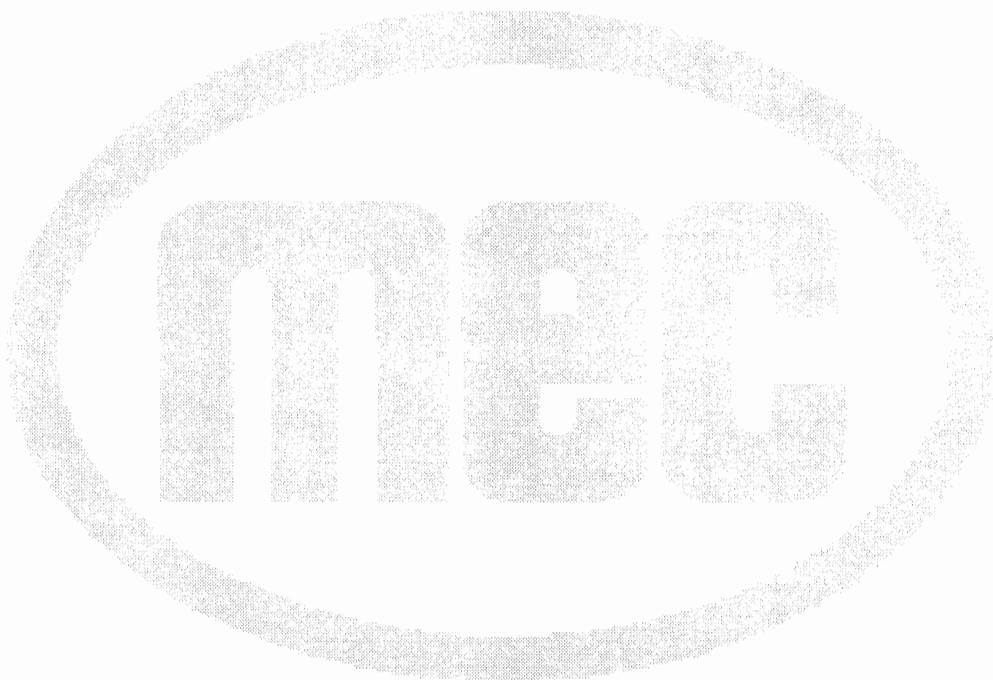
13174 - BRAKE CYLINDER ASSEMBLY



ITEM	PART NO.	QTY.	DESCRIPTION
1	2485	1	CYLINDER-BRAKE WELDMENT
2	HDW6338	1	NUT,LOC,HEX, 1/2"-20, CLASS B
3	5947	1	KIT,SEAL FOR 5677 & 5678
4	13157	1	ROD, CYLINDER-BRAKE
5	HDW8266	1	NUT,HEX, 7/16"-20, GRADE 5
6	8163	1	ROD END, MALE, 7/16"-20
7	6337	1	RETAINING RING, INTERNAL
8	2493	1	CYLINDER HEAD
9	2494	1	PISTON, CYLINDER
10	HDW6727	1	FITTING,PIPE,90 DEG,ELBOW,MALE
11	HDW7500	1	FITTING,PIPE,90 DEG,ELBOW,MALE
12	HDW7044	1	FITTING, PIPE, UNION, FEMALE

ART485-R1
BM10645
2/14/96

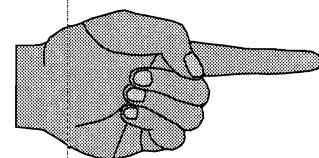
Notes:



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Hydraulics

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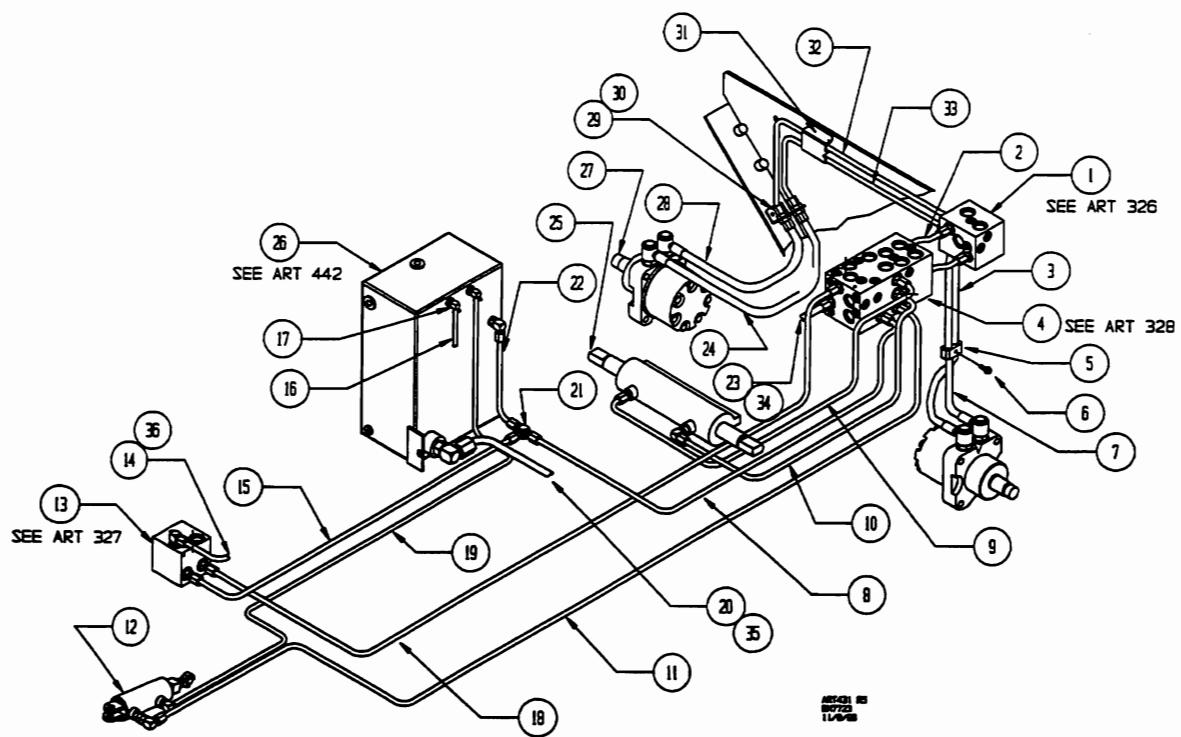
Figure 7A - Hydraulic System Layout 2033



Figure 7A - Hydraulic System Layout 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	13346	1	DRIVE MANIFOLD
2	8333	2	HYDRAULIC TUBE ASSEMBLY #1
3	8322	1	HOSE ASSEMBLY-DRIVE MANIFOLD TO RH WHEEL MOTOR 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 33" LONG-3000 PSI, EXCEEDS SAE 100R1
4	13345	1	MAIN MANIFOLD
5	6064	1	CLAMP
6	H0W6029	1	BOLT, SELF TAP, 1/4-20 X 1.50, GRADE 5
7	8321	1	HOSE ASSEMBLY-DRIVE MANIFOLD TO RH WHEEL MOTOR 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 28" LONG-3000 PSI, EXCEEDS SAE 100R1
8	8320	1	HOSE ASSEMBLY-RETURN, MAIN MANIFOLD TO TEE FITTING 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW, 9/16-18 THREAD 3/8 ID HOSE X 34" LONG-3000 PSI, EXCEEDS SAE 100R1
9	8316	1	HOSE ASSEMBLY-MAIN MANIFOLD TO STEERING CYLINDER LH 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 1/4 ID HOSE X 38" LONG-3000 PSI, EXCEEDS SAE 100R1
10	8315	1	HOSE ASSEMBLY-MAIN MANIFOLD TO STEERING CYLINDER RH 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 1/4 ID HOSE X 22" LONG-3000 PSI, EXCEEDS SAE 100R1
11	8323	1	HOSE ASSEMBLY-MAIN MANIFOLD TO BRAKE CYLINDER 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 1/4 ID HOSE X 84" LONG-3000 PSI, EXCEEDS SAE 100R1
12	13174	1	HYDRAULIC BRAKE CYLINDER ASSEMBLY-2" STROKE
13	13347	1	LIFT MANIFOLD
14	8582	1	HOSE ASSEMBLY-LIFT MANIFOLD TO LIFT CYLINDER 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 180 DEG SPECIAL TUBE, 9/16-18 THREAD 3/8 ID HOSE X 118" LONG-3000 PSI, EXCEEDS SAE 100R1
15	8334	1	HYDRAULIC TUBE ASSEMBLY #2
16	6458	15 FT	RETURN LINE HOSE-BREATHER FROM LIFT CYLINDER-5/16 ID
17	7164	2	HOSE CLAMP, 5/16 ID HOSE
18	8587	1	HOSE ASSEMBLY-MAIN MANIFOLD TO LIFT MANIFOLD 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 3/8 ID HOSE X 65" LONG-3000 PSI, EXCEEDS SAE 100R1
19	6458	7 FT	RETURN LINE HOSE-BRAKE CYLINDER TO RESEVOIR, 5/16 ID
20	8317	1	HOSE ASSEMBLY-SUPPLY, TANK TO PUMP 37 DEG STRAIGHT FEMALE SWIVEL 3/4-16 THREAD 37 DEG STRAIGHT FEMALE SWIVEL, 3/4-16 THREAD 1/2 ID HOSE X 19" LONG-3000 PSI, EXCEEDS SAE 100R1
21	H0W7391	1	TEE PIPE FITTING 0.37
22	7365	1	HYDRAULIC TUBE ASSEMBLY #40
23	8586	1	HOSE ASSEMBLY-MAIN MANIFOLD TO MOTOR AND PUMP 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 3/8 ID HOSE X 20" LONG-3000 PSI, EXCEEDS SAE 100R1
24	8407	1	HOSE ASSEMBLY-BULKHEAD FITTING TO LH WHEEL MOTOR 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 26" LONG-3000 PSI, EXCEEDS SAE 100R1
25	13436	1	STEERING CYLINDER ASSEMBLY-DOUBLE END
26		1	RESERVOIR ASSEMBLY
27	8545P	2	HYDRAULIC WHEEL MOTOR-PAINTED
28	8408	1	HOSE ASSEMBLY-BULKHEAD FITTING TO LH WHEEL MOTOR 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 22" LONG-3000 PSI, EXCEEDS SAE 100R1
29	H0W8393	2	PF DONUT 0.37
30	H0W8392	2	UNION PIPE FITTING, MALE, 0.37 BULKHEAD
31	13497	1	TUBING COVER-HYDRAULIC STEERING
32	8327	1	HYDRAULIC TUBE ASSEMBLY #4
33	8332	1	HYDRAULIC TUBE ASSEMBLY #3
34	H0W7389	1	ADAPTOR AT PUMP OUTLET-37 DEG MALE, MALE .50 O-RING (NOT SHOWN)
35	H0W7390	1	UNION AT PUMP INLET-37 DEG, 3/4-16 X 3/4-16, WITH O-RING (NOT SHOWN)
36	H0W7601	1	ELBOW AT LIFT CYLINDER INLET (NOT SHOWN) 37 DEG, WITH O-RINGS, 9/16-18 X SAE 9/16-18

ART431 RS
BM7723
11/8/96

Figure 7B - Hydraulic System Layout 2033RS

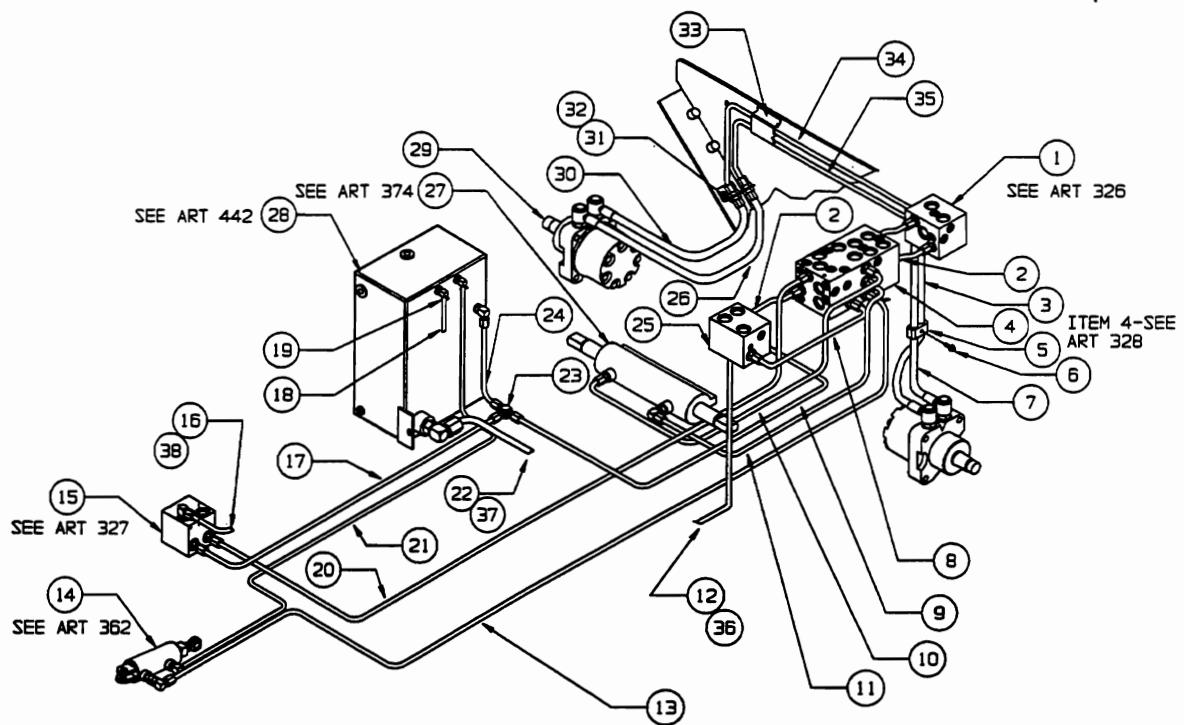
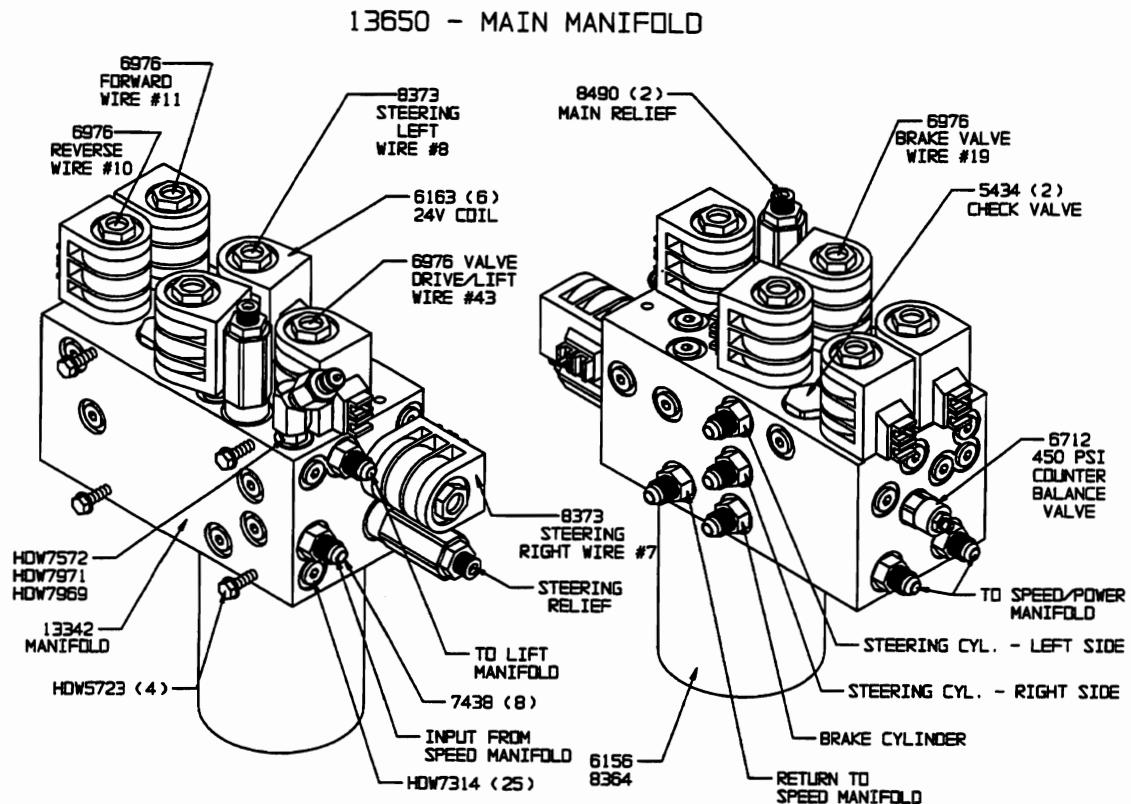


Figure 7B - Hydraulic System Layout 2033RS

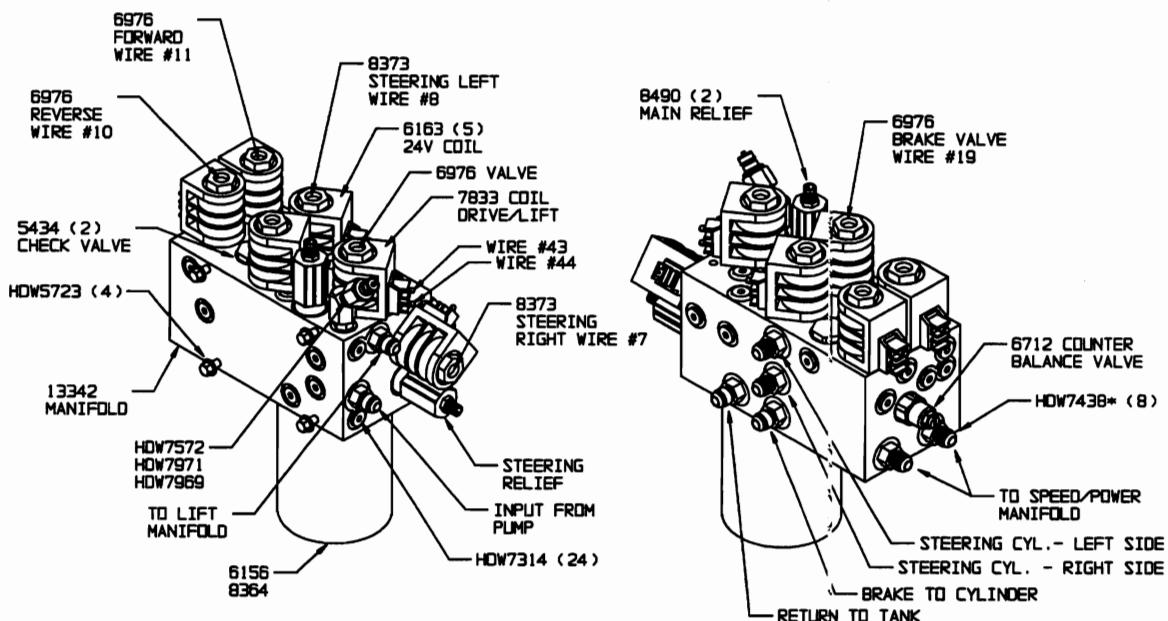
ITEM	PART NO.	QTY.	DESCRIPTION
1	13345	1	DRIVE MANIFOLD
2	8333	3	HYDRAULIC TUBE ASSEMBLY #1
3	8322	1	HOSE ASSEMBLY-DRIVE MANIFOLD TO RH WHEEL MOTOR SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 33" LONG
4	13345	1	MAIN MANIFOLD
5	6064	1	CLAMP
6	HWD6029	1	BOLT, SELF TAP, 1/4-20 X 1.50, GRADE 5
7	8321	1	HOSE ASSEMBLY-DRIVE MANIFOLD TO RH WHEEL MOTOR SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 28" LONG
8	8644	1	HOSE ASSEMBLY-RETURN, MAIN MANIFOLD TO DRIVE MANIFOLD SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 3/8 ID HOSE X 13" LONG
9	7598	1	HOSE ASSEMBLY-RETURN, DRIVE MANIFOLD TO TEE FITTING SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG STRAIGHT FEMALE SWIVEL, 9/16-18 THREAD 3/8 ID HOSE X 28" LONG
10	8316	1	HOSE ASSEMBLY-MAIN MANIFOLD TO STEERING CYLINDER LH SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 1/4 ID HOSE X 38" LONG
11	8315	1	HOSE ASSEMBLY-MAIN MANIFOLD TO STEERING CYLINDER RH SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 1/4 ID HOSE X 22" LONG
12	8318	1	HOSE ASSEMBLY-PUMP TO DRIVE MANIFOLD SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 3/8 ID HOSE X 24" LONG
13	8323	1	HOSE ASSEMBLY-MAIN MANIFOLD TO BRAKE CYLINDER SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 1/4 ID HOSE X 84" LONG
14	13174	1	HYDRAULIC BRAKE CYLINDER ASSEMBLY-2" STROKE
15	13347	1	LIFT MANIFOLD
16	8409	1	HOSE ASSEMBLY-LIFT MANIFOLD TO LIFT CYLINDER SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG STRAIGHT FEMALE SWIVEL, 9/16-18 THREAD 3/8 ID HOSE X 113" LONG
17	8334	1	HYDRAULIC TUBE ASSEMBLY #2
18	6458	15 FT	RETURN LINE HOSE-BREATHER FROM LIFT CYLINDER-5/16 ID
19	7164	2	HOSE CLAMP, 5/16 ID HOSE
20	8587	1	HOSE ASSEMBLY-MAIN MANIFOLD TO LIFT MANIFOLD SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 37 DEG FEMALE SWIVEL, 90 DEG TUBE ELBOW 9/16-18 THREAD 3/8 ID HOSE X 65" LONG
21	6458	7 FT	RETURN LINE HOSE-BRAKE CYLINDER TO RESEVOIR, 5/16 ID
22	8317	1	HOSE ASSEMBLY-SUPPLY, TANK TO PUMP SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 3/4-16 THREAD 37 DEG STRAIGHT FEMALE SWIVEL, 3/4-16 THREAD 1/2 ID HOSE X 19" LONG
23	HWD7391	1	TEE PIPE FITTING 0.37
24	7365	1	HYDRAULIC TUBE ASSEMBLY #40
25	13629	1	SPEED MANIFOLD
26	8407	1	HOSE ASSEMBLY-BULKHEAD FITTING TO LH WHEEL MOTOR SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 26" LONG
27	13436	1	STEERING CYLINDER ASSEMBLY-DOUBLE END
28		1	RESERVOIR ASSEMBLY
29	7190P	2	HYDRAULIC WHEEL MOTOR-PAINTED
30	8408	1	HOSE ASSEMBLY-BULKHEAD FITTING TO LH WHEEL MOTOR SAE IR1, 37 DEG STRAIGHT FEMALE SWIVEL 9/16-18 THREAD 90 DEG O-RING SWIVEL 7/8-14 THREAD 3/8 ID HOSE X 22" LONG
31	HWD8393	2	PF LOONUT 0.37
32	HWD8392	2	UNION PIPE FITTING, MALE, 0.37 BULKHEAD
33	13497	1	TUBING COVER-HYDRAULIC STEERING
34	8327	1	HYDRAULIC TUBE ASSEMBLY #4
35	8332	1	HYDRAULIC TUBE ASSEMBLY #3
36	HWD7389	1	ADAPTOR AT PUMP OUTLET-37 DEG MALE, MALE 50 O-RING (NOT SHOWN)
37	HWD7390	1	UNION AT PUMP INLET-37 DEG, 3/4-16 X 3/4-16, WITH O-RING (NOT SHOWN)
38	HWD7601	1	ELBOW AT LIFT CYLINDER INLET (NOT SHOWN) 37 DEG, WITH O-RINGS, 9/16-18 X SAE 9/16-18

ART462 R1
BM10294

Figure 7C - Main Manifold Assembly

ART480 R1
BH10268
1/13/97

Figure 7D - Main Manifold Assembly



* SERIAL NUMBER 8601653 - 8601796 USE SPECIAL
ORIFICE FITTING P/N 13685 AT MANIFOLD FOR LEFT
STEERING ALL OTHER FITTINGS ARE P/N HDW7438.

ART328 R7
BM4885
1/13/97

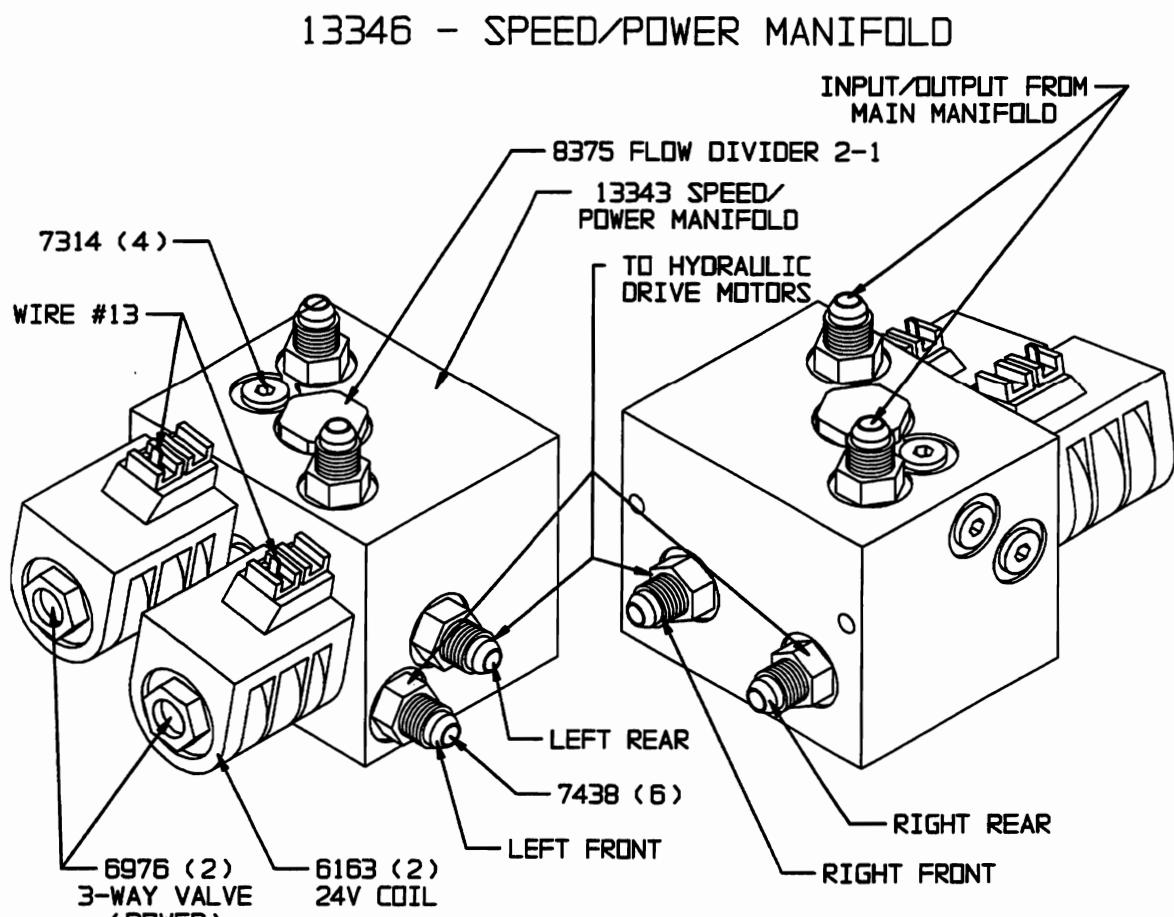
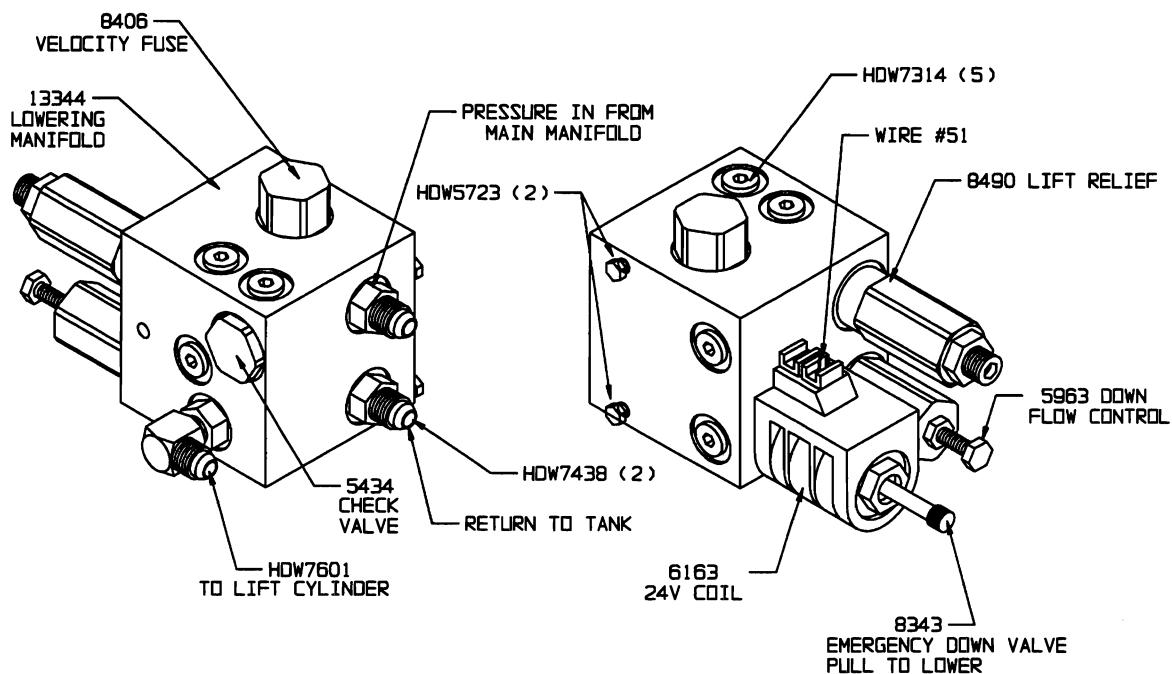
Figure 7E - Speed/Power Manifold AssemblyART-326
BM4883

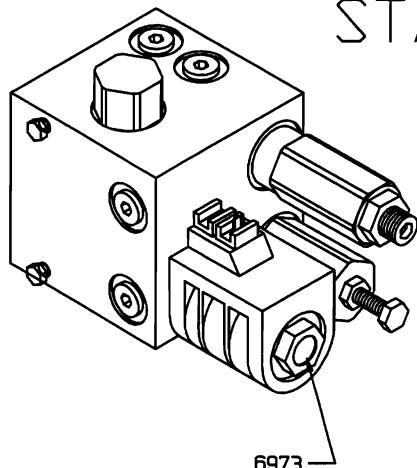
Figure 7F - Lowering Manifold Assembly

13347 - LOWERING MANIFOLD



STANDARD

MT327 RS
SH484
11/8/98



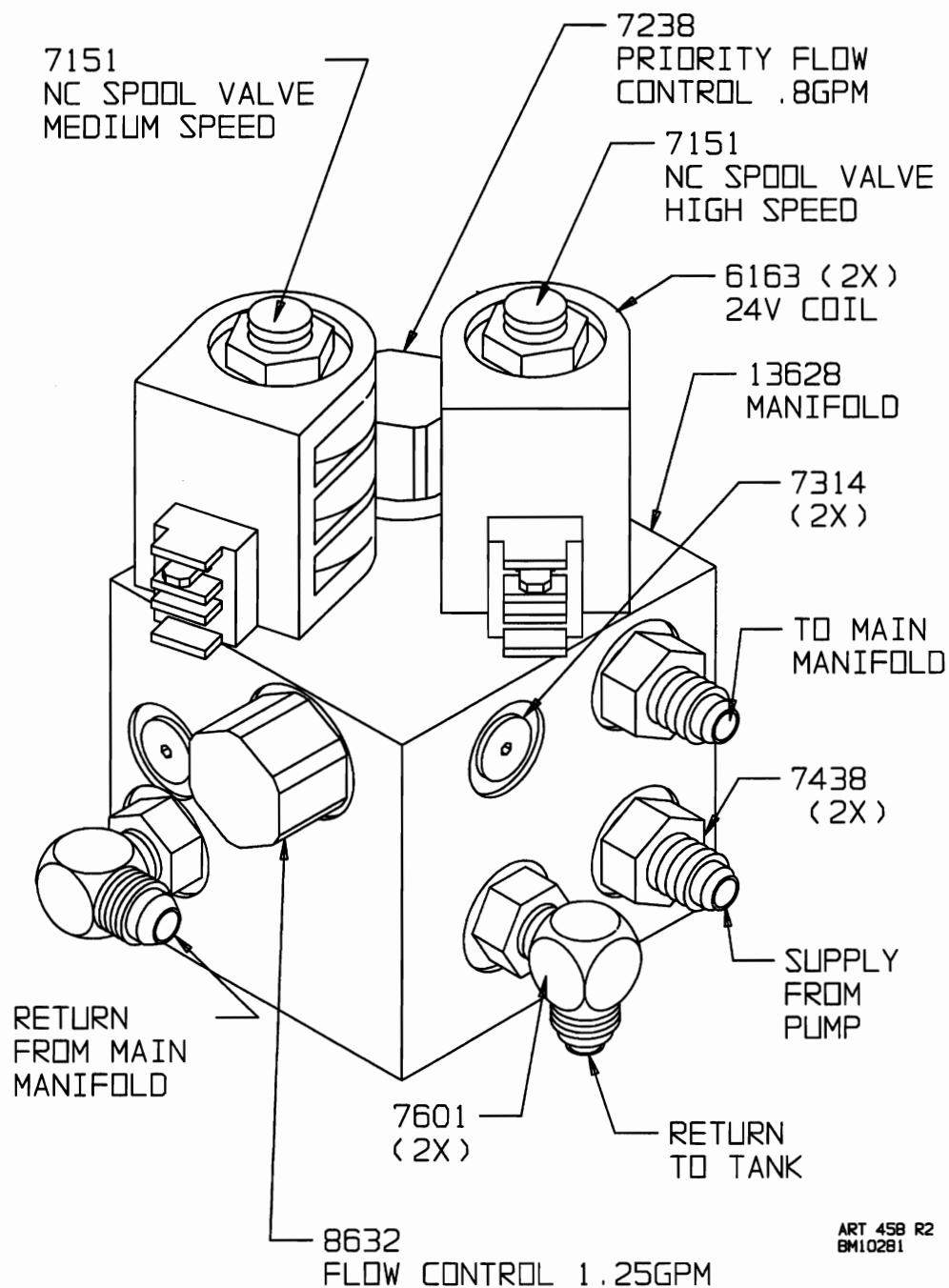
MANIFOLD ASSEMBLY IS IDENTICAL TO 13347
EXCEPT FOR EMERGENCY DOWN VALVE

EUROPEAN

MT327 RS
SH484
11/8/98

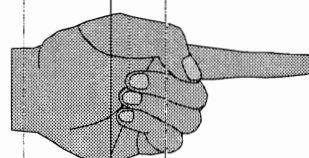
Figure 7G - Speed Manifold Assembly 2033RS

13648-2033RS SPEED MANIFOLD



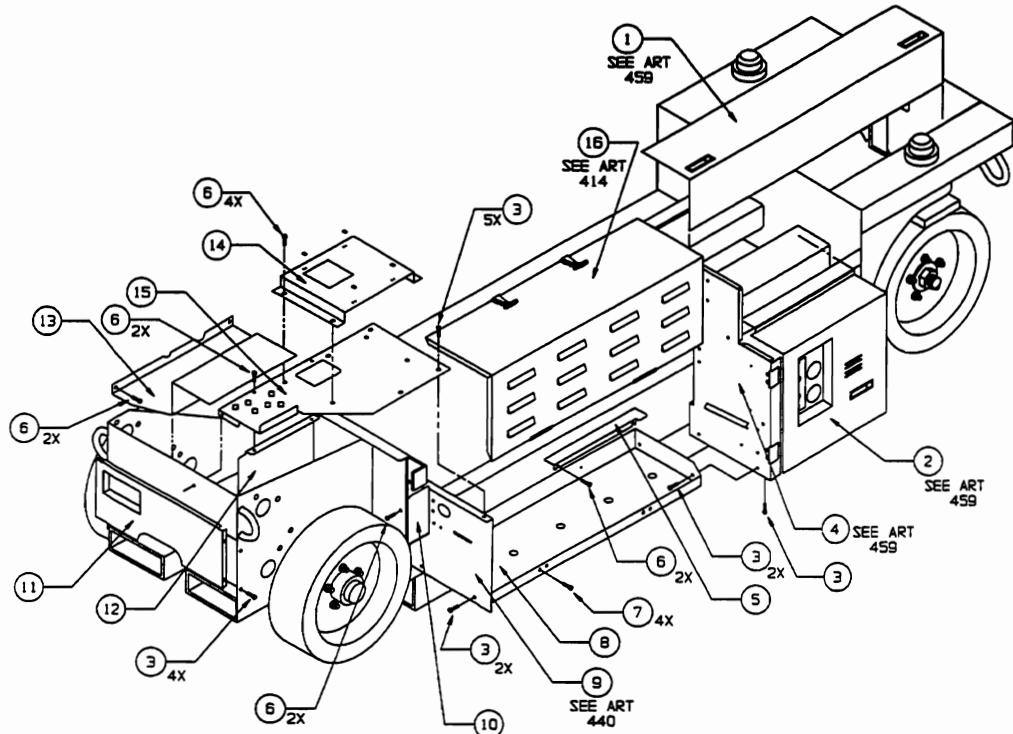
Base

Notes:



Next Page

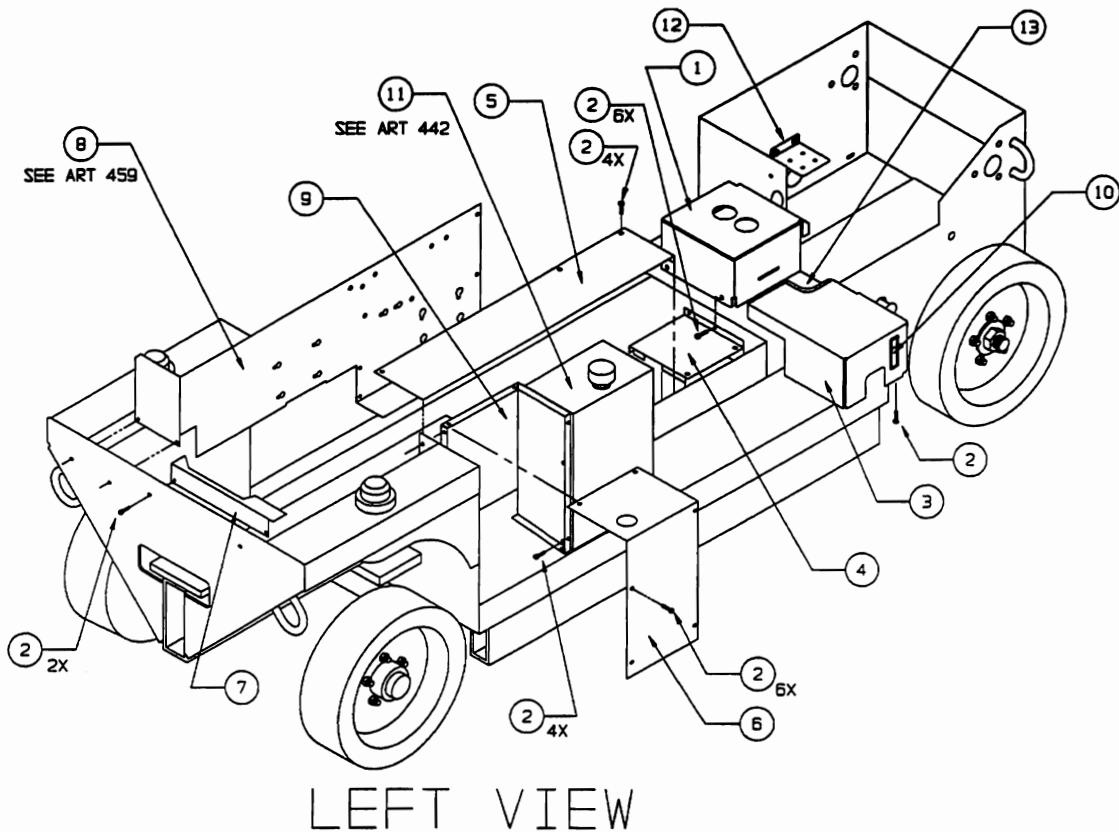
Figure 8A - Base Covers Right Side



RIGHT VIEW

ITEM	PART NO.	QTY.	DESCRIPTION
	13682	1	BASE WELDMENT-2033ES
1	13328	1	COVER WELDMENT, MANIFOLD & MOTOR
2	13858	1	SWITCH PANEL
3	HDW5724	14	BOLT, 5/16-18 X .75, GRADE 5
4	13364	1	LH MOTOR CABINET WELDMENT, SIDE
5	13329	1	COVER, RH HOSE
6	HDW5723	12	BOLT, 1/4-20 X .75, GRADE 5
7	HDW6455	4	BOLT, 1/4-20 X .50, GRADE 5
8	13352	1	BOX, BATTERY, BOTTOM
9	13360	1	LH SIDE-BATTERY BOX WELDMENT
10	13330	1	COVER, RH POTHOLE LEVER
11	13314	1	COVER, REAR, BASE
12	13312	1	COVER, SUPPORT BRACKET, BRAKE CYLINDER
13	13684	1	BRACKET, BRAKE COVER
14	13316	1	BRACKET, MOUNTING CHARGER
15	13315	1	PLATE, BATTERY CHARGER, MOUNTING, BASE
16	13355	1	BATTERY COVER WELDMENT

ART487 RS
BM10700
7/8/98

Figure 8B - Base Covers Left Side

ITEM	PART NO.	QTY.	DESCRIPTION
	13682	1	BASE WELDMENT-2033ES
1	13756	1	COVER, POTHOLE PLUNGER
2	HDW5723	23	BOLT, 1/4-20 X .75, GRADE 5
3	13332	1	COVER, LH POTHOLE LEVER
4	13335	1	COVER, REAR-HOSE/POTHOLE
5	13321	1	COVER, HOSE, LH BASE
6	13320	1	COVER, FRONT, TOP-LH STEERING
7	13497	1	COVER, TUBING HYDRAULIC STEERING
8	13337	1	CABINET WELDMENT-MANIFOLD
9	13319	1	CABINET, REAR/SIDE, LH STEERING
10	8386 9192	1	LATCH, TRIGGER, FLUSH LATCH, TRIGGER, FLUSH-EURO.
11	8395	1	RESERVOIR, HYDRAULIC FLUID
12	13683	1	BRACKET, MOUNTING, TILT SENSOR
13	6121	2	1/4" TRIM

 ART487 R5
 BM10700
 7/8/98

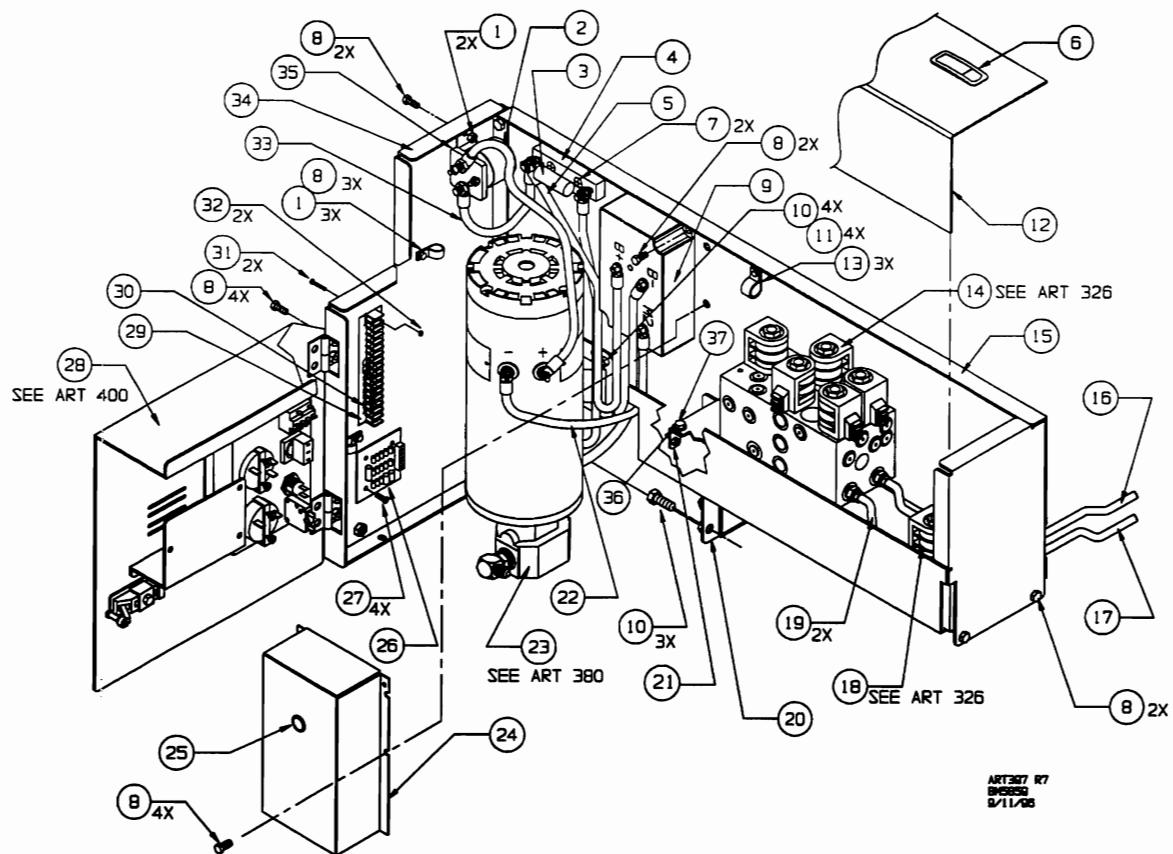
Figure 8C - Motor Cabinet Assembly 2033



Figure 8C - Motor Cabinet Assembly 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW8267	5	NUT, LOC, HEX, 1/4-20
2	8425	1	CABLE, BATTERY, UL1283, #2-RED, 13.5"
3	8344	1	FUSE, 200A
4	8345	1	HOLDER, FUSE, 140-200A
5	8585	1	CABLE, BATTERY, UL1283, #6-RED, 23.0"
6	8386	2	LATCH, TRIGGER, FLUSH
7	HDW7778	2	SCREW, MACH, FLAT CSK, 1/4-20 X 1.25
8	HDW5723	17	SCREW, SELF TAP, 1/4-20 X .75
9	8539	1	CONTROLLER, DC, 250 AMP
10	HDW5724	11	SCREW, CAP, HEX, 5/16-18 X .75
11	HDW7032	4	NUT, 5/16-18B, CLASS 2
12	13328	1	COVER, MOTOR WELDMENT & MANIFOLD CABINET
13	5882	3	CLAMP, CABLE
14	13345	1	MANIFOLD ASSEMBLY
15	13337	1	MANIFOLD CABINET WELDMENT
16	8327	1	HYDRAULIC TUBE ASSEMBLY, #4
17	8332	1	HYDRAULIC TUBE ASSEMBLY, #3
18	13346	1	MANIFOLD ASSEMBLY
19	8333	2	HYDRAULIC TUBE ASSEMBLY #1
20	13365	1	BRACKET, SUPPORT, LONG MANIFOLD CABINET
21	13366	1	BRACKET, SUPPORT, SHORT MANIFOLD CABINET
22	8427	1	CABLE, BATTERY, UL1283, #2-BLACK, 22.3"
23	13437	1	PUMP-MOTOR ASSEMBLY
24	13536	1	COVER, MOTOR CONTROL
25	8588	1	PLUG, WINDOW, .750 DIA.
26	8601	1	CIRCUIT BOARD, MOTOR CONTROL
27	HDW5229	4	SCREW, MACH, ROUND HD, SLOTTED, #6-32 X .37
28		1	ASSEMBLY, DOOR, MOTOR CABINET
29	7817	1	CARD, ID
30	5991	1	STRIP, TERMINAL
31	HDW5363	2	SCREW, MACH, HEX, WASH HD, 6-32 X 1.00
32	HDW5364	2	NUT, HEX, 6-32, GRADE 5
33	8426	1	CABLE, BATTERY, UL1238, #2-RED, 9.0"
34	13364	1	LH MOTOR CABINET WELDMENT
35	5967	1	CONTACTOR, 24 VDC
36	HDW8294	1	WASHER, .312ID X 1.000 OD X .100 THK.
37	HDW5204	1	SCREW, HEX FLANGE HEAD 5/16-18 X 1.000

ART397 R7
BM5859
9/11/96

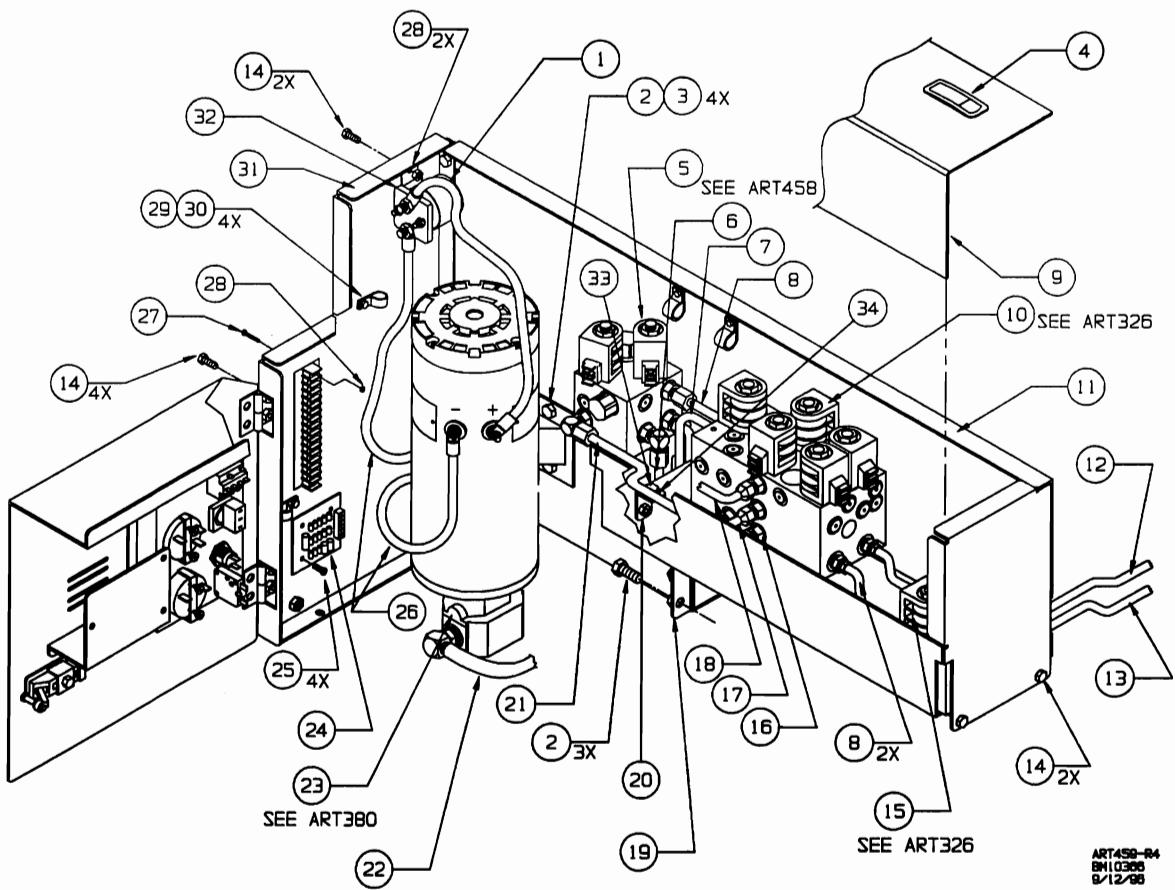
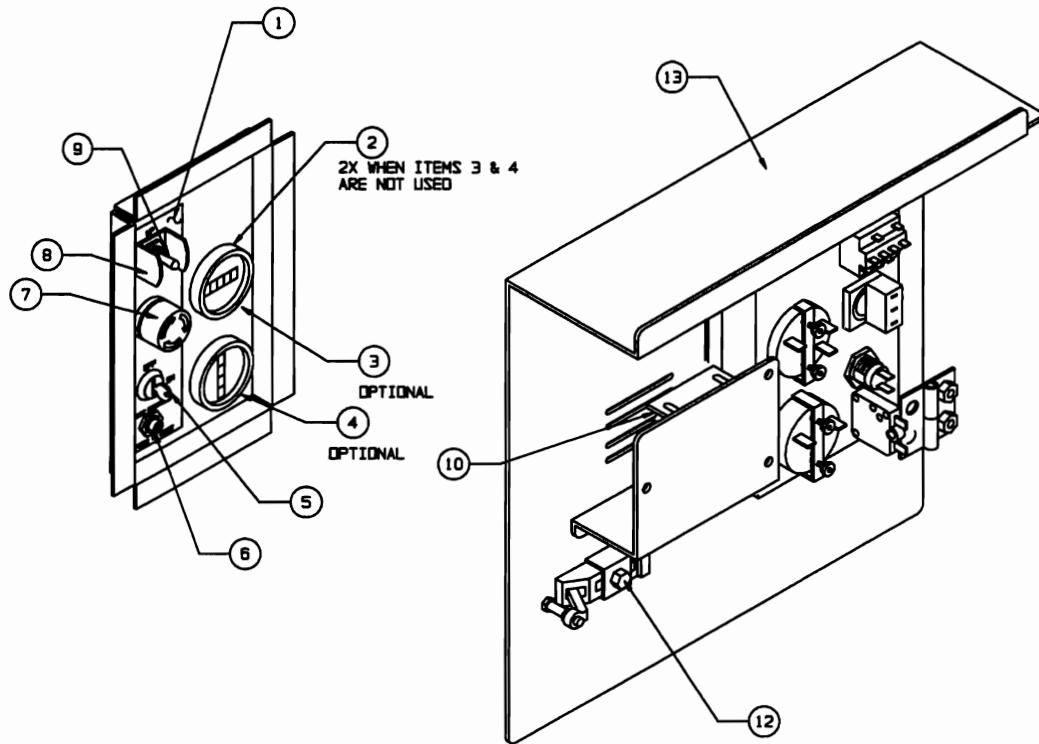
Figure 8D - Motor Cabinet Assembly 2033RS

Figure 8D - Motor Cabinet Assembly 2033RS

ITEM	PART NO.	QTY.	DESCRIPTION
1	8425	1	CABLE, BATTERY, UL1283-#2 RED, 13.5"
2	HDW5724	6	SCREW, CAP, HEX HEAD, 5/16-18 X .75, GRADE 5
3	HDW7032	4	NUT, 5/16-18B
4	8386	2	LATCH, TRIGGER, FLUSH
5	13648	1	MANIFOLD ASSEMBLY, SPEED
6	7598	1	HOSE, LONG
7	8587	1	HOSE ASSEMBLY-STRAIGHT, FEMALE, 37 DEG-ELBOW, FEMALE, 37 DEG-6/16 ID, 65" LG.
8	8333	3	HYDRAULIC TUBE ASSEMBLY #1
9	13328	1	COVER-MOTOR & MANIFOLD CABINET WELDMENT
10	13650	1	MANIFOLD ASSEMBLY, MAIN
11	13337	1	CABINET WELDMENT-MANIFOLD
12	8327	1	HYDRAULIC, TUBE ASSEMBLY #4
13	8332	1	HYDRAULIC TUBE ASSEMBLY #3
14	HDW5723	8	SCREW, SELF TAP & FORM, HEX HEAD, 1/4-20 X .75
15	13346	1	MANIFOLD ASSEMBLY, DRIVE
16	8323	1	HOSE ASSEMBLY-STRAIGHT, FEMALE, 37 DEG-ELBOW, FEMALE, 37 DEG-4/16 ID, 84" LG.
17	8315	1	HOSE ASSEMBLY-STRAIGHT, FEMALE, 37 DEG-ELBOW, FEMALE, 37 DEG-4/16 ID, 22" LG.
18	8316	1	HOSE ASSEMBLY-STRAIGHT, FEMALE, 37 DEG-ELBOW, FEMALE, 37 DEG-4/16 ID, 38" LG.
19	13365	1	BRACKET, LONG SUPPORT, MANIFOLD CABINET
20	13366	1	BRACKET, SHORT SUPPORT, MANIFOLD CABINET
21	8644	1	HOSE ASSEMBLY-STRAIGHT, FEMALE, 37 DEG-ELBOW, FEMALE, 37 DEG-6/16 ID, 12" LG.
22	8318	1	HOSE ASSEMBLY-STRAIGHT, FEMALE, 37 DEG-ELBOW, FEMALE, 37 DEG-6/16 ID, 24" LG.
23	13437	1	PUMP/MOTOR ASSEMBLY
24	8628	1	CIRCUIT BOARD
25	HDW5229	4	SCREW, MACHINE, ROUND HEAD, SLOTTED DRIVE, #6-32 X .37
26	8397	1	CONNECTOR, CABLE, BATTERY
27	HDW5364	1	NUT, HEX, KEPS, 6-32, GRADE 5
28	HDW5363	2	SCREW, MACHINE, HEX WASHER HEAD, #6-32 X 1.00
29	HDW6455	4	SCREW, 1/4-20 X .50" LG, GRADE 5
30	5882	4	CLAMP, CABLE
31	13364	1	MOTOR CABINET WELDMENT, LH SIDE
32	5967	1	CONTACTOR, 24VDC
33	HDW5204	1	SCREW, HEX FLANGE HEAD 5/16-18 X 1.000
34	HDW8294	1	WASHER, .312 ID X 1.000 OD X 1.00 THK

ART459-R4
BM10366
9/12/96

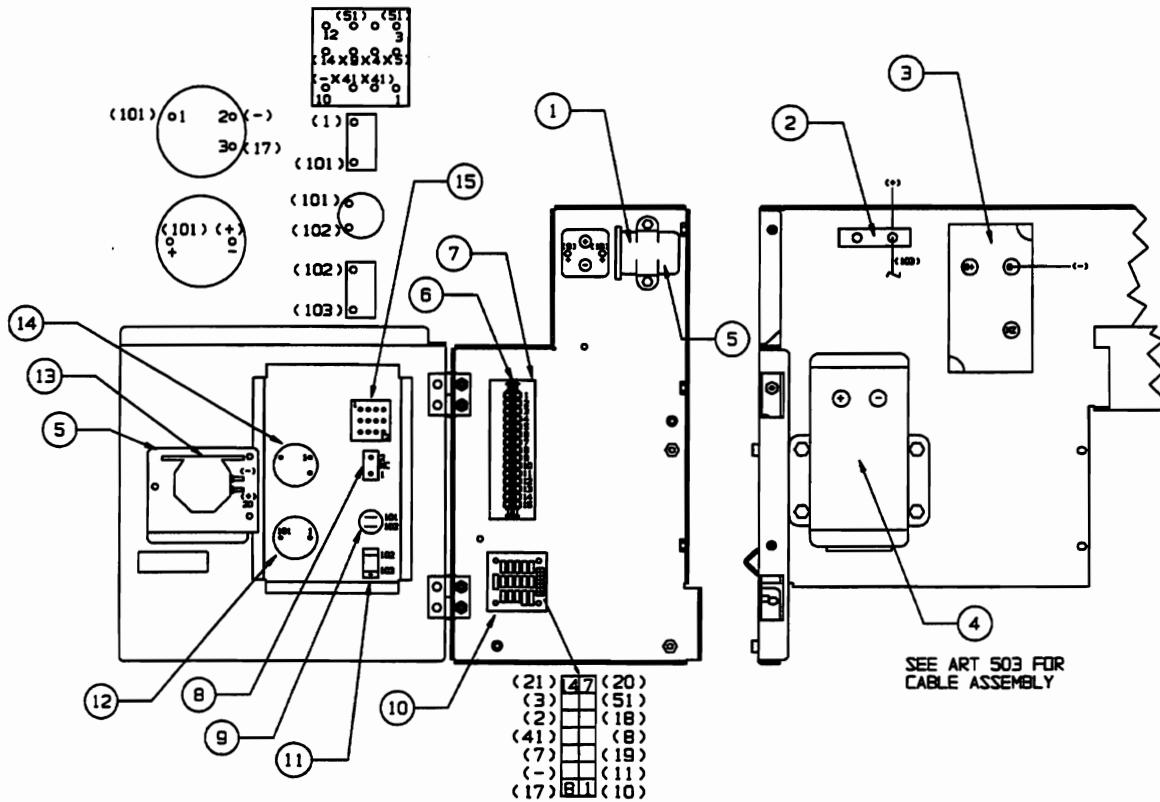
Figure 8E - Motor Cabinet Door Assembly



ITEM	PART NO.	QTY.	DESCRIPTION
1	7672	1	DECAL-CONTROL BASE
2	7115	0-2	PLUG, PRY OUT HOLE
3	7909	1	METER-HOUR, 24-48 VOLT DC
4	7099	1	BATTERY, FUEL GAGE, 24 VOLT
5	5936	1	KEY, SWITCH
6	7235	1	CIRCUIT BREAKER, 15 AMP MANUAL
7	7800 9345 8083	1 1 1	SWITCH, STOP ASSEMBLY BLOCK-CONTACT N.C. (ABB) OR BLOCK-CONTACT N.C. (TELEMECANIQUE)
8	1313	1	GUARD, SWITCH
9	7428	1	SWITCH, TOGGLE, 3 POSITION
10	8698	1	MOTION ALARM (12-48 VOLTS)
11			
12	8386	1	LATCH, TRIGGER, FLUSH
13	13362	1	DOOR WELDMENT, MOTOR CABINET

ART400 R7
BM5887
7/16/98

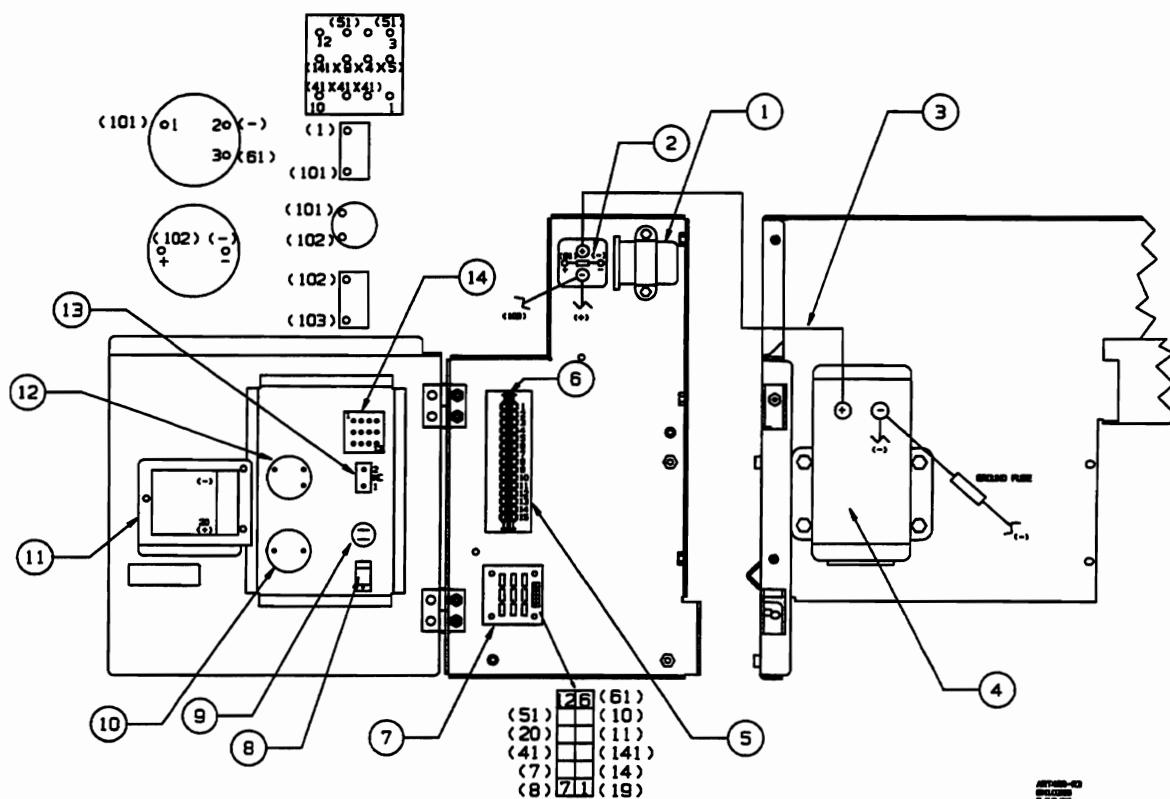
Figure 8F - Motor Cabinet 2033



ITEM	PART NO.	QTY.	DESCRIPTION
1	5967	1	CONTACTOR, 24 VDC
2	8344	1	FUSE, 200A
3	8539	1	MOTOR, SPEED CONTROLLER
4	8544	1	MOTOR, 24VDC, 2 HP
5	8480	2	DIODE ASSEMBLY, FAST-ACTING
6	5991	1	BLOCK, TERMINAL
7	7817	1	STRIP, BACKING-15 POSITION
8	7800 9345 8083	1	SWITCH STOP ASSEMBLY BLOCK-CONTACT N.C. (ABB) OR BLOCK-CONTACT N.C. (TELEMECANIQUE)
9	5936	1	SWITCH, KEY
10	8601	1	BOARD, CIRCUIT-MOTOR CONTROL
11	7235	1	CIRCUIT BREAKER, 15 AMP, MANUAL
12	7099	1	BATTERY, FUEL GAGE
13	8698	1	MOTION ALARM (12-48 VOLTS)
14	7909	1	METER, HOUR, 24-48 VOLT DC
15	7428	1	SWITCH, TOGGLE, 3 POSITION

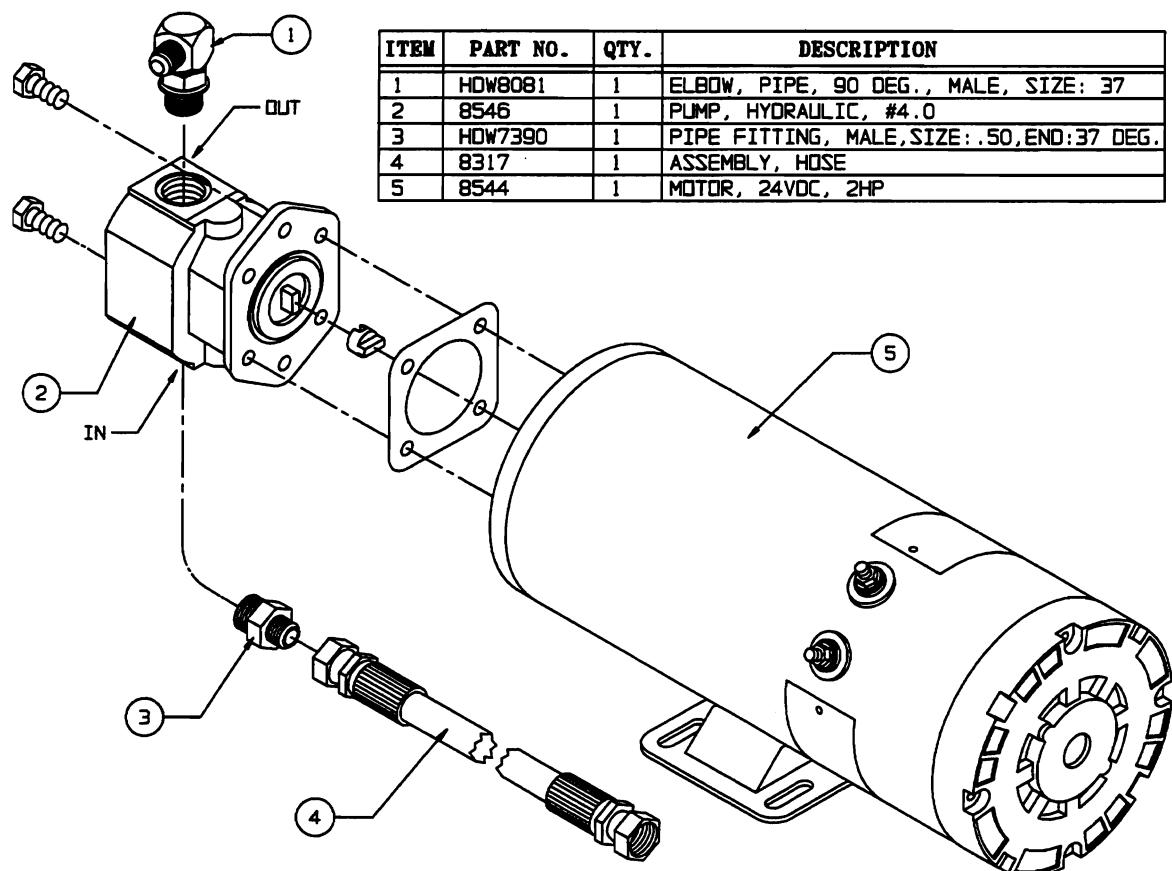
ART399 R6
BMS886
7/16/98

Figure 8G - Motor Cabinet 2033RS



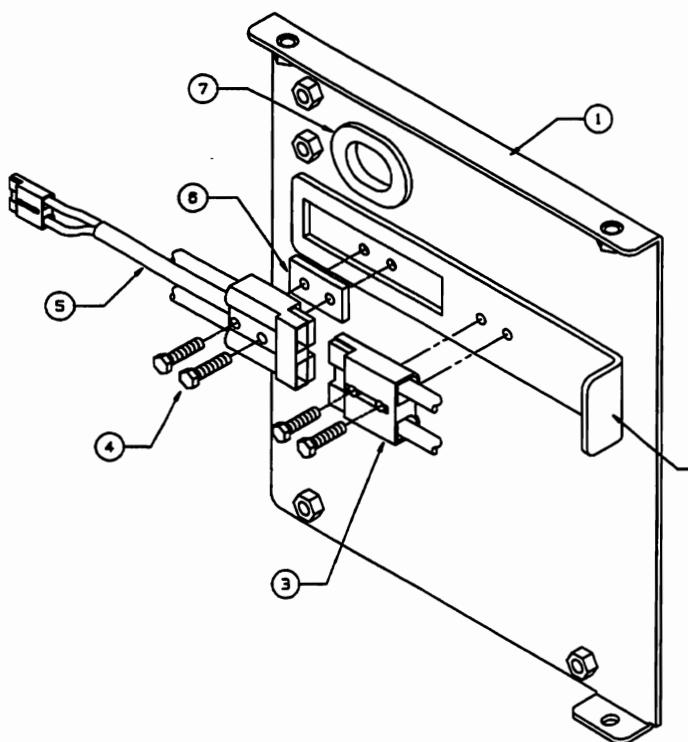
ITEM	PART NO.	QTY.	DESCRIPTION
1	5007	1	CONTACTOR-24VDC
2	6008	1	ASSEMBLY V. DIODE, FAST-ACTING
3	6425	1	CABLE, BATTERY-UL1283-#2 RED, 13.5'
4	6544	1	MOTOR, 24VDC, 2HP
5	7817	1	STRIP, BACKING, 15 POSITION
6	5901	1	TERMINAL BLOCK
7	6028	1	BOARD, CIRCUIT-2033RS
8	7225	1	CIRCUIT BREAKER-15 AMP, MANUAL
9	5005	1	SWITCH, KEY
10	7059	1	GAUGE-BATTERY FUEL-24 VOLT
11	6009	1	ALARM, MOTION, 12-48 VOLTS
12	7909	1	METER, HOUR, 24-48 VOLT DC
13	7800 9245 8083	1	SWITCH, STOP ASSEMBLY BLOCK-CONTACT N.C. (ABB) OR BLOCK-CONTACT N.C. (TELEMECANIQUE)
14	7428	1	SWITCH, TOGGLE, 3 POSITION

Figure 8H - Motor Assembly



ART380 RS
045380
12/22/05

Figure 8I - Battery Disconnect Assembly



2033 BATTERY DISCONNECT ASSY.

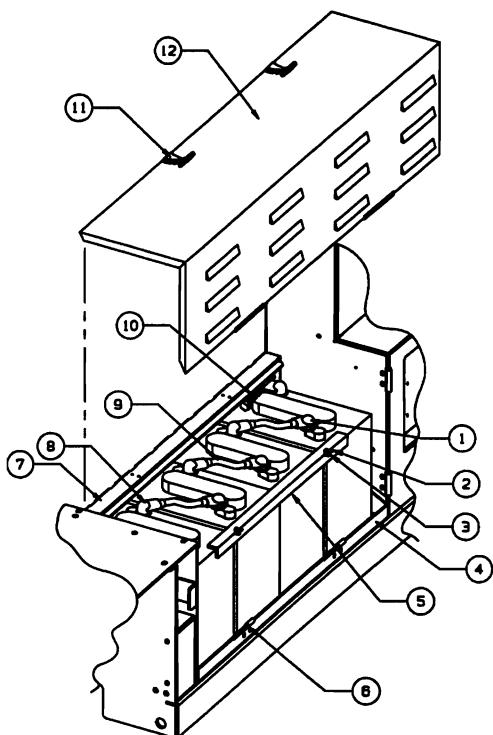
ITEM	PART NO.	QTY.	DESCRIPTION
1	13360	1	BATTERY BOX WELDMENT, LH SIDE
2	13359	1	BRACKET, SLIDE-DISCONNECT
3	6397	1	CONNECTOR/CABLE- BATTERY
4	HDW6029	4	BOLT, SELF TAP & FORM, SLOT DRIVE 1/4-20 X 1.50, GRADE 5
5	8395	1	CONNECTOR/CABLE ASSY-BATTERY
6	4591	1	BRACKET, MOUNTING, DISCONNECT
7	5863	1	GROMMET, .187 X 1.5 X 1.75

2033RS BATTERY DISCONNECT ASSY.

ITEM	PART NO.	QTY.	DESCRIPTION
1	13360	1	BATTERY BOX WELDMENT, LH SIDE
2	13359	1	BRACKET, SLIDE-DISCONNECT
3	6397	1	CONNECTOR/CABLE- BATTERY
4	HDW6029	4	BOLT, SELF TAP & FORM, SLOT DRIVE 1/4-20 X 1.50, GRADE 5
5	8657	1	CONNECTOR/CABLE ASSY-BATTERY
6	4591	1	BRACKET, MOUNTING, DISCONNECT
7	5863	1	GROMMET, .187 X 1.5 X 1.75

ART440 R1
SNGG33

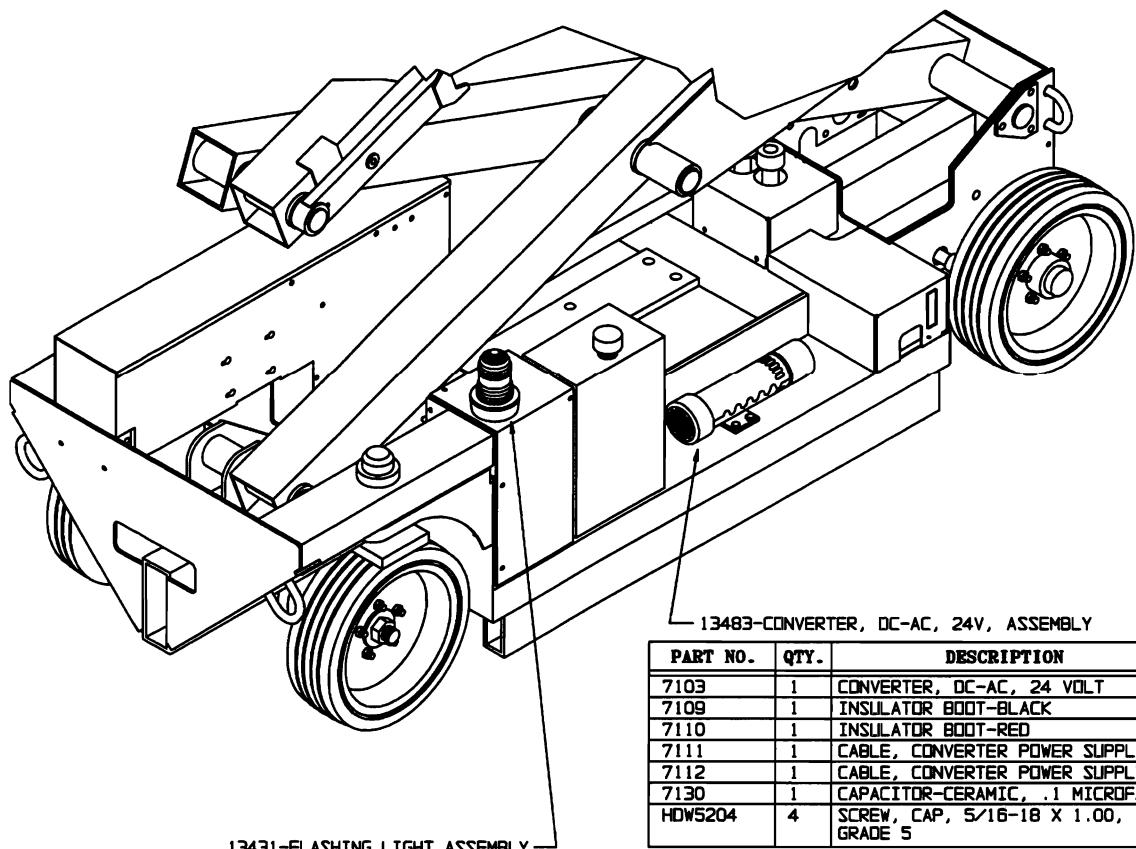
Figure 8J - Battery Cover & Hold Down



ITEM	PART NO.	QTY.	DESCRIPTION
1	7172	4	BOOT, (BLACK), TERMINAL INSULATOR
2	13263	2	ROD, HOLD DOWN
3	HDW6110	2	NUT, WING, TYPE A, 1/4-20, CLASS 20
4	13352	1	BOX, BATTERY, BOTTOM
5	13773	1	HOLD DOWN, BATTERY
6	13354	2	HINGE, SLIP, MALE HALF, L.H.
7	13351	1	SUPPORT, COVER-BATTERY BOX
8	7173	4	BOOT (RED) TERMINAL INSULATOR
9	6208	3	JUMPER, BATTERY
10	HDW5724	4	BOLT, 5/16-18 X .75, GRADE 5
11	7966	2	LATCH, DRAW-RUBBER
12	13355	1	BATTERY COVER WELDMENT
	8355	2	HINGE, FEMALE

ART414 RS
BN5969
10/22/96

Figure 8K - Flashing Light & Converter Option



PART NO.	QTY.	DESCRIPTION
7103	1	CONVERTER, DC-AC, 24 VOLT
7109	1	INSULATOR BOOT-BLACK
7110	1	INSULATOR BOOT-RED
7111	1	CABLE, CONVERTER POWER SUPPLY
7112	1	CABLE, CONVERTER POWER SUPPLY
7130	1	CAPACITOR-CERAMIC, .1 MICROFARE
HDW5204	4	SCREW, CAP, 5/16-18 X 1.00, GRADE 5

PART NO.	QTY.	DESCRIPTION
6011	1	CLAMP, CABLE
7476	2	TERMINAL PIN, AMP CONNECTOR
7595	1	LIGHT, SIGNAL
7640	1	CONNECTOR, AMP 2 PIN
8933	1	BULB, XENON STROBE #5001

ART531 R1
BM11230
6/10/97

Figure 8L - Static Strap Assembly

ITEM	PART NO.	QTY.	DESCRIPTION
1	HDW6433	1	SCREW, FLANGE HEAD, 3/8"-16 X 1" LONG
2	HDW8741	1	LOCK WASHER, 3/8" ID
3	7638	1	GROUNDING STRAP, 1" WIDE, 24" LONG
4	HDW5355	1	FLAT WASHER, 7/16" ID, 1" OD
5	HDW5039	1	NUT, 3/8"-16

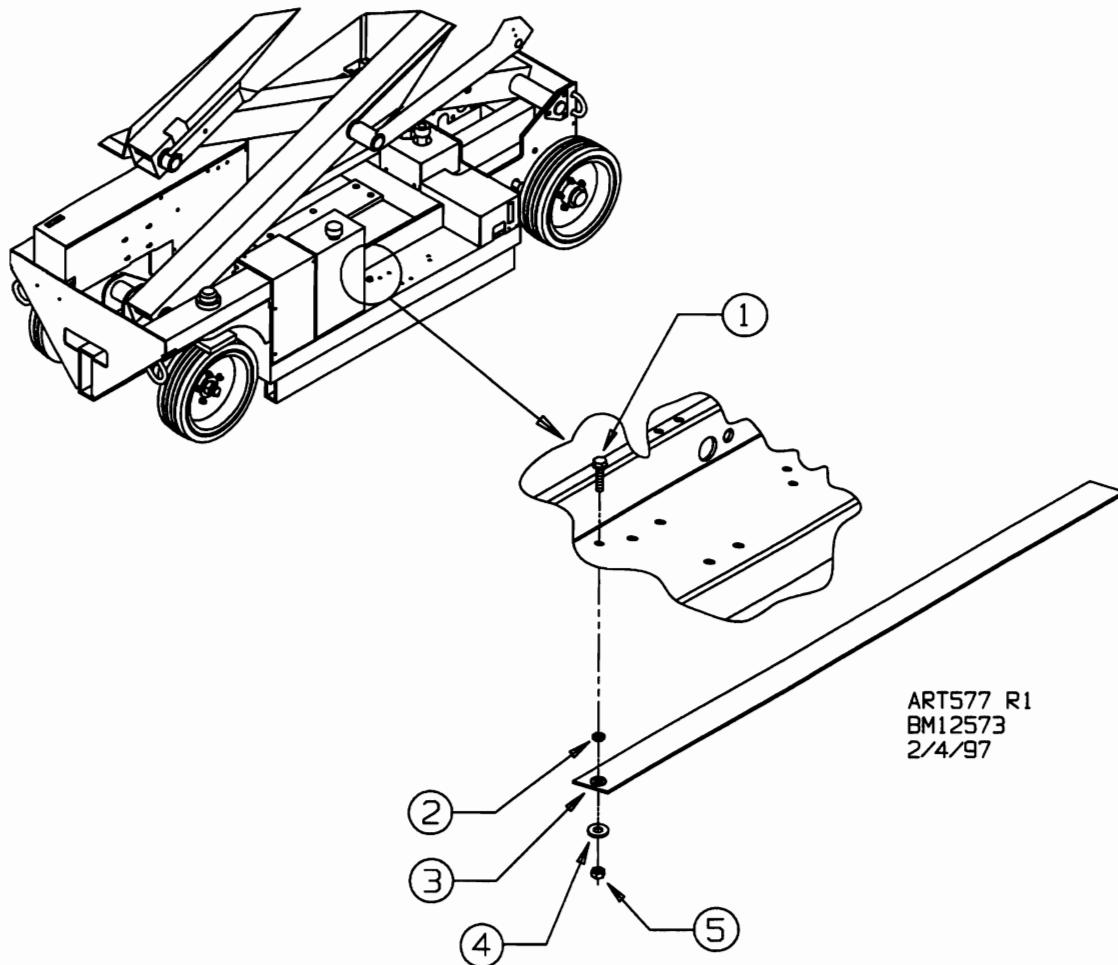
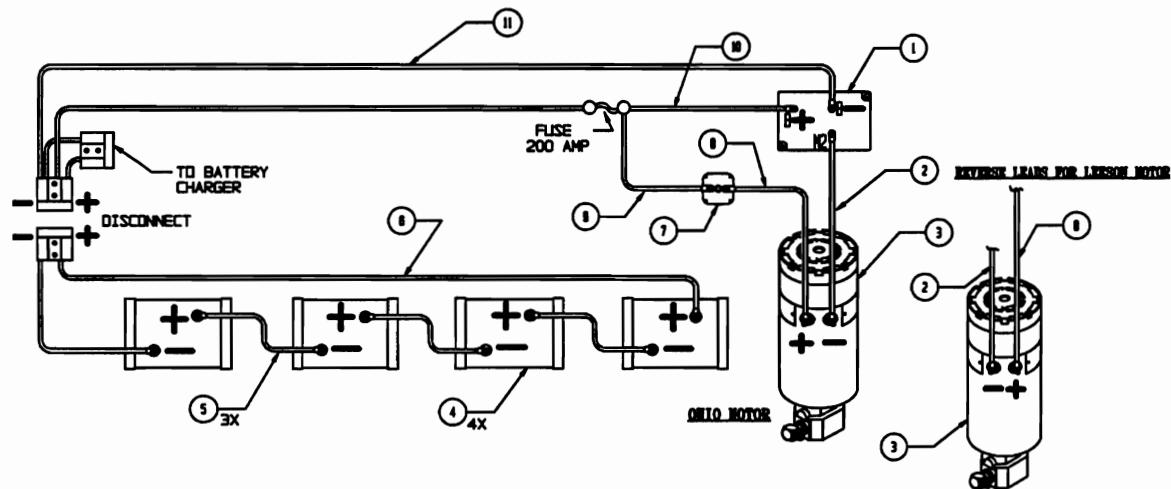


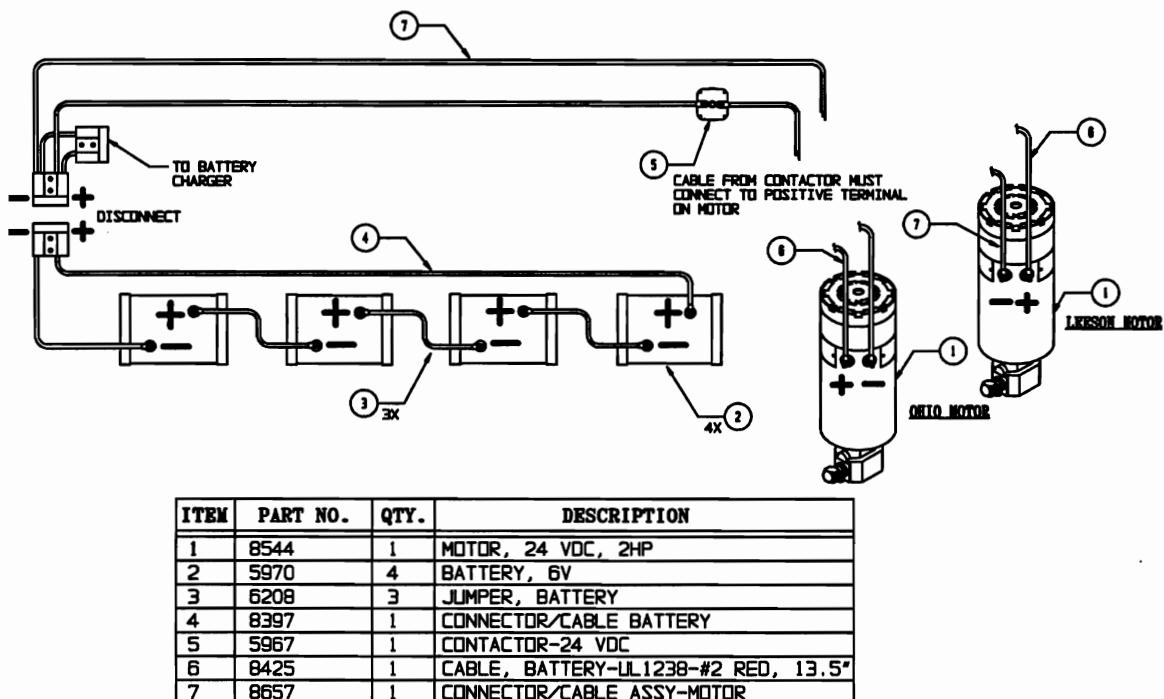
Figure 8M - Battery Cable Layout 2033



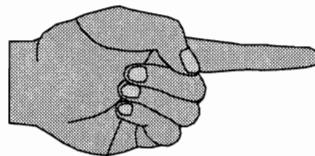
ITEM	PART NO.	QTY.	DESCRIPTION
1	8539	1	CONTROLLER, 250 AMP, DC
2	8427	1	CABLE, BATTERY-UL1283-#2 BLK, 22.3"
3	8544	1	MOTOR, 24 VDC, 2HP
4	5970	4	BATTERY, 6V
5	6208	3	JUMPER, BATTERY
6	8397	1	CONNECTOR/CABLE BATTERY
7	5967	1	CONTACTOR-24 VDC
8	8425	1	CABLE, BATTERY-UL1283-#2 RED, 13.5"
9	8426	1	CABLE, BATTERY-UL1283-#2 RED, 9.0"
10	8585	1	CABLE, BATTERY-UL1283-#6 RED, 23.0"
11	8396	1	CONNECTOR/CABLE ASSY-BATTERY

ART503 R1
BM10963

Figure 8N - Battery Cable Layout 2033RS



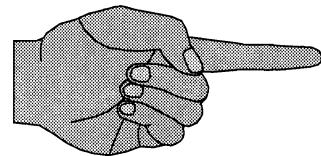
Notes:



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Decals

Notes:



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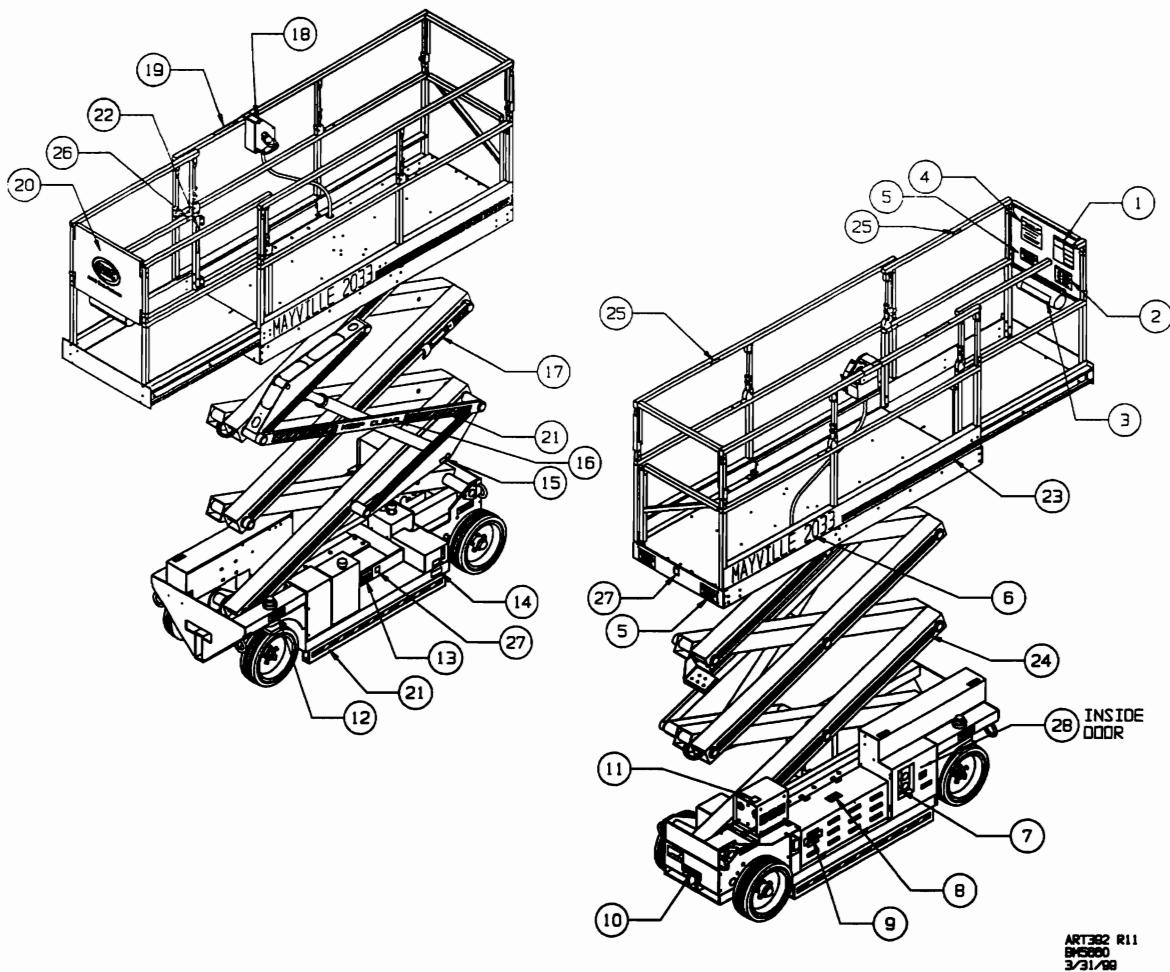
Figure 9A - Decal Layout 2033

Figure 9A - Decal Layout 2033

ITEM	PART NO.	QTY.	DESCRIPTION
1	7523	1	DECAL - CAUTION-ELEC/T.O. HAZARD
2	8473	1	DECAL - LOCK WARNING
3	7253	1	DECAL - MANUAL CASE
4	7527	1	DECAL - CAUTION
5	8405	3	DECAL - 800 LB CAPACITY
6	8401	2	DECAL - MODEL NUMBER 2033
7	7672	1	DECAL - CONTROL BASE
8	8520	1	DECAL - WARNING BATTERY REPLACEMENT
9	8475	1	DECAL - BATTERY DISCONNECT
10	6556	1	DECAL - FORK POCKETS
11	7652	1	DECAL - BATTERY CHARGER
12	8519	2	DECAL - WARNING TIRE REPLACEMENT
13		1	SERIAL NUMBER PLATE
14	8598	1	DECAL - EMERGENCY DOWN PROCEDURE
15	8599	1	DECAL - EMERGENCY DOWN PROCEDURE
16	8503	1	DECAL - KEEP CLEAR
17	6794	1	DECAL - MAINTENANCE
18	8946	1	DECAL - PLATFORM STOPS SHORT
19	7155	1	DECAL - CONTROL BOX
20	8811	1	DECAL - MEC OVAL
21	7982	6	DECAL - SAFETY STRIPE
22	7685	1	DECAL - PLATFORM LOCK
23	8402	1	DECAL - RAIL STRIPE
24	13525	12	DECAL - BEAM STRIPE
25	8493	4	DECAL - HAND GRIP AREA
26	7157	1	DECAL - LATCH
27	8619	2	DECAL - MADE IN USA
28	8603	2	DECAL - WARNING DISCONNECT BATTERY

ART392 R11
BM5660
3/31/99

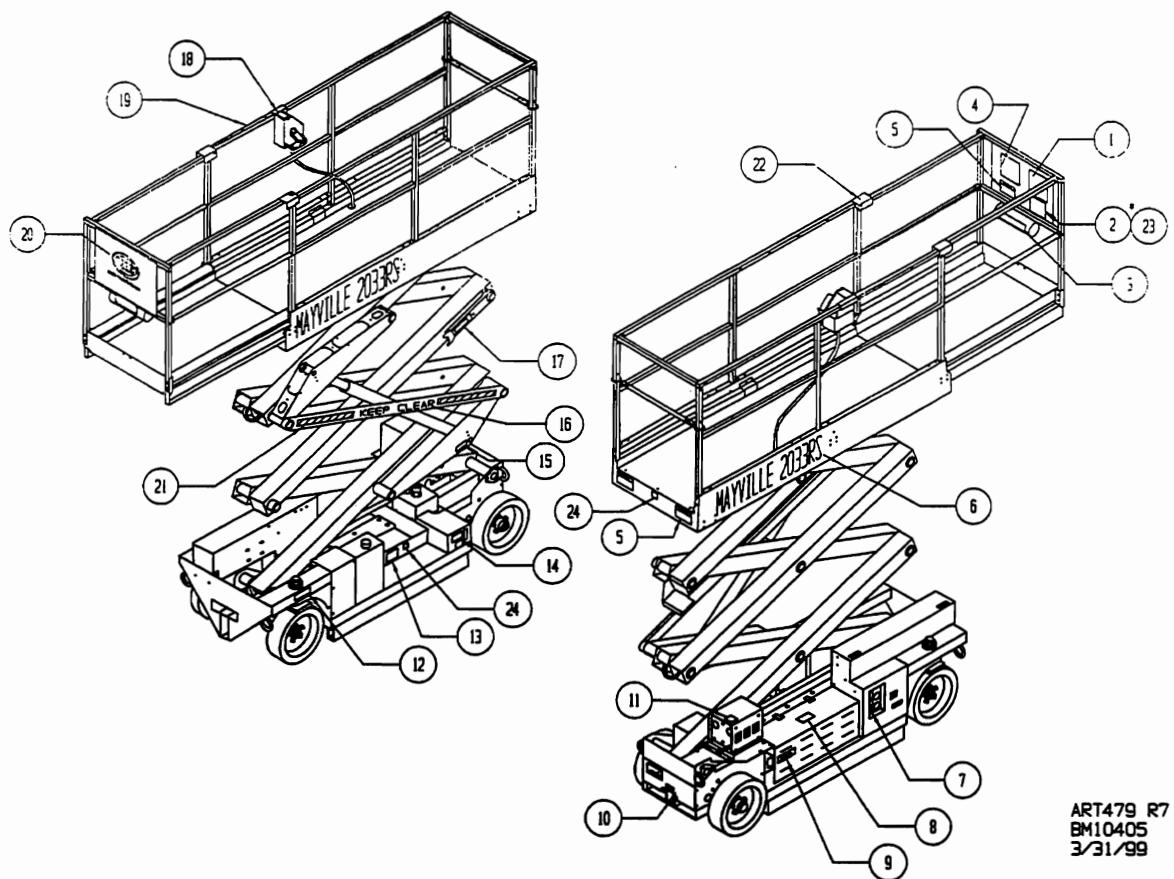
Figure 9B - Decal Layout 2033RS



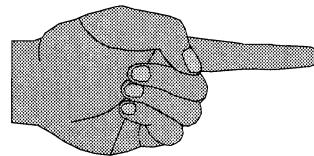
Figure 9B - Decal Layout 2033RS

ITEM	PART NO.	QTY.	DESCRIPTION
1	7523	1	DECAL - CAUTION-ELEC/T.O. HAZARD
2	8671	1	DECAL - LOCK WARNING
3	7253	1	DECAL - MANUAL CASE
4	7527	1	DECAL - CAUTION
5	8659	3	DECAL - 750 LB CAPACITY
6	8649	2	DECAL - MODEL NUMBER 2033RS
7	7672	1	DECAL - CONTROL BASE
8	8520	1	DECAL - WARNING BATTERY REPLACEMENT
9	8475	1	DECAL - BATTERY DISCONNECT
10	6556	1	DECAL - FORK POCKETS
11	7652	1	DECAL - BATTERY CHARGER
12	8519	2	DECAL - WARNING TIRE REPLACEMENT
13		1	SERIAL NUMBER PLATE
14	8598	1	DECAL - EMERGENCY DOWN PROCEDURE
15	8599	1	DECAL - EMERGENCY DOWN PROCEDURE
16	8503	1	DECAL - KEEP CLEAR
17	6794	1	DECAL - MAINTENANCE
18	8946	1	DECAL - PLATFORM STOPS SHORT
19	7155	1	DECAL - CONTROL BOX
20	8811	1	DECAL - MEC OVAL
21	7982	2	DECAL - SAFETY STRIPE
22	7685	1	DECAL - PLATFORM LOCK
23	8673	1	DECAL - SLIDE GATE LOCK WARNING
24	8619	2	DECAL - MADE IN USA

* USE DECAL P/N 8671 WITH SLIDE GATE OPTION
 * USE DECAL P/N 8673 WITH SHEET LOAD OPTION

ART479 R7
 BM10405
 3/31/99

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Limited Owner Warranty

Mayville Engineering Company, Inc. (MEC) warrants its equipment to the original purchaser against defects in material and/or workmanship under normal use and service for one (1) year from date of registered sale or date the unit left the factory if not registered. MEC further warrants the structural weldments of the main frame and scissor arms as defined in MEC's current Warranty Policy & Procedures, to be free from defects in material or workmanship for five (5) years from date of registered sale or date unit left the factory if not registered. Excluded from such warranty is the battery(s) which carries a ninety (90) day warranty from described purchase date and prorated thereafter up to one (1) year. Warranty claims within such warranty period shall be limited to repair or replacement, at MEC's option, of the defective part in question and labor to perform the necessary repair or replacement based on MEC's then current flat rate, provided the defective part in question is shipped prepaid to MEC and is found upon inspection by MEC to be defective in material and/or workmanship. Mayville Engineering Company, Inc. shall not be liable for any consequential, incidental or contingent damages whatsoever. Use of other than factory authorized parts, misuse, improper maintenance or modification of the equipment voids this warranty. The foregoing warranty is exclusive and in lieu of all other warranties, express or implied. All such other warranties, including implied warranties of merchantability and of fitness for a particular purpose, are hereby excluded. No Dealer, Sales Representative, or other person purporting to act on behalf of MEC is authorized to alter the terms of this warranty, or in any manner assume on behalf of MEC any liability or obligation which exceeds MEC's obligations under this warranty.



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