

MOTION CONTROL
CANTON ELEV

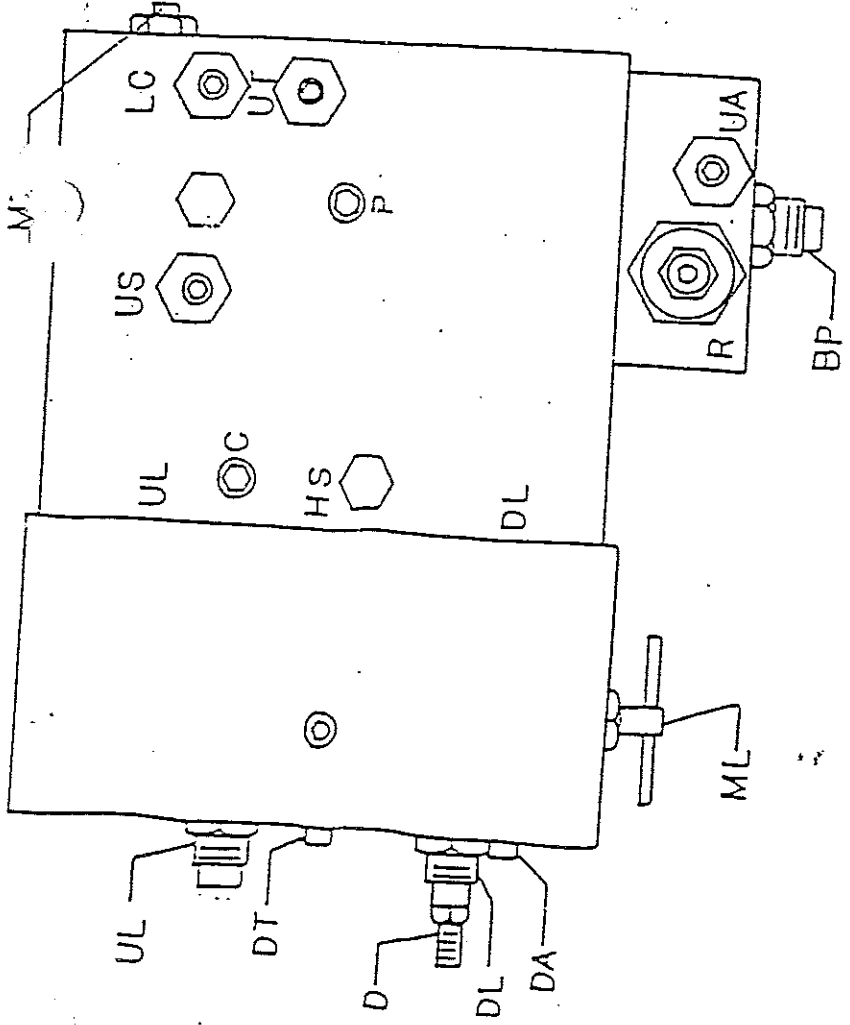
3 VALVE SYSTEM

HEALTH SOUTH
TOMS RIVER

- SURE THAT ALL SEAL NUTS (ADJUSTOR CARTRIDGES) ARE TIGHT.
- WHEN INSTRUCTED TO TURN AN ADJUSTOR "IN", THE ADJUSTMENT IS ALWAYS CLOCKWISE (CW). WHEN INSTRUCTED TO TURN AN ADJUSTOR "OUT", THE ADJUSTMENT IS ALWAYS COUNTERCLOCKWISE (CCW).
- MAKE ALL ADJUSTMENTS WITH NO LOAD ON THE CAR EXCEPT AS NOTED.
- WHEN DISCONNECTING A COIL, ALWAYS DISCONNECT THE COIL ELECTRICALLY.

INITIAL ADJUSTMENT SETTINGS

UP SECTION	DOWN SECTION
BP OUT (CCW) TO STOP	D APPROXIMATELY TWO THREADS ABOVE THE JAM NUT
UA IN (CW) TO STOP	DL APPROXIMATELY THREE THREADS ABOVE THE JAM NUT
UL APPROXIMATELY THREE THREADS ABOVE THE JAM NUT	DA OUT (CCW) TO STOP
UT OUT (CCW) TO STOP	DT IN (CW) TO STOP
US OUT (CCW) TO STOP	HL IN (CW) TO STOP
XP IN (CW) TO STOP	
LC OUT (CCW) TO STOP	



SOLENOID COIL OPERATING SEQUENCE

- FOR FULL UP SPEED TRAVEL: ENERGIZE BOTH THE UP LEVELING SOLENOID COIL (UL) AND THE HIGH SPEED SOLENOID COIL (HS).
- FOR UP LEVELING SPEED TRAVEL: ENERGIZE THE UP LEVELING SOLENOID COIL (UL) ONLY.
- FOR FULL DOWN SPEED TRAVEL: ENERGIZE BOTH THE DOWN LEVELING SOLENOID COIL (DL) AND THE HIGH SPEED SOLENOID COIL (HS).
- FOR DOWN LEVELING SPEED TRAVEL: ENERGIZE THE DOWN LEVELING SOLENOID COIL (DL) ONLY.

*3 VALVE SYSTEM
HEALTH SOUTH, Toms River*

COIL AND REGISTER A CALL. TURN US IN (CW) UNTIL JUST BEGINS TO MOVE, THEN BACK OUT (CCW) UNTIL THE CAR STALLS. RETURN THE CAR TO FLOOR LEVEL AND RECONNECT THE UL COIL. REGISTER A CALL AND ADJUST US IN (CW) TO BRING THE CAR TO FLOOR LEVEL. THE PUMP SHOULD BE TINED TO RUN FOR APPROXIMATELY ONE SECOND AFTER REACHING THE FLOOR.

8. R THE RELIEF VALVE HAS BEEN FACTORY SET AT 500 P.S.I. INSTALL A PRESSURE GAUGE AT "P" PORT AND RECORD THE SYSTEM PRESSURE WITH A FULL LOAD ON THE CAR. SET THE RELIEF VALVE IN ACCORDANCE WITH LOCAL CODES, BUT NOT IN EXCESS OF 25% ABOVE MAXIMUM WORKING PRESSURE.

DOWN TRAVEL ADJUSTMENT

1. DA TURN DA IN (CW) TO STOP AND REGISTER A CALL. TURN DA OUT (CCW) UNTIL THE CAR BEGINS TO MOVE AWAY FROM THE FLOOR, THEN OUT (CCW) AN ADDITIONAL 1/4 TURN.
2. DL DISCONNECT THE HIGH SPEED COIL AND REGISTER A CALL. TURN DL OUT (CCW) TO ATTAIN 6 - 9 FEET PER MINUTE LEVELING SPEED.
3. D RECONNECT THE HIGH SPEED COIL AND RETURN THE CAR TO THE UPPER LANDING. REGISTER A CALL AND TURN THE DOWN ADJUSTOR OUT (CCW) TO ATTAIN FULL DOWN SPEED.
4. DT REGISTER A CALL AND TURN DT OUT (CCW) TO ATTAIN APPROXIMATELY 4" - 6" OF STABILIZED DOWN LEVELING.

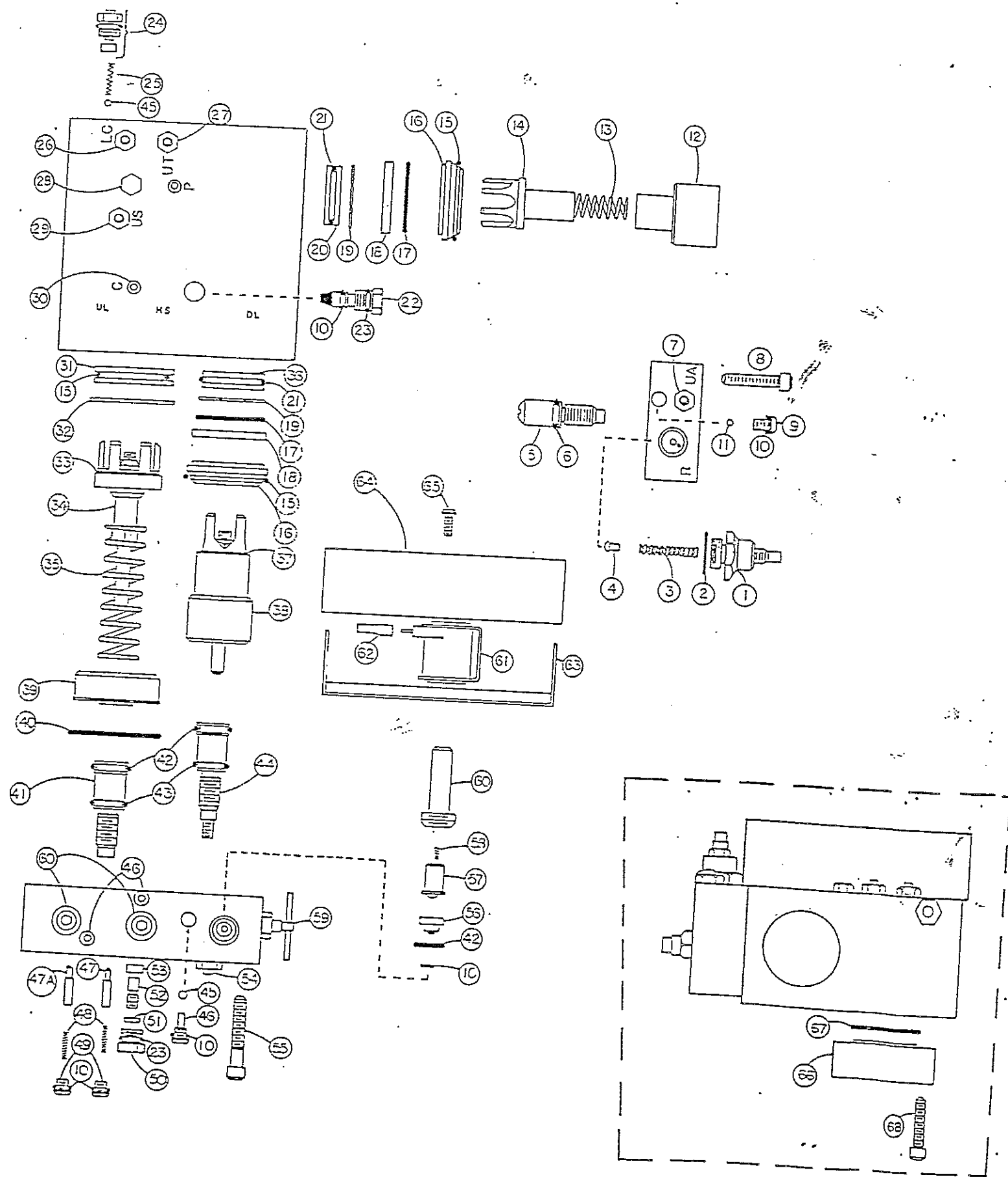
NOTE: A MINOR READJUSTMENT OF DL MAY BE NECESSARY AFTER SETTING DOWN TRANSITION.

1. BP DISCONNECT THE UL COIL AND START THE PUMP. TURN THE BP ADJUSTOR IN (CW) UNTIL THE CAR BEGINS TO MOVE, THEN BACK OUT (CCW) UNTIL THE CAR STALLS. TURN THE BP ADJUSTOR OUT (CCW) AN ADDITIONAL 1/4 TURN.
2. VA RECONNECT THE UL COIL AND REGISTER A CALL. TURN VA OUT (CCW) TO ATTAIN FULL UP SPEED WITHIN 24" - 36".
3. UL DISCONNECT THE HIGH SPEED COIL AND REGISTER A CALL. TURN UL OUT (CCW) TO ATTAIN 10 - 12 FEET PER MINUTE LEVELING SPEED. RETURN THE CAR TO FLOOR LEVEL AND RECONNECT THE HIGH SPEED COIL.
4. UT REGISTER A CALL AND ADJUST UT IN (CW) SO THAT THE CAR SLOWS TO APPROXIMATELY 4" - 6" OF STABILIZED UP LEVELING.

NOTE: A MINOR READJUSTMENT OF UL MAY BE NECESSARY AFTER SETTING UP TRANSITION.

5. MP-before beginning to adjust load compensation for up transition. Register a call. Turn MP out (ccw) until a reduction of 1; or 2" in. stabilized leveling is achieved.
6. LC-turn load compensator in (ccw) to stop then back out (ccw) 3-1/2 turns. Apply load to car (partial OK) adjust out until floor to floor time equals that of an UNloaded car.

NOTE: THE ADJUSTMENT OF HP AND LC ALLOW THE CAR TO TRANSITION AND LEVEL IN TO THE FLOOR FOR THE SAME LENGTH OF TIME REGARDLESS OF LOAD CONDITION, THUS ELIMINATING "STRETCHED-OUT" LEVELING UNDER FULL OR PARTIAL LOAD CONDITIONS. IF NO LOAD IS AVAILABLE DURING THIS ADJUSTMENT PHASE, LC MUST BE TURNED IN (CW) TO STOP. WITH LC TURNED FULLY IN, THE CAR WILL LEVEL IN TO THE FLOOR AS DO CONVENTIONAL VALVES WITH RESPECT TO LOAD.



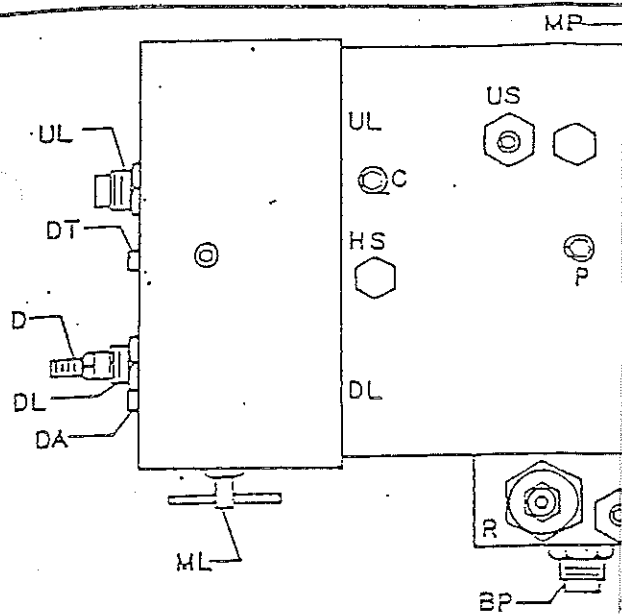
ITEM NO.	IDENTIFICATION	PART NO.
1	RELIEF CARTRIDGE ASSEMBLY	EV-022
2	SEAL RING	2-020
3	RELIEF VALVE SPRING	EV-022-3
4	RELIEF POPPET	EV-022-4
5	BYPASS ADJUSTOR ASSEMBLY	EV-021
6	SEAL RING	2-111
7	UA ADJUSTOR ASSEMBLY	EV-007
8	5/16-18 x 1-1/2" SOCKET HEAD CAP SCREW	EV-028
9	1/4-28 x 3/8" SOCKET BUTTON HEAD SCREW	EV-044A
10	SEAL RING	2-010
11	CHECK BALL (.156" DIA.)	EV-036
12	BYPASS VALVE PISTON	EV-020-1
13	BYPASS VALVE SPRING	EV-020-3
14	BYPASS VALVE GUIDE	EV-020-2
15	SEAL RING	2-123
16	SEAL RETAINER	EV-047
17	PISTON SEAL ENERGIZER	2-130
18	PISTON SEAL RING	EV-018
19	SNAP RING	EV-016
20	BYPASS VALVE SEAT	EV-019
21	SEAL RING	2-125
22	DOWN FILTER ASSEMBLY	EV-023
23	SEAL RING	2-012
24	MP ADJUSTOR ASSEMBLY	EV-007B
25	MINIMUM PRESSURE SPRING	EV-048
26	LC ADJUSTOR ASSEMBLY	EV-007A
27	UT ADJUSTOR ASSEMBLY	EV-007
28	UP FILTER ASSEMBLY	EV-023
29	US ADJUSTOR ASSEMBLY	EV-007
30	1/8" PIPE PLUG	EV-033
31	CHECK VALVE SEAT	EV-011
32	SNAP RING	EV-012
33	SEAL RING	2-125
34	CHECK VALVE ASSEMBLY	EV-010
35	CHECK VALVE SPRING	EV-013
36	DOWN VALVE SEAT	EV-015
37	SEAL RING	2-115
38	DOWN VALVE ASSEMBLY	EV-014
39	CHECK SPRING RETAINER	EV-009
40	SEAL RING	2-139
41	UP LEVEL SPEED ADJUSTOR ASSEMBLY	EV-004
42	SEAL RING	2-114
43	SEAL RING	2-113
44	DOWN/DOWN LEVEL SPEED ADJUSTOR ASSEMBLY	EV-005
45	CHECK BALL (.167" DIA.)	EV-039
46	CHECK BALL RETAINING SCREW	EV-035
47	HIGH SPEED SPOOL	EV-034
47A	UP LEVELING SPOOL	EV-034
48	SPOOL SPRING	EV-042
49	1/4-28 x 1/4" SOCKET BUTTON HEAD SCREW	EV-044
50	ADJUSTOR CARTRIDGE	EV-007-1
51	ADJUSTOR SEAL	EV-007-2
52	ADJUSTOR SCREW	EV-007-3
53	ADJUSTOR SLEEVE	EV-007-4
54	DA ADJUSTOR ASSEMBLY	EV-007
55	5/16-18 x 2" SOCKET HEAD CAP SCREW	EV-027
56	SOLENOID SEAT	EV-003
57	BALL CAGE ASSEMBLY	EV-001
58	SOLENOID SPRING	EV-001-2
59	MANUAL LOWERING VALVE ASSEMBLY	EV-008
60	SOLENOID TUBE	EV-002
61	COIL - REFER TO COIL SELECTION CHART	
62	WIRE TERMINAL	EV-049
63	COIL BASE PLATE	EV-040
64	COIL COVER	EV-041
65	10-32 x 5/8" SOCKET BUTTON HEAD SCREW	EV-050
66	FLANGE (2" NPT)	EV-051
67	SEAL RING	2-134
68	5/16-18 x 1-1/4" SOCKET HEAD CAP SCREW	EV-053

* REFER TO ITEMS 50 - 53 FOR COMPONENT BREAKDOWN



HC-220 H.E. VALVE
INFORMATION

PARTS IDENTIFICATION



AT POSITION, THE CAR SHOULD STOP
 3/8" BELOW FLOOR LEVEL. DISCONNECT
 REGISTER A CALL. TURN US IN (CV) UNTIL
 TO MOVE, THEN BACK OUT (CCV) UNTIL
 DOWN THE CAR TO FLOOR LEVEL AND
 REGISTER A CALL AND ADJUST US
 CAR TO FLOOR LEVEL. THE PUMP SHOULD
 APPROXIMATELY ONE SECOND AFTER REACHING

BEEN FACTORY SET AT 500 P.S.I.
 GAGE AT "A" PORT AND RECORD THE
 A FULL LOAD ON THE CAR. SET THE
 ADJUSTMENT WITH LOCAL CODES, BUT NOT
 EXCEED MAXIMUM WORKING PRESSURE.

STOP AND REGISTER A CALL. TURN DA OUT
 BEGINS TO MOVE AWAY FROM THE FLOOR,
 ADDITIONAL 1/4 TURN.

SOLENOID COIL OPERATING SEQUENCE

- FOR FULL UP SPEED TRAVEL:** ENERGIZE BOTH THE UP SPEED COIL AND REGISTER A CALL. TURN DA OUT (CV) UNTIL THE CAR BEGINS TO MOVE AWAY FROM THE FLOOR, THEN BACK OUT (CCV) UNTIL THE CAR RETURNS TO FLOOR LEVEL AND REGISTER A CALL AND ADJUST US TO FLOOR LEVEL. THE PUMP SHOULD BE APPROXIMATELY ONE SECOND AFTER REACHING FLOOR LEVEL.
- FOR UP LEVELING SPEED TRAVEL:** ENERGIZE THE UP LEVEL SPEED COIL (UL) ONLY. REGISTER A CALL AND TURN THE DOWN ADJUSTOR (DA) OUT TO ATTAIN APPROXIMATELY 1/4 TURN.
- FOR FULL DOWN SPEED TRAVEL:** ENERGIZE BOTH THE DOWN SPEED COIL AND RETURN THE CAR TO THE FLOOR. REGISTER A CALL AND TURN THE DOWN ADJUSTOR (DA) OUT TO ATTAIN APPROXIMATELY 1/4 TURN.
- DOWN LEVELING SPEED TRAVEL:** ENERGIZE THE DOWN LEVEL SPEED COIL (DL) ONLY. TURN DT OUT (CCV) TO ATTAIN APPROXIMATELY 1/4 TURN. ADJUSTMENT OF DL MAY BE NECESSARY AFTER TRANSITION.

THE HC-220 CONTROL VALVE UTILIZES THREE SOLENOID COILS:

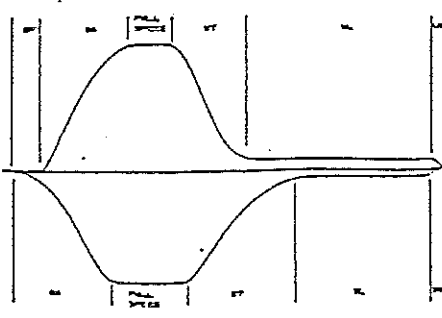
HS	HIGH SPEED SOLENOID
UL	UP LEVEL SPEED SOLENOID
DL	DOWN LEVEL SPEED SOLENOID

OPERATIONAL DATA

UP SPEED	30 p.s.i.
DOWN SPEED	1000 p.s.i.
FLOW RATE	220 g.p.m. (MAXIMUM)

- FOR FULL UP SPEED:** ENERGIZE BOTH THE UP LEVEL SPEED COIL AND THE HIGH SPEED COIL.
- FOR UP LEVEL SPEED:** ENERGIZE THE UP LEVEL SPEED COIL ONLY.
- FOR FULL DOWN SPEED:** ENERGIZE BOTH THE DOWN LEVEL SPEED COIL AND THE HIGH SPEED COIL.
- FOR DOWN LEVEL SPEED:** ENERGIZE THE DOWN LEVEL SPEED COIL ONLY.

CRACK VALVE	13 p.s.i. - 25 p.s.i.
TEMPERATURE	70° F
TEMPERATURE	150° F



OIL DATA

HZ	PART NO.
60	032
60	032A
DC	032A

HC-220 H.E. VALVE INFORMATION

READ THIS INFORMATION CAREFULLY BEFORE INSTALLING EQUIPMENT.