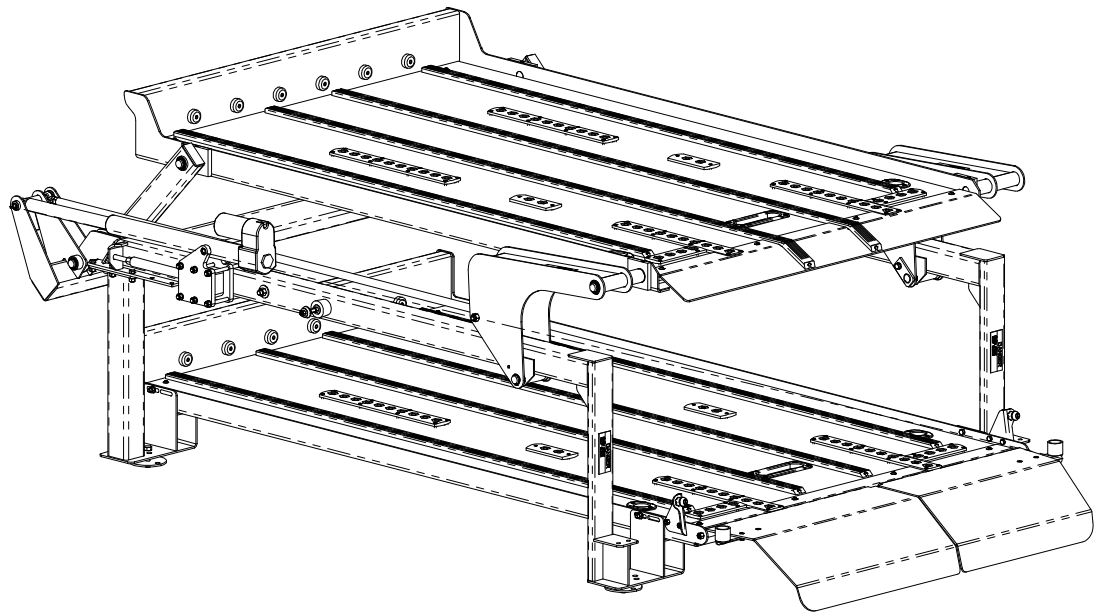


INSTALLATION INSTRUCTIONS

DD200-EX1 DOUBLE DECK SYSTEM FOR VAUXHALL MOVANO 7223A000



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www.linkcmp.com**



051109
72232341

1.0 INTRODUCTION

The following steps are instructions for installing the DD200 deck system in a Vauxhall Movano van. Refer to **Figure 1** on **Page 5** for details.

It is important to thoroughly read the entire Installation Instruction Manual before installing this system. This double deck system is designed to be installed and operated inside a motor vehicle.

2.1 RECOMMENDED TOOLS AND SUPPLIES

- Rechargeable drill with Phillips driver
- Cold chisel and hammer
- Grinder
- Spray paint matching the vehicle color
- Drill and drill bits
- Wrenches, sockets, and hex keys (non-metric)
- Snap-ring pliers

2.2 VAN PREPARATION

2.2.1. Remove the wheel-housing-to-rear post using a cold chisel and hammer. Grind the sharp edges down.

2.2.2. Paint the revised strut area to match the van paint. Aerosol spray is best for this application.

2.3 UNIT INSTALLATION

2.3.1. Using the supplied hardware, install the side bumpers (Item #44, Page 6) to the van 24" above the floor, with 3" extended. Leave them loose to be adjusted later.

2.3.2. Set the main side frames (Items #74 and 75) into the van. The front legs (Item #73) have been pre-installed in the correct position. Also set the front torsion bar (Item #61) into the van.

2.3.3. Insert the four plastic flanged bearings (Item #50) into the torsion bar pivots to allow for assembly to side frames. Select the front pivot pins (Item #63) and mark the ends to indicate the orientation of the set-screw area. Insert the right side pivot pin through the torsion bar and front hole of the right side frame and install a snap ring (Item #48) on each end. Orient the flat spot of the pin toward the set-screw and lock in place with the set-screw and jam nut (Items #20 and 25). Repeat for left side.

2.3.4. Connect the actuator to the front torsion bar using the provided pivot pin (Item #62) and two snap rings (Item #47).

2.3.5. Connect the right and left tie rods (Item #78) to the front torsion bar using a 1/2x1-1/2 bolt, 1/2" flat washer, plastic washer, and 1/2" top lock nut (Items #16, 38, 54, and 28 respectively). The actuator may need to be run out slightly to help line up the holes.

2.3.6. Insert two plastic flanged bearings (Item #50) and two 7/8" long plastic bearings (Item #57) into the pivots of the front torsion bar arms to prepare for assembly of top table.

2.3.7. Insert two plastic flanged bearings (Item #50) and two 1-1/8" long plastic bearings (Item #51) into the pivots of the left and right hand leveling arms (Items #76 and 77).

2.3.8. Install the top table (Item #72) to the framework. Begin by connecting the front using a pin, a snap ring, and a thin plastic washer (Items #69, 48, and 39) on each side. Be sure the flat spot on the pin is oriented upward and lock each pin in place with the 3/8x1/2" set-screws. Then lock the first set-screw in place with a second set-screw. Repeat entire process for the rear mounts of the table using a longer pin, a snap ring, and a thin plastic washer (Items #68, 48, and 39). NOTE: If spacing between the front and rear pins does not match

the hole spacing on the top table, adjust by loosening the jam nuts (Items #26 and 27) on the tie rods and turning the tie rod to lengthen or shorten it the necessary amount. Re-tighten the jam nuts when adjustment is complete.

2.3.9. After verifying that the top table will cycle up and down, raise the table up to allow for installation of the bottom table. Set the bottom table in place and loosely fasten to the frame in four places using a 3/8x1" bolt and serrated flange nut (Items #15 and 32). There should be approximately 7/8" of clearance between the fronts of the top and bottom decks when the top deck is in the "down" position. DO NOT TIGHTEN at this time to allow for adjustment.

2.3.10. Install the ramp stop brackets (Items #3 and 70) to the bottom table using two 5/16x3/4" bolts and nylock nuts per side (Items #13 and 30). The male ramp holders have been pre-assembled to the brackets.

2.3.11. Install the ramps (Items #4 and 5) to the bottom deck using two hinge arm bolts and 3/8" nylock nuts (Items #55 and 31) per ramp. The ramp stop brackets and female ramp holders have been pre-assembled to the ramps.

2.3.12. Verify the fit and function of the ramp and decks with the van, paying special attention to potential interference with the bumper, the rear doors (when closed), or the rear van posts. The bottom table and/or the entire unit may need to be shifted slightly to optimize the fit.

2.3.13. Once everything is in its final position, tighten the fasteners connecting the bottom table to the frame.

2.3.14. The entire unit is fastened to the floor of the van at each of the four "feet." Use the front of two holes on the rear "feet." VERIFY CLEARANCE UNDER THE VAN BEFORE DRILLING. Pre-drill through the floor with a 1/2" drill bit and fasten the unit using the provided 1/2x1-3/4" bolts, large floor support washers, and serrated flange nuts (Items #17, 56, and 33).

2.3.15. Tighten the side bumpers installed in 2.3.1 to limit side-to-side movement of unit.

2.3.16. Install the electrical control box (Item #7) in the left rear corner of the van. Be mindful of pinch points when locating it. Refer to Pages 4 and 5 for details.

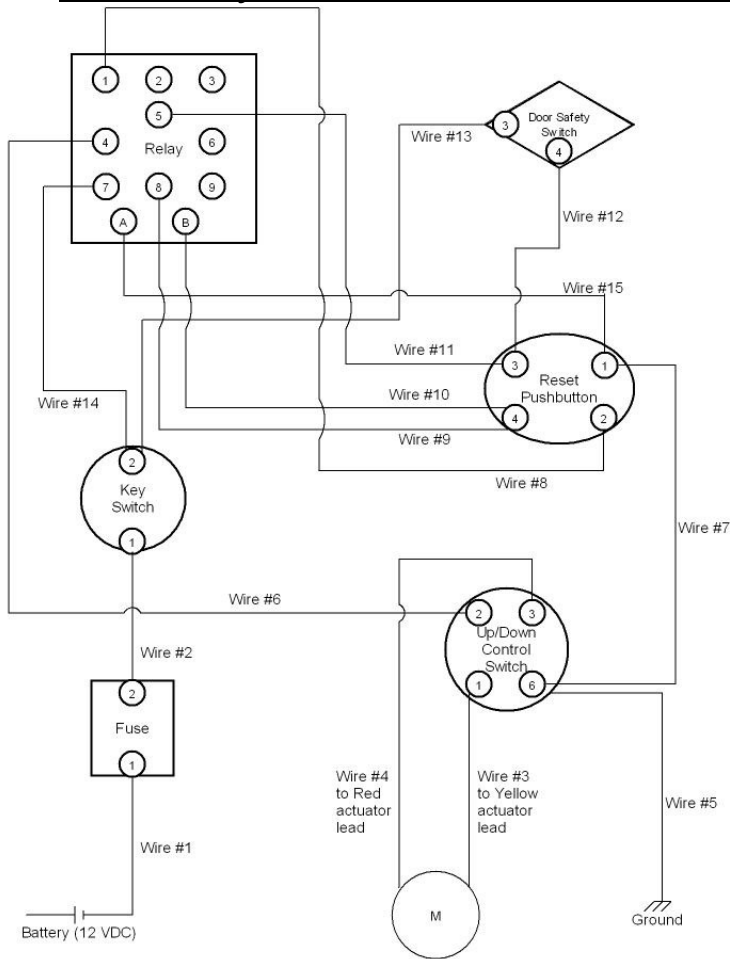
2.3.17. Using the provided bracket, install the limit switch near the upper, rear corner of the side door opening. Position and adjust the switch so that the switch is actuated when the door is closed.

2.3.18. Route the wires from the control box and connect them as shown in the electrical schematic on Page 4. Use the provided in-line fuse holder with 30 amp fuse near the vehicle battery.

2.3.19. Apply load capacity decals to the unit in areas easily visible from the operating position.

2.3.20. After completing the system installation, conduct a thorough examination of the system including a functional test of cycling the deck up and down to ensure the system is properly installed. Record and file evidence of this examination and functional testing.

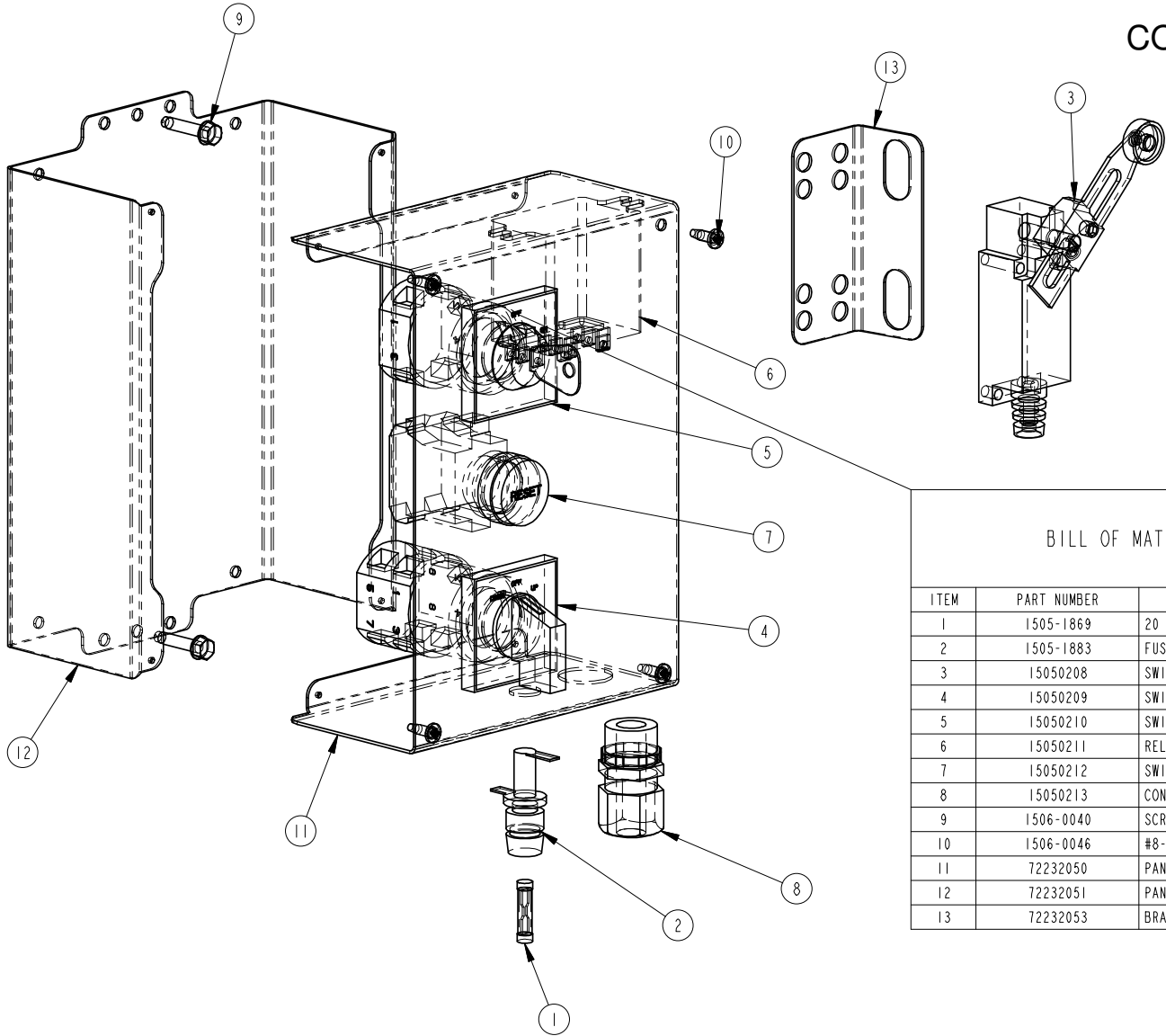
Control System Electrical Schematic



For vans with dual side doors, wire additional safety switches in series with first safety switch.

WIRE#:	GAUGE:	COLOR:	LENGTH:	CONNECTOR:	CONNECTS TO:
1	10	RED	274"	12-10 FEMALE PUSH-ON, FULL INSUL. NONE (STRIPPED)	FUSE, TERM. 1 OUT OF BOX TO 12 VDC (VEHICLE BATTERY)
2	12	RED	9"	12-10 FEMALE PUSH-ON, FULL INSUL. NONE (STRIPPED)	FUSE, TERM. 2 KEY SWITCH, TERM. 1
3	12	YELLOW	126"	NONE (STRIPPED) NONE (STRIPPED)	UP/DOWN CONTROL SWITCH, TERM. 1 OUT OF BOX TO YELLOW ACTUATOR LEAD
4	12	RED	126"	NONE (STRIPPED) NONE (STRIPPED)	UP/DOWN CONTROL SWITCH, TERM. 3 OUT OF BOX TO RED ACTUATOR LEAD
5	12	BLACK	36"	NONE (STRIPPED) NONE (STRIPPED)	UP/DOWN CONTROL SWITCH, TERM. 6 OUT OF BOX TO GROUND
6	12	RED	7"	NONE (STRIPPED)	UP/DOWN CONTROL SWITCH, TERM. 2
7	12	BLACK	5.5"	12-10 FEMALE PUSH-ON, FULL INSUL. NONE (STRIPPED)	RELAY, TERM. 4 UP/DOWN CONTROL SWITCH, TERM. 6
8	14	BLUE	7"	22-18 FEMALE PUSH-ON, FULL INSUL. NONE (STRIPPED)	RELAY, TERM. 1 RESET PUSHBUTTON, TERM. 1
9	14	RED	8"	22-18 FEMALE PUSH-ON, FULL INSUL. NONE (STRIPPED)	RELAY, TERM. B RESET PUSHBUTTON, TERM. 4
10	14	RED	8"	22-18 FEMALE PUSH-ON, FULL INSUL. NONE (STRIPPED)	RELAY, TERM. 8 RESET PUSHBUTTON, TERM. 4
11	14	BLUE	6.5"	22-18 FEMALE PUSH-ON, FULL INSUL. NONE (STRIPPED)	RELAY, TERM. 5 RESET PUSHBUTTON, TERM. 3
12	14	BROWN	150"	NONE (STRIPPED) NONE (STRIPPED)	OUT OF BOX TODOOR SAFETY SWITCH, TERM. 4 RESET PUSHBUTTON, TERM. 3
13	14	BLUE	150"	NONE (STRIPPED) NONE (STRIPPED)	OUT OF BOX TO DOOR SAFETY SWITCH, TERM. 3 KEY SWITCH, TERM. 2
14	12	RED	7"	NONE (STRIPPED) 12-10 FEMALE PUSH-ON, FULL INSUL.	KEY SWITCH, TERM. 2 RELAY, TERM. 7
15	14	BROWN	6"	NONE (STRIPPED) 22-18 FEMALE PUSH-ON, FULL INSUL.	RESET PUSHBUTTON, TERM. 1 RELAY, TERM. A

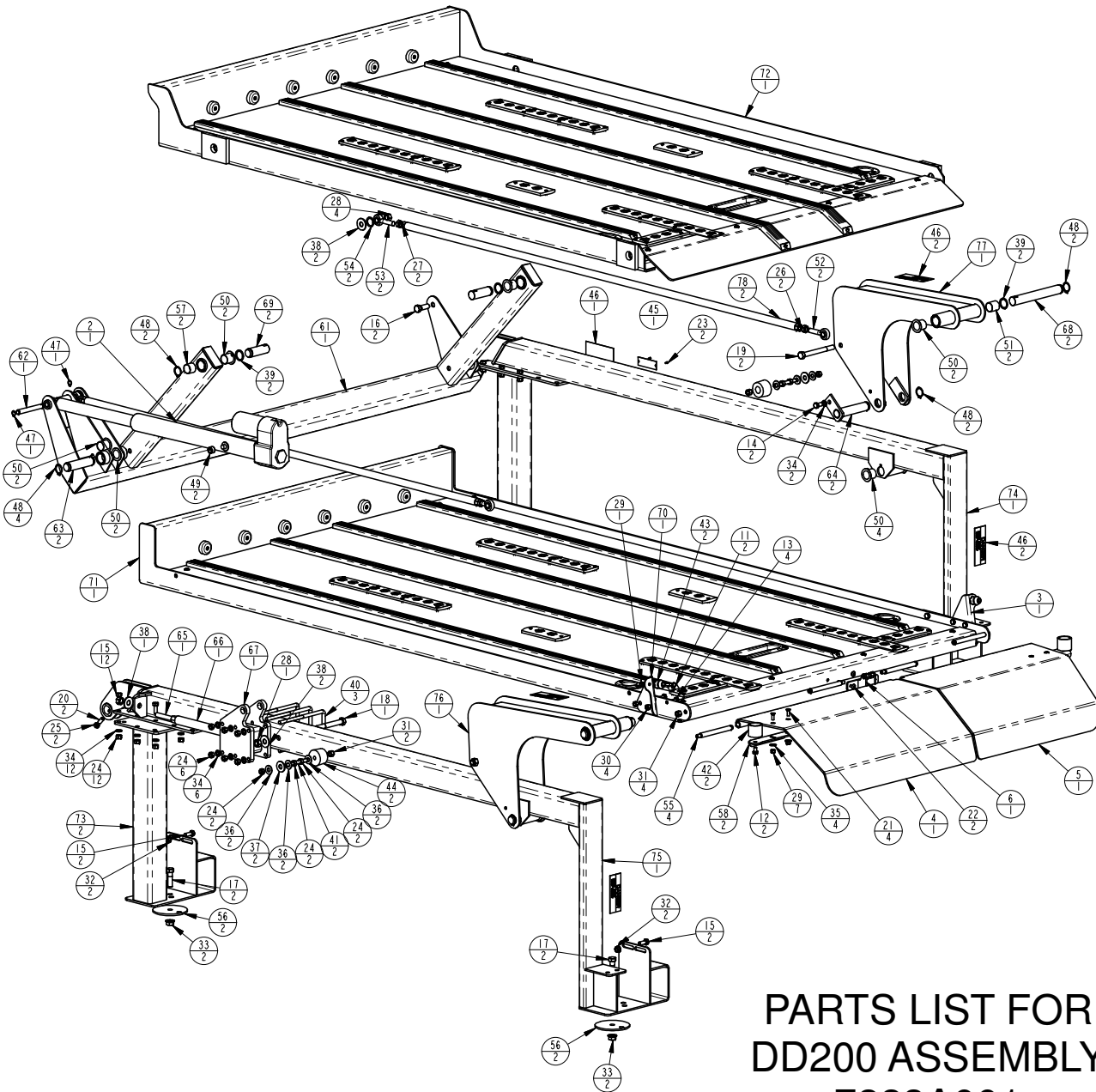
PARTS LIST FOR
CONTROL BOX ASSEMBLY
72232117



BILL OF MATERIALS FOR ASSEMBLY:

ITEM	PART NUMBER	DESCRIPTION	QTY
1	1505-1869	20 AMP FUSE	1
2	1505-1883	FUSE HOLDER, PANEL STYLE	1
3	15050208	SWITCH-LIMIT	1
4	15050209	SWITCH-REVERSING, MOTOR	1
5	15050210	SWITCH-KEY	1
6	15050211	RELAY	1
7	15050212	SWITCH-PUSHBUTTON	1
8	15050213	CONNECTOR-CORD	1
9	1506-0040	SCREW-#10 X 1, SELF DRILLING HEX HD	2
10	1506-0046	#8-18 X 1/2 CR PAN HEAD SCREW (SELF DRILL)	4
11	72232050	PANEL-FRONT, CONTROL BOX	1
12	72232051	PANEL-REAR, CONTROL BOX	1
13	72232053	BRACKET-MOUNT, SWITCH	1

72232117

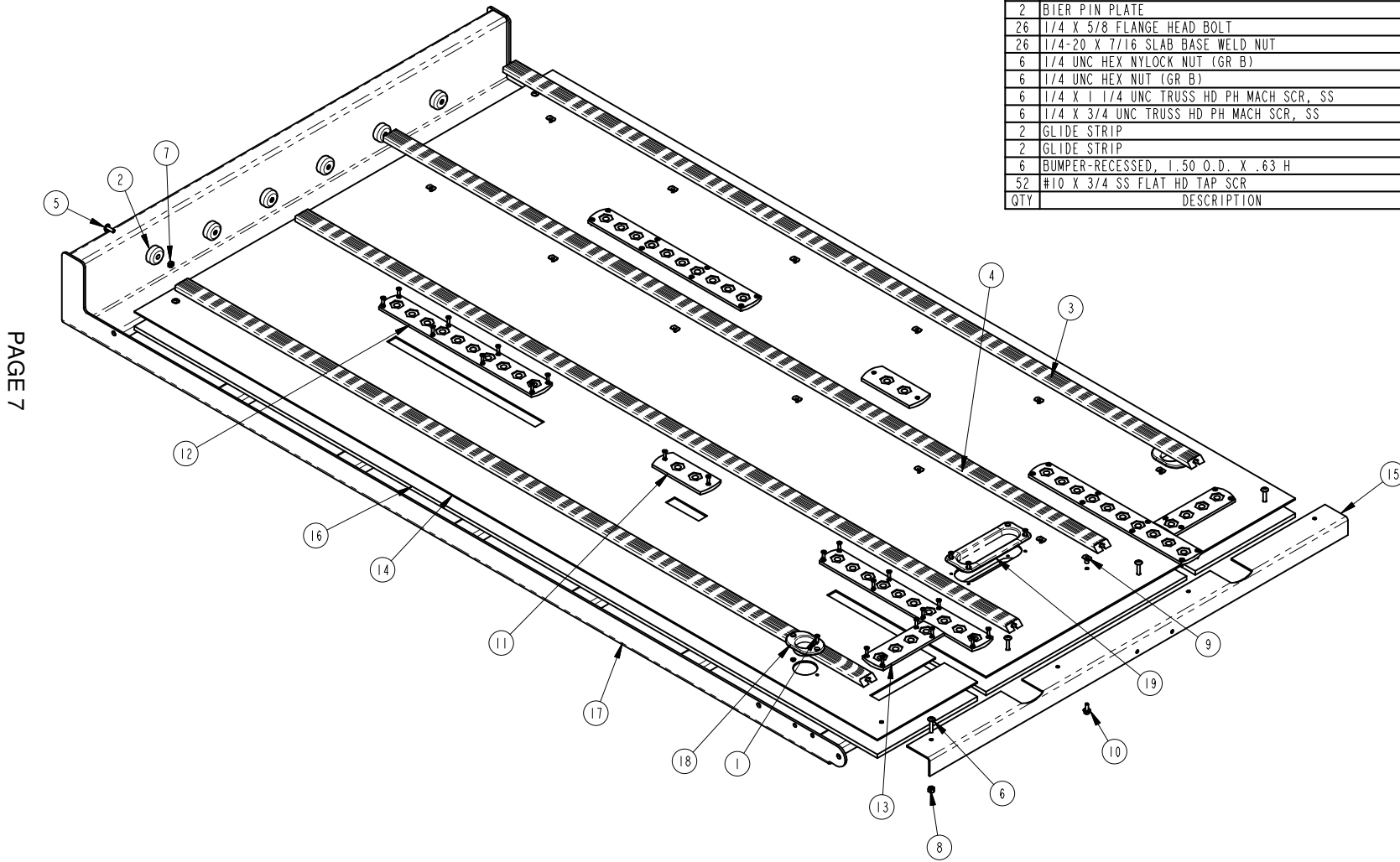


PARTS LIST FOR DD200 ASSEMBLY 7223A001

2	TIE ROD WELDMENT	7223-1011	78
1	RIGHT HAND LEVELING ARM	7223-1010	77
1	LEFT HAND LEVELING ARM	7223-1009	76
1	RIGHT HAND WELDMENT	7223-1008	75
1	RIGHT HAND FRAME WELDMENT	7223-1007	74
2	FRONT LEG WELDMENT	7223-1006	73
1	UPPER TABLE	7223-1002	72
1	LOWER TABLE	7223-1001	71
1	BRACKET-RAMP, STOP	7223-0031	70
2	#44 PIN, 3.06 X 1 STRESSPROOF	7221-9006	69
2	#39 PIN, 8.25 X 1 STRESSPROOF	7221-9005	68
1	ACTUATOR MOUNT PLATE	7221-8501	67
1	CRANK DOWN WELDMENT	7221-8500	66
1	READY ROD WELDMENT	7221-8100	65
2	LEVELING ARM PIVOT PIN WELDMENT	7221-6300	64
2	PIVOT PIN	7221-5012	63
1	ACTUATOR ROD END PIVOT PIN	7221-5011	62
1	TORSION BAR WELDMENT	7221-5000	61
1	EMERGENCY LET DOWN KIT	7221-0300	60
1	ELECTRICAL SYSTEM ASSEMBLY ITEMS	7221-0200	59
2	BRACKET-STOP, RAMP	7000-0038	58
2	BEARING (7/8 THOMPSON TYPE 4)	7000-0032	57
4	WASHER-FLOOR SUPPORT	7000-0031	56
4	BOLT-HINGE ARM	2990-0033	55
2	WASHER - NYLON, 7/8 ID X 1 1/8 OD X 1/8	1508-0111	54
2	ROD END-SPHERICAL, RIGHT HAND	1504-0101	53
2	ROD END-SPHERICAL, LEFT HAND	1504-0100	52
2	BEARING (THOMSON TYPE 4)	1504-0093	51
12	FLANGED BEARING (THOMSON TYPE 6)	1504-0092	50
2	TENSION BUSHING	1504-0091	49
10	TRUARC SNAP RING(1 EXTERNAL)	1503-3207	48
2	TRUARC SNAP RING (1/2 EXTERNAL)	1503-1607	47
5	DECAL-PINCH POINT	1500-1311	46
1	TAG-SERIAL, CABMATE	1500-1305	45
2	RUBBER BUMPER	1500-0071	44
2	RAMP HOLDER, MALE END	1500-0044	43
2	RAMP HOLDER, FEMALE END	1500-0003	42
2	3/8 THREADED ROD	1496-1228	41
3	3/8 X 3 X 7 U-BOLT (SQUARE)	1495-0002	40
4	NYLON WASHER, 1 I.D. X 1 1/4 O.D. X 1/16	1491-3202	39
5	1/2 TYPE A PLAIN WASHER	1487-1600	38
2	7/16 TYPE A PLAIN WASHER	1487-1400	37
6	3/8 TYPE A PLAIN WASHER	1487-1200	36
4	1/4 TYPE A PLAIN WASHER	1487-0800	35
20	3/8 LOCK WASHER	1485-1200	34
4	1/2 UNC SERRATED FLANGE NUT	1480-1600	33
4	3/8 UNC SERRATED FLANGE NUT	1480-1200	32
6	3/8 UNC HEX NYLOCK NUT (GR B)	1478-1200	31
4	5/16 UNC HEX NYLOCK NUT (GR B)	1478-1000	30
8	1/4 UNC HEX NYLOCK NUT (GR B)	1478-0800	29
5	1/2 UNC HEX TOP LOCK NUT (GR C)	1476-1601	28
2	1/2 UNF HEX JAM NUT LH THREADS	1475-1601	27
2	1/2 UNF HEX JAM NUT	1475-1600	26
2	3/8 UNC HEX JAM NUT	1474-1200	25
24	3/8 UNC HEX NUT (GR B)	1470-1200	24
2	#4 X 1/4 DRIVE SCREW	1455-0404	23
2	1/4 X 1 UNC TRUSS HD PH MACH SCR, SS	144C-0808	22
4	1/4 X 3/4 UNC PHIL HD CSK MACH SCR	1444-0806	21
2	3/8 X 7/8 UNC HEX SOCKET SET SCREW	1440-1207	20
2	1/2 X 5 UNC HEX CAP SCR (GR 5)	1401-1640	19
1	1/2 X 4 UNC HEX CAP SCR (GR 5)	1401-1632	18
4	1/2 X 1 3/4 UNC HEX CAP SCR (GR 5)	1401-1614	17
2	1/2 X 1 1/2 UNC HEX CAP SCR (GR 5)	1401-1612	16
16	3/8 X 1 UNC HEX CAP SCR (GR 5)	1401-1208	15
2	3/8 X 3/4 UNC HEX CAP SCR (GR 5)	1401-1206	14
4	5/16 X 3/4 UNC HEX CAP SCR (GR 5)	1401-1006	13
2	5/16 X 1/2 UNC HEX CAP SCR (GR 5)	1401-1004	12
2	1/4 X 1 1/4 UNC HEX CAP SCR (GR 5)	1401-0810	11
1	DECLARATION OF CONFORMITY, DD200-EX1	72232342	10
1	INSTRUCTIONS-INSTALLATION	72232341	9
1	INSTRUCTIONS-INSTALLATION	72232340	8
1	BOX-CONTROL, CE	72232117	7
1	BRACKET-RAMP MOUNT	72231014	6
1	RAMP WELDMENT	72231013	5
1	RAMP WELDMENT	72231012	4
1	BRACKET-RAMP, STOP	72230042	3
1	ACTUATOR	15040305	2
2	DECAL-LOAD CAPACITY 600 LBS.	15001338	1
QTY	DESCRIPTION	PART NUMBER	ITEM

PARTS LIST FOR LOWER DECK 72231001

1	SUPER SIZED RECESSED COT CUP	7800-0016	19
2	RECESSED COT CUP	7800-0011	18
1	LOWER DECK WELDMENT	7223-1003	17
1	LOWER DECK BOARD	7223-0010	16
1	REAR ANGLE GUARD	7223-0005	15
1	SHEET-ALUMINUM, LOWER DECK	7223-0004	14
2	BIER PIN PLATE (4 HOLE)	1507-0296	13
4	BIER PIN PLATE	1507-0292	12
2	BIER PIN PLATE	1507-0289	11
26	1/4 X 5/8 FLANGE HEAD BOLT	1506-0420	10
26	1/4-20 X 7/16 SLAB BASE WELD NUT	1484-0808	9
6	1/4 UNC HEX NYLOCK NUT (GR B)	1478-0800	8
6	1/4 UNC HEX NUT (GR B)	1470-0800	7
6	1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR, SS	144C-0810	6
6	1/4 X 3/4 UNC TRUSS HD PH MACH SCR, SS	144C-0806	5
2	GLIDE STRIP	72230037	4
2	GLIDE STRIP	72230036	3
6	BUMPER-RECESSED, 1.50 O.D. X .63 H	15070407	2
52	#10 X 3/4 SS FLAT HD TAP SCR	15060048	1
QTY	DESCRIPTION	PART NUMBER	ITEM



PARTS LIST FOR UPPER DECK 72231002

1	SUPER SIZED RECESSED COT CUP	7800-0016	22
2	RECESSED COT CUP	7800-0011	21
1	UPPER DECK WELDMENT	7223-1004	20
1	SHEET-ALUMINUM, UPPER DECK	7223-0014	19
1	UPPER DECK BOARD	7223-0011	18
2	BIER PIN PLATE (4 HOLE)	1507-0296	17
4	BIER PIN PLATE	1507-0292	16
2	BIER PIN PLATE	1507-0289	15
20	1/4 X 5/8 FLANGE HEAD BOLT	1506-0420	14
20	1/4-20 X 7/16 SLAB BASE WELD NUT	1484-0808	13
6	1/4 UNC HEX NYLOCK NUT (GR B)	1478-0800	12
6	1/4 UNC HEX NUT (GR B)	1470-0800	11
6	1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR, SS	144C-0810	10
6	1/4 X 3/4 UNC TRUSS HD PH MACH SCR, SS	144C-0806	9
2	1/4 X 1/2 UNC TRUSS HD PH MACH SCR, SS	144C-0804	8
8	3/8 X 1/2 UNC HEX SOCKET SET SCREW	1440-1204	7
1	REAR ANGLE GUARD	72230041	6
2	GLIDE STRIP	72230039	5
2	GLIDE STRIP	72230038	4
6	BUMPER-RECESSED, 1.50 O.D. X .63 H	15070407	3
2	1/4-20 X 1/4 SLAB BASE WELD NUT	15060054	2
52	#10 X 3/4 SS FLAT HD TAP SCR	15060048	1
QTY	DESCRIPTION	PART NUMBER	ITEM

