

PARTS MANUAL

RIDERS

B60ZAC (B230)

B80ZAC (B233)

CUSTOMER EDITION

HYSTER

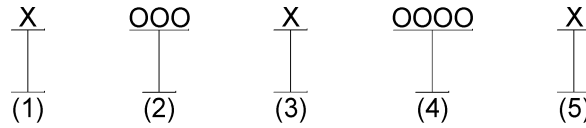
CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



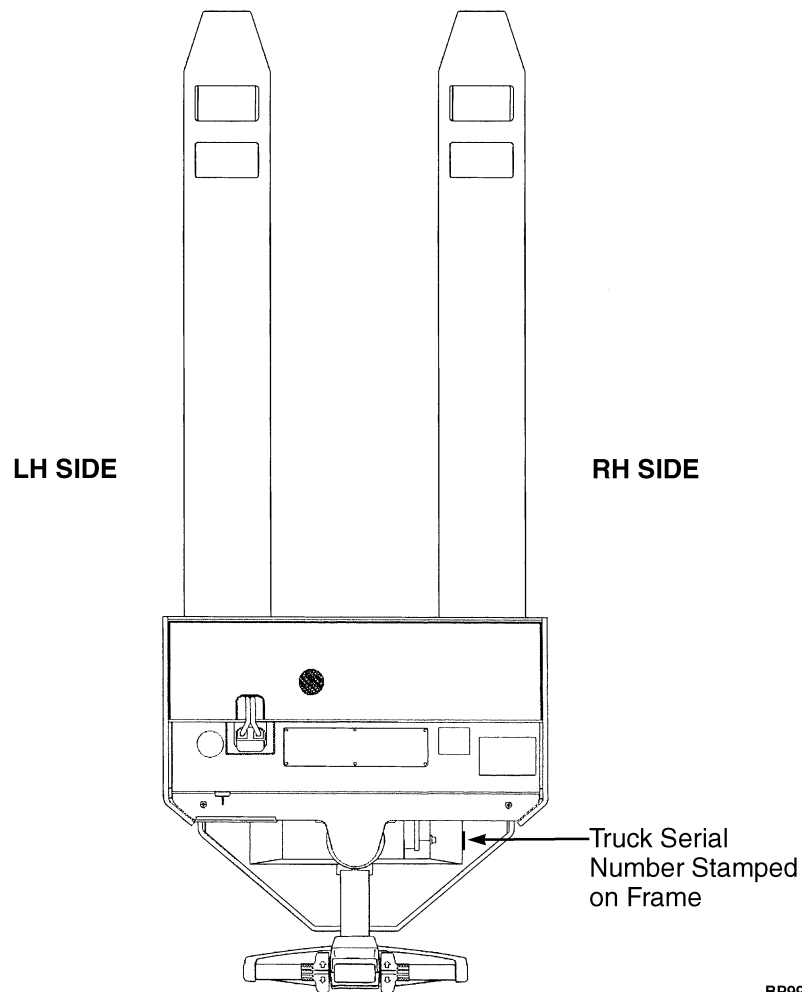
- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

IDENTIFICATION OF TRUCK SERIAL NUMBERS

- (1) and (2) The first letter and three numbers indicate the truck unit code.
 (3) The second letter indicates the plant of manufacture.
 (4) The four or five digit number indicates the production sequence number of the truck.
 (5) The final letter indicates the year of manufacture starting with "A" in 1957, 1980, and 2003.
 The letters "I", "O", and "Q" will not be used.

For pending serial numbers contact your local dealer for Hyster lift trucks.



BP990006

Parts referred to in this book as right or left hand parts are in accordance with the illustration above.

BATTERY DISCONNECT

ITEM	PART NO.	DESCRIPTION	QTY
1	2085488	Battery Connector (Red)	1
1	288835	Battery Connector (Red)	1
1	190809	Cable	AR
1	2303500	Terminal	2
1	2310341	Terminal	2
1	2085112	Battery Connector (Gray)	1
1	1195971	Battery Connector (Gray)	1
2	2033589	Battery Connector	1
3	220359	Screw	4
4	15154	Lockwasher	4
5	15054	Nut	2
6	264150	Nut	2

**DRIVE UNIT ASSEMBLY
B233**

ITEM	PART NO.	DESCRIPTION	QTY
1	296166	Capscrew	3
2	12929	Snap Ring	1
3	2084747	Magnetic Brake Assembly (With Diode) (☞Figure 3-17).....	1
4	2045960	Key (Woodruff)	1
5	2084746	Traction Motor	1
6	293689	Capscrew	4
7	2069768	Master Drive Unit (Manual Steering)	1
7	a 2088827	Master Drive Unit (Power Assist Steering)	1
8	2058399	Wheel and Tire (Poly)	1
8	2058400	Wheel and Tire (Siped Poly)	1
8	2088988	Wheel and Tire (Poly 80D)	1
9	2305649	Wheel	1
10	2046757	Cushion Tire (Poly)	1
10	2046891	Cushion Tire (Siped Poly)	1
10	2088989	Cushion Tire (Poly 80D)	1
11	2021593	Wheel Nut	5
12	15057	Nut	1
13	15129	Lockwasher	1
14	15157	Lockwasher	1
15	239906	Static Strap (10 in.)	1
16	18557	Capscrew	1
17	316828	Nut	4
18	296426	Washer	4
19	1581851	Washer	4
20	1581562	Lockwasher	4
21	292510	Capscrew	4
	a	Shield (Power Assist Steering) (☞Figure 1-17).....	1

FOOTNOTES:**a** Not Illustrated

**MASTER DRIVE UNIT
B233 – POWER ASSIST STEERING**

ITEM	PART NO.	DESCRIPTION	QTY
	2088827	Master Drive Unit	1
1	1534296	Bolt	8
2	1497285	Seal	1
3	1534392	Cover	1
4	1534393	Shim (0.004 in.)	5
4	1534394	Shim (0.012 in.)	5
4	1534395	Shim (0.020 in.)	5
5	1534301	Sealing Ring	1
6	1534396	Bearing	2
7	1641601	Housing	1
8	1534304	Bushing	4
9	1534305	Sealing Ring	1
10	1641603	Plug	1
11	1497282	Gasket	1
12	1534400	Support	1
13	1534191	Bushing	2
14	.....	Housing	1
15	1534312	Bolt (M10 x 30)	7
16	1566502	Bolt (M10 x 35)	8
17	.....	Cover	1
18	1479433	Plug	1
19	1479434	Gasket	1
20	1554110	Cover	1
21	1566504	Pin	1
22	1534319	Snap Ring	1
23	1534320	Bearing	2
24	1534321	Spacer	1
25	1534322	Snap Ring	1
26	1534332	Gear	1
27	1641530	Nut	1
28	1641531	Gear	1
29	1699235	Bearing	2
30	1641533	Shim (0.119 in.)	5
30	1641534	Shim (0.120 in.)	5
30	1641535	Shim (0.121 in.)	5
30	1641536	Shim (0.122 in.)	5
30	1641537	Shim (0.126 in.)	5
30	1641538	Shim (0.130 in.)	5
30	1641539	Shim (0.134 in.)	5
30	1641540	Shim (0.138 in.)	5
30	1641541	Shim (0.118 in.)	5
31	1641542	Spacer (1.406 in.)	1
31	1641543	Spacer (1.429 in.)	1
32	1641544	Shim (0.074 in.)	5
32	1641545	Shim (0.076 in.)	5
32	1641546	Shim (0.078 in.)	5
32	1641547	Shim (0.080 in.)	5
32	1641548	Shim (0.082 in.)	5
32	1641549	Shim (0.084 in.)	5
32	1641550	Shim (0.086 in.)	5

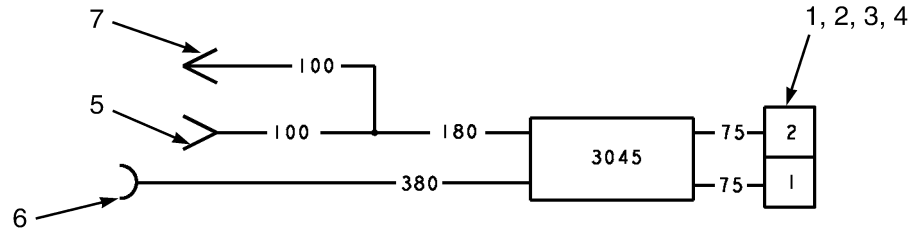
**EE CONTACTOR ASSEMBLY
B233**

ITEM	PART NO.	DESCRIPTION	QTY
1	292501	Capscrew	2
2	320156	Washer	2
3	296215	Capscrew	2
4	2094189	Plate	1
5	2079891	Contacto	1
6	1331362	Fuse (400 Amp)	1
7	2094188	Cover	1
8	227177	Screw	3
9	16378	Capscrew	2
10	15154	Lockwasher	2
11	15127	Washer	2
12	2094190	Buss Bar	1
13	2054558	Insulator	2
14	18865	Capscrew	2
15	2094089	Grommet	2
16	2094187	Enclosure	1
17	296359	Washer	2

**WIRE HARNESS
MAIN – ALTERNATE PART**

ITEM	PART NO.	DESCRIPTION	QTY
	4602037	Wire Harness (Main) (AC Main EPAS)	1
1	.....	Connector Assembly (AC Cont)	1
1	2056243	Connector (35 Way)	1
1	1561019	.....
	2035276	Connector (Socket Female)	23
2	275495	Conduit	AR
3	373301	Strap Clamp	AR
4	.....	Connector Assembly (Cont B-)	1
4	1493458	E-Ring	1
5	.....	Connector Assembly (Power Steer Calibration)	1
5	1306270	Terminal	1
6	.....	Connector Assembly (PC Serv Connection)	1
6	1566116	Connector	1
6	1532664	Connector (Secondary Lock)	1
6	1597773	Terminal	3
6	1566117	Dust Cap	1
7	.....	Connector Assembly (Main Contactor)	1
7	148606	E-Ring	1
8	.....	Connector Assembly (In-Line Fuse)	1
8	2033694	Fuse Holder (In-Line Holder)	1
8	1322393	Fuse (4 Amp)	1
9	.....	Connector Assembly (Main Contactor Coil)	1
9	1306270	Terminal	2
10	275498	Conduit	AR
11	.....	Connector Assembly (Electric Brake)	1
11	1561559	Connector (2 Pin)	1
11	1561755	Connector (Secondary Lock)	1
11	1463140	Terminal (Pin)	1
12	.....	Connector Assembly (Tiller Enable Switch)	1
12	1463180	Connector	1
12	1463191	Connector	1
12	1463140	Terminal (Pin)	2
13	.....	Connector Assembly (BDI Dash)	1
13	2058418	Connector	1
13	2309579	Socket	4
13	2048833	Connector Block	1
14	.....	Connector Assembly (Regen Switch)	1
14	1561559	Connector (2 Pin)	1
14	1561755	Connector (Secondary Lock)	1
14	1463140	Terminal (Pin)	1
15	.....	Connector Assembly (Prox Switch)	1
15	1547629	Connector (3 Way)	1
15	1597839	Receptacle Contact 20-22 AWG	3
15	2060555	Wire Seal	3
16	.....	Connector Assembly (Tiller Harness)	1
16	2309812	Plug	1
16	2302852	Pin	7
16	2048835	Connector Block	1
17	.....	Connector Assembly (Temperature Sensor)	1
17	1508206	Connector (2 Way)	1

**JUMPER HARNESS (FIGURE 2-14)
STROBE LIGHT**



ITEM	PART NO.	DESCRIPTION	QTY
	2094716	Wire Harness (Strobe Light Jumper)	1
1	2307413	Connector	1
2	381413	Contact	2
3	2047819	Seal	1
4	2047820	Wire Seal	1
5	4564049	Connector (Socket Female)	1
6	1462762	E-Ring	1
7	1306271	Terminal	1

**TILLER SWIVEL ASSEMBLY
MANUAL STEERING (→ 5/2011)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1378550	Capscrew	3
2	2089200	Mount	1
3	1450356	Plug	2
4	2303042	Locknut	1
5	2307654	Lockwasher	1
6	2057091	Swivel	1
6	2070448	Bushing	2
6	2110926	Swivel (Alternate Part)	1
7	2007882	Grease Fitting	1
8	2046785	Spacer	2
9	326307	Bearing Cone	2
10	326306	Bearing Cup	2
11	2089114	Center Support	1
12	292529	Capscrew	4
13	320162	Washer	8
14	2088646	Dash Panel	1
15	292683	Lockwasher	4
16	1318914 216877	Nut	4
17	2045230	Plate (B233)	1
17	2040844	Plate (B230)	1
18	320157	Washer	2
19	136985	Capscrew	2
20	2046784	Shaft (Stand Off)	1
20	2103916	Shaft (Steer) `	1
20	2040846	Plate	1
21	2042863	Key	1
22	2307321	Sleeve	2
23	136692	Nut	2
24	15155	Lockwasher	2
25	293632	Capscrew (B233)	1
25	296032	Capscrew (B230)	2
26	388049 292682	Lockwasher	4
27	320159	Washer	4
28	136692	Nut	2
29	296503	Screw	2
30	292678	Lockwasher	2
31	320154	Washer	2
	a 2054784	Bulk Sleeving	1

FOOTNOTES:**a** Not Illustrated

TILLER HANDLE ARM ASSEMBLY
POWER ASSIST STEERING (S/N B230N02970G →) (S/N B233N02365G →)

ITEM	PART NO.	DESCRIPTION	QTY
1	4602278	Swivel (☞ Figure 3-5).....	1
2	302148	Screw	2
3	1560678	Nut	1
4	293795	Capscrew	1
5	2007882	Grease Fitting	2
6	2090671	Bushing	1
7	2059695	Pin	1
8	.....	Tiller Handle Arm (☞ Figure 3-9, ☞ Figure 3-10).....	1
9	b 1709806	Capscrew	2
10	b 1709807	Locknut	2
11	1450356	Plug	2
12	329069	Nut	1
13	2098629 4009088	Gas Spring	1
13	4602216	Cylinder Assy	1
14	2039858	Ball Stud	1
15	2791987	Bushing	1
16	2062561	Pin	1
17	302377	Dowel	1
18	2060281	Screw	2
19	2311041	Spacer	1
20	4601876	Microswitch	1
21	4600213	Switch	1
	a 4009809	Strap Clamp (Button Head)	1

FOOTNOTES:

a Not Illustrated

b With Composite Head

TILLER HANDLE AND HEAD ASSEMBLY
RUGGEDIZED METAL (→ 5/2011)

ITEM	PART NO.	DESCRIPTION	QTY
	b 1701377	Tiller Handle and Head Assy (B230, B233)	1
	c 1701381	Tiller Handle and Head Assy (B230, B233)	1
	1701384	Tiller Handle and Head Assy (Std. without Coast Control) (B230, B233)	1
1	.....	Tiller Head Assembly	1
	2108911	Kit-Control Handle	1
2	2108909	Control Handle Top Cover	1
3	2308321	Support (Switch)	1
4	2304431	Base (Control Handle)	1
5	2304621	Plate	1
6	2307701	Actuator (Lower)	1
7	2307174	Actuator (Lift)	1
8	2305843	Actuator (Horn)	1
9	2054573	Switch	4
10	2307134	Spring	6
11	138573	Washer	4
12	2303979	Screw	2
13	2303904	Screw	2
14	2310216	Actuator	1
15	2303776	Spring	2
16	2309504	Stop	1
17	bc 16720	Screw	4
18	bc 2307134	Spring	2
19	302045	Screw	2
20	296359	Washer	8
21	2309094	Screw	2
22	2308201	Shaft	1
23	2309131	Sleeve	1
24	2110778	Tiller Handle (Casting)	1
25	b 2111285	Push Button Switch Assembly	2
25	ac 1701471	Plug	2
26	2110838	Switch Assembly	1
27	2110569	Sensor	1
28	302042	Screw	2
29	1565407	Nut	2
29	ac 296358	Washer	2
30	2110397	Tube (Spacer)	2
31	1660750	Insert	6
32	2311213	Plate	1
33	2110570	Bracket	1
34	2110568	Link	1
35	1451166	Cotter Pin	2
36	2053093	Knob (Rotary Control)	2
37	2110771	Handle Grip	2
38	2302299	Bar	4
39	2310085	Screw	2
40	15920	Lockwasher	2
41	296360	Washer	2
42	302062	Screw	2
43	239503	Nut	2
44	15134	Washer	2

**SECTION 4
LIFT LINKAGE AND FORKS**

DESCRIPTION	PAGE
CASTER ASSEMBLY	4-2
HEAVY DUTY	4-4
HEAVY DUTY - SEALED BEARINGS	4-6
DOUBLE PALLET FORK OPTION	
B233	4-15
CORROSION/FOOD PROCESSING - B233	4-16
LIFT LINKAGE	4-8
CORROSION/FOOD PROCESSING	4-12
LOAD WHEEL	
DUAL OPTION	4-19
SINGLE LOAD WHEEL	
FOUR BEARING	4-18
TWO BEARING	4-17

5

HYDRAULIC SYSTEM

**HYDRAULIC POWER UNIT
B233**

ITEM	PART NO.	DESCRIPTION	QTY
	2071868	Pump and Motor	1
1	1584211	Motor	1
2	.....	Nut	1
3	1512373	Flange	1
4	1512372	Kit-Brush	1
5	1584218	Tank	1
5	.....	Filler Neck	1
6	.....	O-Ring	1
7	388712	Breather (Filter Plug)	1
8	1584233	Clamp	1
9	1584212	Pump (Support Flange)	1
9	1584485	Power Pack (Without Motor) (Pump)	1
	a 1584486	Kit-Seal	1
10	1529856	Check Valve (Cartridge)	1
	a 1512370	Kit-Seal	1
11	1584220	Relief Valve	1
12	1584219	Block	1
12	1673570	O-Ring	2
13	1584235	Solenoid Valve (Poppet)	1
13	1474799	Coil	1
13	1506132		
	1584237	Hydraulic Control Valve	1
	a 1506133	Kit-Seal	1
14	1584234	Tube	1
15	1474797	Strainer	1
	a 1584489	Disk (Flow Restrictor 0 = 1.5)	1

FOOTNOTES:**a** Not Illustrated

LOAD BACKREST**KEY:****A: 48 Inch x 23 Inch Battery****B: 60 Inch x 23 Inch Battery****C: 48 Inch x 31" Battery****D: 60" x 31" Battery**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	2041757	Load Backrest	1	..	..	..
1	2042713	Load Backrest .....	..	1	..	..
2	2043300	Load Backrest .....	..	..	1	..
2	2043302	Load Backrest .....	..	..	..	1
2	2079786	Load Backrest (Food Processing) .....	..	..	1	..
2	2079787	Load Backrest (Food Processing) .....	..	..	..	1
3	2091326	Spacer	2	2	2	2
4	16692	Capscrew	2	2	2	2
5	2045665	Plate	2	2	2	2
5	2079826	Plate (Galvanized) .....	..	..	2	2
6	2041679	Latch (23 in.)	1	1	..	..
6	2043303	Latch (31 in.) .....	..	..	1	1
6	2079825	Latch (31 in.) (Food Processing) .....	..	..	1	1
7	2041735	Handle	2	2	2	2
8	302262	Capscrew	4	4	4	4
9	313805	Nut	4	4	4	4

CONVENIENCE TRAY**KEY:****A: Kit Number 1649269 for Bolt-On LBR****B: Kit Number 1500896 without LBR****C: Kit Number 1500897 with LBR**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	296173	Capscrew	4	..	..
2	292655	Nut	8	..	4
3	320160	Washer	8	..	4
4	2098822	Spacer	1	..	..
5	296176	Capscrew	4	..	4
6	2100146	Bracket (Left)	1	..	1
7	388049 292682	Lockwasher .....	..	..	4
8	2101744	Bracket	1	..	..
9	2043148	Tray	1	1	1
10	2044923	Strap (Convenience Tray)	1	1	1
11	2100147	Bracket (Right)	1	..	1

ADVANCED COAST CONTROL VALVE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	ab 2094853	Control Valve, Coast	1
	cd 4602236	Control , Coast (Valve)	1
	4603763	Control , Coast (Valve) (Alternate Part)	1
1	ab 4601141	Pressure Switch	1
1	cd 4008598	Pressure Switch	1
1	4604252	Pressure Switch (Alternate Part)	1
2	4601119	Check Valve	1
2	4604251	Kit-Seal	1
3	222442	Fitting	2
3	204128	Plug	1
3	16481	O-Ring	1
4	ab 4601148	Plug	1
4	cd 4008600	Plug	1
4	16484	O-Ring (Not Shown)	1
5	ab 1322441	Coil	1
5	cd 4008597	Coil	1
5	4601118	Solenoid Valve	1
5	4604250	Kit-Seal	1
6	4601138	Cylinder	1
6	4601137	O-Ring (Not Shown)	1
6	4601139	Capscrew (Cylinder Mounting) (Not Shown)	2
6	4601140	Washer (Cylinder Mounting) (Not Shown)	2
7	ab 4601147	Tube	1
7	cd 4008599	Tube	1
8	4601143	Fitting	2
9	2109983	Pin and Clip Assembly	1

FOOTNOTES:

a → S/N B230N03045G
b → S/N B233N02332G

c S/N B230N03046G →
d S/N B233N02333G →

**SECTION 7
FIELD CONVERSION KITS**

DESCRIPTION	PAGE
EPAS KITS	7-2

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
2039299	4-18	1	2041397	4-9	9		6-23	10	2045914	4-5	11
2039300	4-19	1		6-31		2044135	4-15			4-5	19
2039315	4-9	13		6-33		2044152	5-5	4		4-7	11
	4-13	13	2041404	4-9	30	2044379	5-10	4		4-7	20
2039316	1-15	17	2041405	4-9	30	2044407	6-29	8	2045917	4-5	14
2039377	4-3	33	2041406	4-9	30	2044484	1-3	10		4-7	15
	4-5	24	2041407	4-9	30	2044715	6-18		2045919	4-5	15
2039579	2-24	1	2041408	6-31	1	2044874	4-9	30	2045920	4-5	18
	2-24	2	2041409	6-31	1	2044875	4-9	30		4-7	19
	2-24	3	2041410	6-31	1	2044876	4-9	30	2045923	4-5	21
	2-24	4	2041411	6-31	1	2044877	4-9	30	2045925	4-5	17
	2-24	6	2041412	6-31	1	2044878	4-9	30	2045959	1-15	4
2039856	4-9	9	2041413	6-31	1	2044879	6-33	1	2045960	1-17	4
	6-31		2041414	6-31	1	2044880	6-33	1	2045964	4-3	2
	6-33		2041415	6-31	1	2044881	4-9	30	2045969	4-3	5
2039858	3-3	28	2041416	6-31	1		6-33	1	2045970	4-3	6
	3-15	19	2041417	6-31	1	2044882	6-33	1	2045971	4-3	8
	3-17	14	2041418	6-31	1	2044883	6-33	1	2045972	4-3	9
2039868	4-17	5	2041419	6-31	1	2044884	6-33	1	2045973	4-3	10
	4-18	8	2041635	1-3	4	2044885	6-33	1	2045975	4-3	11
2039895	3-3	3	2041679	6-7	6	2044886	6-33	1	2045976	4-3	12
	3-9	33	2041735	6-7	7	2044887	6-33	1		4-3	27
2039903	4-10	34	2041739	4-9	33	2044888	6-33	1	2045977	4-3	13
2039905	4-9	22		4-13	33	2044889	6-33	1	2045978	4-3	14
	4-13	22	2041744	2-27	3	2044890	6-33	1	2045979	4-3	15
2040196	4-9	1		2-27	4	2044891	6-33	1	2045982	4-3	16
	4-13	1	2041757	6-7	1	2044892	6-33	1	2045983	4-3	17
2040200	4-9	27	2041842	6-18	3	2044893	6-33	1	2045984	4-3	18
	4-13	27		6-21	3	2044923	6-17	10	2045985	4-3	19
2040201	4-10	39	2042262	4-17	3	2045011	4-15		2045986	4-3	20
	4-14	39		4-18	5	2045012	4-15		2045987	4-3	7
	5-10	1		4-19	4	2045013	4-15		2045989	4-3	23
2040461	6-29	8	2042675	2-3	3	2045014	4-15		2045990	4-3	24
2040462	6-29	1	2042713	6-7	1	2045015	4-15		2045991	4-3	28
2040464	6-29	6	2042726	6-18	7	2045016	4-15		2045992	4-3	29
2040499	1-15	7	2042863	3-7	21	2045017	4-15		2045993	4-3	30
2040664	1-5	5		3-9	17	2045018	4-15		2046453	3-19	13
2040753	1-15	7	2042864	4-9	23	2045019	4-15			6-18	
2040844	3-7	17		4-13	23	2045020	4-15			6-24	
	3-9	21	2042873	3-41	3	2045021	4-15		2046757	1-17	10
2040846	3-7	20	2043148	6-17	9	2045022	4-15		2046761	4-3	21
	3-9	18	2043197	6-18	8	2045188	1-15	6	2046762	4-3	25
2041014	6-21	5		6-21	15		1-21		2046784	3-7	20
2041394	4-9	9	2043200	6-18	9	2045230	3-7	17		3-9	18
	6-31		2043300	6-7	2		3-9	21	2046785	3-7	8
	6-33		2043302	6-7	2	2045519	4-9	31		3-9	8
2041395	4-9	9	2043303	6-7	6		4-13	31	2046889	4-3	4
	6-31		2043556	6-23		2045665	6-7	5	2046891	1-17	10
	6-33		2043557	3-19	23	2045913	4-5	10	2047714	4-5	13
2041396	4-9	9	2043856	3-3	23		4-5	20	2047715	4-5	16
	6-31			3-19	29		4-7	10	2047727	6-23	1
	6-33		2043858	3-9	2		4-7	21	2047819	2-29	3

SECTIONS

1	FRAME/DRIVE UNIT
2	ELECTRICAL SYSTEM
3	STEER HANDLE/BRAKE SYSTEM
4	LIFT LINKAGE AND FORKS
5	HYDRAULIC SYSTEM
6	OPTIONS
7	FIELD CONVERSION KITS
8	NUMERICAL INDEX

This Parts Manual is divided into 8 major sections which are listed above. Quick reference to these sections can be made by placing the right thumb on the tab of the desired section, bending the book back and thumbing the pages to the corresponding tab.

1

FRAME/DRIVE UNIT

BATTERY SPACER

ITEM	PART NO.	DESCRIPTION	QTY
1	2056430	Spacer	1
1	a 2080789	Spacer (Galvanized)	1
2	231417	Capscrew	2

FOOTNOTES:

- a** Used only on B233

POWER STEER MOTOR AND GEARS OPTION

ITEM	PART NO.	DESCRIPTION	QTY
1	2085420	Shaft (B230)	1
1	2085484	Shaft (B233)	1
2	142117	Ball Bearing	1
3	1609611	Key (B230)	1
3	2797985	Key (B233)	1
4	1578655	Gear (B230)	1
4	2090392	Gear (B233)	1
5	2085486	Washer	1
6	292501	Capscrew	1
7	287816	Capscrew	1
8	2085486	Washer	1
9	2090591	Pinion Gear	1
10	1609611	Key	1
11	296168	Capscrew	4
12	296380	Washer	4
13	2085487	Plate (B230)	1
13	2085483	Plate (Bearing) (B233)	1
14	2085798	Steering Motor (Steer motor has 2 six pin amp supperseal connectors)	1
14	4617470	Steering Motor (Alternate Part) (Steer motor has 1 twelve pin Deutsch connector)	1
14	1618331	Gearbox	1
14	1628672	Motor	1
14	4046576	Motor (Alternate Part)	1
15	320156	Washer	1
16	292680	Washer	1
17	12929	Snap Ring (B230 only)	1
18	b 2794234	Switch	1
19	2072196	Master Drive Unit (B230)	1
19	2088827	Master Drive Unit (B233)	1
	a 373301	Strap Clamp	1
	a	Shield (Power Assist Steering) (☞Figure 1-17).....	1

FOOTNOTES:**a** Not Illustrated**b** 6/2009 →

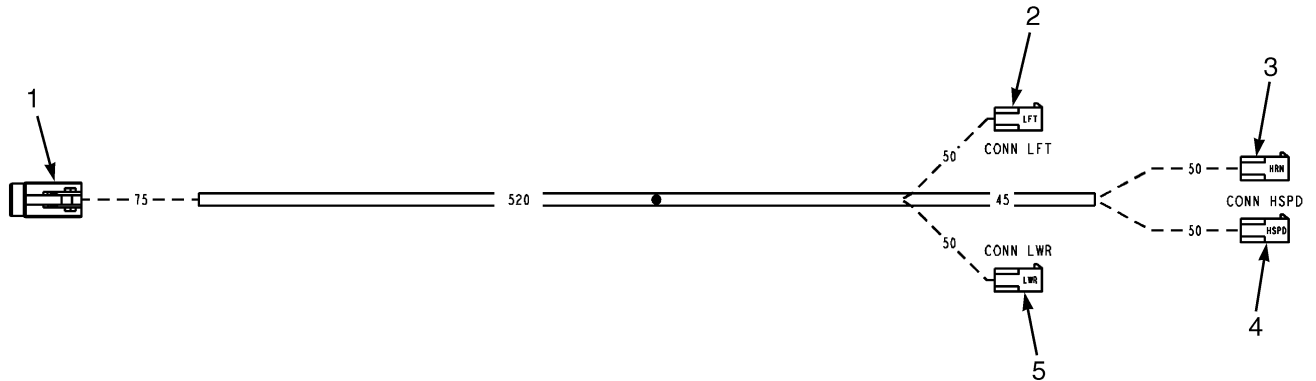
MASTER DRIVE UNIT
B233 (6/2008 →)

ITEM	PART NO.	DESCRIPTION	QTY
	2069768	Master Drive Unit	1
1	1534296	Bolt	8
2	1497285	Seal	1
3	1534297	Cover Plate	1
4	1534298	Shim (0.004 in.)	1
4	1534299	Shim (0.012 in.)	1
4	1534300	Shim (0.020 in.)	1
5	1534301	Sealing Ring	1
6	1534302	Bearing	2
7	1534303	Support	1
8	1534304	Bushing	4
9	1534305	Sealing Ring	1
10	1497280	Plug	1
11	1497282	Gasket	1
12	1534306	Support	1
13	1534191	Bushing	1
14	1641602	Housing	1
15	1534312	Bolt (M10 x 30)	7
16	1566502	Bolt (M10 x 35)	8
17	1554151	Cover	1
18	1479433	Plug	1
19	1479434	Gasket	1
20	1533937	Wheel Stud	5
21	1534317	Spacer	1
22	1534319	Snap Ring	1
23	1534320	Bearing	2
24	1534321	Spacer	1
25	1534322	Snap Ring	1
26	1534332	Gear	1
27	1641530	Nut	1
28	1641531	Gear	1
29	1699235	Bearing	1
30	1641534	Shim (0.120 in.)	1
30	1641535	Shim (0.121 in.)	1
30	1641536	Shim (0.122 in.)	1
30	1641537	Shim (0.126 in.)	1
30	1641538	Shim (0.130 in.)	1
30	1641539	Shim (0.134 in.)	1
30	1641540	Shim (0.138 in.)	1
30	1641541	Shim (0.118 in.)	1
30	1641533	Shim (0.119 in.)	1
31	1641543	Spacer (1.429 in.)	1
31	1641542	Spacer (1.406 in.)	1
32	1641599	Shim (0.094 in.)	1
32	1641553	Shim (0.092 in.)	1
32	1641552	Shim (0.090 in.)	1
32	1641551	Shim (0.088 in.)	1
32	1641550	Shim (0.086 in.)	1
32	1641549	Shim (0.084 in.)	1
32	1641548	Shim (0.082 in.)	1

SECTION 2 ELECTRICAL SYSTEM

DESCRIPTION	PAGE
CONTROL MODULE	
TILLER INTERFACE	2-10
CONTROLLER ENCLOSURE	2-6
EE CONTACTOR ASSEMBLY	
B233	2-8
ELECTRICAL ASSEMBLY	2-2
JUMPER HARNESS	
STROBE LIGHT	2-29
STROBE LIGHT - ALTERNATE PART	2-30
WIRE HARNESS	
HANDRAIL	2-21
MAIN	2-14
MAIN - ALTERNATE PART	2-18
SIDE GLIDE	2-23
STANDARD SWIVEL TILLER	2-22
SWIVEL TILLER - COAST CONTROL, FREEZER	2-27
THERMOSTAT	2-12
TILLER HANDLE, COMPOSITE	2-24
TILLER HANDLE, METAL	2-25

**WIRE HARNESS (FIGURE 2-8)
HANDRAIL**



BP081019

ITEM	PART NO.	DESCRIPTION	QTY
	2086329	Wire Harness (Handrail)	1
1	.....	Connector Assembly (To Main Harness)	1
1	1531973	Connector	1
1	1463137	Terminal	5
1	1531974	Connector	1
2	.....	Connector Assembly (To Lift Switch)	1
2	2302852	Pin	2
2	2033695	Connector	2
3	.....	Connector Assembly (To Horn Switch)	1
3	2302852	Pin	2
3	2033695	Connector	2
4	.....	Connector Assembly (To High Speed Switch)	1
4	2302852	Pin	2
4	2033695	Connector	2
5	.....	Connector Assembly (To Lower Switch)	1
5	2302852	Pin	2
5	2033695	Connector	2

3

STEER HANDLE/BRAKE SYSTEM

**TILLER SWIVEL ASSEMBLY
MANUAL STEERING (5/2011 →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1378550	Capscrew	3
2	2043858	Cover	1
3	2307321	Sleeve	1
4	2303042	Locknut	1
5	2307654	Lockwasher	1
6	2057091	Swivel	1
6	2070448	Bushing	2
6	2110926	Swivel (Alternate Part)	1
7	2007882	Grease Fitting	1
8	2046785	Spacer	2
9	326307	Bearing Cone	2
10	326306	Bearing Cup	2
11	2089114	Center Support	1
12	292529	Capscrew	4
13	320162	Washer	8
14	1382664	Clamp	1
15	292683	Lockwasher	4
16	1318914 216877	Nut	4
17	2042863	Key	1
18	2046784	Shaft (Stand Off)	1
18	2103916	Shaft (Steer)	1
18	2040846	Plate	1
19	136692	Nut	4
20	388049 292682	Lockwasher	4
21	2045230	Plate (B233)	1
21	2040844	Plate (B230)	1
22	320159	Washer	2
23	136985	Capscrew	2
24	293632	Capscrew (B233)	1
24	296032	Capscrew (B230)	2
25	296503	Screw	2
26	292678	Lockwasher	2
27	320154	Washer	2
28	2088646	Dash Panel	1
29	296168	Capscrew	1
30	239503	Nut	1
31	2302569	Shim (0.030 in.)	2
32	2033691	Pin	1
33	2039895	Shaft	1
	a 2054784	Bulk Sleeving	1

FOOTNOTES:**a** Not Illustrated

**TILLER HEAD ASSEMBLY
MANUAL AND POWER ASSIST STEERING**

ITEM	PART NO.	DESCRIPTION	QTY
	1618119		
	1705992	Tiller Head (On/Off Switch, B230, B233)	1
	1686776		
	1705993	Tiller Head (On/Off Switch, Advanced Coast Control) (B230, B233)	1
	1683370	Tiller Head (On/Off Switch, B230, B233)	1
	1532399	Tiller Handle (On/Off Switch, Cold Storage) (B230, B233)	1
1	2059503		
	4600086	Housing (Lower)	1
2	1704090		
	2059504	Housing (Upper)	1
2	b 1706800	Plate	1
2	b 1705264	Screw	2
3	2091533	Control Card	1
4	4023861		
	1466935	Camshaft (Direction Control)	1
5	1466595	Bushing (Butterfly Switch)	2
6	1603957	Switch (LH Butterfly)	1
7	320152	Washer (Butterfly Switch)	2
8	1499660	Capscrew (Butterfly Switch)	2
9	1466607	Spring (Throttle Direction Control Return)	1
10	1603956	Switch (RH Butterfly)	1
11	4023859		
	1467779	Cover (Belly Switch)	1
12	1466606	Spring (Horn)	1
13	a 2046453	Wire Harness (Side Glide)	1
14	1498102	Microswitch (On-Off)	2
16	1489471	Cover (Horn)	1
17	1466877	Switch Assembly (On/Off, RH and LH)	4
18	1498102	Microswitch (On-Off) (On/Off Switch with Molex Connector)	1
19	1503736	Button (On/Off Push Button, Yellow)	1
19	1706749	Actuator (Cover, Top Push Button, Yellow)	1
20	1466604	Label (RH Switch Functions)	1
21	1466605	Label (LH Switch Functions)	1
22	1489547	Label (Top, Hyster)	1
23	2043557	Actuator (Black, Side Glide)	2
24	1531075	Spring (Cover, Belly)	1
24	a 1660875	Locking Lever (For Belly Spring)	1
25	1594131	Spring (Throttle Direction Control Return)	1
26	2097314	Screw	1
27	1652960	Support (Clip)	1
28	2059505	Screw	4
29	2043856	Capscrew	1
30	296010	Capscrew	2
30	320157	Washer	2
30	293780	Lockwasher	2
30	1709806	Capscrew (Flanged, Alternate Part)	2
30	1709807	Locknut (Flanged, Alternate Part)	2
	a 4000713	Connector (Coast Control Buttons)	1

TILLER HEAD ASSEMBLY
(5/2011 →)

ITEM	PART NO.	DESCRIPTION	QTY
	a 4608936	Tiller Head	1
	b 4608937	Tiller Head	1
1	a 4608716	Cover	1
1	b 4608717	Cover	1
2	a 4607254	Handle Top Cover	1
2	b 4608712	Handle	1
3	4607253	Handle Base Cover	1
4	4610811	Actuator	1
5	4610813	Actuator	1
6	4610812	Actuator	1
7	2310216	Actuator	1
8	2309504	Stop	1
9	2303776	Spring	2
10	2307134	Spring	6
11	4604547	Plate	1
12	4604525	Support	1
13	15201	Cotter Pin	1
14	2303979	Screw	4
15	138573	Washer	1
16	1476421	Washer	1
17	1582442	Clip	1
18	4604530	Switch	1
18	.....	Connector Assembly	1
18	2033695	Connector	1
18	2302852	Pin	2
18	2048832	Connector Block	1
18	1541988	Connector (8 Pin)	1
18	1463140	Terminal (Pin)	8
18	1541989	Connector (Secondary Lock)	1
19	2111285	Push Button Switch	2
20	2309094	Screw	2

FOOTNOTES:**a** Standard-Without Coast Control**b** With Auto Coast Control

CASTER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	2088888	Caster	1
1	2091425	Fork	1
1	2091426	Swivel Fork (Without Wheel Fork)	1
2	2045964	Plate (Top)	1
3	2091427	Fork	1
4	2046889	Bearing (Pin)	1
5	2045969	Ball	18
6	2045970	O-Ring	1
7	2045987	Cap	1
8	2045971	Fork (Lower)	1
9	2045972	Capscrew	1
10	2045973	Tube Assy	1
11	2045975	Bushing	2
12	2045976	Locknut	1
13	2045977	Axle	1
14	2045978	Axle	1
15	2045979	Clip	4
16	2045982	Spring	2
17	2045983	Tube Assy	2
18	2045984	Washer	2
19	2045985	Capscrew	2
20	2045986	Locknut	2
21	2046761	Wheel	1
22	2091428	Wheel	1
23	2045989	Bearing	2
24	2045990	Tube	1
25	2046762	Axle	1
26	2079952	Tube	1
27	2045976	Locknut	1
28	2045991	Tube	1
29	2045992	Tube	2
30	2045993	Capscrew	1
31	2034403	Capscrew	4
32	320160	Washer	2
33	2039377	Shim	8

**LIFT LINKAGE
CORROSION/FOOD PROCESSING**

ITEM	PART NO.	DESCRIPTION	QTY
1	2040196	Pin	2
2	b 2034090	Pin	14
2	d 2034090	Pin	12
3	2079958	Rocker Arm	2
4	2039224	Bushing	4
5	2039118	Pin	2
6	13957	Grease Fitting	10
7	2039119	Pin	2
8	2039122	Pin	10
9	2079500	Pull Rod	2
9	2079501	Pull Rod	2
9	2079502	Pull Rod	2
9	2079503	Pull Rod	2
9	2079504	Pull Rod	2
10	2039227	Bushing	2
11	16046	Grease Fitting	6
12	1458439	Nut	6
13	2039315	Rod	2
14	136408	Lockwasher	4
14	2106662	Washer (Alternate Part)	4
15	221719	Nut	4
16	16041	Grease Fitting	2
17	2079956	Yoke	2
18	2039226	Bushing	2
19	2039255	Axle Shaft	2
20	2007882	Grease Fitting	4
21	2033691	Pin	2
22	2039905	Roller	2
23	2042864	Bushing	2
24	2079957	Link	2
25	2100235	Bushing	4
26	2305246	Pin	2
27	2040200	Pin	2
28	2099626	Pin	2
29	2035534	Washer	4
30	2079676	Fork (36 in.)	1
30	2079677	Fork (42 in.)	1
30	2079678	Fork (48 in.)	1
30	2079683	Fork (48 in.)	1
30	2079679	Fork (54 in.)	1
30	2079680	Fork (60 in.)	1
31	a 2045519	Screw	2
31	c 2097934	Capscrew	2
32	a 15058	Nut	2
32	c 15060	Nut	2
33	2041739	Clip	6
34	2079959	Link	2
35	2039225	Bushing	2
36	b 2039116	Pin	2
36	d 4612443	Pin	2

**SECTION 5
HYDRAULIC SYSTEM**

DESCRIPTION	PAGE
HYDRAULIC ASSEMBLY	
B230	5-2
B233	5-4
HYDRAULIC POWER UNIT	
B230	5-6
B233	5-8
LIFT CYLINDER ASSEMBLY	5-10

**LOAD BACKREST
BOLT-ON**

ITEM	PART NO.	DESCRIPTION	QTY
1	a 2087178	Load Backrest (Bolt-On) (48 inch - Standard)	1
1	a 2087179	Load Backrest (Bolt-On) (60 inch - Standard)	1
1	a 2087180	Load backrest (Bolt-On) (72 inch - Standard)	1
1	a 2087210	Load Backrest (Bolt-On) (48 inch - Galvanized)	1
1	a 2087211	Load Backrest (Bolt-On) (60 inch - Galvanized)	1
1	a 2087212	Load Backrest (Bolt-On) (72 inch - Galvanized)	1
2	18498	Capscrew	6
3	15155	Lockwasher	6
3	15155	Lockwasher (Alternate Part) .....	..
4	18515	Washer	12
5	221705	Nut	6
5	15114	Locknut (Alternate Part)	6

FOOTNOTES:

a Not for Field Retrofit Use

BATTERY ROLLER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	2040462	Battery Tray	1
1	2079768	Battery Tray (Food Processing)	1
2	264146	Nut	2
3	15135	Washer	2
4	16830	Capscrew	2
5	2303911	Roller	4
6	2040464	Block	2
6	2079773	Block (Food Processing)	2
7	2102311	Spacer	2
7	2102312	Spacer (Food Processing)	2
8	2040461	Plate	2
8	2044407	Plate	2
9	15920	Lockwasher	4
10	376203	Capscrew	4

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL