

Printed in U.S.A.

**CASE CORPORATION**  
700 STATE STREET  
RACINE, WI 53404 U.S.A.

**CASE CANADA CORPORATION**  
450 SHERMAN AVE.  
HAMILTON, ON L8N 4C4 CANADA

# 220B Crawler Excavator

## Parts Catalog

**Bur 8-3104**

**CASE**

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](http://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

**ALPHABETICAL INDEX  
ENGINE**

<b>DESCRIPTION</b>	<b>PAGE</b>
Air Cleaner.....	2-3,2-5
Air Intake Parts .....	2-3,2-5
Engine Air Cooling Parts .....	2-7,2-7B
Engine Filters, Alternator and Starter .....	2-11,2-13
Engine Mounting and Adapting Parts .....	2-9,2-9B
Exhaust System and Engine Air Cooling Parts .....	2-7,2-7B
Fan - Alternator.....	2-11
Muffler.....	2-7,2-7B
Pulley - Alternator .....	2-11
Thermostat - Engine Temperature Warning.....	2-13

**ENGINE MOUNTING AND ADAPTING PARTS****P.I.N. 74441 through 74597****P.I.N. 03201 through 03216**

REF.	PART NO.	DESCRIPTION	REF.
1	614-12040	BOLT - hex, full threads, 12 - 1.75 x 40 mm, engine mount to turntable . . . . .	8
2	P3528793	SPACER - bolt to mount . . . . .	8
3	P1541482	MOUNT - engine, flexible . . . . .	2
4	P6228190	BRACKET - engine mount, front . . . . .	2
5	814-16090	BOLT - bracket to mount, hex, 16 - 2.0 x 90 mm (Replaces bolt P33855) . . . . .	2
6	P3528790	SPACER - bolt, bracket to mount . . . . .	2
7	814-12060	BOLT - bracket to engine. . . . .	8
8	P3528793	SPACER - bolt, bracket to engine . . . . .	8
9	614-10030	BOLT - hex, full threads, 10 - 1.5 x 30 mm, engine mount to turntable, P.I.N. 74441 through 74597 and P.I.N. 03201 through 03213 . . . . .	8
9	814-10055	BOLT - hex, 10 - 1.5 x 55 mm, engine mount to turntable, P.I.N. 03214 and after (Replaces bolt P133869) . . . . .	8
10	P3528795	SPACER - bolt to mount, P.I.N. 74441 through 74597 and P.I.N. 03201 through 03213 . . . . .	8
10	P3528795	SPACER - bolt to mount, P.I.N. 03214 and after. . . . .	16
11	P741473	MOUNT - engine, flexible . . . . .	2
12	P933819	BOLT - bracket to engine. . . . .	8
13	P3528793	SPACER - bolt to mount . . . . .	10
14	P8628167	BRACKET - engine mount, rear, left-hand . . . . .	1
15	P8628166	BRACKET - engine mount, rear, right-hand . . . . .	1
16	614-12100	BOLT - bracket to mount, hex, full threads, 12 - 1.75 x 100 mm (Replaces bolt P32678) . . . . .	2
17	832-10410	NUT - hex, self-locking, 10 mm - 1.5, mount to turntable, P.I.N. 03214 and after (Replaces nut P34598) . . . . .	8

FUEL TANK

P.I.N. 74441 through 74597

P.I.N. 03201 through 03213

REF.	PART NO.	DESCRIPTION	REQ'D.
	P840249	TANK ASSEMBLY - fuel, excavator . . . . .	1
1	NSS	TANK - fuel, excavator, order tank assembly P840249 . . . . .	1
	P43262	CAP ASSEMBLY - fuel tank, replacement lock cylinder and key are not available for this cap and are not interchangeable with P3337451 cap cylinder and key, order P3337451 assembly (Replaces caps P3237496 and P43262) . . . . .	1
	P3337451	CAP ASSEMBLY - fuel tank. . . . .	1
2	NSS	CAP - fuel tank, order cap assembly P3337451 . . . . .	1
	NSS	CYLINDER ASSEMBLY - lock, order cap assembly P3337451 . . . . .	1
	P1352009	KEY - lock . . . . .	1
3	P8846020	GASKET - fuel cap (Replaces gasket P46096). . . . .	1
4	P50537	STRAINER - fuel . . . . .	1
5	P837827	VALVE - tank drain. . . . .	3
6	P2141665	SENDER - low fuel warning lamp. . . . .	1
7	P32530	SCREW - sending unit mounting . . . . .	6
8	P1737417	REDUCER - tank drain. . . . .	2
9	P130412	O-RING - plug . . . . .	2
10	P37497	PLUG - tube . . . . .	1
11	*REF	SEAL - fuel tank, 600 mm (23-5/8 inch) long, cut from bulk seal P303161 below. . . . .	1
12	**REF	SEAL - fuel tank, 1400 mm (55-1/8 inch) long, cut from bulk seal P3128 below. . . . .	1
13	P50586	BREATHER - fuel tank . . . . .	1
14	P45239	SEAL - breather. . . . .	1
15	P133883	BOLT - fuel tank mount . . . . .	2
16	P3528790	SPACER - bolt. . . . .	2
17	P134547	NUT - bolt . . . . .	2
18	614-16050	BOLT - hex, full threads, 16 - 2 x 50 mm, if used (Replaces bolt P33854) . . . . .	4
19	P3528790	SPACER - 11 mm thick, used with bolt P33854, item 18 . . . . .	4
20	814-16070	BOLT - hex, 16 - 2 x 70 mm, if used (Replaces bolt P33875) . . . . .	4
21	P4328733	SPACER - 32 mm thick, used with bolt P33875, item 20 . . . . .	4
	*P303161	SEAL - bulk, sold by the meter . . . . .	UAR
	**P3128	SEAL - bulk, sold by the meter . . . . .	UAR

**FUEL LINES AND FITTINGS**

**P.I.N. 74570 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
30	832-10406	NUT - pump mounting bolt, hex, self-locking, 6 mm - 1.0 (Replaces nut P234513) . . . . .	2
31	614-12025	BOLT - bracket mounting, hex, full threads, 12 - 1.75 x 25 mm (Replaces bolt P33873) . . . . .	2
32	P3528793	SPACER - bracket mounting bolt . . . . .	2
33	P4728107	BRACKET - hand pump and filter to engine . . . . .	1
34	* REF	HOSE - fuel, shutoff valve to filter, 700 mm (27-9/16 inch) long, cut from bulk hose P3682 below . . . . .	1
35	* REF	HOSE - fuel, engine to filter, 800 mm (31-1/2 inch) long, cut from bulk hose P3682 below . . . . .	1
36	P2226708	BRACKET - filter mounting, no longer available . . . . .	1
37	P933813	BOLT - bracket mounting . . . . .	4
38	P3528794	SPACER - bracket mounting bolt . . . . .	4
39	P837836	VALVE - shutoff, fuel hose to filter . . . . .	1
40	P933820	BOLT - filter mounting . . . . .	2
41	P3528793	SPACER - filter mounting bolt . . . . .	4
42	832-10412	NUT - hex, self-locking, 12 mm - 1.75, filter mounting bolt (Replaces nut P34596) . . . . .	2
	* P3682	HOSE - bulk, sold by the meter . . . . .	UAR

**STARTER**

**P.I.N. 74441 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P941506	STARTER ASSEMBLY - 24 volt . . . . .	1
1	P2434531	NUT - engagement rod. . . . .	1
2	P4339302	GEAR - pinion, drive. . . . .	1
3	P236158	KEY - lock, pinion gear. . . . .	1
	P7646265	COVER ASSEMBLY - drive end . . . . .	1
4	NSS	COVER - drive end, order cover assembly P7646265 . . . . .	1
5	NSS	RING - tension spring, order cover assembly P7646265 . . . . .	1
6	NSS	SEAL - shaft, order cover assembly P7646265 . . . . .	1
7	NSS	BEARING - shaft, order cover assembly P7646265 . . . . .	1
8	NSS	RACE - bearing, order cover assembly P7646265 . . . . .	1
9	P1545369	RING - wear, bushing. . . . .	1
10	P39569	CAP - end, armature . . . . .	1
11	P732605	BOLT - end cap . . . . .	4
12	1334734C1	CLUTCH - starter (Replaces clutch P7646264) . . . . .	1
	P1928004	ROD ASSEMBLY - engagement . . . . .	1
13	NSS	ROD - engagement, order rod assembly P1928004. . . . .	1
14	NSS	RING - spring retaining, order rod assembly P1928004. . . . .	1
15	NSS	SPRING - return, order rod assembly P1928004 . . . . .	1
16	NSS	BUSHING - rod, order rod assembly P1928004 . . . . .	1
17	NSS	BALL - thrust, order rod assembly P1928004. . . . .	3
18	NSS	RING - retaining, bushing, order rod assembly P1928004 . . . . .	1
	P941509	ARMATURE ASSEMBLY - starter . . . . .	1
19	NSS	ARMATURE - starter, order armature assembly P941509 . . . . .	1
20	NSS	BEARING - needle, drive end, order armature assembly P941509 . . . . .	1
21	1334739C1	SHIM - 0.20 mm (0.008 inch) thick, commutator end (Replaces kit P1545379) . . . . .	UAR
21	P1545380	KIT - shim, 0.30 mm (0.012 inch) thick, commutator end. . . . .	UAR
21	P1545381	KIT - shim, 0.50 mm (0.020 inch) thick, commutator end. . . . .	UAR
22	NSS	HOUSING - coil and brushes, order starter assembly P941506 . . . . .	1
23	P32425	SCREW - coil to housing . . . . .	8

Continued on next page

**ELECTRICAL CONTROL PANEL****P.I.N. 74441 through 74596**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P7043841	PANEL ASSEMBLY - control, complete . . . . .	1
1	P2241062	COVER - control. . . . .	1
2	P7546028	GASKET - control panel cover to console . . . . .	1
3	P251575	CLUSTER - instrument, control panel . . . . .	1
4	P7546029	GASKET - cluster to cover . . . . .	1
5	P2033026	SCREW - cluster to cover . . . . .	6
6	P151682	CIRCUIT - printed, control panel . . . . .	1
7	P2033026	SCREW - printed circuit to panel . . . . .	2
8	P1941442	SOCKET - control panel lamp . . . . .	22
9	P40506	BULB - control panel lamp . . . . .	22
10	P641619	SWITCH - toggle, control panel, "A" location . . . . .	8
11	P641611	SWITCH - toggle, control panel, "B" location . . . . .	2
12	P641609	SWITCH - toggle, control panel, "C" location . . . . .	1
13	P2141697	SWITCH - toggle, control panel, "E" location . . . . .	1
14	P1540469	PLUG - control panel, "D" location . . . . .	5

**CAB ELECTRICAL HARNESS****P.I.N. 74595 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	REF	CIRCUIT - electrical box, see page 4-47 and 4-49 for cab harness connections . . . . .	1
2	P840757	CONNECTOR - male, 6-way . . . . .	3
3	P40937	CLIP - wire . . . . .	UAR
4	P8547231	HARNESS - wiring, electric box. . . . .	1
5	P740844	CONNECTOR - female, 6-way . . . . .	4
6	P40938	RETAINER - wire . . . . .	UAR
7	P2141660	HOURMETER - electric . . . . .	1
8	P5328216	COVER - throttle control, includes mounting bracket, see page 3-13 . . . . .	1
9	P9847204	HARNESS ASSEMBLY - wiring, instruments . . . . .	1
10	P440714	CONNECTOR - male, 2-way . . . . .	2
11	P640945	CLIP - wire . . . . .	2
12	P740848	CONNECTOR - female, 2-way. . . . .	1
13	P40938	RETAINER - wire . . . . .	1
14	P1340710	CONNECTOR - harness, at key switch. . . . .	1
15	P5328211	BRACKET - mounting, electrical components, see page 4-29 . . . . .	1
	P2741618	SWITCH ASSEMBLY - key, electrical system, P.I.N. 74595 through 74597 and P.I.N. 03201 through 03213, no longer available, order switch assembly 1987424C1 below . . . . .	1
	1987424C1	SWITCH ASSEMBLY - key, electrical system, P.I.N. 03214 and after (Replaces switch assembly P2741648). . . . .	1
16	1964831C1	KEY - switch . . . . .	2
17	NSS	SWITCH - electrical system, order switch assembly . . . . .	1
19	1983228C1	COVER - key switch (Replaces cover P2340476). . . . .	1
20	P40560	BULB - engine preheating indicator. . . . .	1
21	P641648	INDICATOR - engine preheating . . . . .	1
22	P1343242	LIGHTER - cigarette, electric. . . . .	1
23	P8547227	HARNESS - wiring, horn and safety switch control . . . . .	1
24	P40941	CONNECTOR - wire clip . . . . .	4
	P2141655	BUTTON AND SWITCH ASSEMBLY - horn control . . . . .	1
25	P1541665	SWITCH - horn control. . . . .	1
26	NSS	WIRE - horn switch, order assembly P2141655. . . . .	1
27	P2741651	SWITCH ASSEMBLY - safety (Replaces switch P1541649). . . . .	1
28	NSS	HARNESS - safety switch, order switch assembly P2741651 . . . . .	1
29	REF	CONSOLE - hand control valve, see page 9-41 or 9-43 . . . . .	1
30	J900227	BOLT - hex, 8 mm x 22 mm . . . . .	UAR
31	P3528794	SPACER - bolt, 6 mm thick . . . . .	UAR
32	P51959	CLAMP - harness, rubber coated, dimension "A" is 38 mm (1-1/2 inch). . . . .	UAR
33	P1736988	CLAMP - harness, rubber coated, dimension "A" is 44 - 51 mm (1-3/4 - 2 inch) . . . . .	UAR
34	P34113	NUT - hex, 8 mm, used with clamp P51959, item 32. . . . .	UAR
35	P1334571	NUT - cage type, 8 mm, used with clamp P1736988, item 33 . . . . .	UAR
36	P336923	STRAP - tie, harness, 117 mm (4-5/8 inch) long . . . . .	UAR
37	P51946	STRAP - tie, harness, 258 mm (10-1/8 inch) long . . . . .	UAR
38	P2036939	RETAINER - tie strap . . . . .	UAR
39	P2036902	CLIP - retainer, expands from 3 - 7 mm (1/8 - 1/4 inch) . . . . .	UAR

**CAB FAN**

**P.I.N. 74441 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P1241868	FAN - cab, includes wiring harness . . . . .	1
2	P32529	SCREW - fan to bracket . . . . .	2
3	P34603	WASHER - lock, bracket bolt. . . . .	2
4	P34107X	NUT - hex, bracket bolt . . . . .	2
5	P2426193	BRACKET - fan to cab. . . . .	1
6	P35001	WASHER - flat, 6 mm . . . . .	2
7	614-6016	BOLT - bracket to cab, hex, full threads, 6 - 1.0 x 16 mm. . . . .	2
8	P3036928	RETAINER - tie strap. . . . .	4
9	P1436941	STRAP - tie, wiring harness. . . . .	4

**NOTE:** See page 4-21 or 4-23 for cab wiring harness connections.

**ELECTRICAL BOX SYSTEM**  
**Harness Connections To Electrical Box**  
**P.I.N. 74441 through 74569**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	REF	HARNESS - instrument panel, see page 4-21 or 4-23 for correct harness . . . . .	1
2	REF	HARNESS - cab wiring, see page 4-25 . . . . .	1
3	3178377R1	CONNECTOR - electrical, two wire (Replaces connector P640964) . . . . .	1
4	P8647280	WIRE - connector, cab harness. . . . .	1
5	P8647262	HARNESS - engine, see page 4-3 . . . . .	1
6	REF	BOX - electrical, see page 4-57 or 4-61 . . . . .	1
7	REF	HARNESS - at turntable, see page 4-41 or 4-43. . . . .	1

**SWING BRAKE ELECTRICAL HARNESS**

**P.I.N. 74441 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	REF	BOX ASSEMBLY - electrical, printed circuit, see pages 4-57 through 4-67 for correct electrical box . . . . .	1
2	P141439	NUT - lock, bushing . . . . .	1
	P8647283	HARNESS - swing brake . . . . .	1
3	NSS	HARNESS - swing brake . . . . .	1
4	P141431	BUSHING - harness locking . . . . .	1
5	P136922	STRAP - tie, harness . . . . .	UAR
6	REF	VALVE ASSEMBLY - control, solenoid, 13 bar, see pages 8-151 and 8-153 for correct valve and component parts . . . . .	1
7	P1843371	VALVE ASSEMBLY - control, solenoid, 35 bar, see page 8-149 for valve components and correct manifold block . . . . .	2

**ELECTRICAL BOX****With Top Latched Access Door****P.I.N. 74595 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P2241093	BOX - electrical, printed circuit components . . . . .	1
2	P8143811	DOOR - electrical box . . . . .	1
3	P3036980	LATCH - door. . . . .	2
4	P433811	BOLT - hex, 4 mm x 10 mm. . . . .	4
5	P34603	WASHER - flat, 4 mm . . . . .	4
6	P34107X	NUT - hex, 4 mm . . . . .	4
7	P2047020	SEAL - door, rubber. . . . .	1
8	P1337491	PLUG - electrical box, "A" dimension is 20 mm (25/32 inch) . . . . .	7
9	P2537453	PLUG - electrical box, "A" dimension is 25 mm (1 inch) . . . . .	6
10	P32549	BOLT - hex, 6 mm x 16 mm. . . . .	8
11	P34607	WASHER - flat, 6 mm . . . . .	8
12	P1334574	NUT - cage type, 6 mm . . . . .	8
13	P1334560	NUT - cage type, 10 mm . . . . .	4
14	REF	PLATE - insulator, see page 4-67 for plates and related parts . . . . .	3
15	REF	CIRCUIT - printed, electrical box, see page 4-67 for circuit board and related parts. . . . .	1
16	P2329172	SPACER - special, printed circuit to box . . . . .	12
17	P34603	WASHER - flat, 4 mm . . . . .	24
18	P2434505	NUT - hex, self-locking, 4 mm . . . . .	12
19	614-4008	BOLT - hex, full threads, 4 - 0.7 x 8 mm (Replaces bolt P232604) . . . . .	12
20	REF	SWITCH - magnetic, bolt-on type, see page 4-67. . . . .	1
21	P133857	BOLT - hex, 6 mm x 12 mm. . . . .	1
22	P35001	WASHER - flat, 6 mm . . . . .	1
23	P1334574	NUT - cage type, 6 mm . . . . .	1
24	P1652212	HARNESS - electrical box (Replaces harness P8547278) . . . . .	1
25	P242406	RESISTOR - electrical circuit, order from Deutz . . . . .	1
26	P133857	BOLT - hex, 6 mm x 12 mm. . . . .	2
27	P3528799	SPACER - bolt, 4 mm thick . . . . .	2
28	825-1406	NUT - hex, 6 mm - 1 . . . . .	2
29	P40826	CONNECTOR - electrical circuit . . . . .	1
30	P32531	SCREW - slotted head, 4 mm x 20 mm. . . . .	2
31	P34107X	NUT - hex, 4 mm . . . . .	2
32	P2036942	CLAMP - harness, electrical box . . . . .	3
33	P40710	RECEPTACLE - harness, magnetic switch . . . . .	3
34	P32538	SCREW - slotted, 5 mm x 16 mm . . . . .	3
35	P4328717	SPACER - screw, 3 mm thick . . . . .	3
36	825-1405	NUT - hex, 5 mm - 0.8 (Replaces nut P34108) . . . . .	3
37	P3041116	SWITCH - magnetic, plug-in type . . . . .	3
38	P2537472	PLUG - plastic, electrical box door, if used . . . . .	4
39	P2125317	BOX - parts catalog, if used. . . . .	1
40	P35418	RIVET - pop, 4.8 mm x 17 mm, if used . . . . .	4

**TUBE GUARDS AT TRACK FRAME****P.I.N. 74441 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P4625681	GUARD - tube, right-hand front . . . . .	1
2	P4625682	GUARD - tube, left-hand front . . . . .	1
3	614-12025	BOLT - front tube guard, hex, full threads, 12 - 1.75 x 25 mm (Replaces bolt P33873) . . . . .	2
4	P3528793	SPACER - front tube guard bolt. . . . .	2
5	P1334578	NUT - mounting bolt. . . . .	2
6	P3126301	GUARD - tube, right-hand center . . . . .	1
7	P3126302	GUARD - tube, left-hand center. . . . .	1
8	614-12025	BOLT - center tube guard, hex, full threads, 12 - 1.75 x 25 mm (Replaces bolt P33873) . . . . .	8
9	P3528793	SPACER - center tube guard bolt . . . . .	8
10	P3940377	GUARD - tube, right-hand rear . . . . .	1
11	P3940376	GUARD - tube, left-hand rear . . . . .	1
12	P1532905	SCREW - hex socket, rear guard . . . . .	6
13	P2346167	GUARD- track, with four bolt mounting to track frame. . . . .	8
14	P1604021	GUARD- track, with two bolt mounting to track frame, cast type. . . . .	8
15	P3254839	GUARD- track, with two bolt mounting to track frame, fabricated type . . . . .	8
16	P833815	BOLT - hex, 24 mm x 120 mm, guard to track frame . . . . .	16-32
17	P2644912	BOLT - tie, inner to outer track guard, 550 mm (21-5/8 inch) long, used with fabricated type guard (Replaces bolt P2527772) . . . . .	8
18	P2644911	BOLT - tie, inner to outer track guard, 505 mm (19-7/8 inch) long, used with cast type guard (Replaces bolt P2527770) . . . . .	8
19	P34125	NUT - hex, 30 mm . . . . .	16
20	P33836	BOLT - front guard, upper . . . . .	2
21	P1304073	STEP - assist, at track frame . . . . .	4
22	814-16060	BOLT - step to frame, hex, 16 - 2.0 x 60 mm (Replaces bolt P133805) . . . . .	8
23	832-10416	NUT - step bolt, hex, self-locking, 16 mm - 2.0 (Replaces nut P34562) . . . . .	8
24	P4825669	GUARD - hydraulic swivel . . . . .	1
25	614-12035	BOLT - hex, full threads, 12 - 1.75 x 35 mm, if used . . . . .	2
26	614-12025	BOLT - hex, full threads, 12 - 1.75 x 25 mm, if used (Replaces bolt P33873) . . . . .	2
27	P3528793	SPACER - bolt, 8 mm thick, used with 35 mm long bolt, item 25 . . . . .	2
28	P933819	BOLT - hex, 12 mm - 1.75 x 55 mm, full thread, if used . . . . .	2
29	614-12040	BOLT - hex, full threads, 12 - 1.75 x 40 mm, if used (Replaces bolt P533837) . . . . .	2
30	P3528793	SPACER - bolt, 8 mm thick, used with 55 mm long bolt, item 28 . . . . .	4
31	P834549	NUT - hex, self-locking, 12 mm . . . . .	2
32	P2229394	SPACER - cast type guard, P.I.N 03208 and after . . . . .	8
33	P2229393	SPACER - fabricated type guard, P.I.N 03208 and after. . . . .	8

**220B Excavator**  
**TRACK ROLLER**  
**P.I.N. 74441 through 74597**  
**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P1642332	ROLLER ASSEMBLY - track, ITM identification . . . . .	18
	P1642332	ROLLER ASSEMBLY - track, Intertrac identification. . . . .	18
1	NSS	ROLLER - track, order roller assembly P1642332. . . . .	1
2	NSS	BRACKET - mounting, track roller, order roller assembly P1642332. . . . .	2
3	P1246097	SEAL - oil, roller shaft, used with ITM roller . . . . .	2
3	P9346016	SEAL - oil, roller shaft, used with Intertrac roller (Replaces seal P7546079) . . . . .	2
4	P1230438	O-RING - roller shaft, used with ITM roller . . . . .	2
4	P6146098	O-RING - roller shaft, used with Intertrac roller . . . . .	2
5	P35807	PIN - roll, bracket to roller, used with ITM roller . . . . .	2
5	P435738	PIN - roll, bracket to roller, used with Intertrac roller . . . . .	2
6	P737448	PLUG - filler, track roller, used with ITM roller . . . . .	1
7	P2230408	O-RING - filler plug, used with ITM roller . . . . .	1
8	P2537437	PLUG - filler, track roller, used with Intertrac roller. . . . .	1

**TRACK DRIVE HYDRAULIC MOTOR**

**P.I.N. 74441 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	REF	MOTOR ASSEMBLY - hydraulic, track drive, continued . . . . .	2
	P7546291	ROTOR AND ROLLER ASSEMBLY - motor (Replaces rotor and roller assembly P6046275). . . . .	1
34	P6446266	SHAFT - roller, motor, no longer available . . . . .	10
35	P7146256	PISTON - motor . . . . .	10
36	P5537701	PLATE - wear, set of 20 (Replaces plate P3637779) . . . . .	1
37	NSS	ROTOR - drive motor, order assembly P7546291 . . . . .	1
	P5646218	DISTRIBUTOR ASSEMBLY - motor . . . . .	1
38	P1936914	RING - snap, pin . . . . .	2
39	P836004	PIN - dowel, plate . . . . .	2
40	P7130154	PLATE - distributor . . . . .	1
41	NSS	SPRING AND GUIDE - distributor plate, set of 12, order distributor assembly. . . . .	1
42	800-2170	RING - snap, spool cap (Replaces ring P36237) . . . . .	1
43	P1729007	CAP - spool. . . . .	1
44	P1838152	SPRING - spool, large . . . . .	1
45	P1838151	SPRING - spool, small . . . . .	1
46	P1637480	PLUG - end. . . . .	1
47	NSS	PLUNGER - spool, order distributor assembly P5646218 . . . . .	1
48	NSS	SPOOL - distributor, order distributor assembly P5646218 . . . . .	1
49	*P1830414	O-RING - distributor housing . . . . .	1
50	NSS	HOUSING - distributor, order distributor assembly P5646218 . . . . .	1
51	P632944	BOLT - distributor housing . . . . .	6
52	P1037474	PLUG - housing . . . . .	1
53	*P30460	O-RING - plug. . . . .	1
54	*P130413	O-RING - end cover . . . . .	1
55	P1945008	COVER - end, housing . . . . .	1
56	P36239	RING - snap, end cover . . . . .	1
	*P4349608	KIT - seal, includes all items with an asterisk (*) . . . . .	1

**LOWER TRACK DRIVE, DRIVE RANGE AND BRAKE HYDRAULIC LINES**

**P.I.N. 74570 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
30	*REF	HOSE - pilot control, motor drive range, 1000 mm (39-3/8 inch) long, cut from bulk hose P1103640 below . . . . .	.2
31	*REF	HOSE - pilot control, motor brake release, 1300 mm (51-3/16 inch) long, cut from bulk hose P1103640 below . . . . .	.2
32	P3237535	ADAPTER - pilot hose to tube . . . . .	.4
33	P4037588	ADAPTER - straight, pilot hose to adapter . . . . .	.4
34	P6849131	TUBE - pilot control, right-hand motor drive range . . . . .	.1
35	P6849132	TUBE - pilot control, left-hand motor drive range . . . . .	.1
36	P6849119	TUBE - pilot control, right-hand motor brake release . . . . .	.1
37	P6849120	TUBE - pilot control, left-hand motor brake release. . . . .	.1
38	P32943	BOLT - hex socket, clamp to track frame . . . . .	.8
39	P3141453	BUSHING - rubber, tube clamp, 16 mm (5/8 inch) I D. . . . .	.6
40	P4020367	CLAMP - tubes to side of track frame . . . . .	.4
	*P1103640	HOSE - bulk, sold by the meter . . . . .	UAR

## HYDRAULIC PUMP LINES

### High Pressure Pump To Control Valves

#### P.I.N. 74441 through 74569

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P3443516	PUMP ASSEMBLY - high pressure, parts list page 8-117	1
2	P1332901	BOLT - flange	14
3	P3731961	HOSE - pump to power sensing valve	1
4	P3731923	HOSE - pump to power sensing valve	1
5	P1343315	VALVE ASSEMBLY - power sensing, parts list page 8-157	1
6	P1737451	PLUG - power sensing valve	2
7	238-6116	O-RING - plug, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215)	2
8	P4528715	SPACER - valve mounting bolt	3
9	814-14055	BOLT - power sensing valve, hex, 14 - 2.0 x 55 mm (Replaces bolt P533804)	3
10	P637358	ADAPTER - pressure check	4
11	P1230443	O-RING - adapter	4
	P4037516	VALVE ASSEMBLY - check, pressure, hydraulic	4
12	NSS	BODY - pressure check, order valve assembly P4037516	1
13	P7046042	SEAL - pressure check	1
14	P1337445	PLUG - valve (Replaces plug P1737443)	3
15	P1230443	O-RING - plug	3
16	P2337591	ADAPTER - hose	4
17	P1230443	O-RING - adapter	4
18	P4831902	HOSE - pilot, power sensing valve to drive valve	1
19	P4431936	HOSE - pilot, power sensing valve to equipment circuit	1
20	P3037546	ADAPTER - hose to junction block	1
21	238-6116	O-RING - adapter, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215)	1
22	P3731962	HOSE - from power sensing valve	1
23	P3231942	HOSE - from power sensing valve	1
24	P1332901	BOLT - flange	8
25	P8047694	TUBE - from swing valve to parallel valve	1
26	P3037515	ADAPTER - check valve	2
27	238-6123	O-RING - check valve, 1-3/16 ID x 3/32 inch wide (Replaces O-ring R30990)	2
28	P2043307	VALVE ASSEMBLY - check, parts list page 8-169	1
29	814-12060	BOLT - clamp	2
30	P520303	CLAMP - tube	1
31	P6947149	TUBE - from check valve to parallel valve	1
32	P1432903	BOLT - flange	4
33	P1737758	SLEEVE - junction	2
34	825-1408	NUT - flange bolt	4
35	P3231942	HOSE - swing valve to parallel valve	1
36	REF	VALVE ASSEMBLY - drive and parallel, parts list page 8-127	1

Continued on next page

**HYDRAULIC PUMP LINES**  
**High Pressure Pump To Control Valves**  
**P.I.N. 03209 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
35	P6947149	TUBE - from check valve to regulator valve . . . . .	1
36	P1432903	BOLT - hex socket, tube flange to hose flange . . . . .	4
37	P1737758	ADAPTER - flange . . . . .	2
38	825-1408	NUT - hex, flange bolt . . . . .	4
39	P3731961	HOSE - check valve to regulator valve . . . . .	1
40	P1743350	VALVE ASSEMBLY - regulator, parallel control, parts list page 8-159 . . . . .	1
41	P4825695	BRACKET - mounting, regulator valve . . . . .	1
42	614-10060	BOLT - hex, full threads, 10 - 1.5 x 60 mm (Replaces bolt P433814) . . . . .	2
43	P3528795	SPACER - bolt, 7 mm thick . . . . .	4
44	832-10410	NUT - hex, self-locking, 10 mm - 1.5 (Replaces nut P34598) . . . . .	2
45	P133884	BOLT - hex, 8 mm x 35 mm, full threaded . . . . .	2
46	P3528794	SPACER - bolt, 6 mm thick . . . . .	4
47	P532924	BOLT - flange . . . . .	4
48	P3231912	HOSE - drive valve to equipment valve . . . . .	1
49	P1332908	BOLT - junction block . . . . .	2
50	P1737017	BLOCK - junction . . . . .	1
51	P2728875	ADAPTER - junction block to valve . . . . .	1
52	P3731961	HOSE - pump to equipment valve . . . . .	1
53	P1232979	BOLT - hex socket, hose flange to block . . . . .	2
54	P3237733	BLOCK - junction, at pump . . . . .	1
55	P1528828	ADAPTER - junction block to pump . . . . .	1
56	P732976	BOLT - hex socket, hose flange to accumulator . . . . .	2
57	825-1408	NUT - hex, flange bolt . . . . .	2
	P4237794	ACCUMULATOR ASSEMBLY - equipment circuit . . . . .	1
58	NSS	BODY - accumulator, order accumulator assembly P4237794 . . . . .	1
59	P933005	SCREW - bleeder . . . . .	5
60	P1446072	SEAL - bleeder screw . . . . .	5
61	614-12040	BOLT - clamp plate, hex, full threads, 12 - 1.75 x 40 mm (Replaces bolt P533837) . . . . .	2
62	P3528793	SPACER - clamp plate bolt . . . . .	2
63	832-10412	NUT - clamp plate bolt, hex, self-locking, 12 mm - 1.75 (Replaces nut P34596) . . . . .	2
64	P4223317	PLATE - tube clamp . . . . .	1
65	P3036946	CLAMP - tube . . . . .	2
66	P3528795	SPACER - clamp nut . . . . .	4
67	832-10410	NUT - clamp, hex, self-locking, 10 mm - 1.5 (Replaces nut P34598) . . . . .	4
68	P6547102	TUBE - pump to equipment valve . . . . .	1
69	P133084	BOLT - hex, 12 mm x 110 mm, full threaded . . . . .	2
70	P820377	CLAMP - tube . . . . .	2
71	P741440	BUSHING - tube . . . . .	1

**HYDRAULIC CIRCUIT**  
**Return Lines From Valves**  
**P.I.N. 74570 through 74597**  
**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
35	P36902	CLAMP - hose . . . . .	4
36	P1137724	COOLER - oil, hydraulic, see page 8-5 for cooler fan and shroud . . . . .	1
37	P1023414	CLAMP - single tube . . . . .	1
38	614-10035	BOLT - clamp, hex, full threads, 10 - 1.5 x 35 mm . . . . .	2
39	P820353	CLAMP - double tube, upper . . . . .	1
40	P820351	CLAMP - double tube, lower . . . . .	1
41	P741454	GROMMET - tube . . . . .	1
42	814-12045	BOLT - clamp. . . . .	1
43	P820337	CLAMP - double tube . . . . .	6
44	814-14090	BOLT - clamp, hex, 14 - 2.0 x 90 mm (Replaces bolt P533850) . . . . .	3
45	P3528792	SPACER - clamp . . . . .	3
46	P134549	NUT - hex . . . . .	3
47	P1420393	CLAMP - four tube . . . . .	2
48	814-10070	BOLT - clamp, hex, 10 - 1.5 x 70 mm (Replaces bolt P33830) . . . . .	2
49	P3528795	SPACER - clamp . . . . .	4
50	832-10410	NUT - hex, self-locking, 10 mm - 1.5 (Replaces nut P34598) . . . . .	2
51	814-10045	BOLT - manifold tube, hex, 10 - 1.5 x 45 mm (Replaces P1133839) . . . . .	2
52	P3528795	SPACER - bolt . . . . .	4
53	832-10410	NUT - hex, self-locking, 10 mm - 1.5 (Replaces nut P34598) . . . . .	2
54	P1343315	VALVE ASSEMBLY - power sensing, parts list page 8-157 . . . . .	1
55	P937250	BLOCK - junction, no longer available. . . . .	1
56	P532933	BOLT - block . . . . .	4
57	P1528830	ADAPTER - block to valve . . . . .	1
58	P5931927	HOSE - power sensing valve to return tube . . . . .	1
59	P632934	BOLT - flange . . . . .	2
60	825-1412	NUT - hex . . . . .	2
61	P3750188	TUBE - return, power sensing valve to reservoir . . . . .	1
62	P1950109	TUBE - return, attachment control valve to reservoir. . . . .	1
63	P1331981	HOSE - return, attachment control valve to reservoir . . . . .	1
64	P832964	BOLT - tube to hose flange . . . . .	2
65	825-1412	NUT - hex, flange bolt . . . . .	2
66	P532914	BOLT - flange to valve and reservoir. . . . .	6
67	P2243644	VALVE ASSEMBLY - attachment control, parts list pages 8-123 and 8-125. . . . .	1
68	P3143614	VALVE ASSEMBLY - drive and parallel control, parts list page 8-131 . . . . .	1
69	P3647117	TUBE - parallel control valve to hydraulic cross, no longer available . . . . .	1
70	P637325	PLATE - adapter, tube flange to valve. . . . .	1
71	P1232971	BOLT - hex socket, plate to valve . . . . .	4
72	P1332901	BOLT - hex socket, tube flange to plate . . . . .	2
73	P37551	ADAPTER - straight, tube to hose. . . . .	1

## HYDRAULIC CIRCUIT RETURN LINES

### Optional Oil Temperature Regulating Valve Parts

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P1031969	HOSE - fan motor circuit, see pages 8-31 through 8-37 for complete cooler circuit. . . . .	1
2	P2337687	TUBE - adapter, at cooler fan inlet . . . . .	1
3	P37233	TEE - hose to cooler fan inlet . . . . .	1
4	P137532	TUBE - adapter, tee to regulator valve hose . . . . .	1
5	P3231999	HOSE - tee to regulator valve . . . . .	1
6	P237586	ADAPTER - straight, hose to temperature regulating valve . . . . .	2
7	P245217	SEAL - adapter . . . . .	2
8	P5137748	VALVE ASSEMBLY - oil temperature regulating. . . . .	1
9	NSS	BODY - valve, order valve assembly P5137748 . . . . .	1
10	P1943314	VALVE - relief. . . . .	1
11	P1038254	SPRING - relief valve . . . . .	1
12	P8846093	SEAL - valve, upper . . . . .	1
13	P8846094	SEAL - valve, lower . . . . .	1
	P5449680	KIT - repair, valve. . . . .	1
14	NSS	VALVE - regulator, order kit P5449680. . . . .	1
15	NSS	SEAL - regulator valve, order kit P5449680 . . . . .	1
16	NSS	O-RING - valve body, order kit P5449680 . . . . .	1
17	NSS	SEAL - valve body, order kit P5449680 . . . . .	1
18	NSS	PLUG - valve body, order kit P5449680 . . . . .	1
19	NSS	O-RING - plug, order kit P5449680. . . . .	1
20	NSS	RING - backup, plug, order kit P5449680. . . . .	1
21	P5137759	BLOCK - manifold, tubes to valve . . . . .	1
22	P532918	BOLT - hex socket, 12 mm x 40 mm, class 10.9. . . . .	4
23	P2947151	TUBE - manifold block to front cooler . . . . .	1
24	P3437625	TUBE - manifold block to rear cooler. . . . .	1
25	REF	HOSE - 200 mm (7-7/8 inch) long, return, tube to cooler, cut from bulk hose P1103610 below. . . . .	1
26	P36902	CLAMP - hose . . . . .	4
27	P4931964	HOSE - 630 mm (24-13/16 inch) long, valve to tee. . . . .	1
28	P37230	TEE - hose to cooler motor . . . . .	1
29	P1137673	TUBE - adapter, fan motor. . . . .	1
30	REF	MOTOR ASSEMBLY - cooler fan, parts list page 8-183 or 8-185. . . . .	2
	* P1103610	HOSE - bulk, sold by the meter . . . . .	UAR

**HYDRAULIC CIRCUIT FOR PILOT CONTROL SUPPLY****P.I.N. 74441 through 74569**

REF.	PART NO.	DESCRIPTION	REQ'D.
<b>Supply Lines And Connections</b>			
35	*REF	HOSE - 500 mm (19-11/16 inch) long, cut from bulk hose P1103640 below. . . . .	1
36	*REF	HOSE - 1300 mm (51-3/16 inch) long, cut from bulk hose P1103640 below. . . . .	1
37	*REF	HOSE - 1600 mm (63 inch) long, cut from bulk hose P1103640 below. . . . .	2
38	*REF	HOSE - 2000 mm (78-3/4 inch) long, cut from bulk hose P1103640 below. . . . .	2
39	*REF	HOSE - 2500 mm (98-7/16 inch) long, cut from bulk hose P1103640 below. . . . .	2
40	B506378	ADAPTER - straight (Replaces adapter P4037535) . . . . .	6
41	P4037537	ADAPTER - 90 degree . . . . .	4
42	P2337589	ADAPTER - straight. . . . .	2
43	238-6123	O-RING - adapter, 1-3/16 ID x 3/32 inch wide (Replaces O-ring R30990) . . . . .	2
44	P2337591	ADAPTER - straight. . . . .	1
45	P1230443	O-RING - adapter . . . . .	1
46	P37553	ADAPTER - straight. . . . .	1
47	P3037546	ADAPTER - straight. . . . .	1
48	238-6116	O-RING - adapter, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	1
49	*REF	HOSE - 800 mm (31-1/2 inch) long, cut from bulk hose P1103640 below. . . . .	1
50	*REF	HOSE - 1000 mm (39-3/8 inch) long, cut from bulk hose P1103640 below. . . . .	1
51	P37236	TEE - male. . . . .	1
52	P3037561	ADAPTER - straight. . . . .	1
53	238-6116	O-RING - adapter, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	1
54	P8047602	TUBE - between solenoid valves. . . . .	1
	*P1103640	HOSE - bulk, sold by the meter. . . . .	UAR

**HYDRAULIC CIRCUIT FOR PILOT CONTROL SUPPLY****P.I.N. 74520 through 74569**

REF.	PART NO.	DESCRIPTION	REQ'D.
27	P4620398	CLAMP - hose, half (Replaces clamp P1820302) . . . . .	8
28	814-10070	BOLT - clamp, hex, 10 - 1.5 x 70 mm (Replaces bolt P33830) . . . . .	12
29	P3528795	SPACER - bolt . . . . .	24
30	832-10410	NUT - clamp bolt, hex, self-locking, 10 mm - 1.5 (Replaces nut P34598) . . . . .	12
31	P51946	STRAP - tie, control circuit hoses . . . . .	UAR
32	P6631920	HOSE - from parallel drive valve to parallel supply valve . . . . .	1
33	P3037561	TUBE - adapter . . . . .	2
34	238-6116	O-RING - adapter, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	3
35	P7646290	FILTER ASSEMBLY - parallel supply valve . . . . .	1
36	NSS	CAP - filter assembly, order filter assembly P7646290 . . . . .	1
37	P1145268	O-RING - cap . . . . .	1
38	NSS	CONE - filter assembly, order filter assembly P7646290 . . . . .	1
39	P1950574	ELEMENT - filter assembly . . . . .	1
40	NSS	BODY - filter assembly, order filter assembly P7646290 . . . . .	1

**HYDRAULIC CIRCUIT FOR CONTROLS****Manifold to Hand and Foot Control Valves****P.I.N. 74441 through 74509**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	REF	VALVE ASSEMBLY - hand control, parts list page 8-139 or 8-141 . . . . .	.2
2	P2643318	VALVE ASSEMBLY - foot control, parts list page 8-143 . . . . .	.2
3	REF	PUMP - foot . . . . .	.1
4	P2643329	MANIFOLD - control circuits . . . . .	.1
5	614-10030	BOLT - manifold mounting, hex, full threads, 10 - 1.5 x 30 mm . . . . .	.2
6	P3528795	SPACER - bolt . . . . .	.2
7	P4037537	ADAPTER - 90 degree, control circuit hoses . . . . .	.14
8	P3037546	ADAPTER - straight . . . . .	.7
9	238-6116	O-RING - adapter, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	.7
10	B506378	ADAPTER - straight, control circuit hoses (Replaces adapter P4037535) . . . . .	.4
11	P4037504	ADAPTER ASSEMBLY - straight . . . . .	.8
	P7046042	O-RING - adapter . . . . .	.8
12	REF	HOSE - control circuit, pressure, see page 8-49 for pilot control circuit . . . . .	.1
13	P2337591	ADAPTER - straight . . . . .	.1
14	P1230443	O-RING - adapter . . . . .	.1
15	P4037505	ADAPTER ASSEMBLY - straight . . . . .	.2
	P7046042	O-RING - adapter . . . . .	.2
16	REF	HOSE - control circuit, return, see page 8-21 for leak return circuit . . . . .	.1
17	P1737451	PLUG - manifold ports . . . . .	.4
18	238-6116	O-RING - plug, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	.4
19	P1337445	PLUG - manifold port, end (Replaces plug P1737443) . . . . .	.1
20	P1230443	O-RING - plug . . . . .	.1
21	P37236	TEE - control circuit lines . . . . .	.1
22	B506378	ADAPTER - straight, control circuit hoses (Replaces adapter P4037535) . . . . .	.2
23	*REF	HOSE - control circuit, 700 mm (27-9/16 inch) long, cut from bulk hose P1103640 below . . . . .	.4
24	*REF	HOSE - control circuit, 500 mm (19-11/16 inch) long, cut from bulk hose P1103640 below . . . . .	.1
25	*REF	HOSE - control circuit, 400 mm (15-3/4 inch) long, cut from bulk hose P1103640 below . . . . .	.1
26	*REF	HOSE - control circuit, 63" (1600 mm) long, cut from bulk hose P1103640 below . . . . .	.4
27	P4931937	SLEEVE - control circuit hoses from hand control valves . . . . .	.2
28	P51946	STRAP - tie, control circuit hoses, small . . . . .	UAR
29	P136922	STRAP - tie, control circuit hoses, large . . . . .	UAR
30	REF	HOSE - control circuit, pressure, see page 8-49 for pilot control circuit . . . . .	.1
	*P1103640	HOSE - bulk, sold by the meter . . . . .	UAR

**HYDRAULIC CIRCUIT FROM SWING AND DRIVE CONRTOLE VALVES**

**P.I.N. 74441 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
40	P731983	HOSE - to tubes on boom, for connection to boom tubing, see page 8-95 and 8-96. . . . .	
41	P1232975	BOLT - hoses to tubes. . . . .	12
42	829-1414	NUT - mounting bolt, hex, 14 mm - 2.0, class 10 (Replaces nut P134107). . . . .	12
43	P3820357	CLAMP - tube, half . . . . .	2
44	P741440	SLEEVE - tube. . . . .	4
45	814-12110	BOLT - clamp, hex, 12 - 1.75 x 110 mm (Replaces bolt P133887) . . . . .	3
46	P3528793	SPACER - bolt. . . . .	6
47	832-10412	NUT - clamp bolt, hex, self-locking, 12 mm - 1.75 (Replaces nut P34596) . . . . .	3
48	P6628199	PLATE - clamp mounting, no longer available. . . . .	1
49	614-12040	BOLT - mounting plate, hex, full threads, 12 - 1.75 x 40 mm (Replaces bolt P533837) . . . . .	4
50	P3528793	SPACER - mounting bolt . . . . .	4
51	P2927135	CLAMP - tube, bolt down half . . . . .	6
52	614-12035	BOLT - clamp mounting, hex, full threads, 12 - 1.75 x 35 mm . . . . .	12
53	P3528793	SPACER - mounting bolt . . . . .	12
54	P1820379	CLAMP - tube, half . . . . .	6
55	814-12090	BOLT - clamp, hex, 12 - 1.75 x 90 mm (Replaces bolt P33844) . . . . .	12
56	P3528793	SPACER - clamp bolt . . . . .	24
57	832-10412	NUT - clamp bolt, hex, self-locking, 12 mm - 1.75 (Replaces nut P34596) . . . . .	12
58	P9428186	SUPPORT - tube clamp. . . . .	1
59	814-14080	BOLT - support mounting . . . . .	2
60	P3528792	SPACER - mounting bolt . . . . .	4
61	P134549	NUT - mounting bolt. . . . .	2
62	P2120348	CLAMP - tube, half . . . . .	4
63	814-14200	BOLT - tube clamp, hex, 14 - 2.0 x 200 mm (Replaces bolt P433857) . . . . .	8
64	P3528792	SPACER - clamp bolt . . . . .	16
65	P134549	NUT - clamp bolt . . . . .	8
66	REF	VALVE ASSEMBLY - pressure regulating, 13 bar, parts list page 8-165 or 8-167 . . . . .	1

**HYDRAULIC CIRCUIT FOR OPTIONS****P.I.N. 74570 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P3443516	PUMP ASSEMBLY - high pressure, parts list page 8-117 . . . . .	1
2	P1343315	VALVE ASSEMBLY - power sensing, parts list page 8-157 . . . . .	1
3	P2443638	VALVE ASSEMBLY - optional equipment control, parts list page 8-137. . . . .	1
4	814-16055	BOLT - valve mounting, hex, 16 - 2.0 x 55 mm (Replaces bolt P33803). . . . .	3
5	P4528716	SPACER - mounting bolt . . . . .	3
6	P2643329	BLOCK - manifold, for attaching hardware, see page 8-71 . . . . .	1
7	P1437456	PLUG ASSEMBLY - manifold block . . . . .	2
	P945295	SEAL - plug . . . . .	1
8	P4037571	ADAPTER ASSEMBLY - straight . . . . .	4
	P7046042	SEAL - adapter. . . . .	1
9	REF	VALVE ASSEMBLY - foot control, parts list page 8-145 or 8-147. . . . .	1
10	814-8050	BOLT - hex, 8 - 1.25 x 50 mm (Replaces bolt P33822). . . . .	4
11	P3528794	SPACER - bolt, upper, 6 mm thick . . . . .	4
12	P4328730	SPACER - bolt, lower, 20 mm thick. . . . .	4
13	P1334571	NUT - cage type, 8 mm . . . . .	4
14	* REF	HOSE - control circuit, 700 mm (27-9/16 inch) long, cut from bulk hose P1103640 below . . . . .	1
15	* REF	HOSE - control circuit, 1000 mm (39-3/8 inch) long, cut from bulk hose P1103640 below . . . . .	1
16	* REF	HOSE - control circuit, 3200 mm (126 inch) long, cut from bulk hose P1103640 below . . . . .	2
17	P4037590	ADAPTER - 90 degree, control circuit hoses. . . . .	4
18	814-10075	BOLT - clamp, hex, 10 - 1.5 x 75 mm (Replaces bolt P33833) . . . . .	4
19	P3528795	SPACER - clamp bolt . . . . .	8
20	P4037590	ADAPTER - 90 degree, control circuit hoses. . . . .	3
21	P4037573	ADAPTER ASSEMBLY - straight . . . . .	3
	P945295	SEAL - adapter. . . . .	1
22	832-10410	NUT - clamp bolt, hex, self-locking, 10 mm - 1.5 (Replaces nut P34598). . . . .	4
23	P4037588	ADAPTER - straight, control circuit hose. . . . .	1
24	P4037573	ADAPTER ASSEMBLY - straight . . . . .	1
	P945295	SEAL - adapter. . . . .	1
25	P1031918	HOSE - at boom . . . . .	2
26	P51946	STRAP - tie, control circuit hoses . . . . .	UAR
27	P3731961	HOSE - valve to valve, lower. . . . .	1
28	P3231981	HOSE - valve to pressure regulating valve, upper. . . . .	1
29	REF	HOSE - pump to power sensing valve, see page 8-13 . . . . .	1
30	P3231950	HOSE - pump to optional equipment control valve . . . . .	1
31	P1332901	BOLT - hose and tube ends. . . . .	12
32	P532918	BOLT - hose ends . . . . .	6
33	P637358	ADAPTER ASSEMBLY - check valve . . . . .	1
	P945293	SEAL - adapter. . . . .	1
34	P632924	BOLT - hose to tube . . . . .	8
35	P4037516	VALVE ASSEMBLY - pressure check. . . . .	1
	P7046042	SEAL - check valve . . . . .	1
36	825-1408	NUT - hex, mounting bolt. . . . .	8
	* P1103640	HOSE - bulk, sold by the meter . . . . .	UAR

Continued on next page

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](http://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

**BOOM, ARM AND TOOL CYLINDER CIRCUITS****Tubes and Clamps at Boom****P.I.N. 74441 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
30	P1326770	BRACKET - clamp mounting, under rod end of arm cylinder . . . . .	1
31	814-20070	BOLT - bracket to boom, hex, 20 - 2.5 x 70 mm (Replaces bolt P33865) . . . . .	2
32	P2020319	CLAMP - tubes to tool cylinder . . . . .	8
33	P133821	BOLT - clamp . . . . .	12
34	P4328747	WASHER - flat . . . . .	16
35	825-1420	NUT - hex, 20 mm (Replaces nut P34171) . . . . .	14
36	P741486	SLEEVE - tube, at clamp . . . . .	4
38	P1420345	CLAMP - tubes to tool and arm cylinders, top of boom . . . . .	4
41	P741486	SLEEVE - tube, at clamp . . . . .	4
42	P2020320	CLAMP - long, base, tubes to tool and arm cylinders, at bend in boom . . . . .	1
44	P1420344	CLAMP - short, top, tubes to tool and arm cylinders, at bend in boom . . . . .	2
47	P1326771	BRACKET - clamp mounting, crossover tubes to boom cylinders . . . . .	1
48	814-20070	BOLT - bracket to boom, hex, 20 - 2.5 x 70 mm (Replaces bolt P33865) . . . . .	2
49	P4328747	WASHER - flat . . . . .	2
50	825-1420	NUT - hex, 20 mm (Replaces nut P34171) . . . . .	2
51	P32705	BOLT - clamp . . . . .	6
52	P4328746	WASHER - flat . . . . .	12

**ARM CYLINDER CIRCUIT**  
**Tube, Fittings and Clamps**  
**Units with Optional Craning Valve**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	REF	CYLINDER ASSEMBLY - arm, see pages 8-197 through 8-201 for correct valve . . . . .	1
2	P3237797	BLOCK - hose, closed end of arm cylinder . . . . .	1
3	864-16100	BOLT - hose block to cylinder . . . . .	4
4	P2030483	O-RING - hose block (Replaces O-ring P330402) . . . . .	1
5	P532924	BOLT - hose flange to block . . . . .	2
6	P1737760	ADAPTER - hose flange to rod end tube, no longer available. . . . .	1
7	P532927	BOLT - hose flange to tube flange. . . . .	2
8	829-1414	NUT - flange bolt, hex, 14 - 2.0, class 10 (Replaces nut P134107). . . . .	2
9	P7347669	TUBE - to rod end of cylinder . . . . .	1
10	P532924	BOLT - tube flange to block. . . . .	2
11	P3143369	VALVE ASSEMBLY - craning, arm cylinder, parts list pages 8-175 and 8-177 . . . . .	1
12	864-16100	BOLT - valve to cylinder, hex socket head, 16 - 2.0 x 100 mm . . . . .	4
13	P2737730	RESTRICTOR - tube block . . . . .	1
14	P3030177	GUIDE - restrictor . . . . .	1
15	P2030483	O-RING - valve block (Replaces O-ring P330402) . . . . .	1
16	P724080	BRACKET - tube support and clamp mounting . . . . .	1
17	P1830777	U-BOLT - bracket. . . . .	1
18	P4328747	SPACER - U-bolt and clamp bolt. . . . .	3
19	825-1420	NUT - U-bolt, hex, 20 mm (Replaces P34171) . . . . .	2
20	P920352	CLAMP - rod end tube to bracket . . . . .	1
21	814-20100	BOLT - clamp, hex, 20 - 2.5 x 100 mm (Replaces bolt P133835) . . . . .	1
22	P3930110	COVER - cylinder access . . . . .	1
23	P2030483	O-RING - access cover (Replaces O-ring P330402). . . . .	1
24	P1332915	BOLT - hex socket, access cover . . . . .	4
25	P1437456	PLUG ASSEMBLY - cylinder. . . . .	1
	P945295	SEAL - plug . . . . .	1
26	P45801	FITTING - grease, straight, cylinder . . . . .	1
27	P837590	ADAPTER - grease fitting . . . . .	1
28	P45202	SEAL - adapter . . . . .	1

**220B Excavator**  
**HYDRAULIC PUMP**  
**High Pressure**  
**P.I.N. 74441 through 74597**  
**P.I.N. 03201 and After**

**8-117**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P3443516	PUMP ASSEMBLY - high pressure . . . . .	1
1	614-10025	BOLT - suction flange, hex, full threads, 10 - 1.5 x 25 mm (Replaces bolt P33827) . . . . .	8
2	P23691	WASHER - special, locking . . . . .	8
3	P937021	FLANGE - suction . . . . .	1
4	P1637401	PLUG - suction flange . . . . .	1
5	P930474	O-RING - plug . . . . .	1
6	P30366	O-RING - suction flange . . . . .	1
7	P2339814	BEARING - roller, pump, suction flange end . . . . .	1
8	P744346	HOUSING - pump, no longer available . . . . .	1
9	P3533006	PLUG ASSEMBLY - housing, if used (Replaces plug P30892) . . . . .	2
	P2230426	O-RING - plug . . . . .	1
10	P45251	SEAL - plug, if used . . . . .	2
11	P7146260	SHAFT - pump . . . . .	1
12	P36198	KEY - shaft . . . . .	1
13	P2339833	BEARING - roller, pump shaft . . . . .	1
	P944396	KIT - shaft and bearing seal . . . . .	1
14	933078R1	RING - snap, retainer, small (Replaces ring P36258) . . . . .	1
15	P30338	O-RING - seal retainer, outer . . . . .	1
16	P1830429	O-RING - seal retainer, outer (Replaces O-ring P1830411) . . . . .	1
17	NSS	RETAINER - seal, order kit P944396 . . . . .	1
18	P30361	O-RING - seal retainer, inner . . . . .	1
19	P536233	RING - snap, retainer, large . . . . .	1
20	P9646046	GASKET - cylinder head (Replaces gasket P1446050) . . . . .	4
	P1144324	HEAD ASSEMBLY - cylinder, pump pistons . . . . .	4
21	NSS	HEAD - cylinder, pump pistons, order head assembly P1144324 . . . . .	1
	P3537791	PISTON ASSEMBLY - cylinder head . . . . .	3
22	NSS	GUIDE - piston, order piston assembly P3537791 . . . . .	1
23	P1038151	SPRING - piston . . . . .	1
24	NSS	PISTON - pump, order piston assembly P3537791 . . . . .	1
25	P2628972	SEAT - piston . . . . .	1
	P1743377	VALVE ASSEMBLY - discharge, piston . . . . .	3
26	NSS	POPPET - valve, order valve assembly P1743377 . . . . .	1
27	P3446071	KIT - seal, includes (1) O-ring and (1) backup ring . . . . .	1
28	P1037447	PLUG - cylinder head . . . . .	3
29	P532965	BOLT - cylinder head mounting . . . . .	32
30	P34713	WASHER - mounting bolt . . . . .	32
31	P3533006	PLUG ASSEMBLY - housing, if used . . . . .	2
	P2230426	O-RING - plug . . . . .	1

**PARALLEL AND DRIVE CONTROL VALVE****Center Block****P.I.N. 74441 through 74506**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P3143614	VALVE ASSEMBLY - drive control, parts list page 8-131 . . . . .	1
2	P3143607	VALVE ASSEMBLY - swing control, parts list page 8-135 . . . . .	1
3	P1827708	ROD - valve mounting . . . . .	3
4	829-1416	NUT - hex, 16 mm - 2.0, class 10 (Replaces nut P34169) . . . . .	3
	P1743672	BLOCK ASSEMBLY - center. . . . .	1
5	864-10030	BOLT - hex socket, 10 mm x 30 mm, plated . . . . .	2
6	P2123325	BLOCK - check valve . . . . .	1
7	238-6125	O-RING - block, 1-5/16 ID x 3/32 inch wide (Replaces O-ring A43669). . . . .	1
8	P1829809	VALVE - check, center block . . . . .	1
9	P2337420	PLUG - block . . . . .	2
10	P130486	O-RING - plug . . . . .	2
11	P1838108	SPRING - spool . . . . .	1
12	P1627927	GUIDE - spring . . . . .	1
13	P1745337	RING - backup, upper O-ring . . . . .	3
14	238-6116	O-RING - upper, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	3
15	P1745338	RING - backup, lower O-ring . . . . .	1
16	P1230443	O-RING - lower. . . . .	1
17	NSS	BLOCK - center, order block assembly P1743672. . . . .	1
18	NSS	SPOOL - center block, order block assembly P1743672. . . . .	1

**SWING CONTROL AND OPTIONAL CONTROL VALVE****P.I.N. 74441 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P2443638	VALVE ASSEMBLY - control, swing and optional . . . . .	2
1	P32921	SCREW - end, cap mounting . . . . .	4
2	P1640401	CAP - end, spool . . . . .	2
3	238-6125	O-RING - end, cap, 1-5/16 ID x 3/32 inch wide (Replaces O-ring A43669) . . . . .	2
4	P930008	STUD - spring, retaining, no longer available. . . . .	1
5	P2328851	SEAT - spring . . . . .	2
6	P1838162	SPRING - spool . . . . .	1
7	NSS	SPOOL - control valve, order valve assembly P2443638 . . . . .	1
8	P930007	STUD - spring, retaining . . . . .	1
9	P3128701	WASHER - spring, retaining . . . . .	2
10	P1638101	SPRING - spool . . . . .	1
11	P1737447	PLUG - valve housing, spool end. . . . .	1
12	P1630431	O-RING - plug . . . . .	1
13	P5746063	HOUSING - control valve . . . . .	1
14	P1437458	PLUG ASSEMBLY - valve housing, port side . . . . .	1
15	NSS	O-RING - plug, order plug assembly P1437458 . . . . .	1
16	P32850	SCREW - set, adjusting . . . . .	2
17	P34564	NUT - hex, locking . . . . .	2
18	P3143608	BODY - relief valve. . . . .	2
19	P130486	O-RING - relief valve body . . . . .	2
20	P1630451	O-RING - plunger seat . . . . .	2
21	P1229891	SEAT - plunger. . . . .	2
22	P1538128	SPRING - plunger . . . . .	2
	P2643399	PLUNGER ASSEMBLY - relief valve . . . . .	2
23	NSS	PLUNGER - relief valve, order plunger assembly P2643399 . . . . .	1
24	P545234	SEAL - plunger . . . . .	1
25	P930006	BODY - load check valve . . . . .	1
26	238-6125	O-RING - body, load check valve, 1-5/16 ID x 3/32 inch wide (Replaces O-ring A43669) . . . . .	1
27	P138102	SPRING - load check valve . . . . .	1
28	P2643397	POPPET - load check valve . . . . .	1

**FOOT CONTROL VALVE**  
**Monsun-Tison Manufactured**  
**If Used**  
**P.I.N. 74510 through 74597**  
**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P1643394	VALVE ASSEMBLY - control, foot. . . . .	2-3
	P5242748	PEDAL ASSEMBLY - foot . . . . .	1
1	P3533052	SCREW - set, foot pedal. . . . .	2
2	P34211	NUT - hex, jam . . . . .	2
3	NSS	PEDAL - valve control, order pedal assembly P5242748. . . . .	1
	P6528252	PLATE ASSEMBLY - foot pedal mounting. . . . .	1
4	NSS	PIN - foot pedal pivot, order plate assembly P6528252 . . . . .	1
5	NSS	BUSHING - mounting block, order plate assembly P6528252 . . . . .	2
6	NSS	RING - snap, pin, order plate assembly P6528252 . . . . .	1
7	NSS	LEVER - mounting block, order plate assembly P6528252 . . . . .	2
8	NSS	PIN - roll, mounting block, order plate assembly P6528252. . . . .	2
9	NSS	BOLT - block to mounting plate, order plate assembly P6528252 . . . . .	4
10	NSS	BLOCK - foot pedal mounting, order plate assembly P6528252 . . . . .	1
11	NSS	PLATE - foot pedal mounting, order plate assembly P6528252. . . . .	1
	P5949643	KIT - cartridge and guide (Replaces kit P3143665) . . . . .	2
12	NSS	WASHER - guide, order kit P5949643 . . . . .	1
13	NSS	PIN - guide, order kit P5949643 . . . . .	1
14	NSS	O-RING - guide pin, order kit P5949643. . . . .	1
15	NSS	GUIDE - cartridge, order kit P5949643. . . . .	1
16	NSS	O-RING - guide, outer, order kit P5949643 . . . . .	1
17	P8046003	SPACER - cartridge . . . . .	1
18	P936337	KIT - retainer. . . . .	1
19	NSS	SPACER - cartridge, order kit P5949643 . . . . .	1
20	NSS	SPACER - cartridge, order kit P5949643 . . . . .	1
21	P2230446	O-RING - guide, inner. . . . .	1
	P3143664	KIT - spring. . . . .	2
22	NSS	SCREW - cartridge, order kit P3143664. . . . .	1
23	NSS	WASHER - screw, order kit P3143664 . . . . .	1
24	NSS	GUIDE - spring, upper, order kit P3143664 . . . . .	1
25	NSS	SPRING - cartridge, outer, order kit P3143664 . . . . .	1
26	NSS	SPRING - cartridge, inner, order kit P3143664. . . . .	1
27	NSS	SHIM - spring, order kit P3143664 . . . . .	2
28	NSS	GUIDE - spring, lower, order kit P3143664. . . . .	1
29	NSS	SPOOL - regulating, order kit P3143664 . . . . .	1
30	NSS	SPRING - spool return, order kit P3143664 . . . . .	1
31	NSS	SECTION - valve body, order valve assembly P1643394 . . . . .	1

**POWER SENSING VALVE**

**P.I.N. 74441 through 74597**

**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P1343315	VALVE ASSEMBLY - power sensing . . . . .	1
	P1143382	BLOCK ASSEMBLY - power sensing valve . . . . .	1
1	P34564	NUT - locking . . . . .	2
2	P32859	SCREW - adjusting . . . . .	2
3	P2037720	BODY - valve . . . . .	2
4	P130486	O-RING - body . . . . .	2
5	P929835	SLEEVE - plunger . . . . .	2
6	238-6116	O-RING - sleeve, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215). . . . .	2
7	P34909	SPRING - Belleville, plunger . . . . .	UAR
8	P1229870	PLUNGER - valve . . . . .	2
	P1343320	HOUSING ASSEMBLY - plunger seat . . . . .	1
9	NSS	SEAT - plunger, order housing assembly P1343320 . . . . .	1
10	NSS	HOUSING - plunger seat, order housing assembly P1343320 . . . . .	1
11	P4746098	RING - backup, O-ring . . . . .	1
12	238-6116	O-RING - housing, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	1
	P1343321	HOUSING ASSEMBLY - plunger seat . . . . .	1
13	NSS	SEAT - plunger, order housing assembly P1343321 . . . . .	1
14	NSS	HOUSING - plunger seat, order housing assembly P1343321 . . . . .	1
15	P4746098	RING - backup, O-ring . . . . .	1
16	238-6116	O-RING - housing, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	1
17	P32830	SCREW - ball retaining . . . . .	1
18	P31004	BALL - steel . . . . .	1
	P1437455	PLUG ASSEMBLY - valve block . . . . .	2
19	NSS	PLUG - valve block, order plug assembly P1437455 . . . . .	1
20	P7046042	SEAL - plug . . . . .	1
21	NSS	PISTON - valve, order block assembly P1143382 . . . . .	2
22	NSS	BLOCK - valve, order block assembly P1143382 . . . . .	1
	P1343316	HOUSING ASSEMBLY - with block, power sensing valve . . . . .	1
23	P532914	BOLT - block mounting . . . . .	6
24	P1223353	BLOCK - end, no longer available . . . . .	1
25	P130486	O-RING - block . . . . .	6
26	P1038119	SPRING - poppet . . . . .	2
27	NSS	POPPET - power sensing valve, order housing assembly P1343316. . . . .	2
28	P1038172	SPRING - spool . . . . .	2
29	NSS	SPOOL - power sensing valve, order housing assembly P1343316. . . . .	2
30	NSS	HOUSING - spool, order housing assembly P1343316 . . . . .	1
31	P233094	PLUG - orifice . . . . .	2
32	P32954	BOLT - valve block, long . . . . .	4
33	864-10050	BOLT - valve block, hex socket, 10 - 1.5 x 50 mm (Replaces bolt P32937) . . . . .	1

**PRESSURE REGULATING VALVE****13 Bar**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P3743383	VALVE ASSEMBLY - pressure regulating, 185 psi, 1275 KPa, 13 bar . . . . .	1
1	P1232979	BOLT - hex socket, 10 mm x 80 mm, class 10.9 . . . . .	2
2	P4524114	PLATE - end, no longer available. . . . .	1
3	P130412	O-RING - cover . . . . .	2
4	P1929055	COVER - valve. . . . .	1
5	P1038168	SPRING - regulator valve. . . . .	1
6	P3327801	PLUNGER - valve . . . . .	1
7	NSS	BLOCK - pressure regulating valve, order valve assembly P3743383 . . . . .	1

**OPTIONAL CRANING VALVE**

**Used with Arm Cylinder Circuit**

REF.	PART NO.	DESCRIPTION	REQ'D.
	REF	VALVE ASSEMBLY - craning, arm cylinder, continued.....	1
33	P1734569	NUT - locking, adjusting screw.....	1
34	P1933047	SCREW - adjusting, relief valve.....	1
35	P2138129	SPRING - poppet.....	1
36	P1129470	POPPET - relief valve.....	1
37	P1029781	BODY - relief valve.....	1
	P3143333	CARTRIDGE ASSEMBLY - relief valve.....	1
38	NSS	POPPET AND PLUNGER - relief valve, order cartridge assembly P3143333.....	1
39	*P630443	O-RING - poppet.....	1
40	*P151241	SEAL - plunger (Replaces seal P7046090).....	1
41	NSS	SEAL - poppet, order cartridge assembly P3143333.....	1
42	NSS	RING - seal retaining, order cartridge assembly P3143333.....	1
43	*P1145267	RING - backup, seat O-ring, large.....	1
44	*P30460	O-RING - seat, large.....	1
45	NSS	SEAT - relief valve, order cartridge assembly P3143333.....	1
46	*P1145268	SEAL - seat.....	1
47	*P1830425	O-RING - seat, small.....	1
48	*P5746079	RING - backup, seat O-ring, small.....	1
	*P4349653	KIT - seal repair, includes all items with an asterisk (*).....	1

**HYDRAULIC SWIVEL**  
**P.I.N. 74441 through 74597**  
**P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P1737754	SWIVEL ASSEMBLY - hydraulic . . . . .	1
1	NSS	HOUSING - swivel, order swivel assembly P1737754 . . . . .	1
2	* P646098	SEAL - ring, six upper grooves . . . . .	6
3	* P1046027	SEAL - ring, three lower grooves . . . . .	3
4	* 238-5157	O-RING - housing to swivel, 4-1/2 ID x 3/32 inch wide (Replaces O-ring P1230442) . . . . .	1
5	NSS	SWIVEL - inner, order swivel assembly P1737754 . . . . .	1
6	P32979	BOLT - swivel . . . . .	4
7	P34714H	WASHER - bolt . . . . .	4
8	* 238-6116	O-RING - small, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	8
9	P35744	PIN - roll, inner . . . . .	2
10	P35762	PIN - roll, outer . . . . .	2
11	* P30367	O-RING - upper and lower housing . . . . .	2
12	P1737756	HEAD - swivel . . . . .	1
16	P3330165	RETAINER - inner swivel . . . . .	1
17	614-12035	BOLT - retainer, hex, full threads, 12 - 1.75 x 35 mm (Replaces bolt P33841) . . . . .	4
18	* P145276	WASHER - bolt . . . . .	4
19	P1346127	BRACKET - hydraulic swivel . . . . .	1
20	614-12025	BOLT - bracket, hex, full threads, 12 - 1.75 x 25 mm (Replaces bolt P28367) . . . . .	4
21	P622841	PLATE - lock . . . . .	4
22	P35004	WASHER - bolt . . . . .	6
23	P833894	BOLT - swivel mounting (Replaces bolt P133825) . . . . .	4
24	P3528796	SPACER - mounting bolt . . . . .	4
	* P1249664	KIT - seal, includes all items with an asterisk (*) . . . . .	1

**ARM CYLINDER**

**With Wire Ring Type Retainer for Piston Locking Pin**

REF.	PART NO.	DESCRIPTION	REQ'D.
	P7046718	CYLINDER ASSEMBLY - arm, no longer available, order cylinder assembly P8346712 when replacing complete cylinder, parts list page 8-201	1
	P1452454	TUBE ASSEMBLY - cylinder (Replaces tube assembly P2449358)	1
1	NSS	TUBE - cylinder, order tube assembly P2449358.	1
2	P1928644	BUSHING - tube	1
	P2249442	ROD ASSEMBLY - piston, no longer available, order rod assembly P8849411 and items 5 - 11 on page 8-199	1
3	NSS	ROD - piston, order rod assembly P2249442.	1
4	P1928644	BUSHING - piston rod.	1
5	P1036944	RETAINER - locking pin.	1
6	P427329	PIN - locking.	1
7	P3229176	PISTON - cylinder	1
8	*P7346003	RING - wear	2
9	*P1451235	SEAL - piston	3
10	*P745330	RING - backup, piston rod O-ring.	2
11	*P30349	O-RING - piston rod	1
12	P532952	BOLT - gland	16
13	P2630181	RETAINER - packing gland	1
14	P1629098	GLAND - cylinder packing	1
15	*P3946024	WIPER - piston rod.	1
16	*P1551236	SEAL - packing, piston rod.	1
17	*P3946023	RING - wear	3
18	*P30370	O-RING - gland	1
19	*P4146037	RING - backup, gland O-ring	1
20	P1345280	SHIM - seal, 0.5 mm (0.020 inch) thick, not shown	UAR
21	P1345281	SHIM - seal, 1 mm (0.040 inch) thick, not shown	UAR
	*P4149682	KIT - seal, includes all items with an asterisk (*)	1

## ALPHABETICAL INDEX CHASSIS/MOUNTED EQUIPMENT

DESCRIPTION	PAGE
Air Exhaust Chambers.....	9-17
Arm, Links and Mounting Pins.....	9-55,9-57
Arm Lubrication Lines.....	9-59,9-61
Backhoe Bucket.....	9-63,9-65
Backhoe Bucket Cutter Options.....	9-71,9-73
Boom and Pins.....	9-49
Boom Lubrication Lines.....	9-51,9-53
Bucket Teeth.....	9-67,9-69
Cab	
Anti-Vandalism Guards.....	9-107,9-109
Door.....	9-95 - 9-99
Frame and Related Parts.....	9-75,9-77,9-83,9-85,9-89
Glass and Insulation.....	9-79,9-81,9-93
Insulation.....	9-87
Sliding Window.....	9-91
Windshield.....	9-101,9-103
Windshield Opening Parts.....	9-105
Decals.....	9-119 - 9-123
Engine Access Cover Frames and Seals.....	9-19,9-21
Fire Extinguisher - Optional.....	9-113
Front Access Covers.....	9-23,9-25
Fuel Pump - Optional.....	9-117
Fuel Transfer System - Optional.....	9-115
Hand Control Valve Consoles.....	9-27 - 9-43
Heater and Oil Lines to Engine.....	9-45
Manual Box.....	9-123
Rear Access Covers and Shroud.....	9-27,9-29
Seat.....	9-33 - 9-35B
Seat Mounting and Floor Plate.....	9-31
Tools.....	9-111
Turntable and Counterweight.....	9-7,9-9
Turntable Bearing and Lubrication Lines.....	9-3,9-5
Turntable Locking Parts.....	9-47
Turntable Lower Access Covers.....	9-11
Turntable Side Access Covers.....	9-13,9-15
Windshield Opening Parts.....	9-105

**TURNTABLE LOWER ACCESS COVERS**

P.I.N. 74441 through 74597

P.I.N. 03201 and After

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P4127180	COVER - under operators compartment, front . . . . .	1
2	P4127179	COVER - under operators compartment, rear . . . . .	1
3	P6328234	DOOR - left-hand, bottom . . . . .	1
4	614-10025	BOLT - cover, hex, full threads, 10 - 1.5 x 25 mm (Replaces bolt P33827). . . . .	12
5	P3528795	SPACER - bolt . . . . .	12
6	P741463	STOP - door. . . . .	2
7	832-10408	NUT - door stop, hex, self-locking, 8 mm - 1.25 (Replaces nut P134596) . . . . .	2
	P7543817	COVER ASSEMBLY - fiberglass, top, left-hand . . . . .	1
8	NSS	COVER - fiberglass, top, left-hand, order cover assembly P7543817 . . . . .	1
9	* REF	SEAL - 2000 mm (78-3/4 inch) long, cut from bulk seal P3109 below. . . . .	1
10	P33869	BOLT - cover . . . . .	4
11	P3528792	SPACER - bolt . . . . .	4
	P7543819	COVER ASSEMBLY - fiberglass, top, right-hand . . . . .	1
12	NSS	COVER - fiberglass, top, right-hand, order cover assembly P7543819. . . . .	1
13	* REF	SEAL - 1800 mm (70-7/8 inch) long, cut from bulk seal P3109 below. . . . .	1
14	* REF	SEAL - 500 mm (19-11/16 inch) long, cut from bulk seal P3109 below. . . . .	1
15	814-10050	BOLT - cover, hex, 10 - 1.5 x 50 mm (Replaces bolt P133813) . . . . .	2
16	P3528795	SPACER - bolt, small. . . . .	2
17	P828508	SPACER - bolt, large. . . . .	2
18	NSS	DOOR - fiberglass, engine access, no longer available, order P7543816 door assembly . . . . .	1
19	P2525877	BRACKET - door, no longer available, order P7543816 door assembly. . . . .	1
20	P2728262	SUPPORT - door, rear, no longer available, order P7543816 door assembly . . . . .	1
21	P2728265	SUPPORT - door, front, no longer available, order P7543816 door assembly . . . . .	1
22	P922816	PLATE - door, no longer available, order P7543816 door assembly. . . . .	2
23	P35418	RIVET - plate, if used. . . . .	8
24	814-14070	BOLT - plate, hex, 14 - 2.0 x 70 mm, if used (Replaces bolt P133878) . . . . .	2
25	P3528792	SPACER - bolt, if used . . . . .	2
26	P1226316	LATCH - door, no longer available, order P7543816 door assembly . . . . .	2
27	P2227105	HINGE - door . . . . .	2
28	614-12040	BOLT - hinge, hex, full threads, 12 - 1.75 x 40 mm (Replaces bolt P533837). . . . .	6
29	P3528793	SPACER - bolt . . . . .	6
30	* REF	SEAL - door, use P3109 bulk seal and cut to length. . . . .	1
	P7543816	DOOR ASSEMBLY - fiberglass, engine access . . . . .	1
31	NSS	DOOR - fiberglass, engine access, order door assembly P7543816. . . . .	1
32	P834578	KNOB - retainer, access door . . . . .	2
33	P727753	STUD - retainer knob . . . . .	2
34	P35731	PIN - roll, retainer knob . . . . .	2
	P7543818	COVER ASSEMBLY - rear . . . . .	1
35	NSS	COVER - rear, order cover assembly P7543818. . . . .	1
36	* REF	SEAL - 6200 mm (244 inch) long, cut from bulk seal P3109 below. . . . .	1
37	P33869	BOLT - cover . . . . .	5
38	P3528792	SPACER - bolt. . . . .	5
	* P3109	SEAL - bulk, sold by the meter . . . . .	UAR

**ENGINE ACCESS COVER FRAMES AND SEALS****P.I.N. 74441 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
40	P2541482	PANEL - front, right-hand frame support . . . . .	1
41	614-10025	BOLT - frame, hex, full threads, 10 - 1.5 x 25 mm (Replaces bolt P33827). . . . .	2
42	P35021	SPACER - bolt. . . . .	2
43	P1334561	NUT - special. . . . .	2
44	P5346004	SEAL - right-hand engine access cover frame . . . . .	1
45	P33869	BOLT - hinge . . . . .	24
46	P4328798	SPACER - bolt. . . . .	24
47	* REF	SEAL - engine access cover frame, 1100 mm (43-3/8 inch) long, cut from bulk seal P303111 below. . . . .	1
	P3343867	FRAME ASSEMBLY - engine cover, rear . . . . .	1
48	NSS	FRAME - engine cover, rear, order frame assembly P3343867 . . . . .	1
49	P36684	HINGE - engine cover frame . . . . .	7
50	P1436934	CYLINDER - cover support . . . . .	4
51	P1127815	PIN - cylinder, frame end. . . . .	4
52	P2327822	PIN - cylinder, cover end . . . . .	4
53	P35002	WASHER - flat. . . . .	8
54	P35510	PIN - cotter, cylinder pin . . . . .	8
55	P5346003	SEAL - engine access cover frame, rear. . . . .	2
56	P33869	BOLT - frame. . . . .	4
57	P545521	SPACER - bolt. . . . .	4
58	P523280	PLATE - frame. . . . .	3
59	615-14045	BOLT - plate, hex, full threads, 14 - 2.0 x 45 mm (Replaces bolt P933833). . . . .	9
60	P134549	NUT - hex . . . . .	9
61	P5346002	SEAL - engine access cover frame . . . . .	1
62	P7228179	SUPPORT - rear shroud . . . . .	1
63	614-14040	BOLT - support, hex, full threads, 14 - 2.0 x 40 mm (Replaces bolt P533846). . . . .	4
64	P28551	SPACER - bolt. . . . .	4
65	P34168	NUT - hex . . . . .	4
66	P3025648	BRACKET - support. . . . .	2
67	P32688	BOLT - hex, 14 mm x 50 mm, full threaded. . . . .	6
68	P3528792	SPACER - bolt, horizontal . . . . .	4
69	P134549	NUT - hex . . . . .	2
70	P3528798	SPACER - bolt, vertical . . . . .	4
71	* REF	SEAL - rear shroud support, 1100 mm (43-3/8 inch) long, cut from bulk seal P303111 below . . . . .	1
72	P1436933	CYLINDER - shroud support . . . . .	2
73	P1127815	PIN - cylinder, frame end. . . . .	2
74	P2327822	PIN - cylinder, shroud end. . . . .	2
75	P35002	WASHER - flat. . . . .	4
76	P35510	PIN - cotter, cylinder pin . . . . .	4
77	P1722830	PLATE - frame. . . . .	2
78	614-8025	BOLT - hex, full threads, 8 - 1.25 x 25 mm (Replaces bolt P33815). . . . .	4
79	P35002	WASHER - flat, 8 mm. . . . .	4
80	P33869	BOLT - hex, 14 mm x 30 mm. . . . .	8
81	P35005	WASHER - flat, 14 mm . . . . .	8
	* P303111	SEAL - bulk, sold by the meter . . . . .	UAR

**SEAT MOUNTING AND FLOOR PLATE****P.I.N. 74441 through 74597****P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	REF	SEAT ASSEMBLY - operator's, part list page 9-33, 9-35 or 9-35B . . . . .	1
2	814-12060	BOLT - hex, 12 mm - 1.75 x 60 mm, plated, seat mounting . . . . .	4
3	P3528793	SPACER - 8 mm, bolt, upper. . . . .	4
4	P4328732	SPACER - 28 mm, bolt, lower . . . . .	4
5	P1334578	NUT - mounting bolt. . . . .	4
6	P3141485	MAT - under seat, no longer available. . . . .	1
7	P3441448	MAT - floor, no longer available. . . . .	1
8	REF	VALVE ASSEMBLY - control, foot, parts list page 8-143, 8-145 or 8-147. . . . .	2-3
9	P133865	BOLT - hex, 8 mm x 60 mm, P.I.N. 74441 through 74509 . . . . .	8-12
9	814-8050	BOLT - hex, 8 - 1.25 x 50 mm, P.I.N. 74510 and after (Replaces bolt P33822) . . . . .	8-12
10	P3528794	SPACER - 6 mm, bolt, upper. . . . .	8-12
11	P4328732	SPACER - 28 mm, bolt, lower, P.I.N. 74441 through 74509 . . . . .	8-12
11	P4328730	SPACER - 20 mm, bolt, lower, P.I.N. 74510 and after . . . . .	8-12
12	P1334571	NUT - valve mounting bolts . . . . .	8-12
13	P7743805	PLATE - floor, operator compartment (Replaces plate P6643851) . . . . .	1
14	P41478	GUIDE - in floor plate. . . . .	2
15	* REF	SEAL - 0.3 m (0.98 foot) long, cut from bulk seal P3127 below . . . . .	2
16	P3141452	PAD - insulation, rear. . . . .	1
17	P1443532	PUMP - foot . . . . .	1
18	614-6016	BOLT - hex, full threads, 6 - 1.0 x 16 mm, foot pump mounting . . . . .	4
19	P3528799	SPACER - 4 mm, bolt . . . . .	4
20	P4441449	SUPPORT - floor plate (Replaces support P3841491) . . . . .	4
21	814-10040	BOLT - hex, 10 - 1.5 x 40 mm, support mounting (Replaces bolt P933818). . . . .	8
22	P3528795	SPACER - 7 mm thick, bolt . . . . .	8
23	832-10410	NUT - hex, self-locking, 10 mm - 1.5, mounting bolt . . . . .	8
24	814-12060	BOLT - hex, 12 mm - 1.75 x 60 mm, plated, center mount . . . . .	4
25	P3528797	SPACER - 30 mm, center mount bolt . . . . .	4
26	814-14080	BOLT - hex, 14 - 2.0 x 80 mm, floor plate (Replaces bolt P933851). . . . .	2
27	P629208	SPACER - bolt. . . . .	2
28	* REF	SEAL - 4.5 m (14-3/4 foot) long, cut from bulk seal P3127 below . . . . .	1
29	** REF	SEAL - 20 cm (7-7/8 inch) long, cut from bulk seal P3128 below . . . . .	2
30	P2340445	GRILLE - heater, under seat . . . . .	1
31	614-8025	BOLT - hex, full threads, 8 - 1.25 x 25 mm, grille mounting (Replaces bolt P33815) . . . . .	4
32	P3528794	SPACER - 6 mm, bolt . . . . .	4
33	P1334571	NUT - mounting bolt. . . . .	4
34	P1047299	STRAP - ground . . . . .	1
35	614-10035	BOLT - hex, full threads, 10 - 1.5 x 35 mm, ground strap . . . . .	2
36	P3528795	SPACER - 7 mm, bolt . . . . .	3
37	825-1410	NUT - ground bolt, hex, 10 mm - 1.5 (Replaces nut P34166) . . . . .	1
38	614-14040	BOLT - hex, full threads, 14 - 2.0 x 40 mm, floor plate (Replaces bolt P533846) . . . . .	2
39	P3528792	SPACER - 10 mm, bolt . . . . .	2
40	P3326360	BOX - manual . . . . .	1
41	P2631335	CHAIN - manual. . . . .	1
42	P35418	RIVET - pop, box, 4.8 mm x 17 mm . . . . .	2
	* P3127	SEAL - bulk, sold by the meter . . . . .	UAR
	** P3128	SEAL - bulk, sold by the meter . . . . .	UAR

**HAND CONTROL VALVE CONSOLES****P.I.N. 74441 through 74595**

REF.	PART NO.	DESCRIPTION	REQ'D.
31	P852064	HANDLE - latch . . . . .	1
32	P1027968	CONNECTOR - at handle . . . . .	1
33	832-10408	NUT - hex, self-locking, 8 mm - 1.25 (Replaces nut P134596) . . . . .	1
34	P35002	WASHER - flat, 8 mm . . . . .	2
35	P741463	BUMPER - left-hand console. . . . .	1
36	P3528794	SPACER - bumper mounting, 6 mm thick . . . . .	1
37	P34113E	NUT - hex, 8 mm . . . . .	1
38	P2643328	VALVE ASSEMBLY - control, hand, parts list page 8-139 or 8-141 . . . . .	2
39	P2537472	PLUG - control handle . . . . .	2
40	P34614	WASHER - flat, 14 mm . . . . .	1
41	P7230184	RING - rubber, hand control valve. . . . .	2
42	P2130670	HANDLE - lift, left-hand console, if used . . . . .	1
43	614-6020	BOLT - hex, full threads, 6 - 1.0 x 20 mm, if used (Replaces bolt P33809). . . . .	2
44	P3528799	SPACER - 4 mm thick, bolt, if used. . . . .	2
45	832-10406	NUT - hex, self-locking, 6 mm - 1.0, if used (Replaces nut P234513). . . . .	2

**220B Excavator**  
**BOOM AND PINS**  
**P.I.N. 74441 through 74597**  
**P.I.N. 03201 and After**

**9-49**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P3853790	BOOM ASSEMBLY - excavator, machinery item, order from machinery price list . . . . .	1
2	P1528664	BUSHING - boom pivot, at boom to turntable . . . . .	.2
3	P1927848	PIN - locking, boom cylinder pivot pin, welded to boom . . . . .	.2
4	P529989	PIN - locking, arm cylinder pivot pin, welded to boom . . . . .	.1
5	P3827328	PIN - locking, arm to boom pivot pin, welded to boom . . . . .	.1
6	P2530964	PIN - pivot, boom cylinder rod end mounting . . . . .	.2
7	P2630178	INSERT - pin . . . . .	.2
8	P4328797	SPACER - bolt . . . . .	.6
9	614-12025	BOLT - pivot pin, hex, full threads, 12 - 1.75 x 25 mm (Replaces bolt P33873) . . . . .	.6
10	P2530958	PIN - pivot, arm cylinder closed end mounting . . . . .	.1
11	P530147	INSERT - pin . . . . .	.1
12	P4528701	SPACER - bolt . . . . .	.3
13	P433830	BOLT - pivot pin . . . . .	.3
14	P2530956	PIN - pivot, arm to boom . . . . .	.1
15	P245335	SHIM - 2 mm (0.08 inch) thick, at boom to arm . . . . .	UAR
16	P45622	WASHER - pivot pin . . . . .	.1
17	P34328	NUT - pivot pin . . . . .	.1
18	P35564	PIN - cotter, pivot pin . . . . .	.1
19	P45801	FITTING - grease, lubrication . . . . .	.2

**220B Excavator**  
**ARM LUBRICATION LINES**  
**P.I.N. 74441 through 74569**

**9-59**

REF.	PART NO.	DESCRIPTION	REQ'D.
------	----------	-------------	--------

**Used on Units with 3.0 Meter Arm**

1	P45801	FITTING - grease, lubrication . . . . .	4
2	P3237596	ADAPTER - grease fitting to tube . . . . .	4
3	P6149078	TUBE - lubrication, pin at boom, left-hand side . . . . .	1
4	P6149077	TUBE - lubrication, pin at boom, right-hand side . . . . .	1
5	P6149076	TUBE - lubrication, closed end of tool cylinder . . . . .	1
6	P6549169	TUBE - lubrication, rod end of arm cylinder . . . . .	1
7	P404292	CLAMP - double tube . . . . .	5
8	P1232971	BOLT - tube clamp . . . . .	5
9	P34713	WASHER - lock . . . . .	5
10	829-1412	NUT - hex, 12 mm - 1.75, class 10 . . . . .	5
11	P37553	ADAPTER - tube to hose . . . . .	2
12	P3731994	HOSE - lubrication, closed end of tool cylinder, 630 mm (24-13/16 inch) long . . . . .	1
13	P4431936	HOSE - lubrication, rod end of arm cylinder, 630 mm (24-13/16 inch) long. . . . .	1
14	P3037546	ADAPTER - straight, lubrication lines . . . . .	4
15	238-6116	O-RING - adapter, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	4
16	P404291	CLAMP - single tube . . . . .	1
17	P1232971	BOLT - tube clamp . . . . .	1
18	P34713	WASHER - lock . . . . .	1
19	829-1412	NUT - hex, 12 mm - 1.75, class 10 . . . . .	1

**Used on Units with 3.8 Meter Arm**

20	P45801	FITTING - grease, lubrication . . . . .	4
21	P3237596	ADAPTER - grease fitting to tube . . . . .	4
22	P6549166	TUBE - lubrication, pin at boom, left-hand side . . . . .	1
23	P6549167	TUBE - lubrication, pin at boom, right-hand side . . . . .	1
24	P6149075	TUBE - lubrication, closed end of tool cylinder . . . . .	1
25	P6549168	TUBE - lubrication, rod end of arm cylinder . . . . .	1
26	P404292	CLAMP - double tube . . . . .	6
27	P404291	CLAMP - single tube . . . . .	2
28	P1232971	BOLT - tube clamp . . . . .	8
29	P34713	WASHER - lock . . . . .	8
30	829-1412	NUT - hex, 12 mm - 1.75, class 10 . . . . .	8
31	P37553	ADAPTER - tube to hose . . . . .	2
32	P3731994	HOSE - lubrication, closed end of tool cylinder, 630 mm (24-13/16 inch) long . . . . .	1
33	P4431936	HOSE - lubrication, rod end of arm cylinder, 630 mm (24-13/16 inch) long. . . . .	1
34	P3037546	ADAPTER - straight, lubrication lines . . . . .	4
35	238-6116	O-RING - adapter, 3/4 ID x 3/32 inch wide (Replaces O-ring L33215) . . . . .	4

**BUCKET TEETH****\*With One-Piece Tooth Retaining Configuration**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P1304009	CUTTER - right-hand side, standard, bolt-on . . . . .	1
2	P1304010	CUTTER - left-hand side, standard, bolt-on . . . . .	1
3	P32759	BOLT - plow, 30 mm x 80 mm . . . . .	6
4	P35011	WASHER - flat, 30 mm . . . . .	6
5	P34721Q	WASHER - lock, 30 mm . . . . .	6
6	P34125	NUT - hex, 30 mm . . . . .	6
7	P1504092	TOOTH - bucket, standard . . . . .	UAR
8	P1504094	TOOTH - bucket, rock . . . . .	UAR
9	P1504093	TOOTH - bucket, spur type . . . . .	UAR
10	P1236125	RETAINER - bucket tooth . . . . .	UAR

**\* NOTE:** See page 9-63 or 9-65 for bucket tooth retaining identification.

**CAB****Cab Glass and Insulation  
P.I.N. 74441 through 74597  
P.I.N. 03201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	REF	CAB ASSEMBLY - excavator, continued from pages 9-75 and 9-77 . . . . .	1
1	P2843294	VISOR - operator, P.I.N. 74441 through 74597 only . . . . .	1
2	P3036940	LATCH - visor, P.I.N. 74441 through 74597 only . . . . .	2
3	P32531	SCREW - latch and visor to cab, P.I.N. 74441 through 74597 only . . . . .	4
4	P4328717	SPACER - latch and visor screw, P.I.N. 74441 through 74597 only . . . . .	8
5	P234586	NUT - clip type, latch and visor screw, P.I.N. 74441 through 74597 only . . . . .	4
6	P2033030	SCREW - side latch to cab, P.I.N. 74441 through 74597 only . . . . .	2
7	P1245226	SPACER - side latch screw, P.I.N. 74441 through 74597 only . . . . .	2
8	P34107X	NUT - side latch screw, P.I.N. 74441 through 74597 only . . . . .	2
9	P2741424	INSULATION AND COVER - cab at latch handle . . . . .	1
10	P3441444	INSULATION - cab, right-hand side . . . . .	1
11	P2741423	INSULATION - cab, rear . . . . .	1
12	P3441496	INSULATION - cab, top . . . . .	1
13	P2036971	RETAINER - insulation . . . . .	33
14	P1831643	STRIP - retainer, cab insulation . . . . .	2
15	614-6020	BOLT - retainer strip, hex, full threads, 6 - 1.0 x 20 mm (Replaces bolt P33809) . . . . .	6
16	P3528799	SPACER - retainer bolt . . . . .	6
17	P834513	RETAINER - strip to cab . . . . .	6
18	P4423439	PLATE - support, ash tray . . . . .	1
19	P2343284	TRAY - ash, cab . . . . .	1
20	P32506	BOLT - ash tray mounting . . . . .	1
21	P6022751	PLATE - retainer . . . . .	1
22	825-1403	NUT - hex, 3 mm - 0.5 (Replaces nut P34105) . . . . .	1
23	REF	LAMP - cab, see page 4-31 . . . . .	1
24	REF	PUMP AND RESERVOIR - windshield washer, see page 4-33 for mounting parts . . . . .	1
25	P35444	SLEEVE - bolt, cab interior lamp mounting . . . . .	2
26	P234587	SLEEVE - bolt . . . . .	4
27	P834513	RETAINER - bolt, used as plug in this application . . . . .	24
28	P29906	KNOB - handle . . . . .	1
29	P1347095	GLASS - window, cab side, right-hand, see page 9-91 for sliding window assembly, if used. . . . .	1
30	P7146016	RETAINER - rubber, window to cab . . . . .	1
31	* REF	SEAL - window glass, 4216 mm (166 inch) long, cut from bulk seal P346008 below . . . . .	1
32	P1347048	GLASS - window, cab side, left-hand . . . . .	1
33	P7146074	RETAINER - rubber, window to cab . . . . .	1
34	* REF	SEAL - window glass, 3099 mm (122 inch) long, cut from bulk seal P346008 below . . . . .	1
	* P346008	SEAL - bulk, sold by the meter . . . . .	UAR

Continued on next page

**CAB**

**Cab Frame and Related Parts**

**P.I.N. 03202 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
	REF	CAB ASSEMBLY - excavator, continued from pages 9-83 and 9-85 . . . . .	1
1	P852086	LATCH - door open . . . . .	1
2	614-6020	BOLT - hex, full threads, 6 - 1.0 x 20 mm, latch to door (Replaces bolt P33809) . . . . .	5
3	P34607	WASHER - flat, 6 mm. . . . .	5
4	P3528799	SPACER - latch bolt, 4 mm thick . . . . .	1
5	825-1406	NUT - hex, 6 mm - 1 (Replaces nut P34111) . . . . .	5
6	P38002	SPRING - handle return . . . . .	1
	P4842763	HANDLE ASSEMBLY - door latch . . . . .	1
7	NSS	HANDLE - door latch, order handle assembly P4842763. . . . .	1
8	P28780	BUSHING - door handle . . . . .	1
9	P29938	KNOB - handle . . . . .	1
10	P134549	NUT - hex, self-locking, 14 mm . . . . .	1
11	P34614	WASHER - flat, 14 mm. . . . .	1
12	P34906	WASHER - spring-type. . . . .	1

CAB DOOR

REF.	PART NO.	DESCRIPTION	REQ'D.
	REF	CAB ASSEMBLY - excavator, continued from pages 9-83 and 9-85	1
	P8043810	DOOR ASSEMBLY - cab, order door assembly P8043810	1
1	NSS	FRAME - cab door	1
2	P834513	RETAINER - bolt, sleeve type	2
3	P736667	HINGE ASSEMBLY - door to cab	3
	P3337440	PLUG - plastic, grease	2
4	P1347056	GLASS - cab door	1
5	P203104	SEAL - glass	1
6	P741441	PLUG - door frame	2
7	P4328728	SPACER - bolt, 12 mm thick	2
8	614-6020	BOLT - hex, full threads, 6 - 1.0 x 20 mm (Replaces bolt P33809)	2
9	P852067	LATCH - door, inside	1
10	P852053	PLATE - striker	1
11	P32411	SCREW - slotted, 8 mm x 45 mm, grade 10.9, striker plate	3
12	P32570	SCREW - slotted, 8 mm x 35 mm, door latch	1
13	P1325374	PLATE - lock cover	1
14	P2130617	ROD - inside latch to outside handle	1
15	P852055	PLATE - door lock	1
16	P1133803	BOLT - hex, 6 mm x 22 mm, lock plate to door	6
17	P3528799	SPACER - bolt, 6 mm	6
18	P1634573	NUT - clip type, plate bolt	6
	P1352034	HANDLE ASSEMBLY - cab, outside	1
19	NSS	HANDLE - cab, outside, order handle assembly P1352034	1
20	P1352045	CYLINDER ASSEMBLY - door lock	1
21	P1352009	KEY - door lock	1
22	P35001	WASHER - flat, 6 mm	2
23	P1037442	STOP - door	1
24	P522483	INSULATION - lower door	1
25	3234209R1	HANDLE - door, P.I.N. 02340 and after (Replaces handle P1352047)	1
26	P7128246	STRIKER - door open latch	1
27	832-10406	NUT - hex, self-locking, 6 mm - 1.0 (Replaces nut P234513)	2
28	321-4739	PLATE - CASE identification (Replaces plate P1651599)	1
29	P2434587	NUT - hex, 1/4 inch	2
30	P7146043	SEAL - door to cab, not included with cab door assembly, order separately	1
31	P35004	WASHER - flat, 12 mm	2
32	P3528799	SPACER - bolt, 4 mm thick	2
33	864-6020	BOLT - hex socket, 6 mm x 20 mm (Replaces bolt P32911)	2
34	P854513	RETAINER - sleeve type (Replaces retainer P35425)	2
35	P34611	WASHER - flat, 10 mm	6
36	832-10410	NUT - hex, self-locking, 10 mm - 1.5 (Replaces nut P34598)	6
37	P32415	SCREW - slotted, 10 mm x 35 mm, grade 10.9, door hinge	6

**CAB OPTIONAL ANTI-VANDALISM GUARDS**

**Guard Mounting Parts  
P.I.N. 74441 through 74597  
P.I.N. 3201 and After**

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P3036976	BRACKET - lower latch, cab window guards . . . . .	9
2	P35413	RIVET - pop, 8 mm x 16.5 mm . . . . .	38
3	P3226119	BRACKET - upper mounting, windshield and rear window guards . . . . .	2
4	P35418	RIVET - pop, 8 mm x 17 mm . . . . .	10
5	P3226120	BRACKET - side mounting, cab window guards . . . . .	10

## DECALS

P.I.N. 74441 through 74597

REF.	PART NO.	DESCRIPTION	REQ'D.
1	P6147566	DECAL - Warning, electrocution hazard . . . . .	1
2	P6147565	DECAL - Warning, improper operation . . . . .	1
3	321-6714	DECAL - Warning, battery (Replaces decal P251593) . . . . .	1
4	P251592	DECAL - Warning, jump starting engine . . . . .	1
5	P251594	DECAL - Warning, engine fan . . . . .	2
6	P7947530	DECAL - hydraulic system . . . . .	1
7	P251591	DECAL - hydraulic fluid, fill location . . . . .	1
8	P251587	DECAL - 220B, designation . . . . .	2
9	P251597	DECAL - Warning, adjustment cylinder is highly pressurized . . . . .	2
10	P251596	DECAL - no step . . . . .	3
11	P251595	DECAL - diesel fuel . . . . .	1
12	P2247581	DECAL - house lock location . . . . .	1
13	P251590	DECAL - Case, with treads, right-hand side of boom . . . . .	1
14	P251589	DECAL - Case, with treads, left-hand side of boom . . . . .	1
15	P6147567	DECAL - Warning, control pattern identification, no longer available . . . . .	1
16	S242817	DECAL - control pattern A, right-hand side, optional . . . . .	1
16	S242830	DECAL - control pattern C, right-hand side, optional . . . . .	1
16	P7947567	DECAL - control pattern D, right-hand side, standard . . . . .	1
17	S242818	DECAL - control pattern A, left-hand side, optional . . . . .	1
17	S242829	DECAL - control pattern C, left-hand side, optional . . . . .	1
17	P7947568	DECAL - control pattern D, left-hand side, standard . . . . .	1
18	P351578	DECAL - Case, with treads, rear access shroud . . . . .	1
19	P351549	DECAL - fuse and magnetic switch location, in electrical box . . . . .	1
20	P1244243	BOX - unit manuals . . . . .	1
21	P32532	SCREW - manual box to cab . . . . .	1
22	P34603	WASHER - manual box screw . . . . .	2
23	P34107X	NUT - manual box screw . . . . .	1

## NUMERICAL INDEX

PART NO.	PAGE	REF.	PART NO.	PAGE	REF.	PART NO.	PAGE	REF.
P1437458	8-137	14	P151415	8-185	8	P1545342	8-143	15
P1437459	8-33	52	P151678	4-57	13	P1545342	8-145	17
P1437459	8-35	31	P151678	4-61	13	P1545342	8-145	18
P1439605	8-181	31	P151678	4-67	1	P1545343	8-143	16
P1443532	9-31	17	P151682	4-17	6	P1545343	8-145	19
P1443552	9-115	11	P151686	4-19	6	P1545369	4-7	9
P1443552	9-117	X	P152055	3-13	12	P1545380	4-7	21
P144420	9-111	5	P152059	9-23	18	P1545381	4-7	21
P1446009	2-3	5	P152062	9-25	X	P1545383	4-9	54
P1446031	2-7	17	P152069	9-37	12	P1545482	8-121	21
P1446031	2-7B	17	P152069	9-41	12	P1547279	4-3	20
P1446060	8-121	23	P152075	9-37	24	P1547279	4-5	19
P1446072	8-7	26	P152075	9-41	24	P1551236	8-197	16
P1446072	8-11	47	P152079	9-25	X	P1604021	5-5	14
P1446072	8-15	60	P152092	9-23	19	P1624245	8-99	18
P1446072	8-19	60	P152092	9-27	16	P1624245	8-101	17
P1446072	8-131	14	P152092	9-29	55	P1627863	9-111	12
P1446072	8-133	28	P1523469	9-27	32	P1627864	9-111	12
P1446072	8-155	5	P1528607	4-9	29	P1627865	9-111	12
P1446072	8-155	13	P1528663	9-55	3	P1627866	9-111	12
P1446361	4-31	27	P1528663	9-57	3	P1627927	8-127	12
P1446361	4-31B	27	P1528664	9-49	2	P1629098	8-197	14
P144988	8-141	X	P1528828	8-7	29	P1630401	8-189	4
P1451235	8-197	9	P1528828	8-13	31	P1630403	6-5	6
P1451235	8-199	9	P1528828	8-15	55	P1630415	8-143	10
P1451235	8-201	9	P1528828	8-17	14	P1630422	8-179	6
P1451296	8-193	9	P1528828	8-19	55	P1630431	8-129	24
P1451296	8-195	9	P1528828	8-31	29	P1630431	8-131	16
P1451296	8-203	9	P1528828	8-35	30	P1630431	8-133	46
P1451296	8-205	9	P1528828	8-75	38	P1630431	8-137	12
P1451549	9-121	17	P1528829	8-101	3	P1630451	8-129	18
P1451550	9-121	15	P1528830	8-23	56	P1630451	8-131	25
P1451553	9-121	16	P1528830	8-29	57	P1630451	8-135	12
P1451554	9-121	14	P1528830	8-111	3	P1630451	8-137	20
P1451583	9-123	2	P1532905	5-5	12	P1630462	9-117	6
P1451586	9-123	3	P1532939	8-105	3	P1630463	9-117	11
P1451593	9-121	6	P1532939	8-109	3	P1630464	9-117	17
P1452417	8-203	X	P1533003	3-9	21	P1630469	9-111	X
P1452417	8-205	X	P1533023	8-123	5	P1633807	5-3	10
P1452454	8-197	X	P1533023	8-123	9	P1633866	5-3	13
P1452454	8-199	X	P1533038	9-35	25	P1634566	2-7	26
P1452454	8-201	X	P1533038	9-33	28	P1634566	2-7B	26
P145276	8-187	18	P1533083	4-9	32	P1634573	3-13	17
P146003	8-199	14	P1537715	8-111	16	P1634573	4-21	3
P146003	8-201	14	P1538128	8-129	16	P1634573	4-23	5
P146093	2-11	35	P1538128	8-131	26	P1634573	9-95	14
P146093	3-5	23	P1538128	8-135	14	P1634573	9-95	32
P146093	3-9	22	P1538128	8-137	22	P1634573	9-97	10
P146097	2-11	37	P1538135	8-125	34	P1634573	9-97	29
P150161	2-5	40	P1538138	4-11	26	P1634573	9-99	18
P1504088	9-65	5	P1540469	4-17	14	P1634584	4-67	24
P1504089	9-65	7	P1540469	4-19	15	P1634584	4-63	58
P1504091	9-65	6	P1540481	8-123	7	P1634599	8-183	14
P1504092	9-69	7	P1540482	8-123	2	P1634599	8-185	13
P1504093	9-69	9	P1540490	4-25	19	P1637401	8-117	4
P1504094	9-69	8	P1541482	2-9	3	P1637480	6-7	46
P151232	5-9	3	P1541482	2-9B	3	P1637498	8-171	31
P151232	5-11	3	P1541649	4-25	27	P1637498	8-175	31
P151233	5-9	7	P1541654	4-25	X	P1638101	8-129	9
P151233	5-11	7	P1541665	4-25	25	P1638101	8-133	54
P151241	8-173	40	P1541665	4-27	25	P1638101	8-135	32
P151241	8-177	40	P1542354	5-17	8	P1638101	8-137	10
P151415	8-183	9	P1542359	5-17	7	P1638118	8-155	25

## NUMERICAL INDEX

PART NO.	PAGE	REF.	PART NO.	PAGE	REF.	PART NO.	PAGE	REF.
P3528794	9-75	13	P3528796	8-187	24	P35418	9-17	11
P3528794	9-83	9	P3528796	9-7	27	P35418	9-31	42
P3528794	9-105	5	P3528797	9-31	25	P35418	9-107	3
P3528794	9-113	5	P3528798	2-3	29	P35418	9-107	8
P3528795	2-3	16	P3528798	8-5	4	P35418	9-107	13
P3528795	2-3	24	P3528798	9-19	12	P35418	9-107	18
P3528795	2-3	32	P3528798	9-21	70	P35418	9-107	23
P3528795	2-7	4	P3528799	2-7	15	P35418	9-109	4
P3528795	2-7	12	P3528799	2-7	28	P3543238	9-45	13
P3528795	2-7B	4	P3528799	2-7B	15	P3543298	2-13	44
P3528795	2-7B	10	P3528799	3-7	30	P35444	9-79	25
P3528795	2-9	10	P3528799	3-9	29	P35444	9-83	6
P3528795	2-9B	12	P3528799	3-13	19	P3547124	8-31	7
P3528795	2-13	47	P3528799	4-31	10	P3547124	8-35	7
P3528795	2-13	50	P3528799	4-31B	10	P3547206	4-3	30
P3528795	3-5	15	P3528799	4-37	4	P3550146	8-27	33
P3528795	3-9	15	P3528799	4-37	7	P35510	9-13	8
P3528795	4-13	4	P3528799	4-39	22	P35510	9-19	10
P3528795	4-13	18	P3528799	9-41	19	P35510	9-21	54
P3528795	4-15	4	P3528799	4-41	22	P35510	9-21	76
P3528795	4-15	22	P3528799	4-43	22	P35510	9-29	63
P3528795	4-53	55	P3528799	4-51	15	P35510	9-37	23
P3528795	4-53	61	P3528799	4-53	39	P35510	9-41	23
P3528795	8-5	11	P3528799	4-57	30	P35512	8-191	10
P3528795	8-11	54	P3528799	4-61	30	P35512	9-15	6
P3528795	8-15	43	P3528799	4-65	27	P35512	9-29	50
P3528795	8-15	66	P3528799	8-33	41	P35512	9-105	9
P3528795	8-19	43	P3528799	8-33	47	P35513	8-189	10
P3528795	8-19	66	P3528799	8-37	41	P35531	9-47	10
P3528795	8-23	48	P3528799	8-37	47	P35564	9-49	18
P3528795	8-23	61	P3528799	8-73	12	P35710	5-9	20
P3528795	8-23	69	P3528799	9-29	65	P35710	5-11	20
P3528795	8-29	49	P3528799	9-31	19	P35720	9-101	21
P3528795	8-29	52	P3528799	9-37	19	P35730	9-29	41
P3528795	8-31	14	P3528799	9-37	30	P35731	9-11	34
P3528795	8-31	35	P3528799	9-39	44	P35744	8-187	9
P3528795	8-35	14	P3528799	9-41	30	P35746	9-47	4
P3528795	8-35	35	P3528799	9-43	46	P35762	8-187	10
P3528795	8-47	8	P3528799	9-45	10	P35801	5-9	29
P3528795	8-51	8	P3528799	9-45	22	P35801	5-11	29
P3528795	8-55	29	P3528799	9-75	29	P35807	5-15	5
P3528795	8-57B	29	P3528799	9-79	16	P36198	8-117	12
P3528795	8-61	35	P3528799	9-85	35	P36215	8-183	13
P3528795	8-65	35	P3528799	9-87	11	P36215	8-185	12
P3528795	8-67	6	P3528799	9-89	4	P36225	8-119	3
P3528795	8-69	6	P3528799	9-95	13	P36239	6-7	56
P3528795	8-71	6	P3528799	9-95	31	P3627878	5-17	10
P3528795	8-81	52	P3528799	9-97	9	P3627881	5-17	13
P3528795	8-85	57	P3528799	9-97	28	P36349	8-179	7
P3528795	8-87	19	P3528799	9-99	17	P36373	8-161	7
P3528795	8-121	10	P3528799	9-99	32	P36373	8-163	6
P3528795	9-7	24	P3533006	8-3	22	P3637657	8-23	76
P3528795	9-11	5	P3533006	8-117	9	P3637694	8-101	28
P3528795	9-11	16	P3533006	8-117	31	P3637744	6-5	8
P3528795	9-13	14	P3533052	8-147	1	P36381	8-179	29
P3528795	9-13	24	P3533089	9-35B	6	P36391	9-23	25
P3528795	9-13	34	P3537791	8-117	X	P36391	9-27	22
P3528795	9-15	9	P35413	3-13	20	P36425	9-25	45
P3528795	9-15	20	P35413	9-75	5	P3647117	8-29	69
P3528795	9-15	30	P35413	9-83	25	P3647662	8-99	10
P3528795	9-31	22	P35413	9-109	2	P3647662	8-101	9
P3528795	9-31	36	P35418	4-65	40	P3647663	8-103	9
P3528795	9-45	24	P35418	9-11	23	P3647663	8-105	9

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](http://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