

# R220 R220 (EU) R220 X-Series

**GEHL**®

Form No.  
50950171

Revision A  
03/14

## Skid-Steer Loader



# PARTS MANUAL

## Introduction

For your safety and continued proper operation, use only genuine GEHL® service parts. When ordering service parts, specify the correct part number, full description, quantity required, the unit model number and serial number.

The model and serial number decal for this unit is located on the left chassis upright. “Right” and “Left” are determined from a position sitting on the seat and facing forward.

Manitou Americas reserves the right to make changes or improvements in the design or construction of any part of the unit without incurring the obligation to install such changes on any previously delivered units.

**NOTE:** Purchase equivalent, quality tires for your loader. Contact your dealer for replacement tire information.

**NOTE:** Replacement batteries are not provided by the GEHL Company. For battery specifications see “Electrical-Chassis” chapter. **ALL REPLACEMENT BATTERIES MUST BE PURCHASED LOCALLY.**

Refer to the abbreviations table located on this page for the various fastener descriptions. Standard attaching hardware torque values are also provided on the inside back cover. **If a part requires lubrication or a nonstandard torque value, it will be specified behind the part number description in parenthesis.**

Items shown in the parts list that do not have part numbers are shown for reference purposes only and are NOT available for purchase.

Dimensions are in inches unless otherwise specified.

**NOTE:** The following abbreviations and symbols may be used herein:

A	.....	Ampere
AR	.....	As Required
ASSY	.....	ASSY
AUX	.....	Auxiliary
CCA	.....	Cold Cranking Amperage
CYL	.....	Cylinder
DH	.....	Dual Hand
DJS	.....	Dual Joystick
FL	.....	Flare
FOPS	.....	Falling Object Protective Structure
GA	.....	Gauge
HEX	.....	Hexagon
H/F	.....	Hand/Foot
HF	.....	High-Flow
HYD	.....	Hydraulic
JIC	.....	Joint Industrial Council
kW	.....	Kilowatt
LBS	.....	Pounds
M	.....	Meter
MM (mm)	.....	Millimeter
NA	.....	Naturally Aspirated
N/A	.....	Not Applicable
NEG	.....	Negative
N•m	.....	Newton meter
NO	.....	Number
NPT	.....	National Pipe Thread
NSS	.....	Not Sold Separately
PN	.....	Part Number
POS	.....	Positive
PSI	.....	Pounds per Square Inch
QTY	.....	Quantity
REF	.....	Reference
REQ'D	.....	Required
ROPS	.....	Roll Over Protective Structure
RPM	.....	Revolutions Per Minute
SAE	.....	Society of Automotive Engineers
SN	.....	Serial Number
SQ	.....	Square
ST	.....	Straight
TB	.....	T-Bar
TB/JS	.....	T-Bar/Joystick
TURBO	.....	Turbocharger
V	.....	Volt

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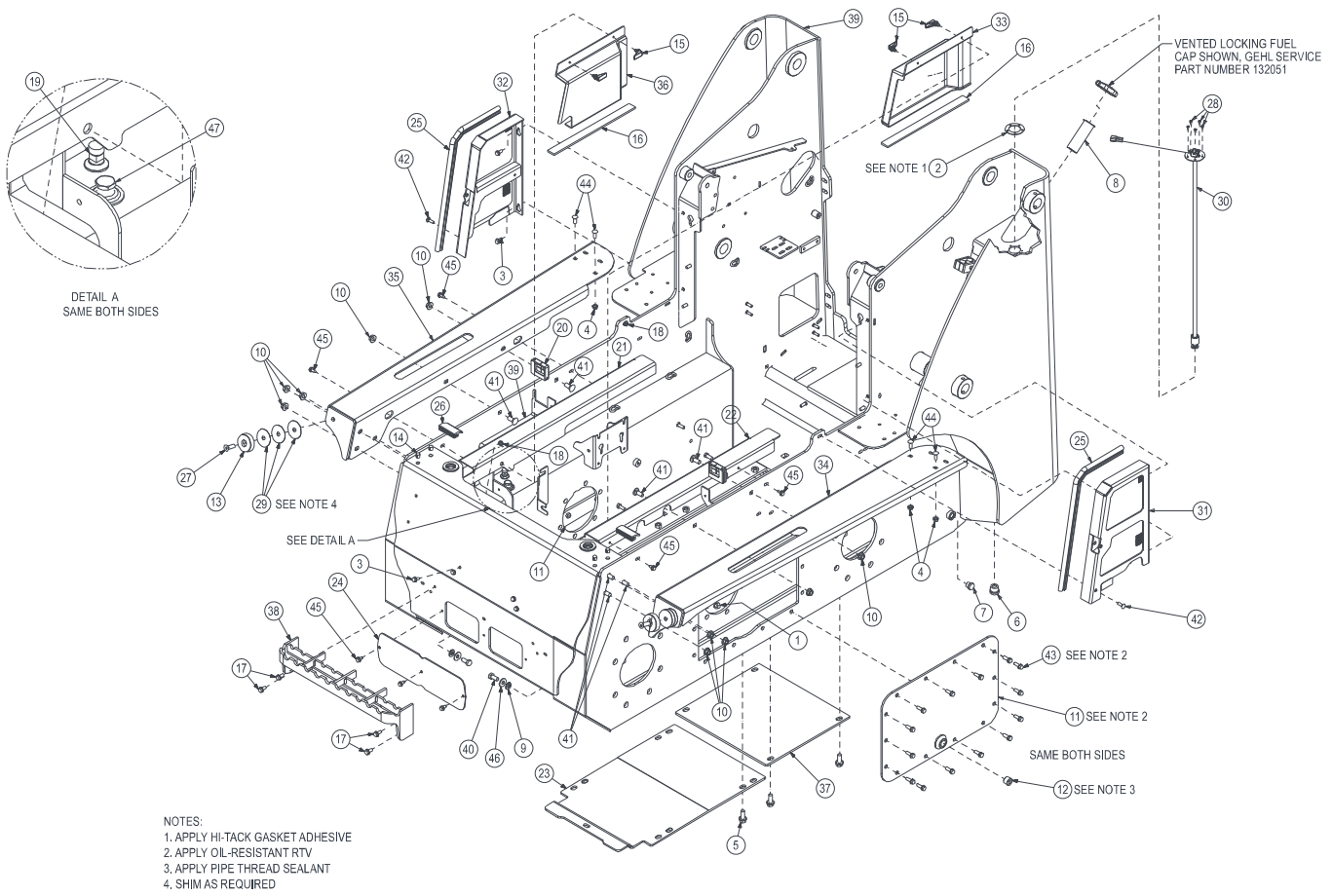
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# CHASSIS

## SN 173613 and Up



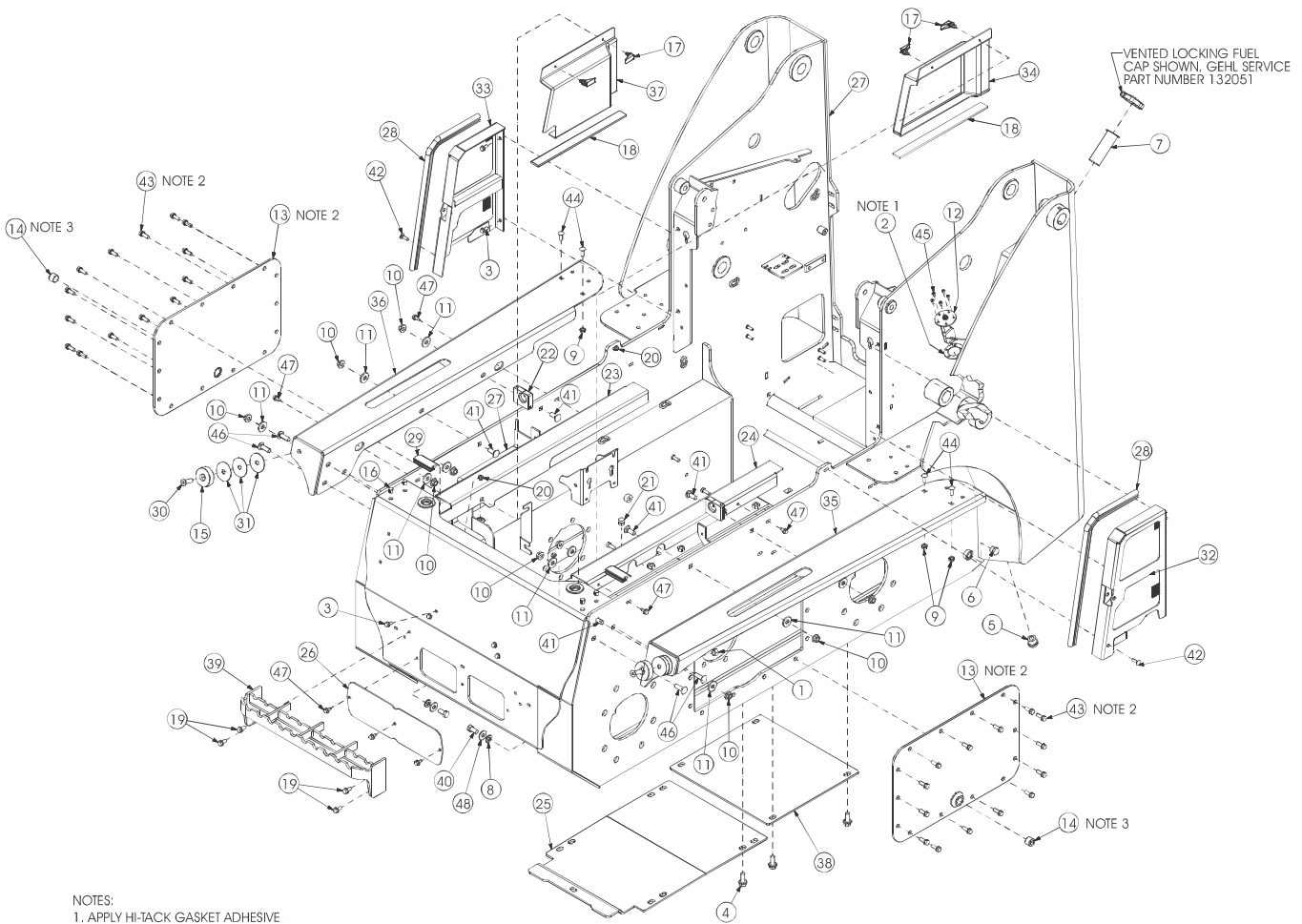
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# CHASSIS

Ref. No.	Part No.	Description	Quantity
1	071706	NUT/LOCK 1/2	2
2	072343	GASKET/FUEL SENDER	1
3	081380	SCREW/CAP HEX FLANGE LOCKING 5/16 X 3/4	8
4	090666	NUT/LOCK SERRATED FLANGE 3/8	4
5	092164	SCREW/CAP HEX FLANGE LOCKING 1/2 X 1-1/4	6
6	131522	PLUG MORB12	1
7	131529	PLUG MORB08	1
8	132050	STRAINER/FUEL FILL	1
	650702	SCREW/TAPPING PAN HEAD THREAD FORMING #6 X 3/8	2
9	132298	WASHER/SEAL	2
10	134853	NUT/SPIRALOCK™ 1/2	10
11	138593	ASSY/CHAINCASE COVER	2
12	184670	PLUG/PIPE SQUARE SOCKET MP12	2
13	189144	STOP/DOWN	2
14	191826	PLUG/HOLE	4
15	193706	LATCH/SWELL	4
16	194271	STRIP/FOAM 1/4 X 1-1/2 X 15-13/16	2
17	195138	SCREW/TAPPING HEX WASHER HEAD THREAD ROLL 3/8 X 3/4	4
18	210-19470	NUT/HEX FLANGE SERRATED LOCK 5/16	6
19	230-32588	VENT/AIR	2
20	240903	PLUG/PASS THROUGH	2
21	241233	FILLER/ROPS RIGHT	1
22	241234	FILLER/ROPS LEFT	1
23	241397	PAN/BELLY	1
24	242675	COVER/CLEAN-OUT	1
25	244559	SEAL/BULB 90°	2
26	245238	SEAL/FILLER PLATE	2
27	310-32585	SCREW/CAP FLAT HARDENED 1/2 X 1-1/2	2
28	310-32624	SCREW/CAP SELF-TAPPING #10 X 5/8	5
29	360-32599	SHIM	6
30	50302792	SENDER/FUEL	1
31	50350493	CHASSIS SIDE COVER/LEFT	1
32	50350496	CHASSIS SIDE COVER/RIGHT	1
33	50350568	COVER/LOWER LEFT	1
34	50350570	FENDER/WLDMT/LEFT	1
35	50350572	FENDER/WLDMT/RIGHT	1
36	50350573	COVER/LOWER RIGHT	1
37	50352443	COVER/CHASSIS	1
38	50352769	STEP	1
39	50353762	WLDMT/CHASSIS	1
40	650494	SCREW/CAP 1/2 X 1	2
41	650527	BOLT/CARRIAGE ROUND HEAD SQUARE NECK 1/2 X 1-14	10
42	650573	BOLT/CARRIAGE 5/16 X 1	2
43	651042	SCREW/MACHINE HEX WASHER HEAD 3/8 X 1	28
44	651067	BOLT/CARRIAGE ROUND HEAD SQUARE NECK 3/8 X 1	4
45	651648	SCREW/TAPPING HEX WASHER HEAD THREAD ROLL 5/16 X 3/4	7
46	654046	WASHER/FLAT 7/16	2
47	L43846	PLUG MP08	2

# CHASSIS

SN 173612 and Before



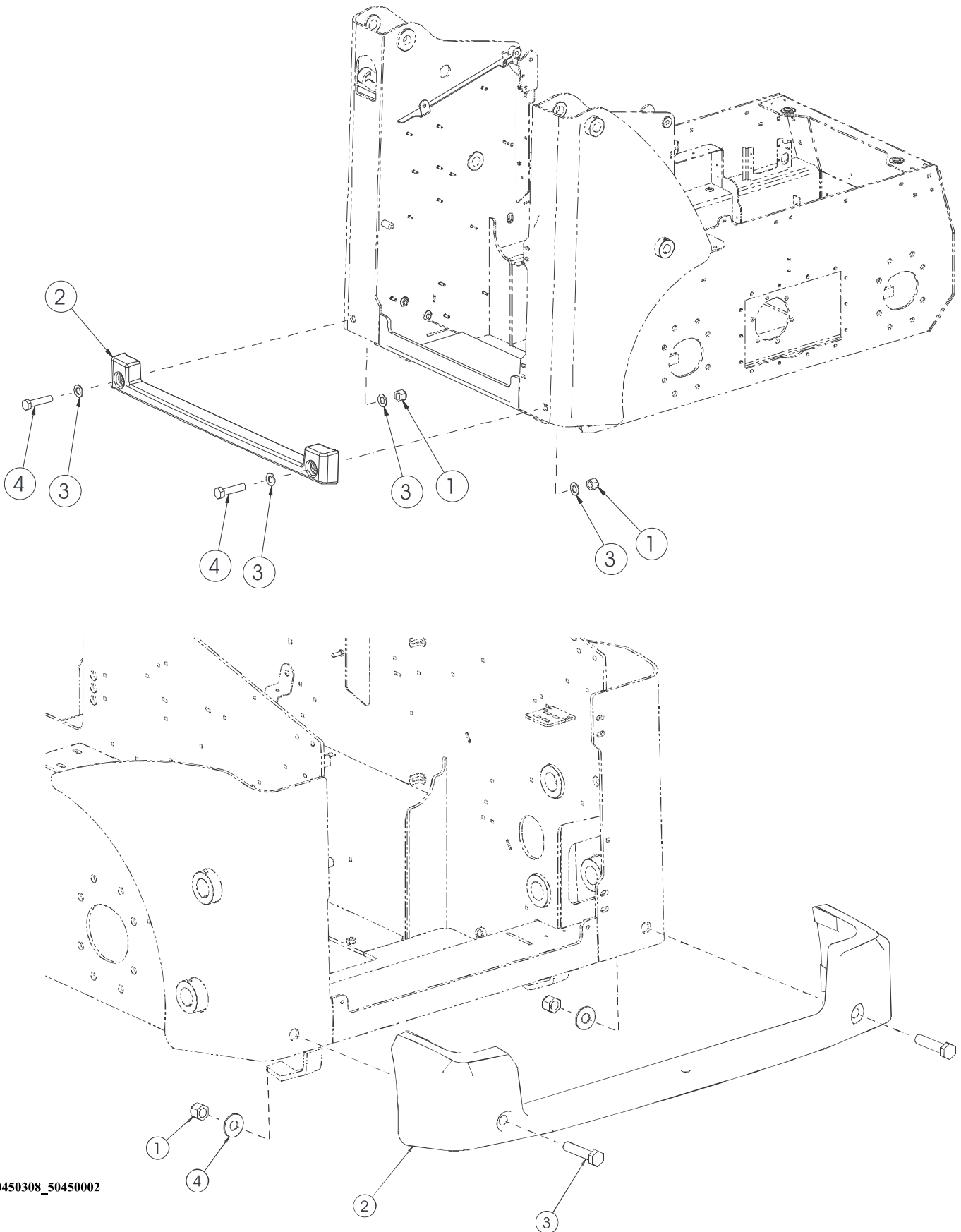


# CHASSIS

Ref. No.	Part No.	Description	Quantity
1	071706	NUT/LOCK 1/2	2
2	072343	GASKET/FUEL SENDER	1
3	081380	SCREW/CAP HEX FLANGE LOCKING 5/16 X 3/4	8
4	092164	SCREW/CAP HEX FLANGE LOCKING 1/2 X 1-1/4	6
5	131522	PLUG MORB12	1
6	131529	PLUG MORB08	1
7	132050	STRAINER/FUEL FILL	1
	650702	SCREW/TAPPING PAN HEAD THREAD FORMING #6 X 3/8	2
8	132298	WASHER/SEAL	2
9	090666	NUT/LOCK SERRATED FLANGE 3/8	4
10	134853	NUT/SPIRALOCK™ 1/2	10
11	134966	WASHER/FLAT HARDENED 1/2	10
12	136013	FUEL SENSOR/VDO	1
13	138593	ASSY/CHAINCASE COVER	2
14	184670	PLUG/PIPE SQUARE SOCKET MP12	2
15	189144	STOP/DOWN	2
16	191826	PLUG/HOLE	4
17	193706	LATCH/SWELL	4
18	194271	STRIP/FOAM 1/4 X 1-1/2 X 15-13/16	2
19	195138	SCREW/TAPPING HEX WASHER HEAD THREAD ROLL 3/8 X 3/4	4
20	210-19470	NUT/HEX FLANGE SERRATED LOCK 5/16	6
21	230-32588	VENT/AIR	2
22	240903	PLUG/PASS THROUGH	2
23	241233	FILLER/ROPS RIGHT	1
24	241234	FILLER/ROPS LEFT	1
25	241397	PAN/BELLY	1
26	242675	COVER/CLEAN-OUT	1
27	244230	CHASSIS/WLDMT	1
28	244559	SEAL/BULB 90°	2
29	245238	SEAL/FILLER PLATE	2
30	310-32585	SCREW/CAP FLAT HARDENED 1/2 X 1-1/2	2
31	360-32599	SHIM	6
32	50350493	CHASSIS SIDE COVER/LEFT	1
33	50350496	CHASSIS SIDE COVER/RIGHT	1
34	50350568	COVER/LOWER LEFT	1
35	50350570	FENDER/WLDMT/LEFT	1
36	50350572	FENDER/WLDMT/RIGHT	1
37	50350573	COVER/LOWER RIGHT	1
38	50352443	COVER/CHASSIS	1
39	50352769	STEP	1
40	650494	SCREW/CAP 1/2 X 1	2
41	650527	BOLT/CARRIAGE 1/2 X 1-14	6
42	650573	BOLT/CARRIAGE 5/16 X 1	2
43	651042	SCREW/MACHINE HEX WASHER HEAD 3/8 X 1	28
44	651067	BOLT/CARRIAGE ROUND HEAD SQUARE NECK 3/8 X 1	4
45	651312	SCREW/MACHINE TRUSS HEAD SLOTTED CROSS-RECESSED #10 X 1/2	5
46	651324	BOLT/CARRIAGE ROUND HEAD SQUARE NECK 1/2 X 1-1/2	4
47	651648	SCREW/TAPPING HEX WASHER HEAD THREAD ROLL 5/16 X 3/4	7
48	654046	WASHER/FLAT 7/16	2

# CHASSIS

## Rear Bumper and Counterweight



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# CHASSIS

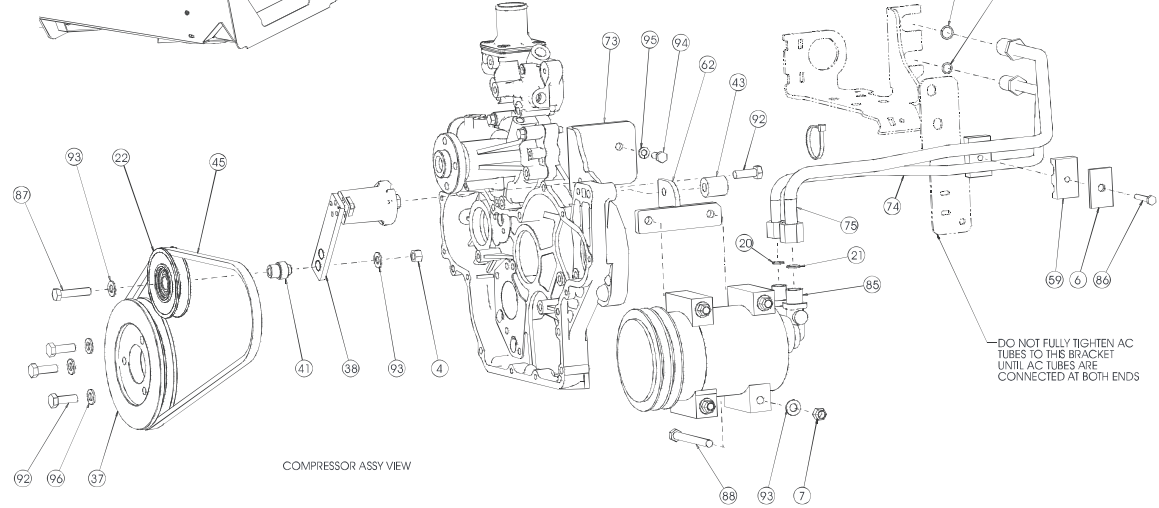
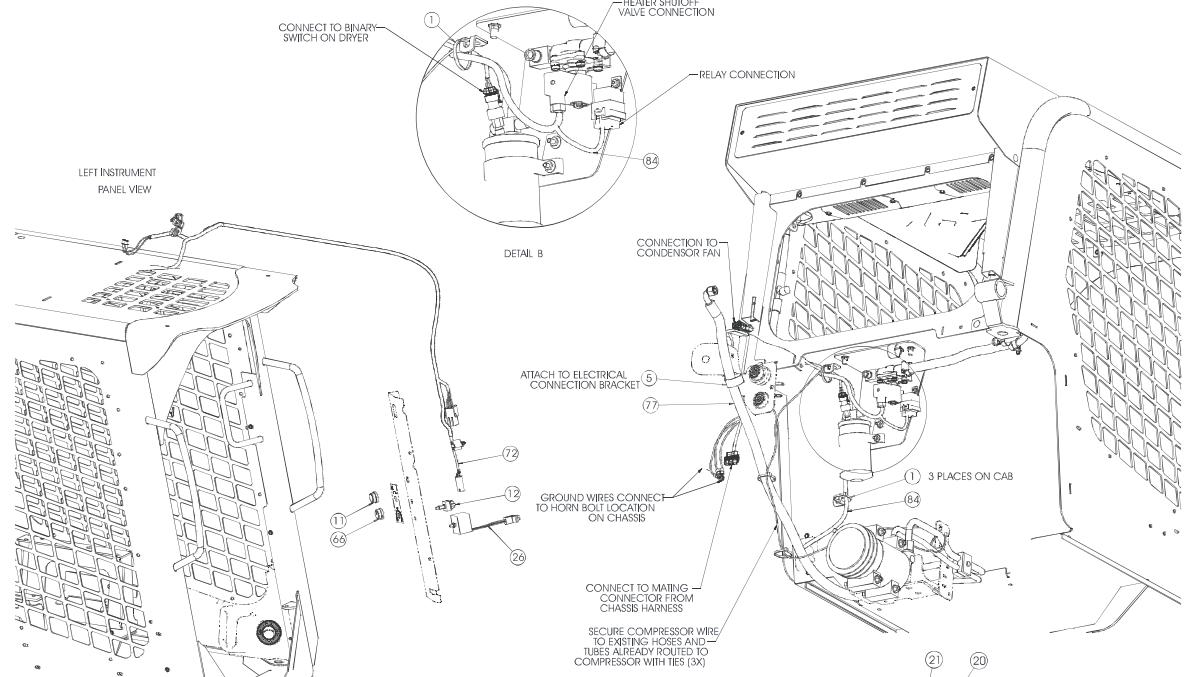
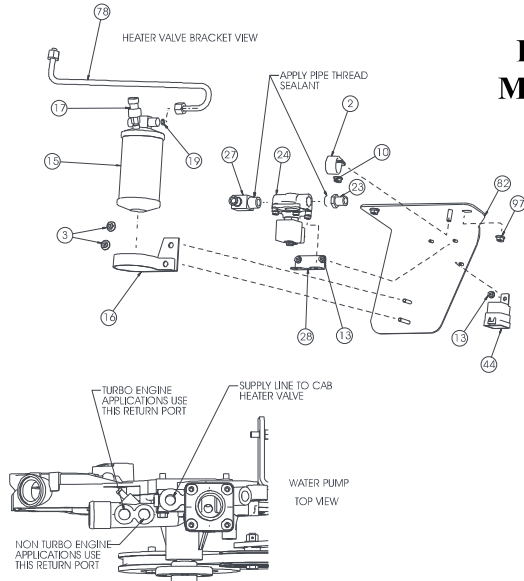
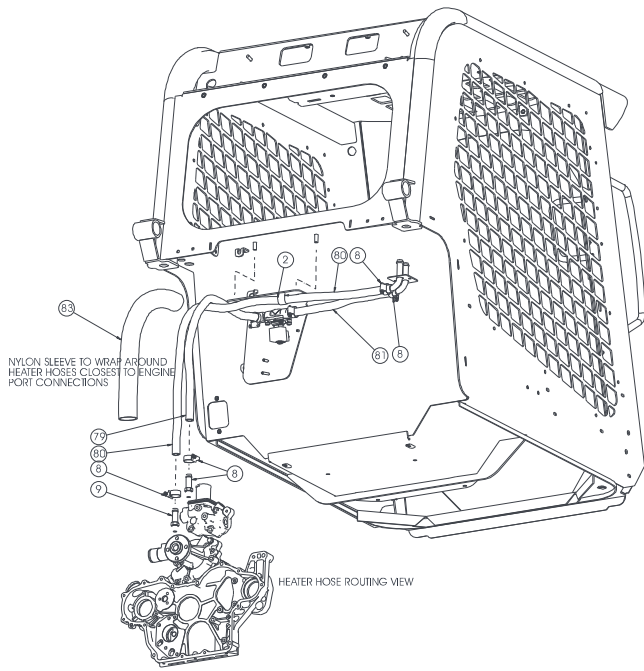
<b>Ref. No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
1	132681	NUT/HEX LOCK 1.00	2
2	50350599	BUMPER/REAR-CASTING	1
3	651151	WASHER/FLAT 1.00	4
4	651628	SCREW/CAP 1 X 3-3/4	2

<b>Ref. No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Quantity</b>
1	132681	NUT/HEX LOCK 1.00	2
2	244322	COUNTERWEIGHT/CAST	1
3	651816	SCREW/CAP 1 X 4-1/2	2
4	654016	WASHER/FLAT 1.00	2

# CHASSIS

**HVAC  
Models**

**DPF  
Models**



50450152

# CHASSIS

Ref. No.	Part No.	Description	DPF Models HVAC Quantity
1	055648	TIE/CABLE 3/16 X 7-1/2	6
2	058805	CLAMP/HOSE 1-1/8 X 13/32 HOLE	1
3	070634	NUT/LOCK LARGE FLANGE SERRATED LOCK 1/4	2
4	071703	NUT/LOCK HEX 3/8	1
5	075196	CLAMP/HOSE 1-1/2 X 13/32 HOLE	1
6	079098	PLATE/TOP SIZE 2 TWIN FLAT	1
7	094762	NUT/LOCK OVAL TOP 3/8	4
8	095955	CLAMP/HOSE #10	14
9	104052	FITTING/STRAIGHT HB10-MBSPT06	2
10	131842	NUT/SPIRALOCK™ 5/16	5
11	136304	KNOB/HEATER SWITCH	1
12	136305	SWITCH/HEATER	1
13	137797	NUT/WHIZLOCK SERRATED FLANGE #10	3
14	195110	SCREW/TAPPING CROSS RECESSED COUNTERSUNK HEAD #8 X 1/2	16
15	138649	RECEIVER/DRYER/AC	1
16	138651	CLAMP/RECEIVER DRYER	1
17	138714	SWITCH/BINARY/AC	1
18	138723	VALVE/EXPANSION/AC	1
	194935	KIT/O-RING	1
19	138777	O-RING/AC/#6 FITTING	6
20	138778	O-RING/AC/#8 FITTING	4
21	138779	O-RING/AC/#10 FITTING	5
22	139952	PULLEY/VEE W/BEARING	1
23	186193	FITTING/STRAIGHT HB10-MP08	1
24	186703	HEATER/AC SOLENOID VALVE	1
25	187030	CAP/DRIP	2
26	189033	MODULE/AC CONTROL	1
27	191351	FITTING/ELBOW 90° 1/2 NPT	1
28	193002	BRACKET/HEATER VALVE	1
29	195585	TUBE/AC #10	1
30	195588	TUBE/AC/#6	1
31	195605	HOSE/#6/AC	1
32	195606	HOSE/#10/AC	1
33	195660	FILTER/HVAC FRESH AIR	1
34	210-19470	NUT/HEX FLANGE SERRATED LOCK 5/16	4
35	240461 a	ASSY/MAIN HVAC HOUSING	1
36	240503	PAD/INSULATION	1
37	241008	PULLEY/CRANK/AC/YANMAR	1
38	241010	TENSIONER/BELT	1
39	241208	PLATE/HEATER TUBES	1
40	241209	HOSE/HEATER	2
41	241385	SPACER/PULLEY	1
42	241486	PLATE/COVER LOUVERED	1
43	241844	SPACER/ALTERNATOR	1
44	242145	RELAY/SEALED	1
45	50354368	BELT/AC	1
46	242437	VENT	4
47	242534	PLUG/PASS-THROUGH TUBE	2
48	242537	TUBE/FORWARD HVAC	2
49	242831	COVER/RECIRC	2
50	242832	FILTER/RECIRC	2
51	242833	PAD/SEALING FILTER	2

a) For breakdown see "Section B" of this manual.

*Parts Listing Continued On Next Page*

# CHASSIS

CONNECT THESE BLACK AND RED WIRES TO THE CORRESPONDING COLORED WIRES ON THE HVAC HOUSING HARNESS.

CONNECT QUICK DISCONNECTS TO PRESET COLD CONTROL SWITCH

- AC SYSTEM EVACUATION AND CHARGE PROCEDURE & SPECS.:
1. EVACUATE SYSTEM TO VACUUM OF APPROXIMATELY 30 IN. OF Hg. FOR 25 MINUTES MINIMUM AND HOLD FOR 10 MINUTES MINIMUM.
  2. CHECK FOR PRESSURE CHANGE.
  3. ADD 1 OZ. PAG L100 OIL.
  4. ADD 2.6 LBS. OF R134A REFRIGERANT.
  5. CHECK ENTIRE SYSTEM FOR ANY REFRIGERANT LEAK

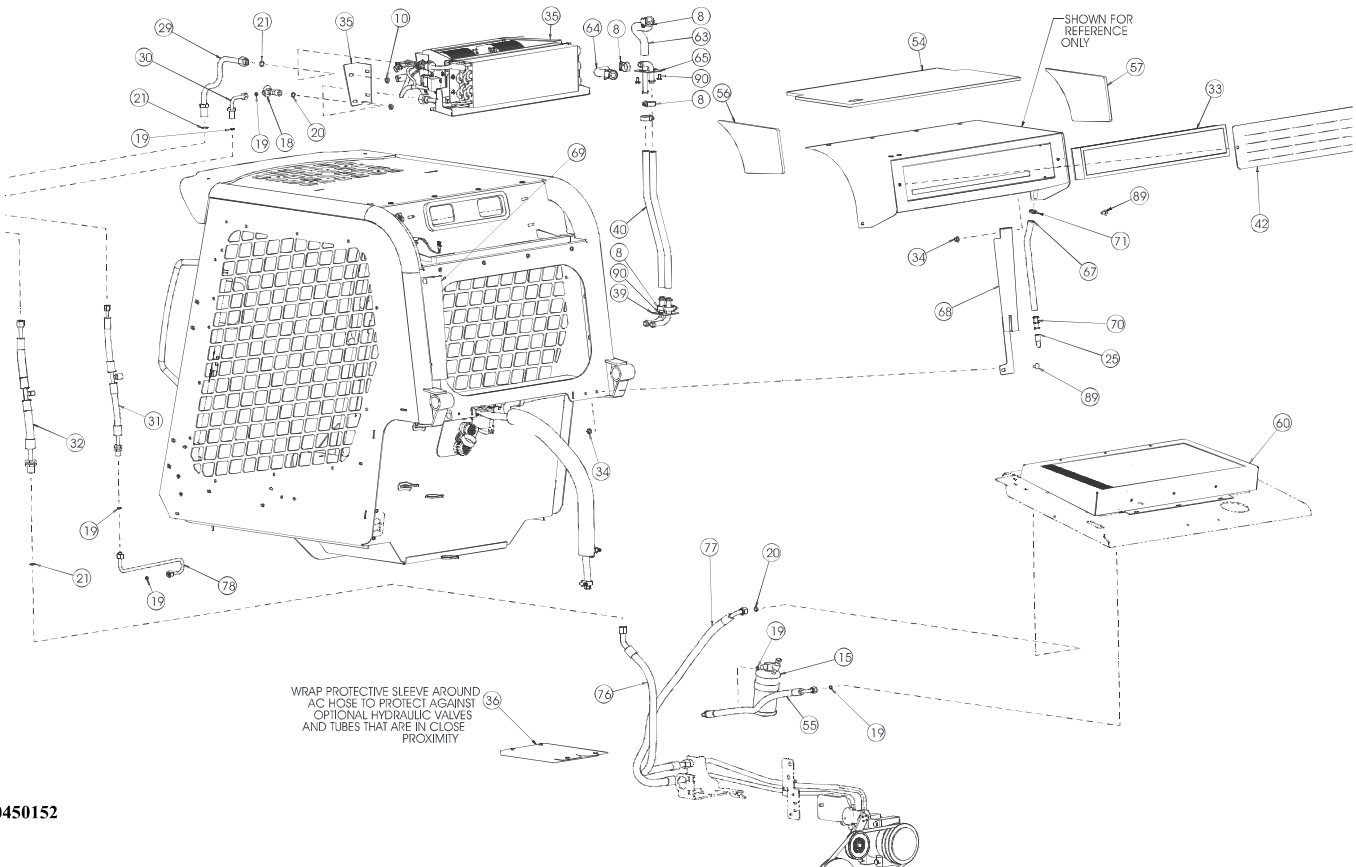
CONNECT THESE WEATHERPACK CONNECTORS TO THE CONNECTORS ON THE HVAC HOUSING HARNESS WITH CORRESPONDING COLORED WIRES

DETAIL A

## HVAC Models DPF Models

FASTEN CLIPS TO LOUVER OPENINGS

INSERT HOSE AND PLUG INTO SQUARE OPENINGS ON BOTH SIDES OF HEADLINER



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continued from previous page

Ref. No.	Part No.	Description	DPF Models HVAC Quantity
52	242862	GROMMET/HVAC COMPT	1
53	242863	PAD/FOAM SEALING STRIP	1
54	242917	PAD/HOUSING TOP	1
55	242971	HOSE/#6 A/C	1
56	243013	PAD/HOUSING LEFT	1
57	243014	PAD/HOUSING RIGHT	1
58	243017	PAD/HVAC HEADLINER SEAL	1
59	243033	CLAMP/TUBE/TWIN/AC	2
60	243076 a	ASSY/CONDENSER	1
61	243445	CLIP/HOSE RETAINING	4
62	243493	BRACKET/COMPRESSOR	1
63	243737	HOSE/MOLDED HEATER (SUPPLY)	1
64	243738	HOSE/MOLDED HEATER (RETURN)	1
65	243741	TUBE/HEATER	1
66	244496	KNOB/HVAC TEMP CONTROL	1
67	244770	TUBE/DRAIN HVAC	2
68	244813	COVER/DRAIN HVAC RIGHT	1
69	244814	COVER/DRAIN HVAC LEFT	1
70	244815	HOSE/MENDER 1/2 HOSE	2
71	245235	CLAMP/HOSE WIRE 3/4 OD	2
72	50351041	HARNESS/HVAC CAB	1
73	50351254	BRACKET/TENSIONER	1
74	50351749	TUBE/AC HIGH PRESSURE	1
75	50351750	TUBE/AC LOW PRESSURE	1
76	50352030	HOSE/#10 A/C	1
77	50352031	HOSE/A/C #8	1
78	50352061	TUBE/AC/#6	1
79	50352401	HOSE HEATER 5/8 X 35	1
80	50352402	HOSE HEATER 5/8 X 50	1
81	50352403	HOSE HEATER 5/8 X 14	1
82	50352404	ASSY/BRACKET HEATER VALVE	1
83	50352424	SLEEVE HG28 X 27	1
84	50352427	HARNESS/HVAC CHASSIS	1
85	50352428	COMPRESSOR/A-C	1
86	650419	SCREW/CAP 1/4 X 1-3/4	1
87	650579	SCREW/CAP 3/8 X 1-3/4	1
88	650851	SCREW/CAP 3/8 X 4-1/2	4
89	650969	BOLT/CARRIAGE ROUND HEAD SOCKET SQUARE NECK 5/16 X 5/8	4
90	651307	SCREW/MACHINE PAN HEAD CROSS RECESSED 1/4 X 1/2	4
91	651308	SCREW/MACHINE PAN HEAD CROSS RECESSED 1/4 X 3/4	4
92	651395	SCREW/CAP M10 X 30 MM	4
93	654049	WASHER/FLAT 3/8	6
94	656001	SCREW/CAP M8 X 20 MM	1
95	656110	WASHER/LOCK M8	1
96	656133	WASHER/FLAT M10	3
97	090666	NUT/LOCK SERRATED FLANGE 3/8	2

a) For breakdown see "Section B" of this manual.

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