

OPERATION AND PARTS MANUAL



MAYCO SERIES MODELS LS-40/40TD/50TD STRUCTURAL CONCRETE PUMPS (DEUTZ F4L2011, BF4L2011 DIESEL ENGINES)

Revision #11 (09/16/11)

THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

LS-40D/LS-40TD/LS-50TD PUMP — OPERATION AND SAFETY DECALS

Machine Safety Decals

The LS-40D/LS-40TD/LS-50TD structural concrete pump is equipped with a number of safety decals. These decals are provided for operator safety and maintenance information. Figure 2 below illustrates these decals as they appear on the machine. Should any of these decals become unreadable, replacements can be obtained from your dealer.

800-30-MAYCO

P/N: 511091



P/N: 515240 (SMALL)
P/N: 515664 (LARGE)



P/N: 515239 (SMALL)
P/N: 515665 (LARGE)

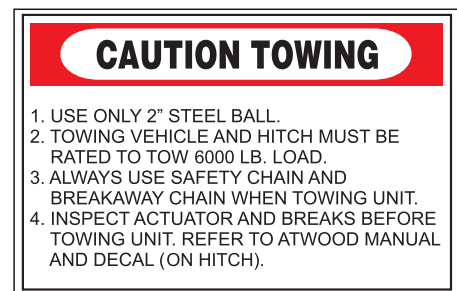
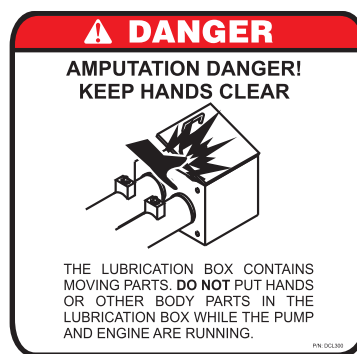
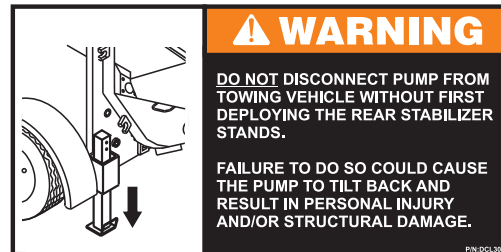
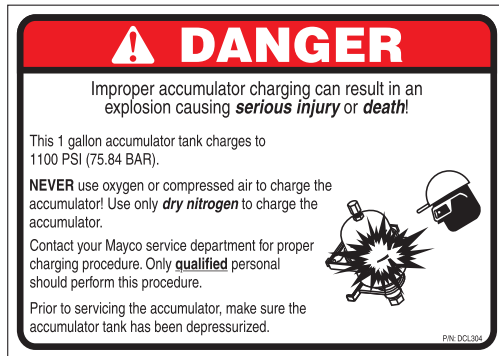
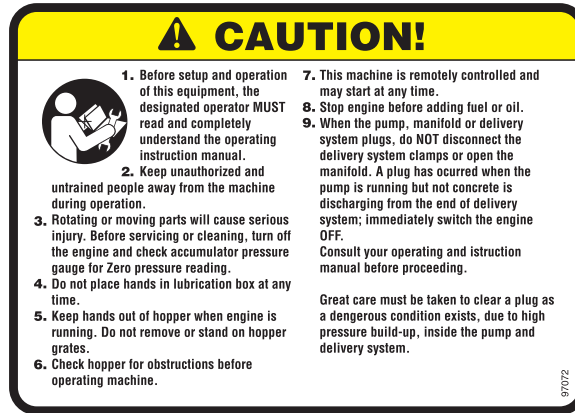



Figure 2. LS-40D/LS-40TD/LS-50TD Operation and Safety Decals

LS-40D/LS-40TD/LS-50TD PUMP — OPERATION AND SAFETY DECALS

MAINTENANCE

 **Grease daily:**

- Main hydraulic cylinders (2 places)
- Remix bearing (2 places)
- Axle crank bushing (1 place)
- Axle crank (1 place)

Grease type: Lithium based EP, Texaco multitak 20 or Lubriplate EP-2

Check daily:

- Main hydraulic reservoir. Use Shell Oil Tellus 68 or Mobil DFE26
- Lubrication box
- Diesel engine

Refer to operator manual for complete maintenance schedule.

P/N EM97084

WARNING

Explosion caused by improper accumulator charging can result in serious injury or death

- Follow charging instructions exactly (Refer to Service Manual)
- Never use Oxygen or compressed air to charge the accumulator
- Use only Dry Nitrogen to charge the accumulator

P/N: EM97083

CAUTION

 Refer to manual for service instructions. Charge only with dry nitrogen.

P/N: EM955

CAUTION

MINIMUM OIL LEVEL

← Oil level below minimum can cause hydraulic pump and system damage. Oil temperature should not exceed 170°F (77°C)

P/N: EM97071

MODEL _____
SERIAL NO. _____

CONTACT PARTS DEPARTMENT

VOLUME CONTROL

INCREASE ← → DECREASE

P/N: EM985

ACCUMULATOR PRESSURE **PUMPING PRESSURE**

P/N: EM97070

 **OWNER'S MANUAL**

P/N: 345336

CAUTION

Grease every two hours of operation

P/N: EM98000

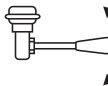
Engine RPM Setting (without change)

High RPM:	RPM

Low RPM:	RPM

P/N: 513580

HOPPER REMIXER

 PUSH TO OPERATE
NEUTRAL
PULL TO REVERSE

P/N: EM972

CAUTION

 **USE DIESEL FUEL ONLY**
(Read Operator's book)

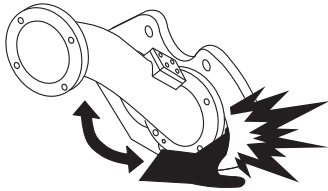
P/N: EM995

 **HYDRAULIC OIL ONLY**

P/N: EM985

DANGER

AMPUTATION DANGER! KEEP HANDS CLEAR



SHUTTLE TUBE PIVOTS RAPIDLY AND WILL CRUSH OR CUT. DO NOT PUT ANY BODY PARTS INTO THE HOPPER UNTIL MACHINE IS COMPLETELY SHUT DOWN AND THE ACCUMULATOR PRESSURE GAUGE READS ZERO

P/N: DCL301

Figure 2. LS-40D/LS-40TD/LS-50TD Operation and Safety Decals (Continued)

APPENDIX — RECOMMENDED SHOTCRETE SYSTEM

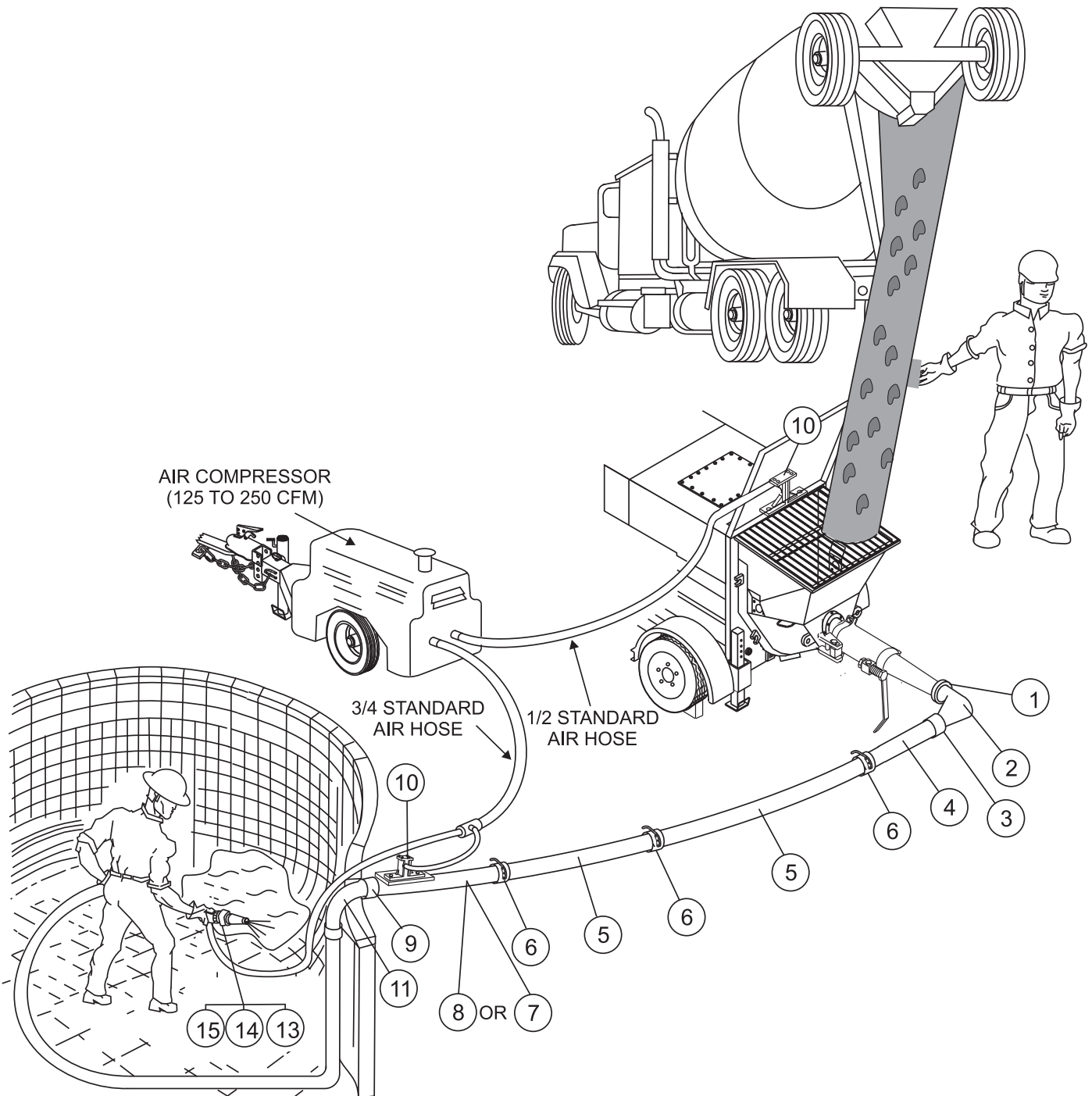


Figure 55. Recommended Shotcrete System

APPENDIX — RECOMMENDED SHOTCRETE SYSTEM

RECOMMENDED SHOTCRETE SYSTEM

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM28906	COUPLING, 5" H-D "CF"		
2	EM25837	ELBOW, 5"x4"x90°		
3	EM28905	COUPLING, 4" H-D w/GASKET & PIN		
4	EM402552	REDUCER, 4"x2.5"x53" H-D ENDS		
5	EM28061	PIPE, 2.5"x120w x 10' H-D		
6	EM289035	COUPLING, 2.5" H-D w/GASKET & PIN		
7	EM28001DD	REDUCER, 2.5"x2"x36" H-D		
8	EM23815D	REDUCER, 2.5"x2" w/AIR VIBRATOR		
9	EM28902	COUPLING, 2" H-D w/GASKET & PIN		
10	EM23101	AIR VIBRATOR ASSY.		
11	EM28131D	2"x2" ELBOW 90°		
12	EM24841	HOSE, 2"x25' H-D w/ENDS		
13	EM23808D	NOZZLE ASSEMBLY, 2" H-D		
14	EM23806	NOZZLE TIP, RUBBER 1-3/8"		
15	EM23807	NOZZLE TIP, RUBBER 1.25"		

GENERAL RECOMMENDATIONS

- If the site will permit, use steel pipe from the pump to the pool perimeter. It will reduce line pressures which is highly recommended.
- The vibrator on the reducer by the pool improves pumpability.
- Turn both air vibrators off whenever the pump is stopped to prevent separation of mix.
- The air vibrators are low consumption (4.2 scfm).
- Leave the air on at the nozzle when the pump is stopped to prevent clogging of air the hoses in the air insert.
- Use item #11 (steel elbow) at the edge of the pool to prevent collapse of the rubber hose, which can cause blockage.

APPENDIX — RECOMMENDED SHOTCRETE ACCESSORIES

RECOMMENDED SHOTCRETE ACCESSORIES

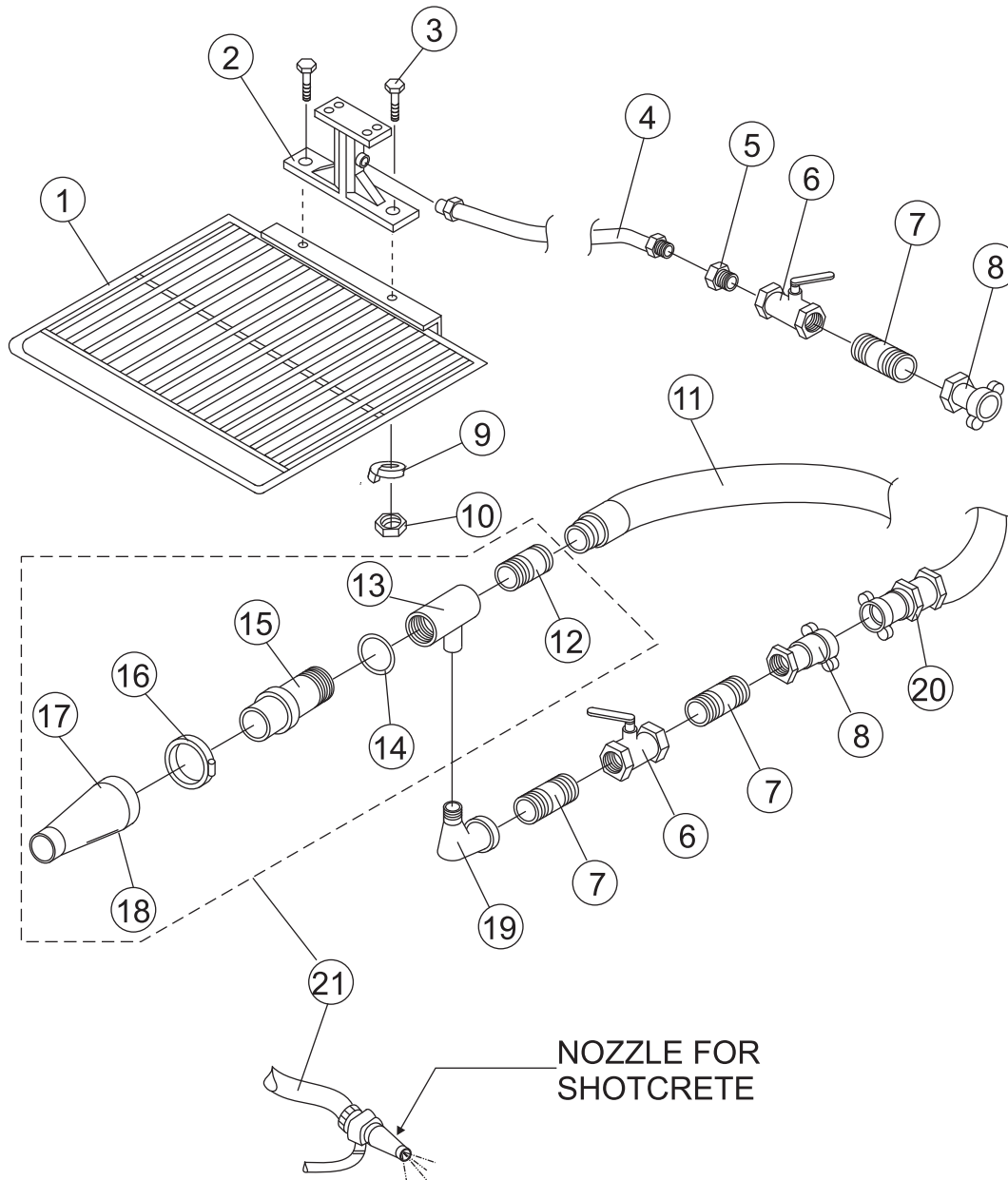


Figure 56. Shotcrete System Accessories



Use a 1-3/8" rubber nozzle tip for a wide spray pattern. Use a 1-1/4" rubber nozzle tip for a narrow spray pattern. **DO NOT INSTALL THE NOZZLE AT THE END OF THE HOSE UNTIL THE FIRST MATERIAL HAS PASSED THROUGH THE ENTIRE HOSE LENGTH.**

Disassemble and clean the nozzle assembly thoroughly after each job. Grease all threads before re-assembly. **DO NOT** close the air valve when pumping is stopped as a continued air flow keeps the air passages clean.

APPENDIX — RECOMMENDED SHOTCRETE ACCESSORIES

RECOMMENDED SHOTCRETE ACCESSORIES

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM26107	HOPPER SCREEN	1	W/AIR VIBRATOR MOUNTING
2	EM23101	AIR VIBRATOR	1	
3	EM132	BOLT, 1/2-13X2	2	
4	EM23407	AIR HOSE	1	
5	EM23408	BUSHING	1	
6	EM23411	VALVE	1	
7	EM912073	NIPPLE	2	
8	EM23409	COUPLING	1	
9	EM923346	WASHER, 1/2 LOCK	2	
10	EM406	NUT, HEX 1/2-13	2	
11	EM23818	2"X25' GROOVED HOSE		
11	EM24841	2"X25' RAISED HOSE		
11	EM23845	2"X50' GROOVED HOSE		
12*	EM23802	VIC ADAPTER / EM23802D H.D	1	
13*	EM23803	GUN BODY	1	
14*	EM20816	"O" RING	1	
15*	EM23804	AIR INSERT	1	
16*	EM23805	NOZZLE CLAMP	1	
17*	EM23806	NOZZLE TIP, 1-3/8", SHORT	1	
18*	EM23807	NOZZLE TIP, 1-1/4", LONG	1	
19*	EM911076	STREET ELBOW	1	
20		AIR HOSE		NOT SUPPLIED BY MAYCO
21	EM23808	NOZZLE ASSEMBLY	1	INCLUDES ITEMS W/*

LS-40D/LS-40TD/LS-50TD PUMP — SUGGESTED SPARE PARTS

LS-40D/LS-40TD/LS-50TD STRUCTURAL CONCRETE PUMP

1 Units

Qty.	P/N	Description
1	EM16462	FELT HOLDER
4	EM98050	PISTON CUP, ORANGE
4	EM16493	FELT RING
1	EM98033	OIL PLATE
2	EM14408	BRONZE RING
2	EM16145	BUSHING, SWING AXLE (BRONZE)
1	EM98021	WEAR PLATE
2	EM16816-1A	ENERGIZER RING
1	EM16816-2	INSERT RING
2	EM98065	SLEEVE SEAL
1	EM98022	WEAR RING
1	EM98065	RUBBER RING
2	EM14407	O-RING
1	34507	CAP, FUEL
2	EM20763	FILTER, FUEL (IN LINE)
1	P53712	CARTRIDGE, WATER SEPARATOR
3	01174416	FILTER, OIL (ENGINE)
3	01174696	FILTER, FUEL (ENGINE)
1	EM98163	SWITCH, PROXIMITY

MODELS LS-40D ONLY

Qty.	P/N	Description
3	4384102	CARTRIDGE, AIR FILTER

MODELS LS-40TD, LS-50TD ONLY

Qty.	P/N	Description
3	1319257	INSERT, AIR FILTER
3	1880870	AIR CARTRIDGE, SAFETY
1	EM981121	ELEMENT, RETURN

LS-40D/LS-40TD/LS-50TD STRUCTURAL CONCRETE PUMP

3 Units

Qty.	P/N	Description
1	EM16459	PIN
2	EM25801	CONCRETE CYLINDER
4	EM16462	FELT HOLDER
6	EM98050	PISTON CUP, ORANGE
8	EM16493	FELT RING
4	EM98033	OIL PLATE
4	EM14408	BRONZE RING
4	EM16145A	BUSHING, SWING AXLE (BRONZE)
3	EM98021A	WEAR PLATE
4	EM16816-1A	ENERGIZER RING
2	EM16816-2	INSERT RING
4	EM98065	SLEEVE SEAL
6	EM98022	WEAR RING
3	EM98065	RUBBER RING
6	EM14407	O-RING
2	EM16174	O-RING
2	EM98163	SWITCH, PROXIMITY
6	510265	BOLT, HEX HEAD 3/8 NC x 3-1/4 IN. G8
1	34507	CAP, FUEL
6	EM20763	FILTER, FUEL
3	P53712	CARTRIDGE, WATER SEPERATOR
9	01174416	FILTER, OIL (ENGINE)
9	01174696	FILTER, FUEL (ENGINE)

MODELS LS-40D ONLY

Qty.	P/N	Description
9	4384102	CARTRIDGE, AIR FILTER

MODELS LS-40TD, LS-50TD ONLY

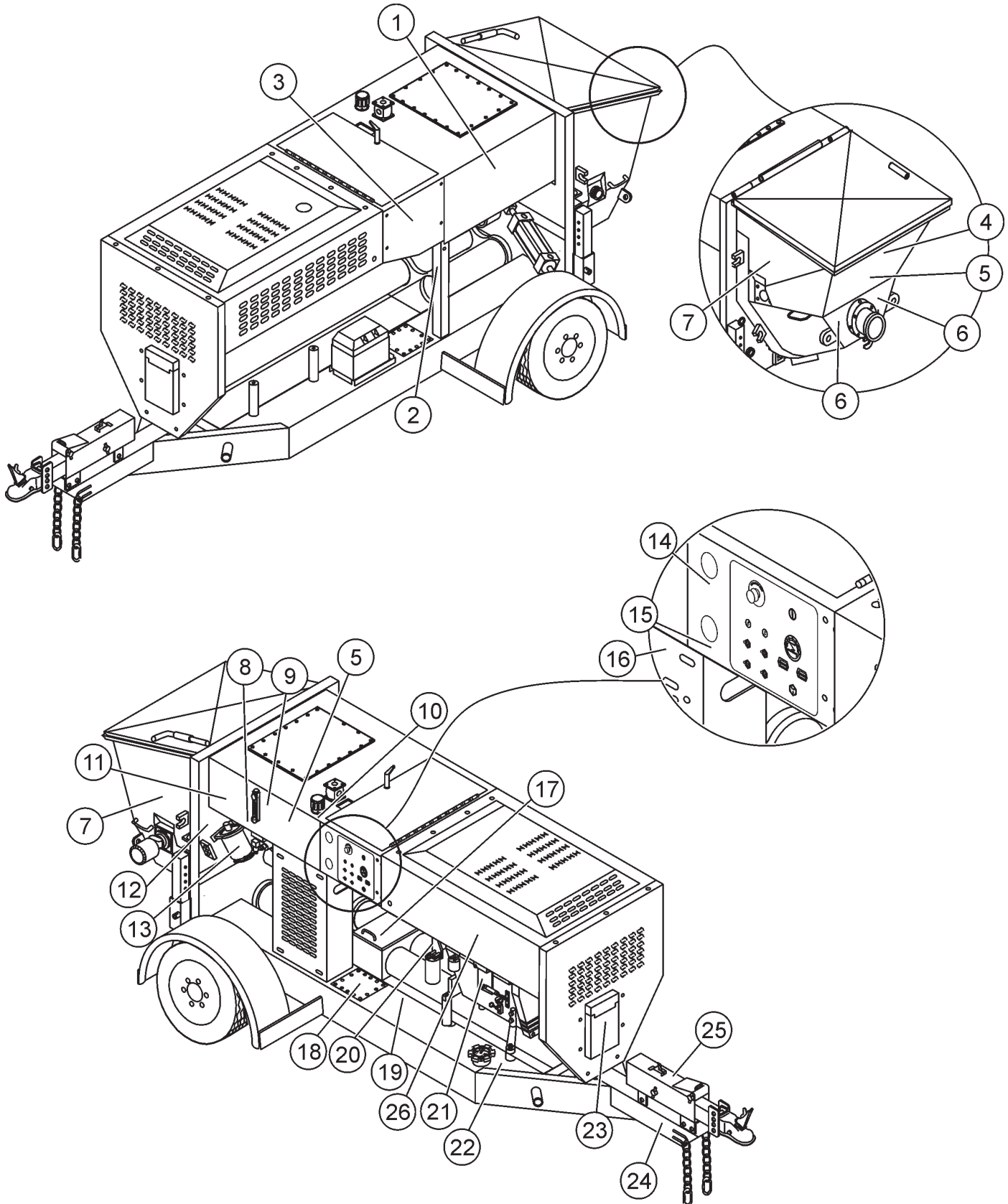
Qty.	P/N	Description
9	1319257	INSERT, AIR FILTER
9	1180870	AIR CARTRIDGE, SAFETY
2	EM981121	ELEMENT, RETURN



Part numbers on this Suggested Spare Parts List may supercede or replace the P/N shown in the text pages of this book.

LS-40D/LS-40TD/LS-50TD PUMP — NAMEPLATE AND DECALS

NAMEPLATE AND DECALS



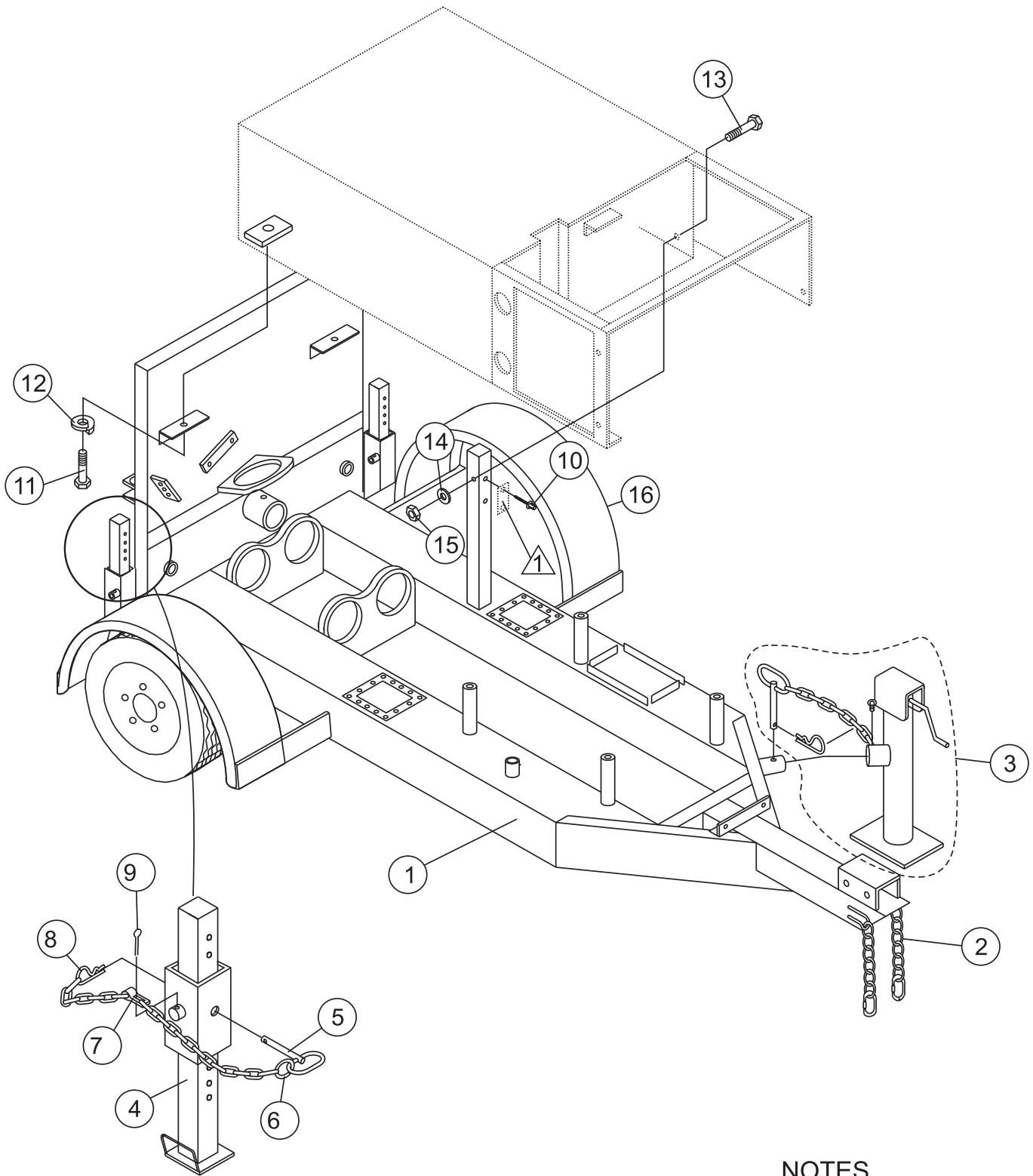
LS-40D/LS-40TD/LS-50TD PUMP — NAMEPLATE AND DECALS

NAMEPLATE AND DECALS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	514664	DECAL, LS-40 SMALL	1	
1	514665	DECAL, LS-50 SMALL	1	
2		SERIAL PLATE	1	..... CONTACT PARTS DEPT.
3	DCL302	DECAL, WARNING BURN HAZARD	1	
4	511709	DECAL, 800-30-MAYCO	1	
5	EM97072	DECAL, CAUTION - OP. INSTRUCTIONS	2	
6	EM98000	DECAL, CAUTION - GREASE 2 HOURS	4	
7	DCL301	DECAL, SHUTTLE TUBE DANGER	2	
8	EM970	DECAL, HOPPER REX MIXER	1	
9	EM511091	DECAL, MINIMUM OIL LEVEL	1	
10	EM985	DECAL, HYDRAULIC OIL ONLY	1	
11	DCL304	DECAL, DANGER IMPROPER CHARGING	1	
12	EM97083	DECAL, WARNING - ACCUM. SAFETY	1	
13	EM955	DECAL, DANGER CHARGING ACCUM.	1	
14	EM97070	DECAL, ACCUMULATOR PRESSURE	1	
15	EM97070	DECAL, PUMPING PRESSURE DECAL	1	
16	35137	DECAL, CAUTION READ MANUAL	1	
17	EM97084	DECAL, MAINTENANCE	1	
18	DCL300	DECAL, DANGER LUBRICATION BOX	1	
19	EM965	DECAL, VOLUME CONTROL	1	
20	EM965	DECAL, THROTTLE	1	
21	513580	DECAL, ENGINE RPM SETTING	1	
22	EM995	DECAL, CAUTION DIESEL FUEL	1	
23	34536	DECAL, OWNERS MANUAL	1	
24	DCL305	DECAL, WARNING REAR STABILIZERS	1	
25	EM696	DECAL, CAUTION - TOWING DECAL	1	
26	EM514664	DECAL, LS-40 SMALL	1	
26	514665	DECAL, LS-50 LARGE	1	

LS-40D/LS-40TD/LS-50TD PUMP — FRAME ASSY.

FRAME ASSY.



NOTES

 SEE NAMEPLATE AND DECALS
SERIAL PLATE, ITEM 2

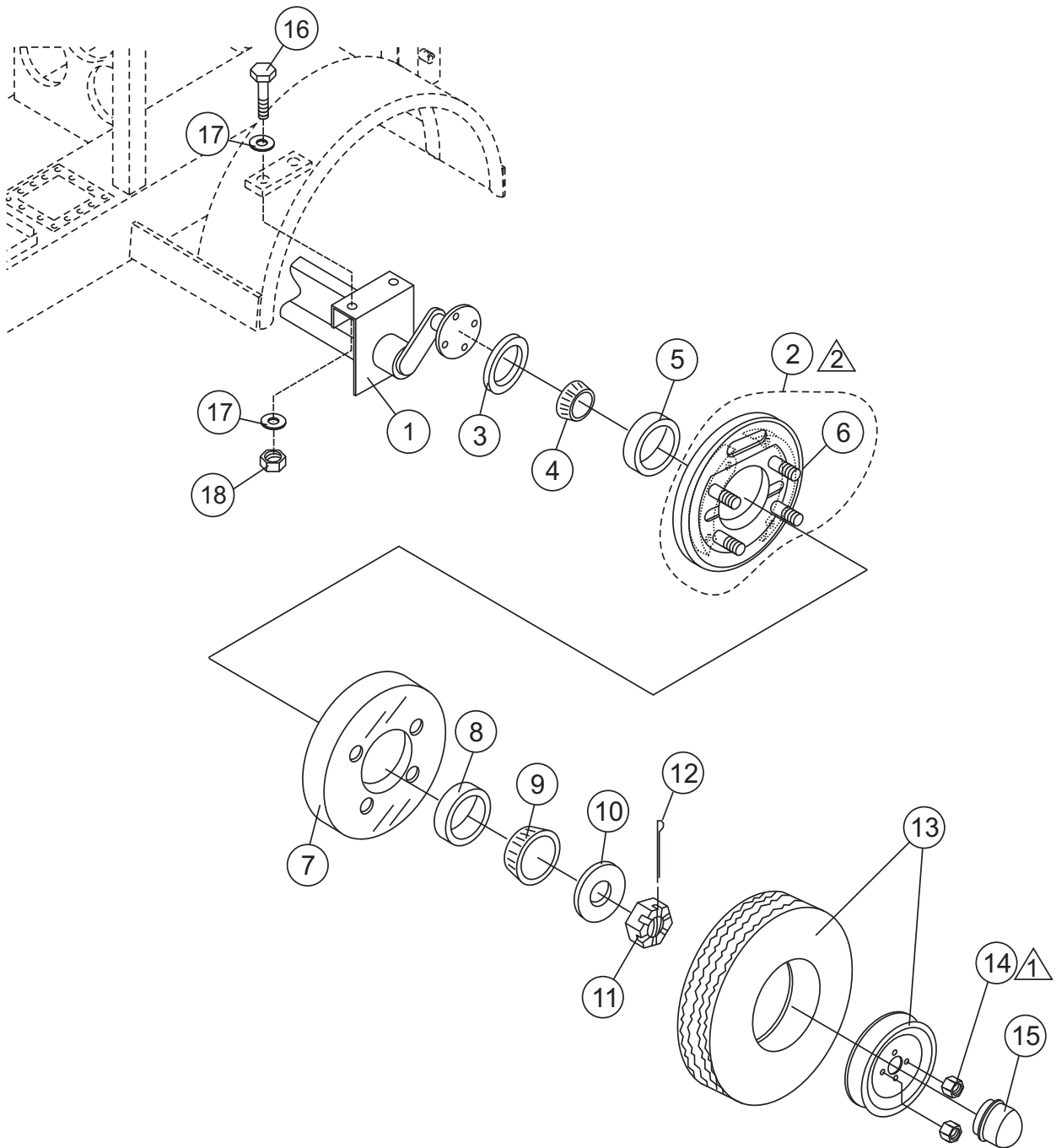
LS-40D/LS-40TD/LS-50TD PUMP — FRAME ASSY.

FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	514355	FRAME, MAIN	1	
2	EM516581	CHAIN, TRAILER HITCH, 3/8 X 40", GRADE 40	2	
3	EM25610	JACK STAND, FRONT	1	
4	EM70186	SUPPORT STAND	2	
5	EM744	CLEVIS PIN	2	
6	EM491076	PIN RING 3/4"	2	
7	EM490236	CHAIN 15 3.5 GALV.	2	
8	EM491686	PIN	2	
9	EM491686	PIN, COTTER	2	
10	EM491744	RIVET, POP AM-44	2	
11	509562	BOLT, 3/8" NC X 5/8" G5	2	
12	0166 A	LOCK, WASHER 3/8"	2	REPLACES 492624
13	503112	BOLT 3/8" X 2-3/4"	1	
14	3019092	WASHER 3/8"	2	REPLACES 492598
15	EM969013	NUT 3/8"	1	REPLACES 492583
16	EM16600	FENDOR, WELDMENT	2	

LS-40D/LS-40TD/LS-50TD PUMP — AXLE ASSY. (RIGHT/LEFT)

AXLE ASSY. (RIGHT/LEFT)



NOTES:

TORQUE LUG NUTS PER LUG NUT
① TORQUE TABLE REFERENCED IN THIS MANUAL.

RIGHT AND LEFT SIDE AXLE ASSEMBLIES ARE IDENTICAL WITH THE EXCEPTION OF THE BRAKE ASSEMBLY.
②

LS-40D/LS-40TD/LS-50TD PUMP — AXLE ASSY. (RIGHT/LEFT)

AXLE ASSY. (RIGHT/LEFT)

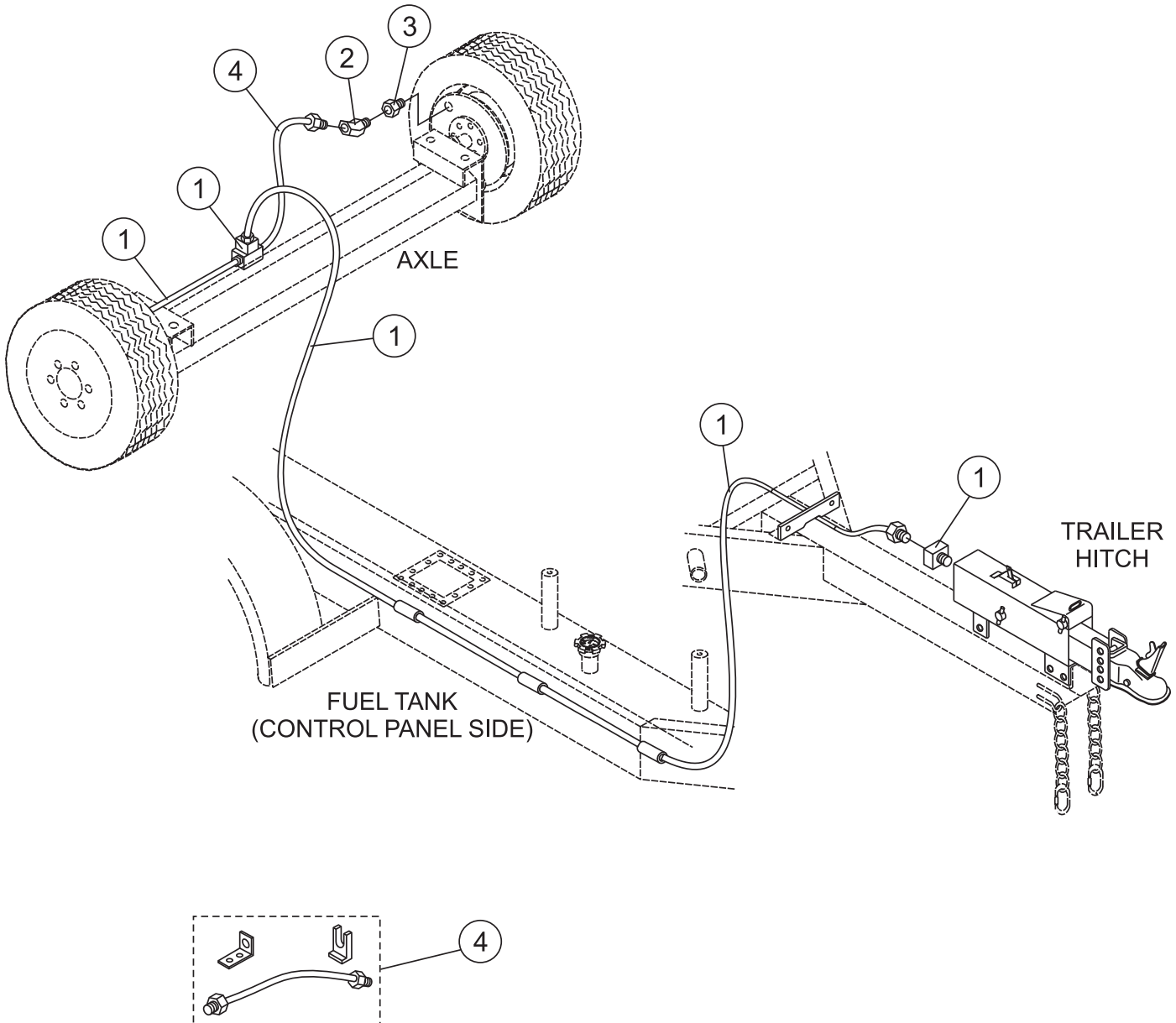
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM98116	AXLE, TORSION BAR ASSY.	2	
2	EM092305	BRAKE ASSY COMPLETE, RIGHT	1	INCLUDES ITEMS W/#
2	EM092306	BRAKE ASSY COMPLETE, LEFT	1	INCLUDES ITEMS W/%
		.....		SEE NOTE BELOW
3	363198	OIL SEAL	1	
4	363196	INNER BEARING CONE 2 IN.	1	
5	383911	INNER BEARING CUP 2 IN.	1	
6#%	363909	WHEEL STUD 1/2 IN. - 20 UNF PRESS IN	8	
7	363239	HUB AND DRUM ASSY.	2	
8	363916	OUTER BEARING CONE	1	
9	363420	OUTER BEARING CUP	1	
10	568326	LOAD WASHER 1 IN. T5 HP	1	
11	363257	SLOTTED NUT, 1 IN. UNF	2	
12	363258	COTTER PIN 3/16 IN. X 1-1/2	2	
13	EM514813	RIM AND TIRE	2	
14	363203	WHEEL LUG NUTS 1/2 UNF 60 CON	8	
15	363199	GREASE CAP	2	
16	EM104	BOLT, HEX HEAD 5/8 IN. NC X 2 IN. G5	4	REPLACES 503982
17	0401450160	WASHER, FLAT 5/8 IN.	8	REPLACES 492602
18	EM969023	NUT, LOCK 5/8 IN.	4	REPLACES 492586



RIGHT AND LEFT SIDE AXLE ASSEMBLIES ARE IDENTICAL WITH THE EXCEPTION OF THE BRAKE ASSEMBLY.

LS-40D/LS-40TD/LS-50TD PUMP — BRAKE LINE ASSY.

BRAKE LINE ASSY.



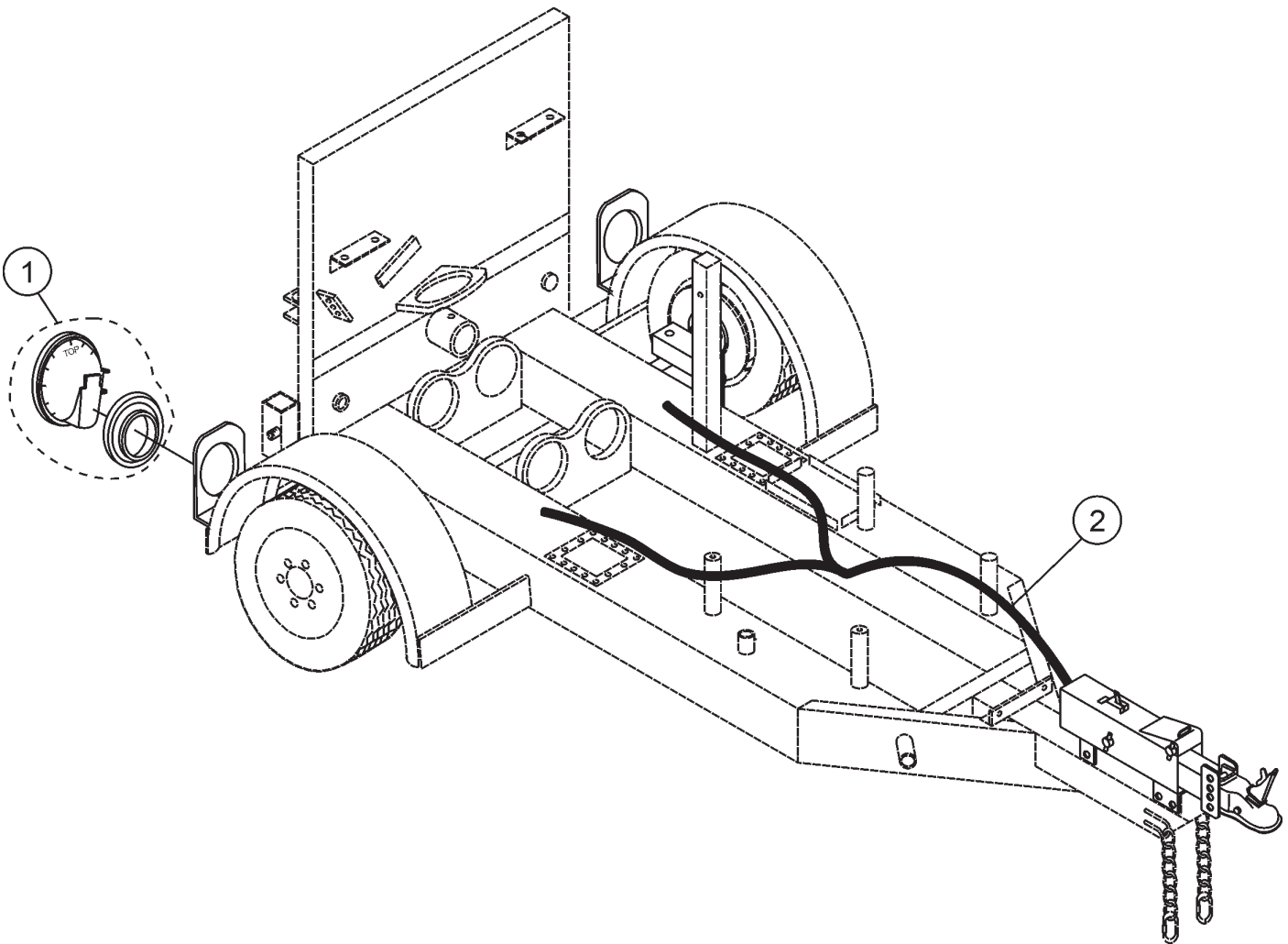
LS-40D/LS-40TD/LS-50TD PUMP — BRAKE LINE ASSY.

BRAKE LINE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	34566	KIT, MAIN BRAKE LINE	1	
2	EM512877	ADAPTOR, STRAIGHT	2	
3	EM512876	ADAPTOR, ELBOW	2	
4	34565	KIT, WHEEL BRAKE LINE	1	

LS-40D/LS-40TD/LS-50TD PUMP — BRAKE LIGHT ASSY.

BRAKE LIGHT ASSY.



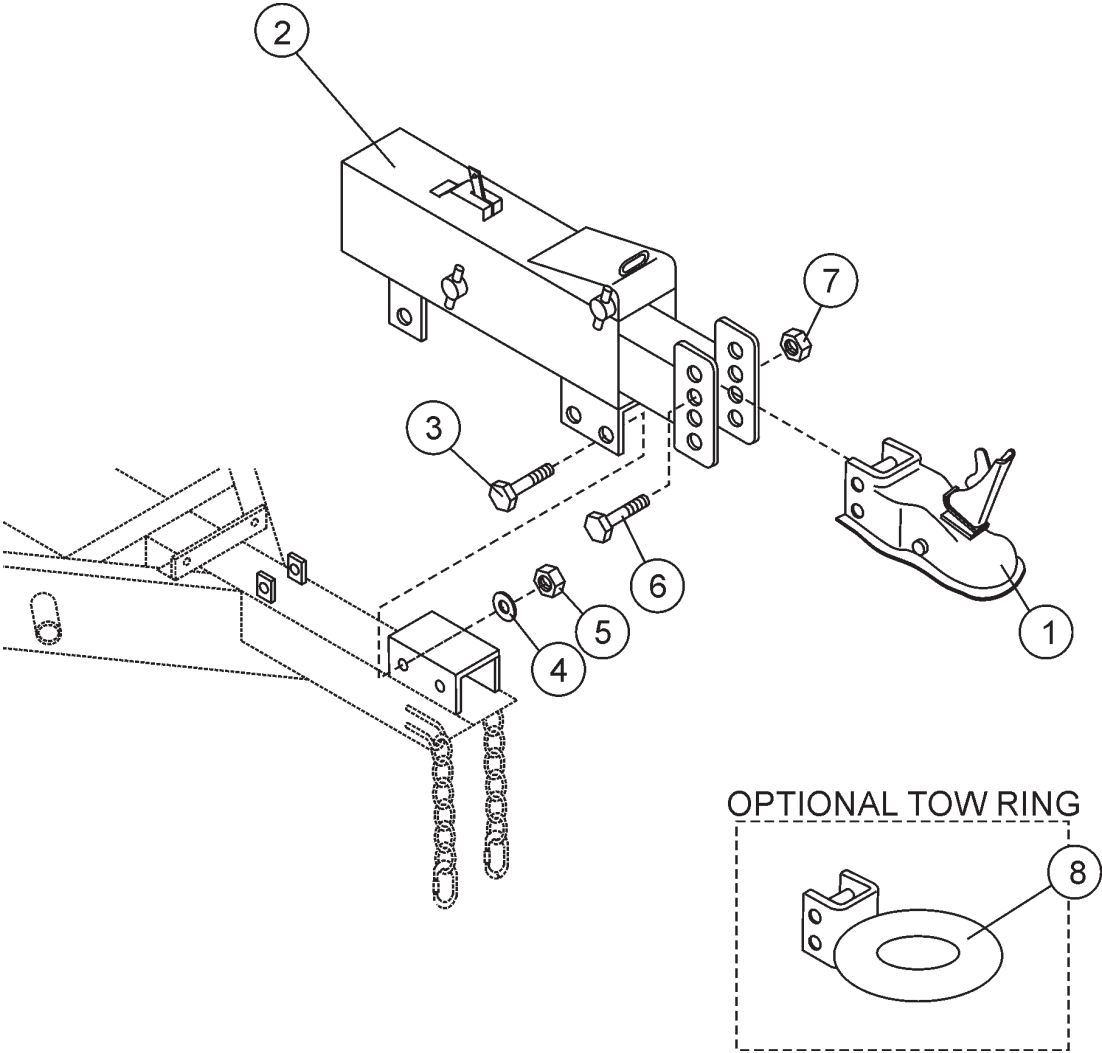
LS-40D/LS-40TD/LS-50TD PUMP — BRAKE LIGHT ASSY.

BRAKE LIGHT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM26536	BRAKE LIGHT ASSY.	2	
2	29207	HARNESS ASSY. W/RECEPTACLES	1	

LS-40D/LS-40TD/LS-50TD PUMP — TRAILER HITCH ASSY.

TRAILER HITCH ASSY.

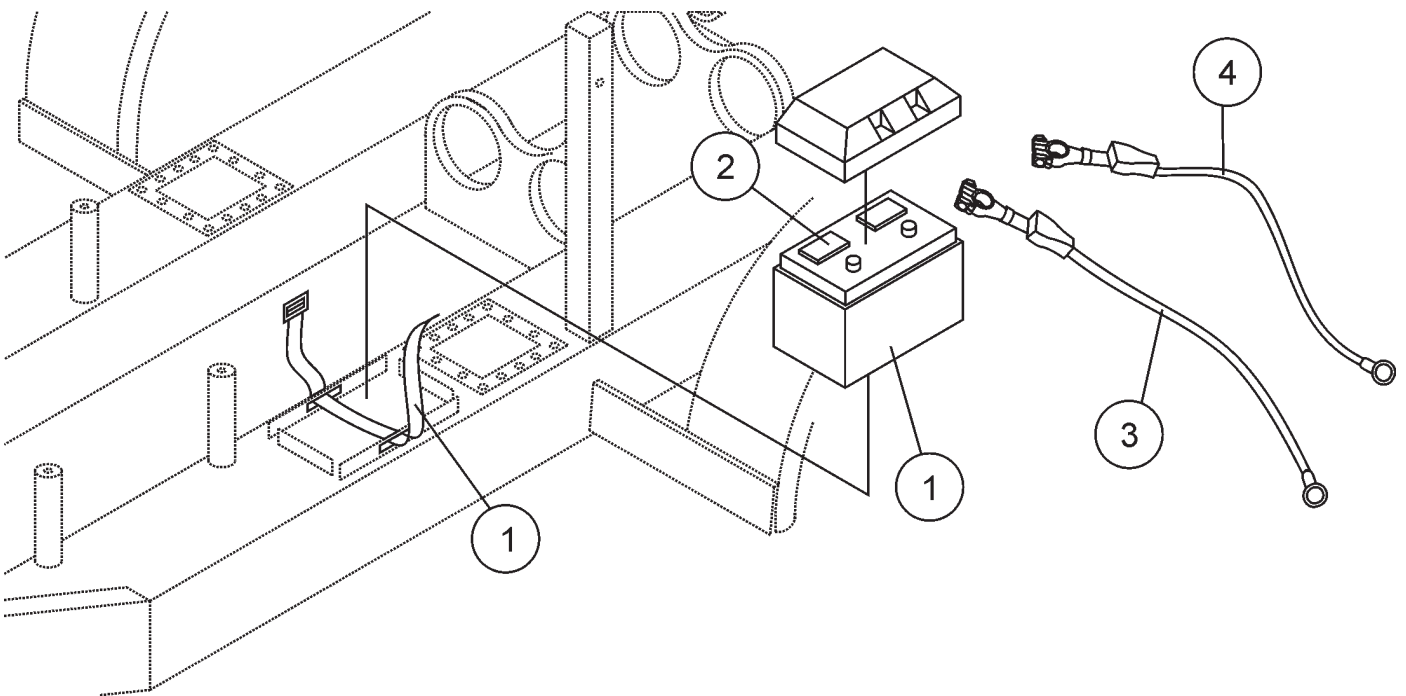


LS-40D/LS-40TD/LS-50TD PUMP — TRAILER HITCH ASSY.

TRAILER HITCH ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM29228	COUPLING, TRAILER 2 IN.BALL, 6000 LBS	1	
2	EM19067	ACTUATOR, BRAKE	1	
3	EM503111	BOLT, HEX HEAD 1/2 NC X 4-1/2 IN.	3	
4	EM492600	WASHER, FLAT 1/2 IN.	3	
5	EM492584	NUT, LOCK 1/2 IN.	3	
6	EM507658	BOLT, HEX HEAD 5/8 NC X 4-1/2 IN. G5	2	
7	EM492586	NUT, LOCK 5/8 IN.	2	
8	16137	TOW RING, 3 IN. LUNETTE EYE	1	

LS-40D/LS-40TD/LS-50TD PUMP — BATTERY ASSY.



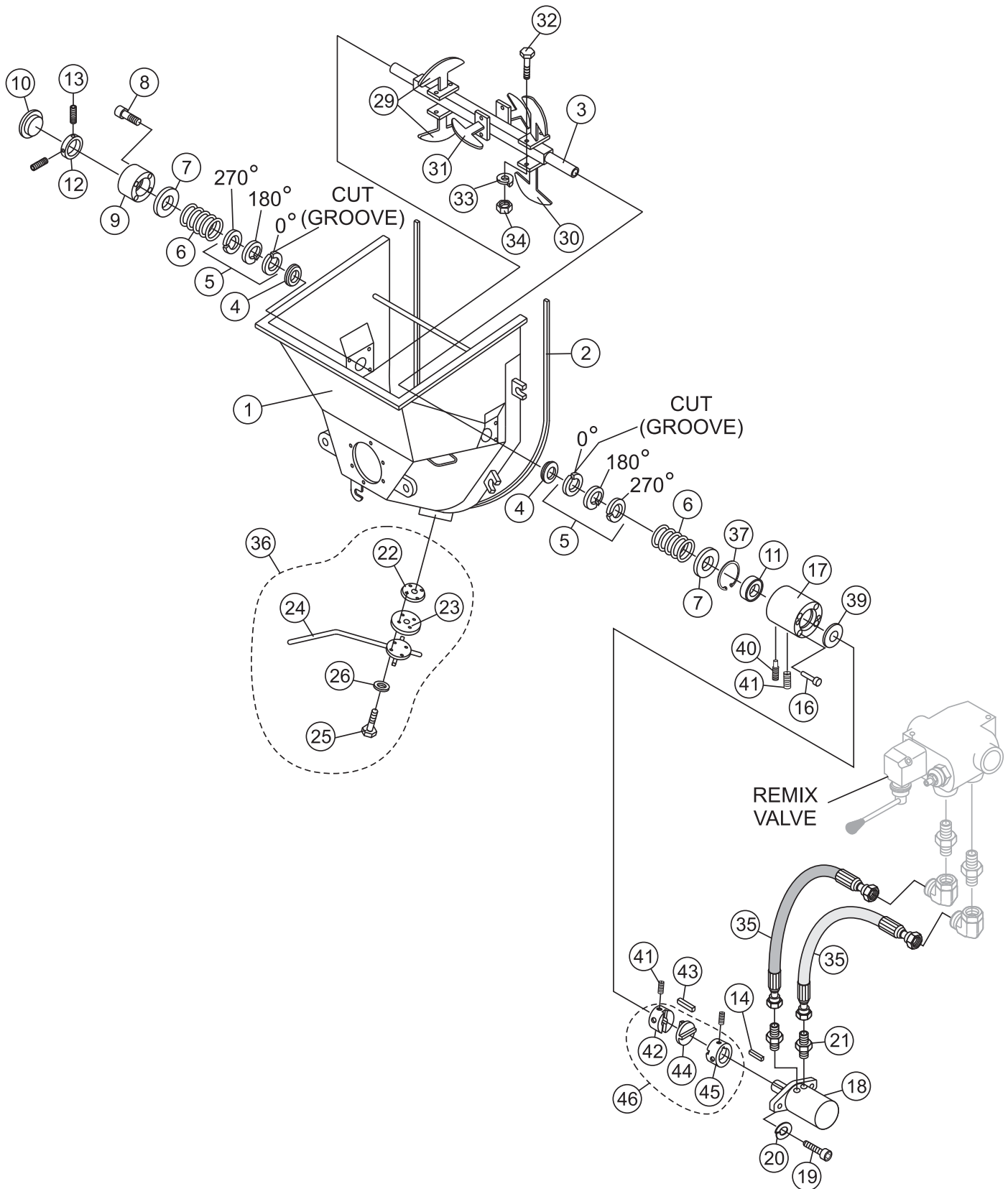
LS-40D/LS-40TD/LS-50TD PUMP — BATTERY ASSY.

MANIFOLD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM34506	BATTERY BOX W/ BELT	1	
2	EM16738	BATTERY 12V 125A	1	
3	514856	BATTERY CABLE POSITIVE	1	
4	513577	BATTERY CABLE NEGATIVE	1	

LS-40D/LS-40TD/LS-50TD PUMP — HOPPER ASSY.

HOPPER ASSY.



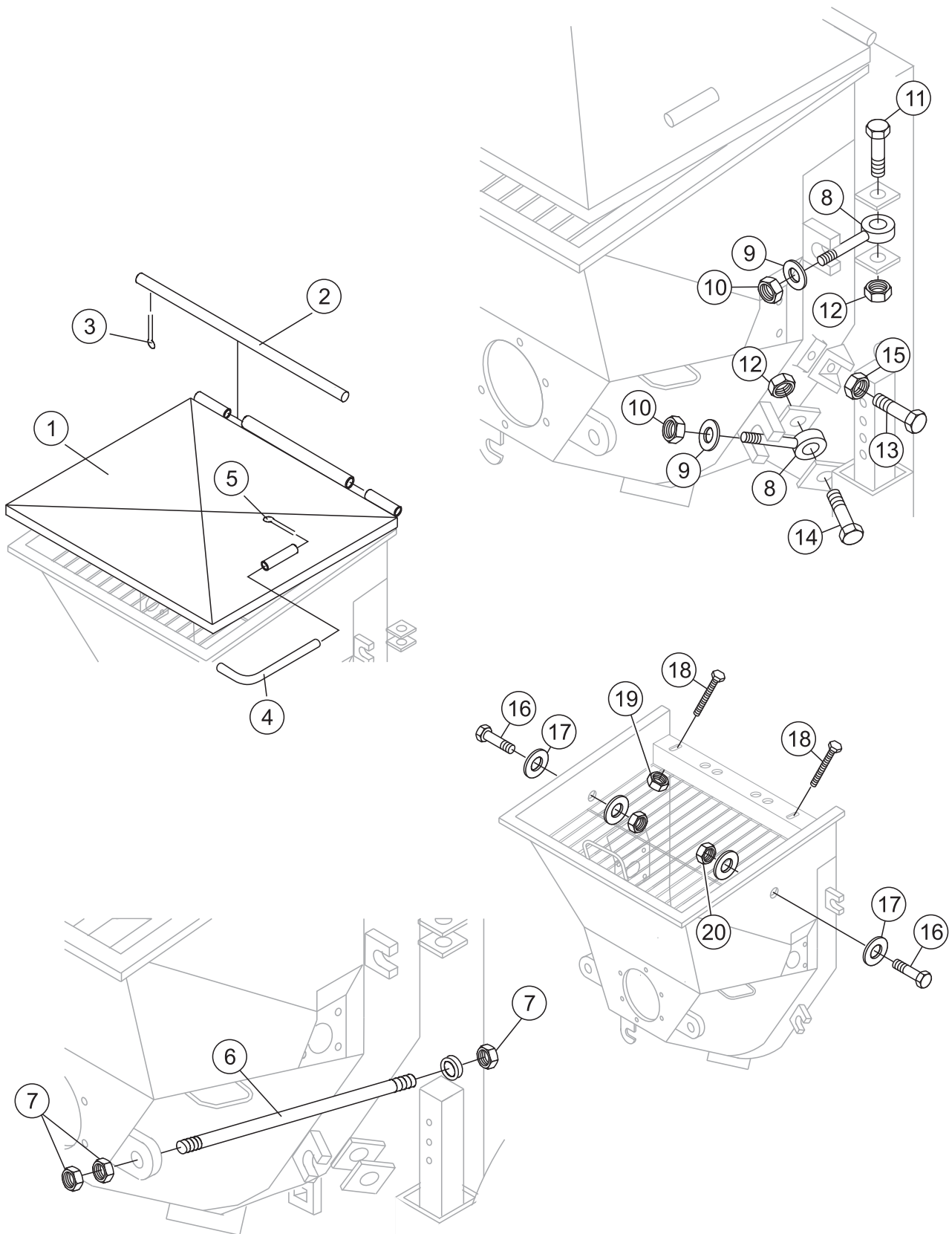
LS-40D/LS-40TD/LS-50TD PUMP — HOPPER ASSY.

HOPPER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM514354	HOPPER ASSY	1	
2	EM16184	HOPPER SEAL	1	
3	EM516779	REMIXER SHAFT	1	
4	EM200303	FOLLOWER RING	2	
5	EM200301	GRAPHITE SEAL	6	
6	EM516820	COMPRESSION SPRING	2	
7	EM514339	HOPPER SPRING SEAT	2	
8	510717	BOLT 1/2 X 1-3/4 IN.	4	
9	EM514338	SUPPORT, LEFT	1	
10	EM514706	END CAP, SHAFT SUPPORT	1	
11	EM902153	BEARING	2	
12	EM200018	SET COLLAR	1	
13	EM703	SET SCREW	2	REPLACES 492470
14	500264	KEY 3/8 IN.	1	
16	EM511428	BOLT 1/2 X 3-1/2 IN.	4	
17	EM516780	HOUSING	1	
18	EM98108	MOTOR, REMIX	1	
19	505989	BOLT 1/2 X 1-1/4 IN.	2	
20	6109180	WASHER, LOCK 1/2 IN.	2	REPLACES 492626
21	EM25508	ADAPTER, FITTING	2	
22	EM70860-1	PISTON CUP HOLDER	1	
23	EM50417	PISTON CUP	1	
24	EM508830	HANDLE	1	
25	492378	BOLT 3/8 X 1-3/4 IN.	4	
26	0166 A	WASHER, LOCK 3/8 IN.	4	REPLACES 492624
29	EM514031	PADDLE ARM, END	2	
30	EM514032	PADDLE ARM, MOTOR END	2	
31	EM514033	PADDLE ARM, CENTER	2	
32	513454	BOLT 1/2 X 3-1/4 IN.	6	
33	6109180	WASHER, LOCK 1/2 IN.	6	REPLACES 492626
34	492589	HEX NUT 1/2 IN.	6	REPLACES 507661
35	EM25483	HOSE	2	
36	EM70860	HANDLE ASSY.	1	
37	EM515460	RETAINING RING	1	
39	516799	SPACER 6MM	1	
40	EM702	DOG POINT SET SCREW 3/8"	1	
41	EM703	SET SCREW 3/8"	3	
42%	516787	REMIX SHAFT COUPLER	1	
43	EM500264	SQUARE KEY 3/8"	1	
44%	516776	DRIVE MEMBER COUPLER	1	
45%	516775	MOTOR SHAFT COUPLER	1	
46	EM516786	COUPLER ASSY	1	INCLUDES ITEMS W/%

LS-40D/LS-40TD/LS-50TD PUMP — HOPPER ATTACHMENT ASSY.

HOPPER ATTACHMENT ASSY.



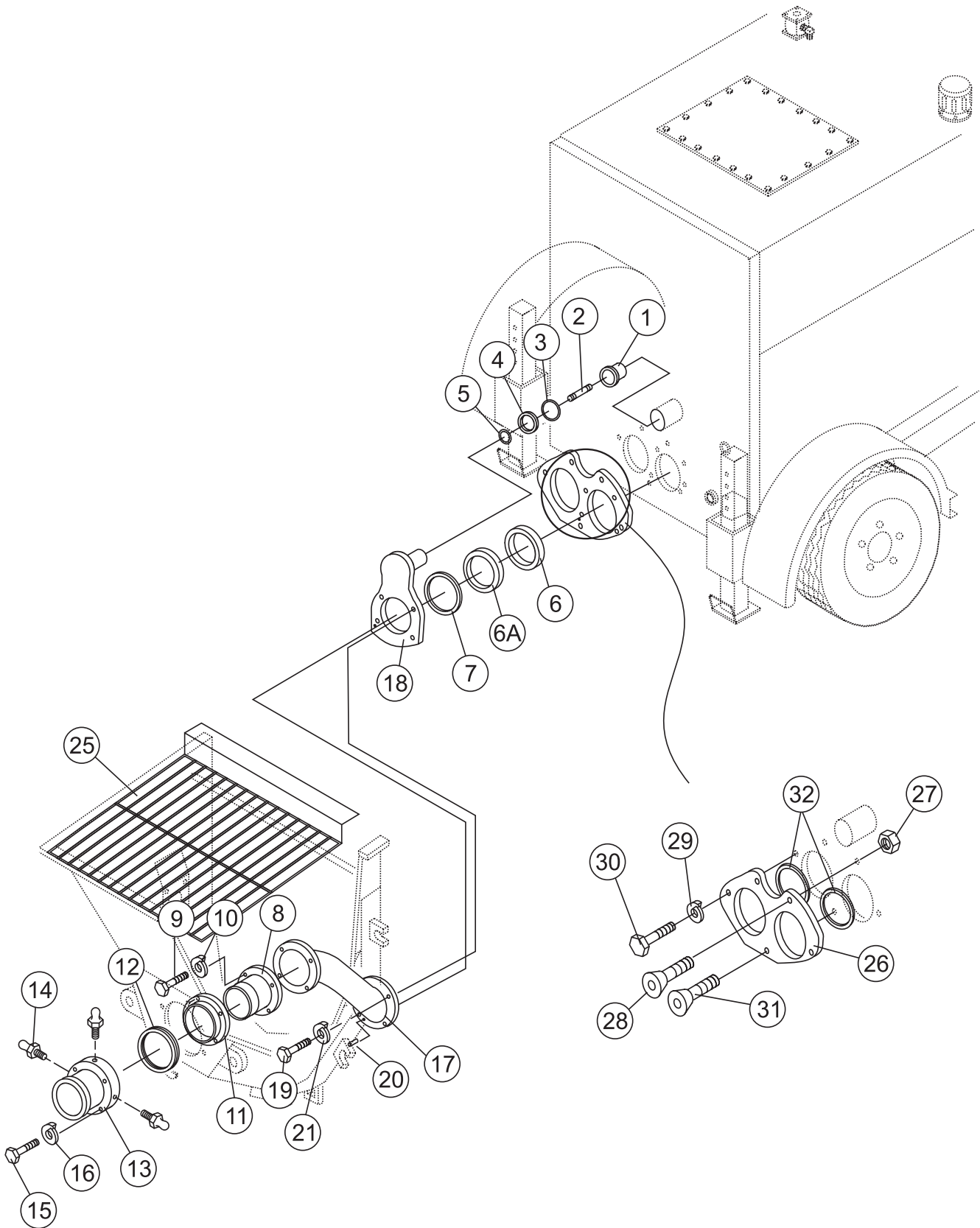
LS-40D/LS-40TD/LS-50TD PUMP — HOPPER ATTACHMENT ASSY.

HOPPER ATTACHMENT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM514204	SPLASH PLATE	1	
2	EM514620	HINGE PIN	1	
3	EM491686	COTTER PIN 1/8 X 1-1/2 IN.	1	
4	EM70134-2	PIN, SPLASH PLATE	1	
5	EM505723	COTTER PIN 5/32 X 1-1/2 IN.	1	
6	EM16166	TIE ROD	1	
7	505728	NUT, HEX 1 IN. NC	6	
8	EM14165	EYE BOLT 3/4 IN.	4	
9	EM619	O-RING 3/4 IN.	4	
10	EM968446	NUT, HEX 3/4 IN.	4	
11	505121	BOLT 3/4 IN. X 3 IN.	4	
12	EM968446	HEX NUT 3/4 IN.	4	
13	505123	HEX BOLT 1/2 X 2-1/2 IN.	2	
14	492491	HEX BOLT 1/2 X 1-1/2 IN.	1	
15	6109160	HEX NUT 1/2 IN.	3	REPLACES 492556
16	492379	SCREW CAP 3/8"	2	
17	3019092	WASHER FLAT 3/8"	4	
18	515395	BOLT 7/16 NC X 4" G5	2	
19	492584	NUT LOCK 1/2"	2	
20	EM969013	NUT NYLOC	2	

LS-40D/LS-40TD/LS-50TD PUMP — HOPPER INTERIOR ASSY.

HOPPER INTERIOR ASSY.



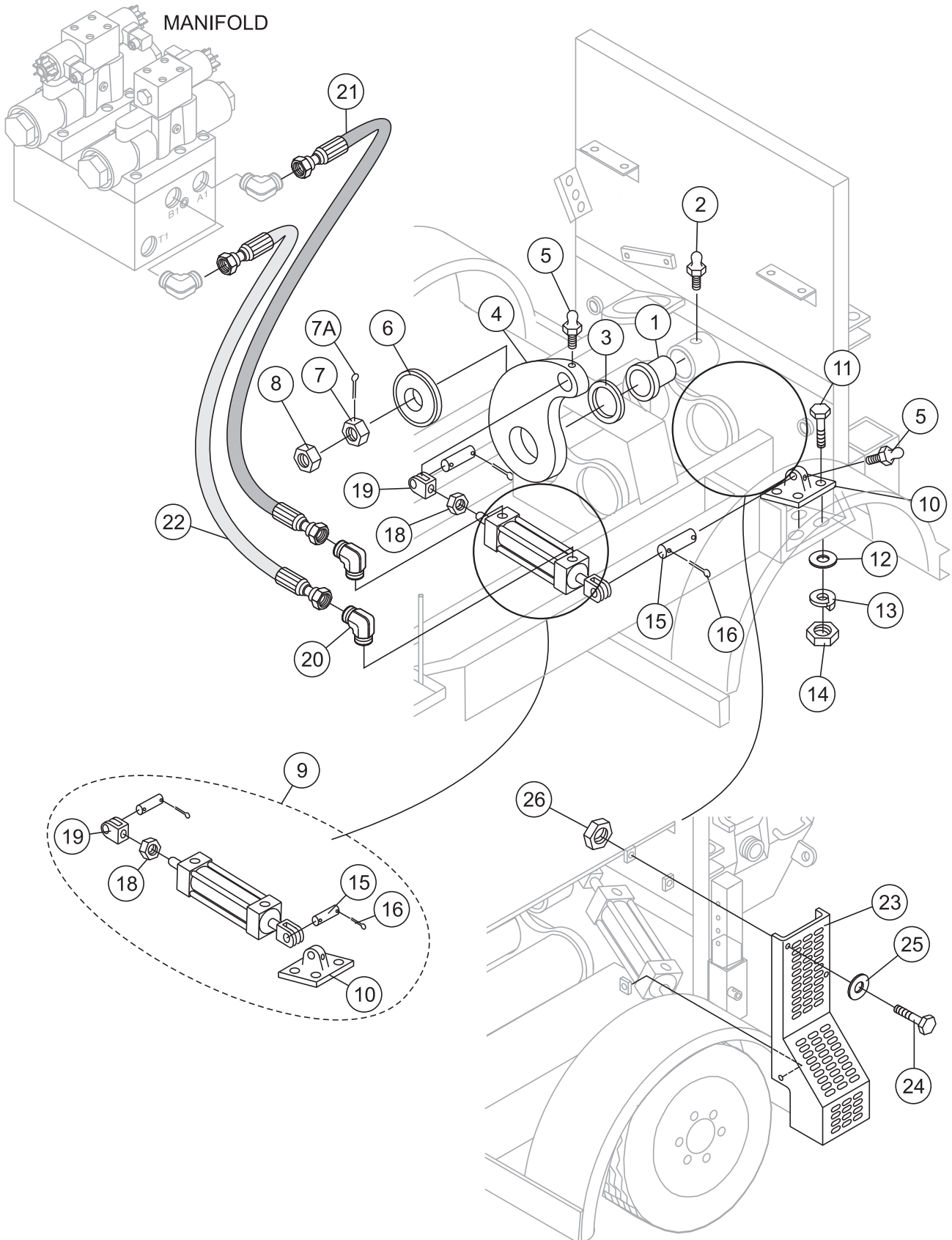
LS-40D/LS-40TD/LS-50TD PUMP — HOPPER INTERIOR ASSY.

HOPPER INTERIOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM16145A	SWING AXLE BUSHING	2	
2	EM284	STUD 1 IN. - 14 UNF	1	
3	EM16175	O-RING	1	
4	EM16170	RING SEAL, SHUTTLE AXLE	1	
5	EM16176	O-RING	1	
6	EM98022	WEAR RING HF	1	
6A	EM16816-1A	RING, ENERGIZER RUBBER	1	
7	EM16816-2	RING, INSERT STEEL	1	
8	EM16804	SLEEVE 5 IN.	1	
9	EM104	BOLT 5/8 X 2 IN.	4	REPLACES 503982
10	EM923348	WASHER, LOCK 5/8 IN.	4	
11	EM25803	DISCHARGE PLATE BEARING	1	
12	EM98065	SEAL, RUBBER	1	
13	EM512212	DISCHARGE NIPPLE	1	
14	491701	GREASE FITTING	3	
15	EM210	BOLT 5/8 X 2 IN.	6	
17	EM16811	SHUTTLE CYLINDER	1	
18	EM25843	NUN PLATE	1	
19	EM104	BOLT, HEX HEAD 5/8 X 2 IN.	4	REPLACES 503982
20	491719	PIN	1	
21	EM923348	WASHER, LOCK 5/8 IN.	4	
25	EM514357	HOPPER SCREEN	1	
26	EM98021	PLATE, WEAR HF	1	
27	EM969023	NUT, HEX 5/8 IN. NC INS.	2	REPLACES 492586
28	EM265	BOLT, COUNTER SUNK 5/8-11 x 3 IN.	2	
29	EM923350	WASHER, LOCK 3/4 IN.	2	REPLACES EM492628
30	EM151	BOLT, HEX HEAD 3/4-10 X 2 IN.	2	
31	EM264	BOLT, COUNTER SUNK 1/2-13 x 3 IN.	2	
32	EM517700	O-RING	2	

LS-40D/LS-40TD/LS-50TD PUMP — SHUTTLE CYLINDER ASSY.

SHUTTLE CYLINDER ASSY.



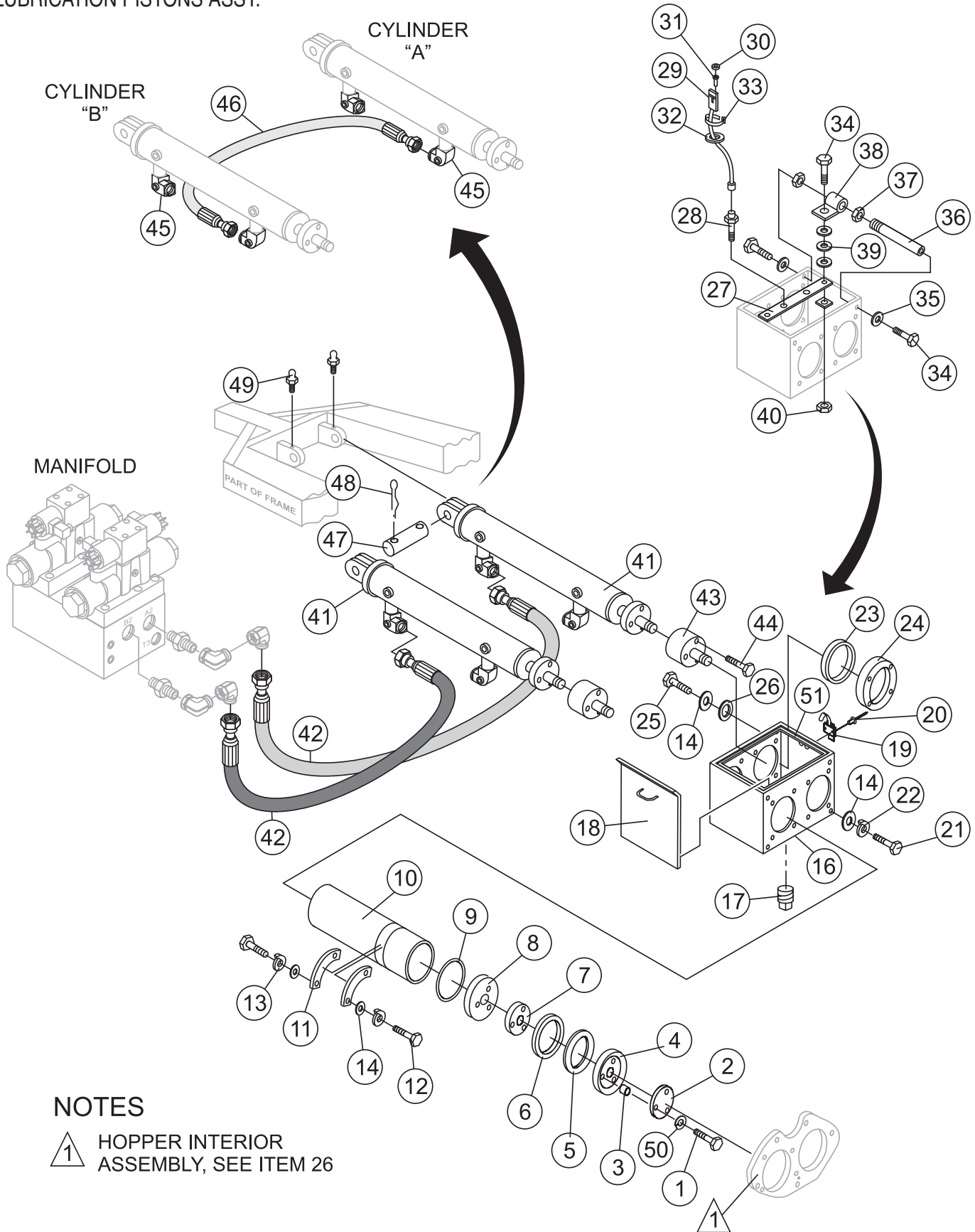
LS-40D/LS-40TD/LS-50TD PUMP — SHUTTLE CYLINDER ASSY.

SHUTTLE CYLINDER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM16145	SWING AXLE BUSHING	2	
2	EM510684	GREASE FITTING	1	
3	EM16169	THRUST WASHER	1	
4	EM25236	SHUTTLE CRANK, SPLINED SHAFT	1	
5	EM505490	GREASE FITTING	2	
6	EM16814	TENSIONER	1	
7	EM424	HEX NUT 1 IN. 14NF	1	
7A	EM924006	COTTER PIN 5/32 X 2 IN.	1	
8	EM417	NUT 1 IN. 14NF	1	
9	EM98106	SHUTTLE CYLINDER ASSY.	1	INCLUDES ITEMS W/*
10*	EM254549	BRACKET, PIVOT	1	
11	492397	BOLT 1/2 X 2-1/2 IN.	4	
12	EM621	WASHER 1/2 IN.	4	
13	6109180	WASHER, LOCK 1/2 IN.	4	REPLACES 492626
14	492584	NUT 1/2 IN.	4	
15*	0820270000	CLEVIS PIN 3/4 IN.	2	
16*	0820270000	COTTER PIN	2	
18*	515249	JAM NUT	1	
19*	0509440000	FEMALE CLEVIS	2	
20	3322	FITTING, ELBOW	2	
21	EM514590	HOSE	1	
22	EM514591	HOSE	1	
23	EM515628	COVER, SHUTTLE CYLINDER	1	
24	0202	BOLT	3	REPLACES 492364
25	EM923023	WASHER, FLAT	3	REPLACES 492597
26	2105164	NUT, HEX	3	REPLACES 492582

LS-40D/LS-40TD/LS-50TD PUMP — LUBRICATION PISTONS ASSY.

LUBRICATION PISTONS ASSY.



NOTES

- 1 HOPPER INTERIOR ASSEMBLY, SEE ITEM 26

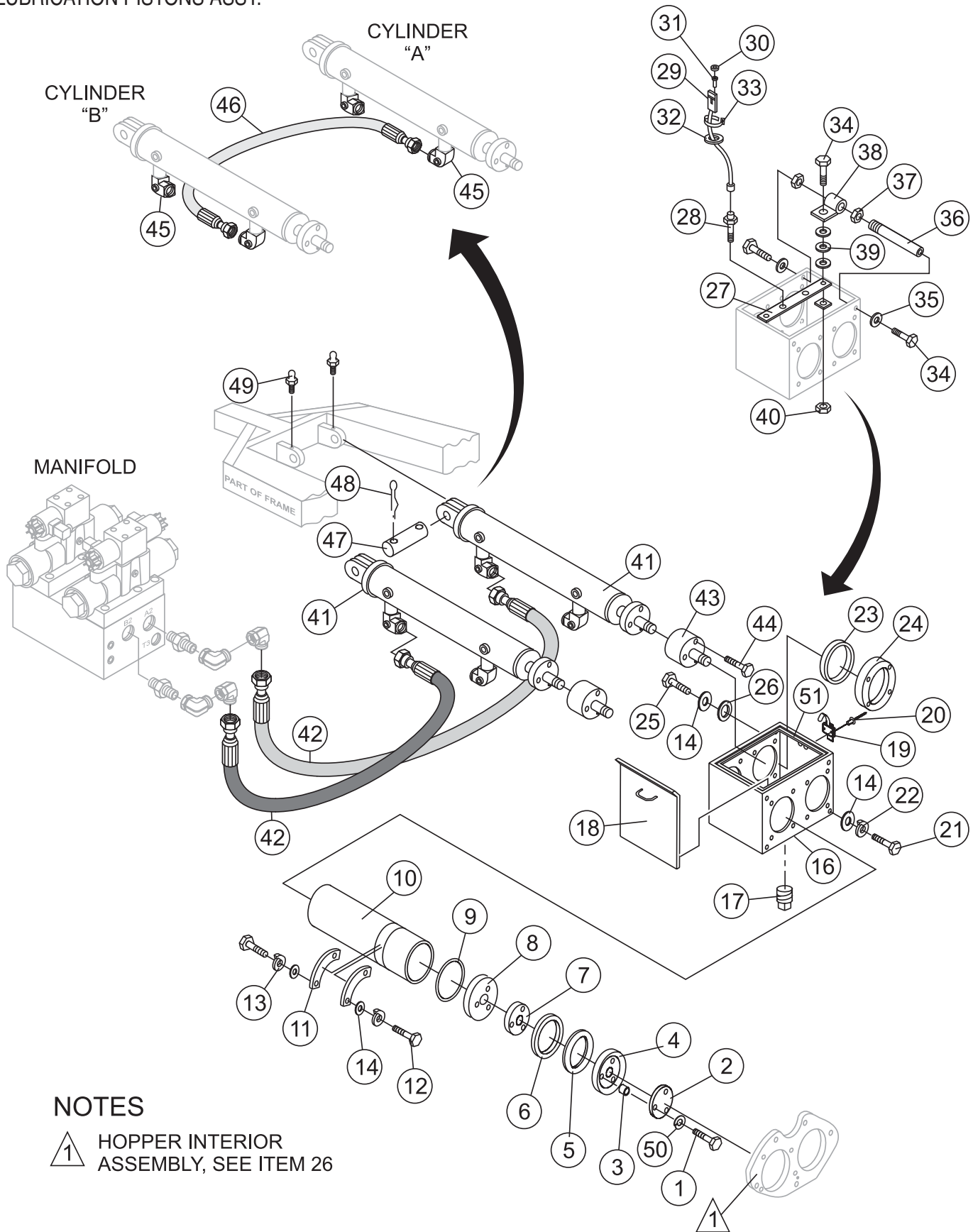
LS-40D/LS-40TD/LS-50TD PUMP — LUBRICATION PISTONS ASSY.

LUBRICATION PISTONS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM510265	BOLT, HEX HEAD 3/8 NC X 3-1/2 IN., BLACK OXIDE G8	6	
2	EM16464	FACE PLATE	2	
3	EM16465	PISTON CUP SPACER	6	
4	EM98050	CUP, PISTON- ORANGE	2	
5	EM14408	RING, BRONZE	2	
6	EM16493	RING, FELT	2	
7	EM16462	FELT HOLDER	2	
8	EM16461	OILER PLATE	2	
9	EM14407	O- RING, OILER PLATE	2	
10	EM25801	CYLINDER, CONCRETE	2	
11	EM25110	RETAINER, CYLINDER	4	
12	EM963610	BOLT, 3/8 NC X 1.3/4 IN. G5	8	REPLACES 492375
13	0166 A	WASHER LOCK 3/8 IN.	8	REPLACES 492624
14	3019092	WASHER, FLAT 3/8 IN.	22	REPLACES 492598
16	EM514197	LUBRICATION BOX	1	
17	EM507895	PLUG	1	
18	EM515796	COVER, LUBRICATION BOX	1	
19	EM514610	LATCH, COVER	1	
20	491754	RIVET, AM-66	2	
21	492378	BOLT, 3/8 NC X 1.3/4 IN. G5	6	
22	0166 A	WASHER, LOCK 3/8"	6	REPLACES 492624
23	EM274351	SEAL LUBE BOX	2	
24	EM50425	FLANGE, RING	2	
25	492451	BOLT 3/8 - 24 X 1 IN. HEX HEAD	8	
26	EM50443	SEAL, OIL BOX	8	
27	514208	BAR, PROXIMITY SWITCH SUPPORT	1	
28	EM98163	SWITCH, PROXIMITY W/CABLE	2	
29	EM98135	CABLE HOUSING, FEMALE	2	
30	EM98134	SEAL, CONNECTOR HOUSING	6	
31	EM98138	TERMINAL PIN, FEMALE	6	
32	514611	GROMMET	2	
33	504505	WRAP TIE	8	

LS-40D/LS-40TD/LS-50TD PUMP — LUBRICATION PISTONS ASSY.

LUBRICATION PISTONS ASSY.



NOTES

- 1 HOPPER INTERIOR ASSEMBLY, SEE ITEM 26

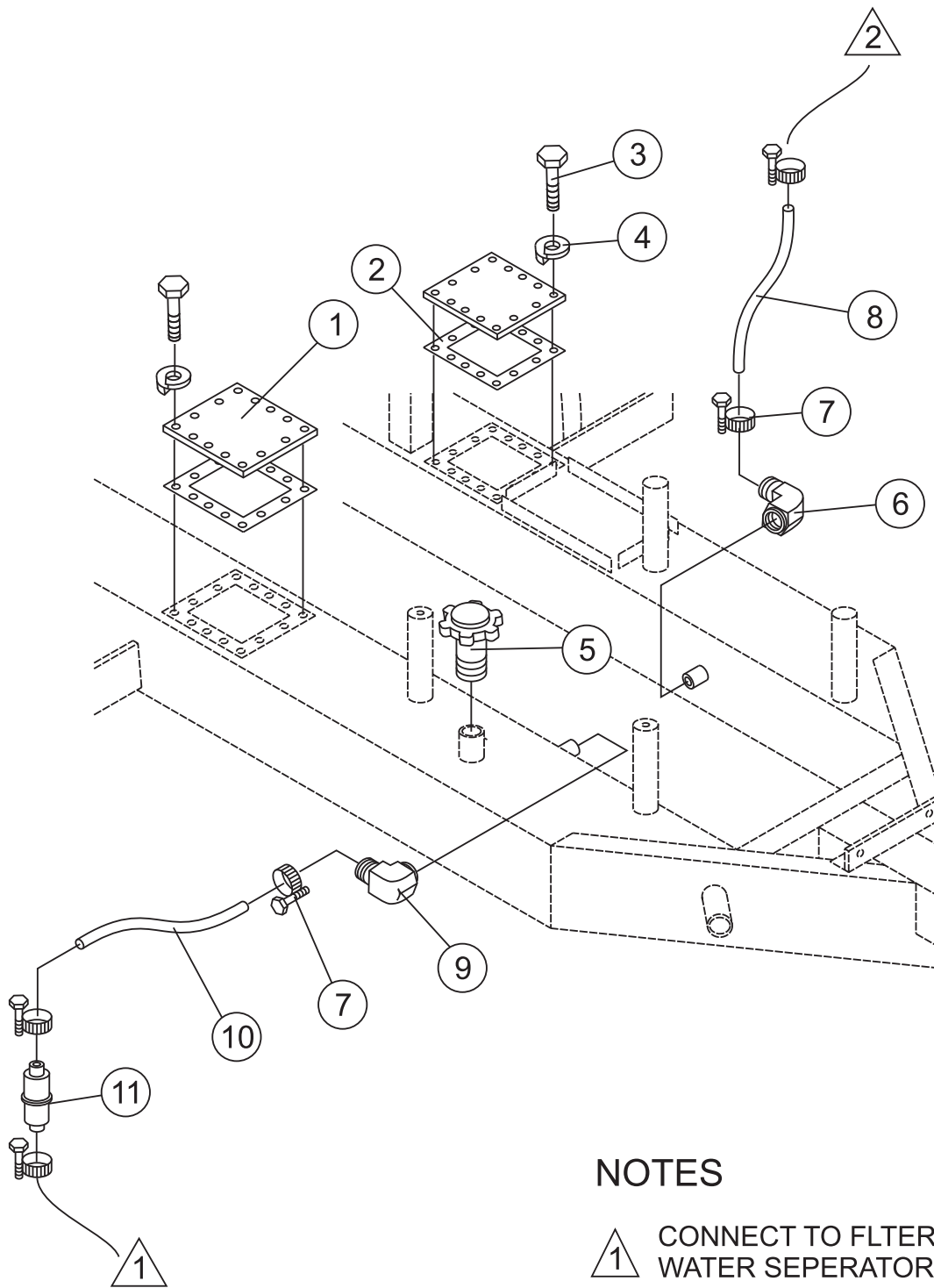
LS-40D/LS-40TD/LS-50TD PUMP — LUBRICATION PISTONS ASSY.

LUBRICATION PISTONS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
34	492366	BOLT, HEX HEAD 5/16 NC X 1 IN. G5	6	
35	EM492623	WASHER, LOCK 5/16 IN.	4	
36	EM514216	ADJUSTMENT ROD, PROXIMITY SWITCH	2	
37	EM492556	NUT, HEX 1/2 IN.	4	
38	EM514207	BRACKET, ADJUSTMENT ROD	2	
39	EM492597	WASHER, FLAT 5/16 IN.	6	
40	EM492582	NUT, HEX HEAD 5/16 IN	2	
41	EM98211	CYLINDER, MAIN	2	
42	EM514920	HOSE, MAIN HYD. CYLINDER	2	
43	EM514202	EXTENSION, SPACER	2	
44	EM185	BOLT, SOCKET HEAD 3/8 NC X 3 IN., BLACK OXIDE G8	6	
45	EM25497	FITTING, 90°	4	
46	EM25474	HOSE, HYDRAULIC SLAVE	1	
47	EM16459	PIN, WRIST	2	
48	EM505723	PIN, COTTER	4	
49	EM491701	FITTING, GREASE	2	
50	EM517126	LOCK WASHER	6	
51	EM513352	SEAL, SQUARE	1	

LS-40D/LS-40TD/LS-50TD PUMP — FUEL TANK ASSY.

FUEL TANK ASSY.



NOTES

1 CONNECT TO FILTER INLET HOSE
WATER SEPERATOR ASSY., NOTE 1

2 CONNECT TO FILTER OUTLET HOSE
WATER SEPERATOR ASSY., NOTE 2

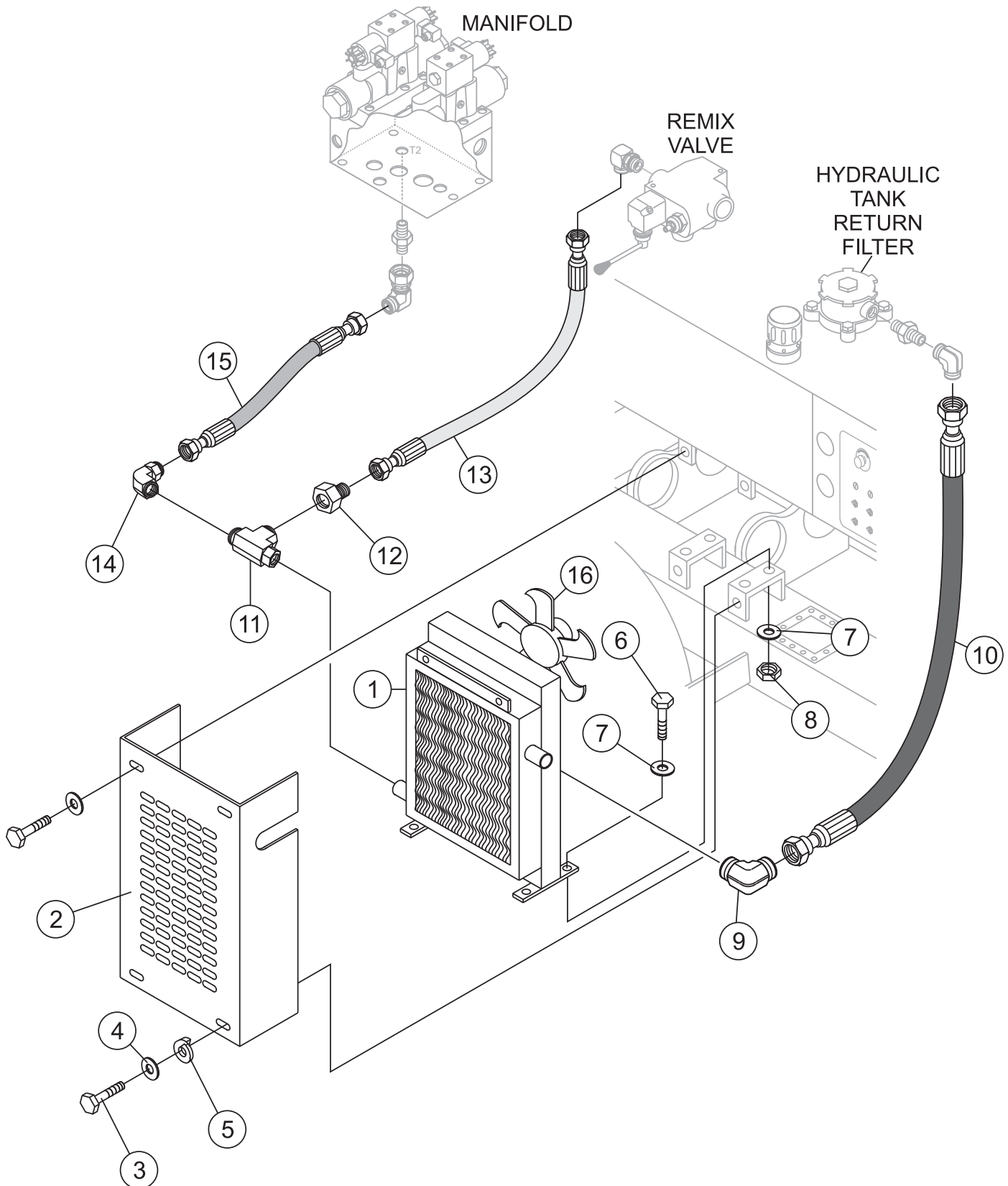
LS-40D/LS-40TD/LS-50TD PUMP — FUEL TANK ASSY.

FUEL TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM514084	COVER, DIESEL TANK	4	
2	514080	GASKET	4	
3	492362	BOLT 5/16 X 5/8 IN.	28	
4	EM923343	WASHER, LOCK 5/16 IN.	28	REPLACES 492623
5	34507	CAP, FUEL W\GAUGE	1	
6	EM514559	ADAPTOR	1	
7	506208	CLAMP	5	
8	EM514536	HOSE, FUEL RETURN 5/16 IN.	A/R	
9	EM20426	ADAPTER	1	
10	EM514536	HOSE, FUEL FILTER 5/16 IN.	A/R	
11	EM20763	FILTER, FUEL	2	

LS-40D/LS-40TD/LS-50TD PUMP — HEAT EXCHANGER ASSY.

HEAT EXCHANGER ASSY.



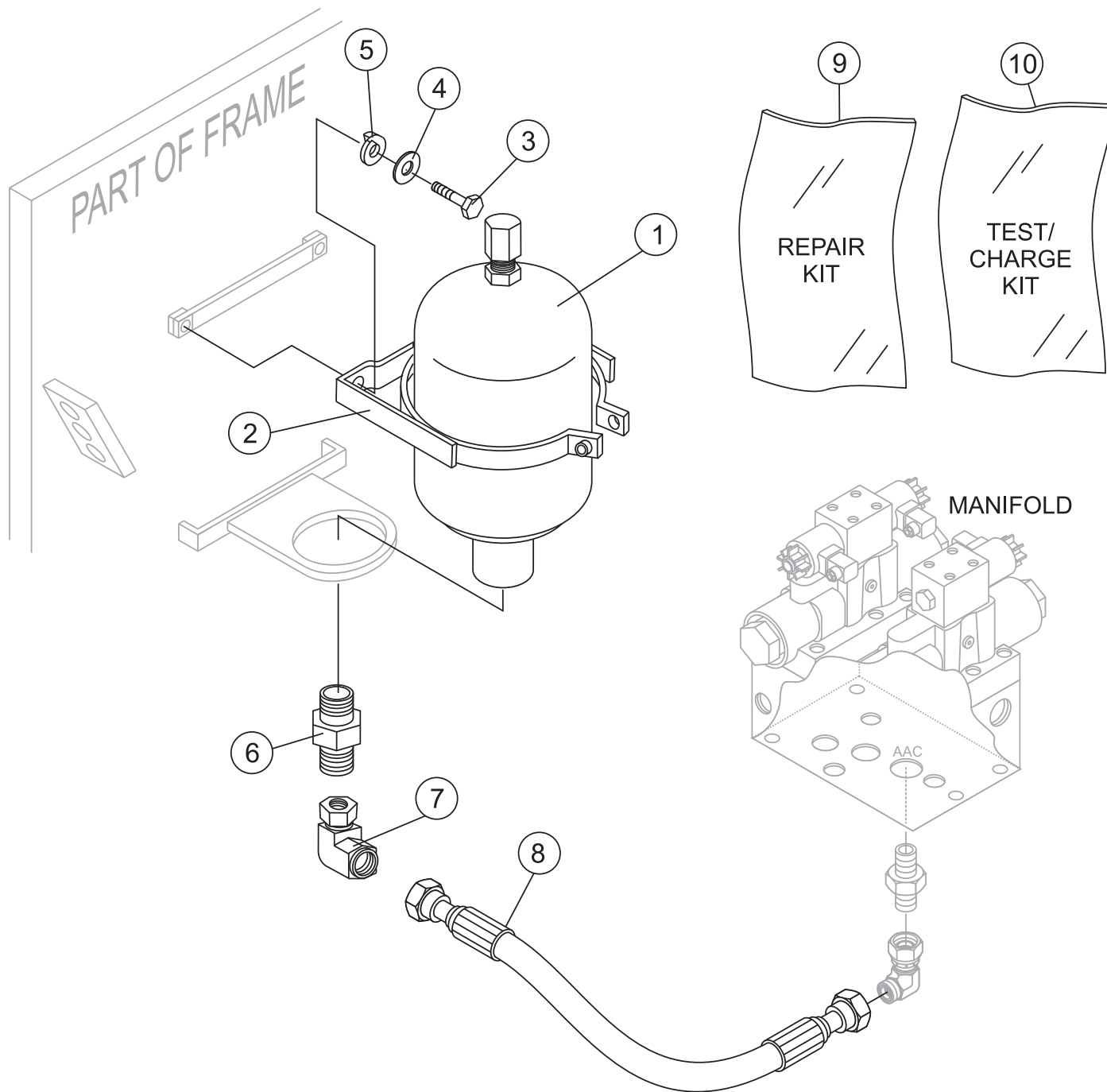
LS-40D/LS-40TD/LS-50TD PUMP — HEAT EXCHANGER ASSY.

HEAT EXCHANGER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM98118	HEAT EXCHANGER	1	
2	EM514175	COVER, HEAT EXCHANGER	1	
3	EM963610	BOLT 3/8 IN. X 1 IN.	4	REPLACES 492375
4	3019092	O-RING 3/8 IN.	4	REPLACES 492598
5	0166 A	WASHER, LOCK 3/8 IN.	4	REPLACES 492624
6	0202	BOLT 5/16 X 1 IN.	4	REPLACES 492364
7	EM923023	WASHER, FLAT 5/16 IN.	8	REPLACES 492597
8	2105164	NUT 5/16 IN.	4	REPLACES 492582
9	EM25497	ADAPTER	1	
10	EM514607	HOSE 4000 PSI	1	
11	EM25566	ADAPTER	1	
12	EM509345	ADAPTER	1	
13	EM514606	HOSE 2000 PSI	1	
14	EM509401	ADAPTER	1	
15	EM514604	HOSE, 2000 PSI	1	
16	EM98264	MOTOR AND FAN ASSY	1	

LS-40D/LS-40TD/LS-50TD PUMP — ACCUMULATOR ASSY.

ACCUMULATOR ASSY.



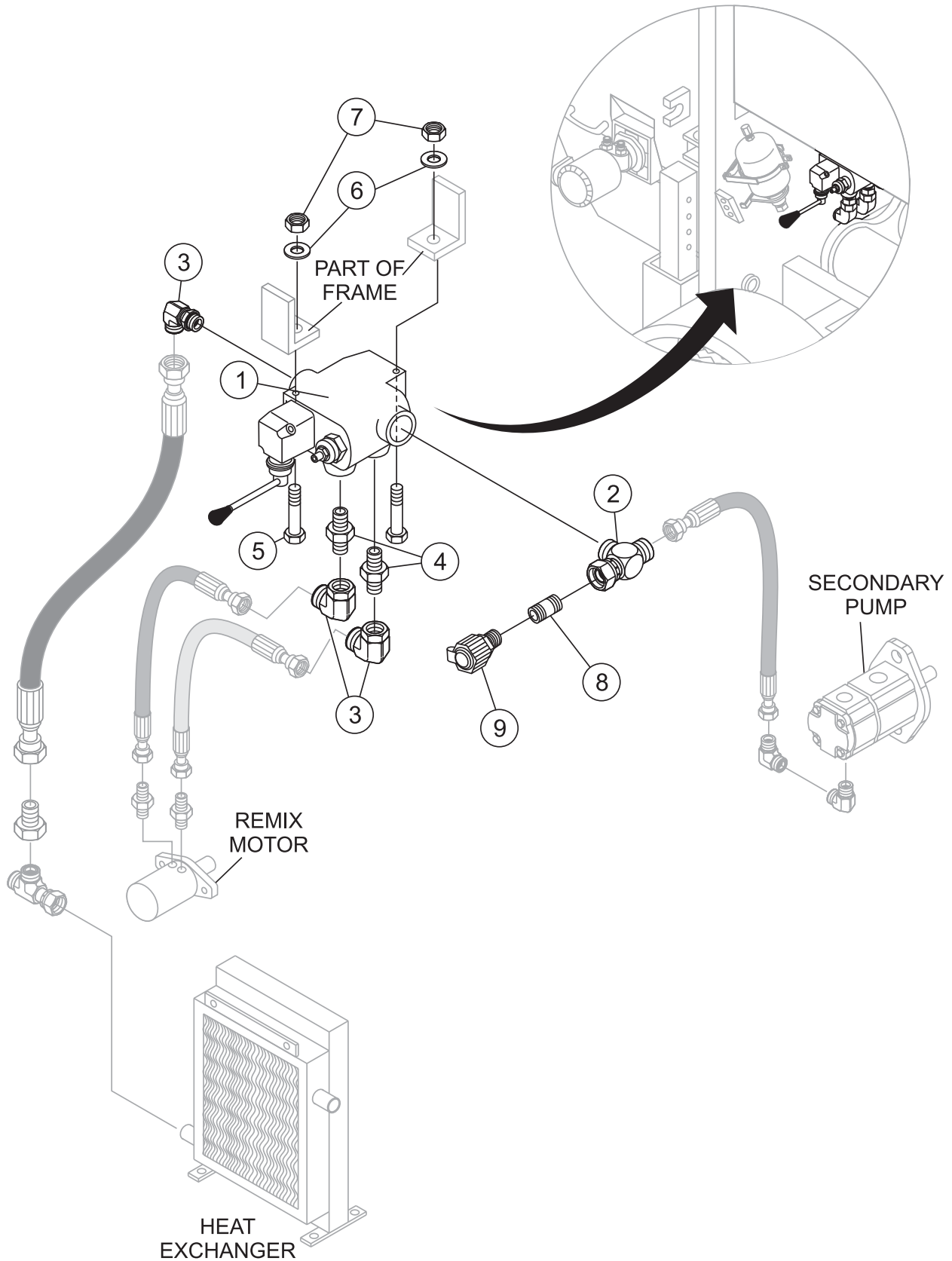
LS-40D/LS-40TD/LS-50TD PUMP — ACCUMULATOR ASSY.

ACCUMULATOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM97015	ACCUMULATOR 1 GAL.	1	
2	EM97016	BRACKET, ACCUMULATOR	1	
3	EM9603055	BOLT, HHCS 3/8 IN. DIA.	2	
4	3019092	WASHER, FLAT 3/8 IN.	2	
5	0166A	WASHER, LOCK 3/8 IN. DIA.	2	
6	EM509425	FITTING, STRAIGHT	1	
7	EM509353	FITTING, 90° ELBOW	1	
8	EM514603	HOSE, ACCUMULATOR	1	
9	EM98009	ACCUMULATOR REPAIR KIT	1	
10	EM98052	ACCUMULATOR TEST/CHARGE KIT	1	

LS-40D/LS-40TD/LS-50TD PUMP — REMIXER CONTROL ASSY.

REMIXER CONTROL ASSY.



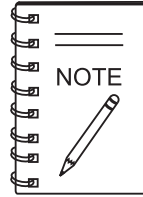
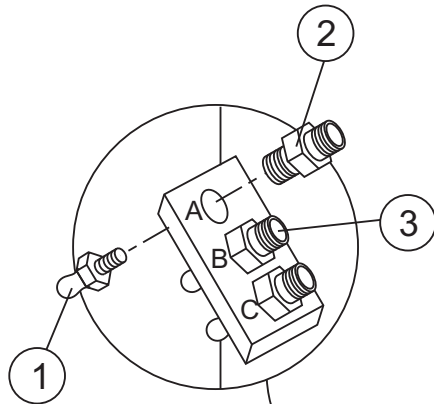
LS-40D/LS-40TD/LS-50TD PUMP — REMIXER CONTROL ASSY.

REMIXER CONTROL ASSY.

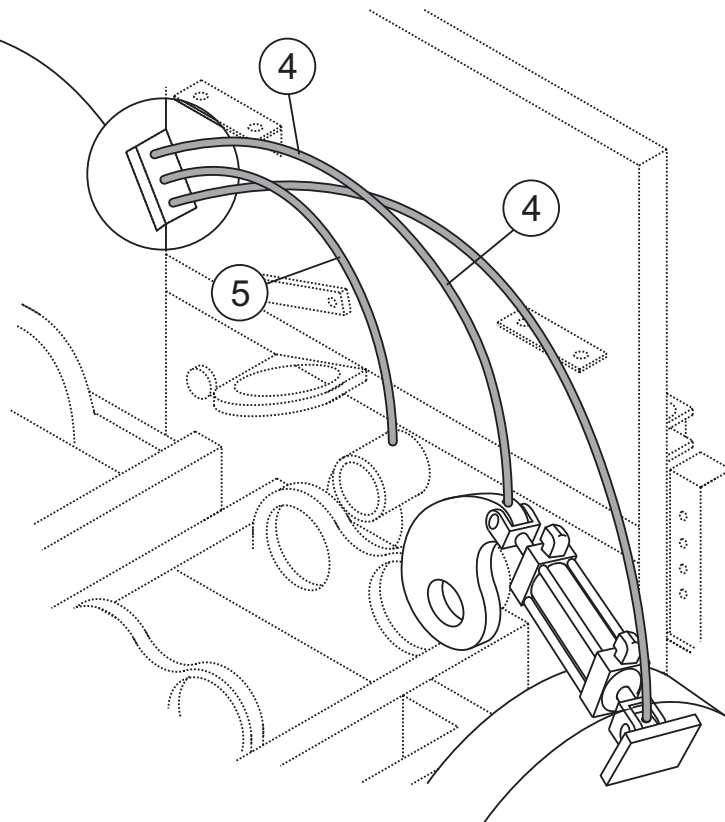
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM25495	VALVE REMIXER W/ LEVER	1	
2	515384	ADAPTER FITTING, T	1	
3	506195	ADAPTER FITTING, 90° ELBOW	1	
4	EM25509	ADAPTER FITTING, STRAIGHT	2	
5	EM218	BOLT 5/16 X 2-1/2 IN.	2	
6	EM923343	WASHER, LOCK 5/16 IN.	2	REPLACES 492623
7	2105164	NUT, HEX 5/16 IN.	2	REPLACES 492553
8	EM98015	COUPLING	1	
9	EM98014	TEST PORT	1	

LS-40D/LS-40TD/LS-50TD PUMP — LUBRICATION PANEL

GREASE POINTS



Grease daily, two or three hots of #2 multipurpose automotive grease. Over greasing any bearing will not damage the machine. **ALWAYS** grease *before and after* pump operation.



<u>POSITION</u>	<u>LOCATION</u>	<u>LENGTH OF LINES</u>
A.....	CLEVIS GREASE POINT	34 in. (1.1 m)
B.....	SWING AXLE BUSHING GREASE POINT	26 in. (.85 m)
C.....	PIVOT BRACKET GREASE POINT	41 in. (1.5 m)

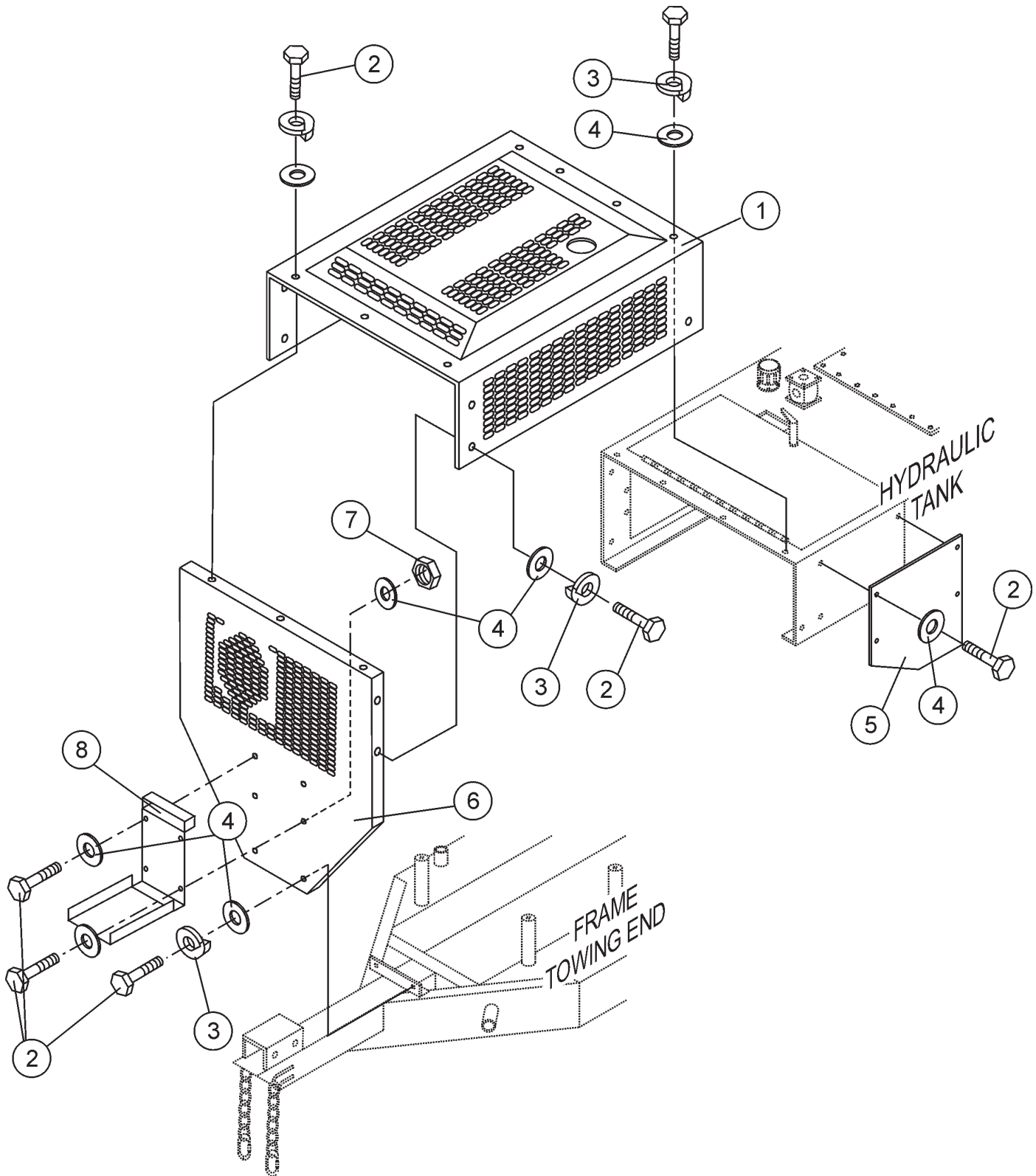
LS-40D/LS-40TD/LS-50TD PUMP — LUBRICATION PANEL

GREASE POINTS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM491701	GREASE FITTING	3	
2	EM508812	CONNECTOR	2	
3	EM510684	CONNECTOR	3	
4	EM505516	HOSE, PLASTIC	A/R	
5	EM505516	HOSE, STEEL	1	

LS-40D/LS-40TD/LS-50TD PUMP — ENGINE COVER ASSY.

ENGINE COVER ASSY.



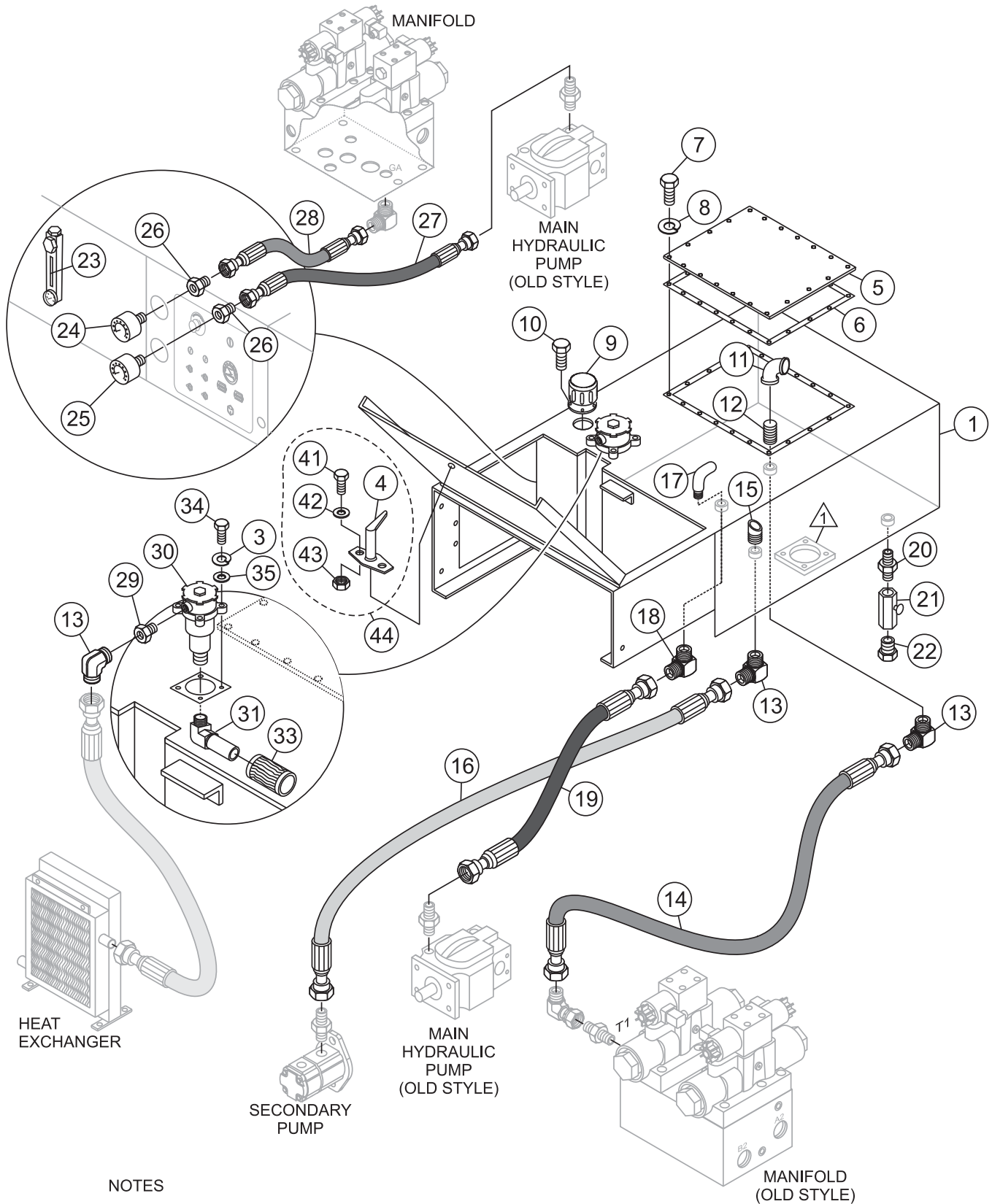
LS-40D/LS-40TD/LS-50TD PUMP — ENGINE COVER ASSY.

ENGINE COVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM514854	COVER, TOP	1	LS-40D
1	EM514346	COVER, TOP	1	LS-40TD, LS-50TD
2	EM492356	BOLT, HEX 1/4 X 3/4 IN.	18	
3	EM492622	WASHER, LOCK 1/4 IN.	18	
4	EM492596	WASHER, FLAT 1/4 IN.	18	
5	514889	PLATE, SIDE COVER	1	
6	EM510271	COVER, FRONT ENGINE	1	
7	EM492581	NUT, HEX 1/4 IN. NC	4	
8	29057	DOCUMENT BOX	1	

LS-40D/LS-40TD/LS-50TD PUMP — HYDRAULIC TANK ASSY. (OLD STYLE)

HYDRAULIC TANK ASSY. (OLD STYLE)



NOTES

① SEE HYDRAULIC PUMP ASSY.

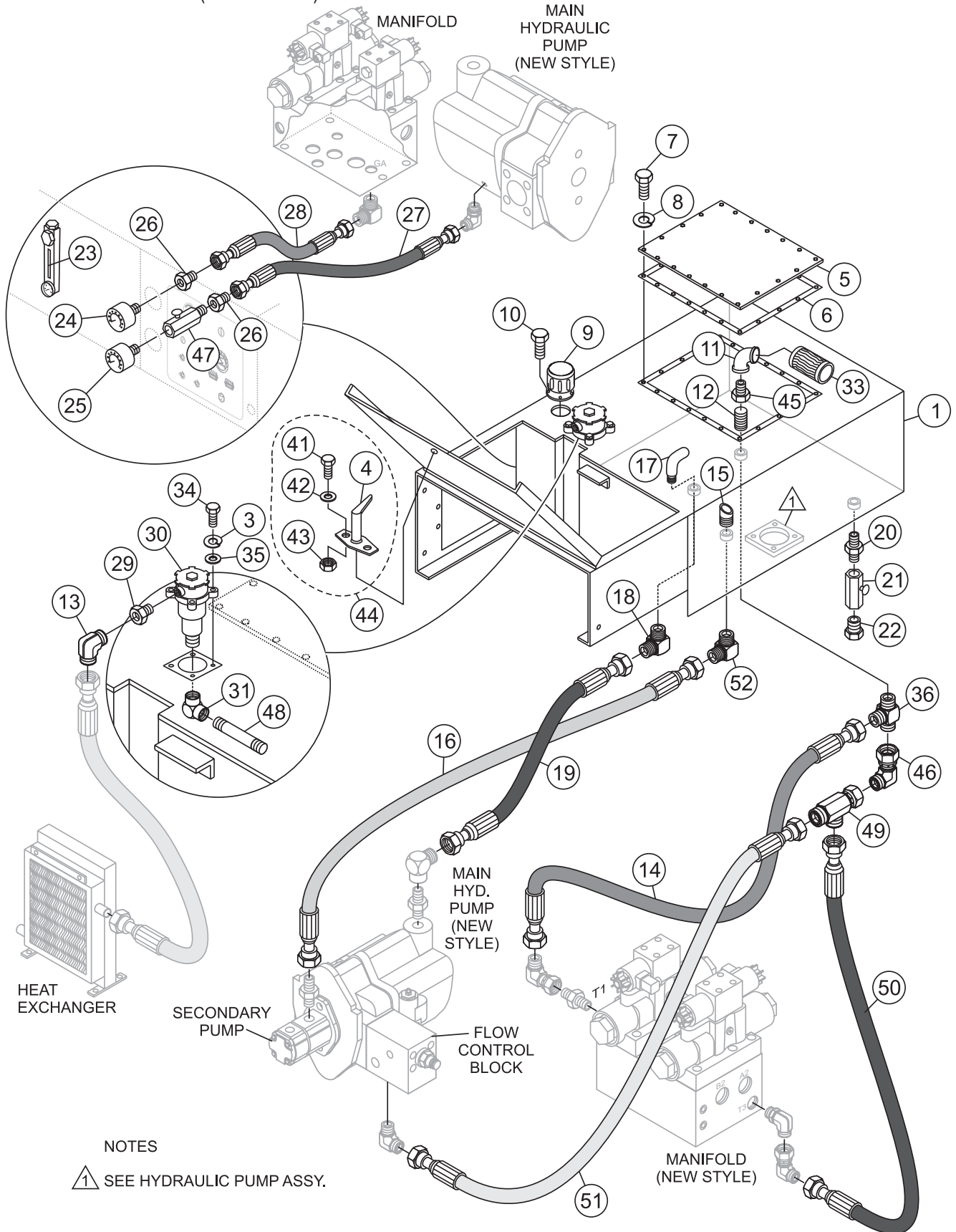
LS-40D/LS-40TD/LS-50TD PUMP — HYDRAULIC TANK ASSY. (OLD STYLE)

HYDRAULIC TANK ASSY. (OLD STYLE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	514040	HYDRAULIC TANK, LS-S	1	
3	0166 A	LOCK, WASHER 3/8 IN.	4	REPLACES 492624
4%	517295	HANDLE	1	
5	EM251191	TANK COVER PLATE	1	
6	EM25184	RESERVOIR GASKET	1	
7	492362	BOLT 5/16 X 5/8 IN.	20	
8	EM923343	WASHER, LOCK 5/16 IN.	20	REPLACES 492623
9	EM98263	CAP ASSEMBLY	1	
10	492267	BOLT 3/16 X 5/8 IN.	6	
11	16433	TUBE	1	
12	EM491189	FITTING	1	
13	EM18436	90° MALE ADAPTER 2103-16-16	3	
14	EM514605	HOSE	1	
15	EM514622	FITTING 1 IN.	1	
16	EM514597	HOSE	1	
17	EM491164	ELBOW, 3/4 IN.	1	
18	EM491375	ADAPTER 2103-12-08	1	
19	EM514598	HOSE (2000 PSI)	1	
20	EM509369	STRAIGHT MALE ADAPTOR , 0101-08-08	1	
21	491237	VALVE 1/2 IN.	1	
22	506094	CAP 1/2 IN.	1	
23	EM98188	GAUGE, LEVEL & TEMP.	1	REPLACES EM16478
24	EM97066	GAUGE 3000PSI, ACCUMULATOR	1	
25	EM97067	GAUGE 5000 PSI, MAIN	1	
26	EM25523	ADAPTER	2	
27	EM509517	HOSE, 4000 PSI MAIN GAUGE	1	
28	EM514602	HOSE, 4000 PSI ACCUMULATOR GAUGE	1	
29	EM16517	STRAIGHT MALE ADAPTER 0102-24-16	1	
30	EM98112	FILTER RETURN ASSY.	1	
31		ELBOW 1-1/2, 11-1/2 IN. NPT	1	DISCONTINUED. SEE HYD. TANK ASSY. (NEW STYLE) ITEMS 31 AND 48.
33	EM16513	DIFFUSER	1	
34	492376	BOLT 3/8 X 1-1/4 IN.	4	
35	492598	WASHER, FLAT 3/8 IN.	4	
41%	TBD	BOLT	2	
42%	TBD	WASHER	2	
43%	TBD	NUT	2	
44	EM508659	HANDLE ASSY.	1	INCLUDES ITEMS W/%

LS-40D/LS-40TD/LS-50TD PUMP — HYD. TANK ASSY. (NEW STYLE)

HYDRAULIC TANK ASSY. (NEW STYLE)



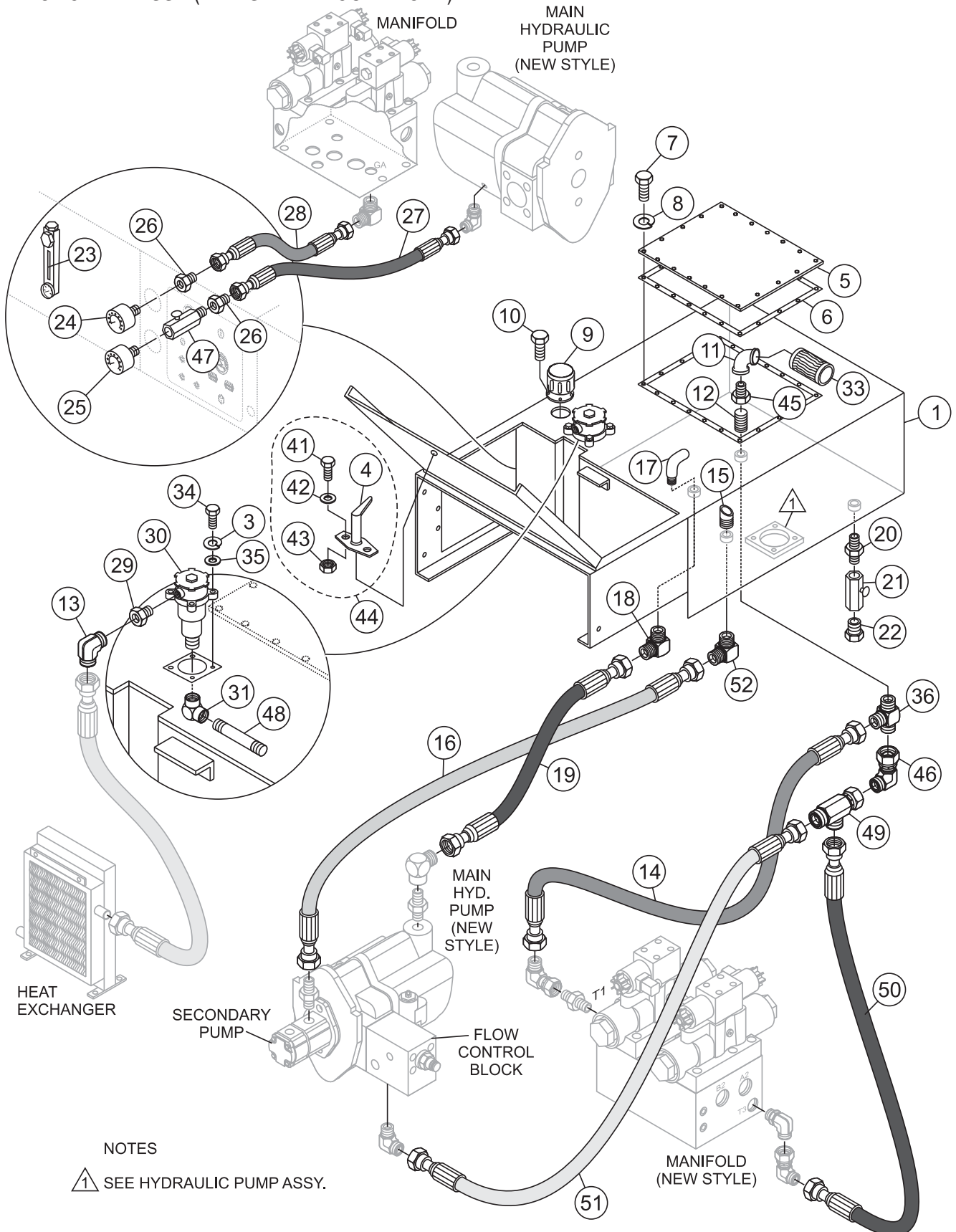
LS-40D/LS-40TD/LS-50TD PUMP — HYD. TANK ASSY. (NEW STYLE)

HYDRAULIC TANK ASSY. (NEW STYLE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	514040	HYDRAULIC TANK, LS-S	1	
3	0166 A	LOCK, WASHER 3/8 IN.	4	REPLACES 492624
4%	517295	HANDLE	1	
5	EM251191	TANK COVER PLATE	1	
6	EM25184	RESERVOIR GASKET	1	
7	492362	BOLT 5/16 X 5/8 IN.	20	
8	EM923343	WASHER, LOCK 5/16 IN.	20	REPLACES 492623
9	EM98263	CAP ASSEMBLY	1	
10	492267	BOLT 3/16 X 5/8 IN.	6	
11	16433	TUBE	1	
12	EM491189	FITTING	1	
13	EM18436	90° MALE ADAPTER 2103-16-16	1	
14	EM514605	HOSE	1	
15	EM514622	FITTING 1 IN.	1	
16	EM514597	HOSE	1	
17	EM491164	ELBOW, 3/4 IN.	1	
18	509784	ADAPTER	1	
19	517002	HOSE	1	MAY 2006 AND ABOVE
20	EM509369	STRAIGHT MALE ADAPTOR , 0101-08-08	1	
21	491237	VALVE 1/2 IN.	1	
22	506094	CAP 1/2 IN.	1	
23	EM98188	GAUGE, LEVEL & TEMP.	1	REPLACES EM16478
24	EM97066	GAUGE 3000PSI, ACCUMULATOR	1	
25	EM97067	GAUGE 5000 PSI, MAIN	1	
26	EM25523	ADAPTER	2	
27	EM509517	HOSE, 4000 PSI MAIN GAUGE	1	
28	EM514602	HOSE, 4000 PSI ACCUMULATOR GAUGE	1	

LS-40D/LS-40TD/LS-50TD PUMP — HYD. TANK ASSY. (NEW STYLE)

HYDRAULIC TANK ASSY. (NEW STYLE — CONTINUED)



NOTES

① SEE HYDRAULIC PUMP ASSY.

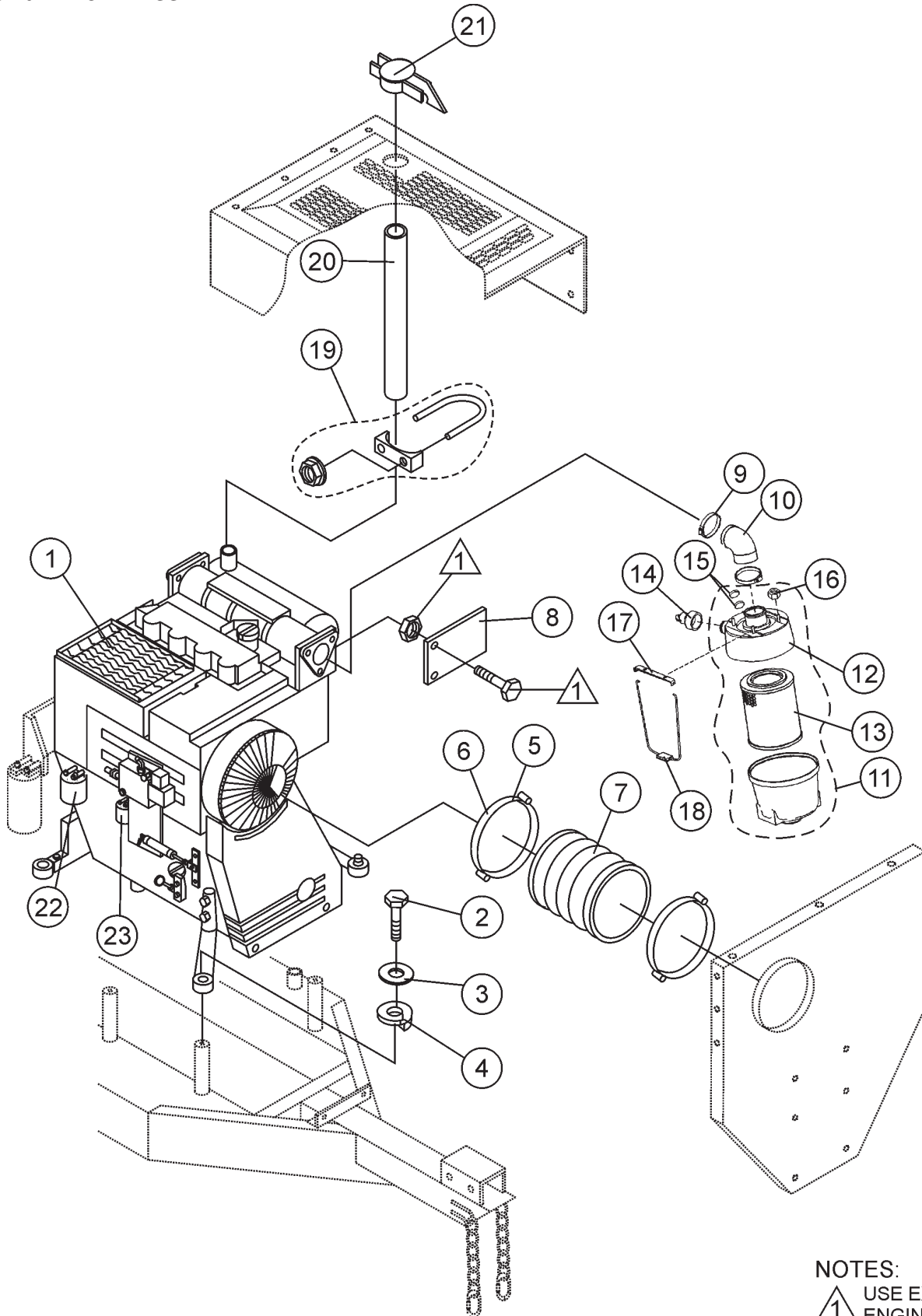
LS-40D/LS-40TD/LS-50TD PUMP — HYD. TANK ASSY. (NEW STYLE)

HYDRAULIC TANK ASSY. (NEW STYLE — CONTINUED)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
29	EM16517	STRAIGHT MALE ADAPTER 0102-24-16	1	
30	EM98112	FILTER RETURN ASSY.	1	
31	516814	90° FITTING	1	MAY 2006 AND ABOVE
33	EM16513	DIFFUSER	1	
34	492376	BOLT 3/8 X 1-1/4 IN.	4	
35	492598	WASHER, FLAT 3/8 IN.	4	
36	509343	TEE FITTING	1	MAY 2006 AND ABOVE
41%	EM517129	BOLT	2	
42%	EM517130	WASHER	2	
43%	EM517131	NUT	2	
44	EM508659	HANDLE ASSY.	1	INCLUDES ITEMS W/%
45	516813	BUSHING	1	MAY 2006 AND ABOVE
46	409401	ADAPTOR 3903-16-16	1	MAY 2006 AND ABOVE
47	EM16414	VALVE NEEDLE	1	MAY 2006 AND ABOVE
48	16516	NUT, JAM 1-5/6 NPT X16	1	MAY 2006 AND ABOVE
49	509344	ADAPTOR 063T-16-16	1	MAY 2006 AND ABOVE
50	514604	HOSE	1	MAY 2006 AND ABOVE
51	514604	HOSE	1	MAY 2006 AND ABOVE

LS-40D/LS-40TD/LS-50TD PUMP — LS-40D ENGINE ASSY.

LS-40D ENGINE ASSY.



NOTES:
1 USE EXISTING
ENGINE HARDWARE

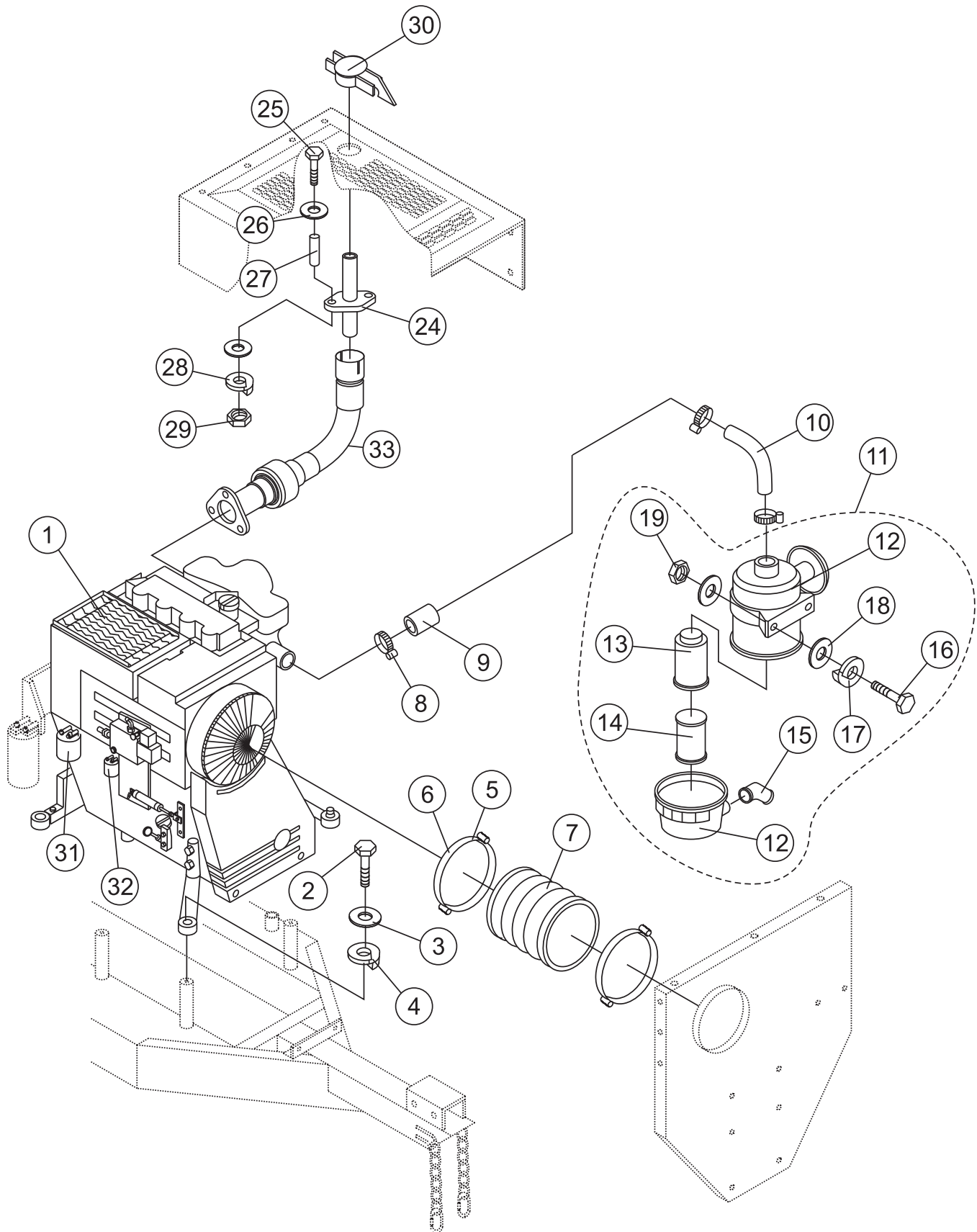
LS-40D/LS-40TD/LS-50TD PUMP — LS-40D ENGINE ASSY.

LS-40D ENGINE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM97097	ENGINE, DEUTZ 60HP F4L2011	1	
2	492401	BOLT 1/2 IN. X 4 FT.	4	
3	6109170	WASHER, FLAT 1/2 IN.	4	REPLACES 492600
4	6109180	WASHER, LOCK 1/2 IN.	4	REPLACES 492626
5	EM511021	AIR DUCTING CLAMP	2	
6	EM510725	AIR DUCTING CLAMP	2	
7	EM511019	AIR DUCTING DUCTING	1	
8	EM511430	HEAT SHIELD DEFLECTOR	1	
9	01173940	HOSE CLIP	2	
10	04172501	INTAKE ELBOW	1	
11	02169927	AIR CLEANER ASSY.	1	INCLUDES ITEMS W/*
12*	02240281	HOOD	1	
13*	4384102	CARTRIDGE, AIR	1	
14	02165357	DUST EJECTOR	1	
15*	03363577	WASHER, FELT	2	
16*	01112824	HEX NUT	4	
17	02240285	ANGLE PLATE	1	
18	02240283	CLAMPING YOKE	1	
19	20735	U-CLAMP, EXHAUST 2-1/4 IN.	2	
20	EM510898	TUBE, EXHAUST	1	
21	EM510731	CAP, EXHAUST 2-1/4 IN.	1	
22	01174416	FILTER, OIL (ENGINE)	1	
23	01174696	FILTER, FUEL (ENGINE)	1	

LS-40D/LS-40TD/LS-50TD PUMP — LS-40TD/LS-50TD ENGINE ASSY.

LS-40TD/LS-50TD ENGINE ASSY.



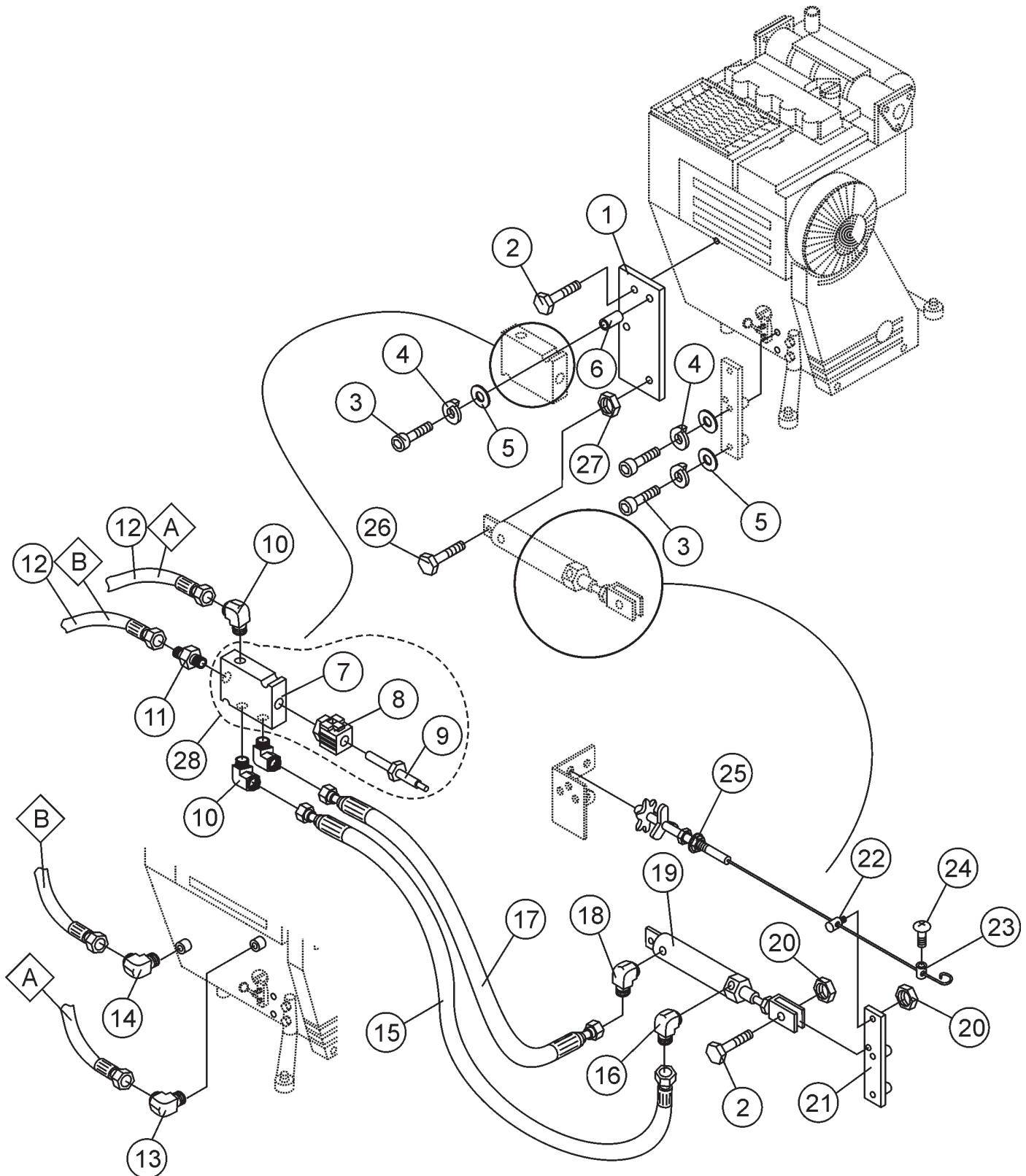
LS-40D/LS-40TD/LS-50TD PUMP — LS-40TD/LS-50TD ENGINE ASSY.

LS-40TD/LS-50TD ENGINE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM98189	ENGINE, DEUTZ TURBO 76 HP BF4L2011	1	
2	492401	BOLT 1/2 IN.X 4 FT.	4	
3	6109170	WASHER, FLAT 1/2 IN.	4	REPLACES 492600
4	6109180	WASHER, LOCK 1/2 IN.	4	REPLACES 492626
5	EM511021	AIR DUCTING CLAMP	2	
6	EM510725	AIR DUCTING CLAMP	2	
7	EM511019	AIR DUCTING DUCTING	1	
8	TBD	CLAMP	3	
9	EM510888	CONNECTOR, AIR FILTER	1	
10	22001301	HOSE, ELBOW 90°	1	
11	22002183	AIR CLEANER ASSY.	1	INCLUDES ITEMS W/*
12*	01881280	HOOD, AIR CLEANER	1	
13*	01319257	INSERT, AIR FILTER	1	
14*	01880870	CARTRIDGE, SAFETY AIR	1	
15*	01881413	DUST EJECTOR	1	
16*	EM492366	BOLT 5/16 X 1-1/2 IN.	2	
17*	EM492623	WASHER, LOCK 5/16 IN.	2	
18*	EM492597	WASHER, FLAT 5/16 IN.	4	
19*	EM492553	NUT, HEX 5/16 IN. G5	2	
24	EM514633	REDUCTION TUBE, EXHAUST	1	
25	492371	BOLT 5/16 NC X 3 IN. G5	2	
26	EM923023	WASHER, FLAT 5/16 IN.	4	REPLACES 492597
27	EM514714	SPACER, EXHAUST	2	
28	EM923343	WASHER, LOCK 5/16 IN.	2	REPLACES 492623
29	2105164	HEX NUT 5/16 IN. G5	2	REPLACES 492553
30	EM510897	CAP, EXHAUST 2-1/2 IN.	1	
31	01174416	FILTER, OIL (ENGINE)	1	
32	01174696	FILTER, FUEL (ENGINE)	1	
33	EM516434	PIPE EXHAUST ASSY.	1	

LS-40D/LS-40TD/LS-50TD PUMP — THROTTLE ASSY.

THROTTLE ASSY.



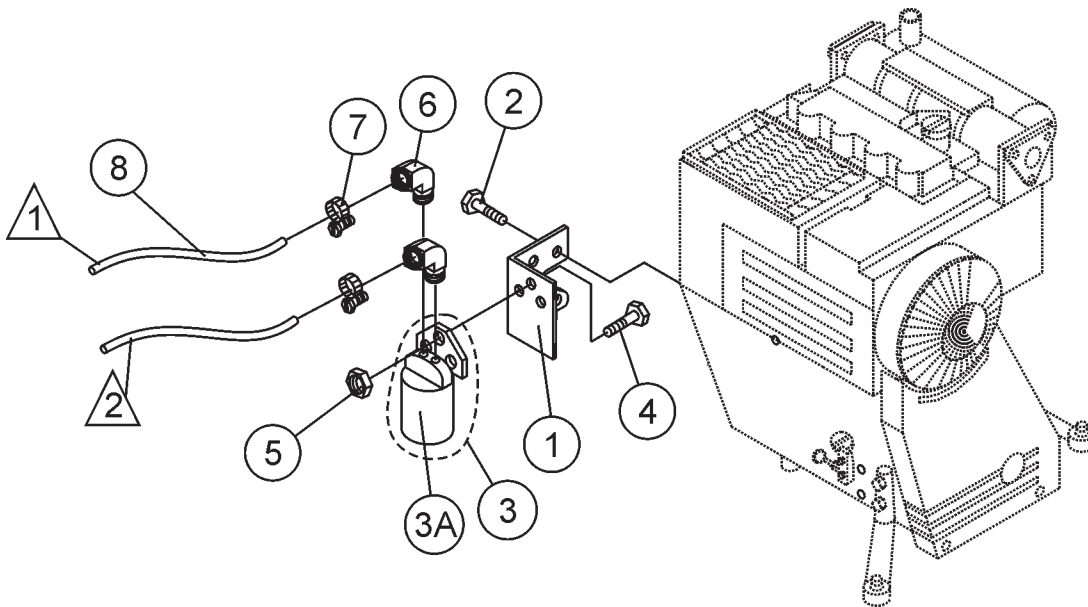
LS-40D/LS-40TD/LS-50TD PUMP — THROTTLE ASSY.

THROTTLE ASSY.



<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	510792	SUPPORT	1	
2	492356	BOLT 1/4' X 3/4 IN.	3	
3	EM167	BOLT 1/4 X 1-3/4 IN.	4	
4	EM923057	LOCK WASHER 1/4 IN.	4	REPLACES 492596
5	2101402	WASHER 1/4 IN.	4	REPLACES 492622
6	EM16465	PISTON SPACER	2	
7*	EM98233	BLOCK	1	
8*	EM98228	COIL, 12V	1	
9*	EM98229	VALVE	1	
10	EM25429	ELBOW ADAPTER 90° MALE	3	
11	EM25511	STRAIGHT ADAPTER	1	
12	EM25576	HOSE 20 IN.	2	
13	EM50449	ELBOW ADAPTER 90° MALE	1	
14	EM25504	ELBOW ADAPTER 90° MALE	1	
15	EM50463	HOSE 17-1/2 IN.	1	
16	EM50449	ELBOW ADAPTER 90° MALE	1	
17	EM50462	HOSE 10 IN.	1	
18	EM50449	ELBOW ADAPTER 90° MALE	1	
19	EMCC700	HYDRAULIC CYLINDER	1	
20	492581	NUT, HEX 1/4 IN.	2	
21	515812	THROTTLE CONTROL PLATE	1	
22	513213	THROTTLE CABLE GUIDE	1	
23	EM501102	SLEEVE, THROTTLE	1	
24	EM491089	BOLT 8 X 1/4 IN.	1	
25	510229	CABLE, THROTTLE	1	
26	492366	BOLT 5/16 X 1-1/2 IN.	1	
27	2105164	HEX NUT 5/16 IN.	1	REPLACES 492553
28	EM98168	THROTTLE BLOCK ASSY.	1	INCLUDES ITEMS W/*

LS-40D/LS-40TD/LS-50TD PUMP — WATER SEPARATOR ASSY.

WATER SEPERATOR ASSY.



NOTES

-  CONNECT TO FUEL FILTER
FUEL TANK ASSY., ITEM 11
-  CONNECT TO FUEL RETURN HOSE
FUEL TANK ASSY., ITEM 8

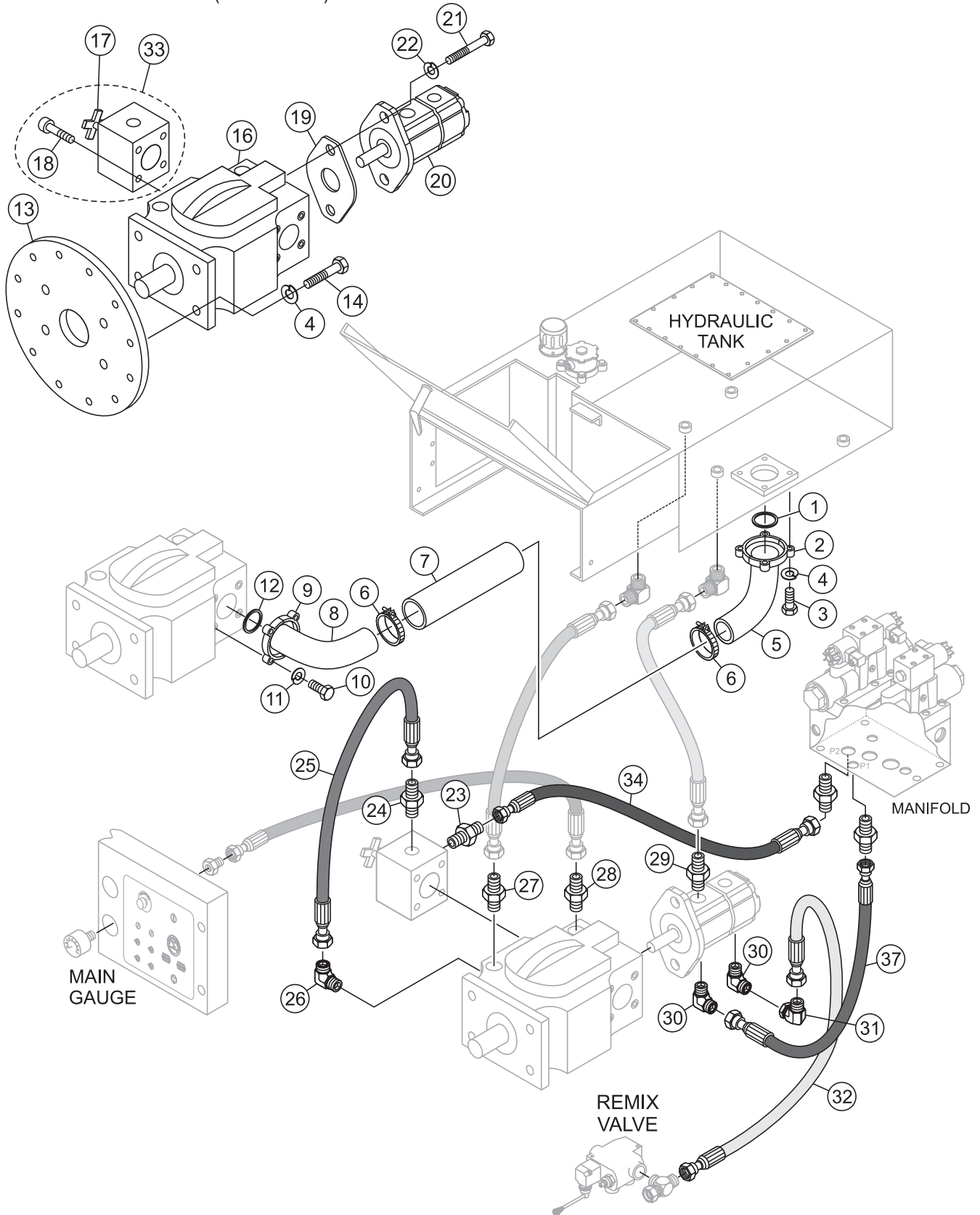
LS-40D/LS-40TD/LS-50TD PUMP — WATER SEPARATOR ASSY.

WATER SEPERATOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	514340	BRACKET, WATER SEPARATOR	1	
2	TBD	BOLT	2	
3	EM16747	WATER SEPARATOR ASSEMBLY	1	
3A	P53712	CARTRIDGE, WATER SEPARATOR	1	
4	492364	BOLT 5/16 X 1 IN.	3	
5	2105164	HEX NUT 5/16 IN.	3	REPLACES 492582
6	EM514559	ELBOW ADAPTER 90° MALE	2	
7	EM506208	CLAMP, HOSE	2	
8	EM514536	HOSE 5/16 IN.	TBD	

LS-40D/LS-40TD/LS-50TD PUMP — HYD. PUMP ASSY. (OLD STYLE)

HYDRAULIC PUMP ASSY. (OLD STYLE)



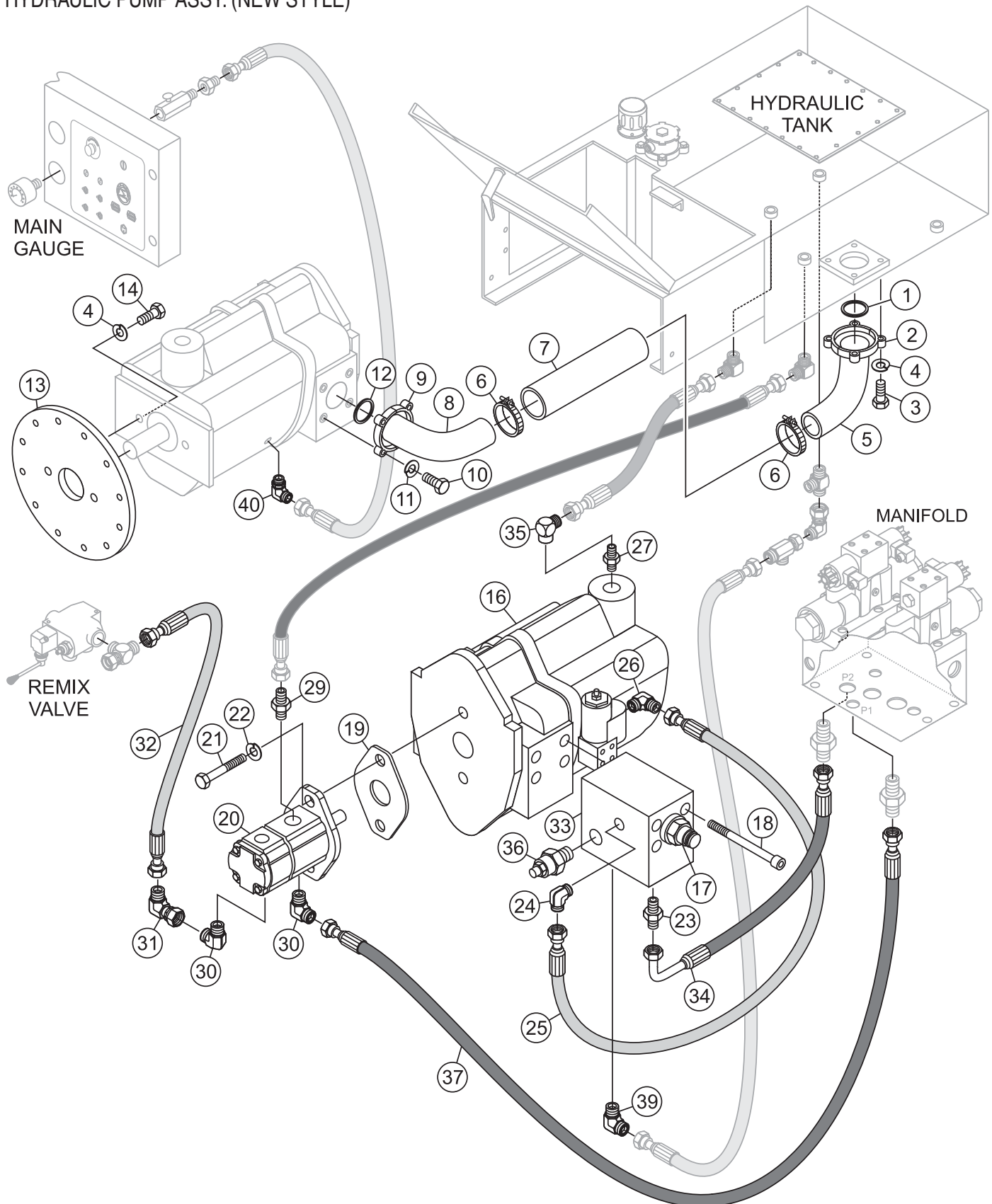
LS-40D/LS-40TD/LS-50TD PUMP — HYD. PUMP ASSY. (OLD STYLE)

HYDRAULIC PUMP ASSY. (OLD STYLE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*		O-RING	1	
2	EM514719	FLANGE, SUCTION PIPE	2	INCLUDES ITEMS W/*
3	EM492455	BOLT 1/2 X 1-1/2 IN.	4	APRIL 2006 AND BELOW
4	6109180	WASHER, LOCK 1/2 IN.	8	REPLACES 492626
5	EM514718	SUCTION PIPE ADAPTER, 40 SPECIAL	1	
6	EM26473	CLAMP TYPE 'J' 3 IN.	4	APRIL 2006 AND BELOW
7	EM514623	HOSE, SUCTION 2 IN.	1	
8	EM514627	ADAPTER, SUCTION PIPE 32	1	
9	EM514628	FLANGE, SUCTION PIPE	1	INCLUDES ITEMS W/%
10	EM510902	BOLT 1/2 X 1-1/2 IN.	4	
11	6109180	WASHER, LOCK 1/2 IN.	4	REPLACES 492626
12%		O-RING	1	
13	EM98128	COUPLER, ENGINE ASSY.	1	
14	EM510902	BOLT 1/2 X 1-1/2 IN.	4	
16	EM98111	PUMP, MAIN 60CC, PARKER P2-60 SERIES	1	USED ON LS-40D/LS-40TD ONLY
16	EM98115	PUMP, MAIN 75CC, PARKER P2-75 SERIES	1	USED ON LS-50TD ONLY
		.....		APRIL 2006 AND BELOW
17	EM98209	VALVE, CARTRIDGE	1	
18	EM506953	BOLT 7/16 X 3 IN.	4	
19	EM16190	GASKET	1	
20	EM98107	PUMP, SECONDARY	1	
21	EM963610	BOLT 3/8 X 1 IN.	2	REPLACES 492375
22	0166 A	WASHER, LOCK 3/8 IN.	2	REPLACES 492624
23	EM25462	STRAIGHT ADAPTER	1	APRIL 2006 AND BELOW
24	EM25511	ADAPTER.....	1	APRIL 2006 AND BELOW
25	EM514599	HOSE 4000 PSI, SENSOR	1	APRIL 2006 AND BELOW
26	EM25506	ELBOW ADAPTER	1	APRIL 2006 AND BELOW
27	EM16525	STRAIGHT ADAPTER	1	APRIL 2006 AND BELOW
28	TBD	STRAIGHT ADAPTER	1	APRIL 2006 AND BELOW
29	EM25498	STRAIGHT ADAPTER	1	
30	EM16524	ELBOW ADAPTER 90° MALE	2	
31	506195	ELBOW ADAPTER 90° FEMALE	1	APRIL 2006 AND BELOW
32	EM514601	HOSE 2000 PSI, REMIX VALVE	1	
33		FLOW CONTROL ASSY.	1	DISCONTINUED. SEE HYD.
		.....		PUMP ASSY. (NEW STYLE)
		.....		ITEM 33
34	EM514614	HOSE, MAIN MANIFOLD.....	1	APRIL 2006 AND BELOW
37	EM514608	HOSE	1	

LS-40D/LS-40TD/LS-50TD PUMP — HYD. PUMP ASSY. (NEW STYLE)

HYDRAULIC PUMP ASSY. (NEW STYLE)



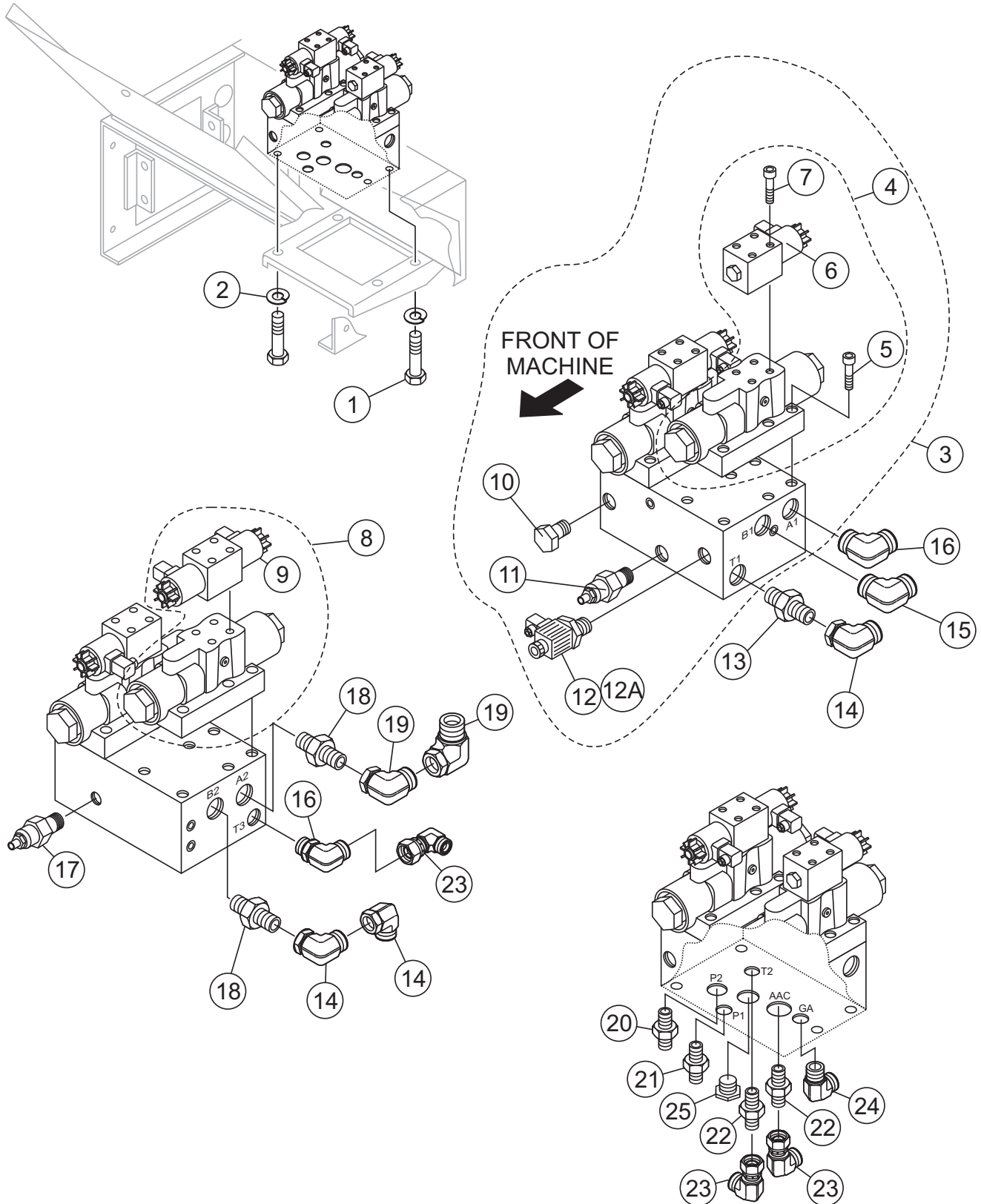
LS-40D/LS-40TD/LS-50TD PUMP — HYD. PUMP ASSY. (NEW STYLE)

HYDRAULIC PUMP ASSY. (NEW STYLE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	TBD	O-RING	1	
2	EM514719	FLANGE, SUCTION PIPE	2	INCLUDES ITEMS W/
3	EM492444	BOLT 1/2 X 1-1/4 IN.	4	MAY 2006 AND ABOVE
4	6109180	WASHER, LOCK 1/2 IN.	6	REPLACES 492626
5	EM514718	SUCTION PIPE ADAPTER, 40 SPECIAL	1	
6	EM515207	CLAMP 2 IN.	2	MAY 2006 AND ABOVE
7	EM514623	HOSE, SUCTION 2 IN.	1	
8	EM514627	ADAPTER, SUCTION PIPE 32	1	
9	EM514628	FLANGE, SUCTION PIPE	1	INCLUDES ITEMS W/%
10	EM510902	BOLT 1/2 X 1-1/2 IN.	4	
11	6109180	WASHER, LOCK 1/2 IN.	4	REPLACES 492626
12%		O-RING	1	
13	EM98128	COUPLER, ENGINE ASSY.	1	
14	EM510902	BOLT 1/2 X 1-1/2 IN.	2	
16	EM98111	PUMP, MAIN 60CC, PARKER P2-60 SERIES	1	USED ON LS-40D/LS-40TD ONLY
16	EM98256	PUMP, MAIN 75CC, PARKER P1-75 SERIES	1	USED ON LS-50TD ONLY
		.....		MAY 2006 AND ABOVE
17	TBD	VALVE, CARTRIDGE	1	
18\$	EM506953	BOLT 7/16 X 3 IN.	4	
19	EM16190	GASKET	1	
20	EM98107	PUMP, SECONDARY	1	
21	EM963610	BOLT 3/8 X 1 IN.	2	REPLACES 492375
22	0166 A	WASHER, LOCK 3/8 IN.	2	REPLACES 492624
23	EM25498	STRAIGHT ADAPTER	1	MAY 2006 AND ABOVE
24	EM25429	ELBOW ADAPTER	1	MAY 2006 AND ABOVE
25	EM514599	HOSE, 4000 PSI SENSOR	1	USED ON LS40TD ONLY
		.....		MAY 2006 AND ABOVE
25	EM516875	HOSE, 4000 PSI SENSOR	1	MAY 2006 AND ABOVE
		.....		USED ON LS50TD ONLY
26	EM25429	ELBOW ADAPTER	1	MAY 2006 AND ABOVE
27	EM491372	STRAIGHT ADAPTER	1	MAY 2006 AND ABOVE
29	EM25498	STRAIGHT ADAPTER	1	
30	EM16524	ELBOW ADAPTER 90° MALE	2	
31	506200	ELBOW ADAPTER	1	MAY 2006 AND ABOVE
32	EM514601	HOSE 2000 PSI, REMIX VALVE	1	
33	EM98262	FLOW CONTROL MANIFOLD ASSY.....	1	USED ON LS40TD ONLY
		W/ PARKER P2-60 PUMP		INCLUDES ITEMS W/\$
		.....		MAY 2006 AND ABOVE
33	EM98252	FLOW CONTROL MANIFOLD ASSY.....	1	USED ON LS-50TD ONLY
		W/PARKER P1-75 PUMP		INCLUDES ITEMS W/\$
		.....		MAY 2006 AND ABOVE
34	EM517038	HOSE, MAIN MANIFOLD	1	MAY 2006 AND ABOVE
35	EM509353	ELBOW	1	MAY 2006 AND ABOVE
36\$	TBD	VALVE, MAIN RELIEF	1	MAY 2006 AND ABOVE
37	EM514608	HOSE	1	
39	EM25459	ELBOW	1	MAY 2006 AND ABOVE
40	EM25429	ELBOW ADAPTER	1	MAY 2006 AND ABOVE

LS-40D/LS-40TD/LS-50TD PUMP — MANIFOLD ASSY.

MANIFOLD ASSY.



LS-40D/LS-40TD/LS-50TD PUMP — MANIFOLD ASSY.

MANIFOLD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM963102	BOLT 1/2 X 1-1/4 IN.	4	REPLACES 492393
2	6109180	WASHER, LOCK 1/2 IN.	4	REPLACES 492626
3	EM98261	MANIFOLD ASSY COMPLETE	1	REPLACES EM98109
4%	EM98220	CYCLING VALVE ASSY, SWING	1	
5%	EMBK227	BOLT, ALLEN HEAD, 1/2 X 2 1/4" SHCS	12	
6%	EM98223	PILOT VALVE, SHUTTLE	1	
7%	EMBK2097	BOLT, ALLEN HEAD, 1/2 X 1 1/4" SHCS	8	
8%	EM98221	CYCLING VALVE ASSY, MAIN	1	
9%	EM98222	PILOT VALVE, MAIN CYLINDER	1	
10%	EM98227	CHECK VALVE	1	
11%	EM98224	MAIN RELIEF VALVE	1	DISCONTINUED MAY 2006
12%	EM98228	COIL, 12VDC ACCUMULATOR	1	
12A%	EM98229	ACCUMULATOR UNLOADER CARTRIDGE ASSY	1	
13	EM25498	ADAPTER	1	
14	EM509401	ADAPTER	3	
15	EM514488	ADAPTER	1	
16	EM25459	ADAPTER	2	
17	EM98226	UNLOADING RELIEF VALVE, SHUTTLE	1	
18	EM514231	ADAPTER	2	
19	EM14489	ADAPTER	3	APRIL 2006 AND BELOW
19	EM514489	ADAPTER	2	MAY 2006 AND ABOVE
20	EM491372	ADAPTER	1	
21	506193	ADAPTER	1	
22	EM25462	ADAPTER	2	
23	EM509353	ADAPTER	3	
24	EM25429	ADAPTER	1	
25	TBD	CHECK VALVE	1	

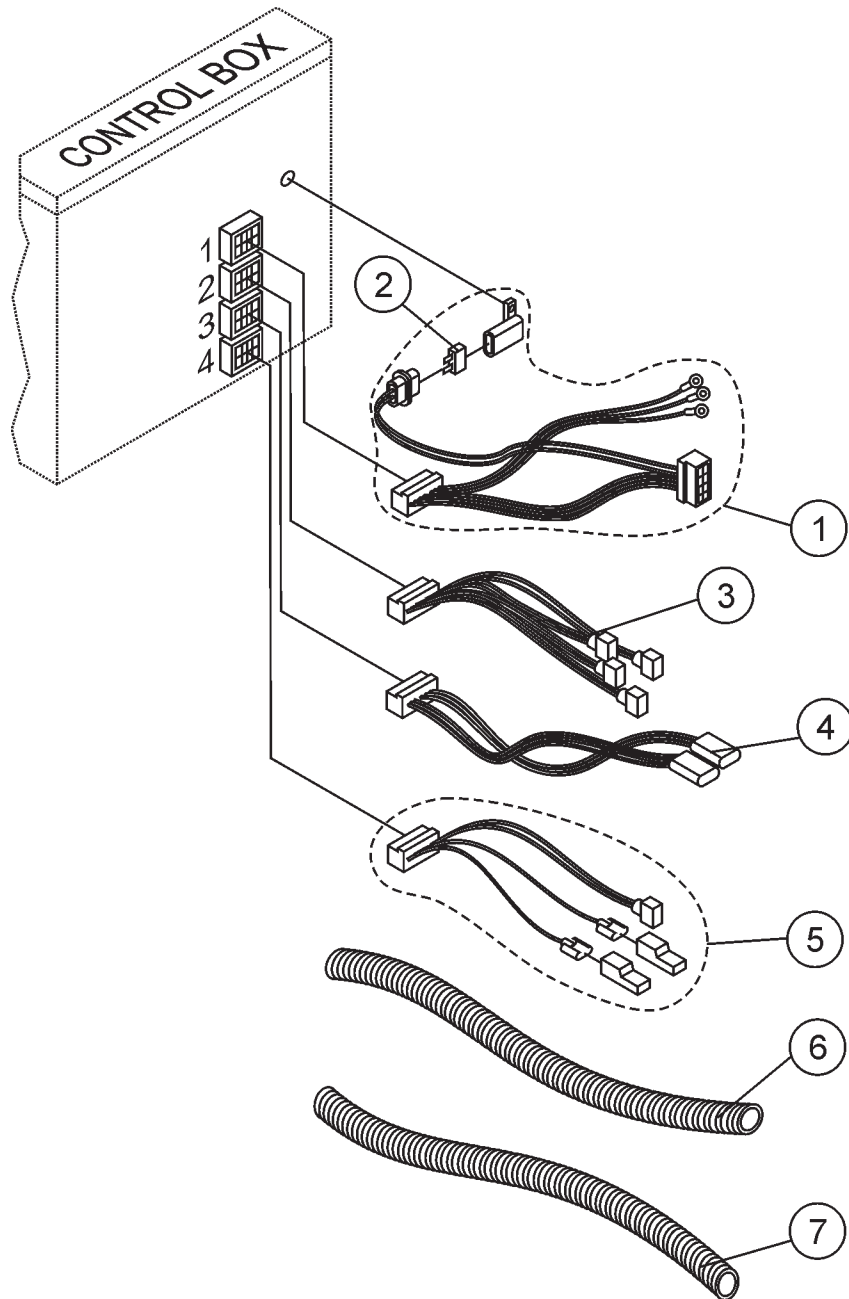
LS-40D/LS-40TD/LS-50TD PUMP — CONTROL BOX ASSY.

CONTROL BOX ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM98125	CONTROL BOX ASSY	1	
2	0202	BOLT 5/16 X 1 IN.	4	REPLACES 492364
3	EM923023	WASHER, FLAT 5/16 IN.	4	REPLACES 492597
4	2105164	NUT 5/16 IN.	4	REPLACES 492582
5	EM98171	OVERLAY, CONTROL PANEL	1	
6	EM98206	IGNITION SWITCH ASSY.	1	
7	EM98206K	KEY, IGNITION	1	
8	EM98208	EMERGENCY STOP SWITCH ASSY.	1	
9	01180384	BATTERY LIGHT ASSY.	1	
10	51908	BULB, LIGHT	1	
11	01180382	OIL LIGHT ASSY.	1	
12	EM98120	FLOW DIRECTION SWITCH ASSY.	1	
13	EM98119	MAIN CONTROL SWITCH ASSY.	1	
14	EM98121	AUTO/JOG SWITCH ASSY.	1	
15	EM98122	JOG A/B SWITCH ASSY.	1	
16	EM97062	HOUR METER ASSY.	2	
17	EM98124	TACHOMETER ASSY.	1	
18	EM97068	RECEPTACLE, REMOTE	1	

LS-40D/LS-40TD/LS-50TD PUMP — CONTROL BOX HARNESSSES ASSY.

CONTROL BOX HARNESSSES ASSY.



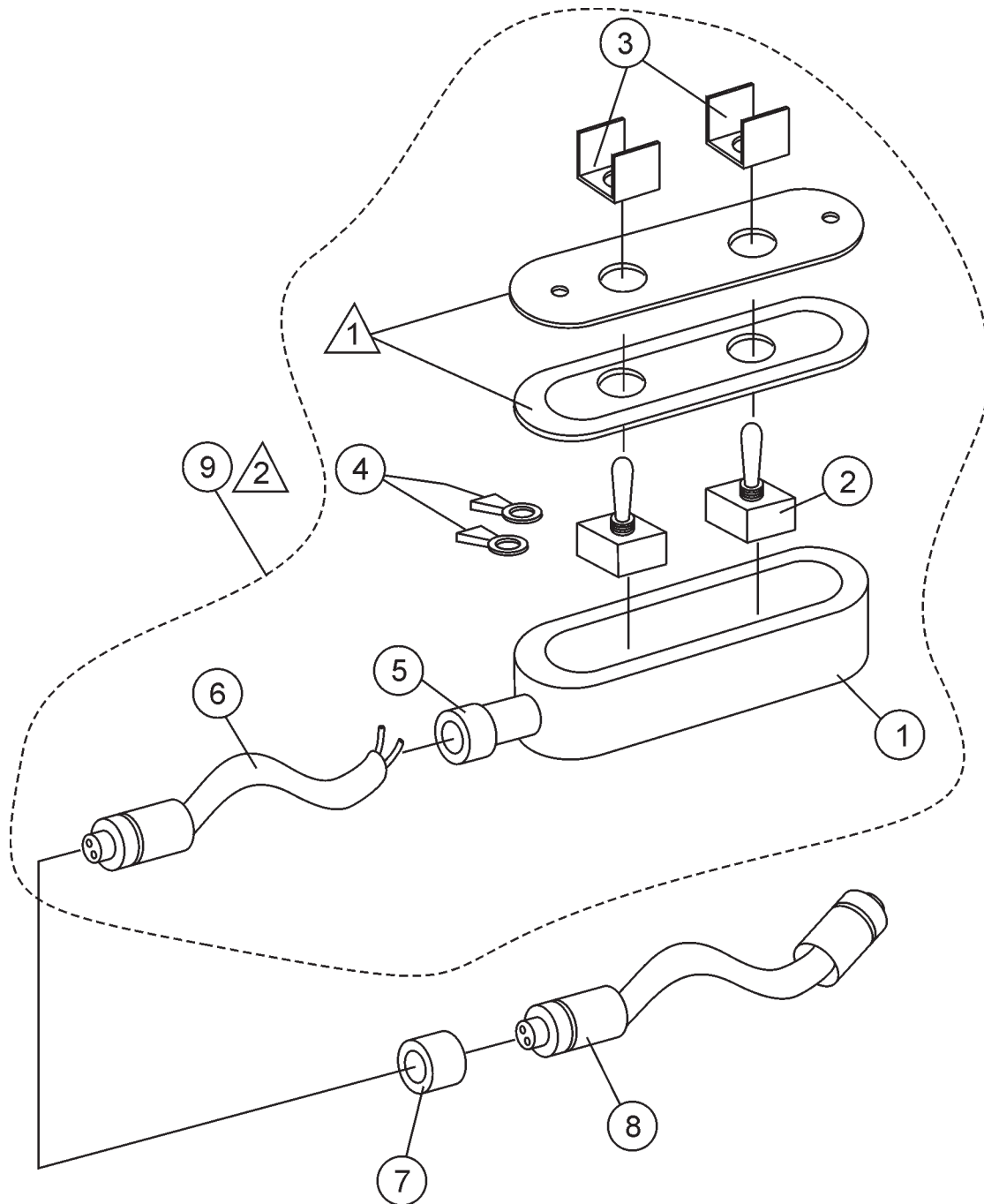
LS-40D/LS-40TD/LS-50TD PUMP — CONTROL BOX HARNESSSES ASSY.

CONTROL BOX HARNESSSES ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM514635	WIRE HARNESS 1	1	
2	344102000	FUSE, 30 AMP	1	
3	EM514636	WIRE HARNESS 2	1	
4	EM514637	WIRE HARNESS 3	1	
5	EM514638	WIRE HARNESS 4	1	
6	509588	POLY FLEX TUBE 1/2 IN. BLACK	AR	
7	16716	CONDUCTIVE DIVIDER 3/8 IN.	AR	

LS-40D/LS-40TD/LS-50TD PUMP — REMOTE CONTROL CABLE ASSY.

REMOTE CONTROL CABLE ASSY.



NOTES:

- △ 1 INCLUDED WITH ITEM 1.
- △ 2 COMPLETE CORD ASSY. INCLUDES ITEMS WITHIN DASHED LINE.

LS-40D/LS-40TD/LS-50TD PUMP — REMOTE CONTROL CABLE ASSY.

REMOTE CONTROL CABLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	EM16753	JUNCTION BOX	1	
2*	EM16754	SWITCH	1	
2A	EM97075	SWITCH	1	
3*	EM491897	CONNECTOR, RING 3/16 IN.	4	
4*	EM16756	GUARD SWITCH - ALUMINUM	2	
5*	EM26791	SEAL, GRIP CORD	1	
6*	EM26790	CORD, MX P/E 25 FT.	1	
7	EM26793	ADAPTER, CORD GRIP 1/2 IN.	1	
8	EM97065	ADAPTER, CORD 100 FT.	1	
9	EM97099	COMPLETE CORD ASSY 25 FT	1	INCLUDES ITEMS W/*