



SPARE PARTS MANUAL

MQ WHITEMAN RIDE-ON TROWEL MODEL HHXDF4 AND HHXDF5



U.S. Revision #8 (05/14/21)
AUS Version 1.0 (July 2021)

FOR MORE INFORMATION
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EXCLUSIVE TO



PARTS MANUAL



 **WHITEMAN SERIES**

MODEL HHXDF4, HHXDF5 RIDE-ON TROWEL

(Kubota WG972 Dual Fuel Gasoline/Propane Engine)

Revision #8 (05/14/21)

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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

PN: 32650

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HHXDF4-DF5 Ride-On Trowel

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NOTICE

Part numbers are subject to change without notice.

[illegible]

EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

NOTICE

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

SAMPLE PARTS LIST

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/%
2%		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN. ...	1	MQ-45T ONLY
3	12348	HOSE	A/R	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols — All items with same unique symbol (@, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

Duplicate Item Numbers — Duplicate numbers indicate multiple part numbers, which are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.

NOTICE

When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used — Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at the time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

QTY. Column

Numbers Used — Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit — All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

Serial Number Break — Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

Specific Model Number Use — Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

“Make/Obtain Locally” — Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

“Not Sold Separately” — Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

SUGGESTED SPARE PARTS

HHXDF4-DF5 RIDE-ON TROWEL WITH KUBOTA WG972 DUAL FUEL ENGINE

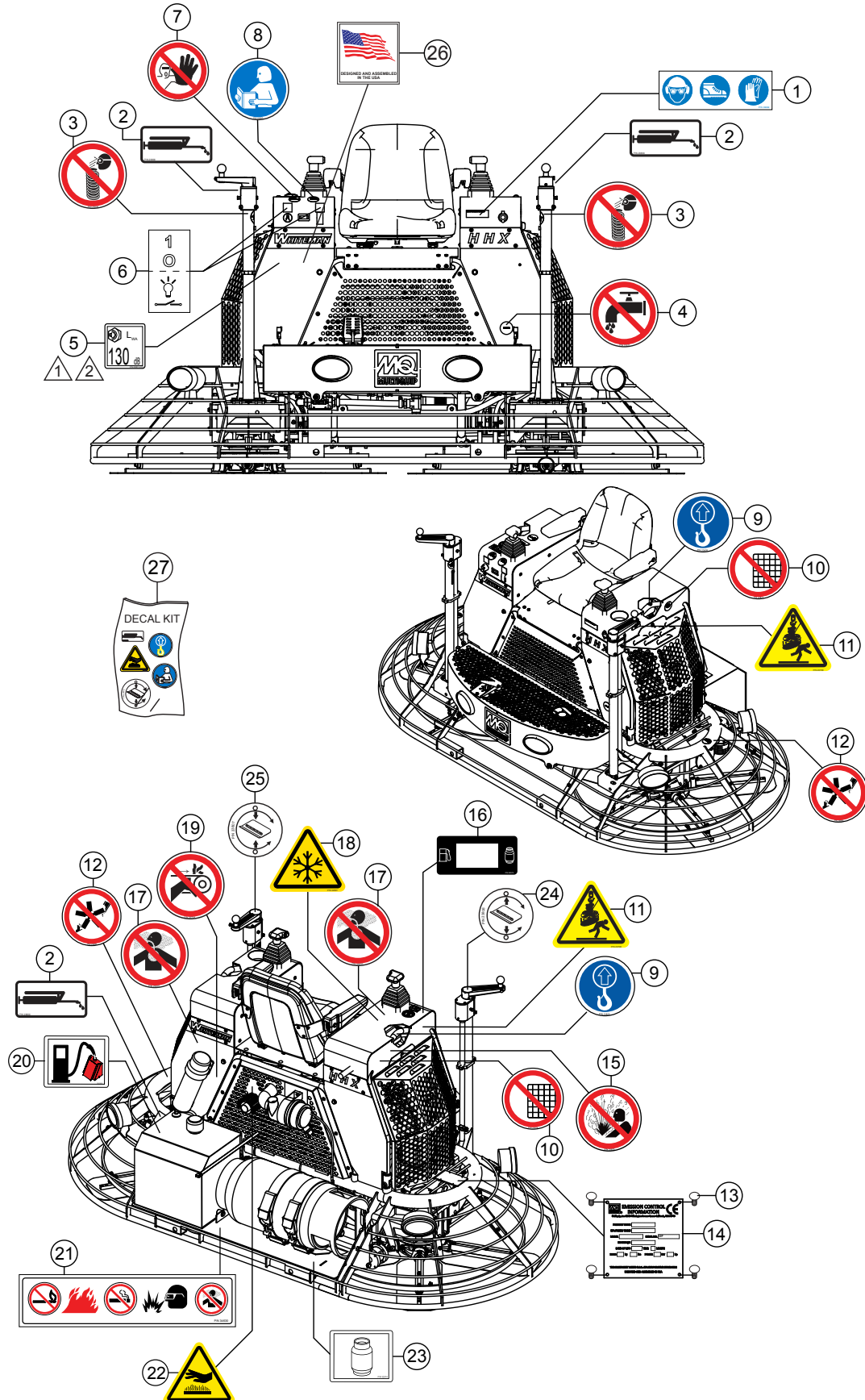
1 to 3 units

Qty.	P/N	Description
1.....	16052.....	BELT, 3VX335, HYDRAULIC
1.....	23959.....	SWITCH, IGN.
3.....	23959-1	KEY, IGN.
1.....	23818.....	CABLE, THROTTLE
1.....	32640.....	LIGHT, LED 20W, OVAL
1.....	2108.....	CAP, SPRAY TANK
1.....	23434.....	PUMP, SPRAY W/CONNECTOR
2.....	392292.....	NOZZLE, SPRAY
1.....	20938.....	THRUST COLLAR ASSY.
2.....	2829-1	ARM, TROWEL, SILVER
4.....	11039.....	BUSHING, TROWEL ARM
4.....	23284-100	FUSE, 10AMP ATC/ATO
2.....	23284-300	FUSE, 30AMP ATC/ATO
1.....	23725-07	BELT, FAN
1.....	23725-14	ELEMENT, AIR CLEANER
1.....	23725-16	FILTER, FUEL
1.....	23725-22	COIL, IGNITION
1.....	23725-23	FILTER, OIL

NOTICE

Part numbers on this Suggested Spare Parts list may supersede/replace the part numbers shown in the following parts lists.

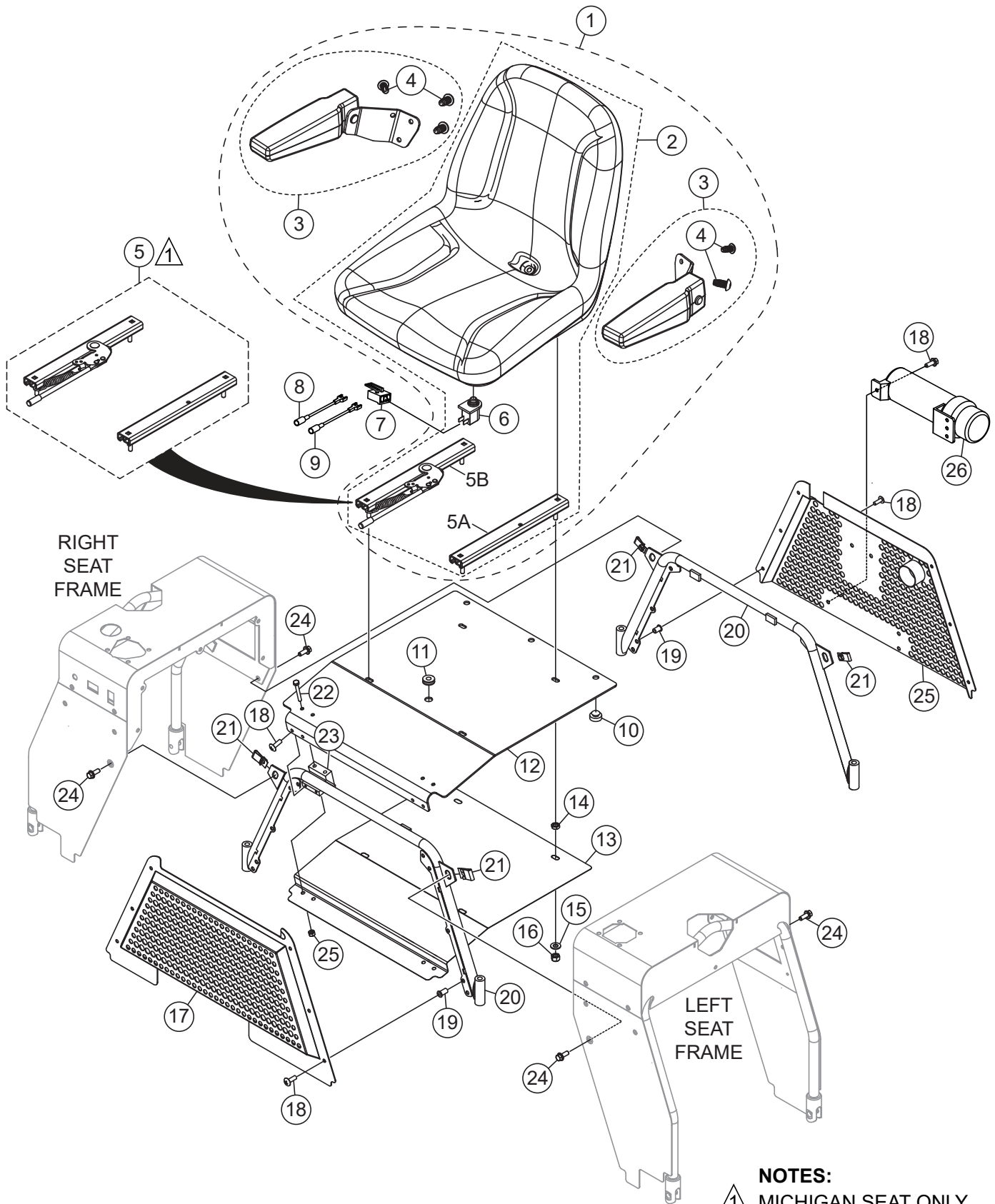
NAMEPLATE AND DECALS



NAMEPLATE AND DECALS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#	36099	DECAL ISO, PROTECTIVE CLOTHING, 3.50" X 1.13"	1	
2#	23809	DECAL ISO, LUBRICATION POINT	1	
3#	23804	DECAL ISO, DO NOT DISASSEMBLE, CYLINDER	2	
4#	23811	DECAL ISO, NO WATER WARNING, 2.0" DIA.	1	
5#	23803-130	DECAL, GUARANTEED SOUND POWER LEVEL	1	
6#	32554	DECAL ISO, LIGHT SWITCH	1	
7#	23701	DECAL ISO, ASK FOR TRAINING, 2.00" DIA.	1	
8#	23699	DECAL ISO, READ MANUAL 2.00" DIA.	1	
9#	23805	DECAL ISO, LIFT LOCATION 2.00" DIA.	2	
10#	23874	DECAL ISO, DO NOT REMOVE GUARDS, HAZARD 2.00" DIA.	1	
11#	23700	DECAL ISO, LIFTING/CRUSH, 2.4" X 2.0"	2	
12#	23698	DECAL ISO, ROATING BLADE HAZARD	2	
13	4014	SCREW, 2-3/16" P-K TYPE U-DRIVE	4	
14		SERIAL PLATE, ROT, CE	1	CONTACT MQ
				PARTS DEPT.
15#	23875	DECAL ISO, HOT COOLANT, 2.00" DIA.	1	
16#	32575	OVERLAY, FUEL SWITCH	1	
17#	23810	DECAL ISO, INHALATION HAZARD, 2.00" DIA.	2	
18#	32561	DECAL ISO, SNOWFLAKE, 2.00" DIA.	1	
19#	23704	DECAL ISO, GUARD WARNING	1	
20#	23812	DECAL ISO, FUEL, GASOLINE 3.00" X 2.45"	1	
21#	34630	DECAL ISO, FIRE, EXPLOSION, SMOKING HAZARD 6.50" X 1.40"	1	
22#	23808	DECAL ISO, HOT SURFACE HAZARD	1	
23#	32574	DECAL ISO, DECAL PROPANE	1	
24#	23806	DECAL, PITCH, RH 2.0" DIA.	1	
25#	23807	DECAL, PITCH, LH 2.0" DIA.	1	
26#	30538	DECAL, FLAG DESIGNED AND ASSEMBLED IN USA	1	
27	23859	DECAL, KIT	1	INCLUDES ITEMS W/#

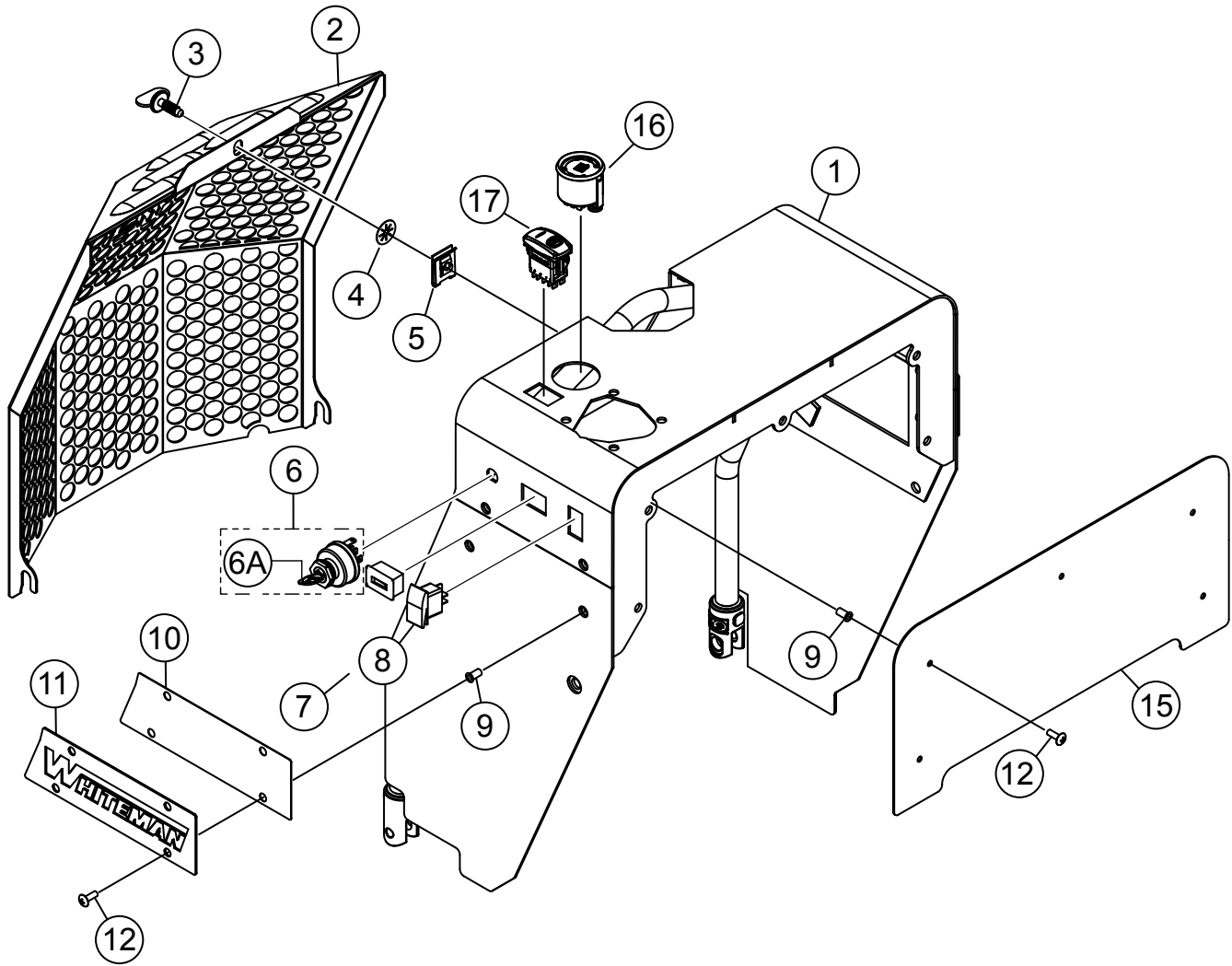
SEAT FRAME ASSY.



SEAT FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	21852-S	SEAT, MICHIGAN ADJUSTABLE W/ ARMS	1.....	INCLUDES ITEMS W/@ NO LONGER AVAILABLE
1	32960-SK	SEAT, SEARS ADJUSTABLE W/ ARMS	1.....	INCLUDES ITEMS W/#
2@	21860	SEAT, MICHIGAN W/O ARMS	1.....	NO LONGER AVAILABLE
2#	32963-SK	SEAT, SEARS ADJUSTABLE W/O ARMS	1.....	INCLUDES ITEMS W/\$
3@	21868	ARM REST KIT, MICHIGAN SEAT	1.....	INCLUDES ITEMS W/%
3#	34792	ARM REST KIT, SEARS SEAT	1.....	INCLUDES ITEMS W/%
4@#%	21869	SCREW, CAP 5/16"-18 X 5/8"	6	
5@	21865	SEAT ADJUSTER KIT, MICHIGAN SEAT	1	
5A#\$	32964	SEAT ADJUSTER LH, SEARS	1	
5B#\$	32965	SEAT ADJUSTER RH, SEARS	1	
6@	21870	KILL SWITCH, DELTA.....	1.....	REPLACES P/N 32980
6#\$	32962	KILL SWITCH, SEARS	1	
7	21936	CONNECTOR BODY, 2 PIN	1	
8	21924	WIRE ASSY., 16 GA. RED X 11"	1	
9	21923	WIRE ASSY., 16 GA. VIOLET/ORANGE X 12.5"	1	
10	21597	BUMPER STEM 1.0" DIA. X .5" X .31"	3	
11	30375	GROMMET, 3/16" THICK X 1" ID. X 1-3/4" OD.	1	
12	30374	PLATE, OPERATOR, SEAT	1	
13	23281	SHIELD, SEAT PLATE HEAT	1	
14	0106	NUT, HEX JAM 5/16"-18	4	
15	0300 B	WASHER, FLAT SAE 5/16"	4	
16	5283	NUT, NYLOC 5/16"-18	4	
17	23204	PANEL, FRONT	1	
18	12287	SCREW, THP 1/4"-20 X 3/4" SS	9	
19	19266	NUT, BLIND 1/4"-20 X 0.27-0.165	3	
20	23047	SUBFRAME, INNER SEAT	2	
21	23296	NUT, 3/8"-16 J-TYPE RETAINER	4	
22	20909	SCREW, HHC 1/4"-20 X 2"	4	
23	20685	BLOCK, OPERATOR SEAT PIVOT	2	
24	22228	SCREW, HHF 3/8"-16 X 1" GRD 8	4	
25	23787	PANEL, REAR	1	
26	23297	MANUAL HOLDER, PICTOGRAPH	1	

SEAT FRAME ASSY. (RIGHT)



SEAT FRAME ASSY. (RIGHT)

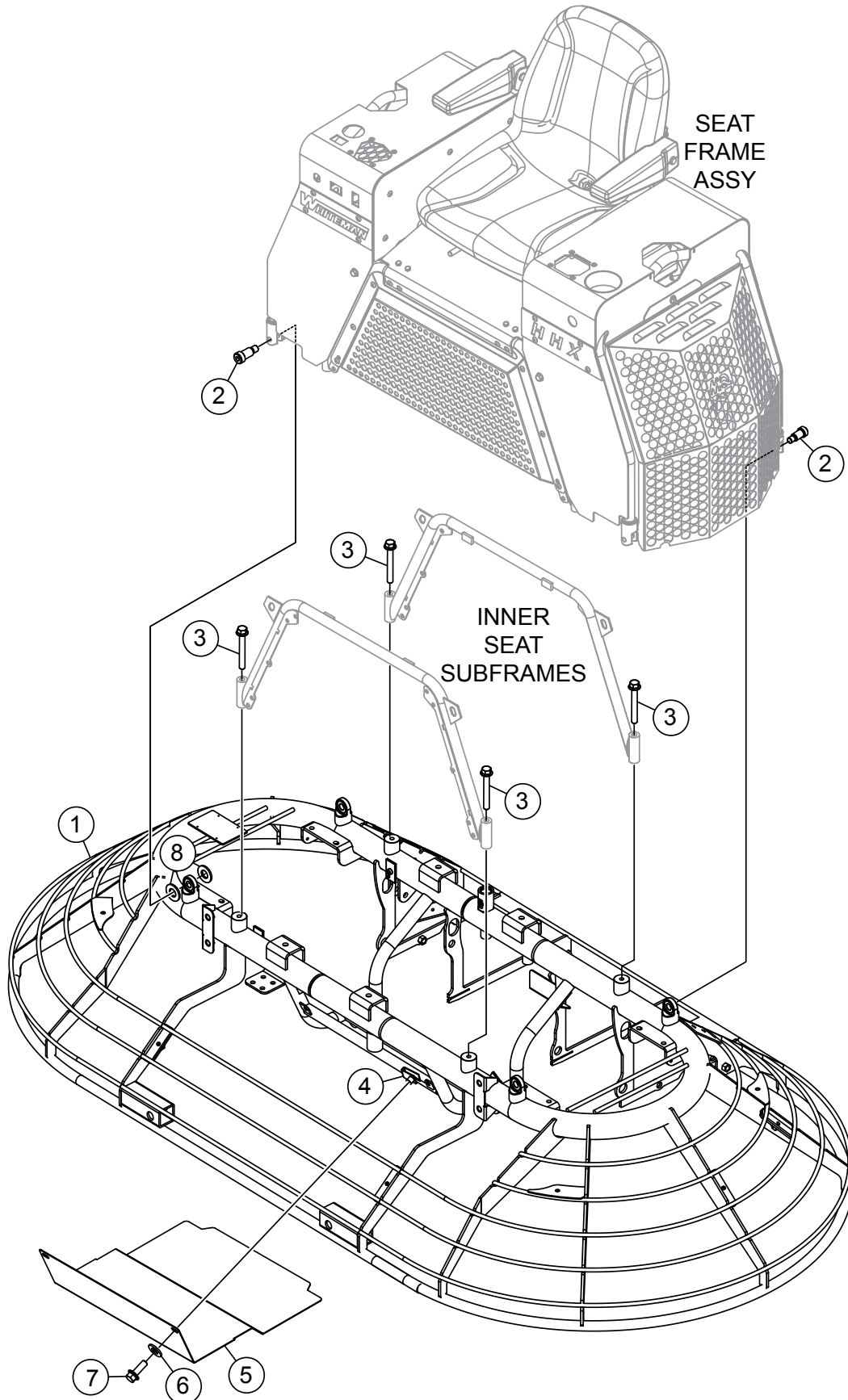
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	30425	FRAME, SEAT, RIGHT	1	
2	23146	GUARD, GRILL	1	
3	21893	SCREW, FAST LEAD	1	
4	21986	WASHER, FAST LEAD-STAINLESS	1	
5	21894	CLIP, FAST LEAD	1	
6	23959	SWITCH, IGNITION.....	1	INCLUDES ITEMS W/\$
6A\$	23959-1	KEY, IGNITION	1	
7	29640	HOUR METER	1	
8	406000	ROCKER, LIGHT SWITCH, ON-OFF	1	
9	19266	NUT, BLIND 1/4"-20 X 10 GA.	9	
10	23286	PANEL, TRIM BACKING B	1	
11	23175	PANEL, SIDE TRIM "WHITEMAN"	1	
12	12287	SCREW, THP 1/4"-20 X 3/4" SS	9	
15	23130	PANEL, SIDE FRAME INTERIOR	1	
16	406021	INDICATOR, ENGINE	1	
17	42180	SWITCH, LOCK ROCKER	1	



SEAT FRAME ASSY. (LEFT)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	30380	FRAME, SEAT LEFT	1	
2	23146	GUARD, GRILL	1	
3	21893	SCREW, FAST LEAD	1	
4	21986	WASHER,FAST LEAD-STAINLESS	1	
5	21894	CLIP, FAST LEAD	1	
6	23117	PLATE, LT HOOK GUARD	1	
7	49048	SCREW, HHF 3/8"-16 X 1.00 GRD 8	4	
8	23130	PANEL, SIDE FRAME INTERIOR	1	
9	19266	NUT, BLIND 1/4"-20 X 10 GA.	9	
10	12287	SCREW, THP 1/4"-20 X 3/4" SS	9	
13	23132	PANEL, SIDE TRIM "HHX"	1	
14	23285	PANEL, TRIM BACKING A	1	
15	23165	SLING, LIFTING	2	

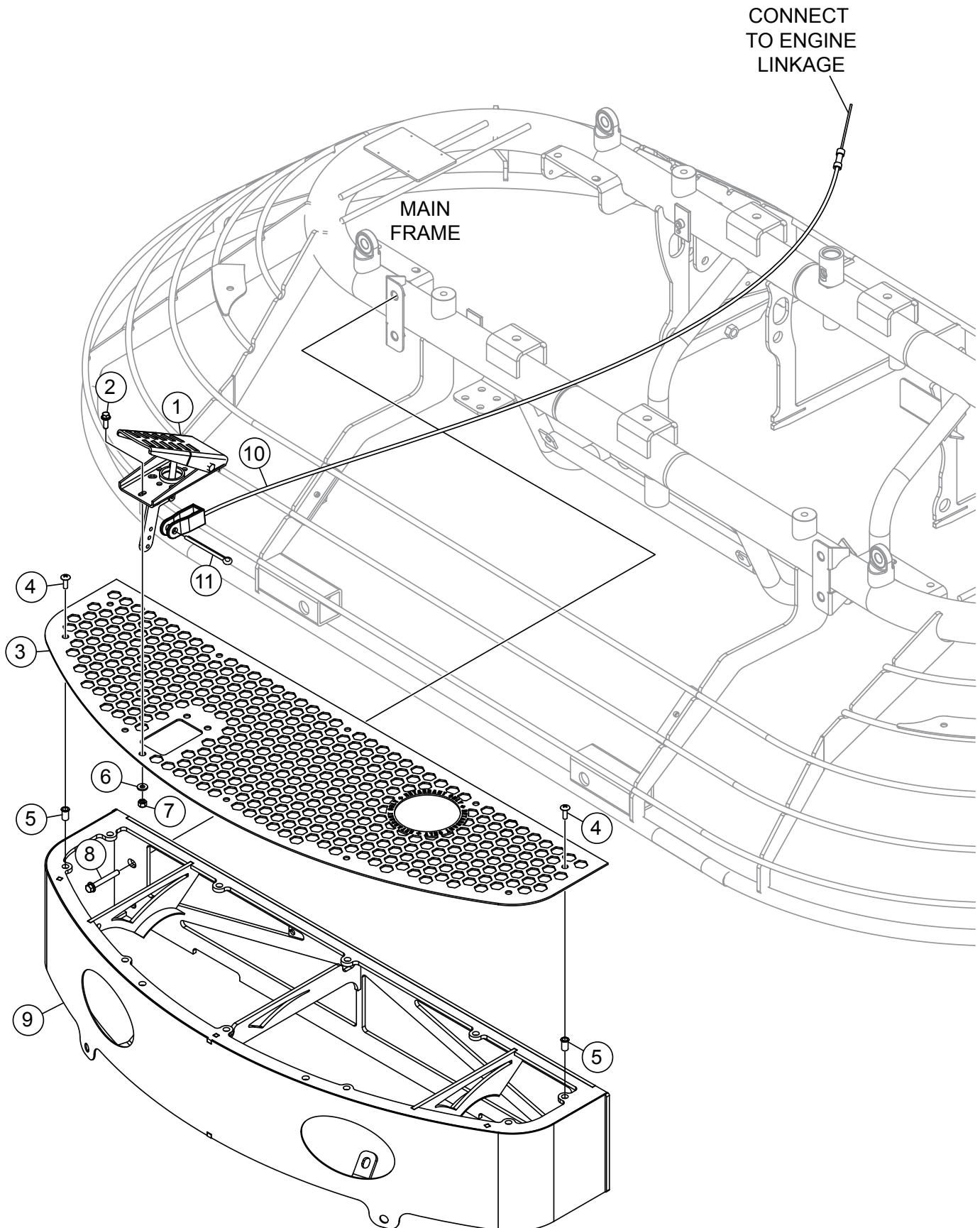
FRAME ASSY.



FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	23761	FRAME, MAIN	1	
2	9162	SCREW, SHOULDER M16 X M25 M12-1.75	4	
3	23288	SCREW, HHF M12-1.75 X 100	4	
4	11534	NUT, "U" TYPE, 1/4"-20	2	
5	23253	GUARD, BELT SPLASH	1	
6	3233	WASHER, FENDER, 3/8" X 1-1/2"	2	
7	49048	SCREW, HHFS 1/4"-20 X 3/4" GRD 5	2	
8	23303	BUSHING, SEAT FRAME	8	

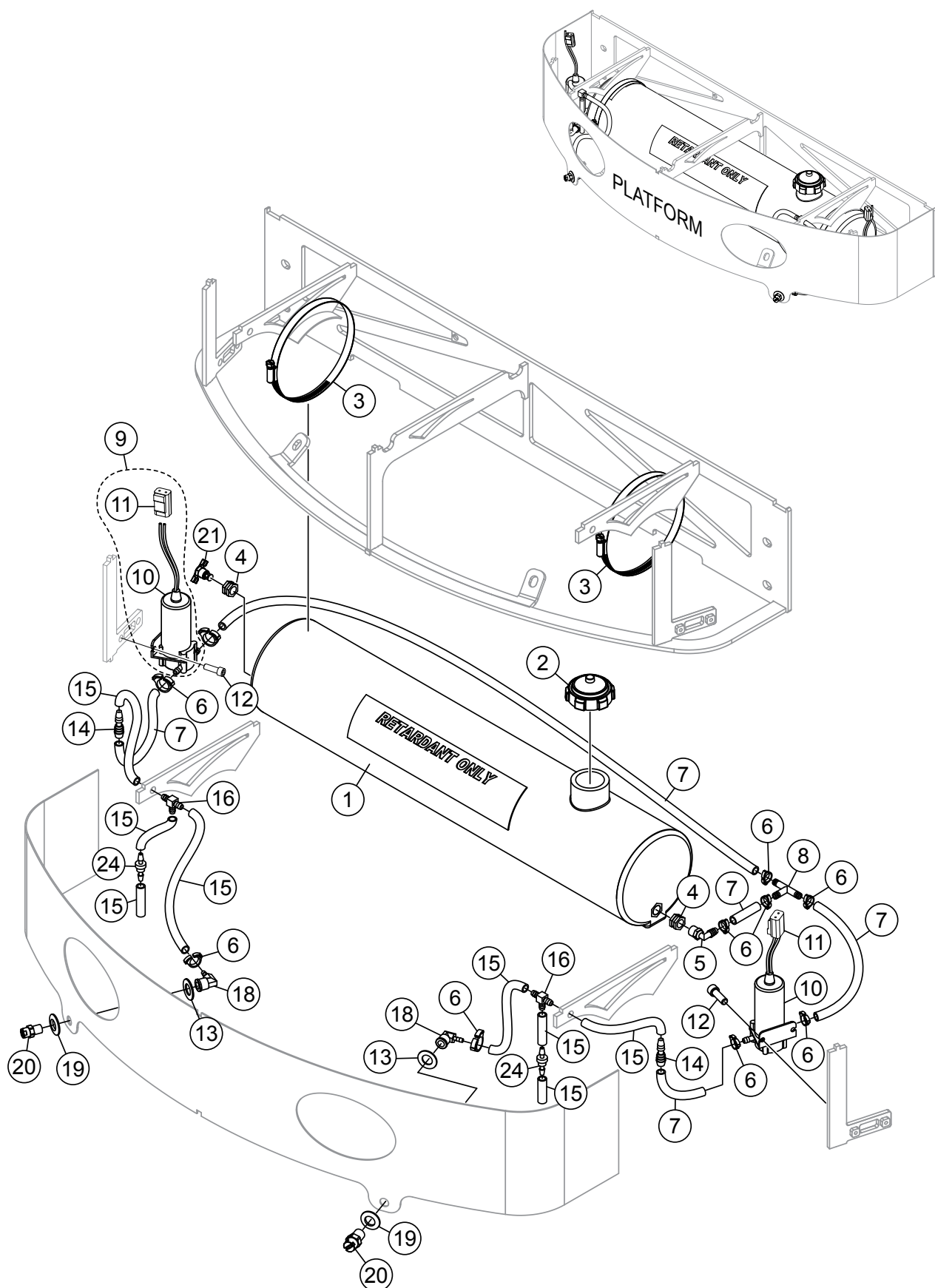
PLATFORM ASSY.



PLATFORM ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	20694	PEDAL, HYDRAULIC PUMP	1	
2	49048	SCREW, HHFS 1/4"-20 X 3/4" GRD 5	3	
3	23069	PLATE, FOOT PLATFORM TOP	1	
4	12287	SCREW, THP 1/4"-20 X 3/4" SS	10	
5	29452	NUT, BLIND 1/4"-20 X 3/16"	11	
6	0948	WASHER, FLAT SAE 1/4"	2	
7	10024	NUT, NYLOC 1/4"-20	2	
8	23305	SCREW, HHF M12-1.75 X 30"	4	
9	23058	PLATFORM, FOOT	1	
10	23818	CABLE, THROTTLE.....	1.....	INCLUDES ITEMS W/@
11@		PIN, COTTER	1.....	NOT SOLD SEPARATELY

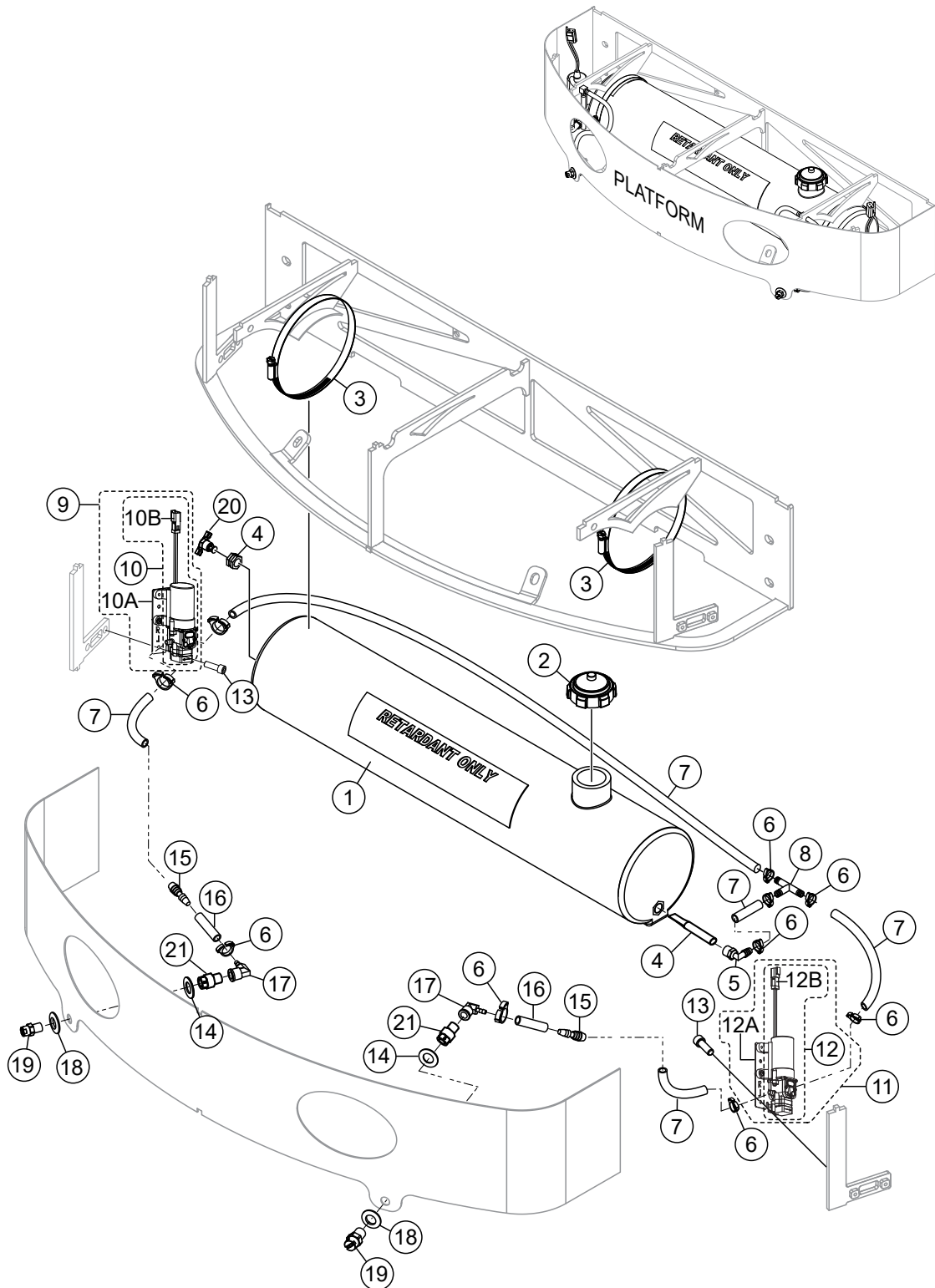
SPRAY ASSY. (S/N PH0209628 AND BELOW)



SPRAY ASSY. (S/N PH0209628 AND BELOW)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	2916	TANK, WATER, NPT BOSSES	1	
2	2108	CAP, SPRAY TANK	1	
3	2398	CLAMP, HOSE WORM 4.75" TO 6.50"	2	
4	2926	SCREEN STRAINER	2	
5	2925	FITTING, PLASTIC 90° 6BARB - 3/8" MP	1	
6	2918	CLAMP, HOSE PLASTIC .475" DIA. - .536" DIA.	10	
7	60002	HOSE, PVC CLEAR .375" ID.	5	1PC=1FT
8	23307	TEE, 3/8" BARB PLASTIC	1	
9	23434	PUMP, SPRAY W/CONNECTOR	2	INCLUDES ITEMS W/@
10@	12548	PUMP, SPRAY, SHURFLO	2	
11@	37402	CONNECTOR KIT, DEUTSCH	2	
12	923203	SCREW, SHC 1/4"-20 X 3/4"	4	
13	0447	WASHER, FLAT 1/2" SAE	2	
14	10022	FITTING, PLASTIC 6BARB - 4BARB	2	
15	60001	HOSE, PVC CLEAR .250" ID.	8	1PC=1FT
16	23122	TEE, 1/4" BARB PLASTIC	2	
18	2912	FITTING, BRASS 90° 4BARB - 1/4" FP	2	
19	2898	WASHER, BONDED NEOPRENE 1" X 1/2"	2	
20	392292	NOZZLE, SPRAY	2	
21	2478	FITTING, PETCOCK DRAIN 1/4" MP	1	
24	23076	CHECK VALVE, DUCKBILL 3/16"	2	

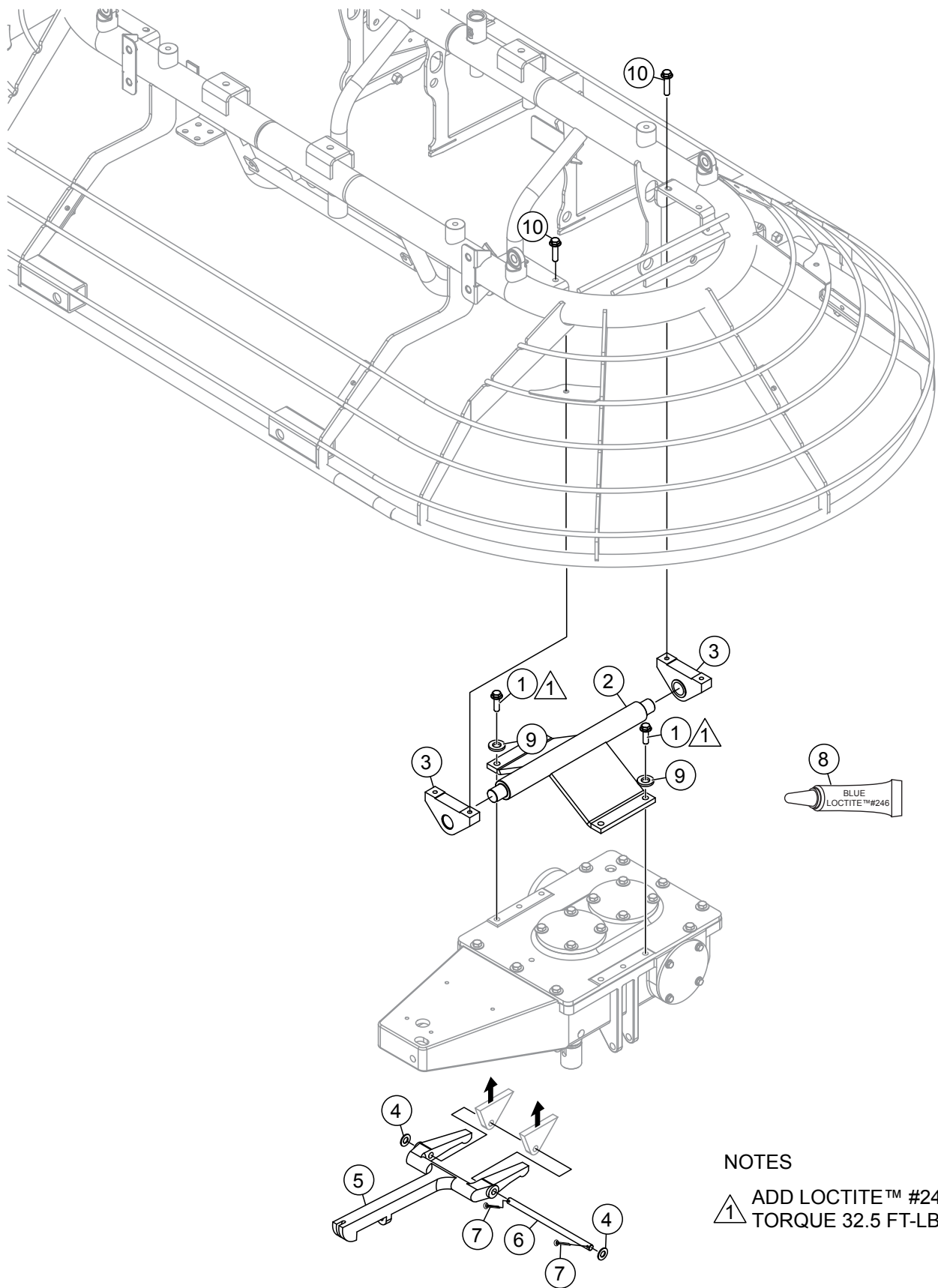
SPRAY ASSY. (S/N PH0209629 AND ABOVE)



SPRAY ASSY. (S/N PH0209629 AND ABOVE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	2916	TANK, WATER, NPT BOSSES	1	
2	2108	CAP, SPRAY TANK	1	
3	2398	CLAMP, HOSE WORM #96 4.75" TO 6.50"	2	
4	2926	SCREEN STRAINER	1	
5	2925	FITTING, PLASTIC 90° 6BARB - 3/8" MP	1	
6	2918	CLAMP, HOSE PLASTIC .475" DIA - .536" DIA.	10	
7	60002	HOSE, PVC CLEAR .375" ID. (4.04 IN.)	5	1PC=1FT
8	23307	TEE, 3/8" BARB PLASTIC	1	
9	30544	PUMP SPRAY ASSY., RIGHT	1	INCLUDES ITEMS W/@
10@	30562	PUMP SPRAY W/ FEM CON BODY, REV	1	INCLUDES ITEMS W/#
10A@	30545	BRACKET, PUMP MOUNT	1	
10B#@	37402	CONNECTOR KIT, MALE DEUTSCH	1	
11	30546	PUMP SPRAY ASSY., LEFT	1	INCLUDES ITEMS W/\$
12\$	30560	PUMP SPRAY W/ FEM CON BODY	1	INCLUDES ITEMS W/%
12A\$	30545	BRACKET, PUMP MOUNT	1	
12B%\$	37402	CONNECTOR KIT, MALE DEUTSCH	1	
13	923203	SCREW, SHC 1/4"-20 X 3/4"	4	
14	0447	WASHER, FLAT 1/2" SAE	2	
15	10022	FITTING, PLASTIC 6BARB-4BARB	2	
16	60001	HOSE, PVC CLEAR .250" ID. (.33 IN.)	1	1PC=1FT
17	2912	FITTING, BRASS 90° 4BARB-1/4" FP	2	
18	2898	WASHER, BONDED NEOPRENE 1" X 1/2"	2	
19	392292	NOZZLE, SPRAY	2	
20	2478	FITTING, PETCOCK RAD. DRAIN 1/4" MP	1	
21	42637	CHECK VALVE, 1/4" MNPT X 1/4" FNPT 3 PSI	2	

PIVOT ASSY. (LEFT)



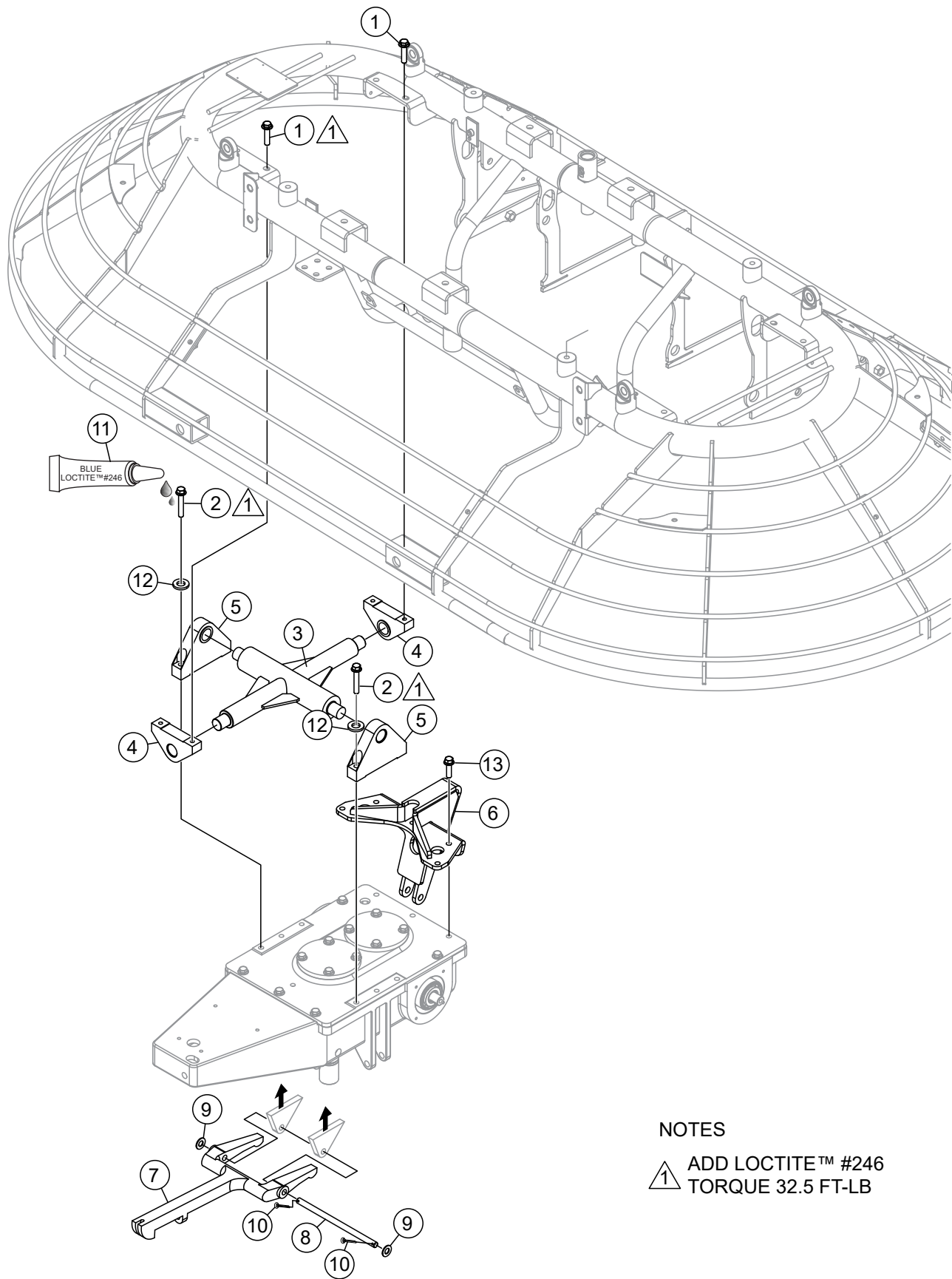
NOTES

- 1 ADD LOCTITE™ #246
TORQUE 32.5 FT-LB

PIVOT ASSY. (LEFT)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	32271	SCREW, HHF 3/8"-16 X 2-1/4"	4	
2	23088	PIVOT, GEAR BOX	1	
3	11555	PIVOT BLOCK ASSY., MOTOR MOUNT W/BUSHING	2	
4	0448	WASHER, FLAT SAE 7/16"	2	
5	11499	YOKE ARM, PITCH	1	
6	11648	SHAFT, YOKE PIVOT	1	
7	0183	PIN, COTTER 1/8" DIA. X 1-1/4"	2	
8	60097	LOCTITE, BLUE #246	AR	
9	21707	WASHER, FLAT 3/8", NORD-LOC, NL 3/8" SP	4	
10	22106	SCREW, HHFS 3/8"-16 X 1.25"	4	

PIVOT ASSY. (RIGHT)



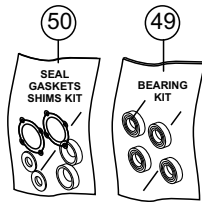
NOTES

△ ADD LOCTITE™ #246
TORQUE 32.5 FT-LB

PIVOT ASSY. (RIGHT)

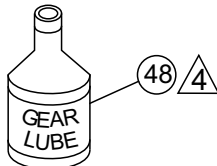
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	22106	SCREW, HHFS 3/8"-16 X 1.25" ZINC	5	
2	32272	SCREW, HHFS 3/8"-16 X 2.25"	4	
3	23090	TRUNNION, GEARBOX	1	
4	11555	PIVOT BLOCK ASSY., MOTOR MOUNT W/BUSHING	2	
5	12713	ROCKER BLOCK ASSY., GEARBOX 1.00 DIA.	2	
6	23093	BRACKET, GEAR BOX STEERING SUPPORT	1	
7	11499	YOKE ARM, PITCH	1	
8	11648	SHAFT, YOKE PIVOT	1	
9	0448	WASHER, FLAT SAE 7/16"	2	
10	0183	PIN, COTTER 1/8" DIA. X 1-1/4"	2	
11	60097	LOCTITE, BLUE #246	AR	
12	21707	WASHER, FLAT 3/8"	4	
13	32476	SCREW, HHF 3/8"-16 X 1.25" GRD 8	5	

GEAR BOX ASSY. (SINGLE SIGHT GLASS)

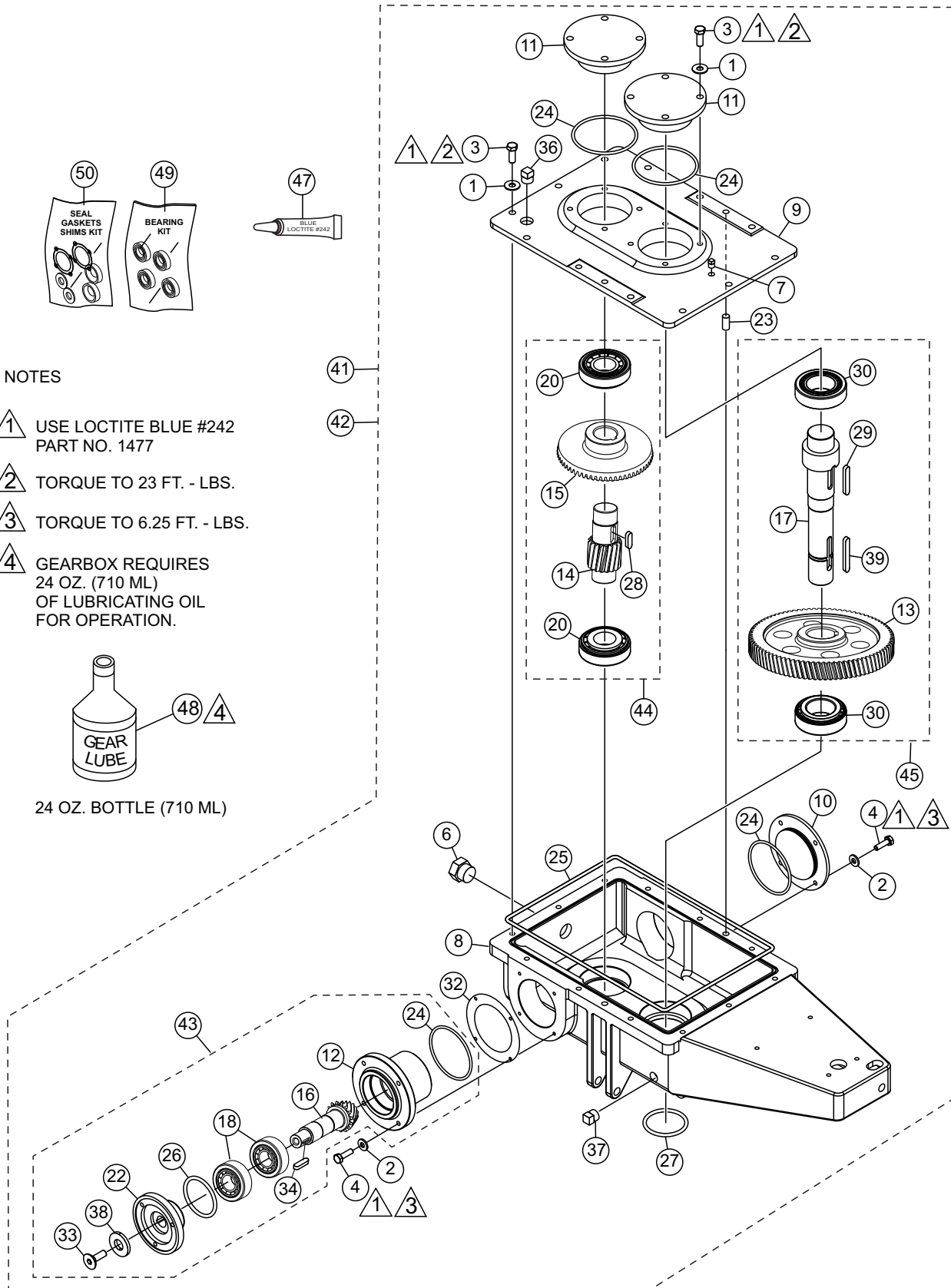


NOTES

- ① USE LOCTITE BLUE #242
PART NO. 1477
- ② TORQUE TO 23 FT. - LBS.
- ③ TORQUE TO 6.25 FT. - LBS.
- ④ GEARBOX REQUIRES
24 OZ. (710 ML)
OF LUBRICATING OIL
FOR OPERATION.



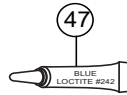
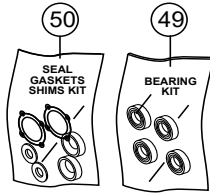
24 OZ. BOTTLE (710 ML)



GEAR BOX ASSY. (SINGLE SIGHT GLASS)

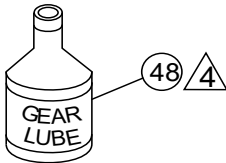
NO.	PART NO.	PART NAME	QTY.	REMARKS
1\$	10136	WASHER, FLAT SAE 3/8"	16	
2\$	0948	WASHER, FLAT SAE 1/4"	8	
3\$	0205	SCREW, HHC 3/8"-16 X 1"	16	
4\$	2295	SCREW, HHC 1/4"-20 X 7/8"	8	
6\$	11584	SIGHT GLASS	1	
7\$	11682	FITTING, PLUG, 1/8" MP SQ HEAD	1	
8\$		GEARBOX HOUSING	1	NOT SOLD SEPARATELY
9\$	21811	COVER, GEAR BOX	1	
10\$	21813	CAP, HELICAL GEARBOX INPUT	1	
11\$	21810	CAP, HELICAL GEARBOX IDLER	2	
12\$%		HUB, HELICAL INPUT SHAFT	1	MUST PURCHASE KIT
13\$+		GEAR, 85T HELICAL	1	MUST PURCHASE KIT
14\$@		GEAR, PINION 17T, HELICAL	1	MUST PURCHASE KIT
15\$@		GEAR, SPIRAL BEVEL, 60T 6.00PD	1	MUST PURCHASE KIT
16\$%		PINION, 15T SPIRAL BEVEL	1	MUST PURCHASE KIT
17\$+	21804	SHAFT, OUTPUT	1	MUST PURCHASE KIT
18\$%#	21803	BEARING, TAPERED ROLLER SET	2	
20\$@#	21802	BEARING, TAPERED ROLLER SET	2	
22\$%		COUPLER, GEARBOX	1	MUST PURCHASE KIT
23\$	12697	PIN, DOWEL 0.375/.3752 X 3/4"	2	
24\$%>	12698	O RING	4	
25\$>	12700	SEAL, CASE O-RING HHN 0.103 X 46.38	1	
26\$%>	12701	SEAL	1	
27\$>	12702	SEAL	1	
28\$@	12735	KEY, 3/8" X 3/4"	1	
29\$+	12736	KEY, HARDENED 3/8" X 1-1/2"	1	
30\$+#	21801	BEARING, CONE TAPERED ROLLER SET	2	
32\$		SHIM, INPUT 0.002 THICK	3	MUST ORDER P/N 20932
33\$%	1313	SCREW, FHSC 3/8"-24 X 3/4" PLAIN	1	
34\$%	26034	KEY, 3/16" X 17/32"	1	
36\$	911064	FITTING, PLUG 1/2" MP SQ HEAD	1	
37\$	911329	FITTING, PLUG 3/8" MP MAGNETIC	2	
38\$%	9120	RETAINER, DRIVEN PULLEY	1	
39\$+	12687	KEY, 3/8" SQ X 2"	1	
41	32214	GEARBOX ASSY. W/OIL, RIGHT	1	INCLUDES ITEMS W/\$
42	32213	GEARBOX ASSY. W/OIL, LEFT	1	INCLUDES ITEMS W/\$
43\$	21853854INPUT	KIT, INPUT PINION/HUB/COUPLER	1	INCLUDES ITEMS W/%
44\$	21853854INTER	KIT, INTER PINION/GEAR	1	INCLUDES ITEMS W/@
45\$	21853854OUTPUT	KIT, OUTPUT SHAFT/GEAR	1	INCLUDES ITEMS W/+
47	1477	LOCTITE BLUE #242	1	
48	20445	OIL, HELICAL SERVICE 24 OZ.	6	
49	32077	KIT, SERVICE, BEARING REPLACEMENT.	1	INCLUDES ITEMS W/#
50	20932	KIT, SEAL GEARBOX	1	INCLUDES ITEMS W/>

GEAR BOX ASSY. (DUAL SIGHT GLASS)

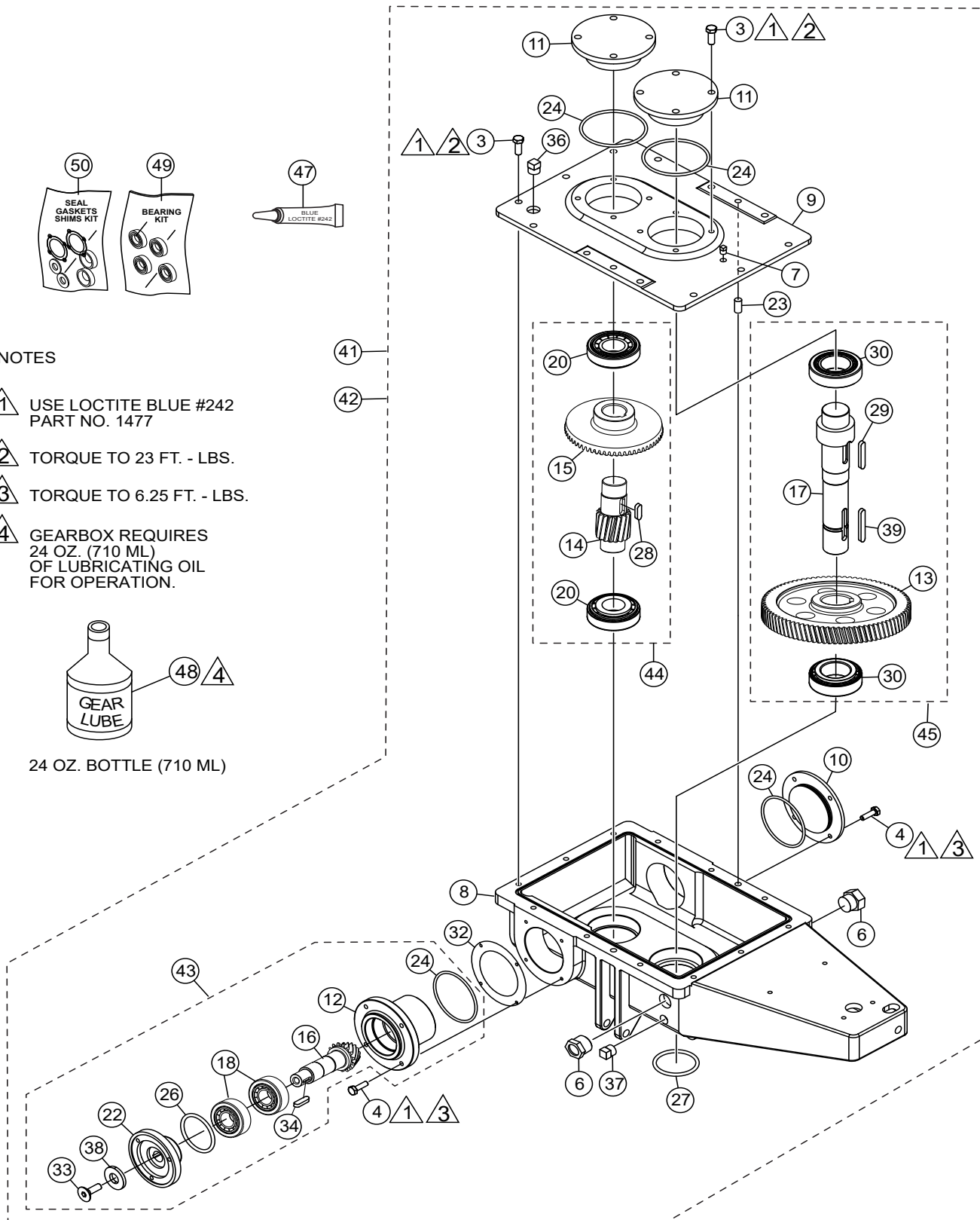


NOTES

- 1 USE LOCTITE BLUE #242
PART NO. 1477
- 2 TORQUE TO 23 FT. - LBS.
- 3 TORQUE TO 6.25 FT. - LBS.
- 4 GEARBOX REQUIRES
24 OZ. (710 ML)
OF LUBRICATING OIL
FOR OPERATION.



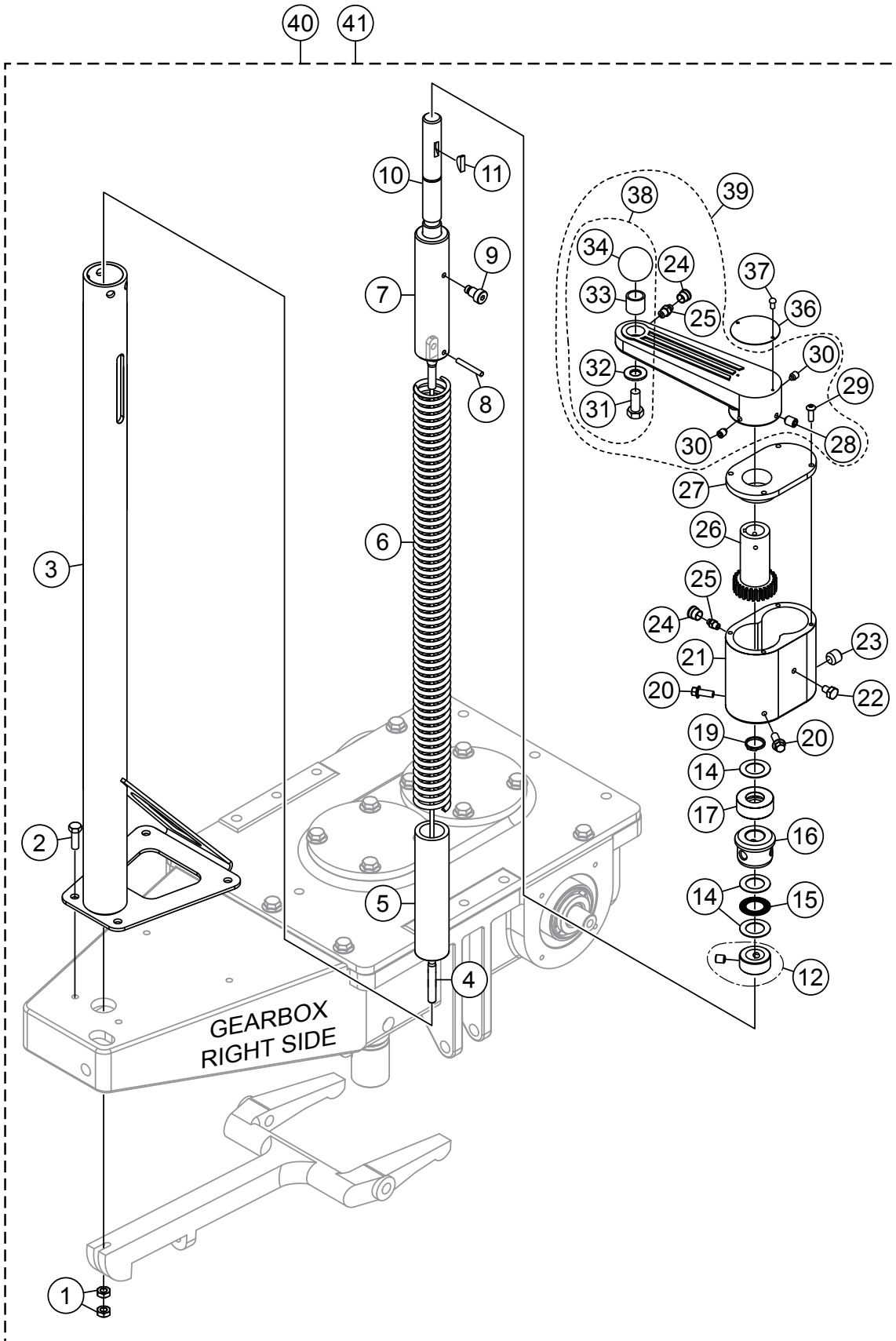
24 OZ. BOTTLE (710 ML)



GEAR BOX ASSY. (DUAL SIGHT GLASS)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3\$	32379	SCREW, HFS 3/8-16 X 1	20	
4\$	46031	SCREW, HFS 1/4-20 X 1	8	
6\$	21033	SIGHT GLASS	2	
7\$	11682	FITTING, PLUG, 1/8 MP SQ HEAD	1	
8\$	21812	GEARBOX HOUSING	1	
9\$	21811	COVER, GEAR BOX	1	
10\$	32537	END CAP, BLIND, INPUT	1	
11\$	32533	END CAP, UPPER SHAFT BEARING	2	
12\$%		HUB, HELICAL INPUT SHAFT	1.....	MUST PURCHASE KIT
13\$+		GEAR, 85T HELICAL.....	1.....	MUST PURCHASE KIT
14\$@		GEAR, PINION 17T, HELICAL.....	1.....	MUST PURCHASE KIT
15\$@		GEAR, SPIRAL BEVEL, 60T 6.00PD	1.....	MUST PURCHASE KIT
16\$%		PINION, 15T SPIRAL BEVEL	1.....	MUST PURCHASE KIT
17\$+		SHAFT, OUTPUT	1.....	MUST PURCHASE KIT
18\$%	21803	BEARING, TAPERED ROLLER SET	2	
20\$@	21802	BEARING, TAPERED ROLLER SET	2	
22\$%		COUPLER, GEARBOX.....	1.....	MUST PURCHASE KIT
23\$	926942	PIN, DOWEL 0.375 DIA. X 3/4	2	
24\$%	12698	O RING	2	
26\$%	12701	SEAL	1	
27\$	12702	SEAL	1	
28\$@	12735	KEY, 3/8 X 3/4	1	
29\$+	12736	KEY, HARDENED 3/8 X 1-1/2	1	
30\$+	21801	BEARING, CONE TAPERED ROLLER SET	2	
32\$	21800	SHIM, INPUT. 0.002 THICK	3	
33\$%	30318	SCREW, FHSC 3/8 - 24 X 1	1	
34\$%	26034	KEY, 3/16 X 17/32	1	
36\$	911064	FITTING, PLUG 1/2 MP SQ HEAD	1	
37\$	911329	FITTING, PLUG 3/8 MP MAGNETIC	2	
38\$%	9120	RETAINER, DRIVEN PULLEY	1	
39\$+	12687	KEY, 3/8 SQ X 2	1	
41	32958-SK	GEARBOX ASSY., RIGHT	1.....	INCLUDES ITEMS W/\$
42	32957-SK	GEARBOX ASSY., LEFT	1.....	INCLUDES ITEMS W/\$
43\$	32536	INPUT HUB ASSY.....	1.....	INCLUDES ITEMS W/%
44\$	32653	INTERMEDIATE SHAFT ASSY.....	1.....	INCLUDES ITEMS W/@
45\$	32652	OUTPUT SHAFT ASSY.	1.....	INCLUDES ITEMS W/+
47	1477	LOCTITE BLUE #242	1	
48	60078	OIL, GEAR LUBE ISO GRADE 220	1	
49	32077	KIT, SERVICE, BEARING REPLACEMENT	1.....	INCLUDES ITEMS W/#
50	20932	KIT, SEAL GEARBOX	1.....	INCLUDES ITEMS W/>

PITCH CONTROL TOWER ASSY.



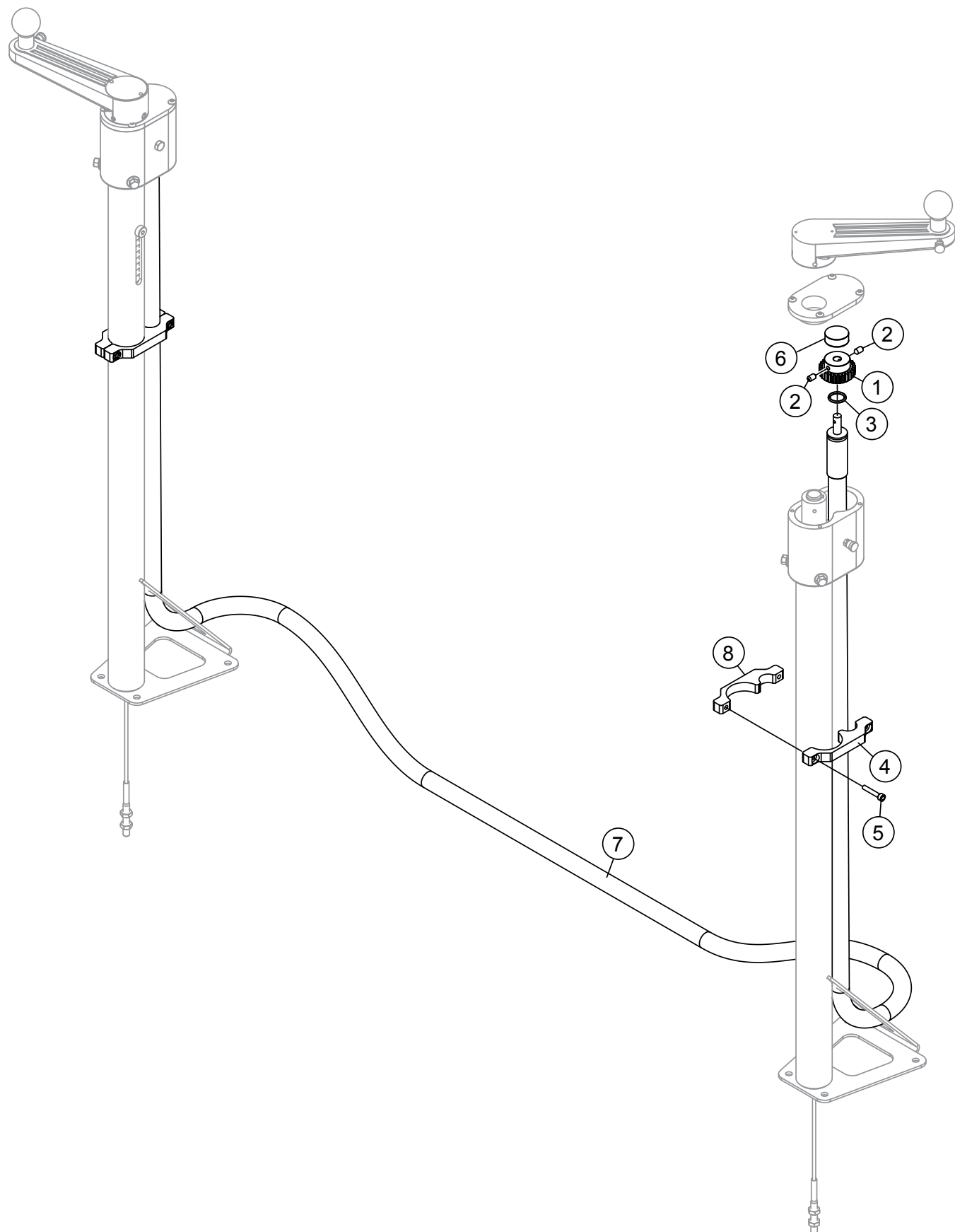
PITCH CONTROL TOWER ASSY.

NO.	PART NO.	PART NAME	QTY.	REMARKS
1#	1116	NUT, BRASS JAM 5/16"-18	2	
2#	9091	SCREW, HHFS 5/16"-18 X 1" GRD 5	4	
3#	23154	TOWER, PITCH CONTROL	1	RIGHT-SIDE
3#	23167	TOWER, PITCH CONTROL	1	LEFT-SIDE
4#	11623	CABLE ASSY., 32.38"	1	
5#	11649	SPACER, PITCH SPRING	1	
6#	2156	SPRING, HANDLE BALANCE COIL	1	
7#	10721	SLIDE BLOCK, PITCH CONTROL	1	RIGHT-SIDE
7#	10722	SLIDE BLOCK, PITCH CONTROL	1	LEFT-SIDE
8#	10723	PIN, SPIRAL 3/16" X 1-3/8" HD	1	
9#	10382	BOLT, SHOULDER, 3/8" X 3/8"	1	
10#	10510	SHAFT, PITCH CONTROL	1	RIGHT-SIDE
10#	10511	SHAFT, PITCH CONTROL	1	LEFT-SIDE
11#	0126	KEY, WOODRUFF #606 3/16" X 3/4" (#9)	1	
12#	2367	COLLAR, SET .75 X 1.25 X .56	1	
14#	2170	BEARING, RACE, TORR. #TRA1220	3	
15#	2169	BEARING, THRUST, TORR. #NTA1220	1	
16#	1612	BEARING, ALUM., PITCH CONTROL	1	
17#	1604	BEARING, BALL THRUST E5 AETNA	1	
19#	10512	RING, SNAP	1	
20#	22021	SCREW, HHFS M8-1.25 X 20 MM	2	
21#	23037	HOUSING, PITCH CONTROL	1	
22#	20476	SCREW, HHC 1/4"-28 X 3/8"	1	
23#	17109	SCREW, SHSCU M8-1.25 X 8 MM	2	
24%#	2621	FITTING, GREASE ZERK STRAIGHT 1/4"-28	2	
25%#	1162 A	CAP, GREASE ZERK	2	
26#	1529	GEAR, DRIVE PITCH CONTROL	1	
27#	2649	COVER, PITCH CONTROL HOUSING	1	
28%#	0185	SCREW, SHS 3/8"-16 X 3/8", NO PLATE	1	
29#	9191	SCREW, BHSC M5-0.8 X 16 MM	4	
30%#	1528	SCREW, SHS 1/4"-20 X 5/16" H.D.P.	2	
31 @%#	1616	BOLT, SHOULDER .5 DIA. X .469 X 3/8"-16	1	
32 @%#	1733	WASHER, 1/2" X 1/32"	1	
33 @%#	3231	SPACER, .75 DIA. X .406 DIA. X .688	1	
34 @%#	4403	KNOB, ROUND 1-3/8" DIA. X 3/8"-16	1	
36#	23806	DECAL, PITCH	1	RIGHT-SIDE
36#	23807	DECAL, PITCH	1	LEFT-SIDE
37#	4014	SCREW, 3/16" P-K TYPE U DRIVE	2	
38%#	2737	KNOB, KIT	1	INCLUDES ITEMS W/@
39#	1617	LEVER ASSY., TROWEL ADJUSTMENT	1	INCLUDES ITEMS W/%
40	23187	TOWER ASSEMBLY, PITCH CONTROL, RH	1	INCLUDES ITEMS W/#
41	23188	TOWER ASSEMBLY, PITCH CONTROL, LH	1	INCLUDES ITEMS W/\$

NOTICE

Indicated quantities are for one pitch tower. If ordering for two pitch towers, double the quantity.

PITCH CONTROL DRIVE CABLE ASSY.

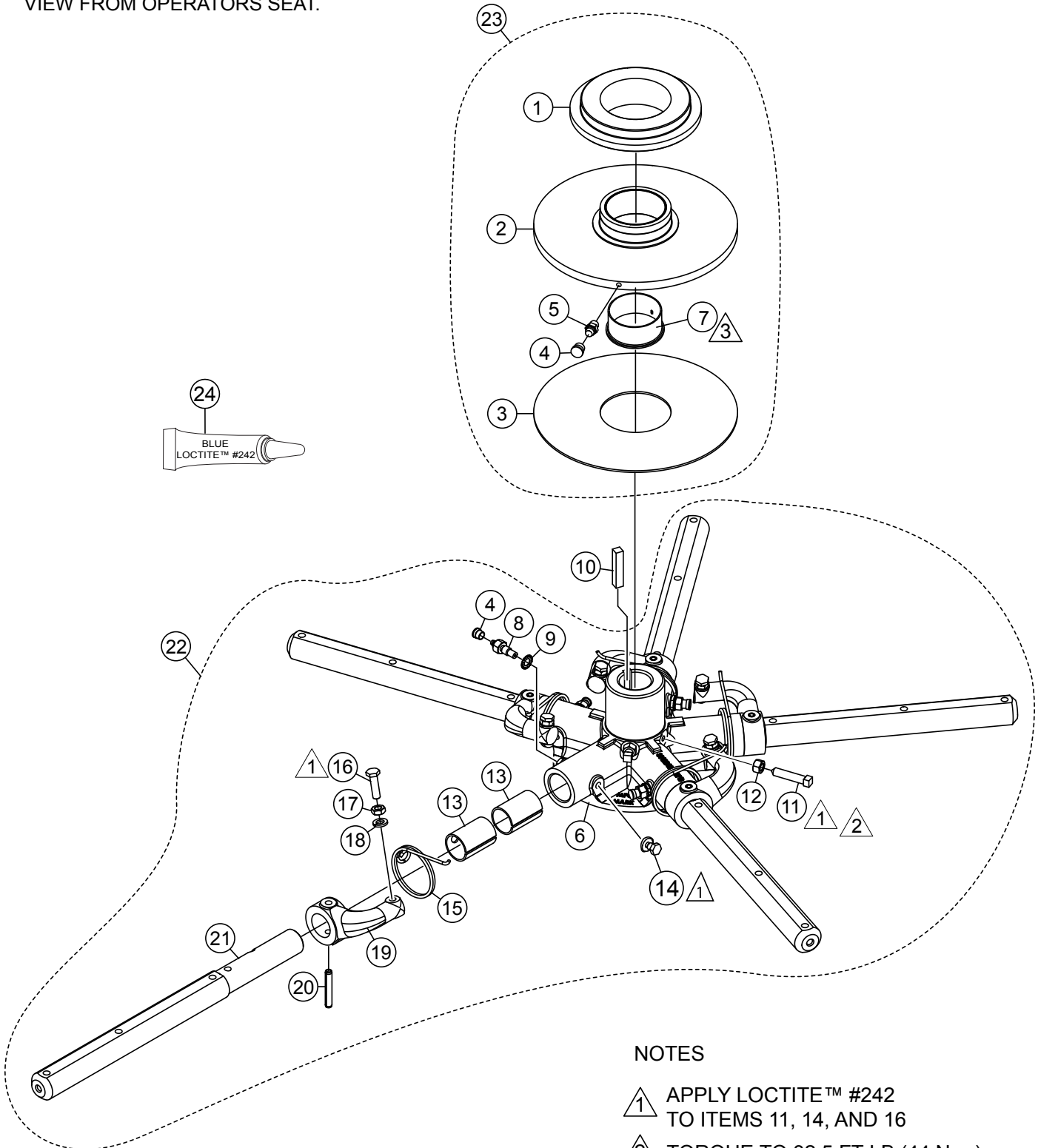


PITCH CONTROL DRIVE CABLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	23036	GEAR, PITCH CONTROL	2	
2	9195	SCREW, SHS M5-0.8 X 10	4	
3	9196	O-RING, SIZE 2-118 BUNA-N 70	2	
4	23295	CLAMP, PITCH CABLE.....	2.....	MAY 2011 AND ABOVE
5	37325	SCREW, SHC M5-0.8 X 30 MM	4	
6	32802	SPACER, PITCH CONTROL	2	
7	23017	DRIVE CABLE, PITCH CONTROL	1	
8	23615	CLAMP, PITCH CABLE, THREADED	2.....	MAY 2011 AND ABOVE

5-BLADE SPIDER ASSY. (LEFT)

LEFT-SIDE SPIDER ASSEMBLY (5-BLADE).
VIEW FROM OPERATORS SEAT.



NOTES

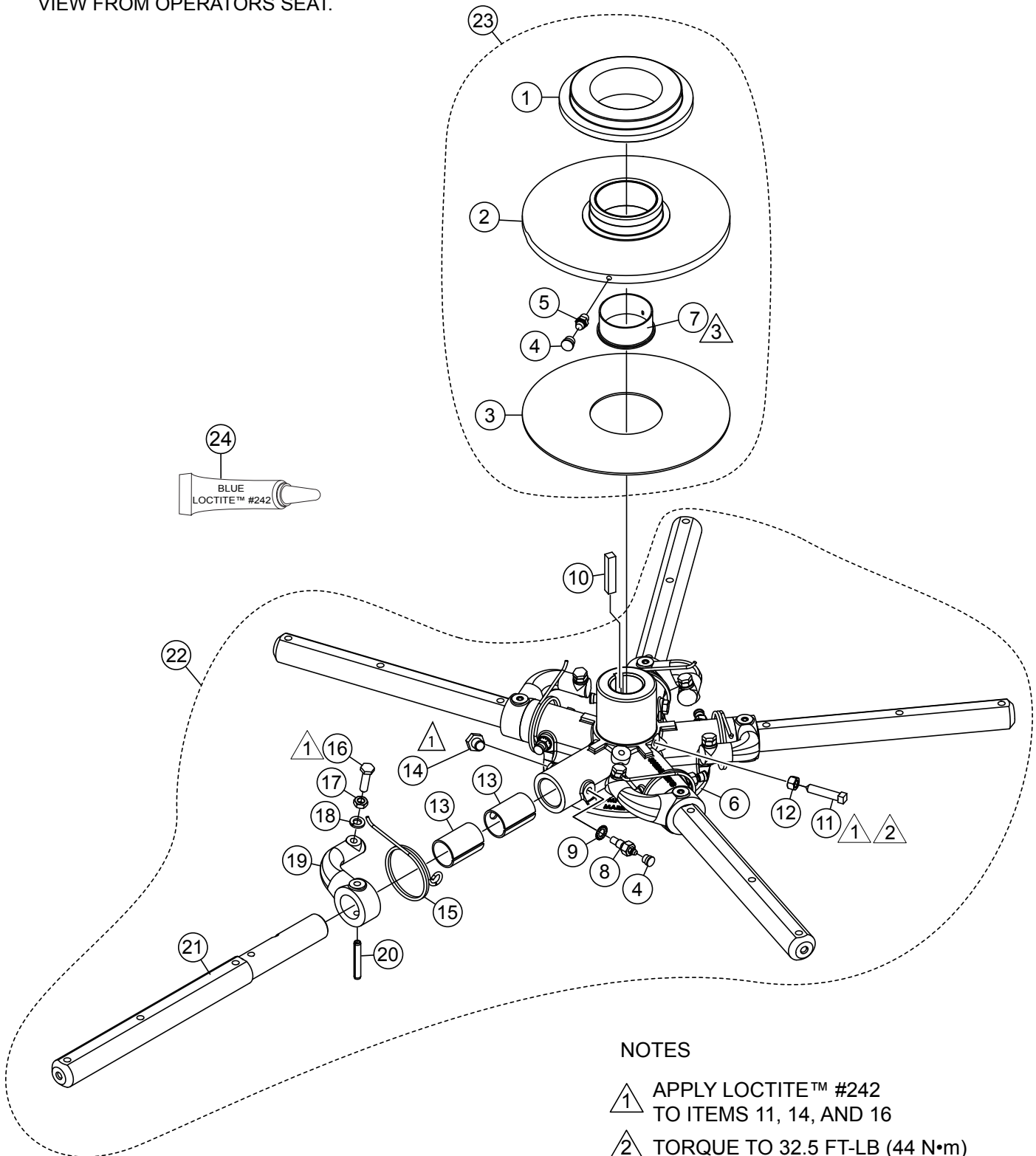
- ① APPLY LOCTITE™ #242 TO ITEMS 11, 14, AND 16
- ② TORQUE TO 32.5 FT-LB (44 N•m)
- ③ PART OF ITEM 2

5-BLADE SPIDER ASSY. (LEFT)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#	12779	BEARING, THRUST 6017-24S W/FLANGE	1	
2#	11431	THRUST COLLAR W/BUSHING	1	
3#	11419	PLATE, WEAR	1	
4#@	1162 A	CAP, GREASE ZERK, #2 YELLOW	6	
5#	2621	FITTING, GREASE ZERK STRAIGHT 1/4"-28	1	
6@	21208	SPIDER PLATE, 5 BLADE L.S. 1.5, SILVER	1	
7#	12316	BUSHING, THRUST COLLAR W/ HOLE	1	
8@	1322	SCREW, ARM RETAINING	5	
9@	1875	WASHER, INT. SHKP, 3/8"	5	
10	12687	KEY, 3/8" X 2" SQUARE	1	
11@	12097	SCREW, SQHS 3/8"-16 X 1-3/4" CONE GRD 8	2	
12@	1456	NUT, HEX FINISH 3/8"-16	2	
13@	11039	BUSHING, TROWEL LARGE ARM	10	
14@	11602	SCREW, HHS 3/8"-16 X 1/4"	5	
15@	9111	SPRING, LS H ARM RETURN STD. BOSS	5	
16@	0164 B	SCREW, HHC ROUNDED 3/8"-16	5	
17@	1876	NUT, HEX JAM 3/8"-16	5	
18@	0166 A	WASHER, LOCK, 3/8" MED.	5	
19@	11903-1	LEVER, TROWEL ARM, LEFT, SILVER	5	
20@	9006	PIN, ROLL 5/16" X 2 NO PLATE	5	
21@	2829-1	ARM, TROWEL HD EXTENDED, SILVER	5	
22	12932	SPIDER ASSY., 5 BLADE L.S. 1-1/2"	1	INCLUDES ITEMS W/@
23	20938	THRUST COLLAR ASSY.	1	INCLUDES ITEMS W/#
24	1477	LOCTITE™ #242 BLUE 0.5 CC BOTTLE	AR	

5-BLADE SPIDER ASSY. (RIGHT)

RIGHT-SIDE SPIDER ASSEMBLY (5-BLADE).
VIEW FROM OPERATORS SEAT.



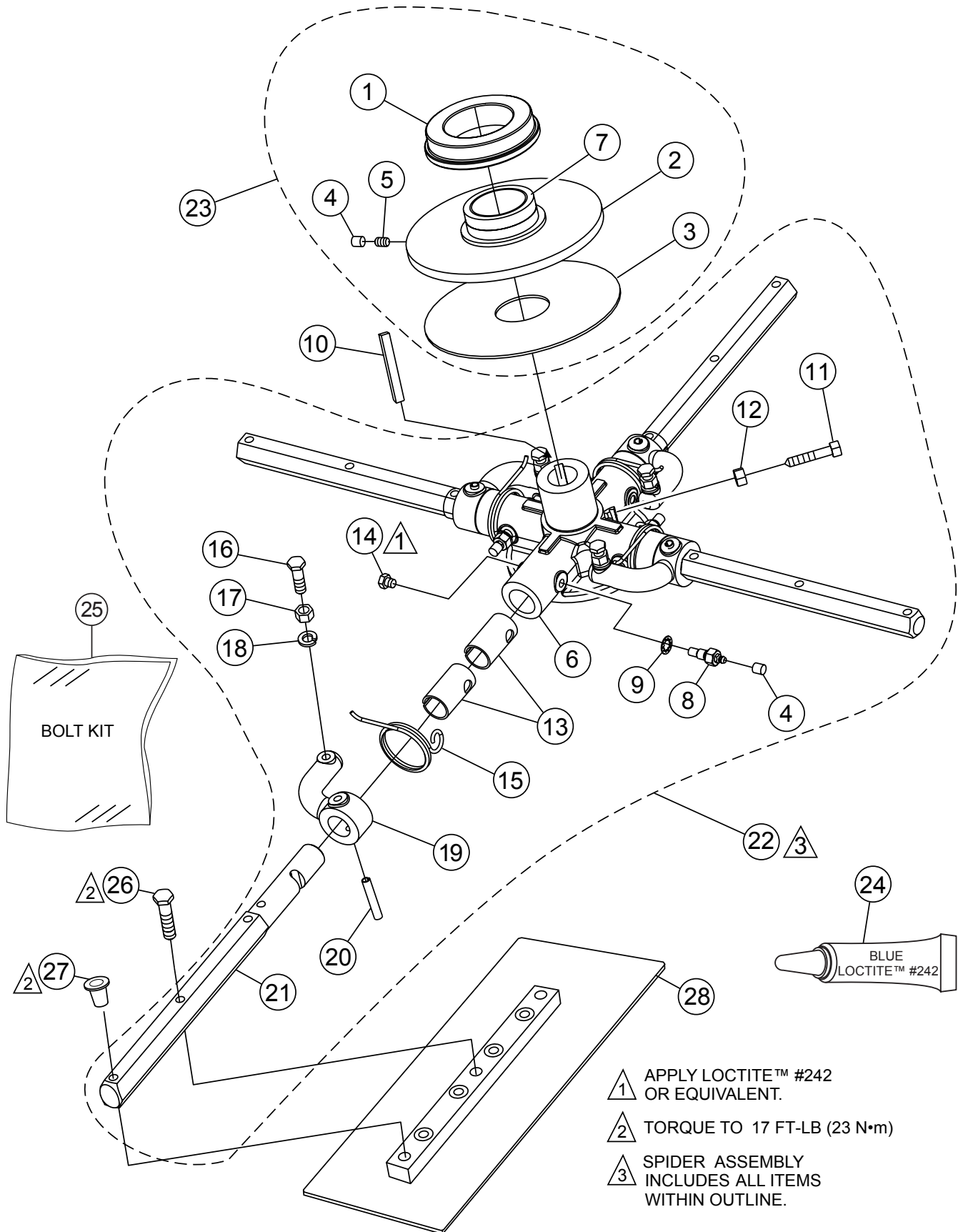
NOTES

- △ 1 APPLY LOCTITE™ #242 TO ITEMS 11, 14, AND 16
- △ 2 TORQUE TO 32.5 FT-LB (44 N•m)
- △ 3 PART OF ITEM 2

5-BLADE SPIDER ASSY. (RIGHT)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#	12779	BEARING, THRUST 6017-24S W/FLANGE	1	
2#	11431	THRUST COLLAR W/BUSHING	1	
3#	11419	PLATE, WEAR	1	
4@#	1162 A	CAP, GREASE ZERK, #2 YELLOW	6	
5#	2621	FITTING, GREASE ZERK STRAIGHT 1/4"-28	1	
6@	21208	SPIDER PLATE, 5 BLADE R.S. 1.5, SILVER	1	
7#	12316	BUSHING, THRUST COLLAR W/ HOLE	1	
8@	1322	SCREW, ARM RETAINING	5	
9@	1875	WASHER, INT. SHKP, 3/8"	5	
10	12687	KEY, 3/8" X 2" SQUARE	1	
11@	12097	SCREW, SQHS 3/8"-16 X 1-3/4" CONE GRD 8	2	
12@	1456	NUT, HEX FINISH 3/8"-16	2	
13@	11039	BUSHING, TROWEL LARGE ARM	10	
14@	11602	SCREW, HHS 3/8"-16 X 1/4"	5	
15@	2143	SPRING, RS H ARM RETURN STD. BOSS	5	
16@	0164 B	SCREW, HHC ROUNDED 3/8"-16	5	
17@	1876	NUT, HEX JAM 3/8"-16	5	
18@	0166 A	WASHER, LOCK, 3/8" MED.	5	
19@	11904-1	LEVER, TROWEL ARM, RIGHT, SILVER	5	
20@	9006	PIN, ROLL 5/16" X 2", NO PLATE	5	
21@	2829-1	ARM, TROWEL HD EXTENDED, SILVER	5	
22	12933	SPIDER ASSY. 5 BLADE R.S. 1-1/2"	1	INCLUDES ITEMS W/@
23	20938	THRUST COLLER ASSY.	1	INCLUDES ITEMS W/#
24	1477	LOCTITE™ #242 BLUE 0.5 CC BOTTLE	AR	

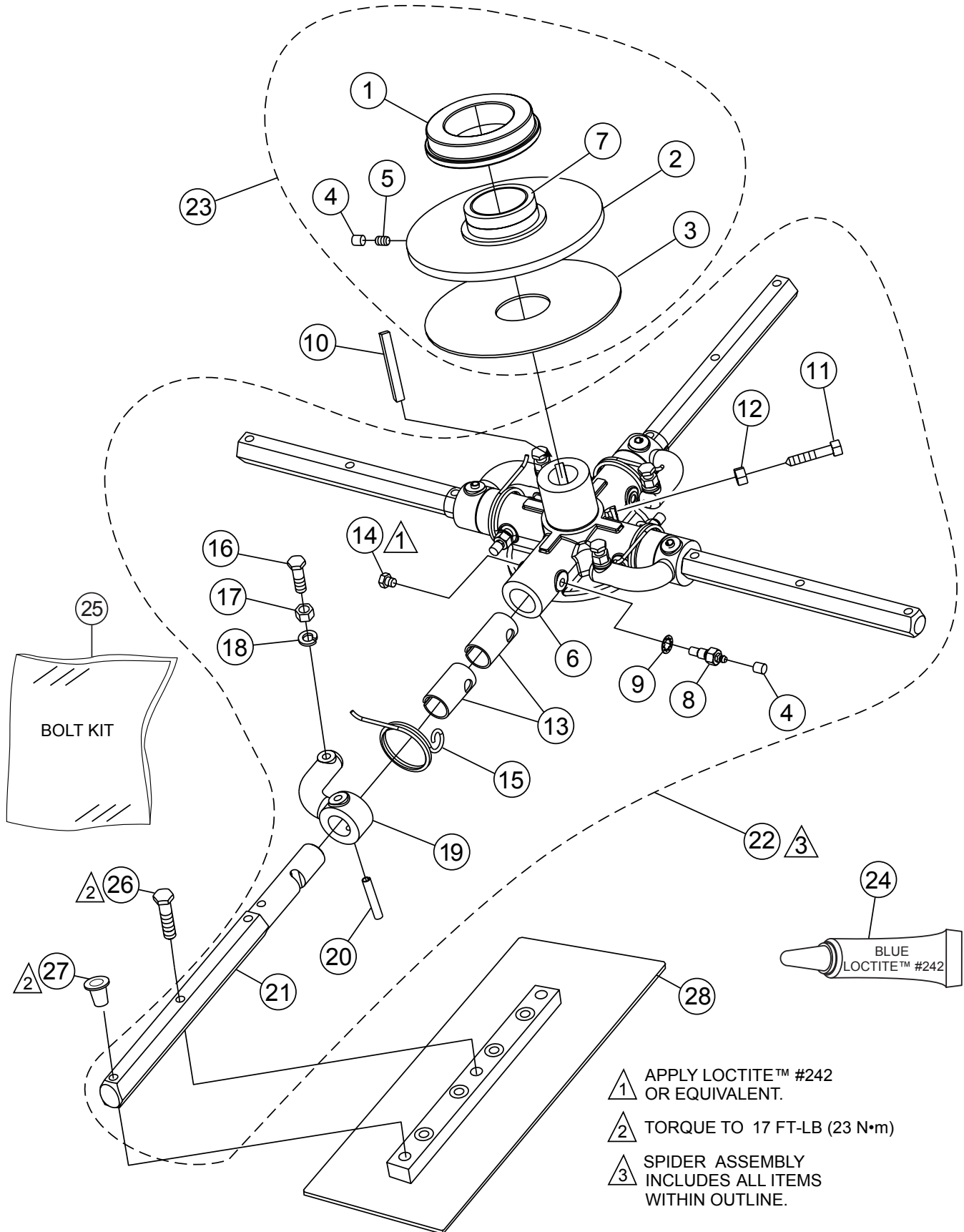
4-BLADE SPIDER ASSY. (LEFT)



4-BLADE SPIDER ASSY. (LEFT)

NO.	PART NO.	PART NAME	QTY.	REMARKS
1#	12779	BEARING, THRUST 6017-24S W/FLANGE	1	
2#	11431	THRUST COLLAR W/BUSHING	1	INCLUDES ITEMS W/\$
3#	11419	PLATE, WEAR	1	
4#@	1162 A	CAP, GREASE ZERK, #2 YELLOW	5	
5#	2621	FITTING, GREASE ZERK STRAIGHT 1/4"-28	1	
6@	11987X-SK	SPIDER PLATE, SERVICE KIT 4-BLADE MODIFIED	1	
7#\$	12316	BUSHING, THRUST COLLAR W/ HOLE	1	
8@	1322	SCREW, ARM RETAINING	4	
9@	1875	WASHER, INT. SHKP, 3/8"	4	
10	12687	KEY, 3/8" X 2" SQUARE	1	
11@	12097	SCREW, SQHS 3/8"-16 X 1-3/4" CONE GRD 8	2	
12@	1456	NUT, HEX FINISH 3/8"-16	2	
13@	11039	BUSHING, TROWEL LARGE ARM	8	
14@	11602	SCREW, HHC 3/8"-16 X 1/4"	4	
15@	11595	SPRING, LS H ARM RETURN LARGE BOSS	4	
16@	0164 B	SCREW, HHC ROUNDED 3/8"-16	4	
17@	1876	NUT, HEX JAM 3/8"-16	4	
18@	0166 A	WASHER, LOCK, 3/8" MED.	4	
19@	11903-1	LEVER, TROWEL ARM, LEFT, SILVER	4	
20@	9006	PIN, ROLL 5/16" X 2" NO PLATE	4	
21@	2829-1	ARM, TROWEL HD EXTENDED, SILVER	4	
22	12934X	SPIDER T/COLLAR ASSY., 4 BLADE, L.S.....	1	INCLUDES ITEMS W/@
23	20938	THRUST COLLAR ASSY.....	1	INCLUDES ITEMS W/#
24	60091	LOCTITE™ #242 BLUE 0.5 CC BOTTLE	AR	
25@	23643	KIT, BOLT SAE BLADE.....	1	INCLUDES ITEMS W/%
26%	22174	SCREW, HHFS, 5/16"-18 X 1-3/4" GRD 5	34	
27%	1434	PLUG, BLADE	10	
28		BLADE ASSEMBLY	4	CONTACT UNIT SALES DEPT.

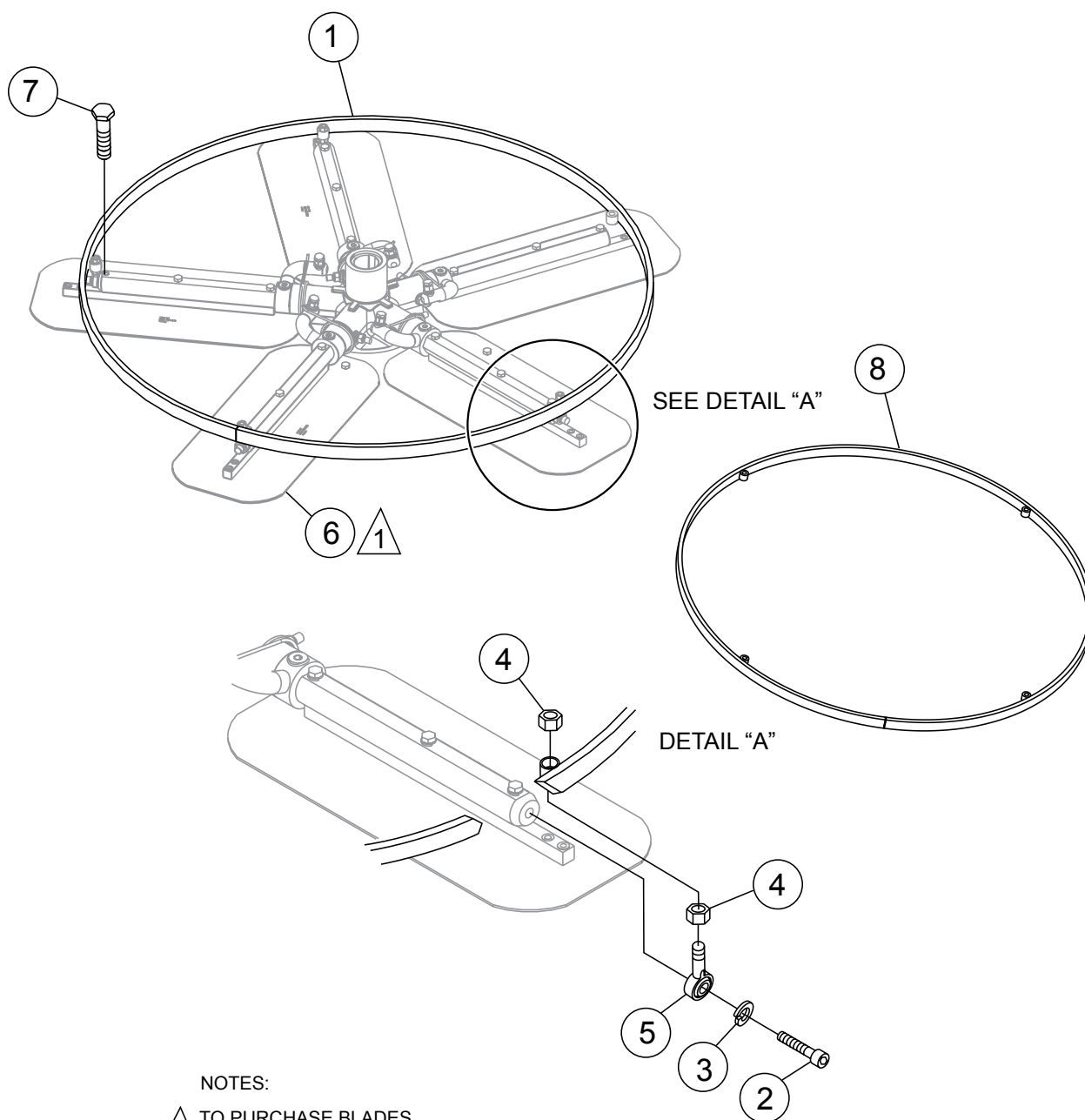
4-BLADE SPIDER ASSY. (RIGHT)



4-BLADE SPIDER ASSY. (RIGHT)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#	12779	BEARING, THRUST 6017-24S W/FLANGE	1	
2#	11431	THRUST COLLAR W/BUSHING	1	INCLUDES ITEMS W/\$
3#	11419	PLATE, WEAR	1	
4#@	1162 A	CAP, GREASE ZERK, #2 YELLOW	5	
5#	2621	FITTING, GREASE ZERK STRAIGHT 1/4"-28	1	
6@	11987X-SK	SPIDER PLATE, SERVICE KIT 4-BLADE MODIFIED	1	
7#\$	12316	BUSHING, THRUST COLLAR W/ HOLE	1	
8@	1322	SCREW, ARM RETAINING	4	
9@	1875	WASHER, INT. SHKP, 3/8"	4	
10	12687	KEY, 3/8" X 2" SQUARE	1	
11@	12097	SCREW, SQHS 3/8"-16 X 1-3/4" CONE GRD 8	2	
12@	1456	NUT, HEX FINISH 3/8"-16	2	
13@	11039	BUSHING, TROWEL LARGE ARM	8	
14@	11602	SCREW, HHC 3/8"-16 X 1/4"	4	
15@	11594	SPRING, RS H ARM RETURN LARGE BOSS	4	
16@	0164 B	SCREW, HHC ROUNDED 3/8"-16	4	
17@	1876	NUT, HEX JAM 3/8"-16	4	
18@	0166 A	WASHER, LOCK, 3/8" MED.	4	
19@	11904-1	LEVER, TROWEL ARM, RIGHT, SILVER	4	
20@	9006	PIN, ROLL 5/16" X 2" NO PLATE	4	
21@	2829-1	ARM, TROWEL HD EXTENDED, SILVER	4	
22	12935X	SPIDER T/COLLAR ASSY., 4 BLADE, R.S	1	INCLUDES ITEMS W/@
23	20938	THRUST COLLAR ASSY.....	1	INCLUDES ITEMS W/#
24	60091	LOCTITE™ #242 BLUE 0.5 CC BOTTLE	AR	
25@	23643	KIT, BOLT SAE BLADE.....	1	INCLUDES ITEMS W/%
26%	22174	SCREW, HHFS, 5/16"-18 X 1-3/4" GRD 5	34	
27%	1434	PLUG, BLADE	10	
28		BLADE ASSEMBLY	4	CONTACT UNIT SALES DEPT.

STABILIZER RING ASSY.

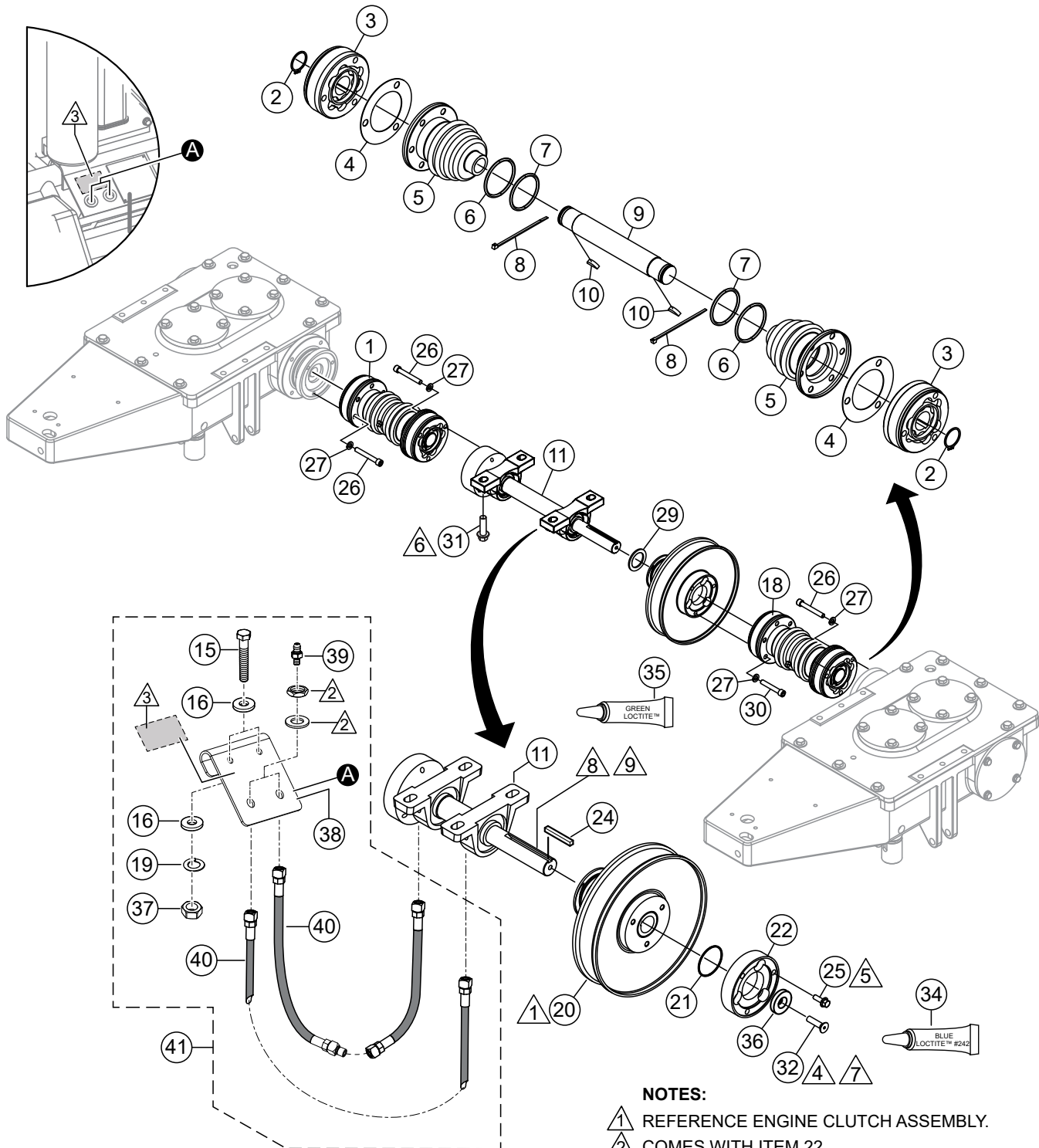


NOTES:

1 TO PURCHASE BLADES
CONTACT UNIT SALES DEPT.

STABILIZER RING ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12095	RING, STABILIZER.....	2.....	5 BLADE ONLY
2	1237	SCREW, SHC 5/16"-18 X 7/8" NYLOC	10	
3	0300 B	WASHER, FLAT, SAE 5/16"	10	
4	6014 C	NUT, HEX FINISH 5/16"-24	20	
5	1723	ROD END, 5/16"-24 MALE RH	10	
6		BLADE ASSY.	10.....	CONTACT UNIT SALES DEPT.
7	22174	SCREW, HHFS 5/16"-18 X 1-3/4" GRD 5	30	
8	9148	RING, STABILIZER.....	2.....	4 BLADE ONLY



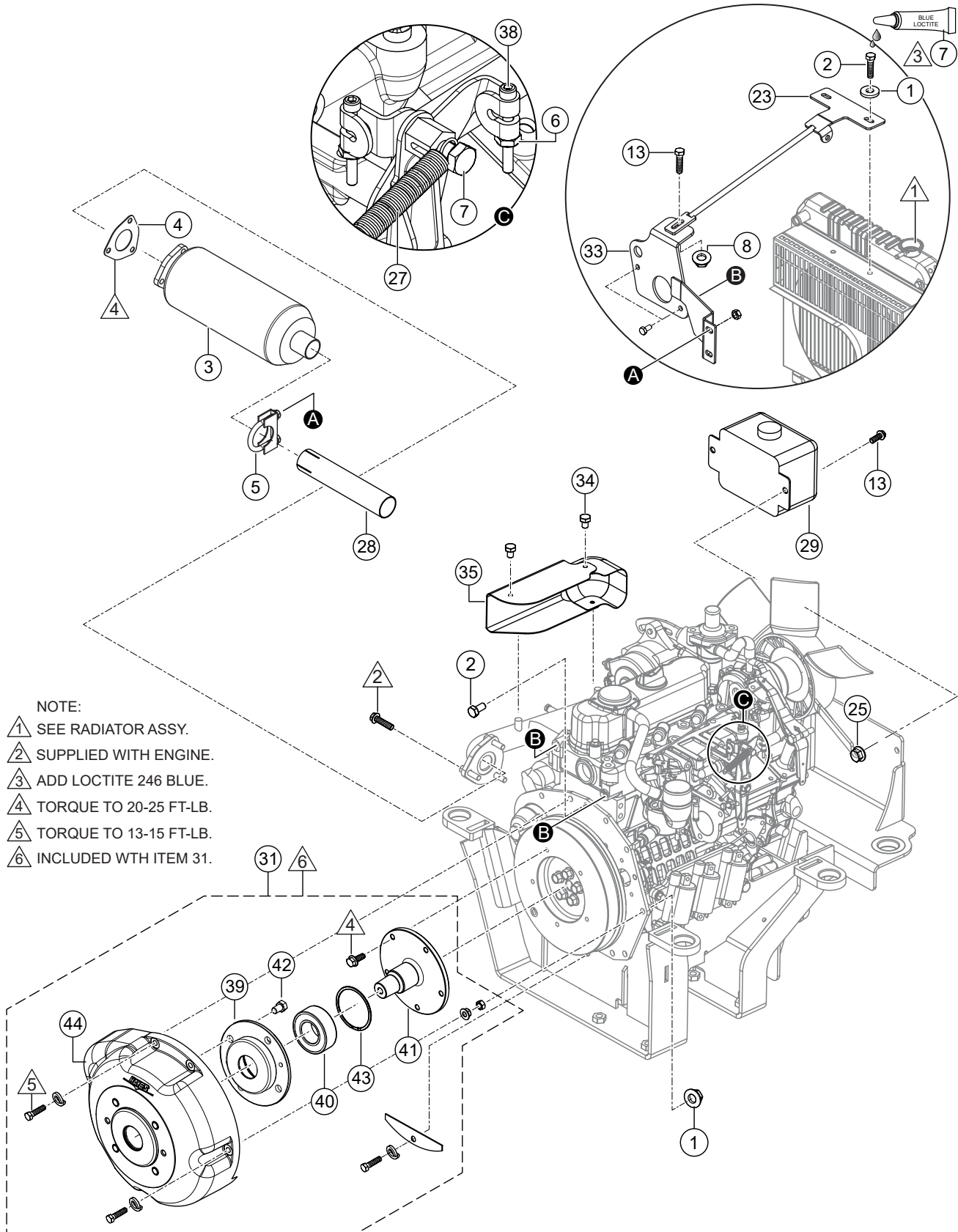
NOTES:

- ① REFERENCE ENGINE CLUTCH ASSEMBLY.
- ② COMES WITH ITEM 22.
- ③ SEE DECAL PAGE.
- ④ TORQUE TO 15 FT-LBF
- ⑤ TORQUE TO 10 FT-LBF
- ⑥ TORQUE TO 70 FT-LBF
- ⑦ ADD LOCTITE™ 242 BLUE.
- ⑧ ADD LOCTITE™ 641 GREEN.
- ⑨ ADD LOCTITE™ 7649 PRIMER.

DRIVE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	23779	SHAFT, DRIVE CV JOINT ASSY., RIGHT	1	INCLUDES ITEMS W/@
2@ ♦	2090	SNAP RING, 1.062 DIA. X .056	2	
3@ ♦	392052	C.V. JOINT, COUPLING	2	
4@ ♦	11108	GASKET, C.V. JOINT BOOT RIDERS	2	
5@ ♦	2259	BOOT ASSY., C.V. JOINT RIDERS	2	INCLUDES ITEMS W/#
6@# ♦	22219	O-RING, SIZE 2-228N-90 2.25 DIA. X .125	2	
7@# ♦	22220	O-RING, SIZE 2-225N-90 1.875 DIA. X .125	2	
8@ ♦	1662	TIE, CABLE TY-RAP BLACK	2	
9@ ♦	23778	SHAFT, C.V. JOINT 7.45LG	1	
10@ ♦	0126	KEY, WOODRUFF #606 3/16" X 3/4" (#9)	2	
11	30357-SK	DRIVE, CROSS SHAFT ASSY.	1	INCLUDES ITEMS W/%
15\$	0424	SCREW, HHC, 1/4"-20 X 1-1/4"	1	
16\$	0984	WASHER, FLAT SAE 1/4"	4	
18	23477	CV JOINT ASSY.	1	INCLUDES ITEMS W/♦
19\$	0181 B	WASHER, LOCK 1/4" MED.	2	
20	40141	CVT, LOWER DRIVEN UNIT, SERVICE KIT	1	
21\$	20116	O-RING, SIZE-031 BUNA N	1	
22	23420	COUPLER, DRIVEN CCVT	1	
24%	20363	KEY, STEEL .188 X .250 X 2.5	1	
25	9165	SCREW, HHFS 1/4"-28 X 3/4" GRD 5	4	
26	2186	SCREW, SHC 5/16"-16 X 2-1/4"	9	
27	0161 C	WASHER, LOCK, 5/16" MED.	4	
29	11773	SHIM, SS INT NOTCH 1" ID. X 1-1/2" OD.	1	
30	0243	SCREW, SHC 5/16"-18 X 1-3/4"	3	
31	9199	SCREW, HFS, M10-1.5 X 35 GRD 8.8	4	
32%	30107	SCREW, FHSC 3/8"-16 X 1.25 LH	1	
34	1477	LOCTITE™ #242 BLUE 0.5 CC BOTTLE	AR	
35	32434	LOCTITE™ 1/2" ML GREEN	AR	
36%	2037	SPACER, CSK 1.375 DIA. X .328 DIA. X .250	1	
37\$	10024	NUT, NYLOC, 1/4"-20	2	
38\$	23924	BRACKET, REMOTE GREASE ZERK	1	
39\$	2621	FITTING, GREASE ZERK STRAIGHT 1/4"-28	2	
40\$	23943	TUBING, REMOTE GREASE LINE, W/ FITTINGS	2	
41	23947	KIT, GREASE LINE.....	1	INCLUDES ITEMS W/\$

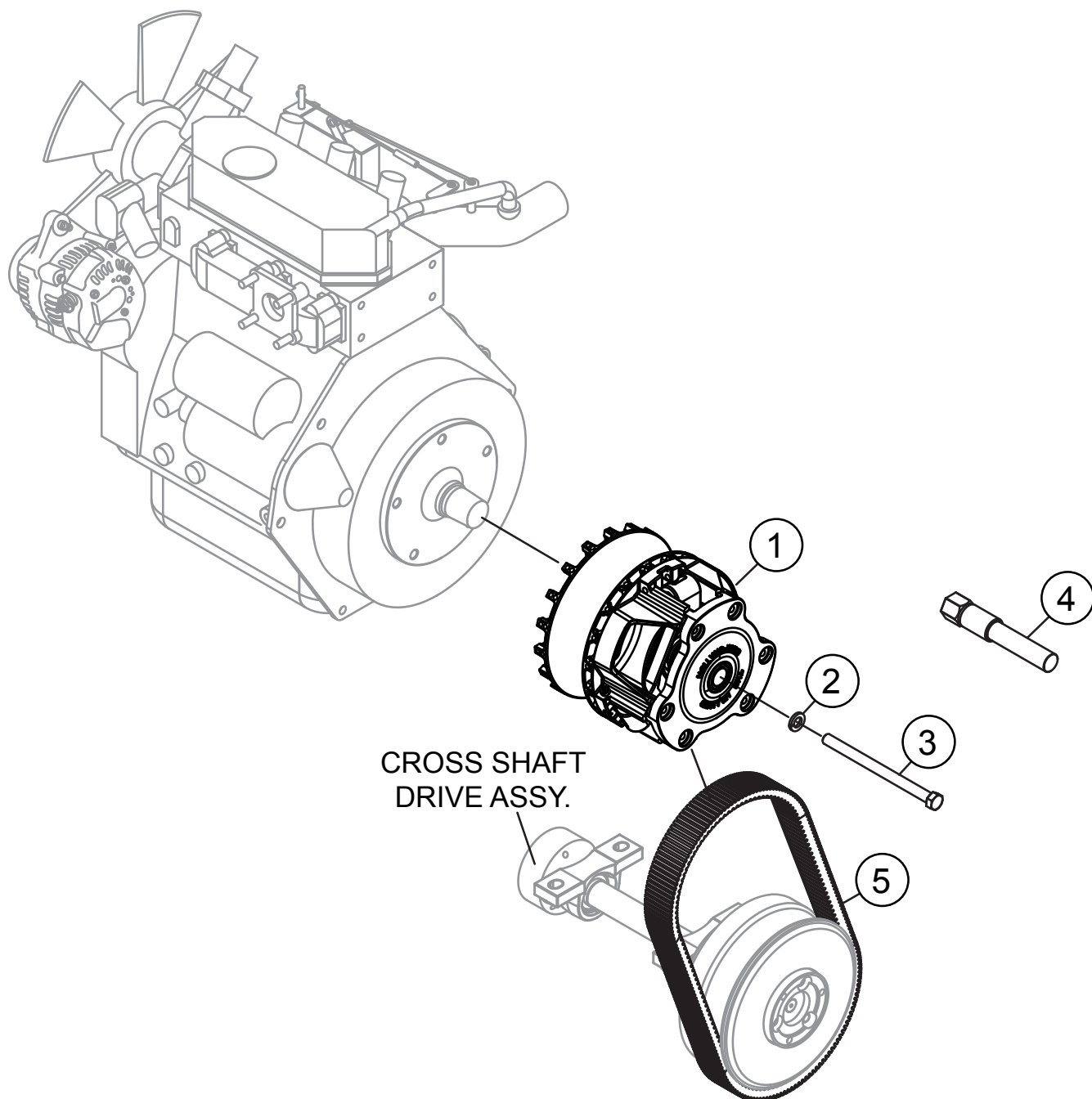
ENGINE ASSY.



ENGINE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0300 B	WASHER, FLAT SAE 5/16"	2	
2	2299	SCREW, HHC M8-1.25 X 16 MM	4	
3	23725-12	CATALYTIC MUFFLER, KIT	1	
4	23725-13	GASKET, MUFFLER	1	
5	10855	CLAMP, 1-1/2" MUFFLER	1	
6	11152	NUT, NYLOC 6-32	2	
7	12464	SCREW, HHC M6-1.0 X 16 MM	1	
8	15227	NUT, HEX FLANGED M8-1.25 GRD 10	2	
13	22021	SCREW, HEX FLANGE M8-1.25 X 20 MM GRD 10.9	13	
23	23774	BRACKET, UPPER RADIATOR SUPPORT	1	
25	23802	NUT, HEX FLANGE M8-1.25 SERRATED	2	
27	23826	SPRING	1	
28	23863	TIP, MUFFLER EXTENSION	1	
29	23869	TANK, 1.0 QUART	1	
31	30352	STUBSHAFT, HAYES ASSY., WG972.....	1	INCLUDES ITEMS W/#
33	30430	BRACKET, MUFFLER SUPPORT	1	
34	30447	SCREW, HHC M6-1 X 8 MM	4	
35	30444	SHIELD, HEAT, WG972	1	
38	37766	SCREW, SHC 6-32 X 1.25	2	
39#	30352-01	HOUSING, BEARING	1	
40#	30352-02	BEARING, DOUBLE	1	
41#	30352-04	SHAFT, STUB	1	
42#		BOLT, 1/2" X 3/4" HHB ZD.....	4	NOT SOLD SEPARATELY
43#	30352-03	RING, SNAP	1	
44#		HOUSING.....	1	NOT SOLD SEPARATELY

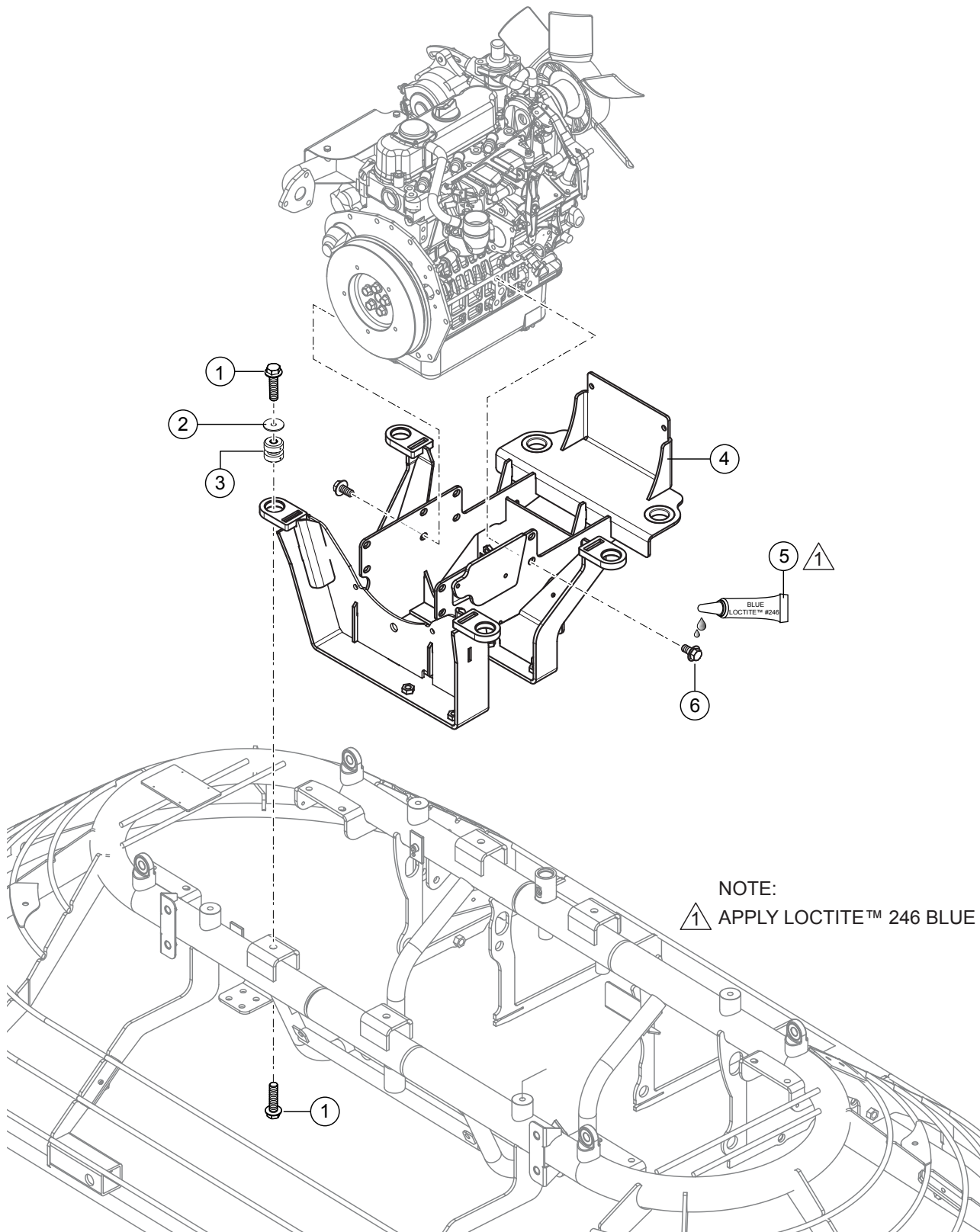
ENGINE CLUTCH ASSY.



ENGINE CLUTCH ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	32642	CLUTCH, UPPER DRIVE	1	
2	23369	WASHER, STEP-7/16" HILLIARD	1	
3	23377	SCREW, HHC 7/16"-20 X 6.5" GRD 8	1	
4	23678	PULLER, HILLIARD CVT	1	
5	23365	BELT, CVT CLUTCH	1	

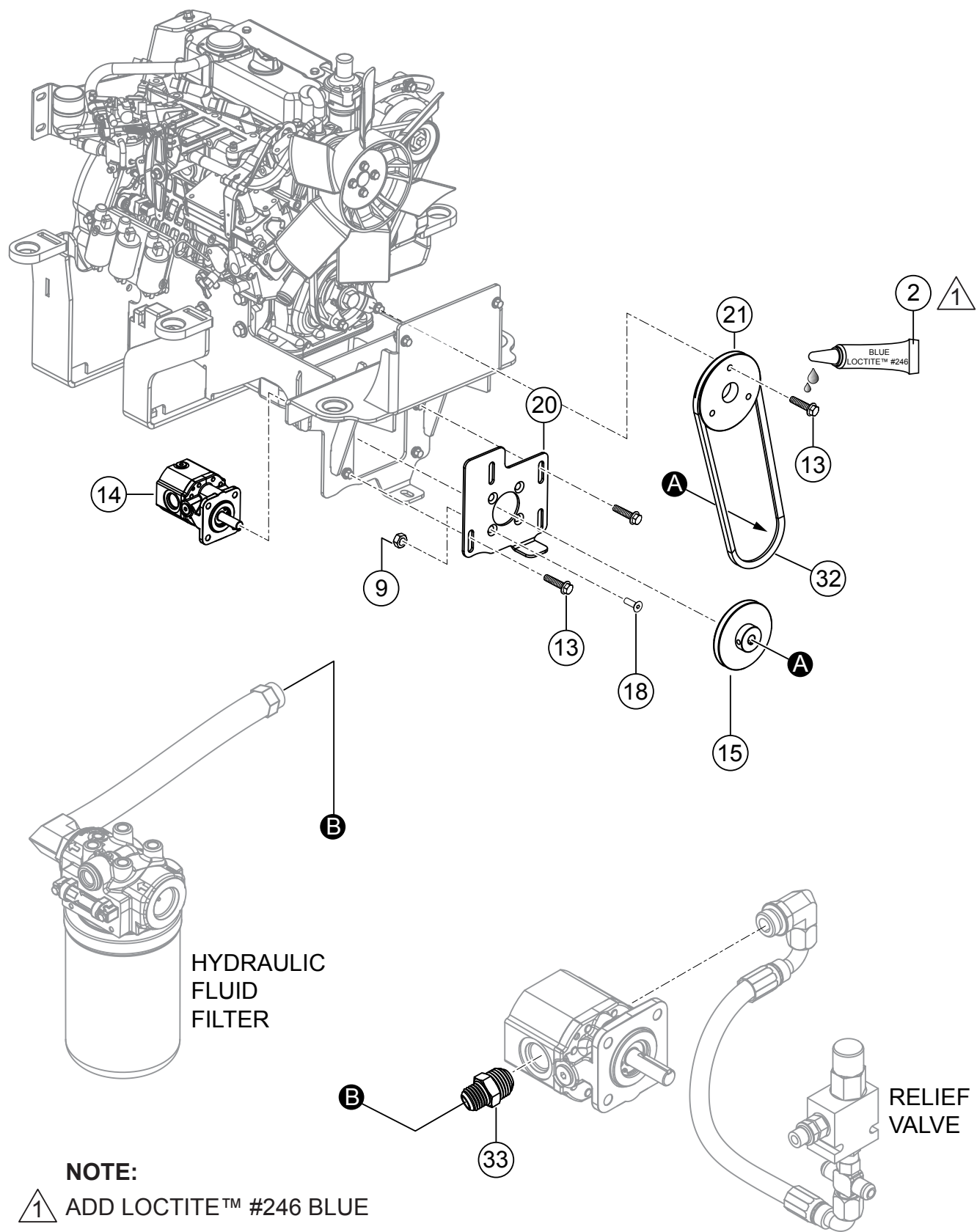
ENGINE MOUNT ASSY.



ENGINE MOUNT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	9176	SCREW, HHF M12-1.75 X 80 GRD 10.9	4	
2	20743	WASHER, ISO SNUB	4	
3	23201-2	ISOLATOR, ARMOR PLATED UNIVERSAL (RED)	4	
4	23750	MOUNT, ENGINE	1	
5	60097	LOCTITE™ #246 BLUE	AR	
6	23767	SCREW, HHF M10-1.25 X 20 MM GRD 10.9	12	
7	9161	NUT, HEX FLANGED, M12-1.75 GRD 8	4	

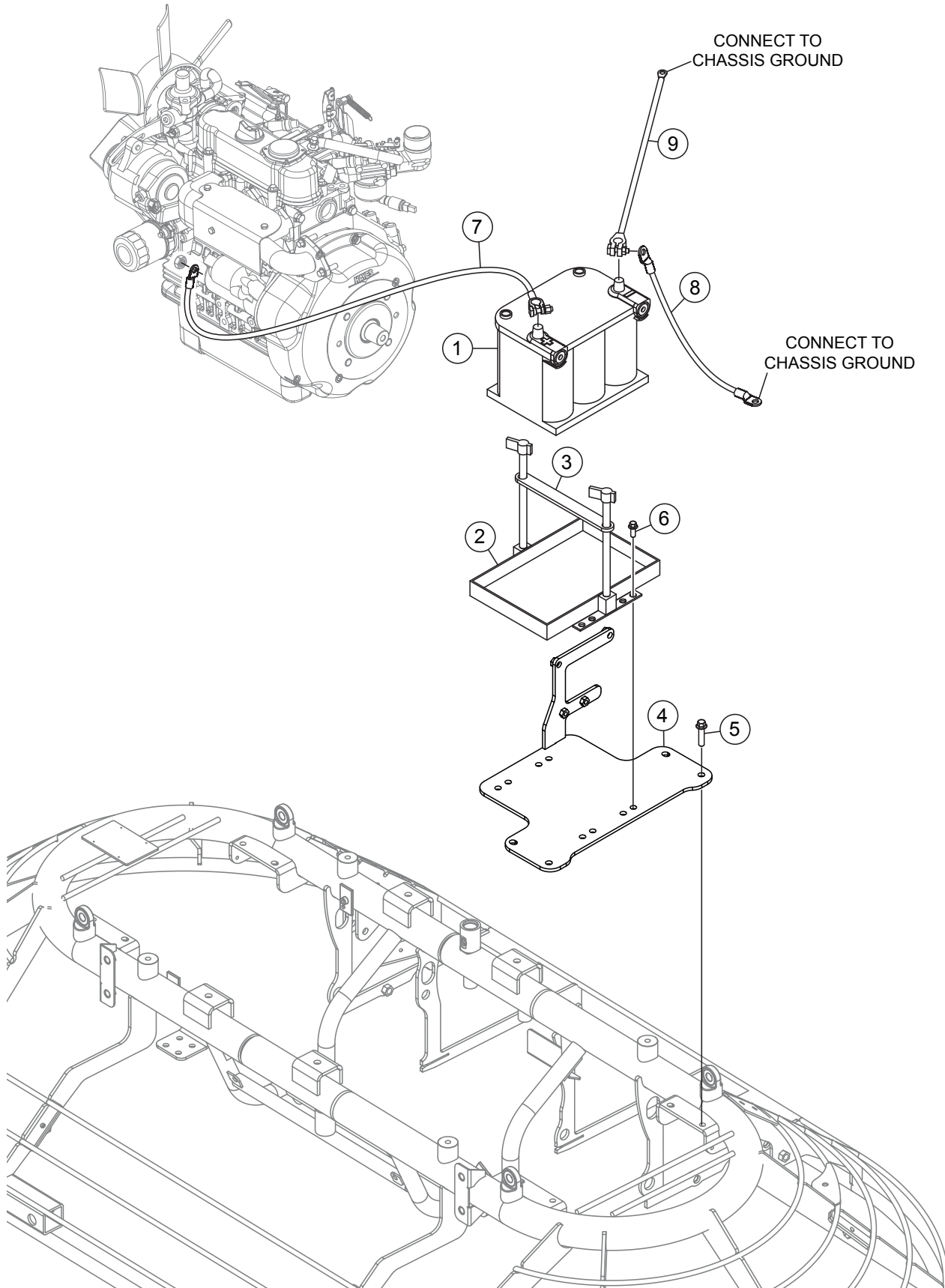
HYDRAULIC PUMP ASSY.



HYDRAULIC PUMP ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	60097	LOCTITE™ #246 BLUE	AR	
9	20440	NUT, HEX M8-1.25	4	
13	22021	SCREW, HHFS M8-1.25 X 20 MM	7	
14	23304	PUMP, HYDRAULIC, 4 BOLT	1	
15	23324	PULLEY, HYDRAULIC PUMP DRIVEN	1	
18	23746	SCREW, FHSC M8-1.25 X 20 SS	4	
20	23756	BRACKET, GEAR PUMP MOUNT	1	
21	23757	PULLEY, HYDRAULIC PUMP DRIVE	1	
32	16052	BELT, 3VX335	1	
33	32342	FITTING, STRAIGHT 10MORFS X 10MOR	1	

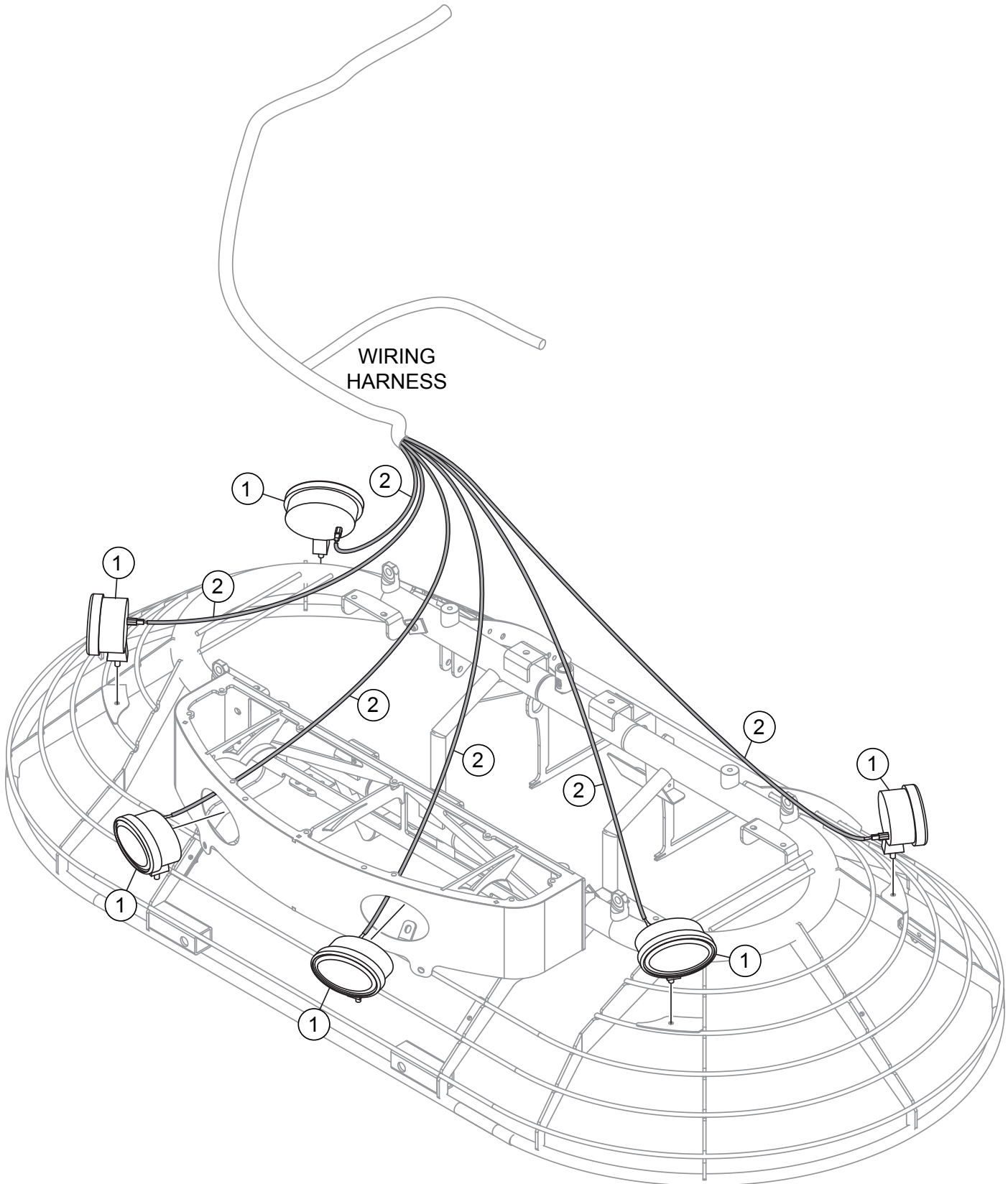
BATTERY ASSY.



BATTERY ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	404006	BATTERY, OPTIMA	1	
2	29661	TRAY, BATTERY	1	
3	23274	TIE DOWN BAR, BATTERY	1	
4	23356	PLATE, BATTERY	1	
5	22106	SCREW, HHFS 3/8"-16 X 1.25	4	
6	22021	SCREW, HHFS M8-1.25 X 20 MM	4	
7	19303	CABLE, BATTERY POS. 4GA X 48" POST	1	
8	1597	CABLE, BATTERY NEG. 4GA X 16.5"	1	
9	12278	CABLE, BATTERY NEG. POST 4GA X 32 X 3/8" RTL	1	

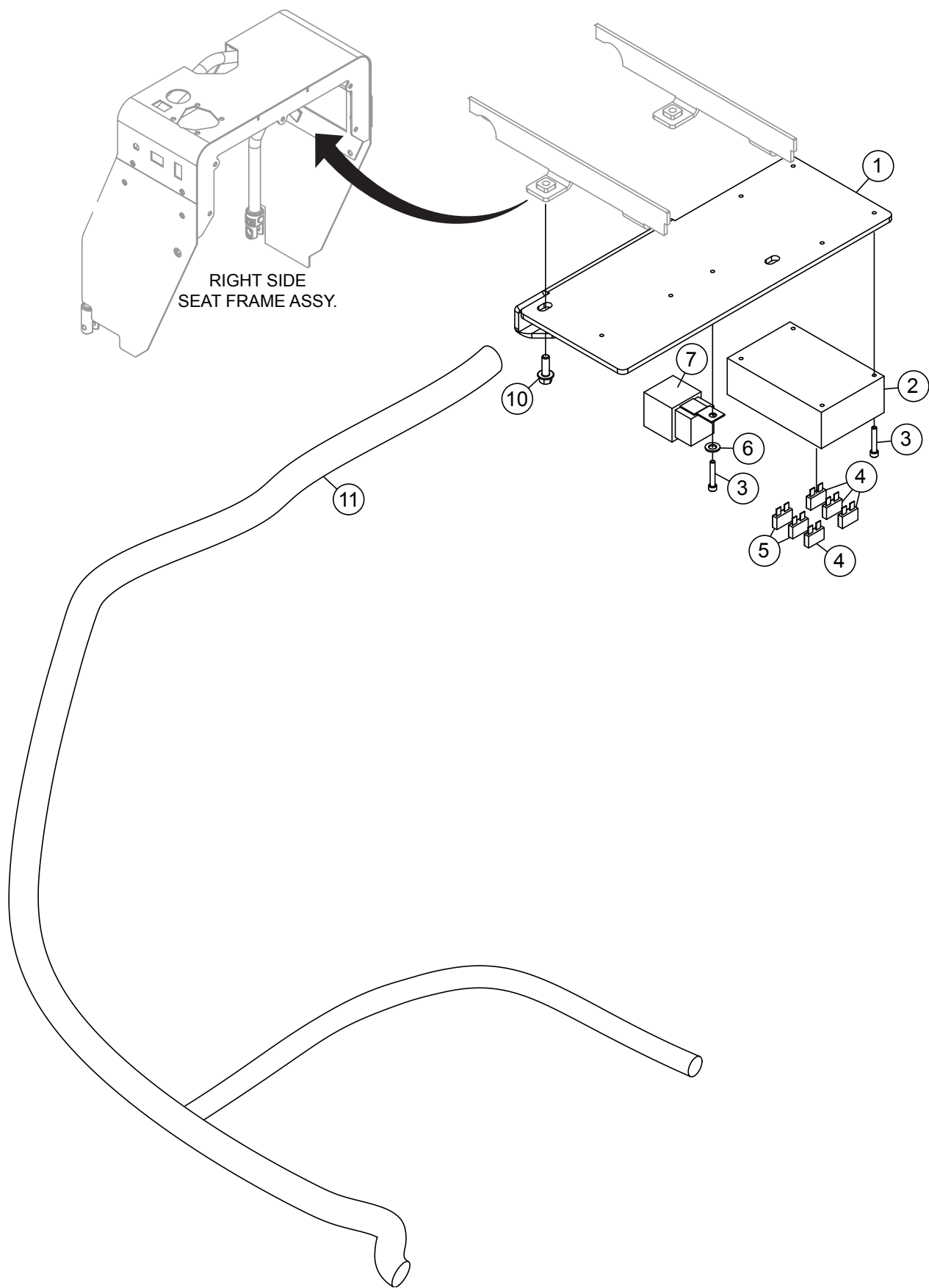
LIGHTS ASSY.



LIGHTS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	32640	LIGHT, LED 20W, OVAL	6	
2	23192	WIRE HARNESS, HELLA LIGHT	6	

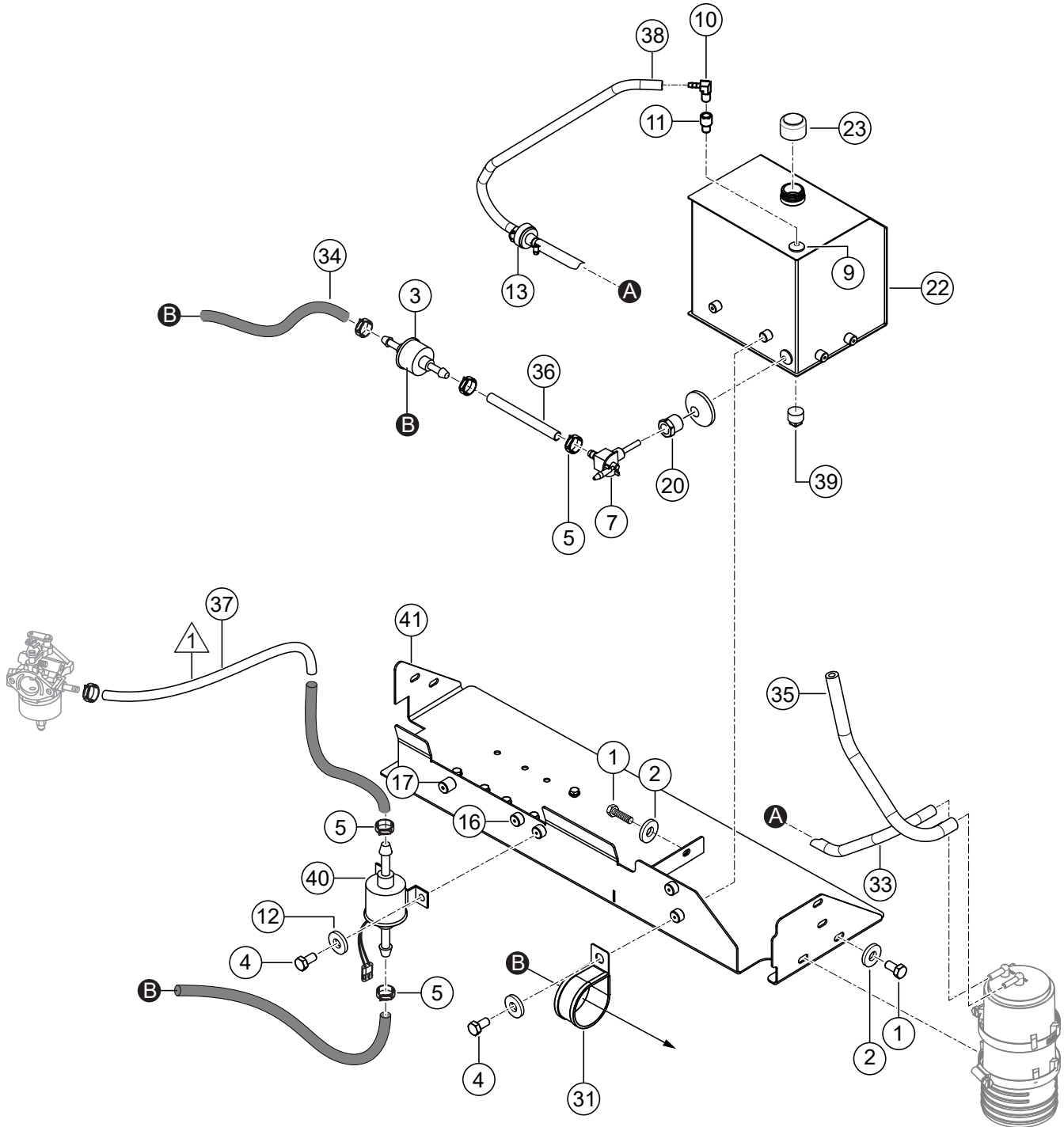
ELECTRICAL ASSY.



ELECTRICAL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	23846	PLATE, FUSE MOUNT	1	
2	22426	BLOCK, TERMINAL FUSE	1	
3	923118	SCREW, SHC 8-32 X 1	8	
4	23284-030	FUSE, 3 AMP. ATC/ATO	4	
5	23284-050	FUSE, 5 AMP. ATC/ATO	2	
5A	23284-075	FUSE, 7.5 AMP. ATC/ATO	1	
5B	23284-150	FUSE, 15 AMP. ATC/ATO	2	
5C	23284-200	FUSE, 20 AMP. ATC/ATO	1	
6	2203	WASHER, FLAT, #10	1	
7	12017	RELAY, KILL	4	
10	49048	SCREW, HHFS 1/4"-20 X 3/4" GRD 5	2	
11	23853	HARNESS, WIRING, MAIN FRAME	1	

FUEL TANK ASSY.



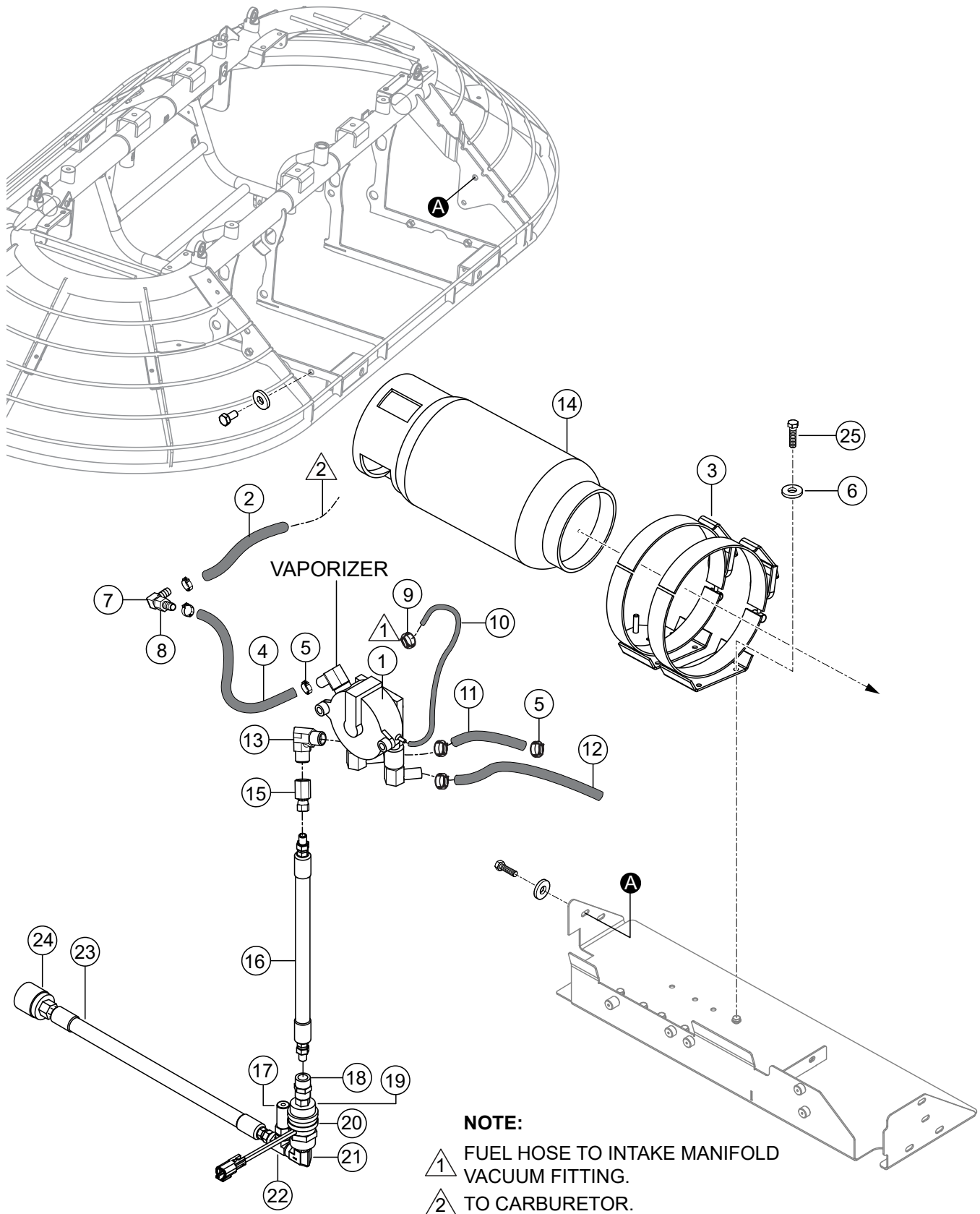
NOTE:

1 TO CARBURETOR PURGE PORT CONNECTION.

FUEL TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	2866	SCREW, HHC M8-1.25 X 20MM GRD 8	4	
2	933213	FENDER 5/16" X 1 ZN	4	
3	23725-16	FILTER, FUEL	1	
4	12464	SCREW, HHC M6-1.0 X 16 MM	5	
5	22067	CLAMP, STEPLESS EAR 1/4 HOSE #13.8	12	
7	22081	SHUTOFF VALVE, 1/4 NPT, 1/4 HOSE	1	
9	23507	GROMMET, ROLL OVER VALVE	1	
10	22082	FITTING, BRASS 90 4BARB -1/4MP	1	
11	32591	FITTINGS, BRASS 1/4 NPT X .063" ORIF.	1	
12	25334	WASHER, FLAT 1/4 USS	5	
13	23725-19	2-WAY CHECK VALVE	1	
16	30013	BOSS, THREADED, M6 X 1.0	1	
17	30415	BOSS, M6, 1" LONG	1	
20	30384	FITTING, 1/4 MNPT X 1/4 FNPT	1	
22	30386	FUEL TANK, GASOLINE 9.5 GAL	1	
23	30422	CAP, RATCHET W/ GAUGE, GAS	1	
31	29796	CLAMP, LOOP 2.0" X .53 HOLE	1	
33	60013	HOSE, FUEL .250 D 50 PSI LOW PERM, 1.2'2.....	1PC=1FT	
34	60013	HOSE, FUEL .250 D 50 PSI LOW PERM, 1.5'2.....	1PC=1FT	
35	60013	HOSE, FUEL .250 D 50 PSI LOW PERM, 3.4'4.....	1PC=1FT	
36	60013	HOSE, FUEL .250 D 50PSI LOW PERM, 0.5'1.....	1PC=1FT	
37	60013	HOSE, FUEL .250 D 50 PSI LOW PERM, 1.8'2.....	1PC=1FT	
38	60013	HOSE, FUEL .250 D 50 PSI LOW PERM, 1.5'2.....	1PC=1FT	
39	911329	FITTING, PLUG,MAGNETIC, 3/8" NPT	1	
40	30433	PUMP, FUEL ASSEMBLY	1	
41	30362	TRAY, DUAL FUEL	1	

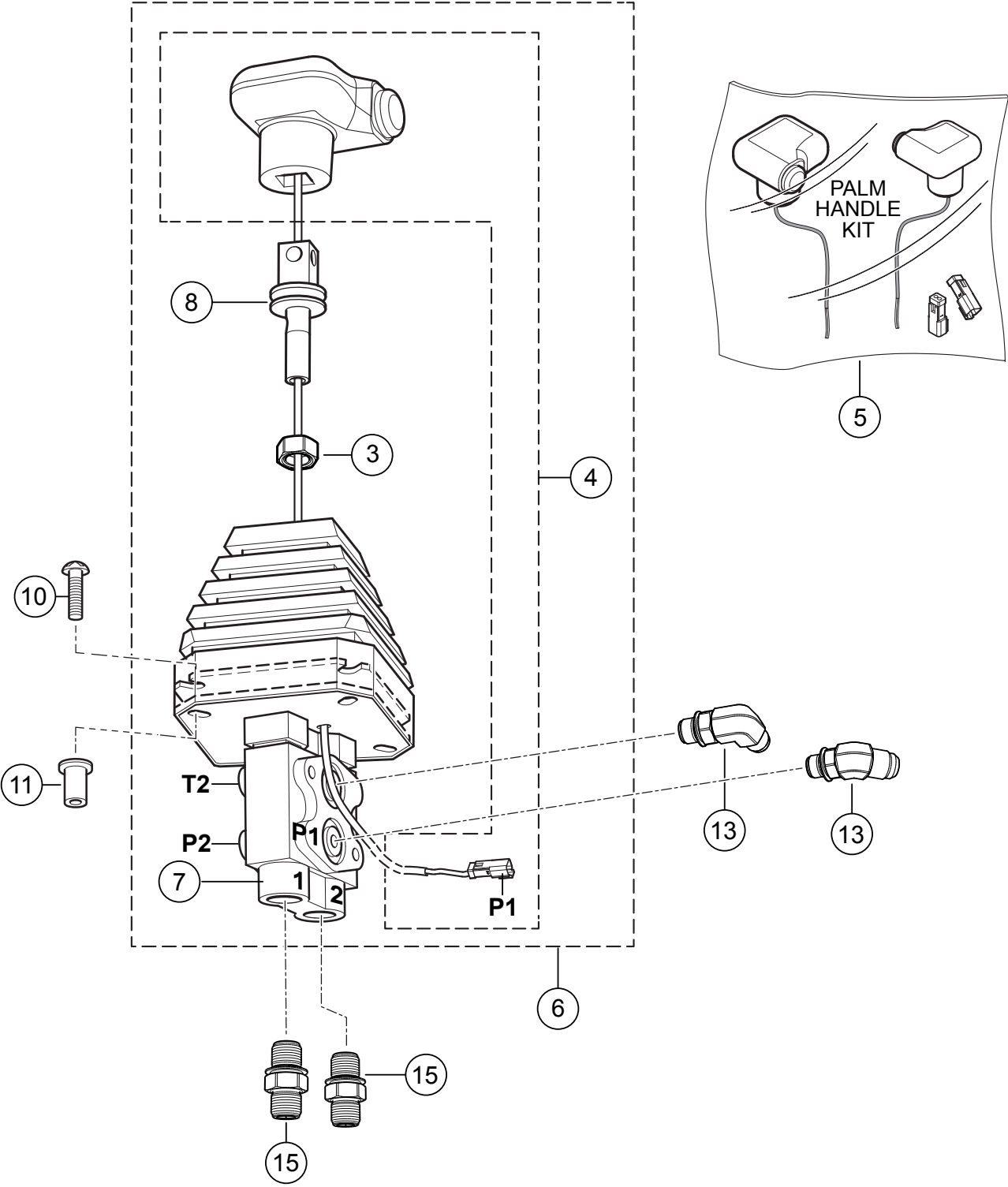
LPG TANK ASSY.



LPG TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	23725-09	VAPORIZER ASSEMBLY	1	
2	60072	HOSE, FUEL Ø.50 LOW PERM 35 PSI .34'	1	1PC=1FT
3	30427	BRACKET, PROPANE, LOW PROFILE	1	
4	60072	HOSE, FUEL Ø.50 LOW PERM 35 PSI .46'	1	1PC=1FT
5	32834	CLAMP, OETIKER STEPLESS EAR - 20 MM	6	
6	21707	WASHER, FLAT-3/8" NORDLOC	8	
7	32835	FITTINGS, 90° BRASS 1/2" BARB X 3/8" MNPT	1	
8	32836	FITTINGS, STRAIGHT BRASS 1/2" BARB X 3/8" FNPT	1	
9	22066	CLAMP, STEPLESS EAR 3/16"	2	
10	60004	HOSE, FUEL .187 DIA. 50PSI LOW PERM	1	1PC=1FT
11	30025	HOSE, HOT WATER, .375 DIA. 200 PSI 1.34'	1	1PC=1FT
12	30025	HOSE, HOT WATER, .375 DIA. 200 PSI .84'	1	1PC=1FT
13	32833	FITTING, 90°-4MJX-4MBSPT	1	
14	30006	TANK, PROPANE, 33.5# FORKLIFT, STYLE	1	
15	32832	FITTING, STR -4FJX-4FP	1	
16	32826	HOSE ASSEMBLY, 1/4" ID. LPG X 20.5", 2 X 1/4MP	1	
17	42200	VALVE, PRESSURE RELIEF-LP	1	
18	46106	FITTING, COUPLING 1/4" FP X 1/4" FP	1	
19	30434	SOLENOID, PROPANE ASSEMBLY	1	
20	30017	CLAMP, LOOP CUSHIONED #20 0.25 HOLE	1	
21	8053	FITTING, 90° 1/4MP X 1/4FP	1	
22	26260	FITTING, TEE 1/4MP-1/4FP-1/4FP RUN	1	
23	32830	HOSE ASSY., 1/4" ID LPG X 14.0", 2 X 1/4MP	1	
24	30007	CONNECTOR, FORKLIFT PROPANE TANK, FEMALE	1	
25	30449	SCREW, HHC, M10-1.5 X 30MM		

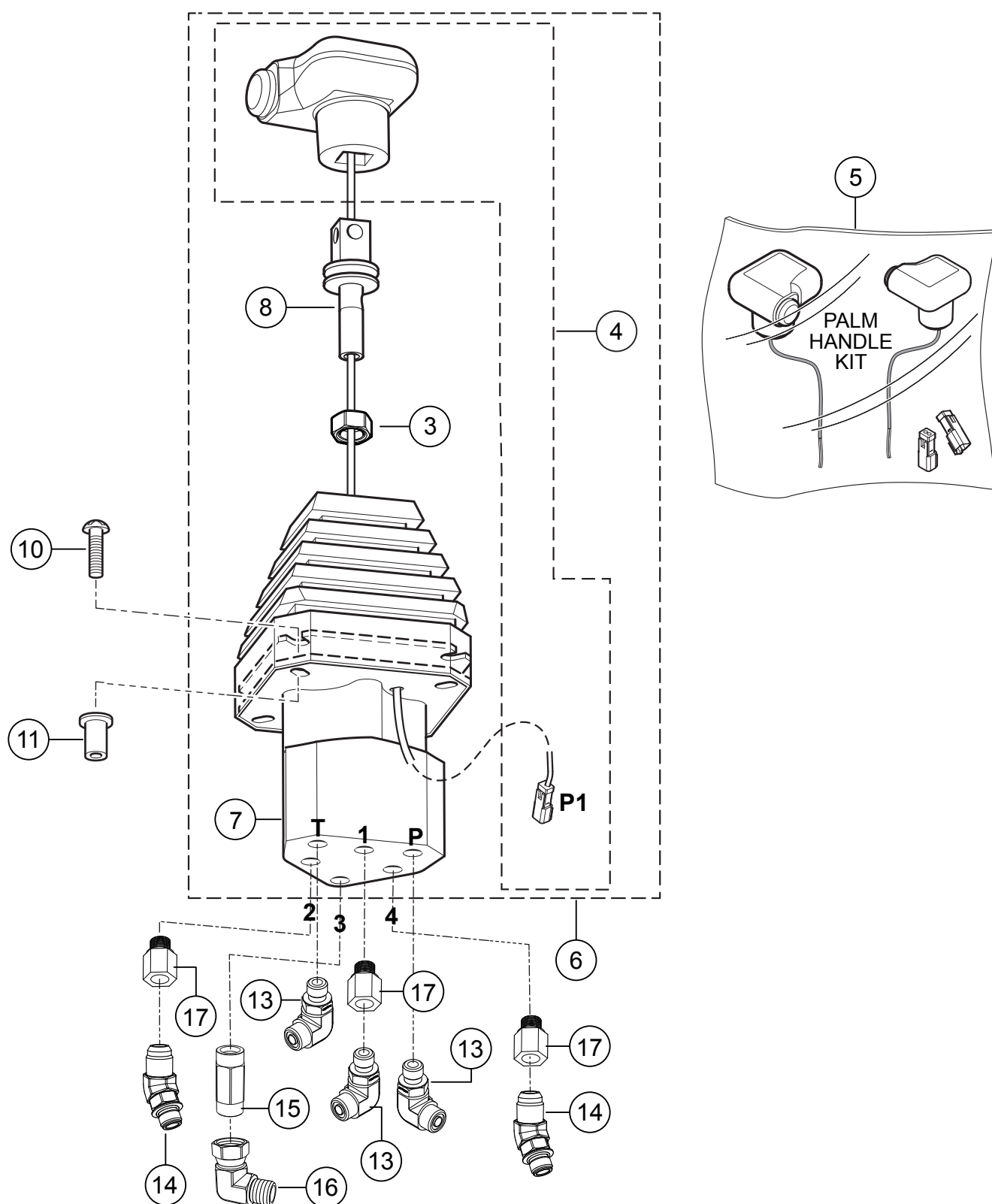
LEFT-HAND VALVE ASSY.



LEFT-HAND VALVE ASSY.

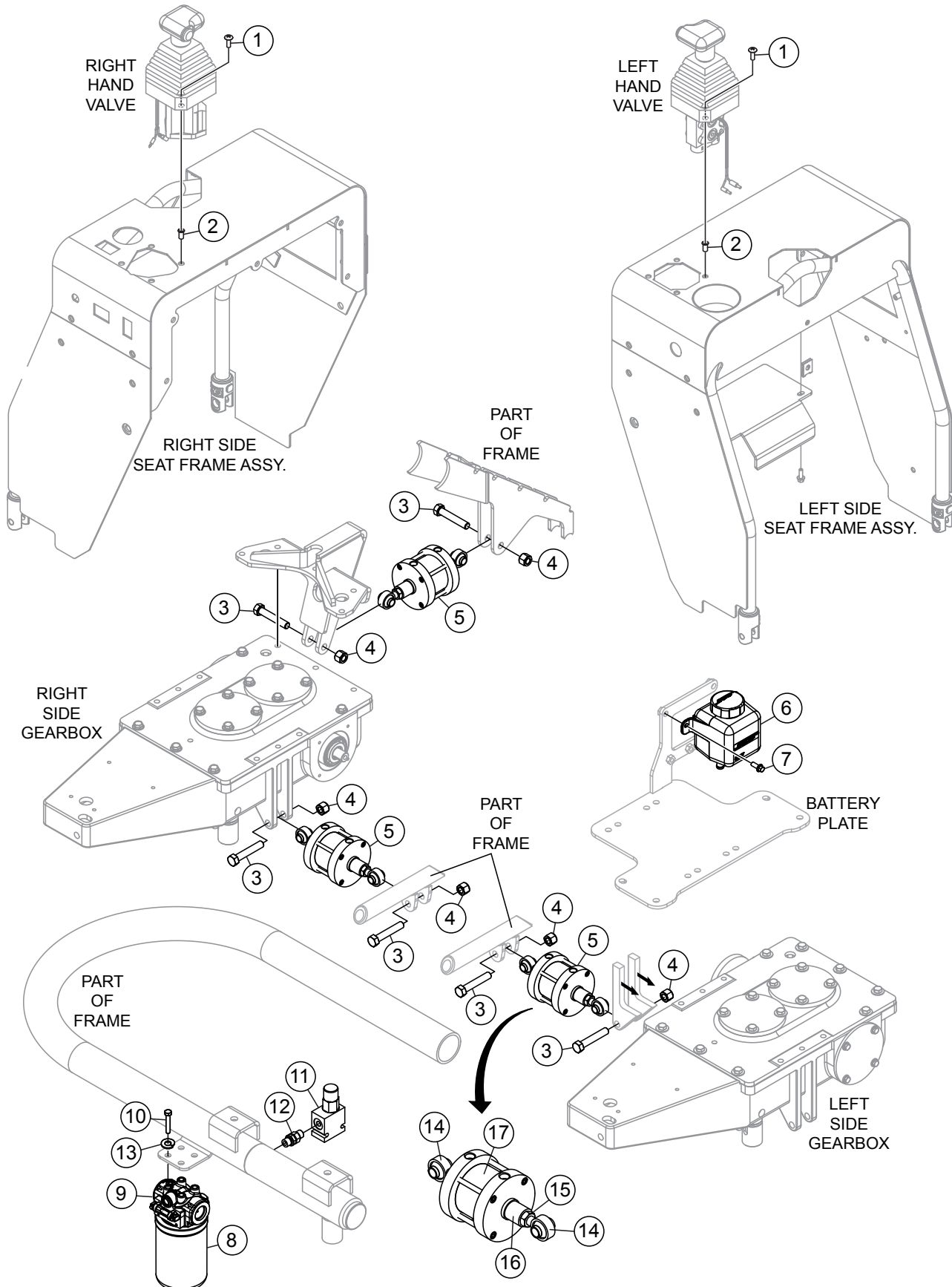
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3#	16083	NUT, HEX M12-1.75 NO PLATE	1	
4#	20150	KIT, PALM HANDLE LEFT, W/SWITCH	1	
5	20165	KIT, PALM HNDL W/TOGGLE SWITCH	1	
6	20831	VALVE, LH STRG W/SWITCH ASSEMBLY	1.....	INCLUDES ITEMS W/#
7#	20833	VALVE, LH STEERING	1	
8#	21053	ADAPTOR, LH PALM HANDLE	1	
10	42325	SCREW, BHSC, M6-1.0 X 20, FLANGED	4	
11	19266	NUT, BLIND 1/4-20 X .027-.165	4	
13	32354	FITTING, 90 -MORFS X -6MOR	2	
15	32341	FITTING, STR -6MORFS X -6MOR	2	

RIGHT-HAND VALVE ASSY.



RIGHT-HAND VALVE ASSY.

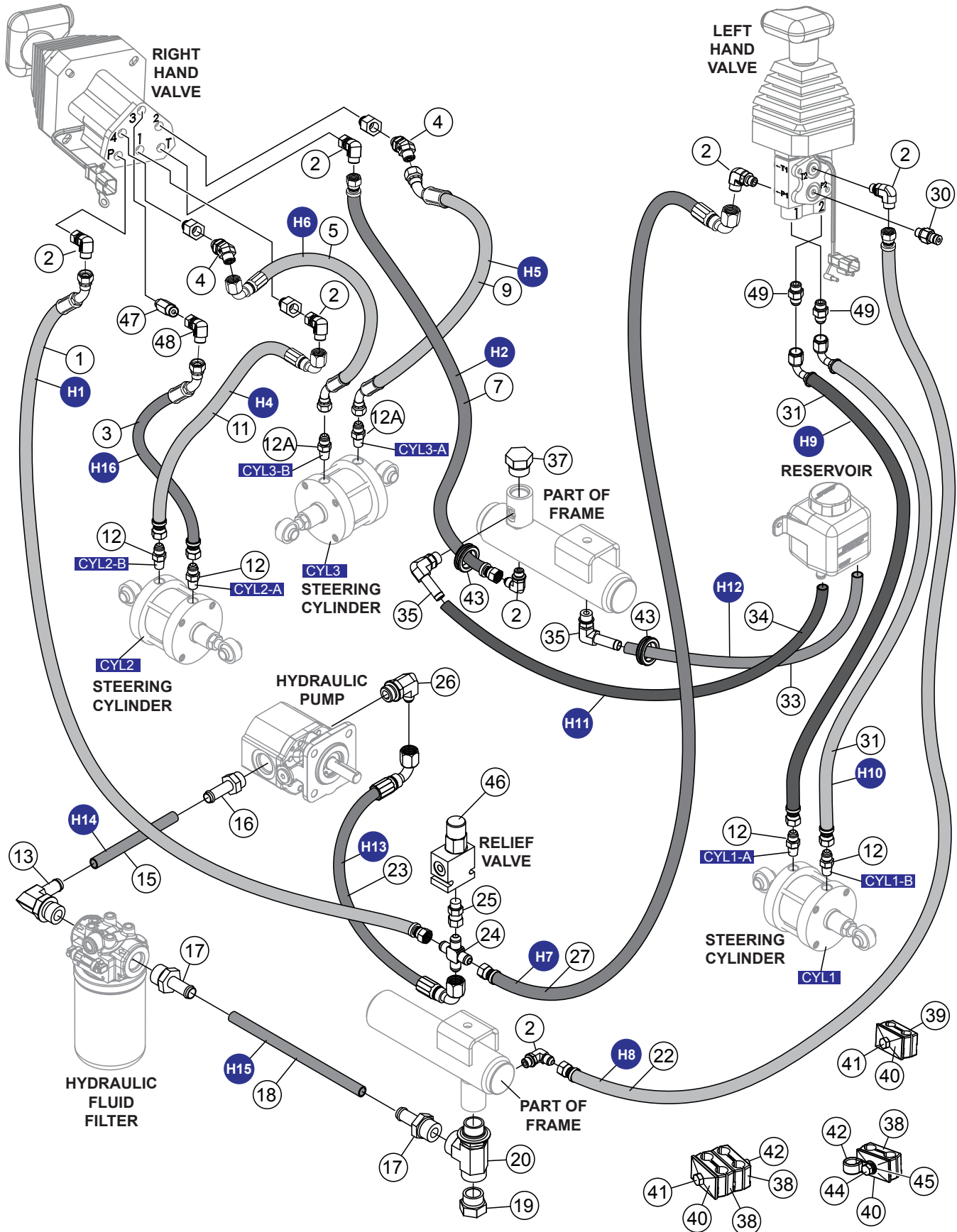
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3#	16083	NUT, HEX M12-1.75 NO PLATE	1	
4#	20155	KIT, PALM HANDLE RIGHT, W/SWITCH	1	
5	20165	KIT, PALM HANDLE W/TOGGLE SWITCH	1	
6	20829	VALVE, RH STEERING W/SWITCH ASSY.....	1	INCLUDES ITEMS W/#
7#	20832	VALVE, RH STEERING	1	
8#	20834	ADAPTER, PALM HANDLE	1	
10	42325	SCREW, BHSC, M6-1.0 X 20, FLANGED	4	
11	19266	NUT, BLIND 1/4-20 X .027-.165	4	
13	32354	FITTING, 90 -6MORFS X 6 MOR	3	
14	32431	FITTING, 45 6MORFS X 6 MOR	2	
15	32454	FITTING, STR 6MORFS X 6MORFS LONG	1	
16	32256	FITTING, 90 6FORFS X 6MORFS	1	
17	21114	FITTING, STR 6FO-6MO STX-55J6	3	



HYDRAULIC STEERING MOUNTING ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12287	SCREW, THP 1/4-20 X 3/4" SS	8	
2	19266	NUT, BLIND 1/4-20 X 10GA	8	
3	12402	SCREW, HHC 1/2-13 X 2-1/2"	6	
4	16629	NUT, NYLOC 1/2-13 GD 8	6	
5	23262	CYLINDER, HYDRAULIC STEERING ASSY	3	INCLUDES ITEMS W/@
6	37213	RESERVOIR, 350 ML, HYDROGEAR 71327	1	
7	22021	SCREW, HHFS M8-1.25x20MM TENSIOK PATCH	2	
7A	23802	NUT, HEX FLANGE M8-1.25 SERRATED	2	
8	23275-02	ELEMENT, 10 MICRON FILTER	1	
9	23275-04	HEAD, 4" FILTER W/ INDICATOR, 5PSI BYP	1	
10	4196	SCREW 3/8-16 X .75	4	
11	23034	VALVE, PILOT OPERATED RELIEF	1	
12	23265	COUPLING, 6MO-6MO	1	
13	0166 A	WASHER, LOCK 3/8MD	4	
14@	23260	ROD END, 1/2-20 M RH W/CUSTOM BALL	6	
15@	11146	NUT, HEX JAM 1/2-20 PLATED	6	
16@	23261	SPACER, HHX STEERING CYLINDER	3	
17@	12056	CYLINDER, 2.5" BORE X 1.5" STROKE X .75" ROD	3	

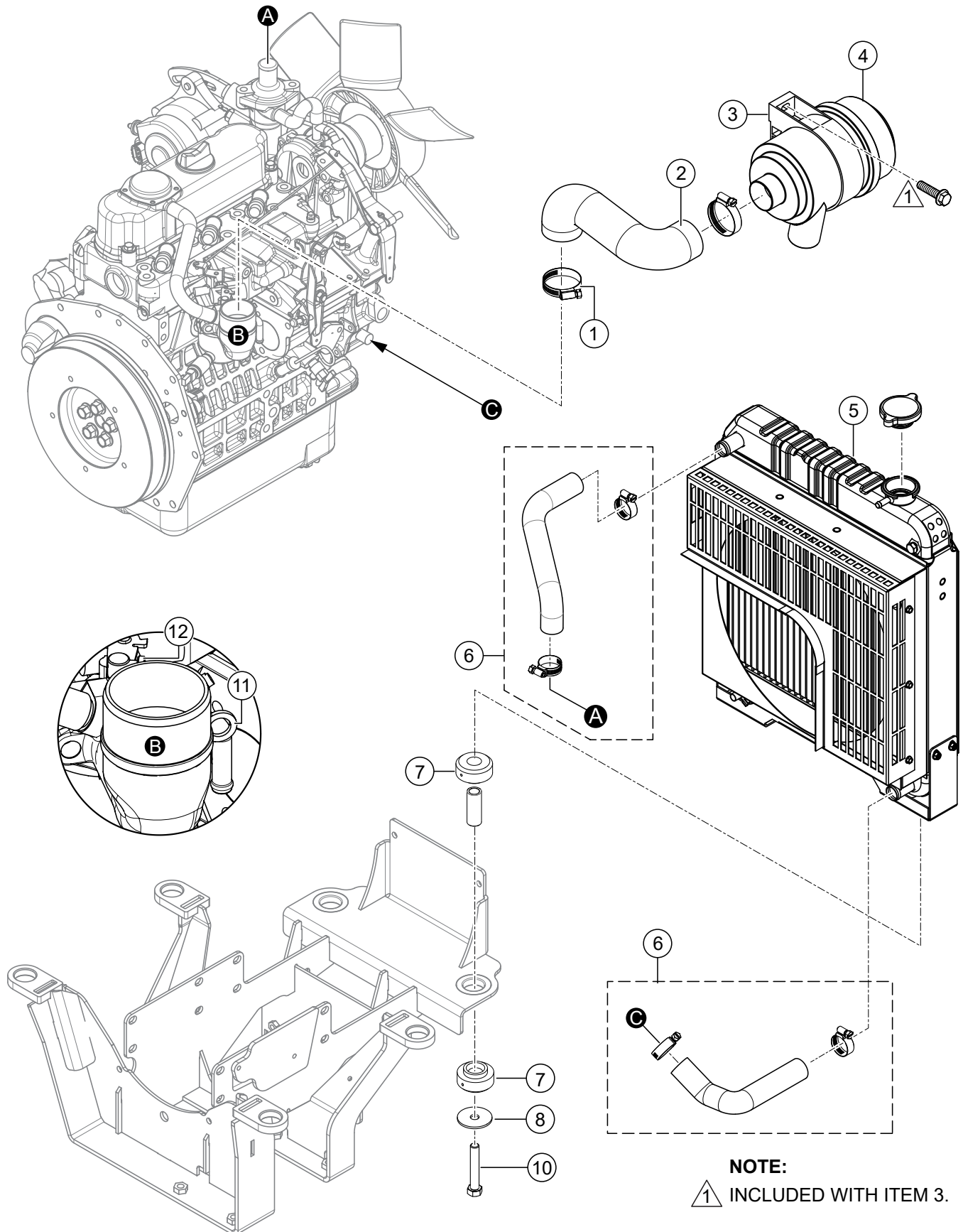
HYDRAULIC STEERING ASSY.



HYDRAULIC STEERING ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	32615	HOSE ASM, 3/8 ID X 48.44" 6FORFS45 X 6FORFS STR	1	
2	32354	FITTING, 90 -6MORFS x -6MOR	7	
3	32617	HOSE ASSY, 3/8IDX 47.56 X 6FORFS45 X 6FORFS STR	1	
4	32431	FITTING, 45 6MORFS x 6 MOR	2	
5	32625	HOSE ASM, 1/4 ID X 60.00" 4FORFS 90 X 6FORFS 45	1	
7	32621	HOSE ASM, 3/8 ID X 61.63" 6FORFS STR X 6FORFS STR	1	
9	32626	HOSE ASM, 1/4 ID X 63.00" 4FORFS 45 X 6FORFS 45	1	
11	32616	HOSE ASM, 3/8 ID X 48.0" 6FORFS90 X 6FORFS STR	1	
12	32350	FITTING, STR -6MORFS x 1/4MP	4	
12A	32619	FITTING, 90, 4MORFS X 1/4 MNPT	2	
13	32363	FITTING, 90 12MOR x 10MORFS	1	
15	32671	HOSE ASSY, 3/4IDX14.38"10FORFSX10FORFS90	1	
16	32342	FITTING, STR -10MORFS x -10MOR	1	
17	32343	FITTING, STR -12MORFS x -12MOR	2	
18	32670	HOSE ASSY, 3/4 ID X 9.75"12FORFSX12FORFS	1	
19	23271	FITTING, PLUG 12MO MAG	1	
20	23264	FITTING, TEE 12MO-12FO-12FO RUN	1	
22	32623	HOSE ASM, 3/8 ID X 50.38" 6FORFS STR X 6FORFS STR	1	
23	32669	HOSE ASSY, 3/8IDX13" 6FORFS X 6FORFS45	1	
24	32630	FITTING, CROSS, 6MORFS	1	
25	32633	STR 6FORFS x 6MOR REF FS6540-06-06	1	
26	32667	FITTING, 90 6MORFS x 10MOR	1	
27	32622	HOSE ASM, 3/8 ID X 56.88" 6FORFS90L X 6FORFS STR	1	
30	12147	FITTING, QD 6MO DIAGN PARKER PD361	1	
31	32624	HOSE ASM, 3/8 ID X 43.31" 6FORFS 90 X 6FORFS STR	2	
33	23247-01	HOSE, LOW PRESSURE GPH-8, 2.1'	1	1PC=1FT
34	23247-01	HOSE, LOW PRESSURE GPH-8, 1.6'	1	1PC=1FT
35	23266	FITTING, 90 6MO-8BEAD	2	
37	368657	FITTING, PLUG 12MO	1	
38	37421	5/8" CLAMP, BEHRINGER T2062-PP	6	
39	37420	1/2" CLAMP, BEHRINGER T2050-PP	2	
40	37424	COVER PLATE, BEHRINGER TCP-12	6	
41	2623	SCREW, HHC 5/16-18 X 1-1/4	4	
42	37423	STACK BOLT, BEHRINGER STB-T2	2	
43	23963	GROMMET, 1-1/4 ID X 1/4" GROOVE	2	
44	0105	SCREW, HHC 5/16-18 X 1-1/2	2	
45	0300 B	WASHER, FLAT SAE 5/16	2	
46	23034	VALVE, PILOT OPERATED RELIEF, ADJUSTABLE	1	
47	32454	FITTING, STR 6MOR x 6MORFS LONG	1	
48	32256	FITTING, 90 6FORFS x 6MORFS	1	
49	32341	FITTING, STR -6MORFS x -6MOR	2	

RADIATOR AND AIR FILTER ASSY.



RADIATOR AND AIR FILTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	10434	CLAMP, HOSE WORM #32	2	
2	32099	HOSE, AIR INTAKE	1	
3	23725-14	AIR CLEANER	1	
4	23725-15	STAY, AIR CLEANER	1	
5	23729	RADIATOR, HHX RCP 79000792	1	
6	23793	HOSE KIT, RCP RADIATOR	1	
7	20742	ISOLATOR, RB2 RING/BUSHING TECH PRODUCTS	2	
8	20743	WASHER, ISO SNUB KROFUND DYN 148099-18	2	
10	12318	SCREW, HHC 1/2-13 X 2 3/4	2	
11	23815	MOUNT, THROTTLE RETURN SPRING	1	
12	28922-060	SCREW, HHC M4-0.7x10MM	1	

PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

UNITED STATES

Multiquip Inc.

(310) 537- 3700
6141 Katella Avenue Suite 200
Cypress, CA 90630
E-MAIL: mq@multiquip.com
WEBSITE: www.multiquip.com

CANADA

Multiquip

(450) 625-2244
4110 Industriel Boul.
Laval, Quebec, Canada H7L 6V3
E-MAIL: infocanada@multiquip.com

UNITED KINGDOM

Multiquip (UK) Limited Head Office

0161 339 2223
Unit 2, Northpoint Industrial Estate,
Globe Lane,
Dukinfield, Cheshire SK16 4UJ
E-MAIL: sales@multiquip.co.uk

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This manual MUST accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

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PN: 32650



Parchem Construction Supplies Pty Ltd

1956 Dandenong Road, Clayton VIC 3168, Australia

Phone: 1300 353 986

flextool.com.au

ABN 80 069 961 968

This manual summarises our best knowledge of the product based on the information available at the time of publication. You should read this manual carefully and consider the information in the context of how the product will be used. Our responsibility for products sold is subject to our standard terms and conditions of sale.

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