

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01241	TIX2 TIRE GUIDE ASSM	ASSEMBLY	2
2	01242	TIX2 REAR CRADLE PIVOT	ASSEMBLY	2
3	01243	TIX2 FRONT CRADLE PIVOT	ASSEMBLY	4
4	01244	LONG SIDE COVER STANDOFF	ASSEMBLY	18
5	05463	TIX2 COVER ASSEMBLY	ASSEMBLY	1
6	09021	LOGO PLATE W STUDS	ASSEMBLY	1
7	09538	LED LIGHT	ASSEMBLY	2
8	09561	TIX2 ADJUSTABLE CRADLE	ASSEMBLY	1
9	09562	TIX2 RAIL ASSEMBLY	ASSEMBLY	1
10	09563	TIX LATCH ASSEMBLY	ASSEMBLY	1
11	09817	TUG SPARE PARTS BAG	PART	1
12	09835	TIX2 PC BOARD	ASSEMBLY	1
13	09844	TIX2 TRACK ASSEMBLY	ASSEMBLY	2
14	09860	TI LIGHT COMPONENTS KIT	ASSEMBLY	1
15	09920	TIX MODEL 2 GEARBOX-MOTOR ASM	ASSEMBLY	2
16	09963	TIV2/ TIX2 REMOTE W LIGHTS	ASSEMBLY	1
17	09999	ON-BOARD PARTS BOX	ASSEMBLY	1
18	22376	TUG PLATE PLUG	PART	2
19	22996	DRIVE SPROCKET	PART	4
20	23348	TIX SIDECOVER LEFT	PART	1
21	23349	TIX SIDECOVER RIGHT	PART	1
22	23351	TIX LOWER COVER	PART	1
23	23353	TIX INSIDE TRACK COVER	PART	2
24	23354	TIX OUTSIDE TRACK COVERS	PART	2
25	23361	TIX2 MAIN PLATE	PART	1
26	23375	TIX MAIN BOARD RAIL	PART	2
27	23376	TIX STOP	PART	2
28	23377	TIX SIDE RAIL	PART	2
29	23410	TIX2 HINGE BLOCK	PART	2
30	23427	WIRE HOLDER	PART	2
31	23436	TIX2 WIRE BRACKET LEFT	PART	1
32	23500	TUG MAGNET HOLDER	PART	2
33	23532	TIV2 / TIX2 BATTERY BRACKET	PART	1
34	23555	MOTOR SPACER	PART	2
35	24446	TUG CHARGING SUPPORT MALE	PART	1
36	24447	TUG CHARGING SUPPORT FEMALE	PART	1
37	91000	2.5" CABLE ROUTER W/ FINGERS	PART	1
38	91285	10-32 X 5/8" L SS FLAT HEAD	PART	4
39	92222	1/4"-20 X 1/2" FLAT HEAD	PART	4
40	92423	SERVO MOUNT FOR 95393	PART	1

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
41	92426	TUG LATCH CAM	PART	1
42	92524	8-32"X.1" SET SCREW	PART	6
43	92628	M2 X 0.4 MM, 6 MM L PHIL. SCREW	PART	1
44	95003	1/4"-20 X 3/4" FLAT HEAD	PART	4
45	95009	10-24 X 3/4" FLAT HEAD	PART	2
46	95016	1/4"-20 X 5/8" SOCKET CAP	PART	6
47	95017	1/4"-20 X 1/2" SOCKET CAP	PART	2
48	95021	10-32 X 7/16" PAN HEAD	PART	4
49	95025	1/2" BALL BEARING	PART	4
50	95026	1/8" SQ. X .400"L KEY STOCK	PART	4
51	95049	6-32 X 5/16"L SS FT HD PHIL	PART	6
52	95090	10-32 X 1/4"L PAN HEAD	PART	4
53	95119	10-32 X 5/16" FLAT HEAD	PART	4
54	95158	1/4" X .125" NYLON SPACER	PART	6
55	95196	TUG CHARGER	PART	1
56	95200	1/4"-20 X 1"L SOCKET CAP	PART	12
57	95359	6-32 X 3/8" FLAT HEAD	PART	4
58	95371	1/4"-20 X 1/2"L PAN HEAD	PART	6
59	95373	TUG OWNERS MANUAL	PART	1
60	95393	RED MICRO SERVO 1810-MG	PART	1
61	95400	TIX2 SHIPPING BRACKET	PART	1
62	95412	8-32 PAN HEAD PHILIPS SCREW	PART	4
63	95451	SHAFT CAP	PART	2
64	95463	SS THIN NYLON-INSERT LOCK NUT	PART	2
65	95503	24V 20AH BATTERY	PART	1
66	95511	TIX2 WIRE BRACKET RIGHT	PART	1
67	95624	10-32 X 3/8" L PAN HEAD W THR	PART	18
68	96347	TIM2-TIX2 BOX 36X28X10.75	BULK ITEM	1
69	96348	TIM2-TIX2 FOAM PACKAGING 5PC	BULK ITEM	1
70	98017	10-32 X 1/2" PAN HD SCREW W LOCK WASHER	PART	2
71	92420A	MAGNETIC CATCH W STRIKE	PART	2
72	92420B	MAGNETIC CATCH W STRIKE	PART	2
73	SRV_95036	SERVO SCREW-FOUND INSIDE SERVO BOX	PART	2

*A Touch of Brass*  
A TOUCH OF BRASS INC

13832 MAGNOLIA AVE.  
CHINO, CA 91710-7027  
909-464-1000

**TIX2 TUG W LIGHTS**

DWG. NO. **09928**

REV **0**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE **0.029**

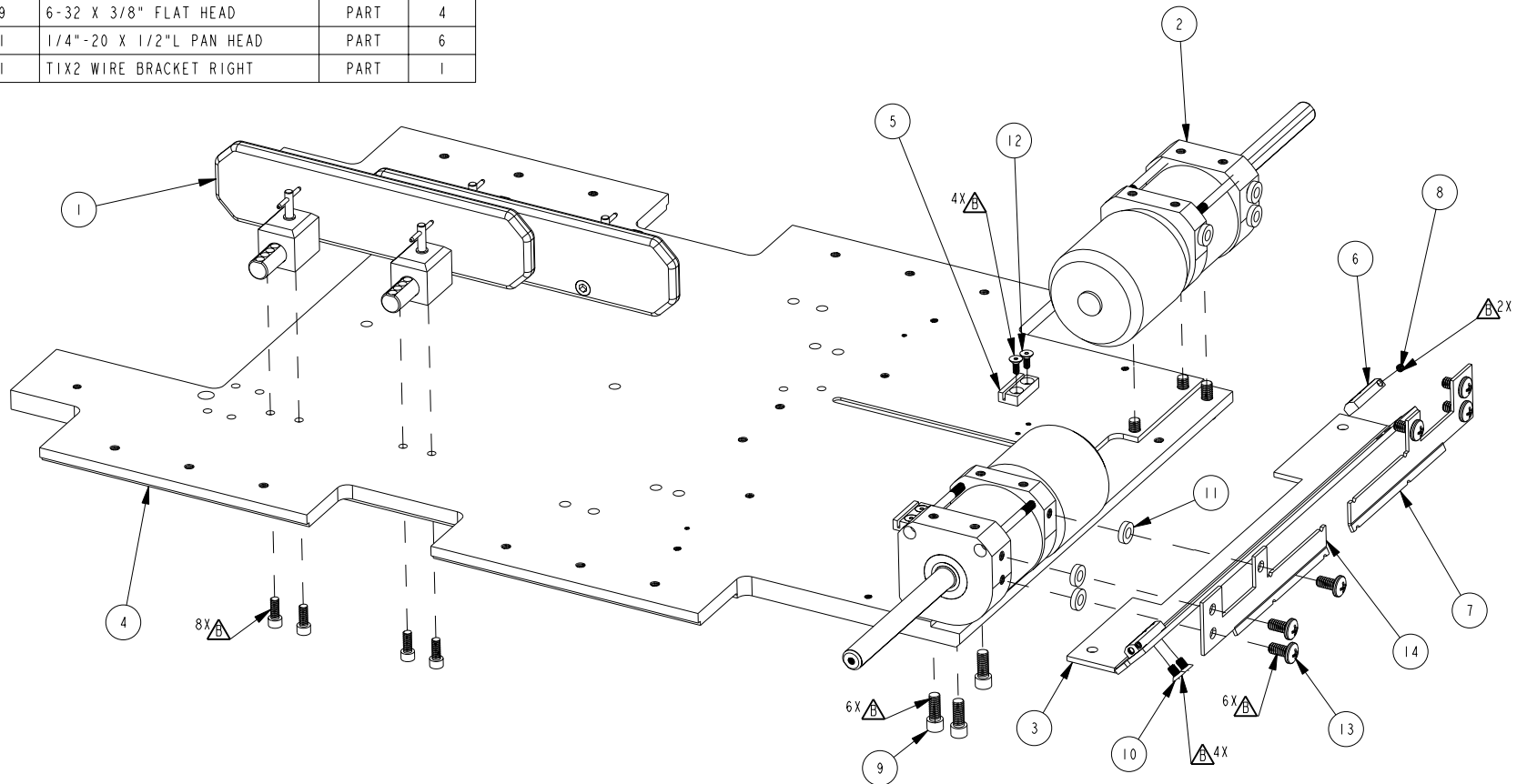
APPR.

SHEET **1** OF **10**

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01241	TIX2 TIRE GUIDE ASSM	ASSEMBLY	2
2	09920	TIX MODEL 2 GEARBOX-MOTOR ASM	ASSEMBLY	2
3	23351	TIX LOWER COVER	PART	1
4	23361	TIX2 MAIN PLATE	PART	1
5	23377	TIX SIDE RAIL	PART	2
6	23410	TIX2 HINGE BLOCK	PART	2
7	23436	TIX2 WIRE BRACKET LEFT	PART	1
8	92524	8-32"x.1" SET SCREW	PART	2
9	95016	1/4"-20 X 5/8" SOCKET CAP	PART	6
10	95119	10-32 X 5/16" FLAT HEAD	PART	4
11	95158	1/4" X .125" NYLON SPACER	PART	6
12	95359	6-32 X 3/8" FLAT HEAD	PART	4
13	95371	1/4"-20 X 1/2"L PAN HEAD	PART	6
14	95511	TIX2 WIRE BRACKET RIGHT	PART	1

▲ BLUE REMOVABLE LOCTITE



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**TIX2 TUG W LIGHTS**

DWG. NO. **09928**

REV **0**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE **0.250**

APPR.

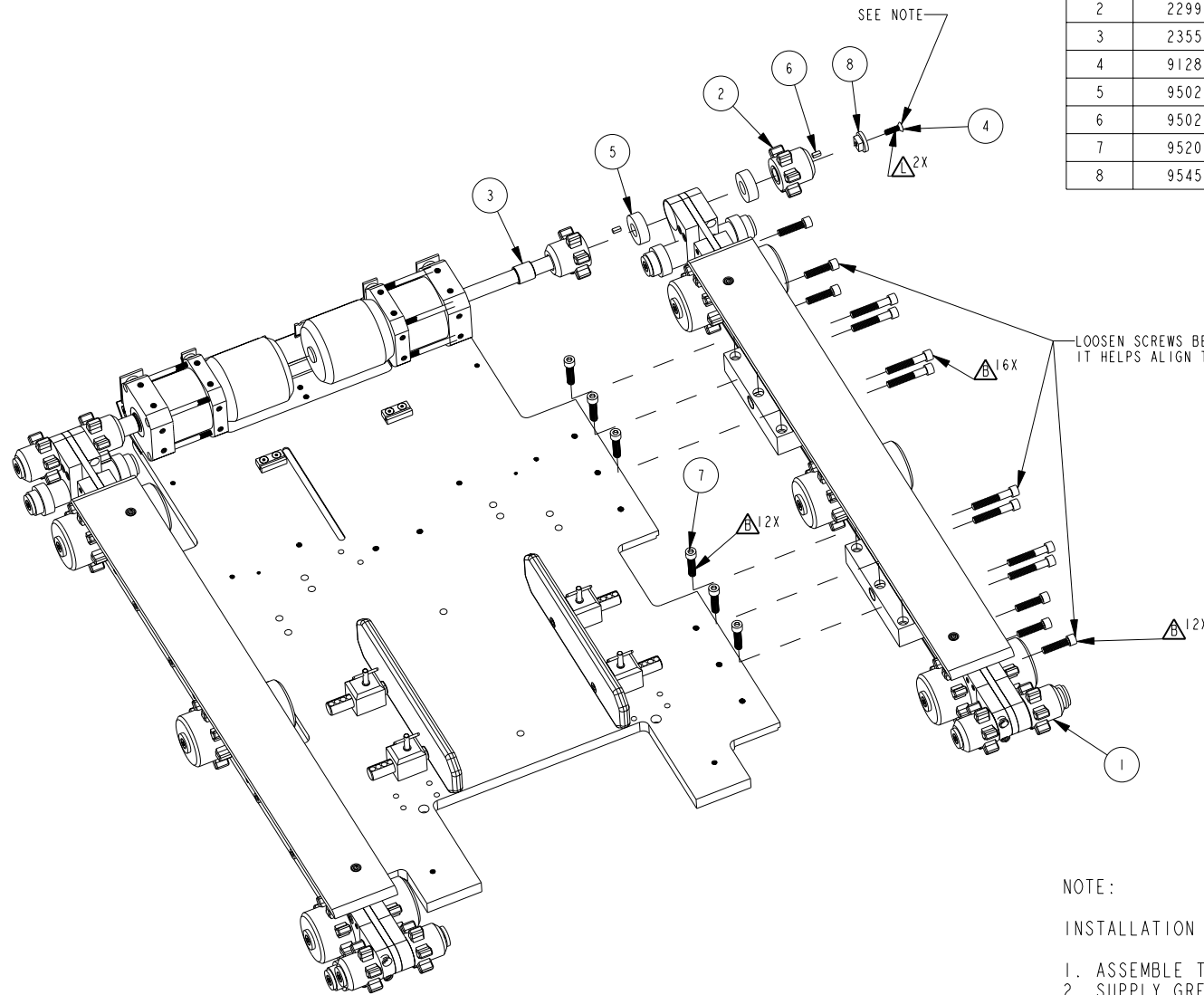
SHEET **2** OF **10**

▲ BLUE REMOVABLE LOCTITE

▲ LOCTITE JOINT (GREEN)

### BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09562	TIX2 RAIL ASSEMBLY	ASSEMBLY	1
2	22996	DRIVE SPROCKET	PART	4
3	23555	MOTOR SPACER	PART	2
4	91285	10-32 X 5/8" L SS FLAT HEAD	PART	2
5	95025	1/2" BALL BEARING	PART	4
6	95026	1/8" SQ. X .400"L KEY STOCK	PART	4
7	95200	1/4"-20 X 1"L SOCKET CAP	PART	12
8	95451	SHAFT CAP	PART	2



LOOSEN SCREWS BEFORE INSTALLING RAILS ONTO MAIN PLATE. IT HELPS ALIGN THE GEARBOX AND RAILS TO MAIN PLATE.

#### NOTE:

#### INSTALLATION OF SHAFT CAP SCREWS

1. ASSEMBLE THE SCREW AND SHAFT CAP IN IT HALFWAY
2. SUPPLY GREEN LOCTITE TO THE TIP OF SCREW
3. DRIVE THE SCREW AND CAP AS ONE UNIT INTO THE SHAFT

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## TIX2 TUG W LIGHTS

DWG. NO. **09928**

REV  
0

UNLESS OTHERWISE  
SPECIFIED, DIMENSIONS  
ARE IN INCHES.

SCALE 0.160

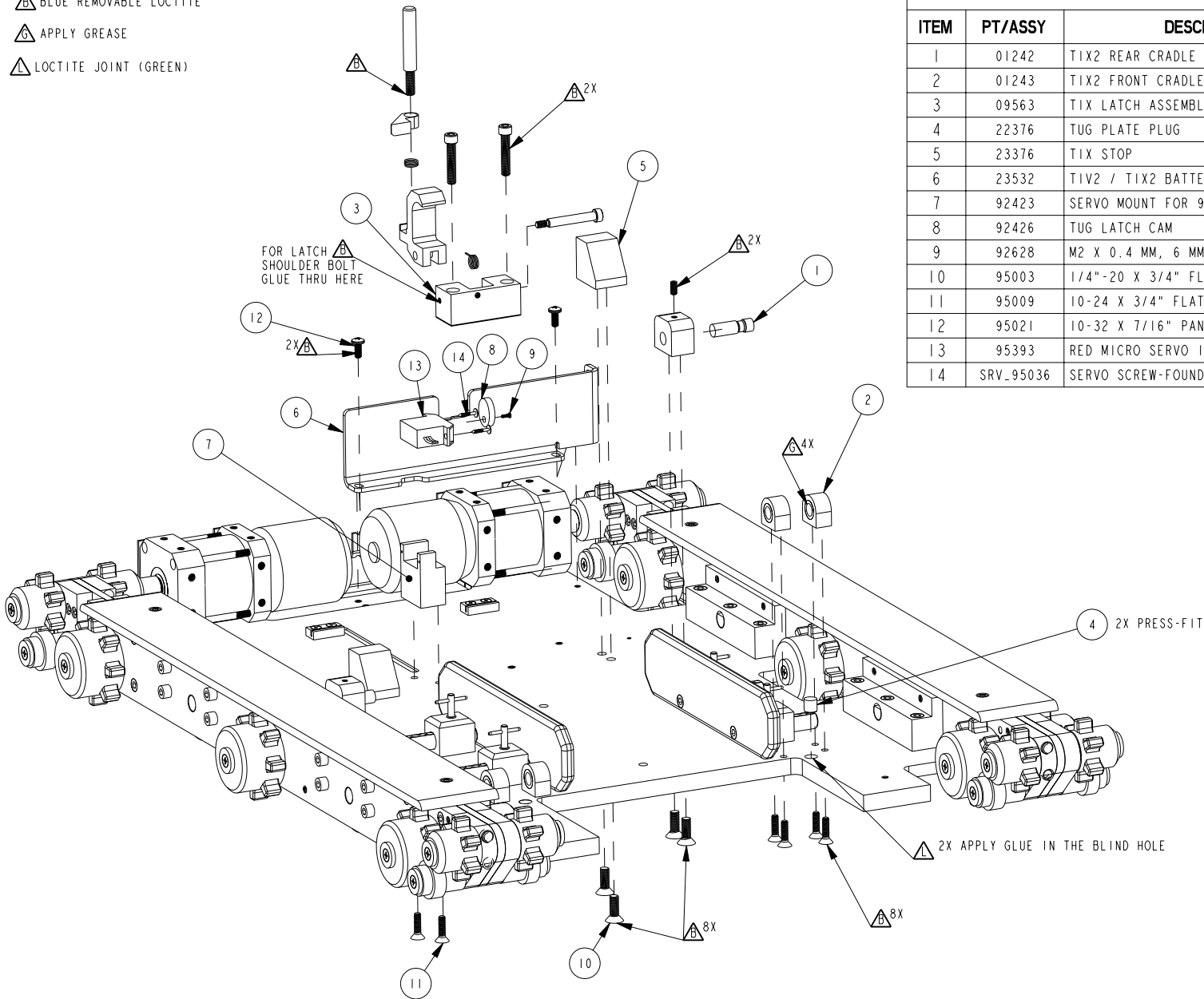
APPR.

SHEET 3 OF 10

- BLUE REMOVABLE LOCTITE
- APPLY GREASE
- LOCTITE JOINT (GREEN)

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01242	TIX2 REAR CRADLE PIVOT	ASSEMBLY	2
2	01243	TIX2 FRONT CRADLE PIVOT	ASSEMBLY	4
3	09563	TIX LATCH ASSEMBLY	ASSEMBLY	1
4	22376	TUG PLATE PLUG	PART	2
5	23376	TIX STOP	PART	2
6	23532	TIV2 / TIX2 BATTERY BRACKET	PART	1
7	92423	SERVO MOUNT FOR 95393	PART	1
8	92426	TUG LATCH CAM	PART	1
9	92628	M2 X 0.4 MM, 6 MM L PHIL. SCREW	PART	1
10	95003	1/4"-20 X 3/4" FLAT HEAD	PART	8
11	95009	10-24 X 3/4" FLAT HEAD	PART	10
12	95021	10-32 X 7/16" PAN HEAD	PART	2
13	95393	RED MICRO SERVO 1810-MG	PART	1
14	SRV_95036	SERVO SCREW-FOUND INSIDE SERVO BOX	PART	2



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**TIX2 TUG W LIGHTS**

DWG. NO. **09928**

REV **0**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE **0.225**

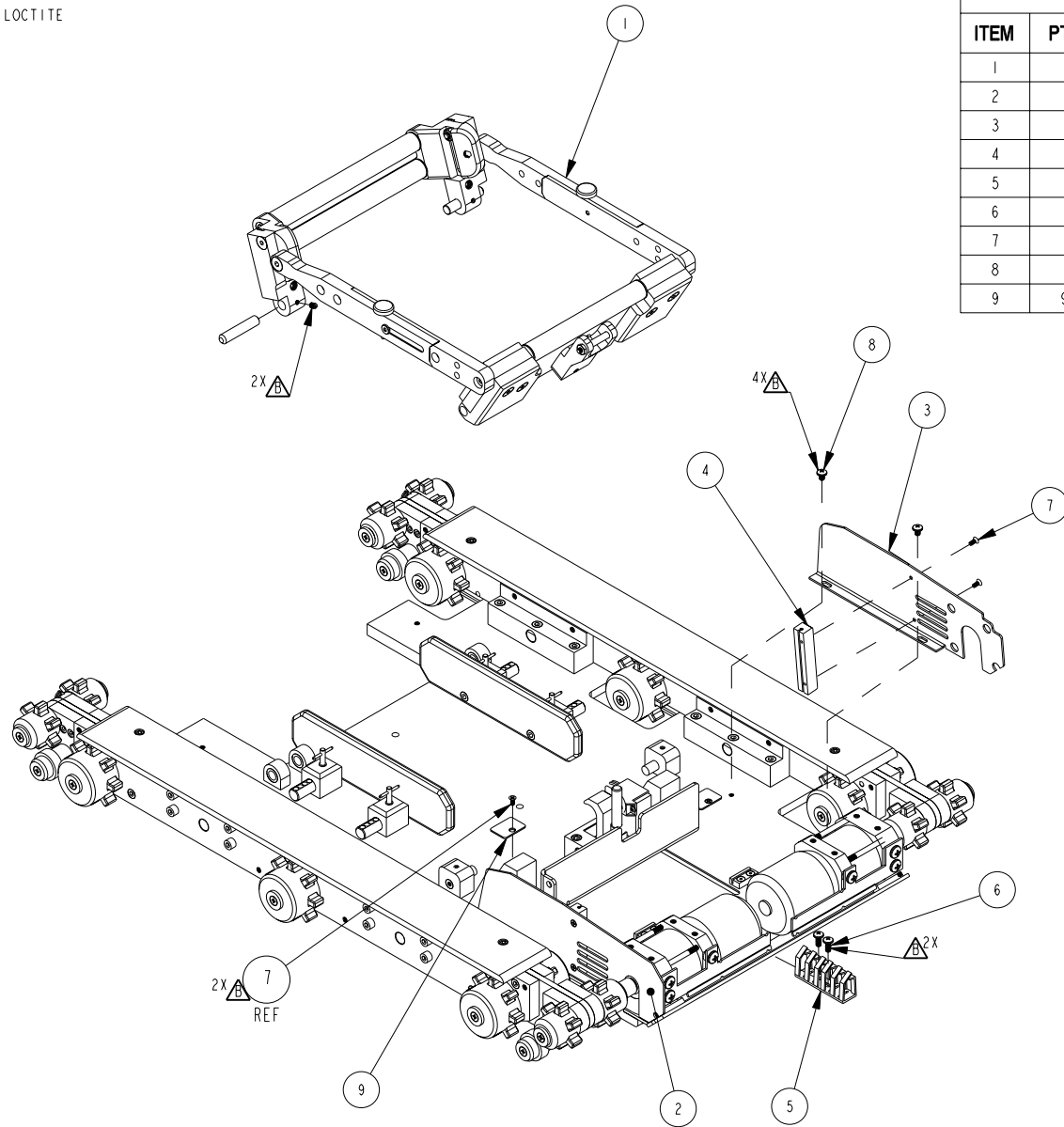
APPR.

SHEET **4** OF **10**

▲ BLUE REMOVABLE LOCTITE

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09561	TIX2 ADJUSTABLE CRADLE	ASSEMBLY	1
2	23348	TIX SIDECOVER LEFT	PART	1
3	23349	TIX SIDECOVER RIGHT	PART	1
4	23375	TIX MAIN BOARD RAIL	PART	2
5	91000	2.5" CABLE ROUTER W/ FINGERS	PART	1
6	95021	10-32 X 7/16" PAN HEAD	PART	1
7	95049	6-32 X 5/16" L SS FT HD PHIL	PART	6
8	95090	10-32 X 1/4" L PAN HEAD	PART	4
9	92420B	MAGNETIC CATCH W STRIKE	PART	2



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**TIX2 TUG W LIGHTS**

DWG. NO. **09928**

REV  
0

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.



SCALE 0.150

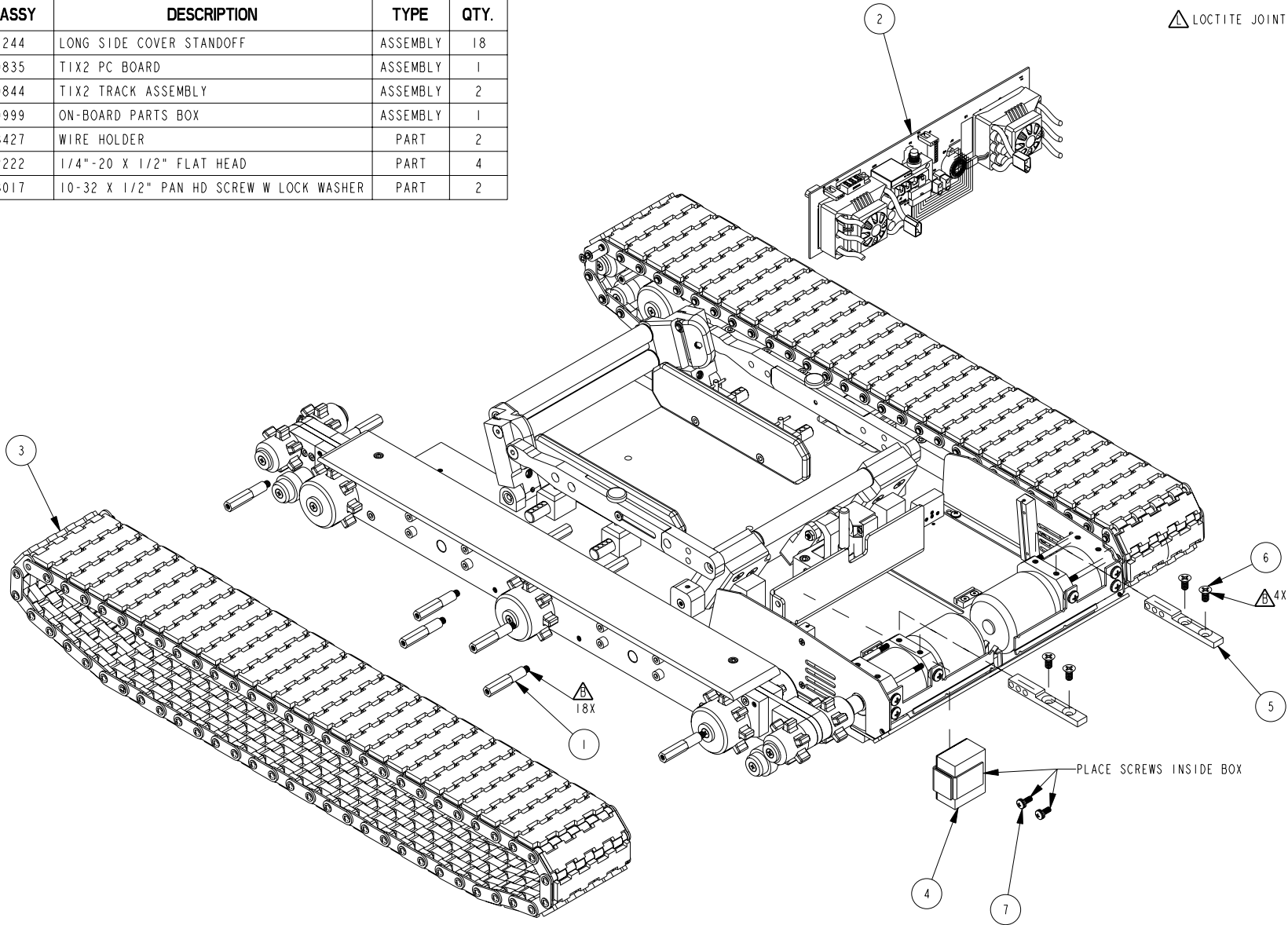
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SHEET 5 OF 10

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01244	LONG SIDE COVER STANDOFF	ASSEMBLY	18
2	09835	TIX2 PC BOARD	ASSEMBLY	1
3	09844	TIX2 TRACK ASSEMBLY	ASSEMBLY	2
4	09999	ON-BOARD PARTS BOX	ASSEMBLY	1
5	23427	WIRE HOLDER	PART	2
6	92222	1/4"-20 X 1/2" FLAT HEAD	PART	4
7	98017	10-32 X 1/2" PAN HD SCREW W LOCK WASHER	PART	2

 BLUE REMOVABLE LOCTITE  
 LOCTITE JOINT (GREEN)



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**TIX2 TUG W LIGHTS**

DWG. NO. **09928**

REV 0

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE 0.175

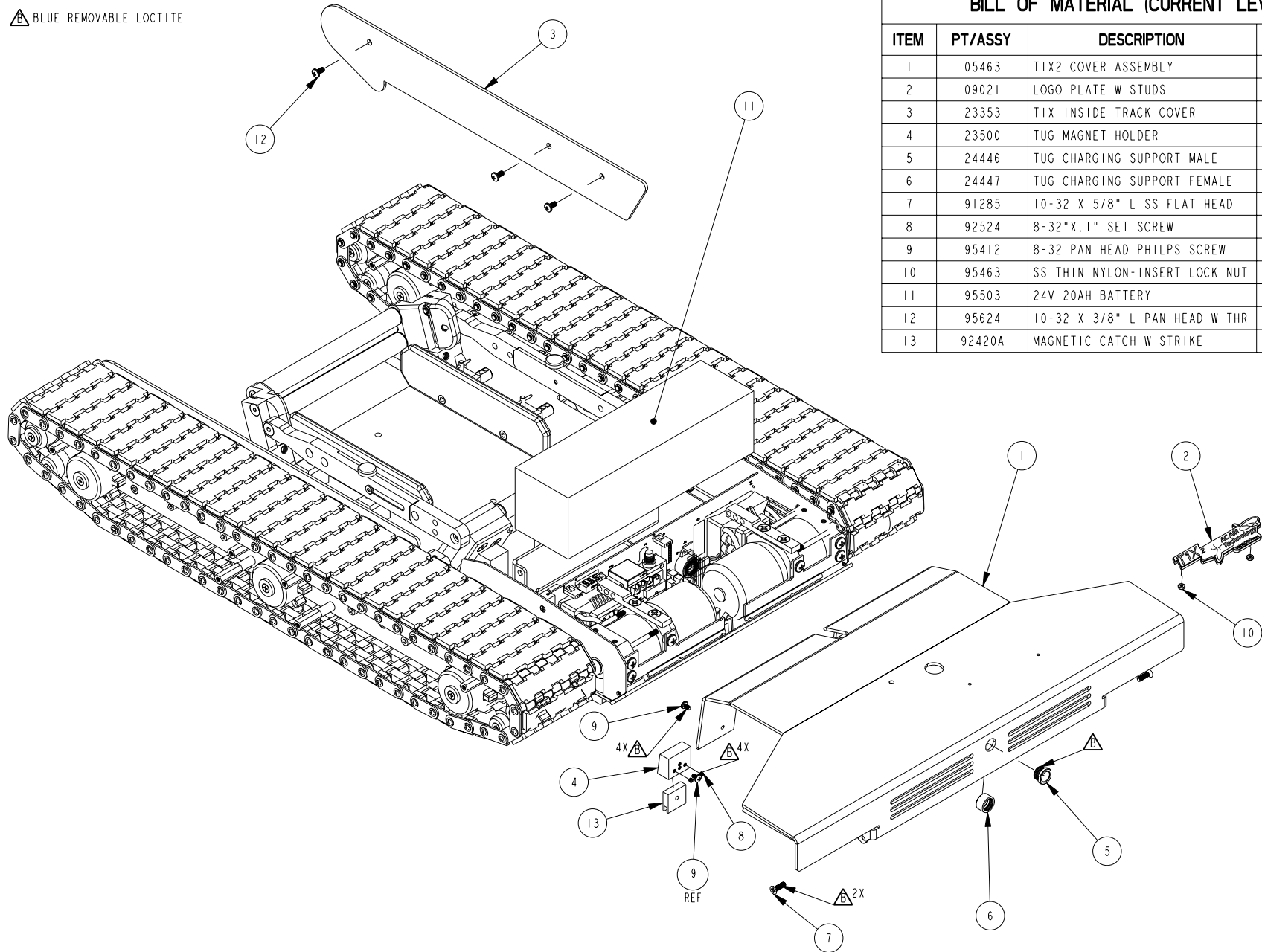
APPR.

SHEET 6 OF 10

▲ BLUE REMOVABLE LOCTITE

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	05463	TIX2 COVER ASSEMBLY	ASSEMBLY	1
2	09021	LOGO PLATE W STUDS	ASSEMBLY	1
3	23353	TIX INSIDE TRACK COVER	PART	2
4	23500	TUG MAGNET HOLDER	PART	2
5	24446	TUG CHARGING SUPPORT MALE	PART	1
6	24447	TUG CHARGING SUPPORT FEMALE	PART	1
7	91285	10-32 X 5/8" L SS FLAT HEAD	PART	4
8	92524	8-32"x.1" SET SCREW	PART	6
9	95412	8-32 PAN HEAD PHILPS SCREW	PART	4
10	95463	SS THIN NYLON-INSERT LOCK NUT	PART	2
11	95503	24V 20AH BATTERY	PART	1
12	95624	10-32 X 3/8" L PAN HEAD W THR	PART	6
13	92420A	MAGNETIC CATCH W STRIKE	PART	2



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TIX2 TUG W LIGHTS

DWG. NO. 09928



REV 0

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE 0.175

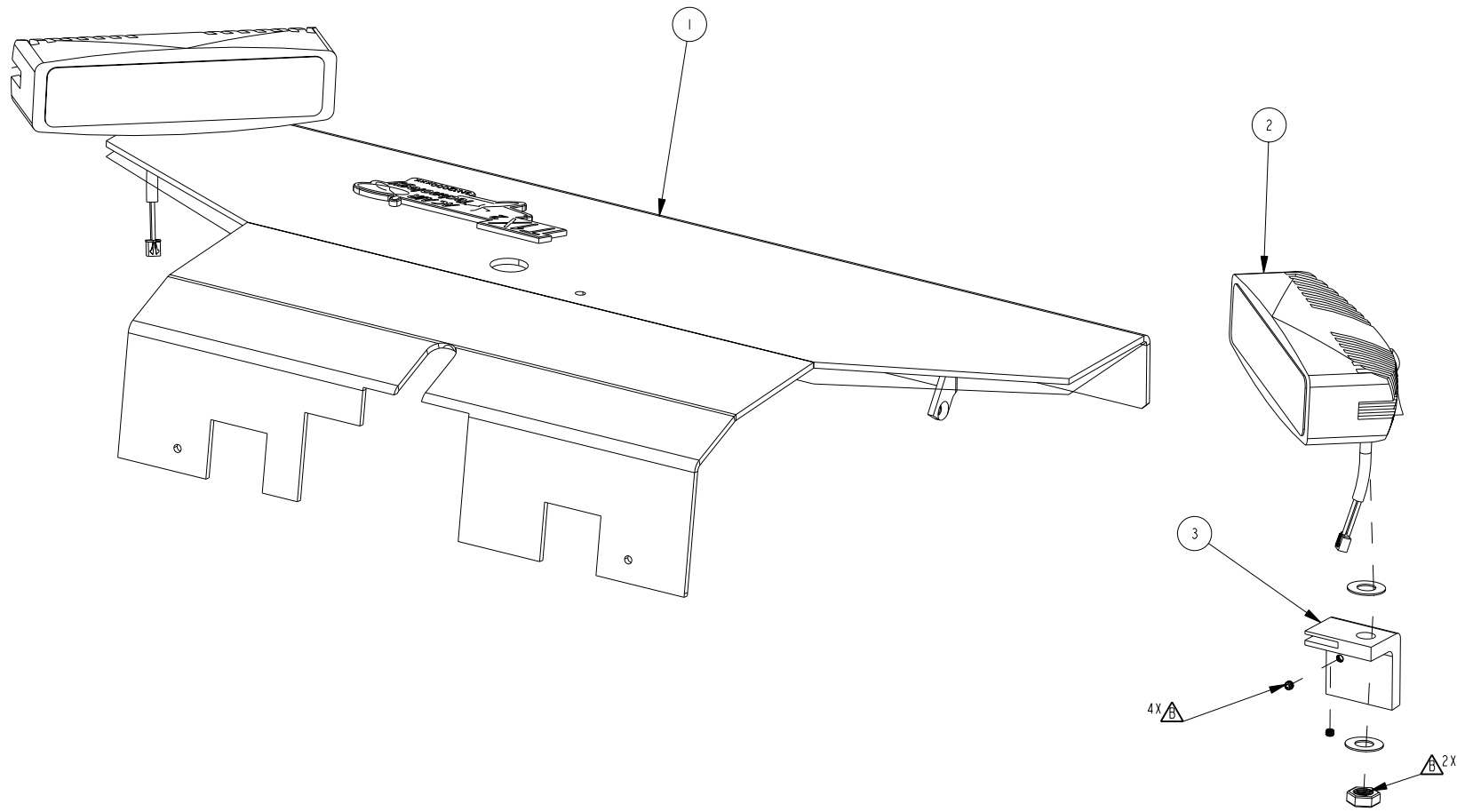
APPR.

SHEET 7 OF 10

-  LOCTITE JOINT (GREEN)
-  BLUE REMOVABLE LOCTITE

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	05463	TIX2 COVER ASSEMBLY	ASSEMBLY	1
2	09538	LED LIGHT	ASSEMBLY	2
3	09860	TI LIGHT COMPONENTS KIT	ASSEMBLY	1



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**TIX2 TUG W LIGHTS**

DWG. NO. **09928**

REV 0

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

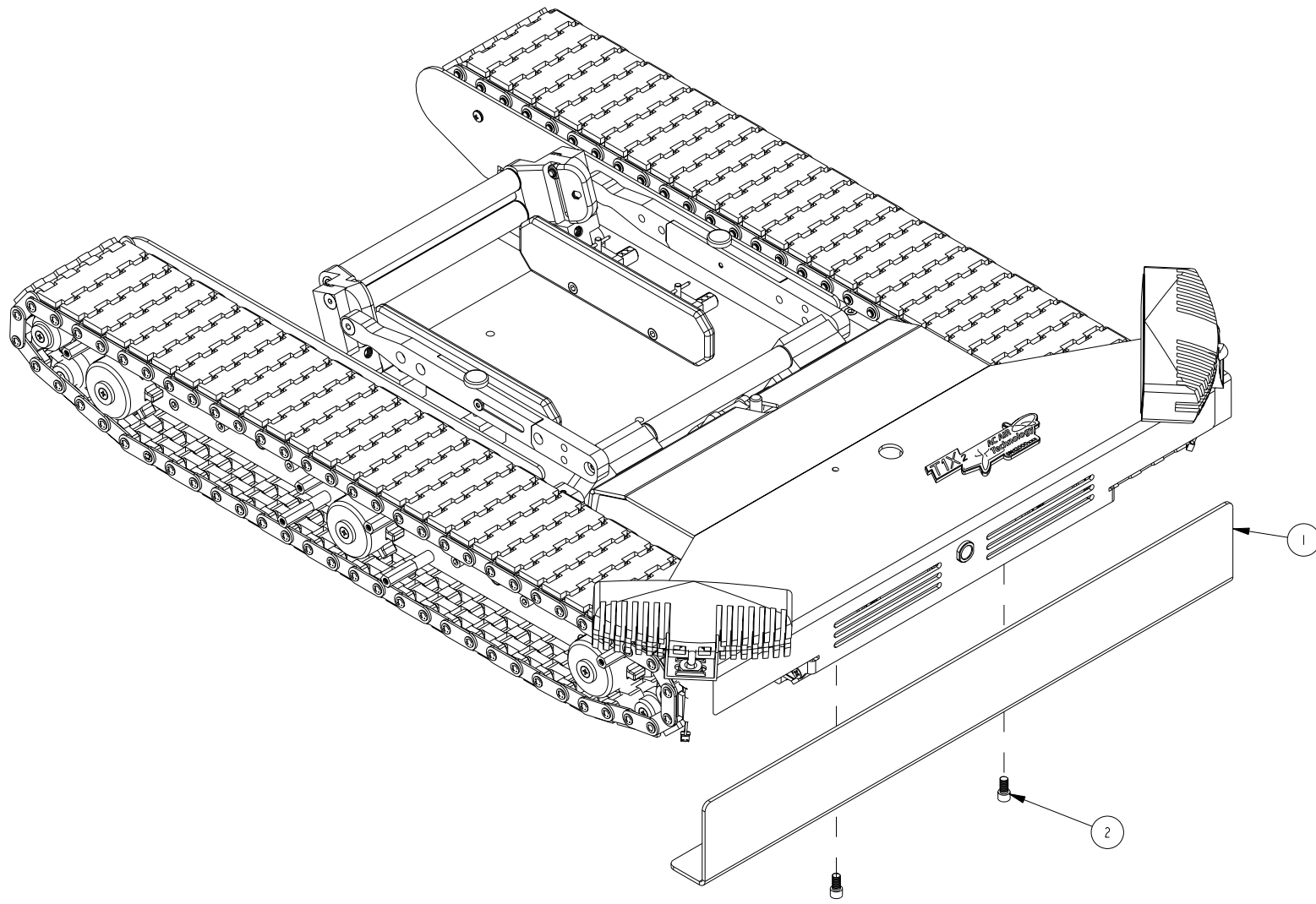
SCALE 0.300

APPR.

SHEET 8 OF 10



BILL OF MATERIAL (CURRENT LEVEL)				
ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	95400	TIX2 SHIPPING BRACKET	PART	1
2	95017	1/4"-20 X 1/2" SOCKET CAP	PART	2



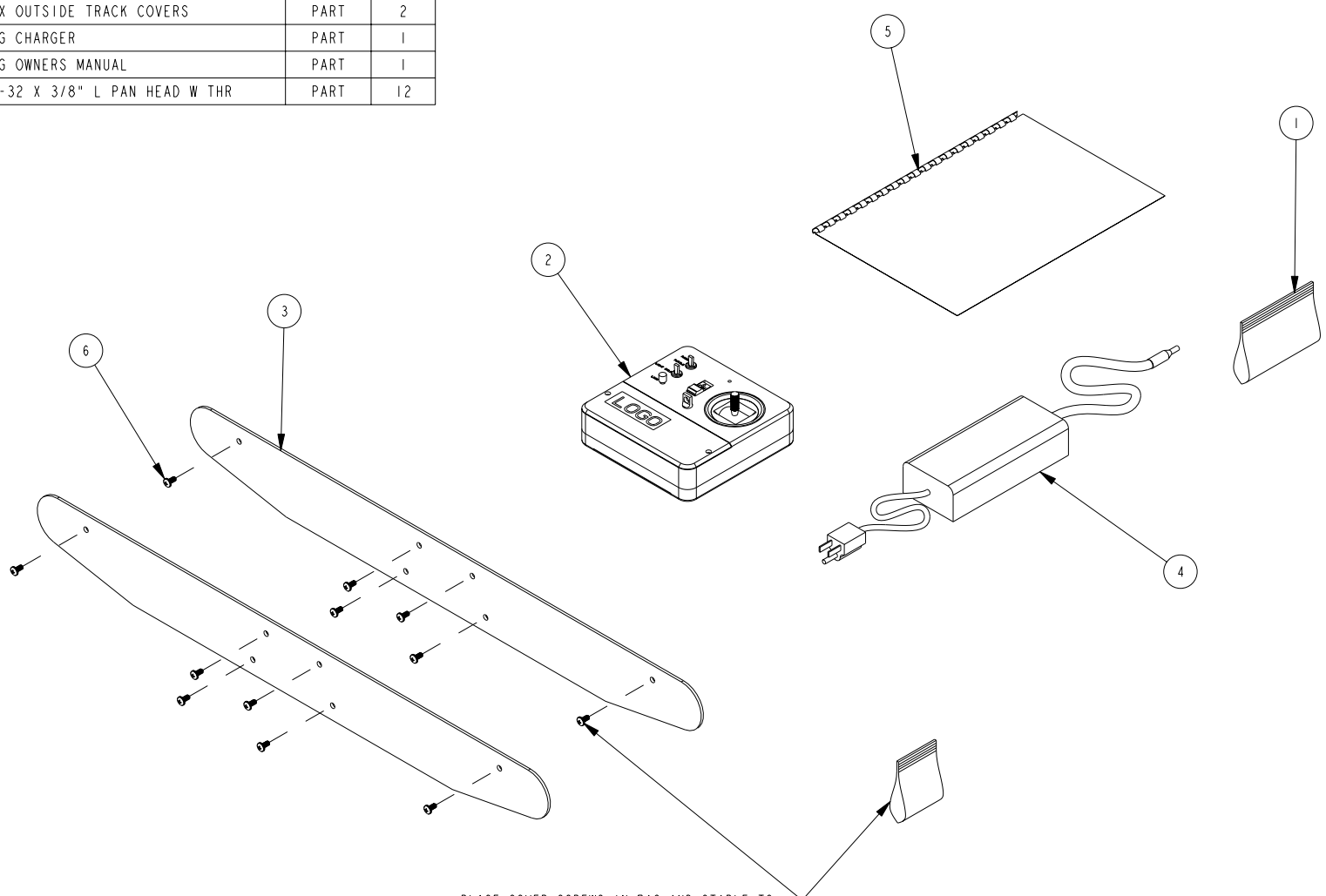
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TIX2 TUG W LIGHTS

DWG. NO. 09928	REV 0	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
SCALE 0.200	SHEET 9 OF 10	

**BILL OF MATERIAL (CURRENT LEVEL)**

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09817	TUG SPARE PARTS BAG	PART	1
2	09963	TIV2/ TIX2 REMOTE W LIGHTS	ASSEMBLY	1
3	23354	TIX OUTSIDE TRACK COVERS	PART	2
4	95196	TUG CHARGER	PART	1
5	95373	TUG OWNERS MANUAL	PART	1
6	95624	10-32 X 3/8" L PAN HEAD W THR	PART	12



PLACE COVER SCREWS IN BAG AND STAPLE TO COVER INSTALLATION PRINT OUT FOR SMALLER TUGS

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**TIX2 TUG W LIGHTS**

DWG. NO. **09928**

REV **0**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE **0.150**

APPR.

SHEET **10** OF **10**