

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01241	T1X2 TIRE GUIDE ASSM	ASSEMBLY	2
2	01242	T1X2 REAR CRADLE PIVOT	ASSEMBLY	2
3	01243	T1X2 FRONT CRADLE PIVOT	ASSEMBLY	4
4	01247	SHORT SIDE COVER STANDOFF	ASSEMBLY	18
5	05462	T1v2 RAIL ASSEMBLY	ASSEMBLY	1
6	05464	T1 COVER ASSEMBLY	ASSEMBLY	1
7	09018	T1V2 LOGO PLATE W STUDS	ASSEMBLY	1
8	09538	LED FROM DONALD	ASSEMBLY	2
9	09563	T1X LATCH ASSEMBLY	ASSEMBLY	1
10	09831	T1 3" TRACK ASSEMBLY	ASSEMBLY	2
11	09835	T1X2 PC BOARD	ASSEMBLY	1
12	09860	T1 LIGHT COMPONENTS KIT	ASSEMBLY	1
13	09863	T1 LONG MOTOR-GEARBOX ASSEMBLY	ASSEMBLY	2
14	09864	3" TRACK SPARE PARTS BAG	PART	1
15	09919	T1 CRADLE ASSEMBLY	ASSEMBLY	1
16	09963	T1V2/T1X2 REMOTE WITH LIGHTS	ASSEMBLY	1
17	09999	ON-BOARD PARTS BOX	ASSEMBLY	1
18	22376	TUG PLATE PLUG	PART	2
19	22996	DRIVE SPROCKET	PART	2
20	23306	T1 MAIN PLATE	PART	1
21	23313	T1 SIDECOVER LEFT	PART	1
22	23314	T1 SIDECOVER RIGHT	PART	1
23	23375	T1X MAIN BOARD RAIL	PART	2
24	23376	T1X STOP	PART	2
25	23377	T1X SIDE RAIL	PART	2
26	23410	T1X2 HINGE BLOCK	PART	2
27	23422	T1 RAIL IDEL ROLLER	PART	2
28	23427	WIRE HOLDER	PART	2
29	23436	T1X2 WIRE BRACKET LEFT	PART	1
30	23444	T1 INSIDE TRACK COVER	PART	2
31	23445	T1 OUTSIDE TRACK COVER	PART	2
32	23500	TUG MAGNET HOLDER	PART	2
33	23532	T1V2 / T1X2 BATTERY BRACKET	PART	1
34	23555	MOTOR SPACER (.650" THK)	PART	2
35	23556	T1 SHAFT CAP	PART	2

36	24446	TUG CHARGING SUPPORT MALE	PART	1
37	24447	TUG CHARGING SUPPORT FEMALE	PART	1
38	91000	2.5" CABLE ROUTER W/ FINGERS	PART	1
39	91285	10-32 X 5/8" L SS FLAT HEAD	PART	4
40	92222	1/4"-20 X 1/2" FLAT HEAD	PART	4
41	92423	SERVO MOUNT FOR 95393	PART	1
42	92426	SERVO CAM FOR 95393	PART	1
43	92524	SET SCREW, 8-32 X .125	PART	6
44	92628	M2 X 0.4 MM, 6 MM L PHIL. SCREW	PART	1
45	95003	1/4"-20 X 3/4" FLAT HEAD	PART	4
46	95009	10-24 X 3/4" FLAT HEAD	PART	2
47	95016	1/4"-20 X 5/8" SOCKET CAP	PART	6
48	95017	1/4"-20 X 1/2" SOCKET CAP	PART	2
49	95021	10-32 X 7/16" PAN HEAD	PART	4
50	95025	1/2" BALL BEARING	PART	4
51	95026	1/8" X .500 KEY STOCK	PART	2
52	95049	6-32 X 5/16" L SS FT HD PHIL	PART	2
53	95090	10-32 X 1/4" L PAN HEAD	PART	4
54	95119	10-32 X 5/16" L FLAT HEAD	PART	4
55	95158	1/4" X .125" NYLON SPACER	PART	6
56	95196	TUG CHARGER	PART	1
57	95200	1/4"-20 X 1" L SOCKET CAP	PART	12
58	95358	6-32 X 1/4" L FLAT HEAD	PART	4
59	95359	6-32 X 3/8" FLAT HEAD	PART	4
60	95366	WIRE EXTENSION CLIP	BULK ITEM	1
61	95371	1/4"-20 X 1/2" L PAN HEAD	PART	6
62	95393	RED MICRO SERVO 1810-MG	PART	1
63	95400	T1X2 SHIPPING BRACKET	PART	1
64	95411	TUG OWNERS MANUAL	PART	1
65	95412	8-32 PAN HEAD PHILPS SCREW	PART	4
66	95452	T1 LOWER COVER	PART	1
67	95504	24V BATTERY 10AH (YELLOW CONNECTOR)	PART	1
68	95511	T1X2 WIRE BRACKET RIGHT	PART	1
69	95624	10-32 X 3/8" PHILLIPS SCREW, THREAD LOCK	PART	18
70	96294	TUG SPROCKET SPACER	PART	2
71	96348	T1M2-T1X2 FOAM PACKING 5PC	BULK ITEM	1
72	96357	5 FOLD STANDARD TUG BOX	BULK ITEM	1
73	98017	10-32 X 1/2" PAN HD SCREW W LOCK WASHER	PART	2

74	92420A	MAGNET BASE	PART	2
75	92420B	MAGNET BASE PART	PART	2
76	SRV_SCREW	SERVO SCREW	PART	2

NOTES: FOR UPGRADED CRADLE ONLY

1. UPGRADED CRADLE = IX 09561

3. REMOVE ASSEMBLY IX 09919

A Touch of Brass
A TOUCH OF BRASS INC

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

T1 MODEL 2 TUG W SMALL MOTORS

DWG. NO. 09832

REV U

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE 0.030

APPR.

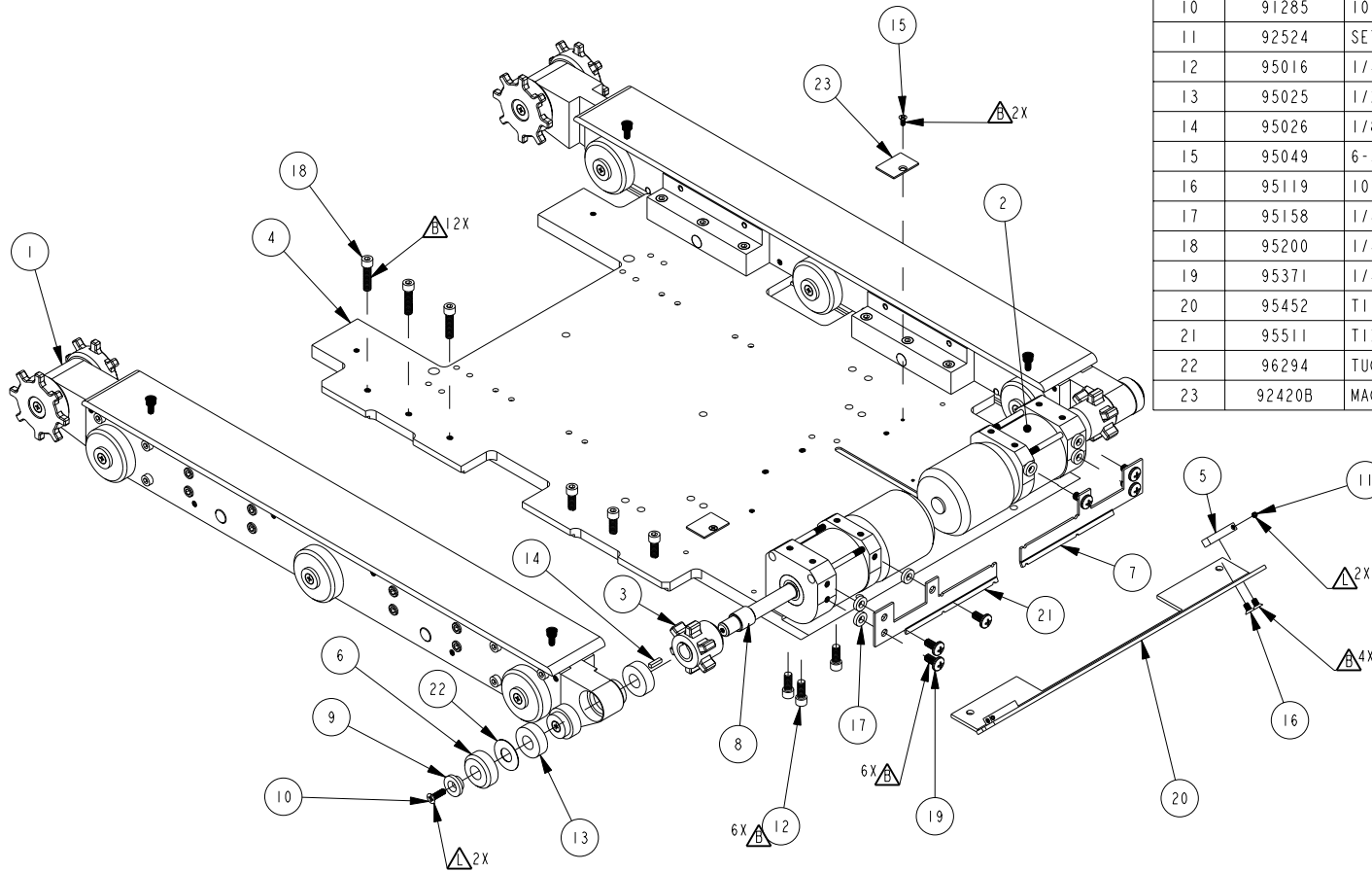
SHEET 1 OF 10

▲ BLUE REMOVABLE LOCTITE

▲ LOCTITE JOINT (GREEN)

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	05462	TIv2 RAIL ASSEMBLY	ASSEMBLY	1
2	09863	TI LONG MOTOR-GEARBOX ASSEMBLY	ASSEMBLY	2
3	22996	DRIVE SPROCKET	PART	2
4	23306	TI MAIN PLATE	PART	1
5	23410	TIx2 HINGE BLOCK	PART	2
6	23422	TI RAIL IDEL ROLLER	PART	2
7	23436	TIx2 WIRE BRACKET LEFT	PART	1
8	23555	MOTOR SPACER (.650" THK)	PART	2
9	23556	TI SHAFT CAP	PART	2
10	91285	10-32 X 5/8" L SS FLAT HEAD	PART	2
11	92524	SET SCREW, 8-32 X .125	PART	2
12	95016	1/4"-20 X 5/8" SOCKET CAP	PART	6
13	95025	1/2" BALL BEARING	PART	4
14	95026	1/8" X .500 KEY STOCK	PART	2
15	95049	6-32 X 5/16" L SS FT HD PHIL	PART	2
16	95119	10-32 X 5/16" L FLAT HEAD	PART	4
17	95158	1/4" X .125" NYLON SPACER	PART	6
18	95200	1/4"-20 X 1" L SOCKET CAP	PART	12
19	95371	1/4"-20 X 1/2" L PAN HEAD	PART	6
20	95452	TI LOWER COVER	PART	1
21	95511	TIx2 WIRE BRACKET RIGHT	PART	1
22	96294	TUG SPROCKET SPACER	PART	2
23	92420B	MAGNET BASE PART	PART	2



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TI MODEL 2 TUG W SMALL MOTORS

DWG. NO. **09832**



REV **U**

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

SCALE **0.160**

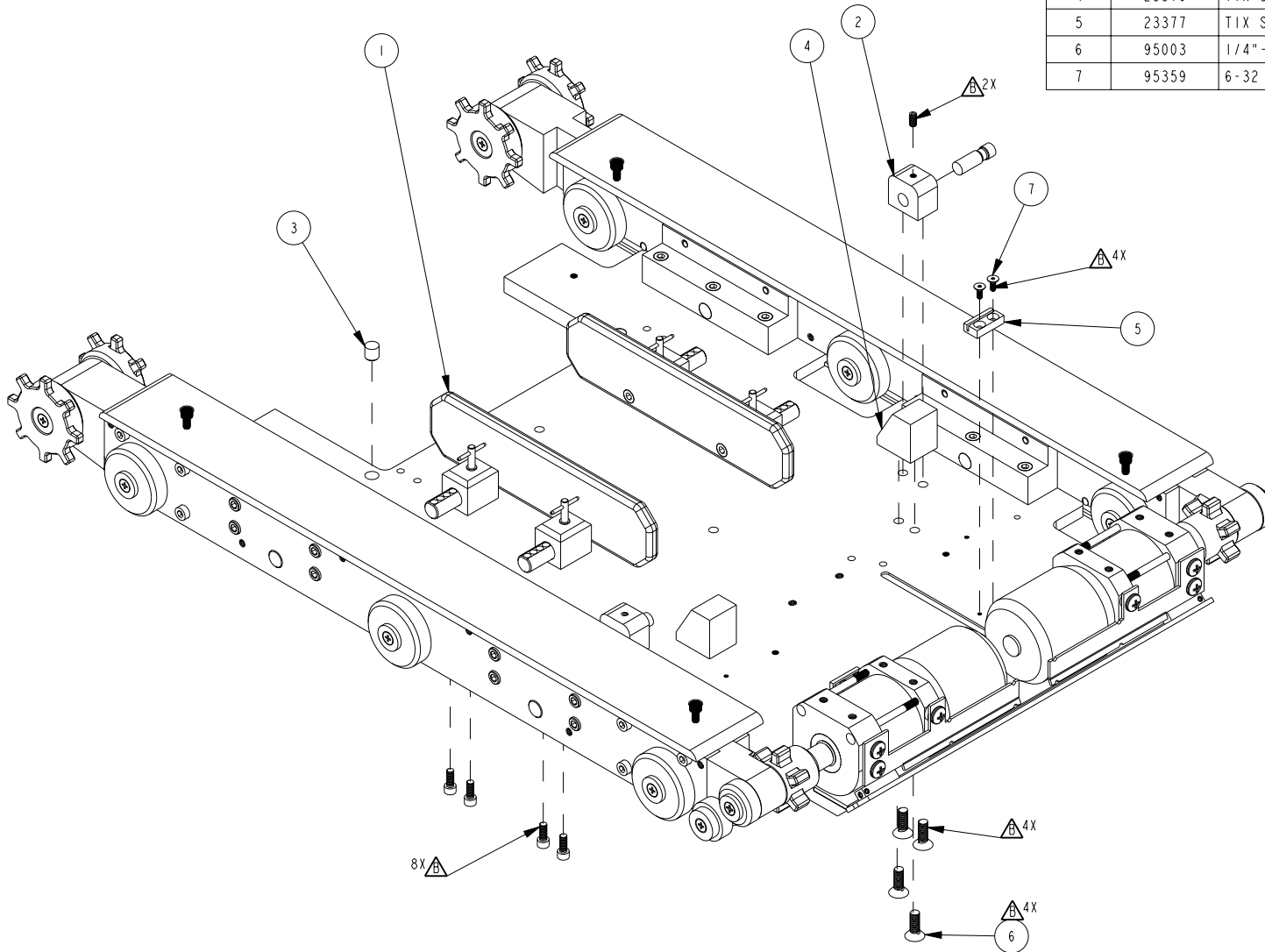
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SHEET **2** OF **10**

 BLUE REMOVABLE LOCTITE
 LOCTITE JOINT (GREEN)

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	22376	TUG PLATE PLUG	PART	2
4	23376	TIX STOP	PART	2
5	23377	TIX SIDE RAIL	PART	2
6	95003	1/4"-20 X 3/4" FLAT HEAD	PART	4
7	95359	6-32 X 3/8" FLAT HEAD	PART	4



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TI MODEL 2 TUG W SMALL MOTORS

DWG. NO. 09832

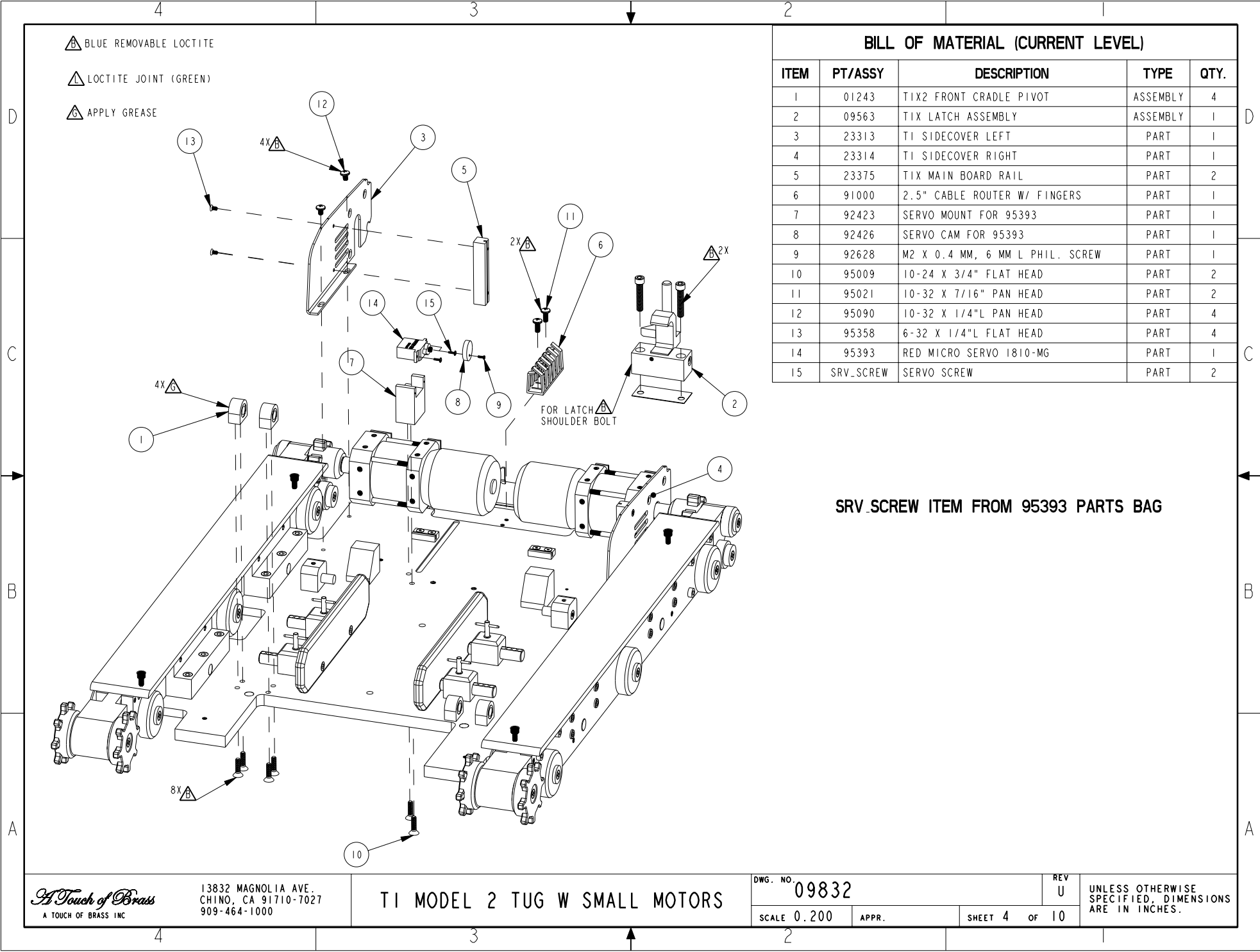
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SCALE 0.225

APPR.

SHEET 3 OF 10

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.



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

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01243	T1X2 FRONT CRADLE PIVOT	ASSEMBLY	4
2	09563	T1X LATCH ASSEMBLY	ASSEMBLY	1
3	23313	T1 SIDECOVER LEFT	PART	1
4	23314	T1 SIDECOVER RIGHT	PART	1
5	23375	T1X MAIN BOARD RAIL	PART	2
6	91000	2.5" CABLE ROUTER W/ FINGERS	PART	1
7	92423	SERVO MOUNT FOR 95393	PART	1
8	92426	SERVO CAM FOR 95393	PART	1
9	92628	M2 X 0.4 MM, 6 MM L PHIL. SCREW	PART	1
10	95009	10-24 X 3/4" FLAT HEAD	PART	2
11	95021	10-32 X 7/16" PAN HEAD	PART	2
12	95090	10-32 X 1/4" L PAN HEAD	PART	4
13	95358	6-32 X 1/4" L FLAT HEAD	PART	4
14	95393	RED MICRO SERVO 1810-MG	PART	1
15	SRV_SCREW	SERVO SCREW	PART	2

SRV_SCREW ITEM FROM 95393 PARTS BAG

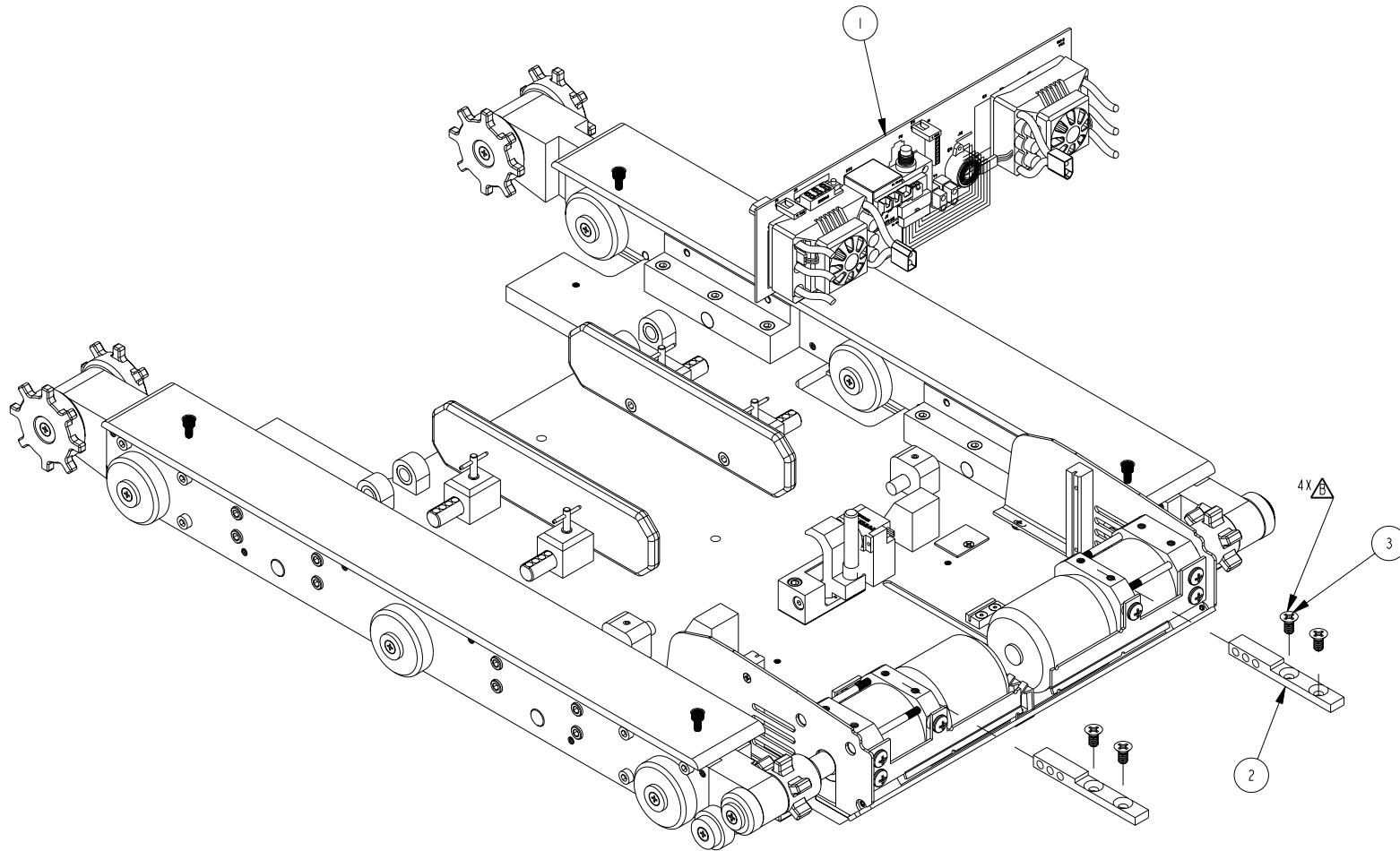
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13832 MAGNOLIA AVE.
CHINO, CA 91710-7027
909-464-1000

T1 MODEL 2 TUG W SMALL MOTORS

DWG. NO. 09832
SCALE 0.200 APPR. SHEET 4 OF 10
REV U
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

▲ BLUE REMOVABLE LOCTITE

BILL OF MATERIAL (CURRENT LEVEL)				
ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09835	T1X2 PC BOARD	ASSEMBLY	1
2	23427	WIRE HOLDER	PART	2
3	92222	1/4"-20 X 1/2" FLAT HEAD	PART	4



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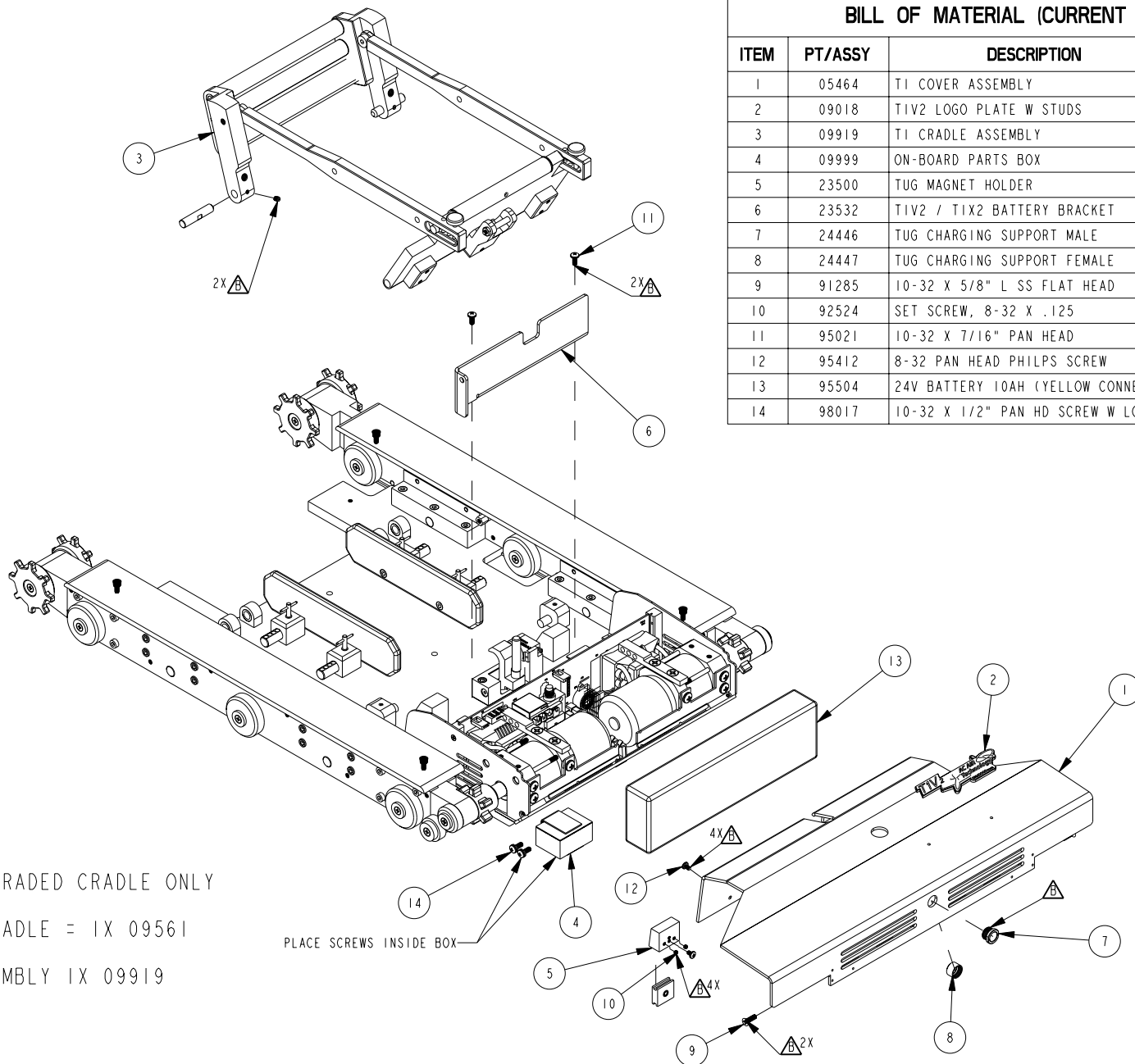
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SCALE 0.220

APPR.

SHEET 5 OF 10

▲ BLUE REMOVABLE LOCTITE



BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	05464	T1 COVER ASSEMBLY	ASSEMBLY	1
2	09018	T1V2 LOGO PLATE W STUDS	ASSEMBLY	1
3	09919	T1 CRADLE ASSEMBLY	ASSEMBLY	1
4	09999	ON-BOARD PARTS BOX	ASSEMBLY	1
5	23500	TUG MAGNET HOLDER	PART	2
6	23532	T1V2 / T1X2 BATTERY BRACKET	PART	1
7	24446	TUG CHARGING SUPPORT MALE	PART	1
8	24447	TUG CHARGING SUPPORT FEMALE	PART	1
9	91285	10-32 X 5/8" L SS FLAT HEAD	PART	2
10	92524	SET SCREW, 8-32 X .125	PART	4
11	95021	10-32 X 7/16" PAN HEAD	PART	2
12	95412	8-32 PAN HEAD PHILPS SCREW	PART	4
13	95504	24V BATTERY 10AH (YELLOW CONNECTOR)	PART	1
14	98017	10-32 X 1/2" PAN HD SCREW W LOCK WASHER	PART	2

NOTES: FOR UPGRADED CRADLE ONLY

1. UPGRADED CRADLE = IX 09561

2. REMOVE ASSEMBLY IX 09919

PLACE SCREWS INSIDE BOX

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REV U

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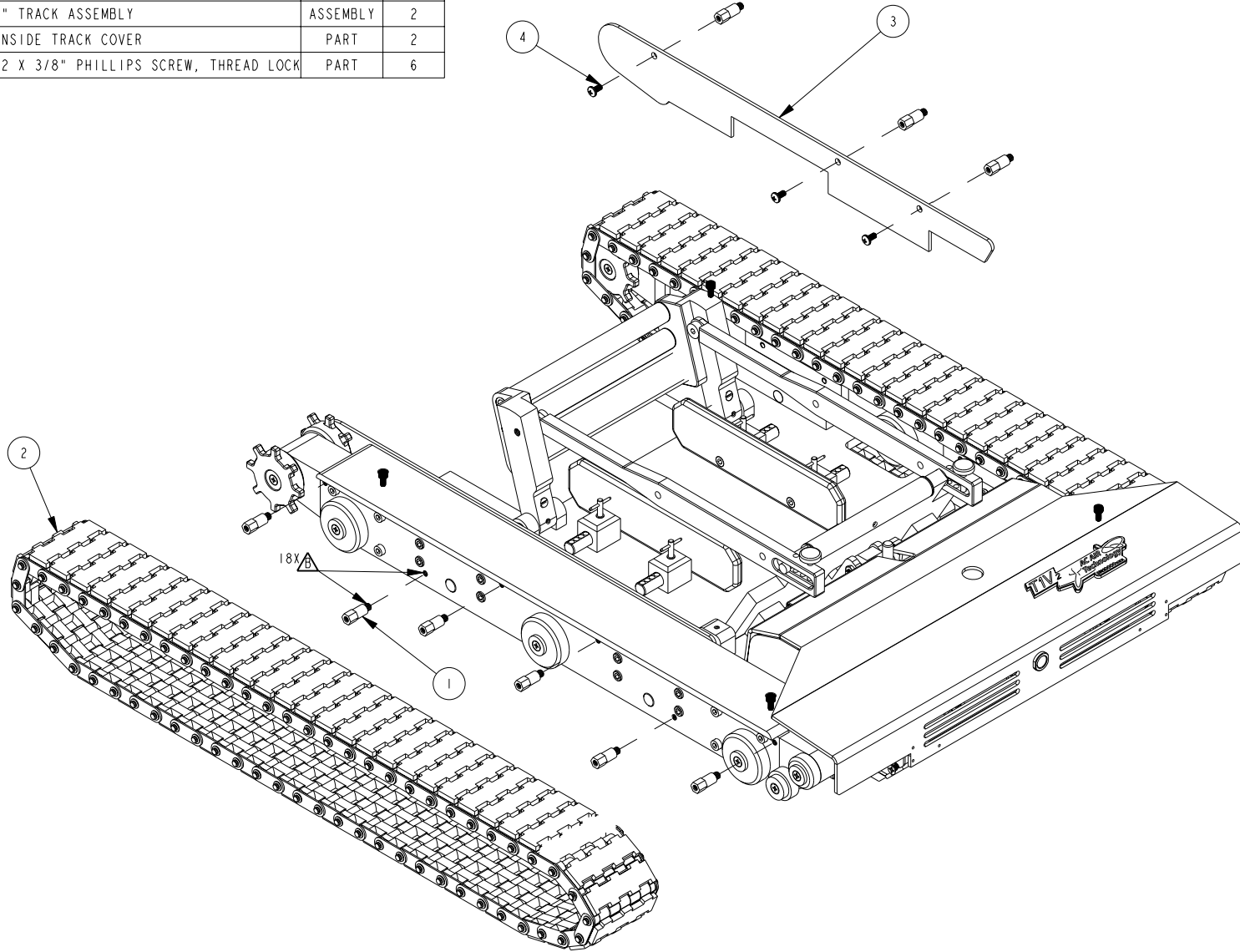
SCALE 0.145

APPR.

SHEET 6 OF 10

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	01247	SHORT SIDE COVER STANDOFF	ASSEMBLY	18
2	09831	TI 3" TRACK ASSEMBLY	ASSEMBLY	2
3	23444	TI INSIDE TRACK COVER	PART	2
4	95624	10-32 X 3/8" PHILLIPS SCREW, THREAD LOCK	PART	6



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TI MODEL 2 TUG W SMALL MOTORS

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REV U

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.



SCALE 0.180

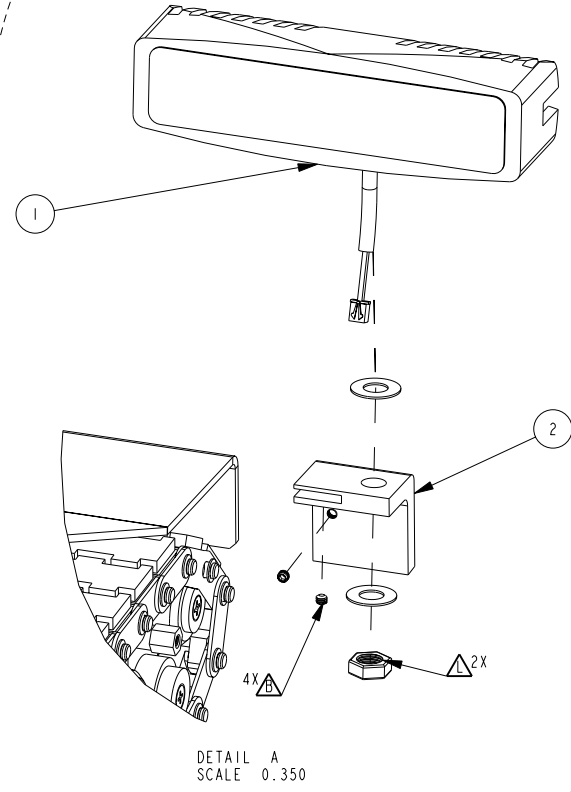
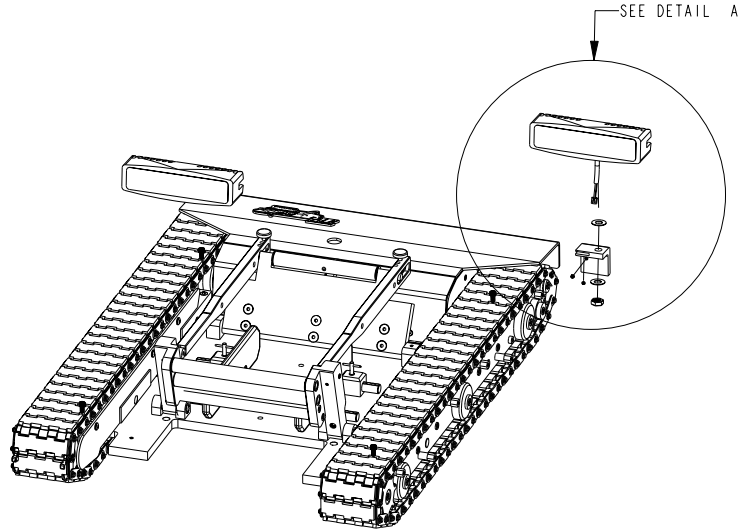
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SHEET 7 OF 10

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09538	LED FROM DONALD	ASSEMBLY	2
2	09860	TI LIGHT COMPONENTS KIT	ASSEMBLY	1

 LOCTITE JOINT (GREEN)
 BLUE REMOVABLE LOCTITE



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TI MODEL 2 TUG W SMALL MOTORS

DWG. NO. 09832		REV U	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
SCALE 0.100	APPR.	SHEET 8 OF 10	

4

3

2

BILL OF MATERIAL (CURRENT LEVEL)

ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	95017	1/4"-20 X 1/2" SOCKET CAP	PART	2
2	95400	T1X2 SHIPPING BRACKET	PART	1

D

D

C

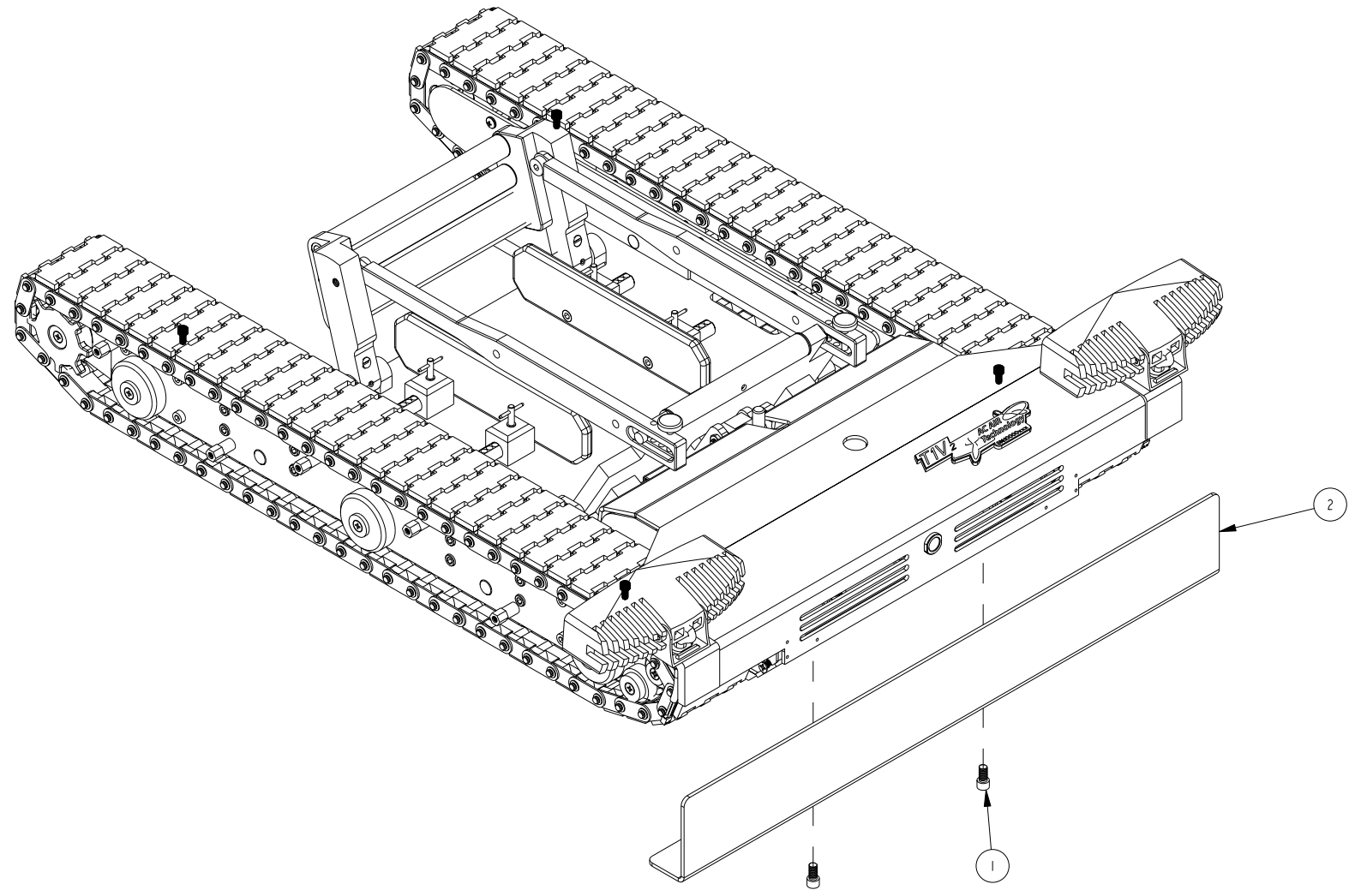
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B

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A

A



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T1 MODEL 2 TUG W SMALL MOTORS

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SCALE 0.200

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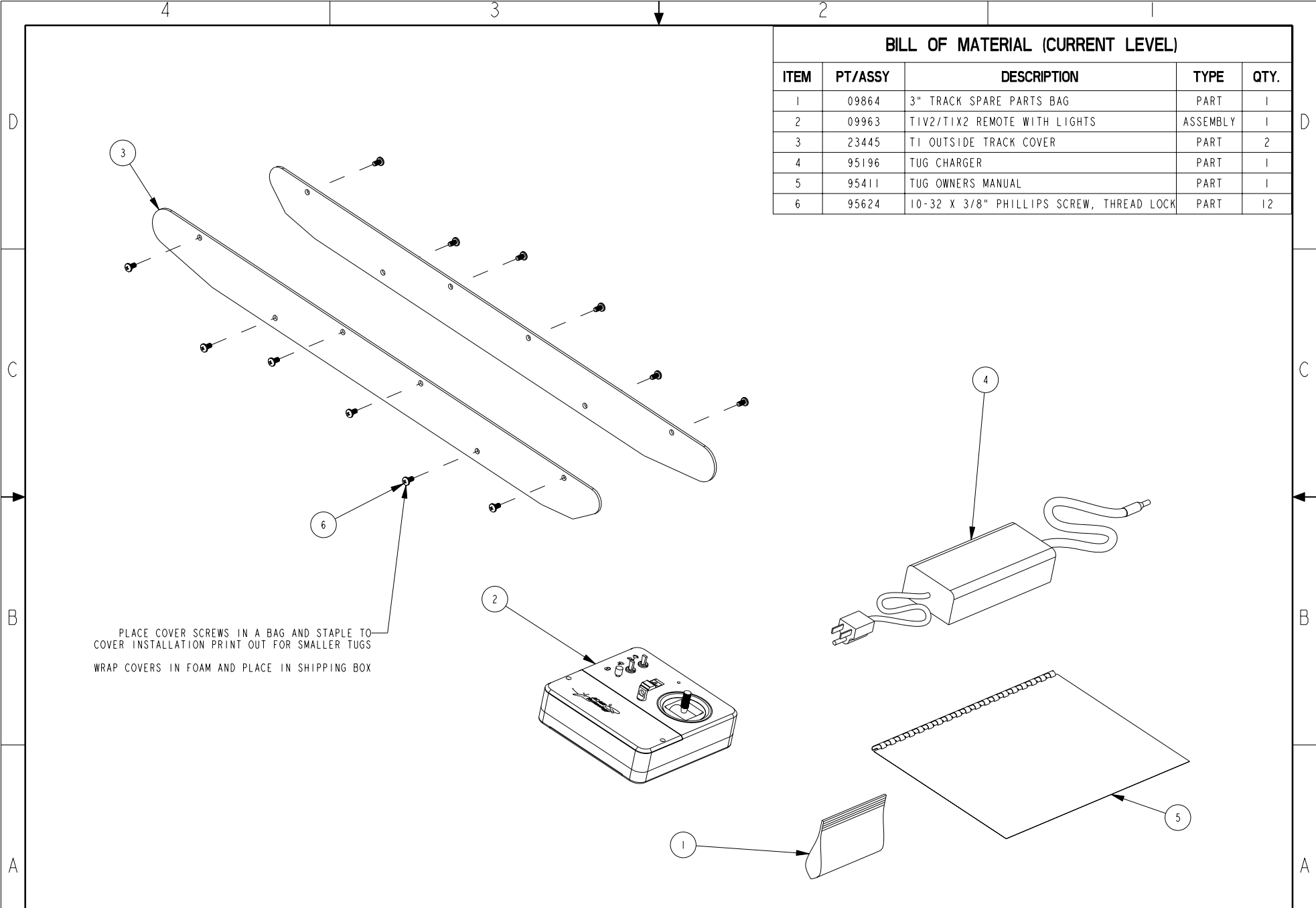
SHEET 9 OF 10

4

3

2

BILL OF MATERIAL (CURRENT LEVEL)				
ITEM	PT/ASSY	DESCRIPTION	TYPE	QTY.
1	09864	3" TRACK SPARE PARTS BAG	PART	1
2	09963	T1V2/T1X2 REMOTE WITH LIGHTS	ASSEMBLY	1
3	23445	T1 OUTSIDE TRACK COVER	PART	2
4	95196	TUG CHARGER	PART	1
5	95411	TUG OWNERS MANUAL	PART	1
6	95624	10-32 X 3/8" PHILLIPS SCREW, THREAD LOCK	PART	12



PLACE COVER SCREWS IN A BAG AND STAPLE TO COVER INSTALLATION PRINT OUT FOR SMALLER TUGS
 WRAP COVERS IN FOAM AND PLACE IN SHIPPING BOX

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SCALE 0.180

APPR.

SHEET 10 OF 10