

KRAMBLE INDUSTRIES INC.

Motorized Electric Utility Cart



OWNERS MANUAL

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General Operation

Control Panel

The Control Panel at the top of the handle assembly contains all of the controls necessary for normal operation.



Figure 1: Control Panel

Battery Level indicator shows the charge level of the battery in the Utility Cart. A green indicator means the battery level is good and the cart will operate, while an orange or red indicator means the battery needs to be charged soon. Flashing battery level indicator lights means the battery needs charging immediately!

Key Switch is the master power on/off switch for the Cart. Remove the key when the cart is not in use to prevent unauthorized use of the

Direction Rocker Switch (on the right hand side) has positions. The top position lights up green and will allow the cart to move away from the operator, then middle position is neutral, the lower position lights up in red warning the operator the cart will move toward them.

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Hand Throttle controls the speed of the cart. Maximum acceleration and deceleration are preprogrammed into the speed controller, but *be cautious when applying power to match your speed* and ensure there are *no obstacles behind you*. Simply let go of the handle and the cart will stop and will not roll on its own.

Auxiliary Output Switch is located next to the Direction Control Switch. This is a simple on/off 12V 10A 120W circuit. It can be used to power peripheral options like work lights or small motors for pumps or tools. The connector for this option is at the base of the handle. The auxiliary output is protected by a thermal fuse that automatically resets when cooled.

The Auxiliary output option includes a 5-foot length of cable to connect the Control Console to the 12V device. The polarity is as follows: +12V on the WHITE wire, and GROUND on the BLACK wire.

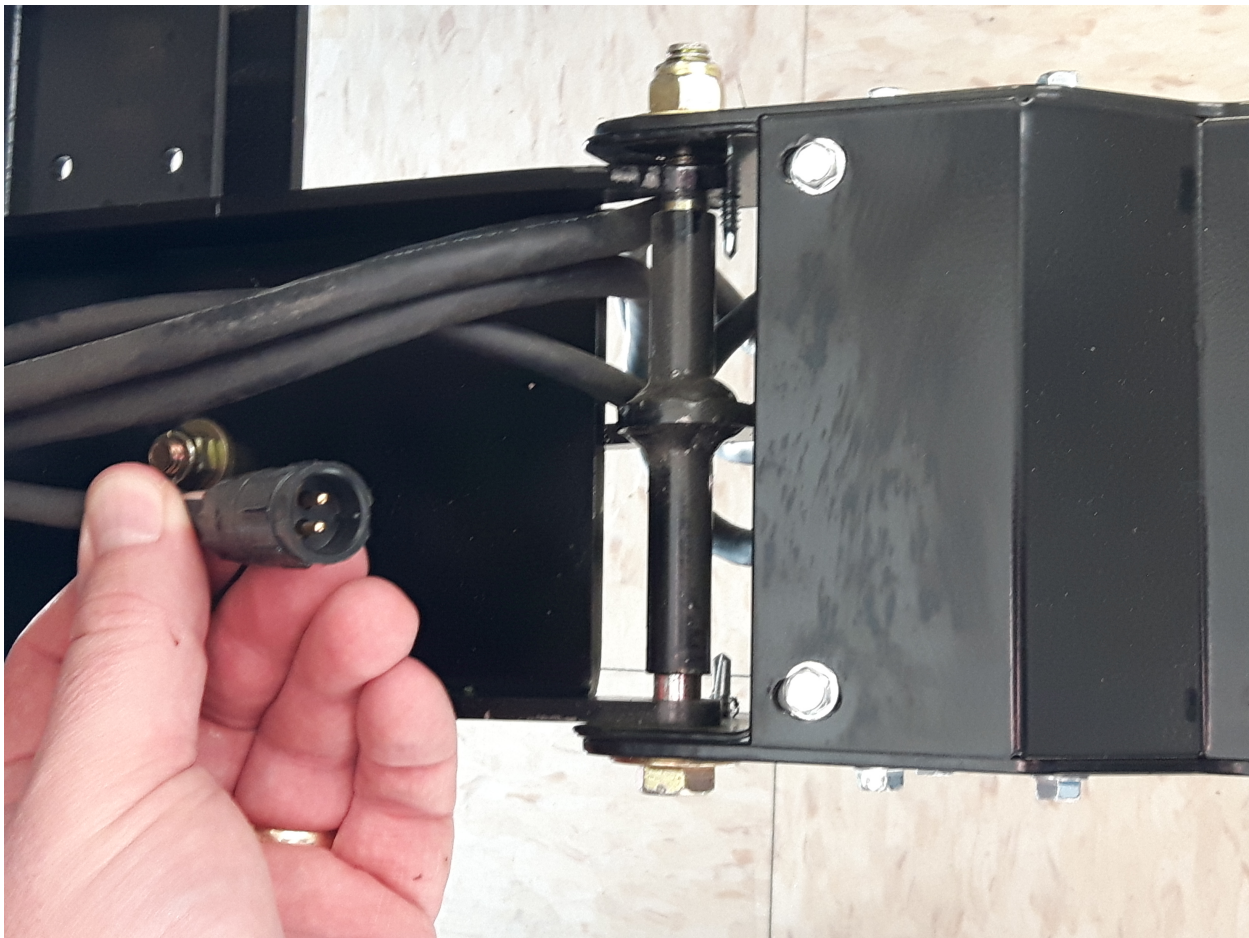


Figure 2: Auxiliary Output

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Driving

Take your time to get the feel of the speed and turning capabilities. These vehicles are powerful and can cause damage to property or person if not used with due care and attention.

Moving the handle side to side will make the cart steer. The vehicle steering design ensures a more stable footing and a more even distribution.

CAUTION

This cart is designed to operate on smooth to coarse even terrain. Rocky or drastically uneven terrain can cause unexpected movement. Payloads not properly secured or high center of gravity can move or tilt unexpectedly.

Charging

The cart is equipped with a 6A smart charger that will keep the battery safely charged. The charger will not over charge the battery. The plug is located at the back of the cart as shown in the picture below. (Standard carts are equipped with 120V chargers, 220V chargers are available)



Figure 3: Charging

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Speed vs Power

The cart can be equipped with wide range gears to accommodate speed vs power. We recommend;

- 9:24 for low speed high torque heavy payloads 2000lbs with inclines
- 9:14 for the best combination of payload to power on more level ground
- 1:1 for fast paced walking and payloads under 1000lbs. (approx. 5km/h)

Securing Cart for Transport

Operating weight of the cart is between 250-300lbs. Always use certified ratchet straps rated for at least 1000lbs. the cart is equipped with 4 payload and securing anchor points.



Figure 4: Secure for Transport

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Securing Payload

Always secure the payload using corner anchor points or side rails. Payloads are more likely to shift on inclines.

Maintenance

The cart is designed to require minimal maintenance. All axles use Teflon lined bushings that generally do not require lubrication. Standard wheel bearing grease or spray graphite would be the best lubricant for all moving connections. *Note: the Heavy Duty 4000lb Cart uses roller bearings that require greasing on a monthly basis.*

All components are designed to be water resistant and can be washed using bucket and water or high pressure washer. Avoid complete submersion in water.

SHOCK DANGER!

The cart MUST NOT be washed while still plugged into a 120V or 220V wall socket.

Cart Models

Motorized Utility Carts can be manufactured to suite any need. Some common arrangements are shown below. Contact Kramble Industries Inc. for more information.



Figure 5: Single Motor, Single Battery, 1000lbs payload



Figure 6: Single Motor Single Battery 2500lbs Payload

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Figure 7: Heavy Duty Cart – Dual Motor, 4 Battery, 4000lbs Payload



Figure 8: Barn Cart – 1500lbs 4' x 8' Deck

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Specifications

Electric Motor

- 12VDC @100A Full Load
- Torque 1125 in-lb
- Speed 60RPM (No Load)
- Duty Cycle 5%
- Weight 16lbs
- IP55

Speed Controller

- Input 12VDC
- Control Method – Pulse Width Modulation
- Output Limiting Current – 100A
- Waterproof

Battery

- 12V
- AGM Gel
- Deep Cycle
- 55Ah

Charger

- Input 120V or 220V
- Max Charge 6A
- Auto Shut Off
- Waterproof

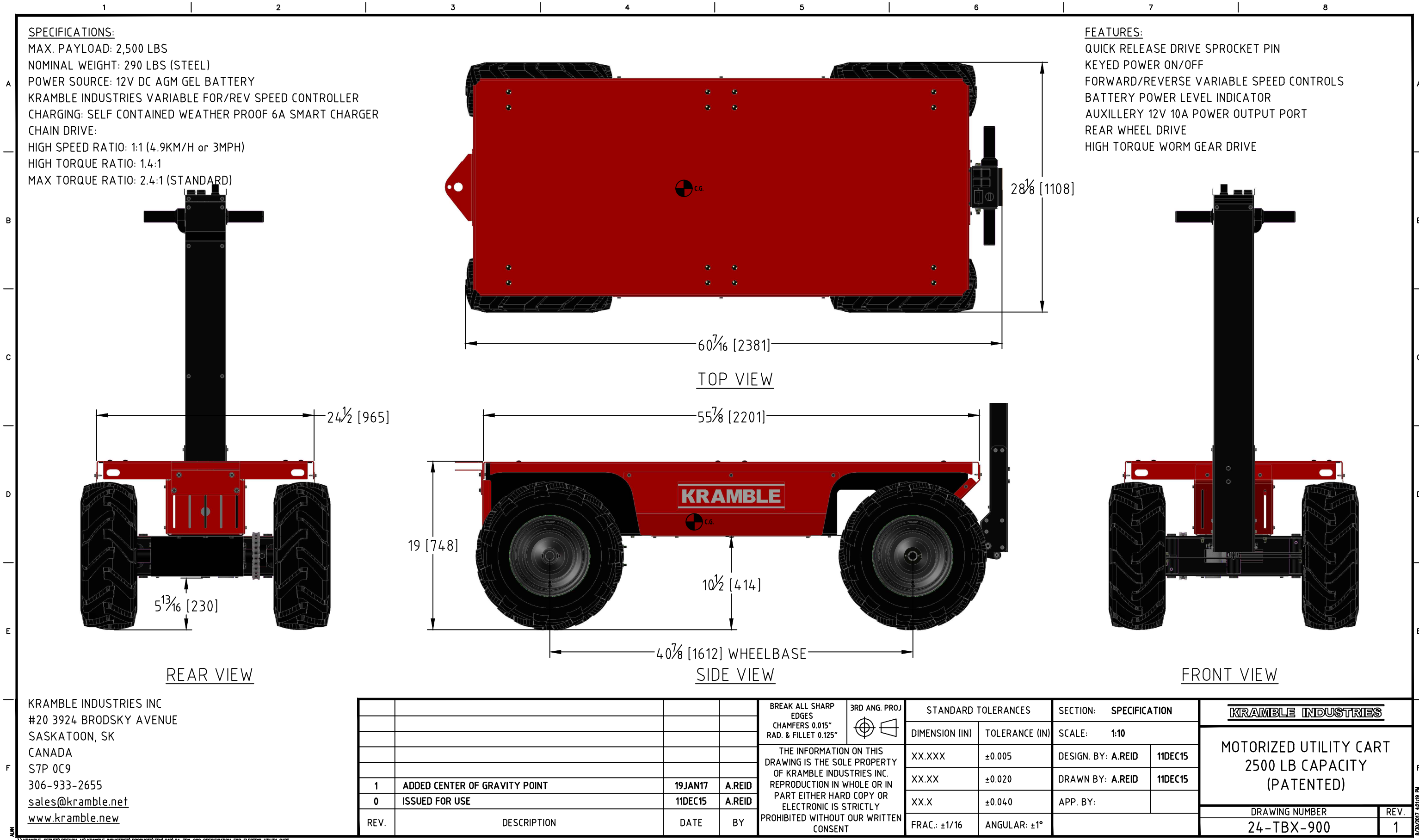
Think Safety!

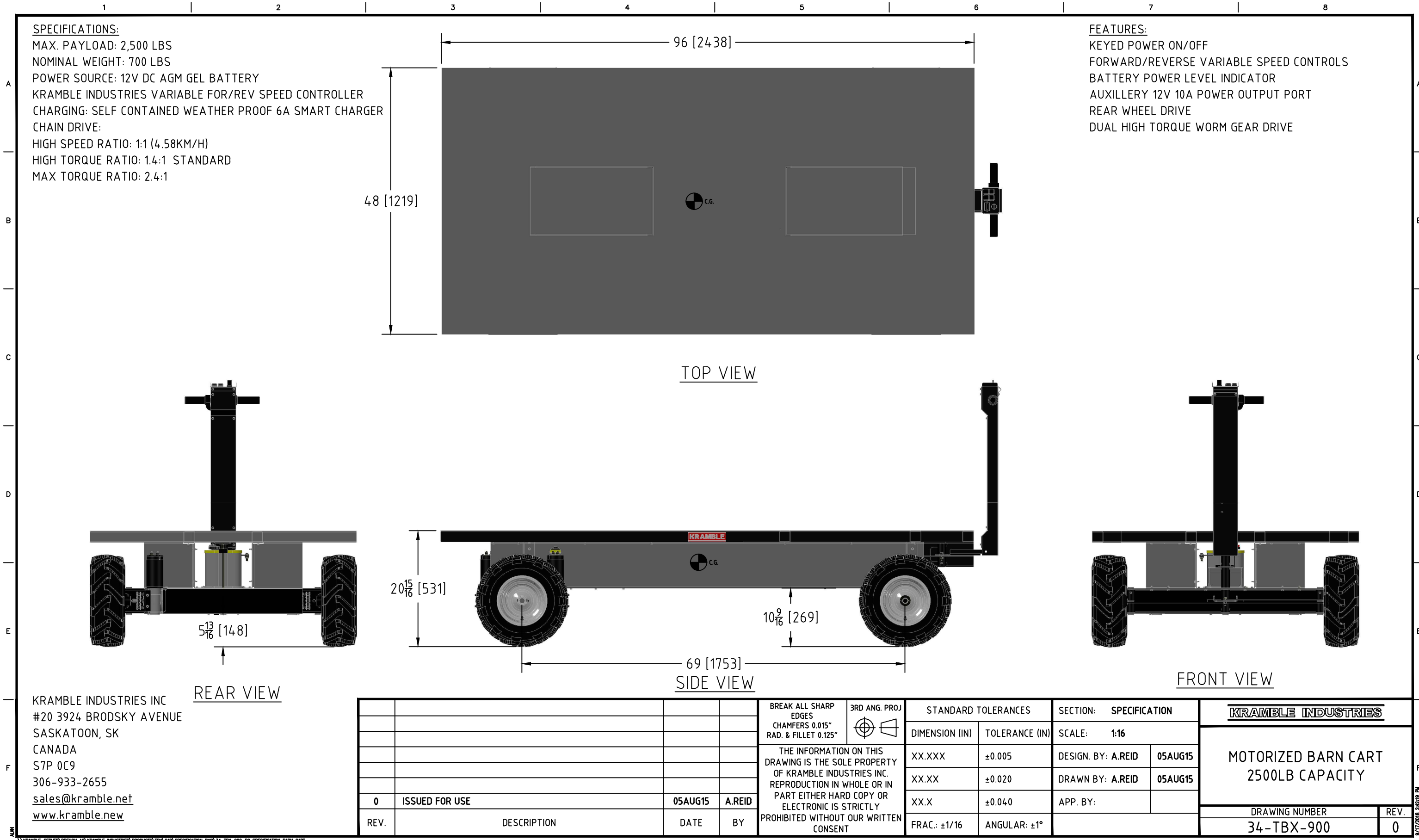
Do no install or operate where damage to persons or property may occur

Replacement Parts

Part#	Description
38520	Motorized Utility Cart PWM Speed Controller
38526	Motorized Utility Cart - Extra Battery Kit
38527	Motorized Utility Cart 110V/240V 6A Marine Smart Charger
38530	Motorized Utility Cart - High Torque Gear Kit
38540	Motorized Utility Cart - Replacement Handle Assembly
38541	Motorized Utility Cart - Handle Control Cable Kit
38547	Motorized Utility Cart - Turf Tire Upgrade (4 Tires)
38550	Motorized Utility Cart Work Light Kit
38710	Motorized Utility Cart Foam Filled Tire Upgrade (4 Tires)
39531	Wheel, Tubeless Lug 16/6.50x8 (Right)
39532	Wheel, Tubeless Lug 16/6.50x8 (Left)
39550	Motor, 12vdc 100A Right Angle Worm Gear 90:1
90370	Sprocket, #50 9 Tooth 3/4" Bore
90386	Hand Throttle (pair)
90403	Bearing, 1" Self-Aligning PTFE
90407	Sprocket, #50 14 Tooth 1" ID Quick Release
90462	Chain, #50 SS x 29 Links
90628	Bearing, 7/8" Press In PTFE
90748	Switch, Rocker SPDT 20A 12V
90749	Switch, Rocker SPST 16A 30V
90750	Switch, Keylock Snap-In SPDT BLK 125V
91005	Battery, 12 Volt AGM Gel Deep Cycle
91008	Battery Power Level Indicator 12V
91166	Bearing, Flange Mount for 1" Bearing
91167	Bearing, 1" Bore Spherical Self Aligning with Eccentric Locking Ring

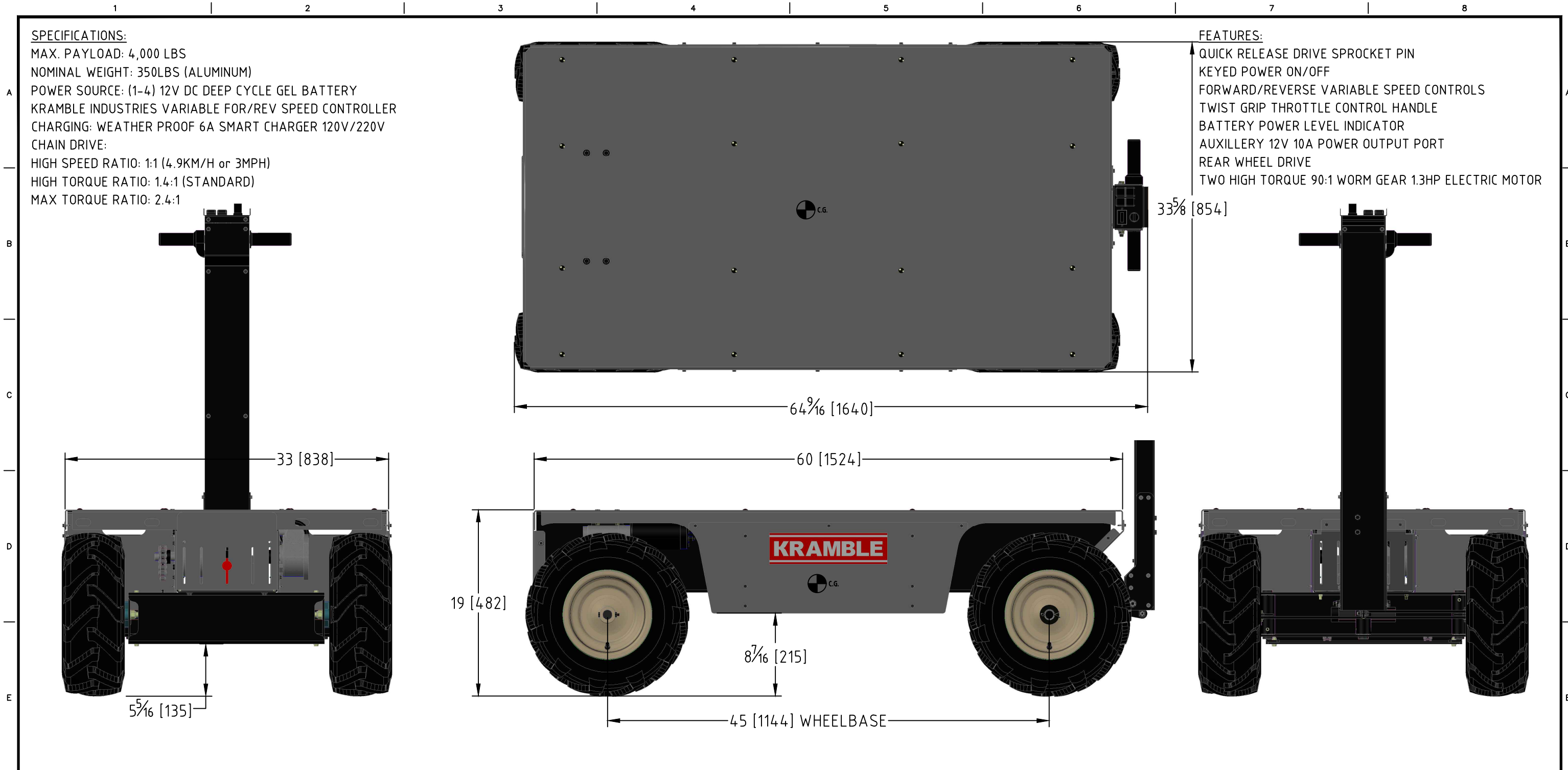
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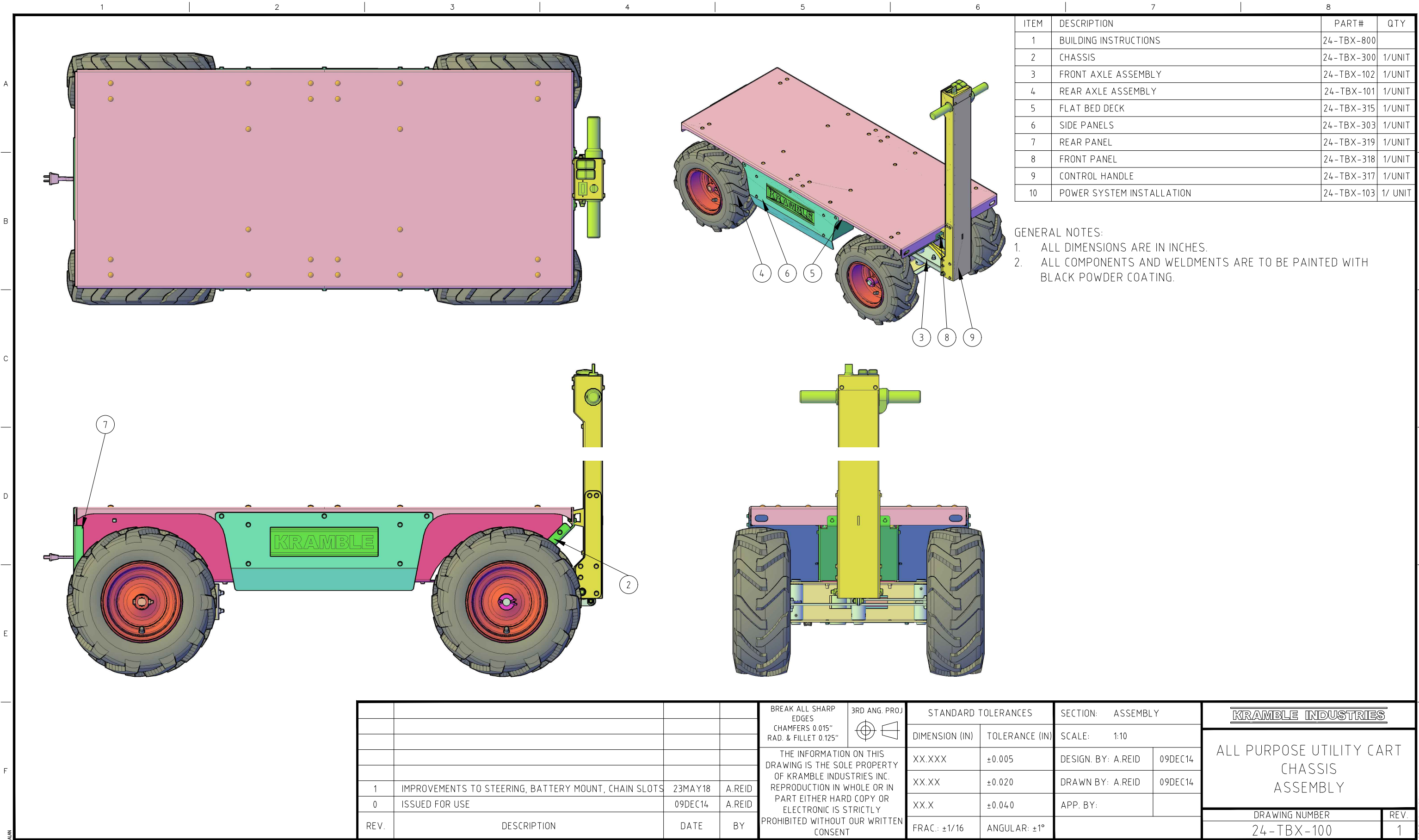


KRAMBLE INDUSTRIES INC
#20 3924 BRODSKY AVENUE
SASKATOON, SK
CANADA
S7P 0C9
306-933-2655
sales@kramble.net
www.kramble.new

				BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"	3RD ANG. PROJ	STANDARD TOLERANCES		SECTION: SPECIFICATION		KRAMBLE INDUSTRIES	
						DIMENSION (IN)	TOLERANCE (IN)	SCALE: 1:16		MOTORIZED BARN CART 2500LB CAPACITY	
						XX.XXX	±0.005	DESIGN. BY: A.REID	05AUG15		
						XX.XX	±0.020	DRAWN BY: A.REID	05AUG15		
						XX.X	±0.040	APP. BY:			
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REV.	DESCRIPTION	DATE	BY							34-TBX-900	0

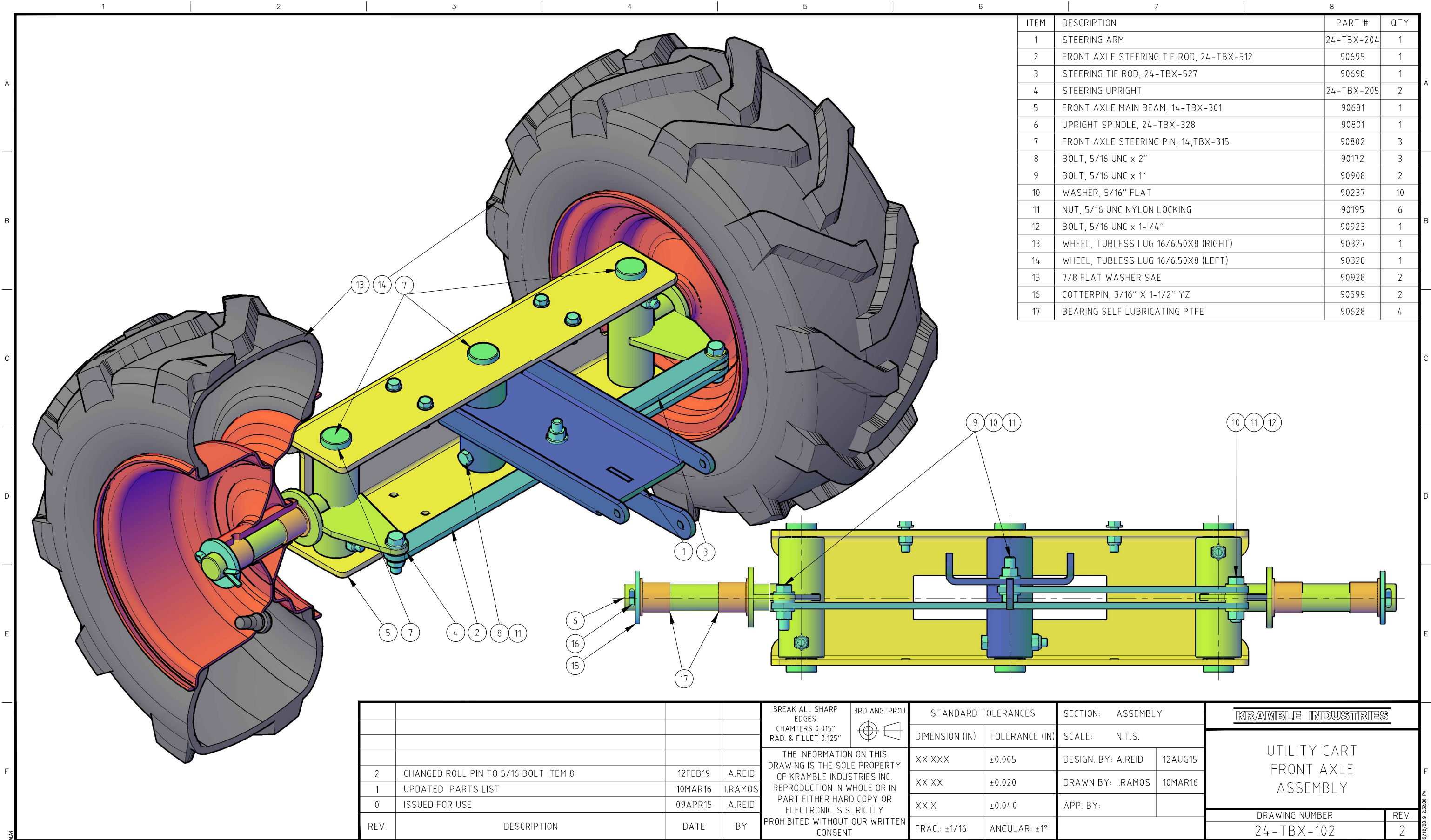


KRAMBLE INDUSTRIES INC #20 3924 BRODSKY AVENUE SASKATOON, SK CANADA S7P 0C9 306-933-2655 sales@kramble.net www.kramble.net								BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"		3RD ANG. PROJ 		STANDARD TOLERANCES		SECTION: SPECIFICATION		KRAMBLE INDUSTRIES			
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												XX.XX	±0.020	DRAWN BY: A.REID 29JUL16					
												XX.X	±0.040	APP. BY:					



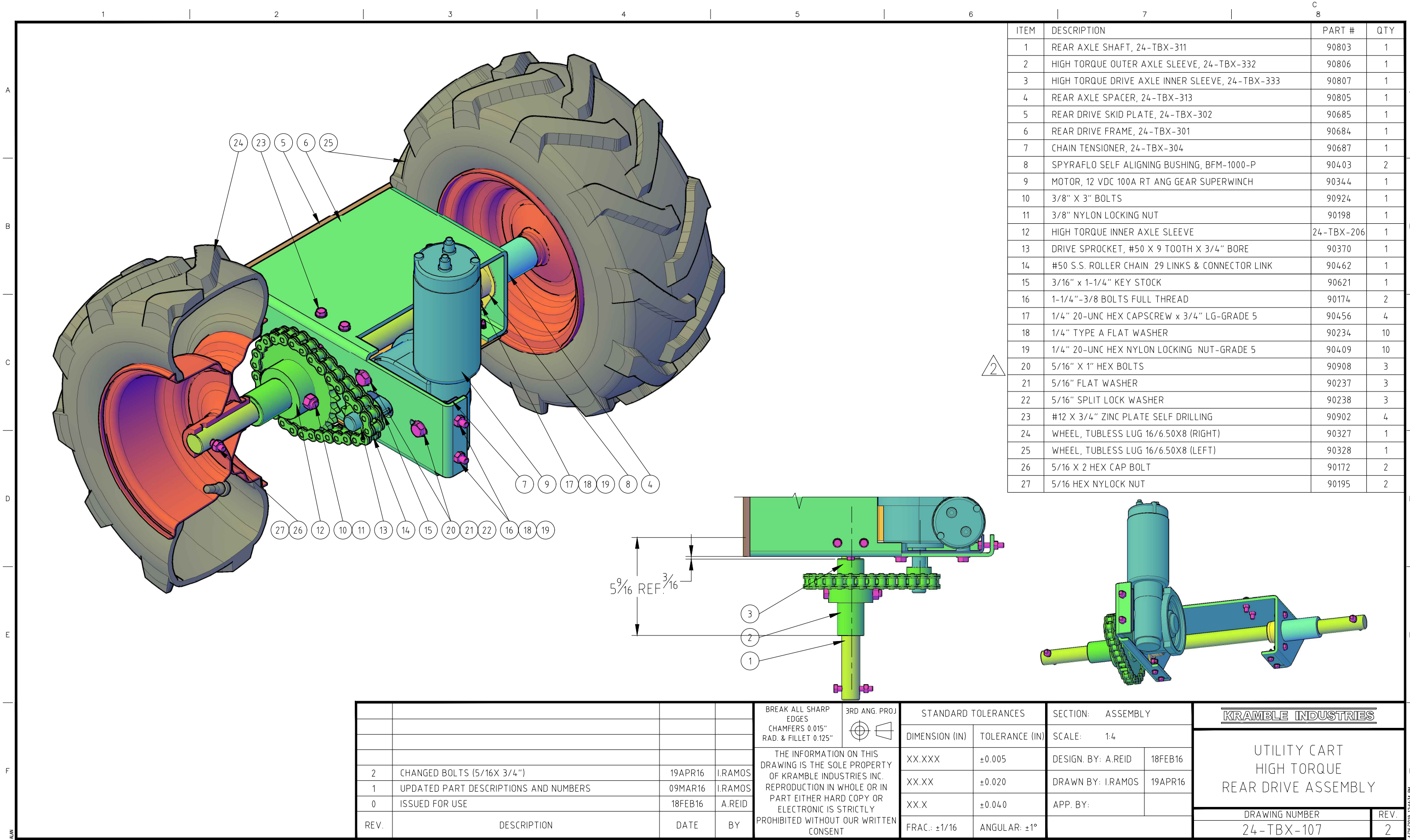
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2	CHASSIS	24-TBX-300	1/UNIT
3	FRONT AXLE ASSEMBLY	24-TBX-102	1/UNIT
4	REAR AXLE ASSEMBLY	24-TBX-101	1/UNIT
5	FLAT BED DECK	24-TBX-315	1/UNIT
6	SIDE PANELS	24-TBX-303	1/UNIT
7	REAR PANEL	24-TBX-319	1/UNIT
8	FRONT PANEL	24-TBX-318	1/UNIT
9	CONTROL HANDLE	24-TBX-317	1/UNIT
10	POWER SYSTEM INSTALLATION	24-TBX-103	1/ UNIT

				BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"		STANDARD TOLERANCES		SECTION: ASSEMBLY		KRAMBLE INDUSTRIES ALL PURPOSE UTILITY CART CHASSIS ASSEMBLY		
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				THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT		XX.XXX	±0.005	DESIGN. BY: A.REID	09DEC14	DRAWING NUMBER 24-TBX-100 REV. 1		
						XX.XX	±0.020	DRAWN BY: A.REID				09DEC14
						XX.X	±0.040	APP. BY:				
1	IMPROVEMENTS TO STEERING, BATTERY MOUNT, CHAIN SLOTS	23MAY18	A.REID									
0	ISSUED FOR USE	09DEC14	A.REID									
REV.	DESCRIPTION	DATE	BY			FRAC.: ±1/16	ANGULAR: ±1°					



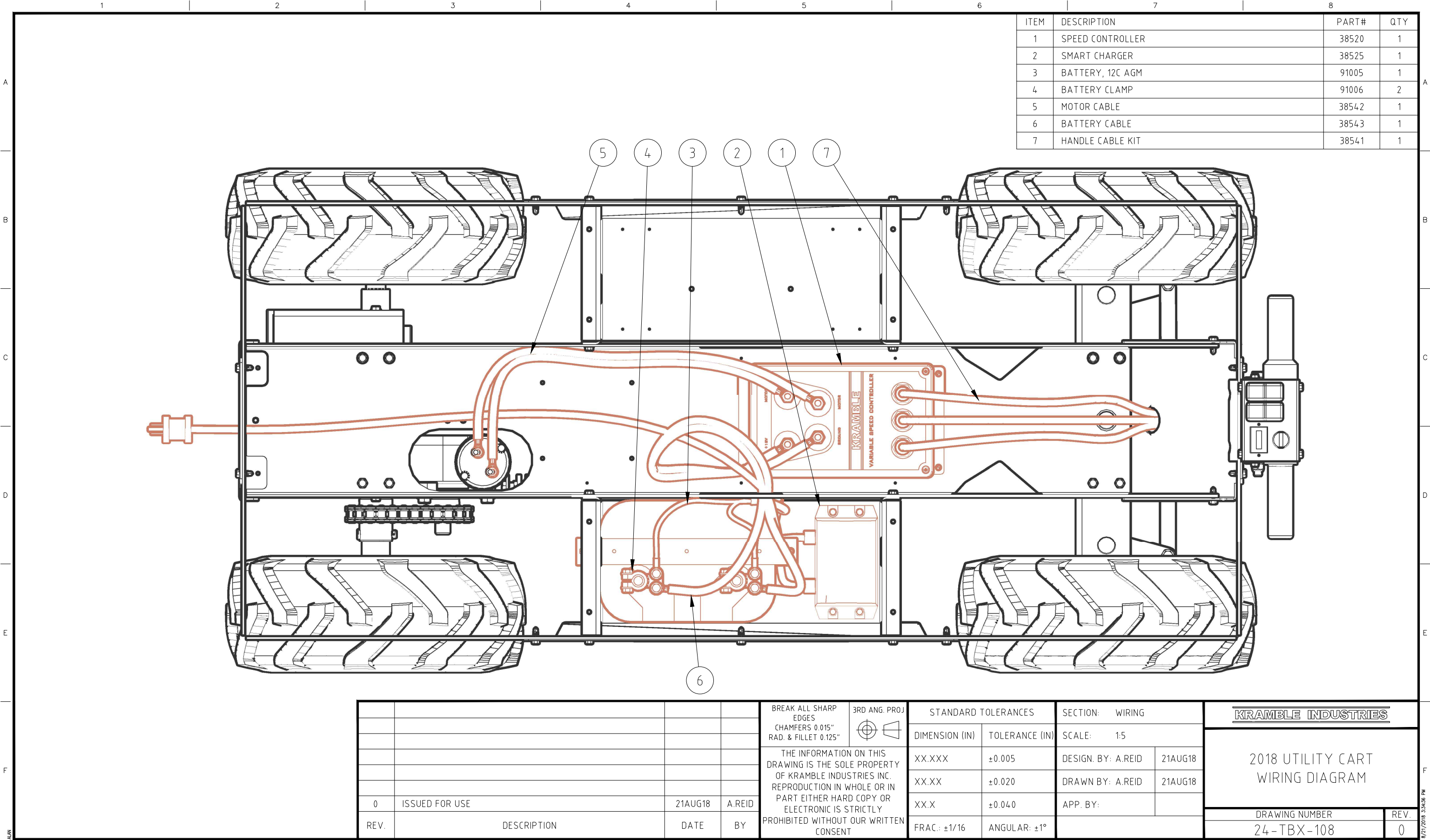
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2	FRONT AXLE STEERING TIE ROD, 24-TBX-512	90695	1
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4	STEERING UPRIGHT	24-TBX-205	2
5	FRONT AXLE MAIN BEAM, 14-TBX-301	90681	1
6	UPRIGHT SPINDLE, 24-TBX-328	90801	1
7	FRONT AXLE STEERING PIN, 14,TBX-315	90802	3
8	BOLT, 5/16 UNC x 2"	90172	3
9	BOLT, 5/16 UNC x 1"	90908	2
10	WASHER, 5/16" FLAT	90237	10
11	NUT, 5/16 UNC NYLON LOCKING	90195	6
12	BOLT, 5/16 UNC x 1-1/4"	90923	1
13	WHEEL, TUBLESS LUG 16/6.50X8 (RIGHT)	90327	1
14	WHEEL, TUBLESS LUG 16/6.50X8 (LEFT)	90328	1
15	7/8 FLAT WASHER SAE	90928	2
16	COTTERPIN, 3/16" X 1-1/2" YZ	90599	2
17	BEARING SELF LUBRICATING PTFE	90628	4

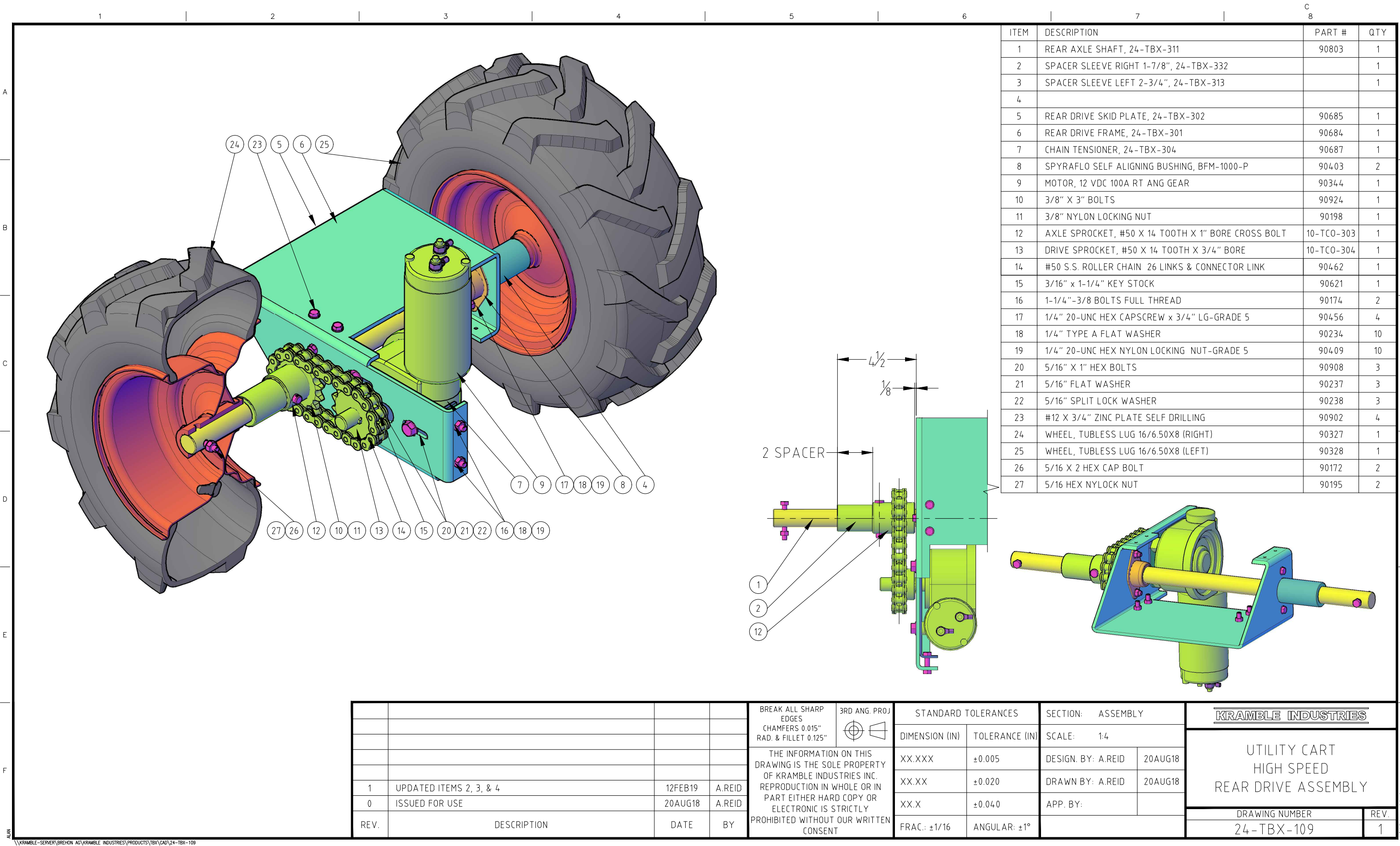
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				THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT		XX.XXX	±0.005	DESIGN. BY: A.REID	12AUG15	DRAWING NUMBER 24-TBX-102 REV. 2		
2	CHANGED ROLL PIN TO 5/16 BOLT ITEM 8	12FEB19	A.REID			XX.XX	±0.020	DRAWN BY: I.RAMOS				10MAR16
1	UPDATED PARTS LIST	10MAR16	I.RAMOS			XX.X	±0.040	APP. BY:				
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REV.	DESCRIPTION	DATE	BY									

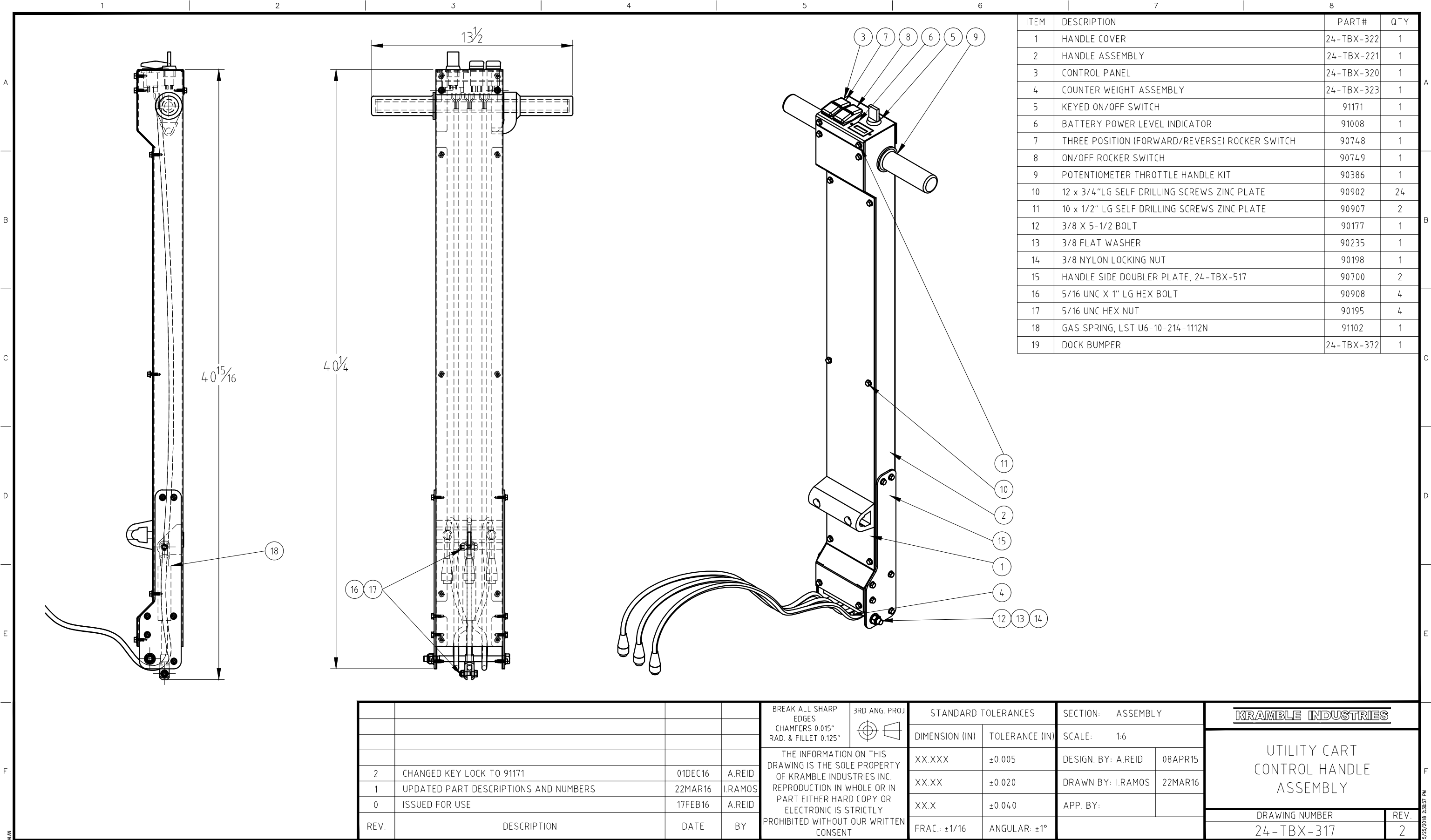


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1	REAR AXLE SHAFT, 24-TBX-311	90803	1
2	HIGH TORQUE OUTER AXLE SLEEVE, 24-TBX-332	90806	1
3	HIGH TORQUE DRIVE AXLE INNER SLEEVE, 24-TBX-333	90807	1
4	REAR AXLE SPACER, 24-TBX-313	90805	1
5	REAR DRIVE SKID PLATE, 24-TBX-302	90685	1
6	REAR DRIVE FRAME, 24-TBX-301	90684	1
7	CHAIN TENSIONER, 24-TBX-304	90687	1
8	SPYRAFLO SELF ALIGNING BUSHING, BFM-1000-P	90403	2
9	MOTOR, 12 VDC 100A RT ANG GEAR SUPERWINCH	90344	1
10	3/8" X 3" BOLTS	90924	1
11	3/8" NYLON LOCKING NUT	90198	1
12	HIGH TORQUE INNER AXLE SLEEVE	24-TBX-206	1
13	DRIVE SPROCKET, #50 X 9 TOOTH X 3/4" BORE	90370	1
14	#50 S.S. ROLLER CHAIN 29 LINKS & CONNECTOR LINK	90462	1
15	3/16" x 1-1/4" KEY STOCK	90621	1
16	1-1/4"-3/8 BOLTS FULL THREAD	90174	2
17	1/4" 20-UNC HEX CAPSCREW x 3/4" LG-GRADE 5	90456	4
18	1/4" TYPE A FLAT WASHER	90234	10
19	1/4" 20-UNC HEX NYLON LOCKING NUT-GRADE 5	90409	10
20	5/16" X 1" HEX BOLTS	90908	3
21	5/16" FLAT WASHER	90237	3
22	5/16" SPLIT LOCK WASHER	90238	3
23	#12 X 3/4" ZINC PLATE SELF DRILLING	90902	4
24	WHEEL, TUBLESS LUG 16/6.50X8 (RIGHT)	90327	1
25	WHEEL, TUBLESS LUG 16/6.50X8 (LEFT)	90328	1
26	5/16 X 2 HEX CAP BOLT	90172	2
27	5/16 HEX NYLOCK NUT	90195	2

				BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125" 3RD ANG. PROJ  THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT	STANDARD TOLERANCES		SECTION: ASSEMBLY		KRAMBLE INDUSTRIES UTILITY CART HIGH TORQUE REAR DRIVE ASSEMBLY DRAWING NUMBER 24-TBX-107 REV. 2	
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					XX.XXX	±0.005	DESIGN. BY: A.REID	18FEB16		
2	CHANGED BOLTS (5/16X 3/4")	19APR16	I.RAMOS		XX.XX	±0.020	DRAWN BY: I.RAMOS	19APR16		
1	UPDATED PART DESCRIPTIONS AND NUMBERS	09MAR16	I.RAMOS		XX.X	±0.040	APP. BY:			
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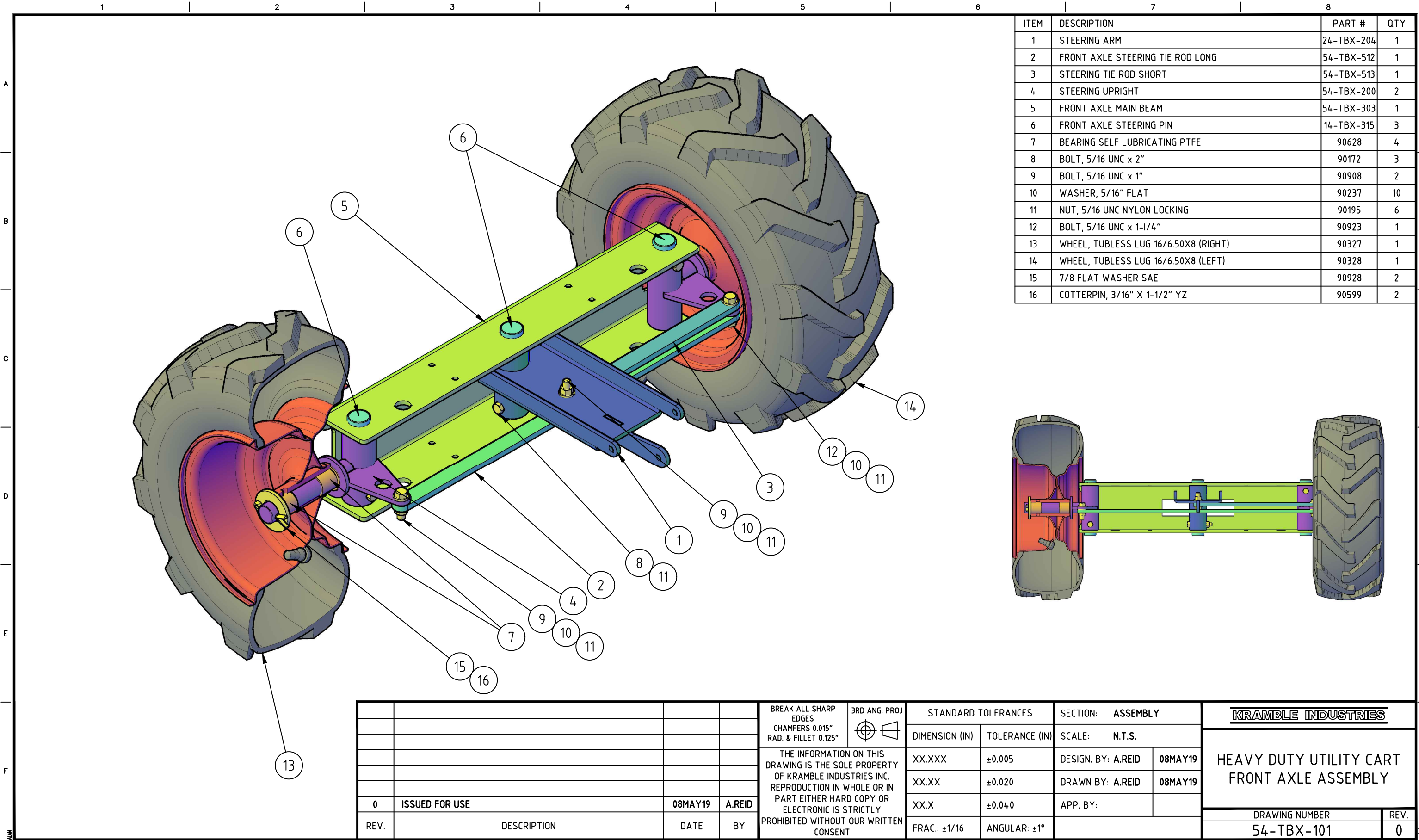




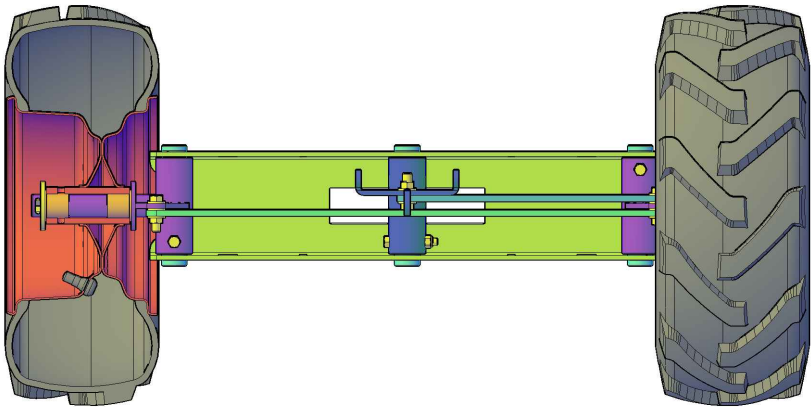


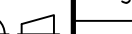
ITEM	DESCRIPTION	PART#	QTY
1	HANDLE COVER	24-TBX-322	1
2	HANDLE ASSEMBLY	24-TBX-221	1
3	CONTROL PANEL	24-TBX-320	1
4	COUNTER WEIGHT ASSEMBLY	24-TBX-323	1
5	KEYED ON/OFF SWITCH	91171	1
6	BATTERY POWER LEVEL INDICATOR	91008	1
7	THREE POSITION (FORWARD/REVERSE) ROCKER SWITCH	90748	1
8	ON/OFF ROCKER SWITCH	90749	1
9	POTENTIOMETER THROTTLE HANDLE KIT	90386	1
10	12 x 3/4" LG SELF DRILLING SCREWS ZINC PLATE	90902	24
11	10 x 1/2" LG SELF DRILLING SCREWS ZINC PLATE	90907	2
12	3/8 X 5-1/2 BOLT	90177	1
13	3/8 FLAT WASHER	90235	1
14	3/8 NYLON LOCKING NUT	90198	1
15	HANDLE SIDE DOUBLER PLATE, 24-TBX-517	90700	2
16	5/16 UNC X 1" LG HEX BOLT	90908	4
17	5/16 UNC HEX NUT	90195	4
18	GAS SPRING, LST U6-10-214-1112N	91102	1
19	DOCK BUMPER	24-TBX-372	1

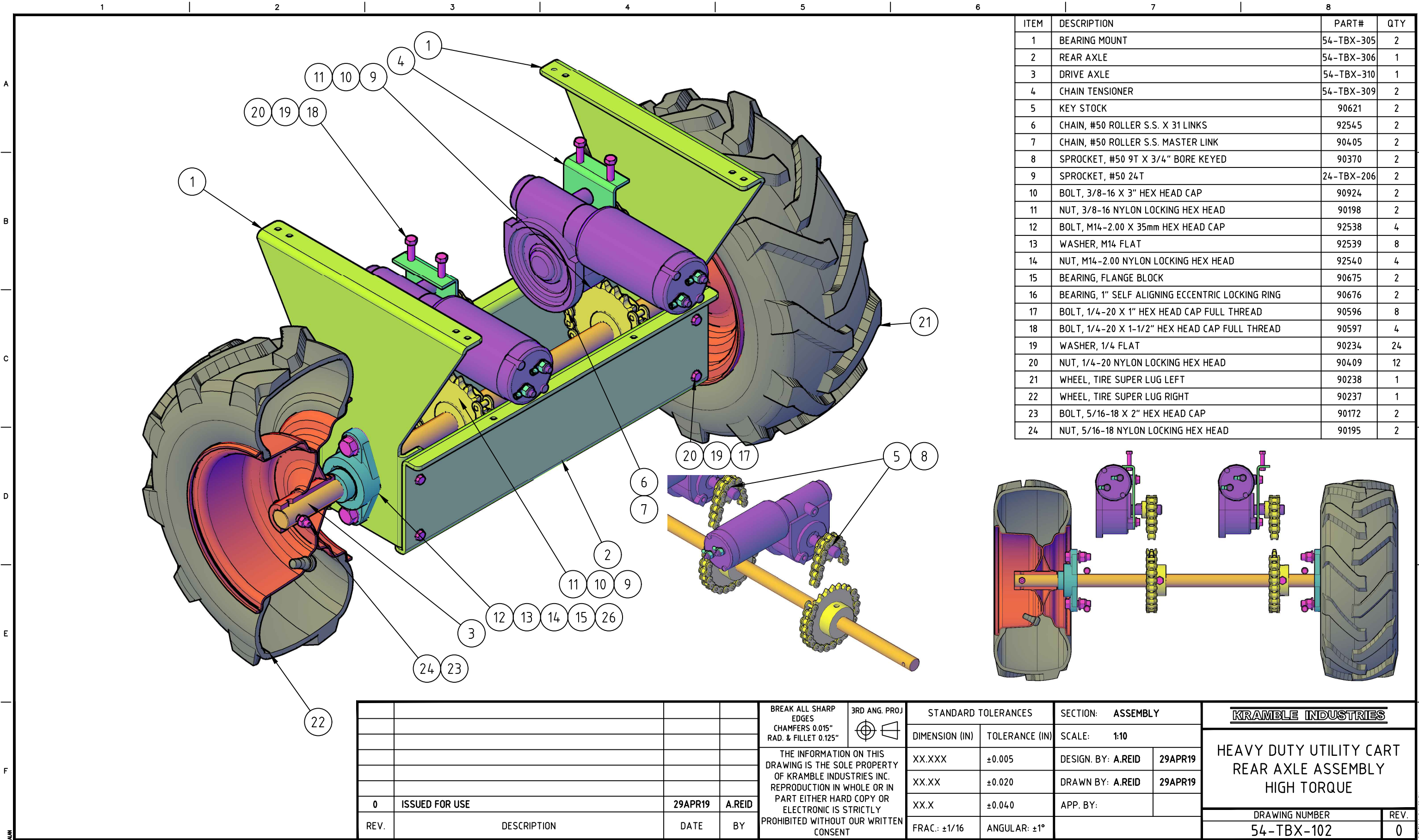
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						THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT	XX.XXX	±0.005	DESIGN. BY: A.REID	08APR15	UTILITY CART CONTROL HANDLE ASSEMBLY
2	CHANGED KEY LOCK TO 91171	01DEC16	A.REID				XX.XX	±0.020	DRAWN BY: I.RAMOS	22MAR16	
1	UPDATED PART DESCRIPTIONS AND NUMBERS	22MAR16	I.RAMOS	XX.X	±0.040		APP. BY:				
0	ISSUED FOR USE	17FEB16	A.REID	FRAC.: ±1/16	ANGULAR: ±1°						
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								24-TBX-317		2	

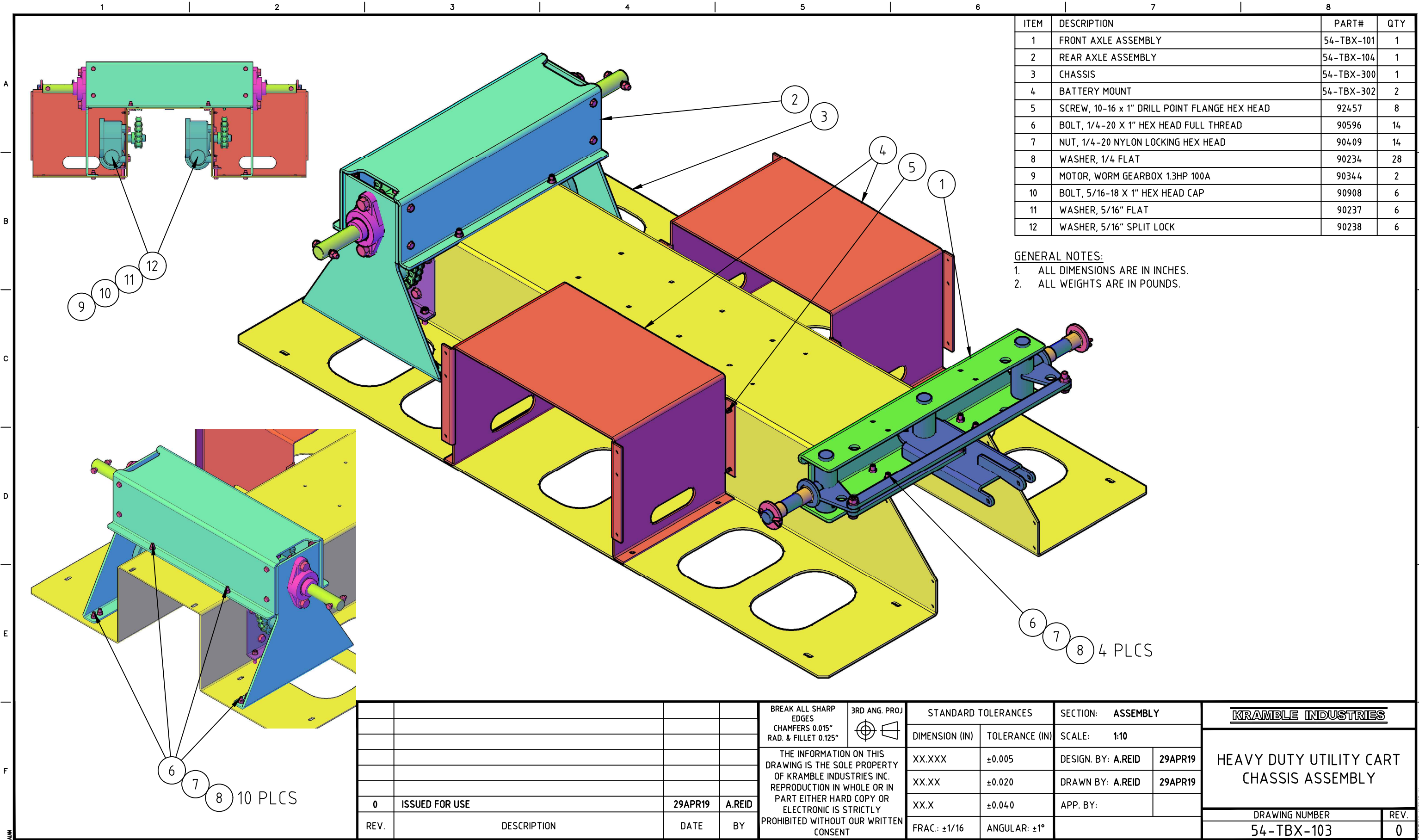


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1	STEERING ARM	24-TBX-204	1
2	FRONT AXLE STEERING TIE ROD LONG	54-TBX-512	1
3	STEERING TIE ROD SHORT	54-TBX-513	1
4	STEERING UPRIGHT	54-TBX-200	2
5	FRONT AXLE MAIN BEAM	54-TBX-303	1
6	FRONT AXLE STEERING PIN	14-TBX-315	3
7	BEARING SELF LUBRICATING PTFE	90628	4
8	BOLT, 5/16 UNC x 2"	90172	3
9	BOLT, 5/16 UNC x 1"	90908	2
10	WASHER, 5/16" FLAT	90237	10
11	NUT, 5/16 UNC NYLON LOCKING	90195	6
12	BOLT, 5/16 UNC x 1-1/4"	90923	1
13	WHEEL, TUBLESS LUG 16/6.50X8 (RIGHT)	90327	1
14	WHEEL, TUBLESS LUG 16/6.50X8 (LEFT)	90328	1
15	7/8 FLAT WASHER SAE	90928	2
16	COTTERPIN, 3/16" X 1-1/2" YZ	90599	2



				BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"	3RD ANG. PROJ. 	STANDARD TOLERANCES		SECTION: ASSEMBLY		<u>KRAMBLE INDUSTRIES</u>	
				THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT		DIMENSION (IN)	TOLERANCE (IN)	SCALE: N.T.S.		HEAVY DUTY UTILITY CART FRONT AXLE ASSEMBLY	
						XX.XXX	±0.005	DESIGN. BY: A.REID	08MAY19		
						XX.XX	±0.020	DRAWN BY: A.REID	08MAY19		
						XX.X	±0.040	APP. BY:			
0	ISSUED FOR USE	08MAY19	A.REID			FRAC.: ±1/16	ANGULAR: ±1°			DRAWING NUMBER	
REV.	DESCRIPTION	DATE	BY					54-TBX-101		0	

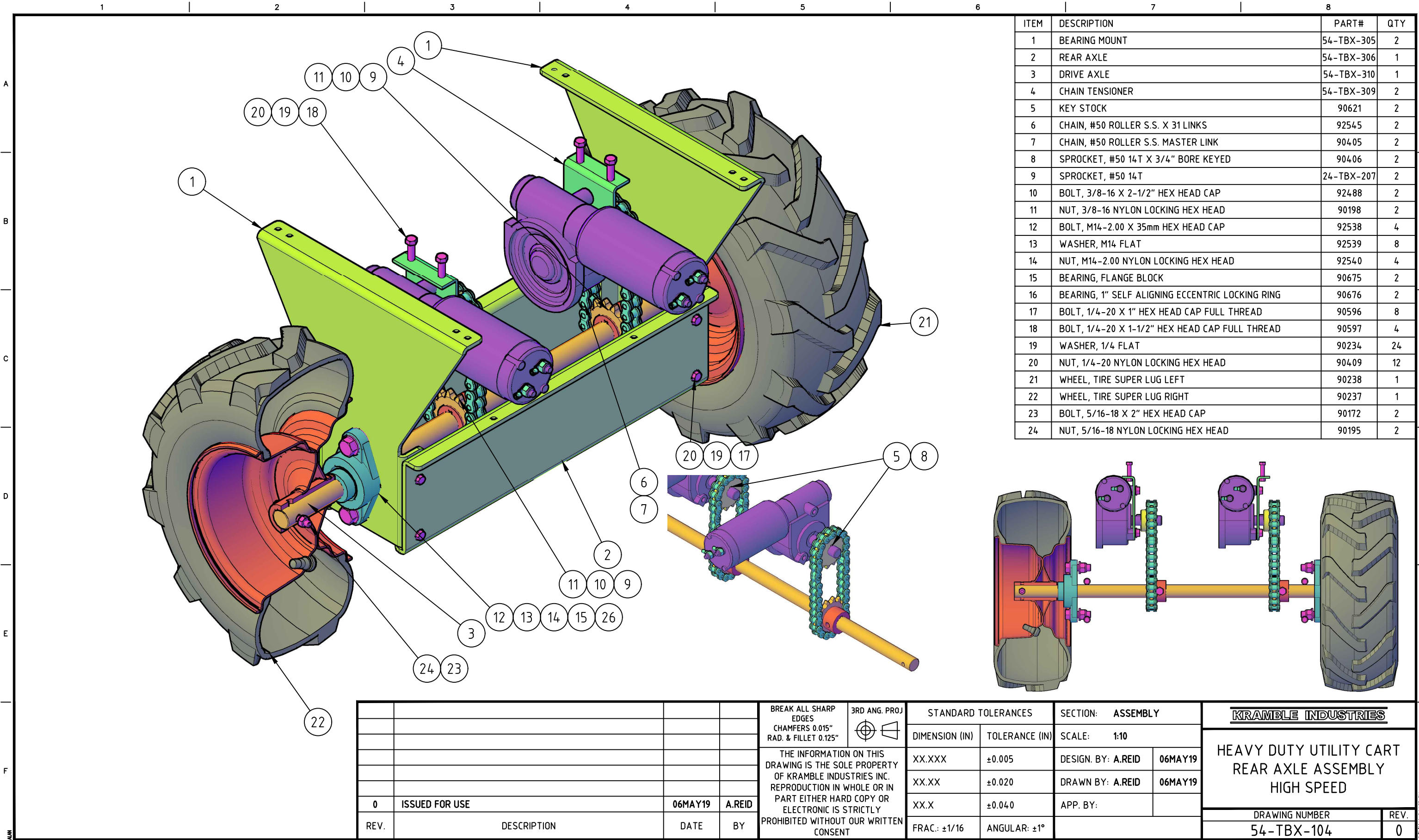




ITEM	DESCRIPTION	PART#	QTY
1	FRONT AXLE ASSEMBLY	54-TBX-101	1
2	REAR AXLE ASSEMBLY	54-TBX-104	1
3	CHASSIS	54-TBX-300	1
4	BATTERY MOUNT	54-TBX-302	2
5	SCREW, 10-16 x 1" DRILL POINT FLANGE HEX HEAD	92457	8
6	BOLT, 1/4-20 X 1" HEX HEAD FULL THREAD	90596	14
7	NUT, 1/4-20 NYLON LOCKING HEX HEAD	90409	14
8	WASHER, 1/4 FLAT	90234	28
9	MOTOR, WORM GEARBOX 1.3HP 100A	90344	2
10	BOLT, 5/16-18 X 1" HEX HEAD CAP	90908	6
11	WASHER, 5/16" FLAT	90237	6
12	WASHER, 5/16" SPLIT LOCK	90238	6

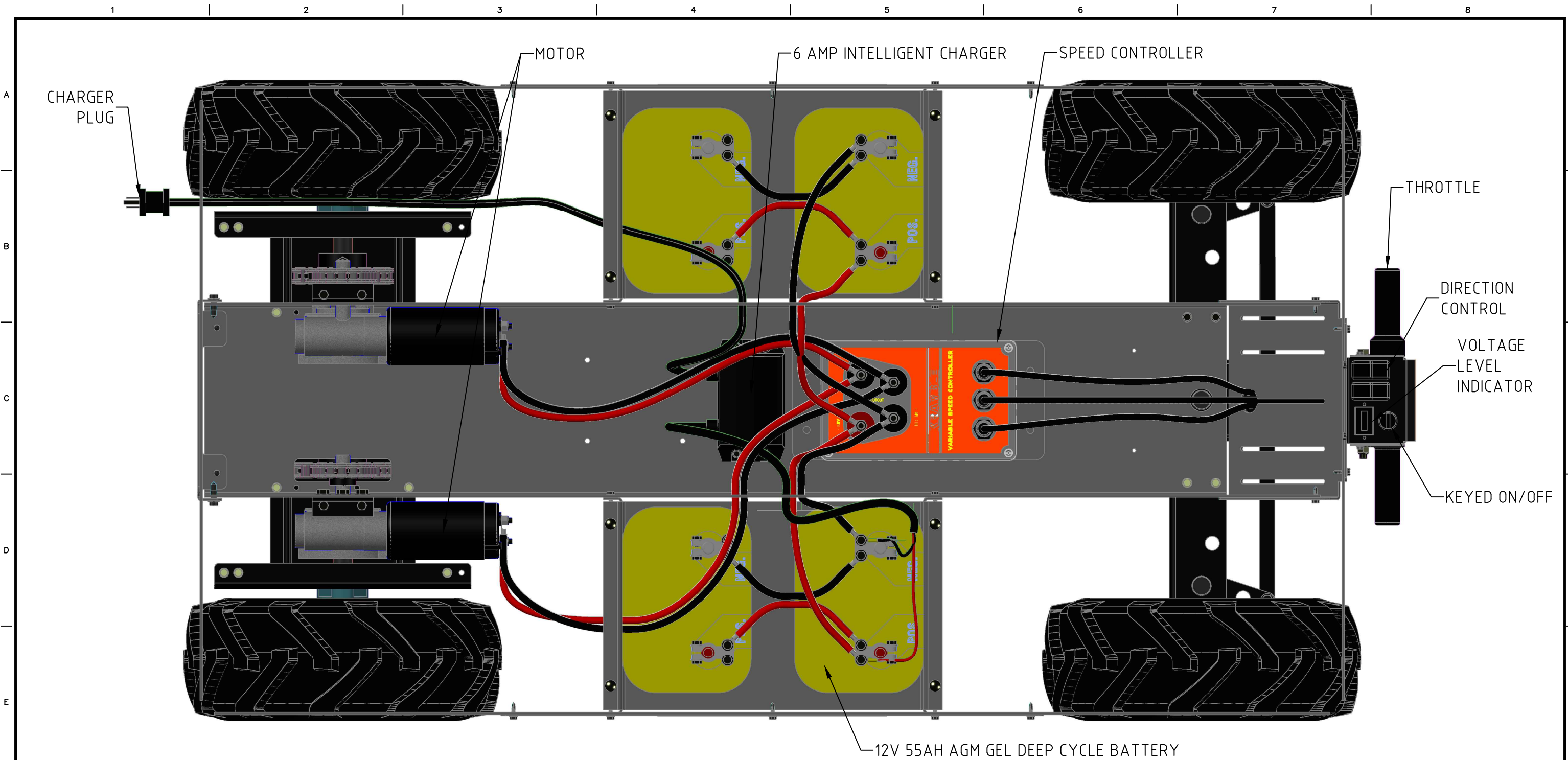
GENERAL NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
2. ALL WEIGHTS ARE IN POUNDS.

				BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"	3RD ANG. PROJ. 	STANDARD TOLERANCES		SECTION: ASSEMBLY		KRAMBLE INDUSTRIES		
				THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT		DIMENSION (IN)	TOLERANCE (IN)	SCALE: 1:10		HEAVY DUTY UTILITY CART CHASSIS ASSEMBLY		
						XX.XXX	±0.005	DESIGN. BY: A.REID				29APR19
						XX.XX	±0.020	DRAWN BY: A.REID				29APR19
						XX.X	±0.040	APP. BY:				
0	ISSUED FOR USE	29APR19	A.REID					FRAC.: ±1/16	ANGULAR: ±1°			DRAWING NUMBER
REV.	DESCRIPTION	DATE	BY							54-TBX-103	0	



ITEM	DESCRIPTION	PART#	QTY
1	BEARING MOUNT	54-TBX-305	2
2	REAR AXLE	54-TBX-306	1
3	DRIVE AXLE	54-TBX-310	1
4	CHAIN TENSIONER	54-TBX-309	2
5	KEY STOCK	90621	2
6	CHAIN, #50 ROLLER S.S. X 31 LINKS	92545	2
7	CHAIN, #50 ROLLER S.S. MASTER LINK	90405	2
8	SPROCKET, #50 14T X 3/4" BORE KEYED	90406	2
9	SPROCKET, #50 14T	24-TBX-207	2
10	BOLT, 3/8-16 X 2-1/2" HEX HEAD CAP	92488	2
11	NUT, 3/8-16 NYLON LOCKING HEX HEAD	90198	2
12	BOLT, M14-2.00 X 35mm HEX HEAD CAP	92538	4
13	WASHER, M14 FLAT	92539	8
14	NUT, M14-2.00 NYLON LOCKING HEX HEAD	92540	4
15	BEARING, FLANGE BLOCK	90675	2
16	BEARING, 1" SELF ALIGNING ECCENTRIC LOCKING RING	90676	2
17	BOLT, 1/4-20 X 1" HEX HEAD CAP FULL THREAD	90596	8
18	BOLT, 1/4-20 X 1-1/2" HEX HEAD CAP FULL THREAD	90597	4
19	WASHER, 1/4 FLAT	90234	24
20	NUT, 1/4-20 NYLON LOCKING HEX HEAD	90409	12
21	WHEEL, TIRE SUPER LUG LEFT	90238	1
22	WHEEL, TIRE SUPER LUG RIGHT	90237	1
23	BOLT, 5/16-18 X 2" HEX HEAD CAP	90172	2
24	NUT, 5/16-18 NYLON LOCKING HEX HEAD	90195	2

				BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"	3RD ANG. PROJ 	STANDARD TOLERANCES		SECTION: ASSEMBLY		<u>KRAMBLE INDUSTRIES</u>		
				THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT		DIMENSION (IN)	TOLERANCE (IN)	SCALE: 1:10		HEAVY DUTY UTILITY CART REAR AXLE ASSEMBLY HIGH SPEED		
						XX.XXX	±0.005	DESIGN. BY: A.REID				06MAY19
						XX.XX	±0.020	DRAWN BY: A.REID				06MAY19
						XX.X	±0.040	APP. BY:				
0	ISSUED FOR USE	06MAY19	A.REID					FRAC.: ±1/16	ANGULAR: ±1°			DRAWING NUMBER
REV.	DESCRIPTION	DATE	BY							54-TBX-104	0	



				BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"		STANDARD TOLERANCES		SECTION: WIRING		KRAMBLE INDUSTRIES HEAVY DUTY UTILITY CART WIRING LAYOUT 4 BATTERY ARRANGEMENT	
						DIMENSION (IN)	TOLERANCE (IN)	SCALE: N.T.S.			
						XX.XXX	±0.005	DESIGN. BY: A.REID	13MAY19		
						XX.XX	±0.020	DRAWN BY: A.REID	13MAY19		
						XX.X	±0.040	APP. BY:			
0	ISSUED FOR USE	13MAY19	A.REID	THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT		FRAC.: ±1/16	ANGULAR: ±1°			DRAWING NUMBER	REV.
REV.	DESCRIPTION	DATE	BY							54-TBX-105	0

Limited Warranty

Customer satisfaction is a fundamental policy at Kramble Industries Inc. All customers can rely upon and expect to receive prompt, efficient and courteous service on all Kramble Industries Inc. manufactured equipment from each and every employee of the organization.

Kramble Industries Inc. with its office at 20-3924 Brodsky Avenue, Saskatoon, SK CANADA S7P 0C9 warrants:

To the Original Purchaser/User, each product manufactured by Kramble Industries Inc. to be free from defective material and workmanship, under normal use and service, for a period of 12 months subject to conditions outlined below. The obligation under this warranty is limited to repair, or replacement with a similar genuine company part, for any part of the product of the company's manufacture that is found to be defective.

Warranty period begins the day of shipment from Kramble's plant. During the first (1st) through the twelfth (12th) month, Kramble will furnish without charge, F.O.B. its plant, a similar genuine part to replace any part of a product of the company's manufacture which proves to be defective, in normal use and service, during this time. Labor to install or repair such parts will be absorbed by Kramble Industries Inc. If this work is to be done other than Kramble personnel, prior approval must be given by Kramble Industries Inc. as to rate and time.

This warranty shall bind the company only as follows:

1. The warranty shall be limited to the repair or replacement of defective parts, all other damage, loss, cost or obligation and claim whatsoever, statutory or otherwise, are hereby waived by the original purchaser\user, and again, *the warranty hereby given covers only those labor charges specifically authorized by the company in advance.*
2. The warranty shall not apply to any failure, or damage incurred through neglect, lack of maintenance, misuse, abuse, accident, improper installation, re-designing of assemblies, ignorance, or through any other cause beyond the control of the company.
3. The warranty does not cover products of other manufacturers beyond such warranty as may be made by such manufacturer.
4. The warranty shall not apply to normal maintenance services, or to deterioration of appearance of items due to normal use and exposure.
5. The warranty shall not apply when the original purchaser/user has allowed repair and/or service work to be conducted on the product without authorization from the company.

IMPORTANT NOTE:

Before any warranty work is done, contact Kramble Industries Inc. for authorization. Failure to do so may result in denial of warranty.

Kramble Industries Inc. is not responsible or liable for indirect, special, or consequential damages arising out of or in connection with the use or performance of the product or other damage with respect to any economic loss, loss of property, loss of revenue or profit, or costs of removal, installation, or reinstallation.

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