

# **BR-3, B R-3A**

## **Table Top Bucking Machine**



## **Owner's Manual**



# Safety

---

At BE Hemp Equipment (BE), safety is our number one priority. The following information provides guidelines for safety when using BE equipment. Any piece of machinery can become dangerous to personnel when improperly operated or poorly maintained. All employees operating and maintaining BE equipment should be familiar with its operation and should be thoroughly trained and instructed on safety. Most accidents are preventable through safety awareness.

Every effort has been made to engineer safety into the design of BE equipment per standards set forth by ANSI, the National Electric Code, and others that apply as necessary. Areas of potential danger are mechanically and/or electrically protected. Safety labels and instructional decals are visible to the operator and located near any potential hazard.

## General Safety Guidelines

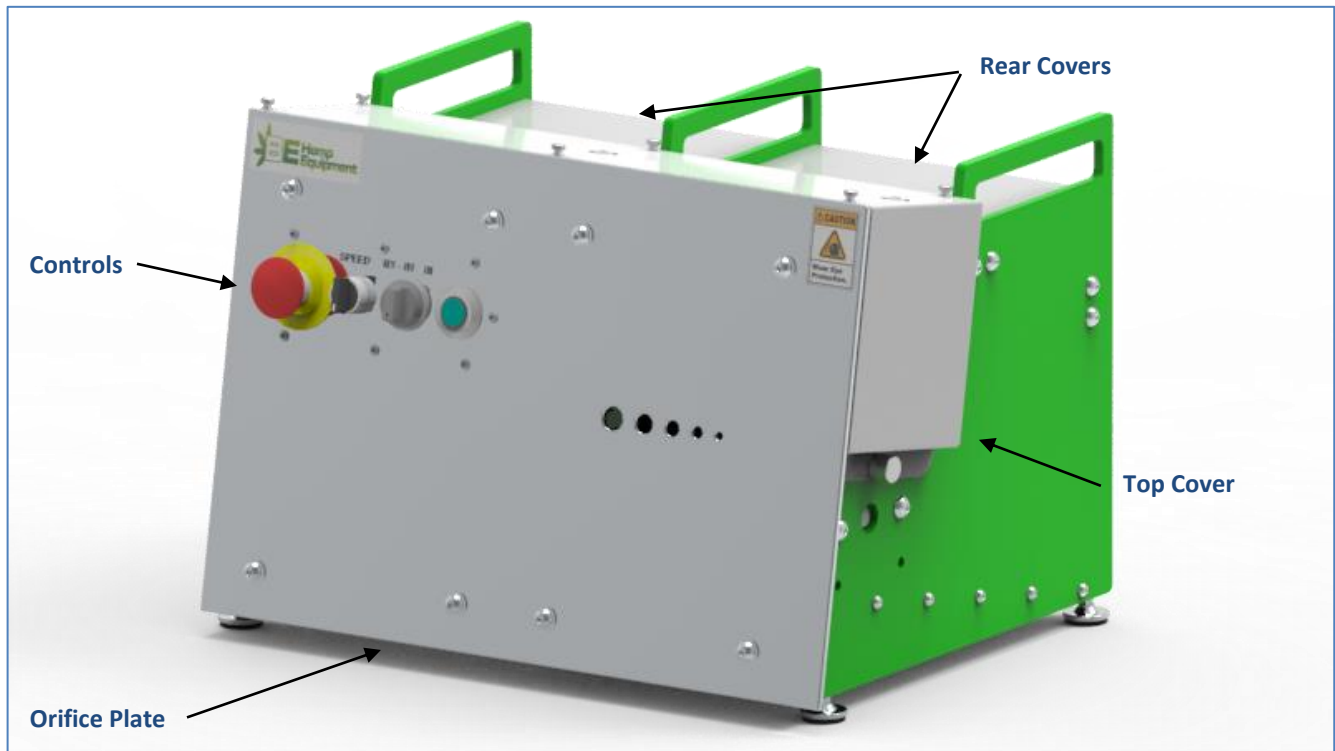
---

- Ensure that all power sources are turned off or unplugged when the machine is not in use. Understand the LOCKOUT/TAGOUT procedure and use it before inspecting, maintaining, servicing or cleaning the equipment to help prevent anyone from accidentally turning on power to the machine.
- Read the manual for any special operational instructions for each piece of equipment. A hard copy can be made available if requested.
- Know how the equipment functions and understand the operating processes.
- Know how to shut down the equipment. Stop buttons, emergency stop buttons or cables are located at various locations on the machinery.
- Understand the equipment safety labels and heed them.
- Wear the appropriate personal protective equipment for the job to be performed (EX: eye protection, hearing protection, gloves, etc.). Ensure that nothing you are wearing could get caught in the machinery
- When working on or around all equipment, avoid wearing loose clothing, jewelry, unrestrained long hair, or any loose ties, belts, scarves or articles that may be caught in moving parts. Keep all extremities away from moving parts. Entanglement can cause death or severe injury.
- For new equipment, check plant voltage with the voltage specified on the machine. Electrical specifications for your machine are printed on the machine serial number tag.
- A properly grounded electrical receptacle is required for safe operation regardless of voltage requirements.
- Treat this equipment with the respect its power and speed demand. Use it only for its intended purpose.

- Keep the operating zone free of obstacles that could cause a person to trip or fall toward an operating machine. Keep fingers, hands or any part of the body out of the machine and away from moving parts when the machine is operating.
- Any machine with moving parts and/or electrical components can be potentially dangerous no matter how many safety features it contains. Stay alert and think clearly while operating or servicing the equipment. Be aware of operations and personnel in your surroundings. Be attentive to indicator lights, warning lights and/or operator interface screens displayed on the machine and know how to respond.
- Rotating and moving parts are dangerous. Keep clear of discharge area of the machine.
- Never put any foreign objects, other than what the machine is intended for, into the machine's input ports.
- Use proper lifting and transporting devices for heavy equipment. This equipment is heavy. An appropriate lifting device should be used.
- Use caution when moving portable equipment. In some cases the machinery can be heavy and/or may be top heavy if loaded. Portable equipment can gain momentum during transporting and must be controlled at all times.
- Always operate in a well ventilated area. Bucking produces dust!

## MACHINE OVERVIEW

---



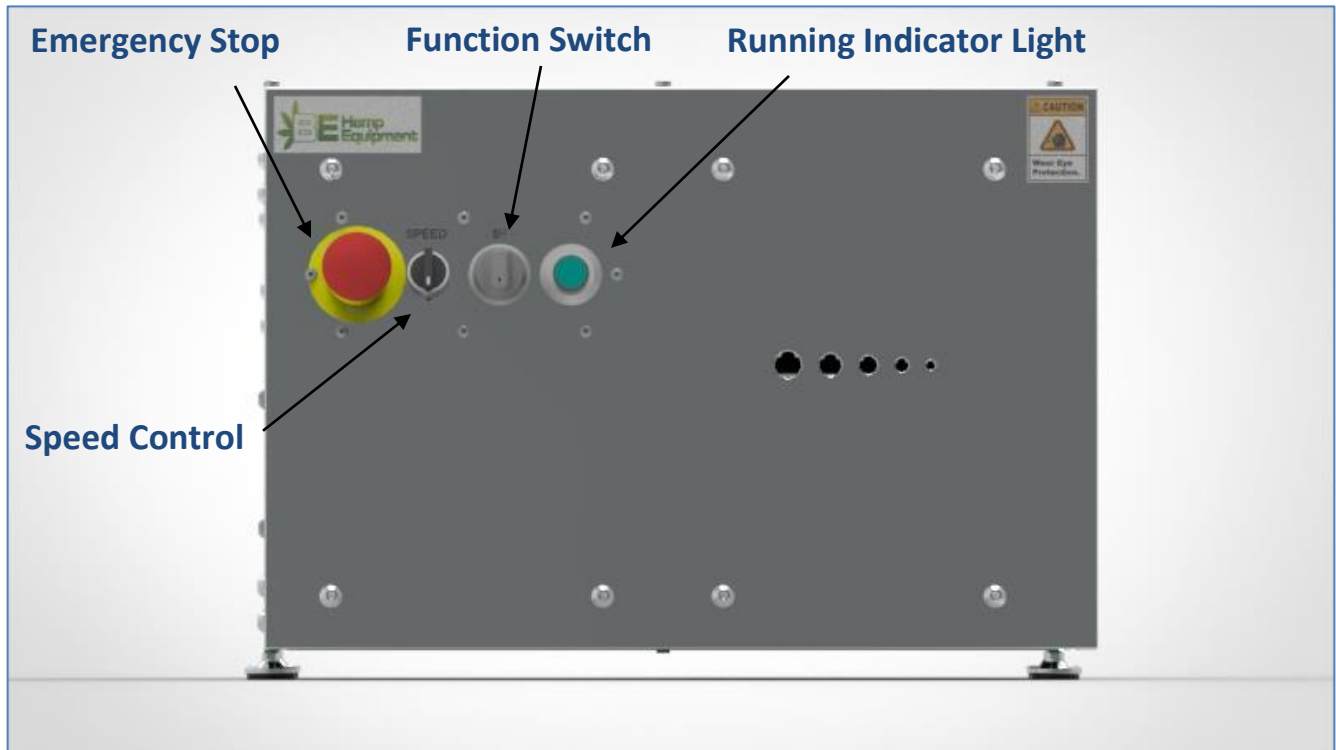
## WHATS IN THE BOX

---

The BR-3 comes fully assembled and ready to buck. When unpacking the machine, please ensure the following items are present;

- BR-3 Bucker Machine (obviously)
- Allen Wrench, 5/16"

## CONTROLS



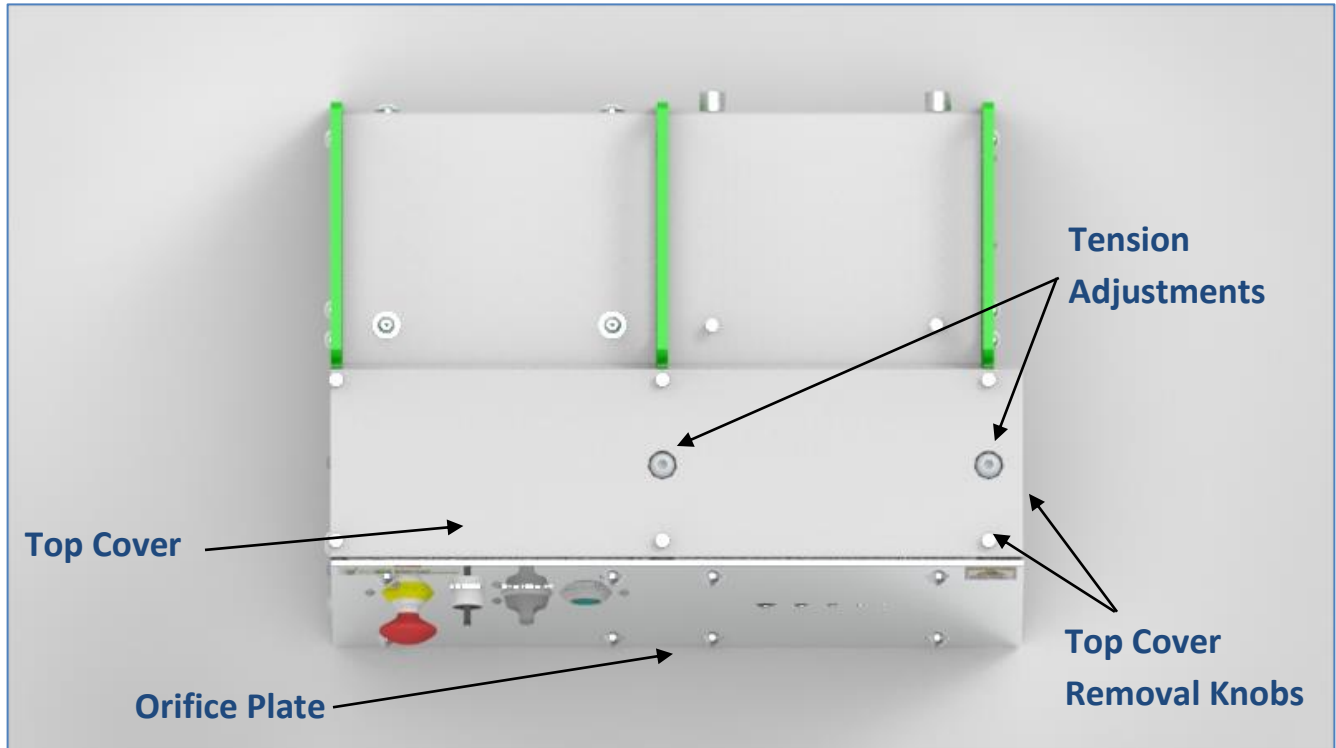
**Function Switch:** Able to control operation between OFF, ON, AND REVERSE function

**Speed Control:** Controls the speed of the buckler

**Running Indicator Light:** Illuminates green when operating buckler in ON function.

**Emergency Stop:** Push in to stop function immediately. Pull outwards after to return to normal operation

## BUCKER ADJUSTMENTS



**Orifice Plate:** Front plate used to shed flower and leaf from stem.

**Top Cover:** Safety shield used to cover rotating parts.

**Tension Adjustments:** 5/16" Allen headed screws used to adjust tension (grabbing grip of stem) to roller assemblies. Clockwise tightens grip and counterclockwise releases it.

**Top Cover Removal Knobs:** These 6 knobs on top and one on the side keep the cover attached the rest of the bucker assembly. Tighten by hand only. Do not overtighten.



## WHEN TO BUCK

---

**Wet Bucking:** Wet bucking can occur anytime!

**Dry Bucking:** Obviously, different strains will require different moisture content, but we recommend between **12-14%** total moisture content.



Check the flower by pinching it between two fingers. It should spring back to original shape.

- Flower that is too dry will break apart during bucking
- Flower that is too wet will deform

## PREPERATION

---

Prepare both the plant and area prior to bucking.

### Area Preparation

1. Ensure adequate space around the equipment. Ensure that extra space behind the machine (where the stem is exits the machine). Hurd is going to stack up quick!
2. Review electrical requirements.



Try to buck in as cool as an environment as possible (65°F-75°F is ideal).

### Plant Preparation

1. Cut the main stalk and separate into individual stems removing any “Y”s from the stems, trying to leave at least 2”-3”s of bare stem at the bottom.






Place in container pointed in one direction for speed of process.


## GENERAL OPERATION

---

### Normal Operation

- Inspect buckler for any damage. Do not operate if damage is observed.
- Place desired “Tote” below the Orifice Plate in front of the stem ports.
  -  Place the “Tote” just below the orifice plate for best results.
- Adjust Roller Tensioners clockwise, until you feel slight resistance.
- Ensure Emergency Stop is pulled to outward position.
- Turn Function Switch to ON position
  - Running light should turn on, indicating that the rollers are moving.
- Adjust speed to desired output speed.
  -  When bucking dry, use lower speed settings to reduce potential damage to flower.
- Feed stem side into an appropriately sized hole on the Orifice Plate until you feel the rollers grab onto stem and pull it into the machine.
  - The flower and leaves should drop into the Tote below.
  -  Periodically check the stem pile behind the machine and remove the stems as required to ensure adequate ejection space for the machine!

### Clearing a Stuck Hurd (Stem)

- Turn Function Switch REV position and hold until Hurd is backed out of the Orifice Plate.
  -  You may need to help guide the stem from the orifice by pulling on it at the same time as reversing the machine.

### Machine Shutting Down


- Turn Function Switch to OFF position
- Push Emergency Stop Switch downward into STOP position
- Adjust Roller Tensioners counterclockwise to remove all pressure from roller assembly




## CLEANING

---


Cleaning of your machine will ensure that your machine can be used for years to come. We suggest a light cleaning daily after each shift and more thorough cleaning every week and/or before being stored.

-  Use standard water based, non-caustic, FDA Food grade approved detergents and/or clean water to clean machine.

### Daily Cleaning

- Dust off all exposed machine surfaces with a clean cloth
- Remove Top Cover and Rear Cover from Bucker Assembly and wipe total surface of both upper and lower roller using Isopropyl Alcohol with a clean cloth.
  -  **Do not pressure wash rollers.** Damage can occur over time.
- Using a plastic brush and/or cloth, clean each orifice

### Weekly Cleaning

- Perform all daily cleaning tasks
- With cover removed, pressure wash interior of Bucker Assembly paying special attention not to spray electrical controls, motor assembly, or rollers.
- Pressure Wash Frame
- Using water with detergent, dampen cloth and wipe down entire Drive/Control Assembly.
  -  **Do not pressure wash Drive/Control Assembly.**

## MAINTENANCE

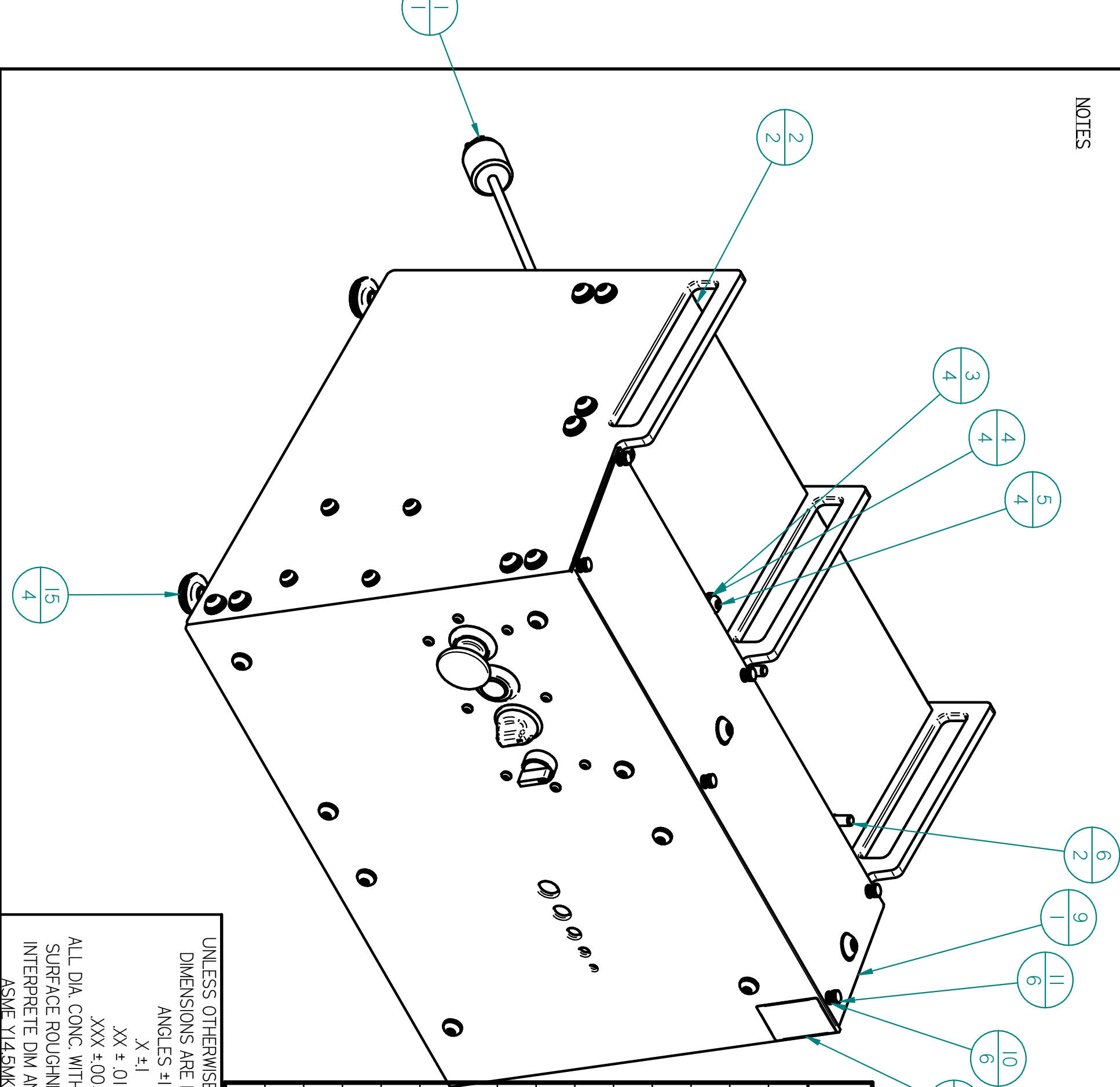
---

Annual and periodic maintenance is suggested to keep you Bucker operating at peak performance.

### Checks

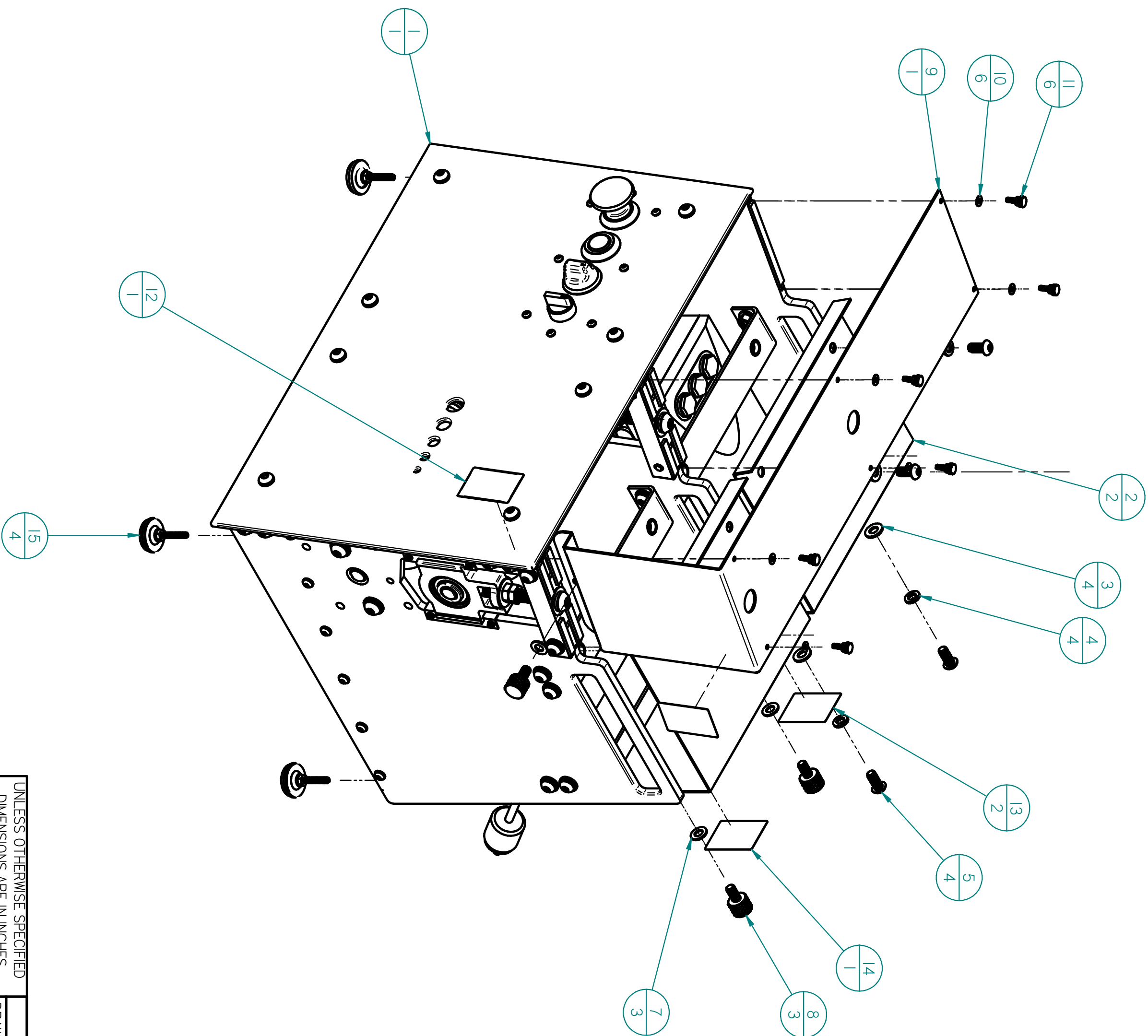
- Check the cord and receptacle for damage. Any damage should be repaired immediately.
- Inspect electrical conduit and connections for damage and signs of leakage.
- Inspect rollers for uneven wear, grooves, or damage.
  - ⚠ Replace if damage prevents normal operation. BE Hemp Equipment offers a roller exchange program. Contact BE Hemp Equipment for details.
- Verify that all electrical controls are in good working condition.

NOTES



Item Number	Quantity	Document Number	Title
1	1	2-A007-02	ASSY, FINAL, #2
2	2	2-0027-01	COVER, REAR
3	4	91950A031	WASHER, SAE, 3/8
4	4	92147A031	WASHER, SPLIT, 3/8
5	4	92949A623	SCREW, BUTTON, 3/8-16 X .875
6	2	97042A316	STUD, PARTIALLY THREADED
7*	3	90295A471	WASHER, NYLON, 3/8
8*	3	93585A390	THUMB SCREW, 3/8-16 X 3/4
9	1	2-0026-01	PLATE, TOP
10	6	90295A422	WASHER, NYLON, #10
11	6	99607A145	THUMBSCREW, 10-24 X 1/2
12	1	5948T921	PLACARD, EYE PROTECTION
13*	2	7967T55	PLACARD, WARNING, GAURDS
14*	1	5891T48	PLACARD, DANGER, GAURDS
15	4	6167K15	LEVELING MOUNT

UNLESS OTHERWISE SPECIFIED					
DIMENSIONS ARE IN INCHES					
ANGLES ±1.5°					
X ±.1					
.XX ±.01					
.XXX ±.005					
ALL DIA. CONC. WITHIN .005 TIR					
SURFACE ROUGHNESS OF 63					
INTERPRETE DIM ANDTOL PER					
ASME Y14.5MK-1994					
		NAME	DATE	BE HEMP EQUIPMENT	
DRAWN		B P BAILE	11/13/20		
CHECKED					
MATERIAL					
SEE BOM					
FINISH					
NONE					
TITLE		ASSY, FINAL # 1			
SIZE	DWG NO				
B	2-A007-01		REV A		
FILE NAME: 2-A007-03-A 3.cft					
SCALE:	WEIGHT:	SHEET 1 OF 3			

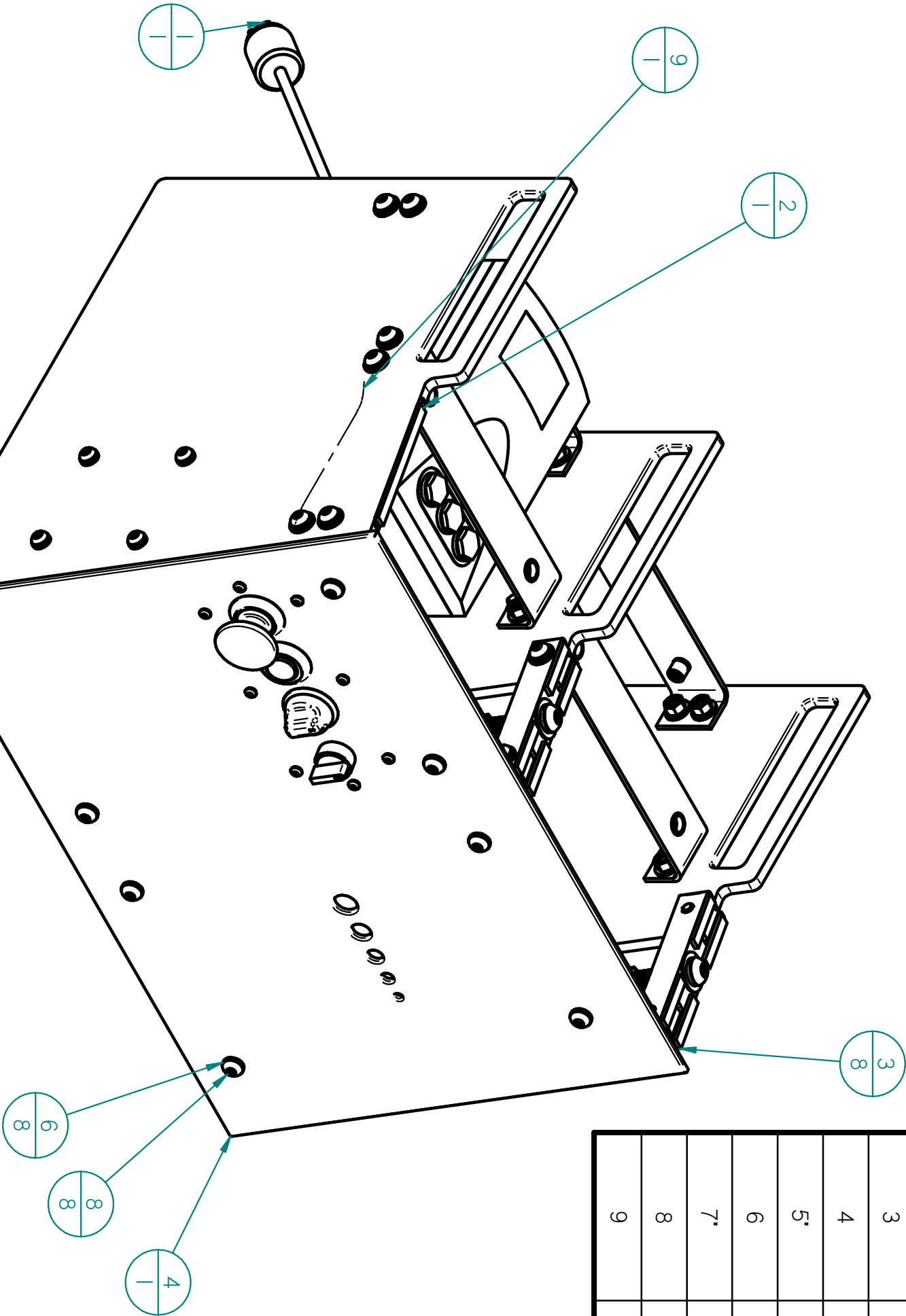


UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±1			
XX ±.01			
XXX ±.005			
ALL DIA. CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRET DIM ANDTOL PER			
ASME Y14.5MK-1994			
	NAME	DATE	
DRAWN	User	12/03/20	
CHECKED			
MATERIAL			
SEE BOM			
FINISH			
NONE			
TITLE			
ASSY, FINAL # 1			
SIZE	DWG NO		REV
C	2-A007-01		A
FILE NAME: 2-A007-03-A 3.dft			
SCALE:	WEIGHT:	SHEET 2 OF 3	

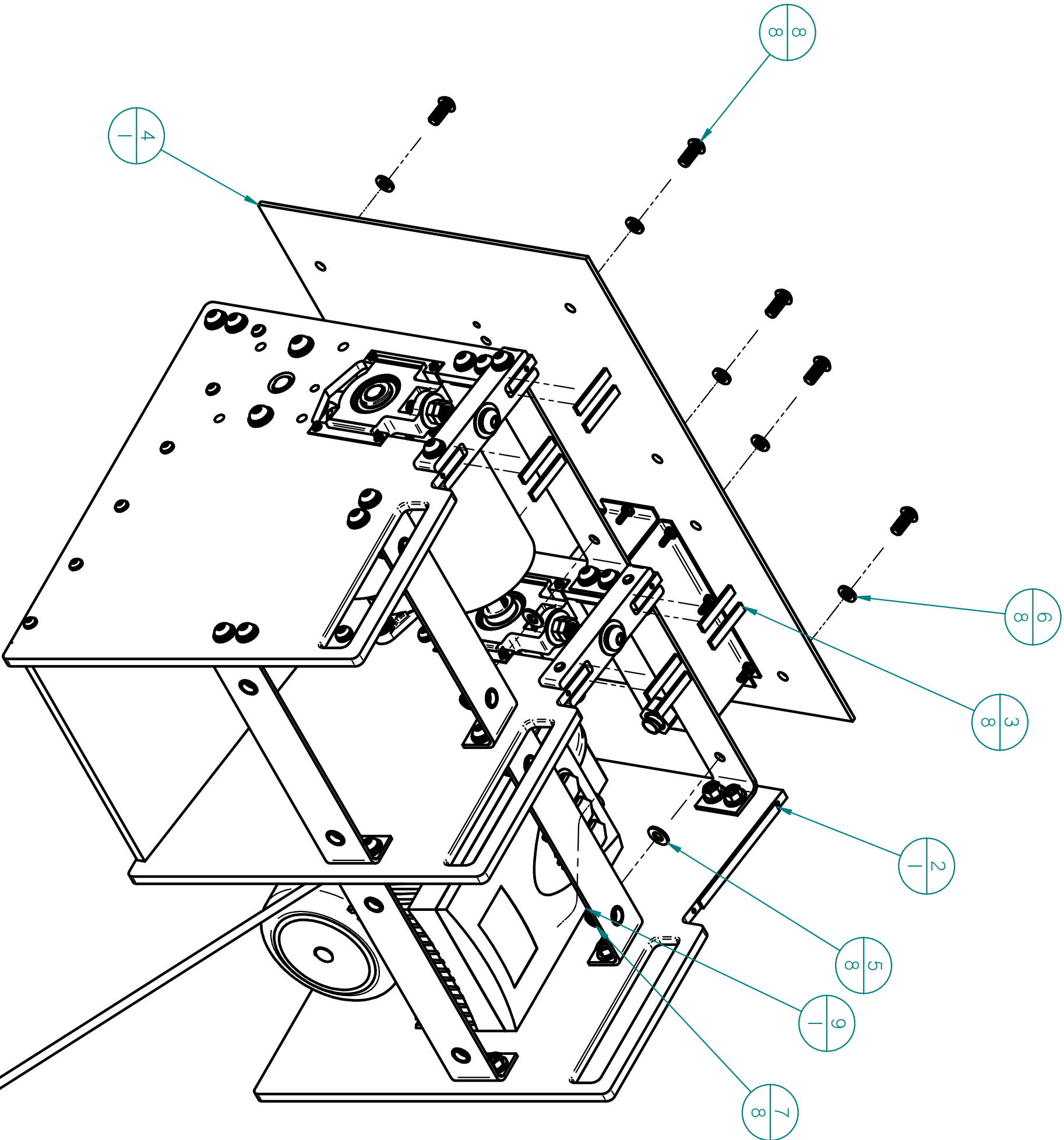
NOTES

1. TORQUE ALL FASTENERS PER SAE STANDARDS

Item Number	Quantity	Document Number	Title
1	1	2-A007-01	ASSY, FINAL, # 1 STEP
2	1	NA	RUBBER, .375 X .125 X 5.0
3	8	AR	RUBBER STRIP, .375 X .125 X 2
4	1	2-A006-01	ASSY, PANEL AND ELECTRICAL
5*	8	91950A031	WASHER, SAE, 3/8
6	8	92147A031	WASHER, SPLIT, 3/8
7*	8	91845A031	NUT, 3/8-16
8	8	92949A623	SCREW, BUTTON, 3/8-16 X .875
9	1	NA	LIQUID TIGHT, 1/2" X 6 1/2"

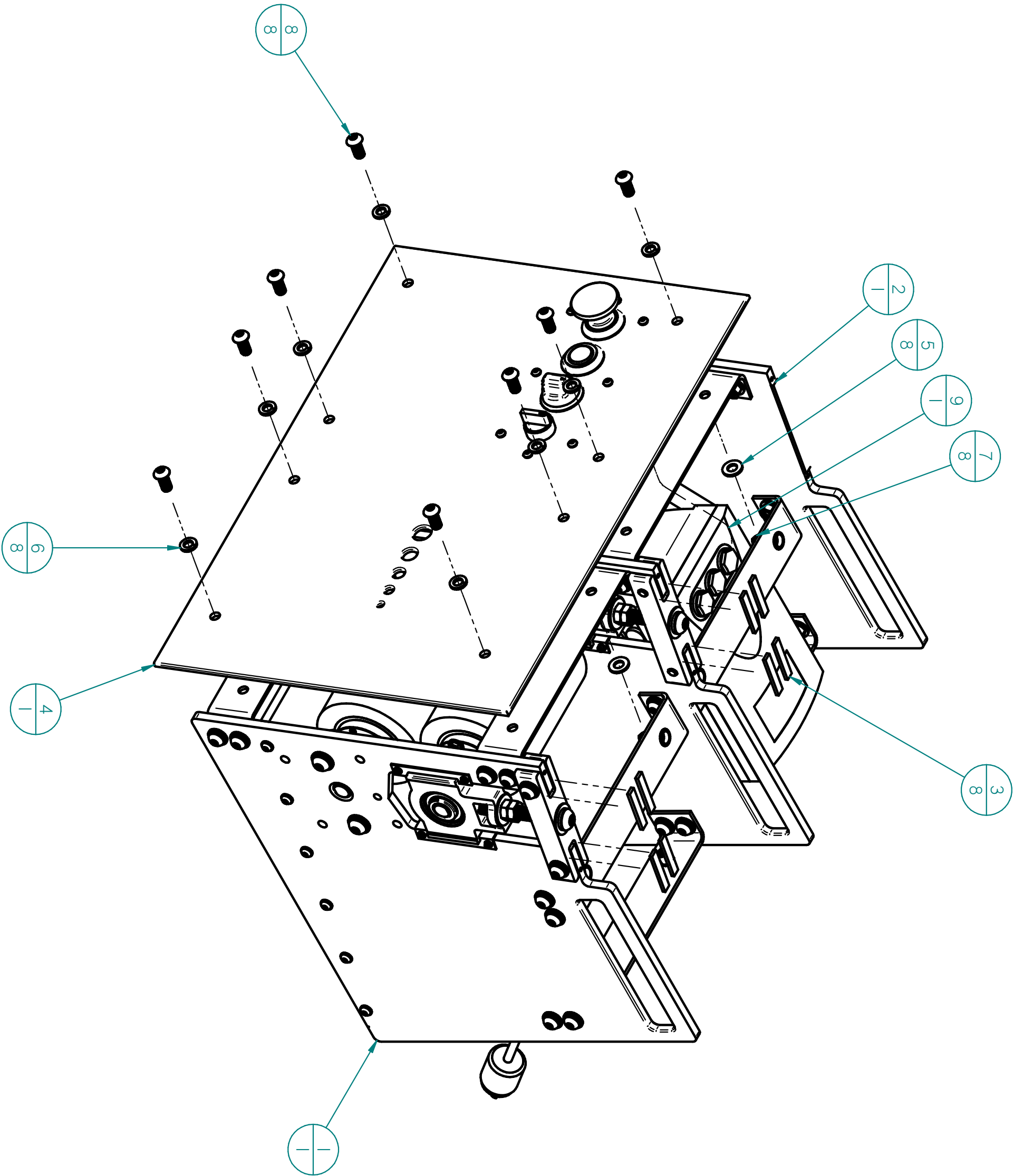


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 .XX ± .01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994		NAME	DATE	BE HEMP EQUIPMENT  ASSY, FINAL # 1			
	DRAWN	B P BALE	11/13/20				
	CHECKED						
	MATERIAL SEE BOM						
	FINISH NONE		TITLE  ASSY, FINAL # 1				
	SIZE	DWG NO					REV
	B	2-A007-01					A
FILE NAME: 2-A007-02-A.dft							
SCALE:	WEIGHT:	SHEET 1 OF 3					



UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±.1			
XX ±.01			
XXX ±.005			
ALL DIA. CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRET DIM AND TOL PER			
ASME Y14.5M-1994			
1	NAME	DATE	
DRAWN	User	12/02/20	
CHECKED			
MATERIAL			
SEE BOM			
FINISH			
NONE			
TITLE			
ASSY, FINAL # 1			
SIZE	DWG NO		REV
C	2-A007-01		A
FILE NAME: 2-A007-02-A.dft			
SCALE	WEIGHT	SHEET 2 OF 3	



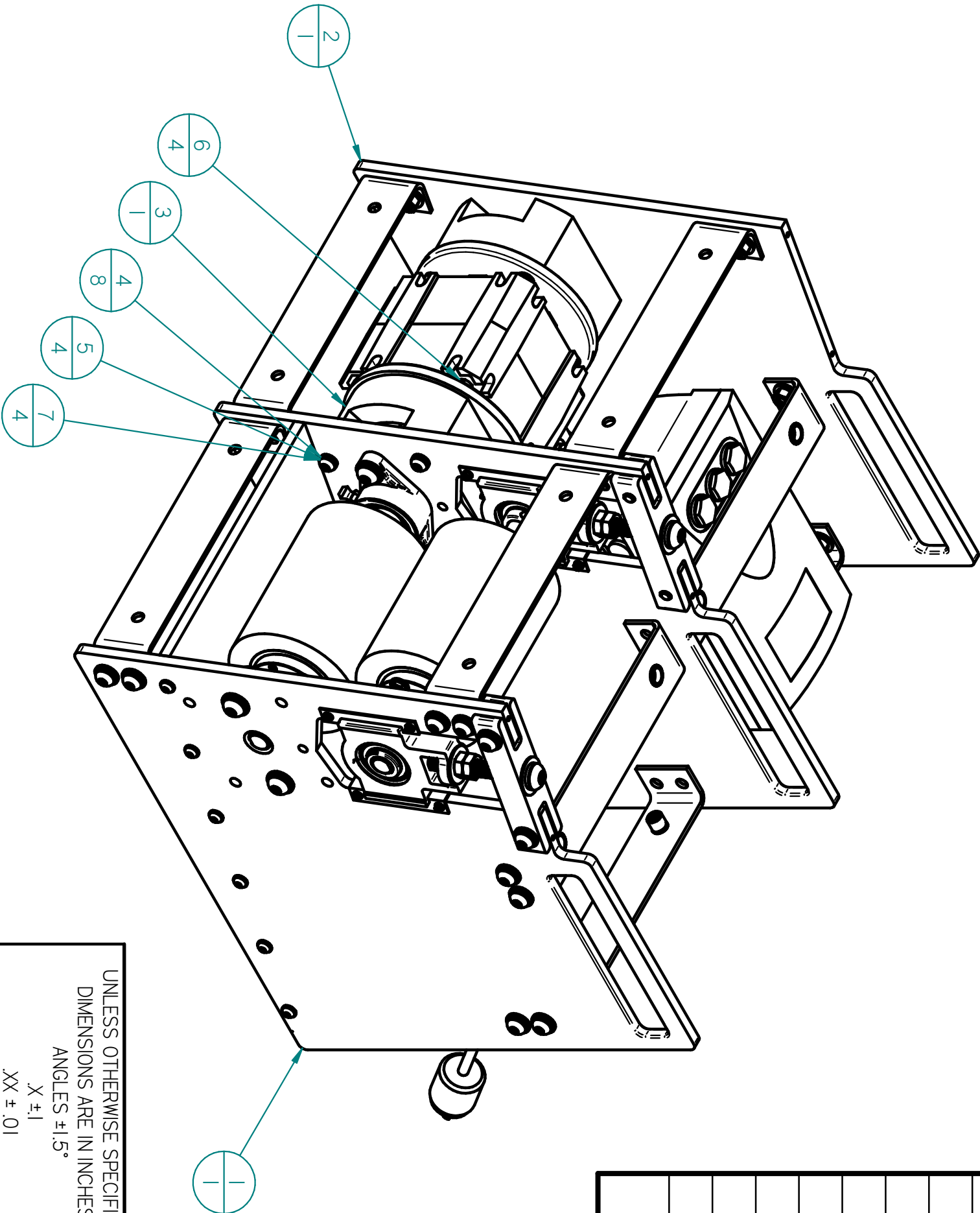


UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±1			
XX ±.01			
XXX ±.005			
ALL DIA. CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRETE DIM ANDTOL PER			
ASME Y14.5MK-1994			
	NAME	DATE	
DRAWN	User	12/02/20	
CHECKED			
MATERIAL			
SEE BOM			
FINISH			
NONE			
TITLE			
ASSY, FINAL # 1			
SIZE	DWG NO		REV
C	2-A007-01		A
FILE NAME: 2-A007-02-A.dft			
SCALE:	WEIGHT:	SHEET 3 OF 3	



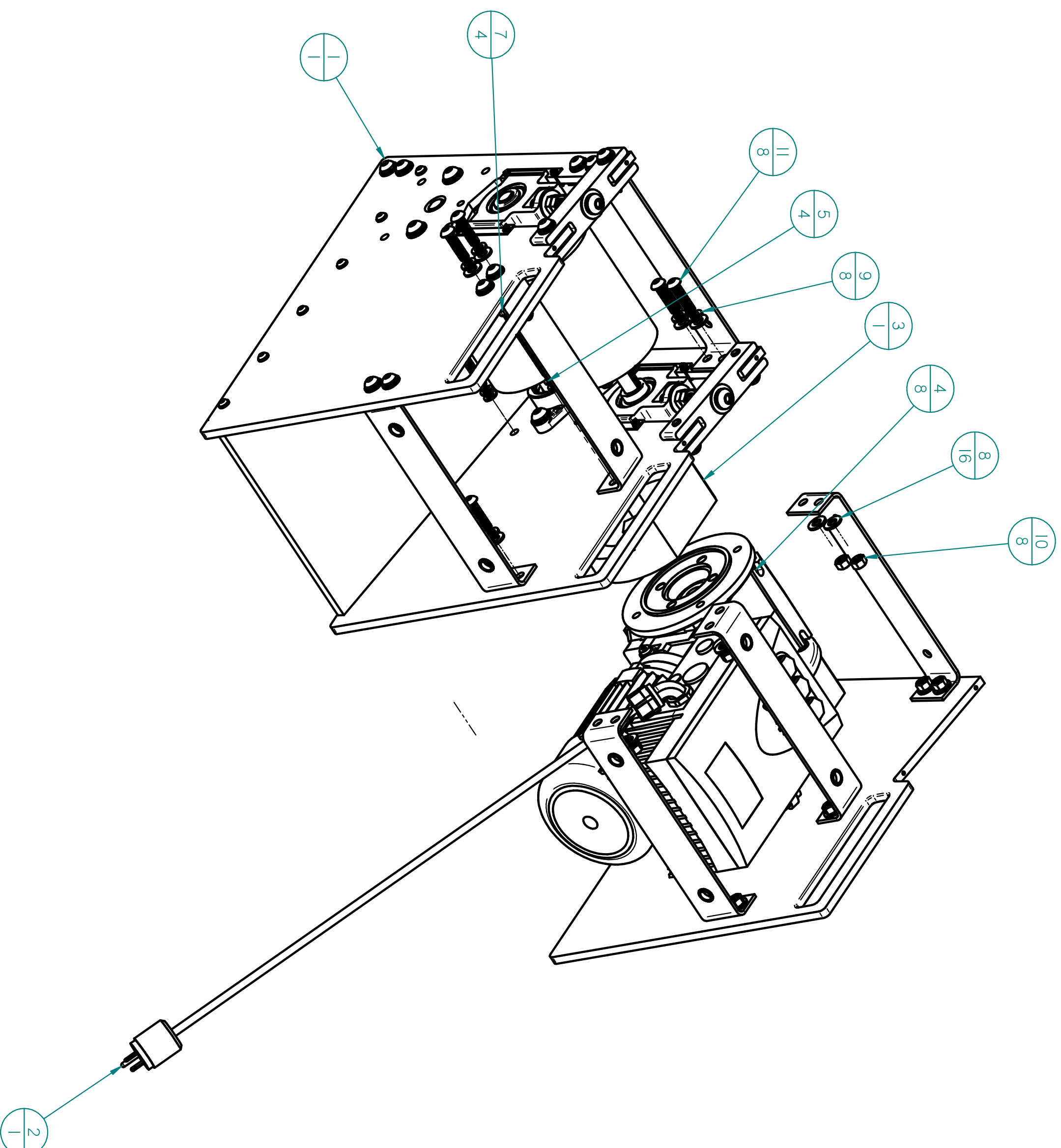
NOTES

1. TORQUE ALL FASTENERS PER SAE STANDARDS

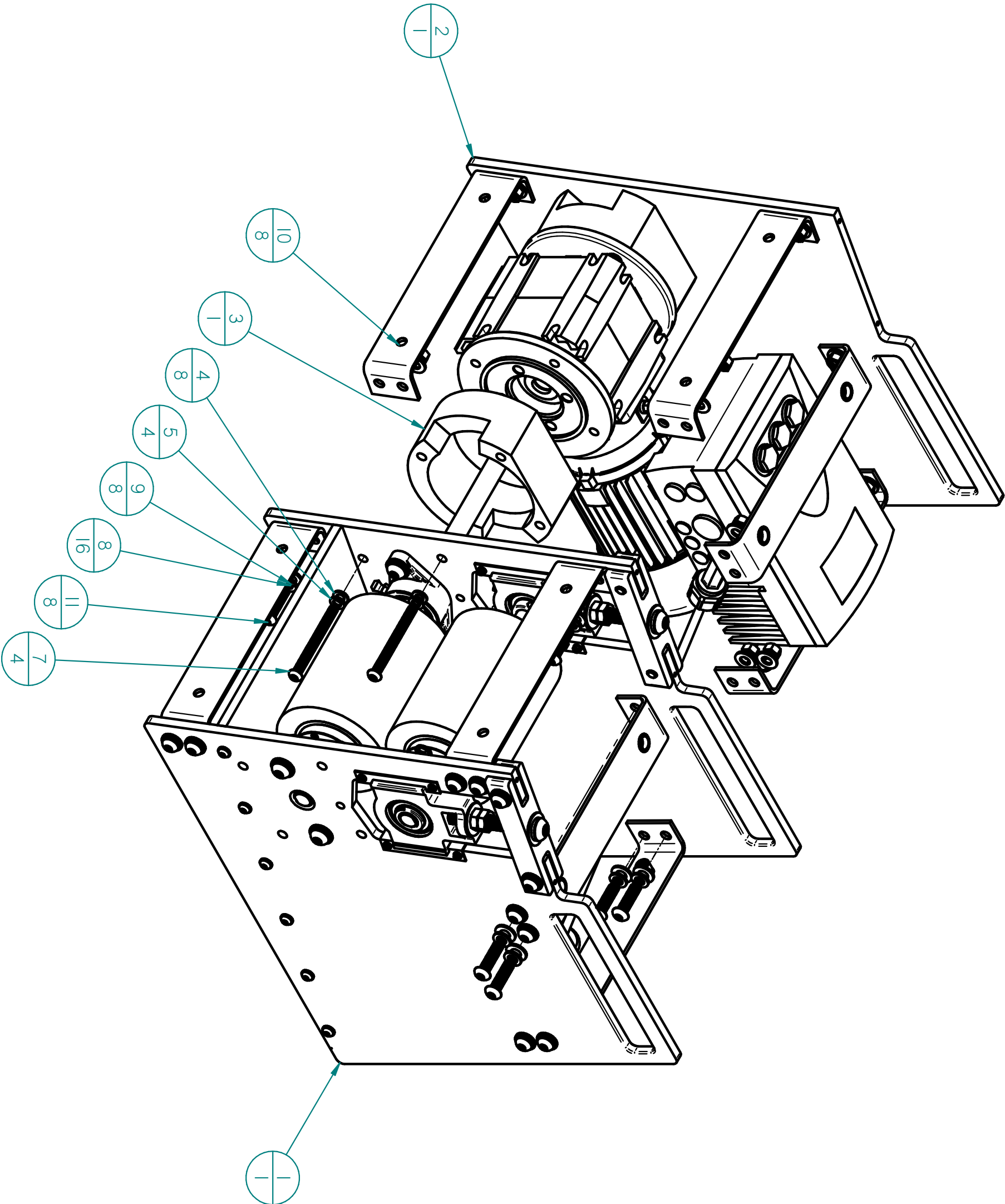


Item Number	Quantity	Document Number	Title
1	1	2-A003-01	ASSY, CARRIER
2	1		
3	1	2-0014-02	COLLAR, MOTOR
4	8	98689A116	WASHER, M8, SS
5	4	92148A200	WASHER, SPLIT LOCK, M8
6	4	91828A410	NUT, M8, SS
7	4	92095A336	SCREW, M8
8	16	91950A031	WASHER, SAE, 3/8
9	8	92147A031	WASHER, SPLIT, 3/8
10	8	91845A031	NUT, 3/8-16
11	8	92949A628	SCREW, BUTTON, 3/8-16 X 1 1/2

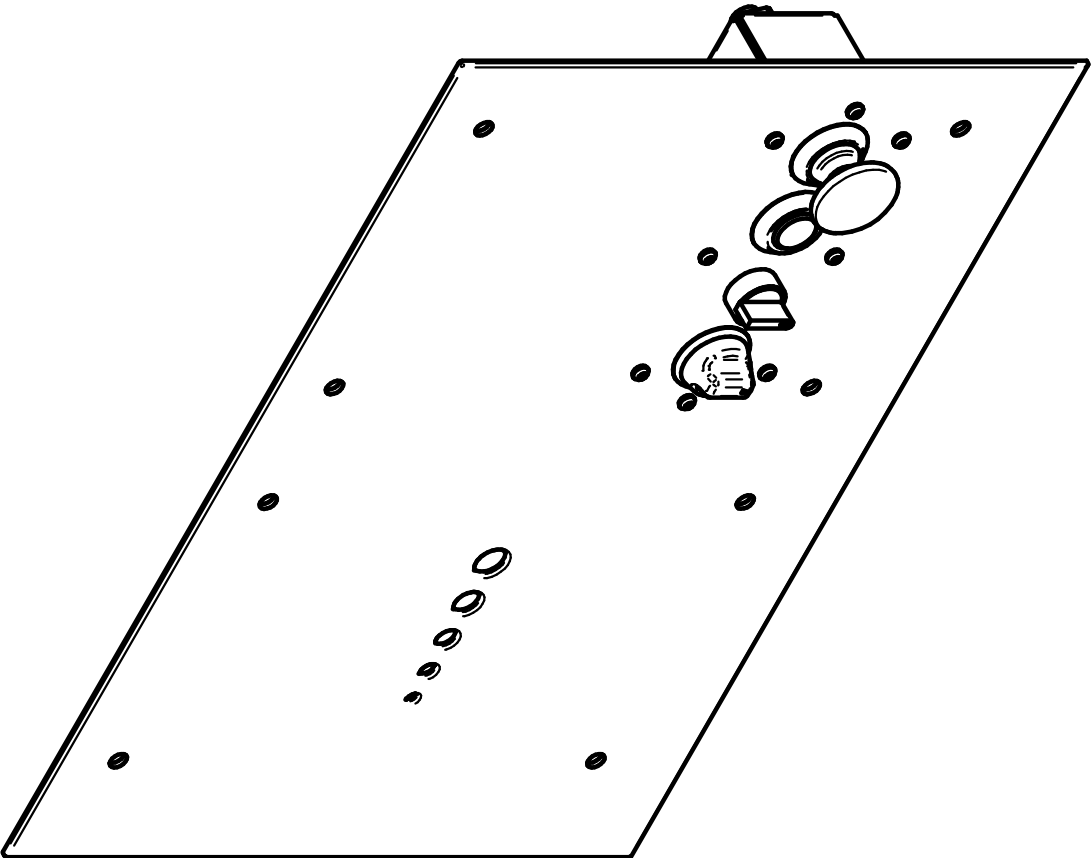
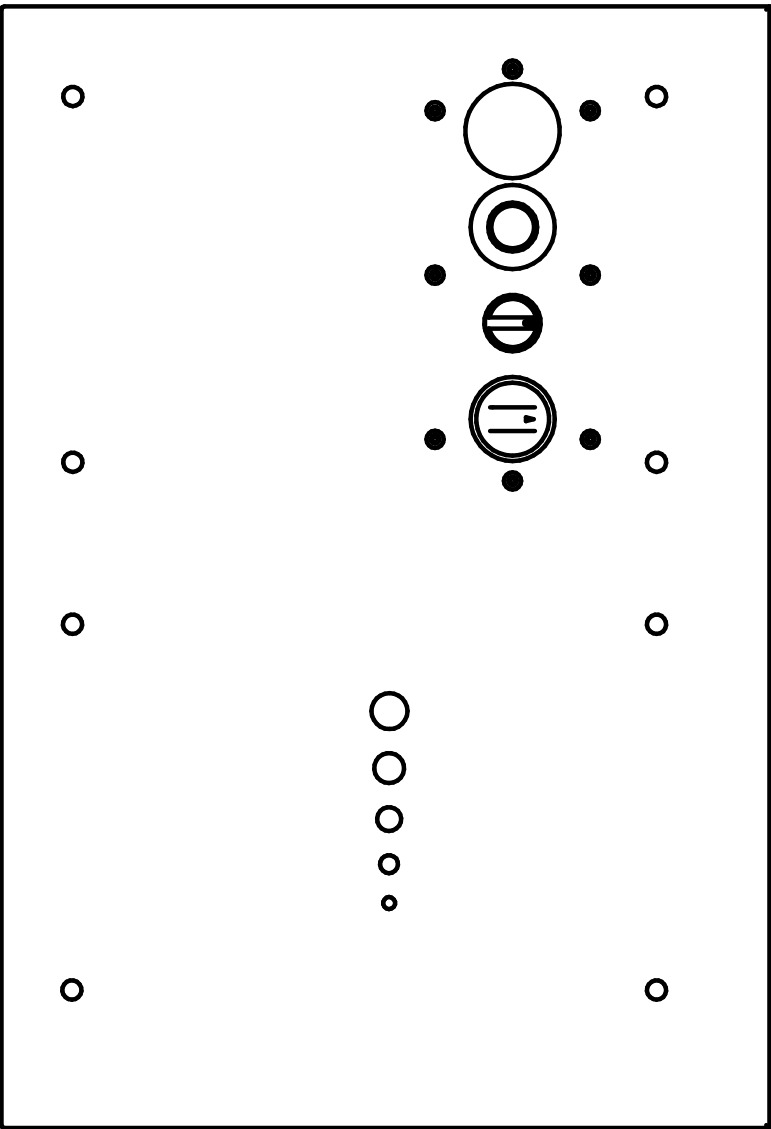
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994							
		NAME		DATE		BE HEMP EQUIPMENT	
DRAWN		B P BALE		11/13/20			
CHECKED							
MATERIAL		SEE BOM					
FINISH NONE				SIZE		DWG NO	
				B		2-A007-01	
						REV A	
				TITLE ASSY, FINAL # 1			
				FILE NAME: 2-A007-01-A.dft			
SCALE:		WEIGHT:		SHEET 1 OF 3			



UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±1			
XX ±.01			
XXX ±.005			
ALL DIA CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRET DIM ANDTOL PER			
ASME Y14.5M-1994			
	NAME	DATE	
DRAWN	User	12/02/20	
CHECKED			
MATERIAL			
SEE BOM			
FINISH			
NONE			
TITLE			
ASSY, FINAL # 1			
SIZE	DWG NO	REV	
C	2-A007-01	A	
FILE NAME: 2-A007-01-A.dft			
SCALE:	WEIGHT:	SHEET 2 OF 3	



UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±.1			
XX ±.01			
XXX ±.005			
ALL DIA. CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRETE DIM AND TOL PER			
ASME Y14.5M-1994			
DRAWN	NAME	DATE	BE HEMP EQUIPMENT
CHECKED	User	12/02/20	
MATERIAL			
SEE BOM			
FINISH			ASSY, FINAL # 1
NONE			
SIZE	DWG NO		REV
C	2-A007-01		
FILE NAME: 2-A007-01-A.dft			
SCALE	WEIGHT:	SHEET 3 OF 3	



Item Number	Quantity	Document Number	Title
		2-A006-01	ASSY, PANEL AND ELECTRICAL
1	1	2-0017-01	PLATE, FRONT DIE
2	1	NWTS32	SELECTOR SWITCH, 3 POS
3	1	NDRZ50RT-2905-1	SWITCH, ESTOP
4	1	NMLGN	INDICATOR, GREEN
5	1	EF03.1	BLOCK, NO, POS 1
6	1	EF03.3	BLOCK, TERMINAL, NO, 3 POS
7	1	EF303.3	BLOCK, NO, POS 3
8	1	ELDENGN24	BLOCK, TERMINAL, LED 24VDC
9	1	2-0025-01	BOX, ELECTRICAL
10	8	90107A011	WASHER, #10
11	8	92147A430	WASHER, SPLIT LOCK, #10
12	8	92949A247	SCREW, BUTTON HEAD, 10-24-1
13	8	91841A011	NUT, 10-24
14	1	9106K42	STRAIGHT CONNECTOR, 1/2 LIQUID TIGHT
15	2		CONDUIT, 1/2 LIQUID TIGHT, 5.25" LONG
16	1	ECX2300-10K	POTENTIOMETER, 10K

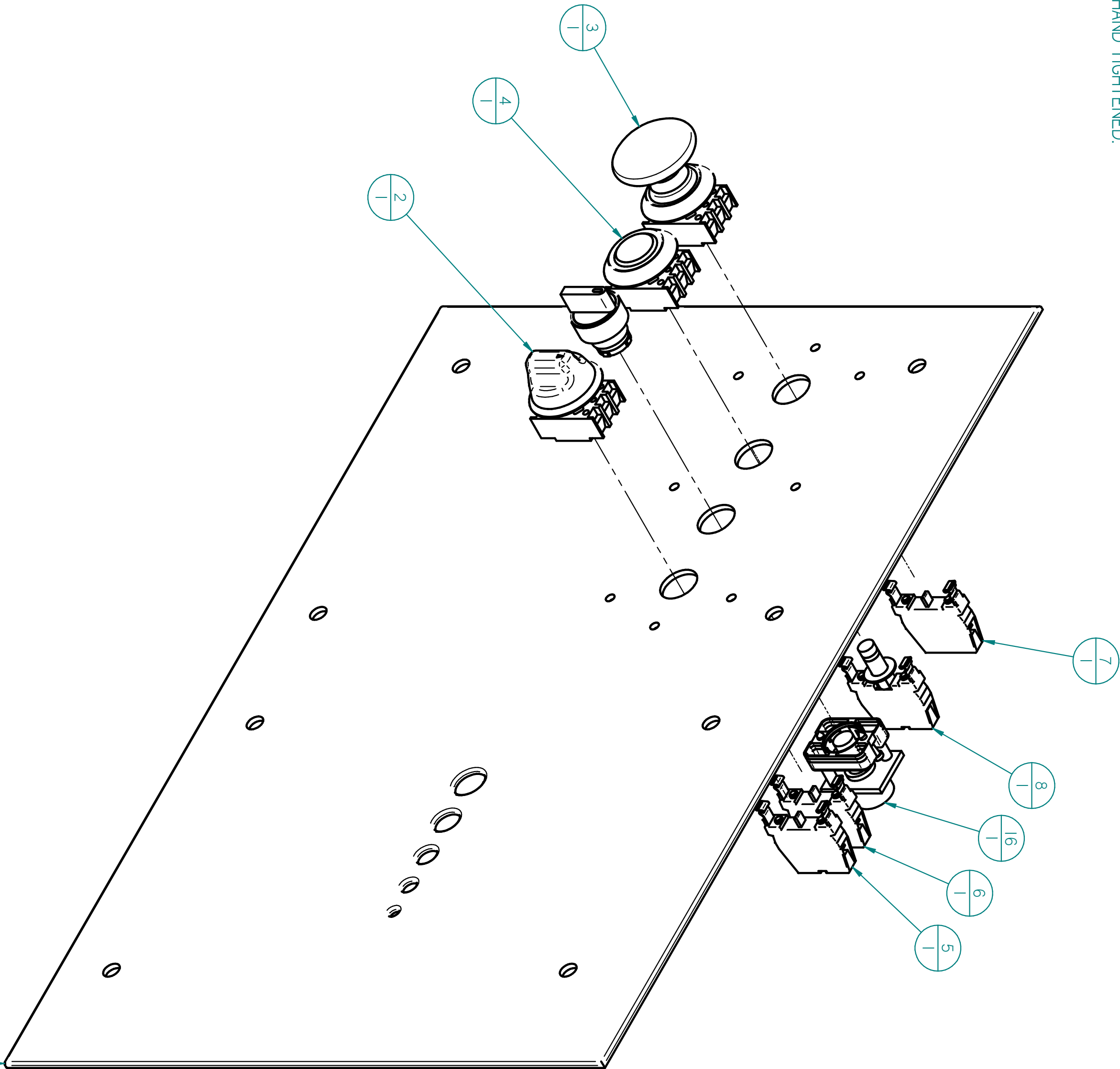
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5°				BE HEMP EQUIPMENT			
DRAWN		NAME	DATE				
CHECKED		B.P. BAILE	07/26/21				
MATERIAL SEE BOM				TITLE ASSEMBLY, ELECTRICAL PANEL			
FINISH NONE				SIZE DWG NO			
				C			
				2-A006-01			
				REV			
				A			
				FILE NAME: 2-A006-01.dft			
				SCALE			
				WEIGHT:			
				SHEET 1 OF 4			

ALL DIA CONC WITHIN .005 TIR  
SURFACE ROUGHNESS OF 63  
INTERPRETE DIM AND TOL PER  
ASME Y14.5MK-1994

XX ±.1  
XXX ±.005

NOTES

- 1. ASSEMBLE PER BOM.
- 2. ENSURE ALL MOUNTING SCREWS ARE HAND TIGHTENED.

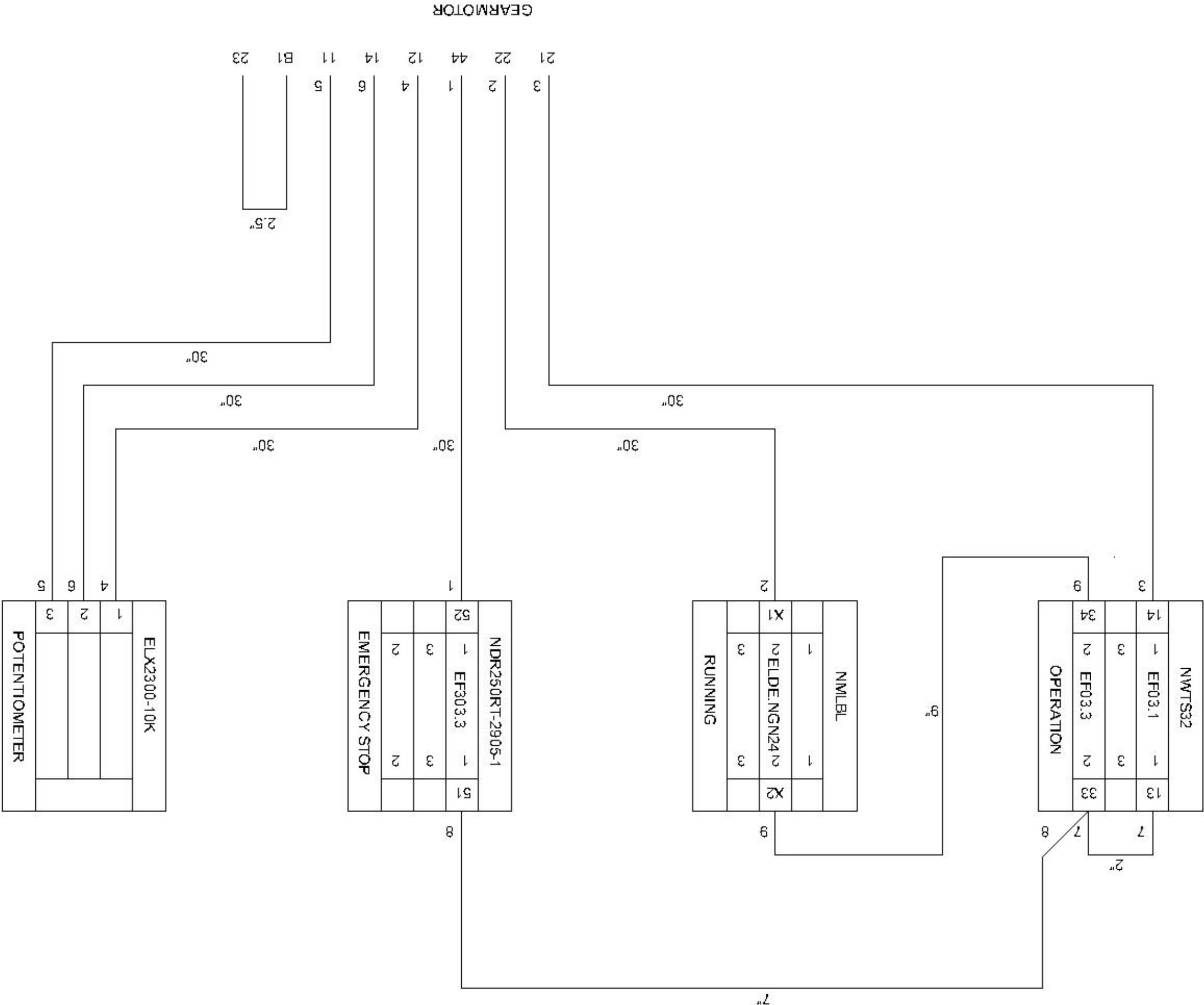


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 XX ±.01 XXX ±.005				NAME	DATE
DRAWN		B.P. BAILE	07/26/21	BE HEMP EQUIPMENT	
CHECKED				TITLE	
MATERIAL				ASSEMBLY, ELECTRICAL PANEL	
FINISH				SIZE	DWG NO
NONE				C	2-A006-01
				REV	A
				FILE NAME:	2-A006-01.dft
				SCALE	WEIGHT: SHEET 2 OF 4



NOTES

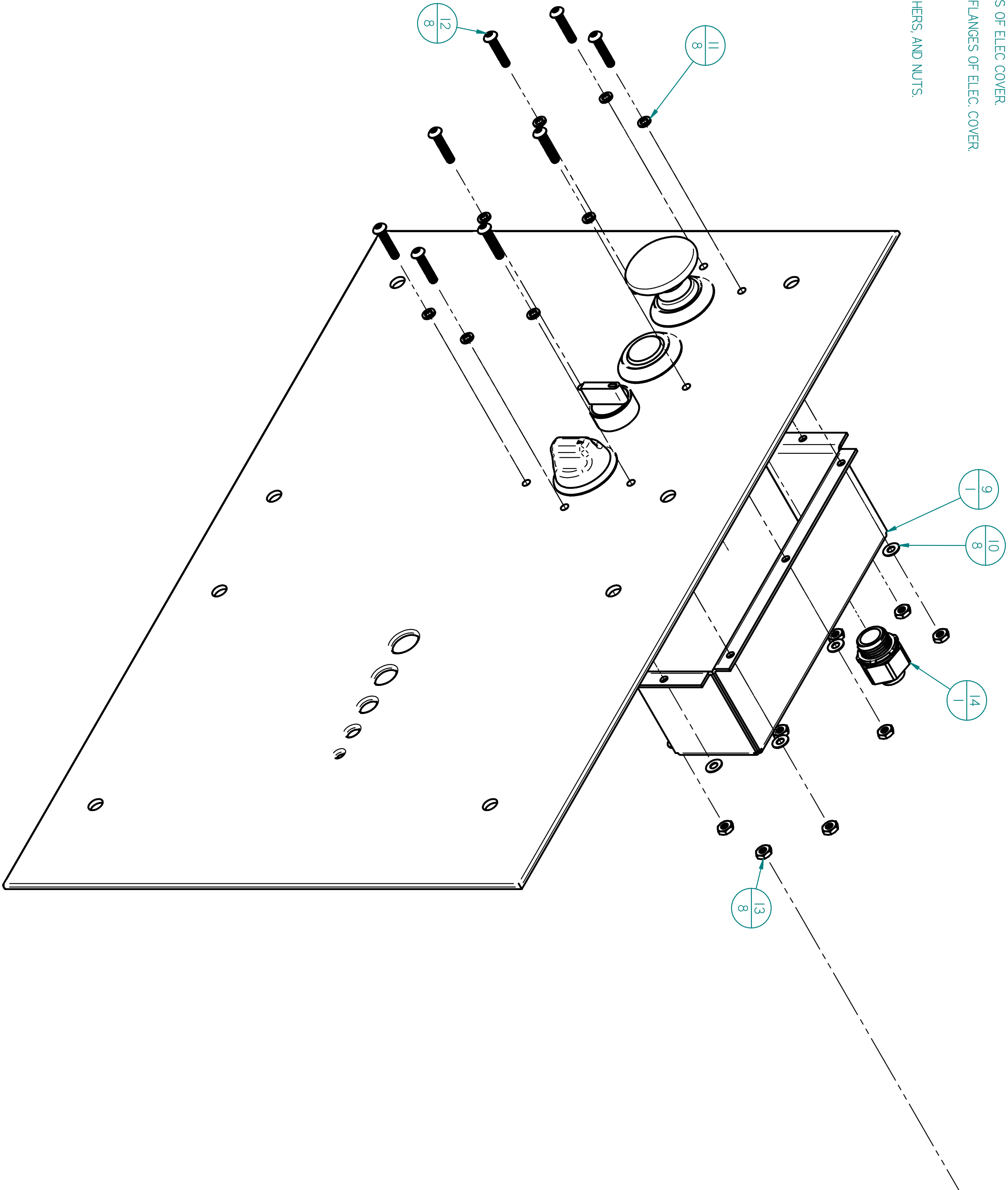
- 1. CUT ALL WIRES TO LENGTH IAW SCHEMATIC
- 2. STRIP WIRES BEING INSERTED INTO TERMINALS  $\frac{1}{4}$ "
- 3. INSERT WIRES AND TIGHTEN TO "HAND TIGHT"
- 4. USE ZIP TIES AT EVERY ENTRANCE/EXIT OF WIRE/WIRE FROM BUNDLE IN ROUTING.



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5°  X ± .1 XX ±.01 XXX ± .005				BE HEMP EQUIPMENT			
		NAME		DATE		TITLE  ASSEMBLY, ELECTRICAL PANEL	
DRAWN		B P BALE		07/26/21			
CHECKED							
MATERIAL							
SEE BOM							
ALL DIA CONC WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM AND TOL PER ASME Y14.5MK-1994				FINISH		SIZE	
				NONE		DWG NO	
						C	
						2-A006-01	
				FILE NAME: 2-A006-01.dft		REV	
				SCALE:		A	
				WEIGHT:		SHEET 3 OF 4	

NOTES

- 1. USING CLEAR SILICON SEAL CORNERS OF ELEC COVER.
- 2. APPLY  $\frac{1}{4}$ " BEAD OF SILICON AROUND FLANGES OF ELEC. COVER.
- 3. INSTALL LOCITITE CONNECTOR
- 4. RUN WIRES THROUGH CONECTOR
- 5. INSTALL COVER USING SCREWS, WASHERS, AND NUTS.
- 6. TORQUE SCREWS TO 22 IN-LBS



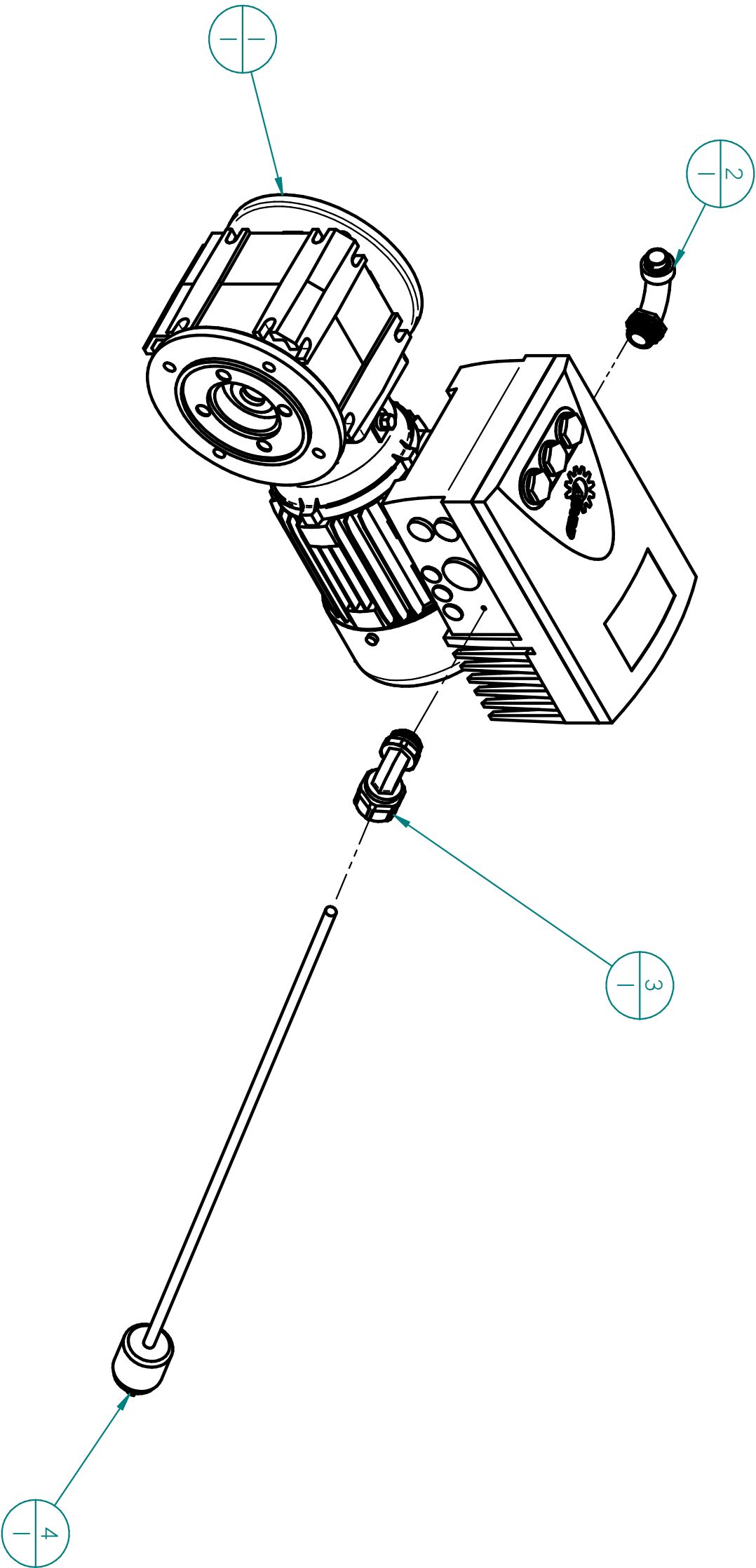
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5°			NAME	DATE	BE HEMP EQUIPMENT	
DRAWN	B.P. BALE	07/26/21				
CHECKED						
X ± .1 XX ± .01 XXX ± .005			MATERIAL SEE BOM		TITLE ASSEMBLY, ELECTRICAL PANEL	
ALL DIA CONC WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM AND TOL PER ASME Y14.5MK-1994			FINISH NONE		SIZE C	DWG NO 2-A006-01
					FILE NAME: 2-A006-01.dft	REV A
			SCALE	WEIGHT:	SHEET 4 OF 4	



NOTES

- 1. INSERT CORD ASSY THROUGH CORD GRIP WITH 6 INCH STRIPPED TAIL ON INSIDE OF MOTOR.
- 2. REMOVE COVER AND CHANGE SWITCHES 4 AND 7 TO ON
- 3. CHANGE MOTOR ASSY JUMPERS.

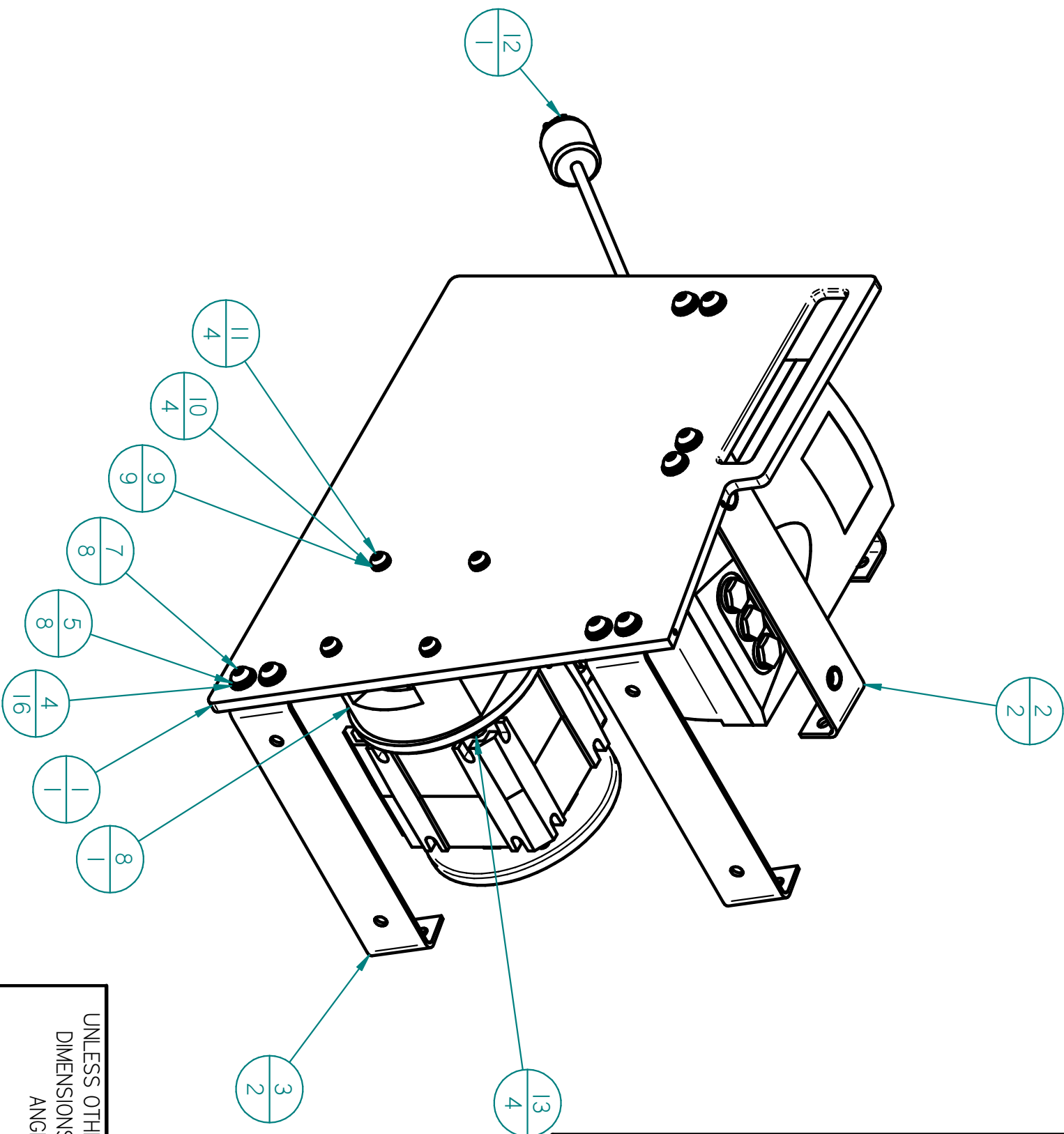
Item Number	Quantity	Document Number	Title
1	1	SK020401AXFF-71S4	MOTOR AND VFD ASSY
2	1	9106K522	LIQUID TIGHT FITTING, 1/2, ELBOW
3	1	7489K320	CORD GRIP
4	1	70355K81	CORD ASSY



UNLESS OTHERWISE SPECIFIED									
DIMENSIONS ARE IN INCHES				DRAWN		NAME	DATE		
ANGLES ±1.5°				CHECKED		B P BALE	11/28/20		
X ±.1				MATERIAL					
.XX ± .01				SEE BOM					
.XXX ±.005									
ALL DIA. CONC. WITHIN .005 TIR									
SURFACE ROUGHNESS OF 63				FINISH					
INTERPRETE DIM ANDTOL PER				NONE					
ASME Y14.5MK-1994									
BE HEMP EQUIPMENT								TITLE	
								ASSY, CARRIER	
SIZE		DWG NO				REV			
B		2-A003-01				A			
FILE NAME: 2-A005-01.dft									
SCALE:		WEIGHT:		SHEET		1 OF 1			

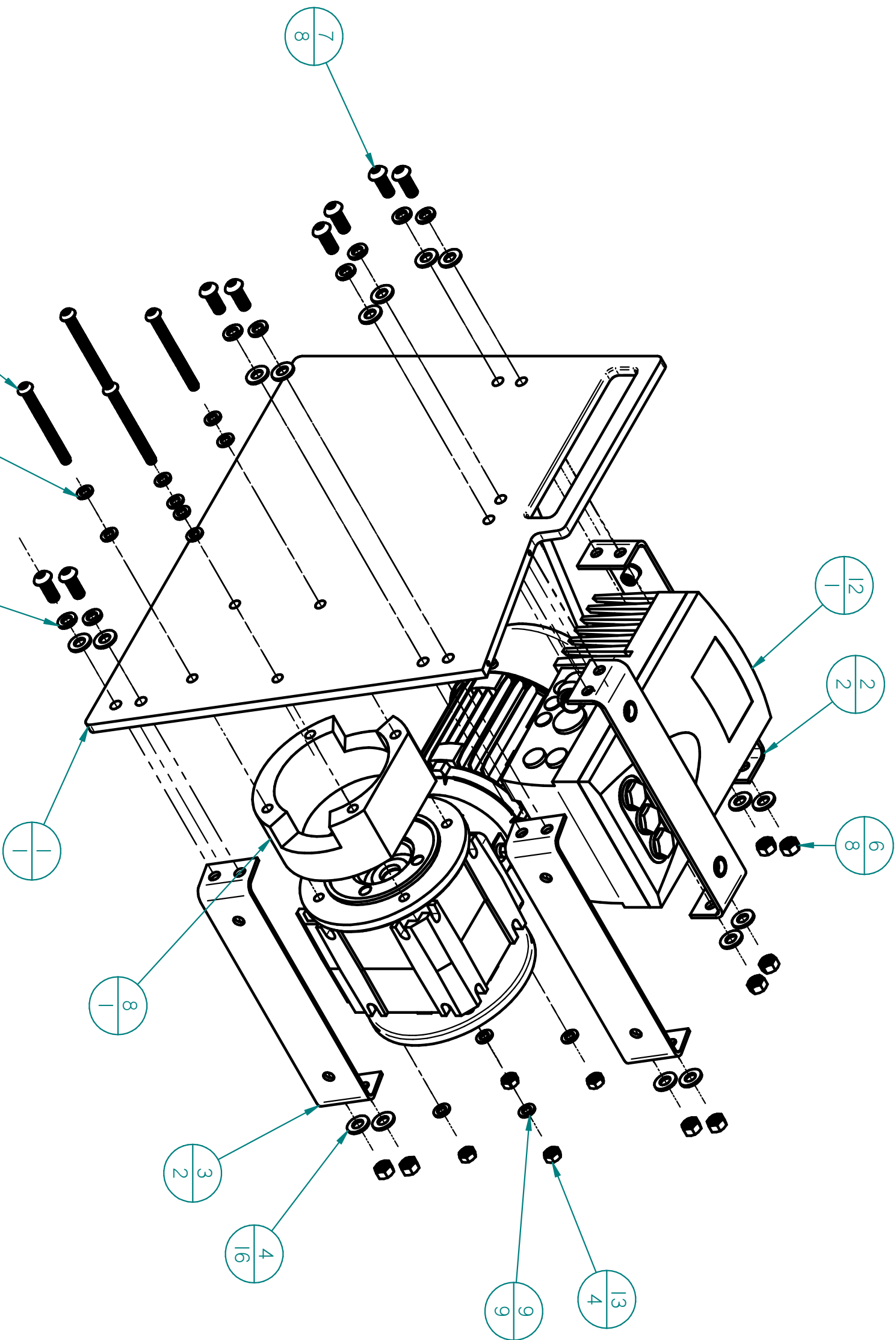
NOTES

1. TIGHTEN ALL FASTENERES PER SAE STANDARDS



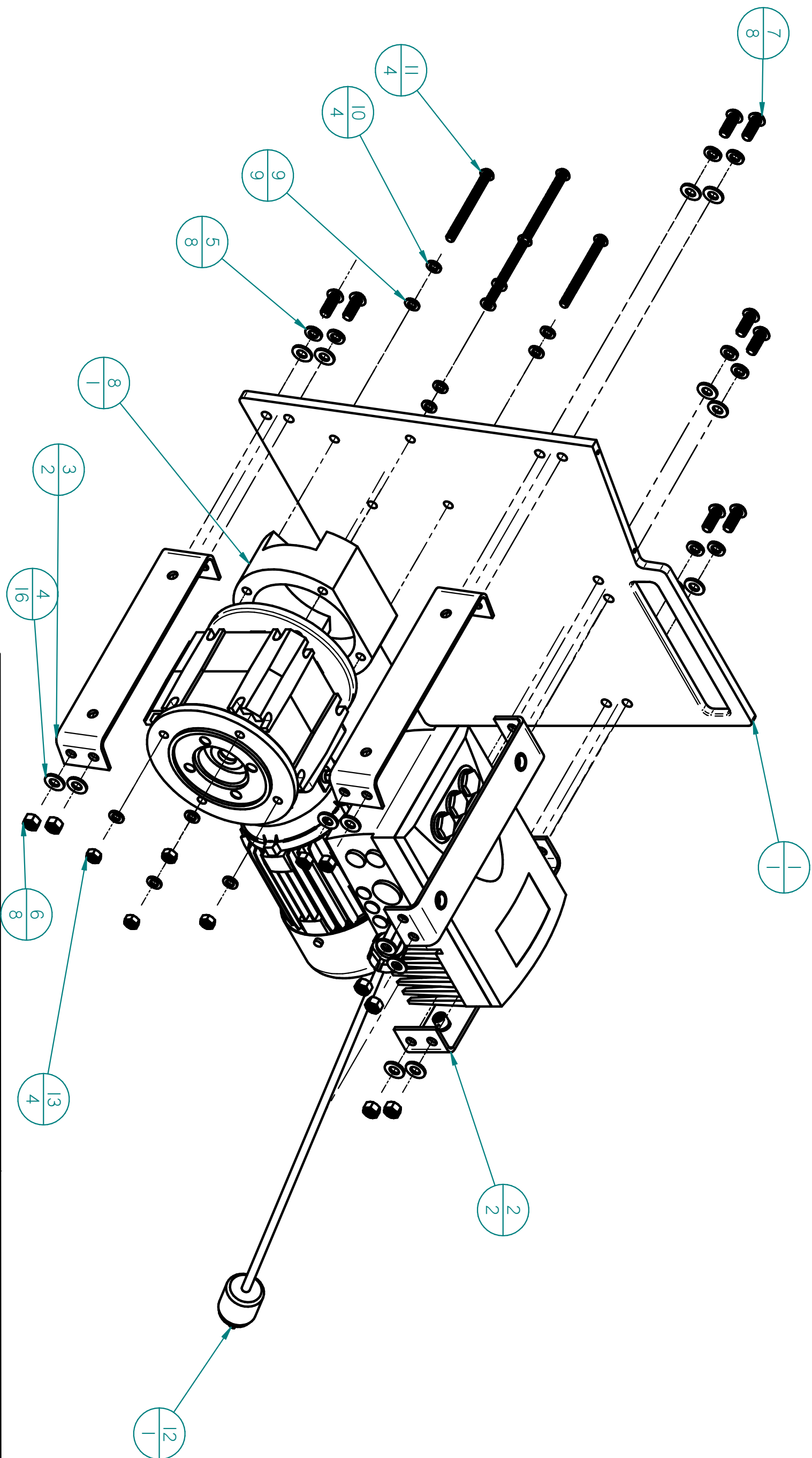
Item Number	Quantity	Document Number	Title
1	1	2-0018-02	PLATE, END MOTOR
2	2	2-0015-A1	ASSEMBLY, BRACKET, MODIFIED
3	2	2-0015-02	BRACKET, CARRIER
4	16	91950A031	WASHER, SAE, 3/8
5	8	92147A031	WASHER, SPLIT, 3/8
6*	8	91845A031	NUT, 3/8-16
7	8	92949A624	SCREW, BUTTON, 3/8-16 X 1
8	1	2-0014-02	COLLAR, MOTOR
9	9	98689A116	WASHER, M8, SS
10	4	92148A200	WASHER, SPLIT LOCK, M8
11	4	92095A336	SCREW, M8
12	1	2-A005-01	MOTOR ASSY, MODIFIED
13	4	91828A410	NUT, M8, SS

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994		NAME	DATE	BE HEMP EQUIPMENT  ASSY, MOTOR		
	DRAWN	B P BALE	11/28/20			
	CHECKED					
	MATERIAL SEE BOM		TITLE ASSY, MOTOR			
	FINISH NONE		SIZE B	DWG NO 2-A004-01		REV A
	FILE NAME: 2-A004-01.dft					
	SCALE:		WEIGHT:	SHEET 1 OF 3		



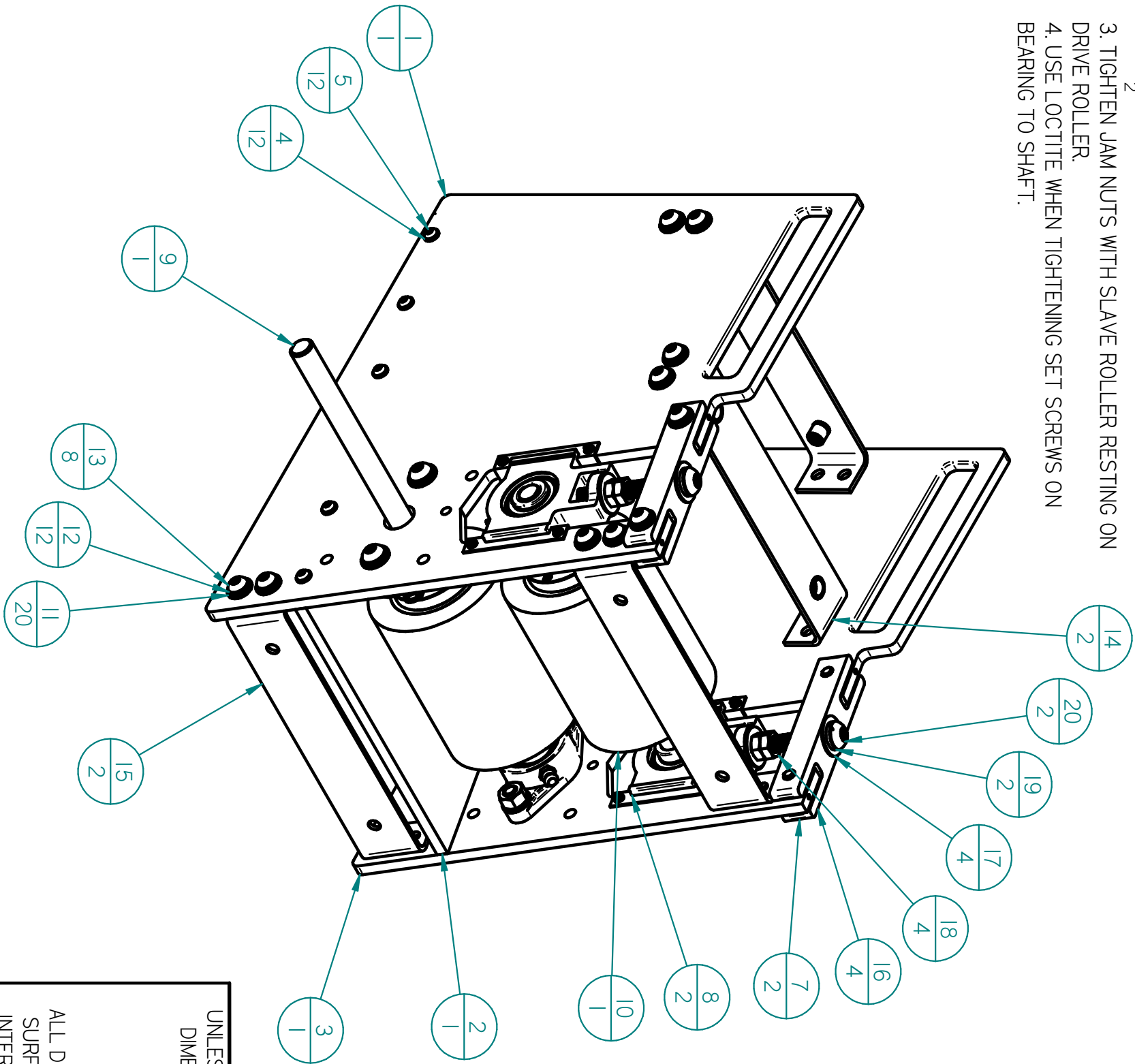
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994			DRAWN		NAME	DATE	BE HEMP EQUIPMENT		
CHECKED			B P BALE		11/28/20		TITLE		
MATERIAL			SEE BOM				ASSY, MOTOR		
FINISH			NONE				SIZE		
							DWG NO		REV
							2-A004-01		A
							FILE NAME: 2-A004-01.dft		
							SCALE:		
							WEIGHT:		SHEET 2 OF 3

NOTES



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994			NAME	DATE	BE HEMP EQUIPMENT  ASSY, MOTOR	
DRAWN	B P BALE	11/28/20	CHECKED			
MATERIAL						
SEE BOM						
FINISH			SIZE		DWG NO	REV
NONE			B		2-A004-01	A
FILE NAME: 2-A004-01.dft			SCALE:		WEIGHT:	SHEET 3 OF 3

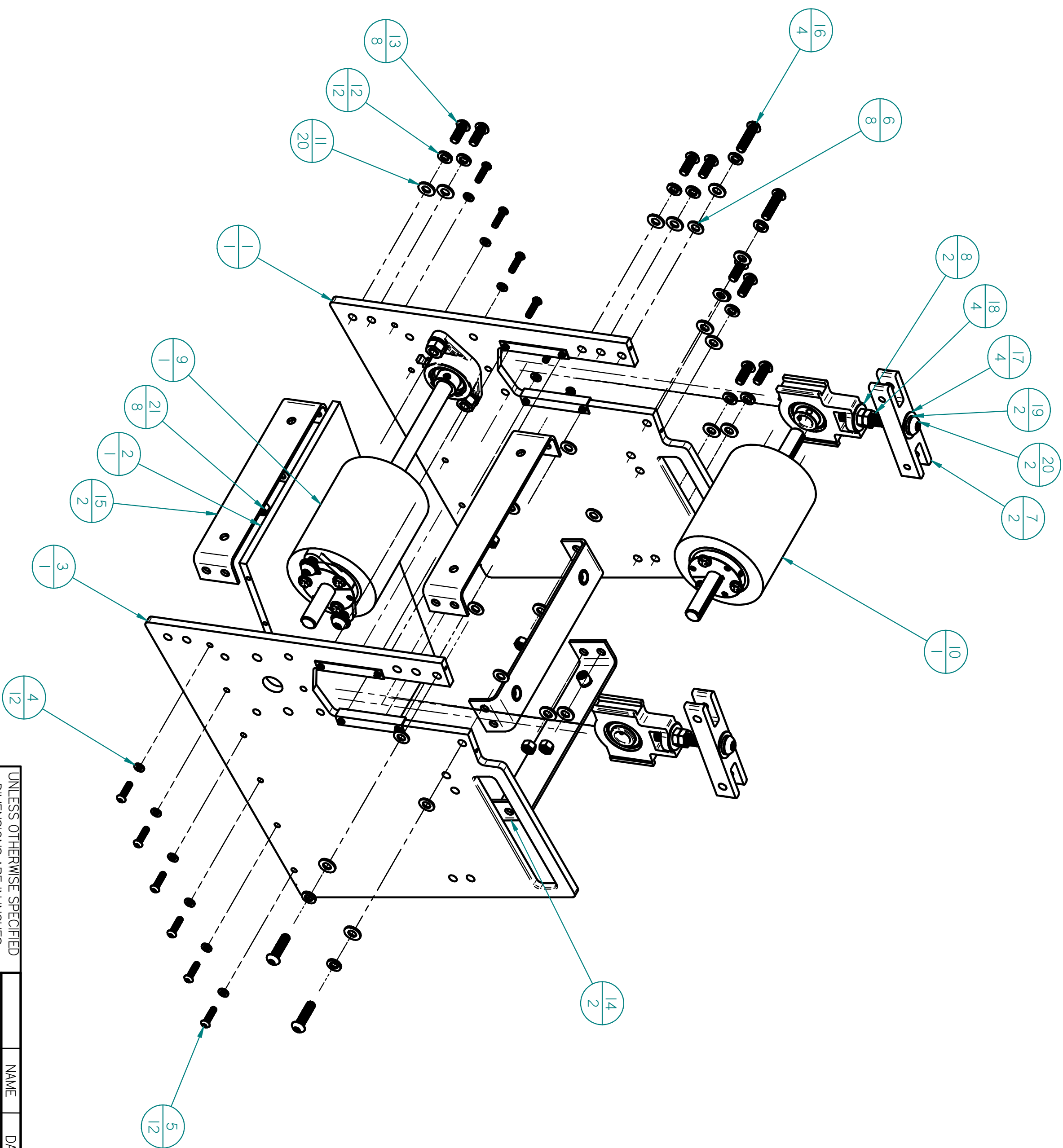
- NOTES
1. TORQUE PER SAE STANDARDS EXCEPT WHERE NOTED.
  2. TIGHTEN 4" SCREW TO ENAGGE LOCK WASHER, THEN TURN  $\frac{1}{2}$  TURN MORE.
  3. TIGHTEN JAM NUTS WITH SLAVE ROLLER RESTING ON DRIVE ROLLER.
  4. USE LOCITITE WHEN TIGHTENING SET SCREWS ON BEARING TO SHAFT.



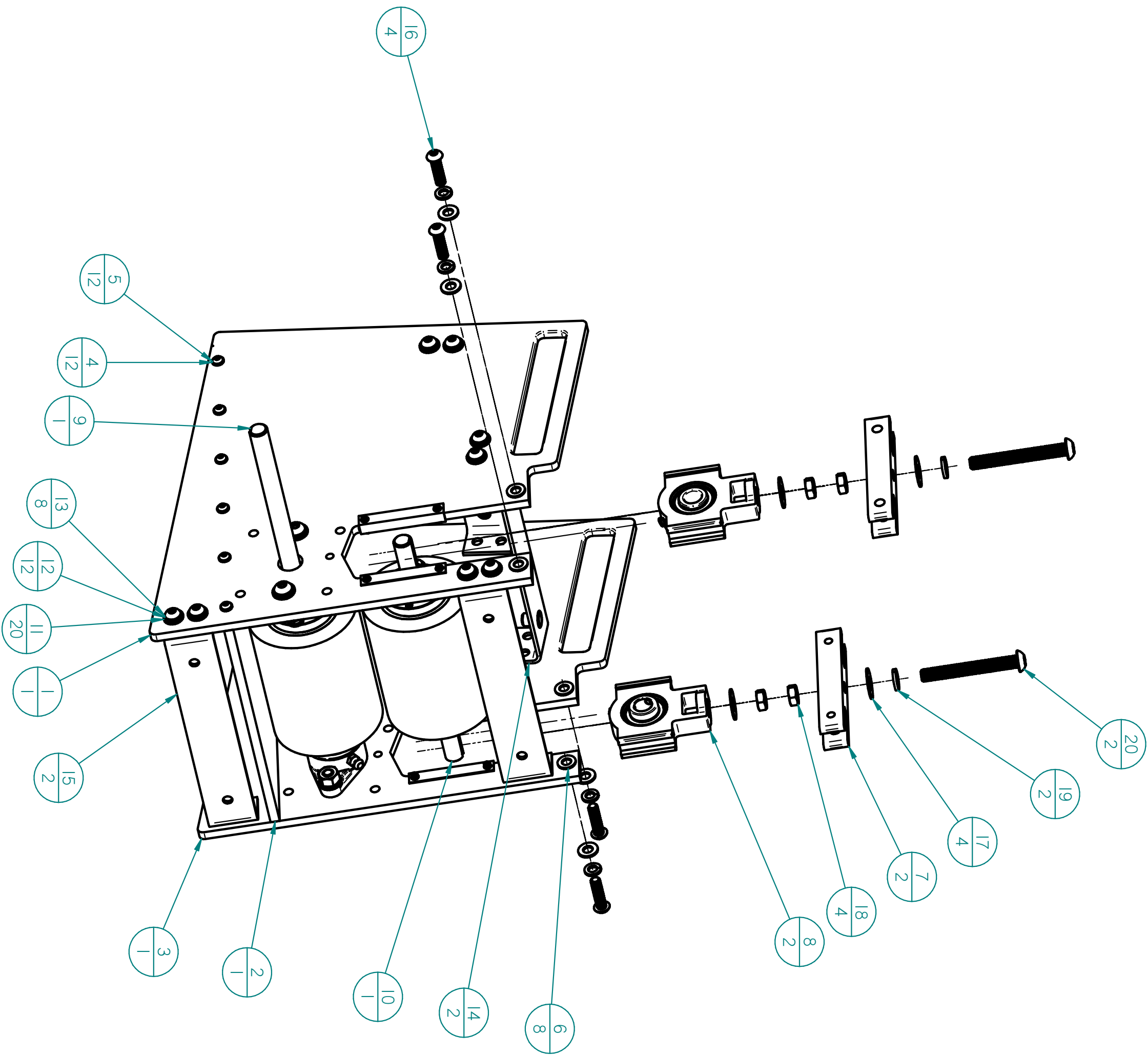
Item Number	Quantity	Document Number	Title
1	1	2-A002-01	ASSY, CARRIER PLATE, RIGHT
2	1	2-0016-01	PLATE, LOWER
3	1	2-A002-02	ASSY, CARRIER PLATE, RIGHT
4	12	921477A029	WASHER, SPLIT, I/4
5	12	92949A542	SCREW, BUTTON, I/4-20 X 1
6*	8	90295A470	WASHER, NYLON, 3/8
7	2	2-0005-01	BRACE, TOP
8	2	2-0003-01	BEARING, MODIFIED
9	1	2-A001-02	ASSY, ROLLER, DRIVE
10	1	2-A001-03	ASSY, ROLLER, SLAVE
11	20	91950A031	WASHER, SAE, 3/8
12	12	921477A031	WASHER, SPLIT, 3/8
13	8	92949A624	SCREW, BUTTON, 3/8-16 X 1
14	2	2-0015-A1	ASSEMBLY, BRACKET, MODIFIED
15	2	2-0015-02	BRACKET, CARRIER
16	4	92949A628	SCREW, BUTTON, 3/8-16 X 1 1/2
17	4	90107A033	WASHER, I/2, STAINLESS STEEL
18	4	91847A520	NUT, THIN, I/2-13, SS
19	2	921477A033	WASHER, SPLIT LOCK, I/2
20	2	92949A728	SCREW, I/2-13 X 4, SS
21*	8	91845A031	NUT, 3/8-16

UNLESS OTHERWISE SPECIFIED					
DIMENSIONS ARE IN INCHES					
ANGLES ±1.5°					
X ±.1					
.XX ± .01					
.XXX ±.005					
ALL DIA. CONC. WITHIN .005 TIR					
SURFACE ROUGHNESS OF 63					
INTERPRETE DIM ANDTOL PER					
ASME Y14.5MK-1994					
		NAME	DATE	BE HEMP EQUIPMENT	
DRAWN	B P BALE	11/13/20			
CHECKED					
MATERIAL					
SEE BOM					
FINISH					
NONE					
TITLE		ASSY, CARRIER			
SIZE	DWG NO				
B	2-A003-01				
FILE NAME: 2-A003-01-A.dft			REV A		
SCALE:	WEIGHT:	SHEET 1 OF 4			



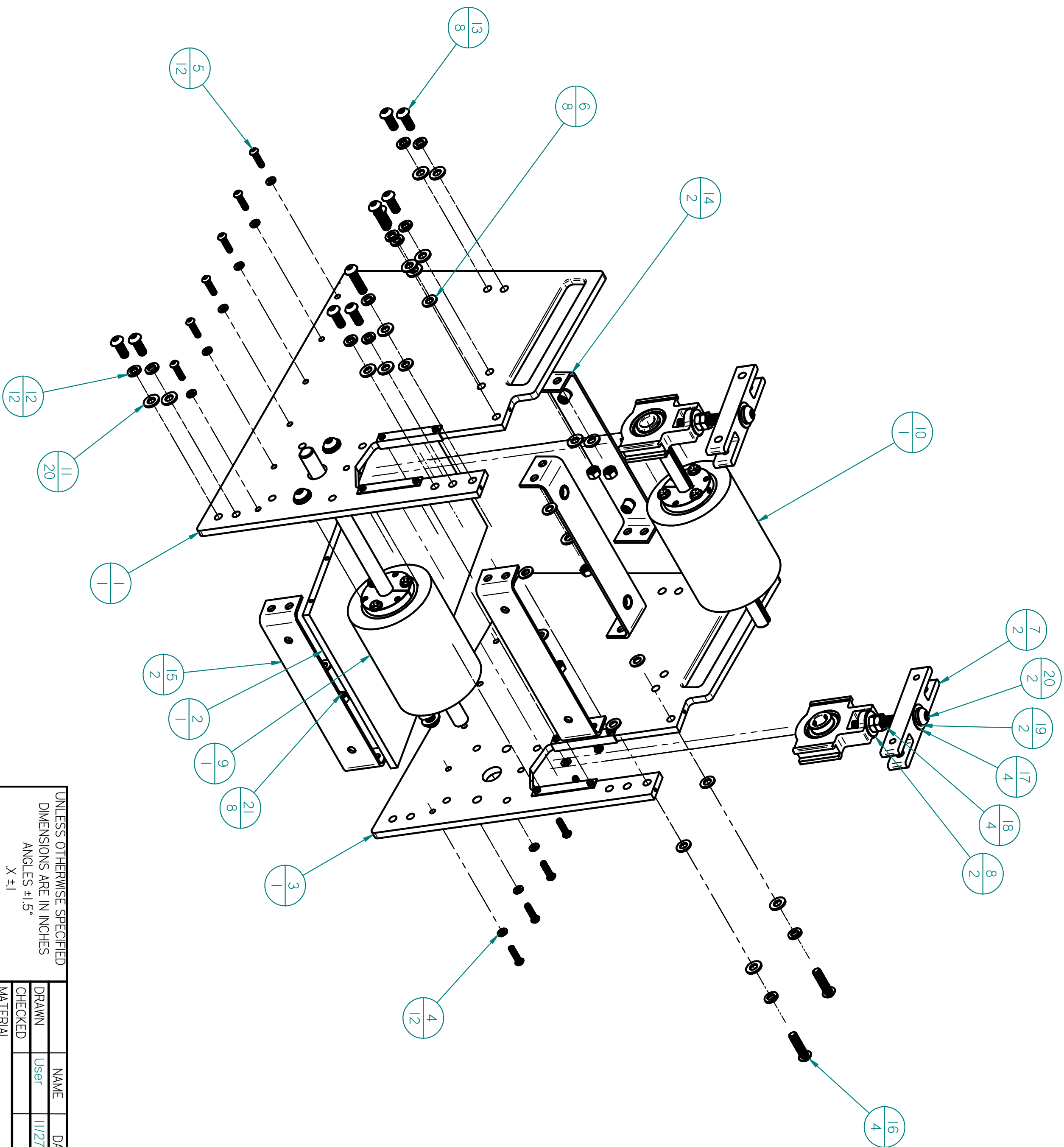


UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±1			
XX ±.01			
XXX ±.005			
ALL DIA. CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRETE DIM AND TOL PER			
ASME Y14.5MK-1994			
DRAWN	NAME	DATE	BE HEMP EQUIPMENT
CHECKED	User	11/12/20	
MATERIAL			
SEE BOM			
FINISH	TITLE		ASSY, CARRIER
NONE			
SIZE			
C			
FILE NAME: 2-A003-01-Adt	DWG NO	2-A003-01	REV
SCALE	WEIGHT:	SHEET 2 OF 4	A



UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±1			
XX ±.01			
XXX ±.005			
ALL DIA. CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRET DIM AND TOL PER			
ASME Y14.5M-1994			
		NAME	DATE
DRAWN		User	11/12/20
CHECKED			
MATERIAL			
SEE BOM			
FINISH			
NONE			
BE HEMP EQUIPMENT			
TITLE			
ASSY, CARRIER			
SIZE	DWG NO		REV
C	2-A003-01		A
FILE NAME: 2-A003-01-Adt			
SCALE	WEIGHT	SHEET 3 OF 4	

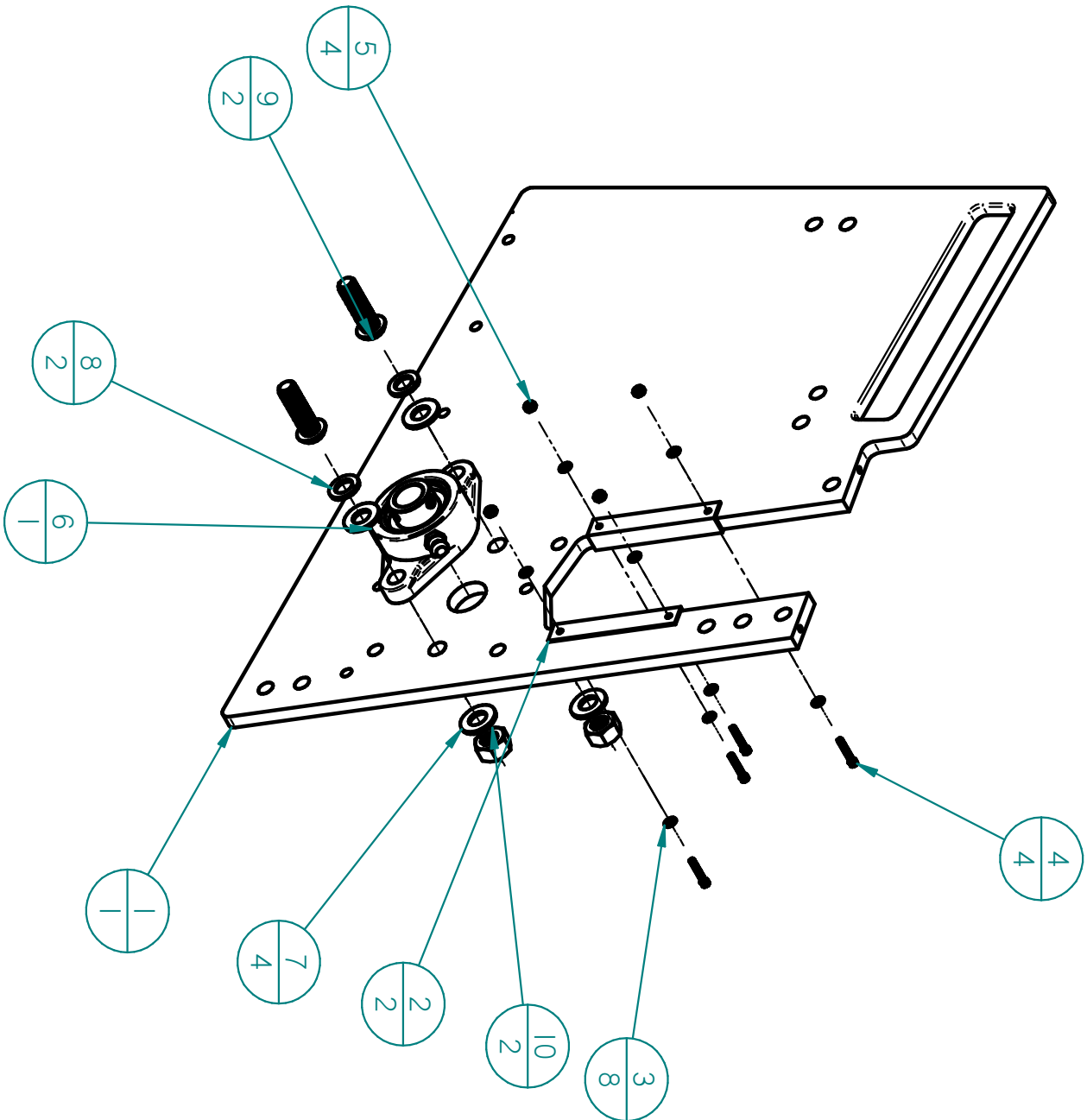




UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
ANGLES ±1.5°			
X ±1			
XX ±.01			
XXX ±.005			
ALL DIA. CONC. WITHIN .005 TIR			
SURFACE ROUGHNESS OF 63			
INTERPRET DIM AND TOL PER			
ASME Y14.5M-1994			
DRAWN	NAME	DATE	BE HEMP EQUIPMENT
CHECKED	User	11/12/20	
MATERIAL			
SEE BOM			
FINISH			ASSY, CARRIER
NONE			
SIZE	DWG NO		
C	2-A003-01		
FILE NAME: 2-A003-01-Adt			REV
SCALE	WEIGHT	SHEET 4 OF 4	

NOTES

1. TORQUE AS REQUIRED PER SAE STANDARD

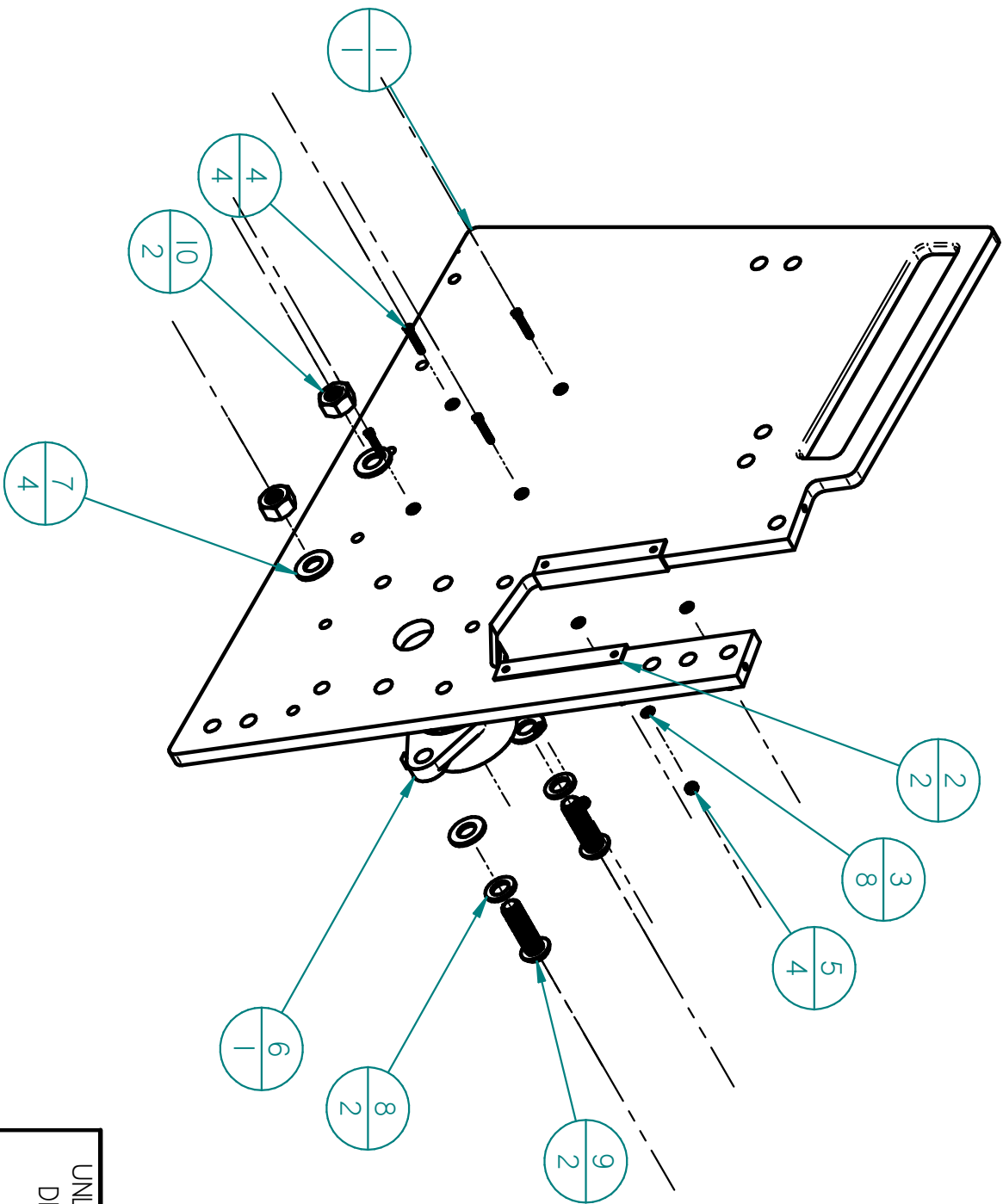


Item Number	Quantity	Document Number	Title
1	1	2-0013-01	PLATE, SIDE
2	2	2-0010-01	LINNER, CARRIER
3	8	90107A005	WASHER, #4
4	4	92196A113	SCREW, CAP, 4-40 X 3/4
5	4	91831A005	NUT, SLEEF LOCKING, #4
6	1	5968K73	BEARING, 2 BOLT FLANGE
7	4	91950A048	WASGER, 7/16, SAE
8	2	92147A032	WASHER, SPLIT, 7/16
9	2	92949A351	SCREW, BUTTON, 7/16-14 X 1 1/2
10	2	94252A711	NUT, 7/16-14

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 .XX ±.01 XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994					NAME	DATE
				DRAWN	B P BALE	11/13/20
				CHECKED		
				MATERIAL		
				SEE BOM		
FINISH				NONE		
TITLE						
ASSY, CARRIER PLATE, RIGHT						
SIZE		DWG NO		REV		
B		2-A002-02		A		
FILE NAME: 2-A002-02-A.dft						
SCALE:		WEIGHT:		SHEET 1 OF 1		

NOTES

- 1. TORQUE AS REQUIRED PER SAE STANDARD
- 2. TIGHTEN BEARING NUTS HAND TIGHT ONLY

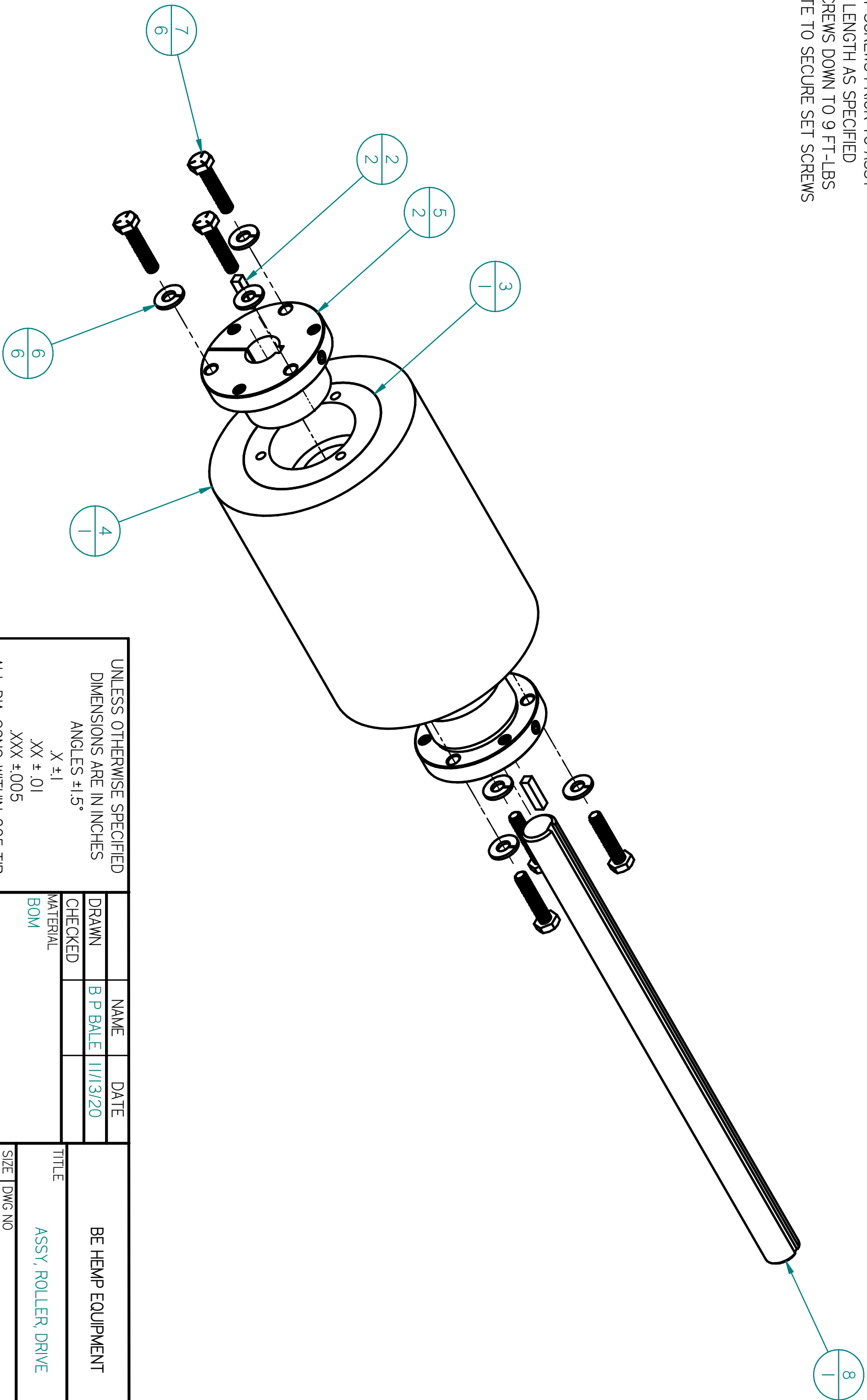


Item Number	Quantity	Document Number	Title
1	1	2-0013-01	PLATE, SIDE
2	2	2-0010-01	LINNER, CARRIER
3	8	90107A005	WASHER, #4
4	4	92196A113	SCREW, CAP, 4-40 X 3/4
5	4	91831A005	NUT, SLEF LOCKING, #4
6	1	5968K73	BEARING, 2 BOLT FLANGE
7	4	91950A048	WASGER, 7/16, SAE
8	2	92147A032	WASHER, SPLIT, 7/16
9	2	92949A351	SCREW, BUTTON, 7/16-14 X 1 1/2
10	2	94252A711	NUT, 7/16-14

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5°  X ±.1 .XX ±.01 .XXX ±.005  ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994		NAME	DATE	BE HEMP EQUIPMENT
	DRAWN	B P BALE	11/13/20	
	CHECKED			
	MATERIAL			
	SEE BOM			
	FINISH			
	NONE			
TITLE				ASSY, CARRIER PLATE, LEFT
SIZE	DWG NO		2-A002-01	
B				
FILE NAME: 2-A002-01-B.dft		REV		
		B		
SCALE:	WEIGHT:	SHEET 1 OF 2		

NOTES

- 1. REMOVE SET SCREWS PRIOR TO ASSY
- 2. SET SHAFT LENGTH AS SPECIFIED
- 3. TORQUE SCREWS DOWN TO 9 FT-LBS
- 4. USE LOCITITE TO SECURE SET SCREWS

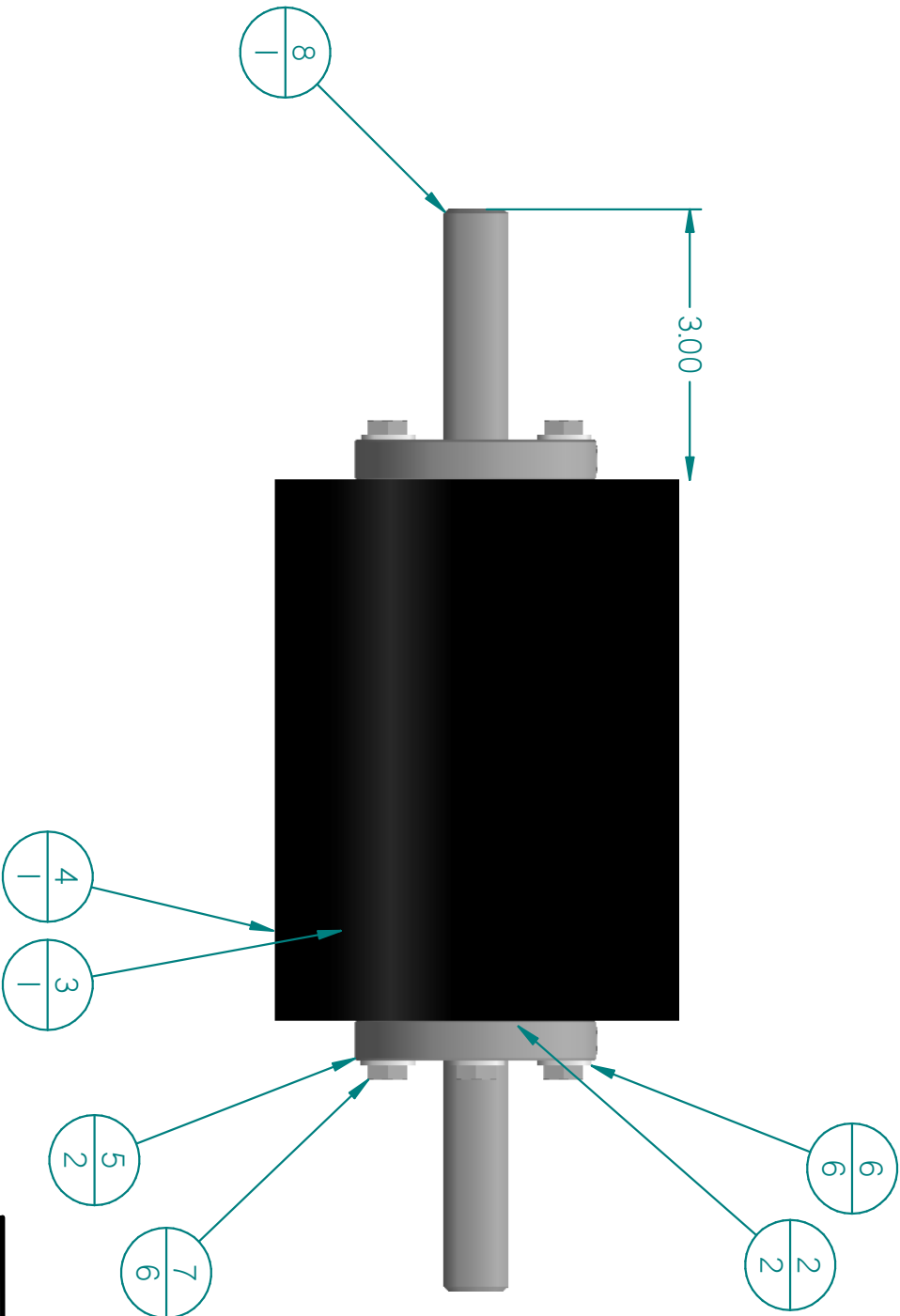


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994				NAME	DATE
			DRAWN	B P BALE	11/13/20
			CHECKED		
			MATERIAL BOM		
			TITLE ASSY, ROLLER, DRIVE		
			FINISH NONE		
			SIZE B	DWG NO 2-A001-02	REV A
			FILE NAME: 2-A001-03-Adft		
			SCALE:	WEIGHT:	SHEET 1 OF 2

NOTES

- 1. REMOVE SET SCREWS PRIOR TO ASSY
- 2. SET SHAFT LENGTH AS SPECIFIED
- 3. TORQUE SCREWS DOWN TO 9 FT-LBS
- 4. USE LOCITITE TO SECURE SET SCREWS

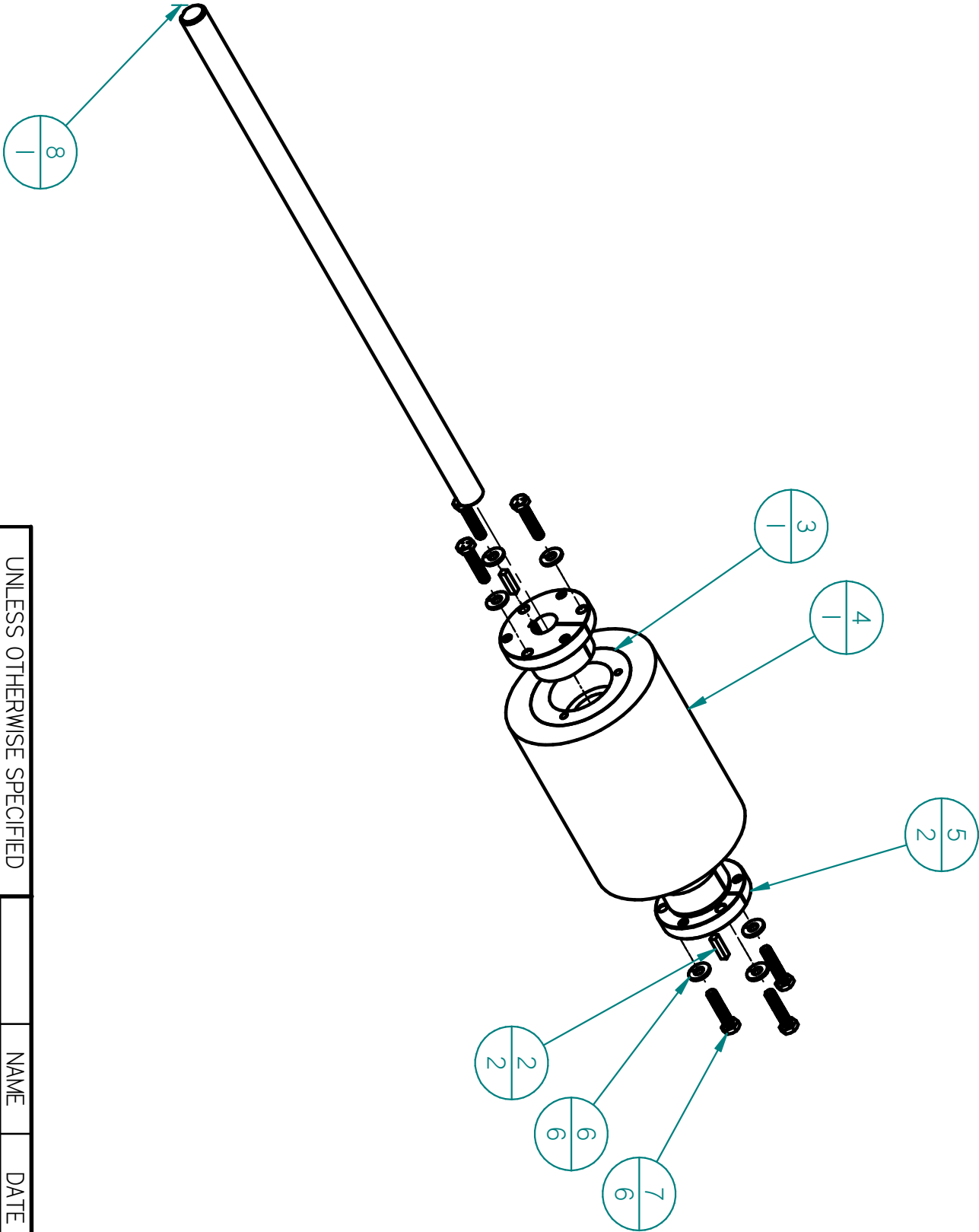
Item Number	Quantity	Document Number	Title
1*	1		
2	2	92624A130	KEY, .750 SHAFT, STAINLESS STEEL
3	1	2-0002-01	MANDREL, 3 INCH
4	1	2-0002-02	RUBBER, ROLLER ASSY
5	2	6086K213	QUICK DISCONNECT
6	6	92147A029	316 SS, SPLIT LOCK WASHER, 1/4
7	6	92865A544	SCREW, HEX HEAD, 1/4-20 X 1 1/2, GRADE 5
8	1	7398K240	SHAFT, KEYED, 12", STAINLESS STEEL



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994		NAME	DATE	BE HEMP EQUIPMENT		
	DRAWN	B P BALE	11/13/20			
	CHECKED			TITLE ASSY, ROLLER, SLAVE		
	MATERIAL BOM					
	FINISH NONE			SIZE B	DWG NO 2-A001-03	REV A
	FILE NAME: 2-A001-03-A.dft					
SCALE:		WEIGHT:	SHEET 2 OF 2			

NOTES

- 1. REMOVE SET SCREWS PRIOR TO ASSY
- 2. SET SHAFT LENGTH AS SPECIFIED
- 3. TORQUE SCREWS DOWN TO 9 FT-LBS
- 4. USE LOCITITE TO SECURE SET SCREWS

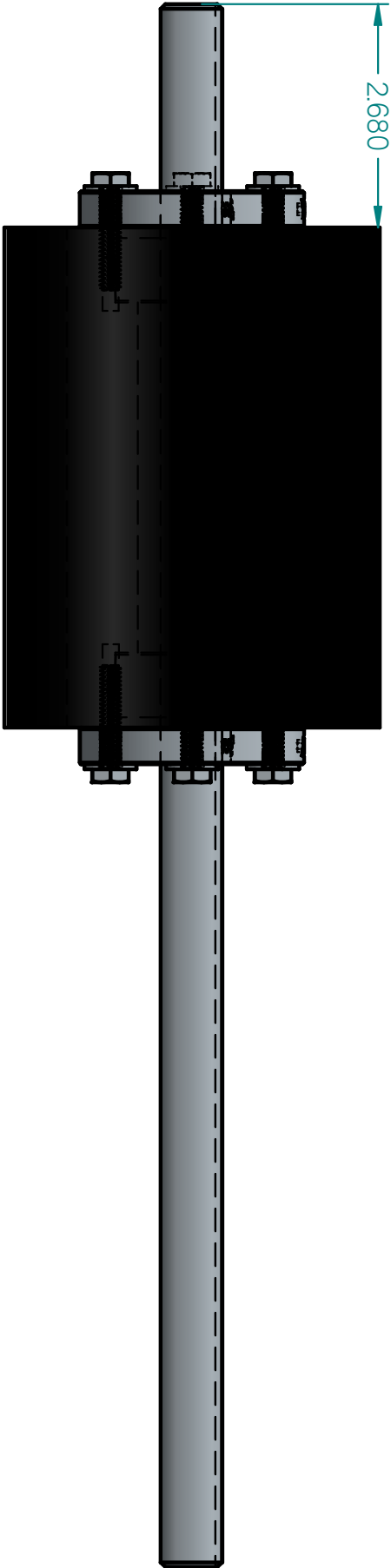


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5° X ±.1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994					NAME	DATE	BE HEMP EQUIPMENT		
				DRAWN	B P BALE	11/13/20			
				CHECKED					
				MATERIAL					
				BOM					
				FINISH		TITLE MANDREL, 3"			
				NONE					
SIZE		DWG NO				REV			
B		2-0002-01				B			
FILE NAME: 2-A001-02-A.dft									
SCALE:		WEIGHT:		SHEET 1		OF 2			

NOTES

- 1. REMOVE SET SCREWS PRIOR TO ASSY
- 2. SET SHAFT LENGTH AS SPECIFIED
- 3. TORQUE SCREWS DOWN TO 9 FT-LBS
- 4. USE LOCITITE TO SECURE SET SCREWS

Item Number	Quantity	Document Number	Title
1*			
2	2	92624A130	KEY, .750 SHAFT, STAINLESS STEEL
3	1	2-0002-01	MANDREL, 3 INCH
4	1	2-0002-02	RUBBER, ROLLER ASSY
5	2	6086K213	QUICK DISCONNECT
6	6	92147A029	316 SS, SPLIT LOCK WASHER, 1/4
7	6	92865A544	SCREW, HEX HEAD, 1/4-20 X 1 1/2, GRADE 5
8	1	2-0012-01	SHAFT, KEYED, 18.00, STAINLESS STEEL, .750



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ±1.5°  .X ±.1 .XX ±.01 .XXX ±.005 ALL DIA. CONC. WITHIN .005 TIR SURFACE ROUGHNESS OF 63 INTERPRETE DIM ANDTOL PER ASME Y14.5MK-1994					NAME	DATE	BE HEMP EQUIPMENT		
				DRAWN	B P BALE	11/13/20			
				CHECKED					
MATERIAL BOM				TITLE ASSY, ROLLER, DRIVE			SIZE B	DWG NO 2-A001-02	REV A
FINISH NONE				FILE NAME: 2-A001-02-A.dft			SCALE:      WEIGHT:      SHEET 2 OF 2		