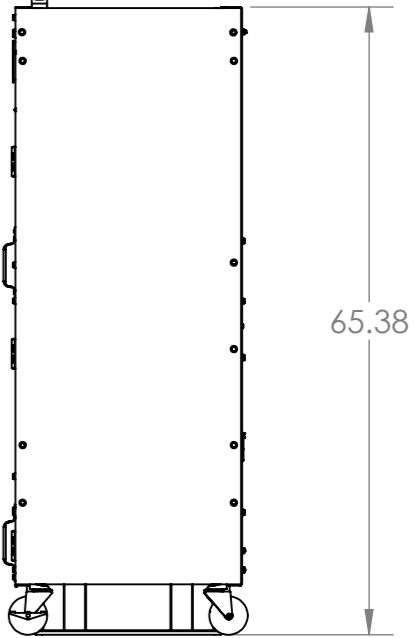
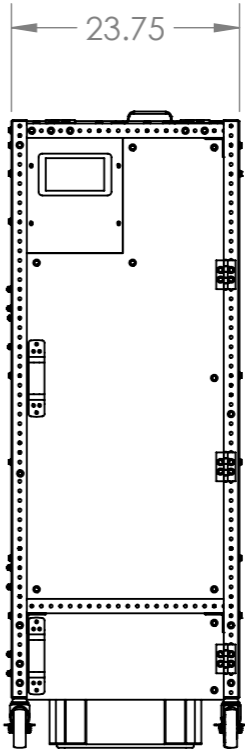
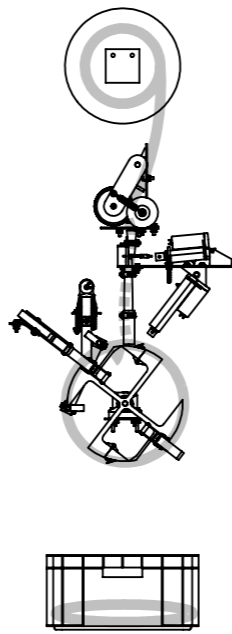


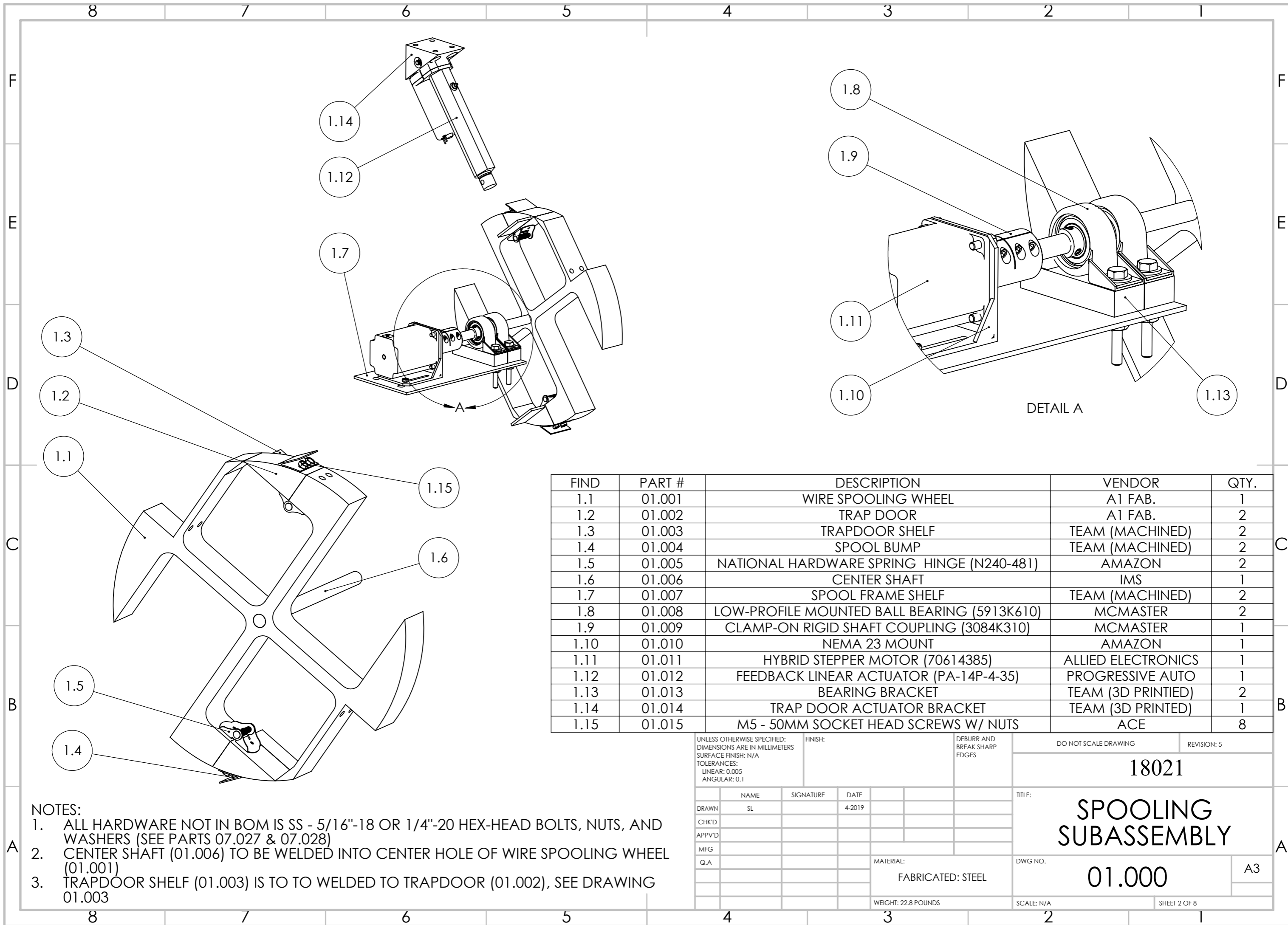
WIRE PATH



- NOTES:
1. WIRES NOT SHOWN, SEE SHEET 06.000
 2. SOME ELEMENTS HIDDEN IN ISOMETRIC FOR EASE OF VIEWING
 3. PERFERATED METAL FRAME SIDING SHOWN AS SOLID

FIND (HEX)	ASSEMBLY #	DESCRIPTION
01	01.000	SPOOLING
02	02.000	FEEDING / MEASURING
03	03.000	CUTTING
04	04.000	DROPPING
05	05.000	BINDING
06	06.000	GUI / ELECTRICAL
07	07.000	FRAME

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES SURFACE FINISH: N/A TOLERANCES: LINEAR: 0.005 ANGULAR: 0.1		FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION: 5
DRAWN: SL		CHECKED:	DATE: 4-2019	18021	
APPV'D:		TITLE: CAWP SYSTEM ASSEMBLY			
MFG:		MATERIAL: FABRICATED: STEEL		DWG NO. 00.000	A3
Q.A:		WEIGHT: 179.13 POUNDS		SCALE: N/A	SHEET 1 OF 8
RAYAN ALWADHAKHI JARED AVERETT NOLAN COLMORE MATT CONKLIN SAM LOMBARDI ANAS BA SHAAIB		NITIN PATEL STEVE LARIMORE			

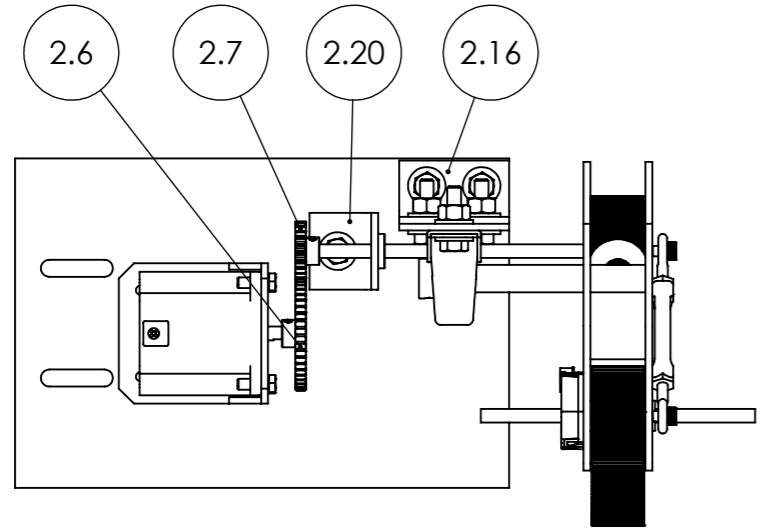
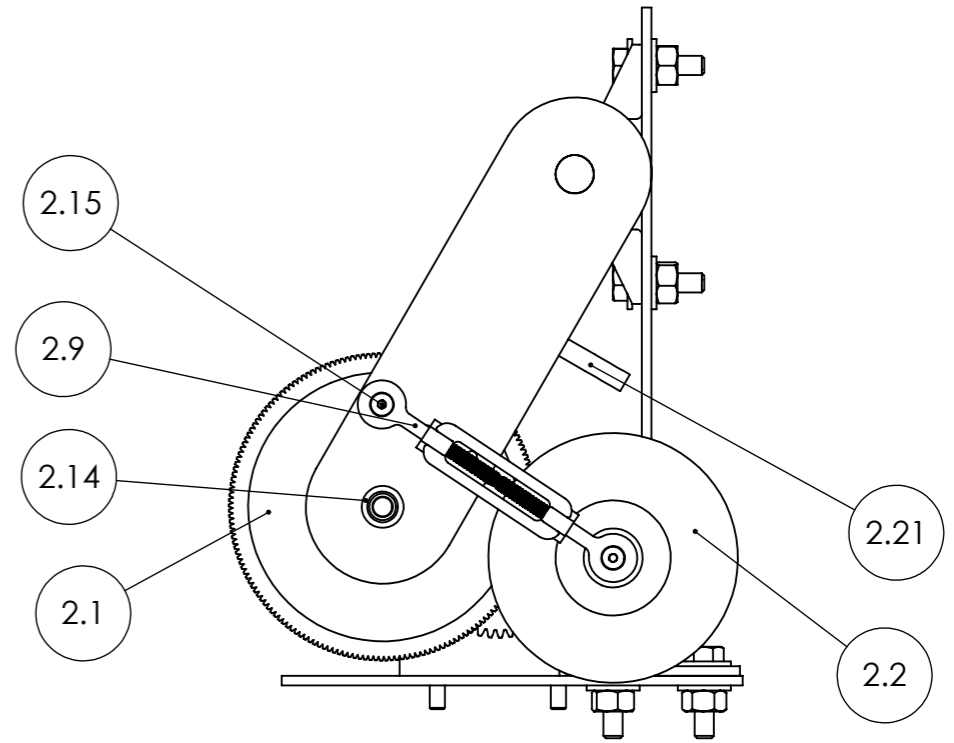
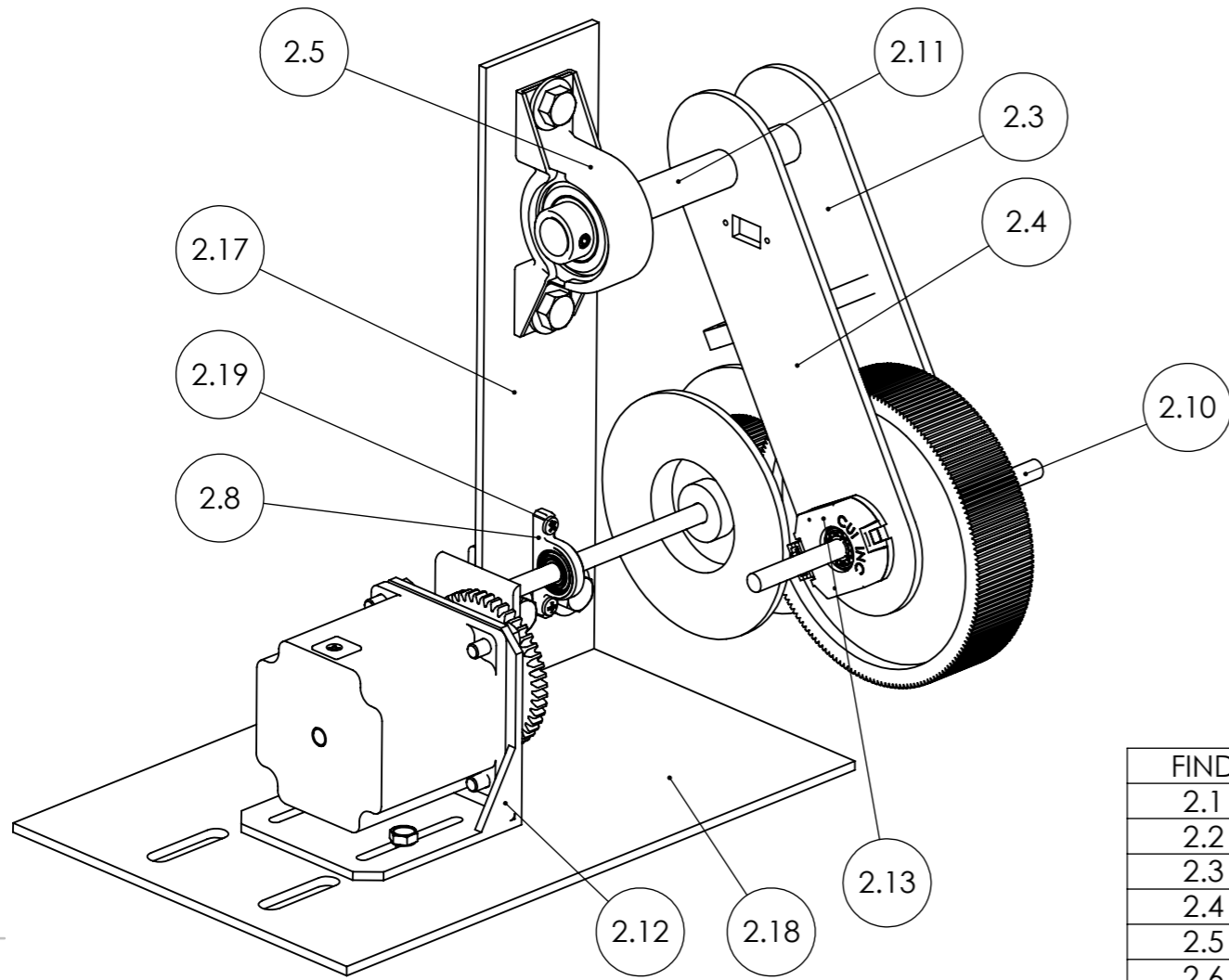


FIND	PART #	DESCRIPTION	VENDOR	QTY.
1.1	01.001	WIRE SPOOLING WHEEL	A1 FAB.	1
1.2	01.002	TRAP DOOR	A1 FAB.	2
1.3	01.003	TRAPDOOR SHELF	TEAM (MACHINED)	2
1.4	01.004	SPOOL BUMP	TEAM (MACHINED)	2
1.5	01.005	NATIONAL HARDWARE SPRING HINGE (N240-481)	AMAZON	2
1.6	01.006	CENTER SHAFT	IMS	1
1.7	01.007	SPOOL FRAME SHELF	TEAM (MACHINED)	2
1.8	01.008	LOW-PROFILE MOUNTED BALL BEARING (5913K610)	MCMASTER	2
1.9	01.009	CLAMP-ON RIGID SHAFT COUPLING (3084K310)	MCMASTER	1
1.10	01.010	NEMA 23 MOUNT	AMAZON	1
1.11	01.011	HYBRID STEPPER MOTOR (70614385)	ALLIED ELECTRONICS	1
1.12	01.012	FEEDBACK LINEAR ACTUATOR (PA-14P-4-35)	PROGRESSIVE AUTO	1
1.13	01.013	BEARING BRACKET	TEAM (3D PRINTED)	2
1.14	01.014	TRAP DOOR ACTUATOR BRACKET	TEAM (3D PRINTED)	1
1.15	01.015	M5 - 50MM SOCKET HEAD SCREWS W/ NUTS	ACE	8

NOTES:

- ALL HARDWARE NOT IN BOM IS SS - 5/16"-18 OR 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS (SEE PARTS 07.027 & 07.028)
- CENTER SHAFT (01.006) TO BE WELDED INTO CENTER HOLE OF WIRE SPOOLING WHEEL (01.001)
- TRAPDOOR SHELF (01.003) IS TO TO WELDED TO TRAPDOOR (01.002), SEE DRAWING 01.003

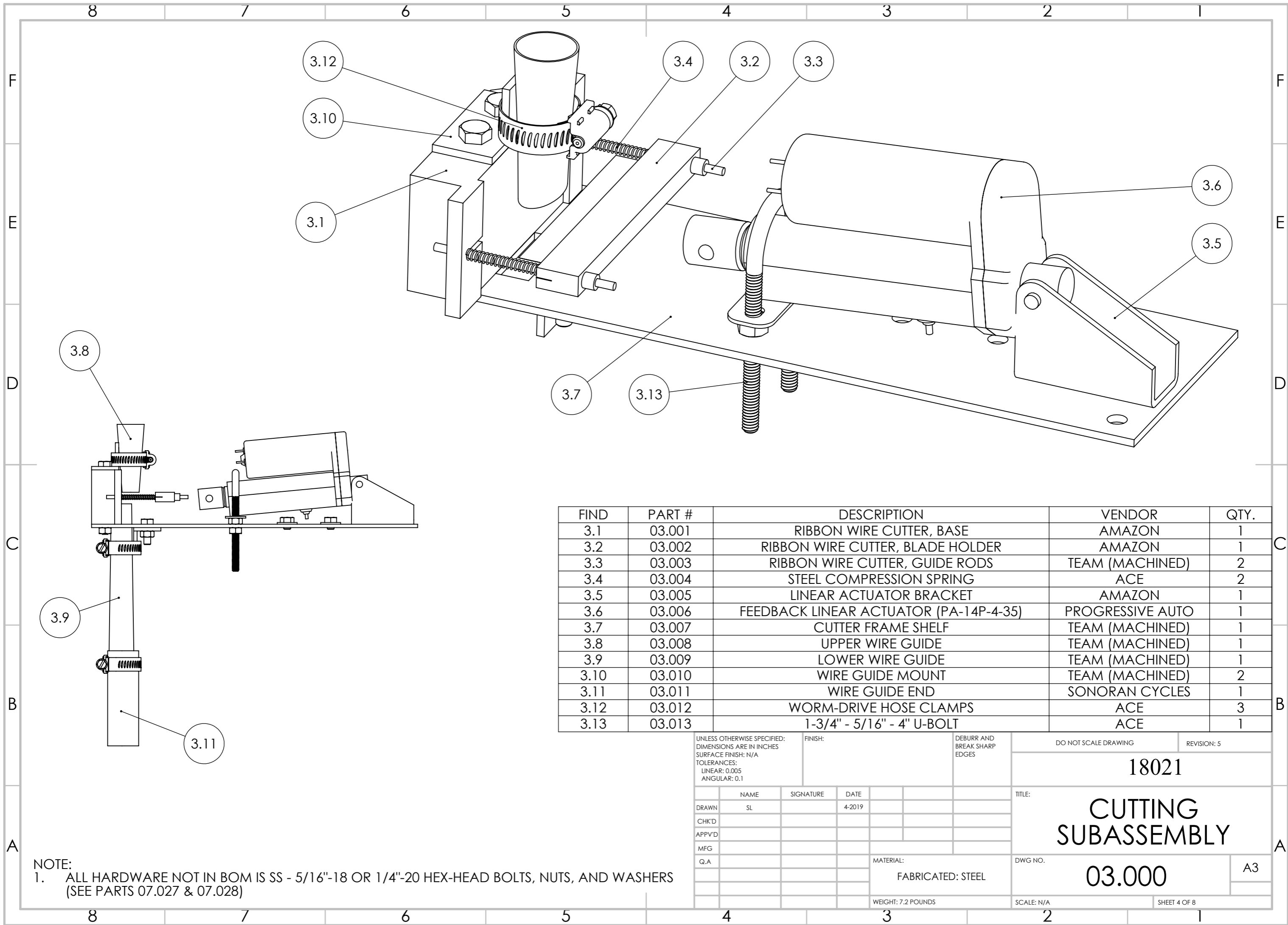
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: N/A TOLERANCES: LINEAR: 0.005 ANGULAR: 0.1		FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION: 5																	
<table border="1"> <thead> <tr> <th>NAME</th> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DRAWN SL</td> <td></td> <td>4-2019</td> </tr> <tr> <td>CHK'D</td> <td></td> <td></td> </tr> <tr> <td>APPV'D</td> <td></td> <td></td> </tr> <tr> <td>MFG</td> <td></td> <td></td> </tr> <tr> <td>Q.A</td> <td></td> <td></td> </tr> </tbody> </table>			NAME	SIGNATURE	DATE	DRAWN SL		4-2019	CHK'D			APPV'D			MFG			Q.A			<p>TITLE: 18021 SPOOLING SUBASSEMBLY</p>	
NAME	SIGNATURE	DATE																				
DRAWN SL		4-2019																				
CHK'D																						
APPV'D																						
MFG																						
Q.A																						
MATERIAL: FABRICATED: STEEL			DWG NO. 01.000	A3																		
WEIGHT: 22.8 POUNDS			SCALE: N/A	SHEET 2 OF 8																		



FIND	PART #	DESCRIPTION	VENDOR	QTY.
2.1	02.001	MEASURE WHEEL	TEAM (3D PRINTED)	1
2.2	02.002	FEEDING WHEEL	TEAM (3D PRINTED)	1
2.3	02.003	WHEEL HOUSING A	TEAM (MACHINED)	1
2.4	02.004	WHEEL HOUSING B	TEAM (MACHINED)	1
2.5	02.005	1/4" STEEL BALL BEARING W/ HOUSING (8600N300)	MCMASTER	1
2.6	02.006	METAL GEAR - SET SCREW, 2" PITCH, (6832K650)	MCMASTER	1
2.7	02.007	METAL GEAR - SET SCREW, 1" PITCH (6832K620)	MCMASTER	1
2.8	02.008	LOW-PROFILE MOUNTED BALL BEARING (5913K610)	MCMASTER	1
2.9	02.009	1.5" EYE TO EYE TURNBUCKLE	ACE	1
2.10	02.010	1/4" STEEL ROD	IMS	2
2.11	02.011	1/2" STEEL ROD	IMS	1
2.12	02.012	NEMA 23 MOUNT	AMAZON	1
2.13	02.013	ENCODER AMT203-V	MOUSER	1
2.14	02.014	STEEL BALL BEARING W/ HOUSING (57155K323)	MCMASTER	3
2.15	02.015	MACHINE SCREW 8-32 THREAD	MCMASTER	2
2.16	02.016	BEARING MOUNT	TEAM (MACHINED)	1
2.17	02.017	UPRIGHT MOUNT	TEAM (MACHINED)	1
2.18	02.018	MEASURE FRAME SHELF	TEAM (MACHINED)	1
2.19	02.019	2-56 X 1/4" PAN-HEAD MACHINE SCREWS	ACE	2
2.20	02.020	BEARING MOUNT	TEAM (MACHINED)	1
2.21	02.021	FEEDING WIRE GUIDE	TEAM (3D PRINTED)	1

- NOTES:
- ALL HARDWARE NOT IN BOM IS SS - 5/16"-18 OR 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS (SEE PARTS 07.027 & 07.028)
 - MEASURE AND FEEDING WHEELS (02.001 & 02.002) TO BE PRESS FIT WITH SUPER GLUE ONTO RESPECTIVE SHAFTS (02.010)
 - BOTH WHEEL HOUSING PLATES (02.003 & 02.004) TO BE WEELDED TO SHAFT (02.011) WITH INTERNAL SURFACES 1" APART
 - THE FEEDING WHEEL ROD (02.010) IS TO HAVE THREADING ON ONE END FOR A THURNBUCKLE SCREW (02.015), SEE DRAWING 02.010
 - FEEDING WIRE GUIDE (02.021) IS TO BE PRESS FIT BETWEEN TO WHEEL HOUSING PLATES (02.003 & 02.004)
 - BEARINGS (02.014) ARE TO BE PRESS FIT INTO WHEEL HOUSING PLATES (02.003)

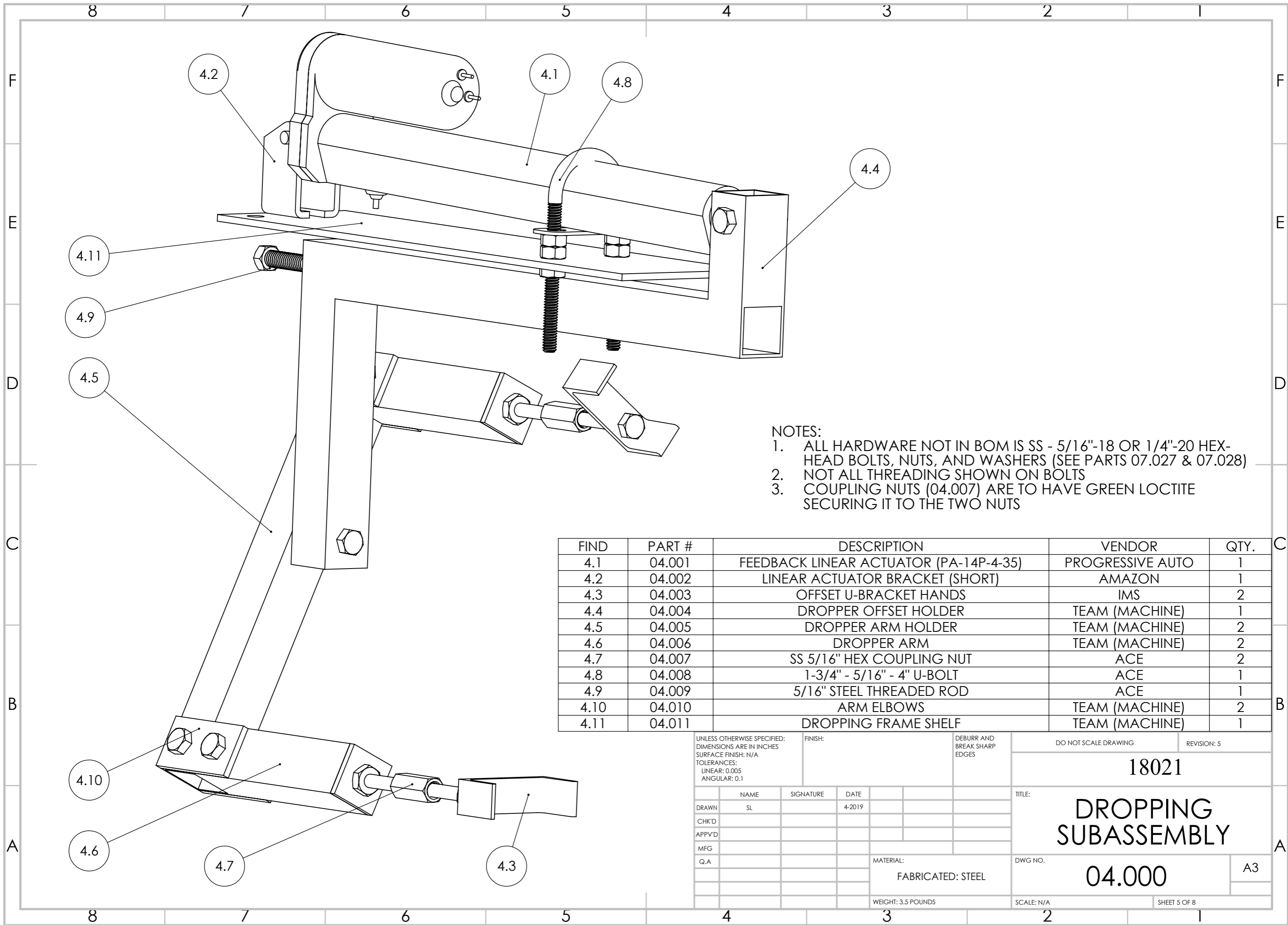
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES SURFACE FINISH: N/A TOLERANCES: LINEAR: 0.005 ANGULAR: 0.1		FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION: 5
DRAWN: SL			DATE: 4-2019	<p style="text-align: center; font-size: 24pt; font-weight: bold;">18021</p> <p style="text-align: center; font-size: 18pt; font-weight: bold;">FEEDING / MEASURING SUBASSEMBLY</p>	
CHK'D					
APPV'D					
MFG					
Q.A			MATERIAL: FABRICATED: STEEL	DWG NO. 02.000	A3
			WEIGHT: 6.6 POUNDS	SCALE: N/A	SHEET 3 OF 8



FIND	PART #	DESCRIPTION	VENDOR	QTY.
3.1	03.001	RIBBON WIRE CUTTER, BASE	AMAZON	1
3.2	03.002	RIBBON WIRE CUTTER, BLADE HOLDER	AMAZON	1
3.3	03.003	RIBBON WIRE CUTTER, GUIDE RODS	TEAM (MACHINED)	2
3.4	03.004	STEEL COMPRESSION SPRING	ACE	2
3.5	03.005	LINEAR ACTUATOR BRACKET	AMAZON	1
3.6	03.006	FEEDBACK LINEAR ACTUATOR (PA-14P-4-35)	PROGRESSIVE AUTO	1
3.7	03.007	CUTTER FRAME SHELF	TEAM (MACHINED)	1
3.8	03.008	UPPER WIRE GUIDE	TEAM (MACHINED)	1
3.9	03.009	LOWER WIRE GUIDE	TEAM (MACHINED)	1
3.10	03.010	WIRE GUIDE MOUNT	TEAM (MACHINED)	2
3.11	03.011	WIRE GUIDE END	SONORAN CYCLES	1
3.12	03.012	WORM-DRIVE HOSE CLAMPS	ACE	3
3.13	03.013	1-3/4" - 5/16" - 4" U-BOLT	ACE	1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES SURFACE FINISH: N/A TOLERANCES: LINEAR: 0.005 ANGULAR: 0.1		FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION: 5
DRAWN: SL			SIGNATURE:	18021	
CHK'D:			DATE: 4-2019	TITLE: CUTTING SUBASSEMBLY	
APPV'D:			MATERIAL: FABRICATED: STEEL	DWG NO.:	03.000
MFG:			WEIGHT: 7.2 POUNDS	SCALE: N/A	A3
Q.A:				SHEET 4 OF 8	

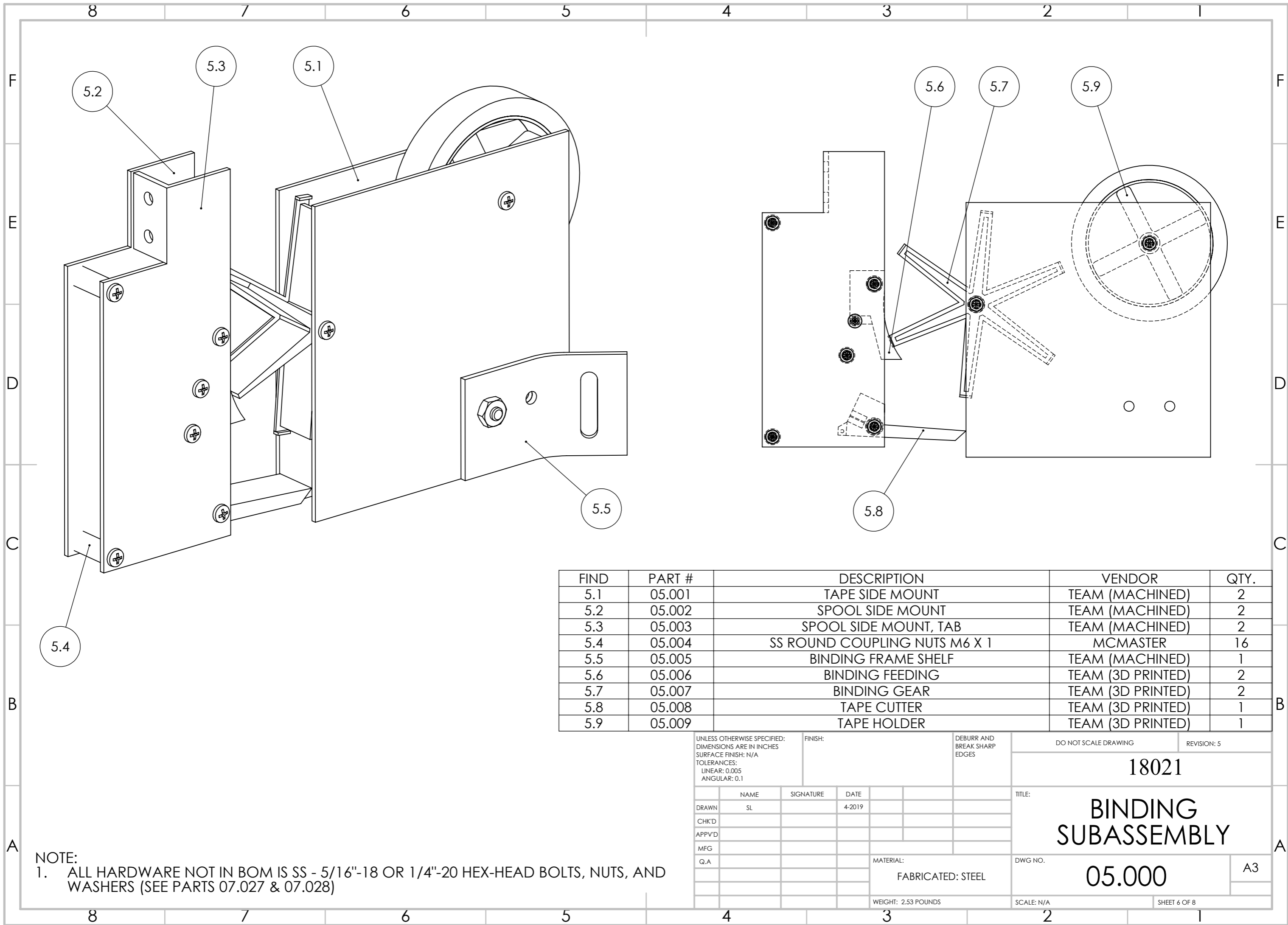
NOTE:
1. ALL HARDWARE NOT IN BOM IS SS - 5/16"-18 OR 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS (SEE PARTS 07.027 & 07.028)



- NOTES:
1. ALL HARDWARE NOT IN BOM IS SS - 5/16"-18 OR 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS (SEE PARTS 07.027 & 07.028)
 2. NOT ALL THREADING SHOWN ON BOLTS
 3. COUPLING NUTS (04.007) ARE TO HAVE GREEN LOCTITE SECURING IT TO THE TWO NUTS

FIND	PART #	DESCRIPTION	VENDOR	QTY.
4.1	04.001	FEEDBACK LINEAR ACTUATOR (PA-14P-4-35)	PROGRESSIVE AUTO	1
4.2	04.002	LINEAR ACTUATOR BRACKET (SHORT)	AMAZON	1
4.3	04.003	OFFSET U-BRACKET HANDS	IMS	2
4.4	04.004	DROPPER OFFSET HOLDER	TEAM (MACHINE)	1
4.5	04.005	DROPPER ARM HOLDER	TEAM (MACHINE)	2
4.6	04.006	DROPPER ARM	TEAM (MACHINE)	2
4.7	04.007	SS 5/16" HEX COUPLING NUT	ACE	2
4.8	04.008	1-3/4" - 5/16" - 4" U-BOLT	ACE	1
4.9	04.009	5/16" STEEL THREADED ROD	ACE	1
4.10	04.010	ARM ELBOWS	TEAM (MACHINE)	2
4.11	04.011	DROPPING FRAME SHELF	TEAM (MACHINE)	1

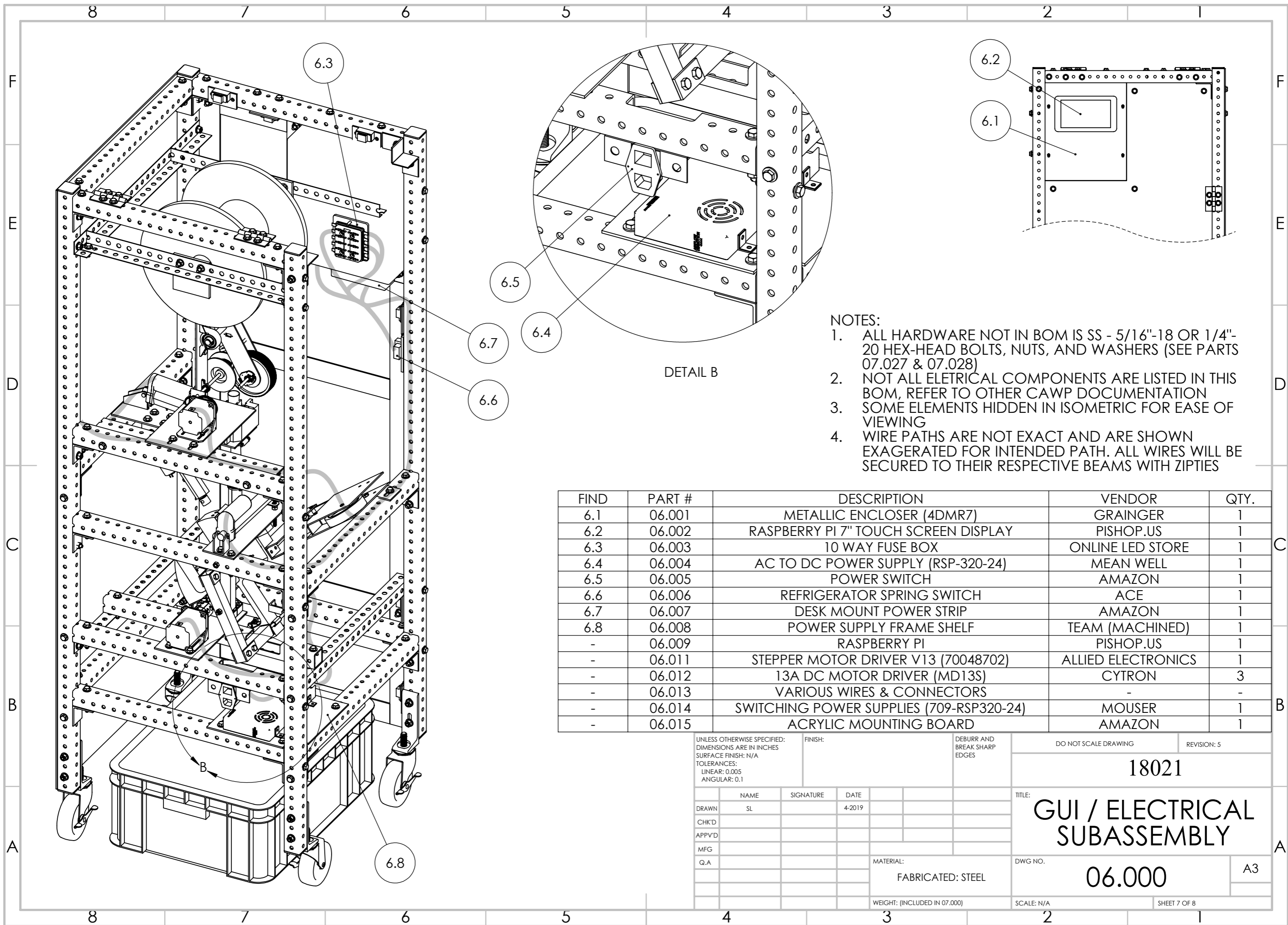
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES SURFACE FINISH: N/A TOLERANCES: LINEAR: 0.005 ANGULAR: 0.1		FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION: 5
DRAWN: SL			DATE: 4-2019	18021	
CHK'D				DROPPING SUBASSEMBLY	
APPV'D				04.000	
MFG				A3	
Q.A			MATERIAL: FABRICATED: STEEL	DWG NO.	
			WEIGHT: 3.5 POUNDS	SCALE: N/A	SHEET 5 OF 8



FIND	PART #	DESCRIPTION	VENDOR	QTY.
5.1	05.001	TAPE SIDE MOUNT	TEAM (MACHINED)	2
5.2	05.002	SPOOL SIDE MOUNT	TEAM (MACHINED)	2
5.3	05.003	SPOOL SIDE MOUNT, TAB	TEAM (MACHINED)	2
5.4	05.004	SS ROUND COUPLING NUTS M6 X 1	MCMASTER	16
5.5	05.005	BINDING FRAME SHELF	TEAM (MACHINED)	1
5.6	05.006	BINDING FEEDING	TEAM (3D PRINTED)	2
5.7	05.007	BINDING GEAR	TEAM (3D PRINTED)	2
5.8	05.008	TAPE CUTTER	TEAM (3D PRINTED)	1
5.9	05.009	TAPE HOLDER	TEAM (3D PRINTED)	1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES SURFACE FINISH: N/A TOLERANCES: LINEAR: 0.005 ANGULAR: 0.1		FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION: 5
DRAWN: SL			DATE: 4-2019	<p style="text-align: center; font-size: 24pt;">18021</p> <p style="text-align: center; font-size: 36pt;">BINDING SUBASSEMBLY</p>	
CHK'D					
APPV'D					
MFG					
Q.A					
MATERIAL: FABRICATED: STEEL			WEIGHT: 2.53 POUNDS	DWG NO. 05.000	A3
				SCALE: N/A	SHEET 6 OF 8

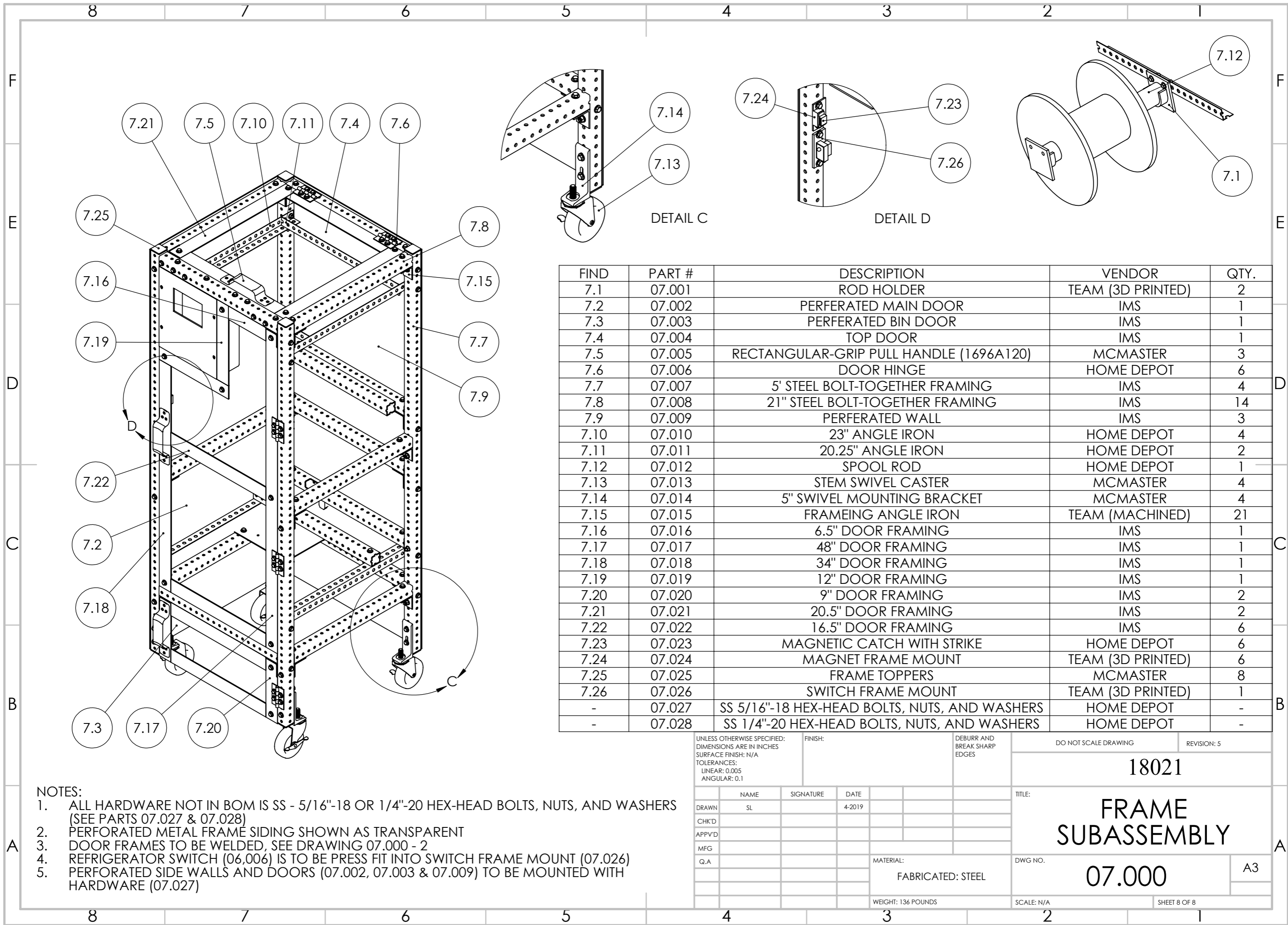
NOTE:
1. ALL HARDWARE NOT IN BOM IS SS - 5/16"-18 OR 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS (SEE PARTS 07.027 & 07.028)



- NOTES:
1. ALL HARDWARE NOT IN BOM IS SS - 5/16"-18 OR 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS (SEE PARTS 07.027 & 07.028)
 2. NOT ALL ELETRICAL COMPONENTS ARE LISTED IN THIS BOM, REFER TO OTHER CAWP DOCUMENTATION
 3. SOME ELEMENTS HIDDEN IN ISOMETRIC FOR EASE OF VIEWING
 4. WIRE PATHS ARE NOT EXACT AND ARE SHOWN EXAGERATED FOR INTENDED PATH. ALL WIRES WILL BE SECURED TO THEIR RESPECTIVE BEAMS WITH ZIPTIES

FIND	PART #	DESCRIPTION	VENDOR	QTY.
6.1	06.001	METALLIC ENCLOSER (4DMR7)	GRAINGER	1
6.2	06.002	RASPBERRY PI 7" TOUCH SCREEN DISPLAY	PISHOP.US	1
6.3	06.003	10 WAY FUSE BOX	ONLINE LED STORE	1
6.4	06.004	AC TO DC POWER SUPPLY (RSP-320-24)	MEAN WELL	1
6.5	06.005	POWER SWITCH	AMAZON	1
6.6	06.006	REFRIGERATOR SPRING SWITCH	ACE	1
6.7	06.007	DESK MOUNT POWER STRIP	AMAZON	1
6.8	06.008	POWER SUPPLY FRAME SHELF	TEAM (MACHINED)	1
-	06.009	RASPBERRY PI	PISHOP.US	1
-	06.011	STEPPER MOTOR DRIVER V13 (70048702)	ALLIED ELECTRONICS	1
-	06.012	13A DC MOTOR DRIVER (MD13S)	CYTRON	3
-	06.013	VARIOUS WIRES & CONNECTORS	-	-
-	06.014	SWITCHING POWER SUPPLIES (709-RSP320-24)	MOUSER	1
-	06.015	ACRYLIC MOUNTING BOARD	AMAZON	1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES SURFACE FINISH: N/A TOLERANCES: LINEAR: 0.005 ANGULAR: 0.1		FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION: 5
				18021	
				TITLE: GUI / ELECTRICAL SUBASSEMBLY	
DRAWN SL		SIGNATURE		DATE 4-2019	
CHK'D		MATERIAL: FABRICATED: STEEL		DWG NO. 06.000	
APPV'D		WEIGHT: (INCLUDED IN 07.000)		SCALE: N/A	
MFG				SHEET 7 OF 8	
Q.A				A3	



FIND	PART #	DESCRIPTION	VENDOR	QTY.
7.1	07.001	ROD HOLDER	TEAM (3D PRINTED)	2
7.2	07.002	PERFERATED MAIN DOOR	IMS	1
7.3	07.003	PERFERATED BIN DOOR	IMS	1
7.4	07.004	TOP DOOR	IMS	1
7.5	07.005	RECTANGULAR-GRIP PULL HANDLE (1696A120)	MCMASTER	3
7.6	07.006	DOOR HINGE	HOME DEPOT	6
7.7	07.007	5' STEEL BOLT-TOGETHER FRAMING	IMS	4
7.8	07.008	21" STEEL BOLT-TOGETHER FRAMING	IMS	14
7.9	07.009	PERFERATED WALL	IMS	3
7.10	07.010	23" ANGLE IRON	HOME DEPOT	4
7.11	07.011	20.25" ANGLE IRON	HOME DEPOT	2
7.12	07.012	SPOOL ROD	HOME DEPOT	1
7.13	07.013	STEM SWIVEL CASTER	MCMASTER	4
7.14	07.014	5" SWIVEL MOUNTING BRACKET	MCMASTER	4
7.15	07.015	FRAMEING ANGLE IRON	TEAM (MACHINED)	21
7.16	07.016	6.5" DOOR FRAMING	IMS	1
7.17	07.017	48" DOOR FRAMING	IMS	1
7.18	07.018	34" DOOR FRAMING	IMS	1
7.19	07.019	12" DOOR FRAMING	IMS	1
7.20	07.020	9" DOOR FRAMING	IMS	2
7.21	07.021	20.5" DOOR FRAMING	IMS	2
7.22	07.022	16.5" DOOR FRAMING	IMS	6
7.23	07.023	MAGNETIC CATCH WITH STRIKE	HOME DEPOT	6
7.24	07.024	MAGNET FRAME MOUNT	TEAM (3D PRINTED)	6
7.25	07.025	FRAME TOPPERS	MCMASTER	8
7.26	07.026	SWITCH FRAME MOUNT	TEAM (3D PRINTED)	1
-	07.027	SS 5/16"-18 HEX-HEAD BOLTS, NUTS, AND WASHERS	HOME DEPOT	-
-	07.028	SS 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS	HOME DEPOT	-

- NOTES:
- ALL HARDWARE NOT IN BOM IS SS - 5/16"-18 OR 1/4"-20 HEX-HEAD BOLTS, NUTS, AND WASHERS (SEE PARTS 07.027 & 07.028)
 - PERFORATED METAL FRAME SIDING SHOWN AS TRANSPARENT
 - DOOR FRAMES TO BE WELDED, SEE DRAWING 07.000 - 2
 - REFRIGERATOR SWITCH (06,006) IS TO BE PRESS FIT INTO SWITCH FRAME MOUNT (07.026)
 - PERFORATED SIDE WALLS AND DOORS (07.002, 07.003 & 07.009) TO BE MOUNTED WITH HARDWARE (07.027)

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 SURFACE FINISH: N/A
 TOLERANCES:
 LINEAR: 0.005
 ANGULAR: 0.1

FINISH:

DEBURR AND BREAK SHARP EDGES

DO NOT SCALE DRAWING REVISION: 5

18021

TITLE:
FRAME SUBASSEMBLY

DRAWN: SL SIGNATURE: DATE: 4-2019

CHK'D: APPV'D: MFG: Q.A:

MATERIAL:
 FABRICATED: STEEL

DWG NO.: 07.000 A3

WEIGHT: 136 POUNDS SCALE: N/A SHEET 8 OF 8