

FIND NO.	QTY.	CAGE CODE	ITEM IDENTIFICATION OR PART NO	NOMENCLATURE	MATERIAL	SPECIFICATION	NOTE	ZONE
41	2		9001GA009	TAPPING INSERT FOR WOOD	BRASS No 8-32 UNC			
42	8		91545A420	WASHER, FLAT	NYLON	3.2mm ID X 7mm OD X .5mm THK		
43	2		9291GA335	WASHER, FLAT	BRASS	0.172" ID X 0.375" OD X 0.031" THK		
44	2		94070A194	SCREW, MACHINE, PAN HEAD	BRASS, No 8-32 UNC x 1/2" LG			
45	2		95395A101	WASHER, FLAT	BRASS	.062 ID x .125 OD x .015 THK		
46	2		R2032	ARCH BAR TRUCK	PLASTIC			
47	4		92421	WHEEL SET	STEEL, 31.0mm DIAMETER			
48	2		1831	COUPLER, LARGE OFFSET	PLASTIC			
49	3		1018	BRAKE WHEEL	CASTING			
50	3		1018	PAWL AND RATCHET	CASTING			


FIND NO.	QTY.	CAGE CODE	ITEM IDENTIFICATION OR PART NO	NOMENCLATURE	MATERIAL	SPECIFICATION	NOTE	ZONE
1	2		GR65-01	CENTER SILL	WOOD	1/4 X 3/4 X 10 1/4		
2	2		GR65-02	SIDE SILL	WOOD	3/16 X 7/16 X 10 1/4		
3	2		GR65-03	END BEAM	WOOD	5/16 X 7/16 X 4 1/4		
4	2		GR65-04	BODY BOLSTER	WOOD	3/16 X 1/2 X 4		
5	2		GR65-05	KING PIN PAD	WOOD	3/16 X 1/2 X 1		
6	1		GR65-06	NEEDLE BEAM	WOOD	1/4 X 7/16 X 4		
7	6		GR65-07	SUPPORT PLANK	WOOD	1/4 X 7/16 X 1 5/16		
8	12		GR65-08	END POST	WOOD	3/16 X 3/16 X 2		
9	4		GR65-09	END POST CAP	WOOD	3/16 X 3/16 X 3 13/16		
10	10		GR65-10	SIDE PLANK	WOOD	3/32 X 7/16 X 10 1/4		
11	2		GR65-11	DOOR HINGE MOUNT	WOOD	1/8 X 3/8 X 1 5/16		
12	4		GR65-12	SLOPE PLANK LEFT	WOOD	3/32 X 3/8 X 4 7/16		
13	4		GR65-13	SLOPE PLANK RIGHT	WOOD	3/32 X 3/8 X 4 7/16		
14	8		GR65-14	SLOPE PLANK	WOOD	3/32 X 3/8 X 4 7/16		
15	4		GR65-15	SLOPE PLANK CENTER	WOOD	3/32 X 3/8 X 4 7/16		
16	2		GR65-16	DOOR SEAL LEFT	WOOD	1/8 X 3/16 X 1 7/16		
17	2		GR65-17	DOOR SEAL RIGHT	WOOD	1/8 X 3/16 X 1 7/16		
18	16		GR65-18	DOOR PLANK	WOOD	3/32 X 3/8 X 1 1/8		
19	1		GR65-19	RIDGE CAP	WOOD	1/2 X 1 X 5		
20	8		GR65-20	KNEE POST	WOOD	3/16 X 3/16 X 1 9/16		
21	4		GR65-21	DOOR SEAL INNER	WOOD	3/32 X 3/32 X 1 5/32		
22	2		GR65-22	DOOR TIE BAM	WOOD	1/8 X 3/16 X 4		
23	10		GR65-23	SIDE POST	WOOD	1/4 X 1/4 X 2 1/2		
24	2		GR65-24	TRUSS ROD	BRASS ROD	MAKE FROM		
25	2		GR65-25	DOOR CLOSER ROD	BRASS	MAKE FROM		
26	1		GR65-26	BRAKE STAFF	BRASS	MAKE FROM		
27	12		GR65-27	BRACKET	BRASS 1/32 X 1/8 X ??	MAKE FROM		
28	6		GR65-28	GRAB IRON	BRASS			
29	1		GR65-29	STIRRUP STEP	BRASS	MAKE FROM		
30	2		GR65-30	COTTER PIN, NEEDLE	BRASS, 1/16 DIA	MAKE FROM 98450A106		
31	5		GR65-31	COTTER PIN, BOLSTER	BRASS, 1/16 DIA	MAKE FORM 98450A106		
32	4		GR65-32	COTTER PIN, DOOR	STEEL, 3/64 DIA	MAKE FROM 98338A363		
33	8		GR65-33	BUTT HINGE	BRASS			
34	2		GR65-34	FLANGE BEARING	CASTING			
35	8		GR62-55	STRAP HINGE, DOOR	BRASS, FLAT BAR, 1/64 X 1/8 X .955	MAKE FROM F-1X-4		
36	186		GR67-39	CARRIAGE BOLT	STEEL	MAKE FROM 304865		
37	2		GR67-24	QUEEN POST TUBE	TUBING, BRASS, .066 ID X .014 WALL THK	MAKE FROM 8859K18		
38	2		GR67-29	BUSHING	BUTYRATE TUBE	MAKE FROM TB8 (1/4" OD X 1/8" ID)		
39	4		GR67-31	NUT & WASHER CASTING, TRUSS ROD	CASTING			
40	10		GR67-32	STAKE POCKET	CASTING			

NOTES:

- BELOW LISTED SUPPLIERS ARE THOSE USED IN THE DEVELOPMENT OF THIS DRAWING PACKAGE. ALTERNATE SUPPLIERS MAY BE USE AT THE BUILDERS OPTION. I HAVE NO AFFILIATION WITH ANY OF THE SUPPLIERS NOTED BELOW.
- PART NUMBER LISTED IS FOR MCMASTER-CARR SUPPLY COMPANY, 6100 SULTON INDUSTRIAL BLVD., ATLANTA, GA 30336 (404) 346-7000.
- PART NUMBER LISTED IS FOR BACHMANN INDUSTRIES, 1400 EAST ERIE AVENUE, PHILADELPHIA, PA 19142 (215) 533-1600.
- PART NUMBER LISTED IS FOR USA TRAINS, PO BOX 100, MALDON, MA 02148 (781) 322-6084.
- PART NUMBER LISTED IS FOR PLASTRUCT, INC., 1020 SOUTH WALACE PLACE, CITY OF INDUSTRY, CA 91748 (636) 912-7016 OR (800) 666-7015.
- PART NUMBER LISTED IS FOR KADEE QUALITY PRODUCTS, 673 AVENUE C, WHITE CITY, OR 97503 (541) 826-3883.
- PART NUMBER LISTED IS FOR OZARK MINIATURES, INC., 3461 S 5225W, CEDAR CITY, UT 84720 (435)586-1036.
- PART NUMBER LISTED IS FOR SPECIAL SHAPES, 6911 W 59th STREET, CHICAGO, IL 60638 (773) 586-8517.
- PART NUMBER LISTED IS FOR HOBBY LOBBY, 7600 A SW 44th STREET, OKLAHOMA CITY, OK 73173 (800) 888-0321
- MANY OF THE ABOVE ITEMS MAY BE PURCHASED FROM YOUR LOCAL HOBBY SHOP OR YOUR PREFERRED ONLINE SUPPLIER.
- ADDITIONAL ADHESIVES, PAINTS, DECALS, ETC., MAY BE FOUND AT HOBBY LOBBY, MICHAELS OR JO ANNES FABRICS.
- LOCTITE 242 THREAD LOCKER MAY BE FOUND AT FASTENAL (www.fastenal.com)
- BE CERTAIN THAT THE DOOR HANDLE DOES NOT PROTRUDE THROUGH THE DOOR. PROTRUSION THROUGH THE DOOR WILL IMPEDE DOOR OPERATION.

THIS DRAWING PACKAGE IS AN ENHANCEMENT TO THE DRAWINGS PUBLISHED IN GARDEN RAILWAYS MAGAZINE ORIGINALLY DRAWN AND PROVIDED BY TED STINSON.

-	ORIGINAL ISSUE.		
ZONE	LTR	DESCRIPTION	DATE
REVISIONS			

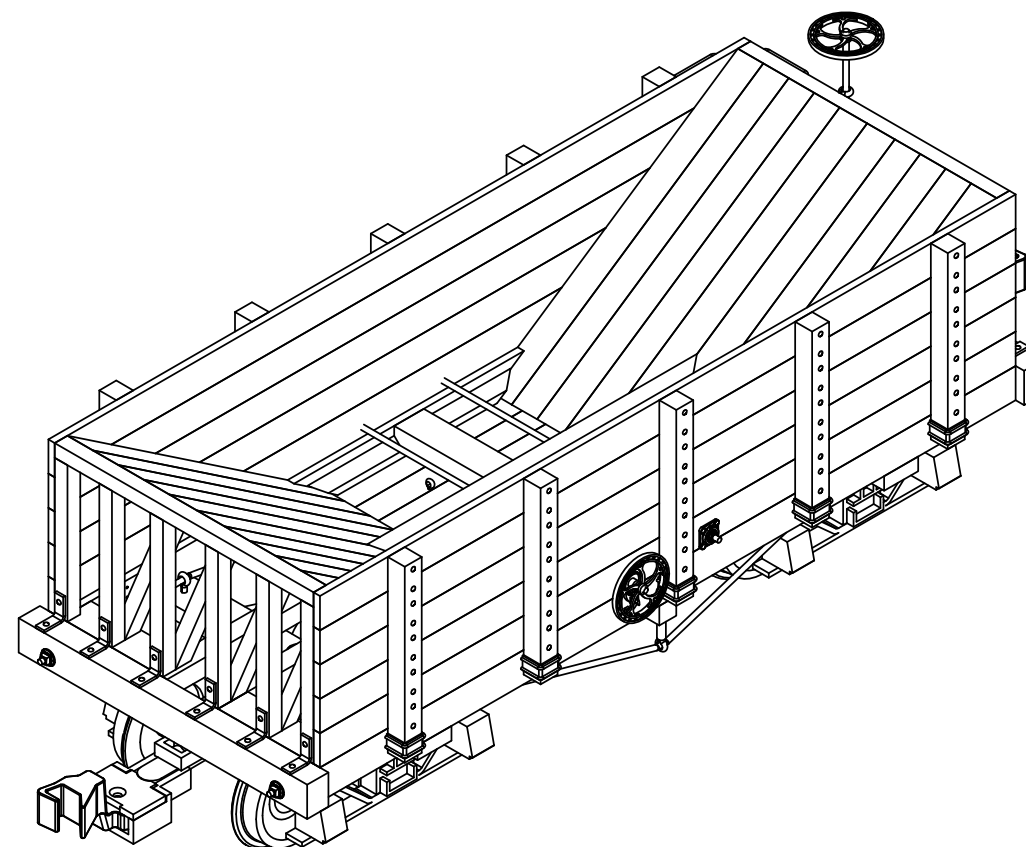
<p>CAD GENERATED DRAWING. CHANGES SHALL BE INCORPORATED BY THE CURRENT DESIGN ACTIVITY.</p> <p>THIS DOCUMENT IS THE PROPERTY OF CITICO CREEK MODEL PRODUCTS AND MUST BE RETURNED ON DEMAND. THE INFORMATION HEREON MAY NOT BE USED OR DIVULGED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CITICO CREEK MODEL PRODUCTS.</p>	<p>INTERPRET DRAWING PER ASME Y14.100</p> <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES</p> <p>ANGLES ± 0°30'</p> <p>FRACTIONS ± 1/32</p> <p>DECIMALS ± .05, .XX, .02, .XXX, .010</p> <p>BROKEN EDGES 0.15 MAX.</p> <p>FILLETS .015 R MAX.</p> <p>PART SHALL BE FREE OF BURRS</p> <p>SURFACE ROUGHNESS 125 ✓</p> <p>DO NOT SCALE THIS DRAWING</p>	<p>Citico Creek Model Products PO Box 223 Lynn Haven, FL 32444</p> <p>PROJECT: [] B.C. [] 2015-08-26</p> <p>Drawn: []</p> <p>Engn/Desgn: []</p> <p>Checked: []</p> <p>Approved: []</p>	<p>Citico Creek Model Products</p> <p>TITLE: COAL HOPPER CAR</p>																						
				<p>THIRD ANGLE PROJECTION</p> 	<p>SIZE: D</p> <p>CAGE CODE: -</p> <p>DWG NO.: GR Plan Set G5</p> <p>REV: -</p>																				
				<p>REV STATUS OF SHEETS</p> <table border="1"> <tr> <td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>REVISION SHEET</td> </tr> </table>	10	9	8	7	6	5	4	3	2	1										REVISION SHEET	<p>SCALE: NONE</p> <p>UNIT WT.</p> <p>SHEET 1 OF 6</p>
				10	9	8	7	6	5	4	3	2	1												
									REVISION SHEET																
<p>NEXT ASSY: []</p> <p>USED ON: []</p> <p>APPLICATION: []</p>																									

SUGGESTED ASSEMBLY INSTRUCTIONS

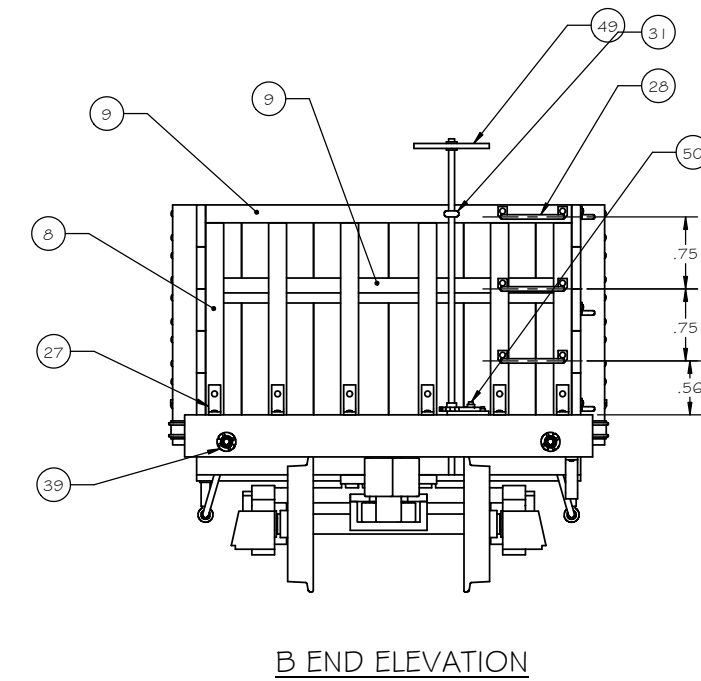
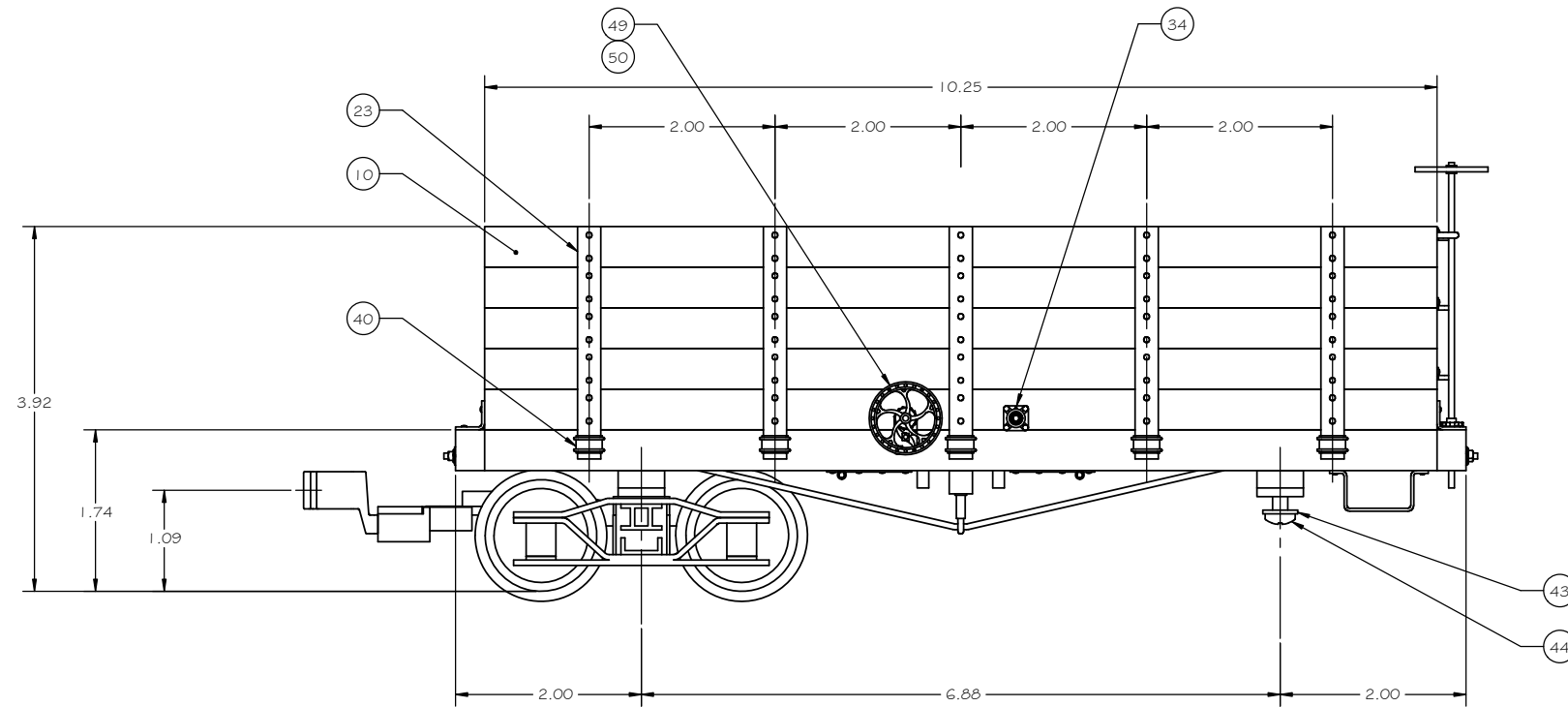
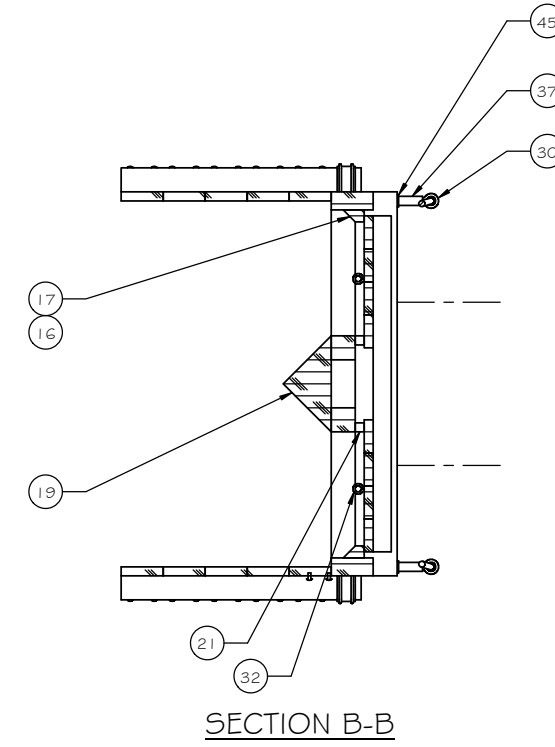
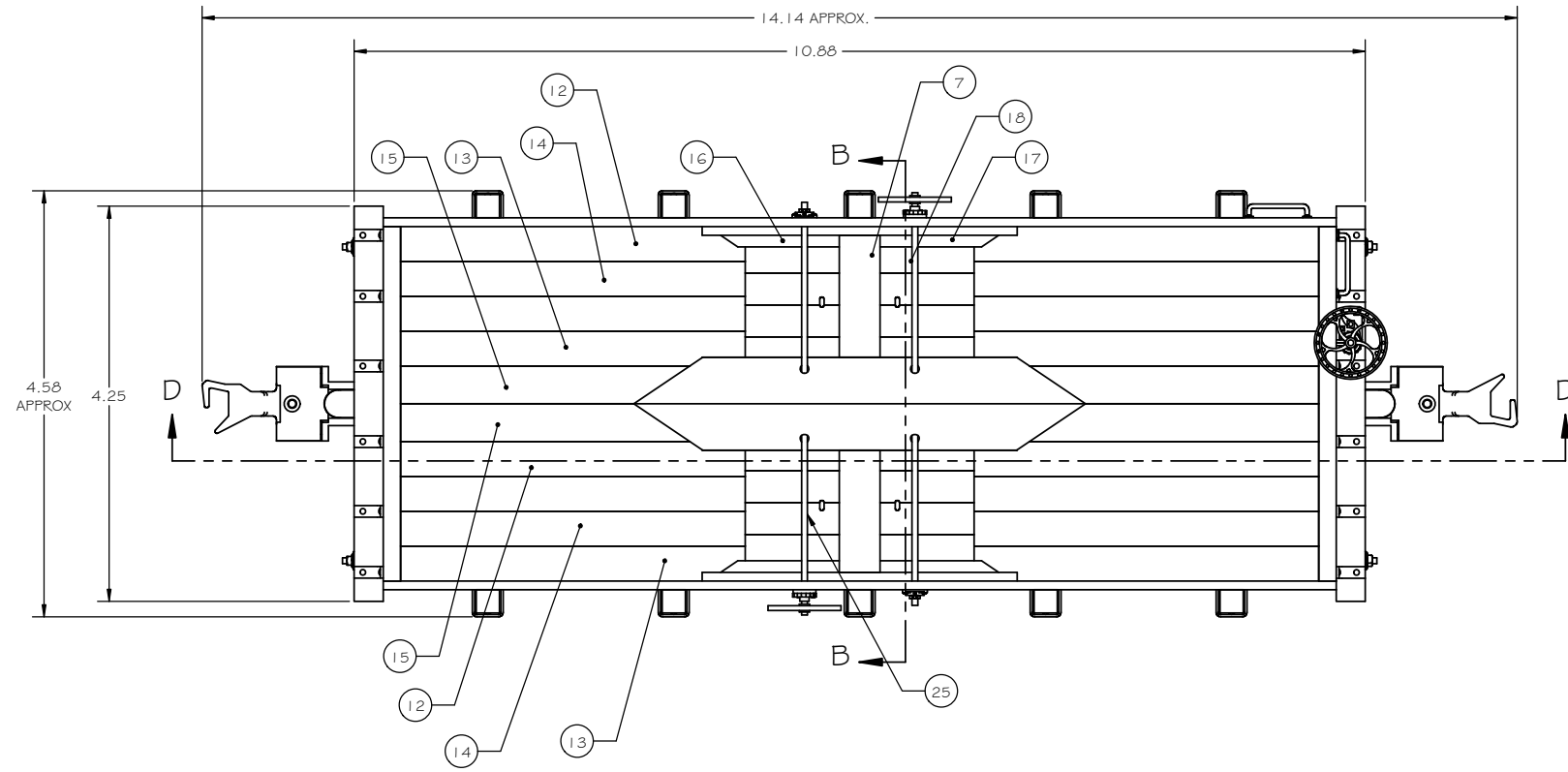
1. FIND NUMBER 44 (BRAKE CYLINDER FLANK), FIND NUMBERS 56 THRU 58 (BRAKE ROD TRUCK, BRAKE ROD LINK, BRAKE ROD BRAKE WHEEL), FIND NUMBERS 65 THRU 67 (BRAKE RIGGING SHORT LEVER, BRAKE RIGGING LONG LEVER, BRAKE RIGGING SUPPORT), FIND NUMBER 71 (ESCUTCHEON PIN), FIND NO 86 (K VALVE MASTER) AND FIND NO 87 (K VALVE SLAVE) MAY BE ELIMINATED IF BRAKE RIGGING DETAIL IS NOT DESIRED.
2. ASSEMBLE MAIN FRAME COMPONENTS FIND NUMBERS 1 (CENTER SILL, RIGHT), 2 (CENTER SILL, LEFT), 3 (INTERMEDIATE SILL), 4 (OUTER SILL), 5 (END BEAM), AND 8 (NEEDLE BEAM) USING A GOOD QUALITY WOOD GLUE.
3. ASSEMBLE FIND NUMBERS 6 (BODY BOLSTER) AND 7 (KING PIN BLOCK) SEPARATELY. AFTER GLUE HAS COMPLETELY DRIED, DRILL 1/4" HOLE AS SHOWN. INSTALL FIND NUMBER 76 (TAPPING INSERT FOR WOOD) IN 1/4" HOLE WITH SCREW DRIVER SLOT LOCATED ON FIND NUMBER 7 SIDE OF ASSEMBLY. COATING THE HOLE WITH THICK CA PRIOR TO INSTALLING THE TAPPING INSERT WILL SECURE IT IN PLACE PERMANENTLY. LOCATE AND INSTALL ASSEMBLY ON FRAME.
4. ASSEMBLE FIND NUMBERS 68 (QUEEN POST TUBE), 69 (COTTER PIN, NEEDLE BEAM) AND 80 (WASHER, FLAT) AND SOLDER TO MAKE A QUEEN POST (8 REQUIRED).
5. SLIP ONE EACH QUEEN POST ASSEMBLY AND FIND NUMBER 70 (COTTER PIN, BOLSTER) ON TO EACH FIND NUMBER 59 (TRUSS ROD). SLIP TRUSS RODS THROUGH HOLES IN END BEAMS AND INTO FIND NUMBER 73 (TURNBUCKLE). INSTALL COTTER PINS IN MATING HOLES IN BOLSTER AND NEEDLE BEAM SECURING WITH THICK CA.
6. SHOULD BRAKE RIGGING DETAIL BE DESIRED, THIS WOULD BE A GOOD TIME TO INSTALL IT, FOLLOWED BY INSTALLING FIND NUMBER 9 (DECK PLANK).
7. MAKE A SUB ASSEMBLIES OF THE LEFT SIDE FRAMING CONSISTING OF FIND NUMBERS 10 (CORNER POST, 11 (SIDE WALL HEADER), 12 (SIDE DIAGONLA BRACE), 13 (SIDE PLANK LONG), 14 (SIDE PLANK SHORT) AND FIND NUMBER 75 (CARRIAGE BOLT).
8. MAKE A SUB ASSEMBLIES OF THE RIGHT SIDE FRAMING CONSISTING OF FIND NUMBERS 10 (CORNER POST, 11 (SIDE WALL HEADER), 12 (SIDE DIAGONLA BRACE), 13 (SIDE PLANK LONG), 14 (SIDE PLANK SHORT), 38 (LADDER CORNER POST), 39 (LADDER POST), 50 (LADDER RUNG), 40 (DOOR GUIDE SPACER), 47 (SIDE DOOR GUIDE), AND FIND NUMBER 75 (CARRIAGE BOLT).
9. MAKE A SUB ASSEMBLY OF THE END WALL FRAMING COSISTING OF FIND NUMBERS 15 (POST, SHORT), 16 (END DIAGONAL BRACE), 17 (RAFTER), AND 19 (END WALL PLANK LONG).
10. MAKE A SUB ASSEMBLY OF THE DOOR WALL FRAMING CONSISTING OF FIND NUMBER 15 (POST SHORT), 17 (RAFTER), 20 (END WALL PLANK SHORT), 32 (DOOR PLANK), 33 (DOOR RAIL), 34 (DOOR DIAGONAL), 53 (HINGE BUTT FLAT), 54 (HINGE BUTT TUBE), 55 (STRAP HINGE DOOR), AND 75 (CARRIAGE BOLT). DOOR MAY BE MADE TO OPEN OR BE SOLID, AT BUILDER'S CHOICE.

SUGGESTED ASSEMBLY INSTRUCTIONS CONT'D

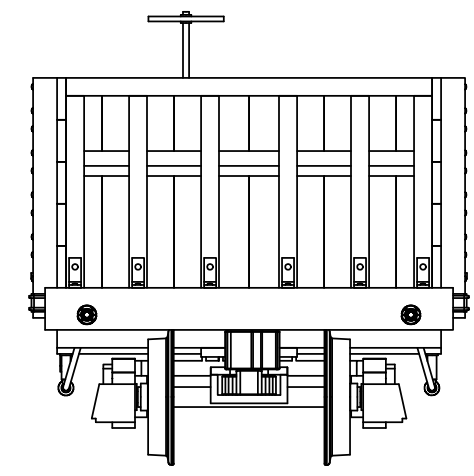
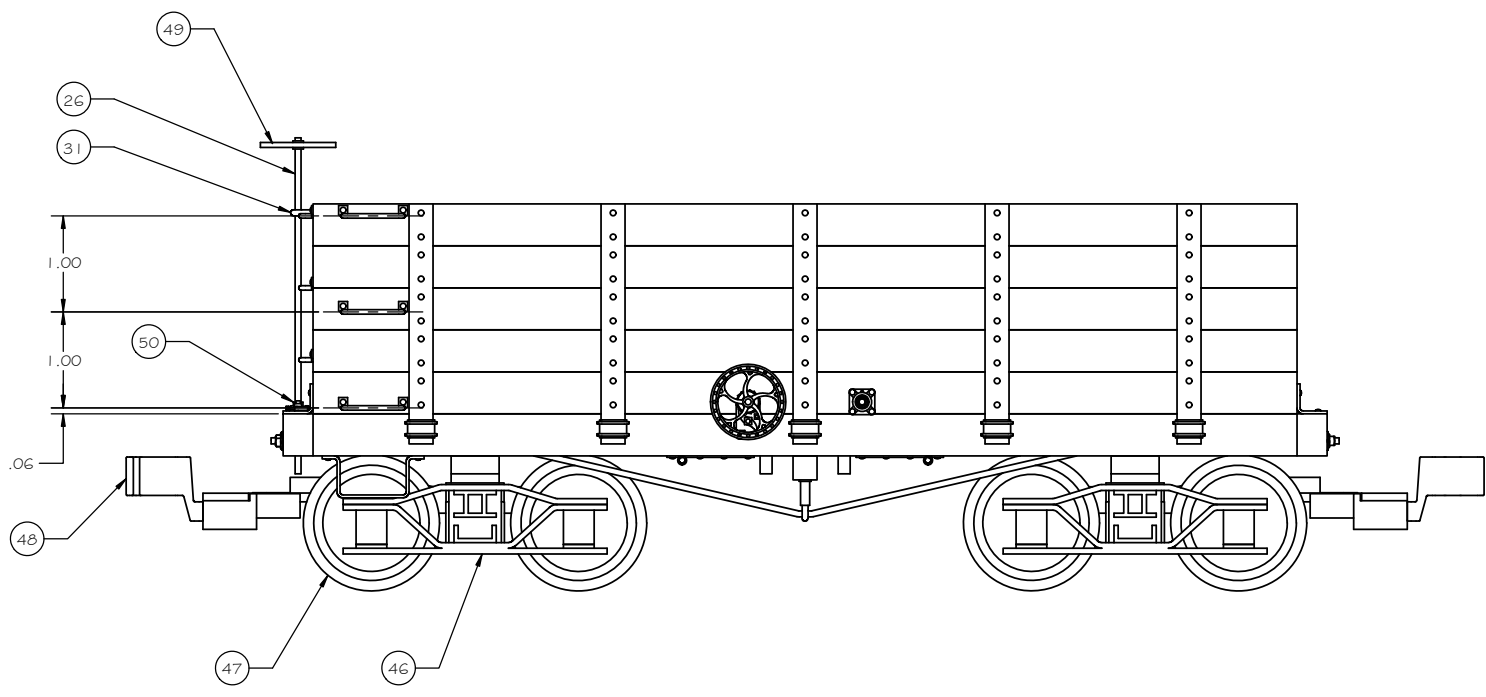
11. ASSEMBLE (2) SIDE DOORS CONSISTING OF FIND NUMBERS 35 (SIDE DOOR PLANK), 36 (SIDE DOOR RAIL), 37 (SIDE DOOR DIAGONAL), 48 (DOOR SLIDE), 64 (DOOR HANDLE) AND 75 (CARRIAGE BOLT). INSTALL FIND NUMBER 49 (DOOR TRACK) AND 75 (CARRIAGE BOLT) ON SIDE WALLS AS SHOWN. INSTALL SIDE DOORS ON DOOR TRACK AT THIS TIME, AS IT WILL BE MORE DIFFICULT TO INSTALL AFTER THE ROOF IS INTALLED.
12. ASSEMBLE SIDE WALLS AND END WALL TO MAIN CAR BODY. INSTALL FIND NUMBER 18 (RIDGE BEAM) IN NOTCHES IN RAFTERS
13. ASSEMBLE (2) TOOL BOXES CONSISTING OF FIND NUMBERS 26 (TOOL BOX PLANK SIDE), 27 (TOOL BOX END PLANK), 28 (TOOL BOX END PLANK SLOPED), 29 (TOOL BOX POST SHORT), 30 (TOOL BOX POST LONG), 31 (TOOL BOX LID TIE), 52 (STRAP HINGE TOOL BOX) AND 75 (CARRIAGE BOLT). INSTALL TOOL BOXES AS SHOWN ON DRAWINGS.
14. INSTALL FIND NUMBER 45 (END RAIL), 46 (END RAIL POST), 63 (STIRRUP STEP), AND 75 (NUT AND WASHER CASTING, TRUSS ROD).
15. INSTALL ROOFING CONSISTING OF FIND NUMBER 21 (ROOF PLANK), 62 (ROOF WALK SUPPORT), 22 (ROOF WALK PLANK), 23 (ROOF WALK TIE), 24 (BRAKE PLATFORM SUPPORT), 25 (BRAKE PLATFORM PLANK), 51 (ROOF GRAB IRON), 41 (SMOKE JACK BASE), 42 (SMOKE JACK CAP), 43 (SMOKE STACK) AND 61 (SMOKE STACK CAP).
16. LOCATE AND DRILL 1/16" DIA HOLE IN END BEAM AND INSTALL FIND NUMBER 60 (BRAKE STAFF). LOCATE AND INSTALL FIND NUMBER 85 (RATCHET AND PAWL) AND 84 (BRAKE WHEEL).
17. FIND NUMBER 81 (ARCH BAR TRUCK), DRILL KING PIN HOLE OUT TO 1/4" (.250) DIAMETER. CUT FIND NUMBER 72 (BUSHING) FROM TB8 TUBE APPROXIMATELY 1/4" LONG. INSTALL BUSHING IN KING PIN HOLE IN TRUCK BOLSTER MAKING IT FLUSH ON THE BOTTOM OF THE BOLSTER. SECURE USING ACC OR SOLVENT, AND ALLOW TO SET OVERNIGHT. ONCE SET, FILE BUSHING FLUSH WITH THE TOP OF BOLSTER. DRILL BUSHING OUT TO 0.172 (1 1/64") DIAMETER.
18. ASSEMBLE FIND NUMBER 82 (WHEEL SET) INTO FIND NUMBER 81 USING FIND NUMBER 77 (WASHER, FLAT) TO CENTER AXLES IN THE TRUCK SIDE FRAMES. THESE WASHERS MAY VARY IN THICKNESS, USE IN MULTIPLES OF 2 ON EACH AXLE. WHEEL SET SHOULD SPIN FREELY AFTER INSTALLATION. INSTALL ASSEMBLED TRUCK ON TO CAR BODY USING FIND NUMBER 78 (FLAT WASHER) AND FIND NUMBER 79 (MACHINE SCREW)
19. ASSEMBLE FIND NUMBER 83 (COUPLER, LARGE OFFSET) TO FIND NUMBER 80 (TRUCK) USING FASTENERS SUPPLIED.



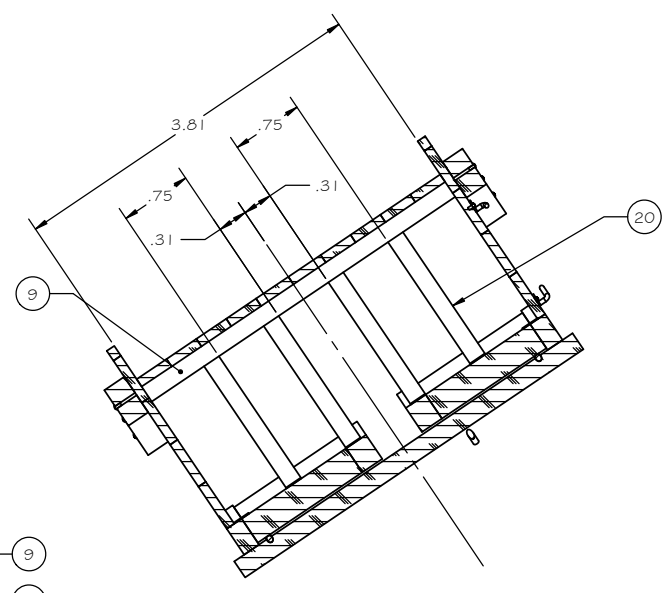
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SIZE	CAGE CODE	DWG NO.	REV
D	-	GR Plan Set G5	-
SCALE	NONE	UNIT WT.	SHEET 2 OF 6



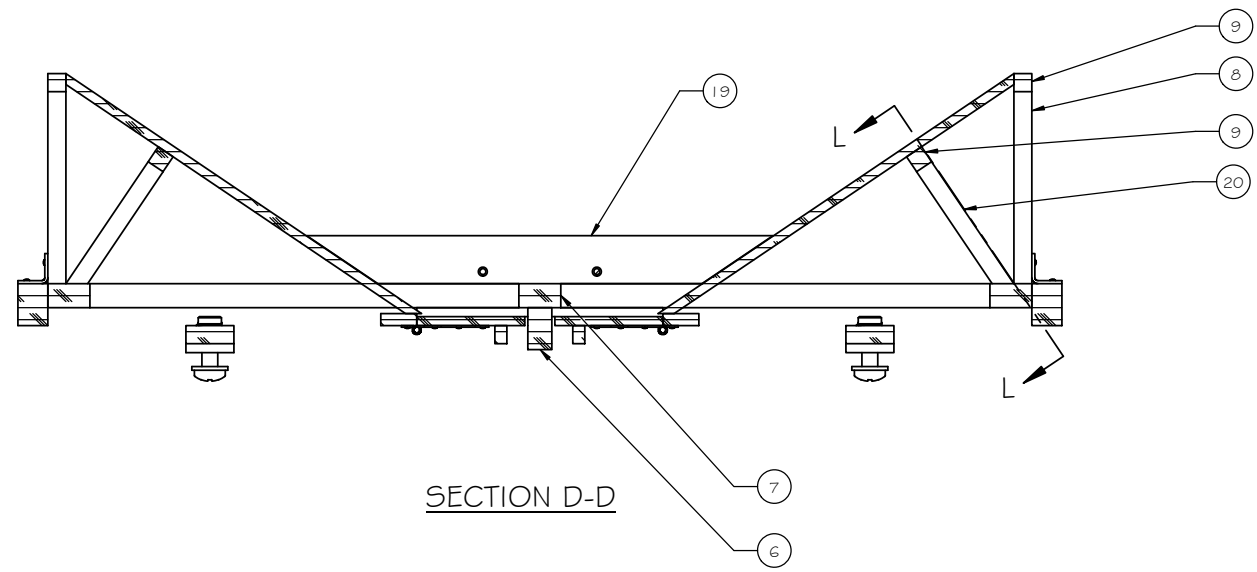
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SCALE	NONE	UNIT WT.	SHEET 3 OF 6



A END ELEVATION

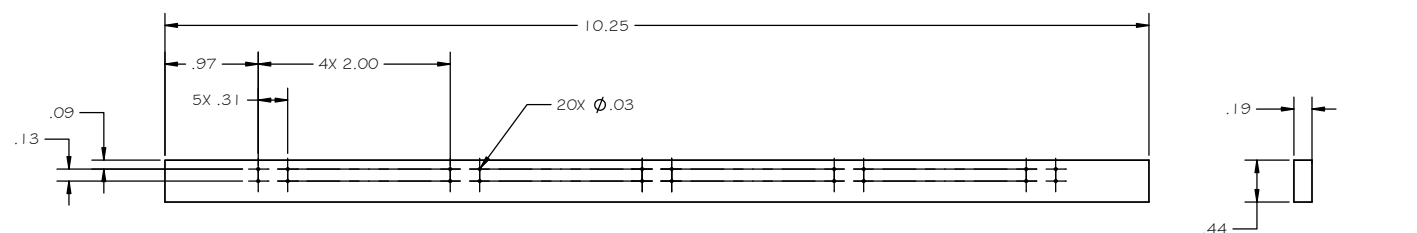


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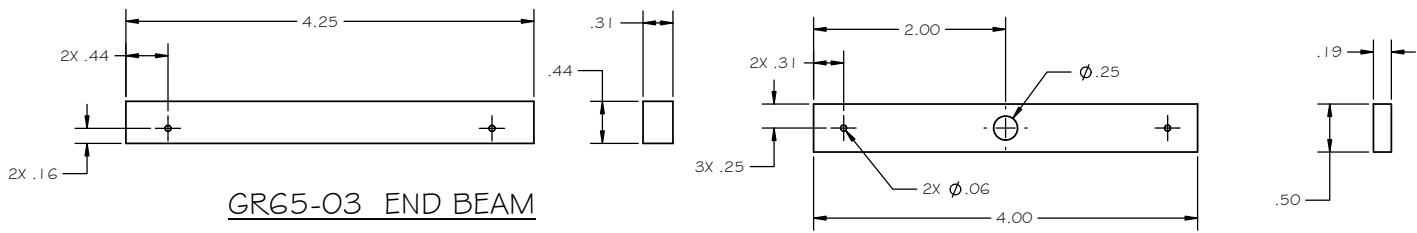


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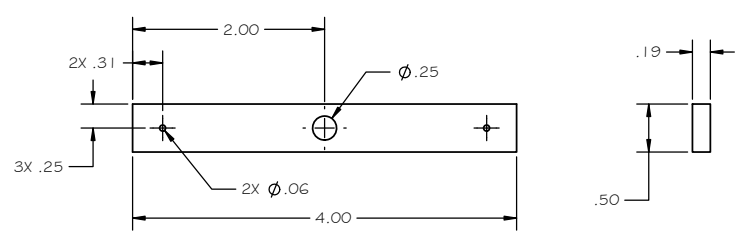
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SCALE	NONE	UNIT WT.	SHEET 4 OF 6



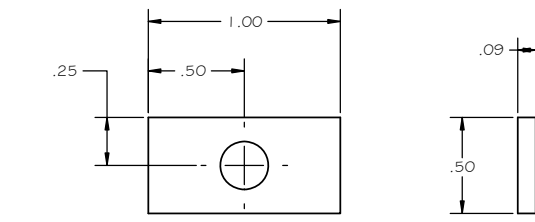
GR65-02 SIDE SILL



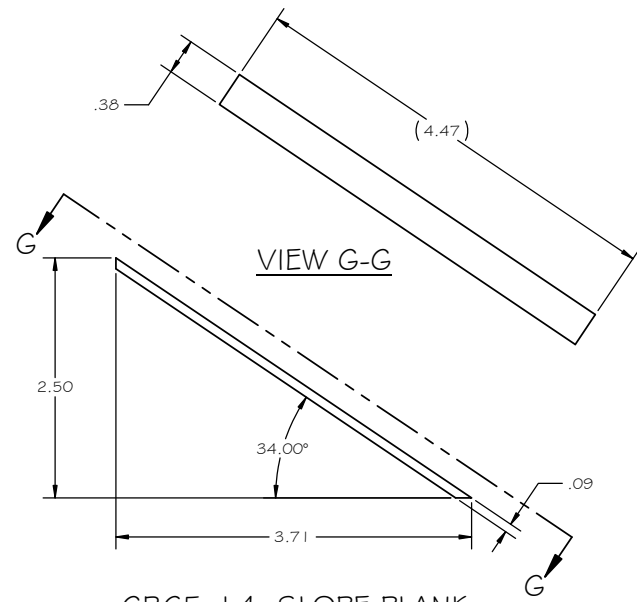
GR65-03 END BEAM



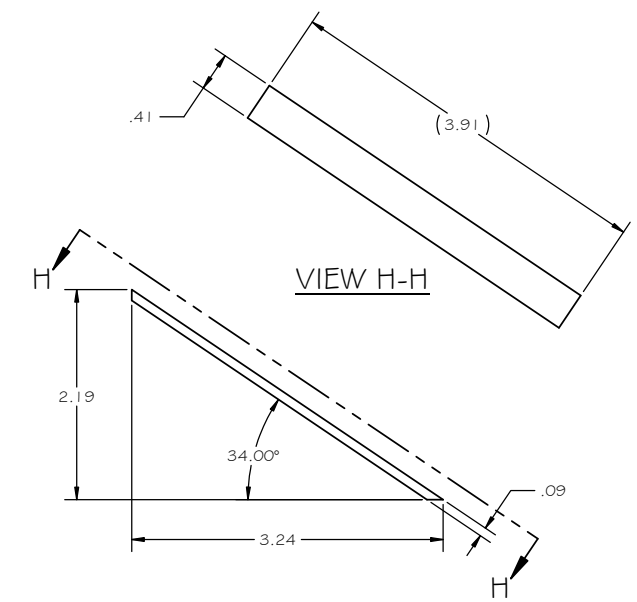
GR65-04 BODY BOLSTER



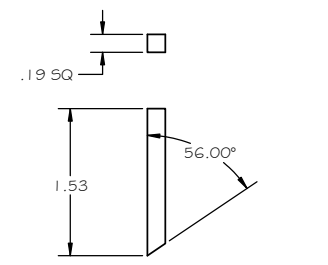
GR65-05 KIN PIN PAD



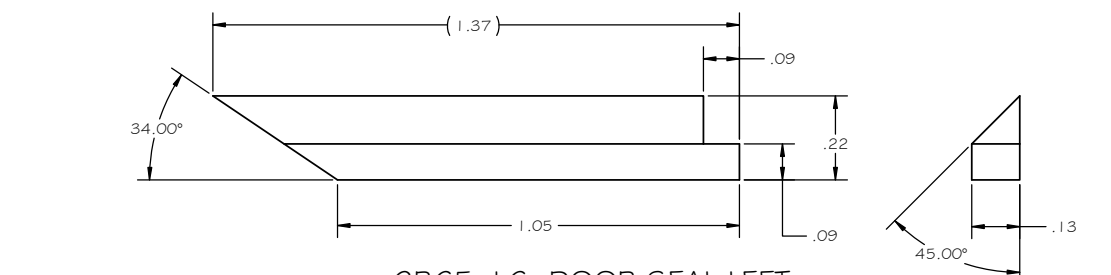
GR65-14 SLOPE PLANK



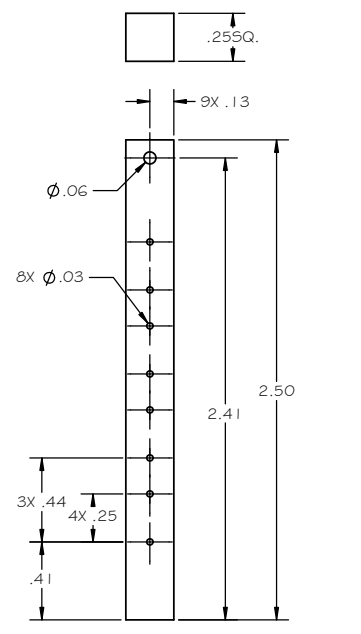
GR65-15 SLOPE PLANK CENTER



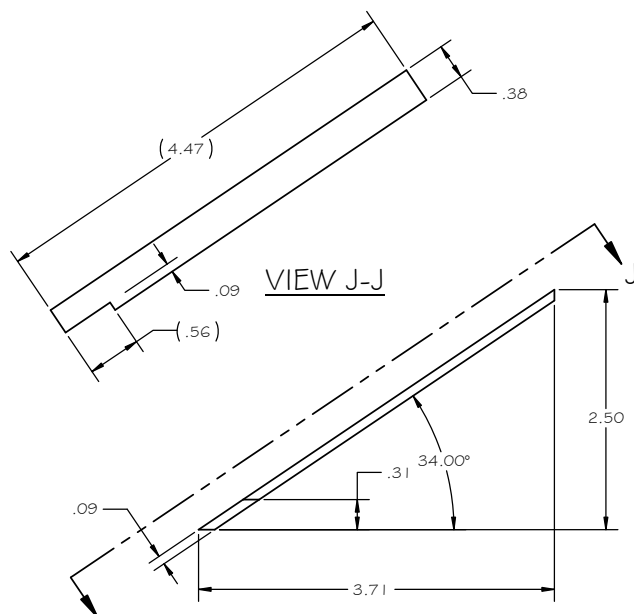
GR65-20 KNEE POST



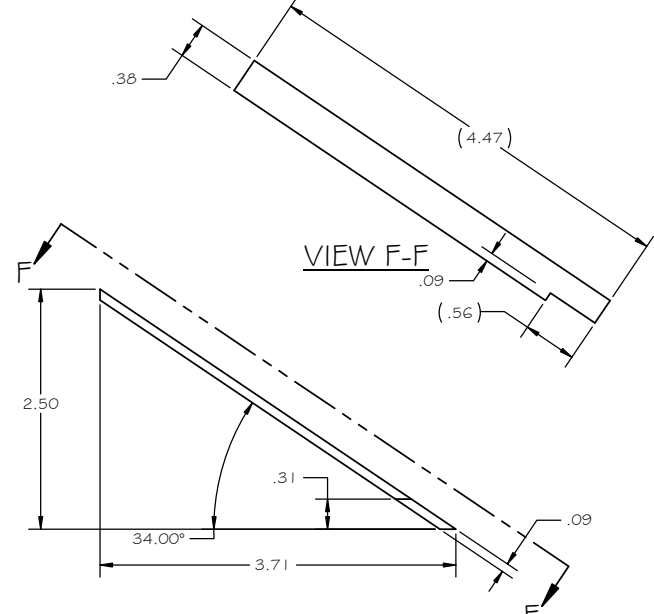
GR65-16 DOOR SEAL LEFT



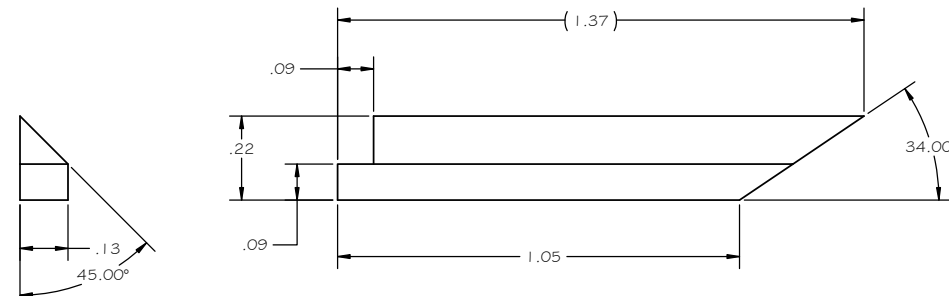
GR65-23 SIDE CENTER POST



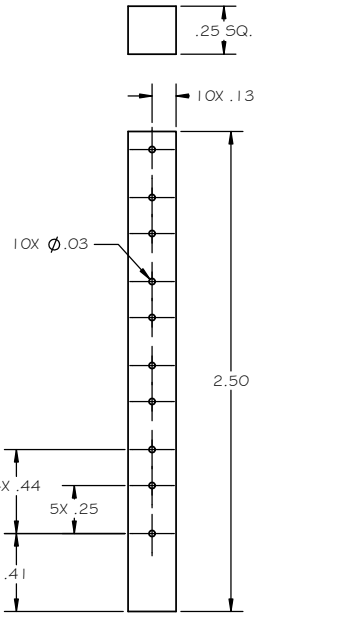
GR65-12 SLOPE PLANK LEFT



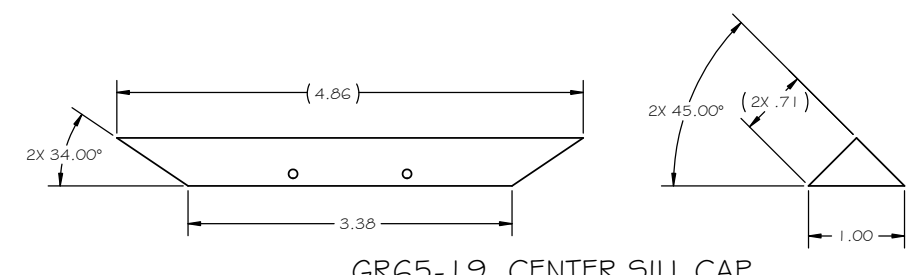
GR65-13 SLOPE PLANK RIGHT



GR65-17 DOOR SEAL RIGHT

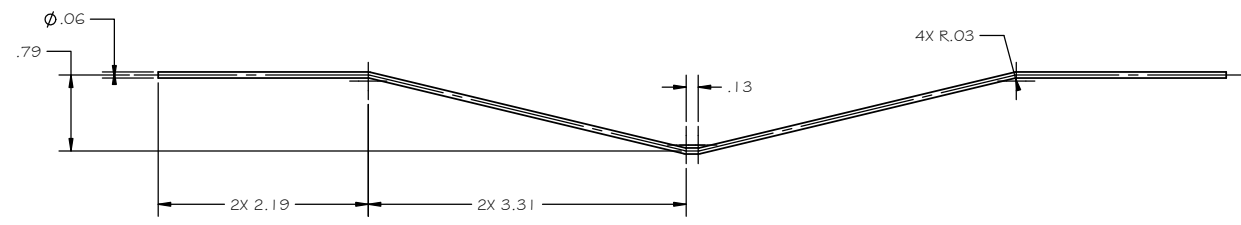


GR65-24 SIDE POST

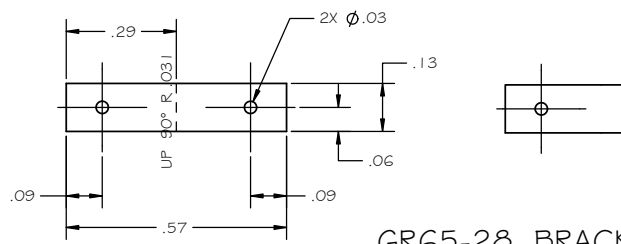
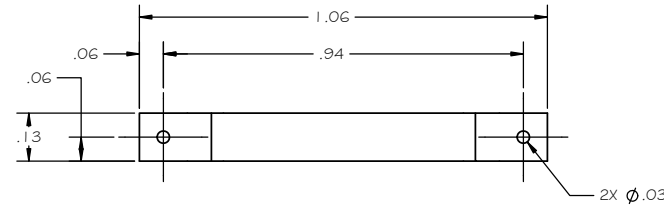


GR65-19 CENTER SILL CAP

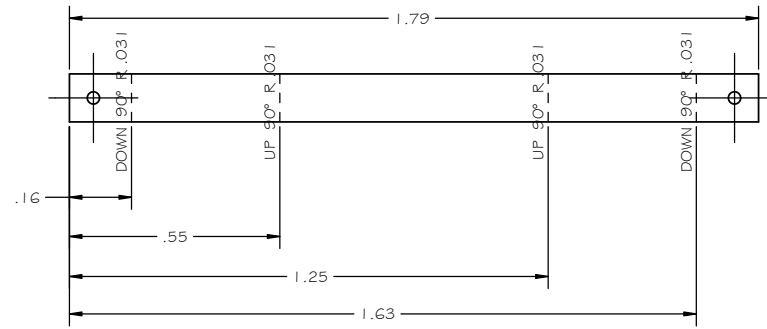
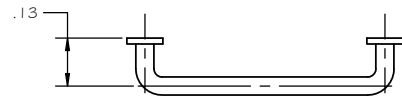
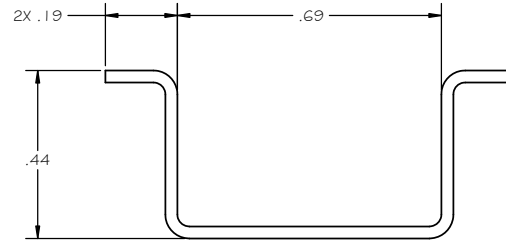
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SIZE	CAGE CODE	DWG NO.	REV
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SCALE	NONE	UNIT WT.	SHEET 5 OF 6



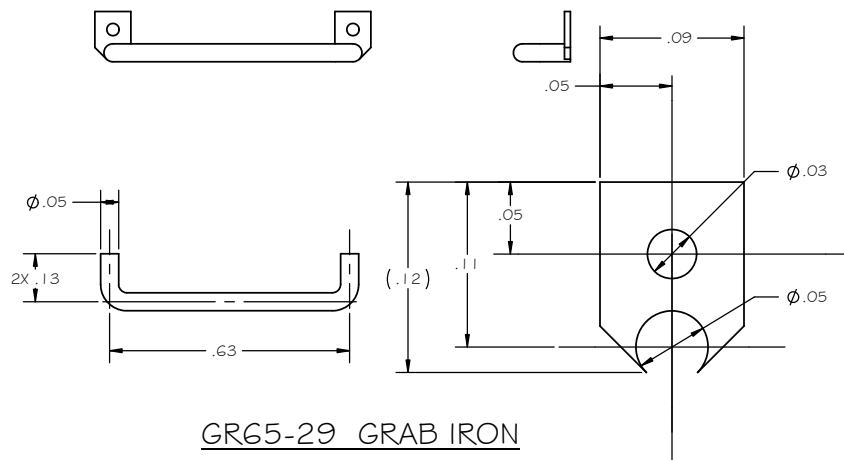
GR65-25 TRUSS ROD



GR65-28 BRACKET



GR65-30 STIRRUP STEP



GR65-29 GRAB IRON

TITLE			
COAL HOPPER CAR			
SIZE	CAGE CODE	DWG NO.	REV
D	-	GR Plan Set G5	-
SCALE	NONE	UNIT WT.	SHEET 6 OF 6