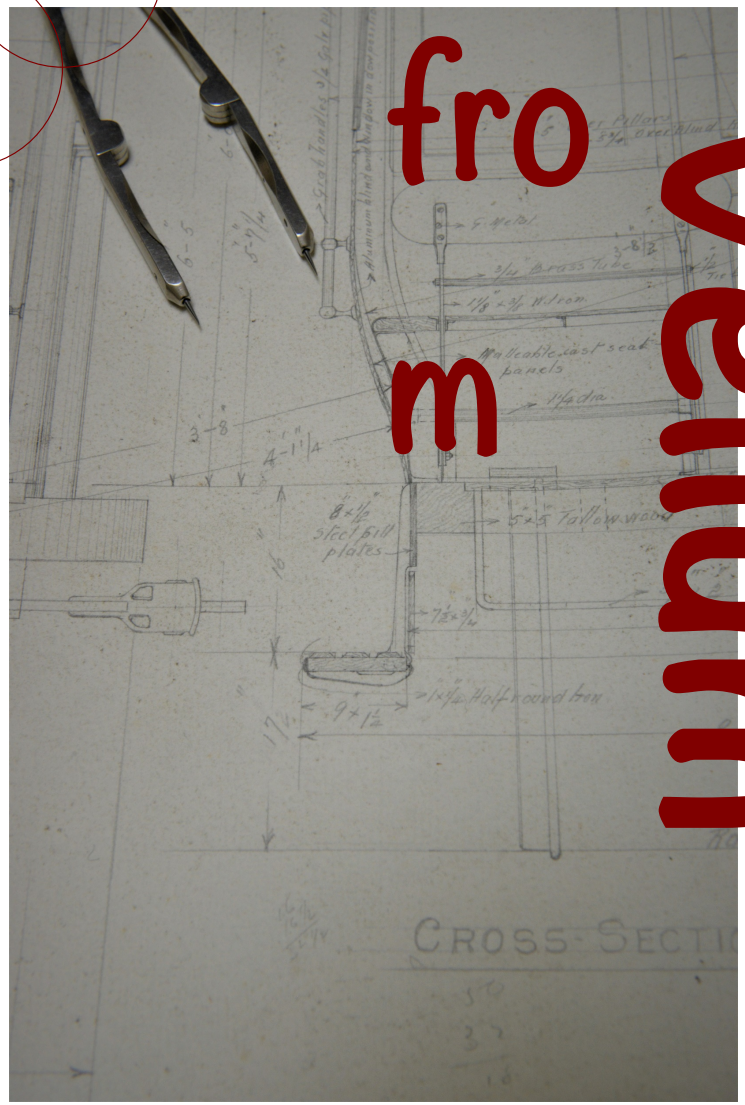
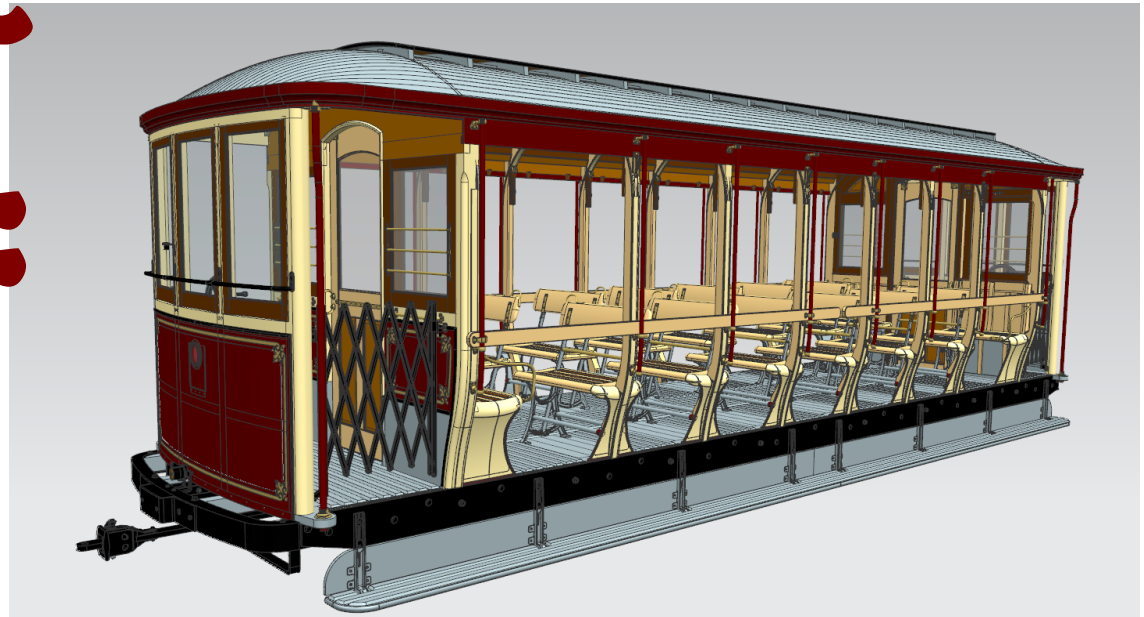
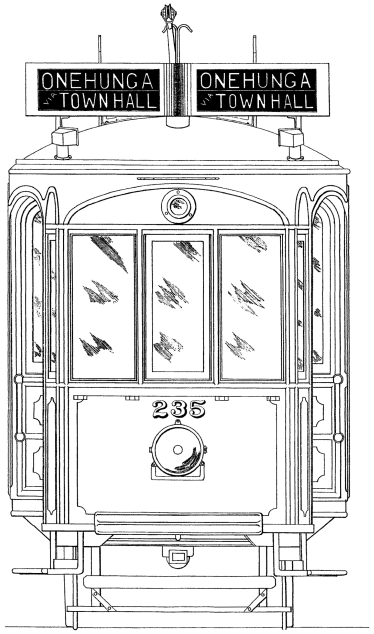


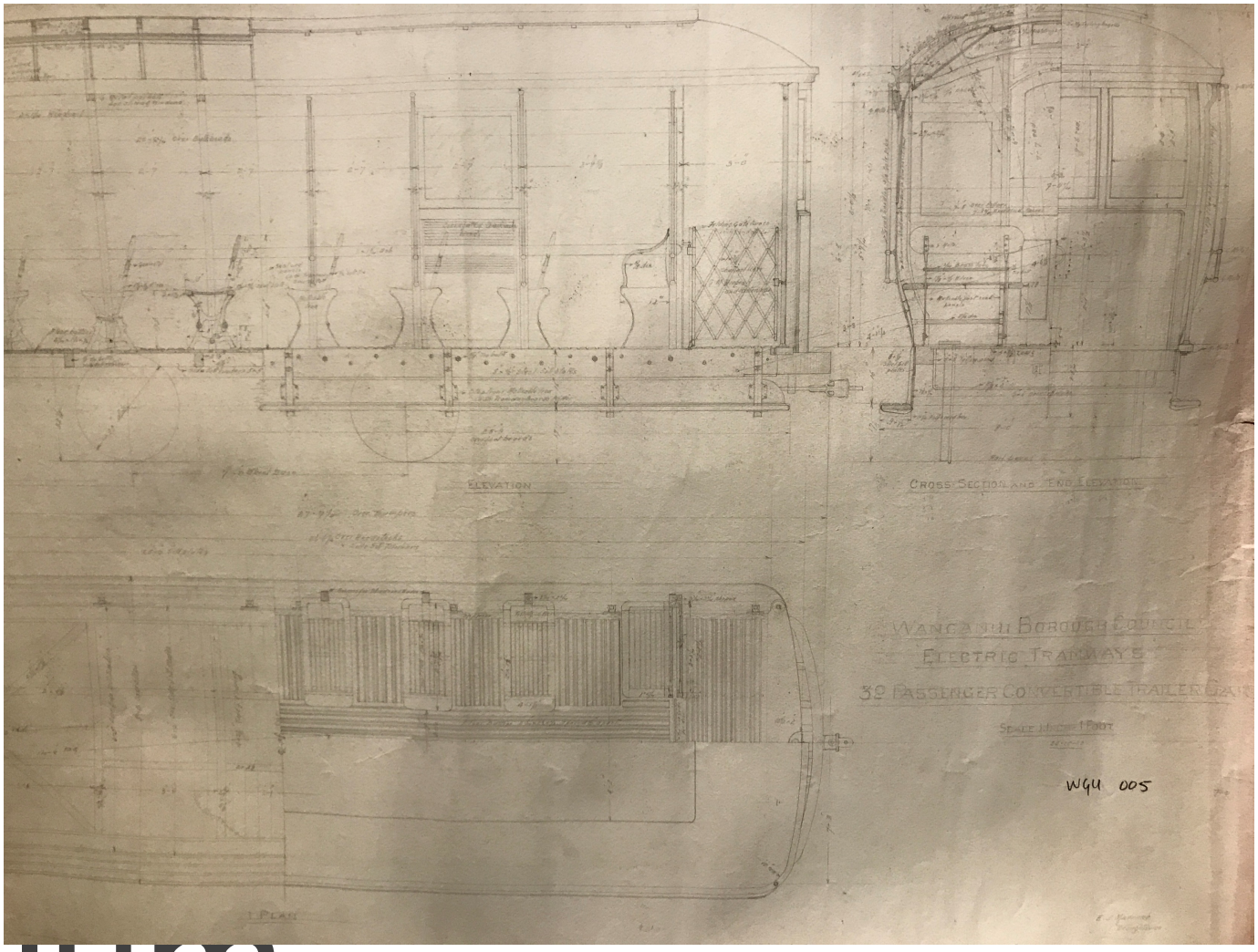
From Vellum To-CAD

AUCKLAND ELECTRIC TRAMWAYS TRUST

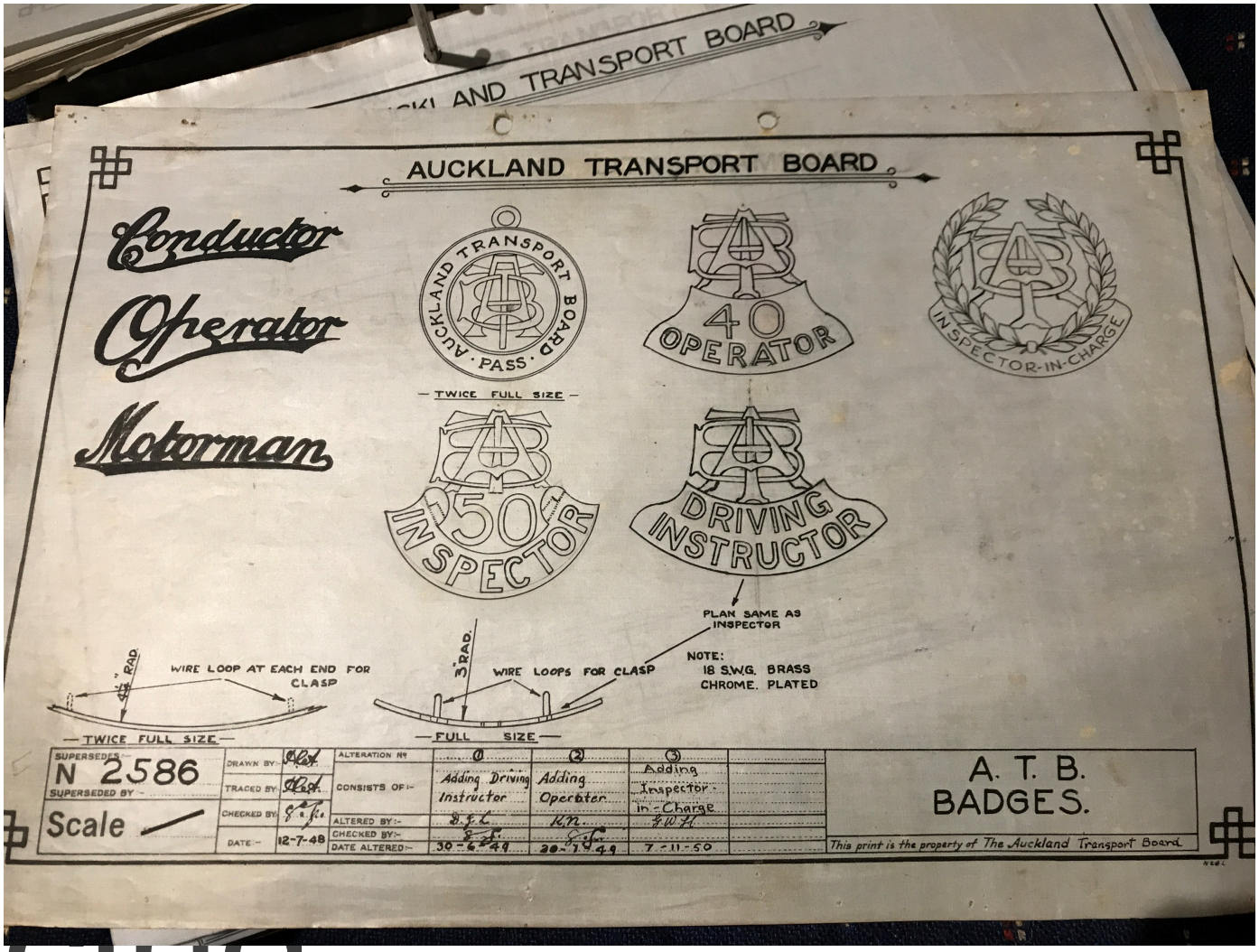




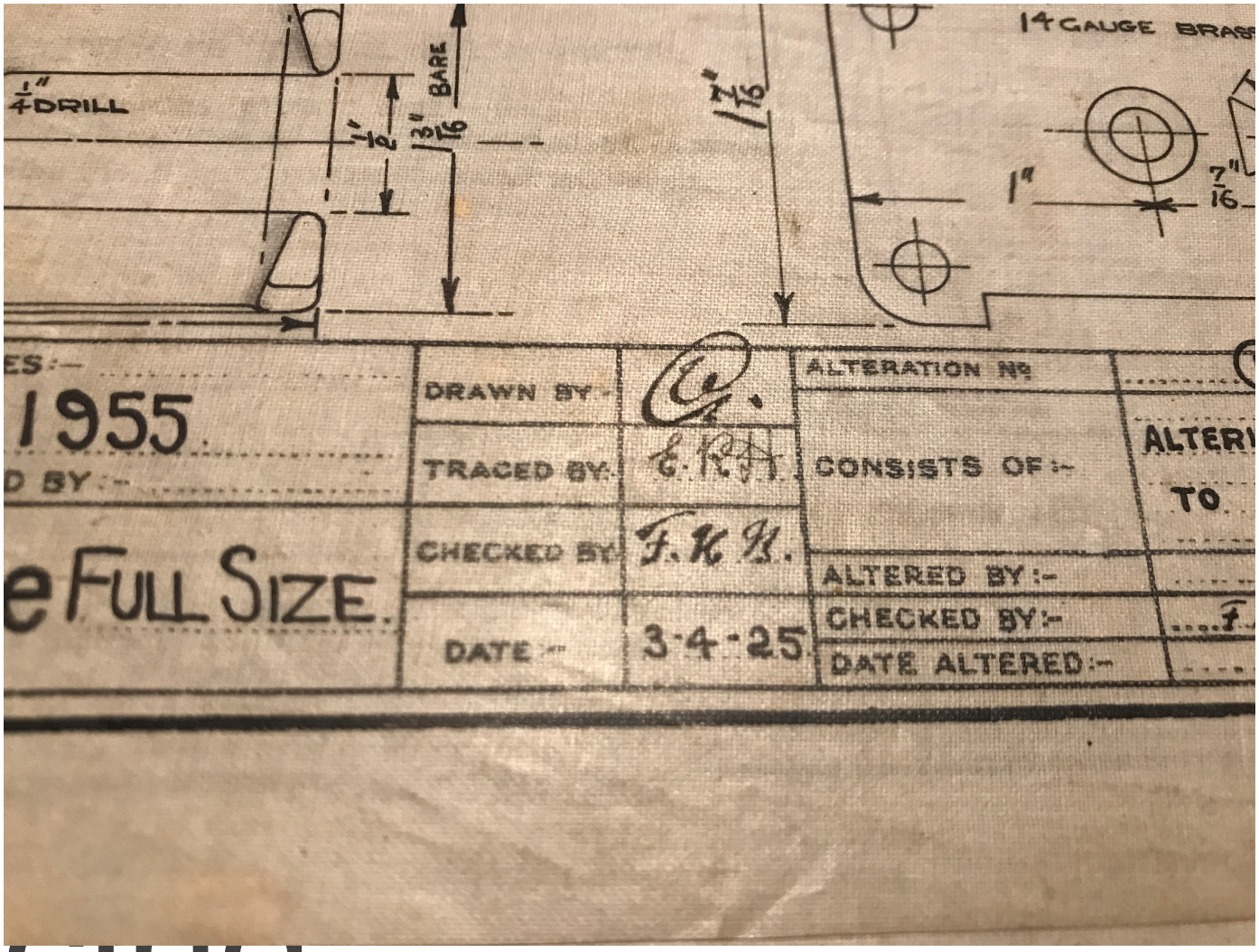
Tramcar reconstruction in the digital age


ELEVATION
CROSS SECTION AND END ELEVATION
WANGANUI BOROUGH COUNCIL
ELECTRIC TRAMWAYS
32 PASSENGER CONVERTIBLE TRAILER CAR
WGH 005
PLAN

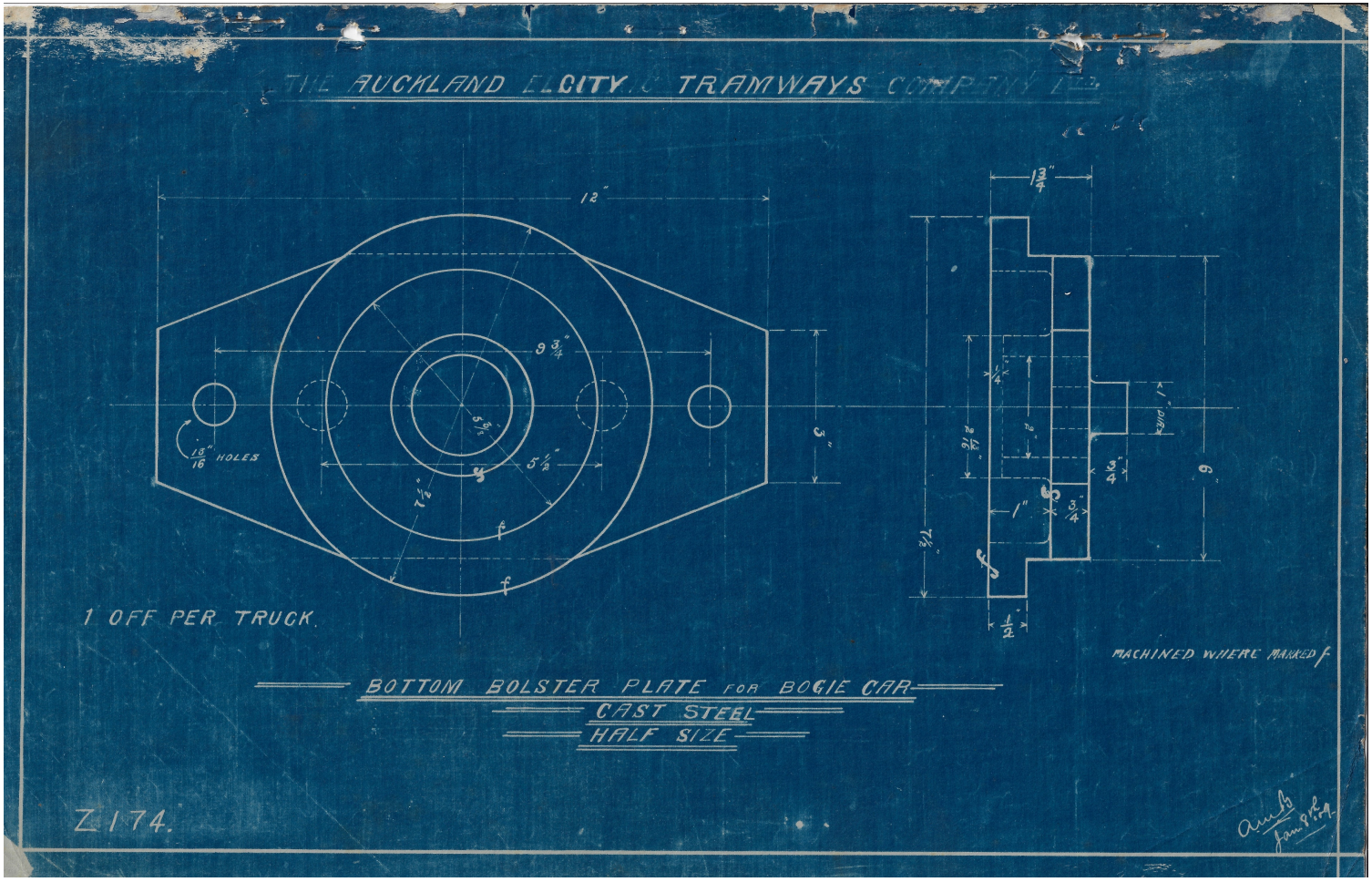
Velium


AUCKLAND TRANSPORT BOARD
Conductor
Operator
Motorman
AUCKLAND TRANSPORT BOARD · PASS ·
40 OPERATOR
IN SPECTOR-IN-CHARGE
TWICE FULL SIZE
50 INSPECTOR
DRIVING INSTRUCTOR
PLAN SAME AS INSPECTOR
NOTE:
18 S.W.G. BRASS
CHROME. PLATED
WIRE LOOP AT EACH END FOR CLASP
WIRE LOOPS FOR CLASP
TWICE FULL SIZE
FULL SIZE
SUPERSEDES N 2586
SUPERSEDED BY
Scale
DRAWN BY:-
TRACED BY:-
CHECKED BY:-
DATE:- 12-7-48
ALTERATION Nº
CONSISTS OF:-
ALTERED BY:-
CHECKED BY:-
DATE ALTERED:-
0 Adding Driving Instructor 30-6-49
2 Adding Operator 20-7-49
3 Adding Inspector in-Charge 7-11-50
A. T. B. BADGES.
This print is the property of The Auckland Transport Board

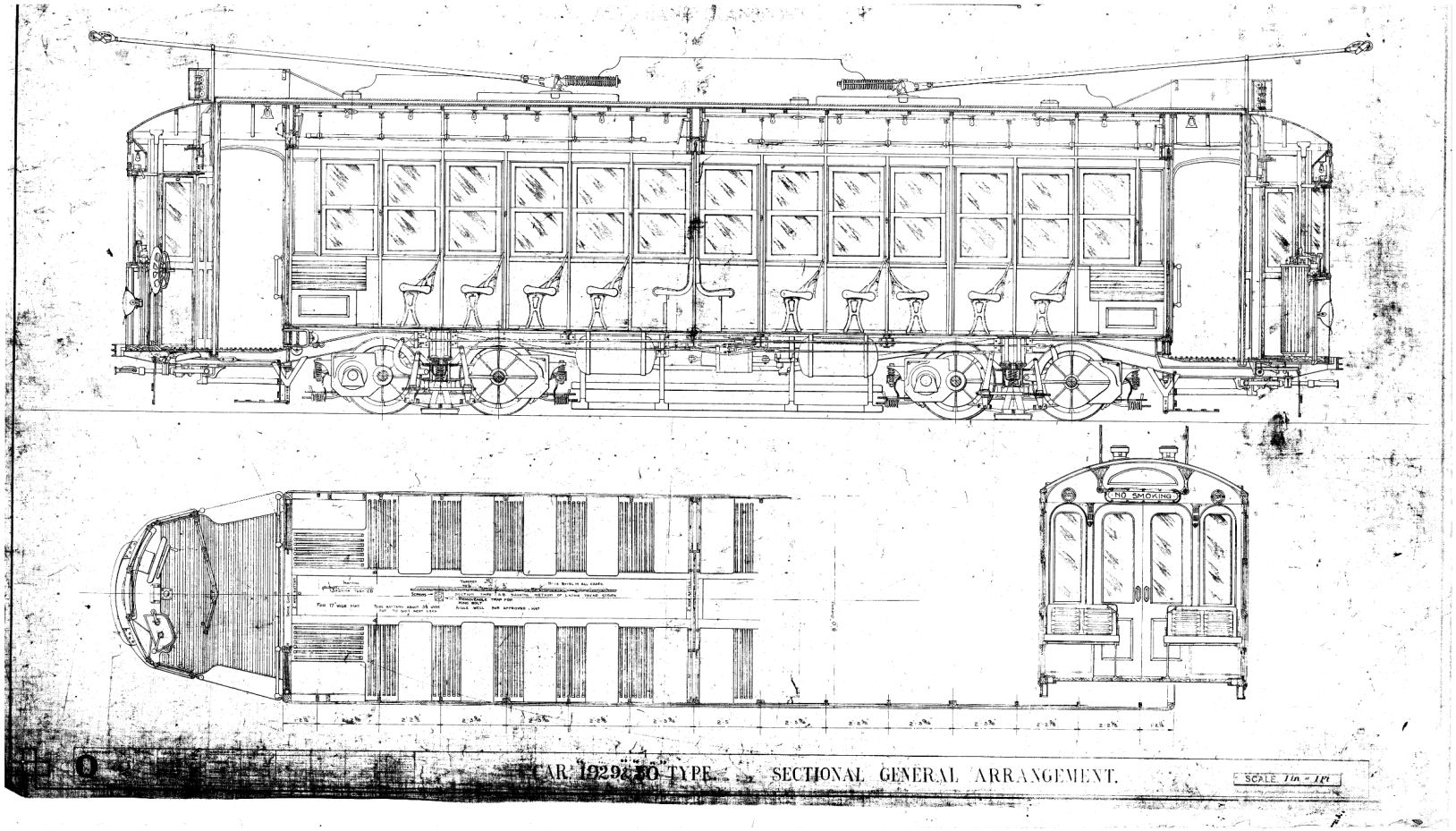
Tracing


14 GAUGE BRASS
1/4" DRILL
BARE
1 1/2"
13/16"
1 7/16"
1"
7/16"
1955
e FULL SIZE.
DRAWN BY
TRACED BY
CHECKED BY
DATE
3-4-25
ALTERATION No
CONSISTS OF :-
ALTERED BY :-
CHECKED BY :-
DATE ALTERED :-
TO

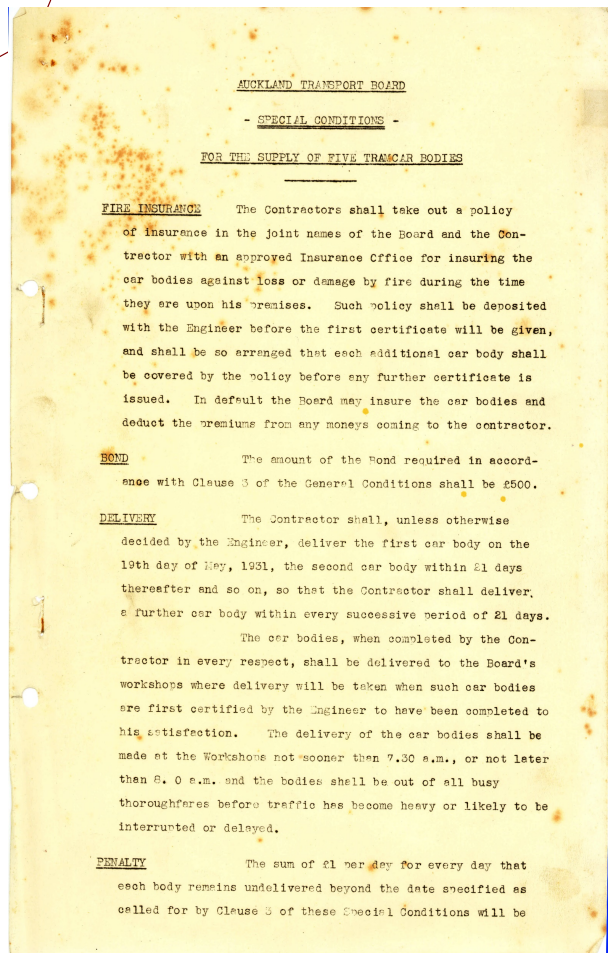
Tracing


AUCKLAND CITY TRAMWAYS
12"
9 3/4"
5 1/2"
7 1/2"
3"
18/16" HOLES
1 OFF PER TRUCK.
1 3/4"
9"
1"
3/4"
1/2"
MACHINED WHERE MARKED f
BOTTOM BOLSTER PLATE FOR BOGIE CAR.
CAST STEEL
HALF SIZE
Z 174.

Blueprint



General Arrangement



AUCKLAND TRANSPORT BOARD

- SPECIAL CONDITIONS -

FOR THE SUPPLY OF FIVE TRAMCAR BODIES

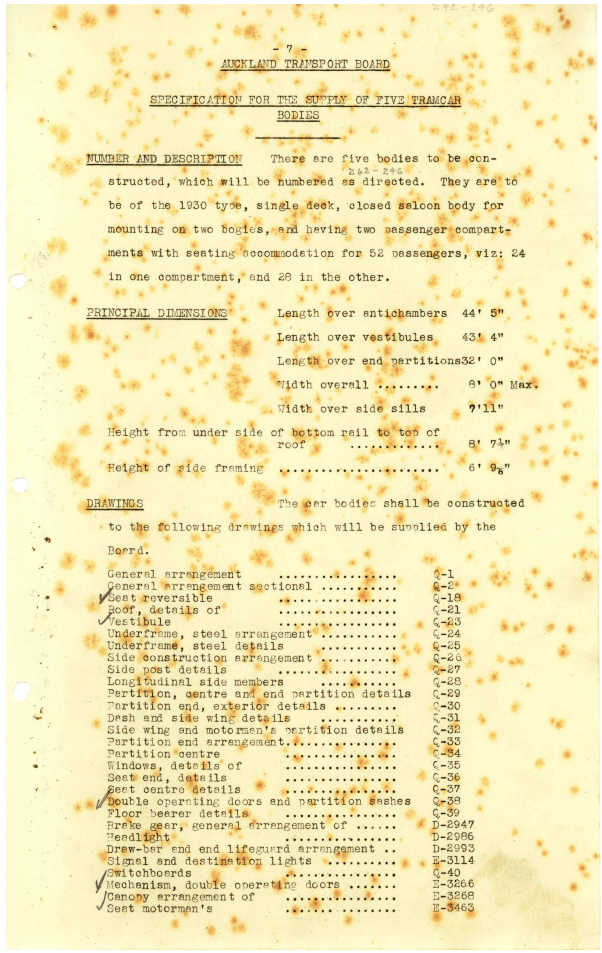
FIRE INSURANCE The Contractors shall take out a policy of insurance in the joint names of the Board and the Contractor with an approved Insurance Office for insuring the car bodies against loss or damage by fire during the time they are upon his premises. Such policy shall be deposited with the Engineer before the first certificate will be given, and shall be so arranged that each additional car body shall be covered by the policy before any further certificate is issued. In default the Board may insure the car bodies and deduct the premiums from any moneys coming to the contractor.

BOND The amount of the Bond required in accordance with Clause 3 of the General Conditions shall be £500.

DELIVERY The Contractor shall, unless otherwise decided by the Engineer, deliver the first car body on the 19th day of May, 1931, the second car body within 21 days thereafter and so on, so that the Contractor shall deliver a further car body within every successive period of 21 days.

The car bodies, when completed by the Contractor in every respect, shall be delivered to the Board's workshops where delivery will be taken when such car bodies are first certified by the Engineer to have been completed to his satisfaction. The delivery of the car bodies shall be made at the Workshops not sooner than 7.30 a.m., or not later than 8. 0 a.m. and the bodies shall be out of all busy thoroughfares before traffic has become heavy or likely to be interrupted or delayed.

PENALTY The sum of £1 per day for every day that each body remains undelivered beyond the date specified as called for by Clause 3 of these Special Conditions will be



- 7 -

AUCKLAND TRANSPORT BOARD

SPECIFICATION FOR THE SUPPLY OF FIVE TRAMCAR BODIES

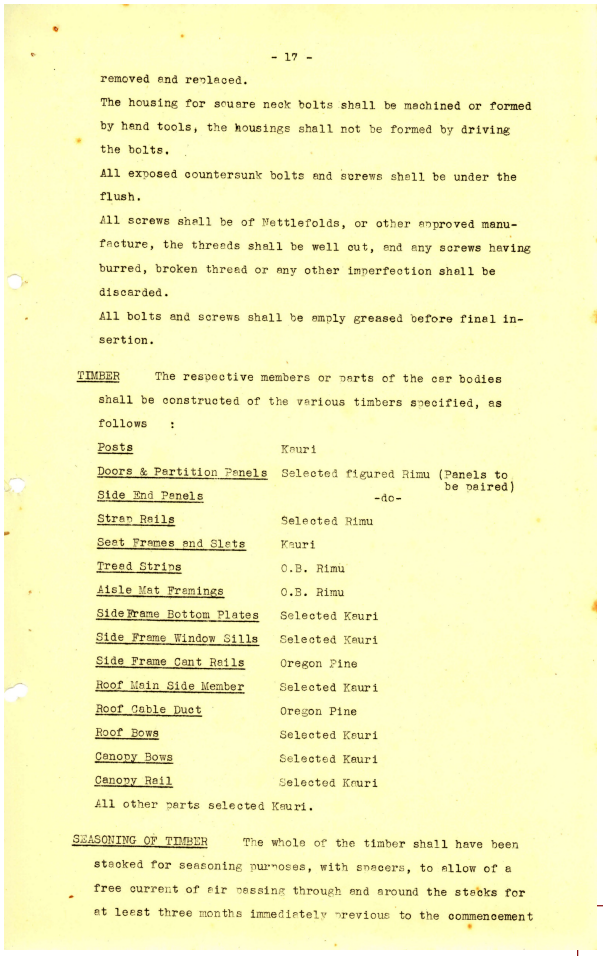
NUMBER AND DESCRIPTION There are five bodies to be constructed, which will be numbered as directed. They are to be of the 1930 type, single deck, closed saloon body for mounting on two bogies, and having two passenger compartments with seating accommodation for 52 passengers, viz: 24 in one compartment, and 28 in the other.

PRINCIPAL DIMENSIONS

Length over antichambers	44' 5"
Length over vestibules	43' 4"
Length over end partitions	32' 0"
Width overall	8' 0" Max.
Width over side sills	7'11"
Height from under side of bottom rail to top of roof	8' 7¼"
Height of side framing	6' 9⅝"

DRAWINGS The car bodies shall be constructed to the following drawings which will be supplied by the Board.

General arrangement	Q-1
General arrangement sectional	Q-2
Seat reversible	Q-19
Roof, details of	Q-21
Vestibule	Q-23
Underframe, steel arrangement	Q-24
Underframe, steel details	Q-25
Side construction arrangement	Q-26
Side post details	Q-27
Longitudinal side members	Q-28
Partition, centre and end partition details	Q-29
Partition end, exterior details	Q-30
Dash and side wing details	Q-31
Side wing and motorman's partition details	Q-32
Partition end arrangement.....	Q-33
Partition centre	Q-34
Windows, details of	Q-35
Seat end, details	Q-36
Seat centre details	Q-37
Double operating doors and partition sashes	Q-38
Floor bearer details	Q-39
Brake gear, general arrangement of	D-2947
Headlight	D-2986
Draw-bar end end lifeguard arrangement ..	D-2993
Signal and destination lights	E-3114
Switchboards	Q-40
Mechanism, double operating doors	E-3266
Canopy arrangement of	E-3268
Seat motorman's	E-3463



- 17 -

removed and replaced.

The housing for square neck bolts shall be machined or formed by hand tools, the housings shall not be formed by driving the bolts.

All exposed countersunk bolts and screws shall be under the flush.

All screws shall be of Nettlefolds, or other approved manufacture, the threads shall be well cut, and any screws having burred, broken thread or any other imperfection shall be discarded.

All bolts and screws shall be amply greased before final insertion.

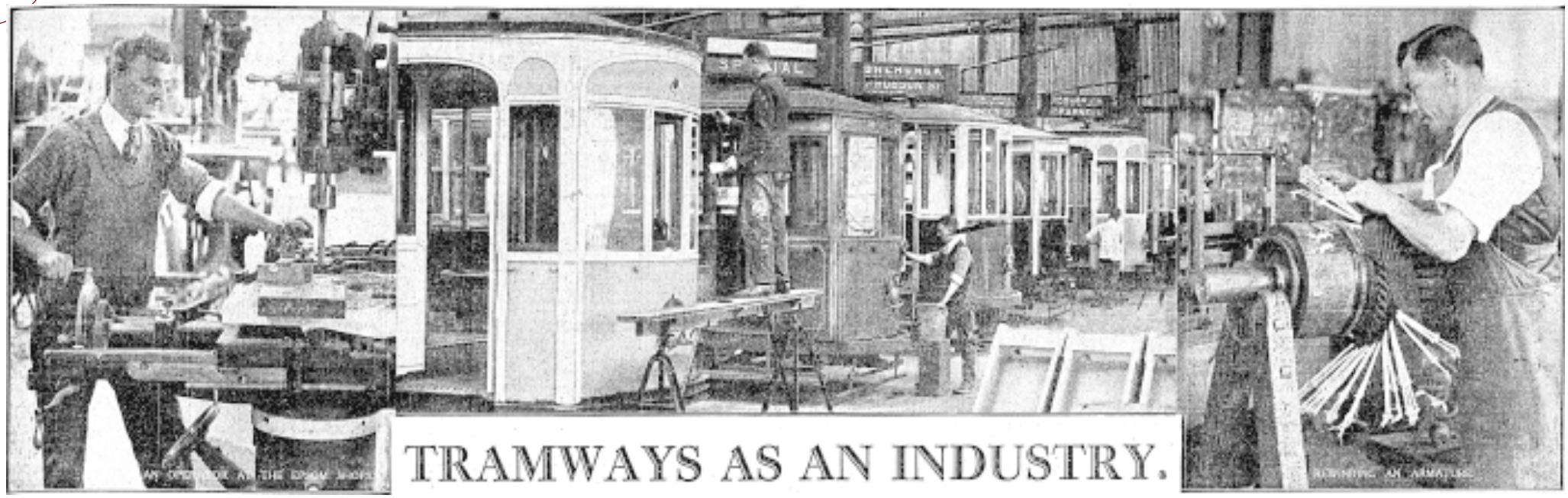
TIMBER The respective members or parts of the car bodies shall be constructed of the various timbers specified, as follows :

Posts	Kauri
Doors & Partition Panels	Selected figured Rimu (Panels to be paired)
Side End Panels	-do-
Strap Rails	Selected Rimu
Seat Frames and Slats	Kauri
Tread Strips	O.B. Rimu
Aisle Mat Framings	O.B. Rimu
Side Frame Bottom Plates	Selected Kauri
Side Frame Window Sills	Selected Kauri
Side Frame Cant Rails	Oregon Pine
Roof Main Side Member	Selected Kauri
Roof Cable Duct	Oregon Pine
Roof Bows	Selected Kauri
Canopy Bows	Selected Kauri
Canopy Rail	Selected Kauri

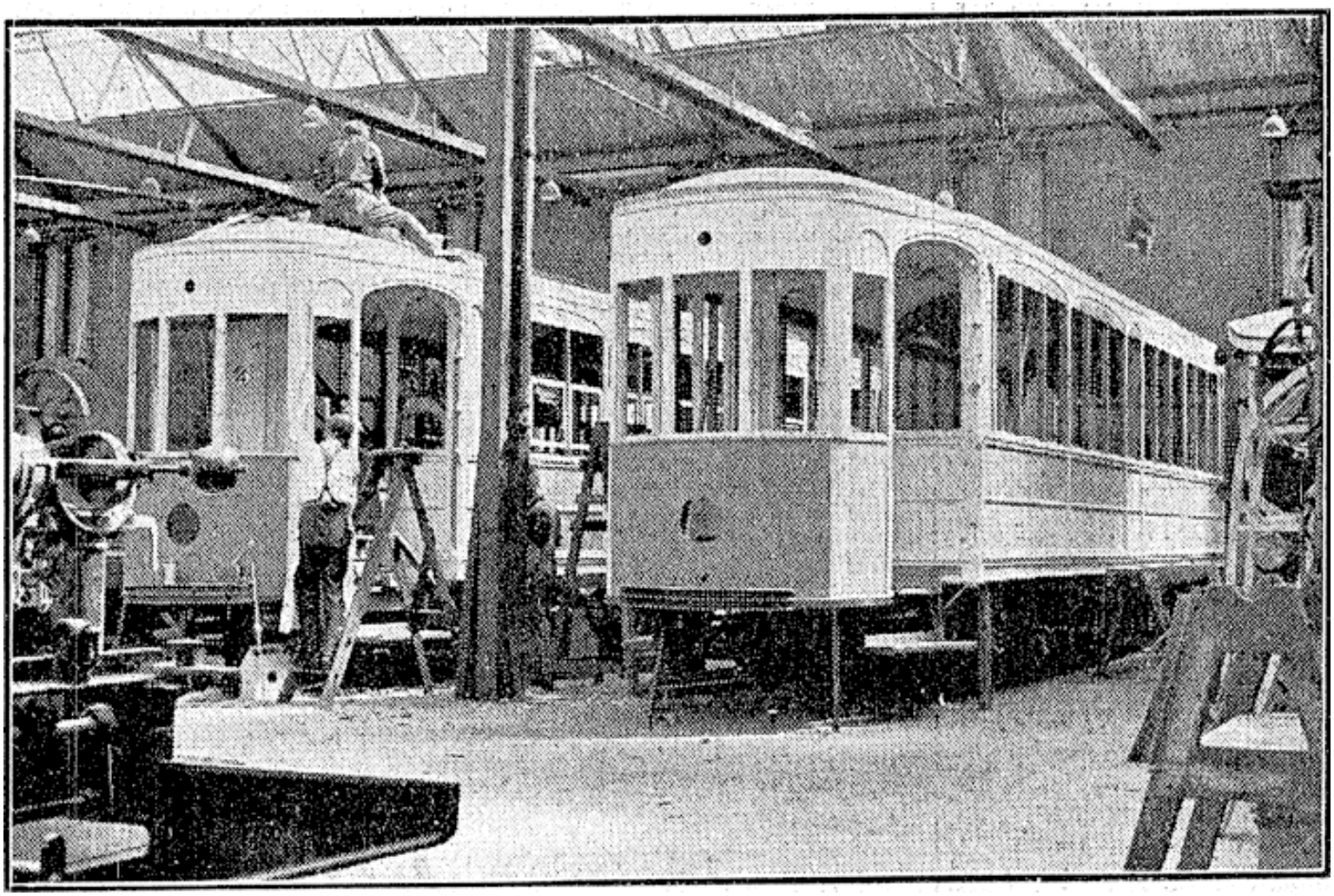
All other parts selected Kauri.

SEASONING OF TIMBER The whole of the timber shall have been stacked for seasoning purposes, with spacers, to allow of a free current of air passing through and around the stacks for at least three months immediately previous to the commencement

Specifications

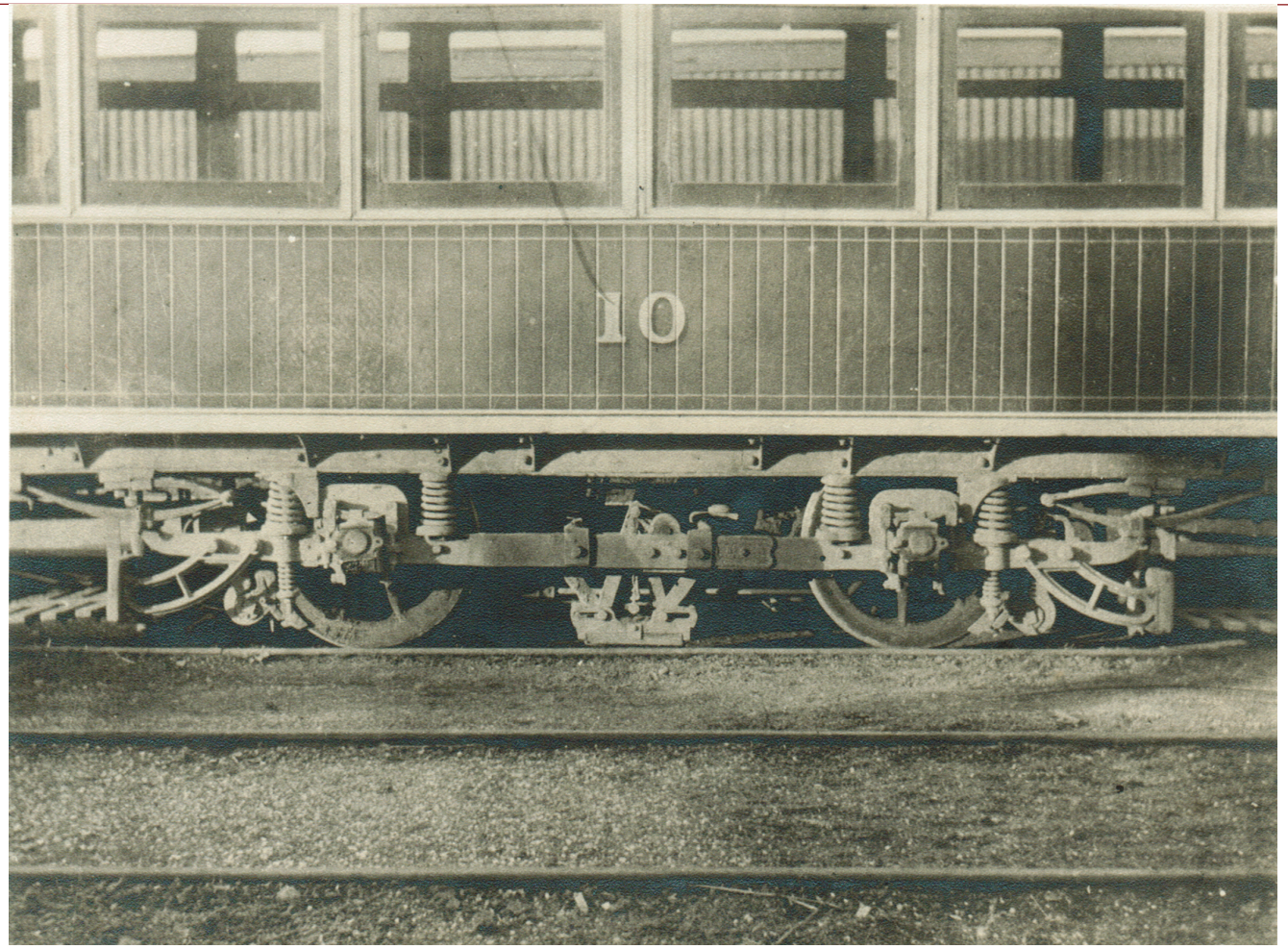


TRAMWAYS AS AN INDUSTRY.

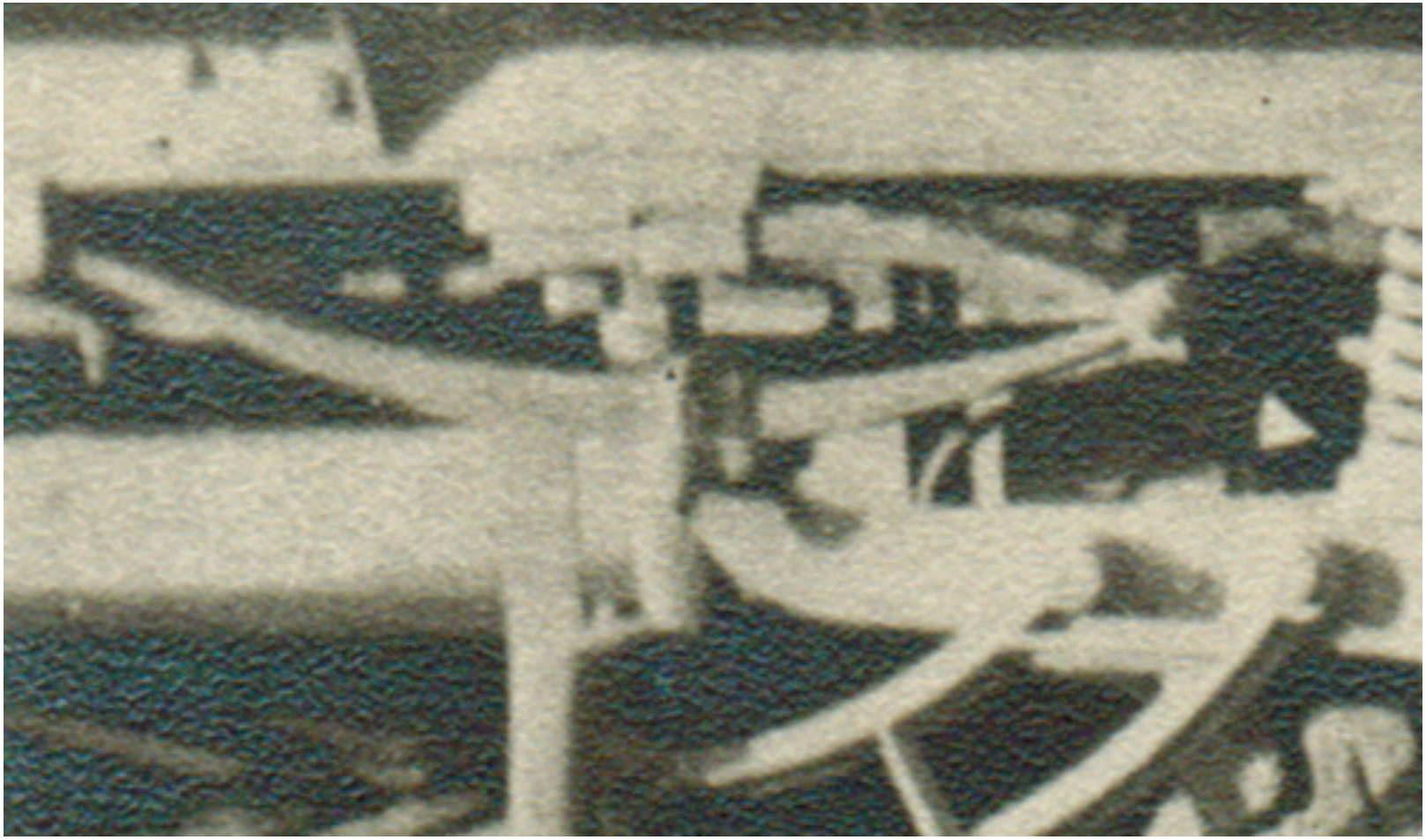


FIVE NEW TRAMCARS.

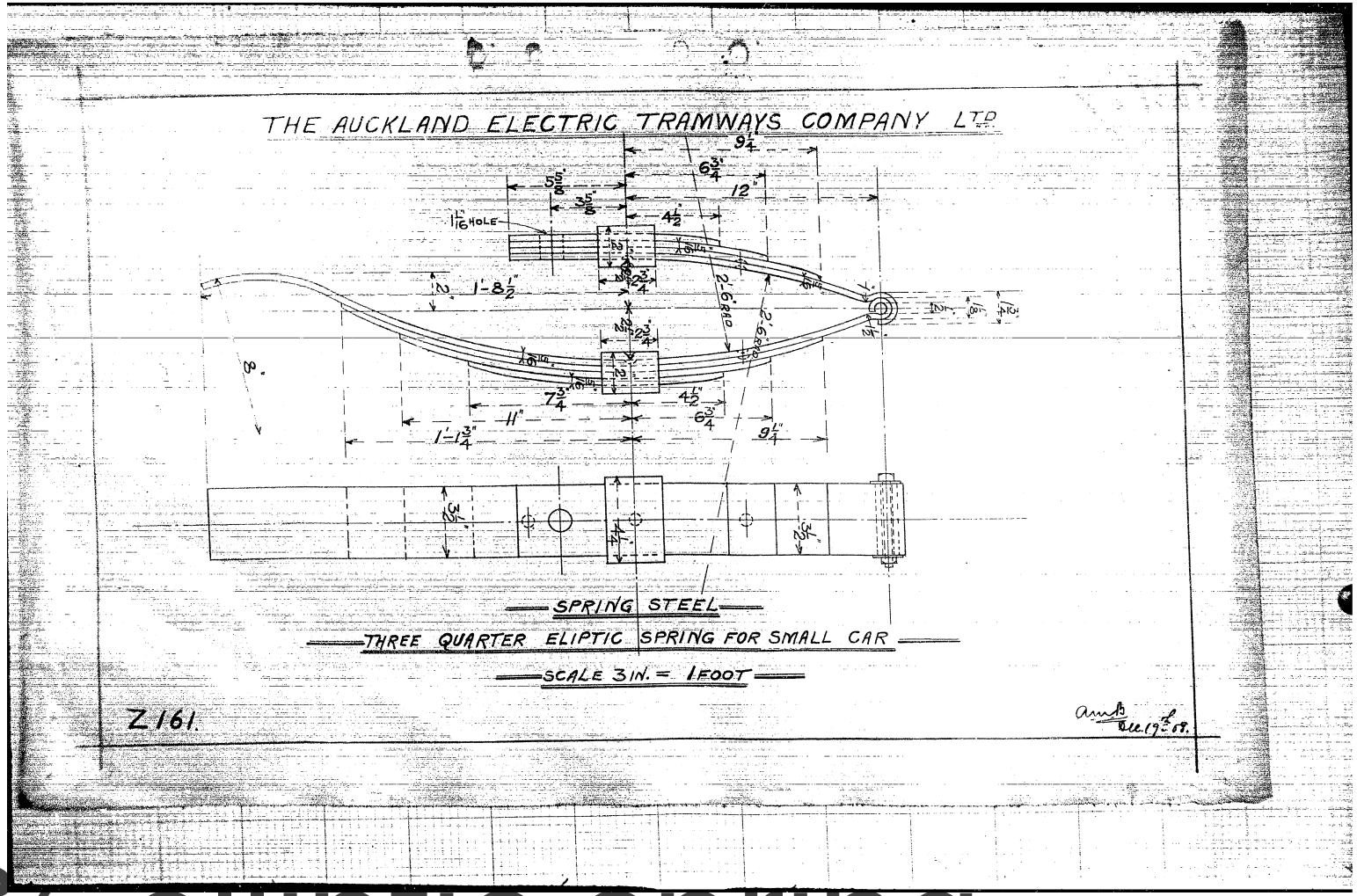

AVONDALE
VIA PARNELL
209
54 x 76
Jacquard
CAMP
MOTOR
RUGS
7/11
Rendells
209
DEANNA
DURBIN
ST. JAMES
NEXT FRIDAY



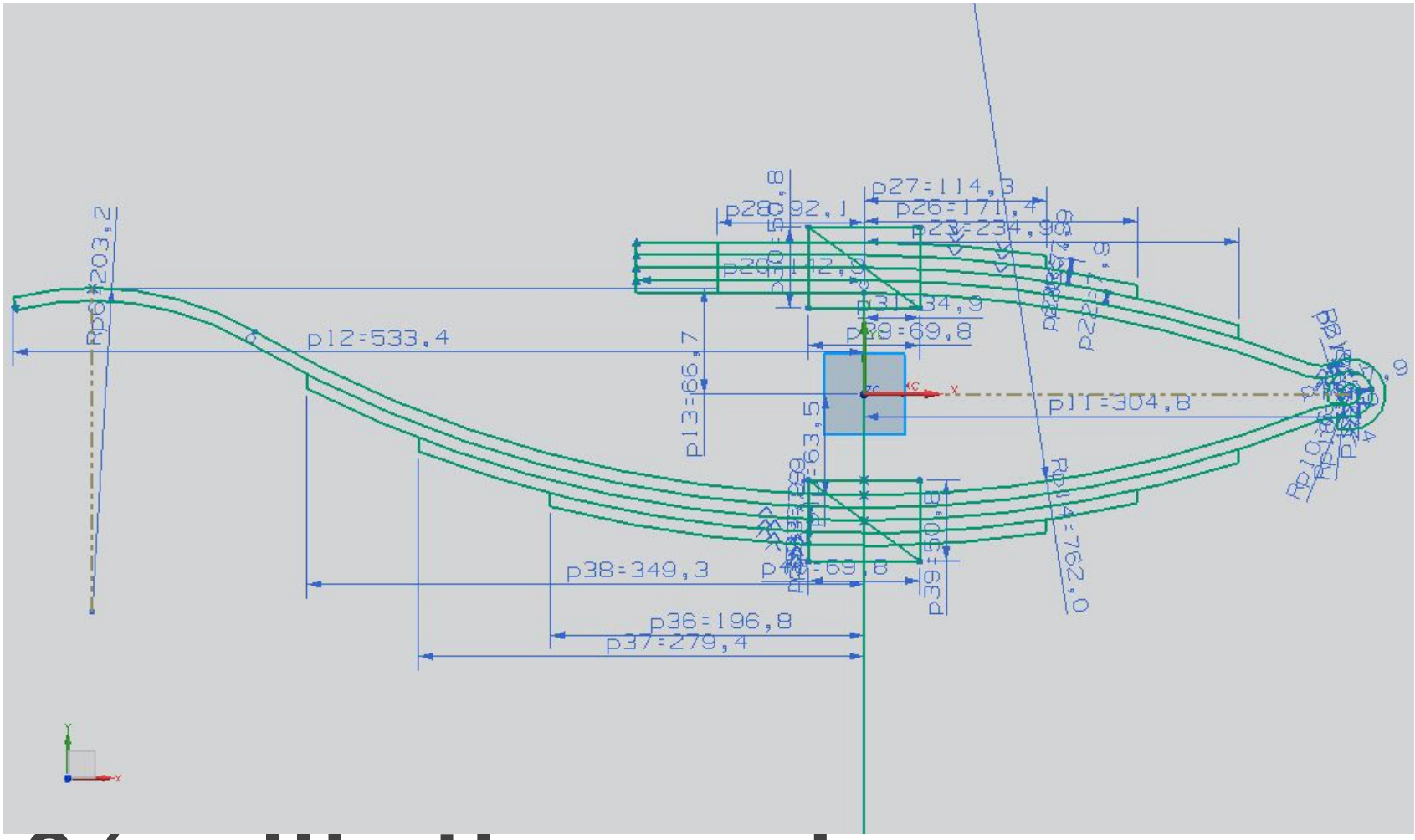
¾ elliptic spring



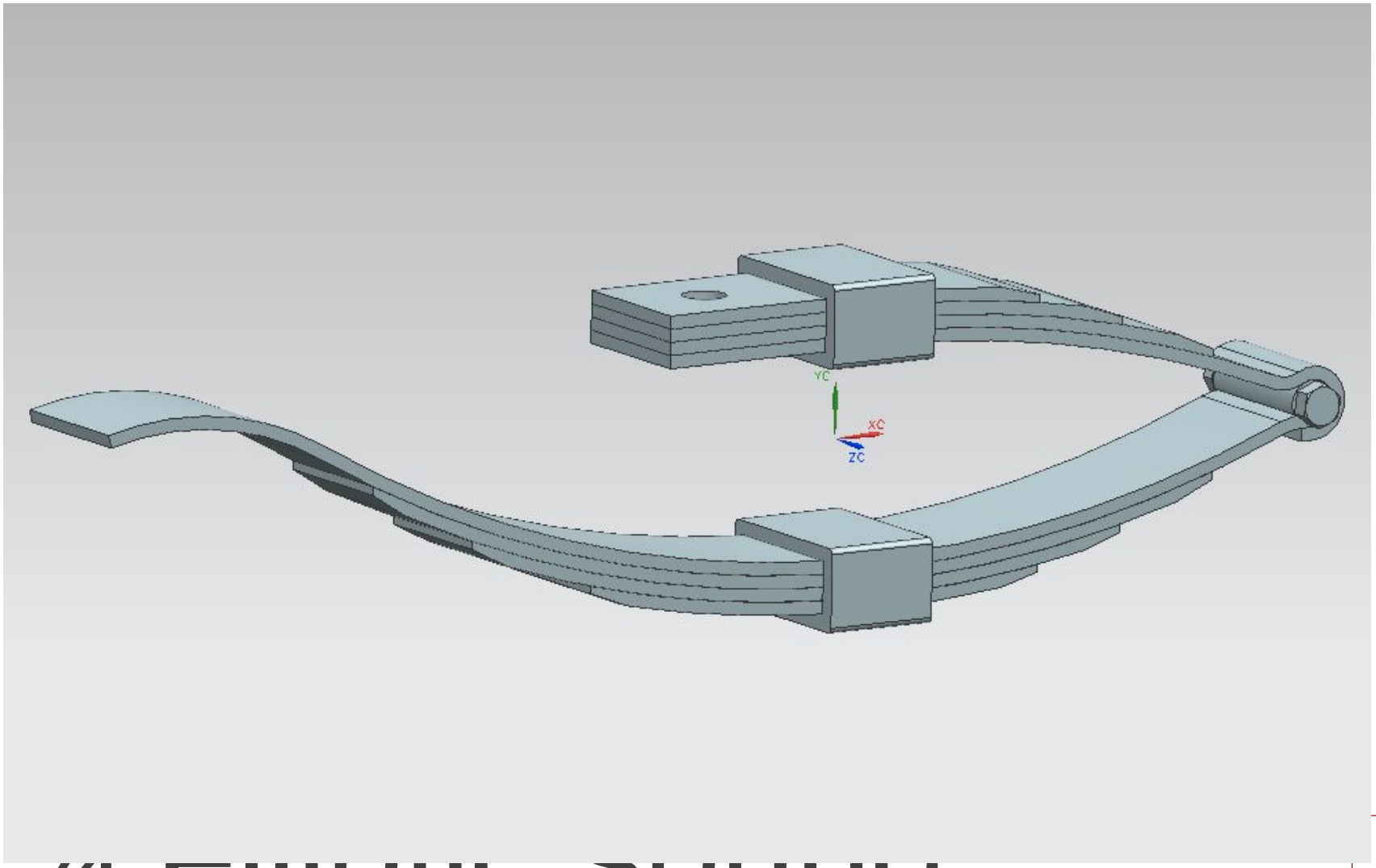
¾ elliptic spring



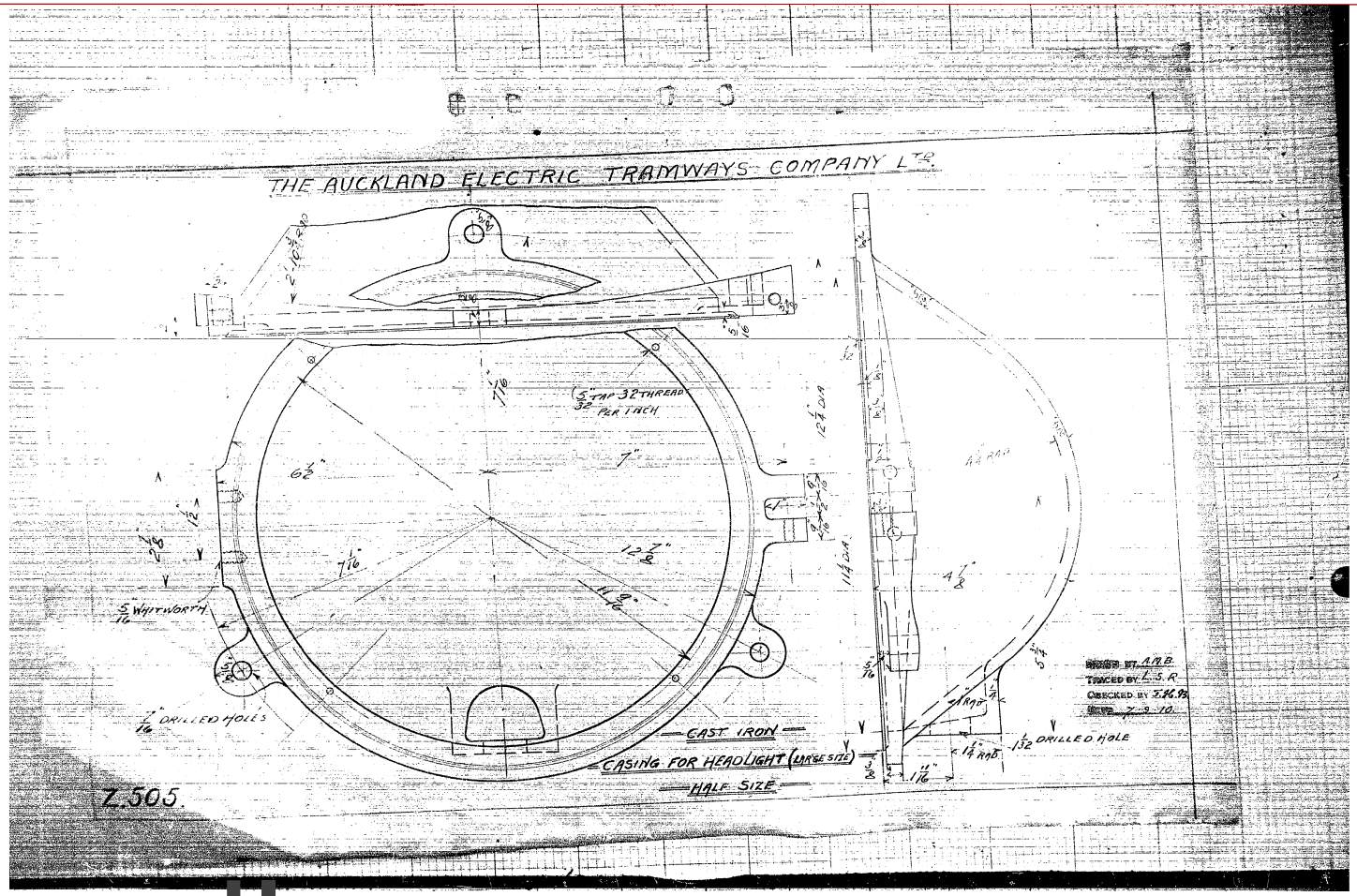
¾ elliptic spring



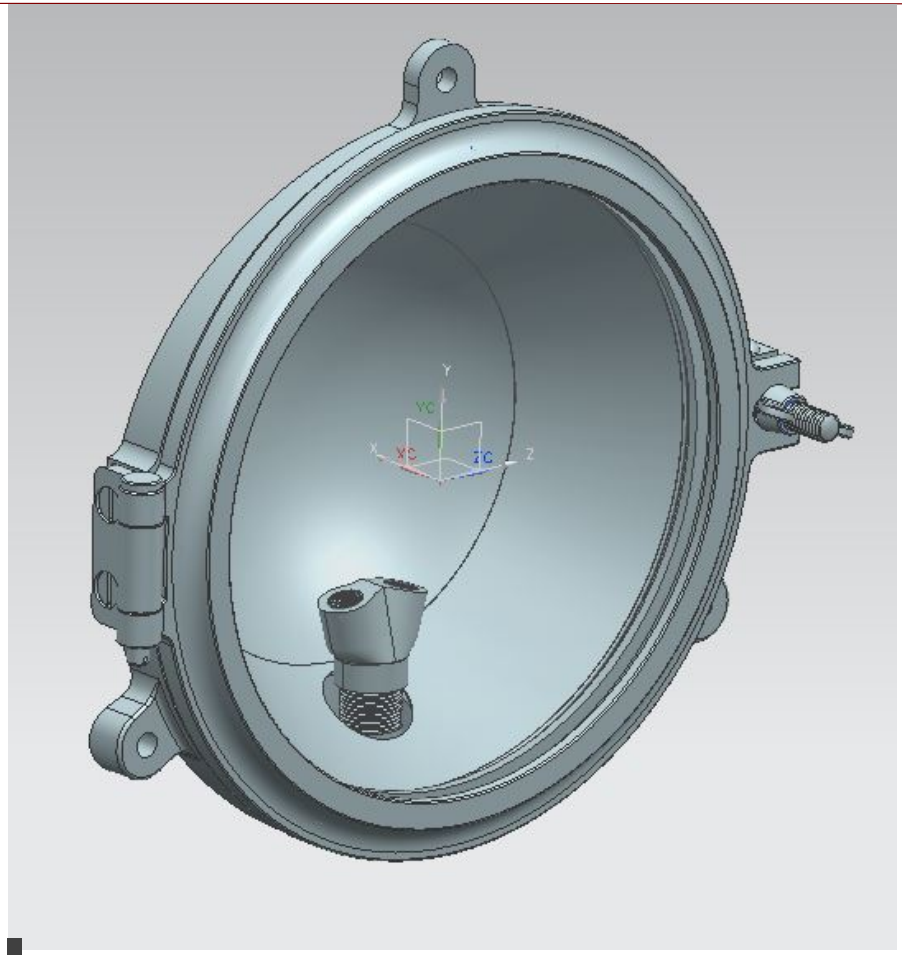
¾ elliptic spring



/4 Elliptic spring


THE AUCKLAND ELECTRIC TRAMWAYS COMPANY LTD.
5 TAP 32 THREAD PER INCH
7"
6½"
12 7/8"
11 9/16"
7 1/16"
5 WHITWORTH
DRILLED HOLES
CAST IRON
CASING FOR HEADLIGHT (LARGE SIZE)
HALF SIZE
Z.505.
DRILLED HOLE
DRAWN BY A.M.B.
TRACED BY L.S.R.
CHECKED BY T.H.R.
7.9.10.

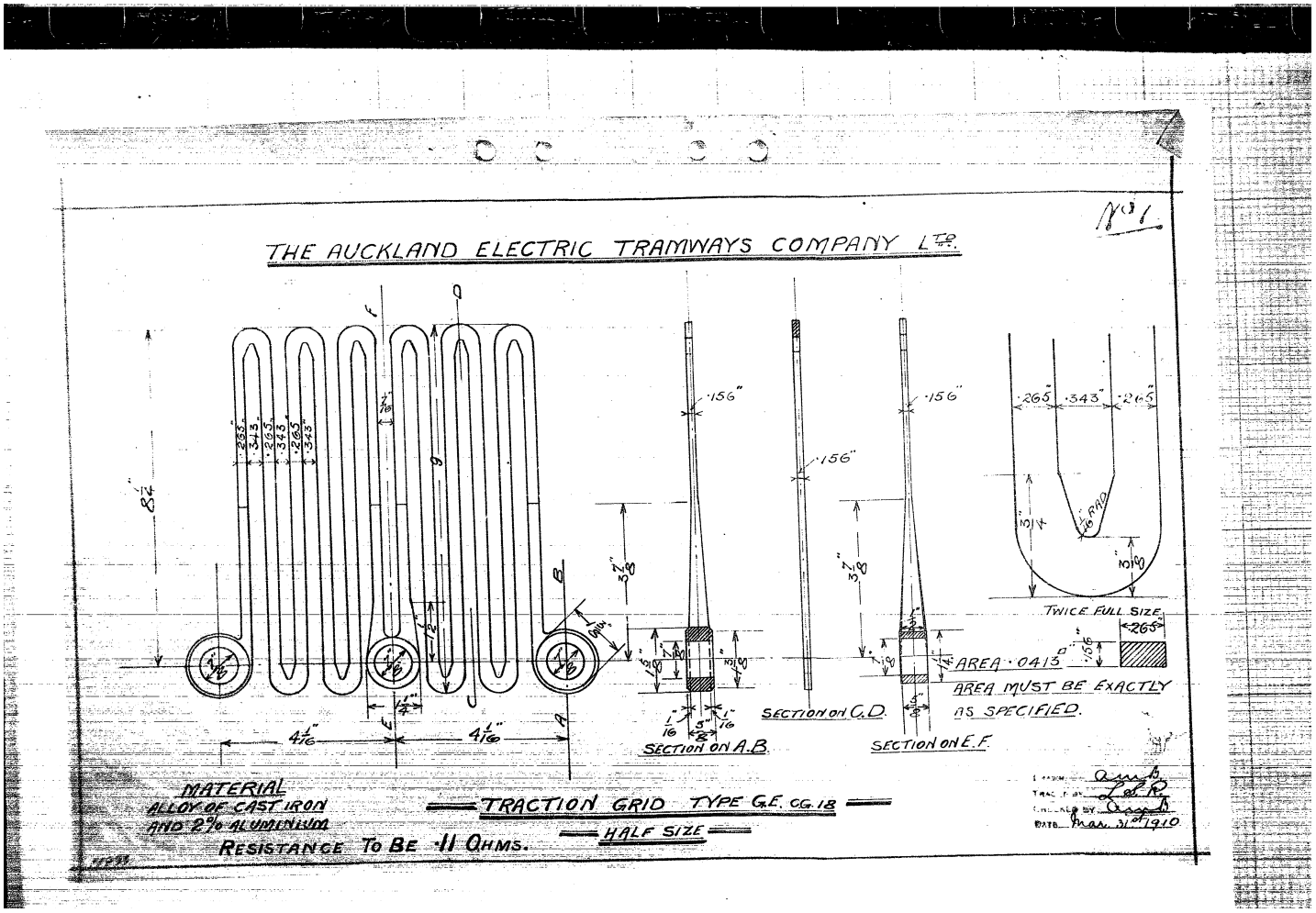
Headlamp



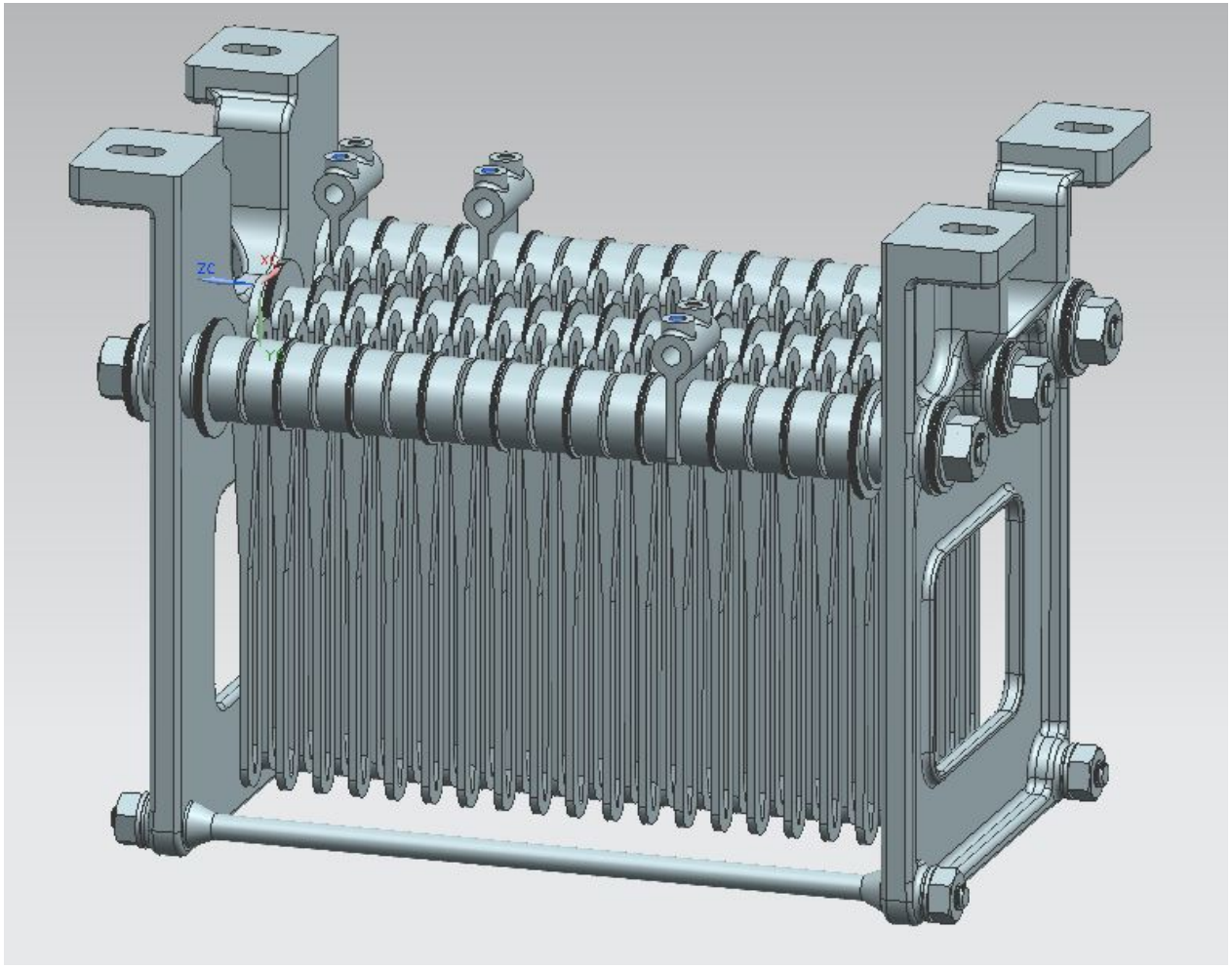
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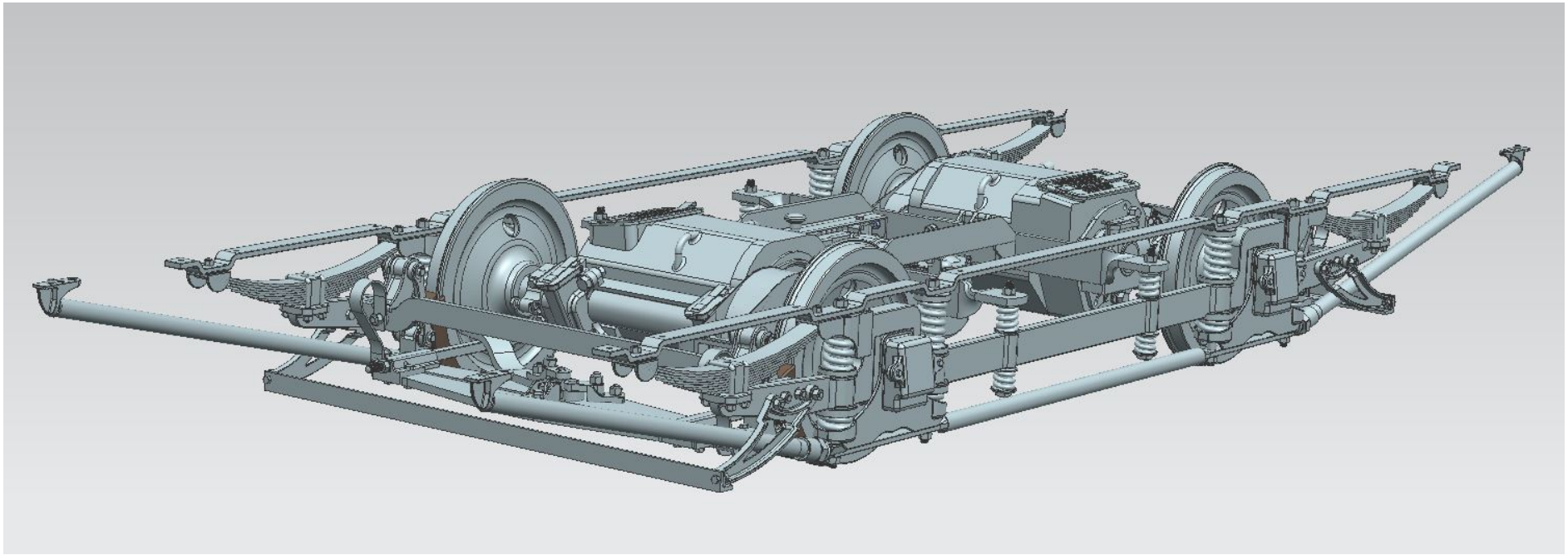
Headlamp



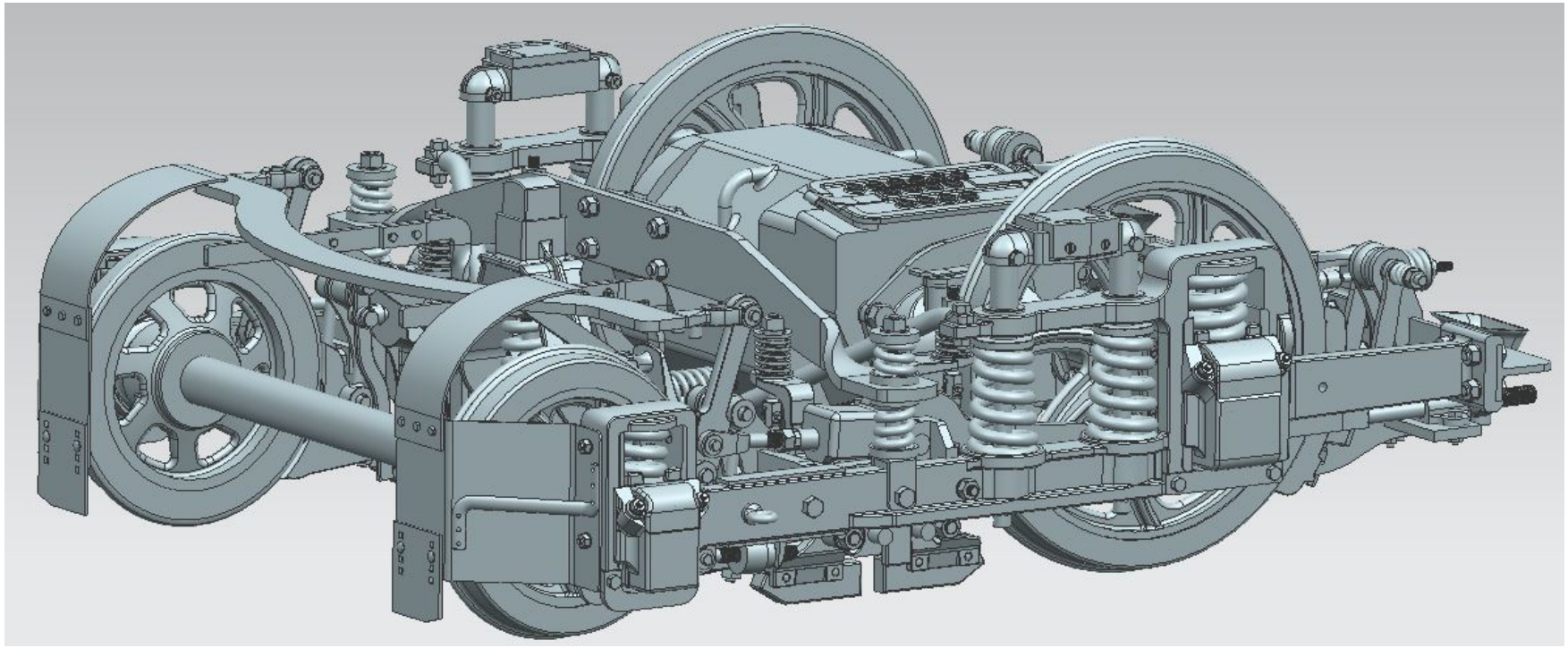
Ge type cg resistance



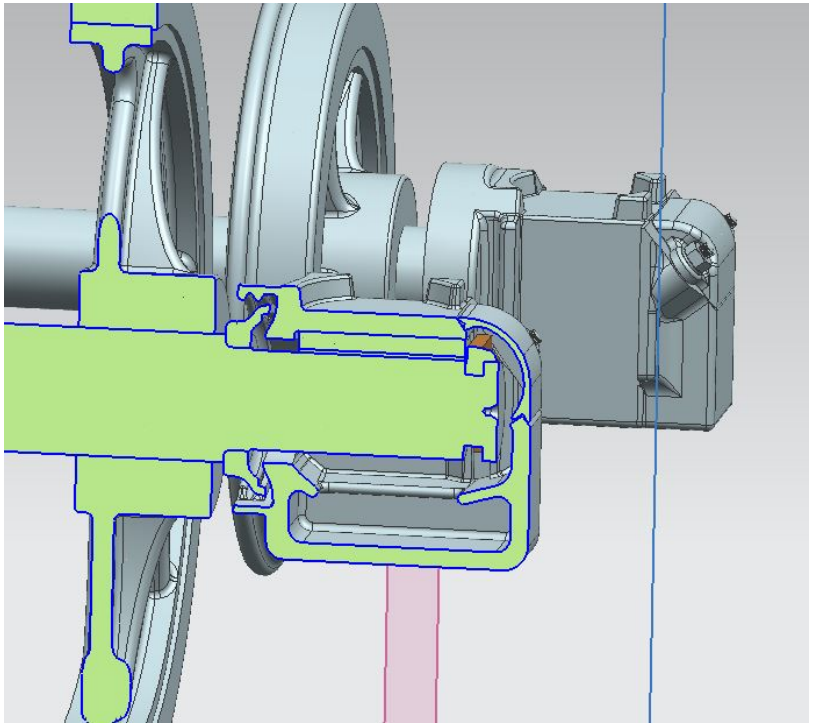
Ge type cg resistance

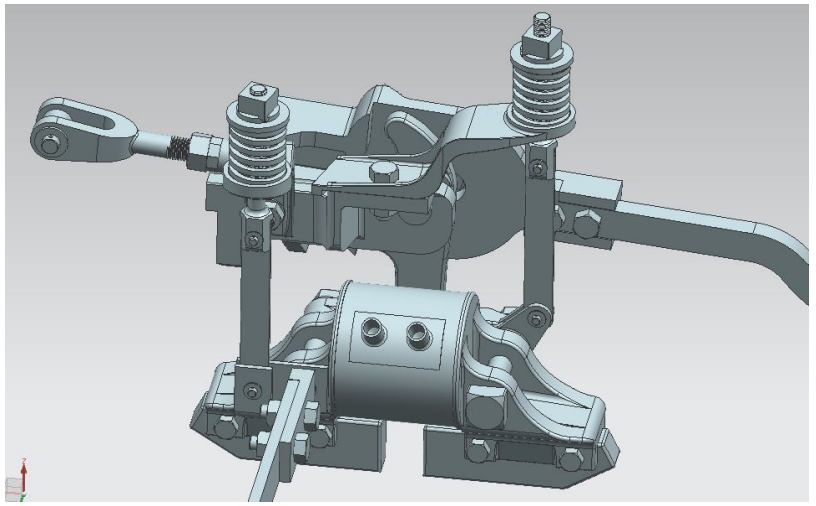


Brill 21E



Brill 22E

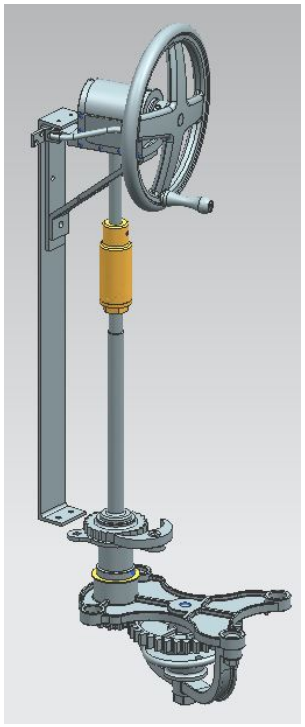


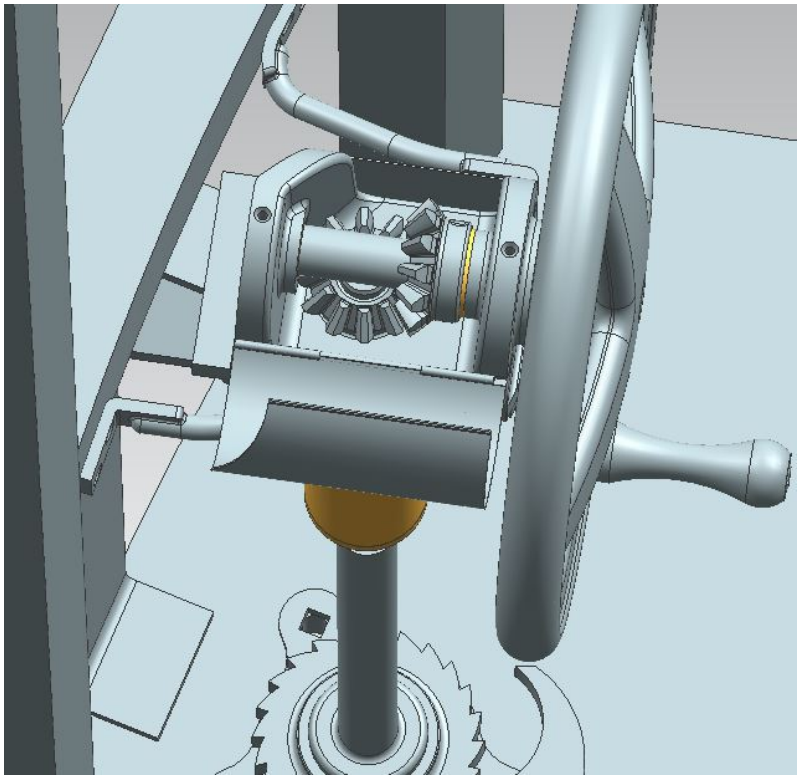


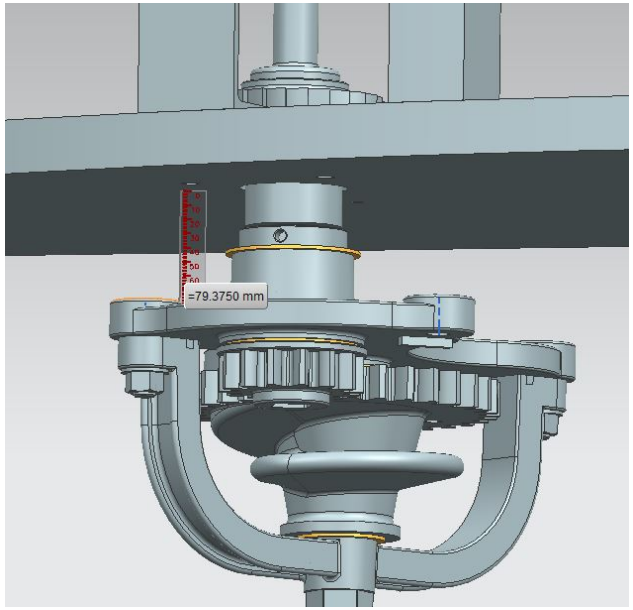
Brill 22E


A&G PRICE LTD
FOUNDRY
SITE MAINTENANCE
A&G PRICE LTD
MACHINERY REFURBISHMENT
FABRICATION
MACHINING

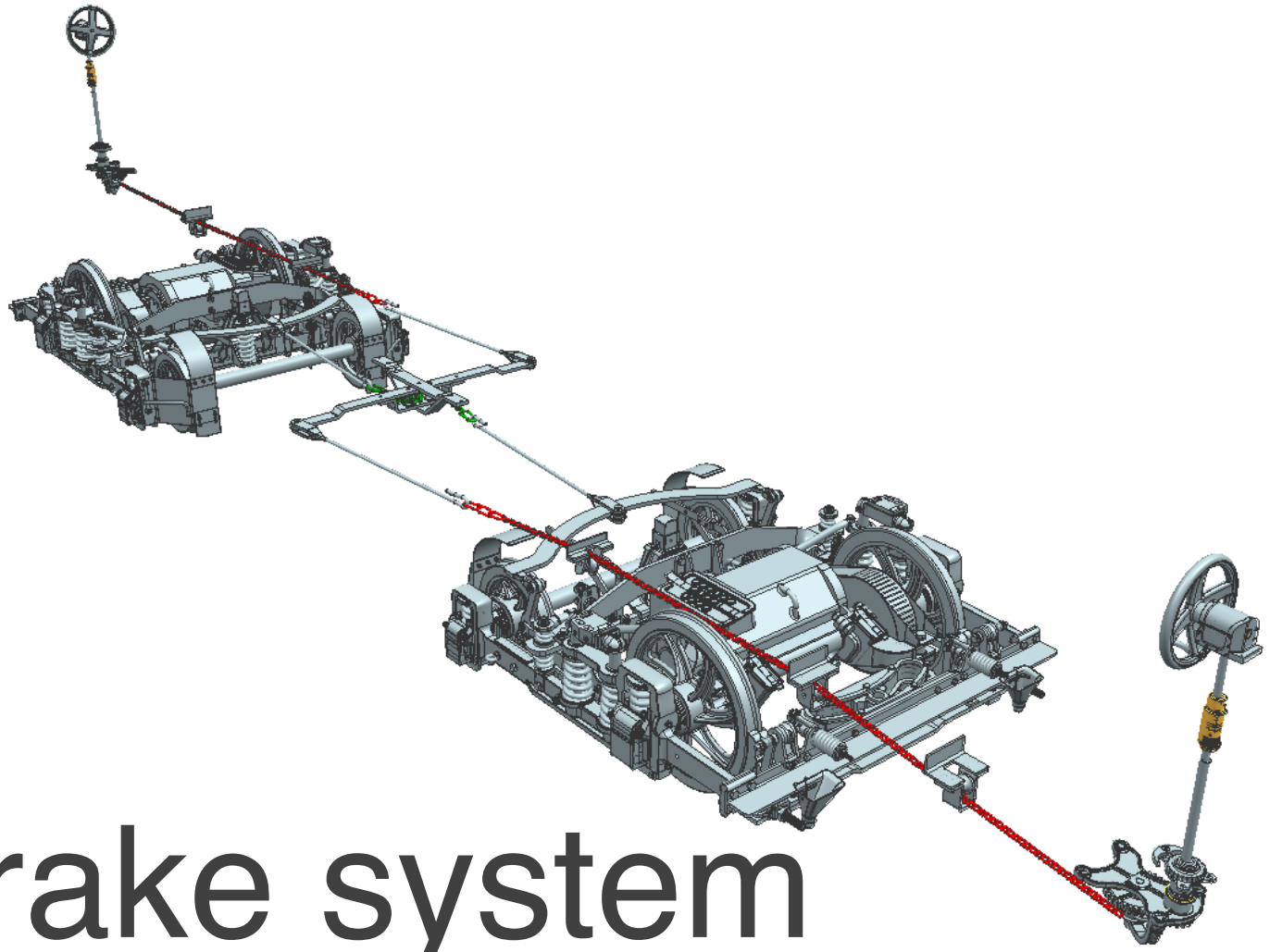
Brill 22E



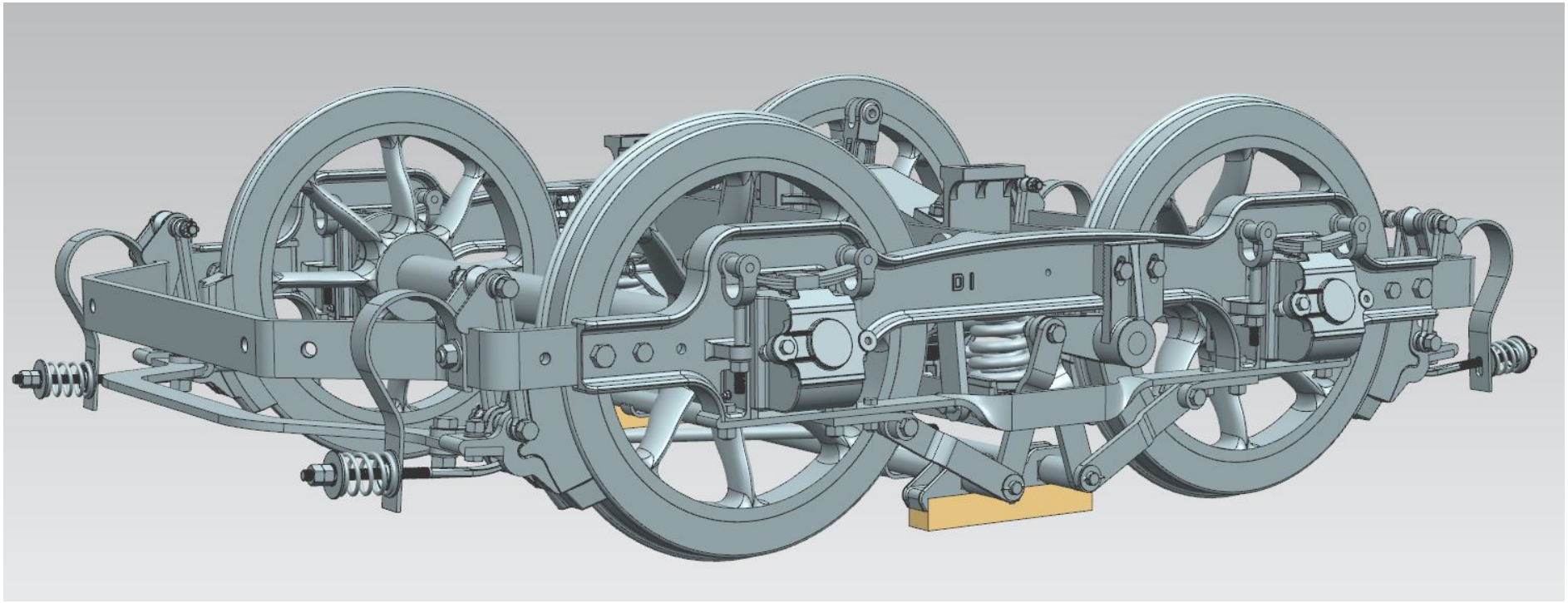




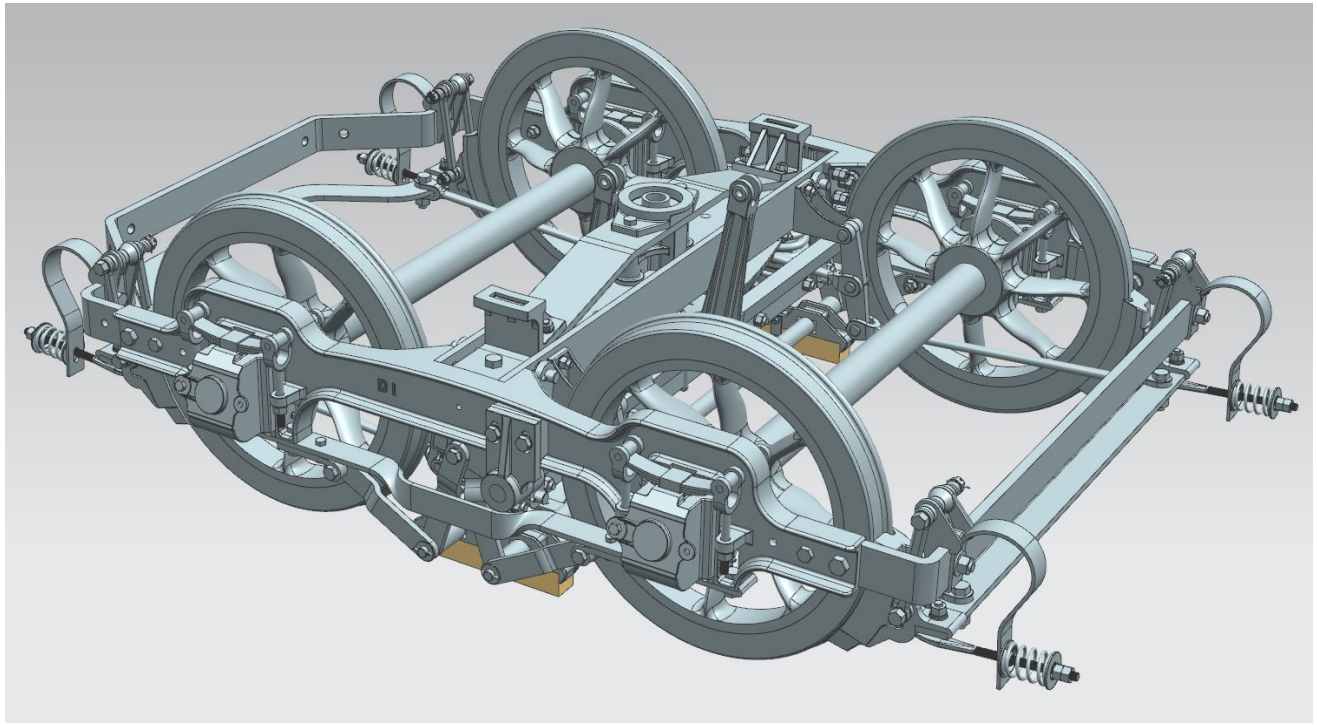
Ackley brake



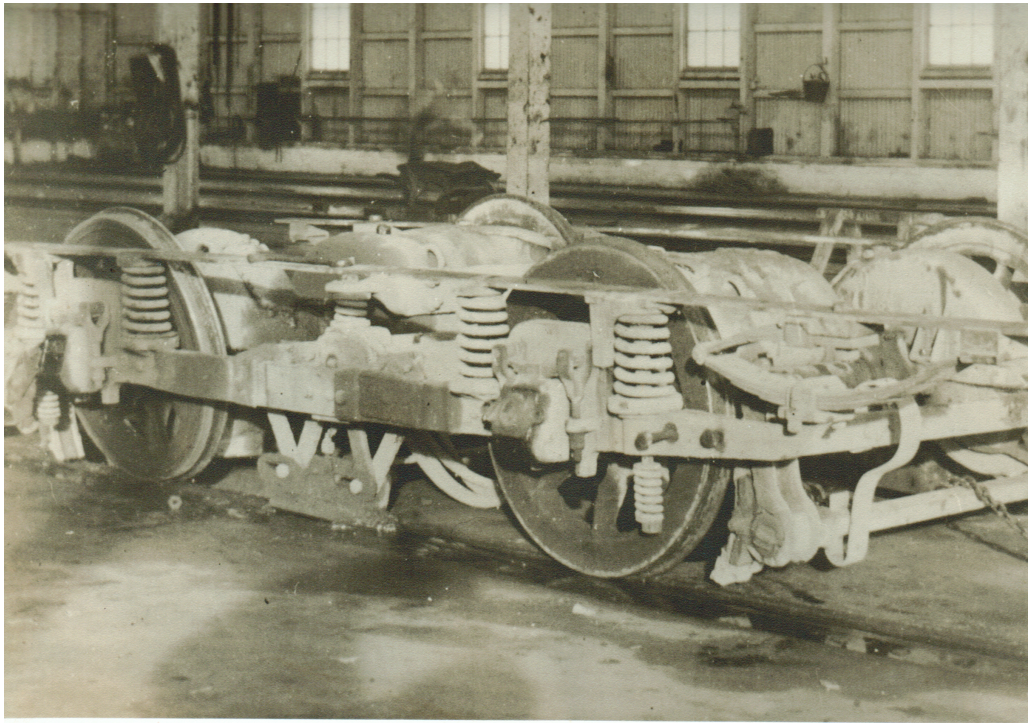
Brake system



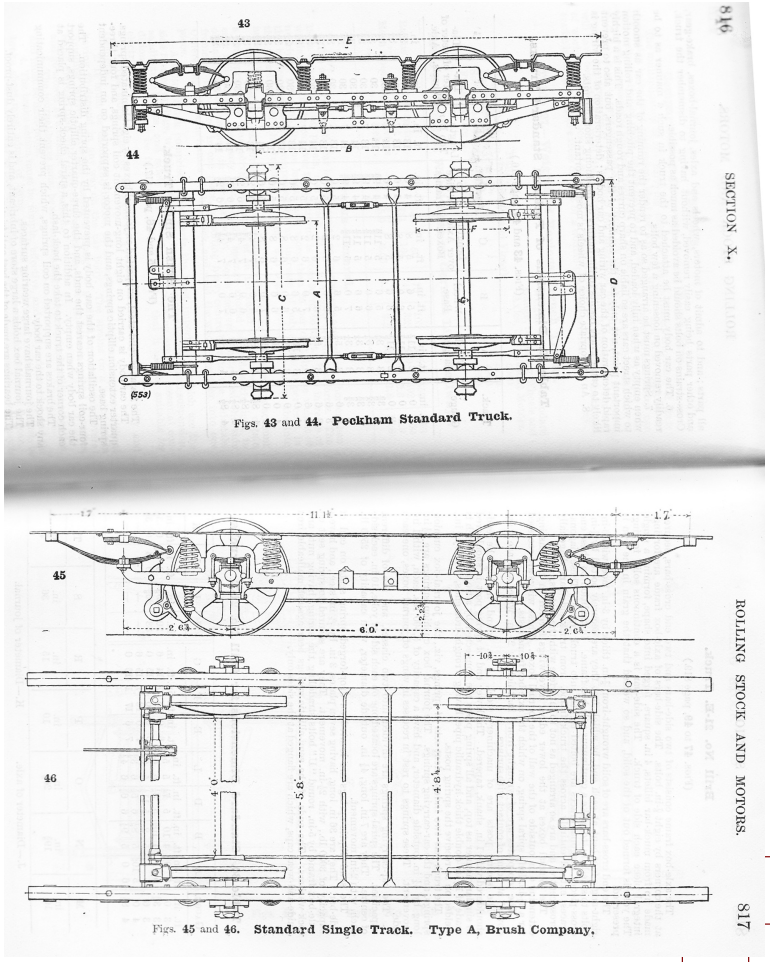
Brush D1



Brush D1



Brush AA



816 SECTION X.

43

44

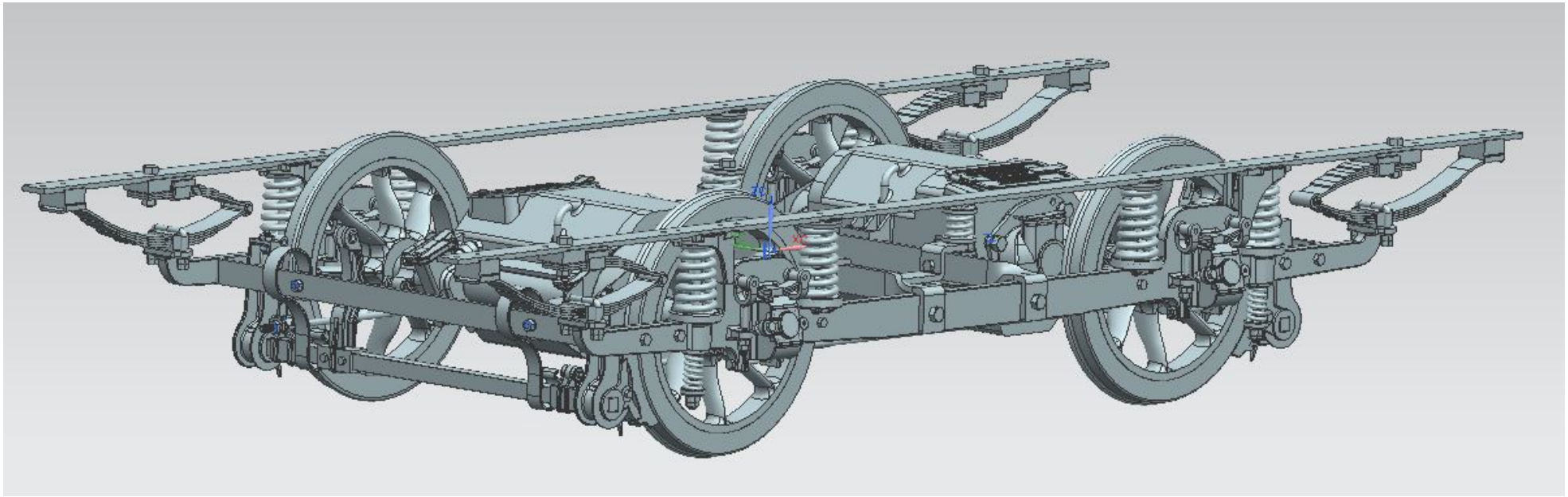
Figs. 43 and 44. Peckham Standard Truck.

45

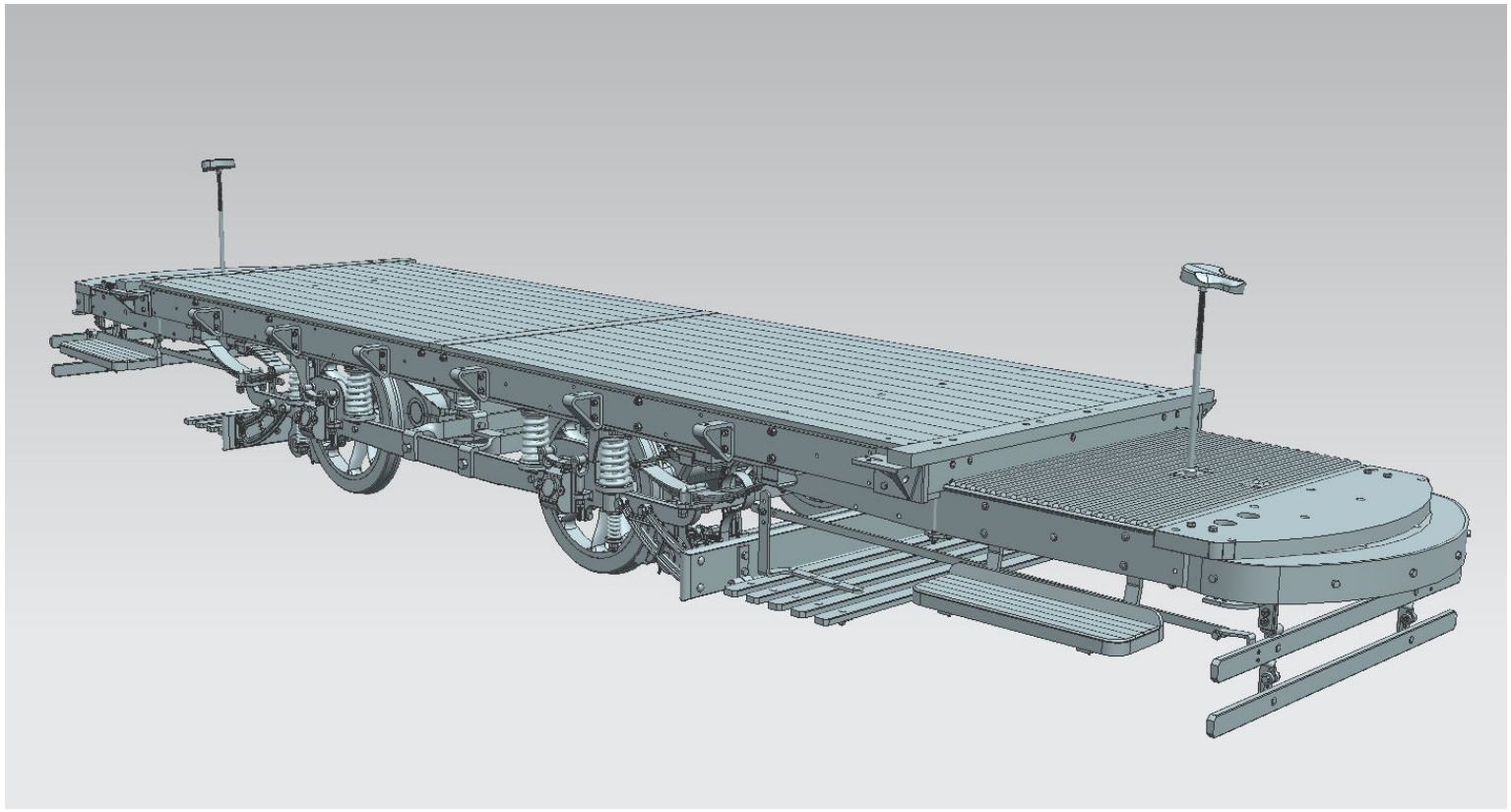
46

Figs. 45 and 46. Standard Single Track. Type A, Brush Company.

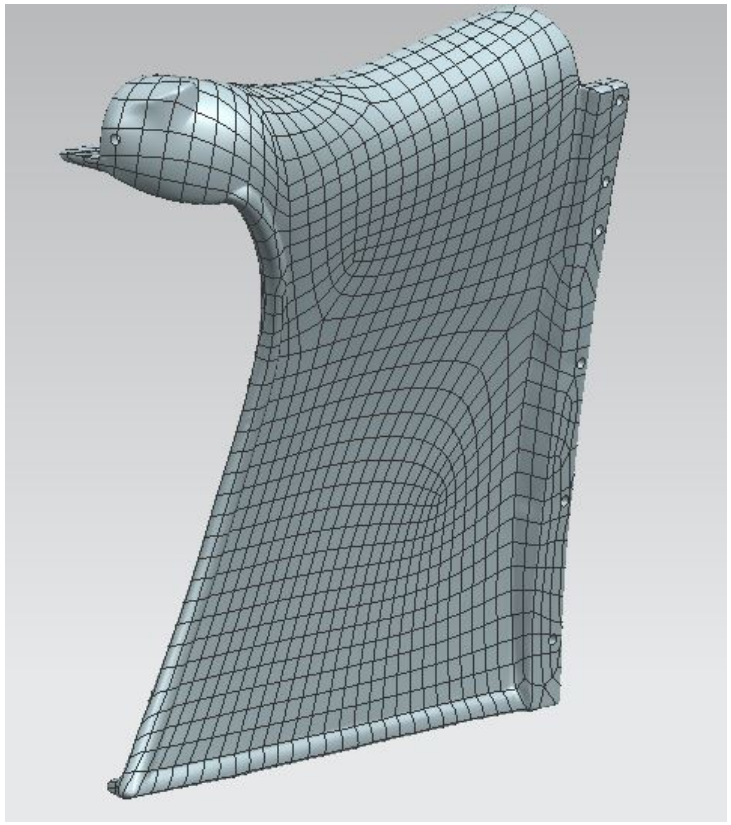
ROLLING STOCK AND MOTORS. 817

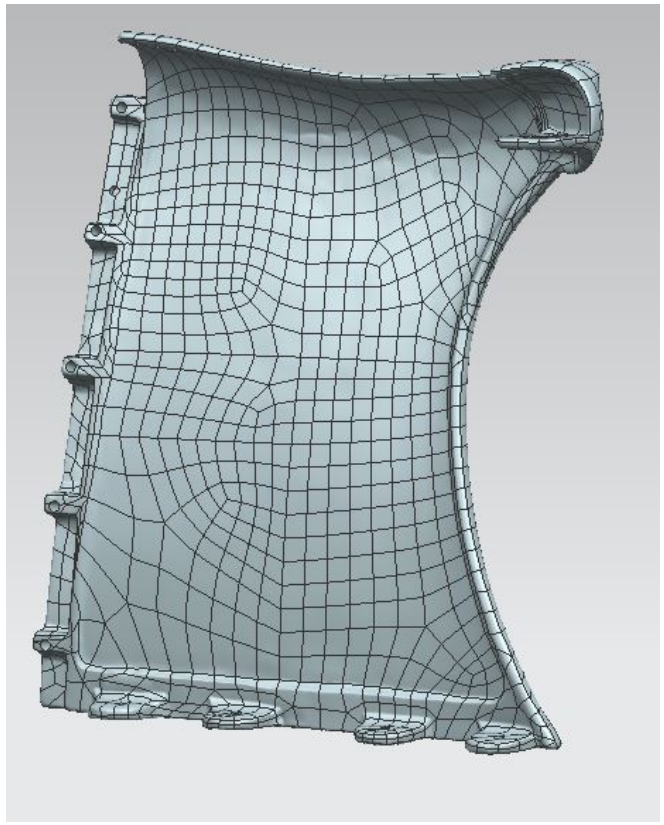


Brush AA

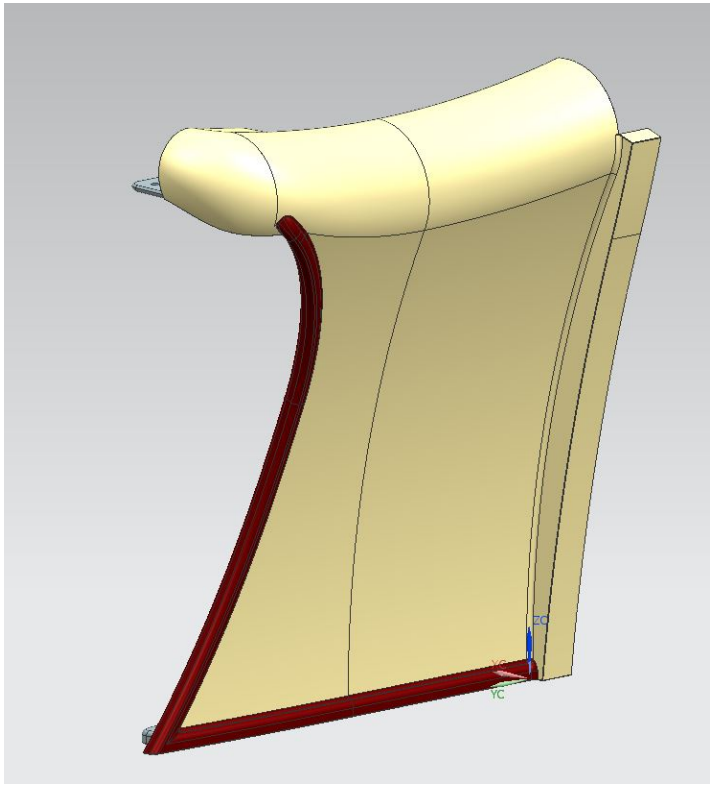


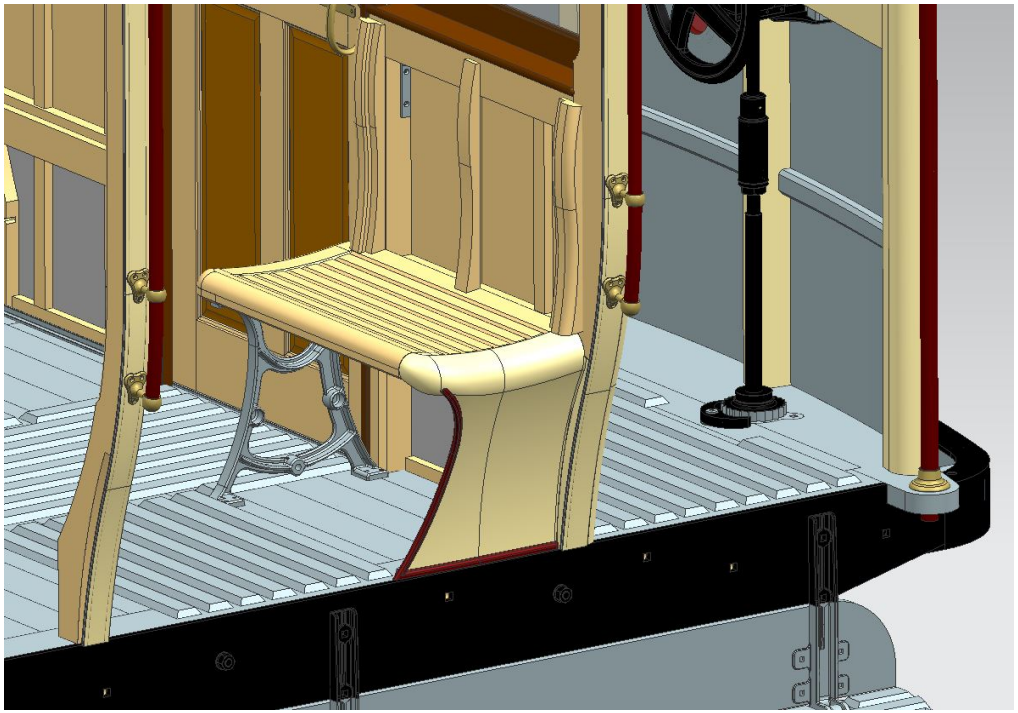
Brush AA



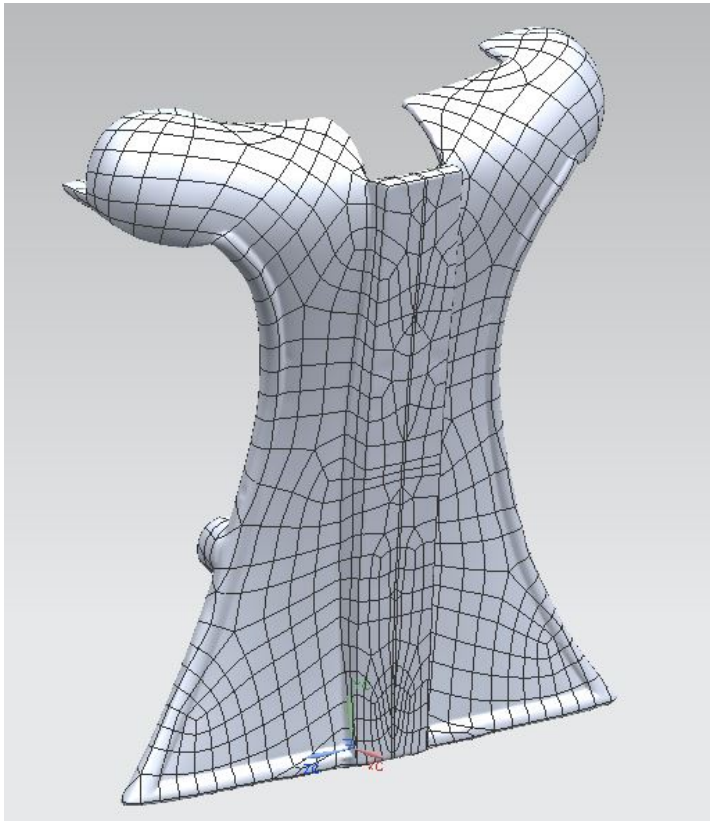


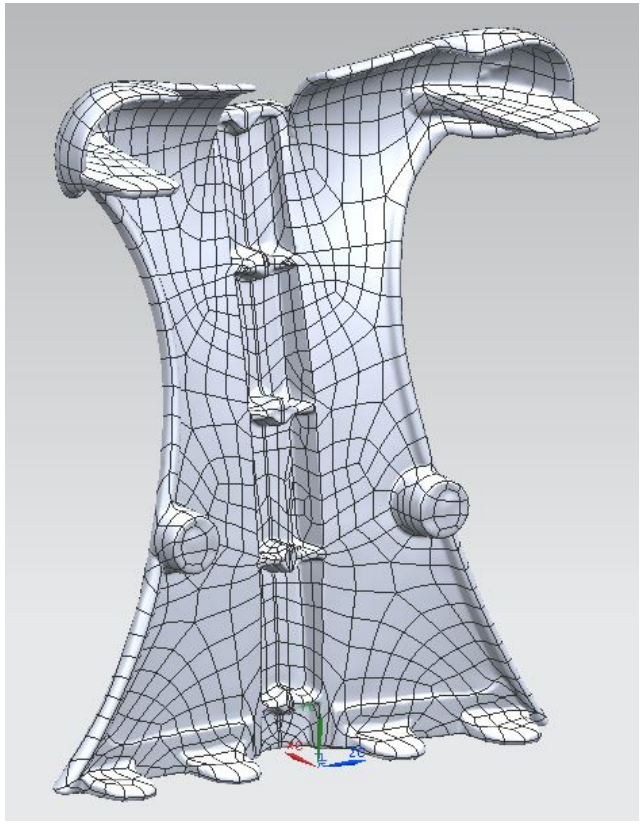
3D scanning



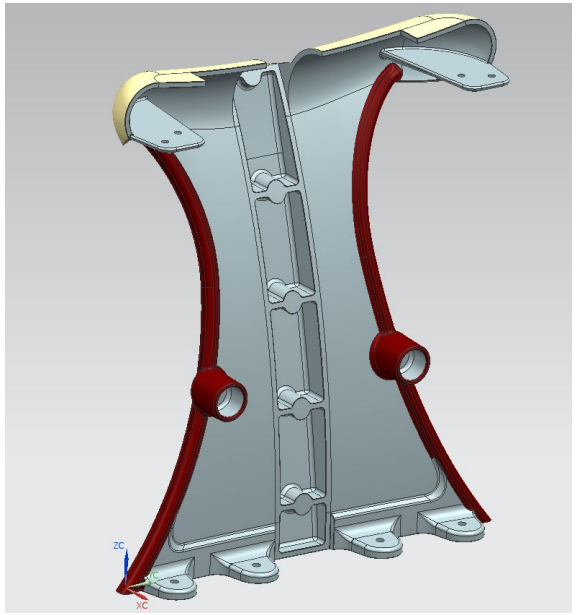


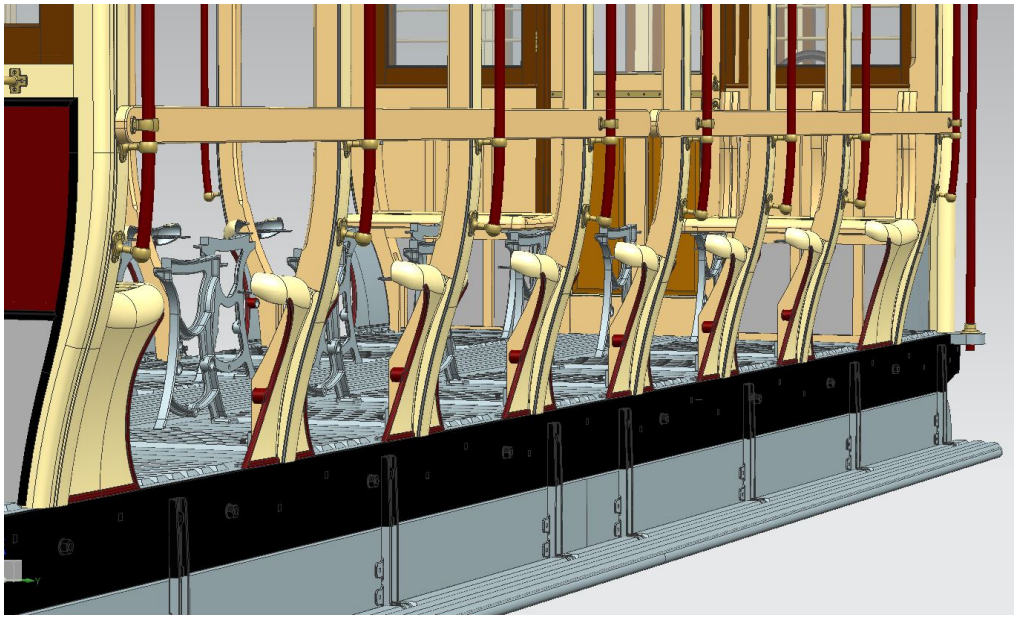
3D scanning



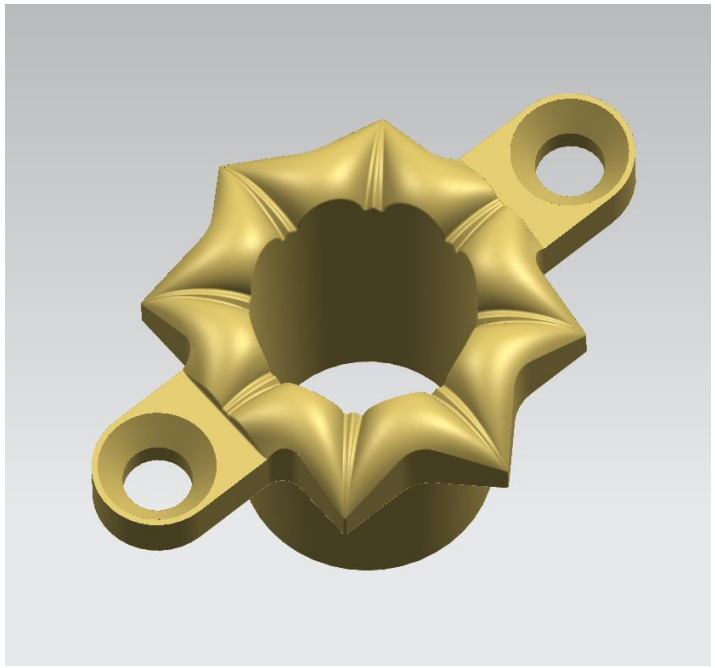


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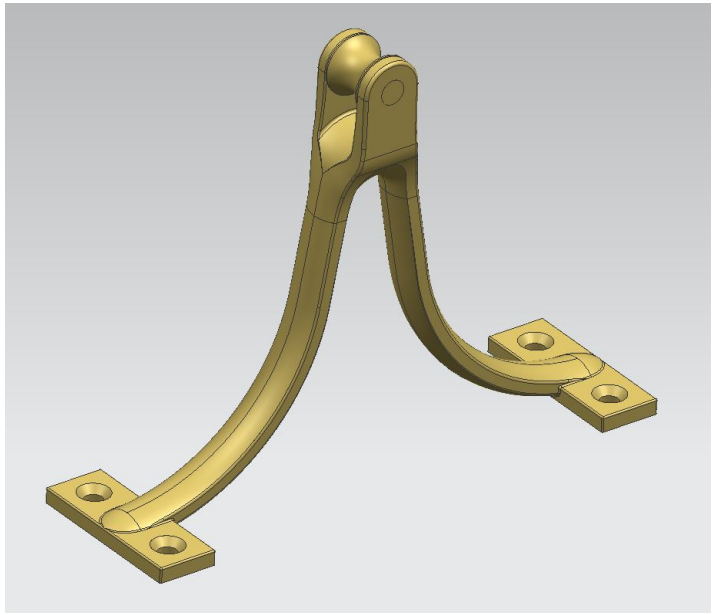


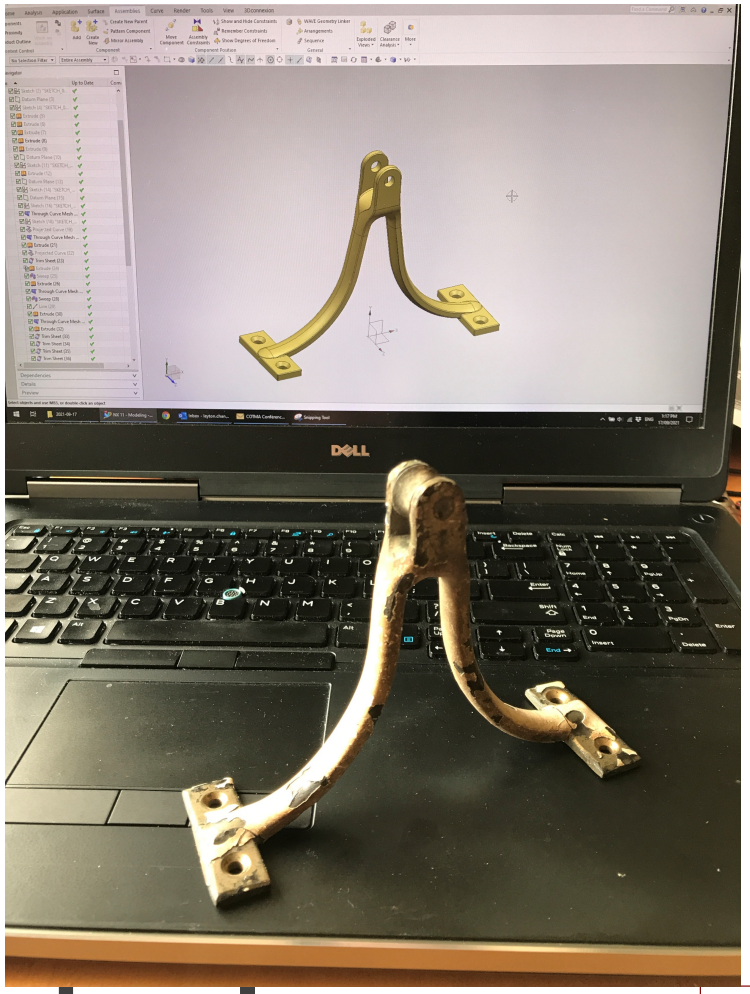
3D scanning



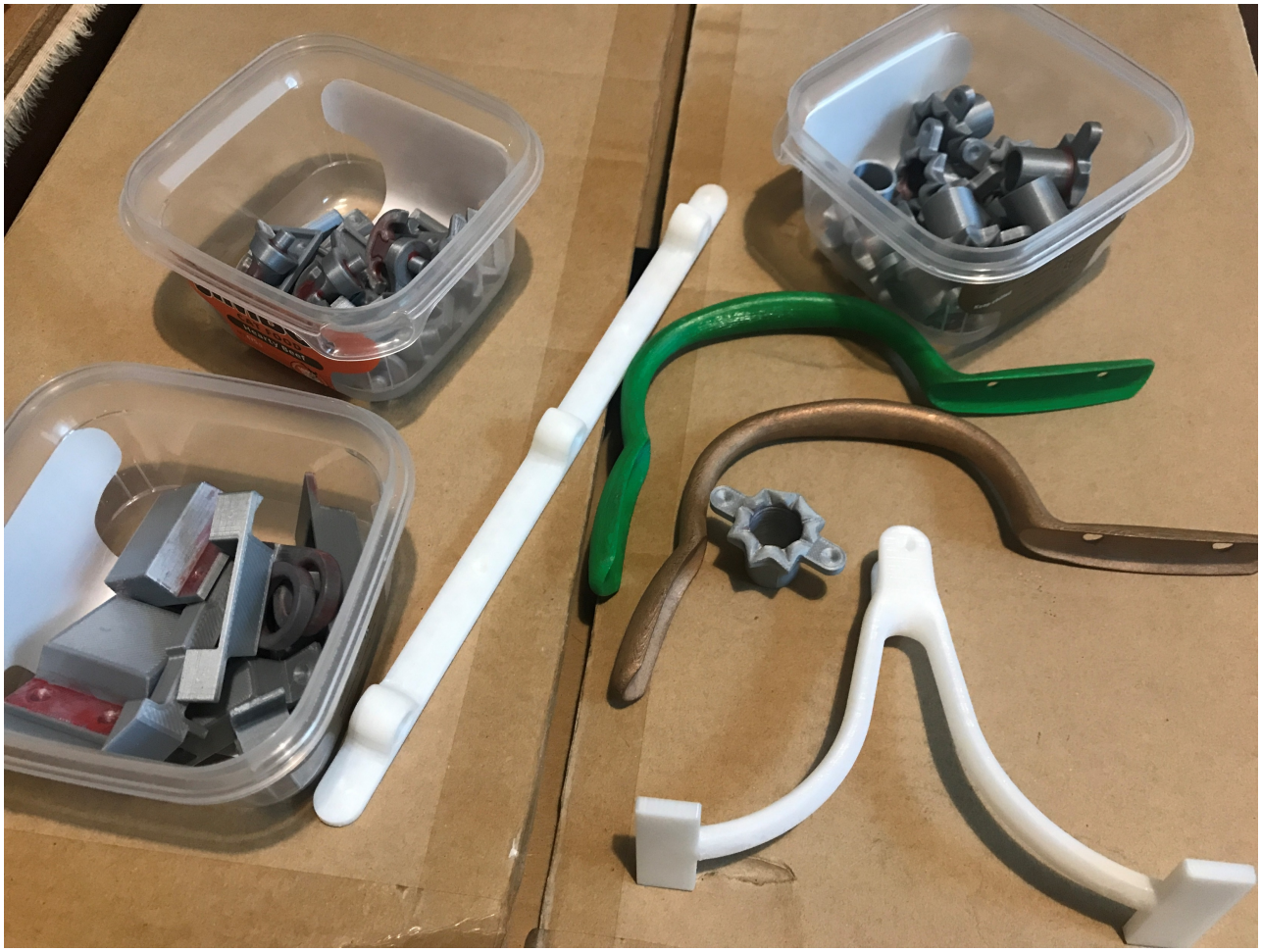


Bell cord ferrule

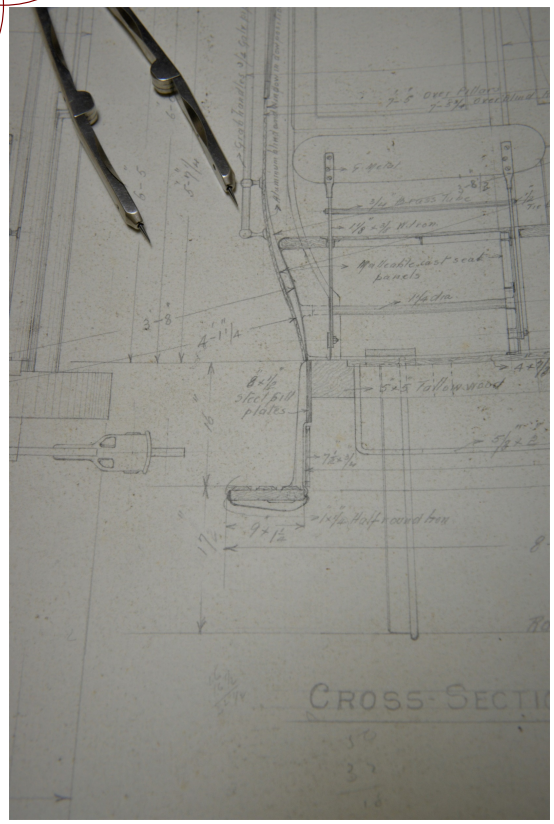


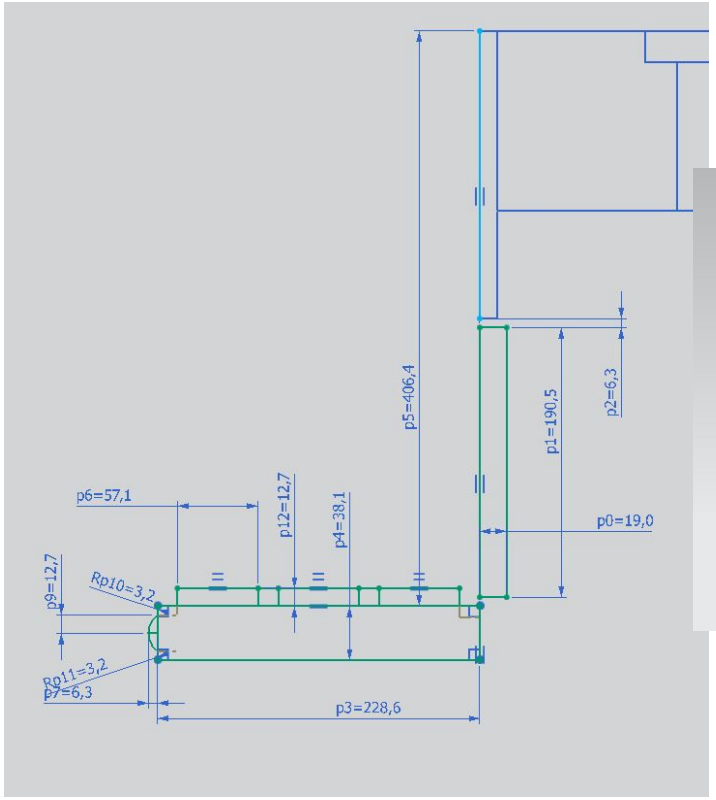


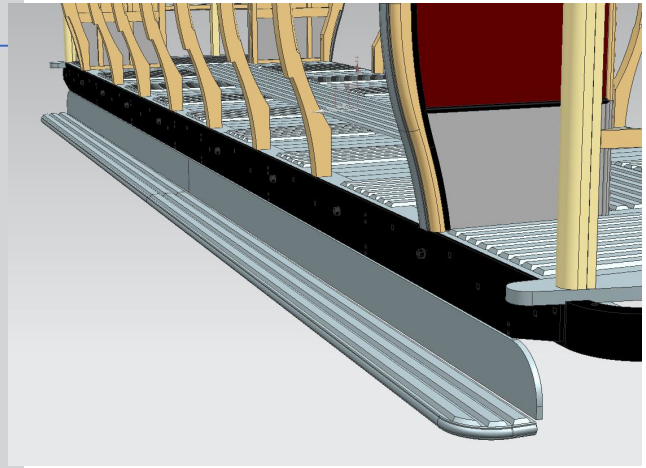
Bell cord bracket



3D printing

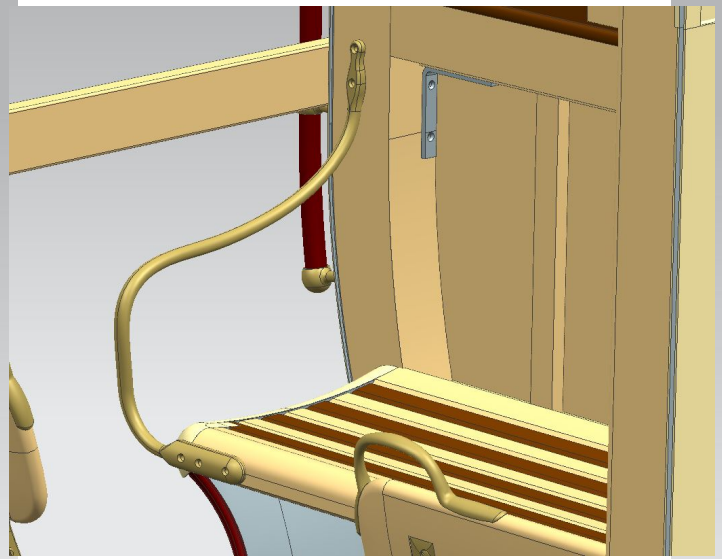

CROSS-SECTI

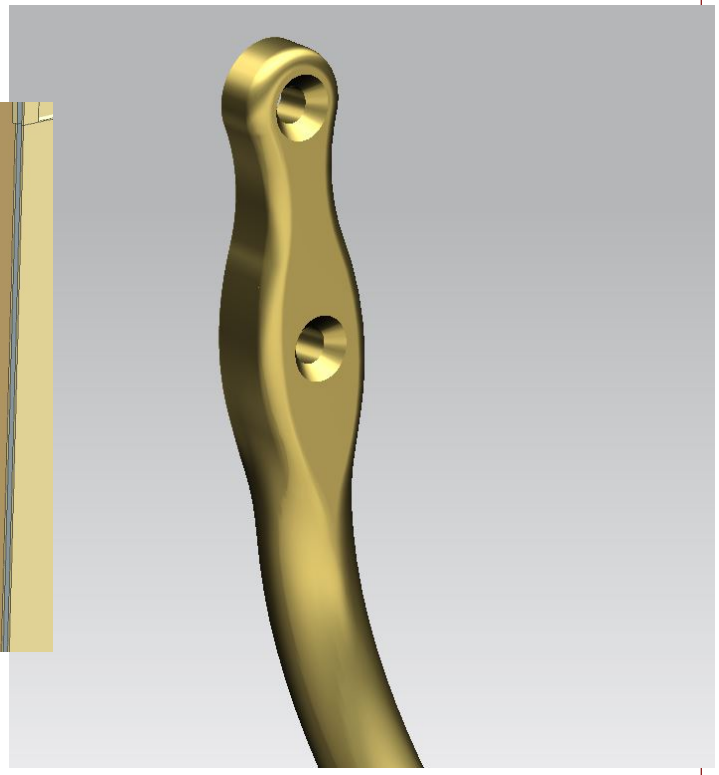

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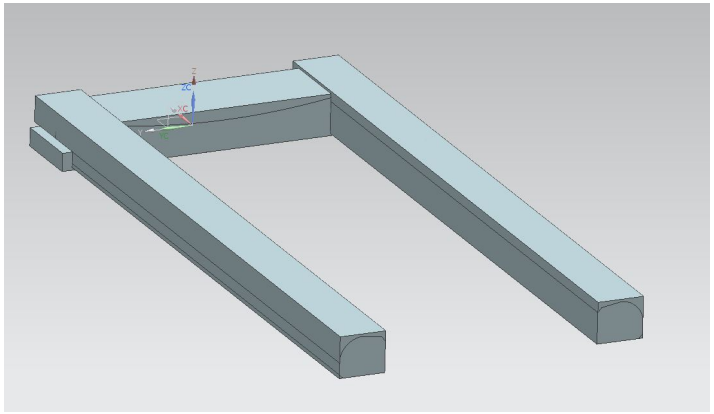
Side step

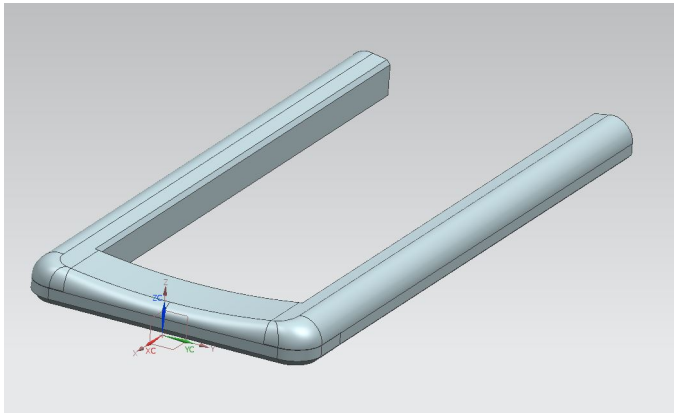






Armrest

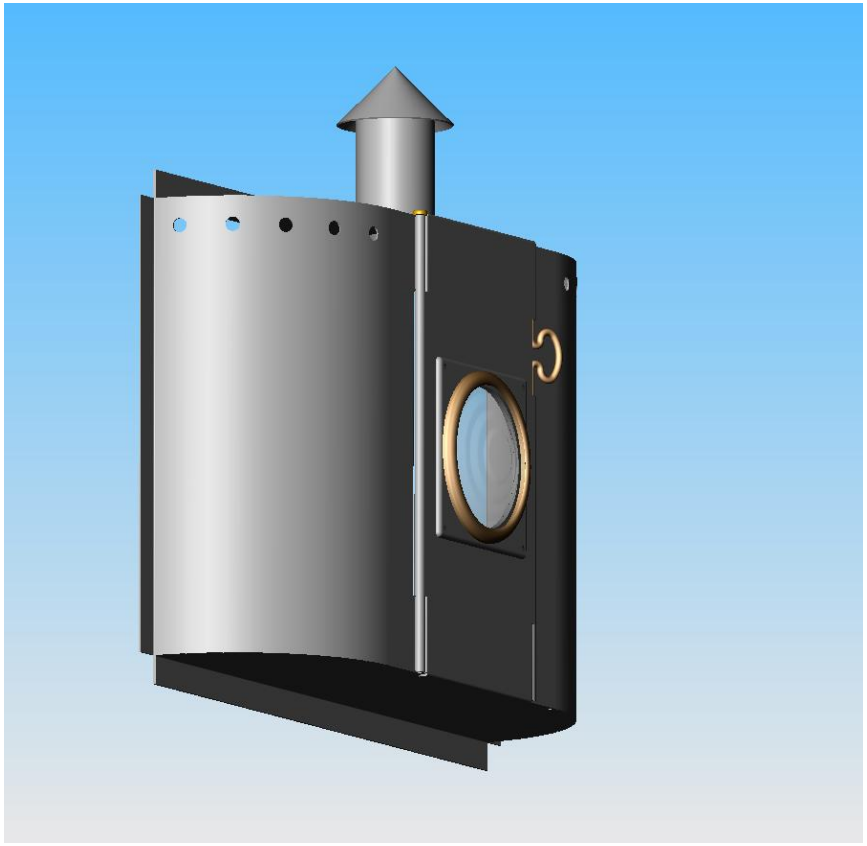




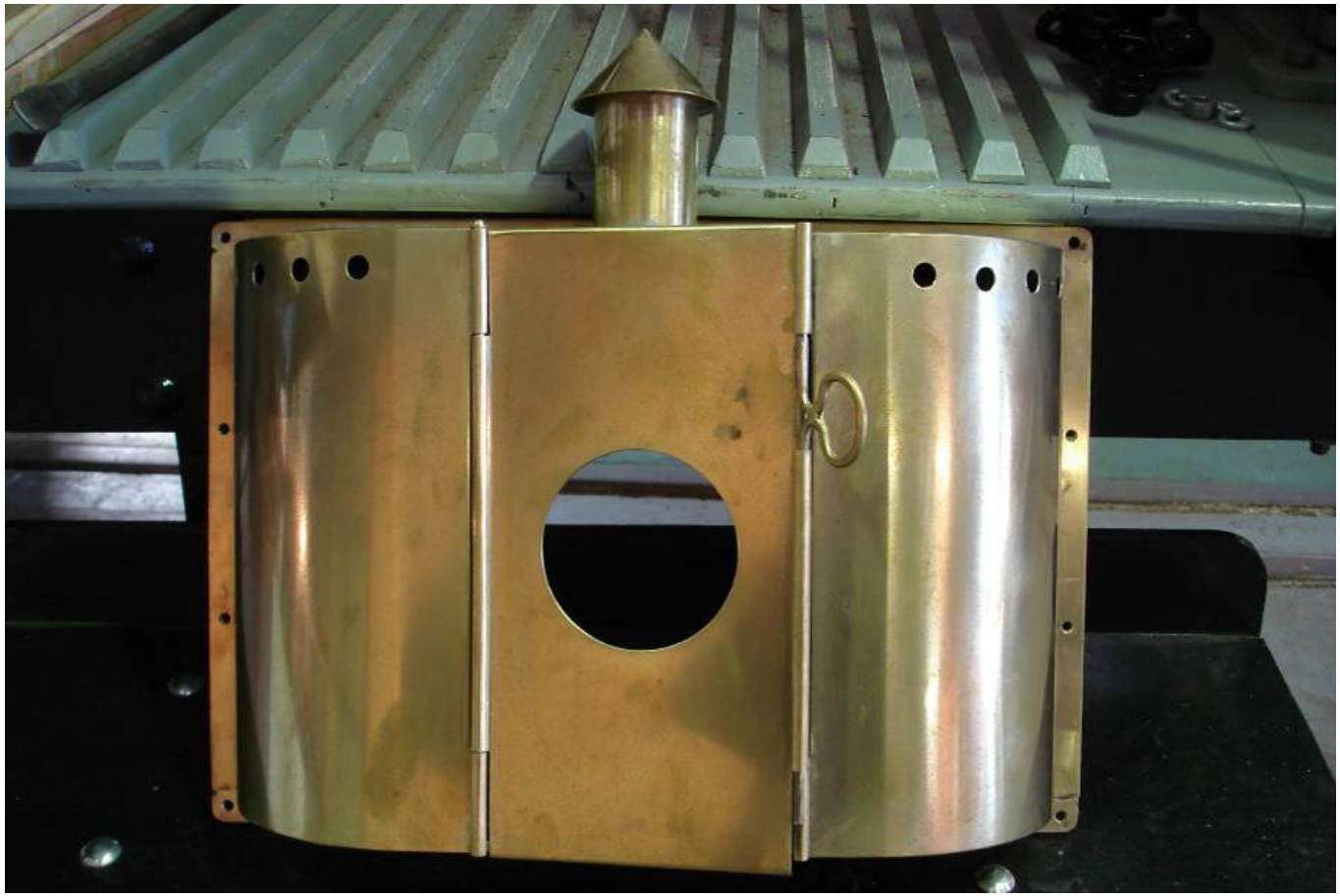


Seat bases





Lamp Box



Lamp Box



Lamp Box



Signwriting



Signwriting

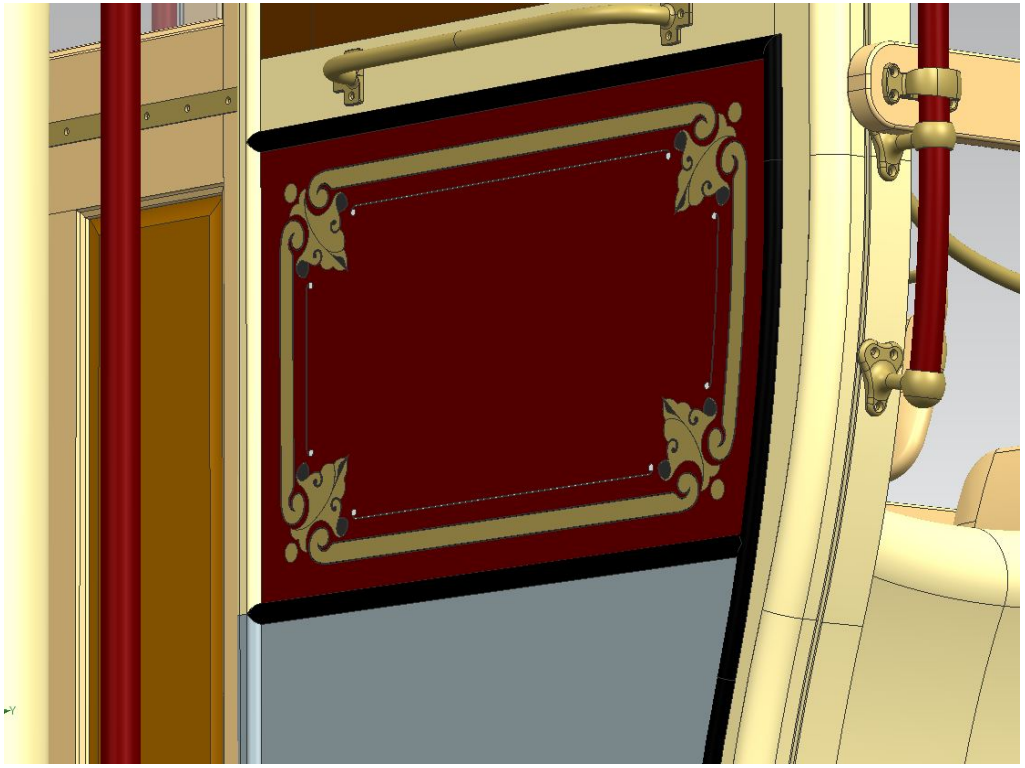


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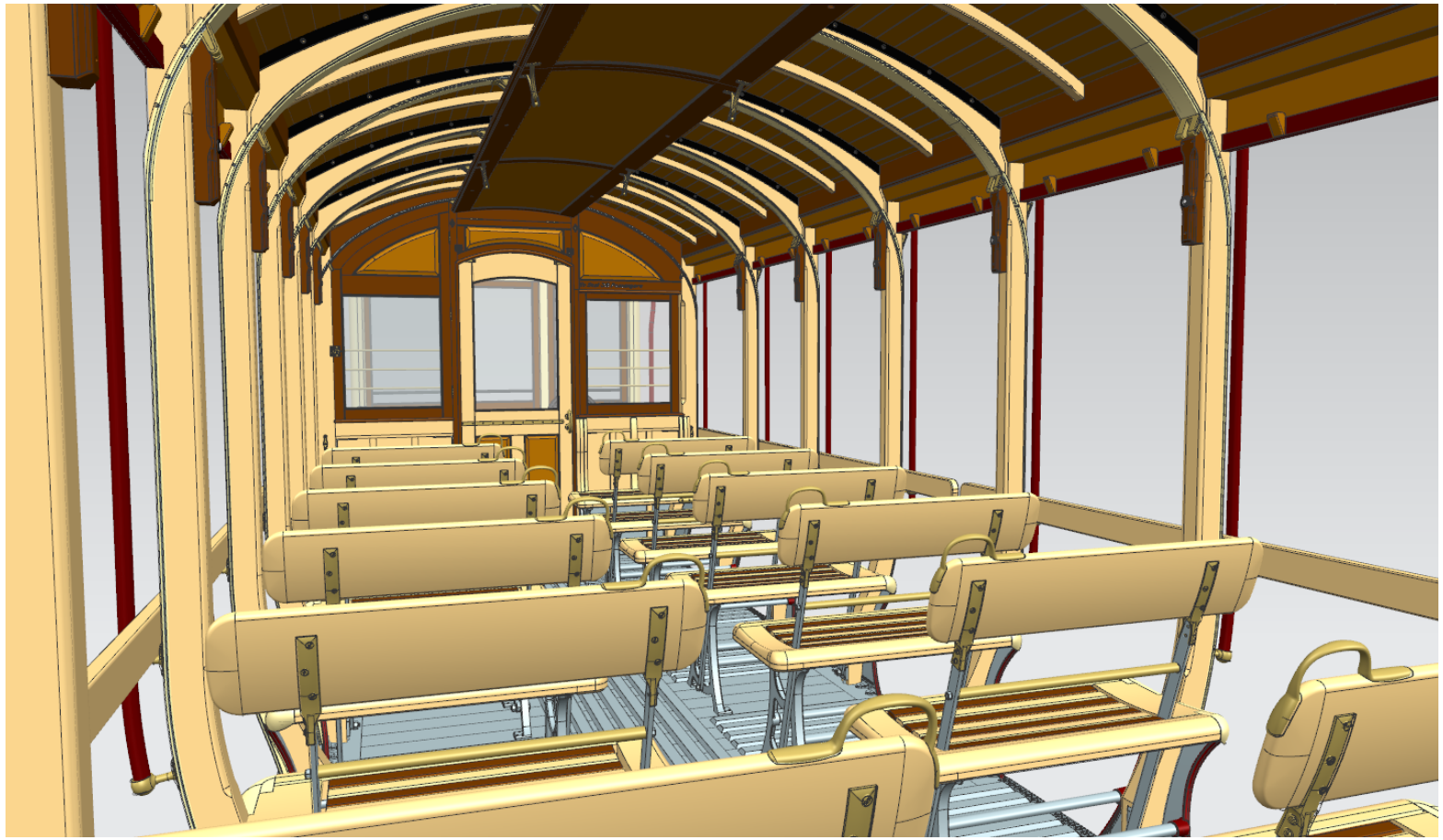


Signwriting





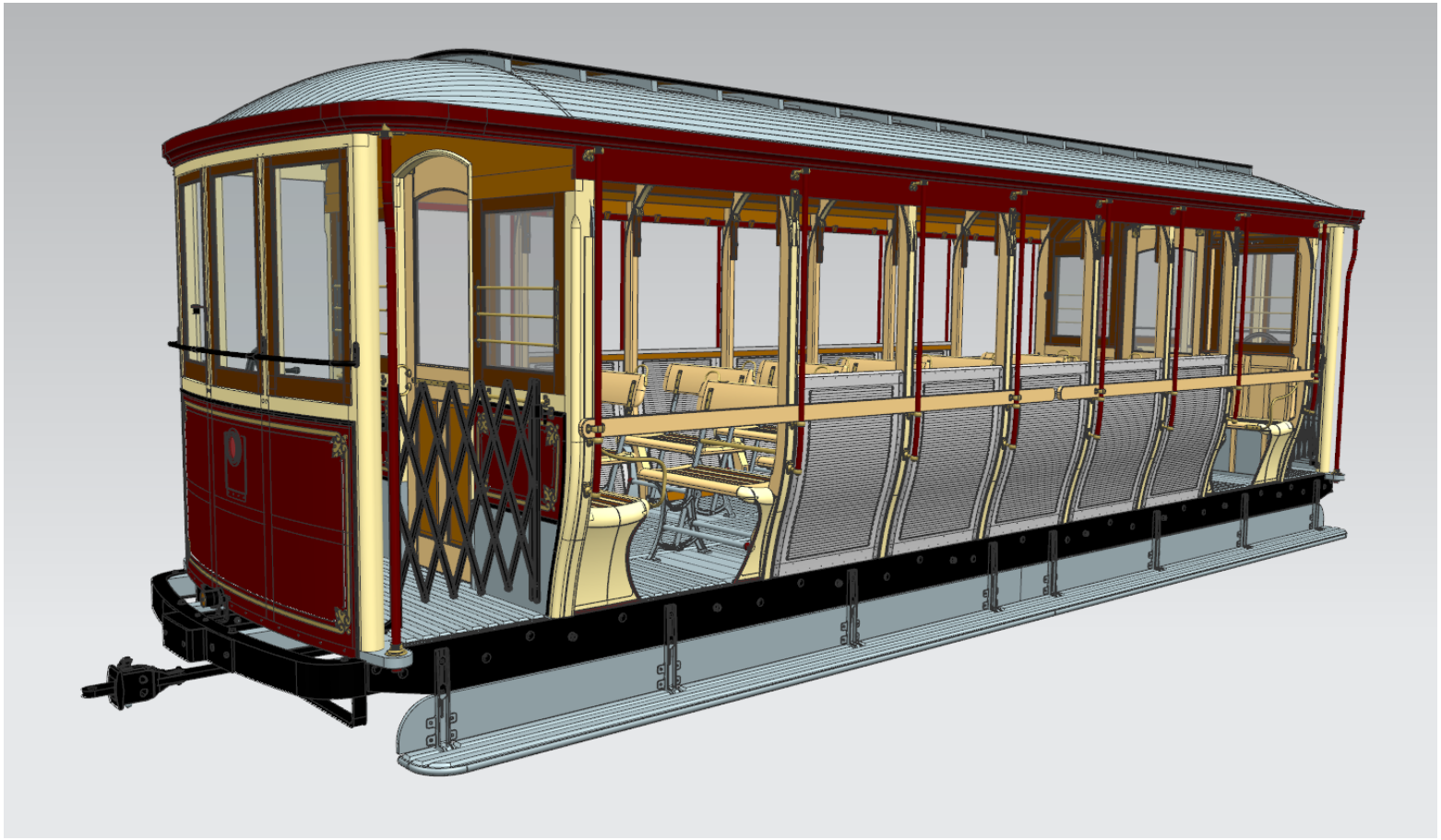
Signwriting



Wanganui 21



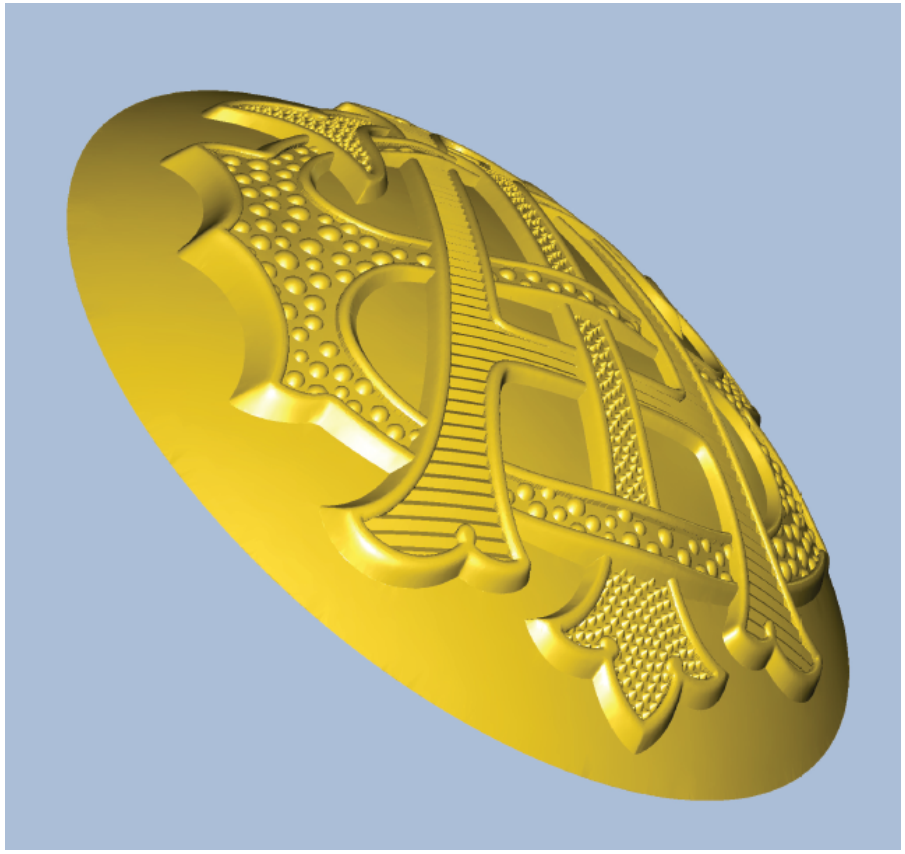
Wanganui 21



Wanganui 21



ATB Button





ATB Button



ATB Button



ATB Button



AUCKLAND ELECTRIC TRAMWAYS TRUST