

August 22, 1934 AH:G

Mr J R Ummel
Purchasing Agent & Office Manager
United States Department of the Interior
441 Federal Office Building
Seattle, Wash.

Dear Sir:

Referring to your letter of August 13th, addressed to J G Brill Company, which has been referred to us, in which you quote a radiogram received from your Mr D W Metzdorf, General Storekeeper of the Alaska Railroad, Anchorage, Alaska. Relative to damage to your Brill gas car, Model 75, the best alternate would depend upon the extent of damage and what parts of the existing car and power plant can be used.

Assuming a new engine is required, we judge that a conversion to gas electric power could be made at a cost of somewhere in the neighborhood of \$20,000 to \$22,000 per car, this cost representing the purchase price of a new power plant, control equipment, traction motors and drive truck. Some additional cost would be involved by the Alaska Railroad in rearranging and rebuilding the car body. To accommodate a gas electric power plant, the front section of the body would have to be reinforced and a new control and radiator arrangement designed by your local people to suit the new power plant.

Assuming that a performance and capacity such as usually is considered satisfactory for your Model 75 size mechanical transmission car would be acceptable for the gas electric unit, which means approximately 150 H.P., it is likely that a Diesel electric power unit conversion could be made at approximately the same cost as outlined above. Necessarily, however, the Alaska Railroad would have to check into this matter in detail with the Diesel engine builders, as there is no already developed unit power plant available on the market today with Diesel engine. In other words, it would be necessary to carry on some investigation and work up and coordinate the different elements of such a power unit.

In the case of the existing gas engine being undamaged, the gas electric conversion would, of course, be the less expensive of the two alternates.

As a matter of interest to you and a further suggestion, we have available the gas electric car shown in the attached pamphlet #317. While this pamphlet describes the car as a 275 H.P. gas electric, it is really closer to 300 H.P. This car has been used as a demonstrator, but if you are interested, we would put this car in first class condition and can offer it to you at a price of \$29,000 F.O.B. Philadelphia, Pa.

Terms, net cash, subject to prior sale.

Mr J R Ummel

August 22, 1934

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Shipment could be made in 40 to 50 days from date of receipt of your order and settlement of essential mechanical details.

However, our obligations with respect to delivery are made expressly subject to delays due to labor troubles, fires, floods, explosions or other accidents, or to delays of carriers or of sub-contractors or in receipt of material, or to any other cause or causes (whether or not of the same general character as those herein specifically enumerated) beyond our reasonable control.

In addition to the price stated herein buyer shall pay or reimburse seller for any sales tax or taxes which under any law, rule, regulation or order hereafter enacted or promulgated may be imposed by the Federal and/or State Governments.

This car will be covered by our usual guarantee against defective material, workmanship and design for a period of one year from date of shipment. This guarantee only covers such parts which may fail due to above causes and which will be replaced free F.O.B. manufacturer's works.

Trusting that you may decide to purchase the above car in lieu of attempting to repair your present Model 75 car, we remain,

Yours very truly,

H.W. WOLFF
Vice President.

Copies to Mr Beatty
Mr Terrell
Mr Dodge

Y
P
C

AMERICAN CAR AND FOUNDRY COMPANY
30 Church Street

New York

A.C.F.

VIA AIR MAIL

September 11, 1934

Mr. J. R. Ummel, Purchasing Agt. & Office Mgr.
United States Department of the Interior,
441 Federal Office Building
Seattle, Wash.

Dear Sir:

Receipt of your letter of September 5th is hereby acknowledged, likewise the J. G. Brill Company have sent us your letter to them of the same date together with copy of their reply of September 10th. These are in reference to quotations on parts for your Model 75 rail motor car and a unit suitable for hauling a trailer car.

We note under date of August 15th Mr. F. E. Stone, Mgr. General Service & Parts Dept. of the J. G. Brill Company quoted you on certain parts, your file M-1613.

In regard to a unit suitable for hauling a trailer, won't you please refer to our letter of August 22nd, the second page of which contains quotation on a 300 H.P. double end control, gas electric car now on hand at the Brill Company at Philadelphia. For your convenience I am attaching hereto copy of this letter.

According to information in connection with past motor car equipment furnished the Alaska Railroad, the maximum grade on this road is 2.2%. The Model 75 car which you have is not suitable for hauling a trailer continuously over this grade and we further understand that at one time you attached a small 30,000# empty trailer equipped with roller bearings to the Model 75 and it had power enough to take it over a 1.1% grade and did not make a very creditable showing.

If the present Model 75 is converted to a gas electric using your existing engine, we wish to advise that this conversion would be even less suitable for hauling a trailer over a 2.2% grade. To convert your Model 75 into a Diesel electric it might be possible to select a much more powerful engine with a view of having it capable of hauling a trailer over a 2.2% grade but there is a serious doubt about this. Speaking generally, our Engineering Department did not think that it would give very good or satisfactory service. In any event, before a price could be estimated our Engineering Department would have to make a fairly detailed study to determine if any suitable Diesel engine or electrical equipment is available on the market. Further, we would have to make a detailed study of the modifications which would have to be made in your present car and equipment. This would be about the equivalent of making up a new power unit for one car, and for one car set it would naturally be very costly.

Mr. J. R. Ummel
Purchasing Agent. & Office Mgr.
United States Department of the Interior

September 11, 1934.

- 2 -

With reference to our letter of August 22nd and quotation on the 300 H.P. gas electric car now at the J. G. Brill Company plant, before we would care to sell this car to you we would like to have the gross or loaded weight of the trailer which you propose to haul with this car; also the schedule and profile of the division or section over which this car would run with the trailer. In addition to this we would like to have some information regarding weather conditions which might necessitate some modification in this car. If we remember correctly you have a Model 250 Brill gas electric in service on your railroad on which, as we recall, certain protective measures were embodied in the construction, due to your weather condition.

Won't you please let us hear from you in regard to this matter? We assure you of our assistance and co-operation.

Yours very truly,

/s/

H. W. Wolff

H. W. WOLFF
Vice President

AHH HWW EJ
Encl.

DEPARTMENT OF THE INTERIOR
THE ALASKA RAILROAD

OFFICE OF INDIAN AFFAIRS

TERRITORY OF ALASKA
ALASKA REINDEER SERVICE
ALASKA ROAD COMMISSION

UNITED STATES
DEPARTMENT OF THE INTERIOR
CONSOLIDATED PURCHASING AND SHIPPING UNIT
441 FEDERAL OFFICE BUILDING
SEATTLE, WASH.

DEPARTMENT OF AGRICULTURE
ALASKA DIVISION

ALASKA GAME COMMISSION
EXPERIMENT STATIONS
BUREAU OF PUBLIC ROADS
FOREST SERVICE
WEATHER BUREAU
BIOLOGICAL SURVEY

IN REPLY REFER TO

August 24, 1934

Mr. D. W. Metzdorf,
General Storekeeper,
The Alaska Railroad,
Anchorage, Alaska.

Dear Mr. Metzdorf:

Referring to your cable of August 11th regard-
ing parts for Model 75 Brill Rail Motor Car:

I am enclosing herewith letter of August 20th
from The J. G. Brill Company; also two copies of letter
of August 22 from the American Car and Foundry Company.

Very truly yours,

J. J. Lichtenwalner
J. J. LICHTENWALNER,
Acting Purchasing Agent
and Office Manager.

W. J. Kussel
addressed information
will be submitted to
you as soon as it
arrives
PLM
9/31

60



AMERICAN CAR AND FOUNDRY COMPANY

30 CHURCH STREET

A.C.F.

NEW YORK

April 1, 1935.

Mr O F Ohlson, General Manager
The Alaskan Railroad
c/o Dept. of Interior
Washington, D. C.

Dear Sir:

We have had some correspondence with your Mr J R Ummel, Purchasing
Agt. & Office Mgr. in Seattle, Wash., relative to remodeling or repairing a
Brill Model 75 mechanically driven rail car which you have.

As we understand it the proposed program is to convert this car into
a Diesel electric, and as explained to your Mr Ummel, this would be a very
expensive proposition.

We have offered to sell your railroad a 300 H.P. double end control
gas-electric passenger and baggage car, now on hand at our subsidiary plant,
J G Brill Co. in Philadelphia. We could make you an exceptionally low price
on this car as same has been used as a demonstrator, namely, \$31,500.00 F.O.B.
Philadelphia.

This price includes repainting the car inside and outside, overhauling
the engine and electrical equipment placing same in good operating condition,
replacing leather seat cushions, and checking over air brake mechanism and
roller bearings.

Terms net cash 30 days after date of shipment.

Delivery could be effected 30 days after receipt of your order. Our
obligations, however, with respect to delivery are made expressly subject to
delays due to labor troubles, fires, floods, explosions or other accidents, or
to delays of carriers or of sub-contractors or in receipt of material, or to any
other cause or causes (whether or not of the same general character as those
herein specifically enumerated) beyond our reasonable control.

In addition to the price stated herein buyer shall pay or reimburse
seller for any sales tax or taxes (including any increase in such taxes) which
under any law, rule, regulation or order hereafter enacted or promulgated may
be imposed by any Governmental authority.

Of course, this is offered you subject to prior sale.

Trusting we may hear from you favorably, as this car presents an
exceptional value, we are

Yours very truly,
AMERICAN CAR and FOUNDRY COMPANY

A. H. Hudson
A. H. HUDSON
Sales Agent

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AHH EJ

2 - 9

THE J. G. BRILL COMPANY



PHILADELPHIA, PA.

August 20, 1934

CABLE ADDRESSES
"BRILL" PHILADELPHIA
"AXLES" LONDON
"BOGIBRIL" PARIS

15095-1

Copy Airmail
Original Regular Mail

Mr. J. R. Ummel, Purch. Agent & Office Mgr.,
Department of the Interior,
441 Federal Office Building,
Seattle, Wash.

Dear Sir:

This will merely acknowledge receipt of your letter of August 13th, quoting radiogram from Alaska regarding damaged Model 75 Brill Rail Motor Car.

We are checking into the different alternatives suggested, and hope to let you have our further advice on this subject very shortly.

Yours very truly,
THE J. G. BRILL COMPANY

Mary Beatty
FOREIGN SALES MANAGER

WJB:E

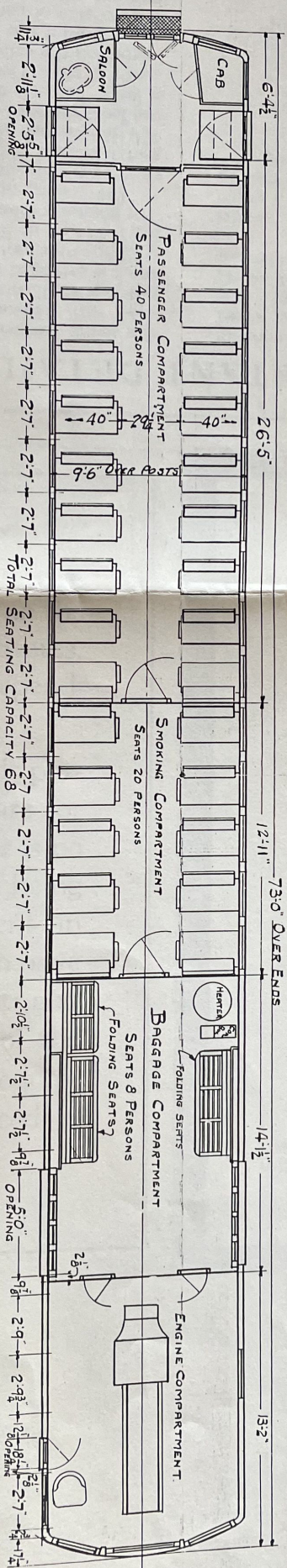
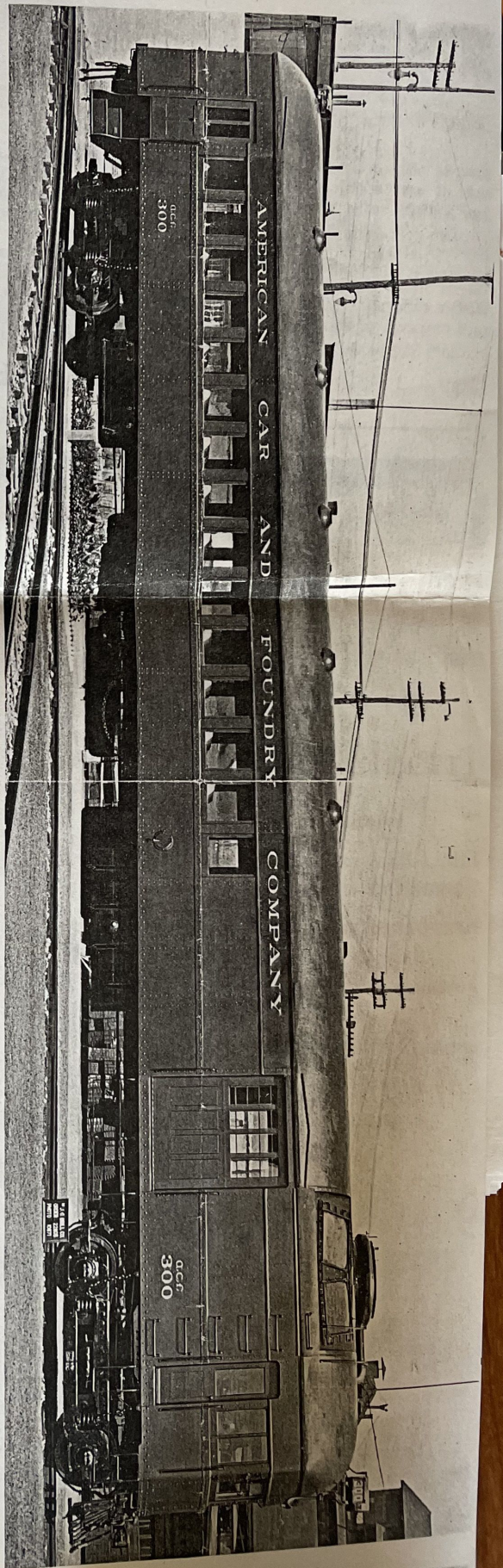
DEPARTMENT OF THE INTERIOR

RECEIVED



AUG 24 1934

SEATTLE, WASH.



Single Power Plant

275 Hp.

Gas-electric Car

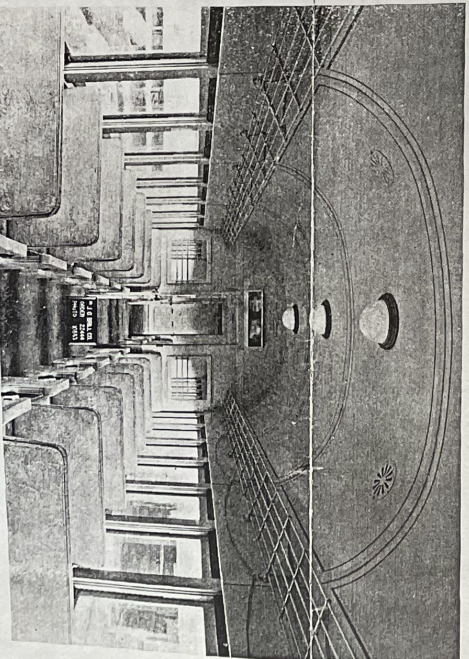
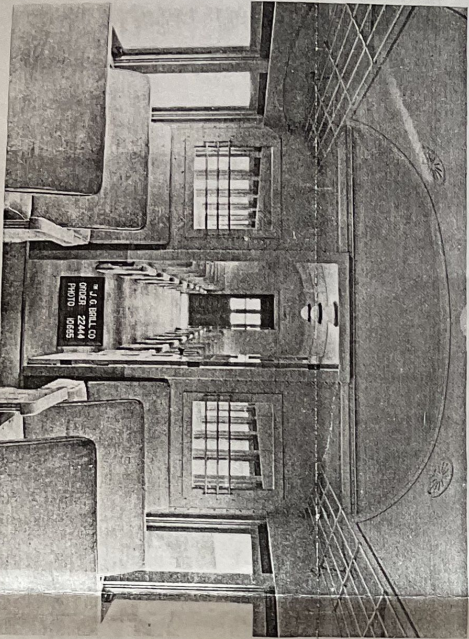
a. c. f. POWER UNIT

HALL-SCOTT ENGINE

WITH

GENERAL ELECTRIC EQUIPMENT

American Car & Foundry Co.
and
The J. G. Brill Company



IMPORTANT DETAILS

side swing dampener, rolled steel wheels and hammered steel annealed axles with Timken roller bearings. A. R. A. journals and friction bearings are furnished unless both traction bearings are specified. The forward truck is arranged to carry both traction motors.

The prime mover is a Hall-Scott Model 150 gasoline engine developing 275 H. P. at 1050 R. P. M. The engine has six cylinders $7\frac{1}{2}'' \times 9''$. The engine is direct connected to the generator.

The cooling arrangement for the engine consists of two radiators, expansion tank, fan and a circular or centrifugal muffler. The water pump located on engine is a centrifugal type and has a capacity of 120 gallons per minute at 1050 engine R. P. M. The two radiators are located above ceiling and below roof and between them is mounted a large diameter constant lead fan with its blades rotating on a horizontal plane. The fan is driven by a vertical type electric motor supported on the ceiling and is encircled by the muffler which serves as a shrouding for the fan. The space between radiators and above ceiling toward side of car is constructed into air ducts. When the engine is stopped, all water in the radiators drains back to an expansion tank located in engine room over a bank of car heating pipes thus safeguarding against freezing the water in the radiators in cold weather.

The generator is the General Electric railway type, direct current of 185 KW normal rating, operated at variable voltage up to an average of about 600 volts and a maximum of 700 volts with exciter mounted at the commutator end.

The two General Electric type 292 railway motors rated at 160 H. P. each are mounted on the front truck and receive current direct from the generator through General Electric P. C. L. type remote control switches.

The controls are located in front of operator's seat at both ends of car, the throttle at the right and the air brake valve at the left. Movement of the throttle opens the carburetor butterfly valve increasing speed of the engine. The remote control switches are operated through a contactor which is connected to the engine throttle shaft. In the off or idling speed position of the throttle the traction motors are disconnected from the generator.

The body is of steel construction throughout; the finish except partitions is wood. A toilet is provided on the rear platform opposite the rear end control cab, the seats are of a reversible type, for 2 passengers having aisle arm rests of mahogany, upholstered in gray leather. Curtains are provided at all side windows. A hot water heater in baggage compartment supplies the heat. Couplers, pilots, headlights, marker and classification lights and Strombos horns constitute the exterior equipment.

The trucks are equipped with solid forged side frames, equalizers,

| | |
|---|-----------------------|
| Length over end sills | 73' 0" |
| Width over posts | 9' 6" |
| Height from rail to top of roof | 13' 6 $\frac{1}{2}$ " |
| Height from rail to top of floor | 4' 2 $\frac{1}{2}$ " |
| Height from floor to top of roof | 9' 4 $\frac{3}{8}$ " |
| Height from rail to center of coupler | 2' 10 $\frac{1}{2}$ " |
| Post centers | 2' 7" |
| Truck centers | 54' 6" |
| Length of baggage compartment | 14' 1 $\frac{1}{2}$ " |
| Length of engine compartment | 13' 2" |
| Motor truck wheel base | 7' 9" |
| Trailer truck wheel base | 7' 0" |
| Diameter of wheels | 33" |
| Seating capacity, passenger compartment | 60 |
| Total seating capacity | 68 |

GENERAL DIMENSIONS:


The 275 H. P. single power plant gas-electric car illustrated consists of a carbody of special design and construction mounted on four wheel trucks especially designed for high speed electric Railway service. The power plant consists of a Hall-Scott engine direct connected to a General Electric 160 H. P. motor.

The car complete with fuel and water but without load weighs 106,500 lbs., and will develop a speed of 60 miles per hour as a single unit or with a different gear ratio will be able to haul a 75 ton trailing load at approximately 47 miles per hour on a straight, level track.

*Louisiana -
New Orleans & Covington
2 - 46 tons loaded.*

THERE are now hundreds of gas-electric cars in operation on the railroads in the United States, which have already proven their dependability and economic value.


A few years ago, many railroads purchased one or two gas-electric cars for trial, but today the gas-electric car is no longer an experiment. They are being purchased as standard equipment in large quantities by railroads which have benefited by the low operating costs and high percentage of serviceability of the gas-electric car as compared to the equipment which these cars have displaced.



Single Power Plant
275 Hp.
Gas-electric
Car

a.c.f. POWER UNIT
HALL-SCOTT ENGINE
WITH
GENERAL ELECTRIC EQUIPME

American Car & Foundry C
and
The J. G. Brill Compan



Leaflet No. 317
October 1, 1927