

# REPORT DOCUMENTATION FORM

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14. Abstract The "Canuck" model P-41 intercity bus is reputed to have had exceptional durability and maintainability, qualities which made it uniquely suited to harsh northern environments. The study reported here identifies the features which made the design so successful and explores the possibility of producing a new bus with similar characteristics. Findings are based primarily on discussions with experienced operators and inspection of vehicles still in use.  The Canuck is no longer in production, no drawings or tooling are known to exist, and the manufacturer, Flyer Industries, now builds only transit buses. Nevertheless it appears feasible to regenerate this bus and produce it for application in the Canadian north and in developing countries. The design would remain essentially unchanged except that materials would be improved to resist corrosion, and drive-train components would be updated.		15. Type of Report and Period Covered Final
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The Canuck P-41 in the photographs was purchased in 1982 Rent-a-Bus for \$18000 after more than 20 years of service with various owners, including Capital Coachlines (Ottawa), Grey Co (Winnipeg), Deep Cove Stage Lines (North Vancouver), Pacific Stage Lines (Vancouver) and Vancouver Island Coach Lines/Pacific Coach Lines (Victoria). Although showing wear-and-tear it had obviously been well maintained, and its new owner continues to maintain it well.

## 9. CONCLUSIONS

- (i) The Canuck model P-41 had characteristics of ruggedness and strength which made it uniquely suitable for harsh operating conditions.
- (ii) Should the bus enter production again, designers should examine the potential offered by new materials and componentry, to correct the minor deficiencies of the original Canuck and to take advantage of the latest technology.
- (iii) There appears to be an opening to market a coach with the characteristics of the Canuck, but updated, in the developing Canadian hinterland, and in Third World countries.
- (iv) Engineering drawings and tooling are not available. This may not be of much importance in view of the need to update the design, and in view of the availability of a suitable operational example of a P-41.
- (v) The P-41 is the basic model which should be selected for revitalizing the Canuck.
- (vi) The basic frame and suspensions of the P-41 were the principal features which gave the Canuck its good reputation. Others were its simplicity, serviceability, clean underbody, small windows and windshield, and high air intake.
- (vii) Preliminary estimates of the cost of redeveloping the Canuck P-41 are favourable in view of to-day's market prices.

8. ASSESSMENT OF THE MERITS OF DEVELOPING A NEW CANUCK

There appears to be a market opening for this product. There is no known domestic equivalent nor is there a known similar product being built elsewhere in the world. This opinion was expressed by qualified persons, and is subject to more exhaustive study than was possible at this time, making a market survey an essential step.

The principal features that made the Canuck successful appear to be unique. Present day buses are offered, at one end of the range, on truck chassis, similar to school buses, or at the other, highway types with semi-monocoque construction and air or rubber suspensions. For the more rugged operations it is believed that there is much improvisation, such as the use of smaller four wheel drive vehicles.

There is no technical difficulty in the redevelopment of the Canuck, even though drawings and tooling, apparently, no longer exist. It would, of course, be beneficial if they should appear.

However, in view of the necessary redesign, it would be sufficient to have an old P-41 for reference.

The present coach builders, such as GMC, MCI, and PREVOST, not to mention EAGLE and NEOPLAN in the United States, have established product lines which do not resemble the Canuck, except superficially. Although, of course, any of them could undertake the development of a new Canuck, it would seem probable that present involvement would render this relatively less attractive than to a company which may be interested in expanding its product line, and which already possesses the capability to handle the project, by virtue of related products, the presence of a suitable sub-contracting infrastructure and a marketing organization to handle domestic and foreign sales.