

MASTER

COO-4867-2



Detroit Diesel Allison

Division of General Motors Corporation

Indianapolis, Indiana 46206

EDR 9734

GAS TURBINE ENGINES AND TRANSMISSIONS
FOR BUS DEMONSTRATION PROGRAMS

Technical Status Report
for Period 31 October 1978 - 31 January 1979

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Detroit Diesel Allison Division, GMC
Indianapolis, Indiana

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Introduction

This technical status report is to fulfill the contractual requirements of Contract EM-78-C-02-4867. This quarterly status report covers the period from 31 October 1978 through 31 January 1979 and is a summary of DDA activities for the effort performed on the procurement of eleven (11) Allison GT 404-4 gas turbine engines and five (5) HT740CT and six (6) V730CT Allison automatic transmissions and the required associated software.

The contract requires the delivery of eleven (11) Allison GT 404-4 Industrial Gas Turbine Engines and five (5) HT740CT and six (6) V730CT Allison automatic transmissions for the Greyhound and Transit Coaches, respectively. Engine and transmission delivery to the DOE will be initiated in April 1979 and will be completed by October 1979. In addition, software items such as cost reports, technical reports, installation drawings and acceptance test data are required. The Master schedules for this program are attached.

The program is progressing as planned and all items are on schedule for delivering the first engine/transmission at the end of April 1979.

Engine Status

Detroit Diesel Allison Management was successful in keeping the DOE proposed coach demonstration schedule by advance releasing eight (8) of the eleven (11) GT 404-4 gas turbine engines five months before the engine/transmission hardware contract was signed. Critical long lead hardware for these engines was placed on procurement in early April 1978. The remaining hardware has since been sequentially released at a rate necessary to maintain the required



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delivery schedule. Upon receipt of the signed contract in late August 1978, DDA proceeded to release the remaining three (3) engines and all eleven (11) transmissions. Many of the hardware items required for the eleven (11) engines and transmissions have been received.

The five (5) Greyhound coach engines are configured with right hand output shaft rotation and an SAE #2 gear housing.

The six (6) Transit coach engines include left hand output shaft rotation with an SAE # 1 1/2 gear housing.

Parts lists are completed for the engines and all of the hardware is being procured. Approximately 73% of the engine parts for S/N T5 (the first Greyhound engine) are completed.

The remaining engine hardware is scheduled for receipt to meet the contract schedule for delivery of engines and transmissions starting in April 1979.

Transmission Status

All hardware for five (5) HT740CT and six (6) V730CT transmissions has been ordered. Many of the parts required to assemble the eleven (11) transmissions have been received. The remaining hardware will be available within the time period required to meet the contract schedule for engine and transmission delivery starting in April 1979.



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Deliverable Items

The Monthly Cost Report for January 1979 has been submitted under separate cover. The Monthly Cost Reports for October, November and December, 1978 were delivered to the DOE on schedule. Submission of this technical status report fulfills the DDA contractual obligations through January 1979.

All required deliverable items through the January 1979 time period have, therefore, been completed on schedule.

Schedule

The DDA Master Schedules are attached. These schedules reflect the contractual requirements for both hardware and software. As of this report, all contractual items have been met and all hardware activities are on schedule for delivery of the first powerpack at the end of April 1979.

Spare Hardware

The present contract does not provide for procurement of spare engine or transmission hardware to support the Coach Demonstration Programs. This hardware was intended to be provided in a separate support contract to be negotiated at a later date. Therefore, no spare hardware was ordered.

DOE ENGINE/TRANSMISSION HARDWARE PROGRAM MASTER SCHEDULE

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ADVANCED RELEASED EIGHT (8) ENGINES
5 GREYHOUND/3 TRANSIT

RELEASED THREE (3) ADDITIONAL TRANSIT ENG.

RELEASED ELEVEN (11) TRANSMISSIONS
5 HT740CT/6 V730CT

ENGINE SCHEDULE

PROCURE & FABRICATE

ACCEPTANCE TEST ENGINE

ASSY. TRANS. ONTO ENGINE & PACKAGE

GREYHOUND ENGINE 404T5

GREYHOUND ENGINE 404T6

GREYHOUND ENGINE 404T7

GREYHOUND ENGINE 404T8

GREYHOUND ENGINE 404T9

TRANSIT ENGINE *404T10

TRANSIT ENGINE 404T11

TRANSIT ENGINE 404T12

TRANSIT ENGINE 404T13

TRANSIT ENGINE 404T14

TRANSIT ENGINE 404T15

•(TRANS C/O, REBUILD, SHIP TO DOE)

ENGINE TO TRANS. ENG. FOR TRANS.

ACC. TEST

ENGINE RETURNED TO PLT 8 (404T10)

TRANSMISSION SCHEDULE

RELEASE ALL TRANS. HWD.

PROCURE & FAB. HT740CT

ACCEPTANCE TEST & SHIP HT740CT TO PLT 8

CONVERT TEST CELL FOR V730CT

PROCURE & FAB V730CT

ACCEPTANCE TEST & SHIP V730CT TO PLT 8

**DOE ENGINE/TRANSMISSION HARDWARE PROGRAM
MASTER SCHEDULE**

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1979