HEAVY-DUTY 500,000-MILE BUS WITH A MINIMUM SERVICE LIFE OF 12 YEARS

1. MAINTAINABILITY

1.1 ACCESSIBILITY OF COMPONENTS AND SUBSYSTEMS

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ABBREVIATIONS

ABTC - Altoona Bus Test Center
A/C - air conditioner
ADB - advance design bus
CBD - central business district
CI - compression ignition
CNG - compressed natural gas
CW - curb weight (bus weight including maximum fuel, oil, and coolant; but without passengers or driver)
dB(A) - decibels with reference to 0.0002 microbar as measured on the "A" scale
DIR - test director
DR - bus driver
EPA - Environmental Protection Agency
FFS - free floor space (floor area available to standees, excluding ingress/egress areas, area under seats, area occupied by feet of seated passengers, and the vestibule area)
FTA - Federal Transit Administration
GAWR - gross axle weight rating
GL - gross load (150 lb for every designed passenger seating position, for the driver, and for each 1.5 sq ft of free floor space)
GVW - gross vehicle weight (curb weight plus gross vehicle load)
GVWR - gross vehicle weight rating
hr - hour
LNG - liquefied natural gas
mpg - miles per gallon
mph - miles per hour
NBM - new bus models
PSBRTF - Penn State Bus Research and Testing Facility
PTI - Pennsylvania Transportation Institute
rpm - revolutions per minute
SAE - Society of Automotive Engineers
SCF - standard cubic feet
SCFM - standard cubic feet per minute
SCH - test scheduler
SEC - secretary
SI - spark ignition
SLW - seated load weight (curb weight plus 150 lb for every designed passenger seating position and for the driver)
TD - test driver
TM - track manager
TP - test personnel

1.1-I. TEST OBJECTIVE

The objective of this test is to check the general accessibility of components and subsystems. Items that are checked are typically ones that would normally require maintenance or repair during transit service.

1.1-II. TEST DESCRIPTION

Accessibility of components and subsystems will be checked, and where accessibility is restricted then that particular subsystem is to be noted along with the reason for the inaccessibility.

1.1-III. TEST ARTICLE

The test article is a heavy-duty articulated transit bus, with a minimum service life of 12 years or 500,000 mi.

1.1-IV. TEST EQUIPMENT/FACILITIES/PERSONNEL

The equipment and test facilities at the ABTC are used for these tests. Test personnel include:

1. Test personnel(TP)

1.1-V. TEST DATA

The test data consist of the accessibility comments section of the Work Order Forms from all scheduled and unscheduled maintenance and repair. Test data also includes the Accessibility Data Form.

Copies of all records shall be forwarded to the ABTC manager.

1.1-VI. TEST PREPARATION AND PROCEDURE

The detailed test procedures are listed in procedure 1.1-1.

DETAILED TEST PROCEDURES		TITLE: 1. Maintainability
Procedure 1.1-1		**NOMENCLATURE: Accessibility of Components and Subsystems**
OPER STEP	**ACTION BY**	**TEST PREPARATION AND PROCEDURE**
1	TP	Record the accessibility of all components and subsystems involved in scheduled and unscheduled maintenance and repair on each Work Order Form. Note the part or subsystem and describe any accessibility restrictions.
2	TP	Photograph any accessibility restriction.
3	TP	Fill out the Accessibility Data Form and record comments. Insure all components and subsystems on the form have been checked.
4	TP	Fill out work order for procedure. File completed Accessibility Data Form and work order.

REVISIONS

All revisions to this test procedure must be identified on this page. Briefly describe each revision in the space provided below.

Revision	Description	Date	Approval

ACCESSIBILITY DATA FORM

Bus Number:	Date:

Component	Checked	Comments
ENGINE :		
Oil Dipstick		
Oil Filler Hole		
Oil Drain Plug		
Oil Filter		
Fuel Filter		
Air Filter		
Belts		
Coolant Level		
Coolant Filler Hole		
Coolant Drain		
Spark / Glow Plugs		
Alternator		
Diagnostic Interface Connector		
TRANSMISSION :		
Fluid Dip-Stick		
Filler Hole		
Drain Plug		
SUSPENSION :		
Bushings		
Shock Absorbers		
Air Springs		
Leveling Valves		
Grease Fittings		

ACCESSIBILITY DATA FORM

Bus Number:	Date:

Component	Checked	Comments
HVAC :		
A/C Compressor		
Filters		
Fans		
ELECTRICAL SYSTEM :		
Fuses		
Batteries		
Voltage regulator		
Voltage Converters		
Lighting		
MISCELLANEOUS :		
Brakes		
Handicap Lifts/Ramps		
Instruments		
Axles		
Exhaust		
Fuel System		
OTHERS :		