

**“THE CARE AND FEEDING OF
PARATRANSIT BUS FLEETS”**

**A Custom Maintenance Training Program for
Kentucky Public Transit Association (KPTA)**

**Halsey King Assoc. Inc.
Carlsbad, CA**

“Going on our 24th year of training the Paratransit Bus Mechanic”

INTRODUCTION

Today we will review a number of key parts of a bus fleets preventive maintenance program.

In today's presentation you will learn that preventive maintenance (PM) programs and training can be and are developed for a variety of vehicles. The PM program for fire trucks are different in their make-up than regular trucks and police cars. PM programs are vastly different on family cars done at the dealers.

Your bus started life as a stripped chassis, or van, and was made into a Paratransit bus. It now has many systems and components on it that did not come from the Ford, Chevy, Toyota or Nissan dealers. For that reason it is now used in a particular type of service we call PARATRANSIT.

We are about to spend three days looking at what exactly goes into a preventive maintenance program for paratransit buses whether they are mini vans or full-size cutaway vans. Moving into the next two days we will cover important Regulations and Inspections as well as Records and Cost of the Fleet Maintenance Program.

Most of all, we will review the reason for our fleet's existence, and, that is, to provide a critical service to those who are in need.



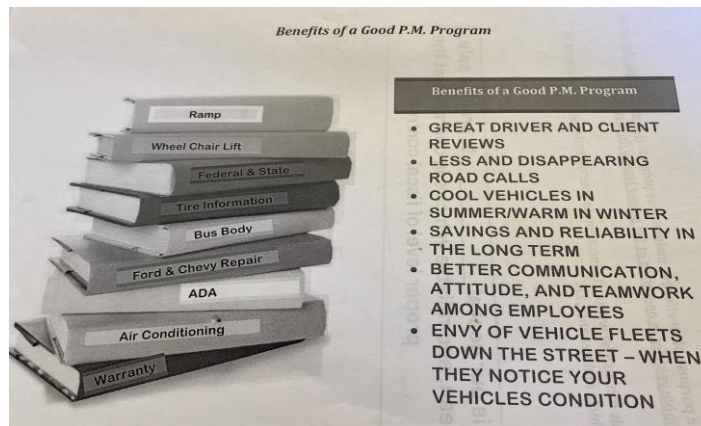
Great sources of information and regulations

**Sunday
October 31, 2021**

Preventive Maintenance Program Development

Essential elements of a written Preventive Maintenance Program.

- Manufacturer's Instructions
- Body Manufacturers Guide
- A/C Service Manuals
- State Regulations (Commercial Vehicles)
- Federal Regulations (49CFR)
- ADA Specific
- FTA Standards



Information you will need

Service Functions Defined

- A - B - C Scheduled
or
- Mileage Based 5 - 10 - 15 Scheduled

Bus Inspection Responsibilities

- For drivers (Pre and Post Trip), Complete and Sign
- For mechanics, Complete and Sign

Major Supply Needs and Cost Control Centers

TIRES	LABOR
PARTS	VEHICLES
FUEL	SHOP AND EQUIPMENT

The importance of Records Management

- Work Orders must be complete and accurate
- Management Information Programs must be complete and accurate
- Invoices - Internal and External from Suppliers
- Cost escalation coming to your shop
- Cost of PM Program (Administration)
- **Maintenance Philosophies**
 - “ IF IT AIN’T BROKE, DON’T FIX IT” - Philosophies
 - Parts Repair or Parts Replacement - Philosophies

**Monday
November 1, 2021**

Mechanic Skill Sets

- What the manager needs to know and do.
- A closer Review of the Regulations for Success.
- DOT Modular Bus Inspection, Bumper to Bumper.

MODULE

Covers these areas:

1	Driver's Area Switches/Controls
2	Windshield/Dash/Header
3	Stairs/Doors/Lights/Grab Rails
4	Inside Seats, Signage, Floor, Glass
5	Headlights, Turn Signals, Glass, Windows
6	Driver, Side, Wheels, Tires, Panels
7	Rear Door, Lights, Exhaust
8	Right Side, Tires, Door, Lights, Glass
9	Wheelchair Lift (per manufacturer)
10	Under Bus, Leaks, Tires, Steering, Brakes
11	Drive Shaft, Leaks, Damage
12	Suspensions, Exhaust, Leaks, Floor

(NOTE) The modular inspection on a Bus Hoist will use tools to measure some systems and component performance process.



**Tuesday
November 2, 2021**

Wrap-up of Bus Inspection Process

- Over, under, around and through the Bus Inspection
- ADA Care of the Elderly and Lending Empathy to Passengers

Documentation and Your Responsibility

- You must Sign
- Overall Records, No-No's
- Electronic Software
- Using Electronic Devices to inspect buses

Unexpected Cost Headed Your Way

- What is in a gallon of Crude Oil?
- What is a Fungibe Product? How will that impact your private and public life?
- AT HOME, IN LIFE, AT WORK - Inflated or Actual Cost



A dangerously illegal tire still in use

HOW TO READ A TIRE SIDEWALL

A lot can be learned by reading the tire sidewall. This photograph depicts the typical information found on the sidewall of a passenger tire.

Service description:
Includes the load index (numeric) and speed symbol (alpha character). **97T**

Treadwear, traction and temperature grades:
Tire information system that provides ratings on three categories — treadwear, traction and temperature. **TREADWEAR 760 TRACTION A TEMPERATURE B**

U.S. DOT safety standard code:
The "DOT" symbol certifies the tire manufacturer's compliance with U.S. Department of Transportation (USDOT) and Transport Canada tire safety performance standards. **DOT M33V**

Tire ply composition and materials used:
The number of plies and material type underneath the tread and in the sidewall. **TIRE CONSTRUCTION MATERIALS**

Max. cold inflation load limit:
Indicates load limits and corresponding maximum cold inflation pressure for that load. **730 KG MAX LOAD**

P225/60R16 P-Metric

P225/60R16 Nominal cross-section width of tires in millimetres

P225/60R16 Ratio of height to cross-section width (a.k.a. aspect ratio)

P225/60R16 Also delineated by the character "R" in the size designation, every radial construction tire must show the word "radial" on the sidewall

P225/60R16 Rim diameter (in inches)

US DOT required tire information