

REDUCING THE LEAD TIME OF CAR SERVICE BY EXPRESS MAINTENANCE

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Abstract : Objective of my project is to reduce the vehicle lead time in maintenance work. Many Vehicles has waiting for repair in many times. So reduce the waiting or unwanted time by this Express Maintenance work. It will improve the customer satisfaction. Better man and machinery utilization. This process will be increasing the service vehicle quantity for every day within the same man power. Improve the customer satisfactions. Reduce the customer waiting time and Better man & machine utilization.

Keywords – maintenance, lead time, line concept.

OBJECTIVES

All type of Maintenance and repair works are comes under new Express Maintenance Systems. In this system no need for appointment in Express Maintenance. We have all works lead time, so we can fix suitable EM for every vehicle.

After implementing this new Express Maintenance everyday productivity is increased. In this system can eliminate the unwanted waiting time. All type of general repair and parts replacement works done by its timing based.

- ✓ Improve the customer satisfaction by reduce the customer waiting time.
- ✓ Increasing the productivity of the workshop.
- ✓ Better man and machinery utilization.
- ✓ Reducing the lead time of the every vehicle.
- ✓ All type of the additional works & value added services covered in the Express Maintenance.

Regular maintenance is essential to obtaining the highest level of performance, safety and reliability. It can also increase vehicle's resale value. With proper maintenance and care, vehicle will last longer and deliver more dependable, economical performance. In addition to scheduled maintenance, vehicle requires ongoing general maintenance such as fluid checks and visual inspection. Following the manufacturer's recommendations will allow enjoying maximum reliability and peace of mind from your service point.

MAINTENANCE SERVICE SYSTEM

In the Express Maintenance Service system has been introduced by TOYOTA. It has implemented in all the TOYOTA authorized service centers in 2015 onwards. In the Express Maintenance covers only the periodic Maintenance and water wash only within 60 minutes. Other than the additional repair works and value added services not comes under the Express Maintenance.

Express Maintenance 60 done by all appointment customers only. Every service centers have doing maximum ten vehicles per day in this Express Maintenance 60 minutes. In this project we have implemented in the Express Maintenance for all type of maintenance works and general repair works by appointment and walk in vehicles also. Our main objective is reducing the lead time of the vehicle and improving the customer satisfaction by reduces the customer waiting time in this Express Maintenance.

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EXPRESS MAINTENANCE

Our time is valuable. So when your needs factory-scheduled maintenance or minor repairs, don't let it slow you down. The Express Maintenance offers everything you need to keep you moving. All from the one place you trust to do it right. Express maintenance provides you with precision service that's precisely timed to fit within your busy schedule.

EXPRESS MAINTENANCE PRODUCTION**Stall 1**

- ✓ It consist two man powers.
- ✓ First Technician collects the job card and collects parts from the spares Section.
- ✓ At the time another technician check the conditions of the wiper blade all Bulbs.
- ✓ Then the change the air filter, A/C filters wiper blade and Head Light bulbs.
- ✓ Top up the power steering fluid, Battery water and clutch fluids.

Stall 2

- ✓ Stall 2 having three Express Maintenance Technicians
- ✓ This stall having lift for lift vehicle and drain the oil and oil filters
- ✓ Right and Left Technicians lift the vehicle, and then both are check the brake Pad and rear lining conditions.
- ✓ Break pad and break lining replacement are doing in the stall two.
- ✓ The centre Technician drains the engine oil and differential oils. Replace the Oil Filter.
- ✓ Wheel Balancing work also done in this stall by centre Technician
- ✓ Differential Oil Filled by the Centre Technician

Stall 3

- ✓ Stall 3 having two Express Maintenance Technicians
- ✓ This third stage for small general repair works and replacement.
- ✓ The final inspection and quality control jobs have done in this stall

Stall 4

- ✓ Wheel Alignment stall.

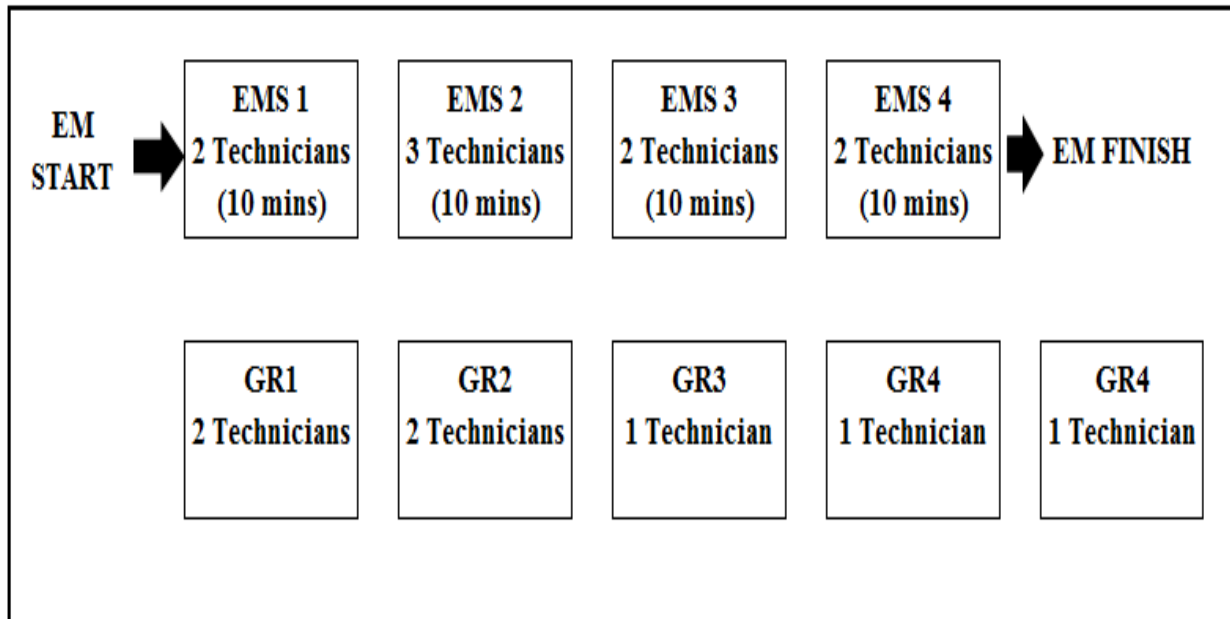
General Repair Stall

- ✓ First two stalls have each two manpower's.
- ✓ Third and fourth general repair stall have each one manpower.
- ✓ All Medium and major general repair works are done by using the four general Repair stalls.

Major Service and minor parts replacement also cover in the express maintenance.

It including the following jobs

- Oil and filter change
 - Differential oil change
 - Gear box oil change
 - Brake oil change
 - Coolant change
 - Air and A/C filter change
 - Timing Belt replacement
 - Brake inspection, (if necessary) Brake pad or brake lining change
 - Tire Rotation and wheel alignment
 - Minor parts replacement
 - Exterior car wash
- Value added service (Teflon coating, sun film, under chassis coating ect.)

EXPRESS MAINTENANCE PRODUCTION LAYOUT**CONCLUSION**

The Experiment results are promising even through few challenges found such as non appointment vehicles arrival times, so now we using this production line concept will reduce the lead time of car service by this Express Maintenance. In this method will reducing the manpower and machinery at the same time production also increased. Now we will achieve the minimum lead time of every car's at the time of service.

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