

# CAR WHEEL ALIGNMENT & TYRE MAINTENANCE TRAINING BROCHURE



Practical training



Post training assistance

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# CAR WHEEL ALIGNMENT & TYRE MAINTENANCE TRAINING

The Car Wheel Alignment & Tyre Maintenance Training program is designed to give participants a solid foundation in the essential techniques of maintaining and aligning car wheels for optimum vehicle performance and safety. This course covers all aspects of wheel alignment, tyre selection, balancing, and maintenance. Through hands-on practice and theoretical knowledge, trainees will develop skills to become proficient in tyre and wheel servicing, ensuring proper vehicle handling and prolonged tyre life.

### What you'll learn?

- Fundamentals of wheel alignment and its importance.
- Types of tyres, their specifications, and proper selection.
- Diagnosing alignment issues using advanced tools.
- Tyre maintenance, including rotation, balancing, and repair.
- Adjusting camber, caster, and toe angles for wheel alignment.
- Identifying and addressing common wear patterns in tyres.
- Safety protocols for handling wheel and tyre servicing equipment.
- How to perform tyre mounting, inflation, and pressure monitoring.

### **Course summary:**

This course is designed for individuals aiming to specialize in vehicle wheel alignment and tyre maintenance. It offers a thorough understanding of wheel alignment systems, tyre selection, and maintenance, including both theoretical knowledge and practical skills. Trainees will learn to use modern equipment to align wheels, balance tyres, and ensure smooth vehicle performance. This training provides a pathway to become a specialist in vehicle safety and performance through proper wheel and tyre care.

### Key Takeaways:

- Mastery in diagnosing and correcting wheel alignment issues.
- Skills to maintain and balance tyres for better vehicle handling.
- Practical knowledge in tyre repair and replacement techniques.

# Course syllabus:

### **Module 1: Introduction to Wheel Alignment**

- Understanding the fundamentals of wheel alignment.
- Overview of the alignment process and its importance.
- Types of alignment (two-wheel vs. four-wheel).

## **Module 2: Tyre Types and Specifications**

- Different types of tyres and their uses.
- Reading tyre sidewall markings and specifications.
- Choosing the right tyres for different vehicles and driving conditions.

### **Module 3: Wheel Alignment Angles**

- Explanation of camber, caster, and toe angles.
- Adjusting angles for optimal alignment.
- Diagnosing and correcting misalignment issues.

### **Module 4: Wheel Balancing**

- Importance of wheel balancing for smooth rides.
- Techniques for balancing tyres using machines.
- Identifying and correcting wheel imbalance.

# **Module 5: Tyre Maintenance and Rotation**

- Importance of regular tyre maintenance.
- Techniques for rotating tyres for even wear.
- Identifying signs of tyre damage and wear patterns.

### **Module 6: Tyre Repair and Replacement**

- Methods for repairing punctured or damaged tyres.
- Step-by-step process of tyre replacement.
- Safety protocols for mounting and dismounting tyres.

### **Module 7: Wheel Alignment Tools and Equipment**

- Introduction to modern alignment machines.
- Using laser and computerized alignment tools.
- Maintaining and calibrating alignment equipment.

## **Module 8: Diagnosing Wheel Alignment Issues**

- Identifying signs of improper alignment.
- Diagnosing handling issues due to alignment problems.
- Troubleshooting and fixing alignment for optimal vehicle performance.

# **Module 9: Safety Practices in Tyre and Wheel Servicing**

- Safety protocols for lifting vehicles and handling heavy tyres.
- Proper usage of pneumatic tools and alignment machines.
- Environmental safety in tyre disposal and recycling.

### **Module 10: Advanced Wheel Alignment Techniques**

- Alignment for high-performance vehicles.
- Aligning wheels for off-road and heavy-duty vehicles.
- Special cases: aligning wheels for trucks and SUVs.

### **Module 11: Evaluation & Certification**

- Comprehensive assessment of theoretical and practical knowledge.
- Written exams covering electric bike repair and maintenance.
- Practical exams involving diagnostic and repair tasks.
- Certification awarded upon successful course completion.
- Career guidance and industry opportunities.

### **Practical training:**

- Using wheel alignment machines and tools.
- Adjusting camber, caster, and toe angles.
- Mounting and balancing tyres for smooth rides.
- Identifying and rectifying tyre wear and tear patterns.
- Rotating tyres to promote even wear.
- Performing wheel balancing and vibration diagnosis.
- Safety measures in handling tyres and alignment tools.
- Tyre pressure monitoring and inflation techniques.

### Career scope:

Upon completing the Car wheel alignment & tyre maintenance training course, graduates can explore career opportunities in various sectors, including:

- Wheel Alignment Technician at automotive service centers.
- Tyre Maintenance Specialist for car dealerships.
- Mobile wheel alignment and tyre service provider.
- Tyre fitting and maintenance for commercial fleets.
- Specialist in high-performance vehicle alignment services.
- Tyre and wheel service advisor in automotive workshops.
- Technician in tyre manufacturing and servicing companies.
- Wheel and tyre balancing expert.
- Automotive service manager in tyre care.
- Self-employed wheel alignment and tyre maintenance service provider.