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| **MOTORCYCLE SERVICING AND MAINTENANCE** | | | |
| **Competency Unit (CU) : Tyre And Wheel Servicing** | | **Code :** | |
| **Work Activity 1:** Prepare tyre and wheel servicing requirements | | **Duration :** 1 Hour | |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   1. Understand tyre and wheel servicing according to service manual 2. Describe tyre and wheel servicing tools and equipment and its functions such as:    1. Hand tools : Spanner and etc,    2. Tyre changer : Tyre lever,    3. Tyre balancer equipment: Wheel balancer machine, Balancer weight, etc,    4. Tyre pressure gauge, and    5. Etc. 3. List types of tyre and wheel servicing activities such as:    1. Test free wheel rotation,    2. Service front and rear wheel bearing,    3. Service tube type tyres,    4. Service tubeless tyre,    5. Service wheel spokes,    6. Perform wheel balancing, and    7. Etc. 4. Describe Occupational Safety And Health (OSHA) requirements on tyre and wheel servicing activities such as    1. OSHA act    2. Hazardous level    3. Safety symbols    4. Waste disposal    5. Etc. 5. List out safety and housekeeping practice on workshop area such as:    1. Wear proper Personal Protective Equipment (PPE)    2. Hygiene in workshop area    3. 5 S system    4. Etc | | | |
| **Work Activity 2 :** Perform test free wheel rotation | | | **Duration :** 1 Hour |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   1. Describe purpose of test free wheel rotation according to service manual 2. Explain procedures to test free wheel rotation according to service manual 3. Describe types and defect or faulty on tyre and wheel:    1. Tyre defect    2. Rim defect    3. Bearing defect 4. List out tools and equipment used for test free wheel rotation and its function such as:    1. Jack / stand,    2. Hand tools, and    3. Etc. | | | |
| **Work Activity 3 :** Perform front and rear wheel bearing servicing | | | **Duration :** 2 Hours |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   * 1. Describe function of front and rear wheel bearing according to service manual   2. List out procedures to service front and rear wheel bearing according to service manual   3. Describe components for front and rear wheel bearing and its function such as:   4. Bearing   5. Spacer   6. Oil seal   7. Axle/shaft   8. Etc.   9. List out tools and equipment used to service front and rear wheel bearing such as:   10. Hand tools   11. Drift   12. Bearing remover set   13. Bearing installer set   14. Jack / stand   15. Service manual   16. Etc. | | | |
| **Work Activity 4 :** Perform tube type tyres servicing | | | **Duration :** 1 Hour |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   * 1. Explain construction of tube type tyres according to manufacturer’s manual   2. Explain procedure to service tube type tyres according to service manual   3. Check tyre specification according to tyre marking such as:  1. Production date (refer to tyre marking)or manufacture date, 2. Size of tyre, 3. Tyre rotation, 4. Tyre maximum pressure, 5. Tyre type, 6. Tyre load index, 7. Tyre wear indicator(TWI), 8. Tyre moulded line, 9. Number of ply, and 10. Etc.     1. Dismantle tyre from rim     2. Service / replace tyre according to service manual     3. Etc.     4. Explain method to check tube tyre thread depth     5. Explain method to patch tube type tyres     6. List tools and equipment used to service tube type tyres such as:     7. Tyre levers     8. Valve key     9. Tyre grease     10. General tools     11. Jack / stand     12. Type depth gauge     13. Etc. | | | |
| **Work Activity 5 :** Perform tubeless tyre servicing | | | **Duration :** 1 Hour |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   * 1. Describe purpose of servicing tubeless tyre   2. Identify procedure to service tubeless tyre   3. Explain procedure to check tubeless tyre components such as:   4. Bearing   5. Oil seal   6. Tubeless valve assembly   7. Explain method to check tubeless tyre thread depth   8. Explain method to carry out patching on tubeless tyre   9. List out tools and equipment used for service tubeless tyre. | | | |
| **Work Activity 6 :** Perform wheel spokes servicing | | | **Duration :** 1 Hour |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   * 1. Explain procedure of servicing wheel spokes according to service manual   2. List out spokes wheel component such as:   3. Rim,   4. Hub assembly,   5. Spoke set, and   6. Etc.   7. List out tools and equipment used for wheel spokes servicing such as:   8. Spoke wrench,   9. Hand tools,   10. Trueing stand /Rim adjuster stand,   11. Dial gauge c/w stand,   12. Service manual, and   13. Etc. | | | |
| **Work Activity 7 :** Perform cast wheel servicing | | | **Duration :** 1 Hour |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   1. Describe various types of cast wheel pattern 2. Explain procedure to service/replace cast wheel according to service manual 3. List out tools and equipment used to service/replace cast wheel such as:    1. Hand tools    2. Rim balancer stand    3. Service manual    4. Special tools    5. Etc. | | | |
| **Work Activity 8 :** Perform tyre and wheel balancing | **Duration :** 2 Hours | | |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   * 1. Describe purpose of tyre and wheel balancing   2. Explain tyre and wheel balancing according to service manual such as :   3. Determine types and functions of wheel balancing   4. Operate tire balancing machine according to operation manual   5. Carry out wheel balancing according to procedure and service manual  1. Check if the wheel is wobbling 2. Add weight balancer if required.    1. Explain procedure to operate tyre balancing machine according to service manual    2. List out f tools and equipment used for tyre and wheel balancing such as:    3. Hand tools    4. Special tools    5. Wheel balancing machine    6. Etc. | | | |
| **Work Activity 9:** Perform tyre and wheel servicing functionality check | **Duration :**  1 Hour | | |
| **Learning Objectives**  At the end of learning session the apprentice will be able to:   1. Understand procedure to carry out motorcycle test drive such as:    1. Safety riding practise    2. Pre-start procedure    3. Pre-ride test procedure    4. Etc, 2. Explain procedure to check wheel servicing functionality | | | |
| **Work Activity 10:** Record tyre and wheel servicing | | | **Duration :**  1 Hour |
| At the end of learning session the apprentice will be able to   1. List types of checklist to record tyre and wheel servicing activities such as:    1. Service checklist    2. Job card    3. Vehicle repair order    4. Inventory checklist    5. Etc 2. Understand procedure to record tyre and wheel servicing activities according to company’s SOP (Standard Operating Procedure) | | | |
| **TOTAL** | | | **12 Hours** |