Tire Inflation and Processes Project

TTA 3C Mr. Novia

1 Record the data/ information for your vehicles tires.

2 Create a Technical Report (using Microsoft WORD) about your Wheels and Tires information, construction and purchasing you went through.

Use 12-point font for body text, Bold for headings.

Use the following Headings:

i **Title Page**

Include: Your Name, Course Code, Date, and Teachers Name.

ii **Table of Contents**

Include headings and page numbers.

iii **Introduction**

Describe what this report is about. Briefly explain what will be discussed in the following sections.

iv **Report Analysis**

Tire cost, tire specifications, tire size and particulars, inflation pressures and safety measures, inflation tools, car manufacturer's recommendations, Warranty information, Tire rotation, Manufacturer's contact letter and brochures.

v **Drawings**

Include your drawings. Design Sketches, Wheel and tire, construction types, alignment problems, tire rotation, inflation guide

vi **Conclusion**

What are your conclusions about your project? Was it constructed as well as you would have liked? Did it provide you with the information you hoped? What might be improved if you could? How could you improve the report? Etc…

TRANSPORTATION TECHNOLOGY

Wheel and Tire Project

Students are to complete the Wheels and Tires Project to familiarize themselves about the construction, maintenance, repair and purchasing of tires. This will allow for the required knowledge and competency with tire removal and installation project.

Part I:

Complete the following below from the information gathered from your family or friends vehicle:

VEHICLE DATA / INFORMATION

YEAR: _____

MAKE: _____

MODEL: _____

DOORS: _____

BODY TYPE: _____

BODY CONSTRUCTION: _____

RIM SIZE: _____

RIM CONSTRUCTION: _____

TIRE MANUFACTURER: _____

TIRE SIZE: _____

TIRE CODE: _____

M.O.T./D.O.T CLASSIFICATION: _____

TIRE TYPE/CONSTRUCTION: _____

MAXIMUM AIR PRESSURE: _____

<u>Part II</u>:

Answer the following questions in complete sentences:

1. Why is tire inflation important?

2. What are the effects of over/under inflation?

3. How can a front end alignment problem be diagnosed by examining a tire?

4. What are the different types of alignment problems that can be diagnosed from a tire?

5. Name **three types of tire construction** and describe how each is constructed. Give an advantage and/or disadvantage of each.

6. What are **two functions** of tires?

7. What are the parts of a tire?

8. Why is tire lubricant used to remove and reinstall a tire?

9. What does the following code tell you about a tire? **(5 things)**

P 225 60 R 16

1

2

3

4

5

10. What are **two different modes / methods** of balancing a tire and why are they used?

11. Why are tires balanced, and how often should this maintenance procedure be performed on your vehicle?

Part III:

Students are to complete the following Questions:

1. What are some of the factors which determine the type of tires that will be purchased for your vehicle?

2. Research **three different brands/types of tires** for a particular vehicle from a tire dealer and/or manufacturer of your choice and report the following findings: (Can be completed as a chart)

    1. Tire cost:
    2. Tire specifications:
    3. Tire size and particulars:
    4. Car manufacturer's recommendations:
    5. Warranty information:

3. Draw a labeled diagram of a Radial tire and steel rim.

4. Draw a labeled diagram for each of the three types of tire construction rotation. This should include a 4 tire rotation (5th wheel rotation if full spare) for each type.

5. What are the benefits of tire rotation? How often should this maintenance be performed?

6. Address and contact for at least one particular tire company, customer service, literature, availability.

7. Draft a letter to a tire manufacturer for tire information and literature for your vehicle's tires.

Name: _____ **Date:** _____ **Code:** _____

Wheel and Tire Evaluation

	Level 1	Level 2	Level 3	Level 4	Comments
Drawing Accuracy & Detail *COM*	Drawn with limited detail. Most features missing or inaccurate. 5.0 - 5.9	Drawn with some detail. Some features present. Some features accurate. *6.0 - 6.9*	Drawn with majority of detail shown. Most features present and accurate. *7.0 - 7.9*	Drawn with all detail shown. All features present and accurate. *8.0 -10*	/10
Communication					/20
Tire Data& Information *APP*	Tire Data and information is not neat. Numerous mistakes and other irregularities present. 10.0 - 11.9	Tire Data and information is fair. Many mistakes and other irregularities present. *12.0 – 13.9*	Tire Data and information is good. Only a few mistakes or other irregularities present. *14.0 – 15.9*	Tire Data and information is excellent. No mistakes or other irregularities present. *16.0 - 20.0*	/20
Application					/20
Report - Format *K/U*	The report is not formatted using appropriate headings, fonts, and layout. It does not include the sections required. 5.0 – 5.9	The report has been formatted using some of the appropriate headings, fonts, and layout. It includes some of the sections required. *6.0 – 6.9*	The report is mostly formatted using appropriate headings, fonts, and layout. It includes most sections required. *7.0 – 7.9*	The report is formatted using appropriate headings, fonts, and layout. It includes all sections required. *8.0 – 10.0*	/10
Knowledge & Understanding					/10
Report - Content *T/I*	The report is written poorly and does not communicate the ideas and concepts fully as required. 10.0 - 11.9	The report is fairly written and communicates some of the ideas and concepts. *12.0 - 13.9*	The report is written well and communicates all of the ideas and concepts fully as required. *14.0 - 15.9*	The report is excellently written and communicates all of the ideas and concepts fully and beyond what is required. *16.0 -20.0*	/20
Thinking & Inquiry					/20