

**HEADQUARTERS
PHILIPPINE ARMY
OFFICE OF THE ARMY CHIEF QUARTERMASTER
Fort Andres Bonifacio, Taguig City**

TEST AND ACCEPTANCE PROCEDURE (TAP)

**TIRE, 12.00R20
QM SPEC NR OE-23T12R20 dated 05 June 2024**

A. POST QUALIFICATION INSPECTION

SECTION 1 – GENERAL

1.1. **AUTHORITY:** The Test and Acceptance (T&A) is being conducted in line with the provisions of the RA 9184.

1.2. **OBJECTIVE:** The objective of this T&A is to determine the responsiveness of the Bidder with the Lowest Calculated Bid (LCB) or Single Calculated Bid (SCB), as the case may be, to the technical specifications as endorsed by the Bids and Award Committee (BAC).

1.3. **SCOPE:** This TAP will be conducted on the prototype samples of Tire, 12.00R20 as submitted by the Bidder with LCB/SCB as part of the post qualifications procedure by the BAC.

1.4. **METHODOLOGY:** The tests shall include physical inspection and evaluation of test results, documents that will support the compliance of Tire, 12.00R20 to the specifications. Testing fees shall also be shouldered by the supplier.

1.5. **REFERENCES:**

1.5.1. Philippine National Standard for Pneumatic Tires, PNS25: 1994.

1.5.2. ISO 4209-1:2001 International Standard (minimum) – Truck and Bus Tires and Rims (Metric Series)

1.6. **POST QUALIFICATION CRITERIA:** Post Qualification evaluation shall be based on Pass (P) or Fail (F) criteria. Any defects found shall be evaluated as “Failed”.

SECTION 2 – PROCEDURES

2.1 **Physical Inspection**

2.1.1 **Purpose:** To determine the conformance of the physical characteristics, external workmanship of Tire, 12.00R20 to the required specifications.

2.2 **Allocation of Samples**

Submission of three (3) samples from the authorized representative of the supplier to the Bids and Awards Committee (BAC).

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2.3 Procedures:

2.3.1 Visually inspect the completeness, overall appearance and presence of the required symbols or markings on the tire sample/s.

2.3.2 Standard:

- 2.3.2.1 With the required Type/Construction
- 2.3.2.2 With the required Traction Design
- 2.3.2.3 With Brand Name or Trade Name.
- 2.3.2.4 Tire Designation Markings: Manufacturer's Standard.
(Tire Size and Ply Rating, Load Index/Rating).
- 2.3.2.5 With Maximum Air Pressure Markings.
- 2.3.2.6 With the words "Made in the Philippines" or country of origin if imported
- 2.3.2.7 With Maximum Load Capacity markings.
- 2.3.2.8 With Manufacturing Date markings.
- 2.3.2.9 No evident damage on tread, sidewall, ply, cord and inner liner. No bead separation, chunking, broken cords, cracking or open splices.

2.4 Dimensional Test

2.4.1 Purpose: To determine actual dimensions of the tire sample/s.

2.4.2 Procedures:

2.4.2.1 The tire set sample/s shall be mounted on its corresponding rim (20 inches x 8.5 inches width) and inflated to the indicated maximum permissible inflation pressure at maximum load as labeled on the tire sidewall. The tire shall be allowed to stand for a minimum of 24 hours at room temperature. The pressure thereafter should be measured and adjusted to within 10kPa of the pressure specified for the tire type, being the ideal condition for measurement of the tire. Measure the Overall Diameter, Overall Width and Size Factor by hanging the tire to avoid any obstruction from any external factor which may affect the dimensional test.

2.4.2.2 Outer diameter shall be determined to the nearest millimeter by measuring the outside circumference by a tape and then divide the value by constant 3.1416 (π) or by means of a measuring device calibrated to show directly the diameter of the tire.

2.4.2.3 Sectional width is the average of maximum widths including the sidewalls, side ribs, bars decorations, letters or numerals. The width shall be measured by nearest millimeters at four different points equally distributed around the tire and the result averaged.

2.4.2.4 Thread width shall be measured in the internationally accepted "Thread Design Guide" or if not indicated, it is the distance between the two outer edges of a tire's thread.

2.4.2.5 Standard:

Parameters	Traction Design
Overall Diameter (mm)	1,136 ± 5
Section Width (mm)	312 ± 5
Thread Depth (mm)	24 ± 6

2.5 Tire Strength Test

2.5.1 Purpose: To determine the strength of the tire.

2.5.2 Procedures:

2.5.2.1 To be conducted by Philippine Geo Analytics Inc. (PGAI) if done in-country or reputable recognized testing center at the country of origin.

2.5.2.2 Force a required cylindrical steel plunger rod with a hemispherical end at 5 equally distributed points perpendicularly into the tread rib as near to the centerline as possible, avoiding penetration into the groove, at the rate of 50 mm/min±10 mm/min.

2.5.2.3 The plunger is stopped before reaching the rim or the standard required tire strength value is reached without the tire breaking.

2.5.2.4 Standard: Tire strength requirement based on PNS 25:1994 standards if done in-country or its equivalent standard used at the country of origin if conducted thereat.

B. FINAL INSPECTION/ACCEPTANCE

SECTION 3 – GENERAL

3.1. **AUTHORITY:** The TAP procedure is being conducted in line with the provisions of the RA 9184.

3.2. **OBJECTIVE:** To determine the compliance to the technical specifications of the sample selected at random during the Final Inspection and ensure the completeness of the delivery at the delivery site.

3.3. **SCOPE:** This TAP procedure will be conducted during Final Acceptance of Tire, 12.00R20.

3.4. **METHODOLOGY:** The tests include visual, physical, dimensional, strength test and evaluation of documents that will support the compliance of the Tire, 12.00R20 to the specification.

3.5. **ACCEPTANCE CRITERIA:** The rating that will be applied for this test will be based on Sampling Procedures and Tables for Inspection by Attributes - MIL STD 105E. Any defects found shall be a ground for non-acceptance of the delivery. Correction of defects shall be allowed only once.

SECTION 4 – PROCEDURES

4.1. Physical Count

4.1.1. Purpose: To determine the completeness of the delivered items.

4.1.2. Procedures:

4.1.2.1. Account for the completeness (quantity) of the tires delivered.

4.1.2.2. Visually inspect the completeness, overall appearance and presence of the required symbols or markings on the tires samples.

4.1.2.3. Visually inspect the randomly selected samples for the physical state of the delivered items.

4.2. Physical Inspection

4.2.1. Purposes: To determine the conformance of the physical characteristics, external workmanship of Tire, 12.00R20 to the required specifications.

4.2.2. Procedures:

4.2.2.1. The TIAC team shall conduct random sampling from the lot or lots. Three (3) samples shall be selected, and these samples shall be properly segregated, packed, marked and secured by the members/representatives of the committee.

4.2.2.2. Technical inspection and test shall be conducted on the representative samples of the lot by visual, dimensional and functional test to determine the over-all workmanship, markings, size and appropriate packaging of the items.

4.2.2.3. Functional test will be done to determine the functional performance of the tire.

4.2.2.4. Results obtained shall be recorded and evaluated to determine the compliance of the item to technical specifications and as basis for acceptance or rejection of the lot/s.

4.2.2.5. Visually inspect the completeness, overall appearance and presence of required symbols or markings of the on the tire sample/s.

4.2.3. Standard:

4.2.3.1. With the required Type/Construction

4.2.3.2. With the required Traction Design

4.2.3.3. With PS or ICC Quality Mark or Certificate of Exemption from DTI in case the product offered are beyond the minimum standard of DTI

4.2.3.4. With Brand Name or Trade Name.

4.2.3.5. Tire Designation Markings: Manufacturer's Standard for Tire. (Tire Size and Ply Rating, Load Index/Rating).

4.2.3.6. With Maximum Air Pressure Markings.

4.2.3.7. With identifiable markings for country of origin if imported

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4.2.3.8. With Maximum Load Capacity markings.

4.2.3.9. With Manufacturing Date Code (within 1 year prior to delivery date)

4.2.3.10. No evident damage on tread, sidewall, ply, cord and inner liner. No bead separation, chunking, broken cords, cracking or open splices.

4.3. Dimensional Test

4.3.1. Purpose: To determine actual dimensions of the tire sample/s.

4.3.2. Procedures:

4.3.2.1. The tire set sample/s shall be mounted on its corresponding rim (20inches x 8.5inches) and inflated to the indicated maximum permissible inflation pressure at maximum load as labeled on the tire sidewall. The tire shall be allowed to stand for a minimum of 24 hours at room temperature. The pressure thereafter should be measured and adjusted to within 10kPa of the pressure specified for the tire type, being the ideal condition for measurement of the tire. Measure the Overall Diameter, Overall Width and Size Factor by hanging the tire to avoid any obstruction from any external factor which may affect the dimensional test.

4.3.2.2. Outer diameter shall be determined to the nearest millimeter by measuring the outside circumference by a tape and then divide the value by constant 3.1416 (π) or by means of a measuring device calibrated to show directly the diameter of the tire.

4.3.2.3. Sectional width is the average of maximum widths including the sidewalls, side ribs, bars decorations, letters or numerals. The width shall be measured by nearest millimeters at four different points equally distributed around the tire and the result averaged.

4.3.2.4. Thread width shall be measured in the internationally accepted "Thread Design Guide" or if not indicated, it is the distance between the two outer edges of a tire's thread.

4.3.3. Standard:

Parameters	Traction Design
Overall Diameter (mm)	1,136 (± 5)
Section Width (mm)	312 (± 5)
Thread Depth (mm)	24 (± 6)

4.4. Tire Strength Test

4.4.1. Purpose: To determine the strength of the tire.

4.4.2. Procedures:

4.4.2.1. To be conducted by Philippine Geo Analytics Inc. (PGAI) if done in-Country or reputable recognized testing center at the country of origin.

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4.4.2.2. Force a required cylindrical steel plunger rod with a hemispherical end at 5 equally distributed points perpendicularly into the tread rib as near to the centerline as possible, avoiding penetration into the groove, at the rate of 50 mm/min±10 mm/min.

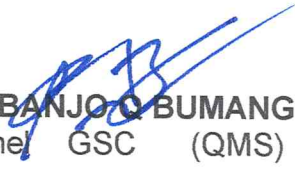
4.4.2.3. The plunger is stopped before reaching the rim or the standard required tire strength value is reached without the tire breaking.

4.4.2.4. Standard: Tire Strength requirement based on PNS 25:1994 standards if done in-Country or its equivalent standard used at the country of origin if conducted thereat.

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TIRE, 12.00R20

QM SPEC NR OE-23T12R20 dated 05 June 2024
(Interim)

TEST CRITERIA

FOR POST-QUALIFICATION TEST:

Destructive Testing Criteria based on Logistic Letter Directive Number SC-07-04 dtd 25 October 2007 para 5f.

TOTAL MINOR TEST POINTS	NO. OF ALLOWABLE DEFECTS	
	MAJOR	MINOR
0	0	0

1. No major defect allowed.
2. No minor defects.

FOR ACCEPTANCE TEST:

- I. Visual Inspection Criteria based on Mil Std 105E dtd 10 May 1989
 - All defects noted in 1st and 2nd sampling are cumulative.
 - In case of rejection, destructive testing will not be conducted

Classification of Defects	TABLE III-A General Inspection Level I Code Letter J Double Sampling Plan for Normal Inspection				
	Lot size 91 – 150 pcs	Number of Defects			
	Sample Size: 5 pcs + 5 pcs	1 st Sampling		2 nd Sampling	
	AQL	Accept	Reject	Accept	Reject
MAJOR	6.5	0	2	2	5
MINOR	25	1	2	6	7

Classification of Defects	TABLE III-A General Inspection Level I Code Letter K Double Sampling Plan for Normal Inspection				
	Lot size 151 – 280 pcs	Number of Defects			
	Sample Size: 8 pcs + 8 pcs	1 st Sampling		2 nd Sampling	
	AQL	Accept	Reject	Accept	Reject
MAJOR	6.5	0	3	3	4
MINOR	25	3	7	8	9

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Classification of Defects	TABLE III-A General Inspection Level I Code Letter L Double Sampling Plan for Normal Inspection				
	Lot size 281 – 500 pcs	Number of Defects			
	Sample Size: 13 pcs + 13 pcs	1 st Sampling		2 nd Sampling	
	AQL	Accept	Reject	Accept	Reject
MAJOR	6.5	1	4	4	5
MINOR	25	5	9	12	13

II. Destructive Testing Criteria based on Logistic Letter Directive Number SC-07-04 dated 25 October 2007 para 5f.

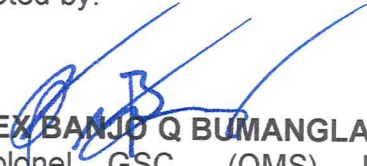
TOTAL MINOR TEST POINTS	NO. OF ALLOWABLE DEFECTS	
	MAJOR	MINOR
0	0	0

1. No major defect allowed.
2. No minor defects.

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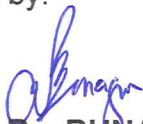
TABLE OF CLASSIFICATION OF DEFECTS

TIRE, 12.00R20

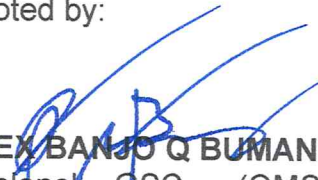
TEST PARAMETERS	QM SPEC NR OE-23T12R20 dated 05 June 2024	Classification	
		Major	Minor
Type	All Terrain, Tube Type (TT) with flap	X	
Construction	Radial	X	
Traction Design	Lug Type / Directional	X	
Manufacturer's Tire Designation Markings	12.00R20	X	
Ply Rating	22 PR (minimum)	X	
Load Index/Rating (equivalent in kgs)	4,250/3,875 (minimum); Single/Dual	X	
Speed Rating/kph	G / 90 kph (minimum)	X	
Country of origin	Identifiable	X	
Manufacturing Date Code	Identifiable	X	
Brand Name or Trade Name	Identifiable	X	
Maximum Air Pressure Markings	Identifiable	X	
PS or ICC Quality Mark or Certificate of Exemption from DTI in case the product offered is beyond the minimum standard of DTI.	Identifiable* Note: * - Applicable only during Final Delivery/Final Acceptance but not during Post Qualification Inspection.	X	
Manufacturing date covered is within one (1) year prior to delivery period	Identifiable* Note: * - The "within one (1) year prior to delivery period" shall be applicable only during Final Delivery/Final Acceptance.	X	
Dimensional			
Section Width, mm	312 ± 5	X	
Diameter, mm	1,136 ± 5	X	
Tread Depth, mm	24.0 ± 6	X	
Tire Strength	Must pass the plunger rod test based on PNS 25: 1994 standards or its equivalent	X	
Other Requirements	The tire shall suit and fit to the intended application, without any obstruction and hampers the operational function of the vehicle, like:	X	
	No evident damage on Tread or Sidewall or Ply or Cord or Inner liner;	X	
	No evident damage on Flap or Tube/Tube valve;	X	

TEST PARAMETERS	QM SPEC NR OE-23T12R18 dated 05 June 2024	Classification	
		Major	Minor
	No Bead separation;	X	
	No chunking, Broken Cords, Cracking or Open Splices on tire surface.	X	
Total Test Point		22	0

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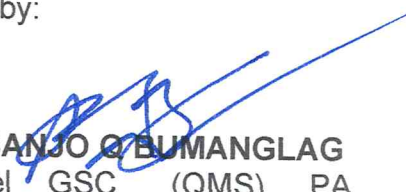
VISUAL INSPECTION CHECKLIST

DESCRIPTION OF DEFECTS	CLASSIFICATION OF DEFECTS
1. Without the tire's required appropriate size flap and tube	Major
2. Not the required traction design (directional/rib or lug type as appropriate)	Major
3. Without Manufacturer's Tire Designation Markings	Major
4. Without Brand Name or Trade Name Markings	Major
5. Without PS or ICC Quality Mark or DTI Exemption Certificate	Major
6. Not within the minimum load range and/or ply rating and type/construction requirements	Major
7. Without maximum air pressure markings	Major
8. Without the words "Made in the Philippines" or country of origin if imported	Major
9. Without the Manufacturing date mark/symbol	Major
10. Not within the Manufacturing Period requirement	Major
11. Without maximum load capacity requirement	Major
12. Evident damage on tread, sidewall, ply, cord or inner liner	Major
13. Bead separation	Major
14. Chunking, cracking, open splices on tire surface	Major

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