

**HEADQUARTERS  
PHILIPPINE ARMY  
OFFICE OF THE ARMY QUARTERMASTER  
Fort Andres Bonifacio, Metro Manila**

PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim

**ARMY COMBAT BOOTS, SUEDE, URBAN USE**

**1. GENERAL**

1.1. Scope – This document covers a flesh-out/suede, Full-grain Upper Cowhide leather type of combat boots, Olive Drab in color with nylon canvas that has a direct attached, cemented sole with a puncture resistant insole.

1.2. Grade – The finished boots shall be of the grade and quality of product prescribed by this specification.

1.3. Size – The sizes of the boots shall be as specified in TABLE I, but the ordering of the tariff sizes shall be determined by the contract.

**TABLE I. SIZES**

SIZE	Height (cm)	Insole Length (mm)	Vamp Width (mm)	
			Min	Max
5	24.0 ± 1.0	255 ± 3	172.00	176.00
5 ½	24.0 ± 1.0	258 ± 3	176.00	179.00
6	24.0 ± 1.0	260 ± 3	179.00	183.00
6 ½	24.5 ± 1.0	264 ± 3	183.00	186.00
7	24.5 ± 1.0	270 ± 3	186.00	190.00
7 ½	24.5 ± 1.0	274 ± 3	190.00	193.00
8	25.0 ± 1.0	277 ± 3	193.00	197.00
8 ½	25.0 ± 1.0	282 ± 3	197.00	200.00
9	25.0 ± 1.0	287 ± 3	200.00	204.00
9 ½	25.5 ± 1.0	292 ± 3	204.00	207.00
10	25.5 ± 1.0	296 ± 3	207.00	211.00
10 ½	25.5 ± 1.0	299 ± 3	211.00	214.00
11	26.0 ± 1.0	302 ± 3	214.00	218.00
11 ½	26.0 ± 1.0	305 ± 3	218.00	221.00
12	26.0 ± 1.0	308 ± 3	221.00	225.00
12 ½	26.0 ± 1.0	311 ± 3	225.00	228.00

PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

Interim JUL 05 2019

2. REQUIREMENTS

2.1. First Article – Two (2) samples of the finished combat boots submitted to the Office of Army Quartermaster shall be subjected to first article inspection in accordance with para 3.1.

2.2. Materials

2.2.1. Leather

2.2.1.1. Vamp, Counter Pocket, Counter Lining and Outer Eyelet Stay & Inner Eyelet Stay Lining Leather – The leather shall be Flesh-out / suede upper, full-grain upper cowhide leather, Olive Drab in color and shall conform with the following requirements:

Thickness, mm (Cut Parts)	
Vamp	2.0 (minimum)
Outer Counter Pocket	1.8 (minimum)
Inside Counter Lining	1.0 (minimum)
Outer Eyelet Stay	1.6 (minimum)
Inner Eyelet Stay Lining	1.4 (minimum)
Color Quality (Spectrophotometer Method)	2.0 (maximum)
Water Absorption, % 30 minutes	20% (maximum)

2.2.2. Counter Material – The counter material shall be cut from impregnated material and shall conform with the following requirements:

Thickness, mm	1.8 (minimum)
Weight, g/m <sup>2</sup>	2,200 (maximum)
Tensile Strength, kg/2.54 cm (Strip Method)	95 (minimum)
Breaking Strength, Kg (Grab Method)	
Direction A	260 (minimum)
Direction B	200 (minimum)

2.2.3. Box Toes – The box toes shall be cut from impregnated material and shall conform with the following requirements:

Thickness, mm	1.8 (minimum)
Weight, g/m <sup>2</sup>	1,800 (maximum)
Tensile Strength, kg/2.54 cm (Strip Method)	70 (minimum)
Breaking Strength, Kg (Grab Method)	
Direction A	180 (minimum)
Direction B	165 (minimum)



PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim

2.2.4. Fabrics

2.2.4.1. Quarter and Gusset Material - The quarters and gussets shall be nylon, olive drab in color and shall conform with the following requirements:

Thickness, mm	0.40 - 0.80
Weight, g/m <sup>2</sup>	400 (maximum)
Breaking Strength, Kg (Grab Method)	
Warp	250 (minimum)
Filling	210 (minimum)
Thread Count/ 2.54 cm	
Warp	30 (minimum)
Filling	24 (minimum)
Yarn Size, Denier	
Warp	1,000 (minimum)
Filling	1,000 (minimum)
Type of Weave	Plain
Color Quality (Spectrophotometer Method)	2.0 (maximum)

2.2.3.2 Vamp Lining - The vamp lining shall be cut from cotton/polyester canvass and shall conform with the following:

Thickness, mm	0.40 - 1.10
Weight, g/m <sup>2</sup>	600 (maximum)
Breaking Strength, Kg (Grab Method)	
Warp	115 (minimum)
Filling	105 (minimum)
Thread Count/ 2.54 cm	
Warp	35 (minimum)
Filling	30 (minimum)
Yarn Size, Denier	
Warp	600 (minimum)
Filling	600 (minimum)
Type of Weave	Twill
Color	Black



PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim

2.2.3.3 Eyelet Stay Reinforcement – The eyelet stay reinforcement shall be cut from non-woven polyester/nylon fiber material.

Thickness, mm	0.40 - 0.8
Weight, g/m <sup>2</sup>	420 (maximum)
Breaking Strength, Kg (Grab Method)	
Direction A	140 (minimum)
Direction B	150 (minimum)

2.2.3.4 Binding Tape - The binding tape for the top edge of the gusset shall be nylon, dark green in color and shall conform to the following requirements:

Thickness, mm	0.30 - 0.80
Type of Weave	Plain Double
Weight, g/linear meter	8.0 (maximum)
Breaking Strength, Kg (Grab Method)	90 (minimum)
Width, cm	1.60 – 2.00
Color Quality (Spectrophotometer Method)	2.0 (maximum)

2.2.3.5 Quarter Top Facing, Backstay and Ankle Reinforcement Tapes - The quarter top facing, backstay and ankle reinforcement tapes shall be nylon webbing. The webbing shall be olive drab in color and shall conform with following requirements:

	Quarter Top Facing and Backstay Tape	Ankle Reinforcement Tape
Width, cm	2.30 – 2.80	4.80 – 5.20
Thickness, mm	1.10 - 1.60	1.10 - 1.60
Breaking Strength, Kg	325 (minimum)	650 (minimum)
Thread Count/ 2.54 cm		
Warp	115 (minimum)	115 (minimum)
Filling	40 (minimum)	40 (minimum)
Yarn Size, Denier		
Warp	800 (minimum)	800 (minimum)
Filling	490 (minimum)	490 (minimum)
Type of Weave	Plain Double	Plain Double
Color Quality (Spectrophotometer Method)	2.0 (maximum)	2.0 (maximum)

2.2.3.6 Footbed Cushion/Sock Lining – The footbed cushion/sock lining shall be made of pre-molded high-grade cushion material with Olive Drab knitted fabric with a total thickness of 3.0 - 8.0 mm from toe to heel portion. The cushion material should be black in color with an open-cell structure design, as illustrated in FIGURE 3. It should have the manufacturer’s name or logo imprinted on the center heel portion. It shall fit properly to the applicable size of the boot.

PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

~~JUL 05 2019~~  
Interim

2.2.3.7 Insole Construction Assembly - The insole shall be assembled and made into a (3) three-piece/layered construction. (See FIGURE 3)

First/Top Layer	Rubber Cushion heatbonded with Non-woven polyester/nylon fiber
Second/ Middle Layer	Multi-layered polyester/nylon fabric material
Third/Bottom Layer	Non-woven polyester/nylon fiber

2.2.3.7.1 First layer will form the Top layer. It shall be black rubber cushion heat bonded with a white non-woven polyester or nylon fiber material. Total thickness shall be 3.0 – 7.0 mm and shall conform with the following requirements:

Breaking Strength, Kg (Grab Method)	
Direction A	170 Kg (Minimum)
Direction B	145 Kg (Minimum)
Weight, g/m <sup>2</sup>	1,200 (Max)

2.2.3.7.2 Second layer will form the Middle Layer. It shall be made of natural or white multi-layered polyester or nylon fabric and shall have the following requirements:

Thickness, mm	3.0mm - 5.0mm
Color	Should be Natural or White
Puncture Resistance Test. (ISO 20344 or ASTM F2412 Test Method)	Shall withstand a resistive force of 122.5 kgf (minimum without penetration.)
Weight, g/m <sup>2</sup>	4,000 (Max)

2.2.3.7.3 Third layer will form the Bottom layer. It shall be made of a white non-woven fiber material made of polyester or nylon and shall have the following requirements:

Thickness, mm	0.5 mm - 1.2 mm
Breaking Strength, Kg (Grab Method)	
Direction A	150 Kg (Minimum)
Direction B	110 Kg (Minimum)
Weight, g/m <sup>2</sup>	400 (Max)



PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim

2.2.4 Metals

2.2.4.1 Eyelet - The eyelet shall be made of brass or aluminum, enamel coated, olive drab in color. Should have a roll setting barrel and shall conform with the following finished requirements when tested:

Outside diameter	1.19 cm -1.25 cm
Inside diameter	0.50 cm - 0.65 cm

2.2.4.2 Speed Lace Loops - The speed lace loops shall be made of brass, enamel coated and olive drab in color.

2.2.4.3 Drainage Eyelet with Washers - The drainage eyelet shall be brass, mesh eyelet olive drab in color, with a diameter head of 11.0 mm ± 1.10 mm.

2.2.5 Outersole and Midsole Assembly - The outersole and midsole shall be made of two (2) piece material. Outersole shall be made of high-grade rubber and the midsole shall be made of compressed and molded ethylene-vinyl acetate (EVA). It shall have the following general characteristics:

2.2.5.1 Color - The color shall be Light Green, non-marking, producing only a slight erasable mark on white paper.

2.2.5.2 Abrasion Resistance. - The loss in weight due to abrasion resistance shall be not more than 90 mg.

2.2.5.3 Flex Resistance - The outersole, heel rubber and leather shall not show sign of cracks or splits and shall have no separation between the upper after a minimum of 150 hours of continuous flexing.

2.2.5.4 Bond Strength - The bond strength shall be not less than 40.0 kgs.

2.2.5.5 Hardness - The durometer hardness shall be 65 ± 10 Shore A.

2.2.5.6 Midsole Hardness (Teclock) - The durometer hardness shall be 65.0 +/- 10.0 .

2.2.5.7 Outersole Traction Bottom Design - The bottom design shall be of the Panama style with Honeycomb traction. With toe and heel stitch provisions.



**PA SPECIFICATION**

**QM SPEC NR IC-21ACBSUU**

**JUL 05 2019**  
**Interim**

2.2.5.8 Markings – The outersole shall be marked with contractors name/logo as shown in the illustration.

2.2.6 Thread, Upper Fitting - The thread for all fitting operations shall be nylon or polyester, 3-ply (minimum), olive drab with a minimum breaking strength of 5.0 Kgs.

2.2.7 Thread, Insole Stitching – The thread for stitching the insole assembly shall be natural/white in color, made of nylon or polyester, 4 ply (maximum), with a minimum breaking strength of 20.0 Kgs

2.2.8 Thread, Outersole Lock Stitching – The thread for stitching the outersole shall be nylon or polyester, 2-ply (minimum), olive drab with a minimum breaking strength of 20.0 Kgs.

2.2.9 Thread, Double Outersole Lock Stitching – The thread for stitching the Double outersole shall be nylon or polyester, 2-ply (minimum), Yarn size of 1,500 denier (minimum), olive drab, with a breaking strength of not less than 20.0 Kgs.

2.2.10 Lace Material - The laces should be round type braided nylon, olive drab in color, and shall be reinforced with plastic tips 1.8 cm ± 0.3 cm. The minimum length of the lace shall be 160.0 cm with a breaking strength of not less than 75.0 kg.

2.2.11 Miscellaneous materials.

2.2.11.1 Fiber Shank - The shank shall be made of high-grade compressed hard fiber, with thickness of 1.90 - 2.50 mm, width of 1.40 – 2.00 cm. The length of the shank shall conform to the following requirements.

<b>Boot Size</b>	5 to 6.5	7 to 8.5	9 to 10.5	11 to 12½	Tolerance
Shank length in cm	10.0	10.5	11.0	11.5	± 1.5

2.2.11.2 Instruction Tag - Instruction tag, to be tied to the finished boots, shall be printed using the data provided in Illustration 1. The tag shall be printed on tag stock that is 12 cm by 16 cm and folded in the middle to form four printed pages in book form that are 12 cm by 8 cm. A punch hole shall be made in the top near the folded edge for insertion of the lace.

**2.3 Construction**

2.3.1 The combat boots shall be constructed using the latest technology of the manufacturer and shall conform to the design as shown in the FIGURES 1, 2, and 3.



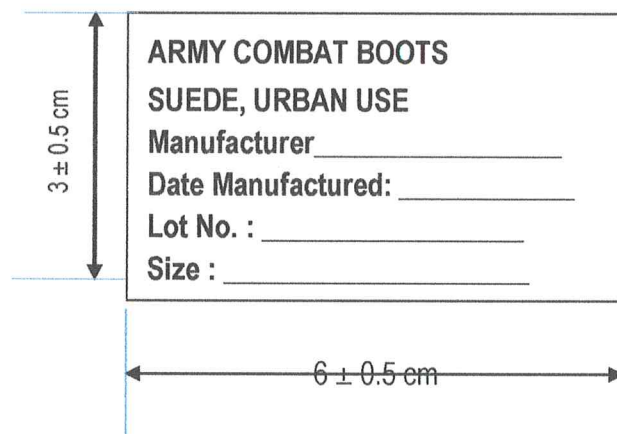
PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim

2.3.2 Contractor's Label. - The gusset of each boot should have a contractor's label (3 ± 0.5 cm x 6 ± 0.5 cm) sewed to the inside portion and from the top center of the gussets with the correct size and width, the contractor's identification symbol, the month and year (expressed numerically) of the manufacture date, and words, "ARMY COMBAT BOOTS SUEDE, URBAN USE". Lot number marking shall also be included. The figures and letters shall be readable and proportion. The label shall be expressed as shown in the following example; alternate formats may be used provided all the data elements are included and requirements are met:



2.3.3 Upper Stitching - The upper stitching shall be eight (8) to ten (10) stitches for every 2.54 cm.

2.3.4 The eyeletstay shall have a V-cut with a depth of 1.5 ± 0.3 cm located at the center of the eyelet and the speed lace loop as shown in Figure 3D.

2.3.5 Speed Lacing and Eyeleting – On each quarter, there shall be five (5) speed lace loops on the upper portion and three (3) eyelets at the bottom spaced evenly from blucher nose to top of quarter. There shall be two (2) drainage eyelet located just above the insole on the finished boot as illustrated in FIGURE 1.

2.3.6 Instruction Tag – One instruction tag containing the information as shown in Illustration 1 shall be attached to each pair of boots.

2.3.7 Height – The height of the finished boot, shall be measured upward on outside from Bottom heel to top collar of boot. (see FIGURE 5).

2.3.8 Vamp Width – The vamp width of the finished boot shall be measured from sole to sole passing over the vamp at the front edge of the two eyelet stays. (see FIGURE 4).



**PA SPECIFICATION**

**QM SPEC NR IC-21ACBSUU**

JUL 05 2019  
**Interim**

**2.4 Workmanship**

2.4.1 Design – The design of the finished boots shall be essentially the same with the official sample of the Philippine Army. The design shall be for a full lace closure boot with puncture resistant insole and with a removable cushioned sock lining. The leather areas on the outside of the boot shall have the flesh-out grain surface exposed. The boot shall have nylon canvas quarter with nylon webbing for backstay, top stay, and ankle reinforcements. The vamp shall be plain with a hard box toe. The outsole design shall be of the panama style with honeycomb traction.

2.4.2 Finish – The finished combat boots shall be free from defects, such as missing components, incorrect stitching patterns, unspecified materials, unmatched pairs, crooked box toe, unspecified color, wrong type or placement of hardware components, protruding points in insole, lack of puncture resistant insole, or missing instruction label. The boots shall also be free from stains or foreign matter affecting appearance.

**3 VERIFICATION**

3.1 First Article Inspection – The contractor shall furnish two (2) samples of the Boots for first article inspection and approval as against the bid sample. The sample shall be subjected to tests and examination to verify if the requirements in para 2.2 through 2.3 are satisfied, with referenced to the attached test parameters and classification of defects of this document.

**3.2 Sampling**

3.2.1 Samples of materials, components and other items entering into the manufacture of the combat boots may be taken at random from time to time by PA inspectors for the purpose of examination and test to determine compliance with the requirements of this specification.

3.2.2 Pre-production Sample – Before actual production starts, unless otherwise specified, two (2) pairs finished samples of the combat boots shall be submitted to the RDC, ASCOM, PA for verification whether the quality of the materials used conformed with the characteristics/requirements of the specification and (1) pair finished combat boots to the Office of Army Quartermaster for approval as to design, construction, workmanship, style and finish.



**PA SPECIFICATION**

**QM SPEC NR IC-21ACBSUU**

**JUL 05 2019**

**Interim**

**4. QUALITY ASSURANCE PROVISIONS**

Responsibility of Inspection – Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this document where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

**5. PACKAGING AND PACKING**

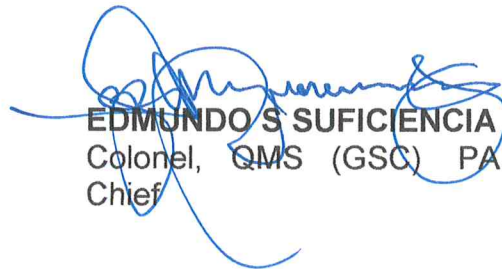
5.1. Packaging – Each pair of properly mated boots should then be placed on an individual shoe box with onion skin wrapped around each shoe for protection. The box should have the manufacturer’s logo printed on the top. It should be accompanied by label with the details of the shoe and its origin and other important matters.

5.2. Packing on Master Box – Twelve (12) pairs of boots in the shoe box of the same size shall be packed in a corrugated carton, in suitable size. The top cover, when closed, shall be sealed with a binding tape and finally secured with nylon straps. The box shall be labeled as follows:

ARMY COMBAT BOOTS, SUEDE, URBAN USE  
(Name of Contractor)  
QTY: 12 pairs  
SIZE: \_\_

**6. NOTES**

6.1. Any point not covered by this text shall be supported by the attached illustrations as reference and guide of the contractor.

  
**EDMUNDO S SUFICIENCIA**  
Colonel, QMS (GSC) PA  
Chief

**NOTED**  
**CG, PA W**  
DATE **JUL 05 2019**



JUL 05 2019  
Interim

**INSTRUCTION TAG**

**ARMY COMBAT BOOTS, SUEDE, URBAN USE**

**Proper Usage, Storage and Care**

- Wear with socks and footbed cushion/sock lining.
- Before wearing the boots, carefully inspect the inside of the boots for any foreign objects, insects, etc. to avoid painful and disabling bites and stings or any other injuries.
- Do not leave the shoe in a place with high temperature/humidity such as in cars or non-ventilated closets/cabinets.
- When drying the shoe, place it under the shade with high ventilation and do not force-dry it by using a machine dryer or by drying it under direct sunlight.
- Store footwear in a cool and dry place
- After use, brush away surface dirt with a soft brush, loosen laces to fully open each shoe and place in a ventilated area to dry.

**Cleaning guide for natural fleshout suede upper leather**

- Put small portion of water with mild detergent on a white cloth, and apply it lightly on upper to remove stains.
- Use soft white cloth to wipe extra wet surface and then air dry.
- In case of mud stains, moisten the mud stain spot with clean cold water, and apply mild and soft detergent to remove the stain. After hand wash, insert white cloth or paper in shoes, dry it under shade with high ventilation (not on direct sunlight).
- Remove all dusts in fiber neatly with a hairbrush or nylon brush.
- After drying and brush it again for finish. Enjoy the smooth supple texture on face skin.

**DO NOT MACHINE WASH OR MACHINE DRY.  
The shoes/footwear should  
NOT BE DRIED UNDER DIRECT/EXTREME SUNLIGHT.**

**Instructions for use and maintenance of Boots**

**Illustration 1**



JUL 05 2019

Interim

ARMY COMBAT BOOTS, SUEDE, URBAN USE

Inner Side View

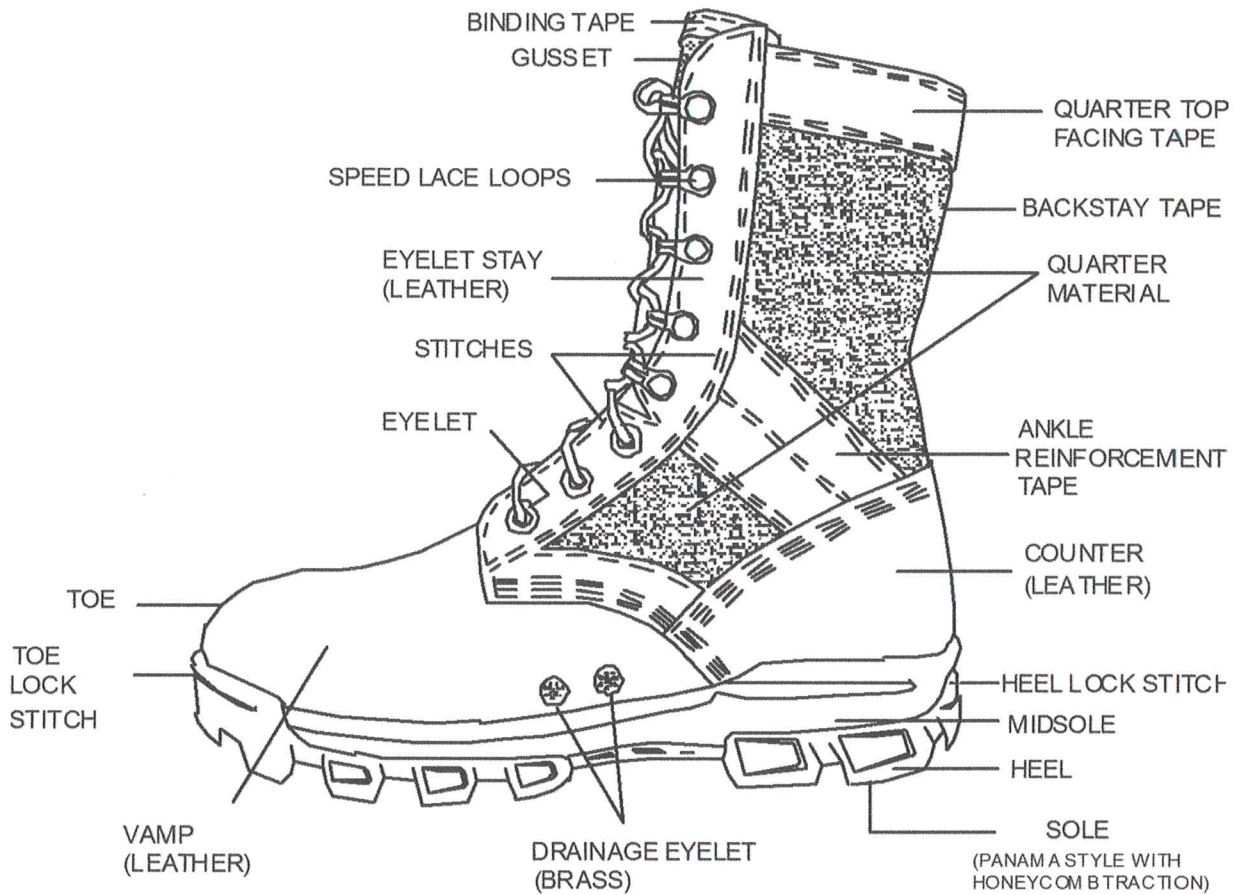


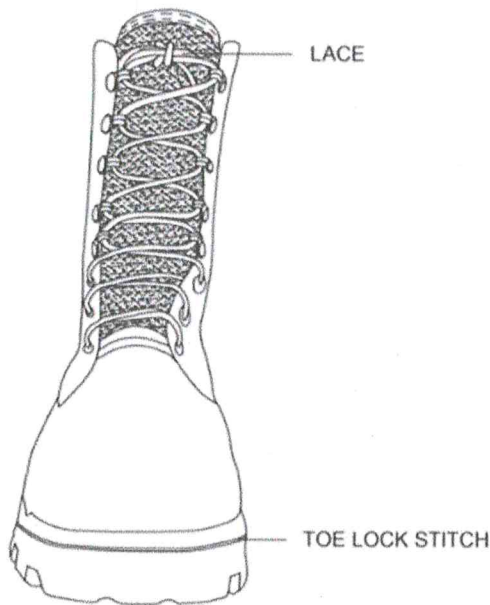
FIGURE 1

PA SPECIFICATION

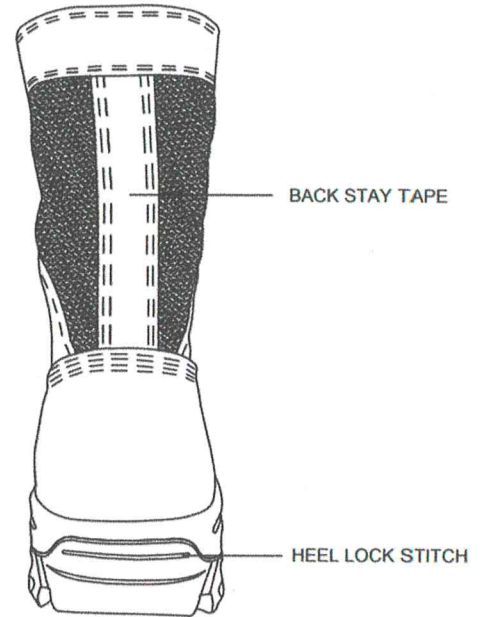
QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim



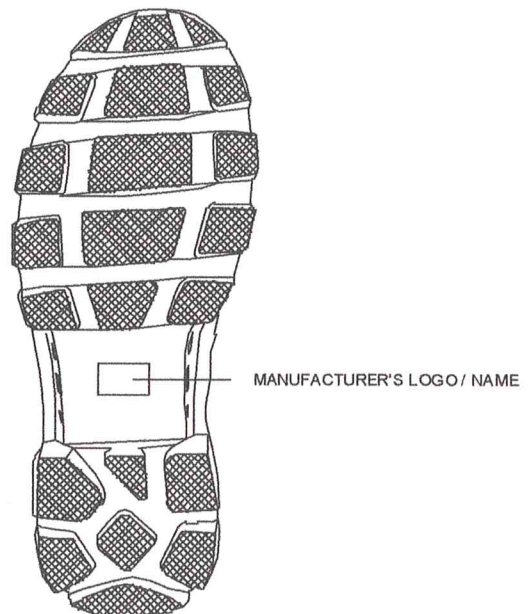
Front View



Back View



Quarter Side View



Outersole View

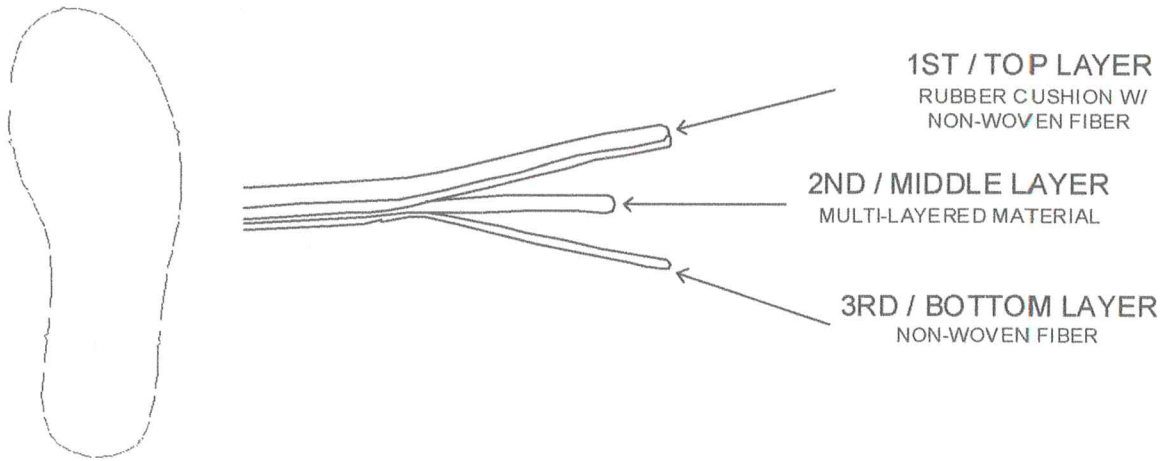
FIGURE 2

PA SPECIFICATION

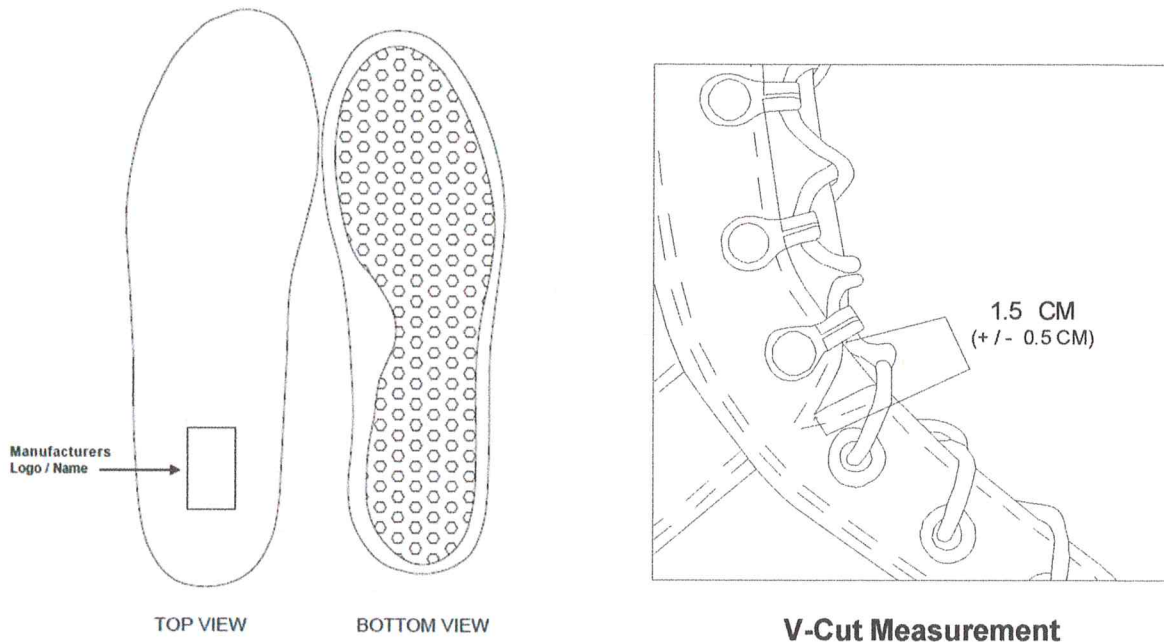
QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim



Insole Construction Assembly



FOOTBED CUSHION / REMOVABLE SOCK LINING

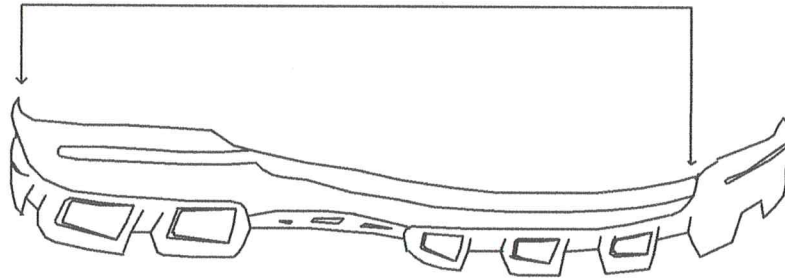
FIGURE 3



JUL 05 2019

Interim

Midsole Compressed Molded



Back Height Measurement

FIGURE 4

PA SPECIFICATION

QM SPEC NR IC-21ACBSUU

JUL 05 2019

Interim



Vamp Width Measurements  
PT. A to PT. B

FIGURE 5

By 2028, a world-class Army that is a source of national pride.

**HEADQUARTERS  
PHILIPPINE ARMY  
OFFICE OF THE ARMY QUARTERMASTER  
Fort Andres Bonifacio, Metro Manila**

**PA SPECIFICATION**

**QM SPEC NR IC-21ACBSUU**

JUL 05 2019

---

**Interim**

**ARMY COMBAT BOOTS, SUEDE, URBAN USE  
(Actual Pictures)**



Side View





**PA SPECIFICATION**

**QM SPEC NR IC-21ACBSUU**

**JUL 05 2019**

**Interim**



Front View



Back View



Perspective View