



Royal Canadian Mounted Police
Gendarmerie royale du Canada

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Specification

Boots, High Brown

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RCMP VIEWING SAMPLE

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification shall govern.

It may be obtained from:

Royal Canadian Mounted Police
ATTN: Uniform and Equipment Program
(440 Coventry Road, Warehouse Building)
1200 Vanier Parkway
Ottawa, Ontario
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample shall be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples shall be replaced by an identical item or the RCMP shall be reimbursed for the cost of an acceptable replacement.

SPECIFICATION

BOOTS, HIGH BROWN

1. Definition

- 1.1 This specification shall govern the manufacture and inspection of Male and Female Boots, High Brown. The specific items covered under this specification with stock numbers are as follows:
- i. 2675 – Boots, High Brown, Male / Bottes à tige haute brunes pour hommes;
 - ii. 2676-001 – Boots, High Brown, Male, Special / Bottes à tige haute brunes pour hommes, taille spéciale;
 - iii. 2680 – Boots, High Brown, Female / Bottes à tige haute brunes pour femmes;
 - iv. 2682-109 – Boots, High Brown, Female, Special / Bottes à tige haute brunes pour femmes, taille spéciale.
- 1.2 This specification, viewing sample, drawing or other information issued in connection therewith, may only be used for specific enquiries, solicitations, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for Boots, High Brown.
- 1.4 This specification has been translated into French from this original English language document.

2. Applicable Specifications

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the solicitation, unless otherwise specified.
- 2.2 CAN/CGSB 4.2, Textile Test Methods.
- 2.3 A-A-59826, Thread, Nylon.
- 2.4 ASTM, American Society for Testing and Materials, Method D2807, D2810, D2617, D4705 and D2211.
- 2.5 FED-STD 311-7011.1, Federal Standard, Textile Test Methods.

3. **General Requirements**

3.1 The article or material covered by this specification shall be free from material and manufacturing defects that may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production shall be equivalent in all respects to the viewing sample.

3.2 **Design** - Boots, High Brown shall be plain toe, blucher style, whole quarter with box toe. They shall have leather vamp linings, leather middle and outsoles, polyethylene heel bases and rubber heeltops, and shall conform in all respects to the viewing sample. Each pair of Boots, High Brown shall come complete with one set of jack spur straps and tabs, each set comprising two long straps, two short straps, and two spur tabs.

3.3 **Manufacture** - The male boots shall be made on lasts (known as "Tramper") and the female boots on last No. 068 United, the same as the viewing sample or equivalent by what is known as the Goodyear Welt Process. Each pair shall have matching components similar in weight and quality.

3.4 **Basic Dimensions** - The height of the upper shall be 41.5 cm with a minus tolerance of 3 mm, when measured from the heelseat at the back after lasting. The inside calf measurement for a size 8 male boot shall be 40.5 cm + 1.5 mm. Calf and height dimensions for other sizes shall be in accordance with the scale of measurements as those for the preceding size; e.g., a size 8½ boot will have height and calf measurements identical to those listed for a size 8 boot. All other dimensions referred to in this specification are for male boots size 8E. All other sizes and widths shall be in correct proportion.

3.5 **Sizes and Widths** - The contract shall specify the quantity of boots required in the various sizes (full and half sizes) and widths.

MALE		FEMALE	
<u>Width</u>	<u>Sizes</u>	<u>Width</u>	<u>Sizes</u>
D	5½ - 14	B	5 - 10½
E	5½ - 14	C	5 - 10½
F	7 - 14	D	5 - 10½

4. **Detail Requirements**

4.1 **Components**

4.1.1 **Upper Leather** - The upper leather shall be chrome tanned from green or salted bovine hides. Dry hides shall not be used. The leather shall be fat liquored but not stuffed. The finished leather shall be thoroughly tanned, and mellow and tight fibred. Loose or pipy leather will not be accepted. Materials used in tanning and finishing shall have no injurious effects on the leather or the ultimate user of the leather. For information purposes only, A.R. Clark "Cavalino" colour No. 78177 leather has been found satisfactory for the purpose. Other leathers will be acceptable providing they meet all requirements.

4.1.1.1 **Finish** - The leather shall be full grain and not buffed or snuffed. The finish shall be bright and not have an excessive amount of pigment. The flesh side shall be smooth and free from loose flesh.

4.1.1.2 **Trim** - The edges of the butt, belly and forepart of the sides shall be trimmed according to standard tannery practice, and shall be free from ragged edges.

4.1.1.3 **Colour** - The leather shall be drum dyed and contain fast dyes. The colour shall be brown in accordance with the viewing sample.

4.1.1.4 **Thickness** - The sides shall have a minimum thickness of 2.2 mm and a maximum thickness of 2.4 mm, when measured approximately 5 cm below and along the backbone.

4.1.1.5 **Dimensions** - The area for a full, finished side shall not exceed 2 m².

4.1.1.6 **Chemical Requirements (Moisture free basis)**

	MIN.	MAX.	ACCEPTABLE TEST METHODS
Chloroform Extract, % (av.)	3	-	ALCA B4
Chromic Oxide (Cr ₂ O ₃), % (on hide substance basis)	3.5	-	ASTM D2807
Acidity (ph)	3	-	ASTM D2810
Ash, %	-	7	ASTM D2617

4.1.1.7 **Physical Requirements**

	MIN.	MAX.	ACCEPTABLE TEST METHODS
Breaking Strength (Newtons)	1135	-	
Shrinkage Temperature °C (average)	97		FED STD 311 Method 7011.1
Elongation at 2000 psi	-	50%	ASTM D2211
Elongation at 8900 Newtons	-	50%	ASTM D2211
Stitch Tear Strength (based on 1.75 to 2 mm leather [4.5 – 5 oz]) (lbs)	75	-	ASTM D4705

4.1.1.8 **Rot Resistance** - The leather shall be treated with paranitrophenol, and shall contain not less than 0.25% nor more than 0.50% paranitrophenol based on dry weight of finished leather. Other substances will be considered provided the performance is the same.

4.1.2 **Uppers** - Vamps, quarters, front and back straps, and side eyelet backings shall be cut from the leather specified in Para. 4.1.1.

4.1.2.1 **Vamps** - The vamps shall be cut from the best portion of the butt of the side, with a thickness of 2.0 to 2.2 mm, and shall be free from all imperfections.

4.1.2.2 **Quarters** - The quarters shall be cut adjacent to the vamp area as specified above, and from parts of the shoulder that are not hinged and are free from extensive fat wrinkles. Light, well healed-over scratches that do not affect serviceability and appearance will be accepted. Quarters shall have a thickness of 2.2 to 2.4 mm. Care shall be taken to see that the quarters are firm but pliable.

4.1.2.3 **Front and Back Straps** - The straps shall be cut from the backbone and shoulder areas and be free from prominent fat wrinkles and grub damage. They shall have a thickness of 1.4 to 1.6 mm.

4.1.2.4 **Side Eyelet Backings** - The eyelet backings shall have a thickness of 1.2 to 1.4 mm.

4.1.3 **Tongues** - The tongues shall be cut from very soft flexible calf skin 0.6 to 0.7 mm thick. The colour shall match that of the upper leather. This leather may have a slightly corrected grain.

4.1.4 **Counter Pockets, Vamp Linings and Heel Pads** - The pockets, linings, and pads shall be vegetable or chrome vegetable retanned leather cut from cowhides, taken from the sides, shoulders or bellies. It shall be 1.0 to 1.2 mm thick, natural or light russet in colour. English kip lining has been found acceptable.

4.1.5 **Counters**

4.1.5.1 **Material** - Material for counters shall be reconstituted leather fibre sheet. It shall be made only of leather fibres bound with suitable binders, between 2.54 and 2.79 mm thick. The finished sheet shall be smooth and shall meet the requirements given in the following table:

PROPERTY	MINIMUM	MAXIMUM	TEST METHOD
Bursting Strength (DRY)	2,652.55 kPa	-	CAN/CGSB-4.2
Bursting Strength (WET)	2,135 kPa	-	CAN/CGSB-4.2
Tensile Strength	4,895 N	-	CAN/CGSB-4.2

Other materials may be considered provided they meet with the approval of the RCMP. Counters shall not bulge or cause a warping of the quarters along their forward edges.

4.1.5.2 **Moulding** - The counters shall be properly skived and moulded on left and right moulds that shall correspond closely in shape and design to the heel portion of last. The counters shall be available in all sizes and widths.

4.1.6 **Welting** - The welting leather shall be first quality squared double shoulder leather of welting tannage. It shall be firm but flexible, with no soft, spongy or loose fibred leather accepted. No hide or mechanical defects shall be allowed. It shall have a minimum width of 12.7 mm and a thickness of between 3.2 mm and 3.4 mm.

4.1.7 **Bottom Filler** - The filler shall be a granulated cork bonded by a waterproof and thermo-setting binder which is free from any material subject to rapid deterioration with age. Thermoplastic binders shall not be employed. The cork granules will be 1 mm x 2 mm in size with a plus or minus tolerance of 10%. The weight of the cork shall not be less than 50 nor more than 52 kilos per cubic meter. The filler shall be compatible with the specified soling adhesive and shall not stain nor bunch and shall retain flexibility throughout the life of the boot. The cantilever movement between the filler surface and the outsole shall not cause squeaking.

Note: For information purposes only, the filler known in the trade as "Nulite" now referred to as "Flexofil" has been found to be acceptable.

- 4.1.8 **Box Toes** - The box toes shall be cut from a styrene butadiene box toe material. The material shall be a laminate. The material used in forming the laminate shall consist of a single ply, double napped (napped both sides) unbleached cotton, having an approximate average weight of $247 \text{ g/m}^2 \pm 5\%$. The napping shall be continuous and even. It shall be impregnated with a styrene loading of $0.502 \text{ kg} \pm 10\%$ per 0.836 m^2 , (in the dry state), to produce a thickness (in the inactivated state) of not less than 1.27 mm nor more than 1.53 mm. No fillers shall be added to the styrene. The front upper edge of the box toe shall be skived to a thin edge with a $13 \text{ mm} \pm 1.5 \text{ mm}$ straight bevel scarf. After lasting, the box toe shall be $6.5 \text{ cm} \pm 1.5 \text{ mm}$ in length in a size 8 male boot. For all other boot sizes the box toe length increments shall increase or decrease by 1.5 mm per full size, measured with a tape around the curve of the toe, from the welt, after lasting. The female box toe in a size 7 boot shall be $6 \text{ cm} \pm 1.5 \text{ mm}$ in length, with the same interval per full size as the male boots.
- 4.1.9 **Box Toe Solvent** - The solvent to be employed in treating the box toes shall be a fast drying petroleum type of toluol with an RI of 1.4969 at 20°C . The coal tar variety of solvent shall not be employed. Where lasting techniques require a longer drying time, a slower solvent may be utilized provided that it does not exceed 18% (by volume).
- 4.1.10 **Shanks** - The shanks shall be made of high-carbon, cold-rolled strip steel, sound and free from roughness, pitting, blisters, limitations, surface defects or edge cracks. The shank shall be appropriately curved to fit the bottom of any designated last. The surface shall be suitably plated with a rust-inhibiting bright zinc (or other suitable material) coating. The shanks may be covered with a tape material to reduce the possibility of squeaking.
- 4.1.11 **Eyelets** - The eyelets shall be telescopic and the eyelet and washer shall be made from non-ferrous metal. The eyelet shall have a brown enamel finish and an inside barrel diameter 3.5 mm when set. The barrel shall be of sufficient length to clinch securely with washer on the facings. Care shall be taken to ensure any part of completed and installed eyelets will not cut laces during use.
- 4.1.12 **Laces**

- 4.1.12.1 **Front Laces** - The laces shall be nylon, brown, 142 cm in length (minimum), in accordance with the viewing sample on front.
- 4.1.12.2 **Side Laces** - Shall be cut from chrome tanned leather, colour to match the upper leather as closely as possible. Each lace shall be 60 cm long, 5 mm wide and 2 mm thick. One end of each side lace shall be cut diagonally for a distance of at least 2cm to permit easy threading of the lace through the side lace eyelets. Two pairs of side lacing shall be issued with each pair of boots.
- 4.1.13 **Insoles** - The insoles shall be cut from combination tanned (vegetable tanning followed by chrome retannage, or chrome tanning followed by vegetable retannage) bends or shoulders of cowhides. The leather shall be mellow and of medium-tight fibres. Loose or pipy leather will not be acceptable. The grain surface and all loose flesh shall be carefully removed by the use of a "Summit" or other similar splitting machine. The removal of the grain or flesh by equipment employing sandpaper or wire brushes shall not be permitted. The degrained and fleshed insoles shall be firm, free of open grub holes or cuts and shall have a minimum thickness of 3.2 mm and a maximum of 3.7 mm.
- 4.1.14 **Midsoles** - The midsoles shall be cut from firm but pliable shoulders from vegetable tanned packer steer or cow hides, and may have minor damage such as scratches, slt stains, medium fat wrinkles, and not more than three minor cuts on the flesh side. All leather for midsoles shall be free from imperfections or blemishes that may affects its appearance or serviceability. After all excess flesh has been removed, the midsoles shall have minimum thickness of 2.6 mm and shall meet the casing requirements specified in para. 4.2.15.
- 4.1.15 **Outsoles** - The outsoles shall be cut from first quality bends, vegetable tanned from fresh or cured packer steer or cowhides. The leather shall be full grain (not buffed or snuffed) and free from imperfections or blemishes that may affect its appearance or serviceability. The leather shall be soft, smooth and pliable. After all excess flesh has been removed and the outsoles are evened, they shall have a minimum thickness of 5.8 mm and a maximum of 6.3 mm. Outsoles graded as "Number One Scratch" will be accepted. The colour shall be an even, medium to dark brown. There shall be no evidence of a heavy wrinkled appearance characterized by loose grain.

Note: The term "Number One Scratch" denotes a grade of leather that may include grain damage such as healed wire scratches, medium fat wrinkles (not hiny), light healed-over brands and shallow flesh cuts in the shank and under the heel, minor

grain blemishes, and soles with some stain or wild grain defects that will not affect the wearing quality of the leather, but shall not include "butty" toes, soft spots or open grub holes.

- 4.1.16 **Heelbase** - The Heelbase shall be built up with firm, whole lifts, using full grain leather (not buffed or snuffed) and free from imperfections or blemishes that may affect its appearance or serviceability. The leather shall be soft smooth and pliable. The lifts shall be glued together with a water-resistant glue and then compressed tightly together with the use of moulds and compressing equipment. The compressed heelbase when combined with the lifts shall be of sufficient height at the heelbreast and heel to cause the boot to tread correctly.
- 4.1.16.1 **Sizes** - The heelbases shall be available in the sizes required.
- 4.1.16.2 **Stippling and Roughing** - The cup portion of the heelbase is to be generously stippled and the toplift side is to be finely roughed.
- 4.1.16.3 **Shape** - The shape, cavity and section braces of the heelbase shall be acceptable to the inspection authority.
- 4.1.17 **Rubber Heel Top** - The heel top shall be rubber equal in all respects to the viewing sample, 13 mm in thickness and brown in colour.
- 4.1.18 **Nails, Heelbase and Rubber Heel Attaching** - The heel attaching nails shall be steel, half-rough, rubber heel type of sufficient length to burr securely and smoothly on the insole.
- 4.1.19 **Thread**
- 4.1.19.1 **Upper** - All upper stitching shall be done with Class A, Type II, size "E" bonded nylon thread (top and bottom) in accordance with specification A-A-59826. The thread colour shall be brown.
- 4.1.19.2 **Welting** - The welting shall be sewn with Class A, Type I, Size 8 (Tex 600) soft filament nylon in accordance with specification A-A-59826. The thread shall be thoroughly impregnated with hot wax.
- 4.1.19.3 **Sole Stitching** - The sole shall be sewn with Class A, Type I, Size 6 (Tex 400) soft filament nylon in accordance with specification A-A-59826. The thread shall be thoroughly impregnated with hot wax.

- 4.1.20 **Metal Backstrap Support** - The support shall be of zinc-plated or plastic-covered spring steel. The zinc plated type shall have celluloid tips. The supports shall be 0.6 mm thick, 8 mm wide, with rounded ends and of the following lengths according to boot size:

MALE BOOT SIZES	SUPPORT LENGTH
5½ - 6½	25 cm
7 - 9½	26 cm
10 - 11½	27 cm
12 - 14	28 cm

FEMALE BOOT SIZES	SUPPORT LENGTH
5 - 5½	24 cm
6 - 7½	25 cm
8 - 8½	26 cm
9 - 10½	27 cm

- 4.1.21 **Adhesive** - The adhesive to be employed for binding outsole to shoe bottom and welt shall be suitable for the purposes intended and shall produce a permanent bond between the adhered layers.
- 4.1.21.1 **Application** - A coat of adhesive shall be evenly spread on the roughed surfaces specified in Para. 4.2.15 and allowed to dry at room temperature until tacky.
- 4.1.22 **Tucks, Fibreboard, Heelseat Reinforcing** - The tucks shall be cut from a 100% cellulose fibre board producing a high degree of stiffness and tough dense structure. The finished board shall be 2.11 mm ± 0.13 mm in thickness.
- 4.1.23 **Jack Spur Straps and Tabs** - The Jack Spur straps and tabs shall be made of the leather specified in Para. 4.1.1.
- 4.1.23.1 **Thickness** - The straps shall be 2.4 mm thick. The tabs shall be two layers cemented together, total thickness from 5.6 to 6.4 mm thick.
- 4.1.23.2 **Dimensions** - The dimensions shall be in accordance with the drawing and subject to a tolerance of ± 0.75 mm. The straps shall come in two sizes, Short and Long (designated as 'S' and 'L' on packaging materials, etc.) for different size boots as indicated in Drawing. 2.

4.2 **Construction**

- 4.2.1 **Cutting Uppers** - The uppers shall be cut from leather specified in Para. 4.1.1. Care shall be taken that the thickness and quality of the leather for the various parts of the boot be as specified in Para's. 4.1.2.1 to 4.1.2.4 inclusive.
- 4.2.2 **Skiving** - The quarters shall be skived on the flesh side around the heelseat with a straight taper skive 8 mm in width. The edge of the quarters where it laps the vamp shall be skived. The front edges of the quarters shall be bevelled. The bottom edge of the counter pocket shall be skived on the flesh side with a straight taper skive 8 mm in width. All edges of the front and back straps shall be bevelled and skived. The top edges of the quarters shall not be skived.
- 4.2.3 **Upper Fitting** - All upper stitching, with the exception of the seams joining the quarters at back and front, shall be lockstitched. The lock shall be positioned approximately 3/4 down from the surface. Not less than 3.5 nor more than four stitches per centimetre shall be used. The thread shall be as specified in para. 4.1.19.1. The loose ends of all upper stitchings are to be trimmed off with the use of scissors or knives. Burning or "flaming" off the loose ends will not be permitted. The needles used shall be the smallest size possible.
- 4.2.3.1 **Quarters** - The quarters shall be butted and seamed at the back and front on a zig-zag machine - three to four stitches per centimetre shall be used. The seams shall be rubbed out flat. After lasting, the quarters shall show no gaping.
- 4.2.3.2 **Vamps** - The quarters shall be stitched to the vamps by two double rows of stitching starting and stopping at the bottom of the quarters. The first two rows of stitching shall be placed 1.5 mm \pm 1 mm from the edge of the quarters, and separated by 1.5 mm. The two double rows of stitching shall be separated by approximately 3 mm.
- 4.2.3.3 **Vamp Lining and Counter Pocket** - The two pieces of counter pocket shall be stitched together at the back of the quarters. With the counter pocket overlapping the vamp lining, the two shall be caught by the two double tongue rows of vamp stitching. The vamp lining shall also be caught by the tongue stitching at the throat. The top edge of the counter pocket shall be stitched to the quarters by one double row of stitching separated by 1.5 mm.
- 4.2.3.4 **Blucher Nose Barring** - Each blucher nose shall be barred with one continuous row of stitching using a single needle lockstitch machine. The row shall start and

stop approximately 25 mm from the front edge of the blucher nose and extend to within approximately 2 mm of the front edge. The barring is to be placed in such a manner as to catch the corners of the tongue, yet not interfere with the entry of the foot. Broken or loose-tensioned stitches will not be accepted.

- 4.2.3.5 **Front and Back Straps** - The front strap shall be 15 cm long for male and 14 cm long for female boots and shall fit even with the top of the quarters. The front strap shall be stitched to the front of the quarters by one double row of stitching. The first row of stitching shall be placed 1.5 mm from the edge of the front strap and separated from the second row by 1.5 mm. The back strap shall be 2 cm wide at the top and otherwise dimensioned as per the viewing sample. It shall be stitched to the back of the quarters by one double row of stitching, positioned and spaced in accordance with the front strap. A metal backstrap support as specified in para. 4.1.20 shall be inserted into the slot provided, before securing the overlap at the top of the quarters. The top end of the backstrap support shall rest no more than 1.25 cm from the top of the quarters after insertion to ensure proper placement. A double row of stitching across the bottom of the backstrap shall be used to prevent the metal strap from sliding down.
- 4.2.3.6 **Tongues** - The tongue of the leather specified in Para. 4.1.3 shall be machine crimped with a generous full bellows throughout the entire front opening to assist in easy entry and exit of the foot. It shall be stitched to the vamp at the throat by two single rows of stitching. The first row of stitching shall be placed 1.5 mm from the edge and the two rows separated by approximately 3 mm. The top portion of the tongue shall be caught by the stitching securing the front strap to the quarters. That portion of the tongue that forms the eyelet facing shall be cemented to the inside of the quarters. The tongue shall then be stitched to the quarters to form facings approximately 2 cm in width, with the first row of stitches being placed 1.5 mm from the edges and the second row being placed 2 cm from the quarter edges.
- 4.2.3.7 **Side Eyelet Backings** - The side eyelet backings shall be shaped and dimensioned in accordance with the viewing sample. They shall be stitched to the inside of the quarters with one double row of stitching, the rows to be separated by 1.5 mm as in the viewing sample.
- 4.2.4 **Eyelets** - The side opening of all boots shall have seven eyelets evenly spaced (approximately 16 mm from centre to centre) and positioned 1 cm from either edge of the opening. There shall be fourteen eyelets on each front facing positioned similar to the side opening eyelets for size 8 male boots. Larger boots shall have additional eyelets added to the front facings if necessary in order that the eyelet

spacing of approximately 16 mm will remain constant. The eyelets shall be firmly and securely roll-set on the quarters. Eyelets in the female boot shall have the same 16 mm spacing.

- 4.2.5 **Counters** - The counters specified in 4.1.5 shall be dipped in latex counter paste just prior to assembling. The correct size of counter to fit the designated upper shall be used. During the welting operation each wing of the counter shall be caught by at least two stitches.
- 4.2.6 **Box Toes** - The box toe specified in 4.1.7 shall be positioned between the vamp lining and the doubler in such a way that it will meet the length requirement of the finished boot. The bottom edge of the box toe shall be fully caught by the welting stitches.
- 4.2.7 **Insole Marking** - The following insole markings shall be inscribed on the grain side at the shank and are to endure for the life of the boot:
1. RCMP stock number - reference contract documents. (ex. 2675-000).
 2. Size -Width.
 3. Date of manufacture, in numeric format year/month (Ex. 2001/11).
 4. Manufacturer's identification.
- 4.2.8 **Tucks, Reinforcing, Heelseat** - The tucks, rein-forcing, heelseat shall be cut from material specified in 4.1.22. The tucks shall be skived at the breast to a thin edge with a straight taper skive 20 mm \pm 1.5 mm in width. The correct size of tuck shall be cemented or stapled to the flesh side of the insole heelseat.
- 4.2.9 **Lasting** - Lasting shall be "Picked" in the correct sizes and widths in accordance with the sizes and widths of the uppers. Insoles shall be full length and width and fit the bottom of the lasts exactly. Insoles shall be evenly tacked to the lasts with one tack at toe, two at the ball, and one in the shank and heel. Uppers shall be laced before lasting, and shall open not less than 13 mm nor more than 15 mm when lasted. The upper shall be lasted 14 mm \pm 1.5 mm over and all around the heelseat. The heels and toes shall be smoothly, firmly and evenly wiped-in against the shoulder of the insole. Uppers shall be pulled down tight to the lasts. The backseams shall be straight. The blucher nose shall be in correct alignment. Lasts shall not be pulled until after edge and heel finishing operations are completed. Boots shall remain on the lasts until perfectly dry, for at least six days, unless a heat setting machine acceptable to the inspecting authority is being used.

- 4.2.10 **Welting** - The welting shall be as specified in 4.1.6. It shall be sewn level and close to the shoulder of the channel with the welt thread specified in 4.1.19.2, positioned at the root of the shoulders. Dropped or broken stitches, broken or torn channel lips will not be accepted. There shall be not more than one joint in the welting for each boot. Tension on the stitches shall be tight. There shall be not less than one nor more than 1.5 per centimetre. The ends of the welt shall butt together at the inside waist at the heel breast and stitch locked. The welt shall be beaten out while in temper.
- 4.2.11 **Removal of Tacks** - All lasting tacks shall be removed following the welting operation.
- 4.2.12 **Inseam Trimming** - The excess part of the upper and insole shoulder shall be trimmed off. Care should be taken not to trim too close to the welting stitches.
- 4.2.13 **Shanks** - The shanks shall be as specified in 4.1.10. They shall be tacked to the insole with two tacks, under the heel, in such a position that the shank shall not extend too far forward and interfere with the tread across the ball. The fitting schedule given below shall be used for male boots. The shanks' length for female boots shall be similar:

SHANK LENGTH		SHOE SIZE	WIDTHS
10 cm	(4")	7 - 7½	ALL WIDTHS
11 cm	(4½")	8 - 8½ - 9	
11.5 cm	(4¾")	9½ - 10 - 10½	
12 cm	(4¾")	11 - 11½ - 12	
12.5 cm	(5")	12½ and up	

- 4.2.14 **Bottom Filler** - The bottom filler shall be as specified in 4.1.7. The filler shall be applied by heat and mechanical pressure to ensure level and uniform bottoms. The bottoms including the open space in the heelseat, shall be completely filled.
- 4.2.15 **Sole Laying** - The sole layers specified in Para. 4.1.14 and in Para. 4.1.15 shall be fully scoured on a rapidly revolving steel wire brush. The steel wire bristles in the brush shall have a diameter of 3 mm ± 0.025 mm. The outsole and the midsole shall be firmly cemented together with the cement and method of application specified in Para. 4.1.21. A piece of suitable cotton material of an area equal to at least 2/3 of the forepart area of sole shall be placed between the middle and outsole at the ball. The cemented outsole and midsole shall be fully moulded with the use of a

sole moulding machine. The outsoles and midsoles shall be mated according to the following casing schedule:

NO.	OUTSOLE	MIDSOLE
1	5 mm	3.4 mm
2	5.3 mm	3.1 mm
3	5.5 mm	2.9 mm
4	5.8 mm	2.6 mm

The flesh side of the midsole shall be cemented to the welt and the bottom of the shoe using a suitable adhesive cement. The soles shall be laid with the aid of a sole laying machine using correct pressure and suitably shaped pads. The use of temporary tacks or nails while sole rounding and stitching is not permitted.

- 4.2.16 **Rough Rounding** - The edges of the sole and welt shall be rounded on a rough-rounding machine to provide the required extension for edge trimming.
- 4.2.17 **Sole Stitching** - The outsoles shall be stitched to the welt all around by lockstitch in a groove on the outsole. The threads specified in 4.1.19.3 shall be thoroughly coated with hot wax and be sewn using a needle and awl of the smallest combination for the specified threads. The number of stitches shall be not less than 2.5 or more than 2.7 per centimetre. The lock shall be embedded in the outsole to approximately 1/3 of the depth below the surface. A tight tension shall be used on the thread. The distance between the stitching and the edge shall be the minimum required to allow for edge trimming and shaping operations. The stitches shall be neatly and lightly separated with the use of a stitch-separated machine.
- 4.2.18 **Bottom Levelling** - The outsoles shall be levelled in order to conform to the shape of the bottom of the last. The seats shall be pounded down firmly and evenly.
- 4.2.19 **Heeling** - The heelbase, specified in 4.1.16 to 4.1.16.3 inclusive, shall be nailed to the rubber heeltop, specified in 4.1.17, with the nails specified in 4.1.18. The heelpart of the outsole and the bottom of the heelbase shall be coated with the cement specified in 4.1.21. The combined heelbase and rubber heeltop shall be cemented to the shoe in one heeling operation.
- 4.2.20 **Heel Trimming, Finishing** - The heels shall be square trimmed to provide an extension of 3 mm all around the heelseat, with a minus tolerance of 1 mm. They shall be breasted to follow the curved breasting of the rubber top. The heels shall not be underseated and shall tread flat. After trimming, two scouring operations

shall be used on the heel. The second scouring operation shall be made with the use of a fine grit paper (No. 120 or finer). After scouring, the heelpart of the outsole shall be stained brown. The heelpart of the outsole and the heelbase shall be hotwaxed, padded and brushed to a bright finish. Then the heel part of the outsole shall be key-wheeled and again brushed. The rubber heeltop edges shall be cleaned from stain or wax and left natural. The heelbreast shall be smoothly scoured and left natural.

- 4.2.21 **Sole Edge Trimming, Finishing** - Soles shall be square trimmed in pairs, around the forepart and shank, in and out, with a custom cutter to provide an extension of 4.8 mm on the inside forepart and gradually increasing around the toe and outside forepart to 6.35 mm \pm 0.8 mm at the outside ball. Joints shall be cut and aligned straight and level with the heel. No ragged or wavy edges will be accepted. The edges shall be filled with best quality filler and "set-up" with a hot oscillating iron of the same size and shape as the edge trimming cutter. The edges shall then be inked-in with best quality brown edging ink and the "set-up" operation repeated with the same iron to produce solid smooth edges. The edges shall be padded and brushed to a bright finish.
- 4.2.22 **Treeing** - The boots shall be properly blocked and treed on long blocking trees, left and right, and allowed to dry to retain their shape permanently as shown in the viewing sample.
- 4.2.23 **Bottoms** - The outsole bottoms shall be clean and free from stains. They shall not be buffed, painted or stained. After cleaning, the bottoms shall be brushed. The size and width shall also be inscribed on the outsole near the heelbreast.
- 4.2.24 **Insoles** - All tacks or nails shall be smoothly clinched and there will no roughness to the hand when examined.
- 4.2.25 **Upper Finishing** - Uppers shall be thoroughly cleaned, then dressed with one coat of a bright dressing. No filler shall be used on the uppers. The top and front edges of the quarters shall be inked in with brown ink.
- 4.2.26 **Sole Stitching** - Sole stitches shall be inked in brown on the weltside. Welt and stitches shall be cleaned and brushed.
- 4.2.27 **Heel Pads** - The heel pads shall be cut from the leather specified in para. 4.1.4. They shall be skived at the breast with a 9.5 mm \pm 1.6 mm straight taper skive. The heel pad shall be at least 4 cm in length from the centre of the breast to the back for

a size 8 boot. All other sizes shall be in correct proportion. The heel pad shall be tightly cemented to the heel part of the insole.

4.2.28 **Laces** - Each pair of boots shall be supplied with a pair of each type of lace specified in Para. 4.1.12. Laces shall be thread through the bottom eyelets of each boot and tied loosely together.

4.2.29 **Jack Spur Straps and Tabs**

4.2.29.1 **Spur Straps** - The straps shall be cut from leather specified in Para. 4.1.1. The overall length of the bottom and top straps shall be as indicated in Drawing. 2, depending on the size. The width of all straps regardless of length shall be 14.25 mm. The distance between the centre of the buttonhole to centre of buttonhole will be 22.4 cm. There shall be a buttonhole positioned 13 mm from one end and three prong holes spaced 13 mm apart. The first prong hole is to be placed 32 mm from the other end, in accordance with the drawing. Each edge of the straps shall be creased on the grain side. The crease shall be not less than 1 mm nor more than 1.5 mm in width and shall be located 3 mm from the edge.

4.2.29.2 **Spur Tabs** - The spur tabs shall be cut from leather specified in Para. 4.1.1. The spur tab shall be 8 cm deep with a width of 6 cm at the widest point. The slots in the tab shall be 16 mm long by 5 mm wide, positioned 25 mm apart and 32 mm up from the bottom in accordance with the drawing. The shape of the tabs must conform to the viewing sample. The edge of the tab shall be creased on the grain side all around. The crease shall be not less than 1 mm nor more than 1.5 mm in width and shall be located 3 mm from the edge.

5. **Quality Assurance Provisions**

5.1 **Responsibility for Inspection** - Unless otherwise stipulated in the contract, it is the prime contractor's responsibility to satisfy the R.C.M.P., Uniform & Equipment Program that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the R.C.M.P., Uniform & Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor may use any commercial testing establishment acceptable to the R.C.M.P., Uniform & Equipment Program.

- 5.2 The R.C.M.P., Uniform & Equipment Program reserves the right to perform any inspection considered necessary to ensure the material and services conform to the specified requirements. For the purpose of inspection, a portion of each delivery not exceeding two percent or two out of any number delivered under 100 may be put to tests that could destroy the articles. If found to be inferior or not in accordance with this specification, all articles so destroyed shall be replaced by others of proper quality and pattern at the expense of the contractor. The entire delivery may also be rejected if it is found that articles previously rejected due to non-repairable defects are redelivered for inspection.
- 5.3 The contractor will be promptly notified when any articles are not accepted and such articles will be returned at the contractor's risk and expense.

SCALE OF MEASUREMENTS

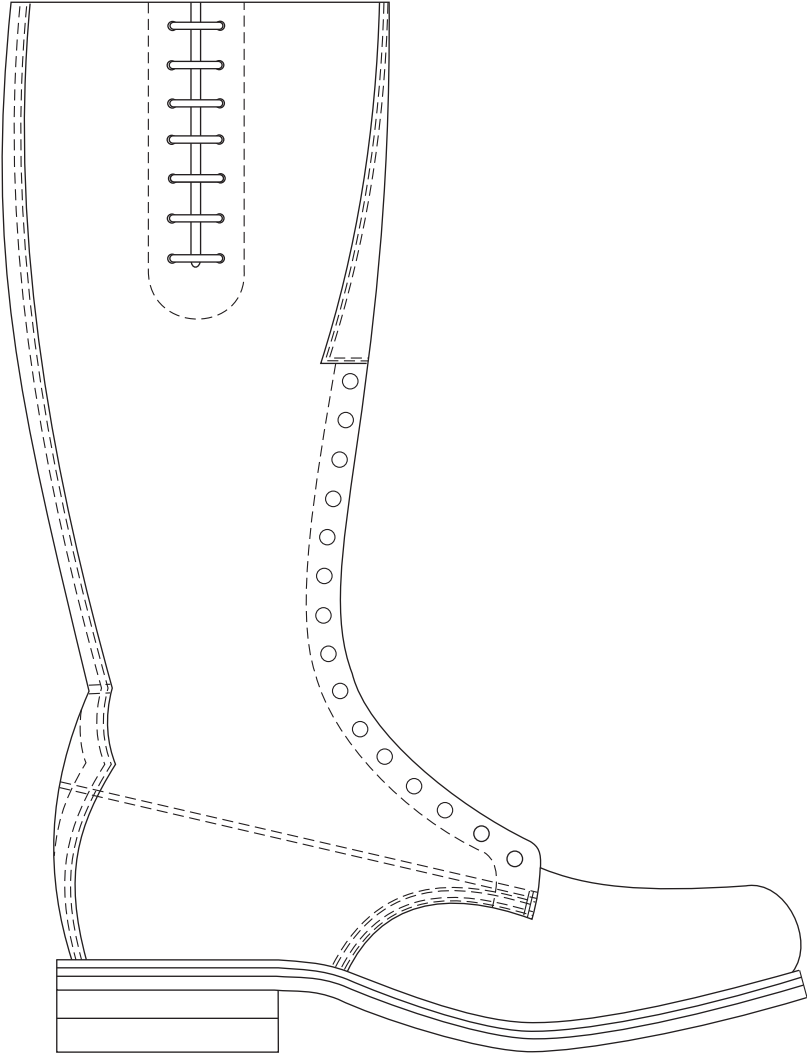
MALE HIGH BROWN BOOTS						
SIZE	CALF Circumference		TOP circumference		HEIGHT	
	cm	in.	cm	in.	cm	in.
5	38.75	15 ¼	38	15	40	15 ¾
6	39.5	15 ½	38.75	15 ¼	40.75	16
7	40	15 ¾	39.25	15 ½	41.25	16¼
8	40.75	16	40	15 ¾	42	16 ½
9	41.5	16 ¼	40.75	16	42.5	16 ¾
10	42.25	16 ⅝	41.5	16 ⅜	43.25	17
11	42.75	16 ⅞	42.25	16 ⅝	43.75	17 ¼
12	43.5	17 ⅛	42.75	16 ⅞	44.5	17 ½
13	44.25	17 ⅜	43.5	17 ⅛	45	17 ¾
14	44.75	17 ⅝	44.25	17 ⅜	45.75	18
Tolerance	± 0.75 cm (± ¼")					

FEMALE HIGH BROWN BOOTS						
SIZE	CALF Circumference		TOP circumference		HEIGHT	
	cm	in.	cm	in.	cm	in.
5	37.75	14 ⅞	37.5	14 ¾	38.75	15 ¼
6	39	15 ⅜	38.75	15 ¼	39.75	15 ⅝
7	40.25	15 ⅞	40	15 ¾	41	16 ⅛
8	41.5	16 ⅜	41.25	16 ¼	42	16 ½
9	42.75	16 ⅞	42.5	16 ¾	42.75	16 ⅞
10	44	17 ⅜	43.75	17 ¼	44	17 ⅜
Tolerance	± 0.75 cm (± ¼")					

BOOTS, HIGH BROWN

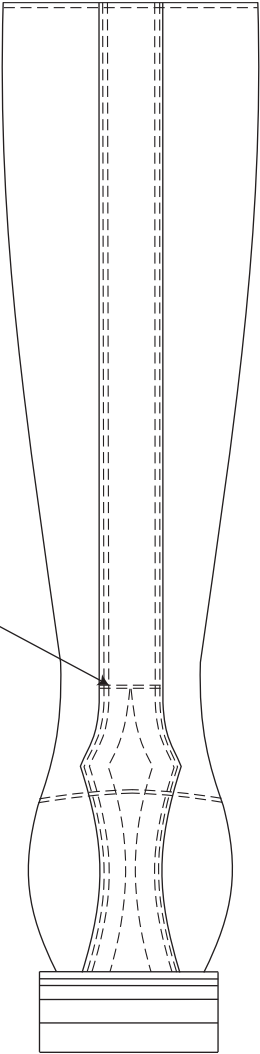
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Dwg. 1



Side View

Double row of stitching to hold metal backstrap support in position

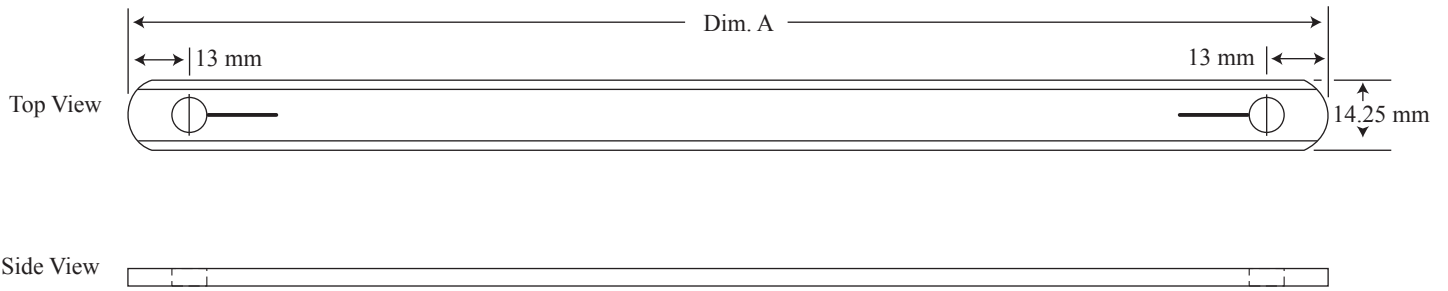


Rear View

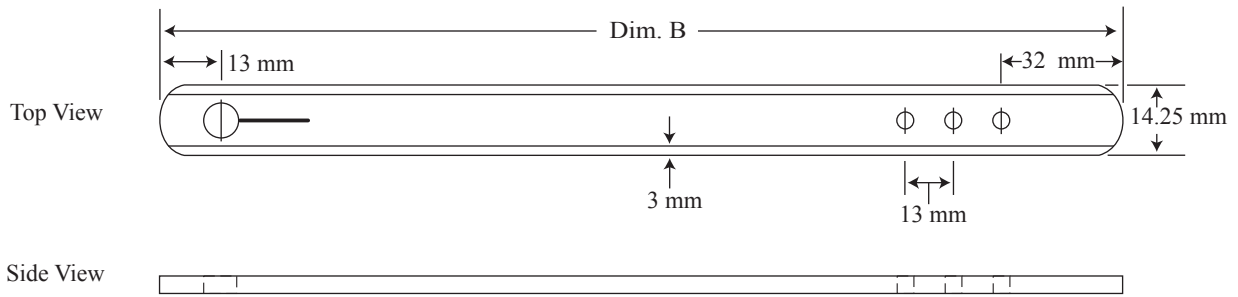
NOT TO SCALE

Jack Spur Straps and Tab

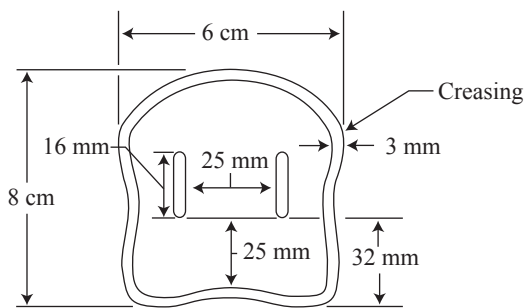
Dwg. 2



Bottom Strap



Top Strap



Tab

Strap Size	Boot Size	Dim. A cm	Dim. B cm
Short (S)	10 and smaller, all widths; 10 ½ up to and including E width	25	22
Long (L)	10 ½ F and wider; 11 and larger, all widths	28.5	26

Unless otherwise stated all Measurements in Centimeters.

Unless otherwise stated all measurements are subject to ± 0.5 cm tolerances.

NOT TO SCALE