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# GUN CARRIAGE FACTORY



JABALPUR

INDUCTION HARDENING OF GUN  
SHIELD (675-51-cd162Cb)

QUALITY ASSURANCE PLAN

26.04.19

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QAP NO. : GUN SHIELD /01

QUALITY ASSURANCE PLAN  
OF  
INDUCTION HARDENING OF GUN SHIELD OF BMP-II GUN  
MOUNT  
(675-51-cd162Cb)

PREPARED BY

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# QUALITY ASSURANCE PLAN

**DECLARATION OF STORE:** INDUCTION HARDENING OF GUN SHIELD OF BMP-II GUN MOUNT

**WORKING NUMBER:** 675-51-cd162Cb

## INSPECTION FOR FIRST TIME SUPPLIER

Following the establishment of the hardening process, the firm, in presence of GCF representative, shall inspect & test the first Gun Shield after induction hardening in the following manner:

- The firm shall carry out destructive testing of the first induction hardened Shield and shall arrange for cutting/sectioning of Shield along the depth of induction hardening.
- The firm shall carry out necessary testing to check the case depth (Depth up to which the induction hardening effect has propagated) and ensure case depth of induction hardening should be in the range 2 mm - 8 mm (for reference, 0 should be taken at outer surface of Gun Shield). Case depth to be considered upto the depth at which the measured hardness is greater than 48HRc.
- The firm shall arrange for hardness testing at the surface where induction hardening has been done and also check the hardness within the case depth in one mm interval (or less), along the full circumference of the Gun Shield. The firm shall make sufficient test pieces to cover the full circumference of Gun Shield.
- The firm shall prepare necessary test report mentioning the above parameters and shall submit the joint test report to GCF for acceptance.
- After successful establishment of the Induction Hardening Process, the other Gun Shields shall be accepted based on hardness testing at the surface where induction hardening has been done for each Shield and ensuring that the same should be greater than 48 HRc.
- The firm shall prepare necessary test report for hardness testing and shall submit the same to GCF along with the job.

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# QUALITY ASSURANCE PLAN

**DESCRIPTION OF STORE:** INDUCTION HARDENING OF GUN SHIELD OF BMP-II GUN MOUNT

**DRAWING NUMBER:** 675-51-cd162Cb

## INSPECTION FOR REGULAR SUPPLIER

For regular supplier, whereby the Induction Hardening process has already been proven by destructive testing, the firm, shall inspect & test the Gun Shield after induction hardening in the following manner:

- The firm shall arrange for hardness testing at the surface where induction hardening has been done for each Shield and ensure the same should be greater than 48 HRC.
- The firm shall prepare necessary test report for hardness testing and shall submit the same to GCF along with the job.

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