




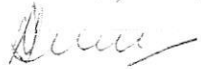

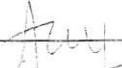
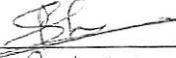
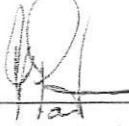






QRs : TACTICAL LADDER LAUNCHER (Contd...)

6. Spares. For maintenance and SMT / STE repair carrying out upto unit and field component level. List of spares (MRLS) will also be provided.
7. The vendor / OEM will specify local facility for charging of re-fillable pressure bottles.

 <hr/> <p>(Lt Col Anil Singhrao) LO AR</p>	 <hr/> <p>(Ashu Kumar) TROP, FHQ SSB</p>	 <hr/> <p>(Jatinder Singh) Ac. I.T.B.P.</p>	 <hr/> <p>Lt Col Milkant TC, FOS NSG</p>
 <hr/> <p>(CAPT NY YANTHAN) TC, SI SAG NSG</p>	 <hr/> <p>A.K. Sankar Ac. IIT</p>	 <hr/> <p>Dr. M. Mohan Dr. SP, BPRD</p>	 <hr/> <p>(A. M. Sharma) DC, CDF</p>
 <hr/> <p>INSPT Pradip Sharma SIW BSF</p>	 <hr/> <p>V. Pant Ops (W&amp;E)</p>	 <hr/> <p>Maj S Sachdeva Sclord, HQ NSG.</p>	

APPROVED / NOT APPROVED

  
(J N Choudhury)  
DG NSG

TRIAL DIRECTIVES: TACTICAL LADDER LAUNCHER

<u>Ser No</u>	<u>QRs of Tactical Ladder Launcher</u>	<u>Trial Directive</u>
<u>Operational Characteristics</u>		
1.	The Tactical Ladder Launcher should be lightweight, designed for rugged use in Land and Marine environment.	
<u>Qualitative Requirements</u>		
2.	(a) Weight 9.5 kgs or less (without additional fittings).	To be physically checked by BOO.
	(b) Length not exceeding 53 cms.	To be physically checked by BOO.
	(c) Capable of launching a grapnel in man fired / platform base fire upto a vertical height of at least 30 meters with 11mm Rope.	The grapnel will be launched vertically with an 11mm rope (To be provided by the vendor) at an angle of 75 <sup>o</sup> to the horizontal. Member of BOO will be positioned at the approximate height. Location of the test will be specified by BOO before trial.
	(d) Capable of launching a grapnel in man fired / platform base fire upto a horizontal distance of 40 – 50 meters.	To be physically checked by BOO. Both man and platform firing will be checked. Distance of launch will be measured physically.
	(e) Capable of launching a 'Tactical Ladder' at least upto 20m vertically.	To be physically checked by BOO. The accessory (provided by the OEM) will be launched and height will be checked.
	(f) The rope / tactical ladder should be launched by means of re-usable and re-fillable pressure bottle / cartridge.	To be physically checked by BOO.
	(g) Pressure bottle chargeable at least upto 200 bars.	To be physically checked by BOO. A pressure gauge provided by the vendor will be used to check the pressure.
	(h) Salt-water resistant / anti-corrosive metallurgy, fit for being carried underwater by diver.	OEM/Firm to provide laboratory certificate from a laboratory accredited in terms of <b>ISO/IEC 17025</b> for the relevant service by an Accreditation Body which is a member of <b>International Laboratory Accreditation Cooperation (ILAC) Arrangement</b> . Certificate to be checked and verified by the BOO.

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General Information

1. Role. The utility of 'Tactical Ladder Launcher' is to undertake tactical combat mission in support of high-risk and high-rise intervention operations under opposed conditions.

Operational Characteristics

2. The Tactical Ladder Launcher should be lightweight, designed for rugged use in Land and Marine environment.

Qualitative Requirements

3. (a) Weight 9.5 kgs or less (without additional fittings).
- (b) Length not exceeding 53 cms.
- (c) Capable of launching a grapnel in man fired / platform base fire upto a vertical height of at least 30 meters with 11mm Rope.
- (d) Capable of launching a grapnel in man fired / platform base fire upto a horizontal distance of 40 – 50 meters.
- (e) Capable of launching a 'Tactical Ladder' at least upto 20 m vertically.
- (f) The rope / tactical ladder should be launched by means of re-usable and re-fillable pressure bottle / cartridge.
- (g) Pressure bottle chargeable at least upto 200 bars.
- (h) Salt-water resistant / anti-corrosive metallurgy, fit for being carried underwater by diver.
- (j) The Launcher should be supplied with the following accessories:-
- (i) 03 (Three) re-fillable pressure bottles with each system.
- (ii) Three sets of grapnels with associated ropes of appropriate lengths to meet the vertical and horizontal ranges mentioned above.
- (iii) Tactical ladder (Description given at para 3(i) below)
- (iv) 1<sup>st</sup> line maintenance tools.
- (v) Operator and maintenance manual.
- (vi) List of spares and manufactures part numbers.
- (vii) HP / LP hoses / pipes, adaptors and pressure gauge for charging air bottles.
- (viii) Tube fittings of appropriate length.

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QRs : TACTICAL LADDER LAUNCHER (Contd...)

- (ix) Sturdy and reliable carrying arrangement incorporating a tactical design for ease of carrying the launcher and associated equipment.
- (x) Additional accessories as described above may be specified at the time of tendering.
- (k) The grapnel supplied along with the Tactical Ladder Launcher should conform to the following :-
  - (i) Capable of bearing a minimum load of atleast 800 kgs when hooked and is in position.
  - (ii) Fabricated from high tensile lightweight material like Carbon fibre, titanium etc.
  - (iii) Anti-corrosive, fit for being carried underwater by diver.
  - (iv) The grapnel is to have a rubberized coating to prevent / minimize any noise during Metal-to-metal contact.
- (l) The Tactical Ladder supplied along with the Tactical Ladder Launcher should conform to the following :-
  - (i) Tactical ladder material – Nylon with fibre glass/ Nylon with carbon fibres.
  - (ii) Rung load bearing capacity of the ladder:-
    - (aa) Breaking Load : 800 kg minimum.
    - (ab) Safe : 300 kg minimum..
  - (iii) Each Tactical Ladder to be provided with carriage pack.
  - (iv) D-Ring to be provided at the end of the Tactical Ladder.

Miscellaneous

4. Training. Both operational and maintenance training will be provided by the OEM. Operational training will be provided by an Internationally Approved Training Instructor or qualified personal from NIM (National Institute of Mountaineering) or Mountaineering Institute of India. Maintenance training will also be extended as per terms of tender.

5. Technical Literature. One set of technical literature will be provided with each equipment.

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TRIAL DIRECTIVES: TACTICAL LADDER LAUNCHER (Contd...)

<u>Ser No</u>	<u>QRs of Tactical Ladder Launcher</u>	<u>Trial Directive</u>
	<p>(j) The Launcher should be supplied with the following accessories :-</p> <p>(i) 03 (Three) re-fillable pressure bottles with each system.</p> <p>(ii) Three sets of grapnels with associated ropes of appropriate lengths to meet the vertical and horizontal ranges mentioned above.</p> <p>(iii) Tactical ladder (Description given at para 3(l) of QRs).</p> <p>(iv) 1<sup>st</sup> line maintenance tools.</p> <p>(v) Operator &amp; maintenance manual.</p> <p>(vi) List of spares and manufactures part numbers.</p> <p>(vii) HP / LP hoses / pipes, adaptors and pressure gauge for air bottles.</p> <p>(viii) Tube fittings of appropriate length.</p> <p>(ix) Sturdy and reliable carrying arrangement incorporating a tactical design for ease of carrying the launcher and associated equipment.</p> <p>(x) Additional accessories as described above may be specified at the time of tendering.</p>	<p>To be physically checked by BOO.</p> <p>To be physically checked by BOO.</p> <p>To be physically checked by BOO.</p> <p>List of maintenance tools will be specified by OEM before trials and will be physically checked by Board of Officers.</p> <p>To be physically checked by BOO.</p> <p>To be physically checked by BOO.</p> <p>To be physically checked by BOO.</p> <p>To be physically checked by BOO.</p> <p>The launcher will be fit on a soldier carrying battle load (weapon, helmet and Bullet Proof Jacket) to check ease of carrying.</p>

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<u>Ser No</u>	<u>QRs of Tactical Ladder Launcher</u>	<u>Trial Directive</u>
	<p>(k) The grapnel supplied along with the Tactical Ladder Launcher should be conform to the following :-</p> <p>(i) Capable of bearing a minimum load of at least 800 kgs when hooked and is in position.</p> <p>(ii) Fabricated from high tensile lightweight material like Carbon fibre, titanium etc.</p> <p>(iii) Anti-corrosive, fit for being carried underwater by diver.</p> <p>(iv) The grapnel is to have a rubberized coating to prevent/minimize any noise during Metal-to-metal contact.</p>	<p>OEM/Firm to provide laboratory certificate from a laboratory accredited in terms of <b>ISO/IEC 17025</b> for the relevant service by an Accreditation Body which is a member of <b>International Laboratory Accreditation Cooperation (ILAC) Arrangement</b>. Certificate to be checked and verified by the BOO.</p> <p>To be physically checked by BOO.</p>
	<p>(l) The Tactical Ladder supplied along with the Tactical Ladder Launcher should conform to the following :-</p> <p>(i) Tactical ladder material – Nylon with fibre glass/ Nylon with carbon fibres.</p> <p>(ii) Rung load bearing capacity of the ladder:-</p> <p>(aa) Breaking Load : 800 kg min.</p> <p>(ab) Safe : 300 kg min.</p> <p>(iii) Each Tactical Ladder to be provided with carriage pack.</p> <p>(iv) D-Ring to be provided at the end of the Tactical Ladder.</p>	<p>OEM/Firm to provide laboratory certificate from a laboratory accredited in terms of <b>ISO/IEC 17025</b> for the relevant service by an Accreditation Body which is a member of <b>International Laboratory Accreditation Cooperation (ILAC) Arrangement</b>. Certificate to be checked and verified by the BOO.</p> <p>To be physically checked by BOO.</p> <p>To be physically checked by BOO.</p>

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TRIAL DIRECTIVES: TACTICAL LADDER LAUNCHER (Contd...)

Ser No	QRs of Tactical Ladder Launcher	Trial Directive
<u>Miscellaneous</u>		
3.	<u>Training.</u> Both operational and maintenance training will be provided by the OEM. Operational training will be provided by an Internationally Approved Training Instructor or qualified personal from NIM (National Institute of Mountaineering) or Mountaineering Institute of India. Maintenance training will also be extended as per terms of tender.	An undertaking to be provided by the vendor.
4.	<u>Technical Literature.</u> One set of technical literature will be provided with each equipment.	To be physically checked by BOO.
5.	<u>Spares.</u> For maintenance and SMT / STE repair carrying out upto unit and field component level. List of spares (MRLS) will also be provided.	To be physically checked by BOO.
6.	The vendor / OEM will specify local facility for charging of re-fillable pressure bottles.	To be physically checked by BOO.

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Lt Col Anil Singhroha LOAR	<u>[Signature]</u> Capt. Laksh Kumar, (MSP, Ftu SSB)	<u>[Signature]</u> Lt Col. J. Singh, Ac. I.T.B.P.	<u>[Signature]</u> Capt. Milkant Singh, TC, FOS HSG
<u>[Signature]</u> (CAPT NY YANTHAN) TC, SISAG NSG	<u>[Signature]</u> (A.K. Shukla Ac, CISF)	<u>[Signature]</u> Dr. M. Singh, DySP, (MSP)	<u>[Signature]</u>
<u>[Signature]</u> INSPIIT Pradeep Sharma SIW BSIF	<u>[Signature]</u> (LT COL V PAST, NSG)	<u>[Signature]</u> Maj S Saehdwa SC(Ord), HQ NSG.	<u>[Signature]</u>

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