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No. IV-21011/31/2009-Prov-I 9849
भारत सरकार/Government of India
गृह मंत्रालय/Ministry of Home Affairs
पुलिस आधुनिकीकरण प्रभाग /Police Modernization Division
संभरण-I डेस्क /Prov.I Desk

26, Man Singh Road, Jaisalmer House,
New Delhi, the 16 December, 2014.

To,

DsG : AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject : QRs and Trial Directives for Climber Device (Ascender).

The QRs and Trial Directives in respect of Climber Device (Ascender) as per the Annex-I and Annex-II respectively have been accepted by the Competent Authority in MHA.

- Henceforth, all the CAPFs should procure the above item required by them strictly as per the laid down Technical Specifications/QRs.
- Concerned CAPF will be accountable for correctness of the QRs/Trial Directives.

Yours faithfully,

(Signature)

(P. K. Srivastava)
Under Secretary (Prov-III)

Encl.: As above.

Copy to : SO(IT), MHA : with the request to host the QRs and Trial Directives of Climber Device (Ascender) on the MHA website (under the page of Organizational Set up-Police Modernization Division-Qualitative Requirements:Equipment), soft copy being sent through email.

(Signature)

(R K. Soni)
Section Officer (Prov.I)

Copy to : DDG(Procurement), MHA.

1. नि. (संभरण)	
2. नि. (Prov)	
उ. म. नि. (संभरण)	
DIG (Prov)	
मु. कमा. (संभरण)	
G. C. (Prov)	
मु. कमा. (प्रो. संभरण)	
G. C. (Proc)	
प्र. कमा.	

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Copy to OP
- update -

IG (Prov) Secretariat
Dy. No. 659
Date 19/12/14

REVISED QRs FOR CLIMBER DEVICE (ASCENDER)

(113)

Physical Characteristics

1. Climber Device (Ascender) should have following essential characteristics:-
 - (a) Ruggedness. The climber device (ascender) must be rugged and withstand shock & vibration during movement by foot and vehicle in combat. Should comply with IP 67 Mil Std.
 - (b) Design. The climber device (ascender) must be compact, modular structured and ergonomically designed with smooth edges. The battery should be one integral part of the equipment or should be separately attachable without wires which may impede operational use of the equipment.
 - (c) Colour. A non-reflecting surface, with dull colour.
 - (d) Carriage. The climber device (ascender) being a separate unit must have a carrying case which must be dust proof and weather proof.
 - (e) Transportability. It should be rugged enough to withstand handling by combatants in field conditions.
 - (f) Dimension. Dimension of the Climber Device (ascender) should not be more than 39 x 30 x 39 cm.

Operational Characteristics

2. The climber device (ascender) must have the following operational characteristics :-
 - (a) It should integrate / be compatible with COTS 09mm to 11mm static / semi static ropes.
 - (b) The weight of the climber device (ascender) should not exceed 18 kgs (with battery pack).
 - (c) It should have a lifting capacity of not less than 130 kgs.
 - (d) Should be easy to operate and come with both the manual and remote control feature.
 - (e) The ascender should be supplied with a suitable rechargeable battery pack to provide vertical lift capability of not less than 240 meters on a single charge with minimum 120 Kg.
 - (f) It should have controllable ascending / descending rate. The device should be capable of achieving an ascending rate of not less than 03 ft to 05 ft per second under full load conditions (120 kgs). It should also be able to run in the reverse direction for lowering if the situation so demands. Therefore, it should have both forward and reverse power controls.
 - (g) Life cycle of the battery pack should not be less than 500 recharge cycles. The firm are also required to confirm that product support for the climbing device (ascender) must be available for its entire life cycle of 10 years.

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REVISED QRs FOR CLIMBER DEVICE (ASCENDER) (Contd..)

(114)

- (h) It should enable swift connecting of the rope and incorporate adequate safety features with respect to slipping of the rope, over heating of the motor, emergency stop etc.
- (j) **Temperature Range.** The climber device (ascender) should be capable of being used and stored within the temperature range of -10°C to +50°C.
- (k) The climber device (ascender) must come with buoyancy compensator for ease to handling during waterborne operations.
- (l) The ascender should be able to hold position at a particular height and be capable of controllable descent with a switched off / discharge battery.
- (m) The climber device (ascender) along with the battery pack should be water proof upto a depth of at least 05 Mtrs, for at least 20 mins.

Safety Features

3. The climber device (ascender) should have the following safety features :-
- Temperature sensor should shut down the motor in event of overheating.
 - Remote control should over ride local control.
 - Rope should not get removed from ascender when it is under a load.
 - Auto braking in hands off position should be provided for both locked off and emergency or panel lock off. No force need be applied for panic lock off.
 - Emergency stop button should be able to cut power to unit.
 - Load limiter should prevent lifting of load in excess of 180 kgs.
 - Auto braking in hands off position should provide for emergency stop.
 - Static Load / Stationery holding capacity 275 kgs.
 - Should have forward reverse power control.
 - Accessible surface temperature should not exceed 65°C.
 - Should be shock proof when dry, wet or submerged.

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 personnel from NIM (National Institute of Mountaineering) or Mountaineering Institute of India. Maintenance training will also be extended as per terms of tender.

Handwritten signatures and initials at the bottom of the page, including names like 'Co. J', 'M...', 'A...', 'P...', 'S...', and 'S...'. There are also some scribbles and marks.

REVISED QRs FOR CLIMBER DEVICE (ASCENDER) (Contd ..)

5. Technical Literature. One set of bilingual (Hindi and English) technical literature will be provided with each equipment.

6. Spares. For maintenance and SMT / STE repair carrying out upto unit and field component level. List of spares (MRLS) will also be provided.

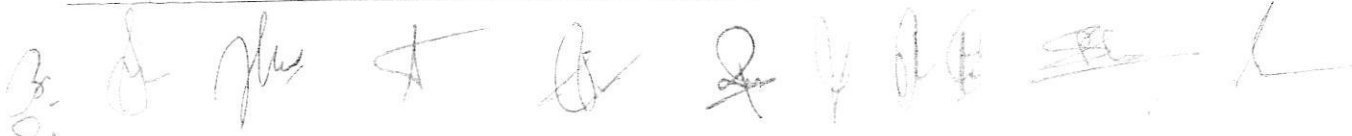
<u>Akash</u> (Ashu Kumar, my SSB HQ)	<u>[Signature]</u> (D.C. S. Thakur) ASST. RTR	<u>[Signature]</u> Manish Barua CPT	<u>[Signature]</u> Capt Jagdish Mishra, TC STSAG, NSG
<u>[Signature]</u> Maya Sunit Sachdeva SC (ord)	<u>[Signature]</u> Rajesh Kumar AC-27BP	<u>[Signature]</u> (V. PANT AF Col, 2IC (W & M) NSG)	<u>[Signature]</u> (RS/Shekhar) Maj TC (WE)
<u>[Signature]</u> Lops Nilkanth TC NSG	<u>[Signature]</u> [Signature]	<u>[Signature]</u>	
<u>[Signature]</u> Th. M. M. S. S. S. S. BTR-60	<u>[Signature]</u> Majr Pradeep Sharma SIC BTR	<u>[Signature]</u> C.A. S. Shukla, AC CISF)	

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APPROVED / NOT APPROVED

[Signature]
(J N Choudhury)
DG, NSG

TRIAL DIRECTIVES: CLIMBER DEVICE (ASCENDER)

<u>Ser No</u>	<u>QRs of Climber Device (Ascender)</u>	<u>Trial Directive</u>	<u>Result Expected</u>
<u>Physical Characteristics</u>			
1.	Climber Device (Ascender) should have following essential characteristics :-		
	(a) <u>Ruggedness</u> . The climber device (ascender) must be rugged and withstand shock and vibration during movement by foot and vehicle in combat. Should comply with IP67 mil std.	OEM/Firm to provide laboratory certificate from a laboratory accredited in terms of ISO/IEC 17025 for the relevant service by an accreditation body which is a member of International Laboratory Accreditation Cooperation (ILAC) Arrangement .	Certificate to be checked and verified by the BOO .
	(b) <u>Design</u> . The climber device (ascender) must be compact, modular structured and ergonomically designed with smooth edges. The battery should be one integral part of the equipment or should be separately attachable without wires which may impede operational use of the equipment.	Physical checking by Board of Officers.	Battery should be integrated with or attached to the body of the equipment without using wires.
	(c) <u>Colour</u> . A non-reflecting surface, with dull colour.	Physical checking by BOO.	-
	(d) <u>Carriage</u> . The climber device (ascender) being a separate unit must have a carrying case which must be dust proof and weather proof.	Physical checking by BOO. Certificate to be obtained from OEM.	-
	(e) <u>Transportability</u> . It should be rugged enough to withstand handling by combatants in field conditions.	Equipment will be picked up, loaded and unloaded onto a vehicle.	No breakage of parts must be there.
	(f) <u>Dimension</u> . Dimension of the Climber Device (ascender) should not be more than 39 x 30 x 39 cm.	Physical checking by BOO.	
<u>Operational Characteristics</u>			
2.	The climber device (ascender) must have the following operational characteristics :-		
	(a) It should integrate / be compatible with COTS 09mm to 11mm static / semi static ropes.	(a) 9mm to 11mm ropes (provided by the vendor) will be checked with the equipment.	The equipment should function to lift loads with the types of ropes specified.

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TRIAL DIRECTIVES: CLIMBER DEVICE (ASCENDER) (Contd..)

Ser No	QRs of Climber Device (Ascender)	Trial Directive	Result Expected
		(b) The weight of the climber device (ascender) should not exceed 18 kgs (with battery pack).	Physical checking by BOO.
	(c) It should have a lifting capacity of not less than 130 kgs.	Person(firm representative) duly weighed alongwith equipment, weighing a total of 130 kg will be tested.	The ascender should be able to lift the specified weight.
	(d) Should be easy to operate and come with both the manual and remote control feature.	Physical checking of both manual, by using a man (firm representative) and remote will be physically checked.	-
	(e) The ascender should be supplied with a suitable rechargeable battery pack to provide vertical lift capability of not less than 240 meters on a single charge with minimum 120 kg.	Rope of maximum possible length will be selected and fixed at a suitable loc. The length of the rope will be checked and device will be used with the specified load, Repeated Climb will be made till the time desired climb length is achieved.	-
	(f) It should have controllable ascending / descending rate. The device should be capable of achieving an ascending rate of not less than 03 ft to 05 ft per second under full load conditions (120 kgs). It should also be able to run in the reverse direction for lowering if the situation so demands. Therefore, it should have both forward and reverse power controls.	Physical checking by Board of Officers using a load – the rate of ascent will be verified.	-
	(g) Life cycle of the battery pack should not be less than 500 recharge cycles. The firm are also required to confirm that product support for the climber device (ascender) must be available for its entire life cycle of 10 years.	Certificate to be obtained from OEM.	-

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TRIAL DIRECTIVES: CLIMBER DEVICE (ASCENDER) (Contd..)

Ser No	QRs of Climber Device (Ascender)	Trial Directive	Result Expected
	(h) It should enable swift connecting of the rope and incorporate adequate safety features with respect to slipping of the rope, over heating of the motor, emergency stop etc.	Ropes will be fit to the equipment by firm representatives, safety features (slipping of rope and overheating) will be checked while performing tests above.	
	(j) <u>Temperature Range.</u> The climber device (ascender) should be capable of being used and stored within the temperature range of -10°C to +50°C.	OEM/Firm to provide laboratory certificate from a laboratory accredited in terms of ISO/IEC 17025 for the relevant service by an Accreditation Body which is a member of International Laboratory Accreditation Cooperation (ILAC) Arrangement.	
	(k) The climber device (ascender) must come with buoyancy compensator for ease of handling during waterborne operations.	To be physically checked by BOO.	
	(l) The ascender should be able to hold position at a particular height and be capable of controllable descent with a switched off / discharged battery.	Firm representative will be asked to a stop at a height of 5 meter, hold the height and descend without power	
	(m) The climber device (ascender) along with the battery pack should be water proof upto a depth of at least 05 mtrs, for at least 20 mins.	Physical checking by Board of Officers.	

Safety Features

3.	The climber device (ascender) should have the following safety features :-		
	(a) Temperature sensor should shut down the motor in event of overheating.	To be demonstrated by firm representatives in presence of Board of Officers. The device will be used to the point of overheating and shut down should be demonstrated.	The equipment should be able to restart after a reasonable length of time.
	(b) Remote control should over ride local control.	Physical checking by Board of Officers.	

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TRIAL DIRECTIVES: CLIMBER DEVICE (ASCENDER) (Contd..)

Ser No	QRs of Climber Device	Trial Directive	Result Expected
	(c) Rope should not get removed from ascender when it is under a load.	Physical checking by Board of Officers.	
	(d) Auto braking in hands off position should be provided for both locked off and emergency or panic lock off. No force need be applied for panic lock off.	Physical checking by Board of Officers.	
	(e) Emergency stop button should be able to cut power to unit.	Physical checking by Board of Officers.	
	(f) Load limiter should prevent lifting of load in excess of 180 kgs.	Physical checking by Board of Officers.	
	(g) Auto braking in hands off position should provide for emergency stop.	Physical checking by Board of Officers.	
	(h) Static Load / Stationary holding capacity min 275 kgs.	Physical checking by Board of Officers.	
	(j) Should have forward reverse power control.	Physical checking by Board of Officers.	
	(k) Accessible surface temperature should not exceed 65°C.	Certificate to be obtained from OEM.	
	(l) Should be shock proof when dry, wet or submerged.	Physical checking by Board of Officers.	
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 personnel from NIM (National Institute of Mountaineering) or Mountaineering Institute of India. Maintenance training will also be extended as per terms of tender.	Undertaking for the same to be provided by the vendor.	
5.	Technical Literature. One set of bilingual (Hindi and English) technical literature will be provided with each equipment.	Physical checking by Board of Officers.	

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TRIAL DIRECTIVES: CLIMBER DEVICE (ASCENDER) (Contd..)

Ser No	QRs of Climber Device (Ascender)	Trial Directive	Result Expected
6.	<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.	Physical checking by Board of Officers.	

<u>Alice</u> <u>(Alok Kumar, NSG)</u> SS BHA)	<u>CD C S Chakravarty</u> NSG, Lt Col	<u>Manish Bhatia</u> C/PT	<u>Capt Jagannath</u> Mishra, TC, SP SAG, NSG
<u>Sant</u> <u>(SUNIT SACHDEVA)</u> MAJ HQ NSG.			
<u>Capt Milkorthy</u> TC, NSG	<u>Rajesh Kumar</u> ACZIBP	<u>(V. PANT, 2IC (WG))</u> LT COL NSG	<u>(CRS Bhadani)</u> Majr TC (WG)
<u>Prasanna</u> Dr. M. M. G. S. D. BRAD	<u>Indip/T Pradeep Sharma</u> S/O BAF	<u>(A.K. Shukla, AC</u> CISF)	

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(J N Choudhury)
DG, NSG