TABLE OF CONTENTS

0.1 Circulation List

COPY NO.	COPY HOLDER
1	Research & Development Manager
2	Procurement Manager
3	Stores & Stock Control Manager
4	Transmission Manager
5	Deputy Manager, Technical Audit

0.2 Amendment Record

Rev No.	Date (YYYY-MM-DD)	Description of Change	Prepared by (Name & Signature)	Approved by (Name & Signature)

FOREWORD

This specification has been prepared by the Research and Development Department in collaboration with Transmission Department both of Kenya Power and Lighting Company Limited (KPLC) and it lays down requirements for Cable Grip(Come Along Clamp) for steel guy wire & extra high strength conductors. It is intended for use by KPLC in purchasing the Cable Grip.

The supplier shall submit information which confirms satisfactory service experience with products which fall within the scope of this specification.

1. SCOPE

1.1 This specification is for portable hand held grooved clamps for gripping steel guy wires and extra high strength conductors of the following diameter ranges

1.1.1 3-15mm
1.1.2 7.5-20mm
1.1.3 15-35mm

1.2 The equipment shall be used for gripping while tensioning steel guy wires, steel ropes, extra high strength conductors and metal rod of all forms.

1.3 The grip shall be firm and non- slip and shall not cause any damage to material being pulled.

2. REFERENCES

The following standards contain provisions which, through reference in this text constitute provisions of this specification. Unless otherwise stated, the latest editions (including amendments) apply.

ISO 2766- Single Lifting Hooks with Shanks-capacity up to 25tonnes-Grades M,P,S, (T,V)- Hummer & Dropped Forged Hooks.

BS EN 3243-Specification for Hand- Operated Chain Blocks.

BS EN 1677-5 - Components for Slings.Safety. Forged Steel lifting Hooks with Latch.

3. TERMS AND DEFINITIONS

The definitions given in the reference standards shall apply.

4. REQUIREMENTS

4.1 Construction

4.1.1 The clamp shall be special spring loaded to prevent the grip from falling off the conductor and shall allow instant release without jamming when the tension is removed.

4.1.2 The jaws of the grip shall be V grooved for maximum contact area without damage and should have mechanism for holding it open for easy placement of conductor.

4.1.3 The construction material shall be drop forged high quality steel, machined and heat treated. The equipment shall be weather proof.

4.2 Operation.

4.2.1 The grip shall when opened remain in open position for easy placement on conductor.

4.2.2 The grip shall close as tension is applied and hold conductor firmly.

4.2.3 The spring load shall allow for easy removal upon removal of tension without jamming.

4.3 Test results

4.3.1 Factory tests results on the tensile strength of the manufactured cable grip (come along clamp) shall be submitted with tender for evaluation and with the clamps during delivery.

4.4 TECHNICAL AND SPECIFIC REQUIREMENTS

4.4.1 Specific requirements:

4.4.1.1 The same jaws shall be able to grip steel guy wires and extra high strength conductors within its diameter range.

4.4.1.2 The pulling force and maximum grip diameter shall be specified.

3.2 Technical Specifications.

a) 3-15mm

Item No.	Technical description	Kplc Technical Requirements
1	Material of clamp	Drop forged heat treated steel
2	Clamp jaws	Double V groove
3	Safe working load	2000 kgs
4	Breaking load	12000kg
5	Maximum tensile strength	1770N/mm2
6	Grip range	3-15mm
7	Weight	< 7kgs
8	Finishing	Corrosion resistance coating
9	Warranty on Equipment	At least 12 months
10	Applicable standards	IEC ,ISO & BS Stardards
11	Test certificate/ Test Report	Required
12	Operation and maintenance manual	Shall be in English language

b) 7.5- 20mm

Item No.	Technical Description	KPLC Technical Requirements
1	Material of clamp	Drop forged heat treated steel
2	Clamp jaws	Double V groove
3	Safe working load	2000 kgs
4	Breaking load	30kN
5	Maximum tensile strength	1960N/mm2
6	Grip range	7.5-20mm
7	Weight	< 10 kgs
8	Finishing	Corrosion resistance coating
9	Warranty on Equipment	At least 12 months
10	International standards	IEC ,ISO & BS Stardards
11	Test certificate/ Test Report	Required
12	Operation and maintenance manual	Shall be in English language

c) 15-35mm

Item No.	Technical description	Kplc Technical Requirements
1	Material of clamp	Drop forged heat treated steel
2	Clamp jaws	Double V groove
3	Safe working load	2000 kgs
4	Breaking load	40kN
5	Maximum tensile strength	1960N/mm2
6	Grip range	15-35mm
7	Weight	< 15kgs
8	Finishing	Corrosion resistance coating
9	Warranty on Equipment	At least 12 months
10	International standards	IEC ,ISO & BS Stardards
11	Test certificate/ Test Reports	Required
12	Operation manual	Shall be in English language

5.0 TEST AND INSPECTION

5.1. The clamp shall be inspected and tested in accordance with the requirements of this specification and relevant IEC/ISO/BS standards

5.2 Copies of previous test reports for the cable grips shall be submitted with the tender for evaluation. The test reports must be from an ISO/IEC 17025 accredited laborotary.

5.3 Test report for the clamps manufactured for KPLC shall be submitted to KPLC for approval before shipment/delivery. The test reports shall include tensile strength and breaking load of the clamp.

6 MARKING,PACKING AND INSTRUCTIONS

6.1 The following information shall be marked indelibly and legibly on the cable grip (come along clamps)

i) Manufacturer's Name or Trademark;
ii) Type reference
iii) Safe working load
iv) Serial number
v) Production batch and year of manufacture
vi) Letters "KPLC"

6.2 Instructions for use shall be submitted with the clamps during delivery (all in English Language).

6.3 The clamps shall be packed in wooden crates and shall be protected from damage during transportation and storage.

ANNEX A: Guaranteed Technical Particulars *(to be filled and signed by the Supplier and submitted together with copies of manufacturer's catalogues, brochures, drawings, technical data, sales records and copies of certificates/test reports for tender evaluation)*

Tender No. .....

Clause number	**Bidder's offer** (indicate full details of the offered equipment for each requirement of the specification)
1. Scope	
1.1-1.1.2	
4. Requirements	
4.1 Construction	
4.1.3	
4.2 Operations	
4.2.1-4.2.3	
4.3 Test results	
4.3.1	
a) 3-15mm	
Requirements 1-12	
b) 7.5-20mm	
Requirements 1-12	
c) 15-35mm	
Requirements 1-12	
5.0 Test & Inspection	
5.1-5.3	
6. Marking ,Instruction	
6.1-6.3	

.....

Supplier's Name, Signature, Stamp and Date

ANNEX B
TYPICAL CABLE GRIP DESIGN (COME ALONG CLAMP)