



The Kenya Power & Lighting
Co. Ltd.

TITLE:

SPECIFICATION FOR
FASTENERS AND WASHERS
FOR OVERHEAD LINES.
PART 2: SCREWS.

Doc. No.	KPLC1/3CB/TSP/02/001-2
Issue No.	1
Revision No.	0
Date of Issue	2008-07-22
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Issued by: Head of Section Tech Stds & Specs

Authorized by: Head of Department R & D

Signed:

Signed:

Date:

2008-07-30

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0.1 Circulation List

COPY NO.	COPY HOLDER
1	Research & Development Manager
2	Supplies Manager
3	Stores & Transport Manager
4	Design & Construction Manager
5	Operations & Maintenance Manager
6	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)

Issued by: Head of Section Tech Stds & Specs

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FOREWORD

This specification has been prepared by the Research and Development Department of the Kenya Power & lighting Co Ltd and it lays down requirements for Screws. It is intended for use by KPLC in purchasing the items.

It shall be the responsibility of the manufacturer to ensure adequacy of the design and good engineering practice in the manufacture of the Screws for KPLC. The manufacturer shall also 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 Screws for use in electricity distribution work.

1.2 The specification covers the following type of screws:

- Self Tapping Screws (also referred to as Sheet Metal Screws), of general arrangement indicated below:

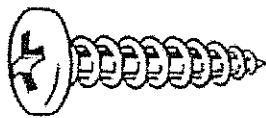


Fig. 1: Self Tapping Screw

- Coach Screws (also referred to as Lag Bolts), of general arrangement indicated below:



Fig. 2: Coach Screw

2. REFERENCES

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The following documents were referred to during the preparation of this specification. In case of conflict, the provision of this specification shall take precedence.

ISO 1461: Metallic Coatings – Hot dip galvanized coatings on fabricated ferrous products – Requirements.

KS ISO 888: Bolts, screws and studs – Nominal lengths, and thread lengths for general purpose bolts.

BS 4190: ISO metric black hexagon bolts, screws and nuts – Specification.

ISO 10684: Fasteners – Hot dip galvanized coatings

3. TERMS AND DEFINITIONS

For the purpose of this specification, the definitions given in the reference standards shall apply.

4. REQUIREMENTS

4.1 SERVICE CONDITIONS

The Screws shall be suitable for continuous use indoors and outdoors in tropical areas at altitudes of up to 2200m above sea level, humidity of up to 90%, average ambient temperature of +30°C with a minimum of -1°C and a maximum of +40°C and saline conditions along the coast.

4.2 Self Tapping Screws

4.2.1. The screw shall be fully threaded with a point for use in sheet metal and similar applications.

4.2.2. The screw shall have a pan head as indicated in fig. 1.

4.2.3. The screw shall be made of steel and be of hot dip galvanized finish.

4.2.4. The size of screws shall be stated in each tender.

4.3 Coach Screws

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4.3.1 The coach screw shall be a bolt with a wood thread and pointed tip as indicated in fig. 2.

4.3.2 It shall be suitable for attaching equipment onto wooden poles and similar surfaces.

4.3.3 The size of coach screws shall be stated in each tender

4.4 Galvanizing

a) All materials to be galvanized shall be of the full dimensions shown or specified and the removal of burrs shall be completed before the galvanizing process commences.

b) All galvanizing shall be done by the hot dip process (molten Zinc), not less than 98% of which must be pure Zinc. The process shall be in accordance with ISO 1461 and ISO 10684.

c) The Zinc coating shall be uniform, clean, smooth and as free from spangle as possible.

5 TESTS AND INSPECTION

5.1 Tests on galvanizing shall be carried on the finished product in accordance with the requirement of ISO 1461, ISO 10684 and this specification. It shall be the responsibility of the manufacturer to perform or to have performed all the relevant tests in accordance with this specification.

5.2 Certified true copies of previous test reports by the relevant International or National Testing/Standards Authority of the country of manufacture (or ISO/IEC 17025 or ILAC accredited laboratory) shall be submitted with the offer for evaluation (all in English Language). A copy of accreditation certificate for the laboratory shall also be submitted.

Copies of test reports to be submitted shall include tensile and galvanizing tests.

5.3 Routine and sample test reports for the screws to be supplied shall be submitted to KPLC for approval before shipment/delivery of the goods.

5.4 On receipt of the goods KPLC may perform any of the relevant tests in order to verify compliance with this specification. The supplier shall replace without charge to KPLC Screws which upon examination, test or use fail to meet any of the requirements in the specification.

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Clause Number	Bidder's offer	Reference page on Manufacturer's catalogue, drawing, technical data or tests report to support the offer.

NB: - This schedule does not in any way substitute for detailed information required elsewhere in the specification.

.....
Manufacturer's Name, Signature, Stamp and Date

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Signed:

Signed:

Date:

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