

1. Chain Hoist

1.1 Scope

This specification covers the general requirements of manually operated 3 Ton, 6 Ton and 9 Ton ratchet chain hoist.

1.2 Service Condition

- a) Annual average ambient temperature - 30 °C
- b) Maximum ambient temperature - 40 °C
- c) Maximum relative humidity - 90%
- d) Environmental Conditions - Humid tropical climate with polluted atmosphere
- e) Operational altitude - From MSL to 1900M above MSL

1.3 Applicable Standard

Latest version of ASME B30.21

1.4 Basic Features of the Product

This will be used for lifting and tensioning with high strength chain. It shall be made of in steel and shall be with swiveling hooks and safe lock device.



Figure 1: Chain Hoist

Chain hoist shall be used under Heavy Service condition (service that involves operation within the rated load limit that exceeds normal service. Normal Service is service that involves operation with randomly distributed loads within the rated load limit, or uniform loads less than 65% of rated load for not more than 15% of the time.)

- a) Product shall be used to pull conductor loads during power transmission line maintenance work.
- b) Fully enclosed gearing to protect the gears from contamination and debris.
- c) All steel construction except the grips.
- d) Forged alloy steel hooks with cast steel safety latches.
- e) Free Wheel Feature (When not under load, the operator can disengage the gearing by positioning the selection switch to the center position and it should allow quick adjustment of chain for faster operation)
- f) Electro zinc plated load chain.

- g) 360-degree handle rotation.
- h) Steel handle with rubber grip.
- i) Cast steel hand wheel.
- j) Lower Block to pass through the chain falls
- k) Weather proof load holding brake with twin pawl design
- l) Hoist shall be provided with load test certificates indicating the product serial number.
- m) Product shall come with a factory calibrated overload protection that will not allow hoist operation when activated. It shall prevent the operator from overloading the hoist.
- n) Loading and connecting hooks shall be come with 360-degree rotation.

1.5 Technical Details

Item Description	Technical Particulars	Required
Chain puller 3 tons	Capacity	30 kN
	Force on handle at max. load	Less than 0.33 kN
	Length of the Handle	~ 410mm
	Chain length	>1.5m
	Weight	Less than 22 kg
Chain puller 6 tons	Capacity	60 kN
	Force on handle at max. load	Less than 0.35 kN
	Length of the Handle	~ 410mm
	Chain length	>1.5m
	Weight	Less than 32 kg
Chain puller 9 tons	Capacity	90 kN
	Force on handle at max. load	Less than 0.37 kN
	Length of the Handle	~ 410mm
	Chain length	>1.5m
	Weight	Less than 50 kg

1.6 Packing and Markings

Product should be supplied in a sealed packing and below information should be clearly mentioned.

- a) Name of manufacturer
- b) Model and serial number
- c) User guide or manual
- d) Gross/net weight.

1.7 Information to be Supplied with the Offer

The following information shall be furnished with the offer;

- a) Completely filled Schedule of Guaranteed Technical Particulars
- b) Safety instructions and guide lines.
- c) Relevant test certificates obtained for the product
- d) Complete instructional documents
- e) Letter of authorization from the manufacture if the bidder is not the manufacturer
- f) ISO 9001 certificate.

- g) Manufactures technical literature.
- h) It is required to include a list of names and addresses of leading purchasers in Sri Lanka including Ceylon Electricity Board of similar this product giving times of delivery and quantities supplied during the past five (05) years.

Failure to furnish these particulars will result in the Bid being rejected.

1.8 Warranty

Warranty must be provided for the product for 12 months after delivering to the Ceylon Electricity Board stores.

MANUFACTURERS AND PLACES OF MANUFACTURE, TESTING AND INSPECTION – CHAIN HOIST

Only one manufacturer should be indicated against items and all items are from reputed manufacturers.

The bids which do not contain the requested details will be rejected.

No.	Item	Manufacturer	Place of Manufacture/ Inspection
01	3T Chain Hoist		
02	6T Chain Hoist		
03	9T Chain Hoist		

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Date

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Signature and seal of the
Bidder

GUARANTEED TECHNICAL PARTICULARS – CHAIN HOISTS

The bidder is required to fill the spaces in this schedule.

The bids which do not contain the requested details will be rejected.

OPTION	CEB REQUIREMENT	OFFERED OPTION BY THE BIDDER
Name of manufacturer	Mention The manufacturer name	
Country of origin	Mention The country of origin	
Address of the manufacturer	Mention The address of the manufacturer	
Color/ Finish	Mention the color	
Make and Model	Mention Make and Model	
<u>3 Ton Chain Hoist</u>		
Rated load	3 Ton	
Chain length	More than 1.5 m	
Net weight of hoist	Maximum 22 kg	
Force on handle at max. load	Less than 0.33 kN	
Length of the Handle	Around 410 mm	
<u>6 Ton Chain Hoist</u>		
Rated load	6 Ton	
Chain length	More than 1.5 m	
Net weight of hoist	Maximum 32 kg	
Force on handle at max. load	Less than 0.35 kN	
Length of the Handle	Around 410 mm	
<u>9 Ton Chain Hoist</u>		
Rated load	9 Ton	

Chain length	More than 1.5 m	
Net weight of hoist	Maximum 50 kg	
Force on handle at max. load	Less than 0.37 kN	
Length of the Handle	Around 410 mm	
Snatch hooks	Snatch hooks are required for all loading and connecting hooks	
Hoist made of	All steel construction	
Chain made of	Electro zinc plated load chain	
Hooks made of	Forged alloy steel hooks with cast steel safety latches	
Overload protection	Overload protection mechanism is required	
Service level	Heavy service level as mentioned in the tender document	
Rotation provision of loading and connecting hooks	360 degree required	
ISO 9001 for manufacturer	Yes/No	
Manufactures technical literature	Provided/Not Provided	
Warranty period	12 months after delivering to CEB	
Delivery period	Within 12 weeks after award date	
Documents	All the operational and maintenance manuals are required	

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Date

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Signature and seal of the Bidder