

▪ Normal height of contact wire at support point for regulated OHE	5.60m (pre sag of 100mm)
▪ Normal height of contact wire at support point for regulated OHE	5.55m (pre sag of 50mm)
▪ Normal height of contact wire at support point for unregulated OHE	5.75m (temp. range 4° to 65 °c)
▪ Normal height of contact wire at support point for unregulated OHE	5.65m (temp. range 15 to 65°c)
▪ Minimum height of contact wire at loco inspection pit	5.80m.
▪ Minimum height of contact wire at level crossing	5.50m.
▪ Height of the “height gauge” at level crossing	4.67m
▪ Minimum height of contact wire at over line structure	4.92m
▪ Dia of new contact wire	12.24mm
▪ Condemned dia of contact wire on main line	8.25mm
▪ Condemned dia of contact wire on loop lines/ yard lines	8.00mm
▪ Stagger of contact wire on tangent track	± 200mm
▪ Stagger of contact wire at curved track	± 300mm

▪ Stagger of catenary wire on tangent track at support for single cantilever	0
▪ Gap between two parallel running contact wires at uninsulated overlap.	200mm
▪ Gap between parallel running contact wires at insulated overlap.	500mm
▪ Height of contact wire of turnout OHE above contact wire of the main line OHE	5 cm
▪ Track separation at turnout and cross over at the location of obligatory structure.	150 – 700 mm
▪ Minimum implantation at obligatory structure/ mast supporting more than one OHE	3 m
▪ Normal implantation (standard)	2.50m ±0.03
▪ Minimum implantation (critical) with CEE approval	2.36 m
▪ Minimum implantation on platform	4.75m
▪ Normal encumbrance	1.4m for 72 m Span
▪ Maximum permissible slope of contact wire on main line	3mm/mtr
▪ Maximum permissible slope of contact wire in yards	5 mm/ mtr
▪ Short time min. Vertical electrical clearance	270mm

▪ Short time min. Horizontal electrical clearance	220mm
▪ Long time min. vertical electrical clearance	320mm
▪ Long time min. horizontal electrical clearance	320mm
▪ Stagger of contact wire at section insulator	0 or ± 100mm max.
▪ Stagger of contact wire at PTFE neutral section at support	0.
▪ Earthing resistance of FOB/ ROB/ Girders/ Bridges/ Platform shed & other overline structures.	10 Ω
▪ Cross section area and length of C jumper wire	50mm <sup>2</sup> , 1.7m
▪ Cross section and length of F jumper wire	50mm <sup>2</sup> , 1.6 m
▪ Cross section area and length of G jumper wire	105mm <sup>2</sup> , 3.5 m
▪ Distance of G jumper from obligatory mast towards overlap side.	5.6 m
▪ Fixed length of the dropper wire	105 mm
▪ The distance of the first dropper from support	2.25 m
▪ Swept zone clearance of section insulator at trailing side	1.726 m
▪ Swept zone clearance of section insulator at facing side	1.60 m

▪ For the section insulator, the distance between contact wire and runner on either side should not be less than	220 mm.
▪ Maximum tension length for regulated OHE	1500 m.
▪ Normal sag of regulated OHE	100 mm
▪ Maximum span length on tangent track for regulated OHE	72 m.
▪ Maximum tension length for unregulated OHE	2000m.
▪ ZY value of winch type ATD at half tension length (750m) at 35°c in mm	Z = 1250, Y = 2500
▪ XY value of 3 pulley type ATD at half tension length (750m) at 35°c in mm	X=750, Y=2500
▪ The difference in length of adjacent spans on main line should not be more than	18m.
▪ Minimum length of dropper in the span	150 mm
▪ In case of overlap type turnout, the turnout span should be less than or equal to	54m
▪ With crossed type equipment with actual crossings of OHEs at facing turnouts, the anchor span should be restricted to	54 m
▪ Leaning of mast should be attended if leaning at top exceeds	15cm.

▪ The distance between male and female contact of Isolator in open position should be	500mm ± 50
▪ Minimum working clearance	2 mtr
▪ The axial distance between catenary & contact wire at the location of section insulator shall not be less than	450 mm
▪ The section insulator is to be located beyond the point where the centre distance between the two tracks is equal to or more than	1.65m



GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

(For Official Use)

## IMPORTANT OHE PARAMETERS

CAMTECH/E/2003/OHE/1.0

MAY, 2003

Centre  
for  
Advanced  
Maintenance  
TECHnology



*Excellence in Maintenance*

Maharajpura, Gwalior – 474 020  
Phone No. 0751 – 2470740; Fax No. 0751 - 2470841