

SCOPE OF SUPPLY OF HARNESSED CABLES FOR WAP-7 LOCOMOTIVES

SN	Loom Number	POWER CABLES								
		From			To			Cable Size (Sq.mm)	Cable Length (Meter)	ABB Identification
		Location	Lug Type	End (Open/Close)	Location	Lug Type	End (Open/Close)			
1.	113	Terminal Box Earthing	CABLE LUG 95.0 / M8 CU VZN 3EHP470026P2408 (01 No)	Open	Earthing Choke	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	CAB 4 GKW-AX 95 1800 V BK (3EHW470015P0950)	8.5	3EHP431528
2.	123A	Filter Cubicle	CABLE LUG 150.0 / M10 CU VZN 3EHP470026P3710 (01 No)	Open	Roof 2	CABLE LUG 150.0 / M10 CU VZN 3EHP470026P3710 (01 No)	Close	CAB 9 GKW - AX 150 4000V BK (3EHW470016P1500)	7.5	3EHP431528
3.	123B	Filter Cubicle	CABLE LUG 150.0 / M10 CU VZN 3EHP470026P3710 (01 No)	Open	Roof 2	CABLE LUG 150.0 / M10 CU VZN 3EHP470026P3710 (01 No)	Close	CAB 9 GKW - AX 150 4000V BK (3EHW470016P1500)	7.5	3EHP431528
4.	123C	Filter Cubicle	CABLE LUG 150.0 / M10 CU VZN 3EHP470026P3710 (01 No)	Open	Roof 2	CABLE LUG 150.0 / M10 CU VZN 3EHP470026P3710 (01 No)	Close	CAB 9 GKW - AX 150 4000V BK (3EHW470016P1500)	7.5	3EHP431528
5.	124	Filter Cubicle	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Open	Earthing Choke	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.8	3EHP431528
6.	125A	Filter Cubicle	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	Main TFP	CABLE LUG 70.0 / M12 CU VZN 3EHP470026P1912 (01 No)	Open	CAB 9 GKW-AX 70 4000 V BK (3EHW470016P0700)	6.2	3EHP431528
7.	125B	Filter Cubicle	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	Main TFP	CABLE LUG 70.0 / M12 CU VZN 3EHP470026P1912 (01 No)	Open	CAB 9 GKW-AX 70 4000 V BK (3EHW470016P0700)	6.2	3EHP431528
8.	125C	Filter Cubicle	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	Main TFP	CABLE LUG 70.0 / M12 CU VZN 3EHP470026P1912 (01 No)	Open	CAB 9 GKW-AX 70 4000 V BK (3EHW470016P0700)	6.2	3EHP431528
9.	125D	Filter Cubicle	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	Main TFP	CABLE LUG 70.0 / M12 CU VZN 3EHP470026P1912 (01 No)	Open	CAB 9 GKW-AX 70 4000 V BK (3EHW470016P0700)	6.2	3EHP431528

SPECIFICATION FOR SET OF HARNESSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES					Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E					

10.	126A	Filter Cubicle	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	Main TFP	CABLE LUG 70.0 / M12 CU VZN 3EHP470026P1912 (01 No)	Open	CAB 9 GKW-AX 70 4000 V BK (3EHW470016P0700)	7	3EHP431528
11.	126B	Filter Cubicle	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	Main TFP	CABLE LUG 70.0 / M12 CU VZN 3EHP470026P1912 (01 No)	Open	CAB 9 GKW-AX 70 4000 V BK (3EHW470016P0700)	7	3EHP431528
12.	130	Filter Cubicle	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	CAB 9 GKW-AX 120 1800 V BK (3EHW470016P1200)	1	3EHP431529
13.	131	Terminal Box Earthing	CABLE LUG 95.0 / M8 CU VZN 3EHP470026P2408 (01 No)	Open	Earthing Choke	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	CAB 4 GKW-AX 95 1800 V BK (3EHW470015P0950)	2.0	3EHP431528
14.	132	Main Converter-1	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	CAB 9 GKW-AX 95 4000 V BK (3EHW470016P0950)	0.5	3EHP431529
15.	141	Earthing Choke	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	Terminal Box Earthing	CABLE LUG 95.0 / M8 CU VZN 3EHP470026P2408 (01 No)	Open	CAB 4 GKW-AX 95 1800 V BK (3EHW470015P0950)	11	3EHP431528
16.	142	Earthing Choke	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	Terminal Box Earthing	CABLE LUG 95.0 / M8 CU VZN 3EHP470026P2408 (01 No)	Open	CAB 4 GKW-AX 95 1800 V BK (3EHW470015P0950)	14	3EHP431528
17.	143	Earthing Choke	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (01 No)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470016P0700)	0.5	3EHP431529
18.	144	Main Converter-2	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 95.0 / M10 CU VZN 3EHP470026P2410 (01 No)	Close	CAB 9 GKW-AX 95 4000 V BK (3EHW470016P0950)	0.5	3EHP431529
19.	161	Terminal Box Earthing	-	Close	Bogie 1	CABLE LUG 70.0 / M8 CU VZN 3EHP470026P1908 (01 No)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	1.25	3EHP431532
20.	162	Bogie 1	-	Close	Terminal Box Earthing	CABLE LUG 70.0 / M8 CU VZN 3EHP470026P1908 (01 No)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	1.25	3EHP431532

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SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

21.	163	Terminal Box Earthing	-	Close	Bogie 2	CABLE LUG 70.0 / M8 CU VZN 3EHP470026P1908 (01 No)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	1.25	3EHP431532
22.	164	Bogie 2	-	Close	Terminal Box Earthing	CABLE LUG 70.0 / M8 CU VZN 3EHP470026P1908 (01 No)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	1.25	3EHP431532
23.	115A (TM-1)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
24.	115B (TM-1)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
25.	115C (TM-1)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
26.	116A	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8	3EHP431531
27.	116B	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8	3EHP431531
28.	116C	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8	3EHP431531
29.	116D	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8	3EHP431531
30.	116E	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8	3EHP431531
31.	116F	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8	3EHP431531

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32.	121A (TM-2)	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.3	3EHP431530
33.	121B (TM-2)	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.3	3EHP431530
34.	121C (TM-2)	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.3	3EHP431530
35.	122A	Bogie 1	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.96	3EHP431530
36.	122B	Bogie 1	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.96	3EHP431530
37.	122C	Bogie 1	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.96	3EHP431530
38.	133A (TM-2)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
39.	133B (TM-2)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
40.	133C (TM-2)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531

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SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

41.	133D (TM-2)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
42.	133E (TM-2)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
43.	133F (TM-2)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
44.	148A (TM-3)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
45.	148B (TM-3)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
46.	148C (TM-3)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
47.	148D (TM-3)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL &	3EHP431531

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SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			(01 No)			(01 No)			Siemens make propulsion system)	
48.	148E (TM-3)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
49.	148F (TM-3)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Main Converter-1	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
50.	166A (TM-3)	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
51.	166B (TM-3)	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
52.	166C (TM-3)	Bogie 1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
53.	149A (TM-4)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
54.	149B (TM-4)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531

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55.	149C (TM-4)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
56.	149D (TM-4)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
57.	149E (TM-4)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
58.	149F (TM-4)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.2 (5.5 for of CGL & Siemens make propulsion system)	3EHP431531
59.	167A (TM-4)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
60.	167B (TM-4)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
61.	167C (TM-4)	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
62.	145A (TM-5)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make)	3EHP431531

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SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

									propulsion system)	
63.	145B (TM-5)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
64.	145C (TM-5)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
65.	145D (TM-5)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
66.	145E (TM-5)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
67.	145F (TM-5)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7 (7.2 for of CGL & Siemens make propulsion system)	3EHP431531
68.	146A	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
69.	146B	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

70.	146C	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
71.	147A (TM-6)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8 (9.2 for of CGL & Siemens make propulsion system)	3EHP431531
72.	147B (TM-6)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8 (9.2 for of CGL & Siemens make propulsion system)	3EHP431531
73.	147C (TM-6)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8 (9.2 for of CGL & Siemens make propulsion system)	3EHP431531
74.	147D (TM-6)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8 (9.2 for of CGL & Siemens make propulsion system)	3EHP431531
75.	147E (TM-6)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8 (9.2 for of CGL & Siemens make propulsion system)	3EHP431531
76.	147F (TM-6)	Main Converter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Disconnect of Motor Cable	CABLE LUG 2-HOLE 120 / M10 CU VZN HBTB416074P0010 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	8.8 (9.2 for of CGL & Siemens make	3EHP431531

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

									propulsion system)	
77.	151A	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
78.	151B	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
79.	151C	Bogie 2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	Disconnect of Motor Cable	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.31	3EHP431530
80.	152A	Bogie 2	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.96	3EHP431530
81.	152B	Bogie 2	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.96	3EHP431530
82.	152C	Bogie 2	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Close	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	1.96	3EHP431530
83.	91-1	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.6	
84.	91-2	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.6	
85.	91A-1	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.2	
86.	91A-2	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.2	
87.	94-1	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.5	

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I		Dy.CEE/D-I			ALT	E			

			(01 No)			(01 No)				
88.	94-2	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.5	
89.	94A-1	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.1	
90.	94A-2	Main TFP	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	FB	CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Open	CAB 9 GKW-AX 150 4000 V BK (3EHW470016P1500)	9.1	
91.	HL-15-1	HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7	
92.	HL-15-2	HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7	
93.	HL-15-3	HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7	
94.	HL-18-1	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.5	
95.	HL-18-2	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.5	
96.	HL-18-3	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.5	
97.	HL-18-4	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-3	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	19	
98.	HL-18-5	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-3	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	19	

**SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE
ELECTRIC LOCOMOTIVES**

**Specification No.
CLW/ES/03/0646**

			ALT	E					
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I							

99.	HL-18-6	O/P HLC-1	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-3	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	19	
100.	HL-25-1	HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7	
101.	HL-25-2	HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7	
102.	HL-25-3	HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	7	
103.	HL-28-4	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-2 Disconnecter-4	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.5	
104.	HL-28-5	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-2 Disconnecter-4	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.5	
105.	HL-28-6	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-2 Disconnecter-4	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	5.5	
106.	HL-28-1	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	19	
107.	HL-28-2	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	19	
108.	HL-28-3	O/P HLC-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	Cab-1 Disconnecter-2	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (01 No)	Open	CAB 9 GKW-AX 120 4000 V BK (3EHW470016P1200)	19	

AUXILLIARY CABLES

SN	Loom Number	From			To			Cable Size (Sq.mm)	No of Cable x Cable Length (Meter)	ABB Identification
		Location	Connector Type & Lug Type	End (Open/ Close)	Location	Connector Type& Lug Type	End (Open/ Close)			

**SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE
ELECTRIC LOCOMOTIVES**

**Specification No.
CLW/ES/03/0646**

SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						
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1.	217	Cubicle Driver Cab-1	WAGO	Open	Aux. Converter-1	SET OF COMPLETE PLUG / PLUG P7/24 SOCKET 'N' INDOOR HBTB315110R0011 (01 No) CONTACT SOCKET 12/2.5 HBT415298P0008 (07 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	7x12.3	3EHP431533
2.	220	Connector to TM Blower	CABLE LUG 16.0/M8 3EHP470026P0508 (03 Nos)	Close	HB-1	CABLE LUG 16.0/M8 3EHP470026P0508 (03 Nos)	Open	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	3x8	3EHP431533
3.	221	HB-1	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0114 (01 No)	Open	Aux. Converter-1	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0114 (01 No)	Close	CAB 4 GKW-AX 50 1800 V BK (3EHW470015P0500)	3x6	3EHP431533
4.	223	HB-1	PLUG 4P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01 No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025 (04 Nos)	Close	Scavenge Blower	CA-LUG 2.5/M6 CU VZN 3EHP470026P0016 (03 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	3x6	3EHP431533
5.	224	HB-1	CABLE LUG 10.0/M8 3EHP470026P0208 (03 Nos)	Close	Main Compressor- 1	CABLE LUG 10.0/M8 3EHP470026P0208 (03 Nos)	Close	CAB 4 GKW-AX 10 1800 V BK (3EHW470015P0100)	3x11.5	3EHP431533
6.	225	HB-1	PLUG 4P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01 No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025 (04 Nos)	Close	Scavenge Blower to MR Blower	CA-LUG 2.5/M6 CU VZN 3EHP470026P0016 (03 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x9	3EHP431534
7.	226	HB-1	PLUG 4P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01 No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025	Close	Connector to MR Blower	2.5/M6 CU VZN 3EHP470026P0016 (04 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	3x7.7 1x1.75	3EHP431533

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			(04 Nos)							
8.	227	HB-1	PLUG 4 P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01 No) CONTACT SOCKET SIZE 8 / 6 MM2 3EHW470321P2060 (04 Nos)	Close	Oil Pump Transformer	CA-LUG 4.0-/M8 CU VZN 3EHP470026P0106 (03 Nos)	Close	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	3x13.5	3EHP431533
9.	228	HB-1	CABLE LUG 16.0/M8 3EHP470026P0508 (03 Nos) CABLE LUG 16.0/M10 CU VZN (01 No) 3EHP470026P0510	Close	Connector to Oil cooling unit-1	CABLE LUG 16.0/M10 3EHP470026P0508 (03 Nos) CABLE LUG 16.0/M10 CU VZN (01 No)	Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	3x16.5 1x1.5	3EHP431533
10.	229	Not in use								
11.	230	HB-1	CA-LUG 4.0-6.0/M8 CU VZN 3EHP470026P0108 (03 Nos)	Close	Oil Pump Converter-1	CA-LUG4.0- 6.0/M8 CU VZN 3EHP470026P0106 (03 Nos)	Close	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	3x13.5	3EHP431533
12.	231	HB-1	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0112 (01 No)	Open	HB-2	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0112 (01 No)	Close	CAB 4 GKW-AX 25 1800 V BK(3EHW470015P0250)	3x17.5	3EHP431533
13.	232	HB-1	SET OF COMPLETE PLUG / PLUG P7/24 SOCKET 'N' INDOOR HBTB315110R0011 (01 No) CONTACT SOCKET 12/6.0 HBT415298P0012 (07 Nos)	Close	HB-2	SET OF COMPLETE PLUG / PLUG P7/24 SOCKET 'N' INDOOR HBTB315110R0011 (01 No) CONTACT SOCKET 12/6.0 HBT415298P0012 (07 Nos)	Close	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	7x18	3EHP431533
14.	233	HB-1	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0112 (01 No)	Open	HB-2	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0112 (01 No)	Close	CAB 4 GKW-AX 25 1800 V BK(3EHW470015P0250)	3x18	3EHP431533

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

15.	234	HB-1	CABLE LUG 35.0/M8 CU VZN 3EHP470026P1008 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01 No)	Close	CAB 4 GKW-A X 35 1800 V BK(3EHW470015P0350)	1x0.4	3EHP431536
16.	235	BUR - 1	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (04 Nos)	Close	Main TFP	CABLE LUG 70.0/ M12 CU VZN 3EHP470026P1912 (04 Nos)	Open	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	4x6	3EHP431534
17.	236	BUR - 1	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01 No)	Close	CAB 4 GKW-A X 35 1800 V BK(3EHW470015P0350)	1x1	3EHP431536
18.	237	BUR - 1	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (02Nos)	Close	BUR - 2	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (02Nos)	Open	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	2x12.3	3EHP431534
19.	241	Oil Pump Converter-2	CA-LUG 4.0- 6.0/M8 CU VZN 3EHP470026P0106 (03 Nos)	Open	HB-2	CA-LUG 4.0- 6.0/M8 CU VZN 3EHP470026P0106 (03 Nos)	Open	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	3x17.5	3EHP431533
20.	242	Connector to Oil cooling unit-2	CABLE LUG 16.0/M8 3EHP470026P0508 (03Nos) CABLE LUG 16.0/M10 CU VZN 3EHP470026P0510 (01 No)	Close	HB-2	CABLE LUG 16.0/M10 3EHP470026P0508 (04 Nos)	Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	3x16.5 1X1.5	3EHP431533
21.	244	Oil Pump Transformer	CA-LUG 4.0-6.0/M8 CU VZN 3EHP470026P0106 (03 Nos)	Close	HB-2	PLUG 4 P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01 No) CONTACT SOCKET SIZE 8 / 6 MM2 3EHW470321P2060 (04 Nos)	Close	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	3x16	3EHP431533
22.	245	Main TFP	CABLE LUG 70.0/ M12 CU VZN 3EHP470026P1912 (08Nos)	Open	BUR - 2	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (08Nos)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	8x6	3EHP431534
23.	246	Main TFP	CABLE LUG 70.0/ M12 CU VZN 3EHP470026P1912 (06 Nos)	Open	BUR - 2	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (06 Nos)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	6x9	3EHP431534

**SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE
ELECTRIC LOCOMOTIVES**

**Specification No.
CLW/ES/03/0646**

SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E					
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24.	247	Capacitor to Scavenge Blower MR	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (02Nos)	Close	Scavenge Blower to MR Blower-1	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (02Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	2x5	3EHP431535
25	248	Capacitor to Scavenge Blower MR	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (02Nos)	Close	Scavenge Blower to MR Blower-2	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (02Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	2x7	3EHP431535
26.	249	Connector to MR Blower	PLUG 4 P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025 (04 Nos)	Close	HB-2	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (04Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3x7.5 1x1.5	3EHP431533
27.	251	Main Compressor- 2	CABLE LUG 10.0/M8 3EHP470026P0208 (03Nos)	Close	HB-2	CABLE LUG 10.0/M8 3EHP470026P0208 (03 Nos)	Close	CAB 4 GWK-AX 10 1800 V BK (3EHW470015P0100)	3x11.5	3EHP431533
28.	252	Scavenge Blower to MR Blower-2	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (02Nos)	Close	HB-2	PLUG 4 P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025 (04Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	2x9	3EHP431533
29.	253	Scavenge Blower to MR Blower	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x1	3EHP431536
30.	254	Scavenge Blower	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (03 Nos)	Close	HB-2	PLUG 4 P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025 (04 Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3x8.5	3EHP431533
31.	255	Scavenge Blower	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x1	3EHP431536

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

32.	256	BUR - 2	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (04 Nos)	Open	HB-2	CABLE LUG 70.0 / M10 CU VZN 3EHP470026P1910 (04 Nos)	Close	CAB 4 GKW-AX 70 1800 V BK (3EHW470015P0700)	4x6.5	3EHP431534
33.	257	BUR - 2	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0114 (01No)	Open	HB-2	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0114 (01 No)	Close	CAB 4 GKW-AX 50 1800 V BK (3EHW470015P0500)	3x7	3EHP431533
34.	258	BUR - 2	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0114 (01No)	Open	HB-2	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0114 (01No)	Close	CAB 4 GKW-AX 50 1800 V BK (3EHW470015P0500)	3x7	3EHP431533
35.	259	BUR - 2	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01 No)	Close	CAB 4 GKW-A X 35 1800 V BK(3EHW470015P0350)	1x1	3EHP431536
36.	260	HB-2	CABLE LUG 16.0/M8 3EHP470026P0508 (03 Nos)	Close	Connector to TM Blower	CABLE LUG 16.0/M8 3EHP470026P0508 (03 Nos)	Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	3X8	3EHP431533
37.	261	HB-2	SET OF COMPLETE PLUG / PLUG P7/24 SOCKET 'N' INDOOR HBTB315110R0011 (01 No) CONTACT PIN 12/1.5 HBT415298P0005 (07 Nos)	Close	Cubicle Driver Cab-2	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	7x12	3EHP431533
38.	262	HB-2	CABLE LUG 35.0/M8 CU VZN 3EHP470026P1008 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GKW-A X 35 1800 V BK(3EHW470015P0350)	1x0.4	3EHP431536
39.	273	Main Compressor- 1	CABLE LUG 10.0/M8 3EHP470026P0208 (01No)	Close	Conn. To Earth to Loco	CA-LUG 10.0/M10 CU VZN 3EHP470026P0210 (01No)	Close	CAB 4 GKW-AX 10 1800 V BK (3EHW470015P0100)	1x4	3EHP431536
40.	274	Oil Pump Transformer	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Close	Conn. To Earth to Loco	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Open	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	1x2.4	3EHP431536
41.	275	Oil Pump Converter	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106	Close	Conn. To Earth to Loco	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106	Open	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	1x1.6	3EHP431536

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			(01No)			(01No)				
42.	276	Oil Pump Converter	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Close	Conn. To Earth to Loco	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Open	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	1x1.6	3EHP431536
43.	277	Oil Pump Transformer	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Close	Conn. To Earth to Loco	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Open	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	1x2.4	3EHP431536
44.	278	Main Compressor- 2	CABLE LUG 10.0/M8 3EHP470026P0208 (01No)	Open	Conn. To Earth to Loco	CA-LUG 10.0/M10 CU VZN 3EHP470026P0210 (01No)	Close	CAB 4 GKW-AX 10 1800 V BK (3EHW470015P0100)	1x4	3EHP431536
45.	211	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02 Nos)	Close	Cubicle Driver Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x7.5	3EHP431535
46.	212	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x2.5	3EHP431536
47.	213	Cubicle Driver Cab-1	WAGO	Open	Rotary Switch Cab Heater	CABLE SLEEVE 2.5-10 NB485270P0029 (04 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	4x7	3EHP431535
48.	214	Cubicle Driver Cab-1	CABLE LUG 8-2.5 KN6762210P0208 (02Nos) CABLE TERMINAL TYPE 18B,2.5 SQ.MM. (02 Nos)	Close	Cab Heater/ Ventilation	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	4X7	3EHP431533
49.	216	Cubicle Driver Cab-1	WAGO	Open	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x7.5	3EHP431535
50.	218	Cubicle Driver Cab-1	CABLE LUG 10.0/M8 3EHP470026P0208 (01 No)	Close	Conn. To Earth to Loco	CA-LUG 10.0/M10 CU VZN 3EHP470026P0210 (01 No)	Close	CAB 4 GKW-AX 10 1800 V BK (3EHW470015P0100)	1x0.8	3EHP431536
51.	219	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x2.5	3EHP431536
52.	238	Scavenge Blower	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x1	3EHP431536

**SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE
ELECTRIC LOCOMOTIVES**

**Specification No.
CLW/ES/03/0646**

			ALT	E					
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I							

			(01No)			(01No)				
53.	239	Scavenge Blower	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x1	3EHP431536
54.	279	Cab Heater/ Ventilation	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 8-2.5 KN6762210P0208 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x0.8	3EHP431536
55.	263	Cab Heater/ Ventilation	WAGO	Open	Cubicle Driver Cab-2	CABLE LUG 8-2.5 KN6762210P0208 (02 Nos) CABLE TERMINAL TYPE 18B,2.5 SQ.MM. (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	4x7	3EHP431533
56.	266	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02 Nos)	Close	Cubicle Driver Cab-2	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x7.5	3EHP431535
57.	267	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01 No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x2.5	3EHP431536
58.	268	Rotary Switch Cab Heater	CABLE SLEEVE 2.5-10 NB485270P0029 (04 Nos)	Close	Cubicle Driver Cab-2	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	4x7	3EHP431535
59.	269	Cubicle Driver Cab-2	WAGO	Open	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x7.5	3EHP431535
60.	270	Cubicle Driver Cab-2	CABLE LUG 10.0/M8 3EHP470026P0208 (01 No)	Close	Conn. To Earth to Loco	CA-LUG 10.0/M10 CU VZN 3EHP470026P0210 (01 No)	Close	CAB 4 GKW-AX 10 1800 V BK (3EHW470015P0100)	1x0.8	3EHP431536
61.	271	Crew Fan	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01 No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x2.5	3EHP431536
62.	280	Cab Heater/ Ventilation	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Close	Conn. To Earth to Loco	CABLE LUG 8-2.5 KN6762210P0208 (01 No)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x0.8	3EHP431536
63.	MOD-1	HB-1	CABLE LUG 10.0/M8 3EHP470026P0208	Open	HB-2	CABLE LUG 10.0/M8 3EHP470026P0208	Open	CAB 4 GKW-AX 10	3x19.3	-

**SPECIFICATION FOR SET OF HARNESSED CABLES FOR WAG-9H & WAP-7 THREE PHASE
ELECTRIC LOCOMOTIVES**

**Specification No.
CLW/ES/03/0646**

			ALT	E					
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I							

			(03 Nos)			(03 Nos)		1800 V BK (3EHW470015P0100)		
64.	MOD-2	HB-1	CABLE LUG 10.0/M8 3EHP470026P0208 (03 Nos)	Open	HB-2	CABLE LUG 10.0/M8 3EHP470026P0208 (03 Nos)	Open	CAB 4 GKW-AX 10 1800 V BK (3EHW470015P0100)	3x19.3	-
65.	MOD-3	HB-1	CABLE LUG 10.0/M8 3EHP470026P0208 (03 Nos)	Open	HB-2	CABLE LUG 10.0/M8 3EHP470026P0208 (03 Nos)	Open	CAB 4 GKW-AX 10 1800 V BK (3EHW470015P0100)	3x19.3	-
66.	MOD-4	HB-1	CABLE LUG 4.0- 6.0/M8 3EHP470026P0108 (02 Nos)	Close	HB-2	CABLE LUG 4.0- 6.0/M8 3EHP470026P0108 (02 Nos)	Close	CAB 4 GKW-AX6 1800 V BK (3EHW47001 5P0060)	2x19.3	-
67.	AC-1	HB-2	PLUG 4 P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01 No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025 (04 Nos)	Close	AC-1	-	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	3x23.5	-
68.	AC-2	HB-2	PLUG 4 P BU "N" IR CA / CONNECTOR 3EHW470084R0001 (01 No) CONTACT SOCKET SIZE 8 / 2.5 MM2 3EHW470321P2025 (04 Nos)	Close	AC-1	-	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	3x12.5	-
69.	1103	Baby TFP in HB-1		Open	HB-2 High Lamp Sheet		Open	CAB 4 GKW-AX 6 1800 V BK 3EHW470015P0060	1x17.5	
70.	1117	Baby TFP in HB-1		Open	HB-2 High Lamp Sheet		Open	CAB 4 GKW-AX 6 1800 V BK 3EHW470015P0060	1x17.5	

CONTROL CABLES

SN	Loom Number	From			To			Cable Size (Sq.mm)	No of Cable x Cable Length (Meter)	ABB Identification
		Location	Connector Type & Lug Type	End (Open/ Close)	Location	Connector Type & Lug Type	End (Open/ Close)			
1.	311	UIC Socket	-	Open	SB-1	SET OF COMPLETE PLUG / PLUG 22P / 36 SKT ' N' INDOOR HBTB315112R0011 (01No)	Close	UIC CABLE 5X4X1+2CORE SCR	1x10.5	3EHP431543

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

						CONTACT SOCKET 12/1.0 HBT415298P0004 (22Nos)				
2.	311A	UIC Socket	-	Open	SB-1	SET OF COMPLETE PLUG / PLUG 22P / 36 SKT 'N' INDOOR HBTB315112R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (13Nos)	Close	CAB 3 x 4 x 1.0 SCR(3EHP470001P1012)	1x11. 6	3EHP431543
3.	311B	UIC Socket	-	Open	SB-2	SET OF COMPLETE PLUG / PLUG 13P/32 SKT 'N' INDOOR HBTB315111R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (13Nos)	Close	CAB 3 x 4 x 1.0 SCR(3EHP470001P1012)	1x10. 5	3EHP431543
4.	312	Panel A1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120 (02Nos)	Close	SB-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120 (02Nos)	Close	CAB 2 x 0.5 SCR 3EHP470000P0502	1x13	3EHP431544
5.	313	Panel A1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120 (02Nos)	Close	SB-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120 (02Nos)	Close	CAB 2 x 0.5 SCR 3EHP470000P0502	1x13	3EHP431544
6.	314	Cubicle Driver Cab-1	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0	Close	SB-1	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0	Close	CAB 2 x 1.0 SCR 3EHP470001P1002	1x11	3EHP431539

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			HBT415298P0004 (05Nos)			HBT415298P0004 (05Nos)				
7.	315	Cubicle Driver Cab-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	SB-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	35x11.5	3EHP431538
8.	316	Cubicle Driver Cab-1	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (56Nos) CONTACT SOCKET 16/1.0 HBT415299P0006 (05Nos)	Close	SB-1	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (56Nos) CONTACT SOCKET 16/1.0 HBT415299P0006 (05Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025) CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015) CAB 2 x 2 x 1.0 SCR 3EHP470001P1004	50x11.6 8X11.6 1x11.6	3EHP431538
9.	318	Panel A/1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 (04Nos)	Close	SB-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONT. PIN 0.24- 0.62/24-20 *1.8076.005/01 (05Nos)	Close	CAB 2 x 2 x 0.5 SCR 3EHP470000P0504 CAB - 3GKW- 0.5 FLEX RED HZN452926P0201	1x13 1X0.1 (loom No. 318 is only for CGL Propulsion System)	3EHP431544
10.	320	SB-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	HB-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	35x11	3EHP431538

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

11.	321	SB-1	SET OF COMPLETE PLUG / PLUG 13P/32 SKT 'N' INDOOR HBTB315111R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (13Nos)	Close	Roof-1	SET OF COMPLETE PLUG / PLUG 13P/32 SKT 'N' INDOOR HBTB315111R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (13Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	13x6.8	3EHP431538
12.	322	SB-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	FB	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	23x12.1	3EHP431538
13.	323	SB-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	SR-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	35x7.5	3EHP431538
14.	324	SB-1	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (05Nos)	Close	SR-1	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (05Nos)	Close	CAB 2 x 1.0 SCR 3EHP470001P1002	1x7.5	3EHP431539
15.	325	SB-1	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0	Close	Roof-2	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0	Close	CAB 2 x 1.0 SCR 3EHP470001P1002	1x6.5	3EHP431539

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			HBT415298P0004 (05Nos)			HBT415298P0004 (05Nos)				
16.	327	SB-1	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	Roof-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	25x7.8 (30x6.9 for Siemens Propulsion)	3EHP431538
17.	328	SB-1	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (05Nos)	Close	SR-2	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (05Nos)	Close	CAB 2 x 1.0 SCR 3EHP470001P1002	1x16	3EHP431539
18.	329	SB-1	SET OF COMPLETE PLUG / PLUG 13P/32 SKT 'N' INDOOR HBTB315111R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (13Nos)	Close	Roof-3	SET OF COMPLETE PLUG / PLUG 13P/32 SKT 'N' INDOOR HBTB315111R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (13Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	13x10	3EHP431538
19.	330	SB-1	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos) CONTACT SOCKET 12/1.5 HBT415298P0006 (8Nos)	Close	SB-2	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos) CONTACT SOCKET 12/1.5 HBT415298P0006 (8Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025) CAB 4 GKW-AX 1.5 1800 V BK	35x21 8x21	3EHP431538

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES					Specification No. CLW/ES/03/0646					
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

20.	331	SB-1	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (61Nos)	Close	SB-2	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (61Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	59x21	3EHP431538
21.	332	SB-1	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (05Nos)	Close	Cubicle Driver Cab-2	SET OF COMPLETE PLUG / PLUG ASSEMBLY (KIT.) HBT315076R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (05Nos)	Close	CAB 2 x 1.0 SCR 3EHP470001P1002	1x20	3EHP431539
22.	333	SB-1	SET OF COMPLETE PLUG / PLUG 22P / 36 SKT 'N' INDOOR HBTB315112R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (22Nos)	Close	UIC Socket	-	Open	UIC CABLE 5X4X1+2CORE SCR	1x19.5	3EHP431543
23.	334	HB-1	SET OF COMPLETE PLUG / PLUG 13P/32 SKT 'N' INDOOR HBTB315111R0011 (01No) CONTACT SOCKET 12/2.5 (13Nos)	Close	BUR-1	SET OF COMPLETE PLUG / PLUG 13P/32 SKT 'N' INDOOR HBTB315111R0011 (01No) CONTACT SOCKET 12/2.5 (13Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	13x13.5	3EHP431538
24.	335	FB	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos)	Close	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos)	Close	CAB 9 x 0.5 SCR 3EHP470000P0509 CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x17 2x0.25	3EHP431540

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES					Specification No. CLW/ES/03/0646					
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)			CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)				
25.	336	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 4Nos)	Close	HLC-1	PLUG 9 POLES HETT401293P0001 (01No) PROTECTIVE CAP / CABLE CLIP HETT401293P0032 (01No) CONNECTOR SKT 0.23, 0.5 SE408197P0013 (06Nos)	Close	CAB 5 x 0.5 SCR 3EHP470000P0505	1x11.2	3EHP431541
26.	337	FB	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 9 x 0.5 SCR 3EHP470000P0509 CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x17 2x0.5	3EHP431540
27.	338	FB	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 9 x 0.5 SCR 3EHP470000P0509 CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x7 2x0.25	3EHP431540
28.	339	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20	Close	HLC-2	PLUG 9 POLES HETT401293P0001 (01No) PROTECTIVE CAP / CABLE CLIP HETT401293P0032	Close	CAB 5 x 0.5 SCR 3EHP470000P0505	1x11	-

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			HESG455638P0120(0 4Nos)			(01No) CONNECTOR SKT 0.23, 0.5 SE408197P0013 (06Nos)				
29.	340	FB	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 9 x 0.5 SCR 3EHP470000P0509 CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x6.5 2x0.25	3EHP431540
30.	341	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 4Nos)	Close	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 4Nos)	Close	CAB 2 x 2 x 0.5 SCR 3EHP470000P0504	1x21	3EHP431541
31.	342	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 5Nos)	Close	HB-2	PLUG 9 POLES HETT401293P0001 (01No) PROTECTIVE CAP / CABLE CLIP HETT401293P0032 (01No) CONNECTOR SKT 0.23, 0.5 SE408197P0013 (06Nos)	Close	CAB 5 x 0.5 SCR 3EHP470000P0505	1x18	3EHP431541
32.	343	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 5Nos)	Close	HB-2	PLUG 9 POLES HETT401293P0001 (01No) PROTECTIVE CAP / CABLE CLIP HETT401293P0032 (01No)	Close	CAB 5 x 0.5 SCR 3EHP470000P0505	1x11	3EHP431541

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

						CONNECTOR SKT 0.23, 0.5 SE408197P0013 (06Nos)				
33.	344	SR-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 (35Nos)	Close	SB-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 (35Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	35x8	3EHP431538
34.	345	Pneumatic Panel	PLUG, SIZE 22/19POLE 3EHP431609R0001 (01No) CONTACT SOCKET 16/0.5 HBT415299P0002 (7Nos) CONTACT SOCKET 16/1.0 HBT415299P0006 (12Nos)	Close	SB-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120 (5Nos)	Close	CAB 2 x 2 x 0.5 SCR 3EHP470000P0504	1x11.3	3EHP431538
				Close	CONNECTOR Brake Handle Out	-	Open	CAB 2 x 2 x 1.0 SCR 3EHP470001P1004	1x20	
				Close	CONNECTOR Brake Handle Out	-	Open	CAB 2 x 2 x 1.0 SCR 3EHP470001P1004	1x13.7	
35.	346	Pneumatic Panel	PLUG, SIZE 28/37POLE 3EHP431609R0002 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (37Nos)	Close	SB-2	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (61Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	37x10.5	3EHP431538
36.	347	Pneumatic Panel	PLUG, SIZE 22/19POLE 3EHP431609R0001 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (19 Nos)	Close	SB-2	SET OF COMPLETE PLUG / PLUG 22P / 36 SKT 'N' INDOOR HBTB315112R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	19x11.2	3EHP431538

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646					
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E							

						(22Nos)				
37.	351	Panel C/1	PLUG 9P D-SUB,SIZE-1	Close	SB-1	PLUG 9P D-SUB,SIZE-1	Close	CAB 9 x 0.5 SCR 3EHP470000P0509	1x13	3EHP431544
This Loom is supplied with Set of Connectors (CABLE CONNECTION / HP-9P-SG-SG-175-21-13.0 M,ABB ID-HBTB315385R0172										
38.	348	BUR-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (10Nos) CONTACT SOCKET 12/2.5 HBT415298P0008 (25Nos)	Close	SB-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/1.0 HBT415298P0004 (10Nos) CONTACT SOCKET 12/2.5 HBT415298P0008 (25Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025) CAB 2 x 1.0 SCR 3EHP470001P1002 CAB - 3GKW- 0.5 FLEX RED HZN452926P0201	20x5.25 2x5.25 2x5.25	3EHP431538
		BUR-2		Close	Insulator Battery Box-1	CABLE LUG 0.5- 1.0/M4 CU VZN 3EHP470026P0004 (02 Nos)	Open	CAB 2 x 1.0 SCR 3EHP470001P1002	2x12	
		BUR-2		Close	Insulator Battery Box-2	CABLE LUG 0.5- 1.0/M4 CU VZN 3EHP470026P0004 (02 Nos)	Open	CAB 2 x 1.0 SCR 3EHP470001P1002	2x17.5	
39.	349	HB-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	SB-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	27x11.2	3EHP431538
40.	352	SB-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120	Close	Panel C/2	PLUG , 9P D-SUB , S1 . PINS HBTB316240R0091 (01No) CONT. PIN 0.24- 0.62/24-20 *1.8076.005/01	Close	CAB 2 x 2 x 0.5 SCR 3EHP470000P0504 CAB - 3GKW- 0.5 FLEX RED HZN452926P0201	1x13 1X0.1 (Loom No. 352 is only for CGL	3EHP431544

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			(04Nos)			(05Nos)			Propulsion System)	
41.	353	SB-2	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/0.5 HBT415299P0002 (61Nos)	Close	*Connector Speedometer	*In the scope of propulsion system	Open	CAB 25 x 0.5 TWIST 3EHP470002P0525	1x9.3	3EHP431542
		SB-2		Close	*Connector Speedometer		Open	CAB 9 x 0.5 TWIST 3EHP470002P0509	1x19	
		*Connector Speedometer	-	Open	*Connector Speedometer		Open	CAB 2 x 0.5 SCR 3EHP470000P0502	1x25	
42.	354	SB-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	Cubicle Driver Cab-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	35x10.6	3EHP431538
43.	355	SB-2	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (56Nos) CONTACT SOCKET 16/1.0 HBT415299P0006 (05Nos)	Close	Cubicle Driver Cab-2	ST.61P/40 BU"N"IR KABELH./ PLUG 61P/40 SKT 'N' INDOOR HBTB315157R0011 (01No) CONTACT SOCKET 16/2/AWG14 HBT415299P0010 (56Nos) CONTACT SOCKET 16/1.0 HBT415299P0006 (05Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025) CAB 4 GWK-AX1.5 1800 V BK (3EHW470015P0015) CAB 2 x 2 x 1.0 SCR 3EHP470001P1004	50x11.6 8x11.6 1x11.6	3EHP431538
44.	356	SB-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120	Close	Panel A/2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120	Close	CAB 2 x 0.5 SCR(3EHP470000P0502)	1x13	3EHP431544

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			(02Nos)			(02Nos)				
45.	357	SB-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120 (02Nos)	Close	Panel A/2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120 (02Nos)	Close	CAB 2 x 0.5 SCR(3EHP470000P0502)	1x13	3EHP431544
46.	358	Connector Air Dryer	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (02Nos)	Open	SB-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (35 Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3x25.6 2x16.4 11x19.4	3EHP431538
		Pneumatic Panel								
		Pressure Switch Main Compressor								
		Pressure Switch Reservoir								
		Pressure Switch Main Compressor								
		Pressure Switch Brake Cylinder								
		Pressure Switch Brake Cylinder								
47.	359	SB-1	SET OF COMPLETE PLUG / PLUG 22P / 36 SKT 'N' INDOOR HBTB315112R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (22 Nos)	Close	SB-2	SET OF COMPLETE PLUG / PLUG 22P / 36 SKT 'N' INDOOR HBTB315112R0011 (01No) CONTACT SOCKET 12/2.5 HBT415298P0008 (22 Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025) CAB 2 x 2 x 1.0 SCR 3EHP470001P1004	17x21.2 1x21.2	3EHP431538
48.	371	Master Controller-1	CABLE LUG 8-2.5 KN6762210P0208 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 8-2.5 KN6762210P0208 (01No)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x1.5	3EHP431545
49.	372	Connector Speedometer	CABLE LUG 1.5-2.57 /M5 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x1.1	3EHP431545

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I		Dy.CEE/D-I			ALT	E			

50.	373	Not in use								
51.	374	SB-1	CABLE LUG 16.0/M10 CU VZN 3EHP470026P0510 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 16.0/M10 CU VZN 3EHP470026P0510 (01No)	Close	CAB 4 GKW-AX 16 1800 V BK(3EHW470015P0160)	1x0.4	3EHP431545
52.	375	Pneumatic Panel	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Close	Conn. To Earth to Loco	CA-LUG 4.0-6.0/M6 CU VZN 3EHP470026P0106 (01No)	Close	CAB 4 GKW-AX 6 1800 V BK (3EHW470015P0060)	1x4	3EHP431545
53.	376	SB-2	CABLE LUG 16.0/M10 CU VZN 3EHP470026P0510 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 16.0/M10 CU VZN 3EHP470026P0510 (01No)	Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	1x0.4	3EHP431545
54.	377	Master Controller-2	CABLE LUG 8-2.5 KN6762210P0208 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 8-2.5 KN6762210P0208 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x1.5	3E HP431545
55.	378	Connector Speedometer	CABLE LUG 1.5- 2.5/M4 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x1.1	3EHP431545
56.	379	Not in use								
57.	380	Connector Brake Handle out	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 8-2.5 KN6762210P0208 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x2.3	3EHP431545
58.	381	Connector Brake Handle out	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	CABLE LUG 8-2.5 KN6762210P0208 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x2.3	3EHP431545
59.	350	Bogie-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos)	Close	Connector Speedometer	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos)	Close	CAB 9 x 0.5 SCR(3EHP470000P0509)	1x11.2	3EHP330342
		• Cable for this Loom is supplied with Speedometer. • 02 Nos ST. 9P D-SUB GR1 / CONNECTOR(ABB ID HBTB316240R0009) and 02 Nos ADAPTOR NW17/SIZE18 (ABB IDHBT415393P0437) to be supplied with Harness cable in loose to preparation of loom at shop floor.								

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES					Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E					

60.	317	SB-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos)	Close	Panel C/2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (01No) CONTACT SOCKET AWG24-20 HESG455638P0120(0 9Nos)	Close	CAB 9 x 0.5 SCR(3EHP470000P0509)	1x13	3EHP431544
61.	SB-1-HLC-1	SB-1	-	Open	HLC-1	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	10X8	-
62.	SB-2-HLC-2	SB-2	-	Open	HLC-2	-	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0015)	10X8	-
63.	SB-1- CAB - 1	SB-1		Open	CAB-1		Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2X11.6	-
64.	SB-2- CAB - 2	SB-2		Open	CAB-2		Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2X12	-
65.	Flasher Unit (Cab1) 3551-1A, 2050-A1 3551-3A, 2050-A2	-	--	Open	-	-	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	4X7	-
66.	Flasher Unit (Cab2) 3551-1B, 2050-B1 3551-3B, - 2050-B2	-	-	Open	-	-	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	4X7	-
67.	3533	-	CONTACT PIN 12/1.5 HBTB415298P0005 (01No)	Open	-	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	2X3.5	-
68.	2050	-	CONTACT PIN 12/1.5 HBTB415298P0005 (01No)	Open	-	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	2X3.5	-

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

SENSOR CABLES										
SN	Loom Number	From			To			Cable Size (Sq.mm)	No. of Cables x Cable Length (Meter)	ABB Identification
		Location	Connector Type & Lug Type	End (Open/ Close)	Location	Connector Type & Lug Type	End (Open/ Close)			
1.	411	Bogie-1	3 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Open	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (2 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x 0.5 SCR (3EHP470000P0502) CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x20 2x0.25	3EHP431537
2.	412	Bogie-1	5 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Open	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (4 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x2x 0.5 SCR (3EHP470000P0504) CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x20 2x0.5	3EHP431537
3.	413	Bogie-1	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) CONTACT PIN MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5 Nos)	Close	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (9 Nos)	Close	CAB 9 x 0.5 SCR (3EHP470000P0509)	1x20	3EHP431537
4.	414	Bogie-1	3 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Open	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120	Close	CAB 2 x 0.5 SCR (3EHP470000P0502) CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	1x12.5 2x0.5	3EHP431537
SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.		AEE/ D-I		Dy.CEE/D-I		ALT	E			

						(2 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)				
5.	415	Bogie-1	5 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Open	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (4 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x 2 x 0.5 SCR (3EHP470000P0504) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x12.5 2x0.25	3EHP431537
6.	416	Bogie-1	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) CONTACT PIN MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5 Nos)	Close	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (9 Nos)	Close	CAB 9 x 0.5 SCR (3EHP470000P0509)	1x12.5	3EHP431537
7.	417	Bogie-1	3 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Open	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (2 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x 0.5 SCR (3EHP470000P0502) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x11.5 2x0.25	3EHP431537
8.	418	Bogie-1	5 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Open	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (4 Nos)	Close	CAB 2 x2x 0.5 SCR (3EHP470000P0504) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x11.5 2x0.25	3EHP431537

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

						CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)				
9.	419	Bogie-1	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) CONTACT PIN MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5 Nos)	Close	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (9 Nos)	Close	CAB 9 x 0.5 SCR (3EHP470000P0509)	1x11.5	3EHP431537
10.	420	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (2 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	Bogie-1	3 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Open	CAB 2 x 0.5 SCR (3EHP470000P0502) CAB 4 GKW-AX 2.5 1800 V BK (3EHP470015P0025)	1x11.5 2x0.5	3EHP431537
11.	421	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (4 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	Bogie-1	5 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x 2 x 0.5 SCR (3EHP470000P0504) CAB 4 GKW-AX 2.5 1800 V BK (3EHP470015P0025)	1x11.5 2x0.5	3EHP431537
12.	422	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (9 Nos)	Close	Bogie-1	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) CONTACT PIN MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5 Nos)	Close	CAB 9 x 0.5 SCR (3EHP470000P0509)	1x11.5	3EHP431537

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

13.	450	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (2 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	Bogie-1	3 Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x 0.5 SCR (3EHP470000P0502) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x12.5 2x0.5	3EHP431537
14.	451	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (4 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	Bogie-1	5Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x2x 0.5 SCR(3EHP470000P0504) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x12.5 2x0.5	3EHP431537
15.	452	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (9 Nos)	Close	Bogie-1	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5 Nos)	Close	CAB 9 x 0.5 SCR (3EHP470000P0509)	1x12.5	3EHP431537
16.	453	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (2 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	Bogie-1	3Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x 0.5 SCR (3EHP470000P0502) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x20 2x0.5	3EHP431537

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

17.	454	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (4 Nos) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	Bogie-1	5Pin Connector (Supplied with propulsion System) CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (1 No)	Close	CAB 2 x 2 x 0.5 SCR (3EHP470000P0504) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1x20 2x0.5	3EHP431537
18.	455	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (9 Nos)	Close	Bogie-1	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) CONTACT PIN MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5 Nos)	Close	CAB 9 x 0.5 SCR (3EHP470000P0509)	1x20	3EHP431537
19.	425	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (5Nos)	Close	Amplifier Sensor Oil Transformer	SOCKET / PLUG , 5 CRIMP SOCKET S16 HBTB415399P0012 (1 No) CONTACT FEMALE GR16 / CONTACT SOCKET SIZE 16 HBTB415399P0002 (5Nos)	Close	CAB 3 x 0.5 SCR(3EHP470000P0503)	1x9	3EHP431548
20.	426	SR-1	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (5Nos)	Close	Connector Temperature Sensor Oil	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) CONTACT PIN MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5Nos)	Close	CAB 2 x 2x0.5 SCR(3EHP470000P0504)	1x 9	3EHP431548
21.	427	Connector Temperature Sensor Oil	PLUG DO 5P/ 14 HBTB415399P0022 (1 No) CONTACT PIN MALE GR16 0,5-1,0 mm2 HBTB415399P0001 (5Nos)	Close	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (5Nos)	Close	CAB 2 x2x 0.5 SCR(3EHP470000P0504)	1x 9	3EHP431548

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

22.	428	Amplifier Sensor Oil Transformer	SOCKET / PLUG , 5 CRIMP SOCKET S16 HBTB415399P0012 (1 No) CONTACT FEMALE GR16 / CONTACT SOCKET SIZE 16 HBTB415399P0002 (5 Nos)	Close	SR-2	ST. 9P D-SUB GR1 / CONNECTOR HBTB316240R0009 (1 No) CONTACT SOCKET AWG24-20 HESG455638P0120 (3Nos)	Close	CAB 3 x 0.5 SCR (3EHP470000P0503)	1x 9	3EHP431548
23.	441	Not in use								
24.	442	Not in use								

DRIVER CABLES

SN	Loom Number	From			To			Cable Size (Sq.mm)	No. of Cables x Cable Length (Meter)	ABB Identification
		Location	Connector Type & Lug Type	End (Open/Close)	Location	Connector Type & Lug Type	End (Open/Close)			
1.	511	Front Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x7	3EHP431546
2.	512	Tail Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x7	3EHP431546
3.	513	Head Light	CABLE LUG INSUL.4-2.5 HCSN400689P0023 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
4.	514	Head Light	CABLE LUG INSUL.4-2.5 HCSN400689P0023 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
5.	515	Front Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
6.	516	Tail Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
7.	517	Foot Switch Release of Ind	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES

Specification No.
CLW/ES/03/0646

SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E					
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8.	518	Panel-B1	CABLE SLEEVE 1.5 - 8.0 NB485270P0067 (02 Nos) CABLE LUG INSUL 3- 1.5 HCSN400689P0012 (01No)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 1.5 1800 V BK(3EHW470015P0015)	3x7	3EHP431546
9.	519	Spring Loaded Switch Pneumatic	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
10.	520	Lamp Driver Desk Illumination	CABLE SLEEVE 2.5-10 NB485270P0029 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
11.	521	Spring Loaded Foot Switch	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver's Cab-1	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
12	522			Open		LUG 6, 3 X 0.8 CUSN NBT200235P0511 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
13.	522/1	Cubicle Driver's Cab-1	WAGO	Open	Lamp Driver's Cab Lighting	LUG 6.3 X 0.8 CUSN NBT200235P0511 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
14.	523	Cubicle Driver's Cab-1	WAGO	Open	Emergency Flash Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x8	3EHP431546
15.	524	Cubicle Driver's Cab-1	WAGO	Open	Lamp assistant desk illumination	CABLE SLEEVE 2.5-10 NB485270P0029 (02 Nos)	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x 7	3EHP431546
16.	551	Lamp Driver Desk Illumination	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01 No)	Close	Conn. To Earth to Loco	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x3.5	3EHP431546
17.	552	Lamp Driver's Cab Lighting	LUG 6.3 X 0.8 CUSN NBT200235P0511 (01 No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x1	3EHP431546
18.	552/1		LUG 6.3 X 0.8 CUSN NBT200235P0511 (01 No)	Close		CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x3	

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

19.	553	Emergency Flash Light	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01 No)	Close	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	1x1	3EHP431546
20.	554	Lamp assistant desk illumination	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01 No)	Close	Conn. To Earth to Loco	WAGO	Open	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	1x3.5	3EHP431546
21.	531	Lamp assistant desk illumination	CABLE SLEEVE 2.5-10 NB485270P0029 (02 Nos)	Close	Cubicle Driver Cab-2	WAGO	Open	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
22.	532/2	Lamp Driver's Cab Lighting	LUG 6. 3 X 0.8 CUSN NBT200235P0511 (02 Nos)	Close Close	Cubicle Driver Cab-2	WAGO	Open Open	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x8.5	3EHP431546
23	532		LUG 6, 3 X 0.8 CUSN NBT200235P0511 (02 Nos)	Close			Open	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	
24.	533	Emergency Flash Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver Cab-2	WAGO	Open	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x8	3EHP431546
25.	534	Spring Loaded Foot Switch	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	Cubicle Driver Cab-2	WAGO	Open	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
26.	535	Cubicle Driver Cab-2	WAGO	Open	Spring Loaded Switch Pneumatic	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
27.	536	Cubicle Driver Cab-2	WAGO	Open	Lamp Driver Desk Illumination	CABLE SLEEVE 2.5-10 NB485270P0029 (02 Nos)	Open	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
28.	537	Cubicle Driver Cab-2	WAGO	Open	Foot Switch Release of Ind	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	CAB 4 GWK-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
29.	538	Cubicle Driver Cab-2	WAGO	Open	Panel B/2	CABLE SLEEVE 1.5 - 8.0 NB485270P0067 (02 Nos) CABLE LUG INSUL 3- 1.5 HCSN400689P0012 (01No)	Close	CAB 4 GWK-AX 1.5 1800 V BK (3EHW470015P0015)	3x7	3EHP431546

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

30.	539	Cubicle Driver Cab-2	WAGO	Open	Front Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
31.	540	Cubicle Driver Cab-2	WAGO	Open	Tail Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
32.	541	Cubicle Driver Cab-2	WAGO	Open	Head Light	CABLE LUG INSUL.4- 2.5 HCSN400689P0023 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
33.	542	Cubicle Driver Cab-2	WAGO	Open	Head Light	CABLE LUG INSUL.4- 2.5 HCSN400689P0023 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
34.	543	Cubicle Driver Cab-2	WAGO	Open	Front Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
35.	544	Cubicle Driver Cab-2	WAGO	Open	Tail Marker Light	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02 Nos)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	2x7	3EHP431546
36.	561	Lamp assistant desk illumination	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x3.5	3EHP431546
37.	562		CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close		LUG 6, 3 X 0.8 CUSN NBT200235P0511 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x1	
38.	562/2	Lamp Driver's Cab Lighting	LUG 6.3 X 0.8 CUSN NBT200235P0511 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x3	3EHP431546
39.	563	Emergency Flash Light	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Close	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x1	3EHP431546
40.	564	Lamp Driver Desk Illumination	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Close	Conn. To Earth to Loco	WAGO	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1x3.5	3EHP431546

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

BATTERY CABLES										
SN	Loom Number	From			To			Cable Size (Sq.mm)	No. of Cables x Cable Length (Meter)	ABB Identification
		Location	Connector Type & Lug Type	End (Open/Close)	Location	Connector Type & Lug Type	End (Open/Close)			
1.	611	BUR-2	SET OF COMPLETE PLUG / PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0113 (01No)	Open	HB-2	SET OF COMPLETE PLUG / L- PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0213 (01No)	Close	CAB 4 GKW-A X 35 1800 V BK (3EHW470015P0350)	3x5.5	3EHP431547
2.	612	Power Connection to Battery-1	ANDERSON PLUG PP 120A *1321G3ROT (01No)	Close	Battery-1	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GKW-A X 35 1800 V BK (3EHW470015P0350)	1x1.27	3EHP431547
3.	613	Power Connection to Battery-1	ANDERSON PLUG PP 120A *1321BLAU (01No)	Close	Battery-1	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010\ (01No)	Close	CAB 4 GKW-A X 35 1800 V BK (3EHW470015P0350)	1x1.27	3EHP431547
4.	614	Insulator Battery Box-1	CABLE LUG 16.0/M8 3EHP470026P0508 (01No)	Close	Circuit Breaker Battery	CABLE LUG 16.0/M8 3EHP470026P0508 (01No)	Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	1x0.4	3EHP431547
5.	615	Insulator Battery Box-1	CABLE LUG 16.0/M8 3EHP470026P0508 (01No)	Close	Insulator Battery Box-2	CABLE LUG 16.0/M8 3EHP470026P0508 (01No)	Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	1x10	3EHP431547
6.	616	Circuit Breaker Battery	CABLE LUG 16.0/M8 3EHP470026P0508 (01No)	Open	SB-2	SET OF COMPLETE PLUG / L-PLUG 4P/40 SOCKET 'N' INDOOR HBTB315176R0211 (01No)	Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	1x16.5	3EHP431547
		Insulator Battery Box-2	CABLE LUG 16.0/M8 3EHP470026P0508 (01No)	Open	SB-2		Close	CAB 4 GKW-AX 16 1800 V BK (3EHW470015P0160)	1x9	3EHP431547
7.	617	Power Connection to Battery-2	ANDERSON PLUG PP 120A *1321BLAU (01No)	Close	Battery-2	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GKW-A X 35 1800 V BK (3EHW470015P0350)	1x1.27	3EHP431547
8.	618	Power Connection to Battery-2	ANDERSON PLUG PP 120A *1321G3ROT (01No)	Close	Battery-2	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GKW-A X 35 1800 V BK (3EHW470015P0350)	1x1.27	3EHP431547
9.	621	Power Connection to Battery-1	ANDERSON PLUG PP 120A *1321G3ROT (01No)	Close	Insulator Battery Box-1	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GKW-A X 35 1800 V BK (3EHW470015P0350)	1x1	3EHP431547

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

10.	622	Power Connection to Battery-1	ANDERSON PLUG PP 120A *1321BLAU (01No)	Close	Insulator Battery Box-1	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GWK-A X 35 1800 V BK (3EHW470015P0350)	1x1	3EHP431547
11.	623	Power Connection to Battery-2	ANDERSON PLUG PP 120A *1321BLAU (01No)	Close	Insulator Battery Box-2	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GWK-A X 35 1800 V BK (3EHW470015P0350)	1x1	3EHP431547
12.	624	Power Connection to Battery-2	ANDERSON PLUG PP 120A *1321G3ROT (01No)	Close	Insulator Battery Box-2	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (01No)	Close	CAB 4 GWK-A X 35 1800 V BK (3EHW470015P0350)	1x1	3EHP431547
ROOF CABLES										
SN	Loom Number	From			To			Cable Size (Sq.mm)	No. of Cables x Cable Length (Meter)	ABB Identification
		Location	Connector Type & Lug Type	End (Open/Close)	Location	Connector Type & Lug Type	End (Open/Close)			
1.	5A	Roof-1	SET OF COMPLETE SOCKET / SOCKET 13P/32 PIN 'N' INDOOR	Close	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (03Nos)	Open	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3X6	3EHP431341
		Roof-1	HBTB315159R0011 (01No) CONTACT PIN 12/1.5 HBT415298P0005 (11Nos)	Close	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (04Nos)	Open	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3X6	3EHP431341
		Roof-1	CONTACT PIN 12/6.0 HBT415298P0011 (02Nos)	Close	Roof-1	JOINTING SLEEVE 6.3X0.8 HZN452972P0002 (02Nos)	Open	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3X6	3EHP431341
2.	5B	Roof-1	SET OF COMPLETE SOCKET / SOCKET 13P/32 PIN 'N' INDOOR	Close	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (03Nos)	Open	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3X6	3EHP431341
		Roof-1	HBTB315159R0011 (01No) CONTACT PIN 12/1.5 HBT415298P0005 (11Nos)	Close	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (04Nos)	Open	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3X6	3EHP431341
		Roof-1	CONTACT PIN 12/6.0 HBT415298P0011 (02Nos)	Close	Roof-1	JOINTING SLEEVE 6.3X0.8 HZN452972P0002 (02Nos)	Open	CAB 4 GWK-AX 2.5 1800 V BK (3EHW470015P0025)	3X6	3EHP431341

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

3.	6	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (02Nos)	Open	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (02Nos)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	2X3	3EHP431341
4.	7	Roof-1	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (01No)	Open	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (01No)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	1X0.2	3EHP431341
5.	8	Roof-2	SOCKET 35P/40 PIN 'N' IND. HBTB315162R0011 (01No) CONTACT PIN 12/1.5 HBT415298P0005 (31Nos) CONTACT PIN 12/4.0 HBT415298P0009 (2Nos) CONTACT PIN 12/2.5 HBT415298P0007 (2Nos)	Close	Roof-2	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (02Nos)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	2X2.7	3EHP431341
		Roof-2		Close	Roof-2	ST.35P/40 BU"N"IR KABELH./ PLUG 25P/40 SKT 'N' INDOOR HBTB315113R0011 (01No) CONTACT SOCKET 12/1.5 HBT415298P0006 (35Nos)	Close	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	12X3.6	
		Roof-2		Close	Roof-2	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02Nos)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2x5.8 (Extra cables for Siemens make Propulsion)	
6.	9	Roof-2	SET OF COMPLETE SOCKET / SOCKET 5P / S18 PIN 'N' STR HBT315075R0031 (01No) CONTACT PIN 12/1.0 HBT415298P0003 (05Nos)	Close	Conn. To Earth to Loco	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02Nos)	Open	CAB 2 x 1.0 SCR (3EHP470001P1002) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2X2.5 1x0.3	3EHP431341
						CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (01No)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	1X0.5	3EHP431341
7.	10	Roof-2	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (01No)	Open	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (01No)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1X0.3	3EHP431341
8.	11	Roof-2	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02Nos)	Open	Roof-2	0.5-1.0/M5 (02Nos)	Open	CAB 2 x 1.0 SCR (3EHP470001P1002)	1X1	3EHP431341

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

			CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (01No)	Open			Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015) CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2X0.25 1x0.5	3EHP431341
9.	12	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (02Nos)	Open	Conn. To Earth to Loco	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02Nos)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	2X2	3EHP431341
10.	13	Roof-1	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (02Nos)	Open	Conn. To Earth to Loco	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (02Nos)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	2X2	3EHP431341
11.	14	Roof-1	CABLE LUG PIN TYPE 2.5 GMN945210P0002 (02Nos)	Open	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02Nos)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	2X0.2	3EHP431341
12.	15	Roof-2	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (01No)	Open	Conn. To Earth to Loco	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (01No)	Open	CAB 4 GKW-AX 2.5 1800 V BK (3EHW470015P0025)	1X0.2	3EHP431341
13.	16	Roof-2	CA-LUG 1.5-2.5/M4 CU VZN 3EHP470026P0014 (02Nos)	Open	Roof-2	CA-LUG 1.5-2.5/M6 CU VZN 3EHP470026P0016 (02Nos)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	2X0.5	3EHP431341
14.	17	Roof-2	8-2.5	Open	Conn. To Earth to Loco	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Open	CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025)	1X1	3EHP431341
15.	18	Roof-2	FASTON LUG 6.3 X 0.8 CU/SN GMN485104P0155 (01No)	Open	Conn. To Earth to Loco	CABLE LUG 1.5-2.57 M5 3EHP470026P0015 (01No)	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	1X1	3EHP431341
EARTHING CABLES										
SN	Loom Number	From			To			Cable Size (Sq.mm)	No of Cable x Cable Length (Meter)	ABB Identification
		Location	Connector Type & Lug Type	End (Open/ Close)	Location	Connector Type & Lug Type	End (Open/ Close)			
1.	BERT-1	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X0.8	-

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
SSE/D/Elect.	AEE/ D-I	Dy.CEE/D-I	ALT	E						

2.	BERT-2	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.8	-
3.	BERT-3	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.8	-
4.	BERT-4	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.8	-
5.	BERT-5	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.8	-
6.	BERT-6	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.8	-
7.	BERT-7	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.6	-
8.	BERT-8	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.6	-
9.	BERT-9	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.6	-
10.	BERT-10	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.6	-
11.	BERT-11	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.6	-
12.	BERT-12	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	-	CABLE LUG 120.0 / M12 CU VZN 3EHP470026P3012 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK(3EHW470016P1200)	1X 0.6	-

SPECIFICATION FOR SET OF HARNESSSED CABLES FOR WAG-9H & WAP-7 THREE PHASE ELECTRIC LOCOMOTIVES						Specification No. CLW/ES/03/0646				
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13.	BERT-13	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	CAB 4 GWK-A X 35 1800 V BK(3EHW470015P0350)	1X1	-
14.	BERT-14	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	CAB 4 GWK-A X 35 1800 V BK(3EHW470015P0350)	1X 1	-
15.	BERT-15	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	CAB 4 GWK-A X 35 1800 V BK(3EHW470015P0350)	1X 0.4	-
16.	BERT-16	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	CAB 4 GWK-A X 35 1800 V BK(3EHW470015P0350)	1X 0.4	-
17.	BERT-17	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	-	CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	CAB 4 GWK-A X 35 1800 V BK(3EHW470015P0350)	1X 0.4	-
18.	MRERT-1		CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close		CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	CAB 4 GWK-A X 35 1800 V BK(3EHW470015P0350)	1X 0.4	
19.	MRERT-2		CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close		CABLE LUG 35.0/M10 CU VZN 3EHP470026P1010 (1No)	Close	CAB 4 GWK-A X 35 1800 V BK(3EHW470015P0350)	1X 1	
20.	MRERT-3	NOT IN USE								
21.	MRERT-4									
22.	MRERT-5									
23.	MRERT-6									
24.	MRERT-7									
25.	MRERT-8									
26.	MRERT-9									
27.	MRERT-10									
28.	MRERT-11									
29.	HRERT-1	-	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (1No) Cable Gland PG 29 (1No)	Close	-	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (1No)	Close	CAB 9 GWK-AX 120 4000 V BK 3EHW470016P1200	1X 0.6	-

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30.	HRERT-2	-	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (1No) Cable Gland PG 29 (1No)	Close	-	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK 3EHW470016P1200	1X 0.6	-
31.	HRERT-3	-	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (1Nos) Cable Gland PG 29 (1No)	Close	-	CABLE LUG 120.0 / M10 CU VZN 3EHP470026P3010 (1No)	Close	CAB 9 GKW-AX 120 4000 V BK 3EHW470016P1200	1X 0.45	-
32.	HLERT-1		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close	CAB 9 GKW - AX 150 4000V BK (3EHW470016P1500	1X1	
33.	HLERT-2		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close	CAB 9 GKW - AX 150 4000V BK (3EHW470016P1500	1X1	
34.	HLERT-3		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close	CAB 9 GKW - AX 150 4000V BK (3EHW470016P1500	1X1	
35.	HLERT-4		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close		CABLE LUG 150.0 / M12 CU VZN 3EHP470026P3712 (01 No)	Close	CAB 9 GKW - AX 150 4000V BK (3EHW470016P1500	1X1	

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KAVACH CABLES										
SN	Loom Number	From			To			Cable Size (Sq.mm)	No of Cable x Cable Length (Meter)	Remarks
		Location	Connector Type & Lug Type	End (Open/Close)	Location	Connector Type & Lug Type	End (Open/Close)			
1.	K1	SB-2	-	Open	Kavach SB	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015) CAB 4 GKW-AX 2.5 1800 V BK(3EHW470015P0025	4x21.5 1x21.5	
2.	K2E70	Kavach SB	-	Open	E70 Brake System	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	4x12.5	Loom required for E-70 Brake System
3.	K2CCB	Kavach SB	-	Open	CCB Brake System	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	8x12.5	Loom required for CCB Brake System
4.	K3	Kavach SB	-	Open	CAB-1	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	16X15	
5.	K4	Kavach SB	-	Open	CAB-2	-	Open	CAB 4 GKW-AX 1.5 1800 V BK (3EHW470015P0015)	16X28	-

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