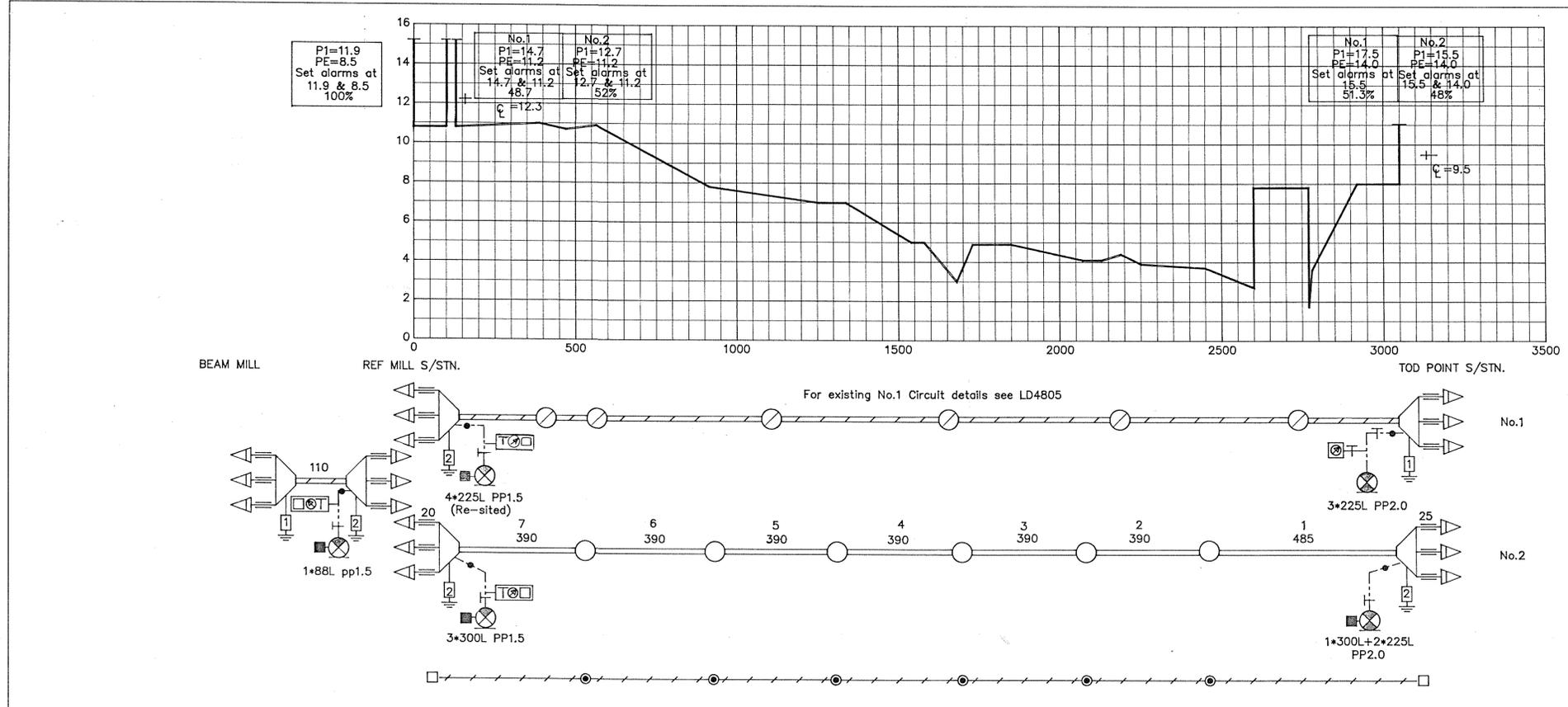


REF	SYMBOL	DESCRIPTION	DRAWING NO	QTY	
1	====	66kV 3 core 400 sq.mm (Cu) CSA/Pe/DCO (S.10)	CSD 66/02914	2825 Metres	BM 301
2	====	66kV s/core 400 sq.mm (Cu) loose CSA/PVC/O.F tail (S.10)	CSD 66/12488	210 Metres	BM302, 3,4,5, 6,7,8, 9,10, TP
3	////	19 core 7/0.67mm Cu/PVC/ SWA/PVC Aux Cable	-	3100 Metres	BM 701 BM 703
4	////	7 core 7/0.67mm Cu/PVC/ SWA/PVC Aux Cable	-	120 Metres	BM 704 BM 705 BM 706
5	----	240 sq.mm Normal Bonding Strand	CSD 000/40009	40 Metres	r
6	----	20mm armoured lead oil feed pipe	CSD 000/40021	60 Metres	
7					
8					
9	□	Marshalling box for auxiliary cables	-	Existing	
10	⊙	Resinwrap straight joint for 19 core Aux cable	-	6	
11	□	Gantry mounted link box Type LBM 2	E.90588-D2	4	
12	⊙	Pressure transducer, visual gauge test slide valve & terminal block in W/proof cabinet	E.90606-D1	3	
13	●	Oil Pipe Insulator	E.95186-D2	4	
14	■	Pumping Valve	E.70551-00	4	
15	T	Test Slide Valve	E.70726-00	4	
16	⊗	Re-site existing pp 1.5 225L P.M oil tank	-	(4)	
17	⊗	Plinth Mounted ) 300L pp 1.5 oil tank ) 88L	E.90278-D2	3	
18	⊗	Plinth Mounted ) 300L pp 2 oil tank ) 225L	E.90278-D2	1	
19	○	Straight joint in GF Box	E.95281-D5	6	
20	∇	Open Trifurcating Joint in GF Box	E.95282-D5	4	
21	△	Vertical outdoor sealing end	E.95061-D7	12	
			EB 8753/2	L.D.NO. 8178A	
BICC CABLES			SYSTEMS DESIGN SECTION ENERGY CABLES DIVISION SUPERTENSION CABLES		Sheet 2 of 3



BICC CABLES LTD											
ENERGY CABLES DIVISION SUPERTENSION CABLES											
DATE	NO	MODIFICATION									
9/11/92	1	'As-laid'details added,drawing finalised.									
<table border="1"> <thead> <tr> <th>CABLE ITEM NUMBER</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>OIL CONTENT OF CABLE - L/KM</td> <td>3058</td> <td>688</td> </tr> <tr> <td>FLOW IMPEDANCE * n * 10</td> <td>0.4</td> <td>17.6</td> </tr> </tbody> </table>			CABLE ITEM NUMBER	1	2	OIL CONTENT OF CABLE - L/KM	3058	688	FLOW IMPEDANCE * n * 10	0.4	17.6
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OIL CONTENT OF CABLE - L/KM	3058	688									
FLOW IMPEDANCE * n * 10	0.4	17.6									
PROFILE IS AT CABLE LEVEL ALL PRESSURES IN METRES TO TANK CENTRE-LINE T DENOTES TOP OF SEALING END C DENOTES TANK CENTRE-LINE % DENOTES PERCENT OF OIL SECTION CATERED FOR											
PROFILE LINE DIAGRAM NO. 8178A											
BRITISH STEEL EB 8753/3											
LACKENBY BEAM MILL											
REF MILL - TOD POINT CIRCUITS 1 & 2											
AUTHORISED BY: E.S.Hughes		SHEET 3 OF 3 DATE: 9/11/92									

BICC CABLES		L.D. No. 8178A
ENERGY CABLES DIVISION		SUPERTENSION CABLES
Sheet 1 of 3		
CUSTOMER: British Steel General Steels, Teesside		
SPECIFICATION NO. 412/E3209		
ROUTE OR SITE: Lackenby Beam Mill Ref Mill - Tod Point Circuits 1 & 2		
ENQUIRY: CC 6460	BICC CONTRACT: 31/7971	CUSTOMERS O/No C/ CONTRACT: HQ/ 0192760
CABLE DESIGN:		
i) 66kV 3 core 400mm <sup>2</sup> circular copper conductor, with paper insulation based on 10 MV/m, laid-up without ducts & fillers, corrugated seamless aluminium sheath and extruded polyethylene oversheathed, oil-filled cable to ESI Std 09-4. ii) 66kV single core 400mm <sup>2</sup> circular copper conductor, with paper insulation based on 10 MV/m, loose corrugated seamless aluminium sheath and extruded PVC oversheathed oil filled tail cable to ESI Std 09-4.		
SYSTEM DESIGN PARAMETERS:		
The cables are laid direct in the ground as a fully insulated system operating under the following conditions:		
System Voltage	:	66kV Nominal
Neutral	:	Earthed
No. of Circuits	:	One
	:	Plus one existing circuit looped in & out of new Ref Mill Substation
Load	:	60MVA (525A)
Depth of Lay	:	900mm to top of cables
Circuit Spacing	:	2.0m from existing cables
Maximum conductor temperature	:	90°C
Maximum ground temperature	:	15°C
Soil Thermal Resistivity	:	1.2 m <sup>2</sup> /W
Fault level	:	22kA for 1.0 secs
DESIGN PARTICULARS EB 8753/1		

EB 8753