

Project Name : Transnet Saldanha NMD
Upgrade - New Ystervark S/S

Project ID : 153272156

Job Name : Ystervark Branch Lines -
Isacor/Blouwater 66kV Lines

Job ID : 153272156-00001

Final Design Package: Book 3

Prepared for
TRANSNET GROUP CAPITAL

Prepared by
Ndumiso Mabuza

In association with
Colin Pym

2020-04-24

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Quality Information

Document Final Design Package: Ystervark Branch Lines - Iscor/Blouwater 66 kV Lines - Book 3

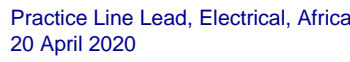
Ref Eskom Job Number: 153272156-00001 Date 2020-04-24

Prepared by Ndumiso Mabuza Reviewed by Colin Pym


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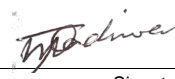
ISSUED FOR USE

Revision History

Revision	Revision Date	Details	Authorized Name/Position	Signature	Date
Rev 02	2020-04-24	Issued for Use	Colin Pym		20 April 2020

**Additional Signatories
for Transnet SOC Ltd**

Revision	Revision Date	Details	Authorized Name/Position	Signature	Date
Rev 02	2020-04-24	Issued for Use	Richard Shandu Senior Engineering Manager Richard Shandu (Transnet Group Capital)		22/04/2020

Revision	Revision Date	Details	Authorized Name/Position	Signature	Date
Rev 02	2020-04-24	Issued for Use	Tonny Mhondiwa (Transnet Port Terminals)		22/04/2020


Revision	Revision Date	Details	Authorized Name/Position	Signature	Date
Rev 02	2020-04-24	Issued for Use	Jabulani Nkanyani (Transnet National Ports Authority)		22/04/2020

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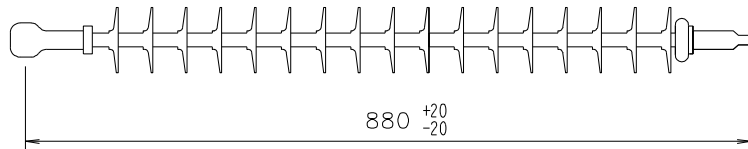
1. PDE Drawings/Specifications

1.1. HV Lines

1.1.1. Hardware Assemblies

SOCKET IEC 60120-16

BALL IEC 60120-16

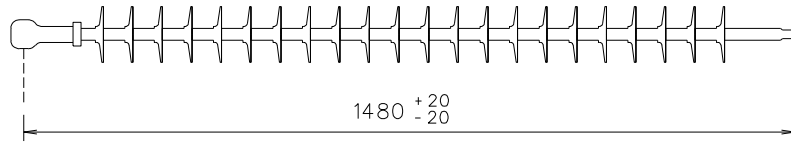


NOTE :
NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:	0167608		
SHORT DESCRIPTION:	INSUL,L/ROD 66kV 120kN C/L=±880 20C D7029		
TECH. DESCRIPTION:			
INSULATOR LONG ROD * NOMINAL RATED VOLTAGE 66KV * IEC PF WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * CREEPAGE DISTANCE 1440mm (20mm/kV) * (C/L=COUPLING LENGTH) = 880±20mm * MINIMUM FAILING LOAD 120kN * SUPPLIED WITH BALL AND SOCKET END FITTINGS TO IEC 60120 DESIGNATION 16 * END FITTING MATERIAL : CAST OR FORGED MALLEABLE IRON GALVANISED OR HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7029 *			
SAP MATERIAL No.:	0167609		
SHORT DESCRIPTION:	INSUL,L/ROD 66kV 120kN C/L=±880 31C D7029		
TECH. DESCRIPTION:			
INSULATOR LONG ROD * NOMINAL RATED VOLTAGE 66KV * IEC PF WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * CREEPAGE DISTANCE 2232mm (31mm/kV) * (C/L=COUPLING LENGTH) = 880±20mm * MINIMUM FAILING LOAD 120kN * SUPPLIED WITH BALL AND SOCKET END FITTINGS TO IEC 60120 DESIGNATION 16 * END FITTING MATERIAL : CAST OR FORGED MALLEABLE IRON GALVANISED OR HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7029 *			
ITEM	:- INSULATOR LONG ROD 66kV AND 88kV COMPOSITE		
MATERIAL SPECIFICATION	:- BS 970; BS 1490 FOR END FITTINGS		
CORROSION SPECIFICATION	:- SANS 121 (END FITTINGS WHERE APPLICABLE)		
STANDARD SPECIFICATION	:- IEC 61109 AND IEC 60120 (END FITTINGS)		
ESKOM SPECIFICATION	:- 34-510		
TEST & CERTIFICATION REQUIREMENTS	:- DESIGN AND TYPE TEST'S AS PER: 34-510		
INSPECTION	Yes	No	ESKOM RELEASE NOTE Yes No
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS			
8	0214964 AND 0214965 REPOSITIONED ON D-DT-2729 AND 88kV LONG ROD INSULATORS ADDED	P.A.T.	G.STRELEC 14.07.2014
7	SHORT DESCRIPTIONS CHANGED FOR CLARITY PURPOSES	P.A.V.	G.STANFORD 26.03.07
6	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510	P.A.V.	G.STANFORD 16.03.07
REV	REVISION DESCRIPTION	BY	CHKD AUTH DATE REF. DRAWINGS
AUTH:	P. CROWDY	DATE:	07.03.1998
CHKD:	D. PILLAY	DATE:	07.03.1998
DRAWN:	GC AND P.A. VERMAAK	DATE:	08.11.1997 06.03.1998
SCALE NTS		Eskom	
CAD REF: SERIES 7000		D-DT-7029	
FILE No: 7029		SAP No: 0167608 0167609	
		SET	SHEET
		2	1
		REV 8	


SOCKET IEC 60120-16

BALL IEC 60120 -16



NOTE :

1. ALL 132kV LONGROD INSULATORS MUST BE SUPPLIED WITH CORONA RING ON THE LIVE END IF THE INSULATOR DESIGN REQUIRES A CORONA RING.
2. NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:	0167606							
SHORT DESCRIPTION:	INSUL, L/ROD 132kV 120kN B/S 20C COMP D7014							
TECH. DESCRIPTION:								
INSULATOR * LONG ROD * NOMINAL RATED VOLTAGE 132kV *								
IEC PF WET FLASHOVER 275kV *								
IEC BASIC INSULATION LEVEL 650kV *								
CREEPAGE DISTANCE 2900mm (20mm/kV) *								
COUPLING LENGTH 1480±20mm								
MINIMUM DISTANCE BETWEEN END FITTINGS 1200mm *								
MINIMUM FAILING LOAD 120kN *								
SUPPLIED WITH BALL AND SOCKET END FITTINGS TO IEC 60120 DESIGNATION 16 *								
END FITTING MATERIAL : GALVANISED DUCTILE IRON OR MALLEABLE CAST IRON *								
ESKOM DRAWING No. D-DT-7014 *								
ITEM	:- INSULATOR LONG ROD 132kV COMPOSITE							
MATERIAL SPECIFICATION	:-							
CORROSION SPECIFICATION	:- SANS 121 (END FITTINGS WHERE APPLICABLE)							
STANDARD SPECIFICATION	:- IEC 61109 AND IEC 60120 (END FITTINGS)							
ESKOM SPECIFICATION	:- 34-510							
TEST & CERTIFICATION REQUIREMENTS	:- DESIGN AND TYPE TEST'S AS PER 34-510							
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No	
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS								
10	0611240, 0611241 210kN INSULATORS ADDED		P.A.T.	G. STRELEC	24.11.2015			
9	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510		P.A.V.	G.STANFORD	16.03.07			
8	ESKOM SPEC. CHANGED		P.A.V.	G.STANFORD	24.07.06			
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	P. CROWDY	DATE:	07.03.1998			SAP No:		
CHKD:	D. PILLAY	DATE:	07.03.1998			0167606		
DRAWN:	GC AND P.A. VERMAAK	DATE:	08.11.1997	D-DT-7014		SET	SHEET	REV
			01.03.1998			7014	3	1

Unique Identifier:204-48887441

Revision 1

SPEC SHEET

SAP MATERIAL No.:	0167607
SHORT DESCRIPTION:	INSUL, L/ROD 132kV 120kN B/S 31C COMP D7014

TECH. DESCRIPTION:
 INSULATOR * LONG ROD * NOMINAL RATED VOLTAGE 132kV *
 IEC PF WET FLASHOVER 275kV *
 IEC BASIC INSULATION LEVEL 650kV *
 CREEPAGE DISTANCE 4495mm (31mm/kV) *
 COUPLING LENGTH 1480±20mm
 MINIMUM DISTANCE BETWEEN END FITTINGS 1200mm *
 SUPPLIED WITH BALL AND SOCKET END FITTINGS TO IEC 60120 DESIGNATION 16 *
 END FITTING MATERIAL: GALVANISED DUCTILE IRON OR
 MALLEABLE CAST IRON *
 ESKOM DRAWING No. D-DT-7014 *


SAP MATERIAL No.:	0216689
SHORT DESCRIPTION:	INSUL, L/ROD 132kV 120kN COR 20C COMP D7014

TECH. DESCRIPTION:
 INSULATOR * LONG ROD * NOMINAL RATED VOLTAGE 132kV *
 IEC PF WET FLASHOVER 275kV *
 IEC BASIC INSULATION LEVEL 650kV *
 CREEPAGE DISTANCE 2900mm (20mm/kV) *
 COUPLING LENGTH 1480±20mm MINIMUM DISTANCE BETWEEN END FITTINGS 1200mm *
 MINIMUM FAILING LOAD 120kN *
 SUPPLIED WITH BALL AND SOCKET SOCKET END
 FITTINGS TO IEC 60120 DESIGNATION 16 WITH CORONA RINGS *
 END FITTING MATERIAL : GALVANISED DUCTILE IRON OR
 MALLEABLE CAST IRON *
 ESKOM DRAWING No. D-DT-7014 *

SAP MATERIAL No.:	0216690
SHORT DESCRIPTION:	INSUL, L/ROD 132kV 120kN COR 31C COMP D7014

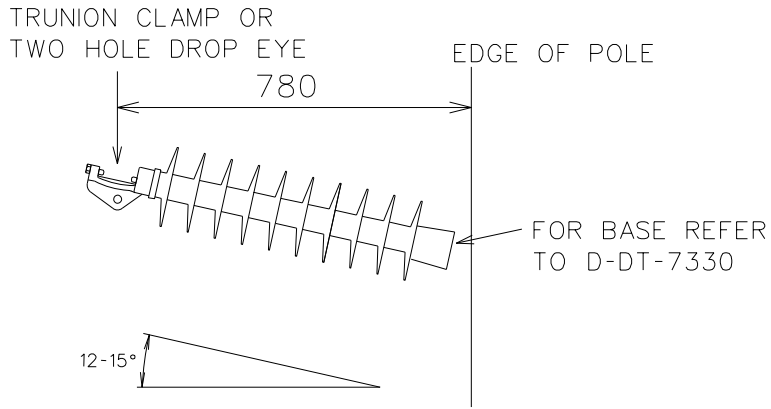
TECH. DESCRIPTION:
 INSULATOR * LONG ROD * NOMINAL RATED VOLTAGE 132kV * IEC PF WET FLASHOVER 275kV *
 IEC BASIC INSULATION LEVEL 650kV *
 CREEPAGE DISTANCE 4495mm (31mm/kV) *
 COUPLING LENGTH 1480±20mm MINIMUM DISTANCE BETWEEN END FITTINGS 1200mm *
 SUPPLIED WITH BALL AND SOCKET END
 FITTINGS TO IEC 60120 DESIGNATION 16 WITH CORONA RINGS *
 END FITTING MATERIAL: GALVANISED DUCTILE IRON OR
 MALLEABLE CAST IRON *
 ESKOM DRAWING No. D-DT-7014 *

10	0611240, 0611241 210kN INSULATORS ADDED	P.A.T.	G. STRELEC	24.11.2015	
9	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510	P.A.V.	G.STANFORD	16.03.07	
8	ESKOM SPEC. CHANGED	P.A.V.	G.STANFORD	24.07.06	


REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	REF. DRAWINGS
AUTH:	P. CROWDY	DATE:	07.03.1998	SCALE		 D-DT-7014	SAP No:	
CHKD:	D. PILLAY	DATE:	07.03.1998	NTS			0167607	0216690
DRAWN:	GC AND P.A. VERMAAK	DATE:	08.11.1997 01.03.1998	CAD REF:			0216689	
				SERIES 7000			SET	SHEET
				FILE No:		3	2	10
				7014				

SPEC SHEET


SAP MATERIAL No.:	0611240								
SHORT DESCRIPTION:	INSUL:L/ROD ;LG 1.2 M ;COMP ;132 KV								
TECH. DESCRIPTION:									
INSULATOR: TYPE: L/ROD; POTENTIAL: 132 KV; DIMENSIONS: LG 1.2 M; MATERIAL: COMP; 210 KN; 20 MM CREEPAGE; WET POWER FREQUENCY WITHSTAND LEVEL 275KV; LIGHTNING IMPULSE WITHSTAND LEVEL 650KV; SPECIFIC CREEPAGE DISTANCE: 20MM/KV; COUPLING LENGTH 1480 +- 20MM; SUPPLIED WITH BALL AND SOCKET END FITTINGS 20 MM TO IEC 60120 DESIGNATION; FITTED WITH CORONA RING ON THE LIVE END ESKOM DRAWING No. D-DT-7014 *									
SAP MATERIAL No.:	0611241								
SHORT DESCRIPTION:	INSUL:L/ROD;LG 1.2 M;COMP;132 KV								
TECH. DESCRIPTION:									
INSULATOR: TYPE: L/ROD; POTENTIAL: 132 KV; DIMENSIONS: LG 1.2 M; MATERIAL: COMP; 210 KN; 31 MM CREEPAGE; WET POWER FREQUENCY WITHSTAND LEVEL 275KV; LIGHTNING IMPULSE WITHSTAND LEVEL 650KV; SPECIFIC CREEPAGE DISTANCE: 31MM/KV; COUPLING LENGTH 1480 +- 20MM; SUPPLIED WITH BALL AND SOCKET END FITTINGS 20 MM TO IEC 60120 DESIGNATION; FITTED WITH CORONA RING ON THE LIVE END ESKOM DRAWING No. D-DT-7014 *									
10	0611240, 0611241 210kN INSULATORS ADDED			P.A.T.	G. STRELEC	24.11.2015			
9	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510			P.A.V.	G.STANFORD	16.03.07			
8	ESKOM SPEC. CHANGED			P.A.V.	G.STANFORD	24.07.06			
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	P. CROWDY	DATE:	07.03.1998	Eskom		SAP No:			
CHKD:	D. PILLAY	DATE:	07.03.1998			0611240			
DRAWN:	GC AND P.A. VERMAAK	DATE:	08.11.1997 01.03.1998	D-DT-7014		0611241			
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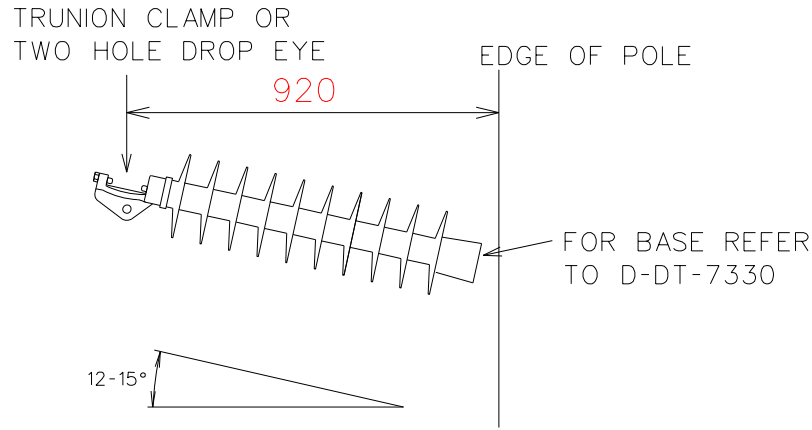


NOTE :
NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:	0185977						
SHORT DESCRIPTION:	INSUL,L/POST 66kV 780 T/C 20C D7031						
TECH. DESCRIPTION:							
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE *							
NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV *							
IEC BASIC INSULATION LEVEL 350kV *							
MIN. CREEPAGE DISTANCE 1450mm (20mm/kV) *							
MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 780mm *							
MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN *							
SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TRUNION CLAMP TOP *							
HOT DIPPED GALVANISED IRON END FITTINGS *							
ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY *							
ESKOM DRAWING No. D-DT-7031 *							
ITEM	:- INSULATOR LINE POST 66kV						
MATERIAL SPECIFICATION	:- BS 970; BS 1490 FOR END FITTINGS						
CORROSION SPECIFICATION	:- SANS 121 (END FITTINGS WHERE APPLICABLE)						
STANDARD SPECIFICATION	:-						
ESKOM SPECIFICATION	:- 34-510						
TEST & CERTIFICATION REQUIREMENTS	:- DESIGN AND TYPE TEST'S AS PER 34-510						
INSPECTION	Yes	No	ESKOM RELEASE NOTE		Yes No		
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS							
7	LENGTH TO POLE DIMENSION TOLERANCE ADDED		P.A.T.	B. HILL	20.05.2014		
6	LENGTH TO POLE AND SAPS 0226158,0226155,0226156,0226157 ADDED		P.A.V.	G.STANFORD	19.07.2007		
5	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510		P.A.V.	G.STANFORD	16.03.07		
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DRAWINGS
AUTH:	P. CROWDY	DATE:	31.03.1998	 D-DT-7031		SAP No:	
CHKD:	D. PILLAY	DATE:	31.03.1998			0185977	
DRAWN:	GC & P.A. VERMAAK	DATE:	08.11.1997 16.03.1998			SET	SHEET
			SCALE NTS CAD REF: SERIES 7000 FILE No: 7031	4	1	7	

SPEC SHEET


SAP MATERIAL No.:		0180641			
SHORT DESCRIPTION:		INSUL, L/POST 66kV 780 T/C 31C D7031			
TECH. DESCRIPTION:					
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE * NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * MIN. CREEPAGE DISTANCE 2248mm (31mm/kV) * MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 780mm * MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN * SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TRUNION CLAMP TOP * HOT DIPPED GALVANISED IRON END FITTINGS * ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7031 *					
SAP MATERIAL No.:		0190383			
SHORT DESCRIPTION:		INSUL,L/POST 66kV 780 D/E 20C D7031			
TECH. DESCRIPTION:					
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE * NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * MIN. CREEPAGE DISTANCE 1450mm (20mm/kV) * MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 780mm * MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN * SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TWO HOLE DROP EYE TOP * HOT DIPPED GALVANISED IRON END FITTINGS * ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7031 *					
SAP MATERIAL No.:		0190384			
SHORT DESCRIPTION:		INSUL, L/POST 66kV 780 D/E 31C D7031			
TECH. DESCRIPTION:					
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE * NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * MIN. CREEPAGE DISTANCE 2248mm (31mm/kV) * MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 780mm * MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN * SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TWO HOLE DROP EYE TOP * HOT DIPPED GALVANISED IRON END FITTINGS * ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7031 *					
7	LENGTH TO POLE DIMENSION TOLERANCE ADDED		P.A.T.	B. HILL	20.05.2014
6	LENGTH TO POLE AND SAPS 0226158,0226155,0226156,0226157 ADDED		P.A.V.	G.STANFORD	19.07.2007
5	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510		P.A.V.	G.STANFORD	16.03.07
REV	REVISION DESCRIPTION		BY	CHKD	AUTH
AUTH:	P. CROWDY	DATE:	31.03.1998	 D-DT-7031	
CHKD:	D. PILLAY	DATE:	31.03.1998		
DRAWN:	GC & P.A. VERMAAK	DATE:	08.11.1997 16.03.1998		
		SCALE			SAP No:
		NTS			0180641
		CAD REF:			0190383
		SERIES 7000			0190384
		FILE No:			SET
		7031			SHEET
					REV
					4
					2
					7



NOTE :
NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:	0226158							
SHORT DESCRIPTION:	INSUL,L/POST 66kV 920 T/C 20C D7031							
TECH. DESCRIPTION:								
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE * NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * MIN. CREEPAGE DISTANCE 1450mm (20mm/kV) * MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 920±20mm * MAXIMUM ALLOWED DISTANCE BETWEEN CONDUCTOR AND POLE 1050mm * MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN * SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TRUNION CLAMP TOP * HOT DIPPED GALVANISED IRON END FITTINGS * ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7031 *								
ITEM	:- INSULATOR LINE POST 66kV							
MATERIAL SPECIFICATION	:- BS 970; BS 1490 FOR END FITTINGS							
CORROSION SPECIFICATION	:- SANS 121 (END FITTINGS WHERE APPLICABLE)							
STANDARD SPECIFICATION	:-							
ESKOM SPECIFICATION	:- 34-510							
TEST & CERTIFICATION REQUIREMENTS :- DESIGN AND TYPE TEST'S AS PER 34-510								
INSPECTION	Yes	No	ESKOM RELEASE NOTE		No			
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS								
7	LENGTH TO POLE DIMENSION TOLERANCE ADDED		P.A.T.	B. HILL	20.05.2014			
6	LENGTH TO POLE AND SAPS 0226158,0226155,0226156,0226157 ADDED		P.A.V.	G.STANFORD	19.07.2007			
5	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510		P.A.V.	G.STANFORD	16.03.07			
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	P. CROWDY	DATE:	31.03.1998			SAP No:		
CHKD:	D. PILLAY	DATE:	31.03.1998			0226158		
DRAWN:	GC & P.A. VERMAAK	DATE:	08.11.1997	D-DT-7031		SET	SHEET	REV
			16.03.1998			4	3	7

SPEC SHEET


SAP MATERIAL No.:		0226155						
SHORT DESCRIPTION:		INSUL, L/POST 66kV 920 T/C 31C D7031						
TECH. DESCRIPTION:								
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE * NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * MIN. CREEPAGE DISTANCE 2248mm (31mm/kV) * MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 920±20mm * MAXIMUM ALLOWED DISTANCE BETWEEN CONDUCTOR AND POLE 1050mm * MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN * SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TRUNION CLAMP TOP * HOT DIPPED GALVANISED IRON END FITTINGS * ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7031 *								
SAP MATERIAL No.:		0226156						
SHORT DESCRIPTION:		INSUL, L/POST 66kV 920 D/E 20C D7031						
TECH. DESCRIPTION:								
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE * NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * MIN. CREEPAGE DISTANCE 1450mm (20mm/kV) * MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 920±20mm * MAXIMUM ALLOWED DISTANCE BETWEEN CONDUCTOR AND POLE 1050mm * MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN * SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TWO HOLE DROP EYE TOP * HOT DIPPED GALVANISED IRON END FITTINGS * ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7031 *								
SAP MATERIAL No.:		0226157						
SHORT DESCRIPTION:		INSUL, L/POST 66kV 920 D/E 31C D7031						
TECH. DESCRIPTION:								
LINE POST INSULATOR * HORIZONTAL 12-15 DEG. COMPOSITE * NOMINAL RATED VOLTAGE 66kV * IEC P.F. WET FLASHOVER 140kV * IEC BASIC INSULATION LEVEL 350kV * MIN. CREEPAGE DISTANCE 2248mm (31mm/kV) * MINIMUM DISTANCE BETWEEN CONDUCTOR AND POLE 920±20mm * MAXIMUM ALLOWED DISTANCE BETWEEN CONDUCTOR AND POLE 1050mm * MINIMUM SPECIFIED MAXIMUM DESIGN CANTILEVER LOAD 5.3kN * SUPPLIED WITH BASE (REFER TO D-DT-7330) AND TWO HOLE DROP EYE TOP * HOT DIPPED GALVANISED IRON END FITTINGS * ALTERNATIVE MATERIAL FOR END FITTINGS: HEAT TREATED ALUMINIUM ALLOY * ESKOM DRAWING No. D-DT-7031 *								
7	LENGTH TO POLE DIMENSION TOLERANCE ADDED			P.A.T.	B. HILL	20.05.2014		
6	LENGTH TO POLE AND SAPS 0226158,0226155,0226156,0226157 ADDED			P.A.V.	G.STANFORD	19.07.2007		
5	ESKOM SPEC. CHANGED FROM DISSCAB19 TO 34-510			P.A.V.	G.STANFORD	16.03.07		
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	
AUTH:	P. CROWDY	DATE:	31.03.1998			SAP No:		
CHKD:	D. PILLAY	DATE:	31.03.1998			0226155	0226157	
DRAWN:	GC & P.A. VERMAAK	DATE:	08.11.1997 16.03.1998			0226156	SET	SHEET
				D-DT-7031		4	4	7

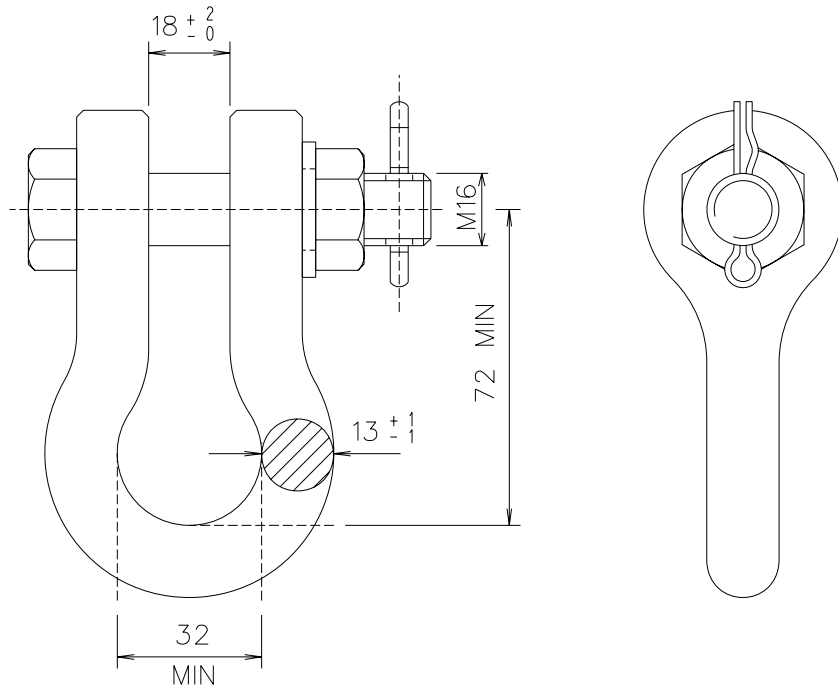
SPEC SHEET

SAP MATERIAL No.:	0167605
SHORT DESCRIPTION:	INSUL,SHIELD WIRE C+T 120kN D7012

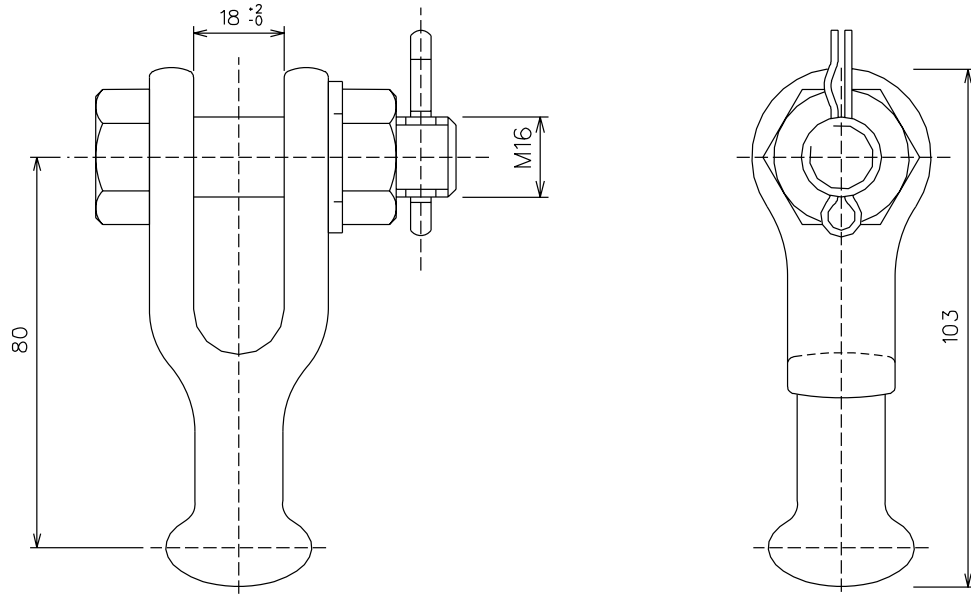
TECH. DESCRIPTION:

INSULATOR * SHIELD WIRE * CLEVIS AND TONGUE CAST OR FORGED MALLEABLE IRON END FITTINGS TO IEC 471 DESIGNATION 16L * FITTED WITH ARCING HORN * CREEPAGE DISTANCE > 174mm * CONNECTING LENGTH: 375 (± 12) mm * POWER FREQUENCY DRY ONE MINUTE WITHSTAND VOLTAGE: 50 kV (WITHOUT ARCING HORNS) * POWER FREQUENCY WET ONE MINUTE WITHSTAND VOLTAGE: 25 kV (WITHOUT ARCING HORNS) LIGHTNING POSITIVE IMPULSE WITHSTAND VOLTAGE: 80 kV (WITHOUT ARCING HORNS) SPECIFIED MECHANICAL LOAD: 120 kN * ARCING HORNS: SHAPED IN THE FORM OF A "JACOBS LADDER" WITH MINIMUM STRAIT HORN LENGTHS OF 50 mm AND AN ANGLE OF 60 DEGREES ± 5 DEGREES BETWEEN THEM ORIENTED SO AS TO NATURALLY EXTINGUISH THE ARC. BENDING RADIUS = 2 TIMES THE ARCING HORN ROD/BAR DIAMETER MUST BE USED AT THE BASE * MATERIAL: HOT DIPPED GALVANISED FORGED STEEL * CROSS-SECTIONAL AREA OF ARCING HORN: > 18 mm² EACH * FIXED ARCING HORN GAP SIZE: 8 mm (± 2 mm) * ESKOM DRAWING D-DT-7012 * ALTERNATIVES ONLY SUPPLIED AFTER IARC EVALUATION *


3	TECHNICAL DESC AND ESKOM SPEC CHANGED	P.A.V.	G.STANF ORD	G.STANFO RD	22.08.06		
2	LOGO CHANGED AS PER NEW CORPORATE ID & CORROSION SPEC CHANGED FROM SABS TO SANS	AKM	P.A.V.	P.A.V.	16.11.04		
1	TECHNICAL DESC. AND SPECIFICATIONS CHANGED	P.A.V.	G.STANF ORD	A.BEKKER	29.10.01		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	P. CROWDY	DATE:	07.03.1998	 D-DT-7012	SAP No:		
CHKD:	D. PILLAY	DATE:	07.03.1998		0167605		
DRAWN:	G.C. + P.A. VERMAAK	DATE:	08.11.1997		SET	SHEET	REV
			01.03.1998		2	2	3

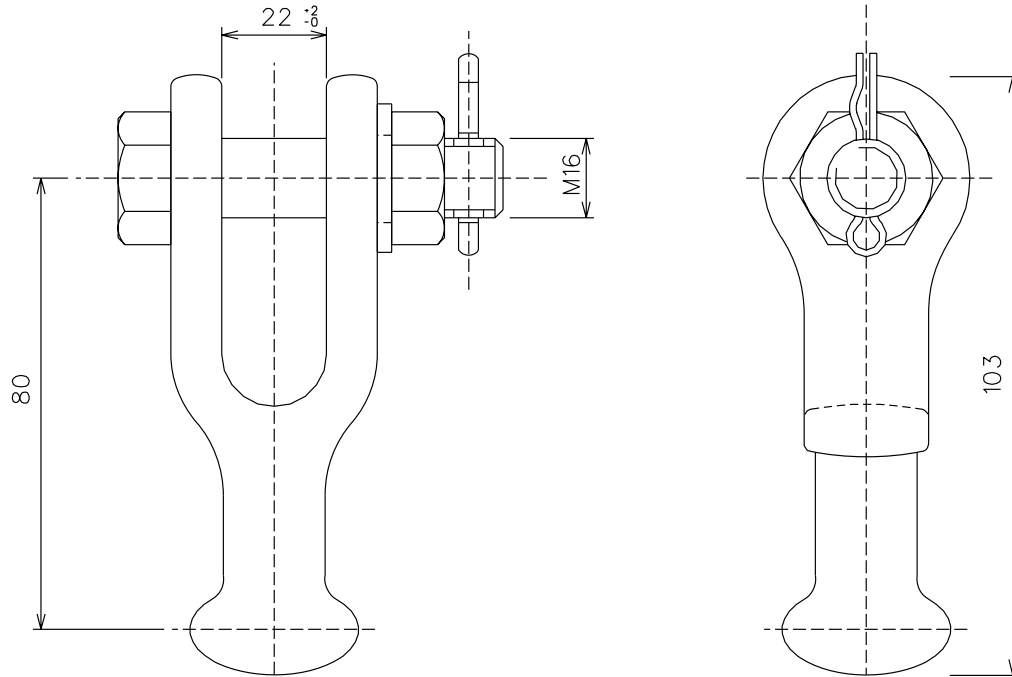


SAP MATERIAL No.:	0163406		
SHORT DESCRIPTION:	SHACKLE, STRAIGHT BOLT TYPE 120kN D7017		
TECH. DESCRIPTION:			
STRAIGHT SHACKLE * BOLT TYPE * DROP FORGED STEEL * HOT DIPPED GALVANISED * LENGTH FROM CENTRE OF BOLT TO INSIDE OF SHACKLE 72mm * OPENING OF SHACKLE 18mm * THICKNESS OF SHACKLE 13mm * MINIMUM FAILING LOAD 120kN * SUPPLIED COMPLETE WITH 1 x M16x75 CLEVIS BOLT ASSEMBLY (D-DT-7043) * ESKOM DRAWING No. D-DT-7017 *			
ITEM	:- SHACKLE, STRAIGHT BOLT TYPE 120kN		
MATERIAL SPECIFICATION	:- BS 970 1,2,3		
CORROSION SPECIFICATION	:- SANS 121		
STANDARD SPECIFICATION	:- SANS 61284, SANS 60471		
ESKOM SPECIFICATION	:- TRMSCAAH2, DSP 34-1667		
TEST & CERTIFICATION REQUIREMENTS	:- TYPE TEST ACCORDING TO SANS 61284 AND DSP 34-1667		
INSPECTION	Yes	No	ESKOM RELEASE NOTE
			Yes No
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS			
5	CLEVIS BOLT LENGTH CORRECTED	P.A.T.	S. MASHABA L.CHRISTIAANS 20.04.2010
4	SHACKLE LENGTH AND DIA. CHANGED, CLEVIS BOLT ADDED AND STD. & ESKOM SPEC'S CHANGED	P.A.T.	S. MASHABA S. MASHABA 03.08.2009
3	LOGO CHANGED AS PER NEW CORPORATE ID & CORROSION SPEC CHANGED FROM SABS TO SANS	AKM	P.A.V. P.A.V. 16.11.04
REV	REVISION DESCRIPTION	BY	CHKD AUTH DATE REF. DWGS
AUTH:	P. CROWDY	DATE:	31.03.1998
CHKD:	D. PILLAY	DATE:	31.03.1998
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 05.03.1998
SCALE NTS		SAP No: 0163406	
CAD REF: SERIES 7000		Eskom Distribution	
FILE No: 7000		D-DT-7017	
SET	SHEET	REV	
1	1	5	




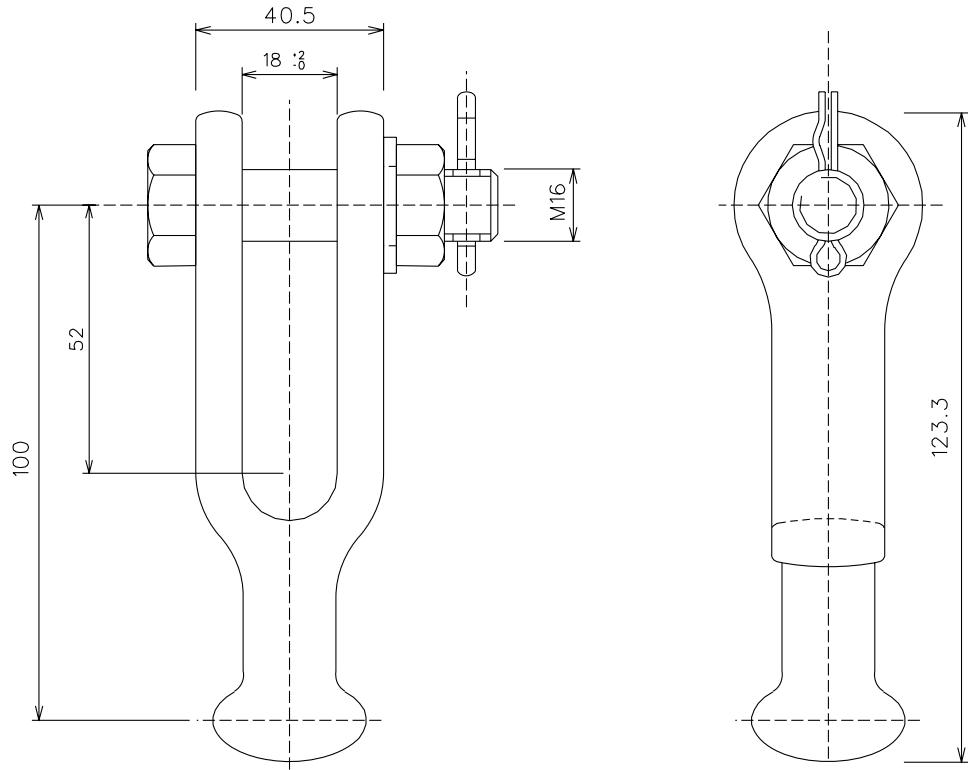
NOTE :
DRAWING NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:		0167508					
SHORT DESCRIPTION:		CLEVIS-BALL 16mm 16L 80CL 120kN D6059					
TECH. DESCRIPTION:							
CLEVIS-BALL * BOLT TYPE * MATERIAL : DROP FORGED STEEL * HOT DIPPED GALVANISED * CLEVIS OPENING : 18mm * BALL DIMS : TO SANS 60120 DESIGNATION 16 * CLEVIS DIMS : TO SANS 60471 DESIGNATION 16L * NOMINAL COUPLING LENGTH : 80mm * MINIMUM FAILING LOAD : 120kN * SUPPLIED COMPLETE WITH 1 x M16x75 CLEVIS BOLT ASSEMBLY (D-DT-7043) * ESKOM DRAWING No. D-DT-6059 *							
ITEM		:- CLEVIS-BALL 16mm 120kN					
MATERIAL SPECIFICATION		:- BS 970 1,2,3					
CORROSION SPECIFICATION		:- SANS 121					
STANDARD SPECIFICATION		:- SANS 61284, SANS 60471, SANS 60120					
ESKOM SPECIFICATION		:- TRMSCAAH2, DSP 34-1667					
TEST & CERTIFICATION REQUIREMENTS		:- TYPE TEST ACCORDING TO SANS 61284 AND DSP 34-1667					
INSPECTION		Yes	No	ESKOM RELEASE NOTE		Yes	No
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS							
9	CLEVIS BOLT LENGTH CORRECTED			P.A.T.	S. MASHABA	L. CHRISTIAANS	05.02.2010
8	SAP 0222125 DESIGNATION CORRECTED FROM 16L TO 19L			P.A.T	S. MASHABA	S. MASHABA	05.02.2010
7	SHORT DESCRIPTION CHANGED			P.A.T	S. MASHABA	B. BRANFIELD	03.12.2009
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE
AUTH:	PHIL CROWDY	DATE:	12/96	SCALE			
CHKD:	C.B. CLARK	DATE:	12/96	CAD REF:			
DRAWN:	J.F. SCHOLTZ	DATE:	10/96	FILE No:			
				6059	D-DT-6059		SAP No:
					3	1	9




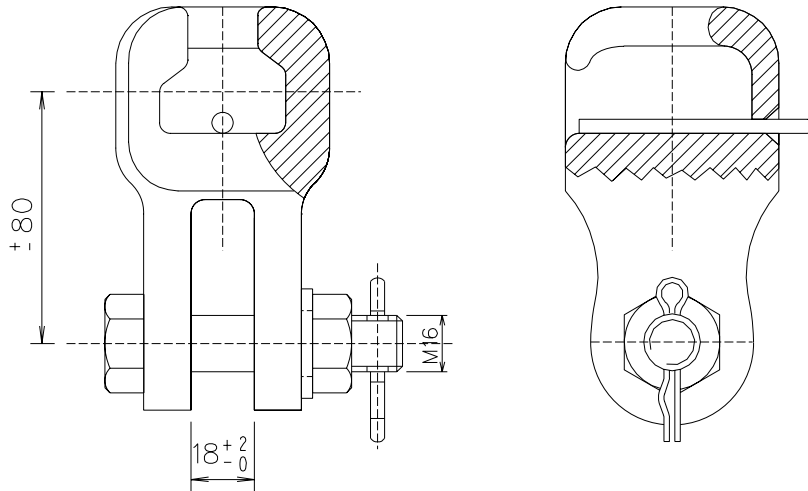
NOTE :
DRAWING NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:		0222125					
SHORT DESCRIPTION:		CLEVIS-BALL 16mm 19L 80CL 120kN D6059					
TECH. DESCRIPTION:		<p>CLEVIS-BALL * BOLT TYPE * MATERIAL : DROP FORGED STEEL * HOT DIPPED GALVANISED * CLEVIS OPENING : 22mm * BALL DIMS : TO SANS 60120 DESIGNATION 16 * CLEVIS DIMS : TO SANS 60471 DESIGNATION 19L * NOMINAL COUPLING LENGTH : 80mm * MINIMUM FAILING LOAD : 120kN * SUPPLIED COMPLETE WITH 1 x M16x75 CLEVIS BOLT ASSEMBLY (D-DT-7043) * ESKOM DRAWING No. D-DT-6059 *</p>					
9	CLEVIS BOLT LENGTH CORRECTED	P.A.T.	S. MASHABA	LCHRISTIAANS	05.02.2010		
8	SAP 0222125 DESIGNATION CORRECTED FROM 16L TO 19L	P.A.T	S.MASHABA	S.MASHABA	05.02.2010		
7	SHORT DESCRIPTION CHANGED	P.A.T	S.MASHABA	B.BRANFIELD	03.12.2009		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	PHIL CROWDY	DATE:	12/96		SAP No:		
CHKD:	C.B. CLARK	DATE:	12/96		0222125		
DRAWN:	J.F.SCHOLTZ	DATE:	10/96		SET	SHEET	REV
					3	2	9
				D-DT-6059			

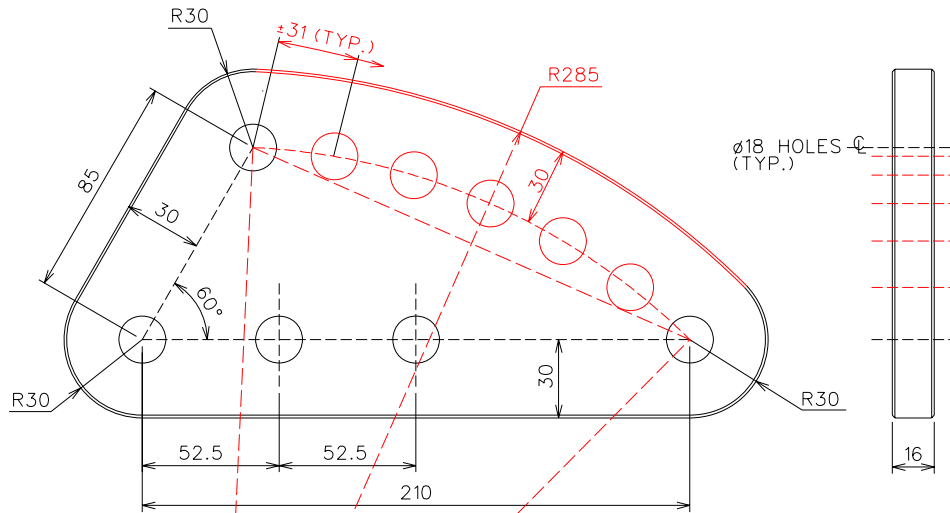


NOTE :
DRAWING NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:		0222124					
SHORT DESCRIPTION:		CLEVIS-BALL 16mm 16L 100CL 120kN D6059					
TECH. DESCRIPTION:		<p>CLEVIS-BALL * BOLT TYPE * MATERIAL : DROP FORGED STEEL * HOT DIPPED GALVANISED * CLEVIS OPENING : 18mm * BALL DIMS : TO SANS 60120 DESIGNATION 16 * CLEVIS DIMS : TO SANS 60471 DESIGNATION 16L * NOMINAL COUPLING LENGTH : 100mm * MINIMUM FAILING LOAD : 120kN * SUPPLIED COMPLETE WITH 1 x M16x75 CLEVIS BOLT ASSEMBLY (D-DT-7043) * ESKOM DRAWING No. D-DT-6059 *</p>					
9	CLEVIS BOLT LENGTH CORRECTED	P.A.T.	S. MASHABA	L.CHRISTIAANS	05.02.2010		
8	SAP 0222125 DESIGNATION CORRECTED FROM 16L TO 19L	P.A.T	S.MASHABA	S.MASHABA	05.02.2010		
7	SHORT DESCRIPTION CHANGED	P.A.T	S.MASHABA	B.BRANFIELD	03.12.2009		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	PHIL CROWDY	DATE:	12/96			SAP No:	
CHKD:	C.B. CLARK	DATE:	12/96			0222124	
DRAWN:	J.F.SCHOLTZ	DATE:	10/96			SET	SHEET
				D-DT-6059	3	3	9

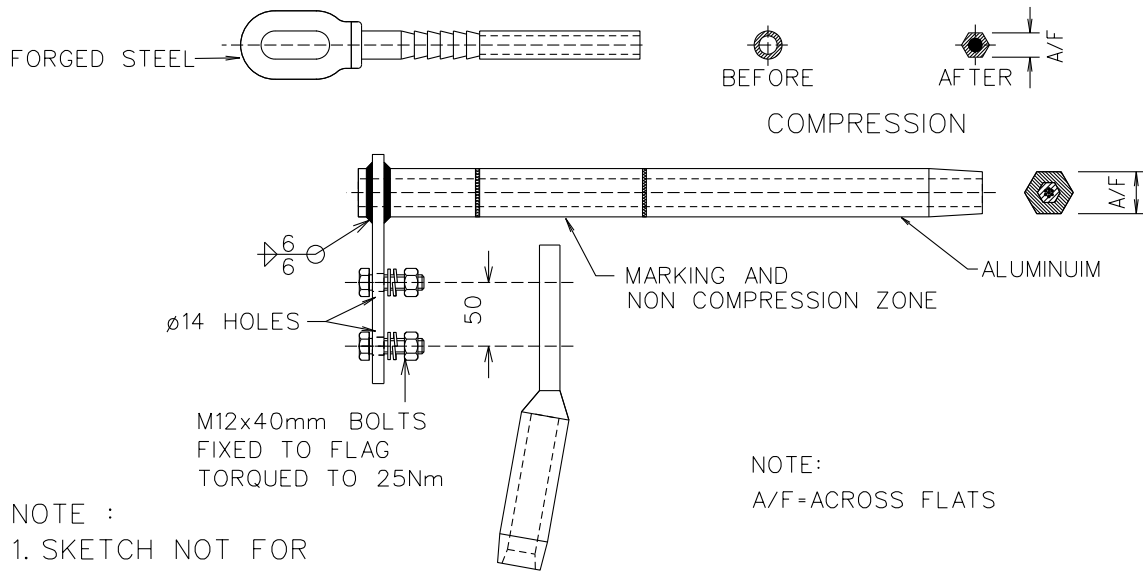


SAP MATERIAL No.:	0010259						
SHORT DESCRIPTION:	SOCK-CLEV 16mm 120kN D7021						
TECH. DESCRIPTION:	<p>SOCKET-CLEVIS STRAIGHT BOLT TYPE * DROP FORGED STEEL * HOT DIPPED GALVANISED * SOCKET DIMENSIONS TO SANS 60120 DESIGNATION 16 L * CLEVIS DIMENSIONS TO SANS 60471 NOMINAL COUPLING LENGTH : 80mm * MIN. FAILING LOAD 120kN * SUPPLIED COMPLETE WITH 1 x LOCKING SPLIT PIN ACCORDING TO SANS 60372 1 x M16x75 CLEVIS BOLT ASSEMBLY (D-DT-7043) * ESKOM DRAWING No. D-DT-7021 *</p>						
ITEM	:- SOCKET CLEVIS BOLT TYPE 120kN						
MATERIAL SPECIFICATION	:- BS 970 1,2,3						
CORROSION SPECIFICATION	:- SANS 121						
STANDARD SPECIFICATION	:- SANS 61284, SANS 60471, SANS 60120, SANS 60372						
ESKOM SPECIFICATION	:- TRMSCAAH2, DSP 34-1667						
TEST & CERTIFICATION REQUIREMENTS	:- TYPE TEST ACCORDING TO SANS 61284 AND DSP 34-1667						
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS							
5	CLEVIS BOLT LENGTH CORRECTED AND LOCKING SPLIT PIN ADDED		P.A.T.	S. MASHABA	L.CHRISTIAANS	20.04.2010	
4	SOCKET LENGTH CHANGED, CLEVIS BOLT ADDED AND STD. & ESKOM SPEC'S CHANGED		P.A.T.	S. MASHABA	S. MASHABA	03.08.2009	
3	LOGO CHANGED AS PER NEW CORPORATE ID & CORROSION SPEC CHANGED FROM SABS TO SANS		AKM	P.A.V.	P.A.V.	16.11.04	
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DWGS
AUTH:	P. CROWDY	DATE:	07.03.1998	SCALE	SAP No:		
CHKD:	D. PILLAY	DATE:	07.03.1998	NTS	0010259		
				CAD REF:			
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 06.03.1998	Series 7000	D-DT-7021		
				FILE No:			
				7021	SET	SHEET	REV
					1	1	5



NOTE
 1. ALL HOLES TO BE 18mm DIAMETER.
 2. 1mm CHAMFER ALL ROUND.

SAP MATERIAL No.:		0175857					
SHORT DESCRIPTION:		SAG ADJUSTOR 120kN D7042					
TECH. DESCRIPTION:							
SAG ADJUSTOR * ULTIMATE TENSILE LOAD TESTED : 120kN *							
MATERIAL : GRADE S355JR/350WA STEEL *							
HOT DIPPED GALVANISED *							
ALL HOLES TO BE 18mm DIAMETER *							
16mm THICK PLATE CUT AS PER DRAWING *							
ESKOM DRAWING No. D-DT-7042 *							
ITEM		:- SAG ADJUSTOR 120kN					
MATERIAL SPECIFICATION		:- EN 10025-2 / SANS 1431					
CORROSION SPECIFICATION		:- SANS 121					
STANDARD SPECIFICATION		:-					
ESKOM SPECIFICATION		:- TRMSCAAH2					
TEST & CERTIFICATION REQUIREMENTS :-							
INSPECTION		Yes	No	ESKOM RELEASE NOTE		Yes	No
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS							
6	ADJACENT RADIUS OF 285 ADDED AND TYPE TEST REMOVED	P.A.T.	S.MASHABA	B.BRANFIELD	07.09.2010		
5	2 MATERIAL TYPES SPECIFIED	P.A.T.	S.MASHABA	B.BRANFIELD	05.02.2010		
4	300x140 ST PLATE AND MASS REMOVED FROM TECH. DESC. AND MATERIAL GRADE CHANGED	P.A.T.	S.MASHABA	B.BRANFIELD	29.09.2009		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	P. CROWDY	DATE:	29.11.1999	SCALE NTS		SAP No:	
CHKD:	B. HILL	DATE:	24.11.1999	CAD REF:		0175857	
DRAWN:	P.A. VERMAAK	DATE:	09.09.1999	FILE No:		SET	SHEET
				7042		1	1
				D-DT-7042			6



NOTE :

1. SKETCH NOT FOR MANUFACTURING PURPOSES.
2. WOLF AND BEAR ITEMS ONLY TO BE USED AS MAINTENANCE ITEMS.

NOTE:

A/F=ACROSS FLATS


SAP MATERIAL No.:	0175745
SHORT DESCRIPTION:	CLAMP,C D/END ASSY MNK 10.98 ACSR D7000

TECH. DESCRIPTION:


COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *
 CONDUCTOR : ACSR MINK 10.98mm DIA. (6/1/3.66) *
 INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH
 TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE)
 WITH 2 FIXED M12 B.OLTS, JUMPER TERMINAL LUG,
 2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *
 EACH SET TO BE INDIVIDUALLY PACKED IN SEALED
 PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX.
 DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F):
 ALUMINIUM 22.0mm (DA-6) AND STEEL 7.6mm (DS-6) *
 ESKOM DRAWING No. D-DT-7000 *

ITEM	:- COMPRESSION DEAD-END ACSR CLAMP ASSEMBLY				
MATERIAL SPECIFICATION	:-				
CORROSION SPECIFICATION	:-				
STANDARD SPECIFICATION	:-				
ESKOM SPECIFICATION	:- DISSCAAU5				
TEST & CERTIFICATION REQUIREMENTS	:- DISSCAAU5				
INSPECTION	Yes	No	ESKOM RELEASE NOTE		No

IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS						
8	SAP 0402497_0402499 CORRECTED	P.A.T.	D. RAMJASS	D. RAMJASS	09.02.2017	
7	ACSR SHOWN IN SHORT DESCRIPTIONS & AAAC D/END CLAMPS ADDED	N.M. P.A.T.	M. RAPAPA	M. RAPAPA	23.04.09	
6	OAK DEAD-END ADDED	P.A.V.	B. HILL	B. HILL	06.06.06	
5	LOGO CHANGED AS PER NEW CORPORATE ID	AKM	P.A.V.	P.A.V.	16.11.04	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DWGS

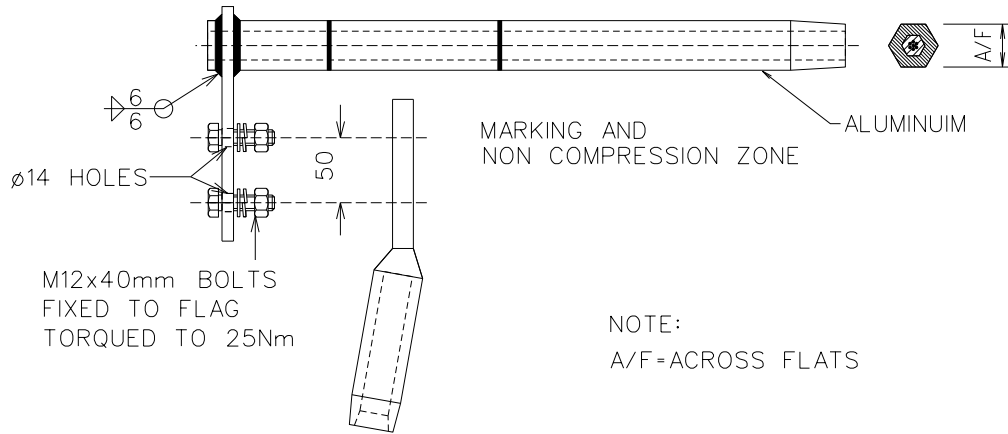
AUTH:	P. CROWDY	DATE:	26.03.1998	SCALE	 D-DT-7000	SAP No:		
CHKD:	D. PILLAY	DATE:	26.03.1998	NTS		0175745		
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 01.03.1998	CAD REF: SERIES 7000		SET	SHEET	REV
				FILE No: 7000	4	1	8	

SPEC SHEET

SAP MATERIAL No.:	0402497							
SHORT DESCRIPTION:	CLAMP,C D/END ASSY HRE 14.16 ACSR D7000							
TECH. DESCRIPTION:	<p>COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *</p> <p>CONDUCTOR : ACSR HARE 14.16mm DIA. (6/1/4.72) *</p> <p>INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE) WITH 2 FIXED M12 BOLTS, JUMPER TERMINAL LUG, 2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *</p> <p>EACH SET TO BE INDIVIDUALLY PACKED IN SEALED PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX. DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F): ALUMINIUM 25.4mm (DA-7) AND STEEL 10.1mm (DS-7) * ESKOM DRAWING No. D-DT-7000 *</p>							
SAP MATERIAL No.:	0402499							
SHORT DESCRIPTION:	CLAMP,C D/END ASSY WOLF 18.13 ACSR D7000							
TECH. DESCRIPTION:	<p>COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *</p> <p>CONDUCTOR : ACSR WOLF 18.13mm DIA. (30/7/2.59) *</p> <p>INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE) WITH 2 FIXED M12 BOLTS, JUMPER TERMINAL LUG, 2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *</p> <p>EACH SET TO BE INDIVIDUALLY PACKED IN SEALED PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX. DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F): ALUMINIUM 28.2mm (DA-8) AND STEEL 12.7mm (DS-8) * ESKOM DRAWING No. D-DT-7000 *</p>							
SAP MATERIAL No.:	0168745							
SHORT DESCRIPTION:	CLAMP,C D/END ASSY CHI 18.87 ACSR D7000							
TECH. DESCRIPTION:	<p>COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *</p> <p>CONDUCTOR : ACSR CHICADEE 18.87mm DIA. (18/1/3.77) *</p> <p>INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE) WITH 2 FIXED M12 BOLTS, JUMPER TERMINAL LUG, 2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *</p> <p>EACH SET TO BE INDIVIDUALLY PACKED IN SEALED PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX. DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F): ALUMINIUM 28.2mm (DA-8) AND STEEL 12.7mm (DS-8) * ESKOM DRAWING No. D-DT-7000 *</p>							
8	SAP 0402497, 0402499 CORRECTED			P.A.T.	D. RAMJASS	D. RAMJASS	09.02.2017	
7	ACSR SHOWN IN SHORT DESCRIPTIONS & AAAC D/END CLAMPS ADDED			N.M. P.A.T.	M. RAPAPA	M. RAPAPA	23.04.09	
6	OAK DEAD-END ADDED			P.A.V.	B. HILL	B. HILL	06.06.06	
5	LOGO CHANGED AS PER NEW CORPORATE ID			AKM	P.A.V.	P.A.V.	16.11.04	
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	
AUTH:	P. CROWDY	DATE:	26.03.1998			SAP No:		
CHKD:	D. PILLAY	DATE:	26.03.1998			0402497		0168745
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997	D-DT-7000		SET	SHEET	REV
			01.03.1998			7000	4	2

SPEC SHEET

SAP MATERIAL No.:	0010838							
SHORT DESCRIPTION:	CLAMP,C D/END ASSY BEAR 23.45 ACSR D7000							
TECH. DESCRIPTION:								
<p>COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *</p> <p>CONDUCTOR : ACSR BEAR 23.45mm DIA. (30/7/3.35) *</p> <p>INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE) WITH 2 FIXED M12 BOLTS, JUMPER TERMINAL LUG, 2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *</p> <p>EACH SET TO BE INDIVIDUALLY PACKED IN SEALED PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX. DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F): ALUMINIUM 32.3mm (DA-9) AND STEEL 16.1mm (DS-10) *</p> <p>ESKOM DRAWING No. D-DT-7000 *</p>								
SAP MATERIAL No.:	0168747							
SHORT DESCRIPTION:	CLAMP,C D/END ASSY K/BIRD 23.88 ACSR D7000							
TECH. DESCRIPTION:								
<p>COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *</p> <p>CONDUCTOR : ACSR KINGBIRD 23.88mm DIA. (18/1/4.78) *</p> <p>INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE) WITH 2 FIXED M12 BOLTS, JUMPER TERMINAL LUG, 2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *</p> <p>EACH SET TO BE INDIVIDUALLY PACKED IN SEALED PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX. DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F): ALUMINIUM 32.3mm (DA-9) AND STEEL 12.7mm (DS-8) *</p> <p>ESKOM DRAWING No. D-DT-7000 *</p>								
SAP MATERIAL No.:	0168748							
SHORT DESCRIPTION:	CLAMP,C D/END ASSY TRN 27.00 ACSR D7000							
TECH. DESCRIPTION:								
<p>COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *</p> <p>CONDUCTOR : ACSR TERN 27.00mm DIA. (45/3.38-7/2.25) *</p> <p>INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE) WITH 2 FIXED M12 BOLTS, JUMPER TERMINAL LUG, 2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *</p> <p>EACH SET TO BE INDIVIDUALLY PACKED IN SEALED PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX. DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F): ALUMINIUM 40.2mm (DA-11) AND STEEL 12.7mm (DS-8) *</p> <p>ESKOM DRAWING No. D-DT-7000 *</p>								
8	SAP 0402497, 0402499 CORRECTED			P.A.T.	D. RAMJASS	D. RAMJASS	09.02.2017	
7	ACSR SHOWN IN SHORT DESCRIPTIONS & AAAC D/END CLAMPS ADDED			N.M. P.A.T.	M. RAPAPA	M. RAPAPA	23.04.09	
6	OAK DEAD-END ADDED			P.A.V.	B. HILL	B. HILL	06.06.06	
5	LOGO CHANGED AS PER NEW CORPORATE ID			AKM	P.A.V.	P.A.V.	16.11.04	
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	
AUTH:	P. CROWDY	DATE:	26.03.1998	SCALE NTS		SAP No:		
CHKD:	D. PILLAY	DATE:	26.03.1998	CAD REF: SERIES 7000		0010838	0168748	
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 01.03.1998	FILE No: 7000		D-DT-7000	SET	SHEET
						4	3	8

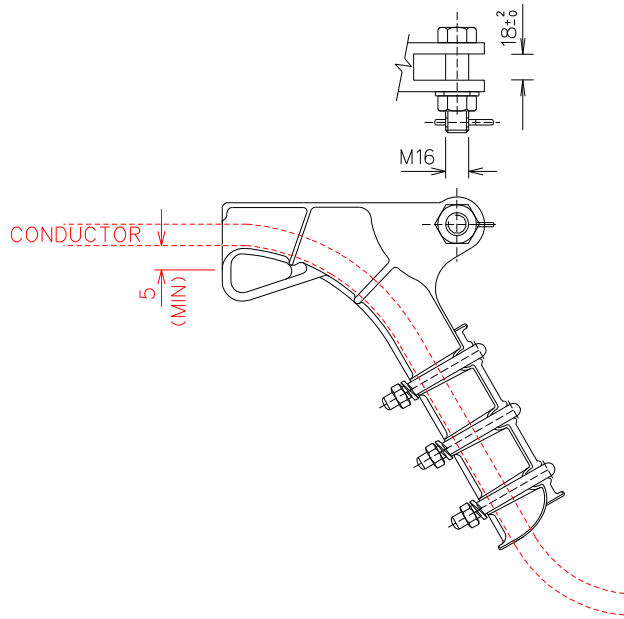


NOTE :
1. SKETCH NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:	0220716						
SHORT DESCRIPTION:	CLAMP,C D/END ASSY OAK 13.95 AAAC D7000						
TECH. DESCRIPTION:							
COMPRESSION DEAD-END CLAMP ASSEMBLY * ALUMINIUM *							
CONDUCTOR : AAAC OAK 13.95mm DIA. (7/4.65) *							
INCLUDES STEEL EYE-TENSION TUBE, TUBULAR ALUMINIUM JOINT WITH							
TERMINAL PAD (WELDED BOTH SIDES TO THE TUBE)							
WITH 2 FIXED M12 BOLTS, JUMPER TERMINAL LUG,							
2 FLAT WASHERS, 2 SPRING WASHERS AND 2 NUTS *							
EACH SET TO BE INDIVIDUALLY PACKED IN SEALED							
PLASTIC BAG (H/DUTY) * FOR USE WITH HYDRAULIC TOOL AND HEX.							
DIE SET FROM THE ALCAN DIE SYSTEM * DIE ACROSS FLATS (A/F):							
ALUMINIUM 25.4mm (DA-7) *							
ESKOM DRAWING No. D-DT-7000 *							
ITEM	:- COMPRESSION DEAD-END AAAC CLAMP ASSEMBLY						
MATERIAL SPECIFICATION	:-						
CORROSION SPECIFICATION	:-						
STANDARD SPECIFICATION	:-						
ESKOM SPECIFICATION	:- DISSCAAU5						
TEST & CERTIFICATION REQUIREMENTS :-							
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS							
8	SAP 0402497, 0402499 CORRECTED		P.A.T.	D. RAMJASS	D. RAMJASS	09.02.2017	
7	ACSR SHOWN IN SHORT DESCRIPTIONS & AAAC D/END CLAMPS ADDED		N.M. P.A.T.	M. RAPAPA	M. RAPAPA	23.04.09	
6	OAK DEAD-END ADDED		P.A.V.	B. HILL	B. HILL	06.06.06	
5	LOGO CHANGED AS PER NEW CORPORATE ID		AKM	P.A.V.	P.A.V.	16.11.04	
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DWGS
AUTH:	P. CROWDY	DATE:	26.03.1998	 D-DT-7000	SAP No:		
CHKD:	D. PILLAY	DATE:	26.03.1998		0220716		
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 01.03.1998		SET	SHEET	REV
			SCALE NTS				
			CAD REF: SERIES 7000				
			FILE No: 7000				
						4	4
							8


Unique Identifier:240-48887441

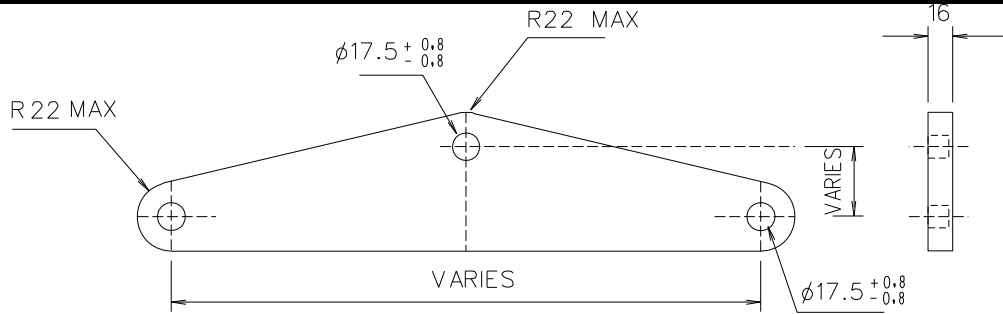
Revision 1



SAP MATERIAL No.:		0401307						
SHORT DESCRIPTION:		CLAMP, STRAIN: 3B ST/WIRE; 70 KN; 16-5 MM						
TECH. DESCRIPTION:								
<p>CLAMP, STRAIN: TYPE: 3B ST/WIRE; CONDUCTOR: 16-5 MM; CAPACITY: 70 KN; TENSION LIP NOT TO BE GROUND BUT CAST AS PER DRAWING; ALL MOULDING LINES TO BE REMOVED ON INSIDE OF CLAMP; CLEVIS DESIGNATION 16L; SUPPLIED COMPLETE WITH: 1 X M16 X 75MM CLEVIS BOLT ASSEMBLY (D-DT-7043), 3 X GALVANISED STEEL 12MM U-BOLTS WITH 6 X SPRING WASHERS (D-DT-3014), 6 X M12 HEXAGON NUT (D-DT-3173), AND MALLEABLE IRON KEEPER; USED FOR 3X3.35 (D-DT-3124) AND 3X4.00, 7X3.35 AND 19X2.65 (D-DT-7036) STEEL SHIELD WIRE; ESKOM DRAWING No. D-DT-7022 *</p>								
ITEM	:- CLAMP, PISTOL 3B 70kN							
MATERIAL SPECIFICATION	:- SANS 991, SANS 992, BS EN 1562							
CORROSION SPECIFICATION	:- SANS 121							
STANDARD SPECIFICATION	:- SANS 61284, SANS 60471							
ESKOM SPECIFICATION	:- DSP 34-1667							
TEST & CERTIFICATION REQUIREMENTS	:- TYPE TEST ACCORDING TO SANS 61284 AND DSP 34-1667.							
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No	
IDENTIFICATION :- INDELIBLE MANUFACTURERS TRADEMARK, PART No. AND FAILING LOAD ON ALL ITEMS. BOLTS TORQUED TO 45NM								
14	CASTING LINES TO BE REMOVED ADDED TO TECH. DESC. VARIOUS SAP NUMBERS AND DESCRIPTION CHANGED ACCORDING TO PILOG		P.A.T.	<i>M. Shuter</i> M. SHUTER	<i>B. Hill</i> B. HILL	16.01.2013		
13	NO. OFF SPRING WASHERS AND HEX. BOLTS CORRECTED BOLT TORQUE REMOVED AND RANGE TAKING CHANGED ON 0243440		P.A.T.	S. MASHABA	L. CHRISTIAANS	20.04.2010		
12	SAP 0243439 REMOVED AND RANGE TAKING CHANGED		P.A.T.	S. MASHABA	B. BRANFIELD	28.01.2010		
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DWGS	
AUTH:	P. CROWDY	DATE:	07.03.1998			SAP No:		
CHKD:	D. PILLAY	DATE:	07.03.1998			0401307		
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 06.03.1998	D-DT-7022		SET	SHEET	REV
			7022			2	1	14

SPEC SHEET

SAP MATERIAL No.:	0401310								
SHORT DESCRIPTION:	CLAMP,STRAIN:3B;70 KN;15-6 MM								
TECH. DESCRIPTION:	<p>CLAMP, STRAIN: TYPE: 3B; CONDUCTOR: 15-6 MM; CAPACITY: 70 KN; TENSION LIP NOT TO BE GROUND BUT CAST AS PER DRAWING; ALL MOULDING LINES TO BE REMOVED ON INSIDE OF CLAMP; CLEVIS DESIGNATION 16L; SUPPLIED COMPLETE WITH: 1 X M16 X 65MM CLEVIS BOLT ASSEMBLY (D-DT-7043), 3 X GALVANISED STEEL 12MM U-BOLTS WITH 6 X SPRING WASHERS (D-DT-3014), 6 X M12 HEXAGON NUT (D-DT-3173) AND DIE CAST ALUMINIUM KEEPER; USED FOR SQUIRELL, FOX, MINK AND HARE CONDUCTOR; ALL ALUMINIUM TO BE GRAVITY DIE CAST PROCESSED FROM LM25 ALUMINIUM MATERIAL AND HEAT TREATED TO OBTAIN THE REQUIRED MECHANICAL PROPERTIES; ESKOM DRAWING No. D-DT-7022 *</p>								
SAP MATERIAL No.:	0243440								
SHORT DESCRIPTION:	CLAMP,STRAIN:3B ST;70 KN;30-18 MM								
TECH. DESCRIPTION:	<p>CLAMP, STRAIN: TYPE: 3B ST; CONDUCTOR: 30-18 MM; CAPACITY: 70 KN; TENSION LIP NOT TO BE GROUND BUT CAST AS PER DRAWING; ALL MOULDING LINES TO BE REMOVED ON INSIDE OF CLAMP; CLEVIS DESIGNATION 16L; SUPPLIED COMPLETE WITH 1 X M16 X 65 MM CLEVIS BOLT ASSEMBLY (D-DT-7043), 3 X GALVANISED STEEL 12 MM U-BOLTS WITH 6 X SPRING WASHERS (D-DT-3014), 6 X M12 HEXAGON NUT (D-DT-3173) AND DIE CAST ALUMINIUM KEEPER; USED FOR CHICADEE AND KINGBIRD CONDUCTOR TO BE GRAVITY DIE CAST PROCESSED FROM LM25 ALUMINIUM MATERIAL AND HEAT TREATED TO OBTAIN THE REQUIRED MECHANICAL PROPERTIES; ESKOM DRAWING No. D-DT-7022 *</p>								
14	CASTING LINES TO BE REMOVED ADDED TO TECH. DESC. VARIOUS SAP NUMBERS AND DESCRIPTION CHANGED ACCORDING TO PILOG			P.A.T.	<i>M. Shuter</i> M. SHUTER	<i>B. Hill</i> B. HILL	16.01.2013		
13	NO. OFF SPRING WASHERS AND HEX. BOLTS CORRECTED BOLT TORQUE REMOVED AND RANGE TAKING CHANGED ON 0243440			P.A.T.	S. MASHABA	L. CHRISTIAANS	20.04.2010		
12	SAP 0243439 REMOVED AND RANGE TAKING CHANGED			P.A.T.	S. MASHABA	B. BRANFIELD	28.01.2010		
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	REF. DWGS	
AUTH:	P. CROWDY	DATE:	07.03.1998	SCALE	 Eskom		SAP No:		
CHKD:	D. PILLAY	DATE:	07.03.1998	NTS			0401310		
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 06.03.1998	CAD REF:	D-DT-7022		SET	SHEET	REV
				SERIES 7000			2	2	14
				FILE No:					
				7022					



SAP MATERIAL No.:	0402503
SHORT DESCRIPTION:	PLATE, YOKE TRIANG 150mm CRS 120kN D7015

TECH. DESCRIPTION:
 YOKE PLATE TRIANGULAR * GRADE S355JR/350WA STEEL *
 HOT DIPPED GALVANISED *
 MINIMUM FAILING LOAD 120kN *
 PLATE THICKNESS 16mm *
 HOLE CENTRES: 150mm LENGTH AND 64mm WIDTH *
 ESKOM DRAWING No. D-DT-7015 * S *

SAP MATERIAL No.:	0168861
SHORT DESCRIPTION:	PLATE, YOKE TRIANG 260mm CRS 120kN D7015

TECH. DESCRIPTION:
 YOKE PLATE TRIANGULAR * GRADE S355JR/350WA STEEL *
 HOT DIPPED GALVANISED *
 MINIMUM FAILING LOAD 120kN *
 PLATE THICKNESS 16mm *
 HOLE CENTRES: 260mm LENGTH AND 45mm WIDTH *
 ESKOM DRAWING No. D-DT-7015 * S *

SAP MATERIAL No.:	0168961
SHORT DESCRIPTION:	PLATE, YOKE TRIANG 380mm CRS 120kN D7015

TECH. DESCRIPTION:
 YOKE PLATE TRIANGULAR * GRADE S355JR/350WA STEEL *
 HOT DIPPED GALVANISED *
 MINIMUM FAILING LOAD 120kN *
 PLATE THICKNESS 16mm *
 HOLE CENTRES: 380mm LENGTH AND 45mm WIDTH *
 ESKOM DRAWING No. D-DT-7015 *

ITEM	:- PLATE, YOKE TRIANGULAR		
MATERIAL SPECIFICATION	:- EN 10025-2 / SANS 1431		
CORROSION SPECIFICATION	:- SANS 121		
STANDARD SPECIFICATION	:-		
ESKOM SPECIFICATION	:- TRMSCAAH2		

TEST & CERTIFICATION REQUIREMENTS :-			
INSPECTION	Yes	No	ESKOM RELEASE NOTE
			Yes No

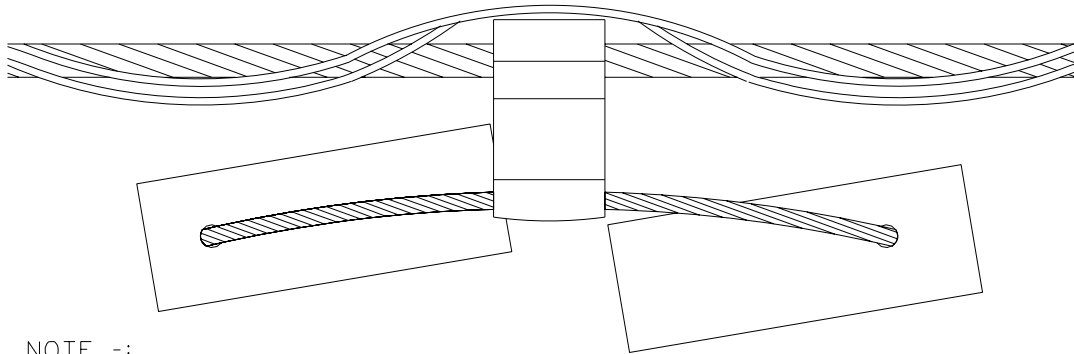
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS

8	SAP NUMBER CORRECTED	P.A.T.	D. RAMJASS	D. RAMJASS	31.10.2016	
7	TYPE TEST REMOVED	P.A.T.	S. MASHABA	B. BRANFIELD	07.09.2010	
6	DROPPED FORGED STEEL REMOVED FROM TECH. DESCRIPTION	P.A.T.	S. MASHABA	B. BRANFIELD	20.04.2010	

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DWGS		
AUTH:	P. CROWDY	DATE:	27.03.1998			SAP No:		
CHKD:	D. PILLAY	DATE:	27.03.1998			0010842	0168861	
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 05.03.1998	D-DT-7015		SET	SHEET	REV
						1	1	8


Unique Identifier:204-48887441

Revision 1



NOTE -:

1. NOT FOR MANUFACTURING PURPOSES
2. CONDUCTOR IS SHOWN FOR CLARITY PURPOSES ONLY

SAP MATERIAL No.:	0226767						
SHORT DESCRIPTION:	DAMPER,M/F VIBRATION 13.9-15.0 D7005						
TECH. DESCRIPTION:							
<p>MULTIFREQUENCY TYPE VIBRATION DAMPER *</p> <p>CONDUCTOR RANGE 13.9mm TO 15.0mm DIA *</p> <p>SUITABLE FOR OAK OR HARE CONDUCTORS *</p> <p>MATERIAL : HIGH GRADE ALUMINIUM ALLOY FOR RETAINING ROD (HELICAL) AND ATTACHMENT CLAMP MATERIAL FOR THE MESSENGER WEIGHTS SHALL BE GALVANICALLY COMPATIBLE WITH THE MESSENGER RODS *</p> <p>ATTACHMENT CLAMP (NOT THE BOLTED TYPE) WITH NEOPRENE PAD, HELICAL RETAINING RODS AND MESSENGER WEIGHTS ASSEMBLY SHALL BE SUPPLIED AS ONE COMPLETE UNIT *</p> <p>BOTH THE RETAINING RODS AND DAMPERS MUST BE MARKED WITH THE APPROPRIATE COLOUR CODING * THE RETAINING RODS SHALL BE PACKAGED IN BUNDLES AS PER QUANTITY REQUIRED PER DAMPER *</p> <p>DAMPING FREQUENCY RANGE -: MIN : LESS THAN 12Hz & MAX : GREATER THAN 40Hz WITH AN EFFICIENCY OF AT LEAST 70% *</p> <p>COLOUR CODES : OAK : BROWN AND HARE : BROWN *</p> <p>ESKOM DRAWING No. D-DT-7005 *</p>							
ITEM	:- DAMPER, VIBRAT MULTIFREQUENCY						
MATERIAL SPECIFICATION	:- BS 1004A						
CORROSION SPECIFICATION	:- SANS 121						
STANDARD SPECIFICATION	:- 34-433, SCSASABE9						
ESKOM SPECIFICATION	:- 34-433, SCSASABE9						
TEST & CERTIFICATION REQUIREMENTS :-							
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS							
8	TECHNICAL DISC. CHANGED FOR SUPPLY OF ATTACHMENT CLAMP AND STANDARD AND ESKOM SPECS CORRECTED		P.A.T.	S. MASHABA	S. MASHABA	03.06.2009	
7	13.9 – 15.0 DIA. VIBRATION DAMPER ADDED		P.A.V.	B. HILL	B. HILL	04.10.2007	
6	TERMINOLOGY CHANGED IN SHORT & TECH. DESCRIPTIONS, NOTE ON DRG ADDED. SPECS UPDATED AND COLOUR CODES ADDED.		M.T.M.	S. Le ROUX	S. Le ROUX	03.06.05	
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DWGS
AUTH:	A. BEKKER	DATE:	26.03.1998			SAP No:	
CHKD:	S. Le ROUX	DATE:	26.03.1998			0226767	
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 01.03.1998	SCALE	D-DT-7005	SET	3
				NTS		SHEET	
				CAD REF:		REV	8
				SERIES 7000			
				FILE No:			
				7005			


SPEC SHEET

SAP MATERIAL No.:	0168960
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SHORT DESCRIPTION:	DAMPER,M/F VIBRATION 18.13-19.98 D7005
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TECH. DESCRIPTION:


MULTIFREQUENCY TYPE VIBRATION DAMPER *
 CONDUCTOR RANGE 18.13mm TO 19.98mm DIA *
 SUITABLE FOR CHICADEE OR WOLF CONDUCTORS *
 MATERIAL : HIGH GRADE ALUMINIUM ALLOY FOR RETAINING ROD AND ATTACHMENT CLAMP. MATERIAL FOR THE MESSENGER WEIGHTS SHALL BE GALVANICALLY COMPATIBLE WITH THE MESSENGER RODS *
ATTACHMENT CLAMP (NOT THE BOLTED TYPE) WITH NEOPRENE PAD, HELICAL RETAINING RODS AND MESSENGER WEIGHTS ASSEMBLY SHALL BE SUPPLIED AS ONE COMPLETE UNIT *
 BOTH THE RETAINING RODS AND DAMPERS MUST BE MARKED WITH THE APPROPRIATE COLOUR CODING * THE RETAINING RODS SHALL BE PACKAGED IN BUNDLES AS PER QUANTITY REQUIRED PER DAMPER *
 DAMPING FREQUENCY RANGE -: MIN : LESS THAN 12Hz & MAX : GREATER THAN 40Hz WITH AN EFFICIENCY OF AT LEAST 70% *
 COLOUR CODES : CHICADEE : RED AND WOLF : WHITE *
 ESKOM DRAWING No. D-DT-7005 *

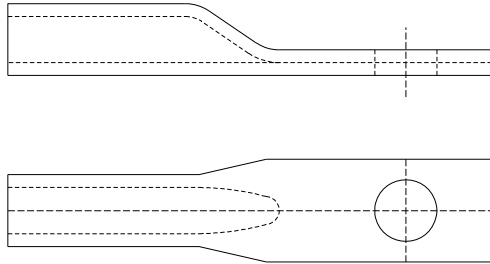
8	TECHNICAL DISC. CHANGED FOR SUPPLY OF ATTACHMENT CLAMP AND STANDARD AND ESKOM SPECS CORRECTED	P.A.T.	S. MASHABA	S. MASHABA	03.06.2009		
7	13.9 – 15.0 DIA. VIBRATION DAMPER ADDED	P.A.V.	B. HILL	B. HILL	04.10.2007		
6	TERMINOLOGY CHANGED IN SHORT & TECH. DESCRIPTIONS, NOTE ON DRG ADDED, SPECS UPDATED AND COLOUR CODES ADDED.	M.T.M.	S. Le ROUX	S. Le ROUX	03.06.05		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DWGS	
AUTH:	A. BEKKER	DATE:	26.03.1998		SAP No: 0168960		
CHKD:	S. Le ROUX	DATE:	26.03.1998				
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997	D-DT-7005	SET	SHEET	REV
			01.03.1998		3	2	8

SPEC SHEET

SAP MATERIAL No.:	0168893
SHORT DESCRIPTION:	DAMPER,M/F VIBRATION 20.98-23.90 D7005
TECH. DESCRIPTION:	
<p>MULTIFREQUENCY TYPE VIBRATION DAMPER *</p> <p>CONDUCTOR RANGE 20.98mm TO 23.90mm DIA *</p> <p>SUITABLE FOR KINGBIRD OR BEAR CONDUCTORS *</p> <p>MATERIAL : HIGH GRADE ALUMINIUM ALLOY FOR RETAINING ROD AND ATTACHMENT CLAMP. MATERIAL FOR THE MESSENGER WEIGHTS SHALL BE GALVANICALLY COMPATIBLE WITH THE MESSENGER RODS *</p> <p>ATTACHMENT CLAMP (NOT THE BOLTED TYPE) WITH NEOPRENE PAD, HELICAL RETAINING RODS AND MESSENGER WEIGHTS ASSEMBLY SHALL BE SUPPLIED AS ONE COMPLETE UNIT *</p> <p>BOTH RETAINING RODS & DAMPERS MUST BE MARKED WITH THE APPROPRIATE COLOUR CODING * THE RETAINING RODS SHALL BE PACKAGED IN BUNDLES AS PER QUANTITY REQUIRED PER DAMPER *</p> <p>DAMPING FREQUENCY RANGE -: MIN : LESS THAN 12Hz & MAX : GREATER THAN 40Hz WITH AN EFFICIENCY OF AT LEAST 70% *</p> <p>COLOUR CODES -: KINGBIRD : GREEN AND BEAR : ORANGE *</p> <p>ESKOM DRAWING No. D-DT-7005 *</p>	

SAP MATERIAL No.:	0168894
SHORT DESCRIPTION:	DAMPER,M/F VIBRATION 25.97-27.00 D7005
TECH. DESCRIPTION:	
<p>MULTIFREQUENCY TYPE VIBRATION DAMPER *</p> <p>CONDUCTOR RANGE 25.97mm TO 27.00mm DIA *</p> <p>SUITABLE FOR TERN CONDUCTORS *</p> <p>MATERIAL : HIGH GRADE ALUMINIUM ALLOY FOR RETAINING ROD AND ATTACHMENT CLAMP. MATERIAL FOR THE MESSENGER WEIGHTS SHALL BE GALVANICALLY COMPATIBLE WITH THE MESSENGER RODS *</p> <p>ATTACHMENT CLAMP (NOT THE BOLTED TYPE) WITH NEOPRENE PAD, HELICAL RETAINING RODS AND MESSENGER WEIGHTS ASSEMBLY SHALL BE SUPPLIED AS ONE COMPLETE UNIT *</p> <p>BOTH THE RETAINING RODS & DAMPERS MUST BE MARKED WITH THE APPROPRIATE COLOUR CODING * THE RETAINING RODS SHALL BE PACKAGED IN BUNDLES AS PER QUANTITY REQUIRED PER DAMPER *</p> <p>DAMPING FREQUENCY RANGE -: MIN : LESS THAN 12Hz & MAX : GREATER THAN 40Hz WITH AN EFFICIENCY OF AT LEAST 70% *</p> <p>COLOUR CODES -: TERN : BLUE *</p> <p>ESKOM DRAWING No. D-DT-7005 *</p>	

8	TECHNICAL DISC. CHANGED FOR SUPPLY OF ATTACHMENT CLAMP AND STANDARD AND ESKOM SPECS CORRECTED	P.A.T.	S. MASHABA	S. MASHABA	03.06.2009		
7	13.9 – 15.0 DIA. VIBRATION DAMPER ADDED	P.A.V.	B. HILL	B. HILL	04.10.2007		
6	TERMINOLOGY CHANGED IN SHORT & TECH. DESCRIPTIONS, NOTE ON DRG ADDED, SPECS UPDATED AND COLOUR CODES ADDED.	M.T.M.	S. Le ROUX	S. Le ROUX	03.06.05		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DWGS	
AUTH:	A. BEKKER	DATE:	26.03.1998			SAP No:	
CHKD:	S. Le ROUX	DATE:	26.03.1998			0168893	0168894
DRAWN:	GC P.A. VERMAAK	DATE:	08.11.1997 01.03.1998	SCALE	D-DT-7005	SET	3
				NTS		SHEET	
				CAD REF:		REV	8
				SERIES 7000			
				FILE No:			
				7005			



NOTE :
SKETCH NOT FOR MANUFACTURING PURPOSE.

SAP MATERIAL No.:	0180039							
SHORT DESCRIPTION:	LUG,AL 6.3-9.0DIA 1B M12 ODEG I/C D3074							
TECH. DESCRIPTION:	<p>TERMINAL LUG * COMPRESSION INDENT CRIMP * ALUMINIUM * LUG 0 DEGREES * PALM HOLE M12 BOLT CLEARANCE * CONDUCTOR : MAGPIE 6.35mm DIA., SQUIRREL 6.33mm DIA. OR ACACIA 6.24mm DIA. AND FOX 8.37mm DIA OR 35 8.31mm DIA. * CONDUCTOR COLOUR CODE ORANGE, GREEN AND BLUE * MAXIMUM TUBE INSIDE DIAMETER OF 9.0mm DIA. * FILLED WITH JOINTING COMPOUND AND CAPPED * INDIVIDUALLY PACKED IN SEALED PLASTIC BAG * FOR USE WITH HYDRAULIC 4-POINT SHALLOW INDENTATION CRIMPING TOOL * ESKOM DRAWING No. D-DT-3074 *</p>							
SAP MATERIAL No.:	0180040							
SHORT DESCRIPTION:	LUG,AL 9.0-15.0DIA 1B M12 ODEG I/C D3074							
TECH. DESCRIPTION:	<p>TERMINAL LUG * COMPRESSION INDENT CRIMP * ALUMINIUM * LUG 0 DEGREES * PALM HOLE M12 BOLT CLEARANCE * CONDUCTOR : PINE 10.83mm DIA. OR MINK 10.98mm DIA., HARE 14.16 DIA. OR OAK 13.95mm DIA. * CONDUCTOR COLOUR CODE RED AND BROWN * MAXIMUM TUBE INSIDE DIAMETER OF 15.0mm DIA. * FILLED WITH JOINTING COMPOUND AND CAPPED * INDIVIDUALLY PACKED IN SEALED PLASTIC BAG * FOR USE WITH HYDRAULIC 4-POINT SHALLOW INDENTATION CRIMPING TOOL * ESKOM DRAWING No. D-DT-3074 *</p>							
ITEM	:- LUG,ALUMINIUM INDENT CRIMP							
MATERIAL SPECIFICATION	:-							
CORROSION SPECIFICATION	:-							
STANDARD SPECIFICATION	:-							
ESKOM SPECIFICATION	:- SCSSCAAG5							
TEST & CERTIFICATION REQUIREMENTS	:-							
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No	
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS								
8	LUG,AL HORNET 1B M20 45 DEG I/C ADDED		P.A.T.	T. NKAMBULE		27.07.2012		
7	M20 9-15 DIA. 1 BOLT LUG ADDED		P.A.V.	B. HILL	B. HILL	13.09.06		
6	LOGO CHANGED AS PER CORPORATE I.D.		D.D.N.	P.A.V.	P.A.V.	15.06.04		
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	P. CROWDY	DATE:	17.07.1995			SAP No:		
CHKD:	J. SWAN	DATE:	17.07.1995			0180039		
						0180040		
DRAWN:	P.A. VERMAAK	DATE:	07.06.1995	D-DT-3074		SET	SHEET	REV
						3	1	8

SPEC SHEET

SAP MATERIAL No.:	0165839
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SHORT DESCRIPTION:	LUG,AL HORNET 1B M12 0 DEG I/C D3074
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TECH. DESCRIPTION:

TERMINAL LUG * COMPRESSION INDENT CRIMP * ALUMINIUM *
 LUG 0 DEGREES * PALM HOLE M12 BOLT CLEARANCE *
 CONDUCTOR HORNET 16.13mm DIA.*
 ACCOMMODATES CONDUCTOR RANGE 11-17mm DIA. * FILLED WITH JOINTING
 COMPOUND AND CAPPED * INDIVIDUALLY PACKED IN SEALED PLASTIC BAG *
 FOR USE WITH HYDRAULIC 4-POINT SHALLOW INDENTATION CRIMPING TOOL *
 ESKOM DRAWING No. D-DT-3074 * S *

SAP MATERIAL No.:	0222095
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SHORT DESCRIPTION:	LUG,AL OAK 1B M20 0 DEG I/C D3074
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TECH. DESCRIPTION:

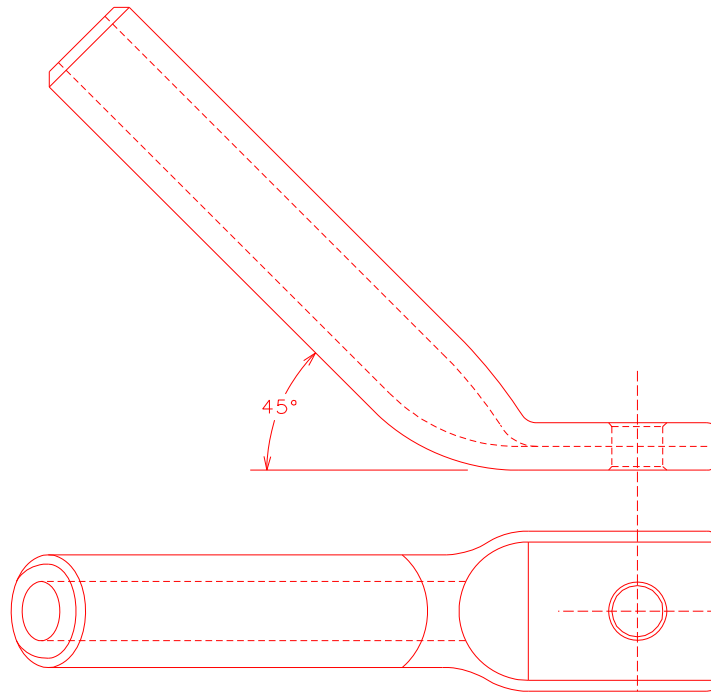
TERMINAL LUG * COMPRESSION INDENT CRIMP * ALUMINIUM *
 LUG 0 DEGREES * PALM HOLE M20 BOLT CLEARANCE *
 CONDUCTOR OAK 13.95mm DIA.*
 MAXIMUM TUBE INSIDE DIAMETER OF 15.0mm DIA. *
 ACCOMMODATES CONDUCTOR RANGE 9-15mm DIA. * FILLED WITH JOINTING
 COMPOUND AND CAPPED * INDIVIDUALLY PACKED IN SEALED PLASTIC BAG *
 FOR USE WITH HYDRAULIC 4-POINT SHALLOW INDENTATION CRIMPING TOOL *
 ESKOM DRAWING No. D-DT-3074 *

8	LUG,AL HORNET 1B M20 45 DEG I/C ADDED	P.A.T.	T. NKAMBULE	27.07.2012	
---	---------------------------------------	--------	-------------	------------	--

7	M20 9-15 DIA. 1 BOLT LUG ADDED	P.A.V.	B. HILL	B. HILL	13.09.06
---	--------------------------------	--------	---------	---------	----------

6	LOGO CHANGED AS PER CORPORATE I.D.	D.D.N.	P.A.V.	P.A.V.	15.06.04
---	------------------------------------	--------	--------	--------	----------

REV	REVISION DESCRIPTION				BY	CHKD	AUTH	DATE	REF. DRAWINGS		
AUTH:	P. CROWDY	DATE:	17.07.1995	SCALE NTS	 SAP No: 0165839 0222095						
CHKD:	J. SWAN	DATE:	17.07.1995	CAD REF:					SET	SHEET	REV
DRAWN:	P.A. VERMAAK	DATE:	07.06.1995	FILE No: 3074					3	2	8
					D-DT-3074						

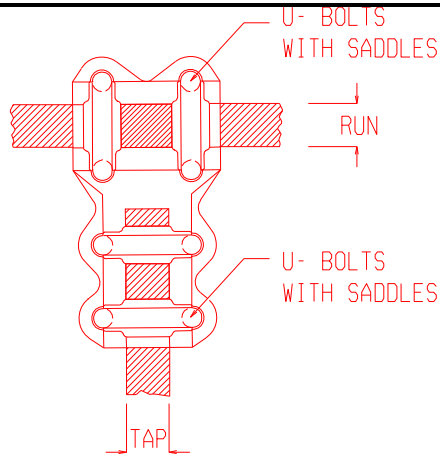


NOTE :
SKETCH NOT FOR MANUFACTURING PURPOSE.


SAP MATERIAL No.:		0554064					
SHORT DESCRIPTION:		CONNECTOR,LUG:AL HORNET 1B M12 45 DEG					
TECH. DESCRIPTION:		<p>CONNECTOR, LUG: TYPE: AL HORNET 1B M12 45 DEG; CONDUCTOR: HORNET 16.13 MM; HOLE SIZE: M12; MATERIAL: ALUMINIUM CONDUCTOR CONNECTION: CRIMP COMPRESSION INDENT; ACCOMODATES CONDUCTOR RANGE: 11 TO 17MM DIAMETER; FILLED WITH JOINTING COMPOUND AND CAPPED; INDIVIDUALLY PACKED IN SEALED PLASTIC BAG; FOR USE WITH HYDRAULIC 4-POINT SHALLOW INDENTATION CRIMPING TOOL; ESKOM DRAWING No. D-DT-3074 *</p>					
8	LUG,AL HORNET 1B M20 45 DEG I/C ADDED	P.A.T.	T. NKAMBULE		27.07.2012		
7	M20 9-15 DIA. 1 BOLT LUG ADDED	P.A.V.	B. HILL	B. HILL	13.09.06		
6	LOGO CHANGED AS PER CORPORATE I.D.	D.D.N.	P.A.V.	P.A.V.	15.06.04		
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	P. CROWDY	DATE:	17.07.1995	SCALE	SAP No:		
CHKD:	J. SWAN	DATE:	17.07.1995	NTS	0554064		
				CAD REF:			
DRAWN:	P.A. VERMAAK	DATE:	07.06.1995	SERIES 3000	SET	SHEET	
				FILE No:	3	3	
				3074	REV		
				D-DT-3074	8		



D-DT-3074

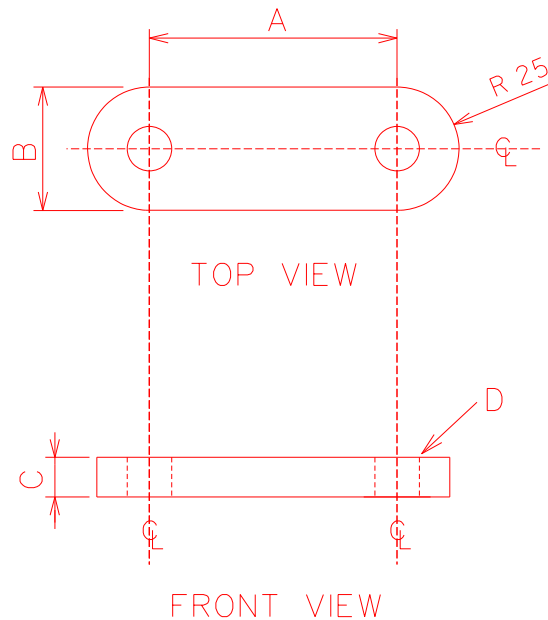


NOTE :
DRAWING NOT FOR MANUFACTURING PURPOSES.

SAP MATERIAL No.:	0401742							
SHORT DESCRIPTION:	CLAMP,STRAIN:EUT-B ;AL TO AL; BOLTED T							
TECH. DESCRIPTION:	CLAMP, STRAIN: TYPE: AL TO AL; BOLTED T; CONDUCTOR: RUN 12 TO 21; TAP 12 TO 21 MM; CLAMP MATERIAL: AL BS1490 GR LM6 CAST; SPECIFICATION: ESKOM DSP_34-1974; TEST & CERTIFICATION REQUIREMENTS: DSP_34-1974; RATED CURRENT: 500 AMP ESKOM DRAWING No. D-DT-6099 *							
SAP MATERIAL No.:	0401746							
SHORT DESCRIPTION:	CLAMP,STRAIN:EUT-C ;AL TO AL; BOLTED T							
TECH. DESCRIPTION:	CLAMP, STRAIN: TYPE: AL TO AL; BOLTED T; CONDUCTOR: RUN 12 TO 21; TAP 22 TO 28 MM; CLAMP MATERIAL: AL BS1490 GR LM6 CAST; SPECIFICATION: ESKOM DSP_34-1974;TEST & CERTIFICATION REQUIREMENTS: DSP_34-1974; RATED CURRENT : 650 AMP; ESKOM DRAWING No. D-DT-6099 *							
ITEM	:- CLAMP,STRAIN:EUT AL TO AL; BOLTED T							
MATERIAL SPECIFICATION	:- GRADE LM6 ALUMIMIUM TO BS1490							
CORROSION SPECIFICATION	:- N/A							
STANDARD SPECIFICATION	:- N/A							
ESKOM SPECIFICATION	:- DSP_34-1974							
TEST & CERTIFICATION REQUIREMENTS	:- DSP_34-1974							
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No	
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS								
4	DRAWING SHOWN SAME AS SPEC. DSP_34-1974, SPECS, CLAMP TYPES, VARIOUS SAP NUMBERS AND ESKOM LOGO CHANGED		P.A.T.	M.SHUTER & T.NKUMBUL E	V.SINGH	20.01.2012		
3	MODIFIED UT3 CLAMP ADDED.		VvZ	C.B.C	C.CLARK	04/05/2005		
2	LOGO IN TITLE BLOCK CHANGED AS PER CORPORATE IDENTITY		VvZ	C.B.C	C.CLARK	16/02/2004		
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	PHIL CROWDY	DATE:	04/99			SAP No:		
CHKD:	C.B. CLARK	DATE:	04/99			0401742		
DRAWN:	J.F.SCHOLTZ	DATE:	10/98			0401746		
				D-DT-6099		SET	SHEET	REV
						2	1	4

SPEC. SHEET

SAP MATERIAL No.:	0401572									
SHORT DESCRIPTION:	CLAMP,STRAIN:EUT-D ;AL TO AL; BOLTED T									
TECH. DESCRIPTION:	<p>CLAMP, STRAIN: TYPE: AL TO AL; BOLTED T; CONDUCTOR: RUN 22 TO 28; TAP 12 TO 21 MM; CLAMP MATERIAL: AL BS1490 GR LM6 CAST; SPECIFICATION: ESKOM DSP_34-1974; TEST & CERTIFICATION REQUIREMENTS: DSP_34-1974; RATED CURRENT : 650 AMP; ESKOM DRAWING No. D-DT-6099 *</p>									
SAP MATERIAL No.:	0401744									
SHORT DESCRIPTION:	CLAMP,STRAIN:EUT-E ;AL TO AL; BOLTED T									
TECH. DESCRIPTION:	<p>CLAMP, STRAIN: TYPE: AL TO AL; BOLTED T; CONDUCTOR: RUN 22 TO 28; TAP 22 TO 28 MM; CLAMP MATERIAL: AL BS1490 GR LM6 CAST; SPECIFICATION: ESKOM DSP_34-1974; TEST & CERTIFICATION REQUIREMENTS: DSP_34-1974; RATED CURRENT : 650 AMP; ESKOM DRAWING No. D-DT-6099 *</p>									
SAP MATERIAL No.:	0215871									
SHORT DESCRIPTION:	CLAMP,STRAIN:EUT-C MOD ;AL TO AL									
TECH. DESCRIPTION:	<p>CLAMP, STRAIN: TYPE: AL TO AL; CONDUCTOR: RUN 6 TO 11; TAP 22 TO 28 MM; CLAMP MATERIAL: AL BS1490 GR LM6 CAST; SPECIFICATION: ESKOM DSP_34-1974; TEST & CERTIFICATION REQUIREMENTS: DSP_34-1974; RATED CURRENT: 500 AMP; ESKOM DRAWING No. D-DT-6099 *</p>									
4	DRAWING SHOWN SAME AS SPEC. DSP_34-1974, SPECS, CLAMP TYPES, VARIOUS SAP NUMBERS AND ESKOM LOGO CHANGED				P.A.T.	M.SHUTER & T.NKUMBUL E	V.SINGH	20.01.2012		
3	MODIFIED UT3 CLAMP ADDED.				VvZ	C.B.C	C.CLARK	04/05/2005		
2	LOGO IN TITLE BLOCK CHANGED AS PER CORPORATE IDENTITY				VvZ	C.B.C	C.CLARK	16/02/2004		
REV	REVISION DESCRIPTION				BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	PHIL CROWDY	DATE:	04/99	SCALE				SAP No:		
CHKD:	C.B. CLARK	DATE:	04/99	CAD REF:				0401572	0215871	
DRAWN:	J.F.SCHOLTZ	DATE:	10/98	FILE No:				0401744		
				6099	D-DT-6099			SET	SHEET	REV
					2	2	4			



A	B	C	D	U.T.S. (kN)
100	50	16	18	120

SAP MATERIAL No.: 0585330

SHORT DESCRIPTION: LINK,EXT:SINGLE ASSY;LG 100 MM;120 KN

TECH. DESCRIPTION:
 LINK, EXTENSION: TYPE: SINGLE ASSY;
 LENGTH: 100 MM; RATING: 120 KN;
 MATERIAL: STL GR S355JR HOT DIPPED GALV;
 DIMENSIONS: WD 50 X LG 150 X THK 16 MM FLAT PLATE (1 OFF)
 CUT AS PER DETAIL (D7041);
 ESKOM DRAWING No. D-DT-7041

ITEM :- EXTENSION LINK SINGLE AND DOUBLE 120kN ASSY

MATERIAL SPECIFICATION :- EN10025-2

CORROSION SPECIFICATION :- SANS 121

STANDARD SPECIFICATION :-

ESKOM SPECIFICATION :- D-DT-7041, DSP 34-1667

TEST & CERTIFICATION REQUIREMENTS :-

INSPECTION	Yes	No	ESKOM RELEASE NOTE	Yes	No
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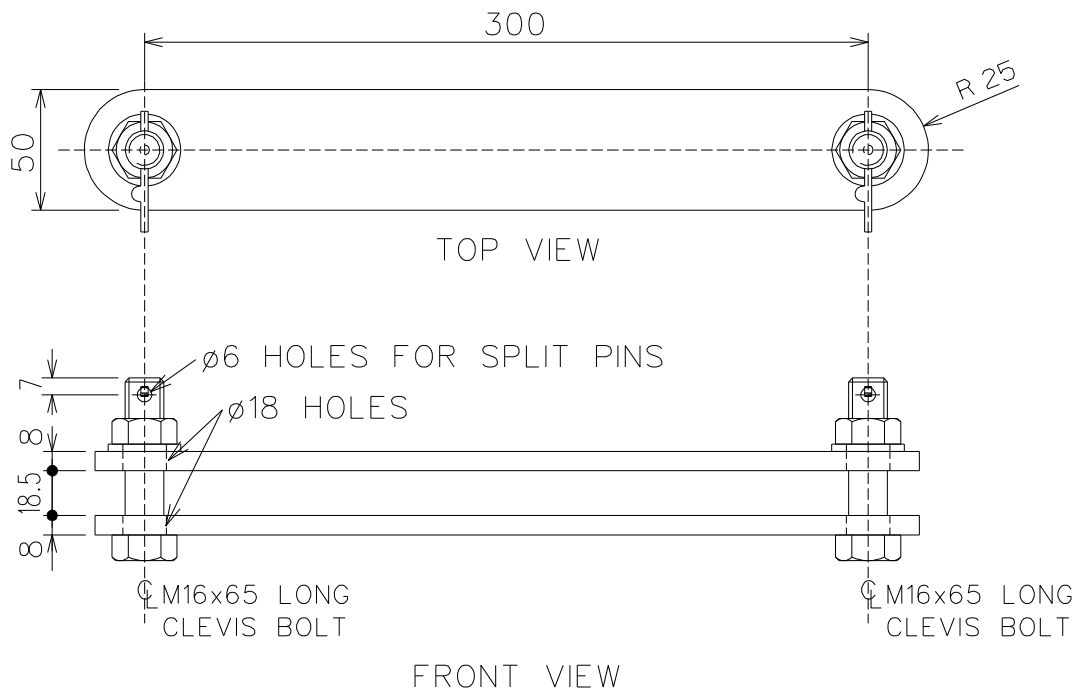
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS

2	SINGLE EXTENSION LINK ADDED. REMOVED OFF D-DT-7045	P.A.T.	B. MCLAREN	B. HILL	18.05.2017
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1	FLAT PLATE LENGTH CORRECTED FROM 400 TO 350mm, STEEL GRADE CHANGED AND SHORT AND TECHNICAL DESCRIPTIONS CHANGED ACCORDING TO SAP/PILOG	P.A.T.	M. SHUTER	S. MASHABA	11.05.2012
---	--	--------	-----------	------------	------------

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	REF. DWGS
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AUTH:	S. MASHABA	DATE:	18.05.2009	 D-DT-7041	SAP No:		
CHKD:	S. MASHABA	DATE:	18.05.2009		0585330		
DRAWN:	N.MBONGWA	DATE:	08.08.2008		SET	SHEET	REV
				7041	2	1	2



SAP MATERIAL No.: 0241886
 SHORT DESCRIPTION: LINK,EXT:DOUBLE ASSY;LG 350 MM;120 KN

TECH. DESCRIPTION:

LINK, EXTENSION: TYPE: DOUBLE ASSY;
 LENGTH: 350 MM; RATING: 120 KN;
 MATERIAL: STL GR S355JR; HOT DIPPED GALV;
 50 X 8 THICK X 350MM LONG FLAT PLATE (2 OFF) CUT AS PER DETAIL (D7041);
 SUPPLIED COMPLETE WITH:
 2 X M16 x 65MM LONG THREADED CLEVIS BOLT ASSEMBLIES,
 2 X M16 FLAT ROUND WASHERS AND 2 X HEXAGON NUTS (D-DT-7043)
 AND 2 X STAINLESS STEEL HUMP BACK SPLIT PINS;
 ESKOM DRAWING No. D-DT-7041

2	SINGLE EXTENSION LINK ADDED. REMOVED OFF D-DT-7045		P.A.T.	B. MCLAREN	B. HILL	18.05.2017	
1	FLAT PLATE LENGTH CORRECTED FROM 400 TO 350mm, STEEL GRADE CHANGED AND SHORT AND TECHNICAL. DESCRIPTIONS CHANGED ACCORDING TO SAP/PILOG		P.A.T.	M. SHUTER	S. MASHABA	11.05.2012	
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DWGS
AUTH:	S. MASHABA	DATE:	18.05.2009	 D-DT-7041	SAP No:		
CHKD:	S. MASHABA	DATE:	18.05.2009		0241886		
DRAWN:	N.MBONGWA	DATE:	08.08.2008		SET	SHEET	REV
				7041	2	2	2

1

2

3

4

A

A

B

B

C

C

D

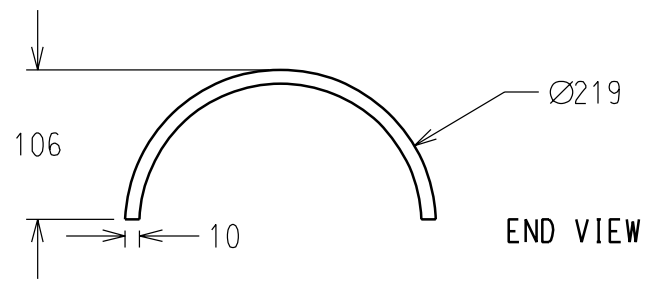
D

E

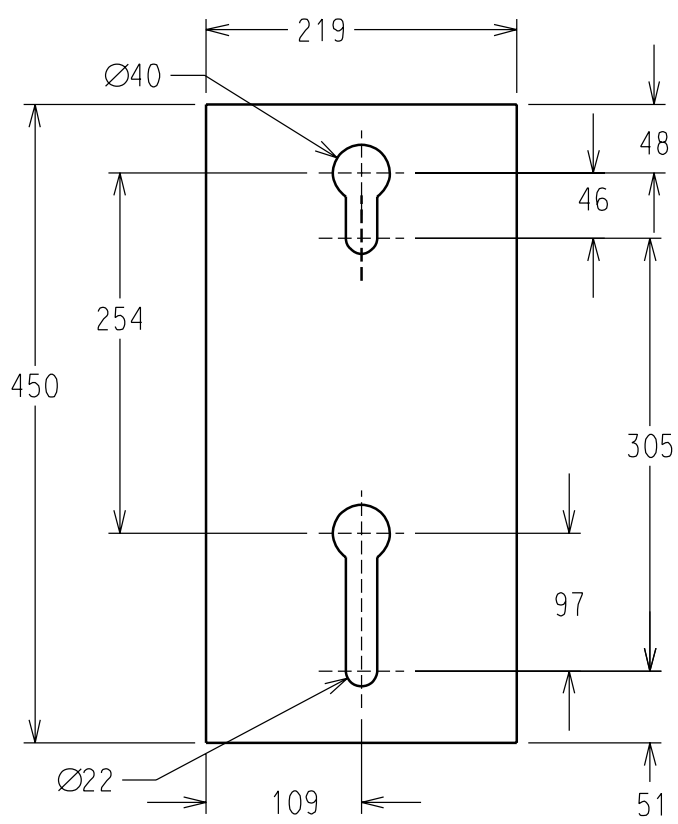
E

F

F



219 x 10 circular hollow section
cut lengthwise
with 8mm allowance for flame cutting



FRONT VIEW

Notes:
Material: 300W steel.

Welding to be 6mm continuous seal to SABS 0162 Section 11.

Hot dip galvanising to SABS 1461. Stress relieving to be applied in accordance with SABS 1461.

Tolerances:
on dimensions 1mm
on drilling centres 1mm

THIS DRAWING IS THE PROPERTY OF ESKOM

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.
02	Material and shape changed	RAS				
01	Title changed to steel poles only	RAS		BM	2003/06/05	
0	Updated from D-WC-5923 & 5883; SABS 763 to 1461	AJM	RAS	BM	13/03/2002	

AUTH:	B.Meyer
DATE:	2002/03/14
CHKD:	R.A.Scott
DATE:	2002/03/14
DRAWN:	A.J.Muir
DATE:	2002/03/14

STAND-OFF INSULATOR MOUNTING BRACKET for STEEL POLES

D-WC-7600	SET	SHEET	REVISION
	02	02	02

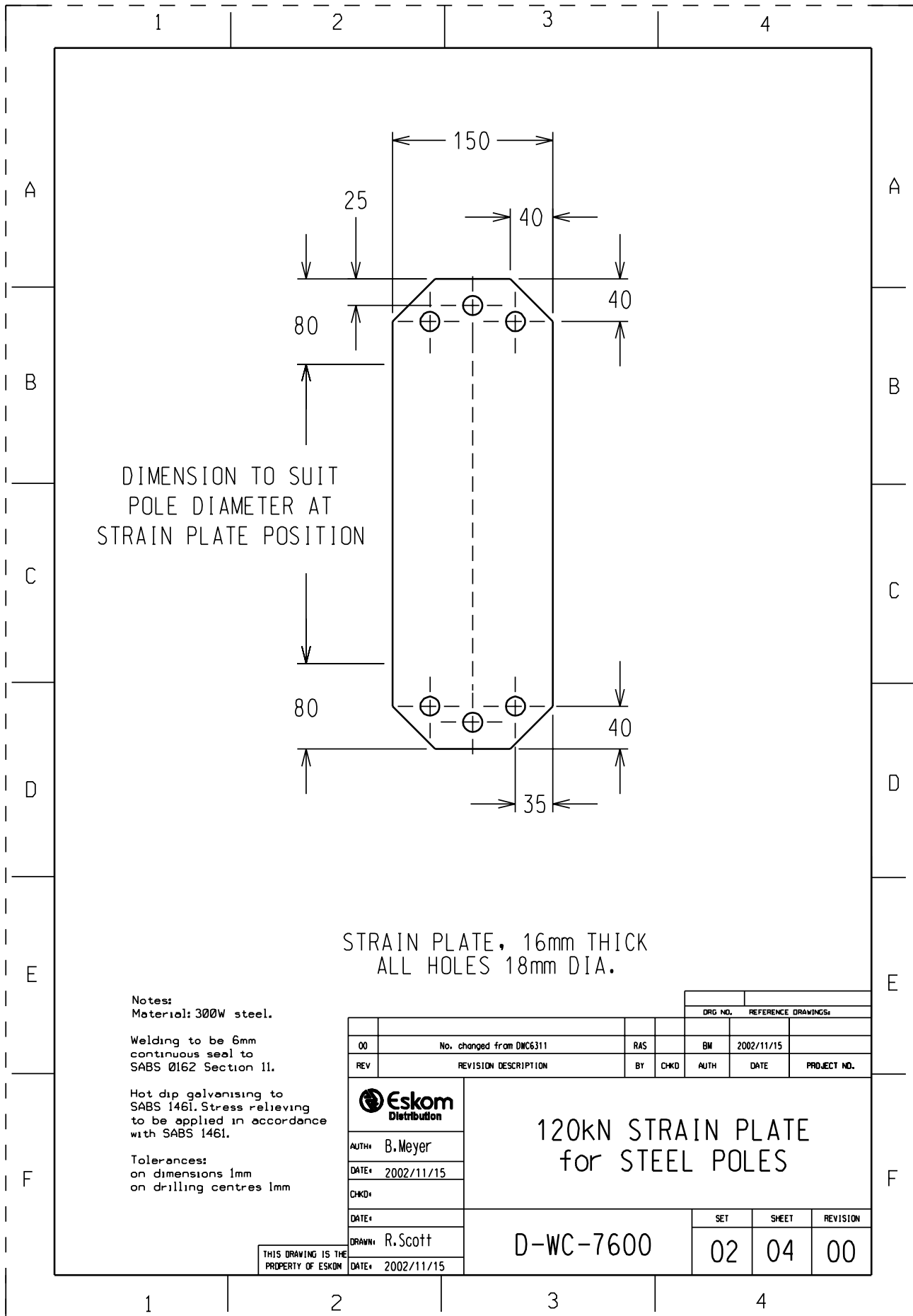
1

2

3

4

A4P



DIMENSION TO SUIT
POLE DIAMETER AT
STRAIN PLATE POSITION

STRAIN PLATE, 16mm THICK
ALL HOLES 18mm DIA.

Notes:
Material: 300W steel.

Welding to be 6mm
continuous seal to
SABS Ø162 Section 11.

Hot dip galvanising to
SABS 1461. Stress relieving
to be applied in accordance
with SABS 1461.

Tolerances:
on dimensions 1mm
on drilling centres 1mm

THIS DRAWING IS THE
PROPERTY OF ESKOM

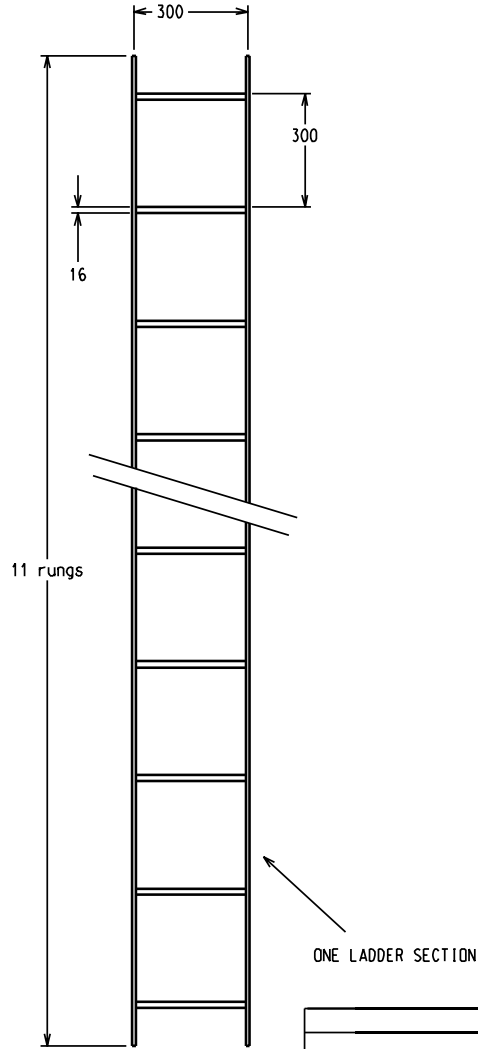
DRG NO.	REFERENCE DRAWINGS:

00	No. changed from DWG6311	RAS		BM	2002/11/15	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

AUTH:	B. Meyer
DATE:	2002/11/15
CHKD:	
DATE:	
DRAWN:	R. Scott
DATE:	2002/11/15

120kN STRAIN PLATE for STEEL POLES			
D-WC-7600	SET	SHEET	REVISION
	02	04	00

Note:
The ladder sizing is approximate.
Construction details and method of securing to the
steel pole are to be specified by the manufacturer.



DRG NO.		REFERENCE DRAWINGS:			

Notes:
Material: 300W Steel

Welding to be 8mm
continuous seal to
SABS 0162 Section 11.

Hot dip galvanising to
SABS ISO 1461. Stress relieving
to be applied in accordance
with SABS ISO 1461

Tolerances:
on dimensions 2mm
on drilling centres 2mm



AUTH: B Meyer

DATE: 19/05/04

CHKD:

DATE:

DRAWN: R A Scott

DATE: 19/05/04

ACCESS LADDER FOR STEEL STRUCTURES

D-WC-7600

SET	SHEET	REVISION
-----	-------	----------

02	06	00
----	----	----

THIS DRAWING IS THE
PROPERTY OF ESKOM

1

2

3

4

A

A

B

B

C

C

D

D

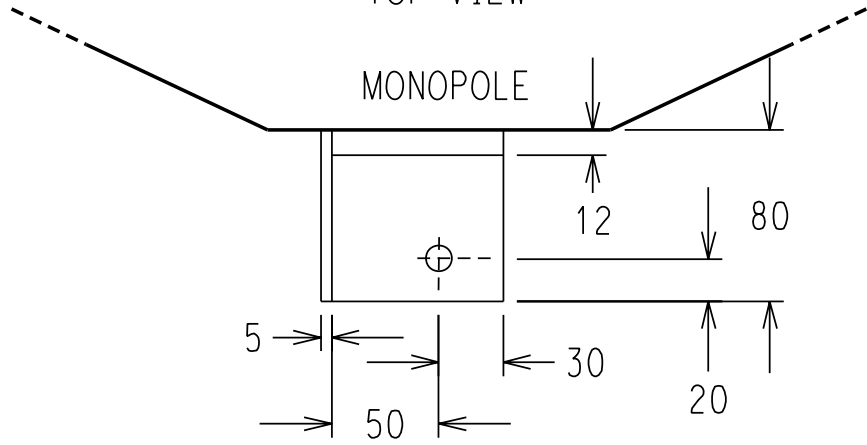
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E

F

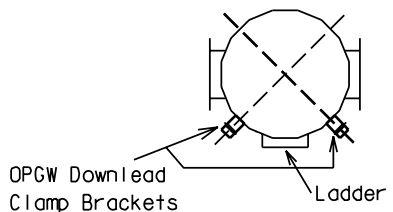
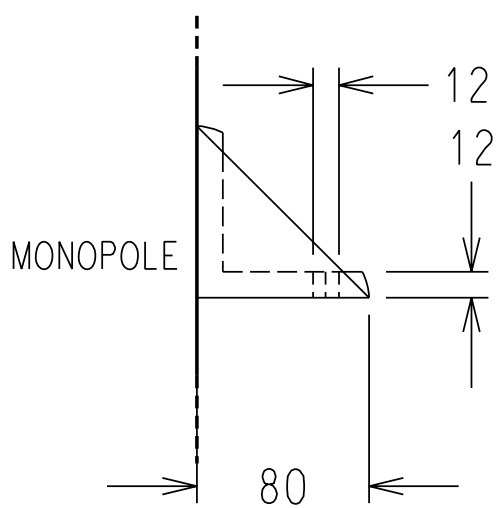
F

TOP VIEW



EQUAL LEG ANGLES, 80mm x 80mm x 12mm
 HOLE 12mm DIA.
 80mm x 80mm x 5mm GUSSET WELDED ON ONE SIDE

SIDE VIEW



These brackets are to be placed at 45 degrees on either side of the ladder at 2m intervals from the shieldwire up to 6m above ground with an additional one in line and 1m below the ladder for the loop or as shown on the structure drawing.
 The bracket was designed to be used with the FIBERLIGN NON-INSULATED & INSULATED DOWNLEAD CLAMP or equivalent as supplied by PLP.

Notes:
 Material: 300W steel.

Welding to be 6mm continuous seal to SABS 10162.

Hot dip galvanising to SANS 121. Stress relieving to be applied in accordance with SANS 121.

Tolerances:
 on dimensions 1mm
 on drilling centres 1mm

THIS DRAWING IS THE PROPERTY OF ESKOM

DRG NO.	REFERENCE DRAWINGS:

REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

Eskom Distribution

AUTH: S Mashabe
 DATE: 3/11/2009
 CHKD:
 DATE:
 DRAWN: F Sattar
 DATE: 3/11/2009

OPGW DOWNLEAD CLAMP BRACKET

D-WC-7600

SET	SHEET	REVISION
07	01	00

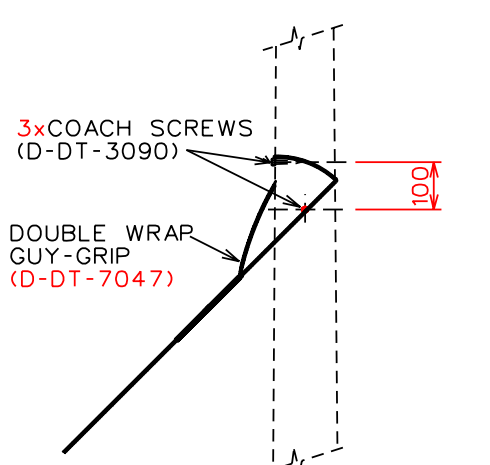
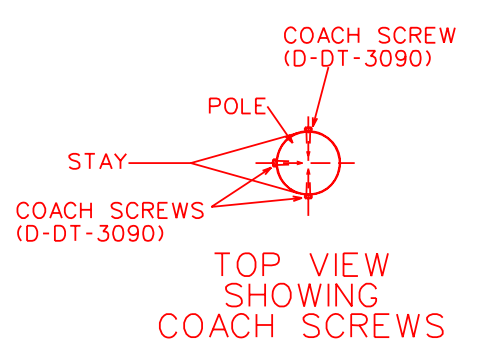
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2

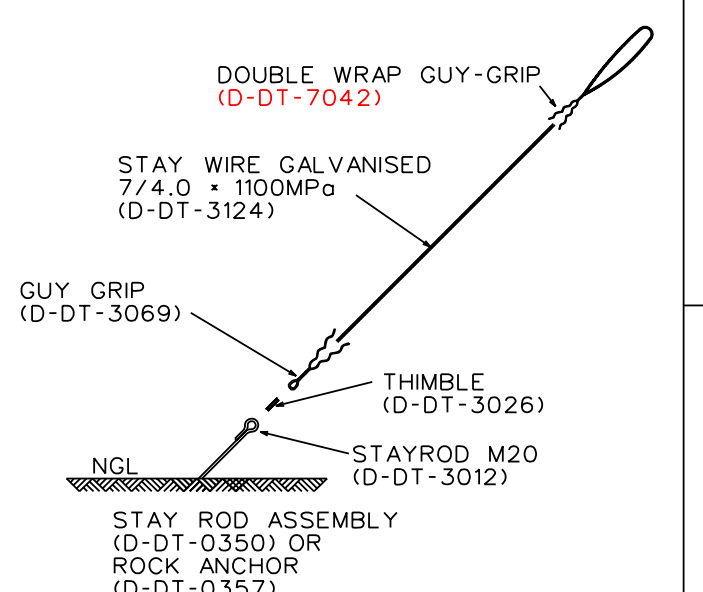
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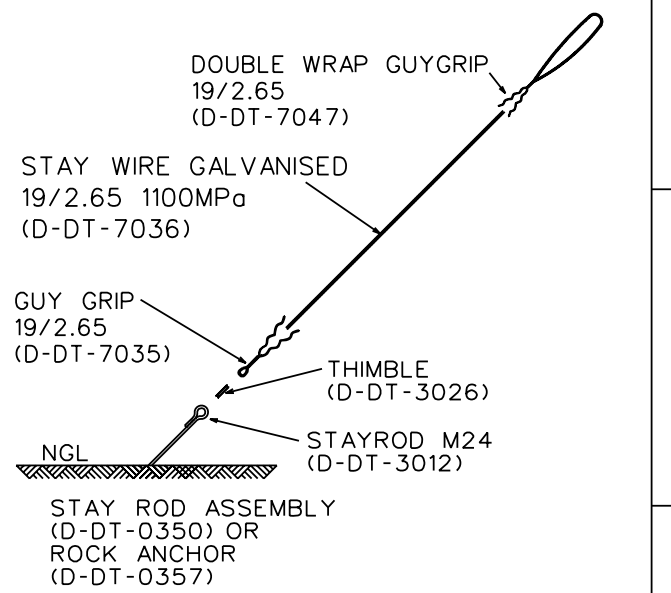
A



- NOTE :
1. 'SINGLE WRAP' NOT ACCEPTABLE.
 2. COACH SCREW TO BE POSITIONED ON THE SAME SIDE AS THE STAY.
 3. UPPER COACH SCREW 100mm ABOVE LOWER TWO COACH SCREWS.



97kN (M20) STAY ASSEMBLY



115kN (M24) STAY ASSEMBLY

3	COACH SCREW DIMENSION ADDED AND DRG. NO.'S CORRECTED	P.A.T.	S.MASHABA	B. HILL	06.10.2010	
2	M24 STAY WIRE UPDATED AND TITLE BLOCK CHANGED	P.A.T.	S. MASHABA		18.05.2009	
1	DRAWING SHEET UPDATED	SLR	RAB	AB	JAN 2004	
REV	REVISION DESCRIPTION	BY	CHKD	AUTH	DATE	PROJECT NO.

Eskom
Distribution

AUTH: A BEKKER

DATE: JAN 2004

CHKD: RAB

DATE: JAN 2004

DRAWN: PAV

DATE: APRIL 2000

DISTRIBUTION TECHNOLOGY

SUB-TRANSMISSION LINES

ASSEMBLY AND INFORMATIVE DRAWINGS


NON-ADJUSTABLE STAY ASSEMBLY

D - DT - 7310

SET	SHEET	REVISION
1	1	3

1.1.2. Earthing


SPEC SHEET

SAP MATERIAL No.:		0400772							
SHORT DESCRIPTION:		STRIP, CU FL 3.0x50mm ANNEALED D6045							
TECH. DESCRIPTION:									
FLAT COPPER STRIP * ANNEALED * 50mm x 3.0mm THICK * 45kg COILS * 138, 4kg/100m * ESKOM DRAWING No. D-DT-6045 *									
ITEM		:- STRIP, CU FL 3.0x50mm ANNEALED D6045							
MATERIAL SPECIFICATION		:- COPPER							
CORROSION SPECIFICATION		:- N/A							
STANDARD SPECIFICATION		:- N/A							
ESKOM SPECIFICATION		:- SABS 182 - 1968							
TEST & CERTIFICATION REQUIREMENTS		:- N/A							
INSPECTION		Yes	No	ESKOM RELEASE NOTE		Yes	No		
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS									
3	SAP 0017204 CORRECTED			P.A.T.	D.RAMJASS	D.RAMJASS	26.01.2017		
2	LOGO IN TITLE BLOCK CHANGED AS PER CORPORATE IDENTITY.			VvZ	C.B.C.	C.CLARK	16/02/2004		
1	SFD & SPECS UPDATED			VvZ	C.B.C.	A.BEKKER	10/01		
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	REF. DRAWINGS	
AUTH:	PHIL CROWDY	DATE:	12/96	SCALE	 D-DT-6045		SAP No:		
CHKD:	C.B. CLARK	DATE:	12/96	NTS			0400772		
				CAD REF:			SET	SHEET	REV
DRAWN:	J.F.SCHOLTZ	DATE:	10/96	SERIES 6000					
				FILE No:	1	1	3		
				6045					

Unique Identifier:240-48887441


Revision 1

SPEC SHEET

SAP MATERIAL No.:	0171336							
SHORT DESCRIPTION:	WIRE,ELECTRICAL:EARTH;16 MM2;CU;BARE							
TECH. DESCRIPTION:	WIRE, ELECTRICAL: TYPE: EARTH; SIZE: 16 MM2; STRUCTURE: 7 STRANDS 1.72MM DIA; MATERIAL: CU; INSULATION: BARE; RATING: 140 A; COLOR: ORANGE; LENGTH: 1000 M/ROLL; ESKOM DRAWING No. D-DT-3139 *							
SAP MATERIAL No.:	0213597							
SHORT DESCRIPTION:	WIRE,ELECTRICAL:BARE;185 MM2;CU;BARE							
TECH. DESCRIPTION:	WIRE, ELECTRICAL: TYPE: BARE; SIZE: 185 MM2; STRUCTURE: 37 STRANDS 2.5MM DIA; MATERIAL: CU; INSULATION: BARE; RATING: 625 A; COLOR: ORANGE; LENGTH: 500 M/ROLL; USED FOR ECC IN HV INSTALLATIONS; ESKOM DRAWING No. D-DT-3139 *							
ITEM	:- WIRE, ELECTRICAL							
MATERIAL SPECIFICATION	:- ANNEALED COPPER							
CORROSION SPECIFICATION	:-							
STANDARD SPECIFICATION	:- SANS 1411-1							
ESKOM SPECIFICATION	:-							
TEST & CERTIFICATION REQUIREMENTS	:-							
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No	
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS								
7	ADDED COPPER CLAD STEEL OPTIONS	P.A.T.	J. BLAAUW	B. MCLAREN	02.06.2016			
6	ITEMS UPDATED ACCORDING TO PILOG	P.A.T.	J. MAUDU	J. MAUDU	25.08.2014			
5	STANDARD SABS CHANGED TO SANS	D.D.N.	P.A.VERMAAK	P.A.VERMAAK	02.12.2004			
REV	REVISION DESCRIPTION		BY	CHKD	AUTH	DATE	REF. DWGS	
AUTH:	P. CROWDY	DATE:	17.07.1995	 D-DT-3139		SAP No:		
CHKD:	J. SWAN	DATE:	17.07.1995			0171336		
DRAWN:	P.A. VERMAAK	DATE:	11.05.1995			0213597		
						SET	SHEET	REV
						2	1	7

1.2. Sleeve / Manhole System

SPEC SHEET

SAP MATERIAL No.:	0234529							
SHORT DESCRIPTION:	DUCT,FIBRE OPTIC HDPE 32mm OD D8081							
TECH. DESCRIPTION:								
<p>FIBRE OPTIC CABLE DUCT *</p> <p>32mm OUTER DIAMETER * 26mm INNER DIAMETER *</p> <p>SUITABLE FOR DIRECT BURIAL * 10 BAR PRESSURE RATING *</p> <p>MANUFACTURED USING VIRGIN HDPE WITH SOLID CO-EXTRUDED PERMANENT LUBRICATING INNER LAYER *</p> <p>UV STABILISED * COLOUR : YELLOW *</p> <p>SUPPLIED WITH PRE-INSTALLED PILOT ROPE / DRAW WIRE OF BREAKING STRAIN 1000N (MIN) *</p> <p>MARKED WITH CONTRASTING LETTERING AT 1 METER INTERVIALS SHOWING DATE OF MANUFACTURER, DUCT DIMENSIONS, SEQUENTIAL METER MARKING *</p> <p>SUPPLIED ON WOODEN DRUMS * DRUM LENGTH TO SUIT PROJECT *</p> <p>ESKOM DRAWING No. D-DT-8081 *</p>								
SAP MATERIAL No.:	0234539							
SHORT DESCRIPTION:	DUCT,TWIN FIBRE OPTIC DTS D8081							
TECH. DESCRIPTION:								
<p>TWIN FIBRE OPTIC DUCT FOR DISTRIBUTED TEMPERATURE SENSING (DTS) *</p> <p>ASSEMBLY OUTER SIZE = 12.3 x 17.3mm (NOMINAL) *</p> <p>DUCT CONSISTS OF :</p> <p>2 x 5mm OUTER DIAMETER PRIMARY TUBES (3.5mm INNER DIAMETER) WITH LOW FRICTION PERFORMANCE *</p> <p>METAL FREE MOISTURE BARRIER AROUND THE PRIMARY TUBE PAIR *</p> <p>FLEXIBLE PE INNER SHEATH THICKNESS = 1.5mm (NOMINAL) *</p> <p>DURABLE PE OUTER SHEATH THICKNESS = 1.9mm (MINIMUM) *</p> <p>OUTER SHEATH UV STABILISED * COLOUR : ORANGE *</p> <p>SUITABLE FOR DIRECT BURIAL *</p> <p>SUPPLIED WITH PRE-INSTALLED RIPCORD FOR INNER SHEATH REMOVAL *</p> <p>MARKED WITH CONTRASTING LETTERING AT 1 METER INTERVIALS SHOWING DATE OF MANUFACTURER AND SEQUENTIAL METER MARKING *</p> <p>TESTED TO ASTM D1693 FOR ENVIRONMENTAL STRESS CRACK RESISTANCE (ESCR)*</p> <p>TESTED TO IEC 60794-1-2-E3 FOR CRUSH TEST USING PLATE LOADED WITH 700N FOR 60 SECONDS *</p> <p>SUPPLIED ON DRUMS * DRUM LENGTH TO SUIT PROJECT *</p> <p>ESKOM DRAWING No. D-DT-8081 *</p>								
ITEM	:- FIBRE OPTIC DUCTS							
MATERIAL SPECIFICATION	:-							
CORROSION SPECIFICATION	:-							
STANDARD SPECIFICATION	:-							
ESKOM SPECIFICATION	:- D-DT-8081							
TEST & CERTIFICATION REQUIREMENTS :-								
INSPECTION	Yes	No	ESKOM RELEASE NOTE			Yes	No	
IDENTIFICATION:- INDELIBLE MANUFACTURES TRADEMARK & PART No. ON ALL ITEMS								
REV	REVISION DESCRIPTION			BY	CHKD	AUTH	DATE	REF. DWGS
AUTH:	R. KELLY	DATE:	15/07/08	SCALE		SAP No:		
CHKD:	R. KELLY	DATE:	15/07/08	CAD REF:		0234529		
				SERIES 8000		0234539		
DRAWN:	P.A. VERMAAK	DATE:	23.05.2008	FILE No:	D-DT-8081	SET	SHEET	REV
				8081		1	1	0

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