


OVERHEAD CONSTRUCTION MANUAL


Section 1 – Attachments

Approved by: C Noel

SET		DESCRIPTION		PAGE	DWG.No.	SET	DESCRIPTION		PAGE	DWG.No.	
		<u>SERVICES</u>				<u>LV CONSTRUCTION</u>					
1-1	Service bracket to x-arm	1-1	4920-A4-1	51-1	LV single x-arm (100x100) to pole	1-51	4920-A4-51				
1-2	Single phase fuse bracket to wood pole			51-2	LV single x-arm (100x150) to pole						
1-2C	Single phase fuse bracket to concrete pole			51-3	LV twin x-arm to pole						
1-3	Support hook to pole			51-4	LV single x-arm to PT bracket/pole						
2-1	Three phase fuse bracket to wood pole	1-2	4920-A4-2	51-5	LV twin x-arm to PT bracket/pole	1-52	4920-A4-52				
2-1C	Three phase fuse bracket to concrete pole			52-1	LV x-arm stabiliser						
2-2	Service reel to pole			52-2	LV twin x-arm spacer						
2-4	Cable cover to x-arm			52-3	LV x-arm (100x100) anti-split						
3-1	Service raiser to pole	1-3	4920-A4-3	52-4	LV x-arm (100x150) anti-split	1-53	4920-A4-53				
3-2	LV fuse-switch to xarm - 630A			53-1	LV brace to x-arm & pole (100)						
3-3C	Support hook to concrete pole			53-2	LV brace to x-arm & pole (150)						
3-4	Fuse adaptor bracket to fuse bracket			53-3	LV twin brace to x-arm & pole (100)						
4-1C	Reel to concrete pole	1-4	4920-A4-4	53-4	LV twin brace to x-arm & pole (150)	1-54	4920-A4-54				
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4-3C	U-bracket to concrete pole			54-2	LV reel to x-arm						
4-4	Yoke Plate to eyebolt			54-3	LV reel to pole (coachscrew)						
4-4C	Yoke Plate to bow adaptor			54-4	LV reel to pole (bolt & nut)	1-55	4920-A4-55				
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		55-2	LV uplift reel to x-arm								
		55-3	LV angle reel to pole								
				55-4	Neutral marker	1-56	4920-A4-56				
		56-1	LV termination reel to single x-arm								
		56-2	LV shackle reel to single x-arm								
		56-3	LV shackle reel to twin x-arm								
				56-4	LV termination reel to twin x-arm	1-57	4920-A4-57				
		57-1	LV isolating switch to x-arm - 630A								
		57-2	LV isolating switch to x-arm - 800A								
		57-3	LV insulator screw to x-arm								
				57-4	MDI to wood pole	1-58	4920-A4-58				
		58-1	LV S/L Suspension Rod to x-arm								
		58-2	LV fuse-switch to x-arm - 800A								
ORIGINAL ISSUE DATE 24-6-09 APPD R. ENGLISH CKD J.TUNNEY DRN J.TUNNEY INDEX UPDATED		 ©COPYRIGHT 2009 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX		OVERHEAD CONSTRUCTION MANUAL			APP'D	Pat Pearl	TECH STDS		AUTOCAD
				ATTACHMENTS INDEX			DATE	12-05-94	4920-A4		G
							REC'D		SECT	PAGE	
							CKD	Ron Walker	1	i	
							DWN	M. Welsh	SHEET 1 OF 1		
							FILE:				

SET	DESCRIPTION	PAGE	DWG.No.	SET	DESCRIPTION	PAGE	DWG.No.
	<u>ABC POLE CONNECTIONS</u>						
101-1	Hook bolt to pole (300 long)	1-101	4920-A4-101	153-1	11kV/33kV x-arm (100) anti-split bolt	1-153	4920-A4-153
101-2	Hook bolt to pole (400 long)			153-2	11kV/33kV x-arm (150) anti-split bolt		
101-3	Eyebolt to pole			153-3	11kV/33kV x-arm stabiliser		
101-4	Eyebolt & eyenut to pole			153-4	11kV/33kV wishbone x-arm attachment		
102-1	3PH Fuse Switch to Wood Pole - with 315A Fuses	1-102	4920-A4-102	154-1	11kV pin to x-arm (normal)	1-154	4920-A4-154
102-2	3PH Fuse Switch to Wood Pole - with 630A Links			154-2	11kV pin to x-arm (fog)		
102-3	Extension bracket to Wood Pole			154-3	33kV bridging post to x-arm		
102-4	3PH Fuse Switch to Wood Pole - with 200A Fuses			154-4	11kV bridging pin (short) to x-arm		
				154-5	11kV bridging pin (long) to x-arm		
		154-6	33kV pin insulator to x-arm				
	<u>HV CONSTRUCTION GENERAL</u>						
	Nail plate orientation	1-150	4920-A4-150	155-1	11kV reel angle to x-arm (150)	1-155	4920-A4-155
				155-2	11kV post insulator to composite x-arm		
				155-3	11kV line post to pole (gain base)		
				155-4	33kV line post insulator to pole		
	<u>11kV/33kV CONSTRUCTION</u>						
151-1	11kV/33kV x-arm (100x100) to pole	1-151	4920-A4-151	156-1	11kV termination composite x-arm (100x100)	1-156	4920-A4-156
151-11	11kV composite x-arm (100x100) to pole			156-11	11kV termination composite x-arm (125x125)		
151-2	11kV/33kV x-arm (100x150) to pole			156-2	11kV shackle composite x-arm (100x100)		
151-21	11kV composite x-arm (125x125) to pole			156-21	11kV shackle composite x-arm (125x125)		
151-3C	X-arm brace adaptor to concrete pole			156-3	11kV/33kV suspension to x-arm		
151-4	11kV/33kV wishbone x-arm to pole			156-4	11kV/33kV suspension angle to x-arm		
152-1	11kV/33kV brace (650) to x-arm (100)	1-152	4920-A4-152	157-1	11kV termination to pole composite x-arm (100x100)	1-157	4920-A4-157
152-11	11kV brace (650) to composite x-arm (100)			157-11	11kV termination to pole composite x-arm (125x125)		
152-2	11kV/33kV brace (650) to x-arm (150)			157-2	11kV shackle composite x-arm to pole (100x100)		
152-21	11kV brace (650) to composite x-arm (125)			157-21	11kV shackle composite x-arm to pole (125x125)		
152-3	33kV brace (1000) to x-arm (150)			157-3	11kV/33kV termination direct to pole		
152-4	33kV brace (1000) to x-arm (100)			157-4	11kV/33kV shackle direct to pole		

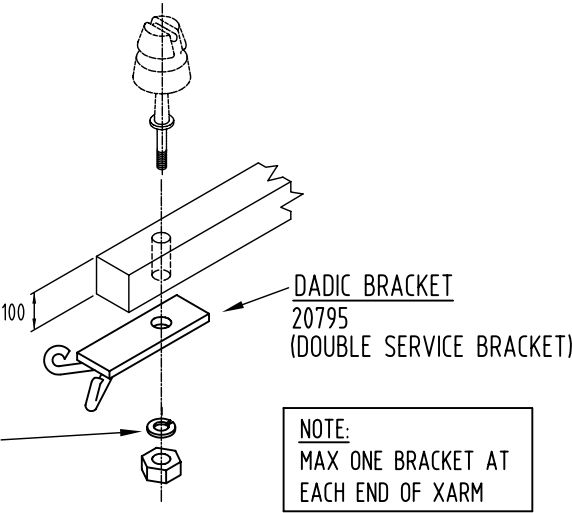
SET		DESCRIPTION	PAGE	DWG.No.	SET	DESCRIPTION	PAGE	DWG.No.		
		<u>11kV/33kV CONSTRUCTION</u>								
158-1	11kV/33kV termination twin x-arm to pole -obsolete		1-158	4920-A4-158	168-1	Gain base to pole	1-168	4920-A4-168		
158-2	11kV/33kV termination twin x-arm - obsolete				168-2	Twin gain base to pole				
159-1	11kV/33kV shackle twin x-arm to pole - obsolete				168-3	8kN steel x-arm to pole				
159-2	11kV/33kV shackle twin x-arm - obsolete		168-4	13kN steel x-arm to pole						
160-1	11kV/33kV suspension angle to x-arm		1-159	4920-A4-159	169-1	33kV clamp top line post to gain base	1-169	4920-A4-169		
160-2	11kV/33kV angle to pole.				169-2	11kV trident to long raiser				
160-3	Bracket to pole.				169-3	33kV bridging line post to x-arm (100x100)				
160-4	11kV bridging post to bracket - obsolete				169-31	33kV bridging line post to x-arm (125x125)				
161-1	Disc normal (single)		1-160	4920-A4-160	169-4	Eyebolt & eyenut to steel x-arm	1-171	4920-A4-169		
161-2	Disc normal (double)				171-1	Trident Concrete Pole Attachment				
161-3	Disc fog (single)				172-1	Non Standard Concrete Pole Bracket Attachments				
161-4	Disc fog (double)				<u>11kV/33kV CONSTRUCTION AND POLE MOUNTED PLANT</u>					
161-5	11kV synthetic long-rod.									
161-6	33kV synthetic long-rod.		248-1	Bolt-on transformer bracket for Metropolitan concrete pole.					1-248	4920-A4-248
162-1	11kV ABC X-Arm Joints & Terminations		248-2	Hanger bracket to convert bolt-on transformer to hanger type						
163-1	11kV short raiser to pole.		1-163	4920-A4-163	249-1	11kV EDO x-arm (steel) to wood pole - obsolete	1-249	4920-A4-249		
163-2	11kV termination to short raiser				249-2	11kV EDO x-arm (steel) to concrete pole - obsolete				
163-3	11kV Trident to short raiser				249-3	11kV pin to pole.				
163-4	11kV long raiser to pole.				250-1	Bolt-on transformer bracket to wood pole - for 63-315kVA.			1-250	4920-A4-250
164-1	33kV pin to pole.		250-12	Bolt-on transformer bracket to wood pole - for 25kVA.						
164-3	33kV pin to pole.		250-15	Bolt-on transformer bracket to wood pole - for 500kva						
165-1	11kV isolating switch to x-arm.		250-1C	Bolt-on transformer bracket to concrete pole - for 63-315kVA.						
165-2	11kV trident bracket to pole.		1-164	4920-A4-164	250-1C5	Bolt-on transformer bracket to concrete pole - for 500kva	1-251	4920-A4-251		
165-3	11kV line post insulator to pole				251-1	Bolt mounted transformer - round tank.				
165-4	11kV bridging insulator to pole				251-2	Bolt mounted transformer - rectangular tank.				
166-1	11kV line post to trident bracket (tie top).				252-1	Transformer hanger bracket to pole			1-252	4920-A4-252
166-11	33kV line post to trident bracket (tie top).		252-2	11kV surge arrester & adaptor to tank.						
166-2	11kV line post to trident bracket (clamp top).		252-3	Pig tail - obsolete						
166-21	33kV line post to bracket (clamp top).									
166-3	Shackle to steel x-arm.		1-166	4920-A4-166						
167-4	11kV bridging post to x-arm (100x100)									
167-5	11kV bridging post to x-arm (125x125)									

A	ORIGINAL ISSUE	DATE	07/08/19	F. Zaini	P. Relif	L. Burton	INDEX UPDATED SET 252-1, 2 & 3 added	 © COPYRIGHT 2013 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	OVERHEAD CONSTRUCTION MANUAL	APP'D	Pat Pearl	TECH STDS	AUTOCAD
	J	DATE	12-05-94	4920-A4		J							
	APPD	REC'D	SECT		PAGE								
	CKD	Ron Walker	1		iii								
	DRN	M. Welsh	SHEET 1 OF 1										
										DWN	M. Welsh	FILE:	

MATERIAL

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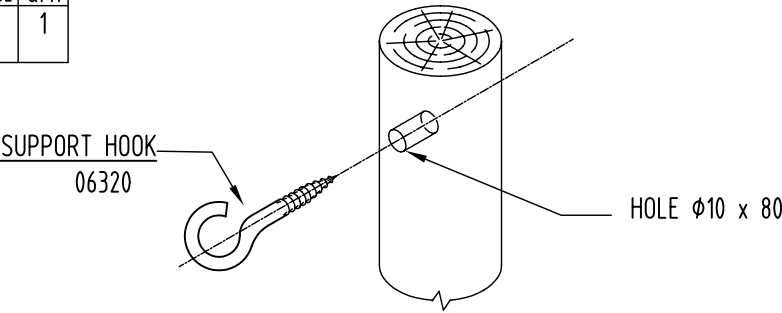
BRACKET MAY BE INSTALLED
TOP OR BOTTOM OF X-ARM



SET1-1 - SERVICE BRACKET TO X-ARM

MATERIAL

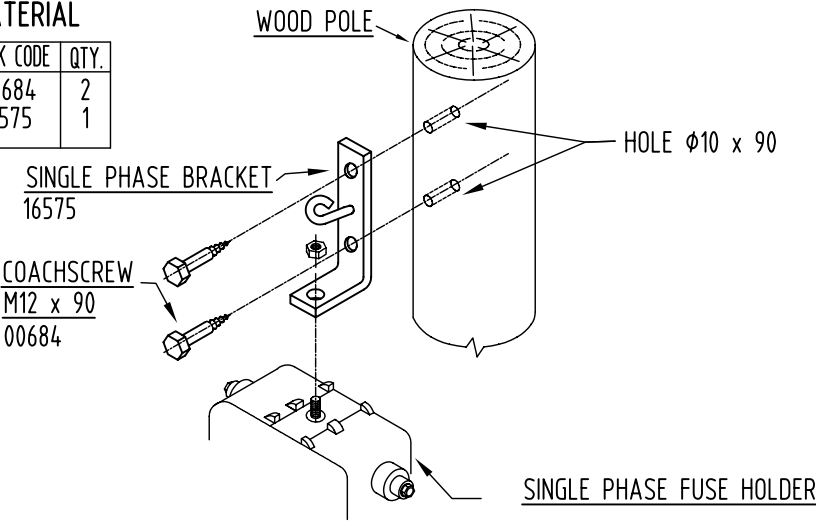
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SET1-3 - SUPPORT HOOK TO POLE

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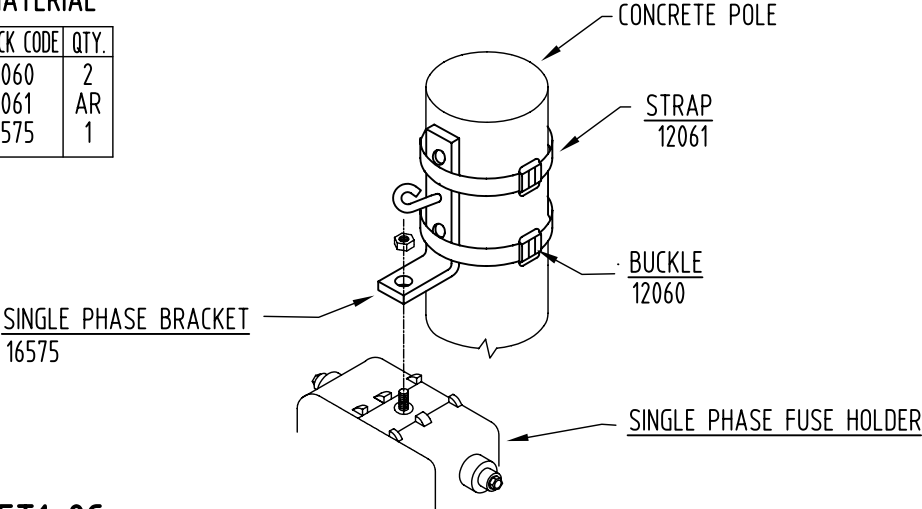
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SET1-2 - SINGLE PHASE FUSE BRACKET TO WOOD POLE


MATERIAL

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12061	AR
16575	1



SET1-2C - SINGLE PHASE FUSE BRACKET TO CONC POLE

A	ORIGINAL ISSUE	
	DATE	15/11/06
	APPD	K.NUTTALL
	CKD	J.TUNNEY
DRN	Gayan Jayaweera	
SET1-1 AMENDED TO SHOW MOUNTING HOOK ABOVE OR BENEATH CROSSARM		



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OVERHEAD CONSTRUCTION MANUAL

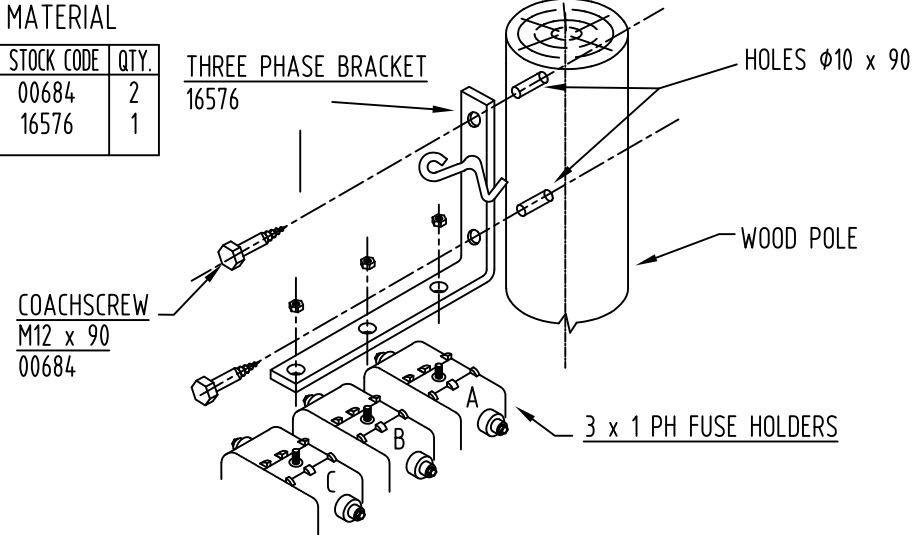
ATTACHMENTS

SERVICES

APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12-05-94	4920-A4		E
REC'D		SECT	PAGE	
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DWN	M. Welsh	SHEET 1 OF 1		
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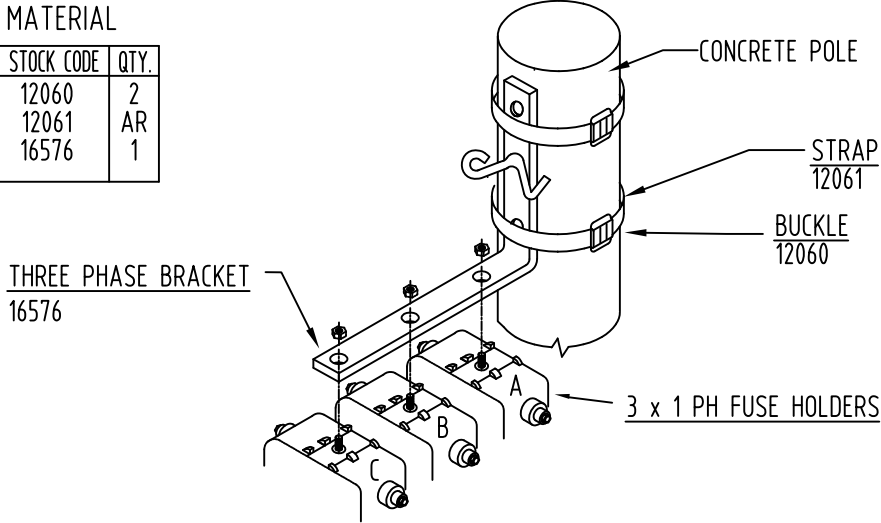
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SET2-1 - THREE PHASE FUSE BRACKET TO WOOD POLE

MATERIAL

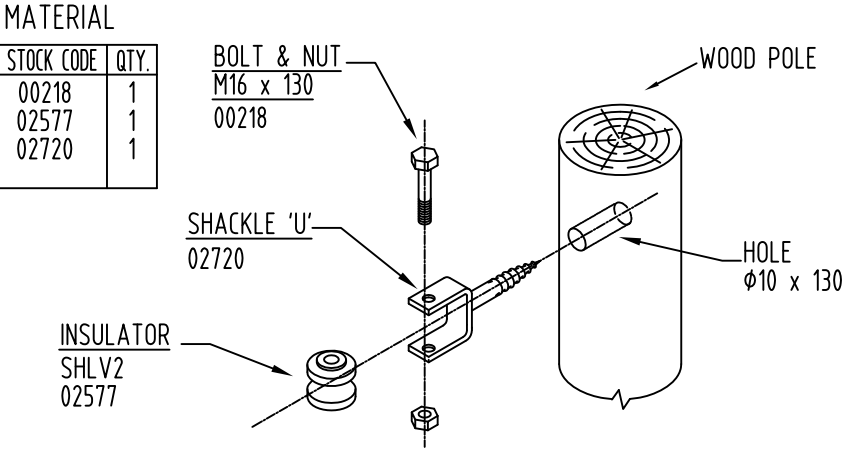
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SET2-1C - THREE PHASE FUSE BRACKET TO CONC POLE

MATERIAL

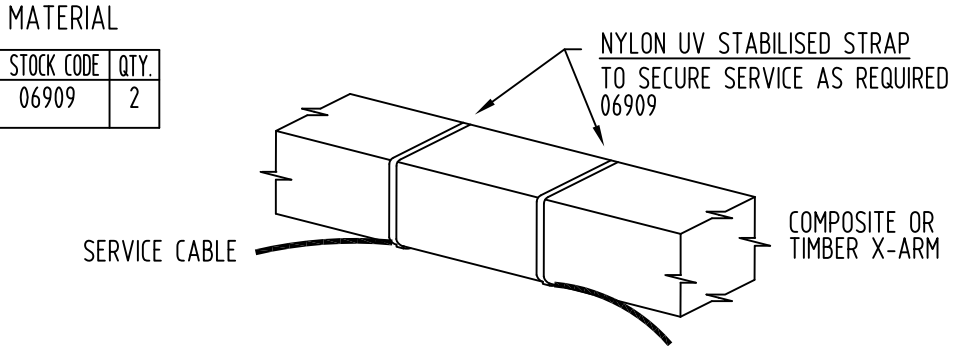
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02577	1
02720	1



SET2-2 - SERVICE REEL TO POLE

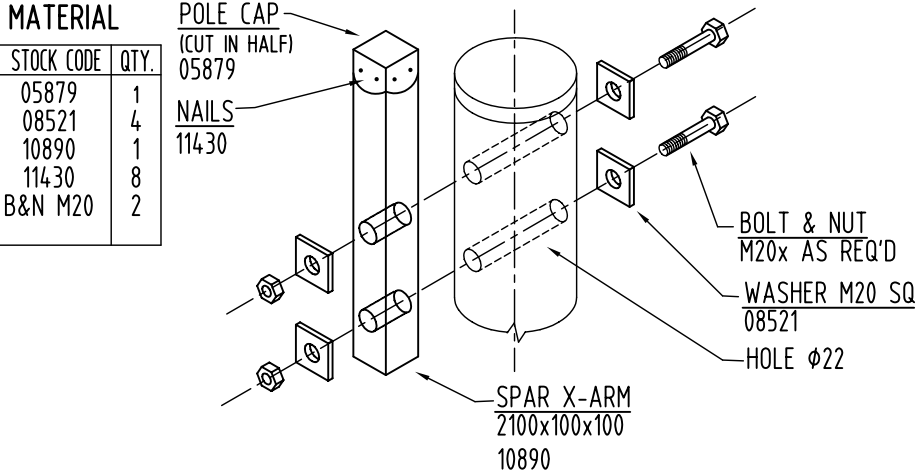
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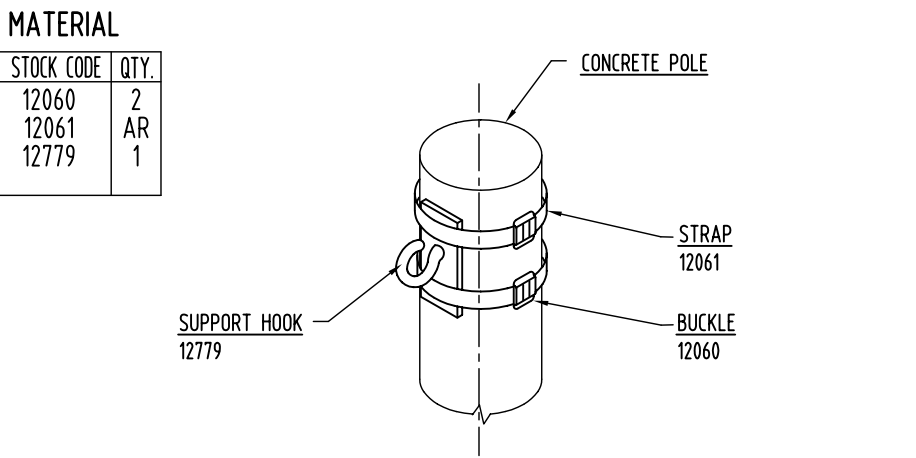


"L" brackets (12466) may be used as an alternative arrangement on timber crossarms only

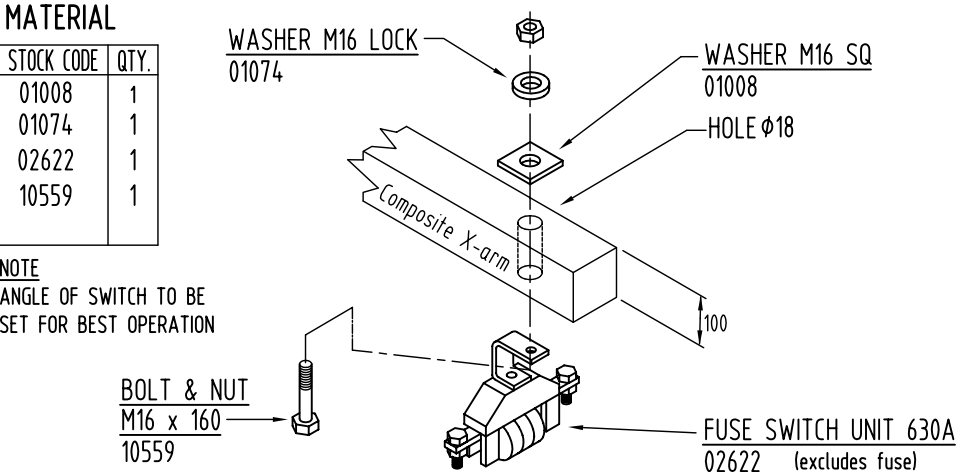
SET2-4 - SERVICE CABLE TO X-ARM



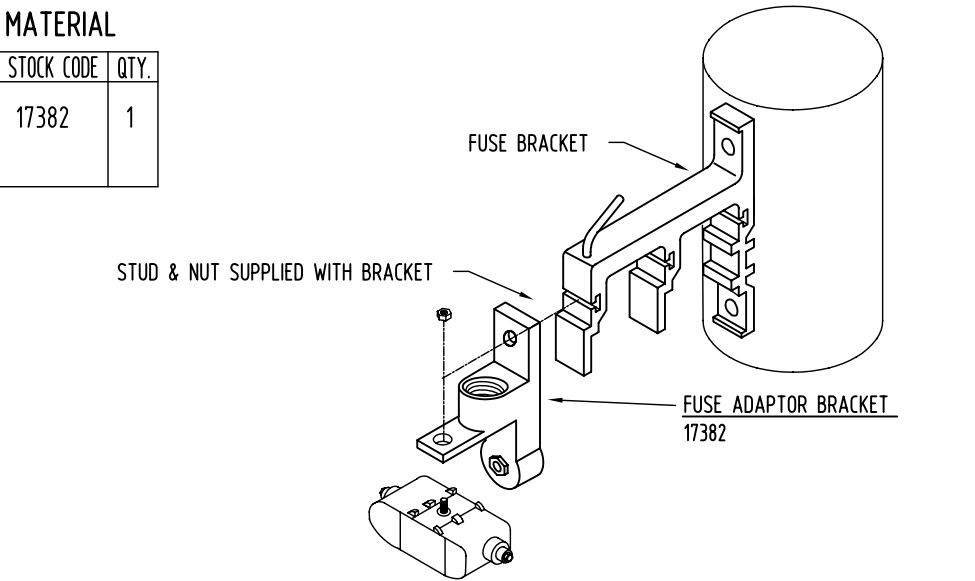
SET3-1 - SERVICE RAISER TO POLE



SET3-3 - SUPPORT HOOK TO CONCRETE POLE



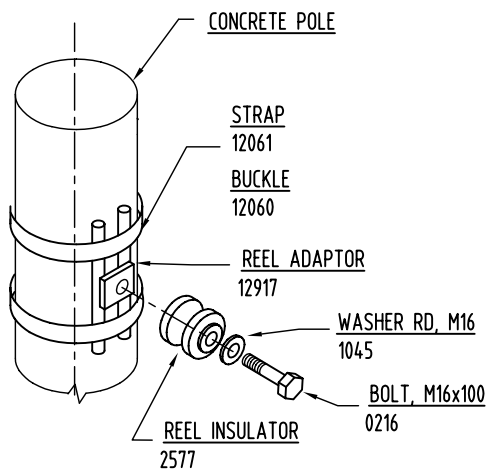
SET3-2 - SERVICE FUSE-SWITCH TO X-ARM - 630A



SET3-4 - FUSE ADAPTER BRACKET TO FUSE BRACKET

MATERIAL

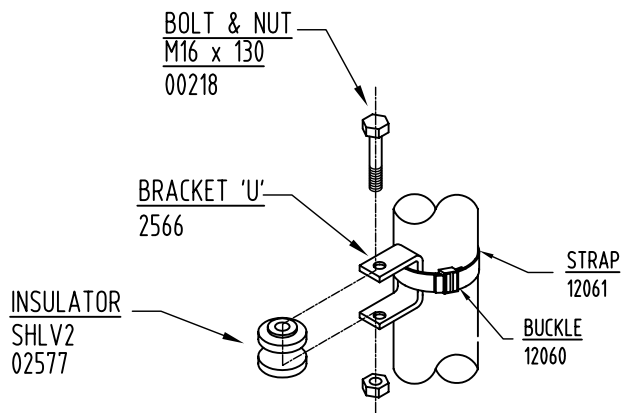
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SET4-1C - REEL TO CONCRETE POLE

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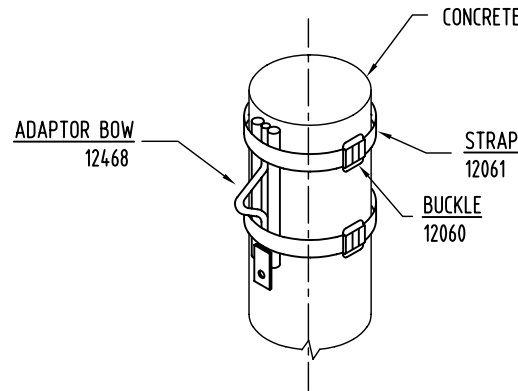
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SET4-3C - U-BRACKET TO CONCRETE POLE

MATERIAL

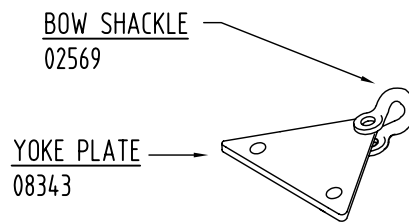
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SET4-2C - ADAPTOR BOW TO CONCRETE POLE

MATERIAL

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08343	1	1
02569	1	1
14799		1



SET4-4 - YOKE PLATE TO EYEBOLT

TWISTED BOW SHACKLE 14799

YOKE PLATE 08343

SET4-4C - YOKE PLATE TO BOW ADAPTOR

A	ORIGINAL ISSUE	C	DATE 15/11/06	APPD KNUUTTALL	CKD J.TUNNEY	DRN G.JAYAWERA	SETS 4-4 ADDED

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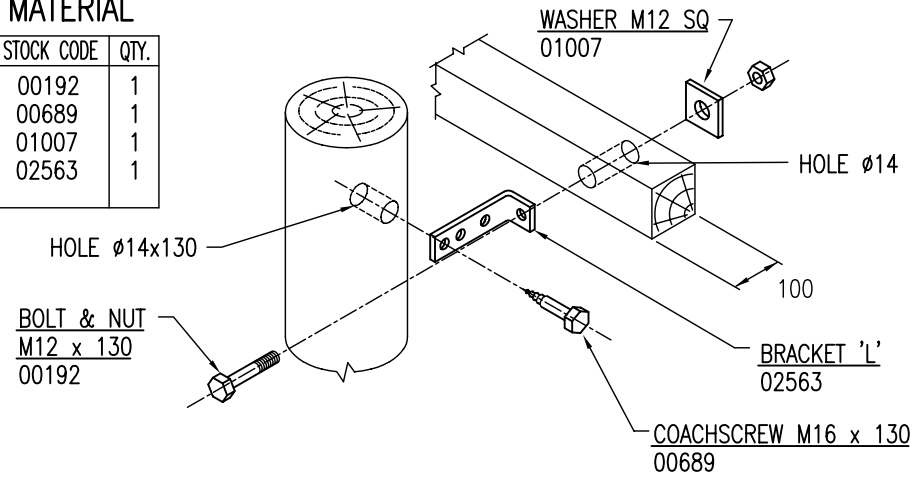
OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS SERVICES

APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12-05-94	4920-A4		C
REC'D		SECT	PAGE	
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CKD	Ron Walker	SHEET 1 OF 1		
DWN	M. Welsh	FILE:ocm\s1\ohc1-04c		

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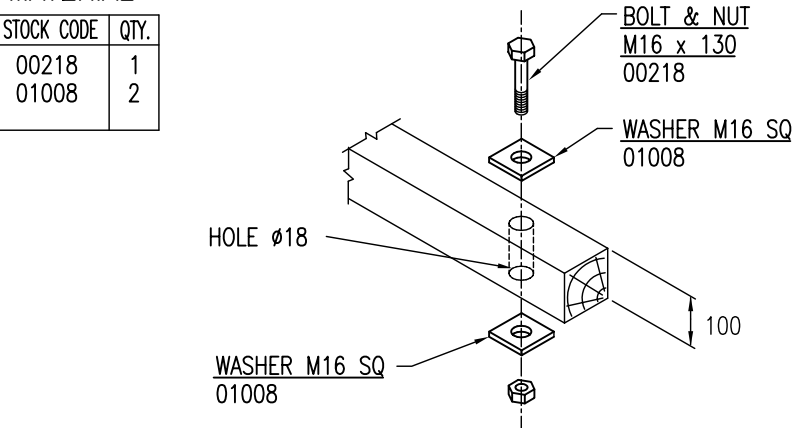
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SET52-1 - LV X-ARM STABILIZER

MATERIAL

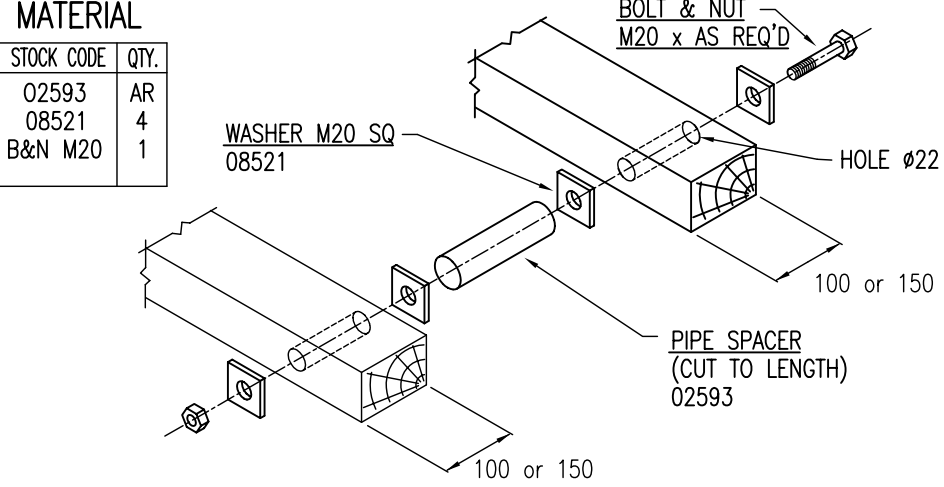
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SET52-3 - LV X-ARM (100x100) ANTI-SPLIT

MATERIAL

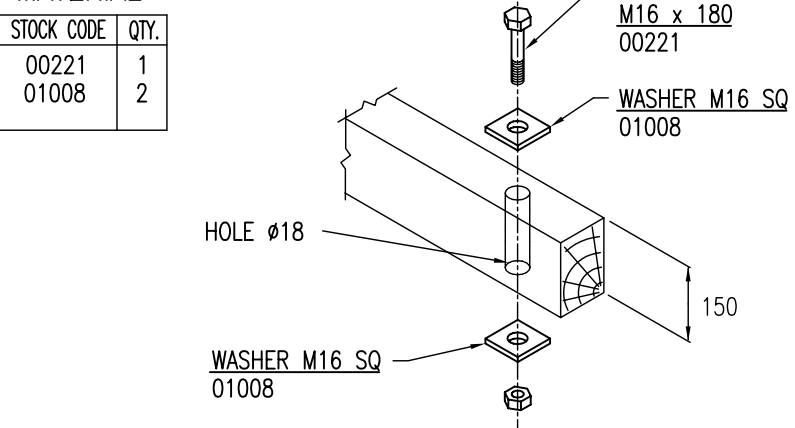
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SET52-2 - LV TWIN X-ARM SPACER

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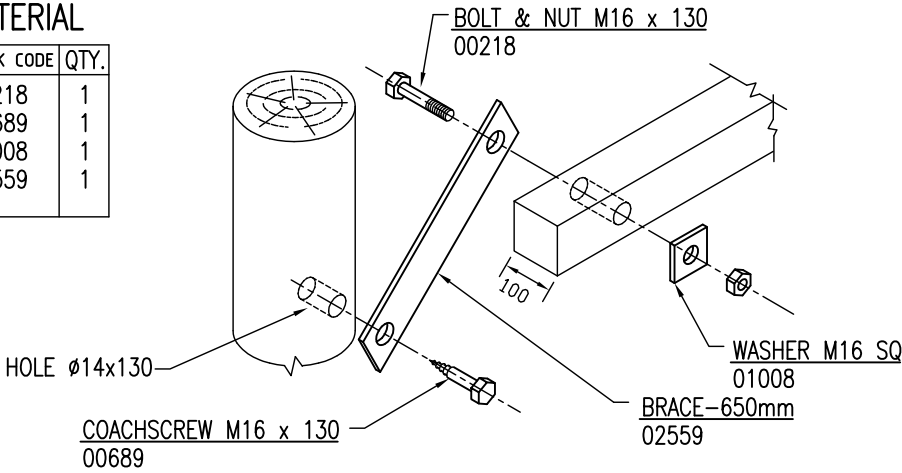
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SET52-4 - LV X-ARM (150x100) ANTI-SPLIT

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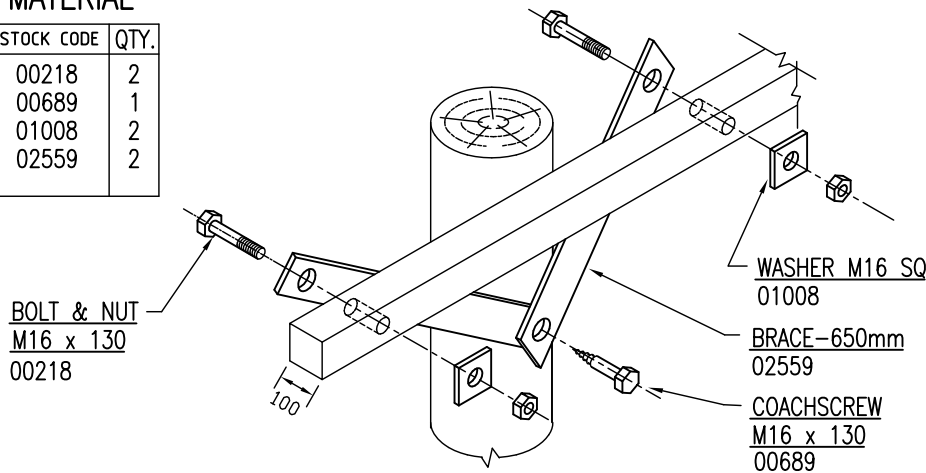
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SET53-1 - LV BRACE TO X-ARM & POLE (100)

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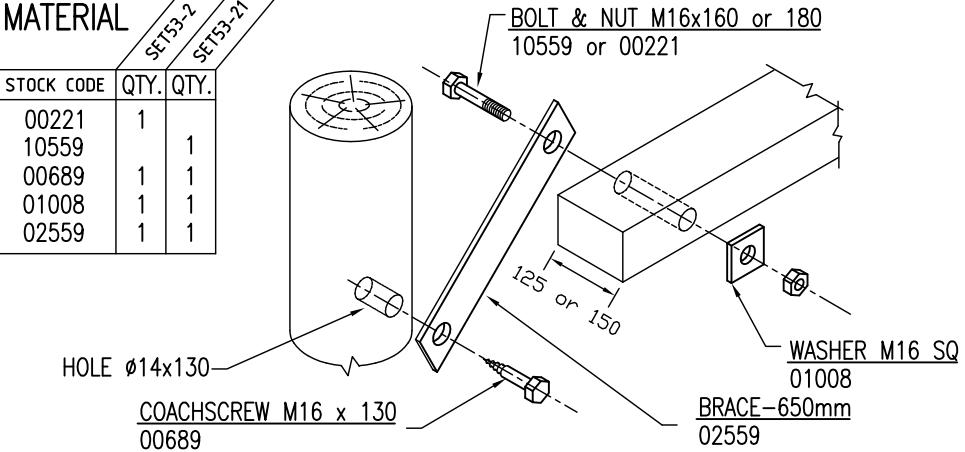
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SET53-3 - LV TWIN BRACE TO X-ARM & POLE (100)

MATERIAL

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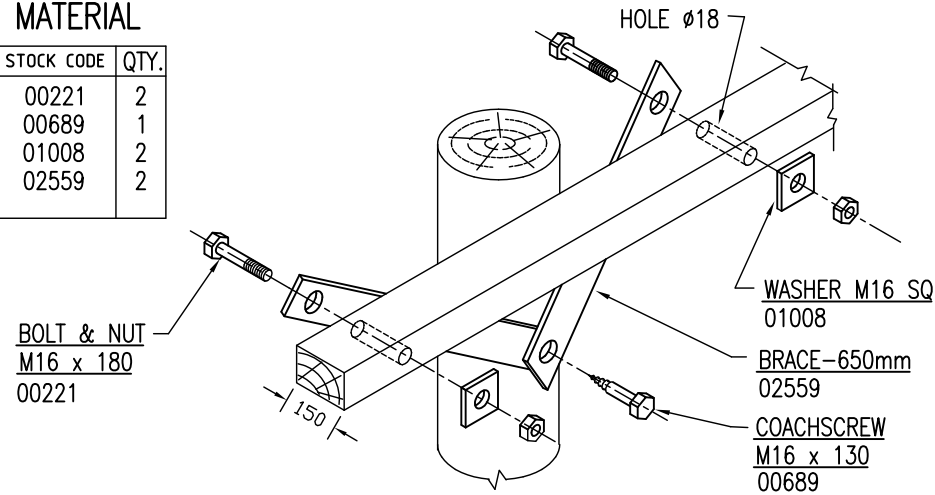


SET53-2 - LV BRACE TO X-ARM & POLE (150)

SET53-21 - LV BRACE TO X-ARM & POLE (125)


MATERIAL

STOCK CODE	QTY.
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00689	1
01008	2
02559	2



SET53-4 - LV TWIN BRACE TO X-ARM & POLE (150)

ORIGINAL ISSUE	DATE	APP'D	CKD	DRN	SET53-21 ADDED FOR 125x125 X-ARM
A	10-10-2012	A. SMITH DE PEREZ	J. TUNNEY	J. TUNNEY	

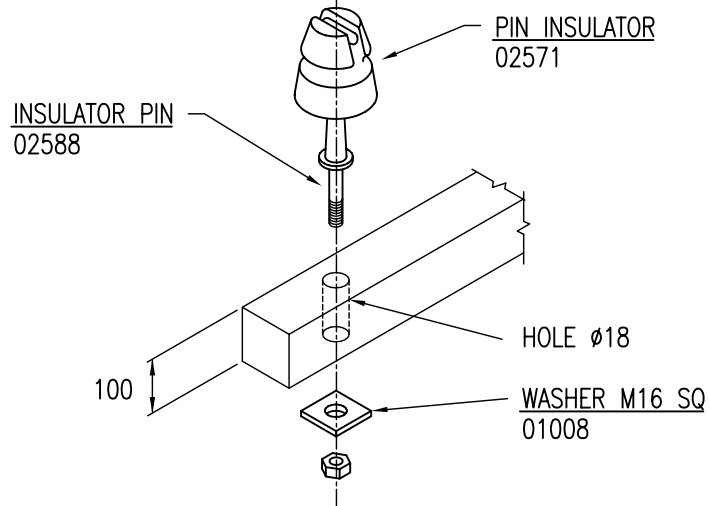

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OVERHEAD CONSTRUCTION MANUAL
ATTACHMENTS
LOW VOLTAGE X-ARM BRACES

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DATE	12-05-94	4920-A4		D
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DWN	M. Welsh	SHEET		1 OF 1
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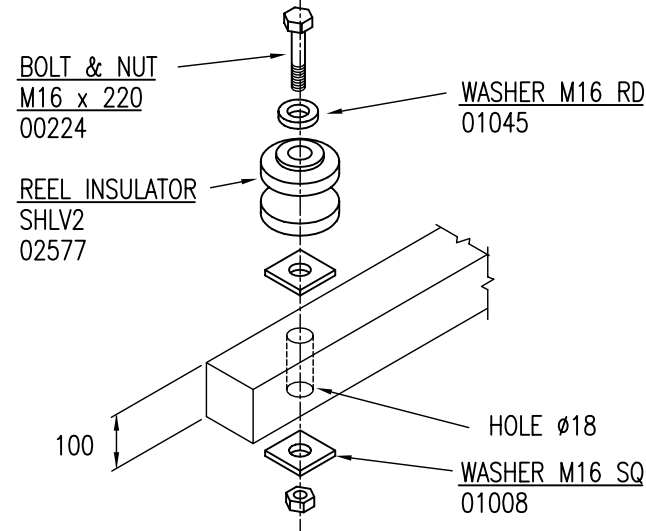
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02571	1
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SET54-1 - LV PIN TO X-ARM

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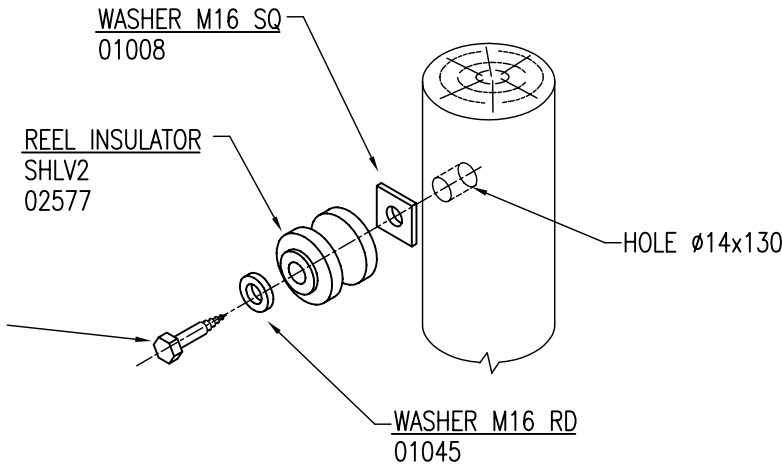
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SET54-2 - LV REEL TO X-ARM

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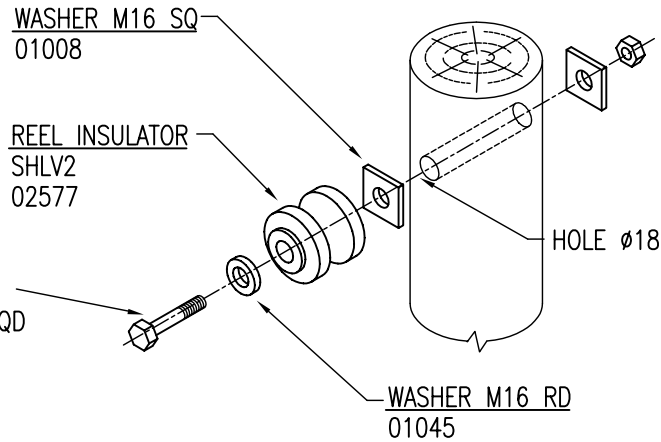
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SET54-3 - LV REEL TO POLE (COACHSCREW)

MATERIAL

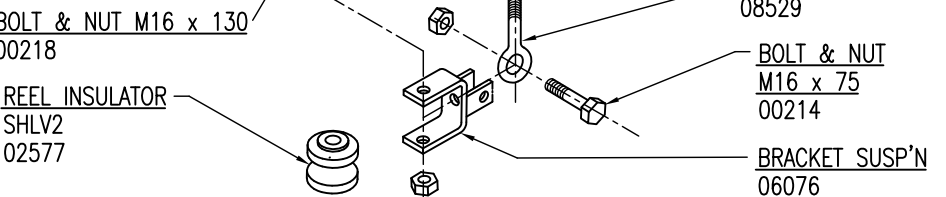
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SET54-4 - LV REEL TO POLE (BOLT & NUT)

MATERIAL

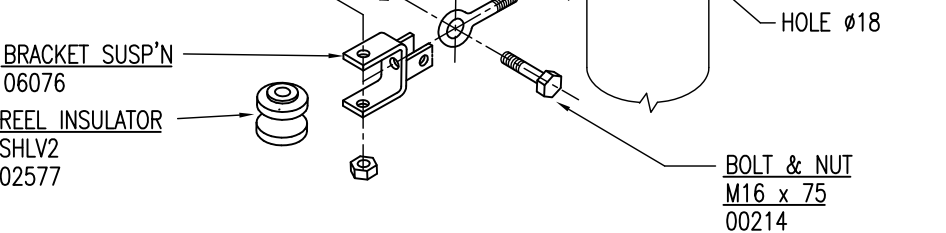
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08529	1
01008	1
01109	1
02577	1
06076	1



SET55-1 - LV SUSPENSION ANGLE REEL TO X-ARM

MATERIAL

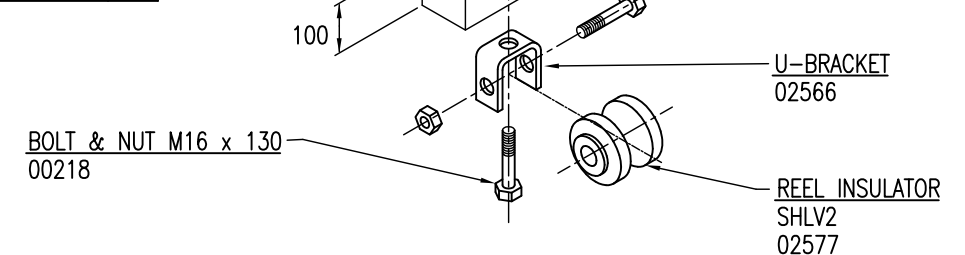
STOCK CODE	QTY.
00214	1
00218	1
01008	2
02577	1
06076	1
E' BOLT M16	1



SET55-3 - LV ANGLE REEL TO POLE

MATERIAL

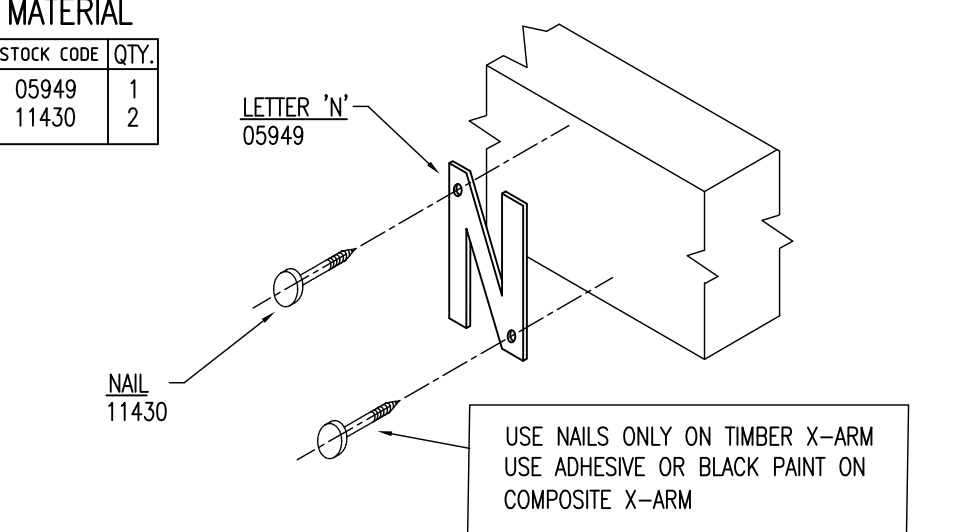
STOCK CODE	QTY.
00218	2
01008	1
02566	1
02577	1



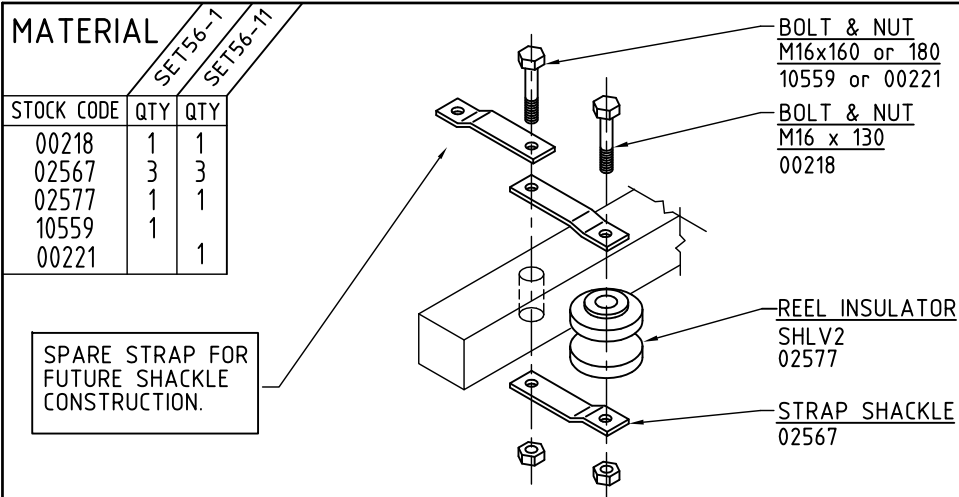
SET55-2 - LV UPLIFT REEL TO X-ARM

MATERIAL

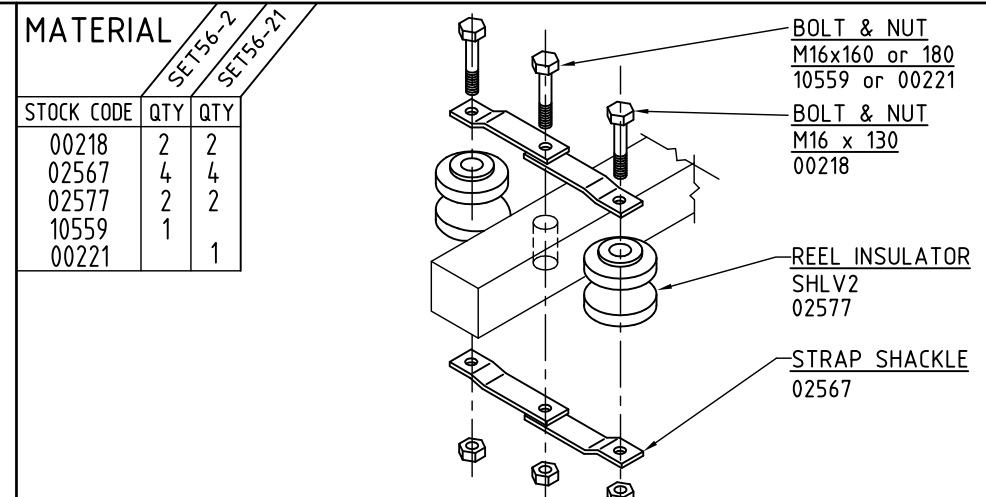
STOCK CODE	QTY.
05949	1
11430	2



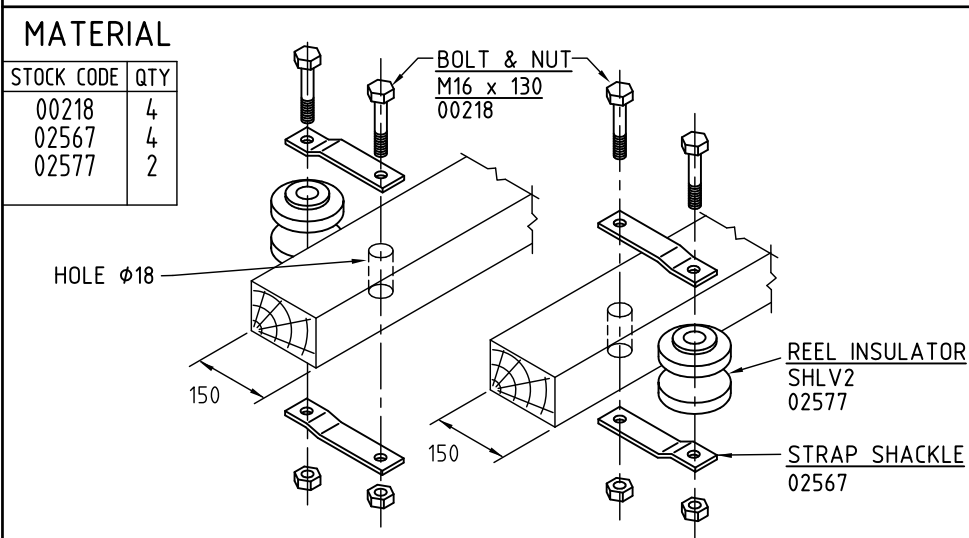
SET55-4 - NEUTRAL MARKER



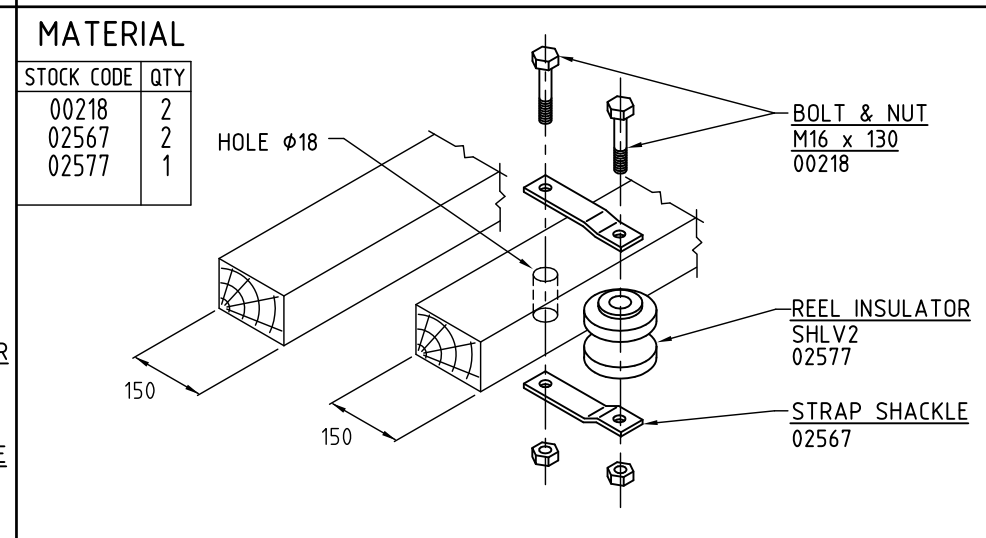
SET56-1 - LV TERMINATION REEL TO 100x100 X-ARM
SET56-11 - LV TERMINATION REEL TO 125x125 X-ARM



SET56-2 - LV SHACKLE REEL TO 100x100 X-ARM
SET56-21 - LV SHACKLE REEL TO 125x125 X-ARM



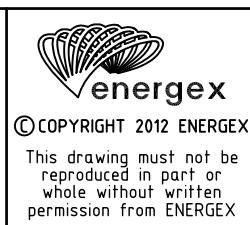
SET56-3 - LV SHACKLE REEL TO TWIN X-ARM



SET56-4 - LV TERMINATION REEL TO TWIN X-ARM

ORIGINAL ISSUE	DATE	APP'D	CKD	DRN
	10-10-2012	A. SMITH DE PEREZ	J. TUNNEY	J. TUNNEY
A	F			

SET56-11, SET56-21
 ADDED FOR 125x125
 X-ARMS



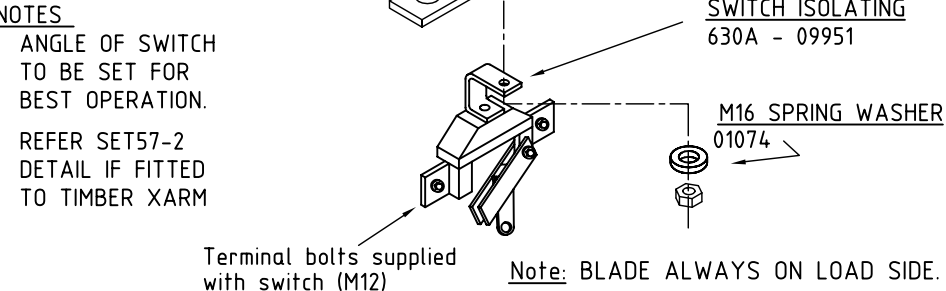
OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS
 LV TERMINATION AND SHACKLE
 INSULATORS

APP'D	Pat Pearl	TECH STDS	AUTOCAD
DATE	12-05-94	4920-A4	F
REC'D		SECT	PAGE
CKD	Ron Walker	1	56
DWN	M. Welsh	SHEET	1 OF 1
FILE:ocm\s1\ohc-056e			

MATERIAL

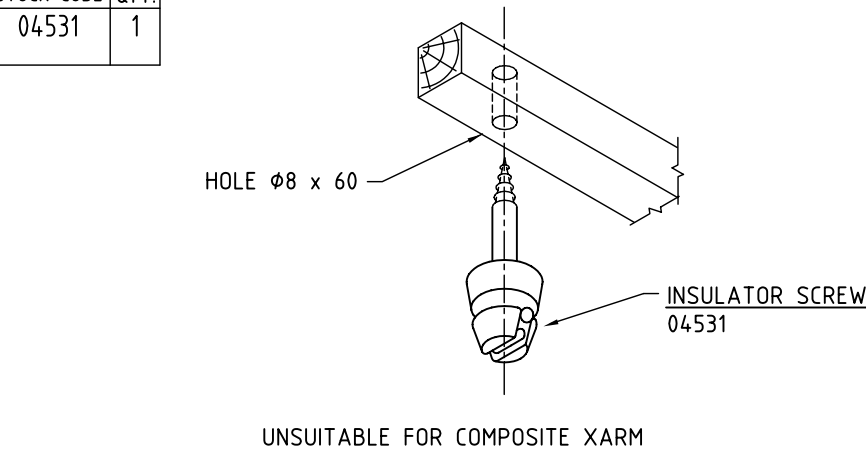
STOCK CODE	QTY.
01074	1
09951	1



SET57-1 - LV ISOLATING SWITCH TO X-ARM - 630A

MATERIAL

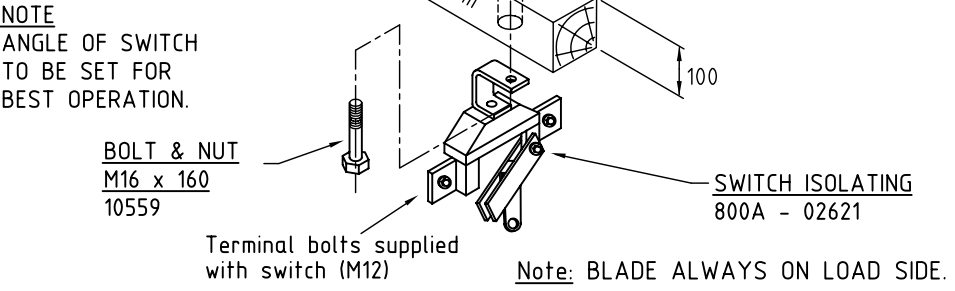
STOCK CODE	QTY.
04531	1



SET57-3 - INSULATOR SCREW TO X-ARM

MATERIAL

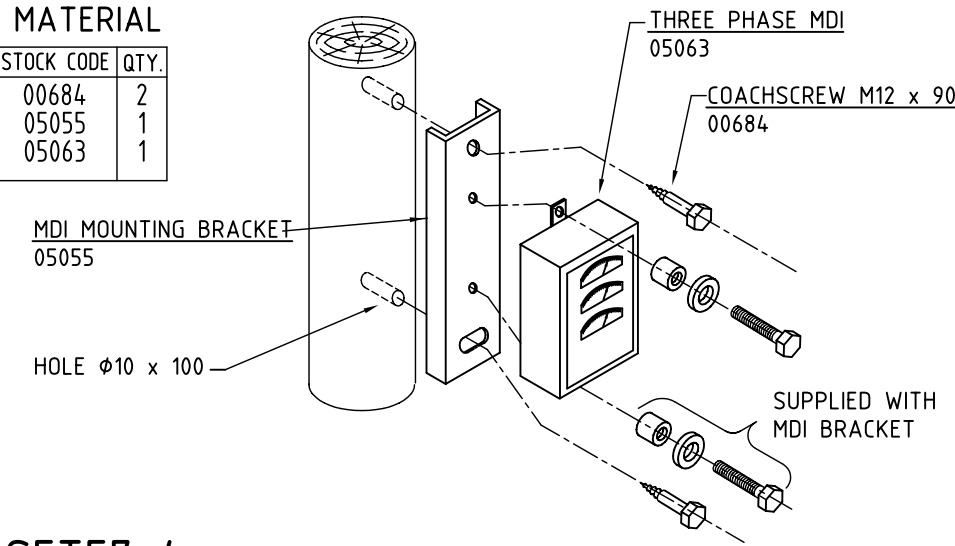
STOCK CODE	QTY.
01008	1
01045	1
02621	1
10446	1
10559	1



SET57-2 - LV ISOLATING SWITCH TO X-ARM - 800A

MATERIAL

STOCK CODE	QTY.
00684	2
05055	1
05063	1



SET57-4 - MDI TO WOOD POLE

ORIGINAL ISSUE	DATE 15/11/06	APPD KNUUTTALL	CKD J.TUNNEY	DRN G.JAYAWERA	TEMPLATE CHANGED	SET57-1 & 2 UPDATED
A	E					

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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

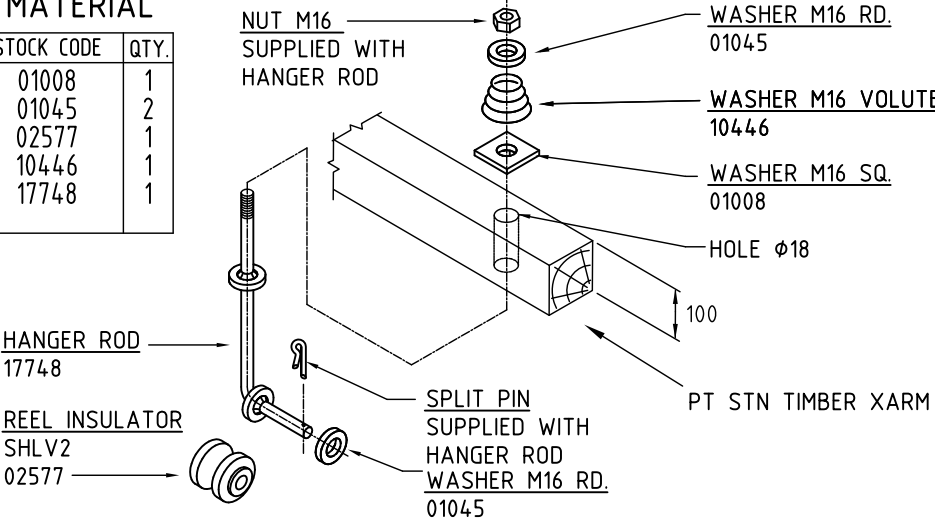
LV ISOLATING SWITCHES

INSULATOR SCREW & MDI

APP'D Pat Pearl	TECH STDS	AUTOCAD
DATE 12-05-94	4920-A4	E
REC'D	SECT 1	PAGE 57
CKD Ron Walker	SHEET 1 OF 1	
DWN M. Welsh	FILE:ocm\s1\ohc-057e	

MATERIAL

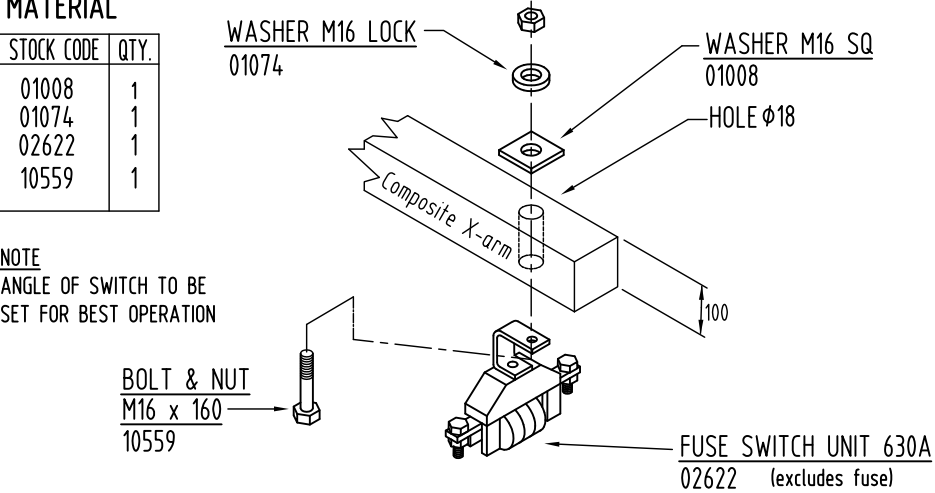
STOCK CODE	QTY.
01008	1
01045	2
02577	1
10446	1
17748	1



SET58-1 - LV S/L SUSPENSION ROD TO X-ARM

MATERIAL

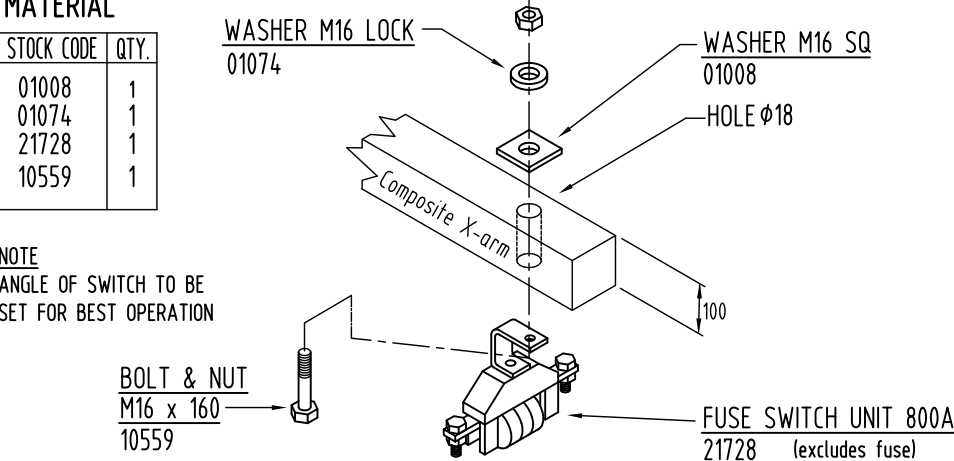
STOCK CODE	QTY.
01008	1
01074	1
02622	1
10559	1



SET58-3 - FUSE-SWITCH TO X-ARM - 630A

MATERIAL

STOCK CODE	QTY.
01008	1
01074	1
21728	1
10559	1



SET58-2 - FUSE-SWITCH TO X-ARM - 800A

NOTE
ANGLE OF SWITCH TO BE
SET FOR BEST OPERATION

ORIGINAL ISSUE

DATE 8-11-2012

APPD JOHN LANSLEY

CKD J.TUNNEY

DRN J.TUNNEY

SET58-3 added

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OVERHEAD CONSTRUCTION MANUAL

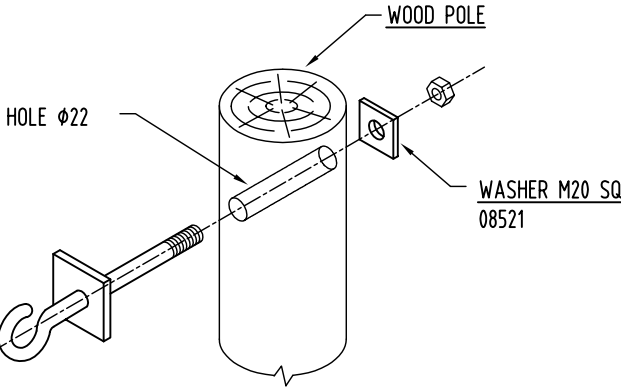
ATTACHMENTS

LV SUSPENSION ROD

APP'D P.PEARL	TECH STDS	AUTOCAD
DATE 31-05-99	4920-A4	E
REC'D John Tunney	SECT 1	PAGE 58
CKD John Tunney	SHEET 1 OF 1	
DWN M. Welsh	FILE:	

MATERIAL

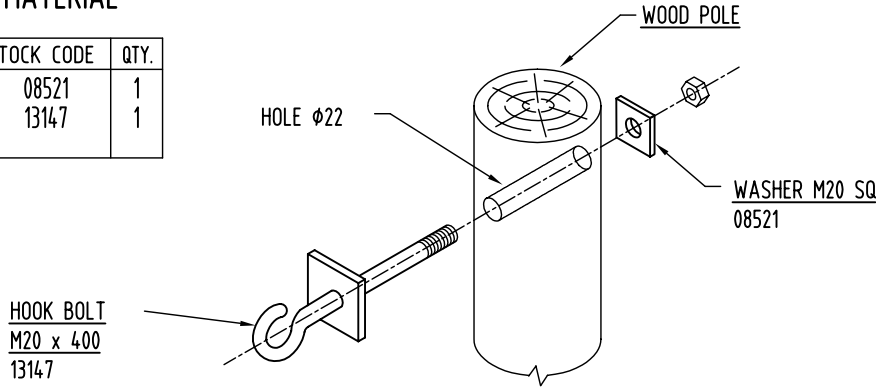
STOCK CODE	QTY.
08521	1
12783	1



SET101-1 - HOOK BOLT TO WOOD OR CONCRETE POLE (300Lg)

MATERIAL

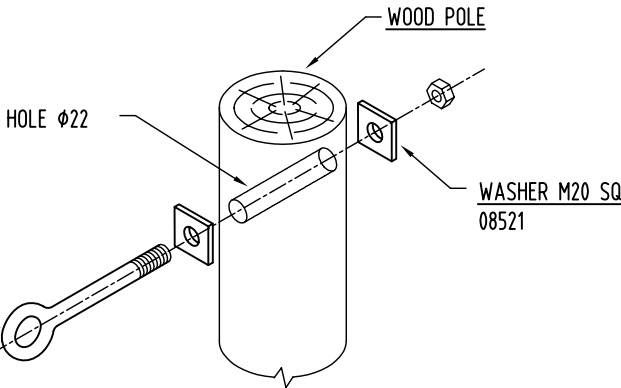
STOCK CODE	QTY.
08521	1
13147	1



SET101-2 - HOOK BOLT TO WOOD OR CONCRETE POLE (400Lg)

MATERIAL

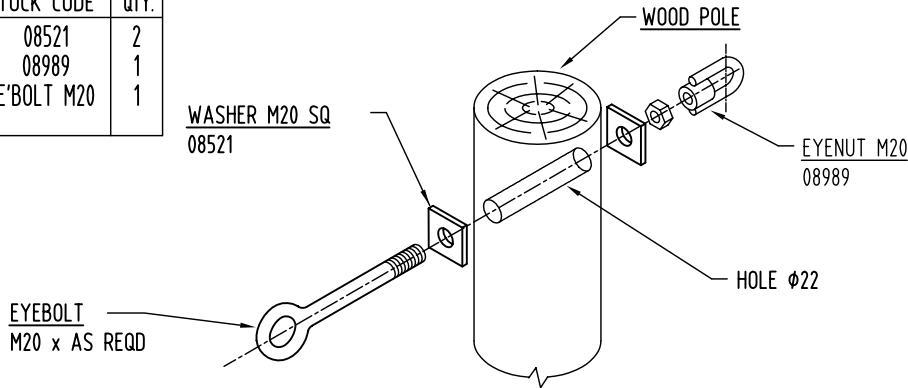
STOCK CODE	QTY.
08521	2
E'BOLT M20	1




SET101-3 - EYEBOLT TO WOOD OR CONCRETE POLE

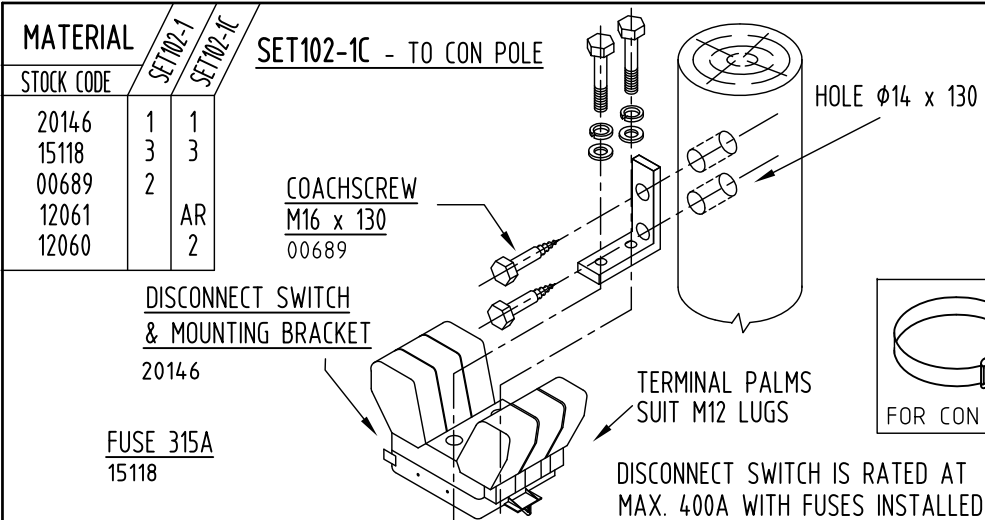
MATERIAL

STOCK CODE	QTY.
08521	2
08989	1
E'BOLT M20	1

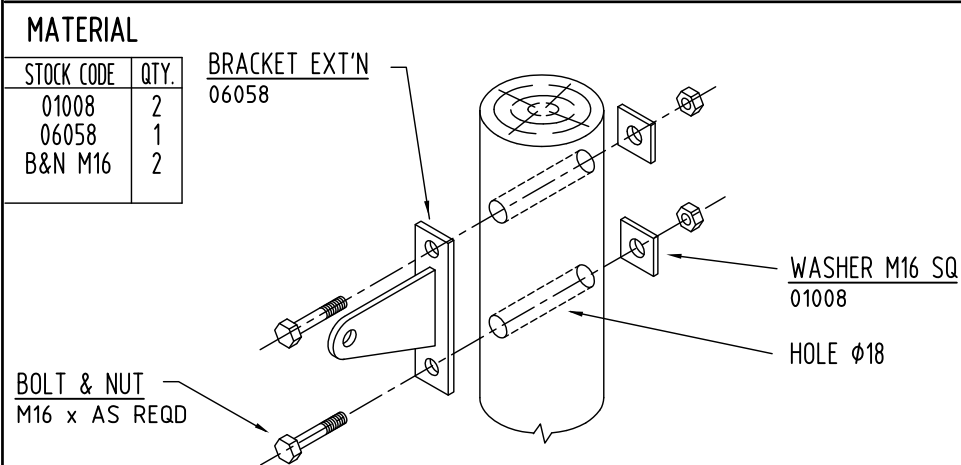


SET101-4 - EYEBOLT & EYENUT TO WOOD OR CONCRETE POLE

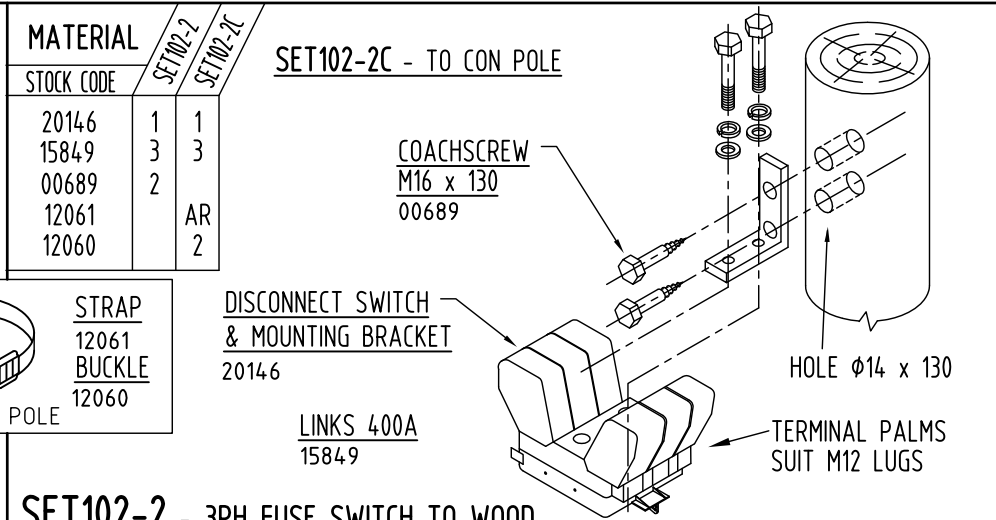
A	ORIGINAL ISSUE	DATE 15/11/06	KNUTTALL	J.TUNNEY	DRN G.JAYAWERA	TEMPLATE CHANGED		 ©COPYRIGHT 2006 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	OVERHEAD CONSTRUCTION MANUAL	APP'D	P.PEARL	TECH STDS		AUTOCAD	
	C									DATE	4920-A4		C		
	REC'D										SECT 1		PAGE 101		
	CKD									R.Walker	SHEET 1 OF 1				
	DWN									M. Welsh	FILE:ocm\s1\ohc-101c				



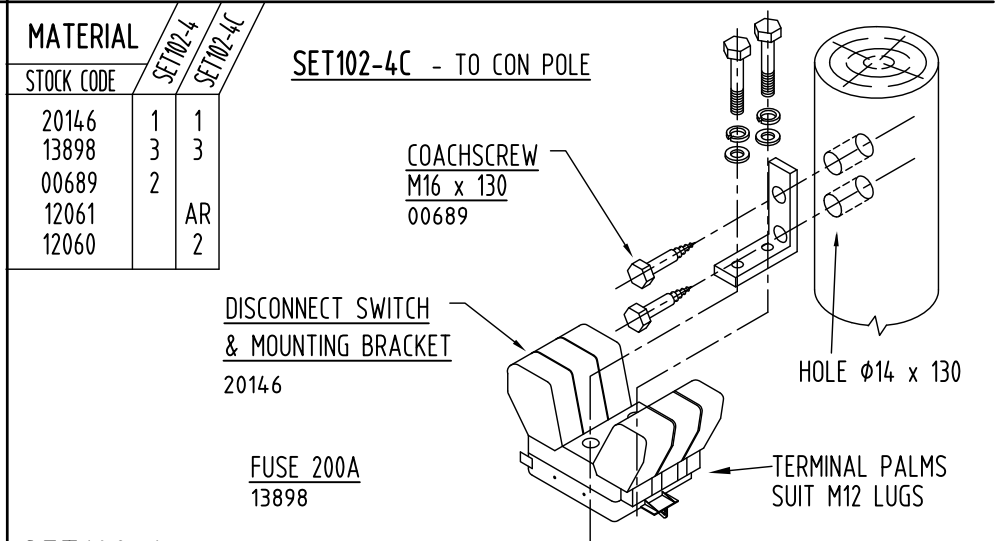
SET102-1 - 3PH FUSE SWITCH TO WOOD POLE - WITH 315A FUSES



SET102-3 - EXTENSION BRACKET TO WOOD POLE

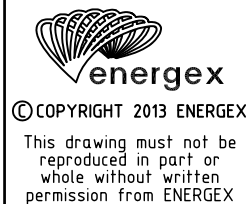


SET102-2 - 3PH FUSE SWITCH TO WOOD POLE - WITH 400A LINKS



SET102-4 - 3PH FUSE SWITCH TO WOOD POLE - WITH 200A FUSES

ORIGINAL ISSUE	DATE	F.ZAINI	J.CHUNG	P.RELF	CORRECT SET102-2 TO 400A
A	D	APPD	CKD	DRN	
	31/11/2013				

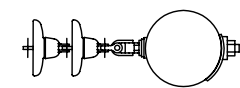
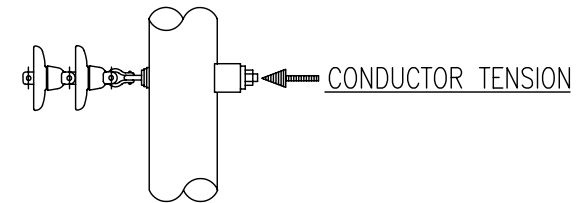
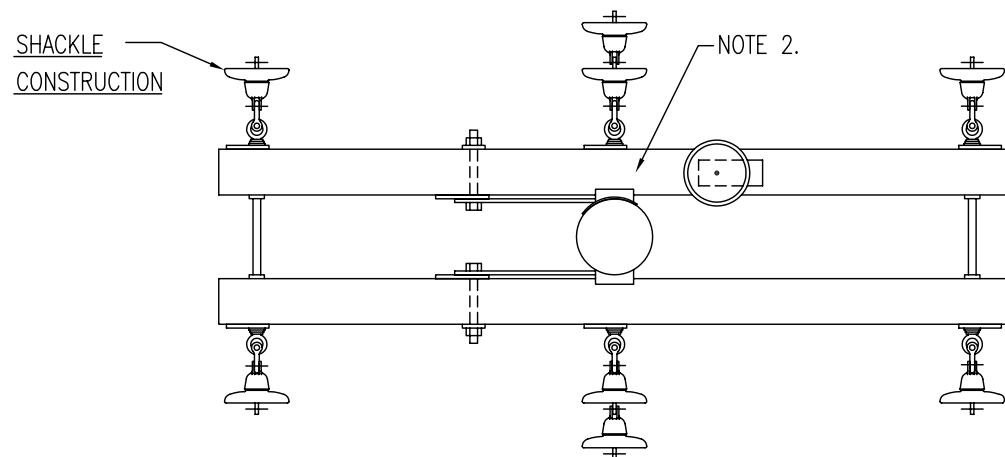
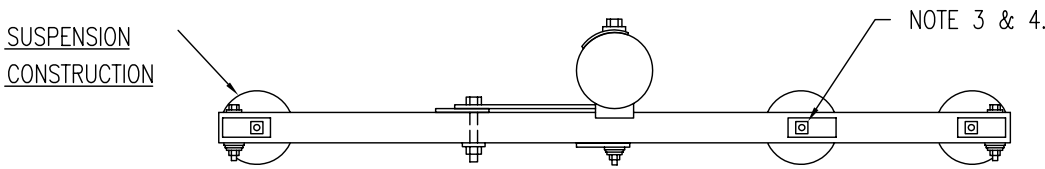
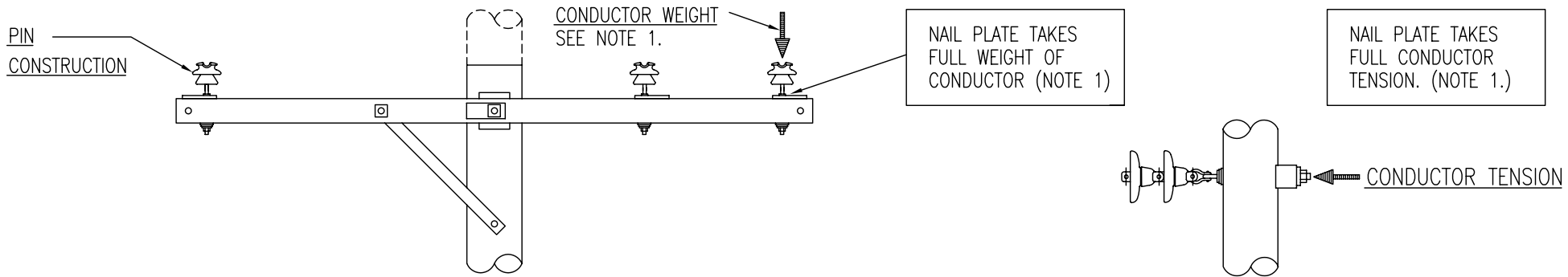


OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS


LVABC SWITCH & EXTENSION
BRACKET TO POLE

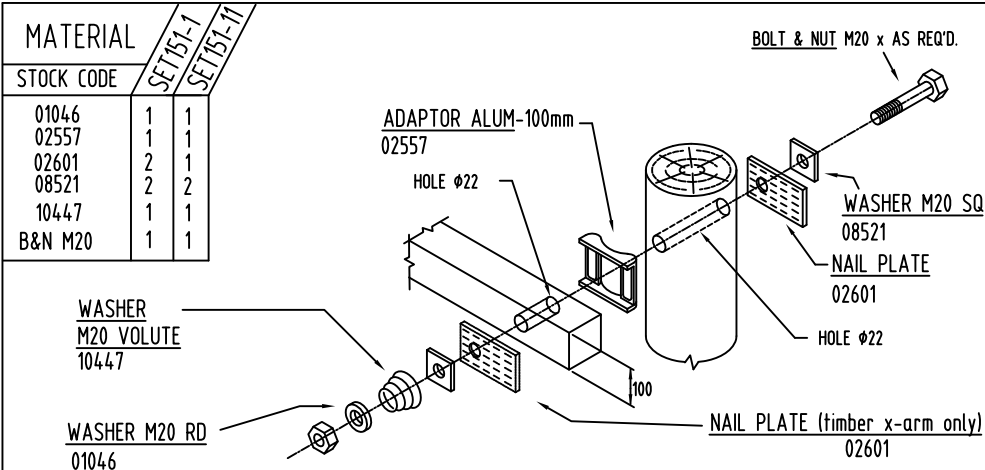
APP'D	P.PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	D
REC'D		SECT	PAGE
CKD	R.WALKER	1	102
DWN	M.WELSH	SHEET	1 OF 1
FILE:ocm\s1\ohc-102d			



NOTES.

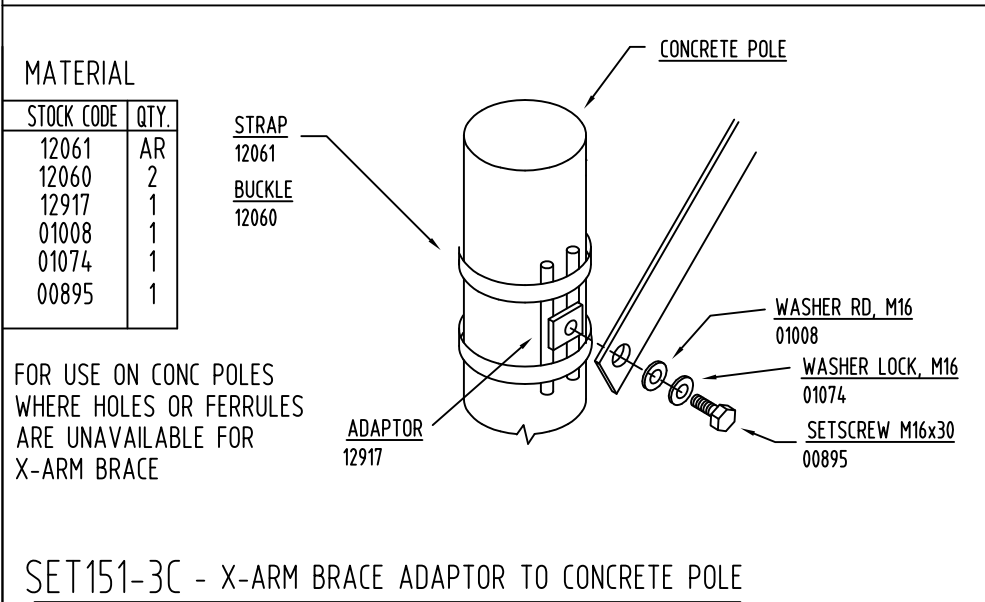
1. BOLTED HARDWARE MUST BEAR TIGHTLY AGAINST THE NAIL PLATE TO PREVENT RADIO INTERFERENCE AT THIS POINT. THIS IS DONE BY HAVING THE NAIL PLATE TAKE THE WEIGHT OR FORCE OF THE CONDUCTOR OR BY FITTING VOLUTE WASHERS.
2. AT A SHACKLE POINT, IF THERE IS A TENSION CHANGE THE NAIL PLATE IS FITTED ON THE FACE AWAY FROM THE SPAN OF HIGHER TENSION. WHEN TENSIONS ARE EQUAL THE NAIL PLATE IS FITTED AS SHOWN ON CONSTRUCTION DRAWINGS.
3. BLANK END OF NAIL PLATE TO BE FACED AWAY FROM POLE OR AS SHOWN ON CONSTRUCTION DRAWINGS.
4. NAIL PLATES FITTED TO TOP FACE OF X-ARMS IN COASTAL AREAS STILL PERFORM EFFECTIVELY IF CORRODED AS RUST PRODUCTS ARE CONDUCTIVE.

A	ORIGINAL ISSUE		APPD K.NUTTALL	CKD J.TUNNEY	DRN G.JAYAWERA	NEW TEMPLATE			 ©COPYRIGHT 2006 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX	OVERHEAD CONSTRUCTION MANUAL		APP'D	Pat Pearl	TECH STDS		AUTOCAD	
	B	DATE 15/11/06										DATE	12-05-94	4920-A4		B	
												REC'D		SECT	PAGE		
												CKD	Ron Walker	1	150		
												DWN	M. Welsh	SHEET 1 OF 1			
										ATTACHMENTS		FILE:ocm\s1\ohc-150b					
										NAIL PLATE ORIENTATION (TIMBER X-ARMS ONLY)							

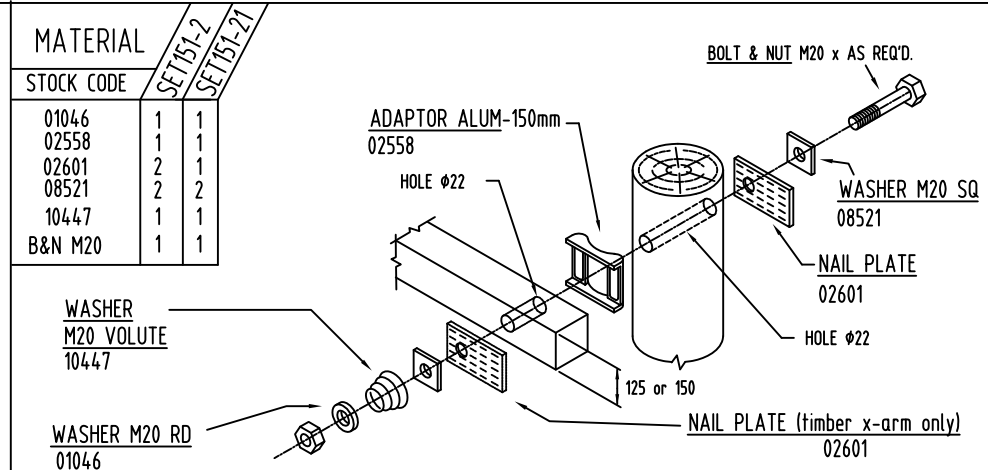


SET151-1 - 11kV/33kV TIMBER X-ARM (100x100) TO POLE

SET151-11 - 11kV COMPOSITE X-ARM (100x100) TO POLE

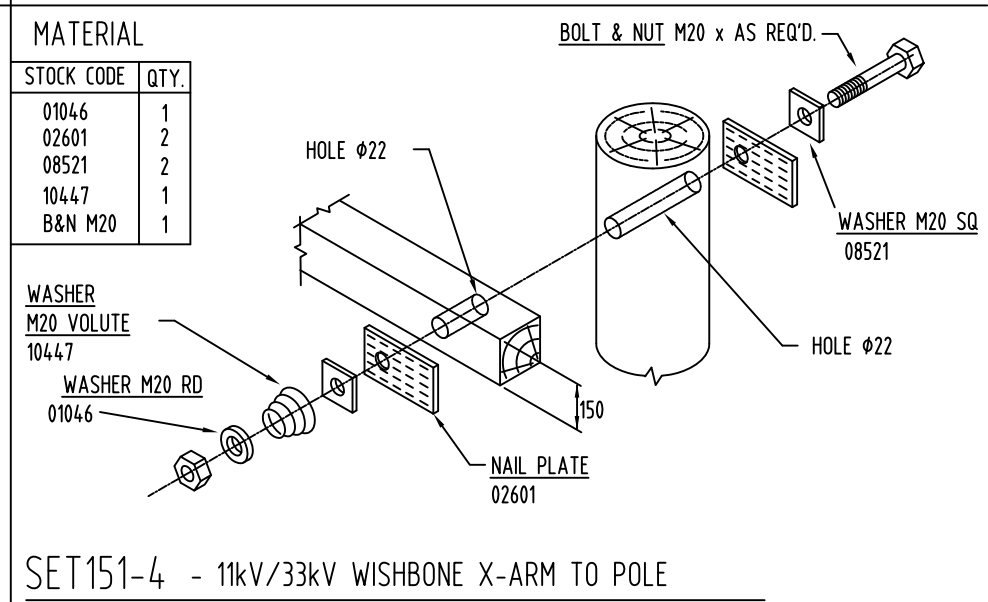


SET151-3C - X-ARM BRACE ADAPTOR TO CONCRETE POLE



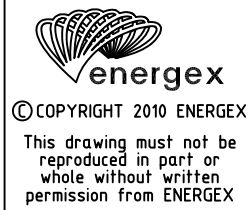
SET151-2 - 11kV/33kV TIMBER X-ARM (100x150) TO POLE

SET151-21 - 11kV COMPOSITE X-ARM (125x125) TO POLE



SET151-4 - 11kV/33kV WISHBONE X-ARM TO POLE

ORIGINAL ISSUE	DATE	20/01/11	REVISION	REVISION	REVISION	REVISION
A	D		APPD	CKD	DRN	SET151-21 added.



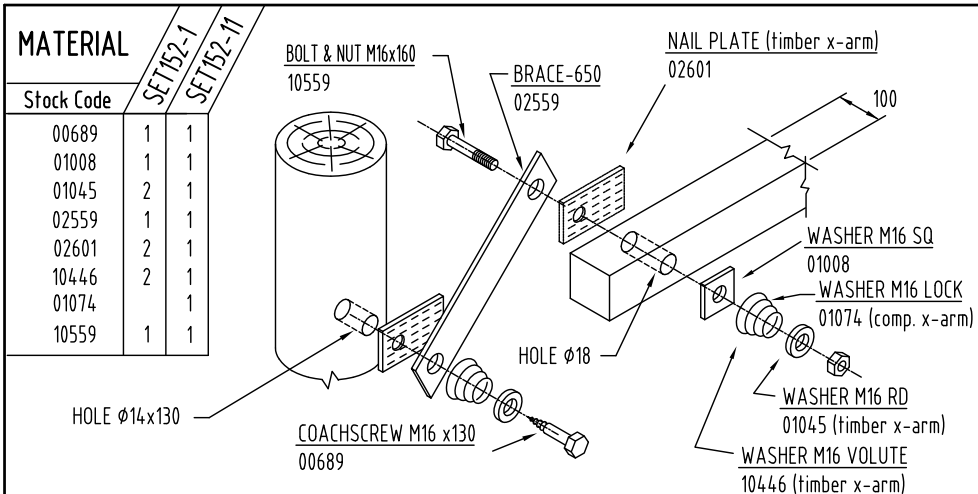
OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

11kV/33kV KINGBOLT TO POLE

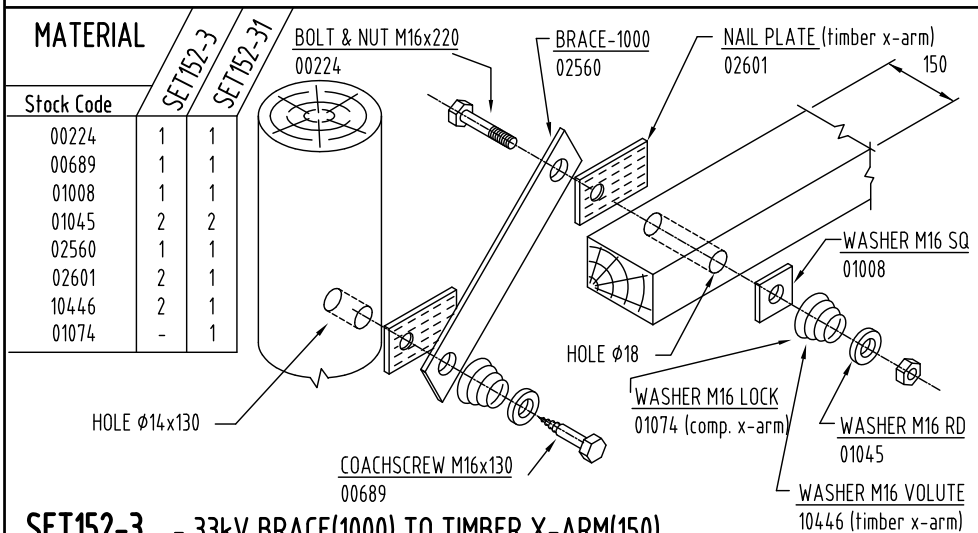
11kV/33kV CROSSARM BRACES

APP'D	P.PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	D
REC'D		SECT	PAGE
CKD	R.WALKER	1	151
DWN	M.WELSH	SHEET	1 OF 1
FILE: ocm\s1\ohc-151b			



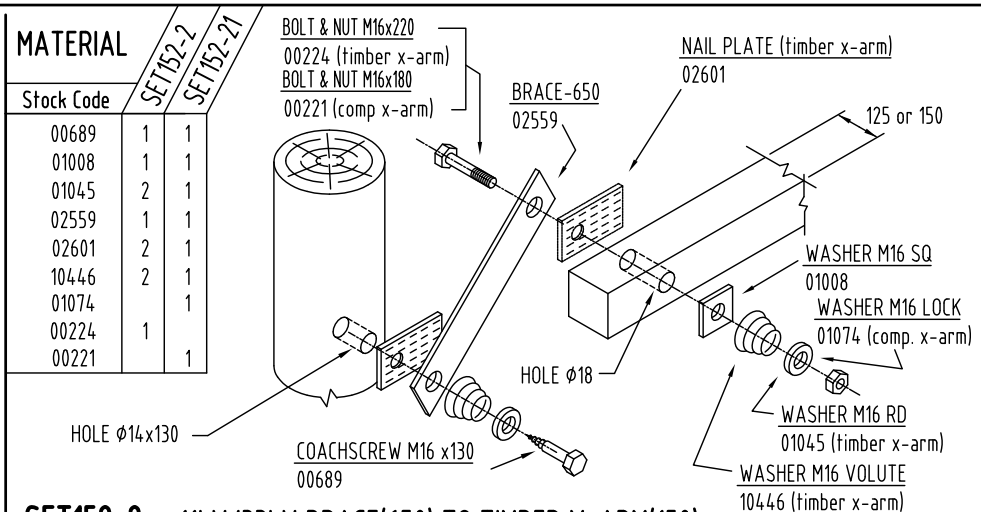
SET152-1 - 11kV/33kV BRACE(650) TO X-ARM(100)

SET152-11 - 11kV BRACE(650) TO COMPOSITE X-ARM(100)



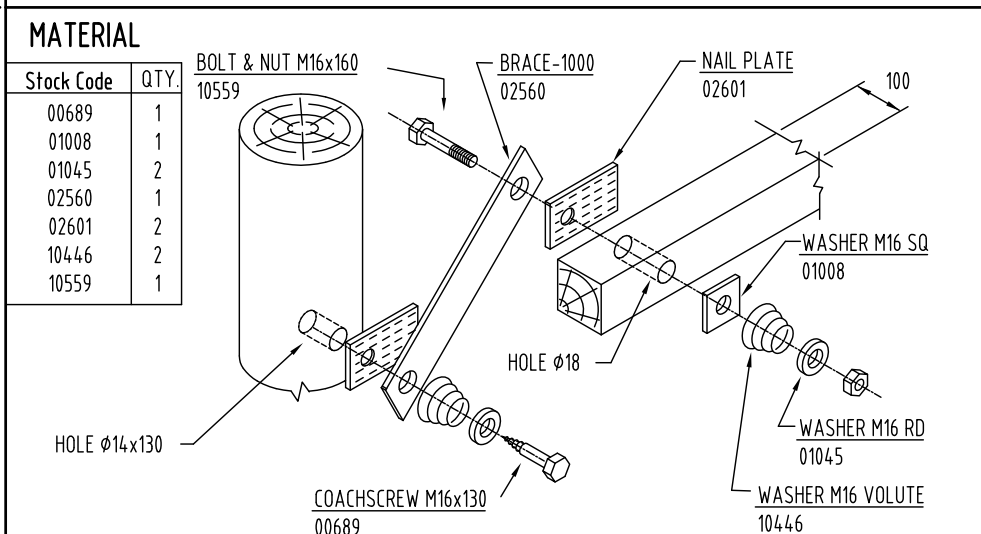
SET152-3 - 33kV BRACE(1000) TO TIMBER X-ARM(150)

SET152-31 - 33kV BRACE(1000) TO COMPOSITE X-ARM(125)



SET152-2 - 11kV/33kV BRACE(650) TO TIMBER X-ARM(150)

SET152-21 - 11kV BRACE(650) TO COMPOSITE X-ARM(125)



SET152-4 - 33kV BRACE(1000) TO TIMBER X-ARM(100)

A	ORIGINAL ISSUE	
	DATE	24/12/2015
E		
APP'D	F. ZAINI	
CKD	P. RELF	
DRN	P. RELF	
SET152-31 ADDED		



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OVERHEAD CONSTRUCTION MANUAL

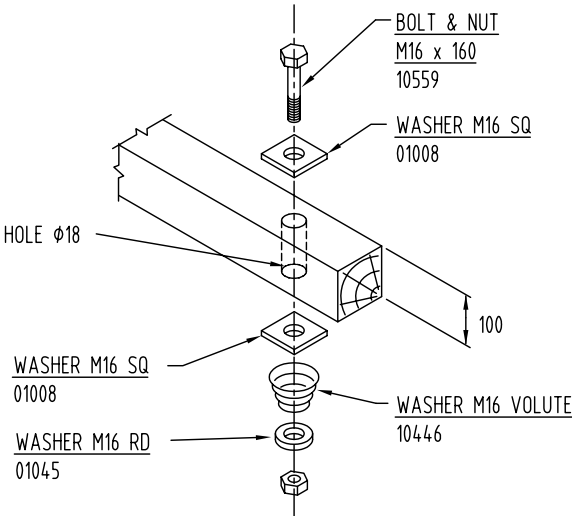
ATTACHMENTS

11kV/33kV CROSSARM BRACES

APP'D	P. PEARL	TECH STDS		AUTOCAD
DATE	12/5/94	4920-A4		E
REC'D		SECT	PAGE	
CKD	R. WALKER	1	152	
DWN	M. WELSH	SHEET 1 OF 1		
		FILE: ocm\s1\ohc-152e		

MATERIAL

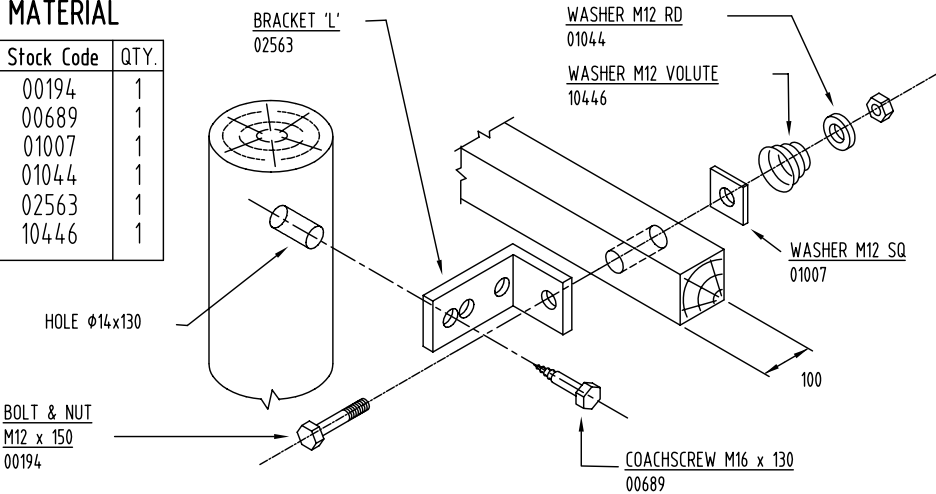
Stock Code	QTY.
01008	2
01045	1
10446	1
10559	1



SET153-1 - 11kV/33kV X-ARM(100) ANTI-SPLIT BOLT

MATERIAL

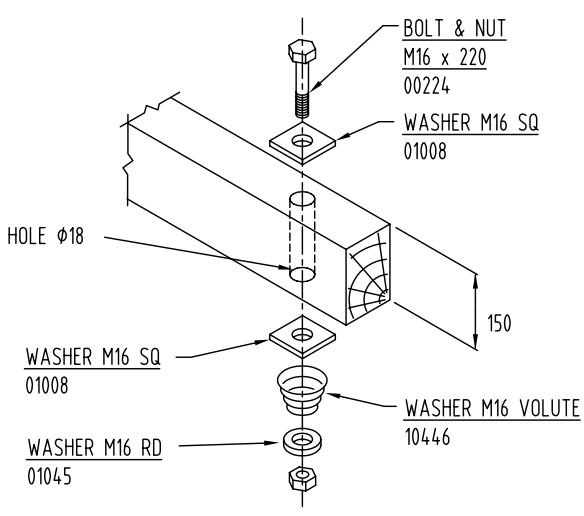
Stock Code	QTY.
00194	1
00689	1
01007	1
01044	1
02563	1
10446	1



SET153-3 - 11kV/33kV X-ARM STABILIZER

MATERIAL

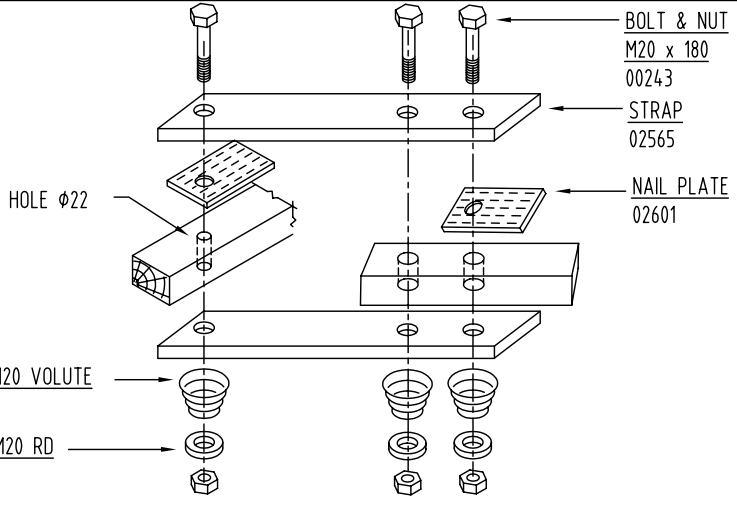
Stock Code	QTY.
00224	1
01008	2
01045	1
10446	1



SET153-2 - 11kV/33kV X-ARM(150) ANTI-SPLIT BOLT


MATERIAL

Stock Code	QTY.
00243	3
01046	3
02565	2
02601	2
10447	3



SET153-4 - 11kV/33kV WISHBONE X-ARM ATTACHMENT

ORIGINAL ISSUE	DATE 15/11/06	APPD KNUUTTALL	CKD J.TUNNEY	DRN G.JAYAWERA	TEMPLATE UPDATED	Bolt corrected in 153-2
A	B					


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OVERHEAD CONSTRUCTION MANUAL
ATTACHMENTS
11kV/33kV X-ARM ANTI-SPLIT BOLT
STABILIZER BRACKET & WISHBONE

APP'D	P.PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	B
REC'D		SECT 1	PAGE 153
CKD	R.WALKER	SHEET 1 OF 1	
DWN	M.WELSH	FILE: ocm\s1\ohc-153b	

MATERIAL		
Stock Code	154-1	154-2
08521	1	1
02570	1	-
08761	-	1
02589	1	1
08519	1	1
01046	1	1

SET154-1 - 11kV PIN TO X-ARM (NORM)

SET154-2 - 11kV PIN TO X-ARM (FOG)

PIN INSULATOR (FOG) 08761

MATERIAL	
Stock Code	QTY.
08521	1
02601	1
10447	1
20083	1
22595	1

SET154-3 - 33kV BRIDGING POST TO X-ARM

MATERIAL		
Stock Code	154-4	154-5
01046	1	1
02589	1	-
02590	-	1
02601	1	1
08521	1	1
08761	1	1
10447	1	1

SET154-4 - 11kV BRIDGING PIN (SHORT)

SET154-5 - 11kV BRIDGING PIN (LONG) TO X-ARM

INSULATOR PIN SHORT - 02589 LONG - 02590

MATERIAL		
Stock Code	154-6	154-61
01010	1	1
01035	1	1
02573	1	1
02601	1	-
10447	1	-
11587	1	1
01068	-	1

SET154-6 - 33kV PIN TO TIMBER X-ARM

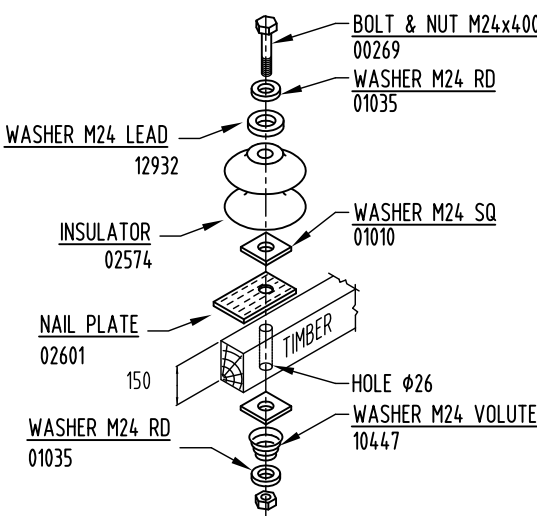
SET154-61 - 33kV PIN TO COMPOSITE X-ARM

INSULATOR PIN 11587

ORIGINAL ISSUE	DATE	25/12/2015	APP'D	F. ZAINI	CKD	P. RELF	DRN	P. RELF	Set154-61 Added
A	J								

MATERIAL

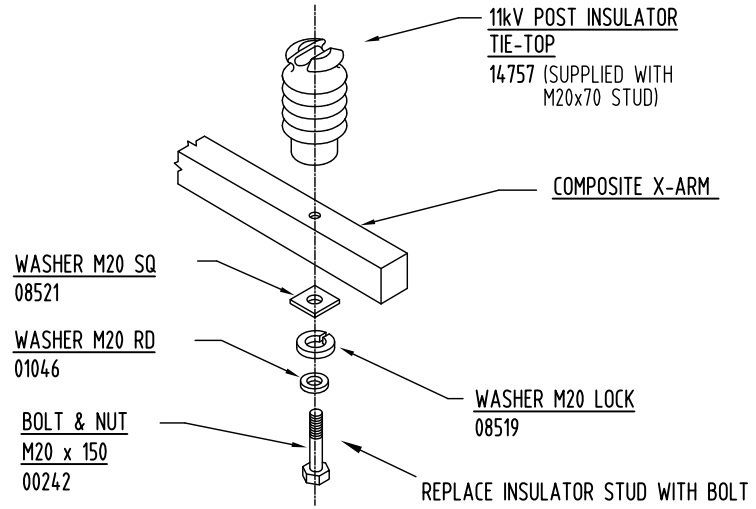
Stock Code	QTY.
00269	1
01010	2
01035	2
02574	1
02601	1
10447	1
12932	1



SET155-1 - 11kV REEL ANGLE TO X-ARM (150)

MATERIAL

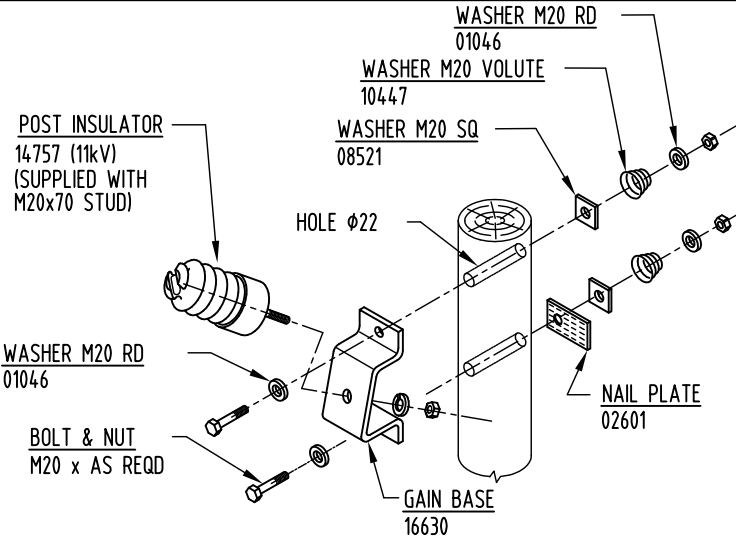
Stock Code	QTY.
00242	1
01046	1
08519	1
08521	1
14757	1



SET155-2 - 11kV POST INSULATOR TO COMPOSITE X-ARM

MATERIAL

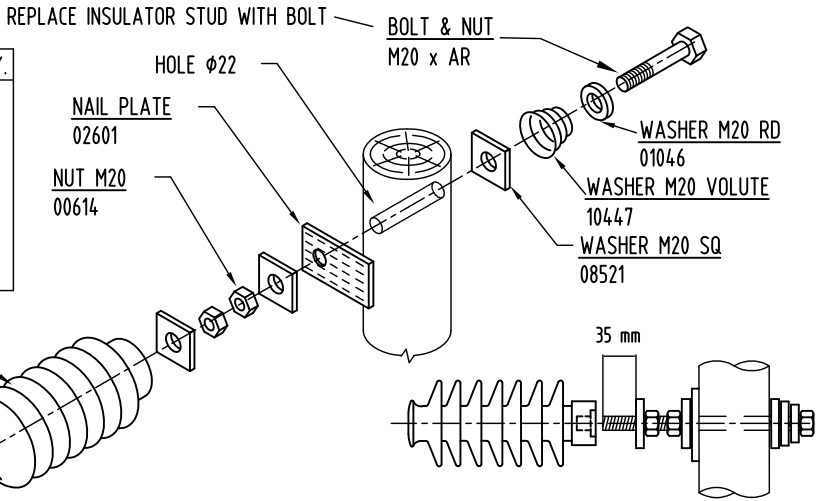
Stock Code	QTY.
01046	4
02601	1
08521	2
10447	2
14757	1
16630	1
B&N M20	2



SET155-3 - 11kV LINE POST TO POLE (GAIN BASE)

MATERIAL

Stock Code	QTY.
B&N M20	1
00614	1
08521	3
01046	1
02601	1
10447	1
20083	1



SET155-4 - 33kV LINE POST INSULATOR TO POLE

MATERIAL			SET156-1	SET156-11
STOCK CODE	QTY.	QTY.		
02569	1	1		
08521	2	2		
08519	1	1		
21095	1			
11596		1		

SET156-1 - 11kV TERMINATION COMPOSITE X-ARM (100X100)

SET156-11 - 11kV TERMINATION COMPOSITE X-ARM (125X125)

MATERIAL			SET156-2	SET156-21
STOCK CODE	QTY.	QTY.		
02569	2	2		
08521	2	2		
08989	1	1		
08519	1	1		
11596	1	1		

SET156-2 - 11kV SHACKLE COMPOSITE X-ARM (100x100)

SET156-21 - 11kV SHACKLE COMPOSITE X-ARM (125x125)

MATERIAL				
STOCK CODE	156-3	156-31	156-4	156-41
01046	1	1	1	1
02569	1	1	1	1
02601	1	-	1	-
06297	-	-	1	1
08521	2	2	2	2
10447	1	-	1	-
11597	1	1	1	1
08519	-	1	-	1

SET156-3 - 11kV/33kV SUSPENSION TO X-ARM

SET156-31 - 11kV/33kV SUSPENSION TO COMPOSITE X-ARM

SET156-4 - 11kV/33kV SUSPENSION ANGLE TO X-ARM

SET156-41 - 11kV/33kV SUSPENSION ANGLE TO COMPOSITE X-ARM

A	ORIGINAL ISSUE		G	DATE 24/12/2015		APPD F. ZAINI	CKD P. RELF	DRN P. RELF	SET156-31 AND SET156-41 ADDED	



energex

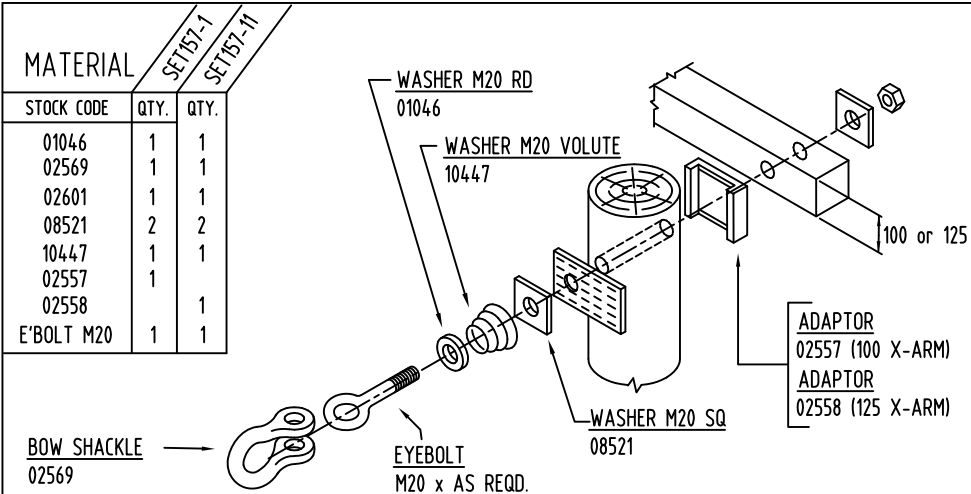
©COPYRIGHT 2015 ENERGEX

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OVERHEAD CONSTRUCTION MANUAL		APP'D	Pat Pearl	TECH STDS		AUTOCAD
		DATE	12-05-94	4920-A4		G
		REC'D		SECT	PAGE	
		CKD	Ron Walker	1	156	
		DWN	M. Welsh	SHEET 1 OF 1		FILE:

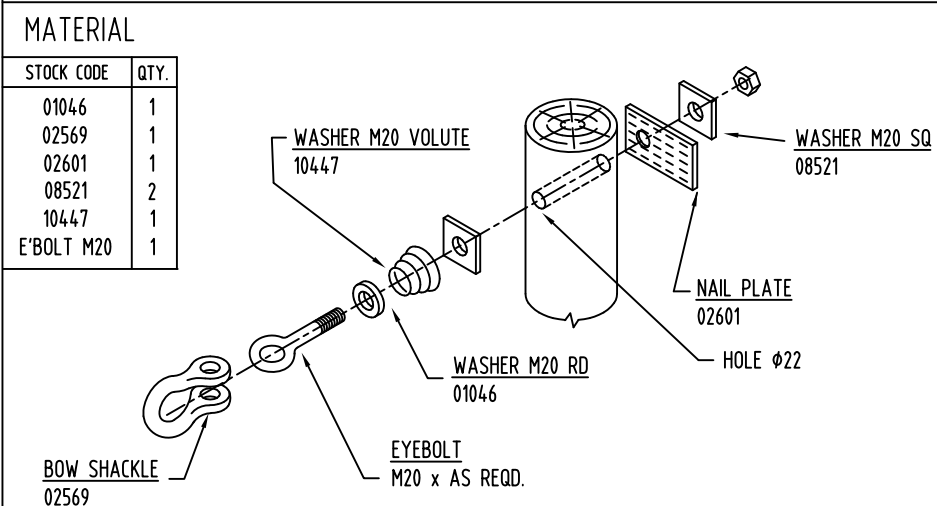
ATTACHMENTS

11kV/33kV TERMINATION, SHACKLE & SUSPENSION, SINGLE X-ARM

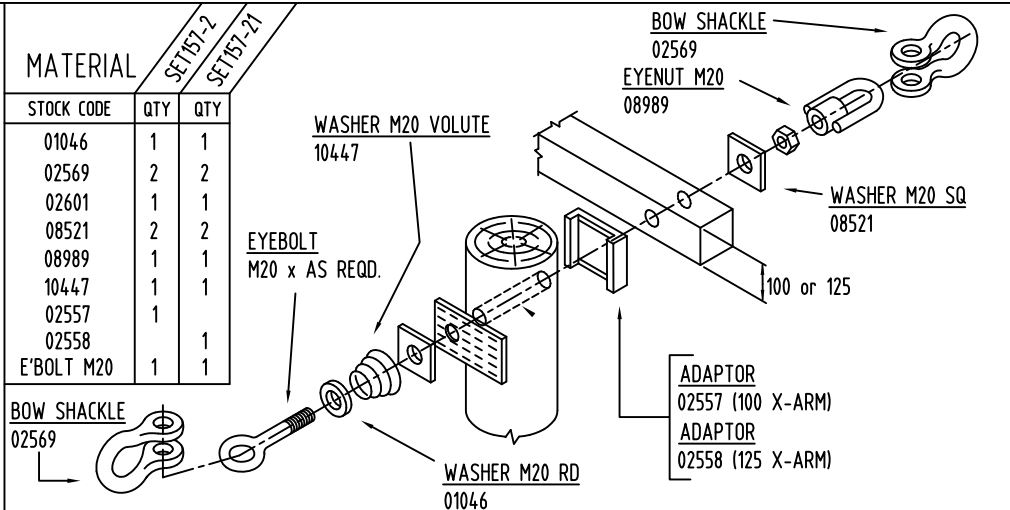


SET157-1 - 11kV TERMINATION TO POLE COMPOSITE X-ARM (100x100)

SET157-11 - 11kV TERMINATION TO POLE COMPOSITE X-ARM (125x125)

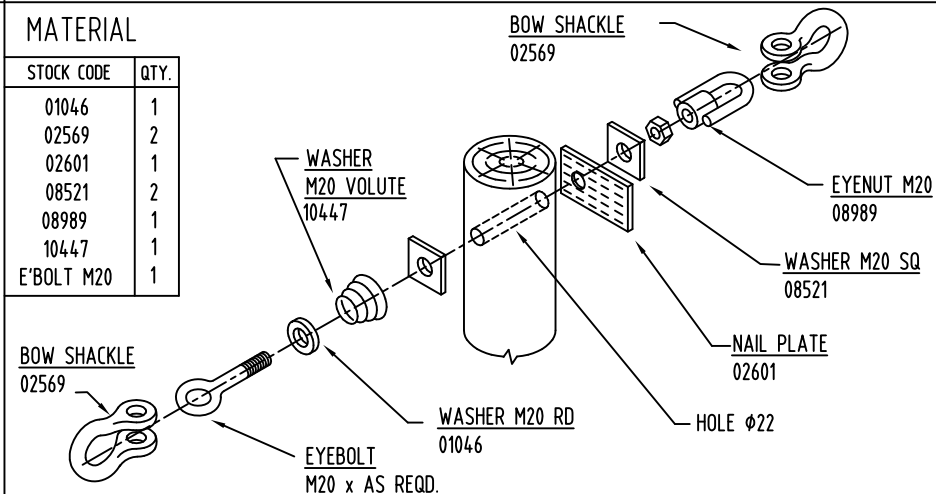


SET157-3 - 11kV/33kV TERM'N DIRECT TO POLE



SET157-2 - 11kV SHACKLE, COMPOSITE X-ARM (100x100) TO POLE

SET157-21 - 11kV SHACKLE, COMPOSITE X-ARM (125x125) TO POLE



SET157-4 - 11kV/33kV SHACKLE DIRECT TO POLE

ORIGINAL ISSUE	DATE	20/01/11	APP'D	RE/ENGLISH	CKD	J.TUNNEY	DRN	J.TUNNEY
A	E							

Set157-1 & 2 updated composite x-arm.
Sets157-11 & 21 added



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

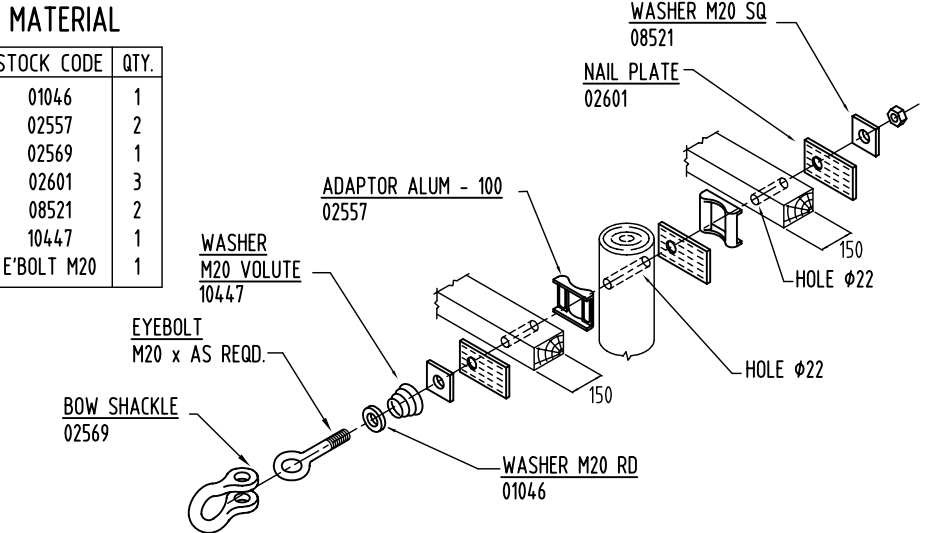
11kV/33kV TERMINATION, SHACKLE X-ARM TO POLE, DIRECT TO POLE

APP'D	Pat Pearl	TECH STDS	AUTOCAD
DATE	12-05-94	4920-A4	E
REC'D		SECT	PAGE
CKD	Ron Walker	1	157
DWN	M. Welsh	SHEET	1 OF 1

FILE:ocm\s1\ohc-157d

MATERIAL

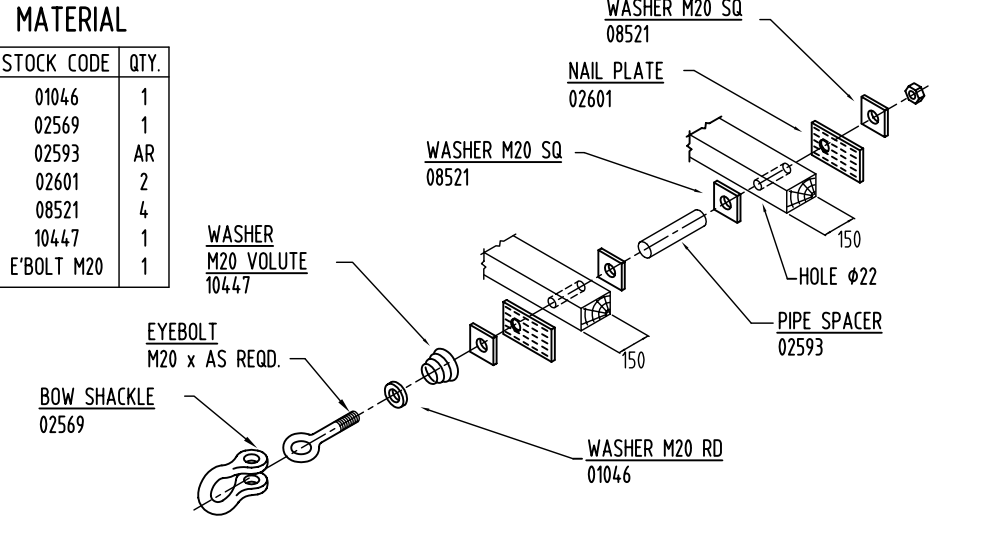
STOCK CODE	QTY.
01046	1
02557	2
02569	1
02601	3
08521	2
10447	1
E'BOLT M20	1



SET158-1 - 11kV/33kV TERM'N TWIN X-ARM TO POLE OBSOLETE


MATERIAL

STOCK CODE	QTY.
01046	1
02569	1
02593	AR
02601	2
08521	4
10447	1
E'BOLT M20	1



SET158-2 - 11kV/33kV TERM'N TWIN X-ARM OBSOLETE

A	ORIGINAL ISSUE	C	DATE	15/11/06	APPD	KNUTTALL	CKD	J.TUNNEY	DRN	G.JAYAWERA	TEMPLATE CHANGED	OBSOLETE NOTES ADDED



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OVERHEAD CONSTRUCTION MANUAL

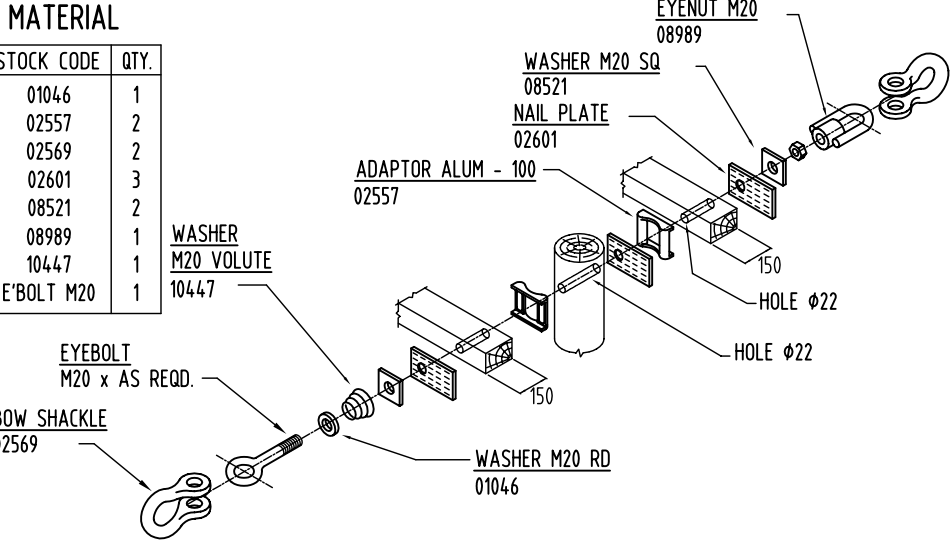
ATTACHMENTS

11kV/33kV TERMINATION TWIN X-ARM

APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12-05-94	4920-A4		C
REC'D		SECT	PAGE	
CKD	Ron Walker	1	158	
DWN	M. Welsh	SHEET 1 OF 1		
FILE:ocm\s1\ohc-158c.dwg				

MATERIAL

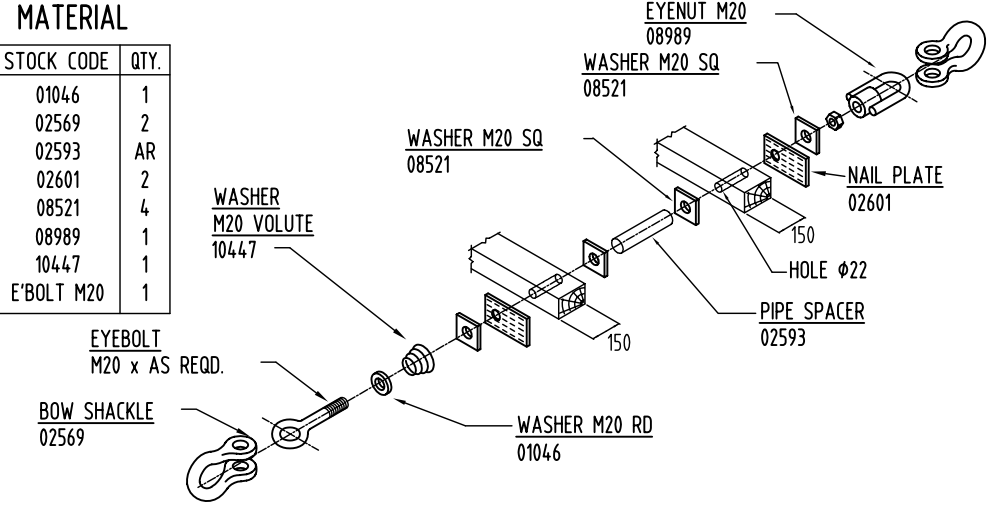
STOCK CODE	QTY.
01046	1
02557	2
02569	2
02601	3
08521	2
08989	1
10447	1
E'BOLT M20	1



SET159-1 - 11kV/33kV SHACKLE TWIN X-ARM TO POLE OBSOLETE


MATERIAL

STOCK CODE	QTY.
01046	1
02569	2
02593	AR
02601	2
08521	4
08989	1
10447	1
E'BOLT M20	1



SET159-2 - 11kV/33kV SHACKLE TWIN X-ARM OBSOLETE

ORIGINAL ISSUE	DATE	APPD	CKD	DRN	TEMPLATE CHANGED	OBSELETE NOTES ADDED
A	15/11/06	K.NUTTALL	J.TUNNEY	G.JAYAWERA		



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OVERHEAD CONSTRUCTION MANUAL

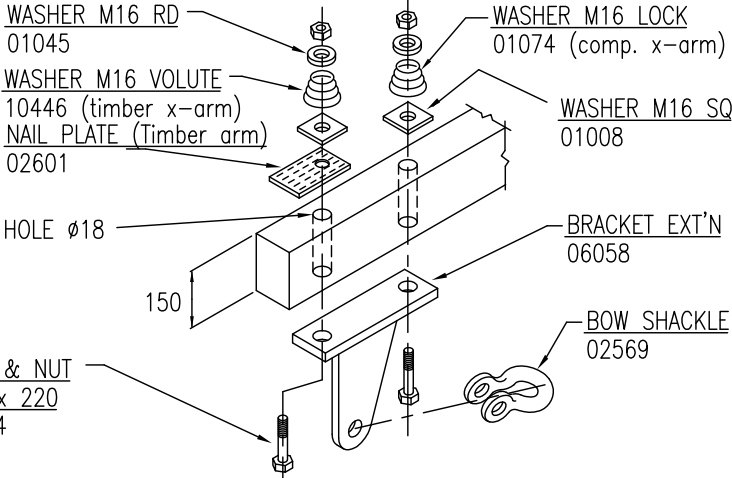
ATTACHMENTS

11kV/33kV SHACKLE TWIN X-ARM

APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12-05-94	4920-A4		C
REC'D		SECT	PAGE	
CKD	Ron Walker	1	159	
DWN	M. Welsh	SHEET 1 OF 1		
FILE:ocm\s1\ohc-159c.dwg				

MATERIAL

STOCK CODE	-1	-11
00224	2	2
01008	2	2
01045	2	2
02569	1	1
02601	1	-
06058	1	1
10446	2	-
01074	-	2

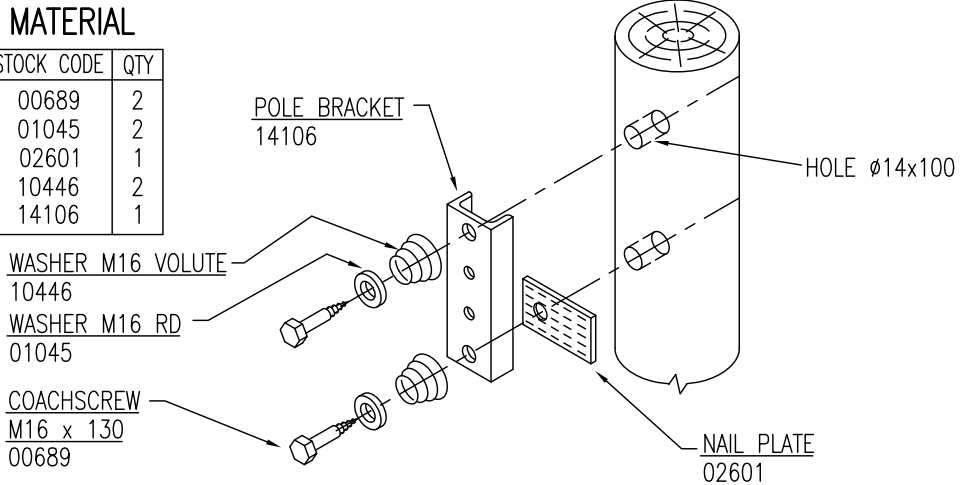


SET160-1 - 11kv/33kv SUSP'N ANGLE TO X-ARM

SET160-11 - 11kv/33kv SUSP'N ANGLE TO COMP X-ARM

MATERIAL

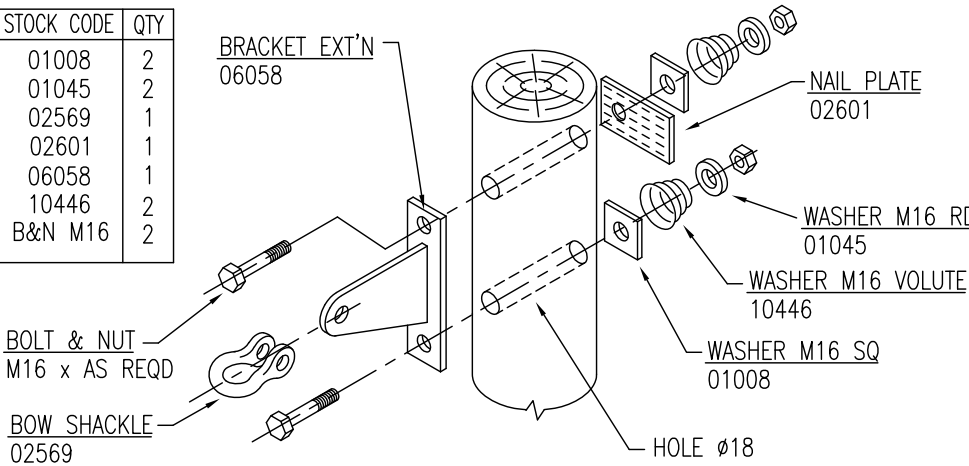
STOCK CODE	QTY
00689	2
01045	2
02601	1
10446	2
14106	1



SET160-3 - BRACKET TO POLE

MATERIAL

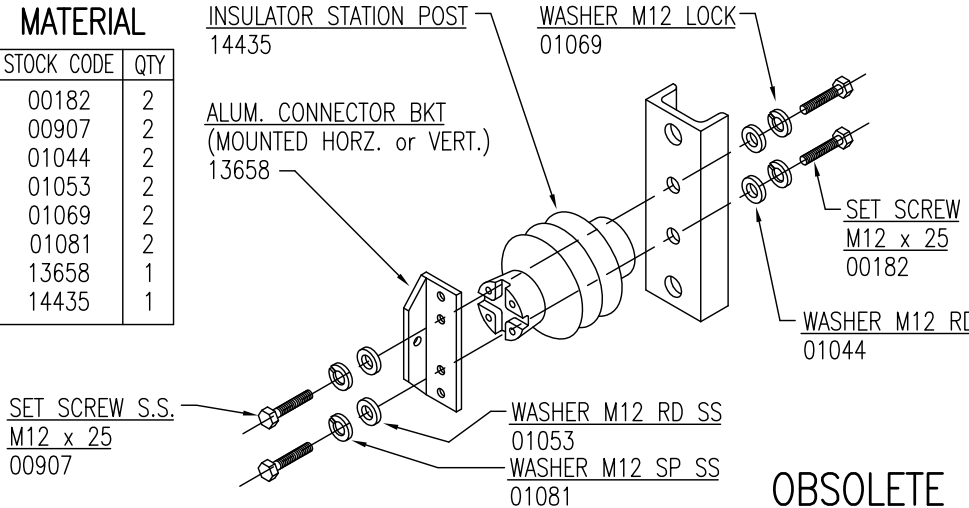
STOCK CODE	QTY
01008	2
01045	2
02569	1
02601	1
06058	1
10446	2
B&N M16	2



SET160-2 - 11kv/33kv ANGLE TO POLE

MATERIAL

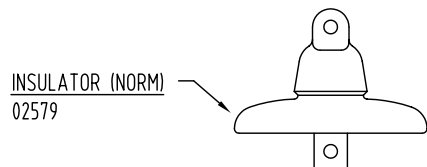
STOCK CODE	QTY
00182	2
00907	2
01044	2
01053	2
01069	2
01081	2
13658	1
14435	1



SET160-4 - 11kv BRIDGING POST TO BRACKET

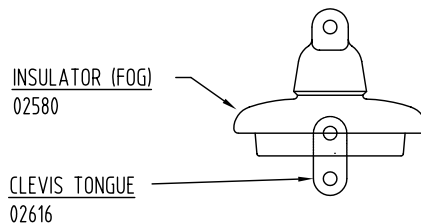
OBSOLETE

NORMAL INSULATION (N)



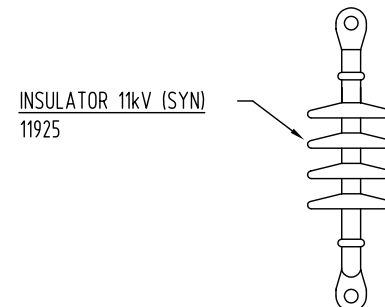
SET161-1 - DISC NORMAL (SINGLE)

FOG INSULATION (F)

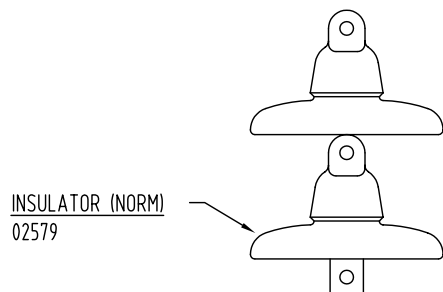


SET161-3 - DISC FOG (SINGLE)

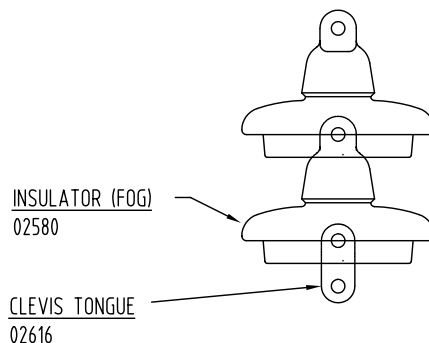
SYNTHETIC INSULATION (S)



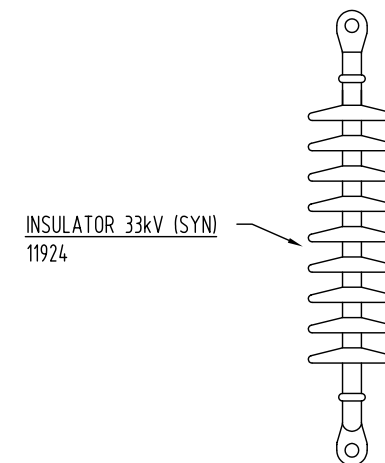
SET161-5 - 11kV SYNTHETIC LONGROD



SET161-2 - DISC NORMAL (DOUBLE)

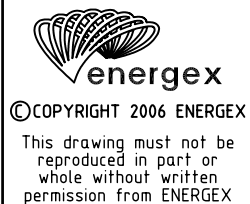


SET161-4 - DISC FOG (DOUBLE)



SET161-6 - 33kV SYNTHETIC LONGROD

A	ORIGINAL ISSUE		B	DATE 15/11/06		APPD	KNUTTALL		CKD	J.TUNNEY		DRN	G.JAYAWERA		TEMPLATE CHANGED

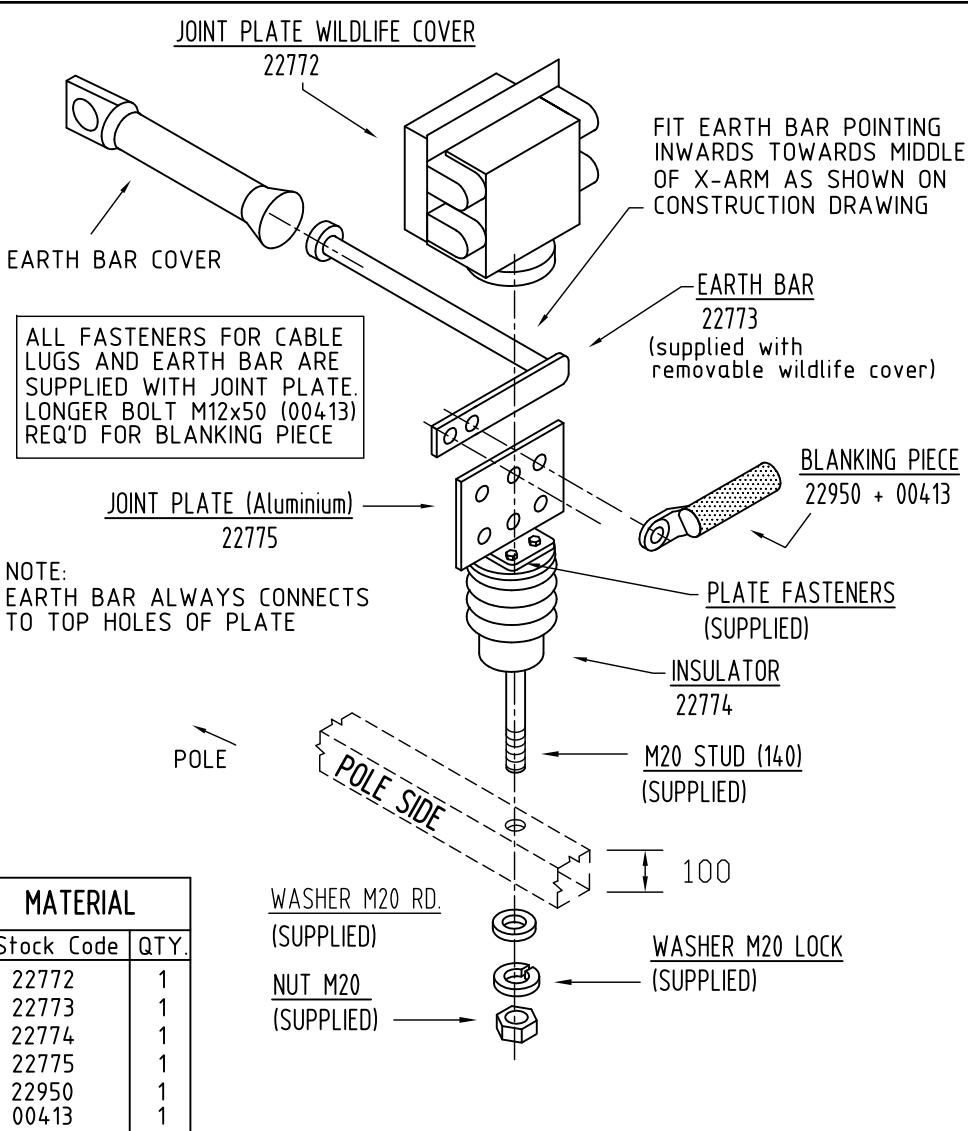


OVERHEAD CONSTRUCTION MANUAL

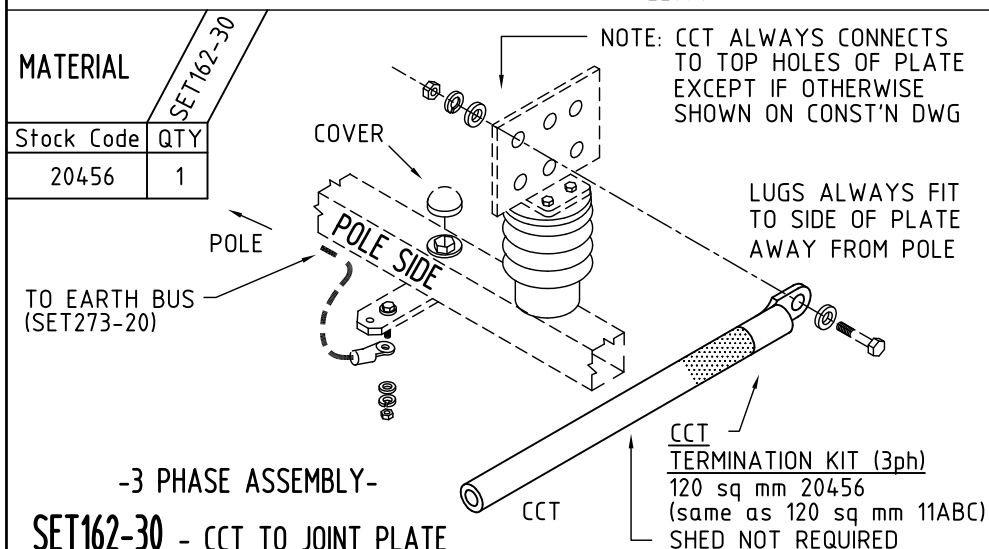
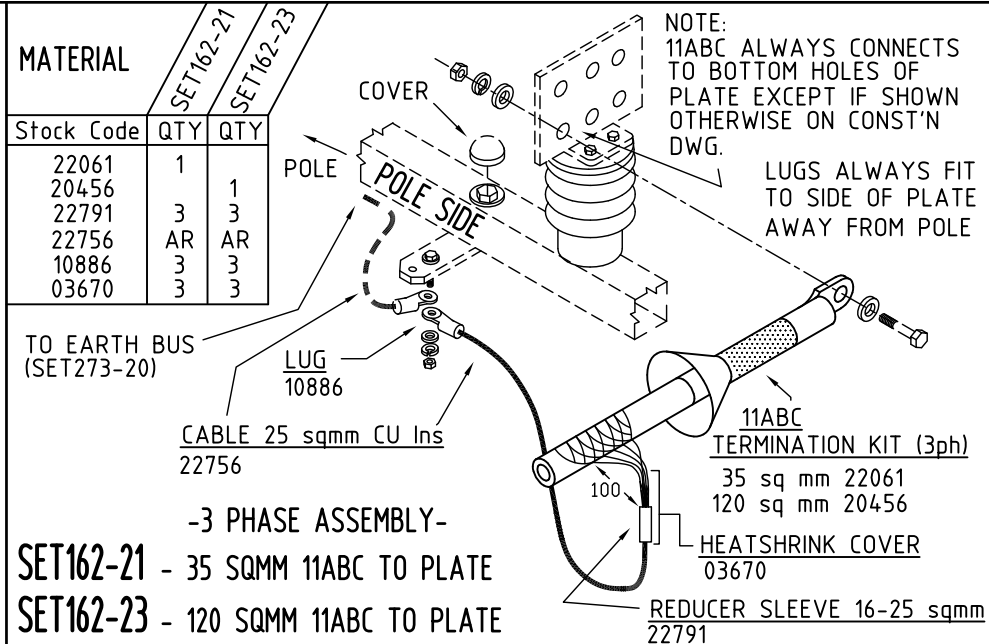
ATTACHMENTS

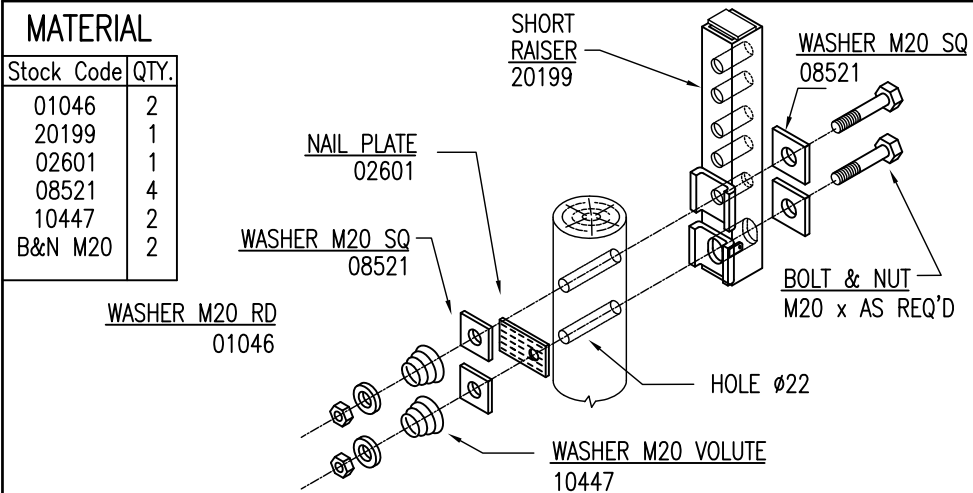
11kV/33kV STRAIN INSULATORS

APP'D	P.PEARL	TECH STDS		AUTOCAD
DATE	12/5/94	4920-A4		B
REC'D		SECT	PAGE	
CKD	R.WALKER	1	161	
DWN	M.WELSH	SHEET 1 OF 1		
		FILE: ocm\s1\ohc1-161b.dwg		

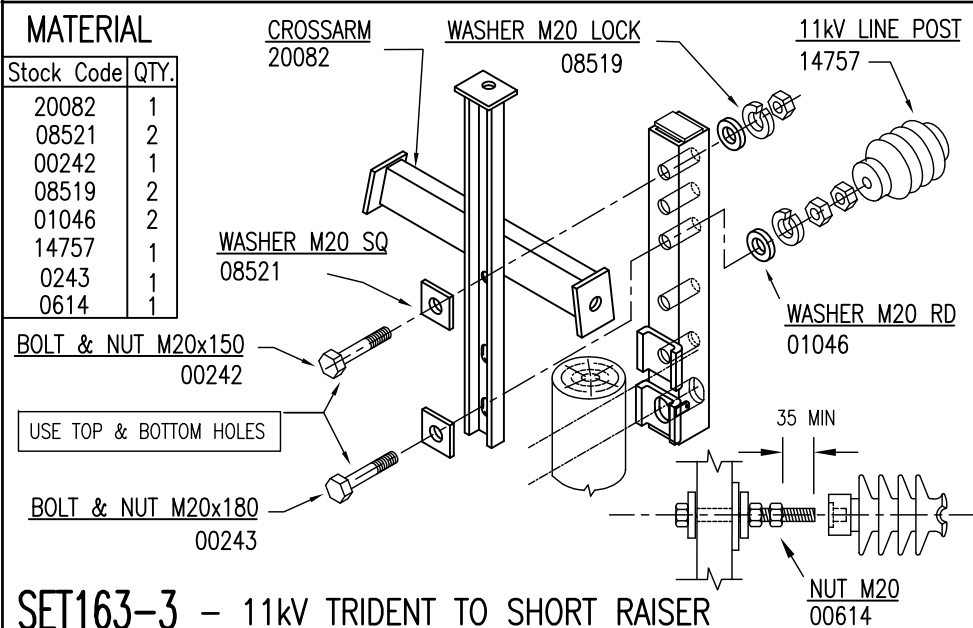


SET162-10 - 11ABC JOINT INSULATOR & PLATE TO CROSSARM

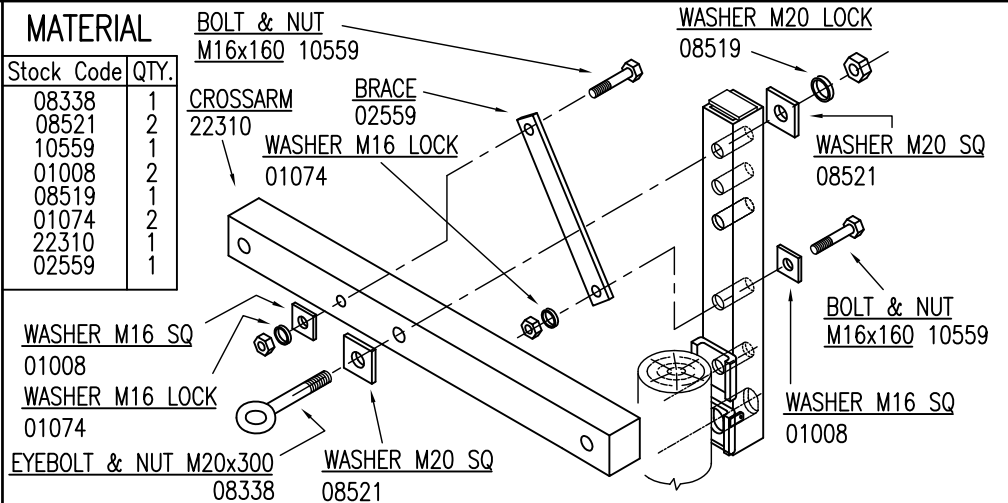




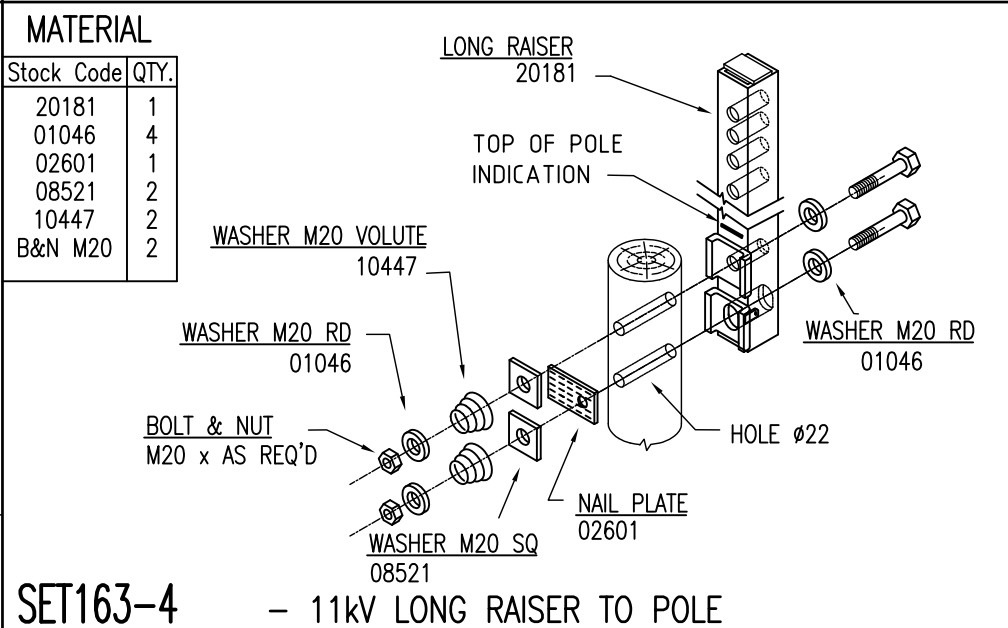
SET163-1 - 11KV SHORT RAISER TO POLE



SET163-3 - 11KV TRIDENT TO SHORT RAISER



SET163-2 - COMPOSITE X-ARM TO SHORT RAISER



SET163-4 - 11KV LONG RAISER TO POLE

ORIGINAL ISSUE	DATE 12-08-2011	APPD	RENGISH	CKD	J.TUNNEY	DRN	J.TUNNEY
A	G						
SET163-2 UPDATED FOR COMPOSITE X-ARM							



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

POLE EXTENSION BRACKET TO POLE & CROSSARM

APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12-05-94	4920-A4		G
REC'D		SECT	PAGE	
CKD	Ron Walker	1	163	
DWN	M.Welsh	SHEET 1 OF 1		
		FILE:ocm\s1\ohc1-163f.dwg		

MATERIAL

Stock Code	QTY.
01035	1
01046	1
01068	1
02573	1
02601	1
08521	1
10447	1
10574	1
11587	1
B&N M20	1

WASHER M24 LOCK
01068

BOLT & NUT
M20 x AS REQD.

INSULATOR PIN
11587

BRACKET EXT'N
10574

WASHER M24 RD
01035

PIN INSULATOR
02573

WASHER M20 RD
01046

NAIL PLATE
02601

WASHER M20 SQ
08521

WASHER M20 VOLUTE
10447

EXISTING

HOLE ϕ 22

SET164-1 - 33kV PIN TO POLE

MATERIAL

Stock Code	QTY.
01035	1
01046	2
01068	1
02573	1
02601	1
08521	2
10447	2
10574	1
11587	1
B&N M20	2

WASHER M24 LOCK
01068

BOLT & NUT
M20 x AS REQD.

INSULATOR PIN
11587

BRACKET EXT'N
10574

WASHER M24 RD
01035

PIN INSULATOR
02573

WASHER M20 RD
01046

NAIL PLATE
02601

WASHER M20 SQ
08521

WASHER M20 VOLUTE
10447

HOLE ϕ 22

SET164-3 - 33kV PIN TO POLE

ORIGINAL ISSUE	DATE 02-12-08	APPD R. ENGLISH	CKD J. TUNNEY	DRN J. TUNNEY	SETS164-2 & 4 deleted
A	D				



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OVERHEAD CONSTRUCTION MANUAL

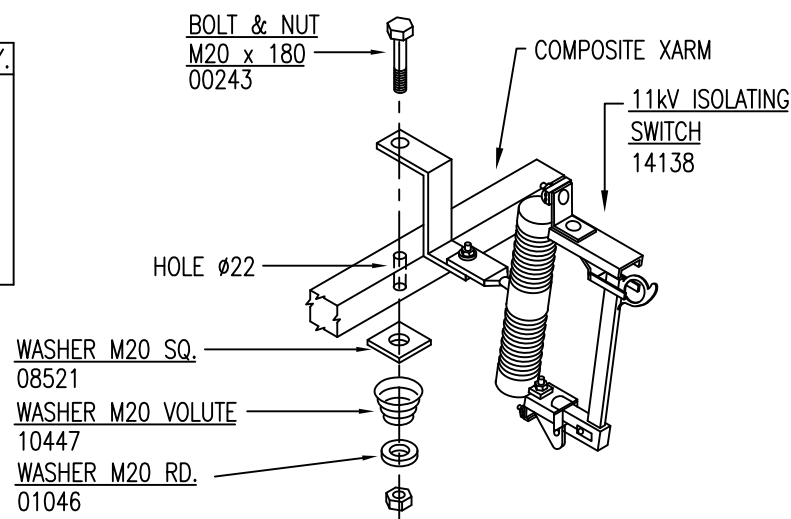
ATTACHMENTS

33kV PIN & BRIDGING POST TO POLE

APP'D	P. PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	D
REC'D		SECT 1	PAGE 164
CKD	R. WALKER	SHEET 1 OF 1	
DWN	M. WELSH	FILE: ocm\s1\ohc1-164c.dwg	

MATERIAL

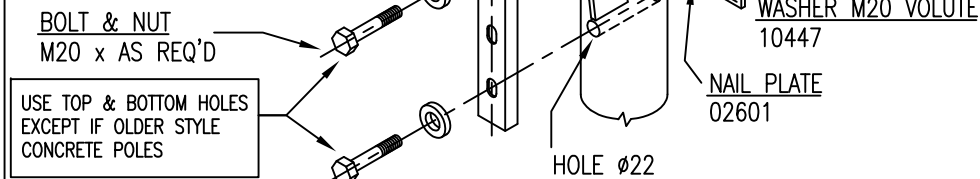
Stock Code	QTY.
00243	1
01046	1
08521	1
10447	1
14138	1



SET165-1 - 11kV ISOLATING SWITCH TO X-ARM

MATERIAL

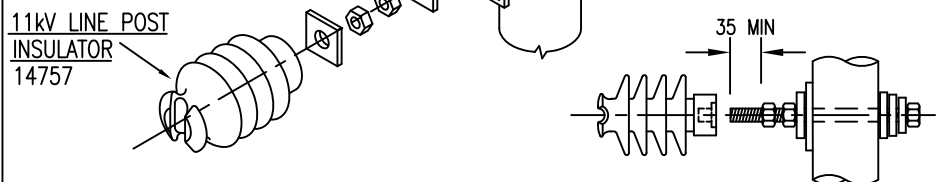
Stock Code	-2	-21
01046	4	4
02601	1	1
08521	2	2
10447	2	2
20082	1	
405883	1	
B&N M20	2	2



SET165-2 - 11kV TRIDENT BRACKET TO POLE
SET165-21 - 11kV NARROW TRIDENT BRACKET TO POLE

MATERIAL

Stock Code	QTY.
00614	1
01046	1
02601	1
08521	3
10447	1
14757	1
B&N M20	1



SET165-3 - 11kV LINE POST INSULATOR TO POLE

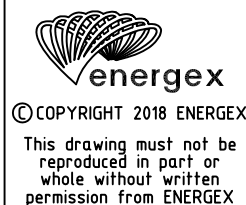
MATERIAL

Stock Code	QTY.
00614	1
01046	1
02601	1
08521	3
10447	1
16384	1
B&N M20	1



SET165-4 - 11kV BRIDGING INSULATOR TO POLE

ORIGINAL ISSUE	DATE 02/02/2018	APP'D F. ZAINI	CKD P. RELF	DRN P. RELF	SET165-21 ADDED
A	D				



OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

11kV ISOLATING SWITCH TO X-ARM
11kV TRIDENT BRACKET, BRIDGING
& LINE POST INSULATOR TO POLE

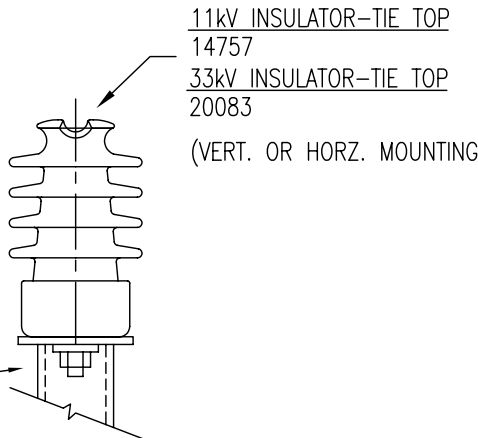
APP'D	P. PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	D
REC'D		SECT 1	PAGE 165
CKD	R. WALKER	SHEET 1 OF 1	
DWN	M. WELSH	FILE: ocm\s1\ohc1-165c.dwg	

MATERIAL

Stock Code	QTY	QTY
14757	1	
20083		1

NOTE
INSULATOR SUPPLIED WITH
MOUNTING STUD, NUT,
AND SPRING WASHER

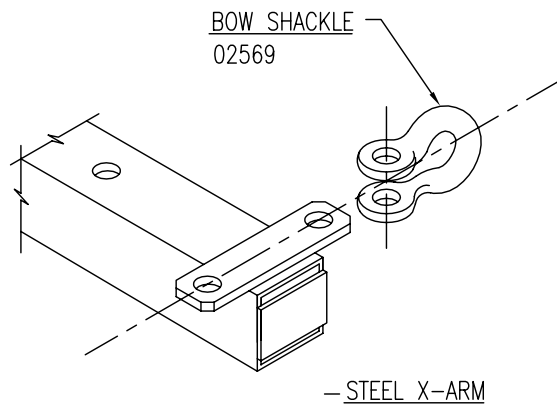
TRIDENT BRACKET



SET166-1 - 11kv LINE POST TO TRIDENT BRACKET (TIE TOP)
SET166-11 - 33kv LINE POST TO TRIDENT BRACKET (TIE TOP)

MATERIAL

Stock Code	QTY.
02569	1



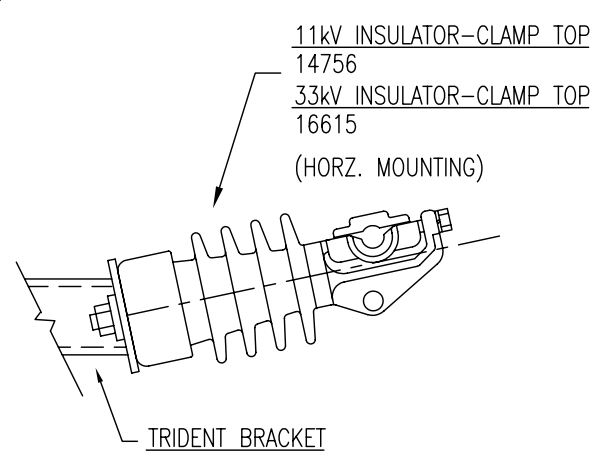
SET166-3 - SHACKLE TO STEEL X-ARM

MATERIAL

Stock Code	QTY	QTY
14756	1	
16615		1


NOTE
INSULATOR SUPPLIED WITH
MOUNTING STUD, NUT,
AND SPRING WASHER

TRIDENT BRACKET



SET166-2 11kv LINE POST TO TRIDENT BRACKET (CLAMP TOP)
SET166-21 33kv LINE POST TO TRIDENT BRACKET (CLAMP TOP)

ORIGINAL ISSUE	DATE	APPD	CKD	DRN	SET166-4 REMOVED SETS166-11,21 ADDED
A	15/11/06	K.NUTTALL	J.TUNNEY	G. JAYAWERA	
C					



enerflex

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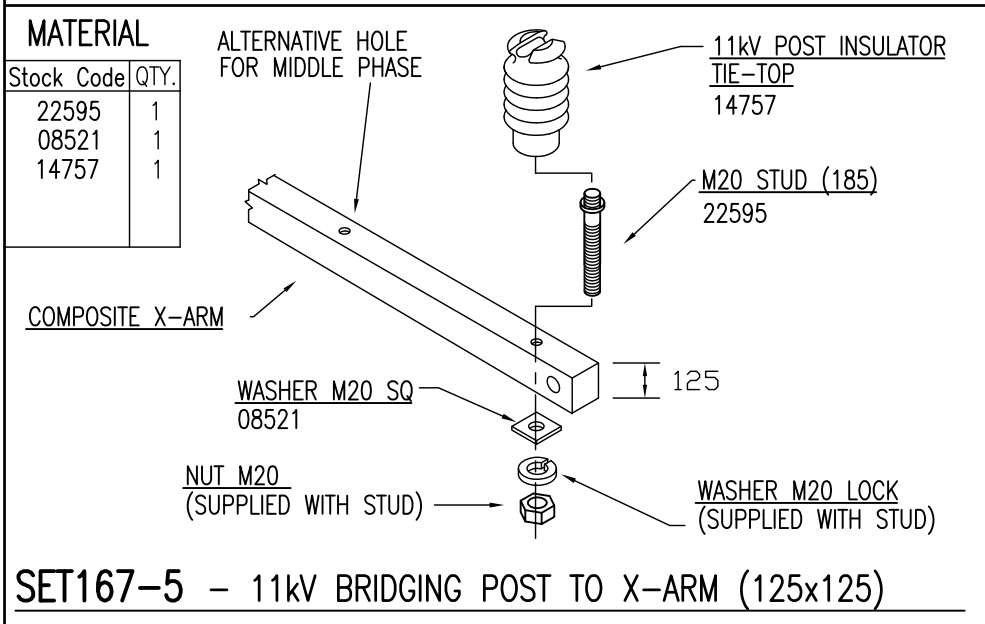
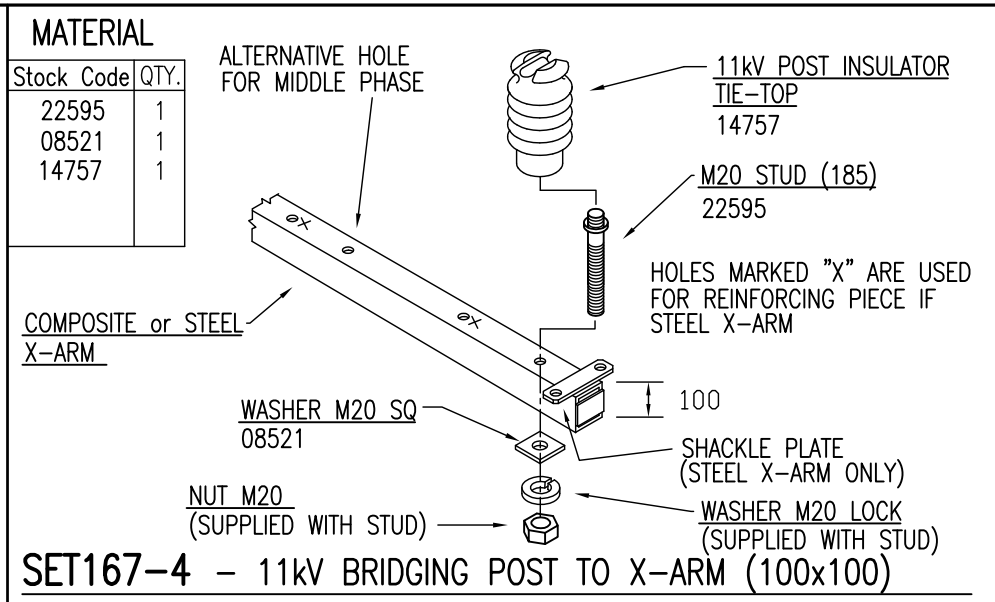
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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

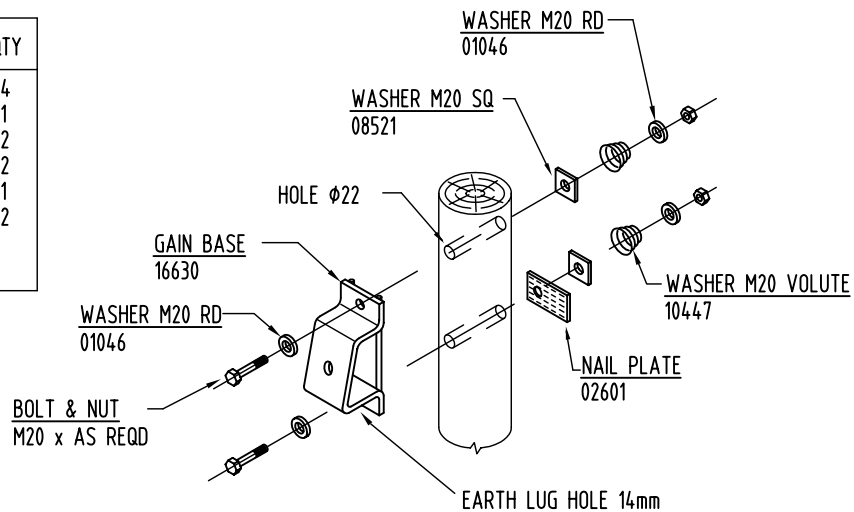
11, 33kv LINE POST INSULATORS TO TRIDENT STEEL CROSSARM

APP'D	P.PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	C
REC'D		SECT	PAGE
CKD	R. WALKER	1	166
DWN	M. WELSH	SHEET	1 OF 1
FILE:ocm\s1\ohc1-166c.dwg			



MATERIAL

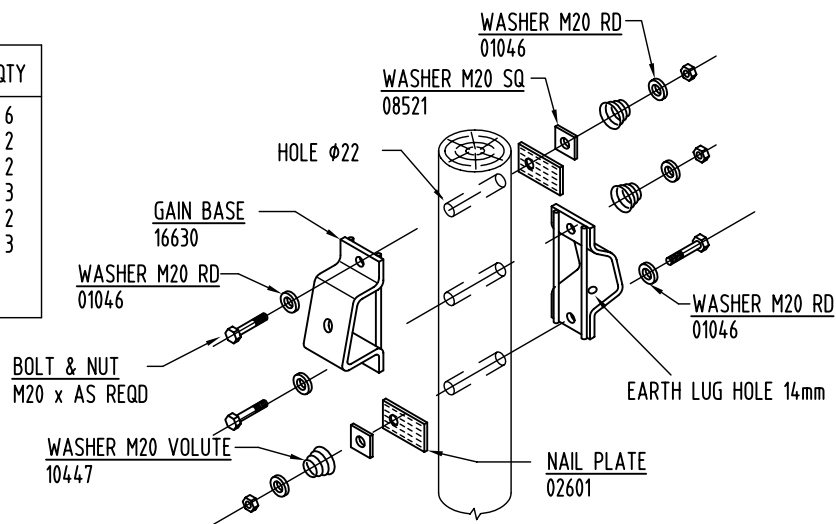
STOCK CODE	QTY
01046	4
02601	1
08521	2
10447	2
16630	1
B&N M20	2



SET168-1 - GAIN BASE TO POLE

MATERIAL

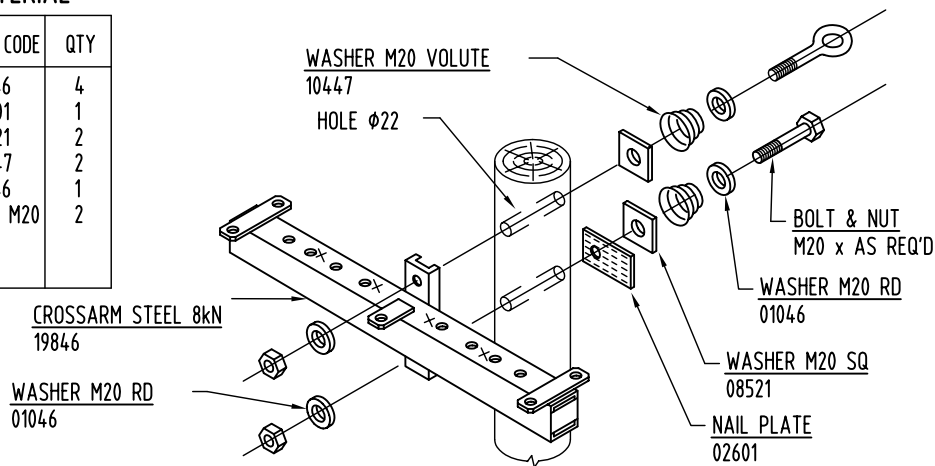
STOCK CODE	QTY
01046	6
02601	2
08521	2
10447	3
16630	2
B&N M20	3



SET168-2 - TWIN GAIN BASE TO POLE

MATERIAL

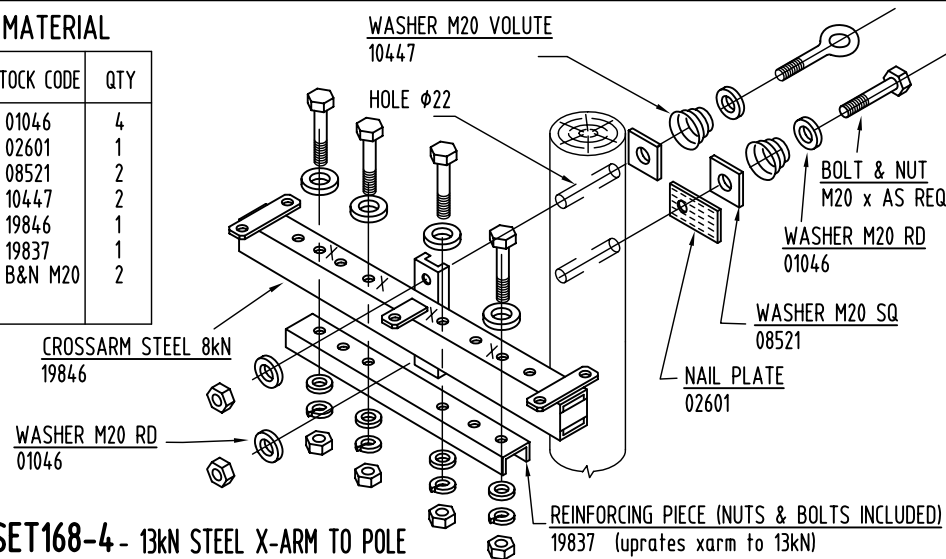
STOCK CODE	QTY
01046	4
02601	1
08521	2
10447	2
19846	1
B&N M20	2



SET168-3 - 8kN STEEL X-ARM TO POLE

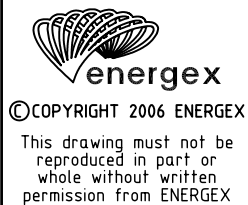
MATERIAL

STOCK CODE	QTY
01046	4
02601	1
08521	2
10447	2
19846	1
19837	1
B&N M20	2



SET168-4 - 13kN STEEL X-ARM TO POLE

ORIGINAL ISSUE	DATE	15/11/06	APPD	KNUTTALL	CKD	J.TUNNEY	DRN	G.JAYAWERA	TEMPLATE AMENDED	SET168-3 & 4 CHANGED
A	B									



OVERHEAD CONSTRUCTION MANUAL

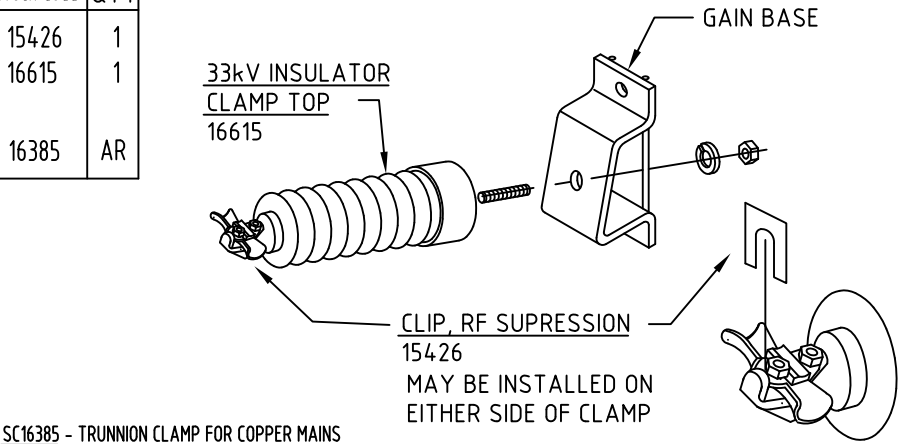
ATTACHMENTS

GAIN BASE & TWIN GAIN BASE TO POLE
8kN & 13kN CROSSARM TO POLE

APP'D	P.PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	B
REC'D		SECT	PAGE
CKD	R.WALKER	1	168
DWN	M.WELSH	SHEET	1 OF 1
FILE:ocm\s1\ohc1-168b.dwg			

MATERIAL

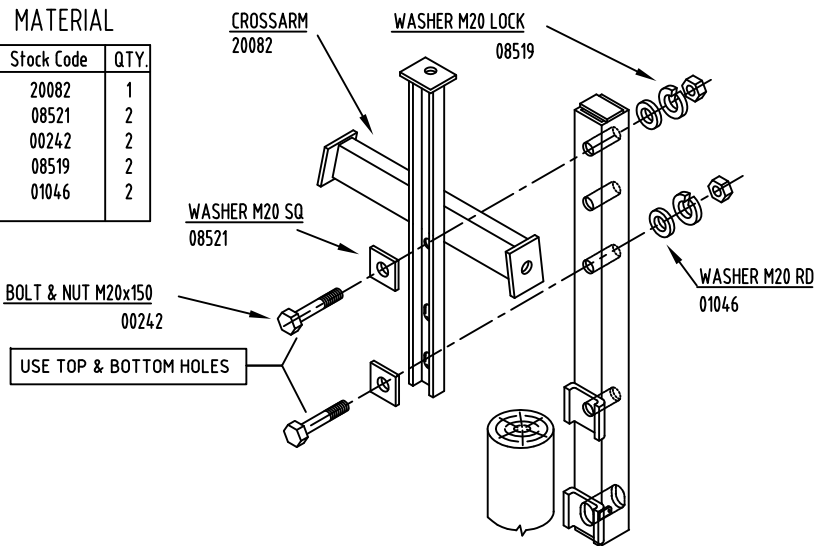
Stock Code	QTY
15426	1
16615	1
16385	AR



SET169-1 - 33kV CLAMP TOP LINE POST TO GAIN BASE

MATERIAL

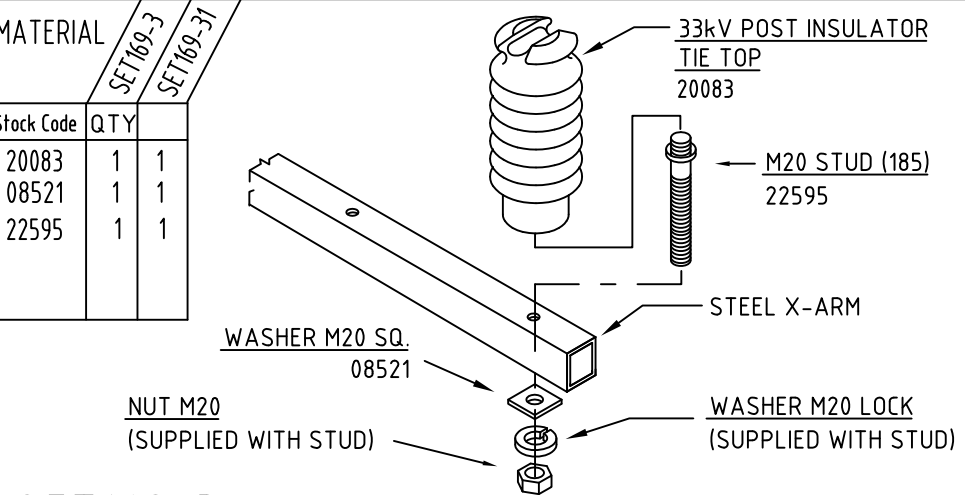
Stock Code	QTY
20082	1
08521	2
00242	2
08519	2
01046	2



SET169-2 - 11kV TRIDENT TO LONG RAISER

MATERIAL

Stock Code	QTY
20083	1
08521	1
22595	1

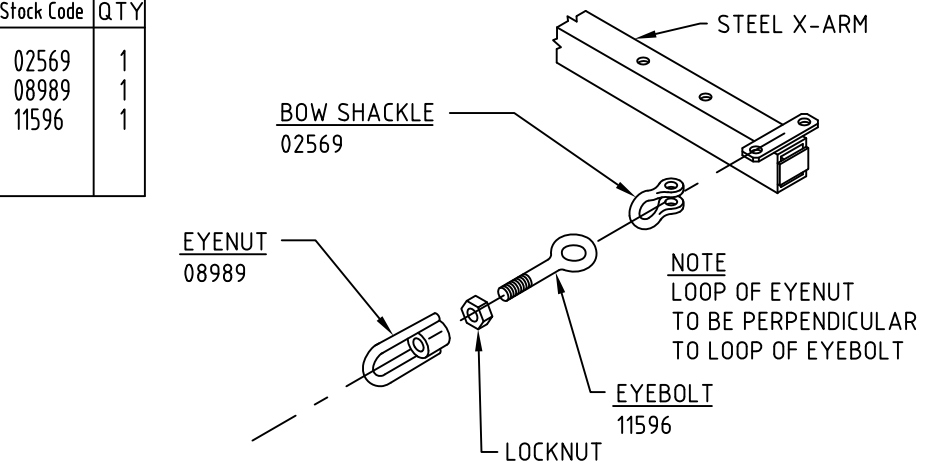


SET169-3 - 33kV BRIDGING LINE POST TO X-ARM (100x100)

SET169-31 - 33kV BRIDGING LINE POST TO X-ARM (125x125)

MATERIAL

Stock Code	QTY
02569	1
08989	1
11596	1



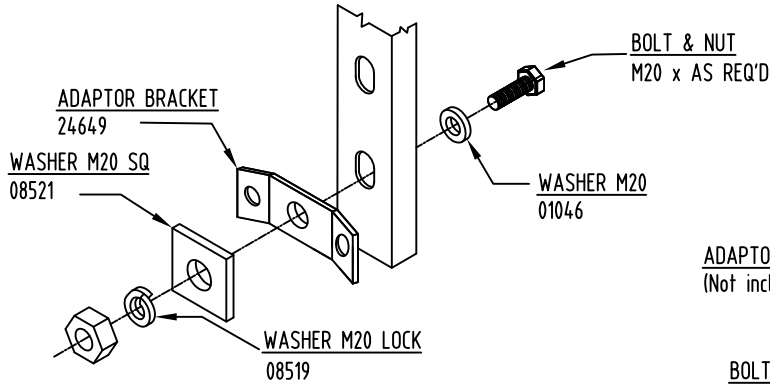
SET169-4 - EYEBOLT & EYENUT TO STEEL X-ARM

ORIGINAL ISSUE	DATE	F. ZAINI	P. RELF	P. RELF	ADDED SC16385
A	F				
DATE	27/01/2016				
APPD	F. ZAINI				
CKD	P. RELF				
DRN	P. RELF				
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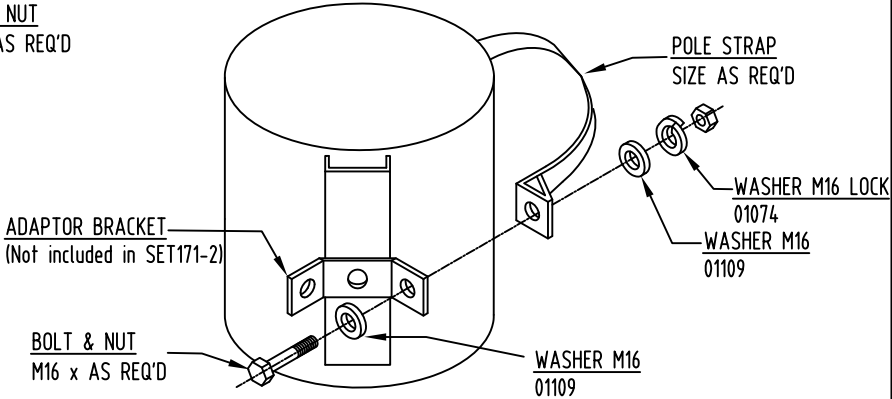
OVERHEAD CONSTRUCTION MANUAL	APP'D Paul Rainbird	TECH STDS		AUTOCAD
ATTACHMENTS	DATE 15-12-97	4920-A4		F
33kV CLAMP TOP LINE POST TO GAIN BASE	REC'D John Tunney	SECT 1	PAGE 169	
33k POST & CLEVIS TONGUE TO STEEL X-ARM	CKD John Tunney	SHEET 1 OF 1		
	DWN Rob Wassell	FILE:		

MATERIAL

Stock Code	-1	-2	-3
01046	1		1
01074		4	4
01109		1	1
08519	1		1
08521	1		1
24649	1		1
STRAP		AR	AR
B&N M20	AR	AR	AR



ONLY ONE SIDE SHOWN FOR CLARITY



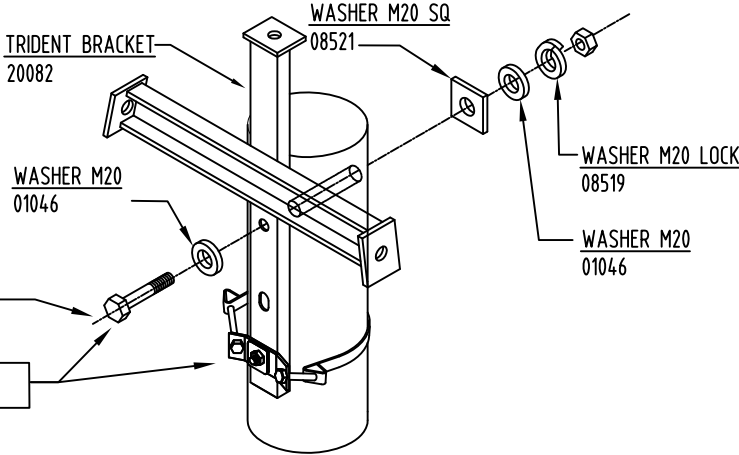
SET171-1 - CONCRETE POLE ADAPTOR BRACKET TO BRACKET

SET171-2 - CONCRETE POLE ADAPTOR BRACKET TO POLE STRAP

SET171-3 - CONCRETE POLE ADAPTOR BRACKET COMPLETE (SET171-1 and SET 171-2 combined)

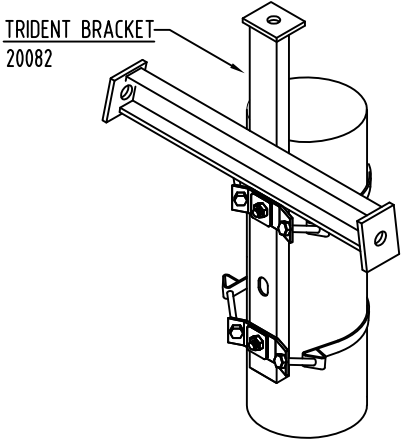
MATERIAL

Stock Code	QTY.
01046	2
08519	1
08521	1
20082	1
SET171-3	1



MATERIAL

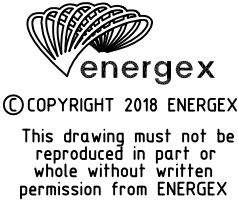
Stock Code	QTY.
20082	1
SET171-3	2



SET171-4 - 11kV TRIDENT BRACKET TO CONCRETE POLE

SET171-5 - 11kV TRIDENT BRACKET TO CONCRETE POLE

ORIGINAL ISSUE	DATE	APP'D	CKD	DRN	SET171-2 update bolt size to M16
A	21/9/18	F. ZAINI	P. RELF	P. RELF	Material table updated for SET171-2 and -3



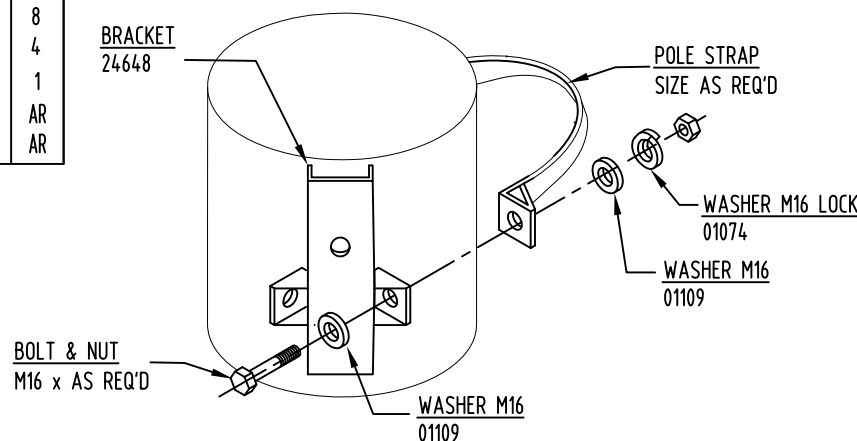
OVERHEAD CONSTRUCTION MANUAL
11kV CONSTRUCTION
CONCRETE POLE ATTACHMENT

APP'D	F. ZAINI	TECH STDS	AUTOCAD
DATE	04/07/2016	4920-A4	B
REC'D		SECT	PAGE
CKD	P. RELF	1	171
DWN	P. RELF	SHEET	1 OF 1
FILE: X X X X			

MATERIAL

Stock Code	QTY.
01109	8
01074	4
24648	1
STRAP	AR
B&N M16	AR

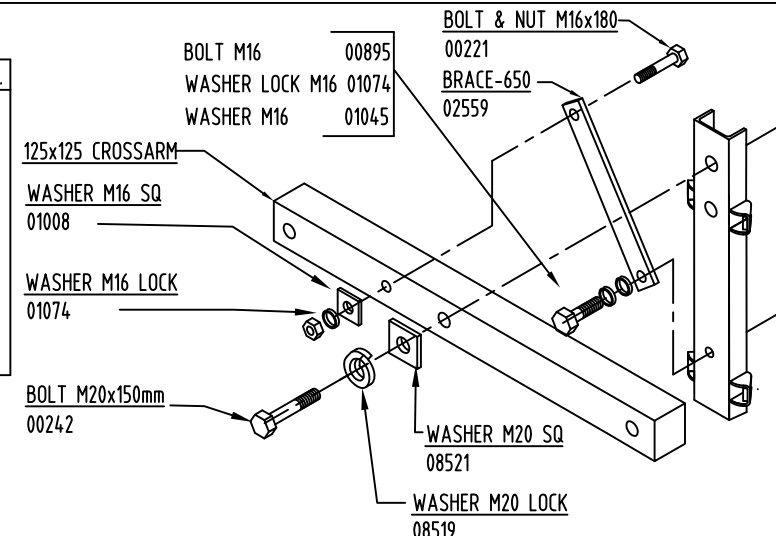
ONLY ONE SIDE OF BOTTOM BRACKET SHOWN FOR CLARITY



SET172-1 - CONCRETE POLE BRACKET TO POLE

MATERIAL

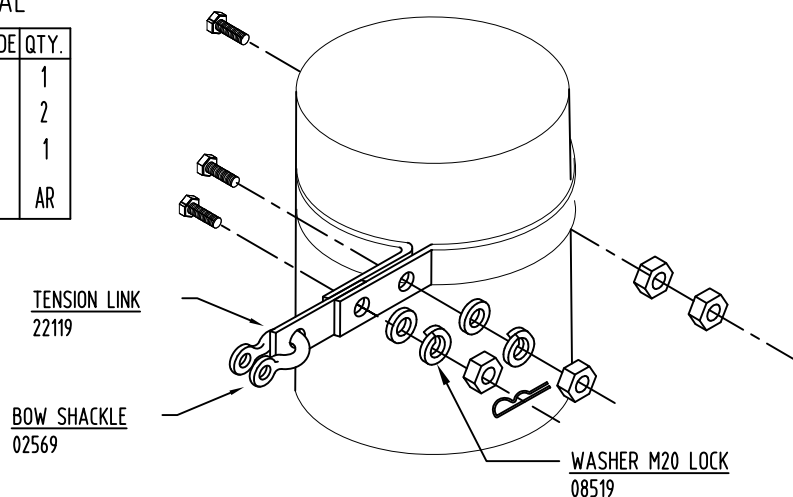
STOCK CODE	QTY.
00221	1
00242	1
00895	1
01008	1
01045	2
01074	1
02559	1
08519	2
08521	3



SET172-2 - CROSSARM TO CONCRETE POLE BRACKET

MATERIAL

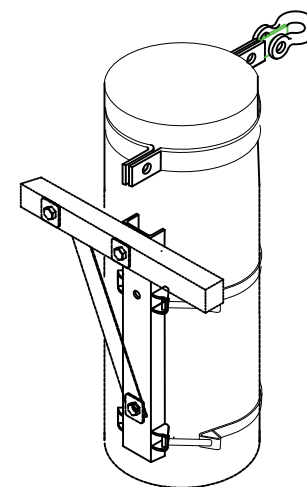
STOCK CODE	QTY.
2569	1
8519	2
22119	1
STRAP	AR



SET172-3 - CENTER PHASE ATTACHMENT TO CONCRETE POLE

MATERIAL

STOCK CODE	QTY.
SET172-1	1
SET172-2	1
SET172-3	1



SET172-4 --COMPLETE ARRANGEMENT FOR NON STANDARD CONCRETE POLE

ORIGINAL ISSUE	DATE	APP'D	F. ZAINI	P. RELF	P. RELF
A	B	APP'D	F. ZAINI	CKD	DRN
SET172-1 Bolt size updated to M16 SET172-2 Brace bolt data added					



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

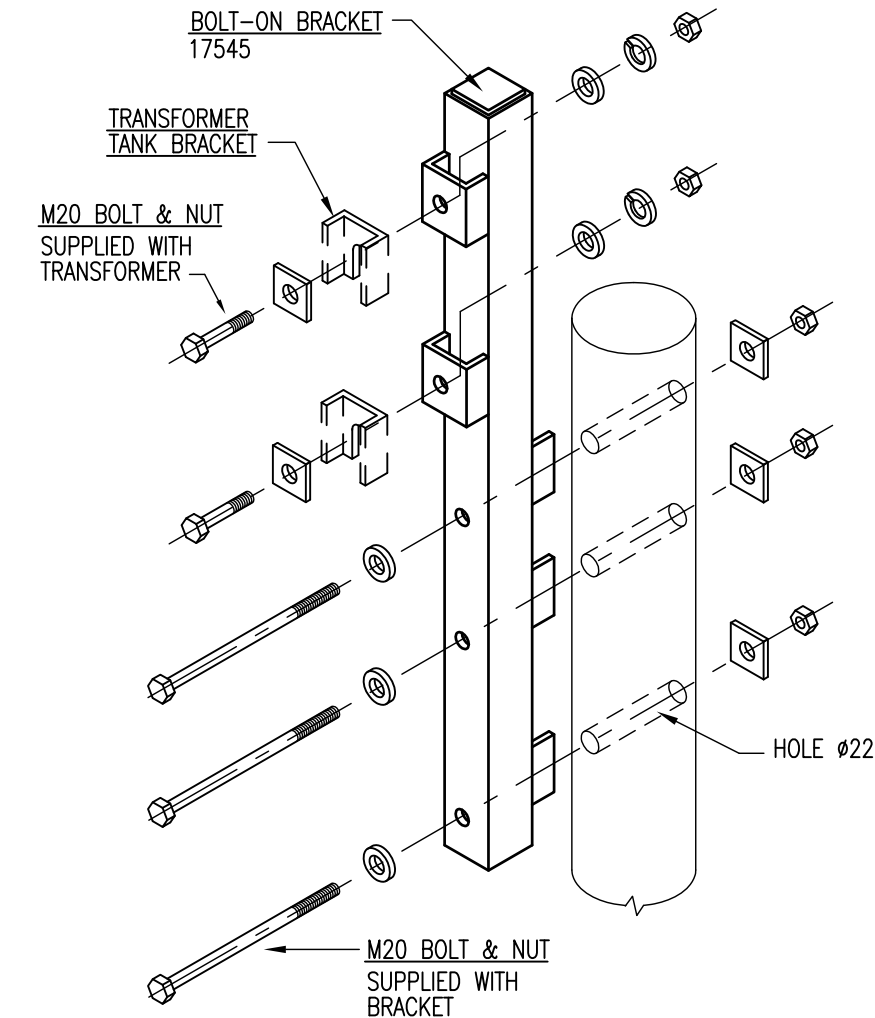
NON STANDARD CONCRETE BRACKET ATTACHMENTS

APP'D	F. ZAINI	TECH STDS	AUTOCAD
DATE	15/07/2016	4920-A4	B
REC'D		SECT 1	PAGE 172
CKD	P. RELF	SHEET 1 OF 1	
DWN	P. RELF	FILE:	

MATERIAL

Stock Code	QTY.
17545	1

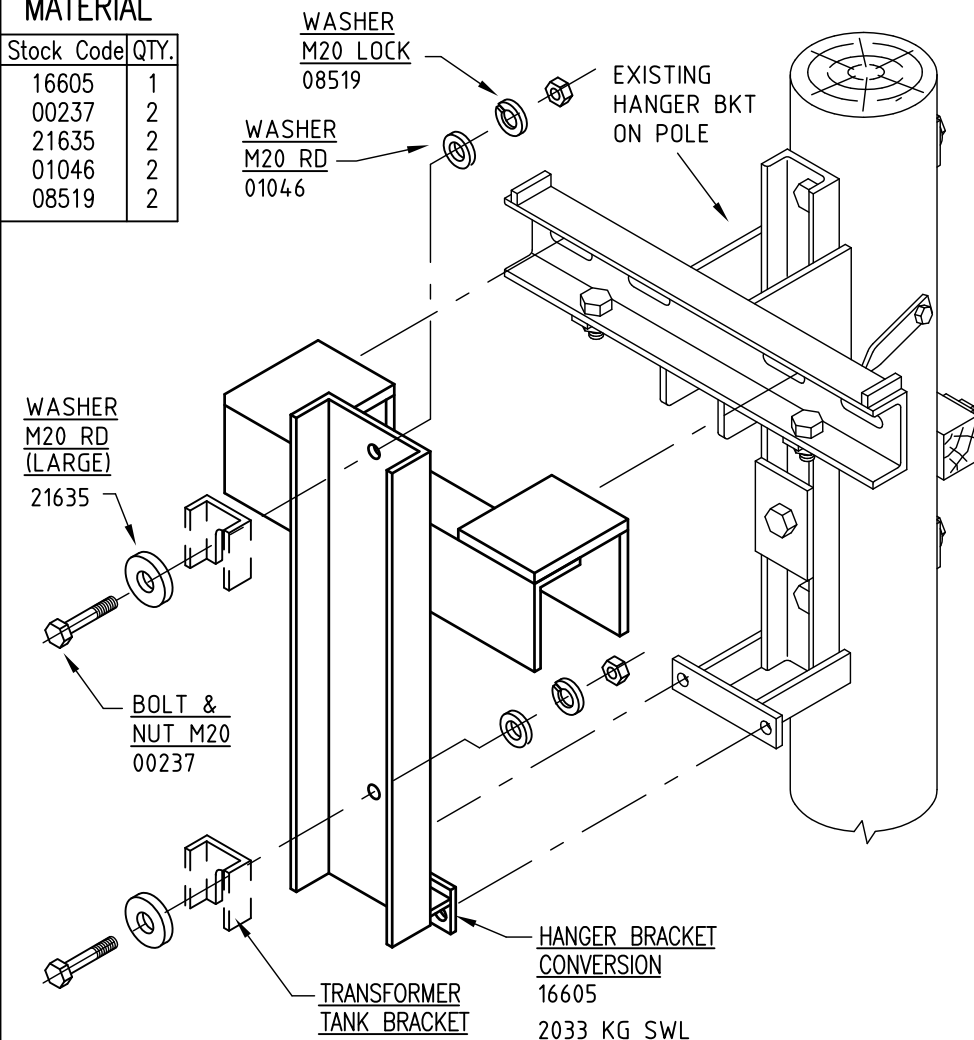
NOTE BRACKET COMES COMPLETE WITH BOLTS, NUTS AND WASHERS.



SET248-1 - BOLT-ON TFMR BKT FOR METRO CONC POLE

MATERIAL

Stock Code	QTY.
16605	1
00237	2
21635	2
01046	2
08519	2



SET248-2 - HANGER BKT TO CONV BOLT-ON TFMR TO HANGER TYPE

ORIGINAL ISSUE	DATE	APPD	CKD	DRN	P. RELF
A	28-05-2014	D			

Correct Bolt and nut size supplied with transformer in SET248-1

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OVERHEAD CONSTRUCTION MANUAL
ATTACHMENTS
BOLT MOUNTED TRANSFORMERS
CONVERSION BRACKETS TO POLES

APP'D Rod Douglas	TECH STDS		AUTOCAD
DATE 8-8-2000	4920-A4		D
REC'D	SECT 1	PAGE 248	
CKD John Jordan	SHEET 1 OF 1		
DWN J Hill / W.W	FILE:ocm\s1\ohc1-248b.dwg		

MATERIAL

Stock Code	QTY.
00689	1
01045	1
01046	1
02601	1
08521	1
10447	1
10484	1
B&N M20	1



OBSOLETE
SET249-1 - 11kv EDO X-ARM (STEEL) TO WOOD POLE

MATERIAL

Stock Code	QTY.
01035	1
01046	2
01068	1
02601	1
08521	2
02589	2
08761	1
10447	1
17886	1
B&N M20	2



SET249-3 - 11kv PIN TO POLE

MATERIAL

Stock Code	QTY.
00895	1
01045	1
01046	1
02601	1
10484	1
B&N M20	1



OBSOLETE
SET249-2 - 11kv EDO X-ARM (STEEL) TO CONC. POLE

A	ORIGINAL ISSUE	
C	DATE	15/11/06
APPD	K.NUTTALL	
CKD	J.TUNNEY	
DRN	G.JAYAWERA	
TEMPLATE CHANGED		
SET249-1 & 2 REMOVED		

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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

11kv PIN TO POLE

APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12.5.94	4920-A4		C
REC'D		SECT	PAGE	
CKD	R Walker	1	249	
DWN	M Welsh	SHEET 1 OF 1		
FILE:ocm\s1\ohc1-249.dwg				

MATERIAL		SET250-1	SET250-12	SET250-15
Stock Code	QTY	QTY	QTY	
01046	4	4	4	
08521	3	3	3	
21635	2	2	2	
10447	3	3	3	
16461	1		1	
22454		1		
13204	-	-	3	
B&N M20	3	3	-	

SET250-1 63kVA BOLT-ON TRANSF'R BRACKET TO WOOD POLE

SET250-12 25kVA BOLT-ON TRANSF'R BRACKET TO WOOD POLE

SET250-15 100-500kVA BOLT-ON TRANSF'R BRACKET TO WOOD POLE

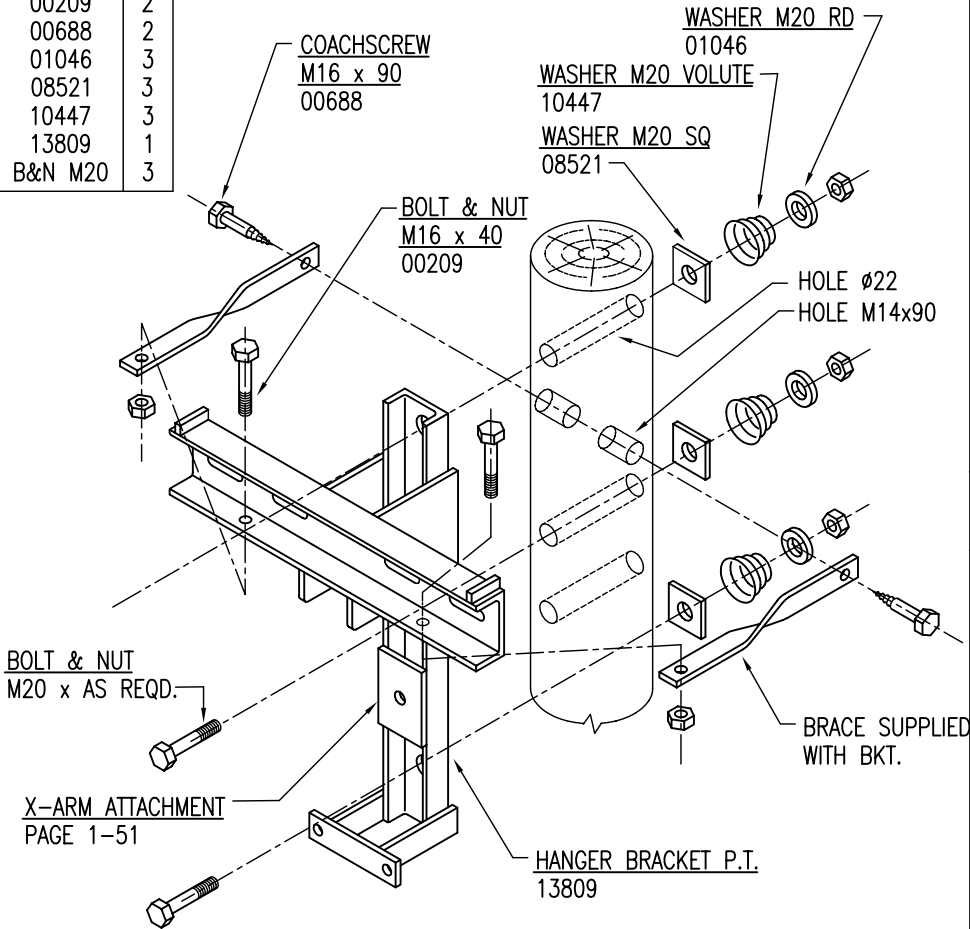
MATERIAL		SET250-1C	SET250-1C5
Stock Code	QTY	QTY	
00253	3	-	
13204	-	3	
01046	4	4	
08519	3	3	
21635	2	2	
16461	1	1	

SET250-1C 63kVA BOLT-ON TRANSF'R BRACKET TO CONC POLE

SET250-1C5 100-500kVA BOLT-ON TRANSF'R BRACKET TO CONC POLE

MATERIAL

Stock Code	QTY.
00209	2
00688	2
01046	3
08521	3
10447	3
13809	1
B&N M20	3

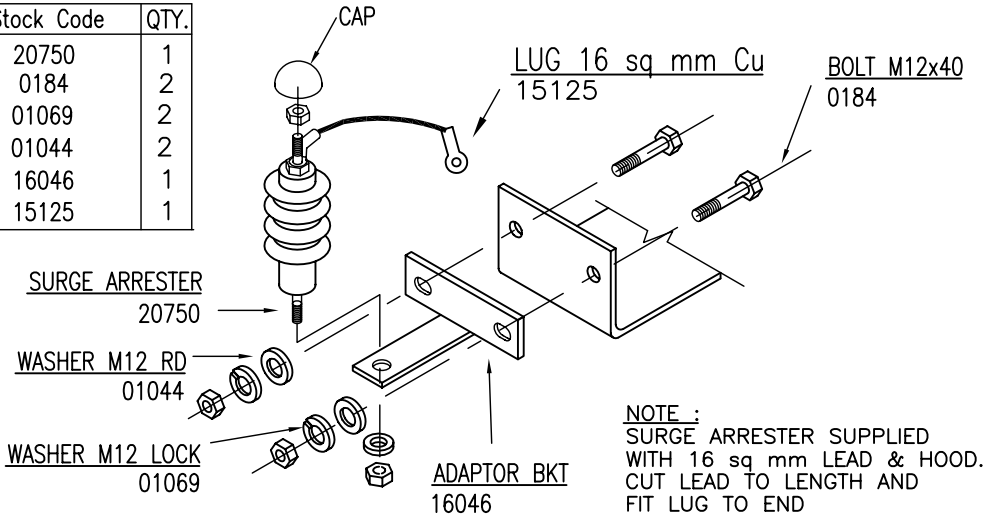


NOTE :
ADD SPACER SC 13761 FOR
OLD TYPE TRANSFORMER.

SET252-1 - TRF HANGER BKT TO POLE

MATERIAL

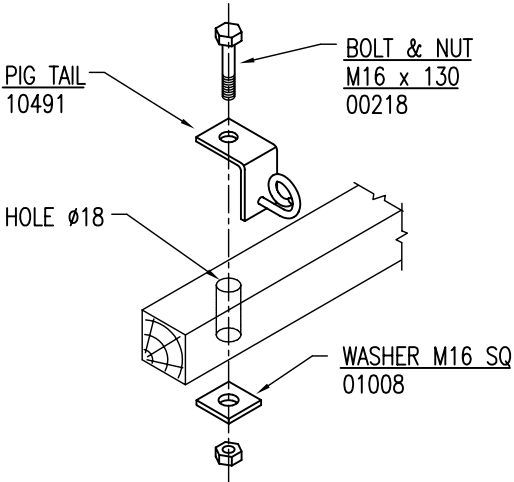
Stock Code	QTY.
20750	1
0184	2
01069	2
01044	2
16046	1
15125	1



SET252-2 - 11kV SURGE ARRESTER & ADAPTOR TO TANK

MATERIAL

Stock Code	QTY.
00218	1
01008	1
10491	1



OBSOLETE

SET252-3 - PIG TAIL

A	ORIGINAL ISSUE		APPD K.NUTTALL	CKD J.TUNNEY	DRN G.JAYAWEEERA	SET252-2 CHANGED SET252-3 REMOVED
C	DATE	15/11/06				

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OVERHEAD CONSTRUCTION MANUAL

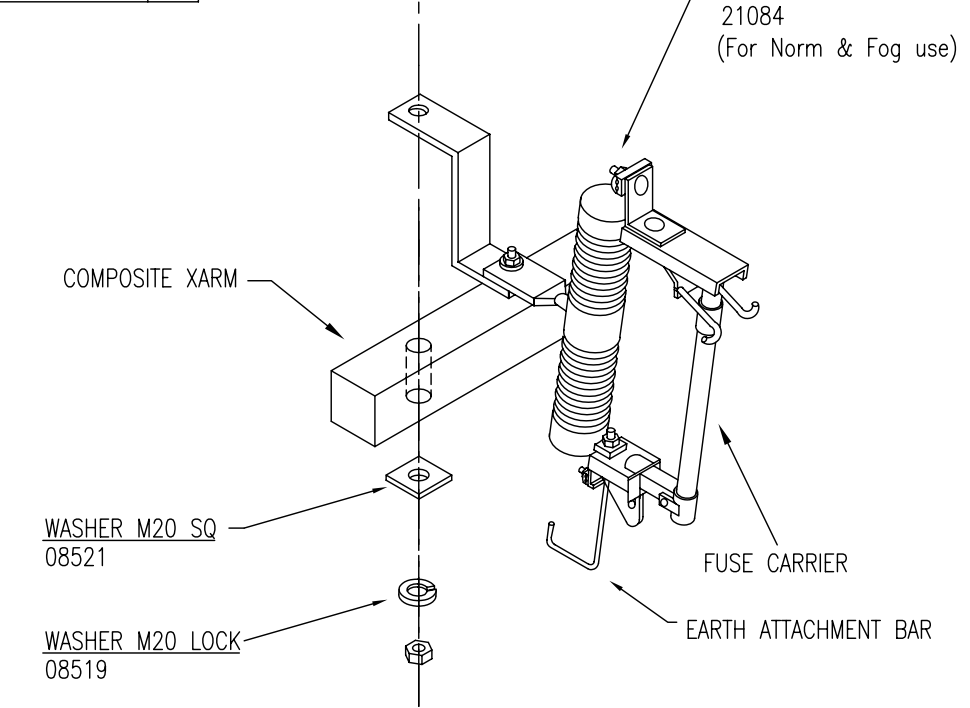
ATTACHMENTS

HANGER TRANSFORMER
SURGE ARRESTER

APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12-05-94	4920-A4		C
REC'D		SECT	PAGE	
CKD	Ron Walker	1	252	
		SHEET 1 OF 1		
DWN	M. Welsh	FILE:ocm\s1\ohc1-151c.dwg		

MATERIAL

Stock Code	Qty
00243	1
21084	1
08521	1
08519	1

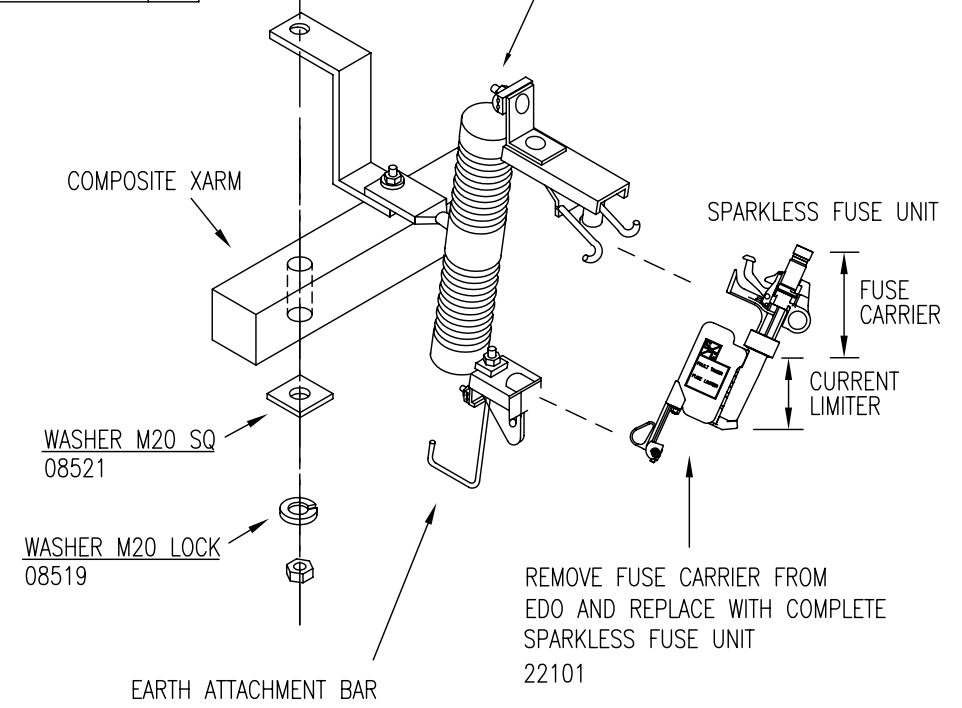


REFER CURRENT VERSION OF TECH. INSTRUCTION TSD0019 FOR FUSE LINKS AVAILABLE.

SET254-1 11/22kV EXPULSION DROP OUT FUSE SWITCH

MATERIAL

Stock Code	Qty
00243	1
21084	1
08521	1
08519	1
22101	1




NOTES

SPARE FUSE CARRIER IS SC 22103
 SPARE CURRENT LIMITER IS SC 22102
 REFER CURRENT VERSION OF TECH. INSTRUCTION TSD0019 FOR FUSE LINKS AVAILABLE.

SET254-5 11/22kV SPARKLESS DROP OUT FUSE SWITCH

ORIGINAL ISSUE	DATE	RENGISH	J.TUNNEY	J.TUNNEY
A	F	APPD	CKD	DRN
		SET254-5 added	SET254-4 deleted.	



energen

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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

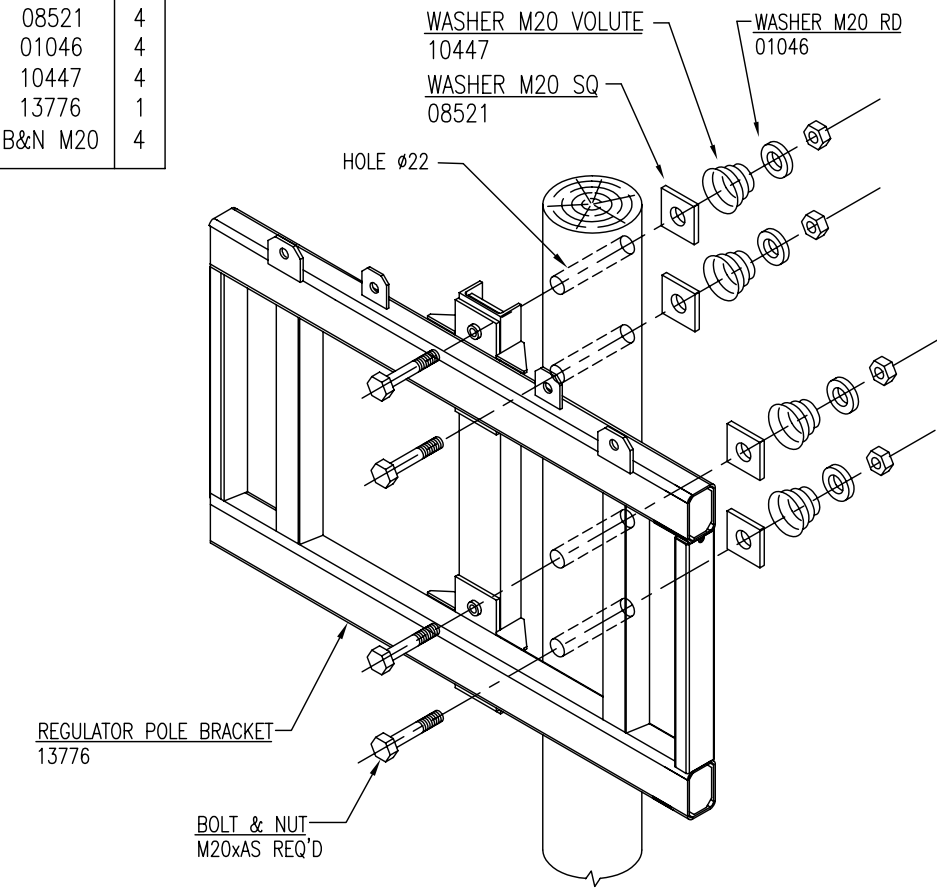
11/22kV EXPULSION DROP OUT FUSE SWITCH

11/22kV SPARKLESS DROP OUT FUSE SWITCH (COMPOSITE X-ARM)

APP'D	P.PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	F
REC'D		SECT	PAGE
CKD	R.WALKER	1	254
DWN	M.WELSH	SHEET	1 OF 1
		FILE:ocm\s1\ohc1-254c.dwg	


MATERIAL

Stock Code	QTY.
08521	4
01046	4
10447	4
13776	1
B&N M20	4



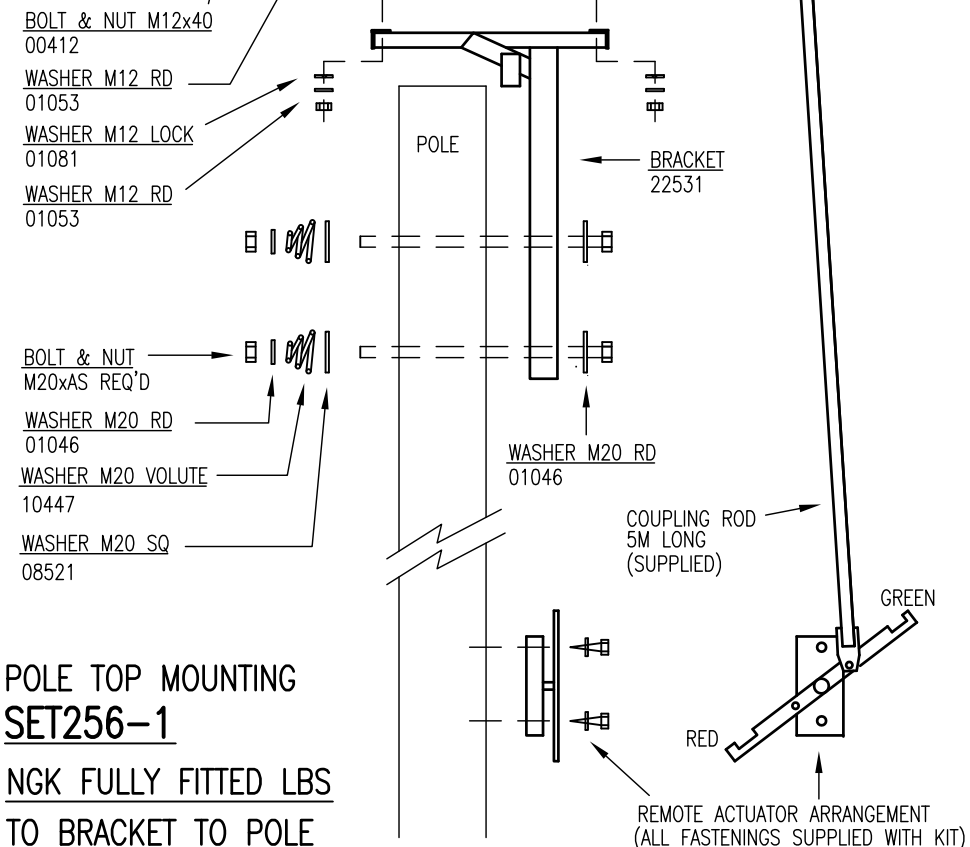
HANGER BRACKET (SC 18655) TO ADAPT
REGULATOR TANK TO REGULATOR POLE BRACKET
IS FITTED TO REGULATOR PRIOR TO
ISSUE FROM ENERGEX STORE

SET255-1 – 11kV REGULATOR BRACKET TO POLE

A	ORIGINAL ISSUE		APPD R.ENGLESH	CKD J.TUNNEY	DRN T.BAKKER	Bracket detail updated.	<div> energex</div> <div>©COPYRIGHT 2009 ENERGEX</div> <div>This drawing must not be reproduced in part or whole without written permission from ENERGEX</div>	OVERHEAD CONSTRUCTION MANUAL		APP'D	P.PEARL	TECH STDS		AUTOCAD
	DATE	24-6-09						4920-A4		E				
	REC'D							SECT		PAGE				
	CKD							1		255				
DWN		M.WELSH		SHEET 1 OF 1		FILE:ocm\s1\ohc1-255e.dwg								
								11kV REGULATOR BRACKET TO POLE						

MATERIAL

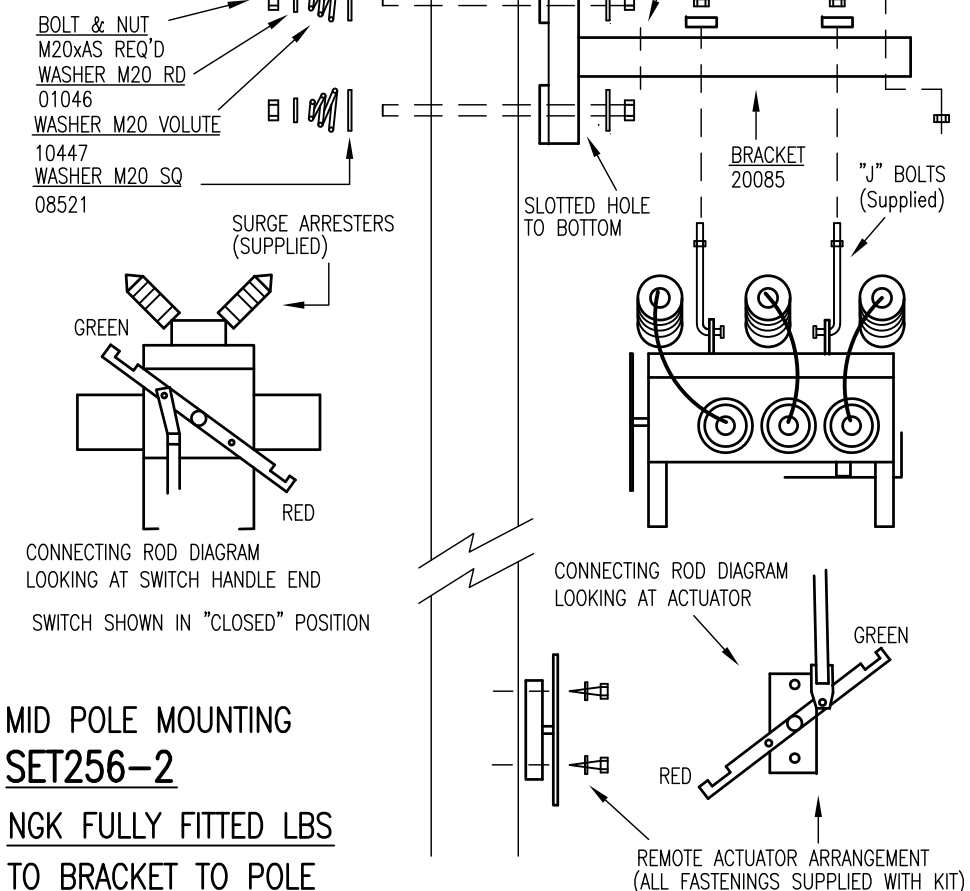
Stock Code	QTY.
00412	4
01053	8
01081	4
22531	1
B&N M20	2
01046	4
10447	2
08521	2



POLE TOP MOUNTING
SET256-1
NGK FULLY FITTED LBS
TO BRACKET TO POLE

MATERIAL

Stock Code	QTY.
00190	1
20085	1
B&N M20	2
01046	4
10447	2
08521	2



MID POLE MOUNTING
SET256-2
NGK FULLY FITTED LBS
TO BRACKET TO POLE

ORIGINAL ISSUE
A

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OVERHEAD CONSTRUCTION MANUAL

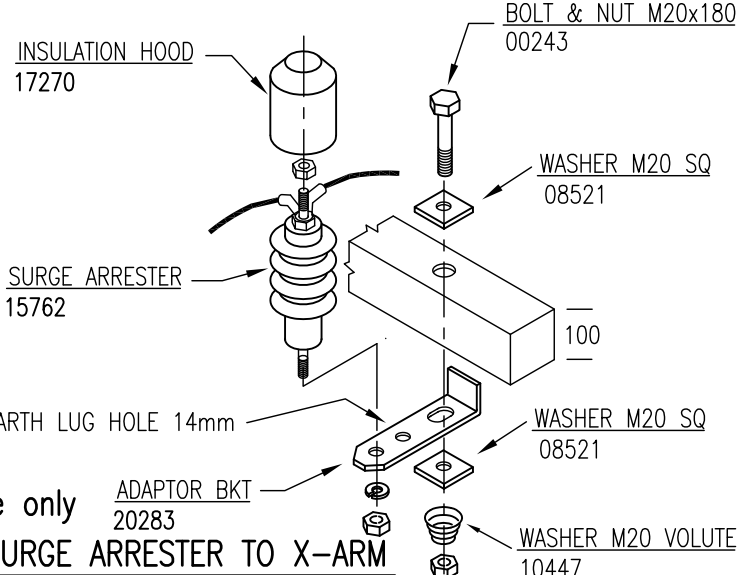
ATTACHMENTS

NGK FULLY FITTED LOAD BREAK SWITCH TO BRACKET TO POLE
POLE TOP AND MID POLE

APP'D ROY ENGLISH	TECH STDS		AUTOCAD
DATE 11-08-2011	4920-A4		A
REC'D	SECT 1	PAGE 256	
CKD JOHN TUNNEY	SHEET 1 OF 1		
DWN John Tunney	FILE:		

MATERIAL

Stock Code	QTY.
15762	1
20283	1
00243	1
08521	2
10447	1
17270	1

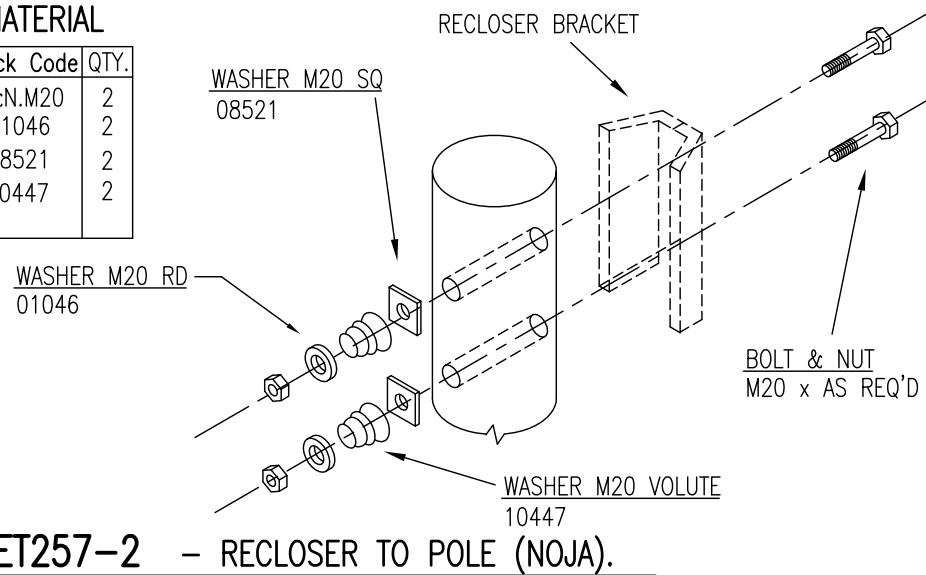


****OBSOLETE****
for maintenance only

SET257-1 -SURGE ARRESTER TO X-ARM

MATERIAL

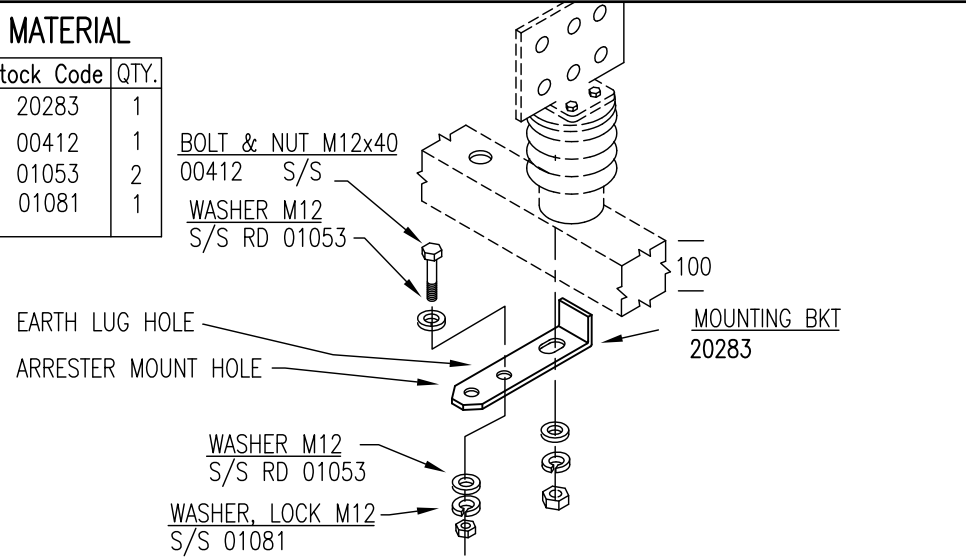
Stock Code	QTY.
B&N.M20 01046	2
08521	2
10447	2



SET257-2 - RECLOSER TO POLE (NOJA).

MATERIAL

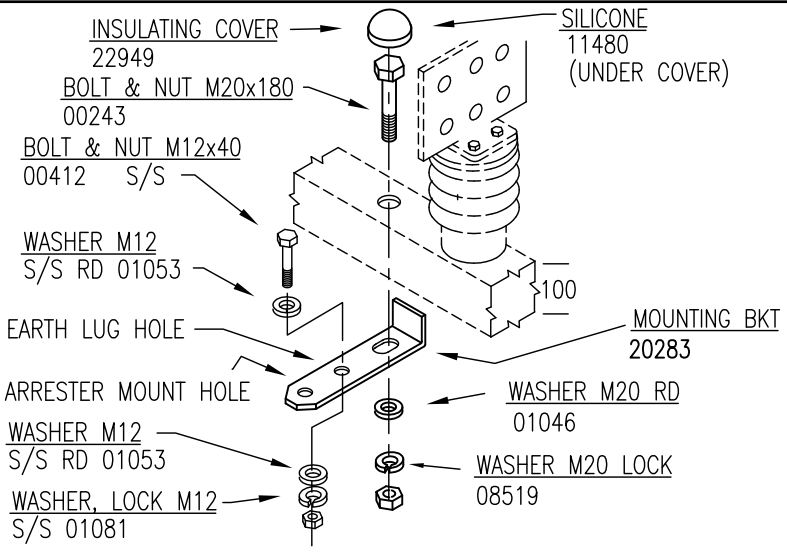
Stock Code	QTY.
20283	1
00412	1
01053	2
01081	1



SET257-3 - ARRESTER BRACKET TO X-ARM INSULATOR STUD


MATERIAL

Stock Code	QTY.
20283	1
00243	1
01046	1
08519	1
00412	1
01053	2
01081	1
22949	1
11480	AR



SET257-4 - ARRESTER BRACKET TO X-ARM

ORIGINAL ISSUE	DATE 23-11-2012	APPD Colin Lee	CKD J.TUNNEY	DRN J.TUNNEY	SET257-3 & 4 added SET257-1 NOW OBSOLETE
A	G				



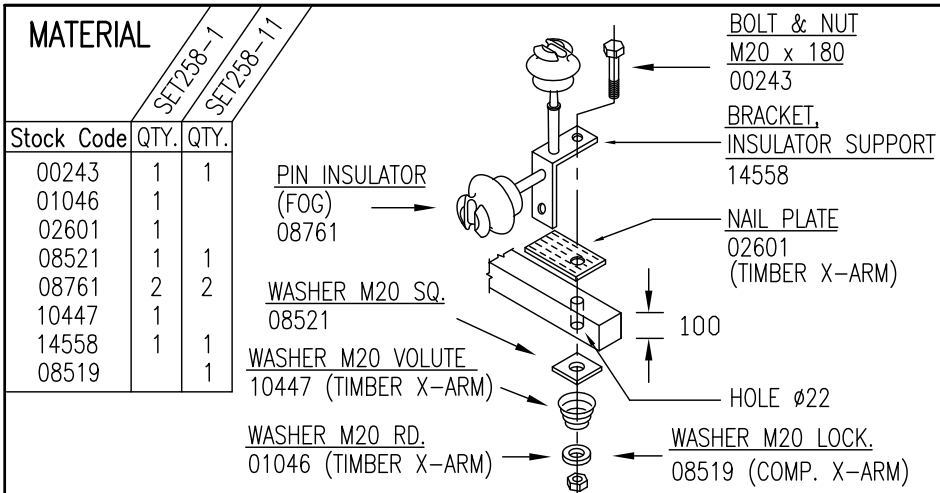
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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

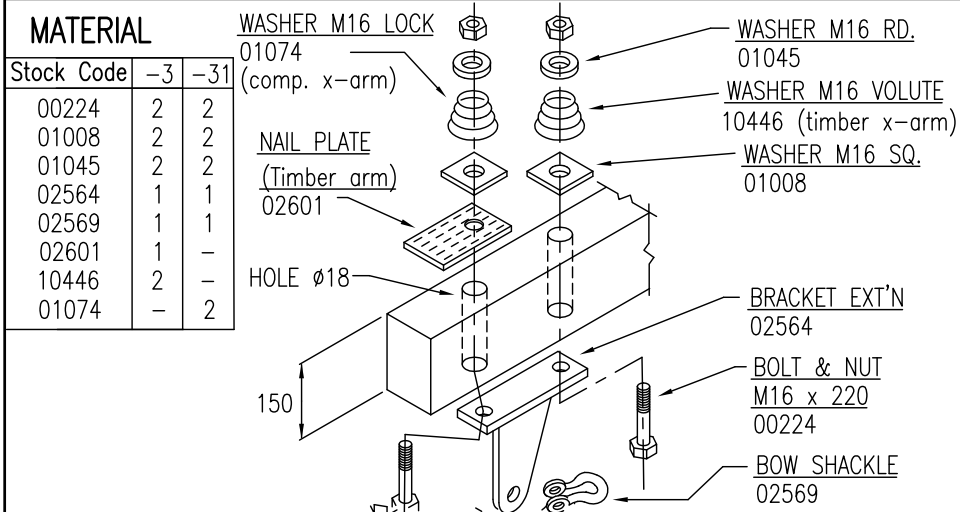
SURGE ARRESTER & BRIDGING POST TO X-ARM

APP'D	P.PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	G
REC'D		SECT	PAGE
CKD	R.WARKER	1	257
DWN	M.WELSH	SHEET	1 OF 1
FILE:ocm\s1\ohc1-257g.dwg			



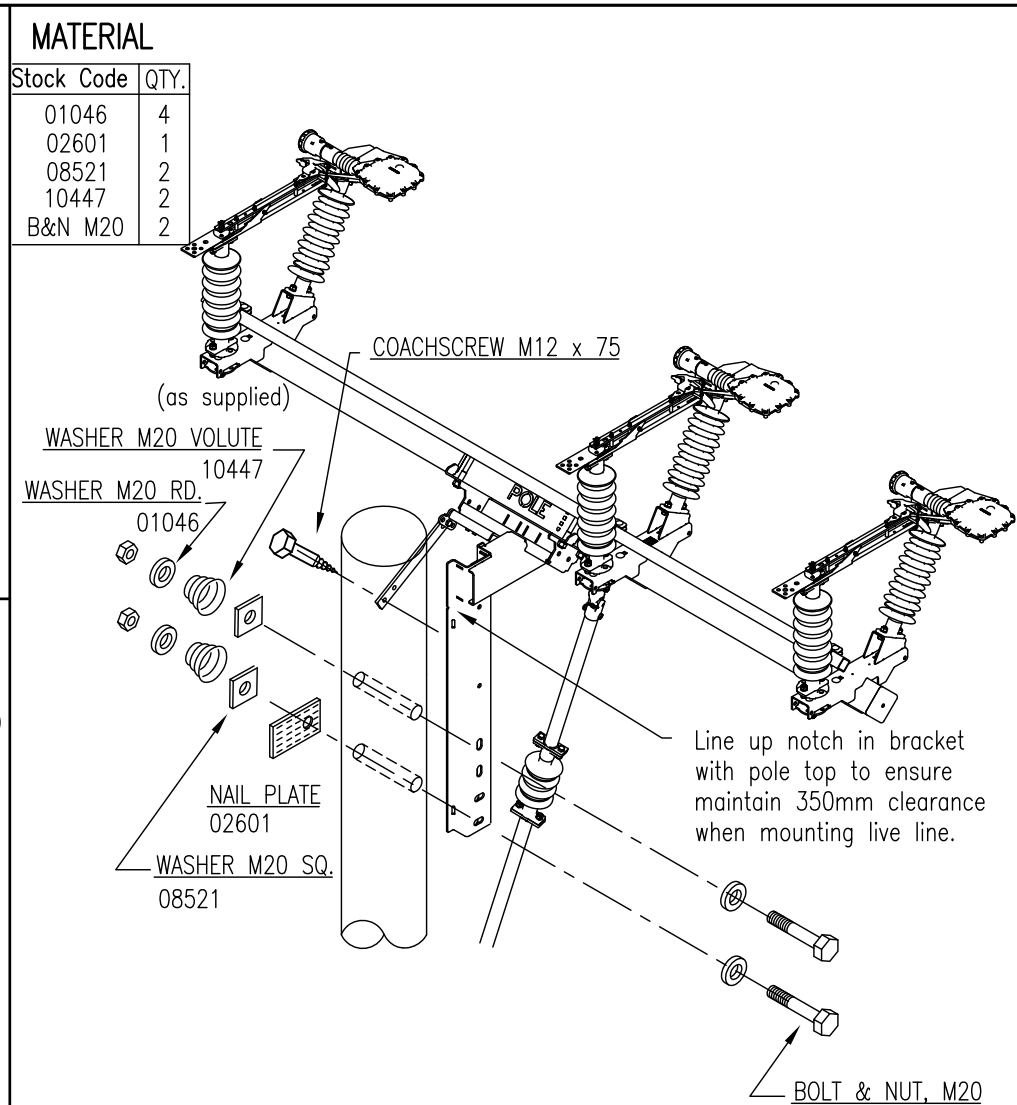
SET258-1 - 11kV TWIN BRIDGING PINS TO TIMBER X-ARM

SET258-11 - 11kV TWIN BRIDGING PINS TO COMPOSITE X-ARM



SET258-3 - 33kV SUSP'N ANGLE TO X-ARM (LARGE)

SET258-31 - 33kV SUSP'N ANGLE TO COMPOSITE X-ARM



SET258-4

-11kV AIR BREAK SWITCH TO WOOD POLE

ORIGINAL ISSUE	DATE	F. ZAINI	P. RELF	P. RELF	SET258-31 ADDED
A	F	APPD	CKD	DRN	



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

11kV TWIN BRIDGING PINS TO CROSSARM
11kV UNITISED ABS TO WOOD POLE
33kV SUSPENSION ANGLE TO CROSSARM

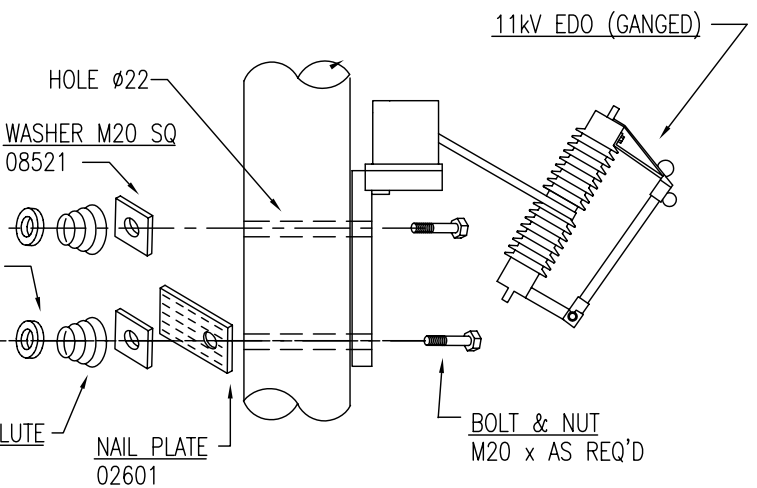
APP'D	P. PEARL	TECH STDS	AUTOCAD
DATE	12/5/94	4920-A4	F
REC'D		SECT	PAGE
CKD	R. WARKER	1	258
DWN	M. WELSH	SHEET	1 OF 1
		FILE:	

MATERIAL

Stock Code	QTY.
01046	4
02601	1
08521	2
10447	2
B&N M20	2

WASHER M20 RD	01046
---------------	-------

WASHER M20 VOLUTE	10447
-------------------	-------



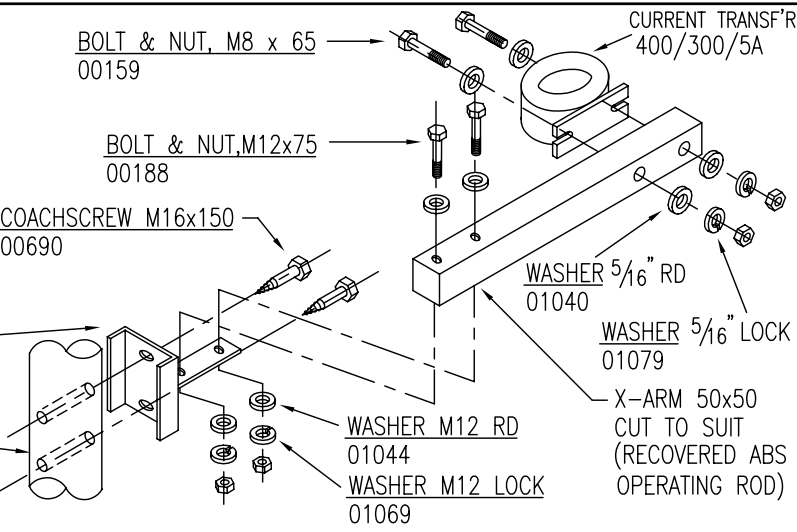
SET259-1 - 11kV EDO (GANGED) TO POLE

MATERIAL

Stock Code	QTY.
00159	2
00188	2
00690	2
01040	4
01044	4
01069	2
01079	2
16000	1

BRACKET	16000
---------	-------

HOLES	ø14 x 100
-------	-----------



SET259-3 - CURRENT TRANSFORMER TO POLE OBSOLETE

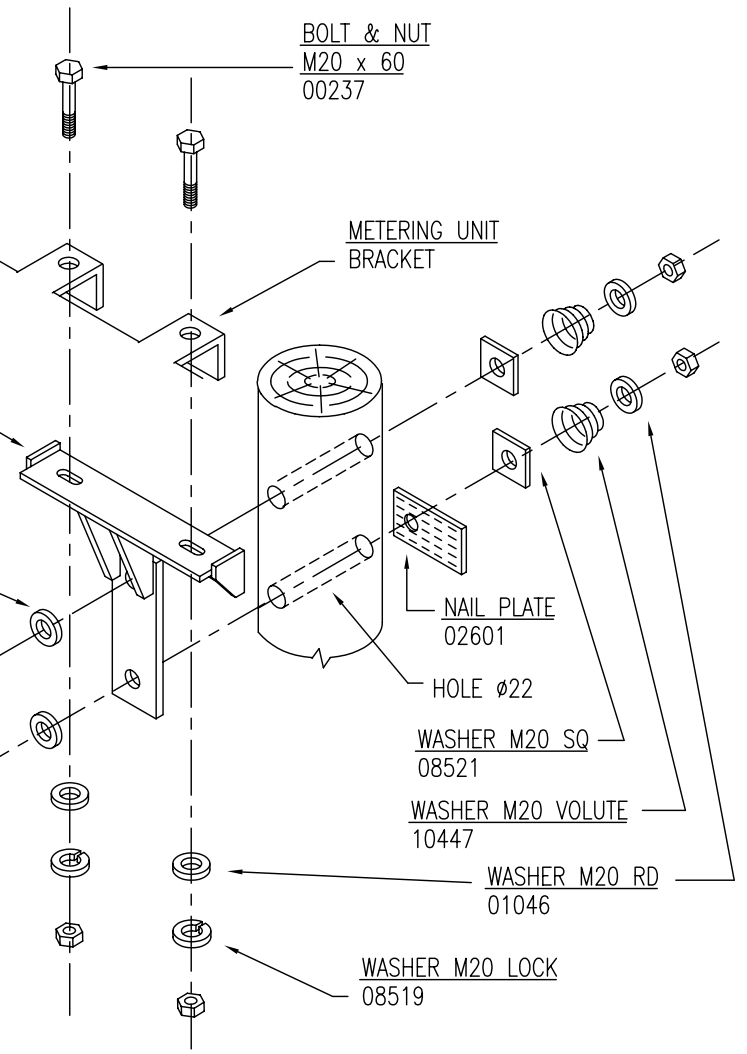
MATERIAL

Stock Code	QTY.
00237	2
01046	6
02601	1
08519	2
08521	2
10447	2
15973	1
B&N M20	2

HANGER BRACKET	15973
----------------	-------

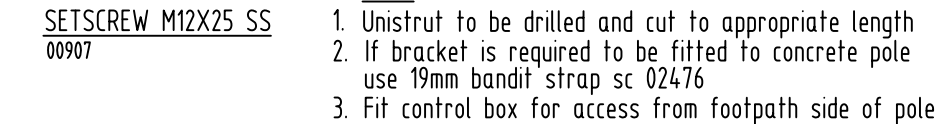
WASHER M20 RD	01046
---------------	-------

BOLT & NUT	M20 x AS REQD
------------	---------------

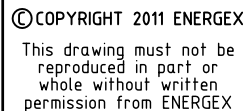


SET259-2 - 11kV METERING UNIT TO POLE

Stock Code	QTY.
00412	2
01046	2
01053	2
01081	2
02601	1
08521	4
10447	2
15864	1
22553	1
00907	2
10885	2
01044	4
B&N M20	2



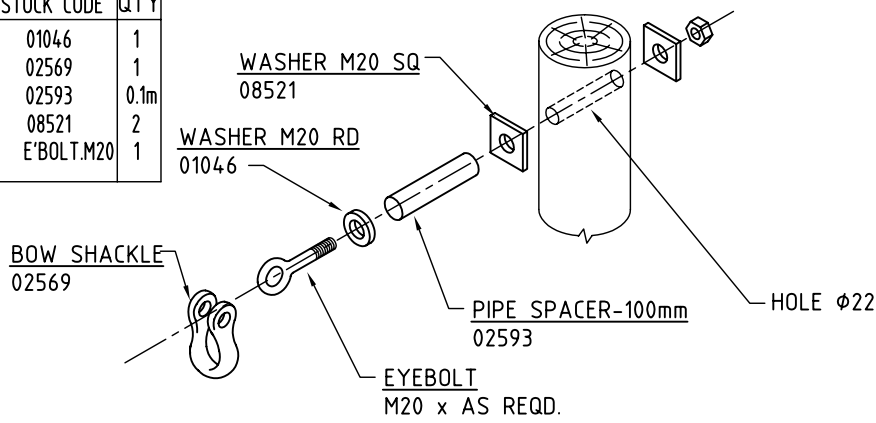
A	ORIGINAL ISSUE	
I	DATE	30-07-13
APPD	F. ZAINI	
CKD	P. RELF	
DRN	P.RELF	
Updated Note 2 to 19mm bandit strap		



APP'D	Pat Pearl	TECH STDS		AUTOCAD
DATE	12-05-94	4920-A4		1
REC'D		SECT	PAGE	
CKD	Ron Walker	1	260	
DWN	M. Welsh	SHEET 1 OF 1		
		FILE\\ocm\\s1\\ohc1-260h.dwg		

MATERIAL

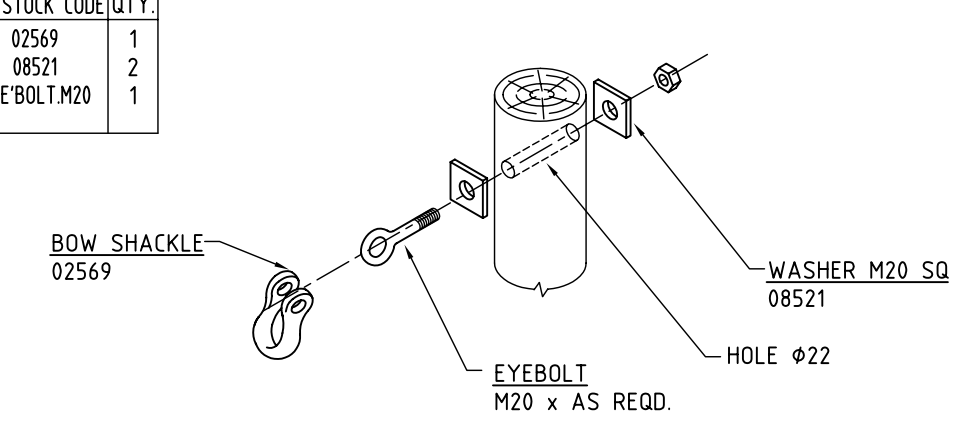
STOCK CODE	QTY
01046	1
02569	1
02593	0.1m
08521	2
E'BOLT.M20	1



SET261-1 - OHEW SUSPENSION

MATERIAL

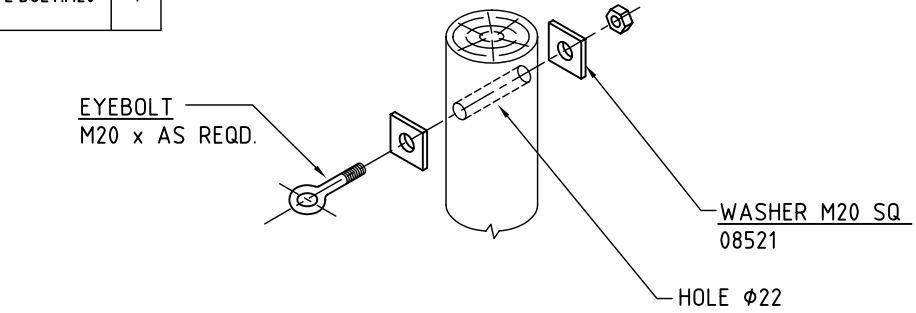
STOCK CODE	QTY.
02569	1
08521	2
E'BOLT.M20	1



SET261-2 - OHEW SUSPENSION ANGLE

MATERIAL

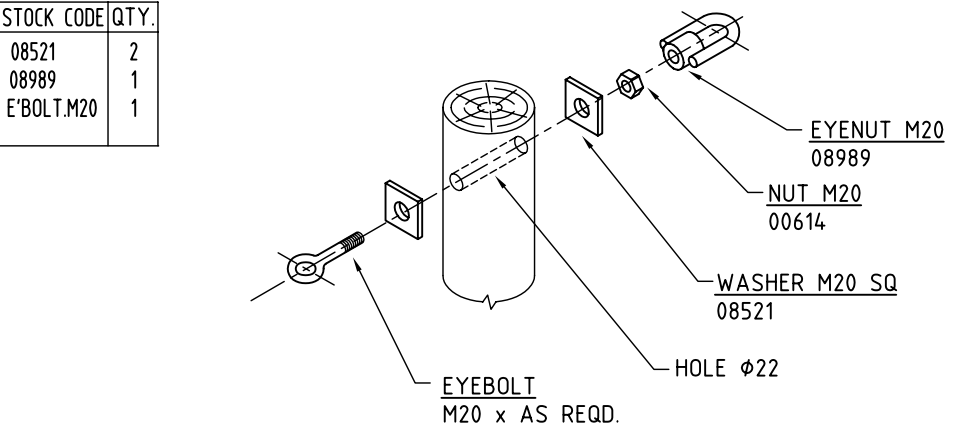
STOCK CODE	QTY.
08521	2
E'BOLT.M20	1



SET261-3 - OHEW TERMINATION

MATERIAL

STOCK CODE	QTY.
08521	2
08989	1
E'BOLT.M20	1



SET261-4 - OHEW SHACKLE

ORIGINAL ISSUE

DATE 15/11/06

APPD KNUUTTALL

CKD J.TUNNEY

DRN G.JAYAWERA

TEMPLATE CHANGED

energex

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OVERHEAD CONSTRUCTION MANUAL

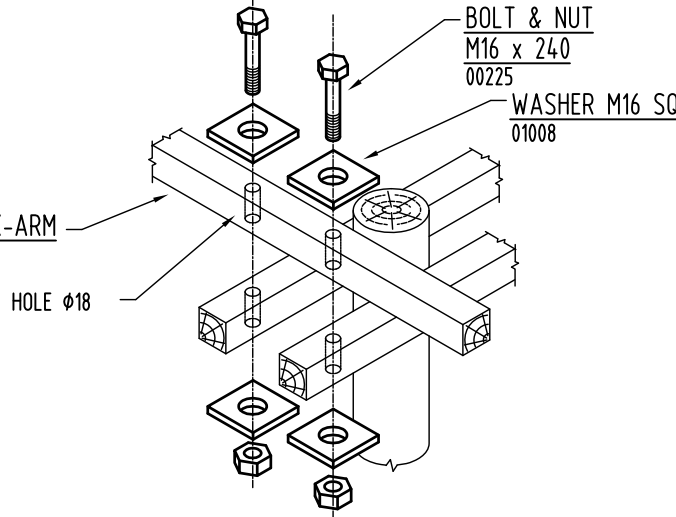
ATTACHMENTS

OVERHEAD EARTHWIRE CONNECTIONS

APP'D Pat Pearl	TECH STDS		AUTOCAD
DATE 12-05-94	4920-A4		D
REC'D	SECT 1	PAGE 261	
CKD Ron Walker	SHEET 1 OF 1		
DWN M. Welsh	FILE:ocm\s1\ohc1-261d.dwg		

MATERIAL

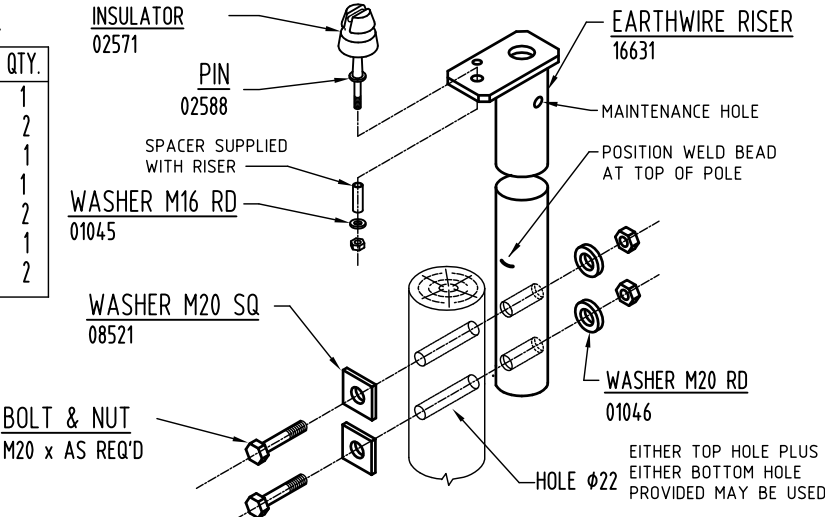
STOCK CODE	QTY.
00225	2
01008	4



SET262-1 - OHEW TWIN X-ARM MOUNTING

MATERIAL

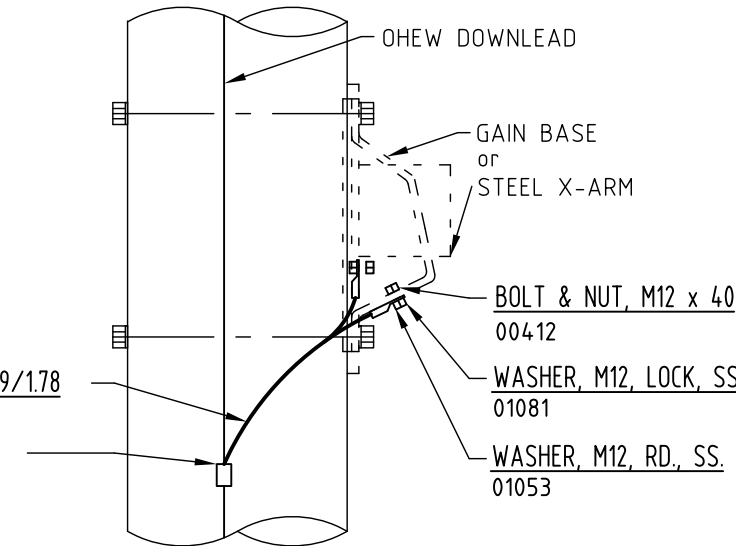
STOCK CODE	QTY.
01045	1
01046	2
02571	1
02588	1
08521	2
16631	1
B&N M20	2



SET262-2 - 15kN MWT EARTHWIRE RISER (STEEL) TO POLE

MATERIAL

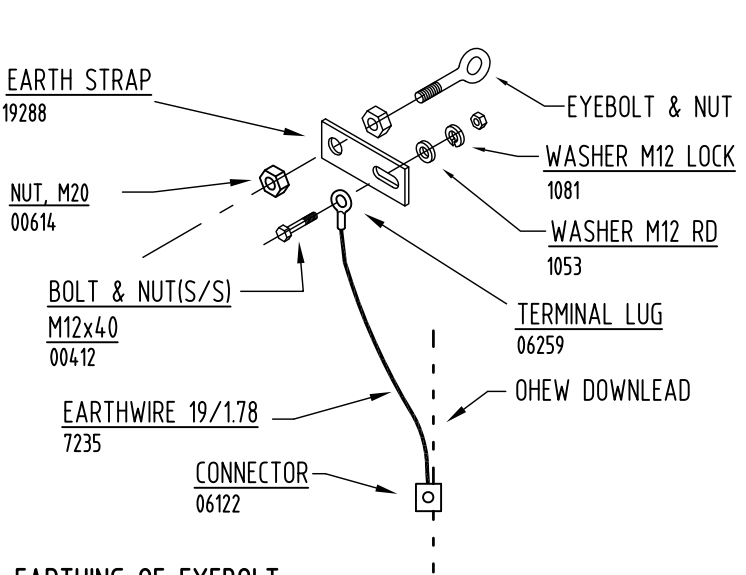
STOCK CODE	QTY.
00412	1
01053	1
01081	1
06122	1
06259	1
07235	1



SET262-3 - EARTHING OF GAINBASE/X-ARM

MATERIAL

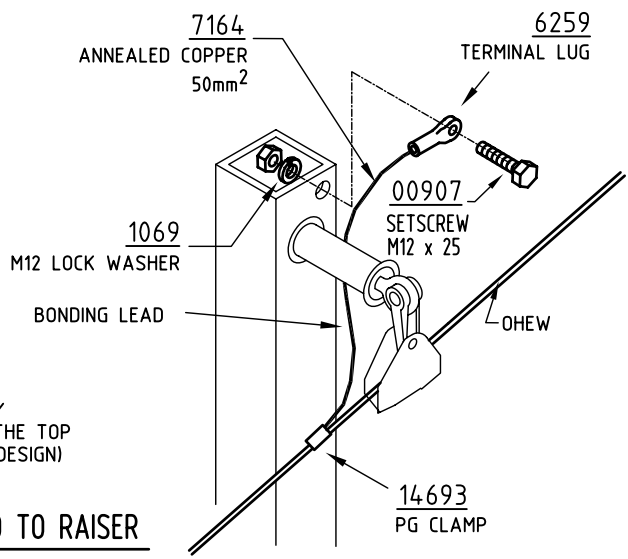
STOCK CODE	QTY.
00614	1
00412	1
07235	1
06122	1
6259	1
1053	1
1081	1
19288	1



SET262-4 - EARTHING OF EYEBOLT

MATERIAL

STOCK CODE	QTY.
07164	2m
06259	1
00907	1
14693	1
01069	1

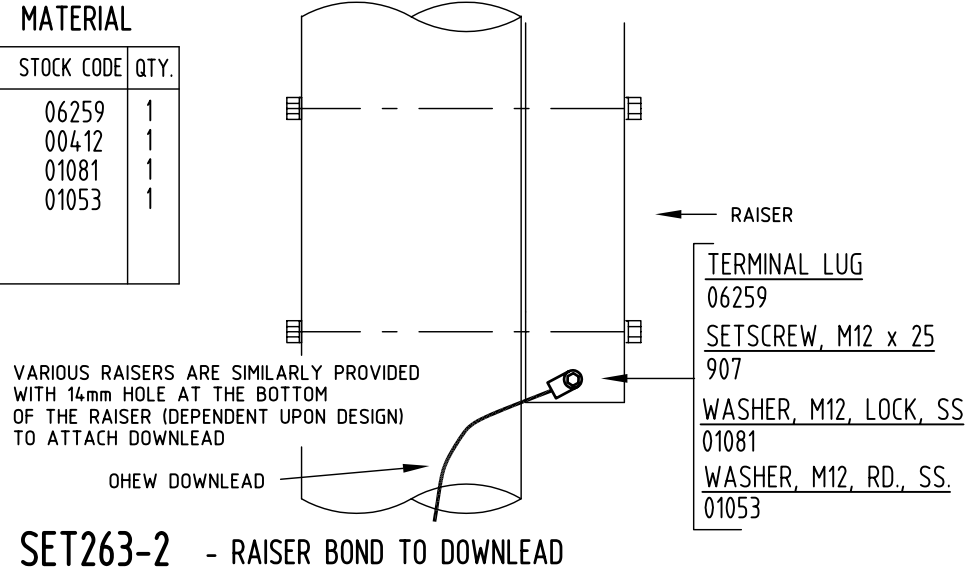


SUSPENSION ARRANGEMENT SHOWN
ALL OTHER RAISERS ARE SIMILARLY PROVIDED WITH 14mm HOLE/S AT THE TOP OF THE RAISER (DEPENDENT UPON DESIGN) TO ATTACH BONDING LEAD

SET263-1 - OHEW BOND TO RAISER

MATERIAL

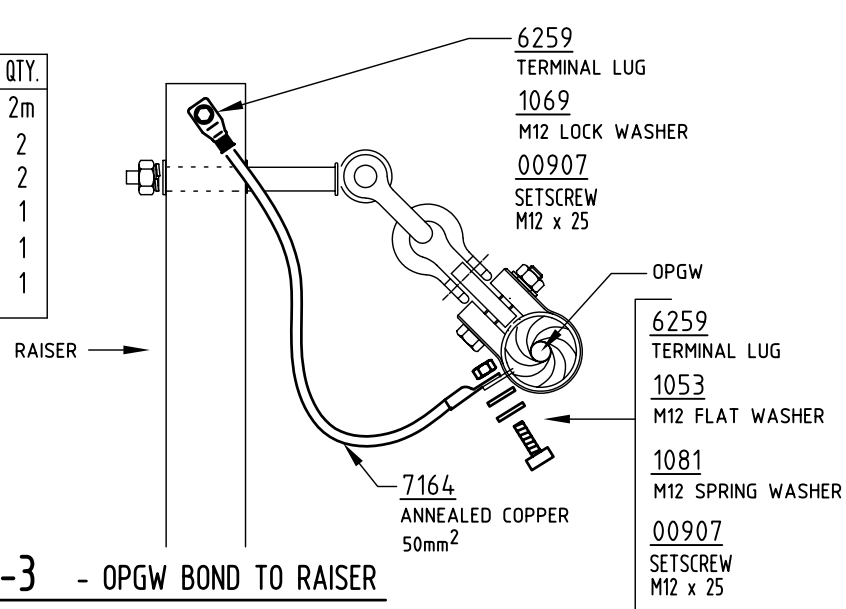
STOCK CODE	QTY.
06259	1
00412	1
01081	1
01053	1



SET263-2 - RAISER BOND TO DOWNLEAD

MATERIAL

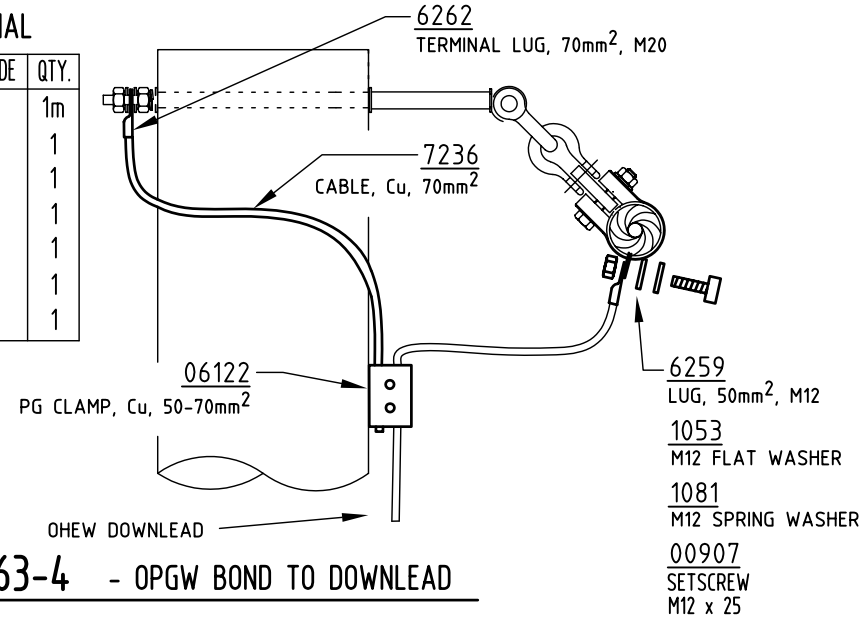
STOCK CODE	QTY.
07164	2m
06259	2
00907	2
01053	1
01069	1
01081	1



SET263-3 - OPGW BOND TO RAISER

MATERIAL


STOCK CODE	QTY.
07236	1m
06262	1
6259	1
00907	1
01053	1
06122	1
01081	1



SET263-4 - OPGW BOND TO DOWNLEAD

ORIGINAL ISSUE

A



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

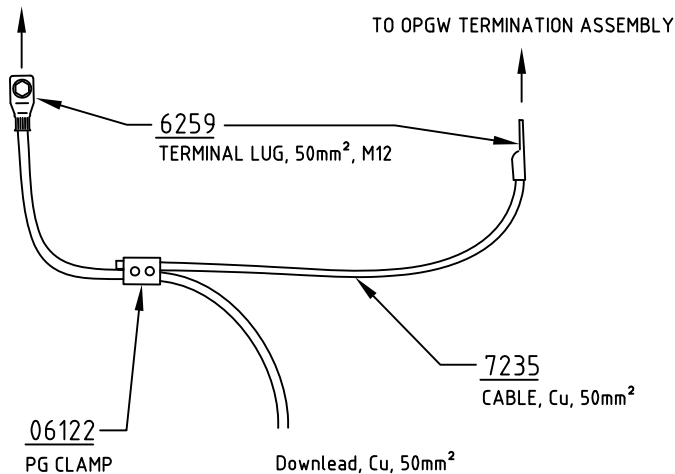
OVERHEAD EARTHWIRE CONNECTION
EARTHWIRE RAISER BONDING

APP'D	R.ENGISH	TECH STDS		AUTOCAD
DATE	24-6-09	4920-A4		A
REC'D		SECT	PAGE	
CKD	John Tunney	1	263	
DWN	John Tunney	SHEET 1 OF 1		
FILE:ocm\s1\ohc1-262d.dwg				

MATERIAL

STOCK CODE	QTY.
07235	2m
06259	2
06122	1

TO OPGW TERMINATION ASSEMBLY



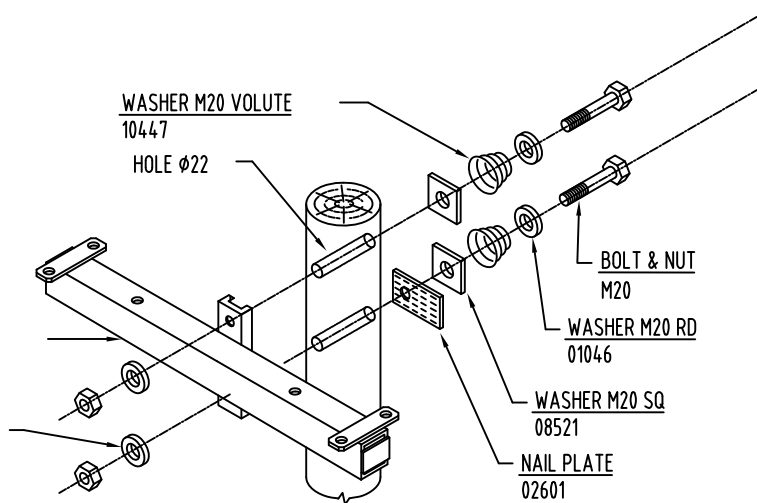
SET264-1 - OPGW SHACKLE BOND TO DOWNLEAD

MATERIAL

Stock Code	QTY.
01046	4
02601	1
08521	2
10447	2
16892	1
B&N M20	2

STEEL X-ARM 1.6m
16892

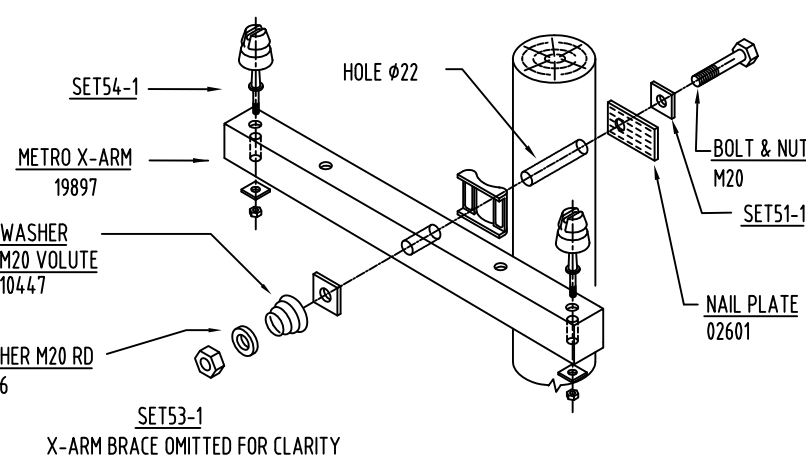
WASHER M20 RD
01046



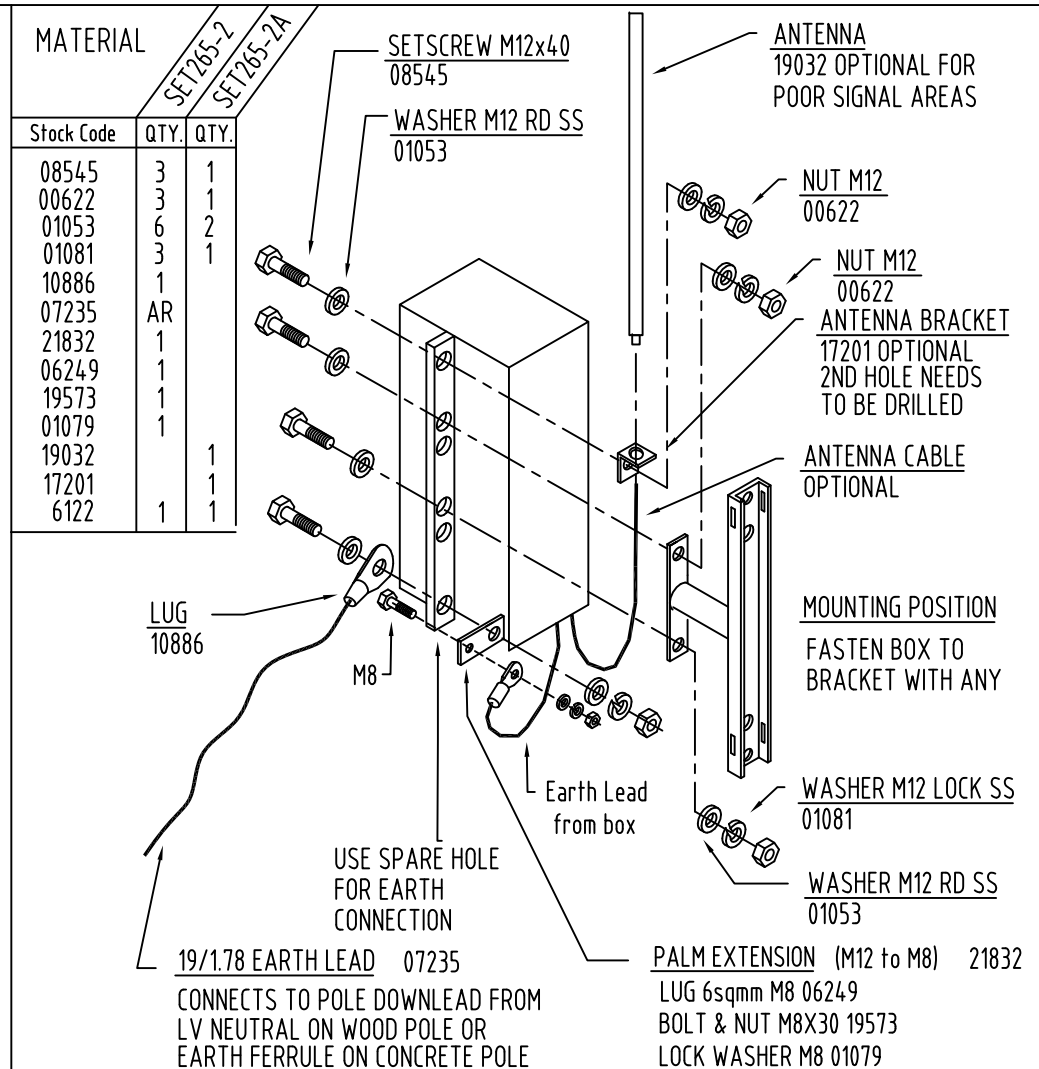
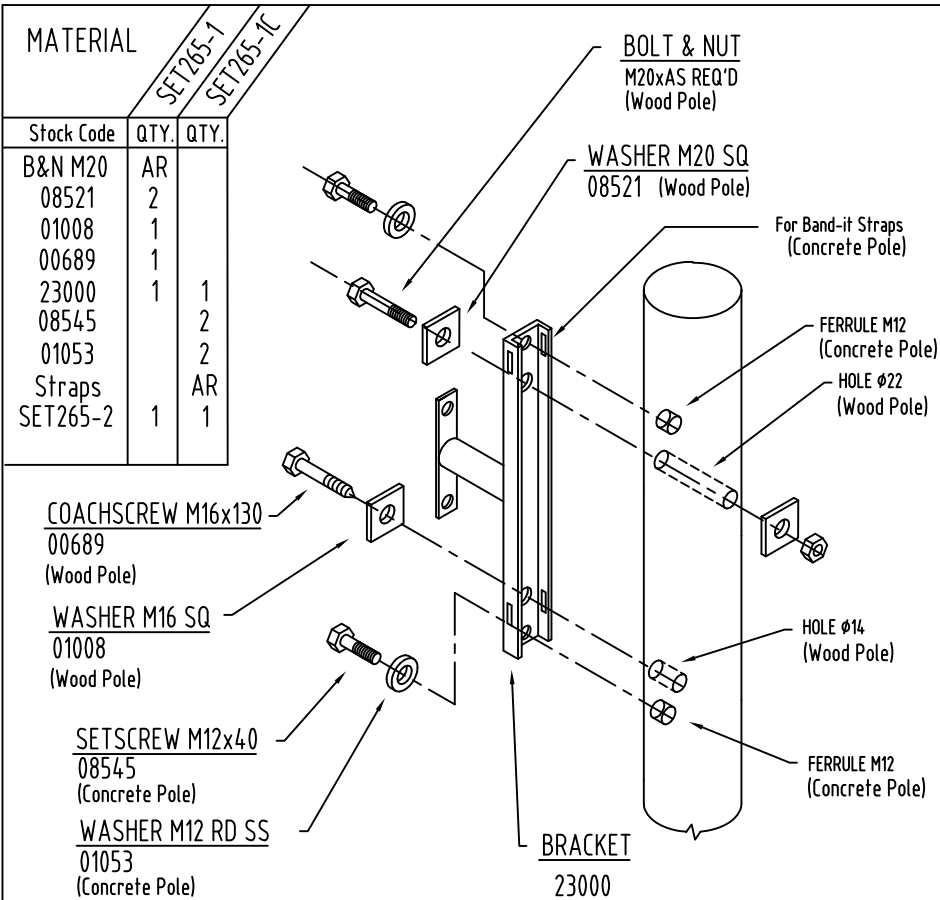
SET264-2 - OHEW TWIN TERM SHORT STEEL X-ARM TO POLE

MATERIAL

Stock Code	QTY.
SET51-1	1
SET53-1	1
SET54-1	2
1046	1
2601	1
10447	1
19897	1
B&N M20	1



SET264-3 - OHEW TWIN PIN SHORT X-ARM TO POLE



ORIGINAL ISSUE	DATE	F.ZAINI	P.RELF	J.CHUNG	SC20790 REMOVED SC23000 FOR BOTH CONCRETE OR WOOD POLE CU UPDATED
A	C	APPD	CKD	DRN	



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

LV MONITORING BRACKET
TO WOOD AND CONCRETE POLE

APP'D	C.LEE	TECH STDS	AUTOCAD
DATE	02/08/13	4920-A4	C
REC'D	J.Chung	SECT	PAGE
CKD	P.Relf	1	265
DWN	J.Tunney	SHEET	1 OF 1
		FILE:	

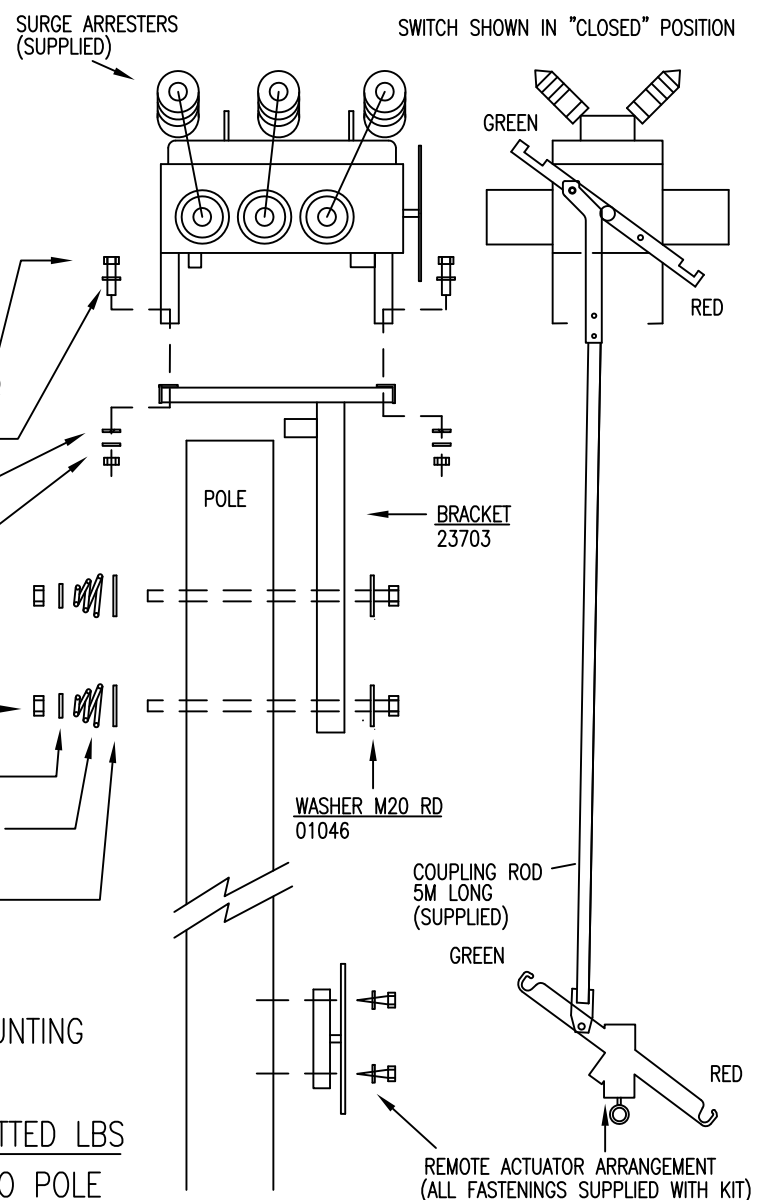
MATERIAL

Stock Code	QTY.
00412	5
01053	9
01081	5
23703	1
B&N M20	2
01046	4
10447	2
08521	2

- BOLT & NUT M12x40
- 00412
- WASHER M12 RD
- 01053
- WASHER M12 LOCK
- 01081
- WASHER M12 RD
- 01053

- BOLT & NUT M20xAS REQ'D
- WASHER M20 RD
- 01046
- WASHER M20 VOLUTE
- 10447
- WASHER M20 SQ
- 08521

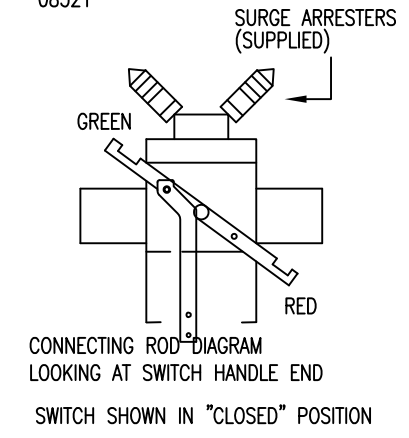
POLE TOP MOUNTING
SET266-1
ILJIN FULLY FITTED LBS
TO BRACKET TO POLE



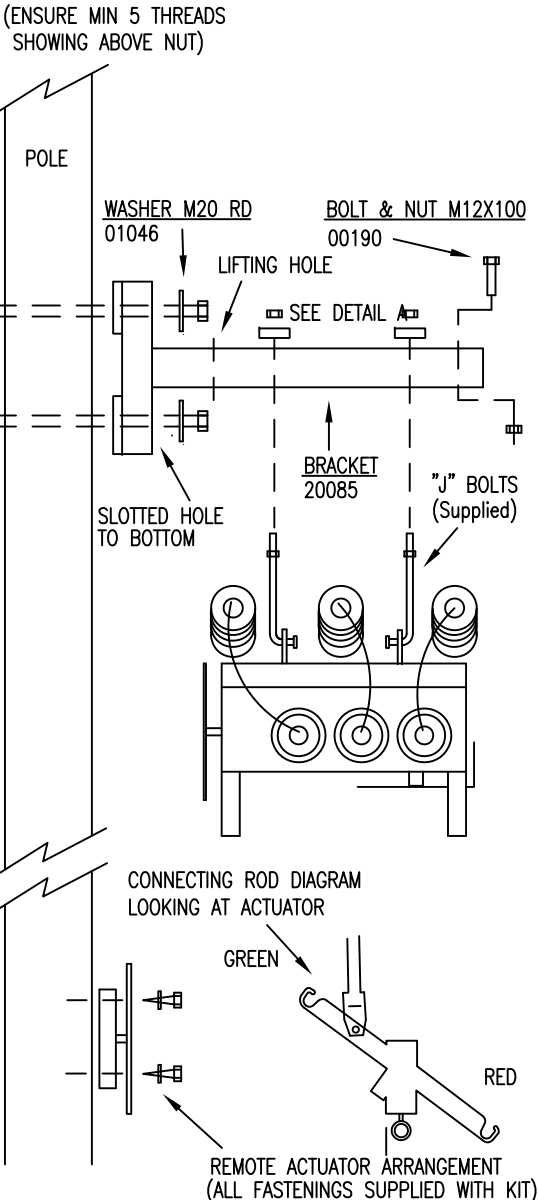
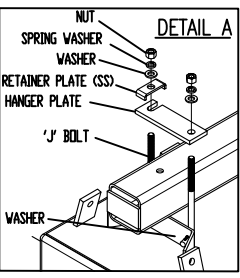
MATERIAL

Stock Code	QTY.
00190	1
20085	1
B&N M20	2
01046	4
10447	2
08521	2

- BOLT & NUT M20xAS REQ'D
- WASHER M20 RD
- 01046
- WASHER M20 VOLUTE
- 10447
- WASHER M20 SQ
- 08521




MID POLE MOUNTING
SET266-2
ILJIN FULLY FITTED LBS
TO BRACKET TO POLE



APP'D	SMITH PEREZ	TECH STDS	AUTOCAD
DATE	11-12-2013	4920-A4	C
REC'D		SECT	PAGE
CKD	P. JUDGE	1	266
DWN	J LANSLEY	SHEET	1 OF 1
		FILE:	

ORIGINAL ISSUE	DATE	APP'D	CKD	DRN	Remove brace. New actuator. Connection details to arm added 266.2
C	11/11/14	A. SMITH DE PEREZ	P. PREL	J. LANSLEY	


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OVERHEAD CONSTRUCTION MANUAL
ATTACHMENTS
ILJIN FULLY FITTED LOAD BREAK SWITCH TO BRACKET TO POLE
POLE TOP & MID POLE

MATERIAL

STOCK CODE	QTY.
01046	1
02557	1
08521	1
10447	1
B&N M20	1

BOLT & NUT
M20 x AS REQ'D

ADAPTOR, ALUM 100mm
02557

HOLE $\phi 22$

WASHER M20 SQ

08521

WASHER VOLUTE M20

10447

WASHER M20 RD

01046

LTS or SECTIONALISER

(MOUNTING BRACKET
AND THREADED ROD
SUPPLIED WITH SWITCH)

SET270-1

- LOAD TRANSFER SWITCH OR SECTIONALISER TO POLE

MATERIAL

STOCK CODE	QTY.
01046	2
02601	1
08521	2
10447	2
B&N M20	2

BOLT & NUT
M20 x AS REQ'D

HOLE $\phi 22$

WASHER M20 SQ

08521

WASHER VOLUTE M20

10447

WASHER M20 RD

01046

LOAD BREAK SWITCH

(MOUNTING BRACKET
SUPPLIED WITH SWITCH)

NAIL PLATE

02601

SET270-2

- LOAD BREAK SWITCH BKT TO POLE (NULEC RL27 C101/95)

MATERIAL

STOCK CODE	QTY.
20084	1
08521	2
10447	2
01046	2
B&N M20	2

BOLT & NUT
M20 x AS REQ'D

SAFETY BOLT HOLE 14mm

EYEBOLT LIFTING HOLE 22mm

EARTH LUG HOLE 14mm

RESTING PIECE

WASHER M20 SQ

08521

WASHER VOLUTE M20

10447

WASHER M20 RD

01046

EARTH LUG HOLE 14mm

MOUNTING BRACKET
20084

SET270-3

- POLE TOP LOAD BREAK SWITCH (NGK) TO POLE

MATERIAL

STOCK CODE	QTY.
20085	1
08521	2
10447	2
01046	2
B&N M20	2

BOLT & NUT
M20 x AS REQ'D

EYEBOLT LIFTING HOLE 22mm

WASHER M20 SQ

08521

WASHER VOLUTE M20

10447

WASHER M20 RD

01046

SAFETY BOLT HOLE 14mm

MOUNTING BRACKET
20085

SLOTTED HOLE TO BOTTOM

SET270-4

- MID POLE LOAD BREAK SWITCH (NGK) TO POLE

A	ORIGINAL ISSUE	
	DATE	15/11/06
	APPD K.NUTTALL	
	CKD J.TUNNEY	
DRN	G.JA YAWEEERA	
SET270-3 & 4 ADDED		



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

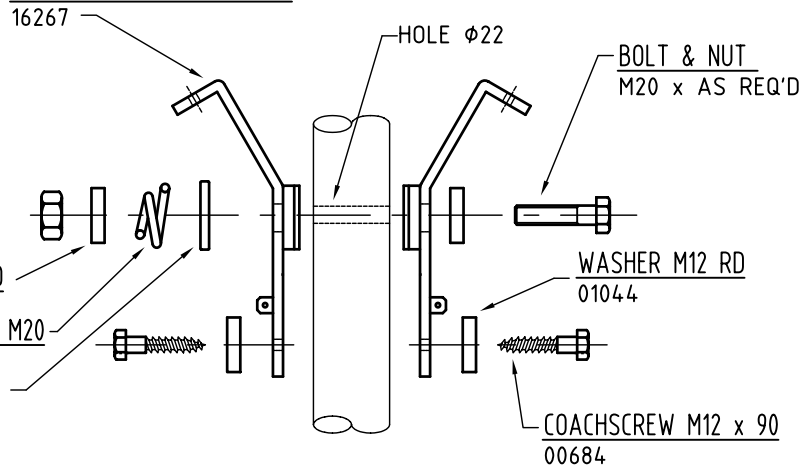
11LTS, 11SECT, 11LBS
WOOD POLE

APP'D	Pat Pearl	TECH STDS	AUTOCAD
DATE	12-05-94	4920-A4	D
REC'D		SECT	PAGE
CKD	Ron Walker	1	270
DWN	M. Welsh	SHEET	1 OF 1
FILE:ocm\s1\ohc1-270d.dwg			

MATERIAL

Stock Code	QTY.
00684	2
01044	2
01046	2
08521	1
10447	1
16267	2
B&N M20	1

SURGE ARRESTER BRACKET

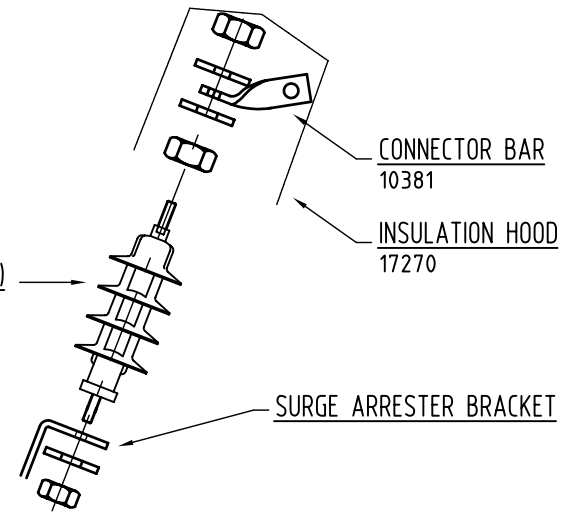


SET271-1 - 11kV SURGE ARRESTER BRACKET TO POLE

MATERIAL

Stock Code	QTY.
17270	1
10381	1
15762	1

SURGE ARRESTER (12kV)
15762

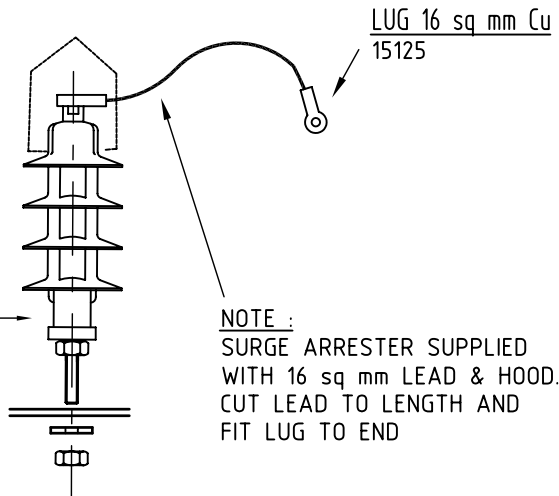


SET271-2 - 11kV SURGE ARRESTER TO BRACKET

MATERIAL

Stock Code	QTY.
20750	1
15125	1

SURGE ARRESTER (12kV)
20750

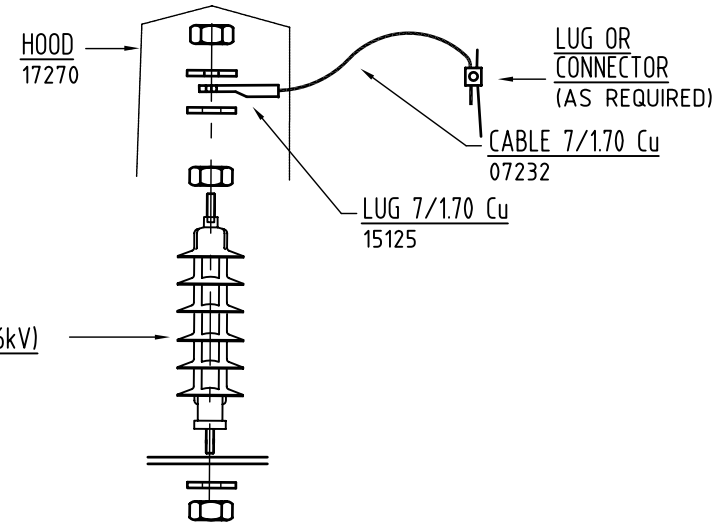


SET271-3 - 11kV SURGE ARRESTER TO TANK

MATERIAL

Stock Code	QTY.
17270	1
07232	1m
15125	1
15938	1
LUG OR CONNECTOR	1

SURGE ARRESTER (36kV)
15938



SET271-4 - 33kV SURGE ARRESTER TO TANK

ORIGINAL ISSUE	DATE	15/11/06	APPD	KNUTTALL	CKD	J.TUNNEY	DRN	G.JAYAWERA	SET271-3 CHANGED
A	E								



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OVERHEAD CONSTRUCTION MANUAL

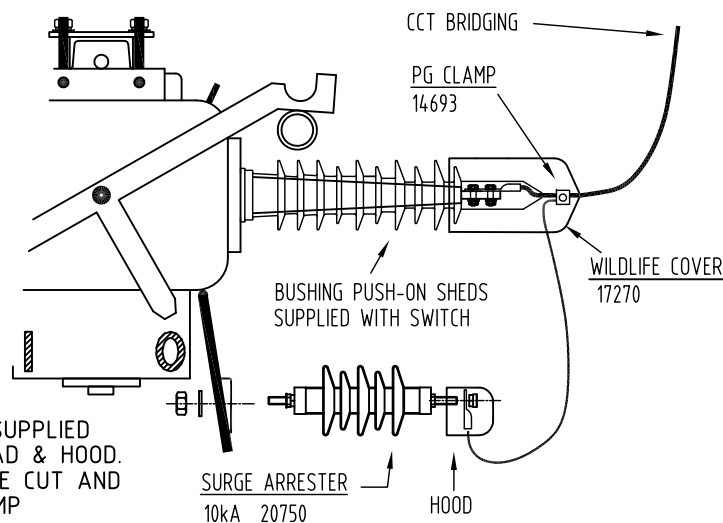
ATTACHMENTS

11kV / 33kV SURGE ARRESTER
ASSEMBLY SETS (WOOD POLE)

APP'D	Pat Pearl	TECH STDS	AUTOCAD
DATE	12-05-94	4920-A4	E
REC'D		SECT	PAGE
CKD	Ron Walker	1	271
DWN	M. Welsh	SHEET	1 OF 1
FILE:ocm\s1\ohc1-271e.dwg			

MATERIAL

Stock Code	QTY.
20750	6
14693	6
17270	6

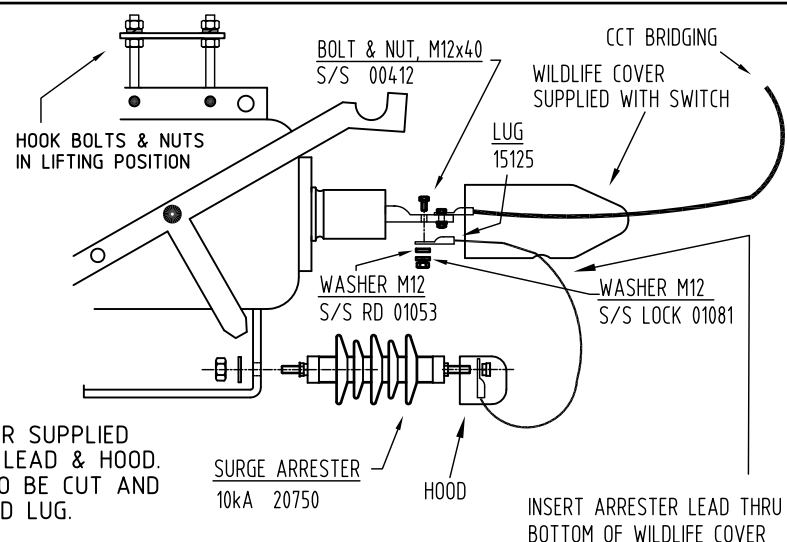


NOTE :
SURGE ARRESTER SUPPLIED WITH 16 sq mm LEAD & HOOD. EXCESS LEAD TO BE CUT AND FITTED TO PG CLAMP

SET272-1 - 11kV SURGE ARRESTER TO REMOTE CONTROLLED LBS - SCHNEIDER

MATERIAL

Stock Code	QTY.
20750	6
0412	6
1081	6
1053	6
15125	6

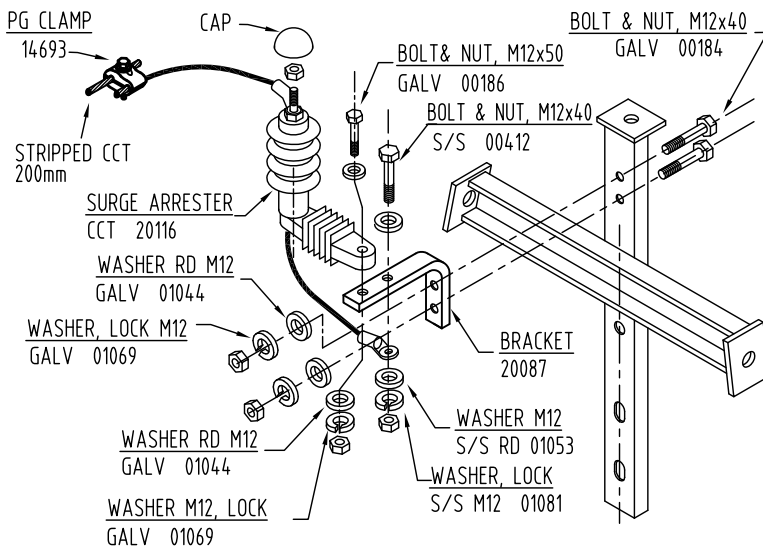


NOTE :
SURGE ARRESTER SUPPLIED WITH 16 sq mm LEAD & HOOD. EXCESS LEAD TO BE CUT AND FITTED WITH END LUG.

SET272-2 - 11kV SURGE ARRESTER TO MANUAL LBS - NGK

MATERIAL

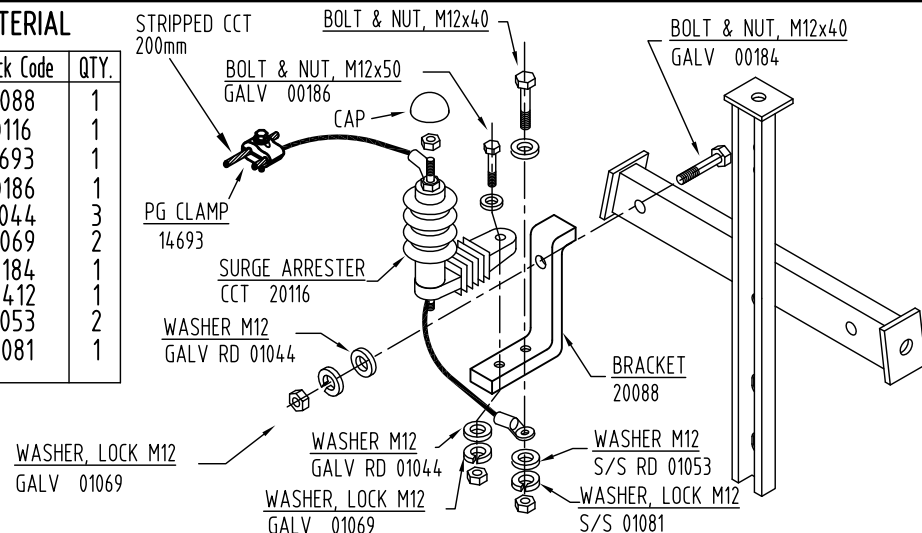
Stock Code	QTY.
20087	1
20116	1
14693	1
00186	1
01044	4
01069	3
00184	2
00412	1
01053	2
01081	1




SET272-3 - MIDDLE PHASE SURGE ARRESTER TO TRIDENT BKT

MATERIAL

Stock Code	QTY.
20088	1
20116	1
14693	1
00186	1
01044	3
01069	2
00184	1
00412	1
01053	2
01081	1



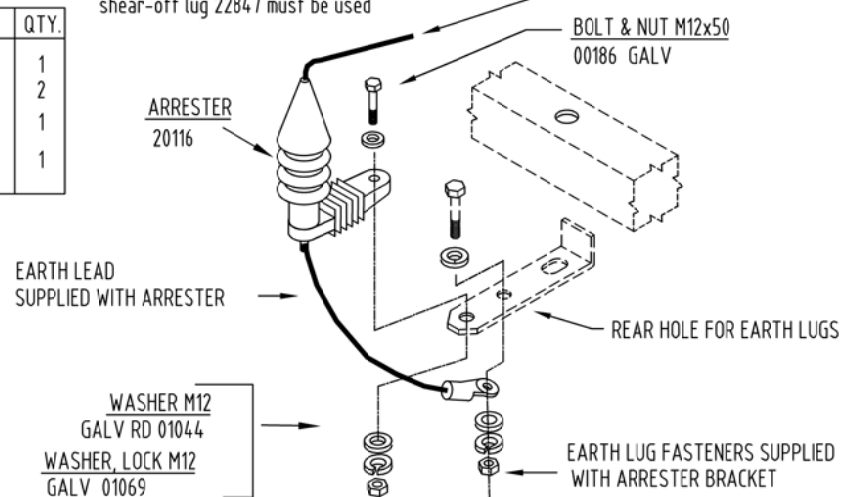
SET272-4 - OUTER PHASE SURGE ARRESTER TO TRIDENT BKT

ORIGINAL ISSUE	DATE	31-10-2013	APPD	F.ZAINI	CKD	J.CHUNG	DRN	P.RELF	REMOVE SC 18066 FROM SETS272-3 & 4	<div> © COPYRIGHT 2013 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX</div>	OVERHEAD CONSTRUCTION MANUAL		APP'D		Pat Pearl	TECH STDS		AUTOCAD		
													DATE		12-05-94		4920-A4		G	
													REC'D				SECT		PAGE	
													CKD		Ron Walker		1		272	
													DWN		M. Welsh		SHEET		1 OF 1	
														FILE:ocm\s1\ohc1-272e.dwg						

MATERIAL

If connecting to 11ABC aluminium jointing plate, shear-off lug 22847 must be used

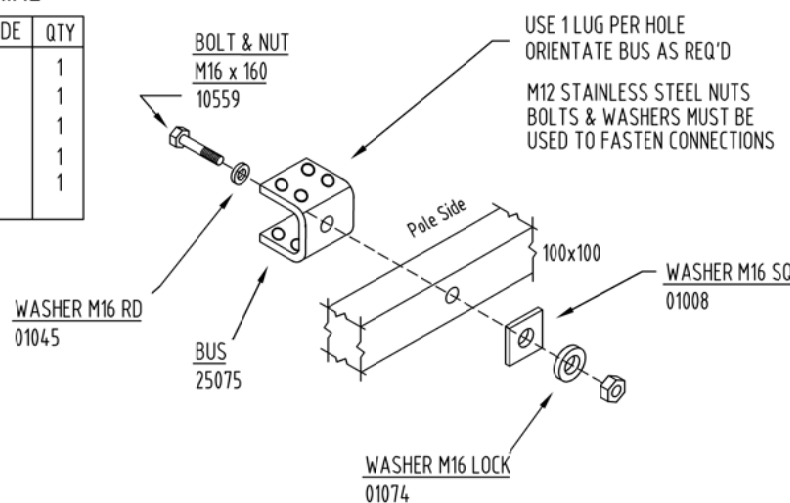
Stock Code	QTY.
00186	1
01044	2
01069	1
20116	1



SET273-10 - SURGE ARRESTER TO BRACKET

MATERIAL

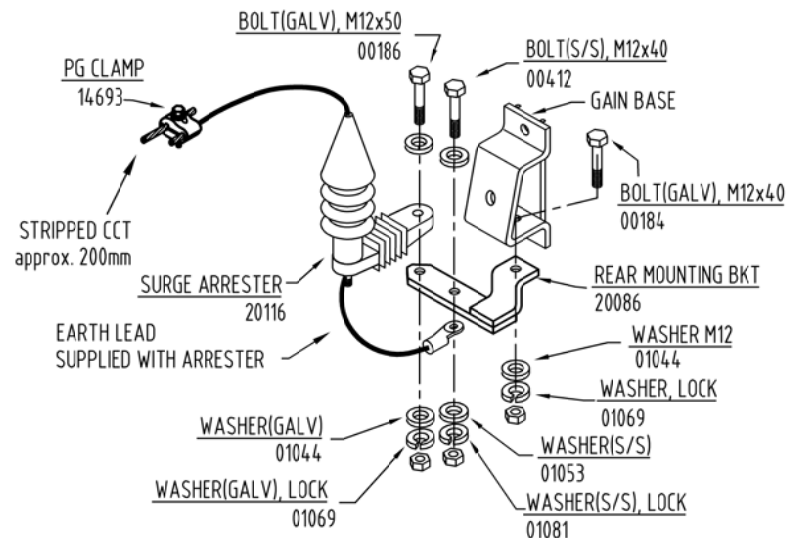
STOCK CODE	QTY
10559	1
01045	1
25075	1
01008	1
01074	1



SET273-20 - NEUTRAL/EARTH BUS TO HVABC X-ARM

MATERIAL

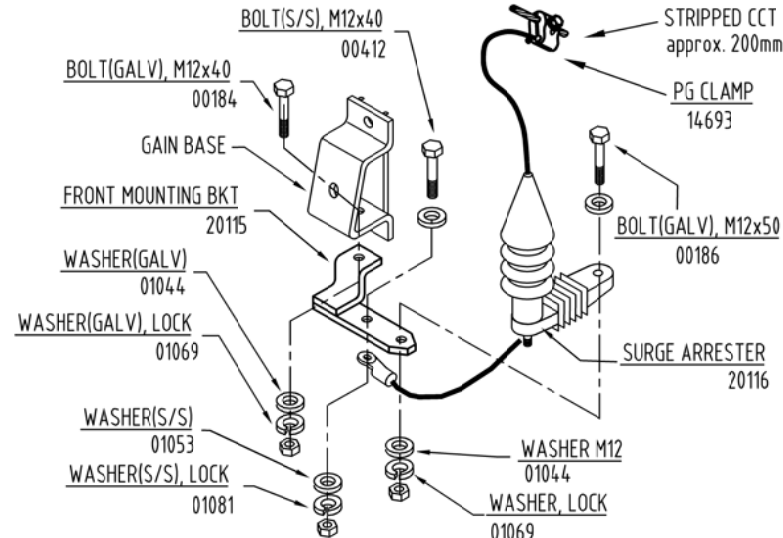
Stock Code	QTY.
20086	1
20116	1
14693	1
18066	1
00186	1
01044	2
01069	2
00184	1
00412	1
01053	1
01081	1



SET273-3 - SURGE ARRESTER TO GAIN BASE (WITH REAR MOUNTING BKT)

MATERIAL

Stock Code	QTY.
20115	1
20116	1
14693	1
18066	1
00186	1
01044	2
01069	2
00184	1
00412	1
01053	1
01081	1



SET273-4 - SURGE ARRESTER TO GAIN BASE (WITH FRONT MOUNTING BKT)

ORIGINAL ISSUE	DATE	05/10/2017	APP'D	F. ZAINI	CKD	P. RELF	DRN	P. RELF
A	E							
SET273-20 UPDATED M-Bus updated from SC21249 to SC25075								



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OVERHEAD CONSTRUCTION MANUAL

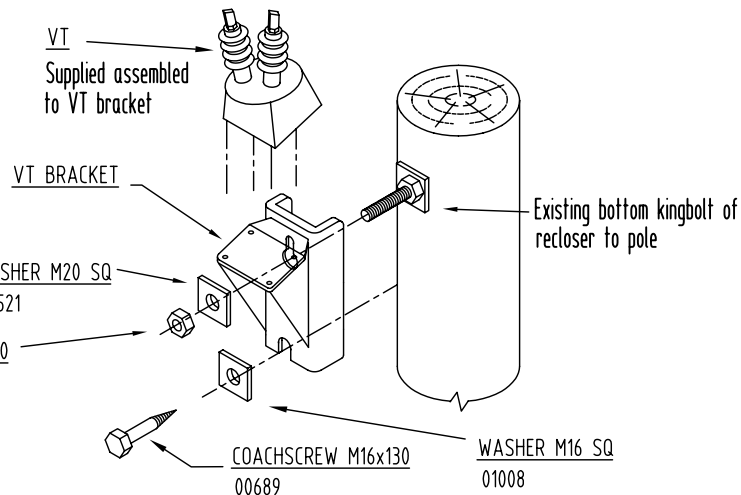
ATTACHMENTS

11kV ARRESTER AND ACCESSORIES
ASSEMBLY SETS

APP'D	K.NUTTALL	TECH STDS	AUTOCAD
DATE	15-11-2006	4920-A4	E
REC'D	J.TUNNEY	SECT	PAGE
CKD	J.TUNNEY	1	273
DWN	G.JAYAWERA	SHEET	1 OF 1
FILE:ocm\s1\ohc1-273a.dwg			

MATERIAL

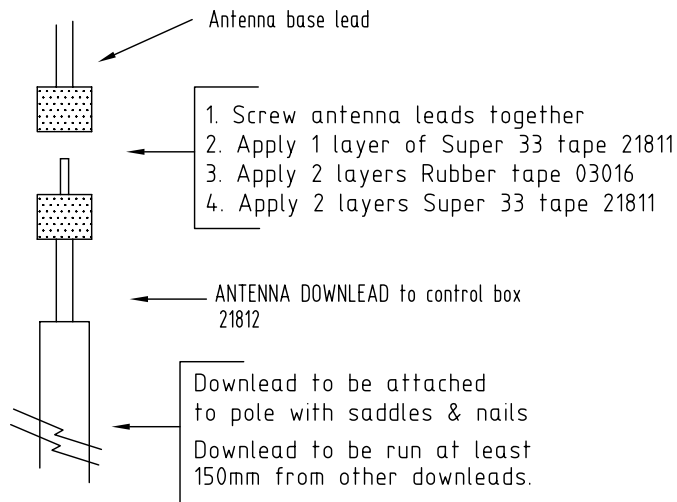
Stock Code	QTY.
08521	1
00614	1
01008	1
00689	1



SET274-1 - VOLTAGE TRANSFORMER TO POLE (NOJA)

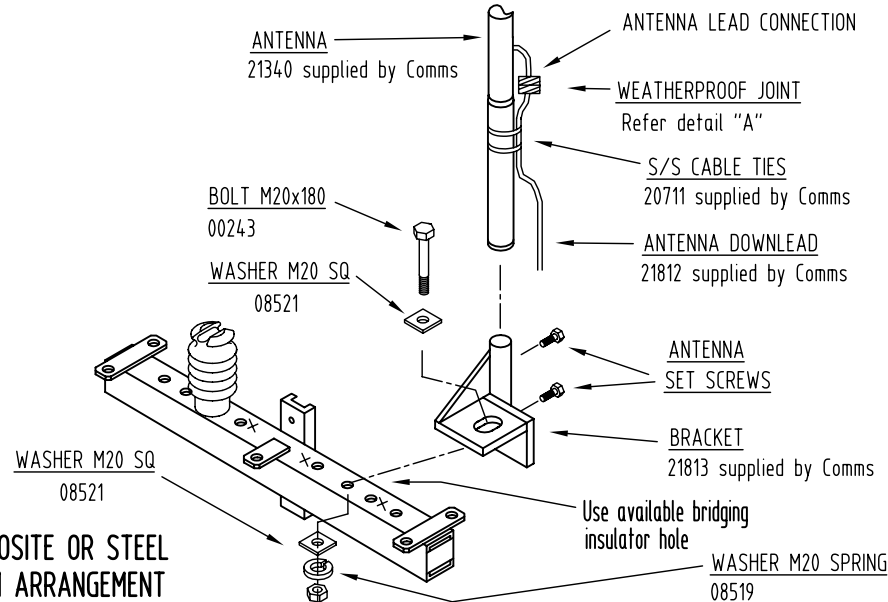
MATERIAL

Stock Code	QTY.
21811	supplied
03016	supplied
21812	supplied
08521	2
10447	1
01046	1
00243	1
21813	supplied
08519	1
20711	supplied
21340	supplied



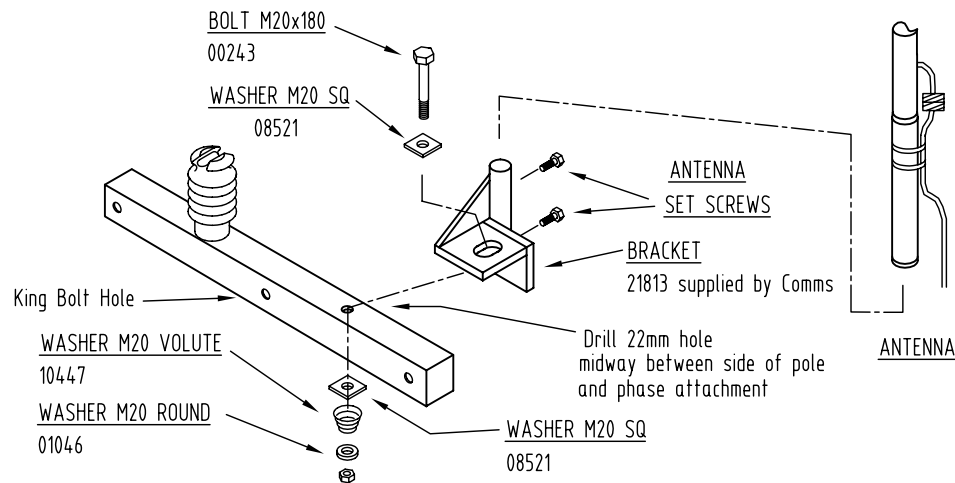
DETAIL "A" Antenna Lead Weatherproof Joint

COMPOSITE OR STEEL XARM ARRANGEMENT



SET274-2 - ANTENNA TO XARM

TIMBER XARM ARRANGEMENT



ORIGINAL ISSUE	DATE	REVISION	APP'D	CKD	DRN
A	24-9-2010	RE-ENGLISH	J.TUNNEY	J.TUNNEY	J.TUNNEY

Set274-1 updated.
Set274-2 arrangement
now uses M20x180 bolt.



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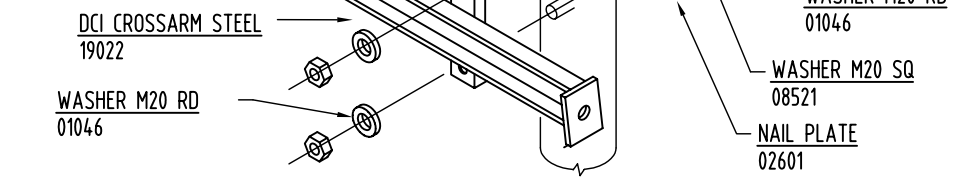
ATTACHMENTS

ASSEMBLY SETS

APP'D	R. ENGLISH	TECH STDS	AUTOCAD
DATE	30-01-2008	4920-A4	C
REC'D		SECT	PAGE
CKD	J.TUNNEY	1	274
DWN	G.JAYAWEERA	SHEET	1 OF 1
		FILE:	

MATERIAL

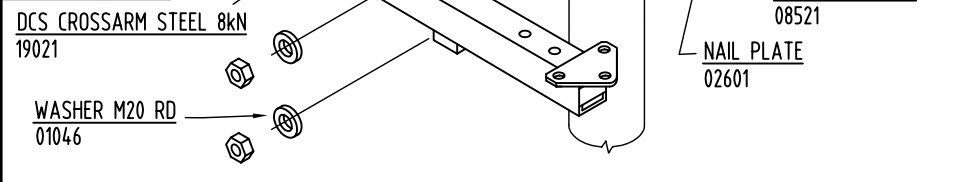
STOCK CODE	QTY
01046	4
02601	1
08521	2
10447	2
19022	1
B&N M20	2



SET300-1 - DCI STEEL X-ARM TO POLE

MATERIAL

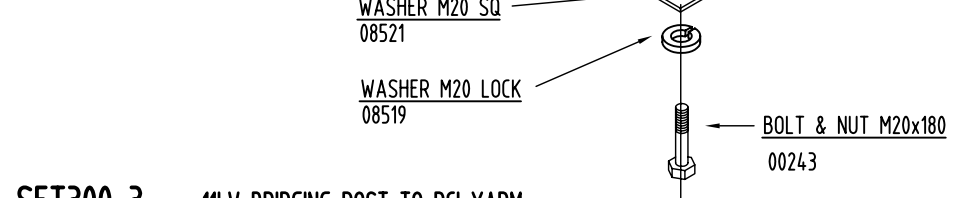
STOCK CODE	QTY
01046	4
02601	1
08521	2
10447	2
19021	1
19837	1
B&N M20	2



SET300-2 - 8kN DCS STEEL XARM TO POLE

MATERIAL

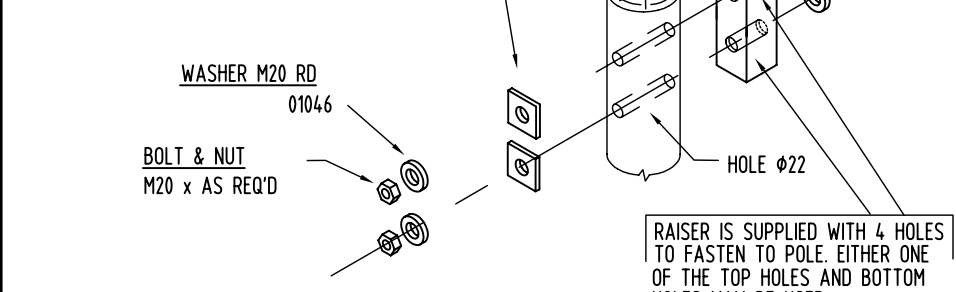
STOCK CODE	QTY
00243	1
08519	1
08521	1
14757	1



SET300-3 - 11kV BRIDGING POST TO DCI XARM

MATERIAL

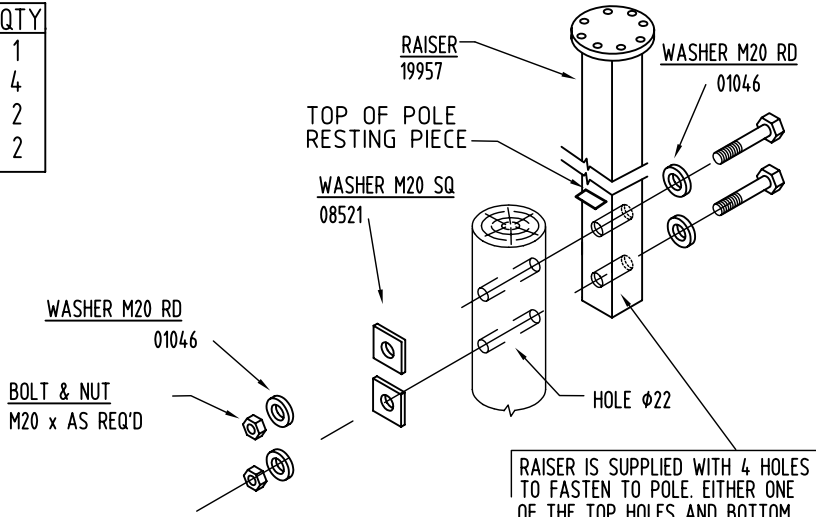
Stock Code	QTY.
19284	1
01046	4
08521	2
B&N M20	2



SET300-4 - OHEW SUSPENSION RAISER TO POLE

MATERIAL

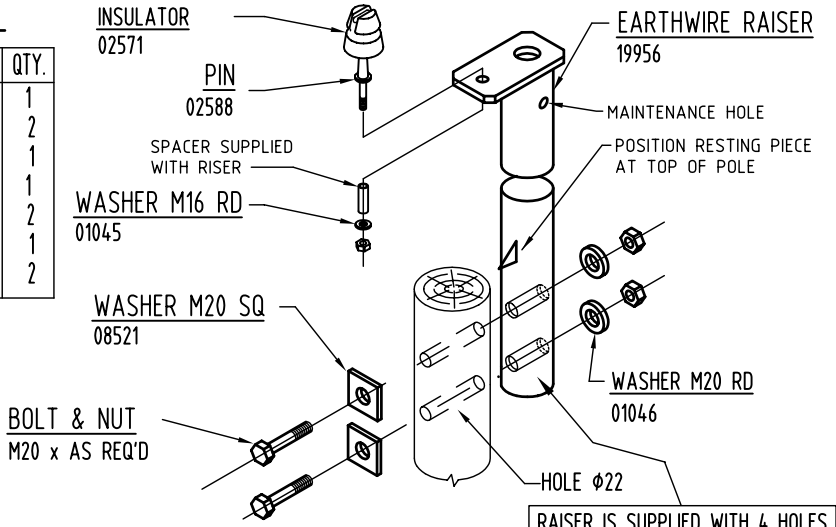
STOCK CODE	QTY
19957	1
01046	4
08521	2
B&N M20	2



SET301-1 - OHEW TERM/SHACKLE RAISER TO POLE


MATERIAL

STOCK CODE	QTY.
01045	1
01046	2
02571	1
02588	1
08521	2
19956	1
B&N M20	2



SET301-2 - OHEW PIN OFFSET RAISER TO POLE

ORIGINAL ISSUE
A



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OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

OHEW RAISER TO POLE

APP'D	R. ENGLISH	TECH STDS	AUTOCAD
DATE	24-6-09	4920-A4	A
REC'D		SECT 1	PAGE 301
CKD	JOHN TUNNEY	SHEET 1 OF 1	
DWN	JOHN TUNNEY	FILE:	

MATERIAL

STOCK CODE	QTY
17427	1

17427

1

Hook Bolt - M16 x 400

17427

Wood Pole

Hole ϕ 18

SET500-1 - O.F. HOOK BOLT TO WOOD POLE

MATERIAL

STOCK CODE	SET500-312	SET500-313
17832 OR 17426	1	1
20672	1	
20673		1
20674	A.R.	A.R.

SET500-312

SET500-313

Note - replacement Dielectric Block Nuts: SC 12889

Wood Pole

Hole ϕ 18

M16 Galv.
Stud Assy

300mm - 17832

400mm - 17426

20672 or 20673

Dielectric Block
Support

20674

Vibration Damper(s)
As Required

SET500-312 - ADSS SUPPORT TO WOOD POLE (To suit 12.6mm cable)

SET500-313 - ADSS SUPPORT TO WOOD POLE (To suit 13.5mm cable)

MATERIAL

STOCK CODE	SET500-412	SET500-413
20672	1	
20673		1
18140	1	1
02483	2	2
02476	0.15	0.15
20674	A.R.	A.R.

SET500-412

SET500-413

02476
Strapping
19mm S/S

Note - replacement Dielectric
Block Nuts: SC 12889

18140
Support
Bracket

Concrete
Pole

02483
Buckle

20672 or 20673

Dielectric Block
Support

20674

Vibration Damper(s)
As Required

SET500-412 - ADSS SUPPORT TO CONC. POLE (To suit 12.6mm cable)

SET500-413 - ADSS SUPPORT TO CONC. POLE (To suit 13.5mm cable)

A	ORIGINAL ISSUE		APPD	CKD	DRN	Material lists updated for SET500-412 & SET500-413
	DATE	24-6-09				
D	RENGISH	J.TUNNEY	T.BAKKER			



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ATTACHMENTS

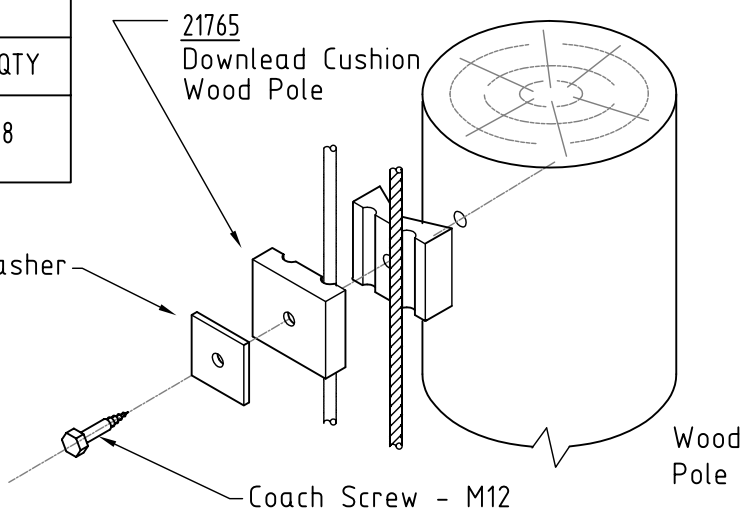
TELECOMMUNICATIONS

ADSS CABLE

ASSEMBLIES

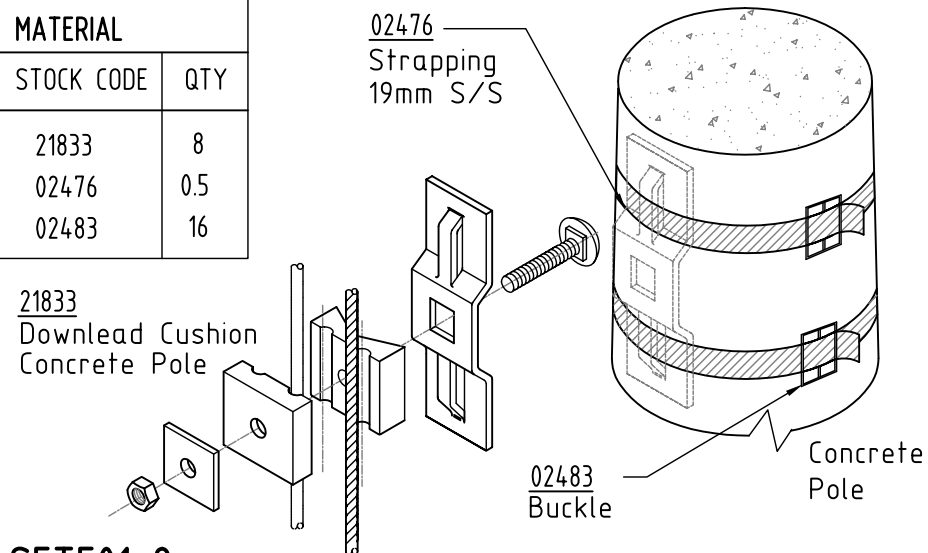
APP'D	R DOUGLAS	TECH STDS		AUTOCAD
DATE	29-09-2001	4920-A4		D
REC'D	T HOLDEN	SECT	PAGE	
CKD	T HOLDEN	1	500	
DWN	S.BAYLEY	SHEET 1 OF 1		
		FILE: ocm\s1\ohc1-500b.dwg		

MATERIAL	
STOCK CODE	QTY
21765	8



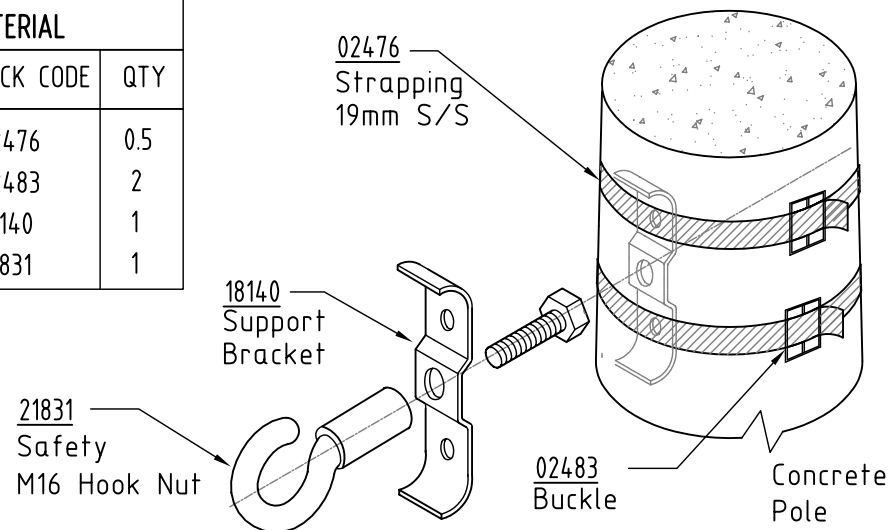
SET501-1 - ADSS DOWNLOAD CUSHION TO WOOD POLE

MATERIAL	
STOCK CODE	QTY
21833	8
02476	0.5
02483	16



SET501-2 - ADSS DOWNLOAD CUSHION TO CONCRETE POLE

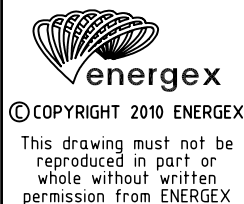
MATERIAL	
STOCK CODE	QTY
02476	0.5
02483	2
18140	1
21831	1



SET501-3 - ADSS SAFETY HOOK TO CONCRETE POLE

ORIGINAL ISSUE	DATE	REVISION	J. TUNNEY	P. JUDGE
A	30-6-2010	APPD	CKD	DRN
D				

Sets501-1&2 qty changed
21765 & 21833 from 5
to 8



OVERHEAD CONSTRUCTION MANUAL

ATTACHMENTS

TELECOMMUNICATIONS

ADSS CABLE ASSEMBLIES

APP'D	R DOUGLAS	TECH STDS		AUTOCAD
DATE	27-09-2001	4920-A4		D
REC'D	T HOLDEN	SECT	PAGE	
CKD	T HOLDEN	1	501	
DWN	S.BAYLEY	SHEET 1 OF 1		
		FILE: ocm\s1\ohc1-501c.dwg		

