SECTION 11- STAYS

VERSION 1.1

SECTION 11 – STAYS

11.1 General Notes

CAUTION : Printed document is uncontrolled.

NOTES

1. EXISTING 7/2.75 STAYWIRE AND 16MM HARDWARE MAY BE RETAINED SUBJECT TO STRENGTH LIMITATIONS.
2. MINIMUM CLEARANCES OF AERIAL STAYWIRES:

   OVER ROADS: 5.5m
   OVER PRIVATE DRIVEWAYS: 4.6m
   OVER ALL OTHER: 3.0m
3. MINIMUM CLEARANCES TO BE MAINTAINED IN ANY DIRECTION BETWEEN STAYWIRES AND OTHER CONDUCTORS ARE:
   TO LV CONDUCTORS: 230mm (ACTIVE), 150mm (NEUTRAL).
   TO 11kV OR 22kV CONDUCTORS: 460mm.
4. RAKE OF STAYPOLE AND POLE BEING STAYED, TO BE APPROXIMATELY HALF POLE HEAD DIAMETER BEFORE TENSIONING UP.
5. EYEBOLTS TO BE INSTALLED WITH EYE HARD ON POLE AND AT LEAST ONE FULL THREAD PROTRUDING THROUGH NUT OR EYE NUT.
6. ITEM 2A STRAP TO BE DRILLED 18mm DIAMETER BOTH ENDS TO TAKE 16mm DIAMETER BOLTS. APPLY ZINC RICH SPRAY PAINT (COLD GALV).
7. ITEM 105C RC ANCHOR BLOCK INSTALLED AS BREAST LOG NEED ONLY BE USED IN POOR HOLDING GROUND OR AS SHOWN IN D-OH1-0225-SD-001 FOR WOOD POLES.
8. WHERE NECESSARY THE DISTANCE OF 3650mm IS TO BE INCREASED TO ENSURE THAT THE SECTION OF STAY WIRE BELOW THE STAY INSULATOR WILL NOT MAKE CONTACT WITH BARE HV OR LV CONDUCTORS SHOULD THE STAYWIRE BREAK AND FALL TOWARDS THE POLE. THE ADDITIONAL DISC INSULATOR IS TO BE INSTALLED AS SHOWN ON DRAWING D-OHC-L002-SD-001 WHERE THE STAYWIRE ON A WOOD POLE COULD BREAK AND CONTACT HV CONDUCTORS IN FALLING.
9. STAYWIRES SHOULD NOT PASS OVER OR THROUGH THE OPERATING AREA ABOVE OPERATING PLATFORMS FROM THE FLOOR LEVEL TO A DISTANCE OF 2600mm FROM THE PLATFORM FLOOR. WHERE A STAY IS INSTALLED IN THIS AREA ON WOOD POLES, ADDITIONAL INSULATION MUST BE PROVIDED ON THE STAYWIRE AS SHOWN ON DRAWINGS D-OHC-L002-SD-001, D-OHC-L003-SD-001, AND D-OHC-L004-SD-001.
10. LOCK NUTS SHALL BE INSTALLED ON ALL BOLTS PASSING THROUGH WOOD POLE. WASHERS SHALL BE INSTALLED ON BOTH SIDE OF BOLT. (BOLT IS SUPPLIED WITH ONE NUT & WASHER. LOCK NUT & OPPOSITE SIDE WASHER TO BE ORDERED SEPARATELY)

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

EMF/PDF CREATION DATE 06/FEB/19

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	06/FEB/19

TITLE: STAYS - GENERAL NOTES

SCALE: NTS

A4

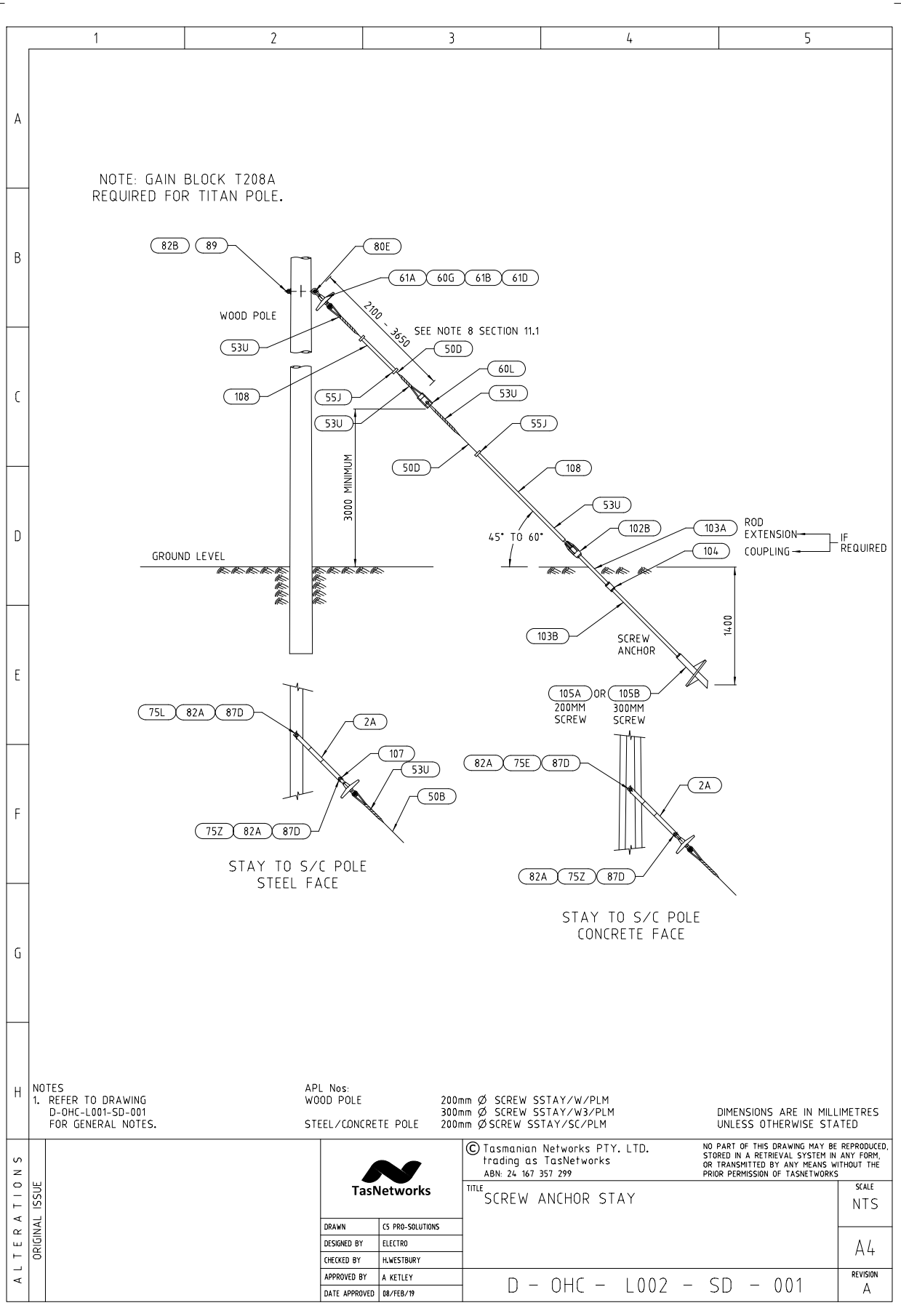
D - OHC - L001 - SD - 001

REVISION: A

DWG STATUS CONSTRUCTION

BM DWG NO D - OHC - L001 - SD - 001 BM REV A

11.2 Screw Anchor Stay



Screw Anchor Stay - Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
SSTAY/W/PLM	S	108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		103B	325844	ANCHOR,ROD SCREW 20MM X 2140MM M24 NUT	1
		105A	325817	ANCHOR,GUY SINGLE HELIX 200MM X M24 ROD	1
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
		89	66803	WASHER,Flat Round M20 x 75mm Gal	1
SSTAY/W3/PLM	S	108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		103B	325844	ANCHOR,ROD SCREW 20MM X 2140MM M24 NUT	1
		105B	325818	ANCHOR,GUY SINGLE HELIX 300MM X M24 ROD	1
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
		89	66803	WASHER,Flat Round M20 x 75mm Gal	1
SSTAY/SC/PLM	S	107	265216	THIMBLE,Wire Rope 16mm Gal.Steel	1
		108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		103B	325844	ANCHOR,ROD SCREW 20MM X 2140MM M24 NUT	1
		105A	325817	ANCHOR,GUY SINGLE HELIX 200MM X M24 ROD	1
		2A	323314	BRACE,CROSSARM 40 X 700 X 5MM THICK GAL	2
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		75E	32279	BOLT,HEX HEAD M16 X 180MM GAL. C/W NUT	1 (or AR)
		75L	32286	BOLT,HEX HEAD M16 X 300MM GAL. C/W NUT	1 (or AR)
		75Z	32261	BOLT,HEX HEAD M16 X 45MM GAL. C/W NUT	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	2
		T208A	323306	Gain Block 100mm	1
		87D	65616	WASHER,Flat Round M16 x 30mm Gal	2

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	08/FEB/19

TITLE: SCREW ANCHOR STAY MATERIALS LIST

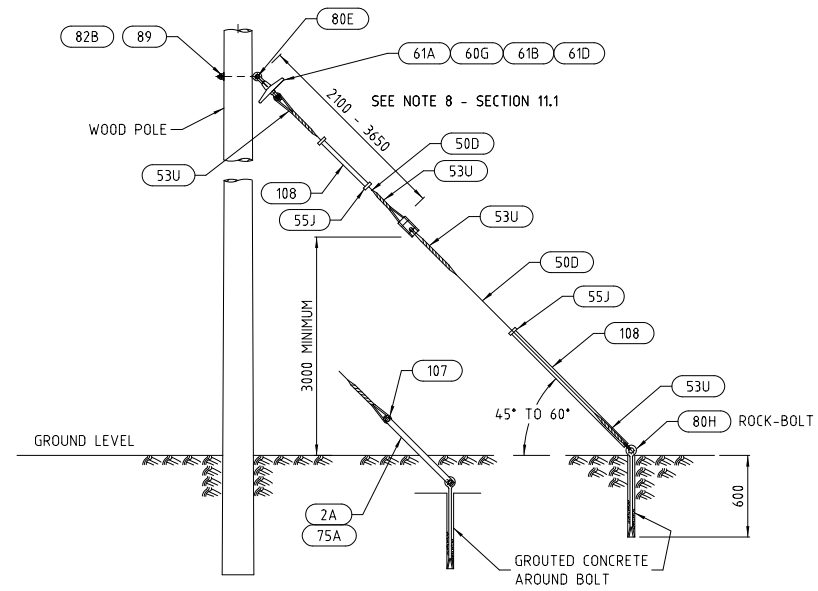
SCALE: NTS

A4

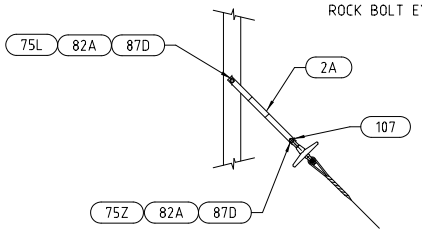
D - OHC - L002 - SD - 002

REVISION: A

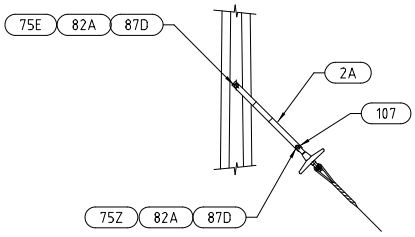
11.3 Rock Bolt Stay



NOTE: ALTERNATIVE ARRANGEMENT WHEN ROCK BOLT EYE IS BELOW GROUND.



STAY TO S/C POLE
STEEL FACE



STAY TO S/C POLE
CONCRETE FACE

NOTES
1. REFER TO SECTION 11.1-1 DRAWING D-OHC-L001-SD-001 FOR GENERAL NOTES.

APL Nos:
WOOD POLE RSTAY/W/PLM
STEEL CONCRETE POLE RSTAY/SC/PLM

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	08/FEB/19

TITLE: ROCK BOLT STAY
SCALE: NTS
A4
D - OHC - L003 - SD - 001
REVISION: A

Rock Bolt Stay - Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
RSTAY/W/PLM	S	89	66803	WASHER,Flat Round M20 x 75mm Gal	1
		108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		80H	325442	ANCHOR,ROCKFACE 600MM WITH WEDGE/THIMBLE	1
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
RSTAY/SC/PLM	S	107	265216	THIMBLE,Wire Rope 16mm Gal.Steel	1
		108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		2A	323314	BRACE,CROSSARM 40 X 700 X 5MM THICK GAL	2
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		75E	32279	BOLT,HEX HEAD M16 X 180MM GAL. C/W NUT	1 (or AR)
		75L	32286	BOLT,HEX HEAD M16 X 300MM GAL. C/W NUT	1 (or AR)
		75Z	32261	BOLT,HEX HEAD M16 X 45MM GAL. C/W NUT	1
		80H	325442	ANCHOR,ROCKFACE 600MM WITH WEDGE/THIMBLE	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	2
		87D	65616	WASHER,Flat Round M16 x 30mm Gal	2
		T208A	323306	Gain Block 100mm	1

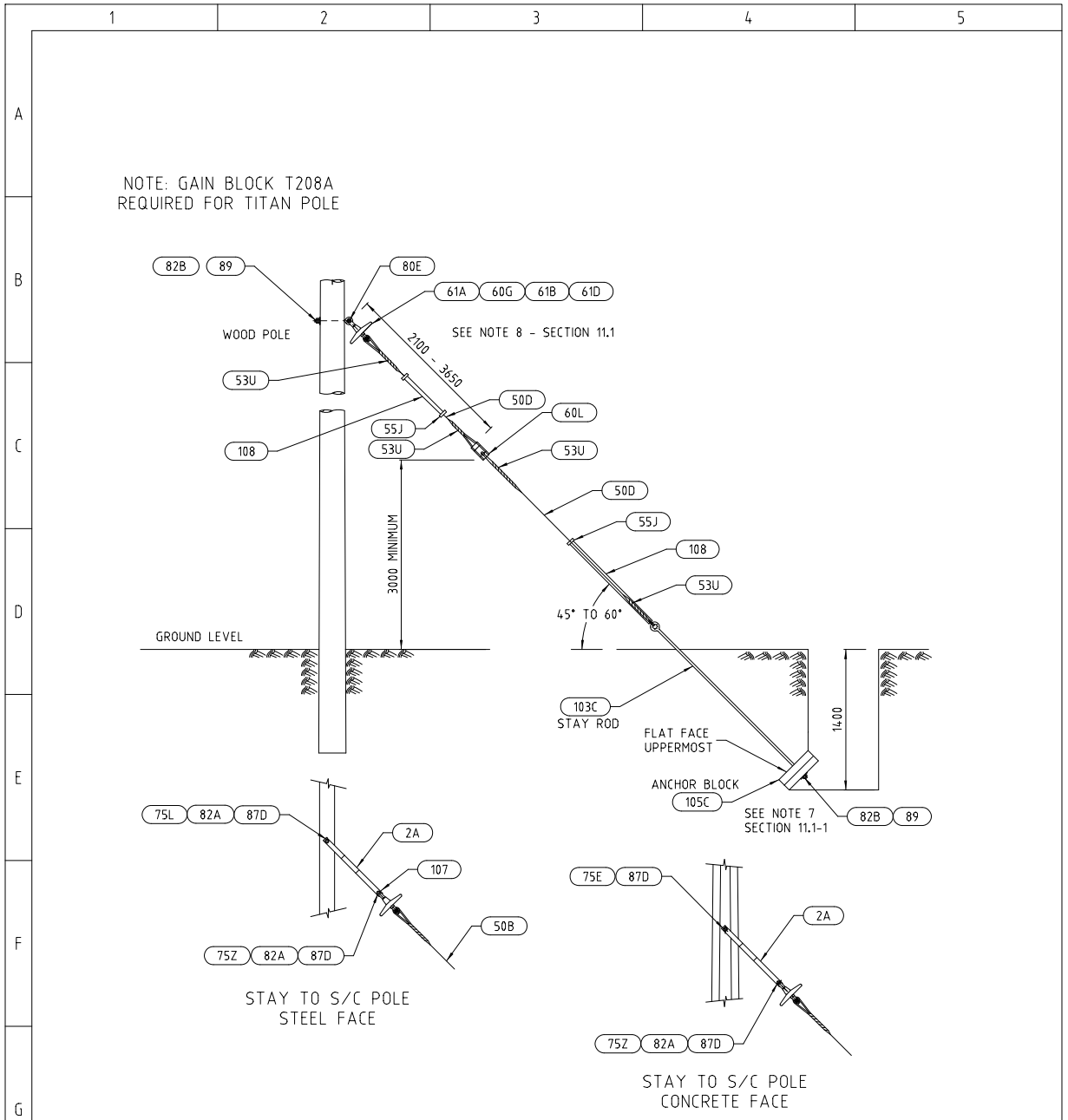
ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	08/FEB/19

TITLE: ROCK BOLT STAY MATERIALS LIST
SCALE: NTS
A4
D - OHC - L003 - SD - 002
REVISION: A

11.4 Anchor Block Stay



NOTES
1. REFER TO SECTION 11.1-1 DRAWING D-OHC-L001-SD-001 FOR GENERAL NOTES.

APL Nos:
WOOD POLE BSTAY/W/PLM
STEEL/CONCRETE POLE BSTAY/SC/PLM

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	08/FEB/19

TITLE: ANCHOR BLOCK STAY

SCALE: NTS

A4

D - OHC - L004 - SD - 001

REVISION: A

Anchor Block Stay - Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
BSTAY/W/PLM	S	89	66803	WASHER,Flat Round M20 x 75mm Gal	2
		108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		103C	325692	GUY ASSEMBLY,FORGED EYE M20 X2100MM	1
		105C	77506	BLOCK,PRECAST CONCRETE D-OH1-1.2/1 REV.2	1
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	2
BSTAY/SC/PLM	S	107	265216	THIMBLE,Wire Rope 16mm Gal.Steel	1
		108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		103C	325692	GUY ASSEMBLY,FORGED EYE M20 X2100MM	1
		105C	77506	BLOCK,PRECAST CONCRETE D-OH1-1.2/1 REV.2	1
		2A	323314	BRACE,CROSSARM 40 X 700 X 5MM THICK GAL	2
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		75E	32279	BOLT,HEX HEAD M16 X 180MM GAL. C/W NUT	1 (or AR)
		75L	32286	BOLT,HEX HEAD M16 X 300MM GAL. C/W NUT	1 (or AR)
		75Z	32261	BOLT,HEX HEAD M16 X 45MM GAL. C/W NUT	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	2
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
		86C	65159	WASHER,Flat Round M20 x 60mm Gal	1
		87D	65616	WASHER,Flat Round M16 x 30mm Gal	2
		T208A	323306	Gain Block 100mm	1

BM DWG NO

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	08/FEB/19

TITLE: ANCHOR BLOCK STAY MATERIALS LIST

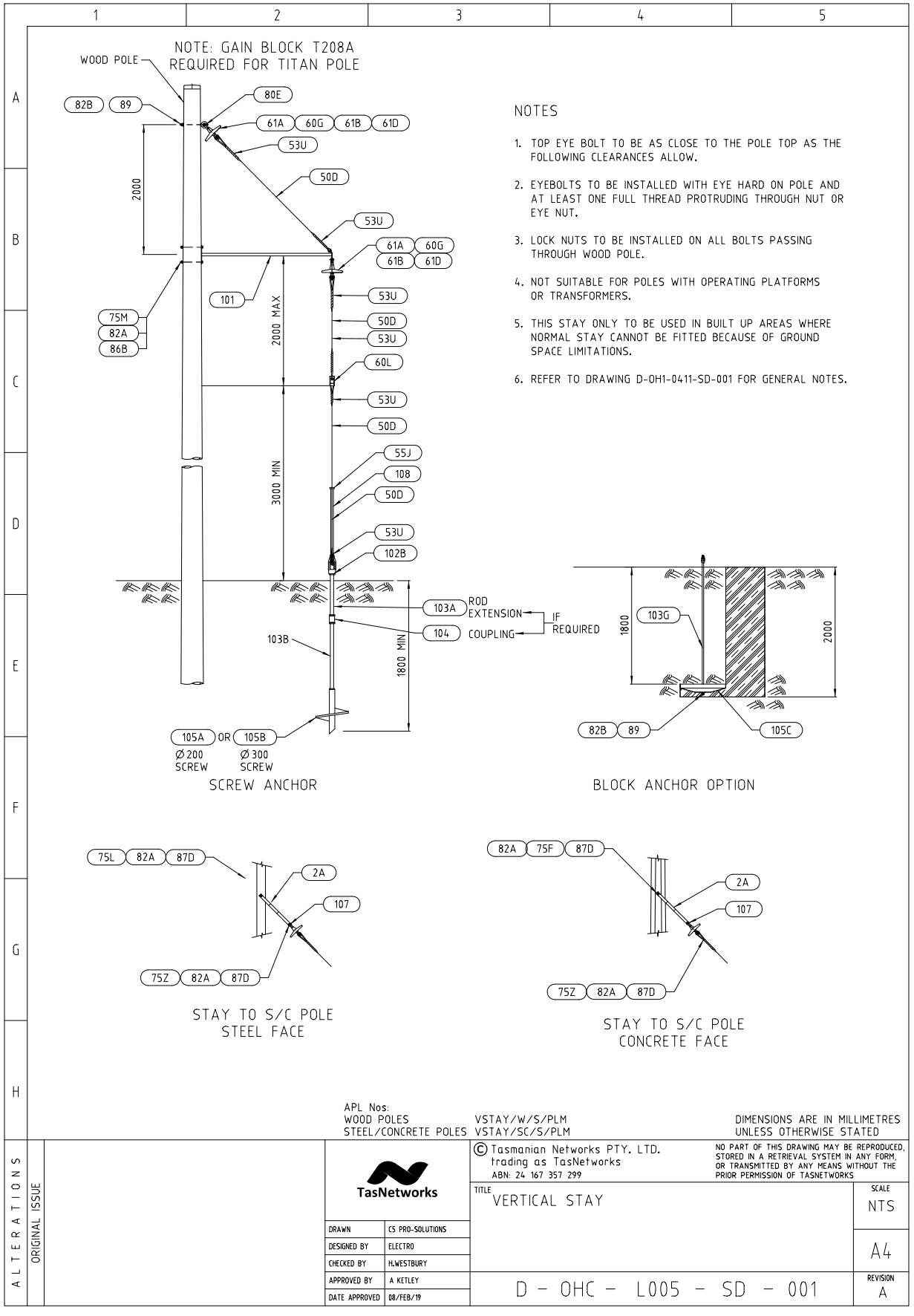
SCALE: NTS

A4

D - OHC - L004 - SD - 002

REVISION: A

11.5 Vertical Stay



Vertical Stay - Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
VSTAY/W/S/PLM	S	89	66803	WASHER,Flat Round M20 x 75mm Gal	1
		101	323379	SUPPORT,Stay 40 x 40 x 2000mm Vertical	1
		108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		105A	325817	ANCHOR,GUY SINGLE HELIX 200MM X M24 ROD	1 (or AR)
		105B	325818	ANCHOR,GUY SINGLE HELIX 300MM X M24 ROD	1 (or AR)
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	6
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	1
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	2
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	2
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	2
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	2
		75M	32287	BOLT,HEX HEAD M16 X 325MM GAL. C/W NUT	2
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	2
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
		86B	65158	WASHER,Flat Round M16 x 50mm Gal	4
			325844	ANCHOR,ROD SCREW 20MM X 2140MM M24 NUT	1
VSTAY/SC/S/PLM	S	101	323379	SUPPORT,Stay 40 x 40 x 2000mm Vertical	1
		107	265216	THIMBLE,Wire Rope 16mm Gal.Steel	1
		108	325719	PROTECTOR,GUY SLIT PVC 25MM X 2000MM WH	2
		105A	325817	ANCHOR,GUY SINGLE HELIX 200MM X M24 ROD	1 (or AR)
		105B	325818	ANCHOR,GUY SINGLE HELIX 300MM X M24 ROD	1 (or AR)
		2A	323314	BRACE,CROSSARM 40 X 700 X 5MM THICK GAL	2
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	14
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	6
		55J	146857	CONNECTOR,CLAMP D SPLIT BOLT 95MM2 MAX	3
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	2
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	2
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	2
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	2
		75L	32286	BOLT,HEX HEAD M16 X 300MM GAL. C/W NUT	3
		75M	32287	BOLT,HEX HEAD M16 X 325MM GAL. C/W NUT	2
		75Z	32261	BOLT,HEX HEAD M16 X 45MM GAL. C/W NUT	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	4
		86B	65158	WASHER,Flat Round M16 x 50mm Gal	4
		87D	65616	WASHER,Flat Round M16 x 30mm Gal	2
		T208A	323306	Gain Block 100mm	1
			325844	ANCHOR,ROD SCREW 20MM X 2140MM M24 NUT	1

ALTERATIONS

ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	08/FEB/19

TITLE: VERTICAL STAYS MATERIALS LIST

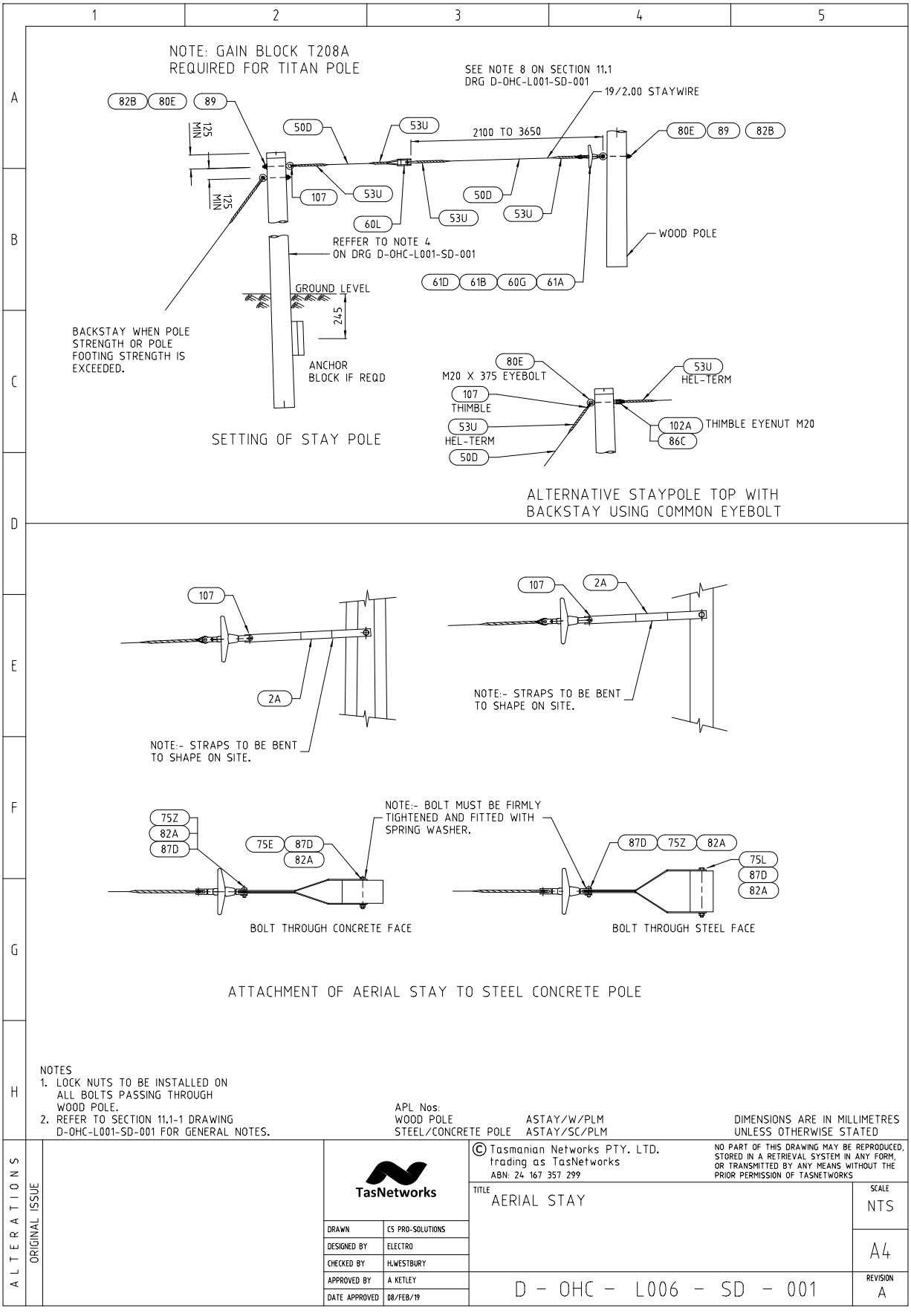
SCALE: NTS

A4

D - OHC - L005 - SD - 002

REVISION: A

11.6 Aerial Stay



Aerial Stay - Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
ASTAY/W/PLM	S	89	66803	WASHER,Flat Round M20 x 75mm Gal	2
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	25
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	2
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	2
ASTAY/SC/PLM	S	107	265216	THIMBLE,Wire Rope 16mm Gal.Steel	2
		2A	323314	BRACE,CROSSARM 40 X 700 X 5MM THICK GAL	2
		50D	438920	WIRE ROPE,Strand 19/2.00 G1320 50m Coil	25
		53U	148511	DEADEND,FULL TENSION 19/2.00 GAL.COND	4
		60G	321260	INSULATOR,SUSPENSION 146MM DISC D70S	1
		60L	320403	INSULATOR,STRAIN GY3 LILING GUY-TYPE	1
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		61D	322090	CLIP,SECURITY 7.9MM S/STEEL 16B-WCLIP	1
		75E	32279	BOLT,HEX HEAD M16 X 180MM GAL. C/W NUT	1 (or AR)
		75L	32286	BOLT,HEX HEAD M16 X 300MM GAL. C/W NUT	1 (or AR)
		75Z	32261	BOLT,HEX HEAD M16 X 45MM GAL. C/W NUT	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	2
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
		86C	65159	WASHER,Flat Round M20 x 60mm Gal	1
		87D	65616	WASHER,Flat Round M16 x 30mm Gal	2
		T208A	323306	Gain Block 100mm	1

EMF/PDF CREATION DATE

ALTERATIONS

ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	08/FEB/19

TITLE: AERIAL STAY MATERIALS LIST

SCALE: NTS

A4

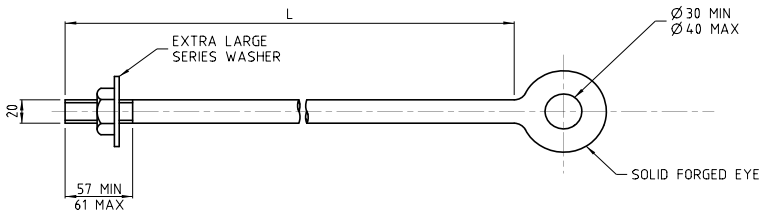
D - OHC - L006 - SD - 002

REVISION: A

11.7 Stay Components

11.7.1 EyeBolts

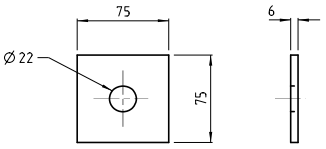
CAUTION : Printed document is uncontrolled.



L	SI No
280	03.72.58
300	03.72.59
325	03.72.60
350	03.72.61
375	03.72.63
400	03.72.62
600	325442

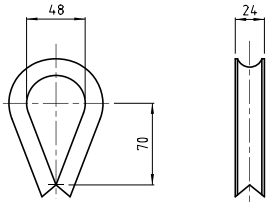
ITEM 80 - STAY POLE BOLT ASSEMBLY
EYE BOLT - FORGED

MATERIAL: AS 1442 CS 1030 OR EQUIVALENT.
SI No (SEE TABLE)



WASHER

MATERIAL: GMS



ITEM 107 - THIMBLE

MATERIAL: GMS

SI No 26.52.16

NOTES

1. MATERIAL: EYE BOLTS TO BE FORGED OR FABRICATED FROM HOT ROLLED CARBON STEEL AS 1442/CS1030 OR EQUIVALENT.
2. THREADS: THE FORM OF THREAD SHALL BE ISO METRIC COARSE PITCH SERIES 8g CLASS FOR EXTERNAL THREADS TO AS 1275.
3. PROTECTIVE COATING: EYE BOLTS, NUTS, WASHERS AND THIMBLES TO BE HOT DIP GALVANIZED. THE MASS AND QUALITY OF COATING AND THE FINISH OF THE THREADS TO MEET THE REQUIREMENTS OF AS 1214.
4. MINIMUM FAILING LOAD: THE TENSILE FAILING LOAD OF THE EYE BOLTS TO BE NOT LESS THAN 98kN FOR THE DIAMETER 20 TYPE.
5. EYE BOLTS AND NUTS TO BE MARKED WITH 'M' IN ACCORDANCE WITH CLAUSE 7.4 (b) AS 1112 - 1980.
6. THIMBLE TO BE IN ACCORDANCE WITH AS 1138 TABLE 2.
7. EXTRA LARGE SERIES WASHER IN ACCORDANCE WITH AS 1237, TABLE A1.

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EMF/PDF CREATION DATE 08/FEB/19

ALTERATIONS: ORIGINAL ISSUE

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APPROVED BY	A KETLEY
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TITLE: STAY COMPONENTS EYEBOLTS

SCALE: NTS

A4

D - OHC - L007 - SD - 001

REVISION: A

DWG STATUS CONSTRUCTION

BM DWG NO D - OHC - L007 - SD - 001 BM REV A

11.7.2 Screw Anchor

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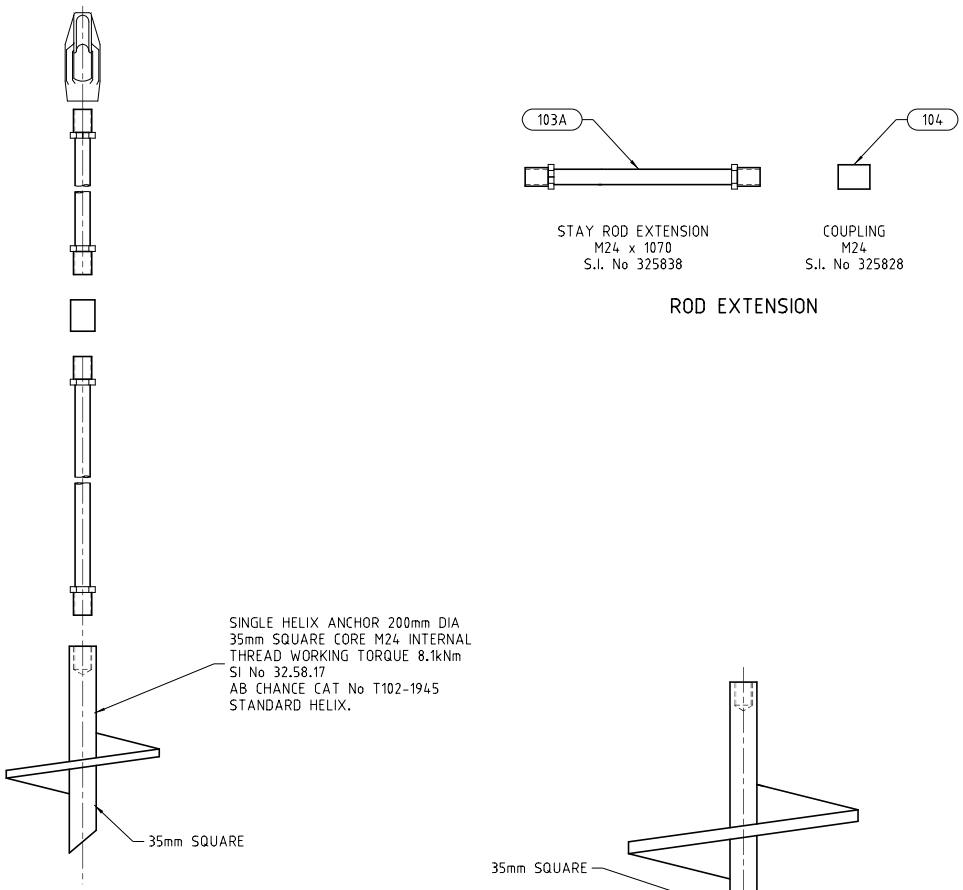

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TITLE: STAY COMPONENTS - SCREW ANCHOR

SCALE: NTS

A4

D - OHC - L007 - SD - 003

REVISION: A

DWG STATUS CONSTRUCTION

BM DWG NO D - OHC - L007 - SD - 003 BM REV A

11.7.3 Cattle / Horse Guard

CAUTION : Printed document is uncontrolled.

NOTES
1. ENSURE INSTALLATION OF GUARD DOES NOT AID ACCESS BY OTHERS TO TASNETWORKS ASSETS INSTALLED ON ADJACENT POLE.
2. EXCESS BOLT LENGTH GREATER THAN 5MM TO BE CUT OFF AND HAMMERED TO MUSHROOM THE END WHICH SHOULD REMOVE SHARPNESS AND PREVENT NUT FROM FALLING OFF AS TIMBER SHRINKS.
3. ALL MATERIALS USED ARE TO BE "NEW" NOT "SECOND HAND" OR "RECLAIMED".

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EMF/PDF CREATION DATE 27/MAR/19

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DRAWN	CS PRO-SOLUTIONS
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APPROVED BY	A KETLEY
DATE APPROVED	22/MAY/19

TITLE: STAYS - CATTLE / HORSE GUARD

SCALE: 1:40

A4

D - OHC - L009 - SD - 001

REVISION: A

BM DWG NO D - OH1 - L009 - SD - 001 BM REV A

DWG STATUS CONSTRUCTION

11.7.4 Stay Insulators

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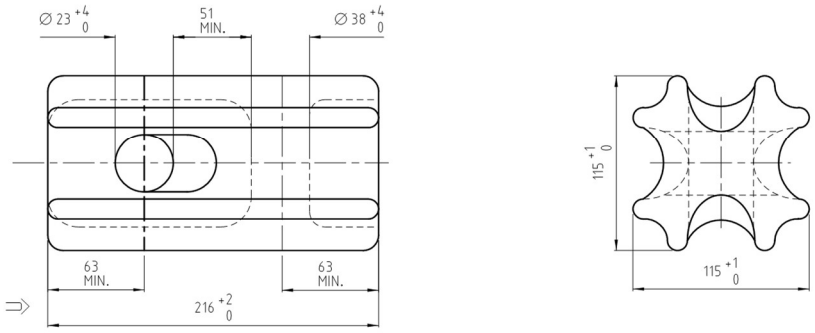
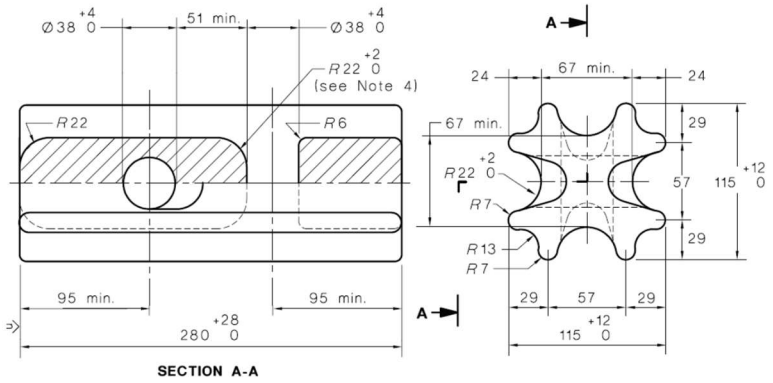


TYPE GY3
AS 3609 FIG. 4.3
S.I. No 32.04.03



SECTION A-A

TYPE GY4
AS 3609 FIG. 4.4

SINGLE INSULATOR MAX LINE VOLTAGE	GUY INSULATOR	STAY WIRE USED WITH INSULATOR	CORRESPONDING MINIMUM U.T.S OF INSULATOR (kN)
22kV	GY3	6 x 7/60.3 (U.T.S. - 180kN)	161
		6 x 7/69.9 (U.T.S. - 262kN)	133
		6 x 7/79.4 (U.T.S. - 321kN)	89
33kV	GY4		

MATERIAL: PORCELAIN TO BE IN ACCORDANCE WITH AS 3609.

STRENGTH: THE STRENGTH OF A GUY INSULATOR VARIES WITH THE FLEXIBILITY OF THE STAY WIRE WITH WHICH IT IS USED AND THEREFORE IT IS DESIRABLE TO TEST THE STRENGTH OF EACH TYPE OF GUY INSULATOR IN CONJUNCTION WITH THE STAY WIRE ADOPTED. BASED UPON TESTS. THE MINIMUM TENSILE STRENGTH OF THE INSULATORS WITH THE STAYS LISTED ARE AS SHOWN.

REFERENCE: THE INSULATORS SHOWN IN THIS DRAWING ARE OUTLINES OF DRAWINGS FROM AS 3609 AS. DRAWING NUMBERS ARE SHOWN WITH RESPECTIVE INSULATOR.

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TITLE: STAYS INSULATORS

SCALE: NTS

A4

D - OHC - L010 - SD - 001

REVISION: A

DWG STATUS CONSTRUCTION

BM DWG NO D - OHC - L010 - SD - 002 BM REV A

11.7.5 Vertical Stay Strut Steelwork

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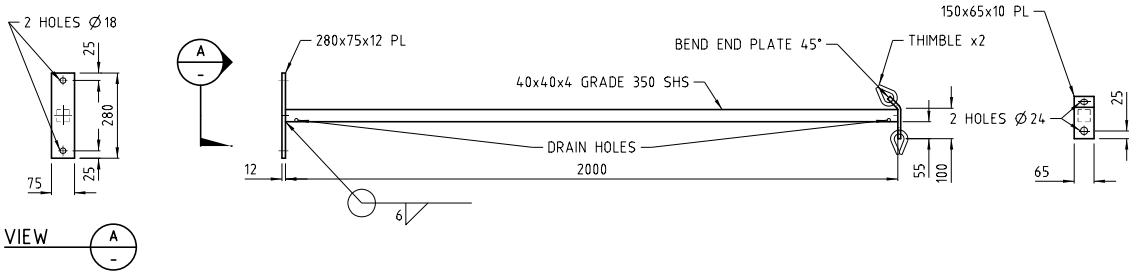

ITEM 101
MARK 79 - STRUT VERTICAL STAY

S.I. 32.33.79
MATERIAL: 40 x 40 x 4 SHS GRADE 350 TO AS 1163
75 x 12 FLAT BAR 280 LONG AND
65 x 10 FLAT BAR 150 LONG TO AS/NZS 3679.1-300
FINISH : HOT DIP GALVANIZE TO AS/NZS 4680
NOTE: TO BE SUPPLIED WITH 2 GALVANISED THIMBLES
TO AS1138 TABLE 2 (SIZE 14)
SCALE 1:20

DIMENSIONS ARE IN MILLIMETRES
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TITLE
STAYS
VERTICAL STAY STRUT STEELWORK

SCALE AS INDICATED
A4

D - OHC - L011 - SD - 001

REVISION A

DWG STATUS CONSTRUCTION

ALTERATIONS
ORIGINAL ISSUE

EMF/PDF CREATION DATE 08/FEB/19

BM DWG NO D - OHC - L011 - SD - 001 BM REV A

11.8 Installation Instructions for Screw Anchor

11.8.1 Installation Screw Anchor 1

CAUTION : Printed document is uncontrolled.

GENERAL

TASNETWORKS AT PRESENT INCORPORATES A SHEAR PIN TORQUE INDICATOR, THAT PHYSICALLY SHEARS A NUMBER OF PINS IN ITS POWER INSTALLED SCREW ANCHOR ASSEMBLY. BECAUSE OF THE MAINTENANCE PROBLEMS, AVAILABILITY OF PARTS AND RELIABILITY, THE SHEAR PIN PRESSURE GAUGE INDICATOR WILL BE PROGRESSIVELY REPLACED BY A SHEAR PIN PRESSURE GAUGE INDICATOR MOUNTED DIRECTLY IN FRONT OF THE BORER/ERECTOR OPERATOR.

THIS PRESSURE GAUGE IS CONNECTED DIRECTLY TO THE HYDRAULIC LINE DRIVING THE STAFFA MOTOR. IT IS CALIBRATED FROM 1 TO 10 WHICH INDICATES THE NUMBER OF PINS SHEARED. TO SHEAR A PIN IS EQUILVALENT TO A PRESSURE OF APPROXIMATELY 1725Pa. THE PRESSURE GAUGE SHOULD BE CHECKED EVERY 12 MONTHS, BY THE MOTOR TRANSPORT DEPARTMENT, TO ENSURE ACCURACY.

THE MAJOR ADVANTAGES OF THE PRESSURE GAUGE OVER THE TORQUE INDICATOR IS ITS ABILITY TO SHOW THE HOLDING STRENGTH OF THE ANCHOR THROUGH ITS ENTIRE PENETRATION DEPTH AS IT IS BEING INSTALLED AND ITS EASE OF APPLICATION. THE PRESSURE GAUGE ALSO INDICATES THE LIKELIHOOD OF INCREASED HOLDING STRENGTH AT A GREATER DEPTH.

TWO METHODS OF INSTALLING SCREW ANCHORS WILL BE USED.

1. THE SHEAR PIN TORQUE INDICATOR METHOD.
2. THE SHEAR PIN PRESSURE GAUGE METHOD.

GUIDANCE FOR SCREW ANCHOR INSTALLATIONS

BOTH METHODS REQUIRE SIMILAR INSTALLATION TECHNIQUES:-

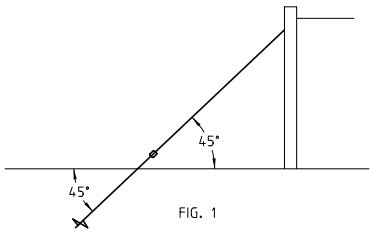
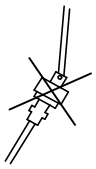


FIG. 1

1. THE ANCHOR ROD TO BE INSTALLED MUST BE IN A DIRECT LINE WITH THE STAY WIRE, i.e. IF THE STAY IS AT 45° TO THE GROUND THEN THE ANCHOR MUST BE INSTALLED AT 45° .(FIG.1)
2. ALIGN THE DRIVING ASSEMBLY MAKING SURE THAT THE LOCKING DOG ASSEMBLY DOES NOT SAG THEREBY PUTTING UNDUE STRESS ON THE KELLY BAR.(FIG.2)
3. DURING THE INSTALLATION IT IS IMPORTANT THAT A CONSTANT DOWNWARD PRESSURE BE MAINTAINED. THIS PRESSURE SHOULD BE SUCH THAT FOR EACH COMPLETE TURN OF THE SCREW ANCHOR A PENETRATION OF 75mm IS OBTAINED.



LOCKING DOG ASSEMBLY

FIG. 2

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DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
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TITLE: INSTALLATION INSTRUCTIONS FOR POWER INSTALLED SCREW ANCHOR

SCALE: NTS

A4

D - OHC - L012 - SD - 001

REVISION: A

DWG STATUS CONSTRUCTION

ALTERATIONS: ORIGINAL ISSUE

EMF/PDF CREATION DATE 08/MAR/19

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11.8.2 Installation Screw Anchor 2

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4. THE STAFFA MOTOR SHOULD BE TURNING OVER AT JUST ABOVE IDLE SPEED. DO NOT OVER REV THE MOTOR AS THIS WILL CAUSE THE ANCHOR TO "CHURN" THE SOIL RATHER THAN PENETRATING IT THEREBY MAKING ANCHOR INSTALLATION SUSCEPTIBLE TO FAILURE.
IT IS CRITICAL FOR THE SUCCESS OF THE INSTALLATION THAT THE PENETRATION RATE OF 75mm PER REVOLUTION IS MAINTAINED ESPECIALLY FOR THE LAST 600mm.

5. THE ANCHOR ROD IS TO BE INSTALLED TO A MINIMUM DEPTH OF 1700mm WITH A MINIMUM HEIGHT OF THE THIMBLE EYE NUT ABOVE GROUND LEVEL OF 100mm.(FIG.3)

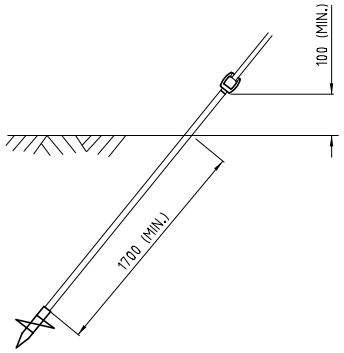

FIG. 3

6. IF ADEQUATE HOLDING STRENGTH CAN NOT BE ACHIEVED WITH THE STANDARD 200mm SINGLE HELIX ANCHOR AND ONE ANCHOR ROD, SEVERAL OPTIONS ARE AVAILABLE.

(a) INCREASE THE PENETRATION DEPTH BY ADDING AN EXTENSION ROD. THIS METHOD SHOULD ONLY BE CONSIDERED IF THE SUBSTRATA IS THOUGHT TO BE DENSER THAN THE SURFACE SOIL.

(b) USE THE 300mm SINGLE HELIX ANCHOR WHERE THE SUBSOIL HAS POOR HOLDING CAPACITY DOWN TO THE 3 METRE LEVEL. AN INCREASE OF APPROXIMATELY 20kN IN HOLDING STRENGTH CAN BE EXPECTED COMPARED WITH A 200mm SINGLE HELIX ANCHOR IN THE SAME SOIL. THE 300mm SINGLE HELIX ANCHOR INSTALLED IN POOR SOIL WILL NORMALLY PROVIDE ADEQUATE HOLDING STRENGTH FOR STANDARD 19/2.00 GROUND STAY.

7. WHEN THE INSTALLATION TORQUE EXCEEDS 10 PINS A CONCRETE ANCHOR BLOCK STAY SYSTEM SHOULD BE INSTALLED AS IT WILL BE EXTREMELY DOUBTFUL IF A POWER INSTALLED SCREW ANCHOR CAN BE INSTALLED TO THE REQUIRED MINIMUM DEPTH.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

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TITLE: INSTALLATION INSTRUCTIONS FOR POWER INSTALLED SCREW ANCHOR

SCALE: NTS

A4

D - OHC - L012 - SD - 002

REVISION: A

BM DWG NO D - OHC - L012 - SD - 002 BM REV A

DWG STATUS CONSTRUCTION

11.8.3 Installation Screw Anchor 3

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INSTALLATION PROCEDURE

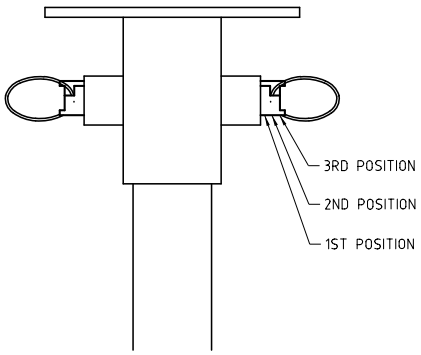

FIG. 4

1. LOCATE THE KELLY BAR ADAPTER AND LOCKING DOG ASSEMBLY ON THE KELLY BAR AND INSERT RETAINING PIN.
2. PULL THE RINGS ON THE LOCKING DOGS OUT TO THE THIRD POSITION. INSERT DRIVE END WRENCH INTO THE LOCKING DOGS AND RELEASE LOCKING DOGS TO THE SECOND POSITION.(FIG.4)
3. SCREW ANCHOR ROD INTO ANCHOR HELIX,TIGHTEN SECURELY.
4. FIT ANCHOR ASSEMBLY INTO THE DRIVING WRENCH. RELEASE LOCKING DOGS TO FIRST POSITION, ENSURE THAT THE ANCHOR ASSEMBLY IS FULLY ENGAGED.
5. COMMENCE THE INSTALLATION. AS THE ANCHOR APPROACHES THE LAST 600mm OF PENETRATION, NOTE THE PRESSURE/TORQUE GAUGE READING. A STEADY PENETRATION RATE OF 75mm PER REVOLUTION MUST BE MAINTAINED WITHOUT SLIPPAGE. IT IS IMPORTANT THAT THE TORQUE REACHES THE VALUE NOMINATED ON THE WORKS PLAN, IF SLIPPAGE OCCURS, CONSIDER USING
   - A LARGER DIAMETER SCREW
   - AN EXTENSION ROD TO REACH DOWN TO FIRMER SOIL LAYERS
   - USE OF A BLOCK ANCHOR

TEST INSTALLATION

IF THERE IS DOUBT AT THE BEGINNING OF THE INSTALLATION AS TO THE HOLDING STRENGTH OF THE SOIL THEN A TEST INSTALLATION MAY BE REQUIRED.
USING A 200mm SINGLE HELIX INSTALL AN ANCHOR VERTICALLY, THE LOCATION OF THIS ANCHOR IS TO BE ONE METRE TO THE SIDE OF THE STAY INSTALLATION.
THE DRIVE END WRENCH SHOULD BE MARKED WITH PVC TAPE AT A DISTANCE EQUIVALENT TO THE PROBE DEPTH, (REFER TO THE TABLE BELOW) AND AT A DISTANCE 600mm LESS THAN THE PROBE DEPTH. THIS IS TO ENABLE THE OPERATOR TO TAKE READINGS OVER THE LAST 600mm OF PENETRATION. (FIG.5)

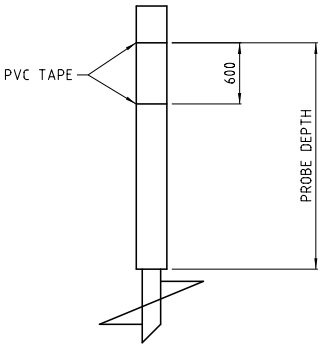

FIG. 5

TYPE OF STAY	VERTICAL DEPTH OF PROBE mm
45°	1300
45° WITH EXTENSION	2100
60°	1600
60° WITH EXTENSION	2500

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DRAWN	CS PRO-SOLUTIONS
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CHECKED BY	H.WESTBURY
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A4

D - OHC - L012 - SD - 003

REVISION: A

DWG STATUS CONSTRUCTION

ALTERATIONS: ORIGINAL ISSUE

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