AGUSTAWESTLAND International Ltd.

ENGINEERING STANDARD

1. INTRODUCTION

1.1 This standard details the tiedown straps selected for EH101 project.

2. <u>APPLICABLE DOCUMENTS</u>

2.1 Tiedown straps to this standard, unless otherwise specified, shall meet the requirement of the following documents: SAE AS33671 and SAE AS23190

3. CONFIGURATION

3.1 Unless otherwise stated on the drawings the tiedown straps may conform to figure 1 and 2

FIGURE 1

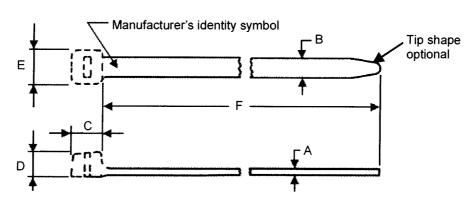
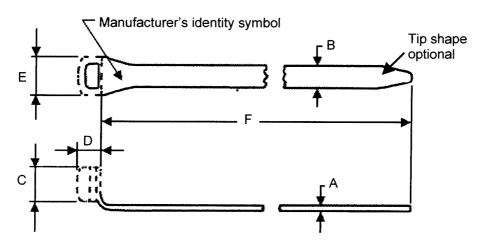


FIGURE 2



COMPILED DATE APPROVED D. Dessolis October 2006 M. Meraviglia ISS 4		SHT	01	OF	06			
TITLE: STRAP,	TIEDOWN (CAB	LE TIES)			E	EE 4	120	

4. <u>DIMENSIONS</u> (mm)

Size code	Bun	dle Ø	Α	В	С	D	E	F
Size code	min	max	max	max	max	max	max	min
01	1,59	44,45	1,4	4,82	6,98	6,09	8,2	160,0
02	1,59	101,6	1,4	4,90	6,98	6,09	9,3	339,0
03	4,76	89,0	2,1	7,87	9,52	8,38	13,59	304,8
04	1,59	15,88	1,2	2,54	4,44	4,32	4,95	69,0
05	1,59	32,0	1,4	3,7	5,59	5,08	6,60	118,8
06	4,76	152,4	2,1	7,87	9,52	8,38	13,97	531,0
07	1,59	76,2	1,4	4,90	6,98	6,09	9,3	259,0

Note: In very limited cases, some of the max values given above, taken from SAE AS33671, are exceeded by manufacturers. Bundle diameter capacity and tensile strength may be exceeded without penalty.

Size Code	Lb	e Strength s (Kg) min	Tool Tension Setting Range	Weight g/10 pieces
01	50	(22,68)	6 to 8	10,7
02	50	(22,68)	6 to 8	21,8
03	120	(54,43)	5 to 8	51,5
04	18	(8,16)	1 to 3	2,7
05	30	(13,60)	3 to 5	5,8
06	120	(54,43)	5 to 8	73,1
07	50	(22,68)	6 to 8	17,4

^(*) See paragraph 8.4 and 8.5

5. TIEDOWN STRAPS TYPE CODE

Type code			Temperature Range °C	Max Temperature °C (#)	Flame Resistance
- 9	Polyamide 6.6	Natural	-55° to +105°	_	-
- 0	Polyamide 6.6 - Internal use Heat Stabilised	Black	-40° to +105°	145°	Self-Extinguishing
UV	Polyamide 6.6 - External use UV resistant	Black	-40° to +85°	115°	as per UL94-V2

(#) Temperature maintained for max time of 500 hours continuously.

Note Shaded colour code (-9) type must not be used on new design. For type code -0 and UV the colour black only shall be used.

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6. DESIGNATION EXAMPLE

	<u>EE420</u> - <u>01</u> - <u>0</u>
Basic designation	
Size code	
(see para 4)	
Type code	
(see para 5)	

7. DRAWING CALL-UP EXAMPLE

PART NUMBER	KEYWORD	DESCRIPTION
EE420-01-0	STRAP	TIEDOWN

8. GENERAL

- 8.1 Tiedown straps may be used on wire bundles containing solid dielectric coaxial cables provided that the tension setting on the installation tool is the minimum required to prevent axial slippage.
- 8.2 Tiedown straps with metal tongue inserts shall not be used on electrical harnesses.
- 8.3 Tiedown straps with internal ratchet shall not be used.
- 8.4 Tool tension setting ranges specified in para 4 are for typical wire bundle applications. Settings less or greater than the ranges specified may be necessary for special applications.
- 8.5 For installation tool application see EE912.
- 8.6 Tiedown straps shall be supplied in bags or boxes.

9. STORAGE

- 9.1 Tiedown straps shall be stored in suitable bags or boxes which prevent direct exposure to solar UV rays and/or exposure to moisture and shall be maintained at ambient temperature.
- 9.2 Storage bags or boxes shall not be damaged or opened during storage.

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10. MARKING

- 10.1 The EH101 part number shall be marked on the container or packaging only.
- 10.2 The manufacturer's identity symbol shall be marked on the external side of tiedown straps (see figure 1 and 2).
- 10.3 Each part shall be packaged and identified separately.

11. PROCUREMENT

These items shall only be procured from manufacturers or suppliers currently approved by the appropriate company quality department:

Agusta: Quality Department - Procurement Quality (QAP).

Westland: Supplier Quality Department - Vendor Approvals Database (VAD).

12. MANUFACTURERS AND SUPPLIERS

MANUFACTURERS	LICENSEES OR DISTRIBUTORS			
WANDFACTURERS	ITALY	U.K.		
HELLERMANN TYTON UK Sharston Green Business Park, 1 Robeso N Way, Altrincham Road Wythenshawe Manchester Lancashire UK	HELLERMANN TYTON Hellermann Elettro s.r.l. Via Praimbole, 9/B I-35010 Limena Padova Italy	HELLERMANN TYTON UK Sharston Green Business Park, 1 Robeso N Way, Altrincham Road Wythenshawe Manchester Lancashire UK		
N.S.C.M. K0720	N.S.C.M.	N.S.C.M. K0720		
PANDUIT EUROPE LTD West World Westgate, London UK W5 1XP	PATTONAIR s.r.l. (EX PROVEST s.r.l.) Via XXII Marzo, 19 21013 Gallarate Varese Italy	RAYFAST 2 Westmead Swindon Wiltshire UK SN5 7SY		
N.S.C.M. <i>U2117</i>	N.S.C.M.	N.S.C.M.		

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13. EH101 MANUFACTURERS PT/NO CROSS REFERENCE

EH101 Pt No EE420-	PANDUIT PT NO	Q.ty	HELLERMANN PT NO	Q.ty
01 -0	CBR2S-M30	1000	T50ROS HSBK	100
02 -0	CBR4S-M30	1000	T50LOS HSBK	100
03 -0	CBR4LH-TL30	250	T120ROS HSBK	100
04 -0	CBR1M-M30	1000	T18ROS HSBK	100
05 -0	CBR1.5I-M30	1000	T30ROS HSBK	100
06 -0	CBR6LH-C30	100		
07 -0	CBR3S-M30	1000	T50MOS HSBK	100
01 UV	CBR2S-M0	1000		
02 UV	CBR4S-M0	1000		
03 UV	CBR4LH-TL0	250		
04 UV	CBR1M-M0	1000		
05 UV	CBR1.5I-M0	1000		
06 UV	CBR6LH-C0	100		
07 UV	CBR3S-M0	1000		

Note: Quantities referred for every each bag or box.

Note: Panduit part numbers above, include quantities: M = 1000; TL = 250; C = 100

14. SUPERSEDED PART NUMBERS

EH101 Pt No EE420-	SUPERSEDED Military Pt No. MS3367-	SUPERSEDED HELLERMANN Pt No	SUPERSEDED THOMAS & BETTS Pt No
01-0	1-0	LK2C/HS BLACK	TY25M-0
02-0	2-0	LK3A/HS BLACK	TY28M-0
03-0	3-0	LK4/HS BLACK	TY27M-0
04-0	4-0	LK0X/HS BLACK	TY23M-0
05-0	5-0	LK0B/HS BLACK	TY24M-0
06-0	6-0		TY29M-0
07-0	7-0		TY253M-0
01-9	1-9	LK2C/HS NATURAL	TY25M
02-9	2-9	LK3A/HS NATURAL	TY28M
03-9	3-9	LK4/HS NATURAL	TY27M
04-9	4-9	LK0X/HS NATURAL	TY23M
05-9	5-9	LK0B/HS NATURAL	TY24M
06-9	6-9		TY29M
07-9	7-9		TY253M

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<i>15.</i>	Α	P	P	L	ı	C	Α	T	10	١	ı

15.1 Tiedown straps are used for tying cable bundles or for securing cable bundles to structure or other fixing point.

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