



Emergency Towing System

FACT SHEET

January 2010

Background

Following the near grounding of the *Salica Frigo* on March 9, 2007, the Mayor of Unalaska convened a Disabled Vessel workgroup to address the possibility of future groundings and to discuss local emergency response solutions. This initial meeting prompted the Emergency Towing System (ETS) workgroup; whose goal was to develop emergency towing capabilities for disabled vessels in the Aleutian Subarea using locally available tugboats in conjunction with ETS equipment stationed in Unalaska.

Based on the Aleutian Subarea vessel traffic, the ETS workgroup implemented two ETS in order to serve a wider range of vessels. The City of Unalaska purchased a system suitable for vessels up to 50,000 DWT and the Alaska Department of Environmental Conservation purchased a system capable of towing vessels greater than 50,000 DWT. A third ETS for vessels greater than 50,000 DWT was purchased in 2009 and is currently staged at the Coast Guard Air Station Kodiak for deployment anywhere in the State.

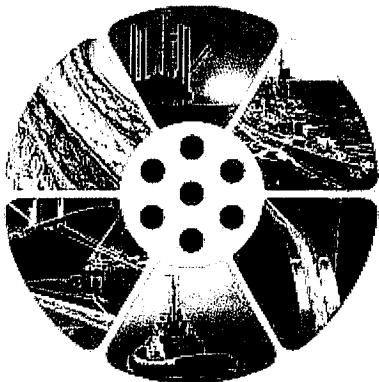


System Advantages

- Transportable by Helicopter to vessel in distress.
- Deployable from the distress vessel or tug.
- The towline and messenger line are bright orange and float.
- Towing eye has Anso-Tex® Chafe Guard which is light weight, abrasion and snag resistant, easy to handle.
- If the tow system is deployed from the distress vessel it may reduce close quarter maneuvering and extended station keeping by the towing vessel.
- Multiple systems allow for tandem towing capabilities.
- Developed procedures manual provides guidance for a coordinated response.

Future Plans

- Purchase two additional 10" towing systems for Alaska.
- Modify the procedures manual to make it an Alaska-wide procedures manual, which will address area specific mobilization procedures.
- Change the storage container to a reinforced wire cage system to allow for additional components and better ventilation to help reduce mildew.
- Coordinate a towing exercise in Southeast Alaska.
- Seek funding for additional towing systems.



PLASMA® 12 STRAND

T3/T33 REV 011
15 SEP 06

Plasma® 12 strand is the highest strength synthetic rope available. Plasma® 12 strand is manufactured from Honeywell Spectra® Fiber that has been enhanced by Puget Sound Rope's patented recrystallization process. This process is especially effective in medium to large diameter ropes where strengths are over 50% higher and creep is significantly less than that of standard Spectra® 12 strand.

Plasma® 12 strand comes standard with a polyurethane finish and is easily spliced using a simple lockstitch type splice, 4-3-2 or 5-4-3 Tuck splice. Its soft, torque free braided construction provides easy handling.

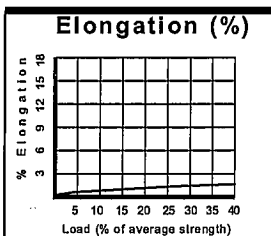
- Highest strength
- Lowest stretch
- Low creep
- Soft hand
- Torque free
- Easy splicing
- Floats

Type Approved Product



	Nominal Diameter		Size Number (circ)	Approximate Weight		Minimum Tensile Strength	
	Inch	MM		Lbs/100ft	Kg/100m	Pounds	kN
12 STRAND	.04	1	.12	.05	0.1	270	1.2
	.05	1.25	.15	.07	0.1	390	1.7
	.06	1.5	.18	.1	0.1	475	2.1
	.07	1.75	.21	.14	0.2	750	3.3
	.1	2.5	.3	.27	0.4	1,400	6.2
	1/8	3	3/8	.54	0.8	2,800	12.5
	3/16	5	9/16	1.12	1.7	5,500	24.5
	1/4	6	3/4	1.6	2.4	8,000	35.6
	5/16	8	15/16	2.5	3.7	11,700	52.0
	3/8	9	1-1/8	3.7	5.5	17,500	77.8
ABS AND DNV TYPE APPROVED SIZES							
12 STRAND	7/16	11	1-1/4	4.2	6.3	21,000	93.4
	1/2	12	1-1/2	6.4	9.5	31,300	139.2
	9/16	14	1-3/4	7.9	11.8	37,900	168.6
	5/8	16	2	10.6	15.8	51,400	228.6
	3/4	18	2-1/4	13.3	19.8	68,500	304.7
	13/16	20	2-1/2	15.9	23.7	74,000	329.2
	7/8	22	2-3/4	19.6	29.2	92,600	411.9
	1	24	3	23.4	34.8	110,000	489.3
	1-1/8	28	3-1/2	31.9	47.5	147,000	653.9
	1-1/4	30	3-3/4	36.2	53.9	165,000	734.0
	1-5/16	32	4	41.7	62.1	196,000	871.9
	1-1/2	36	4-1/2	51.7	76.9	221,000	983.1
12 X 12 STRAND	1-5/8	40	5	65.7	97.8	291,000	1294.4
	1-3/4	44	5-1/2	78.4	116.7	314,000	1396.7
	2	48	6	91.4	136	355,000	1579.1
	2-1/8	52	6-1/2	109	162.2	428,000	1903.8
	2-1/4	56	* 7	122	181.6	481,000	2139.6
	2-1/2	60	7-1/2	148	220.2	530,000	2357.7
	2-5/8	64	8	167	248.5	596,000	2651.1
	2-3/4	68	8-1/2	187	278.3	660,000	2935.8
	3	72	9	214	318.5	780,000	3469.6
	3-1/8	76	9-1/2	235	349.7	850,000	3780.8
	3-1/4	80	* 10	261	388.4	940,000	4181.3
	3-5/8	88	11	324	482.2	1,250,000	5560.3
	4	96	12	394	586.4	1,520,000	6761.3

Tensile Strengths are determined in accordance with Cordage Institute 1500, Test Methods for Fiber Rope. Weights are calculated at linear density under standard preload (200d²) plus 4%. See reverse side for application and safety information.



Specific gravity	0.98*
Melting point	284° F (140° C)*
Critical temp.	150° F (65° C)*
Coefficient of friction	0.09-0.12*
Elongation at break	4%-5%
Fiber water absorption	0%
UV resistance	moderate
Wet abrasion	superior
Dry abrasion	superior

* - value based on data supplied by the fiber manufacturer for new, dry fiber



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