Vessel Particulars for
E.N. Bisso Tugs

(2) Pages

E. N. BISSO & SON, Inc.

Tug Name	CAPT. BUD BISSO	J. A. BISSO II	CATHERINE B.	PEGGY H.
Original Build Date	1992	1964	1977	1983
Rebuild Date	n.a.	n.a.	1992	1993
ABS Classed	Yes	Load Line	Yes	No
Official #	981151	297603	584390	664625
GRT (US/Intl)	95/451	196/350	84/276	199/n.a.
Length Overall (feet)	110	125	110	93
Beam (feet)	34	29	29	29
Moulded Draft (feet)	17	14	15	13
Main Engines	2	2	2	2
Manufacturer	GM/EMD	Fairbanks	Caterpillar	GM/EMD
Model	645E6	38D8 1/8	3516	645E6
Cylinders (each engine)	16	10	16	12
RPM	900	750	1,800	900
Total Brake Horsepower	4,200	4,000	3,840[4]	3,000[5]
Reduction Gear	5.0:1	3.0:1	7.0:1	4.0:1
Shafts	2	2	2	2
Propellers	126"x87.6"	92" x 52"	100" x 75"	106" x 64"
Kort Nozzle	n.a.	n.a.	No	n.a.
Upper Pilothouse	No	n.a.	No	n.a.
Steering System	Sperry	Skipper	Elect/Hyd.	Elec/Hyd.
Tow Winch Manufacturer	Intercon	Markey	Markey	n/a
Tow Cables	2	2	2	Hawser
Port Drum	2" x 2000'	1.75"x2,000'	1.75"x2,000'	n/a
Starboard Drum	2" x 2000'	1.75"x2,000'	1.75"x2,000'	n/a
Ship Lines Type	Plasma/ Spectra	Plasma/ Spectra	Plasma/ Spectra	Plasma/ Spectra
Ship Line Winches	n.a.	n.a.	n.a.	n.a.
Manufacturer	n.a.			
Electronics				
VHF #1	Triton	Triton	Triton	Motorola
VHF #2	Triton	Triton	Sea-156	Motorola
RADAR #1	FR8050D	FR8050D	FR-8050	FR-711
RADAR #2	FR8050D	FR8050D	FR-8050	FR-CD140
DEPTH FINDER	Data Marine	SITEX DL-2	Data Marine	Data Marine
GMDSS	JRC	JRC	to be installed	n/a
GYRO	Sperry	Sperry	Sperry	n/a
AUTO PILOT	Sperry	Sperry	FR FAP-55	n/a

[4] "Medium Duty" rating – high output @ 1,800 RPM is 2,200 horsepower EACH ENGINE, per Caterpillar

[5] Continuous Rating - high output @ 900 RPM is 1,650 horsepower EACH ENGINE, per EMD

E. N. BISSO & SON, Inc.

Tug Name	SUSAN W.	EDWIN N. BISSO	GLADYS B.	CAPT. ALBERT
Original Build Date	1982	1969	1937	1931
Rebuild Date	1999	1991 / 2005	1988	1981
ABS Classed	Yes	Yes	No	No
Official #	648920	523041	236798	231084
GRT (US/Intl)	98/377	196/350	195/n.a.	299/n.a.
Length Overall (feet)	110	109	110	110
Beam (feet)	34	33	28	28
Moulded Draft (feet)	14	16	14.6	13.6
Main Engines	2	2	1	1
Manufacturer	Caterpillar	Caterpillar	Fairbanks	Fairbanks
Model	3512/TA	3512	38D8 1/8	38D8 1/8
Cylinders (each engine)	12	12	12	12
RPM	1,200	1,200	900	900
Total Brake Horsepower	2,890[6]	2,890	2,400	2,400
Reduction Gear	5.592:1	5.0:1	3.206:1	3.206:1
Shafts	2	2	1	1
Propellers	89" x 98"	120" x 58"	100" x 60"	100" x 62"
Kort Nozzle	Yes	No	n.a.	n.a.
Upper Pilothouse	Yes	No	n.a.	n.a.
Steering System	Elect/Hyd.	Elect/Hyd.	Skipper	Skipper
Tow Winch Manufacturer	Markey	Intercon	Hawser	Hawser
Tow Cables	2	2	n.a.	n.a.
Port Drum	2" x 2,000'	1.75"x2,000'	n.a.	n.a.
Starboard Drum	2" x 2,000'	1.75"x2,000'	n.a.	n.a.
Ship Lines Type	Plasma/ Spectra	Plasma/ Spectra	Plasma/ Spectra	Plasma/ Spectra
Ship Line Winches	n.a.	n.a.	n.a.	n.a.
Manufacturer				
Electronics				
VHF #1	Triton	Triton	Motorola	Motorola
VHF #2	Sea-156	Sea-156	Motorola	Motorola
RADAR #1	FR-8111	FR-8050D	FR8050D	FR8050D
RADAR #2	FR-8111	FR-8050D	FR820	FR820
DEPTH FINDER	Data Marine	Data Marine	Data Marine	Data Marine
GMDSS	JRC	JRC	n/a	n/a
GYRO	Sperry	Sperry	n/a	n/a
AUTO PILOT	Sperry	Sperry	n/a	n/a

[6] "Medium Duty" rating – high output @ 1,800 RPM is 1,750 horsepower EACH ENGINE, per Caterpillar