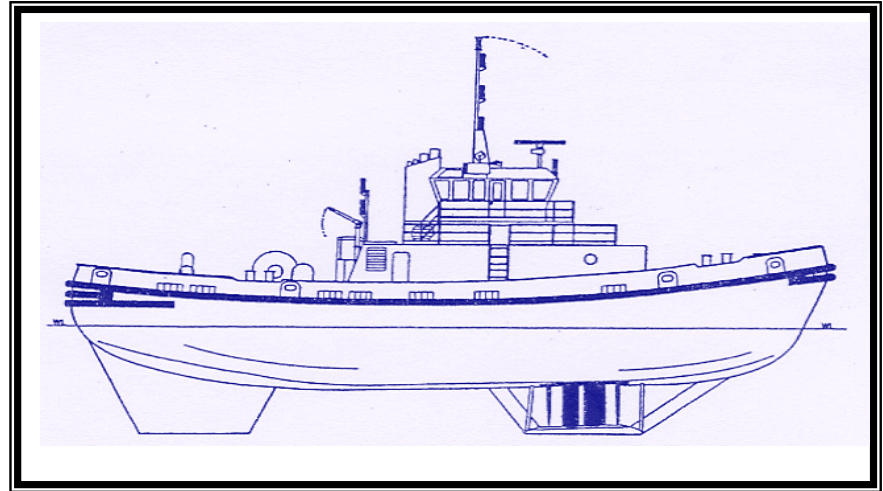


Panama Canal Authority – Tugboat Fleet – Principal Particulars



LIDER

GENERAL

Registered Owner	: Panama Canal Authority
Owner/Operator	: Panama Canal Authority
Previous Name(s)	: None
Category	: Harbour Tug
Type	: Tractor
Built	: 1988
Yard	: Halter Marine Group, Inc.
	: Hull No. 89 – U.S.A.
Classification	: ABS (Declassed)
Flag	: Panama
Port	: Balboa, Panama
Call Sign	: HP-9783
Bollard Pull	: About 31.0
Speed	: 12 Knots

TONNAGE/DIMENSIONS

GRT	: 286.00 tons
LOA	: 95 ft 0 in
Beam	: 34 ft 0 in
Draught	: FWD 17 ft 0 in; AFT 17 ft 0 in
Moulded Depth	: 11 ft 7 in

TANK CAPACITIES

Bunker	: 27,426 (gal)
Fresh Water	: 7,016 (gal)
Foam	: 1279 (gal)

MACHINERY

Main Engine(s)	: 2
Make	: General Motors EMD
Model	: 645-E6
BHP	: 3,000
Propulsion	: G11 Unit 28G
Propulsion description	: Twin Voith Schneider Cycloidal

EMERGENCY INTERVENTION

One (1) 2-Stage Centrifugal Pump	: 2,000 GPM @ 150 PSI
Two (2) Firefighting Monitor	: SKUM MK 100

TOWING EQUIPMENT

One (1) Double-Drum Hawser winch on the stern	
Manufacturer	: Markey Machinery Company Inc.
Model	: DF-51
Rope Reeling Rating	: 4,000 lbs pull @ 230 ft/min
Drum Brake Capacity	: 75 tons
Length of Line	: 640 ft @ 10 circumference
Bow Vertical Capstan	: Markey Machinery Company Inc.
Model	: CYP 90
Barrel Diameter	: 68.58 cm
Bollard Rating	: 50 ft/min @ 6 tons Pull
	: 110 ft/min @ 3.5 tons pull