

SEASPAN KING

Vancouver Shipyards and Allied Shipbuilders completed a main engine upgrade on the SEASPAN KING, a Seaspan International 130' x 32' x 18.5' ocean towboat which was originally built to a Robert



Photo by Nick Johnston, Seaspan International

F. 'Bob' Allan design and launched in 1968 for Island Tug and Barge, Victoria, as the ISLAND KING by Star Shipyard (Mercer's), New Westminster. Removed was an EMD 20-645 E5 diesel (3,600 bhp @ 900 rpm) with 230,000-plus hours on it, as well as the Falk 3548 MRVF marine gear (both in the tug since its launch). Seaspan had an EMD 20-645 E7 (110,000 hrs) which had been taken out of the self-propelled log ship HAIDA MONARCH and it was shipped to Mid-West Power Products in Winnipeg for rebuilding. There the engine was zero-houred and upgraded to the 20-645 E5 configuration with 'B' pack assemblies of cylinder heads, liners, pistons and connecting rods plus new crankshaft and upgraded after-cooler core. Bearings were replaced and the latest model turbocharger installed. The upgrades have improved exhaust emissions to almost EPA Tier 1 compliance. At the shipyards the Falk gear was rebuilt, fire and acoustical insulation upgrades completed and the original Burrard Iron Works HJS tow-winch was removed and rebuilt by the manufacturer at their Alexander St. facility in Vancouver. See *Vancouver Shipyards & Allied Shipbuilders: Seaspan King Re-power* in *In the Shipyards, Western Mariner*, October 2006.

NAIAD EXPLORER



Photo courtesy Mackay Whale Watching

Mackay Whale Watching's (Port McNeill) innovative, all-aluminum, 'RIB-derivative' was based on a New Zealand RIB design (see OCEAN MAGIC II on page 17) and launched in 1999 by Reyse Marine, Surrey, BC. The 54'10" x 16'8" x 6'0", 48-passenger NAIAD EXPLORER received a repowering in 2006 which replaced the twin 570-hp Caterpillar 3196 diesels with 615-hp Volvo Penta D12 diesels. The original Twin Disc Arneson ASD12 surface-piercing propeller drives were fitted with NiBrAl five-blade propellers with increased pitch and diameter (34" x 44") to match the D12 torque curve. Twin Disc 5114 marine gears were replaced with Twin Disc MGX 5114 electronically-actuated gears and the original Morse manual controls were replaced with Twin Disc EC300 electronic engine controls. This was the first, and a custom, interfacing of the EC300 controls with the Volvo EVC electronic engine control system and established a procedure for future interfacing. The four-stroke D12 engines are US EPA Tier 1 emissions compliant. See *NAIAD EXPLORER: Sleek Workhorse Re-powered* in *Western Mariner*, September 2006.

COASTAL MESSENGER



Photo by Jim Getman

A long-serving Rolls-Royce C6NFLM, naturally-aspirated 155-hp diesel was removed from the COASTAL MESSENGER, the Coastal Mission Society's (Chemainus, Vancouver Island) 51'11" x 14'8" non-denominational coastal outreach ship built in steel to a Roy Getman design by Jenkins Marine, Victoria, in 1998. The Rolls two-stroke main had been in the society's first COASTAL MESSENGER ex D.M. MACKAY since its 1959 launch and was rebuilt and transferred to the new vessel in 1998. Thereafter it logged over 24,000 nautical miles before being replaced with a four-stroke, 330-hp, turbocharged John Deere 6081 AFM diesel with a ZF W325 3.96:1 marine gear by the COASTAL MESSENGER's crew. See *COASTAL MESSENGER: Mission Vessel Repowered for the Long Haul* in *Western Mariner*, May 2006.