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Charles H. Cates X

The 57.75' x 24.33, 1300-hp Charles H. Cates X is noticeably smaller than the two other Z-peller tugs (all Robert Allan Ltd designs) in the Cates Tugs shipdocking tug fleet (part of the Washington Marine Group). Launched in 1985 by Allied Shipbuilders the Cates X followed the successful first Z-peller tug, the 74' x 28' 2400-hp Charles H. Cates II delivered in 1983 by the same shipyard. For the Cates X Cates Tugs took the efficient, manoeuvrable hull-form from their early 1970s Robert Allan/Cates shipdocking tug collaboration, the successful 900-hp (twin fixed nozzles) Charles H. Cates XVIII, and fitted it with Z-pellers. The idea with the Cates X was to fit this smaller version of the 2400s (the Charles H. Cates I, the sister to the Cates II, was launched in 1986 by Rivtow Industries) into a niche, offering it at a lower shipdocking rate to ships' agents. But the Cates X was as complex and expensive to build as the larger Z-pellers. Likely underpowered and not quite deep enough, the Cates X's management at the time realized there were performance shortcomings compared to its larger, more capable, 2400-hp brethren. As well the ships' pilots were becoming accustomed to the shipdocking power available with the 2400s. The Cates X still has fairly low hours on its original Caterpillar 3508 TA mains and Niigata Z-drives but these days it's away from the dock as much as the other Cates tugs as it does duty training tug operators and on shipdocking jobs such as Tokyo Marine's 17,676 dwt Matsukaze (photo right).

Vancouver Port's emissions initiatives

The 750' x 105' 82,300 dwt bulk carrier Pedhoulas Trader weighs anchor before leaving the harbour bound for Roberts Bank. Launched by Tsuneishi Shipbuilding, Japan in 2006, the Trader has an 11,500 hp (@ 86.9 rpm) MAN B&W 6S60MC PS main engine and three 600-kW Yanmar gensets. The Vancouver Port Authority's program for reducing port-related emissions was implemented in April, 2007 and is applied to ocean-going vessels ('OGVs') by prohibiting (and policing) excessive exhaust opacity of any colour (except water vapour) and recognizing OGVs that implement eligible emissions reduction options by reducing their harbour dues. OGVs apply for and can be assigned a gold, silver or bronze rating, which is a graded reduction of their dues from the base rate of $0.097 per gross registered tonne. A new ship like the Pedhoulas Trader would have an engine that meets the 2000 MARPOL emissions standards, however the Port's emissions incentives are only applied to ships that go beyond what's required by regulation. Broadly speaking, eligible emissions-reducing options start with: the use of low sulphur fuels (main and auxiliary engines) within 24 nm of the Port and the use of the low sulphur fuels at anchor or at the dock (mains, auxiliaries). 'Gold'-rated technologies include direct water injection, combustion air humidification, fuel/water emulsion, sea-water scrubbing, selective catalytic reduction and/or exhaust gas recirculation. 'Gold' initiatives also include the use of biodiesel or fuel-borne catalysts and shore-power capability which enables all engines to be shut down ('cold-ironed') when alongside. According to the Port, 60 percent of OGVs entering Vancouver Harbour (including DeltaPort) are 'bronze' or better. On January 1, 2008 the three Lower Mainland port authorities – Vancouver Port Authority, Fraser River Port Authority, North Fraser Port Authority – merged into the Vancouver Fraser Port Authority. Their different harbour dues mechanisms are being standardized into one and Vancouver Port's emissions incentive program will be extended to OGVs in the Fraser River. Tugs and barges pay harbour dues under a different structure and, while the 'gold, silver, bronze' program extends to them, it is currently being adjusted to include the emissions-reducing options available to that fleet.

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