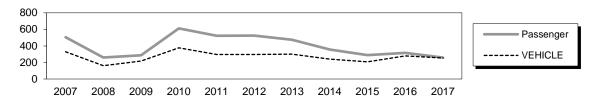


## Yakutat City Dock

Owner: City of Yakutat

**Contact:** Simon Bradley, AMHS Terminal Ops Manager (Ketchikan) – 907-228-7290

**Terminal Description:** The M/V KENNICOTT calls in Yakutat during its cross-gulf trips. The dock is L-shape in plan with a face 237 feet long by 50 feet wide and an approach 70 feet wide by 169 feet long. The dock is constructed of precast concrete deck panels atop cast-in-place concrete caps and steel support piles. Two mooring dolphins are located at each end of the dock and lie off-line from the dock face. The facility is a multi-purpose dock and could be in use by other vessels when the ferry arrives. AMHS is not in control of the operation or maintenance of this facility. The past 10 years of total passenger and vehicle traffic at Yakutat is shown below. The KENNICOTT began its service in 1998.



The most recent above water survey was completed on September 13, 2017. The most recent underwater inspection occurred on August 25, 2016. The most recent fracture critical inspection occurred on September 17, 2012.

| Vessels     |                     |  |
|-------------|---------------------|--|
| <u>Name</u> | Berthing, Alignment |  |
| Kennicott   | Starboard           |  |

| Tidal Data (MLLW 0.0 feet) |      |  |
|----------------------------|------|--|
| EHW                        | 16.3 |  |
| MHHW                       | 10.1 |  |
| MHW                        | 9.2  |  |
| FI W                       | -4.0 |  |

| Terminal Building                                |
|--|
| This facility does not have a terminal building. |

| Generator & Building                             |
|--|
| This facility does not have a generator on-site. |

| Utilities @ Dock |     |  |  |
|------------------|-----|--|--|
| Water:           | Yes |  |  |
| Electric:        | Yes |  |  |

|                     | Uplands |
|---------------------|---------|
| Short-Term Parking: | N/A     |
| Long-Term Parking:  | N/A     |
| Staging Area:       | N/A     |

| L-Shaped Dock - #2094 |   |  |  |  |
|-----------------------|---|--|--|--|
| Type:                 | L-Shaped 237'x50' concrete panel dock & 169'x70' concrete panel approach          |  |  |  |
| Year Built:           | 1984  |  |  |  |
| Dock Support:         | Steel piles & concrete pile caps  |  |  |  |
| Pile Coating:         | Epoxy paint   |  |  |  |
| Fender:               | Timber creosote piling bolted to steel wale with 'V' style energy absorbing unit. |  |  |  |
| Anodes:               | Cables hanging from end of angle (welded to pile near lowwater line)              |  |  |  |
| Lighting:             | Light poles mounted at dock corners   |  |  |  |
| Condition:            | Good  |  |  |  |
| Load Posting Sign:    | N/A   |  |  |  |
| Original Design Load: | HS 20-44/60 Ton Mobile<br>Crane/25 Ton Forklift/600 psf                           |  |  |  |

| Dolphins |                  |                   |             |        |       |       |       |
|----------|------------------|-------------------|-------------|--------|-------|-------|-------|
| Dolphins | Dolphin<br>Piles | Fender<br>Support | Fender Face | Anodes | Built | Cond. | Notes |
| E1       | 8B, 5V           | Mooring Only      |             | No     | 1984  | Fair  |       |
| W1       | 8B, 5V           | Mooring Only      |             | No     | 1984  | Fair  |       |

## LEGEND

V = Vertical Steel Pipe Piling

B = Battered Steel Pipe Piling

## **Observations**

- 1. The dock is used for fish processing and the transfer of freight. There is an icehouse on the inside corner of the dock, a fish processing plant at the head of the approach, and the office of Alaska Marine Lines is nearby. The KENNICOTT ties up starboard-to, with bow and stern lines to the dolphins and spring line to the dock. This mooring configuration is marginal for the M/V KENNICOTT. There are no catwalks from the dock to the dolphins; a contract agent runs the bow & stern lines to each dolphin by skiff one at a time. In the winter, when the wind blows off the dock and snow/ice builds on the dolphin caps, the situation becomes dangerous when the KENNICOTT drifts while the linehandler is motoring over to disconnect the bow/stern line.
- 2. The steel support piling are epoxy-coated. The shoreward piling exhibit 75% coating loss with some laminating corrosion. Section loss is not known. Seaward piling are in fair condition, with 20% coating loss. The City installed new anodes on the piling recently, however a few of the anode cables have broken off at the support angles. Cathodic potential (CP) readings from the '16 underwater report for the dock support piles average -0.95V. The cutoff for adequate protection is -0.8V, so the steel piles are protected against corrosion. Depth to mudline elevations, taken with leadline readings at locations along the fender line in 2015, range from -33' to -36' MLLW.
- 3. Kennicott ship personnel are required to block the ship's vehicle transfer ramp up with wood in order to clear a cleat on the southern dock face. This results in excessively steep grades between the ship and the dock and requires additional work by ship's personnel.
  - There are several cranes fixed to the dock that are original vintage & all are not operational. One of the cranes on the north dock is in the way of the preferred landing for the Kennicott's vehicle ramp.
- 4. The most recent underwater inspection (August 2016) found the timber piles at the east end of the dock from Bents 11 to 13 exhibit significant abrasion and decay from the low water mark to the high water mark. In two locations along the berthing face (Bents 20 to 23 and 15 Pile C to 15 Pile D) the timber fender walers were broken and dislodged. Additionally, two timber fender piles at Bent 15 Pile A and Bent 15 C were broken due to impact damage.

All damaged timber fender piles, walers & chocks were replaced in October/November, 2016 on a City of Yakutat project. The timber fender system is still substandard for taking AMHS vessel & heavy barge berthing loads.

| Inspection Summary                |          |  |  |  |
|-----------------------------------|----------|--|--|--|
| Structure                         | Priority | ority Recommendations  |  |  |
| Category I - Safety Repairs       |          |  |  |  |
| Mooring<br>Arrangement            | 1        | Install catwalks between the mooring dolphins & shore, to provide linehandler access. Consider installing a breasting dolphin in-line and west of the dock fenderline.   |  |  |
| Category II - Rehabilitation Work |          |  |  |  |
| Dock support piling               | 2        | Sandblast and repair the coating on steel pile surfaces above the tidal splash zone.   |  |  |
| Mooring Cleats                    | 3        | Determine alternative location for conflicting mooring cleat and if one of the cranes along the south face of the dock could be removed for better accessibility by the Cross-Gulf ferry; replace missing grout beneath existing mooring cleats. |  |  |

| Inspection Summary (continued) |                          |   |  |  |
|--------------------------------|--------------------------|---|--|--|
| Structure                      | Priority Recommendations |   |  |  |
| Category III - Upgrades Needed |                          |   |  |  |
| Dock Fenders                   | 4                        | The timber pile fenders are inadequate for the Kennicott. Program a project to replace with steel fender units to provide a higher berthing capacity.   |  |  |
| AMHS Coordination              | 5                        | Freight handling & fish processing activities occur simultaneously with AMHS vessel landings. Coordinate with dock use activities with City of Yakutat to avoid operational conflicts and safety hazards. |  |  |