"In that case, she can jump," said Marmy, "because she is getting heat right now."

# Marmaduke's Flying Propeller

► EVERY MARINE BOILER has a bottom-blow valve and a surface-blow valve. And every time we see a letter on the right or wrong way to install a blowdown valve we think of Marmaduke Surfaceblow. Then we wonder if his name has any connection with marine boilers.

Now that readers have had their chance to get into that valve argument (see "Arguments," in the last few issues) we thought Marmy might like to lock it up by putting in his oar. When we entered the old consulting engineer's dingy office above O'Houlihan's Machine Shop and Engine Works, we found him burning up someone at the other end of his telephone.

"If she threw a propeller blade, radio your chief engineer to slow her down until she doesn't vibrate. Keep running at that speed until *you can* get her into shipyard. THAT'S WHAT I SAID. And don't worry. I once ran all the way from Seattle to New York with a blade off."

Slamming down the receiver he spotted me. "Make it snappy," blasted Marmy. "This is my busy day."

"How about settling that argument in POWER on installing blowdown valves with the pressure under or over the seat," I began.

"BILGEWATER ON BLOWDOWN VALVES," bellowed Marmy. "I'll tell you about a ship's propeller that almost knocked itself out."

With that he hoisted his feet onto his roll-top desk. Then he reached over to the potbellied stove, grabbed the coffee pot and poured himself a cup of black stuff that looked and smelled like bunker-C fuel.

Before I could ask why this sudden change from Sandpaper Gin, he put the steaming cup down and roared:

"Back in 1913 I was Chief on the freighter SS *Valparaiso*. She was a steam reduction-gear job. We carried general cargo to the west coast of South America. *On our return trip we brought* back copper, fruit, coffee and nitrate.

"The *Valparaiso* was an old ship. But my engineers were good, hard-working men who had all come up through the foc'sle. They kept that old rust bucket running on schedule.

"One trip the *Valparaiso* pulled into Mobile, Alabama, to dry dock for the annual shipyard overhaul. Besides all the repairs we were doing below, the shipyard was to pull our tail shaft. That meant removing the propeller and breaking the 4-in.-diameter coupling bolts on the 16-in.-diameter tail shaft down in the shaft alley.

"Because a tail shaft is flanged on the inboard side, it must be removed by pulling it back through the stern tube inside the ship, after the propeller is off. To do that, the last piece of shafting before the tail shaft must be lifted out of the way. And a 16-in.-diameter shaft of about 10-ft length isn't light. Then the tail shaft is pulled inside through the stern tube to be examined.

"The shaft alley is narrow, with a catwalk along the shaft. And the shafting bolted together is from 100 to 150 ft long, depending on distance between engine and propeller. Every ten feet there are large spring bearings supporting the shaft.

"The 4-in.-diameter coupling bolts

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