

HALINCO H-LIGHTS

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Let's Get Technical - by Bill Breyer

One of our newest instruments is the Kinetic Vapor Pressure Analyzer which measures the vapor pressure of refinery products. Vapor pressure might be defined as the pressure exerted by the liquid on the surrounding air. The vapor pressure of all liquids increases with temperature and when the pressure exceeds the surrounding air pressure, the liquid will boil and vaporize readily into the air. The vapor pressure of gasolines, jet fuels, and other refinery products is an important specification. Automotive gasoline, for example, is blended to a different vapor pressure depending on the local climate. In winter, gasoline must have a high vapor pressure (which means that it will vaporize readily) to insure easy engine starting, but in summer the pressure must be reduced or the gasoline will vaporize too easily and create vapor lock in the fuel lines.

Butane is usually blended with gasoline in varying amounts to raise the vapor pressure to the requirements of local climates. Since Butane costs only about one-third as much as gasoline, it is easy to understand that the refinery tries to blend as much Butane as possible into the gasoline and thus sell it at the price of gasoline. Since there is a maximum vapor pressure specification, the refinery is faced with the problem of blending within close limits. If vapor pressure is too high it does not meet specifications (will cause vapor lock or difficult engine starting), and if it is too low the gasoline is costing more than necessary since more inexpensive Butane could be added.

Standard laboratory tests do not have the speed or accuracy required to maintain close specification limits on the refinery blend. Our Kinetic Vapor Pressure Analyzer is being installed in these blending systems to measure vapor pressure rapidly and accurately. The instrument continuously draws a small sample (1 quart per minute) from the main line. The sample is heated to 100°F and then passes through the vapor pressure sensing chamber which is equipped with a pressure gauge and recorder. The resulting measurement is recorded continuously, and the sample passes out of the analyzer and back into the main line. This reading serves as a guide for refinery operators controlling the Butane blend rate. The analyzer responds to changes in vapor pressure in less than 8 seconds and is more consistently accurate than the laboratory test method. One of these instruments is installed at the Richmond refinery of Standard Oil. The analyzer is used in conjunction with a blender which can process two million gallons of gasoline during an 8 hour period. The closer control made possible by our Vapor Pressure Analyzer can save Standard Oil at least \$100 per day.

Personality Sketch. Alva Beach, the quiet man full of surprises, has been working in our machine shop since February of 1956. He doesn't say much, but he spends much of his time polishing and finishing shaft and disc assemblies for our vital Blood Oxygenators. However, when we started quizzing him and asking around, we discovered that he played on the American League junior ball team that won the championship in 1929. Because of his outstanding performance, the N.Y. Yankees had him under contract and he was headed for a career in pro baseball, but in 1933 a serious accident and a year in the hospital changed his plans. He went to work in the machine shop of the Santa Fe Railroad where he learned the machinery business, and he had his own automotive shop for seven years before he came to work for us. Al came to the anniversary dinner escorting a beautiful blonde (one of his two daughters), and he can boast of three grandchildren whom he chooses to introduce as his nieces and nephew. He is an enthusiastic fisherman and at one time owned his own fishing boat. When he isn't fishing, he spends his spare time visiting his friends and watching the ball games.

Speaking of ball games, most of our electronics department went to watch the Giants lose to St. Louis. Skip Bradford, Julius Rosin and his two boys, Tom Hale, Larry Mellott, Ron Bultena and two friends and as ever, Ken Hom got together as a party of ten and made it over to the ball park and back without any mishaps.

The fishing trips have started again now that summer is here. After work on June 13, Hans Bockenkamp, John Chin, Eric Liske, Larry Mellott and Henry Schuetz went out on the good ship, Lucky Ace, and came back with about 35 pounds of fish. Eric won the pool with the biggest fish, a nine pound bass, and except for the loss of three gears and a dozen or so sinkers, the trip was a complete success.

By the way, ask George Black about his catch of 30 catfish at Clear Lake -- a real fish story!

Visitor! The man in the brown suit whom Bill Breyer was showing around the plant last week was not a new employee. Herman Hampton, from Alpha Engineering (our representative in Houston) was here for three days. His tour of inspection included demonstrations of our Kinetic Vapor Pressure Analyzer, a trip to Richmond to see one installed, and a trip to Shell to see a Mercaptan Analyzer in operation. Not unmindful of the reputation of Texans, Mr. Hampton was impressed with the hospitality extended to him by our sales department.

Next month will be our vacation issue! Have fun, all of you!

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