

The **LUFKIN** Line

FALL, 1981





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The LUFKIN Line

FALL, 1981 • Volume 57 • Number 3



CONVENTIONAL



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MARK II

OIL FIELD PUMPING UNITS



GEARS FOR INDUSTRY
AND SHIP PROPULSION

PACIFIC COAST DIVISION

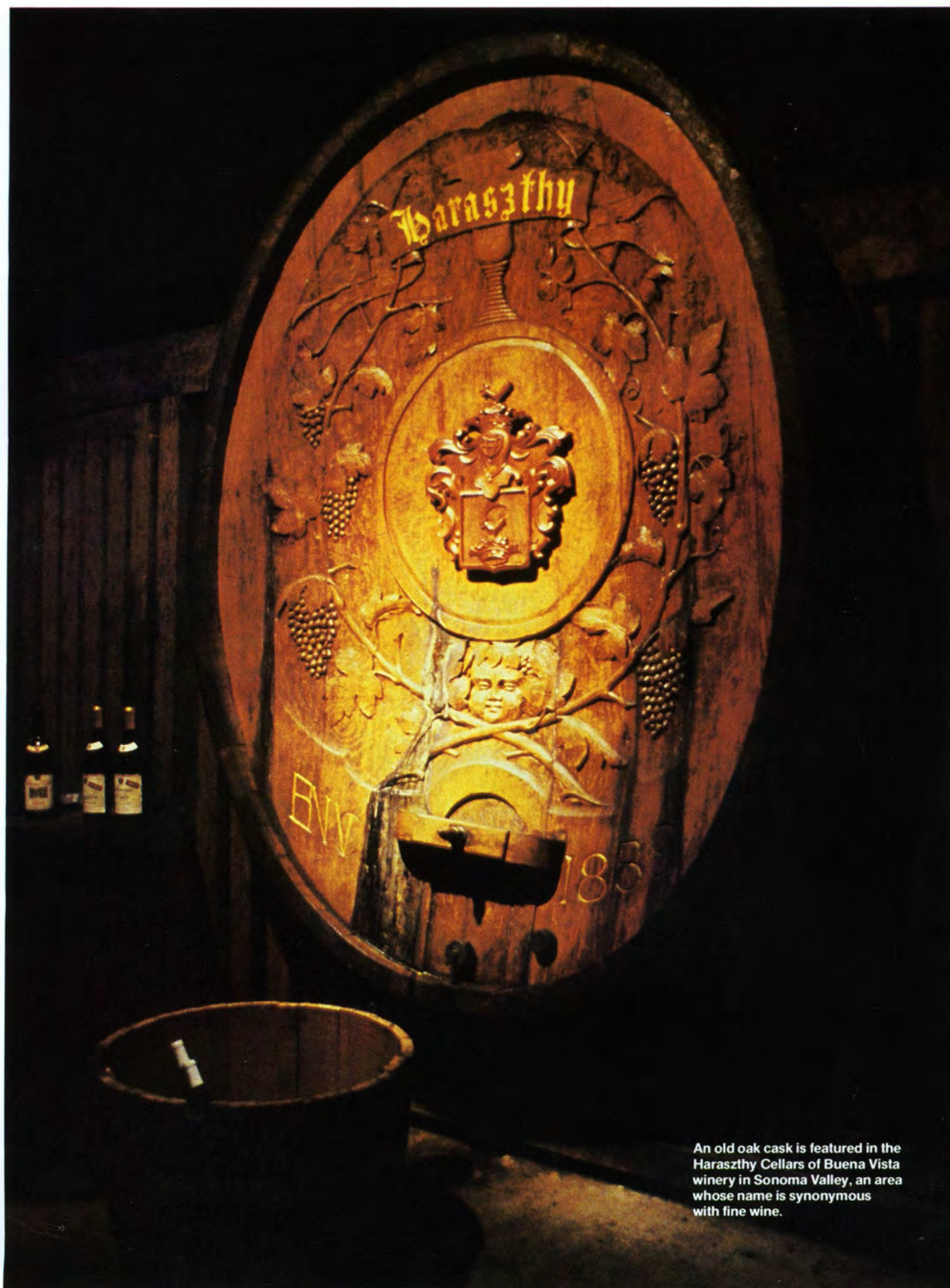
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COVERS: Front: Jacksonville, Vermont in autumn.
Photo by Gene Ahrens

Inside Front: South Fork Kings River, Kings
Canyon National Park, California.
Photo by David Freeze,
LUFKIN Photographer



Published to promote friendship and goodwill among
its customers and friends and to advance the interest
of its products by Lufkin Industries, Inc., Lufkin, Texas.
Produced by the Public Relations Department, Virginia
R. Allen, director. Member of IABC, International
Association of Business Communicators.



An old oak cask is featured in the Haraszthy Cellars of Buena Vista winery in Sonoma Valley, an area whose name is synonymous with fine wine.

The Wine Country Mystique

By Susan E. Atkins

The Napa and Sonoma Valleys north of San Francisco produce some of the world's finest wines.

Though wine-making indubitably has become a big business, its history and romance still can be found nestled in two valleys of the coastal mountain range north of San Francisco. The Napa and Sonoma Valleys have become synonymous with fine wine and are recognized as such around the world.

It is true that the more a vine must struggle, the more character it will pick up along the way. Perhaps the same could be said of the wine industry itself in the North Coast counties of California.

Even before the Franciscan missionaries began blessing the countryside with their vines and figs and trail of golden mustard, the territory was contested by Russia, the United States, the Indians and the Mexicans. The latter won out for a time at least, and the grapes began to grow.

In 1862, a Hungarian count named Agoston Haraszthy, founder of the Buena Vista winery, became the father of the modern wine industry when he imported the first substantial amount of cuttings from superior European varieties of grapes.

By 1881, there were 433 vineyards covering 11,043 acres. Ten years later, there were 619 vineyards on more than 17,000 acres. Within two years, 1890-1892, over half of the acreage had been decimated by phylloxera, an aphid living on the roots.

Phylloxera wiped out the vineyards of Europe before coming to California in the 1880's. The cure, developed by the school of viticulture at the University of California at Davis, was a method of grafting the European wine grapes—*vitis vinifera*—to the sturdier American root stock—*vitis riparia* or *rupestris*.

Today nearly all California and European wines are European graftings on American root stock. You could accurately say California oenology



saved the great wines of the world.

The phylloxera was so severe that it took nearly 20 years for the vineyards to recover before the worst plague of all nearly obliterated the industry. It took the American wine industry 30 years to recover from 13 years of the Prohibition. Only a few vineyards survived the Volstead blight by producing sacramental wines or bootleg products.

The chateaux of the European wine-makers living in the valleys went to other uses or grew over with disuse until the madness was over in 1933.

The name of the Nappas Indians was given to the valley, but the Indians called it Ta-La-Ha-Lu-Si which means "beautiful land." And to many, the beauty of Napa—with dramatic hills surrounding its verdant valley—is reminiscent of the Bordeaux section of France. And the region's European connections are long-standing.

Italian immigrants like Caesar Mondavi (father of Robert Mondavi, a leading California winemaker) discovered the micro climates of Napa which make it possible to grow so many varieties of grape. For example, the Pinot Noir grapes flourish in the cooler areas of the southern part of the valley while the Cabernet Sauvignon develops its flavor best in drier and warmer areas farther north.

In April of 1980, Baron Phillippe de Rothschild of Chateau Mouton and

Root stock vines mature in Robert Mondavi's fields. Mondavi is involved in a joint project to produce a limited quantity of premium Napa Valley wine. The first case, scheduled for release in 1983 or 1984, has been sold for \$2,000 per bottle.

Robert Mondavi of Napa announced a joint venture to produce a limited quantity of premium Napa Valley wine, primarily of the Cabernet Sauvignon grape. The first Mondavi-Rothschild wine, produced from the 1979 harvest, is scheduled for release late in 1983 or early 1984. Already, the first case of a 20-case "barrel" was purchased by Charles Mara, a Syracuse retailer, for \$24,000. This set a record for the price of any American wine—\$2,000 per bottle.



The 1979 and 1980 vintages of the Mondavi-Rothschild joint venture are now aging in the Robert Mondavi cellars in new Nevers oak barrels sent from France by the Baron Phillippe de Rothschild.



A quiet scene at Inglenook Winery, established by a Finnish sea captain Gustave Niebaum in 1887 at Rutherford. Inglenook is a Scottish expression meaning cozy-corner.

The vineyards, the weather and the winemaker all contribute to the personality of a wine. Or, as Robert Mondavi has said: "Making wine is a skill, making great wine is an art."

In many ways, Robert Mondavi and the whole Mondavi family personify the best in Napa traditions. The "instant success" of his winery in 1966 belies the years he spent at his father's winery doing everything from manual labor to wine analysis.

After Robert graduated with a degree in economics from Stanford, he studied oenology and European wine techniques which he experimented with at the Charles Krug winery which the family bought.

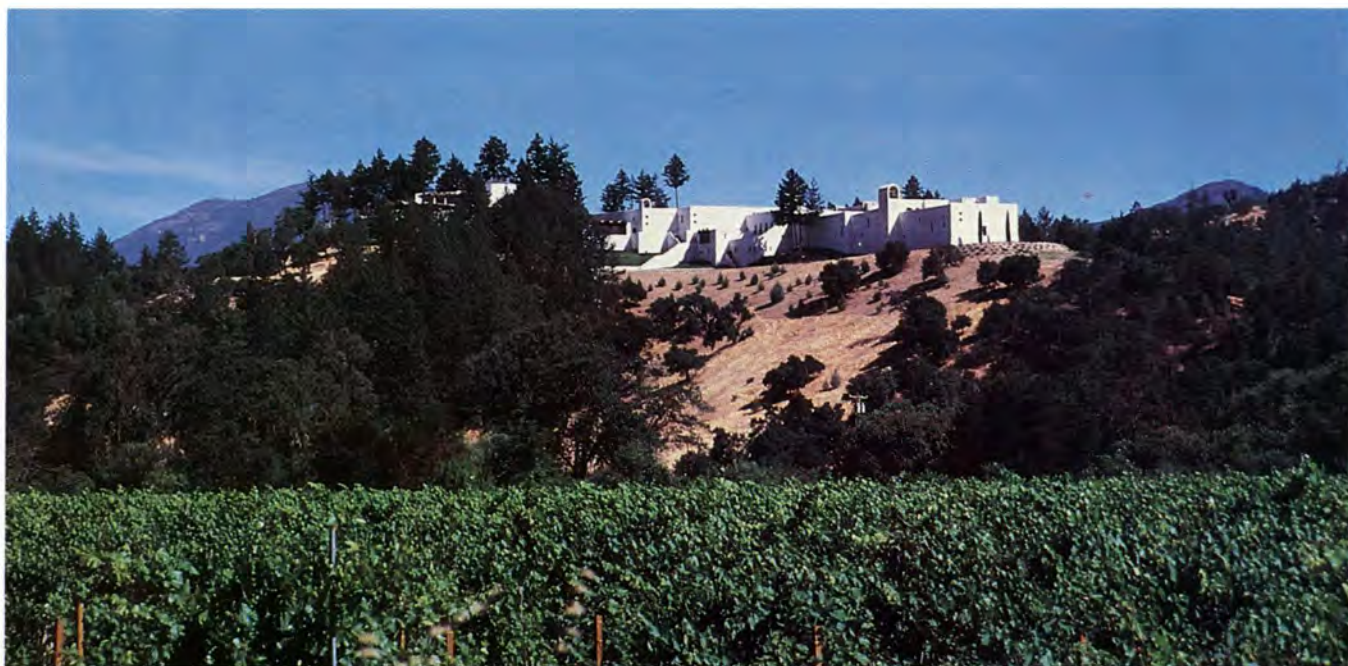
It is as if Robert Mondavi said, "When I've developed a wine good enough to put my name on it, I'll open my own winery." His ultramodern techniques and equipment are housed in a monastic looking building harkening back to the Franciscans.

Not only has Mondavi been an innovator in the techniques of wine-making, but also he has been in the forefront of demonstrating the hospitality which ferments the wine country mystique.

With his belief that the arts complement each other, Robert Mondavi sponsors art exhibits, concerts, cooking schools conducted by world famous chefs, theater performances and wine tastings for those living in and visiting Napa Valley. He believes in investing in his wines and in wine education for the public, rather than advertising.

Mondavi's outreach is not unique. At nearby Buena Vista, Shakespeare and Mozart festivals have been held in the courtyard as have vertical and horizontal tastings for wine educators and writers.

Every year hundreds of thousands of visitors from around the world stop by



The majestic Sterling Winery in the Napa Valley is now owned by the Coca-Cola Bottling Company. The Napa and Sonoma Valleys have been producing some of the nation's finest wines since the late 1800s.

the wineries of California's North Coast. The hospitality accorded each and every visitor rivals the best of the highly touted southern tradition. Tours and tastings are available at most of the wineries and are conducted by bright and knowledgeable guides. This even though the large wineries do not need to introduce themselves to the public and many of the smaller wineries have sold out their entire production before they are even bottled.

The vast majority of the wineries and tastings rooms are located on State 29, on the west side of the valley. The historic Silverado Trail, a winding roadway slightly elevated above the valley floor, provides a panoramic view of the vineyards.

Most of the mountains surrounding Napa Valley are volcanic in origin. Its marine sediments were formed in the Jurassic period up to the Miocene, millions of years ago. Molten glass formed from volcanic action was valued



The Cabernet Sauvignon grape, a classical varietal, produces California's finest red wine noted for its full-bodied flavor and delicate bouquet.

by the Indians for weaponry, and obsidian outcroppings glistening above the Silverado Trail have given Glass Mountain its name.

Still other geologic activity created the sulphur springs which spawned the spas of Calistoga. Today, there are about six bath houses giving full therapeutic mud, sauna and massage treatments. Waiting a few miles of the Springs is California's Old Faithful Geyser, one of three such natural phenomena in the world. And slightly to the north, Geyserville boasts the largest geothermal area in the world. For adventurous travelers, there are gliders out of Calistoga and at least five companies offer hot-air balloon rides hundreds of feet above the vineyards.

If all of this sounds like Camelot, perhaps it is—California style. Robert Louis Stevenson honeymooned in Napa and he described it thus: "The stirring sunlight and the growing vines... made a pleasant music for the mind... and the wine is the bottled poetry."

LUFKIN Installations



LUFKIN A-912D-305-168 Unit, Getty Oil Company, Santa Maria, California.



LUFKIN A-640D-305-168 Unit, Getty Oil Company, Ventura, California.

LUFKIN B-57D-109-48 Unit, Mobil Oil Corporation, Newport Beach, California.



LUFKIN C-640D-305-168 Unit, Shell Oil Company, Brea, California.



**LUFKIN N1004C Gear, Texaco Inc.,
Signal Hill, California.**

**LUFKIN M-640D-305-144 Unit, Arco
Oil & Gas Company, Bakersfield,
California.**



**LUFKIN D104-511C Extruder Drive,
Plastron, Inc., City of Industry, California.**



**LUFKIN C-114D-119-86 Unit, Kernridge
Oil Company, Bellridge, California.**

A Commitment to the Gear Industry

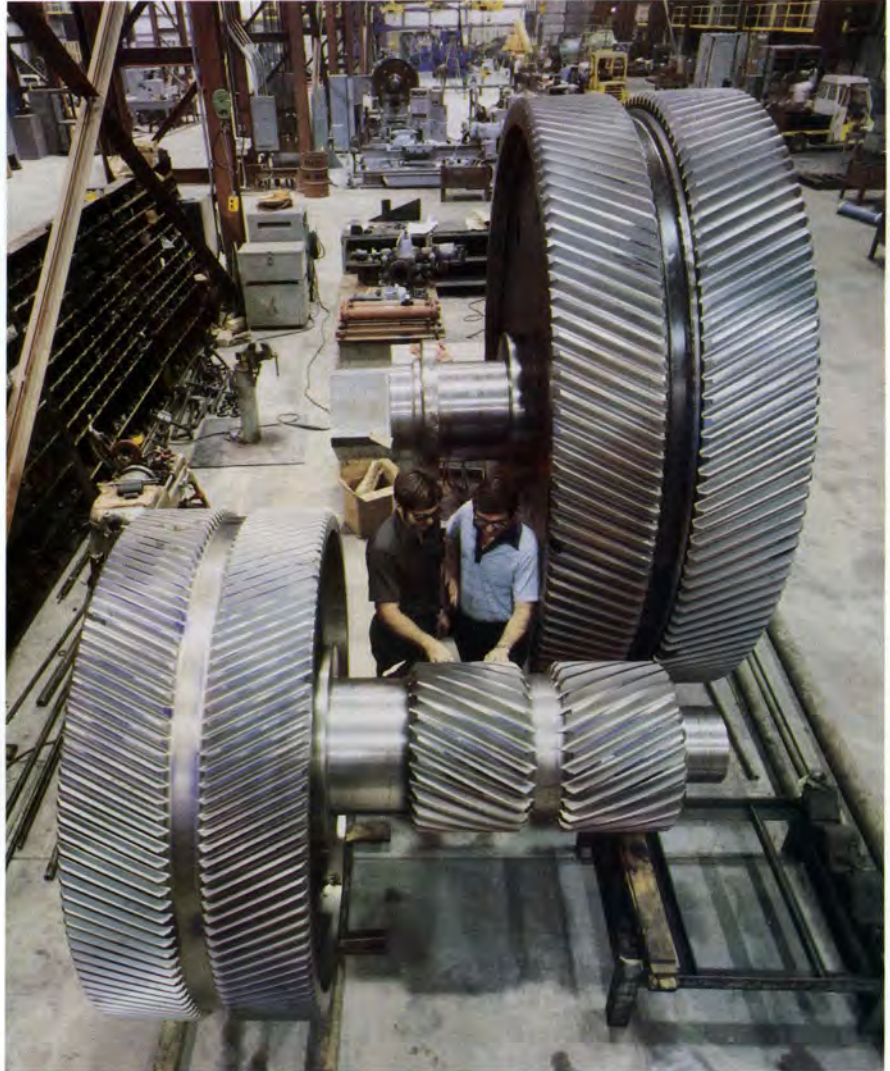
By Janice Aston

The completion of a new gear facility brings a two-factory concept of manufacturing to LUFKIN.

The recent completion of a \$7.5 million industrial and marine gear expansion represents a new commitment to industrial gear production by Lufkin Industries, Inc. The facility is more than a new building—it is a new concept in manufacturing for the company.

"For the first time, our gear product line is separated from our oil field pumping unit line," says Frank Stevenson, vice president of the Machinery Division. "This two-factory concept will improve productivity and scheduling, and the accuracy of new production machinery will allow us to manufacture more quality industrial gears."

Chief Gear Engineer Jim Partridge adds that with the installation of more than \$5 million in machinery designed to serve the gear industry, the company can offer heavy, low-speed gearing and precision, high-speed gearing at lower costs. "The two-factory concept allows us to better control the manufacturing process through better quality control and inspection methods. Our gearing always has been second to none, but with this expansion, we can serve our customers' needs even better."



Above, Lufkin Industries entered the industrial gear market in 1939. Today, the company manufactures a complete line of industrial and marine gears. Right, the expansion features one of the most modern gear test stand facilities for enclosed gearing in the industry.



Photos by Tom Johnston, LUFKIN Photographer



A new Hoefler combination gear checker can perform a complete set of checks—the lead, involute, tooth spacing, pitch line run-out and surface finish checks—on gears up to 80 inches in diameter. The addition of another Hoefler machine, the H1500 gear grinder, allows the company to compete in both the case-hardened and through-hardened, single and double helical gear markets, and to cover markets requiring high precision, lighter weight gear drives. The machine is capable of accurately grinding pinions as small as three inches in diameter and gears as large as 60 inches in diameter.

Gear cutting capabilities have been improved with the purchase of a special accuracy Pfauter 120-inch gear hobbing machine considered the latest in gear machining. The machine features high speed roughing with a carbide gashing tool and precision finish hobbing. The one gear hobbing machine alone cuts in less than half the amount of production time for a gear that once took 600 hours to hob.

Other new machinery includes two 60-inch Sykes gear generators, a 36-inch Sykes gear generator, a numerically-controlled open-side drill for bases and housings, a horizontal numerically-controlled machining center for assembled housings, a two-axis numerically-controlled shaft lathe, a 20-inch by 120-inch engine lathe, a 28-inch chucking lathe and a manual turret lathe.

"More than half of the new machinery is on site and in operation," says

manufacturing engineer David Bowers. "All of the machinery represents the latest in gear machining. We are continually selecting and training operators who will specialize in machining higher quality parts with closer tolerances."

The 57,600-square-foot expansion is completely temperature controlled, and special vibration isolation foundations have been installed under high accuracy machinery to eliminate floor vibrations. Such environmental controls insure a more reliable, accurate gear unit.

The building also features one of the finest test stand facilities for enclosed gearing in the industry. Testing includes monitoring the temperature of bearings and oil, measuring radial and axial shafting and housing vibrations and determining noise levels. Such test results can be documented to meet API or customer specifications.

For many years, Lufkin Industries has been recognized as the leader in oil field pumping unit manufacturing, and since 1939, the company has been active in the industrial and marine gear industries. The recent gear expansion brings a new concept of manufacturing to the company and a new goal—to become a leader in the gear industry, too.

(Above) Left, when installation of \$5 million in new machinery is complete, gear operations will move in an assembly line manner. This special accuracy Pfauter 120-inch gear hobbing machine features high speed roughing with a carbide gashing tool and precision finish hobbing. Right, a new 57,600-square-foot gear building houses gear assembly and testing facilities.

LUFKIN Snapshots



LIDA ZIEGLER
Mobil Oil Corporation
Newport Beach, California



DAVID LUNDE
Shell Oil Company
Brea, California



BRUCE OTZMANN
Texaco Inc.
Long Beach, California



BOB O'BRIEN
Conoco Inc.
Santa Maria, California



HILARY CURTIS
Mobil Oil Corporation
Newport Beach, California



MILT BARRY
Union Oil & Gas Division
Placentia, California



JUDY BOGDANSKI
Texaco Inc.
Long Beach, California



HANK NEWMAN
Chevron U.S.A. Inc.
Orcutt, California



JIM GRIMES
Union Oil & Gas Division
Santa Fe Springs, California



GREG HARRISON
Texaco Inc.
Long Beach, California



JACK MAHANEY
Texaco Inc.
Long Beach, California



J. K. FORRESTER
Union Oil & Gas Division
Orcutt, California



R. E. HARKE
Union Oil & Gas Division
Santa Fe Springs, California



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Texaco Inc.
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A. W. MOPHETT
Superior Oil
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MURRAY BROOKS
Husky Oil
Santa Maria, California



JAMES BUCKINGHAM
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BILL WISHON
Superior Oil
Torrance, California



CHARLES CRAIG
Husky Oil
Santa Maria, California



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Santa Fe Energy Company
Santa Fe Springs, California



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Conoco Inc.
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LORRAINE COSNER
Union Oil & Gas Division
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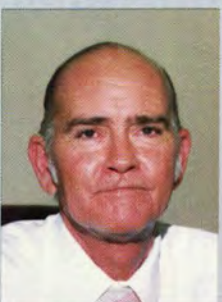
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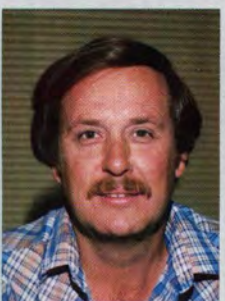
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ERIC BERGER
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Taft, California



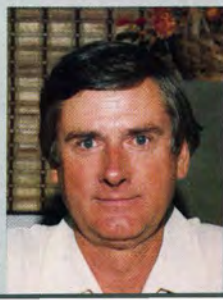
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Bakersfield, California



SLIM MASTERS
Chevron U.S.A. Inc.
Bakersfield, California



BHARAT GAEL
Chevron U.S.A. Inc.
Bakersfield, California



PAUL ADAMS
General American Oil
Company of Texas
Taft, California

LUFKIN Snapshots



C. R. WHEELER
Santa Fe Energy Company
Fellows, California



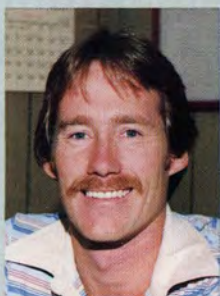
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McKittrick, California



JOHN MCKAY
Pacific Pumps Division
Los Angeles, California



SCOTT COX
Union Pump Company
Los Angeles, California



TIM FITZSIMMONS
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Los Angeles, California



J. R. VERNON
Wilson-Snyder Pumps
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Taft, California



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McKittrick, California



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Dresser Clark Division
Los Angeles, California



DAVID ARNHEITER
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McKittrick, California



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Alco Power Inc.
Los Angeles, California



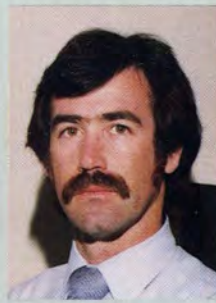
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NICK WUSZ
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THOMAS HARRIS
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Company
Santa Fe Springs, California



WILLARD DELLENBACH
United Technologies Elliott
City of Industry, California



GARY SMITH
Washington State Ferries
Dockton, Washington



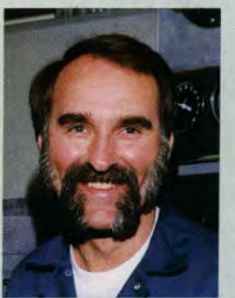
PHIL CRONEMILLER
Worthington Pump
Corporation
Anaheim, California



ROBERT CLEMMONS
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Company
Santa Fe Springs, California



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Edmonds, Washington



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City of Industry, California



RANDY MARKUS
Washington State Ferries
Maple Valley, Washington

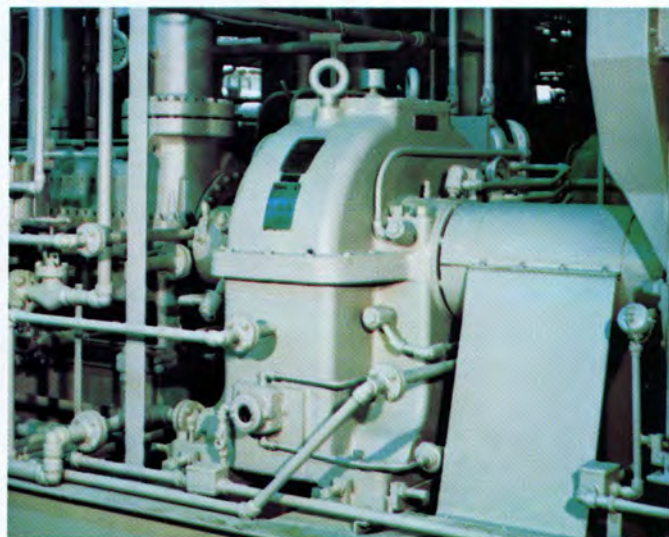
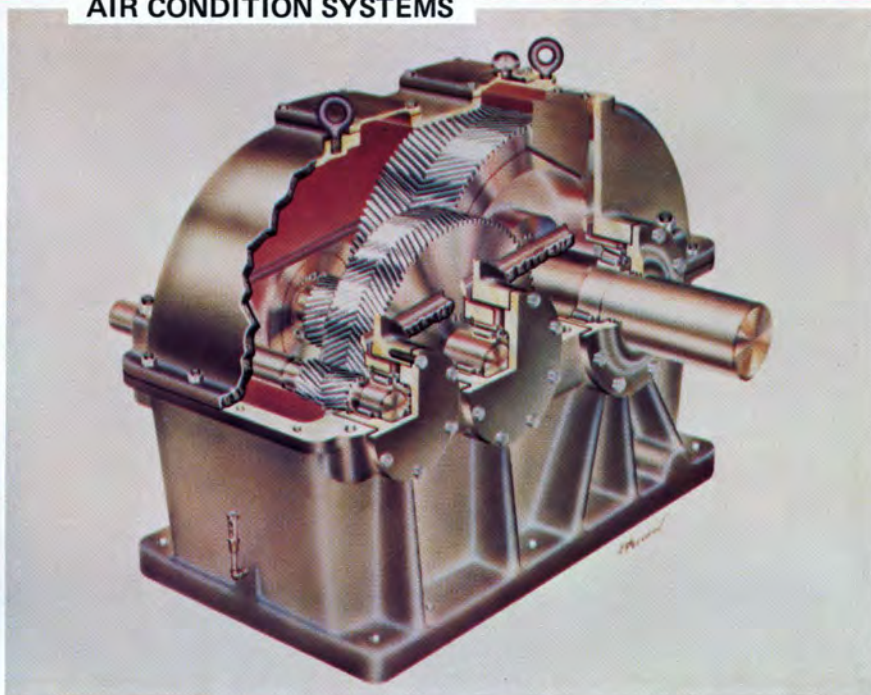
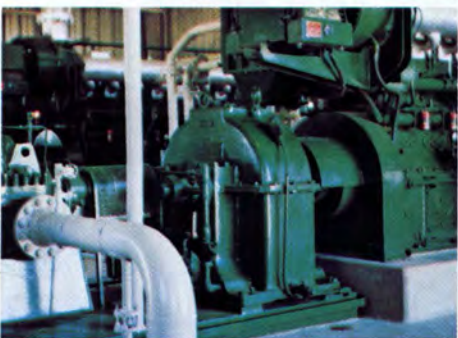
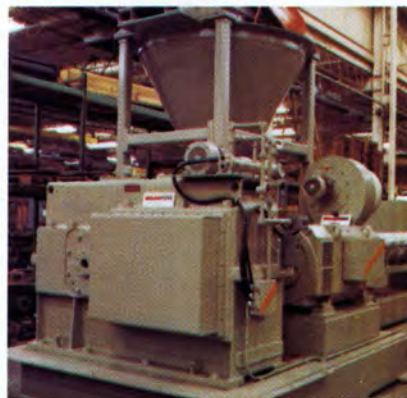
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of experience behind and service ahead**



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