

T-10 Machining Center, Welding Robot Join Heald Team New Products Increase Productivity, Make Jobs More Interesting for Operators

It's somewhat like taking a dress pattern, programming your sewing machine, putting a supply of yard goods on the table, adding a spool of thread, winding the bobbin, and finally, pushing a start button. You then sit back and watch while your sewing machine zips out a new dress in a few minutes. While this may be an oversimplification, it is an indication of how modern machine tools can work.

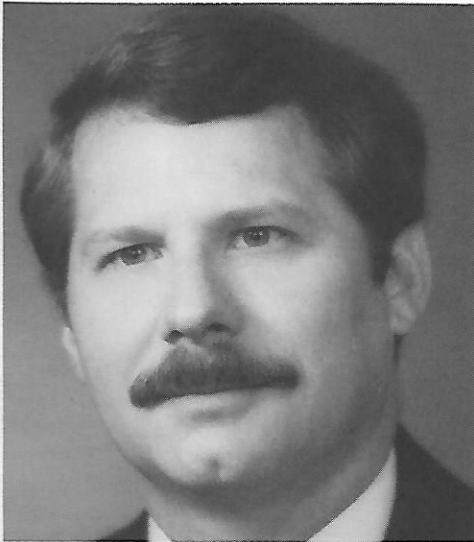
The newer machines can take the drudgery out of the daily work schedule enabling operators to devote their time to more challenging tasks—things like programming the final product, selecting

operations, choosing the proper tools to perform the job the easiest way, inspecting the finished products as they come off the machine, and finding ways to produce the best results at the lowest cost.

The Milacron T-10 Machining Center and welding robot which went into production recently are good examples of the measures our company takes to assure that our manufacturing facility will be

cycle of the automatic workchanger. This circular workchanger closely resembles the configuration of a carnival merry-go-round; but, instead of the traditional eight horses, it has eight workholding fixtures on the round rotatable carousel-style carrier. It has an automatic tool changer with capacity for 90 tools which permits a great variety of machining operations without the need for continually getting different

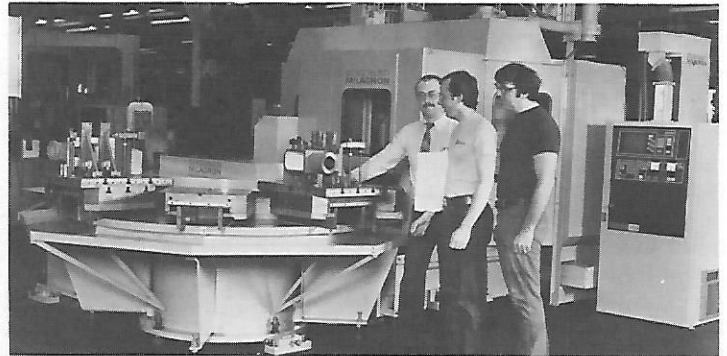
Heald Watch-man's 58th Gathering May 10



Chairman Gary Greiner

Seven Heald Division employees will receive watches for 15 years, 15 will earn wallets for reaching the 30 year milestone, and four will get their Paul Revere bowls for 45 years of service to the company. The awards will be made on May 10 at the Plaza Club located on the top floor of the Shawmut Worcester County National Bank Building at the corner of Main and Pleasant Streets. Again this year, the Gathering will be limited to the employees attaining the 15, 30 and 45 year milestones and a guest of their choice.

Examining parts prints for the new T-10 Machining Center are Project Coordinator Bill Morin, and machine operators Steve McConnell and Bob Bourgea. The T-10 may be seen in the Milling Department.



modern, efficient and turn out top quality work. This is vital if we are to obtain and maintain a satisfactory share of the available business in the metal-working market. These new machines are "state of the art"—the most modern tools we have available to help us establish and maintain a competitive edge for our products.

By Random Selection

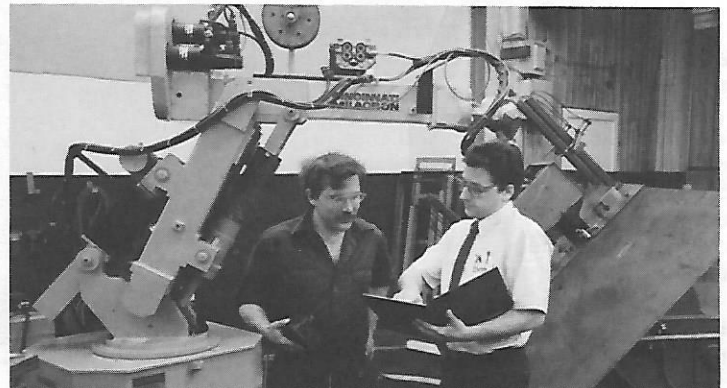
The T-10 machining center may be programmed to select any one of 8 pallets, each with one, two or four duplicate or different parts to be machined in one

tools from the tool crib or from the preset tooling area. Many of the standard tools are left in their assigned tool pockets at all times.

The T-10 was acquired to increase cutting time, enabling us to use modular type fixturing and to use a resident tooling package which stays right in the machine with the ultimate goal of very little attention from the operator. He can, in essence, walk away while the machining operations are being performed. Wouldn't it be

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Operator Nick Popiak and Coordinator Joe Salerno look over a program sheet for the T3-746 Milacron welding robot which is welding light fabrications in the Sheet Metal Department.



Heald People Moving Up



Gordon Wentzell has replaced Bob Taylor as Manager of Proposals. He has the expertise to handle the job since he has been Assistant Manager of Machining Center Proposals for several years.



Bob Taylor is now Documentation Manager for Machining Centers. In this capacity, he is coordinating the efforts of those involved in meeting customer documentation needs and in addition, he is working on automating order entry and order processing for the proposals group.



Tom Welsh is promoted to Assistant Plant Engineer reporting to Steve Smith. Tom will help Steve with the operation and management of our facilities as well as continuing to direct the heating, piping, air conditioning and power plant people.



On April 1 Walter Jones was promoted to Vault Supervisor replacing Phil Hensel who took early retirement. His new job will include supervising the Print Shop.

Don Harris Earns Scouting's Silver Beaver Award

At awards ceremonies held on January 25 at the Marriott Inn on Lincoln Square, the Heald Receiving Department's own Don Harris was "touched on the shoulder," the signal in scouting that you have been selected to be honored with the Silver Beaver Award. This award is given "in recognition of noteworthy service of exceptional character," and is the highest

award winners, and their identities are kept secret until the ceremonies are completed.

Don is committee chairman of Troop 54 of the Unitarian-Universalist Church in Worcester where he has served for 11 years. He publishes a troop newspaper to keep the troop members and friends of the troop notified of the boy's activities, and has led the sustaining membership enrollment for more than five years. He has also been active in the Boy's Club, the YMCA and the Order of DeMolay, and is a Master Mason of Athelston Lodge A.F. & A.M. Don was one of four scouters to be so honored at the 1985 awards dinner.

Management Changes

Effective February 15, Donald G. Shively was named Group Vice President—Machine Tools, responsible for machine tool operations in the United States and overseas, including marketing of machine tools around the world. He was most recently Vice President, Machine Tools—Europe. In his 28 years with the company, Don has had wide experience in all facets of the metalworking and machine tool segments of our corporation.

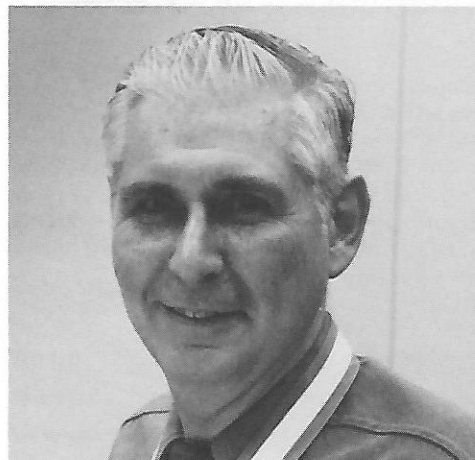
D. Michael Clabaugh has been named Director, Machine Tools—Europe, replacing Don Shively. He was previously Manager of the Fountain Inn plant and has been with the company since 1966.

Old friend and former Healdite Phillip K. Gerard replaces Mike Clabaugh as Plant Manager of Fountain Inn. Phill was previously Works Manager of Fountain Inn. He has been with the company since 1958.

W.P.I. Scholarships

Scholarship aid is available to employees' children who plan to attend Worcester Polytechnic Institute this fall. Funds come from endowment funds which have been established by our company for the sons and daughters of any Healdite who want to attend Tech. They must, however, make application with the Training Department now for the school year starting September, 1985.

The institute wishes to have our nominations for these Heald Scholarships. If you have a son or daughter planning to enter W.P.I. this fall, you should apply for this aid with Arthur Pingalore in the Training Department before April 5, 1985.



award a local council can bestow on a scouting volunteer.

Thirty-seven previous award winners were on hand to witness and support the newest recipients. The awards were made before 200 scouts, leaders, family members and friends at the annual reception dinner. The Mohegan Council, representing about 5200 scouts and 2000 scout leaders has been giving this prestigious award annually since 1934. Recipients are selected by a panel that includes former

Celebrate 50th Anniversary

Peter and Anna Swedis were married on January 15 in the year 1935 and were recently tendered a 50th anniversary party by one of their daughters, a party which more than 50 friends and relatives attended. In their 50 years together, this happy couple was blessed with two sons and two daughters who eventually were married themselves and have produced two sons and two daughters collectively to light up the lives of proud grandparents Peter and Anna. Peter had worked in our Paint and Snag Department for 10 years before his retirement on October 31, 1975.

If you have questions on your Federal tax return, the IRS will answer them if you call them at the following toll free number—1-800-424-1040.

Condolences

The *Craftsman* extends sincere sympathy to the family and friends of the following Heald Division retired employees who have passed away in recent weeks:

John H. Daly

Died January 12 at age 74:
29 Years' service; Maintenance

William F. Wilson

Died January 15 at age 86:
35 Years' service; Screw Machines

Lucien J. Cloutier

Died January 30 at age 78:
11 Years' service; Grinder Test

Hilliard Furman

Died January 27 at age 70:
35 Years' service; General Inspection

Percival Beams

Died February 7 at age 90:
19 Years' service; Maintenance

Robert G. Erickson

Died February 8 at age 72:
25 Years' service; Security

Homer E. McNutt, Sr.

Died February 21 at age 87:
19 Years' service; Security

Aleck Zukowski

Died February 23 at age 75:
34 Years' service; Scraping Department

Herbert E. Warden

Died March 9 at age 77:
39 Years' service; Electrical Assembly

Touring the Plant

Old Sturbridge Village is a living museum of early New England life, and as such, should be of great interest to many Heald people. Enjoy the orientation film in the theater, and spend the day strolling through the Village at your leisure, talking with the costumed interpreters, visiting with the blacksmith, the shoemaker, the cooper and the potter. Observe cooking being performed over an open fire and visit the Freeman Farm to see how farm chores were undertaken many years ago.

The President of the Village, Mr. Crawford Lincoln, recently sent a letter to all Heald people offering a "Corporate Appreciation Day" in which all Heald employees may visit OSV for free and their families at reduced rates on a preferred admissions basis. Children under the age of 6 are admitted free. The employee must present his Employee Identification Card at the gate to be admitted without charge.

The date set aside for Heald Division people is April 21. This will prevent overcrowding as was the problem in 1982. The Village will be open from 9:00 AM to 5:00 PM. The Tavern will be serving lunch from 1:00 AM until 3:00 PM at reasonable fees.

Old Sturbridge Village is located on Route 20, one mile west of the junction of the Massachusetts Turnpike (Exit 9 at Sturbridge) and Interstate 84 (formerly Route 86).

The Rising Cost of Health Care— You Can Help

This is the second in a series of three articles on health care to appear in the *Craftsman*. It is hoped that they will be helpful in our understanding of how vital it is that we hold down health care costs while continuing to provide ourselves and our families with the best possible medical protection.

Editor

As mentioned in the previous issue of the *Craftsman*, health care costs in Massachusetts are among the highest in the United States. Since Heald pays nearly the entire cost of its employees selected health care plans, the rising cost of health care becomes a major concern to businesses like ours, and represent a significant portion of the cost of doing business. These costs must then be passed along to our customers in the form of higher prices making our machine tools less competitive in the metalworking market.

Key to Controlling Costs

You, and every member of your family are vital keys in controlling health care costs. The following listed items are those immediate things you can do to help control health care costs.

Choose the best health care insurance plan for you and your family—one which fits your needs and one which gives you the best possible care without frills and is concerned with controlling cost by eliminating the use of unnecessary services. This is important to both you and the company—to you from a health and cost point of view and, of course, to the company from a cost point of view. Several types of health care plans are available now which are different than those available before. This refers to health maintenance organizations (HMOs) as well as traditional insurance plans. Each offers somewhat different service benefits.

Deductibles, Coinsurance, and Premium Payments

There are several important things to look for when selecting a health plan to determine your total share of your health service cost.

Plans vary in their deductible, coinsurance levels and premium payments. The deductible is the amount of money you must pay before your insurance pays any of the bill. Coinsurance refers to the percentage of the bill you must pay. Certain plans may not require you to participate in sharing a portion of the premium. Examine carefully what services each plan covers. Physical exams and drugs are examples of services that may be covered in some plans and not in others. Some plans offer limited dental care and we should remember that the company has already provided a dental plan.

Get a personal physician while you are well. Don't wait until you are ill! A family physician understands your total health needs and should be your first contact with the medical system in non-emergency situations. Your primary care physician should be considered your "Health Manager." He makes the most important decisions in medicine by determining the nature and severity of the problem and which approach to the problem should be used. He can refer you to other doctors for specialized care that is appropriate for your problem, and can often suggest ways to prevent illness and may have ways to minimize its effects.

Let Him Do His Job

Pick a doctor you feel comfortable with and with whom you can talk. Take all your medicine and follow your doctor's advice. The typical patient carries out less than one-half of the instructions given by their physicians. Have you ever stopped taking your doctor-prescribed medication too soon because you started feeling better? Do you always stick to diet recommendations, and do you restrict or increase your activity as suggested? After seeking expensive advice, it is ridiculous not to obtain the benefits to be obtained by following his instructions. Don't substitute the hospital emergency room for a visit to your doctor.

Ask your doctor to explain why certain procedures are necessary and what they involve.

Ask about "Short-Stay" care for minor surgery.

Ask to get a second opinion on major surgical procedures.

Keep your hospital stays as short as possible.

Ask about charges you don't understand.

Stay well.

Watch the next issue of the Heald *Craftsman* for more on this important subject.

Our Own Indian—Chief Swift Hawk

Fred Mathews lives two lives, one as a Heald retiree who lives in the pleasant bedroom town of Rutland, and the other in the study and practice of the lives of his ancestors who were Androscoggin, Wyandotte and Ojibway Indians from the state of Maine. Fred has always had an avid interest in his forebears and has accumulated a great deal of information along with a sizeable collection of artifacts with which to decorate his home.

Since his retirement in early 1983, he has spent a great deal of time traveling to local schools to pass on to the students the known history of the local Indians and to educate them in the native Americans' traditions and customs, all the while dressed in traditional regalia. He and Princess Winona, a friend and an Ojibway from the Chippewa tribe of the Algonquin Nation, present many pieces of authentic Indian arts and crafts as well as demonstrating their traditional dances. Fred's tribes are members of the Iroquois Nation. Most modern Americans don't realize that the Indians, while still in the Stone Age, nonetheless had an established governmental structure which worked very well for hundreds of years before the white man arrived.

Fred and the Princess are to be admired and congratulated for their work in teaching the truth of the Indian past before it becomes spoiled by inaccuracy and distorted by the passage of years.

Heald Golf League Starts 1985 Season Signup Dates Announced for Annual Stanley Heald Tourney and Weekly League Play

Heald Golf League President Steve Potvin has announced that plans for the 1985 season are well underway. League play will take place at the Oxford Golf and Racquet Club with regular play limited to the first 60 people who sign up. All others will become alternates.

Practice play will be held on May 2 with league play commencing on May 9 and continuing until August 22. The Fall Golf Tournament in September will also be held at the Oxford Golf and Racquet Club. To sign up for League play, see one of the following League Officers on or after April 5, 1985:

Steve Potvin; Electrical Engineering
John Sullivan; Planer Milling
John Melvin; Production Control
Steve Carlson; Computer Services

Stanley Heald Tournament

The Annual Stanley W. Heald Memorial Golf Tournament will again be held at the Raceway Golf Club in Thompson, Connecticut and will be played on June 1 regardless of weather. It is open to all employees. The 18-hole handicap tournament earns the Stanley Heald cup for the golfer with the lowest net score. Prizes are also presented to low net and low gross winners in each bracket.

Those who plan to enter should arrange

their own foursome or contact a member of the committee for assignment to a group. Starting times will be between 8:00 and 10:00 AM. You must get your entry ticket before Monday, May 29. The price will include greens fees, dinner, tax and attendance prizes. Cost is \$19.00. All entrants will enjoy Raceway's famous open steak sandwich at the completion of their round of play.

Sign up with:

Steve Potvin; Electrical Engineering
John Melvin; Production Control
Bill Wheaton; Sheet Metal Planner
Bill Farrell; Drill Department
Dave Roy; 2nd Shift; CADAM
Gerry Sandstrom; 2nd Shift; CADAM

Storks and Pounds

Planer Milling

The Ian Jenkins—son—Jeffrey Laslett
—5 pounds, 13 ounces—December 28—
Hahnemann Hospital

Industrial Engineering

The George Cooks—daughter—Stephanie Lee—7 pounds, 14 ounces—February 1—Memorial Hospital

Jig and Tool, Programming

The Paul Lamberts—daughter—Amy Lynn —7 pounds, 7 ounces—March 18—Hahnemann Hospital

Gutridge and Moynihan Are Recent Company Retirees



Natalie Gutridge of the Cost Department retired on February 28 after having served the company for 20 years. Here she is shown being presented with a gift from Heald co-workers by Jim Casella. Natalie was feted by Heald friends at a retirement party at the Spencer Country Inn.



Jim Denman on the right presents a purse from friends and co-workers to Paul Moynihan who took early retirement on January 31. Paul had worked in the Unit Assembly Department and was a veteran of 33 years of service.

New Machines Join Heald Manufacturing Team

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nice to have a machine in your home workshop into which you could place a rough block of wood, walk away after starting the machine and return later to find a finished table lamp or such.

The T-10, with its 8-station automatic work changer, may be seen in the Milling Department. The machine is designed to provide a significant increase in productivity in our parts manufacturing area. Responsibility for coordinating this project has fallen to Bill Morin supported by operators Steve McConnell and Bob Bourgea.

Technical Features

For those readers with technical interest, the very latest features on the T-10 include surface sensing probe, torque controlled machining, multiple part storage program, and the automatic work-changer.

The operator simply loads a part on the palletized work tables and enters the part number into the Milacron-built 900MC CNC control. The control has been pre-programmed to remember the necessary machining operations for each part that the machine will be expected to do. The computer tells the machine to start, to stop, how fast to rotate the spindle and in which direction. It controls the flow of coolant, and it calculates the path upon which the tools will travel while simultaneously interpolating up to 3 axes.

This means we can keep fewer parts in inventory, freeing up much needed storage space. It's not unlike being able to keep fewer canned goods in the kitchen cupboards because the 24-hour grocery store is right next door—hence, more storage space and more useable space. Also, lower operating funds will be necessary since we can maintain fewer parts (or groceries) in inventory and use the money in budgets elsewhere. We are now able to replace needed machine parts in smaller quantities when the existing supply has been used up by assembly. Rush jobs also benefit since they can be inserted into this system with minimum effect on other jobs in queue. The T-10 will also prove valuable for Milacron salespeople who will be able to bring their New England customers into Worcester to see a T-10 in action.

Robot Welding Cell

The Sheet Metal Department has received its Milacron-produced industrial robot and it is now in use. Many people think that the robots of today are the result of new technology. Thinking about robots usually brings to mind the "Star Wars" robots R2D2 and C3PO. These loveable characters were simply the figment of a clever script writer's imagination. In real-

ity, robotics is an old field. Only the robot's sophistication has been increased.

Industrial robots don't have voices nor the ability to reason. These skills remain the domain of human masters. Our mother's old E-Z Spin Dry washer was a rudimentary robot in that it was capable of removing water from wet laundry by rapidly spinning the load of wet clothing allowing the centrifugal force to force the water out. This technique was a far cry from the wringer type washer of an earlier period and a boon to the overburdened housewife. The automatic features made it fall into Webster's definition of a robot, i.e., "any automatic device that performs functions ordinarily ascribed to human beings, or which operates with seemingly human intelligence."

The Webster definition also describes some devices on our internal grinding machines which permit us to load and unload parts automatically. These devices also perform inspection functions and adjust the machine while the workpieces are being ground.

The Sheet Metal Department has benefited already from its new robot welding cell since the unit is already producing beautiful welds on sheet metal fabrications. The Model T3-746 Electric Industrial Robot manufactured by our parent company is designed to perform arc welding and features 99 inches of reach, plus or minus 10 thousandths of an inch positioning repeatability, six axes which provide amazing flexibility, our own unique three-roll wrist which reaches places other robots cannot, and smooth controlled path motion so essential to good arc welding.

3000 Pound Workpiece Capacity

Our unit is the central element in the arc welding system with the power supply,

wire feeder, positioning tables and associated hardware all interfaced with the robot through the computer control.

The Robotic Positioners, a pair of them, are Aronson RAB-30 VSVS units capable of handling parts up to 3000 pounds in weight (the same weight as a small car) and will hold rectangular parts from 10 to 14 inches up to 60 by 48 inches and all sizes in between. The positioners can rotate parts into whatever position is required for the robot. The robot welder and control provides repeatability of weld seam positioning. The 2-axis positioning tables provide 360 degree rotation with 135 degrees of tilt from the horizontal table position.

The system has been designed to weld light gauge sheet metal fabrications using modular and universal fixtures. The robot welding cell will increase productivity and help to alleviate bottlenecks in light metal welding. At the same time, it will remove operators from hazardous and unpleasant welding areas. The operator's job becomes easy since he or she simply loads parts into the fixture and selects the correct program on the control. He will be able to carefully monitor the robot and positioners and make certain they continue to function at the optimum.

High quality welding beads are the norm for robot welders and require less finishing after completion. In addition, the robot will clean the welding gun which can get clogged with welding slag after a long run of workpieces.

Again our sales people will be happy to have a Milacron built product, in this case the welding robot, available locally to demonstrate corporate capability to prospective customers.

Coordinating this system is Joe Salerno of the Manufacturing Process Development Group supported by operator Nick Popiak.

Candid Camera Catches Lunchtime Activities



Seen at lunch time around the shop were these chess enthusiasts shown deep in thought pondering the next move. On the left is Al Hesselton of the Panel Wiring Department, and his opponent is Dick Gebhardt of the Grinder Test, Electrical Department.

Recent Heald Division Retirees Feted with Gifts, Parties



John Bocian retired on January 31 after one month of extended service during which he reached the 45 year milestone. John had worked in the Drill Department. Here he is shown receiving congratulations and a certificate of appreciation from Gene Supernor.



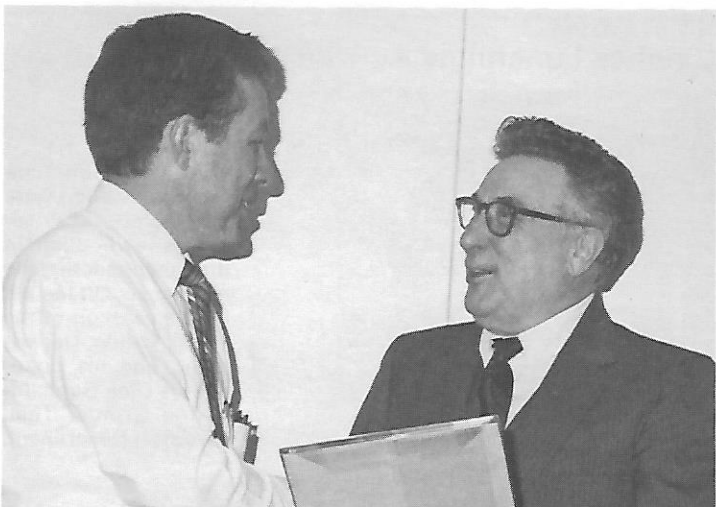
Arthur "Squeeky" Reed, left, retired on February 28 after attaining 45 years of company service. Long time employees will remember him working in the Screw Machines. Here he enjoys a gift from friends presented by Dick Burns.



Albert Mycko gets his retirement certificate from Gene Supernor on retirement day, January 31. Al had worked in Burr and Polish and had 25 years of service. His was an early retirement.



Doris Watkins of the Payroll Department retired on January 31 after 6 years of company service. Here she is seen accepting her retirement certificate from Jim Casella as Jack Brigham looks on.



Dave Hall on the left is shown presenting a retirement certificate to Edwin Young on his retirement day which was January 31. Ed had worked in the Expediting Department and had 26 years of service.



Jean Wagner of the Cost Department retired early on January 31 and is shown here flanked by Gary Rice and Jim Casella who presented her with her certificate of appreciation. She was a veteran of 32 years.

CINCINNATI MILACRON

Cincinnati Milacron—Heald Corp.
Worcester, Massachusetts 01606

The *Heald Craftsman* is a monthly news publication for the employees and retired employees of Cincinnati Milacron—Heald Corp. and their immediate families.

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