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FORM 11-K

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2003

Commission File Number: 1-5318

A. Full title of the plan and the address of the plan, if different from that of
the issuer named below:

GREENFIELD INDUSTRIES, INC.
RETIREMENT INCOME SAVINGS PLAN

B. Name of issuer of the securities held pursuant to the plan and the address of
its principal executive office:

Kennametal Inc.
1600 Technology Way
P.O. Box 231
Latrobe, Pennsylvania 15650

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GREENFIELD INDUSTRIES, INC.
RETIREMENT INCOME SAVINGS PLAN
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Note: Other schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA have been omitted because they are not applicable.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Participants and Administrator of
the Greenfield Industries, Inc. Retirement Income Savings Plan

In our opinion, the accompanying statements of net assets available for benefits and the related statements of changes in net assets available for benefits present fairly, in all material respects, the net assets available for benefits of the Greenfield Industries, Inc. Retirement Income Savings Plan (the "Plan") at December 31, 2003 and 2002, and the changes in net assets available for benefits for the years ended December 31, 2003 and 2002, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania
June 25, 2004

GREENFIELD INDUSTRIES, INC. RETIREMENT INCOME SAVINGS PLAN
 STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
 DECEMBER 31, 2003 AND 2002

	December 31, 2003	December 31, 2002
	-----	-----
ASSETS		
Receivables:		
Participant contributions	\$ 64,013	\$ 199,201
Employer contributions	802,134	495,559
	-----	-----
Total receivables	866,147	694,760
	-----	-----
Investments	96,481,750	83,315,904
	-----	-----
NET ASSETS AVAILABLE FOR BENEFITS	\$ 97,347,897	\$ 84,010,664
	=====	=====

The accompanying notes are an integral part of these statements.

GREENFIELD INDUSTRIES, INC. RETIREMENT INCOME SAVINGS PLAN
 STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 YEARS ENDED DECEMBER 31, 2003 AND 2002

	2003	2002
	-----	-----
ADDITIONS TO NET ASSETS ATTRIBUTED TO:		
Participant contributions	\$ 4,590,538	\$ 4,911,721
Employer contributions	3,045,709	2,094,898
Dividends and interest	2,265,609	2,746,545
Net appreciation of investments	12,336,062	--
Transfers from other Kennametal Plans	--	209,603
	-----	-----
Total additions	22,237,918	9,962,767
	-----	-----
DEDUCTIONS FROM NET ASSETS ATTRIBUTED TO:		
Benefits paid to retirees	(7,208,621)	(7,443,957)
Loan distributions	(272,368)	(709,539)
Net depreciation of investments	--	(13,007,516)
Employee withdrawals	(1,018,221)	(985,638)
Transfers to other Kennametal Plans	(401,475)	(750,953)
	-----	-----
Total deductions	(8,900,685)	(22,897,603)
	-----	-----
NET INCREASE (DECREASE)	13,337,233	(12,934,836)
NET ASSETS AVAILABLE FOR BENEFITS:		
Beginning of year	84,010,664	96,945,500
	-----	-----
End of year	\$ 97,347,897	\$ 84,010,664
	=====	=====

The accompanying notes are an integral part of these statements.

GREENFIELD INDUSTRIES, INC. RETIREMENT INCOME SAVINGS PLAN
NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2003 AND 2002

1. DESCRIPTION OF PLAN

The following general description of the Greenfield Industries, Inc. Retirement Income Savings Plan, as amended (the Plan), is provided for general information purposes only. Participants should refer to the plan document for complete information.

The Plan is a defined contribution employee benefit plan, established for the purpose of providing eligible employees of Greenfield Industries, Inc. (the Company), a wholly-owned subsidiary of Kennametal Inc., the opportunity to defer a portion of their annual compensation for federal income tax purposes in accordance with Section 401(k) of the Internal Revenue Code, as amended (the Code). The Plan is subject to certain provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA). The Company serves as sponsor of the Plan.

ADMINISTRATION OF THE PLAN - The management of the Company has the authority and responsibility for the general administration of the Plan. Putnam Fiduciary Trust Company serves as the Trustee of the Plan and Putnam Investment functions as the recordkeeper for the Plan.

ELIGIBILITY - The Plan covers all non-union and certain unionized employees of the Company. Employees may become participants in the Plan as of the first entry date (January 1, April 1, July 1, or October 1) after completing 500 hours of service within a six consecutive month period. Under present federal income tax law, employer contributions and all earnings of the Plan do not constitute taxable income to the participants until withdrawn from the Plan by the participants.

VESTING - All participant and employer contributions vest immediately.

PARTICIPANT ACCOUNTS - A separate account is maintained for each participant in the Plan, reflecting contributions, investments, investment gains and losses, distributions, loans, withdrawals and transfers.

CONTRIBUTIONS - The Company is required to contribute a base amount of 2% of each eligible employee's wages, which include base salary, overtime, shift differential pay and incentive compensation. Effective April 1, 2003, participants may elect to contribute to the Plan from 1% to 20% of their wages through payroll deductions. Prior to April 1, 2003, participants could elect to contribute to the Plan from 1% to 15% of their wages through payroll deductions. In addition, the Company makes employer matching contributions equal to 50% of the participant contribution up to a maximum of 2% of a participant's wages. Employer contributions are made quarterly and solely in Kennametal Inc. common stock. These employer contributions can be transferred to other investment options at any time at the participant's election. Effective January 1, 2002, employer matching contributions were temporarily suspended for all participants except certain union employees. These contributions were reinstated January 1, 2003.

DISTRIBUTIONS - If a participant's employment with the Company is terminated due to retirement pursuant to the terms of the Plan, the total amount of a participant's account shall be distributed in cash to the participant according to one of the options as described in the Plan and as elected by the participant. If a participant's employment with the Company is terminated for any reason other than retirement pursuant to the terms of the Plan, the participant will receive a lump sum amount equal to the value of the participant's vested interest in his or her account; provided, however, that if such account exceeds \$5,000, a participant may elect to defer distribution to a future date as more fully described in the Plan.

PARTICIPANT LOANS - Participants may withdraw certain basic contributions and related earnings thereon only in the event of a financial hardship as defined by the Plan or the Code. The Plan also permits participants to borrow from their accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 less the excess of the highest outstanding loan balance during the previous one-year period over the outstanding balance as of the date of the loan or 50% of their account balance as defined by the Plan or the Code. Such borrowings are allowed at the sole discretion of the plan administrator. Loan terms range from one to five years or up to 29 years for the purchase of a primary residence and are secured by the balance in the participant's account. Principal and interest are paid ratably through payroll deductions. Interest rates on participant loans ranged from 5.0% to 10.5% at December 31, 2003 and 5.3% to 10.5% at December 31, 2002. Participant loans outstanding at December 31, 2003 have maturity dates ranging from 2004 to 2032.

INVESTMENTS - Participants direct their contributions by electing that such contributions be placed in a single investment fund or allocated to any combination of investment funds. Earnings derived from the assets of any investment fund are reinvested in the fund to which they relate. Participants may elect at any time to transfer all or a portion of the value of their accounts among the investment funds. The following investment options were available to participants at December 31, 2003:

Stable Value Fund - Investments of this fixed income fund consist of traditional investment contracts issued by insurance companies, banks and other financial institutions (or corporations), synthetic investment contracts and short-term investments.

Putnam Voyager Fund - This fund seeks aggressive capital appreciation by investing in a combination of stocks of small companies expected to grow over time as well as in stocks of larger, more established corporations.

The Putnam Fund for Growth & Income - This fund seeks growth and income by investing in attractively priced stocks of companies that offer long-term growth potential while also providing income.

Putnam International Growth Fund - This fund seeks capital appreciation by investing in a diversified portfolio composed mainly of stocks of companies located outside the United States.

Kennametal Inc. Common Stock Fund - This fund consists entirely of Kennametal Inc. common stock, for investors who want to participate in the growth of Kennametal Inc. as part owners of Kennametal Inc.

Vanguard Institutional Index Fund - This fund seeks long-term growth of capital and income from dividends. The fund holds all 500 stocks that make up the Standard & Poor's 500 Index in proportion to their weighting in the index. The fund attempts to track the performance of the index,

a widely recognized benchmark of U.S. stock market performance, and it remains fully vested in stocks at all times.

PIMCO Renaissance Fund - This fund seeks long-term growth of capital and income. The fund invests primarily in common stocks of "value" style, midsize companies with market capitalizations of \$1 billion to \$10 billion at the time of investment, although it may invest in companies of any size. The fund invests all or a portion of its assets in small to midsize companies. Such investments increase the risk of greater price fluctuations.

Northrop Grumman Common Stock - This fund consists entirely of Northrop Grumman common stock for investors who want to participate in the growth of Northrop Grumman as part owners of Northrop Grumman. This investment fund is closed to new participants.

Retirement Ready Funds - Each Retirement Ready Portfolio has a different target date that relates to expected retirement dates. The dates range from 2010 to 2045 in five-year intervals, with the exception of the Maturity Portfolio, which is designed for participants who are at or near retirement. All of the Retirement Ready Portfolios are diversified across an array of Putnam mutual funds that invest in different styles and include a mix of stocks, bonds, and capital preservation investments. The portfolios can invest significantly in foreign securities, which involve certain risks, such as currency fluctuations, economic instability, and political developments.

Artisan Mid Cap Fund - This fund seeks long-term capital growth through a diversified portfolio of stocks of midsize companies. The fund invests all or a portion of its assets in small to midsize companies. Such investments increase the risk of greater price fluctuations.

MSIF Small Company Growth Portfolio - This fund seeks to maximize long-term capital appreciation by investing primarily in the equity securities of small and midsize companies that are in the early stages of their life cycle. The fund invests all or a portion of its assets in small to midsize companies. Such investments increase the risk of greater price fluctuations.

Lord Abbett Small Cap Value Fund - This fund seeks long-term capital appreciation by investing primarily in common stocks of small companies with a market capitalization of less than \$2 billion. Lord Abbett believes in a low-risk approach to investing in these stocks. The fund invests all or a portion of its assets in small to midsize companies. Such investments increase the risk of greater price fluctuations.

Vanguard Total Bond Market Index Fund - This fund invests in a sample of bonds from the Lehman Aggregate Bond Index, which is an index of U.S. Treasury, federal agency, mortgage-backed, and high-quality corporate securities.

In addition, during the year ended December 31, 2003, participants were able to direct their contributions to certain other investment options. Amounts held in the discontinued investment options were converted to available investment options with similar investment objectives.

2. ACCOUNTING POLICIES

BASIS OF ACCOUNTING - The financial statements of the Plan are maintained on the accrual basis of accounting.

INVESTMENTS - Investment transactions are recorded on a trade date basis. Benefit-responsive investment contracts are valued at contract value in accordance with the provisions of AICPA Statement of Position (SOP) 94-4, "Reporting of Investment Contracts Held by Health and Welfare Benefit Plans and Defined-Contribution Pension Plans". INVESCO Institutional, Inc. certified that all the investment contracts held in the Stable Value Fund (see Note 4) are fully benefit-responsive. Shares of registered investment companies are valued at the net asset value of shares held by the Plan at year-end. Units of common/collective trust funds are valued at the net asset value of units held by the Plan at year-end. Investments in common stock are valued at their quoted market price at year-end. Participant loans are valued at cost, which approximates fair value.

PAYMENT OF BENEFITS - Benefit payments are recorded as distributed.

INVESTMENT INCOME - Interest and dividend income are recorded in the period earned.

PLAN EXPENSES - Expenses attributable to the administration or operation of the Plan and related trust are allocated pro rata on the basis of account balances to the accounts of participants unless the Board of Directors of the Company, at its sole discretion, determines that such expenses are to be paid by the Company. For the years ended December 31, 2003 and 2002, the Company paid all expenses related to the operation of the Plan.

NET APPRECIATION / (DEPRECIATION) - Net appreciation (depreciation) of investments is comprised of unrealized gains and losses due to the change in market value compared to the cost of investments retained in the Plan and realized gains or losses on security transactions which represents the difference between proceeds received and average cost. Net appreciation (depreciation) for the years ended December 31, 2003 and 2002 were as follows:

	2003	2002
	-----	-----
Kennametal Inc. Common Stock Fund	\$ 1,989,192	\$ (1,800,343)
Common/Collective Trusts	1,250,033	--
All Other	9,096,837	(11,207,173)
	-----	-----
Total	\$ 12,336,062	\$(13,007,516)
	=====	=====

USE OF ESTIMATES IN PREPARATION OF FINANCIAL STATEMENTS - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results may differ from these estimates.

3. INVESTMENTS EXCEEDING FIVE PERCENT OF NET ASSETS

The values of individual investments that represent five percent or more of the Plan's total net assets as of December 31, 2003 and 2002 were as follows:

	2003 -----	2002 -----
AT CONTRACT VALUE:		
Stable Value Fund	\$27,115,469	\$28,227,043
AT FAIR MARKET VALUE AS DETERMINED BY QUOTED MARKET PRICES:		
Artisan Mid Cap Fund	11,432,085	--
Kennametal Inc. Common Stock Fund	14,870,515	11,880,404
Putnam New Opportunities Fund	--	9,749,034
The Putnam Fund for Growth & Income	9,566,654	9,397,888
Putnam Asset Allocation: Balanced Fund	--	7,851,669
Vanguard Institutional Index Fund	9,119,451	7,318,432
Loans to Participants	5,307,750	5,538,975
AT ESTIMATED FAIR VALUE:		
Putnam Retirementready 2015, Class Y	9,425,953	--

4. STABLE VALUE FUND

A portion of the Plan's investments are held in a Stable Value Fund which was established for the investment of assets of the Plan and several other Company-sponsored retirement plans. Each plan has an undivided interest in the underlying assets of the Stable Value Fund. The assets of the Stable Value Fund are held by Mellon Bank, N.A. (Trustee). At December 31, 2003 and 2002, the Plan's interest in the Stable Value Fund was 24.4 percent and 23.5 percent, respectively. Investment income and administrative expenses relating to the Stable Value Fund are allocated to the individual plans based upon average monthly balances invested by each plan. The underlying assets of the Stable Value Fund include benefit-responsive investment contracts (the contracts). The crediting interest rates on the contracts ranged from 1.0 percent to 7.1 percent and 1.4 percent to 7.2 percent at December 31, 2003 and 2002, respectively. The average yields on the contracts ranged from 1.2 percent to 7.1 percent and 2.2 percent to 7.1 percent for the years ended December 31, 2003 and 2002, respectively. The fair value of all investment contracts was \$115,879,042 and \$126,432,678 at December 31, 2003 and 2002, respectively.

Investments at contract value held by the Stable Value Fund at December 31, 2003 and 2002 are as follows:

	December 31,	
	2003	2002
	-----	-----
Short Term Investments	\$ 1,253,506	\$ 4,055,704
Insurance Investment Contracts	11,861,790	13,088,689
Synthetic Investment Contracts		
Underlying Assets:		
Common / Collective Trusts	93,307,466	48,955,815
Insurance Separate Account	4,464,219	6,563,123
Asset-Backed Securities	1,003,413	46,488,164
Treasury Obligations	3,367,910	5,590,884
Cash	117,088	777,965
Synthetic Wrapper Agreement	(4,007,195)	(5,670,635)
	-----	-----
Total	\$ 111,368,197	\$ 119,849,709
	=====	=====

Total investment income for the Stable Value Fund was \$5,061,804 and \$6,178,565 for the years ended December 31, 2003 and 2002, respectively.

5. TAX STATUS

The Internal Revenue Service has determined and informed the plan sponsor by a letter dated March 10, 2003, that the Plan and related trust are designed in accordance with applicable sections of the Code.

6. PLAN TERMINATION

Although it has not expressed any intent to do so, the Company has the right to amend, suspend or terminate the Plan at any time, subject to the provisions of the ERISA. In the event of Plan termination, the accounts of all participants will become non-forfeitable.

7. RELATED PARTY TRANSACTIONS

Certain investments of the Plan are mutual funds managed by Putnam Investments. The trustee of the Plan is Putnam Fiduciary Trust Company and, therefore, these transactions qualify as party-in-interest transactions.

One of the investment fund options available to participants contains stock of Kennametal Inc., the plan sponsor. The Plan held 374,101 and 344,559 shares of Kennametal Inc. common stock at December 31, 2003 and 2002, respectively. As a result, transactions related to this investment fund qualify as party-in-interest transactions.

GREENFIELD INDUSTRIES, INC. RETIREMENT INCOME SAVINGS PLAN
 PLAN NUMBER: 001
 GREENFIELD INDUSTRIES, INC.
 EIN: 04-2917072
 SCHEDULE OF ASSETS (HELD AT END OF YEAR)
 SCHEDULE H, LINE 4I
 DECEMBER 31, 2003

(a) (b) Issuer	(c) Description	(d) Cost	(e) Fair Value

Mutual Funds			
Artisan	Artisan Mid Cap Fund		\$ 11,432,085
*Putnam	The Putnam Fund for Growth & Income		9,566,654
Vanguard	Vanguard Institutional Index Fund		9,119,451
*Putnam	Putnam International Equity Fund		1,534,594
PIMCO	PIMCO Renaissance Institutional Fund		1,166,773
*Putnam	Putnam Voyager Fund		1,165,196
Lord Abbett	Lord Abbett Small Cap Value Fund		1,083,660
Morgan Stanley	MSIF Small Company Growth Portfolio		625,032
Vanguard	Vanguard Total Bond Mkt. Index Fund		574,186

Total Mutual Funds			36,267,631

Common/Collective Trusts			
*Putnam	Putnam Retirementready 2015		9,425,953
*Putnam	Putnam Retirementready 2025		1,037,493
*Putnam	Putnam Retirementready 2020		818,049
*Putnam	Putnam Retirementready 2030		542,662
*Putnam	Putnam Retirementready Income Fund		523,930
*Putnam	Putnam Retirementready 2045		160,385
*Putnam	Putnam Retirementready 2040		138,993
*Putnam	Putnam Retirementready 2035		105,790
*Putnam	Putnam Retirementready 2010		72,473

Total Common/Collective Trusts			12,825,728

Master Trust			
Invesco	Stable Value Fund		27,115,469

Common Stock			
*Kennametal	Kennametal Inc. Common Stock Fund		14,870,515
Northrop	Northrop Grumman Common Stock Fund		94,657

Grumman	Total Common Stock		14,965,172

Loans to Participants			
Participants	Loans to Participants, Maturities: from 2004 to 2032, Interest rates 5.0% to 10.5%		5,307,750

Total Investments			\$ 96,481,750
			=====

* Party-in-interest, for which a statutory exemption exists.

SIGNATURES

THE PLAN. Pursuant to the requirements of the Securities Exchange Act of 1934, the plan administrator of the Greenfield Industries, Inc. Retirement Income Savings Plan has duly caused this annual report to be signed on its behalf by the undersigned, hereunto duly authorized, in the City of Augusta, Richmond County, State of Georgia.

GREENFIELD INDUSTRIES, INC.
RETIREMENT INCOME SAVINGS PLAN

Date: June 29, 2004

By: /s/ Veronica McDonough

Veronica McDonough
Plan Administrator

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-88049) of Kennametal Inc. of our report dated June 25, 2004 relating to the financial statements of the Greenfield Industries, Inc. Retirement Income Savings Plan, which appears in this Form 11-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania
June 29, 2004