
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 11-K

Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934

For the plan year ended December 31, 2006

Transition Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934

For the transition period from _____ to _____

Commission file number 0-6645

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

**THE MANITOWOC COMPANY, INC.
401(k) RETIREMENT PLAN**

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

**THE MANITOWOC COMPANY, INC.
2400 South 44th Street
Manitowoc, WI 54220**

REQUIRED INFORMATION

The following financial statement and schedules of The Manitowoc Company, Inc. 401(k) Retirement Plan, prepared in accordance with the financial reporting requirements of the Employee Retirement Income Securities Act of 1974, as amended, are filed herewith.

The Manitowoc Company, Inc.

401(k) Retirement Plan

Manitowoc, Wisconsin

Financial Statements and Supplemental Schedule

Years Ended December 31, 2006 and 2005

The Manitowoc Company, Inc.

401(k) Retirement Plan

Financial Statements and Supplemental Schedule
Years Ended December 31, 2006 and 2005

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Report of Independent Registered Public Accounting Firm

Plan Administrator
The Manitowoc Company, Inc.
401(k) Retirement Plan
Manitowoc, Wisconsin

We have audited the accompanying statements of net assets available for benefits of The Manitowoc Company, Inc. 401(k) Retirement Plan as of December 31, 2006 and 2005, and the related statements of changes in net assets available for benefits for the years then ended. 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 in accordance with auditing 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. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of The Manitowoc Company, Inc. 401(k) Retirement Plan as of December 31, 2006 and 2005, and the changes in its net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States.

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) as of December 31, 2006, 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. 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.

Wipfli LLP

Wipfli LLP

June 22, 2007
Green Bay, Wisconsin

The Manitowoc Company, Inc.

401(k) Retirement Plan

Statements of Net Assets Available for Benefits
December 31, 2006 and 2005

	<u>2006</u>	<u>2005</u>
<i>Assets</i>		
Investments:		
Interest in The Manitowoc Company, Inc. Employees' Profit Sharing Trust, at fair value	\$ 307,669,645	\$ 233,624,212
Participant loans	<u>3,389,866</u>	<u>2,754,439</u>
Total investments	<u>311,059,511</u>	<u>236,378,651</u>
Receivables:		
Participant contributions	24,249	0
Employer contributions	14,494,739	12,101,282
Interest	<u>75,522</u>	<u>65,447</u>
Total receivables	<u>14,594,510</u>	<u>12,166,729</u>
Total assets	<u>325,654,021</u>	<u>248,545,380</u>
<i>Liabilities</i>		
Benefit claims payable	<u>237,930</u>	<u>171,750</u>
Net assets available for benefits at fair value	<u>325,416,091</u>	<u>248,373,630</u>
Adjustment from fair value to contract value for fully benefitresponsive investment contracts	<u>960,943</u>	<u>1,127,667</u>
Net assets available for benefits	<u>\$ 326,377,034</u>	<u>\$ 249,501,297</u>

See accompanying notes to financial statements.

The Manitowoc Company, Inc.

401(k) Retirement Plan

Statements of Changes in Net Assets Available for Benefits
Years Ended December 31, 2006 and 2005

	<u>2006</u>	<u>2005</u>
Additions to net assets attributed to:		
Investment income:		
Interest in net appreciation in fair value of The Manitowoc Company, Inc. Employees' Profit Sharing Trust	\$ 61,370,290	\$ 20,177,838
Interest on participant loans	206,020	144,180
Total investment income	<u>61,576,310</u>	<u>20,322,018</u>
Contributions:		
Participant	10,365,335	8,939,051
Employer	20,494,691	17,285,615
Rollover	1,164,018	1,337,243
Total contributions	<u>32,024,044</u>	<u>27,561,909</u>
Transfers from other plans	<u>4,185,090</u>	<u>825,612</u>
Total additions	<u>97,785,444</u>	<u>48,709,539</u>
Deductions from net assets attributed to:		
Benefits paid to participants	20,396,756	13,203,810
Corrective distributions	97,774	0
Plan administrative expenses	415,177	315,580
Total deductions	<u>20,909,707</u>	<u>13,519,390</u>
Net additions	76,875,737	35,190,149
Net assets available for benefits at beginning	<u>249,501,297</u>	<u>214,311,148</u>
Net assets available for benefits at end	<u>\$ 326,377,034</u>	<u>\$ 249,501,297</u>

See accompanying notes to financial statements.

The Manitowoc Company, Inc.

401(k) Retirement Plan

Notes to Financial Statements

Note 1 Plan Description

The following description of The Manitowoc Company, Inc. 401(k) Retirement Plan (the "Plan") provides only general information. Participants should refer to the Plan Agreement for a more complete description of the Plan's provisions.

General

The Plan is a defined contribution profit sharing plan covering substantially all salaried and nonunion hourly employees of participating companies of The Manitowoc Company, Inc. (the "Company") who are scheduled to complete 1,000 hours of service within a 12-month period. Participating companies include the Company and all subsidiaries and affiliates of the Company, as defined in the Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Contributions

Employees are automatically entered into the Plan after eligibility, with a deferral of 3% of their compensation. Participants may elect to change this deferral from 0% to 75% of eligible compensation up to a maximum contribution allowable under the Internal Revenue Code. Participant contributions are not required. The Company makes matching contributions equal to 100% of the employee's contribution (up to 3% of compensation) plus 50% of the employee's contributions (up to the next 3% of compensation). Profit sharing contributions to the Plan are made by the Company based upon a predetermined formula defined in the plan document. The contribution is based upon Company profitability and is allocated to eligible participants based upon a formula that considers fixed and variable contributions. The variable portion is based on the proportion of a participant's compensation for all participants. Total annual contributions to a participant's account are limited to the lesser of 100% of the participant's compensation for the year, or the maximum contribution allowable under the Internal Revenue Code.

Effective January 1, 2007, the Company will make matching contributions equal to 100% of the employee's contribution (up to 4% of compensation), plus 50% of the employee's contributions (up to the next 4% of compensation). Unless the Company establishes a different amount prior to contribution, the discretionary profit sharing contribution target is not to exceed 6%.

Contributions in excess of IRS limits have been refunded to participants and are shown as corrective distributions on the statements of changes in net assets available for benefits.

Participants' Accounts

All investments in participants' accounts are participant-directed. The Plan allows participants to select from a variety of investment options including a money market fund, equity funds, and fixed income funds. The Plan also allows participants to purchase The Manitowoc Company, Inc. common stock.

Each participant's account is credited with the participant's contributions, Company contributions, and an allocation of plan earnings and is reduced for withdrawals. Plan earnings are determined and credited to each participant's account on a daily basis in accordance with the proportion of the participant's account to all accounts. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Plan Benefits

Plan benefits are available at normal retirement (age 65), disability retirement, death, and termination of employment with vested interests. Benefits are payable in one lump sum, equal installments over a period of years, or an insurance company single premium nontransferable annuity contract.

Vesting

All employee contributions and employer matching contributions and related earnings are 100% vested immediately. Participants vest in the Company's profit sharing contributions at the rate of 20% per year, with the participant becoming fully vested after five years of service. Participants who leave the Company because of normal retirement, disability, or death are considered to be 100% vested.

Participant Loans

Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 or 50% of their account balance, excluding the portion of the account balance relating to the Company's profit sharing or match contributions. The loans are secured by the balance in the participant's account and bear interest at prime plus 1%. Loans are repaid through payroll deductions over a period not to exceed five years.

Expenses of the Plan

Administrative expenses of the Plan are paid from the assets of The Manitowoc Company, Inc. Employees' Profit Sharing Trust (the "Master Trust").

Forfeitures

Plan forfeitures arise as a result of participants who terminate service with the Company before becoming 100% vested in the Company's contribution. These forfeitures are used to offset future employer contributions. This is done at the end of the year during which the forfeiture occurred.

Transfers From Other Plans

The Plan and the Company allow participants to transfer account balances between other plans sponsored by the Company when they transfer to a new division or their job status (i.e., union versus nonunion) changes.

Plan Termination

The employer intends to continue the Plan indefinitely; however, the employer reserves the right to terminate the Plan at any time. In the event of termination, all amounts credited to participants' accounts shall become 100% vested and distributed to participants in accordance with the Plan's provisions.

Note 2 Summary of Significant Accounting Policies**Method of Accounting**

The financial statements of The Manitowoc Company, Inc. 401(k) Retirement Plan are presented on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States.

Beginning January 1, 2006, the Plan adopted the requirements as described in Financial Accounting Standards Board Staff Position, FSP AAG INV-1 and SOP 94-4-1, *Reporting of Fully Benefit-Responsive Investment Contracts Held By Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans* (the "FSP"). These requirements are effective for financial statements issued for periods ending after December 15, 2006. The provisions of the FSP have been retroactively applied to the statement of net assets available for benefits presented as of December 31, 2005, as required. The FSP requires investment contracts held by a defined-contribution plan to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined-contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the plan. As required by the FSP, the statement of net assets available for benefits presents the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The statements of changes in net assets available for benefits are prepared on a contract value basis.

Use of Estimates in Preparation of Financial Statements

The preparation of the accompanying financial statements in conformity with accounting principles generally accepted in the United States requires the plan administrator to make estimates and assumptions that directly affect the results of certain reported amounts and disclosures. Actual results may differ from these estimates.

Investments

The Plan ' s investments are commingled with other plans of The Manitowoc Company, Inc. in the Master Trust. Upon enrollment in the Plan, a participant may direct contributions in 1% increments in any of the defined investment options.

Investments are stated at fair value. Money market funds are stated at cost, which approximates fair value. Mutual funds and common stock of the Company are carried at current value which represents the quoted market values of the underlying investments. Common/collective trust funds are valued based on the market value of the underlying investment held by the fund. The Capital Preservation Fund includes funds in a portfolio of guaranteed investment contracts. The fair value of the guaranteed investment contracts are calculated by discounting the related cash flows based on current yields of similar instruments with comparable durations. Participant loans are stated at their outstanding balances, which approximate fair value.

Unrealized appreciation or depreciation is reflected for the year in the statement of changes in net assets available for benefits. Gains or losses on security transactions are recorded as the difference between proceeds received and the carrying value of the investments. Security transactions are accounted for on the trade-date basis (the date the order to buy or sell is executed). Interest income is recognized on the accrual method, and dividend income is recorded on the ex-dividend date.

Benefit Claims Payable

Benefit claims payable on the statement of net assets available for benefits relates to distributions requested prior to year-end, but completed subsequent to year-end.

Note 3 Investments in the Master Trust

The Plan's allocated share of the Master Trust's net assets and investment activities is based upon the total of each participant's share of the Master Trust. The percentage of the Plan's assets to the total assets of the Master Trust is 66% and 63% as of December 31, 2006 and 2005, respectively. The Plan's approximate allocated share of the net assets of each fund in the Master Trust at December 31, 2006 and 2005 was:

	<u>2006</u>	<u>2005</u>
Columbia Acorn Fund	70%	61%
Janus Growth & Income Fund	62%	60%
Janus Small Cap Value Fund	57%	56%
Marshall International Stock Fund	78%	79%
JP Morgan Mid-Cap Growth Fund	83%	82%
T. Rowe Price Mid-Cap Value Fund	72%	65%
Vanguard Institutional Index Fund	82%	77%
Capital Preservation Fund	55%	53%
Manitowoc Moderate Growth Fund	74%	66%
Manitowoc Conservative Growth Fund	85%	85%
Manitowoc Aggressive Growth Fund	71%	65%
Manitowoc Company Stock Fund	71%	75%
PIMCO Funds Total Return Fund	85%	84%
Loan Fund	98%	98%
Hotchkis & Wiley Large-Cap Value Fund	61%	60%
American Beacon International Equity Fund	77%	61%

Net assets held by the Master Trust at December 31 are as follows:

	<u>2006</u>	<u>2005</u>
Investments with fair value determined by quoted market price:		
Common/collective trusts	\$ 185,650,594	\$ 172,121,646
Mutual funds	179,413,835	158,670,564
Investments in The Manitowoc Company, Inc. common stock	<u>99,616,291</u>	<u>42,233,556</u>
Total investments with fair value determined by quoted market price	464,680,720	373,025,766
Investments at cost:		
Participant loans	3,472,999	2,832,787
Cash	<u>1,355,722</u>	<u>893,379</u>
Net assets of the Master Trust	<u>\$ 469,509,441</u>	<u>\$ 376,751,932</u>

Investment income of the Master Trust is as follows:

	<u>2006</u>	<u>2005</u>
Investment income:		
Interest and dividends	\$ 4,086,181	\$ 2,059,056
Net appreciation in fair value of investments	81,471,280	28,371,110

During 2006 and 2005, the Master Trust's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in value as follows:

	<u>2006</u>	<u>2005</u>
Common/collective trusts	\$ 10,085,244	\$ 7,008,610
Mutual funds	15,380,689	10,208,288
Investments in The Manitowoc Company, Inc. common stock	<u>56,005,347</u>	<u>11,154,212</u>
Net appreciation	<u>\$ 81,471,280</u>	<u>\$ 28,371,110</u>

Investments that represent 5% or more of Master Trust net assets as of December 31, 2006 and 2005, are as follows:

	<u>2006</u>	<u>2005</u>
Manitowoc Moderate Growth Fund	\$ 37,251,693	\$ 28,675,861
Janus Small Cap Value Fund	40,098,601	41,454,675
The Manitowoc Company, Inc. Common Stock	99,616,291	42,233,556
Fidelity Managed Income Portfolio II	138,713,955	137,362,146

Note 4 Investment Contract

The Plan has entered into a benefit-responsive investment contract with Marshall & Ilsley Trust Company N.A. ("M & I"). M & I maintains the contributions in a general account. The account is credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses. The guaranteed investment contract issuer is contractually obligated to repay the principal and a specified interest rate that is guaranteed to the Plan.

As described in Note 2, because the guaranteed investment contract is fully benefit-responsive, contract value is the relevant measurement attribute for that portion of the net assets available for benefits attributable to the guaranteed investment contract. Contract value, as reported to the Plan by M & I, represents contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value; however, the investment contract is subject to certain restrictions which may impact the Plan's ability to fully realize the investment contract's value under certain conditions.

There are no reserves against contract value for credit risk of the contract issuer or otherwise. The crediting interest rate is based on a formula agreed upon with the issuer. Such interest rates are reviewed on a quarterly basis for resetting. There are no guarantees or limitation on the contract at December 31, 2006 and 2005.

	<u>2006</u>	<u>2005</u>
Average yields:		
Based on actual earnings	4.33%	3.96%
Based on interest rate credited to participants	4.47%	3.86%

Note 5 Party-in-Interest Transactions

Transactions involving The Manitowoc Company, Inc. common stock are considered party-in-interest transactions. These transactions are not, however, considered prohibited transactions under 29 CFR 408(b) of the ERISA regulations.

Certain plan investments are common/collective trust funds and guaranteed investment contracts managed by M & I. M & I is the trustee as defined by the Plan and, therefore, these transactions qualify as party-in-interest transactions.

Note 6 Tax-Exempt Status of the Plan

On June 2, 2004, the Internal Revenue Service declared that the Plan is qualified pursuant to Section 401 of the Internal Revenue Code. Plan management believes any amendments and events since the effective date of the last Internal Revenue Service determination letter do not affect the qualified status of the Plan. Accordingly, the Plan is exempt from federal and state income taxes under current provisions of their respective laws.

Note 7 Risks and Uncertainties

The Master Trust 's investments are exposed to various risks, such as interest rate, market, and credit risks. Due to the level of risk associated with certain investments and the level of uncertainty related to changes in the value of investments, it is at least reasonably possible that changes in risks in the near term would materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits and the statement of changes in net assets available for benefits.

The Manitowoc Company, Inc.

401(k) Retirement Plan

Plan's EIN #39-0448110 Plan #001

Schedule H, Line 4i - Schedule of Assets (Held at End of Year)
December 31, 2006

Identity of Issue, Borrower, Lessor, or Similar Party	Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par, or Maturity Value	Cost	Current Value
Participant loans*	Due dates range from 1 to 5 years - Interest rates range from 5.00% to 10.25%	\$0	\$3,389,866

*Denotes party-in-interest

See Report of Independent Registered Public Accounting Firm.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Administrative Committee, which administers the Plan, has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Manitowoc, and State of Wisconsin, on the 29th day of June, 2007.

THE MANITOWOC COMPANY, INC.
401(k) RETIREMENT PLAN

/s/ Glen E. Tellock

Glen E. Tellock
President and Chief Executive Officer

/s/ Carl J. Laurino

Carl Laurino
Senior Vice President and Chief Financial Officer

/s/ Thomas Musial

Thomas Musial
Senior Vice President of Human Resources and Administration

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>	<u>Filed Herewith</u>
23.1	Consent of WIPFLI LLP	X



Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 33-48665 and 333-11731) of the Manitowoc Company, Inc. of our report dated June 22, 2007, relating to the financial statements of The Manitowoc Company, Inc. 401(k) Retirement Plan, which appears in this Form 11-K.

Wipfli LLP

Wipfli LLP

Green Bay, Wisconsin

June 22, 2007
