# Annual Report 1999 Fiscal year ended March 31, 1999



NGK SPARK PLUG CO., LTD.

#### Profile

NGK Spark Plug Co., Ltd. is a leading manufacturer in the ceramic industry.

The company sells its products worldwide, chiefly to the leading manufacturers ranging from automobiles to electronics for use as components in their production line.

The company is the world's largest manufacturer of spark plugs for use in automobiles, motorcycles and aircrafts, etc. in the world.

In the automotive field, oxygen sensors are added to be an increasingly important item and so hold are IC packages for MPU in electronics industry.

These main products occupy an important market share worldwide.

To cope with the highly advanced information-orientated society, we will continue to intensify our traditional objective; "contribute to the industry through development of ceramics".

We feel being responsible for creating and promoting a global development and production system for enhancement of

our objective.

# Aiming to Create new values.

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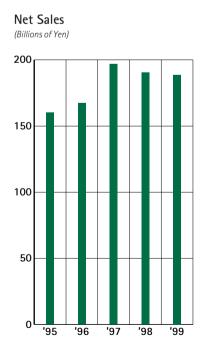
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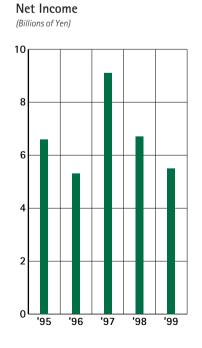
# Financial Highlights NGK Spark Plug Co., Ltd. and consolidated subsidiaries

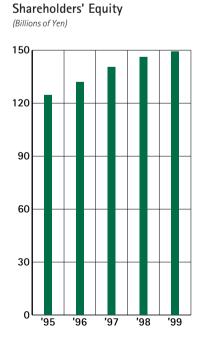
Years ended March 31, 1999, 1998 and 1997

Teals chaca march 51, 1999, 1996 and 1997		Millions of Yen		Thousands of U.S. Dollars	Percent Change
	1999	1998	1997	1999	1999 / 1998
For the year:					
Net sales	¥188,744	¥190,333	¥196,697	\$1,572,867	-0.8
Operating income	12,899	16,075	20,970	107,492	-19.8
Net income	5,494	6,669	9,126	45,783	-17.6
Depreciation	18,220	15,897	15,389	151,833	+14.6
Capital expenditures	22,803	28,658	20,279	190,025	-20.4
At year-end:					
Total assets	300,680	312,010	328,178	2,505,667	-3.6
Shareholders' equity	149,117	146,139	140,443	1,242,642	+2.0
		Yen		U.S. Dollars	
Per share data:					
Net income					
-Basic	¥24.69	¥30.01	¥41.52	\$0.21	-17.7
-Diluted	22.82	27.43	37.32	0.19	-16.8
Cash dividends	11.00	11.00	11.00	0.09	_

Note: U.S. Dollar amounts above and elsewhere in this Annual Report are converted from Yen, for convenience only, at the rate of ¥120-U.S.\$1. Billions is used in the American sense of one thousand million.







### A Message from the President



Shigenobu Kanagawa President

The Japanese economy remained in recession throughout the fiscal year ended March 31, 1999. Weak private-sector capital investment and rising unemployment, reflecting deteriorating corporate financial results in a protracted recession and a credit crunch triggered by the crisis in the financial sector, prevented recovery of domestic demand. Despite the government's large-scale economic package and temporary income tax cuts, the Japanese economy recorded its second consecutive year of negative growth. Meanwhile, the U.S. economy and the major European economies continued to perform well, despite some fallout from the troubled Asian economies and currency crisis in Russia and Latin America.

In these circumstances, NGK Spark Plug Co., Ltd. focused on securing orders through vigorous marketing efforts in which manufacturing and sales operations joined forces to provide solutions geared to customer needs. At the same time, a corporate-wide effort was mounted to reduce costs and expenses. However, due to the weak domestic market, changes in the IC package market, and downward pressure on product prices owing to intensifying competition, both net sales and net income declined.

#### **Automotive Components**

Exports of spark plugs remained buoyant and replacement sales in the Japanese market rose from the previous year thanks to our vigorous marketing. However, the continuing decline in the volume of automobile production in Japan caused sales of spark plugs for new automobiles to plummet. Shipments of plug parts to overseas factories also fell, affected by slack demand in Asia.

Sales of oxygen sensors for automotive application and other related products were lower than in the previous year due to weak domestic demand and a leveling off of exports.

As a result, sales of the Automotive Components Group were ¥109,900 million, an increase of 2.1% from the previous year.

# Communication Media Components and Technical Ceramics

IC packages for MPUs are the mainstay products of the Communication Media Components Group. Responding to American semiconductor manufacturers' ongoing shift from ceramic to organic IC packages, we started production and delivery of organic IC packages during the fiscal year under review, but this did not fully compensate for the decline in sales of ceramic packages.

Demand for electronic parts, cutting tools and applied ceramics was generally weak, reflecting the lack of vigor in manufacturing industry in Japan.

As a result, sales of the Communication Media Components and Technical Ceramics Groups were ¥75,218 million, down 5.1% from the previous year.

Our net sales amounted to ¥188,744 million (including sales of materials and other products of ¥3,626 million), a decline of 0.8% from the previous year. As a result of lower net sales and increases in amortization and depreciation, net income decreased by 17.6% to ¥5,494 million.

#### Challenges in the year ahead

Although the Japanese government's measures to stabilize the financial sector and revitalize the economy are expected to ameliorate the country's situation, it will take a considerable time to shed excess production capacity in Japan and restore vitality to the labor market. Thus, a decisive recovery of the Japanese economy is not in prospect in the near term. Additionally, as illustrated by cross-border consolidation in various industries—a trend that is particularly marked in the automobile industry—competition among companies for survival in the global marketplace is intensifying.

In view of this tough operating environment, we are resolved to do everything possible to strengthen its global competitiveness. Specifically, we intend to reduce costs based on a thorough review of our entire

operation and to sharpen our focus on the development of innovative products and technologies.

We recognize that Y2K issues have a bearing on the ability of a smooth execution of business and are also important in terms of relationships with suppliers. Accordingly, we have established a corporate project team to deal with Y2K issues. We have completed Y2K compliance by the end of June 1999. Moreover, we are putting the necessary systems and procedures in place to cope with contingencies.

In all these endeavors, we are resolved to earn the continuing support and confidence of its shareholders.

Shigenobu, Danagawa

June 29, 1999

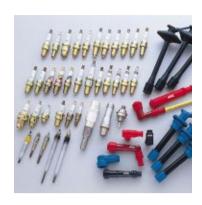
Shigenobu Kanagawa

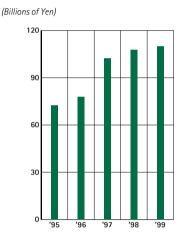
President

## Review of Operations

# Automotive Components Group

Sales of Automotive Components amounted to ¥109,900 million, an increase of 2.1% from the previous year, and accounted for 58.2% of net sales.





#### **PLUGS**

Sales of spark plugs for new motor vehicles declined due to sluggish sales of new vehicles in Japan while economic crises in Asia led to lower exports of plug parts to factories overseas. These declines were, however, more than offset by buoyant exports of spark plugs for new motor vehicles and exports of spark plugs to Europe and the U.S. for the replacement market. As a result, sales of spark plugs were higher than in the previous year.

#### **SENSORS**

Sales of temperature sensors declined for the second consecutive year because installation of such sensors in motor vehicles has not been mandatory in Japan since 1997. Overall, sales of sensors to automobile manufacturers in Japan were lower, as a result similar to that for plugs. Exports declined as exports of oxygen sensors for automotive applications to the U.S. leveled off and those to Brazil and South Korea were sluggish.

#### Technical Centers

With the opening of the Komaki Technical Center in December 1997, following the establishment of technical centers in Europe in 1990 and in the U.S. in 1996, we now have a three-pole technology development and support structure based in Japan, North America and Europe.

During the past 10 years, the Europe Technical Center has fulfilled a pivotal role in increasing the market share of our products for new motor vehicles manufactured in Europe. The U.S. Technical Center is expected to make a similar contribution to the growth of our market share in North America.



# Communication

## Media

# Components

# and Technical

# Ceramics

# Group

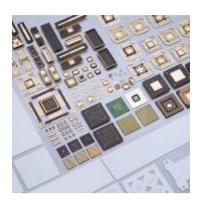
Sales of Communication Media

Components and Technical Ceramics

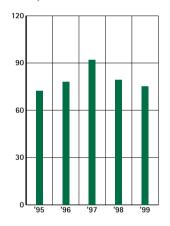
amounted ¥75,218 million, a decline

of 5.1% from the previous year, and

accounted for 39.9% of net sales.



#### (Billions of Yen)

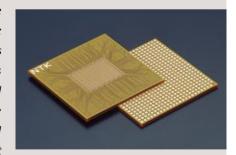


#### SEMICONDUCTOR COMPONENTS

Sales of IC packages for MPUs, the mainstay of the Communication Media Components Group, leveled off in the first half of the year under review, affected by American semiconductor manufacturers' ongoing shift from ceramic to organic IC packages. In the second half of the year, we started fullscale mass production of organic IC packages, and sales of ceramic IC packages to manufacturers of x86compatible devices and Power PC devices rose, although not enough to fully compensate for the decline in the first half. Consequently, sales of semiconductor-related products were lower than in the previous

#### NTS

In January 1999, we announced the development of NTS, a unique organic technology for IC packages for MPUs that adopts innovative concepts respecting both materials and manufacturing processes and is quite different from the conventional technology. As well as achieving a great reduction in cost, the suitability of NTS for extremely high-density packaging as the design rule shrinks means that it will be applicable to at least the next three generations of MPUs.









#### ELECTRONIC COMPONENTS, CUTTING TOOLS AND FINE CERAMICS

Sales of electronic parts were lower than in the previous year. Although demand for parts for mobile-communication applications—a business that represents a large portion of the sales of the Communication Media Components Group—expanded in the second half of the year led by brisk sales to major manufacturers in Europe and the U.S., the drop in the first half was not fully offset.

Sales of cutting tools declined from the previous year, owing to reduced production by motorvehicle manufacturers in Japan, the main users, leveling off of demand in the U.S., previously a buoyant market, and a drop in exports to Asian countries.

Sales of applied ceramics declined from the previous year, affected by persisting sluggish demand in Japan from manufacturers of motor vehicles, semiconductors and heavy electrical equipment and from the construction industry, particularly for new residential property.

#### Oxygen Concentrator for medical use



In March 1999, we announced the development of Oxygen Concentrator which used a pressure swing adsorption method of concentrating oxygen from air for home oxygen therapy. In the medical field, we have manufactured and sold artificial bones so far, but this is the first occasion on which we have developed and commercialized medical equipment. We intend to expand the scope of our business by commercializing medical devices for the respiratory system.

# Five – Year Summary NGK Spark Plug Co., Ltd. and consolidated subsidiaries

Years ended March 31, 1999, 1998, 1997, 1996 and 1995

	Millions of Yen				Thousands of U.S. Dollars	
	1999	1998	1997	1996	1995	1999
For the year:						
Net sales	¥188,744	¥ 190,333	¥196,697	¥167,448	¥158,208	\$1,572,867
Net income	5,494	6,669	9,126	5,278	6,576	45,783
At year-end:						
Total assets	300,680	312,010	328,178	337,868	278,551	2,505,667
Shareholders' equity	149,117	146,139	140,443	131,805	124,545	1,242,642
Number of shares outstanding (in thousands)	222,529	222,529	221,177	219,468	214,475	
Per share data:			Yen			U.S. Dollars
Net income						
-Basic	¥24.69	30.01	41.52	24.41	31.44	\$0.21
-Diluted	22.82	27.43	37.32	22.48	28.55	0.19
Cash dividends	11.00	11.00	11.00	10.00	9.50	0.09
Shareholders' equity	670.11	656.73	634.99	600.57	580.70	5.58
Ratios:			Percent			
Equity ratio	49.6%	6 46.8%	42.8%	39.0%	44.7%	
Return on net sales	2.9%	<b>%</b> 3.5%	4.6%	3.2%	4.2%	
Return on assets	1.8%	6 2.1%	2.8%	1.6%	2.4%	
Return on equity	3.7%	6 4.6%	6.5%	4.0%	5.3%	

Note: U.S. dollar amounts above and elsewhere in this Annual Report are converted from yen, for convenience only, at the rate of ¥120-U.S.\$1. Billions is used in the American sense of one thousand million.

#### Financial Review

#### Sales and Profits

Net sales for the year under review were ¥188,744 million, a 0.8% decrease from the previous year. Cost of goods sold was ¥144,149 million, up 0.1% and the ratio of cost to sales deteriorated slightly to 76.4% from 75.7% in the previous year.

Selling, general and administrative expenses increased by 4.9% from the previous year to ¥31,696 million. This was mainly attributable to higher labor costs and the increase in expenses paid to overseas subsidiaries when translated into yen due to the depreciation of the yen.

Non-operating loss was ¥2,399 million compared with ¥1,896 million in the previous year. Despite positive factors, such as the decrease in loss on write-down of marketable securities and the increase in equity in earnings of affiliated companies, non-operating loss rose markedly due to the decrease in interest and dividend income owing to the low interest rates in Japan and the increase in foreign exchange loss.

As a result, operating income was ¥12,899 million, having declined by 19.8%, and net income was ¥5,494 million, down 17.6%.

#### **Financial Position**

Total assets at the year-end were ¥300,680 million, 3.6% lower than at the end of the previous year.

This decrease was attributable to reduction in short-term borrowings, accounts payable and income taxes payable. The main reason for the reduction in short-term borrowings was that the basis of account settlement between the parent company and certain consolidated subsidiaries was changed from export bills

discounted to remittance. Another factor affecting the reduction in total assets was reduction in the value of assets overseas translated into yen due to the strength of the yen at year-end.

Shareholders' equity was ¥149,117 million, up 2.0% from the previous year. The equity ratio rose to 49.6% from 46.8% in the previous year.

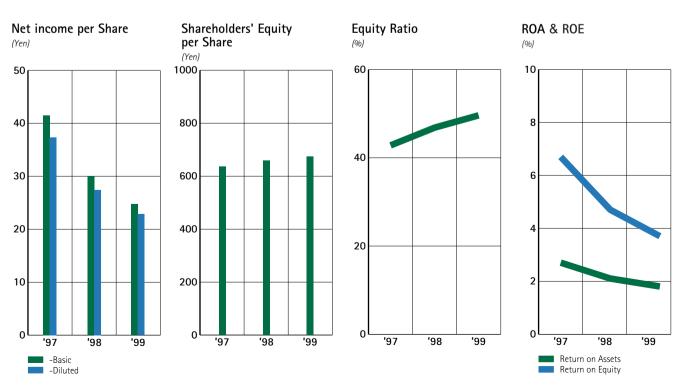
#### Cash flows

Net cash provided by operating activities was ¥18,988 million compared with ¥20,984 million in the previous year. This decrease was mainly due to the increase in notes and accounts receivable and the decrease in interest and dividend income due to low interest rates.

Net cash used in investing activities was ¥19,261 million, whereas in the previous year net cash provided by investing activities amounted to ¥19,734 million. In the previous year substantial proceeds were gained from redemption of debt securities for the use of redemption of corporate bonds as long-term debt. And in the current year under review investment in plant, property and equipment and purchase of investment securities increased from the previous year.

Net cash used in financing activities was ¥9,405 million compared with ¥23,673 million in the previous year. In the previous year redemption of corporate bonds was reported. The main reason for the decrease in net cash used in financing activities was the decrease in short-term borrowings due to the change of account settlement conditions described above.

As a result, cash and cash equivalents at end of year, decreased by ¥9,862 million including the effect of exchange rate changes,



#### Segment Information by Geographic Area

Held back by the sluggish Communication Media Components and Technical Ceramics businesses, domestic sales declined 24.2% from the previous year, to ¥74,960 million, and operating income declined 11.0% to ¥11,295 million.

North American operations performed robustly, reflecting the continued strength of the U.S. economy. Sales were ¥78,192 million and operating income was ¥972 million.

In Europe, too, both manufacturing and sales subsidiaries performed well. Sales were ¥30,427 million and operating income was ¥728 million.

In other regions, sales were ¥5,165 million and operating income was ¥376 million. Subsidiaries in Southeast Asia, having posted poor results in the previous year amid the region's currency crises, achieved a marked recovery.

As a result, overseas sales rose 24.4% from the previous year, to ¥113,783 million, and operating income increased 23.8% to ¥2,075 million.

	Japan	North America	Europe	Other	Total	Elimination	Consolidated
				(Millions of Ye	n)		
For the year 1999:							
Net sales:							
Outside customers	¥ 74,960	¥78,192	¥30,427	¥5,165	¥188,744	¥ –	¥188,744
Inter-segment sales	94,469	458	383	71	95,381	(95,381)	_
Total net sales	169,429	78,650	30,810	5,236	284,125	(95,381)	188,744
Operating costs and expenses	158,134	77,678	30,082	4,860	270,754	(94,909)	175,845
Operating income	¥ 11,295	¥ 972	¥ 728	¥ 376	¥ 13,371	¥ (472)	¥ 12,899
	Japan	North America	Europe	Other	Total	Elimination	Consolidated
				(Millions of Ye	n)		
For the year 1998:							_
Net sales:							
Outside customers	¥ 98,901	¥60,027	¥25,747	¥5,658	¥190,333	¥ –	¥190,333
Inter-segment sales	73,151	991	399	64	74,605	(74,605)	_
Total net sales	172,052	61,018	26,146	5,722	264,938	(74,605)	190,333
Operating costs and expenses	157,889	59,900	25,840	5,469	249,098	(74,840)	174,258
Operating income	¥ 14,163	¥ 1,118	¥ 306	¥ 253	¥ 15,840	¥ 235	¥ 16,075

For the years ended March 31, 1999 and 1998, overseas sales which included export sales from Japan and net sales of overseas consolidated subsidiaries other than Japan were as follows:

	North America	Europe	Southeast Asia	Other	Total
			(Millions of Yen)		
For the year 1999:					
Overseas sales	¥80,547	¥33,992	¥21,823	¥ 12,857	¥149,219
Consolidated net sales					188,744
Percentage of overseas sales to consolidated net sales	42.7%	18.0%	11.6%	6.8%	79.1%
	North America	Europe	Southeast Asia	Other	Total
			(Millions of Yen)		
For the year 1998:					
Overseas sales	¥65,103	¥30,627	¥36,389	¥14,480	¥146,599
Consolidated net sales					190,333

# Consolidated Balance Sheet NGK Spark Plug Co., Ltd. and consolidated subsidiaries March 31, 1999 and 1998

	Millior	Millions of Yen	
	1999	1998	1999
Assets			
Current assets:			
Cash and cash equivalents	¥ 56,744	¥ 66,606	\$ 472,867
Short-term investments (Note 3)	26,366	34,497	219,717
Notes and accounts receivables, net of allowance for			
doubtful accounts (Note 4)	34,859	32,207	290,492
Inventories (Note 5)	38,537	38,262	321,142
Prepaid expenses and other current assets	1,757	2,592	14,641
Total current assets	158,263	174,164	1,318,859
Investments and other assets:			
Investments and other assets:  Investment securities (Note 6)	18,417	16,566	153,475
Investments in and long-term loans to unconsolidated subsidiaries and	10,417	10,500	155,475
affiliates (Note 6)	7,013	6,467	58,442
Long-term deposits in banks	8,019	8,009	66,825
Other assets	3,925	5,278	32,708
	37,374	36,320	311,450
Property, plant and equipment (Note 7)	103,491	101,336	862,425
Foreign currency translation adjustments	1,552	190	12,933
	¥300,680	¥312,010	\$2,505,667

Liabilities and Shareholders' Equity         Urrent liabilities:           Short-term borrowings (Note 9)         ¥ 11,245         ¥ 17,962         \$ 93,708           Current portion of long-term debt (Note 9)         18,917         170         157,642           Accounts payable (Note 8)         28,059         31,191         233,825           Accrued expenses         10,569         10,477         88,075           Income taxes payable         1,037         3,569         8,642           Other current liabilities         7,805         7,968         65,042           Total current liabilities         77,632         71,337         646,934           Long-term debt (Note 9)         59,351         78,785         494,592           Accrued severance indemnities         13,722         13,480         114,350           Other long-term liabilities         487         1,868         4,058           Minority interest         37,1         401         3,091           Commitments and contingent liabilities (Notes 10 and 11)         5         37,046         37,046         308,717           Additional paid-in capital         41,231         41,231         343,592           Retained earnings         70,843         67,865         590,358		Million	s of Yen	Thousands of U.S. Dollars	
Current liabilities:         Short-term borrowings (Note 9)         ¥ 11,245         ¥ 17,962         \$ 93,708           Current portion of long-term debt (Note 9)         18,917         170         157,642           Accounts payable (Note 8)         28,059         31,191         233,825           Accrued expenses         10,569         10,477         88,075           Income taxes payable         1,037         3,569         8,642           Other current liabilities         7,805         7,968         65,042           Total current liabilities         77,632         71,337         646,934           Long-term debt (Note 9)         59,351         78,785         494,592           Accrued severance indemnities         13,722         13,480         114,350           Other long-term liabilities         487         1,868         4,058           Minority interest         371         401         3,091           Commitments and contingent liabilities (Notes 10 and 11)         5         37,046         37,046         308,717           Additional paid-in capital         41,231         41,231         343,592           Retained earnings         70,843         67,865         590,358           Less, treasury stock, at cost         (3)		1999	1998	1999	
Short-term borrowings (Note 9)         ¥ 11,245         ¥ 17,962         \$ 93,708           Current portion of long-term debt (Note 9)         18,917         170         157,642           Accounts payable (Note 8)         28,059         31,191         233,825           Accrued expenses         10,569         10,477         88,075           Income taxes payable         1,037         3,569         8,642           Other current liabilities         7,805         7,968         65,042           Total current liabilities         77,632         71,337         646,934           Long-term debt (Note 9)         59,351         78,785         494,592           Accrued severance indemnities         13,722         13,480         114,350           Other long-term liabilities         487         1,868         4,058           Minority interest         371         401         3,091           Commitments and contingent liabilities (Notes 10 and 11)         55         37,046         37,046         308,717           Additional paid-in capital         41,231         41,231         41,231         343,592           Retained earnings         70,843         67,865         590,358           Less, treasury stock, at cost         (3)         (3)	Liabilities and Shareholders' Equity				
Current portion of long-term debt (Note 9)       18,917       170       157,642         Accounts payable (Note 8)       28,059       31,191       233,825         Accrued expenses       10,569       10,477       88,075         Income taxes payable       1,037       3,569       8,642         Other current liabilities       7,805       7,968       65,042         Total current liabilities       77,632       71,337       646,934         Long-term debt (Note 9)       59,351       78,785       494,592         Accrued severance indemnities       13,722       13,480       114,350         Other long-term liabilities       487       1,868       4,058         Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)       50       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (3)       (25)         149,117       146,139       1,242,642	Current liabilities:				
Accounts payable (Note 8)       28,059       31,191       233,825         Accrued expenses       10,569       10,477       88,075         Income taxes payable       1,037       3,569       8,642         Other current liabilities       7,805       7,968       65,042         Total current liabilities       77,632       71,337       646,934         Long-term debt (Note 9)       59,351       78,785       494,592         Accrued severance indemnities       13,722       13,480       114,350         Other long-term liabilities       487       1,868       4,058         Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)       59,351       401       3,091         Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Short-term borrowings (Note 9)	¥ 11,245	¥ 17,962	\$ 93,708	
Accrued expenses       10,569       10,477       88,075         Income taxes payable       1,037       3,569       8,642         Other current liabilities       7,805       7,968       65,042         Total current liabilities       77,632       71,337       646,934         Long-term debt (Note 9)       59,351       78,785       494,592         Accrued severance indemnities       13,722       13,480       114,350         Other long-term liabilities       487       1,868       4,058         Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)       Shareholders' equity (Notes 12 and 16):       5         Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Current portion of long-term debt (Note 9)	18,917	170	157,642	
Income taxes payable       1,037       3,569       8,642         Other current liabilities       7,805       7,968       65,042         Total current liabilities       77,632       71,337       646,934         Long-term debt (Note 9)       59,351       78,785       494,592         Accrued severance indemnities       13,722       13,480       114,350         Other long-term liabilities       487       1,868       4,058         Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)       50       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Accounts payable (Note 8)	28,059	31,191	233,825	
Other current liabilities         7,805         7,968         65,042           Total current liabilities         77,632         71,337         646,934           Long-term debt (Note 9)         59,351         78,785         494,592           Accrued severance indemnities         13,722         13,480         114,350           Other long-term liabilities         487         1,868         4,058           Minority interest         371         401         3,091           Commitments and contingent liabilities (Notes 10 and 11)         55         50         50         37,046         37,046         308,717         308,717         300,7046         308,717         300,7046	Accrued expenses	10,569	10,477	88,075	
Total current liabilities 77,632 71,337 646,934  Long-term debt (Note 9) 59,351 78,785 494,592  Accrued severance indemnities 13,722 13,480 114,350  Other long-term liabilities 487 1,868 4,058  Minority interest 371 401 3,091  Commitments and contingent liabilities (Notes 10 and 11)  Shareholders' equity (Notes 12 and 16):  Common stock 37,046 37,046 308,717  Additional paid-in capital 41,231 41,231 343,592  Retained earnings 70,843 67,865 590,358  Less, treasury stock, at cost (3) (3) (25)  149,117 146,139 1,242,642	Income taxes payable	1,037	3,569	8,642	
Long-term debt (Note 9)       59,351       78,785       494,592         Accrued severance indemnities       13,722       13,480       114,350         Other long-term liabilities       487       1,868       4,058         Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)       Shareholders' equity (Notes 12 and 16):         Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Other current liabilities	7,805	7,968	65,042	
Accrued severance indemnities       13,722       13,480       114,350         Other long-term liabilities       487       1,868       4,058         Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)         Shareholders' equity (Notes 12 and 16):         Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Total current liabilities	77,632	71,337	646,934	
Other long-term liabilities       487       1,868       4,058         Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)         Shareholders' equity (Notes 12 and 16):         Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Long-term debt (Note 9)	59,351	78,785	494,592	
Minority interest       371       401       3,091         Commitments and contingent liabilities (Notes 10 and 11)         Shareholders' equity (Notes 12 and 16):         Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Accrued severance indemnities	13,722	13,480	114,350	
Commitments and contingent liabilities (Notes 10 and 11)  Shareholders' equity (Notes 12 and 16):  Common stock Additional paid-in capital At1,231 At1,231 At1,231 At1,231 At3,592 Retained earnings At1,231 A	Other long-term liabilities	487	1,868	4,058	
Shareholders' equity (Notes 12 and 16):         Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Minority interest	371	401	3,091	
Common stock       37,046       37,046       308,717         Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Commitments and contingent liabilities (Notes 10 and 11)				
Additional paid-in capital       41,231       41,231       343,592         Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Shareholders' equity (Notes 12 and 16):				
Retained earnings       70,843       67,865       590,358         Less, treasury stock, at cost       (3)       (3)       (25)         149,117       146,139       1,242,642	Common stock	37,046	37,046	308,717	
Less, treasury stock, at cost (3) (3) (25) 149,117 146,139 1,242,642	Additional paid-in capital	41,231	41,231	343,592	
149,117 146,139 1,242,642	Retained earnings	70,843	67,865	590,358	
<u></u>	Less, treasury stock, at cost	(3)	(3)	(25)	
¥300,680 ¥312,010 <b>\$2,505,667</b>		149,117	146,139	1,242,642	
		¥300,680	¥312,010	\$2,505,667	

# Consolidated Statement of Income NGK Spark Plug Co., Ltd. and consolidated subsidiaries For the years ended March 31, 1999 and 1998

	Million	Millions of Yen	
	1999	1998	1999
Net sales (Note 15)	¥188,744	¥190,333	\$1,572,867
Operating costs and expenses (Notes 11 and 15):			
Cost of goods sold	144,149	144,037	1,201,242
Selling, general and administrative expenses	31,696	30,221	264,133
	175,845	174,258	1,465,375
Operating income	12,899	16,075	107,492
Other income (expenses):			
Interest and dividend income	1,900	3,709	15,833
Interest and discount charges	(2,027)	(2,251)	(16,892)
Amortization of debt discounts	(1,210)	(1,210)	(10,083)
Loss on sale or disposal of property, plant and equipment	(774)	(784)	(6,450)
Loss on write-down of marketable securities	(133)	(1,134)	(1,108)
Miscellaneous, net	(155)	(226)	(1,292)
	(2,399)	(1,896)	(19,992)
Income before income taxes and minority interest	10,500	14,179	87,500
Income tax expenses (Note 13)	4,975	7,531	41,458
Minority interest in net income (loss) of consolidated subsidiaries	31	(21)	259
Net income	¥ 5,494	¥ 6,669	\$ 45,783

	Yei	Yen	
Per share:			
Net income:			
-Basic	¥24.69	¥30.01	\$0.21
-Diluted	22.82	27.43	0.19
Cash dividends	11.00	11.00	0.09

# Consolidated Statement of Shareholders' Equity NGK Spark Plug Co., Ltd. and consolidated subsidiaries

For the years ended March 31, 1999 and 1998

	Number of shares issued	Common stock	Additional paid-in capital	Retained earnings
			Millions of Yen	
Balance at March 31, 1997	221,177,254	¥36,277	¥40,463	¥63,705
Net income	_	_	_	6,669
Cash dividends	_	_	_	(2,440)
Exercise of warrants	1,352,432	769	768	_
Bonuses to directors and statutory auditors	_	_	_	(69)
Balance at March 31, 1998	222,529,686	37,046	41,231	67,865
Net income	_	_	_	5,494
Cash dividends	_	_	_	(2,448)
Bonuses to directors and statutory auditors	_	_	_	(68)
Balance at March 31, 1999	222,529,686	¥37,046	¥41,231	¥70,843

		Thousands of U.S. Dollars			
Balance at March 31, 1998	\$308,717	\$343,592	\$565,542		
Net income	_	_	45,783		
Cash dividends	_	_	(20,400)		
Bonuses to directors and statutory auditors	_	_	(567)		
Balance at March 31, 1999	\$308,717	\$343,592	\$590,358		

# Consolidated Statement of Cash Flows NGK Spark Plug Co., Ltd. and consolidated subsidiaries For the years ended March 31, 1999 and 1998

	Millions	of Yen	Thousands of U.S. Dollars	
	1999	1998	1999	
Cash flows from operating activities:				
Net income	¥ 5,494	¥ 6,669	\$ 45,783	
Adjustments to reconcile net income to net cash provided by operating				
activities:				
Depreciation and amortization	19,218	16,599	160,150	
Loss on sale or disposal of property, plant and equipment	774	784	6,450	
Loss on write-down of marketable securities	133	1,134	1,108	
Changes in operating assets and liabilities:				
(Increase) decrease in receivables	(3,761)	5,868	(31,341)	
Increase in inventories	(2,739)	(1,970)	(22,825)	
Increase (decrease) in payables, accrued expenses and income				
taxes payable	1,309	(6,499)	10,908	
Other, net	(1,440)	(1,601)	(12,000)	
Net cash provided by operating activities	18,988	20,984	158,233	
Cash flows from investing activities:				
Increase in property, plant and equipment	(25,330)	(21,889)	(211,083)	
Increase in long-term investments and loans	(4,398)	(167)	(36,650)	
Decrease in property, long-term investments and loans	2,354	5,343	19,617	
Decrease in short-term investments	8,113	36,447	67,608	
Net cash (used in) provided by investing activities	(19,261)	19,734	(160,508)	
Cash flows from financing activities:				
Increase in long-term debt	_	104	_	
Repayment of long-term debt	(539)	(25,641)	(4,492)	
(Decrease) increase in short-term borrowings	(6,418)	2,767	(53,483)	
Exercise of warrants	_	1,537	_	
Dividends paid	(2,448)	(2,440)	(20,400)	
Net cash used in financing activities	(9,405)	(23,673)	(78,375)	
Effect of exchange rate changes on cash and cash equivalents	(184)	248	(1,533)	
(Decrease) increase in cash and cash equivalents	(9,862)	17,293	(82,183)	
Cash and cash equivalents at beginning of year	66,606	49,313	555,050	
Cash and cash equivalents at end of year	¥56,744	¥66,606	\$472,867	
Supplemental disclosures of cash flow information:				
Cash paid during the year for				
Interest	¥ 2,948	¥ 3,577	\$ 24,567	
Income taxes	7,523	11,522	62,692	

See Notes to Consolidated Financial Statements.

#### Notes to Consolidated Financial Statement

#### 1. Significant Accounting Policies

#### (a) Basis of presenting the consolidated financial statements

The accompanying consolidated financial statements of NGK Spark Plug Co., Ltd. (the "Company") and its consolidated subsidiaries have been prepared in accordance with the provisions set forth in the Commercial Code of Japan and in conformity with accounting principles and practices generally accepted in Japan. Certain items presented in the original consolidated financial statements in Japanese filed with the Minister of Finance of Japan ("MOF") have been reclassified for the convenience of readers outside Japan. The consolidated statement of cash flows has been prepared for the purpose of inclusion in this annual report, although such a statement is not customarily prepared in Japan and is not required to be filed with MOF.

#### (b) Principles of consolidation

The accompanying consolidated financial statements include the accounts of the Company and its significant majority-owned subsidiaries. Investments in significant unconsolidated subsidiaries and affiliates (20% to 50% owned companies) are accounted for by the equity method. All significant intercompany transactions and accounts have been eliminated.

The number of consolidated subsidiaries, unconsolidated subsidiaries and affiliates for the years ended March 31, 1999 and 1998 was as follows:

	1999	1998
Consolidated subsidiaries, including 14 overseas consolidated		
subsidiaries in the years 1999 and 1998	24	24
Unconsolidated subsidiaries, stated at cost	4	4
Affiliates, accounted for by equity	7	7
Affiliates, stated at cost	2	4

The Company's overseas consolidated subsidiaries close their book at December 31 every year, three months earlier than the Company and other domestic consolidated subsidiaries. The Company consolidated such subsidiaries' financial statements as of their year-end. Unusual transactions for the period between subsidiaries' year-end and the Company's year-end are adjusted on consolidation.

Overseas consolidated subsidiaries adopt accounting principles generally accepted in their respective countries, and no adjustments have been made to their financial statements in consolidation to conform with accounting principles and practices generally accepted in lange.

The accounts of a certain overseas manufacturing subsidiary located in Brazil and its three subsidiaries are excluded from consolidation and equity. Investments in such unconsolidated subsidiaries and their affiliate are stated at cost in order to avoid misleading for readers in the view of uncertain values and availability of the unrealistic financial information as a result of consolidation of such subsidiaries due to the following reasons;

- a) Such a subsidiary located in Brazil had adopted the so-called inflation accounting that was different from the historical cost accounting for a long time in the past.
- b) Even in the year 1999, foreign exchange market in Brazil was unstable after the abandoning the exchange rate band within which it had undertaken to support the real in comparison to the U.S. dollars

based on the foreign exchange policy change of the Central Bank of Brazil. Then, under the high devaluation of Reais currency in Brazil, the effect of the foreign exchange fluctuation on such subsidiaries could be still material. As a result, management of the Company believed that there was no presumption that consolidation of such subsidiaries were meaningful to the readers of the consolidated financial statements.

A summary of the unaudited condensed financial information of a principal Brazilian subsidiary for the fiscal years ended December 31, 1998 and 1997 was as follows:

	Millions of Yen		Thousands of U.S. Dollars
	1998	1997	1998
At year-end:			
Current assets	¥ 5,350	¥ 6,683	\$44,583
Property, plant and equipment	2,563	2,820	21,358
Other assets	1,187	1,127	9,892
Foreign currency translation adjustments	2,175	458	18,125
Total assets	¥11,275	¥11,088	\$93,958
Total liabilities	1,208	1,720	10,067
Capital	3,936	3,936	32,800
Retained earnings	6,131	5,432	51,091
Total liabilities and shareholders' equity	¥11,275	¥11,088	\$93,958
For the year:			
Net sales	¥ 8,928	¥10,832	\$74,400
Operating costs and expenses	8,459	9,492	70,492
Operating income	469	1,340	3,908
Other income	617	579	5,142
Income before income taxes	1,086	1,919	9,050
Income taxes	387	617	3,225
Net income	¥ 699	¥ 1,302	\$ 5,825

#### (c) Cash and cash equivalents

Cash equivalents are comprised of highly liquid debt instruments purchased with a maturity of three month or less.

#### (d) Marketable securities

Securities with market quotations on stock exchanges both in current assets and non-current assets are stated principally at the lower of market or moving average cost. Other securities are stated at the moving average cost. As for the securities valuation of the Company and its domestic consolidated subsidiaries, until the year ended March 31, 1998, when market value was less than cost, the market value became as new cost basis. Effective from April 1, 1998, the Company and its domestic consolidated subsidiaries changed to the accounting method that the amount by which the cost for portfolio valued on an individual basis exceeds market value is accounted for as a valuation allowance, and the change in the valuation allowance is included in the determination of net income of the period in which it occurs. This accounting change resulted in no effect on the consolidated financial statements for the year ended March 31,1999.

#### (e) Allowance for doubtful accounts

The allowance for doubtful accounts is provided at the aggregate amount of estimated uncollectible receivables and the maximum amount which could be charged to income using a legal provision ratio method under the Japanese income tax laws.

#### (f) Inventories

Inventories are stated principally at the moving average cost.

#### (g) Investments

Investments in unconsolidated subsidiaries and affiliates not accounted for by the equity method and investment securities other than securities with market quotations on stock exchanges are carried at the moving average cost (see also Note 1(b) and 1(d)).

#### (h) Property, plant and equipment and depreciation

Property, plant and equipment, including significant renewals and additions, are stated at cost, and have been depreciated by the declining-balance method for the Company and its domestic consolidated subsidiaries and by the straight-line method for overseas consolidated subsidiaries at rates based on the estimated useful lives of the assets. The depreciation of the buildings of the Company and its domestic consolidated subsidiaries has been calculated at rates based on the depreciation period shortened from the current fiscal year in accordance with the Japanese income tax laws and regulations revised in 1998. The effect of this change is to decrease income before income taxes by ¥111 million (\$925 thousand) for the year ended March 31, 1999.

Expenditures on maintenance and repairs are charged to income as incurred. Upon the disposal of property, the cost and accumulated depreciation are removed from the related accounts and any gain or loss is recorded as income or expenses.

#### (i) Accrued severance indemnities and pension plan

Employees who terminate their service with the Company are entitled to severance indemnities determined by reference to current basic rates of pay, length of service and conditions under which the termination occurs.

The Company has established a non-contributory pension plan which covers 80% of its obligations in relation to severance indemnities for employees who retire at the compulsory retirement age after ten years or more of service. Amounts paid into the pension plan in each year are charged to income and include current service costs in relation to eligible employees as well as past service costs for employees who have become eligible, amortized over ten years, and interest on the unamortized amounts. The balance of the Company's obligations in relation to the payment of severance indemnities for all employees is not funded. However, the Company has provided for 100% of the amount which would be payable if all of its employees were voluntarily to terminate their services at the respective balance sheet dates, less the net assets of the funded pension plan.

The Company's domestic consolidated subsidiaries have similar severance indemnities plans and have provided for the liabilities for their severance indemnities at 100% of the amount which would be payable assuming that all of their employees voluntarily terminate their services at the respective balance sheet dates.

The Company also pays severance indemnities to directors and statutory auditors, which are subject to the approval of the Company's shareholders. The Company has provided for the full amount of the liabilities of directors' and statutory auditors' severance indemnities at the respective balance sheet dates. At March 31, 1999 and 1998, accrued severance indemnities in the accompanying consolidated balance sheet included those for directors and statutory auditors in the amounts of ¥1,057 million (\$8,808 thousand) and ¥849 million, respectively.

#### (i) Notes with warrants

In February 1994, the Japanese Institute of Certified Public Accountants released the Accounting Committee Report "Accounting and reporting for bonds with warrants by issuers", which adopts the accounting method to allocate the issue price to notes and warrants. The issue amounts of warrants are stated as the current liability, and transferred to additional paid-in capital on exercise of warrants. When the warrants are expired, the balance of warrants, if any, is recognized as gain in the consolidated statement of income.

Warrants relating to the notes with warrants due 2000 and 2001 were included in other current liabilities in the amount of \$5,398 million (\$44,983 thousand) at March 31, 1999 and 1998, respectively. Debt discounts of \$1,566 million (\$13,050 thousand) and \$2,776 million at March 31, 1999 and 1998, respectively, which were included in other assets are amortized over the lives of the related notes by the straight-line method.

#### (k) Leases

Where financing leases do not transfer ownership of the leased property to the lessee during the term of the lease, the leased property of the Company and its domestic consolidated subsidiaries is not capitalized and the relating rental and lease expenses are charged to income as incurred.

#### (I) Income taxes

Income taxes have been accrued on the basis of income tax returns, and no provision is made for deferred taxes arising from temporary differences between financial and tax reporting.

#### (m) Translation of foreign currency accounts

Receivables and payables denominated in foreign currencies and covered by firm forward exchange contracts are translated into yen at such forward contract rates. Current receivables and payables denominated in foreign currencies not covered by forward exchanges contracts are translated into yen at the exchange rates in effect at the year-end. Non-current assets and liabilities denominated in foreign currencies not covered by forward exchange contracts are translated into yen at historical exchange rates, unless having significant exchange loss. Exchange gains on forward exchange contracts on long-term debt are deferred and credited to income over the contract periods.

In respect of financial statement items of overseas consolidated subsidiaries, all asset and liability accounts are translated into yen at the rates of exchange at the year-end and all income and expense accounts are translated at the average rates of exchange during the respective fiscal years in accordance with the Accounting Standards for Foreign Currency Transactions issued in May 1995. Translation differences are debited or credited to the "Foreign currency translation adjustments" account in the accompanying consolidated balance sheet.

#### (n) Research and development expenses

Expenses related to research and development activities are charged to income as incurred. Such research and development expenses for the years ended March 31, 1999 and 1998 amounted to ¥11,740 million (\$97,833 thousand) and ¥10,718 million, respectively.

#### (o) Appropriation of retained earnings

Cash dividends and bonuses to directors and statutory auditors are recorded in the fiscal year when a proposed appropriation of retained earnings is approved by the Board of Directors and/or shareholders.

#### (p) Per share data

Basic net income per share is based on the weighted average number of shares of common stock outstanding during the respective years. Diluted net income per share is computed assuming convertible bonds were converted at the time of issue unless having anti-dilutive effects and as if warrants were exercised at the beginning of the relevant year or (if later) on their first exercise date and as if the funds obtained thereby were used to purchase common stock at the average market price during the respective years under the treasury stock method.

Cash dividends per share shown for each fiscal year in the accompanying consolidated statement of income represent dividends declared as applicable to the respective years.

#### (q) Comparative figures

As the disclosure requirement for the original consolidated financial statements in Japanese to be filed with MOF was amended effective from the year ended March 31, 1999, certain comparative presentations such as legal reserve, equity income (loss) of unconsolidated subsidiaries and affiliates and amortization of the difference between the acquisition cost and the underlying equity interest of investees have been reclassified to conform with current year's presentation in the accompanying consolidated financial statements, including the segment information.

#### 2. U.S. Dollar Amounts

The Company maintains its accounting records in yen. The dollar amounts included in the accompanying consolidated financial statements and notes thereto represent the arithmetic results of translating yen into dollars at a rate of  $\pm 120$  to U.S. $\pm 1$ , the approximate rate of exchange at March 31, 1999. The inclusion of such dollar amounts is solely for the convenience of the readers and is not intended to imply that yen and the assets and liabilities originating in yen have been or could be readily converted, realized or settled in dollars at  $\pm 120$  to U.S. $\pm 1$  or at any other rate.

#### 3. Short-term Investments

At March 31, 1999 and 1998, short-term investments consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	1999	1998	1999
Marketable securities:			
Equity securities	¥ 383	¥ 1,340	\$ 3,192
Bonds	13,778	13,916	114,817
Total marketable securities	14,161	15,256	118,009
Other securities	12,027	17,588	100,225
Time deposits with a maturity of more than			
three months	178	1,653	1,483
	¥26,366	¥34,497	\$219,717
		_	
Market value of marketable securities	¥14,270	¥15,907	\$118,917

#### 4. Notes and Accounts Receivable

At March 31, 1999 and 1998, notes and accounts receivables consisted of the following:

			Thousands of
	Millions of Yen		U.S. Dollars
	1999	1998	1999
Trade receivables	¥31,078	¥28,661	\$258,984
Unconsolidated subsidiaries and affiliates	1,962	1,551	16,350
Other	2,200	2,357	18,333
Less, allowance for doubtful accounts	(381)	(362)	(3,175)
	¥34,859	¥32,207	\$290,492

#### 5. Inventories

At March 31, 1999 and 1998, inventories consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	1999	1998	1999
Finished goods	¥21,206	¥19,966	\$176,717
Work in process	12,515	11,758	104,292
Raw materials	4,816	6,538	40,133
	¥38,537	¥38,262	\$321,142

#### 6. Investments and Long-term Loans

At March 31, 1999 and 1998, investments in and long-term loans to unconsolidated subsidiaries and affiliates consisted of the following:

	Millions of Yen		Ihousands of U.S. Dollars	
	1999	1998	1999	
Investments as stated by the equity method				
for significant affiliates and at cost for others	¥6,984	¥6,428	\$58,200	
Interest bearing long-term loans	29	39	242	
	¥7,013	¥6,467	\$58,442	

Investments in four overseas subsidiaries located in Brazil and other areas excluded from consolidation and equity as disclosed in Note 1(b) amounted to 44,281 million (35,675 thousand) at March 31,1999 and 1998, respectively.

At March 31, 1999 and 1998, investment securities consisted of the following:

	Million	Millions of Yen	
	1999	1998	1999
Marketable securities:			
Equity securities	¥13,425	¥12,534	\$111,875
Other securities	4,992	4,032	41,600
	¥18,417	¥16,566	\$153,475
Market value of marketable securities	¥48,335	¥47,037	\$402,792

#### 7. Property, plant and equipment

At March 31, 1999 and 1998, property, plant and equipment consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
•	1999	1998	1999
Land	¥ 13,527	¥ 13,634	\$ 112,725
Buildings and structures	73,881	71,188	615,675
Machinery and equipment	140,828	126,265	1,173,566
Construction in progress	5,661	6,823	47,175
	233,897	217,910	1,949,141
Less, accumulated depreciation	(130,406)	(116,574)	(1,086,716)
	¥103,491	¥101,336	\$ 862,425

#### 8. Accounts Payable

At March 31, 1999 and 1998, accounts payable consisted of the following:

	Million	s of Yen	Thousands of U.S. Dollars
	1999	1998	1999
Trade payables	¥19,274	¥18,978	\$160,617
Unconsolidated subsidiaries and affiliates	1,846	2,084	15,383
Other	6,939	10,129	57,825
	¥28,059	¥31,191	\$233,825

#### 9. Short-term Borrowings and Long-term Debt

At March 31, 1999 and 1998, short-term borrowings consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	1999	1998	1999
Loans from banks with interest at rates ranging			
from 1.18% to 7.525% per annum at March			
31, 1999:			
Collateralized	¥ –	¥ 1,652	\$ -
Unsecured	2,922	1,943	24,350
Export bills accepted by consolidated subsidiaries and discounted with banks by the Company with interest at rates ranging from 6.125% to			
6.875% per annum at March 31, 1999	8,323	14,367	69,358
	¥11,245	¥17,962	\$93,708

At March 31, 1999 and 1998, long-term debt consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	1999	1998	1999
2.25% U.S.\$200,000,000 notes with			
warrants due 2000	¥18,661	¥18,661	\$155,509
3.0% U.S.\$200,000,000 notes with			
warrants due 2001	18,251	18,251	152,092
1.3% convertible bonds due 2002	20,000	20,000	166,667
1.4% convertible bonds due 2004	19,934	19,934	166,117
Unsecured loans from government agencies due			
through 2000 with interest rates ranging from			
3.6% to 5.025% per annum at March 31, 1999	64	107	533
Bank loans principally unsecured, due through			
2001 with interest at rates ranging from			
1.109% to 8.5% per annum at March 31, 1999	124	506	1,033
Capital lease obligations for overseas consolidated			
subsidiaries	1,234	1,496	10,283
	78,268	78,955	652,234
Less, current portion	(18,917)	(170)	(157,642)
	¥59,351	¥78,785	\$494,592

Each holder of a warrant issued with the 2.25% notes due 2000 and 3.0% notes due 2001 is entitled to subscribe to ¥540,000 for shares of common stock of the Company currently at ¥1,271 per share, which is subject to adjustment in certain circumstances including a stock split.

The current conversion price of 1.3% convertible bonds due 2002 is ¥1,364 per share and is subject to adjustment in certain circumstances, including in the event of a stock split. The Company may, at its call option, redeem the bonds for the period from April 1, 1999 at 102% to 100% of the principal amount subject to certain conditions.

The current conversion price of 1.4% convertible bonds due 2004 is  $\pm 1,364$  per share and is subject to adjustment in certain circumstances, including in the event of a stock split. The Company may, at its call option, redeem the bonds for the period from April 1, 2000 at 103% to 100% of the principal amount subject to certain conditions.

At March 31, 1999, the number of shares of common stock necessary for exercise of all warrants and conversion of all convertible bonds outstanding was approximately 63 million.

As is customary in Japan, substantially all bank borrowings are subject to general agreements which provide, among other things, that the banks may , under certain circumstance, request additional security for these loans and may treat any security so furnished to the banks, as well as cash deposited with them, as security for all present and future indebtedness. The banks have never requested that the Company or its subsidiaries submit such additional security. Also, as is customary in Japan, the Company and certain of its subsidiaries have time deposits with the banks from which they have short-term and long-term borrowings. However, there are no agreements with any banks which would require maintaining such deposits.

The aggregate annual maturities of long-term debt at March 31, 1999 were as follows:

	Millions	Thousands of
Years ending March 31,	of Yen	U.S. Dollars
2000	¥18,917	\$157,642
2001	18,573	154,775
2002	20,195	168,292
2003	195	1,625
2004	20,129	167,742
2005 and thereafter	259	2,158
	¥78,268	\$652,234

#### 10. Contingent Liabilities

At March 31, 1999 and 1998, contingent liabilities in respect of trade notes and export bills discounted with banks with recourse in the ordinary course of business and guarantees of indebtedness principally for employees' housing loans and for the third parties aggregated ¥3,788 million (\$31,567 thousand) and ¥4,874 million, respectively.

#### 11. Lease Commitments

The Company and its domestic consolidated subsidiaries have made various rental and lease agreements as lessee principally for buildings cancelable with a few months' advance notice and also for computer equipment, other office machines and vehicles which are not usually cancelable for 12 months to 120 months from the original contract dates.

Total rental and lease expenses including cancelable and non-cancelable leases for the years ended March 31, 1999 and 1998 were ¥2,993 million (\$24,942 thousand) and ¥2,882 million, respectively. For the years ended March 31, 1999 and 1998, the lease expenses for non-cancelable lease agreements which were categorized as financing leases amounted to ¥1,114 million (\$9,283 thousand) and ¥1,099 million, respectively.

The aggregate future minimum payments for such non-cancelable leases, including the imputed interest portion, at March 31, 1999 were as follows:

	Millions	Thousands of	
	of Yen	U.S. Dollars	
Year ending March 31, 2000	¥1,011	\$ 8,425	
Thereafter	1,679	13,992	
	¥2,690	\$22,417	

#### 12. Shareholders' Equity

1) The authorized number of shares of common stock, with a par value of ¥50 per share, is 400 million at March 31, 1999, unless there may be a reduction due to a cancellation of treasury stock acquired.

Pursuant to the articles of incorporation of the Company revised upon the approval of shareholders at the general meeting on June 26, 1998, the Company can purchase and cancel the treasury stock of the Company up to 22 million shares through a charge to retained earnings, subject to the resolution of the Board of Directors, in accordance with the Law Concerning Special Measures under the Commercial Code with Respect to Procedures of Cancellation of Stocks.

2) At March 31,1999 and 1998, retained earnings included legal reserve of the Company in the amounts of ¥5,154 million (\$42,950 thousand) and ¥4,907 million, respectively, which was separately disclosed in the non-consolidated financial statements previously reported. The Commercial Code of Japan provides that an amount equivalent to at least 10% of cash payments as an appropriation of retained earnings shall be appropriated as a legal reserve until such reserve equals 25% of common stock. The legal reserve is not available for the distribution as dividends, but may be used to reduce a deficit or may be transferred to common stock by proper actions of the Board of Directors and/or shareholders of the Company.

3) At March 31, 1999 and 1998, special reserves provided for a deferral of income tax payments in accordance with the provision of the Special Tax Measures Law of Japan and included in retained earnings amounted to ¥710 million (\$5,917 thousand) and ¥714 million, respectively. Future income tax liabilities on such special reserves which should be reversed for income tax purposes have not been provided for in the accompanying consolidated financial statements.

#### 13. Income Taxes

The effective income tax rates on income before income taxes in the accompanying consolidated financial statements differ from the normal statutory rates in Japan. The principal reasons for such differences are (a) the accounting policy of not providing for deferred income taxes arising from temporary differences between financial and tax reporting; (b) special reserves appropriated and reversed in accordance with the Special Tax Measures Law of Japan (see Note 12); and (c) certain expenses which are not deductible for income tax purposes for the Company and its domestic consolidated subsidiaries.

#### 14. Off-Balance-Sheet Financial Instruments

The Company is a party to financial instruments with off-balance-sheet risks such as foreign currency forward exchange contracts in the normal course of business to reduce its own exposure to fluctuations in exchange rates in order for hedge purposes. These exposures include certain anticipated export sales or import purchases, investment securities and long-term debt denominated in foreign currencies. The Company is exposed to credit loss in the event of nonperformance by the other parties. However, the Company does not expect nonperformance by the counterparties.

A summary of foreign currency forward exchange contracts outstanding, excluding those for a hedge of assets and liabilities recognized on the accompanying consolidated balance sheet, at March 31, 1999 and 1998 was as follows:

	Million	Millions of Yen	
	1999	1998	1999
Contract (notional) amounts:			
Buy contracts	¥1,431	¥2,438	\$11,925
Sell contracts	4,495	2,149	37,458
Fair value*:			
Buy contracts	1,746	3,145	14,550
Sell contracts	4,518	2,191	37,650
Aggregate unrealized gain	292	665	2,433

\*Fair value was calculated based on the future exchange rates prevailing at the relevant year-end.

#### 15. Segment Information

The Company's operations are classified into three segments, automotive components business, communication media components and technical ceramics business, and other services. Automotive components segment is composed of those operations involved in the manufacture and sale of spark plugs, automotive sensors and other products for automobiles. Communication media components and technical ceramics segment is principally involved in the manufacture and sale of semiconductor parts, electronic parts and cutting tools for ceramic products. Information by industry segment for the years ended March 31,1999 and 1998 was as follows:

Automotive

Communication Media

		Components	Technical Ceramics	Other	Total	Elimination	Consolidated
				(Millio	ns of Yen)		
For the year 1999:							
Net sales:							
Outside customers		¥109,900	¥ 75,218	¥3,626	¥188,744	¥ –	¥188,744
Inter-segment sales		· -	_	545	545	(545)	_
Total net sales		109,900	75,218	4,171	189,289	(545)	188,744
Operating costs and expenses		93,684	78,579	4,137	176,400	(555)	175,845
Operating income(loss)		¥ 16,216	¥ (3,361)	¥ 34	¥ 12,889	¥ 10	¥ 12,899
Identifiable assets		¥144,113	¥154,199	¥ 816	¥299,128	¥1,552	¥300,680
Depreciation		¥ 6,567	¥ 11,647	¥ 6	¥ 18,220		¥ 18,220
Capital expenditures		¥ 7,480	¥ 15,322	¥ 1	¥ 22,803		¥ 22,803
For the year 1998:		1 77.00			. 22,000		. 22,000
Net sales:							
Outside customers		¥ 107,634	¥ 79,257	¥ 3,442	¥ 190,333	¥ –	¥ 190,333
Inter-segment sales		1 107,001	1 70,207	456	456	(456)	1 100,000
Total net sales		107,634	79.257	3,898	190,789	(456)	190,333
Operating costs and expenses		91,677	79,175	3,872	174,724	(466)	174,258
Operating costs and expenses		¥ 15,957	¥ 82	¥ 26	¥ 16,065	¥ 10	¥ 16,075
		¥ 141,117	¥ 169,911	¥ 792	¥ 311,820	¥ 190	¥ 312,010
Identifiable assets						¥ 190	
Depreciation				¥ 8 ¥ 7	¥ 15,897 ¥ 28,658		¥ 15,897 ¥ 28,658
Capital expenditures		¥ 8,273	¥ 20,378	¥ /	¥ 28,658		¥ 28,658
				(Thousands	of U.S. Dollars)		
For the year 1999:				,			
Net sales:							
Outside customers		\$ 915,833	\$ 626,817	\$30,217	\$1,572,867	\$ -	\$1,572,867
Inter-segment sales		_	_	4,541	4,541	(4,541)	_
Total net sales		915,833	626,817	34,758	1,577,408	(4,541)	1,572,867
Operating costs and expenses		780,700	654,825	34,475	1,470,000	(4,625)	1,465,375
Operating income (loss)		\$ 135,133	\$ (28,008)	\$ 283	\$ 107,408	\$ 84	\$ 107,492
Identifiable assets		\$1,200,942	\$1,284,992	\$ 6,800	\$2,492,734	\$12,933	\$2,505,667
Depreciation		\$ 54,725	\$ 97,058	\$ 50	\$ 151,833	_	\$ 151,833
Capital expenditures		\$ 62,333	\$ 127,683	\$ 9	\$ 190,025	_	\$ 190,025
Note: Identifiable assets in the elimination column	n represent unallocated genero			ed to a particu		nt, net of inter-se	
Information summarized by geographi	ic area for the years end	led March 31 10	999 and 1998 W	as as follow	ıc.		
information summanzed by geograpm	Japan	North America	Europe	Other	Total	Elimination	Consolidated
	зарап	TVOT ETT TITTETTE CO	Lurope	(Millions of Yen		Emminación	Consondated
For the year 1999:				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Net sales:							
Outside customers	¥ 74,960	¥78,192	¥30,427	¥5,165	¥188,744	¥ –	¥188,744
Inter-segment sales	94,469	458	383	71	95,381	(95,381)	_
Total net sales	169,429	78,650	30,810	5,236	284,125	(95,381)	188,744
Operating costs and expenses	158,134	77,678	30,082	4,860	270,754	(94,909)	175,845
Operating income	¥ 11,295	¥ 972	¥ 728	¥ 376	¥ 13,371	¥ (472)	¥ 12,899
Identifiable assets	¥261,937	¥31,827	¥15,610	¥3,225	¥312,599	¥(11,919)	¥300,680
For the year 1998:							
Net sales:							
Outside customers	¥ 98,901	¥60,027	¥25,747	¥5,658	¥190,333	¥ –	¥190,333
Inter-segment sales	73,151	991	399	64	74,605	(74,605)	· –
Total net sales	172,052	61,018	26,146	5,722	264,938	(74,605)	190,333
Operating costs and expenses	157,889	59,900	25,840	5,469	249,098	(74,840)	174,258
Operating income	¥ 14,163	¥ 1,118	¥ 306	¥ 253	¥ 15,840	¥ 235	¥ 16,075
Identifiable assets	¥266,824	¥33,303	¥14,940	¥3,376	¥318,443	¥ (6,433)	¥312,010
					·	. (=/.==/	
For the year 1000:			(Tho	ousands of U.S. Do	ollars)		
For the year 1999: Net sales:							
	\$ 624.667	¢651 600	¢252 550	¢42 042	¢1 E72 0C7	\$ -	¢1 E72 007
Outside customers		\$651,600	\$253,558	\$43,042	\$1,572,867		\$1,572,867
Inter-segment sales	787,241	3,817	3,192	591	794,841	(794,841)	1 570 000
Total net sales	1,411,908	655,417	256,750	43,633	2,367,708	(794,841)	1,572,867
Operating costs and expenses	1,317,783	647,317	250,683	40,500	2,256,283	(790,908)	1,465,375
Operating income	\$ 94,125	\$ 8,100	\$ 6,067	\$ 3,133	\$ 111,425	\$ (3,933)	\$ 107,492
Identifiable assets	\$2 182 809	\$265,225	\$130 083	\$26.875	\$2 604 992	\$ (99 325)	\$2 505 667

For the years ended March 31,1999 and 1998, overseas sales which included export sales from Japan and net sales of overseas consolidated subsidiaries other than Japan were summarized as follows:

\$2,182,809

			Thousands of U.S. Dollars
	Million	Millions of Yen	
	1999	1998	1999
North America	¥ 80,547	¥ 65,103	\$ 671,225
Europe	33,992	30,627	283,267
Southeast Asia	21,823	36,389	181,858
Other	12,857	14,480	107,142
	¥149,219	¥146,599	\$1,243,492
Percentage of overseas sales to total consolidated net sales	79.1%	77.0%	

#### 16. Subsequent Event

Identifiable assets

On June 29, 1999, the following appropriations of retained earnings were approved at an annual general meeting of shareholders of the Company:

	Millions	Thousands of
	of Yen	U.S. Dollars
Cash dividends	¥1,224	\$10,200
Bonuses to directors and statutory auditors	60	500

\$2,604,992

\$26,875

\$130,083

Coopers &Lybrand Chuo Audit Corporation Sakae Toei Building 7-12 Sakae 3-chome Naka-ku, Nagoya Japan 460-0008 telephone: (052)264-1701 facsimile: (052)264-1791

## Report of Independent Auditors

To the Board of Directors of NGK Spark Plug Co., Ltd.

We have audited the accompanying consolidated balance sheet of NGK Spark Plug Co., Ltd. and its consolidated subsidiaries as of March 31, 1999 and 1998, and the related consolidated statements of income, shareholders' equity, and cash flows for the years then ended, all expressed in Japanese yen. Our audits were made in accordance with auditing standards generally accepted in Japan and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the consolidated financial statements referred to above, expressed in Japanese yen, present fairly the consolidated financial position of NGK Spark Plug Co., Ltd. and its consolidated subsidiaries at March 31, 1999 and 1998, and the consolidated results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in Japan applied on a consistent basis.

The amounts expressed in U.S. dollars have been translated on the basis set forth in Note 2 of Notes to Consolidated Financial Statements.

Chuo audit Corporation

Nagoya, Japan June 29, 1999

The accompanying consolidated financial statements are not intended to present the consolidated financial position and results of their operations and their cash flows in accordance with accounting principles and practices generally accepted in countries and jurisdictions other than Japan. The standards, procedures and practices to audit such financial statements are those generally accepted and applied in Japan.

## Major Subsidiaries and Affiliates

#### **Domestic Subsidiaries**

- Nittoku Seisakusho Co.,Ltd.

  Production and sale of spark plug parts and jigs
- Nittoku Unyu Co.,Ltd.
  Transportation of the Company's products
- Nichiwa Kiki Co.,Ltd.

  Production and sale of spark plug resister covers and cables
- Oguchi Seiki Co.,Ltd.

  Production and sale of electrodes for spark plug and sensors

- Kamioka Ceramic Co.,Ltd. Production and sale of glow plugs and cutting tools
- ■Kani Ceramic Co.,Ltd.

  Production and sale of IC packages
- Takenami Ceramic Co.,Ltd.

  Production and sale of ceramic substrates
- ■lijima Ceramic Co.,Ltd.
  Production and sale of IC packages

- Nittoku Alpha Service Co.,Ltd.
   Welfare services for employee of the Company
- ■Nakatsugawa Ceramic Co.,Ltd.
  Production and sale of IC packages

#### Overseas Subsidiaries

- NGK Spark Plugs (U.S.A.), Inc. Production and sale of spark plugs, cutting tools and sale of communication media components and technical ceramics
- ■NGK Spark Plugs (U.K.) Ltd.

  Sale of automotive components and communication media components and technical ceramics
- NGK Spark Plug (Australia) Pty.Ltd. Sale of automotive components and communication media components and technical ceramics
- NGK Spark Plugs Canada Limited Sale of automotive components
- ■Taiwan NGK Spark Plug Co.,Ltd.
  Production and sale of spark plugs

- NGK Spark Plug Industries Europe S.A.
  - Production and sale of spark plugs
- ■Bujias NGK de Mexico S.A. de C.V. Sale of automotive components
- NGK Spark Plugs (France) S.A. Sale of automotive components and communication media components and technical ceramics
- ■NTK Cutting Tools Korea Co.,Ltd.

  Production and sale of cutting tools
- ■NTK Technical Ceramics H.K.Ltd.
  Sale of communication media
  components and technical ceramics
- ■NGK Spark Plug MFG. (U.S.A.) ,Inc. Production and sale of oxygen sensors for automobile

- NTK Technical Ceramics (Taiwan)
   Ltd.
   Sale of communication media
   components and technical ceramics
- ■NGK Spark Plugs (U.S.A.) Holding,Inc. Holding company for U.S. subsidiaries
- NGK Spark Plug Europe GmbH Sale of automotive components and communication media components and technical ceramics
- Ceramica e Velas de Ignicao NGK do Brasil Ltda.
   Production and sale of spark plugs, construction materials and technical ceramics

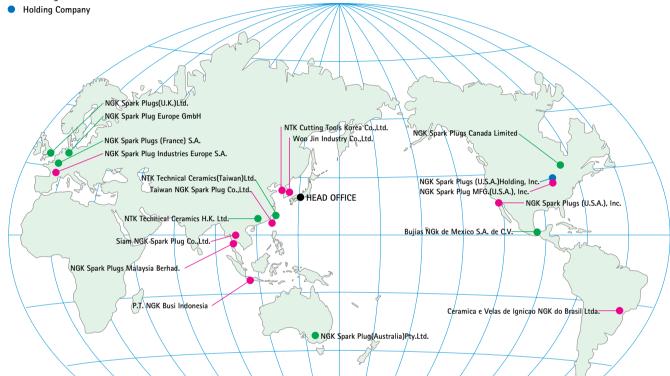
#### **Affiliates**

- Ceramic Sensor Co.,Ltd. Production and sale of oxygen sensors for automobile
- ■NGK Spark Plugs Malaysia Berhad. Production and sale of spark plugs
- Siam NGK Spark Plug Co.,Ltd.
  Production and sale of spark plugs
- P.T.NGK Busi Indonesia
  Production and sale of spark plugs
- ■Woo Jin Industry Co.,Ltd.

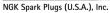
  Production and sale of spark plugs
  and oxygen sensors for automobile

#### **Overseas Network**

- Head Office
- Production & Sales Organization
- Sales Organization









NGK Spark Plug MFG.(U.S.A.), Inc.



NGK Spark Plug Industries Europe S.A.



Ceramica e Velas de Ignicao NGK do Brasil Ltda.



Siam NGK Spark Plug Co., Ltd.



NGK Spark Plugs Malaysia Berhad.



P.T. NGK Busi Indonesia



Taiwan NGK Spark Plug Co., Ltd.

# Organization (As of June 29, 1999)

#### **Board of Directors Board of Auditors** Auditor Chairman Managing Directors President Committee **Board Committee** General Adiministration Dept. Personnel Dept. Secretarial office Accounting & Finance Dept. Corporate planning Dept. Purchasing Dept. R & D Center Information System Dept. Logistics Dept. MD Project Intellectual Property Dept. Tokyo office **Quality Assurance Dept** Production Engineering Dept. **Production Support** Engineering Dept. **Environment & Safety** Management Dept. Technical Ceramics Communication Media Automotive Group **Components Group** Components Group Sales & Semiconductor Cutting Tool Div. Marketing Hq. Components Div. Electronic Technical & Fine Ceramics Div. Components Div. Engineering Hq. Production Management Hq.

#### **Board of Directors**

(As of June 29, 1999)

**CHAIRMAN** 

Kaneo Okamura\*

**PRESIDENT** 

Shigenobu Kanagawa\*

**EXECUTIVE VICE PRESIDENTS** 

Seiji Haga Yutaka Morita

SENIOR MANAGING DIRECTORS

Masao Sasaki Kanemitsu Nishio Nobuto Otaguro Katsumasa Nishiyama

MANAGING DIRECTORS

Yasuo Saito Toshio Hattori Hiroshi Tanaka

**DIRECTORS** 

Takao Morimura

Yoshiaki Miwa

Harunobu Sato

Norio Kato

Yoshiro Ushida

Shin Suzuki

Toyoji Morimura

Masaru Aritani

Takashi Terada

Akio Takami

Naomiki Kato

Ikuo Hotta

STANDING STATUTORY AUDITORS

Hideo Kojima

Masahiko Kuwashima

STATUTORY AUDITORS

Minoru Hoshino

Ikuko Ohtsuka

\*Representative Director

# Corporate Data (As of March 31, 1999)

NGK SPARK PLUG CO.,LTD.

**Head Office** 

14-18 Takatsuji-cho, Mizuho-Ku, Nagoya, 467-8525, Japan http://www.ngkntk.co.jp

Established October 1936

**Common Shares** 

Authorized: 400,000,000 Issued: 222,529,686

Paid-in Capital ¥37,046 million

**Stock Listing** Tokyo Stock Exchange, First Section Nagoya Stock Exchange, First Section

Number of Employees

5,402

**Number of Shareholders** 11,094

Transfer Agent

The Mitsubishi Trust and Banking Corporation

**Independent Certified Public Accountants Chuo Audit Corporation** 

Common Stock Price Range

	FY	1999
	High	Low
1998/April-June	¥1,180	¥ 912
1998/July-September	1,319	1,081
1998/October-December	1,186	1,020
1999/January-March	1,390	1,100

## **NGK SPARK PLUG CO., LTD.**

14-18 Takatsuji-cho, Mizuho-ku, Nagoya, 467-8525, Japan