

# The History of “Shinnittetsu Giho”

## The Editing Committee Secretariat

Shinnittetsu Giho (Nippon Steel Technical Report) originated as the “Seitetsu Kenkyukai (Steel Research Society) Report”—an organ of a steel research club formed in March 1911 within Yawata Works, which at that time was under the management of the Ministry of Agriculture and Commerce. Although the name, editor and publisher of the organ have changed since then, the issue number has continued to be counted sequentially, and the periodical attains the 100th anniversary of its foundation this year. Various episodes during the publication of the Seitetsu Kenkyukai Report from the formation of the steel research club till the establishment of Nippon Steel Corporation are presented in Reference 1. Reference 2, which is probably the only academic paper that deals with the history of Shinnittetsu Giho, describes the situation at the time of the foundation from an objective viewpoint. Here, we shall review the history of Shinnittetsu Giho on the basis of its back numbers and relevant information. The reader is advised to refer also to the “Progress of 100 years” on page 212 for a brief look at the progress of technology over the past 100 years.

### 1. Period from the Foundation till 1945

The first issue of Shinnittetsu Giho was published in March 1911 under the name “Seitetsu Kenkyukai Report.” The fact that a steel research club that was started by 16 members published a journal of their own papers, which were published almost every two months, really deserves admiration. The “founding address” given at the beginning of the first issue (a copy is posted in the text, on page 6) shows the determination of the members to support a key technology on behalf of the nation. It was in 1915 that the Iron and Steel Institute of Japan was established and its journal “Tetsu-to-Hagané” was founded. In 1918, the first issue of the “Research Report (Interim),” probably the first report by Yawata Works Laboratory, was published. Thus, Shinnittetsu Giho predates those official reports.

Since its foundation, the periodical continued to be published regularly. In 1919, just nine years after its foundation, the 50th commemorative issue was published. It contained a congratulatory address by the director of Yawata Works on a piece of fancy paper at the beginning, and a number of special articles written by Dr. Kotaro Honda at Tohoku Imperial University and students studying abroad. The commemorative issue shows that Seitetsu Kenkyukai Report was already socially recognized for both its quality and quantity by that time.

From the 86th issue (in 1925), various changes to the format were made (see below) and the periodical’s name was shortened to “Seitetsu Kenkyu.” During the period from the founding till the publication of the 188th issue at the end of the Second World War (in 1945), the following changes were made to the contents and format of Seitetsu Kenkyu.

#### Changes to printout format

As in the case of many other books at that time, the following changes were made to the format of Seitetsu Kenkyu (before change ⇒ after change).

- Right-hand binding; vertical text; double column setting ⇒ Left-hand binding; horizontal text; single column setting
- Only orthographic Chinese characters used ⇒ New forms of Chinese characters used as well
- Mixture of literary and colloquial styles ⇒ Only colloquial style
- Katakana (for addition to Chinese characters) and hiragana (for foreign words) ⇒ Hiragana (for addition to Chinese characters) and katakana (for foreign words)
- Nonstandard kana, combined/abbreviated kana ⇒ Abolished

#### Changes to contents

The early issues of the periodical contained mostly technical papers. However, the variety of articles was gradually widened to include summaries of foreign literature translated into Japanese, commentaries on physics/chemistry, various “lectures,” etc. From time to time, the periodical even dealt with topics having no direct relationship to the steel industry, such as explanations of legal affairs and “miscellanies,” giving the impression that it was a profound and popular research magazine. With the continual diversification of content, for issues No.4 (1911) to No.185 (1943), serial page numbers were given to each individual category of articles. Hence, identical page numbers existed within the same issue. This should be kept in mind when referring to back numbers. From the No.186 issue (1944), the sequential numbering system was reinstated.

### 2. Period from 1945 till 1970

After a short-term suspension of publication following the War, the steel research society at Yawata Steel resumed publication of its periodical from the 189th issue (in 1948). In the introduction “Resuming Publication” of that issue, the chief editor pays his respects to the progress of the periodical and its contribution to the steel industry over the past 35 years since foundation and remonstrates against “mistakes made by a nonscientific attitude in technology” by citing such an attitude as a factor in the defeat of Japan.

The next several issues after the republication followed in almost the same style as the prewar issues. In the 200th issue (in 1952), however, as the editing and publishing work was transferred from the steel research society to the Head Office of Yawata Steel, the name logo, English name, cover design, etc. of the periodical were changed.

In 1950, the company (Japan Iron & Steel) was divided into Yawata Iron & Steel and Fuji Iron & Steel, each of which continued to publish its own substantial technical reports until 1970, when the two companies were merged to form Nippon Steel Corporation.

Therefore, the traditions of the technical reports of those two companies were handed down to Nippon Steel's technical report. Right before the birth of Nippon Steel, the 267th and 268th issues and the 269th and 270th issues were combined into single issues. Those formed the only combined issues of the periodical.

**English periodical name and English table of contents**

During the postwar revival of the periodical, an English name was appended to it. After that, several changes were also made. For issues No.189 (1948) to No.199 (1952), a name common to journals of academic societies—"The Journal of the Iron and Steel Association"—was used. In the 200th issue (1952), which was edited at the Head Office of Yawata Iron & Steel for the first time, that English name was erased. Instead, from issues No.201 (1952) to No.270 right before the birth of Nippon Steel (1969), a highly industrial name—"Yawata Technical Report"—was used. Also from the 200th issue, an English version of indexes was added. At the same time, an English abstract was provided at the beginning of each paper.

In the period under review, as the English periodical name was changed, the contents of the papers and articles, etc. posted in the periodical were further expanded to include an introduction to new processes and new products, and descriptions of process operations, etc. Thus, the periodical came to cover a wide variety of content that was not typically posted in the journals of academic societies. In order to introduce the company's technical achievements, the periodical was distributed more widely both inside and outside the company.

**From posting of English articles to publication of English periodical**

From the 230th issue (1960), following the addition of English indexes, an English version of the articles was posted at the end of the Japanese version. In the several issues that were published subsequently, an English version of the abstracts alone was also included. Eventually, however, the entire articles came to be translated. That setup continued until the publication of "Nippon Steel Technical Report" (English version of Seitetsu Kenkyu) in 1972.

In the special issue No.271 (1970), the English name of the periodical was not clearly indicated. From the subsequent issue No.272 (1971), "Nippon Steel Technical Report" was published separately from the Japanese version. Therefore, the English name of the Japanese version of the 272nd issue as written using the alphabet became Seitetsu Kenkyu. When the Japanese name of the periodical was changed, Seitetsu Kenkyu was changed to the present Shinnittetsu Giho. From issue No.311 (1983), the periodical's name was written using the alphabet on the cover.

**3. Period from 1970 until the Present**

Since Yawata Iron & Steel and Fuji Iron & Steel merged to form Nippon Steel Corporation in 1970, the publication of Seitetsu Kenkyu as a technical report of the new company has continued. Nippon Steel took over the periodical name and continued the issue number that had been used by the former Yawata Steel.

**Cover design**

"Seitetsu Kenkyu" (from the No.271 issue) published by Nippon Steel was characteristic in that the cover of each issue was decorated with a line drawing of original design. That was the style of the cover of Fujiseitetsu Giho before the merger. Ryu Oda had designed all the cover drawings for 17 years since the year after the founding of

Fujiseitetsu Giho. Nippon Steel asked him to design a line drawing symbolizing steel for the cover of each issue of Seitetsu Kenkyu. Later, the cover design was taken over by Shingo Imai. Thus, since the founding of Fujiseitetsu Giho, almost half a century's worth of artistic covers have been accumulated. Furthermore, the covers of Seitetsu Kenkyu in the days of Yawata Iron & Steel featured original close-up photos of steelmaking equipment, attracting the reader's attention.

From issue No.371 (1999), the cover of Seitetsu Kenkyu was simplified and the same design was used. In issue No.388 (2008), not only the contents, but also the cover, were renewed into the present design.

**Birth of Shinnittetsu Giho and its evolution into a general technical journal**

The periodical name was changed from Seitetsu Kenkyu to the present Shinnittetsu Giho in issue No.341 (1991). According to the introductory remarks in that issue, the company expanded its business volume and launched a multifaceted business based on steelmaking and hence, drastically revised the content of Seitetsu Kenkyu as a periodical specializing in steelmaking technology, and at the same time, changed the periodical's name. Thus, Shinnittetsu Giho made a fresh start as a tool to foster, promote and record general technologies, including not only steelmaking technology, but also various other technologies in the company's new business fields. The above introductory remarks add: "We intend to foster Shinnittetsu Giho as a sophisticated technical journal that not only introduces our company's technologies but also deals with the prospect of general technologies and current topics which interest even outside read-

**Table 1 History of Shinnittetsu Giho (extracts)**

Year	Issue	Remarks
1911	No. 1	Founded as Seitetsu Kenkyukai Report (bimonthly edition), March
1915	Reference	Establishment of The Iron and Steel Institute of Japan; first publication of "Tetsu-to-Hagané"
1918	Reference	Yawata Works Laboratory issued its first Research Report (Interim)
1919	No. 50	Publication of 50th memorial issue
1925	No. 86	Name on the periodical's cover changed to "Seitetsu Kenkyu"
1948	No. 189	Postwar republication
1952	No. 200	Fundamental revision to prewar style
1970	No. 271	Nippon Steel Corporation founded; special issue published
1972	Reference	Publication of English version "Nippon Steel Technical Report" (complete translation of the No.272 issue of Seitetsu Kenkyu)
1982	No. 310	70th anniversary issue published
1991	No. 341	Name changed to Shinnittetsu Giho
1992	No. 347	Special issue published by General Technology Center
1998	No. 366	Adoption of larger format
1999	No. 371	Cover design standardized for all issues
2008	No. 388	Contents renewed (symposiums, commentaries, etc. added to technical papers)
2011	No. 391	Centennial commemorative issue published

ers.”

The General Technology Center that was founded in the same year is a centralized research & engineering organization so as to integrate the research departments and plant engineering departments that had previously been distributed throughout the country. The No. 347 issue of the next year (1992) was a special issue of the Center.

From that time until the present, Shinnittetsu Giho has been periodically published as the company's technical journal edited under the same basic policy, with changes made to the paper size, cover design and contents. This year, the journal celebrates the 100th anniversary of its foundation. Current circulation is around 3,000 copies.

#### 4. Concluding Note

Before celebrating the 100th anniversary of the foundation of Shinnittetsu Giho, the company began to create digital records of the back numbers of the journal. Already, a pdf file of every page from the last 100 years of the journals has been created in the library of the company's Technical Development Bureau (at Futtsu). In addition, the titles and authors of the articles, references, etc. for all is-

ues up to the No.316 issue (1984) have been registered on a database. This work is ongoing for the remaining issues. Based on only the first 316 issues, the total number of articles posted is at least 3,087. It is anticipated that the contents of these articles will be analyzed in more detail as objective data representing the technological progress not only of our company, but also of Japan's steel industry.

#### References

- 1) Maeda, N.: History and Present Condition of Publication of Seitetsu Kenkyu, Seitetsu Kenkyu 70th Anniversary Issue. (310), (1982)
- 2) Nagashima, O.: Institutionalization of R&D at Government-Managed Yawata Works. Ritsumeikan University Business Administration. 48(2-3), (2009)

Note on the use of Chinese characters: Concerning the use of orthographic (old) Chinese characters and new forms of Chinese characters, such as 製鐵研究 and 製鉄研究, new forms are used in the text, except for the company name and organization names, etc., which have already been registered under the old Chinese characters.