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**In the Great Country of Pioneers
– Kinki Sharyo’s Projects in the U.S. –**

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Introduction

Since the delivery of LRVs for MBTA (Massachusetts Bay Transportation Authority) in Boston in 1985, Kinki Sharyo has delivered a total of more than 400 LRVs to various parts of the U.S. over about 20 years. The figure will rise to nearly 500 vehicles if projects currently under way in Seattle and Phoenix are included. In the LRV market of the U.S., we have been competing with a European vehicle manufacturer over the past 10 years to win the top share.

The LRV Market of the U.S. and Related Circumstances

Though the U.S. is a typical “car society,” a sharp rise of the crude oil price and chronic traffic congestions in recent years have resulted in an increasing number of people who use public transportations for commuting, instead of using their private cars. In the country, a style of commuting called “park and ride” is gradually spreading this involves moving to the nearest train station by car from one’s home in the suburbs, and commuting from there to a downtown office by train.

LRVs are up to meet the current needs in the U.S., as they run on tracks at high speeds in the suburbs, while traveling as streetcars in the downtown. Accordingly, the LRV market in the country is thought to grow further. In last year’s mid-term elections, the Democratic Party, as the opposition, won the control of both the Upper and Lower Houses. This political change is expected to translate into more subsidies from the Federal government to traffic authorities. On the other hand, some think that the revision of the “Buy American” (BA) Law will turn out to be a more serious disadvantage for foreign vehicle manufacturers; it currently requires final assembly in the U.S. and the use of U.S.-made products for at least 60% of vehicle parts. Therefore, it is necessary to pay due attention to relevant social circumstances.

Project

My company, Kinkisharyo International L.L.C. (KILLC), is a 100% subsidiary of Kinkisharyo (USA), Inc. It engages in such activities in North America as the exploration of new projects, contract-related business, design, purchase, quality assurance and maintenance.

At the main office of Kinki Sharyo in Japan, business is basically organized through vertical division. By contrast,

business organization at KILLC is basically horizontal and project-oriented (except for maintenance). A Project Manager (PM) leads a project team without being constrained by departmental divisions, over the entire period of a project from bidding to contracting, design, purchase, delivery and to the end of the assurance period. A PM supervises the entire project, and is responsible for negotiations with the authorities, budgeting and progress management. The progress of a project is outlined in the following:

Bid

The authorities distribute contractual provisions and technical specifications to bidders. Though details vary with the authorities in charge, distributed documents that comprise about 1,000 pages. Based on these documents, a bidder drafts its technical proposals including type, face, section, review and other drawings. The bidder then submits to the authorities these proposals, its bidding price, and other documents describing its track record (including those of sub-vendors [manufacturer(s) and trading firm(s)]; project organization; plans on management, design, manufacture and quality assurance; and its financial situation.

Contract

The authorities send a Notice of Selection to the vehicle manufacturer that has been given the highest evaluation. After an audit based on the BA Law, the authorities conclude a formal contract with the manufacturer. Subsequently, the authorities give the manufacturer a Notice to Award (NTP), thereby directing it to commence the project. With the sending of this notice, the number of days elapsed begins to be counted according to milestones, which are used to measure the progress of the project. The manufacturer must deliver documents, vehicles, parts, tools etc. by respective milestones as set forth in the contract. The authorities have the right to claim compensation in case any milestone has failed to be observed.

Kick-Off

The sending of NTP marks the commencement of the project. A PM organizes a project team, develops a basic design and identifies matters to be checked to prepare for the kick-off meeting, i.e. the first meeting between the project team and the authorities. At this meeting, the PM informs himself/herself of intentions of the authorities etc. which are not clearly specified in written specifications. Subsequently, a meeting between the team and the

authorities is held once every month or every two months to smooth away any possible discrepancies, though letters that are used for formal communication.

Design

The manufacturer, say Kinki Sharyo, goes through the design process based on technical specifications, by submitting drawings, design and other reports, test procedures, manuals and other documents referring to a Contract Deliverables Requirements List (CDRL), to secure the authorities' approval for each of these documents. CDRL requires a vast amount of documents comprising hundreds of items. This impressive volume is symbolic of America as a "country of papers."

Purchasing

Under the authorities' design directions, the KILLC Purchasing purchases parts from sub-vendor(s); make arrangements for the first article inspection (FAI) and the source inspection (SI); gives directions on where to deliver the parts; and go through formalities for delivery.

Inspection

The main parts of vehicles and other products undergo FAI by members from the authorities, staffs from KILLC's design division and other inspectors from KILLC. A manufacturer cannot commence the manufacture of mass-produced parts without securing an FAI approval from the authorities. After the commencement of mass-production at the manufacturer, each delivery undergoes a SI by inspectors from KILLC.

Final Assembly (FA)

The final assembly (FA) is executed in the U.S. (often in the area supervised by the authorities) to meet the requirements of the BA Law or save transportation costs. Equipment is installed in rental factories and warehouses within a short period, to hire and train workers locally. Tasks comprise the control, testing and inspection of parts, processes and quality. Main works consist of the installation of devices on the roof, in the vehicle or under the floor; articulation; and bogie assembly. Vehicles undergo SI with the attendance of representatives of the authorities, and are hauled out of the site by a special trailer. Incidentally, a characteristic practice in the U.S. is that locally hired workers must be regularly checked for stimulants and alcohol, on the ground that they engage in the manufacture of public transport vehicles.



Acceptance Test, Delivery

An acceptance test is conducted at a site of the authorities before the products are delivered formally.

Maintenance

Vehicle maintenance represents one of KILLC's main services, though it does not constitute part of a project. We provide this service for the period stipulated in the contract. This special service was first introduced in NJT's Hudson Bargain project. Since then, we have established a system for maintenance service, and accumulated related know-how. The appreciation of our track record in this area has resulted in a five-year maintenance contract in Phoenix.

Conclusion

Kinki Sharyo's LRVs are appreciated highly by traffic authorities in the U.S. due to their high quality, as well as to our strict observation of delivery schedules. We owe this result to unflinching efforts of our predecessors who have pioneered the U.S. market over more than 20 years. We think that our mission is to build on this precious asset to ensure that Kinki Sharyo's vehicles will continue to be delivered to North America.

Needless to say, discrepancies exist in terms of distance and time among traffic authorities, manufacturers and KILLC offices scattered in the vast expanse of the U.S.; and also between them and Kinki Sharyo's main office. Communication is very important in promoting a joint project. We must understand our partners, and to be ourselves understood by them, to cope with differences in culture and way of thinking which exist between countries and regions. We will endeavor to ensure the continued development of Kinki Sharyo and its U.S. affiliates by developing efficient and synergetic organizations and systems that take advantage of the respective strong points of Japanese and American workers; and utilize these organizations and systems in future projects.