

Sung Shin Rolling Stock Technology which contributes to the mankind
And society with integrated railway technologies.



(주) 성신 RST

Sung Shin Rolling Stock Technology Limited

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(주) 성신 RST

Sung Shin Rolling Stock Technology Limited



CONTENTS

CEO Message	04
Brief History	06
Corporation Values & Visions	08
Factory Layout	10
Organizations + R&D	16
Main Products	18
1. Passenger Coach	
2. Tourist Train	
3. Diesel Locomotive	
4. DMU(Diesel Multiple Unit)	
5. Bogie Assembly	
6. Freight Wagon	
7. Special Vehicles	
8. Rehabilitation for KTX	
9. Rehabilitation for KTX-II Sancheon Snack Car	
Frameworks of Bogie & Carbody	36
Frameworks of Painting & Fitting out & Final test	38
Reference	39
Certificates & Patents	42



A delightful world that
moves on railway
SUNGSHIN RST is already
at your side.

Since its foundation on 20th April, 1990, Sung Shin Rolling Stock Technology Limited has developed as a bogie assembly manufacturer for passenger train set, DMU, EMU and other railway applications. Affectionate advice and suggestions has been the source of our accomplishments and growth ceaselessly.

We, now, are system integrator for railway applications. We manufacture and supply the PASSENGER TRAIN SETS, DIESEL LOCOMOTIVES, and other special purposed vehicle acting as car builder to many railway operators in several countries.

We will concentrate all of our capacity on the development of system integration technology that yields high quality to satisfy international customers' demands and achieve global competitiveness at the center of revolution at the age of renaissance railway.

We hope you well in prosperous and fortune and expect our mutual advancement. We will do our best to make better tomorrow with creative passions and challenges. Thank you.

SUNG SHIN RST
President & CEO Gye Chul, PARK

SUNG SHIN RST's Footsteps

1990 - 2000



- Apr 1990 Established private firm "Sung Shin Industrial Co."
- Aug 1994 Company name changed "Sung Shin Industrial Co.,Ltd" and Mr. Gye-chul, Park inaugurated as a president
- Dec 1997 First developed the bogie assembly for an express freight car
- Feb 1998 Developed the complete unit of earth moving trailer to Korea National Railroad(KNR)
- Jun 2000 Developed the technology for up-grading of riding quality of NT bogie

2001 - 2007



- Dec 2001 Acquired ISO 9001 (year 2000 edition) for Rolling Stock Manufacturing from KSA certified
- Sep 2002 Approved South & North Korea economic cooperation business for KNR (400 container freight car)
- Apr 2003 Developed KNR motor car 45 ton (hauling type)
- Jan 2004 Developed the tilting bogie technology for 200km/h running speed
- Feb 2005 First developed the ballast vacuum loading car to SMSC
- Apr 2005 Developed the TRA motor car 35 ton crane type to KNR
- Aug 2005 Developed the track inspection vehicle to DJET
- Aug 2005 Developed the hybrid motor car
- Mar 2006 Developed the track inspection vehicle to KNR
- Jul 2006 Selected technological innovation company (INNO-BIZ)
- May 2007 Opened the research institute approved by Korea Industrial Technology
- May 2007 Developed the changeable gauge bogie from 1435 to 1520mm
- Dec 2007 Developed the national transportation system project "Dual Made Trailer(DMT)"

2008 - 2014



- Sep 2008 Acquired ASME stamp (S&U) for power boiler and pressure vessels
- Feb 2009 Acquired European Standard EN15085 for welding of railway application
- Mar 2009 Manufactured Hyundai-Steel for 75 ton of diesel locomotive
- Jul 2009 Acquired ISO 14001 KSA certified
- Oct 2009 Opened 2nd factory in Munkyeong and renamed to "Sung Shin Rolling Stock Technology Ltd"
- Dec 2009 Mid-cooperation sector Export Awards by G.N Governor
- Dec 2009 Awarded Mid-cooperation sector export awards by G.N Governor
- Oct 2010 Awarded "Award of rolling stock business development" by Minister of Land and Transportation
- Apr 2010 Exported 26 units trainsets of passenger coaches to Congo
- Jan 2011 Exported 10 units trainsets of passenger coaches to Gabon
- Feb 2011 Awarded "Award of rolling stock business development" by Minister of Knowledge and Economy
- May 2011 Selected "P300 Project" (Foster project for company leading the international organization)
- Aug 2012 UNITED NATION GM registration (No. 205965)
- Sep 2012 Selected "KOTRA global brand" silver level
- Nov 2012 Awarded export excellency in SME section by president of Korea
- Sep 2013 Rehabilitation project of high speed train Korea Train eXpress(KTX)
- Sep 2013 Developed & manufactured of Indonesia DEMU
- Oct 2014 Exported 22 units trainset of passenger coach to Tanzania Railways

2015 - 2020



- Feb 2015 Exported 6 units of diesel locomotive and a genset wagon to CSP, Brazil
- May 2015 Selected "G-pass" company, having competitiveness in international market with technology
- Mar 2016 Developed the Korean Double Stack Train(K-DST) with Korea Railroad Research Institute(KRRI)
- Jul 2016 Opened sub R&D institute for commercializing our railway technology in KRRI
- Dec 2016 Registered as international contractor in International Contractors Association of Korea(ICAK)
- Sep 2017 Developed the track inspection vehicle with Korea Agency for Infrastructure Technology Advancement(KAIA)
- Mar 2018 Developed wagons tested for interoperability between China, Russia, and Korea with KRRI
- May 2018 Acquired certificate of approved exporter by Korea Custom Service(KCS)
- Jul 2018 Acquired ISO/TS 22163(IRIS) certified by TUV
- Oct 2018 Opened 3rd factory in Haman
- Dec 2018 Exported 80 ton of diesel locomotive to Thailand
- Dec 2019 Manufactured 12 units of motor car / 6 units of sleeping & restaurant car to Korail
- Apr 2020 30th anniversary of the establishing of Sung Shin Rolling Stock Technology Ltd
- May 2020 Selected "G-pass" company (A grade), as a promising export company in international procurement market
- Jul 2020 Selected "Promising small and medium enterprise in export"
- Jul 2020 Signed a contract for 150 units of Passenger coaches with Bangladesh Railway
- Aug 2020 Signed a contract for 59 units of Passenger coaches with Tanzania Railways Corporation
- Sep 2020 Manufactured 8 units of Battery-powered tram to Blue Link Park



SUNG SHIN RST's Corporation Values & Visions

Corporation Values

All of our personnel are ceaselessly and honestly striving in order to be a company of credibility, integrity, and contributing to society and nation.



Visions

01



Develop new and integrated technologies for rolling stock.

02



Jump up to be a leading rolling stock manufacturer in the world by quality innovation.

03



Focus on maximizing customer satisfaction.



Head Office

183, Dongdaei-gil, Chilwon,
Haman, 52022, Rep. of Korea

Foundation	Apr. 1990		
Area	28,440㎡	Office	11,750㎡
Factory	972㎡	Storage	365㎡

Frameworks in Head Office

Bogie Assembly

Painting, Fitting Out, Final Testing



- 1 Head Office
- 2, 3 Fitting Out Shop
- 4 Bogie Manufacturing Shop
- 5 Machining Shop



Branch Office

75, Oseo 1-gil, Maseong,
Mungyeong, 36921, Rep. of Korea

Foundation	Oct, 2009		
Area	69,021㎡	Office	1,696㎡
Factory	8,550㎡	Storage	450㎡

- 1 Branch Office
- 2 Fitting Out Shop
- 3 Paint Shop
- 4, 5 Overall Inspection & Testing Area

Frameworks in Branch

Carbody Assembly,
Painting, Fitting Out, Final Testing



3rd Factory

430-1, Ogok-ro, Chirwon,
Haman, 52019, Rep. of Korea

Foundation	Oct. 2018		
Area	8,364㎡	Office	450㎡
Factory	4,442㎡	Storage	203㎡

Frameworks in Branch

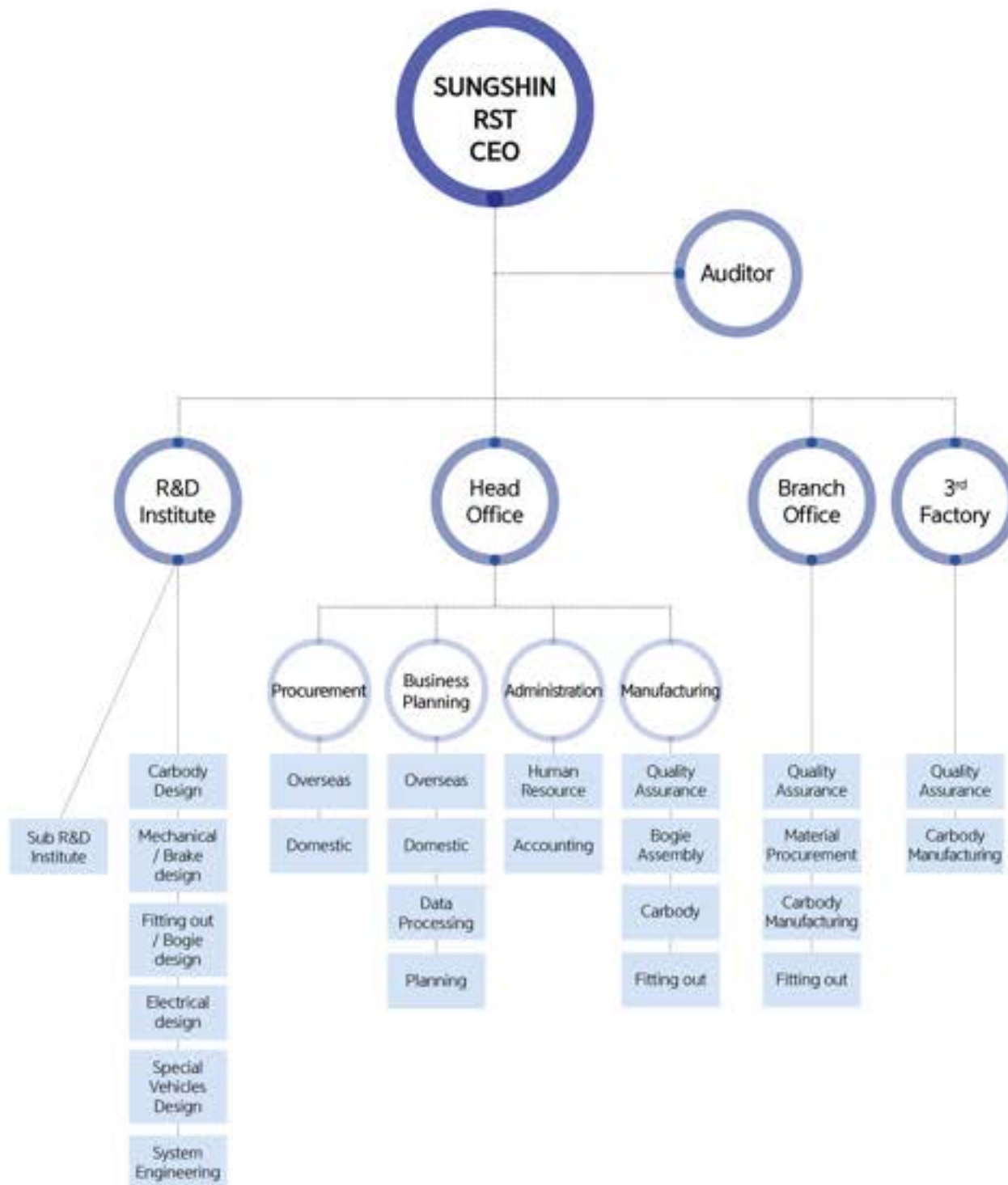
Carbody Assembly,
Painting, Fitting Out, Final Testing



- 1 3rd Office
- 2, 3, 4, 5 Carbody Manufacturing Shop



Organizations + R&D

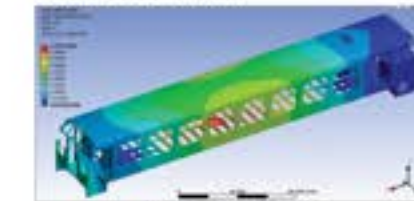


R&D Performance

Jun 2000	Developed the technology for up-grading of riding quality of NT Bogie
Jan 2004	Developed the Tilting Bogie technology
Aug 2005	Developed the "B2S" Track Machine Car
Mar 2006	Developed the Track Inspection Vehicle
May 2007	Advanced Rolling Stock technology development with Ministry of Transport(changeable gauge bogie)
Dec 2007	National Transportation System Development Project (DMT/Dual Mode Trailer)
Dec 2010	Developed Deep Well Flat Car / Developed 3 Axle Bogie for freight wagon
Aug 2014	Developed Tourist Train Set
Oct 2016	Developed a convertible bed for passenger coach with Korea Railroad Research Institute (KRRRI)
Mar 2016	Developed Korea Double Stack container Train (K-DST) with KRRRI (in progress)
Jun 2017	Development project for localization of Rail defect detector car)
Jun 2017	Technology development on Automated Intermodal freight transport system with Korea Transport Institute(koti)
Sep 2017	Developed track inspection vehicle with Korea Agency for Infrastructure Technology Advancement (for the monitoring system of rail damage inspection and concrete crack detection)
Mar 2018	Technology development for testbed building for interoperability of freight railway with Korea Agency for Infrastructure Technology Advancement
Mar 2018	Developed Universal Railway System in Northeast Asia(Variable gauge bogie) with Korea Railroad Research Institute(service of KRRRI's main research project)
Aug 2020	Development of Battery-powered tram(Haeundae Beach Train)

Analysis & Test by R&D Institute

Structure Analysis



Car Body Assembly



Bogie Frame

Dynamic Characteristic Test



3D Modeling / Track Inspection Vehicle



Load Test



Car Body Frame



Bogie Frame

Main Products



Passenger Coach



Tourist Train



Diesel Locomotive



DMU(Diesel Multiple Unit)



Bogie Assembly



Freight Wagon



Special Vehicle



EMU(Electric Multiple Unit)

Passenger Coach

1st Class Passenger Coach



Exterior

The 1st class coach is the most comfortable train for long distance travelers.

Specifications

Max. Design speed	160 km/h	Width	2,825 mm
Overall length	22,800 mm	Height of car-body	3,815 mm
Track gauge	1,000 / 1,067 / 1,435 / 1,676mm	Wheel Diameter	860 mm
Tare weight	About 35 ton	Passenger seat	51 Seats
Max. load	About 8 ton		

Interior

The 1st class coach is the most comfortable train for long distance travelers by adapting HVAC and many convenient equipment such as Net, Foot pad, Seat table plate, Cup holder, Foot rest, Center Table(Foldable).



Passenger Coach

2nd Class Passenger Coach



Exterior

The 2nd class coach is for transporting massive passengers.

Specifications

Max. Design speed	160 km/h	Width	2,825 mm
Overall length	22,800 mm	Height of car-body	3,815 mm
Track gauge	1,000 / 1,067 / 1,435 / 1,676mm	Wheel Diameter	860 mm
Tare weight	About 35 ton	Passenger seat	80 Seats
Max. load	About 9 ton		

Interior

The 2nd class coach is for transporting massive passengers, by adapting HVAC and many convenient equipment such as Net, Cup holder and Center Table.



Sleeping Coach



Exterior

Sleeping Coach is overnight passenger carrier and consists of 1st, 2nd and 3rd level beds.

Specifications

Max. Design speed	160 km/h	Width	2,825 mm
Overall length	22,800 mm	Height of car-body	3,815 mm
Track gauge	1,000 / 1,067 / 1,435 / 1,676mm	Wheel Diameter	860 mm
Tare weight	About 36 ton	Compartment	8EA
Max. load	About 5 ton		

Interior

Sleeping Coach is overnight passenger carrier and consists of 1st, 2nd and 3rd level beds. 1st level can be converted to seats.



Passenger Coach

Restaurant Coach



Exterior

Restaurant Car provides meal service to customer and consists of kitchen in the middle, individual bars, and tables for group.

Specifications

Max. Design speed	160 km/h	Width	2,825 mm
Overall length	22,800 mm	Height of car-body	3,815 mm
Track gauge	1,000 / 1,067 / 1,435 / 1,676mm	Wheel Diameter	860 mm
Tare weight	About 35 ton	Compartment	Restaurant / Bar / Broadcasting room Business room
Max. load	About 8 ton		

Interior

Restaurant Car provides meal service to customer and consists of kitchen in the middle, individual bars, hot plate, microwave, refrigerator and tables for group.



Power Coach



Exterior

Power generating car consists of Luggage room, Crew's room and Generator room. There are two synchronized power generator sets to fully generate electricity supplying to passenger coaches.

Specifications

Max. Design speed	160 km/h	Width	2,825 mm
Overall length	22,800 mm	Height of car-body	3,815 mm
Track gauge	1,000 / 1,067 / 1,435 / 1,676mm	Wheel Diameter	860 mm
Tare weight	About 43 ton	Generator	Engine:504HP / 1,500rpm Alternator:400KVA
Max. load	About 2 ton		

Compartment



Tourist Train

Battery-powered tram



Exterior

Battery-powered tram is environmental-friendly and self-propelled passenger train set powered by battery installed at underneath of carbody, and its power to inverter and Permanent Magnet Synchronous Motor for inner city commuter purposes.

Specifications

Max. Design Speed	80 km/h	Engine	Lithium polymer battery DC 600V
Track Gauge	1,435mm	Control	VVVF INVERTER
Formation	MC1 + MC2	Traction Motor	Permanent Magnet Synchronous Motor
Overall Length	18,770mm		

Interior

The Wainscoting design creates a modern and classic space.



High 1 Tourist Train



Exterior

Tourist train unit is designed for looking around tourist attractions. It consists of TC1 (steam locomotive shaped) + Power generating car (tender) + T1 + T2 + TC2. Its exterior and specs are diverse from customer's needs.

Specifications

Max. Design speed	80 km/h	Engine	CUMMINS QST 30, 1,200HP(895kw) @2,100rpm
Track gauge	1,000 / 1,067 / 1,435 / 1,676mm	Transmission	Hitachi-Nico
Formation	TC1 + Tender + T1 + T2 + TC2	Standards	UIC and Korea Railway Safety Law

Interior

Tourist train unit is equipped with different concepts of seats like VIP seat for president, family seats etc.



Diesel Locomotive



Diesel Locomotive performs hauling and pulling passenger trains or freight wagons for short main-line and shunting area. Drive system is divided into two groups, one is diesel electric locomotive (DC motor) type and the diesel locomotive (hydraulic) type. Especially, as customer's specific requirements, we improve performance and extend durability period by upgrading product specifications.

Specifications

Model	SIL-35	SIL-45	SIL-60 Hydraulic driving device	SIL-75 Hydraulic driving device	SIL-75 DC Motor Type	SIL-88 Hydraulic driving device
Tare Weight	35 ton	45 ton	60 ton	75 ton	75 ton	88 ton
Max Speed	20~30 (km/h)	20~30 (km/h)	20~30 (km/h)	20~30 (km/h)	70 (km/h)	80 (km/h)
Power Output	430PS	475PS	535PS	600PS	800PS	1,375PS
Axle Load	8.75 ton	11.25 ton	15 ton	18.75 ton	18.75 ton	22 ton
Axle Arrangement	B or B-B	B-B	B-B	B-B	B-B	B-B
Hauling Capacity	600 TON	800 TON	1,100 TON	1,440 TON	1,440 TON	2,700 TON
Overall Length	10,100 mm	10,100 mm	11,000 mm	13,710 mm	13,710 mm	14,500 mm
Overall Width	2,900 mm	2,900 mm	3,040 mm	2,948 mm	3,000 mm	2,950 mm
Overall Height	3,800 mm	3,800 mm	4,112 mm	3,800 mm	4,332 mm	4,250 mm
Overall Diameter	860 mm	860 mm	860 mm	860 mm	860 mm	860 mm

General Specifications

This specifications applies Diesel Hydraulic locomotive's manufacture, assembly, test, and inspection which is used to haul wagon.

1. The General in design, manufacture, test and inspection, delivery, and so on is based on contract.
2. Material, manufacture method, test, inspection and etc, that are used in manufacturing vehicles apply KS, JIS, AAR, UIC and etc. standard.
3. The warranty of the delivered car based on this specifications is ensured for one year after the completion of the car delivery.



Main Parts

1 Diesel Engine

- * Quantity : 1 Set
- * Manufacturer and Model : CUMMINS / MTU / CAT / Deutz

2 Hydrodynamic Torque Converter

- * Manufacturer : VOITH or HITACHI
- * Type : Power-Shift Transmission depending on Engine Power

3 Propeller shaft

- * Propeller shaft is device for connecting between power transmission device that transmitted the engine power to transmission, reduction gear, shaft and wheel consequently

4 Driver's Cabin

- * Double Cabs at the ends or 1 cab in the middle. It is equipped with master driving control, air-conditioner, window brusher, sun visor, driver's seat and rear-view mirror.

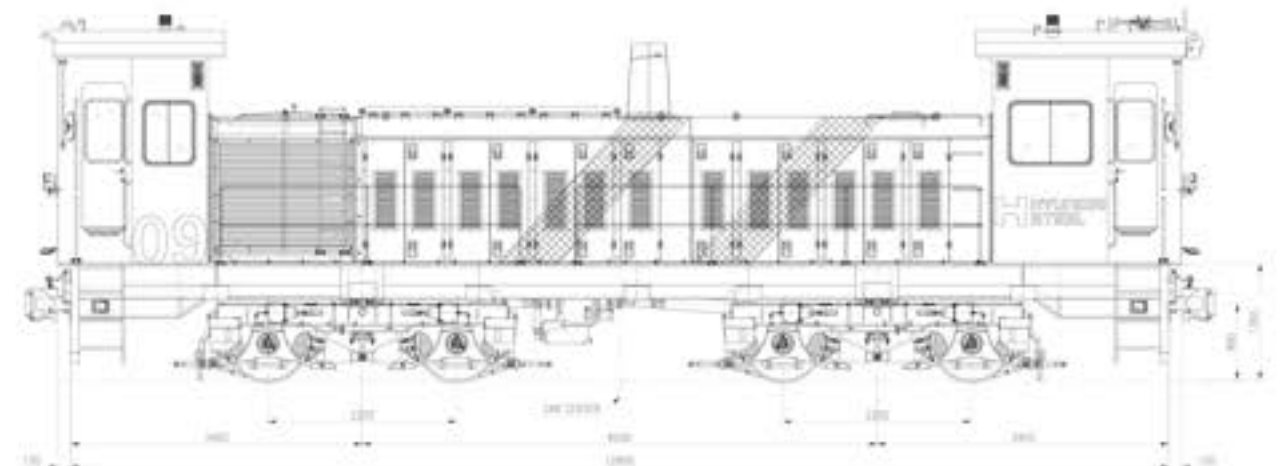
5 Generator

- * Operation by Engine connecting with belt, embedded regulator installed at the left side of Fly-Wheel

6 Remote control



Max. number of control commands	44 digital(24 via change-over contacts) or 36 digital(20 via change-over contacts) + 10 analog
Antenna	external, FL 30 or FL 70 (option : offset antenna with 5m cable and BNC connector)
EMS category	4 according to EN 954-1(The EMS category of the radio control system depends on the respective transmitter)
Frequency range	334-338MHz, 400 - 475 MHz1, 865 - 870 MHz, 902 - 928 MHz 1 Not all frequency ranges available.
Channel increments	312.5 / 20 / 25 / 50 / 250 kHz



DMU (Diesel Multiple Units)



The DMU is designed for adapting sub/urban transportation, MC + M + MC is basic formation of one train set, MC car installs a driving cabin, a set of engine with hydraulic transmission(TM) and gen set for electricity, M car installs a set of engine with TM

Main Characteristics

Max Speed	120 km/h	Width	2,99 m
Acceleration	0.38 m/s ² (0o/oo slope, normal load) 0.34 m/s ² (full load, up to min. 25km/h)	Height	4,100 mm
Deceleration	1.0 m/s ² (Emergency)	Length of vehicle	20,800 m
Axle load	14 ton (empty)	Length between bogies	14 m
Braking	Air Brake	Length between axles	2.2 m
APU	180 KVA/Mc	Wheel diameter	860 mm



Train Configurations

Description	Specifications		Remarks
Train	Type	Diesel Hydraulic Multiple Unit	
	Formation	MC + M + M + MC	MCs install driving cabin
Car body	Frame	Mild Steel	As per requirement
Driving cabin		Operational equipment Monitoring equipment (TMS) Work convenience equipment Tandem Drive(MC-M-MC & MC-M-M-MC)	
Bogie	Frame	Upper/lower Swing Bolster type	
	Wheelset	Solid steel forged type	
	Suspension	Primary : Coil spring / Secondary : Coil spring	
Actuating equipment	Diesel engine	N14-R (CUMMINS) 354 KW at 2100RPM	MC
	Cooling system	Compact roof mounted system	
Power Converter	Torque Converter	Voith T211 re.4 (Input torque : 2200Nm)	MC, M
Braking equipment	Type	Full pneumatic system	
	Brakes	Service, Parking and Emergency	
Couplers	ABC Coupler	Height from top of the rail according to standard.	

Bogie Assembly

- FOR WAGONS
- FOR LOCOMOTIVES
- FOR PASSENGER COACH & EMU

 SFB-010 Track gauge : 1,435 mm Max speed : 120 km/h Wheel base : 1,800 mm	 SFB-011 Track gauge : 1,435 mm Max speed : 120 km/h Wheel base : 1,800 mm	 SFB-012 Track gauge : 1,435 mm Max speed : 80 km/h Wheel base : 1,676 mm	 SFB-013 Track gauge : 1,435 mm Max speed : 80 km/h Wheel base : 1,676 mm
 SFB-014 Track gauge : 1,435 mm Max speed : 120 km/h Wheel base : 1,800 mm	 SFB-015 Track gauge : 1,435 mm Max speed : 150 km/h Wheel base : 1,800 mm	 SMB-010B Track gauge : 1,676 mm Max speed : 120 km/h Wheel base : 1,689 mm	 SMB-011 Track gauge : 1,435 mm Max speed : 80 km/h Wheel base : 2,200 mm
 SMB-012 Track gauge : 1,435 mm Max speed : 80 km/h Wheel base : 2,200 mm	 SMB-013 Track gauge : 1,435 mm Max speed : 80 km/h Wheel base : 2,200 mm	 SMB-014 Track gauge : 1,435 mm Max speed : 120 km/h Wheel base : 2,000 mm	 SMB-015 Track gauge : 1,435 mm Max speed : 120 km/h Wheel base : 2,000 mm
 SMB-016 Track gauge : 1,435 mm Max speed : 120 km/h Wheel base : 2,000 mm	 SPB-100M Track gauge : 1,000 mm Max speed : 100 km/h Wheel base : 2,200 mm	 SPB-110 Track gauge : 1,435 mm Max speed : 200 km/h Wheel base : 2,600 mm	 SPB-120M Track gauge : 1,000 mm Max speed : 100 km/h Wheel base : 2,050 mm
 SPB-130 Track gauge : 1,435 mm Max speed : 160 km/h Wheel base : 2,200 mm	 SPB-140 Track gauge : 1,435 mm Max speed : 100 km/h Wheel base : 2,100 mm	 SPB-150N Track gauge : 1,067 mm Max speed : 100 km/h Wheel base : 2,200 mm	 SPB-160N Track gauge : 1,067 mm Max speed : 100 km/h Wheel base : 2,200 mm

Freight Wagon



Container Wagon



Military Flat Wagon



Two-Stage Loading Freight Car



Gondola wagon



Deep well flat car



Hot coil car



Ballast Hopper Car



Electric Poles Carrier



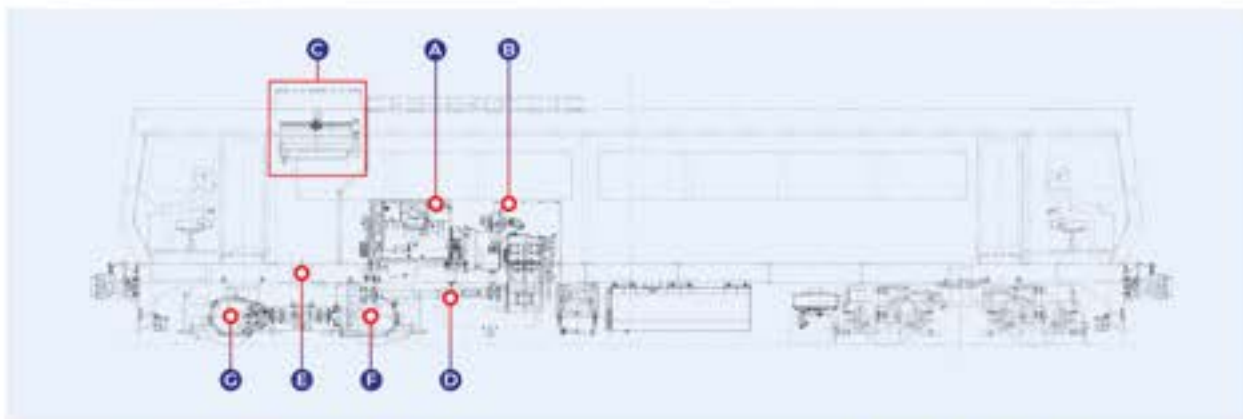
Oiltank car

Special Vehicles

(Self - Propelled)

Track Inspection Vehicle

This vehicle is utilizing for the visual safety inspector in high speed by several camera system, inspecting that crack on the rail, clamp status and so on.



Track Surface Measurement System

A Diesel Engine

- Manufacturer : Deutz
- Rating Power : 759 HP / 2100 rpm

B Transmission

- Manufacturer : Voith
- Model : L311
- Control method : TCU (Transmission control unit)

C Cooling equipment

- Hydraulic Motor

D 1st Propeller Shaft

- Deflection Angle : Max, 15°
- Telescopic Length : Max, 140mm
- Install Length : 2,042mm

E 2nd Propeller Shaft

- Deflection Angle : Max, 15°
- Telescopic Length : Max, 140mm
- Install Length : 850mm

F 1st Reduction Gear

- Gear Ratio : 36/18 x 45/36 = 2.5

G 2nd Reduction Gear

B2S(ballasted to slab) Track Machine

In the construction work for concrete sleeper installation, this track machine is capable of loading and unloading concrete sleepers by using the crane equipped at the roof.



Specifications

Tare Weight	40 ton
Load Weight	58 ton
Max Speed	120 (km/h)
Power Output	340PS
Axle Load	14,5 ton
Axle Arrangement	B - B
Overall Length	15,780 mm
Overall Width	2,800 mm
Overall Height	4,150 mm
Wheel Diameter	860 mm

Motor Car

The motor car is mainly used for towing railroad construction equipment, transporting railroad construction material, loading & unloading work.



Specifications

Model	SIM-15	SIM-25	SIM-35	SIM-45
Tare Weight	15 ton	25 ton	35 ton	45 ton
Max Speed	120 (km/h)	120 (km/h)	120 (km/h)	120 (km/h)
Power Output	290PS/2,200RPM	430PS/2,000RPM	430PS/2,200RPM	475PS/2,100RPM
Axle Load	7.5 ton	12.5 ton	7.58 ton	11.25 ton
Axle Arrangement	B	B	B or B - B	B - B
Hauling Capacity	130 TON	300 TON	300 TON	450 TON
Overall Length	6,570 mm	8,500 mm	9,750mm	10,550 mm
Overall Width	2,800 mm	2,800 mm	2,800 mm	2,800 mm
Overall Height	3,300mm	3,300mm	3,553 mm	3,792 mm
Wheel Diameter	860 mm	860 mm	860 mm	860 mm
Hydraulic Crane	Option	Option	Option	Option

Rehabilitation for KTX



This renovation work is replacing old interior of high speed train into new and advanced design to provide users with comfort and clean environment

Before
Rehabilitation



After
Rehabilitation



Rehabilitation for KTX-II Sancheon Snack Car



This renovation work is replacing old interior of high speed train into new and advanced design to provide users with comfort and clean environment

Before
Rehabilitation



After
Rehabilitation



Frameworks of Bogie & Carbody

Bogie Assembly



Bolster



Side Frame Welding



Transom Welding



Truck Frame Welding



Robot Welding



Truck Frame Machinery



3-Dimensional Measurement



Static Load Test

Carbody Assembly



End Block Welding



Middle Block Welding



3 Block Build-up



Keystone Plate



Side Structure



End Structure



Roof Structure



Car Body Assembly

Frameworks of Painting & Fitting out & Final test

Painting & Fitting out



Pre-painting work



Painting



After Undercoating



Cable Duct Assembly



Fitting Insulation



Unitex on the Floor



Electric Cable Connection



Controller Cable Connection



Plumbing Job



Inside Panel Installation



Door Engine Unit



Control Stand in Driving Cab



Aircon Installation



Door Installation



Driving Cab Module Installation



Inside Interior

Final Test



Leakage Test



Rolling Stock Gauge Test



High Potential Voltage Test



Brake Test

Reference

Bogie Frame & Bogie Assembly

Date(M,Y)	Contents	Products	Cars	Reference	Remark
90-97	SMSC Subway	Bogie Frame	717	Hyundai-Rotem	
91-97	Busan Transportation Corporation Subway	Bogie Frame	210	Hyundai-Rotem	
Dec.91	KORAIL Saemaeul Passenger Coaches	Bogie Frame	302	Hyundai-Rotem	KORAIL
Jan.92	KORAIL Electric Rail Car	Bogie Frame	360	Hyundai-Rotem	KORAIL
Jun.98	MANILA LRV	Bogie Frame	32	Hyundai-Rotem	Philippines
Dec.99	ADANA LRV	Bogie Frame	36	Hyundai-Rotem	Turkey
Jul.01	KTMB Passenger Car	Bogie Frame	15	MALAYSIA	
01-02	KORAIL Mugunghwa Passenger Coaches	Bogie Ass'y	120	KORAIL	
Mar.05	KTMB Passenger Car	Bogie Ass'y	13	KTMB	Malaysia
Dec.05	Busan Transportation Corporation Subway	Bogie Frame	100	Busan Trans. Corp.	
Aug.06	Tilting Bogie Assembly	Bogie Ass'y	12	KRRI	
Jul.15	India DMRS RS10 EMU	Bogie Frame	210	Hyundai-Rotem	
Jan.16	Line No.1 of Korail/Seoul Metro	Bogie Frame	90	Hyundai-Rotem	
Feb.16	Sungnam-Yeouju Line	Bogie Frame	48	Hyundai-Rotem	
Feb.16	Donghae Nambu Line	Bogie Frame	40	Hyundai-Rotem	
Mar.16	Brazil Salvador EMU	Bogie Frame	136	Hyundai-Rotem	
Jun.16	Line No.9 of Korail/Seoul Metro	Bogie Frame	70	Hyundai-Rotem	
Aug.16	India DMRS RS10 EMU	Bogie Frame	72	Hyundai-Rotem	
Nov.16	Korail Airport Railroad	Bogie Frame	12	Hyundai-Rotem	
Dec.16	Korail Suin Line	Bogie Frame	36	Hyundai-Rotem	
Dec.16	Line No.5 of Korail/Seoul Hanam Line	Bogie Frame	32	Hyundai-Rotem	
May.17	Line No.1 of Busan Metro	Bogie Frame	27	Busan Trans. Corp.	
Jan.18	Manila MRT 7 EMU	Bogie Frame	108	Hyundai-Rotem	Philippines
Dec.18	Changeable Gauge Bogie	Bogie Ass'y	3	KRRI	
Apr.19	Line no.1 of the Korail Metro	Bogie Frame	40	Hyundai-Rotem	
Apr.19	Canada RAV Driverless LRV	Bogie Frame	24	Hyundai-Rotem	
May.19	KORAIL Gyeongwon Line EMU	Bogie Frame	70	Hyundai-Rotem	
May.19	Tunis EMU	Bogie Frame	112	Hyundai-Rotem	
Nov.19	Korail Jinjeopseon EMU	Bogie Frame	50	Hyundai-Rotem	
Dec.19	MEGA, Metro Link Express	Bogie Frame	97	Hyundai-Rotem	India
May.20	Line No.1 of Busan Metro	Bogie Frame	48	Hyundai-Rotem	
*Feb.18	Sydney EMU	Bogie Frame	512	Hyundai-Rotem	In progress
*Sep.19	Taiwan TRA EMU	Bogie Frame	260	Hyundai-Rotem	In progress
*Sep.20	Egypt NAT Cairo EMU	Bogie Frame	192	Hyundai-Rotem	In progress

Passenger Coaches and Diesel[Electric] Multiple Units

Date(M,Y)	Contents	Products	Cars	Reference	Remark
Dec.08	TCDD DMU	Carbody	24	Hyundai-Rotem	Turkey
Dec.09	Tunis EMU	Carbody	76	Hyundai-Rotem	Tunis Metro
Dec.09	Almaty EMU	Outfitting	24	Hyundai-Rotem	Almaty Metro
Apr.10	1st Class, 2nd Class, Restaurant Car, Power Generating Car, Sleeping Car, Brake Van	Complete Vehicle	26	CFCO	R. of Congo
Jan.10	Matangi EMU	Outfitting	98	Hyundai-Rotem	New Zealand
Jan.11	1st Class, 2nd Class Car	Complete Vehicle	10	SETRAG	Gabon
Jul.13	Diesel-Electric Multiple Unit (DEMU)	Complete Vehicle	16	Woojin	Indonesia
Feb.14	Tunis EMU	Carbody, Outfitting	32	Hyundai-Rotem	
Aug.14	Tourist Car, Generator Car	Complete Vehicle	5	High One	
Oct.14	1st Class, 2nd Class, 3rd Class, Restaurant Car Sleeping Car	Complete Vehicle	22	Tanzania Railway	
Sep.15	Egypt Cairo EMU	Carbody, Bogie Ass'y	180	Hyundai-Rotem	
Mar.16	Brazil Salvador EMU	Outfitting	136	Hyundai-Rotem	
Jun.19	Line No.1 of Korail/Gwacheon-Ansan Line	Painting, Outfitting	46	Hyundai-Rotem	
Dec.19	Sleeping Coach	Complete Vehicle	12	KORAIL	
Oct.20	Tunis EMU	Carbody, Painting, Outfitting	112	Hyundai-Rotem	
Sep.20	Line No.2 of the Seoul Metro	Carbody, Painting, Outfitting	174	Hyundai-Rotem	
Sep.20	Tourist Train (Battery Powered Tram)	Complete Vehicle	8	Hanwha Systems	
Dec.20	Sleeping Coach	Complete Vehicle	2	KORAIL	
*Jan.19	Egypt NAT Cairo EMU	Carbody, Painting, Outfitting	256	Hyundai-Rotem	In progress

* Based on contract date

Diesel Locomotive

Date(M,Y)	Contents	Products	Cars	Reference	Remark
Jun.95	60 ton Diesel Hydraulic Loco		2	Sung Shin Cement	
May.98	75 ton Diesel Hydraulic Loco		3	POSCO	
May.98	75 ton Diesel Hydraulic Loco		4	POSCO	
Jun.01	75 ton Diesel Hydraulic Loco		10	POSCO	
Jan.02	75 ton Diesel Electric Loco (EMD)	Remodeling	1	SK Corp.	Oil&Gas plant
Apr.03	75 ton Diesel Hydraulic Loco		17	POSCO	
Jun.04	75 ton Diesel Hydraulic Loco		9	POSCO	
Aug.08	60 ton Diesel Hydraulic Loco		1	Seoul Metro	
Sep.08	75 ton Diesel Hydraulic Loco		1	Hyundai-Rotem	
Mar.09	75 ton Diesel Hydraulic Loco		8	Hyundai-Steel	
Sep.09	75 ton Diesel Hydraulic Loco		4	Saudi Cement Company	Saudi Arabia
Dec.10	75 ton Diesel Hydraulic Loco		1	Korea Railroad Corp. Airport	
Sep.11	75 ton Diesel Hydraulic Loco		5	Hyundai-Rotem	
May.12	75 ton Diesel Hydraulic Loco		3	POSCO	
Feb.13	75 ton Diesel Hydraulic Loco		1	High One	
Apr.13	75 ton Diesel Hydraulic Loco		1	POSCO	
Jun.13	GT26 CW (EMD) Diesel Loco	Rehabilitation	10	NLC	Pakistan
Feb.15	75 ton Diesel Hydraulic Loco		6	Brazil CSP	
Jan.17	75 ton Diesel Hydraulic Loco		1	POSCO	
Dec.18	80 ton Diesel Shunting Loco		1	PTT	Thailand

Motor Car & Special Vehicle

Date(M,Y)	Contents	Products	Cars	Reference	Remark
Feb.98	Soil Trailer		6	KORAIL	
00-04	25 ton Motor Car		61	KORAIL	
Apr.03	45 ton Motor Car		2	KORAIL	
Jan.05	Ballast Vacuum Loading Car		2	SMSC	
Mar.05	45 ton Motor Car		4	KORAIL	
Jun.05	10 ton Motor Car		2	Sam Sung SDS	DJET
Aug.05	35 ton Motor Car		3	TRA	Taiwan
Mar.06	35 ton Motor Car		6	TRA	Taiwan
Apr.06	Ballasted Tow Slab Track Machine		1	SMSC	
Apr.06	45 ton Motor Car		2	KORAIL	
May.06	25 ton Motor Car		1	Haw Sung Gauge	
May.06	Total Measuring Car		1	DJET	
Jun.06	25 ton Motor Car	Remodeling	14	KORAIL	
Dec.06	Track Geometric Inspection Car		1	KORAIL	
Dec.07	Ballasted Tow Slab Track Machine		3	SMSC	
Dec.07	Track Geometric Inspection Car		2	KORAIL	
Mar.09	25 ton Motor Car		1	Hyundai-steel	
Mar.13	35 ton Motor Car		1	U.S. Army	
Jul.14	40 ton Motor Car		1	High One	
May.18	30 ton Motor Car		35	KTMB	Malaysia
Nov.19	45 ton Motor Car		6	KORAIL	
May.20	Track Inspection Car		1	KRNA	
Oct.20	Track Inspection Car		1	KRNA	
Dec.20	45 ton Motor Car		7	KORAIL	
Oct.21	45 ton Motor Car		9	KORAIL	In progress

Freight Wagon

Date(M,Y)	Contents	Products	Cars	Reference	Remark
97-01	KORAIL(Y25) Freight Wagon	Bogie Ass'y	930	Hyundai-Rotem	
Dec.05	KORAIL(Y25) Freight Wagon	Bogie Ass'y	16	KORAIL	
Nov.06	KORAIL(Y25) Freight Wagon	Bogie Ass'y	28	KORAIL	
May.07	KORAIL(Y25) Freight Wagon	Bogie Ass'y	4	KORAIL	
02-04	Small Sleeping Car(5-8)		21	KORAIL	
Sep.02	Container Freight Wagon (NK)		100	Hyundai-Rotem	
Nov.03	Container Freight Wagon (NK)		96	KORAIL	
Jul.04	Gondola Wagon (NK)		100	KORAIL	
Jul.05	Container Transfer Flat Wagon (NK)		100	KORAIL	
Nov.07	Container Freight Wagon (NK)		110	KORAIL	
Nov.07	Transportation Car for Hot Coil		24	POSCO	
Mar.08	300 ton Drive Bogie		1	Doosan Heavy Ind.	
May.09	Electricity Pole Loading Car		16	KORAIL	
Jan.10	Tank Carrier Wagon		3	U.S.Army	
Jan.15	Freight Wagon (Military Tank Carrier)		4	U.S.Army	
Dec.16	Hopper Car		6	KORAIL	
Dec.17	Hopper Car		5	KORAIL	

Maintenance & Rehabilitation

Date(M,Y)	Contents	Products	Cars	Reference	Remark
Feb.13	1st Class, 2nd Class, Restaurant Car, Power Generating Car, Sleeping Car, Brake Van	Maintenance	26	CFCO	R. of Congo
Sep.13	44 Trainsets of Korea Express Trains	Rehabilitation	880	KORAIL	
Aug.15	Covered, Oil tank, Flat and Container Wagons Brake/Van	Heavy Maintenance	3799	KORAIL	
Dec.15	1st Class, 2nd Class, 3rd Class, Restaurant Car, Sleeping Car	Maintenance	22	Tanzania Railway	
Dec.15	Ballast Vacuum Loading Car, B25 Track Machine	Inspection & Maintenance	6	SMSC	
Jan.16	Tourist Car, Generator Car	Maintenance	5	High One	
Sep.16	130 ton Diesel Locomotive (EMD)	Maintenance	1	KORAIL	
Dec.16	Ballast Vacuum Loading Car, B25 Track Machine	Inspection & Maintenance	6	SMSC	
Jan.17	23 Train sets of Snack Car of Korea Express Trains II	Remodeling	230	KORAIL	

Reference

• SMSC	Seoul Metropolitan Subway Corporation	• TRA	Taiwan Railway Administration
• KORAIL	Korea National Railroad	• DJET	Dae Jeon Express Transit Corporation
• KTMB	Keretapi Tanah Melayu Berhad (KTMB) or Malayan Railways Limited	• KRRI	Korea Railroad Research Institute
• TCDD	Turkish Republic Railways (Türkiye Cumhuriyeti Devlet Demiryolları)	• CFCO	Chemin de Fer Congo Ocean
• SETRAG	Société d'exploitation du Transgabonais	• CSP	Companhia Siderurgica do Pecem
• SK Corp.	Sun Kyung Group	• NLC	National Logistics Cell
• POSCO	Pohang Iron and Steel Company	• L.R.V	Light Rail Vehicle
• PTT PTT	Public Company Limited	• KRNA	Korean Rail Network Authority

Certificates & Patents

Certificates



- 1 ISO9001
- 2 ISO14001
- 3 ISO TS22163(IRIS Certification)
- 4 Certificate of Designation for an Excellent Company
- 5 G-PASS Company Designation
- 6 Certificate of Company Affiliated Research Institute
- 7 Certificate of Trade Business Number
- 8 Promising Export SME(-2022.6.30)
- 9 Inno-Biz(19.06.11~22.06.10)
- 10 Certification of International Contractor
- 11 Certificate of Product-Specific Approved Exporter
- 12 Certification of KITA Membership

Patents



- Patents**
- 1 Patent Certificate (Sleeper truck)
 - 2 Patent Certificate (Automatic tension adjustment equipment)
 - 3 Patent application report - Inter-modal bogies
 - 4 Application number notice and application form
 - 5 Patent Certificate (Couchette for railroad vehicles)
 - 6 Patent Certificate (Rotary aligned bogies of rolling stock)
- Utility Model**
- 7 Utility Model Registration Certificate (Axle box for two axle bogies of rolling stock)
 - 8 Utility Model Registration Certificate (Bolster type bogie for rolling stock)
 - 9 Utility Model Registration Certificate (Axis support device for bogie of rolling stock)
 - 10 Utility Model Registration Certificate (Drive-wheel driving turn table)
 - 11 Utility Model Registration Certificate (Sleeper truck)
 - 12 Utility Model Registration Certificate (Shock absorber of axial suspension equipment for rolling stock bogie)
- 13 Design Registration Certificate