SHAGANG GROUP

Product Presentation

Wide and Heavy Plate | Hot-rolled Coil | Cold-rolled Coil | Wire Rod | Rebar | Rods and Bars | Steel Strand | Welded Steel Pipe | Special Billet

Shagang is the Model Enterprise for its high-strength steel bar in Jiangsu Province. Brand "Shagang" hot-rolled ribbed steel bar has the advantages of high strength, stable property, good anti-seismic property, etc. which is widely used in the high-level, long-span and anti-seismic construction engineering field, such as Shanghai Pudong International Airport, Shanghai World Expo., Jiangyin Yangtze River Bridge, Shanghai Maglev Transportation, Zhenjiang Runyang Bridge, etc. Brand "Shagang" hot-rolled ribbed steel bar has been always the first choice of client and got the title of "Client satisfied product", etc.

Product Mix

(1)Hot rolled rebar for reinforced concrete
(2)Carbon rebar for reinforced concrete
(3)Wire rod for reinforcement with plain surface
(4)Wire rod of ribbed steel bar

Hot rolled rebar for reinforced concrete

Typical Product Grade	Diameter (mm)	Executive Standard	Main Application
~~HRB400~~、HRB400E、HRB500、HRB500E	10～40	GB 1499.2-2007	Industrial and civil construction steel.
T6、T6E	6～28	SGJX-014-2013	Industrial and civil construction steel.

MINING AND MATERIALS

SHAGANG GROUP

VERIFICATION CHALLENGE 2:

RELEVANT AND COMPLETE IDENTIFICATION OF PRODUCER AND TRADER ENTITIES

Jiangsu Shagang Group Co. Ltd (Shagang)

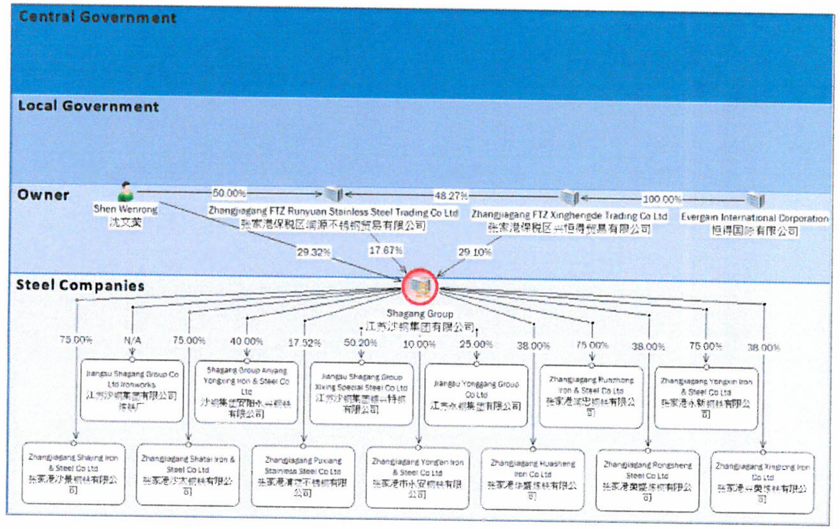
- Exporter questionnaire (RIC Inv 301):
  - 6 manufacturing units involved in production of GUC
  - 4 domestic trading units involved in domestic sales
  - 2 export trading units involved in sale of GUC to Australia
  - All manufacturing, administration and marketing functions are performed at a central location – Jinfeng Town, Zhangjiagang City, Jiangsu Province.

- Shagang Group :
  - Jiangsu Shagang Group Co., Ltd
  - Jiangsu Shagang Co., Ltd
  - Huaigang Special Steel Co., Ltd of Jiangsu Shagang Group
  - Anyang Yongxing Iron & Steel Co., Ltd. of Jiangsu Shagang Group
  - Xixing Special Steel Co., Ltd. of Jiangsu Shagang Group
  - Jiangsu Shagang International Trade Co., Ltd
  - Jiangsu Yonggang Group Co. Ltd

Please refer to [CONFIDENTIAL Exhibit G-1: Production Process Flowchart]. For Honchang Wire, Rongsheng Steel, Shajing Steel and Hongxing Wire, steel wire rods are manufactured by using the same production facilities as those used for rebar in coil. However, no scrap or by-products that result from producing the goods.

SHAGANG GROUP

https://www.steel.org/~/media/Files/AISI/Reports/Steel-Industry-Coaliton-Full-Final-Report-06302016



On November 13, 2014, the Department of Commerce (Commerce) announced its affirmative final determinations in the antidumping duty (AD) and countervailing duty (CVD) investigations of imports of carbon and certain alloy steel wire rod from the People's Republic of China (China).

FINAL DUMPING MARGINS:

COUNTRY	EXPORTER/PRODUCER	DUMPING MARGINS	CASH DEPOSIT RATE*
China	Rizhao Steel Wire Co., Ltd./Rizhao Steel Wire Co., Ltd.	106.19%	93.18%
	Hunan Valin Xiangtan Iron & Steel Co., Ltd./Hunan Valin Xiangtan Iron & Steel Co., Ltd.	106.19%	93.18%
	Jiangsu Shagang International Trade Co., Ltd./Zhangjiagang Shajing Steel Co. Ltd.	106.19%	93.18%
	Jiangsu Shagang International Trade Co., Ltd./Zhangjiagang Runzhong Steel Co., Ltd.	106.19%	93.18%
	Jiangsu Shagang International Trade Co., Ltd./ Zhangjiagang Hongxing Gaoxian Co., Ltd.	106.19%	93.18%
	Jiangsu Shagang International Trade Co., Ltd./ Zhangjiagang Rongsheng Steel-Making Co., Ltd.	106.19%	93.18%
	Jiangsu Shagang International Trade Co., Ltd./ Jiangsu Runzhong High-Tech Co., Ltd.	106.19%	93.18%
	Jiangsu Shagang International Trade Co., Ltd./ Zhangjiagang Hongchang Gaoxian Co., Ltd.	106.19%	93.18%
	China-Wide Rate	110.25%	97.24%

*The cash deposit rates account for the export subsidy rate of 13.01 percent

[Confidential subscription extract:
Wire Rod anti-dumping measures - Thailand

SHAGANG GROUP

VERIFICATION CHALLENGE 3:

IDENTIFICATION OF RELATED PARTY TRANSACTIONS WITHIN THE GROUP – RAW MATERIAL PURCHASES AND SALES

History of Shagang Group

Shagang Group, a Chinese national industrial enterprise, is headquartered in Zhangjiagang City, Jiangsu Province, China. In 2013, Shagang Group produced ~35 million tonnes of liquid steel, ranking it the 7th largest steelmaker in the world.

The **timeline** below covers the **history** of the firm.

- **1975:** Jiangsu Shagang Group Co incorporated in 1975.
- **2001:** Acquisition of Thyssen Dortmund works for Euro 30m.
- **2006:** Buys 90.5% of Jiangsu Huai Steel for 2 bn yuan.
- **2007:** Shagang acquires 80% of Yongxing Steel Company Ltd.
- **2007:** Shagang purchases 25% of Jiangsu Yonggang Group Co.
- **2007:** Shagang takes control of Xinrui Special Steel Co Ltd.
- **2007:** Acquires 90% stake in Australian Bulk Minerals (ABM).
- **2008:** Shagang fails in bid to acquire Namisa iron ore stake in Brazil.
- **2009:** Talk of Shagang's desire for overseas listing/strategic partner.
- **2012:** Shagang ranks first in China's list of top non-state 500 firms.
- **2012:** Talk of link-up with Baosteel to create 80 mt/yr giant.
- **2012:** Signs agreement for merger with scrap supplier Fengli Group.
- **2013:** Shagang sets up new international headquarters in Singapore.
- **2014:** Plans issue of short term financing bond worth CNY 2 billion.
- **2015:** Sell 55% stake in Shenzhen-listed Jiangsu Shagang Group Co.

SMS Meer – Concast Project

- "The **meltshop operated by Zhangjiagang Hongchang Wire Rod (ZHW)** has been designed to produce high end long product special grades for the expanding automotive industry in China".
- "Since the beginning of the 1990's, SMS Concast has been a key supplier of continuous casting technology for the Shagang Group in the Jiangsu Province. In total, the group ordered as many as 71 casting strands for long products in various machines, all designed by SMS Concast."

PLANT INFORMATION

Products	Billets: 150-160 mm sq. Steel grades: carbon/structural SBQ capable
Capacity	1,500,000 t of prime billets per year
Key features	Raw material charging ratio: steel scrap with hot metal charging, in case of power shortage even 100% hot metal possible

PROJECT INFORMATION

Customer	Shagang Group
Location	Jiangsu Province, China
Commissioning	2007

Shagang – Raw Materials Supply

[Confidential information – raw material supply]

Zhangjiagang Hongchang Wire Rod (ZHW)

Article in "Archives of Metallurgy and Materials – Vol 53 (2008) : The hot metal meets the electric arc furnace steelmaking route" details commissioning of this EAF project by SMS Concast.

- "Shagang Group runs several melt shops equipped both with BOF and EAF units and has gained a solid experience of using hot metal in the EAF process."
- "Hot metal share exceeding 40% has been considered as a maximum limit above which the EAF productivity is reduced due to insufficient oxygen injection capacity."
- "The hot metal is produced in four blast furnaces".

The table below shows the results from heats produced with a base charge configuration with about 35% of hot metal.

TABLE 3

	AVERAGE	BEST RESULT
Power ON Time [min]	25	21
Power OFF Time [min]	14	
Tap-to-Tap Time [min]	39	35
Energy Consumption [kWh/t Liquid Steel]	200	160
Tapping Temperature [°C]	1620	
Tapping Carbon Content [%]	0.05	
Natural Gas Consumption [Nm^3/t Liquid Steel]	4	
Total Oxygen Consumption [Nm^3/t Liquid Steel]	43	38
Lime + Dolo Cons. [kg/t Liquid Steel]	45	
Injection Carbon Consumption [kg/t Liquid Steel]	9	
Electrode Consumption [kg/t Liquid Steel]	1	
Yield Charge to Liquid Steel	90.0%	

SHAGANG GROUP

VERIFICATION CHALLENGE 4:

RELEVANT GOVERNMENT CONTROL AND INFLUENCE OF CHINA STEEL INDUSTRY POLICIES

Jiangsu Shagang Group Co. Ltd (Shagang)

The Respondent is not aware of any such GOC opinions, directives, decrees, promulgations, measures, etc. concerning the iron and steel industry/sector that were put in place or operating during the investigation period.

"Largest Private Steel Enterprise in China" – number 7 on World Steel Ranking

"In the future, Shagang Group will conscientiously implement the State policy concerning the steel industry development"

China.org article 2007 "Shen Wenrong: the steel industry giant"

- "As a high energy-consuming industry, the iron and steel sector is a key target for state-level macro-control policies. Therefore, Shen attaches a high importance to the study of and compliance with state industrial policy."

Jiangsu Shagang Group Co. Ltd (Shagang)

Response:

No. Business' (and/or all other entities our business is related to), Board of Directors or Board of Shareholders does not have a representative from the Chinese Communist Party (CCP).

Shagang Chairman Shen Wenrong Speech – Jan 31st 2014

The Management of the Company believes, under the guidance of the spirits of the 18th National Congress of the Communist Party of China (CPC) and the Third Plenary Session of the 18th CPC Central Committee, and with the correct leadership of Party committee of the higher level and the governments, the all Shagang workers and staffs who have possessed upholding plain living and hard struggle, and the courage to bring forth new ideas, will be able to firm the confidence and march forward courageously so as to struggle to climb towards the new goals and new heights. We shall further create and expand the Company's competitive advantages. We shall make new and greater contributions in order to accelerate to realize Shagang planning target of development, to revitalize China's national steel industry, and to achieve the "Chinese Dream" of the great rejuvenation of the Chinese Nation!

Shagang - Private Company?

Significant Chinese government ownership is also present in **Jiangsu Shagang Group**, which is billed as the largest private steel enterprise in China and the country's fourth largest steel producer.7 The firm was formed in 1975 as a village enterprise,8 and changed its name to Jiangsu Shagang Group in 1995. The firm's ownership status changed in 2001, during a period of asset stripping management buyouts in the Chinese steel industry. Approximately 17 percent of the firm was purchased by the plant general manager and 25 percent of the firm was sold to the Jiangsu SASAC. An additional 23 percent went to the company's labor union, which is controlled by the Chinese Communist Party,9 and almost 35 percent went to the "employees of Shagang." That same year, the firm doubled its capacity by acquiring a German mill and reassembling it in China. In 2006, it acquired Huaigang, a specialty steel producer whose ownership has at various times included the municipal government of Huai'an, the provincial government of Jiangsu, and the Nanjing Iron & Steel Group, which is owned by the Jiangsu Province SASAC.10 In short, even China's largest privately owned producer is substantially state-owned, and appears to have received capital inflows from the state in the same year it doubled its capacity.

Source : Lexology article "Government ownership and control of China's "private" steel producers (Oct 2007)

Congressional Research Service

China's Steel Industry and Its Impact on the United States: Issues for Congress

Rachel Tang
Analyst in Industrial Organization and Business

September 21, 2010

Almost all major Chinese steel producers are state-owned, except Shagang Steel, which is the largest privately owned steel company in China. As a result, the company is not as vulnerable to foreign trade suits involving anti-dumping or government subsidies as some of the state-owned steel producers.

However, this does not imply that Shagang operates entirely in a market-oriented environment. According to World Steel Dynamics, an industry consulting and data services firm, even as a private enterprise, Shagang follows the guidelines that govern other Chinese steel companies: business expansion programs must be approved by the central and/or local government; the local government collects a portion of its value added taxes; and the top management personnel of Shagang are Communist Party members.[15]

[15] World Steel Dynamics, "Shagang Steel: World Class Steelmaker" (November 11, 2009).

https://www.steel.org/~/media/Files/AISI/Reports/Steel-Industry-Coaliton-Full-Final-Report-06302016

Total Amount of Subsidies Received

Shagang Group reported that it has received total government subsidies in the amount of RMB 204,258,877,[205] RMB 154,962,870 in 2013,[206] and RMB 517,960,069 in 2012;[207] the company also reported receiving total government subsidies in the amount of RMB 529,166,102 in 2011,[208] RMB 539,506,268 in 2010[209] and RMB 129,960,609 in 2009.[210] According to the auditing report of the company in 2008, the company did not receive any government subsidy in 2008.[211]

Cash Grants and Capital Infusions

At the beginning of 2014, Shagang Group received "National Energy-Saving Technology Transformation Financial Reward Fund (国家节能技改专项财政奖励资金)" worth RMB 15,980,000.[213]

In 2014, Shagang Group received national special financial reward funding of RMB 5 million for "Large Blast Furnace Dehumidification Energy-Saving Transformation Project (大型高炉鼓风脱湿节能改造项目)" from the Ministry of Finance.[214]

In 2014, Huaigang Special Steel Co Ltd (淮钢特钢有限公司) received "Jiangsu Province 2014 First Industry and Information Industry Transformation Leading Fund (江苏省 2014 年度第一批工业和信息产业转型引导资金)" worth RMB 100,000.[215]

In 2013, Zhangjiagang Government rewarded the company a special rewarding fund for the good results of Shagang Steel's 2013 technology standards implementation with RMB 450,000.[216]

In 2013, the company received government financial rewards worth RMB 235,000 from Zhangjiagang Government.[217]

In 2013, the subsidiary Huaigang Special Steel Co Ltd (淮钢特钢有限公司) received "Jiangsu Province 2013 Enterprises Innovation and Achievements Transformation Special Supportive Fund (江苏省 2013 年省级企业创与成果转化专项资金扶持)" worth RMB 15 million.[218]

华菱钢铁
VALIN STEEL

Background information

Hunan Valin - Production

- From exporter questionnaire response (EQR RIC Inv 301):
  - Wire rods with alloy for exports are under different tariff codes from the product without alloy.
  - "Adding little [alloy] element into the product doesn't change the product cost so much, but it will bring some [matter] to the company, that's the main reason for the producers to do so."
  - "Purchase of raw materials, including iron ore, coking coal and coal"
  - "We import a lot of iron ores from overseas markets"
  - "We received some [grants] in the period of investigation"
  - National & regional 5-year plans – "we don't have such plans and have no idea about the Plans"
  - "Electricity we purchased is based on the unified price for Great Industry Electricity. We produce gas by ourselves"
- 3x steelmaking subsidiaries, only 1 appears to make wire rod – Valian Xiangtan Iron & Steel Co. Ltd. Monthly production of wire rod = 300kt, 40kt exported (SBB Platts)
- Integrated production facility – iron & coke-making through to GUC (SBB Platts reported production issues at Valin's blast furnaces in 2014)

华菱钢铁
VALIN STEEL

VERIFICATION CHALLENGE 1:

RELEVANT GOVERNMENT CONTROL AND INFLUENCE OF CHINA STEEL INDUSTRY POLICIES

Hunan Valin - Ownership

Source : Wikipedia

Hunan Valin Steel Co., Ltd. is a Chinese state-owned company based in Changsha.

In 2005, Netherlands-registered Mittal Steel bought a 37.17% stake in Hunan Valin Steel Tube Wire, a subsidiary of Valin, for US$314m.

In 2009, Hunan Valin Steel acquired a 16.5% stake in Australia's third biggest iron ore producer at the time, Fortescue Metals, for US$771 million. Through the acquisition, Valin Steel hoped for better access to Australia's mineral resource market.

Hunan Valin announced a major company restructuring in 2016, publishing plans to shift into financial services and electricity generation due to overcapacity in the Chinese steel market and reduced profits.

This decision caused ArcelorMittal to transfer roughly 10% of its shares in Hunan Valin Steel, worth 1.1 billion yuan ($165.9 million), to the state-owned China Reform Fund. This represents ArcelorMittal's entire stake in Hunan Valin Steel.[9]

Source : SteelOrbis 4 July 2017

Hunan Valin Xiangtan Steel sees gross profit of RMB 1.0 billion in H1

Chinese steelmaker Hunan Valin Xiangtan Iron and Steel Co., Ltd has posted a gross profit of RMB 1.0 billion ($0.15 billion) for H1 this year.

Government subsidies and policies

Refer p.179, Valin Group 2014 Annual Report

计入当期损益的政府补助（与公司正常经营业务密切相关，符合国家政策规定、按照一定标准定额或定量持续享受的政府补助除外）

Profit or loss of government subsidies (and closely related to the Company's business , in line with national policies and regulations, except in accordance with certain fixed amounts on a continuous government subsidies)

RMB 43,805,311.10

2010 Project by Hunan Valin

Source: TUVRheinland Validation Report – CDQ Waste Heat Recovery Project of Hunan Valin Xiangtan Iron & Steel Co. Ltd

- All energy for sinter and coke-making is sourced from the Central China Power grid.
- "As the mineral resources, energy price, transportation conditions and market background are different in each province of China, a range of key economic factors for steel plants vary across regions. Accordingly; only projects within the same province can be truly comparable."
- "In addition, a number of key economic factors vary from province to province, the unit costs of project output (electricity) may differ more than 20% for similar technology projects in different province, so only the Hunan Province is defined as the relevant region for common practice analysis. (For example, the electricity purchase price is estimated to be 0.53 Yuan/kWh for the proposed project, and the electricity purchase price in other similar CDQ WHR CDM project in Wugang, located in nearby Hubei Province, is about 0.43 Yuan/kWh. This is a difference of more than 20%, so Hunan Province is defined as the relevant region for common practice analysis."

Government subsidies and policies

Program Name (English translation)	*Program Name (Chinese)*	*NON-CONFIDENTIAL ATTACHMENT C-1.9.1 Reference (page no.)*	*Opening Number*	*New Issue: Subsidy Amount*	*Period included in operating income*	*Closing*	*Relating to Assets/Income*
Energy Saving	节能环保	135	177,566,652.47	7,000,000.00	6,881,475.67	177,685,176.80	与资产相关
Technology Development	技术开发	135	208,826,406.80		11,763,140.59	197,063,266.21	与资产相关
Land Acquisition Compensation	征地补偿	135	35,539,447.16		725,294.84	34,814,152.32	与资产相关
Other [Government Grants]	其他	135	600,000.00		435,000.00	1,035,000.00	与资产相关
			Current Amount	*Last Year*			
Energy Saving	节能环保	141	6,881,475.67	6,112,969.20			与资产相关
Technology Development	技术开发	141	11,763,140.59	11,770,308.19			与资产相关
Land Acquisition Compensation	征地补偿	141	725,294.84	725,294.84			与资产相关
Comprehensive utilisation of resources tax	资源综合利用退税	141	131,437,586.56	206,968,510.32			与收益相关
Other rebates [Government Grants]	其他退税	141	15,040,000.00	21,040,000.00			与收益相关
Interest [financial] discount	财政贴息	141	5,400,000.00	11,030,000.00			与收益相关
Energy Saving	节能环保	141	1,595,400.00	1,100,000.00			与收益相关
Technology Development	技术开发	141	2,400,000.00	4,000,000.00			与收益相关
Other Government Grants related to income	其他与收益相关的政府补助	141		197,968.57			与收益相关
			2014	*2013*	*2012*		
Profit or loss of government subsidies (and closely related to the Company's business , in line with national policies and regulations, except in accordance with certain fixed amounts on a continuous government subsidies)	计入当期损益的政府补助（与公司正常经营业务密切相关，符合国家政策规定、按照一定标准定额或定量持续享受的政府补助除外）	10	43,805,311.10	262,945,051.12	10,257,650.00		
Valin Xiangtan Steel in 2014 full-year total of 433 million yuan investment in environmental protection special fund	华菱湘钢2014年全年累计投入环保专项资金4.33亿元	29	433,000,000				
Valin Lianyuan Steel 2014 full-year total of 134 million yuan investment in environmental protection special fund	华菱涟钢2014年全年累计投入环保专项资金1.34亿元	29	134,000,000				
Valin Steel Tube 2014 full-year total of 6,228 ten thousand yuan of special funds into environmental protection	华菱钢管2014年全年累计投入环保专项资金6,228万元	29	62,280,000				
Comprehensive utilization of resources VAT refund [" State Administration of Taxation on Adjusting improve the resource utilization of products and services of value-added tax policy notice" (Cai Shui [2011] No. 115)]	资源综合利用增值税退税款［《财政部国家税务总局关于调整完善资源综合利用产品及劳务增值税政策的通知》（财税[2011]115 号）］	10	131,437,586.56				

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VALIN STEEL

VERIFICATION CHALLENGE 2:

IDENTIFICATION OF RELATED PARTY TRANSACTIONS WITHIN THE GROUP – RAW MATERIAL PURCHASES AND SALES

Related Raw Material Suppliers

Refer p.23, Valin Group 2014 Annual Report

- China Pingdingshan Shenma Group azure Energy Development Co., Ltd. (中国平煤神马集团天蓝能源发展有限公司)
- GLOBAL ORE PTE.LTD

华菱钢铁
VALIN STEEL

VERIFICATION CHALLENGE 3:

RELEVANT AND COMPLETE DOMESTIC AND EXPORT GOODS MODEL MATCHING

Hunan Valin

- From exporter questionnaire response (EQR):
  - Attachment product catalogues show a wide range of products
  - Must focus on 5.5-14mm low carbon (<0.2%C) grades
  - Not able to find additional info on Standard Q/OHAB106-2014 – grade BL1

低碳钢 Low-carbon steel

牌号及规格 Grade and specifications

牌 号 Grade	规格 mm Specification	交货标准 Standard	主要用途 Application
Q195b、BL1	Φ5.5-Φ14	Q/OHAB106-2014	网罩、钩架、电话线、花枝线等 Wire mesh, hook housing, telephone wire, etc Wire mesh, hook housing, telephone wire, etc
SAE1006-SAE1030	Φ5.5-Φ46	ASTM A29/A29M-2005	网栅、网罩、风扇罩、钩架等 Wire mesh, fan guard, hook housing, etc