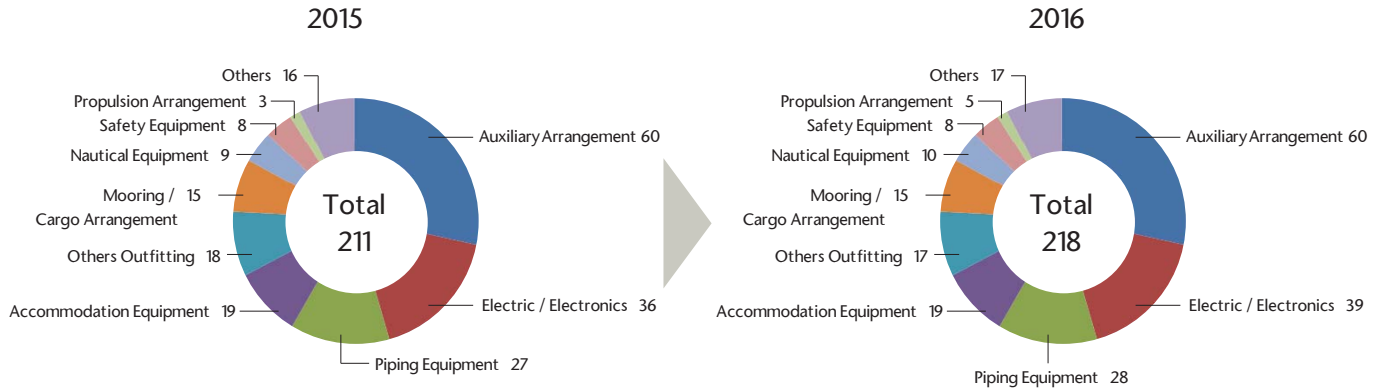


Marine Equipment

● No. of KOMEA Member Companies

(Unit: No. of Companies)



● Member Location

(Unit: No. of Companies)

Area	Seoul	Busan	Incheon	Ulsan	Daegu	Daejeon	Gyeonggi
No.	8	120	5	8	1	1	11
Area	Gyeongnam	Gyeongbuk	Chungnam	Chungbuk	Jeonam	Others	Total
No.	50	7	3	2	1	1	218

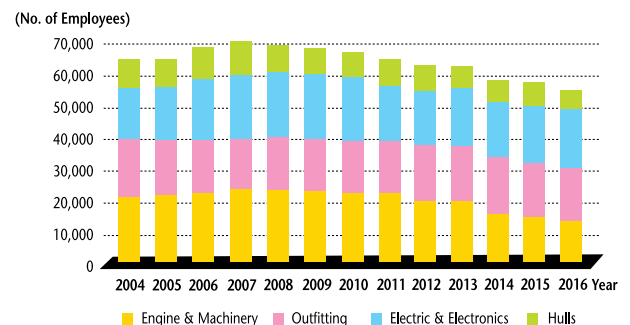
Source: KOMEA

● Number of Employees: Standing at 56,026 as of the End of 2016

Korea's combined marine equipment workforce stood at 56,026 persons in 2016. The figure represents a slight downward trend compared with 58,263 in 2015 and 58,881 in 2014.

The number of employees in Korea's marine equipment sector in 2016 was comprised of 18,147 in electric & electronics, 16,141 in engine & machinery, 15,728 in outfittings and 6,010 in hulls.

Workforce Trend 2004-2016



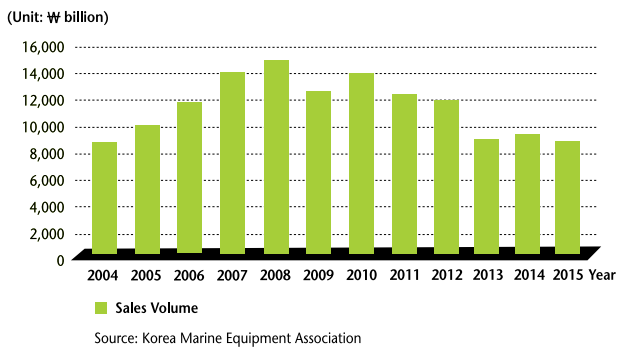
Source: Korea Marine Equipment Association

● Sales Volume & Production

Sales Volume Rises to 9.76 Trillion Won

The sales volume of the 211 members of Korea Marine Equipment Association (KOMEA) reached 9.76 trillion won in 2014, compared with 9.4 trillion won in 2013. KOMEA members roughly account for 80% of total Korean marine equipment sales.

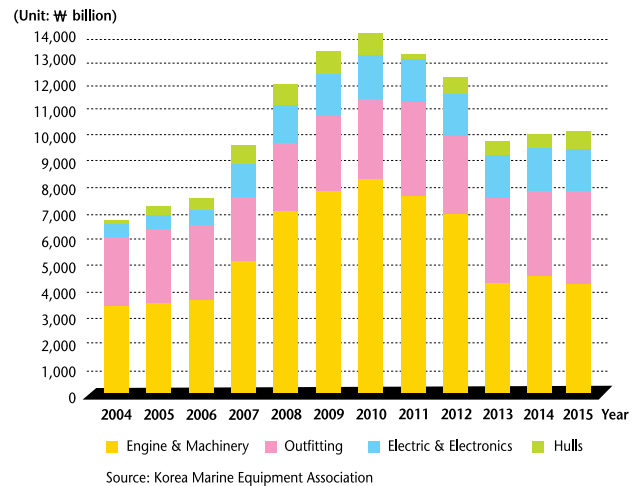
Sales Volume Trend 2004-2015



Production Crosses the 10 Trillion Won Level

KOMEA member companies posted 10 trillion won in marine equipment production in 2014, compared with 9.8 trillion won in 2013, which is estimated to represent about 80% of Korea's total marine equipment output.

Production Trend 2004-2015



Marine Equipment Production & Supply

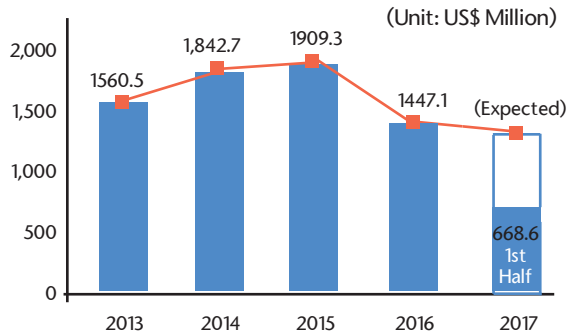
Source: Korea Marine Equipment Association (KOMEA) (Unit: ₩ Mil.)

Dept.	Item	Product			Supply		
		2013	2014	2015	2013	2014	2015
Hull	Chemical Product	31,432	27,940	48,921	30,043	28,240	49,063
	Welding Material	201,379	195,203	247,105	201,684	194,625	244,219
	Casting & Forging	264,513	266,217	304,290	264,355	275,121	342,109
	Metalic Product	46,628	45,988	47,342	45,397	45,942	44,209
	Sub Total	543,952	535,348	647,658	541,479	543,928	679,600
Engine & Machinery	Propulsion Arrangement	3,242,894	3,431,938	3,294,869	3,164,876	3,266,152	2,834,230
	Auxiliary Arrangement	1,196,095	1,265,970	1,032,422	1,178,744	1,172,755	987,670
	Sub Total	4,438,989	4,697,908	4,327,291	4,343,620	4,438,907	3,821,900
Out Fitting	Steering Arrangement	58,419	64,217	63,785	57,568	63,325	61,123
	Nautical Equipment	51,560	46,960	49,090	50,147	47,941	48,930
	Mooring Arrangement	187,618	204,003	200,653	181,197	206,565	197,450
	Cargo Arrangement	514,147	505,049	509,707	516,143	506,852	508,237
	Safety Equipment	178,190	172,212	196,096	158,104	171,068	184,458
	Accommodation Equipment	1,647,679	1,736,964	1,866,048	1,437,690	1,750,838	1,734,532
	Piping Equipment	554,167	466,560	663,291	542,160	445,113	600,747
	Fish Arrangement	1,028	1,245	1,381	1,432	1,247	1,123
Sub Total	3,192,808	3,197,210	3,550,051	2,944,441	3,192,949	3,336,600	
Electric & Electronics	Power Arrangement	241,399	253,213	234,291	234,210	252,009	217,098
	Wiring Equipment	935,960	913,700	909,844	932,417	915,590	826,734
	Illumination Arrangement	162,666	168,870	166,778	163,118	156,756	154,678
	Communication Equipment	57,288	58,089	66,289	54,371	57,514	64,971
	Meters	191,134	207,342	198,890	190,010	206,541	186,719
	Sub Total	1,588,447	1,601,214	1,576,092	1,574,126	1,588,410	1,450,200
Total		9,764,196	10,031,680	10,101,092	9,403,666	9,764,194	9,288,300

Marine Equipment

● Export Status of Korean Marine Equipment

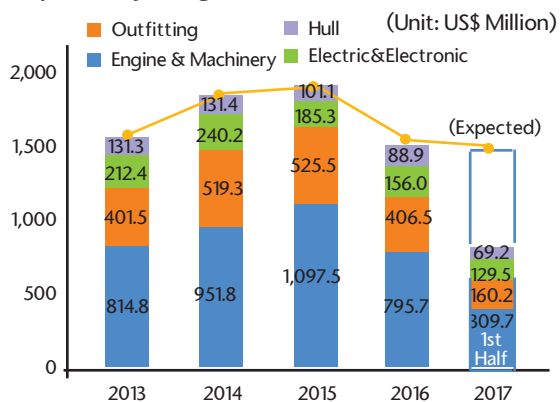
1. Exports by Year



1H Exports Amounted to US\$742 Million in 2016

Korean marine equipment exports reached US\$668.6 million during the first half of 2017. Considering the overall stagnation of the global market, total exports for all of 2017 are not seen to surpass last year's record of US\$1.44 billion.

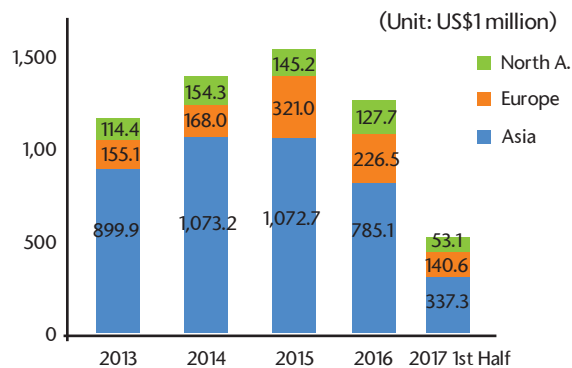
2. Exports by Large Classification of Items



Engine & Machinery Takes Lion's Share

Breaking down the Korean marine equipment exports during the January-June period this year, engine & machinery topped the list with US\$309.7 million, followed by outfittings at US\$160.2 million, electric & electronics at US\$129.5 million & hulls at US\$69.2 million.

3. Export Status by Continent

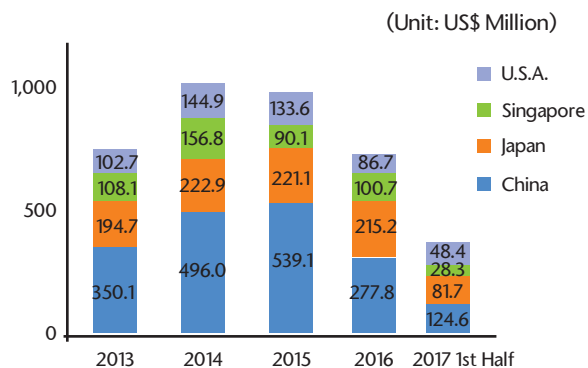


Asia... The Largest Market

Asia continued to be the largest market for Korean marine equipment during the first half of this year. Korean shipments of marine equipment to Asia stood at US\$337.3 million during the first six months of 2017.

Europe was the second largest destination of Korean marine equipment with US\$140.6 million, followed by North America with US\$53.1 million, South America with US\$35 million, Oceania US\$12.4 million, etc.

4. Export Status by Country



China.. The Largest Importer

By country, China was the largest importer of made-in-Korea marine equipment with US\$124.6 million during the January-June period of this year. It was followed by Japan with US\$81.7 million, USA with US\$48.4 million, Singapore with US\$28.3 million, etc.

● Certified World-Class Korean Marine Equipment Products

Item	Enterprise (Year)
Marine Diesel Engine (Over 6,000 BHP)	Doosan Engine Co., Ltd. (2002)
	Hyundai Heavy Industries Co., Ltd. (2002)
	STX Heavy Industries Co., Ltd. (2006)
High Pressure CO2 Fire Extinguishing System Marine Cable	NK Co., Ltd. (2002)
	Kukdong Electric Wire Co., Ltd. (2002)
	LS Cable Ltd. (2002)
	JS Cable Co., Ltd. (2002)
Marine Boiler	TMC Co., Ltd. (2007)
	Kangrim Industries Co., Ltd. (2002)
Steering Gear	Yoowon Industries Ltd. (2003)
Wall Panel	BIP Industries Co., Ltd. (2003)
	STACO Co., Ltd. (2003)
Crankshaft for Large Engine	Hyundai Heavy Industries Co., Ltd. (2003)
	Doosan Heavy Industries & Construction Co., Ltd. (2003)
	STX Heavy Industries Co., Ltd. (2009)
Synchronous Generator for Marine Application Marine Diesel Engine (4-Stroke)	Hyundai Heavy Industries Co., Ltd. (2004)
	STX Engine Co., Ltd. (2004)
Fixed Pitch Propellers for Marine Propulsion	Hyundai Heavy Industries Co., Ltd. (2004)
	Hyundai Heavy Industries Co., Ltd. (2004)
Turbo-Charger for Medium-Size Marine Diesel Engine (Below 5,000kw)	STX Heavy Industries Co., Ltd. (2005)
Crankshaft for 4-Stroke Engine	STX Heavy Industries Co., Ltd. (2006)
	Hyundai Heavy Industries Co., Ltd. (2006)
	Sunwoo CS Corp. (2012)
Main Bearing Support for Medium & Large-Size Marine Diesel Engine	DAECHANG SOLUTION CO., LTD. (2006)
Exhaust Valve for Large-Size Marine Diesel Engine (2-Stroke)	Samyoung M-TEK Co., Ltd. (2011)
Economizer	Keumyong Machine Co., Ltd. (2006)
Marine Switchboard	Kangrim Industries Co., Ltd. (2006)
Cargo Oil Pump and Water Ballast Pump	Hyundai Heavy Industries Co., Ltd. (2007)
Guide Shoe for Large-Size Marine Diesel Engine	Hyundai Heavy Industries Co., Ltd. (2007)
Cylinder Liner for 2-Stroke Marine Diesel Engines	Shina Metaltech Co., Ltd. (2007)
	Cape Industries Ltd. (2007)
	STX Heavy Industries Co., Ltd. (2007)
Air Cooler for Marine Engines	Donghwa Entec Co., Ltd. (2007)
Cylinder Frame for Two-Stroke Diesel Engine	Hyundai Heavy Industries Co., Ltd. (2008)
Turbocharger for Two-Stroke Diesel Engine	Hyundai Heavy Industries Co., Ltd. (2008)
Turbocharger for Two-Stroke Diesel Engine	STX Heavy Industries Co., Ltd. (2010)
Inert Gas Generator	Kangrim Industries Co., Ltd. (2008)
Electronic Control Fuel Supply Unit	Whayoung Co., Ltd. (2008)
High Voltage Motors for Marine Thruster	Hyundai Heavy Industries Co., Ltd. (2008)
Medium-Speed Diesel Engine Power Plant	Hyundai Heavy Industries Co., Ltd. (2008)
Marine Incinerator	Kangrim Industries Co., Ltd. (2008)
Marine Propulsion Shafting	Hyundai Heavy Industries Co., Ltd. (2009)
Side Thruster	Hyundai Heavy Industries Co., Ltd. (2009)

(Continued on p. 12)

Marine Equipment

(Continued from p. 11)

Item	Enterprise (Year)
Common Rail Unit	Wonil Co., Ltd. (2009)
Pistons for Medium-Speed Marine Diesel Engines	Samyoung Machinery Co., Ltd. (2009)
Water Mist Fire Fighting System for Machinery Areas	Tanktech Co., Ltd. (2009)
Fresh Water Generator	Donghwa Entec Co., Ltd. (2009)
Ceiling Panel For Marine Accommodation	BIP Industries Co., Ltd. (2009)
	STACO Co., Ltd. (2010)
Bathroom Unit For Marine Accommodation	BIP Industries Co., Ltd. (2009)
Integrated Control & Monitoring System	Hyundai Heavy Industries Co., Ltd. (2009)
145kV GIS	Hyundai Heavy Industries Co., Ltd. (2010)
Marine Ring Main Unit	Hyundai Heavy Industries Co., Ltd. (2010)
Dual-Fuel Diesel Engine	Wartsila-Hyundai Engine Company Ltd. (2010)
Lifeboat	Hyundai Lifeboats Co., Ltd. (2010)
Cylinder Head for Medium-Speed Diesel Engines	Samyoung Machinery Co., Ltd. (2010)
Unit Toilet	STACO Co., Ltd. (2010)
Marine Door	BN Cosmo (2010)
	STACO CO., LTD. (2016)
Cabin Unit	BIP Industries Co., Ltd. (2010)
	STACO Co., Ltd. (2015)
Automatic Solid-Liquid Separation Filter	Yoowon Industries Ltd. (2010)
Rip Corded Multi-Core Tube	Leejin Co., Ltd. (2010)
Cylinder Cover	Hansco Co., Ltd. (2011)
	DAECHANG SOLUTION CO., LTD. (2011)
Sewage Treatment Plant	Ilseung Co., Ltd. (2011)
Ballast Water Management System	Panasia Co., Ltd. (2012)
	NK Co., Ltd. (2013)
	Techcross Inc. (2015)
Emergency Generator for Marine Application	GPC Corporation (2012)
Marine Fluorescent Lights	Kukdong Elecom Co., Ltd. (2013)
	Daeyang Electric Co., Ltd. (2014)
I.C.C.P. & M.G.P.S.	K.C. Co., Ltd. (2013)
Cryogenic Pipe Insulation	Kangrim Insulation Co., Ltd. (2014)
Level Monitoring System	Hanla IMS Co., Ltd. (2014)
Connecting Rod	Hyunjin Materials Co., Ltd. (2014)
Energy Saving System (ESS)	DongHwa Entec (2015)
Plate Heat Exchanger	LHE Co., Ltd. (2015)
Air Vent Head	KwangSan Co., Ltd. (2015)
Heating Coil	KwangSan Co., Ltd. (2015)
Piston Rod	Hyunjin Materials Co., Ltd. (2015)
Inert Gas System (IGS)	Kangrim Heavy Industries Co., Ltd. (2015)
Multi-Core Tube	DAECHUN INDUSTRIAL CO., LTD. (2016)
Fresh Water Supply Unit	SAMKUN CENTURY CO., LTD. (2016)
Deck House	Shinhan Heavy Industries Co., Ltd. (2016)
Living Quarters	Shinhan Heavy Industries Co., Ltd. (2016)
Natural Gas & Special High Pressure Cylinder	ENK CO., LTD. (2016)
Cross Head Pin for Marine Engine	Hyunjin Materials Co., Ltd. (2016)
Electronic Control Rail Unit for RT-flex Vessel Engines	Whayoung Co., Ltd. (2016)