



# FACT BOOK 2019

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FACT BOOK 2019

# Corporate Section

## ▶ Corporate Profile

Corporate name: Yamaha Motor Co., Ltd.  
Founded: July 1, 1955  
Headquarters: 2500 Shingai, Iwata, Shizuoka 438-8501, Japan  
President: Yoshihiro Hidaka  
Capital: 85,797 million yen (as of Dec. 31, 2018)

Number of shares: Authorized: 900,000,000  
Issued: 349,914,284 (as of Dec. 31, 2018)

Number of employees: Consolidated basis: 53,977  
Non-consolidated basis: 10,614 (as of Dec. 31, 2018)

Group companies: Number of consolidated subsidiaries: 113 (Japan: 20 Overseas: 93)  
Number of non-consolidated subsidiaries accounted for by the equity method: 3  
Number of non-consolidated affiliates accounted for by the equity method: 27 (as of Dec. 31, 2018)

Lines of business: Manufacture and sales of motorcycles, scooters, electrically power assisted bicycles, boats, sailboats, personal watercraft, pools, utility boats, fishing boats, outboard motors, ATVs, recreational off-highway vehicles, racing kart engines, golf cars, multi-purpose engines, generators, water pumps, snowmobiles, small snow blowers, automobile engines, surface mounters, intelligent machinery, industrial-use unmanned helicopters, electrical power units for wheelchairs, helmets. Import and sales of various types of products, development of tourist businesses and management of leisure, recreational facilities and related services.



Yamaha Motor Co., Ltd.

## ▶ Corporate Philosophy

### - Corporate Mission -

#### **Kando\* Creating Company**

Offering new excitement and a more fulfilling life for people all over the world

Yamaha Motor strives to realize peoples' dreams with ingenuity and passion, and to always be a company people look to for the next exciting product or concept that provides exceptional value and deep satisfaction.

\* Kando is a Japanese word for the simultaneous feelings of deep satisfaction and intense excitement that we experience when we encounter something of exceptional value.

### - Management Principles -

#### **1. Creating value that surpasses customer expectations**

To continue to produce value that moves people, we must remain keenly aware of the customer's evolving needs.

We must strive to find success by always surpassing customer expectations with safe, high-quality products and services.

#### **2. Establishing a corporate environment that fosters self-esteem**

We must build a corporate culture that encourages enterprise and enhances corporate vitality.

The focus will be on nurturing the creativity and ability of our employees, with an equitable system of evaluation and rewards.

#### **3. Fulfilling social responsibilities globally**

As a good corporate citizen, we act from a worldwide perspective and in accordance with global standards.

We must conduct our corporate activities with concern for the environment and communities and fulfill our social responsibility with honesty and sincerity.

### - Action Guidelines -

#### **Acting with Speed Spirit of Challenge Persistence**

Meeting change with swift and informed action

Courage to set higher goals without fear of failure

Working with tenacity to achieve desired results, and then evaluating them

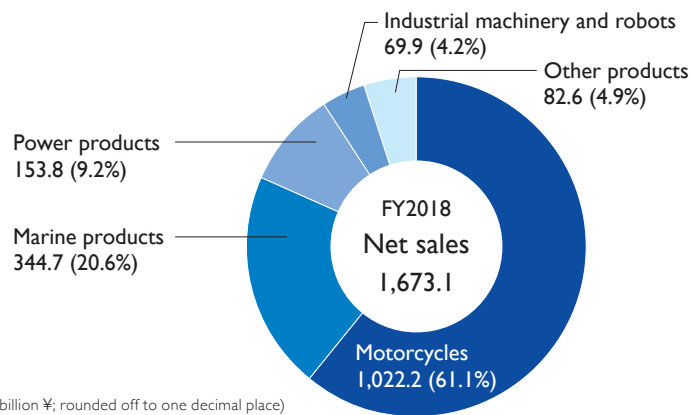
## ▶ Operating Performance (Consolidated Basis)

(Unit: billion ¥; rounded off to one decimal place)

	FY2016	FY2017	FY2018	FY2019 (Plan)
Net sales	1,502.8	1,670.1	1,673.1	1,700.0
Operating income	108.6	149.8	140.8	133.0
Ordinary income	102.1	154.8	138.0	135.0
Profit attributable to owners of parent	63.2	101.6	93.4	85.0
Exchange rate (USD)	109 JPY	112 JPY	110 JPY	105 JPY
Exchange rate (EUR)	120 JPY	127 JPY	130 JPY	120 JPY
Capital expenditures	61.3	56.5	55.1	66.0
Depreciation expenses	42.4	45.5	46.4	46.5
Research and development expenses	94.9	99.2	102.8	100.0
Equity ratio	40.5%	44.0%	45.9%	46.5%
Interest-bearing debt	364.4	353.5	356.7	400.0
Debt/equity ratio (gross)	0.68	0.57	0.54	0.56
ROE	12.3%	17.6%	14.6%	12.3%
Cash and cash equivalents at the end of the year	135.5	155.6	138.2	—
Percentage of overseas sales	89.1%	89.8%	90.0%	89.4%
Percentage of motorcycle business sales	61.9%	62.6%	61.1%	59.6%*
Net cash provided by (used in) operating activities	143.2	126.3	58.9	—
Net cash provided by (used in) investing activities	(46.5)	(53.2)	(48.3)	—
Net cash provided by (used in) financing activities	(67.6)	(52.8)	(26.4)	—

\*The financial services business is being made independent from the respective product businesses from the fiscal year ending December 31, 2019. Therefore, the "percentage of motorcycle business sales" for FY2019 (plan) is calculated excluding sales at the financial services business.

## ▶ Sales Breakdown by Business (Consolidated Basis)



(Unit: billion ¥; rounded off to one decimal place)

### Major products in each segment

"Motorcycles"

Motorcycles and knockdown parts for overseas production, etc.

"Marine products"

Outboard motors, boats, personal watercraft, pools, etc.

"Power products"

ATVs, recreational off-highway vehicles, snowmobiles, golf cars, generators, etc.

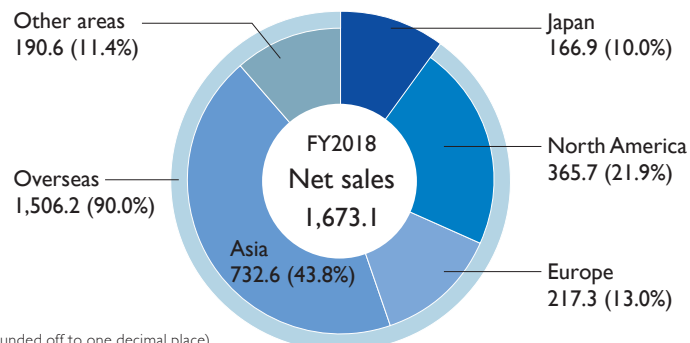
"Industrial machinery and robots"

Surface mounters, industrial robots, etc.

"Other products"

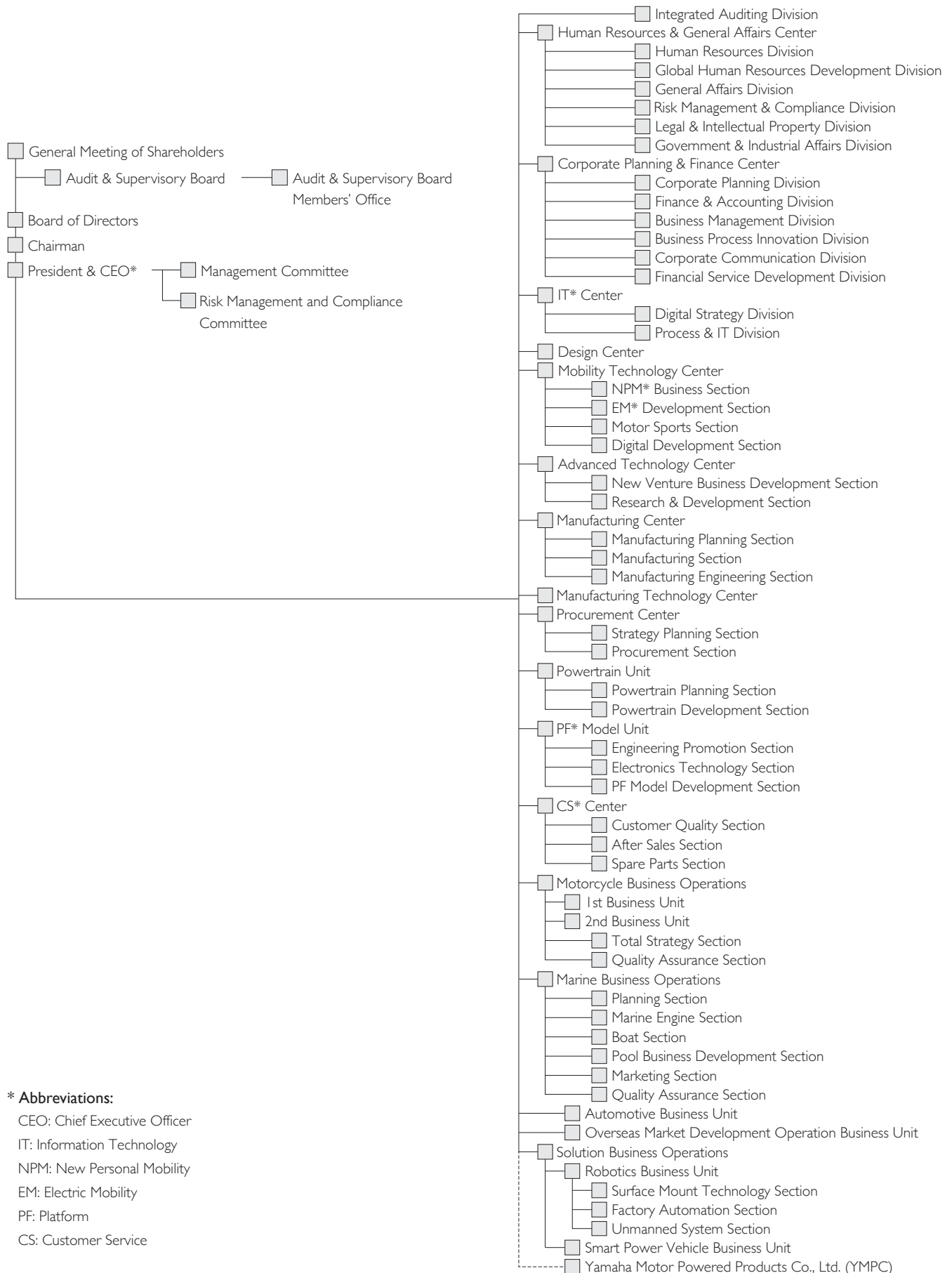
Electrically power assisted bicycles, automobile engines, etc.

## ▶ Sales Breakdown by Region (Consolidated Basis)



(Unit: billion ¥; rounded off to one decimal place)

# ► Organization (As of April 1, 2019)



**\* Abbreviations:**  
 CEO: Chief Executive Officer  
 IT: Information Technology  
 NPM: New Personal Mobility  
 EM: Electric Mobility  
 PF: Platform  
 CS: Customer Service

# ▶ Board of Directors, Audit & Supervisory Board Members and Executive Officers

(As of April 1, 2019)

## Board of Directors

Chairman and Representative Director  
**Hiroyuki Yanagi**



President and Representative Director  
**Yoshihiro Hidaka**

Chief General Manager in charge of Human Resources & General Affairs and Marine



Representative Director  
**Katsuaki Watanabe**

Chief General Manager in charge of Motorcycle, CS, Market Development, Automotive, and Advanced Technology



Director

**Toshizumi Katou**

Chief General Manager in charge of Solution, Power Products, and Alliance Strategy

Director

**Katsuhito Yamaji**

Chief General Manager in charge of Manufacturing, Manufacturing Technology, Procurement, and Powertrain

Director

**Makoto Shimamoto**

Chief General Manager of Vehicle Development and Design

Director

**Tatsumi Okawa**

Chief General Manager in charge of IT and Digital

Director (Outside)

**Takuya Nakata**

Director (Outside)

**Genichi Tamatsuka**

Director (Outside)

**Takehiro Kamigama**

Director (Outside)

**Yuko Tashiro**

## Audit & Supervisory Board Members

Audit & Supervisory Board Member  
**Kenji Hironaga**

Audit & Supervisory Board Member  
**Junzo Saitoh**

Audit & Supervisory Board Member (Outside)  
**Masahiko Ikaga**

Audit & Supervisory Board Member (Outside)  
**Masatake Yone**

## Executive Officers

President and Chief Executive Officer  
**Yoshihiro Hidaka**

Executive Vice President  
**Katsuaki Watanabe**

Managing Executive Officer  
**Toshizumi Katou**

Managing Executive Officer  
**Katsuhito Yamaji**

Senior Executive Officer  
**Makoto Shimamoto**  
Chief General Manager of Mobility Technology Center

Senior Executive Officer  
**Tatsumi Okawa**  
Chief General Manager of Corporate Planning & Finance Center

Senior Executive Officer  
**Hiroaki Fujita**  
Chief General Manager of Advanced Technology Center

Senior Executive Officer  
**Kazuhiro Kuwata**  
President of Yamaha Motor Corporation, U.S.A.

Senior Executive Officer  
**Hirofumi Usui**  
Chief General Manager of Marine Business Operations

Senior Executive Officer  
**Heiji Maruyama**  
Chief General Manager of Powertrain Unit, Senior General Manager of Powertrain Planning Section, Powertrain Unit, Chief General Manager in charge of Automotive Business, and Chief General Manager in charge of Mobility Planning, Mobility Technology Center

Senior Executive Officer  
**Satohiko Matsuyama**  
Chief General Manager of Manufacturing Center

Executive Officer  
**Akihiro Nagaya**  
Chief General Manager of Design Center

Executive Officer  
**Minoru Morimoto**  
President of PT. Yamaha Indonesia Motor Manufacturing

Executive Officer  
**Yasuo Tanaka**  
Chief General Manager of CS Center

Executive Officer  
**Motofumi Shitara**  
Managing Director of Yamaha Motor India Pvt. Ltd., Managing Director of India Yamaha Motor Pvt. Ltd., and Managing Director of Yamaha Motor India Sales Pvt. Ltd.

Executive Officer  
**Eric de Seynes**  
President of Yamaha Motor Europe N.V.

Executive Officer  
**Dyonisius Beti**  
COO of PT. Yamaha Indonesia Motor Manufacturing

Executive Officer  
**Toshihiro Nozue**  
Senior General Manager of Marine Engine Section, Marine Business Operations

Executive Officer  
**Satoshi Hirose**  
Deputy Chief General Manager of Manufacturing Center and Senior General Manager of Manufacturing Section, Manufacturing Center

Executive Officer  
**Hiroyuki Ota**  
Chief General Manager of Solution Business Operations

Executive Officer  
**Itaru Otani**  
Chief General Manager of Human Resources & General Affairs Center

Executive Officer  
**Takeo Noda**  
Deputy Chief General Manager of Corporate Planning & Finance Center

Executive Officer  
**Toshiaki Ibata**  
Senior General Manager of Boat Section, Marine Business Operations

Executive Officer  
**Toyoshi Nishida**  
Chief General Manager of PF Model Unit

Executive Officer  
**Takuya Kinoshita**  
Chief General Manager of Motorcycle Business Operations

Executive Officer  
**Norio Yamada**  
Chief General Manager of IT Center

Executive Officer  
**Tatsuya Masuda**  
Chief General Manager of Procurement Center

Executive Officer  
**Kenichi Muraki**  
Chief General Manager of Manufacturing Technology Center

## ▶ Group Companies

### JAPAN

Yamaha Motorcycle Sales Japan Co., Ltd.  
YAMAHA MOTOR ENGINEERING CO., LTD.  
SUGO CO., LTD.  
YAMAHA KUMAMOTO PRODUCTS CO., LTD.  
Yamaha Marine Hokkaido Manufacturing Co., Ltd.  
Yamaha Amakusa Manufacturing Co., Ltd.  
Yamaha Marina CO., LTD.  
Y'S GEAR Co., Ltd.  
YAMAHA MOTOR POWERED PRODUCTS Co., Ltd.  
Nishi Nippon Skytech Co., Ltd.  
YAMAHA MOTOR ELECTRONICS CO., LTD.  
SUNWARD INTERNATIONAL, INC.  
YAMAHA MOTOR PRECISION PARTS MANUFACTURING CO., LTD.  
HAMAKITA INDUSTRY CO., LTD.  
YAMAHA MOTOR HYDRAULIC SYSTEM Co., Ltd.  
Yamaha Motor Assist Co., Ltd.  
Yamaha Motor Support & Service Co., Ltd.  
Yamaha Motor Management Service Co., Ltd.  
YAMAHA MOTOR MIRAI CO., LTD.  
YAMAHA MOTOR SOLUTIONS Co., Ltd.  
Ecole Toyohashi  
Amagasaki kenkonomori  
Kita Nihon Skytech Corp.  
Tokai Skytech Corp.  
Sakura Kogyo Co., Ltd.  
A.I.S Corporation  
ENSHU Limited  
KOYAMA Precision Works Inc.  
Yamaha Travel Service Co., Ltd.  
JUBILO Co., LTD.  
Mikasa Unyu Co., Ltd.  
KYB Motorcycle Suspension Co., Ltd.  
EVEC, Inc.  
North Sails Japan  
Izumisano Waterfront Co., Ltd.  
Marine Wave Otaru, Co., Ltd.  
Choshi Marina, Inc.  
Marina Akita, Co., Ltd.  
Hayama Marina, Co., Ltd.  
Yokohama Bayside Marina Co., Ltd.  
FISHARENA AMAKUSA CORPORATION  
SHIN NISHINOMIYA YACHT HARBOR CORPORATION  
Hiroshima Harbor Management

### NORTH AMERICA (Abbreviations)

#### United States

Yamaha Motor Corporation, U.S.A. (YMUS)  
Yamaha Motor Manufacturing Corporation of America (YMMC)  
Yamaha Marine Precision Propellers Inc. (YPPI)  
Yamaha Marine Systems Company Inc.  
Skeeter Products, Inc.  
Yamaha Jet Boat Manufacturing U.S.A., Inc. (YJBM)  
Yamaha Golf-Car Company (YGC)  
INDUSTRIAL POWER PRODUCTS OF AMERICA, INC.  
Yamaha Motor Finance Corporation, U.S.A. (YMFUS)  
Yamaha Motor Golf-Car Lease Receivable Corporation (YGCR)  
Yamaha Motor Receivables Corporation  
Yamaha Motor Ventures & Laboratory Silicon Valley Inc. (YMVSV)  
Yamaha Motor Distribution Latin America, Inc. (YDLA)  
**Canada**  
Yamaha Motor Canada Ltd. (YMCA)  
Yamaha Motor Finance Canada Ltd.

### EUROPE (Abbreviations)

#### The Netherlands

Yamaha Motor Europe N.V. (YMENV)

#### Germany

Yamaha Motor Deutschland GmbH. (YMG)

#### Italy

Motori Minarelli S.p.A.  
Yamaha Motor Research & Development Europe S.r.l. (YMRE)  
Yamaha Motor Racing S.r.l. (YMR)  
Selva S.p.A.

#### France

MBK Industrie

#### Spain

Motor Center BCN S.A.

#### Turkey

Yamaha Motor Sanayi ve Ticaret Limited Sirketi

#### Finland

Inhan Tehtaata Oy Ab

#### Russia

LLC Yamaha Motor CIS (YMCIS)

#### Greece

Motodynamics S.A.

### AFRICA (Abbreviations)

#### Nigeria

CFAO Yamaha Motor Nigeria Ltd. (CYMNG)

### OCEANIA (Abbreviations)

#### Australia

Yamaha Motor Australia Pty Limited (YMA)  
Ficeda Pty Limited  
Yamaha Motor Finance Australia Pty Limited (YMFA)  
Australian Motorcycle and Marine Finance Pty Ltd.  
Yamaha Motor Insurance Australia Pty Ltd.

#### New Zealand

Yamaha Motor New Zealand Limited (YMNZ)  
Yamaha Motor Finance New Zealand Limited (YMFNZ)  
Yamaha Motor Insurance New Zealand Limited

#### Micronesia

TriFork Reinsurance Corporation

### ASIA (Abbreviations)

#### Indonesia

PT. Yamaha Indonesia Motor Manufacturing (YIMM)  
PT. Yamaha Motor Parts Manufacturing Indonesia (YPMI)  
PT. Yamaha Motor Nuansa Indonesia (YMNI)  
PT. Toyo Besq Precision Parts Indonesia (TBI)  
PT. Yamaha Motor Electronics Indonesia (YEID)  
PT. Yamaha Motor Mold Indonesia (YMMID)  
PT. Yamaha Motor R&D Indonesia (YMRID)  
PT. Sakura Java Indonesia  
PT. Kyowa Indonesia  
PT. Bussan Auto Finance (BAF Indonesia)

#### The Philippines

Yamaha Motor Philippines, Inc. (YMPH)  
LIYAM Property, Inc.

#### Thailand

Thai Yamaha Motor Co., Ltd. (TYM)  
Yamaha Motor Parts Manufacturing (Thailand) Co., Ltd. (YMPT)  
TYMA Co., Ltd.  
Yamaha Motor Electronics Thailand Co., Ltd. (YETH)  
Yamaha Motor Asian Center Co., Ltd. (YMAC)

#### Malaysia

HL Yamaha Motor Research Centre Sdn. Bhd. (HLYR)  
Hong Leong Yamaha Motor Sdn. Bhd. (HLYM)  
Hicom Yamaha Manufacturing Malaysia Sdn. Bhd.

#### Vietnam

Yamaha Motor Vietnam Co., Ltd. (YMVN)

Yamaha Motor Parts Manufacturing Vietnam Co., Ltd. (YPMV)

Yamaha Motor Electronics Vietnam Co., Ltd. (YEVN)

#### India

Yamaha Motor India Pvt. Ltd. (YMI)  
India Yamaha Motor Pvt. Ltd. (IYM)  
Yamaha Motor India Sales Pvt. Ltd. (YMIS)  
Yamaha Motor Electronics India PVT. Ltd. (YEIN)  
Yamaha Motor Research and Development India Pvt. Ltd. (YMRI)  
Yamaha Motor Solutions India Pvt. Ltd. (YMSLI)  
KYB Motorcycle Suspension India Pvt. Ltd. (KMSI)  
Bussan Auto Finance India Pvt. Ltd. (BAF India)

#### Pakistan

Yamaha Motor Pakistan (Private) Limited (YMPK)

#### Singapore

Yamaha Motor Asia Pte. Ltd. (YMAP)  
Yamaha Motor Distribution Singapore Pte. Ltd. (YDS)

#### Taiwan

Yamaha Motor Taiwan Co., Ltd. (YMT)  
Topmost Consulting Co., Ltd. (TCC)  
Yamaha Motor R&D Taiwan Co., Ltd. (YMRT)  
Yamaha Motor Taiwan Trading Co., Ltd. (YMTT)  
Yamaha Motor Electronics Taiwan Co., Ltd. (YETW)

#### China

Yamaha Motor (China) Co., Ltd. (YMCN)  
Shanghai Yamaha Jianshe Motor Marketing Co., Ltd. (YMSM)  
Zhuzhou Yamaha Motor Shock-absorber Co., Ltd. (ZYS)  
Yamaha Motor R&D Shanghai Co., Ltd. (YMRS)  
Yamaha Motor Powered Products Jiangsu Co., Ltd. (YMPJ)  
Yamaha Motor Electronics Suzhou Co., Ltd. (YESZ)  
Yamaha Motor Solutions Co., Ltd. Xiamen (YMSLX)  
Yamaha Motor IM (Suzhou) Co., Ltd. (YIMS)  
Chongqing Jianshe Yamaha Motor Co., Ltd. (CJYM)  
Zhuzhou Jianshe Yamaha Motor Co., Ltd. (ZJYM)  
Jiangsu Linhai Yamaha Motor Co., Ltd. (LYM)  
Sichuan Huachuan Yamaha Motor Parts Manufacturing Co., Ltd. (SHY)  
Chongqing Pingshan TK Carburetor Co., Ltd. (PTK)

### CENTRAL and SOUTH AMERICA (Abbreviations)

#### Brazil

Yamaha Motor do Brasil Ltda. (YMDB)  
Yamaha Motor da Amazonia Ltda. (YMDA)  
Yamaha Motor Componentes da Amazonia Ltda. (YMCDA)  
Yamaha Motor Electronics do Brasil Ltda. (YEBR)  
Yamaha Administradora de Consorcio Ltda. (YAC)  
Yamaha Motor do Brasil Servicos Financeiros Participacoes Ltda.  
Banco Yamaha Motor do Brasil S.A. (BYMD)  
Yamaha Motor do Brasil Corretora de Seguros Ltda. (YMDCS)  
Yamaha Motor do Brasil Logistica Ltda. (YMBL)

#### Argentina

Yamaha Motor Argentina S.A. (YMARG)

#### Uruguay

Yamaha Motor Uruguay S.A. (YMYU)

#### Peru

Yamaha Motor del Peru S.A. (YMDP)  
Yamaha Motor Selva del Peru S.A. (YMSP)

#### Colombia

Industria Colombiana de Motocicletas Yamaha S.A. (Incolmotos Yamaha)

#### Mexico

Yamaha Motor de Mexico, S.A. de C.V. (YMMEX)  
Yamaha Motor Consorcio Mexico, S.A. de C.V.  
Yamaha Motor Personnel Service Mexico, S.A. de C.V. (YMPMSMX)

(As of December 31, 2018)



## ► History

- **1955**  
Yamaha Motor Co., Ltd. is founded with Genichi Kawakami as the first President. Production of our first motorcycle, the 125cc Yamaha "YA-1," commences. YA-1 wins the 3rd Mount Fuji Ascent Race and captures first, second and third place at the 1st All Japan Autobike Endurance Road Race.
- **1958**  
Takes 6th place in first attempt at Catalina Grand Prix in the U.S. (Yamaha's international racing debut). Yamaha de Mexico S.A. de C.V. is established with investment by Nippon Gakki (presently Yamaha Corporation) and commences sales of Yamaha Motor products.
- **1960**  
Yamaha International Corporation (YIC) is founded in U.S. as subsidiary of Nippon Gakki and commences sales of Yamaha Motor products. First Yamaha outboard motor "P-7" is released. First Yamaha FRP boat models "CAT-21" and "RUN-13" are released.
- **1961**  
New listing on First Section of Tokyo Stock Exchange. First appearance in World GP road race. CAT-21 wins 1st Pacific 1,000 km Motorboat Marathon.
- **1963**  
Pearl Yamaha is founded in India. Wins first 250cc class race in World GP road race (Belgium GP).
- **1964**  
Captures first manufacturer and rider titles in 250cc class of the World GP road race. Siam Yamaha Co., Ltd. is founded in Thailand.
- **1965**  
Tie-up with Toyota Motor Co. to develop and manufacture "Toyota 2000GT." Model is displayed at the Tokyo Motor Show. First Yamaha FRP fishing boat is built.
- **1966**  
Full export operations are transferred from Nippon Gakki to Yamaha Motor. Technical assistance agreement is signed with Kong Hsue Sheh to produce motorcycles in Taiwan.
- **1968**  
YMENV is founded in the Netherlands. First Yamaha snowmobile "SL350" is exhibited at Chicago Trade Show. First Yamaha FRP utility boat models "W-16" and "W-18" are released.
- **1969**  
First Yamaha multipurpose engine model "MT100" is released.
- **1970**  
YMDB is founded in Brazil.
- **1971**  
Haraban Motor Co. is founded in Indonesia.
- **1972**  
Headquarters is moved to present location in Iwata City. First win in Motocross World GP at Swedish GP (250cc class) and Luxembourg GP (500cc class).
- **1973**  
YMCA is founded in Canada. Joint venture agreement is signed with Brunswick Co. (U.S.). Wins first manufacturer and rider titles in 250cc class of the Motocross World GP. First Yamaha portable generator model "ET1250" is released. First Yamaha racing kart model "RC100" is released.
- **1974**  
Hisao Koike is appointed as second YMC president. Wins manufacturer titles in all classes of World GP road race, 125cc, 250cc, 350cc and 500cc. YIMM is founded in Indonesia as motorcycle parts maker. Manufacture and sales of FRP pools commence.
- **1975**  
First Yamaha golf car model "YG292" is released.
- **1976**  
First Yamaha industrial robot model, an "arc welding robot," is released. First Yamaha marine diesel "MD35" is released.
- **1977**  
YMC-related divisions of Yamaha International Corporation are separated to found Yamaha Motor Corporation, U.S.A. Captures manufacturer and rider titles for the first time in 500cc class of the Motocross World GP.
- **1978**  
First Yamaha land car model "GI-9AD" is released. First Yamaha snow blower model "YT665" is released.
- **1979**  
Yamaha's first ATV model "YT125" is released in the U.S. "XT500" wins 1st Paris-Dakar Rally.
- **1981**  
SEMSA is founded in Spain.
- **1982**  
Motorcycle production and marketing tie-up with Motobecane (France).
- **1983**  
Hideto Eguchi is appointed as third YMC president. YMMDA is founded in Brazil. Technical assistance agreement for motorcycle production is signed with China North Industries Group. YMA is founded in Australia. Technical assistance agreement for motorcycle production is signed with Escorts Ltd. in India.
- **1984**  
Contract is signed to develop, produce and supply automobile engines to Ford Motor Co. (U.S.). Technical assistance contract is signed with Italy's Motori Minarelli.
- **1986**  
YMMC is founded in the U.S. YMT is founded in Taiwan. Technical assistance contract for motorcycle technology is signed with Italy's Belgarda S.p.A. First Yamaha personal watercraft (PWC) "WaveRunner 500" is released.
- **1987**  
First Yamaha-made surface mounter "21 Series" is released. First Yamaha gas heat pump (GHP) model "YGC40IW" is released. Limited production of Yamaha's first commercial-use unmanned helicopter "R-50" (20 units) is released.
- **1989**  
Machine mounting the Yamaha "OX88" racing engine competes in FI for the first time.
- **1990**  
Corporate Mission and long-term management vision are announced. YMP is founded in Portugal.
- **1991**  
YMF is founded in France. YMMEX is founded in Mexico.
- **1992**  
CJYM is founded in China. YMAG is founded in Austria. YMH is founded in Hungary.
- **1993**  
NYM is founded in China. Regionally limited release of the electrically power assisted bicycle "PAS."
- **1994**  
Takehiko Hasegawa is appointed as fourth YMC president. LYM is founded in China.
- **1995**  
Wheelchair electric power unit "JW-1" is released. EYML is established in India.
- **1996**  
YMARG is founded in Argentina.
- **1997**  
YMNI is founded in Indonesia.
- **1998**  
YMVN is founded in Vietnam. YMAP is founded in Singapore. YMDP is founded in Peru.

## ► History (Continued)

- 2000 Corporate ties with Toyota Motor Corp. are strengthened.
- 2001 Toru Hasegawa is appointed as fifth YMC president.
- 2002 Limited regional release of the electric commuter motorcycle "Passol." Manufacture of 50cc Japanese-market scooters is shifted to Taiwan.
- 2004 Wins 1st MotoGP rider championship title.
- 2005 Takashi Kajikawa is appointed as sixth YMC president. YMCIS is founded in Russia. Life Science Laboratory is opened as research and development center for YMC's biotechnology business. Yamaha captures MotoGP triple crown by winning the rider, team and manufacturer titles.
- 2006 Motorcycle manufacturing factory YMMWJ is founded in Indonesia. Mass-production of microalgae as a source for the high-potential health additive Astaxanthin commences. Yamaha Motor Foundation for Sports is founded.
- 2007 YMPH is founded in the Philippines.
- 2008 YMKH is founded in Cambodia. IYM is founded in India.
- 2009 Tsuneki Togami is appointed as seventh YMC president. Yamaha Marine Co., Ltd. is merged into YMC. YMTR is founded in Turkey.
- 2010 Hiroyuki Yanagi is appointed as eighth YMC president.
- 2011 YIME and YIMA Group companies are founded in Europe and the U.S. for Intelligent Machinery product sales. Commences increased production of Japanese fishing boats to aid in recovery efforts from the Great East Japan Earthquake and Tsunami. Iwata South Factory engine assembly line is integrated into Iwata Main Factory.
- 2012 Design Center is established. ASEAN Integrated Development Center (Thailand) and India Procurement Center are established. Commences OEM supply of electrically power assisted bicycle drive units to European market. Company founder Genichi Kawakami is inducted into Japan Automotive Hall of Fame.
- 2013 The "Revs your Heart" brand slogan is established. Cumulative Yamaha outboard motor production passes 10 million mark. YMRI is founded in India. YIMS is founded in China. Kikugawa Test Course is completed.
- 2014 First leaning multi-wheel motorcycle "TRICITY" is released.
- Aggregate production of automobile engines reaches 3 million units. New motorcycle manufacturing plant in Argentina is completed and commences operations. Next-generation compact, high-performance engine "BLUE CORE" is developed.
- 2015 Yamaha Jubilo Rugby Football Club wins the All-Japan Rugby Football Championship for the first time. Motorcycle manufacturing and sales company YMPK commences operations in Pakistan. Motorcycle development company YMRID commences operations in Indonesia. New company for new business development YMVSU is founded in Silicon Valley, USA. New company Yamaha Motor MIRAI is founded to promote hiring of persons with disabilities.
- 2016 Aggregate production of Yamaha Performance Damper reaches one million units.
- 2017 Yamaha Motor Innovation Center is opened. New Hamamatsu IM Base is opened. Achieves 500th win in world championship road race. CELL HANDLER is released to provide solutions in the medical field.
- 2018 Yoshihiro Hidaka is appointed as ninth YMC president. "TY-E" electric trial bike competes in first international competition. Yamaha Motor Advanced Technology Center is opened in Yokohama. Long-term vision to 2030 is announced.

## ► Number of Employees

Fiscal year	2014	2015	2016	2017	2018
Yamaha Motor Co., Ltd. (average age)	10,377 (42.3 years old)	10,440 (42.8 years old)	10,511 (43.0 years old)	10,564 (43.2 years old)	10,614 (43.3 years old)
Consolidated companies	42,285	42,866	42,639	43,015	43,363
Total	52,662	53,306	53,150	53,579	53,977

## ► Number of Recruited Graduates (Yamaha Motor Co., Ltd.)

Fiscal year	2016	2017	2018	2019	2020 (Plan)
College graduates*	212	207	205	227	185
(For office work, marketing)	(50)	(60)	(63)	(77)	(65)
(For engineering, production-related work)	(162)	(147)	(142)	(150)	(120)
High school graduates	58	57	57	61	60
Total	270	264	262	288	245

\* Includes graduate schools, two-year/technical colleges and specialized schools



FACT BOOK 2019

# Product Business Section

## Motorcycles



### Product Profile

Motorcycles play a familiar and vital role in the lives of people around the world, their applications spanning from pure utility, such as the transportation of goods, to personal enjoyment and sports. The Yamaha Motor group satisfies these needs with its diverse product lineup. Yamaha motorcycles are made to a variety of specifications, each type featuring unique technologies serving its particular use: scooters, used primarily for day-to-day mobility, such as commuting and shopping trips; sports and cruiser models, used widely in urban areas and for long-distance touring; trail models for off-road excursions; and racing machines for road racing, motocross and other competitions.

### Background of the Business

During World War II, Nippon Gakki Co., Ltd. (founded in 1897, presently Yamaha Corporation), the company from which Yamaha Motor was later spun off, was assigned to apply its technologies in musical instrument manufacturing to the production of propellers for military aircraft. After the War ended, the company sought ways to use its manufacturing facilities for peaceful ends. Eventually, it entered the motorcycle business as the motorcycle manufacturing division of Nippon Gakki. The company's first motorcycle model, the YA-1,

got off to a successful start, winning in its debut entries at Japan's top two motorcycle races at the time, while also receiving high acclaim for its product quality. To scale up production and market the YA-1, Yamaha Motor Co., Ltd. was established. Some years later, in 1961, Yamaha entered its first World GP race. Since then and to this day, Yamaha has continued to challenge itself on the racing scene, making the art of engineering based on technologies and know-how a hallmark of the Yamaha brand.

### Current Business and Market Conditions

#### Japan

For the market as a whole, scooters with an engine displacement of 50cc and under (class I), which are used primarily for commuting and work-related activities, occupy almost half of all unit sales. Motorcycles with an engine capacity of 51cc or larger fall into a number of categories, from scooters to large motorcycles and sports models for personal enjoyment. The Japanese market is also unique in that it has a driver's license restricted to operation of AT (automatic transmission) motorcycles. In recent years, large motorcycles for riders interested in touring and sport riding as well as highly practical 125cc scooters have been popular.

### Japan Motorcycle License Types and Regulations

Displacement	50cc and under	Over 50cc to 125cc and under	Over 125cc to 250cc and under	Over 250cc to 400cc and under	Over 400cc
Road Traffic Act designation	Moped		Regular motorcycle		Large motorcycle
Road Transport Vehicle Act designation	Class I moped	Class II moped	Light two-wheeled vehicle	Compact two-wheeled vehicle	
License required	Moped license	Limited compact license	Regular motorcycle license		Large motorcycle license
Speed limit on normal roads	30 km/h	60 km/h			
Legal number of riders	I	2 (excluding vehicles with no rear seat)			
Highway usage	Prohibited		Allowed		
Two-step right turn	Required	Prohibited			
Curbside lane usage	Required	Not required			
Vehicle inspection	Not required			Required	



### Europe

As one would expect from the birthplace of motorcycles, motorcycles have a well-established place in European society as part of the culture. The market is characterized by widespread use of motorcycles among riders of all ages as a commuter vehicle and as means for recreation, from touring through the countryside to circuit racing and other sports. Motorsports are also popular there. Over half of the MotoGP racing series, the world's premier motorcycle racing championship, is held in Europe.

### North America

The North American market is characterized by its predominance of motorcycle enthusiasts. Cruisers, with their low-riding seats and long bodies—perfectly suited for riding on long stretches of straight, open road—are a representative category, but there is also a large segment of users who enjoy riding off-road or on mountainous terrain for sport or recreation. The popularity and extensive variety of motorsports practices by professionals and amateurs alike are other unique qualities of the North American market.

### ASEAN Region

In the ASEAN region, motorcycles are a primary mode of transportation for commuting to work and school and for daily living in many communities. They also serve an important role as social infrastructure, assisting the flow of goods and services. Practical, smaller displacement motorcycles around 125cc are traditionally the mainstream choice. However, since the turn of the century there has been a growing segment of users resembling those in developed markets who favor more personalized and luxurious features. Yamaha was quick to introduce automatic transmission motorcycles to this market, and is now recognized as a leading company.

### China

With domestic demand for new motorcycles around 7 million units annually, China is the world's second largest motorcycle market and home to numerous motorcycle makers. Demand for scooters, which previously accounted for roughly 10% of total demand, grew to one-third of demand in recent years, and is expected to continue to increase going forward.

In addition, with growing awareness of environmental issues, the number of users selecting fuel injection-equipped models is increasing, and Yamaha is pursuing a product strategy that focuses on attracting these customers.

### India

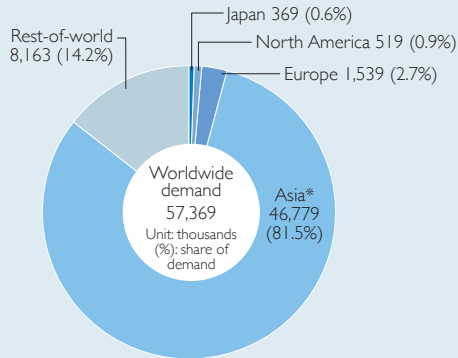
India has become the world's largest motorcycle market, with total demand for new models reaching about 22 million units in 2018. The scooter category, in particular, is showing remarkable growth, and now accounts for roughly one-third of total demand. With the country's development having entered a period of increased motorization, Yamaha has proactively introduced new scooters since 2012, and these models have been well received, particularly by young customers. Yamaha is also working to increase sales by emphasizing sports models.

### Production

Country		Name of company (Factory)
Japan		Yamaha Motor Co., Ltd. (Iwata Main Factory)
Europe	France	MBK Industrie
Asia	Indonesia	PT. Yamaha Indonesia Motor Manufacturing
	Thailand	Thai Yamaha Motor Co., Ltd.
	Vietnam	Yamaha Motor Vietnam Co., Ltd.
	Philippines	Yamaha Motor Philippines, Inc.
	Malaysia	Hong Leong Yamaha Motor Sdn. Bhd.
	Taiwan	Yamaha Motor Taiwan Co., Ltd.
	China	Chongqing Jianshe Yamaha Motor Co., Ltd.
		Zhuzhou Jianshe Yamaha Motor Co., Ltd. Jiangsu Linhai Yamaha Motor Co., Ltd.
India	India Yamaha Motor Pvt. Ltd.	
Pakistan	Yamaha Motor Pakistan Private Ltd.	
Central and South America	Brazil	Yamaha Motor da Amazonia Ltda.
	Mexico	Yamaha Motor de Mexico, S.A. de C.V.
	Colombia	Industria Colombiana de Motocicletas Yamaha S.A.
	Argentina	Yamaha Motor Argentina S.A.
Africa	Nigeria	CFAO Yamaha Motor Nigeria Ltd.

**FY2018 worldwide demand**

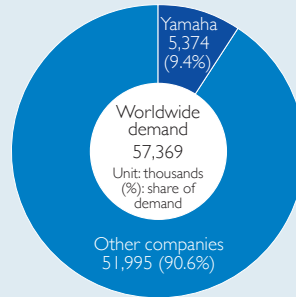
Note: Yamaha Motor surveys



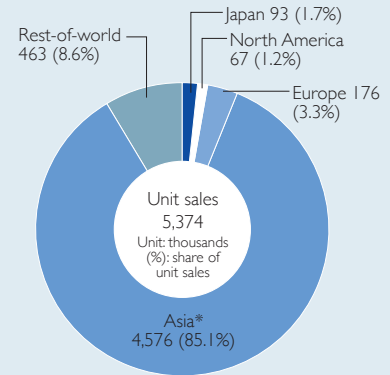
\* Asia excludes Japan

**FY2018 worldwide demand and Yamaha Motor unit sales**

Note: Yamaha Motor surveys



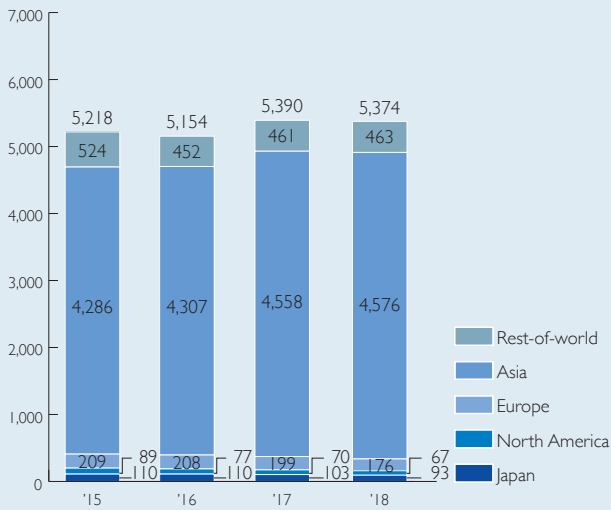
**FY2018 Yamaha Motor unit sales**



\* Asia excludes Japan

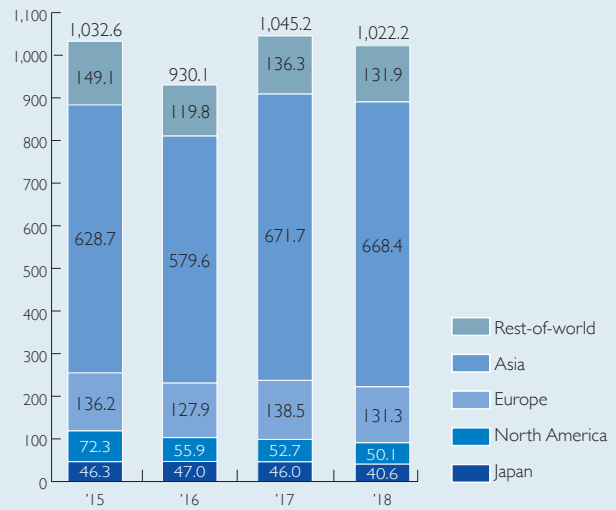
**Yamaha Motor unit sales**

Unit: thousands



**Yamaha Motor sales**

Unit: billion ¥



# Boats



YFR-24 EX fishing boat



EXULT43 Cabin Cruiser



DW-480-0A fishing boat

## Product Profile

Boats are used for two major purposes: commercial use and leisure. Commercial boats can be categorized roughly into Japanese-style utility boats and fishing boats, both of which are an indispensable part of the everyday lives of fishermen. Recreational boats include powerboats, used for activities from sport fishing to cruising and water-skiing, and sailboats.

## Background of the Business

In the latter part of the 1950s, Yamaha started joint research and development of FRP (Fiber Reinforced Plastics)—a promising new material at the time—with Nippon Gakki Co., Ltd. (presently Yamaha Corporation), and in 1960 began producing and marketing FRP boats. In 1965, the Company also started production of sailboats and fishing boats.

Yamaha Motor has continuously developed and designed its products using performance simulation and 3D CAD systems, and introduced new manufacturing technologies to reduce the environmental impacts of production.

## Current Business and Market Conditions

In Japan, Yamaha Motor is a full-spectrum marine manufacturer, offering a full lineup of products in all categories, from fishing and utility boats—with hulls designed to fit each region's fishing methods—to large recreational cruisers and fishing boats. Over the past few years, Japan's boat market has seen solid sales of large models of 10 meters or more.

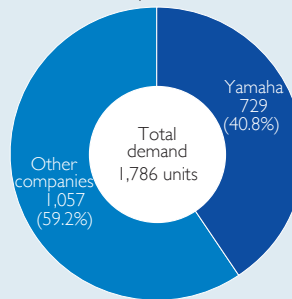
## Production

	Name of company	Location
Fishing boats, utility boats	Yamaha Marine Hokkaido Manufacturing Co., Ltd.*1	Yakumo, Hokkaido, Japan
Small boats, utility boats	Yamaha Amakusa Manufacturing Co., Ltd.*1	Kamiamakusa, Kumamoto, Japan
Medium-size and large boats	YM Shido Co., Ltd.*2	Sanuki, Kagawa, Japan

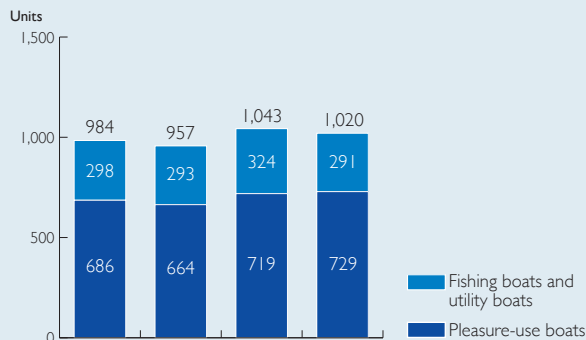
\*1 Group company \*2 Contract manufacturer

## FY2018 domestic demand for pleasure-use boats

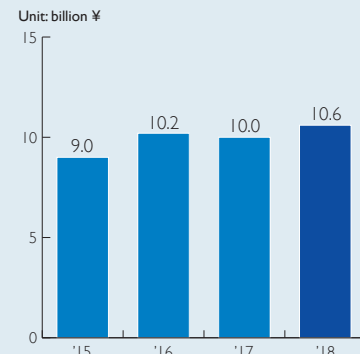
Note: Yamaha Motor surveys



## Yamaha Motor unit sales



## Yamaha Motor sales



## Marine Engines



F425A



F150D



F125A



F90C



F25G



F8F



F2B



M-15

### Product Profile

Marine engines used to propel boats can be categorized into three types: outboard motors, stern drives (inboard-outboard motors), and inboard motors. Outboard motors, which are suited for small to medium-size boats, are mainly known for their excellent affordability, environmental friendliness, ease of maintenance and high space efficiency and are used by a variety of people all over the world. In developed regions like Europe and North America, they are primarily used for leisure, while in emerging countries they are predominantly used for fishing and transport/transportation.

### Background of the Business

Applying its small engine technology developed for motorcycles, Yamaha Motor released its first marine engine, the small outboard engine P-7, in 1960. In the more than half-century that followed, the Company has expanded its marine engine lineup to suit manifold uses and conditions in the various locations they are used, focusing especially on outboard motors, including models with increasingly large horsepower and models that have better fuel efficiency and are designed to withstand more extreme environments. Cumulative production of Yamaha outboard motors reached 10 million units in April 2013.

### Current Business and Market Conditions

Yamaha outboard motors are based on the principle of being reliable and durable, with light weight and a compact size. With a variety of sizes from 2 horsepower to 425 horsepower, they range from environmentally friendly 4-stroke models that are especially popular in developed countries, to Enduro models with simple structures that are suitable for use in emerging countries and electric models for coastal commercial fishing, and from recreational to commercial uses.

We also offer products installed on boats in combination with our outboard motors, including an information management system that informs the driver of the engine status and navigational situation, and a boat control system that assists in maneuvering medium-size and large boats at low speeds through narrow areas.

More than 90% of Yamaha outboard motors are exported to markets outside Japan, and are currently being sold in roughly 180 countries and territories. In North America, our main market and where sales of large models are strong, we introduced the F425A, our most powerful model at 425 horsepower, in 2018 and have received a favorable reception.

### Environmental Compliance

Yamaha Motor offers a full line of products that comply with voluntary restrictions set by the Japan Marine Industry Association, as well as standards set by 2010 EPA (United States Environmental Protection Agency) regulations on exhaust emissions and 2008 CARB (California Air Resources Board) regulations.

### Production

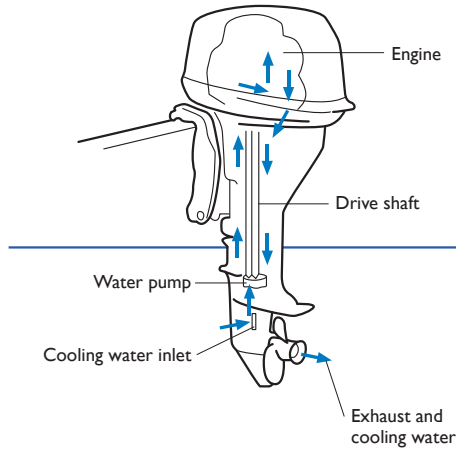
	Name of company (Factory)	Location
Medium-size and large 4-stroke outboard motors and large 2-stroke outboard motors	Yamaha Motor Co., Ltd. (Fukuroi South Factory)	Fukuroi, Shizuoka, Japan
Small and medium-size 4-stroke outboard motors and small and medium-size 2-stroke outboard motors	Yamaha Kumamoto Products Co., Ltd.*	Yatsushiro, Kumamoto, Japan
Small 4-stroke outboard motors	Thai Yamaha Motor Co., Ltd.*	Thailand

\* Group company



## Outboard Motor Cooling Structure and Features

An outboard motor brings in water from the outside and uses it to cool the engine. This is the main difference between outboards and land vehicles with liquid-cooled engines like motorcycles.

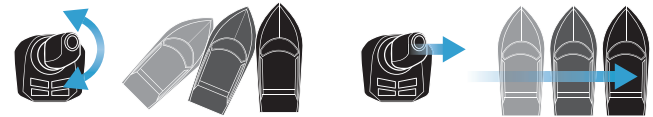


## Helm Master Boat Control System



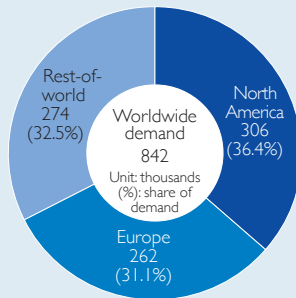
SR330 cruiser featuring Helm Master

The Helm Master digitally controls all the steering, gear shifting and throttle work of twin or triple mount large-class Yamaha outboards. Complementing the standard steering and remote control unit, the single joystick control enables fore-aft, port-starboard and diagonal motion as well as in-place rotation of the bow.



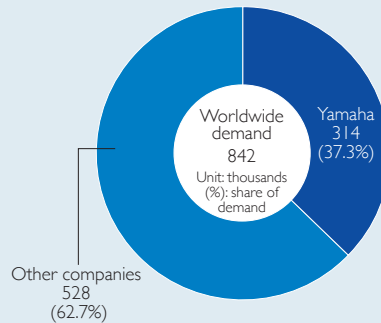
### FY2018 worldwide demand for outboard motors

Note: Yamaha Motor surveys

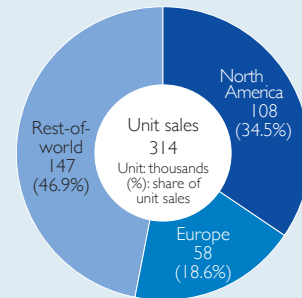


### FY2018 worldwide demand and Yamaha Motor unit sales of outboard motors

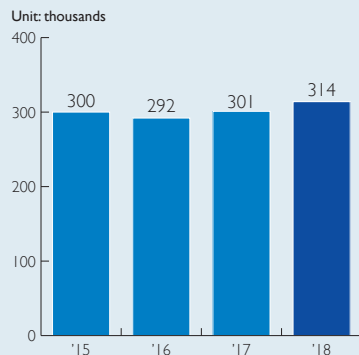
Note: Yamaha Motor surveys



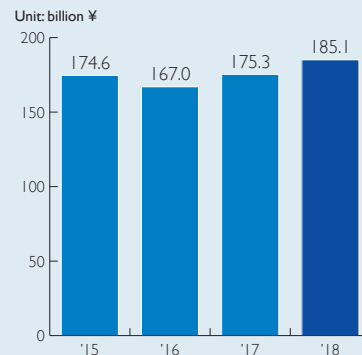
### FY2018 Yamaha Motor unit sales of outboard motors



### Yamaha Motor unit sales of outboard motors



### Yamaha Motor sales from marine engines



## Personal Watercraft



WaveRunner FX Cruiser SVHO personal watercraft



AR195 sport boat

### Product Profile

Personal watercraft (or PWC) come in two varieties: one that requires the rider to stand (one-person capacity), and another that is ridden from a seated position (up to three people). PWC mount a small engine, but rather than using a propeller for propulsion they draw in water from the intake section at the bottom of the hull and shoot it out from the back with a jet-propulsion mechanism. Sport boats that use the same kind of propulsion system are also popular mainly in North America.

### Background of the Business

In 1986, Yamaha Motor launched its first product, the WaveRunner 500. The product's marketing concept, "A water vessel anyone can ride, with assurance and convenience," was welcomed by markets and effectively expanded the enjoyment of marine recreation beyond existing mainstream activities like cruising and fishing. PWC attract many users, mainly in North America.

### Current Business and Market Conditions

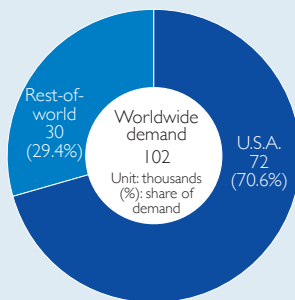
Yamaha PWC feature a highly stable and streamlined hull built on technologies Yamaha Motor developed for boats, and a compact, lightweight, yet powerful engine utilizing the Company's motorcycle and marine engine technologies. Most Yamaha PWC employ 4-stroke engines. These models meet environmental regulations in the U.S. and Japan, the largest markets, which include U.S. EPA (Environmental Protection Agency) regulations and Japan Marine Industry Association voluntary regulations.

### Production

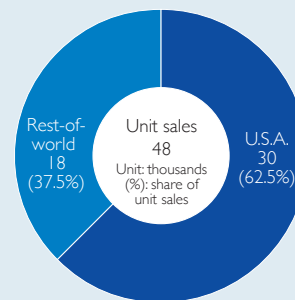
	Name of company (Factory)	Location
Engines	Yamaha Motor Co., Ltd. (Iwata South Factory)	Iwata, Shizuoka, Japan
Assembly	Yamaha Motor Manufacturing Corporation of America*	Georgia, U.S.A.
	Yamaha Jet Boat Manufacturing U.S.A., Inc.*	Tennessee, U.S.A.

\* Group company

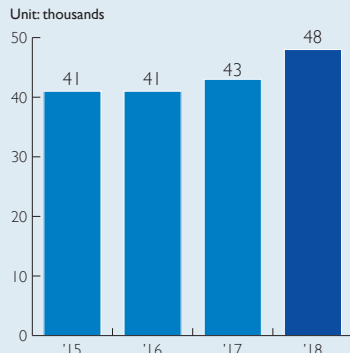
FY2018 worldwide demand for PWC  
Note: Yamaha Motor surveys



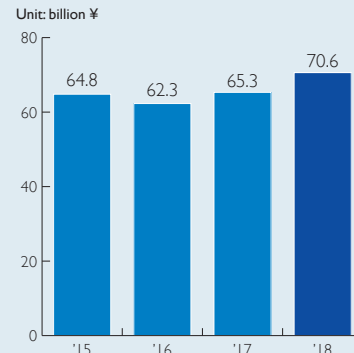
FY2018 Yamaha Motor unit sales of PWC



Yamaha Motor unit sales of PWC



Yamaha Motor sales from PWC



# Swimming Pools



School pools



Flat pools (GRANSCINA)



Children's pools



Leisure pools

## Product Profile

In Japan, school swimming pools, children's pools, leisure pools, pools for health and rehabilitative use, competition pools and pool renovation form the major demand for this segment. By material, pools can be categorized into FRP (Fiber Reinforced Plastics) pools, metal pools and concrete pools.

### [Reference] Advantages of FRP Pools

FRP is a strong, lightweight material that molds easily. FRP pools are resistant to weathering and earthquakes and retain heat well. Construction time is also shorter because the units from the factory are simply assembled on-site.

## Background of the Business

Utilizing FRP technologies cultivated in its boat development and manufacturing, Yamaha Motor commercially released Japan's first 100% FRP pool in 1974. Yamaha has supplied a large number of pools across Japan since then.

We have achieved top position in aggregate domestic shipments of school pools, and recorded strong sales of pools for pre-schools in recent years.

## Current Business and Market Conditions

As pools at public facilities, kindergartens and nursery schools, and elementary and junior high schools increasingly deteriorate, demand for new construction and renovations is increasing. Pools are also being used at social welfare facilities and private swimming clubs for safe walking and exercise to improve the health of the elderly and persons with disabilities.

Yamaha Motor is proactively expanding its product lineup with pools for a variety of purposes for different generations and lifestyles, while at the same time introducing new technologies and equipment to make pools environmentally friendly through re-use and recycling.

We are also developing 2.5-meter pools and children's pools for overseas markets, primarily South Korea and other nearby Asian countries.

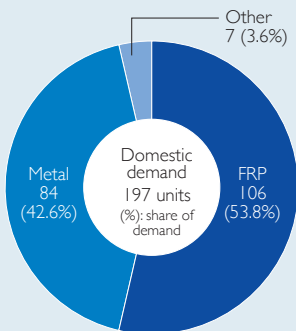
As a leading pool company, Yamaha offers total support, from planning and design to manufacturing, installation, and after-sales service.

## Production

Name of company (Site)	Location
Yamaha Motor Co., Ltd. (Arai Site)	Kosai, Shizuoka, Japan

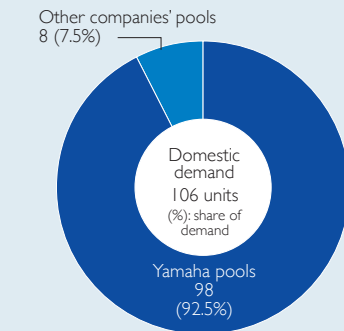
FY2018 domestic public school pool\* demand by material

Note: Yamaha Motor surveys

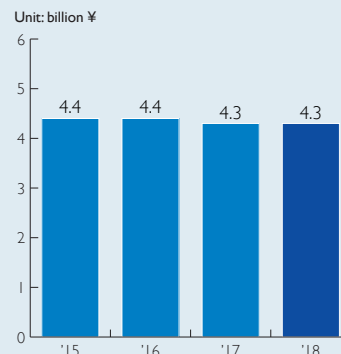


FY2018 domestic FRP pool\* demand and Yamaha Motor unit shipments

Note: Yamaha Motor surveys



Yamaha Motor sales from pools



\* Longer than 20m

## All-Terrain Vehicles & Recreational Off-highway Vehicles



Grizzly EPS



YXZ1000R SS



Wolverine X2 SE

### Product Profile

All-Terrain Vehicles (ATVs) and Recreational Off-highway Vehicles (ROVs) are off-road-specific vehicles capable of handling all sorts of unpaved or rough terrain found in grasslands, mountain trails, sandy areas, etc. ATVs seat one rider and have a steering system with handlebars, etc., similar to a motorcycle, while ROVs are designed to fit two or more people and have a steering wheel system, etc., similar to an automobile. Both are used in a wide range of ways, from leisure and sport riding to utility work in the agriculture industry, etc.

### Background of the Business

Yamaha's ATVs were developed using technologies created and matured in the process of developing and manufacturing off-road motorcycles. Sales of Yamaha ATVs began in the U.S. in 1979 with Yamaha Motor's first ATV, the YT125. Since then, Yamaha has gone on to market a variety of ATV models that answer real market needs. We also have a broad lineup in the ROV segment, with multi-purpose models, recreational models, and pure sports models. In 2018, we added the new Wolverine X2 to our recreational

lineup, and are working to bolster sales in overseas markets and in North America in particular.

### Current Business and Market Conditions

The U.S. market accounts for over 50% of worldwide ATV demand due to its large stretches of natural terrain, unpaved roads, and large ranches and farms all over the country. Yamaha Motor meets these diverse needs with its wide range of products that include utility models, sports models and more.

The main market for ROVs is also the U.S. In addition to demand as a vehicle for outdoor recreation, there is stable demand for ROVs as vehicles for utility use in a variety of industries, and market scale is growing continuously.

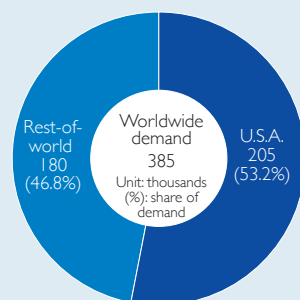
### Production

Name of company	Location
Yamaha Motor Manufacturing Corporation of America*	Georgia, U.S.A.

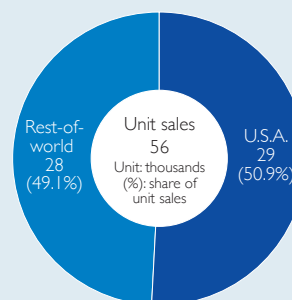
\* Group company

FY2018 worldwide demand for ATVs

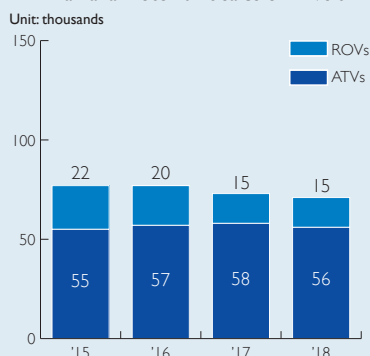
Note: Yamaha Motor surveys



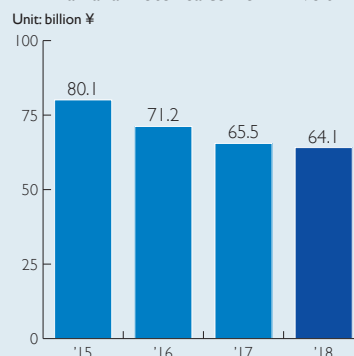
FY2018 Yamaha Motor unit sales of ATVs



Yamaha Motor unit sales of ATVs & ROVs



Yamaha Motor sales from ATVs & ROVs



# Snowmobiles



Sidewinder B-TX LE



VK10 Professional II



Snoscoot ES

## Product Profile

The snowmobile uses two skis at the front for changing directions and track belts at the rear for engine-driven propulsion. It has developed into a mode of transportation for people in snowy areas, and also as a source of motorsports and leisure enjoyment. Applications can be broken down roughly into leisure and utility. Additionally, in Japan, snowmobiles are also used in winter for power line maintenance, for spreading snow-melting agents on cultivated areas, for fish farming in frozen lakes, etc.

## Background of the Business

Applying the engine technologies it had developed for motorcycles, Yamaha Motor released its first snowmobile model, the SL350, in 1968 and its first model for recreational use in 1970. Since then, the Company has worked to expand its lineup, catering to a variety of needs as the only snowmobile manufacturer (of completely built-up units) in Japan.

## Current Business and Market Conditions

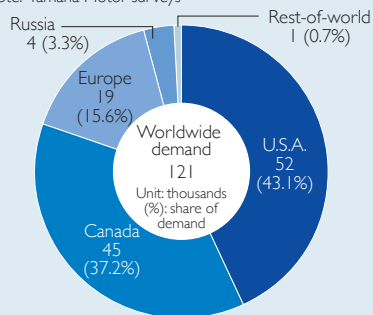
While North America, Russia and the Scandinavian countries of Sweden, Norway and Finland constitute the largest markets, Yamaha snowmobiles are sold in over 30 countries worldwide, including Japan and other countries throughout Europe and Asia. In recent years, there have been greater calls for better environmental performance from snowmobiles as well. Yamaha Motor has answered this by continuing to pioneer the development of models with 4-stroke engines.

## Production

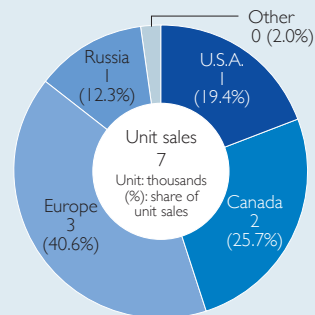
Name of company (Factory)	Location
Yamaha Motor Co., Ltd. (Iwata Main Factory)	Iwata, Shizuoka, Japan

FY2018 worldwide demand for snowmobiles

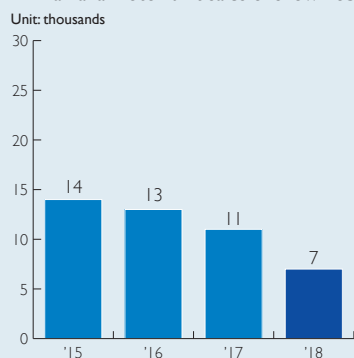
Note: Yamaha Motor surveys



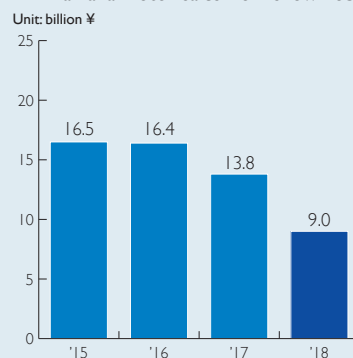
FY2018 Yamaha Motor unit sales of snowmobiles



Yamaha Motor unit sales of snowmobiles



Yamaha Motor sales from snowmobiles





G30As (five-passenger model)



Drive2 (two-passenger model)

## Product Profile

Golf cars have become popular on golf courses today because they save labor, let golfers transport their own clubs, lighten work for caddies, and encourage smoother, more enjoyable rounds. Various specifications are available based on market and consumer (golf clubs and resorts) needs. Options include passenger capacity (1, 2, or 5 passengers), the power unit (gasoline engine or electric motor) and the operating system (electromagnetic guidance or manual).

## Background of the Business

In 1972, Yamaha Motor began developing a land car for use at a resort owned and operated by Nippon Gakki (presently Yamaha Corporation), later segueing into the development of golf cars, which the Company released for the first time in 1975 with its YG292 model. Subsequently, as the business has grown, in addition to production at our factory in Japan, we commenced production at a factory in the United States in 1988 followed by Thailand in 2015, and have now produced more than one million golf cars in total.

## Current Business and Market Conditions

In Japan, demand is highest for five-passenger models, which also carry caddies, and in the U.S., where caddies are often not used, demand is highest for two-passenger models. Our ongoing efforts to provide customers with even greater value have included the introduction in 1996 of an electromagnetic guidance model that can operate autonomously using mounted sensors to trace electric cables buried underground or be operated by remote control, as well as a more environmentally friendly model with a quieter electric motor in 2000, and a new series in 2018 that is equipped with a driving support system that can remember routes.

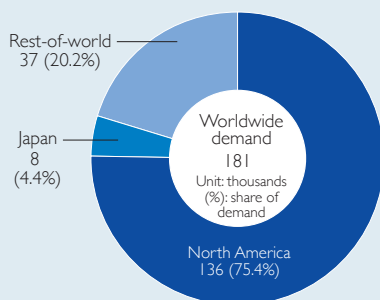
## Production

Name of company	Location
Yamaha Motor Powered Products Co., Ltd.*	Kakegawa, Shizuoka, Japan
Yamaha Motor Manufacturing Corporation of America*	Georgia, U.S.A.

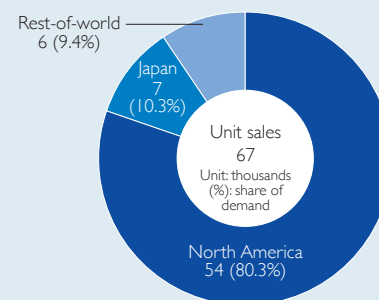
\* Group company

### FY2018 worldwide demand for golf cars

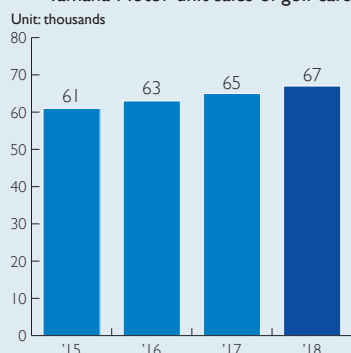
Note: Yamaha Motor surveys



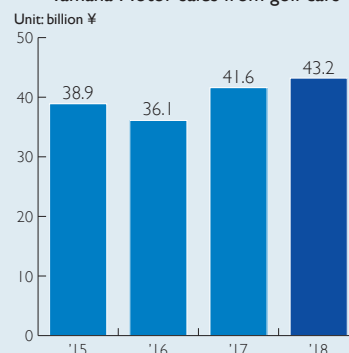
### FY2018 Yamaha Motor unit sales of golf cars



### Yamaha Motor unit sales of golf cars



### Yamaha Motor sales from golf cars



## Generators



EF1800iS



EF5500iSDE



EF2500i

### Product Profile

Yamaha generators use a small engine powered by gasoline and gas cartridges to generate electricity. Models offered include everything from light and compact generators that can be carried around with one hand, to utility generators used as a power source for tools and lighting equipment at construction sites and in other settings. Yamaha Motor also provides inverter-type generators, which can be used as a power source for computers and other precision electronic equipment. These generators are also indispensable as an emergency power source during power outages and in disaster areas.

### Background of the Business

Building on its small engine technologies, Yamaha Motor released its first generator model, the ET1250, in 1973.

### Current Business and Market Conditions

As needs for generators expand beyond business applications, these products now need to be quieter, easier to operate, and applicable

to a broader range of operating environments in addition to offering sufficient durability, reliability, and quality sustained power. Meanwhile, Yamaha Motor is actively developing new 4-stroke and inverter-type models that meet voluntary regulations set by the Japan Land Engine Manufacturers Association and other strict emissions standards adopted around the world.

### Production

Name of company	Location
Yamaha Motor Powered Products Co., Ltd.*	Kakegawa, Shizuoka, Japan
Yamaha Motor Powered Products (Jiangsu) Co., Ltd.*	Jiangsu, China

\* Group company

## Snow Blowers



YS-I390AR



YSF860-B



YSF1070T-B

### Product Profile

Yamaha's snow blowers are used in areas of Japan that experience heavy snowfalls, including Hokkaido, Tohoku, Kita-Kanto, Koushinetsu, Hokuriku, and Sanin, for easy snow removal during the winter.

Yamaha Motor offers a broad range of snow blower models, from compact units handy for clearing porches and walkways at home to large models suited for commercial use.

### Background of the Business

Utilizing its small engine technologies, Yamaha Motor released its first snow blower model, the YT665, in 1978.

### Current Business and Market Conditions

Yamaha Motor offers 15 snow blower models, primarily for residential use, so customers can choose according to the amount of snowfall, area to be cleared, and type of snow of where they live.

Incorporating our technologies and expertise gained over 40 years, our snow blowers are popular for their functions, ease of use, and durability.

### Production

Name of company	Location
Yamaha Motor Powered Products Co., Ltd.*	Kakegawa, Shizuoka, Japan
Yamaha Motor Powered Products (Jiangsu) Co., Ltd.*	Jiangsu, China

\* Group company

## Electrically Power Assisted Bicycles



PAS Crew Disney edition



PAS Kiss mini un



PAS With DX



PAS CITY-V



YPJ-ER



YPJ-XC

### Product Profile

Electrically power assisted bicycles are bicycles equipped with a motor and battery that supply power to assist the rider's pedaling. The Yamaha PAS\* released in 1993 was the first electrically power assisted bicycle in the world. Yamaha PAS bicycles are not only easy to use and convenient, they also effectively eliminate the major drawbacks of conventional bicycles (difficulty in riding uphill, against the wind, or when carrying cargo), making them accessible to virtually everyone. Electrically power assisted bicycles are gaining popularity as a new category of commuter vehicle for people of all ages, facilitating various forms of personal transportation—commuting to and from work or school, taking children to kindergarten and back home, shopping, pleasure, and even for running errands in the city.

\* The "PAS" product name is the acronym for "Power Assist System."

### Background of the Business

In the 1980s, a new consciousness emerged around global environmental problems such as energy conservation and societal challenges such as Japan's aging population and low birthrate. This spurred Yamaha Motor's efforts to develop a new vehicle that transcended the boundaries set by conventional product categories. Deploying a new development concept that focused on providing a "people-friendly, environmentally friendly vehicle that puts human perceptions first," Yamaha Motor launched in 1993 the world's first electrically power assisted bicycle. Since then, the Company has pioneered the market through technological improvements and by driving demand; by 2016, Yamaha Motor had sold over two million units. In 2014, we developed next-generation drive units based on the new GREEN CORE concept—creating units that are compact, lightweight and highly functional, and offer an enjoyable drive while being environmentally friendly, and in 2015, these units were introduced in

main PAS models. In 2015, we launched the YPJ brand as a new concept in sports-type electrically power assisted bicycles with the YPJ-R as its first model, and followed this in 2016 with the release of the hybrid YPJ-C. We expanded our lineup in 2018 with the release of the electric mountain bike (e-MTB) YPJ-XC, as well as the YPJ-ER, YPJ-EC, and YPJ-TC.

### Current Business and Market Conditions

Since developing and releasing the world's first electrically power assisted bicycle in 1993, Yamaha Motor has enhanced its PAS lineup and made a variety of advances with the evolution of the product.

In addition to an expansion of the scope of users and usages, demands for electrically power assisted bicycles are diversifying in line with social developments, including heightened awareness of health and environmental issues, changes in transportation environments, and high prices for gasoline, and the market is expanding as a result.

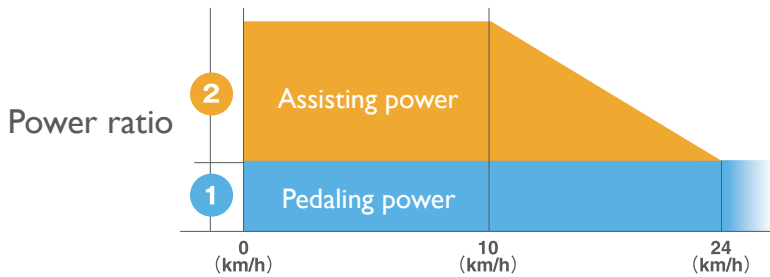
At the same time, legal standards for electrically power assisted bicycles have changed, including the revision of a law regulating the assistance ratio of electrically power assisted bicycles in 2008 and the establishment of a safety standard for bicycles with two infant seats in 2009.

In addition to sales of complete bicycles and supply of the drive units on an OEM basis in Japan, in 2012, Yamaha Motor began OEM supply of drive units to a major manufacturer for use in Europe, one of the world's leading markets for electrically power assisted bicycles (where Germany and the Netherlands account for more than 50% of overall demand). Yamaha's unit sales have been increasing in line with the growth of the European market, and the business is expanding globally.

Note: In Europe, electrically power assisted bicycles are called "e-bikes."



## Assistance Ratio as Set by Legal Standards in Japan



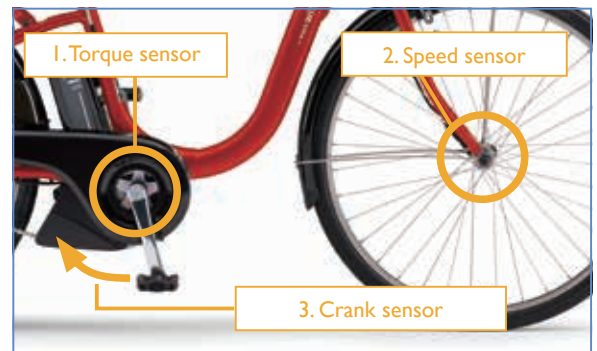
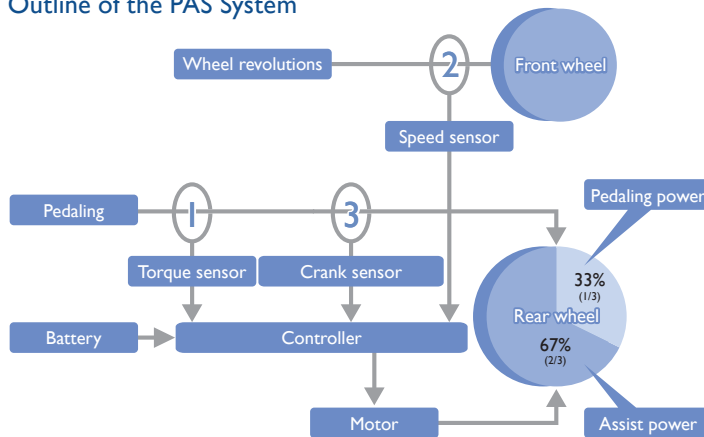
Up to 10 km/h, electric power assists pedaling at a maximum ratio of 1:2\*

Above 10 km/h, electric power assist is moderated to keep the bicycle from going too fast

Above 24 km/h, electric power assist is cut off

\* The maximum ratio set by legal standards

## Outline of the PAS System



1. Detects the amount of force applied to the pedals
2. Detects the speed of the bicycle while in motion
3. Detects the rotation speed of the pedals (crank)

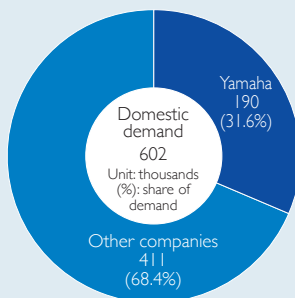
## Production

	Name of company	Location
PAS drive units	Yamaha Motor Electronics Co., Ltd.*	Morimachi, Shizuoka, Japan

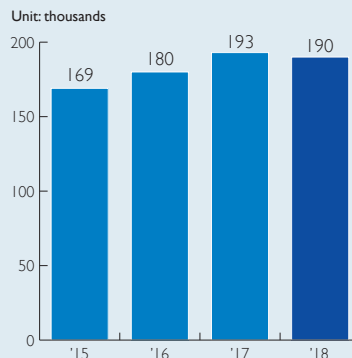
\* Group company

### FY2018 domestic demand and Yamaha Motor unit sales of CBU\* models

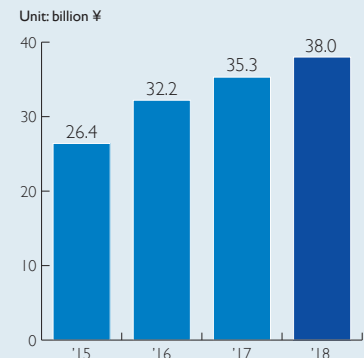
Note: Yamaha Motor surveys



### FY2018 Yamaha Motor unit sales of CBU\* models



### Yamaha Motor sales from SPV\*\* business (PAS and other)



\* CBU: Completely Built Up

\*\* SPV: Smart Power Vehicle

## Electric Wheelchairs



JW Active PLUS+ electric wheelchair



JW Swing electric assist wheelchair

### Product Profile

Wheelchairs, which facilitate the mobility of the elderly and persons with disabilities, are broadly divided into manual and electrically powered types. Yamaha Motor's Joy Wheel (JW) series, which brings a new dimension to the world of wheelchairs by combining the light weight and flexibility of manual wheelchairs with the power and stability of electrically powered models, includes both electric power units and completely assembled electric wheelchairs. Electric power units come in two types: power units that convert manual wheelchairs into electrically powered wheelchairs, and power assist units that make manual wheelchairs easier to use.

#### - Electric Power Type -

These units add electric power to facilitate the use of manual wheelchairs while retaining manual wheelchairs' convenience of being able to fold and carry. The unit consists of a joystick for operation, two wheels with a built-in motor and clutch system, and a compact, light-weight battery.

These power units can be attached to a variety of wheelchair models, for smooth operation using a single joystick.



JWX-1 PLUS+ electric power unit and unit mounted on wheelchair

#### - Assist Type -

Power assist units use electric power to supplement the turning of the handrims of a manual wheelchair, using the same Power Assist System as Yamaha's electrically power assisted bicycles (PAS). The units consist of a motor built into the wheel hub assembly, a handrim torque sensor, and a compact, lightweight battery.

Functions include "slant control," which makes it possible to move forward in a straight line even on a horizontal slope, and "assist distance control," which can be used to adjust the length of the assist distance for each push on the wheel. "JW Smart Tune," a dedicated

software for Yamaha wheelchairs, can also be set according to the user's physical condition and operating environment. The wheelchair can still be operated in the same way as manual ones, so that users use their residual function. Therefore, it gained a high reputation.



JWX-2 electric power assist unit and unit mounted on wheelchair

### Background of the Business

Applying its proprietary control and drive technologies to contribute to the health and social welfare of an aging population, Yamaha Motor began limited-area marketing of power units for manual wheelchairs in 1995 (followed by nationwide sales from 1996).

Since then, we have applied our proprietary advanced control and drive technologies to offer electric wheelchairs that are comfortable and convenient for users, and also minimize the effort required by caregivers.

### Current Business and Market Conditions

In Japan, most electric wheelchairs are used by persons with disabilities as certified mobility aids (eligible for government subsidies) or rented by the elderly under the long-term care insurance system.

Outside Japan, Yamaha supplies power units to manufacturers in the United States, Europe, Australia, South Korea and other countries on an OEM basis.

### Production

Name of company (Site)	Location
Yamaha Motor Co., Ltd. (Iwata Main Factory)	Iwata, Shizuoka, Japan

## Surface Mounters and Industrial Robots



Z:LEX surface mounter



Automated optical inspection systems



Multi-axis vertically articulated robots



SCARA robots

### Product Profile

Surface mounters are industrial robots that are designed to mount electronic components onto printed circuit boards used in the electrical components for mobile phones, automobiles, and other electronic products. Yamaha Motor has a full lineup of industrial robots, comprising single-axis robots, cartesian robots, SCARA robots, multi-axis vertically articulated robots, and linear conveyor modules, which are used in a variety of manufacturing processes including conveyance, supply, assembly, and inspection.

### Background of the Business

Yamaha Motor began research and development of industrial robots in 1974 to streamline the production of its motorcycles and improve manufacturing precision. In 1976, the Company introduced SCARA robots in-house to assemble parts on its motorcycle production lines, and in 1981 entered the industrial robot business. In 1987, the Company began marketing surface mounters, the cumulative production of which had reached 40,000 units by 2017.

### Current Business and Market Conditions

Surface mounters, Yamaha Motor's core product in this business segment, are high-speed modular units that boast superior mounting speed in both standalone applications and multiple-unit configurations. Yamaha Motor commands the largest market share for general-purpose surface mounters. Along with a full line of surface mounters to meet changing market needs from high-speed, large-volume manufacturing to multipurpose, highly generalized manufacturing, we are expanding the business to manufacture a full lineup of chip mounting equipment from screen printers and dispensers to testers.

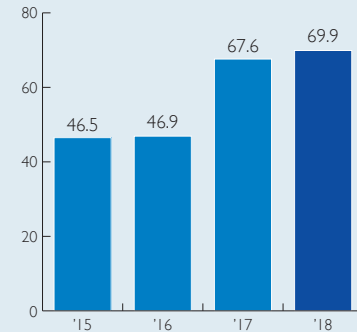
Yamaha stands out for its full lineup of industrial robots, from single-axis robots to multi-axis vertically articulated robots. These robots are used in a broad range of areas, including the automotive, electric and electronic, and food industries, and are making major contributions to the automation of manufacturing processes.

### Production

Name of company (Site)	Location
Yamaha Motor Co., Ltd. (Hamamatsu Robotics Base)	Hamamatsu, Shizuoka, Japan

Yamaha Motor sales from robotics business (surface mounters and robots)

Unit: billion ¥



## Automobile Engines



Automobile engines



Performance dampers



### Product Profile

Yamaha Motor's automobile engines feature high revolution speeds and high power, reflecting engine technologies the Company has acquired over the years through manufacturing motorcycles. The engine mounted on the Lexus LFA supercar (developed jointly with Toyota Motor Corporation) is a recent example of these products. Yamaha Motor also develops and manufactures suspension systems and other products using related technologies. The Company's performance damper, which enhances a car's performance by creating a smoother, more comfortable ride, is highly regarded in the industry. The performance damper is featured on a wide range of cars from major manufacturers in Japan, and aggregate production volume reached one million units in November 2016.

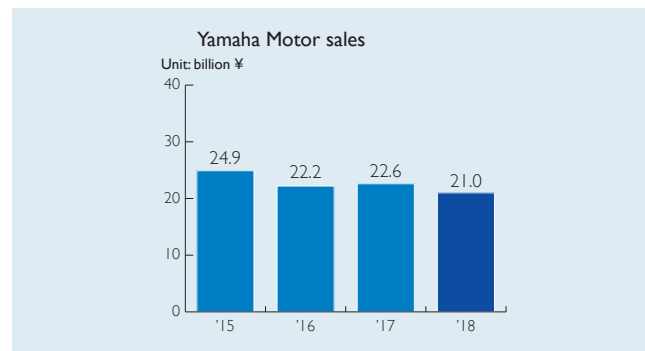
### Background of the Business

Ever since its founding, Yamaha Motor has amassed various technologies through its motorcycle development activities. Meanwhile, the Company has also conducted research and development of engine-related technologies for automobiles. In 1967, the Company entered a development and manufacturing venture for the Toyota 2000GT sports car together with Toyota Motor Corporation (then known as Toyota Motor Co., Ltd.). This had the effect of spurring further collaborative work with automobile makers. In 1989, Yamaha Motor also started participating in Formula One, the world's premier car racing series. In these ways, the Company has been a perpetual agent of innovation in automobile engine technologies.

### Production

	Name of company (Factory)	Location
Engine assembly	Yamaha Motor Co., Ltd. (Iwata Main Factory)	Iwata, Shizuoka, Japan
Engine processing	Yamaha Motor Co., Ltd. (Fukuroi Factory)	Fukuroi, Shizuoka, Japan
Performance dampers	Yamaha Motor Hydraulic System Co., Ltd.*	Morimachi, Shizuoka, Japan

\* Group company



## Other Products

### ▶ Parts and Accessories



Yamaha Motor sells replacement parts for its motorcycles, boats and other products, as well as accessories such as helmets and apparel.

### ▶ Pleasure-use Boat Mooring Equipment



Yamaha Motor sells equipment used in marina applications, such as pontoons.

## Industrial-use Unmanned Helicopters



YMR-08



FAZER R



Transmitter



Test spraying at a vineyard in the United States

### Product Profile

For its industrial-use unmanned helicopters, Yamaha Motor has developed support systems that incorporate a GPS-based speed control function for more stable operation, as well as altitude control systems that enable unmatched ease of operation and flying stability. These achievements bring to bear the various control technologies that are one of the core competencies of Yamaha Motor.

The new FAZER R, released in 2016, can carry a chemical payload of 32 liters, the largest of any of Yamaha Motor's industrial-use unmanned helicopters to date. For agricultural crop dusting, this makes it possible to cover four hectares without any additional agricultural chemicals and refueling, making crop-dusting operations significantly more efficient and less labor-intensive.

In March 2019, we released the YMR-08, an industrial multi-rotor drone for agricultural crop dusting. Together with our unmanned helicopters, these products are contributing to labor saving and increased efficiency in Japanese agriculture.

### - Agricultural Applications -

Major users include municipalities, National Federation of Agricultural Cooperative Associations, agricultural cooperatives, crop-dusting organizations and individual farmers. Their primary application is spraying agricultural chemicals. Yamaha industrial-use unmanned helicopters used in agriculture make jobs more efficient and thus help to improve productivity and reduce labor.

### - Observational and Surveying Applications -

Yamaha Motor provides municipalities, university research institutions, and other organizations with services for using industrial-use unmanned helicopters to conduct observations and surveys and do other related applications.

### Background of the Business

In the early 1980s, Yamaha Motor was commissioned by a government organization to develop an industrial-use unmanned helicopter that could easily perform agricultural crop-dusting operations. In 1987, the Company practicalized the world's first industrial-use unmanned helicopter, the R-50, and commenced full-scale marketing of the product in 1989.

Since then, Yamaha has become a leading company in the business. Our industrial-use unmanned helicopters have contributed to the modernization of Japan's agriculture industry, and their use has expanded to include aerial observation and survey work. In recent years, the Company has been promoting use of the helicopters for overseas agriculture markets.

### Production

Name of company (Factory)	Location
Yamaha Motor Co., Ltd. (Fukuroi Factory)	Fukuroi, Shizuoka, Japan

## Water Purification Systems



Yamaha Motor manufactures and markets water purifiers to improve the quality of living in Africa, Southeast Asia and other regions where access to potable water is limited.

## Racing Kart Engines



Yamaha Motor manufactures and sells engines for racing karts, entry-level machines often used to gain access to more challenging four-wheel motorsports.



Japanese: <https://global.yamaha-motor.com/jp/>  
English: <https://global.yamaha-motor.com/>

