TADANO

# Explanatory Materials for FY2016 Consolidated Financial Results

Lifting your dreams

Note on forecasts:

- This document (including business plans) is based on information available at the time of its preparation. Nevertheless, actual results may differ substantially from projections due to various risks and uncertainties.

**May 2017**
**TADANO Ltd.**

Lifting your dreams

# Corporate Profile

Lifting your dreams

| | |
|---|---|
| [Corporate name] | TADANO Ltd. (established August 24, 1948); founder: Masuo Tadano<br>Developed Japan's first hydraulic Truck Crane in 1955 |
| [Representative] | Koichi Tadano, President and C.E.O., Representative Director |
| [Head office] | Ko-34 Shinden-cho, Takamatsu, Kagawa, Japan |
| [Major lines of business] | Production and distribution of Mobile Cranes, Truck Loader Cranes, and Aerial Work Platforms |
| [Sites] | Tokyo Office [Sumida-ku], Takamatsu Plant [Takamatsu], Shido Plant [Sanuki],<br>Tadotsu Plant [Tadotsu], Chiba Plant [Chiba] |
| [Other facilities] | Japan: 10 branch offices, 23 sales offices;<br>Outside Japan: Beijing Office [China], Middle East Office [UAE] |
| [Paid-in capital] | ¥13,021 million [Stock shares] Shares issued: 129 million<br>Number of shareholders: 8,294 (as of March 31, 2017) |
| [Net sales] | ¥179,676 million (FY 2016) |
| [Number of employees] | Consolidated: 3,346; non-consolidated: 1,433 (as of March 31, 2017) |

[Major subsidiaries]

12 subsidiaries:
- TADANO IMES Ltd.
- TADANO ILEC Ltd.
- TADANO S-TEC Ltd.
- TADANO ENGINEERING K.K.
- TADANO TECHNO EAST Co., Ltd.
- TADANO TECHNO WEST Co., Ltd.
- TAIHEIKIKOU K.K.
- NITTSU JUKI SERVICE K.K.
- TADANO KYOSHU CENTER K.K.
- TADANO BUTSURYU K.K.
- TADANO SYSTEMS Inc.
- TADANO BUSINESS SUPPORT K.K.

18 subsidiaries and two affiliates outside Japan:
- TADANO FAUN GmbH, TADANO FAUN Stahlbau GmbH [Germany]
- TADANO UK Ltd [U.K.]
- TADANO France SAS [France]
- TADANO America Holdings, Inc., TADANO America Corp., TADANO MANTIS Corp., [U.S.A.]
- TADANO Panama S.A. [Panama]
- TADANO Brasil Equipamentos de Elevacao Ltda. [Brazil]
- JC-TADANO (Beijing) Hydraulic Co., Ltd., TADANO (Beijing) Ltd. [China]
- TADANO Korea Co., Ltd. [South Korea]
- TADANO (Thailand) Co., Ltd., TADANO Thai Parts and Service Co., Ltd. [Thailand]
- TADANO Asia Pte. Ltd. [Singapore]
- TADANO India Pvt. Ltd. [India]
- TADANO Oceania Pty Ltd, AML Equipment Pty Ltd [Australia]
- BQ-TADANO (Beijing) Crane Co., Ltd. [China]
- Taiwan TADANO Ltd. [Taiwan]



# Key Points of FY 2016 Financial Results

Lifting your dreams

(Unit: millions of yen)

| | FY 2015 | | FY 2016 | | Percent change |
|---|---|---|---|---|---|
| | Amount | Percentage | Amount | Percentage | |
| Net sales | 209,426 | 100.0% | 179,676 | 100.0% | -14.2% |
| Operating income | 31,062 | 14.8% | 18,484 | 10.3% | -40.5% |
| Ordinary income | 30,680 | 14.6% | 18,490 | 10.3% | -39.7% |
| Net income attributable to Tadano Ltd. | 19,621 | 9.4% | 11,881 | 6.6% | -39.4% |

| | | | | |
|---|---|---|---|---|
| Dividends per share | Mid-year | ¥13.00 | Mid-year | ¥13.00 |
| | Year-end | ¥13.00 | Year-end | ¥13.00 |
| | Full-year | ¥26.00 | Full-year | ¥26.00 |

| | FY 2015 | FY 2016 |
|---|---|---|
| Capital investment | ¥4,572 million | ¥6,030 million |
| Depreciation | ¥2,793 million | ¥3,113 million |
| Exchange rate (USD) | ¥121.05 | ¥108.84 |
| Exchange rate (EUR) | ¥134.31 | ¥120.33 |

* Figure for capital investments include leased assets.

* The exchange rates given above are average rates for the period from January to December. (Subsidiaries outside Japan undertake their settlement of accounts in

【FY2016 management policies】

(i) Pursuit of the TADANO Group's Core Values (Safety, Quality, Efficiency)

(ii) Completion of objectives from the final year of the Mid-Term Management Plan (14-16) and planning for the next Mid-Term Management Plan (17-19)

(iii) Preparation for and response to sudden market drops and escalating competition

◆ **Revenues and profits declined for the first time in six years**
- Further decline in demand for Mobile Cranes
- Foreign exchange effects

◆ **Sales decreased both in and outside Japan**

⇒Net sales in Japan: ¥104.9 billion → ¥102.2 billion (-2.6%)
Decrease in Mobile Cranes, slight decrease in Truck Loader Cranes, increase in Aerial Work Platforms

⇒Net sales outside Japan: ¥104.4 billion → ¥77.4 billion (-25.9%)
Continuing decline in demand, strong yen

◆ **Outside Japan sales ratio : 49.9% → 43.1%**

◆ **Income decreased from the previous year-end results:**

Operating income: ¥31.0 billion → ¥18.4 billion
Ordinary income: ¥30.6 billion → ¥18.4 billion
Net income: ¥19.6 billion → ¥11.8 billion

# Income Statement (vs. Previous Year)

(Unit: millions of yen)

| | FY 2015 | | FY 2016 | | Increase/ decrease |
|---|---|---|---|---|---|
| | Amount | Percentage | Amount | Percentage | |
| Net sales | 209,426 | 100.0% | 179,676 | 100.0% | -29,749 |
| Cost of sales | 146,298 | 69.9% | 129,682 | 72.2% | -16,615 |
| Gross profit on installment sales | -91 | -0.0% | 54 | 0.0% | 146 |
| Gross profit | 63,036 | 30.1% | 50,048 | 27.9% | -12,987 |
| Selling, general, and administrative expenses | 31,973 | 15.3% | 31,564 | 17.6% | -408 |
| Operating income | 31,062 | 14.8% | 18,484 | 10.3% | -12,578 |
| Non-operating income and loss | -382 | -0.2% | 6 | 0.0% | 388 |
| Ordinary income | 30,680 | 14.6% | 18,490 | 10.3% | -12,190 |
| Extraordinary income and loss | -563 | -0.3% | -1,147 | -0.6% | -584 |
| Income before income taxes | 30,117 | 14.4% | 17,342 | 9.7% | -12,774 |
| Corporate taxes | 10,608 | 5.1% | 5,401 | 3.0% | -5,207 |
| Net income attributable to noncontrolling interests | -113 | -0.1% | 58 | 0.0% | 171 |
| Net income attributable to Tadano Ltd. | 19,621 | 9.4% | 11,881 | 6.6% | -7,739 |

**[Key changes]**

◆ **COGS ratio: 69.9% → 72.2%**
- Despite the introduction of new models in Japan and efforts to maintain appropriate sales prices and to increase market shares outside Japan, due to lower sales and foreign exchange effects the COGS ratio up by 2.3% from the previous fiscal year.

◆ **Selling, general, and administrative expenses: ¥408 million decrease**
- Variable costs: - ¥363 million
- Personnel costs: - ¥224 million
- Other expenses: + ¥179 million

◆ **Non-operating income and loss:**
- Non-operating income: ¥623 million → ¥758 million
- Non-operating loss: ¥1,006 million → ¥752 million

◆ **Extraordinary income and loss:**
- Extraordinary income: ¥517 million → ¥150 million
- Extraordinary loss: ¥1,080 million → ¥1,298 million
  - Gain on sales of investment securities: ¥105 million
  - Loss on valuation of investments in capital of affiliates: ¥973 million
  - Impairment loss: ¥199 million



# Income Statement (Major Factors Leading to Change in Operating Income)

**Operating income fell ¥12.5 billion due to lower sales, foreign exchange effects, and other factors.**



# Balance Sheet (vs. End of Previous Period)

(Unit: millions of yen)

| | FY 2015 | | FY 2016 | | Increase/ decrease |
|---|---|---|---|---|---|
| | Amount | Percentage | Amount | Percentage | |
| Cash deposit | 73,618 | 31.3% | 68,745 | 29.9% | -4,873 |
| Accounts receivable | 51,143 | 21.7% | 48,717 | 21.2% | -2,425 |
| Inventories | 53,021 | 22.5% | 54,877 | 23.9% | 1,855 |
| Other current assets | 7,699 | 3.3% | 5,624 | 2.4% | -2,075 |
| Total current assets | 185,483 | 78.8% | 177,965 | 77.4% | -7,518 |
| Tangible fixed assets | 38,982 | 16.6% | 41,183 | 18.0% | 2,201 |
| Intangible fixed assets | 1,187 | 0.5% | 1,181 | 0.5% | -6 |
| Investment and other assets | 9,747 | 4.1% | 9,469 | 4.1% | -277 |
| Total fixed assets | 49,917 | 21.2% | 51,834 | 22.6% | 1,917 |
| Total assets | 235,400 | 100.0% | 229,799 | 100.0% | -5,600 |
| Accounts payable | 35,845 | 15.2% | 26,080 | 11.3% | -9,764 |
| Interest-bearing debt | 36,869 | 15.7% | 37,235 | 16.3% | 365 |
| Other liabilities | 27,889 | 11.8% | 23,934 | 10.4% | -3,954 |
| Total liabilities | 100,603 | 42.7% | 87,250 | 38.0% | -13,353 |
| Total equity | 134,796 | 57.3% | 142,549 | 62.0% | 7,752 |
| Total liabilities and equity | 235,400 | 100.0% | 229,799 | 100.0% | -5,600 |

## [Key changes]

◆ **Accounts receivable decreased:**
**¥51.1 billion → ¥48.7 billion**
⇒ The receivable turnover period deteriorated.
(FY2015: 89.1 days → FY2016: 99.0 days)

◆ **Inventories increased:**
**¥53.0 billion → ¥54.8 billion**
(The ¥54.8 billion includes ¥16.4 billion in TFG.)
⇒ The inventory turnover period deteriorated.
(FY2015: 92.4 days → FY2016: 111.5 days)

◆ **Interest-bearing debt increased:**
**¥36.8 billion → ¥37.2 billion**
⇒ Short-term: decreased by ¥0.7 billion;
Long-term: increased by ¥1.1 billion

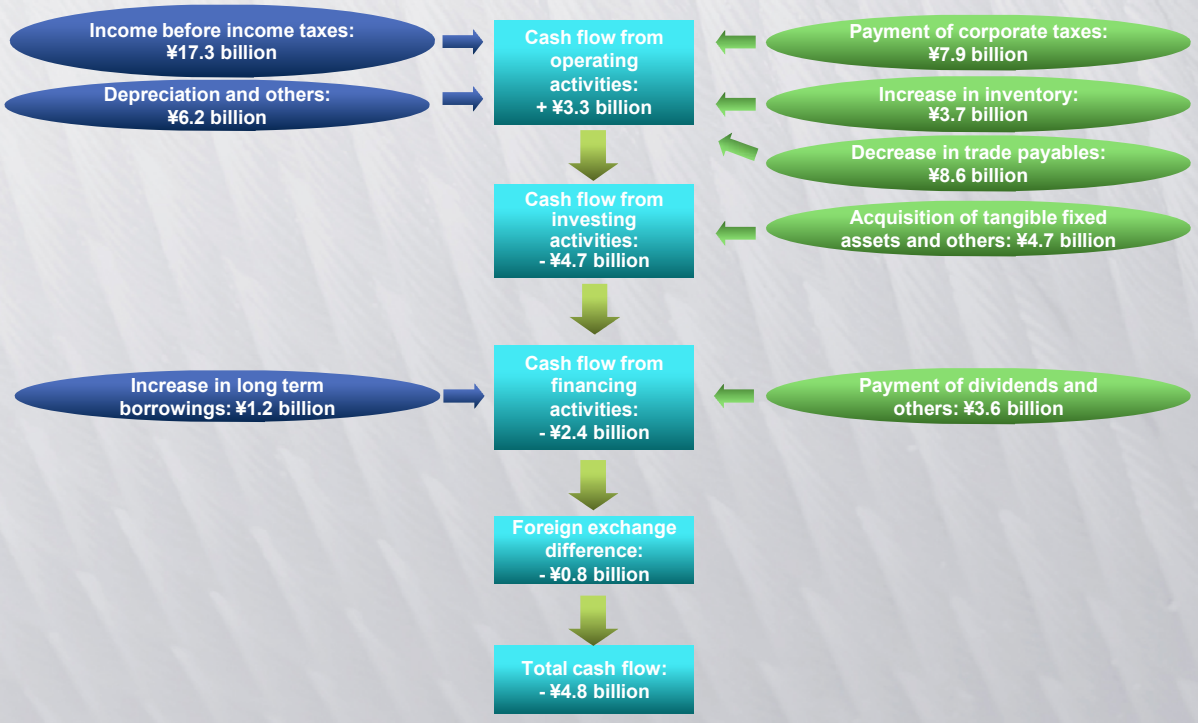
◆ **ROA (operating income basis)**
**13.5% → 7.9%**

◆ **ROE** **15.4% → 8.6%**

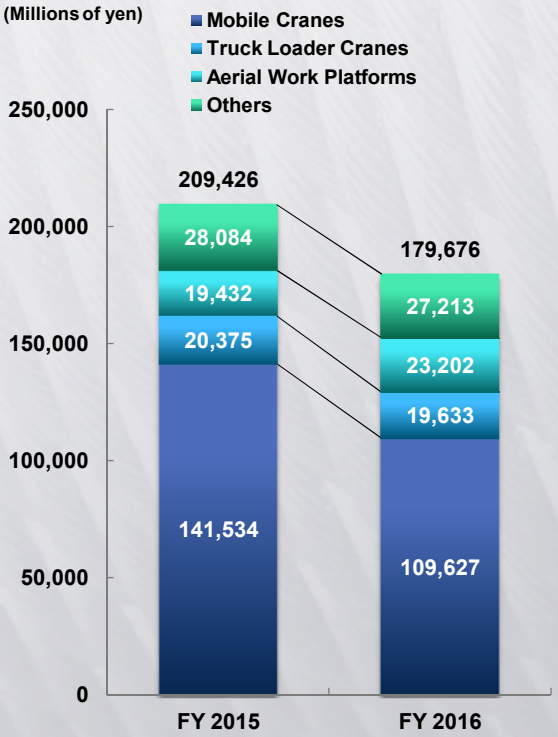


# Overview of Cash Flow

**Total cash flow fell ¥4.8 billion due to smaller cash flow from investing activities.**



# Net Sales by Product




(Unit: millions of yen)

| | FY 2015 | | FY 2016 | | Change | |
|---|---|---|---|---|---|---|
| | Amount | Percentage | Amount | Percentage | Amount | Percentage |
| Mobile Cranes | 141,534 | 67.6% | 109,627 | 61.0% | -31,906 | -22.5% |
| Truck Loader Cranes | 20,375 | 9.7% | 19,633 | 10.9% | -741 | -3.6% |
| Aerial Work Platforms | 19,432 | 9.3% | 23,202 | 12.9% | 3,769 | 19.4% |
| Others | 28,084 | 13.4% | 27,213 | 15.2% | -871 | -3.1% |
| Total | 209,426 | 100% | 179,676 | 100% | -29,749 | -14.2% |

◆Outside Japan sales ratio 49.9% → 43.1%

Mobile Crane sales in and outside Japan

| | | | | |
|---|---|---|---|---|
| Japan | 51,104 | 45,017 | -6,086 | -11.9% |
| Outside Japan | 90,429 | 64,609 | -25,819 | -28.6% |



# Sales Trends by Market Outside Japan




Sales fell 25.9% from the record high posted in the previous fiscal year.
Compared to the previous fiscal year, sales fell 9.4% in Europe, 35.0% in North America, 41.3% in Middle East, and 19.8% in Asia.



The GR-1600XL, one of the world's largest-capacity Rough Terrain Cranes (Released in August 2013)

| | FY 00 | FY 01 | FY 02 | FY 03 | FY 04 | FY 05 | FY 06 | FY 07 | FY 08 | FY 09 | FY 10 | FY 11 | FY 12 | FY 13 | FY 14 | FY 15 | FY 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Europe | 11,435 | 9,754 | 10,893 | 11,978 | 12,000 | 16,292 | 19,170 | 25,566 | 29,630 | 19,196 | 12,739 | 11,643 | 12,510 | 16,844 | 20,211 | 22,844 | 20,701 |
| North America | 2,671 | 2,739 | 2,755 | 3,402 | 4,547 | 9,798 | 12,324 | 18,342 | 20,145 | 15,301 | 6,616 | 13,938 | 20,406 | 27,782 | 36,836 | 39,127 | 25,438 |
| Caribbean, Central and South America | 948 | 586 | 287 | 457 | 866 | 1,721 | 2,420 | 2,542 | 2,722 | 887 | 1,691 | 3,012 | 2,201 | 2,449 | 3,475 | 826 | 1,513 |
| Asia | 4,225 | 4,368 | 5,362 | 5,185 | 4,888 | 4,749 | 7,861 | 12,069 | 10,954 | 9,680 | 6,603 | 9,190 | 10,982 | 16,923 | 16,383 | 17,083 | 13,694 |
| Middle East | 2,142 | 3,098 | 3,602 | 5,663 | 7,347 | 8,507 | 11,708 | 13,878 | 15,836 | 5,948 | 6,686 | 7,432 | 10,090 | 18,167 | 17,052 | 17,680 | 10,375 |
| Others | 956 | 1,524 | 2,066 | 3,696 | 4,634 | 5,790 | 7,409 | 9,158 | 10,063 | 5,177 | 3,939 | 7,654 | 9,970 | 13,320 | 9,576 | 6,881 | 5,683 |
| Total | 22,379 | 22,072 | 24,968 | 30,384 | 34,285 | 46,859 | 60,894 | 81,557 | 89,354 | 56,191 | 38,277 | 52,872 | 66,160 | 95,487 | 103,535 | 104,444 | 77,406 |
| Outside Japan Sales Ratio | 23.8% | 25.0% | 30.1% | 31.4% | 33.7% | 38.8% | 42.1% | 46.8% | 54.9% | 53.9% | 42.6% | 46.3% | 49.1% | 52.5% | 50.7% | 49.9% | 43.1% |
| Exchange rate (USD) | 107.83 | 121.54 | 125.35 | 115.99 | 108.24 | 110.21 | 116.38 | 117.84 | 103.46 | 93.57 | 87.81 | 79.84 | 79.82 | 97.65 | 105.85 | 121.05 | 108.84 |
| Exchange rate (EUR) | 99.63 | 108.8 | 118.41 | 131.03 | 134.47 | 136.92 | 146.14 | 161.24 | 152.44 | 130.2 | 116.39 | 111.12 | 102.63 | 129.68 | 140.42 | 134.31 | 120.33 |

Notes
- Other markets comprise Oceania, Africa, and the CIS.
- The exchange rates indicated above are average rates over each period. (Since the fiscal year of subsidiaries outside Japan ends in December, full-year rates are averages for January-December.)
- Euro figures for FY2001 and earlier have been converted from Deutsche Mark.

# Mobile Cranes

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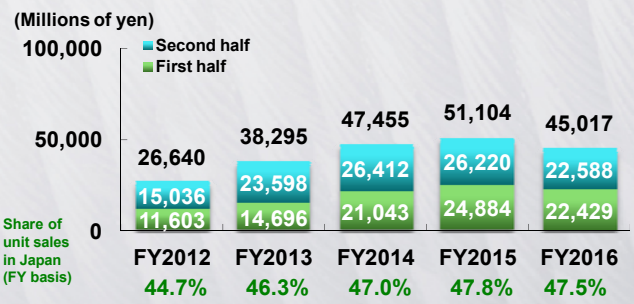
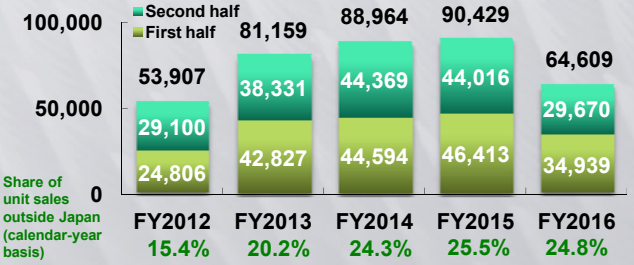
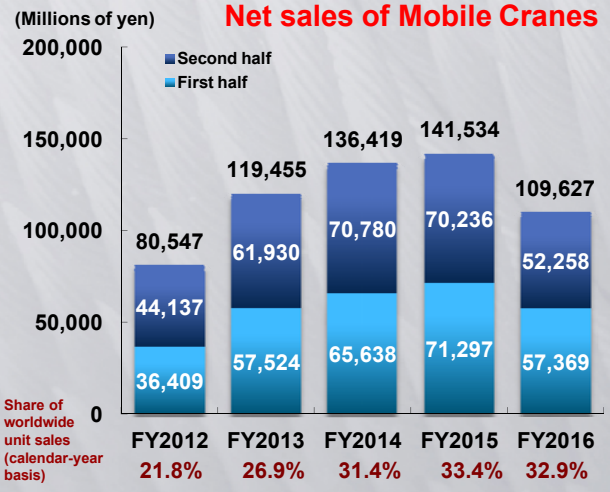
## Net sales of Mobile Cranes (Japan)




## Net sales of Mobile Cranes (Outside Japan)




## Net sales of Mobile Cranes






# Trends and Forecast of Construction Investment in Japan

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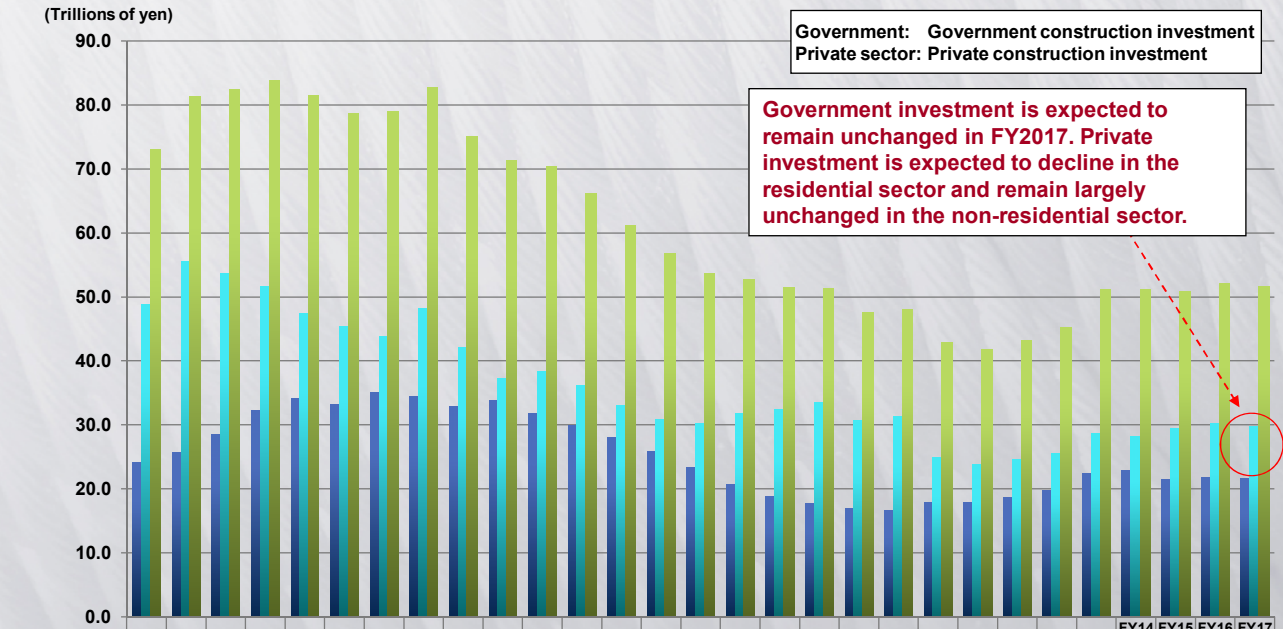


| | FY89 | FY90 | FY91 | FY92 | FY93 | FY94 | FY95 | FY96 | FY97 | FY98 | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | FY10 | FY11 | FY12 | FY13 | FY14 est. | FY15 est. | FY16 for. | FY17 for. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government | 24.2 | 25.7 | 28.6 | 32.3 | 34.2 | 33.2 | 35.1 | 34.5 | 32.9 | 33.9 | 31.9 | 29.9 | 28.1 | 25.9 | 23.4 | 20.8 | 18.9 | 17.7 | 16.9 | 16.7 | 17.9 | 17.9 | 18.6 | 19.7 | 22.5 | 22.9 | 21.5 | 21.9 | 21.7 |
| Private sector | 48.8 | 55.6 | 53.7 | 51.6 | 47.4 | 45.4 | 43.8 | 48.2 | 42.2 | 37.3 | 38.4 | 36.2 | 33.0 | 30.9 | 30.2 | 31.9 | 32.5 | 33.5 | 30.7 | 31.4 | 25.0 | 23.9 | 24.6 | 25.5 | 28.7 | 28.2 | 29.4 | 30.2 | 29.8 |
| Total | 73.1 | 81.4 | 82.4 | 83.9 | 81.6 | 78.7 | 79.0 | 82.8 | 75.1 | 71.3 | 70.4 | 66.1 | 61.2 | 56.8 | 53.7 | 52.8 | 51.5 | 51.3 | 47.6 | 48.1 | 42.9 | 41.9 | 43.2 | 45.2 | 51.2 | 51.2 | 50.9 | 52.1 | 51.6 |

Notes All figures shown are nominal construction investment figures.
Forecasts are from the Research Institute of Construction and Economy's "Forecast of Construction Investment" (released on April 26, 2017)

# Trends in Demand for Mobile Cranes in Japan




New products targeting safety and efficiency
GR-250N (G4): Released in October 2016

| | FY89 | FY90 | FY91 | FY92 | FY93 | FY94 | FY95 | FY96 | FY97 | FY98 | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | FY10 | FY11 | FY12 | FY13 | FY14 | FY15 | FY16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Second-half total demand | 3,039 | 3,489 | 3,173 | 2,276 | 1,749 | 1,788 | 1,933 | 2,327 | 1,417 | 913 | 812 | 762 | 569 | 530 | 607 | 740 | 907 | 1,071 | 1,311 | 685 | 541 | 556 | 823 | 1,020 | 1,363 | 1,336 | 1,278 | 1,031 |
| First-half total demand | 2,609 | 3,266 | 3,367 | 2,766 | 2,035 | 1,737 | 1,863 | 2,247 | 1,821 | 1,019 | 792 | 697 | 644 | 536 | 571 | 642 | 811 | 982 | 1,148 | 1,237 | 415 | 499 | 525 | 816 | 916 | 1,201 | 1,266 | 1,132 |
| Full-year total demand | 5,648 | 6,755 | 6,540 | 5,042 | 3,784 | 3,525 | 3,796 | 4,574 | 3,238 | 1,932 | 1,604 | 1,459 | 1,213 | 1,066 | 1,178 | 1,382 | 1,718 | 2,053 | 2,459 | 1,922 | 956 | 1,055 | 1,348 | 1,836 | 2,279 | 2,537 | 2,544 | 2,163 |

Based on TADANO research.



# Mobile Cranes

## Market share in Japan: 47.8% → 47.5%

**Demand for hydraulic Mobile Cranes in Japan was 2,163 units (for FY2016, based on TADANO research), down 15.0% from the previous fiscal year.**

→ **Focusing on sales growth in a climate of declining demand.**
**Ton-based shares: 53.7% → 46.3%.**
**Net sales in Japan were ¥45,017 million (88.1% of the previous fiscal year).**

## [Rough Terrain Cranes]

- Main models in the Japanese Mobile Cranes business account for 93% of demand in Japan (62% of North American demand)
- Cranes suited to urban use; essential to construction in urban areas
- With compact bodies, these cranes perform well even in narrow areas (both front and rear axles can be steered)
- Able to operate the carrier and the crane from the same driver's seat
- Japanese market: six models with 13 to 70 ton lifting capacity
- Outside Japan markets: eight models with 12 to 145 ton lifting capacity (TADANO produces models for both in and outside Japan, with Machine-Telemonitoring System)
- In Japan, these cranes travel on public roads; In North America, they are transported on trailers

GR-700N (G4)



Released in October 2016

## [All Terrain Cranes]

- Large cranes for urban development, elevated driveways, and bridge construction in Japan, account for 6% of demand in Japan (86% of European demand)
- Outstanding long-distance mobility in addition to maneuverability (with steering feature)
- Japanese market: six models with 100 to 550 ton lifting capacity (produced by TADANO FAUN GmbH in Germany and TADANO)
- Outside Japan markets: ten models with 40 to 400 ton lifting capacity (produced by TADANO FAUN GmbH in Germany)
- Disassembly required for transport on public roads in Japan; No disassembly required for transport in Europe

ATF100G



Released in April 2014 in Japan

# Mobile Cranes

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## [Truck Cranes]

- Cranes are mounted on trucks to make them easier to transport; primarily for markets outside of Japan, with demand in Japan accounting for a few units
- Outstanding long-distance mobility
- Japanese market: one model with 20 ton lifting capacity (produced by TADANO)
- Outside Japan markets: seven models with 35 to 80 ton lifting capacity (produced by TADANO, TADANO FAUN GmbH in Germany, and BQ-TADANO in China)




## [Points shared with Mobile Cranes]

- Regulators: Ministry of Land, Infrastructure, Transport and Tourism (vehicle regulations) and Ministry of Health, Labour and Welfare (crane regulations)
  The strengthening of engine emissions and noise regulations and enhanced enforcement of traffic regulations (disassembly for transport of large models such as all-terrain cranes)
- Buyers in Japan: Crane rental industry (primary and secondary subcontractors to general contractors, who dispatch cranes to construction sites along with licensed crane operators)
- Engine emissions regulations on construction under the direct jurisdiction of the Ministry of Land, Infrastructure, Transport and Tourism: The use of cranes compliant with level 2 standard values is required from April 2012.
  → The enforcement on regulations has been postponed in light of Great Tohoku Earthquake recovery construction
- Level 4 emissions regulations for RCs in Japanese market
  Motor output 130 kW or higher: starting September, 2016 Less than 130 kW: starting September, 2017
- Emissions regulations for RCs in North American markets: Tier 4: started January 2014 (Next-generation regulations to be determined)
- Emissions regulations for ACs in European markets: Euromot V: starting January 2019



# Structure of the World Crane Industry

(Manufacturers of Hydraulic Cranes and Crawler Cranes)

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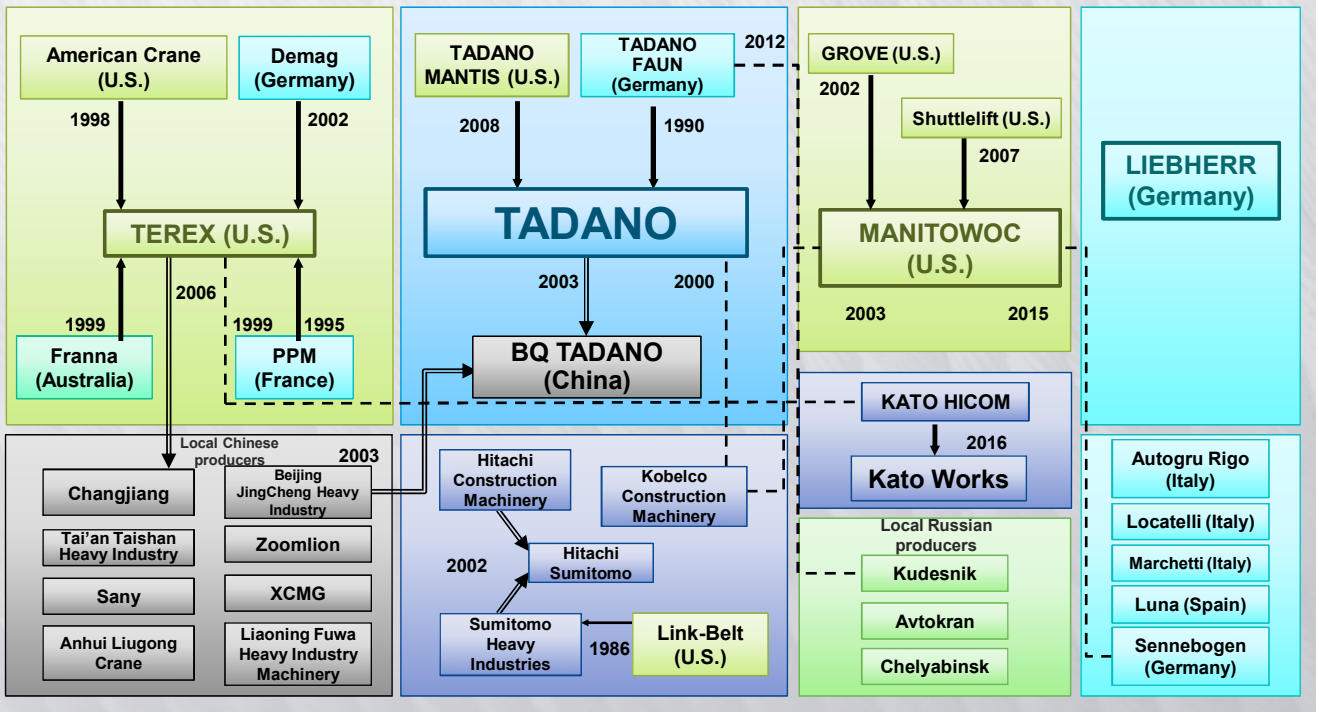


# Trends in Global Demand for Mobile Cranes
(Calendar-year Basis)



Note: Broken lines indicate trends in annual demand as a percentage of the bottom base year having the lowest demand in each market (assigned the value 1)
(In North America and Europe the bottom year was 2010, and in Japan it was 2009.) Peak year ⬭ Bottom year △

World demand collapsed by 59% over the two-year period following the economic shock spurred by the collapse of Lehman Brothers. Since peaking in 2012, demand outside Japan has trended downward.

A crane delivering both a long boom and improved drivability, along with a choice of left- or right-hand-drive cabins
GR-500EXL: Released in March 2015 for markets outside Japan.




| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Europe | 1,272 | 1,502 | 1,702 | 2,110 | 2,268 | 2,392 | 2,290 | 2,031 | 1,995 | 1,941 | 2,053 | 2,116 | 2,485 | 3,002 | 1,997 | 1,067 | 1,155 | 1,146 | 1,080 | 1,231 | 1,397 | 1,479 |
| North America | 1,372 | 1,777 | 1,998 | 2,614 | 2,472 | 2,281 | 1,490 | 1,175 | 954 | 1,101 | 1,614 | 2,398 | 2,988 | 3,577 | 1,428 | 905 | 1,621 | 2,316 | 2,355 | 1,930 | 1,453 | 1,014 |
| Others | 868 | 1,026 | 1,379 | 895 | 554 | 559 | 812 | 757 | 896 | 1,073 | 1,270 | 1,618 | 2,273 | 2,834 | 1,827 | 1,796 | 2,125 | 2,718 | 2,595 | 2,458 | 2,036 | 1,509 |
| Demand outside Japan | 3,512 | 4,305 | 5,079 | 5,619 | 5,294 | 5,232 | 4,592 | 3,963 | 3,845 | 4,115 | 4,937 | 6,132 | 7,746 | 9,413 | 5,252 | 3,768 | 4,901 | 6,180 | 6,030 | 5,619 | 4,886 | 4,002 |
| Japan | 3,711 | 4,384 | 3,821 | 2,151 | 1,667 | 1,493 | 1,378 | 1,085 | 1,154 | 1,350 | 1,614 | 1,961 | 2,345 | 2,317 | 901 | 1,072 | 1,148 | 1,677 | 2,096 | 2,566 | 2,585 | 2,306 |
| Total demand | 7,223 | 8,689 | 8,900 | 7,770 | 6,961 | 6,725 | 5,970 | 5,048 | 4,999 | 5,465 | 6,551 | 8,093 | 10,091 | 11,730 | 6,153 | 4,840 | 6,049 | 7,857 | 8,126 | 8,185 | 7,471 | 6,308 |

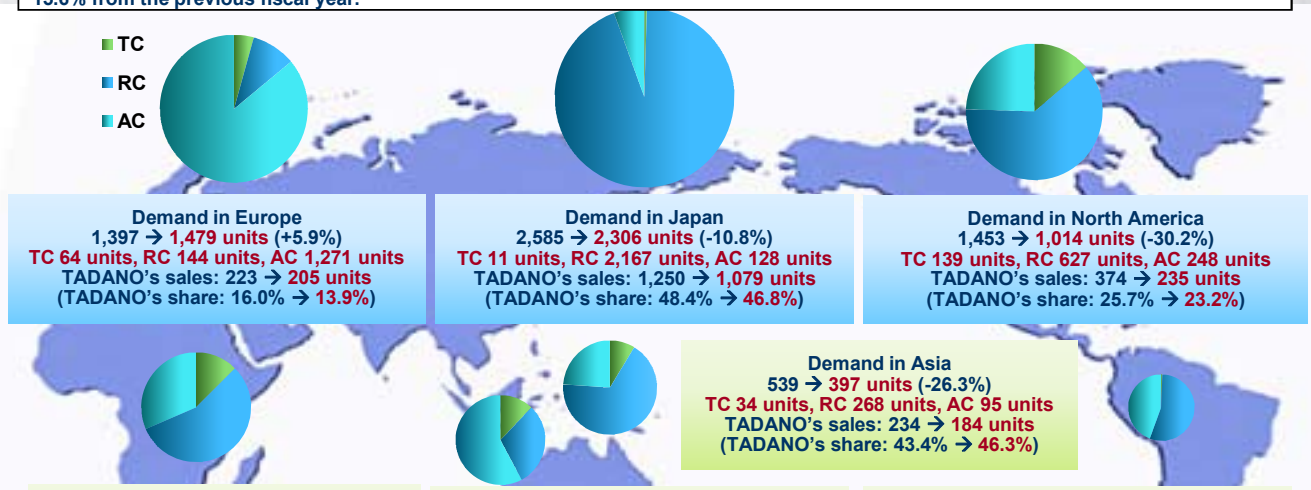
1. Demand outside Japan markets is estimated by TADANO based on SYSTEMATIC, CEMA, FEM, and other statistical data
2. Mobile Cranes produced in China and Russia are excluded.
   Demand trends in Chinese Market for Mobile Cranes produced in China are as follows:
   2010: 35,000 units, 2011: 35,000 units, 2012: 22,000 units, 2013: 17,000 units, 2014: 14,000 units, 2015: 9,000 units, 2016: 9,000 units



# Mobile Cranes
## Crane-type Composition of Demand by Region (Calendar-year Basis)

Lifting your dreams

TADANO's share in the global market fell from 33.4% to 32.9%.
(Excluding Chinese and Russian production from the global demand.) TADANO's sales fell from 2,495 units to 2,073 units.
Global demand for hydraulic Mobile Cranes fell from 7,471 units to 6,308 units (January-December 2016, TADANO research), down 15.6% from the previous fiscal year.




**Demand in Europe**
1,397 → 1,479 units (+5.9%)
TC 64 units, RC 144 units, AC 1,271 units
TADANO's sales: 223 → 205 units
(TADANO's share: 16.0% → 13.9%)

**Demand in Japan**
2,585 → 2,306 units (-10.8%)
TC 11 units, RC 2,167 units, AC 128 units
TADANO's sales: 1,250 → 1,079 units
(TADANO's share: 48.4% → 46.8%)

**Demand in North America**
1,453 → 1,014 units (-30.2%)
TC 139 units, RC 627 units, AC 248 units
TADANO's sales: 374 → 235 units
(TADANO's share: 25.7% → 23.2%)

**Demand in Asia**
539 → 397 units (-26.3%)
TC 34 units, RC 268 units, AC 95 units
TADANO's sales: 234 → 184 units
(TADANO's share: 43.4% → 46.3%)

**Demand in Middle East**
851 → 559 units (-34.3%)
TC 70 units, RC 313 units, AC 176 units
TADANO's sales: 311 → 247 units
(TADANO's share: 36.5% → 44.2%)

**Demand in other markets**
459 → 390 units (-15.0%)
TC 47 units, RC 118 units, AC 225 units
TADANO's sales: 87 → 97 units
(TADANO's share: 19.0% → 24.9%)

**Demand in Central and South America**
187 → 163 units (-12.8%)
TC 1 unit, RC 90 units, AC 72 units
TADANO's sales: 16 → 26 units
(TADANO's share: 8.6% → 16.0%)

Notes "TC" refers to Truck Cranes, "RC" to Rough Terrain Cranes, and "AC" to All Terrain Cranes.
The above figures are TADANO estimates. The term "Other markets" refers to Oceania, Africa and CIS. Units and shares indicate changes from the previous fiscal year.

# European Business

**< Our missions for the European business >**
**Offering full range of All Terrain Cranes, increasing shares in Europe, and sales promotion outside Europe**




- **Overview of group companies in Europe**

**[TADANO FAUN GmbH]**
Acquired in 1990
Paid-in capital: 45 million EUR; wholly-owned subsidiary of TADANO
Location: Bavaria, Germany
Line of business: Development, production, and distribution of Mobile Cranes
Representative and President: Alexander Knecht; number of employees: 636
Sales trend:
2009; 270 million EUR/381 units, 2010; 178 million EUR/213 units, 2011; 199 million EUR/248 units, 2012; 268 million EUR/294 units, 2013; 313 million EUR/329 units, 2014; 308 million EUR/347 units, 2015; 304 million EUR/376 units, 2016; 319 million EUR/363 units

**[TADANO FAUN Stahlbau GmbH]**
Paid-in capital: 650,000 EUR (ownership: TFG 80%; Amron 10%; Kozai Iron 10%)
Established: September 2008
Location: Inside TFG plant, Bavaria, Germany
Line of business: Parts production (jibs and others) for TFG Mobile Cranes
Representative and President: Rolf Sonntag ; number of employees: 12

**[TADANO UK Ltd]**
Acquired in April, 2014
Paid-in capital:2,000 GBP, wholly-owned subsidiary of TFG
Location: South Yorkshire, United Kingdom
Line of business: Distribution and service of Mobile Cranes
Representative and President:Thomas Schramm; number of employees: 17

**[TADANO France SAS]**
Established in February 2016; capital: 50,000 EUR; wholly-owned subsidiary of TFG
Line of business: Distribution and service of Mobile Cranes
Representative and President: Thomas Schramm; number of employees: 4




- **Accelerating the line-up expansion, to offer full range of All Terrain Cranes:**
Ten models with 40 to 400 ton lifting capacity are available.
Largest-class 600 ton (eight-axle) crane exhibited at Bauma in April 2016; sales are expected to begin during FY2017.



# American Businesses

**< Our missions for the American businesses >**
**Increasing shares in North America, and efforts for Caribbean, Central and South America**

- **Overview of group companies in the Americas**




**[TADANO America Corp.]**
Paid-in capital: 2.5 million USD; wholly-owned subsidiary of TAH*; location: Texas, U.S.A.
Line of business: Distribution of Mobile Cranes
Representative and President: Ingo Schiller; number of employees: 79
Sales trend: 2011: 183 million USD; 2012: 249 million USD; 2013: 262 million USD; 2014: 305 million USD; 2015: 285 million USD; 2016: 206 million USD

**[TADANO MANTIS Corp.]**
Acquired in 2008
Paid-in capital: 287,000 USD; wholly-owned subsidiary of TAH*
Location: Tennessee, U.S.A.
Lines of business: Manufacture and distribution of Telescopic Boom Crawler Cranes
Representative and President: Shiro Morita; number of employees: 136
Major products: Telescopic Boom Crawler Cranes (products combining carriers with track belt suspensions and cranes with hydraulic telescoping booms); mainly used in civil engineering and construction work, these cranes are ideally suited to work performed on unleveled ground, muddy ground, and inside tunnels.
Sales trend: 2011: 34 million USD; 2012: 39 million USD; 2013: 36 million USD; 2014: 30 million USD; 2015: 40 million USD, 2016: 27 million USD

**[TADANO Panama S.A.]**
Paid-in capital: 10,000 USD; wholly-owned subsidiary of TADANO
Location: Panama City, Panama
Line of business: Distribution and service of Mobile Cranes and other products
Representative and President: Kenji Munezawa; number of employees: 4

**[TADANO Brasil Equipamentos de Elevacao Ltda. ]**
Paid-in capital: 30 million BRL; wholly-owned subsidiary of TADANO
Location: Sao Paulo, Brazil
Lines of business: Distribution and service of Mobile Cranes and other products
Representative and President: Keisuke Nagai; number of employees: 10

* TAH stands for TADANO America Holdings, Inc.




(Introduced March 2015
First TMC model to use a round boom, developed jointly with TADANO)
- Awarded 2014 LE Award by Lift and Access, a U.S. periodical

# Chinese Business

Lifting your dreams

**< Our missions for the Chinese businesses >**

**Realizing cost reduction and quality improvement, sales promotion inside China, and increasing exports from China**
**Revaluation losses were recorded due to declining business conditions.**

- **Overview of group companies in China**

**[BQ TADANO (Beijing) Crane Co., Ltd.]**
Paid-in capital: 30 million USD; shares divided 50/50 between TADANO and Beijing Jing Cheng Heavy Industry Co., Ltd. (established in March 2003)
Location: Linhe Industrial Development Zone, Syunyi District, Beijing (about 25 km northwest of central Beijing)
Lines of business: Production and distribution of Truck Cranes, with eight models of TCs with lifting capacities of 8-100 tons
President: Hidemi Uchida (from TADANO); number of employees: 110

**[TADANO (Beijing) Ltd.]**
Paid-in capital: 5 million USD (wholly-owned subsidiary of TADANO [established in March 2012])
Location: Chaoyang District, Beijing
Lines of business: Distribution and service for Mobile Cranes
President: Hulin Jin (from TADANO); number of employees: 7

**[JC-TADANO (Beijing) Hydraulic Co., Ltd.]** **Liquidation resolution approved in September, 2015**
Paid-in capital: 4 million USD (ownership: TADANO 65%, Mimura Ironworks 5%, Murakami Manufacturing 5%, and Beijing JingCheng Heavy Industry 25% [established in September 2007])
Location: Tongzhou District, Beijing (about 20 km east of central Beijing)
Lines of business: Production and distribution of hydraulic parts for use in Mobile Cranes (e.g., valves, rotary joints, small cylinders, pipes)
President: Teruyuki Murakami (from TADANO); number of employees: 3

**[JTL-TADANO (Hebei) Ironparts Co., Ltd.]** **Sold in March 2017 (removed from the scope of consolidation)**
Paid-in capital: 5.5 million USD (ownership: TADANO 56%, Amron 5%, Kawanishi 5%, and Hebei JTL 34% [established in January 2010])
Location: Development District, Zhuozhou City, Hebei Province (about 60 km southwest of central Beijing)
Lines of business: Production and distribution of metal parts for use in Mobile Cranes (e.g., booms, jibs, outriggers)
President: Teruyuki Murakami (from TADANO); number of employees: 52

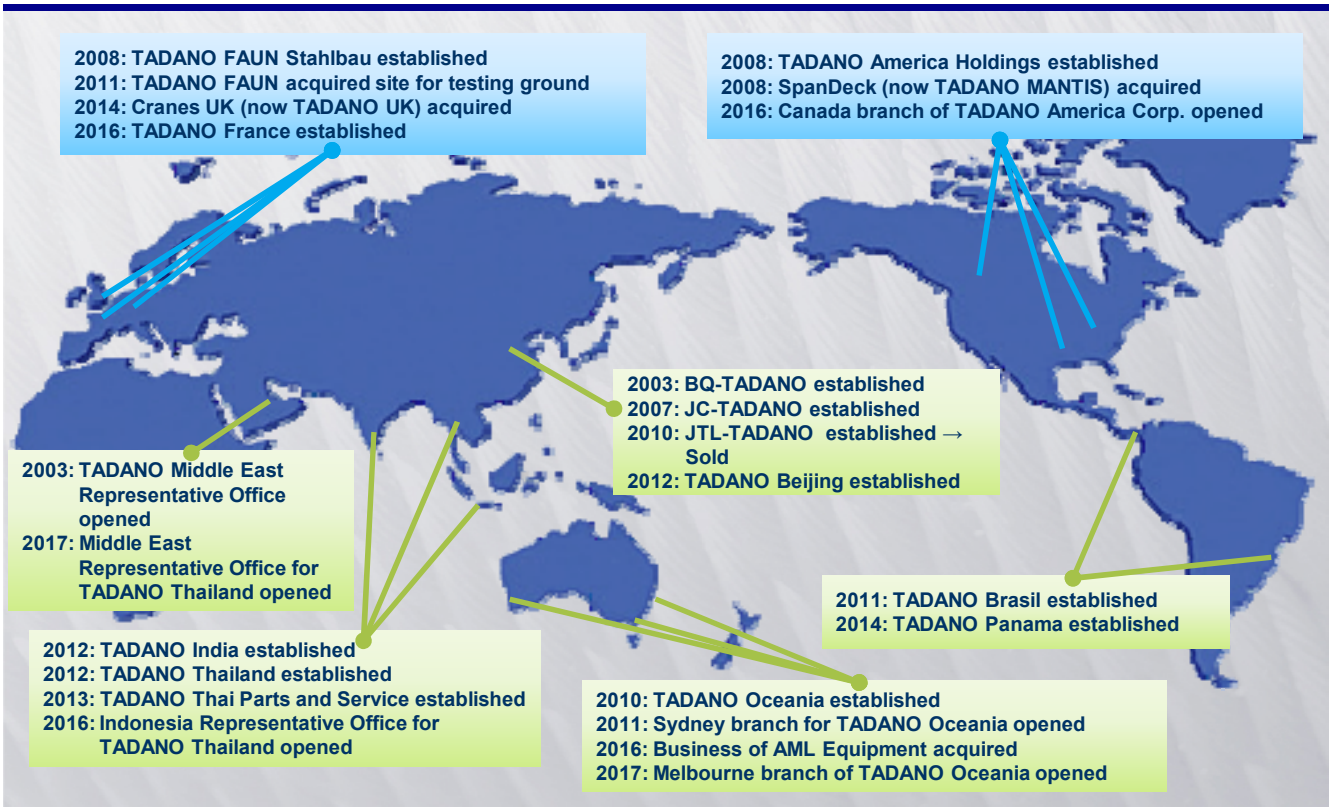

BQ TADANO



# Business Expansion Outside Japan Since 2003

- 16 Companies Established or Acquired; 7 New Facilities Opened -

Lifting your dreams



# Truck Loader Cranes

Lifting your dreams

**[Loader Cranes] Market share in Japan: 48.6% → 50.4%**

**Demand in Japan was 15,560 units (for FY2016, based on TADANO research), down 7.7% from the previous fiscal year.**

**→ In a climate of declining demand, sales fell despite a focus on sales growth.**
**Net sales were ¥19,633 million (96.4% of the previous fiscal year).**

- Mounted trucks, these small cranes allow operators to load, transport, and install cargo with a single unit.
- They are sold indirectly by truck dealers for use in logistics, gardening, and construction industries.
- Numerous models are available for mounting on compact, mid-sized, and large trucks, with lifting capacities ranging from 0.49 to 4.9 tons.

-Regulator-
- Primarily the Ministry of Health, Labour and Welfare (crane regulations)

-Major buyers and distinctive features-
- Truck dealers
- Sales tend to parallel truck demand.

ZE600



(The first of its kind to have an optional No Idle feature.)

[Business outside of Japan]
- TADANO has focused its efforts on exports of Loader Cranes to strategic markets, exporting crane components for mounting on local trucks.
  Sales in FY2015: ¥1,680 million; sales in FY2016: ¥1,440 million
- Accelerating expansion outside Japan, including the opening of a manufacturing subsidiary in Thailand in April 2012.

ZR560



(ZR560 Loader Crane for export)

SS-38F

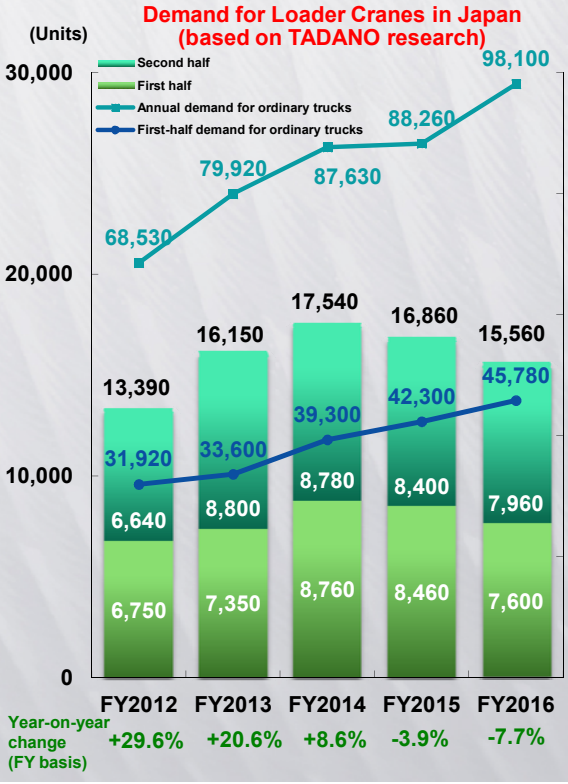


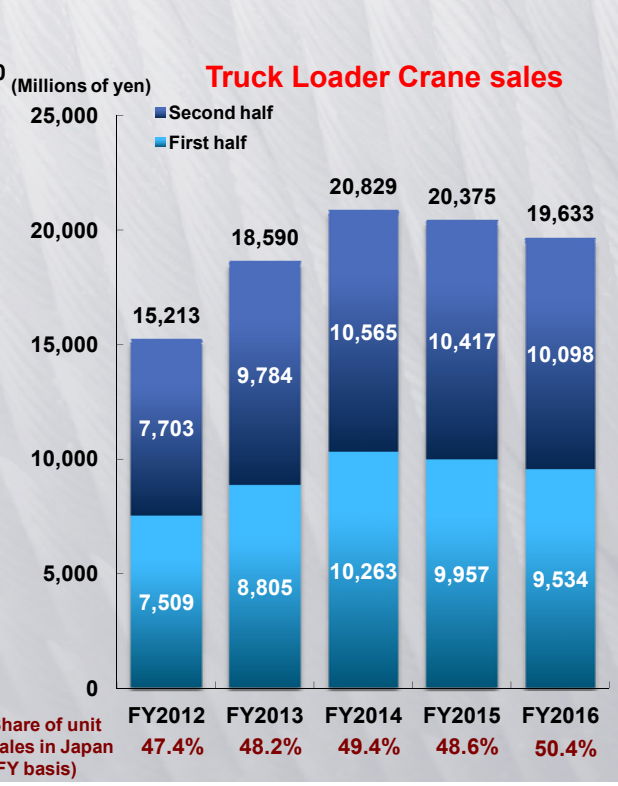
(Slide bed Vehicle Carrier [transport vehicle])



# Truck Loader Cranes

Lifting your dreams



# Truck Loader Cranes - Steps for globalization -

Lifting your dreams

[TADANO (Thailand) Co., Ltd.]

Paid in capital: 636 million THB; wholly-owned subsidiary of TADANO
Establishment: April 2012 (Operation launch: June 2013)
Location: Hemaraj Eastern Seaboard Industrial Estate, Rayong Province, Thailand
Line of business: Production and distribution of Loader Cranes
Productive capacity: 1,000 units/year (Sales: 258 units in 2014, 418 units in 2015, 385 units in 2016)
Representative and President: Kozo Yoshida; number of employees: 43

- TADANO has established the first outside Japan production base for products other than Mobile Cranes. While accelerating the expansion of our business outside Japan, we aim to increase profitability by establishing the manufacturing subsidiary.



Loader Crane ZT1000 manufactured in the plant in Thailand (Released in July 2016)

[Plans to establish a joint sales company in Thailand]

- To further increase our market share of Truck Loader Cranes in Thailand, one of our main markets, we will establish a joint sales company in Bangkok with Italthai Industrial Co., Ltd., our distributor in Thailand, in May 2017. The paid-in capital will be THB 50 million (Tadano will hold 49% of shares).



Inside of the plant




TADANO (Thailand)



Lifting your dreams

# Aerial Work Platforms

Lifting your dreams

## Market share in Japan: 39.2% → 36.3%

**Japanese demand for Aerial Work Platforms mounted on trucks was 4,929 units (for FY2016 TADANO research), up 19.1% from the previous fiscal year.**

⇒ **While demand grew for Aerial Work Platforms, a focus on sales growth in high-value-added Super Deck and Bridge Checker models resulted in record net sales of ¥23,202 million, up 19.4% from the previous fiscal year.**

Mounted on trucks:
- Five models for telecommunications use
- Three models for electric construction use
- 13 models for general construction use

Wheeled: Two models

Super Deck: Five models
(Equipped with advanced control technologies)

Bridge Checker:Three models
(Used in inspections of elevated roadways and bridges)



Bridge Checker BT-200

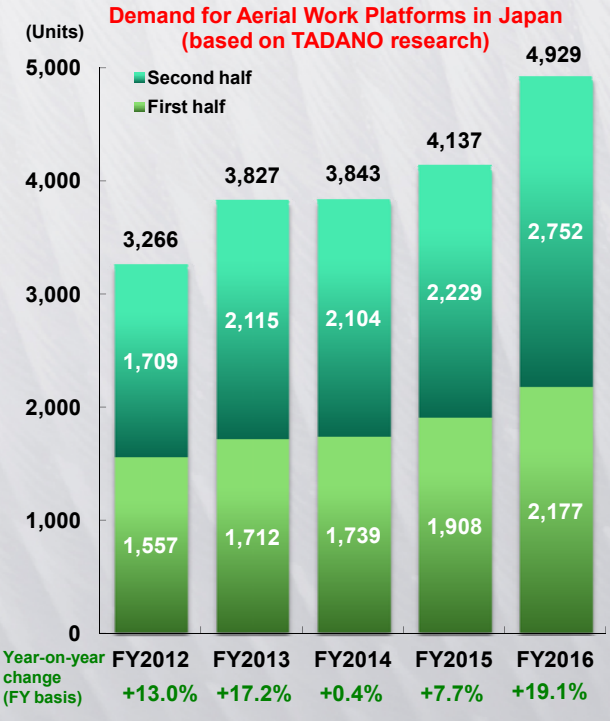
-Regulator-
- Primarily the Ministry of Health, Labour and Welfare (Aerial Work Platform regulations)

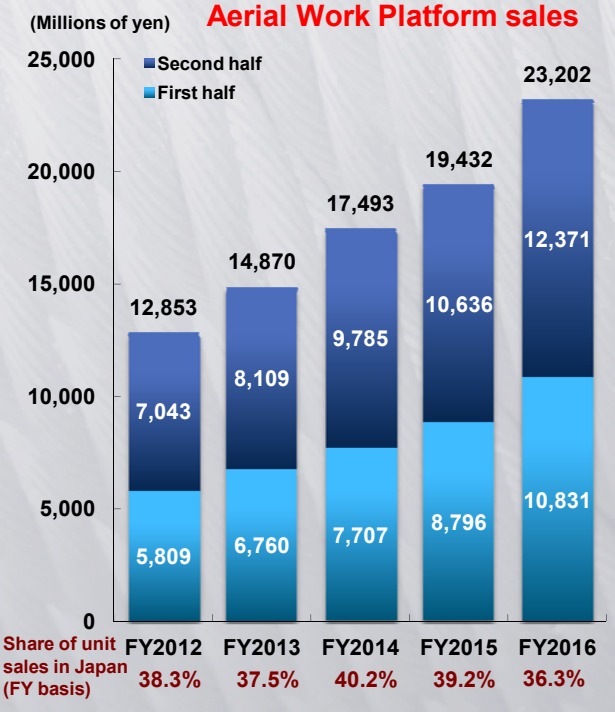
-Major buyers and distinctive features-
- Power-related electrical construction, telecommunications, rental, general use, shipbuilding, Ministry of Land, Infrastructure, Transport and Tourism



# Aerial Work Platforms

Lifting your dreams



# Other Businesses

Lifting your dreams

→ **Net sales from other businesses, such as parts, repairs, used cranes and other products, were ¥27,213 million (96.9% of the previous fiscal year).**

**[Used cranes]**

- In this fiscal year, sales in Japan increased; sales outside Japan saw no growth
- The globalization of this business will be a future focus

**[Parts and repairs]**

- TADANO books sales for repair parts
  (In general, repairs are done by designated service facilities and distributors outside of Japan. These parties book the repair sales.)
- Sales in Japan saw no growth; sales outside Japan decreased during this fiscal year



Example of boom removal from
All Terrain Crane, ATF400G
CL-500 (Released in August 2013)

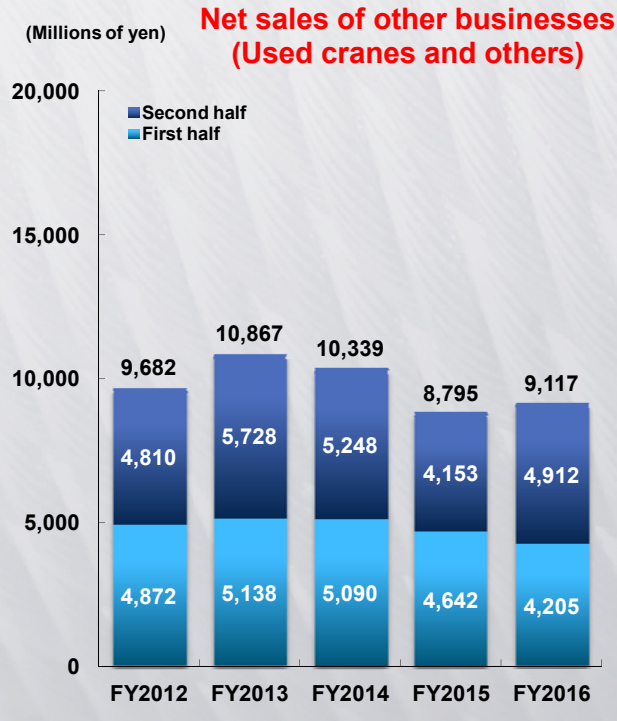
**[All Terrain Crane mounting/removal lifters]**

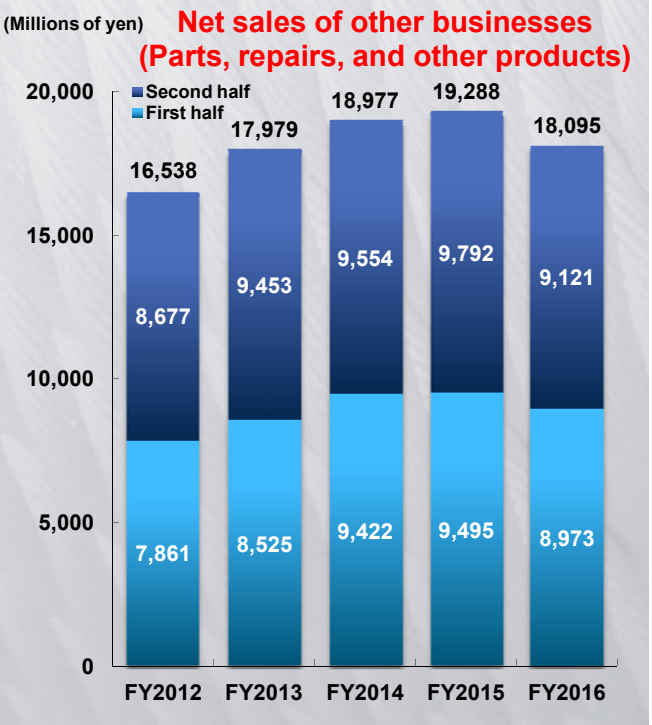
- These lifters are used to install and remove All Terrain Crane booms in Japan, where the law requires disassembly for transportation on public roads



# Other Businesses

Lifting your dreams



# FY2017 Business Performance Forecasts

(Unit: millions of yen)

| | FY2016 | | FY2017 forecast | | Percent change |
|---|---|---|---|---|---|
| | Amount | Percentage | Amount | Percentage | |
| Net sales | 179,676 | 100.0% | 175,000 | 100.0% | -2.6% |
| Operating income | 18,484 | 10.3% | 17,000 | 9.7% | -8.0% |
| Ordinary income | 18,490 | 10.3% | 16,500 | 9.4% | -10.8% |
| Net income attributable to Tdano Ltd. | 11,881 | 6.6% | 11,000 | 6.3% | -7.4% |

| | | | | |
|---|---|---|---|---|
| Dividends per share | Mid-year | ¥13.00 | Mid-year | ¥13.00 |
| | Year-end | ¥13.00 | Year-end | ¥13.00 |
| | Full-year | ¥26.00 | Full-year | ¥26.00 |

| | | |
|---|---|---|
| Capital investment | ¥6,030 million | ¥8,000 million |
| Depreciation | ¥3,113 million | ¥3,300 million |
| Exchange rate (USD) | ¥108.84 | ¥110.00 |
| Exchange rate (EUR) | ¥120.33 | ¥120.00 |

Figures for capital investment include leased assets

## [FY2017 management policies]

(i) Pursue of the Tadano Group's Core Values (Safety, Quality, Efficiency)
(ii) Engage in first-year activities of the Mid-Term Management Plan (17-19)
(iii) Focus on the Tadano Red Arrow, and engaging in Tadano Yellow Arrow activities
(iv) Prepare for and respond to Tadano Blue Arrow changes and escalating competition

## 【Nine Strategies of the Mid-Term Management Plan (17- 19)】

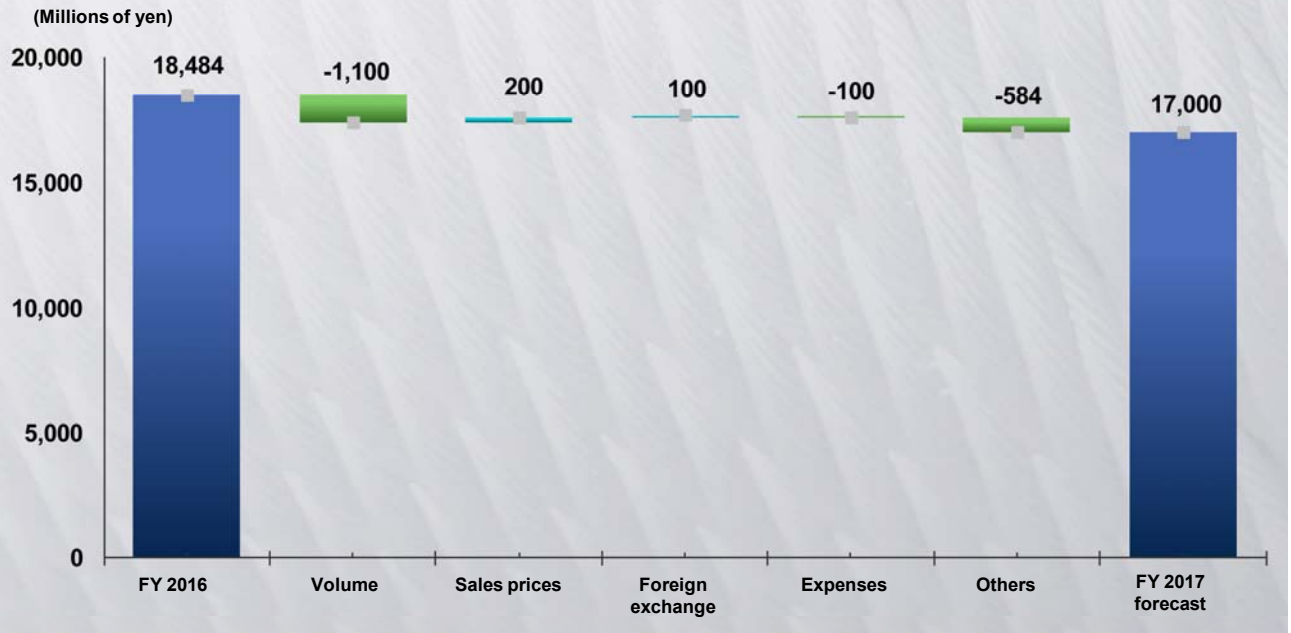
(i) Improve Market Position
(ii) Enhance Product Competitiveness
(iii) Pursue Global & Flexible MONOZUKURI
(iv) Provide Outstanding Quality & Service
(v) Improve Product Life-Cycle Value
(vi) Develop Solution Business
(vii) Raise Level of Profitability and Asset Efficiency
(viii) Establish Growth Structure
(ix) Strengthen the Tadano Group & Global Management Structure

◆ FY2017 proportion of sales outside Japan: 45.4%

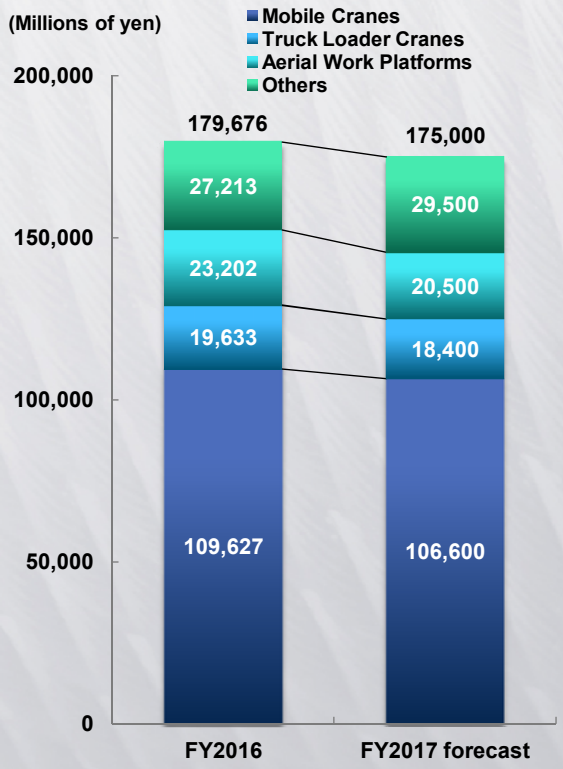


# FY 2017 Business Performance Forecasts
(Main Causes of Changes in Operating Income)

**Operating income is expected to fall ¥1.4 billion due to lower sales and other factors.**



# FY 2017 Business Performance Forecasts
(Net Sales by Product)




(Unit: millions of yen)

| | FY2016 | | FY2017 forecast | | Change | |
|---|---|---|---|---|---|---|
| | Amount | Percentage | Amount | Percentage | Amount | Percentage |
| Mobile Cranes | 109,627 | 61.0% | 106,600 | 60.9% | -3,027 | -2.8% |
| Truck Loader Cranes | 19,633 | 10.9% | 18,400 | 10.5% | -1,233 | -6.3% |
| Aerial Work Platforms | 23,202 | 12.9% | 20,500 | 11.7% | -2,702 | -11.6% |
| Others | 27,213 | 15.2% | 29,500 | 16.9% | 2,286 | 8.4% |
| Total | 179,676 | 100% | 175,000 | 100% | -4,676 | -2.6% |

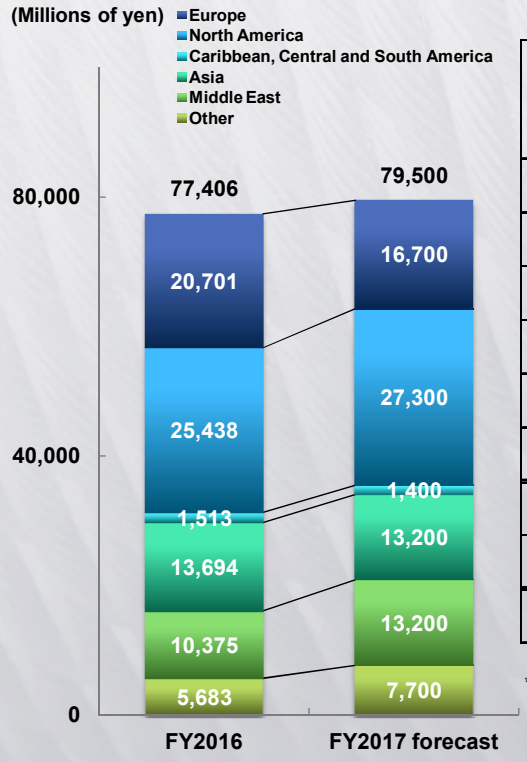
◆Outside Japan sales ratio: 43.1% → 45.4%

Mobile Crane sales in and outside Japan

| | | | | |
|---|---|---|---|---|
| Japan | 45,017 | 43,200 | -1,817 | -4.0% |
| Outside Japan | 64,609 | 63,400 | -1,209 | -1.9% |



# FY 2017 Business Performance Forecasts
(Net Sales by Destination)




(Unit: millions of yen)

| | FY2016 | | FY2017 forecast | | Change | |
|---|---|---|---|---|---|---|
| | Amount | Percentage | Amount | Percentage | Amount | Percentage |
| Europe | 20,701 | 11.5% | 16,700 | 9.5% | -4,001 | -19.3% |
| North America | 25,438 | 14.2% | 27,300 | 15.7% | 1,862 | 7.3% |
| Caribbean, Central and South America | 1,513 | 0.8% | 1,400 | 0.8% | -113 | -7.5% |
| Asia | 13,694 | 7.6% | 13,200 | 7.5% | -494 | -3.6% |
| Middle East | 10,375 | 5.8% | 13,200 | 7.5% | 2,824 | 27.2% |
| Other | 5,683 | 3.2% | 7,700 | 4.4% | 2,016 | 35.5% |
| Subtotal (total outside Japan sales) | 77,406 | 43.1% | 79,500 | 45.4% | 2,093 | 2.7% |
| Japan | 102,270 | 56.9% | 95,500 | 54.6% | -6,770 | -6.6% |
| Total | 179,676 | 100% | 175,000 | 100% | -4,676 | -2.6% |

* The graph on the left excludes Japan.
Other markets comprise Oceania, Africa, and the CIS.

# TOPICS
—Expanding production capacity in line with our efforts to become No. 1 Worldwide in the LE industry—

Lifting your dreams

## ◆Acquisition of industrial site in Kagawa Prefecture land reclamation project (November 2016)

In July 2016, based on our conviction that TADANO needs a new plant in addition to the Shido Plant to manufacture Mobile Cranes and that this new plant will be essential to reaching our long-term goal—to become No. 1 Worldwide in the LE industry—we concluded a contract to acquire an industrial site by Kagawa prefecture as part of the prefecture's land reclamation project in the western Kozai district of the Port of the Takamatsu.

The acquisition was completed in November.
Soil improvement work has been underway on the site since December 2016. Our goal is to have the plant operating in FY2018 following building construction and installation of machinery.

| | |
|---|---|
| Location: | Kozai Kitamachi, Takamatsu, Kagawa Prefecture |
| Site area: | approx. 20 ha |
| Acquisition price: | approx. ¥2.4 billion |

### Plans for the new plant

| | |
|---|---|
| Purpose: | Production of Mobile Cranes |
| Total floor area of plant buildings: | Phase I: approx. 42,000 m$^2$<br>(Expansion planned over several years) |
| Investment (in plant buildings): | Phase I: approx. ¥17.5 billion<br>(Final investment after expansion: approx. ¥20 billion) |
| Employees: | Phase I: approx. 200 |



October 2014 photo
(courtesy Kagawa Prefecture)

The site is located 10 minutes west by car from central Takamatsu.



# TOPICS – Efforts to provide outstanding service –

Lifting your dreams

| | | |
|---|---|---|
| Feb. 2008 | TADANO America relocates to larger offices. | |
| Oct. 2008 | Machine Telemonitoring System introduced in products for Japanese market (introduced in products for markets outside Japan in March 2011). | |
| Apr. 2009 | TADANO Asia's Singapore Training Centre opens. | |
| Jan. 2011 | Chubu Parts Center opens. | |
| Mar. 2011 | Machine Telemonitoring System introduced in products for markets outside Japan. | |
| Feb. 2012 | Hokuriku Parts Center opens. | |
| Mar. 2013 | TADANO TECHNO EAST head office expanded (Shinkiba Plant): | ¥0.4 billion |
| Apr. 2013 | TADANO TECHNO EAST Sendai Installation Center opens. | |
| Oct. 2013 | TADANO TECHNO EAST Moka Installation Center opens. | |
| Dec. 2014 | TADANO Training Center opens: | ¥0.4 billion |
| Jun. 2015 | Shutoken Parts Center opens. | |
| Mar. 2016 | Taiheikikou (Hokkaido) acquired | |
| **May 2016** | **TADANO Global Parts Center (Kobe) opens.** | |
| **Jun. 2016** | **TADANO TECHNO EAST Sakura Plant expanded:** | **¥1 billion** |
| **Oct. 2016** | **Tadano Truck Mounting Training Center opens** | |
| **Nov. 2016** | **Business of Australian service representative (AML Equipment) acquired** | **¥0.5 billion** |
| **Dec. 2016** | **TADANO America opens Canada Branch** | |
| **Mar. 2017** | **Nittsu Juki Service (Hokkaido) acquired** | |

Note: Amounts shown are investment amounts.

**We plan to open sales/service facilities and parts depots outside Japan in the future.**




**An exterior view of the TADANO Global Parts Center (Kobe Port Island)**




**Canada branch of TADANO America Corp.**

# TOPICS – New series of Rough Terrain Cranes introduced in Japan –

Lifting your dreams

## ◆CREVO G4 series phase one (lifting capacity: 70 ton/25 ton) and phase two (lifting capacity: 16 ton) Rough Terrain Cranes introduced

CREVO G4 series
GOOD DESIGN AWARD 2016

In October 2016, sales began for advanced crane models developed to achieve improved safety, comfort, and efficiency. These models feature state-of-the-art technologies and their sophisticated design was recognized with the Good Design Award.

The GR-700N and GR-250N were introduced in October 2016. The GR-160N was introduced in March 2017.



GR-700N（G4）



GR-250N（G4）



GR-160N（G4）

### [Wide Site View]

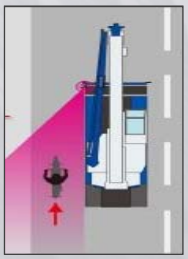
Feature that makes it possible to check surrounding conditions at all times



Wide Site View image

### [Human Alert System]

Feature that detects motorcycles, bicycles, and pedestrians on the lefthand side and sounds an alarm and illuminates warning lamps (160N：left forward)



Human Alert System image (700N・250N)

### [Setup Radio Control]

Radio control function that makes crane work preparations and cleanup more efficient

### [Other]

- A new cab with improved comfort
- A new control system with improved usability
- Equipped with the latest eco-friendly engine
- The latest jib mounting feature (700N/250N)
- New two-staged power-tilt jib (160N)
- Earned designation as ultra-low-noise construction machinery (160N)



# TOPICS – CONEXPO 2017 –

Lifting your dreams

## ◆ConExpo 2017 held in Las Vegas

- Over the five days from March 7 through March 11, this trade show welcomed 2,500 participating companies and more than 130,000 attendees from around the world.
- Models exhibited

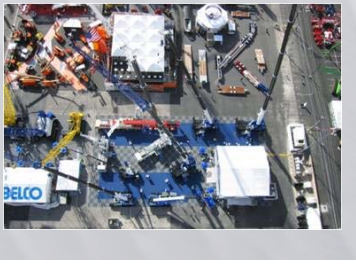
| | | |
|---|---|---|
| AC: | 3 models | ATF400G/ATF110G (New)/ATF70G |
| RC: | 4 models | GR-1600XL/GR-1200XL (New)/GR-1000XL/GR-150XL (New) |
| TBC: | 2 models | GTC-800/GTC-600 (New) |











# TOPICS – Efforts to provide outstanding quality –

Lifting your dreams

## ◆Low-temperature testing facility completed in November 2016

TADANO built this facility to enable actual machine tests of larger products for operations in regions of extreme cold like Russia, northern Canada, and Hokkaido and regions of extreme heat, like the Middle East.

### Summary

| | | |
|---|---|---|
| Location: | Inside the Shido Plant | |
| Total floor area: | 880.19 m² | 1F: Testing room, measurement room, offices;<br>2F: Viewing room etc. |
| Interior temperature: | Adjustable from -40° to 60°C | Testing room: 19.5 m long, 10 m wide, 13 m high |
| Investment: | ¥680 million | |



The exterior of the low-temperature testing facility



Low-temperature testing underway