Indian Foundry Industry

Overview By

Subodh Panchal
Past President
The Institute of Indian Foundrymen

11th September, 2010
International Foundry Forum, Barcelona
Major Foundry Pockets in India
Overview

- The Indian Foundry industry produces approx 7 Million MT of castings employing estimated 500,000 persons directly & another 1.5 millions indirectly.

- The growth of foundry industry is very important for inclusive growth, other engineering sectors & the overall Indian Economy.
Significance of Foundry Industry

- Foundry Industry is Major Feeder to following sectors:
  - Automobiles & Auto Components
  - Railways
  - Power Sector
  - Tractor Industry
  - Earth Moving Machinery
  - Pumps, Compressors, Pipes, Valves & Pipe Fittings
  - Electrical/Textile/Cement/Agro Machinery
  - Machine Tools & Engineering Industries
  - Sanitary Castings
  - Engineering Exports

International Foundry Forum, Barcelona (September, 2010)
Significance of Foundry Industry

- Approx 32% Output of Foundry Industry goes to Auto Industries & Balance to other downstream Engineering Sector

- Automotive Mission Plan (AMP) 2006-2016 envisages 4 Fold Growth by 2016. i.e. from $34 Billion industry to $ 122-160 billion industry and employing about 25 millions by 2016

- AMP 2006-16 will drive demand of Castings from Foundry Industry
Significance of Foundry Industry

- Corresponding Growth in Foundry Sector Vital to sustain Growth in Auto & Other Engineering Sectors

- Graph below Depicts Sectorwise Consumption of Castings in percentage
Sector wise consumption of castings as % of Total Production

<table>
<thead>
<tr>
<th>Sectors</th>
<th>% of Total Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile</td>
<td>32.36</td>
</tr>
<tr>
<td>Agriculture</td>
<td>8.11</td>
</tr>
<tr>
<td>Earthmoving</td>
<td>2.07</td>
</tr>
<tr>
<td>Pumps &amp; Compressor</td>
<td>4.8</td>
</tr>
<tr>
<td>Valves</td>
<td>3.15</td>
</tr>
<tr>
<td>Diesel Engines</td>
<td>3.16</td>
</tr>
<tr>
<td>Electrical Equipment</td>
<td>8.57</td>
</tr>
<tr>
<td>Sanitary</td>
<td>2.75</td>
</tr>
<tr>
<td>Machine Tools</td>
<td>1.93</td>
</tr>
<tr>
<td>Pipe &amp; Fittings</td>
<td>7.77</td>
</tr>
<tr>
<td>Railways</td>
<td>5.22</td>
</tr>
<tr>
<td>Defence</td>
<td>0.55</td>
</tr>
<tr>
<td>Power Generation</td>
<td>4.1</td>
</tr>
<tr>
<td>Industries Machinery</td>
<td>6.65</td>
</tr>
<tr>
<td>Others</td>
<td>8.81</td>
</tr>
</tbody>
</table>
Production Trend

- Non Ferrous
- S G Iron
- Steel
- Grey Iron
- Total
Export Trends

Export of Castings in Rs Crores-India

- Sanitary Castings
- Industrial Castings
- Total Castings

Year: 1996-97 to 2009-10
Types of Metal Castings Share in %

- Grey Iron, 70%
- Ductile Iron, 9%
- Non-Ferrous, 8%
- Steel, 12%
- Others, 1%

International Foundry Forum, Barcelona (September, 2010)
Top Ten Casting Producing Countries (Figures in Million MT)

- China: 33.5 Million MT
- USA: 10.8 Million MT
- Russia: 7.8 Million MT
- Korea: 2.1 Million MT
- France: 2.4 Million MT
- Italy: 2.6 Million MT
- Brazil: 3.4 Million MT
- Japan: 5.7 Million MT
- Germany: 5.8 Million MT
- India: 7 Million MT
- Korea: 2.1 Million MT

International Foundry Forum, Barcelona (September, 2010)
Outsourcing Trends for Auto Components

USD in Billions:

- 2006-07: 2.95
- 2008-09: 5.9
- 2013-14: 20

International Foundry Forum, Barcelona (September, 2010)
The Indian Automobile industry is the seventh largest in the world with an annual production of over 2.6 million units in 2009.

In 2009, India emerged as Asia's fourth largest exporter of automobiles, behind Japan, South Korea and Thailand.

By 2050, the country is expected to top the world in car volumes with approximately 611 million vehicles on the nation's roads.
India has emerged as one of the world's largest manufacturers of small cars.

According to New York Times, India's strong engineering base and expertise in the manufacturing of low-cost, fuel-efficient cars has resulted in the expansion of manufacturing facilities of several automobile companies like Hyundai Motors, Nissan, Toyota, Volkswagen and Suzuki.
World Automobile Giants in India

- In 2008, Hyundai Motors alone exported 240,000 cars made in India.
- Nissan Motors plans to export 250,000 vehicles manufactured in its India plant by 2011.
- Similarly, General Motors announced its plans to export about 50,000 cars manufactured in India by 2011.
In September 2009, Ford Motors announced its plans to setup a plant in India with an annual capacity of 250,000 cars for US$500 million. The cars will be manufactured both for the Indian market and for export. The company said that the plant was a part of its plan to make India the hub for its global production business.
Fiat also announced that it would source more than US$1 billion worth auto components from India.

According to Bloomberg L.P., in 2009 India surpassed China as Asia's fourth largest exporter of cars.
Rank wise Largest Automobile Manufacturers in India by Sales

1. Maruti Suzuki
2. Hyundai
3. Tata Motors
4. Mahindra
5. GM Chevrolet
6. Honda
7. Toyota
8. Ford
9. Fiat
10. Škoda
Locally manufactured Automobiles of Foreign Brands

- Audi: A4, A6, A8, Q5, Q7, TT, R8.
- Bentley: Continental GT, Continental FS, Continental GTC, Mulsanne.
- BMW: 3 Series, 5 Series, M3, GT 5, 6 Series, 7 Series, X3, X5, X6, Z4.
- Fiat: Grande Punto, Linea, Palio Stile.
Locally manufactured Automobiles of Foreign Brands

- Honda: Jazz, City, Civic, Accord.
- Hyundai: Santro, i10, i20, Accent, Verna Transform, Sonata Transform.
- Lamborghini: Gallardo, Murciélago.
- Mercedes-Benz: C-Class, E-Class.
- Mitsubishi: Lancer, Lancer Cedia, Pajero.
- Nissan: Micra, Teana, X-Trail.
Locally manufactured Automobiles of Foreign Brands

- Rolce Royce: Phantom, Ghost.
- Škoda: Fabia, Octavia, Laura, Superb.
- Toyota: Corolla, Innova, Camry, Fortuner, Prado.
- Volkswagen: Polo, Jetta, Passat, Beetle, Phaeton, Vento.
Commercial Vehicle Manufacturers in India (Local Brands)

- Local Brands
  - Ashok Leyland
  - Force
  - Mahindra Navistar
  - Premier
  - Tata
Commercial Vehicle Manufacturers in India (Foreign Brands)

- Foreign Brands
  - Volvo
  - Audi
  - BMW
  - Mercedes-Benz
Electric Car Manufacturers in India

- Ajanta Group
- Mahindra
- Hero Electric
- REVA
- Tata International
- Tata
The Automotive Component Industry's output amounted for the financial year 2008-09 US$ 19 billion with a growth rate of 6.1% against financial year 2007-08.
Car Production (Nos. in Millions)

International Foundry Forum, Barcelona (September, 2010)
MUVs Production (Nos. in Millions)
LCVs Production (Nos. in Millions)
M&HCVs Production (Nos. in Millions)

- 1994-95: 0.13
- 1995-96: 0.15
- 1996-97: 0.15
- 1997-98: 0.10
- 1998-99: 0.08
- 1999-2000: 0.11
- 2000-01: 0.09
- 2001-02: 0.10
- 2002-03: 0.12
- 2003-04: 0.17
- 2004-05: 0.21
- 2005-06: 0.22
- 2006-07: 0.29
- 2007-08: 0.29
- 2008-09: 0.19
- 2009-10: 0.25

International Foundry Forum, Barcelona (September, 2010)
Tractors Production (Nos. in Millions)

International Foundry Forum, Barcelona (September, 2010)
Scooters Production (Nos. in Millions)

International Foundry Forum, Barcelona (September, 2010)
Mopeds Production (Nos. in Millions)

International Foundry Forum, Barcelona (September, 2010)
Auto Component Industry Exports (in US $ BLN)
Auto Component Industry Investment (in US $ BLN)

International Foundry Forum, Barcelona (September, 2010)
India as a hub of Cast Components

- Now the fourth largest producer of metal castings worldwide, India has increased its casting production by more than 100% since 2002.

- Expansion stems from India’s large and rapidly growing economy, which has the potential to raise its income per capita to 35 times current levels over the next 40 years.
India as a hub of Cast Components

- According to Goldman Sachs, in 2059, India is expected to have one of the three largest economies (by GDP) in the world, along with China (first) and the U.S. (second).

- The automotive sector accounts for 4.2% of India’s GDP, since 2002, production volume has a 16% compound and annual growth rate (CAGR).

- Some economists believe India has the potential to own up to 7% of the world’s auto components market.
Hurdles

- However, India faces some hurdles. Along with a lack of sufficient infrastructure, consumable costs are higher in India than in developed countries.
Due to the growing expectations of OEMs regarding the quality and quantity of castings, India is expected to produce larger casting facilities over the next few years.

The size and scope of large plants are required to address investment requirements, power shortages and a talent crunch.

This means that manufacturers with latest technology of equipments and raw materials will have a bright opportunity in India.
Innovative Suggestions

- Foreign manufacturers and suppliers should help Indian foundries to introduce new markets (Where European foundries have stopped catering).

- Differed payment terms of some European countries can be a major attraction for Indian Foundries going for expansion.
Thank You