

5 May 2016

Kirloskar Oil Engines

Cranking up engine-sales growth; initiating, with a Buy

Rating: **Buy**

Target Price: ₹309

Share Price: ₹230

We initiate coverage on Kirloskar Oil Engines, with a Buy rating and a price target of ₹309 (~34% potential). To capture growth opportunities arising from a pick-up in demand, the company is ready with a new product range. With better operating leverage, we expect it to generate healthy cash flows and a ~30% CAGR in earnings over FY16-18.

Product launches to add impetus to growth: The company is strategically re-inventing itself—from an engine supplier to a product manufacturer. On the introduction of a 750kVA genset, it can now address demand due to a capex revival. The introduction of power tillers would permit it to meet latent demand from small and marginal farmers in paddy-cultivated areas.

Indian capex and a favourable monsoon provide further growth: The company has a diversified business model, restricting downward risks arising from any slowdown in any vertical. A favourable monsoon and capex revival, along with its new products, would allow it to report ~10-11% CAGR in volumes over FY16-18.

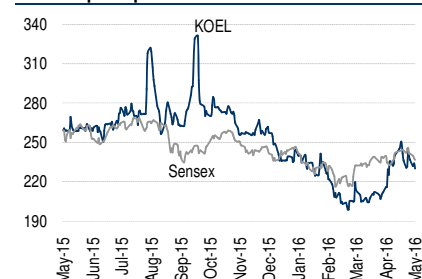
High operational efficiencies ensure rich cash-flows: With the help of a consulting group, Kirloskar has reduced working capital 50% at the genset OEM end. The sustained negative working-capital scenario along with improving operating leverage would assure better operating cash flows and strong earnings growth.

Valuation: The stock trades at 22x FY17e and 15.6x FY18e earnings. We believe that earnings growth would be robust due to revived demand and the company's improving operating leverage. We initiate coverage, with a Buy and a price target of ₹309 (20.5x FY18e PE, the implied multiple for a 9% cash-flow yield, a long-term average). **Risks:** Slower-than-expected IIP and a poor monsoon.

Key data	KOEL IN / KROL BO
52-week high / low	₹350 / ₹199
Sensex / Nifty	25262 / 7736
3-m average volume	\$0.1m
Market cap	₹34.7bn / \$522m
Shares outstanding	144.6m

Shareholding pattern (%)	Mar'16	Dec '15	Sep '15
Promoters	59.3	59.3	59.3
- of which, Pledged	-	-	-
Free Float	40.7	40.7	40.7
- Foreign Institutions	12.3	12.5	11.3
- Domestic Institutions	8.8	8.8	8.8
- Public	19.6	19.4	20.6

Relative price performance



Source: Bloomberg

Key financials (YE Mar)	FY14	FY15	FY16e	FY17e	FY18e
Sales (₹ m)	23,200	25,071	23,723	26,399	30,100
Net profit (₹ m)	1,785	1,432	1,285	1,537	2,178
EPS (₹)	12.3	9.9	8.9	10.6	15.1
Growth (%)	(15.9)	(19.7)	(10.3)	19.6	41.7
PE (x)	18.6	23.2	25.3	21.6	15.3
PBV (x)	2.6	2.5	2.5	2.4	2.4
RoE (%)	14.7	11.0	9.6	11.3	15.7
RoCE (%)	18.6	14.7	11.7	13.7	19.5
Dividend yield (%)	2.2	2.2	2.2	2.5	3.5
Net debt/equity (x)	(0.5)	(0.6)	(0.7)	(0.7)	(0.8)

Source: Company, Anand Rath Research

* - share price as on 5 May 2016

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Quick Glance – Financials and Valuations

Fig 1 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	23,200	25,071	23,723	26,399	30,100
Revenue growth (%)	-1.6	8.1	-5.4	11.3	14.0
- Oper. expenses	20,156	22,586	21,727	24,101	26,907
EBIDTA	3,044	2,486	1,995	2,298	3,193
EBITDA margins (%)	13.1	9.9	8.4	8.7	10.6
- Interest	4	2	2	2	2
- Depreciation	983	1,018	1,031	1,073	1,119
+ Other income	378	589	732	781	861
- Tax	650	623	377	468	754
Effective tax rate (%)	26.7	30.3	22.3	23.3	25.7
+ Associates / (minorities)	-	-	-	-	-
Adjusted PAT	1,785	1,432	1,285	1,537	2,178
+ Extraordinary items	-	-	-104	-	-
Reported PAT	1,785	1,432	1,213	1,537	2,178
Adj. FDEPS (₹ / sh)	12.3	9.9	9.1	10.6	15.1
Adj. FDEPS growth (%)	-15.8	-19.7	-10.3	19.6	41.7

Source: Company, Anand Rathi Research

Fig 2 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Share capital	289	289	289	289	289
Reserves & surplus	12,384	13,125	13,212	13,372	13,719
Net worth	12,674	13,414	13,502	13,661	14,009
Total debt	-	-	-	-	-
Minority interest	-	-	-	-	-
Def. tax liab. (net)	302	289	289	289	289
Capital employed	12,975	13,703	13,790	13,950	14,298
Net fixed assets	5,571	4,822	4,454	3,895	3,289
Intangible assets	276	527	508	494	480
Investments	6,077	8,763	9,129	9,979	11,097
- of which, Liquid	5,977	8,711	9,076	9,926	11,044
Working capital	526	-662	-558	-687	-848
Cash	524	253	260	270	280
Capital deployed	12,975	13,703	13,790	13,950	14,298
W C turn (days)	8	-10	-9	-9	-10
Book value (₹ / sh)	87.6	92.8	93.4	94.5	96.9

Source: Company, Anand Rathi Research

Fig 3 – Cash-flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Adjusted PAT	1,759	1,420	1,213	1,538	2,180
+ Non-cash items	623	393	662	678	684
Cash profit	2,383	1,812	1,875	2,216	2,865
- Incr. / (decr.) in WC	-997	-1,580	226	-133	17
Operating cash-flow	3,380	3,392	1,648	2,349	2,848
- Capex	646	573	636	493	494
Free-cash-flow	2,734	2,820	1,012	1,855	2,354
- Dividend	846	846	860	952	1,278
+ Equity raised	-	-	-	-	-
+ Debt raised	-173	36	138	33	46
- Investments	1,597	2,248	28	541	688
- Misc. items	-160	33	255	385	424
Net cash-flow	277	-272	7	10	10
+ Op. cash & bank bal.	248	524	253	260	270
Cl. Cash & bank bal.	524	253	260	270	280

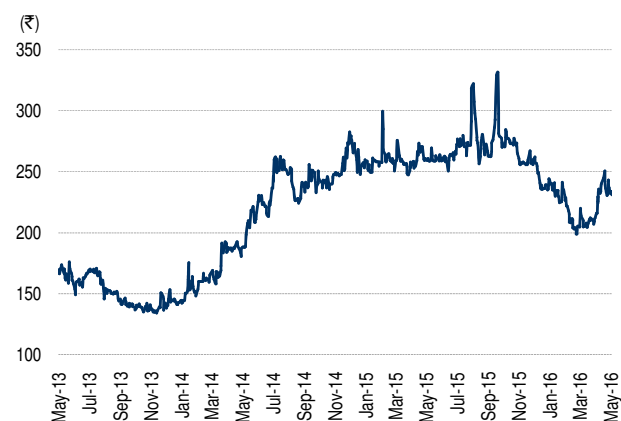
Source: Company, Anand Rathi Research

Fig 4 – Ratio analysis @ ₹230

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
P/E (x)	18.6	23.2	25.3	21.6	15.3
Cash P/E (x)	12.0	13.6	14.2	12.7	10.1
EV / EBITDA (x)	8.9	9.9	12.1	10.2	7.0
EV / sales (x)	1.2	1.0	1.0	0.9	0.7
P/B (x)	2.6	2.5	2.5	2.4	2.4
RoE (%)	14.7	11.0	9.8	11.3	15.7
RoCE (%)	19.6	15.4	12.3	14.5	20.8
Dividend yield (%)	2.2	2.2	2.2	2.5	3.5
Dividend payout (%)	47.4	60.8	66.1	64.6	64.6
Net debt / equity (x)	(0.5)	(0.6)	(0.7)	(0.7)	(0.8)
Debtor days	28	8	8	8	8
Inventory days	26	25	25	25	25
Payables days	54	49	47	45	41
Quick ratio (x)	1.9	2.1	2.3	2.3	2.4
Fixed asset T/O (x)	4.2	5.2	5.3	6.8	9.2

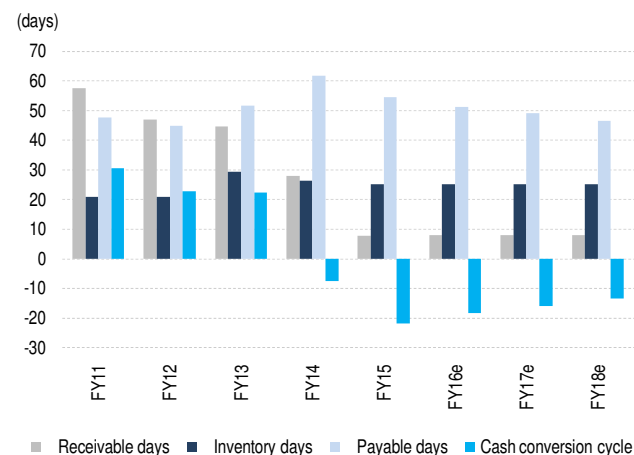
Source: Company, Anand Rathi Research

Fig 5 – Price movement



Source: Bloomberg

Fig 6 – Cash positive



Source: Company, Anand Rathi Research

Momentum from the new products

- In H1 FY16, Kirloskar Oil Engines launched 750kVA gensets and is planning to introduce 1,000kVA gensets by end-Q2 FY17. Chotta Chilli, launched in FY15, is expected to pick up momentum from telecom orders.
- The recently-introduced 15HP power tillers have received the required approvals and subsidy disbursements; management expects significant volumes (of up to 6,000) in FY17. According to our market survey, we are considering 3,500 power tillers to be sold in FY17.
- With all these developments and product additions, ~5% additional sales are expected to be generated in FY17 and FY18 each.

Genset products planned to offset dependence on the operating cycle

In H1 FY16 the company launched a 750kVA genset and plans a 1,000kVA genset by end-H1 FY17. On the introduction of higher-kVA products, its exposure to the capex cycle would increase. The opportunity for both gensets together ranges from ₹6bn to ₹7bn. With the company's aim of a 10% market share, these two products would allow it to hit 25-30% sales in the diesel genset business. Higher-kVA gensets attract better realisations; hence, the greater revenue would lead to better profitability. (See Annexure 1 for genset market.)

The 750kVA genset launched is expected to lead to a greater market share in gensets

Fig 7 – Competitive scenario in gensets

Kirloskar's market share (%)	Product type	Key players
~25-27	Small: <30 kVA	Kirloskar Oil Engines, Greaves Cotton, Mahindra Powerol
	Medium: 30-320 kVA	Kirloskar Oil Engines, Greaves Cotton, Mahindra Powerol, Cummins India
~15-20	Large: 320-625 kVA	Kirloskar Oil Engines, Cummins India
0	750 kVA	Cummins, Caterpillar, MTU
0	1,000 kVA	

Source: Company, Anand Rath Research

Competition in products above 600kVA is lower than in the mid- and low-kVA. Only a few such as Cummins, MTU and Caterpillar address the higher-kVA sub-segment.

In higher-KVA products, efficiency, spares availability, service capability and reliability are preferred to price. At present, MTU is the most expensive genset available, with the greatest efficiency, but lacking in service, spare-parts available and distribution network. Cummins dominates the higher-kVA sub-segment, with ~50%. It enjoys market leadership due to its strong service and distribution network.

On pricing, MTU is priced at a premium, followed by Caterpillar and Cummins (15-20% less expensive).

Kirloskar introduced products on par with those of Cummins. Positioned for greater efficiency, the company is expected to gain market share of up to 10% in higher-kVA over the next three years. Revival in the capex cycle would lead to greater demand for higher-kVA gensets. The success of the newly-introduced products for higher-kVA would lead to the topline improving in FY17 and FY18.

Competition is not keen in products above 600kVA

Market survey suggests Kirloskar slowly gaining strength in 750kVA

A survey conducted by us of more than 30 genset dealers across India in urban and semi-urban areas led to the following observations in pricing, quality, reliability, and specifications, indicated by dealers with respect to the higher-kVA sub-segment.

In 750kVA gensets, Cummins is the market leader, followed by MTU and Perkins.

Fig 8 – Comparison of 750kVA products of key competitors

	Cummins	MTU	Perkins	Kirloskar Oil Engines
Age (years)	50+	7-8	3-5	Launched in FY16
Pricing	10-15% discount to MTU and Perkins due to greater indigenisation	More imported components lead to 10-15% higher pricing		On par with Cummins
Key specifications	No. of cylinders: 12, Vee Fuel consumption @ 75% load - 130.4 litres/ hr Fuel consumption @ 100% load - 165 litres/ hr LxHxW: 8000x3000x2600	No. of cylinders - 12, Vee Fuel consumption @ 75% load - 116.6 litres/ hr Fuel consumption @ 100% load - 152 litres/ hr LxHxW: 4440x2190x1910	No. of cylinders - 6 Fuel consumption @ 75% load - 121 litres/ hr Fuel consumption @ 100% load - 165 litres/ hr LxHxW: 7600x2300x2300	No. of cylinders - 12, Vee Fuel consumption @ 75% load - 126.4 litres/ hr Fuel consumption @ 100% load - 154 litres/ hr LxHxW: 6800x2713x2300
Service network	The best	Poor	Poor	Improving
Brand recall	Very good	Very good	Very good	Improving
Spare parts availability	Easy	Poor network	Poor network	Readily available for low and mid-kVA, building network for high kVA
Warranty / Guarantee	Two-year/ 5,000-hr warranty for entire genset	Two-year warranty for engine. Genset warranty provided by genset OEMs	Two-year warranty for engine. Genset warranty provided by genset OEMs	Two-year/ 5,000-hr warranty for entire genset

Source: Company, Anand Rath Research

A comparison of specifications shows that Kirloskar's product has a better efficiency-to-value proposition. And, the design is more compact than its peers'.

Our market survey shows that the company's 750kVA genset is priced on par with that of Cummins. It is very likely that an improving service network would help capture a reasonable market share in the next 1-2 years. Our interaction shows that in FY16 so far Kirloskar sold ~20 gensets at an average ₹7.5m, i.e., ~₹150m. We expect the 750kVA and other DV-series engines such as 625kVA and 500kVA to generate a further ₹800m-1bn sales in FY17. Further, the introduction of the 750kVA genset would help tap opportunities arising from a capex revival. With a pick-up in the capex cycle, the new genset would play a major role and help tap opportunities arising from large-project investments.

750kVA gensets would help tap opportunities arising from capex revival

Portable – Chotta Chilli genset

In FY15, Kirloskar launched Chotta Chilli, portable gensets of 3kVA and 5kVA across India in an effort to tap into the small-kVA genset market. It recently widened its network for small gensets across India. Kirloskar Chotta Chilli is a versatile diesel power generator, ideal for shops, restaurants, clinics, small offices, convenience stores, boutiques, etc. It offers several attractive features at competitive prices: easy portability, compact design, diesel power, low emission, vibration and noise, and a fully-covered body.

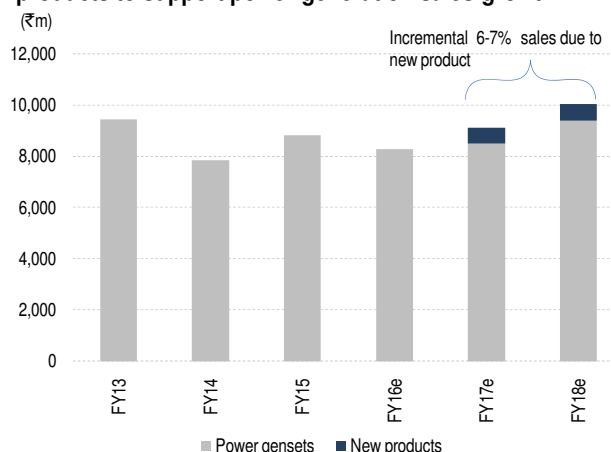
With the greater emphasis on telecom towers due to the 4G implementation, 5kVA gensets are expected to attract greater demand over the next two years. We expect these products to add to growth in power generator sales.

Competition is intense, though, according to market interactions, we expect

the company to generate ₹250m-300m sales from Chotta Chilli.

The new products added in power generation are likely to lead to further 6-7% sales in FY17 and FY18 each. Hence, we believe that this, along with demand growth, would result in the genset division recording a ~10% CAGR in FY16-18.

Fig 9 – New products to support power-generation sales-growth



New products added in power generation are likely to lead to a further 6-7% sales in FY17 and FY18 each

Source: Company, Anand Rath Research

Agriculture

The agriculture and allied business segment primarily focused on diesel-engine pump-sets. With better and more widespread rural electrification, the diesel pump-set segment has steadily declined in the last few years. In FY15, it shrunk ~15% yoy. A steady shift has been seen in diesel engine-driven pump-sets to electrical pump-sets, and solar-powered pump-sets.

To sharply focus on varied farming needs, Kirloskar created two divisions: crop irrigation and farm mechanisation.

Crop irrigation

This division focuses on widening its reach into rural India. It has more than 500 distributors and 10,000 retailers. It has introduced **light-weight engine pump-sets, 'high-head' and 'high-discharge' pump sets** to meet specific requirements of diesel-engine pump-set users. The broader reach and specific sub-segment focus have helped the division gain, and sustain, a 2% yoy market share despite an industry-wide decline in diesel-engine pump-sets. The business continues to utilise its wider reach in rural India and efficient supply chain to expand demand for engines, pump-sets, oil & allied products.

The crop irrigation division has widened its network in rural India

New brand – Varsha: The crop-irrigation division introduced a new brand, Varsha, to cater to all its agri-engine business. It introduced products in all categories of engine pump-sets, including **petrol-kerosene engines, ultra-light pump-sets, mono-block pump-sets and the high-head (Futura) series.**

Farm mechanisation

New product launch: For a distinct identity, Kirloskar launched its new brand 'Kirloskar Mechanization Works' in FY15. This is its first farm-mechanisation product, power tillers (Mega T15). For this product, it created a channel of 150 exclusive dealers for focused delivery and service.

Mega T15 has higher power specifications (15HP) than any other power tiller, and one or two notches lower than those of small tractors. It is ~₹30,000-40,000 more expensive than other lower-HP power-tillers.

In our market survey of dealers, we noticed that Kirloskar's higher-HP power tillers would be more useful for small and marginal farms. Power tillers are largely preferred in paddy areas (Annexure 3: Power tiller – saviour for paddy region farming); hence, Kirloskar's product would create a better value proposition for small and marginal farm-holders. Higher power would help farmers complete operations that require the use of tractors.

Fig 10 – India – break-up of farm holdings

Category of holdings	No. of holdings (m)			Area (m hectares)		
	FY01	FY06	FY15	FY01	FY06	FY15
Marginal (<1 hectare)	75.4	83.7	92.4	29.8	32	35.4
Small (1-2 hectares)	22.7	23.9	24.7	32.1	33.1	35.1
Semi-medium (2-4 hectares)	14.0	14.1	13.8	38.2	37.9	37.5
Medium (4-10 hectares)	6.6	6.4	5.9	38.2	36.6	33.7
All holdings	119.9	129.2	137.8	159.4	158.3	159.1
Hectares / holdings				1.3	1.2	1.2
Holding (%)	81.8	83.3	85			

Source: Ministry of Agriculture, Anand Rathi Research

Kirloskar is aiming at marginal and small farm-holders, especially in paddy-growing areas

Fragmented land holdings of several farmers in the small and marginal categories have created challenges regarding the collective ownership of tractors costing ~₹250,000 to ₹800,000 each. This opens up vast opportunities for the domestic power-tiller segment, as a power tiller costs ~₹125,000 to ₹150,000, but can perform all requisite agricultural operations done by a tractor.

Higher HP in power tillers enables farmers to conduct operations similar to those done with tractors

The survey showed that higher HP in power tillers enables farmers to conduct operations equivalent to those done with tractors. Under a single cropping pattern, it is normally recommended to consider 1HP for every hectare. In other words, one 20-25HP tractor is suitable for a farm of more than 20 hectares. It is not feasible to use tractors in paddy fields. Hence, power tillers with higher HP are likely to better serve marginal and small farm holdings.

Government provides financial assistance

Fig 11 – Financial assistance for farm machinery and equipment

Agricultural machinery	For farmers in general		For SC, ST, small and marginal farmers, women and NE states	
	Pattern of assistance (%)	Max permissible subsidy per machine/equipment per beneficiary (₹)	Pattern of assistance (%)	Max permissible subsidy per machine/equipment per beneficiary (₹)
Tractors				
5-15 HP	25	75,000	35	100,000
15-20 HP	25	75,000	35	100,000
20-40 HP	25	100,000	35	125,000
40-70 HP	25	100,000	35	125,000
Power tillers				
<8 HP	40	40,000	50	50,000
>8 HP	40	60,000	50	75,000
Self-propelled rice transplanter				
4 rows	40	75,000	50	94,000
8 rows	40	200,000	40	200,000
16 rows	40	200,000	40	200,000
Self-propelled machinery				
Reaper-cum-binder	40	100,000	50	125,000
Paddy thresher		20,000		25,000

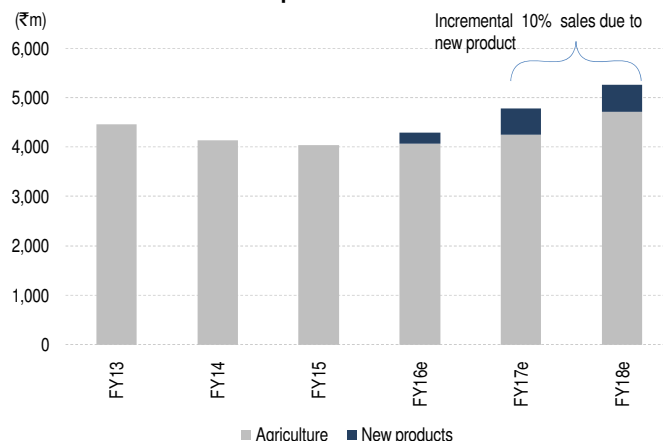
Source: Ministry of Agriculture, Anand Rathi Research

According to the Central and state government's proposals for subsidies, Kirloskar's product would obtain the maximum permissible subsidy of ~₹75,000. To increase acceptance among farmers, the company has received such approvals from West Bengal, Odisha and Bihar. Subsidies would be disbursed in the next 6-9 months. The company is aiming at the South and West regions such as Tamil Nadu and Maharashtra. For 9mFY16 it sold ~1,000 power tillers, or ~₹150m in power-tiller sales.

We expect power tillers and the Varsha brand to generate healthy revenue. We expect the company to more than double power-tiller volumes to 3,500 in FY17. With greater agriculture income, the newly-introduced brand and products would experience healthy demand growth in the next 2-3 years.

The product additions, we believe, would result in the company adding 10% to sales in FY17 and FY18. With a favourable monsoon, we expect the agriculture segment to experience 17% and 20% yoy growth in respectively FY17 and FY18.

Fig 12 – More sales due to the new products



Products added would result in a further 10% sales in the agriculture division in FY17 and FY18 each

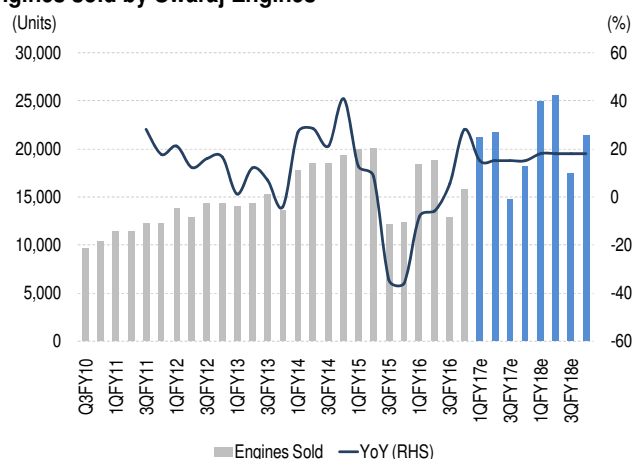
Source: Company, Anand Rath Research

Industrials - New products launched: In FY15, the industrial division launched three engine variants for tractors and engines for off-highway applications.

In tractors, Kirloskar has an agreement with Swaraj Engines to supply 17% of the latter's requirement, equivalent to the former's holding in Swaraj Engines. The tenure and percentages depend on Kirloskar's holding tenure and percentage in Swaraj Engines.

Till end-H1 FY15, the tractor division had recorded a 20% CAGR over FY10-15. The poor monsoon, however, affected volume growth in the last two years. We expect tractor-engine volumes to rise, along with improving rural income, driven by a favourable monsoon in the next two years.

Fig 13 – Engines sold by Swaraj Engines



The launch of the 960 FE and 717 models would cover the 60HP and 15HP sub-segments

Source: Company, Anand Rath Research

So far Swaraj has been well established in the 20-50 HP categories. To fill in the gaps in its product range, it has now launched the 960 FE and 717 models to cover the 60HP and 15HP sub-segments. Our channel checks suggest that these models have been well received. We believe these would further strengthen Swaraj Tractors' position and greater market share in the domestic tractor industry.

Our analysis and management guidance show that in FY17 tractor volumes are likely to grow ~15% yoy, and ~18% in FY18. With the new products, we expect demand for a further ~10,000 units for Swaraj Engines, which would translate to sourcing of another ~1,700 units from Kirloskar.

Fig 14 – Swaraj 717 – New launch in sub-20HP segment



Source: Bloomberg, Company

Fig 15 – Swaraj 960 FE – New launch in the 60HP segment



Source: Bloomberg, Company

30-50HP tractors constitute the greater part of the tractor market

Fig 16 – Market share of OEMs across HP categories (%)

FY15	<20 HP	20-30 HP	30-40 HP	40-50 HP	>50 HP
M&M	56	28	20	26	25
Swaraj	-	19	16	16	-
TAFE	-	37	30	23	3
Escorts	1	1	14	10	10
Sonalika	15	6	13	9	31
John Deere	-	-	3	7	16
New Holland	-	-	3	7	12
HMT	-	0	0	0	0
MGTL	-	2	1	0	1
Others	28	7	0	2	2
	100	100	100	100	100
% of industry sales	4	6	38	46	6

Source: Anand Rathi Research

Large engines – tie-up with MTU, earlier experience would help with NPCIL orders

At end-FY15 Kirloskar completed the requirement of 16 engines of ~₹3.96bn for the Nuclear Power Corporation (NPCIL). After this, it tied up with MTU for superior technology to cater to NPCIL orders. Management says 2-3 NPCIL orders are in the pipeline for FY17. Hence, orders of ~₹500m to ₹1bn are expected from NPCIL in the next 1-2 years.

In large engines, the company is focusing on greater exposure to the Defence sector and for marine applications. To address this market, it has strengthened its product range by introducing 125kVA engines for its project 'Atulya'. We expect its large engines to register at least a 20% CAGR over the next two years.

New products to add 5% sales growth

Fig 17 – Summation of sales growth with products introduced

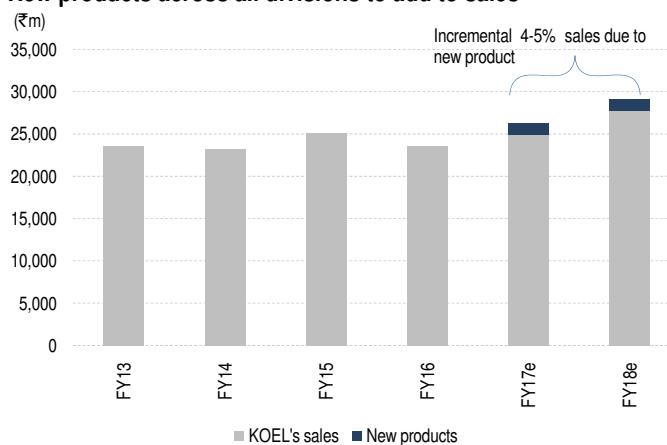
Products introduced	Incremental sales (₹ m, FY17)
750kVA gensets	375
Chotta Chilli gensets	250
Farm mechanisation	310
Tractors	149
Defence and marine applications – large engines	200
Total (₹ m)	1,284
Sales growth visible with new products introduced (FY17 – YoY, %)	4.9

Source: Anand Rathi Research

New products across all divisions to add 5% sales in FY17

Our analysis shows that these products would lead to 5% growth in FY17. Further, the company has planned a 1,000kVA genset, and power tillers in the range of 8-12HP in FY17. Hence, we expect that products added would continue to help toward a further 5% yoy growth in FY18.

Fig 18 – New products across all divisions to add to sales



Source: Company, Anand Rathi Research

Indian capex and a normal monsoon

- The diversified revenue distribution from five segments ensures restricted downside risk.
- A pick-up in capex investments and the sharper focus on exports would lead to greater demand for gensets. The revival in road construction would lead to modest growth in industrial engines.
- The higher consumption of gensets and the pick-up in demand for other business would help the customer support business to a 10% CAGR in FY16-18.

Diversified business model lowers risk

Kirloskar has a diversified business model, minimising risks arising from a slowdown in any vertical. It has five divisions: power generation, industrials (off-highway), agriculture, customer support and large engines.

Fig 19 – Segment-wise break-up

Segments	Products	% of sales
Power generation	Air- and water-cooled engines and diesel gensets across a wide range of power outputs from 5kVA to 5,200kVA	37
Traded components	To utilise its distribution network, Kirloskar has started trading alternators	7
Agriculture	Air- and water-cooled engines for pump-sets (3-130 HP)	22
Industrial	Engines for construction equipment and tractors (20-800 HP)	16
Customer support	Income from servicing and spares	14
Large engines	Engines for marine applications, nuclear plants	4

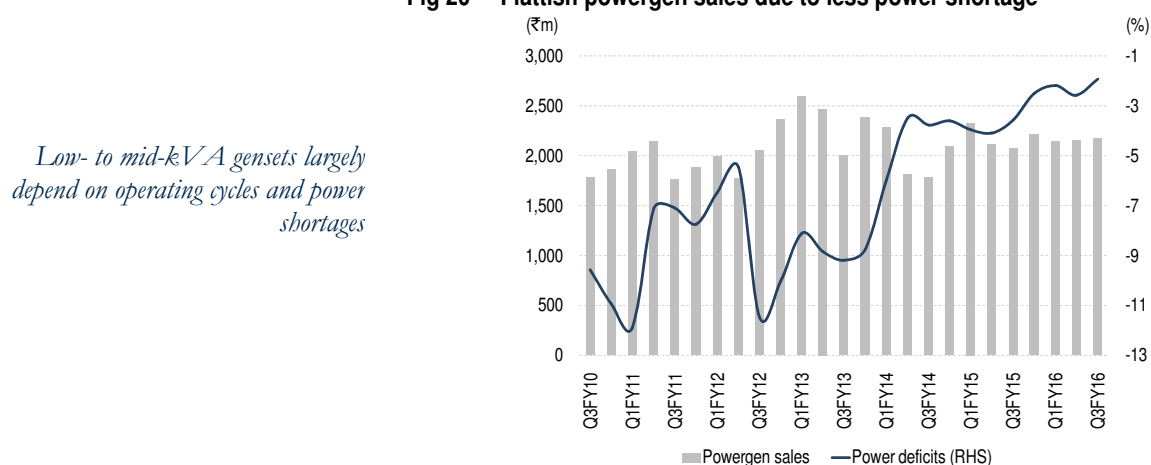
Source: Anand Rath Research

Power generation

Most of its revenue (80%) arises from sales of gensets below 200kVA. Of that, ~80% comes from gensets below 50kVA. With a wide market reach and strong service capability, it leads the market in low- and mid-kVA gensets.

With increased operations in low- and mid-kVA, it greatly benefits from operating cycles and power deficits. Hence, improving power supply has affected its power gen sales more than any other genset manufacturer.

Fig 20 – Flattish powergen sales due to less power shortage



Source: Company, Anand Rath Research

A number of factors will encourage the continuing growth of the genset industry in India. The reasons are:

Huge peak-demand power-shortage

The huge peak-demand power-shortage, of up to 20%, was a major source of genset demand in India till FY12-end, says the CEA. In the last four years, though, power deficits have declined significantly to 3-4% in FY16 across India due to the rise in power generation and lower power needs because of subdued manufacturing activity. Lower PLFs would most likely lead to lower generation-capacity addition. Hence, generation-capacity addition may pick up, with a lag effect of ~9-12 months of the improving IIP. During strong IIP growth, according to market interaction, power deficiency is expected at up to 10% for at least one to one-and-a-half years. Hence, with likely robust IIP improvement, we expect growth to revive in the diesel genset business in the next two years, especially in the low- and mid-kVA sub-segments.

Investment in large projects

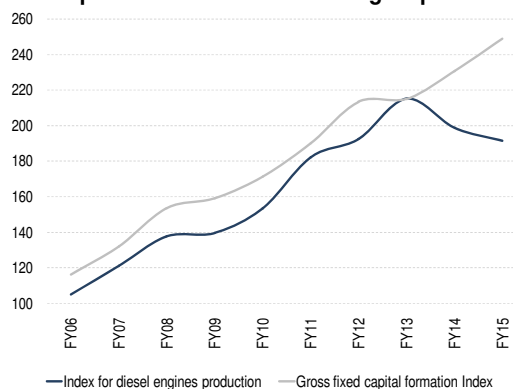
Large and medium-scale industries across India are expected to increase investment in capacities. To improve infrastructure in India the government plans large investments. For example, several projects have been announced to develop roads across the country. Many of these infrastructure projects require reliable back-up power. Such investments and the back-up power required would boost sales of gensets.

Investment in large projects would boost demand for higher kVA gensets

Also, as the Indian economy grows, investment in construction of commercial IT/ITES parks, and large residential and office complexes is expected to grow. A rise in demand for commercial and residential space would result in a corresponding increase in construction. As a standard feature, generator back-up power is installed in most of these buildings, and the growth in construction is expected to increase genset sales. In addition, such construction would require large amounts of back-up power, thereby driving genset sales in India.

The power deficiency might not offer much growth for diesel genset sales. But a pick-up in large investments is expected to lead to significant demand in the standby genset market. With preparedness in products above 300kVA, for the first time, Kirloskar would be ready to tap the opportunity arising from the capex cycle in the next two years. Hence, we expect it to report modest sales growth, in line with reviving capex expectations.

Fig 21 – Gross fixed-capital formation vs. diesel-engine production



Source: CMIE, Anand Rath Research

Comparing diesel engines with gross fixed-capital formation reveals a high degree of correlation between the capex cycle and diesel engines. Data for

FY14 and FY15 are inconsistent, largely due to the CPCB-II emission-norm implementation, which led to falling production in the informal sector. Hence, rising capex would lead to a rise in diesel genset sales next year.

Sharper focus on exports, a long-term growth driver

To offset a slowdown in the domestic economy, Kirloskar is now focusing on exports. Its major markets are Saudi Arabia, South Africa, Nigeria, Sri Lanka, Zambia, Kenya, Tanzania and Nepal. Exports brought ~8-10% to revenue in FY15, driven mainly by Africa and the Middle East (West Asia). The company has a 10% market share in Saudi Arabia and South Africa each. It is upping its focus on exports and plans to enter new markets through focused efforts and initiatives, including working closely with distributors. In coming years, it will focus on countries in South-East Asia, Europe and North America. To address opportunities in the US, it has formed a subsidiary there. It is also gearing up for EPA compliance, which would open up a whole genset market for it. With FMUL approvals, it is preparing its product range. It is also exploring exports of agri engines to Myanmar. Its reach and competitive position, aided by rupee depreciation, are likely to drive exports.

Fig 22 – Export sales trend

(₹m)	FY15	FY16e	FY17e	FY18e
Sales	2,060	2,500	2,640	3,010
YoY (%)	4.0	21.4	5.6	14.0
% of sales	8.2	10.5	10.0	10.0

Source: Company, Anand Rathi Research

A favourable monsoon would lead to a rise in farm mechanisation

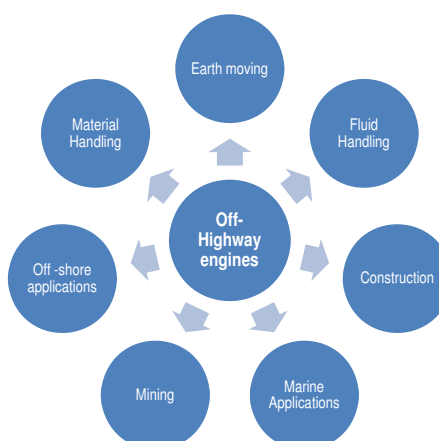
Agriculture

Farm mechanisation directly relates to farm income. Besides, adoption of farm mechanisation is closely related to labour shortage and industrial development. With both these factors—industrial slowdown and lower farm income—at play, farm mechanisation has declined 10-15% in the last two years. Our market survey shows that rising farm income and a good monsoon would lead to a rise in farm mechanisation. Kirloskar is strengthening its footprint and adding products to tap opportunities stemming from mounting demand for farm mechanisation. Our interaction with management and an industry study indicate that the agriculture segment is expected to grow ~10% yoy, driven by higher demand in order to improve crop yield.

Industrials

The off-highway division is Kirloskar's third-largest business segment. It reported ~15% of FY15 sales. In construction equipment, domestic highway engines have 85 applications across seven sub-segments (mainly transit mixers and concrete pumps). The company caters to a wide range of global customers who demand products with power in the range of 20-800HP.

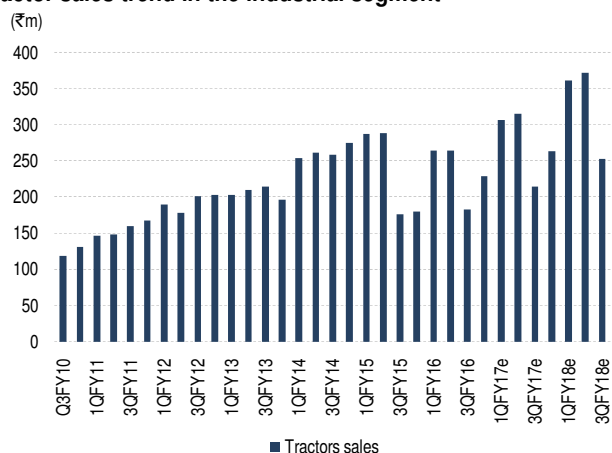
Fig 23 – Engine application in the off-highway sub-segment



Source: Company, Anand Rathi Research

This division brought ₹3,830m to sales in FY15, and we expect it to grow 10% and 12% in respectively FY17 and FY18. Within industrials, tractor sales are expected to grow 15% and 18% in FY17 and FY18, respectively.

Fig 24 – Tractor sales trend in the industrial segment



Source: Company, Anand Rathi Research

Road construction activity has improved significantly, from 3km a day to ~18km. According to industry interaction, with a pick-up in road construction, demand for construction equipment is expected to revive.

Improving road construction activities would indirectly add a further impetus to growth opportunities for Kirloskar

Some prominent applications in the industrial segment are concrete mixers, mini-dumpers, hoists/winchers, block-making machines, needle vibrators, plate-compactors, rock-cutters, tough riders, and inboard and outboard motors for marine applications. Concrete mixers and mini-dumpers are the major equipment utilised in road construction. Excl. tractor sales, the industrial segment is expected to grow 8% and 13% in respectively FY17 and FY18, following improving activity in road construction and mining.

Kirloskar has agreements with ~34 OEMs within the off-highway vertical to manufacture engines required by them. According to industry interaction, most construction-equipment manufacturers, making the most of a depreciating rupee, have begun increasing exports. This would indirectly add further impetus to growth opportunities for Kirloskar.

Fig 25 – Key OEMs in the industrials segment

Some OEMs that have tied up with Kirloskar Oil Engines	
Caterpillar (wheel-loaders and backhoe-loaders)	Sany (concrete pumps)
Hyundai (20-ton excavators)	Braithwaite
Terex (backhoe loaders)	Volvo India
Case New Holland (backhoe-loaders and compactor)	TIL
Mitsubishi (motor graders)	Macneil Engineering
Komatsu (excavators)	Jessop & Co.
Schwing Stetter (concrete pumps)	Escort Construction
Atlas Copco (compactor)	Volta
Putzmeister (concrete pumps)	Apollo Earth
Gujarat Apollo	GMMCO
Ingersoll Rand	BEML
Writgen India	Godrej & Boyce

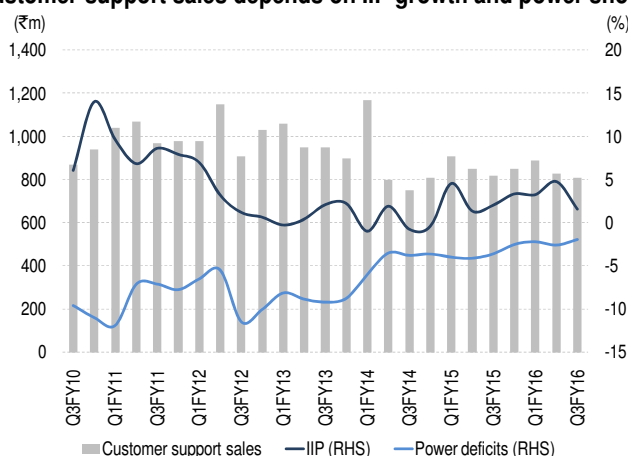
Source: Company, Anand Rathi Research

Customer support

This division sells spares (79% of FY15 customer-support sales) and offers servicing (21% of segment sales). Kirloskar has more than 500 channel partners in the genset segment and ~400 in the agriculture pump-set segment to service the products sold. Customer support depends largely on the operating cycle of products sold. Hence, customer support is indirectly related to IIP growth and the power deficiency. Greater manufacturing activity would result in rising consumption of products which, in turn, would lead to greater demand for spares and services.

Fig 26 – Customer-support sales depends on IIP growth and power shortages

Rising product use would lead to greater demand for spares and services



Source: Company, Anand Rath Research

Though the power deficiency is unlikely to increase significantly in the next 2-3 years, modest IIP growth would provide 10-12% yoy growth in customer support for FY16-18.

Large engines

The large-engines business division (LEBG) manufactures and markets diesel engines of 2,400HP to 11,000HP, catering to diesel gensets of 1.7MW to 7.1MW for stationary power plants. These engines are manufactured in Nashik.

LEBG also manufactures marine propulsion engines and auxiliary DG sets (800HP to 3,500HP) under license from Daihatsu Diesel, Japan.

Applications

Stationary power plants (base load / critical standby – AMF or black start)

LEBG specialises in providing stationary power plants of up to 30MW, incorporating modular sets of 1.7MW to 7.1MW. Around 134 DG sets supplied so far in India for base load generation/standby power applications run on furnace oil/high-speed diesel. These DG sets provide power to industries such as textiles, pharmaceuticals, packaging, petrochemicals and refineries, cement, steel and auto-components.

LEBG undertakes complete turnkey projects to execute power plants, from design, engineering, manufacturing, assembly and testing up to erection and commissioning at site. Its expertise lies in total system engineering capabilities and turnkey scope of supply, duly backed by an extensive product-support network. The full-fledged manufacturing plant at Nashik and the engineering department at Pune provide back-up through product support.

Kirloskar's LEBG is a vendor for various organisations such as the Nuclear Power Corporation of India, Bharat Heavy Electricals and consultants such as Engineers India, MECON, DCPL, PDIL, Bechtel, Fichtner, etc.

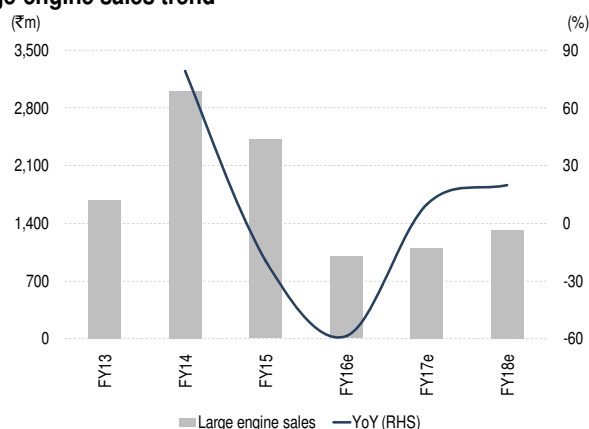
Marine main propulsion engines and auxiliary gensets: LEBG has been in the business of chief propulsion engines for over three decades. Its vast experience enables it to meet customer requirements effectively. It manufactures marine propulsion engines and auxiliary DG sets under license from Daihatsu Diesel, Japan, a leading brand for over four decades. The engines manufactured under the Kirloskar-Daihatsu brand are fully compliant with IMO tier-II requirements. Proximity enables Kirloskar to offer expertise at speed to all customers, ship-builders, owners and operators in India. Its customised packages encompass propulsion engines, auxiliary DG sets for electrical propulsion, dynamic positioning and UMS vessels.

LEBG has a network of service and spare-parts offices along the Indian coastline to ensure the most responsive product support. Kirloskar's global customer-support network is supported by Daihatsu Diesel, Japan, and other network companies.

Capex revival and order inflows through various government tenders would lead to strong growth in the large-engines business in the next two years.

Capex revival and order inflows through various government tenders would lead to strong growth in the large-engines business in the next two years.

Fig 27 – Large-engine sales trend



Source: Company, Anand Rath Research

Greater operational efficiencies

- On the advice of a consulting group, operational parameters such as inventories, receivables and cash-flows have improved.

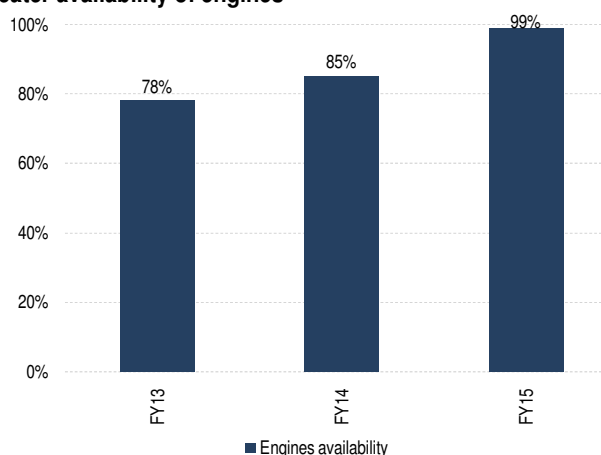
We expect the company to retain its negative working capital and cash flows. With a revival in demand, we believe return ratios and free cash-flows would grow steadily.

With the help of a consulting group, the company significantly improved its operational parameters and has held to them in the last three years.

Availability of engines

Earlier, it manufactured 78% of daily demand. With supply-chain management and just-in-time operations, it improved engine availability. By 9mFY16-end, it maintained the rate of engine availability at 99%. As per management interaction, supply-chain management and just-in-time procedures would maintain engine availability at a high rate. This parameter would further help immediately address any sudden opportunity through its operations.

Fig 28 – Greater availability of engines



Source: Company, Anand Rath Research

Supply-chain management and just-in-time procedures would maintain engine availability at a high rate

Reduced supply lead time

The company completed a national roll-out of Project Pulse (Siebel CRM) and the system has gone live, with at least 500+ channel partners. The efficient use of CRM software and improved transportation helped it better its supply lead time.

Fig 29 – Supply lead time

(in days)	FY13	FY14	FY15
Supply lead time	15-30	10-15	1-3

Source: Company, Anand Rath Research

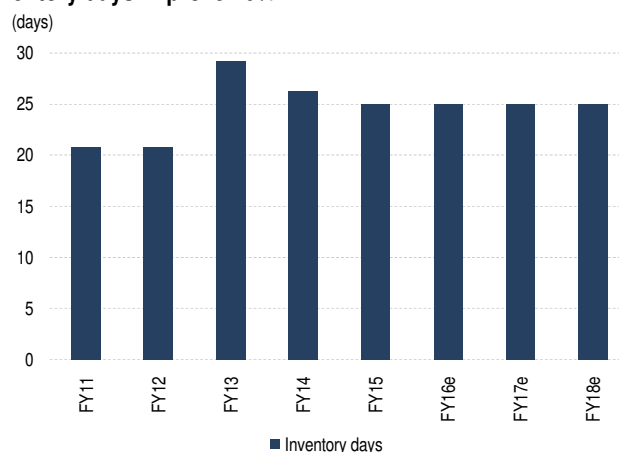
Supply lead time reduced from 15-30 days to 1-3 days

Earlier, supply lead time was 15-30 days (according to distance) with no assurance. With better transportation, the company has considerably improved the lead time. Now, it delivers products in seven days at the most and offers customers the assurance of a maximum seven-day delivery.

Fewer inventory days

For higher kVA, to meet demand the company had to keep inventory of up to 30 days. Through supply-chain management, it reduced its inventory from 24-30 days to 21-23 and expects to maintain it at this level.

Fig 30 – Inventory days improve 20%

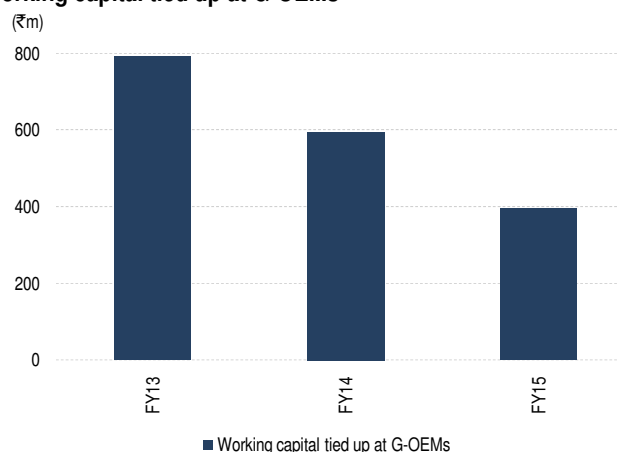


Source: Company, Anand Rath Research

Working capital locked in at G-OEMs has improved considerably

With improvement in inventories, receivable days and supply lead time, the company improved its working capital locked in at G-OEMs and is expected to hold this at the FY15 level.

Fig 31 – Working capital tied up at G-OEMs



Working capital tied up at G-OEMs would hold at FY15 levels

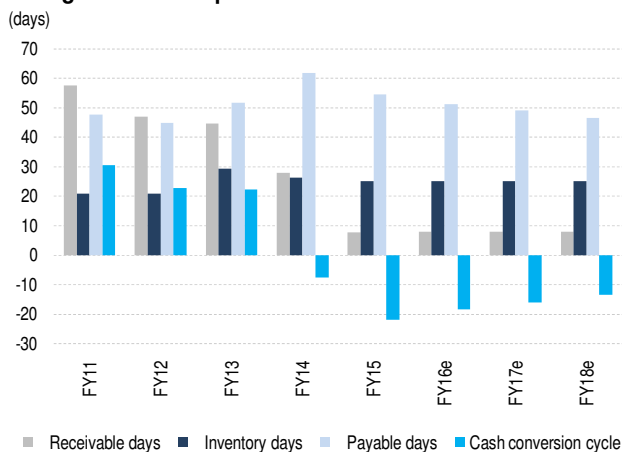
Source: Company, Anand Rath Research

Cash-conversion cycle – from cash-negative to cash-positive

A significant improvement in receivables due to lower inventories and supply lead time has resulted in a lower cash-conversion cycle. For the last seven quarters the company has maintained negative working capital and is expected to hold to the present levels for the next three years. This has helped it maintain strong operating cash flows over the last two years (FY14 and FY15).

Fig 32 – Cash-negative to cash-positive

Improvement in receivables due to lower inventories and supply lead times has resulted in a reduced cash-conversion cycle



Source: Company, Anand Rathi Research

Financials

- Over the last 3-4 years, sales have recorded flat CAGRs largely due to drought-like conditions across India and slower manufacturing activity. Also, lower capex investments have hit sales, especially in industrials and the power gen business in FY12-16.
- An unfavourable sales mix such as lower genset sales and higher traded components led to margins deteriorating from 14.6% to 8.4%. Capacity utilisation at 45-50% further squeezed margins.
- Demand improvement and a higher operating leverage would help Kirloskar Oil Engines improve margins over FY16-18.

Reasonable opportunities available for sales growth

On the expectation of improved manufacturing activity, the new product is likely to boost genset sales, though modestly. Besides, the agriculture division is also expected to grow slightly, aided by the favourable monsoon expected. In industrials, improving road construction activity is expected to offer moderate demand growth. The better IIP is expected to result in modest growth in customer support.

Fig 33 – Revenue growth – all segments expected to show modest growth

₹ m		FY13	FY14	FY15	FY16e	FY17e	FY18e
Power generation	Sales	9,600	8,500	11,047	10,741	11,815	12,996
	YoY (%)		(11.5)	30.0	(2.8)	10.0	10.0
	New products					625	630
	Traded components	-	560	2,240	2,464	2,710	2,981
	Base sales	9,600	7,940	8,807	8,277	8,480	9,385
	Base yoy (%) growth		(17.3)	10.9	(6.0)	2.4	10.7
Agriculture	Sales	4,470	4,150	4,040	4,080	4,788	5,746
	YoY (%)		(7.2)	(2.7)	1.0	17.4	20.0
	New products				225	525	551
	Base sales	4,470	4,150	4,040	3,855	4,263	5,195
	Base yoy (%) growth		(7.2)	(2.7)	(4.6)	10.6	21.8
Industrials	Sales	3,790	3,790	3,830	3,753	4,129	4,789
	YoY (%)		-	1.1	(2.0)	10.0	16.0
	New products					149	149
	Base sales	3,790	3,790	3,830	3,753	3,979	4,640
	Base yoy (%) growth		-	1.1	(2.0)	6.0	16.6
Customer support	Sales	3,630	3,380	3,473	3,820	4,202	4,833
	YoY (%)		(6.9)	2.8	10.0	10.0	15.0
Large engines	Sales	1,680	3,010	2,420	1,000	1,100	1,320
	YoY (%)		79.2	(19.6)	(58.7)	10.0	20.0
Total sales		23,170	22,830	24,810	23,395	26,035	29,685
YoY (%)			(1.5)	8.7	(5.7)	11.3	14.0

Source: Anand Rath Research

Sales expected at a 10-11% CAGR over FY15-18

On lower consultancy fees, better leverage, EBITDA margins likely to improve

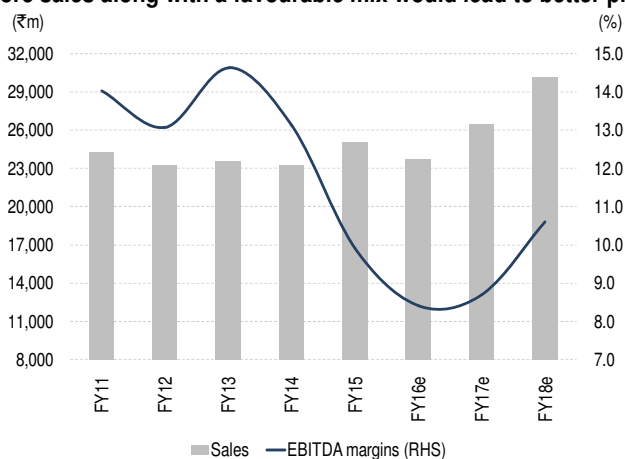
Fig 34 – EBITDA margins to improve

₹ m	FY11	FY12	FY13	FY14	FY15	FY16e	FY17e	FY18e
Sales	24,230	23,264	23,573	23,200	25,071	23,723	26,399	30,100
YoY (%)		(4.0)	1.3	(1.6)	8.1	(5.4)	11.3	14.0
% of sales								
Material cost	61.0	61.6	62.9	63.8	66.3	63.1	63.1	62.4
Employee cost	7.4	7.5	6.5	7.0	7.5	8.7	8.7	8.3
Other expenses	17.6	17.8	16.0	16.1	16.3	19.9	19.6	18.7
EBITDA margin (%)	14.0	13.1	14.6	13.1	9.9	8.4	8.7	10.6

Source: Anand Rathi Research

- Better operating leverage would lead to margin expansion in FY17 and FY18.
- Lower consultancy fees would further aid margin expansion.
- Sequentially margins have almost bottomed at ~8% levels. With sales growth and better utilizations, margins are expected to show improvement gradually.

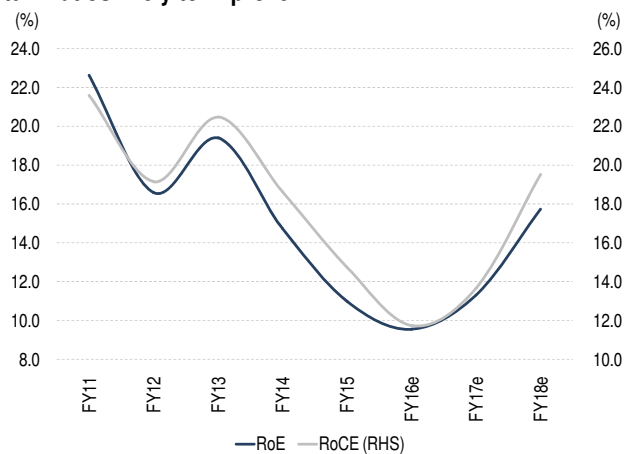
Fig 35 – More sales along with a favourable mix would lead to better profitability



Source: Company, Anand Rathi Research

Operating leverage and better profitability would lead to improvement in return ratios

Fig 36 – Return ratios likely to improve



Source: Company, Anand Rath Research

- Higher operating income is expected to lead to better RoEs and RoCEs.

Fig 37 – Income statement (₹ m)

Y/E: March	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	23,200	25,071	23,723	26,399	30,100
Other oper. revenues	-	-	-	-	-
Revenues	23,200	25,071	23,723	26,399	30,100
<i>Growth (%)</i>	-1.6	8.1	-5.4	11.3	14.0
Material cost	-14,791	-16,619	-14,959	-16,650	-18,779
Employee cost	-1,626	-1,884	-2,054	-2,289	-2,511
Manufacturing cost	-	-	-	-	-
Marketing cost	-1,145	-1,031	-1,205	-1,341	-1,529
Administrative cost	-1,158	-1,460	-1,478	-1,590	-1,735
Energy cost	-205	-206	-281	-312	-356
Other cost	-1,232	-1,385	-1,751	-1,919	-1,997
Sector specific expense	-	-	-	-	-
EBITDA	3,044	2,486	1,995	2,298	3,193
<i>Growth (%)</i>	-11.7	-18.3	-19.7	15.2	38.9
<i>EBITDA margin (%)</i>	13.1	9.9	8.4	8.7	10.6
Other income	378	589	732	781	861
Operating profit	3,422	3,075	2,727	3,079	4,054
Depreciation	-983	-1,018	-1,031	-1,073	-1,119
EBIT	2,439	2,057	1,696	2,007	2,935
Interest cost	-4	-2	-2	-2	-2
PBT	2,434	2,055	1,694	2,005	2,933
Tax	-650	-623	-377	-468	-754
<i>Effective tax rate</i>	26.7	30.3	22.3	23.3	25.7
Reported PAT	1,785	1,432	1,213	1,537	2,178
Extraordinary income	-	-	-104	-	-
Adjusted PAT	1,785	1,432	1,285	1,537	2,178
<i>Growth (%)</i>	-18.1	-19.7	-10.3	19.6	41.7
<i>PAT margin (%)</i>	7.7	5.7	5.4	5.8	7.2
Extraordinary income	-	-	-104	-	-
Dividends (incl. tax)	-846	-870	-870	-993	-1,407
Transferred to reserves	938	562	342	544	771
Per Share data (₹)					
FDEPS	12.3	9.9	8.9	10.6	15.1
DPS	5.0	5.0	5.0	5.7	8.1
Adj BV	87.6	92.8	93.4	94.5	96.9
CEPS	19.1	16.9	16.0	18.0	22.8
Valuation ratio					
P/E (x)	18.6	23.2	25.3	21.6	15.3
P/adj BV (x)	2.6	2.5	2.5	2.4	2.4
P/C (x)	12.0	13.6	14.2	12.7	10.1
Dividend yield (%)	2.2	2.2	2.2	2.5	3.5
EV/S (x)	1.2	1.0	1.0	0.9	0.7
EV/E (x)	8.9	9.9	12.1	10.2	7.0
Quality ratio					
Dividend payout (%)	47.4	60.8	66.1	64.6	64.6
Other income/PBT (%)	15.5	28.7	43.2	39.0	29.4
Interest cover (x)	580.6	1,028.7	847.9	1,003.3	1,467.3
Operating CF/EBITDA (x)	1.2	1.5	1.1	1.2	1.1

Source: Company, Anand Rathi Research

Fig 38 – Balance sheet (₹ m)

Y/E: March	FY14	FY15	FY16e	FY17e	FY18e
Equity	289	289	289	289	289
Reserves	12,384	13,125	13,212	13,372	13,719
Minority interests	-	-	-	-	-
Less: Misc. expenses	-	-	-	-	-
Net worth	12,674	13,414	13,502	13,661	14,009
Equity (% of CE)	97.7	97.9	97.9	97.9	98.0
LT debt	-	-	-	-	-
ST debt	-	-	-	-	-
DTL (net)	302	289	289	289	289
Total debt	302	289	289	289	289
Net D/E (x)	-0.5	-0.6	-0.7	-0.7	-0.8
Capital employed	12,975	13,703	13,790	13,950	14,298
Gross block	12,014	12,649	13,149	13,649	14,149
Accu. depreciation	-6,362	-7,356	-8,388	-9,461	-10,580
Net block	5,652	5,293	4,762	4,189	3,569
CWIP	196	56	200	200	200
Fixed assets	5,848	5,349	4,962	4,389	3,769
Investments	6,077	8,763	9,129	9,979	11,097
Cash equivalents	524	253	260	270	280
Inventories	1,668	1,716	1,625	1,808	2,062
Debtors	1,774	526	513	571	651
Loans & advances	1,976	2,086	1,989	1,911	1,844
Other current assets	643	631	783	871	993
Current assets	6,585	5,212	5,169	5,431	5,829
Creditors	-3,406	-3,376	-3,053	-3,239	-3,422
Provisions	-1,265	-1,417	-1,447	-1,531	-1,746
Other current liabilities	-864	-828	-969	-1,078	-1,229
Current liabilities	-5,535	-5,621	-5,469	-5,848	-6,397
Net current assets	1,050	-409	-299	-417	-568
Capital deployed	12,975	13,703	13,790	13,950	14,298
FA / CE (%)	45.1	39.0	36.0	31.5	26.4
Investments / CE (%)	0.8	0.4	0.4	0.4	0.4
Liquid assets / CE (%)	50.1	65.4	67.7	73.1	79.2
Working capital / CE (%)	4.1	-4.8	-4.1	-4.9	-5.9

Source: Company, Anand Rathi Research

Fig 39 – Cash-flow statement (₹ m)

Y/E: March	FY14	FY15	FY16e	FY17e	FY18e
Cash profit	2,383	1,812	1,875	2,216	2,865
Chg. in WC	997	1,580	-226	133	-17
Operating CF	3,380	3,392	1,648	2,349	2,848
Capex	-646	-573	-636	-493	-494
Free CF	2,734	2,820	1,012	1,855	2,354
Equity	-	-	-	-	-
Debt	-173	36	138	33	46
Investments	-1,597	-2,248	-28	-541	-688
Dividends	-846	-846	-860	-952	-1,278
Misc inflows	160	-33	-255	-385	-424
Net change in cash	277	-272	7	10	10
Opening cash	247	524	253	260	270
Closing cash	524	253	260	270	280

Source: Company, Anand Rathi Research

Fig 40 – Ratio analysis @ ₹230

Y/E: March	FY14	FY15	FY16e	FY17e	FY18e
Dupont Analysis					
Margins (%)	10.5	8.2	7.1	7.6	9.7
Capital turn (x)	1.9	1.9	1.7	1.9	2.1
RoCE (%)	19.6	15.4	12.3	14.5	20.8
Leverage factor (x)	1.0	1.0	1.0	1.0	1.0
Interest burden (x)	1.0	1.0	1.0	1.0	1.0
Tax burden (x)	0.7	0.7	0.8	0.8	0.7
Consol factor (x)	1.0	1.0	1.0	1.0	1.0
RoE (%)	14.7	11.0	9.8	11.3	15.7
Working capital (days)					
Inventories	26	25	25	25	25
Debtors	28	8	8	8	8
Loans & advances	31	30	31	26	22
Other CA	10	9	12	12	12
Creditors	-54	-49	-47	-45	-41
Provisions	-20	-21	-22	-21	-21
Other CL	-14	-12	-15	-15	-15
Net WC	8	-10	-9	-9	-10
Other ratios					
Op CF / Rev (%)	15.2	14.5	9.5	10.4	11.5
FCF / Rev (%)	12.4	12.4	6.8	8.5	9.8
Intangibles / GB (%)	2.3	4.2	3.9	3.6	3.4
Intangibles / CE (%)	2.1	3.8	3.7	3.5	3.4
Revenue / GB (x)	1.9	2.0	1.8	1.9	2.1
Revenue / FA (x)	4.0	4.7	4.8	6.0	8.0
CWIP / GB (x)	0.0	0.0	0.0	0.0	0.0

Source: Company, Anand Rathi Research

Valuations

At present, the stock trades at 21.6x FY17e and 15.3x FY18e earnings. We believe that earnings growth would be robust as demand revives and due to the company's greater operating leverage. We initiate coverage with a Buy and a price target of ₹309 (20.5x FY18e PE, an implied multiple for 9% cash-flow yield, a long-term average).

Fig 41 – One-year-forward EV/EBITDA chart



Source: Bloomberg, Company, Anand Rathi Research

Fig 42 – One-year-forward P/E chart



Source: Bloomberg, Company, Anand Rathi Research

Fig 43 – Peer comparison

Company	Mkt Cap (₹ m)	CAGR (FY15-FY17) %			EBITDA Margin (%)			PE (x)			EV/EBITDA (x)			RoE (%)			Div. Yield (%)		
		Rev	EBITDA	PAT	FY15	FY16e	FY17e	FY15	FY16e	FY17e	FY15	FY16e	FY17e	FY15	FY16e	FY17e	FY15	FY16e	FY17e
Kirloskar Oil	30,680	2.6	(4.0)	3.6	9.9	8.4	8.7	27.1	26.3	22.0	12.0	12.3	10.0	11.0	9.6	11.2	1.9	2.1	2.4
Cummins India*	247,678	11.3	14.0	6.9	16.7	16.2	17.5	31.1	31.5	27.5	32.5	30.6	26.5	28.8	25.4	25.2	1.6	1.6	1.7
Greaves Cotton*	32,698	3.3	22.0	57.2	17.3	16.7	16.4	37.5	18.6	15.8	11.3	9.9	9.0	10.0	20.0	21.3	1.7	1.7	1.7

Source: Bloomberg*, Company, Anand Rathi Research

Key risks

- **Persistent slowdown in the economy:** Our chief rationale for the company's better revenue growth is the improved domestic economy. A continuing slowdown would affect the company's performance.
- **Fluctuations in steel prices:** Any substantial fluctuation in steel prices could lead to margin contraction.
- A poor monsoon and higher oil prices (which could lead to a slowdown in the large-engine business) pose risks to our earnings estimate.

Company Background & Management

Incorporated in 1946, Kirloskar Oil Engines is the flagship company of the Kirloskar Group, with four state-of-the-art manufacturing units in India, offering world-class service. It has sizable operations in international markets, with offices in Dubai, South Africa and Kenya, and representatives in Nigeria. It also has a strong distribution network throughout the Middle East and Africa. It specialises in manufacturing of both air- and liquid-cooled diesel engines and generating sets across a wide range of power outputs from 5kVA to 3,000kVA.

Fig 44 – Promoters and key management personnel

Name	Position	Qualification and experience
Atul C Kirloskar	Executive chairman	Trainee in 1978 with the erstwhile Kirloskar Cummins. Over 38 years' experience in the engines industry
Gautam A Kulkarni	Executive vice-chairman	Trainee in 1978 in Kirloskar Industries (the former Kirloskar Oil Engines before the re-configuration). Over 38 years' experience in the servicing department, production and Techcentre (R&D)
Nihal G Kulkarni	Managing Director	B.A. Economics from Brown University, USA; over six years' experience in finance and investments. Training with the Kirloskar Group, Toyota Motors, USA, and DSP Merrill Lynch
RR Deshpande	Joint managing director	Mechanical engineer. Joined the old Kirloskar Oil Engines (before the reconfiguration) in Jul'77. Worked for the small, medium and large engines business groups of the company. Started the Ancillary Development Department
Rahul C Kirloskar	Non-executive director	B. S. Mechanical engineering, US. With the Kirloskar Group for more than 25 years at senior levels in varied capacities. Currently, executive chairman of Kirloskar Pneumatic
PG Pawar	Independent non-executive director	Chairman of Sakal Papers Pvt. Ltd. and of Ask Chemicals India Pvt. Ltd. BE, Birla Institute of Technology & Science (BITS), Pilani
R Srinivasan	Independent non-executive director	BE Mech. University of Madras. At present, independent director on the boards of Sundaram Fasteners, TTK Prestige, TTK Healthcare and Yuken India
M Lakshminarayan	Independent non-executive director	Master's in IT from the Indian Institute of Technology, Mumbai. Director, Kirloskar Oil Engines, Carborundum Universal, Rane (Madras); Chairman, WABCO India

Source: Company

Annexure 1

Power generation segment: The highly competitive Indian diesel-genset market can be categorised as portable diesel generators (below 5kVA), small diesel generators (15-75kVA), medium-sized diesel generators (75.1–375kVA) and large diesel generators (375.1–2,000kVA). In India, low and medium-sized diesel generators make up most of the market.

Fig 45 – Genset market in India

Types (kVA)	FY14			FY15		
	Volumes	₹ m	₹ m / unit	Volumes	₹ m	₹ m / unit
15–375	96,460	34,872	0.31	96,178	38,973	0.34
375.1–750	4,055	9,901	2.44	3,718	10,892	2.93
750.1–2000	1,035	6,136	7.63	804	6,136	7.63
Total	101,550	50,909		100,700	56,000	

Source: Company, Anand Rath Research

Growth drivers for gensets vary in terms of kVA. Broadly, mid- and low-kVA face keen competition in pricing from unregulated engine manufacturers and auto companies.

Fig 46 – Growth drivers of the genset market

	Growth drivers	Applications
Below 375kVA	Operating cycle, power deficits	Retail, small offices, etc.
Above 375kVA	Capex cycle, mandatory standby requirements	Plants, hospitals, malls, mega malls, etc.

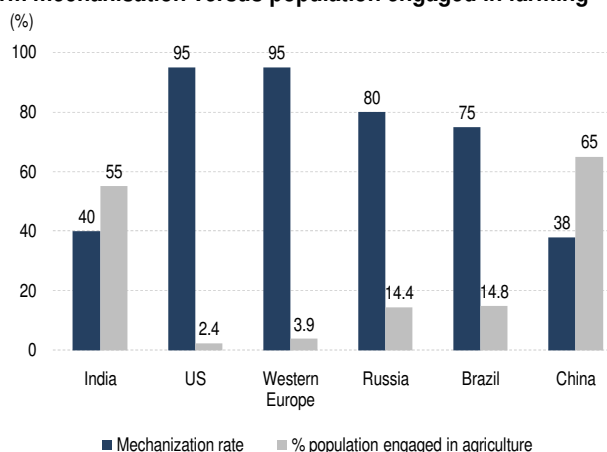
Source: Company, Anand Rath Research

Annexure 2

Farm mechanization

As per ministry of agriculture, India commands ~2.4% of the global geographic area and has access to ~4% of the total water reserves to support a mammoth ~18% of the total global population and ~15% of the total global livestock. Thus, lack of natural resources like land & water and increasing infrastructural development limit the ability to increase cultivable land. This makes a compelling case for increasing crop yields domestically. Farm mechanisation, i.e., usage of machinery and technology (e.g., tractors, tillers, transplanters, harvesters, pumps, etc.) in farming, is the most sought-after solution for increasing farm yields. This is given the increasing concerns over pesticide residues in our food value chain, shortage of farm labour on account of a shift in labour from rural to urban areas and diversion of workforce in MGNREGA.

Fig 47 – Farm mechanisation versus population engaged in farming



Source: Ministry of agriculture, Anand Rathi Research

Comparing India vis-à-vis its global competitors in the agri space, the level of mechanisation in India as of FY15 end is ~40%, while the share of the population engaged in agriculture is ~55%. The corresponding figures for developed countries like the US are 95% and 2.4%. For a developing country like Brazil, the corresponding figures are 75% and 14.8%, depicting the high intensity of manual labour in India vis-à-vis its global competitors.

Scope of farm mechanisation

Farm mechanisation, i.e., using technology and equipment to perform various tasks in agricultural fields has wide scope. It entails major agri tasks like seedbed preparation, sowing/planting, fertiliser application, irrigation and harvesting, among others.

Fig 48 – Penetration of farm mechanisation in India for various operations

Agriculture operations	Penetration in India (%)
Soil working & seed bed preparations	40
Seeding & planting	29
Plant protection	34
Irrigation	45
Harvesting & threshing	60-70 for wheat and rice

Source: Ministry of agriculture, Anand Rathi Research

In India, maximum mechanisation is undertaken in preparing the seed bed (penetration level ~40%) and irrigation (penetration level ~45%), while the total mechanisation rate is ~40-45%.

Major farm machinery used in India includes tractors, threshers and power tillers, among others. Among these, the biggest market in terms of annual sales is for tractors (~6 lakh units), threshers (~1 lakh units) and power tillers (8-15 HP range; ~65,000 units).

The tractor market is by far the largest (both in volume and value terms). Among farm machinery, tractors are most widely used by domestic farmers, with the total market size estimated at ~Rs340bn annually (~6 lakh units).

Farm mechanisation – Penetration in India

Tractors and power tillers have been at the forefront for driving the mechanisation wave in India.

Tractor sales have grown at a CAGR of 9.0% in FY05-15 to ~5.5 lakh tractors in FY15 (~2.3 lakh in FY05), while power tiller sales have grown at a CAGR of 10.6% in FY05-15 to 48,000 power tillers in FY15 (17,481 in FY05).

Penetration of tractors in India is higher in northern India, mainly Punjab and Haryana. On the other hand, the penetration of power tillers in India is higher in southern and eastern India. This is on account of the small size of land holdings per farmer in these respective regions.

Agricultural mechanisation industry in India is expected to grow rapidly due to the demand-supply gap in agriculture production and huge labour shortage. With shrinking farm holdings, the need of the hour is to improve agricultural yield, where mechanisation will play an important part.

Annexure 3

Power tillers – saviour for paddy region farming

Farmers, particularly those of paddy areas which comprise 28% of the country's arable land, face the challenging task of timely preparation of seed beds and transplanting paddy seedlings. The existing manual labour and animal power do not deliver the quality of seed bed which the genetically high-yielding varieties (HYVs) of paddy demand. In addition to seed bed preparation, many other operations such as inter-culture, plant protection, harvesting, threshing, irrigation, etc. can be successfully done by a power tiller. Therefore, the 15-HP power tiller is expected to become popular in paddy cultivation, in particular, and other crops in general for small and marginal holdings.

Paddy is the most difficult crop to cultivate. Given the soil, water and agro-climatic factors of an area primarily suited to paddy, it is not easy to replace paddy with a more profitable crop.

In some areas such as Kerala, Tamil Nadu, Andhra Pradesh, Orissa and West Bengal, where precipitation is optimum and assured irrigation to some extent is available, a second paddy crop is grown. Some farmers even grow three crops a year because of rice consumption and availability of better rainfall and supplementary irrigation. Therefore, the paddy crop poses a great challenge, because of the vast area it covers and exceptional tillage pattern and cultural practices, than with other crops.

The existing scientific concept of paddy cultivation involves transplanting seedlings in well-watered fields. Rearing the seedling in a small nursery is not difficult, but puddling the field for transplanting the seedlings is the most energy-consuming and difficult operation. It is also well known that paddy is suited to heavy and medium soils. In the traditional method, farmers puddle the field when the land is fully saturated and filled with standing water. *Desi* ploughs and bullocks are used for puddling; but not only are they inadequate to stir the soil sufficiently for uniform settling but the methods too are quite strenuous compared to any other crop operations. Farmers who use tractors with harrows, cage wheels and levellers do have an edge over *desi* ploughs and bullocks. Nevertheless, tractors are not adaptable to all soil conditions due to technical and financial constraints.

Most tractors in India are not primarily designed for operations in paddy fields. They are mostly of the medium or heavy type, with low ground clearance and an inadequate sealing mechanism against mud. These tractors tend to sink in puddled soils, and this makes them unsuitable for paddy cultivation. The use of tractors in seedling transplantation disturbs the puddled soil, and as a result, transplanted seedlings are unable to properly stand and be stable. More importantly, for most tractor models available, paddy field operations on small plots of land is cumbersome, tedious and time-consuming.

The table below lists some basic differences between a power tiller and a tractor. On the operational front, both tractors and power tillers can perform all agricultural operations: soil preparation, tilling, ploughing, cultivating, etc. Both can also be used in transportation, pumping water, spraying, etc. The power applied, however, is lower in case of a power tiller than that of a tractor.

Fig 49 – Differences between a tractor and a power tiller

Characteristics	Differences between a tractor and power tiller	
	Tractor	Power Tiller
Essential function	Pulling / hauling and agriculture	Agriculture
Seat	Yes	No
Output	High ($\sim \geq 20$ HP)	Lower than a tractor (≤ 12 HP)
Controlled by (drive)	Four-wheel	Two-wheel
Excise duty	Exempt	Exempt
Steering	Conventional steering	No conventional steering
Hydraulic power for lifting	Yes	No
Self-starting function	Yes	No
Motor Vehicles Act	Applicable	Not applicable
Registration & Driving license	Required	Not required
Maximum speed	40-50km/h	15km/h
Engine	Multi-cylinder vertical engine	Single cylinder horizontal engine

Source: Anand Rathi Research

Appendix

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