

**Market data**

EPIC/TKR	CMH
Price (p)	60.0
12m High (p)	176.0
12m Low (p)	55.5
Shares (m)	8.3
Mkt Cap (£m)	5.0
EV (£m)	11.8
Free Float*	40%
Market	AIM

*As defined by AIM Rule 26

Description

Chamberlin is a UK based industrial engineering company operating in two divisions- Foundries and Engineering. Around 75% of sales are exported.

Company information

CEO Kevin Nolan
 CFO David Roberts
 Chairman Keith Butler-Wheelhouse
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www.chamberlin.co.uk

Key shareholders

Rights & Issues IT	12.5%
Miton Capital Partners	12.5%
Janus Henderson	9.9%
Chelverton	6.3%
Thornbridge IM	6.3%
Schroders	4.4%
Other	48.1%

Next event

End May-18 2017/18 - Finals

Analysts

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Chamberlin

Continued technical issues lead to lower forecasts

Notwithstanding short-term operational issues, Chamberlin remains on track strategically, developing its product offering to the automobile turbocharger industry through expansion of its main operational facilities. Revenue growth is as expected but continued in-house cost inefficiencies lead to further lower forecasts.

- **Interim results:** Revenues for the first half 17/18 financial year were in line with management expectations, reflecting overall good demand levels across the foundry and engineering businesses. Demand for turbo charger bearing housings, the key growth driver for the group, continues to grow strongly. Margins, however, within the group's foundry businesses have been adversely affected by production issues and the group reported a loss before tax of £0.6m.
- **2017/18 forecasts:** Whilst management still expects group revenues for the year to be substantially ahead of last year, margins will suffer due to production issues. The company is working very closely with the machine and tooling suppliers to rectify the situation, but the resolution is taking longer than expected. We have further reduced our 2017/18 profitability expectations for the foundries business and group underlying EBIT forecasts fall from £1.1m to £0.2m with the group now reporting a loss before tax of £0.2m. Our 2018/19 forecasts have been commensurately reduced with PBT now at £1.3m
- **Valuation:** The shares remain lowly valued, trading on calendar 2018 EV/sales and EV/EBITDA of around 0.3 and 5.0 times respectively, compared with sector averages of 1.0 and 7.7 times respectively.
- **Investment summary:** The company has repositioned itself from a traditional engineering company to become a key supplier to the automotive turbocharger sector. The shares offer the opportunity to invest in a cyclical stock with high operational leverage but are likely to tread water until resolution of the production issues. The shares remain attractively valued against its peer group

Financial summary and valuation

Year End March (£m)	2016	2017	2018E	2019E
Sales	29.1	32.1	38.8	40.8
Gross profit	5.9	6.9	6.5	8.2
EBITDA	1.5	2.0	1.8	3.5
Underlying EBIT	0.4	0.7	0.2	1.6
Reported EBIT	0.1	0.4	0.2	1.6
Underlying PBT	0.1	0.6	-0.2	1.3
Underlying EPS (p)	1.5	4.5	-1.7	13.1
GAAP EPS (p)	-4.4	-11.7	-6.3	13.1
Net (debt)/cash	-3.2	-6.8	-9.4	-8.7
P/E (x)	-	-	-34.9	4.6
EV/sales (x)	0.7	0.6	0.3	0.3
EV/EBITDA (x)	-	-	6.7	3.3

Source: Hardman & Co Research

Financials

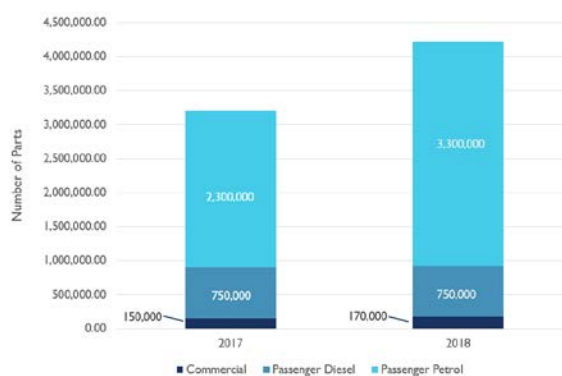
Segmental results and forecasts

Revenues as expected...

Revenues, up 21.7%, for the first half 2017/18 financial year are in line with management expectations, reflecting overall good demand levels across both the foundry- revenues up 30.4% - and engineering businesses. Demand for turbo charger bearing housings, the key growth driver for the group, continues to grow very strongly.

Demand for turbo charger bearing housings, the key growth driver for the group, continues to be very strong

2017/18 Bearing Housing Volume (Walsall Foundry)



▪ Growth in turbo-charged petrol engines fuelling growth

Source: Chamberlin plc

Cost inefficiencies within foundries business...

Margins within the group's foundry businesses have been adversely affected by production issues. At the new machining facility technical difficulties have created cost inefficiencies and extended cycle times. The company is addressing these issues and is working closely with the machine and tooling suppliers to rectify the situation, but this is now taking longer than previously expected.

Claim against supplier being pursued, with satisfactory settlement expected

Consequently, the company is now actively pursuing a claim against the supplier of the new machining cells in view of the persistent technical failures and, expects to reach a satisfactory settlement, hopefully by the end of the current financial year.

Raw material prices increased

Furthermore, raw material prices in the foundry operation have also increased. These costs will be recovered through a customer surcharge mechanism, however there is a short-term negative impact, given the time lag between price increases and their recovery.

Engineering operations much as expected...

The two engineering operations, Exidor and Petrel, continue to trade satisfactorily and in line with expectations.

**2017/18 and 2018/19 forecasts
lowered**

Whilst management still expects group revenues for the year to be substantially ahead of last year, margins will suffer due to the production issues. We have further reduced our 2017/18 profitability expectations for the foundries business and Group underlying EBIT forecasts fall from £1.1m to £0.2m with the group now reporting a loss before tax of £0.2m.

Chamberlin- Sales and profitability by division (£m) - Foundries

Year End March	2016	2017	2018e	2019e
Sales	25.6	21.3	27.2	28.0
Growth (%)	-15.8	-16.8	27.5	3.0
Operating Income	1.2	1.2	0.5	1.7
Margin (%)	4.7	5.6	2.0	6.0

Source: Hardman & Co Research

Chamberlin- Sales and profitability by division (£m) – Engineering

Year End March	2016	2017	2018e	2019e
Sales	9.4	10.8	11.6	12.7
Growth (%)	-10.1	15.0	7.5	10.0
Operating Income	0.7	0.9	0.9	1.3
Margin (%)	7.3	8.4	8.0	10.0

Source: Hardman & Co Research

Financials

Profit and Loss

- ▶ Group 2017/18 underlying EBIT forecasts fall from £1.1m to £0.2m with the group now reporting a loss before tax of £0.17m
- ▶ 2018/19 forecasts reduced with underlying EBIT now at £1.64m, some 30% lower

Profit & Loss				
Year end Mar (£m)	2016*	2017	2018e	2019e
Sales	34.99	32.11	38.78	40.76
COGS	-27.66	-25.17	-32.33	-32.61
Gross profit	7.33	6.94	6.46	8.15
Gross margin	21.0%	21.6%	16.7%	20.0%
Sales & marketing	-0.92	-1.38	-1.49	-1.71
Admin	-5.58	-4.80	-4.80	-4.80
EBITDA	1.50	1.96	1.77	3.54
EBITDA margin	4.3%	6.1%	4.6%	8.7%
Deprec & Amortis	-1.34	-1.22	-1.60	-1.90
Licensing/Royalties	0.00	0.00	0.00	0.00
Other income	0.00	0.00	0.00	0.00
Underlying EBIT	0.83	0.74	0.17	1.64
Share based costs	0.05	0.03	0.02	0.00
Exceptional items	-0.75	-0.37	0.00	0.00
Statutory Operating profit	0.13	0.40	0.19	1.64
Net financials	-0.18	-0.16	-0.34	-0.34
Pre-tax profit	0.65	0.57	-0.17	1.30
Reported pre-tax	-0.19	-0.92	-0.55	1.30
Tax payable/receivable	-0.03	-0.05	0.03	-0.21
Underlying net income	0.45	0.37	-0.14	1.09
Statutory net income	-0.26	-0.97	-0.52	1.09
Ordinary shares				
Period-end (m)	8.0	8.3	8.3	8.3
Weighted average (m)	8.1	8.3	8.3	8.3
Fully diluted (m)	8.1	8.3	8.3	8.3
Underlying Basic EPS (p)	5.56	-6.43	-1.72	13.08
GAAP Basic EPS (p)	-3.22	-11.73	-6.30	13.08
U/I Fully-diluted EPS (p)	5.56	-6.43	-1.72	13.08
GAAP Fully-diluted EPS (p)	-3.22	-11.73	-6.30	13.08
DPS (p)	0.0	0.0	0.0	0.0

Source: Hardman & Co Research
Note: pre-closure of Leicester Foundry

Balance Sheet

- ▶ Group has a net debt position at 30th Sept 2017 of £8.2m compared with £6.8m at 31st March 2017
- ▶ The group's defined pension scheme now stands in a £4.9m deficit (£5.2m at 31st March 2013)
- ▶ Net debt is forecast to be around £9.4m at year end 2017/18, declining to £8.7m at end of 2018/19

Balance sheet				
Year end March (£m)	2016	2017	2018e	2019e
Shareholders' funds	5.1	3.9	3.3	4.4
Accumulated goodwill	0.0	0.0	0.0	0.0
Total equity	5.1	3.9	3.3	4.4
Share capital	2.0	2.0	2.0	2.0
Reserves	3.1	1.9	1.3	2.4
Provisions/liabilities	4.9	5.4	5.4	5.4
Deferred tax	-1.3	-1.3	-1.4	-1.5
Long-term debt	0.3	1.3	1.3	1.3
Short-term loans	2.9	5.5	8.1	7.4
less: Cash	0.0	0.0	0.0	0.0
less: Deposits	0.0	0.0	0.0	0.0
Invested capital	11.9	14.8	16.8	17.1
Fixed assets	8.1	10.2	12.7	13.8
Intangible assets	0.4	0.5	0.4	0.3
Accumulated goodwill	0.0	0.0	0.0	0.0
Inventories	2.9	3.3	3.9	4.1
Trade debtors	6.2	7.6	8.3	8.3
Other debtors	0.0	0.0	0.0	0.0
Tax credit/liability	0.0	0.0	0.0	0.0
Trade creditors	-5.7	-6.9	-7.9	-8.3
Other creditors	0.0	0.1	-0.6	-1.1
Debtors less creditors	0.5	0.8	-0.1	-1.1
Invested capital	11.9	14.8	16.8	17.1
Net Debt	3.2	6.8	9.4	8.7

Source: Hardman & Co Research

Cashflow

- ▶ Working capital management remains strict, with the group achieving a level of 25% of annualised sales at 30th September 2017 similar to level at 31st March 2017.

Cashflow				
Year end March (£m)	2016	2017	2018e	2019e
Trading profit	0.8	0.7	0.2	1.6
Depreciation	1.2	1.1	1.5	1.8
Amortisation	0.1	0.1	0.1	0.1
Working capital	1.6	-0.6	-0.4	0.2
Other	0.0	0.0	0.0	0.0
Company op cashflow	3.8	1.3	1.4	3.7
Net interest	0.0	0.0	0.0	0.0
Tax paid/received	0.0	0.0	0.0	-0.1
Operational cashflow	3.8	1.3	1.4	3.6
Capital expenditure	-1.5	-3.9	-4.0	-2.9
Sale of fixed assets	0.0	0.0	0.0	0.0
Free cashflow	2.4	-2.6	-2.6	0.7
Dividends	0.0	0.0	0.0	0.0
Acquisitions	0.0	0.0	0.0	0.0
Disposals	0.0	0.0	0.0	0.0
Other investments	0.0	-1.0	0.0	0.0
Cashflow after invests.	2.4	-3.6	-2.6	0.7
Share repurchases	0.0	0.0	0.0	0.0
Share issues	0.0	0.0	0.0	0.0
Change in net debt	0.7	-3.6	-2.6	0.7
Opening net cash	-3.8	-3.2	-6.8	-9.4
Closing net cash	-3.1	-6.8	-9.4	-8.7

Source: Hardman & Co Research

Commercial opportunity - the automotive turbocharger market large and still growing

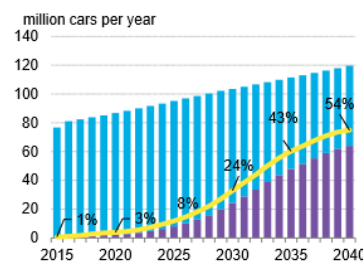
Internal Combustion Engines still the major propulsion system

Recent government and media announcements of proposed accelerated development of electric vehicles (EV) and bans on new petrol and diesel cars by 2040 might suggest the days of the internal combustion engine (ICE), the main propulsion system for transport, are numbered. We do not believe this to be the case.

Whilst EVs are poised for growth in the medium to longer term, various consultant studies do not suggest an immediate surge in demand. For example, Bloomberg New Energy Finance although forecasting that by 2040, 54% of new car sales and 33% of the global car fleet will be electric. EV sales to 2025 will remain relatively low.

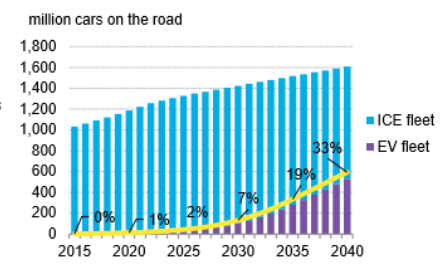
Forecast for Electric Vehicles

Figure 1: Annual global light duty vehicle sales



Source: Bloomberg New Energy Finance

Figure 2: Global light duty vehicle fleet



Source: Bloomberg New Energy Finance

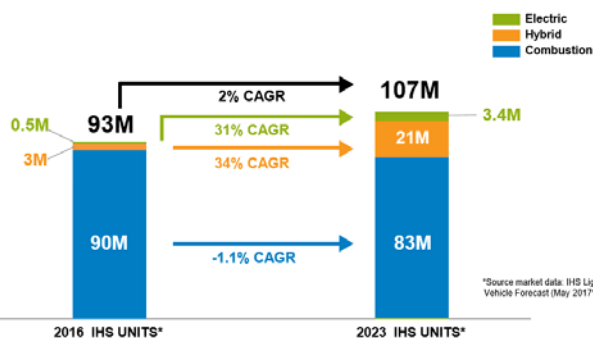
Source: Bloomberg New Energy Finance

Automotive Turbocharger prospects still most positive

Detailed below are the latest selection of slides from leading turbocharger producer-Borg Warner - illustrating the continued potential of the turbocharger market with the internal combustion engine.

Combustion systems and turbo charger prospects

Increasing Diversity of Light Vehicle Production



*Source market data: IHS Light Vehicle Forecast (May 2017).

Industry penetration rates continue to grow

Technology Penetration % - Combustion Only (includes S/S) - Gas & Diesel

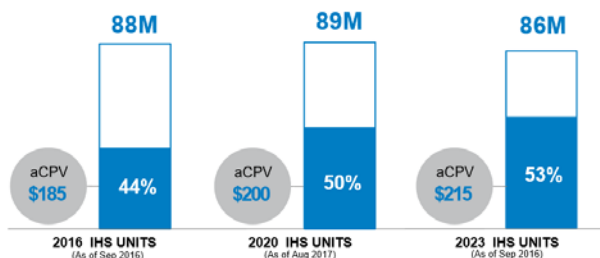
	2016	2026
Turbochargers	42%	55%
Exhaust Gas Recirculation	29%	47%
Variable Cam Timing	54%	70%
Dual Clutch Transmission	8%	10%
Stop/Start	35%	65%

Combustion systems and turbo charger prospects

Growth and Participation in Combustion



● aCPV (Average Content Per Vehicle) ■ Combustion Vehicles with BW Content



Hybrids Use Highly Efficient Internal Combustion Engines



Technology Penetration % - Hybrid Only - Gas & Diesel

	2016	2026
Turbochargers	18%	56%
Exhaust Gas Recirculation	12%	41%
Variable Cam Timing	52%	68%

- Hybrids drive increasing demand for BorgWarner's efficient ICE products

© BorgWarner Inc.

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Source: Industry, Hardman & Co Research

The Turbo-charger market

Significant Global Turbo-Charger Market

- \$1.25bn in revenues
- 45.4m vehicles equipped with turbo chargers annually by 2020
- Equates to 44% of light vehicle fleet

Regulatory Changes are Driving Growth

- greater fuel efficiency, reduced CO2 emissions

Petrol engines are being downsized and turbo-charged

- Turbo-charged 1.4 litre engine can deliver the output of 1.8 - 2.0 litre unit
- Delivers a minimum of 15% savings in fuel consumption

Light vehicles with turbo-chargers

	2012	2020
Europe	68%	73%
North America	18%	42%
China	16%	48%
Japan	13%	35%

Source: About Automotive

In the short to medium term Chamberlin will continue to focus on supply to IHI Europe but over time will look for opportunities to supply the other leading producers- Borg Warner, Bosch and Mahle Turbo Systems, Cummins Turbo Technology, Honeywell and Mitsubishi Heavy Industries (MHI).

Longer term, Chamberlin will look to other markets- the marine and aerospace industries for opportunities

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