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When it launched in 1964, the magazine you're reading now – then called *Automotive Rebuilder* – expressed excitement that we would be filling a deep void in this industry. We were proud to devote ourselves "exclusively and 100 percent to your problems, potential and opportunities." It's nice to know that some things haven't changed.

In the same inaugural Editor's Notebook report, we accepted "the challenge of being the independent monthly voice in the booming automotive rebuilding industry." Booming? Well…

Thirty years ago, we began surveying the jobber machine shop audience to determine the size, scope and health of the engine rebuilding industry. Since that time, a lot of things have changed at this magazine and in this industry. What hasn't changed is the commitment to the rebuilder. We have consistently surveyed the same machine shop/custom engine rebuilder (CER) population to get a snapshot of this industry from the experts – you, the engine rebuilder. Numbers obviously don't tell the whole story, but we believe the information in this study is still the most reliable data available for tracking trends in the production of engines, cylinder heads and crankshafts, as well as specific business data. Other national reports back up our basic analysis and we thank every one of our survey respondents for taking the time to contribute to this report.

"GRANTED, IF THERE IS ONE THING TYPICAL OF EVERY ENGINE BUILDER, IT'S THAT THERE IS NO TYPICAL ENGINE BUILDER…DIVERSITY IS A BLESSING AND WE ENCOURAGE YOU TO USE THESE AVERAGES TO SEE HOW YOUR BUSINESS COMPARES."

The data generated for this year's Machine Shop Market Profile was collected through survey questionnaires sent to a random sample of *Engine Builder* subscribers, as well as the machine shop/custom engine rebuilding membership of the Engine Builders Association (AERA). Four different questionnaires, consisting of four pages each, were developed to obtain the information contained in this profile. In all, we heard from more than 180 locations that are performing machine work and building engines in the U.S. Analysis of the data was completed by Babcox Market Research.

The survey information reflects data for production year 2013. We asked multiple questions about

Engine Production Data

readers' monthly production of engine blocks and cylinder heads, broken out by engine size as well as by gas and diesel configurations, crankshafts, core sourcing, shop equipment ownership and purchasing, and total production time spent in specific engine building areas.

In addition, this year's report includes information on the typical shop's financial data, size of shop, years in business, equipment and employee information and customer-base analysis of the typical CER.

Granted, if there is one thing typical of every engine builder, it's that there is no typical engine builder. While we recognize that each company is unique and diversity is a blessing, we encourage you to use these averages to see how your business compares.

Nationally, the numbers look like this: the average machine shop produced nearly 22.4 gas and diesel engines monthly last year, up from just under 21 in 2012. It's actually the highest number we've seen in at least six years – and the credit goes to the smallest member of the family for carrying the weight. While declines were seen in six-cylinder gasoline engines (down almost half an engine per month in 2013) and eight-cylinder gas engines (down almost a full engine per month), four-cylinder gas engine production increased 2.3 engines per month (up to 6.3 per month from 4 per month in last year's report). And despite declines in six- and eight-cylinder engines, gas engine production is higher than at any time since at least 2008.

On the diesel side, slight increases were seen across the board and the diesel engine segment experienced another great year last year. Continued growth of

AVERAGE NUMBER OF GAS/DIESEL ENGINES REBUILT PER MONTH IN 2013

	2013	2012	2011	2010	2009
GAS ENGINES					
4 CYLINDER	6.3	4.0	3.7	4.0	2.9
6 CYLINDER	3.8	4.2	4.4	3.3	3.1
8 CYLINDER	8.5	9.4	5.6	10.1	6.1
OTHER	.46	0.15	1.4	0.52	0.13
TOTAL	19.1	17.8	15.1	17.9	12.2
DIESEL ENGINES					
4 CYLINDER	.81	0.80	0.57	1.8	0.68
6 CYLINDER	1.91	1.76	0.86	1.4	1.2
8 CYLINDER	.46	0.44	0.65	0.46	0.6
OTHER	.10	0.14	0.040	0.5	0.06
TOTAL	3.3	3.1	2.5	4.1	2.5
TOTAL NUMBER OF ENGINES					
4 CYLINDER	7.1	4.8	4.3	5.8	3.6
6 CYLINDER	5.7	5.3	4.7	4.3	3.7
8 CYLINDER	9.0	9.8	6.3	10.6	6.7
OTHER	.56	0.3	1.8	0.19	0.12
TOTAL	22.4	20.8	17.7	22.1	14.8

ENGINE PRODUCTION INCREASES/DECREASES

RESPONSE	2013	2012	2011	2010	2009
INCREASED	55.6%	40.6%	26.5%	29.3%	15.8%
REMAINED THE SAME	28.9%	35.9%	70.6%	40.4%	47.4%
DECREASED	15.6%	23.4%	2.9%	30.3%	36.8%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**
AVERAGE INCREASE	11.3%	14.4%	13.0%	4.5%	29.7%
AVERAGE DECREASE	14.0%	8.8%	20.0%	14.0%	20.8%

REBUILT ENGINE SALES – DOMESTIC AND IMPORT

GAS	2013	2012	2011	2010	2009
DOMESTIC	74.5%	71.5%	68.6%	69.6%	71.8%
IMPORT	24.5%	28.5%	31.4%	30.4%	28.2%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**
DIESEL	**2013**	**2012**	**2011**	**2010**	**2009**
DOMESTIC	82.0%	84.1%	86.2%	80.3%	88.8%
IMPORT	18.0%	15.9%	13.8%	19.7%	11.2%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**

Engine Production Data

PERCENTAGE OF ENGINE REBUILDING FALLING INTO THE FOLLOWING CATEGORIES

	2013	2012	2011	2010
AUTOMOTIVE GASOLINE	36.3%	46.2%	44.9%	38.7%
PERFORMANCE	27.4%	20.1%	19.6%	22.5%
INDUSTRIAL ENGINES	8.4%	6.6%	10.6%	4.7%
MEDIUM-DUTY DIESEL	3.4%	7.5%	6.3%	5.5%
AUTOMOTIVE DIESEL	8.3%	4.9%	6.3%	3.7%
PERFORMANCE DIESEL	2.0%	4.3%	2.0%	1.6%
MARINE ENGINES	5.0%	4.2%	4.0%	3.8%
MOTORCYCLE/MOWER/OTHER SMALL	2.5%	1.7%	3.2%	1.1%
HEAVY-DUTY DIESEL	6.2%	3.8%	2.1%	11.9%
OTHER TYPES	0.5%	0.6%	1.0%	5.0%

PERCENTAGE OF SHOPS THAT REBUILD THE FOLLOWING CATEGORIES

	2013	2012	2011	2010
AUTOMOTIVE GASOLINE	96.2%	92.3%	93.1%	90.0%
PERFORMANCE GAS	88.5%	84.6%	86.2%	80.0%
INDUSTRIAL ENGINES	50.0%	46.2%	65.5%	53.3%
AUTOMOTIVE DIESEL	61.5%	46.2%	62.1%	56.7%
PERFORMANCE DIESEL	23.1%	15.4%	17.2%	23.3%
MARINE ENGINES	61.5%	61.5%	58.6%	60.0%
MOTORCYCLE/MOWER/OTHER SMALL	38.5%	34.6%	37.9%	30.0%
MEDIUM-DUTY DIESEL	46.2%	53.8%	44.8%	40.0%
HEAVY-DUTY DIESEL	38.5%	38.5%	27.6%	46.7%
OTHER TYPES	7.7%	7.7%	10.3%	16.7%

PERCENTAGE OF TOTAL REBUILT ENGINE SALES RETURNED AS WARRANTY

	2013	2012	2011	2010
Returned	1.8%	2.8%	3.0%	1.5%

PERCENTAGE OF WARRANTY RETURNS WHICH ARE ACTUALLY CUSTOMER INSTALLATION OR DIAGNOSTIC PROBLEMS

	2013	2012	2011	2010
Customer Caused	72.9%	86.2%	79.9%	63.0%
Percent change	-15.4%	7.9%	26.8%	-10.5%

"OF THE 3,000 - 5,000 FULL-SERVICE MACHINE SHOPS, IT'S ESTIMATED THAT BETWEEN 807,000 TO 1.35 MILLION GAS AND DIESEL ENGINES WERE BUILT DURING 2013."

4-, 6- and 8- cylinder engines indicates that industrial, commercial and agricultural opportunities remain.

Overall, the number of diesel engines climbed to 3.3 engines per month, a nice 6 percent increase from last year, which was up 24 percent from 2011.

The average national monthly gas and diesel engine production of 22.4 units translates to 269 engines produced annually. This is up from the 252 reported last year and exceeds the high-water mark of 264 reported in 2010.

Projected onto a universe of 3,000 to 5,000 full-service machine shops, it's estimated that CERs accounted for between 807,000 to 1.35 million gas and diesel engines built during production year 2013. Last year the market range for the same size universe was 648,000 to 1.26 million units.

If you add in an estimated 450,000 engines remanufactured annually by approximately 30 North American production engine remanufacturers (PERs), the combined total number of engines rebuilt in 2013 by CERs and PERs would be about 1.26 million to

Engine Production Data

PERCENTAGE OF TOTAL REBUILDING BUSINESS IN GAS ENGINE PRODUCTION FOR FOLLOWING CATEGORIES

	2013	2012	2011
SHORT BLOCKS	8.7%	7.3%	7.9%
LONG BLOCKS	17.4%	11.9%	11.3%
COMPLETE ENGINES	15.2%	23.7%	31.5%
HEADS*	48.8%	49.3%	41.8%
CRANKS	9.7%	7.8%	7.5%

*Not used on long blocks or complete engines

PERCENTAGE OF TOTAL DIESEL ENGINE REBUILDING PRODUCTION IN FOLLOWING CATEGORIES

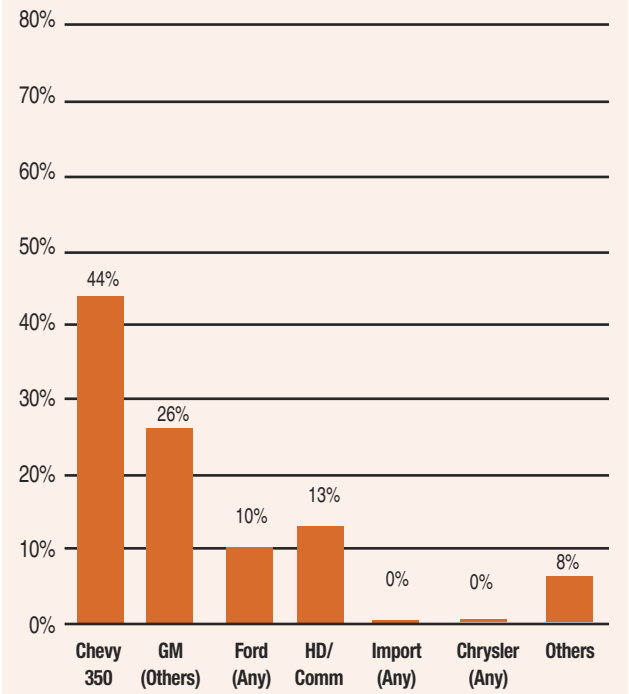
	2013	2012	2011
SHORT BLOCKS	3.3%	3.4%	4.7%
LONG BLOCKS	6.3%	14.1%	10.0%
COMPLETE ENGINES	11.2%	22.3%	22.3%
HEADS*	67.2%	52.4%	53.3%
CRANKS	11.9%	7.9%	9.6%

*Not used on long blocks or complete engines

PERCENTAGE OF ENGINE PRODUCTION (TOTAL) THAT IS PERFORMANCE-RELATED

	PERCENTAGE OF RESPONDENTS	
	2013	2012
One to 10%	28.0%	31.4%
11% to 20%	15.1%	20.9%
21% to 30%	14.0%	11.6%
31% to 40%	5.4%	2.3%
41% to 50%	8.6%	7.0%
51% to 70%	4.3%	3.5%
More than 70%	14.0%	17.4%
None/no answer	10.8%	5.8%

PERCENTAGE RANKING AS #1 ENGINE REBUILT



1.80 million units. This compares to an upper range of approximately 1.71 million engines produced by PERs and CERs during production year 2012.

At an average retail cost of approximately $2,600 per engine, we calculate that the total rebuilt/remanufactured engine market generated between $3.276 billion and $4.68 billion in rebuilt engine sales in 2013.

Many rebuilders said they saw a production increase in 2013 – and happily, fewer saw their production numbers decline. More than half of our respondents (55.6 percent) said production numbers increased. Of those who did report an increase, it was, on average, about 11.3 percent. While only 16 percent said production decreased, for those who did, the average decline was 14 percent.

Sales of rebuilt engines in 2013 trended in different ways. Import gas engines continued to fall relative to the previous year (down 2 percent from 2012) while domestic gas engines rose, albeit by a slightly higher margin; the diesel market again saw import engines hand the domestics a 2.1 percent decline – the same as in 2012.

We've discussed diversity for a long time, and in our survey it continues to be seen. Our 2013 numbers show that – as probably expected – the bulk of our readers (96.2 percent of shops) build automotive gasoline engines. The remaining categories from there are: performance gas – 88.5 percent; automotive diesel – 61.5 percent; marine engines – 61.5 percent; industrial engines – 50 percent; medium-duty diesel – 46.2

The small block **Chevy 350** continues to be the most common engine rebuilt and despite its continuing decline and an increase in competition for the top spot, the numbers for 2013 show it continues to be popular. This year, the small-block Chevy was noted as the #1 engine rebuilt by 44 percent of the shops – last year that figure was 50 percent. And proving that GM has staying power, "any other GM engine" accounts for another 26% of shops, so about 70 percent of shops say a GM engine of some kind is their number one product. It's likely the LS platform makes up the bulk of this work.

Crankshaft Production Data

"CYLINDER HEAD WORK REMAINS THE SINGLE BIGGEST PART BUT COMPLETE ENGINES AND HEADS TOGETHER ACCOUNT FOR 64 PERCENT OF THE TYPICAL REBUILDING BUSINESS."

percent; heavy-duty diesel – 38.5 percent; performance diesel – 23.1 percent; and "other types" – 7.7 percent.

According to our survey respondents, the percentage of engine rebuilding falling into various categories in the typical shop breaks down like this: automotive gas – 36.3 percent; performance – 27.4 percent; industrial – 8.4 percent; medium-duty diesel – 3.4 percent; automotive diesel – 8.3 percent; performance diesel – 2 percent; marine engines – 5 percent; heavy-duty diesel – 6.2 percent; motorcycle/mower/other small – 2.5 percent; and other types – 0.5 percent.

The small block Chevy 350 continues to be the strongest engine out there – though other engines in the GM family (without question the LS platform) are gaining traction. The 350 is ranked as the number one engine built by 44 percent of our respondents, down from an even half last year. However, a GM engine of some kind is listed number one by 70 percent of our respondents. Fords account for 10 percent; heavy-duty and commercial engines account for 13 percent (a hefty increase from last year) and "other engines" garnered 8 percent. Imports and Chryslers both fell off the radar this year – no one ranked either as their number one engine.

Each year we ask survey respondents to tell us about their engine building business by breaking down their operation into five specific machining processes – production of short blocks, long blocks, complete engines, cylinder heads (not used on long blocks or complete engines) and crankshafts (also not used in long blocks or complete engines).

Gas cylinder heads – which had been an increasingly bright spot

AVERAGE NUMBER OF GAS AND DIESEL CRANKSHAFTS GROUND PER MONTH IN 2013

	2013	2012	2011	2010	2009
GAS CRANKSHAFTS					
4 CYLINDER	5.0	6.8	6.0	6.5	5.6
6 CYLINDER	3.6	4.6	4.7	5.6	4.0
8 CYLINDER	8.5	13.0	9.0	8.7	6.7
OTHER	.44	0.5	.036	0.25	0.26
TOTAL	17.5	24.9	20.1	21.05	16.6
DIESEL CRANKSHAFTS					
4 CYLINDER	1.1	0.96	1.3	2.7	1.0
6 CYLINDER	1.6	6.6	1.7	2.9	1.2
8 CYLINDER	.31	0.4	1.4	0.4	0.7
OTHER	.31	0.22	0.4	0.4	.17
TOTAL	3.3	3.6	4.8	6.4	3.1

"DIESEL CRANK PRODUCTION DECREASED IN 2013 RELATIVE TO 2012, FROM 3.6 TO 3.3 PER MONTH"

TOTAL AVERAGE NUMBER OF GAS AND DIESEL CRANKSHAFTS GROUND PER MONTH

	2013	2012	2011	2010	2009
TOTAL NUMBER OF CRANKSHAFTS					
4 CYLINDER	6.1	7.8	7.3	9.2	6.6
6 CYLINDER	5.2	6.6	6.4	8.5	5.2
8 CYLINDER	8.8	13.4	10.4	9.1	7.4
OTHER	.75	0.7	0.76	0.65	0.43
TOTAL	20.9	28.5	24.9	27.5	19.6

CRANKSHAFT PRODUCTION INCREASES/DECREASES

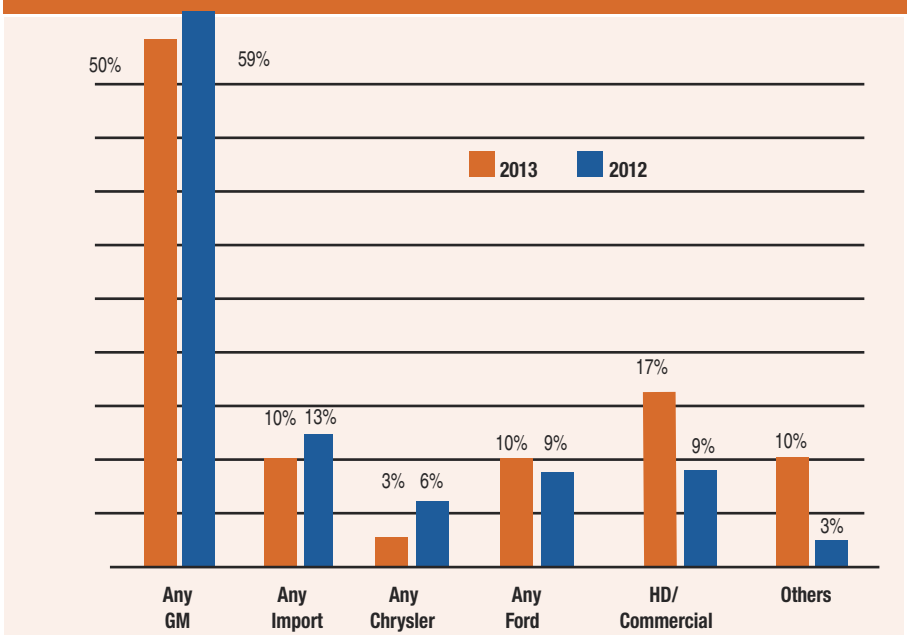
RESPONSE	2013	2012	2011	2010	2009
INCREASED	25.0%	16.4%	16.1%	14.8%	9.1%
REMAINED THE SAME	60.0%	65.6%	74.2%	55.6%	69.7%
DECREASED	15.0%	18.0%	9.7%	29.6%	21.2%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**

Cylinder Head Production Data

AVERAGE NUMBER OF GAS/DIESEL CYLINDER HEADS REBUILT PER MONTH IN 2013

	2013	2012	2011	2010
GAS CYLINDER HEADS				
4 CYLINDER	14.9	14.8	17.1	16.7
6 CYLINDER	7.3	10.0	11.5	8.6
8 CYLINDER	13.9	19.6	12.7	14.9
OTHER	0.8	0.8	2.6	0.78
TOTAL	36.9	45.2	43.9	41.3
DIESEL CYLINDER HEADS				
4 CYLINDER	2.5	2.0	2.1	3.9
6 CYLINDER	4.2	3.3	2.9	5.8
8 CYLINDER	2.3	1.2	2.5	2.5
OTHER	0.6	0.3	0.6	0.6
TOTAL	9.6	6.8	8.1	12.8
TOTAL NUMBER OF CYLINDER HEADS				
4 CYLINDER	17.4	16.8	19.2	20.6
6 CYLINDER	11.5	13.3	14.4	14.4
8 CYLINDER	16.2	20.8	15.2	18.4
OTHER	1.4	1.1	3.2	1.4
TOTAL	46.5	52.0	52.0	54.8

PERCENT NAMING AS NUMBER ONE CYLINDER HEAD REBUILT



PERCENT OF CYLINDER HEAD REBUILDING THAT IS ALUMINUM

Average 2013 49% **Average 2012 51%** **Average 2011 42%**

for the typical shop's production, fell this year from an average of 45 heads produced each month in 2012 to 36.9 heads per month in 2013. In gas, this accounted for about 48.9 percent of the typical shop's production, down from 49.3 percent. Cylinder head work remains the single biggest part, but complete engines and heads together account for 64 percent of the typical rebuilding business. This is down significantly from 78 percent calculated in 2012.

For diesel engine builders, declines are seen in short blocks, long blocks and complete engine production numbers. Diesel heads and cranks saw sizeable production increases. Diesel cylinder heads account for 78.4 percent of diesel engine rebuilding production numbers.

In fact, diesel cylinder head increases were seen across the board, but couldn't overcome the gas declines. In 2012, shops produced an average total of 52 gas and diesel heads per month, but in 2013 that number was 46.5 heads produced monthly.

The national average number of gas and diesel crankshafts reground monthly by the typical CER fell in 2013, from 28.5 units in 2012, to 20.9 units in 2013.

Diesel crank production decreased in 2013 relative to 2012, falling from 3.6 to 3.3 total units per month. Gasoline crankshaft regrinding also declined, from nearly 25 total units produced monthly during 2012 to less than 18 total units

PERCENT OF CYLINDER HEAD REBUILDING THAT IS DIESEL

Average 2011 16%
Average 2012 20%
Average 2013 36%

Shop Management Data

produced in 2013.

Diesel heads rebuilt monthly continued last year's fall. Total diesel cylinder head production fell from 8.1 units rebuilt monthly in 2011 to 6.8 units in 2012, an overall 16 percent decrease. Six-cylinder diesel head production actually increased slightly, but all other categories fell.

The percentage of cylinder head rebuilding that is aluminum fell slightly in 2013, to less than half, giving back some of the gains aluminum made in 2012. The percentage of cylinder head rebuilding that is diesel climbed dramatically, up 16 percent over 2012.

As with complete engines, GM continues to dominate in the cylinder head rebuilding market, but some softening of The General's power may be seen, according to our survey respondents. When asked what the number one cylinder head rebuilt in their shop was, 50 percent named a GM product, down from 59 percent in 2012. And to paraphrase the old saw "What's true for GM is true for the industry," other brands are feeling the pinch. Import and Ford heads are claimed as top product by 10 percent of shops each; Chrysler dropped back to being named number one by just 3 percent of respondents. However, heavy duty/commercial heads saw a huge jump in 2013, as did the "other" category.

Again, diversity reigns in today's shop environment and that means shops continue to do an increasing amount of various types of engine builds and engine machine work in a variety of engine markets. CERs today are more and more capable of doing everything from a single cylinder gas or diesel slugger to a 16-cylinder marine, industrial or off-road engine to a high performance street rod or racing engine.

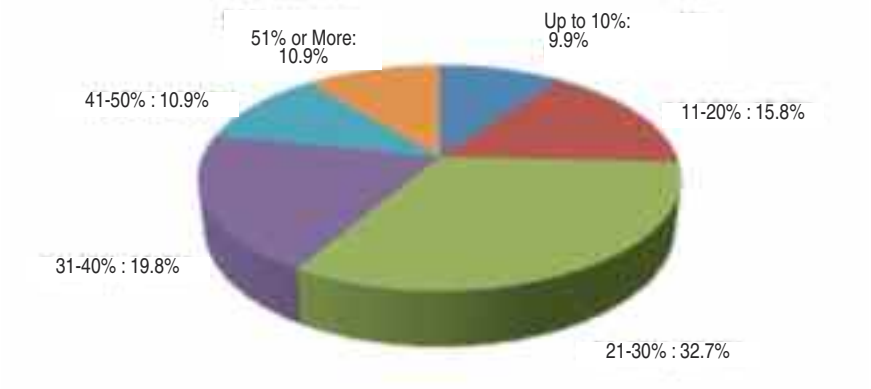
Diversity means a shop that's made investments in equipment capabilities to do its engine machine work or engine builds faster, cheaper and at consistency.

Shops say that 62.5 percent of the equipment they purchased in 2013 was new, while 37.5 percent was used. This is a significant reversal from the 58 percent used/42 percent new split seen in 2012.

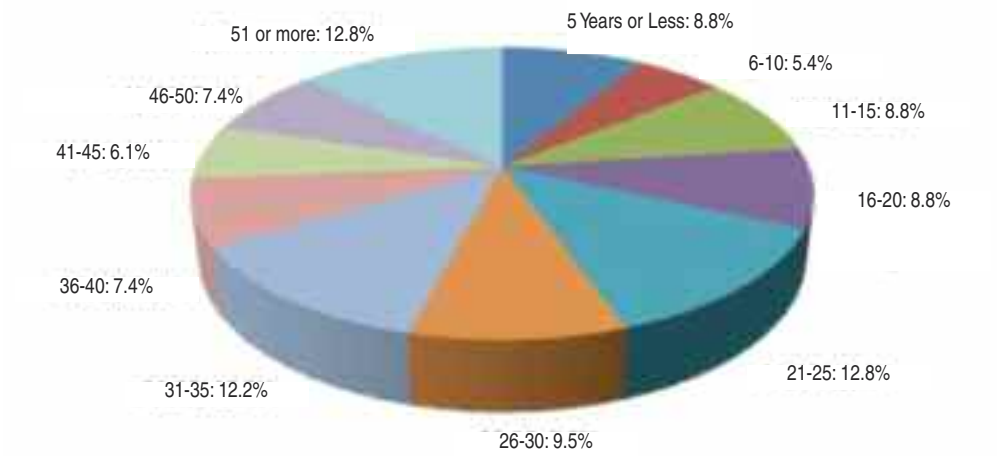
From CNC software designed exclusively for the engine building industry to shop tooling and equipment built to make your job easier and more profitable, it means shops that have invested in training, technical resources and have developed relationships with suppliers make them the known experts in their fields. Their customers seek them out for all of these reasons.

Average total gross sales volume (attributed to parts and labor) in 2013 was $523,300 in 2013, up from $475,000 in

2013 GROSS PROFIT MARGIN ON MACHINE SHOP PARTS AND LABOR



AVERAGE YEARS SHOP HAS BEEN IN BUSINESS



Average Years in Business: 30.2 Years

Shop Management Data

2009. Thirty-seven percent of respondents say this figure is up (by an average of 14.5 percent); 45 percent say sales volume was flat year-over-year; and 18 percent saw a decline (again, by an average of 14 percent).

According to respondents, in 2013 machine shop parts and labor work accounted for an average of 74.6 percent of shops' gross sales volume. During the same period, 26 percent of respondents said their average gross profit margin on machine shop parts and labor increased, on average, 8.4 percent over 2012. Thirteen percent said their profit margin fell, by an average of 12 percent.

The national average for the number of years a shop has been in business is 30.2 years – an aging trend we've watched for the past few years. Many of our respondents say they've been reading – and retaining – this magazine since almost its birth. We thank them for their loyalty.

But a bright spot too, is the number of new or young shops responding to our survey. More than 14 percent of shop owners indicate they have been in business 10 years or less. At the other end of the spectrum, nearly half of shops (47 percent) have been in operation for more than 30 years, an amazing 27 percent have been building and rebuilding engines since at least the early '70s, and 13 percent are older than we are!

Obviously, many business practices have changed since those veterans first hung out their shingle, and one that we've been watching over the past few years has been the number of employees. The average number of total company employees is 4.5 and

PERCENT OF TOTAL PRODUCTION TIME SPENT IN THE FOLLOWING AREAS

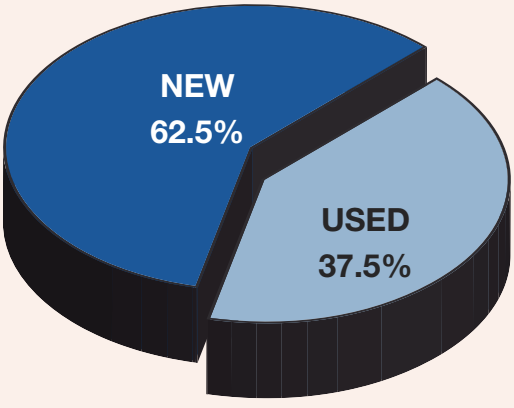
CATEGORY	2013	2012	2011	2010	2009
DISASSEMBLY/CLEANING	15.1%	17.3%	14.9%	16.7%	17.1%
BLOCK RESURFACING	8.3%	6.0%	5.4%	5.5%	6.9%
CYLINDER BORING	14.6%	12.4%	12.2%	12.4%	11.0%
CYLINDER HEAD RESURFACING	15.3%	15.4%	13.5%	15.6%	15.4%
VALVE GUIDE AND SEAT WORK	14.8%	15.5%	13.4%	14.0%	12.6%
CYLINDER HEAD CRACK REPAIR	3.0%	2.5%	0.9%	2.0%	2.6%
CONNECTING ROD RECON	6.3%	5.7%	5.8%	4.7%	5.8%
VALVE RECONDITIONING	7.5%	9.9%	8.7%	10.6%	10.8%
FLYWHEEL GRINDING	3.9%	2.6%	4.0%	4.2%	3.9%
CLUTCH RESURFACING	0.4%	0.0%	0.6%	0.3%	0.3%
CRANK GRINDING/POLISHING	4.5%	4.4%	8.5%	4.8%	5.1%
CRANKSHAFT WELDING	0.5%	0.4%	0.7%	0.7%	1.2%
OTHER	5.8%	17.6%	11.3%	8.5%	7.3%

AVERAGE AMOUNT SPENT ON MACHINE SHOP EQUIPMENT IN 2013

		PERCENT CHANGE*
2013	$17,627	-8.8%
2012	$19,327	71%
2011	$11,274	-38.7%
2010	$18,400	78%
2009	$10,556	-22.8%

*From previous year

PERCENT OF EQUIPMENT PURCHASED THAT IS NEW AND USED



Shop Management Data

the average number of machine shop employees is 3.0 per shop. This number has actually remained fairly consistent for the past several years. The average tenure of employees is 16.4 years.

Other facts from our survey:

• 45 percent of shops say they have a dedicated shop foreman; 87 percent of these foremen are also working machinists.

• 77 percent of shops work regularly with an accountant; 23 percent say they don't.

• Average hourly labor rate (nationally) is $72.50. The average markup on hourly shop labor (that is, the markup from hourly shop labor rate paid to employees compared to the hourly rate charged to customers) is 108 percent. And for every dollar in shop labor billed in 2013, $6.30 in shop labor was generated.

Whether they do it because they want to share the wealth or because the diverse range of products they build requires it, survey respondents overwhelmingly choose to buy their parts from multiple suppliers. Seventy-six percent say they shop around; 24 percent are loyal to a single supplier.

Computers – love 'em or hate 'em – are a necessary part of business today, and even this industry is finally recognizing that fact. Half of respondents say they use a computer to manage their shop; 7 percent say they're in the process of computerizing (a process that likely has been going on for at least 30 years); yet a substantial 43 percent of shops insist on doing business the "old fashioned" way.

Shop operations can be managed without a computer, but certain functions can't. Shop websites – determined "essential" shop tools by many respondents – are found at just 47 percent of shop respondents. Of those, 24 percent sell directly via their website or other online method – of these forward-thinking shops, 13 percent of their total sales come from the Internet.

When we asked shops to rank their biggest competitors, here's how they responded:

32 percent – used engines being installed;

32 percent – the economy (in many cases this manifests itself more in the performance business);

19 percent – better quality OE engines;

12 percent – customers purchasing engines from retail outlets, whether PER engines or other suppliers;

3 percent – low finance rates on *used* cars.

No one saw a problem with low financing rates on *new* cars or with higher gas prices, both of which were major concerns in years past.

Shops say they will continue to do what it takes to be strong and successful in this business, but that doesn't just mean surviving. More than 36 percent of respondents say they plan to expand their engine rebuilding operation in the next two years. This will be accomplished in the following ways, they tell us:

• 58 percent plan to add rebuilding equipment;

• 50 percent will add employees;

• 42 percent will add services;

• 25 percent will expand their production area.

Whatever their methods, *Engine Builder* will continue to support their efforts. ■

Questions? Comments? We want to hear from you. Contact Editor Ed Sunkin at esunkin@babcox.com or Publisher Doug Kaufman at dkaufman@babcox.com.

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