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MSMP

2010 Machine Shop Market Profile

As we discussed in Part 1 of the 2010 Machine Shop Market Profile, predictions of the future are usually wildly entertaining and frequently way off-base. Hollywood has done an great job of getting the big stuff wrong. But frankly, those aren't the kinds of changes that really matter anyway.

Small changes can have big impacts over time and there's not a person alive who would argue that. Conversely, big changes can go relatively unnoticed in certain circumstances. As mentioned, by now we were promised flying cars and teleportation. In reality, NASA is planning to end the Space Shuttle program later this year.

Science gained from space exploration may not have translated into personal transportation and instant travel, but it has given us tools, technology and Velcro. Little changes that have made big impacts.

For the past 20 years, while some have been expecting big changes in many industries, *Engine Builder* magazine has been tracking and documenting subtle changes in this industry. We have surveyed the same machine shop/custom engine rebuilder (CER) population for a long time and the most obvious change is the reduction in our numbers. But the often overlooked aspect is that this is still a profitable industry.

Sure, it's not what it once was – the challenges you face would cripple lesser industries. Many have not survived the difficult times. But all things being equal, it's not all doom and gloom. As we reported last month, the results from this year's survey show that many of the leading indicator numbers are higher than they were a year previously. And considering that 2008's numbers were pretty bad, that's positive news.

Part I of our annual Machine Shop Market Profile, presented in print in the 2010 issue of *Engine Builder* magazine, gave information concerning all types of production data, looking at average monthly engine, head and crankshaft production, core sourcing, analysis of shop equipment ownership, previous equipment purchases and future buying intentions, as well as the percentage of production time spent in specific areas of engine disassembly, cleaning, machining and reassembly.

In this issue, we're taking a look, at financial data, size of shop, years in business, employee information and customer-base analysis of the typical custom engine rebuilder (CER).

As we stated last month, we feel the numbers generated by the 2009 Machine Shop Market Profile are as pristine and reliable as possible. Consequently, data contained in this study reflects the most accurate trend-

2010 MSMP MACHINE SHOP MARKET PROFILE

Shop Sales Profile

2009 GROSS SALES VOLUME (PARTS & LABOR)

GROSS SALES VOLUME	2009	2008	2007	2006
LESS THAN $250,000	61.1%	55.7%	50.0%	50.0%
$250,000 - $499,999	18.3%	20.6%	22.0%	24.7%
$500,000 - $749,999	6.1%	9.8%	11.4%	7.2%
$750,000 - $999,999	6.1%	2.1%	6.4%	6.6%
$1 - $1.5 MILLION	2.3%	3.6%	5.3%	4.1%
$1.5 - $2 MILLION	1.5%	2.1%	2.3%	2.5%
$2 - $2.5 MILLION	3.1%	1.5%	0.4%	1.3%
MORE THAN $2.5 MILLION	1.5%	4.6%	2.3%	3.8%
AVERAGE	$475,160	$527,657	$506,098	$536,292

2009 GROSS SALES VOLUME COMPARISON

	2009	2008	2007	2006
INCREASED	31.0%	28.5%	32.1%	40.2%
REMAINED THE SAME	36.5%	31.6%	37.0%	33.2%
DECREASED	32.5%	39.9%	30.9%	26.6%

PERCENT CHANGE IN GROSS SALES VOLUME

THOSE REPORTING AN:	INCREASE	DECREASE
UP TO 10%	54.1%	44.7%
11 - 20%	29.7%	31.6%
21 - 30%	10.8%	18.4%
31 - 40%	0%	5.3%
41% OR HIGHER	5.4%	0%
AVERAGE 2008	13.8%	16.4%
AVERAGE 2007	10.9%	15.6%
AVERAGE 2006	12.3%	14.3%

GROSS SALES VOLUME ATTRIBUTED TO MACHINE SHOP PARTS & LABOR WORK

PERCENT OF SALES VOLUME	2008	2008	2007	2006
UP TO 10%	5.7%	4.4%	5.5%	6.8%
11 - 20%	9.8%	8.3%	5.1%	6.5%
21 - 30%	3.3%	2.0%	7.9%	5.2%
31 - 40%	4.1%	3.9%	2.8%	4.2%
41 - 50%	7.4%	5.5%	7.5%	4.9%
51 - 60%	4.1%	5.0%	3.6%	5.2%
61 - 70%	3.3%	2.2%	2.4%	3.6%
71 - 80%	5.7%	7.2%	8.7%	5.8%
81 - 90%	4.9%	8.3%	8.3%	6.0%
91% OR MORE	51.6%	47.5%	48.2%	51.6%
AVERAGE	73.2%	71.9%	74.1%	74.0%
PERCENT CHANGE	1.8%	-2.9%	0.1%	2.1%

ing information available to CERs and their suppliers.

Information contained in our study represents data for production year 2009. In our estimation, about a third of our subscribers – representing about 5,500 locations – are full-service automotive machine shops and engine builders capable of doing any type of machine work. The rest may be rebuilders with limited shop equipment, buying and installing parts, doing the machine work they can while jobbing out other service operations that they can't easily perform.

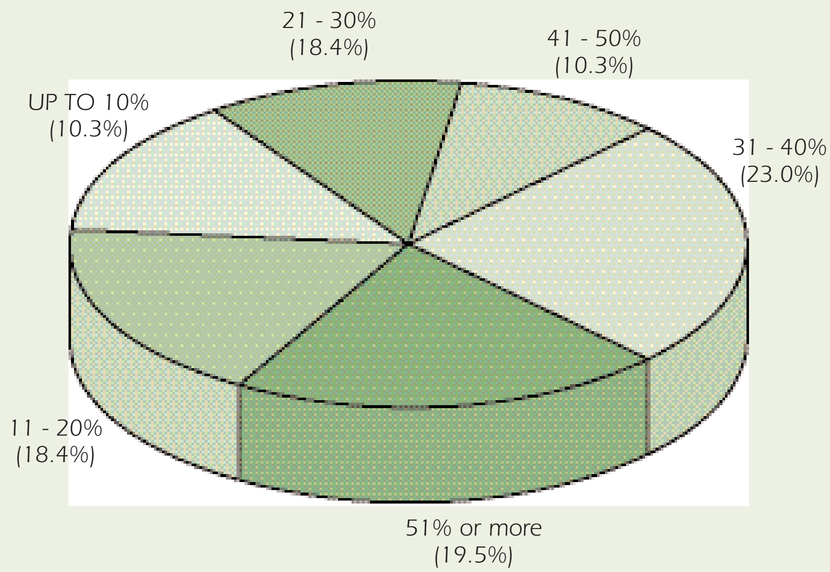
Based on a universe of 4,000-5,500 full-service automotive machine shops, this market segment built 720,000 to 990,000 gas and diesel engines engines during production year 2009. During production year 2008 the national average for the CER market in gas and diesel engine production ranged between 624,000 to 858,000 units.

Adding in the estimated 450,000 engines remanufactured annually by approximately 30 U.S. production engine remanufacturers (PERs), would place the combined total number of engines rebuilt in 2009 by CERs and PERs at 1.17 million to 1.44 million units. This compares to approximately 1.07 million to 1.31 million engines produced by PERs and CERs during production year 2008.

At an average retail cost of $2,600 per engine, that indicates the machine shop market generated between $3.04 billion and $3.74 billion in rebuilt engine sales in 2009.

However, though those num-

2009 GROSS PROFIT MARGIN ON MACHINE SHOP PARTS AND LABOR



2009 AVERAGE: 35.0% 2008 AVERAGE: 35.0% 2007 AVERAGE: 31.4%

2009 GROSS PROFIT MARGIN COMPARISON

PERCENT OF SHOPS WHOSE PROFITS:

	2009	2008	2007	2006
INCREASED	22.7%	16.7%	16.7%	23.1%
REMAINED THE SAME	53.6%	57.7%	60.8%	57.8%
DECREASED	23.6%	25.6%	22.5%	19.0%

PERCENT CHANGE IN GROSS PROFIT MARGIN*

RANGE SHOPS SEEING:	INCREASE	DECREASE
UP TO 10%	68.2%	60.9%
11 - 20%	13.6%	21.7%
21 - 30%	9.1%	8.7%
31 - 40%	0.0%	8.7%
41% OR HIGHER	9.1%	0.0%
AVERAGE	14.3%	13.4%

PRETAX PROFIT

	2009	2008	2007	2006
AVERAGE	$38,974	$53,590	$43,001	$43,754
MEDIAN	$28,000	$28,000	$25,000	$25,000
PERCENT CHANGE	-27.3%	24.6%	-1.7%	1.5%

*While relatively few shops gave a profit figure (for the middle table above), nearly 70% of respondents who saw an increase in profit margin saw an increase of 10% or less.

bers look positive and they indicate that people may be recognizing the value of rebuilt engines, especially in these uncertain times, the number of engines sold only tells part of the story.

Average total gross sales volume in 2009 was down almost 10 percent from the previous year. Sales volume (including parts and labor) for the average shop was $475,000 in 2009 down from $528,000 in 2008. These numbers continue to show declines: even the 2008 figure is still below the 2006 figure of $536,292 and well under the 2005 number.

Still, there are positives. Increases in sales volumes were seen in 2009 at the lowest end of the scale (less than $250,000 in sales); in the middle of the scale ($750,000-$999,999); and near the highest end of the scale ($2-2.5 million). Unfortunately, modest to significant decreases were seen at the other levels, dragging down the rest of the field.

On the whole, the average increase in business for those shops reporting an increase tallied nearly 14%, down from last year's survey. The average decrease (for those shops reporting a decrease in gross sales) rose, slightly as well, from 15.6 percent to 16.4, continuing a bothersome trend that we have been watching for the past several years.

According to respondents, in 2009 machine shop parts and labor work accounted for an average of just over 73 percent of shops' gross sales volume. This is an increase of about 2 percent. During the same period, the national average gross profit margin on machine shop parts and labor stayed steady with the previous year's number. The 2009 figure is 35 percent, the same as in 2008. This year, 23 percent of responding shops said

Shop Sales Profile

their gross profits increased, higher than any year since 2006. The percent whose profits decreased was down about 2 percentage points from 2008.

Overall, the average increase in gross profit margins in 2009 (according to those who reported an increase) was slightly more than 14 percent; the average decrease in gross profit was about 13 percent.

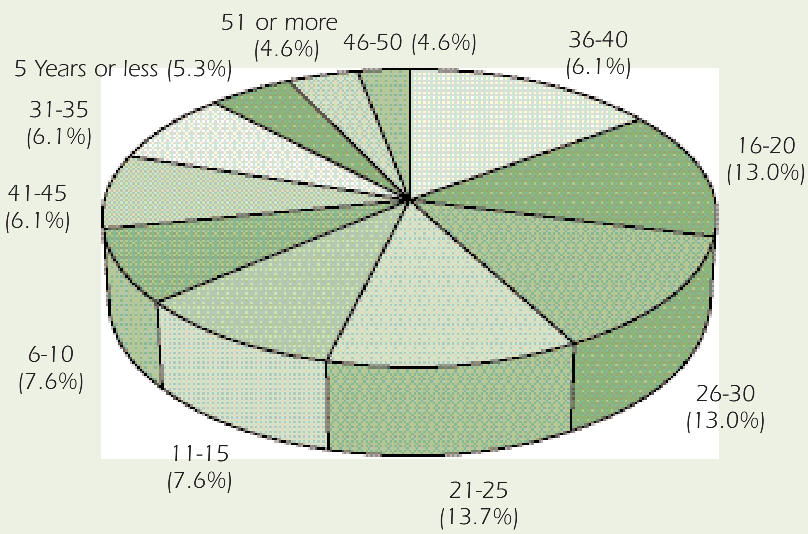
Obviously, other factors are in play with today's business world than just making a product, selling a product and pocketing the cash. Pretax profits took a big hit in the survey results this year. Shops reported an average of $38,974 in pretax profits in 2009, while average 2008 pretax profit was reported at nearly $54,000. The median pretax profit (the point at which the same number of shops fell above and below) climbed, however, to $28,000, up slightly from $27,932 in 2008.

We must point out, however, that of all the questions on the survey forms, less than one-third of respondents answered this question. About 70 percent of those who saw a profit increase say it was of 10 percent or less.

The national average for the number of years a shop has been in business was nearly 28 years – a positive aging trend we've watched for the past few years. Fully one-third of shop owners (about 33.6 percent, to be exact) indicate they have been in business between 11 and 25 years. Collectively, 14.5 percent of shops have been in business for 10 years or less; and more than half of shops (55.7) have been in operation for more than 26 years.

A minority of shops (44.4 percent) employ a shop foreman. Of those that do, nearly 92 percent say he (or she – we know several female bosses) is a working machinist.

YEARS SHOP HAS BEEN IN BUSINESS



The typical shop has been in business for 27.9 years.

SHOPS EMPLOYING SHOP FOREMAN

	2009	2008	2007	2006
YES	44.4%	52.8%	38.2%	38.6%
NO	55.6%	47.2%	61.8%	61.4%
If "Yes," is foreman a working machinist?			**Yes 91.7%**	**No 8.3%**

SHOP FOREMAN TYPICAL YEARLY EARNINGS

	2009	2008	2007	2006
EARNINGS	$45,000	$45,863	$43,947	$43,000
PERCENT CHANGE	-1.7%	4.4%	2.2%	1.0%

AVERAGE HOURLY WAGE OF EMPLOYEES

TITLE	2009	2008	2007	2006
EXPERIENCED MACHINE OPERATOR	$17.89	$17.70	$18.36	$17.30
NEWLY HIRED MACHINE OPERATOR	$9.88	$10.13	$11.34	$10.80
COUNTERMAN/SALES	$13.73	$12.43	$12.81	$12.70
CORE DISASSEMBLY PERSON	$9.32	$9.25	$10.45	$9.50

2010 MSMP MACHINE SHOP MARKET PROFILE

Shop Description Profile

TOTAL NUMBER OF EMPLOYEES IN COMPANY

NUMBER OF EMPLOYEES	2009	2008	2007	2006
1-5	83.3%	75.0%	72.7%	65.9%
6-10	4.2%	15.6%	16.4%	18.8%
11-15	8.3%	3.1%	7.3%	10.6%
16-20	4.2%	6.3%	1.8%	1.2%
21 OR MORE	0.0%	0.0%	1.8%	3.6%
AVERAGE	4.9	4.4	4.4	5.9
PERCENT CHANGE	11.4%	0.0%	-20.3%	11.3%

NUMBER OF MACHINE SHOP EMPLOYEES PER SHOP

MACHINE SHOP EMPLOYEES	2009	2008	2007	2006
1	12.5%	30.3%	22.9%	20.7%
2	41.7%	30.3%	37.5%	39.0%
3	33.3%	12.1%	16.7%	15.9%
4	0%	24.2%	8.3%	8.5%
5	4.2%	0%	2.1%	6.1%
6-10	4.2%	0%	12.5%	7.3%
11 OR MORE	4.2%	3.0%	0%	2.4%
AVERAGE	3.1	3.2	2.8	3.1
PERCENT CHANGE	-3.1%	14.3%	-9.6%	3.3%

AVERAGE LENGTH OF MACHINE SHOP EMPLOYMENT AT ONE LOCATION

NUMBER OF YEARS	2009	2008	2007	2006
1	7.7%	3.2%	2.1%	1.3%
2	7.7%	6.5%	2.1%	3.8%
3	0%	16.1%	8.5%	7.6%
4	11.5%	3.2%	10.6%	6.3%
5	3.8%	9.7%	2.1%	1.3%
6-10	16.1%	16.1%	27.7%	29.0%
11-20	23.1%	29.0%	23.4%	29.0%
21 OR MORE	15.4%	16.1%	23.4%	21.5%
AVERAGE (YEARS)	12.0	12.1	13.4	13.6
PERCENT CHANGE	-0.8%	-9.7%	-1.4%	4.6%

SHOPS WITH SERVICE BAYS FOR INSTALLATION/REPAIR

PERCENT WHICH HAVE BAYS	2009	2008	2007	2006
YES	22.2%	22.2%	23.2%	23.0%
NO	74.1%	70.4%	75.1%	77.0%
NO ANSWER	3.7%	7.4%	1.7%	0.0%
AVERAGE (FOR THOSE THAT HAVE)	3.2	2.7	4.7	3.4

When we asked shops what some of their biggest challenges were in operating and promoting their machine shops, the open-ended question prompted a wide variety of responses. As you might expect, salaries was among them.

Even though the recession is officially over (?), wages have not yet rebounded to where everyone would like them to be. This year, wages for shop foremen (where they are employed) typically averaged about $45,000 annually, down 1.7%. However, other employees, including experienced machine operators and core disassembly personnel, saw slight improvements in their paychecks. The average hourly wage of a counterman/sales person was reported higher than in the past five years.

The total average number of machine shop employees remained virtually steady in 2009, though increases were seen at most levels. The average number fell slightly (from 3.2 employees in 2008 to 3.1 in 2009), a percentage difference attributed to no shops reporting 4 machinists and fewer one-man shops reporting in.

The average tenure of today's machine shop employee continues to decline over the past few years. In 2006, the average length of machine shop employment at one location was just over 13.6 years; in 2007 that had fallen to 13.4 years; in 2008 the number was at 12.1 years. In 2009, the number hit 12.0 years. We have seen percentage increases at nearly every level of experience, including the very newest and the "almost oldest" employees. Only at the "4 year" level and the "21 years and older" level did the numbers fall.

This business continues to be more

Shop Purchasing & Customer Profile

and more niche-oriented. When we asked survey participants what new market niches or new machine shop services they began in the past 12 months here were the results:

- Marine (11 percent);
- Restoration (14 percent);
- High performance (4 percent);
- Industrial (7 percent);
- Heavy Duty Diesel (4 percent);
- Small engine repair (11 percent).

The most notable change is that 7 percent of respondents say they entered the diesel automotive market. Diesel pickups appear to have solid growth potential – we'll be interested to see if the diesel cars we've been promised (again with the predictions!) ever materialize on our shores.

When we asked what the most profitable market in which engine builders do business, the results were as follows:

- High performance (33 percent);
- Restoration (21 percent);
- Industrial (17 percent);
- Heavy duty diesel (8 percent);
- Other (8 percent);
- Small engine (8 percent); and
- Marine (4 percent).

This survey and its results were performed by Babcox Research, the market research division of Babcox. Babcox Research is uniquely qualified to provide accurate research within the automotive aftermarket.

If you would like additional information about trends in the machine shop market through the years, you may contact Bob Roberts, Babcox Marketing Research manager, at 330-670-1234, ext. 252 (*broberts@babcox.com*) or Doug Kaufman, editor, at 330-670-1234, ext. 262 (*dkaufman@babcox.com*). **EB**

AMOUNT SPENT ANNUALLY FOR THE PURCHASE OF INTERNAL ENGINE COMPONENTS

	2009	2008	2007	2006
AVERAGE	$68,534	$78,884	$93,104	$87,858
PERCENT CHANGE	-13.1%	-15.3%	6.0%	-30.6%

PERCENTAGE OF PARTS PURCHASED FOR REDISTRIBUTION OR RESALE

	2009	2008	2007	2006
AVERAGE	51.3%	48.7%	36.7%	47.3%
PERCENT CHANGE	5.3%	19.1%	-22.4%	1.7%

ENGINE COMPONENTS PURCHASED FROM ONE SUPPLIER OR MULTIPLE SUPPLIERS

	2009	2008	2007	2006
ONE SUPPLIER	22.2%	35.2%	28.3%	24.6%
MULTIPLE SUPPLIERS	77.8%	64.8%	71.7%	75.4%

ENGINE COMPONENTS PURCHASED IN BULK OR CUSTOM-ASSEMBLED KITS

	2009	2008	2007	2006
SEPARATELY OR IN BULK	63.8%	55.9%	62.8%	57.9%
CUSTOM-ASSEMBLED KITS	36.2%	44.1%	37.2%	42.1%

SALES OF ENGINE KITS TO DIY/PRO INSTALLERS

PERCENT WHOSE SALES TO:	DIY	PROFESSIONALS
INCREASED	8.3%	5.1%
REMAINED THE SAME	63.9%	73.0%
DECREASED	27.8%	22.0%
AVERAGE INCREASE %*	14.7%	15.0%
AVERAGE DECREASE %*	23.1%	29.2%

* Where an increase or decrease was noted, it averaged this percent.

PERCENTAGE OF REBUILT ENGINE SALES TO THE FOLLOWING

	2009	2008	2007	2006
DO-IT-YOURSELF CUSTOMERS	53.0%	56.0%	45.8%	45.1%
SERVICE GARAGE/INSTALLER	20.0%	20.8%	27.4%	28.2%
JOBBERS	5.6%	3.8%	7.2%	4.6%
AUTOMOTIVE DEALERS	3.3%	2.0%	4.3%	2.7%
HEAVY DUTY FLEETS	5.5%	6.0%	4.1%	6.1%
AUTOMOTIVE FLEETS	3.4%	3.5%	3.1%	1.4%
WAREHOUSE DISTRIBUTORS	0%	0.1%	0.5%	0.0%
GOVERNMENT FLEETS	0.32%	2.1%	0.8%	0.9%
TRUCK DEALERS	0.68%	0.8%	10.0%	0.5%
MASS MERCHANDISERS/RETAILERS	0%	0.0%	0.1%	0.1%
OTHER	8.2%	4.9%	5.8%	10.4%