

Agile Machinery Group, Inc. – Rental Operations Analysis

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With regard to AMG, Inc.'s rental operations, *"My biggest priority is getting some rental profitability analysis, AND having it in an easily usable format (Excel?) such that several of our less sophisticated users (like me!) can run through it comfortably. And/or play with it or manipulate it in different ways. My general goal is having an analysis that focuses around rental fleet utilizations and asset productivity. However, I would also like a somewhat high-level comparative analysis between us and H&E Equipment Services."*

—Oscar Van Dyke, Owner/CEO of AMG, Inc.

COMPANY BACKGROUND¹

Agile Machinery Group, Inc. (AMG) is a privately-held distributor for original equipment manufacturers of construction and mining equipment. AMG was founded in the late 1930s. It carries a wide variety of light and heavy earthmoving machinery, cranes, man-lifts, generators, and other equipment required by general contractors, industrial/plant manufacturing firms, and mining/quarrying firms. AMG rents, sells, and leases new and used equipment, and provides parts, service, and maintenance for all lines represented.

AMG's mission is to leverage its full-service business model to offer one-stop solutions to its customers' various heavy equipment and other related needs. The company competes on equipment and parts availability, high quality service technicians, and the willingness to rent equipment that other dealers push to sell. The company has also developed a niche of selling low-hours used machines (usually from its rental fleet).

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AMG generates over \$150 million of revenue from its four business segments (Sales, Rental, Parts, and Service) and has total assets of just over \$90 million. The company has six full-service branches and three satellite branches. The branches are located throughout Arizona, Nevada, and New Mexico, with headquarters in Phoenix, Arizona. AMG employs over 200 personnel. The company represents over 20 main-line manufacturers such as Ingersoll-Rand, Kawasaki, Grove, and Komatsu.

RENTAL OPERATIONS

"Why in the world would you want to have a piece of equipment that you couldn't put out and make money on every day?"

—Dan Kaplan, former president of Hertz Equipment Rental, Inc.

While AMG, Inc., is a traditional heavy equipment distributor with a focus on sales and product support, its rental operations have grown dramatically over the past decade. Today, AMG's rental operations (i.e., rental and sale of rental units) generate over 40% of its total revenue and gross profit. Those numbers are increasing every year, so that the success and failure of the company, in large part, is dependent upon the success and failure of the rental operations. AMG's rental fleet accounts for nearly 54% of its total assets. Proper rental fleet management is of the utmost concern for AMG's executive management team.

Overall, AMG's rental operations have generated significant profits for the company over the past several years. The most critical issue every year for Oscar Van Dyke (AMG's owner/president/CEO), Dan Swanson (COO), Irvin Bowers (general manager—rental), and Aubrey Allison (inventory manager) is determining the investment levels across the various manufacturers and models. To date,

intuition and experience have determined the allocation of resources. Oscar is ready to move beyond “gut feeling” in addressing the annual rental fleet investment decision.

The rental operations consist of two revenue streams—rental revenue and sale of rental units. Rental billings (i.e., revenue) is a function of the rental rate (usually a monthly rate for AMG, although it does execute daily and weekly rental contracts) and the number of months (or equivalent period) rented. The unit-specific costs associated with the rental operations are the original acquisition cost, all repairs and maintenance (net of warranty work), depreciation, and the interest expense associated with financing the equipment.

Two metrics are used in the rental business to monitor a rental unit’s effectiveness in generating rental profits: 1) dollar utilization and 2) time utilization. As Dan Kaplan of Daniel Kaplan Associates and former president of Hertz Equipment Rental Co. commented at an ARA (American Rental Association) convention, “You can’t run a rental company without knowing your utilizations.” Dollar utilization is simply the annual rental revenue divided by equipment cost. AMG’s management believes its core rental fleet generates mid-40% dollar utilization. That means that for every \$100,000 invested in the rental fleet, AMG is generating roughly \$43,000-\$46,000 of rental revenue. Time utilization is the percentage of time a rental unit is on-rent during the year. AMG’s management believes its overall time utilization is roughly 60%. That equates to the rental fleet being on-rent just over seven months during the year. While those utilization numbers might be accurate at an aggregate level, they can and do vary significantly model by model and even unit by unit.

The key is charging the right rental rate and having the right number of units available so as to maximize profits. Understanding each rental unit’s dollar and time utilization is critical to setting rental rates and determining the number of units to have in the rental fleet. While AMG’s information system seemingly contains the necessary data, the system is too cumbersome to report that information in a timely and meaningful manner. In addition, the system has not been purged since it went “live” several years ago, and at first glance it appears there are just under 22,000 pieces of equipment available for rental. The last physical count of actively rented units puts the number below 700.

ADDITIONAL BACKGROUND INFORMATION

After a cursory review of the data downloaded from the legacy system (AMG_rentaldata_012209) you realize that you need a bit more information. You arrive at AMG for your scheduled appointment with the Owner/CEO, Oscar Van Dyke.

You: Mr. Van Dyke, I wanted to ask you a few questions to get a better handle on what you need before I get too far with the comparative study and rental operations analysis.

Oscar: First, call me Oscar and have a seat. As I mentioned earlier, with regard to our rental operations, my biggest priority is getting some rental profitability analysis in Excel, so that even our less sophisticated users... (pause, and grin), okay, me, can use it comfortably. My general goal is having an analysis that focuses around rental fleet utilizations and asset productivity. However, I would also like a somewhat high-level comparative analysis between us and H&E Equipment Services. They are one of a few public full-service distributors and are probably most comparable to us. They are much larger, but I believe it would be useful to compare us to them. While we might be similarly profitable to H&E, we are clearly coming up short in terms of the productivity of our invested rental fleet versus theirs. They’re generating much more rental revenue per million dollars of fleet investment than we are. We have to do a better job to remain competitive.

You: I will definitely make sure the analysis centers around your goals and priorities. I will also make sure the subsequent decision aid is user-friendly. Is there anything in particular about the heavy equipment distributor or rental industry that I should be aware of?

Oscar: With the state of the economy, the housing market, and changing fuel prices, heavy equipment needs vary so quickly that even data from three years ago is of no use to us when making decisions today about what types of rental equipment we should buy, or dispose of, for that matter. Actually, as I think about it, I am now envisioning two general analyses. A historical analysis, say the last two years—that would give the executive team some performance markers moving forward. However, the units we currently have in the fleet are of the utmost importance since it is those units that are making money for us today and tomorrow.

Oscar (after a pregnant pause, looking agitated): Let me be honest. I am frustrated with our [IT legacy] system and I am sure everyone else around here is too. While I am confident it adequately keeps track of our equipment purchases, sales, and related expenses, the system just does not give me or Dan or anybody else anything useful for making decisions related to our fleet. That is why I hired you. I need you to take our data and give us something we can use to make better decisions.

You: What types of decisions are you looking to address?

Oscar: In general, I would like to be able to perform a side-by-side analysis of different groups. (Pause) Off the top of my head, you know, just some basic profitability and product mix questions. For example, some general questions we think about are:

- How much more profitable is equipment group A as compared to group B?
- How would a 3% increase in group C's rental rate affect profitability? If group B is less profitable than group A, by how much do we need to raise B's rental rates to equal A's profitability? Or, how many more months do we need to rent B to equal A's profitability?
- Some equipment groups have much higher repairs and maintenance costs. What effect does lowering the repairs and maintenance cost on group D have on its profitability?

At a higher level of analysis:

- If we had \$10,000,000 to re-allocate in our rental fleet, what equipment should be our primary focus? In which groups should we increase our investment and in which groups should we decrease our investment? You know, just some general resource allocation decisions.
- Or, given a proposed purchase price increase from the manufacturers, to what extent would I have to raise rental rates in order to maintain the same level of profitability?

Now that I think about it, we have never really evaluated our rental operations from a manufacturer-level or a branch-level perspective. I know, I'm starting to ramble, but does my rambling give you an idea of what I am looking for?

You: Absolutely. I'm sure I will have questions as I progress, but I believe I have a good understanding of what you are looking for. I'm looking forward to working with you and everyone else at AMG. Thank you for your time, Oscar.

Oscar: Great. I'm eager to see what you come up with. You probably need to talk with Dan so that he can answer any questions you have regarding the equipment records.

You leave Oscar's office and proceed to Dan Swanson's office. Dan is the chief operating officer and has been with the company for over 35 years. He has authority over all finance, IT, administrative, HR, and product support operations. You enter Dan's office.

Dan (smiling): Come on in and have a seat. It's good to see you again. (In a sarcastic tone) After talking with Oscar, are you sure you still want the gig? It is going to take some time to complete the project.

You: It is definitely going to be a challenge, but that's what makes the project exciting. Oscar mentioned that you could help me better understand the data I have received. Will you take a few minutes and briefly describe the data I have and any particular issues I should know about?

Dan: The data Joann [Blythe, IT manager] sent you is what we call our life-to-date numbers. As the name indicates, that file contains the life-to-date totals of revenue and expenses associated with each machine purchased. Of course, your focus is on the rental fleet. The file you have contains equipment purchased for sale that is not relevant to your study. Along that same line, we separately track our attachments...like buckets and forks, since they can be attached to different machines. Those items usually do not have any rental billings assigned to them so they are not relevant to this analysis. I believe attachments all have "zz," or "at," or "bkt" in their group codes.

You know what? We also track our "off-balance-sheet" units and they are included in the data you have. While many of those units are in the rental fleet, I do not believe it is necessary to include them in your analysis. They will just skew your results. You can identify "off-balance-sheet" units by looking for asterisks at the end of the equipment numbers.

Now that I think about what you are trying to accomplish, we buy and sell used equipment. Occasionally, a few used equipment units are rented. Unless I'm wrong, Oscar wants you to focus on the rental profitability of equipment we purchase new—what I will call our "typical" rental fleet. You will be able to identify used equipment in the rental fleet because we assign a used "Make" code to those units. I forget all of the codes, but I do know used equipment has a "Make" code that begins with a "U."

You: That information is very helpful. Are there any other issues I need to be made aware of related to AMG's

equipment fleet records? For example, I noticed you have several fields, like Group/Make/Model, that I could use to aggregate the units for analysis purposes. What level of analysis are you and Oscar envisioning?

Dan: Good question. Originally, the “Group” codes were to be used for analyzing the rental fleet; however, those codes turned out to be too broad. For example, the group TXAH combines all Terex articulated haulers. In making investment decisions we will look at investing in x-number of 30-ton haulers versus y-number of 25-ton haulers. On the other hand, the “Model” codes are too narrow because the manufacturers are constantly changing them with every modification they make, no matter how minor. For example, we have models 580SM, 580SM+, and 580SM-C. While there are differences between the models, those differences are not relevant given your objectives. With that in mind, Oscar and I met the other day and created an intermediate level that I call “ID.” I will make sure you get a copy of that list. We are working on our “Group” codes and hope to use that field in the future since it is already being captured by our system.

You: Thank you so much for your time. This is going to be fun. I will get to work on the project immediately.

It has also been brought to your attention that some of the fields that are inputs to the different utilizations are inaccurate. Therefore, in addition to parsing the data to get to the appropriate units, you must create new fields within Excel that estimate certain calculations. See Table 2 for a listing of fields from the legacy system. When asked what variables management might want to manipulate when using the new decision aid, Oscar e-mailed you and identified the following variables: monthly rental rate (as a percent of cost), total investment, number of months rented (time utilization), repairs to rent (repair cost as a percentage of rental billings), and cost per unit.

GENERAL NOTE: The data should be as clean as possible, which means that spelling and consistency matter. In addition, remember that for control purposes, the use of functions is preferred to writing formulas when applicable. In addition, please refer to the following CFO.com articles:

- “Spreadsheet Worst Practices” http://www.cfo.com/article.cfm/11288290/c_2984312
- “Sloppy Spreadsheets: Readers Speak Out” http://www.cfo.com/article.cfm/11525407/c_2984382

You should provide documentation of the assumptions you made and how you arrived at the final data set, in addition to any information management would need to know in order to effectively use your decision aid.

Table 1 AMG’s Senior Management Team	
Name	Title
Oscar Van Dyke	Owner/President/CEO
Dan Swanson	COO/Sr. Vice President
Alton Glover	Sr. Vice President—Sales
Steve Sulfork	Vice President/GM—Product Support
Andrew Green	Vice President—Arizona Sales Mgr.
Roosevelt Hamm	Vice President—Used Equip Mgr.
Moses Carson	Vice President/GM—Nevada
Stanley Wallace	Controller/Corp. Secretary

Table 2
Field Names and Descriptions

Field Name	Description
MAKE	Equipment manufacturer
GROUP	Identifier used by legacy system to group similar models
MODEL	Model identifier
EQUIPMENT	Identifies the specific rental unit (combination of Make and the last five digits of the unit's serial number).
DESCRIPTION	General description of equipment
SERIAL	Serial number
TYPE	Relevant codes: ² RY—rental unit on the yard; RR—rental unit out on rent; LP—rental unit is tagged as a lease-purchase transaction
COST	Amount paid for equipment
FREIGHT	In-bound shipping cost incurred during acquisition
STATUS	"S" = unit sold, otherwise unit still in active rental fleet
SOLD_DATE	Selling date of equipment
REPAIRS_LTD	Repairs life to date
MAINT_LTD	Maintenance life to date
WARRANTY_LTD	Warranty costs
ACQUIRED_DATE	Date equipment was acquired
BILLING_LTD	Rental billings to date
BRANCH	Branch 1—Phoenix, AZ Branch 7—Kingman, AZ Branch 2—Tuscon, AZ Branch 8—Las Vegas, NV Branch 3—Yuma, AZ Branch 9—Reno, NV Branch 4—Flagstaff, AZ Branch 11—Holbrook, AZ Branch 5—Las Cruces, NM
SETTLE_LTD	Warranty payments received from manufacturer to cover warranty expenses incurred by AMG
DEPR_LTD	Depreciation to date (INACCURATE)
TAXES_LTD	Taxes paid to date
FIRST_USED	Date unit transfers to rental fleet (All units purchased with intent to sell; once unit has been rented, it transfers to rental fleet)
DAYS_DOWN_LTD	Days in shop (INACCURATE)
DAYS_IDLE_LTD	Days on yard (INACCURATE)
DAYS_RENTED_LTD	Days rented (INACCURATE)

² Other Types found in the data set may begin with an "N" for new equipment in sales inventory, and "U" for used equipment. Neither is relevant to this analysis.

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