

Truck Manufacturing In The World Market Of The Twenty-First Century

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THE TEXT OF MR. HEBE'S PRESENTATION ON THE OCCASION OF THE SYMPOSIUM BANQUET

Good evening—and thank you, Bob (Ervin), for the introduction and the invitation to speak today. I often speak with customers, suppliers, and business analysts about our company and industry, but this is the first time I have had an opportunity to address an international audience of researchers, policy makers, and regulators. Your findings, decision making, and ultimately the rules and regulations you enforce, have and will continue to profoundly impact our business and our society.

At Freightliner, we are committed to the success of our customers and our company while at the same time developing our products to exceed the demands of society for safe and environmentally compatible vehicles. Later I will give you concrete examples of what we have done and what we will do to further these goals.

In addition, today, I want to cover the following.

- For those of you not familiar with us, I want to give you a short history of our company.
- Second, I want to tell you about Freightliner today and how we have reacted to the changes taking place within the transportation industry and how they have affected our business and what changes they have necessitated in our structure and our products.
- Third, I want to discuss what we are going to do—basically our strategy within Freightliner—to position ourselves for the future, and how we intend to present our companies' products and services to help our customers become more efficient.
- Finally, I want to speak to some of the issues you have been discussing, the safety, productivity, and highway compatibility of heavy vehicles and suggest a formula for future progress.

Freightliner is currently running an advertising campaign entitled, "How the Times have Changed". And truly they have, especially in just the past five to seven years. From the growth of full service lease companies, the growing strength of truckload carriers as the most efficient and most influential

carriers and purchasers, the changes in equipment from COE and short cheap conventionals to the most luxurious long conventionals, from fighting with rail to cooperating in intermodal freight, from mechanical to electronic engines, NAFTA and its implications, more competitive purchasing, longer trailers, lighter vehicle requirements, higher cube—and the list goes on and on. Lately, two more issues have grown in importance that have been raised by our customers as important factors:

- First, increased attention to drivers in equipment decisions and, of course, the driver shortage.
- Second, historically in this industry, the Vice President of Maintenance sat at the right hand of God in most fleets. But not anymore. Today, we increasingly see the chief information officer or head of logistics—the MIS guy of old—and/or the chief sales and marketing officer in equipment purchases. This, we welcome.

These changes have had a profound impact on truck manufacturers and especially Freightliner.

For a company that started in the 1930's and grew out of a fleet's need for more productive equipment, the culture of innovation and responding to trucking's needs is deeply rooted in Freightliner's people—many of whom have been with us since almost the company's beginning.

Freightliner was founded by Leland James, who also founded Consolidated Freightways (CF). CF saw the need in the West for a lighter weight vehicle that would allow more cube and more payload. Vehicles of the time—mostly Eastern built—didn't "fit the bill" in his opinion. So, with the help of some ingenious mechanics and his operations' people, James designed a lightweight COE using aluminum in the cab and the chassis. None of the truck producers of the time—White, GMC, International—would build it. So, James decided to build the truck himself for the six Western carriers that made up Consolidated Freightways. In 1942, the Freightliner Manufacturing Corporation was founded and the company began producing trucks for one customer—themselves. The trucks produced were quite radical—COE designs, diesel engines (Cummins engines), extensive use of aluminum in the cab sheets, frame rails, suspensions, and

chassis brackets, 10-hole disc wheels and integrated sleeping compartments. The first aluminum COE weighed 2,000 pounds, less than any comparable truck of the time.

By 1951, Freightliner's name and reputation had attracted the attention of more customers than they could handle without a sales organization. So, Freightliner signed an exclusive sales and service agreement with the White Motor Company, and hence the White-Freightliner name was born. During the 50's and 60's, Freightliner introduced many firsts:

- the 4x4 COE doubles tractor with a 48-inch cab top-sleeper and pancake Cummins engine;
- the 90-degree tilting COE in 1958;
- the first "double-bunk," 104-inch COE sleeper in 1968 for Greyhound Van Lines;
- the Powerliner/Sugarliner 6x6 COE for Hawaiian sugar cane growers;
- in 1965, the Turbo Liner with a Boeing turbine engine;

and the list of innovations goes on.

By 1975, the economy caught up to White as their financial strength was at issue. In order to ensure their future, in 1976 Freightliner broke from White and established their own marketing and dealer organization.

This situation continued until 1981, when Consolidated Freightways sold the company in total to Daimler-Benz. In so doing, Daimler-Benz became the first "foreign" manufacturer to move to North America, soon to be followed by Volvo and subsequently Renault. For Freightliner, this presented totally new opportunities. Freightliner was placed under the Commercial Vehicle Division of Mercedes-Benz, but was allowed from the start to operate as an independent Company with its own engineering, manufacturing, and financial structures. Mercedes considered themselves a multi-domestic, not a multi-national company. Freightliner was their first experiment with this strategy. Comparatively speaking, it has been a real success.

When Daimler-Benz bought Freightliner, it was a company producing 12,000 trucks per year, had a nine-percent share of the Class 8 market, two products—a COE and a Conventional—and revenues of \$665 million.

Since that time, Freightliner has grown dramatically. In 1994, Freightliner produced 62,973 trucks, had revenues of \$3.97 billion, a 24.6-percent share of the U.S. Class 8 market, twenty-three percent of the Canadian market, and was the leading producer of heavy trucks in North America for the third straight year. We were also the leading exporter of heavy trucks from North America, expecting to cover twenty-one countries outside North America (many of them represented here today). We are also the country's largest seller of heavy duty used trucks and the fastest growing medium truck producer, building over 10,000 Business Class trucks in only the third year.

Today, we build trucks in five North American production plants: Portland; Mt. Holly and Cleveland, North Carolina; St. Thomas, Ontario; and Santiago Tianguistenco, Mexico. We employ over 9,400 people and build about 300 vehicles per day in five-day/twenty-four-hour-per-day operations. In the past two years, we have invested over

\$100 million in plant capacity expansion and will invest another \$52 million in 1995. Our research and development expenditures are the highest in the heavy truck business, exceeding \$40 million per year over the past several years. In terms of our size, we are the world's second largest heavy truck producer—second only to our parent, Mercedes-Benz.

Freightliner's position and success is rooted in three distinct and basic elements that, combined, make it a unique company, unlike any I have ever seen in this industry. Those are:

- First, a culture that from the beginning put the customer—and incidentally, a truck customer, not a car or rail customer—first. Remember, it was a truck user that started Freightliner.
- Second, we have the combined resources of the Mercedes-Benz group of companies from which we draw in the areas of engineering, design, styling, safety, electronic technology, and manufacturing expertise.
- Third, this is a company with a clearly defined strategy—clear and focused objectives and a long-term commitment to achieving them.

From this point, I would like to turn our attention to the elements of our customers' business environment—how it has impacted their structure and the offset it had on how we developed our future strategy.

In the late 1980's and early 1990's, we saw an industry that:

- had endured economic deregulation in the early 1980's and was still structurally adjusting;
- that was impacted by the STAA of 1982 that affected vehicle configurations and tax structures;
- was beginning to respond to a reindustrialized U.S. economy—one intent on achieving global prominence again—by manufacturing on a world class scale and competing with Europe and Japan on high quality, lower cost and higher technology;
- had experienced much higher costs in the areas of taxes, fuels, insurance, and capital, yet was pressured and had reduced freight rates to pre-deregulation levels;
- had begun to respond to a developing driver shortage/retention issue that appeared to be a growing threat;
- and, was being slapped by new Government regulations from Federal/State and special purpose entities in the areas of environmental impact, OSHA, DOT, and NHTSA, as well as multiple state taxes and regulations.

What we sensed then, and what has proven to be the case, was that we were on the verge of a revolution in trucking. And, what we saw coming was a complete restructuring of the truck transportation industry that would continue to evolve into the next century.

Although we looked at many aspects of our business, three distinct areas became important in setting our strategy in how we must reposition our company. They were:

- product configuration;
- competitors—current and future—to Freightliner, and where we saw them going—and if or how they would

- respond to a changing environment;
- and, third, the customer profile and segmentation.

Dramatic things had happened to the configuration of vehicles purchased—and still does—subsequent to the STAA.

In response to driver preference and lower operating costs, including aerodynamically impacted fuel costs and resale values, the conventional configurations, both medium and long, were very quickly displacing COEs. Once nearly a 45-percent shareholder, the COE declined to less than six percent in the first quarter of 1995. The short conventional—the bastion of LTL carriers—had likewise hit the wall and was headed for oblivion—where it should go—as its share dropped to less than five percent of the market. The long conventionals and medium conventionals had begun to skyrocket in popularity—in 1995 (first quarter) they captured over 87 percent share. Our belief was that engine size and engine capabilities of 10-, 11-, and 12-liter vs. 14-liter engines would ultimately drive the differential in choice between those two. We are proving ourselves to be right.

However, we knew that our customers wanted to run 53-foot trailers and twin 28-foot doubles, and most states had not (and some still have not) responded to the Federal limits of the STAA, particularly overall length. So, we couldn't count out the COE—and still don't. What we knew was that, unlike anywhere else in the world, Class 8 vehicle configuration would become more prolific, driven by what best suited the requirements of customers' specific operations or *his* customer's needs. And, we knew that many of our customers—especially full-service-lease customers—needed access to multiple configurations to meet the need of various customers and specific state or regional regulations. We knew a single-vehicle configuration like in Europe or Asia would not be the future in North America.

Perhaps it's the customer profile and customer type that most differentiates North American trucking from the rest of the world and the greatest aspect by which deregulation affected our business. Nowhere in the world are there such varied types of customers as in the U.S. and nowhere else is the consolidation so prevalent. Full service leasing is virtually a U.S. phenomena. LTL vs. TL carriers is a battle existing mostly here, too.

In terms of size, the industry is very unique. It's a traditional bar bell shape with one third of the trucks bought by one- or two-truck buyers and about one third purchasing 100 per year or more. The middle segment—the five-to-fifty-truck-per-year buyer—has and is continuing to decline in relative importance. We saw the private fleet of this size first turn to full service lease then to the truckload carrier for his freight movement. The smaller regional truckload carrier either failed, grew, and/or became an acquisition by a larger national carrier. And, the regional LTL carrier did likewise.

Let me give you some statistics. Last year we built 63,000 trucks. We had eleven customers who purchased 500 trucks or more and they represented 32.2 percent of our sales. If we extended it down to customers of 100 units or more, there were forty-eight, and they together represent 52 percent of our production. In the industry as a whole, about 160 companies registered over 100 Class 8 trucks in 1994:

- 14 were full service lease,
- 10 were LTL carriers,
- 10 were Government institutions,
- 11 were private fleets,
- 35 were finance or finance lease companies or banks,
- and 74 were truckload carriers.

This very elite group—about three tenths of one percent of the customers—purchased one third of all Class 8 trucks. Incidentally, 110 of the 160 purchased some Freightliners. Still, there were 50,000 customers and we sold to about 5,500 of that total.

In addition to size, the type of customer was changing as well.

- Full service lease was becoming more important, displacing private fleets and, through dedicated operations and contract hauling, challenging regional truckload carriers.
- Truckload carriers clearly were going to be the dominant players for the foreseeable future. However, we expected and anticipated a massive shakeout and tremendous consolidation.
- Owner-operators were going to always be a large factor
- Private fleets would be strong especially in very time-sensitive and hazardous-haulage segments or when dedicated and single-use trailers would be required.
- Lastly, construction and vocational segments were important—not by national size but by specific markets.

So, those five segments were where we decided to focus our corporate efforts. That's where we saw the action: full-service lease, TL, owner-operators, private fleets, vocational.

From this information about products, competition, and the changing customer, we came to conclusions that lead to the three fundamental elements of our strategy for the future.

- First, we must have a full and complete product line from Class 5 through Class 8. It must be a premium product—the very best available and the lowest cost of any premium competitor. Our line must be flexible by design and adaptable to meet specific customer requirements and market niches.
- Second, we needed to have a value-added distribution system—the very best—and one that meant something to and provided a unique and valuable service to our customers. We knew “one size *didn't* fit all,” so we decided to expand our ideas about distribution. We decided to have 3 distinct channels: independently franchised dealers, factory branches, and direct sales where appropriate. In addition, we chose to define Full Service Lease companies not as customers, but as a means by which to distribute our products.
- Third, and most important, we decided that product focus only was history. In order to be a successful truck manufacturer in the future, we would have to do much more than just build trucks. Our conclusion was that we had to strategically and surgically choose who we wanted to do business with and then involve ourselves and our company in our customers' business everywhere our

product affected the economic performance of our customers' business. In short, we decided to position Freightliner to mitigate or assume the risk traditionally inherent in the purchase, operation, maintenance, and disposition of power equipment. This was to prove to be a huge expansion of our role as a manufacturer.

As a result of the strategies we put in place a few years ago, today we stand at the edge of a total re-orientation of this industry. We have accepted the challenge to be more than truck providers. Through the opportunities of a NAFTA region, satellite tracking, intermodal operations, and logistics planning and supply chain integration, we have been preparing to extend ourselves into our customers businesses and assume a far greater and more active part in managing the operation and maintenance of trucks. In some sense, what was the main focus of trucking companies only a very few years ago—specing, purchasing, maintaining, and replacing equipment—Freightliner is prepared to assume that role for our customers.

What we have, I believe, is a virtual and dramatic reorientation of the industry. In a North American sense, we will become Vertically Integrated by becoming customer integrated—not component integrated, as in Europe and Asia. By aligning ourselves with customers who have business objectives and values similar to ours—and upstream with suppliers to us and horizontally to other industry suppliers like tires, trailers, and reefer units—this industry will become structured to focus on our customer's customer and we will leverage off each other's capabilities to provide more efficient, higher service-oriented freight transportation. That will be the Vertical Integration of the North American trucking industry—customer integration.

Our objective is simply to make our customer more successful. In order to give him a comfortable seat, we need three legs to the stool on which he sits. One is product in the traditional sense—trucks; the second is the support systems—support programs and software that we must develop to support his trucks; and the third is a network of support locations—our dealers and the informational infrastructure through which we provide this support. Products, systems, and a network.

We must, and have, responded to new and future challenges:

- Flexible traffic lanes—not plan around a pre-established infrastructure.
- Low fixed costs—resources for logistics, not maintenance and repair; drivers, not technicians; and inventory on trailers, not on the shelves.
- Extended trip durations that get the truck and driver to home for off-time, not to the terminal.
- High service levels—no downtime.

This year, our strategy to respond to those and other requirements all comes together. In 1995, this industry will see the introduction of new products, service initiatives and dealer commitment never before seen in North America trucking. Here is what you will see:

- I. Product: In the traditional area of product, the rules will change. I think I have said enough for you to know what I mean.
 - Product lines will expand to meet specific needs without compromising operational or economic characteristics.
 - Productivity and efficiency will increase in the following areas:
 - Cost-of-operation—fuel mileage will be improved using aerodynamic enhancements, engine technology; efficient integration of power trains and component matching.
 - Look for work to begin to allow reduced idle time and better tractor/trailer aerodynamics.
 - Cost-of-operation—maintenance. Look for longer life, reduced- or no-maintenance components, and extended service intervals. Warranties will be extended.
 - Productivity will be enhanced by lower tare weight and higher cube. You will see lighter, smaller, more powerful and yet more fuel efficient engines.
 - More aluminum and less steel will be used in cab construction.
 - You will see new fastening technology that will reduce weight yet, unlike welding, will improve service-ability.
 - Finite element analysis will reduce chassis component weight several hundred pounds by using materials and components sized properly for the intended use.
 - In the area of cube, you will see lower chassis/fifth wheel heights—as low as 38 inches without cutting into the frame and jeopardizing ride, stability, and durability. Long-term, look for a new COE that will minimize overall length and maximize maneuver-ability without compromising driver comfort and safety.
- II. Still with product, look for improvements in safety and ergonomics.
 - In the area of passive safety, you will see improved visibility, better conspicuity, driver airbags, integrated seat belts, better step location, and European level crash worthiness.
 - In the area of active safety: improvements to ABS, EBS will be introduced, active suspensions are just around the corner and collision avoidance systems will become a reality. In this respect we, are pleased to be working together with the University of Michigan to develop a vehicle based rollover stability enhancement system.
 - In the area of ergonomics, you will see a complete revolution from seats to storage to stand-up room. From air quality in the cab to ride and vibration, truly, the truck drivers' environment will change and with it the perception he has of his job.
- III. Image: A definite part of our responsibility is to provide a distinct image through styling of our products as a socially and environmentally friendly co-habitor of the road. You would be amazed what little styling details can do to a motorist's impression of a truck.

The second leg of our strategy is our support systems—software and soft products. The elements are both traditional and yet new, also.

- In the system areas, we made a \$30 million investment in two years in:
 - SpecPro NG—a new way to specify trucks;
 - Fleet Assistant—one of the industry's top two fleet maintenance systems that puts vehicle maintenance in a common language and on a common platform;
 - ServicePro—the industry's first complete computerized vehicle diagnostic tool. It provides vehicle data, service history, repair information and computerized diagnostics in the hands of every Freightliner technician. Today we are the only truck manufacturer in the world that has a tool like ServicePro.

The third leg of our strategy is the network of support locations and the information infrastructure.

By year-end 1995, every Freightliner dealer in a major market or on a major interstate will be open 24 hours 7 days a week. They must commit to provide diagnostics within one hour of receipt of the truck and begin repair within three hours.

At Freightliner, our PDCs are open 24 hours, 7 days, and we can ship within two hours, 24 hours a day from our Chicago warehouse. We also provide 24 hour/7 day emergency breakdown assistance through our new Freightliner call center—the only one of its kind in North America.

The network software and systems we have developed will allow Freightliner customers to integrate themselves and their equipment into a North American service-information network.

Our strategy and these concepts are not dreams. Most are operational today and all will be in place by the end of this year. In the end, our ability to reduce customer operating costs and improve equipment utilization will be far greater influenced by how we support the truck than by the truck itself. Eventually, we will be able to provide a guaranteed cost per mile of operation.

Now that I have given you some insight into where we have been and are going into the twenty-first century, I want to close by presenting my vision of how you, the researchers, and public policy makers can assist in the exciting changes that are occurring in the truck transportation industry. I say assist because all too often you are viewed as impediments and obstacles to the goals of free enterprise since you are the source of those evil size and weight limits that restrict productivity and you write those terrible regulations that drive up product costs. On the other side, some of you often view the carriers never ending desire for larger and heavier trucks as a threat to our infrastructure (roads and bridges) as well as public safety. We have been in this adversarial mode in the U.S. for roughly 60 years, and it is time to change it.

What we need to start with is a shared goal—that is to simultaneously and continuously improve the efficiency, safety, and environmental impact of our freight transportation systems nationwide, North America wide, and worldwide.

The 53 foot trailer, 80,000 pounds, the bridge formula, 40 foot containers, double stack trains, road railers, and the interstate highway system, etc. are not the end of the road, they are the beginning.

It is in all of our best interests to begin to take bold new steps to further lower the cost of transportation in order to increase the standard of living of those who purchase the goods and services we provide. In turn, our customers will benefit economically, so will we as manufacturers, and so will you, both personally and in your role as guardians of the infrastructure.

So, how do we redirect our efforts toward this common goal? First, there has to be an agreement, a mutual trust established, that we are going to work cooperatively. Let me repeat that our company is committed not only to our customers needs and profitability but also to making our trucks safe and both environmentally and road friendly. As evidence, we were the first in North America to make ABS standard and support the regulatory requirements for stopping distance and ABS despite considerable opposition from many operators. Our proprietary Freightliner air-suspension is road friendly and is now used on about 90 percent of our trucks. And, we will aggressively apply the research findings that your community develops to further improve our products.

I am especially pleased to see that the ATA is involved in a research initiative looking into performance based size and weight standards that are already employed in some other countries like Canada, Australia, and New Zealand. Maybe there is something we can adopt from the British Commonwealth short of the royal family! As I understand it, the concept boils down to this: If you want it to be bigger it has to be better. That sure makes a lot of sense.

Freightliner came to that conclusion in 1989 when together with customers and suppliers we put all the available safety and road friendly technology into a prototype medium conventional 88,000 pound tank truck called FACT that we exhibited at SAE and that Shell Oil Company operated for a year. So lets continue to research the techniques for making our vehicles safer and more productive and then develop a package that we can mutually support and put forward starting with NAFTA as we seek to harmonize the U.S., Canada, and Mexico over the next few years.

And beyond NAFTA, I challenge those from emerging market countries, like China, to be a positive force in bringing worldwide harmonization to reality. It is those counties which have not yet adopted firm standards who could broker a compromise for the common goal. One example is EBS, where the Europeans are already rewriting the braking standards while the U.S. FMVSS-121 currently prohibits anything but the addition of electronics to the existing pneumatic system. Without a compromise, our customers will not realize the full potential of such systems because they will not be able to afford it. And, that means society will not benefit from the safety advantages. So lets have a world harmonized performance standard that makes sense, and sooner not later!

I understand you will be meeting all of one day on the subject of performance standards. Sorry I can not stay for the stimulating debate on rearward amplification, C-dollies,

rollover threshold and dynamic load coefficients, but I have got a customer who wants to buy 500 trucks!

Thank you for your attention.