

the Columbia

Freightliner is the largest heavy-duty truck manufacturer in North America, delivering the broadest Class 8 product line along with the industry's most substantial commitment to total customer support. Freightliner is North America's Highway Truck Company — our wheels are always turning.

Nothing could be more right than the new Columbia, the fourth new Class 8 truck to be introduced by Freightliner in as many years. With new styling, cost effective and durable components, a 120-inch BBC, a set-back axle, seven sleeper configurations and the backing of Freightliner's extensive Customer Support systems, it's the right truck for the market.

Columbia took life when customers began asking us for solutions to the problems they faced on a daily basis involving driver stress, component performance, sleeper comfort and convenience, maintenance and repair.

Designed to become the workhorse truck for large fleets, growing fleets and single-truck operators, Columbia contains the wisdom and legacy of 60 years of truck building with an eye toward the future. It delivers the advanced technology required to keep owners competitive, but still stands up to the day-to-day rigors of Class 8 truck operation.

Named for the Pacific Northwest's greatest river, Columbia is steeped in history, but continually flows forward.

This Competitive Model Comparison Guide looks at driver's needs, owner requirements and maintenance issues — determined from intensive customer and product research — and shows how Freightliner has met them better than any other OEM :

- By manufacturing a truck aimed at driver retention
- By building-in more comfort and convenience features
- By offering more innovative options that impact performance and cost of operation
- By providing the best Customer Support in the industry through a network of the most dedicated, professional dealerships.

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competitive study

At Freightliner, our wheels are always turning. We hired an independent marketing agency to conduct a competitive study — our new Columbia against the competition — and to analyze the advantages and disadvantages of our product against theirs.

We know that one truck cannot be perfect in every way, all the time. When Columbia is superior to a competitive tractor, as is most usually the case, we say so; when it occasionally comes up a little short, we admit that too.

What the study does consistently show, over and over, is that Columbia has done more to meet the needs of today's trucker, and the way he/she conducts business, than any other competitive truck from any other OEM.

Methodology

Weights

We took a Columbia 70" Raised Roof SleeperCab™ and common specifications used in over-the-road applications and compared it to matching competitive models. We used the published data book or electronic printed weights of each vehicle.

Where certain engines or components, like Mack, were not available, we used the Mack standard engine with equivalent horsepower and components to the standard engine and components of the Columbia.

We recognized that there are lightweight options available from each manufacturer, but we wanted to compare standard apples to standard apples, so we went with common specifications. We also know that not all data book weights reflect the final weight in the manufacturing process, but we assumed that they would all be relatively close to the published numbers.

All of our measurements were taken the same way on each product, and the results are consistent, with the same degree of accuracy, in all compared areas.

Revenue

Revenue rates were calculated using telephone surveys from several trucking or logistic services and are always based on commodity, distance, time, tariff, competitive pricing and efficiencies of operation. We chose neither the highest nor the lowest rates, but something in the middle for long distance carriage. The rest was left to math.

Egress/Entry

Step heights and grab handles were measured with a tape measure. All heights were measured in the same way from the same reference point, i.e., ground, step to step, and step to cab floor. Grab handles were measured from the center of the bolt pattern to center of the bolt pattern

– a quarter of an inch, plus or minus, was the allowance for human error.

Door sizes and openings

Doors were measured from the top center to the bottom center for height, and from the middle for the widths. Openings were measured from door striker to pillar pin or to the nearest obstacle that would bump a person as he/she entered the cab. Again, we used the quarter-inch, plus or minus, as our standard deviation.

Windshield glass area and wiped glass area

We measured windshield glass area by taking thick, mill cellophane paper and laying it over the windshield. We drew an outline of the entire windshield in marker pen, then took the outline on a drawing table and transcribed it over square-inch engineering paper. The area was determined by counting the transcribed square inches within the paper. We estimated our margin of error to be plus or minus 5 square inches.

Wiped area was measured in the same way, except to determine the wiped area, we soiled the windshield and ran the wipers over the soiled area to pick up the clean area outline for the drawing.

Cab and sleeper volumes

We took cab and sleeper space to be two separate issues. The over-the-road driver is in his/her cab up to 10 hours a day and in the sleeper up to 14 hours a day. We felt that cab and sleeper use was an important issue and we addressed that.

Therefore, we measured the areas that affect the driver most – where he/she sits and how he/she turns and reaches, where he stores things, and when he has to get up and move about in the cab, the stand-up environment, cab width and length.

The critical measurements were the floor-to-ceiling, “A” pillar to “A” pillar at the dash level, “B” pillar to “B” pillar at the dash level and the line separating the cab and sleeper (center of the “B” pillar) to the dash.

Needing three dimensions to determine cubic feet and inches, we multiplied the average width times the average height times the depth, allowing a quarter of an inch deviation in our linear measurements. We did a similar measuring analysis for the sleeper compartment.

Storage space

We considered storage to be anything containing items normally used in the operator’s day – refrigerators, microwaves, TV shelves — or anything that you can put something “into” – closets, drawers, doors, consoles, headers, under-bunk area and cabinets. Items that you put something “on” (table tops, floors) were discounted. We measured closets with a tape measure.

We used a displacement method for items like crevices in walls, door pockets and header storage that followed a roof or wall line. We filled up those cavities with a fixed volume of cubic inch flexible material that takes the shape of the area displaced, filled the area to capacity and then counted out the number of displaced bagged materials. We then multiplied the material containers displaced by their cubic value and found the volume displaced.

Turning angles

First, we determined a continuous point of reference line as a base. We did that by measuring the edge of the front tire to the parallel frame rail and made sure that the left side of the tire distance was equal to the right side. We accomplished that by adjusting the steering wheel until the distance was equidistant on both ends.

With the motor running, the steering wheel was turned to the left until it would not turn anymore, and a straight edge was used to represent the opposite side (geometry term) and the formed angle with the reference point line (frame rail) was measured. An engineering protractor was used to determine the angle. This was done several times to assure accuracy. The margin of error was estimated to be plus or minus 1 degree.

Visibility (view distance)

Many things affect view distance limitations and how a manufacturer addresses them – the length and shape of the hood; the size, shape and placement of the glass; driver seat travel and height; hood ornaments; fender heights; wiper blade placement; dash design; “A” pillar shape and placement.

We set a standard for measuring by taking an average height driver (5' 8") putting him in a tractor seat 36" away from the dash with his horizontal eyesight 48" from the floor. We then exactly defined 8 measuring points, used consistently throughout the process. We then took a stick pointed on the ground with a piece of white tape at the end. We moved the stick horizontally forward or backward until the driver could see the tape. We then marked the place where he could first spot the tape and measured that distance in a straight line to his line of sight to the tractor front bumper. That measured point became the point of view distance. We did that with eight points for all the tractors.

We assigned an error factor of plus or minus 2 inches.

Seat travel

We narrowed our analysis to seat travel, belly and leg room.

Seat travel was measured in two ways. First, we set the seat-back 90° to the floor using a large right triangle. We then measured the distance from the center of the dash to the seat cushion with the seat all the way forward on its track. We did the same thing with the seat in a rearward position. We also measured it again by using the sleeper rear wall as a reference point both fore and aft movement.

Secondly, we took two things into consideration for driver position variability – how much the tilt/telescopic wheel plays into the driver's desired positions and how much leg room the driver has to work with. (Leg room is defined as the average distance, with the seat in a fore/aft and up/down mode, from the top of the seat cushion to the center of the fuel pedal.)

Belly room was determined by using leg room variability and the tilt wheel's ability to adjust to the physical shape of the driver.



Columbia 70" Raised Roof SleeperCab



Peterbilt 387 with the Premium Length High Roof Sleeper

Columbia vs. Peterbilt 387

From the company that does things right, meet the new Freightliner Columbia, the trucking industry's workhorse over-the-road and short-haul tractor. A traditional truck for the 21st century, Columbia is the past and present of Freightliner come together.

Here are the facts: Columbia 70" Raised Roof SleeperCab vs. Peterbilt 387 Premium-Length High-Roof Sleeper.

Comparison Specifications

	Freightliner Columbia	Peterbilt 387
Model:	CL120	387
BBC:	120"	112"
Sleeper:	70" Raised Roof SleeperCab	Premium-Length High-Roof Sleeper
Wheelbase:	242"	250"
Engine:	Cummins ISX 450 hp	Caterpillar C-12 430 hp
Transmission:	RMX10-165C	FR016210C
Front Axle:	12,000 lb. FF-961	12,000 lb. E1200I
Front Suspension:	12,000 lb. Taperleaf	12,000 lb. Taperleaf
Rear Axle:	40,000 lb. RT-40-145	40,000 lb. DS404
Rear Suspension:	40,000 lb. AirLiner	38,000 lb. Peterbilt Low Airleaf
Front Tires:	275/80R22.5 XZA1+	295/75R22.5 R227
Rear Tires:	275/80R22.5 XZA1+	295/75R22.5 M726
Fuel Tanks:	Dual 120 gal.	Dual 135 gal.
Driver Seat:	EzyRider - High Back	Isringhausen High Back
Passenger Seat:	EzyRider - High Back	Isringhausen High Back
Lower Bunk Mattress:	Spring	Coil Spring
Upper Bunk Mattress:	Synthetic Pad	No upper bunk
Aero Aids:	Yes	Yes
Interior Trim:	Regal - Textured Vinyl	Premium - Textured Vinyl

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background

Peterbilt 387

In 1999, Peterbilt introduced a new aerodynamic tractor model called the 387.

Peterbilt prefers to use numbers to describe their product line-up, as opposed to descriptive names.

What makes this even more confusing is that they do not advertise their cab and sleeper sizes in numbers. They prefer to call them Mid-Length Conventional with Mid-Length, Mid-Roof Sleeper; and Medium-Length Conventional Premium-Length, High-Roof Sleeper. The Medium-Length Conventional, Premium-Length High-Roof Sleeper was launched first—and the Premium-Length Conventional, Premium-Length High-Roof Sleeper will be on the streets in the summer of 2000. This model is an upgrade from their 377A/E model.

The 387 is aimed at the same customer profile that Freightliner identified for the Columbia. The Peterbilt division of PACCAR was charged with the responsibility of bringing out a companion model to the Kenworth T2000. Using the same basic design and modular construction, Peterbilt engineers wanted to have a product similar, but not exactly like, the T2000. The most evident changes they made were in some of the construction materials and in the overall appearance.

Peterbilt builds this model with an aluminum floor and rear back panel. Doors are made of a composite—the same door as Kenworth T2000. The roof header is fiberglass with SMC reinforcements. The cowl is a structural sheet-molded compound and the sleeper panels, like the T2000, are aluminum crimped and adhesive-bonded. These changes made the 387 a slightly lighter vehicle than the Kenworth, and also enabled Peterbilt to change the look by modifications on the grille surround, an independently mounted front bumper, and a vertical split radiator (separate core for water and charge-air cooler).

Peterbilt also significantly changed the interior size and appointments, as well as cab storage capability. Driver comfort and convenience features of the new 387 are also significantly different. Cab size has changed to the point where the 387 could be a real driver-preferred vehicle. Pound-for-pound and spec-for-spec, the 387 gives the Columbia real competition.

The current product offerings for the 387 include these tractors and integral sleepers:

- 387 Medium-Length Conventional (112" BBC) with the following sleepers:
 - Mid-Length, Mid-Roof (52")
 - Mid-Length, High-Roof (52")
 - Premium-Length, High-Roof (70")

- 387 Premium-Length Conventional (120" BBC) with the following sleepers:
 - Mid-Length, Mid-Roof (52")
 - Mid-Length, High-Roof (52")
 - Premium-Length, High-Roof (70")

We compared the Columbia 70" Raised Roof SleeperCab to the Peterbilt 387 Medium-Length Conventional (112" BBC) with the Premium Length High Roof Sleeper because at the time of this comparison, the 387 with 120" BBC was not available.

weights and revenue

A recent data book weight comparison study of Class 8 tractors with sleepers shows that the Freightliner Columbia with a 70" Raised Roof SleeperCab weighs 215 pounds less than a comparably spec'd Peterbilt 387 Premium Length High Roof Sleeper.

What is the benefit of this advantage?

If you are a **carrier for hire**, there is a revenue enhancement based on 42,000 payload pounds over 100,000 annual miles of operation (loaded both ways) — assuming a freight rate charge of \$1.35 per mile to the shipper:

Criteria:

42,000 pounds or 21 tons per load, discounting the weight of the tractor and trailer

100,000 miles per year

Total ton miles = 2,100,000 per year

Revenue rate @ \$1.35 per loaded mile

Annual revenue per loaded mile= 100,000 x \$1.35 = \$135,000

Revenue rate per ton mile = \$135,000/2,100,000 tons = .0642857 cents/loaded mile

Here's what carrying an extra 215 pounds per trip can do for you.

	387	Columbia	Columbia Advantage
Payload	21.0 tons	21.1075 tons	215 lbs./load
Loaded miles per year	100,000	100,000	
Total ton-miles per year	2,100,000	2,110,750	10,750 ton-miles/year
Revenue rate per ton-mile	.0642857	.0642857	
Annual revenue (100,000 miles)	\$135,000	\$135,691	\$691/year per tractor
Columbia advantage/1-year/1 truck			\$691
Columbia advantage/3-years/1 truck			\$2,073
Columbia advantage/1-years/10 trucks			\$6,910
Columbia advantage/3-years/10 trucks			\$20,730
Columbia advantage/1-years/100 trucks			\$69,100
Columbia advantage/3-years/100 trucks			\$207,300

No matter who you are, you can ship more weight by using the Columbia than the 387, so you will make 1.00511% fewer trips. Expressed in mileage, you would travel 511 fewer miles a year than the equivalent Peterbilt tractor. If your cost-per-gallon is \$1.40, and you are averaging 6.0 miles-per-gallon, then you would save an additional 85 gallons a year @ \$1.40 per gallon — or over \$119 a year plus driver wages plus vehicle wear and tear.

A ten-truck fleet would save \$1,190 a year. A 100-truck fleet would save \$11,900 a year — and over \$35,700 in three years.

When you combine these advantages with others in the following pages, you'll agree that Columbia represents a better value than the Peterbilt 387.

ease of entry

fact: Advantage, Columbia.



Columbia: driver entry with "B" pillar grab handle

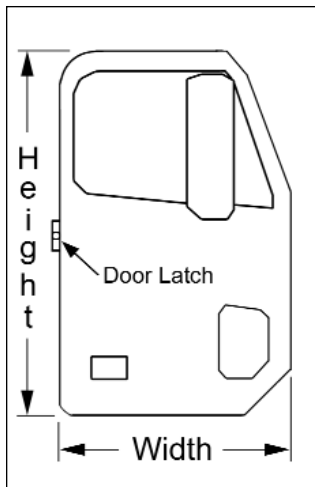
Columbia's outside grab handle is located inside the driver side "B" pillar where it stays dry and is easier and safer to grab hold of than Peterbilt's, especially in rain and snow.

The outside grab handle on the Peterbilt, however, is exposed to the elements and may be slippery when it's wet or iced up.

Columbia's doors are not only larger than Peterbilt's, but there's 1" more of door opening width and more than 2" of door height to accommodate bigger, taller drivers.



387: driver door panel



Door dimensions

Door dimensions

height
width
opening from door frame to latch pin

Columbia

59.50"
37.25"
42.00"

387

57.50"
40.50"
41.00"

windshield

fact: Columbia's standard costs less to replace.



Columbia: two-piece windshield

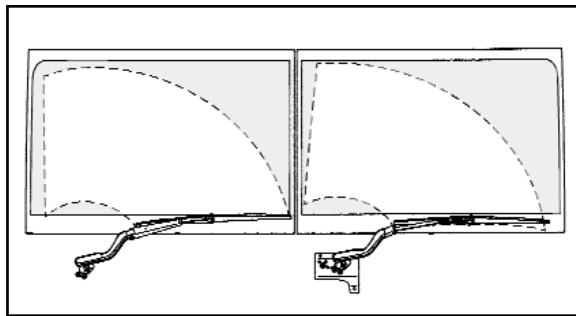


387: one-piece windshield

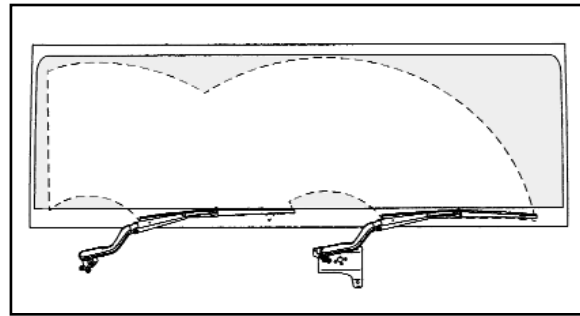
Columbia offers a standard two-piece bonded windshield and a one-piece option; Peterbilt offers a one-piece bonded windshield.

Columbia offers a coast-to-coast glass replacement program with Safelite Glass Corp. at a fixed cost and guaranteed time.

The most obvious advantage to Columbia owners is that the replacement cost for Columbia's windshield is lower.



Columbia: two-piece windshield



387: one-piece windshield

Windshield Area

viewable glass area (sq. in.)
wiper coverage area (sq. in.)
percent of wiper coverage

Columbia two-piece

1,851.00"
1,176.50"
63.6%

Columbia one-piece

1,916.00"
1,364.39"
71.2%

387 one-piece

1,891.50"
1,206.50"
63.8%

visibility

fact: Columbia's is up to 33% better.

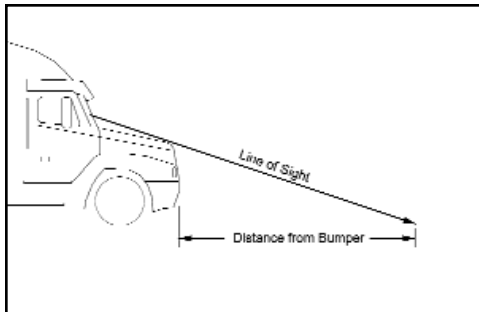
We measured forward panoramic visibility from the driver's side to eight critical points in front of the cab to determine how close an object is before it can be avoided. The 387 we measured had a BBC of 112", compared to Columbia's 120" BBC.

The results are surprising.

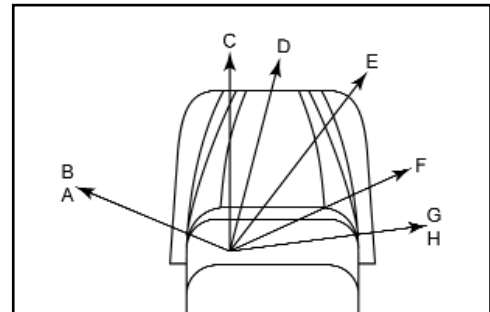
An object the same distance from the front of each truck is lost to the hood sloped at the same place in both the Columbia and the 387.

However, when an object is viewed to the left (the on-coming traffic side - A) and right (the curb side - G, H) Columbia has anywhere from 14% to 33% better visibility.

This advantage allows a Columbia driver to adjust better to hazardous conditions in the road, the street and the terminal yard.



Forward line of sight angle



Panoramic visibility points

Viewing Location

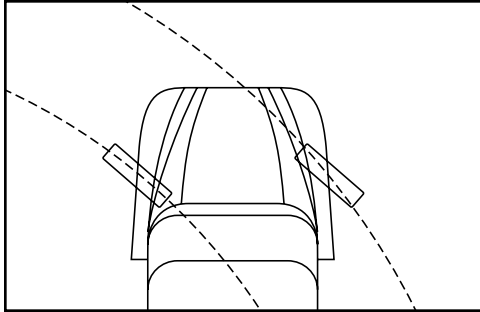
- A – left side - far edge of glass
- B – left side - closest point near dash
- C – straight ahead view
- D – view over center of hood
- E – view over right hand corner (of hood)
- F – view at wiper blade
- G – right side - closest point near dash
- H – right side - far edge of glass

Distance from Bumper

	Columbia	387
A	103"	155"
B	110"	132"
C	190"	176"
D	197"	201"
E	214"	223"
F	253"	319"
G	268"	314"
H	282"	354"

turning angle

fact: Columbia's is over 22% sharper.



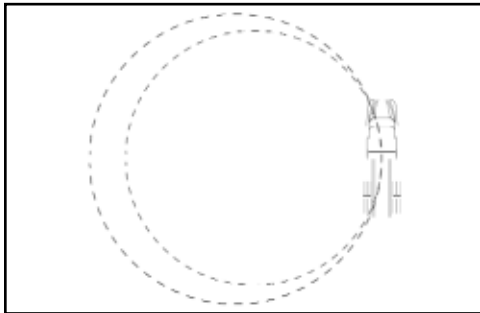
Turning angle

Maneuverability is a key ingredient in measuring how well a truck performs.

Columbia has over 22% sharper left-turn angle, with 12,000 lb. front axle and 22.5-inch tires, matched with the equivalent specs on the 387.

This improves safety and allows the Columbia driver to make turns in the terminal yard more efficiently than the 387 driver.

The inside turning circle represents Columbia's turning radius. With the greater wheel cut Columbia, even with a longer hood, can turn around in a smaller area than the 387.



Turning circle

Turning Angles

Columbia	387
49°	40°

dash design

fact: Columbia puts the driver first.



Columbia: trash bin



387: trash bin

Columbia's driver-oriented dash also includes a conveniently located trash bin for trash or secure storage of miscellaneous items like receipts, petty cash, turnpike trip tickets and such.

The 387 does not have this feature.



Columbia: easy-to-read gauges



Peterbilt: instrument panel

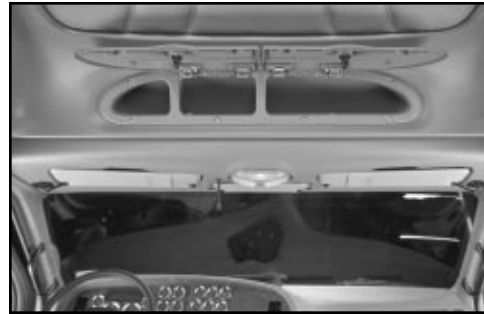
Columbia has domed and backlit gauges, which are easy to read, even on sunny days.

cab storage

fact: Columbia has over four times more.



Columbia: overhead console storage



387: overhead console storage

Columbia's cab storage consists of a roof header; driver, center and passenger headers; glove box and driver/passenger door pockets, all easily accessible. Total cu. ft. is 5.8067 for the Columbia. Total cu. ft. is 1.0911 for the 387. Clearly, Columbia's cab storage is over four times more.

Columbia driver header contains 5.0448 cubic feet of storage compared to the 0.6719 cubic feet in the 387.



Columbia: door panel doubles as a grab handle

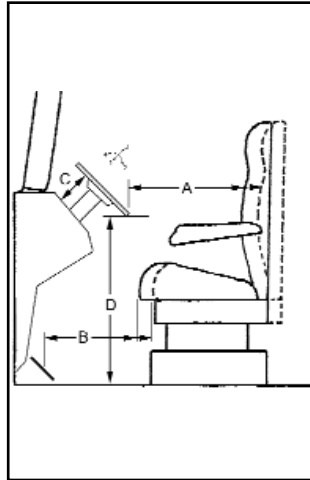


387: door panel

Columbia has 490 cubic inches of door panel storage space compared to 319 cubic inches in the 387. The panel also doubles as a grab handle.

cab comfort

fact: Columbia has more knee and belly room.



Seat travel reference

Seat Travel

	Columbia	387
A – edge of wheel to seat - seat forward	9.00"	11.00"
– edge of wheel to seat - seat back	19.25"	18.25"
B – center of fuel pedal to seat cushion - seat forward	9.50"	11.25"
– center of fuel pedal to seat cushion - seat back	19.75"	18.50"
forward and back	10.25"	7.25"

Wheel Travel

C – telescoping wheel travel	2.63"	2.75"
D – floor to bottom edge of wheel - telescopic in; tilt down	22.50"	24.50"
– floor to bottom edge of wheel - telescopic out; tilt up	30.25"	30.75"
difference in floor-to-wheel height	7.75"	6.25"

Leg Room

center of pedal to top/front of seat cushion		
seat forward and low	18.82"	18.95"
seat forward and high	24.88"	23.82"
seat back and low	25.58"	23.98"
seat back and high	30.32"	27.99"
average leg room	24.48"	23.45"

cab comfort

fact: Advantage, **EzyRider™**.



Columbia: EzyRider seat

EzyRider Seat

Freightliner's proprietary **EzyRider** seat is standard equipment in the Columbia.

EzyRider features a **Seat Position Indicator** — fore/aft and back angle positions are identified by number and can be adjusted, even from outside the truck. **EzyRider** also has **visual mechanical memory** so the driver doesn't have to readjust it every time he gets back in his rig.

The advantage of **EzyRider** to the Columbia driver can be summed up in four words: less fatigue, improved safety.

387 Isringhausen® Seat

387's optional premium **Isringhausen** seat features self-levelling air-suspension; fully adjustable thigh and lumbar supports; adjustable head, arm and back rests; air height adjustment; adjustable shock absorbers, air side bolster and heater. **Isringhausen** is a good seat, but not as good as **EzyRider**.

EzyRider

Feature	Benefit
• Taller seat cushion	Increased head support and safety
• Wider shoulder area	Greater upper-back support
• Innovative suspension	Improved stability and ride
• Supporting structure	Comfort for all sizes
• Tilt/length control	More uniform leg support
• Lumbar support	Improved Lower-back comfort
• Variable cushion densities	Offers preferred softness
• Adjustable seat cushions	Custom fit
• Bolsters	Lateral support for all drivers
• Longer optional armrests	Better support
• Map pockets option	Convenience and storage
• Suspension shroud option	Appearance

cab comfort

fact: Columbia has more.



Columbia: adjustable "D" ring

Adjustable "D" Ring

Columbia has an adjustable "D" ring with 7" of travel on the shoulder belt to prevent neck chafing caused by long hours on the road.

Drivers are more inclined to buckle up if their shoulder belts are comfortable.

The 387 does not have this feature.



387: no adjustable "D" ring



Columbia: SmartShift

SmartShift™

Columbia offers an optional **SmartShift** interface with shift-by-wire transmissions for ease of operation, improved performance and fuel economy.

Columbia's **SmartShift** is conveniently mounted on the steering column for safe and easy operation.

387 mounts AutoShift a little less conveniently, on the dash.

cab structure

fact: Columbia's cab costs less to repair.

Columbia uses materials and repair procedures that are readily available with current body shop and maintenance technology, making the cab easier and less costly to repair.

The 387's cab is made of modular construction (sections assembled and shipped from a remote location). There's nothing wrong with that; in fact, it's a good concept.

But...

the materials involved are various (some are common, some exotic) and are designed to be used in different parts of the truck. Maybe another good concept.

But...

the following list of materials:

- aluminum sheeting
- steel and aluminum casting
- Metton
- sheet molded compound
- structural sheet molded compound
- pre-formed fiberglass
- epoxy resins

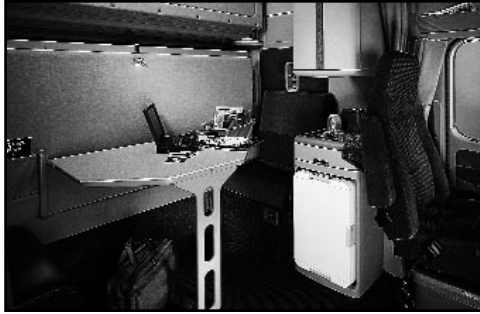
is cut, formed and joined together with a variety of different fasteners and techniques:

- mig welding on the aluminum
- rivets on the floor and rear-sleeper back panel
- hemming (crimping) on the sleeper side panels
- Henrob fasteners and adhesives
- urethane fasteners
- drills
- ball-ping hammers
- sheet metal shears

The end result is that the 387's cab is difficult and costly to repair.

sleeper options

fact: Columbia offers more.



Columbia: Driver's Lounge

Driver's Lounge

Columbia has an available driver's lounge in the sleeper area with café-style seating and a fold-down table.

The 387 does not have this feature.



Columbia: Backpack option

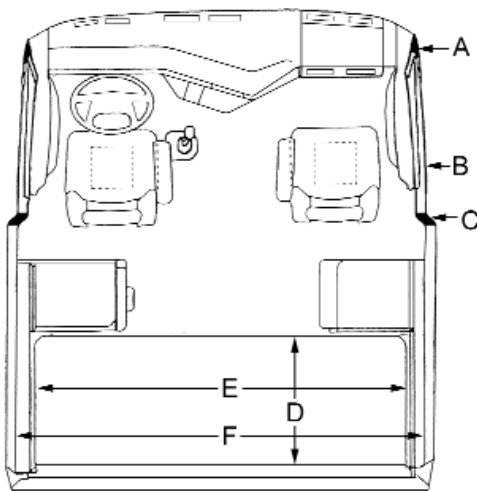
BackPack Option

Columbia's Backpack option increases usable storage by 27 cu. ft. and includes a hanging clothes compartment and additional shelves in the space between the exhaust and the back wall. The Upper Bin option adds another 30 cu. ft. of storage.

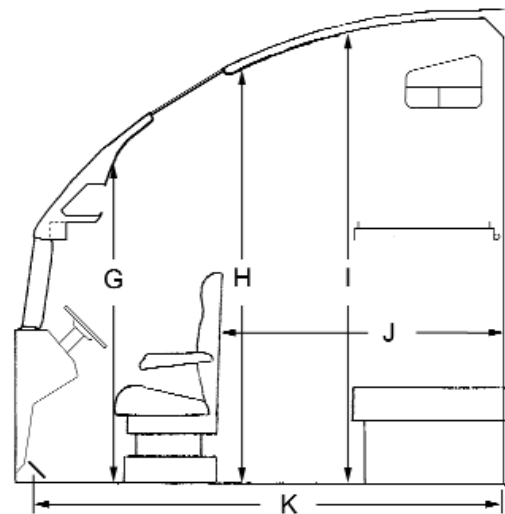
The 387 does not have this feature.

cab and sleeper space

fact: Advantage, no one.



Cab and sleeper width



Sleeper height and depth

Cab and Sleeper Width

- A – “A” to “A” pillar width - measured at dash
- B – cab width measured at shoulder level (side glass)
- C – “B” to “B” pillar width - behind seat
- D – lower mattress width
- E – lower mattress length
- F – width of sleeper measured above lower bunk

Columbia	387
70.50"	73.75"
79.50"	88.00"
87.00"	88.50"
38.00"	41.00"
79.00"	80.00"
85.00"	89.00"

Sleeper Height and Depth

- G – floor to bottom of overhead storage area
- H – floor to ceiling at “B” pillar
- I – floor to ceiling at front of bunk
- J – distance from back of seat to back wall of sleeper - seat back
- distance from back of seat to back wall of sleeper - seat forward
- K – distance from fuel pedal to back wall of sleeper

Columbia	387
82.75"	68.25"
88.25"	75.00"
95.50"	92.50"
63.50"	70.50"
73.00"	77.75"
109.00"	112.00"

Volume of living sleeper area - rear of seat to front of bunk (cu. ft.)	118.01	126.60
Volume of cab and sleeper combined (cu. ft.)	412.81	437.47

air ride systems

fact: Columbia offers more choices.



Columbia: AirLiner suspension



387: Peterbilt suspension

Columbia has:

- 2-1/4" diameter independent side mounted shocks
- Air ride choices of weight carrying capacities of 40,000 and 46,000 lbs
- Freightliner's own AirLiner™
- Choice of other suspensions include, Neway, Chalmers, and Hendrickson

387 has:

- 1-3/4" diameter shocks
- Choices from: 38,000 to 44,000 lbs
- Peterbilt's proprietary suspension only (can only be serviced at a PACCAR dealership)

battery placement

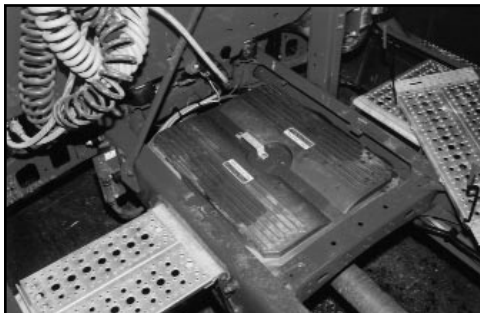
fact: Columbia's batteries like the ride.



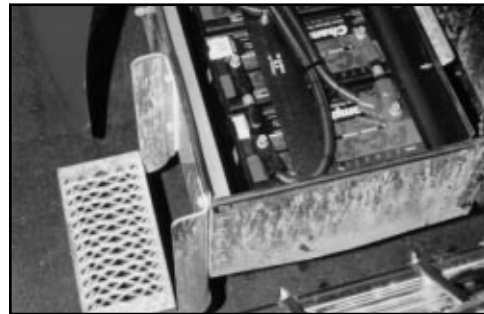
Columbia: battery box behind cab



387: battery box behind cab



Columbia: battery box with deck removed



387: Outside frame mounted



Columbia: battery box with cover removed

Columbia, as an option, locates its batteries in a stable area where they like the ride – inside the frame behind the sleeper, free of harmful vibration. This in-rail design helps batteries last longer.

Columbia:

- Battery box, cover and hold-down are composite to eliminate corrosion and possible shorts across terminals.
- No tools are required for battery box cover and battery removal.
- Removal of batteries is easy from frame top.
- Uses the heaviest gauge wiring to ensure starting amperage is available.
- Batteries can be charged from either side of an inoperative truck – away from the more dangerous highway side, if necessary.

With the 387:

- Accessible only from the highway side.
- No tools are needed for opening battery box or cover.

fairings

fact: Columbia's are easier to remove.



Columbia: chassis fairing



387: chassis fairing



Columbia: rear fairing removed

The only way to get under a truck for drive-line inspection, repair or maintenance is with a creeper. The only way to get a creeper under a truck is to remove a fairing.

Columbia's fairings are easier to remove than Peterbilt's.

Columbia's advantage:

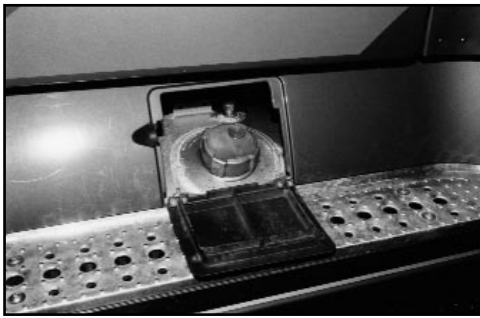
Rear fairing has a quick-disconnect handle and hood-type rubber latches so it can be removed in seconds.

The 387's disadvantage:

Requires tools to disassemble and reassemble the fairings. They have no wheel-to-wheel chassis fairings.

fuel tank fill

fact: Columbia is more practical.



Columbia: fuel tank fill, door open



387: fuel tank fill



Columbia: fuel tank fill, door closed

Columbia advantage:

- Tank is centered in aperture for easy access.
- Covered fuel cap door eliminates the build-up of debris, ice and snow.
- Fuel fill door swings down and acts as a catch tray for fuel dribbled from the fuel nozzle — preventing the driver from tracking spilled fuel from the upper step into the cab.
- Fuel cap has grip ridges for easy opening with gloved hand
- More attractive, concealed behind the fairing.

The 387 disadvantage:

- Open to elements: ice, snow and dirt.
- Fuel dribble on steps and fairing potential.
- Not very attractive for such a nice looking truck.

safety and technology

fact: Advantage, Columbia.

Safety

- Columbia offers an optional driver's-side air bag and an optional **S.P.A.C.E. System** (Seat Pretensioner Activation for Crash Survival Enhancement).

The 387 does not offer this feature.

Technology:

- Columbia offers Lane Guidance™ System and Roll Advisor & Control System.
- Columbia offers LED switches on dash for night lighting and extremely long life.

The 387 does not offer this feature.

Engine availability

- Freightliner is the only Heavy-Duty truck manufacturer that offers four brands of engines (up to 600 hp.): Caterpillar, Cummins, Detroit Diesel and Mercedes-Benz.

Engine Performance Monitoring

- Columbia offers Road Relay™ and ProDriver Display™

The 387 does not offer this feature.

Position and Location System:

- **Truck Productivity Computer** is an on-board computer, a communication interface, a vehicle information display, a global positioning system (GPS), an AM/FM stereo, a Weather/RDS receiver and compact disc player. When combined with the appropriate hardware and operating software, it can:
 - Display pick-up and delivery information
 - Display turn-by-turn directions to the delivery location
 - Send confirmation messages to dispatch
 - Download vehicle information using magnetic cards
 - Send information on vehicle and component performance
 - Transmit imaged documents like Bills of Lading
 - Download and transmit information from bar-code scanners and hand-held computers
 - Print driver paperwork
 - Send and receive e-mail
 - Access the Internet
 - Allow the driver to view Internet-delivered information

support services

fact: Freightliner's is more comprehensive.

Dealer Locations and Services. The trucking industry operates "24/7". So do we. Freightliner has 72 dealerships that offer seven day a week, 24-hour a day (24/7) service. And 24/7 service is also available at many Freightliner ServicePointSM centers located in Travel Centers of America (TA) throughout the United States. TA expects to have 127 centers opened by September of 2000, and the number of Freightliner 24/7 operations will continue to grow as more and more TA facilities become qualified as ServicePointSM centers.

As of this publication Peterbilt has over 150 dealers, and only a very few are open for 24/7 service. They have no national truck stop arrangements for service. Shop arrangements are made on an "as available" basis, with Peterbilt dealers having first priority and truck stops and garages having second priority.

ServicePro[®] Program. ServicePro[®] is an integrated system of systems for world-class vehicle support. Whether it's repair history, required parts, repair procedures and times, or warranty coverage, ServicePro[®] puts information at the fingertips of the people who service Freightliner trucks.

Peterbilt's TruckCare Program includes a Truck Down and Technical Research call center, but its limited to 13 hours of service advisory a day. Also, it only covers trucks that have been signed up for TruckCare service.

PartsPro[®] Program. A companion to ServicePro[®], it provides instant access to Freightliner's electronic parts catalogs. PartsPro[®] allows service personnel to easily identify parts and check on their availability – thus saving counter time, technician waiting time and customer waiting time by allowing faster repairs and eliminating parts specification errors. It also places parts data for major component vendors at the fingertips of service and parts personnel.

Peterbilt has TruckCare, which is similar to Freightliner's PartsPro Program – but there are only a limited number of dealers that can handle a parts program. Also, a participating dealer must initiate any "fix" arrangement.

ServiceLit[®] Program. The ServiceLit[®] Program saves time and eliminates lost or forgotten information. It is designed to help streamline the entire repair and maintenance process. It includes electronic maintenance manuals, workshop/service bulletins, detailed work instructions, service bulletins, warranty and driver's manuals – all of which save you time and money and help build customer satisfaction.

Peterbilt has nothing like ServiceLit[®].

CustomerLink[®] Program. This program takes the burden of managing parts inventory off your customers' shoulders. CustomerLink[®] keeps track of parts inventory, automatically determines which parts are needed at the end of each day, and electronically sends parts orders to the dealership. CustomerLink[®] can be used to replenish parts bought from Freightliner or from anywhere else, allowing for a leaner, more efficient operation while helping to improve overall levels of service.

Peterbilt uses TruckCare Connect for fleet parts replenishment. TruckCare Connect also supports the fleet customer like CustomerLink[®].

Fleet Assistant[®] Program. This is a maintenance management software program that improves productivity and reduces costs in vehicle maintenance and shop management. Fleet Assistant[®] helps identify problems, assists in making more informed parts purchasing decisions, increases shop productivity, and tracks the lifecycle cost of trucks, trailers and other fleet equipment. Comparing the cost of keeping old vehicles, versus trading them in, is simple with fleet Assistant.

Peterbilt has nothing like Fleet Assistant[®]. Peterbilt's program is called TruckCare Connect, and it requires you to purchase a program for scheduling and performing preventive maintenance on a vehicle.

support services

Customer Assistance Center. Both Freightliner and Peterbilt offer 24-hour, 7-day Customer Information and Assistance Centers, but Freightliner's difference is that its center is located at corporate headquarters – where knowledgeable people are always at hand, and where problems can often be solved without calling for tow trucks and arranging for dealer repairs.

Fleet Credit Cards. Freightliner offers its Fleetpack® card – Peterbilt offers its TruckCare Fleet Services card. Both cards enable drivers to charge a variety of purchases while on the road, provide an official record of all maintenance charges, and eliminate the need for drivers to carry large sums of cash. Freightliner has taken the charge concept one step further, however, by establishing special Fleetpack Dealerships that stock extra parts, give cardholders priority service, and charge only the standard maintenance rates approved by Freightliner.

Both cards work – but Fleetpack® does more for the customer.

On-line Driver and Maintenance Manuals. As a Freightliner owner or driver, you can enter your truck serial number into our web site and instantly find most anything you want to know about your truck – anywhere, anytime, anyplace you have web access – including your truck.

Peterbilt does not offer this service to their customers.

Warranty Coverage. Both Freightliner and Peterbilt offer a basic warranty of 12 months or 100,000 miles, and a cab warranty of 5 years or 500,000 miles.

Peterbilt also offers extended warranty coverage at additional cost. Coverages include 36 months or 300,000 miles on powertrain and brakes, and 60 months or 500,000 miles on frames, side rails, cross members, etc. Peterbilt also offers some ESL (Extended Service Life) packages as part of their CustomSpec Program. CustomSpec means that you buy the truck the way Peterbilt recommends.

Freightliner offers more extensive additional cost coverage – with coverage ranging from 2 years or 200,000 miles to 5 years or 500,000 miles.

Security Connection®. Freightliner provides owner/operators with an exclusive web site (securityconnection.freightlinertrucks.com) which provides special fuel discounts and promotions through TravelCenters of America, up-to-the-minute trucking news, a payment protection plan, and a variety of instructional materials designed to help owner/operators run a successful business. The Membership Card can also work as a fuel card, payroll card, credit or debit card, and/or phone card. The membership is free of charge if you own or operate 1-5 Freightliner Class 8 on highway vehicles and finance through Mercedes-Benz Credit Corporation or The Associates.

Peterbilt has nothing to compare to Security Connection®.

Parts Warehouse Locations. Freightliner has one of the most advanced parts distribution programs in America. The company has eight strategically-placed Parts Distribution Centers, with over two million square feet of warehouse space. Over 650,00 parts per month are shipped from these centers – with a national order fill rate in excess of 97%. Freightliner customers can rest assured that the parts they need will be there when they need them.

The Peterbilt Paccar parts system is not as sophisticated, or as fast, as the Freightliner system. Paccar has five parts distribution centers in the U.S., one in Canada, and two in Mexico.

All of the information and conclusions contained in this Support Services Comparison are believed accurate at the time of publication. However, every competitive truck manufacturer reserves the right to modify, amend or cancel elements of their support services program at any time - so future changes may make this information obsolete or incorrect.