BUDINI
TIRE MANAGEMENT

BUDINI

616 N University Drive Suite 151 - Pembroke Pines, FL 33024. Phone (305) 975-3288 Fax (305) 974-7794

Facsimile (FAX) Transmittal Letter Page: 1 Of: 2

TO : ULTRASEAL INTERNATIONAL, INC. FAX#: (213) 465-9455

ATTN : Liz Aguirre

FROM : Tony Nicolini

DATE : January 30, 1994. TIME : 05:00 PM

Dear Liz,

The following page is an analytical graph issued by BUDINI to our customer CARSTENSEN FREIGHT LINES, INC from Clinton, Iowa. The purpose of the graph is to verify the fleet's most important NEW TIRES being used in the drive axles [1ST] also known as Front and [2ND] also known as Rear. The graph focus on a specific ROUTE (122T) and in one specific type of vehicle (Tractor 2 Drive also known as Tandom Tractor).

Five types of new tires are listed in the same size (11 R 22.5 coded as 15R) being three of them Goodyear. Those Goodyear (GO in the graph) are identified as G167, G167A and 167AU which is, in fact, tires Goodyear G167A using the ULTRASEAL sealing from day one. They were identified as 167AU in the database to make easier future mileage performances and casing life analysis. As you can see in the graph, the performance (miles per /32) of those tires in the first drive (front drive) is outstanding. They are surpassing the fleet average by 19% (considering both axles) and surpassing the same G167A without ULTRASEAL by 25% (on the first drive - or front drive).

I suggested CARSTENSEN to increase the sample (add more tires with ULTRASEAL) in the very near future and I'll keep you posted about the comparative performances.

Anyway, I believe you would like to see this graph and feel free to call me with any additional questions about it.

Please update your database with my correct address and phones, as follows:

BUDINI CORPORATION
616 North University Drive, Suite 151
Pembroke Pines, FL 33024
Phone (305) 975-3288 Fax (305) 974-7794

My best regards,

Tony Nicolini

CARSTENSEN LINES INC

[01-2B-1] MILES PER /32 BY NEW TIRES [DRIVE]

Data processed by CARSTENSEN LINES INC

Issued by BUDINI on 01/28/94.

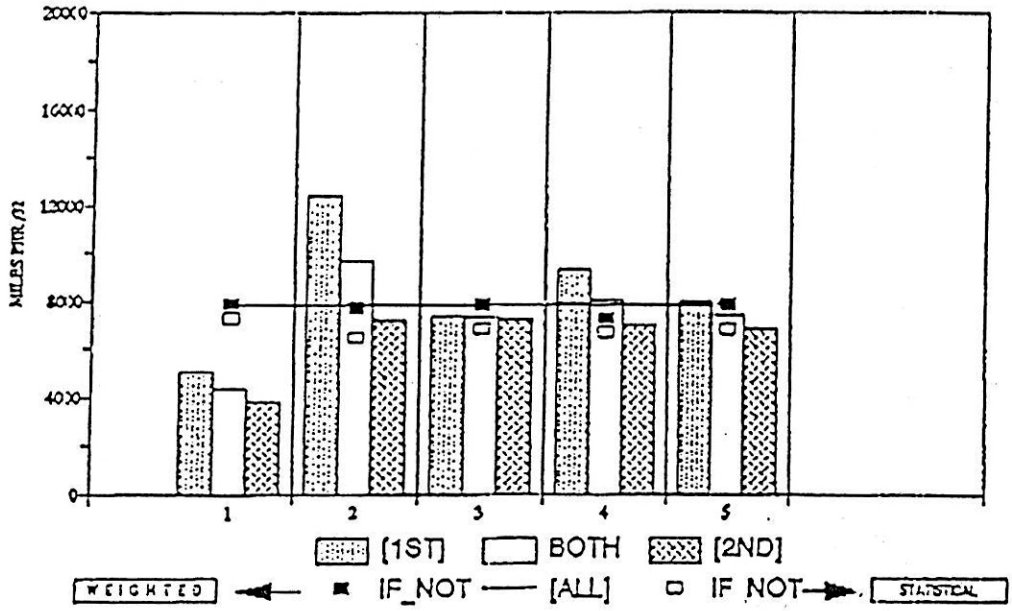
USDWUS000101

Computed Selection

[MIN=10]

MILES PER /32 BY NEW TIRES [DRIVE]

NO CAPS. SELECTED ROUTE AND VEHICLE CLASS



Route: 122T Veh Class: CAVD -> TRACTOR 2 DRIVE									IF NOT	
#	[MIN=10]	ON%	[1ST]	Qty	[2ND]	Qty	BOTH	[ALL]	WGT	STA
1	15R GE R AMLUG		5052	7	3820	10	4327	7846	7931	7292
2	15R GO R 167AU	4%	12414	12	7185	13	9694	7846	7780	6457
3	15R GO R G167		7380	39	7214	54	7302	7846	7907	6852
4	15R GO R G167A	64%	9277	245	6991	293	8034	7846	7296	6723
5	15R MI R XDHT		7958	33	6814	41	7402	7846	7869	6838

PRODUCT, for this graph, means [Size Make R/B Type]

ON%=Percentage of the listed product ON VEHICLES [same AXLES & APPLICATION]

[ALL] averages ALL PRODUCTS of the same SIZE and AXLES, for the APPLICATION

IF_NOT removes the PRODUCT [both axles] from the [ALL] average

The averages are WEIGHTED. IF NOT shows both: weighted and statistical

To..: Charles Ober - ULTRASEAL
From: Tony Nicolini - BUDINI TIRE MANAGEMENT
Date: May/01/1992
Ref.: ULTRASEAL product evaluation test running at CARSTENSEN FREIGHT LINES.

Mr Ober: The following comments were sent to Jim Carstensen on May/01/92.

The ULTRASEAL product was applied to the following tires which were acquired on Sep-Nov/90 and first time ON vehicle 290 on 01/21/91:

18141 18142 18143 18144 18168 18169 18172 18175

To make it easier, the G167A above receiving the ULTRASEAL product were identified in the BUDINI TCS as "167AU" and their performances are compared to the same tire "G167A" recorded in TCS as "G167A". All tires G167A are size 11 R 22.5.

During this analysis, the G167A without ULTRASEAL are referred to as "G167A" and the G167A with ULTRASEAL are referred to as "167AU".

The current status for tires using ULTRASEAL is as follows:

Brand#	Vehicle#	Axle	Mileage	Last Act	Tread Dp
18143	290	1DLE	117934	02/24/92	12.
18168	290	1DLI	117934	02/24/92	12.
18175	290	1DRI	117934	02/24/92	11.
18141	290	1DRE	117934	02/24/92	11.
18142	290	2DLE	117934	02/24/92	16.
18172	290	2DLI	117934	02/24/92	15.
18169	290	2DRI	117934	02/24/92	15.
18144	290	2DRE	117934	02/24/92	15.

No caps were applied as of Apr/27/1992.

R E P A I R I N G:

Only one tire received repairs, with the following details:

Brand#	Rep. #1	On	Rep #2	On
18175	B-2	10/10/91	B-2	12/09/91

Average number of repairs: 02/10 = 0.20 repairs per tire for the 167AU.

The G167A tires running on route 122T (same route as 167AU) are showing as of Apr/27/92:

# of tires in drive positions: 70
# of repairs applied to ALL .: 52
Average number of repairs: 52/70 = 0.74 repairs per tire for the G167A.

P U N C T U R E S:

Checked the historical file for tires mounted/inspected on route 122T from Jan/01/91 to Apr/27/92, the following data was found for drive axles using tires life cycle "0" (no caps):

# of movements for the 167AU: 34
# of movements for the G167A: 352

# of punctures (Report 02)
  for the 167AU ...: 1 Ratio: 1 / 34 = 0.0294
  for the G167A ...: 34 Ratio: 22 / 352 = 0.0625

Not considering the route 122T but considering the date range from 01/01/91, "drive", and life cycle "0", the 167AU and G167A show the following occurrences (dismounting reports) in the historical file:

167AU
=====

Dism Rpt	Number of Occurrences	Ratio
01 Maintenance	1	001/034 = 0.2941
02 Puncture	1	001/034 = 0.2941
13 To be capped	0	000/034 = 0.0000
16 Inspected	24	024/034 = 0.7058
18 Rotating/Match	8	008/034 = 0.2352
	34	

G167A
=====

Dism Rpt	Number of Occurrences	Ratio
01 Maintenance	7	007/352 = 0.0198
02 Puncture	22	022/352 = 0.6250
13 To be capped	46	046/352 = 0.1306
16 Inspected	112	112/352 = 0.3181
18 Rotating/Match	165	165/352 = 0.4687
	352	

Focusing on the above numbers, the following statement can be made:

G167A required twice as much ROTATING/MATCHING than 167AU.
G167A had twice as many PUNCTURES than 167AU.

M I L E A G E:
==========

The mileage analysis for both products shows the following results when the general statistical file for product/application reported the "excluded bad records" averages:

Route 122T. Position DRIVE (1st and 2nd). Life cycle 0 (new tires).

1st drive
167AU is performing 10162 miles per /32 (004 records)
G167A is performing 9731 miles per /32 (176 records)

2nd drive
167AU is performing 6842 miles per /32 (004 records)
G167A is performing 7214 miles per /32 (220 records)

Comments about mileage per /32 for "clean" averages:

1) The 167AU outperforms the G167A on the 1st drive by aprox. 04.24%
2) The G167A outperforms the 167AU on the 2nd drive by aprox. 05.15%

If all mileage results are considered, the statistical file shows the following averages:

1st drive:
167AU is performing 11447 miles per /32 (016 records)
G167A is performing 8315 miles per /32 (354 records)

2nd drive:
167AU is performing 6623 miles per /32 (018 records)
G167A is performing 6742 miles per /32 (423 records)

Comments about mileage per /32 for "all" averages:

1) The 167AU outperforms the G167A on the 1st drive by aprox. 27.36%
2) The G167A outperforms the 167AU on the 2nd drive by aprox. 01.76%

Called the historical file for tires being OFF vehicle or INSPECTED from 01/01/91 to 04/27/92 on route "122T", position "DRIVE", life-cycle "0", the following averages were found (excluded bad records):

1st drive:
167AU is performing 10162 miles per /32 (004 records)
G167A is performing 9694 miles per /32 (076 records)

2nd drive:
167AU is performing 6842 miles per /32 (004 records)
G167A is performing 7050 miles per /32 (098 records)

Final comments for the mileage analysis:

The 167AU product has been inspected more often then the G167A product and that fact is reducing the number of records considered "clean" by the BUDINI TCS to compound the averages (because only tires wearing 5/32 or more are taken as "clean" records for statistics). However, there is no doubt that 167AU is outperforming G167A for the same application.

We have to wait until the 167AU close the life cycle "0" and are capped to make a comparison with the "life cycle" mileage obtained by both the G167A and 167AU products.

Tony Nicolini
Tel (305) 932-2007 Fax (305) 936-0866

BUDINI

Key Biscayne - Florida - USA

PHONE: (305) 361-1832 FAX : (305) 361-9872

Facsimile (FAX) Transmittal Letter Page: 1 Of: 8

TO ULTRASEAL INTERNATIONAL, INC FAX# (213) ~~465-4356~~ 465-9456

ATTN Bob Lawson.

FROM Tony Nicolini

DATE Sep/13/1991 - 19:40 hs.

Dear Bob:

Ref: Tires at CARSTENSEN using the ULTRASEAL.

As you already may know, the tires with "ULTRASEAL" product were mounted at CARSTENSEN on 01/21/91. They are specially identified as "167AU" which means GOODYEAR G167A with ULTRASEAL.

So far, they were not dismounted and the inspections made didn't find worn over 5/32 yet which means they are not wearing fast - enough to generate statistical mileage performance (taken only - when the wear is equal or over 5/32 comparatively to the original tread depht mounting).

This is not bad news.

The tires (8 of them) are all mounted in drive axles (front and - rear) on the vehicle # 290 which is in the route 122T and perform 248 miles/day (365 days year basis) according to the last infor-- mation in the BUDINI TCS. The vehicle is a TANDOM TRACTOR.

The brand# for the tires are: 18142 18172 18169 18144 18143 18168 17175 18141.

In the BUDINI TCS codes for data consistency the tires with ULTRA SEAL are identified as GO R 167AU 15R (meaning GOODYEAR RADIAL - G167A with ULTRASEAL size 11 R 22.5) and the application they are running is 122T CAVD 1D and 2D (meaning route 122T vehicle type - TRACTOR 2 DRIVES main axles FRONT DRIVE and REAR DRIVE).

PRODUCT / APPLICATION is the way to manage tires properly and to compare apples to apples when the fleet is testing tires.

As this test goes this product is going to be compared with its - closest "brother" product/application which is:

1 - for the product : GO R G167A 15R
2 - for the application: 122T CAVD 1D and 2D

As off 08/14/91 (latest backup received from CARSTENSEN) the product GO R G167A 15R has 200 active tires representing 12.68% of - the total active tires at CARSTENSEN (chart enclosed # 8A) while the product GO R 167AU 15R has 8 active tires representing 0.51% of the total active tires at CARSTENSEN (same chart #8A line 20).

The route 122T is the 3rd most important route representing 15.0% of the total tires running (chart enclosed #11 - line 3) and also is one of the routes grouping more new tires then recapped (see - the graphic on figure #11).

The GO R G167A 15R running on 122T CAVD as off 08/14/91 are performing as follows:

1) Main axle "1D" -> 10020 miles per /32 supported by 161 records
2) Main axle "1D" -> 9359 miles per /32 supported by 278 records
   Main axle "2D" -> NO STATISTICAL INFORMATION.

The results under "1)" are excluded unusual occurrences such as - less then 5/32 wear in the same position or irregular wear, etc.. and are used to judge performances, while the results under "2)" are including all tires dismounted or inspected.

The 8 tires using ULTRASEAL were mounted on 01/21/91 in one vehicle which performs 248 miles a day (365 days year) and they are - mounted there for 205 days and should performed already 50,840 - miles without wearing 5/32 (reason to not be in the statistics) - resulting in a "possible" 12,710 miles per /32 if we assume they are not in the statistics because they had worn only 4/32.

CARSTENSEN is improving the "inspection routines" dramatically as off Sep/91 because they realize many benefits by doing so. I'm - including one graphic called "ROAD CALLS" which shows the reduction possible on that mather when the fleet knows the technical - limits for products when they will be applied to an application.

Other good news with BUDINI TCS is the "TIRE BUDGET" which I'm - also including a graphic. With such reduction in expenses the - fleet can afford to use more sophisticated services and products like electronic balancing and "good quality sealing".

About "punctures" on route "122T" position "1D" and "2D" the TCS shows the following results from 01/21/91 to 08/14/91 for the below selected products in life cycle # 0.

Product GO R 167AU 15R axle 1D -> 0 out of 4 tires running.
Product GO R 167AU 15R axle 2D -> 0 out of 4 tires running.
Product GO R G167A 15R axle 1D -> 5 out of 42 tires running.
Product GO R G167A 15R axle 2D -> 5 out of 46 tires running.

Statiscally (see enclosed chart # 13A) the "puncture" which is - the dismounting report "02" in the BUDINI TCS represents 9.94% of the total tires dismounted (all life cycles up to 4 caps).

Looking at the chart #13A you can see from the begining of TCS to Aug/14/91 CARSTENSEN dismounted or inspected 4,199 tires in wear# "0" and the report "02" accounts for 353 of them representing the porcentage of 8.40%.

The 5 tires dismounted because "02" (puncture) on axle 1D (which can be 1DRE 1DRI or 1DLE 1DLI) out of 42 tires running on that - main axle will give us the statistic of 11.90% while on main axle "2D" the statistic will drop to 10.86%.

If we translate to porcentage the occurrences with ULTRASEAL during the period of Jan/21/91 to Aug/14/91 applied to tires wear# "0" type G167A running either FRONT DRIVE or REAR DRIVE on the - type of vehicle TRACTOR 2 DRIVES on route 122T we got this final results:

G167A on DRIVE on route 122T using ULTRASEAL = 0.00% punctured
G167A on DRIVE on route 122T without sealing = 11.38% punctured

The above results are the first we can deliver to you and they - can change to better or worse during the years that will take to conclude the "casing life" test.

I'll be more than pleased to deliver to you additional information on this mather if the one delivered now it is not enough - explanatory.

This information was taken from CARSTENSEN FREIGHT LINES, INC - database backup copy delivered to BUDINI on Aug/14/91 and the - results showing here and in the enclosed materials have to remain confidential at this time, except for the persons involved with the test and the G167A tire manufacturer (GOODYEAR RUBBER CO) - which can have access to this information if it is your wish.

The enclosed numbered charts were taken from the DATABASE STATUS OVERVIEW report issued by BUDINI to CARSTENSEN on Aug/14/91 and the graphics ROAD CALLS and TIRE BUDGET are a special issue made for CARSTENSEN by BUDINI.

On behalf of James Carstensen this report was issued by Tony Nicolini on Sep/13/91 from the BUDINI KEY BISCAYNE location.

My best regards!

Tony Nicolini.

Appendix:
30 most important active "PRODUCTS". Source: The OVERVIEW report
WEAR# on ROUTES (12 most important). Source: The OVERVIEW report
ROAD CALLS ..... Source: Special issue.
TIRE BUDGET ..... Source: Special issue.
Dismounting reports by WEAR# ..... Source: The OVERVIEW report

CARSTENSEN FREIGHT LINES, INC.

USDWUS000101 [SA]

03/14/91

Issued by BUDINI SYSTEMS, INC from customer's data backup

30 most important active "PRODUCTS"

#	Product	Meaning	Qty	Act%
1	XX B GSHM 15C	RUNNING ; BIAS ; GSHM ; 11 X 22.5	357	22.64%
2	XX R G167 15R	RUNNING ; RADIAL ; G167 ; 11 R 22.5	238	15.09%
3	GO R G167A 15R	GOODYEAR ; RADIAL ; NEW G167 R ; 11 R 22.5	200	12.68%
4	GO R G114 15R	GOODYEAR ; RADIAL ; G114 ; 11 R 22.5	155	9.83%
5	XX R G159 15R	RUNNING ; RADIAL ; G159 ; 11 R 22.5	138	8.75%
6	GO R G159 15R	GOODYEAR ; RADIAL ; G159 ; 11 R 22.5	80	5.07%
7	GO R UNI-2 15R	GOODYEAR ; RADIAL ; UNI-STEEL 2 ; 11 R 22.5	68	4.31%
8	RR B RED-R 15C	RED RIM TIRE ; BIAS ; RED*RIM*TIRE ; 11 X 22.5	48	3.04%
9	GO B GSHM 15C	GOODYEAR ; BIAS ; GSHM ; 11 X 22.5	45	2.85%
10	GO R G259 15R	GOODYEAR ; RADIAL ; G259 ; 11 R 22.5	36	2.28%
11	GO R G167 15R	GOODYEAR ; RADIAL ; G167 ; 11 R 22.5	32	2.03%
12	MI R XZA-1 15R	MICHELIN ; RADIAL ; MICH-15R AP ; 11 R 22.5	28	1.78%
13	EI R CONT 15R	EASTERN IOWA ; RADIAL ; B6 CO V CSNG ; 11 R 2	16	1.01%
14	GO R G132 15R	GOODYEAR ; RADIAL ; G132 ; 11 R 22.5	15	0.95%
15	XX R G167 90R	RUNNING ; RADIAL ; G167 ; 9.00 R 20	13	0.82%
16	MI R XDHT 15R	MICHELIN ; RADIAL ; MI 11.225R D ; 11 R 22.5	13	0.82%
17	GO B GSHM 82C	GOODYEAR ; BIAS ; GSHM ; 8.25 x 20	11	0.70%
18	BG R G167 15R	BANDAG ; RADIAL ; G167 ; 11 R 22.5	10	0.63%
19	GE R AMST4 15R	GENERAL ; RADIAL ; AMERISTEELIV ; 11 R 22.5	9	0.57%
20	GO R 167AU 15R	GOODYEAR ; RADIAL ; G167A-ULTRA ; 11 R 22.5	8	0.51%
21	GE R AMLUG 15R	GENERAL ; RADIAL ; AMERILUG ; 11 R 22.5	8	0.51%
22	XX R G167 05R	RUNNING ; RADIAL ; G167 ; 10 R 22.5	4	0.25%
23	XX R EMDR 15R	RUNNING ; RADIAL ; EMDR DUMPSTR ; 11 R 22.5	4	0.25%
24	XX R K167 15R	RUNNING ; RADIAL ; KELLY-167 ; 11 R 22.5	4	0.25%
25	GO R G286 15R	GOODYEAR ; RADIAL ; G286-DUMPSTR ; 11 R 22.5	3	0.19%
26	XX B LSHM 15C	RUNNING ; BIAS ; LEE-SHM ; 11 X 22.5	3	0.19%
27	XX R G186 15R	RUNNING ; RADIAL ; G186-DUMPSTR ; 11 R 22.5	2	0.13%
28	BG R XZA-1 15R	BANDAG ; RADIAL ; MICH-15R AP ; 11 R 22.5	2	0.13%
29	MI R XZY 15R	MICHELIN ; RADIAL ; XZY MICH ; 11 R 22.5	2	0.13%
30	XX R G286 15R	RUNNING ; RADIAL ; G286-DUMPSTR ; 11 R 22.5	2	0.13%
		Total	1554	98.54%

Act% refers to the total of ACTIVE tires.

CARSTENSEN FREIGHT LINES, INC.

USDWUS000101 [11]

03/14/91

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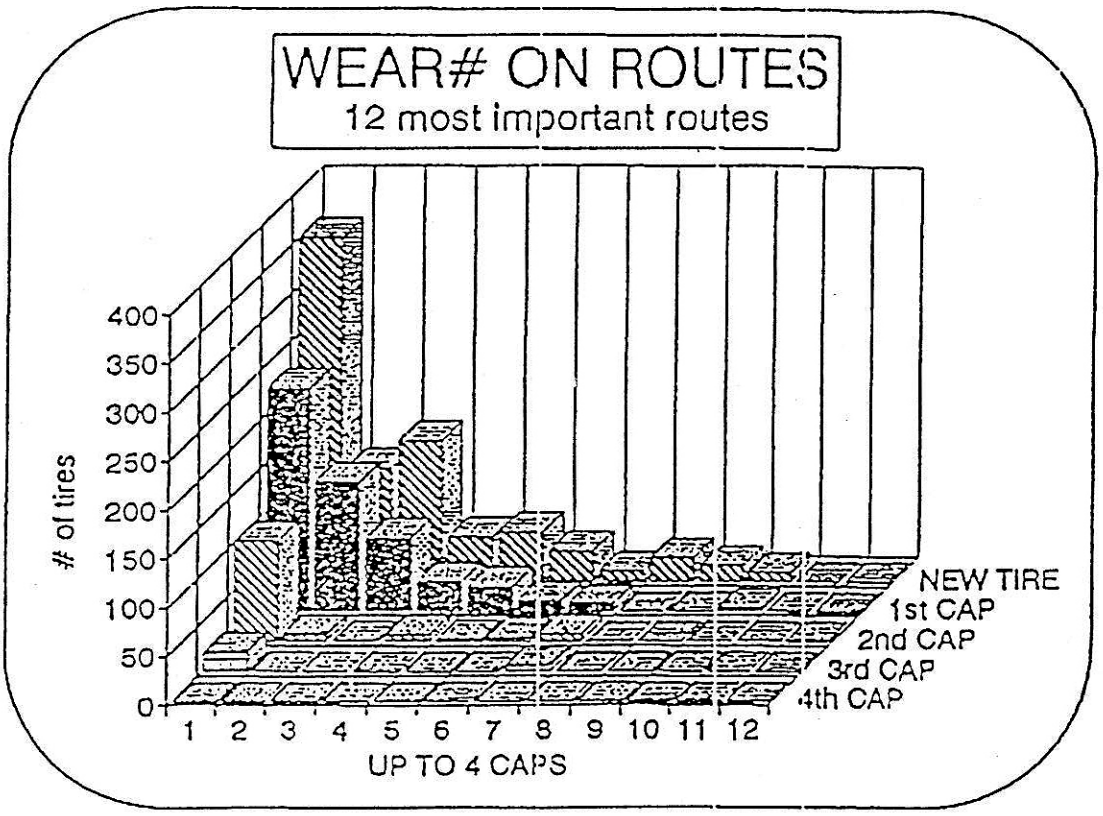


DETAILS

#	Route	Wear 0	Wear 1	Wear 2	Wear 3	Wear 4	Perct%
1	13TC	353	228	103	19	0	47.95%
2	222T	117	132	7	0	0	17.46%
3	122T	144	75	1	0	0	15.01%
4	23TC	46	30	7	0	0	5.66%
5	222C	51	25	2	0	0	5.32%
6	233S	31	10	3	0	0	3.00%
7	21TS	10	7	7	6	0	2.05%
8	21ST	24	0	0	0	0	1.64%
9	23TF	16	0	0	0	0	1.09%
10	HOUR	9	3	0	0	0	0.82%
11	NONE	0	0	0	0	0	0.00%
12	NONE	0	0	0	0	0	0.00%

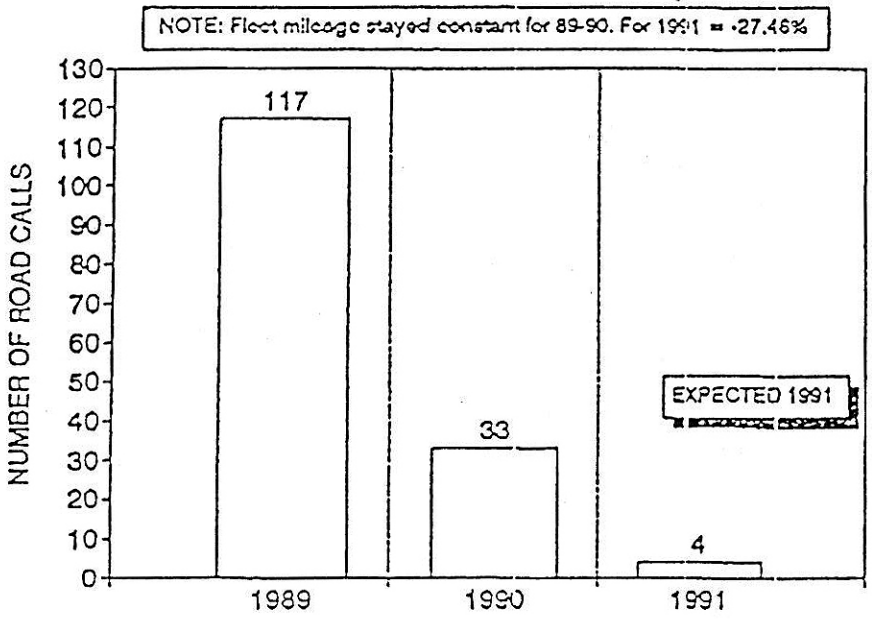
CARSTENSEN FREIGHT LINES, INC

James A. Carstensen - Controller
(319) 242-5110

Issued Aug/1991. Authorized by the Customer.

ROAD CALLS

BUDINI TIRE CONTROL SYSTEM



Notes

The ROAD CALLS shown here are due exclusively to tire related problems and involved vehicle down situations; the truck was stopped.

The reduction in ROAD CALLS was made possible with the "BTCS", which allowed the fleet to observe the "product" technical limitations for each of the fleet's applications for tires.

Another important factor in reducing ROAD CALLS was the ability of the BTCS to spot important mismatched pairs of tires such as: 1) Bias/Radial pair; 2) over 3/32 tread depth difference; 3) different casing sculptures; 4) important difference in casings mileage within the same dual, etc.

There are no cost savings estimated for ROAD CALLS, because the cost may vary from a simple charge of $ 100.00 to fees for delays in shipping, salaries or other damages costing several thousand of dollars for each occurrence.

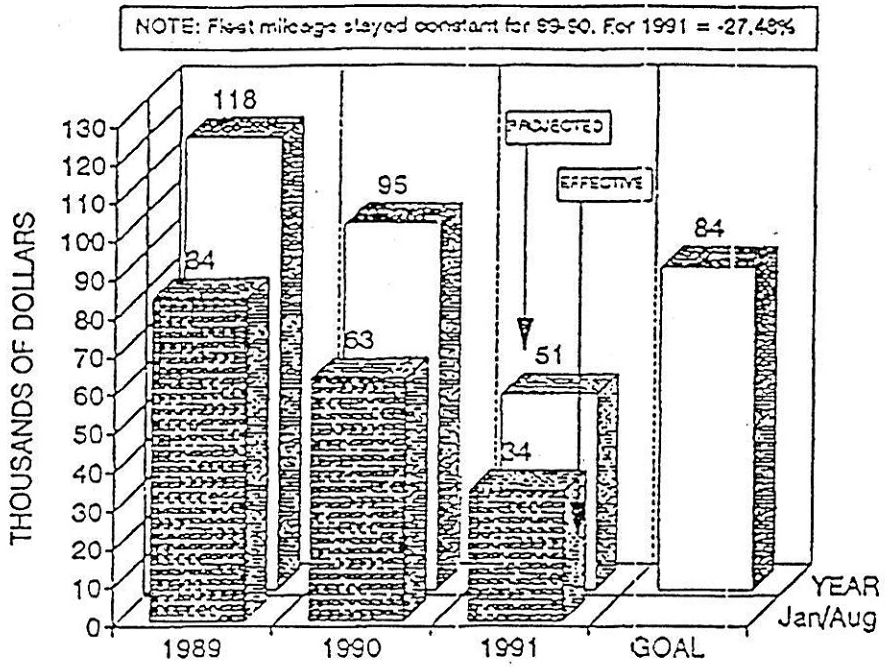
CARSTENSEN FREIGHT LINES, INC

James A. Carstensen - Controller
(319) 242-5110

Issued Aug/1991. Authorized by the Customer.

TIRE BUDGET

BUDINI TIRE CONTROL SYSTEM



Notes

The BUDGET includes all direct tire related expenses such as the price paid for a new tire, the price paid for each repair, and the price of each retread. Accounting rules for tire depreciation and labor costs are not taken into consideration for the above information.

The reduction in BUDGET reflects "real dollars" that were not spent during the year shown.

The dramatic reduction projected for the year 1991 reflects lower inventory levels at both the terminals and the service suppliers. The number of tires out for service was also reduced by 20%. As the end of the year approaches, the savings in inventory will not have such a dramatic impact as they have had in the first months.

The GOAL of $ 84,000.00 takes into consideration the current mileage performed by "products" and the mileage the fleet was experiencing in 89-90. This projection estimates the casing life to be eight years and the average caps per tire to be three.

CARSTENSEN FREIGHT LINES, INC.

USDWUS000101 [13A]

03/14/91

Issued by BUDINI SYSTEMS, INC from customer's data backup

DISMOUNTING REPORTS BY WEAR# (UP TO 4)

	DisRp	Wear 0	Wear 1	Wear 2	Wear 3	Wear 4	Perct%
	01	155	82	17	1	0	3.80%
	02	353	236	71	7	0	9.94%
	03	3	2	0	0	0	0.07%
	04	13	11	6	2	0	0.48%
	05	44	26	9	1	0	1.19%
	06	1	6	0	0	0	0.10%
	07	1	7	2	0	0	0.15%
	08	4	6	2	0	0	0.13%
	09	1	3	4	1	0	0.13%
	10	62	52	14	0	0	1.91%
	11	23	1	0	0	0	0.35%
	12	0	0	0	0	0	0.00%
	13	288	122	35	2	0	6.65%
	14	0	0	0	0	0	0.00%
	15	4	7	2	0	0	0.19%
	16	1337	637	147	11	0	31.78%
	17	9	12	9	1	0	0.45%
	18	1721	699	137	13	0	38.31%
	19	0	0	0	0	0	0.00%
	20	180	95	11	0	0	4.26%
		4199	2004	466	39	0	6708

WARNING: Perct% only refers to the quantity of tires showing here.

Legend for DISMOUNTING reports:

[01] Maintenance.....; [02] Puncture.....; [03] Bead failure...
[04] Sidewall damage.; [05] Tread damage...; [06] BLOWOUT (tread)
[07] BLOWOUT (side)..; [08] Ply sep (side).; [09] Ply sep (tread)
[10] Ran flat.....; [11] Irregular wear.; [12] Vehicle sale...
[13] RECAP (mixed)...; [14] [reserved].....; [15] Impact failure.
[16] Inspected tire..; [17] Warranty.....; [18] Rotate/Match...
[19] [Customer].....; [20] RECAP (same).