



NITRALIFE

SOUTHERN AFRICA (PTY) LTD.

P.O. BOX 781793, SANDTON, 2146, SOUTH AFRICA. TEL: +27-11-706-7884

FAX: +27-11-706-5713 : EMAIL: sowry@nitralife.co.za

TYRE VOLUMES

@ March 2005

		<u>LITRES</u>		
1.	900 R 20		103	
2.	1100 R 20, 12 R 22.5 , 315/80 R 22,5		130-140	
3.	15 R 22.5 385/65 R 22.5		165	
4.	445/65 R 22 18 R 22.5		250	
5.	1600 X 24		360	
6.	1800 R 25 <i>1800 R 33</i>	XHAD	550 <i>582</i>	
7.	20.5 R 25	XHA	430-500	
8.	23.5 R 25	XADN	660	
9.	26.5 R 25	XADN	910	
10.	27.00 R 49	XV	2060	
11.	29.5 X 25 , 29.5 x 29		1200	
12.	33.00 X 51	XPQ9	3000	
13.	33.25 X 35	XRD	1750	
14.	35/65 R 33		1550	
15.	36.00 R 51	XRБ	3940	
16.	37.00 R 57	XDR	4861	CAT 789 Trucks
17.	40.00 R 57	XKDI	5630	TITANS, HAULPACKS, EUCLIDS
18.	45/65 R 45		3005	KOMATSU WA800
19.	46/90 R 57	Bridgestone	5840	
20.	50/80 R 57	Michelin	6900	
21.	53/80 R 63		1800	LE TURNEUX
22.	55/80 R 57	XMINE.D2	7730	CAT 994
23.	55/80 R 63		8900	
24.	58/80 R 63		9444	CAT 797 (300 ton)

** Information supplied by MICHELIN TYRES and BRIDGESTONE SA.

Nitralife Pressure Technology (pty)ltd
P.O. Box 781793
Sandton, 2146
date :- 18 August 1999.

att :- Mr Rob Sowry.

ABERDARE
CABLES

Aberdare Cables S.A. (Pty) Limited
Registration No. 88/06535/07
A member of the Pirelli Group



RE - NITROGEN IN TYRES.

With regard to the progress made regarding Nitrogen in our truck tyres since inception in November 1997 the following has become evident.

(1) We have found on an application grossing 56 tons(Superlink operation) on 12R22.5 tubeless steelbelt recaps that no blowouts have been experienced since the change to Nitrogen. This operation runs 24 hours a day 5 days a week. Before Nitrogen was installed we were losing one tyre per 1030km trip.

(2) Towards the end of 1998 we experienced a very high rate of blown tyres. After conducting a full investigation including a tyre survey and blaming the tyre suppliers for bad quality we discovered the problem. On each and every incident of tyre failure the tyre casing had been recapped 5 to 6 times. We find this fact almost unbelievable as our very best before Nitrogen was 3 recaps per casing. We have subsequently backed off our recapping process to 4 recaps.

In the past 2 years of Nitrogen operation we have had excellent results. With proper tyre management in place to monitor all tyres in the fleet I would recommend all Transporters make use of Nitrogen to save cost. I believe without fact that our tyre cost has dropped by approx. 40%.

Thanking you for your continued support.

yours sincerely,

MARK WYBROW
Group Transport Manager
ABERDARE CABLES.

AMALGAMATED BULK (PTY) LTD

97/02993/07

P.O. BOX 25772
EAST RAND
1462

PLOT 80
DAHLIA ROAD
WELGEDACHT

TEL : 011 733-1850/1
733-2093

FAX : 011 733-3140

e mail : amabulk@pix.co.za

30 November 1998

Nitralife
P.O. Box 781793
Sandton
2146

ATT : MR ROB SOWRY

Dear Sir,

RE : NITROGEN PLANT

In November 1997, we had a Nitrogen Plant installed by Nitralife at our above premises. Within this period up to date, the results of this product have been a great success in our operation. We run a long distance bulk operation with approximately 940 running wheels, all 12R22.5 and 315/80/22.5 tubeless. On average these vehicles do approximately 1740 Km on a turn-around trip, and are 95% under load. This operation runs in hot conditions (25 to 40 degrees C).

CONCLUSION AS FOLLOWS :

1. Tyres run cooler
2. Pressures remain constant
3. Rims do not rust when tyre is removed
4. Our C.P.K. costs have improved by approximately 48%.
5. The brand of tyre we use is Bridgestone and the casing life has improved by approximately 45 %.
6. Our retreader tells us that our casings are like new tyres and should give us five recaps.
7. The only change that we have made is to inflate our tyres with NITROGEN.

In our opinion Nitrogen is the answer to tyre inflation.

Congratulations on your product.



F.F. LAVOS

TECHNICAL DIRECTOR

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F.F. LAVOS
TECHNICAL DIRECTOR

**UNTRANS REEF
TYRE TEMPERATURE TEST CHART**

FLEET NO. : 59477

TRACTOR # 59477

DRIVER : SAMSON

AVE. SPEED : 66.4

TRAILER : CT 517

DATE 15/4/96

CONTRACT SECUNDA

LOAD : LIQUID CARBONIZER

AMBIENT TEMP.	TYRE COLD	1st TEST	2nd TEST	3rd TEST	REMARKS						
20°C @ 10.30	88827	23°C	23°C	12.45 pm							
WHEEL POSITION	TYRE 315/80R22.5 (18 RY)	PRESSURE COLD	PRESSURE 1st	PRESSURE 2nd	PRESSURE 3rd	TEMP CALC (50 kms)	TEMP CALC (102 kms)	TEMP CALC	TEMP CALC		
AIR 1	FIRESTONE - HP3000	800	910	920	59.0°C	55.8°C	49.3°C	59.0°C	59.0°C	AIR + 19.6%	STEER AXLE - TRAC
NITROGEN 2	- 99	800	880	890	49.3°C	46.0°C				(N)	
AIR 6	FIRESTONE - PSD 3000	700	780	790	52.9°C	49.3°C	790	52.9°C	52.9°C	OUTER (N)	DRIVE AXLE - TRAC
NITRO 11	MICHELIN XZE - MAXI	700	780	790	52.9°C	52.9°C	820	63.9°C	63.9°C	OUTER AIR	+ 20.7%
NITRO 12	MICHELIN XZE - MAXI	700	790	800	56.6°C	52.9°C	800	56.6°C	56.6°C	(N) INNER	
AIR 15	PRESTONE - MAXI	700	810	820	63.9°C	60.2°C	830	63.9°C	63.9°C	OUTER - AIR	+ 20.7%
AIR 16	PRESTONE - MAXI	700	820	830	67.6°C	63.9°C	830	67.6°C	67.6°C	AIR - INNER	+ 19.4%
NITRO 19	MICHELIN - MAXI	700	790	795	54.7°C	52.9°C	800	54.7°C	54.7°C	OUTER (N)	
NITRO 20	MICHELIN - MAXI	700	790	800	56.6°C	52.9°C	800	56.6°C	56.6°C	(N) INNER	
AIR 23	MICHELIN - MAXI	700	810	820	63.9°C	60.2°C	830	63.9°C	63.9°C	OUTER - AIR	+ 16.8%
AIR 24	MICHELIN - MAXI	700	825	830	65.7°C	60.2°C	830	67.6°C	67.6°C	AIR - INNER	+ 19.4%

UNTRANS REEF (PTY) LTD
GOLDFELD DELBERG 6 SOUTH RANDOLPH DRIVE
TULIST PARK

PERMEATION

PRINCIPLE: SEPARATION BY MEMBRANE

- Gas permeation is the passing of a permeable barrier by a gas.
- Different constituents of a gas mixture have different partial pressures. Different constituents of a gas also have different permeation speeds from each other.
- We can separate the "**fast gases**" (in relation to permeation speed): *water vapour, hydrogen, carbon dioxide*, from the "**slower gases**": *oxygen, argon, carbon monoxide, methane and nitrogen*.

PERMEATION SPEED CLASSIFICATION

