



Tribology and
Petroleum Test
Equipment for
Over 80 Years

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Company: **AmberTech**
Date: February 22, 2013
Technician: M Rapp

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Project No. 13-26
Test No. 1908215-A
Test Date: February 21, 2013

Method: ASTM D2266, Wear Preventive Characteristics of Lubricating Grease

Machine: Falex Four-Ball Wear Test Machine
Serial No. 1100605

TEST PARAMETERS	
Speed (rpm):	1200 (±50)
Temperature (°C):	75 (±1.7)
Load (kgf):	40 (±0.2)
Duration (min):	60 (±1)
Lubricant ID:	AmberTech HP Grease
Falex TL No.	4811

TEST SPECIMENS	
Ball Material:	AISI-E52100
Hardness (Rc):	64-66
Grade:	25EP
Falex Lot No.	204
Falex TL No.	4584

TEST RESULTS						
WEAR DATA				FRICTION DATA		
Ball Scar Diameter (mm)				Time (min)	Friction (g)	CoF
Axis	Ball 1	Ball 2	Ball 3			
X	0.513	0.516	0.505	0	223.3	0.095
				15	234.5	0.100
				30	246.3	0.104
Y	0.513	0.524	0.515	45	233.2	0.099
				60	229.3	0.098
AVERAGE BALL SCAR DIAMETER:			0.514	AVERAGE CoF:		0.099

COMMENTS:

DEFINITIONS:

AVERAGE BALL SCAR DIAMETER, mm

The average size of the scar diameters worn on the three lower clamped balls, used for comparison of lubricants.

COEFFICIENT OF FRICTION, μ

The dimensionless ratio of the friction force between the rotating ball and the three stationary balls to the normal force pressing these bodies together.

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ASTM D2266

