

SPECTROMETER SERVICES PTY. LTD.

SPECTROGRAPHIC AND CHEMICAL ANALYSTS

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Report Number : 50932

Report Date : Tuesday, 16 July 2013

Job Number : C13/1954

Cont. Order No.:

ADR COMPLIANCE SERVICES PTY LTD
78 FRANCIS STREET
LEICHHARDT NSW 2040
ATTENTION : Peter Gillard

Certificate Of Analysis

Samples	Fe	C	Mn	Si	S	P	Ni	Cr	Mo	Cu	V	Nb	Ti	Al	B
Helix Steering Box Shafts - Input Shaft	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Helix Steering Box Shafts - Output Shaft	-Bal	.20	1.03	.24	.01	.02	.01	1.10	<.01	.03	.01	<.01	.07	.026	<.0005
GIM Original Vega Steering Box Shafts - Input Shaft	-Bal	.19	.98	.29	.02	.02	.01	1.23	<.01	.01	.01	<.01	.04	.011	<.0005
GIM Original Vega Steering Box Shafts - Output Shaft	-Bal	.18	.83	.24	.01	.01	<.01	1.09	<.01	<.01	.01	<.01	.05	.012	<.0005
	-Bal	.19	.98	.29	.02	.02	<.01	1.22	<.01	.01	.01	<.01	.04	.014	<.0005

Methods Used :
Optical Emission Spectroscopy (OES)

All 4 samples conform to Alloy Grade 18CrAlTi

Material data sheet		Date	22/07/2013
Material number			
Country	Russia (resp. C.I.S.)		
Designations	18ChGT		
Standards			
	GOST 4543 (1971)	Alloyed constructional steels	
Steelgroup			
	Structural and constructional steels		
Chemical composition			
Element	min/max	Others	Footnote
C	0.17 - 0.23		
Si	0.17 - 0.37		
Mn	0.80 - 1.10		
P	≤0.035		
S	≤0.035		
Cr	1.00 - 1.30		
Cu	≤0.30		
Mo	≤0.15		
Ni	≤0.30		
Ti	0.03 - 0.09		
V	≤0.05		
W	≤0.20		
Additional info			
Standards			
GOST 4543 (1971)			
Alloyed constructional steels			
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Page: 1 of 1			