




## Test Monitoring Center

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MEMORANDUM: 13-004  
DATE: January 28, 2013  
TO: L-37 Surveillance Panel  
FROM: Scott Parke   
SUBJECT: L-37 reference test targets for V1L528 hardware batch

During its December 18-19, 2012 meeting, the L-37 Surveillance Panel reviewed the matrix data produced on the V1L528 hardware batch. Reference test targets were derived from that data and approved during a teleconference held on January 16, 2013. These targets will be in effect immediately for all reference tests using V1L528 hardware.

The targets adopted are generally the mean and standard deviation of the matrix data. In the few instances where the same value was reported for all tests, a pooled standard deviation was used in place of the straight standard deviation.

Since test acceptance for L-37 is based on acceptance bands rather than Shewhart  $Y_i$  values, the minimum and/or maximum acceptance band number was adjusted in some instances. Where these adjustments were made, every effort was made to maintain the effective  $k$  value as close as possible to the 1.8 listed in the LTMS document table of L-37 control chart constants.

SDP/sdp/mem13-004.sdp.doc

cc: Frank Farber  
Jeff Clark

<ftp://ftp.astmtmc.cmu.edu/docs/gear/137/memos/mem13-004.pdf>

Distribution: email

<b>Lubrited V1L528 Reference Oil Targets</b>													
		Ridging			Rippling			Spitting			Wear		
Oil	n	x	s	Bands	x	s	Bands	x	s	Bands	x	s	Bands
134	4	7.00	1.155	4 - 10	7.00	1.414	4 - 10	8.83	0.974	7 - 10	6.00	0.242	5 - 7
152-1	6	8.00	0.632	7 - 10	8.83	0.753	7 - 10	9.88	0.041	9.3 - 10	7.00	0.242	6 - 8
152-2	6	8.00	0.632	7 - 10	8.83	0.753	7 - 10	9.88	0.041	9.3 - 10	7.00	0.242	6 - 8
155	8	8.29	0.488	7 - 10	8.86	0.690	7 - 10	9.90	0.436	9 - 10	6.86	0.378	6 - 8

<b>Nonlubrited V1L528 Reference Oil Targets</b>													
		Ridging			Rippling			Spitting			Wear		
Oil	n	x	s	Bands	x	s	Bands	x	s	Bands	x	s	Bands
134	5	6.40	1.673	3 - 9	8.40	0.894	6 - 10	3.80	1.483	1 - 7	5.60	0.894	4 - 8
152-1	8	8.75	0.707	7 - 10	8.63	0.916	7 - 10	9.45	1.003	7 - 10	7.00	0.500	6 - 8
152-2	8	8.75	0.707	7 - 10	8.63	0.916	7 - 10	9.45	1.003	7 - 10	7.00	0.500	6 - 8
155	9	8.56	0.882	7 - 10	8.44	1.014	6 - 10	8.70	1.578	5 - 10	6.78	0.441	6 - 8

## Reported Test Results

OIL	TESTHARD	LTMSLAB	TESTKEY	LTMSDATE	WEAR	RIDG	RIPP	SPIT
134	LUBRITED	A	83439	20120803	6	8	6	9.4
134	LUBRITED	B	83429	20120826	6	6	9	8.0
134	LUBRITED	D	82069	20120905	6	6	7	8.0
134	LUBRITED	G	71474	20121009	6	8	6	9.9
152-1	LUBRITED	D	73559	20110306	7	7	9	9.9
152-1	LUBRITED	D	88866	20120912	7	8	9	9.9
152-1	LUBRITED	G	89049	20120927	7	9	9	9.9
152-1	LUBRITED	A	89033	20121009	7	8	8	9.9
152-1	LUBRITED	B	89139	20121019	7	8	10	9.8
152-2	LUBRITED	A	90769	20121030	7	8	8	9.9
155	LUBRITED	A	82171	20120902	7	9	9	9.9
155	LUBRITED	B	89026	20120909	7	8	9	9.9
155	LUBRITED	G	89043	20121011	7	9	8	9.9
155	LUBRITED	G	89044	20121012	7	8	8	9.9
155	LUBRITED	B	89028	20121013	7	8	10	9.9
155	LUBRITED	A	89037	20121018	6	9	9	9.9
155	LUBRITED	D	83426	20121113	7	8	9	9.9
155	LUBRITED	D	83427	20121114	7	8	9	9.9
134	NONLUBRITED	G	89040	20120831	6	8	8	4.0
134	NONLUBRITED	B	83430	20120910	4	4	9	2.0
134	NONLUBRITED	D	83421	20121002	6	6	9	4.0
134	NONLUBRITED	A	89571	20121013	6	8	9	6.0
134	NONLUBRITED	A	89569	20121019	6	6	7	3.0
152-1	NONLUBRITED	B	89024	20120825	7	10	10	9.9
152-1	NONLUBRITED	D	88865	20120828	7	9	8	9.9
152-1	NONLUBRITED	G	73581	20120911	7	9	8	9.9
152-1	NONLUBRITED	A	89034	20121011	7	8	8	9.6
152-1	NONLUBRITED	A	90614	20121016	7	8	8	7.0
152-1	NONLUBRITED	D	88869	20121029	7	8	9	9.9
152-2	NONLUBRITED	D	90545	20121018	7	9	8	9.9
152-2	NONLUBRITED	B	90765	20121104	7	9	10	9.5
155	NONLUBRITED	G	89042	20120904	6	9	8	7.0
155	NONLUBRITED	A	89035	20120915	6	8	8	9.9
155	NONLUBRITED	D	73555	20120921	7	7	7	9.9
155	NONLUBRITED	B	89954	20121014	7	9	10	9.9

<b>OIL</b>	<b>TESTHARD</b>	<b>LTMSLAB</b>	<b>TESTKEY</b>	<b>LTMSDATE</b>	<b>WEAR</b>	<b>RIDG</b>	<b>RIPP</b>	<b>SPIT</b>
155	NONLUBRITED	G	89045	20121014	7	9	8	9.9
155	NONLUBRITED	A	89036	20121014	7	8	8	9.0
155	NONLUBRITED	G	89046	20121015	7	9	8	6.0
155	NONLUBRITED	B	89029	20121016	7	10	10	9.7
155	NONLUBRITED	D	89574	20121102	7	8	9	7.0