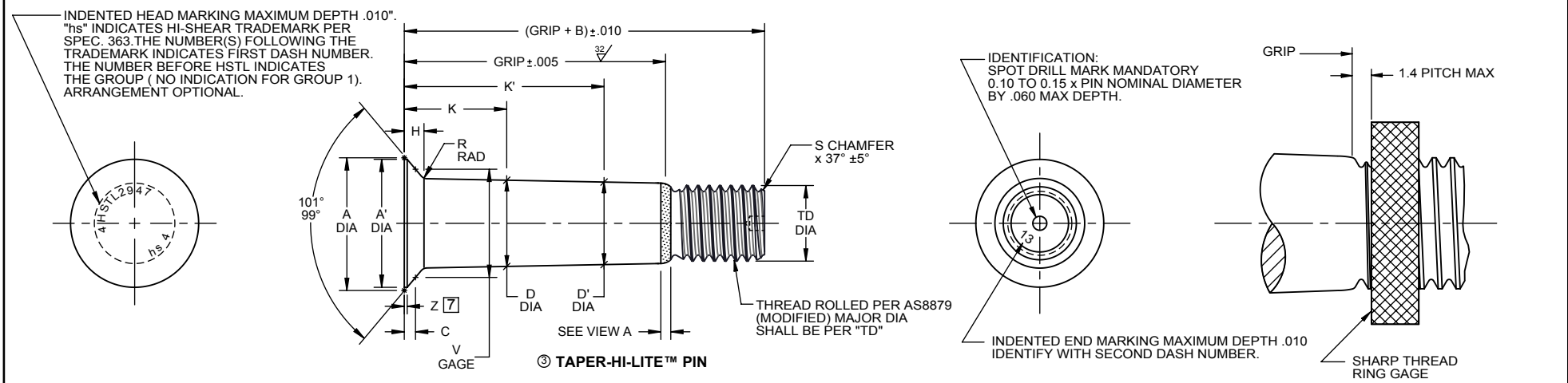
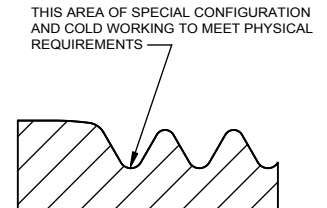




① ⑨ TABLE 1 ⑦

FIRST DASH NO.	PIN NOM DIA	GROUP NO.	A DIA MAX	A' DIA MIN	B (REF)	C		F	H MAX	K +.040 -.000	R RAD +.010 -.000	S MAX	V GAGE +.0002 -.0000	X	Y	Z MAX	THREAD	TD DIA	DOUBLE SHEAR POUNDS MINIMUM	TENSION POUNDS MINIMUM	TENSION-TENSION FATIGUE LBS. MAX.
						NOM	TOL.														
3	3/16	3	.366	.318	.290	.0330	±.0020	.007	.063	.0885	.020	.027	.2808	.002	.0045	.015	.1900-32 UNJF-3A	.1840 .1810	6125	3170	1100
		4	.377	.328		.0376															
		5	.388	.338		.0421															
		-	-	-		-															
4	1/4	3	.476	.426	.320	.0381	±.0023	.008	.079	.1075	.020	.031	.3776	.002	.0045	.015	.2500-28 UNJF-3A	.2440 .2410	10600	5800	2000
		4	.489	.439		.0435															
		5	.502	.452		.0489															
		-	-	-		-															
5	5/16	3	.578	.528	.380	.0384	±.0025	.009	.094	.1245	.030	.035	.4788	.002	.0045	.015	.3125-24 UNJF-3A	.3060 .3020	16600	8900	3100
		4	.592	.541		.0440															
		5	.606	.555		.0499															
		-	-	-		-															
6	3/8	3	.687	.635	.420	.0456	±.0028	.010	.112	.1415	.030	.035	.5696	.003	.0060	.015	.3750-24 UNJF-3A	.3680 .3640	23900	13300	4600
		4	.702	.649		.0517															
		5	.717	.664		.0580															
		6	.732	.679		.0643															
7	7/16	3	.808	.737	.485	.0587	±.0030	.011	.133	.1700	.040	.040	.6580	.004	.0060	.022	.4375-20 UNJF-3A	.4310 .4260	32500	17100	6000
		4	.826	.755		.0663															
		5	.844	.772		.0736															
		-	-	-		-															
8	1/2	3	.906	.833	.525	.0682	±.0033	.012	.144	.1790	.040	.040	.7324	.004	.0060	.022	.5000-20 UNJF-3A	.4930 .4880	42400	23000	8000
		4	.927	.853		.0768															
		5	.948	.874		.0856															
		6	.969	.894		.0942															
9	9/16	3	1.040	.962	.600	.0582	±.0035	.014	.162	.2175	.060	.045	.8900	.005	.0060	.024	.5625-18 UNJF-3A	.5550 .5500	53700	29000	10100
		4	1.071	.992		.0710															
		5	1.102	1.022		.0838															
		-	-	-		-															
10	5/8	3	1.158	1.073	.640	.0600	±.0038	.014	.181	.2175	.060	.045	1.0026	.005	.0060	.026	.6250-18 UNJF-3A	.6180 .6120	66300	36600	12800
		4	1.192	1.107		.0743															
		5	1.226	1.139		.0882															
		-	-	-		-															
12	3/4	3	1.436	1.336	.895	.1012	±.0040	.016	.239	.3050	.070	.045	1.1800	.005	.0060	.030	.7500-16 UNJF-3A	.7430 .7370	95400	63800	22300
		4	1.475	1.374		.1175															
		5	1.514	1.414		.1336															
		-	-	-		-															

THREAD FUNCTIONALITY



VIEW A
 HI-LITE™ THREAD TRANSITION AREA
 SEE SPECIFICATION FOR INSPECTION

③ "TAPER-HI-LITE", AND "HI-KOTE", ARE TRADEMARKS OF LISI AEROSPACE	
DRAWN BY J.F.OBISPO	DATE 2006-10-17
APPROVED E.E.BEELES	DATE 2006-12-05
REVISION ③	DATE F.CARINGELLA 2019-05-30
TITLE TAPER-HI-LITE™ PIN 100° FLUSH SHEAR HEAD TAPER SHANK, ALLOY STEEL 1/16 GRIP VARIATION, 2nd OVERSIZE DRAWING NUMBER HSTL2947	

③

- 1 Head edge out of roundness shall not exceed F.
- 2 Concentricity: Conical surface of head to and taper shank at K to be within X values FIM.
Taper shank at K' and thread pitch diameter to be within Y values FIM.
- 3 H is dimensioned from maximum D diameter.
- 4 Dimensions are in inches and to be met after finish and prior to application of lubricant.
- 5 Surface texture per ASME B46.1.
- 6 Top of head to be flat to .0025 max convex. Concave condition not allowed.
- 7 Curved or flat edge manufacturer's option.
- 8 Oversize replacement for HSTL2945 and HSTL2946.
- 9 For -.3 grip length the tolerance on "K" and "K'" is -.000/+.030, and for -.4 grip length the tolerance on "K" and "K'" is -.000/+.035.

HEAT TREAT: 108,000 psi shear minimum (180,000 - 200,000 psi tensile per AMS-H-6875).

SPECIFICATION: HI-LITE™ Product Specification 414.③

**HOW TO ORDER
EXAMPLE:**

Pin Part Number
HSTL2947BM4-13

13/16 Maximum Grip Length
1/4 Nominal Diameter Pin
Finish Code
Pin Basic Part Number

HSTL2947

DRAWING NUMBER
HSTL2947
 3 OF 6
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TABLE 2 (CONTINUED)

SECOND DASH NO.	1/2"				9/16"												
	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.				
5	.5609	.2550	.5593	3	.6542	-	-	3	-	.7167	-	-	5				
6		.3175	.5580			.3175	.6521		65		4.0050	.6378					
7		.3800	.5567			.3800	.6508		66		4.0675	.6365					
8		.4425	.5554			.4425	.6495		67		4.1300	.6352					
9		.5050	.5541			.5050	.6482		68		4.1925	.6339					
10		.5675	.5528			.5675	.6469		69		4.2550	.6326					
11		.6300	.5515			.6300	.6456		70		4.3175	.6313					
12		.6925	.5502			.6925	.6443		71		4.3800	.6300					
13		.7550	.5485			.7550	.6430		72	4.4425	.6287						
14		.8175	.5476			.8175	.6417										
15		.8800	.5463			.8800	.6404										
16		.9425	.5450			.9425	.6391										
17		1.0050	.5645			1.0050	.6378										
18		1.0675	.5632			1.0675	.6365										
19		1.1300	.5619			1.1300	.6352										
20		1.1925	.5606			1.1925	.6339										
21	1.2550	.5593	1.2550	.6326													
22	1.3175	.5580	1.3175	.6313													
23	1.3800	.5567	1.3800	.6300													
24	1.4425	.5554	1.4425	.6287													
25	.5817	1.5050	.5541	4	.6854	1.5050	.6586	4									
26		1.5675	.5528			1.5675	.6573										
27		1.6300	.5515			1.6300	.6560										
28		1.6925	.5502			1.6925	.6547										
29		1.7550	.5485			1.7550	.6534										
30		1.8175	.5476			1.8175	.6521										
31		1.8800	.5463			1.8800	.6508										
32		1.9425	.5450			1.9425	.6495										
33		2.0050	.5645			2.0050	.6482										
34		2.0675	.5632			2.0675	.6469										
35		2.1300	.5619			2.1300	.6456										
36		2.1925	.5606			2.1925	.6443										
37		2.2550	.5593			2.2550	.6430										
38		2.3175	.5580			2.3175	.6417										
39		2.3800	.5567			2.3800	.6404										
40		.6025	2.4425			.5554	5		.7167	2.4425	.6391	5					
41	2.5050		.5541	2.5050	.6378												
42	2.5675		.5528	2.5675	.6365												
43	2.6300		.5515	2.6300	.6352												
44	2.6925		.5502	2.6925	.6339												
45	2.7550		.5485	2.7550	.6326												
46	2.8175		.5476	2.8175	.6313												
47	2.8800		.5463	2.8800	.6300												
48	2.9425		.5450	2.9425	.6287												
49	3.0050		.5645	3.0050	.6586												
50	3.0675		.5632	3.0675	.6573												
51	3.1300		.5619	3.1300	.6560												
52	3.1925		.5606	3.1925	.6547												
53	3.2550		.5593	3.2550	.6534												
54	3.3175		.5580	3.3175	.6521												
55	3.3800		.5567	3.3800	.6508												
56	.6234	3.4425	.5554	6	.7167	3.4425	.6495	6									
57		3.5050	.5541			3.5050	.6482										
58		3.5675	.5528			3.5675	.6469										
59		3.6300	.5515			3.6300	.6456										
60		3.6925	.5502			3.6925	.6443										
61		3.7550	.5485			3.7550	.6430										
62		3.8175	.5476			3.8175	.6417										
63		3.8800	.5463			3.8800	.6404										
64		3.9425	.5450			3.9425	.6391										

		5/8"							
SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.
5		-	-		-		-	-	
6		-	-		-		-	-	
7		.3800	.7217		53		3.2550	.7295	
8		.4425	.7204		54		3.3175	.7282	
9		.5050	.7191		55		3.3800	.7269	
10		.5675	.7178		56		3.4425	.7256	
11		.6300	.7165		57		3.5050	.7243	
12		.6925	.7152		58		3.5675	.7230	
13		.7550	.7139		59		3.6300	.7207	
14		.8175	.7126		60		3.6925	.7204	
15		.8800	.7113		61		3.7550	.7191	
16		.9425	.7100		62		3.8175	.7178	
17	.7252	1.0050	.7087	3	63	.7929	3.8800	.7165	5
18		1.0675	.7074		64		3.9425	.7152	
19		1.1300	.7061		65		4.0050	.7139	
20		1.1925	.7048		66		4.0675	.7126	
21		1.2550	.7035		67		4.1300	.7113	
22		1.3175	.7022		68		4.1925	.7100	
23		1.3800	.7009		69		4.2550	.7087	
24		1.4425	.6996		70		4.3175	.7074	
25		1.5050	.6983		71		4.3800	.7061	
26		1.5675	.6970		72		4.4425	.7048	
27		1.6300	.7295		73		4.5050	.7035	
28		1.6925	.7282		74		4.5675	.7022	
29		1.7550	.7269		75		4.6300	.7009	
30		1.8175	.7256		76		4.6925	.6996	
31		1.8800	.7243		77		4.7550	.6983	
32		1.9425	.7230		78		4.8175	.6970	
33		2.0050	.7217						
34		2.0675	.7204						
35		2.1300	.7191						
36		2.1925	.7178						
37		2.2550	.7165						
38		2.3175	.7152						
39		2.3800	.7139						
40	.7591	2.4425	.7126	4					
41		2.5050	.7113						
42		2.5675	.7100						
43		2.6300	.7087						
44		2.6925	.7074						
45		2.7550	.7061						
46		2.8175	.7048						
47		2.8800	.7035						
48		2.9425	.7022						
49		3.0050	.7009						
50		3.0675	.6996						
51		3.1300	.6983						
52		3.1925	.6970						

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TABLE 2 (CONTINUED)

3/4"					3/4"				
SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.
5		-	-		-		-	-	
6		-	-		-		-	-	
7		-	-		-		-	-	
8		.4425	.8628		65		4.0050	.8667	
9		.5050	.8615		66		4.0675	.8654	
10		.5675	.8602		67		4.1300	.8641	
11		.6300	.8589		68		4.1925	.8628	
12		.6925	.8576		69		4.2550	.8615	
13		.7550	.8563		70		4.3175	.8602	
14		.8175	.8550		71		4.3800	.8589	
15		.8800	.8537		72		4.4425	.8576	
16		.9425	.8524		73		4.5050	.8563	
17		1.0050	.8511		74		4.5675	.8550	
18	.8657	1.0675	.8498	3	75	.9438	4.6300	.8537	5
19		1.1300	.8485		76		4.6925	.8524	
20		1.1925	.8472		77		4.7550	.8511	
21		1.2550	.8459		78		4.8175	.8498	
22		1.3175	.8446		79		4.8800	.8485	
23		1.3800	.8433		80		4.9425	.8472	
24		1.4425	.8420		81		5.0050	.8459	
25		1.5050	.8407		82		5.0675	.8446	
26		1.5675	.8394		83		5.1300	.8433	
27		1.6300	.8381		84		5.1925	.8420	
28		1.6925	.8368		85		5.2550	.8407	
29		1.7550	.8355		86		5.3175	.8394	
30		1.8175	.8342		87		5.3800	.8381	
31		1.8800	.8719		88		5.4425	.8368	
32		1.9425	.8706		89		5.5050	.8355	
33		2.0050	.8693		90		5.5675	.8342	
34		2.0675	.8680						
35		2.1300	.8667						
36		2.1925	.8654						
37		2.2550	.8641						
38		2.3175	.8628	4					
39		2.3800	.8615						
40		2.4425	.8602						
41		2.5050	.8589						
42		2.5675	.8576						
43		2.6300	.8563						
44		2.6925	.8550						
45		2.7550	.8537						
46		2.8175	.8524						
47		2.8800	.8511						
48	.9048	2.9425	.8498						
49		3.0050	.8485						
50		3.0675	.8472						
51		3.1300	.8459						
52		3.1925	.8446						
53		3.2550	.8433						
54		3.3175	.8420						
55		3.3800	.8407						
56		3.4425	.8394						
57		3.5050	.8381						
58		3.5675	.8368						
59		3.6300	.8355						
60		3.6925	.8342						
61		3.7550	.8719						
62		3.8175	.8706						
63		3.8800	.8693						
64		3.9425	.8680						

7/8"					7/8"				
SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.
5		-	-		-		-	-	
6		-	-		65		4.0050	.9385	
7		-	-		66		4.0675	.9372	
8		-	-		67		4.1300	.9359	
9		.5050	.9646		68	1.0153	4.1925	.9346	3
10		.5675	.9633		69		4.2550	.9333	
11		.6300	.9620		70		4.3175	.9320	
12		.6925	.9606		71		4.3800	.9307	
13		.7550	.9593		72		4.4425	.9294	
14		.8175	.9580		73		4.5050	.9750	
15		.8800	.9567		74		4.5675	.9737	
16		.9425	.9554		75		4.6300	.9724	
17		1.0050	.9541		76		4.6925	.9711	
18	.9684	1.0675	.9528	2	77		4.7550	.9698	
19		1.1300	.9515		78		4.8175	.9685	
20		1.1925	.9502		79		4.8800	.9672	
21		1.2550	.9489		80		4.9425	.9659	
22		1.3175	.9476		81		5.0050	.9646	
23		1.3800	.9463		82		5.0675	.9633	
24		1.4425	.9450		83		5.1300	.9620	
25		1.5050	.9437		84		5.1925	.9606	
26		1.5675	.9424		85		5.2550	.9593	
27		1.6300	.9411		86		5.3175	.9580	
28		1.6925	.9398		87	1.0621	5.3800	.9567	4
29		1.7550	.9385		88		5.4425	.9554	
30		1.8175	.9372		89		5.5050	.9541	
31		1.8800	.9359		90		5.5675	.9528	
32		1.9425	.9346		91		5.6300	.9515	
33		2.0050	.9333		92		5.6925	.9502	
34		2.0675	.9320		93		5.7550	.9489	
35		2.1300	.9307		94		5.8175	.9476	
36		2.1925	.9294		95		5.8800	.9463	
37		2.2550	.9750		96		5.9425	.9450	
38		2.3175	.9737		97		6.0050	.9437	
39		2.3800	.9724		98		6.0675	.9424	
40		2.4425	.9711		99		6.1300	.9411	
41		2.5050	.9698		100		6.1925	.9398	
42		2.5675	.9685		101		6.2550	.9385	
43		2.6300	.9672		102		6.3175	.9372	
44		2.6925	.9659		103		6.3800	.9359	
45		2.7550	.9646		104		6.4425	.9346	
46		2.8175	.9633		105		6.5050	.9333	
47		2.8800	.9620		106		6.5675	.9320	
48	1.0153	2.9425	.9606	3	107		6.6300	.9307	
49		3.0050	.9593		108		6.6925	.9294	
50		3.0675	.9580						
51		3.1300	.9567						
52		3.1925	.9554						
53		3.2550	.9541						
54		3.3175	.9528						
55		3.3800	.9515						
56		3.4425	.9502						
57		3.5050	.9489						
58		3.5675	.9476						
59		3.6300	.9463						
60		3.6925	.9450						
61		3.7550	.9437						
62		3.8175	.9424						
63		3.8800	.9411						
64		3.9425	.9398						

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TABLE 2 (CONTINUED)

1"									
SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.	SECOND DASH NO.	D DIA	K' +.040 -.000	D' DIA	GROUP NO.
5	-	-	-	3	-	-	-	-	4
6	-	-	-		65	4.0050	1.1322	-	
7	-	-	-		66	4.0675	1.1309	-	
8	-	-	-		67	4.1300	1.1296	-	
9	-	-	-		68	4.1925	1.1283	-	
10	.5675	1.1518	-		69	4.2550	1.1270	-	
11	.6300	1.1505	-		70	4.3175	1.1257	-	
12	.6925	1.1492	-		71	4.3800	1.1244	-	
13	.7550	1.1479	-		72	4.4425	1.1231	-	
14	.8175	1.1466	-		73	4.5050	1.1218	-	
15	.8800	1.1453	-		74	4.5675	1.1205	-	
16	.9425	1.1439	-		75	4.6300	1.1192	-	
17	1.0050	1.1426	-		76	4.6925	1.1179	-	
18	1.0675	1.1413	-		77	4.7550	1.1166	-	
19	1.1300	1.1400	-		78	4.8175	1.1153	-	
20	1.1925	1.1387	-		79	4.8800	1.1140	-	
21	1.2550	1.1374	-		80	4.9425	1.1127	-	
22	1.3175	1.1361	-		81	5.0050	1.1635	-	5
23	1.3800	1.1348	-		82	5.0675	1.1622	-	
24	1.4425	1.1335	-		83	5.1300	1.1609	-	
25	1.5050	1.1322	-		84	5.1925	1.1596	-	
26	1.5675	1.1309	-		85	5.2550	1.1583	-	
27	1.6300	1.1296	-		86	5.3175	1.1570	-	
28	1.6925	1.1283	-		87	5.3800	1.1557	-	
29	1.7550	1.1270	-		88	5.4425	1.1544	-	
30	1.8175	1.1257	-		89	5.5050	1.1531	-	
31	1.8800	1.1244	-		90	5.5675	1.1518	-	
32	1.9425	1.1231	-		91	5.6300	1.1505	-	
33	2.0050	1.1218	-		92	5.6925	1.1492	-	
34	2.0675	1.1205	-		93	5.7550	1.1479	-	
35	2.1300	1.1192	-		94	5.8175	1.1466	-	
36	2.1925	1.1179	-		95	5.8800	1.1453	-	
37	2.2550	1.1166	-		96	5.9425	1.1439	-	
38	2.3175	1.1153	-		97	6.0050	1.1426	-	
39	2.3800	1.1140	-		98	6.0675	1.1413	-	
40	2.4425	1.1127	-		99	6.1300	1.1400	-	
41	2.5050	1.1635	-	4	100	6.1925	1.1387	-	
42	2.5675	1.1622	-		101	6.2550	1.1374	-	
43	2.6300	1.1609	-		102	6.3175	1.1361	-	
44	2.6925	1.1596	-		103	6.3800	1.1348	-	
45	2.7550	1.1583	-		104	6.4425	1.1335	-	
46	2.8175	1.1570	-		105	6.5050	1.1322	-	
47	2.8800	1.1557	-		106	6.5675	1.1309	-	
48	2.9425	1.1544	-		107	6.6300	1.1296	-	
49	3.0050	1.1531	-		108	6.6925	1.1283	-	
50	3.0675	1.1518	-		109	6.7550	1.1270	-	
51	3.1300	1.1505	-		110	6.8175	1.1257	-	
52	3.1925	1.1492	-		111	6.8800	1.1244	-	
53	3.2550	1.1479	-		112	6.9425	1.1231	-	
54	3.3175	1.1466	-		113	7.0050	1.1218	-	
55	3.3800	1.1453	-		114	7.0675	1.1205	-	
56	3.4425	1.1439	-		115	7.1300	1.1192	-	
57	3.5050	1.1426	-		116	7.1925	1.1179	-	
58	3.5675	1.1413	-		117	7.2550	1.1166	-	
59	3.6300	1.1400	-		118	7.3175	1.1153	-	
60	3.6925	1.1387	-		119	7.3800	1.1140	-	
61	3.7550	1.1374	-		120	7.4425	1.1127	-	
62	3.8175	1.1361	-		-	-	-	-	
63	3.8800	1.1348	-		-	-	-	-	
64	3.9425	1.1335	-		-	-	-	-	

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