LICK OBSERVATORY BULLETIN

NUMBER 77

OBSERVATIONS OF ONE HUNDRED NEW DOUBLE STARS

TENTH CATALOGUE

All the double stars of this catalogue were discovered at the Lick Observatory, somewhat more than half of them with the twelve-inch telescope and the rest with the thirty-six-inch refractor. Nearly all the measures have been made with the latter instrument. The results are arranged as in the preceding lists.

April 14, 1905.

WILLIAM J. HUSSEY.

Hu. 1001. DM. +33° 4835.

R.A. 00^h 01^m 15^s ; Decl. +34° 03'1.

(8.2 and 11.2.)

1904.494	177°1	2'02	20.8	36:1000
.595	179.7	1.85	21.2	12: 625
1904.54	178.4	1.98		

1002. DM. +62° 3.

R.A. 00^h 02^m 33^s ; Decl. +62° 48'1.

(9.2 and 10.5.)

1904.822	299.6	0.62	5.1	36:1000
.968	306.4	0.63	5.8	36:1000
1905.187	302.2	0.69	6.9	36:1000
1904.99	302.7	0.65		

1003. DM. +66° 6.

R.A. 00^h 04^m 53^s ; Decl. +66° 44'1.

(8.5 and 11.2.)

1904.631	30.8	2.53	22.7	36:1000
.822	32.3	2.31	4.6	36:1000
1904.73	31.6	2.42		

1004. DM. +66° 12.

R.A. 00^h 10^m 43^s ; Decl. +66° 16'0.

(9.0 and 9.5.)

1904.631	189.9	0.42	22.9	36:1000
.822	186.9	0.54	4.7	36:1000
1904.73	188.4	0.49		

Hu. 1005. DM. +49° 46.

R.A. 00^h 14^m 10^s ; Decl. +49° 57'0.

(9.2 and 11.5.)

1902.714	178°5	0'64	22.0	36:1000
1904.570	182.1	0.64	21.5	36:1000
.631	179.4	0.53	19.8	36:1000
1903.97	180.0	0.60		

1006. DM. +65° 37.

R.A. 00^h 16^m 10^s ; Decl. +65° 15'2.

(9.0 and 9.4.)

1904.631	198.1	3.21	23.1	36:1000
.822	198.7	3.05	4.8	36:1000
1904.73	198.4	3.13		

1007. DM. +62° 84.

R.A. 00^h 22^m 39^s ; Decl. +63° 10'9.

(9.5 and 9.5.)

1904.822	157.1	0.40	5.2	36:1000
1905.187	156.3	0.38	7.1	36:1000
1905.00	156.7	0.39		

1008. DM. +49° 97.

R.A. 00^h 22^m 46^s ; Decl. +49° 54'9.

(9.2 and 10.0.)

1904.631	234.6	0.38	19.9	36:1000
.968	236.6	0.30	5.4	36:1000
1904.80	235.6	0.34		

1009. DM. +32° 78.

R.A. 00^h 25^m 55^s ; Decl. +32° 52'0.

(9.0 and 9.6.)

1904.634	239.9	1.75	19.9	36:1000
.688	243.1	1.58	20.2	36:1000
1904.66	241.5	1.67		

Hu. 1010. DM. +33° 74.R.A. 00^h 29^m 55^s ; Decl. +33° 18'.4.
(9.2 and 9.2.)

1904.481	85.4	1.32	21.4	36:1000
.494	84.6	1.23	21.8	36:1000
1904.49	85.0	1.28		

1011. DM. +33° 75.R.A. 00^h 30^m 19^s ; Decl. +33° 55'.7.
(7.5 and 9.0.)

1904.481	131.8	0.36	21.7	36:1500
.494	132.7	0.43	21.7	36:1500
1904.49	132.3	0.40		

1012. DM. +76° 20.R.A. 00^h 36^m 19^s ; Decl. +76° 26'.5.
(9.0 and 10.5.)

1904.584	210.2	0.54	20.8	12: 625
.812	210.4	0.55	1.7	36:1000
1904.70	210.3	0.55		

1013. DM. +80° 17.R.A. 00^h 37^m 26^s ; Decl. +80° 18'.9.
(8.8 and 12.0.)

1904.483	160.5	1.10	19.0	12: 625
.719	161.6	1.07	21.3	12: 625
1904.60	161.0	1.08		

1014. DM. +76° 23.R.A. 00^h 37^m 59^s ; Decl. +76° 26'.8.
(9.3 and 9.8.)

1904.584	350.1	0.72	20.6	12: 625
.812	350.5	0.95	1.5	36:1000
.877	351.5	0.96	24.8	36:1000
1904.76	350.7	0.88		

1015. DM. +64° 74.R.A. 00^h 38^m 13^s ; Decl. +64° 28'.1.
(9.0 and 10.3.)

1904.631	306.7	0.68	23.2	36:1000
1905.184	305.2	0.69	7.2	36:1000
.187	304.2	0.67	7.3	36:1000
1905.00	305.4	0.68		

1016. DM. +63° 105.R.A. 00^h 46^m 53^s ; Decl. +63° 22'.9.
(8.3 and 13.0.)

1904.822	186.4	3.38	5.5	36:1000
.968	187.3	3.39	6.0	36: 520
1904.89	186.9	3.39		

Hu. 1017. DM. +51° 177.R.A. 00^h 47^m 41^s ; Decl. +51° 47'.0.
(8.8 and 10.8.)

1904.497	332.8	2.01	21.1	36:1000
.570	332.8	1.91	22.4	36:1000
1904.53	332.8	1.96		

1018. DM. +50° 175.R.A. 00^h 48^m 31^s ; Decl. +50° 35'.2.
(9.3 and 10.0.)

1902.772	356.2	0.78	22.7	36:1000
1904.497	358.4	0.82	21.2	36:1000
1903.63	357.3	0.80		

1019. DM. +66° 79.R.A. 00^h 52^m 17^s ; Decl. +66° 54'.0.
(8.3 and 11.0.)

1904.631	219.4	1.08	24.0	36:1000
.803	222.4	1.27	22.5	36:1000
1905.184	224.6	1.16	7.4	36:1000
1904.87	222.1	1.17		

1020. DM. +60° 143.R.A. 00^h 55^m 16^s ; Decl. +60° 30'.3.
(8.8 and 12.0.)

1904.822	110.1	0.86	5.7	36:1000
.968	108.4	0.82	6.4	36:1000
1904.89	109.2	0.84		

1021. DM. +66° 94.R.A. 1^h 01^m 40^s ; Decl. +66° 56'.9.
(8.2 and 12.0.)

1904.631	298.6	2.86	23.8	36:1000
.803	298.9	2.81	22.6	36:1000
1904.72	298.8	2.84		

1022. DM. +48° 347.R.A. 1^h 03^m 55^s ; Decl. +48° 51'.8.
(8.4 and 13.3.)

1902.788	321.4	2.82	23.2	36: 520
1904.497	323.2	2.86	21.4	36: 520
.570	324.4	2.96	22.6	36: 520
1903.95	323.0	2.88		

1023. DM. +64° 130.R.A. 1^h 07^m 06^s ; Decl. +65° 05'.2.
(8.7 and 10.2.)

1904.631	2.3	3.87	23.4	36:1000
.803	1.8	3.76	22.8	36:1000
1904.72	2.1	3.82		

Hu. 1024. DM. +50° 240.R.A. 1^h 07^m 17^s ; Decl. +50° 33'9.
(8.8 and 9.6.)

1904.497	203.4	0.77	21.8	36:1000
.570	199.8	0.68	22.7	36:1000
.631	199.3	0.66	20.1	36:1000
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1904.57	200.8	0.70		

1025. DM. +67° 104.R.A. 1^h 09^m 48^s ; Decl. +68° 08'9.
(9.0 and 9.8.)

1904.631	199.1	2.99	23.6	36:1000
.803	198.6	2.95	22.7	36:1000
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1904.72	198.8	2.97		

1026. DM. +49° 336.R.A. 1^h 10^m 10^s ; Decl. +49° 32'2.
(8.3 and 9.5.)

1904.497	223.5	4.20	21.9	36: 520
.570	224.5	4.15	22.8	36: 520
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1904.53	224.0	4.18		

1027. DM. +64° 148.R.A. 1^h 13^m 29^s ; Decl. +65° 03'6.
(9.0 and 9.2.)

1904.631	282.1	0.90	23.5	36:1000
.803	281.1	1.03	22.9	36:1005
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1904.72	281.6	0.96		

1028. DM. +66° 117.R.A. 1^h 20^m 59^s ; Decl. +67° 03'4.
(9.1 and 11.2.)

1904.631	274.0	0.68	24.2	36:1000
.803	272.1	0.61	23.0	36:1000
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1904.72	273.1	0.65		

1029. DM. +62° 258.R.A. 1^h 23^m 21^s ; Decl. +63° 03'9.
(9.3 and 9.8.)

1904.803	222.1	1.84	23.2	36:1000
.822	221.0	1.69	5.8	36:1000
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1904.81	221.6	1.77		

1030. DM. +75° 69.R.A. 1^h 30^m 05^s ; Decl. +76° 12'8.
(8.5 and 8.7.)

1904.584	322.4	0.58	21.2	12: 625
.812	327.4	0.55	2.1	36:1000
.877	327.7	0.48	1.1	36:1000
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1904.76	325.8	0.54		

Hu. 1031. DM. 34° 305.R.A. 1^h 39^m 41^s ; Decl. +34° 21'7.
(8.7 and 11.7.)

1904.593	334.8	1.32	22.8	36:1000
.658	336.4	1.21	22.7	36:1000
.960	332.9	1.17	5.4	36:1000
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1904.74	334.7	1.23		

1032. DM. +64° 236.R.A. 1^h 41^m 29^s ; Decl. +64° 52'8.
(8.8 and 12.2.)

1904.631	200.7	1.08	24.4	36:1000
.803	203.9	1.15	22.3	36:1000
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1904.72	202.3	1.11		

1033. DM. +35° 374.R.A. 1^h 49^m 49^s ; Decl. +35° 50'8.
(8.5 and 8.8.)

1904.593	238.9	0.93	22.5	36:1000
.658	240.5	0.98	22.9	36:1000
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1904.63	239.7	0.96		

1034. DM. +34° 382.R.A. 2^h 04^m 00^s ; Decl. +34° 20'5
(8.8 and 11.2.)

1904.658	280.9	0.42	23.3	36:1500
.960	280.9	0.52	5.6	36:1000
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1904.81	280.9	0.47		

1035. DM. +62° 371.R.A. 2^h 09^m 18^s ; Decl. +62° 29'1
(8.5 and 13.0.)

1904.803	90.4	2.21	23.5	36:1000
.822	91.1	2.06	6.0	36:1000
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1904.81	90.7	2.14		

1036. DM. +34° 403.R.A. 2^h 10^m 08^s ; Decl. +34° 33'5.
(9.5 and 9.5.)

1904.590	352.2	0.30	23.3	36:1000
.593	353.4	0.32	23.4	36:1000
.658	354.2	0.29	23.1	36:1000
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1904.61	353.3	0.30		

1037. DM. +62° 379.R.A. 2^h 12^m 59^s ; Decl. +62° 53'5.
(9.0 and 10.0.)

1904.803	322.3	0.58	23.6	36:1000
.822	325.1	0.57	6.1	36:1000
1905.184	325.7	0.50	7.6	36:1000
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1904.93	324.4	0.55		

Hu. 1038. DM. +63° 323.R.A. 2^h 13^m 58^s ; Decl. +63° 26'8.
(9.0 and 13.2.)

1904.803	49 ^o 7	3 ^o 49	23 ^h 7	36:1000
.822	51.7	3.37	6.2	36:1000
1904.81	50.7	3.43		

1039. DM. +61° 406.R.A. 2^h 16^m 11^s ; Decl. +61° 57'7.
(8.5 and 12.8.)

1904.803	107.4	1.19	23.7	36:1000
.822	109.7	1.47	6.4	36:1000
1905.184	105.9	1.22	7.7	36:1000
1904.94	107.7	1.29		

1040. DM. +60° 484.R.A. 2^h 21^m 40^s ; Decl. +60° 29'3.
(9.2 and 9.7.)

1904.803	315.9	0.48	23.9	36:1000
.822	315.4	0.39	6.5	36:1000
1904.81	315.7	0.44		

1041. DM. +64° 337.R.A. 2^h 29^m 33^s ; Decl. +64° 54'3.
(8.2 and 8.8.)

1904.631	69.2	0.29	24.6	36:1500
1905.187	75.2	0.22	7.5	36:1500
1905.91	72.2	0.26		

1042. DM. +79° 78.R.A. 2^h 31^m 26^s ; Decl. +79° 42'7.
(9.0 and 12.2.)

1904.822	109.6	0.84	1.1	36:1000
.877	105.8	0.88	1.5	36:1000
1904.85	107.7	0.86		

1043. DM. +14° 438.R.A. 2^h 33^m 25^s ; Decl. +15° 00'4.
(9.0 and 9.5.)

1904.784	58.5	2.93	23.9	36: 520
.864	58.0	3.02	23.9	36:1000
.921	57.7	3.04	24.0	36: 520
1904.86	58.1	3.00		

1044. DM. +13° 422.R.A. 2^h 33^m 38^s ; Decl. +14° 04'4.
(8.1 and 9.7.)

1904.784	130.9	1.74	0.0	36:1000
.864	128.4	1.83	0.0	36:1000
.921	131.2	1.71	0.0	36: 520
1904.86	130.2	1.76		

Hu. 1045. DM. +14° 458.R.A. 2^h 39^m 10^s ; Decl. +15° 09'4.
(9.0 and 10.0.)

1904.784	186 ^o 7	0 ^o 28	24 ^h 3	36:1500
.864	191.8	0.32	23.8	36:1500
1904.82	189.3	0.30		

1046. DM. +13° 442.R.A. 2^h 39^m 34^s ; Decl. +13° 45'9.
(7.5 and 11.2.)

1904.784	94.3	1.06	24.1	36:1000
.864	90.8	1.09	24.2	36:1000
1904.82	92.6	1.08		

1047. DM. +12° 410.R.A. 2^h 50^m 09^s ; Decl. +12° 46'4.
(8.5 and 10.2.)

1904.697	37.5	0.34	0.2	36:1500
.784	33.8	0.34	0.3	36:1500
.864	38.0	0.36	0.5	36:1500
1904.78	36.4	0.35		

1048. DM. +14° 497.R.A. 2^h 51^m 50^s ; Decl. +14° 17'6.
(9.0 and 14.2.)

1904.697	313.3	3.16	0.4	36: 520
.784	311.7	3.24	0.5	36: 520
1904.74	312.5	3.20		

1049. DM. +79° 90.R.A. 2^h 53^m 02^s ; Decl. +80° 01'6.
(8.7 and 12.5.)

1904.822	42.5	1.05	1.0	36:1000
.877	41.2	1.11	1.6	36:1000
1904.85	41.8	1.08		

1050. DM. +64° 358.R.A. 2^h 53^m 11^s ; Decl. +64° 21'8.
(9.3 and 9.5.)

1904.631	136.6	0.40	24.9	36:1500
1905.184	134.7	0.37	8.0	36:1000
1904.91	135.7	0.38		

1051. DM. +48° 828.R.A. 2^h 54^m 21^s ; Decl. +48° 27'7.
(9.0 and 11.2.)

1902.714	112.5	0.40	24.7	36:1000
1904.670	111.9	0.42	24.2	36:1000
.694	112.3	0.43	23.3	36:1000
1904.02	112.2	0.42		

Hu. 1052. DM. +67° 239.R.A. 2^h 54^m 48^s ; Decl. +68° 07'1.
(9.0 and 11.5.)

1904.631	147.5	0.94	1.1	36:1000
1905.184	149.6	0.96	8.2	36:1000
1904.91	148.6	0.95		

1053. DM. +63° 393.R.A. 2^h 59^m 34^s ; Decl. +63° 26'3.
(9.0 and 11.5.)

1904.694	63.4	2.56	23.8	36:1000
.803	61.7	2.53	24.3	36:1000
1905.017	62.1	2.40	7.8	36:1000
1904.84	62.4	2.50		

1054. DM. +65° 330.R.A. 3^h 06^m 00^s ; Decl. +65° 51'1.
(8.8 and 9.2.)

1904.631	267.9	0.44	1.3	36:1500
1905.184	268.6	0.38	8.3	36:1000
1904.91	268.3	0.41		

1055. DM. +15° 452.R.A. 3^h 09^m 31^s ; Decl. +15° 56'1.
(8.5 and 9.0.)

1904.688	124.0	0.36	0.5	36:1000
.691	124.9	0.31	0.6	36:1500
.697	123.8	0.37	0.6	36:1500
1904.69	124.2	0.35		

1056. DM. +66° 253.R.A. 3^h 10^m 32^s ; Decl. +66° 52'3.
(8.1 and 8.1.)

1904.631	280.7	0.51	1.5	36:1500
1905.184	283.5	0.58	8.4	36:1000
1904.91	282.1	0.55		

1057. DM. +76° 123.R.A. 3^h 17^m 32^s ; Decl. +76° 56'6.
(8.8 and 11.2.)

1904.719	104.6	2.86	22.0	12: 625
.822	104.9	3.11	1.3	36:1000
.877	104.7	3.20	1.8	36:1000
1904.81	104.7	3.06		

1058. DM. +39° 778.R.A. 3^h 18^m 24^s ; Decl. +39° 52'1.
(7.8 and 8.5.)

1904.954	114.7	0.79	0.8	36:1000
1905.017	113.5	0.80	7.6	36:1000
1904.99	114.1	0.80		

Hu. 1059. DM. +37° 772.R.A. 3^h 22^m 03^s ; Decl. +37° 17'7.
(8.6 and 13.5.)

1904.861	17.03	0.98	23.4	36:1000
.954	169.0	1.00	1.0	36:1000
1904.91	169.7	0.99		

1060. DM. +61° 604.R.A. 3^h 25^m 08^s ; Decl. +61° 49'3.
(8.0 and 11.8.)

1905.017	354.0	1.44	8.0	36:1000
.184	354.0	1.48	8.6	36:1000
1905.10	354.0	1.46		

1061. DM. +15° 499.R.A. 3^h 27^m 17^s ; Decl. +15° 12'5.
(8.2 and 12.3.)

1904.688	50.4	2.93	0.9	36:1000
.691	49.4	2.83	0.8	36:1000
.697	50.5	2.85	0.7	36: 520
1904.69	50.1	2.87		

1062. DM. +63° 438.R.A. 3^h 31^m 17^s ; Decl. +63° 33'1.
(8.5 and 9.0.)

1904.803	233.1	0.19	0.4	36:1500
1905.187	235.2	0.18	8.1	36:1000
1905.00	234.2	0.19		

This pair is the companion of 02^z 36.**1063. DM. +62° 599.**R.A. 3^h 34^m 00^s ; Decl. +62° 36'6.
(9.0 and 9.5.)

1905.017	334.1	2.85	8.2	36:1000
.184	335.2	2.82	8.8	36:1000
1905.10	334.6	2.84		

1064. DM. +15° 515.R.A. 3^h 34^m 03^s ; Decl. +15° 51'3.
(9.5 and 9.5.)

1904.688	162.8	0.34	1.1	36:1000
.697	164.6	0.37	1.0	36:1500
1904.69	163.7	0.36		

1065. DM. +14° 591.R.A. 3^h 34^m 38^s ; Decl. +14° 44'2.
(9.2 and 12.0.)

1904.688	343.8	3.02	0.7	36: 520
.691	343.0	3.31	0.9	36: 520
.784	344.7	3.20	0.7	36: 520
1904.72	343.8	3.18		

Hu. 1066. DM. +20° 631.R.A. 3^h 41^m 11^s ; Decl. +20° 28'6.
(9.0 and 10.3.)

1904.653	268.4	1.33	1.2	36:1000
.711	269.7	1.06	0.9	36: 520
.880	268.3	1.21	0.0	36:1000
1904.75	268.8	1.20		

1067. DM. +38° 811.R.A. 3^h 42^m 59^s ; Decl. +38° 40'6.
(8.8 and 9.1.)

1904.861	75.3	1.40	0.0	36:1000
.954	74.2	1.39	1.2	36:1000
1904.91	74.8	1.40		

1068. DM. +76° 142.R.A. 3^h 44^m 01^s ; Decl. +77° 07'1.
(8.2 and 9.2.)

1904.822	142.5	0.43	1.4	36:1000
.877	146.5	0.43	2.0	36:1500
1905.187	142.5	0.44	6.3	36:1000
1904.96	143.8	0.43		

1069. DM. +63° 459.R.A. 3^h 44^m 48^s ; Decl. +63° 56'6.
(9.0 and 12.8.)

1904.653	28.3	2.17	0.0	36:1000
.803	27.6	2.14	0.5	36:1000
1904.73	28.0	2.16		

1070. DM. +78° 136.R.A. 3^h 47^m 45^s ; Decl. +78° 43'3.
(8.8 and 10.8.)

1904.822	137.7	3.85	1.5	36: 520
.877	138.1	3.94	2.2	36: 520
1904.85	137.9	3.90		

1071. DM. +62° 640.R.A. 3^h 53^m 12^s ; Decl. +62° 13'8.
(8.0 and 9.0.)

1904.803	226.0	2.09	0.7	36:1000
1905.184	227.7	1.97	8.9	36:1000
1904.99	226.9	2.03		

There is also a 10th magnitude companion in the direction 174° at a distance of 8''.8.

1072. DM. +63° 473.R.A. 3^h 53^m 44^s ; Decl. +63° 13'9.
(8.6 and 13.0.)

1904.653	128.4	0.98	24.2	36:1000
.803	126.2	1.08	24.7	36:1000
1904.73	127.3	1.03		

Hu. 1073. DM. +64° 424.R.A. 3^h 57^m 22^s ; Decl. +64° 44'1.
(8.4 and 11.5.)

1904.631	165.4	0.86	1.9	36:1000
1905.184	164.1	0.84	9.8	36:1000
1904.91	164.8	0.85		

1074. DM. +61° 677.R.A. 3^h 59^m 15^s ; Decl. +61° 24'4.
(9.0 and 10.2.)

1904.803	263.3	4.39	0.8	36:1000
1905.017	263.8	4.35	8.4	36: 520
1904.91	263.6	4.37		

1075. DM. +64° 426.R.A. 4^h 01^m 29^s ; Decl. +64° 13'7.
(8.6 and 12.8.)

1904.631	152.8	2.42	1.8	36:1000
1905.184	157.2	2.30	10.0	36:1000
.187	158.8	2.55	7.7	36:1000
1905.00	156.3	2.42		

1076. DM. +32° 727.R.A. 4^h 02^m 22^s ; Decl. +32° 11'3.
(9.2 and 10.7.)

1904.612	231.4	0.52	0.2	36:1000
.631	234.6	0.47	2.0	36:1000
.746	237.4	0.55	1.2	36:1000
1904.66	234.5	0.51		

1077. DM. +21° 606.R.A. 4^h 06^m 17^s ; Decl. +21° 16'6.
(8.2 and 13.0.)

1898.882	101.3	3.99	2.2	36:1000
1904.653	102.0	4.12	1.4	36: 520
1901.77	101.7	4.06		

1078. DM. +36° 873.R.A. 4^h 13^m 35^s ; Decl. +36° 13'6.
(9.1 and 11.0.)

1904.861	148.5	0.56	0.4	36:1000
.954	149.6	0.54	1.9	36:1000
1904.91	149.1	0.55		

1079. DM. +62° 684.R.A. 4^h 22^m 29^s ; Decl. +62° 18'9.
(8.5 and 9.1.)

1905.017	172.2	0.73	8.6	36:1000
.184	172.8	0.74	9.1	36:1000
1905.10	172.5	0.74		

Hu. 1080. DM. +15° 633.

R.A. 4^h 23^m 16^s ; Decl. +15° 56'3.
(6.5 and 7.5.)

1904.697	261.4	0.46	1.8	36:1000
.864	261.0	0.42	2.0	36:1500
.880	266.9	0.44	0.6	36:1000
1904.81	263.1	0.44		

Burnham appears to have measured this star earlier, without recognizing it as a new pair, mistaking it for the neighboring star, 80 Tauri.

1081. DM. +13° 692.

R.A. 4^h 25^m 55^s ; Decl. +13° 08'0.
(8.3 and 11.0.)

1904.697	293.5	0.80	1.5	36:1000
.940	296.5	0.71	1.8	36:1000
1904.82	295.0	0.75		

1082. DM. +38° 912.

R.A. 4^h 28^m 06^s ; Decl. +38° 56'1.
(8.7 and 9.2.)

1904.861	161.0	0.31	0.5	36:1500
.954	158.7	0.33	2.1	36:1500
1904.91	159.8	0.32		

1083. DM. +62° 692.

R.A. 4^h 28^m 27^s ; Decl. +62° 46'2
(8.5 and 10.5.)

1904.694	143.6	0.24	2.0	36:1500
1905.184	144.6	0.24	9.2	36:1000
1904.94	144.1	0.24		

This pair is the companion of Σ 557.

1084. DM. +39° 1030.

R.A. 4^h 28^m 51^s ; Decl. +39° 31'6.
(8.3 and 8.7.)

1904.861	43.0	0.72	0.7	36:1000
.954	44.4	0.68	2.0	36:1000
1904.91	43.7	0.70		

1085. DM. +62° 695.

R.A. 4^h 30^m 15^s ; Decl. +63° 01'1.
(8.0 and 12.5.)

1904.694	204.6	3.69	2.1	36:1000
1905.017	203.3	3.84	8.7	36:1000
1904.86	204.0	3.77		

1086. DM. +63° 526.

R.A. 4^h 32^m 51^s ; Decl. +63° 37'5.
(9.4 and 9.8.)

1904.694	358.9	0.46	1.8	36:1000
1905.017	354.1	0.38	8.9	36:1000
.184	359.8	0.40	9.3	36:1000
1904.97	357.6	0.41		

Hu. 1087. DM. +67° 354.

R.A. 4^h 43^m 40^s ; Decl. +67° 19'1.
(8.0 and 12.5.)

1905.184	111.3	1.35	10.2	36:1000
.187	109.8	1.31	7.8	36:1000
1905.19	110.6	1.33		

1088. DM. +60° 845.

R.A. 4^h 46^m 08^s ; Decl. +60° 53'7.
(8.5 and 11.8.)

1904.694	157.4	2.60	1.5	36:1000
1905.017	159.3	2.56	9.0	36:1000
1904.86	158.4	2.58		

1089. DM. +36° 962.

R.A. 4^h 48^m 16^s ; Decl. +36° 42'9.
(9.0 and 10.2.)

1904.861	14.7	0.84	1.0	36:1000
.954	13.5	0.75	2.4	36:1000
1904.91	14.1	0.80		

1090. DM. +63° 551.

R.A. 4^h 49^m 44^s ; Decl. +63° 12'7.
(8.5 and 8.9.)

1904.694	328.1	0.15	2.4	36:1500
1905.184	327.2	0.17	9.4	36:1500
1904.94	327.6	0.16		

1091. DM. +39° 1112.

R.A. 4^h 49^m 51^s ; Decl. +39° 07'8.
(8.8 and 9.2.)

1904.861	37.0	0.77	0.9	36:1000
.954	34.1	0.73	2.3	36:1000
.960	33.3	0.82	1.4	36:1000
1904.92	34.8	0.77		

1092. DM. +33° 929.

R.A. 4^h 50^m 34^s ; Decl. +34° 03'9.
(8.6 and 10.5.)

1904.670	19.7	0.57	2.5	36:1000
.746	19.6	0.72	1.8	36:1000
.801	18.1	0.59	2.6	36:1000
1904.74	19.1	0.63		

1093. DM. +60° 853.

R.A. 4^h 52^m 36^s ; Decl. +60° 56'0.
(7.0 and 12.5.)

1904.803	6.4	5.54	1.6	36: 520
1905.184	5.1	5.43	9.6	36: 520
1904.99	5.7	5.48		

Hu. 1094. DM. +62° 724.

R.A. 4^h 55^m 09^s ; Decl. +62° 28'7.
(9.2 and 9.4.)

1904.803	221.3	0.52	2.1	36:1000
1905.184	219.7	0.45	9.5	36:1000
1904.99	220.5	0.48		

1095. DM. +39° 1169.

R.A. 4^h 58^m 31^s ; Decl. +39° 54'1.
(7.8 and 9.0.)

1904.861	358.1	0.34	1.1	36:1500
.954	358.4	0.34	2.6	36:1500
1904.91	358.2	0.34		

1096. DM. +67° 364.

R.A. 4^h 58^m 32^s ; Decl. +67° 40'4.
(9.2 and 9.3.)

1905.184	264.0	1.16	10.3	37:1000
.187	266.7	1.18	8.3	36:1000
1905.19	265.4	1.17		

1097. DM. +76° 190.

R.A. 5^h 00^m 30^s ; Decl. +76° 20'8.
(6.5 and 11.0.)

1904.822	113.1	1.51	1.7	36:1000
.877	113.4	1.51	2.3	36:1000
1904.85	113.3	1.51		

Hu. 1098. DM. +61° 763.

R.A. 5^h 03^m 12^s ; Decl. +61° 20'0.
(8.9 and 9.1.)

1904.803	110.5	0.88	2.2	36:1000
1905.184	111.0	0.90	9.7	36:1000
1904.99	110.8	0.89		

1099. DM. +64° 504.

R.A. 5^h 03^m 15^s ; Decl. +64° 36'8.
(8.6 and 8.9.)

1905.184	45.1	0.53	10.4	36:1000
.187	42.6	0.50	8.4	36:1000
1905.19	43.8	0.52		

1100. DM. +39° 1215.

R.A. 5^h 06^m 59^s ; Decl. +39° 50'7.
(9.0 and 11.0.)

1904.861	305.8	3.61	1.3	36: 520
.954	306.8	3.54	2.7	36: 520
1904.91	306.3	3.57		