

- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.96$, $\theta = 176^{\circ}$, $\varrho = 0.69$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.28$, $\theta = 267^{\circ}$, $\varrho = 1.26$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.68$, $\theta = 169^{\circ}$, $\rho = 0.51$ arcsec.
- Ambiguous double-star solution of HIP 455 + 465. An alternative solution for HIP 455 gives: $\Delta Hp = 0.35$, $\theta = 227^{\circ}$, $\varrho = 0.30$ arcsec.
- 465 See HIP 455.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.24$, $\theta = 3^{\circ}$, $\varrho = 0.64$ arcsec.
- Ambiguous double-star solution of HIP 570 + 571. An alternative solution for HIP 570 relative to HIP 571 gives: $\Delta Hp = 1.43$, $\theta = 204^{\circ}$, $\varrho = 20.34$ arcsec.
- 571 See HIP 570.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.02$, $\theta = 323^{\circ}$, $\varrho = 0.64$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.20$, $\theta = 344^{\circ}$, $\varrho = 0.79$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.74$, $\theta = 269^{\circ}$, $\varrho = 1.53$ arcsec. An alternative VIM solution for this system gives $\theta = 200^{\circ}$ for the constant star relative to the variable.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.21$, $\theta = 250^{\circ}$, $\varrho = 21.19$ arcsec. An alternative VIM solution for this system gives $\theta = 54^{\circ}$ for the constant star relative to the variable.
- 965 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.50$, $\theta = 282^{\circ}$, $\varrho = 5.06$ arcsec.
- Ambiguous double-star solution. An alternative solution for AS gives: $\Delta Hp = 0.40$, $\theta = 172^{\circ}$, $\varrho = 0.38$ arcsec.
- Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = 0.22$, $\theta = 307^{\circ}$, $\varrho = 5.10$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.81$, $\theta = 194^{\circ}$, $\varrho = 0.83$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.18$, $\theta = 282^{\circ}$, $\varrho = 1.66$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.68$, $\theta = 140^{\circ}$, $\varrho = 0.18$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.77$, $\theta = 4^{\circ}$, $\varrho = 0.25$ arcsec.
- 1732 Component B is really the photocentre of BC.
- 2033 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.89$, $\theta = 325^{\circ}$, $\varrho = 7.13$ arcsec.
- 2271 P The double-star analysis indicates that it may be the fainter (B) component which is variable.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.58$, $\theta = 198^{\circ}$, $\varrho = 1.53$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.47$, $\theta = 1^{\circ}$, $\varrho = 11.90$ arcsec.
- Ambiguous double-star solution. An alternative solution gives: $\Delta Hp = 2.29$, $\theta = 332^{\circ}$, $\varrho = 0.22$ arcsec. Component A is really the photocentre of AB, so the alternative solution may refer to AB.
- 2548 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 3.55$, $\theta = 2^{\circ}$, $\varrho = 0.65$ arcsec.
- 2631 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.93$, $\theta = 88^{\circ}$, $\varrho = 0.35$ arcsec.
- 2646 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.22$, $\theta = 358^{\circ}$, $\varrho = 8.82$ arcsec.
- Ambiguous double-star solution of HIP 2656 + 2657. An alternative solution for HIP 2657 relative to HIP 2656 gives: $\Delta Hp = 2.73$, $\theta = 7^{\circ}$, $\varrho = 11.79$ arcsec.
- 2657 See HIP 2656.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.13$, $\theta = 141^{\circ}$, $\varrho = 1.94$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.50$, $\theta = 324^{\circ}$, $\varrho = 0.24$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.23$, $\theta = 161^{\circ}$, $\varrho = 0.42$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.95$, $\theta = 1^{\circ}$, $\varrho = 2.05$ arcsec.
- 3394 P Ambiguous double-star solution of HIP 3394 + 3397. An alternative solution for HIP 3394 relative to HIP 3397 gives: $\Delta Hp = 2.46$, $\theta = 311^{\circ}$, $\varrho = 14.36$ arcsec.
- 3397 See HIP 3394.
- Ambiguous double-star solution of HIP 3653 + 3656. An alternative solution for HIP 3656 relative to HIP 3653 gives: $\Delta Hp = 0.81$, $\theta = 146^{\circ}$, $\varrho = 32.58$ arcsec.
- 3656 See HIP 3653
- 3689 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.09$, $\theta = 275^{\circ}$, $\varrho = 0.24$ arcsec.
- 4044 Component A is really the photocentre of AB.
- 4082 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.16$, $\theta = 74^{\circ}$, $\varrho = 8.88$ arcsec.
- 4277 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.58$, $\theta = 111^{\circ}$, $\varrho = 6.39$ arcsec.
- 4768 Ambiguous double-star solution of HIP 4768 + 4773. An alternative solution for HIP 4773 relative to HIP 4768 gives: $\Delta Hp = 0.32$, $\theta = 45^{\circ}$, $\varrho = 17.53$ arcsec.
- 4773 See HIP 4768
- 4862 P Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.12$, $\theta = 261^{\circ}$, $\varrho = 2.07$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.84$, $\theta = 24^{\circ}$, $\varrho = 1.10$ arcsec.
- Ambiguous double-star solution of HIP 5131 + 5132. An alternative solution for HIP 5132 relative to HIP 5131 gives: $\Delta Hp = 1.24$, $\theta = 317^{\circ}$, $\varrho = 0.12$ arcsec.

5132 See HIP 5131. 5210 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.55$, $\theta = 188^{\circ}$, $\varrho = 2.17$ arcsec. 5244 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.38$, $\theta = 192^{\circ}$, $\varrho = 8.59$ arcsec. 5336 μ Cas. The long period of the astrometric orbit (21 years) prevented adjustment of the orbital parameters, which were thus all adopted from the literature (see Part O of the Double and Multiple Systems Annex). The given astrometric standard errors consequently do not include the uncertainties of the adopted orbit used to reduce the observations to the centre of mass of the system. 5443 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.95$, $\theta = 301^{\circ}$, $\varrho = 1.50$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.56$, $\theta = 240^{\circ}$, $\varrho = 4.18$ arcsec. 5450 5468 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.99$, $\theta = 31^{\circ}$, $\varrho = 1.29$ arcsec. Component A is really the photocentre of AP. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.20$, $\theta = 38^{\circ}$, $\varrho = 0.67$ arcsec. 5562 5616 Uncertain double-star solution. Tycho data suggest that component B is located at $\theta = 245^{\circ}$, $\varrho = 7.17$ arcsec relative to component A. 5737 Ambiguous double-star solution of HIP 5737 + 5743. An alternative solution for HIP 5743 relative to HIP 5737 gives: $\Delta Hp = 1.22$, $\theta = 62^{\circ}$, $\varrho = 22.44$ arcsec. 5743 See HIP 5737. 5759 Ambiguous double-star solution of HIP 5759 + 5760. An alternative solution for HIP 5759 relative to HIP 5760 gives: $\Delta Hp = 3.32$, $\theta = 341^{\circ}$, $\varrho = 20.70$ arcsec. 5760 5773 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.98$, $\theta = 221^{\circ}$, $\varrho = 16.39$ arcsec. 5779 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.52$, $\theta = 10^{\circ}$, $\varrho = 1.43$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.39$, $\theta = 251^{\circ}$, $\rho = 0.33$ arcsec. 5904 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.48$, $\theta = 235^{\circ}$, $\varrho = 6.60$ arcsec. 6140 6375 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.48$, $\theta = 258^{\circ}$, $\varrho = 0.58$ arcsec. 6684 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.89$, $\theta = 3^{\circ}$, $\varrho = 1.88$ arcsec. 6730 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.21$, $\theta = 354^{\circ}$, $\rho = 0.44$ arcsec. 6992 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.98$, $\theta = 273^{\circ}$, $\varrho = 0.30$ arcsec. 7019 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.66$, $\theta = 80^{\circ}$, $\varrho = 7.27$ arcsec. An alternative VIM solution for this system gives $\theta = 131^{\circ}$ for the constant star relative to the variable. 7260 7495 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.34$, $\theta = 309^{\circ}$, $\varrho = 1.86$ arcsec. Ambiguous double-star solution of HIP 7559 + 7566. An alternative solution for HIP 7566 relative to HIP 7559 7559 gives: $\Delta Hp = 1.31$, $\theta = 76^{\circ}$, $\varrho = 22.76$ arcsec. 7566 See HIP 7559. 7751 Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = -0.01$ (component reversal). Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.66$, $\theta = 24^{\circ}$, $\varrho = 1.56$ arcsec. 8036 8067 Ambiguous double-star solution of HIP 8067 + 8069. An alternative solution for HIP 8069 relative to HIP 8067 gives: $\Delta Hp = 4.34$, $\theta = 137^{\circ}$, $\varrho = 20.10$ arcsec. 8069 8270 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.17$, $\theta = 153^{\circ}$, $\varrho = 0.25$ arcsec. 8495 Ambiguous double-star solution of HIP 8495 + 8496. An alternative solution for HIP 8495 relative to HIP 8496 gives: $\Delta Hp = 1.38$, $\theta = 327^{\circ}$, $\varrho = 22.84$ arcsec. 8496 See HIP 8495. Ambiguous double-star solution of HIP 8607 + 8608. An alternative solution for HIP 8607 relative to HIP 8608 8607 gives: $\Delta Hp = 0.47$, $\theta = 252^{\circ}$, $\varrho = 26.05$ arcsec. 8608 8698 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.48$, $\theta = 98^{\circ}$, $\rho = 2.60$ arcsec. Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = -0.02$ (component reversal). 8708 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.55$, $\theta = 219^{\circ}$, $\varrho = 0.72$ arcsec. 8895 8922 An orbital solution based on elements by R.F. Griffin, Observatory, 101, 175, 1981, gives a semi-major axis of 8 mas for the photocentre. 9172 Ambiguous double-star solution of HIP 9172 + 9176. An alternative solution for HIP 9176 relative to HIP 9172 gives: $\Delta Hp = 1.08$, $\theta = 78^{\circ}$, $\varrho = 24.72$ arcsec. See HIP 9172. 9176 9224 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.16$, $\theta = 291^{\circ}$, $\varrho = 0.89$ arcsec. 9378 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.48$, $\theta = 320^{\circ}$, $\varrho = 0.39$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.38$, $\theta = 314^{\circ}$, $\varrho = 1.24$ arcsec.

9500 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 2.53$, $\theta = 206^{\circ}$, $\varrho = 1.09$ arcsec. 9613 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 288^{\circ}$, $\varrho = 5.68$ arcsec. 9640 P Component B is really the photocentre of BC. 9642 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.47$, $\theta = 252^{\circ}$, $\varrho = 2.13$ arcsec. 9728 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.47$, $\theta = 78^{\circ}$, $\varrho = 0.26$ arcsec. 9729 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.53$, $\theta = 16^{\circ}$, $\varrho = 7.95$ arcsec. 9748 P Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.44$, $\theta = 164^{\circ}$, $\varrho = 1.47$ arcsec. Ρ Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.49$, $\theta = 151^{\circ}$, $\varrho = 2.64$ arcsec. 9854 10139 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.33$, $\theta = 134^{\circ}$, $\rho = 16.55$ arcsec. 10178 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.66$, $\theta = 309^{\circ}$, $\varrho = 1.33$ arcsec. Ambiguous double-star solution of HIP 10529 + 10531. This system was solved as a fixed double star although 10529 it is known to be an optical pair. The tabulated parallax and proper motion effectively refer to the brighter star, HIP 10531. An alternative solution treating the system as an optical pair gives negligible parallax and proper motion for HIP 10529, and the following parameters relative to HIP 10531: $\Delta Hp = 3.47$, $\theta = 351^{\circ}$, $\rho = 14.34$ arcsec. This solution also gives a slightly larger parallax for HIP 10531, 55.1 mas (standard error 1.2 mas). 10531 See HIP 10529. 10775 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.28$, $\theta = 251^{\circ}$, $\varrho = 8.01$ arcsec. 10829 An alternative VIM solution for this system gives $\theta = 41^{\circ}$ for the constant star relative to the variable. 11055 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.72$, $\theta = 3^{\circ}$, $\varrho = 0.94$ arcsec. Ambiguous double-star solution of HIP 11167 + 11168. An alternative solution for HIP 11167 relative to HIP 11167 11168 gives: $\Delta Hp = 1.45$, $\theta = 194^{\circ}$, $\varrho = 21.48$ arcsec. 11168 See HIP 11167. 11206 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.52$, $\theta = 324^{\circ}$, $\varrho = 5.61$ arcsec. P The double-star analysis indicates that it is probably the fainter (B) component which is variable. 11318 11400 An alternative VIM solution for this system gives $\theta = 147^{\circ}$ for the constant star relative to the variable. 11565 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 166^{\circ}$, $\varrho = 0.89$ arcsec. 11624 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.14$, $\theta = 219^{\circ}$, $\varrho = 0.78$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.59$, $\theta = 69^{\circ}$, $\varrho = 0.23$ arcsec. 11656 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.94$, $\theta = 273^{\circ}$, $\rho = 1.91$ arcsec. 11903 12224 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.26$, $\theta = 123^{\circ}$, $\varrho = 0.97$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.37$, $\theta = 35^{\circ}$, $\rho = 1.42$ arcsec. 12257 12512 Component A is really the photocentre of AP. 12631 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.99$, $\theta = 92^{\circ}$, $\varrho = 5.82$ arcsec. Ambiguous double-star solution of HIP 12702 + 12703. An alternative solution for HIP 12703 relative to HIP 12702 12702 gives: $\Delta Hp = 2.41$, $\theta = 21^{\circ}$, $\rho = 0.33$ arcsec. 12703 See HIP 12702. 12722 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.61$, $\theta = 331^{\circ}$, $\varrho = 3.15$ arcsec. 13042 Ambiguous double-star solution of HIP 13042 + 13043. An alternative solution for HIP 13042 relative to HIP 13043 gives: $\Delta Hp = 3.33$, $\theta = 305^{\circ}$, $\varrho = 25.68$ arcsec. 13043 See HIP 13042. 13117 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.53$, $\theta = 69^{\circ}$, $\rho = 0.52$ arcsec. 13173 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.61$, $\theta = 147^{\circ}$, $\varrho = 0.37$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.07$, $\theta = 81^{\circ}$, $\varrho = 4.19$ arcsec. 13187 13199 The double-star analysis indicates that it is probably the fainter (B) component which is variable. 13340 Ambiguous double-star solution of HIP 13340 + 13344. An alternative solution for HIP 13344 relative to HIP 13340 gives: $\Delta Hp = 2.66$, $\theta = 136^{\circ}$, $\varrho = 21.32$ arcsec. See HIP 13340. 13344 13652 Ambiguous double-star solution of HIP 13652 + 13653. An alternative solution for HIP 13653 relative to HIP 13652 gives: $\Delta Hp = 0.92$, $\theta = 153^{\circ}$, $\rho = 18.66$ arcsec. 13653 See HIP 13652. 13769 Ambiguous double-star solution. An alternative solution for CD gives: $\Delta Hp = 1.54$, $\theta = 187^{\circ}$, $\varrho = 0.11$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.25$, $\theta = 70^{\circ}$, $\rho = 2.71$ arcsec. 13979 13983 An alternative VIM solution for this system gives $\theta = 52^{\circ}$ for the constant star relative to the variable. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.24$, $\theta = 289^{\circ}$, $\varrho = 1.38$ arcsec. 14127 14218 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.48$, $\theta = 2^{\circ}$, $\varrho = 16.43$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.36$, $\theta = 345^{\circ}$, $\rho = 1.13$ arcsec.

An alternative VIM solution for this system gives $\theta = 223^{\circ}$ for the constant star relative to the variable.

- Ambiguous double-star solution of HIP 14555 + 14559. An alternative solution for HIP 14559 relative to HIP 14555 gives: $\Delta Hp = 0.91$, $\theta = 114^{\circ}$, $\varrho = 14.46$ arcsec.
- 14559 See HIP 14555.
- 14576 P Algol. For the quadrants of ω and Ω see G. Gatewood, J.K. de Jonge, W.D. Heintz, Astron. J. 109, 434, 1995.
- 14589 P Ambiguous double-star solution of HIP 14589 + 14593. An alternative solution for HIP 14589 gives: $\Delta Hp = 0.35$, $\theta = 328^{\circ}$, $\varrho = 0.29$ arcsec.
- 14593 See HIP 14589.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.99$, $\theta = 218^{\circ}$, $\rho = 1.45$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.27$, $\theta = 210^\circ$, $\varrho = 3.26$ arcsec.
- 15140 Ambiguous double-star solution of HIP 15140 + 15144. An alternative solution for HIP 15144 relative to HIP 15140 gives: $\Delta Hp = 2.32$, $\theta = 102^{\circ}$, $\varrho = 20.45$ arcsec. Component B (in HIP 15144) is really the photocentre of BC.
- 15144 See HIP 15140.
- 15455 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.30$, $\theta = 228^{\circ}$, $\varrho = 1.04$ arcsec.
- 15689 Ambiguous double-star solution of HIP 15689 + 15690. An alternative solution for HIP 15689 relative to HIP 15690 gives: $\Delta Hp = 2.15$, $\theta = 213^{\circ}$, $\varrho = 18.77$ arcsec.
- 15690 See HIP 15689.
- Ambiguous double-star solution of HIP 15833 + 15834. An alternative solution for HIP 15834 relative to HIP 15833 gives: $\Delta Hp = 0.28$, $\theta = 93^{\circ}$, $\varrho = 19.62$ arcsec.
- 15834 See HIP 15833
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.64$, $\theta = 111^{\circ}$, $\varrho = 1.18$ arcsec.
- 16068 Ambiguous double-star solution of HIP 16068 + 16069. An alternative solution for HIP 16068 relative to HIP 16069 gives: $\Delta Hp = 1.01$, $\theta = 201^{\circ}$, $\varrho = 25.41$ arcsec.
- 16069 See HIP 16068.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.12$, $\theta = 97^{\circ}$, $\varrho = 1.82$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.86$, $\theta = 148^{\circ}$, $\varrho = 3.31$ arcsec.
- 16267 P Ambiguous double-star solution. An alternative solution for AD gives: $\Delta Hp = 3.02$, $\theta = 222^{\circ}$, $\varrho = 4.77$ arcsec.
- 16271 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.65$, $\theta = 283^{\circ}$, $\varrho = 6.94$ arcsec.
- 16296 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.63$, $\theta = 341^{\circ}$, $\varrho = 2.32$ arcsec.
- 16525 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.41$, $\theta = 93^{\circ}$, $\varrho = 1.53$ arcsec.
- 16550 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.17$, $\theta = 277^{\circ}$, $\varrho = 1.58$ arcsec. 16626 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.35$, $\theta = 140^{\circ}$, $\varrho = 14.54$ arcsec.
- 10000 A 1: 1 11 4 A 1: 4 A 1:
- 16920 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.56$, $\theta = 338^{\circ}$, $\varrho = 0.22$ arcsec. An alternative VIM solution for this system gives $\theta = 275^{\circ}$ for the constant star relative to the variable.
- 17102 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.19$, $\theta = 294^{\circ}$, $\varrho = 13.60$ arcsec.
- 17155 Ambiguous double-star solution of HIP 17155 + 17158. An alternative solution for HIP 17158 relative to HIP 17155 gives: $\Delta Hp = 1.02$, $\theta = 58^{\circ}$, $\varrho = 0.10$ arcsec.
- 17158 See HIP 17155.
- 17257 An alternative VIM solution for this system gives $\theta = 33^{\circ}$ for the constant star relative to the variable.
- 17303 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.36$, $\theta = 55^{\circ}$, $\varrho = 1.64$ arcsec.
- 17319 Ambiguous double-star solution of HIP 17319 + 17321. An alternative solution for HIP 17321 relative to HIP 17319 gives: $\Delta Hp = 0.68$, $\theta = 172^{\circ}$, $\varrho = 21.67$ arcsec.
- 17321 See HIP 17319.
- 17448 P The double-star analysis indicates that it is the fainter (B) component which is variable.
- 17561 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 263^{\circ}$, $\varrho = 4.98$ arcsec.
- 17606 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.94$, $\theta = 38^{\circ}$, $\varrho = 10.34$ arcsec.
- 17666 P The double-star analysis indicates that it is probably the fainter (B) component which is variable.
- 17749 G Uncertain triple-star solution of system HIP 17749 (A) + 17750 (BC). TYC 4327-1502-1 (at $\alpha = 57^{\circ}.006677$, $\delta = +68^{\circ}.676895$) may be identified with component B (in HIP 17750), or possibly with the centre of light of components B and C; this position is at $\theta = 14^{\circ}$, $\varrho = 17.11$ arcsec relative to component A.
- 17750 G See HIP 17749.
- 18084 Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = 3.32$, $\theta = 198^{\circ}$, $\varrho = 0.76$ arcsec.
- 18115 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.18$, $\theta = 334^{\circ}$, $\varrho = 0.44$ arcsec.
- 18131 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.72$, $\theta = 246^{\circ}$, $\varrho = 1.11$ arcsec.
- 18158 Tycho data suggest that component B is located at $\theta = 110^{\circ}$, $\varrho = 9.62$ arcsec.
- 18166 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.15$, $\theta = 63^{\circ}$, $\varrho = 0.90$ arcsec.
- 18260 An alternative VIM solution for this system gives $\theta = 121^{\circ}$ for the constant star relative to the variable.

- 18349 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.24$, $\theta = 51^{\circ}$, $\varrho = 0.75$ arcsec. 18364 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.10$, $\theta = 40^{\circ}$, $\varrho = 1.50$ arcsec. 18603 Ambiguous double-star solution of HIP 18603 + 18604. An alternative solution for HIP 18603 relative to HIP 18604 gives: $\Delta Hp = 2.52$, $\theta = 220^{\circ}$, $\varrho = 12.20$ arcsec. HIP 18604 itself is probably double with $\theta = 332^{\circ}$, $\varrho = 0.5$ arcsec. 18604 See HIP 18603. 18668 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.03$, $\theta = 22^{\circ}$, $\varrho = 6.34$ arcsec. 18669 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 88^{\circ}$, $\varrho = 3.60$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.80$, $\theta = 265^{\circ}$, $\varrho = 2.57$ arcsec. 18790 19060 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.11$, $\theta = 5^{\circ}$, $\varrho = 7.90$ arcsec. 19198 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.46$, $\theta = 95^{\circ}$, $\varrho = 0.26$ arcsec. Ambiguous double-star solution of HIP 19338 + 19342. An alternative solution for HIP 19338 relative to HIP 19338 19342 gives: $\Delta Hp = 2.39,~\theta = 298^{\circ},~\varrho = 29.29$ arcsec. 19342 See HIP 19338. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.85$, $\theta = 245^{\circ}$, $\varrho = 1.65$ arcsec. 19442 19710 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.28$, $\theta = 298^{\circ}$, $\varrho = 0.35$ arcsec. An alternative VIM solution for this system gives $\theta = 322^{\circ}$ for the constant star relative to the variable. 19853 19885 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.48$, $\theta = 349^{\circ}$, $\rho = 1.26$ arcsec. 19916 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.76$, $\theta = 306^{\circ}$, $\rho = 1.56$ arcsec. 20227 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.15$, $\theta = 214^{\circ}$, $\varrho = 0.83$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.20$, $\theta = 277^{\circ}$, $\varrho = 0.99$ arcsec. 20236 20469 Ambiguous double-star solution of HIP 20469 + 20471. An alternative solution for HIP 20469 relative to HIP 20471 gives: $\Delta Hp = 1.51$, $\theta = 243^{\circ}$, $\varrho = 17.60$ arcsec. 20471 See HIP 20469. 20531 Ambiguous double-star solution of HIP 20531 + 20533. An alternative solution for HIP 20531 relative to HIP 20533 gives: $\Delta Hp = 2.20$, $\theta = 289^{\circ}$, $\varrho = 30.91$ arcsec. 20533 See HIP 20531. 20681 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.04$, $\theta = 353^{\circ}$, $\varrho = 3.98$ arcsec. 20830 Ambiguous double-star solution of HIP 20830 + 20831. An alternative solution for HIP 20831 relative to HIP 20830 gives: $\Delta Hp = 3.86$, $\theta = 157^{\circ}$, $\varrho = 26.80$ arcsec. 20831 See HIP 20830. 20918 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.84$, $\theta = 244^{\circ}$, $\varrho = 4.21$ arcsec. 21059 An alternative VIM solution for this system gives $\theta = 83^{\circ}$ for the constant star relative to the variable. 21088 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.25$, $\theta = 150^{\circ}$, $\varrho = 6.14$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.46$, $\theta = 15^{\circ}$, $\varrho = 2.70$ arcsec. 21132 Tycho data suggest that component B is located at $\theta = 221^{\circ}$, $\varrho = 2.26$ arcsec. 21176 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.14$, $\theta = 313^{\circ}$, $\varrho = 1.67$ arcsec. 21233 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 1.65$, $\theta = 248^{\circ}$, $\varrho = 0.18$ arcsec. 21240 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.85$, $\theta = 101^{\circ}$, $\varrho = 1.16$ arcsec. 21273 The low significance of the semi-major axis in spite of the short period casts doubts on the reliability of the orbit. 21354 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.68$, $\theta = 188^{\circ}$, $\varrho = 23.60$ arcsec. 21465 Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = -0.02$ (component reversal). 21542 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.16$, $\theta = 79^{\circ}$, $\varrho = 1.23$ arcsec. 21800 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.90, \ \theta = 295^{\circ}, \ \varrho = 7.55$ arcsec. 21930 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.70$, $\theta = 16^{\circ}$, $\varrho = 1.65$ arcsec. 22000 An alternative VIM solution for this system gives $\theta = 41^{\circ}$ for the constant star relative to the variable. 22079 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.78$, $\theta = 329^{\circ}$, $\varrho = 1.57$ arcsec. 22140 G Uncertain solution of triple system. Tycho data suggest that component C is located at $\theta = 300^{\circ}$, $\varrho = 10.10$ arcsec relative to component A. 22174 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.24$, $\theta = 326^{\circ}$, $\varrho = 1.71$ arcsec. 22266 Ambiguous double-star solution of HIP 22266 + 22267. An alternative solution for HIP 22266 relative to HIP 22267 gives: $\Delta Hp = 4.79$, $\theta = 289^{\circ}$, $\varrho = 28.55$ arcsec. 22267 22489 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.41$, $\theta = 178^{\circ}$, $\varrho = 0.25$ arcsec. 23196 P The double-star analysis indicates that it may be the fainter (B) component which is variable.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.71$, $\theta = 193^{\circ}$, $\varrho = 0.89$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.20$, $\theta = 82^{\circ}$, $\varrho = 2.66$ arcsec.

- 23416 ϵ Aur. The long period of the astrometric orbit (27 years) prevented adjustment of the orbital parameters, which were thus all adopted from the literature (see Part O of the Double and Multiple Systems Annex). The given astrometric standard errors consequently do not include the uncertainties of the adopted orbit used to reduce the observations to the centre of mass of the system.
- 23418 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.75$, $\theta = 304^{\circ}$, $\varrho = 0.85$ arcsec.
- 23686 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.92$, $\theta = 245^{\circ}$, $\varrho = 0.93$ arcsec.
- 23804 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.38$, $\theta = 185^{\circ}$, $\varrho = 1.90$ arcsec.
- Ambiguous double-star solution of HIP 23807 + 23810. An alternative solution for HIP 23810 gives: $\Delta Hp = 1.63$, 23807 $\theta = 10^{\circ}$, $\rho = 0.24$ arcsec.
- 23810 See HIP 23807.
- 23880 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.03$, $\theta = 135^{\circ}$, $\varrho = 1.75$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.02$, $\theta = 68^{\circ}$, $\rho = 0.61$ arcsec. 23886
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.09$, $\theta = 225^{\circ}$, $\varrho = 5.40$ arcsec. 24001
- 24019 Uncertain triple-star solution of system HIP 24019 (A) + 24020 (BC). TYC 1853-1959-1 (at $\alpha = 77^{\circ}.439449$, G $\delta = +28^{\circ}.033412$) may be identified with the centre of light of components B and C (HIP 24020), which is then located at $\theta = 28^{\circ}$, $\rho = 11.48$ arcsec relative to component A.
- 24020 G See HIP 24019.
- 24470 Ambiguous double-star solution of HIP 24470 + 24474. An alternative solution for HIP 24470 relative to HIP 24474 gives: $\Delta Hp = 2.13$, $\theta = 281^{\circ}$, $\varrho = 20.36$ arcsec.
- 24474
- Ambiguous double-star solution of HIP 24502 + 24504. An alternative solution for HIP 24502 relative to HIP 24502 24504 gives: $\Delta Hp = 1.64$, $\theta = 221^{\circ}$, $\varrho = 17.84$ arcsec.
- 24504 P See HIP 24502.
- 24594 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.99$, $\theta = 127^{\circ}$, $\varrho = 6.91$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = -0.12$ (component reversal). The 24710 P double-star analysis indicates that it may be the fainter (B) component which is variable.
- 24852 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.22$, $\theta = 281^{\circ}$, $\varrho = 18.07$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.70$, $\theta = 39^{\circ}$, $\varrho = 6.02$ arcsec. 25102
- 25275 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.33$, $\theta = 77^{\circ}$, $\varrho = 0.82$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.65$, $\theta = 185^{\circ}$, $\varrho = 1.55$ arcsec. 25354
- 25403 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.77$, $\theta = 207^{\circ}$, $\varrho = 0.17$ arcsec.
- 25556 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.44$, $\theta = 307^{\circ}$, $\rho = 1.59$ arcsec.
- 25733 An alternative VIM solution for this system gives $\theta = 46^{\circ}$ for the constant star relative to the variable.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.32$, $\theta = 335^{\circ}$, $\varrho = 0.88$ arcsec. 25788
- 25930 An alternative VIM solution for this system gives $\theta = 199^{\circ}$ for the constant star relative to the variable.
- 25996 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 2.29$, $\theta = 274^{\circ}$, $\varrho = 9.44$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.71$, $\theta = 196^{\circ}$, $\varrho = 10.38$ arcsec. 26009
- 26085 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.13$, $\theta = 3^{\circ}$, $\rho = 1.34$ arcsec.
- 26298 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.49$, $\theta = 210^{\circ}$, $\varrho = 0.60$ arcsec.
- Ambiguous double-star solution of HIP 26462 + 26468. An alternative solution for HIP 26462 relative to HIP 26462 26468 gives: $\Delta Hp = 2.91$, $\theta = 283^{\circ}$, $\varrho = 0.54$ arcsec.
- See HIP 26462. 26468
- 26563 Spectroscopic orbit unreliable. Probably single.
- Ambiguous double-star solution of HIP 26781 + 26783. An alternative solution for HIP 26783 relative to HIP 26781 26781 gives: $\Delta Hp = 0.01$, $\theta = 12^{\circ}$, $\varrho = 26.58$ arcsec.
- 26783 See HIP 26781.
- 26948 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.53$, $\theta = 38^{\circ}$, $\varrho = 2.19$ arcsec.
- Ambiguous double-star solution of HIP 26960 + 26961. An alternative solution for HIP 26960 relative to HIP 26960 26961 gives: $\Delta Hp = 4.06$, $\theta = 221^{\circ}$, $\varrho = 17.54$ arcsec.
- See HIP 26960. 26961
- 27008 G Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.08$, $\theta = 218^{\circ}$, $\varrho = 2.50$ arcsec.
- 27067 Ambiguous double-star solution of HIP 27067 (A) + 27070 (B). An alternative solution for HIP 27070 relative to HIP 27067 gives: $\Delta Hp = 1.76$, $\theta = 67^{\circ}$, $\varrho = 22.50$ arcsec. TYC 2915-1230-1 (at $\alpha = 86^{\circ}.110410$, $\delta = +40^{\circ}.407256$) may be identified with component B (HIP 27070), which is then located at $\theta = 68^{\circ}$, $\varrho = 22.50$ arcsec relative to component A.
- 27070 See HIP 27067.
- An alternative VIM solution for this system gives $\theta = 283^{\circ}$ for the constant star relative to the variable. 27341
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.44$, $\theta = 183^{\circ}$, $\varrho = 4.55$ arcsec. 27350

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27466
                          Ambiguous double-star solution of HIP 27466 + 27467. An alternative solution for HIP 27467 relative to HIP
                              27466 gives: \Delta Hp = 1.08, \theta = 28^{\circ}, \varrho = 20.87 arcsec.
27467
                          See HIP 27466.
                          Uncertain triple-star solution of system HIP 27600 (AB) + 27604 (C). TYC 4768-727-1 (at \alpha = 87^{\circ}.664378,
27600
                 G
                              \delta = -1^{\circ}.429763) may be identified with component C (HIP 27604), which is then located at \theta = 93^{\circ}, \varrho = 24.40
                              arcsec relative to component A.
27604
                 G
                         See HIP 27600.
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.92, \theta = 277^{\circ}, \rho = 4.85 arcsec.
27617
27633
                          Ambiguous double-star solution of HIP 27633 + 27643. An alternative solution for HIP 27643 gives: \Delta Hp = 2.99,
                              \theta = 274^{\circ}, \varrho = 8.20 arcsec.
27643
                          See HIP 27633.
27722
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.70, \theta = 240^{\circ}, \varrho = 15.30 arcsec.
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.82, \theta = 169^{\circ}, \varrho = 10.88 arcsec.
27805
27861
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.76, \theta = 143^{\circ}, \varrho = 1.81 arcsec.
27874
                 P
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.30, \theta = 102^{\circ}, \varrho = 0.16 arcsec.
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.56, \theta = 258^{\circ}, \varrho = 0.68 arcsec.
28077
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.38, \theta = 47^{\circ}, \rho = 1.05 arcsec.
28153
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 0.56, \theta = 109^{\circ}, \varrho = 1.07 arcsec.
28319
28415
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 4.27, \theta = 135^{\circ}, \varrho = 0.66 arcsec.
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.84, \theta = 332^{\circ}, \varrho = 1.57 arcsec.
28535
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.41, \theta = 277^{\circ}, \varrho = 15.71 arcsec.
28684
28774
                          Ambiguous double-star solution of HIP 28774 + 28777. An alternative solution for HIP 28774 relative to HIP
                              28777 gives: \Delta Hp = 0.87, \theta = 308^{\circ}, \varrho = 17.59 arcsec.
28777
                          See HIP 28774.
28936
                          Ambiguous double-star solution of HIP 28936 (B) + 28937 (A). An alternative solution for HIP 28936 (resolved
                              into B+C?) gives: \Delta Hp = 0.70, \; \theta = 7^{\circ}, \; \varrho = 0.97 \; \text{arcsec.} \; TYC \; 721-939-1 \; (at \; \alpha = 91^{\circ}.611 \; 211, \; \delta = 10^{\circ}.611 \; 211, \; \delta = 10
                              +10°.748 104) may be identified with component B (HIP 28936), which is then located at \theta = 248^{\circ}, \varrho = 21.46
                              arcsec relative to component A.
28937
                          See HIP 28936.
29087
                          Component A is really the photocentre of AB.
29151
                          Ambiguous double-star solution of HIP 29151 + 29154. An alternative solution for HIP 29154 relative to HIP
                              29151 gives: \Delta Hp = 8.70, \theta = 158^{\circ}, \varrho = 29.60 arcsec.
29154
                          See HIP 29151.
29655
                 P
                          An alternative VIM solution for this system gives \theta = 357^{\circ} for the constant star relative to the variable.
29853
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.83, \theta = 258^{\circ}, \varrho = 0.52 arcsec.
30061
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.21, \theta = 44^{\circ}, \varrho = 11.41 arcsec.
                          Ambiguous double-star solution. An alternative solution for BC gives: \Delta Hp = 3.07, \theta = 40^{\circ}, \varrho = 0.53 arcsec.
30300
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.10, \theta = 99^{\circ}, \varrho = 1.54 arcsec.
30313
30319
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.63, \theta = 93^{\circ}, \varrho = 1.06 arcsec.
30362
                          Uncertain double-star solution of system HIP 30362 (A) + 30365 (C). TYC 732-1935-1 (at \alpha = 95^{\circ}.788029,
                              \delta = +8^{\circ}.906\,976) may be identified with component A (HIP 30362). The position of component C (HIP 30365)
                              is probably correct, giving \theta = 88^{\circ}, \varrho = 22.61 arcsec relative to component A.
30365
                          See HIP 30362.
30482
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.74, \theta = 340^{\circ}, \varrho = 0.38 arcsec.
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.53, \theta = 89^{\circ}, \varrho = 2.01 arcsec.
30488
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.60, \theta = 235^{\circ}, \varrho = 4.91 arcsec.
30550
30674
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.65, \theta = 9^{\circ}, \varrho = 0.25 arcsec.
30709
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 4.32, \theta = 333^{\circ}, \varrho = 5.96 arcsec.
30756
                          Uncertain double-star solution of system HIP 30757 (A) + 30756 (B). TYC 1340-2545-1 (at \alpha = 96^{\circ}.941119,
                              \delta = +20^{\circ}.783\,033) may be identified with component B (HIP 30756), which is then located at \theta = 203^{\circ},
                              \varrho = 25.74 arcsec relative to component A.
30757
                          See HIP 30756.
30923
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.93, \theta = 191^{\circ}, \rho = 1.67 arcsec.
30941
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.87, \theta = 258^{\circ}, \varrho = 2.67 arcsec.
31081
                          Tycho photometry for component A has been suppressed.
31087
                          Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.35, \theta = 96^{\circ}, \varrho = 0.67 arcsec.
                          Ambiguous double-star solution of HIP 31292 + 31293. An alternative solution for HIP 31292 relative to HIP
31292
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31293 gives: $\Delta Hp = 0.00$, $\theta = 295^{\circ}$, $\varrho = 0.21$ arcsec.

31293 See HIP 31292. 31324 Ambiguous double-star solution of HIP 31324 + 31328. An alternative solution for HIP 31324 relative to HIP 31328 gives: $\Delta Hp = 2.57$, $\theta = 276^{\circ}$, $\varrho = 26.76$ arcsec. 31328 31408 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.83$, $\theta = 198^{\circ}$, $\varrho = 2.15$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.96$, $\theta = 230^{\circ}$, $\rho = 1.09$ arcsec. 31422 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 27^{\circ}$, $\rho = 0.37$ arcsec. 31491 31513 Ambiguous double-star solution of HIP 31513 + 31515. An alternative solution for HIP 31515 relative to HIP 31513 gives: $\Delta Hp = 3.09$, $\theta = 71^{\circ}$, $\varrho = 1.46$ arcsec. See HIP 31513. 31515 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.36$, $\theta = 116^{\circ}$, $\varrho = 0.58$ arcsec. 31621 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.23$, $\theta = 37^{\circ}$, $\varrho = 3.89$ arcsec. 31644 31681 An orbital solution based on elements by F.C. Fekel, J. Tomkin, Astron. J., 106, 1156, 1993, does not give a significantly different parallax. 31722 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 2.14$, $\theta = 218^{\circ}$, $\varrho = 4.71$ arcsec. 31794 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.27$, $\theta = 189^{\circ}$, $\varrho = 1.40$ arcsec. 31971 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.40$, $\theta = 121^{\circ}$, $\varrho = 1.74$ arcsec. 31973 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.24$, $\theta = 46^{\circ}$, $\varrho = 0.98$ arcsec. 31978 P An alternative VIM solution for this system gives $\theta = 16^{\circ}$ for the constant star relative to the variable. 31994 Ambiguous double-star solution of HIP 31994 + 31998. An alternative solution for HIP 31998 relative to HIP 31994 gives: $\Delta Hp = 2.26$, $\theta = 100^{\circ}$, $\varrho = 17.97$ arcsec. 31998 See HIP 31994. 32085 P Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.74$, $\theta = 306^{\circ}$, $\varrho = 1.55$ arcsec. 32289 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.25$, $\theta = 185^{\circ}$, $\varrho = 3.99$ arcsec. 32312 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.33$, $\theta = 195^{\circ}$, $\varrho = 3.52$ arcsec. 32349 Sirius. Due to the extreme brightness of the object, the formal standard errors of great-circle abscissae were severely underestimated. The astrometric standard errors were instead derived from the statistics of the post-fit residuals, resulting in a unit weight error of exactly 1. For this reason, no goodness-of-fit statistic is given in Field H30. Note that the long period of the astrometric orbit (50 years) prevented adjustment of the orbital parameters, which were thus all adopted from the literature (see Part O of the Double and Multiple Systems Annex). The given astrometric standard errors consequently do not include the uncertainties of the adopted orbit used to reduce the observations to the centre of mass of the system. 32388 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.16$, $\theta = 163^{\circ}$, $\varrho = 17.80$ arcsec. 32475 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.64$, $\theta = 26^{\circ}$, $\varrho = 0.81$ arcsec. 32483 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.71$, $\theta = 180^{\circ}$, $\varrho = 13.81$ arcsec. 32548 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 3.40$, $\theta = 142^{\circ}$, $\varrho = 0.45$ arcsec. 33071 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.03$, $\theta = 117^{\circ}$, $\rho = 4.24$ arcsec. Ambiguous double-star solution of HIP 33291 (A) + 33296 (B). An alternative solution for HIP 33296 relative 33291 to HIP 33291 gives: $\Delta Hp = 3.96$, $\theta = 87^{\circ}$, $\varrho = 19.33$ arcsec. TYC 2942-2010-1 (at $\alpha = 103^{\circ}.889.821$, $\delta = +37^{\circ}.916\,060$) may be identified with component B (HIP 33296), which is then located at $\theta = 83^{\circ}$, $\varrho = 19.20$ arcsec relative to component A. 33296 See HIP 33291. 33403 Ambiguous double-star solution of HIP 33403 + 33404. An alternative solution for HIP 33404 relative to HIP 33403 gives: $\Delta Hp = 0.81$, $\theta = 356^{\circ}$, $\varrho = 22.58$ arcsec. 33404 33450 An alternative VIM solution for this system gives $\theta = 45^{\circ}$ for the constant star relative to the variable. 33455 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.85$, $\theta = 70^{\circ}$, $\varrho = 0.39$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.04$, $\theta = 259^{\circ}$, $\varrho = 0.94$ arcsec. 33499 33934 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.22$, $\theta = 322$ °, $\varrho = 4.34$ arcsec. 33985 Uncertain double-star solution. Tycho data suggest that component B is located at $\theta = 58^{\circ}$, $\varrho = 9.72$ arcsec relative to component A. 34184 Ambiguous double-star solution of HIP 34184 + 34191. An alternative solution for HIP 34191 relative to HIP 34184 gives: $\Delta Hp = 3.22$, $\theta = 89^{\circ}$, $\varrho = 21.79$ arcsec. 34191 34384 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.67$, $\theta = 350^{\circ}$, $\varrho = 0.34$ arcsec. 34479 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.31$, $\theta = 157^{\circ}$, $\varrho = 14.98$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.34$, $\theta = 181^{\circ}$, $\varrho = 1.43$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.27$, $\theta = 172^{\circ}$, $\varrho = 16.40$ arcsec.

- 34975 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.70$, $\theta = 163^{\circ}$, $\varrho = 1.11$ arcsec. Ambiguous double-star solution of HIP 35062 + 35063. An alternative solution for HIP 35063 relative to HIP 35062 35062 gives: $\Delta Hp = 1.40$, $\theta = 4^{\circ}$, $\varrho = 22.44$ arcsec. 35063 35065 Ambiguous double-star solution of HIP 35065 + 35066. An alternative solution for HIP 35065 relative to HIP 35066 gives: $\Delta Hp = 1.66$, $\theta = 354^{\circ}$, $\varrho = 30.20$ arcsec. 35066 See HIP 35065. 35327 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.07$, $\theta = 0^{\circ}$, $\varrho = 0.57$ arcsec. 35433 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.77$, $\theta = 72^{\circ}$, $\varrho = 0.68$ arcsec. 35449 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.00$, $\theta = 47^{\circ}$, $\varrho = 1.64$ arcsec. 35473 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.91$, $\theta = 339^{\circ}$, $\varrho = 0.26$ arcsec. 35488 The double-star analysis indicates that it may be the fainter (B) component which is variable. 35493 Р Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.90$, $\theta = 127^{\circ}$, $\varrho = 17.72$ arcsec. The double-star analysis indicates that it may be the fainter (B) component which is variable. 35550 Spectroscopic orbit unreliable. Probably single. 35585 Ambiguous double-star solution of HIP 35585 + 35588. An alternative solution for HIP 35585 gives: $\Delta Hp = 0.77$, $\theta = 184^{\circ}$, $\varrho = 0.23$ arcsec. See HIP 35585. 35588 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 66^{\circ}$, $\varrho = 1.33$ arcsec. 36036 36251 The double-star analysis indicates that it may be the fainter (B) component which is variable. Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 1.23$, $\theta = 313^{\circ}$, $\varrho = 6.38$ arcsec. 36349 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.51$, $\theta = 25^{\circ}$, $\varrho = 3.96$ arcsec. 36384 36621 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.72$, $\theta = 310^{\circ}$, $\rho = 1.70$ arcsec. 36706 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.85$, $\theta = 184^{\circ}$, $\varrho = 10.01$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.37$, $\theta = 11^{\circ}$, $\varrho = 0.72$ arcsec. 36935 37096 Component A is really the photocentre of AB. 37100 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.32$, $\theta = 19^{\circ}$, $\varrho = 5.27$ arcsec. 37110 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.58$, $\theta = 56^{\circ}$, $\varrho = 0.53$ arcsec. Component A is really the photocentre of AB. 37134 37197 The double-star analysis indicates that it may be the fainter (B) component which is variable. 37272 Periodogram analysis indicates that this is an astrometric binary with period 826 days and semi-major axis 24 mas for the photocentre. A full orbital solution gives a parallax of 18.71 mas (standard error 2.41 mas). 37279 Procyon. The long period of the astrometric orbit (40 years) prevented adjustment of the orbital parameters, which were thus all adopted from the literature (see Part O of the Double and Multiple Systems Annex). The given astrometric standard errors consequently do not include the uncertainties of the adopted orbit used to reduce the observations to the centre of mass of the system. 37614 Component A is really the photocentre of AB. 37780 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.36$, $\theta = 124^{\circ}$, $\varrho = 1.36$ arcsec. 37788 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.12$, $\theta = 213^{\circ}$, $\varrho = 1.29$ arcsec. 37824 Ambiguous double-star solution of HIP 37824 + 37825. An alternative solution for HIP 37825 relative to HIP 37824 gives: $\Delta Hp = 3.28$, $\theta = 153^{\circ}$, $\varrho = 20.38$ arcsec. 37825 See HIP 37824. 37848 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.50$, $\theta = 266^{\circ}$, $\varrho = 4.31$ arcsec. 37954 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.69$, $\theta = 339^{\circ}$, $\varrho = 4.73$ arcsec. 38174 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.40$, $\theta = 284^{\circ}$, $\varrho = 4.86$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.31$, $\theta = 283^{\circ}$, $\rho = 1.41$ arcsec. 38242 38298 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.16$, $\theta = 313^{\circ}$, $\varrho = 0.89$ arcsec. 38414 An orbital solution based on elements by S. B. Parsons, Astrophys. J. Supp. Ser., 53, 553, 1983, gives a semi-major axis of 33 mas for the photocentre. 38479 Uncertain double-star solution. Tycho data suggest that component B is located at $\theta = 249^{\circ}$, $\varrho = 9.24$ arcsec relative to component A. 38687 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.12$, $\theta = 213^{\circ}$, $\varrho = 3.23$ arcsec. 38752 Ambiguous double-star solution of HIP 38752 + 38753. An alternative solution for HIP 38753 relative to HIP 38752 gives: $\Delta Hp = 2.16$, $\theta = 164^{\circ}$, $\varrho = 15.48$ arcsec.
 - 39264 An alternative VIM solution for this system gives $\theta = 78^{\circ}$ for the constant star relative to the variable.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.61$, $\theta = 275^{\circ}$, $\varrho = 0.76$ arcsec.

38753

38976

See HIP 38752.

- An orbital solution based on elements by R. F. Griffin, Mon. Not. R. Astron. Soc., 200, 1161, 1982, gives a semi-major axis of 19 mas for the photocentre.
- 39508 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.46$, $\theta = 286^{\circ}$, $\varrho = 3.76$ arcsec.
- 39533 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 0.35$, $\theta = 14^{\circ}$, $\varrho = 0.51$ arcsec. This might correspond to components A and B.
- Ambiguous double-star solution of HIP 39571 + 39573. An alternative solution for HIP 39573 gives: $\Delta Hp = 0.01$, $\theta = 133^{\circ}$, $\varrho = 2.57$ arcsec.
- 39573 See HIP 39571.
- 39592 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.70$, $\theta = 247^{\circ}$, $\varrho = 1.47$ arcsec.
- 39653 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.46$, $\theta = 297^{\circ}$, $\varrho = 0.43$ arcsec.
- 39668 Ambiguous double-star solution of HIP 39668 + 39670. An alternative solution for HIP 39670 relative to HIP 39668 gives: $\Delta Hp = 0.39$, $\theta = 23^{\circ}$, $\varrho = 24.88$ arcsec.
- 39670 See HIP 39668.
- 39692 Ambiguous double-star solution of HIP 39692 + 39693. An alternative solution for HIP 39692 relative to HIP 39693 gives: $\Delta Hp = 3.20$, $\theta = 242^{\circ}$, $\varrho = 20.65$ arcsec.
- 39693 See HIP 39692.
- 39825 G Uncertain triple-star solution of system HIP 39825 (AC) + 39827 (B). TYC 8924-2784-1 (at $\alpha=122^{\circ}.060388$, $\delta=-61^{\circ}.077698$) may be identified with component B (HIP 39827), which is then located at $\theta=98^{\circ}$, $\varrho=11.58$ arcsec relative to component A. Tycho data also suggest that component C is located at $\theta=323^{\circ}$, $\varrho=20.27$ arcsec relative to component A.
- 39827 G See HIP 39825.
- 39865 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.62$, $\theta = 17^{\circ}$, $\varrho = 0.63$ arcsec.
- 40089 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.44$, $\theta = 167^{\circ}$, $\varrho = 0.25$ arcsec.
- 40239 P The double-star analysis indicates that it may be the fainter (B) component which is variable.
- 40527 Ambiguous double-star solution of HIP 40527 + 40532. An alternative solution for HIP 40532 relative to HIP 40527 gives: $\Delta Hp = 1.28$, $\theta = 8^{\circ}$, $\varrho = 18.73$ arcsec.
- 40532 See HIP 40527.
- 40638 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.30$, $\theta = 347^{\circ}$, $\varrho = 0.92$ arcsec.
- 40708 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.33$, $\theta = 273^{\circ}$, $\varrho = 1.95$ arcsec.
- 41181 Ambiguous double-star solution of HIP 41181 + 41184. An alternative solution for HIP 41181 relative to HIP 41184 gives: $\Delta Hp = 3.47$, $\theta = 237^{\circ}$, $\varrho = 29.38$ arcsec.
- 41184 See HIP 41181.
- 41276 Ambiguous double-star solution of HIP 41276 + 41279. An alternative solution for HIP 41276 relative to HIP 41279 gives: $\Delta Hp = 1.69$, $\theta = 212^{\circ}$, $\varrho = 27.80$ arcsec.
- 41279 See HIP 41276.
- 41361 Component B is really the photocentre of BC.
- 41616 Component A is really the photocentre of AP.
- 41796 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.24$, $\theta = 64^{\circ}$, $\varrho = 20.27$ arcsec.
- Ambiguous double-star solution. An alternative solution for AP gives: $\Delta Hp = 0.60$, $\theta = 315^{\circ}$, $\varrho = 0.75$ arcsec.
- 42018 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.12$, $\theta = 81^{\circ}$, $\varrho = 13.75$ arcsec.
- 42099 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.48$, $\theta = 234^{\circ}$, $\varrho = 1.52$ arcsec.
- 42488 Ambiguous double-star solution of HIP 42488 + 42491. An alternative solution for HIP 42491 gives: $\Delta Hp = 3.15$, $\theta = 348^{\circ}$, $\varrho = 5.43$ arcsec.
- 42491 See HIP 42488.
- 42910 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.61$, $\theta = 182^{\circ}$, $\rho = 1.25$ arcsec.
- 42916 Periodogram analysis indicates that this is an astrometric binary with period 837 days and semi-major axis 22 mas for the photocentre. A full orbital solution does not give a significantly different parallax.
- 43003 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.79$, $\theta = 145^{\circ}$, $\varrho = 12.46$ arcsec.
- 43109 P Component A is really the photocentre of AB. The double-star analysis indicates that it is the fainter (C) component which is variable.
- Ambiguous double-star solution of HIP 43219 (B) + 43220 (A). An alternative solution for HIP 43219 relative to HIP 43220 gives: $\Delta Hp = 2.41$, $\theta = 342^{\circ}$, $\varrho = 20.39$ arcsec. TYC 2488-644-1 (at $\alpha = 132^{\circ}.066498$, $\delta = +34^{\circ}.604422$) may be identified with component B (HIP 43219), which is then located at $\theta = 343^{\circ}$, $\varrho = 20.26$ arcsec relative to component A.
- 43220 See HIP 43219.
- 43224 Ambiguous double-star solution of HIP 43224 + 43225. An alternative solution for HIP 43225 relative to HIP 43224 gives: $\Delta Hp = 3.30$, $\theta = 51^{\circ}$, $\varrho = 11.62$ arcsec.
- 43225 See HIP 43224.

43722 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.00$, $\theta = 91^{\circ}$, $\varrho = 0.66$ arcsec. 43748 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.95$, $\theta = 215^{\circ}$, $\varrho = 0.43$ arcsec. 43827 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.34$, $\theta = 310^{\circ}$, $\varrho = 4.28$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.88$, $\theta = 62^{\circ}$, $\varrho = 0.77$ arcsec. 44135 44260 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.38$, $\theta = 239^{\circ}$, $\varrho = 0.47$ arcsec. Ambiguous double-star solution of HIP 44435 + 44436. An alternative solution for HIP 44436 relative to HIP 44435 44435 gives: $\Delta Hp = 2.93$, $\theta = 124^{\circ}$, $\varrho = 21.70$ arcsec. 44436 See HIP 44435. 44479 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.23$, $\theta = 213^{\circ}$, $\varrho = 0.38$ arcsec. 44541 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.65$, $\theta = 99^{\circ}$, $\varrho = 0.74$ arcsec. 44664 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.29$, $\theta = 273^{\circ}$, $\varrho = 4.04$ arcsec. 44796 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.43$, $\theta = 322^{\circ}$, $\varrho = 11.82$ arcsec. 44894 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.48$, $\theta = 120^{\circ}$, $\rho = 1.19$ arcsec. 44902 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.41$, $\theta = 176^{\circ}$, $\varrho = 11.02$ arcsec. Ambiguous double-star solution of HIP 44965 + 44968. An alternative solution for HIP 44965 relative to HIP 44965 44968 gives: $\Delta Hp = 0.48$, $\theta = 289^{\circ}$, $\varrho = 19.59$ arcsec. 44968 See HIP 44965. 45180 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.51$, $\theta = 347^{\circ}$, $\rho = 2.61$ arcsec. Ambiguous double-star solution of HIP 45206 + 45208. An alternative solution for HIP 45208 relative to HIP 45206 45206 gives: $\Delta Hp = 0.68$, $\theta = 32^{\circ}$, $\varrho = 23.79$ arcsec. 45208 See HIP 45206. 45269 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.35$, $\theta = 44^{\circ}$, $\varrho = 16.94$ arcsec. 45380 Ambiguous double-star solution of HIP 45380 + 45381. An alternative solution for HIP 45381 relative to HIP 45380 gives: $\Delta Hp = 2.96$, $\theta = 10^{\circ}$, $\varrho = 26.92$ arcsec. 45381 See HIP 45380. 45567 Ambiguous double-star solution of HIP 45567 + 45570. An alternative solution for HIP 45567 relative to HIP 45570 gives: $\Delta Hp = 0.51$, $\theta = 181^{\circ}$, $\varrho = 0.25$ arcsec. 45570 Р 45593 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = -0.10$ (component reversal). 45802 Ambiguous double-star solution. An alternative solution for BC gives: $\Delta Hp = 3.59$, $\theta = 200^{\circ}$, $\varrho = 9.44$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.87$, $\theta = 262^{\circ}$, $\varrho = 0.99$ arcsec. 45946 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.29$, $\theta = 349^{\circ}$, $\varrho = 6.99$ arcsec. 45968 46151 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.54$, $\theta = 159^{\circ}$, $\rho = 2.80$ arcsec. 46213 Ambiguous double-star solution of HIP 46213 + 46216. An alternative solution for HIP 46213 relative to HIP 46216 gives: $\Delta Hp = 2.49$, $\theta = 27^{\circ}$, $\varrho = 13.78$ arcsec. See HIP 46213. 46216 46651 Ρ The double-star analysis indicates that it is probably the fainter (B) component which is variable. 46710 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.61$, $\theta = 42^{\circ}$, $\varrho = 0.31$ arcsec. 46779 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.51$, $\theta = 47^{\circ}$, $\varrho = 1.39$ arcsec. Ambiguous double-star solution of HIP 46860 + 46863. An alternative solution for HIP 46860 relative to HIP 46860 46863 gives: $\Delta Hp = 3.85$, $\theta = 324^{\circ}$, $\varrho = 25.41$ arcsec. 46863 See HIP 46860. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.04$, $\theta = 75^{\circ}$, $\rho = 1.07$ arcsec. 46989 47106 Tycho data suggest that component B is located at $\theta = 185^{\circ}$, $\varrho = 3.57$ arcsec. 47107 Uncertain double-star solution of system HIP 47113 (A) + 47107 (B). TYC 3807-882-1 (at $\alpha = 144^{\circ}.014184$, $\delta = +53^{\circ}.293708$) may be identified with component B (HIP 47107), which is then located at $\theta = 220^{\circ}$, $\varrho = 21.64$ arcsec relative to component A. 47113 See HIP 47107. 47205 An orbital solution based on elements by R.F. Griffin, Observatory, 105, 7, 1985, gives a semi-major axis of 24 mas for the photocentre. 47228 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.14$, $\theta = 181^{\circ}$, $\varrho = 0.38$ arcsec. 47252 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.41$, $\theta = 344^{\circ}$, $\varrho = 2.96$ arcsec. 47371 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.94$, $\theta = 131^{\circ}$, $\rho = 0.72$ arcsec. 47470 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.28$, $\theta = 93^{\circ}$, $\varrho = 0.63$ arcsec. 47638 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.02$, $\theta = 112^{\circ}$, $\varrho = 0.91$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.16$, $\theta = 31^{\circ}$, $\varrho = 0.99$ arcsec.

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47645
                  Ambiguous double-star solution of HIP 47645 (B) + 47646 (A). An alternative solution for HIP 47645 relative
                    to HIP 47646 gives: \Delta Hp = 2.22, \theta = 282^{\circ}, \varrho = 15.92 arcsec. TYC 6602-2082-1 (at \alpha = 145^{\circ}.707397,
                    \delta = -22^{\circ}.964\,637) may be identified with component B (HIP 47645), which is then located at \theta = 282^{\circ},
                    \varrho = 15.72 arcsec relative to component A.
47646
                  See HIP 47645.
47679
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.72, \theta = 350^{\circ}, \varrho = 13.61 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.23, \theta = 349^{\circ}, \varrho = 3.27 arcsec.
47691
47708
                  Ambiguous double-star solution. An alternative solution for AC gives: \Delta Hp = 1.50, \theta = 50^{\circ}, \varrho = 19.29 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.73, \theta = 165^{\circ}, \varrho = 1.09 arcsec.
47775
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.58, \theta = 177^{\circ}, \varrho = 9.54 arcsec.
47862
47890
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.95, \theta = 133^{\circ}, \varrho = 1.29 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.28, \theta = 234^{\circ}, \rho = 0.63 arcsec.
47945
48012
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.65, \theta = 93^{\circ}, \varrho = 0.23 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.31, \theta = 233^{\circ}, \varrho = 0.77 arcsec.
48086
48175
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.04, \theta = 214^{\circ}, \varrho = 2.09 arcsec.
48445
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.84, \theta = 323^{\circ}, \varrho = 0.29 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.27, \theta = 313^{\circ}, \varrho = 1.63 arcsec.
48500
48656
                  Ambiguous double-star solution of HIP 48656 (B) + 48657 (A). An alternative solution for HIP 48656 relative
                    to HIP 48657 gives: \Delta Hp = 2.72, \theta = 228^{\circ}, \varrho = 18.86 arcsec. TYC 832-1463-1 (at \alpha = 148^{\circ}.842465,
                    \delta = +10^{\circ}.108\,385) may be identified with component B (HIP 48656), which is then located at \theta = 229^{\circ},
                    \varrho = 18.83 arcsec relative to component A.
48657
                  See HIP 48656.
48995
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.24, \theta = 90^{\circ}, \varrho = 1.12 arcsec.
                  Ambiguous double-star solution. An alternative solution for AC gives: \Delta Hp = 3.09, \theta = 213^{\circ}, \varrho = 0.73 arcsec.
49224
49314
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 0.51, \theta = 317^{\circ}, \varrho = 0.29 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.98, \theta = 148^{\circ}, \varrho = 1.99 arcsec.
49450
                  Ambiguous double-star solution. An alternative solution for BA gives: \Delta Hp = -1.28 (component reversal).
49525
49624
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.94, \theta = 261^{\circ}, \varrho = 13.49 arcsec.
50193
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.86, \theta = 167^{\circ}, \rho = 1.38 arcsec.
50583
                  The double-star analysis indicates that it is the fainter (B) component which is variable.
50636
                  Ambiguous double-star solution of HIP 50636 (B) + 50638 (A). An alternative solution for HIP 50636 relative
                    to HIP 50638 gives: \Delta Hp = 1.58, \theta = 215^{\circ}, \varrho = 17.14 arcsec. TYC 6619-1594-2 (at \alpha = 155^{\circ}135721,
                    \delta = -23^{\circ}.644\,203) may be identified with component B (HIP 50636), which is then located at \theta = 216^{\circ},
                    \varrho = 17.06 arcsec relative to component A.
50638
                  Ambiguous double-star solution of HIP 50648 + 50651. An alternative solution for HIP 50648 relative to HIP
50648
                    50651 gives: \Delta Hp = 3.67, \theta = 188^{\circ}, \varrho = 1.15 arcsec.
50651
                  See HIP 50648.
50798
                  Ambiguous double-star solution of HIP 50798 + 50804. An alternative solution for HIP 50798 relative to HIP
                    50804 gives: \Delta Hp = 0.66, \theta = 251^{\circ}, \varrho = 0.16 arcsec.
50804
                  See HIP 50798.
50830
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.88, \theta = 266^{\circ}, \varrho = 0.64 arcsec.
50909
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 4.05, \theta = 359^{\circ}, \varrho = 2.23 arcsec.
51031
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.84, \theta = 177^{\circ}, \varrho = 0.49 arcsec.
51288
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 3.56, \theta = 218^{\circ}, \varrho = 0.42 arcsec.
                  Ambiguous double-star solution of HIP 51727 + 51734. An alternative solution for HIP 51727 relative to HIP
51727
                    51734 gives: \Delta Hp = 2.59, \theta = 292^{\circ}, \rho = 26.24 arcsec.
51734
                  See HIP 51727.
51740
                  An alternative VIM solution for this system gives \theta = 162^{\circ} for the constant star relative to the variable.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 4.05, \theta = 16^{\circ}, \varrho = 1.09 arcsec.
51824
51847
           P
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.90, \theta = 344^{\circ}, \varrho = 1.15 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.30, \theta = 278^{\circ}, \varrho = 16.31 arcsec.
51876
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 1.92, \theta = 147^{\circ}, \varrho = 16.36 arcsec.
52038
52202
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 4.05, \theta = 5^{\circ}, \varrho = 1.23 arcsec.
                  Ambiguous double-star solution. An alternative solution for AB gives: \Delta Hp = 2.88, \theta = 359^{\circ}, \varrho = 1.04 arcsec.
52499
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Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.99$, $\theta = 18^{\circ}$, $\rho = 0.67$ arcsec.

52940 Ambiguous double-star solution of HIP 52940 + 52942. An alternative solution for HIP 52940 relative to HIP 52942 gives: $\Delta Hp = 0.42$, $\theta = 275^{\circ}$, $\varrho = 17.53$ arcsec. 52942 See HIP 52940. 53152 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.09$, $\theta = 155^{\circ}$, $\rho = 1.63$ arcsec. 53326 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.25$, $\theta = 359^{\circ}$, $\varrho = 0.97$ arcsec. 53421 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.24$, $\theta = 169^{\circ}$, $\varrho = 2.62$ arcsec. 53494 Ambiguous double-star solution of HIP 53494 + 53496. An alternative solution for HIP 53496 relative to HIP 53494 gives: $\Delta Hp = 2.06$, $\theta = 109^{\circ}$, $\varrho = 16.21$ arcsec. 53496 53632 Ambiguous double-star solution of HIP 53632 + 53633. An alternative solution for HIP 53632 relative to HIP 53633 gives: $\Delta Hp = 2.41$, $\theta = 351^{\circ}$, $\varrho = 19.16$ arcsec. 53633 See HIP 53632. 53782 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.52$, $\theta = 121^{\circ}$, $\varrho = 0.19$ arcsec. Ambiguous double-star solution of HIP 53947 + 53953. An alternative solution for HIP 53947 relative to HIP 53947 53953 gives: $\Delta Hp = 0.61$, $\theta = 286^{\circ}$, $\varrho = 18.87$ arcsec. 53953 See HIP 53947. 54066 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.37$, $\theta = 126^{\circ}$, $\varrho = 1.56$ arcsec. Ambiguous double-star solution of HIP 54293 + 54298. An alternative solution for HIP 54298 relative to HIP 54293 54293 gives: $\Delta Hp = 0.53$, $\theta = 42^{\circ}$, $\varrho = 22.67$ arcsec. 54298 See HIP 54293. 54375 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.86$, $\theta = 65^{\circ}$, $\varrho = 3.06$ arcsec. Ambiguous double-star solution of HIP 54700 + 54701. An alternative solution for HIP 54700 relative to HIP 54700 54701 gives: $\Delta Hp = 1.24$, $\theta = 348^{\circ}$, $\varrho = 22.08$ arcsec. 54701 See HIP 54700. 54980 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 2.96$, $\theta = 42^{\circ}$, $\rho = 1.73$ arcsec. 55055 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.49$, $\theta = 280^{\circ}$, $\varrho = 2.28$ arcsec. 55067 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.77$, $\theta = 333^{\circ}$, $\varrho = 3.99$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.65$, $\theta = 16^{\circ}$, $\varrho = 0.29$ arcsec. 55115 Ambiguous double-star solution of HIP 55402 + 55404. An alternative solution for HIP 55404 relative to HIP 55402 55402 gives: $\Delta Hp = 1.82$, $\theta = 173^{\circ}$, $\varrho = 22.83$ arcsec. 55404 See HIP 55402. 55663 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 13^{\circ}$, $\rho = 0.39$ arcsec. 55793 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.14$, $\theta = 318^{\circ}$, $\varrho = 1.54$ arcsec. Ambiguous double-star solution of HIP 55846 + 55848. An alternative solution for HIP 55848 relative to HIP 55846 55846 gives: $\Delta Hp = 1.89$, $\theta = 150^{\circ}$, $\varrho = 27.96$ arcsec. 55848 The solution for the B component (HIP 55987) may be spurious. 55986 55987 See HIP 55986 56110 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.38$, $\theta = 285^{\circ}$, $\varrho = 1.18$ arcsec. 56267 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.48$, $\theta = 336^{\circ}$, $\varrho = 5.10$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.15$, $\theta = 272^{\circ}$, $\varrho = 1.12$ arcsec. 56401 56469 Ambiguous double-star solution of HIP 56469 + 56472. An alternative solution for HIP 56472 relative to HIP 56469 gives: $\Delta Hp = 0.47$, $\theta = 56^{\circ}$, $\varrho = 23.54$ arcsec. 56472 See HIP 56469. 56788 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.14$, $\theta = 247^{\circ}$, $\varrho = 5.09$ arcsec. 57146 Uncertain triple-star solution of system HIP 57148 (A) + 57146 (BC). TYC 7745-190-2 (at $\alpha = 175^{\circ}.800589$. G $\delta = -39^{\circ}.432\,643$) may be identified with component B (in HIP 57146), which is then located at $\theta = 336^{\circ}$, $\varrho = 24.86$ arcsec relative to component A. Tycho data suggest that component C is correctly located relative to B. 57148 G See HIP 57146. 57272 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 151^{\circ}$, $\varrho = 1.57$ arcsec. 57283 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.16$, $\theta = 287^{\circ}$, $\varrho = 1.64$ arcsec. 57557 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.76$, $\theta = 97^{\circ}$, $\varrho = 11.73$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.75$, $\theta = 100^{\circ}$, $\varrho = 19.17$ arcsec. 57595 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.46$, $\theta = 205^{\circ}$, $\varrho = 2.41$ arcsec. 57647 57844 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.20$, $\theta = 330^{\circ}$, $\varrho = 4.94$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.11$, $\theta = 30^{\circ}$, $\varrho = 0.63$ arcsec.

- 57937 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.21$, $\theta = 54^{\circ}$, $\varrho = 2.70$ arcsec.
- Ambiguous double-star solution of HIP 58347 + 58352. An alternative solution for HIP 58352 relative to HIP 58347 gives: $\Delta Hp = 1.67$, $\theta = 159^{\circ}$, $\varrho = 0.23$ arcsec.
- 58352 See HIP 58347.
- 58697 Ambiguous double-star solution of HIP 58697 + 58713. An alternative solution for HIP 58713 relative to HIP 58697 gives: $\Delta Hp = 4.08$, $\theta = 151^{\circ}$, $\varrho = 23.70$ arcsec.
- 58713 See HIP 58697.
- 58760 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.21$, $\theta = 93^{\circ}$, $\varrho = 3.76$ arcsec.
- 58846 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.13$, $\theta = 41^{\circ}$, $\varrho = 0.21$ arcsec.
- 58906 G Uncertain triple-star solution of system HIP 58906 (A) + 58910 (B) + 58909 (C). TYC 8978-5554-1 (at $\alpha = 181^{\circ}.202658$, $\delta = -62^{\circ}.002276$) may be identified with component B (HIP 58910), which is then located at $\theta = 149^{\circ}$, $\rho = 22.79$ arcsec relative to component A.
- 58909 G See HIP 58906.
- 58910 G See HIP 58906.
- 58920 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.94$, $\theta = 127^{\circ}$, $\varrho = 1.58$ arcsec.
- 59004 Ambiguous double-star solution. An alternative solution for AB gives: ΔHp = 3.04, $θ = 87^{\circ}$, ρ = 1.09 arcsec.
- 59007 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.25$, $\theta = 130^{\circ}$, $\varrho = 1.74$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.82$, $\theta = 107^\circ$, $\varrho = 2.02$ arcsec.
- 59101 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.05$, $\theta = 12^{\circ}$, $\varrho = 0.26$ arcsec.
- 59190 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.80$, $\theta = 28^{\circ}$, $\varrho = 1.53$ arcsec.
- 59233 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 1.92$, $\theta = 54^{\circ}$, $\varrho = 1.49$ arcsec. 59368 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.27$, $\theta = 199^{\circ}$, $\varrho = 1.69$ arcsec.
- 59568 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.58$, $\theta = 108^{\circ}$, $\varrho = 9.89$ arcsec.
- 59660 Ambiguous double-star solution of HIP 59660 + 59667. An alternative solution for HIP 59667 relative to HIP
- Ambiguous double-star solution of HIP 59660 + 59667. An alternative solution for HIP 59667 relative to HIP 59660 gives: $\Delta Hp = 1.39$, $\theta = 80^{\circ}$, $\varrho = 26.86$ arcsec.
- 59667 See HIP 59660.
- 59966 Component B is really the photocentre of BC.
- 59996 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = -0.32$ (component reversal).
- 60155 Uncertain double-star solution. Tycho data suggest that component B is located at $\theta = 298^{\circ}$, $\varrho = 14.70$ arcsec relative to component A.
- 60352 Ambiguous double-star solution of HIP 60352 + 60353. An alternative solution for HIP 60352 relative to HIP 60353 gives: $\Delta Hp = 2.85$, $\theta = 345^{\circ}$, $\rho = 20.35$ arcsec.
- 60353 See HIP 60352.
- 60432 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.62$, $\theta = 272^{\circ}$, $\varrho = 2.22$ arcsec.
- Ambiguous double-star solution of HIP 60469 + 60472. An alternative solution for HIP 60472 relative to HIP 60469 gives: $\Delta Hp = 2.36$, $\theta = 92^{\circ}$, $\varrho = 21.84$ arcsec.
- 60472 See HIP 60469.
- Ambiguous double-star solution. An alternative solution for AS gives: $\Delta Hp = 3.00$, $\theta = 82^{\circ}$, $\rho = 0.57$ arcsec.
- 60772 P The double-star analysis indicates that it is the fainter (B) component which is variable.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.37$, $\theta = 262^{\circ}$, $\rho = 22.17$ arcsec.
- 61247 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.44$, $\theta = 281^{\circ}$, $\varrho = 0.25$ arcsec.
- 61303 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.14$, $\theta = 5^{\circ}$, $\varrho = 3.33$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.31$, $\theta = 108^{\circ}$, $\varrho = 9.30$ arcsec.
- 61524 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.34$, $\theta = 309^{\circ}$, $\varrho = 8.32$ arcsec.
- 61896 Ambiguous double-star solution of HIP 61896 + 61900. An alternative solution for HIP 61896 relative to HIP 61900 gives: $\Delta Hp = 2.84$, $\theta = 203^{\circ}$, $\varrho = 25.31$ arcsec.
- 61900 P See HIP 61896.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 271^{\circ}$, $\varrho = 1.38$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.03$, $\theta = 249^{\circ}$, $\rho = 12.72$ arcsec.
- 62162 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.50$, $\theta = 83^{\circ}$, $\varrho = 0.99$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.30$, $\theta = 278^{\circ}$, $\varrho = 0.88$ arcsec.
- 62263 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.90$, $\theta = 86^{\circ}$, $\varrho = 1.41$ arcsec.
- 62336 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.02$, $\theta = 0^{\circ}$, $\varrho = 2.64$ arcsec.
- 62387 Ambiguous double-star solution of HIP 62387 + 62390. An alternative solution for HIP 62387 relative to HIP 62390 gives: $\Delta Hp = 3.34$, $\theta = 296^{\circ}$, $\varrho = 18.12$ arcsec.
- 62390 See HIP 62387.
- 62505 The B component may be spurious.

- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.55$, $\theta = 52^{\circ}$, $\varrho = 15.14$ arcsec.
- 62643 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.30$, $\theta = 333^{\circ}$, $\varrho = 17.35$ arcsec.
- 62672 Ambiguous double-star solution of HIP 62672 + 62675. An alternative solution for HIP 62672 relative to HIP 62675 gives: $\Delta Hp = 2.35$, $\theta = 233^{\circ}$, $\varrho = 11.95$ arcsec.
- 62675 See HIP 62672.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.20$, $\theta = 211^{\circ}$, $\varrho = 17.28$ arcsec.
- 62723 Ambiguous double-star solution of HIP 62723 + 62726. An alternative solution for HIP 62723 gives: $\Delta Hp = 2.01$, $\theta = 176^{\circ}$, $\rho = 9.77$ arcsec.
- 62725 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.91$, $\theta = 193^{\circ}$, $\varrho = 5.90$ arcsec.
- Ambiguous double-star solution of HIP 62723 + 62726. An alternative solution for HIP 62723 gives: $\Delta Hp = 2.01$, $\theta = 176^{\circ}$, $\varrho = 9.77$ arcsec.
- 62915 An orbital solution based on elements by R.F. Griffin, Observatory, 103, 17, 1983, gives a semi-major axis of 5 mas for the photocentre.
- 62951 Ambiguous double-star solution of HIP 62951 (B) + 62954 (A). An alternative solution for HIP 62951 relative to HIP 62954 gives: $\Delta Hp=1.69,~\theta=291^{\circ},~\varrho=23.59$ arcsec. TYC 6114-1761-1 (at $\alpha=193^{\circ}.495\,099,~\delta=-18^{\circ}.034\,908$) may be identified with component B (HIP 62951), which is then located at $\theta=295^{\circ},~\varrho=23.31$ arcsec relative to component A.
- 62954 See HIP 62951.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.04$, $\theta = 28^{\circ}$, $\varrho = 0.84$ arcsec.
- 63079 Uncertain double-star solution of system HIP 63081 (A) + 63079 (B). TYC 885-1206-1 (at $\alpha=193^\circ.876\,391$, $\delta=+11^\circ.496\,233$) may be identified with component A (HIP 63081). The position of component B (HIP 63079) is probably correct, giving $\theta=220^\circ$, $\varrho=29.63$ arcsec relative to component A.
- 63081 G See HIP 63079.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.40$, $\theta = 321^{\circ}$, $\varrho = 2.21$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.96$, $\theta = 225^{\circ}$, $\varrho = 14.51$ arcsec.
- 63383 Ambiguous double-star solution of HIP 63383 + 63386. An alternative solution for HIP 63383 relative to HIP 63386 gives: $\Delta Hp = 1.22$, $\theta = 311^{\circ}$, $\varrho = 22.98$ arcsec.
- 63386 See HIP 63383
- 63507 Ambiguous double-star solution of HIP 63507 (B) + 63509 (A). An alternative solution for HIP 63507 relative to HIP 63509 gives: $\Delta Hp = 2.35$, $\theta = 189^{\circ}$, $\varrho = 26.74$ arcsec. TYC 889-263-1 (at $\alpha = 195^{\circ}.192.552$, $\delta = +14^{\circ}.370.086$) may be identified with component B (HIP 63507), which is then located at $\theta = 188^{\circ}$, $\varrho = 26.74$ arcsec relative to component A.
- 63509 See HIP 63507.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.59$, $\theta = 110^{\circ}$, $\varrho = 0.22$ arcsec.
- 64060 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.71$, $\theta = 2.78^{\circ}$, $\varrho = 0.75$ arcsec.
- 64153 Ambiguous double-star solution of HIP 64153 + 64154. An alternative solution for HIP 64154 relative to HIP 64153 gives: $\Delta Hp = 1.76$, $\theta = 57^{\circ}$, $\varrho = 17.28$ arcsec.
- 64154 See HIP 64153
- 64251 Ambiguous double-star solution of HIP 64251 + 64252. An alternative solution for HIP 64251 relative to HIP 64252 gives: $\Delta Hp = 1.65$, $\theta = 183^{\circ}$, $\varrho = 27.07$ arcsec.
- 64252 See HIP 64251.
- 64286 Ambiguous double-star solution of HIP 64286 + 64289. An alternative solution for HIP 64289 relative to HIP 64286 gives: $\Delta Hp = 2.93$, $\theta = 134^{\circ}$, $\varrho = 24.02$ arcsec.
- 64289 See HIP 64286
- 64372 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.97$, $\theta = 80^{\circ}$, $\varrho = 1.75$ arcsec.
- 64451 Ambiguous double-star solution of HIP 64451 + 64454. An alternative solution for HIP 64454 relative to HIP 64451 gives: $\Delta Hp = 2.51$, $\theta = 120^{\circ}$, $\varrho = 26.22$ arcsec.
- 64454 See HIP 64451.
- 64455 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.00$, $\theta = 302^{\circ}$, $\varrho = 10.68$ arcsec.
- 64558 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.89$, $\theta = 295^{\circ}$, $\varrho = 0.17$ arcsec.
- Ambiguous double-star solution of HIP 64616 + 64620. An alternative solution for HIP 64620 relative to HIP 64616 gives: $\Delta Hp = 0.42$, $\theta = 150^{\circ}$, $\varrho = 22.71$ arcsec.
- 64620 See HIP 64616.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.66$, $\theta = 196^{\circ}$, $\varrho = 0.25$ arcsec.
- 64863 Ambiguous double-star solution of HIP 64863 + 64868. An alternative solution for HIP 64868 relative to HIP 64863 gives: $\Delta Hp = 2.57$, $\theta = 121^{\circ}$, $\varrho = 0.25$ arcsec.
- 64868 See HIP 64863.
- 65166 P An alternative VIM solution for this system gives $\theta = 175^{\circ}$ for the constant star relative to the variable.

66086 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.75$, $\theta = 197^{\circ}$, $\varrho = 0.52$ arcsec. 66089 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.42$, $\theta = 137^{\circ}$, $\varrho = 4.98$ arcsec. 66093 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.33$, $\theta = 51^{\circ}$, $\varrho = 0.76$ arcsec. 66121 Ambiguous double-star solution of HIP 66121 + 66125. An alternative solution for HIP 66125 relative to HIP 66121 gives: $\Delta Hp = 3.98$, $\theta = 149^{\circ}$, $\varrho = 22.13$ arcsec. 66125 See HIP 66121. 66134 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.65$, $\theta = 360^{\circ}$, $\rho = 1.60$ arcsec. 66182 Ambiguous double-star solution of HIP 66182 + 66183. An alternative solution for HIP 66182 relative to HIP 66183 gives: $\Delta Hp = 1.78$, $\theta = 228^{\circ}$, $\varrho = 13.11$ arcsec. 66183 See HIP 66182. 66408 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.40$, $\theta = 224^{\circ}$, $\varrho = 11.28$ arcsec. 66531 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 140^{\circ}$, $\rho = 1.05$ arcsec. 66668 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.61$, $\theta = 359^{\circ}$, $\varrho = 0.90$ arcsec. 66784 Ambiguous double-star solution of HIP 66784 + 66785. An alternative solution for HIP 66784 relative to HIP 66785 gives: $\Delta Hp = 3.94$, $\theta = 283^{\circ}$, $\varrho = 17.26$ arcsec. 66785 66851 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.35$, $\theta = 94^{\circ}$, $\rho = 0.40$ arcsec. 66928 Ambiguous double-star solution of HIP 66928 + 66933. An alternative solution for HIP 66933 gives: $\Delta Hp = 0.53$, $\theta = 131^{\circ}, \ \rho = 0.24 \ \text{arcsec}.$ 66933 See HIP 66928. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.78$, $\theta = 165^{\circ}$, $\varrho = 1.91$ arcsec. 66985 67067 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.76$, $\theta = 113^{\circ}$, $\varrho = 0.55$ arcsec. 67308 The double-star analysis indicates that it may be the fainter (B) component which is variable. 67479 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.75$, $\theta = 45^{\circ}$, $\varrho = 0.82$ arcsec. An orbital solution based on elements by R.F. Griffin, J. Astrophys. Astr., 6, 77, 1985, gives a semi-major axis of 7 67480 mas for the photocentre. 67506 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.68$, $\theta = 325^{\circ}$, $\varrho = 10.30$ arcsec. 67593 Ambiguous double-star solution of HIP 67593 + 67594. An alternative solution for HIP 67593 relative to HIP 67594 gives: $\Delta Hp = 2.05$, $\theta = 278^{\circ}$, $\rho = 22.56$ arcsec. 67594 67633 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.13$, $\theta = 357^{\circ}$, $\rho = 0.30$ arcsec. 67683 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.91$, $\theta = 258^{\circ}$, $\varrho = 10.23$ arcsec. The positions given for HIP 67688 and 67694 are about 17 arcsec off from the positions in the Hipparcos Input 67688 Catalogue. The given position for HIP 67688 approximately agrees with the Hipparcos Input Catalogue position for 67694, suggesting a confusion of the two entries in either catalogue. The positions given in the Hipparcos Catalogue are probably correct, in which case the photometry may be badly affected by the pointing error. 67694 See HIP 67688. 68117 Ambiguous double-star solution of HIP 68117 + 68125. An alternative solution for HIP 68125 relative to HIP 68117 gives: $\Delta Hp = 0.92$, $\theta = 108^{\circ}$, $\varrho = 31.29$ arcsec. 68125 See HIP 68117. 68374 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.13$, $\theta = 244^{\circ}$, $\varrho = 0.88$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.07$, $\theta = 127^{\circ}$, $\varrho = 1.60$ arcsec. 68384 68399 Ambiguous double-star solution of HIP 68399 + 68402. An alternative solution for HIP 68402 relative to HIP 68399 gives: $\Delta Hp = 1.84$, $\theta = 102^{\circ}$, $\varrho = 30.41$ arcsec. 68402 See HIP 68399. Ambiguous double-star solution of HIP 68548 + 68549. An alternative solution for HIP 68549 relative to HIP 68548 68548 gives: $\Delta Hp = 0.75$, $\theta = 155^{\circ}$, $\varrho = 20.78$ arcsec. 68549 68836 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.29$, $\theta = 78^{\circ}$, $\varrho = 1.35$ arcsec. 68887 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.28$, $\theta = 224^{\circ}$, $\varrho = 0.72$ arcsec. 68976 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.22$, $\theta = 358^{\circ}$, $\varrho = 1.98$ arcsec. 69050 P The double-star analysis indicates that it is the fainter (B) component which is variable. 69270 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.29$, $\theta = 11^{\circ}$, $\varrho = 0.24$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.50$, $\theta = 204^{\circ}$, $\varrho = 0.92$ arcsec. 69499 69524 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.51$, $\theta = 196^{\circ}$, $\varrho = 17.91$ arcsec. 69583 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.08$, $\theta = 22^{\circ}$, $\varrho = 4.04$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.58$, $\theta = 352^{\circ}$, $\varrho = 13.62$ arcsec.

- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.31$, $\theta = 342^{\circ}$, $\varrho = 4.17$ arcsec. Ambiguous double-star solution of HIP 69750 + 69755. An alternative solution for HIP 69755 relative to HIP 69750 gives: $\Delta Hp = 0.94$, $\theta = 125^{\circ}$, $\varrho = 22.37$ arcsec.
- 69755 See HIP 69750
- 69797 Ambiguous double-star solution of HIP 69797 + 69799. An alternative solution for HIP 69799 relative to HIP 69797 gives: $\Delta Hp = 2.02$, $\theta = 26^{\circ}$, $\varrho = 11.47$ arcsec.
- 69799 See HIP 69797.
- Ambiguous double-star solution. An alternative solution for AS gives: $\Delta Hp = 0.56$, $\theta = 7^{\circ}$, $\rho = 1.50$ arcsec.
- 69893 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.22$, $\theta = 56^{\circ}$, $\rho = 0.94$ arcsec.
- 70120 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.22$, $\theta = 28^{\circ}$, $\varrho = 0.27$ arcsec.
- 70179 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.95$, $\theta = 92^{\circ}$, $\varrho = 0.41$ arcsec.
- 70185 Ambiguous double-star solution of HIP 70185 + 70186. An alternative solution for HIP 70185 relative to HIP 70186 gives: $\Delta Hp = 3.06$, $\theta = 182^{\circ}$, $\varrho = 20.52$ arcsec.
- 70186 See HIP 70185.
- 70209 Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = -0.62$ (component reversal).
- 70302 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.65$, $\theta = 254^{\circ}$, $\varrho = 3.53$ arcsec.
- 70396 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.99$, $\theta = 256^{\circ}$, $\varrho = 2.16$ arcsec.
- 70707 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 0.25$, $\theta = 25^{\circ}$, $\varrho = 0.36$ arcsec.
- 70781 Ambiguous double-star solution of HIP 70781 + 70786. An alternative solution for HIP 70781 relative to HIP 70786 gives: $\Delta Hp = 0.26$, $\theta = 260^{\circ}$, $\varrho = 26.85$ arcsec.
- 70786 See HIP 70781.
- 70808 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.03$, $\theta = 189^{\circ}$, $\varrho = 0.34$ arcsec.
- 70926 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.04$, $\theta = 219^{\circ}$, $\varrho = 0.56$ arcsec.
- 70939 Ambiguous double-star solution of HIP 70939 + 70940. An alternative solution for HIP 70940 relative to HIP 70939 gives: $\Delta Hp = 1.11$, $\theta = 178^{\circ}$, $\varrho = 20.63$ arcsec.
- 70940 See HIP 70939.
- 71164 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.03$, $\theta = 58^{\circ}$, $\varrho = 1.63$ arcsec.
- 71278 Ambiguous double-star solution of HIP 71278 + 71281. An alternative solution for HIP 71278 relative to HIP 71281 gives: $\Delta Hp = 1.21$, $\theta = 342^{\circ}$, $\varrho = 31.32$ arcsec.
- 71281 See HIP 71278
- 71620 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.89$, $\theta = 251^{\circ}$, $\rho = 0.99$ arcsec.
- 71681 Ambiguous double-star solution of HIP 71681 + 71683. An alternative solution for HIP 71681 relative to HIP 71683 gives: $\Delta Hp = 1.65$, $\theta = 221^{\circ}$, $\varrho = 22.13$ arcsec.
- 71683 See HIP 71681.
- 71686 Ambiguous double-star solution. An alternative solution for CD gives: $\Delta Hp = 1.65$, $\theta = 70^{\circ}$, $\varrho = 0.94$ arcsec.
- 71811 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.21$, $\theta = 359^{\circ}$, $\varrho = 2.11$ arcsec.
- 71867 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 232^{\circ}$, $\varrho = 3.83$ arcsec.
- 71878 Ambiguous double-star solution of HIP 71878 + 71882. An alternative solution for HIP 71878 relative to HIP 71882 gives: $\Delta Hp = 2.08$, $\theta = 287^{\circ}$, $\varrho = 27.67$ arcsec.
- 71882 See HIP 71878.
- 71926 Ambiguous double-star solution of HIP 71926 + 71928. An alternative solution for HIP 71928 relative to HIP 71926 gives: $\Delta Hp = 1.89$, $\theta = 134^{\circ}$, $\varrho = 26.48$ arcsec.
- 71928 See HIP 71926.
- 71990 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.30$, $\theta = 57^{\circ}$, $\varrho = 10.57$ arcsec.
- 72235 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.11$, $\theta = 28^{\circ}$, $\varrho = 10.32$ arcsec.
- 72476 Ambiguous double-star solution of HIP 72476 + 72477. An alternative solution for HIP 72476 relative to HIP 72477 gives: $\Delta Hp = 1.01$, $\theta = 177^{\circ}$, $\varrho = 20.63$ arcsec.
- 72477 See HIP 72476.
- 72504 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.31$, $\theta = 216^{\circ}$, $\varrho = 3.42$ arcsec.
- 72733 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.22$, $\theta = 338^{\circ}$, $\varrho = 1.72$ arcsec.
- 72745 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.35$, $\theta = 170^{\circ}$, $\varrho = 1.04$ arcsec.
- 73144 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.85$, $\theta = 277^{\circ}$, $\varrho = 0.31$ arcsec.
- 73182 Ambiguous double-star solution of HIP 73182 + 73184. An alternative solution for HIP 73182 relative to HIP 73184 gives: $\Delta Hp = 1.60$, $\theta = 299^{\circ}$, $\varrho = 24.25$ arcsec.
- 73184 See HIP 73182.
- 73192 P Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.20$, $\theta = 266^{\circ}$, $\varrho = 1.58$ arcsec. The double-star analysis indicates that it is the fainter (B) component which is variable.

- 73478 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.87$, $\theta = 101^{\circ}$, $\varrho = 17.78$ arcsec.
- 73529 Ambiguous double-star solution of HIP 73529 + 73531. An alternative solution for HIP 73531 relative to HIP 73529 gives: $\Delta Hp = 1.74$, $\theta = 29^{\circ}$, $\varrho = 19.35$ arcsec.
- 73531 See HIP 73529.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.03$, $\theta = 73^{\circ}$, $\varrho = 2.56$ arcsec.
- 73630 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.24$, $\theta = 245^{\circ}$, $\varrho = 4.64$ arcsec.
- 73633 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.75$, $\theta = 33^{\circ}$, $\varrho = 4.66$ arcsec.
- 73695 The double-star analysis indicates that it may be the fainter (B) component which is variable.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.85$, $\theta = 314^{\circ}$, $\varrho = 0.26$ arcsec.
- 73803 Ambiguous double-star solution of HIP 73803 + 73816. An alternative solution for HIP 73803 relative to HIP 73816 gives: $\Delta Hp = 1.99$, $\theta = 276^{\circ}$, $\varrho = 24.00$ arcsec.
- 73816 See HIP 73803.
- 74142 Ambiguous double-star solution of HIP 74142 + 74143. An alternative solution for HIP 74143 relative to HIP 74142 gives: $\Delta Hp = 1.76$, $\theta = 155^{\circ}$, $\varrho = 18.60$ arcsec.
- 74143 See HIP 74142.
- 74291 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.28$, $\theta = 50^{\circ}$, $\varrho = 2.30$ arcsec.
- 74386 An alternative VIM solution for this system gives $\theta = 78^{\circ}$ for the constant star relative to the variable.
- 74473 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.98$, $\theta = 78^{\circ}$, $\rho = 1.65$ arcsec.
- 74937 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.48$, $\theta = 296^{\circ}$, $\varrho = 1.02$ arcsec.
- 75130 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.23$, $\theta = 170^{\circ}$, $\varrho = 1.81$ arcsec.
- 75416 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.14$, $\theta = 219^{\circ}$, $\varrho = 2.33$ arcsec.
- 75728 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.00$, $\theta = 330^{\circ}$, $\varrho = 0.25$ arcsec.
- 75741 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.30$, $\theta = 257^{\circ}$, $\varrho = 0.72$ arcsec.
- 75840 Ambiguous double-star solution of HIP 75840 + 75845. An alternative solution for HIP 75845 relative to HIP 75840 gives: $\Delta Hp = 2.15$, $\theta = 152^{\circ}$, $\varrho = 12.39$ arcsec.
- 75845 See HIP 75840.
- 76001 Component A is really the photocentre of AB.
- 76029 Tycho data suggest that component B is located at $\theta = 334^{\circ}$, $\varrho = 5.55$ arcsec.
- 76051 Component A (in HIP 76052) is really the photocentre of AB.
- 76052 See HIP 76051.
- 76227 Ambiguous double-star solution of HIP 76227 + 76229. An alternative solution for HIP 76227 relative to HIP 76229 gives: $\Delta Hp = 2.34$, $\theta = 242^{\circ}$, $\varrho = 11.77$ arcsec.
- 76229 See HIP 76227.
- 76351 Ambiguous double-star solution of HIP 76351 + 76362. An alternative solution for HIP 76362 relative to HIP 76351 gives: $\Delta Hp = 1.09$, $\theta = 64^{\circ}$, $\varrho = 20.93$ arcsec.
- 76362 See HIP 76351.
- 76414 Ambiguous double-star solution. An alternative solution for AD gives: $\Delta Hp = 2.14$, $\theta = 327^{\circ}$, $\varrho = 3.68$ arcsec.
- 76507 Ambiguous double-star solution of HIP 76507 + 76510. An alternative solution for HIP 76510 relative to HIP 76507 gives: $\Delta Hp = 0.86$, $\theta = 47^{\circ}$, $\varrho = 31.75$ arcsec.
- 76510 See HIP 76507.
- 76570 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.13$, $\theta = 315^{\circ}$, $\varrho = 1.12$ arcsec.
- 76572 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.48$, $\theta = 227^{\circ}$, $\varrho = 3.12$ arcsec.
- 76575 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.21$, $\theta = 32^{\circ}$, $\varrho = 0.96$ arcsec.
- 76646 P The double-star analysis indicates that it may be the fainter (B) component which is variable.
- 77202 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.67$, $\theta = 34^{\circ}$, $\varrho = 0.68$ arcsec.
- 77229 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.92$, $\theta = 224^{\circ}$, $\rho = 0.32$ arcsec.
- 77555 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.80$, $\theta = 334^{\circ}$, $\varrho = 0.30$ arcsec.
- 77725 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.97$, $\theta = 282^{\circ}$, $\varrho = 7.08$ arcsec.
- 77760 The small value of the semi-major axis and its low significance in spite of the short period casts doubts on the reliability of the orbit.
- 78301 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.80$, $\theta = 172^{\circ}$, $\varrho = 0.96$ arcsec.
- 78331 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.11$, $\theta = 190^{\circ}$, $\varrho = 0.26$ arcsec.
- 78351 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.73$, $\theta = 92^{\circ}$, $\rho = 1.52$ arcsec.
- 78385 Ambiguous double-star solution of HIP 78385 + 78386. An alternative solution for HIP 78385 relative to HIP 78386 gives: $\Delta Hp = 3.37$, $\theta = 336^{\circ}$, $\varrho = 16.81$ arcsec.
- 78386 See HIP 78385.
- 78712 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.08$, $\theta = 111^{\circ}$, $\varrho = 0.62$ arcsec.

- **DMSA Notes DN19** 78749-82926 78749 Component B is really the photocentre of BC. Ambiguous double-star solution of HIP 78759 + 78760. An alternative solution for HIP 78760 gives: $\Delta Hp = 1.34$, 78759 $\theta = 95^{\circ}$, $\varrho = 0.38$ arcsec. 78760 See HIP 78759. 79033 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.65$, $\theta = 297^{\circ}$, $\varrho = 5.11$ arcsec. 79043 Ambiguous double-star solution of HIP 79043 + 79045. An alternative solution for HIP 79045 gives: $\Delta Hp = 3.11$, $\theta = 167^{\circ}$, $\varrho = 1.09$ arcsec. 79045 See HIP 79043. 79384 Ambiguous double-star solution of HIP 79384 + 79388. An alternative solution for HIP 79384 gives: $\Delta Hp = 2.10$, $\theta = 276^{\circ}$, $\varrho = 0.24$ arcsec. 79388 79925 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.04$, $\theta = 237^{\circ}$, $\varrho = 19.75$ arcsec. 79979 Ambiguous double-star solution of HIP 79979 + 79980. An alternative solution for HIP 79979 relative to HIP 79980 gives: $\Delta Hp = 1.53$, $\theta = 313^{\circ}$, $\varrho = 22.94$ arcsec. 79980 See HIP 79979. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.52$, $\theta = 89^{\circ}$, $\varrho = 1.09$ arcsec. 80074 80140 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.63$, $\theta = 273^{\circ}$, $\varrho = 11.77$ arcsec. 80190 Ambiguous double-star solution of HIP 80190 + 80194. An alternative solution for HIP 80190 relative to HIP 80194 gives: $\Delta Hp = 0.36$, $\theta = 309^{\circ}$, $\varrho = 17.06$ arcsec. The positions given for HIP 80190 and 80194 are about 17 arcsec off from the positions in the Hipparcos Input Catalogue. The given position for HIP 80194 approximately agrees with the Hipparcos Input Catalogue position for 80190, suggesting a confusion of the two entries in either catalogue. The positions given in the Hipparcos Catalogue are probably correct for both entries, but the photometry may be badly affected by the pointing error. 80194 80449 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.06$, $\theta = 153^{\circ}$, $\varrho = 3.91$ arcsec. 80635 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.37$, $\theta = 125^{\circ}$, $\varrho = 12.34$ arcsec. 80776 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.45$, $\theta = 6^{\circ}$, $\varrho = 9.46$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.57$, $\theta = 288^{\circ}$, $\varrho = 3.09$ arcsec. 80810 80816 The results announced by X.P. Pan, M. Shao, M.M. Colavita, B.E. Hines, J.T. Armstrong, C.S. Denisson, M. Vivekanand, D. Mozurkewich, R.S. Simon, K.J. Johnston, BAAS, 22, 1335, 1990, do not agree with the results 80979 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.58$, $\theta = 308^{\circ}$, $\varrho = 2.19$ arcsec. Ambiguous double-star solution of HIP 81134 + 81137. An alternative solution for HIP 81134 gives: $\Delta Hp = 0.43$, 81134 $\theta = 15^{\circ}$, $\varrho = 0.23$ arcsec. 81137 See HIP 81134. 81194 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.45$, $\theta = 325^{\circ}$, $\varrho = 4.08$ arcsec. 81225 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.51$, $\theta = 251^{\circ}$, $\rho = 4.53$ arcsec. 81320 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.65$, $\theta = 319^{\circ}$, $\varrho = 0.42$ arcsec. 81492 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.80$, $\theta = 122^{\circ}$, $\varrho = 3.15$ arcsec. 81494 Ambiguous double-star solution of HIP 81494 + 81496. An alternative solution for HIP 81496 relative to HIP 81494 gives: $\Delta Hp = 1.94$, $\theta = 356^{\circ}$, $\varrho = 0.30$ arcsec. 81496 See HIP 81494. 81562 Ambiguous double-star solution of HIP 81562 + 81565. An alternative solution for HIP 81562 relative to HIP 81565 gives: $\Delta Hp = 2.61$, $\theta = 324^{\circ}$, $\varrho = 20.82$ arcsec. 81565 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.68$, $\theta = 265^{\circ}$, $\varrho = 1.79$ arcsec. 81569 P Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.67$, $\theta = 129^{\circ}$, $\varrho = 4.71$ arcsec. 81589 81624 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.10$, $\theta = 243^{\circ}$, $\varrho = 1.54$ arcsec. 81854 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.85$, $\theta = 205^{\circ}$, $\varrho = 2.81$ arcsec. 82327 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.60$, $\theta = 222^{\circ}$, $\varrho = 9.01$ arcsec. 82623 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.12$, $\theta = 282^{\circ}$, $\varrho = 4.53$ arcsec.
 - 82724 Ambiguous double-star solution of HIP 82724 + 82725. An alternative solution for HIP 82724 relative to HIP 82725 gives: $\Delta Hp = 0.40$, $\theta = 347^{\circ}$, $\varrho = 12.97$ arcsec. 82725 See HIP 82724.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.20$, $\theta = 198^{\circ}$, $\varrho = 1.71$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.15$, $\theta = 15^{\circ}$, $\varrho = 0.69$ arcsec.

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- 82869 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.95$, $\theta = 321^{\circ}$, $\varrho = 15.56$ arcsec.
- 82926 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.27$, $\theta = 216^{\circ}$, $\varrho = 0.72$ arcsec.

- 82936 GP The double-star analysis indicates that it is the fainter (C) component which is variable.
- 83015 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.26$, $\theta = 288^{\circ}$, $\varrho = 3.36$ arcsec.
- 83024 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.79$, $\theta = 88^{\circ}$, $\varrho = 1.23$ arcsec.
- 83042 G Tycho data suggest that component C is located at $\theta = 89^{\circ}$, $\varrho = 19.80$ arcsec.
- 83369 G Tycho data suggest that component C is located at $\theta = 235^{\circ}$, $\rho = 15.41$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.37$, $\theta = 219^{\circ}$, $\varrho = 16.56$ arcsec.
- 83609 Uncertain double-star solution of system HIP 83612 (A) + 83609 (B). TYC 7368-903-1 (at $\alpha = 256^{\circ}336375$, $\delta = -33^{\circ}766667$) may be identified with component B (HIP 83609), which is then located at $\theta = 301^{\circ}$, $\varrho = 23.69$ arcsec relative to component A.
- 83612 See HIP 83609.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.18$, $\theta = 273^{\circ}$, $\rho = 17.29$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.99$, $\theta = 206^{\circ}$, $\varrho = 14.31$ arcsec.
- Ambiguous double-star solution of HIP 83851 + 83852. An alternative solution for HIP 83851 relative to HIP 83852 gives: $\Delta Hp = 1.24$, $\theta = 280^{\circ}$, $\varrho = 13.64$ arcsec. HIP 83851 is probably affected by a grid-step error.
- 83852 See HIP 83851.
- 83883 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.30$, $\theta = 188^{\circ}$, $\varrho = 0.38$ arcsec.
- 83935 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.78$, $\theta = 1^{\circ}$, $\varrho = 1.42$ arcsec.
- 83960 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.26$, $\theta = 17^{\circ}$, $\varrho = 13.52$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 268^{\circ}$, $\varrho = 0.51$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.39$, $\theta = 21^{\circ}$, $\varrho = 16.47$ arcsec.
- 84301 P Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.55$, $\theta = 325^{\circ}$, $\varrho = 1.39$ arcsec. The double-star analysis indicates that it may be the fainter (B) component which is variable.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.73$, $\theta = 126^{\circ}$, $\varrho = 5.11$ arcsec.
- Ambiguous double-star solution of HIP 84360 + 84363. An alternative solution for HIP 84363 relative to HIP 84360 gives: $\Delta Hp = 3.00$, $\theta = 119^{\circ}$, $\varrho = 27.37$ arcsec.
- 84363 See HIP 84360.
- Tycho data suggest that component A is located at $\theta = 340^{\circ}$, $\varrho = 5.33$ arcsec relative to component B.
- 84451 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.77$, $\theta = 297^{\circ}$, $\varrho = 4.87$ arcsec.
- 84512 Component A (in HIP 84513) is really the photocentre of AB.
- 84513 See HIP 84512.
- 84581 Ambiguous double-star solution of HIP 84581 + 84582. An alternative solution for HIP 84581 relative to HIP 84582 gives: $\Delta Hp = 1.90$, $\theta = 182^{\circ}$, $\varrho = 22.28$ arcsec.
- 84582 See HIP 84581.
- 84584 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.15$, $\theta = 139^{\circ}$, $\varrho = 0.45$ arcsec.
- 84842 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.87$, $\theta = 217^{\circ}$, $\varrho = 0.14$ arcsec.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.34$, $\theta = 297^{\circ}$, $\varrho = 12.51$ arcsec. Tycho data suggest that component B is located at $\theta = 304^{\circ}$, $\varrho = 17.10$ arcsec.
- 85036 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.26$, $\theta = 259^{\circ}$, $\varrho = 2.73$ arcsec.
- 85045 Component A is really the photocentre of AB.
- Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.98$, $\theta = 354^{\circ}$, $\varrho = 0.48$ arcsec. Tycho data suggest that component B is located at $\theta = 76^{\circ}$, $\varrho = 23.45$ arcsec.
- 85209 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.29$, $\theta = 23^{\circ}$, $\varrho = 1.46$ arcsec.
- 85227 Ambiguous double-star solution of HIP 85227 (B) + 85229 (A). An alternative solution for HIP 85227 relative to HIP 85229 gives: $\Delta Hp = 0.78,~\theta = 327^{\circ},~\varrho = 24.51$ arcsec. TYC 1003-1434-1 (at $\alpha = 261^{\circ}.228159,~\delta = +13^{\circ}.328395$) may be identified with component A (HIP 85229). Component B is then located at $\theta = 325^{\circ},~\varrho = 26.49$ arcsec relative to component A.
- 85229 See HIP 85227.
- 85440 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.55$, $\theta = 21^{\circ}$, $\varrho = 0.78$ arcsec.
- 85460 Ambiguous double-star solution of HIP 85460 + 85463. An alternative solution for HIP 85460 relative to HIP 85463 gives: $\Delta Hp = 2.15$, $\theta = 278^{\circ}$, $\varrho = 27.83$ arcsec.
- 85463 See HIP 85460.
- Ambiguous double-star solution of HIP 85605 (B) + 85607 (A). An alternative solution for HIP 85605 relative to HIP 85607 gives: $\Delta Hp = 0.76$, $\theta = 228^{\circ}$, $\varrho = 21.58$ arcsec. TYC 2079-1800-1 (at $\alpha = 262^{\circ}401\,097$, $\delta = +24^{\circ}653\,099$) may be identified with component B (HIP 85605), which is then located at $\theta = 231^{\circ}$, $\varrho = 21.34$ arcsec relative to component A.
- 85607 See HIP 85605.
- 85642 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.14$, $\theta = 207^{\circ}$, $\varrho = 2.65$ arcsec.

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85868		Ambiguous double-star solution of HIP 85868 + 85872. An alternative solution for HIP 85872 relative to HIP 85868 gives: $\Delta Hp = 1.04$, $\theta = 97^{\circ}$, $\varrho = 17.35$ arcsec.
85872		See HIP 85868.
85931		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.39$, $\theta = 70^{\circ}$, $\varrho = 6.15$ arcsec.
86011		Ambiguous double-star solution. An alternative solution for AD gives: $\Delta Hp = 3.90$, $\theta = 96^{\circ}$, $\varrho = 6.90$ arcsec.
86032		An orbital solution based on elements by H.J. Augensen, W.D. Heintz, Publ. Astron. Soc. Pac., 104, 314, 1992, gives a semi-major axis of 71 mas for the photocentre.
86230		Ambiguous double-star solution of HIP 86230 + 86231. An alternative solution for HIP 86230 relative to HIP 86231 gives: $\Delta Hp = 3.03$, $\theta = 341^{\circ}$, $\varrho = 12.94$ arcsec.
86231		See HIP 86230.
86441		Ambiguous double-star solution of HIP 86441 + 86444. An alternative solution for HIP 86441 relative to HIP 86444 gives: $\Delta Hp = 1.43$, $\theta = 267^{\circ}$, $\varrho = 27.31$ arcsec.
86444		See HIP 86441.
86614		Ambiguous double-star solution of HIP 86614 + 86620. An alternative solution for HIP 86620 relative to HIP 86614 gives: $\Delta Hp = 4.33$, $\theta = 181^{\circ}$, $\varrho = 0.83$ arcsec.
86620		See HIP 86614.
86692		Ambiguous double-star solution of HIP 86692 + 86697. An alternative solution for HIP 86697 gives: $\Delta Hp = 0.75$, $\theta = 266^{\circ}$, $\varrho = 0.34$ arcsec.
86697		See HIP 86692.
86873		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.90$, $\theta = 164^{\circ}$, $\varrho = 13.20$ arcsec.
86895		Ambiguous double-star solution of HIP 86895 + 86896. An alternative solution for HIP 86896 relative to HIP 86895 gives: $\Delta Hp = 1.28$, $\theta = 162^{\circ}$, $\varrho = 18.01$ arcsec.
86896		See HIP 86895.
86961		Ambiguous double-star solution of HIP 86961 + 86963. An alternative solution for HIP 86961 relative to HIP 86963 gives: $\Delta Hp = 1.26$, $\theta = 86^{\circ}$, $\varrho = 22.52$ arcsec.
86963		See HIP 86961.
86998		Ambiguous double-star solution of HIP 86998 + 87000. An alternative solution for HIP 87000 relative to HIP 86998 gives: $\Delta Hp = 3.18$, $\theta = 0^{\circ}$, $\varrho = 0.77$ arcsec.
87000		See HIP 86998.
87029		Uncertain double-star solution of system HIP 87033 (A) + 87029 (B). TYC 7897-1867-1 (at α = 266°.738 824, δ = -43°.490 244) may be identified with component B (HIP 87029), which is then located at θ = 332°, ϱ = 13.10 arcsec relative to component A.
87033		See HIP 87029.
87186		Ambiguous double-star solution of HIP 87186 (A) + 87187 (B). An alternative solution for HIP 87187 relative to HIP 87186 gives: $\Delta Hp = 2.04$, $\theta = 76^{\circ}$, $\varrho = 19.26$ arcsec. TYC 416-1859-1 (at $\alpha = 267^{\circ}.187.825$, $\delta = +1^{\circ}.165.491$) may be identified with component B (HIP 87187), which is then located at $\theta = 76^{\circ}$, $\varrho = 19.27$ arcsec relative to component A.
87187		See HIP 87186.
87314	P	An alternative VIM solution for this system gives $\theta = 90^{\circ}$ for the constant star relative to the variable.
87437		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.74$, $\theta = 358^{\circ}$, $\varrho = 0.38$ arcsec.
87768		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.07$, $\theta = 147^{\circ}$, $\varrho = 1.06$ arcsec.
87778		Ambiguous double-star solution of HIP 87778 + 87784. An alternative solution for HIP 87784 gives: $\Delta Hp = 0.58$, $\theta = 247^{\circ}$, $\varrho = 0.26$ arcsec.
87784		See HIP 87778.
87838		Ambiguous double-star solution of HIP 87838 + 87842. An alternative solution for HIP 87842 relative to HIP 87838 gives: $\Delta Hp = 2.25$, $\theta = 129^{\circ}$, $\varrho = 26.71$ arcsec.
87842		See HIP 87838.
87889		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.26$, $\theta = 138^{\circ}$, $\varrho = 21.89$ arcsec.
87920		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.91$, $\theta = 308^{\circ}$, $\varrho = 4.99$ arcsec.
88355		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.60$, $\theta = 319^{\circ}$, $\varrho = 9.40$ arcsec.
88363		Ambiguous double-star solution of HIP 88363 + 88364. An alternative solution for HIP 88364 relative to HIP 88363 gives: $\Delta Hp = 2.28$, $\theta = 14^{\circ}$, $\varrho = 16.59$ arcsec.
88364		See HIP 88363.
88394		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.61$, $\theta = 52^{\circ}$, $\varrho = 3.81$ arcsec.
88514		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.40$, $\theta = 315^{\circ}$, $\varrho = 0.67$ arcsec.
88586 88596		Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.28$, $\theta = 226^{\circ}$, $\varrho = 4.50$ arcsec.
88596	_	Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.85$, $\theta = 188^{\circ}$, $\varrho = 1.03$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.80$, $\theta = 36^{\circ}$, $\varrho = 6.96$ arcsec.

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88623 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.72$, $\theta = 106^{\circ}$, $\varrho = 13.49$ arcsec. 88762 G Ambiguous double-star solution. An alternative solution for AD gives: $\Delta Hp = 0.61$, $\theta = 175^{\circ}$, $\varrho = 2.16$ arcsec. The given position for HIP 88762 is closer to the Hipparcos Input Catalogue position of HIC 88759 than to HIC 88762, suggesting that the binary solved as HIP 88762 is really components BC in HIC 88759. 88895 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.86$, $\theta = 52^{\circ}$, $\varrho = 0.92$ arcsec. 89351 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.39$, $\theta = 246^{\circ}$, $\varrho = 1.56$ arcsec. 89383 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.24$, $\theta = 47^{\circ}$, $\varrho = 2.24$ arcsec. 89524 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.74$, $\theta = 139^{\circ}$, $\varrho = 0.73$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.83$, $\theta = 165^{\circ}$, $\varrho = 0.30$ arcsec. 89526 89750 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.08$, $\theta = 111^{\circ}$, $\varrho = 0.80$ arcsec. 89976 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.23$, $\theta = 354^{\circ}$, $\varrho = 2.34$ arcsec. 90100 P Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.73$, $\theta = 144^{\circ}$, $\varrho = 3.75$ arcsec. 90171 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.42$, $\theta = 13^{\circ}$, $\rho = 0.92$ arcsec. 90222 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.74$, $\theta = 353^{\circ}$, $\rho = 4.73$ arcsec. Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 2.47$, $\theta = 208^{\circ}$, $\varrho = 5.53$ arcsec. 90287 Ambiguous double-star solution. An alternative solution for AE gives: $\Delta Hp = 3.14$, $\theta = 20^{\circ}$, $\varrho = 0.95$ arcsec. 90288 90300 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.04$, $\theta = 341^{\circ}$, $\rho = 1.14$ arcsec. 90372 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.92$, $\theta = 305^{\circ}$, $\varrho = 0.54$ arcsec. 90441 Component A is really the photocentre of AP. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.38$, $\theta = 248^{\circ}$, $\varrho = 17.85$ arcsec. 90465 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.97$, $\theta = 263^{\circ}$, $\varrho = 4.28$ arcsec. 90480 Ambiguous double-star solution of HIP 90744 + 90750. An alternative solution for HIP 90750 relative to HIP 90744 90744 gives: $\Delta Hp = 3.56$, $\theta = 114^{\circ}$, $\varrho = 20.01$ arcsec. 90750 See HIP 90744. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.62$, $\theta = 67^{\circ}$, $\varrho = 1.21$ arcsec. 90825 90893 Ambiguous double-star solution of HIP 90893 + 90898. An alternative solution for HIP 90893 relative to HIP 90898 gives: $\Delta Hp = 5.13$, $\theta = 340^{\circ}$, $\varrho = 29.32$ arcsec. 90898 See HIP 90893. 90937 Ambiguous double-star solution of HIP 90937 + 90942. An alternative solution for HIP 90942 relative to HIP 90937 gives: $\Delta Hp = 0.63$, $\theta = 105^{\circ}$, $\rho = 26.50$ arcsec. 90942 See HIP 90937. 90943 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.72$, $\theta = 38^{\circ}$, $\varrho = 1.85$ arcsec. Ambiguous double-star solution of HIP 90951 + 90954. An alternative solution for HIP 90951 relative to HIP 90951 90954 gives: $\Delta Hp = 2.60$, $\theta = 301^{\circ}$, $\varrho = 28.79$ arcsec. 90954 See HIP 90951. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.52$, $\theta = 28^{\circ}$, $\rho = 20.25$ arcsec. 91115 91186 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.82$, $\theta = 297^{\circ}$, $\rho = 1.38$ arcsec. 91288 Ambiguous double-star solution of HIP 91288 + 91291. An alternative solution for HIP 91288 gives: $\Delta Hp = 1.11$, $\theta=357^{\circ},~\varrho=0.28$ arcsec. 91291 See HIP 91288. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.51$, $\theta = 344^{\circ}$, $\varrho = 0.41$ arcsec. 91416 91430 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.34$, $\theta = 90^{\circ}$, $\varrho = 0.64$ arcsec. 91529 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.32$, $\theta = 219^{\circ}$, $\varrho = 8.47$ arcsec. An alternative VIM solution for this system gives $\theta = 329^{\circ}$ for the constant star relative to the variable. 91703 P 91728 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.61$, $\theta = 304^{\circ}$, $\varrho = 3.40$ arcsec. The double-star analysis indicates that it is probably the fainter (B) component which is variable. 91832 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 81^{\circ}$, $\varrho = 1.37$ arcsec. 91900 92007 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.58$, $\theta = 22^{\circ}$, $\rho = 15.23$ arcsec. Tycho data suggest that component B is located at $\theta = 24^{\circ}$, $\varrho = 17.14$ arcsec. 92238 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.55$, $\theta = 10^{\circ}$, $\varrho = 17.96$ arcsec. 92284 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.50$, $\theta = 168^{\circ}$, $\varrho = 3.87$ arcsec. 92304 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.73$, $\theta = 134^{\circ}$, $\rho = 5.85$ arcsec. 92423 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.48$, $\theta = 104^{\circ}$, $\rho = 2.87$ arcsec. Ambiguous double-star solution of HIP 92492 + 92493. An alternative solution for HIP 92492 relative to HIP 92492 92493 gives: $\Delta Hp = 3.92$, $\theta = 336^{\circ}$, $\varrho = 28.92$ arcsec. 92493 See HIP 92492.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.40$, $\theta = 135^{\circ}$, $\varrho = 2.07$ arcsec.

92809 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.94$, $\theta = 221^{\circ}$, $\varrho = 1.67$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.52$, $\theta = 11^{\circ}$, $\varrho = 15.16$ arcsec. 92863 92872 An orbital solution based on elements by R.F. Griffin, Observatory, 101, 208, 1981, gives a semi-major axis of 29 mas for the photocentre. 92926 Component A is really the photocentre of AB. 92932 Ambiguous double-star solution of HIP 92932 + 92933. An alternative solution for HIP 92933 relative to HIP 92932 gives: $\Delta Hp = 3.23$, $\theta = 61^{\circ}$, $\varrho = 23.50$ arcsec. 92933 See HIP 92932. 92955 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.04$, $\theta = 171^{\circ}$, $\varrho = 0.82$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.38$, $\theta = 225^{\circ}$, $\varrho = 3.46$ arcsec. 93072 93409 Ambiguous double-star solution of HIP 93409 + 93410. An alternative solution for HIP 93410 relative to HIP 93409 gives: $\Delta Hp = 1.97$, $\theta = 168^{\circ}$, $\varrho = 20.50$ arcsec. 93410 See HIP 93409. 93424 Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = -0.06$ (component reversal). 93438 Uncertain double-star solution. Tycho data suggest that component B is located at $\theta = 87^{\circ}$, $\varrho = 14.74$ arcsec relative to component A. 93466 Component B is really the photocentre of BC. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.96$, $\theta = 294^{\circ}$, $\varrho = 1.06$ arcsec. 93492 93506 P The double-star analysis indicates that it is probably the fainter (B) component which is variable. 93539 Probably double at 1.5 arcsec separation. An alternative VIM solution for this system gives $\theta = 317^{\circ}$ for the constant star relative to the variable. 93666 93835 Uncertain double-star solution of system HIP 93836 (A) + 93835 (B). TYC 5128-5077-1 (at $\alpha = 286^{\circ}.645191$, $\delta = -1^{\circ}.342380$) may be identified with component B (HIP 93835), which is then located at $\theta = 343^{\circ}$, $\varrho = 14.02$ arcsec relative to component A. 93836 See HIP 93835. 93870 Tycho data suggest that component B is located at $\theta = 85^{\circ}$, $\varrho = 16.06$ arcsec. 94022 Ambiguous double-star solution of HIP 94022 + 94024. An alternative solution for HIP 94022 relative to HIP 94024 gives: $\Delta Hp = 0.75$, $\theta = 343^{\circ}$, $\varrho = 22.87$ arcsec. 94024 See HIP 94022. 94049 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.08$, $\theta = 276^{\circ}$, $\rho = 3.93$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.09$, $\theta = 323^{\circ}$, $\varrho = 0.79$ arcsec. 94098 Tycho data suggest that component B is located at $\theta = 291^{\circ}$, $\varrho = 20.85$ arcsec. 94223 G 94307 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.39$, $\theta = 150^{\circ}$, $\varrho = 13.65$ arcsec. Ambiguous double-star solution of HIP 94317 + 94319. An alternative solution for HIP 94317 relative to HIP 94317 94319 gives: $\Delta Hp = 1.20$, $\theta = 352^{\circ}$, $\varrho = 18.39$ arcsec. 94319 See HIP 94317. 94349 The orbital elements derived by R.S. Harrington, Publ. Astr. Soc. Pac., 89, 214, 1977, have not been used. 94371 An orbital solution based on elements by R.F. Griffin, Observatory, 99, 36, 1979, gives a semi-major axis of 33 mas for the photocentre. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.56$, $\theta = 141^{\circ}$, $\varrho = 1.49$ arcsec. 94409 94462 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.84$, $\theta = 91^{\circ}$, $\varrho = 2.08$ arcsec. 94683 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.34$, $\theta = 31^{\circ}$, $\varrho = 3.55$ arcsec. 94720 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.93$, $\theta = 351^{\circ}$, $\varrho = 0.86$ arcsec. 94959 Ambiguous double-star solution of HIP 94959 + 94961. An alternative solution for HIP 94961 relative to HIP 94959 gives: $\Delta Hp = 2.09$, $\theta = 19^{\circ}$, $\varrho = 20.46$ arcsec. Component B (in HIP 94961) is really the photocentre of BC. 94961 See HIP 94959. 95299 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.63$, $\theta = 122^{\circ}$, $\varrho = 1.01$ arcsec. 95313 The double-star analysis indicates that it may be the fainter (B) component which is variable. 95324 Ambiguous double-star solution of HIP 95324 + 95326. An alternative solution for HIP 95326 relative to HIP 95324 gives: $\Delta Hp = 1.22$, $\theta = 159^{\circ}$, $\varrho = 16.18$ arcsec. See HIP 95324. 95326 95328 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.71$, $\theta = 31^{\circ}$, $\varrho = 1.05$ arcsec. 95338 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.40$, $\theta = 66^{\circ}$, $\varrho = 0.28$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.93$, $\theta = 79^{\circ}$, $\varrho = 0.30$ arcsec. 95348

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.42$, $\theta = 121^{\circ}$, $\varrho = 11.98$ arcsec.

- 95704 Ambiguous double-star solution of HIP 95704 + 95712. An alternative solution for HIP 95704 relative to HIP 95712 gives: $\Delta Hp = 1.68$, $\theta = 278^{\circ}$, $\varrho = 13.76$ arcsec. 95712 See HIP 95704. 95777 An alternative VIM solution for this system gives $\theta = 138^{\circ}$ for the constant star relative to the variable. 95859 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.43$, $\theta = 87^{\circ}$, $\varrho = 14.77$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.31$, $\theta = 247^{\circ}$, $\varrho = 0.42$ arcsec. 95862 96002 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.41$, $\theta = 229^{\circ}$, $\rho = 11.07$ arcsec. 96241 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.99$, $\theta = 6^{\circ}$, $\varrho = 0.13$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.13$, $\theta = 149^{\circ}$, $\varrho = 16.15$ arcsec. 96423 Tycho data suggest that component B is located at $\theta = 151^{\circ}$, $\varrho = 11.74$ arcsec. 96446 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.25$, $\theta = 125^{\circ}$, $\varrho = 5.45$ arcsec. 96493 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.48$, $\theta = 327^{\circ}$, $\rho = 0.52$ arcsec. 96643 Ambiguous double-star solution of HIP 96643 + 96646. An alternative solution for HIP 96643 relative to HIP 96646 gives: $\Delta Hp = 1.21$, $\theta = 332^{\circ}$, $\varrho = 23.24$ arcsec. 96646 See HIP 96643. 96660 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.28$, $\theta = 231^{\circ}$, $\varrho = 1.41$ arcsec. An alternative VIM solution for this system gives $\theta = 297^{\circ}$ for the constant star relative to the variable. 96840 96913 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.08$, $\theta = 259^{\circ}$, $\varrho = 2.32$ arcsec. 96929 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 213^{\circ}$, $\rho = 0.40$ arcsec. 96980 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.62$, $\theta = 157^{\circ}$, $\varrho = 1.46$ arcsec. 96999 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.71$, $\theta = 256^{\circ}$, $\varrho = 1.24$ arcsec. Ambiguous double-star solution of HIP 97096 (B) + 97099 (A). An alternative solution for HIP 97096 relative 97096 to HIP 97099 gives: $\Delta Hp = 3.52$, $\theta = 307^{\circ}$, $\rho = 20.11$ arcsec. TYC 9097-1689-1 (at $\alpha = 295^{\circ}988362$, $\delta = -66^{\circ}.293\,304$) may be identified with component B (HIP 97096), which is then located at $\theta = 308^{\circ}$, $\rho = 21.49$ arcsec relative to component A. 97099 See HIP 97096. 97172 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.24$, $\theta = 287^{\circ}$, $\varrho = 0.53$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.50$, $\theta = 340^{\circ}$, $\varrho = 13.68$ arcsec. 97241 97322 The double-star analysis indicates that it is the fainter (B) component which is variable. 97446 An orbital solution based on elements by R.F. Griffin, G.A. Radford, Observatory, 97, 169, 1977, gives a semimajor axis of 5 mas for the photocentre. 97447 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.93$, $\theta = 277^{\circ}$, $\rho = 10.85$ arcsec. 97481 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.52$, $\theta = 205^{\circ}$, $\varrho = 3.95$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.42$, $\theta = 33^{\circ}$, $\varrho = 0.45$ arcsec. 97513 97578 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.51$, $\theta = 132^{\circ}$, $\rho = 8.39$ arcsec. 97631 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.21$, $\theta = 173^{\circ}$, $\varrho = 18.61$ arcsec. 97697 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.24$, $\theta = 31^{\circ}$, $\varrho = 1.67$ arcsec. 97700 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.93$, $\theta = 313^{\circ}$, $\varrho = 3.95$ arcsec. 97807 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.93$, $\theta = 110^{\circ}$, $\varrho = 1.45$ arcsec. 97830 Ambiguous double-star solution of HIP 97830 + 97831. An alternative solution for HIP 97830 relative to HIP 97831 gives: $\Delta Hp = 3.84$, $\theta = 188^{\circ}$, $\varrho = 26.67$ arcsec. 97831 See HIP 97830. 97849 An alternative VIM solution for this system gives $\theta = 24^{\circ}$ for the constant star relative to the variable. 97933 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.15$, $\theta = 204^{\circ}$, $\varrho = 7.12$ arcsec. 98123 Periodogram analysis indicates that this is an astrometric binary with period 90 days and semi-major axis 27 mas for the photocentre. A full orbital solution does not give a significantly different parallax. 98253 Component A is really the photocentre of AB. 98356 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 162^{\circ}$, $\varrho = 5.02$ arcsec. Bad fit of system HIP 98528 + 98534 is probably due to unsolved duplicity of HIP 98528 (with 0.6 arcsec 98528 separation). 98534 See HIP 98528. 98662 An alternative VIM solution for this system gives $\theta = 211^{\circ}$ for the constant star relative to the variable. Ambiguous double-star solution of HIP 98679 + 98681. An alternative solution for HIP 98681 relative to HIP 98679 98679 gives: $\Delta Hp = 1.82$, $\theta = 36^{\circ}$, $\varrho = 15.15$ arcsec. 98681 See HIP 98679.
- 98770 Ambiguous double-star solution of HIP 98770 + 98773. An alternative solution for HIP 98770 gives: $\Delta Hp = 1.43$, $\theta = 283^{\circ}$, $\varrho = 0.26$ arcsec.

98773 See HIP 98770. 98826 P The double-star analysis indicates that it may be the fainter (B) component which is variable. 98874 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.02$, $\theta = 105^{\circ}$, $\varrho = 1.90$ arcsec. 98927 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.38$, $\theta = 218^{\circ}$, $\varrho = 1.06$ arcsec. Ambiguous double-star solution of HIP 99045 + 99048. An alternative solution for HIP 99045 relative to HIP 99045 99048 gives: $\Delta Hp = 3.16$, $\theta = 274^{\circ}$, $\varrho = 22.64$ arcsec. 99048 See HIP 99045. 99204 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.09$, $\theta = 90^{\circ}$, $\varrho = 6.15$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.99$, $\theta = 160^{\circ}$, $\varrho = 2.72$ arcsec. 99336 An alternative VIM solution for this system gives $\theta = 269^{\circ}$ for the constant star relative to the variable. 99350 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.90$, $\theta = 102^{\circ}$, $\varrho = 5.36$ arcsec. 99579 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.91$, $\theta = 206^{\circ}$, $\varrho = 0.83$ arcsec. 99605 Ambiguous double-star solution of HIP 99605 + 99606. An alternative solution for HIP 99606 gives: $\Delta Hp = 0.34$, $\theta = 248^{\circ}$, $\varrho = 0.51$ arcsec. 99606 See HIP 99605. 99740 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.14$, $\theta = 329^{\circ}$, $\varrho = 0.79$ arcsec. Ambiguous double-star solution of HIP 99753 + 99756. An alternative solution for HIP 99756 relative to HIP 99753 99753 gives: $\Delta Hp = 2.55$, $\theta = 40^{\circ}$, $\varrho = 19.00$ arcsec. 99756 See HIP 99753. 99767 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.72$, $\theta = 41^{\circ}$, $\varrho = 16.37$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.33$, $\theta = 123^{\circ}$, $\rho = 1.70$ arcsec. 99813 99857 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.19$, $\theta = 61^{\circ}$, $\varrho = 9.42$ arcsec. 99875 Ambiguous double-star solution of HIP 99875 + 99879. An alternative solution for HIP 99879 relative to HIP 99875 gives: $\Delta Hp = 1.57$, $\theta = 115^{\circ}$, $\varrho = 31.62$ arcsec. 99879 See HIP 99875. 100023 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.90$, $\theta = 75^{\circ}$, $\varrho = 13.71$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.00$, $\theta = 262^{\circ}$, $\varrho = 4.91$ arcsec. 100036 100130 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.57$, $\theta = 200^{\circ}$, $\varrho = 1.09$ arcsec. 100141 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.22$, $\theta = 306^{\circ}$, $\rho = 0.34$ arcsec. 100192 Component B is really the photocentre of BC. 100222 Ambiguous double-star solution of HIP 100222 + 100226. An alternative solution for HIP 100222 relative to HIP 100226 gives: $\Delta Hp = 2.20$, $\theta = 319^{\circ}$, $\varrho = 27.68$ arcsec. 100226 Uncertain triple-star solution of system HIP 100288 (AB) + 100286 (C). TYC 6918-1822-1 (at $\alpha = 305^{\circ}.110726$, 100286 $\delta = -29^{\circ}.191\,337$) may be identified with component C (HIP 100286), which is then located at $\theta = 321^{\circ}$, ϱ = 27.21 arcsec relative to component A. See HIP 100286. 100288 G 100525 Ambiguous double-star solution of HIP 100525 + 100531. An alternative solution for HIP 100531 relative to HIP 100525 gives: $\Delta Hp = 1.81$, $\theta = 149^{\circ}$, $\varrho = 21.91$ arcsec. 100531 100552 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.02$, $\theta = 357^{\circ}$, $\varrho = 8.45$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.28$, $\theta = 268^{\circ}$, $\varrho = 0.34$ arcsec. 100607 Ambiguous double-star solution of HIP 100638 + 100640. An alternative solution for HIP 100640 relative to HIP 100638 100638 gives: $\Delta Hp = 2.24$, $\theta = 76^{\circ}$, $\varrho = 26.15$ arcsec. 100640 See HIP 100638. 100695 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 0.47$, $\theta = 355^{\circ}$, $\varrho = 0.33$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.28$, $\theta = 58^{\circ}$, $\varrho = 3.94$ arcsec. 100864 100914 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.44$, $\theta = 45^{\circ}$, $\varrho = 1.92$ arcsec. 101092 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.11$, $\theta = 168^{\circ}$, $\varrho = 9.39$ arcsec. 101233 Component B (in HIP 101233) is really the photocentre of BC. 101235 See HIP 101233. Ambiguous double-star solution. An alternative solution for AS gives: $\Delta Hp = 0.84$, $\theta = 158^{\circ}$, $\varrho = 0.22$ arcsec. 101288 101317 Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = -0.07$ (component reversal). 101341 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.57$, $\theta = 325^{\circ}$, $\varrho = 2.39$ arcsec. 101353 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.69$, $\theta = 244^{\circ}$, $\varrho = 1.12$ arcsec.

Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.10$, $\theta = 22^{\circ}$, $\varrho = 1.12$ arcsec.

101539 Ambiguous double-star solution of HIP 101539 + 101544. An alternative solution for HIP 101539 relative to HIP 101544 gives: $\Delta Hp = 1.80$, $\theta = 299^{\circ}$, $\varrho = 21.59$ arcsec. 101544 See HIP 101539. 101574 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = -0.24$ (component reversal). Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.11$, $\theta = 87^{\circ}$, $\varrho = 0.42$ arcsec. 101722 102061 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.11$, $\theta = 88^{\circ}$, $\varrho = 5.36$ arcsec. Ambiguous double-star solution. An alternative solution for BC gives: $\Delta Hp = 0.08$, $\theta = 22^{\circ}$, $\varrho = 3.99$ arcsec. 102141 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.88$, $\theta = 21^{\circ}$, $\varrho = 0.28$ arcsec. 102320 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.22$, $\theta = 138^{\circ}$, $\varrho = 0.72$ arcsec. 102796 103390 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.59$, $\theta = 327^{\circ}$, $\varrho = 1.05$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.35$, $\theta = 233^{\circ}$, $\varrho = 1.78$ arcsec. 103767 103855 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.42$, $\theta = 357^{\circ}$, $\varrho = 5.88$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.35$, $\theta = 177^{\circ}$, $\rho = 4.10$ arcsec. 104093 G Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = 0.04$, $\theta = 97^{\circ}$, $\varrho = 0.59$ arcsec. 104416 104997 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.47$, $\theta = 219^{\circ}$, $\varrho = 1.04$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.13$, $\theta = 309^{\circ}$, $\varrho = 0.15$ arcsec. 105259 The double-star analysis indicates that it may be the fainter (B) component which is variable. 105324 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.99$, $\theta = 48^{\circ}$, $\varrho = 0.58$ arcsec. 105445 105587 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.56$, $\theta = 195^{\circ}$, $\varrho = 1.53$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.61$, $\theta = 230^{\circ}$, $\varrho = 0.20$ arcsec. 105655 106059 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 1.94$, $\theta = 282^{\circ}$, $\rho = 0.30$ arcsec. 106255 G Periodogram analysis indicates that this is an astrometric binary with period 684 days and semi-major axis 31 mas for the photocentre. An orbital solution assuming zero eccentricity gives a parallax of 123.21 mas (standard error Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.96$, $\theta = 9^{\circ}$, $\varrho = 0.48$ arcsec. 106264 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.25$, $\theta = 277^{\circ}$, $\varrho = 8.19$ arcsec. 106923 106983 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.85$, $\theta = 171^{\circ}$, $\rho = 1.07$ arcsec. 107089 An orbital solution based on elements by W.H. Christie, Astrophys. J., 83, 433, 1936, gives a semi-major axis of 30 mas and a slightly smaller parallax, 44.40 mas (standard error 0.60 mas). Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.06$, $\theta = 229^{\circ}$, $\varrho = 0.69$ arcsec. 107240 An alternative VIM solution for this system gives $\theta=162^{\circ}$ for the constant star relative to the variable. 107242 107396 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.89$, $\theta = 83^{\circ}$, $\varrho = 0.58$ arcsec. Tycho data suggest that component B is located at $\theta = 224^{\circ}$, $\varrho = 27.66$ arcsec. 107404 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.77$, $\theta = 341^{\circ}$, $\varrho = 0.28$ arcsec. 107438 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.85$, $\theta = 192^{\circ}$, $\varrho = 20.61$ arcsec. 108048 108111 Ambiguous double-star solution of HIP 108111 + 108115. An alternative solution for HIP 108115 relative to HIP 108111 gives: $\Delta Hp = 2.56$, $\theta = 93^{\circ}$, $\varrho = 12.64$ arcsec. 108115 108119 Component B (in HIP 108121) is really the photocentre of BC. 108121 See HIP 108119. 108162 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.43$, $\theta = 72^{\circ}$, $\varrho = 1.77$ arcsec. 108431 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.08$, $\theta = 172^{\circ}$, $\varrho = 1.23$ arcsec. 108776 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.95$, $\theta = 198^{\circ}$, $\varrho = 2.88$ arcsec. 108893 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.09$, $\theta = 181^{\circ}$, $\varrho = 3.73$ arcsec. 109035 Ambiguous double-star solution of HIP 109035 (B) + 109038 (A). An alternative solution for HIP 109035 relative to HIP 109038 gives: $\Delta Hp = 2.45$, $\theta = 299^{\circ}$, $\varrho = 25.03$ arcsec. TYC 5224-1809-1 (at $\alpha = 331^{\circ}325\,860$, $\delta = -1.420236$) may be identified with component B (HIP 109035), which is then located at $\theta = 304^{\circ}$, $\rho = 25.50$ arcsec relative to component A. 109038 See HIP 109035. 109115 Ambiguous double-star solution of HIP 109115 + 109118. An alternative solution for HIP 109115 relative to HIP 109118 gives: $\Delta Hp = 1.82$, $\theta = 311^{\circ}$, $\varrho = 16.49$ arcsec. 109118 109237 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.31$, $\theta = 50^{\circ}$, $\rho = 1.45$ arcsec.

Ambiguous double-star solution of HIP 109335 + 109339. An alternative solution for HIP 109335 relative to HIP

109339 gives: $\Delta Hp = 2.46$, $\theta = 336^{\circ}$, $\varrho = 26.56$ arcsec.

109339 See HIP 109335.

109464 Ambiguous double-star solution of HIP 109464 + 109467. An alternative solution for HIP 109464 relative to HIP 109467 gives: $\Delta Hp = 3.58$, $\theta = 305^{\circ}$, $\varrho = 22.80$ arcsec. 109467 See HIP 109464. 109505 P The double-star analysis indicates that it may be the fainter (B) component which is variable. 109657 Ambiguous double-star solution of HIP 109657 + 109659. An alternative solution for HIP 109657 gives: $\Delta Hp =$ 2.33, $\theta = 151^{\circ}$, $\varrho = 11.06$ arcsec. 109659 See HIP 109657. 109695 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = -0.10$ (component reversal). 109788 Ambiguous double-star solution of HIP 109788 + 109790. An alternative solution for HIP 109790 relative to HIP 109788 gives: $\Delta Hp = 2.32$, $\theta = 25^{\circ}$, $\varrho = 20.86$ arcsec. 109790 See HIP 109788. 109908 Ambiguous double-star solution. An alternative solution for BA gives: $\Delta Hp = 2.34$, $\theta = 342^{\circ}$, $\varrho = 0.22$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.61$, $\theta = 8^{\circ}$, $\varrho = 2.28$ arcsec. 109986 G Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.77$, $\theta = 2^{\circ}$, $\varrho = 0.31$ arcsec. 110113 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.37$, $\theta = 262^{\circ}$, $\rho = 20.45$ arcsec. 110237 110583 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 2.53$, $\theta = 252^{\circ}$, $\varrho = 6.25$ arcsec. Ambiguous double-star solution of HIP 110629 + 110632. An alternative solution for HIP 110632 relative to HIP 110629 110629 gives: $\Delta Hp = 2.64$, $\theta = 83^{\circ}$, $\varrho = 14.99$ arcsec. 110632 See HIP 110629. 110856 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.25$, $\theta = 262^{\circ}$, $\varrho = 2.26$ arcsec. 110922 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.32$, $\theta = 218^{\circ}$, $\varrho = 3.51$ arcsec. The B component may be spurious. Periodogram analysis indicates that this could instead be an astrometric binary 111123 with period 654 days and semi-major axis 9 mas for the photocentre. A full orbital solution gives a parallax of 14.13 mas (standard error 1.12 mas). 111469 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.69$, $\theta = 248^{\circ}$, $\varrho = 0.54$ arcsec. 111708 Ambiguous double-star solution of HIP 111708 + 111715. An alternative solution for HIP 111715 relative to HIP 111708 gives: $\Delta Hp = 0.44$, $\theta = 322^{\circ}$, $\varrho = 0.19$ arcsec. 111715 See HIP 111708. 112170 Component B is really the photocentre of BC. 112323 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.43$, $\theta = 106^{\circ}$, $\varrho = 0.74$ arcsec. 112422 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.00$, $\theta = 151^{\circ}$, $\rho = 0.25$ arcsec. 112621 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 3.46$, $\theta = 6^{\circ}$, $\varrho = 9.17$ arcsec. 112676 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.90$, $\theta = 308^{\circ}$, $\varrho = 0.33$ arcsec. Ambiguous double-star solution of HIP 112777 + 112783. An alternative solution for HIP 112777 relative to HIP 112777 112783 gives: $\Delta Hp = 0.55$, $\theta = 203^{\circ}$, $\varrho = 16.02$ arcsec. 112783 See HIP 112777. 113017 P An alternative VIM solution for this system gives $\theta = 333^{\circ}$ for the constant star relative to the variable. 113081 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.63$, $\theta = 174^{\circ}$, $\varrho = 0.94$ arcsec. Ambiguous double-star solution of HIP 113226 + 113228. An alternative solution for HIP 113228 gives: $\Delta Hp =$ 113226 0.56, $\theta = 250^{\circ}$, $\varrho = 0.24$ arcsec. See HIP 113226. 113228 113323 Ambiguous double-star solution. An alternative solution for AP gives: $\Delta Hp = 1.28$, $\theta = 338^{\circ}$, $\varrho = 0.23$ arcsec. 113352 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.13$, $\theta = 165^{\circ}$, $\varrho = 0.82$ arcsec. 113397 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.48$, $\theta = 274^{\circ}$, $\varrho = 0.81$ arcsec. 113598 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.22$, $\theta = 216^{\circ}$, $\varrho = 3.46$ arcsec. An alternative VIM solution for this system gives $\theta = 31^{\circ}$ for the constant star relative to the variable. 113715 113751 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.26$, $\theta = 296^{\circ}$, $\rho = 1.36$ arcsec. 113797 An alternative VIM solution for this system gives $\theta = 95^{\circ}$ for the constant star relative to the variable. 113809 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.75$, $\theta = 194^{\circ}$, $\varrho = 1.61$ arcsec. 114207 Ambiguous double-star solution of HIP 114207 + 114209. An alternative solution for HIP 114207 relative to HIP 114209 gives: $\Delta Hp = 1.66$, $\theta = 262^{\circ}$, $\varrho = 7.78$ arcsec. 114209 See HIP 114207.

114243 gives: ΔHp = 2.21, θ = 215°, ϱ = 20.70 arcsec. 114243 See HIP 114240.

114240

114254 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.11$, $\theta = 128^{\circ}$, $\varrho = 1.04$ arcsec.

Ambiguous double-star solution of HIP 114240 + 114243. An alternative solution for HIP 114240 relative to HIP

114396 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.99$, $\theta = 146^{\circ}$, $\varrho = 1.61$ arcsec.

- 114440 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.58$, $\theta = 146^{\circ}$, $\varrho = 0.31$ arcsec. 114543 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.18$, $\theta = 134^{\circ}$, $\varrho = 3.09$ arcsec. 114702 Ambiguous double-star solution of HIP 114702 + 114703. An alternative solution for HIP 114703 relative to HIP 114702 gives: $\Delta Hp = 1.09$, $\theta = 173^{\circ}$, $\varrho = 25.66$ arcsec. 114703 See HIP 114702. 114791 G Uncertain triple-star solution. Tycho data suggest that component E is located at $\theta = 193^{\circ}$, $\rho = 15.69$ arcsec relative to component A. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.00$, $\theta = 182^{\circ}$, $\varrho = 1.10$ arcsec. 114830 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.74$, $\theta = 219^{\circ}$, $\varrho = 1.13$ arcsec. 114923 114994 Ambiguous double-star solution. An alternative solution for AC gives: $\Delta Hp = 0.49$, $\theta = 330^{\circ}$, $\varrho = 17.36$ arcsec. 115028 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.81$, $\theta = 310^{\circ}$, $\varrho = 13.95$ arcsec. 115031 Using only FAST data gives a semi-major axis of 24 mas with a standard error of 9 mas. The strong discrepancy with the merged (FAST+NDAC) solution in spite of the short period casts doubts on the reliability of the orbit. Ambiguous double-star solution of HIP 115064 + 115068. An alternative solution for HIP 115064 relative to HIP 115064 115068 gives: $\Delta Hp = 2.72$, $\theta = 301^{\circ}$, $\varrho = 19.69$ arcsec. 115068 See HIP 115064. 115272 Probably double at 1.1 arcsec separation. 115650 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.41$, $\theta = 216^{\circ}$, $\varrho = 0.29$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.29$, $\theta = 63^{\circ}$, $\varrho = 2.36$ arcsec. 115698 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 2.61$, $\theta = 174^{\circ}$, $\varrho = 0.62$ arcsec. 115700 Ambiguous double-star solution of HIP 115762 + 115765. An alternative solution for HIP 115765 relative to HIP 115762 115762 gives: $\Delta Hp = 1.87$, $\theta = 78^{\circ}$, $\varrho = 29.20$ arcsec. 115765 See HIP 115762. 115800 Ambiguous double-star solution. An alternative solution for CD gives: $\Delta Hp = 1.73$, $\theta = 206^{\circ}$, $\varrho = 3.15$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.56$, $\theta = 65^{\circ}$, $\varrho = 1.77$ arcsec. 116046 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.76$, $\theta = 269^{\circ}$, $\varrho = 1.43$ arcsec. 116081 116135 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.05$, $\theta = 68^{\circ}$, $\varrho = 0.26$ arcsec. 116167 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.05$, $\theta = 129^{\circ}$, $\varrho = 2.81$ arcsec. 116191 Ambiguous double-star solution. An alternative solution for BC gives: $\Delta Hp = -0.12$ (component reversal). 116193 Ambiguous double-star solution. An alternative solution for AS gives: $\Delta Hp = 1.58$, $\theta = 159^{\circ}$, $\rho = 0.25$ arcsec. Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 4.19$, $\theta = 24^{\circ}$, $\varrho = 0.77$ arcsec. 116920 Ambiguous double-star solution of HIP 117163 + 117164. An alternative solution for HIP 117163 relative to HIP 117163 117164 gives: $\Delta Hp = 2.28$, $\theta = 109^{\circ}$, $\varrho = 0.34$ arcsec.
 - 117164 See HIP 117163.
 - Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 0.88$, $\theta = 170^{\circ}$, $\varrho = 0.23$ arcsec. 117187
 - 117226 Uncertain triple-star solution of system HIP 117227 (AB) + 117226 (C). TYC 4281-1585-1 (at $\alpha = 356^{\circ}.530971$, $\delta = +60^{\circ}.465\,083$) may be identified with component C (HIP 117226), which is then located at $\theta = 189^{\circ}$, $\varrho = 29.47$ arcsec relative to component A.
 - 117227 See HIP 117226. G
 - 117388 Ambiguous double-star solution of HIP 117388 + 117390. An alternative solution for HIP 117388 relative to HIP 117390 gives: $\Delta Hp = 2.42$, $\theta = 216^{\circ}$, $\varrho = 26.85$ arcsec.
 - 117390 See HIP 117388.
 - 117561 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.77$, $\theta = 215^{\circ}$, $\rho = 1.75$ arcsec.
 - 117581 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.02$, $\theta = 151^{\circ}$, $\varrho = 0.81$ arcsec.
 - Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.08$, $\theta = 314^{\circ}$, $\varrho = 1.11$ arcsec. 117642
 - 117837 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 1.71$, $\theta = 323^{\circ}$, $\rho = 0.64$ arcsec.
 - Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.99$, $\theta = 77^{\circ}$, $\varrho = 4.70$ arcsec. 118060
 - Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.18$, $\theta = 307^{\circ}$, $\varrho = 2.93$ arcsec. 118218
 - 118222 Ambiguous double-star solution. An alternative solution for AB gives: $\Delta Hp = 3.84$, $\theta = 2^{\circ}$, $\varrho = 2.78$ arcsec.