



## HAND PULLEY BLOCK

champion block

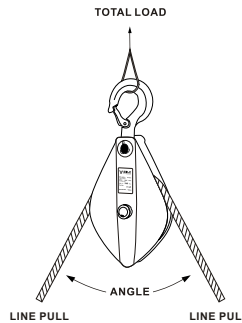
Model: HPB

### Technical features

- HPB, a U.K. design, is used to change the Load Line direction with a machined steel sheave.
- Drop forged, heat treated swivel hook and latch with stretch indicator and identity code.
- Can be furnished with bronze bushings or roller bearings.
- Opening feature permits quick insertion and positioning of rope on the sheave.
- Blocks can be securely locked by swinging the hook in the direction of pull.
- Groove and sheave is made from high quality machined alloy steel to suit its intended rope diameter.
- For Use with steel wire rope and/or fibre rope.
- Manufactured in accordance with European standard EN 13157:2003, and the machinery directive 98/37/EC.



Single Sheave



The right chart indicates the factor to be multiplied by the line pull to obtain the total load on the block.

Angle Factor Multipliers			
Angle	Factor	Angle	Factor
0°	2.00	100°	1.29
10°	1.99	110°	1.15
20°	1.97	120°	1.00
30°	1.93	130°	0.84
40°	1.87	135°	0.76
45°	1.84	140°	0.68
50°	1.81	150°	0.52
60°	1.73	160°	0.35
70°	1.64	170°	0.17
80°	1.53	180°	0.00
90°	1.41	—	—

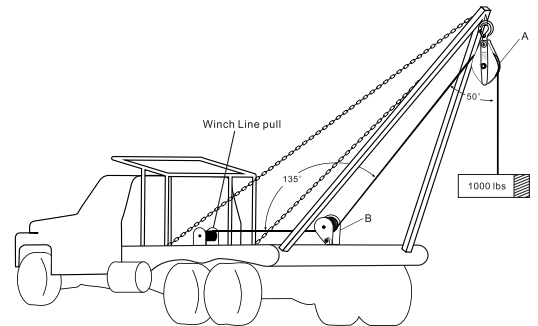
### Example

(Calculations for determining total load value on single line system.)

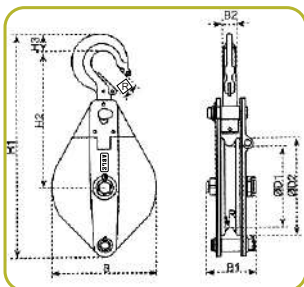
A gin pole truck lifting 1,000 lbs.

There is no mechanical advantage to a single part load line system, so winch line pull is equal to 1,000 lbs. or the weight being lifted.

To determine total load on snatch block A:  
**A = 1,000 lbs. x 1.81 = 1,810 lbs.**  
 (line pull) (factor 50° angle)  
**B = 1,000 lbs. x .76 = 760 lbs**  
 (line pull) (factor 135° angle)



Example



### Ableforge Hand Pulley Block Champin HPB Type

Product Code	Working Load Limit (Ton)	Hook Latch H mm	Rope Diameter mm	Dimensions (mm)									Weight kg
				B	B1	B2	H1	H2	H3	D1	D2	R	
HPB 05	0.5	20	φ5	95	62	16	260	190	20	75	88	3	1.8
HPB 10	1.0	23	φ7	118	76	17	305	200	23	85	105	4	3.3
HPB 20	2.0	27	φ13	119	92	24	425	263	30	150	190	7	7.8
HPB 32	3.2	31	φ15	230	108	28	496	295	40	180	220	9	13.4
HPB 64	6.4	42	φ18	270	116	35	655	375	47	210	260	10	22.9