

YARDING AND SNATCH BLOCKS are one of the most widely used blocks. It is a temporary or intermittent - service block which quickly attaches to the wire rope and moves load over comparatively short distances. This is opposed to long lifts and continuous service for which crane and construction blocks are designed. Snatch Blocks wire rope-to-sheave diameter ratio is not the same as that recommended for crane and construction blocks. Since the height and frequency of the lifts is not as critical, larger sheaves are not as crucial to snatch block operations. However, provisions should be made to increase the sheave size where the situation demands. Naturally a larger sheave is an advantage for bearing and wire rope life. The head fittings on these type of snatch blocks are **NOT** installed with thrust bearings, therefore the fitting will not swivel under full load.

Instructions for Safe Use

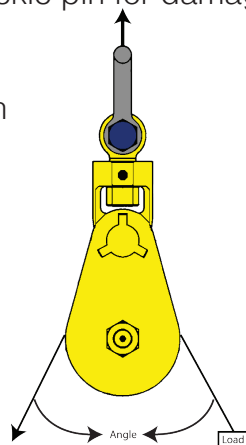
- Always design and rig snatch block systems so that the load will not slip or fall.
- Always design the lifting system with appropriate sheave assembly material to prevent premature sheave, bearing or wire rope wear and failure.
- Always have a qualified person rig the snatch block system. The lower fittings on snatch blocks are **NOT** installed with thrust bearings, therefore the fitting will not swivel under full load.
- Instruct workers to keep hands and body away from the block sheaves, swivels, and “pinch points” where wire rope makes contact with block parts or loads.
- Do not side load snatch blocks. Side loading exerts additional force or loading which the snatch block is not designed to accommodate.
- Always make sure the hook (and not the latch) supports the load.
- Do not weld snatch blocks or load supporting parts.
- Keep out from under a raised load and stay out of the line of force. Never lift personnel with snatch blocks.
- Blocks must be inspected regularly and maintained to increase service life and to enhance safety.

Inspection

- *Check all nuts or retaining pins for any signs of backing off due to high vibration or damage. The head fitting nut must be checked to ensure it is properly engaged into its retaining nut to full depth and the thread is locked. Also, check for excessive “play” in the head fitting. Excessive free play is a sign of wear. Remove from service any snatch block that is cracked or deformed.
- *Look for wear on pins, axles (check if axle is still fixed), side plates, bushings/bearings and fittings attachment points. Any excessive wear (10% wear is the maximum permissible) will require the block to be pulled from service.
- *Check Sheaves for wobble, misalignment, uneven groove flange wear, corrugations or wear in sheave groove. If sheave wobbles or is misaligned this indicates bearing wear which will require removal from service.
- *Check any head fittings for deformation or stretch. Make sure hook has not stretched and latch still fits the hook correctly. Check the shackle pin for damage or deformation.

Load Angle Factors

The stress on a snatch block varies between the degree of angle between the lead and load lines. As the angle between the lines increases, the stress on the block is reduced. With both lines parallel, 1000 pounds on the lead line results in 2000 pounds on the block. Provisions should also be made to increase the sheave size where the situation demands.



ANGLE FACTOR MULTIPLIERS			
Angle	Factor	Angle	Factor
0°	2.00	90°	1.41
10°	1.99	100°	1.29
20°	1.97	110°	1.15
30°	1.93	120°	1.00
40°	1.87	130°	0.84
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

Naturally a larger sheave is an advantage for bearing and rope life. Use the chart below to calculate the total load, by multiplying the line pull by the angle factor and then add 10% for sheave friction.

ProCraft Snatch Blocks Bronze Bush Single Sheave

Snatch blocks have a bronze bushing and are generally used with wire rope. They are mostly suited to applications where hoisting speed are not high, and the head fitting is not designed to rotate while under load (not suitable for concrete tilt wall panels). Snatch blocks are designed with a 4:1 factor of safety.



Stock Code	Size Inches	Working Load Limit Tons	Wire Rope Diameter	Head Fitting	Weight per Piece Pounds
07SB-HK030	3	2	5/16 - 3/8	Hook	8.60
07SB-HK040	4 1/2	4	3/8 - 1/2	Hook	13.67
07SB-HK050	6	4	3/8 - 1/2	Hook	18.52
07SB-HK060	6	8	5/8 - 3/4	Hook	31.08
07SB-HK080	8	8	5/8 - 3/4	Hook	41.88
07SB-SH030	3	2	5/16 - 3/8	Shackle	8.38
07SB-SH040	4 1/2	4	3/8 - 1/2	Shackle	13.67
07SB-SH050	6	4	3/8 - 1/2	Shackle	18.29
07SB-SH060	6	8	5/8 - 3/4	Shackle	31.08
07SB-SH080	8	8	5/8 - 3/4	Shackle	41.22
07SB-SH1508	8	15	7/8 - 1	Shackle	72.73
07SB-SH1210	10	12	1	Shackle	76.50
07SB-TB030	3	2	5/16 - 3/8	Tailboard	4.80
07SB-TB040	4 1/2	4	3/8 - 1/2	Tailboard	8.00
07SB-TB060	6	8	5/8 - 3/4	Tailboard	16.00
07SB-TB080	8	8	5/8 - 3/4	Tailboard	24.00

ProCraft Light Duty Snatch Blocks Single Sheave

Light Duty Snatch blocks are suitable for synthetic or wire rope. A drop side plate allows easy access for the installation of the rope, and its light weight design aids quick installation. Snatch blocks are designed with a 4:1 factor of safety.



Stock Code	Size Inches	Working Load Limit Tons	Wire Rope Diameter	Head Fitting	Weight per Piece Pounds
07SN-DS03J	3	1/2	5/16	Hook	3.30
07SN-DS04J	4	1	3/8	Hook	5.51
07SN-DS05J	5	1 1/2	1/2	Hook	10.58
07SN-DS06J	6	2	5/8	Hook	16.31