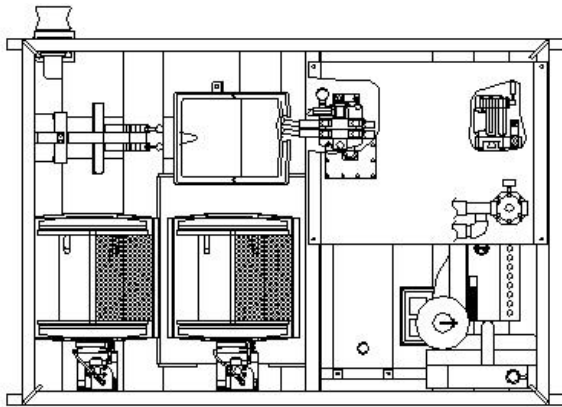


90hp Double Drum Unit



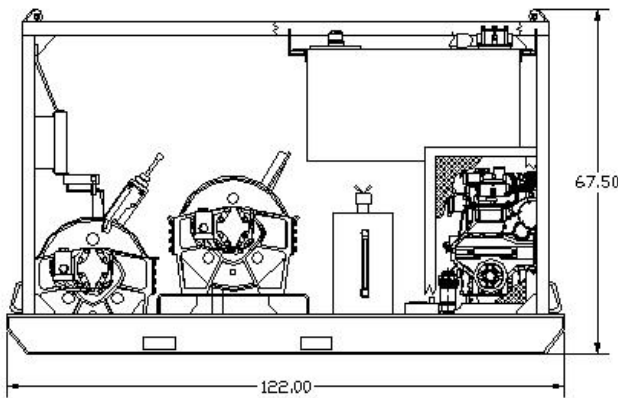
Model HHHP-90 includes the following features:

- 90hp water cooled diesel engine (environmentally certified worldwide)
- 12 volt electric start
- Engine controls include keyed ignition switch, tach/hour meter, oil pressure & coolant temp gauges, amp meter
- 12 volt battery in DOT approved battery box with cover and pad lockable hasp
- 40 gallon diesel fuel tank with DOT approved filler-breather cap and sight level gauge
- Open loop 2-section vane type hydraulic pump
- 2-speed "high-low" hydraulic system
- 110 gallon hydraulic oil reservoir, shock mounted (hydraulic oil included)
- 10 micron cartridge type return filter with visual clogging indicator
- Metering type directional control valve
- (2) planetary driven winches with failsafe brake and wire rope guard (API personnel rated winches available)
- 3/8", 7/16", 1/2" wire rope capacity
- Adjustable high-back reclining operator's seat with arm rests
- Clear Lexan heat/noise shield separating operator's seat from engine
- On-board UL rated ABC fire extinguisher
- Operator/maintenance manual stowed in weather tight enclosure
- Heavy duty steel skid construction with 4-point lifting eye arrangement
- Optional capstan drive with speed control and rope cleat

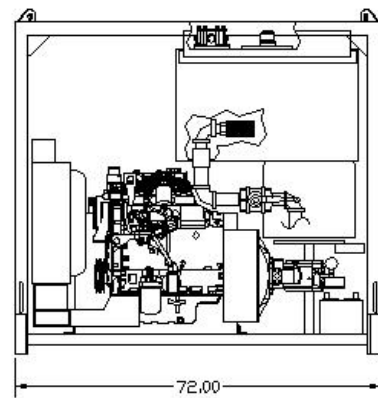


WEIGHT: 5800 LBS. WITH FLUIDS
(WITHOUT WIRE ROPE)

TOP VIEW



LEFT SIDE VIEW



REAR VIEW

**Tower Winch Performance Specifications
Model HHHP-90**

HHHP-90 with DP Mfg. Winch #SB11-BBX1X1F (Not Rated for Personnel)

Layer	Cable Capacity 3/8" Wire Rope	Cable Capacity 7/16" Wire Rope	Cable Capacity 1/2" Wire Rope	Line Pull Low Speed (2500 psi)	Line Pull High Speed (1850 psi)	Line Speed Low Speed (46 gpm)	Line Speed High Speed (75 gpm)
1st	78 ft.	67 ft.	59 ft.	11,000 lbs.	8,140 lbs.	45 fpm.	190 fpm.
Middle	982 ft.	757 ft.	580 ft.	6,030 lbs.	4,460 lbs.	75 fpm.	355 fpm.
Top Legal	2,600 ft.	1,830 ft.	1,380 ft.	3,980 lbs.	2,945 lbs.	110 fpm.	535 fpm.
Full	2,820 ft.	2,020 ft.	1,550 ft.	NA	NA	NA	NA

~~HHHP-90 with DP Mfg. Winch #M12BB-S2R1E (API/Personnel Rated)~~

Layer	Cable Capacity 3/8" Wire Rope	Cable Capacity 7/16" Wire Rope	Cable Capacity 1/2" Wire Rope	Line Pull Low Speed (2500 psi)	Line Pull High Speed (1850 psi)	Line Speed Low Speed (46 gpm)	Line Speed High Speed (75 gpm)
1st	158 ft.	136 ft.	120 ft.	12,000 lbs.	8,880 lbs.	90 fpm.	170 fpm.
Middle	1,080 ft.	771 ft.	689 ft.	9,780 lbs.	7,230 lbs.	100 fpm.	210 fpm.
Top Legal	1,300 ft.	952 ft.	1,066 ft.	7,850 lbs.	5,800 lbs.	125 fpm.	265 fpm.
Full	2,490 ft.	1,770 ft.	1,400 ft.	NA	NA	NA	NA

HHHP-90 with Braden Winch #PD12C-41051-04U-1 (API/Personnel Rated)

Layer	Cable Capacity 3/8" Wire Rope	Cable Capacity 7/16" Wire Rope	Cable Capacity 1/2" Wire Rope	Line Pull Low Speed (2500 psi)	Line Pull High Speed (1850 psi)	Line Speed Low Speed (46 gpm)	Line Speed High Speed (75 gpm)
1st	103 ft.	89 ft.	78 ft.	11,500 lbs.	8,540 lbs.	125 fpm.	220 fpm.
Middle	723 ft.	515 ft.	354 ft.	8,570 lbs.	6,370 lbs.	170 fpm.	290 fpm.
Top Legal	1,523 ft.	1,053 ft.	822 ft.	6,590 lbs.	4,880 lbs.	220 fpm.	380 fpm.
Full	1,704 ft.	1,206 ft.	957 ft.	NA	NA	NA	NA

HHHP-90 with Braden Winch #PD12C-SPL-34051-06U-1 (API/Personnel Rated)

Layer	Cable Capacity 3/8" Wire Rope	Cable Capacity 7/16" Wire Rope	Cable Capacity 1/2" Wire Rope	Line Pull Low Speed (2500 psi)	Line Pull High Speed (1850 psi)	Line Speed Low Speed (46 gpm)	Line Speed High Speed (75 gpm)
1st	170 ft.	146 ft.	129 ft.	9,510 lbs.	5,510 lbs.	44 fpm.	178 fpm.
Middle	1,194 ft.	848 ft.	585 ft.	7,200 lbs.	4,180 lbs.	59 fpm.	235 fpm.
Top Legal	2,512 ft.	1,738 ft.	1,358 ft.	5,800 lbs.	3,360 lbs.	73 fpm.	293 fpm.
Full	2,811 ft.	1,990 ft.	1,580 ft.	NA	NA	NA	NA

HHHP-90 with Braden Winch #CH150A-23090-01U-1 (API/Personnel Rated)

Layer	Cable Capacity 3/8" Wire Rope	Cable Capacity 7/16" Wire Rope	Cable Capacity 1/2" Wire Rope	Line Pull Low Speed (2500 psi)	Line Pull High Speed (1850 psi)	Line Speed Low Speed (46 gpm)	Line Speed High Speed (75 gpm)
1st	155 ft.	134 ft.	129 ft.	9,590 lbs.	7,100 lbs.	135 fpm.	245 fpm.
Middle	1,065 ft.	759 ft.	585 ft.	7,550 lbs.	5,330 lbs.	180 fpm.	325 fpm.
Top Legal	2,450 ft.	1,739 ft.	1,358	5,760 lbs.	4,220 lbs.	225 fpm.	410 fpm.
Full	2,712 ft.	1,962 ft.	1,580 ft.	NA	NA	NA	NA

IMPORTANT!

ANY HOIST SYSTEM WE QUOTE MAY INCLUDE ONE OR MORE WINCHES WHICH THE MANUFACTURER HAS APPROVED FOR USE IN PERSONNEL LIFTING OPERATIONS WHEN INSTALLED IN AN API OR U.S. COAST GUARD APPROVED OFFSHORE PERSONNEL LIFTING SYSTEM.

THIS DOES NOT MEAN THE HOIST SYSTEM WE HAVE QUOTED IS CERTIFIED BY ANY ORGANIZATION FOR PERSONNEL LIFTING OPERATIONS, ONLY THAT HYDRADYNE HYDRAULICS IS USING THE SAFEST WINCHES AVAILABLE FOR OUR CUSTOMERS IN THE TOWER ERECTION AND MAINTENANCE INDUSTRIES.

IF YOU HAVE ANY QUESTIONS OR COMMENTS PLEASE CONTACT US