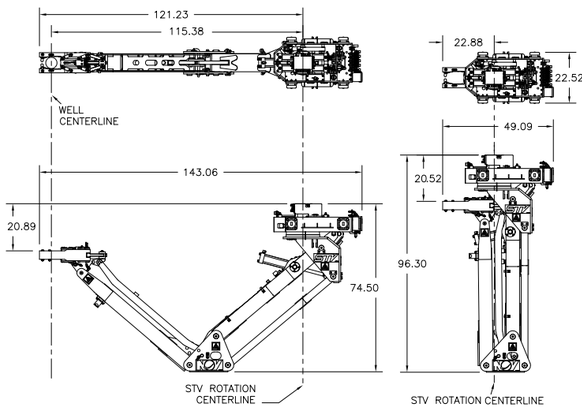
*For reference only, please contact your local sales contact for more information.

STV

The Stand Transfer Vehicle (STV) is a fingerboard-mounted system designed to perform the functions of a derrickman. It does not lift stands of tubulars, but guides the top of the stand between the elevators and the fingerboard.

The STV system includes the fingerboard and a carriage mounted arm which rides up and down rails which are integral to the diving board. The pipe handling head is designed to capture rather than grip the stand. This prevents adverse loading due to the lean of the stand present when the pin is in the setback and the box is at well center.

The pipe handling head consists primarily of two arms and a body. The two arms are connected to the body via parallel linkages and one hydraulic cylinder. The arm is a double parallelogram type modeled after those used on Iron Roughnecks.



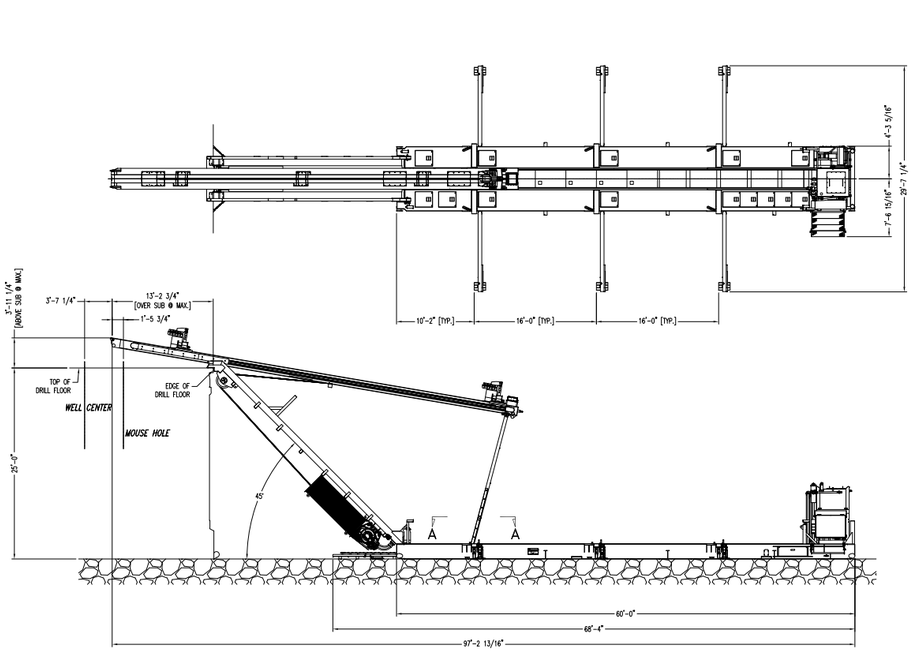
Technical Specifications	
Service	Upper guide arm
Area classification	Zone 1
Hydraulic requirements	15 GPM 2500 psi
Electrical	120 VAC
Compressed air	90 psi
Weight (guide arm only)	2500 lbs
Extension force	1800 lbs retracted, 2700 lbs extended
Retraction force	1800 lbs extended, 1200 lbs retracted
Max radial force at extension	1500 lbs
Max slew moment	2500 ft lbs
Tubular capacities	3 1/2" drill pipe to 10" collars
Extension speed	Up to 0.67 ft/sec
Retraction speed	Up to 0.67 ft/sec
Slew time	90 ° in 3.2 sec
Carriage travel	Up to 0.75 ft/sec

Pipecat

The function of the PipeCat laydown system is to move tubulars between the catwalk and drill floor. The primary moving component is the trough. The trough is used to lift and lower the tubulars and is driven by a winch mounted on the underside of the V-Door. When the trough is lowered into the catwalk, a system of pipe racks, indexer arms, and kicker arms are used to load tubulars to and from the trough. Pipe racks may be installed on one or both sides of the catwalk. A skate is used to position tubulars along the length of the trough.

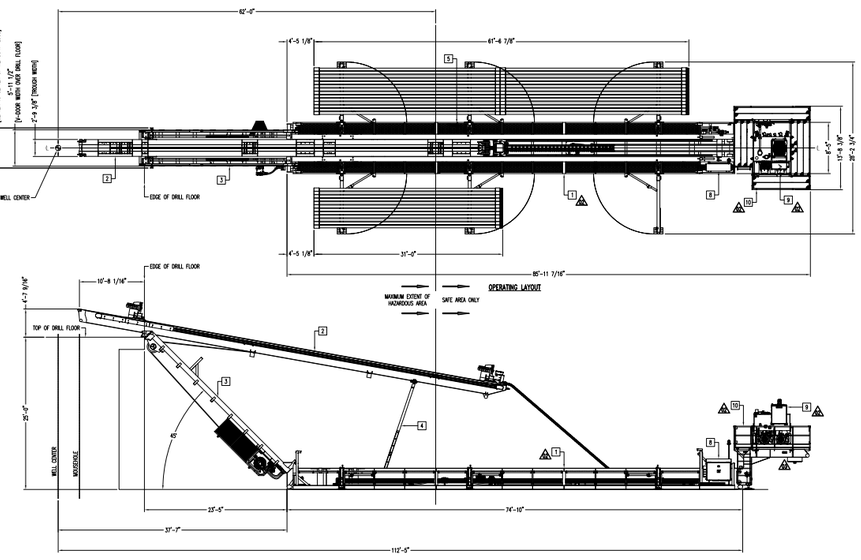
When the trough is raised to the drill floor, the skate is used to push tubulars to well center, and to receive tubulars as they are unloaded from the elevators. The PipeCat laydown system is operated using an Amphion™ control system and is powered by an external electrical power source and an external hydraulic power unit. The illustrations below show examples of laydown system layouts. Refer to the assembly drawings, schematics, and documentation supplied with this manual for exact configuration details.

PC-5-47



Technical Specifications	
Model	PC-5-47
Safe Working Load	10,000 lbs (4,536 kg)
Maximum Tubular Length	47' (14,326 mm)
Tubular Diameter Range	2 3/8" to 24" (60 mm to 610 mm)
Drill Floor Height	25' – 0" (7,620 mm)
Main Power	480/240/120 VAC ~ 50/60 Hz
Control Power	208/120 VAC ~ 50/60 Hz
Maximum Ambient Temperature	122°F (50°C)
Control System	Integrated Amphion Control System
Hydraulic Power Unit	Integrated
TUBULAR SPECIFICATIONS	
Drill Pipe and Tubing	2 3/8" to 6 5/8" (60 to 168mm) Range II and Range III
Drill Collar	3 1/2" to 11" (89 to 279mm) Range II
Casing	Up to 24" (610 mm) Range III, Max 10,000 lbs (4,536 kg)

PC-5-65



Technical Specifications	
Model	PC-5-65
Safe Working Load	10,000 lbs (4,536 kg)
Maximum Tubular Length	Maximum Length: 65' (19,812 mm)
Tubular Diameter Range	2 3/8" to 24" (60 mm to 610 mm)
Drill Floor Height	25' – 0" (7,620 mm)
Main Power	480/240/120 VAC ~ 50/60 Hz
Control Power	208/120 VAC ~ 50/60 Hz
Maximum Ambient Temperature	131 °F (55°C)
Control System	Integrated Amphion™ Control System
Hydraulic Power Unit	Integrated
TUBULAR SPECIFICATIONS	
Drill Pipe and Tubing	2 3/8" to 6 5/8" (60 to 168 mm) Range II Doubles & Range III Singles
Drill Collar	3 ½ to 11" (89 to 279 mm) up to maximum weight of 10,000 lbs/4,536 kg
Casing	Up to 24" (610 mm) Range II Doubles up to 65' & Range III Singles

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