

Sectioning of Multi-String Conductors

NCA's system for surface sectioning of multi-string conductors is the industries most efficient and proven system for removal of oil and gas wells. The combination of cutting speed, cold cutting capability, our extensive experience and state of the art reliability allow NCA to set the standard for safe and efficient conductor removal operations, worldwide. NCA has also developed a unique lifting and handling methodology which is based on structural analysis of the conductor assembly prior to and during the lifting process.

The sectioning system consists of a Dual Drilling Machine, Multi-string Handling System, Guillotine Saw and High Pressure Conductor Cleaner (to ensure grip and facilitate other equipment). After the internal cut is made below the mud line the removal sequence includes:

1. Pulling the pre-determined segment length, which is normally forty-feet on a drilling rig, while the conductor's surface is automatically cleaned by the conductor cleaning system.
2. Setting the slips or hanging off the pre-installed pin.
3. Boring holes and securing inner string integrity through the use of certified, NCA pins.
4. Cold cutting and lifting the segment to the lay down area.
5. Repeat sequence.

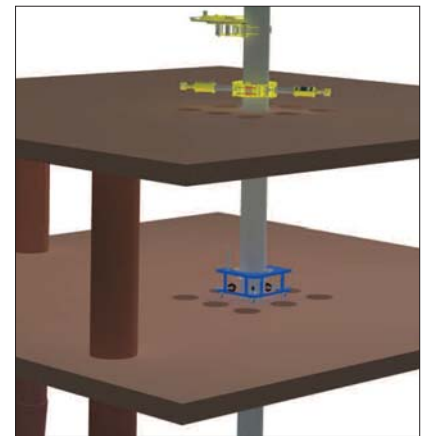
NCA's Dual Drilling Machines and Guillotine Saws are remotely operated and utilize a cold cutting process which eliminating the risk of igniting hydrocarbons pockets in the casing's annuli.

Applications

- Pulling and sectioning of multi-string conductors on platform wells
- Can be used in conjunction with rig operations, crane operations or with NCA's rigless jacking systems
- Pinning and Cutting of the conductors sub sea
- Smaller versions are available for "glue" dope, interlocked casings, stuck pipe, jammed straddles or other situations requiring puling of multiple tubular

Features and Benefits

- Superior cutting and hole boring speeds – typically fifteen (15) minutes per hole and thirty (30) minutes per cut on a thirty-inch, four-string assembly
- Cold cutting – the equipment do not produce any sparks or heated surfaces that can ignite hydrocarbons in casing annuli during the process
- All equipment is remotely operated from safe distance
- Self sufficient rig less surface equipment package is available



Specifications

Casing configurations	Any casing configuration from 9 5/8" to 40" OD casing Cemented or uncemented annuli Centric or eccentric casing Casing sections can be cut in any lengths
Lifting capacity	200 MT for 3 3/4" pin for Multi-string Handling System
Utility requirement from platform or vessel	Fresh water for cleaning Crane (8T capacity) and rigging assistance for handling of equipment Electric power (110 V and 220 V) Work air Sea water (100 lpm / 26gpm @ 2 bar / 30 psi)
Desk space capacity	Approximately 10 sqm / 100 sqft for utility equipment

Available Versions

Guillotine Saws		Dual Drilling Machines	
GS 1020	9 5/8"-20" OD csg	DDM Clamp 913	9 5/8-13 3/8" OD csg
GS 2032	20-32" OD csg	DDM Clamp 1320	13 3/8-20" OD csg
GS 2836*	28-36" OD csg	DDM Clamp 2026	20-26" OD csg
GS 2640*	26-40" OD csg	DDM Clamp 2632	26-32" OD csg
		DDM Clamp 3040*	30-40" OD csg

* Hydraulic activated, remote controlled clamp

Multi-string Handling System		High Pressure Conductor Cleaner	
MHS 100-26	up to 26" OD csg	HGCC 2032	20-32" OD casing
MHS 100-30	30" OD csg		
MHS 100-36	36" OD csg		
MHS 100-39	39" OD csg		

Typical Equipment List (for 30" conductor job)

Equipment	Quant.	Eqt. weight	Dimensions (LBH)
Guillotine Saw 2032 w/30" clamp	1	1,200 kg 2,650 lbs	2.2 x 1.8 x 0.7 m 85 x 68 x 25 in
Dual Drilling Machine w/clamp	1	500 kg 1,100 lbs	4.0 x 1.1 x 0.5 m 157 x 44 x 20 in
Multi-string Handling System (packed size and weight)	1	1017 kg 2242 lbs	1.8 x 1.0 x .38 m 72 x 43 x 15 in
Hydraulic Power Units	2	1,860 kg 4,100 lbs	2.54 x 1.14 x 1.6 m 100 x 45 x 65 in
High Pressure Conductor Cleaner	1	360 kg 793 lbs	1.6 x 1.4 x 1.3 m 63 x 59 x 53 in
Control Booth Conductor Cleaner	1	200 kg 440 lbs	1.3 x 1.4 x 2.1m 52 x 57 x 85 in
High Pressure Pump	1	6,800 kg 15,000 lbs	4.3 x 2.0 x 2.2 m 171 x 77 x 99 in



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