## Halliburton Integrated Cased-Hole Truck

The new Halliburton Integrated Cased-Hole truck is a combination unit capable of performing all cased-hole logging, including perforating and slickline operations.

The unit is built on a Euro 5 Mercedes-Benz\* chassis, with a US-built body. It is equipped with standard hydraulics, reel package, and a measuring and cabling system.

The equipment design, data, related details, and documentation are in conformance with IEC 60204, 5th Edition 2005-10. All components have been upgraded, including the truck chassis, a Mercedes-Benz Actros, equipped with a powerful BlueTEC\* 5 (Euro 5) 408-HP/1800-rpm engine.

This truck is designed and built to comply with all  $C \in$  directives required by the European Market, and has earned the marking granted by the authorized third-party evaluator.

The Integrated Cased-Hole truck is accompanied by a trailer fitted with the pressure control equipment, including the wireline valve, lubricators, grease injection pump, hydraulic control module, and the required well adapters.

This innovative and integrated solution allows Halliburton to provide our clients with a single set of equipment and the associated crew to perform both slickline and eline services, reducing operating costs for our clients and increasing efficiency and value.

Chassis Specifications		
Model	Mercedes-Benz Actros	
Drivetrain	6×4	
Cab	M-Cab	
Wheelbase	165 in. / 4,200 mm	
Gross Vehicle Weight	57,320 lb / 26,000 kg	
Engine Model	OM501LA	
Engine Type	V6 Direct Injection Diesel	
Engine Power (1800 rpm)	408 HP / 300 kW	
Engine Torque (1800 rpm)	1,475 lbf.ft / 2,000 Nm	
Maximum Speed	1,500 rpm	
РТО	NB1	
PTO Ratio	1.7	
PTO P (maximum)	207 HP / 155 kW	
PTO T (maximum)	376 lbf.ft / 510 Nm	





Integrated Cased-Hole Truck Dimensions

The spacious 97-in. x 96-in. (246.4-cm  $\times$  243.8-cm) cabin includes two workstations, and ample room to accommodate two operators and customer representatives. It includes tool racks and two built-in workbenches, with tool boxes, for slickline operations.





The dual-reel package includes a logging #14 reel and a slickline 0.092/0.125 reel, which allows the unit to work with a large selection of slickline wires or e-line cables up to 5/16 inches.

Dual-Reel Package Specifications				
	E-Line Reel	S-Line Reel		
Core	15 in. (38.1 cm)	19.75 in. (50.2 cm)		
Flange Diameter	39 in. (99.1 cm)	26 in. (66.0 cm)		
Width	32.036 in. (81.4 cm)	25.5 in. (64.8 cm)		
Capacity	29,116 ft (8,875 m) of 5/16-in. cable	30,000 ft (9,144 m) of 0.092-in. wire 25,000 ft (7,620 m) of 0.125-in. wire		
Gear Box Type	Rexroth GFT-17	Fairfield W6C700413X		
Gear Box Ratio	45:1	13:1		
Maximum Speed ft/min, m/s	500 2.54	2,800 14.2		
Maximum Line Pull (Core-Full)	12,000 to 6,000 lb 5,443 to 2,722 kg	3,800 to 2,800 lb 1,724 to 1,270 kg		



The reels are quick-change direct-drive units with no chains. Their hydraulic system uses a Rexroth AA4VG 71cc pump and 80CC motors. A slow-speed valve is included, allowing logging speeds as low as 1 fpm. The system is equipped with a fail-safe hydraulic braking system, allowing the operator to perform one-handed jarring actions.

## For more information, contact your local Halliburton representative.

A 35-gallon (133-L) tank of hydraulic fluid feeds the closed-loop system. It includes the 71-cc pump, the auxiliary pump for spooling, and a Rexroth AA4V56, which drives the 27-kW Marathon Hydraulic generator:

Electric Generator Specifications			
Model	284PDL1750		
Туре	MagnaPlus		
Output	230 VAC		
Frequency	50 Hz / 1,500 rpm		
Output Power	36 HP / 27 kW Maximum		
Regulator	SE-350		

The truck is electrically wired with 220 VAC/ 50 Hz and 24 VDC, per European requirements. A step-down transformer is used to provide 110 VAC for the Cased-Hole LOGIQ<sup>\*</sup> system. A 24 V to 12 V DC convertor is also used to supply 12 volts to the system.

The measuring system includes a Benchmark AMSLA513 MAKO head, a heavy-duty Sl/EL measuring device for wirelines from 0.092 in. to 0.160 in. and E-lines/braided lines from 3/16 in. to 5/16 in., as shown here:

MAKO Counter Specifications				
Height	36.7 in.	0.932 m		
Length	48.6 in.	1.234 m		
Width (Base)	12 in.	0.305 m		
Width (Overall)	12.8 in.	0.325 m		
Weight	132 lb	60 kg		
Maximum Tension	15,000 lb	6,800 kg		
Line Sizes	.092 in. to 5/16 in.	2.34 mm to 7.94 mm		
Encoder	600 or 1,200 PPR			
Backup Counter	4 PPR Quadrature			
Load Pin	Passive Bridge 1.5v	Differential 4-20 ma Current Loop		

The MAKO head provides depth and tension information to the AMS-95 panel, which is used to acquire and display this data. The panel provides the operator the means to set and make adjustments to the data as necessary. The AMS-95 has a tension shot down and wire-management software for extra safety and to prevent wire damage. Depth is displayed from data provided by an encoder mounted on a measuring device. The tension data is provided by a load pin, and is also passed through to the Cased-Hole LOGIQ\* acquisition system.

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Wireline & Perforating