



# WORKOVER RIG AM 12/50

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The AM12/50 mast equipped workover rig is the result of long experience in manufacturing (AM 10) and repairing of workover rigs. It is designed for intervention and overhaul of oil and gas wells without derricks, of which working depth is in accordance with 50tf hook loads, to perform the following tasks:

The workover rig can perform additional functions: hydraulic pressure group for rotary table, hydraulic tongs or auxiliary tasks.

- inserting and extraction of tubing
- replacement of depth pumps
- various instrumentation
- bailing and swabbing tasks
- well columns repairs
- production tests

## CHASSIS AND ENGINE

The transportable workover unit is installed on a Roman truck chassis, four-axes with 8x6 drive configuration, providing high rated handling on off-road conditions, remaining at the same time «road-friendly».

Both for driving and workover operations and all other energy requirements a power group based on a CATERPILLAR C9 ACERT type engine is used. The engine is coupled with an automatic gearbox CATERPILLAR TH31 type.



## UNIT COMPONENTS

The main parts of the workover unit are assembled on a frame mounted on the chassis:

- coupling gear,
- conic group,
- T2T-10/5 winch
- the drum braking control,
- pneumatic equipment with air tanks,
- hydraulic equipment with oil tank
- fixed section of the mast with stabilizers,
- mast with the telescopic cylinder,
- folding cylinder
- the driller platform.

## API CERTIFICATION

**CONFIND** is a leading Romanian oil equipment manufacturer, working under a certified quality management system **ISO 9001:2008; ISO/TS 29001; API Spec.Q1; ISO 14001 și OHSAS 18001**, holding licences for its products according to **API 7-1, 7K, 8A, 8C, 11E and 11AX**.

The essential parts of the AM 12/50 workover rig are manufactured under API specifications as follows:

- hook: **API 8C**
- crown-Block: **API 4F** for the crown and **API 8C** for the pulleys
- mast: **API 4F**
- hydraulic winch: **API 7K** for some of its subassemblies



## T2T-10/5 WINCH

The winch has two drums, one for handling and one for bailing, operated thru a pneumatic clutch.

The brakes for the handling and bailing drums have two braking bands, leveling rod and adjustment stands. The safety brake is pneumatic operated using a servo-motor controlled from the central operation stand, or under the action of the load and stroke limiters.

Brake drums from the handling winch are water cooled.



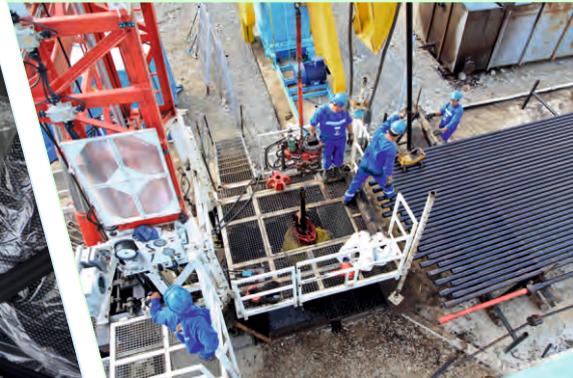
## DIGILOG UNIT

The operational parameters of the engine and workover equipment are real time supervised and logged by a Digilog unit installed in the driving cabin.



## OPERATION PLATFORM

The operation platform is situated in the rear of the rig. It is foldable for transport and has different working positions, with adjustable height by 200 mm, between 800 and 2.800 mm.



## UNIT ACCESSORIES

- Handling hook MC65 (maximum load 59tf, 3 pulleys for a 22mm cable) ATEX certified.
- Hydraulic winch 2t (SEPSO), Ø12 mm - 50m cable, (With a device to ensure proper cable winding on drums);
- Measurement and logging device for hook and anchor loads DIGILOG;
- Loading pipeline for working fluids 2inch x 350bar mounted on the mast;
- Measurement device for depth of the pumping piston;
- Hydraulic tubing tong  $2\frac{3}{8}$ ,  $2\frac{7}{8}$ ,  $3\frac{1}{2}$ ;
- Air lock 50tf for tubing  $2\frac{3}{8}$ ,  $2\frac{7}{8}$ ,  $3\frac{1}{2}$ ;
- Anchor lines for the chassis;
- Measurement device for the tension on the anchor lines;
- Working platform at the well, 2380x2480mm, foldable, fixed on the rigid section, with height position adjustment, between 1340 and 2740mm; the working platform is surrounded by foldable railings and a adjusted stair that can be used on both sides of the platform;
- Grounding electrical system.

# TECHNICAL SPECIFICATIONS AM 12/50 WORKOVER RIG

Workover equipment	
Maximum hook load	50 tf
Maximum power/RPM	224 kW (300 CP)/2.200 rpm
Engine maximum torque	1.220 Nm/1.400 rpm
No. of wires for manouevre at crown-block	6
Max. height from ground to the crown-block structure	21 m
Max. wind speed with loaded hook	60 knots (30,86 m/s)

Mast	
Type	telescopic with two sections, "U" profile
API capacity	65 ts (59 tf)
Folding	with hydraulic cylinder
Telescoping	with hydraulic cylinder
Anchoring	with 4 enforced anchors to the unit's chassis with 4 enforced anchors to the ground

Crown-Block	
Handling	4 pulleys
Bailing	1 pulley

Hook	
No. of pulleys	3
API capacity	65 ts (59 tf)

Handling winch	
Maximum cable load	12 tf
Cable diameter	Ø 22 mm
Pneumatic clutch	AB 700x125

Bailing winch	
Maximum cable load	5tf
Pneumatic clutch	AB 600x125

Working temperature range	
-29°C.....+40°C	

Driving chassis	
Type	8x6 - Roman Braşov
Total allowed weight	37.000 kg
Chassis weight	11.500 kg
Maximum slope	30%
Ground clearance	Front 326 mm rear 330 mm
Wheels, tires	12.00R2-tube type (on-off profile) 12 + 1pcs
Engine	Caterpillar, diesel, 4-stroke, 6 cylinders inline, Tier IV supercharged, with intercooler
Cubic capacity	8,8 liters
Rated power	220 kW (300 CP) /1.800-2.200 rpm
Maximum torque	1.220 Nm/1.400 rpm
Torque convertor	TS 40-ESLE, multiplying ration : 2,46
Gear box	Caterpillar - 6+1R gears
Power couplings	(PTO) on the gearbox
Transfer case	CD 1.500, inter-axial locking differential
Controls	electro-pneumatical
Rear axles	PT 13+PS 13, with traction, equipped with ABS
Front axles	PF 7 with traction, steering, equipped with ABS
Front axle	V070 steering

Electric power supply	
Operating conditions	ADR
Tension	24 V
Alternator	24 V/min 80 A
Batteries	2x12 V-min 150 Ah

Overall dimensions for road transport	
Length	11.950 mm
Width	2.500 mm
Height	3.975 mm
Total weight	32.000 kg
Unit max. driving speed	70 km/h



**CONFIND** [www.confind.ro](http://www.confind.ro)

Progresului 2 Str. , 105600 Campina, Prahova County, Romania

tel./fax: +40 244 37 47 19; +40 244 37 37 09; +40 244 33 31 60; email: [confind@confind.ro](mailto:confind@confind.ro)