

USA Toll-Free: 1-800-231-8198

You are in the business of getting the job done.

We are here to help you succeed.

We manufacture a full line of 300 to 1,000 HP Cooper rigs at our state-of-the-art U.S. facility, keeping close control over every detail to ensure high quality. Our mobile rigs are purposefully engineered and built to be simple, safe, strong, and easy to operate. Our efforts to facilitate your success do not stop with the design. Every rig that comes from Dragon comes with extra support before, during, and after the sale to help keep your equipment and your business operating. Including 24/7 access to our skilled service teams and vast parts inventories. We are always here for you, because we know you do not want downtime. If you want quality, dependability and the support of a long-standing mobile rig expert backing you up.









Dragon Mobile Rig Parts what you need to do the job - right.

Mobile rigs are so valuable because they're so versatile. The rig gets to the site and gets to work. Yet one worn out part can bring the whole system down. Having the right parts in the right place at the right time is essential to keeping your mobile rigs working and your operation running. This is where Dragon comes in.

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BEARINGS











CHAIN

WPT WATER BRAKE

HYDRAULIC CYLINDER

PARMAC HYDROMATIC BRAKES











AIR VALVES HYDRAULIC JACKS

RIGHT ANGLE BOXES

MCKISSICK BLOCKS

BRAKE FLANGES



(25' rod joints in double stands) 312 stands (15,600')—1/2" sucker rod 234 stands (11,700')—5/8" sucker rod 208 stands (10,400')—3/4" sucker rod 182 stands (9,100')—7/8" sucker rod 156 stands (7,800')—1" sucker rod 130 stands (6,500')—1 1/8" sucker rod

CAPACITY, TUBING BOARD: (31' long joints in single stands) 11,780 ft-2 3/8 EUE tubing 10,540 ft-2 3/8 DP

7,750 ft—2 7/8" EUE tubing 5,952 ft-2 7/8" DP

Maximum wind rate: 57 knots (66 mph)





Cooper SP300 **Mobile Servicing Rig**

Service Department of the service of	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Workover Depth	7,530 ft (2-7/8" DP)
Rated horsepower, engine	350 hp
Carrier	4 axle—two steer and two drive axles
Diameter, wireline	1"
Road Traveling dimensions	43' long x 9'-4" wide x 13'-8" high
Couries dimensions (evaluation most)	20' long v 0'/" wide v 0' 0" bigb

9 500 ft (2-1/2" tubing)

Carrier dimensions (excluding mast). . 38' long x 9'4" wide x 9'-8" high line, sand line, tools, block)

DRAWWORKS SYSTEM MAIN DRUM

Service Denth

Brake rim diameter x width 42" dia x 10" wide

Barrel diameter x width 16" dia x 38" wide (excluding lebus)

Model, clutch PO-224

SANDLINE DRUM

Brake rim diameter x width 42" dia x 8" wide Barrel diameter x width 16" dia x 43" wide

Spray brake water tank capacity 70 gal

Assist Brake Air cooled disc brake

Brake caliper model Kobelt 5026

Brake rotor measurements..... 40" dia x 7" braking surface x 4" thick

Maximum torque......21,920 lbf



ft—2 3/8" EUE tubing

19,840 ft-2 3/8" DP

18,104 ft—2 7/8" EUE tubing

13,640 ft—2 7/8" DP 8,860 ft-3 1/2" DP

9,920 ft-3 1/2" EUE tubing

ROD BOARD CAPACITY:

(25' joints in triple stands) 288 stands

(21,600')—1/2" sucker rod 216 stands (16,200')—5/8" sucker rod 192 stands (14,400')—3/4" sucker rod 168 stands (12,600')—7/8" sucker rod 144 stands (10,800')—1" sucker rod 120 stands (9000')—1 1/8" sucker rod

Maximum wind rate: 57 knots (66 mph)





Cooper SP400 **Mobile Servicing Rig**

Service Depth	14,500 ft	(2-1/2" tubing)
Workover Depth	10.500 ft	(2-7/8" DP)

Rated horsepower, engine350 hp or 425 hp

Carrier.....4 axle—two steer and two drive axles

Road Traveling dimensions56'-5" long x 9'-4" wide x 13'-8" high

Carrier dimensions (excluding mast . . 39'-10" long x 10' wide x 9'-8" high

drill line, sand line, tools, block

DRAWWORKS SYSTEM

MAIN DRUM

Brake rim diameter x width 42" dia x 10" wide

Barrel diameter x width16" dia x 38" wide (excluding lebus)

Model, clutch......WPT PO-224 Maximum fastline pull39,566 lbf

SANDLINE DRUM

Brake rim diameter x width 42" dia x 8" wide Barrel diameter x width16" dia x 43" wide Model, clutch......WPT PO-124

Sand drum capacity......16,000' of 9/16" cable

Spray brake water tank capacity 70 gal

Assist Brake Air cooled disc brake

Brake rotor measurements......40" dia x 7" braking surface x 4" thick

Maximum torque.....21,920 lbf



MAXIMUM STATIC LOAD: 250,000 lbs on 8-lines

225,000 lbs on 6-lines

CAPACITY, TUBING BOARD:

(31' long joints in double stands) 28,396 ft—2 3/8" EUE tubing

24,800 ft—2 3/8" DP

22,816 ft—2 7/8" EUE tubing

16,864 ft-2 7/8" DP

10,540 ft-3 1/2" DP

11,780 ft—3 1/2" EUE tubing

ROD BOARD CAPACITY:

(25' joints in triple stands) 288 stands (21,600')—1/2" sucker rod 216 stands (16,200')—5/8" sucker rod

192 stands (14,400')—3/4" sucker rod

168 stands (12,600')—7/8" sucker rod 144 stands (10,800')—1" sucker rod

120 stands (9000')—1 1/8" sucker rod

Maximum wind rate: 57 knots (66 mph)



Cooper SP550 Mobile Servicing Rig

Service Depth	20,000 ft (2-1/2" tubing)
Workover Depth	14,500 ft (2-7/8" DP)

Rated horsepower, engine500 hp / 2,100 rpm

Carrier......5 axle—two steer, two drive axles

and one drag axle

(excluding mast)

DRAWWORKS SYSTEM

MAIN DRUM

Brake rim diameter x width 42" dia x 12" wide

Model, clutch......PO-324

Maximum fastline pull45,000 lbf

SANDLINE DRUM

Model, clutch......PO-224

Sand drum capacity......16,000' of 9/16" cable

Spray brake water tank capacity 80 gal

Assist BrakeAir cooled disc brake

Brake rotor measurements.......48" dia x 10" braking surface x 4" thick

Maximum torque......36,500 lbf



Certification: API 4F, 3rd Edition Clear height: 112'

MAXIMUM STATIC LOAD: 265,000 lbs on 8-lines 240,000 lbs on 6-lines

CAPACITY, TUBING BOARD:

8,184 ft-4 1/2" DP (6.25 dia)

26,040 ft—2 7/8" EUE tubing (3.668 dia) 22,320 ft—2 7/8" DP (4.125 dia) 14,136 ft—3 1/2" EUE tubing (4.50 dia) 12,648 ft—3 1/2" DP (4.75 dia) 8,928 ft—4 1/2" EUE tubing (5.536 dia)

Maximum wind rate: 57 knots (66 mph)





Cooper SP600 Mobile Servicing Rig

Service Depth	14,100 ft (3 ½" EUE tubing)
Workover Depth	
Rated horsepower, engine	
Carrier	5 axle—two steer, two drive axles
	and one drag axle Option - 6 axle -
	three steer, two drive and one drag
	axle
Diameter, wireline	1" for 265,000 lb capacity
	1 1/8" for 300,000 lb capacity
Road Traveling dimensions	68'-1" long x 10' wide x 14'-1" high
Carrier dimensions	45' long x 10' wide x 10'-2" high
	(excluding mast)
Traveling weight	94,000 lbs estimated (not including
	drill line, sand line, tools, block

DRAWWORKS SYSTEM (Single drum drawworks available) MAIN DRUM

Brake rim diameter x width 42" dia x 12" wide

Barrel diameter x width18" dia x 38" wide (excluding lebus)

Model, clutch......PO-324 Maximum fastline pull 45,000 lbf Brake rim coolingSplash

SANDLINE DRUM

Brake rim diameter x width 42" dia x 8" wide Barrel diameter x width16" dia x 43" wide

Model, clutch......PO-224

Sand drum capacity......16,000' of 9/16" cable

Spray brake water tank capacity 80 gal

ASSIST BRAKE (other options available)

Brake model.......WPT 224 water cooled brake (standard friction material)



112-300-8-T MAST:

Certification: API 4F, 3rd Edition Clear height: 112'

MAXIMUM STATIC LOAD:

300,000 lbs on 8-lines 275,000 lbs on 6-lines

CAPACITY, TUBING BOARD:

26,040 ft—2 7/8" EUE tubing (3.668 dia)

22,320 ft-2 7/8" DP (4.125 dia)

14,136 ft—3 1/2" EUE tubing (4.50 dia)

12,648 ft—3 1/2" DP (4.75 dia)

8,928 ft—4 1/2" EUE tubing (5.536 dia)

8,184 ft—4 1/2" DP (6.25 dia)

Maximum wind rate 57 knots (66 mph)



Cooper SP650 Mobile Servicing Rig

Service Depth	. 14,100 ft (3 ½ EUE tubing)

Rated horsepower, engine 575 hp / 2,100 rpm

Carrier..... 6 axle—three steer, two drive

and one drag axle

Diameter, wireline 1 1/8"

Road Traveling dimensions 68'-1" long x 10' wide x 14'-1" high

Carrier dimensions (excluding mast). . 45' long x 10' wide x 10'-2" high

Maximum speed 55 mph

Traveling weight 97,000 lbs estimated (not including

drill line, sand line, tools, block

DRAWWORKS SYSTEM

MAIN DRUM

Brake rim diameter x width 42" dia x 12" wide

Barrel diameter x width 18" dia x 38" wide (excluding lebus)

Brake rim cooling Water circulating

ASSIST BRAKE (other options available)

Brake model...... WPT 224 water cooled brake

(standard friction material)



340,000 lbs on 8-lines
Capacity, tubing board:
9,000 ft - 5" DP (6.5 dia)
Tubing board finger position

Tubing board finger position Parallel to mast face (side rack)

Maximum wind rate: 60 knots (69 mph)

SUBSTRUCTURE:

Working height: 17'

Clearance under rotary beams: 13'-3"
Maximum Setback Capacity: 300,000 lbs
Maximum Rotary Capacity: 425,000 lbs

Maximum Simultaneous Capacity: 725,000 lbs Rotary Table Size: 27 ½"



Cooper TR750 Mobile Drilling Rig

Service Depth	. 25,000 ft (2 7/8 EUE tubing)
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Rated horsepower, engine (Two).....425 hp / 2,100 rpm x Two

Road Traveling dimensions

(excluding tow vehicle)......70'-5" long x 11'-2" wide x

15'-2" high

Trailer dimensions (excluding mast) . . 62'-11" long x 11'-2" wide x

10'-11" high

DRAWWORKS SYSTEM

MAIN DRUM

Brake rim diameter x width 42" dia x 12" wide

Barrel diameter x width18" dia x 41" wide (excluding lebus)

Brake rim cooling Water circulating

ASSIST BRAKE (other options available)

Brake model......WPT 324 water cooled brake

(standard friction material)



425,000 lbs on 10-lines 340,000 lbs on 8-lines

CAPACITY, TUBING BOARD: 9,000 ft- 5" DP (6.5 dia) **Tubing board finger position** Parallel to mast face (side rack)

Maximum wind rate: 60 knots (69 mph)

SUBSTRUCTURE:

Working height: 21'

Clearance under rotary beams: 17'-4" Maximum Setback Capacity: 300,000 lbs Maximum Rotary Capacity: 425,000 lbs **Maximum Simultaneous**

Capacity: 725,000 lbs Rotary Table Size: 27 1/2"



Cooper TR1000 Drilling Rig

. 25,000 ft (2 7/8 EUE tubing)
. 16,000 ft (3 ½ DP)
. 12,000 ft (4 1/2 DP)
. 550 hp / 2,100 rpm x Two
. Four axle
. 1 1/8"
. 70'-5" long x 11'-2"
wide x 15′-2″ high
. 62'-11" long x 11'-2"
wide x 10′-11″ high

DRAWWORKS SYSTEM

MAIN DRUM

Brake rim diameter x width 46" dia x 12" wide

Barrel diameter x width 20" dia x 41" wide (excluding lebus)

Model, clutch PO-330 Maximum fastline pull 52,000 lbf

Brake rim cooling Water circulating

ASSIST BRAKE (other options available)

Brake model...... WPT 324 water cooled brake (standard friction material)





Also available: 360 Triplex Mud Pump

440 Triplex Mud Pump

Package Dmensions					0" high		
MUD PUMP	SPECIFICAT	IONS					
Model			Dı	ragon Pr	oducts V	V-440	
Input horsep	ower rating	j	44	l0 hp			
Pump speed	rating		32	20 cycles	per min	ute (960	SPM)
Stroke length							
Fluid end wo					r 5000 p	si	
Discharge co							
Suction conn							
Accessory co							
Maximum piston and liner size 4 ½"							
Valve size API-4							
Piston rod end SA-4							
Internal gear ratio 4.578:1 Pump weight							
Pump weigh	[• • • • • •	85	40 lbs			
W-440			HP	260	320	380	440
			SPM	510	660	810	960
LINER SIZE	MAX PSI	GPS	GPM				
3	5000	.184		94	121	149	204
3 1/2	4045	.25		127	165	202	240
3 3/4	3523	.287		146	189	232	275
4	3130	.326		167	215	264	313
4 1/4	1917	.368		188	243	299	354
4 1/2	1710	.413		211	273	335	397

We are strong in Well Servicing & Drilling Drawworks Brake Blocks

Indutex SA, a Peruvian Company founded in 1980, is a major manufacturer of industrial textiles and friction materials and is a member of the FRENOSA group, one of the largest friction product makers in South America.

Their Oilfield Brake Block and Woven Brake Linings are manufactured in one piece with uniform surfaces and densities. Each are woven in Fletcher special looms under proper tension to insure a tightly woven and superior quality product. The woven blocks and linings are manufactured in asbestos, non-asbestos or natural fibers.

To maximize resistance and conductivity the brake blocks are woven with yarns strengthened by brass or copper wires which allows high temperatures at friction points to dissipate. These metallic inserts can be incorporated throughout the block thickness or only in the backing, leaving the friction surface free of them.

Brake Block Technical Specifications

Available sizes: Width 1" - 13" Thickness 3/16" - 1 1/2"

PHYSICAL PROPERTIES	ASBESTOS	NON-ASBESTOS
SPEC GRAVITY (gr x cc)	1.4	1.25
APPARENT DENSITY (lb/in³)	0.05	0.044
HARDNESS, GROGAN	21-24	20-23
COMPRESS, psi x 5% deflect	600-900	550-850

COEFFICIENT OF FRICTION	ASBESTOS	NON-ASBESTOS
NORMAL	.42	.51
НОТ	.39	.34
WEAR RATE (in ³ /HP-hr)	.008	.008
FRICTION CODE	FF	FE
MAX UNIT PRESSURE PSI	250	250
TEMPERATURE DEGREES F		
MAX (INTERMITTENT)	650° F	600° F
MAX (CONTINUOS)	500° F	550° F
MAX RUBBING SPEED	5000 f x m	5000 f x m

The woven textiles are impregnated with special saturates and treated in ovens under strict controls to achieve a complete and uniform curing of the impregnate. The curing process creates a continuous and stable friction coefficient in extreme temperatures.

Brake blocks are arced to the correct rim diameter, easy to install, and are recommended for the deepest digging under the most severe conditions. Engineered for security, friction capacity and longer life - Indutex manufactures some of the best brake block on the market today.



Drawworks System

Our long term maintenance and upkeep is one of the most economical in the industry.

The draw works consists of a right angle drive gear box, draw works frame and shield, main drum and brake system, sand drum and brake system (if equipped), crown saver, etc. All draw works clutches are placed outboard for easy clutch maintenance. The brake rims of main drum and sand drum are one-piece forged by alloy steel with proper hardness, antiwear, and heat-resistant performance. All rotating components at deck level are covered with heavy-duty protective guards that include access panels for necessary maintenance.

Drawworks Frame Features:

Utilization of square/rectangular tubing for the base of the frame.

One piece drawworks side plates.

- Increases the rigidity and strength of the drawworks.
- · Creates better seal area for chain guards.
- Allows for removal of each drum independently without having to remove upper side walls as on a conventional Cooper.

Centralized lubrication point located on each side of the drawworks frame.

 Allows for application of grease to all bearings and brake system components from the outside.

All quards use the same diameter bolts.

• Allows removal of every guard on the drawworks with a 3/4" wrench or socket.

Clutches are mounted outside the drawworks walls for easier maintenance.

Right Angle Drive Gearbox:

The right angle drive gear box mainly consists of input shaft, output shaft, ring and pinion spiral taper gears, output, bearing seat, box body, support, flange, sprocket and various bearings. The input and output shafts are machined from premium alloy steel. Double row tapered roller bearings and single row radial cylindrical bearings are used for high strength and good performance. It is designed with group seals and oil bath splash lubrication to ensure sealing performance and reliable lubrication. The sprocket teeth are flame hardened and quenched to provide long lasting and reliable performance.

Right Angle Drive Features:

Integrated torque tube.

 Creates a stronger assembly with better torque transfer than a conventional Cooper chain coupling.

Main Drum and Sand Drum (if equipped):

The main drum assembly is complete with split grooving and double fast line provisions (if requested). Both the main drum and sand drum shafts are machined from premium alloy steel for strength and durability. The main drum and sand drum brake systems are a mechanical band brake configuration. After finish machining and assembly, the main drum is dynamically balanced and the sand drum (if equipped) is static balanced to ensure smooth operation.

Brake System Features:

Brake rollers are used to roll the band in place for engagement and disengagement of brakes.

- Makes for smoother brake action and easier adjustment.
- Easier removal of brake bands.

Cooper 250 HP

Double Drum Model Main Drum

Brake rim diameter x width	. 38 dia x 10 wide
Barrel diameter x width	. 16" dia x 38" wide
	(excluding lebus)
Model, clutch	
Wiodel, clatell	(two plate clutch)
	•
Grooving	. 7/8" or 1"
SANDLINE DRUM	
Brake rim diameter x width	. 38" dia x 8" wide
Barrel diameter x width	. 12 3/4" dia x 43" wide
Model, clutch	. WPT PO-124
	(single plate clutch)
Sand drum capacity	. 14,000' of 9/16" cable
Brake Rim Cooling	
Assist brake	-
Brake caliper model	
Brake rotor measurements	
Diake rotor measurements	
	surface x 4" thick



Cooper 400 HP

Double and Single Drum Models Available Main Drum Brake rim diameter x width 42" dia x 10" wide Barrel diameter x width 16" dia x 38" wide (excluding lebus) (two plate clutch) SANDLINE DRUM Brake rim diameter x width 42" dia x 8" wide Barrel diameter x width 16" dia x 43" wide (single plate clutch) Sand drum capacity................. 16,000' of 9/16" cable Brake Rim Cooling..... Splash Assist brake Air cooled disc brake Brake caliper model Kobelt 5026 Brake rotor measurements..... 40" dia x 7" braking surface x 4" thick

Cooper 550 HP

Double and Single Drum Models Available Main Drum Brake rim diameter x width 42" dia x 12" wide Barrel diameter x width 16" dia x 38" wide [excluding lebus] or 18" dia x 38" wide [excluding lebus] Model, clutch......WPT PO-324 (three plate clutch) SANDLINE DRUM Brake rim diameter x width 42" dia x 8" wide Barrel diameter x width 16" dia x 43" wide Model, clutch......WPT PO-224 (two plate clutch) Sand drum capacity............ 16,000' of 9/16" cable Brake Rim Cooling..... Splash Assist brake—Option A Air cooled disc brake Brake caliper model Kobelt 5028 Brake rotor measurements...... 48" dia x 10" braking surface x 4" thick Assist brake—Option B Hydromatic (two plate clutch) Assist brake—Option C Shaft Mounted Water

Model WPT 224 (two plate)

Cooled Brake

Cooper 600 HP

Double and Single Drum Models Available Main Drum Brake rim diameter x width 42" dia x 12" wide Barrel diameter x width 18" dia x 38" wide (excluding lebus) (three plate clutch) Grooving. 1" or 1 1/8" SANDLINE DRUM Brake rim diameter x width 42" dia x 8" wide Barrel diameter x width 16" dia x 43" wide Model, clutch......WPT PO-224 (two plate clutch) Sand drum capacity......16,000' of 9/16" cable Brake Rim Cooling..... Splash or Water Circulating Assist brake—Option A Hydromatic (two plate clutch) Assist brake—Option B Shaft Mounted Water **Cooled Brake**

Cooper 750 HP

Cooper 1000 HP

Dragon Mast

71-150-4-T MAST Certification: API 4F, 3rd Edition Clear height: 71' Maximum static load: 150,000 lbs on 4-lines

96-205-6-T MAST Certification: PI 4F, 3rd Edition Clear height: 96' Maximum static load: 205,000 lbs on 6-lines 180.000 lbs on 4-lines

104-250-8-T MAST Certification: API 4F, 3rd Edition Clear height: 104' Maximum static load: 250,000 lbs on 8-lines 225,000 lbs on 6-lines

112-265-8-T MAST Certification: API 4F, 3rd Edition Clear height: 112' Maximum static load: 265,000 lbs on 8-lines 240,000 lbs on 6-lines

112-300-8-T MAST Certification: API 4F, 3rd Edition Clear height: 112' Maximum static load: 300,000 lbs on 8-lines 275,000 lbs on 6-lines

116-250-8-T MAST Certification: API 4F, 3rd Edition Clear height: 116' Maximum hook load: 250,000 lbs on 8-lines 225,000 lbs on 6-lines

121-300-8-T MAST Certification: API 4F, 3rd Edition Clear height: 121' Maximum hook load: 300,000 lbs on 8-lines 275,000 lbs on 6-lines

Rig Mats

- 6" x 6" horizontally placed treated wood cross members
- Oak cross members
- Size up to 12' wide and 60' long
- Additional reinforced lifting slots
- Boxed sides
- Additional surface treatment
- End cap ramps
- Additional longitudinal beams



For more information or to order:

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