Kobelt - Pioneering the Earth Toughe t Job

Kobelt wa the world fir t company to pioneer air cooled di c brake for draw-work application . It u ed to be con idered fa t work to drop a 60 ft. drill pipe in 72 econd . Rig equipped with Kobelt di c brake now drop a 60 ft. drill pipe in 35 econd interval . Thi con iderable time aving mean greater efficiency and productivity for Kobelt client . At Kobelt, our commitment to cu tomer ati faction mean that we re alway refining, trengthening, and improving the world mo t impre ive braking y tem .

Kobelt air cooled di c brake are de igned to perform without the a i tance of water pray or internal water cooling. In order to make an air cooled di c brake function properly, the guard around the di c mu t be de igned to permit the free flow of air to and from the di c to prevent overheating.

Model #5026CM

CM Caliper available with 5026, 5028, 5040 Model

One of Kobelt mo t popular brake caliper i the CM caliper. The CM u e a lever y tem imilar to our regular brake caliper, but in tead of u ing air or pring applied actuator , a maxi pot i in talled (uch a tho e typically u ed in truck). Thi configuration allow the operator to u e an emergency brake when there i no air available. The CM caliper i al o optimum for locking up an inactive draw-work . The air portion of thi maxi pot i u ed for the regular drilling operation, with the emergency brake in a relea ed po ition. A further advantage to the wedge type, i that all of the brake caliper fit within the guard of the draw-work .

Model #5028CM or #5040CM

Many patent have been i ued to Kobelt over the year , pecifically due to our relentle   earch for the mo t effective mechanical de ign for draw-work di c brake . Kobelt tremendou cu tomer ati faction i evident from the hundred of Kobelt brake caliper and di c working around the world today.

Draw-Work

Under con truction with Kobelt di c brake

Kobelt air cooled draw-work di c brake :

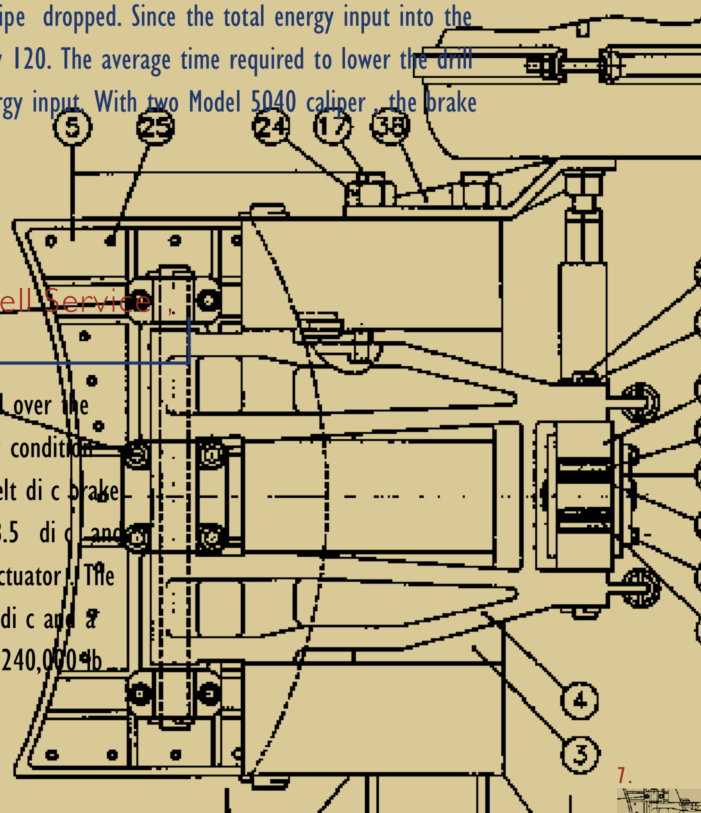
The brake are ba ed on a 71 econd cycle time for dropping one 60 ft. ection of pipe. The maximum hook load figure hown on the chart are ba ed upon the la t pipe to be dropped. Care mu t be taken to elect the proper number of caliper and di c .

Under no circum tance hould a brake di c and caliper combination be reduced becau e of exce torque. It i our recommendation that a minimum of two time the torque be made available in order to decelerate and top the drill pipe ati factorily.

KOBELT AIR COOLED DRAW-WORKS DISC BRAKES

MAXIMUM HOOK LOAD (LB.) PEAK DISC TEMPERATURE 700°F DISC	600°F DISC	CALIPER MODEL NUMBER	QTY	DISC MODEL NUMBER	QTY	MAXIMUM TORQUE (LB FT)	H.P. HOURS OF BRAKE LINING BEFORE REPLACEMENT
50,000	40,000	5026	1	4 x 7 x 40	1	22,000	27,160
60,000	50,000	5028	1	4 x 10 1/2 x 42 1/2	1	30,500	69,000
80,000	65,000	5028	1	4 x 10 1/2 x 48 1/2	1	36,500	69,000
100,000	80,000	5026	2	4 x 7 x 40	2	44,000	54,320
120,000	100,000	5028	2	4 x 10 1/2 x 42 1/2	2	61,000	138,000
160,000	130,000	5028	2	4 x 10 1/2 x 48 1/2	2	73,000	138,000
190,000	150,000	5028	2	4 x 10 1/2 x 54 1/2	2	85,000	138,000
220,000	180,000	5028	2	4 x 10 1/2 x 60 1/2	2	97,000	138,000
300,000	240,000	5028	2	4 x 11 x 72	2	120,000	138,000
360,000	300,000	5028	4	4 x 11 x 84	2	288,000	276,000
420,000	360,000	5028	4	4 x 11 x 96	2	336,000	276,000

Example: The 160,000 lb. maximum hook load draw-work will require a brake capable of ab orbing approximately 1,700 H.P. for 10 econd . Thi will average out at 240 H.P. continuou for the la t few pipe dropped. Since the total energy input into the brake i only half of the maximum hook load, the total continuou H.P. i only 120. The average time required to lower the drill pipe i approximately three hour . Thi would re ult in 360 H.P. hour of energy input. With two Model 5040 caliper , the brake lining will require replacement after 440 complete pipe re et .



Jim Hartford, Engineered Well Service ,
Dickin on, North Dakota

Built in 1986, thi rig ha been in ervice all over the United State , including Ala ka where drilling condition are extreme. It entirely equipped with Kobelt di c brake and pneumatic valve - two 4 x 10.5 x 48.5 di c and two 5040 brake caliper with combination actuator . The and line i equipped with a 4 x 7 x 40 di c and a model 5038 brake caliper. The hook load i 240,000 lb .