

HCDB USER APPLICATION DATA SHEET

COMPANY: _____	LOCATION: _____
CONTACT: _____	PHONE / FAX: _____
CONTACT TITLE: _____	

CRANE, MOTOR, & CONTROL INFO.

CRANE TYPE: _____

CRANE WEIGHT (LBS): _____

CRANE MAX. LOAD (LBS): _____

CRANE MAX. SPEED (FPM): _____

MAX. # OF STOPS / HR: _____

DOES CRANE HAVE PLUGGING: _____

MOTOR TYPE: _____ MOTOR SIZE: _____

MOTOR HP: _____ MOTOR SPEED: _____

MOTOR WK²: _____ MOTOR SHAFT Ø: _____

SHAFT TAPER: _____

MOTOR CENTERLINE HEIGHT: _____

BRIDGE DRIVE DESIGN: A1 A2 A3 A4 A5 A6

REMOTE OR PENDANT CONTROL: YES NO

CAB CONTROLLED: YES NO

CRANE POWER IS: AC DC

CRANE VOLTAGE IS: 480 VAC 250 VDC
230 V OTHER: _____

THE DUTY CYCLE OF THIS CRANE IS CONSIDERED BY THE USER TO BE:
LIGHT AVERAGE PUNISHING

BRAKE RELATED INFO.

BRAKE TYPE: _____

BRAKE DRUM Ø: _____ # OF BRAKES: _____

IS BRAKE MANUAL OR POWERED: _____

IS PARKING REQUIRED: _____

HOW OFTEN ARE LININGS REPLACED: _____

HOW OFTEN ARE BRAKE DRUMS REPLACED: _____

WHAT ARE THE USER COMPLAINTS: _____

DOES THE DRUM BRAKE FADE: YES NO

ADJUSTING THE BRAKE SYSTEM IS CONSIDERED BY THE USER TO BE:
EASY TEDIOUS

OVERALL MAINTENANCE OF THE BRAKE SYSTEM IS CONSIDERED BY THE USER TO BE:
EASY TEDIOUS

BRAKE DRUM WK²:

6 x 3 = .55
8 x 3 = 1.41
10 x 4 = 4.25
14 x 6 = 24.20
18 x 8 = 75.73

MOTOR WK²:

602 = 4.2	802 = 6
604 = 11.6	804 = 21
606 = 25	806 = 36
608 = 45	808 = 61
610 = 72	810 = 100
612 = 123	812 = 170
614 = 209	814 = 300
616 = 360	816 = 525
618 = 580	818 = 800
620 = 1050	820 = 930

DISC WK²:

V30-395 = 10.2
V30-495 = 8.8
V30-625 = 13.9

RELEVANT BRAKING FORMULAS & DEFINITIONS:

MASS = (CRANE WEIGHT (LBS) + LOAD WEIGHT (LBS))/32.2

NB = # OF BRAKES

MOTOR SPEED (RPM) = N, NM = # OF MOTORS

K.E. / STOP (FT.LBS) = 1/2 x MASS x VELOCITY

K.E. / HR (FT.LBS / HR) = (K.E. / STOP x (# OF STOPS / HR)

SYSTEM INERTIA OR WK² (LB-FT²) = (MOTOR WK² x NM) + (DRUM OR DISC WK² x NB) + CRANE WK²

CRANE WK² (LB-FT²) = (CRANE WEIGHT + LOAD WEIGHT) x VELOCITY (FPM) / (2 x 3.14159 x N)³

OSHA MIN. BRAKING TORQUE = (N x SYSTEM WK²) / (308 x 12)

AIST MAX. DECELERATION RATE = -1 FT/SEC²

BRAKING CALCULATION RESULTS:

K.E. / STOP: _____ K.E. / BRAKE / HR: _____

K.E. / HR : _____ BRAKE SIZE: _____

VENTED DISC REQUIRED: YES NO

REVIEWED BY: _____ DATE: _____