

B. 재 크레인

1. 개 요
2. 작 업 조 건
3. 설 계 조 건
4. CRANE 용도
5. BASIC SPECIFICATION
6. MOTOR DATA

1. 개 요

- 1) 사 용 처 : 여 수 시
- 2) 설치위치 : 전라남도 여수시 월내동 184-5
- 3) 사용공장 : 여수시 도시형 폐기물 종합처리시설
- 4) 용 도 : ASH를 TRUCK에 상차

2. 작 업 조 건

- 1) 운반물의 중량
 - 권양용량 : 1 M³
 - 최대권양중량 : 2.2 TON (BUCKET 자중 포함)
 - 정격권양중량 : 0.7 TON

3. 설 계 조 건

- 1) 정 격 하 중 : 0.7 TON
- 2) 정격하중에 대한 평균 사용 하중비 (부하율)
 - 1/30미만, 1/30이상, 2/30미만, 2/30이상
- 3) 하중을 받은 회수
 - 10⁵회 미만, 10⁵회 이상 ~ 6X10⁵회 미만
 - 6X10⁵회 이상~2X10⁶회 미만 2X10⁶회 이상
- 4) CRANE CLASS : JIS IV군
- 5) 달기구의 종류 및 자중
 - TYPE : HYDRAULIC ORANGE PEEL BUCKET
 - BUCKET CAPA. : 1 M³ (CLOSE시)
 - BUCKET DEAD WT. : 1500 KG
- 6) 주·보권 동시사용여부 : YES, NO
- 7) 주·보권 동시사용하중 : MAX. _____TON
- 8) CRANE 설계용량(CAPA.) : 0.7 TON
- 9) CRANE 하중 명판 : 0.7T (1M³)
- 10) 방폭여부 : YES, NO

4. CRANE 용도

구 분	사 양	비 고
CRANE 용도	ASH를 재반출 차량에 적재	
운반물 자중	0.7 TON (MAX. LOAD)	
주위온도	MAX. 40℃ (옥내작업)	

- 1) BUNKER 내에 있는 재를 TRUCK에 상차하는 CRANE정격하중 0.7TON을 초과하지 않는 기준임.
- 2) 크레인 정격하중 명판을 0.7T(1M³)으로 표기한다.
- 3) 본 크레인은 정격하중 0.7TON 크레인으로써 정격하중 및 달기구를 포함하여 설계 되며, LOAD가 정격하중의 110%(0.77TON) 이상이 걸릴 때는 과부하 보호 장치에 의하여 자동으로 TRIP되도록 한다.

5. BASIC SPECIFICATION (ASH CRANE)

NO.	DESCRIPTION		CRANE SPECIFICATION	REMARK
1.	CAPACITY OF CRANE		0.7 TON	
2.	SPAN		24 M	
3.	LIFT		10 M	
4.	TRAVELLING DISTANCE		8 M	
5.	RUN WAY RAIL		22 KG/M	
6.	SPEED	HOISTING	20 M/MIN	
		OPEN/CLOSE	10 / 15 SEC	
		TRAVELLING	30 M/MIN	
7.	MOTOR	HOISTING	15KW × 6P × 40% ED (권선형)	
		OPEN/CLOSE	11KW × 4P CONTINUOUS (농형)	
		TRAVELLING	2 × 1.5KW × 4P (GEARED MOTOR 농형)	
8.	BRAKE + CONTROL TYPE	HOISTING	MAGNETIC BRAKE + THYRISTOR	
		OPEN/CLOSE	NONE + DIRECT	
		TRAVELLING	MAGNETIC DISC + INVERTER	
9.	OPERATING		CONTROL ROOM REMOTE MANUAL	
10.	BUCKET	TYPE	HYD. ORANGE PEEL TYPE	
		CAPACITY	1 M ³	
		DEAD WEIGHT	1500 KG	
11.	AROUND TEMPERATURE		MAX 40°C	
12.	LOCATION		IN DOOR	
13.	POWER SOURCE		AC 380V × 3P × 60HZ	
14.	DENSITY OF REFUSE		FOR 0.7	0.7 T/M ³
15.	CRANE QUANTITY		1 SET	
16.	POWER SUPPLY		CABTYRE CABLE CURTAIN HANGER	
17.	CONTROL SOURCE		AC 110V × 1P × 60HZ	
18.	WIRE ROPE		6×F(29)×IWRC S&Z "B" GRADE Ø10×4FALL	

6. MOTOR DATA SHEET

- 1) HOISTING MOTOR
- 2) TRAVELLING MOTOR
- 3) BUCKET OPEN/CLOSE MOTOR



**SPECIFICATION
OF
AC INDUCTION MOTOR**

TYPE.

HLS3 188-6

SHEET NO:ST-CR-1886-01

MODEL NO.	LS318806	REV. NO.	0
APPLICABLE STANDARD	IEC34, JEM1202	CUSTOMER	
APPLICATION		PROJECT NO.	
		QUANTITY	

GENERAL SPEC				TECHNICAL SPEC					
--------------	--	--	--	----------------	--	--	--	--	--

FRAME NO.	180L	POLE	6 POLE					
ROTOR TYPE	WOUND	%ED	15%ED	25%ED	40%ED	60%ED	100%ED	
ENCLOSURE	TEFC(IP54)	OUTPUT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COOLING METHOD	IC411	(KW)	20.0	17.0	15.0	13.0	11.0	
FREQUENCY	60 Hz	RATED CURRENT(A)						
PHASE	3Φ	440V	37.0	32.7	29.2	27.5	23.8	
INSULATION CLASS	■ F	220V	74.0	65.4	58.4	55.0	47.6	
TEMP. RISE AT FULL LOAD (RESIST. METHOD)	100 °C	380V	42.7	37.8	33.7	31.8	27.5	
LOCATION	■ INDOOR □ OUTDOOR	SECONDARY VOLTAGE (V)						
ALTITUDE	LESS THAN 1000 METER	242						
HUMIDITY	LESS THAN 90 %	SECONDARY CURRENT (A)						
AMBIENT TEMP.	Max. 40 °C	52	44	38	33	28		
DUTY CYCLE	S3	RATED SPEED (RPM)						
ELECTRIC DESIGN	JEM 1202	1129	1143	1157	1160	1168		
MOUNTING	HORIZONTAL(B3)	FULL LOAD TORQUE (Kg.m)						
BEARING	TYPE	17.3	14.5	12.6	10.9	9.2		
	DE/N-DE	BREAK DOWN TORQUE (%)						
	LUBRICANT	180	220	250	280	340		
COUPLING METHOD	■ DIRECT □ V-BELT	FLY-WHEEL EFFECT (GD ²)						
SHAFT EXTENSION	□ SINGLE ■ DOUBLE	2.2 kg.m ²						
CONNECTION		NOISE LEVEL(dB(A))		78 dB at 1M FROM MOTOR				
RATED VOLTAGE	440V 220V 380V	VIBRATION		3.8 mm/sec.(Peak)				
PRIMARY CONNECTION	DELTA DELTA STAR	SEC. PHASE RESISTANCE(AT 20°C)						
SECONDARY CONNECTION	STAR	0.1118 Ω						
STARTING METHOD	SECONDARY RESISTOR (Not supplied by HHI)	PAINT	COLOR		GRAY			
			MUNSELL NO.		7.5 BG 6/1.5			
INSPECTION AND PERFORMANCE TEST		T/B LOCATION		TOP				
HHI STD.	MAKER TEST REPORT	BRUSH PRESSURE		200 ~ 300 g/cm ²				
ACCESSORIES (OPTION ITEM)		MOTOR WEIGHT (APPROX)			238 kg			
		OUTLINE DIMENSION DRAWING			HM-002685			
		BRUSH HOLDER DRAWING			3M-006938			
		CARBON BRUSH DRAWING			4M-050115-H02			
REMARK								
Note : Others not mentioned in this specification shall be in accordance with HHI standard.		DATE	DSND	CHKD	CHKD	APPD		
		2001.08.10	H.J.LEE	D.W.LEE	Y.S.KIM	K.J.KAMG		

HYUNDAI HOIST CO., LTD



3 PHASE INDUCTION MOTOR DATA SHEET

<input type="checkbox"/> SERVICE	TRAVELLING
<input type="checkbox"/> FRAME NO.	90L
<input type="checkbox"/> OUTPUT (KW / HP)	1.5 / 2
<input type="checkbox"/> POLE	4
<input type="checkbox"/> VOLTAGE / FREQUENCY	380 (V) / 60 (HZ)
<input type="checkbox"/> MOTOR TYPE	SQUIRREL CAGE
<input type="checkbox"/> SERVICE FACTOR	1.0
<input type="checkbox"/> DUTY CYCLE	30 MIN
<input type="checkbox"/> INSTALLATION	INDOOR
<input type="checkbox"/> INSULATION CLASS	B
<input type="checkbox"/> TEMPERATURE RISE (RESISTANCE METHOD)	80 (°C)
<input type="checkbox"/> FULL LOAD SPEED	1690 (RPM)
<input type="checkbox"/> SLIP	5.99 (%)
<input type="checkbox"/> CURRENT (RATED)	4.23 (A)
<input type="checkbox"/> CURRENT (STARTING)	25.26 (A)
<input type="checkbox"/> EFFICIENCY (100% LOAD)	73 (%)
<input type="checkbox"/> POWER FACTOR (100% LOAD)	75 (%)
<input type="checkbox"/> TORQUE (RATED)	0.869 (kg.m)
<input type="checkbox"/> ENCLOSURE & COOLING METHOD	TENV
<input type="checkbox"/> TYPE OF BEARING	PL : 6205zz OPL : 6204zz
<input type="checkbox"/> MOUNTING	HORIZONTAL
<input type="checkbox"/> MAXIMUM AMBIENT TEMPERATURE	40 (°C)
<input type="checkbox"/> BEARING LUBRICATION	GREASE
<input type="checkbox"/> DRIVE SYSTEM	DIRECT COUPLED
<input type="checkbox"/> PAINTING COLOR	MUNSELL NO. : MAKER S.T.D
※ REMARK : KS, IEC, NEMA	



**SPECIFICATION OF
AC INDUCTION MOTOR
FOR Crown Triton**

15HP - 4P
TE

MODEL NO. HLS163SR201
 APPLICABLE STD. KS CUSTOMER
 APPLICATION

DESIGN NO:
 REV. NO.
 PROJECT NO.
 QUANTITY

GENERAL SPEC

TECHNICAL SPEC

FRAME NO. 160M
 TYPE HLS
 ENCLOSURE Totally Enclosed(IP54)
 COOLING METHOD IC411(FC)
 FREQUENCY 60Hz
 PHASE 3Φ
 INSULATION CLASS F B H
 TEMP. RISE AT FULL LOAD (RESIST. METHOD)
 1.0 S.F 80°C
 LOCATION INDOOR OUTDOOR
 ALTITUDE LESS THAN 1000METER
 HUMIDITY LESS THAN 80%
 AMBIENT TEMP. Max. 40°C
 DUTY CONT.(S1)
 SERVICE FACTOR 1.15
 ELECTRIC DESIGN NEMA DESIGN B
 CONSTRUCTION B3 B5 V1 B3/B5
 TYPE ANTI-FRICTION
 BEARING DE/ODE 6309ZC3/6309ZC3
 LUBRICANT GREASE(ALVANIA RL2)
 COUPLING METHOD
 SHAFT EXTENSION SINGLE DOUBLE
 MAIN STEEL CAST IRON
 TERMINAL AUX YES NO
 LOCATION LEFT RIGHT
 BOX
 (VIEWED FROM DRIVE END)

OUTPUT 15HP 11KW
 POLES 4P
 ROTOR TYPE SQUIRREL CAGE
 STARTING METHOD D.O.L
 RATED VOLTAGE 380
 CURRENT RATED LOAD 21.8
 START'G-DOL 161.3
 EFFICIENCY
 50% 91.5 %
 75% 93.0 %
 LOAD 100%(NOM.) 92.4 %
 100%(MIN.)
 POWER FACTOR
 50% LOAD 76.0 %
 75% LOAD 82.0 %
 100% LOAD 83.0 %
 SPEED AT RATED LOAD 1775 RPM / SLIP 1.4 %
 TORQUE(D.O.L)
 RATED 6.0 Kg.m 100%
 START'G 13.3 Kg.m 220%
 BREAK DOWN 15.7 Kg.m 260%
 ALLOWABLE LOAD GD² REFERED TO MOTOR SHAFT
 36 Kg.m²
 NOISE LEVEL(dB(A)) 74 dB at 1M FROM MOTOR
 VIBRATION 3.8 mm/sec.(Peak)
 START'G DUTY COLD 3 TIMES / HOT 2 TIMES
 PAINT COLOUR
 MUNSELL No. 7.5BG6/1.5
 MOTOR WEIGHT
 OUTLINE DIMENSION DRAWING (APPROX)
 B3 227B2000AB05 117 Kg
 B5 227B2020AB05 217 Kg
 V1 227B2060AB05 217 Kg
 OTHERS 227B2040AB05 Kg
 T-BOX ASS'Y 227B8008LA1.PDF
 PERFORMANCE CURVE

Note : Others not mentioned in this specification shall be in accordance with HHI standard

INSPECTION AND PERFORMANCE TEST
 HHI STD MAKER TEST REPORT
 ACCESSORIES
 (OPTION ITEM)

REMARK

INDUSTRIAL & POWER SYSTEMS

DATE DSND CHKD Q.P APPD
 2008. 7. 2 KIM R.K. AN O.D. CHK KIM O.J. KANG J.K.

HHI W230-131-1

A4(210mm X 297mm)