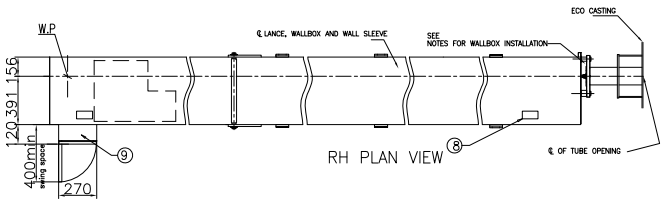
9 RECOMMENDED SPARE PARTS LIST

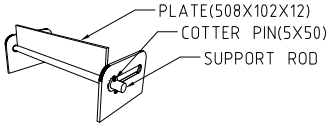
The intent of the list on the following page is to identify the minimum number of spare parts Diamond Power recommends be kept on hand to minimize cleaner downtime, in the event maintenance is required. The quantity of parts may vary depending on how critical the cleaner operation is to the plant performance, and company policy. Diamond Power recommends you review the entire manual, evaluate your operations, and then determine which parts are essential for your operational needs.

Table 9.1 IK525-EL Recommenged Spare Parts List

PART NUMBER	QUANTITY/PER SB	DESCRIPTION
LH: 670100-00507 RH: 670100-00508	1	Carriage Assembly
718060-14903	1	Electric Motor
670405-01689	1	Lance Joint And Packing Assy
680206-14001	1	Gasket, Lance Tube
680801-05002A	1	Packing
680801-05004A	1	Packing
LH:670204-00107 RH670203-00107:	1	Turn On Assembly
Per Order	1	Cam And Arm Assembly(R)
Per Order	1	Cam And Arm Assembly(L)
670200-00114	1	Poppet Valve Assembly
718060-14068	1	Feed Tube Assembly
670300-00851	1	Valve, Air Relief, Assembly
Per Order	1	Limited Switch
718060-14952	1	Terminal Box
680412-21025	1	Expanda cable, LH
680412-21026	1	Expanda cable, RH
670400-00018	2	Front Support And Roller Assembly
670400-02012	1	Wallbox Assembly
670400-01045	1	Companion Flange And Hardware

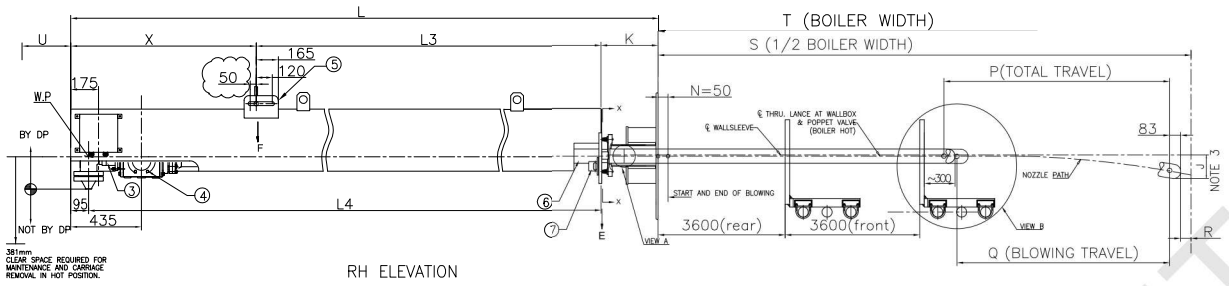


RH PLAN VIEW

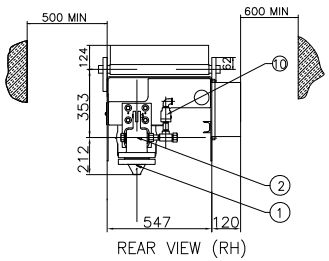


DETAIL OF REAR SUPPORT – PLATE TYPE

ITEM	QTY	DESCRIPTION	REMARK
1	1	COMPANION FLANGE WITH STUDS,NUTS&GASKET	Series 40bar
2	1	POPPET VALVE	Series 40bar;
3	1	FEED TUBE	DIA.60 mm, Matl:TP321
4	1	CARRIAGE WITH MOTOR	1.5KW 380V 3ph 50Hz; INSULATION: CLASS F WITH CLASS B TEMP RISE
5	1	REAR SUPPORT	ASS'Y
6	1	LANCE	DIA.89 mm, Matl:A213 T11
7	1	FRONT SUPPORT	ASS'Y
8	2	LIMIT SWITCH	ASS'Y
9	1	TERMINAL BOX	ASS'Y
10	1	AIR RELIEF VALVE	ASS'Y,3/4"NPT
11	1	WALLBOX	MATL: ASTM A27 Gr 65-35
12	2	BEARING SUPPORT	ASS'Y
12.a	1	BEARING PLATE	MATL: 316L(116,122,123L/R): 15CrMo(117,124,125L/R)(equal to ASTM A387 11)
12.b	1	SUPPORT ASSY	MATL: 15CrMo
12.c	4	ANGLE STEEL	(equal to ASTM A387 11)
12.d	8	HEX NUT(M12)	MATL: 304
12.e	8	LOCK WASHER	MATL: 304
12.f	8	PLAIN WASHER	MATL: 304
12.g	4	U-BLOT	MATL: 304

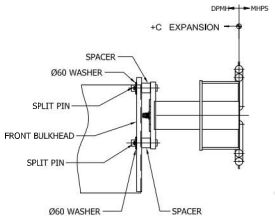


RH ELEVATION

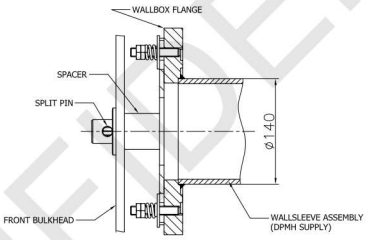


REAR VIEW (RH)

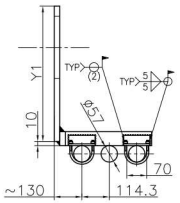
RH BLOWER SHOWN, LH MIRROR IMAGE



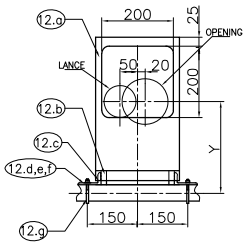
RH PLAN VIEW



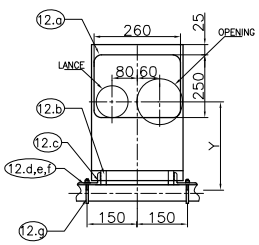
WALLBOX SECTION



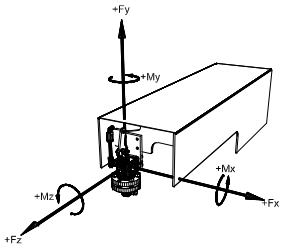
VIEW B



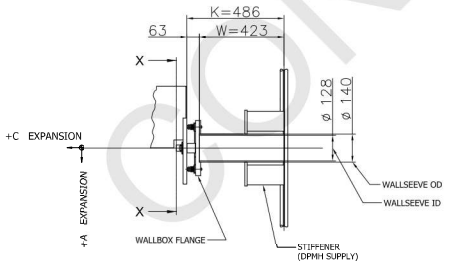
rear support



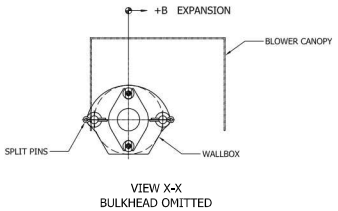
front support



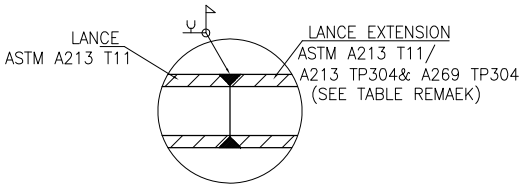
INDIVDUAL PIPE LOAD LIMITATIONS		
LOAD	LIMITATIONS	
	+DIRECTION	-DIRECTION
Fx	15346 N	15346 N
Fy	15569 N	15569 N
Fz	6005 N	6005 N
Mx	930 Nm	930 Nm
My	1220 Nm	1220 Nm
Mz	5423 Nm	5423 Nm



RH SIDE ELEVATION



VIEW X-X
BULKHEAD OMITTED



LANCE/EXTENSION JOINT DETAIL
VIEW A
Welding Process Refer To Document:
DIAMOND POWER STANDARDS–INST000108&INST000110

IK-525EL SOOTBLOWER ARRANGEMENT

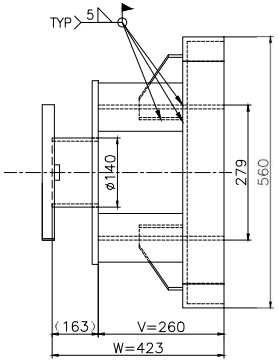
Rev	DATE	REVISION	DRN	BY	CHK	APP
A	2018-05-25	FIRST ISSUE	LC	SYQ	CC	G
B	2018-06-25	REVISED PER REQUEST	LC	SYQ	CC	J
C	2018-09-06	REVISED PER REQUEST	LC	SYQ	CC	J
D	2018-09-28	REVISED WALLBOX TYPE	LC	SYQ	CC	I
E	2019-10-09	REVISED PER REQUEST	LC	SYQ	CC	J
F	2019-10-25	REVISED THE DIMENSION OF "U BOLT"	LC	SYQ	CC	K
G	2019-01-31	Canceled a "Field welding symbol" Between Item 12.a&12.b.	LC	SYQ	CC	
H	2019-03-11	Revised The Material of "Lance Extension"&"bearing support".	LC	SYQ	CC	
I	2019-04-23	Revised The Material of "LANCE EXTENSION"&"bearing support".	LC	SYQ	CC	
J	2019-04-23	Revised "Welding Process Refer To Document".	LC	SYQ	CC	
K	2019-04-23	Revised "Welding Process Refer To Document".	LC	SYQ	CC	

CUSTOMER: MHPS
PROJECT: 700MW Coal Fired Power Plant Unit 5&6
LOCATION: INDONESIA
END USER: PT Bhumi Jati Power

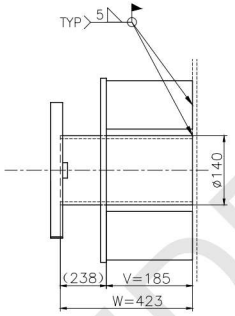
DRAWING STANDARDS BASED ON BS 308
DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED
DRAWN BY : SongYQ
DATE: 2018-05-25
SCALE: N.T.S
CHECKED BY : ClaireC
APPROVED BY: LuoJ
SHEET 1 OF 2
Rev
N12035-4-3
K

Diamond Power Machine(Hubei) Co.Inc.(PRC)

Blower Ass'y							Elevation Opening Cold	Wall		Expansions			Blower Loadings			BLOWER INSTALLATION DIMENSIONS																Remarks
Blower No.	Blower Position No.	KKS No. Unit 5	KKS No. Unit 6	HMI SERVICE NAME	Handing LH	Handing RH		LH	RH	A	B	C	D-kg	E-kg	F-kg	G	H	J	K	L	X	L3	L4	P	Q	T	S	R	U	W	Y	Y1 (rear)	Y1 (front)	
IK-525EL 1#	116L	50HCB14AT020	60HCB14AT020	LONG 20L	---	1	FL 58100	1	---	136	-78	91	1100	700	650	0	-157	250	486	8986	1222	7278	8405	7500	7450	30284.1	15142.05	109	300	423	878	1018	1068	φ89x5.5-A213 TP304; φ89x3.5-A269 TP304;
IK-525EL 2#	116R	50HCB11AT020	60HCB11AT020	LONG 20R	1	---		---	1																								
IK-525EL 3#	117L	50HCB14AT025	60HCB14AT025	LONG 25L	---	1	FL 52800	1	---	170	-78	91				0	-202	250			1422	7078	8405								754	894	944	ASTM A213 T11
IK-525EL 4#	117R	50HCB11AT025	60HCB11AT025	LONG 25R	1	---		---	1																								
IK-525EL 5#	122L	50HCB14AT021	60HCB14AT021	LONG 21L	1	---	FL 58100	1	---	136	-106	91				0	-157	250			1222	7278	8405								850	990	1040	φ89x5.5-A213 TP304; φ89x3.5-A269 TP304;
IK-525EL 6#	122R	50HCB11AT021	60HCB11AT021	LONG 21R	---	1		---	1																								
IK-525EL 7#	123L	50HCB14AT022	60HCB14AT022	LONG 22L	1	---	FL 52800	1	---	136	-135	91				0	-157	250			1222	7278	8405								1002	1142	1192	φ89x5.5-A213 TP304; φ89x3.5-A269 TP304;
IK-525EL 8#	123R	50HCB11AT022	60HCB11AT022	LONG 22R	---	1		---	1																								
IK-525EL 9#	124L	50HCB14AT024	60HCB14AT024	LONG 24L	1	---	FL 52800	1	---	170	-113	91				0	-202	250			1422	7078	8405								602	742	792	ASTM A213 T11
IK-525EL 10#	124R	50HCB11AT024	60HCB11AT024	LONG 24R	---	1		---	1																								
IK-525EL 11#	125L	50HCB14AT023	60HCB14AT023	LONG 23L	1	---	FL 52800	1	---	170	-135	91				0	-202	250			1422	7078	8405								602	742	792	ASTM A213 T11
IK-525EL 12#	125R	50HCB11AT023	60HCB11AT023	LONG 23R	---	1		---	1																								

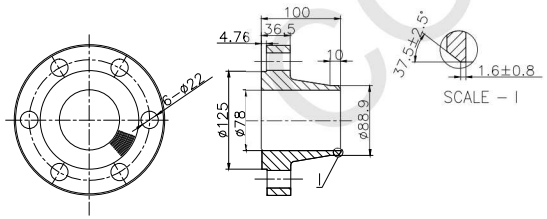


WALL SLEEVE ASSY(I)



WALL SLEEVE ASSY(II)

SB No.	W/Sleeve ASSY Type	W/Sleeve ASSY Part Number	W/Sleeve Size	W/Sleeve Size Material	Reinforcing Plate Material
116L/R,122L/R,123L/R	I	N12035-4-1003	DN200 X 279.1	Carbon steel	Carbon steel
117L/R,124L/R,125L/R	II	N12035-4-1003	DN125	Carbon steel	Carbon steel



COMPANION FLANGE (600#)
MATERIAL: CARBON STEEL to ASTM A105, (0.25% C max)

NOTES

1) Under operating conditions with the boiler/heater hot and on load the blower should be at 90° to the boiler in plan and have a drainage slope 'G' towards the wall. The slope should be measured from the CL of the poppet valve adjusting disc to the lance CL at the wallbox. The top of the beam should not be used for this setting.
2) Dimension 'H' is used for installation purposes with the boiler cold. It is the height of the adjusting disc retaining pin CL relative to the lance CL at the wallbox with the boiler cold.
   H = G-[A.(L4/L3)]
   A +ve dimension means the retaining pin CL will be above the lance CL at the wallbox and vice versa.
   Dimensions 'A','B' and 'C' are boiler expansions, as defined on the layout sheets, when known
3) Dimension 'J' is the nominal 'hot' deflection of the lance tip, relative to the lance CL at the wallbox. This includes the effect of dimension 'G'.
   The deflection of the lance tip with the boiler cold and the lance fully extended, 'Jc', can be calculated by: Jc = -H.(L2/L4).
4) Dimension 'U' is the clear space required to remove the blower from the boiler.
5) Steam supply branch line piping should be designed to take care of expansions in all directions. Drain branch lines should run towards the main with a minimum slope of 40mm/metre. Steam mains should have the same minimum slope towards the drain.
6) Right hand(RH) blower shown, left hand(LH) blower opposite.
7) D,E and F are approximate blower weights as follows:
   D = approximate total blower weight
   E = load at front support with lance extended
   F = load at rear with lance retracted
8) Control and power cable connection: See wiring diagram.

ERECTION NOTES

A) Using temporary supports, offset the rear of the blower so that when the boiler is hot it will be at 90° to the boiler in plan view (ref expansion 'B').
B) Set the height of the blower to dimension 'H' (ref notes 1 and 2).
C) Weld the rear support plates to the beam shell so that the rear support pin will be positioned 40mm from the end of the slot. Attach the rear of the blower to the supporting steelwork which is to be designed and supplied by the customer.
D) Remove temporary rear supports and check alignment.
E) Fit companion flange to the blower and complete steam pipework.
F) When the boiler is hot the 'G' dimension and squareness in plan should be checked.
G) After the blower has been operated a few times with live steam, the feed tube packing should be adjusted to compensate for bedding in. Refer to the manual for procedure.
H) In order to absorb any boiler movement at start up and shut down, please install precise rear support position in the elongate hole as per the dimensions.

IK-525EL SOOTBLOWER ARRANGEMENT

Rev	DATE	REVISION	DPS	BY	CH
A	2018-06-21	FIRST ISSUE	LC	SYQ	CC
B	2018-09-06	REVISED PER REQUEST	LC	SYQ	CC
C	2018-09-28	REVISED WALLBOX TYPE	LC	SYQ	CC
D	2018-10-09	REVISED PER COMMENTS	LC	SYQ	CC
E	2018-10-25	ADDED "R" IN TABLE	LC	SYQ	CC
F	2018-12-14	ADDED "Y1(front)" IN TABLE	LC	SYQ	CC

Rev	DATE	REVISION	DPS	BY	CH
G	2019-01-08	ADDED THE MATERIAL OF LANCE EXTENSION.	LC	SYQ	CC
H	2019-01-11	ADDED "Y1(rear)" IN TABLE	LC	SYQ	CC
J	2019-03-11	Revised The Material of "Lance Exention".	LC	SYQ	CC
K	2019-05-21	ADD THE SECTION NOTES "NOTES 1#"	LC	SYQ	CC

Rev	DATE	REVISION	DPS	BY	CH

CUSTOMER: MMPS
PROJECT: Chanjung Water Cooled Coal Fired Power Plant Unit#2
LOCATION: INDONESIA
END USER: PT Bhumi Jati Power

DRAWING STANDARDS BASED ON BS 308

Diamond Power Specialty (Suzhou) Co.Inc.(PRC)

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

DRAWN BY :	SongYQ	DATE: 2018-06-21	SCALE: N.T.S
CHECKED BY :	ChenC	SHEET 2 OF 2	Rev
APPROVED BY:	LuoJ	N12035-4-3	K