ANALYSIS OF A FLOATING (NO ANCHOR) HARD CONNECTED PIPE RISER

SUITABLE FOR EXPANSIVE SYSTEMS AND CONTRACTIVE SYSTEMS

M	\mathbb{V}	KI	NE1		S											KINETICS I 6300 DUB	NOISE COI) IRELAN F LIN, OHIO	NTROL, INC. LACE 43017
IV Decised						ANICI											614-889-0	480
Project: Riser:		TYPI	CAL RISE	ER	DNO	ANCH	108 (1	TPE 1)									3/1	12/2006
Note:S	uppo	orts are	assumed	l to be a	atfloor	level,	if at ceil	ing level, ide	ntify as bein	g on floor	above							
Expans	ion (Coef	7.60E-05	in/ft/de	eαF			•		•			Indicate Su	nnort locat	ions with a	"Y" and quid	te locatio	ns with
Installe	d Te	mp	70		-9.								a "G" in the	Support Lo	ocation Col	umn. Restra	ained Spri	ng isolators
Oper 1 Anchor	emp Elev	ation	91	(If Anc	hored	Syster	m)						+ Force loa	ds are indic	ated with a nsion, - Fore	n "R" under ce loads are	Compres	Res" sion (in pip
Anchor Statio	Тур	е	FL	(Fixed	-FX or	r Floatii	ng FL)						"-" indicate	s no suppo	rts above t	his point		
Bottom	Con	dition	Ŷ	(YorN	v) Is w	ater co	lumn w	eightorstear	n pressure r	esisted b	y base o	f Riser?						
Hyd Lift	@ T	op	Y	(Yor N	N) Is w	ateror	steam	pressure resi	isted by top	of riser?								
Steam	Pres	sure	0	(Enter	a valu	e pipe Je only	ifstear	n pressure is	present (ps	i). For Wa	ater Press	sure Use S	tatic Head)					
F lass	0		Floor	Floor	Pipe	Local	Local	Init Support	Hyd	Carian	la it	Init	Oper Sprg	Oper	Init Tens	Oper Tens	Initial	Combine
(Ref)	Loc	Res	Ft	Ft	5ize in	Pipe Wt	Liquia Wt	From Pipe	Pipe Lift	Rate	Defl	Force	+ is Down	Load	Force	Force	Pipe Stress	Oper Stre
						(lb)	(lb)	Wt (Lb)	is + (lb)	Lb/in	In	Lbs	in	Lbs	Lbs	Lbs	PSI	PSI
Roof	-			82.01 82.01	$\left - \right $			0	0 217			0	-0.06	0	0	0		
9	Y		10.00	72.01	8			571	0	750	0.81	608	0.94	707	322	-639	38	89
8	Y	$\left - \right $	10.00 10.00	62.01 52.01	8		┣──	0 571	0	750	0,75	0 563	0,85	0 638	37 314	639 353	4	120 146
6	Ċ		10.00	42.01	8			0	0 0			0		0	28	706	3	204
5	Y		10.00	32.01	8 10			690 0	621 0	750	0.85	638 0	0.92	689 0	380 -25	421 1445	45 2	238
3	Y		10.00	12.01	10			810	0	750	0.82	615	0.86	643	185	1040	16	425
2	v		10.00	2.01	10							~			040	4070		/97
		R	2.00	0.01	10			0	0	3000	0.65	0	0.67	2004	-219	1278 874	18	407
0	Т	R his is a	2.00 0.01 fully floate	0.01 0 ed syste in. Pr	10 10 em - W ovisior	hen fill	ed it wi be allo	0 81 0 I will drop an wed for this a C	0 -2797 average of it all horizont	3000 0.09 al connec ng Load f	0.65 in. ctions. for piping	0 301 0 -23254	0.67 0.07	0 2004 0	0	1278 874 2797	<u>18</u> 0 0	407 493 541
∟ SA S S		his is a	2.00 0.01 fully float LE 8	0.01 0 ed syste in. Pr 3 S ⁻	10 10 em - W ovisior TC RE	hen fill ns must	ed it wi be allo Y F TR	0 81 I will drop an c C SISEF AINE	0 -2797 average of ti all horizonth hitical Buckli CD IS	3000 0.09 al connec ng Load f TH N OLA	0.65 in. trions. for piping	0 301 -2325- ANC DRS		0 2004 0 SSA 00T1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VER		
S≁ SS	ب ۱ ۲	AP NP	2.00 0.01 fully float LE 8 WN, 1E R	0.01 0 ed syste in. Pr	10 10 wm - W ovisior TC RI IIS	hen fill ns must	Y F TR ON	0 81 I will drop an wed for this a C RISEF AINE AINE	0 0 -2797 average of it all horizont ritical Buckli ED IS ITRA ACT	0.09 al connec ng Load f TH I OLA TES	0.65 in. titions. for piping ATC ATC	ANC DRS HE H	0.67 0.07	0 2004 0 SOTT LOA	ND ' OM OM	VER T THI		
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