WERK NICK RATING $^{^{\rm TM}}$ (based on the I AM INVINCIBLE - DANEHILL cross)

(+659%)



NGMEL17				Generated on 02/20/1
IGMEL17	INVINCIBLE S RA I AM INVINCIBLE (2004)	DANZIG (I/C) REEN DESERT (Q) FOREIGN COURIER SPIRIT KRIS (Q) IFHA ELJAZZI BLETCHINGLY (Q)	1	NORTHERN DANCER PAS DE NOM SIR IVOR COURTLY DEE SHARPEN UP DOUBLY SURE ARTAIUS BORDER BOUNTY BISCAY COOGEE
Hip 84	CANNARELLI	JESMOND LASS		LUNCHTIME BEAUTIFUL DREAMER OUR NATIVE GREY DAWN GIRL CARDINAL ROYAL LAW
Colt	COMMANDS CC MOULIN ROUGE (2005) BI DANCE CLAS	DANZIG (I/C) ANEHILL (Q) RAZYANA MY SWANEE DTEHELE HOUSE EIGHT CARAT RAINBOW QUEST (C/S) N AJWAAD SALIDAR S BAKHAROFF IADOW DANCER WESTERN MUSIC	1	NORTHERN DANCER PAS DE NOM HIS MAJESTY SPRING ADIEU PETITION GREY RHYTHM PIECES OF EIGHT II KLAIRESSA BLUSHING GROOM I WILL FOLLOW SALLUST BALIDARESS THE MINSTREL QUI ROYALTY WESTERN SYMPHONY GETTING THERE
		mbers = same dam only; even numberoman Dosage Profile:(0-2-3-1-0)D.I.:1.40C.D.:Output0.17Werk Quality Rating:Q 5		ame sire and dam
	Dosage Points: 6	· · ·	Total l	Points: 22

5-Generation Inbreeding: DANZIG - 4m x 4m

I AM INVINCIBLE

Stands at YARRAMAN PARK STUD, NSW for a fee of A\$55000

Stakes Winners from the I AM INVINCIBLE--DANEHILL cross

Stakes Winner	Yob	Sex	Best	Dirt AWS	Turf	Pedigree
INVINCIBLE STAR	2014	F	G3		Y	I AM INVINCIBLEROMANY FLYER (CATBIRD)
ECKSTEIN	2013	F			Y	I AM INVINCIBLECOMRIE (CHOISIR)
VINNIE EAGLE	2011	G	G3		Y	I AM INVINCIBLESWEET MAGGIE (DANEHILL DANCER)



HYPOTHETICAL: =I Am Invincible (AUS) -- =Moulin Rouge (AUS)

Based on the cross of I Am Invincible (AUS)/Danehill and his sons and grandsons

Starters Considered in Rated Cross			sults - All Foa roodmare Sire	Surface Performance for Rated Cross					
Direct Sire/	8	Туре	#Sold	Avg	Med	Туре	Dirt	Turf	AW
Broodmare Sire Cross		Weanlings	-	-	-	Starters	3	57	4
Additional Starters on Rated Cross	49	Yearlings	8	\$110,008	\$89,047	Winners	1	37	1
Total Starters	57	2YOs	2	\$3,145	\$3,145	SW		3	-

	Sire		Broodmare Sire
Sire Name	=I Am Invincible (AUS)	Broodmare Sire Name	=Commands (AUS)
Sire AEI	2.04	Broodmare Sire AEI	0.99
Progeny AWD	5.69 f	Progeny AWD as BM Sire	6.55 f
Chief Earner	Brazen Beau (AUS) (\$1,346,193)	Chief Earner	Chilton County (AUS) (\$2,982,905)

All Foa	By Sire Line with Other Mares	Out of BM Sire Line with Other Sires			
	All Foals	Colts	Fillies	All Foals	All Foals
Foals of Racing Age	103	50	53	339	26,596
Starters (% Foals of Racing Age)	57 (55%)	26 (52%)	31 (58%)	216 (64%)	15,386 (58%)
Winners (% Starters)	37 (65%)	16 (62%)	21 (68%)	155 (72%)	9,274 (60%)
SW (% Starters)	3 (5%)	1 (4%)	2 (6%)	16 (7%)	676 (4%)
Earnings	\$2,198,471	\$1,142,155	\$1,056,316	\$14,958,566	\$797,796,274
Avg Distance Raced	5.71 f	5.77 f	5.66 f	5.87 f	7.37 f
Avg Winning Distance	5.44 f	5.39 f	5.48 f	5.74 f	7.36 f

Top 15 Foals Bred on Rated Cross									
Name	Sex	Foaled	Sire/Broodmare Sire	Best Race					
VINNIE EAGLE (AUS)	Gelding	2011	I Am Invincible (AUS)/Danehill Dancer (IRE)	G3SW					
INVINCIBLE STAR (AUS)	Filly	2014	I Am Invincible (AUS)/Catbird (AUS)	G3SW					
ECKSTEIN (AUS)	Filly	2013	I Am Invincible (AUS)/Choisir (AUS)	SW					
Uratta Belle (AUS)	Mare	2011	I Am Invincible (AUS)/Commands (AUS)	SP					
I Am Gracie (AUS)	Filly	2013	I Am Invincible (AUS)/Redoute's Choice (AUS)	SP					
Victory Marvel (AUS)	Gelding	2012	I Am Invincible (AUS)/Danehill Dancer (IRE)	Wnr					
Bear Chum (AUS)	Colt	2013	I Am Invincible (AUS)/Flying Spur (AUS)	Wnr					
Rafha's Choice (AUS)	Gelding	2013	I Am Invincible (AUS)/Choisir (AUS)	Wnr					
Invienna (AUS)	Mare	2011	I Am Invincible (AUS)/Danehill	Wnr					
Lanikai (AUS)	Mare	2011	I Am Invincible (AUS)/Flying Spur (AUS)	Wnr					
I'm Wesley (AUS)	Gelding	2012	I Am Invincible (AUS)/Danehill	Wnr					
Fanning (AUS)	Gelding	2013	I Am Invincible (AUS)/Commands (AUS)	Wnr					
Invictum Domina (AUS)	Filly	2013	I Am Invincible (AUS)/Foreplay (AUS)	Wnr					
Murranji (AUS)	Gelding	2011	I Am Invincible (AUS)/Danehill	Wnr					
Mariquita (AUS)	Mare	2012	I Am Invincible (AUS)/Danehill	Wnr					

Pedigree and racing information provided by:



HYPOTHETICAL: =I Am Invincible (AUS) -- =Moulin Rouge (AUS)

Based on the cross of I Am Invincible (AUS)/Danehill and his sons and grandsons

				D	Northern Dancer, 61 b
				Danzig, 77 b	Pas de Nom, 68 dk b/
			Green Desert, 83 b	Foreign Courier, 79 b	Sir Ivor, 65 b
		the state is the particular (IDE) of a		Foreign Couner, 79 b	Courtly Dee, 68 dk b/
		=Invincible Spirit (IRE), 97 b		=Krig (CP) 76 ch	Sharpen Up (GB), 69 ch
				=Kris (GB), 76 ch	Doubly Sure (GB), 71 b
			Rafha (GB), 87 b	-Elianzi 94 h	Artaius, 74 b
				=Eljazzi, 81 b	=Border Bounty (GB), 65 b
	=I Am Invincible (AUS), 04				=Biscay (AUS), 65 ch
				=Bletchingly (AUS), 70 br	=Coogee (GB), 59 b
			=Canny Lad (AUS), 87 br	(ALIO) 75	=Lunchtime (GB), 70 ch
		=Cannarelle (AUS), 98 b		=Jesmond Lass (AUS), 75 ch	=Beautiful Dreamer (AUS), 67 gr
					Our Native, 70 b
Hypothetical Foal				Zoffany, 80 b	Grey Dawn Girl, 70 gr
			=Countess Pedrille (AUS), 94 b	01-1 D 1-11 (ALIO) - 20	=Cardinal (NZ), 69 ch
			· · · · ·	=Sister Pedrille (AUS), 80 ch	=Royal Law (AUS), 75 ch
					Northern Dancer, 61 b
				Danzig, 77 b	Pas de Nom, 68 dk b/
			Danehill, 86 b		His Majesty, 68 b
				Razyana, 81 b	Spring Adieu, 74 b
		=Commands (AUS), 96 b			=Petition (GB), 44 dk b/
				=My Swanee (GB), 63 gr	=Grey Rhythm (GB), 54 gr
			=Cotehele House (GB), 80 br	=Eight Carat (GB), 75 br	*Pieces of Eight II, 63 dk b/
	=Moulin Rouge (AUS), 05				Klairessa (GB), 69 dk b/
	b			Rainbow Quest, 81 b	Blushing Groom (FR), 74 ch
			=Bin Ajwaad (IRE), 90 b		I Will Follow, 75 b
					=Sallust (GB), 69 ch
		=Dance Class (NZ), 98 b		Salidar (IRE), 79 b	Balidaress (IRE), 73 gr
					The Minstrel, 74 ch
				Bakharoff, 83 b	Qui Royalty, 77 dk b/
			=Shadow Dancer (NZ), 91 b		Western Symphony, 81 b
			V	=Western Music (NZ), 86 b	=Getting There (AUS), 82 ch

Pedigree	Statistics	Dosage Information	
Coefficient of Relatedness: 1.95%	Pedigree Completeness: 100.00%	Dosage Profile: 0 2 3 1 0	
Inbreeding Coefficient: 1.72%	Unique Ancestors: 374/510	Dosage Index: 1.40 Center of Distribution: +(0.17

Notes on terminology in this report: **Coefficient of Relatedness** measures the degree of relatedness between sire and dam to six generations; **Inbreeding Coefficient** measures the mating's degree of inbreeding to eight generations; **Pedigree Completeness** is the portion of the pedigree that is on file to eight generations; **Unique Ancestors** is the number of unique names found to eight generations; **Dosage Information:** visit www.chef-de-race.com/dosage.htm **Direct Cross** refers to the exact sire over exact broodmare sire; **Rated Cross** is the cross used to base the TrueNicks rating and may differ from the direct cross to maintain statistical significance; **AEI:** Average Earnings Index; **AWD:** Average Winning Distance (in furlongs). All currency figures are converted to U.S. dollars at the time of race or sale.

Pedigree and racing information provided by:

() equineline.com

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I AM INVINCIBLE over DANEHILL (his Sons and Grandsons)

Select a cross from the matrix below

each cell indicates number of SWs found.

 $^{\star}\,$ - Reports limited to cells with 400 or fewer entries

SIRE LINE

		I AM INVINCIBLE	INVINCIBLE SPIRIT	GREEN DESERT
BROOD	DANEHILL	<u>3</u>	<u>5</u>	<u>18</u>
M A R E S I R E	DANZIG	<u>6</u>	<u>10</u>	<u>32</u>
LINE	NORTHERN DANCER	<u>12</u>	<u>61</u>	<u>248</u>



Stakes Winners

Stakes winners bred from the INVINCIBLE SPIRIT--DANEHILL cross

Stakes Winner	Yob	Sex	Best	Dirt AWS	Turf	Pedigree
ECKSTEIN	2013	F			Υ	I AM INVINCIBLE ex COMRIE (CHOISIR)
FONTANELICE	2012	F	G3		Υ	VALE OF YORK ex CHOOSE ME PLEASE (CHOISIR)
INVINCIBLE STAR	2014	F	G3		Υ	I AM INVINCIBLE ex ROMANY FLYER (CATBIRD)
MUTHMIR	2010	С	G2		Υ	INVINCIBLE SPIRIT ex FAIRY OF THE NIGHT (DANEHILL)
VINNIE EAGLE	2011	G	G3		Υ	I AM INVINCIBLE ex SWEET MAGGIE (DANEHILL DANCER)



Stakes Winners

Stakes winners bred from the INVINCIBLE SPIRIT--DANZIG cross

Stakes Winner	Yob	Sex	Best	Dirt	AWS	Turf	Pedigree
BASSILLIQUE	2011	С				Y	I AM INVINCIBLE ex SACRED HILL (LANGFUHR)
BRAZEN BEAU	2011	С	G1			Y	I AM INVINCIBLE ex SANSADEE (SNAADEE)
CAPTAIN COURAGEOUS	2010	С				Y	CAPTAIN MARVELOUS ex VADE RETRO (DESERT SUN)
ECKSTEIN	2013	F				Y	I AM INVINCIBLE ex COMRIE (CHOISIR)
FONTANELICE	2012	F	G3			Y	VALE OF YORK ex CHOOSE ME PLEASE (CHOISIR)
INVINCIBLE STAR	2014	F	G3			Y	I AM INVINCIBLE ex ROMANY FLYER (CATBIRD)
MUTHMIR	2010	С	G2			Y	INVINCIBLE SPIRIT ex FAIRY OF THE NIGHT (DANEHILL)
SHALAA	2013	С	G1			Y	INVINCIBLE SPIRIT ex GHURRA (WAR CHANT)
SUNDANCE	2013	С				Y	I AM INVINCIBLE ex PACIFIC DREAMS (DESERT PRINCE)
VINNIE EAGLE	2011	G	G3			Y	I AM INVINCIBLE ex SWEET MAGGIE (DANEHILL DANCER)



Stakes Winners

Stakes winners bred from the I AM INVINCIBLE--NORTHERN DANCER cross

Stakes Winner	Yob	Sex	Best	Dirt	AWS	Turf	Pedigree
BASSILLIQUE	2011	С				Y	I AM INVINCIBLE ex SACRED HILL (LANGFUHR)
BRAZEN BEAU	2011	С	G1			Y	I AM INVINCIBLE ex SANSADEE (SNAADEE)
DIVINE CENTURI	2012	F				Υ	I AM INVINCIBLE ex WITCHING WAYS (ENCOSTA DE LAGO)
FULD'S BET	2011	F				Y	I AM INVINCIBLE ex DUBLIN ME BET (O'REILLY)
I AM A STAR	2013	F	G1			Y	I AM INVINCIBLE ex STAR BAND (DIXIELAND BAND)
INVINCIBLE STAR	2014	F	G3			Υ	I AM INVINCIBLE ex ROMANY FLYER (CATBIRD)
LEEDS	2011	G				Υ	I AM INVINCIBLE ex SWENTRE (PEINTRE CELEBRE)
MOST IMPORTANT	2012	С	G3			Υ	I AM INVINCIBLE ex ORANGE MARMALADE (STRAVINSKY)
SUNDANCE	2013	С				Υ	I AM INVINCIBLE ex PACIFIC DREAMS (DESERT PRINCE)
SUPER ONE	2012	С	G3			Υ	I AM INVINCIBLE ex TAILS WINS (TALE OF THE CAT)
THE JUSTICE LEAGUE	2012	С	G2			Υ	I AM INVINCIBLE ex L'ARTISTE (PEINTRE CELEBRE)
VINNIE EAGLE	2011	G	G3			Y	I AM INVINCIBLE ex SWEET MAGGIE (DANEHILL DANCER)

PEDIGREE RATING SCORES - "NICKS"

It's a simple formula – It's all about risk reduction.

Nicks have become an integral part of the decision-making process in the mating and purchasing of thoroughbreds. Most breeders recognise that an affinity or compatibility can exist between two thoroughbred sire lines, such that, when crossed, those lines yielded a greater proportion of superior runners than when either one of them are crossed with any other sire lines. Great breeders, from Federico Tesio to present-day breeders around the world have relied on observed nicks to help guide their breeding plans and buying decisions.

Over 70% of ALL Stakes Winners are "A" Rated Nicks

In order to identify nicks in a systematic way, the software database we use developed an evaluation method based on sire-line analysis. Ongoing studies by researchers show that approximately 25% of the Thoroughbred population is the product of highly successful nicks ("A" rated nicks) while over 70% of stakes winners come from these "A" rated nicks!

Statistics:

There are approximately 20,000 live foals born each year – 25% (5,000) are A Rated whilst 75% (15,000) are rated below. There are 541 Stakes Races in Australia this racing season. 70% (379) will be won from the 5,000 A rated foals born (7.6%) 30% (162) will be won from the 15,000 foals in the lower rated group (1.08%).

For a practical businessperson seeking a return on money invested, it makes no sense to ignore statistically unfavorable odds. Buying a superior racehorse is already a difficult enough proposition. The Rating systems we use allow us to see into the future by looking into the past and thereby to avoid those mating patterns that have failed. The Nick Rating enables us to avoid crosses that have had little or no success in the past. At the same time, it enables us to identify and thus duplicate successful sire-line crosses, dramatically increasing the chances of success.

Over the years evaluating Nicks have proven to be an invaluable tool in the stallion selection process when identifying yearlings for purchase. Dean Watt, Managing Director of Dynamic Syndications has enjoyed great success as a result of utilising such information. For example:

SAVABEEL, POLAR SUCCESS, HE'S NO PIE EATER, ATOMIC FORCE, ECONSUL, DE BEERS, BRADBURY'S LUCK, TENANT'S TIARA and REWARD FOR EFFORT were all superior racehorses who had superior pedigree ratings.

ECONSUL	A+ +	13,862%
SAVABEEL	A+ +	9,325%
DEBEERS	A+ +	4,270%
POLAR SUCCESS	A+ +	2,240%
REWARD FOR EFFORT	A+	1,175%
ATOMIC FORCE	\mathbf{A} +	988%
BRADBURY'S LUCK	Α	485%
TENANT'S TIARA	Α	238%
HE'S NO PIE EATER	Α	161%

Further afield, in 2008 the Top 5 Racehorses in the world had the following ratings:

1 CURLIN	A+	1,375%
2 NEW APPROACH	A+	1,472%
3 RAVEN'S PASS	A+ +	5,961%
4 DUKE OF MARMALADE	Α	409%
5 HENRYTHENAVIGATOR	A++	1,531%

Then to further support the theories, in 2008 there was 67 Group 1 races run in Australia. These races were won by 48 individual horses. When these 48 individuals' pedigrees were analysed it showed:

35 / 48 Rated A or above = 73% of Individual Group 1 Winners Rates A or above

Affinity between sire lines was long ago observed by the world's best thoroughbred breeders. Today through modern technologies we are able to quantify what was once only a subjective judgment based on the observations of a relatively small equine population.

Ratings are essentially the objective measurement of success, or lack therefore, of sireline crosses. Success is quantified by being the winners of stakes races with a prizemoney of at least \$50,000. Through software databases, containing the pedigrees of all such winners since 1977 (over 30,000 winners), we are able to more easily identify what sireline crosses have succeeded in producing stakes winners and compare those numbers with the stakes winning population on the whole.

Often a sire line may appear to be successful with a particular broodmare sire line. However, if the level of success is no better than that sire line's success with the entire population, then there is not a true nick.

In order to understand the ratings for easy use, a letter-grade scale was developed. As in the scholastic setting, the scales ranges from F (Fail) through to A with A+ also A++ and now since 2011 the software system now identifies A+++ as possible to be achieved in some select instances. The Variants (percentages) shown in the table below are the deviation from the norm that has been observed by that sire line cross in question. On this

scale -15% to +15% (C) is considered average, meaning that the sire-line cross has yielded results that are statistically no better and no worse than what would be expected with the entire population.

An "A" rated nick indicates that a far greater percentage of stakes winners have resulted from that cross than expected. An "F" rated nick indicates that the number of stakes winners resulting from a cross is at least 50% below expectations. This does not mean that there cannot be success or will not be success from such a mating in the future. It does mean that in all the experience of the last 20 + years of winners of stakes races, that type of mating has had a significant lack of success as measured by stakes winner production.

It must be stressed that a below "Average" rating does not guarantee or even predict failure. It means only that, to date, the particular sire-line cross has fallen at least 16% short of what would be expected. Nicks can and do change over time.

Consequently, an above Average Rating must be kept in proper perspective as there are other factors that must be considered when selecting a horse for purchase. Specifically, conformation evaluation is critical. A thoroughbred may have a brilliant pedigree on paper that rates as either Excellent, Superior, Superb or Outstanding on our Ratings Score however if the skeletal structure and/or the overall constitution of the individual is lacking then the horse is rejected as a candidate for purchase.

Nick	Horse	Variant %
A+++	Excellent	+20,000 and above
A++	Superior	+1,501 to + 19,999
A+	Superb	+500 to +1,500
А	Outstanding	+150 to +499
B+	Very Good	+100 to +149
В	Good	+50 to +99
C+	Acceptable	+16 to +49
С	Average	-15 to +15
D+	Weak	-16 to -34
D	Poor	-35 to -49
F	Unsuccessful	-50
0 SW	Zero Stakes Winners	0 SW

The Rating Scale is shown below:

Dynamic Syndications uses these rating tools along with additional pedigree analysis systems from other software databases which skewer the data to local environmental factors and we have introduced a ranking on the class of Stakes Races which are won to establish what we consider is an inherent opportunity of greater racetrack success. Often a horse can have a very high Nick rating and yet score lowly on the variant and visa versa. We use this information to assist us in pedigree selections after the physical inspections have also been considered. Also we cannot blindly accept a rating score. For example Australia has only 2.9% of our races listed as Stakes Races whilst New Zealand has 9.7% and Ireland has 13.1%. Obviously the data will be weighted in certain directions if we did not counter this information with a ranking on the Stakes Races based upon country and class of race, racing region within the country and climatic conditions in the region. After adjustments the rating scale is presented below.

Quality Rating Summary

It is undeniable that racing class is in great part a function of the *quality* of ancestors contributing to new individual. It follows that certain quality stallions tend to contribute more favorably than other sires. When Quality points contributed by such deserving sires are combined with dosage points, the total points more accurately reflect the overall class of a pedigree.

The *Quality sires* in a pedigree contribute quality points (QP) to the new individual in exactly the same way as ancestral sires contribute dosage points (DP). The total number of *Quality points* is added to the *Dosage points* to get *Total Points* (TP).

The Quality Rating, which ranges from zero, as the low, to ten, as the high, is scaled to the number of total points in the pedigree:

Total Points	Quality Rating
0	Q0
1 to 4	Q1
5 to 9	Q2
10 to 14	Q3
15 to 19	Q4
20 to 24	Q5
25 to 29	Q6
30 to 39	Q7
40 to 44	Q8
45 to 54	Q9
55 +	Q10