

SARGENT IRRIGATION CO.

Efficiency Test Report

Electric Motor

Name Dirks Farms LTD Address _____ Legal SW/SW 13-6-42 Chase Co.

Latitude: 40 ° 28 ' 57.9 " Longitude: 102 ° 02 ' 42.5 "

Elevation _____ Date 2/25/2026

Well Depth: _____ Casing Dia: _____ Yr.Inst.: _____ Bowls: 5-12 SAE
 Pump Mfg. Verti-line SN: GR10B171 Col: 200 ft. 8 5/8 x 2 1/2 x 1 1/2
 Drive Mfg.: Newman HP: 125 SN: V1128202 Ratio: _____
 Sprinkler: _____ Type: _____ Nozzled for: _____ GPM@ _____ PSI: _____

Static Water Level: 141

	Pump RPM	PSI	x	2.31	=	ft.	+	Pumping Level	+	Pump Loss	=	Total Hd. Ft	x	Flow GPM	/	3960	=	Water HP
1	1786	59	x	2.31	=	136.29	+	177	+	8.3	=	321.6	x	1215	/	3960	=	98.7
2			x	2.31	=	0	+		+		=		x		/	3960	=	
3			x	2.31	=	0	+		+		=		x		/	3960	=	

Electric 3 Phase: _____ Meter# _____ Meter Multiplier _____ Frame # 445UP
 Full Load Amps 148 Volts w/Motor Off 502 Rated RPM: 1720

KWH/h / 0.746 = Hook UP Horse Power

1	0	/	0.746	=
2	0	/	0.746	=
3	0	/	0.746	=

	Volts	x	AMPS	x	1.732	/	1000	x	Power Factor	=	KWH/H	=	1.34	x	Efficiency Factor	-	Thrust Loss	=	Pump HP
1	466.3	x	149.4	x	1.732	/	1000	x	0.88	=	106.1	=	1.34	x	0.91	-		=	129.4
2		x		x	1.732	/	1000	x		=		=	1.34	x		-		=	
3		x		x	1.732	/	1000	x		=		=	1.34	x		-		=	

Pump Efficiency:

Water HP / Pump HP = Pump Efficiency

1	98.7	/	129	=	76.3	%
2	0	/	0	=	0	%
3	0	/	0	=	0	%

Bowl Efficiency:

Pump HP - Lineshaft Loss = Bowl HP Water HP - Bowl HP = Efficiency

1	129.4	-	2.3	=	127.1	98.7	-	127.1	=	77.7
2		-		=			-		=	
3		-		=			-		=	

Comments:

Approximately 25"8" lead in pipe/Gallons & PSI on lead in pipe/Run test in hand

Pivot Safety out/End gun always on/No boost pump/ Motor sounds OK/ Pump sounds OK

Bowls set at 3 1/4 turns after clear

7-11-2011 Pivot Setup

Lowered + 2 turns, no change, put back to original

1175.52 @70

Pulled drain plug, put in pivot panel

76.36 End gun

Locked panel box per customer/Lots of oil in well

End Gun always on/No booster pump

043009