

# SARGENT IRRIGATION CO.

## Efficiency Test Report

### Electric Motor

Name Dirks Farms LTD #4 Address \_\_\_\_\_ Legal SE/NE 23-6-42 Chase Co.

Latitude: 40° 28' 26.1" Longitude: 102° 02' 48.2"

Elevation \_\_\_\_\_ Date 2/25/2026

Well Depth: \_\_\_\_\_ Casing Dia: \_\_\_\_\_ Yr.Inst.: \_\_\_\_\_ Bows: 77  
 Pump Mfg. WLR SN: No Tag Col: 280?? ft. 8 5/8 x 2 1/2 x 1 1/2  
 Drive Mfg.: Newman HP: 125 SN: S1188305 Ratio: \_\_\_\_\_  
 Sprinkler: \_\_\_\_\_ Type: \_\_\_\_\_ Nozzled for: \_\_\_\_\_ GPM@ \_\_\_\_\_ PSI: \_\_\_\_\_  
 Static Water Level: 237

	Pump RPM	PSI	x	2.31	=	ft.	+	Pumping Level	+	Pump Loss	=	Total Hd. Ft	x	Flow GPM	/	3960	=	Water HP
1	1778	56	x	2.31	=	129.36	+	250	+	6	=	385.4	x	760	/	3960	=	74
2			x	2.31	=	0	+		+		=		x		/	3960	=	
3			x	2.31	=	0	+		+		=		x		/	3960	=	

Electric 3 Phase: \_\_\_\_\_ Meter# \_\_\_\_\_ Meter Multiplier \_\_\_\_\_ Frame # 405TP  
 Full Load Amps 145 Volts w/Motor Off 490 Rated RPM: 1775

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	462.2	x	129.9	x	1.732	/	1000	x	0.86	=	89.4	=	1.34	x	0.91	-		=	109
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	74	/	109	=	67.9	%
2	0	/	0	=	0	%
3	0	/	0	=	0	%

**Bowl Efficiency:**

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

1	109	-	3.3	=	105.7	Water HP	-	74	-	105.7	=	70.0
2		-		=			-		-		=	
3		-		=			-		-		=	

Comments:

Approximately 15' 8" lead in pipe/Pivot would run in auto/Safety out/Test at 60Hz  
 Gallons & PSI on lead in pipe  
 Motor sounds OK, Pump has a deep growling noise and a wobble  
 Very slight cascading water 240' down  
 Bowls set at 3 1/4, original max any lower would drag  
 Pulled drain plug, Padlocked panel box up as per customer

2-21-2024  
 Pivot setup for 775.64 @50  
 61.27 GPM end gun  
 End gun always on  
 No booster

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