

SARGENT IRRIGATION CO.

Efficiency Test Report Electric Motor

Latitude 40° 29' 24"
 Longitude 101° 53' 19"
 Upper Bearing 7220
 Lower Bearing 6211

Flow Instrument Data

Pipe Size _____
 Calibration _____
 GPM/ft/sec _____
 Name Skippier Harman + Carl Harman Address _____ Date 3-29-24
 Well Depth _____ Casing Dia. _____ Yr. Inst. _____ Bowls 5-10HM Legal NW 17-6-40 Chase Co.
 Pump Mfg. Wel-Sinc SN 76242 Col. 120?? ft. 8 5/8 x 2 x 1 1/4
 Drive Mtg. V.S. (RV) HP 75 SN R1002551M
 Sprinkler _____ Type _____ Nozzled for _____ GPM @ _____ PSI
 Static Water Level 86 ft.

	Pump			Pumping	Pump	Total	Flow		Water		
	RPM	PSI	x	2.31 =	Ft. +	Level +	Loss =	Hd. Ft. x	GPM ÷	3960 =	HP
1.	<u>1781</u>	<u>53</u>	x	<u>2.31 =</u>	<u>122.4</u>	<u>96</u>	<u>+ 3.0 =</u>	<u>221.4</u>	x <u>775</u>	<u>÷ 3960 =</u>	<u>43.3</u>
2.			x	<u>2.31 =</u>			<u>+ =</u>		x	<u>÷ 3960 =</u>	
3.			x	<u>2.31 =</u>			<u>+ =</u>		x	<u>÷ 3960 =</u>	
4.			x	<u>2.31 =</u>			<u>+ =</u>		x	<u>÷ 3960 =</u>	

Electric 3 Phase: Meter # _____ Meter Multiplier x _____ Frame # 3657P
 Full Load Amps 91.3 Volts w/Motor Off 492 Rated RPM 1765

Revs x x 3.6 ÷ Sec. = KWH/h ÷ .746 = Hook Up Horse Power

1.		x	x 3.6	÷		=		÷	.746	=	
2.		x	x 3.6	÷		=		÷	.746	=	
3.		x	x 3.6	÷		=		÷	.746	=	
4.		x	x 3.6	÷		=		÷	.746	=	

Volts x Amps x 1.732 ÷ 1000 x Power Fact = KWH/h x 1.34 x Effic. Fact - Thrust Loss = Pump H.P.

1.	<u>471.7</u>	x	<u>67.52</u>	x	<u>1.732</u>	÷	<u>1000</u>	x	<u>.88</u>	=	<u>49.0</u>	x	<u>1.34</u>	x	<u>91.5</u>	-		=	<u>60.1</u>
2.		x		x	<u>1.732</u>	÷	<u>1000</u>	x		=		x	<u>1.34</u>	x		-		=	
3.		x		x	<u>1.732</u>	÷	<u>1000</u>	x		=		x	<u>1.34</u>	x		-		=	
4.		x		x	<u>1.732</u>	÷	<u>1000</u>	x		=		x	<u>1.34</u>	x		-		=	

Pump Efficiency

Water HP ÷ Pump HP = Pump Efficiency

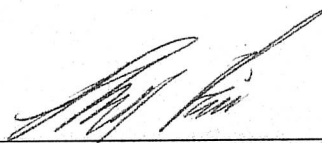
1.	<u>43.3</u>	÷	<u>60.1</u>	=	<u>72.0</u>	%
2.		÷		=		%
3.		÷		=		%
4.		÷		=		%

Bowl Efficiency

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

1.	<u>60.1</u>	-	<u>1.0</u>	=	<u>59.1</u>	<u>43.3</u>	÷	<u>59.1</u>	=	<u>73.2</u>	%
2.		-		=			÷		=		%
3.		-		=			÷		=		%
4.		-		=			÷		=		%

Comments: Approx 25' 8" Underground / Pivot on End Gun Not on Motor sound OK
Pump has slight clatter / some growling from deeper
Slight Vibs
Ps. & Callers at well



Efficiency Technician