

MEMORANDUM

Date: August 13, 2009
To: File 47-7861 Nunes lapsed permit
From: medl
Re: pivot info

I was able to connect with the right holder's son Jeff Nunes (539-2229). I briefly explained that I have been assigned to reinstate this permit and if possible bring this water right up to license status but did not have sufficient information.

Jeff Nunes had the pumping plant information faxed to me yesterday and it looks to be a match with what Stan Haye, his consultant had already provided. He said he would locate the pivot information for me and he called me this morning. The company that designed the pivot is no longer in business.

Jeff Nunes believes it was installed in 2001 and it's a Pierce (not sure of spelling) pivot with 93 nozzles delivering 20 gpm each. System is set at 44 pounds and 800 gpm.

The pump supply capability and the pivot discharge capability are not well matched.

Jeff Nunes has bids for a redesign of the system which puts some urgency on a field verification.



LAYNE PUMPS, INC
P.O. BOX 640
3797 N 3400 E
TWIN FALLS, ID 83303
208-733-3284
FAX 208-423-5137

www.laynepump.com

FROM: GREG HARDY

DATE: 8/12/09

TO: Jeff

TOTAL PAGES: 2

ATTN: Michelle EDI

PHONE:

FAX: 432-5305

208 287 6700

Sec # 2B-44200

40HP U.S. Motor

1500 GPM @ 85' T.D.H.

2 sty 12 TLC

100' of 8' column w/ 2 x 1 3/4" Tube & Shaft

PLEASE CONTACT US IMMEDIATELY SHOULD YOU HAVE ANY PROBLEMS OR QUESTIONS
REGARDING THIS TRANSMISSION

Company: Layne Pumps, Inc

Name:

Date: 8/12/2009

**Pump:**

Size: 12TLC.2 (2 stage)

Type: VERT. TURBINE

Synch speed: 1800 rpm

Curve: 18-128

Specific Speeds:

Dimensions:

Vertical Turbine:

Speed: 1780 rpm

Dia: 9.62 in

Impeller:

Ns: —

Nss: —

Suction: 10 in

Discharge: 8 in

Bowl size: 11.8 in

Max lateral: 0.5 in

Thrust K factor: 8.5 lb/ft

Search Criteria:

Flow: 1500 US gpm

Head: 85 ft

Fluid:

Water

Density: 62.25 lb/ft³

Viscosity: 1.105 cP

NPSHr: —

Temperature: 60 °F

Vapor pressure: 0.2563 psi a

Atm pressure: 14.7 psi a

Motor:

Standard: NEMA

Enclosure: TEFC

Size: 50 hp

Speed: 1800

Frame: 326T

Sizing criteria: Max Power on Design Curve

Temperature: 150 °F

Pressure: 410 psi g

Sphere size: 1.12 in

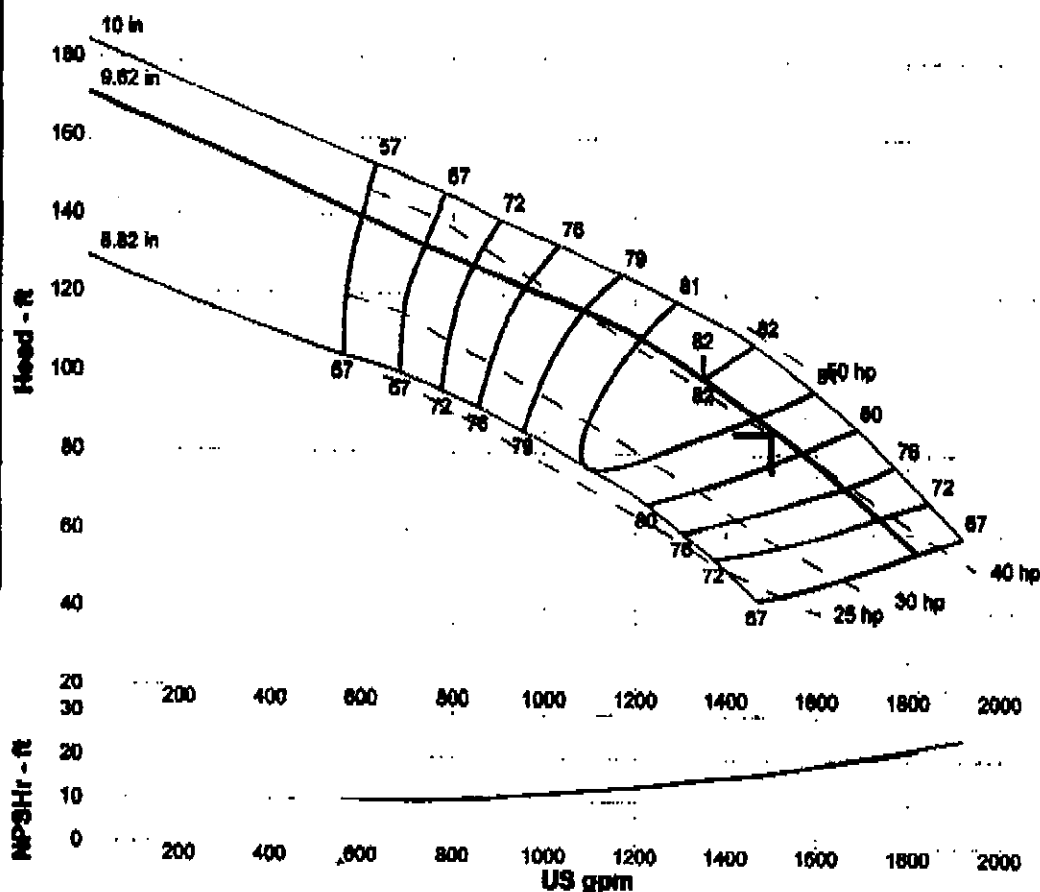
Power: 344 hp

Eye area: —

Flow: 1500 US gpm
 Head: 86.4 ft
 Eff: 80.7%
 Power: 40.5 hp
 NPSHr: 16.9 ft

Shutoff head: 171 ft
 Shutoff dP: 73.8 psi
 Min flow: —
 BEP: 82% @ 1350 US gpm
 NOL power:
 41.2 hp @ 1212 US gpm

Max power:
 48.4 hp @ 1462 US gpm

**Performance Evaluation:**

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1800	1780	87.2	68.2	30	22.1
1500	1780	86.4	80.7	40.5	16.9
1200	1780	110	80.8	41.1	13.5
900	1780	125	74	38.2	10.9
600	1780	140	57	37.1	10