

ENGR. CODE NO.

THIS DRAWING AND ALL INFORMATION THEREON IS CONFIDENTIAL AND IS THE PROPERTY OF LUFKIN INDUSTRIES, INC. IT SHALL BE USED ONLY AS AUTHORIZED BY LUFKIN INDUSTRIES, INC. AND IS SUBJECT TO RETURN ON DEMAND.

UNLESS OTHERWISE SPECIFIED, TOLERANCES ON DIMENSIONS: MACHINED: FRACTIONAL ± 1/32 -- DECIMAL ± .005 STRUCTURAL: HOLE AND SLOT TOLERANCES ± 1/16 ALL OTHER DIMENSIONS ± 1/8

MATERIAL SPECIFICATIONS

REFERENCES TO DOCUMENTS AND DRAWINGS IMPLY THE LATEST REVISION UNLESS INDICATED OTHERWISE.

PERTAINS TO / ALSO USED ON

PLAN, INSTALLATION - N2400C, REDUCER L-R UNIT, C'CW ROTATION, RATIO 2.617:1

DWNT E CHK DWB APP ROSS
 DATE 8-13-01 SCALE 1"=1'-0" (N/C-CAM READY)

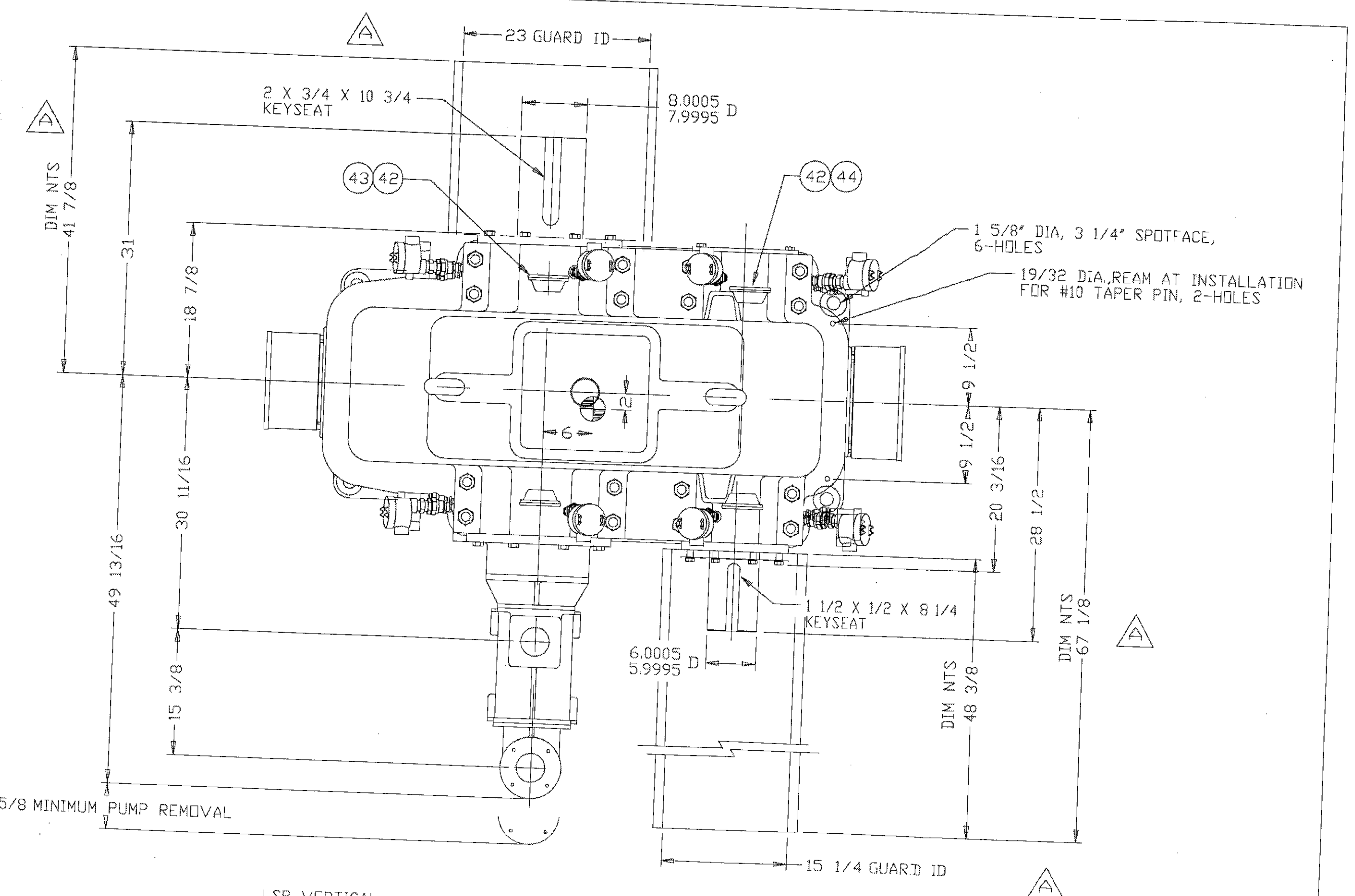
RELEASED FROM DESIGN-ENGINEERING:

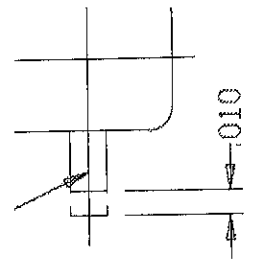
LUFKIN INDUSTRIES, INC.

DESCRIPTION OF CHANGE

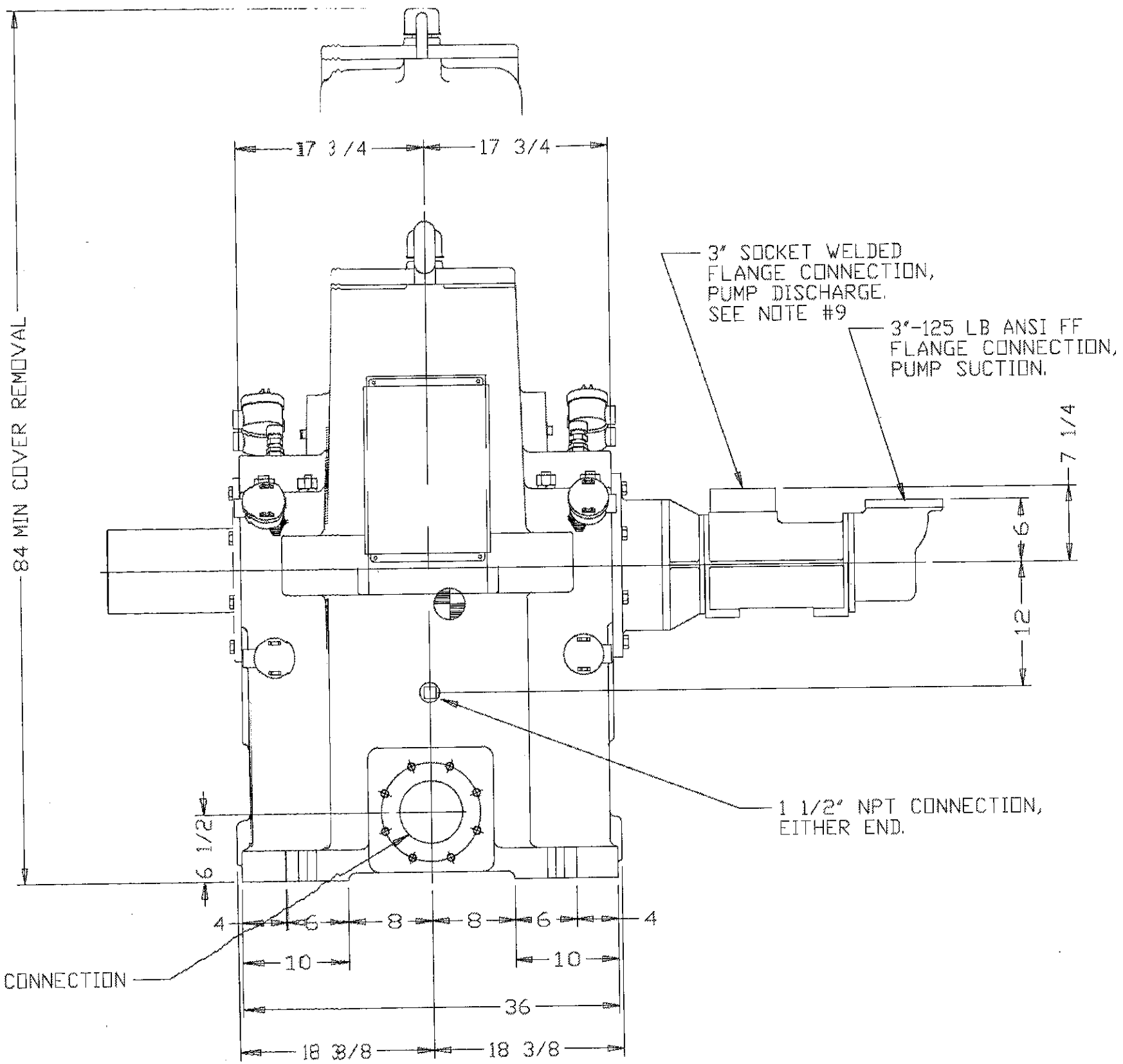
CHGD BY DATE

0.2





ERMAL GROWTH
BASED ON 60°F
ABOVE AMBIENT



6"-150 LB. ANSI FLANGE CONNECTION
OIL OUTLET, EITHER END

41



JUNCTION
EMBEDDED

38 33 34 4
TYPICAL LSP JOINT
BEARING EMBEDDED

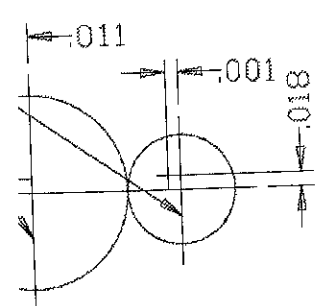
2"
UNIT

REV.	DESCRIPTION OF CHANGE	CHGD BY DATE	REV.

, INC.

TEMS
M, RATIO 5.326:1
192 HP
337 HP
IE (150 SSU @ 100°F)
\$F MAX. TEMP

STEM
5 PSI & 120°F
0 BTU/HR



L & THERMAL MOVEMENT
VALUES BASED ON 40°F
RISE ABOVE AMBIENT

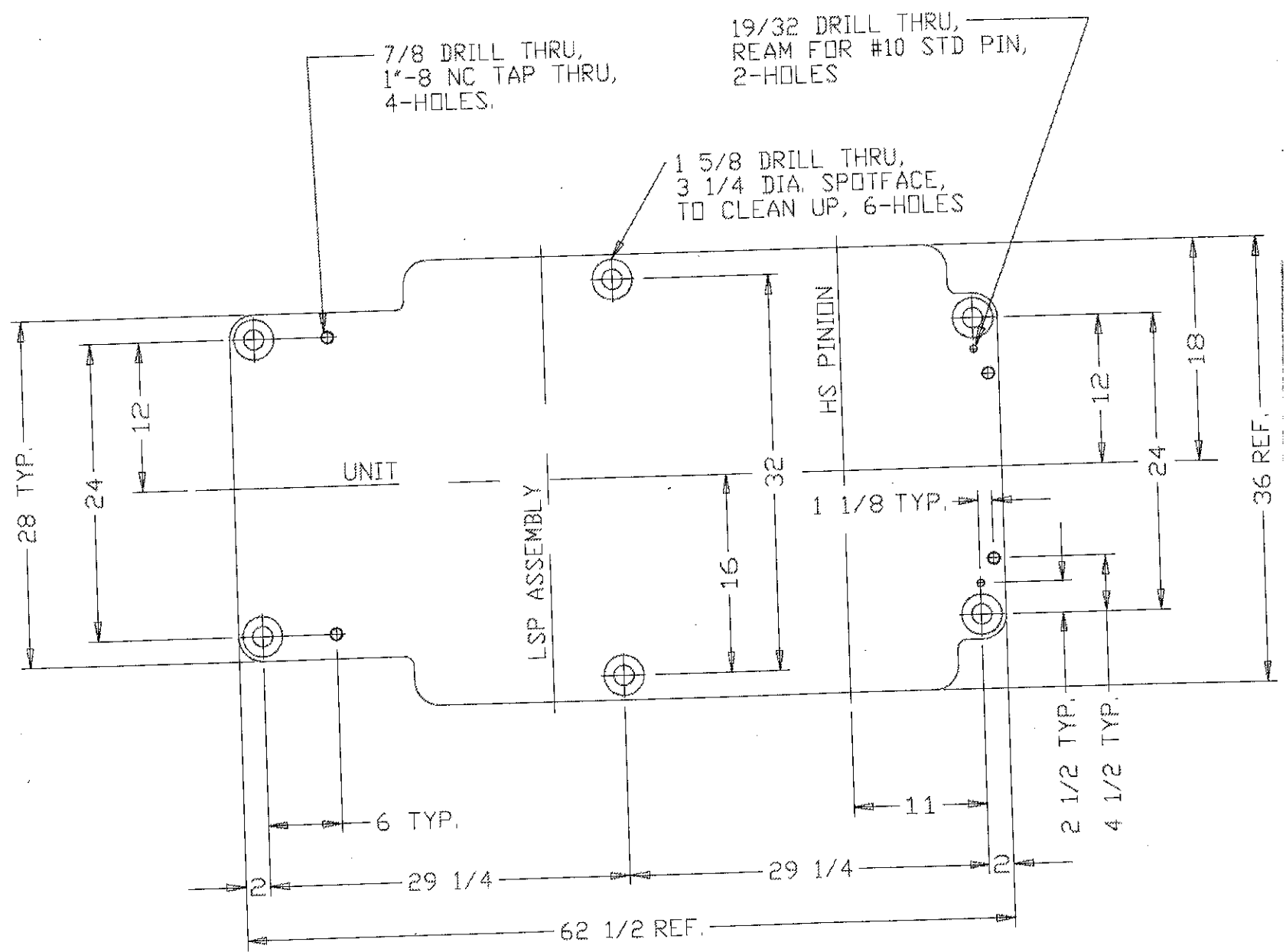
LSP SHAFT

NOTES:

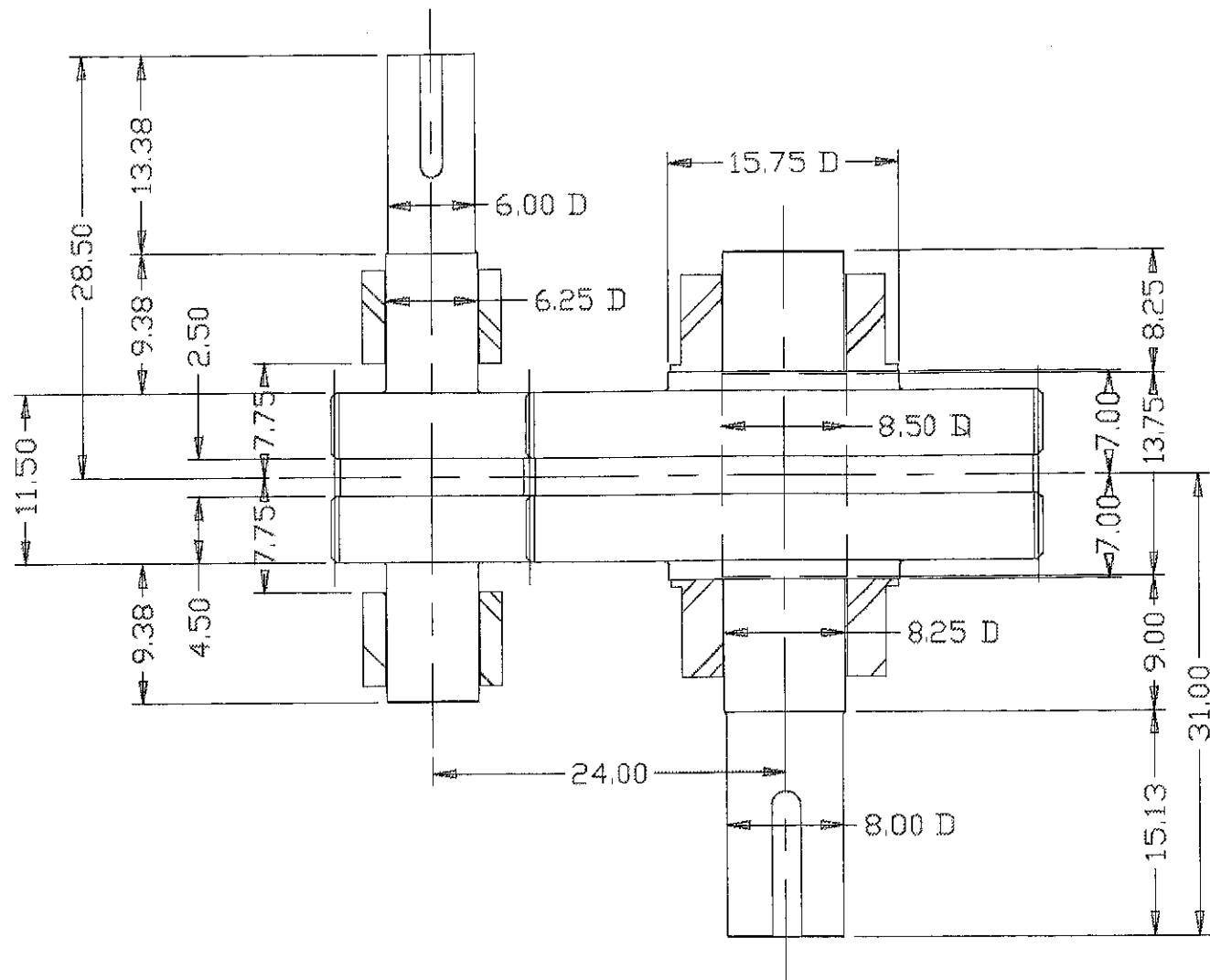
- EST. NET WT. = 9500 LBS.
- HEAVIEST MAINTENANCE LIFT = 3660 LBS (LSP ASSEMBLY).
- REFER TO PARTS LIST N2400C-116675 FOR BALLOONED ITEMS.
- INTERCONNECTING PIPING FURNISHED BY OTHERS THAN LUFKIN MUST BE CLEANED AND FLUSHED BEFORE OPERATION.
- RTD, MINCO S306PD4S*B0/AC100324, TWO EACH HS & LSP BEARING PLATINUM ELEMENT (DIN), SINGLE ELEMENT, 100 OHM AT 0°C (00385 CALIBRATION, TRANSMITTER FOR RTD IS A MOORE MODEL RIY/R0-0-250F/4-20MA/12-42DC (DIN)
NOTE: * = 48 FOR HS
 * = 36 FOR LSP

EMBEDDED RTD IN BEARING SHELL
ALARM SETTING: 225 F. RISING
SHUTDOWN SETTING: 240 F. RISING

- BEARING DESIGN CLEARANCES:
HIGH SPEED - 0.0100 - 0.0120 INCHES
LOW SPEED - 0.0105 - 0.0125 INCHES
THRUST - 0.016 - 0.022 INCHES
- SENSOR, VIBRATION PROBE BENTLY NEVADA RAM 3300 SERIES, MODEL NUMBER 330906-02-12-05-02-05, TWO EACH RADIAL BEARING WITH BENTLY NEVADA 3300 RAM CABLE MODEL NUMBER 330930-045-00-00 AND BENTLY NEVADA TRANSMITTER 990 SERIES MODEL NUMBER 990-05-50-01-01 (0-5 MILS PP) DIN RAIL MOUNTING.
- LUFKIN WILL RUN ALL WIRES AND CABLES IN SEALTITE CONDUIT TO JUNCTION BOXES.
- PUMP, DELAVAL MODEL G3DKC-275D, C'CW ROTATION APPROX. 129 GPM (120 PSI) AT 1800 RPM.



FOUNDATION LAYOUT



SHAFT STIFFNESS:

HS PINION: 69.53 10^6 IN.LBS./RAD. FROM CENTERLINE MESH TO END OF SHAFT

LSP SHAFT: 177.86 10^6 IN.LBS./RAD. FROM 1/3 PENETRATION INTO LSP GEAR TO END OF SHAFT

	TEETH	PITCH DIAM	GROOVE DIAM	MATERIAL	BHN	WR^2 (IN ² LBS)	WT (LBS)
HS PINION	47	13.271	12.462	E4340H	363	10705	710
LSP GEAR	123	34.729	33.921	E4340H	341	457950	2965
LSP SHAFT	----	----	----	4145 MOD	285	5935	695
LSP ASSEMBLY	----	----	----	-----	----	468655	3660
HS BEARING BORE= 6.25; LENGTH= 6.25; PROJECTED AREA= 39.06 IN ²							
LSP BEARING BORE= 8.25; LENGTH= 6.25; PROJECTED AREA= 51.56 IN ²							
WR^2 REFERRED TO HS SHAFT= 79135 IN ² LBS							
PRESSURE ANGLE: 20° NORMAL NDP: 4 HELIX ANGLE: 27° 41' 49.78							

NOTE: VALUES USED FOR CALCULATIONS ARE
 DENSITY = .283 LBS/IN³
 SHEARING MODULUS OF ELASTICITY = 11.8 10^6 LBS/IN²

REV.	DESCRIPTION OF CHANGE	CHGD BY DATE	ENGR. CODE NO.	MATERIAL SPECIFICATIONS	DIAGRAM, MASS ELASTIC N2400C, SPEED REDUCER L-R UNIT, RATIO 2.6171
			<small>THIS DRAWING AND ALL INFORMATION THEREON IS CONFIDENTIAL AND IS THE PROPERTY OF LUFKIN INDUSTRIES, INC. IT SHALL BE USED ONLY AS AUTHORIZED BY LUFKIN INDUSTRIES, INC. AND IS SUBJECT TO RETURN ON DEMAND.</small> <small>UNLESS OTHERWISE SPECIFIED, TOLERANCES ON DIMENSIONS: MACHINED: FRACTIONAL ± 1/32 -- DECIMAL ± .005 STRUCTURAL: HOLE AND SLOT TOLERANCES ± 1/16 ALL OTHER DIMENSIONS ± 1/8</small>		
			REFERENCES TO DOCUMENTS AND DRAWINGS IMPLY THE LATEST REVISION UNLESS INDICATED OTHERWISE.		RELEASED FROM DESIGN ENGINEERING
			PERTAINS TO / ALSO USED ON		LUFKIN INDUSTRIES, INC. LUFKIN, TEXAS
			PARTS LIST	N2400C-116675	SK13407-2
			IN STL PLAN	SK19751-8	
				S/O 106/201391 SUPERSEDED BY	