MAKE FROM PURCHASED PART:
P/N W32B29-S180 (BERG INC.)

BILL OF MATERIAL

<table>
<thead>
<tr>
<th>NO.</th>
<th>REQ'D</th>
<th>REF DRW</th>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>1</td>
<td>SK3-018A</td>
<td>WORM GEAR VOD W32B29-S180</td>
<td>BRONZE</td>
</tr>
</tbody>
</table>

NOTES: UNLESS OTHERWISE NOTED
1. MACHINED SURFACE ROUGHNESS 64
2. DRILL RING GROOVES AND SURFACES 32
3. REMOVE ALL BURRS/SHARP CORNERS

REV: 02/27/98
REV: N/A
DATE: 12/18/97
DESIGN: STAHLMAN
DRAWN: STAHLMAN
APPV'D: J. RAYNER

INSTITUTE FOR ASTRONOMY
2680 WOODLAWN DR. HONOLULU, HI 96822
INSTRUMENT: SPEX - CROSS DISPERSED SPECTROGRAPH
PART NAME: WORM GEAR MOD W32B29-S180
TELESCOPE: IRTF

REV: ADD 18 MASS REDUCING HOLES
REVISION: N/A

SK3-001A
NEXT ASSY

SCALE: 1:1
SIZE: A
SHEET: 1 OF 1

6X Ø .138
DRILL THRU
Ø .27
Ø .14
EQ.SPCD
ON Ø 5.000

18X Ø .44
DRILL THRU
SPCD
AS SHOWN
ON Ø 5.000

60° Ø .156

15.0°

BORE TO BE CONCENTRIC TO PD OF GEAR TO .001 TIR

15.0°