WP0187
Dodge® Taper-Lock bushings: machining details
Dodge Customer/Order Engineering
06-22-2016

The machining details below can be used to machine a hub to accept Dodge Taper-Lock bushings. Each drawing is specific to the size of bushing being installed. Hub drawings below are only for use with Taper-Lock bushings and cannot be used with any other bushing types. The minimum hub OD for each size bushing is shown in each drawing. Failure to meet or exceed this minimum hub OD may result in failure of the part.

For additional information or questions related to Dodge Taper-Lock hubs or bushings, Dodge bearings or PT Components Customer Order (C.O.) Engineering should be contacted at (864)-284-5700 or DodgeEngineering@abb.com.
NOTES:

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
1. 1.6783 IN/FT ± 0.012 IN/FT TAPER ON DIA.
   INSPECT TAPER PER S241.
2. TOLERANCE FOR DRILLED AND C'BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER S084</td>
<td>2.19</td>
<td>#7 (.201)</td>
<td>1/4–20 NC</td>
<td>1/4–20 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>1.94</td>
<td>#5 (.2055)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BEFORE TAPER BORING, 'DRILL' THRU, 'TAP' THRU OR 5/8 MIN. FULL TH'D LGH.
(2) HOLES REG'D

φ0.003 A

REVISIONS TO THIS DRAWING MUST BE EVALUATED REGARDING THE EFFECT THEY MAY HAVE UPON THE AUTO MTO PROGRAM.
NOTES:
* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
1. 1.6783 IN./FT±.012 IN./FT TAPER ON DIA.
   INSPECT TAPER PER S241.
2. TOLERANCE FOR DRILLED AND O'BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD(REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER S084</td>
<td>2.31</td>
<td>#7(.201)</td>
<td>1/4-20 NC</td>
<td>1/4-20 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>2.06</td>
<td>#5(.2055)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DIMENSION TOLERANCE
UNLESS OTHERWISE SPECIFIED
MACHINE TOL. 0.002
FABRICATING TOL. 0.003
CASTING TOL. 0.004
BRK ALL SHARP CORNERS .010

ABSTRACT
MACHINING DETAIL OF 108 TL HUB
SH 1 of 1

REV. DESC: LOADED TO BUS
REV. LTR: B  VERSION: OD  TDR: 000000759236
FILE: \006\00000\0658  REVISED: 08:45:43 08/08/2012
MTL: -  BY: MGHNKT
NOTES:

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
1. 1.6783 IN/FT±.012 IN/FT TAPER ON DIA.  
   INSPECT TAPER PER S241.
2. TOLERANCE FOR DRILLED AND C'BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER S084</td>
<td>3.25</td>
<td>.3125</td>
<td>3/8-16 NC</td>
<td>3/8-16 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>2.88</td>
<td>.323</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BEFORE TAPER BORING:
1. 391/401 DIA DRILL:
   (1) HOLE TO DEPTH SHOWN
   +-.008 MIA
2. 008 MIA

BEFORE TAPER BORING:
'DRILL' THRU 'TAP' THD
THRU OR 7/8 MIN FULL THD LGH
(2) HOLES REQ'D
+-.003 MIA

DIMENSION TOLERANCE
UNLESS OTHERWISE SPECIFIED
MACHINE TOL S022
FABRICATING TOL S556
CASTING TOL S249

BARK ALL SHIP CORNERS .010

MAKING DETAIL OF 1210 TL HUB

SH. 1 of 1
NOTES:

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
1. 1.6783 IN/FT x 0.012 IN/FT TAPER ON DIA.
   INSPECT TAPER PER S241.
2. TOLERANCE FOR DRILLED AND C'BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER SD84</td>
<td>2.88</td>
<td>.3125</td>
<td>3/8-16 NC</td>
<td>3/8-16 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER 5085</td>
<td>2.63</td>
<td>P(3.323)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DIMENSION TOLERANCE
UNLESS OTHERWISE SPECIFIED
MACHINE TOL. S022
FABRICATING TOL. S396
CASTING TOL. S241
BRK ALL SHARP CORNERS, .010

REVISIONS TO THIS DRAWING
MUST BE EVALUATED REGARDING
THE EFFECT THEY MAY HAVE
UPON THE AUTO MTO PROGRAM.
NOTES:

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
1. 1.6783 in/ft ±0.012 in/ft TAPER ON DIA.
   INSPECT TAPER PER S241.
2. TOLERANCE FOR DRILLED AND C’BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER S084</td>
<td>3.38</td>
<td>.3125</td>
<td>3/8-16 NC</td>
<td>3/8-16 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>3.00</td>
<td>P(.323)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BEFORE TAPER BORING
.391/.401 DIA DRILL
(1) HOLE TO DEPTH SHOWN
Φ0.008 MIN

BEFORE TAPER BORING
‘DRILL’ THRU & ‘TAP’
THD THRU OR 7/8 MIN FULL
THREAD LENGTH
(2) HOLES RED. I
Φ0.008 MIN

DIMENSION TOLERANCE
UNLESS OTHERWISE SPECIFIED
MACHINE TOL. S022
FABRICATING TOL. S356
CASTING TOL. S249
BRY ALL SHARP CORNERS, .010

REV. DESC: LOADED TO BUS
REV. LTR: B VERSION: 00 TOL: 000000759236
FILE:\DBG\00009\661 REMSED: 08:52:21 08/06/2012
MTL: - BY: M00NHKT

Baldor
MACHINING DETAIL OF 1310 TL HUB
SH 1 of 1
NOTES:

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
1. 1.6783 IN/FT±.012 IN/FT TAPER ON DIA.
   INSPECT TAPER PER S241.
2. TOLERANCE FOR DRILLED AND C'BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER S084</td>
<td>3.63</td>
<td>.3125</td>
<td>3/8-16 NC</td>
<td>3/8-16 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>3.25</td>
<td>(3.323)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REVISIONS TO THIS DRAWING MUST BE EVALUATED REGARDING THE EFFECT THEY MAY HAVE UPON THE AUTO MTO PROGRAM.

DIMENSION TOLERANCE UNLESS OTHERWISE SPECIFIED
MACHINE TOL. S022
FABRICATION TOL. S356
CASTING TOL. S243
3PK ALL SHARP CORNERS .010
NOTES:

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY

1. 1.6783 IN/FT ±0.012 IN/FT TAPER ON DIA.
   INSPECT TAPER PER S241.

2. TOLERANCE FOR DRILLED AND C'BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER SD84</td>
<td>3.25</td>
<td>.3125</td>
<td>3/8-16 NC</td>
<td>3/8-16 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>3.00</td>
<td>.323</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEEL</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

REVISIONS TO THIS DRAWING MUST BE EVALUATED REGARDING THE EFFECT THEY MAY HAVE UPON THE AUTO MTO PROGRAM.

DIMENSION TOLERANCE UNLESS OTHERWISE SPECIFIED
- MACHINING TOL S028
- FABRICATING TOL S056
- CASTING TOL S249
- JRK ALL SHARP CORNERS .010
NOTES:

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
1. 1.6783 IN./FT ± 0.012 IN./FT TAPER ON DIA.
   INSPECT TAPER PER S241.
2. TOLERANCE FOR DRILLED AND C'BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB OD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER S084</td>
<td>4.38</td>
<td>L(.388)</td>
<td>7/16-14</td>
<td>7/16-14</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>3.88</td>
<td>V(.377)</td>
<td>NC</td>
<td>B.S.W.</td>
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</tbody>
</table>

DIMENSION TOLERANCE
UNLESS OTHERWISE SPECIFIED
MACHINE TDL. S082
FABRICATING TDL. S296
CASTING TDL. S249
BRK ALL SHRP CORNERS .010

REVISIONS TO THIS DRAWING MUST BE EVALUATED REGARDING THE EFFECT THEY MAY HAVE UPON THE AUTO MTO PROGRAM.
**NOTES:**

* STRAIGHT BORE FOR TOOLING PURPOSES ONLY
  1. 1.6783 IN/FT±.012 IN/FT TAPER ON DIA.
     INSPECT TAPER PER S241.
  2. TOLERANCE FOR DRILLED AND C’BORE HOLES PER S128.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER S084</td>
<td>4.68</td>
<td>27/64</td>
<td>1/2-13 NC</td>
<td>1/2-12 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER S085</td>
<td>4.38</td>
<td>7/16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEEL</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**REVISIONS TO THIS DRAWING MUST BE EVALUATED REGARDING THE EFFECT THEY MAY HAVE UPON THE AUTO WTO PROGRAM.**

**MACHINING DETAIL OF 2517 TL HUB**

**SH 1 of 1**

**ABB**
**NOTES:**

1. *STRAIGHT BORE FOR TOOLING PURPOSES ONLY*
   - 1.6783 IN./FT, 0.012 IN./FT TAPER ON DIA.
   - INSPECT TAPER PER 5241.
2. TOLERANCE FOR DRILLED AND C-BORE HOLES PER 5172A.

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>HUB DD (REF)</th>
<th>DRILL</th>
<th>STD. TAP</th>
<th>B.S.W. TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST IRON PER 5084</td>
<td>6.25</td>
<td>17/32</td>
<td>5/8-11 NC</td>
<td>5/8-11 B.S.W.</td>
</tr>
<tr>
<td>DUCTILE IRON PER 5085</td>
<td>5.63</td>
<td>35/64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BEDLOR**

**MACHINING DETAIL OF 3020 TL HUB**

**REV. DESC:** LOADED TO BUS

**REV. LTR:** B **VERSION:** 00 **TDR:** 0000000759256

**FILE:** \DEG\0009\697 **REMOVED:** 10:41:55 04/06/2012 **BIL:** — **BY:** MGKMKT
BREATHER HOLES

MATERIAL HUB CD (REF) DRILL STD. TAP B.S.W. TAP
CAST IRON PER 5004 7.00 27/64 1/2-13 NC 1/2-12 B.S.W.
DUCTILE IRON PER 5085 6.50 7/16

NOTES:
1. STRAIGHT BORE FOR TOOLING PURPOSES ONLY
2. TOLERANCE FOR DRILLED AND C'BORE HOLES PER S128.

Baldor

MACHINING DETAIL OF 3535 TL HUB
SH 1 of 1