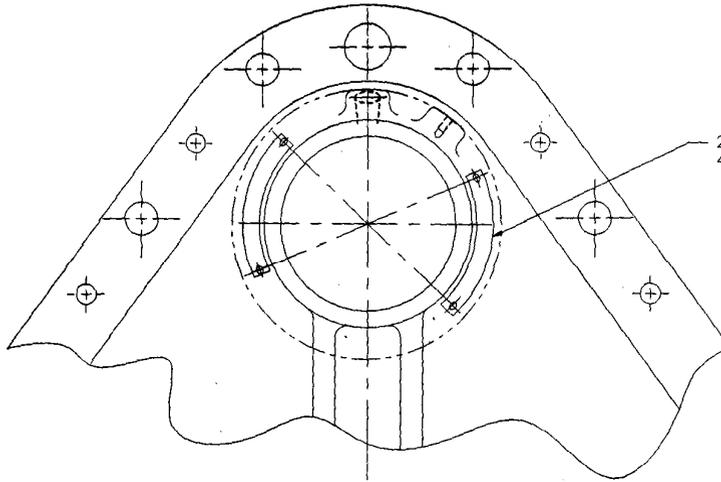


ZONE	REV	DESCRIPTION	DATE (YY-MM-DD)	APPROVED
-	-	PRODUCT BASELINE ERR BR-U4355	02-03-20	ED



2-PLATE-12463167 (15)(18)(21)(22)
4-SCREW-MS21318-8 (19)

98034 (7)

19073-37 (8)

1033

1034

1035-889 (10)

1036

3F100N (6)(12)
65

(8)(13)

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PART NO. 12463162

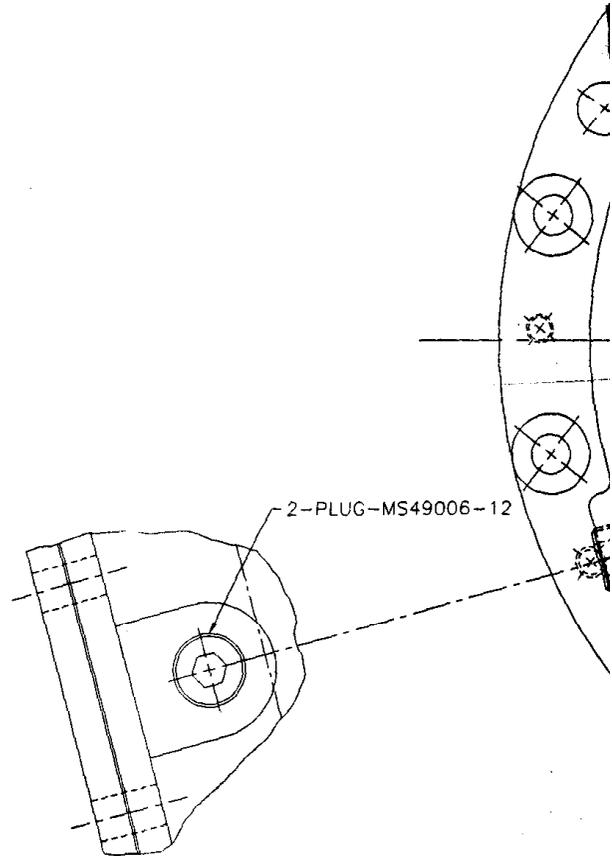
PMIC NA	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON	CONTRACT NUMBER DAAE20-97-C-0285	DESIGN ACTIVITY U.S. ARMY TANK-AUTOMOTIVE AND ARMAMENTS COMMAND WARREN, MICHIGAN 48097-5000
5744220	M92A2 M109A5 2 PLACES 3 PLACES	CONTRACTOR BARNES & HERBERT, INC. LANSING HEIGHTS, MI 48009	FINAL DRIVE ASSEMBLY
1245837	M92A2 M109A6	DESIGNED BY (DATE) (REV) (MCD) (DT) 02-01-23	
12472368	M92A2 M109A6	ENGINEER CHECKED BY (DATE) (REV) (MCD) (DT) 02-01-23	SCALE 1/1 UNIT WT SHEET
10898008	M109A2/A5	DRIVING APPROVAL DESIGN APPROVAL	
52	REV	DATE	19207 12463162
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NOTES:

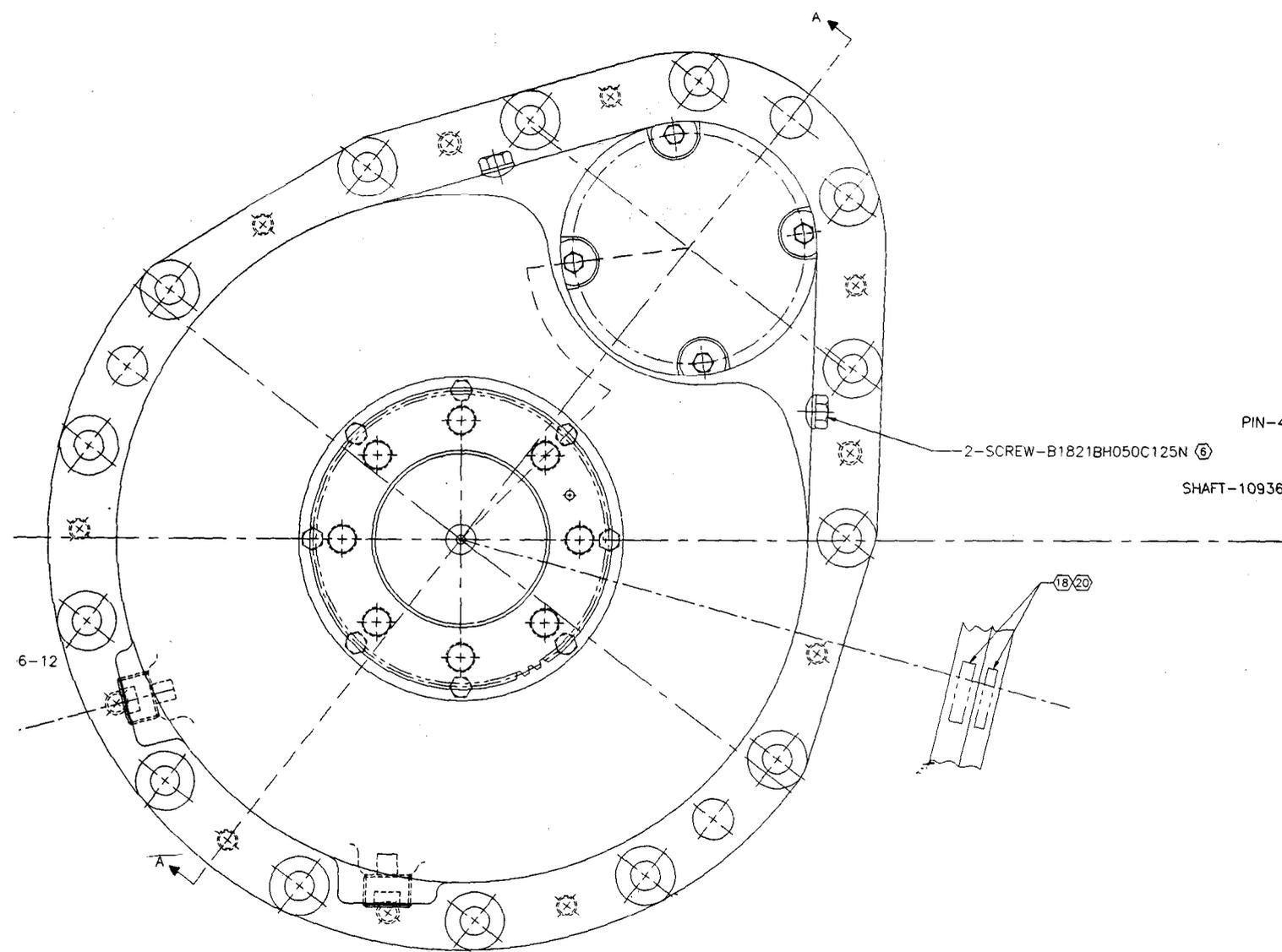
1. APPLICABLE STANDARDS/SPECIFICATIONS:
A. MIL-STD-100E
 2. ALL BEARINGS MUST BE LUBRICATED AND BE FREE FROM DIRT AND FOREIGN MATERIAL BEFORE ASSEMBLY.
 3. ALL THREADS MUST BE LUBRICATED BEFORE ASSEMBLY.
 - ④ BEFORE ASSEMBLY OF OIL SEAL, SOAK SEALING ELEMENT IN ENGINE PRESERVATIVE OIL SPEC MIL-PRF-21260, M21260-1-SAE 10W FOR ONE HOUR MINIMUM AT 250° F. COAT OD OF OIL SEALS WITH SEALING COMPOUND TYPE III SPEC MIL-S-45180 BEFORE ASSEMBLING INTO COUNTERBORE.
 - ⑤ THESE BEARINGS MUST BE ASSEMBLED IN MANNER SHOWN.
 - ⑥ IN ACCORDANCE WITH ASME B18.2.1.
 - ⑦ APPLY SEALANT IN ACCORDANCE WITH MIL-S-45180, TYPE II OR TYPE III TO ALL GASKETS AND MATING SURFACES. OPTIONAL SEALANT: PERMATX FORMAGASKET 2 OR 3.
 - ⑧ ASSEMBLY OF ROLLER BEARING MS19073-37 AND SPUR GEAR 10898041-1:
A. CLEAN BEARING ID AND SPUR GEAR JOURNAL WITH INDUSTRY SOLVENT CLEANER OR LOCCOUC PRIMER 1.
B. INDUCTION HEAT THE BEARING TO 235 DEGREES F MAXIMUM FOR SLIPFITTING ONTO JOURNAL DIAMETER OF SPUR GEAR (REFERENCE SKF INDUCTION HEATER, MODEL TH030 OR EQUIVALENT).
C. APPLY LOCTITE RC603 TO MATING SURFACE OF JOURNAL DIAMETER OF SPUR GEAR JUST BEFORE SLIP FITTING THE BEARING.
D. ASSEMBLE BEARING BY FITTING ONTO JOURNAL DIAMETER OF THE GEAR AND SHRINK FITTING THEM. LOCTITE REQUIRES 24 HOURS TO FULLY CURE. HOWEVER, THIS DOES NOT PREVENT ASSEMBLY OF THE FINAL DRIVE.
 - ⑨ TORQUE REQUIREMENTS FOR NUT 10898039-1:
A. APPLY OIL TO THREADS OF NUT.
B. INSTALL NUT AND TORQUE TO 450+25 LB-FT.
C. BACK OFF NUT AND RETORQUE TO 450+25 LB-FT. REMOVE TORQUE WRENCH AND CONTINUE TO TIGHTEN NUT UNTIL NEXT AVAILABLE SLOT OF NUT IS LINED UP WITH THE COTTER PIN HOLE ON OUTPUT SHAFT.
 - ⑩ INSTALL NEW COTTER PIN NASM24665-689. PIN MUST BE INSTALLED WITH HEAD INSERTED IN NUT SLOT. HOLD HEAD TIGHTLY IN PLACE WITH BUCKING BAR WHEN BENDING COTTER PIN LEGS. LONG LEG TO BE BENT AS SHOWN. SHORT LEG TO BE BENT AS SHOWN, BUT NOT PROTRUDE BEYOND END OF SHAFT.
 11. OVER-ALL BACKLASH TO BE CHECKED AFTER ASSEMBLY AT PITCH LINE (1.125R) OF SPLINE ON INPUT SHAFT. WITH ZERO TORQUE, INDICATOR READING AT THIS POINT TO BE .005 TO .012.
 - ⑫ TORQUE SCREWS TO 35-40 LB-FT.
 - ⑬ TORQUE SCREWS TO 75-80 LB-FT.
 14. RUN-IN REQUIREMENTS:
A. MOUNT FINAL DRIVE IN SAME POSITION AS IN VEHICLE (LINE CONNECTING INPUT AND OUTPUT SHAFT CENTERLINES AT 35'-40' FROM VERTICAL). FILL WITH LUBRICANT SPEC. MIL-PRF-21260, M21260-1-SAE 10W TO INSPECTION PLUG LEVEL.
B. OPERATE AT 600-800 RPM ON INPUT SHAFT FOR 6 TO 8 MINUTES. REVERSE ROTATION AND OPERATE AT 600-800 RPM ON INPUT SHAFT FOR 6 TO 8 MINUTES.
C. INCREASE INPUT SHAFT SPEED TO 1400-1600 RPM AND OPERATE FOR 3 TO 5 MINUTES. REVERSE ROTATION AND OPERATE AT 1400-1600 RPM ON INPUT SHAFT FOR 3 TO 5 MINUTES.
D. INCREASE INPUT SHAFT SPEED TO 2800-3000 RPM AND OPERATE FOR 1 TO 3 MINUTES. REVERSE ROTATION AND OPERATE AT 2800-3000 RPM ON INPUT SHAFT FOR 1 TO 3 MINUTES.
E. DURING RUN-IN CHECK FOR IRREGULARITIES IN NOISE LEVEL, LOCAL HEATING, AND LEAKAGE. DRAIN OIL AFTER TEST.
 - ⑮ ITEM IDENTIFICATION:
METAL STAMP DATE (MONTH/YEAR) AND SERIAL NUMBER IN ACCORDANCE WITH MIL-STD-130 IN .12± .02 HIGH CHARACTERS ON PLATE, IDENTIFICATION 12463167.
 16. FILL WITH LUBRICANT TO INSPECTION PLUG LEVEL WHEN INSTALLED.
- | | | | |
|-------|--------------|--------------|---------------|
| RANGE | ABOVE 32°F | 40° TO -10°F | 0° TO -65°F |
| GRADE | OE/HDO-40 | OE/HDO-10 | OEA-30 |
| SPEC. | MIL-PRF-2104 | MIL-PRF-2104 | MIL-PRF-46167 |
17. QUALITY ASSURANCE PROVISIONS (QAP) 12463162 APPLY TO THIS ITEM.
 - ⑱ SERIAL NUMBER SHALL BE COMPRISED OF THE MANUFACTURER'S CAGE CODE FOLLOWED BY A DASH, FOLLOWED BY SEQUENTIAL NUMBERS (E.G., 0101, 0102, 0103...). FOR A MANUFACTURER'S FIRST CONTRACT FOR THIS PART (12463162), THE FIRST SEQUENTIAL NUMBER SHALL BE "0001". FOR SUBSEQUENT CONTRACTS, THE SEQUENCE SHALL START WITH THE NEXT UNUSED NUMBER FROM THE MANUFACTURER'S LAST CONTRACT.
 - ⑲ IN ACCORDANCE WITH NASM21318.
 - ⑳ METAL STAMP SERIAL NUMBER IN ACCORDANCE WITH MIL-STD-130 IN .25± .02 HIGH CHARACTERS ON COVER 10898035 AND HOUSING 10898043.

- ⑰ CLEAN BONDING SURFACE OF COVER AND PLATE IN ACCORDANCE WITH PARA 4.3 OF MIL-STD-171 PRIOR TO APPLYING ADHESIVE.
- ⑱ BOND PLATE TO COVER WITH ADHESIVE IN ACCORDANCE WITH DRAWING 12389696.



QAP NO 12463162

F 1/4 512463162



PIN-4

2-SCREW-B1821BH050C125N (6)

SHAFT-109362

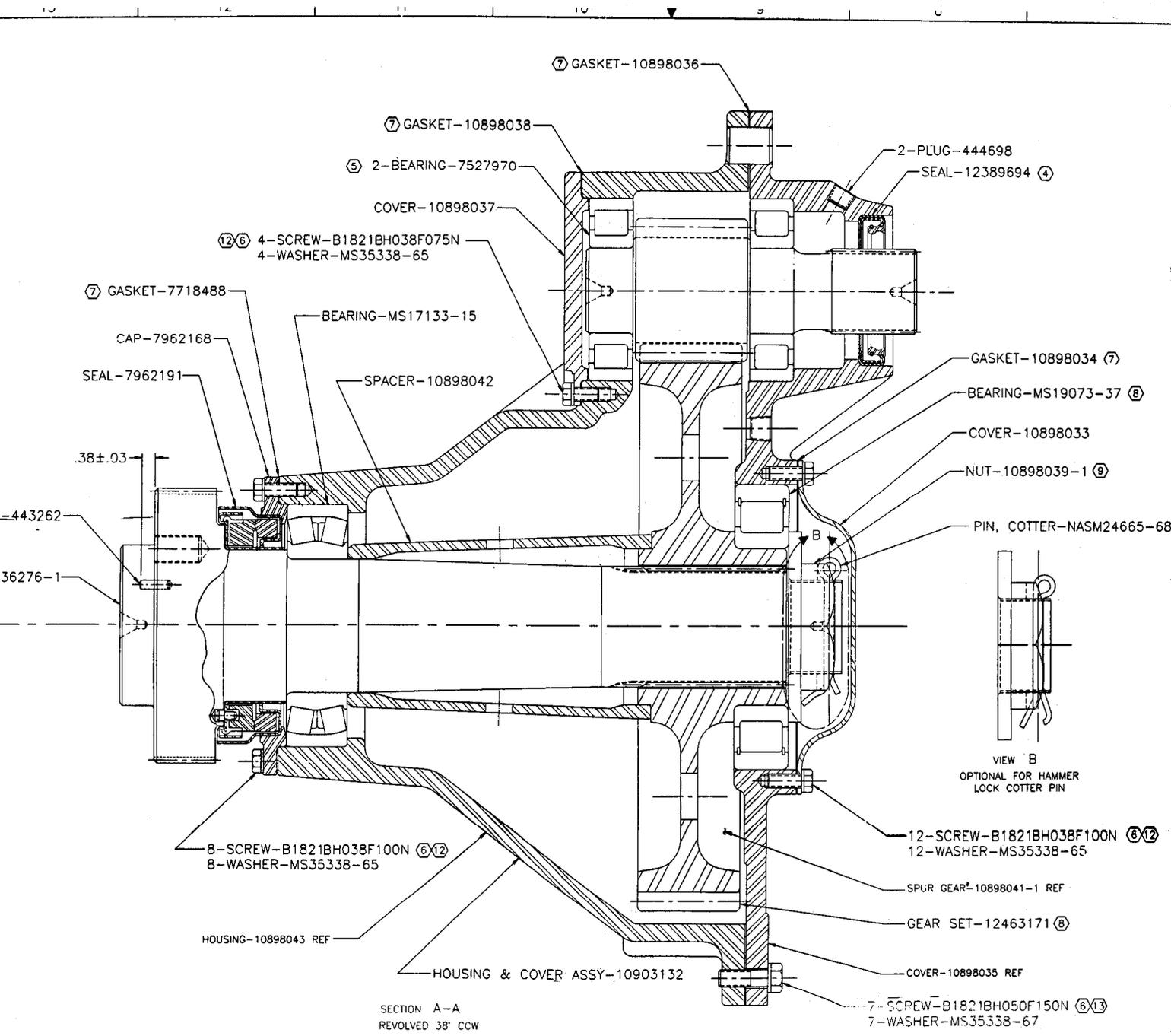
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