AAT

AXLETRAC ALIGNMENT TOOLS

AXLETRAC Alignment Tools

PRODUCT MANUAL
AT1125, AT10826,
HDKPX 2000

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BEFORE YOU BEGIN

UNDERSTANDING YOUR AXLETRAC ALIGNMENT TOOL

THIS SECTION PROVIDES ESSENTIAL INFORMATION ABOUT THE COMPATIBILITY, COMPONENTS, AND PREPARATION STEPS TO ENSURE A SMOOTH SETUP PROCESS.

COMPATIBILITY - THE AXLETRAC ALIGNMENT TOOL WORKS WITH:

- HUB PILOTED STYLE WHEELS.
- 10-HOLE, 285.75 MM/11.25" BOLT CIRCLE CONFIGURATIONS
- 8-HOLE, 275 MM/10.826" BOLT CIRCLE CONFIGURATIONS
- MOST CLASS 7 OR LARGER TRUCKS, TRACTORS, AND TRAILERS MANUFACTURED SINCE THE MID-1990S.

IMPORTANT: THE TOOL IS NOT COMPATIBLE WITH ANY OTHER HUB OR WHEEL STUD ARRANGEMENT.

TOOL COMPONENTS

AXLETRAC ALIGNMENT TOOL

- INCLUDES TWO (2) EXTENSION TUBES AND ONE (1) SPAN BAR PER WHEEL.
- ATTACHES TO HUB-PILOTED WHEEL STUDS FOR EACH SIDE OF THE AXLE BEING MEASURED.

THREADED END OF TUBE

- EACH EXTENSION TUBE FEATURES A THREADED BORE ON ONE END TO SCREW ONTO THE WHEEL STUDS SECURELY.

APPLY LUBRICANT SUCH AS SYNTHETIC GREASE OR EQUIVALENT TO SPAN BAR PINS PRIOR TO INSERTION EVERY TIME TO ENSURE SMOOTH INSERTION AND REMOVAL

TRAILER POSITIONING

PROPER STAGING PROCEDURES FOR SEMI-TRAILER ALIGNMENT

TO ACHIEVE AN ACCURATE ALIGNMENT, IT IS ESSENTIAL TO PROPERLY STAGE OR POSITION THE TRAILER IN THE WORK BAY. FOLLOW THESE STEPS PRECISELY:

1. PREPARE THE TRAILER FOR STAGING
   - ENSURE THE TRAILER IS COMPLETELY EMPTY BEFORE PROCEEDING.
   - BACK THE TRAILER INTO THE WORK BAY AS STRAIGHT AS POSSIBLE, ENSURING IT IS POSITIONED DEEP INTO THE BAY FOR OPTIMAL WORKING SPACE.
2. AVOID STEERING ADJUSTMENTS
   - WHILE BACKING UP, AVOID ANY SUDDEN "JACKS" OR STEERING CHANGES TO MAINTAIN ALIGNMENT ACCURACY.
3. SET TRAILER BRAKE, ADJUST TANDEM
   - ENGAGE THE TRAILER BRAKE AND SLIDE THE TANDEM AXLE TO THE REARMOST PINHOLE POSITION.
   - RELOCK THE SLIDER PINS SECURELY..
4. SNUG THE SLIDER PINS
   - GENTLY PULL THE TRAILER FORWARD TO SNUG THE SLIDER PINS AGAINST THE REARMOST AREA OF THE SLIDER RAIL HOLES. THIS SIMULATES THE VEHICLE'S CONFIGURATION WHEN TRAVELING ON THE OPEN ROAD.

5. RELEASE AND REALIGN THE TRAILER
   - RELEASE THE TRAILER BRAKES AND PULL THE TRAILER FORWARD APPROXIMATELY 10 FEET, ENSURING THE PULL IS AS STRAIGHT AS POSSIBLE.
6. SET THE RIDE HEIGHT
   - SET THE TRAILER BRAKES AGAIN AND DROP THE TRAILER TO THE SUGGESTED COUPLER RIDE HEIGHT, APPROXIMATELY 47 INCHES. WHICH SHOULD BE LISTED ON A VEHICLE PLACARD. IF NOT LISTED, CONTACT THE MANUFACTURER FOR THIS HEIGHT SETTING.
7. DISCONNECT AND HOOK SHOP AIR
   - DISCONNECT THE TRAILER FROM THE TRUCK.
   - HOOK SHOP AIR TO THE EMERGENCY GLAD HAND TO RELEASE THE TRAILER BRAKES FOR ALIGNMENT.

INSTALLATION

STEP 1: INSTALLING THE EXTENSION TUBES

IMPORTANT INSTALLATION NOTES

- PRECISION AND CARE: THE AXLETRAC ALIGNMENT TOOL IS A PRECISION-MADE TOOL. ALWAYS USE FINESSE, NOT FORCE, WHEN INSERTING THE SPAN BAR INTO THE EXTENSION TUBES.
- PROPER FIT: ONCE THE SPAN BAR IS INSERTED AND THE EXTENSION TUBES ARE RETIGHTENED, THE TOOL SHOULD BE SECURELY INSTALLED WITH NO SLACK OR MOVEMENT.

RUST PREVENTION AND CLEANING

APPLY PENETRATING OIL TO RUSTED WHEEL STUDS FOR EASY THREADING. USE A WIRE BRUSH IF NEEDED TO REMOVE RUST OR DEBRIS. LET THE OIL PENETRATE BEFORE ATTACHING EXTENSION TUBES.

- POSITIONING THE EXTENSION TUBES (FIG.1):
  - THREAD THE EXTENSION TUBES ONTO THE WHEEL STUDS OF THE HUB OF THE AXLE TO BE MEASURED, POSITIONING THEM 180 DEGREES APART, IDEALLY AT THE 12:00 O'CLOCK AND 6:00 O'CLOCK POSITIONS BASED ON VEHICLE ACCESSIBILITY.

FIG. 1

INSTALLATION

- THREAD DEPTH (FIG. 2 & 3):
  - THE EXTENSION TUBES ARE THREADED 3/4" DEEP.
  - FOR PROPER INSTALLATION:
    - ON SHORTER WHEEL STUDS: THREAD THE TUBES ONTO THE STUDS AND SNUG THEM AGAINST THE LUG NUT (FIG. 2).
    - ON LONGER WHEEL STUDS: THREAD THE TUBES ONTO THE STUDS UNTIL THE FULL THREADED TUBE DEPTH IS REACHED (FIG. 3).

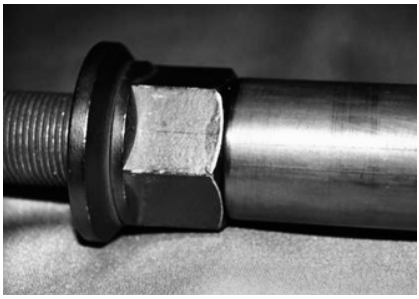

FIG. 2

FIG. 3

- MINIMUM THREAD REQUIREMENT (FIG. 4):
  - ENSURE AT LEAST FOUR (4) EXPOSED THREADS BEYOND THE LUG NUT FOR PROPER SEATING.
  - IF FEWER THAN FOUR EXPOSED THREADS ARE PRESENT, REMOVE THE LUG NUTS AT THE 12:00 O'CLOCK AND 6:00 O'CLOCK POSITIONS. THREAD THE EXTENSION TUBES ONTO THE WHEEL STUDS UNTIL FULLY SEATED.

FIG. 4

INSTALLATION

FIG. 5

STEP 2: INSTALLING THE SPAN BARS

- AFTER HAND-TIGHTENING THE EXTENSION TUBES, LOOSEN THEM SLIGHTLY BY ***TURNING THEM BACK ¼ TURN***.
- **APPLY LUBRICANT SUCH AS SYNTHETIC GREASE OR EQUIVALENT TO SPAN BAR PINS PRIOR TO INSERTION EVERY TIME TO ENSURE SMOOTH INSERTION AND REMOVAL.** (FIG. 5)
- CAREFULLY INSERT THE SPAN BAR INTO THE NON-THREADED BORE END OF THE EXTENSION TUBES.
- RETIGHTEN THE EXTENSION TUBES AFTER THE SPAN BAR IS PROPERLY INSERTED.

⚠ IMPORTANT NOTES:
DO NOT FORCE THE SPAN BAR INTO THE EXTENSION TUBES.
DO NOT USE HAMMERS OR OTHER TOOLS TO PUSH THE SPAN BAR INTO PLACE, AS THIS MAY DAMAGE THE TOOL AND AFFECT ALIGNMENT ACCURACY

INSTALLATION

STEP 3: SET UP KINGPIN CENTERPOINT

- INSERT THE KINGPIN OF THE TRAILER INTO THE CENTERING CONE OF THE KINGPIN EXTENDER POGO STICK. THE THUMBSCREW CAN BE LOOSENED TO ADJUST THE DEPTH OF THE CENTERING CONE AS NEEDED. THE KINGPIN MUST COME INTO CONTACT WITH THE INSIDE SLOPE OF THE CENTERING CONE EVENLY. (FIG. 6)
- CHECK LEVEL- THE POGO STICK IS EQUIPPED WITH A BUILT IN LEVEL NEAR THE BOTTOM END. USE THIS FEATURE TO CENTER THE AIR BUBBLE CONFIRMING THE KINGPIN EXTENDER POGO STICK IS PERFECTLY VERTICAL AND A SUITABLE REFERENCE POINT FOR ACCURATE AXLE MEASUREMENT.
- SECURE PLACEMENT – ONCE THE LEVEL CONFIRMS PROPER ALIGNMENT, ENSURE THE POGO STICK IS STABLE AND PROPERLY SEATED BEFORE PROCEEDING WITH ALIGNMENT MEASUREMENTS.

⚠ IMPORTANT NOTES:

- DO NOT PROCEED WITH ALIGNMENT UNTIL THE POGO STICK IS FULLY LEVEL AND SECURE.
- ENSURE THERE ARE NO OBSTRUCTIONS AROUND THE KINGPIN AREA THAT COULD INTERFERE WITH THE POSITIONING.
- UTILIZE PLUMB BARS AS NEEDED TO AVOID ANY OBSTRUCTIONS AND ENSURE PROPER ALIGNMENT. FIG. 7

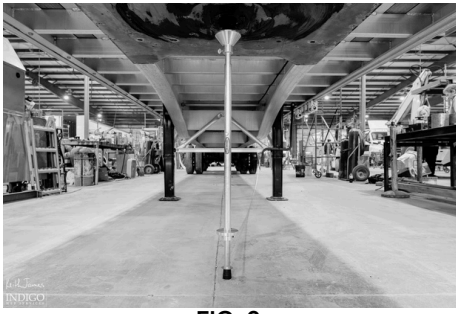

FIG. 6

FIG. 7

INSTALLATION

STEP 4: ALIGNMENT MEASUREMENT

- FIG. 7 WITH THE AXLETRAC ALIGNMENT TOOLS INSTALLED MEASUREMENTS MAY BE TAKEN FROM THE ORIGIN OF REFERENCE OR THE KINGPIN. ALWAYS USE A TENSION METER FOR ACCURACY OF MEASUREMENTS.

FIG. 7

ACCURACY OF ALIGNMENT

ACCURACY TEST WERE PERFORMED BY RESTING A DIAL INDICATOR AGAINST THE CENTER POINTER OF THE AXLETRAC ALIGNMENT DEVICE AND ROTATING THE HUB 180 DEGREES. THAT DISTANCE IS DIVIDED BY 2 TO DETERMINE THE DEVIATION FROM TRUE CENTER. THE DEVICE WAS INSTALLED ON EACH OF THE FIVE AVAILABLE POSITIONS ON THE HUB. THE DEVICE WAS THEN INSTALLED AGAIN ON THE SAME FIVE POSITIONS TO RECORD AND COMPARE THE CONSISTENCY OF THE TOOL.

WARRANTY

WARRANTY

Axletrac Alignment Tools Inc. warrants this product, including axle end extenders, against defects in materials or workmanship for a period of three (3) years from the date of purchase. If a defect arises during this period, the product will be repaired or replaced, at our discretion, at no charge to the customer.

CONDITIONS

- Customers must ship the product prepaid to an authorized Axletrac Alignment Tools dealer for evaluation.
- Proof of purchase is required for warranty claims.
- This warranty does not cover accessories or damage caused by misuse, alteration, improper maintenance, accidents, or normal wear and tear.

LIMITATIONS

- Axletrac Alignment Tools Inc. is not responsible for any incidental, consequential, or indirect damages resulting from the use or inability to use this product.
- This warranty is limited to repair or replacement of the defective product.

State/Province-Specific Rights:
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or province to province.

For questions or assistance, contact Axletrac Alignment Tools Inc. at axletracalignmenttools.com or 812-406-8552.

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CONTACT US

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