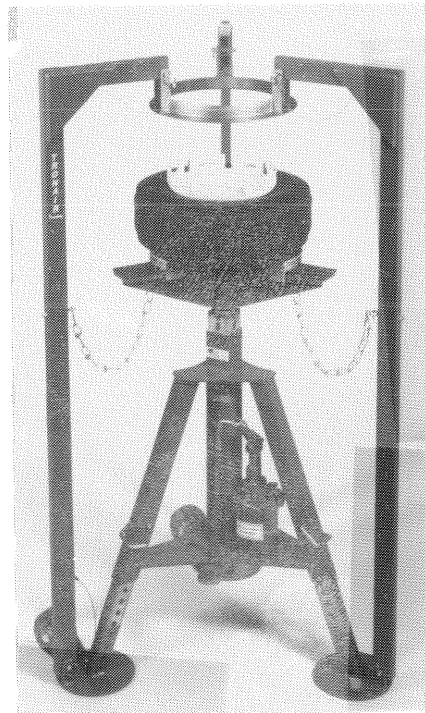


OPERATION & SERVICE MANUAL

MODEL:

14-6801-0100

HYDRAULIC TIRE BEADBREAKER



1.0 GENERAL DESCRIPTION

The Tronair Model 14-6801-0100 Hydraulic Tire Bead-breaker is an easy to use device for breaking the tire bead from rims of up to 19 inches in diameter. It is also a handy assembly tool that will reduce the tire side wall height while assembling the rim assembly.

This tire beadbreaker is especially suited for breaking down and building up the Goodyear forged aluminum wheel with demountable flange (split ring) currently used on the Sabre 65 and Grumman III aircraft.

2.0 TECHNICAL SPECIFICATIONS

Construction: All steel welded frame and members.

Power Source: Two (2) ton hydraulic force; foot operated pump.

Capacity: Rim sizes from 5 inches to 19 inches O.D.

Ring Sizes: There are eight (8) standard ring sizes available; 8", 9", 11", 13", 15", 17", 18", and 19".

NOTE

IF YOU REQUIRE A RING SIZE
THAT IS BETWEEN 6" AND 20"
AND IS NOT LISTED, PLEASE
CONTACT TRONAIR SALES.

3.0 PREPARATION FOR USE

- 1) Refer to the illustrated parts breakdown in this manual.
- 2) The Model 14-6801-0100 Hydraulic Beadbreaker is shipped fully assembled and ready to use. Remove all packaging material and discard.
- 3) Check reservoir fluid level; allow no more than 1/8" down.

The type of hydraulic fluid is MIL-H-5606.

4.0 OPERATION

WARNING

- ALWAYS FOLLOW TIRE AND WHEEL MANUFACTURER'S INSTRUCTIONS AND PROCEDURES RELATIVE TO THEIR RESPECTIVE PRODUCTS.
- DO NOT ATTEMPT TO DISASSEMBLE WHEEL UNTIL TIRE HAS BEEN COMPLETELY DEFLATED; OTHERWISE, SERIOUS INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN RESULT.
- DO NOT ATTEMPT TO REMOVE VALVE CORE UNTIL TIRE HAS BEEN COMPLETELY DEFLATED. VALVE CORES WILL BE EJECTED AT HIGH VELOCITY IF UNSCREWED BEFORE AIR PRESSURE HAS BEEN RELEASED.

4.1 BOLTED/SPLIT WHEEL ASSEMBLIES

To break the tire bead on this type of wheel assembly:

- 1) Deflate the tire and remove the valve core.
- 2) Select the proper tire ring, reference the tables located in the Parts List section of this manual, and install.
- 3) Adjust the mechanical leg extensions so that the tire/wheel assembly is within approximately two (2) inches of the tire ring or at its maximum height.

CAUTION

- DO NOT GO BEYOND THE LAST HOLE IN THE EXTENSION TUBE.
- EXTEND MECHANICAL LEG EXTENSIONS EQUALLY; WHEEL SUPPORT MUST BE LEVEL.

4.1 BOLTED/SPLIT WHEEL ASSEMBLIES (Continued)

- 4) Place tire/wheel assembly onto the wheel support and center.
 - o Depending on the wheel configuration, the movable support pads may be or may not be required. If not required, slide the three support pads to the middle of the wheel support so they are out of the way.

CAUTION

THE WHEEL RIM MUST REST
SOLIDLY ON EITHER THE WHEEL
SUPPORT PROPER OR ON THE
SUPPORT PADS.

- 5) Using the beadbearer hydraulics, lift the tire/wheel assembly. As the tire nears contact with the tire ring, center the tire around the wheel.

CAUTION

THE TIRE RING AND WHEEL MUST
HAVE AT LEAST 1/4 INCH CLEAR-
ANCE AND MUST HAVE COME IN
CONTACT WITH THE WHEEL PROPER.

- 6) Continue lifting tire/wheel assembly until the tire bead has broken loose from the wheel assembly.
- 7) Lower and remove the tire/wheel assembly. Flip tire/wheel assembly and repeat steps 4 through 6.

4.2 GOODYEAR WHEEL WITH DEMOUNTABLE FLANGE (DISASSEMBLY)

To break the tire bead on this type of wheel assembly:

- 1) Deflate the tire and remove the valve core.

4.2 GOODYEAR WHEEL WITH DEMOUNTABLE FLANGE (DISASSEMBLY)
(Continued)

- 2) Select the proper tire ring, reference the tables located in the Parts List section of this manual, and install.
- 3) Adjust the mechanical leg extensions so that the tire/wheel assembly is within approximately two (2) inches of the tire ring or at its maximum height.

CAUTION

- o DO NOT GO BEYOND THE LAST HOLE IN THE EXTENSION TUBE.
- o EXTEND MECHANICAL LEG EXTENSIONS EQUALLY; WHEEL SUPPORT MUST BE LEVEL.

- 4) Place tire/wheel assembly onto the wheel support and center.
- 5) Slide the support pads under the wheel rim.

CAUTION

THE WHEEL RIM MUST REST
SOLIDLY ON THE SUPPORT PADS.

- 6) Using the beadbreaker hydraulics, lift the tire/wheel assembly. As the tire nears contact with the tire ring, center the tire ring around the wheel.

CAUTION

THE TIRE RING AND WHEEL
MUST HAVE AT LEAST 1/4 INCH
CLEARANCE AND MUST NEVER
COME IN CONTACT WITH THE
WHEEL PROPER.

4.2 GOODYEAR WHEEL WITH DEMOUNTABLE FLANGE (DISASSEMBLY)
(Continued)

- 7) Continue lifting tire/wheel assembly until the tire bead has broken loose from the wheel demountable flange and the demountable flange has shifted downward exposing the wheel split ring and clip.
- 8) Remove the wheel split ring.
- 9) Lower the tire/wheel assembly by releasing the beadbreaker hydraulics.
- 10) Remove the wheel demountable flange if possible. If still tight on the wheel, carefully flip the tire/wheel assembly on the wheel support and re-center.
 - o The support pads must now be relocated.

CAUTION

THE SUPPORT PADS MUST BE LOCATED BENEATH THE WHEEL RIM; HOWEVER, JUST INSIDE THE RIM O.D. SO THAT THERE IS CLEARANCE FOR THE DEMOUNTABLE FLANGE TO PASS WITHOUT CONTACT WITH THE SUPPORT PADS.

- 11) Using the beadbreaker hydraulics, lift the tire/wheel assembly. As the tire nears contact with the tire ring, center the tire ring around the wheel.

CAUTION

THE TIRE RING AND WHEEL MUST HAVE AT LEAST 1/4 INCH CLEARANCE AND MUST NEVER COME IN CONTACT WITH THE WHEEL PROPER.

4.2 GOODYEAR WHEEL WITH DEMOUNTABLE FLANGE (DISASSEMBLY)
(Continued)

- 12) Continue lifting the tire/wheel assembly until both the tire bead has been broken loose from the wheel assembly and the demountable flange has been pushed off the "O" Ring; should be resting on the wheel support proper.
- 13) Lower the tire/wheel assembly and carefully remove the component parts.

4.3 GOODYEAR WHEEL WITH DEMOUNTABLE FLANGE (ASSEMBLY)

To install a tire on this wheel assembly:

- 1) Remove two (2) of the three (3) pins holding the tire ring in place and flip the ring out of the way.
- 2) Place the wheel on the wheel support and center.
 - o The support pads are not required here and should be slid to the middle of the wheel support.

CAUTION

**THE WHEEL RIM MUST REST
SOLIDLY ON THE WHEEL SUPPORT**

- 3) Install tire onto wheel following manufacturer's instructions for alignment.
- 4) Re-install the tire ring.
- 5) Compress tire by lifting the wheel with the beadbreaker hydraulics. The tire ring must be centered on the tire.
- 6) Complete the installation of the 10" ring, demountable flange, split ring, retaining clip and safety wire per manufacturer's instructions.
- 7) Lower the tire/wheel assembly and remove from the wheel support.

5.0 MAINTENANCE

- A) Periodically perform a visual inspection of the beadbreaker assembly. Repair or replace suspect parts.
- B) Maintain the correct hydraulic oil level in the pump reservoir. Ref. 3.0 item 3.

PARTS LIST

PRODUCT: MODEL 14-6801-0100
HYDRAULIC TIRE BEADBREAKER

DATE: 03/08/90

The following is a listing of available tire rings for use on tires:

TO DETERMINE THE RING SIZE YOU REQUIRE,
ADD 0.55 TO THE WHEEL MAXIMUM O.D. THEN
ROUND THIS NUMBER TO THE NEXT HIGHER
WHOLE NUMBER.

<u>SIZING NO.</u>	<u>WITHOUT CHINES</u>	<u>WITH CHINES</u>
6	Z-1063-06	Z-1064-06
7	Z-1063-07	Z-1064-07
8	Z-1063-08	Z-1064-08
9	Z-1063-09	Z-1064-09
<u>10</u>	<u>Z-1063-10</u>	<u>Z-1064-10</u>
11	Z-1063-11	Z-1064-11
12	Z-1063-12	Z-1064-12
13	Z-1063-13	Z-1064-13
14	Z-1063-14	Z-1064-14
<u>15</u>	<u>Z-1063-15</u>	<u>Z-1064-15</u>
16	Z-1063-16	Z-1064-16
17	Z-1063-17	Z-1064-17
18	Z-1063-18	Z-1064-18
19	Z-1063-19	Z-1064-19
<u>20</u>	<u>Z-1063-20</u>	<u>Z-1064-20</u>

EXAMPLE: For a wheel O.D. of 11.62 inches, the calculation is as follows:

STEP #1 11.62 Inches max. wheel O.D.
 + 0.55 Tronair standard size factor
 = 12.17

STEP #2 Round to next whole number; gives 13

STEP #3 A 'sizing no.' of 13 dictates a
 Z-106X-13 tire ring.

TRONAIR

3/90

AIRCRAFT GROUND SUPPORT EQUIPMENT

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CUSTOMER PARTS LIST

14-6801-0100

PRODUCT HYDRAULIC TIRE BEADBREAKER

DATE 03/06/92

<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	HC-1024 **	PUMP	1
2	K-1274	CYLINDER SEAL KIT	1
3	H-1024-01*13.3	2/0 DOUBLE LOOP CHAIN	3
4	G-1202-1050	ELASTIC STOPNUT - 1/4-20	3
5	H-1518-03	'S' HOOK 3/16" WIRE x 2" LONG PLATED STEEL	3
6	G-1335-03	EYEBOLT 1/4-20, 3" SHANK	3
7	H-1025	RETAINER RING - SPLIT	3
8	Z-1069	ARM WELDMENT	3
9	H-1026*12.0	CABLE	6
10	G-1307-0618	PIN	6
11	Z-1063	TIRE RING - NO CHINES	*
	Z-1064	TIRE RING - CHINES	*
12	H-1023	PAD - NEOPRENE	3
13	Z-1073	SUPPORT PAD	3
14	H-1022	PAD - NEOPRENE	3
15	Z-1066	WHEEL SUPPORT	1

* REQUIRED, SEE ATTACHED PAGES

** SEE INS-1107 FOR PUMP BREAKDOWN

ORDERING: When ordering spare parts or replacement parts, please call out item no., part no., description, equipment model no., serial no. (if available), and parts list date.

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