

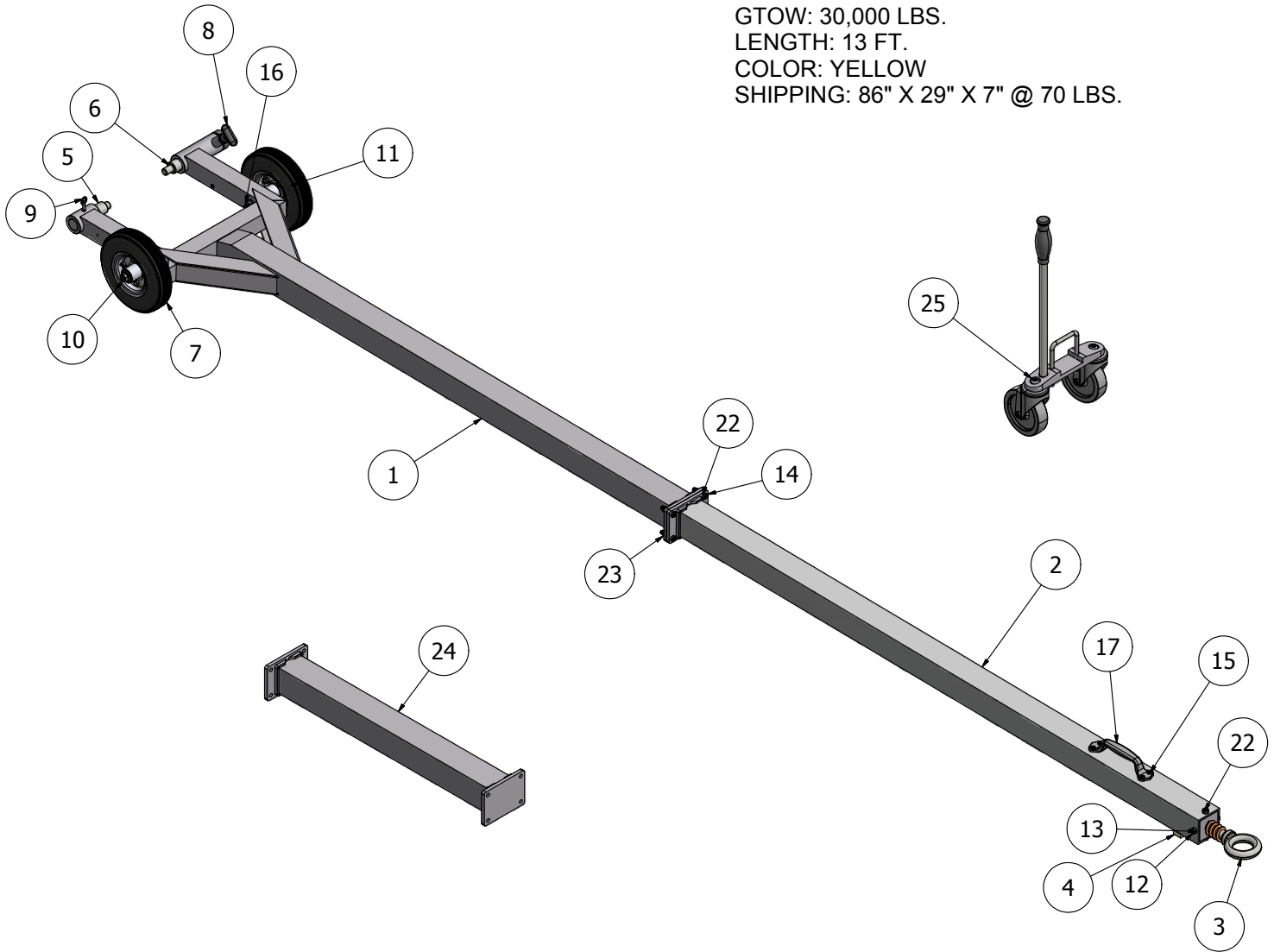


BRACKETT AIRCRAFT COMPANY INC.

www.brackettaircraft.com

HT-60A

USE ON: UH-60 BLACKHAWK & S-70
 GTOW: 30,000 LBS.
 LENGTH: 13 FT.
 COLOR: YELLOW
 SHIPPING: 86" X 29" X 7" @ 70 LBS.



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	HT60A-01-00	AFT FRAME ASSEMBLY
2	1	HT60-04-00A	FORE FRAME ASSEMBLY
3	1	HT60A-2000R	SHOCK RING ASSEMBLY
4	1	HT60-03-02	SCUFF PAD
5	1	HT60A-02-00	PIN
6	1	HT47-02-00	PIN ASSEMBLY
7	2	W-28040	W-2.80/2.50-4 TIRE/WHEEL ASM.
8	1	90222A112	LOCKING PIN ASSEMBLY
9	1	98470A140	1/4 X 2 QUICK RELEASE PIN S.S.
10	2	91257A736	1/2-13 X 6 BOLT
11	4	90126A033	1/2 SAE WASHER
12	4	92620A622	3/8-16 X 3/4 BOLT
13	4	91101A031	3/8 LOCK WASHER
14	4	91257A657	3/8-24 X 1 1/2 BOLT
15	4	90273A540	1/4-20 X 3/4 FLAT HEAD SCREW
16	2	92018A540	1/2-13 HEX FLANGE LOCK NUT
17	1	32817827	7" ZINC PLATED HANDLE
18	1	90272A827	10-32 X 3/8 PAN HEAD SCREW
19	2	92620A537	1/4-20 X 1/2 BOLT
20	2	90273A831	10-32 X 3/4 FLAT HEAD SCREW
21	4	AELS8-420-260	1/4-20 INSERT
22	8	AN960-616	3/8" WASHER
23	4	97135A235	3/8-24 LOCK NUT
24	OPT.	HT-60-25-00	OPTIONAL 30" EXTENSION
25	OPT.	HT-60A-WHKT	OPTIONAL WHEEL KIT



HT-60A

Assembly Instructions

After removing from box/crate, layout parts as pictured in HT-60A information drawing. Most of the hardware is installed at the proper location for assembly.

1. Assemble frame pieces, item 1 and item 2 with bolts, washers and nuts – provided on location. Remove hardware, place frame pieces together, reinsert bolt, washer and nut after all the hardware is installed. Tighten or torque to approximately 30ft-lbs.
2. Install wheels with bolt, washer, wheel, frame and flange nut. Tighten only until no side play of wheel. Check wheel rotates freely. Over tightening can damage wheel bearings.

Pre-Install Checklist

Start at Ring Hitch, work back to attach pins.

1. Ring Hitch – Check springs, eyebolt is not bent, and bolts are secure.
2. Check bolts at the middle flanges are secure.
3. Check wheels by lifting one side off the ground. Should rotate freely.
4. Look for cracks in welds or bent frame pieces.
5. Set Adjustable Pin for type of helicopter being towed.
6. Check Sliding Pin locks when pushed to the inside of frame. Then set pin to the outside of frame for installation on helicopter.

Operation

Attaching onto Helicopter

1. Detach from Tug and roll up to tail wheel.
2. Set Adjustable Pin to aircraft type and Slider Pin in the open detent.
3. Lift frame to wheel axle height and slide the Fix Pin (5) into the axle.
4. Next, push the black knurl knob of the Slider Pin (6) until the spring lock engages.
5. Now you can reattach the Towbar Ring onto the Tug hitch. See “**EYEBOLT AND PINTLE PIN SIZE**” information sheet, page 4.
6. Move according to “**ROBERT’S RULES FOR TOWING**” information sheet, page 5.

Remove Towbar from Helicopter

1. Detach from Tug and set on ground.
2. Pull and hold Lock Pin out of Slider Pin (6) until you pull the black knurl knob out of the tail wheel axle.
3. Hold and wiggle the frame to remove Fix Pin (5) from the axle.
4. Take Towbar back to storage to protect from inclement weather, or as needed.



HT-60A

Maintenance

Maintenance should be annual, or as needed.

1. Shock Ring - HT60A-200 (3)
 - A. Remove the Shock Ring Assembly by removing 4 each $\frac{3}{8}$ – 16 x $\frac{3}{4}$ bolts. Slide out the assembly. Look at the inner spring. If broken, replace. Once removed, grease inner block outside and shaft hole with Aeroshell #64 (old # 33 MS). Grease only front block shaft hole and shaft. Now replace Shock Ring Assembly back into the forward frame and tighten bolts 20 – 25 ft. lbs.
2. 7" Zinc Handle (17)
 - A. Check and look for damage, replace if necessary. Tighten screws 5 ft. lbs.
3. Check torque on flange $\frac{3}{8}$ " bolts (14) at 30 ft. lbs. Look for flange weld cracks – call Brackett Aircraft Co., Inc. for repairs or to replace.
4. Wheels (7) should rotate freely and smoothly. Bearings are sealed and cannot be greased. If making noise, replace wheel assembly. Also, replace when tread depth is $\frac{3}{32}$ " (2.4 mm) or less.
5. Check Fix Pin (5) moves back and forth easily and Release Pin (9) slides in smoothly. A light coat of Aeroshell #64 on Release Pin and Fix Pin works best.
6. Use a light coat of Aeroshell #64 on the moving part of Slider Pin (6).
7. Check Locking Pin (8). Lock when pin is pushed inside of frame. If not, replace.
8. Look over complete frame for damaged tubes or cracked welds. Call Brackett Aircraft Co., Inc. for repair or to replace.

FAILURE TO FOLLOW ANY OF THE ABOVE PROCEDURES MAY CAUSE FAILURE OF THE UNIT, CREATE HAZARDOUS TOWING CONDITIONS RESULTING IN DAMAGE TO THE AIRCRAFT, AND CAN INJURE PERSONNEL AROUND THE AIRCRAFT

BRACKETT AIRCRAFT CO., INC.

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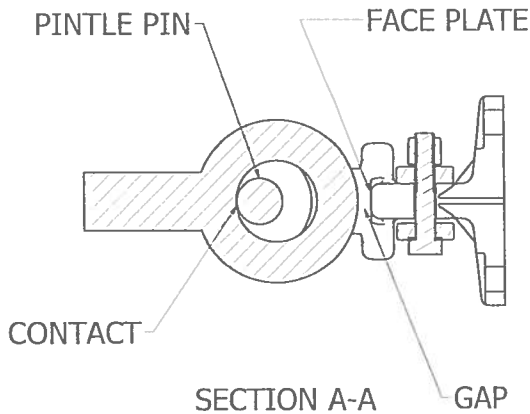


EYEBOLT AND PINTLE PIN SIZE:

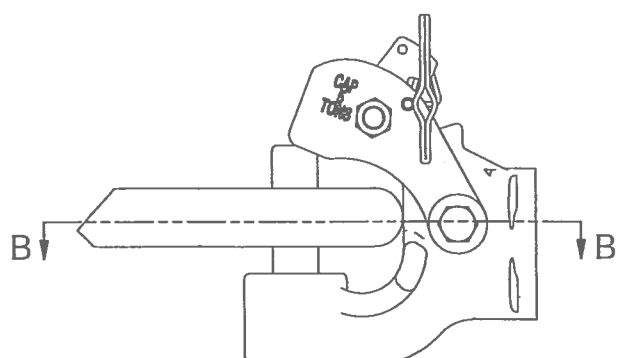
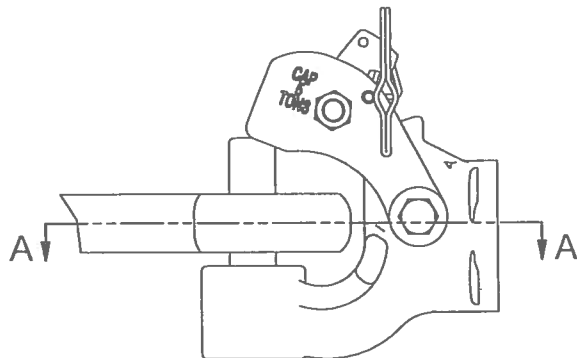
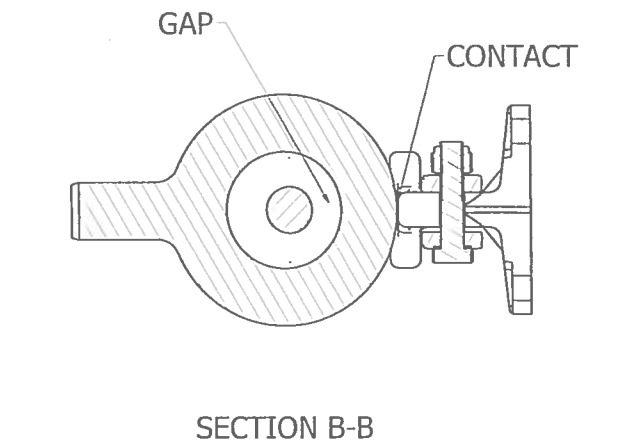
Damage to the tow bar or aircraft can result by towing or pushing an aircraft with an incorrect size eyebolt or pintle pin. A correct size eyebolt will make contact with the pintle pin. A gap between the eyebolt outside diameter and the coupler face plate should be easily seen. An eyebolt that is too large will cause the eyebolt to make contact with the face plate of the coupler. When the eyebolt is too large for the coupler, a gap between the inside diameter of the eyebolt and the pintle pin plate will be seen. (Detail B-B).

To ensure proper towing and pushing, check that the pintle pin diameter is not too large for the eyebolt's inside diameter. Approximately a one-half inch (1/2") gap between the pin diameter and the eyebolt I.D. should be seen. If any of these conditions are not met, please contact Brackett Aircraft for information to obtain a new coupler.

CORRECT



INCORRECT



ROBERT'S RULES FOR TOWING

1. INSPECTION

Prior to hooking up the Towbar to the tug, make a quick visual inspection of the Towbar. Check for a bent or damaged frame and for worn or missing parts. Check tire pressure. Check that you have the proper head installed. DO NOT attempt to tow any aircraft with a damaged or improper Towbar.

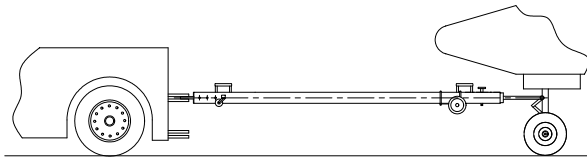
2. RESPONSIBILITY

Operator of the tug must understand that it is his/her responsibility to move the aircraft safely from "Point A" to "Point B". NO HOT RODDERS.

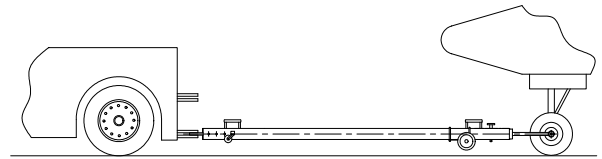
3. HOOK UP

When hooking the Towbar to the tug, three things are necessary:

1. The proper tug and Towbar for the size aircraft being moved.
2. The Towbar must be approximately level between the aircraft and the tug.
3. The hitch on the Towbar must move freely on the hitch mounted on the tug.



CORRECT



CORRECT

BASIC TOWING RULES

1. Prior to moving, make sure that full swivel release pins are released (if applicable). Also, double check that all the tie downs and chocks are removed, and aircraft brakes are released.
2. TOW SLOW, max speed, a brisk walk.
3. NOSE WHEEL TOWING LIMITS: Do not exceed towing limits. If not marked or not known, do not exceed 30° from center. Be extra cautious on snow and ice.
4. To prevent hangar rash when squeezing the birds together an extra set of eyes helps.
5. Push at a creep to minimize chance of jack-knife" Think Safety" and use common sense.

NOTE: Thousand of dollars in damage can occur in a few seconds while towing. It is estimated that 90% of towing damage is due to operator negligence. We all know when it's raining or -10° below zero and you're on an open tug it's tough to go at a walking speed.

**Thanks for reading the rules.
Roy Brackett, Brackett Aircraft Co., Inc.**