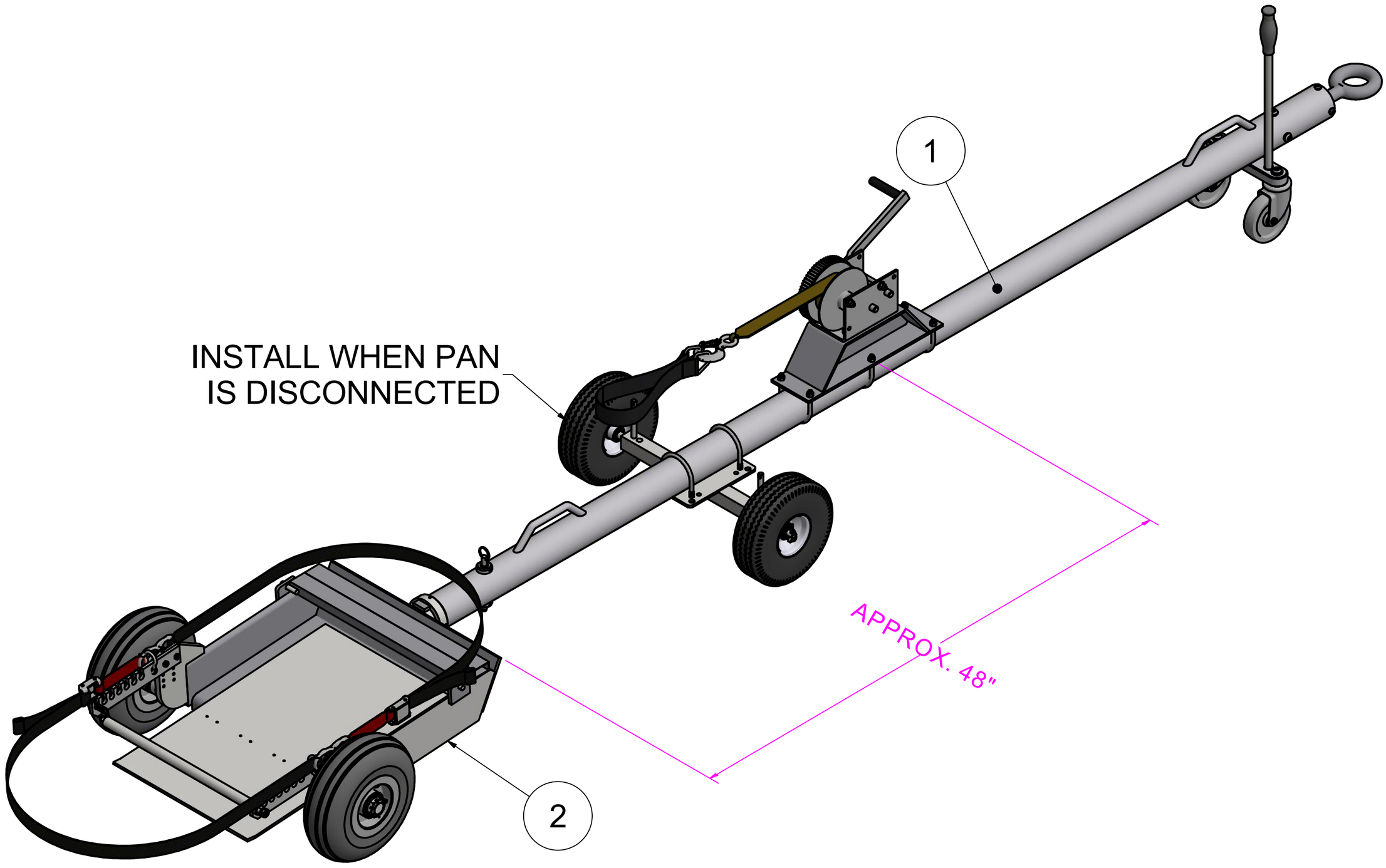
BAC

BRACKETT AIRCRAFT COMPANY INC.

www.brackettaircraft.com

TY-TB-FTD FLAT TIRE DOLLY

USE ON:
GTOW:
LENGTH:
COLOR: YELLOW
SHIPPING:



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	TY-TB75	TOW BAR
2	1	TY-PH12	FLAT TIRE DOLLY

8/31/2015

BAC

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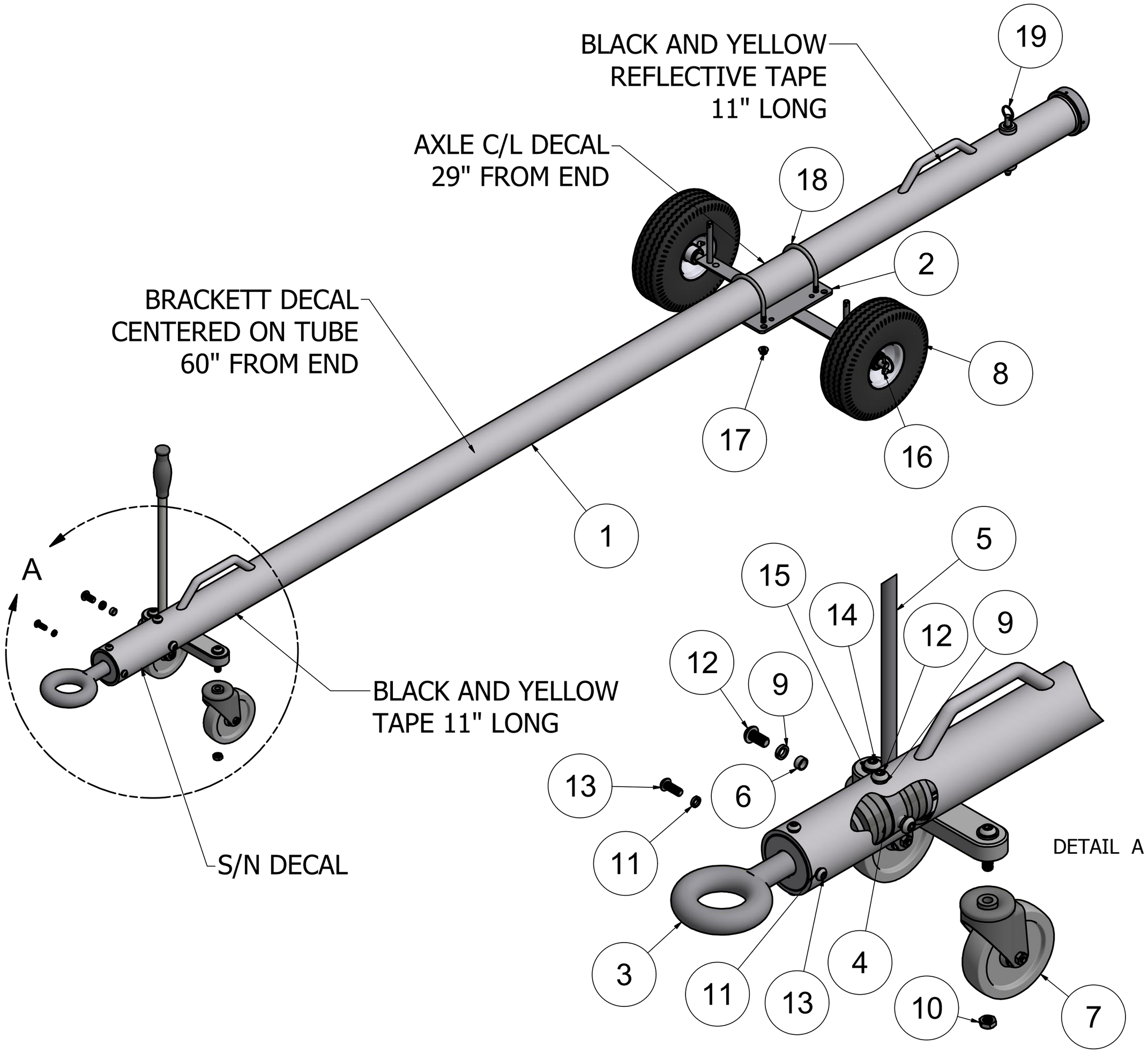
TY-TB75 & TY-TB75-3 TOW BAR



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	TY-TB-75-01-00	FRAME ASSEMBLY
2	1	TY-TB-125-04L	WHEEL ATTACH ASSEMBLY
3	1	TY-TB-75-07-01A	SHOCK RING ASSEMBLY
4	6	TY-TB-75-02-06	NEOPRENE WASHER
5	1	TY-TB-125-10-00	HANDLE
6	4	TY-TB75-16	5/8 O.D. BUSHING
7	2	HM-101	CASTER WHEEL
8	2	W-41040	TIRE/WHEEL ASSEMBLY
9	4	91102A770	1/2 LOCK WASHER
10	2	94945A224	1/2-13 NYLON-INSERT THIN LOCKNUT
11	4	91104A031	3/8 LOCK WASHER
12	4	91306A432	1/2-13 X 1 BHCS
13	4	91306A419	3/8-16 X 1 BHCS
14	2	91255A050	1/2-13 X 2 1/4 BHCS
15	2	91950A033	1/2 SAE WASHER
16	2	90170A650	3/16 X 1 5/8 PIN WITH LOCK RING
17	4	92018A430	3/8-16 FLANGE LOCKNUT
18	2	3043T638	3/8-16 X 1 1/4 FOR 3 1/2 DIA. TUBE U-BOLT
19	1	98485A526	1/2 X 4 5/8 QUICK RELEASE PIN
20	1	90248A051	1"-8 TAP SIZE 3/4-10 THREAD SIZE INSERT

6/3/2015

BRACKETT AIRCRAFT COMPANY INC.

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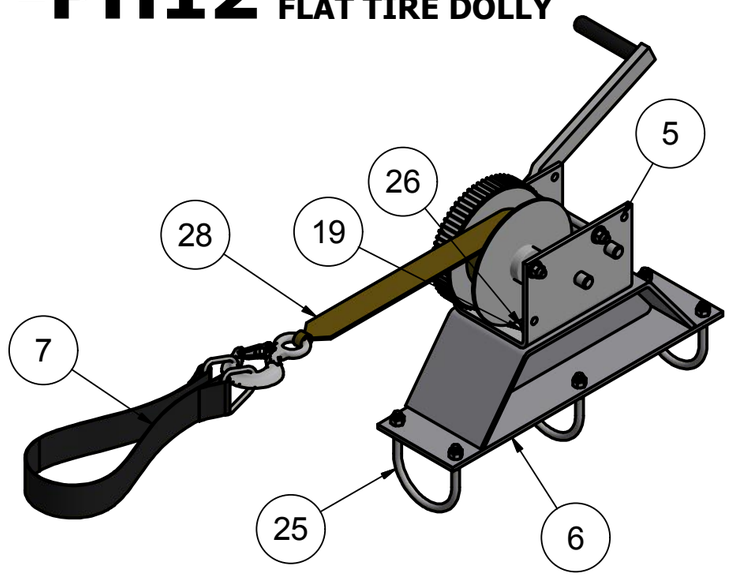
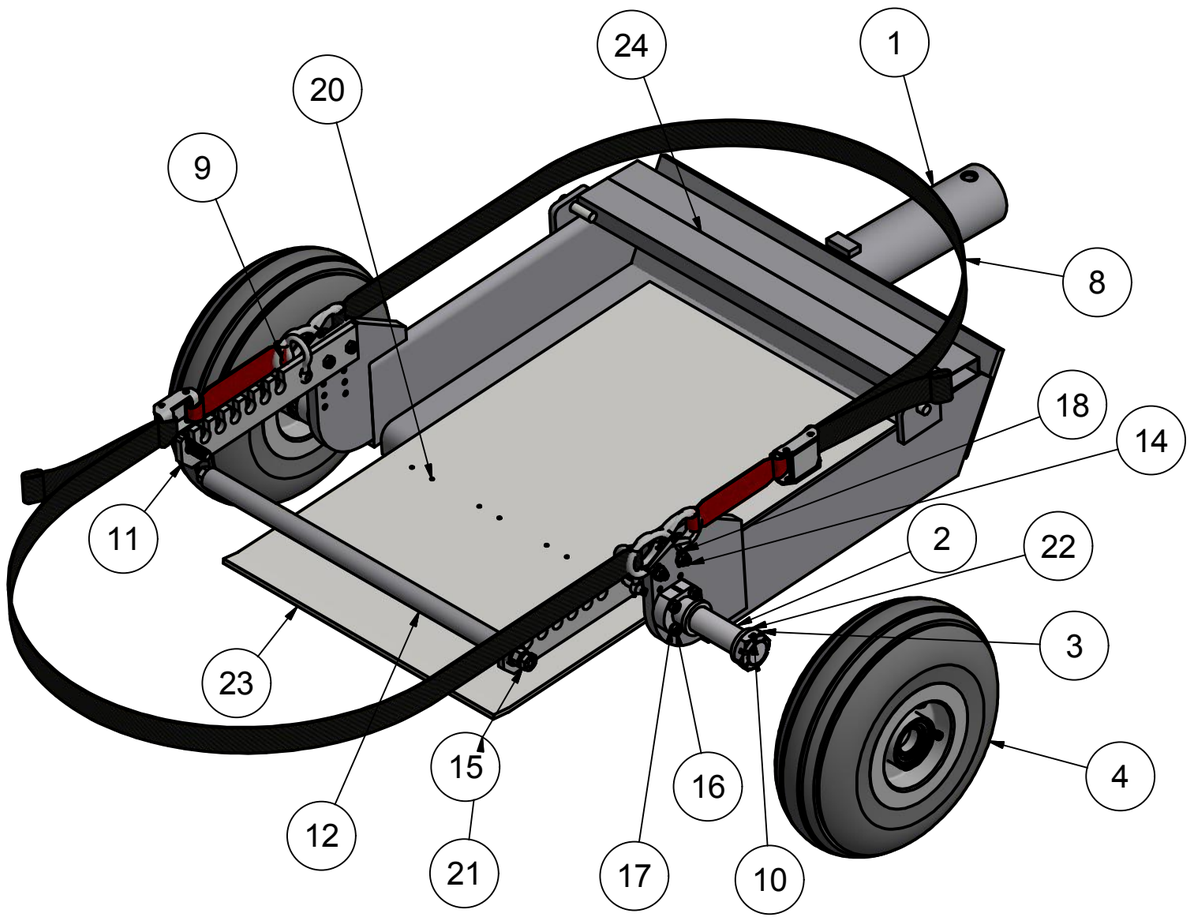
TY-PH12 FLAT TIRE DOLLY

USE ON: FRONT NOSE WHEELS
WEIGHT CAPACITY: 6,000 LBS.

LENGTH: 2 $\frac{1}{2}$'
COLOR: YELLOW
SHIPPING: 48" X 40" X 25" @ 290 LBS. (PALLETIZED)





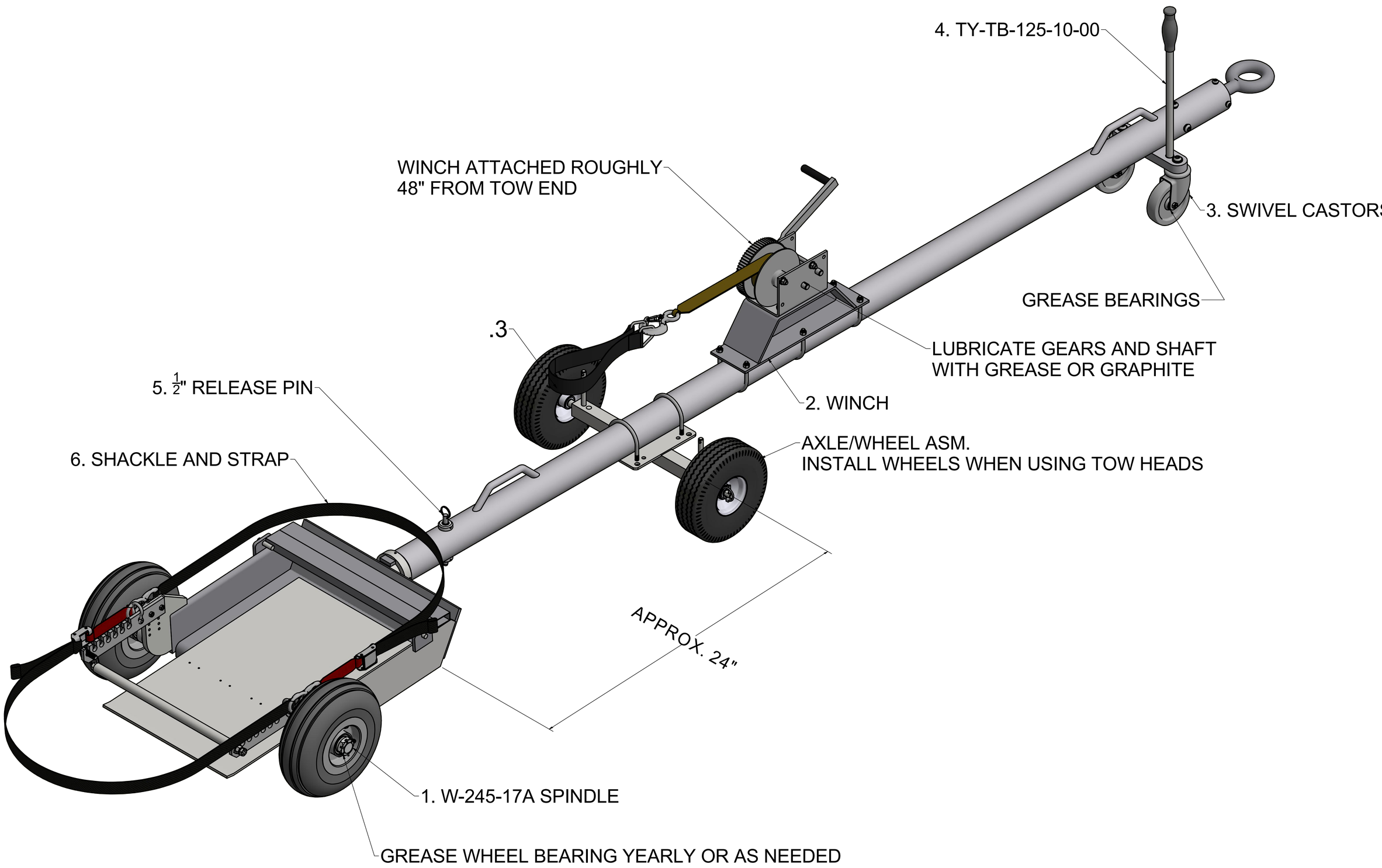
PARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	T-12-100T	FRAME ASSEMBLY
2	2	W-245-17A	BASIC SPINDLE
3	2	W-245-25B	CASTLE NUT
4	2	W-500514	TIRE/WHEEL ASSEMBLY
5	1	DL-3200A	WINCH
6	1	TY-PH12-02-00	WINCH MOUNT ASM.
7	1	T-12-800	STRAP ASSEMBLY
8	2	T-12-701	ADJUSTABLE STRAP (INCLUDES EXTRA REPLACENT STRAP)
9	2	35355T25	5/16" SHACKLE
10	2	98338A479	1/8 X 1 3/4 COTTER PIN
11	2	T-12-110-1	SPACER BAR
12	1	T-12-900	REAR STOP
13	3	90630A121	LOCKNUT 3/8-16
14	4	91286A189	5/16-24 X 1 1/2 BOLT
15	2	91286A318	BOLT 1/2-13 X 1 1/2
16	8	92620A585	5/16-18 X 1 1/4
17	8	98437A112	5/16 HIGH COLLAR LOCK WASHER S.S.
18	4	93298A125	5/16-24 FLANGE NUT
19	3	91104A031	3/8 LOCK WASHER
20	16	90273A827	10-32 X 3/8 FLAT HEAD SCREW
21	4	1488A130	1 15/16 X 1 15/16 HINGE S.S.
22	4	W-245-19	RING
23	1	TY-PH12-03-00	FLAPPER ASSEMBLY
24	1	T-12-200A	WHEEL STOP
25	3	3043T638	3/8-16 X 1 1/4 FOR 3 1/2 DIA. TUBE U-BOLT
26	3	91286A627	3/8-16 X 1 BOLT
	1	6551	REPLACEMENT WINCH STRAP (6600 LBS.)

11/13/2017

BRACKETT AIRCRAFT CO., INC.

ASSEMBLY SET UP INSTRUCTIONS



MODEL TY-TB-FTD

SET-UP INSTRUCTIONS

1. Install wheels, slotted nut and cotter pin.
2. Install winch and winch mounting plate 48” centerline from tow end with 3 ea. U-Bolts.
3. Install swivel casters HM-101 on bottom of lugs of tow ring end.
4. Install TY-TB-125-10-00 Handle into socket on tow ring end.
5. Install FTD dolly assembly into towbar with ½” release pin.
6. Install shackles per print and attach hold down strap.
7. Install axle/wheel asm. with tow heads.

5-9-16

TOWBAR AND FLAT WHEEL DOLLY
MODEL TY-TB-FTD

OPERATING INSTRUCTIONS – *PLEASE READ PRIOR TO OPERATING*

NOTE:
CHECK RECEIVER HITCH HEIGHT 12" – 16" FROM THE GROUND. THIS HEIGHT IS A 10° INCLINE ON THE PAN FOR EASY UNLOADING OF THE NOSE WHEEL.

General Towing of Aircraft
NLG

1. Drive the "FTD" up to the nose wheel - centering the wheel.

   A) Remove the rear safety stop. Then rotate the front stop AFT for tire size 5.00 x 5 (14" dia.) and smaller or forward for larger tires or remove for very large tires (24" dia. or greater).
   B) Place the winch nose strut strap around the nose (use either long or short strap to give clearance). Then winch the aircraft into the pan and against front wheel stop.
   C) Now place the tie-down straps over the top of the wheel, front and rear of the nose gear. Pull tight on the straps. This keeps the nose wheel from moving up and down in the pan. *See picture below.*

   D) Replace rear wheel stop in the closest slot behind tire.
   E) Now ready for towing - SLOW

Reverse procedures to unmount from pan.

TOWBAR AND FLAT WHEEL DOLLY
MODEL TY-TB-FTD

Flat Nose NLG Wheel Towing

1. Same procedure as General Towing NLG.
   A) Attach to tug.

Main Gear Towing (Max WT. on pan 6,000 lbs)

2. Drive the tow pan close to the flat tire.
   A) Remove Towbar from tug and roll up to flat tire.
   B) Remove the rear safety stop and front stop before winching into pan.
   C) Place the longer strut strap around the gear missing fragile fittings and gear doors.
   D) While winching into pan, a second person will need to hold the Towbar straight. As the load increases, the Towbar will want to swing left or right. Just try to hold it straight forward, parallel with the nose of the aircraft. Stop winching 2-3" forward of the dolly wheels. The further forward in the pan more weight will be on the Towbar ring hitch.
   E) Now place the front and rear tie-down straps over the main gear tire. Also place rear stop in closest slots behind wheel.

   F) Attach tug to nose wheel, tow and move very slowly. Another person needs to walk and guide the flat tire dolly with steering handle (4) to your destination.

- ***REMEMBER GO SLOW, MAX 2 MPH. PLAN AHEAD. DO NOT OVER TURN.***
- ***KEEP A FIRM GRIP ON WINCH HANDLE WHEN LETTING OFF PAN.***
- ***DO NOT LET IT FREE WHEEL.***

MODEL TY-TB-FTD

Maintenance Instructions

The following is the suggested maintenance schedule for Brackett Flat Tire Dolly:

Pre-Install Checks:

- Replace damaged or worn straps;
- Make sure 5.00 x 5 tires are maintained at 130 psi;
- Check for damaged parts or cracks in welds.

Annually:

- Grease wheel bearings with wheel bearing grease;
- Oil caster wheels;
- Grease gears and moving parts on pulling winch;
- Oil axle on pulling winch;
- Re-tighten and check all bolts.

Tire/Wheel Inspection:

- Any tire, no matter how well constructed, may fail as a result of punctures, impact damage, improper inflation, overloading, or other conditions resulting from use or misuse. Tire failure may create a risk of property damage and serious personal injury. To reduce risk of tire failure, we strongly recommend you read and follow all safety information.

- Inspect wheels and tires for wear, cracks, cuts, or damage. Bumps or bulges may indicate separation within the tire body. A damaged tire can suddenly fail causing damage to property or serious personal injury.

- Inspect tire for adequate tread depth 3/32nd inch (2.4 millimeters).

Tire Inflation:

- Always keep tire inflated to the manufactures recommended pressure. Tire sidewall stamping information will tell you the recommended cold air pressure. Check tire inflation before moving aircraft.
  - Air Hawk 15 X 6.00 6 ply 68 psi
  - Air Hawk 18 X 5.50 8 ply 105 psi
  - Carlisle 5.30/4.50-6 6 ply 95 psi
  - Kenda 4.10/3.50-4 6 ply 75 psi
  - Kenda 4.10/3.50-6 6 ply 80 psi
  - **STA 14 X 5.00-5 14 ply 130 psi**
  - Air Hawk 5:00 – 5 10 ply 90 psi

- Use valve caps to keep valve cores clean, clear of debris and to help guard against air leakage.

- Under-inflated tires will cause damage leading to failure that could result in damage to property or serious personal injury.

- Over-inflated tires are more likely to become punctured, cut, or broken by sudden impact leading to failure that could result in damage to property or serious personal injury.

CASTER, WHEEL, AND BEARINGS PREVENTATIVE MAINTENANCE

Simple preventative maintenance for your casters will greatly extend caster and wheel life. The following steps will help assure that your casters live up to your expectations and application requirements.

COMMON CAUSES FOR POOR PERFORMANCE OR QUICK WEAR DOWN

In many cases, caster and wheel products wear quickly by subjection to abusive or unreasonable demands. The most important factor in making your caster and wheel products last is choosing the correct caster for your needs.

PERIODICALLY EXAMINE EQUIPMENT

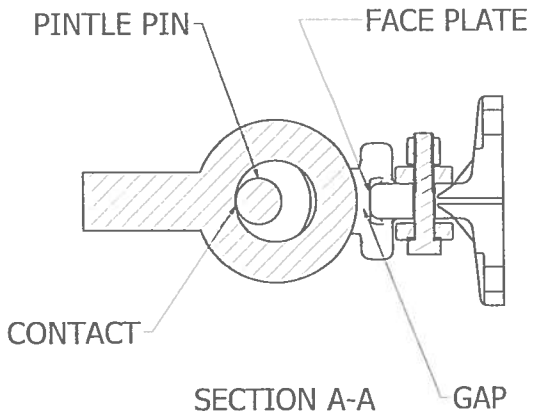
- Frame and Fasteners
  - Tighten loose bolts and nuts and look for broken welds or deck boards.
  - Look for frame distortion due to overloads or impact loads. A distorted frame can cause premature wheel failure because of abnormal loads on one or two casters.
- Lubrication
  - All caster bearings need to be lubricated with a high-quality multi-purpose grease that has good extreme pressure and anti-wear characteristics, as well as withstands temperature range that fits the application requirements. Wheel and swivel bearings last longer if lubricated regularly.
  - Normal conditions may warrant lubrication every six months, but once a month may be necessary in extreme applications, such as corrosive or exceptionally dirty environments
- Wheels
  - Check for visible points of tread wear. Flat spots may indicate foreign material, such as string, thread, metal, etc., causing wheels to bind. Thread guards will delay build-up of such materials.
  - Loose casters or frozen wheels may also produce flat spotting.
  - Replace wheel and/or caster to avoid erratic rolling. After inspecting and making corrections, be sure axle nut is properly tightened.
- Proper Equipment Usage
  - Overloading or dropping loads (shock loading) on carts, trucks, or bins may cause sudden wheel or equipment failure.
  - High speeds on rough floors can quickly create severe damage to tread and wheels.

EYEBOLT AND PINTLE PIN SIZE:

Damage to the tow bar or aircaft 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).

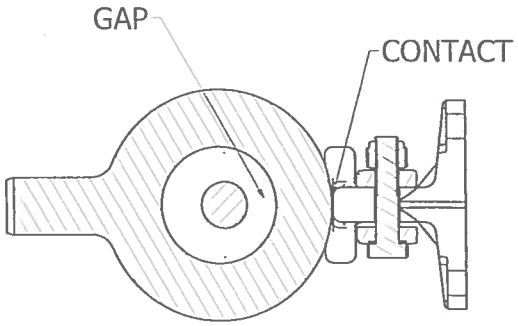
To ensure proper towing and pushing, check that the pintle pin diameter is not too large for the eyebolt's inside diameter. Approximately a one-half inch (1/2") gap between the pin diameter and the eyebolt I.D. should be be seen. If any of these conditions are not met, please contact Brackett Aircraft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

CORRECT



SECTION A-A

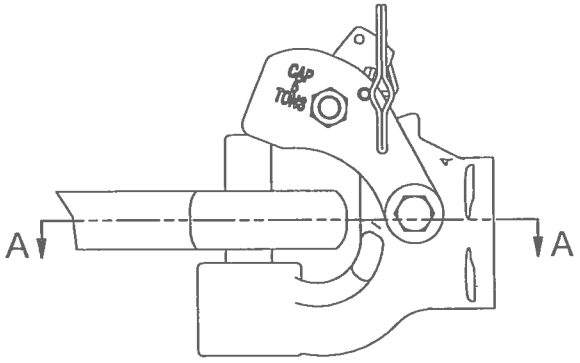
INCORRECT

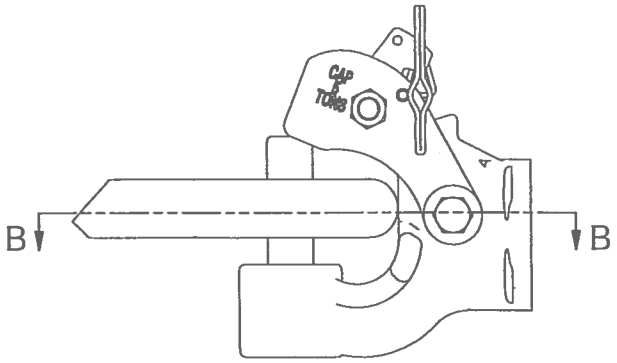


SECTION B-B

A

B





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.

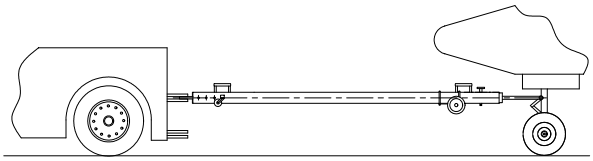
2. RESPONSIBILITY

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.



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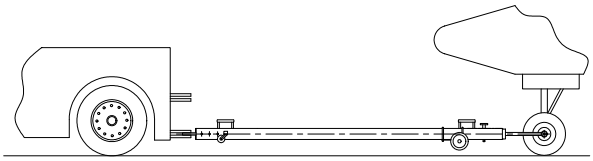

CORRECT

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.