



ABI 3400-00/ABI-3450-00/ABI-3450-23 Tailwheel Assembly Installation Instructions

This ABI-3400-00/ABI-3450-00/ABI-3450-23 Assemblies are a FAA-PMA direct replacement for the equivalent Scott tailwheel assembly. The installer is responsible for ensuring that the assembly is installed in accordance with the original equipment installation instructions.

Removal & Installation Instructions of ABI 3400 series tailwheel assembly:

- A)** Following airframe manufacturers instructions, properly raise and support the tail of the aircraft off of the ground.
- B)** Disconnect & inspect the steering springs & chains from the tailwheel assembly.
- C)** Remove the old assembly from the tailspring, inspect the attach bolt and tail spring for correct arch. The center pivot spindle should angle back away from the airplane 5 to 7 degrees when un-loaded and be perpendicular to the ground at maximum gross weight. (Note: ABI recommends replacement of all attachment hardware.)
- D)** Re-install and adjust in reverse procedure, following the original airframe manufacturers installation instructions. (NOTE: Tension on connector spring is not required or advisable. Over tension will create binding of the steering arm causing it to bend and damage internal parts. Connector springs and connector chain should be just slack. ABI recommends connecting the connector springs to an eye-bolt, not to the rudder arm.
- E)** All ABI 3400 series assemblies are pre-lubed at the factory with Exxon-Mobile SCH-100 grease. Over greasing of the axle will force the wheel seals (PN: ABI-1863) out against the bearing pre-load spacer (PN: ABI-3227-00) causing premature wear on the seals.

PMA Notice:

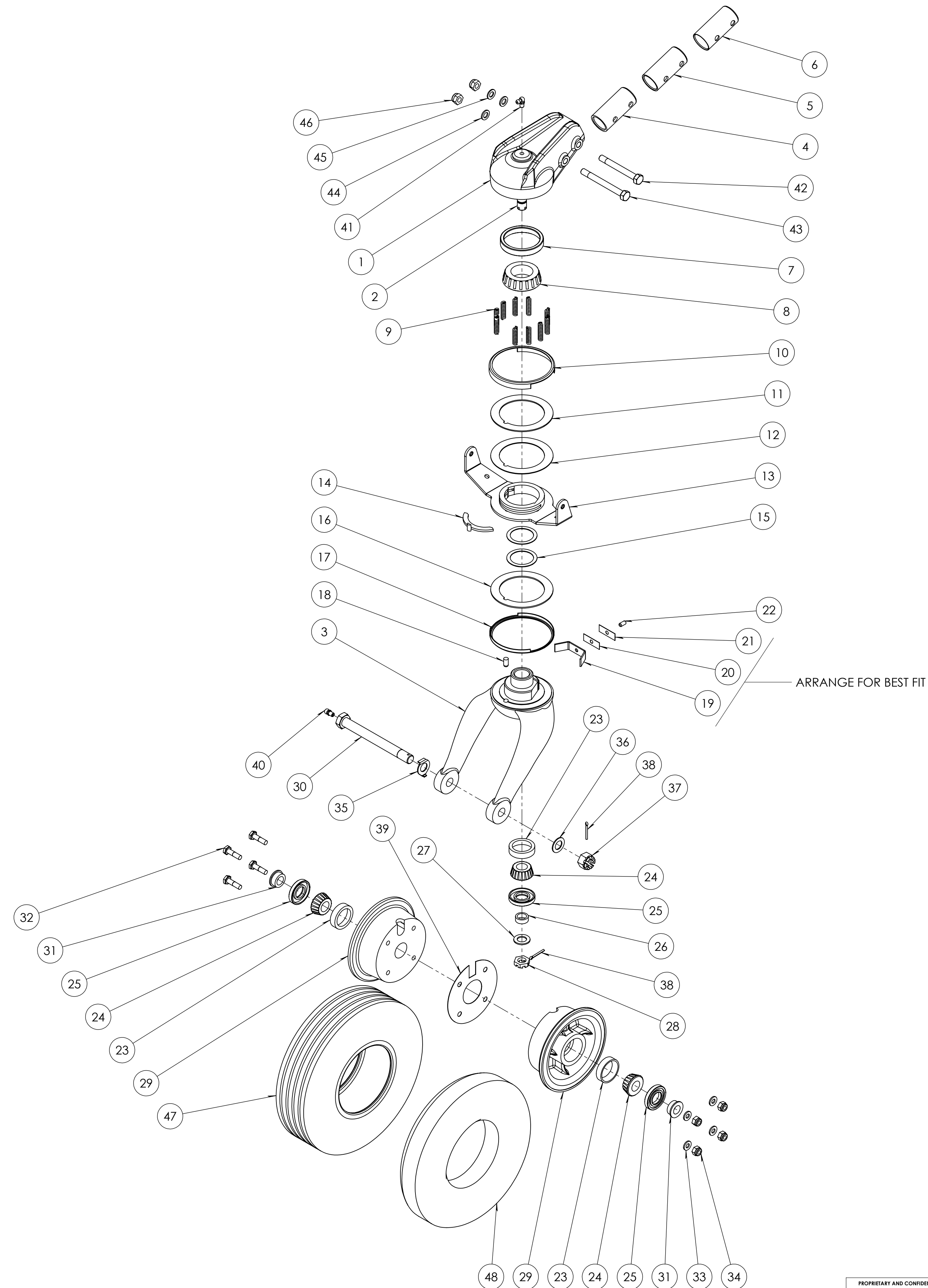
The ABI-3400-00/ABI-3450-00/ABI-3450-23 assemblies carry a PMA marking which identifies it as having been fully tested, inspected and qualified to meet the FAA specifications and requirements. After final PMA approval, substitution of critical parts, change of process or materials is not permitted without re-qualification of parts and pieces and resubmitted to the FAA for approval. FAA regulations subject ABI LLC., PO Box 670989, 20130 Birchwood Loop Spur, Chugiak, AK 99567 and the user to constant surveillance that all quality assurance materials and processes contents are maintained in order to provide replacement parts that are the same as the Original Equipment parts in the assembly.

[ABI LLC.](#)

[PO Box 670989, 20130 Birchwood Loop Spur, Chugiak, AK 99567](#)
info@akbushwheel.com [907-331-4480](tel:907-331-4480) www.airframesalaska.com

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ABI-3412-M	ABI 3412 TAIL WHEEL HEAD	1
2	ABI-3412-05	HEAD BOLT	1
3	ABI-3413-01	3400 8" FORK	1
4	ABI-3412-S.875	ABI-3412-HEAD SPACER .875	AR
5	ABI-3412-S.938	ABI-3412-HEAD SPACER .938	AR
6	ABI-3412-S.1.00	ABI-3412 HEAD SPACER 1.000	AR
7	08231	BEARING RACE	1
8	08118	BEARING	1
9	ABI-3233-00	SPRING	AR OR UP TO 10
10	ABI-3411-02	UPPER DUST COVER	1
11	ABI-3408-00	THRUST WASHER	1
12	ABI-3408-01	FIBER TRUST WASHER, PHENOLIC .035 THICK	1
13	ABI-3410-03 OR ABI-3410-05	BENT STEERING ARM OR STRAIGHT STEERING ARM	1
14	ABI-3219-00 OR ABI-3219-02	PAWL	1
15	ABI-3407-00	SPACER	2
16	ABI-3408-02	FIBER THRUST WASHER, PHENOLIC .065 THICK	1
17	ABI-3411-01	LOWER DUST COVER	1
18	ABI-232-046	PIN	1
19	ABI-3432-00	SPRING	1
20	ABI-3258-01	SPACER	AR
21	ABI-3258-00	SPACER	AR
22	ABI-3257-00	PIN	1
23	A4138	BEARING RACE	3
24	A4050	BEARING	3
25	ABI-1863	GREASE RETAINER	3
26	ABI-2504-01	SPACER	1
27	NAS1149F0863P	WASHER	1
28	AN320-8	NUT	1
29	ABI-3244-00	WHEEL HALF	2
30	ABI-3236-C2	AXLE	1
31	ABI-3227	SPACER	2
32	AN4-7A	BOLT, WHEEL	4
33	NAS1149F0463P	WASHER	4
34	MS21044N4	NUT	4
35	ABI-3225-00	TAB LOCK WASHER	1
36	NAS1149F0832P	WASHER	1
37	AN320-8	NUT	1
38	MS24665-283	COTTER PIN	2
39	ABI-2602	GASKET	1
40	---	GREASE FITTING- STR 1/4-28 TAPER THD .55 HT	1
41	---	GREASE FITTING- 90° 1/4-28 TAPER THD .75 HT	1
42	AN5-27A	BOLT	1
43	AN5-32A	BOLT	1
44	NAS1149F0563P	WASHER	2
45	NAS1149F0532P	WASHER	1
46	MS21044N5	NUT	2
47	2.80/2.50-4	8" TIRE	1
48	280/250-4 TUBE	8" TIRE TUBE	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	GENERAL UPDATE OF DRAWING	3/10/2016	JLP



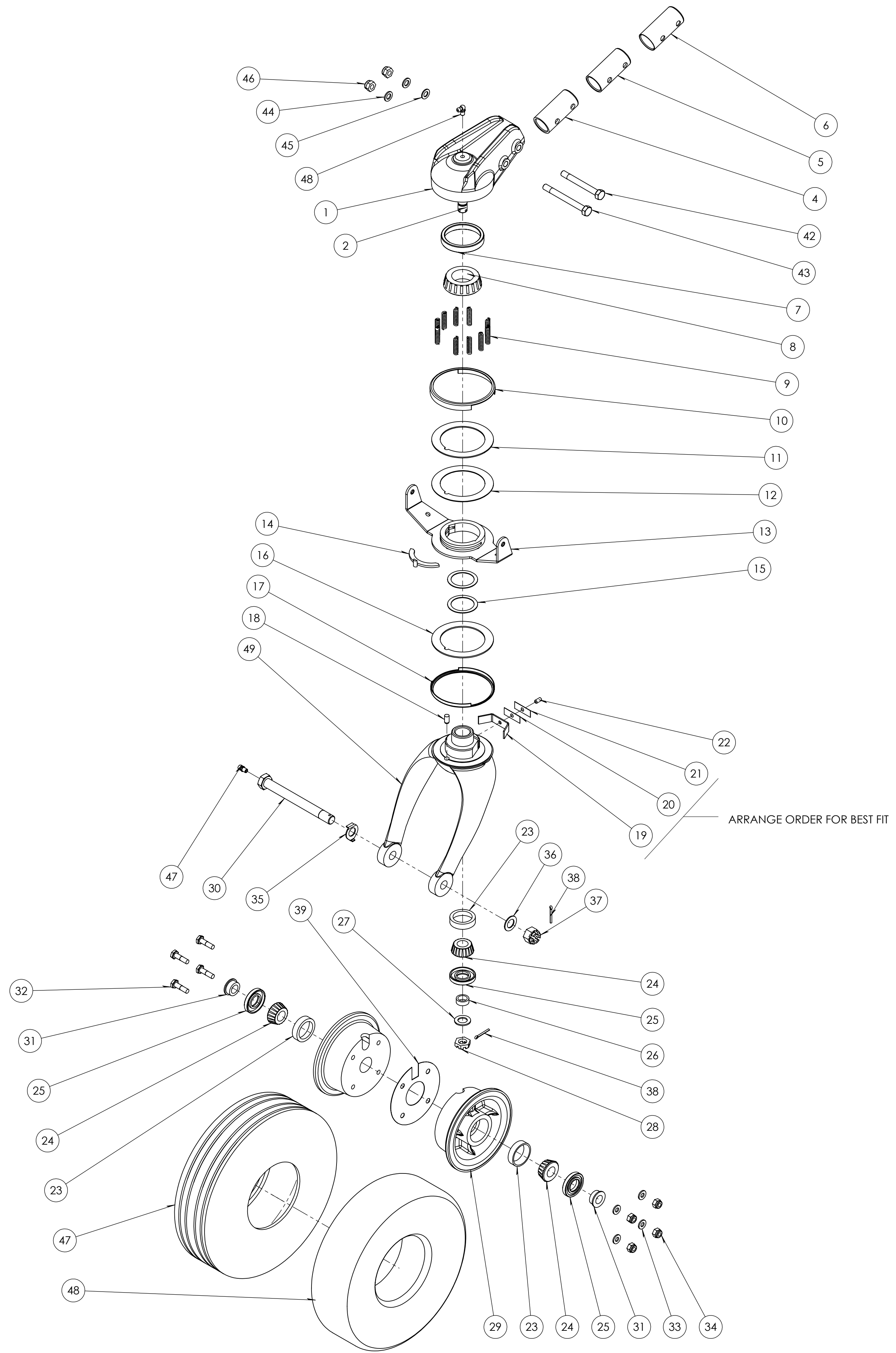
- NOTES:
- "AR" = ITEM QUANTITY "AS REQUIRED"
 - ITEM NUMBERS: 4, 5, AND 6 ARE OPTIONAL.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: X ± .125 XX ± .063 XXX ± .030 ANGULAR: INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL: SEE BOM		DRAWN JTZ 9/2/14	NAME JTZ	DATE 9/2/14
NEXT ASSY		USED ON	FINISH	SEE BOM
APPLICATION				

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ABI, LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ABI, LLC, IS PROHIBITED.

ALASKAN BUSHWHEELS
 TITLE: ABI-3400 8" TAIL WHEEL ASSY
 SIZE: D DWG. NO. ABI-3400-00 REV B
 SCALE: 1:10 SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ABI-3412-M	ABI 3412 TAIL WHEEL HEAD	1
2	ABI-3412-05	HEAD BOLT	1
4	ABI-3412-S.875	ABI-3412 HEAD SPACER 0.875	AR
5	ABI-3412-S.975	ABI-3412 HEAD SPACER 0.938	AR
6	ABI-3412-S.1.00	ABI-3412 HEAD SPACER 1.000	AR
7	08231	BEARING RACE	1
8	08118	BEARING	1
9	ABI-3233-00	SPRING	AR OR UP TO 10
10	ABI-3411-02	UPPER DUST COVER	1
11	ABI-3408-00	THRUST WASHERS	1
12	ABI-3408-01	FIBER THRUST WASHER, PHENOLIC .035 THICK	1
13	ABI-3410-03 OR ABI-3410-05	BENT STEERING ARM OR STRAIGHT STEERING ARM	1
14	ABI-3219-00 OR ABI-3219-02	PAWL	1
15	ABI-3407-00	SPACER	2
16	ABI-3408-02	FIBER THRUST WASHER, PHENOLIC .065 THICK	1
17	ABI-3411-01	LOWER DUST COVER	1
18	ABI-232-046	PIN	1
19	ABI-3432-00	SPRING	1
20	ABI-3258-01	SPACER	AR
21	ABI-3258-00	SPACER	AR
22	ABI-3257-00	PIN	1
23	A4138	BEARING RACE	3
24	A4050	BEARING	3
25	ABI-1863	GREASE RETAINER	3
26	ABI-2504-01	SPACER	1
27	NAS1149F0863P	WASHER	1
28	AN320-8	NUT	1
29	ABI-3244-00	WHEEL HALF	2
30	ABI-3236-C2	AXLE	1
31	ABI-3227	SPACER	2
32	AN4-7A	BOLT, WHEEL	4
33	NAS1149F0463P	WASHER	4
34	MS21044N4	NUT	4
35	ABI-3225-00	TAB LOCK WASHER	1
36	NAS1149F0832P	WASHER	1
37	AN310-8	NUT	1
38	MS24665-283	COITER PIN	2
39	ABI-2602	GASKET	1
42	AN5-27A	BOLT	1
43	AN5-32A	BOLT	1
44	NAS1149F0563P	WASHER	2
45	NAS1149F0532P	WASHER	1
46	MS21044N5	NUT	2
47	10X3.50-4	TIRE	1
48	10x350-4	TIRE TUBE	1
47	---	GREASE FITTING- STR 1/4-28 TAPER THD .55 HT	1
48	---	GREASE FITTING- 90° 1/4-28 TAPER THD .75 HT	1
49	ABI-3423-01		1



ARRANGE ORDER FOR BEST FIT

- NOTES:
 1. "AR" = ITEM QUANTITY "AS REQUIRED"
 2. ITEM NUMBERS: 4, 5, AND 6 ARE OPTIONAL.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	GENERAL UPDATE OF DRAWING	3/10/2016	JLP

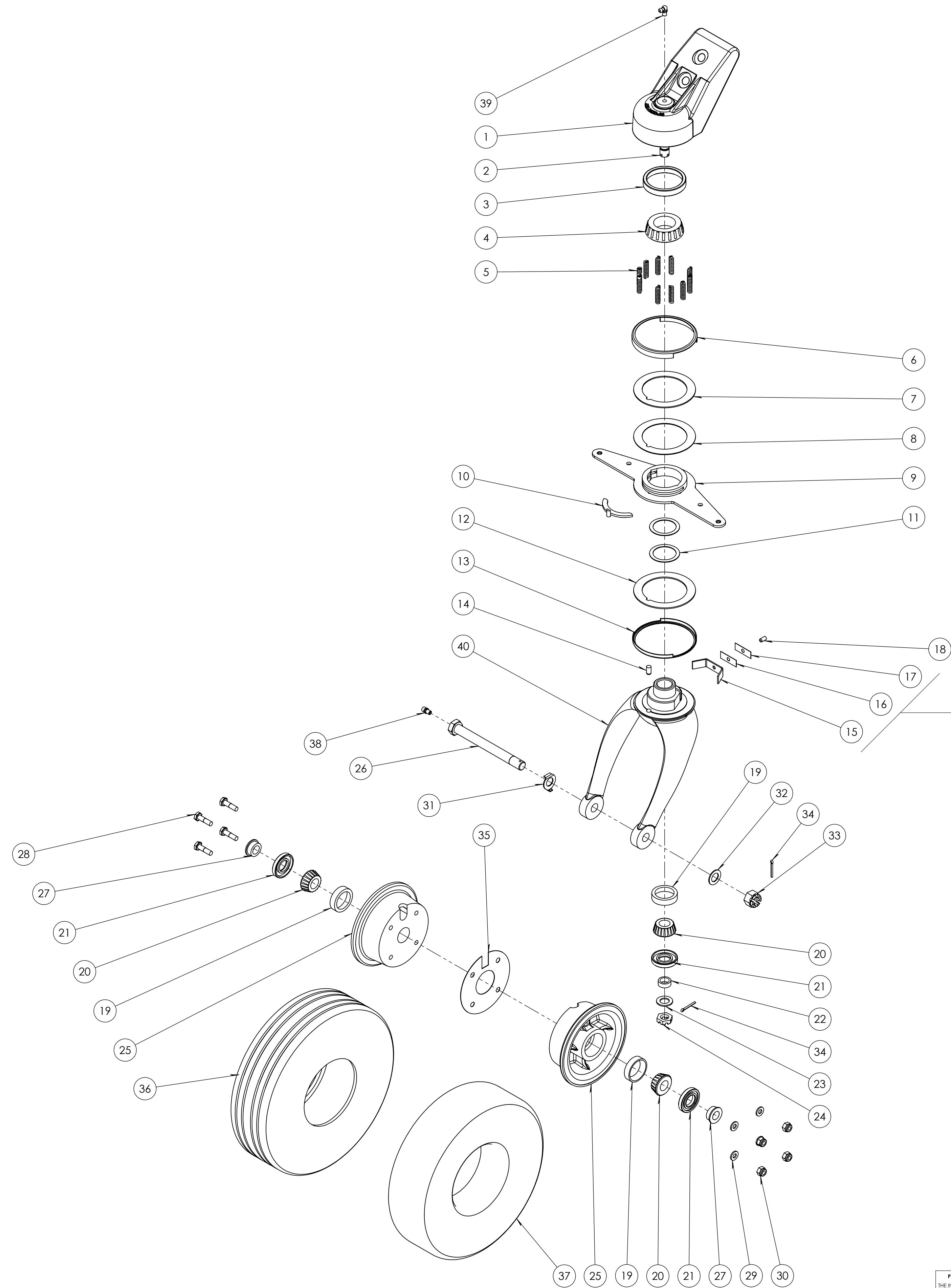
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INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL: SEE BOM		CHECKED	JTZ	9/4/14
NEXT ASSY		ENG APPR.		
USED ON		MFG APPR.		
APPLICATION		FINISH		
		SEE BOM		

ALASKAN BUSHWHEELS

TITLE: 10" FORK TAILWHEEL
 SIZE DWG. NO. REV
D ABI-3450-00 B
 SCALE: 1:10 SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ABI-3450-23	ABI 2 BOLT TAILWHEEL HEAD	1
2	ABI-3412-05	HEAD BOLT	1
3	08231	BEARING RACE	1
4	08118	BEARING	1
5	ABI-3233	SPRING	10
6	ABI-3411-02	UPPER DUST COVER	1
7	ABI-3408-00	THRUST WASHER	1
8	ABI-3408-01	FIBER THRUST WASHER, PHENOLIC .035 THICK	1
9	ABI-3410-05	STRAIGHT STEERING ARM	1
10	ABI-3219-00 OR ABI-3219-02	PAWL	1
11	ABI-3407-00	SPACER	2
12	ABI-3408-02	FIBER THRUST WASHER, PHENOLIC .065 THICK	1
13	ABI-3411-01	LOWER DUST COVER	1
14	ABI-232-046	PIN	1
15	ABI-3432-00	SPRING	1
16	ABI-3258-01	SPACER	1
17	ABI-3258-00	SPACER	1
18	ABI-3257-00	PIN	1
19	A4138	BEARING RACE	3
20	A4050	BEARING	3
21	ABI-1863	GREASE RETAINER	3
22	ABI-2504-01	SPACER	1
23	NAS1149F0463P	WASHER	1
24	AN320-8	NUT	1
25	ABI-3244-00	WHEEL HALF	2
26	ABI-3236-C2	AXLE	1
27	ABI-3227	SPACER	2
28	AN4-7A	BOLT	4
29	NAS1149F0463P	WASHER	4
30	MS21044N4	NUT	4
31	ABI-3225-00	TAB LOCK WASHER	1
32	NAS1149F0832P	WASHER	1
33	AN310-8	NUT	1
34	MS24665-282	COTTER PIN	2
35	ABI-2602	GASKET	1
36	10X3.50-4	10" TIRE	1
37	10x350-4	10" TUBE	1
38	---	GREASE FITTING- STR 1/4-28 TAPER THD .55 HT	1
39	---	GREASE FITTING- 90° 1/4-28 TAPER THD .75 HT	1
40	ABI-3423-01		1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	B	GENERAL UPDATE OF DRAWING, UPDATED VARIOUS PART AND HARDWARE NUMBERS	3/10/2016	JLP

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		DRAWN	NAME	DATE
TOLERANCES: X ± .125 XX ± .063 XXX ± .030		CHECKED	JTZ	9/8/14
INTERPRET GEOMETRIC TOLERANCING PER:		ENG APPR.		
MATERIAL:		MFG APPR.		
FINISH:		G.A.		
SEE BOM		COMMENTS:		
SEE BOM	SEE BOM			
NEXT ASSY	USED ON			
APPLICATION				

ALASKAN BUSHWHEELS

TITLE: 2 BOLT TAIL WHEEL ASSY
 SIZE DWG. NO. **D ABI-3450-23** REV **B**
 SCALE: 1:10 SHEET 1 OF 1