Brake Kit Disk Manual Sections

For XT MK2 Trike Base

Part Number: 108680

This compilation of manual pages is intended to get you started with the fitment and understanding of your Disk Brake Kit. These pages are extracted from the Pilots Operating Handbook for XT 912 Revision 2 and the Maintenance Manual for XT 912 revision 2. The information contained relevant to the brakes is equally applicable to the XT582 MK2.
The complete manuals are available for free download from the Airborne Website.
http://www.airborne.com.au/pages/manuals.html

Contents

WARNING : BRAKE RUN IN IS REQUIRED AFTER ASSEMBLY
SEE SECTION 32.4 OF THE MAINTENANCE MANUAL

6.2.2 Standard Equipment

STANDARD EQUIPMENT	Fitted
Engine Type	ROTAX 912 UL 2
Engine Serial Number	
Carburettor Heating	Std
Gear Box Type	2.43 : 1
Propeller Type	BOLLY BOS 3 - 66 INCH
Airspeed Indicator (Knots)	Std
GX2 Instrument	Std
Tool Kit & Mast Strap Hold Down Strap	Std

Table 2 Section 6. Aircraft Weight Standard Equipment

6.2.3 Optional Equipment

OPTIONAL EQUIPMENT	FITTED (Yes/No)
BRS Emergency Parachute	
Radio	
Intercom	
Training Bars	
Disk Brakes	

Table 3 Section 6. Aircraft Weight Optional Equipment

6.3 Typical Aircraft Weights

Empty Weight + 172 kg crew + 1 hr Fuel (18 litres /13 kg)	406 kg	895 lb
Empty Weight + 86 kg pilot + full fuel (70 litres / 49kg)	356 kg	785 lb

Table 4 Section 6. Typical Aircraft Weights

HANDLING SERVICE AND MAINTENANCE

8 HANDLING SERVICE AND MAINTENANCE

8.1 Introduction

This section contains factory recommended procedures for proper ground handling and routine care for your aircraft. Included in this section is relevant information required by the operator.

WARNING

IT IS THE PILOT'S RESPONSIBILITY TO ENSURE THAT ALL AIRWORTHINESS DIRECTIVES HAVE BEEN ADDRESSED. IT IS ALSO THE PILOT'S RESPONSIBILITY TO ENSURE SERVICING AND MAINTENANCE HAS BEEN PERFORMED AS OUTLINED IN THE APPROPRIATE MAINTENANCE MANUAL AND IN ACCORDANCE WITH THE APPLICABLE AVIATION REGULATIONS.

8.2 Identification Plate

The aircraft has two identification plates. The wing identification plate can be found on the negative plate of the universal bracket. The base identification plate can be found on the seat mast block on the left side of the aircraft. The Serial number should be quoted when corresponding with the factory.

8.3 Aircraft Documents

The Pilot's Operating Handbook is one of a series of documents required to safely operate this aircraft. A document list can be found in section 0 of this manual under DATA PACKAGE.

8.4 Aircraft Inspection, Maintenance and Repair

Maintainer qualifications vary from country to country. The operator / maintainer should be familiar with the local requirements. Maintenance requirements are outlined in the base maintenance manual for the base unit and in the wing maintenance manual for the wing. The following sections have been included because it is considered that the information may be required on a more regular basis.

8.5 Fuel System

8.5.1 Filling Fuel Tanks

The properties of the fuel tank material cause an increase in capacity after the first 2 to 3 tanks of fuel. Initial capacity is 64 litres with the "aged" capacity 70 litres. The fuel level markings have been positioned for the fuel tank capacity at 70 litres.

The XT has a single fuel tank. When the tank is being filled there may be a slight pressure differential between the sides of the tank, causing the fuel cap side to fill slightly faster than the other side. Allow time for the breather valves to equalise the pressure to allow complete filling and, check that both sides are sufficiently full. Fill to the neck of the fuel entrance.

8.5.2 Fuel Specification

FUEL	
Preferred Fuel Type	En228 Premium/Regular. Super grade gasoline, lead free, min RON 90
Optional Fuel Type	AVGAS (see note)

Table 1 Section 8. Fuel Specification

NOTE

Due to higher lead content in AVGAS, the wear of the valve seats and deposits in the combustion chamber will increase. Therefore, use AVGAS only if you encounter problems with vapour lock or if the other fuel type is not available.

Use of AVGAS requires higher frequency maintenance intervals. If AVGAS is used the Rotax web site should be referenced for maintenance requirements. See Rotax service information 18-UL-97-D/E
Refer to section 2.12 for fuel capacities and limitations

8.5.3 Fuel Sampling

There is a draincock on the base of the fuel tank at the left hand side, which may be used to check the quality of the fuel, and to drain fuel if necessary, it is especially important to remove any water that may have been introduced from the system.

8.5.4 Checking Fuel

The fuel is checked for water and contaminants by draining a sample of the fuel into a clear glass container. Once a sample has been taken the quality of the fuel can be checked by looking for any water at the bottom of the glass, and checking for any other visual contaminants.
If the fuel has been sitting for an extended period without use it may be advisable to replace it with fresh fuel.

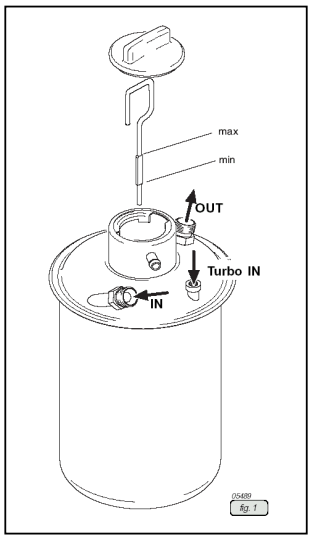
8.5.5 Draining the Fuel

Ensure that a suitable receptacle is found for the fuel that is to be drained, position the trike above the receptacle and depress the draincock. Ensure that there are no ignition sources and that the fuel is disposed of correctly.

8.6 Engine Oil System Replenishment

The minimum oil level is 3 litres, max 3.5 litres. This checked and replenished by removing the oil sump lid. Rotax has provided service instructions, which detail how to check the oil.

Removing the sump plug drains the sump. Ensure that the sump plug is correctly replaced and lock wired prior to refilling the engine with oil. Measure the amount to be replaced, refill, check the level, run the engine and recheck. The opportunity should be taken to replace the oil filter any time that the oil is replaced.



Oil Level Instructions:
Do Not overfill the oil system. The difference between the min and max marks on the dipstick is 0.45 litre (0.48qt).

Figure 1 Section 8. Oil Dipstick Diagram

Rotax Service instructions should be consulted (SI-27-1997 R1)

8.6.1 Lubricating Oil

The 912 UL engine has an external sump, and the entire system is standard to the Rotax 912 engine. The oil specification is given in the Rotax Operators Manual, Section 10.2.3, Lubricants. In general use only synthetic or semi synthetic oil, API classification "SF" or "SG" or later oils. Multigrade is recommended. These oil types are detergent types. Consult the Rotax manual and Rotax service instruction 18 UL 97, for the correct type and grade of oil for the ambient operating temperature.

Two oils, which are recommended by the Rotax Service instruction 18, UL 97 for use with both Avgas and Unleaded fuels are:

SHELL, Advance VSX 4, APISG, SAE 15W-50

VALVOLINE, Dura Blend Synthetic, APISJ, SAE 10W-40

Check oil and replenish as required.

Prior to oil check, turn the propeller by hand several times (in the direction of rotation) or let the engine idle for 1 minute.

The difference between maximum and minimum oil level mark on the dip stick is 0.45 Litre (0.48 quart), use caution around the hot exhaust header when removing the oil tank cap and checking the dip stick.

8.7 Cooling System

WARNING

DO NOT OPEN THE COOLING SYSTEM WHEN THE ENGINE IS HOT. SEVERE SCALDING AND OTHER INJURIES MAY RESULT.

Water-cooling system capacity is 2.5 L. See maintenance manual for further details.

Coolant Specification

A MANDATORY Rotax Directive was issued on the 25th of November 2004, which requires a change in the type of coolant that must be used with the Rotax 912 type engine. From the 23rd Feb 2005 the new coolant Evans NPG+ waterless coolant is to be used. The reason for the change is "In some instances conventional coolant (mixture ratio of 50% water and 50% antifreeze) can vaporize or boil before the maximum permissible cylinder head temperature is reached." Rotax Service bulletin SB-912-043, pg # 1.

Earlier Airborne trikes have had a silicate free type high quality and long life antifreeze coolant (which is red), Airborne Part Number 106644, installed in the radiator. This coolant must be changed to the newly recommended coolant.
The directive requires that the new coolant be used, and a sticker be placed on the coolant cap, which prohibits the use of water in the coolant system.
The coolant should be replaced according to the Rotax maintenance manual, current issue. Please refer to the directive, which is available from the Rotax website: SB-912-043, September 04.

WARNING

WATER OR WATER CONTAINING COOLANT MUST NOT BE ADDED IN ANY CASE TO THE COOLING SYSTEM WITH THE NEW EVANS NPG+ COOLANT.

Field service Instructions:
"If EVANS NPG+ coolant is not locally available, temporarily top off the system with propylene glycol antifreeze and be sure not to add water. Within 15 days the temporary coolant should be completely drained and the system refilled with EVANS NPG+ coolant." Rotax SB-912-043, Pg # 5.

8.8 Tyre Inflation

The recommended tyre inflation pressures are 15 PSI for both the front and rear tyres. When checking the tyre pressures the opportunity should be taken to examine the tyres for wear, cuts, bruises, slippage and other defects.

8.9 Shock Struts

8.9.1 Rear Shocks

WARNING
SPECIALISED PUMPS MUST BE USED FOR THE AIR SHOCKS – PRESSURES UP TO 600 PSI EXIST.

The rear shocks are pressurised to 580 psi using a schrader valve system. A special pump will be necessary to repressurise the rear shocks to the correct setting. There should be no reason why the rear shock would need to be reinflated, and if they do then a proper investigation of the cause should be undertaken.

8.9.2 Front Shocks

The front shocks should be inflated to 50 psi for each reservoir. The top should be inflated first. Turn the rebound damper fully clockwise, and then anticlockwise for twelve clicks.

8.10 Brakes

Working Fluid for the Hydraulic Actuated Brake

Power transmission fluid. Similar to factory supplied fluid:
Castrol
TQ DEXRON III
Automatic transmission fluid

Fluid quantity	……..	50	mL
Fill level	……..	10	mm from top of housing.

Top up instructions:

1. Access by turning steering to the left and approach from under side of fairing on full faired versions
2. Remove reservoir plug (this is the most rearward plug on the master cylinder). Remove the course green grit cover filling from the cap to enable the insertion of the Allen key (refer to the following figure).

Figure 2 Brake master cylinder, remove reservoir plug

3. Using a syringe, fill reservoir with auto transmission fluid. Visually sight the level to be approximately 10mm from top of housing and replace plug. A clean matchstick may be a useful dipstick.

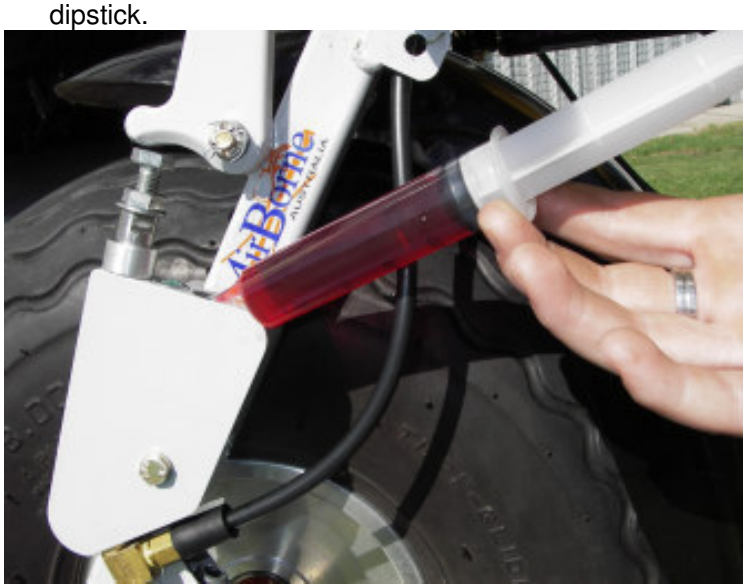


Figure 3 Brake fluid top up

4. Replace the reservoir plug. Replace the grit cover cap filling into the reservoir plug, to make future access and cleaning easy.

8.11 Circuit Breaker and Fuses

The fuses for the electrical equipment are located in two positions.

1. The Lynx intercom system has a 1.5A fuse screwed into the side of the box where the headsets and push to talk cables are plugged in.
2. The power supply cables for the radio are protected at the rear of the aircraft with inline fuses which terminate at the right hand side of the mast block. A 5A fuse is to be used for the radio and intercom power supply. The fuse holder is marked with the correct current rating for the fuse.
3. The battery charging circuit is protected with a 20A fuse, which also terminates at the right hand side of the mast block. The fuse holder is marked with the correct current rating for the fuse.
4. A 10 A circuit breaker is located on the right hand side of the dash. The circuit breaker protects the dash instrumentation and the DC socket.

8.12 Parking and ground handling

Parking and ground handling information can be located in Section 4.

5.20.20 Trike Base Frame Maintenance Schedule

TRIKE BASE FRAME MAINTENANCE SCHEDULE	Manual Section	AIRCRAFT OR ITEM HOURS OF OPERATION						
Inspection Items	**Reference**	**25**	**100**	**200**	**300**	**400**	**500**	**600**
Trike base tube for bend or cracking (see 4.20.00 for time limits)	As directed	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]
Trike mast for bends or cracking (see 4.20.00 for time limits)	As directed	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]
Drag links and rear struts for bends or hole elongation (see 4.20.00 for time limits)	As directed	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]
Brake system inspect dimensions & wear limits. Disk brake fluid level	32.40 table 18/19	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]
Mast brace for bend or cracking. Should. Outer brace should slide freely. (see 4.20.00 for time limits)	As directed	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]
Rubber cushion, Front suspension (on XT outback only)	As directed	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]	3 [R]
Pitot Drain, drain & reseal	34.10.10	2 (O)	2 (O)	2 (O)	2 (O)	2 (O)	2 (O)	2 (O)
Heart bolt (see 4.20.00 for time limits)	As directed	4 (O)	6 (O)	6 (O)	6 (O)	6 (O)	6 (O)	6 (O)

Table 11 Trike Base frame Maintenance Schedule

Special Instructions

Requirements for TBO

Rotech Research Ltd. is pleased to join with ROTAX in announcing the extension of the T.B.O. (Time Between Overhaul) period for Rotax® 912 and 914 series of piston aviation aircraft engines. The Austrian civil aviation authority (Certificate Authority Austro Control GmbH or ACG) has now granted all of the necessary approvals to increase the time before overhaul (TBO) of the Rotax 912 series from 1200 hours to 1500 hours. The TBO for the popular turbo-charged 914 engine has been increased from 1000 hours to 1200 hours.

These TBO increases are effective immediately and apply to both new engines and existing engines subject to compliance with applicable service bulletins. Please refer to Service Bulletins SB-912-041 / SB-914-027 and SB-912-041UL / SB-914-027UL for complete compliance information.

Reference http://www.rotec.com/whatnew.htm

Table 14 Requirements for Rotax 912 Time Between Overhaul

Time Limit for Rubber Parts

For checking the Engine Mount Rubbers, see “Mounts” Section 71.20.00, for other rubber components related to the engine, see below.
See Rotax Maintenance Manual Section 05-10-00 “Operating Hours Related Checks”

Time Limit for Coolant and Oil

See Rotax Maintenance Manual Section 05-20-00 “Operating Hours Related Checks”
See section 12.10.30 for Coolant details and section 12.10.20 for Oil details.

NOTE

There are Special Instructions when using Avgas. Consult the Rotax Service Information 18 UL 97 D/E.

32. LANDING GEAR

32.00.00 General

The XT trike base landing gear assembly consists of a tricycle type undercarriage. Both the front and the rear suspension incorporate air shocks that allow pneumatic adjustment of the "spring rate" and fluid flow damping.
The XT Outback has rubber cushion suspension on the front fork. Rear wheel suspension is common to all XT models.

32.10.00 Undercarriage

General Maintenance
With the weight removed from each wheel, check each of the components is not loose. Also check each of the bearings, tyre wear and the condition of the brake line.
Where excessive looseness is found, the bushes and attachment points should be checked for wear and replaced if necessary. In practice this will mean that any pivot point should not have more than 1/2mm of movement, when load is applied. The main areas that need to be checked for looseness are suspension pivots, the mast pivot, and the main mast pivot hole. For wheel and suspension pivots the wheels should be lifted from the ground when testing the movement.

32.10.10 Structure

Rear
The main (rear) undercarriage is manufactured from 6061 extruded aluminium tubing which attaches to fittings that in turn attach to the pivot locations. The rear suspension layout consists of tubular main struts for the rear suspension, an airfoil shaped drag link and airfoil shaped rear strut. These are attached to the wheels and the frame via fittings.
The fittings are manufactured from 2011 aluminium and AS 1163 steel, welded and bolted to the struts and drag link.

Front
The front suspension, steering and braking assembly is manufactured from welded AS 1163 steel. It is a regular fork type assembly with welded lugs and bushes for all attached parts. The fork carrier assembly has two bearings pressed into it for attachment onto the main frame.
The XT Outback rubber cushion suspension on the front fork, requires inspection of the rubber for cuts / cracks. The bearing surface and pivot bolt require inspection for wear. If it is appropriate to reinstall parts, clean and lubricate them prior to reassembly. Check nylon washers for wear, replace as required.

Damage
Both the front and rear undercarriage allow for minor damage that does not result in dimensional changes of the materials (permanent deformation). Tell tale signs of permanent deformation include chipped paint around highly stressed areas and crazing of the alloy members. Any permanent deformation warrants full checking of all possible effected parts.

32.10.20 Air Shocks

The life of the shocks should exceed that of the aircraft due to the minimal amount of travel they will do on the ground, though they still need to be checked regularly for correct operation. If one of the shocks has lost air then they will sag a different amount on the ground relative to each other.

32.40.00 Wheels and Brakes

Two alternate brake systems are available on the XT series:

- Front wheel drum brake only, with leading / lagging shoes and actuated by cable.
- Rear wheel disk brake only, with hydraulic actuation.

Both configurations use a brake lock mechanism, the drum brake configuration is shown in the following figure. Depress brake and raise lock lever to lock. Depress brake to unlock.

Figure 36 Brake Lock Lever.

Drum Brake Description

The drum brakes on the XT are cable actuated, leading lagging shoe type. The drum brake is the same as have been in service on Airborne trikes for many years and have provided extremely reliable service. The brake pads should be inspected during the 100 hourly inspection of the front wheel bearings. The pads should be replaced if necessary.

Brake drum			
Internal diameter	……..	90.0	mm
Internal diameter service limit	……..	91.0	mm
Brake shoe pads			
Thickness of lining	……..	4	mm
Thickness service limit	……..	2	mm

Table 21 Drum Brake Wear Limits

Drum Brake Adjustment and Maintenance

The brake system free play (depression distance until the brake actuates) may be coarse adjusted by loosening the cable clamping point, and moving the position of the cable. The cable securing nut must be tightened with sufficient torque to avoid cable slippage. If the attachment point is further towards the end of the cable then the condition of the cable where it was previously clamped should be inspected for deterioration and replaced if necessary.

Fine adjustment of the brake is made with the fine adjustment screw where the sheath is mounted at the wheel end.

Thoroughly check for free operation of the wheel and proper operation of the brake after adjustment.

The condition of the rim, spokes and other features of the rim/brake assembly should be thoroughly inspected for signs of damage or wear.

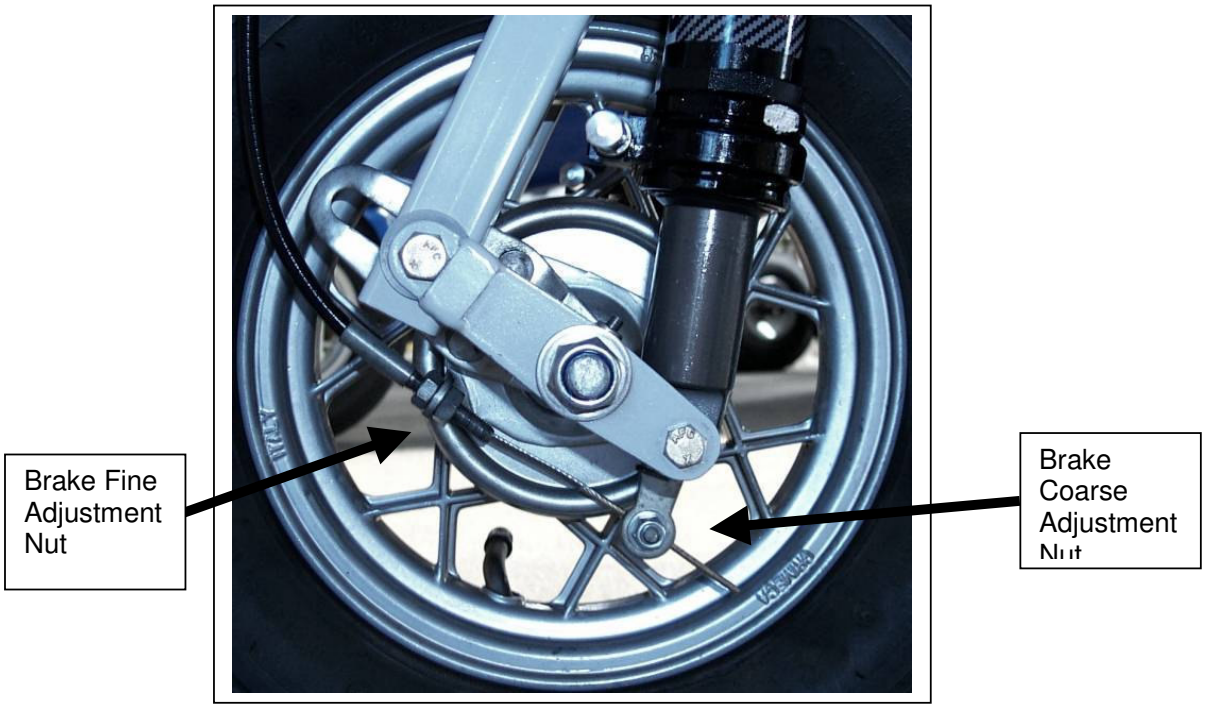


Figure 37 Front Wheel Assembly

Figure 38 Rear Disk Brake Master Cylinder Mounted on Front Fork

Rear Disk Brake Operation

The rear disk brake is actuated hydraulically via a single common circuit. Brakes are operated via the left pedal (lower pedal for aerotow equipped aircraft). A brake lever lock is provided for short term parking use only. For extended periods use wheel chocks.

Rear Disk Brake Dimensions and Fluid Specification

Brake disk			
Thickness	……..	3.2	mm
thickness service limit	……..	3	mm
Brake pads			
Thickness	……..	5.2	mm
Thickness service limit	……..	2	mm
Master cylinder			
Master cylinder piston rod to pedal clearance	……..	0.5–1.5mm	
Pedal height	……..		fixed

Working fluid

Power transmission fluid. Similar to factory supplied fluid:

Castrol
TQ DEXRON III
Automatic transmission fluid

Fluid quantity	……..	50	mL

Table 22 Disk Brake Dimensions and Wear Limits

Brake Maintenance Procedure Tools

Callipers
Allen Keys: 5/32, ¼
Spanners: open/ring ¼, 5/16, 3/8, 7/16 ,1/2.
Sockets: 3/8, 7/16
Pliers
Cutters
Screwdriver: Blade
Syringe: eg. 25ml
Drill with 13/64" 5.16mm bit. Required for brake kit installation

Disk Brake Inspection

Inspect hoses and hose shielding for wear, kinks.
Inspect complete system for oil leaks.
Measure brake disk thickness, replace if required.
Measure brake pad thickness, replace if required.
Measure the free play in the master cylinder piston rod, adjust if required.

Replenishment of Fluid

Skill Level: *Pilot Certificate*

1. Remove reservoir plug (this is the most rearward plug on the master cylinder) accessible by turning steering to the left and approach from under side of fairing on full faired versions. Remove the grit plug from the cap to enable the insertion of the Allen key.

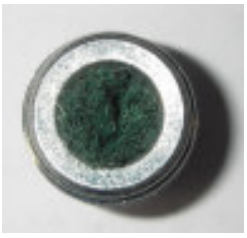


Figure 39 Cap Grit Plug, Remove the Plug from the Grub Screw for Allen Key Access.

A fine mesh is located below the grit plug to prevent dust from entering the brake fluid. Do not remove the fine mesh from the bottom of this reservoir plug.

Figure 40 Remove Reservoir Plug

2. Using a syringe, fill reservoir with auto transmission fluid. Visually sight the level to be approximately 10mm from top of housing and replace plug. A clean matchstick may be a useful dipstick.

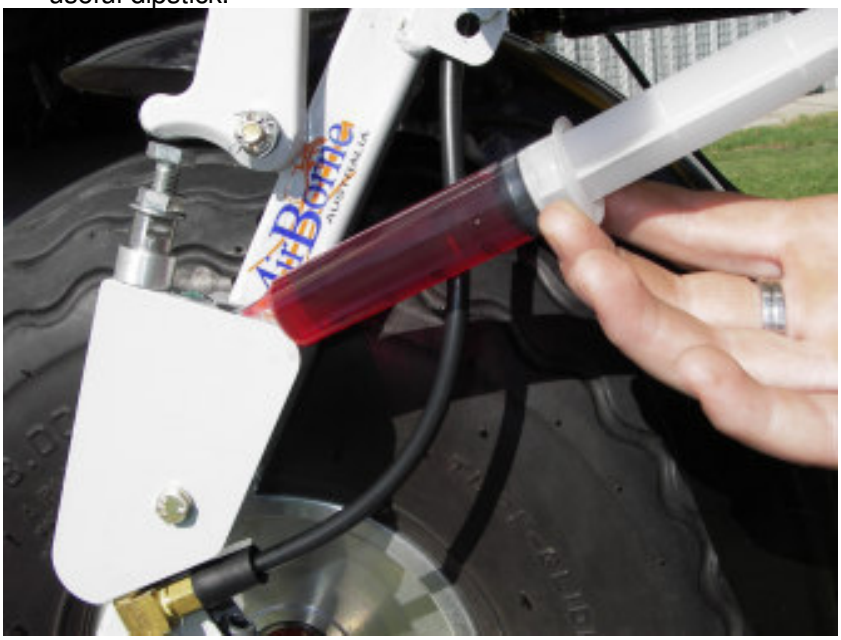


Figure 41 Brake Fluid Top Up

3. Replace the reservoir plug. Replace the grit cover cap filling into the reservoir plug, to make future access and cleaning easy.

Removal and Installation of Brake Pads

Skill Level: *LSA Repairman Maintenance*

1. Lift the rear of the aircraft by one of the means described in Section 6 LIFTING AND SHORING.
2. Remove the rear wheel spat, wheel nut and wheel.
3. Remove the disk from the callipers.
4. Remove the pad by pushing it to the centre of the callipers and slide it out.
5. Replace pads and reverse the procedure for refitting the wheel. Note that wheel nuts are tightened to position the spat bracket. Then tighten the inner nut and axle rotation lock screw. The axle nuts are designed to be tightened.

If the brake pads are being replaced, replace them as a set of four.

Installation of a Disk Brake Kit

Disk brakes are readily fitted to XT aircraft with serial numbers:
XT912-0180
XT582-0042
Order disk brake kit, part number 108469.
Previous models require a more extensive replacement parts list.

Skill Level: *LSA Repairman Maintenance*

Begin the procedure at “Removal and installation of Brake Pads” step 1.

6. Clean disc rotors with solvent
7. Bolt rear disc callipers to hubs and fit discs and wheels (ensure washer is between calliper and rim inner bearing).
8. Bolt master cylinder to pre drilled hole in left hand front fork vertical, or mark out to drawing supplied and drill hole
9. Route hoses through struts and along base tube to front fork and cable tie
10. Attach fittings to master cylinders and callipers.

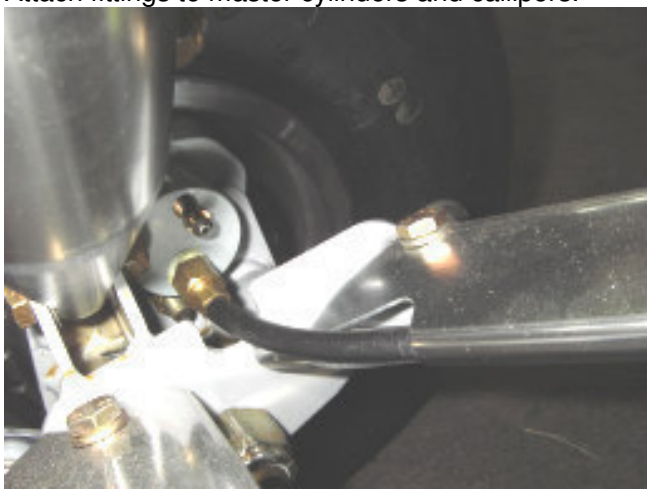


Figure 42 Attach Fittings to Callipers, LH Calliper Shown.

11. Install triple sleeving over the compression fitting connections. The large diameter tubing goes over both the sheath and the brass compression fitting nut. This is used to protect the hydraulic tube from bending at the junctions.

Figure 43 Master Cylinder, Push Triple Sleeving Over the Compression Fitting Nut

12. Fit brake lever, do not tighten, the hinge bolt. Lock with a split pin.

Brake Bleed Procedure

13. Have piston adjusting bolt set as to give 0.5 to 1mm of free play on the pedal (approximately 25 mm of piston rod is required to protrude out of the master cylinder housing this is important to allow fluid to re charge between strokes).
14. Remove reservoir plug (this is the most rearward plug on the master cylinder) accessible by turning steering to the left and approach from the left under side of fairing on full faired versions.
15. Using a syringe, fill reservoir with auto transmission fluid. This will require further top up during the brake bleed procedure every 2 bleed strokes.
    Refer to figure 41(Replenishment of Fluid)

Figure 44 fill reservoir using a syringe

16. Place clear PVC hose on bleed nipples into small collection containers.

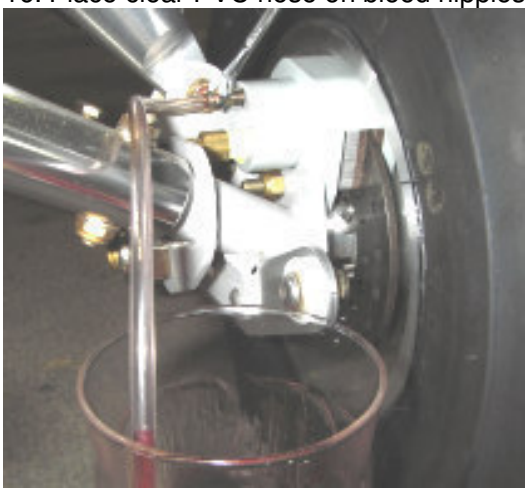


Figure 45 Bleed Drain Hose Connected

17. Undo RH bleed nipple a half turn.
18. Push brake pedal forward and hold in place with last notch on park brake.
19. Lock bleed screw.
20. Let pedal return to the vertical stop position.
21. Repeat several times until fluid reaches nipple (top reservoir up every two to three piston stroke).
22. Repeat to LH nipple until fluid appears and all visible signs of air removed.

23. Return to RH side until all visible air removed.
24. Top fluid up within 10mm from top of housing and replace plug.
25. Adjust free play in piston rod with adjusting bolt, then tighten the lock nut.

Post Installation Brake Inspection

26. Raise each wheel, one at a time. Rotate each wheel by hand, check that there is no substantial drag on each wheel.
27. Depress brake pedal and engage park brake checking for oil leaks. Leave the park brake engaged over a period (nominal 10 minute). With the brake lever lock engaged, depress the brake all the way to the stop. Note any change in resistance from prior tests due to oil leakage.

Figure 46 Inspect All Junctions for Oil Leakage

28. Re adjustment of the piston may be required to maintain the specified free play clearance from the brake lever.

Brake Run In Period

29. For initial braking, taxi around on safe open area exaggerating brake usage, (you may find that brakes do not work to full efficiency until they bed in.

Bearing Inspection and Replacement

The bearings may be inspected by removing the rear removing the rear wheel and rotating the inner race with a finger. Feel for smooth operation.

Replacement is performed by misaligning the internal spacer and using a drift to drive the opposite bearing out. Support the rim using wood or similar to protect the rim during the procedure.

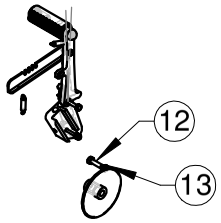
Replace bearings by evenly driving the outer race with a drift.

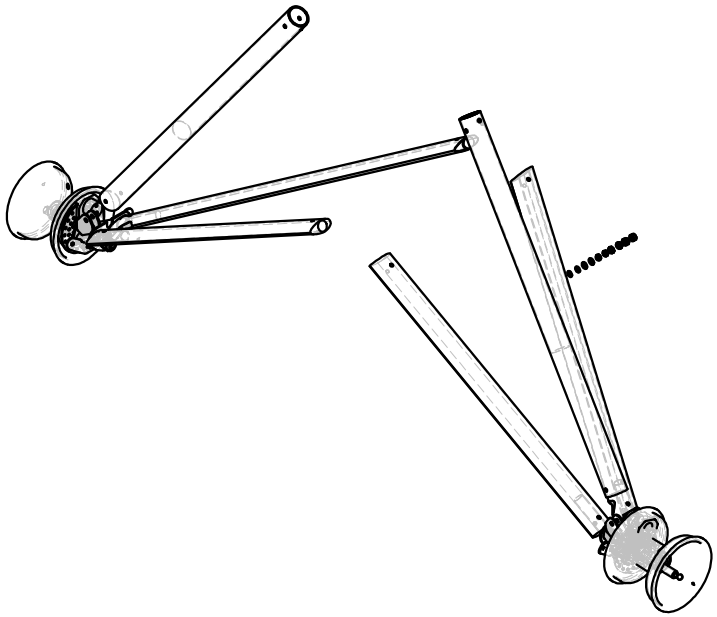
Removal of the front wheel

The front wheel should be elevated and the axle nuts removed, care should be taken to note the sequence of removal and subsequent reassembly. The front brake mounting bolt and cable attachment may also need to be removed to release the wheel.

NOTE:
1. DETAILED ASSEMBLY DRAWINGS AND INSTRUCTIONS ARE PROVIDED AS ENGINEERING REPORT # 07040ds.doc THIS REPORT SHOULD BE PRINTED AND SUPPLIED TO THE CUSTOMER WITH EACH KIT.
2. APPROX 200ml OF BRAKE FLUID IS USED TO FILL THE BRAKE SYSTEM, THIS IS REFLECTED IN THE BOM.
3. THE FINAL FOUR ITEMS ON THE BILL OF MATERIALS ARE PROVIDED AS SPARES AND MAY NOT BE NEEDED. NYLOC NUTS MAY BE REUSED ONCE.
4. IT IS SUGGESTED THAT ONE SIDE SHOULD BE DONE AT A TIME WHERE POSSIBLE.
5. TAKE PHOTOS PRIOR TO DISASSEMBLY TO AID IN REASSEMBLY IF NECESSARY.
6. INSTALLATION TO BE PERFORMED BY PERSON(S) WITH APPROPRIATE QUALIFICATIONS FOR THE APPLICABLE CERTIFICATION TYPE AND GOVERNING BODY.

IF IN DOUBT CONTACT THE MANUFACTURER.





ITEM NO.	NAME	DWG	PART NO.	QTY.
1	BRAKE LEVER SUB-ASSEM XT GREY DISK BRAKE	7362	108464	1
2	DISK BRAKE KIT (WIP) FREE BIRD	7344	108469	1
3	DISK BRAKE LINE ASSEMBLY	7422	108586	1
4	BUSH ALLOY 18OD 13ID X 10L	5453	108588	1
5	Bolt AN3-21 a	5449	101184	1
6	NUT NYLOC AN3 FULL	5535	100051	1
7	WASHER AN3	5540	100049	3
8	SKT CSK SCREW UNF 1-4" x 1"	5568	102062	2
9	NUT NYLOC AN4 FULL	5535	100034	2
10	BRAKE FLUID CASTROL TQ DEXRON III	7423	108510	1
11	CABLE TIE MED	5605	101193	2
12	BOLT AN5-15 a	5493	100015	1
13	NUT NYLOC AN5 HALF	5561	100037	3
14	COMPRESSION STRUT XT MK2 808MM	7375	108455	2
15	REAR STRUT FAIRED EDGE XT MK2 715MM	7374	108448	2
16	REAR STRUT FAIRED DRAG LINK EDGE XT MK2	7373	108449	2
17	HUB ASM REAR EDGE XT MK2 RHS	7391	108453	1
18	HUB ASM REAR EDGE XT MK2 LHS	7392	108450	1
19	WHEEL RIM 6IN FOR DISK BRAKES ASM	7458	108674	2
20	SPACER DRUM BRAKE BLANKING PLATE 38.4MM	7355	108461	1
21	BUSH ALLOY OD 25 ID 19.25 X 24L	5453	108462	1
22	BRAKE DRUM BLANKING PLATE DISC	7354	108460	1
23	SPAT MOUNT BRACKET XT MK2 FIN LHS	7352	108440	1
24	SKT BUTTON SCREW M5 x 16	5677	103182	4
25	WASHER SS 3-16 X 7-16" 304 FLAT	5540	100055	4
26	NUT NYLOC M 5 FULL	5604	101365	4
27	SPAT MOUNT BRACKET XT MK2 FIN RHS	7352	108441	1
28	WASHER AN4	5540	100042	2
29	WASHER AN5	5540	100043	2
30	NUT NYLOC AN4 HALF	5561	100035	2
31	NUT NYLOC AN5 FULL	5535	100036	2
32	BRAKE KIT DISK MANUAL PAGES	7462	108680	1

NOTE:
ITEMS 12 AND 13 AS SHOWN REPLACE THE EXISTING BOLT ON THE FORK

Rev	AMENDMENTS	Date

PART NO. 108673

LAST ACESSED: Friday, 29 June 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

RETRO KIT XTMK1 STD TO MK2 DISK

Drawn By	Scale	Date
Simon	1:15	26-06-07

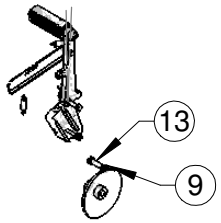
AirBorne AUSTRALIA

7457
SHEET 1 of 1

NOTE:
1. DETAILED ASSEMBLY DRAWINGS AND INSTRUCTIONS ARE PROVIDED AS ENGINEERING REPORT # 07040ds.doc THIS REPORT SHOULD BE PRINTED AND SUPPLIED TO THE CUSTOMER WITH EACH KIT.
2. APPROX 200ml OF BRAKE FLUID IS USED TO FILL THE BRAKE SYSTEM, THIS IS REFLECTED IN THE BOM.
3.SOME SPARE NUTS AND BOLTS ON THE BILL OF MATERIALS ARE PROVIDED AS SPARES AND MAY NOT BE NEEDED. NYLOC NUTS MAY BE REUSED ONCE.
4. IT IS SUGGESTED THAT ONE SIDE SHOULD BE DONE AT A TIME WHERE POSSIBLE.
5. TAKE PHOTOS PRIOR TO DISASSEMBLY TO AID IN REASSEMBLY IF NECESSARY.
6. INSTALLATION TO BE PERFORMED BY PERSON(S) WITH APPROPRIATE QUALIFICATIONS FOR THE APPLICABLE CERTIFICATION TYPE AND GOVERNING BODY.

IF IN DOUBT CONTACT THE MANUFACTURER.

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	BRAKE LEVER SUB-ASSEM XT GREY DISK BRAKE	7362	108464	1
2	DISK BRAKE KIT (WIP) FREE BIRD	7344	108469	1
3	DISK BRAKE LINE ASSEMBLY	7422	108586	1
4	BUSH ALLOY 18OD 13ID X 10L	5453	108588	1
5	SKT CSK SCREW UNF 1-4" x 1"	5568	102062	2
6	NUT NYLOC AN4 FULL	5535	100034	2
7	BRAKE FLUID CASTROL TQ DEXRON III	7423	108510	1
8	CABLE TIE MED	5605	101193	2
9	NUT NYLOC AN5 HALF	5561	100037	1
10	SPACER DRUM BRAKE BLANKING PLATE 38.4MM	7355	108461	1
11	BUSH ALLOY OD 25 ID 19.25 X 24L	5453	108462	1
12	BRAKE DRUM BLANKING PLATE DISC	7354	108460	1
13	BOLT AN5-15 a	5493	100015	1
14	Bolt AN3-21 a	5449	101184	1
15	NUT NYLOC AN3 FULL	5535	100051	1
16	WASHER AN3	5540	100049	3
17	SCOURER GRIT PLUG MASTER CYL VENT 8.8MM	7468	108626	1
18	BRAKE KIT DISK MANUAL PAGES	7462	108680	1
19	CABLE TIE X-LONG	5605	101194	4
20	LOCTITE 567 Thread Sealant	5637	103705	1



NOTE:
ITEMS 9 AND 13 AS SHOWN REPLACE THE EXISTING BOLT ON THE FORK

NOTE:
OWNERS OF TRIKE SERIAL NUMBERS HIGHER THAN 179 MANUFACTURED AFTER MAY 2007 FOR XT 912 AND SERIAL NUMBERS HIGHER THAN 41MANUFACTURED AFTER APRIL 2007 FOR XT 582 REQUIRE THIS KIT TO UPGRADE TO DISK BRAKES. OWNERS OF "MK1" TRIKES PRIOR TO THESE SERIAL NUMBERS SHOULD REFER TO DWG # 7457 PART # 108673 TO UPGRADE TO DISK BRAKES.

Rev	AMENDMENTS	Date

PART NO. 108684

LAST ACESSED: Monday, 9 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

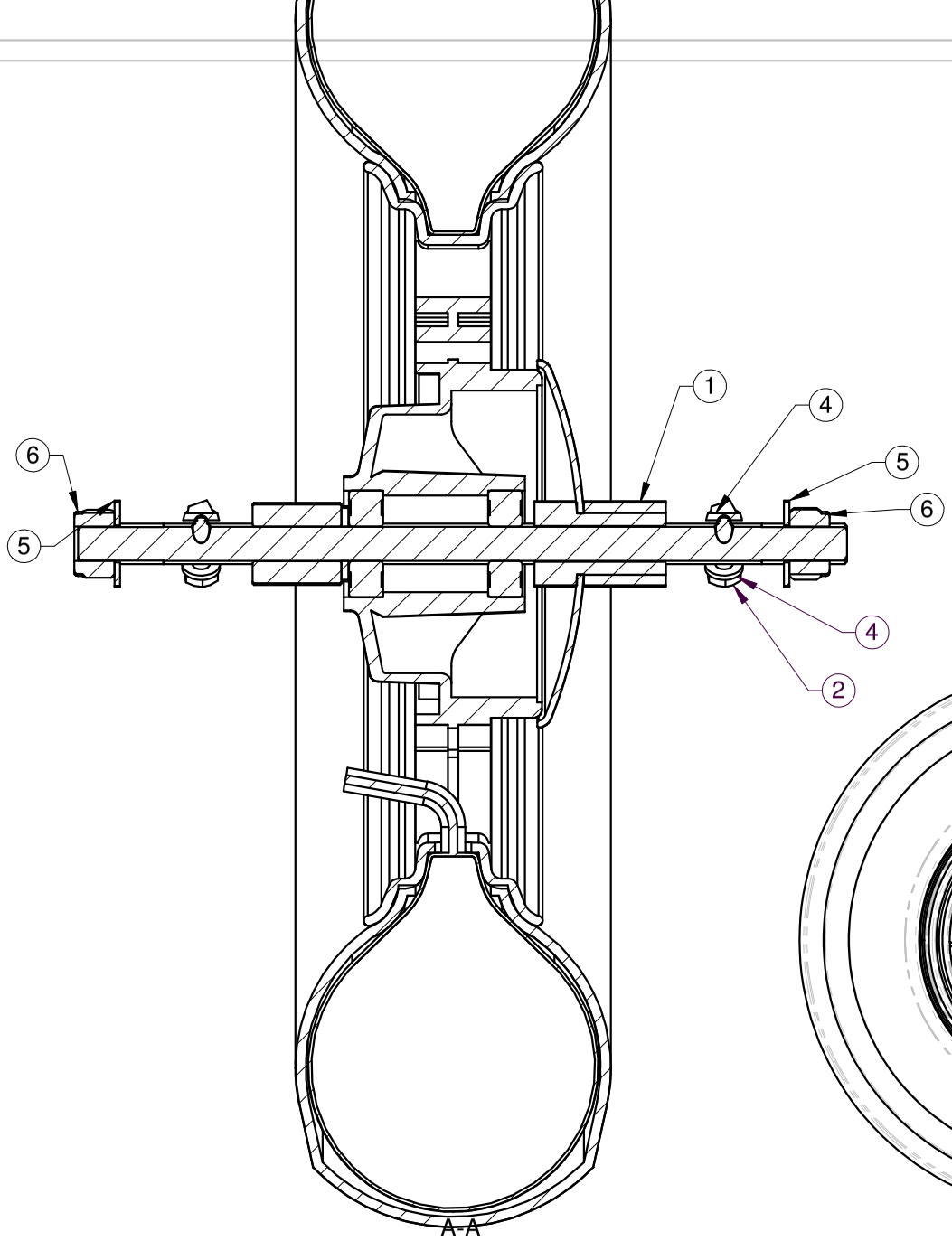
RETRO KIT XTMK2 STD TO MK2 DISK

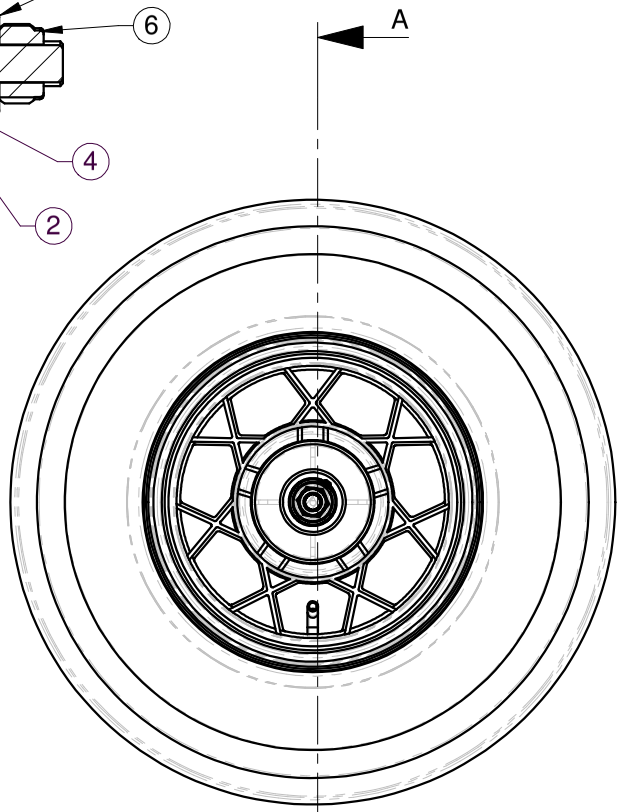
Drawn By	Scale	Date
Simon	1:15	06-07-07

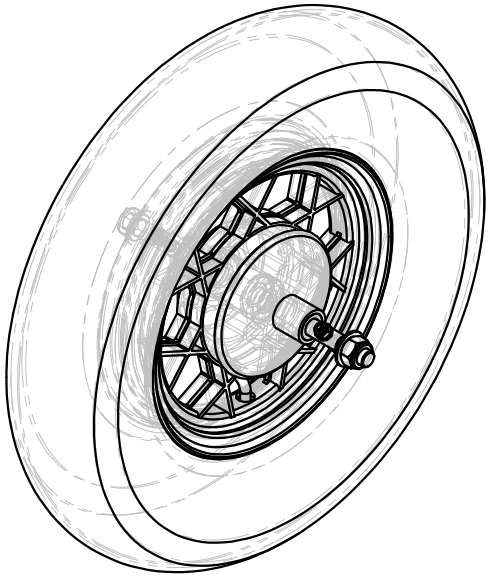
AirBorne AUSTRALIA

7465
SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	AXLE ASM FRNT GREMICA WITHOUT BRAKE	7419	108442	1
2	Bolt AN3-10 a	5449	102927	2
3	NUT NYLOC AN3 FULL	5535	100051	2
4	WASHER AN3	5540	100049	4
5	WASHER SS 1-2 X 1" 304 FLAT	5540	100093	2
6	NUT NYLOC M 12 FULL - FINE	5604	103612	2
7	WHEEL 8IN INCL TYRE & TUBE (GREMICA	6898	107511	1







NOTE:
WHEEL RIM 8" COMPLETE AS PURCHASED
#102931 ORGINALLY MADE ON TC A4-4597

NEW PART #106713 NOW ON 6575

COPIED FROM A4-5950, 17-04-07

Rev	AMENDMENTS	Date

PART NO. 108437 - 0

LAST ACESSED: Tuesday, 26 June 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

GREMICA FRONT WHEEL SUBASM XT NO BRAKE

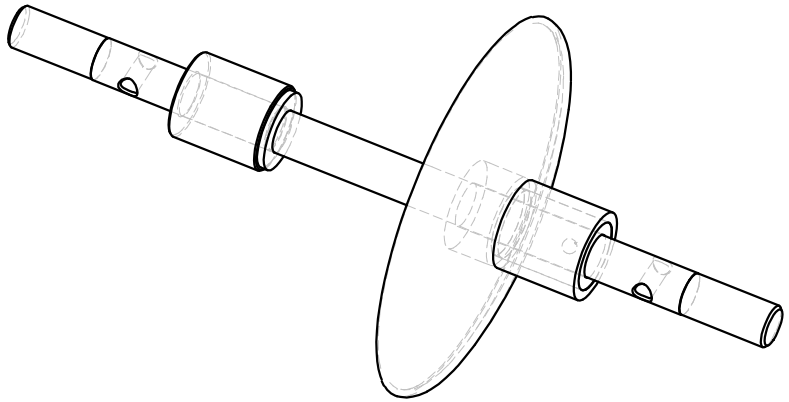
Drawn By	Scale	Date
Simon	1:5	17-04-07

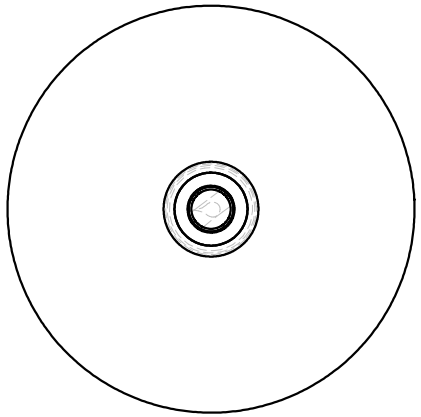
AirBorne AUSTRALIA

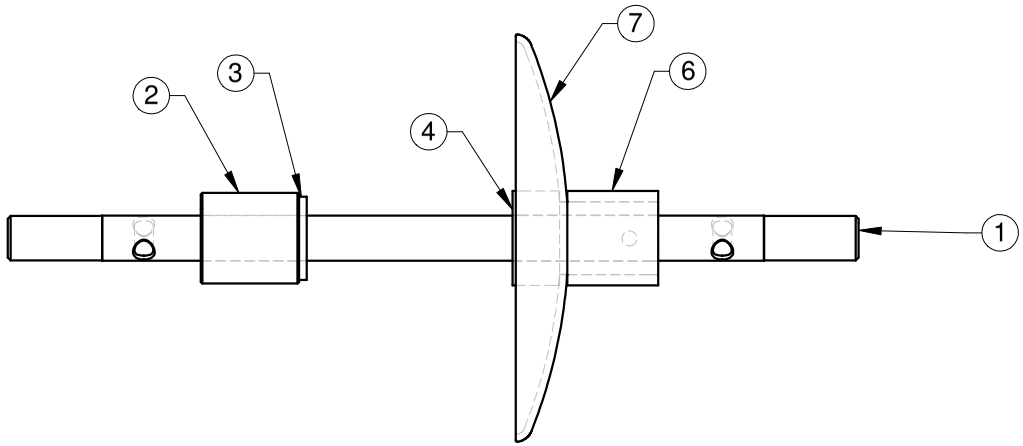
7414

SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	BOLT AXLE TYPE 2 FRONT END	5962	102903	1
2	SPACER 26L GREMICA WHEEL RHS TYPE 2	5960	102899	1
3	WASHER GREMICA WHEEL 22x12x2	5540	103166	1
4	SPACER DRUM BRAKE BLANKING PLATE 38.4MM	7355	108461	1
5	LOCTITE 262 Red High Strength	5637	103723	1
6	BUSH ALLOY OD 25 ID 19.25 X 24L	5453	108462	1
7	BRAKE DRUM BLANKING PLATE DISC	7354	108460	1







VIEW FROM FRONT OF TRIKE

COPIED FROM A4-6575, 17-04-07

Rev	AMENDMENTS	Date

PART NO. 108442

LAST ACESSED: Tuesday, 26 June 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

AXLE ASM FRNT GREMICA WITHOUT BRAKE

Drawn By	Scale	Date
Simon	1:2	02/04/07

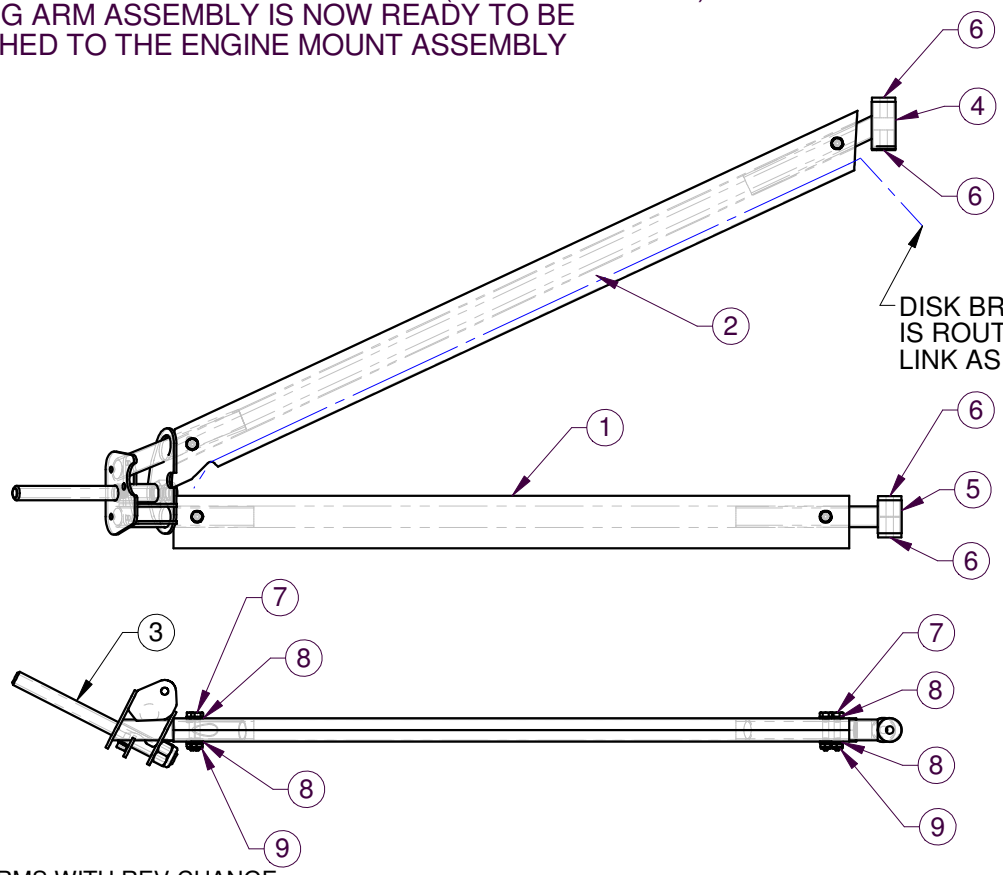
AirBorne AUSTRALIA

7419

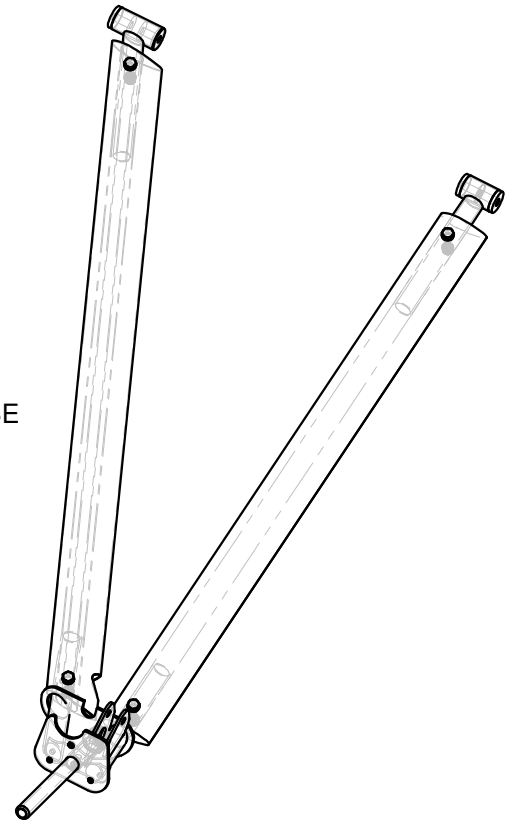
SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	REAR STRUT FAIRED EDGE XT MK2 715MM	7374	108448	1
2	REAR STRUT FAIRED DRAG LINK EDGE XT MK2	7373	108449	1
3	HUB ASM REAR EDGE XT MK2 LHS	7392	108450	1
4	PIVOT BRACKET DRAG LINK XT GREY	5414	105175	1
5	PIVOT BRACKET REAR STRUT XT	5415	105174	1
6	PIVOT BRACKET ACETAL BUSH XT	5413	105176	4
7	BOLT AN4-13 a	5450	101333	4
8	WASHER AN4	5540	100042	8
9	NUT NYLOC AN4 HALF	5561	100035	4

ASSEMBLY INSTRUCTIONS:
1. PRESS BUSHS INTO PIVOT HOUSING
2. ATTACH SUS PIVOTS TO STRUTS (DO NOT TIGHTEN)
3. ATTACH HUB ASSEMBLY TO STRUT (DO NOT TIGHTEN)
4 SWING ARM ASSEMBLY IS NOW READY TO BE ATTACHED TO THE ENGINE MOUNT ASSEMBLY



DISK BRAKE HYDRAULIC TUBE IS ROUTED THRU THE DRAG LINK AS SHOWN.



FOR EXPLODED DETAIL VIEW
SEE RHS SUB-ASSEM A4-7399

UPDATE GJP FORMS WITH REV CHANGE

COPIED FROM A4-5635, 05-04-07

Rev	AMENDMENTS	Date

PART NO. 108445 - 0

LAST ACESSED: Wednesday, 4 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

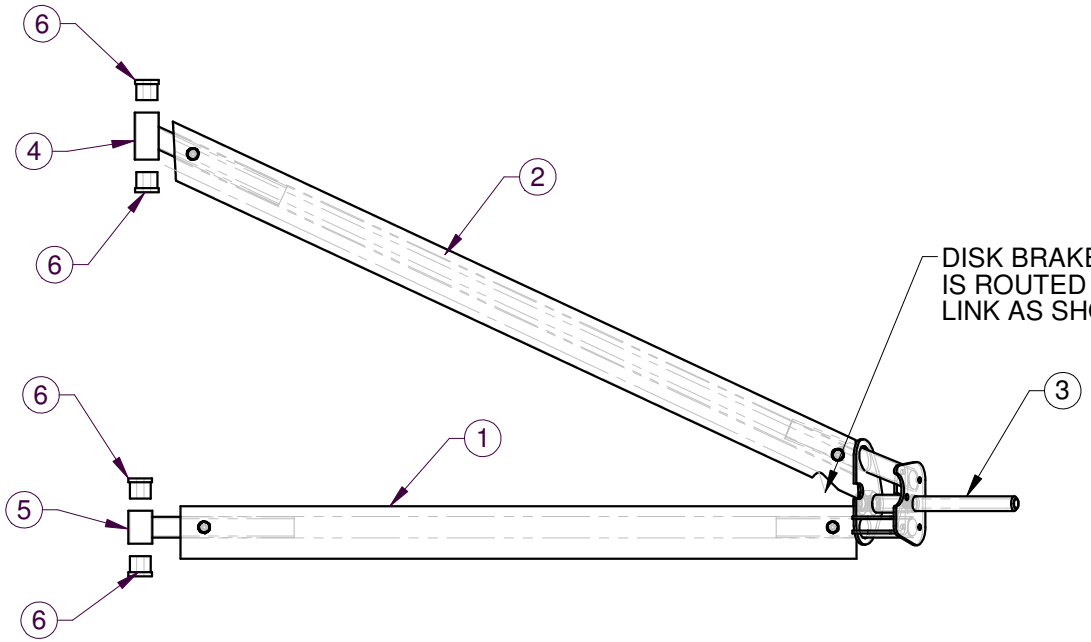
REAR SWING ARM SUBASM XT MK2 LHS

Drawn By	Scale	Date
Simon	1:8	05-04-07

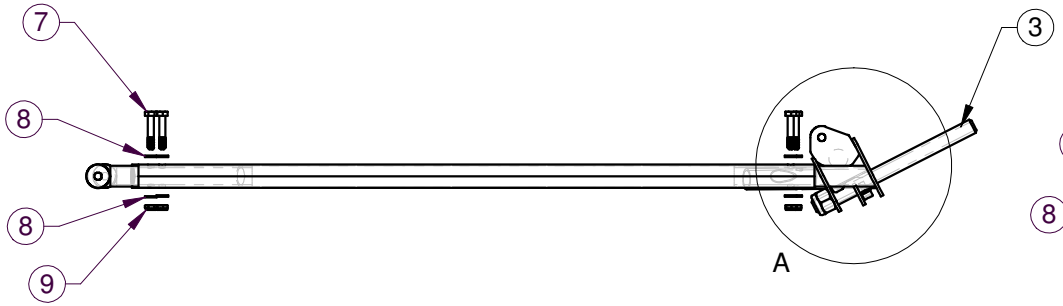
AirBorne AUSTRALIA

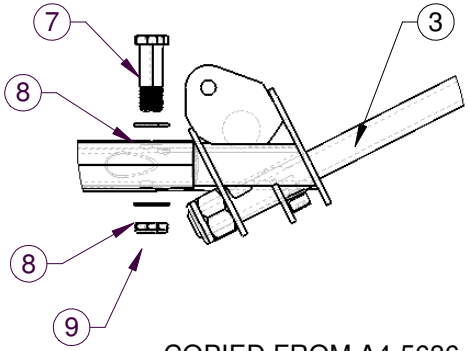
7398
SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	REAR STRUT FAIRED EDGE XT MK2 715MM	7374	108448	1
2	REAR STRUT FAIRED DRAG LINK EDGE XT MK2	7373	108449	1
3	HUB ASM REAR EDGE XT MK2 RHS	7391	108453	1
4	PIVOT BRACKET DRAG LINK XT GREY	5414	105175	1
5	PIVOT BRACKET REAR STRUT XT	5415	105174	1
6	PIVOT BRACKET ACETAL BUSH XT	5413	105176	4
7	BOLT AN4-13 a	5450	101333	4
8	WASHER AN4	5540	100042	8
9	NUT NYLOC AN4 HALF	5561	100035	4

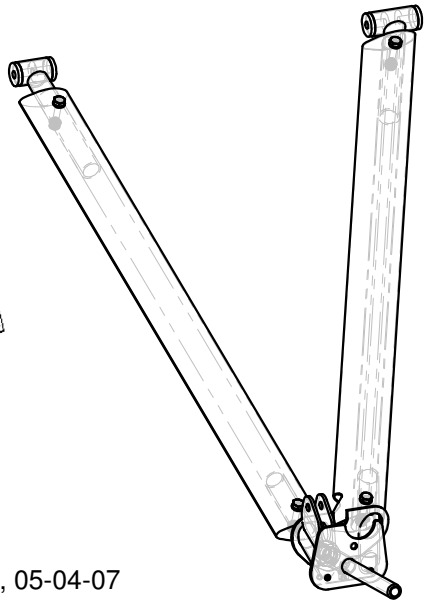


ASSEMBLY INSTRUCTIONS:
1. PRESS BUSHS INTO PIVOT HOUSING
2. ATTACH SUS PIVOTS TO STRUTS (DO NOT TIGHTEN)
3. ATTACH HUB ASSEMBLY TO STRUT (DO NOT TIGHTEN)
4 SWING ARM ASSEMBLY IS NOW READY TO BE ATTACHED TO THE ENGINE MOUNT ASSEMBLY





A (1 : 4)



LHS SUB-ASSEM #108445
SEE A4-7398

COPIED FROM A4-5636, 05-04-07

UPDATE GJP FORMS WITH REV CHANGE

Rev	AMENDMENTS	Date

PART NO. 108446 - 0

LAST ACESSED: Wednesday, 4 July 2007

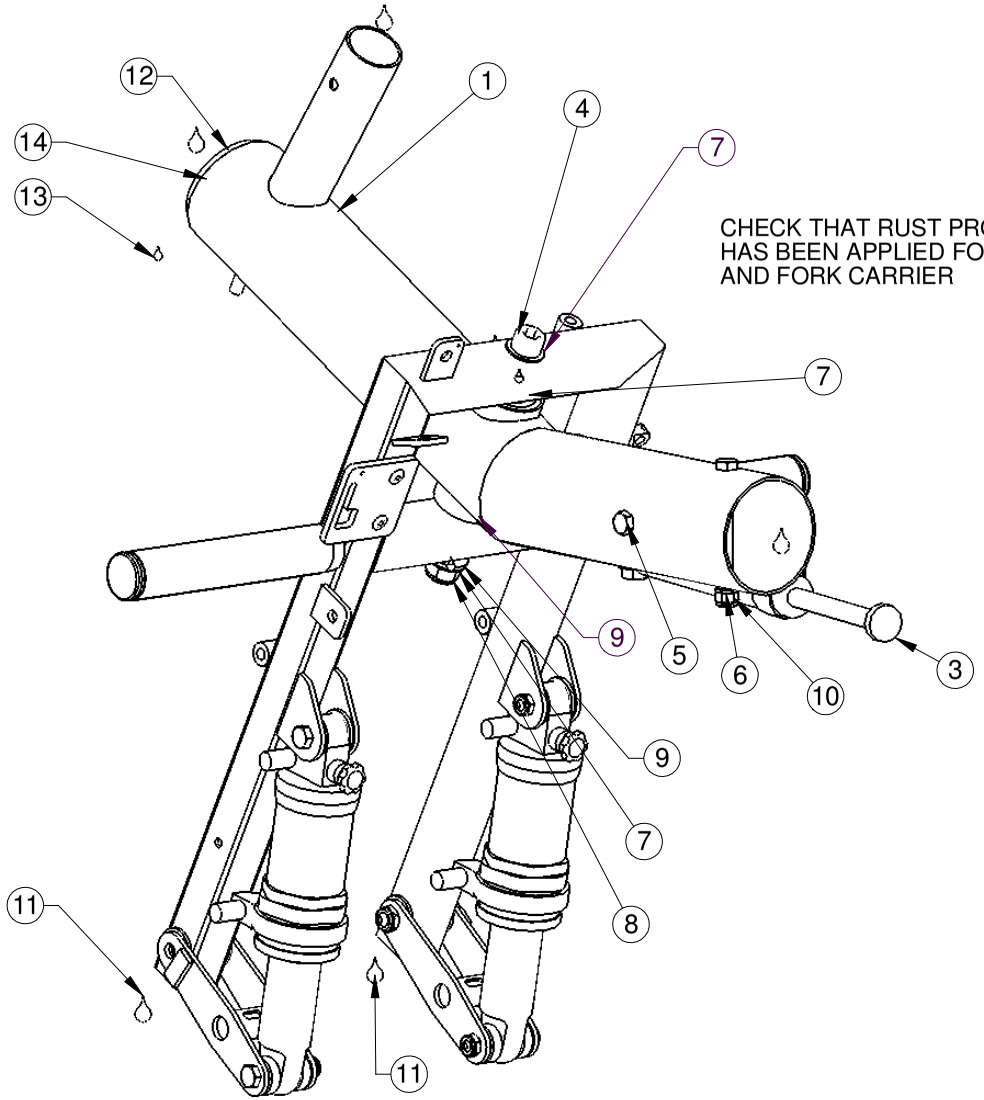
ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

REAR SWING ARM SUBASM XT MK2 RHS

Drawn By	Scale	Date
Simon	1:8	05-04-07

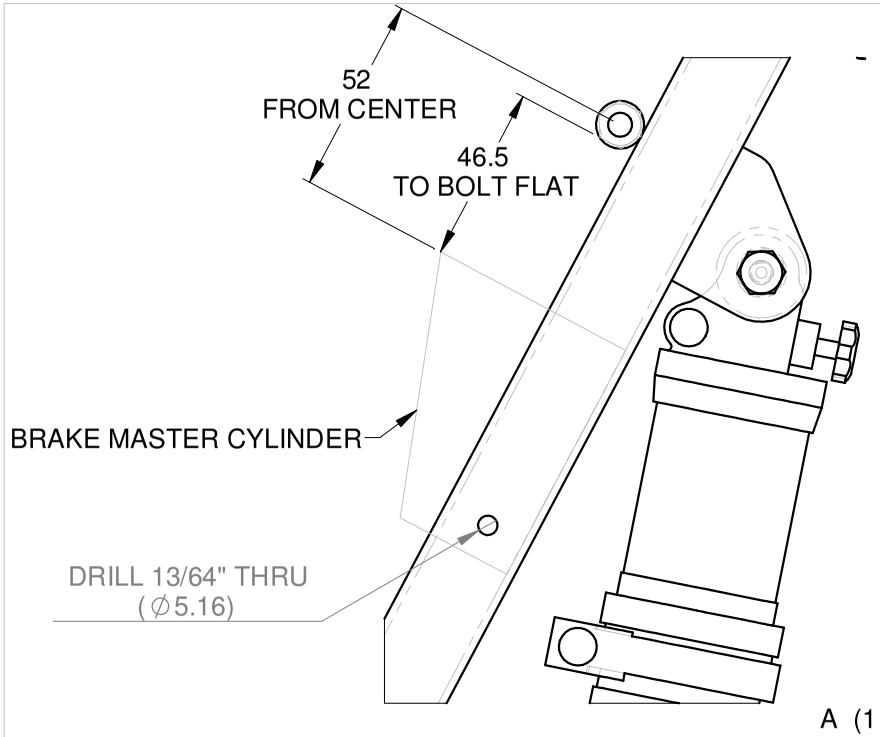
AirBorne AUSTRALIA

7399
SHEET 1 of 1



CHECK THAT RUST PROTECTION HAS BEEN APPLIED FOR FORK AND FORK CARRIER

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	FORK CARRIER XT INCL BEARINGS GREY	6436	106916	1
2	FRONT FORK SUB-ASSEMBLY XT- EYEBOLT	6736	106989	1
3	STEERING DAMPER SUB-ASSEMBLY	5610	105388	1
4	SKT CAP SCREW M 10 X 150 ZINC PLATED	5603	108101	1
5	BOLT AN4-27 a	5450	100010	2
6	WASHER AN4	5540	100042	2
7	WASHER SS 10 X 21mm	5540	103458	3
8	NUT NYLOC M 10 FULL	5604	100802	1
9	WASHER NYLON M10 STD	5540	100619	2
10	NUT NYLOC AN4 FULL	5535	100034	2
11	RUST PROTECTANT ARP LIQUID	5637	106730	2
12	CAP ROUND TUBE CLOSURE 57MM	5633	101718	1
13	LOCTITE 406 Instant Adhesive	5637	103707	1
14	SLEEVE 60D X 10L	7216	104548	1



A (1 : 2)

NOTE: DISK BRAKE RETROFIT DIMENSIONS.

UPDATE GJP FORMS WITH REV CHANGE

Rev	AMENDMENTS	Date

PART NO. 108360 - 0

LAST ACESSED: Friday, 29 June 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

COPIED FROM A4-5571, 11-04-07

FRNT END SUBASM XT STD TYPE 3

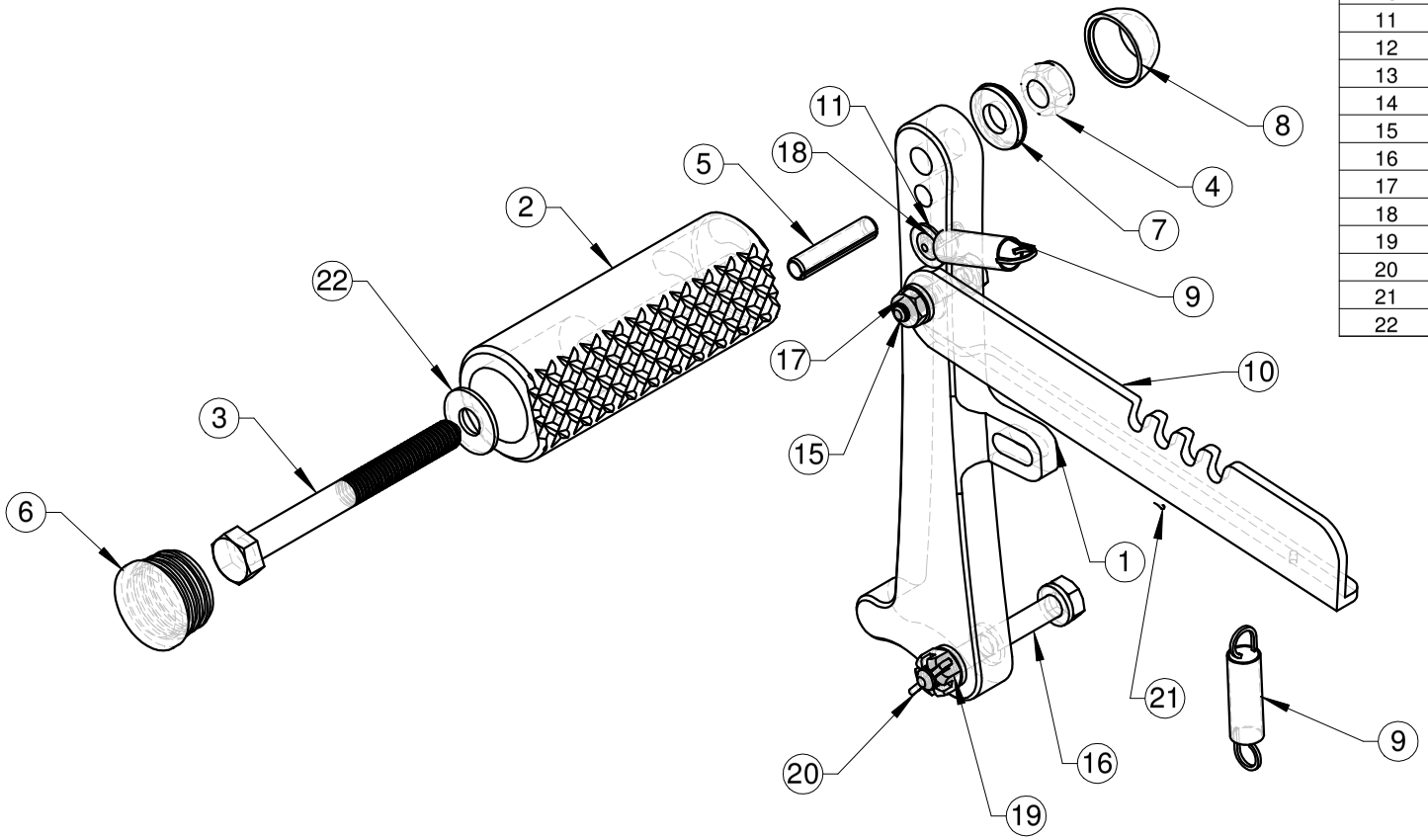
Drawn By	Scale	Date
Simon	1:4	11-04-07

AirBorne AUSTRALIA

7409

SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	BRAKE LEVER FOOT TYPE AL XT	7359	108465	1
2	FOOT LEVER ACETAL TOP ARM	7361	108477	1
3	BOLT 8.8 GR M8x80	5935	100908	1
4	NUT NYLOC M 8 FULL	5604	100915	1
5	ROLL PIN 1-4" X 1 1-8"	5516	102356	1
6	CAP ROUND TUBE CLOSURE 1IN	5633	103225	1
7	CAP WASHER BASE CLIP M8	5667	100604	1
8	CAP WASHER COVER BLK M8	5666	100603	1
9	SPRING TENSION T56 - FOOT LEVERS	5556	104779	2
10	PARK BRAKE LEVER	5562	104702	1
11	WASHER SS 3-16 X 1-2"	5540	100569	1
12	WASHER AN3	5540	100049	2
13	WASHER NYLON 1-4" OBA THIN	5540	103961	1
14	WASHER NYLON 1-4" OBA THICK	5540	102424	3
15	Bolt AN3-10 a	5449	102927	1
16	BOLT AN4-20	5450	105330	1
17	NUT NYLOC AN3 HALF	5561	101334	1
18	POP RIVET 5/32" MED (5-5)	5515	100161	1
19	NUT AN4 CASTLE	6297	100040	1
20	SPLIT PIN M2.0 x 20	6296	100308	1
21	DRI LUBE SOLID LUBE	5637	106432	1
22	WASHER SS 5-16 X 3-4"	5540	102332	1



Rev	AMENDMENTS	Date

PART NO. 108464

LAST ACESSED: Tuesday, 26 June 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

BRAKE LEVER SUB-ASSEM XT GREY DISK BRAKE

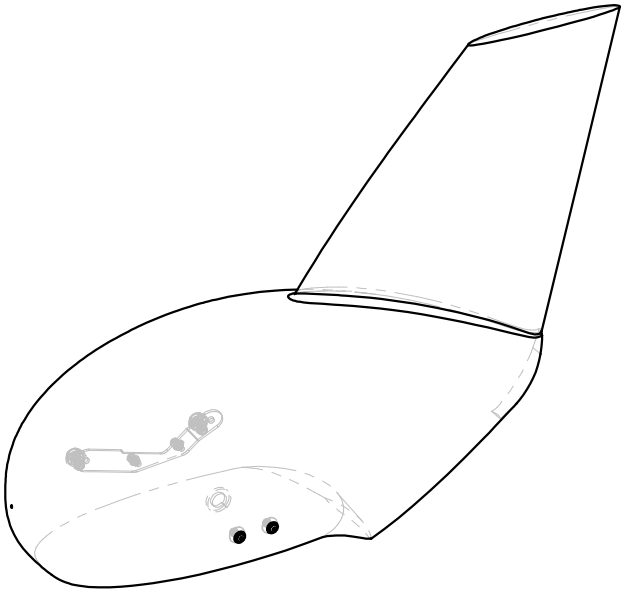
Drawn By	Scale	Date
Simon	1:2	27-02-07

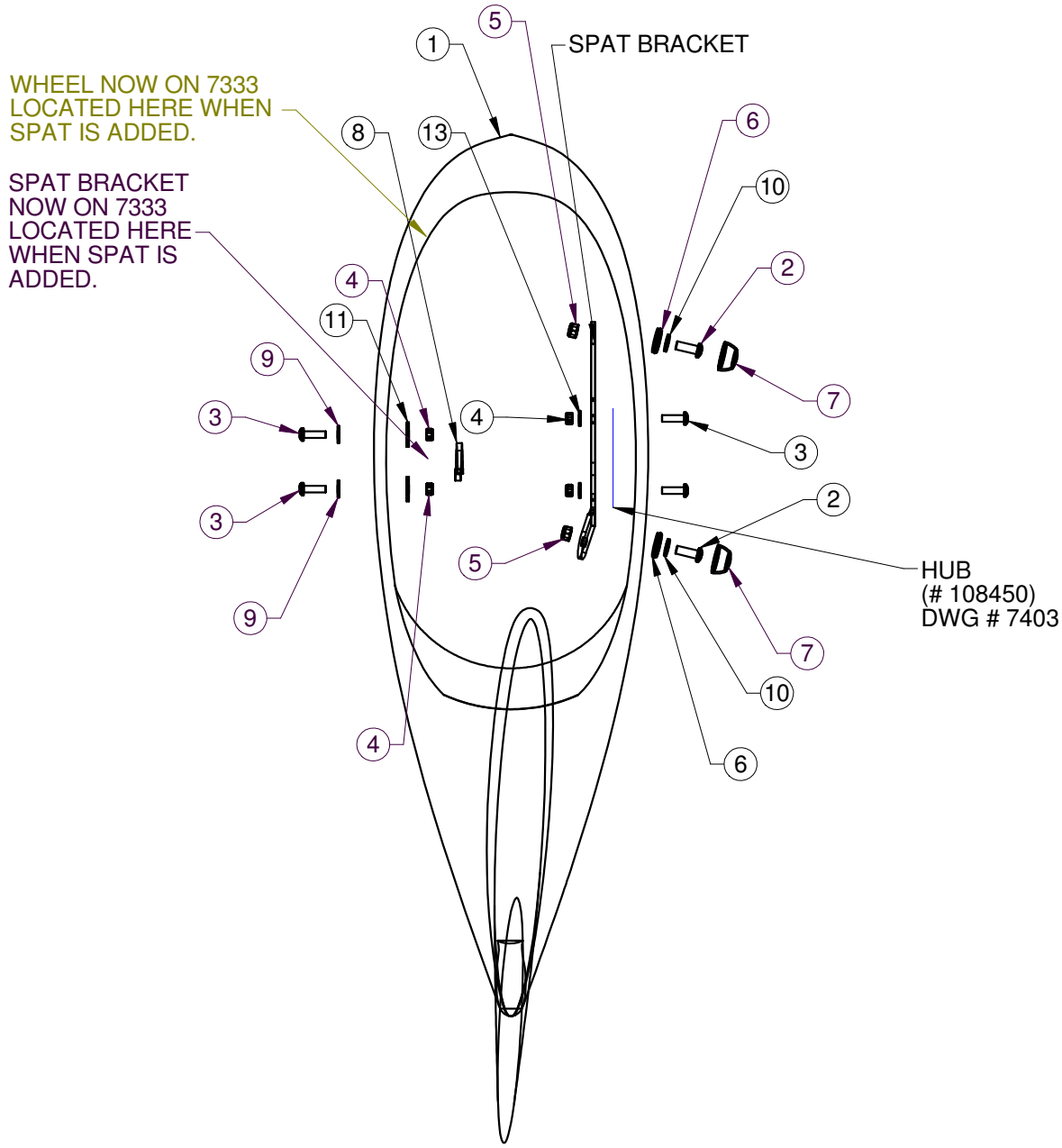
AirBorne AUSTRALIA

7362

SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	WHEEL SPAT (LHS) EDGE XT MK2 TBA	5680	108383	1
2	SKT BUTTON SCREW M6 x 16	5677	101752	2
3	SKT BUTTON SCREW M5 x 16	5677	103182	4
4	NUT NYLOC M 5 FULL	5604	101365	4
5	NUT NYLOC M 6	5604	102132	2
6	CAP WASHER BASE CLIP M8	5667	100604	2
7	CAP WASHER COVER BLK M8	5666	100603	2
8	SPRING WASHER 5-8"	5679	100600	1
9	WASHER SS 3-16 X 1-2"	5540	100569	2
10	WASHER AN4	5540	100042	2
11	WASHER NYLON M6 XOD	5540	101055	2
12	SPAT MOUNT BRACKET XT MK2 FIN LHS	7352	108440	1
13	WASHER SS 3-16 X 7-16" 304 FLAT	5540	100055	2





COPIED FROM A4-5789 - 10-04-07

Rev	AMENDMENTS	Date

PART NO. 108438 - 0

LAST ACESSED: Wednesday, 4 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

WHEEL SPAT SUBASM LHS XT MK2

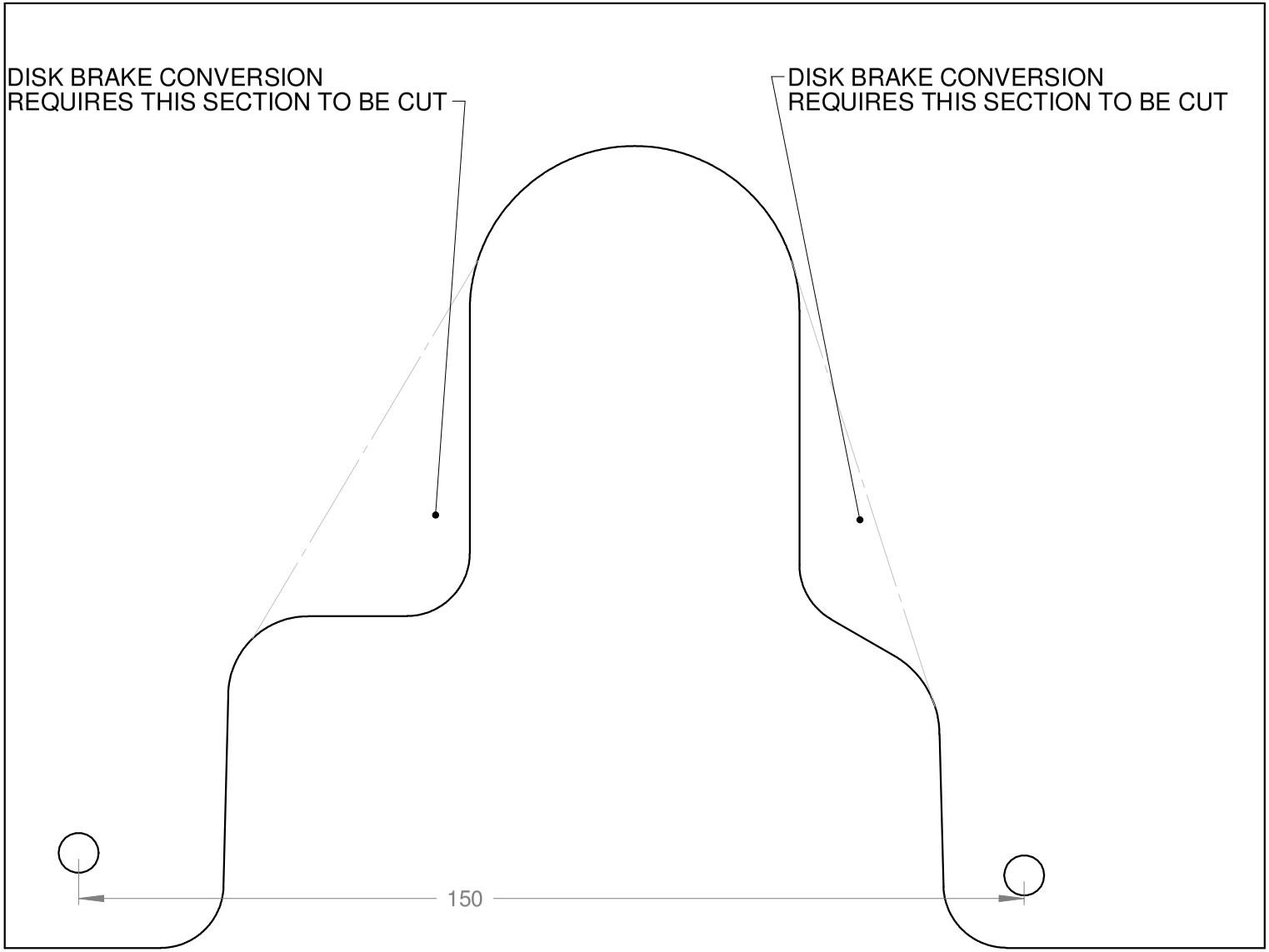
Drawn By	Scale	Date
Simon	1:5	10-04-07

AirBorne AUSTRALIA

7403

SHEET 1 of 1

ITEM NO.	PART NO.	NAME	MATERIAL.DESCRIPTION	MATL.NO.	REQD
1	108676	JIG WHEEL SPAT XT CUTOUT MK1	NA	NA	NA



Rev	AMENDMENTS	Date

PART NO. 108676

LAST ACESSED: Wednesday, 27 June 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

JIG WHEEL SPAT XT CUTOUT MK1

Drawn By	Scale	Date
Simon	1:1	26-06-07

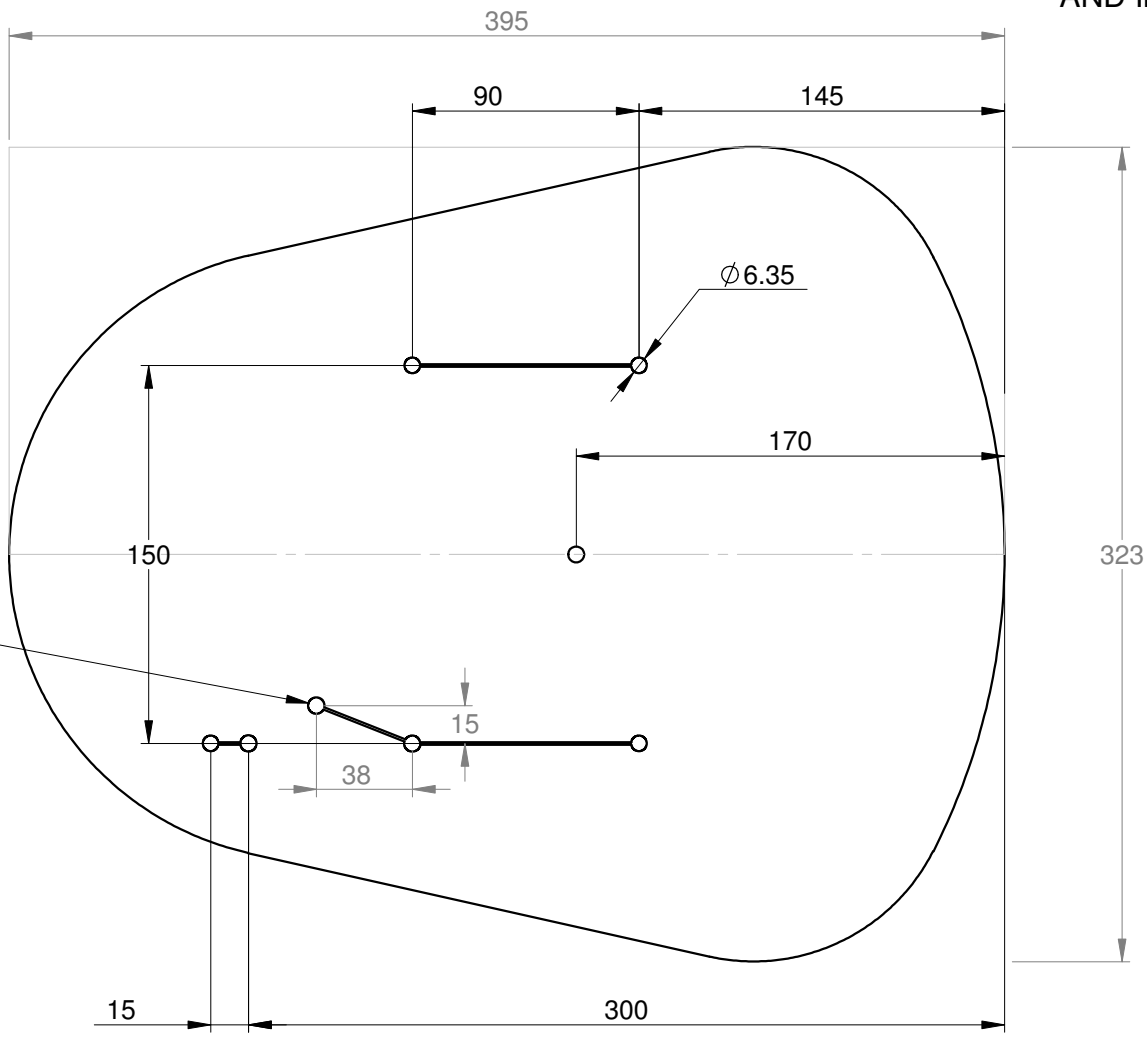
AirBorne AUSTRALIA

7460

SHEET 2 of 2

ITEM NO.	PART NO.	NAME	MATERIAL.DESCRIPTION	MATL.NO.	REQD
1	105791	POD DRAFT STOP NEOPRENE XT	NEOPRENE 3MM BLACK/BLACK	102780	330x400

USE JIG 5966 TO CUT OUT SHAPE
AND INTERNAL HOLES



FOR XTMK1 TO MK2
DISK BRAKE RETROFIT
PUNCH THIS HOLE AND
MAKE CUT TO JOIN TO
EXISTING HOLE.

Rev	AMENDMENTS	Date
1	ADD EXTRA HOLE FOR DISK BRAKE	19-04-07

PART NO. 105791 -

LAST ACESSED: Friday, 6 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

SolidWorks

POD DRAFT STOP NEOPRENE XT

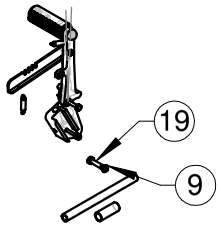
Drawn By	Scale	Date
Cris	1:3	16/11/04

AirBorne AUSTRALIA

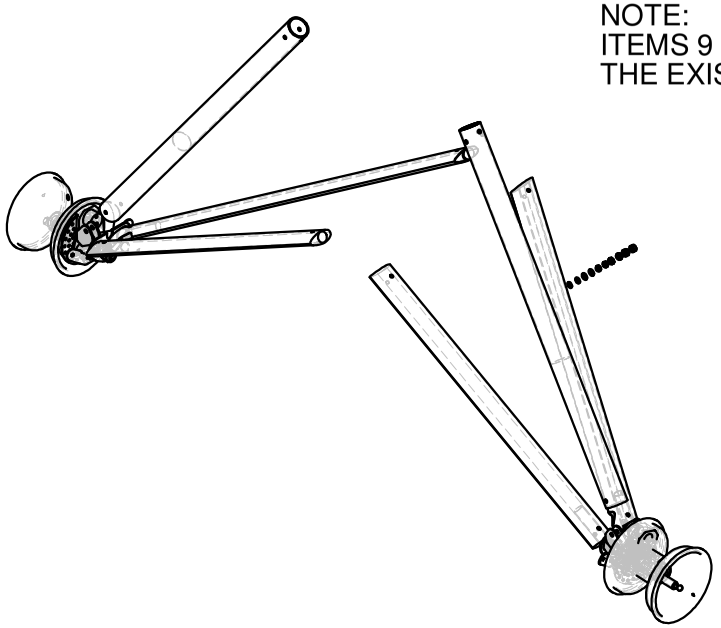
5966
SHEET 1 of 1

NOTE:
1. DETAILED ASSEMBLY DRAWINGS AND INSTRUCTIONS ARE PROVIDED AS ENGINEERING REPORT # 07040ds.doc THIS REPORT SHOULD BE PRINTED AND SUPPLIED TO THE CUSTOMER WITH EACH KIT.
2. APPROX 200ml OF BRAKE FLUID IS USED TO FILL THE BRAKE SYSTEM, THIS IS REFLECTED IN THE BOM.
3.SOME SPARE NUTS AND BOLTS ON THE BILL OF MATERIALS ARE PROVIDED AS SPARES AND MAY NOT BE NEEDED. NYLOC NUTS MAY BE REUSED ONCE.
4. IT IS SUGGESTED THAT ONE SIDE SHOULD BE DONE AT A TIME WHERE POSSIBLE.
5. TAKE PHOTOS PRIOR TO DISASSEMBLY TO AID IN REASSEMBLY IF NECESSARY.
6. INSTALLATION TO BE PERFORMED BY PERSON(S) WITH APPROPRIATE QUALIFICATIONS FOR THE APPLICABLE CERTIFICATION TYPE AND GOVERNING BODY.

IF IN DOUBT CONTACT THE MANUFACTURER.



NOTE:
ITEMS 9 AND 19 AS SHOWN REPLACE THE EXISTING BOLT ON THE FORK



ITEM NO.	NAME	DWG	PART NO.	QTY.
1	BRAKE LEVER SUB-ASSEM XT GREY DISK BRAKE	7362	108464	1
2	DISK BRAKE KIT (WIP) FREE BIRD	7344	108469	1
3	DISK BRAKE LINE ASSEMBLY	7422	108586	1
4	BUSH ALLOY 18OD 13ID X 10L	5453	108588	1
5	SKT CSK SCREW UNF 1-4" x 1"	5568	102062	2
6	NUT NYLOC AN4 FULL	5535	100034	2
7	BRAKE FLUID CASTROL TQ DEXRON III	7423	108510	1
8	CABLE TIE MED	5605	101193	2
9	NUT NYLOC AN5 HALF	5561	100037	3
10	COMPRESSION STRUT XT MK2 808MM	7375	108455	2
11	REAR STRUT FAIRED EDGE XT MK2 715MM	7374	108448	2
12	REAR STRUT FAIRED DRAG LINK EDGE XT MK2	7373	108449	2
13	HUB ASM REAR EDGE XT MK2 RHS	7391	108453	1
14	HUB ASM REAR EDGE XT MK2 LHS	7392	108450	1
15	WHEEL RIM 6IN FOR DISK BRAKES ASM	7458	108674	2
16	Bolt AN3-21 a	5449	101184	1
17	NUT NYLOC AN3 FULL	5535	100051	1
18	WASHER AN3	5540	100049	3
19	BOLT AN5-15 a	5493	100015	1
20	SCOURER GRIT PLUG MASTER CYL VENT 8.8MM	7468	108626	1
21	SPAT MOUNT BRACKET XT MK2 FIN LHS	7352	108440	1
22	SKT BUTTON SCREW M5 x 16	5677	103182	4
23	WASHER SS 3-16 X 7-16" 304 FLAT	5540	100055	4
24	NUT NYLOC M 5 FULL	5604	101365	4
25	SPAT MOUNT BRACKET XT MK2 FIN RHS	7352	108441	1
26	WASHER AN4	5540	100042	2
27	WASHER AN5	5540	100043	2
28	NUT NYLOC AN4 HALF	5561	100035	2
29	NUT NYLOC AN5 FULL	5535	100036	2
30	BRAKE KIT DISK MANUAL PAGES	7462	108680	1
31	CABLE TIE X-LONG	5605	101194	4
32	LOCTITE 567 Thread Sealant	5637	103705	1
33	TUNDRA FRONT AXLE SLEEVE - 198MM	6368	108478	1
34	TUNDRA FRONT AXLE SLEEVE - 50.5MM	6368	108479	1

NOTE:
OWNERS OF TRIKE SERIAL NUMBERS 1 THRU 179 MANUFACTURED PRIOR TO MAY 2007 FOR XT 912 AND SERIAL NUMBERS 1 THRU 41 MANUFACTURED PRIOR TO APRIL 2007 FOR XT 582 REQUIRE THIS KIT TO UPGRADE TO DISK BRAKES. OWNERS OF "MK2" TRIKES AFTER THESE SERIAL NUMBERS SHOULD REFER TO DWG # 7467 PART # 108686 TO UPGRADE TO DISK BRAKES.

Rev	AMENDMENTS	Date

PART NO. 108685

LAST ACESSED: Monday, 9 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

RETRO KIT XTMK1 OBACK TO MK2 OBACK DISK

Drawn By	Scale	Date
Simon	1:15	06-07-07

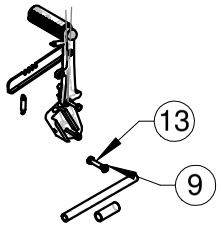
AirBorne AUSTRALIA

7466
SHEET 1 of 1

NOTE:
1. DETAILED ASSEMBLY DRAWINGS AND INSTRUCTIONS ARE PROVIDED AS ENGINEERING REPORT # 07040ds.doc THIS REPORT SHOULD BE PRINTED AND SUPPLIED TO THE CUSTOMER WITH EACH KIT.
2. APPROX 200ml OF BRAKE FLUID IS USED TO FILL THE BRAKE SYSTEM, THIS IS REFLECTED IN THE BOM.
3.SOME NUTS AND BOLTS ON THE BILL OF MATERIALS ARE PROVIDED AS SPARES AND MAY NOT BE NEEDED. NYLOC NUTS MAY BE REUSED ONCE.
4. IT IS SUGGESTED THAT ONE SIDE SHOULD BE DONE AT A TIME WHERE POSSIBLE.
5. TAKE PHOTOS PRIOR TO DISASSEMBLY TO AID IN REASSEMBLY IF NECESSARY.
6. INSTALLATION TO BE PERFORMED BY PERSON(S) WITH APPROPRIATE QUALIFICATIONS FOR THE APPLICABLE CERTIFICATION TYPE AND GOVERNING BODY.

IF IN DOUBT CONTACT THE MANUFACTURER.

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	BRAKE LEVER SUB-ASSEM XT GREY DISK BRAKE	7362	108464	1
2	DISK BRAKE KIT (WIP) FREE BIRD	7344	108469	1
3	DISK BRAKE LINE ASSEMBLY	7422	108586	1
4	BUSH ALLOY 18OD 13ID X 10L	5453	108588	1
5	SKT CSK SCREW UNF 1-4" x 1"	5568	102062	2
6	NUT NYLOC AN4 FULL	5535	100034	2
7	BRAKE FLUID CASTROL TQ DEXRON III	7423	108510	1
8	CABLE TIE MED	5605	101193	2
9	NUT NYLOC AN5 HALF	5561	100037	1
10	Bolt AN3-21 a	5449	101184	1
11	NUT NYLOC AN3 FULL	5535	100051	1
12	WASHER AN3	5540	100049	3
13	BOLT AN5-15 a	5493	100015	1
14	SCOURER GRIT PLUG MASTER CYL VENT 8.8MM	7468	108626	1
15	BRAKE KIT DISK MANUAL PAGES	7462	108680	1
16	CABLE TIE X-LONG	5605	101194	4
17	LOCTITE 567 Thread Sealant	5637	103705	1
18	TUNDRA FRONT AXLE SLEEVE - 198MM	6368	108478	1
19	TUNDRA FRONT AXLE SLEEVE - 50.5MM	6368	108479	1



NOTE:
ITEMS 9 AND 13 AS SHOWN REPLACE THE EXISTING BOLT ON THE FORK

NOTE:
OWNERS OF TRIKE SERIAL NUMBERS HIGHER THAN 179 MANUFACTURED AFTER MAY 2007 FOR XT 912 AND SERIAL NUMBERS HIGHER THAN 41 MANUFACTURED AFTER APRIL 2007 FOR XT 582 REQUIRE THIS KIT TO UPGRADE TO DISK BRAKES. OWNERS OF "MK1" TRIKES PRIOR TO THESE SERIAL NUMBERS SHOULD REFER TO DWG # 7466 PART # 108685 TO UPGRADE TO DISK BRAKES.

Rev	AMENDMENTS	Date

PART NO. 108686

LAST ACESSED: Monday, 9 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

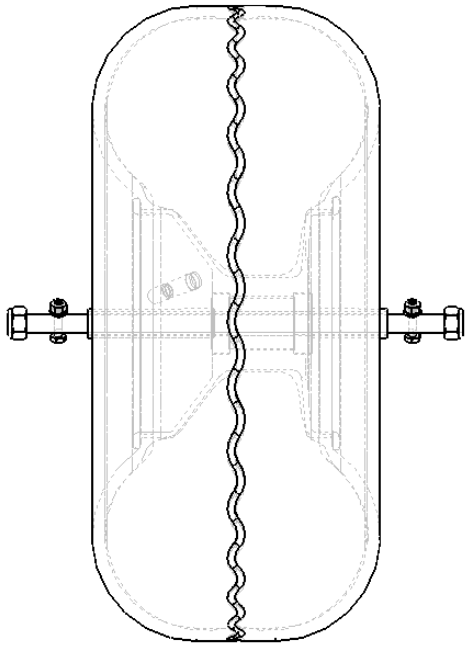
RETRO KIT XTMK2 OBACK TO MK2 OBACK DISK

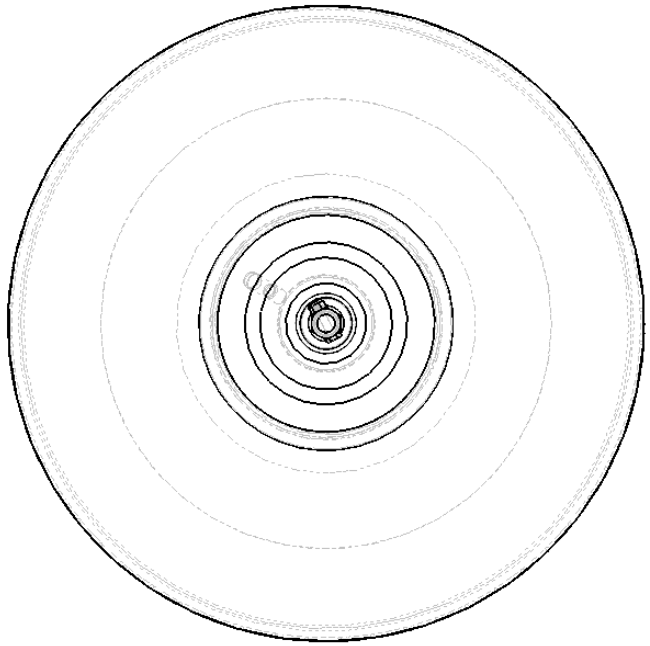
Drawn By	Scale	Date
Simon	1:15	06-07-07

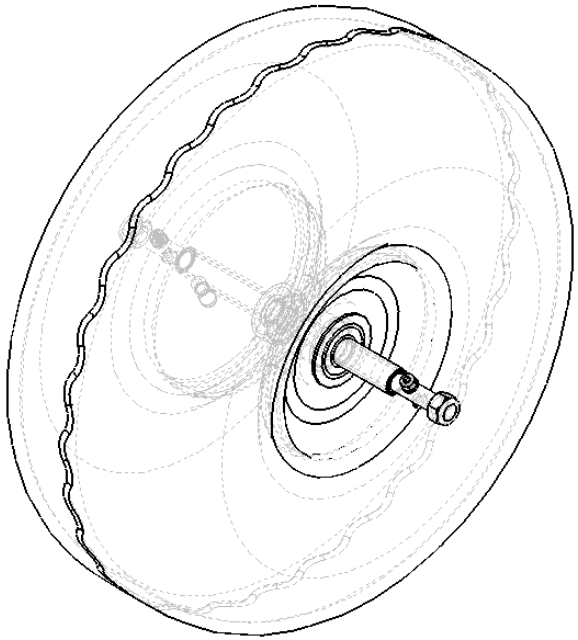
AirBorne AUSTRALIA

7467
SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	AXLE ASM FRNT EDGE XT TUNDRA NO BRAKE	7430	108566	1
2	Bolt AN3-10 a	5449	102927	2
3	NUT NYLOC AN3 FULL	5535	100051	2
4	WASHER AN3	5540	100049	2
5	NUT NYLOC M 12 FULL - FINE	5604	103612	2
6	WHEEL 6IN INCL TYRE & TUBE TUNDRA	6979	108119	1







COPIED FROM A4-6976, 30-04-07

Rev	AMENDMENTS	Date

PART NO. 108565

LAST ACESSED: Tuesday, 1 May 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

FRNT WHEEL SUBASM XT TUNDRA NO BRAKE

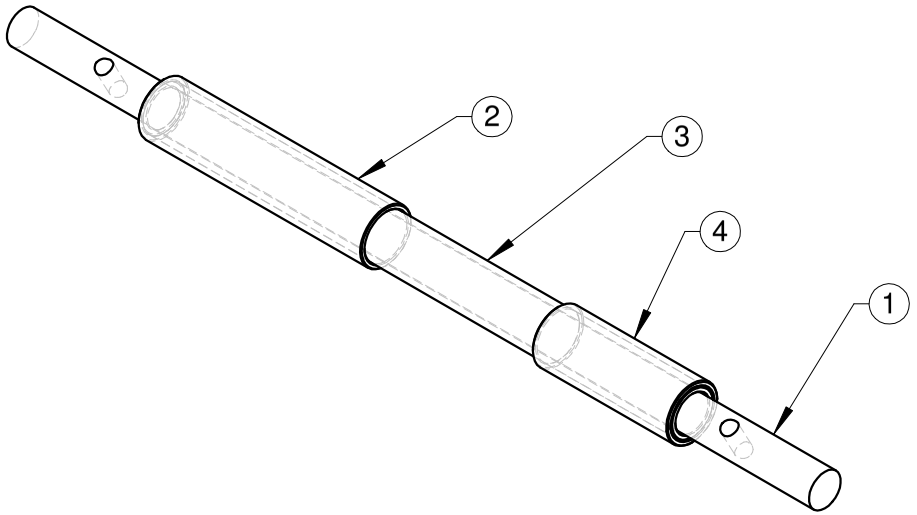
Drawn By	Scale	Date
Simon	1:5	30-04-07

AirBorne AUSTRALIA

7431

SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	TUNDRA AXEL WITH HOLES	5444	105198	1
2	TUNDRA FRONT AXLE SLEEVE - SHORT	6368	106255	1
3	TUNDRA FRONT AXLE SLEEVE - 198MM	6368	108478	1
4	TUNDRA FRONT AXLE SLEEVE - 50.5MM	6368	108479	1



COPIED FROM A4-6977, 30-04-07

Rev	AMENDMENTS	Date

PART NO. 108566

LAST ACESSED: Monday, 30 April 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

AXLE ASM FRNT EDGE XT TUNDRA NO BRAKE

Drawn By	Scale	Date
Simon	1:2	30-04-07

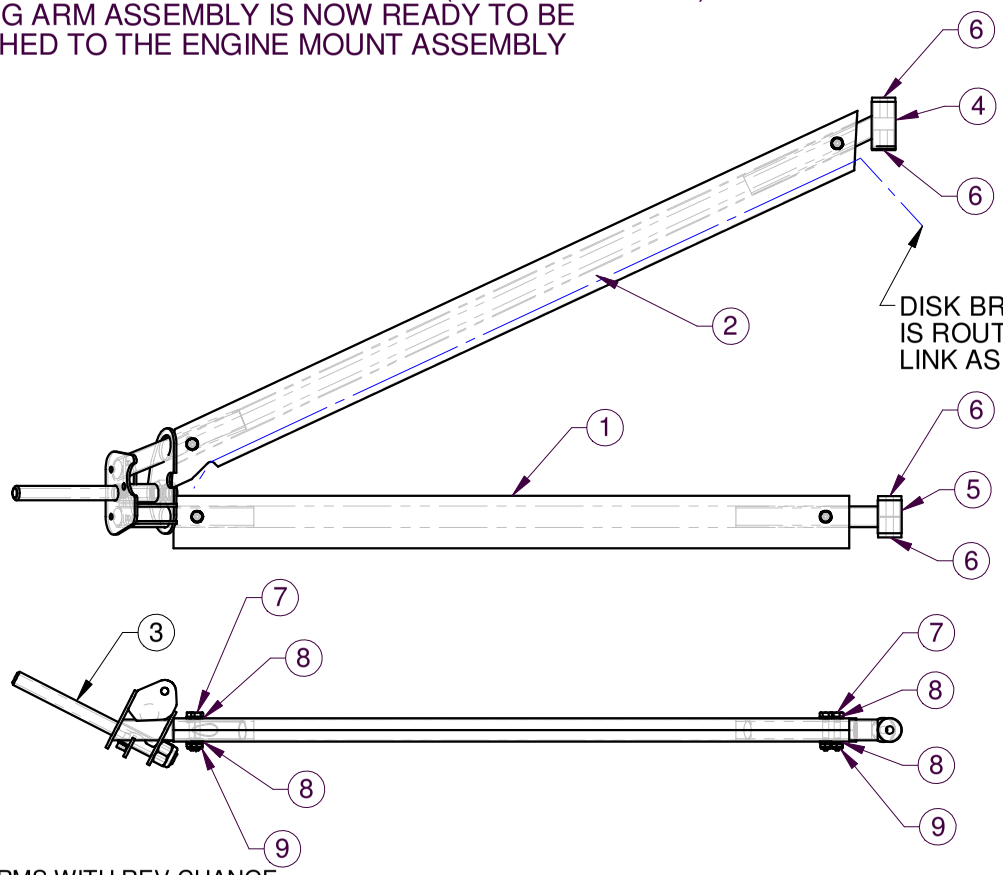
AirBorne AUSTRALIA

7430

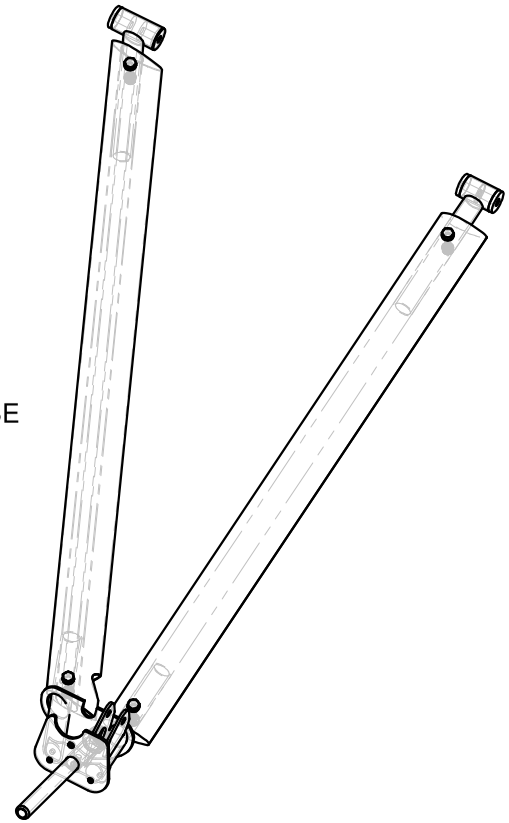
SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	REAR STRUT FAIRED EDGE XT MK2 715MM	7374	108448	1
2	REAR STRUT FAIRED DRAG LINK EDGE XT MK2	7373	108449	1
3	HUB ASM REAR EDGE XT MK2 LHS	7392	108450	1
4	PIVOT BRACKET DRAG LINK XT GREY	5414	105175	1
5	PIVOT BRACKET REAR STRUT XT	5415	105174	1
6	PIVOT BRACKET ACETAL BUSH XT	5413	105176	4
7	BOLT AN4-13 a	5450	101333	4
8	WASHER AN4	5540	100042	8
9	NUT NYLOC AN4 HALF	5561	100035	4

ASSEMBLY INSTRUCTIONS:
1. PRESS BUSHS INTO PIVOT HOUSING
2. ATTACH SUS PIVOTS TO STRUTS (DO NOT TIGHTEN)
3. ATTACH HUB ASSEMBLY TO STRUT (DO NOT TIGHTEN)
4 SWING ARM ASSEMBLY IS NOW READY TO BE ATTACHED TO THE ENGINE MOUNT ASSEMBLY



DISK BRAKE HYDRAULIC TUBE IS ROUTED THRU THE DRAG LINK AS SHOWN.



FOR EXPLODED DETAIL VIEW
SEE RHS SUB-ASSEM A4-7399

UPDATE GJP FORMS WITH REV CHANGE

COPIED FROM A4-5635, 05-04-07

Rev	AMENDMENTS	Date

PART NO. 108445 - 0

LAST ACESSED: Wednesday, 4 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

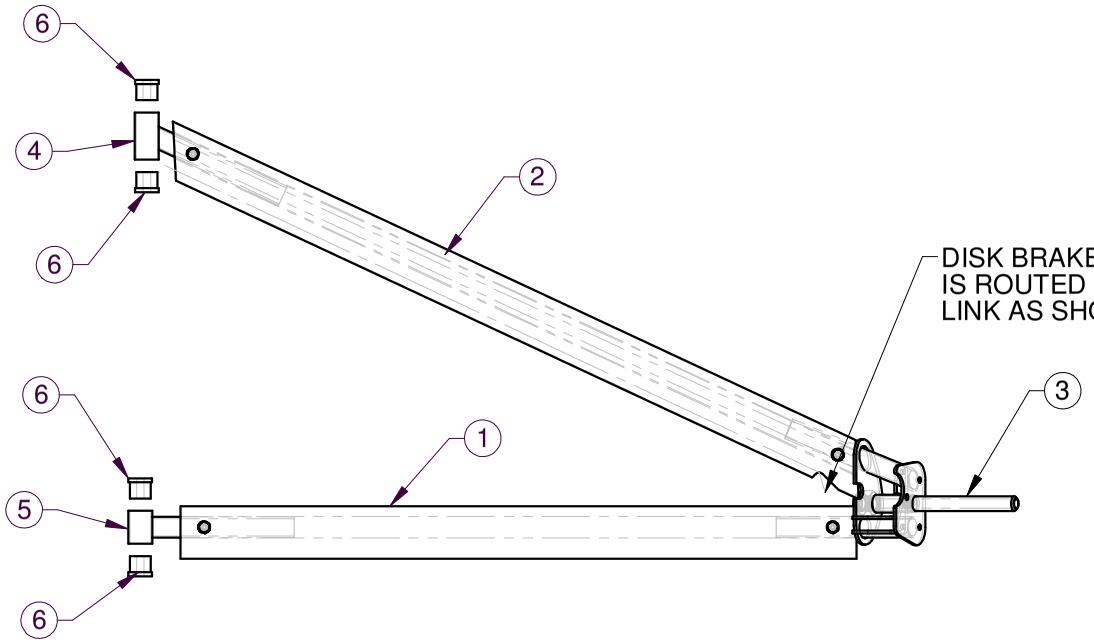
REAR SWING ARM SUBASM XT MK2 LHS

Drawn By	Scale	Date
Simon	1:8	05-04-07

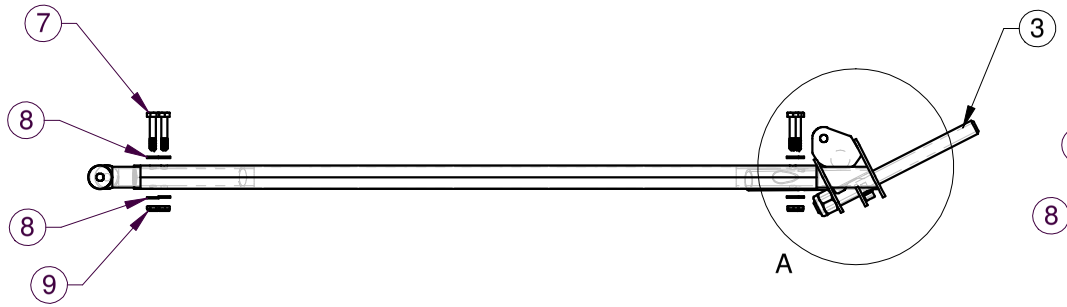
AirBorne AUSTRALIA

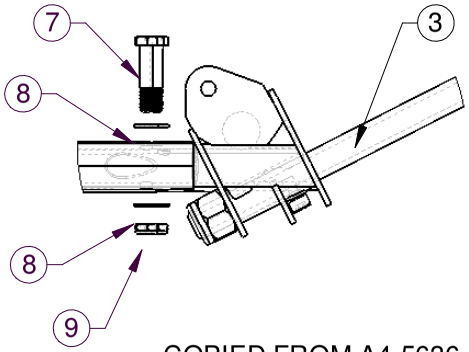
7398
SHEET 1 of 1

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	REAR STRUT FAIRED EDGE XT MK2 715MM	7374	108448	1
2	REAR STRUT FAIRED DRAG LINK EDGE XT MK2	7373	108449	1
3	HUB ASM REAR EDGE XT MK2 RHS	7391	108453	1
4	PIVOT BRACKET DRAG LINK XT GREY	5414	105175	1
5	PIVOT BRACKET REAR STRUT XT	5415	105174	1
6	PIVOT BRACKET ACETAL BUSH XT	5413	105176	4
7	BOLT AN4-13 a	5450	101333	4
8	WASHER AN4	5540	100042	8
9	NUT NYLOC AN4 HALF	5561	100035	4



ASSEMBLY INSTRUCTIONS:
1. PRESS BUSHS INTO PIVOT HOUSING
2. ATTACH SUS PIVOTS TO STRUTS (DO NOT TIGHTEN)
3. ATTACH HUB ASSEMBLY TO STRUT (DO NOT TIGHTEN)
4 SWING ARM ASSEMBLY IS NOW READY TO BE
ATTACHED TO THE ENGINE MOUNT ASSEMBLY





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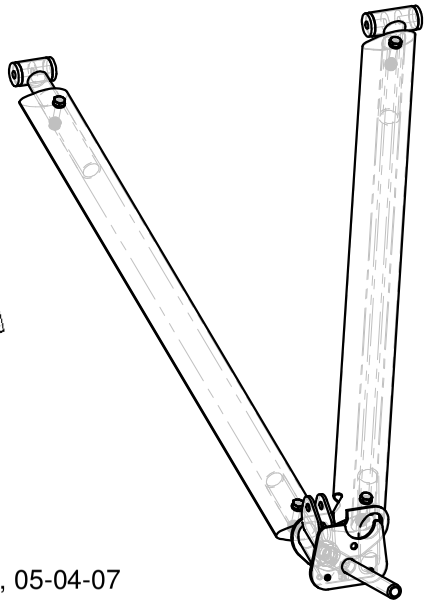


LHS SUB-ASSEM #108445
SEE A4-7398

COPIED FROM A4-5636, 05-04-07

UPDATE GJP FORMS WITH REV CHANGE

Rev	AMENDMENTS	Date

PART NO. 108446 - 0

LAST ACESSED: Wednesday, 4 July 2007

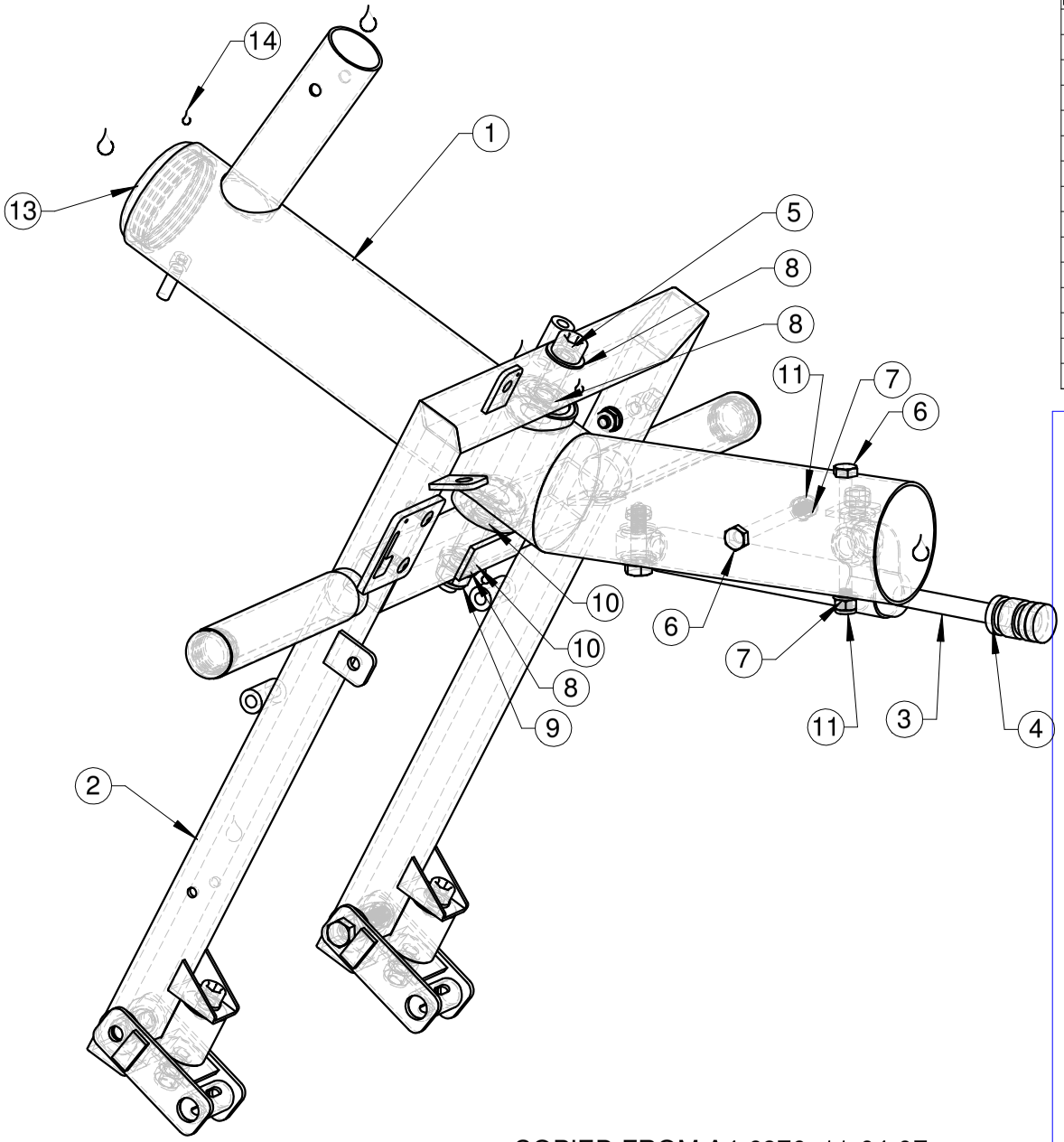
ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

REAR SWING ARM SUBASM XT MK2 RHS

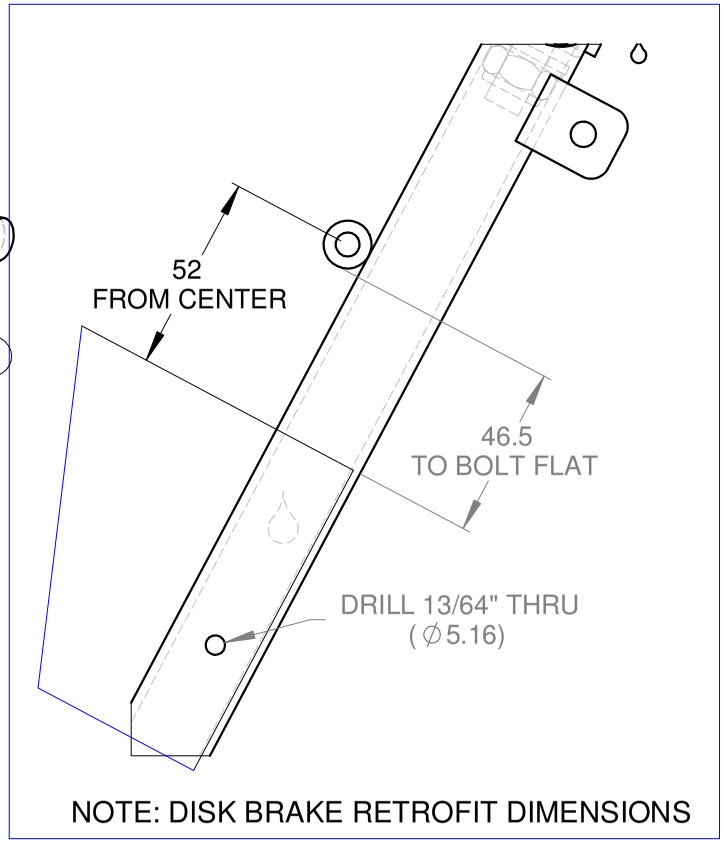
Drawn By	Scale	Date
Simon	1:8	05-04-07

AirBorne AUSTRALIA

7399
SHEET 1 of 1



ITEM NO.	NAME	DWG	PART NO.	QTY.
1	FORK CARRIER XT INCL BEARINGS GREY	6436	106916	1
2	FRONT FORK SUB-ASSEMBLY XT TUNDRA	6969	108108	1
3	STEERING DAMPER SUB-ASSEMBLY	5610	105388	1
4	BUSH TUNDRA STEERING LIMITER	6333	105998	1
5	SKT CAP SCREW M 10 X 150 ZINC PLATED	5603	108101	1
6	BOLT AN4-27 a	5450	100010	2
7	WASHER AN4	5540	100042	2
8	WASHER SS 10 X 21mm	5540	103458	3
9	NUT NYLOC M 10 FULL	5604	100802	1
10	WASHER NYLON M10 STD	5540	100619	2
11	NUT NYLOC AN4 FULL	5535	100034	2
12	RUST PROTECTANT ARP LIQUID	5637	106730	1
13	CAP ROUND TUBE CLOSURE 57MM	5633	101718	1
14	LOCTITE 406 Instant Adhesive	5637	103707	1
15	SLEEVE 60D X 10L	7216	104548	1



NOTE: DISK BRAKE RETROFIT DIMENSIONS

COPIED FROM A4-6970, 11-04-07

Rev	AMENDMENTS	Date

PART NO. 108361

LAST ACESSED: Wednesday, 25 July 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

FRNT END SUBASM XT TUNDRA TYPE 3

Drawn By	Scale	Date
Simon	1:3.5	11-04-07

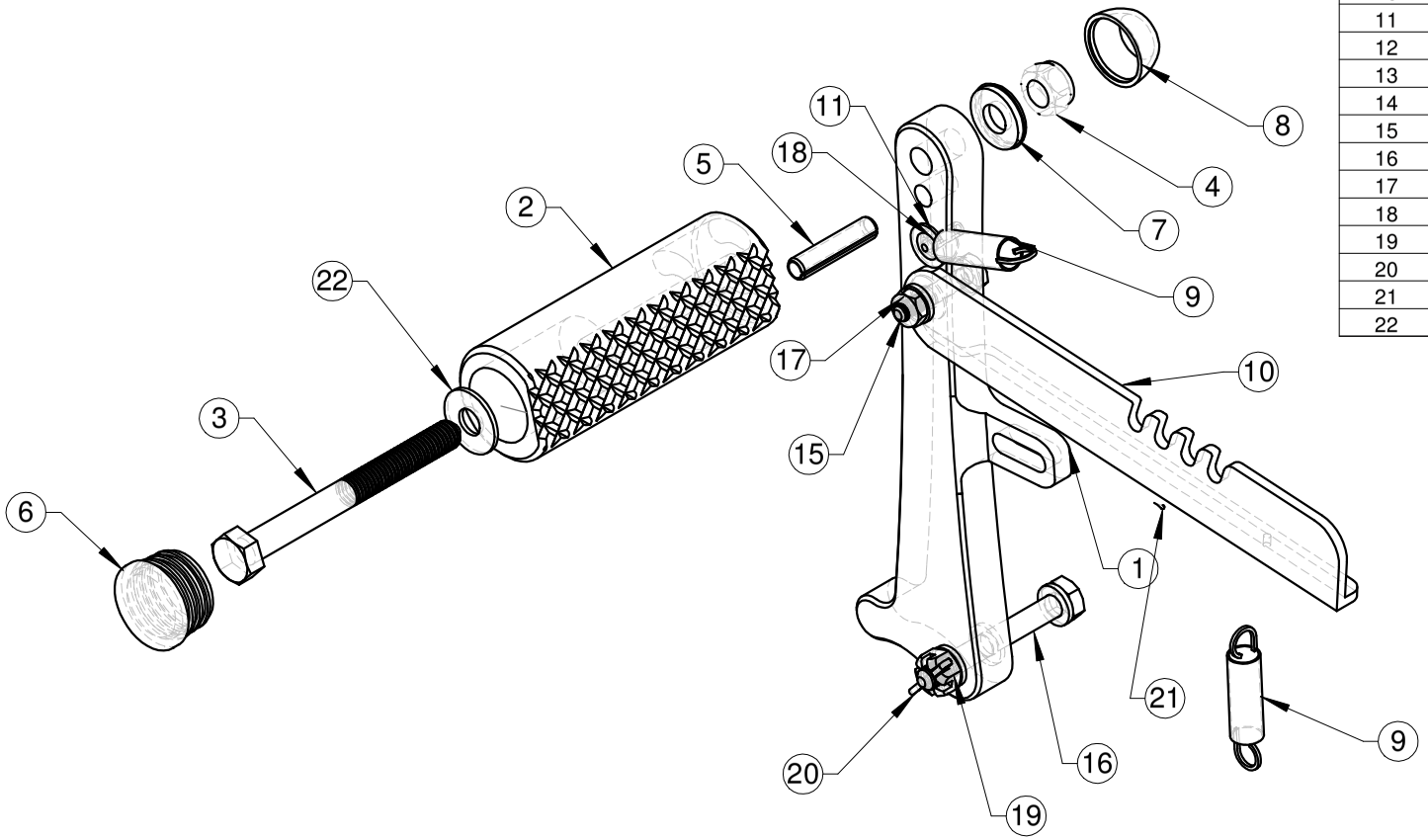
AirBorne AUSTRALIA

7410

SHEET 1 of 1

DETAIL A
SCALE 1 : 2

ITEM NO.	NAME	DWG	PART NO.	QTY.
1	BRAKE LEVER FOOT TYPE AL XT	7359	108465	1
2	FOOT LEVER ACETAL TOP ARM	7361	108477	1
3	BOLT 8.8 GR M8x80	5935	100908	1
4	NUT NYLOC M 8 FULL	5604	100915	1
5	ROLL PIN 1-4" X 1 1-8"	5516	102356	1
6	CAP ROUND TUBE CLOSURE 1IN	5633	103225	1
7	CAP WASHER BASE CLIP M8	5667	100604	1
8	CAP WASHER COVER BLK M8	5666	100603	1
9	SPRING TENSION T56 - FOOT LEVERS	5556	104779	2
10	PARK BRAKE LEVER	5562	104702	1
11	WASHER SS 3-16 X 1-2"	5540	100569	1
12	WASHER AN3	5540	100049	2
13	WASHER NYLON 1-4" OBA THIN	5540	103961	1
14	WASHER NYLON 1-4" OBA THICK	5540	102424	3
15	Bolt AN3-10 a	5449	102927	1
16	BOLT AN4-20	5450	105330	1
17	NUT NYLOC AN3 HALF	5561	101334	1
18	POP RIVET 5/32" MED (5-5)	5515	100161	1
19	NUT AN4 CASTLE	6297	100040	1
20	SPLIT PIN M2.0 x 20	6296	100308	1
21	DRI LUBE SOLID LUBRICANT	5637	106432	1
22	WASHER SS 5-16 X 3-4"	5540	102332	1



Rev	AMENDMENTS	Date

PART NO. 108464

LAST ACESSED: Tuesday, 10 April 2007

ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE

BRAKE LEVER SUB-ASSEM XT GREY DISK BRAKE

Drawn By	Scale	Date
Simon	1:2	27-02-07

AirBorne AUSTRALIA

7362

SHEET 1 of 1