

Pre-Paint>Fuselage>Undercarriage>Assemble main wheels

Objectives of this task:

In this task you will assemble the main wheels and tyres and fit the brake discs.

Materials required:

Cards # 28JT 'Main wheels MK3'

Talcum powder for fitting the inner tube

Assemble the main wheels

Use a press or a vise to press a bearing (#PB0029N-1) into each half of the wheel rim – use a socket with a slightly smaller diameter than the outer race of the bearing to press them in.

Both the inner and outer bearings should lie flush with the inner and outer wheel rims respectively as shown in the picture to the right.

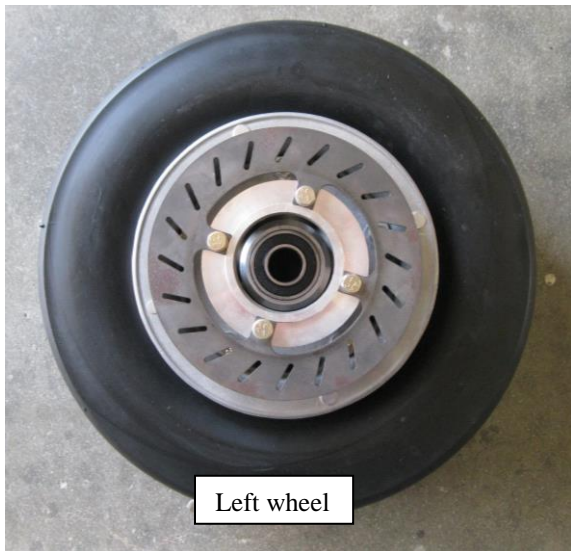


Do **not** press on the inner race – the bearing is not designed to take pressure in that direction.

Sprinkle some talcum powder inside the tyre and insert the inner tube. Slightly inflate the inner tube to prevent it becoming pinched then fit tyre and tube over the inner wheel rim and fit the outer wheel rim to the inner wheel rim with the inner tube inflation valve facing the outer wheel rim. Make sure the bolt holes between each wheel rim half are aligned and place the brake disc mount on the inner wheel rim such that the bolt holes are also aligned with those of both wheel rim halves.

Bolt the brake disc mount, inner wheel rim and outer wheel rim with five AN4-17A bolts; placing 1/4" flat washers (AN960-416) under both the bolt and nyloc nut. The bolts are inserted through the brake disc mount. Before tightening the nuts, make sure that the inner tube is not being pinched, this is done by rotating the tyre and tube holding the wheel still.

Fit the inner tube inflation valve through the hole in the outer wheel rim and then tighten the five bolts to secure the wheel assembly. Inflate the inner tube to a pressure of 45psi – the tyre will pop out to the final seated position on the rims so keep fingers away while inflating.



Fit the brake disc to each wheel. It is important that each disc is fitted in the correct direction of rotation as shown in the photos on the preceding page and in the drawing below. Fit each of the four AN3-7A bolts though from the disc towards the wheel and secure with AN960-10 (3/16") flat washers under each bolt head and Nyloc nut. Tighten firmly. Use chalk to mark each wheel as being either a left or a right wheel.

It is useful to refer to the drawing on the following page during the main wheel assembly.

The drawing shows a circular brake disc with a central hub and a ring of 16 brake legs. A large curved arrow above the disc indicates the 'WHEEL ROTATION DIRECTION' is clockwise. A callout points to the brake legs with the text: 'DIRECTION OF BRAKE DISC LEGS: ORIENTATE SUCH THAT LEGS ARE IN COMPRESSION DURING BRAKING'. Another callout points to the outer edge of the disc with the text: 'WHEEL ROTATION DIRECTION'.

REPLACE WITH MK 3 BRAKE DISC		AS	2	29/01/14
SCALE		NITS	1	8/11/05
THIS DRAWING IS COPYRIGHT AND MUST NOT BE COPIED WITHOUT THE CONSENT OF AVTECH PTY LTD		ISS. DATE		
TITLE		DWG. No.		
DIRECTIONAL BRAKE DISC INSTALLATION.		6A037A0D-2		
AVTECH P/L		A.C.N. 010 786 973		
HINKLER AIRPORT		BUNDABERG 4670		
DO NOT SCALE		DRAWN		
DIMENSIONS IN MILLIMETRES		APPR.		
PROJECTION		GENERAL TOLERANCES		
ONE DEC. ± 0.25 TOW. DEC. ± 0.05 ANGLES ± 0.5		MATERIAL N/A		

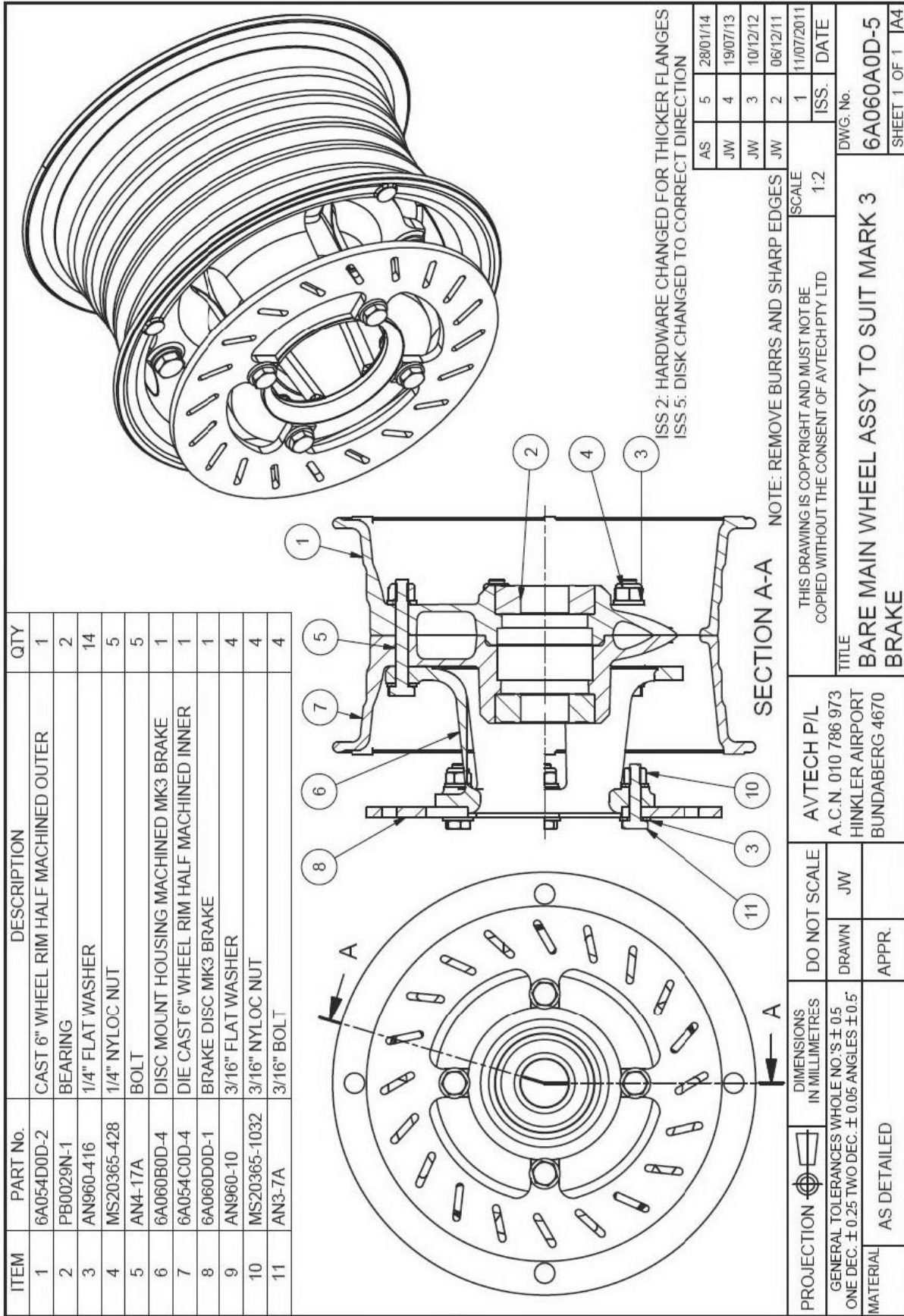
SAME ORIENTATION APPLIES WITH DUAL CALIPER SYSTEMS. DISC LEGS MUST BE ORIENTED TO BE COMPRESSED WHEN BRAKES ARE APPLIED.

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TITLE: DIRECTIONAL BRAKE DISC INSTALLATION.

DWG. No. 6A037A0D-2

SHEET 1 OF 1 /A4



This completes the *Pre-Paint>Fuselage>Undercarriage>Assemble main wheels* task.