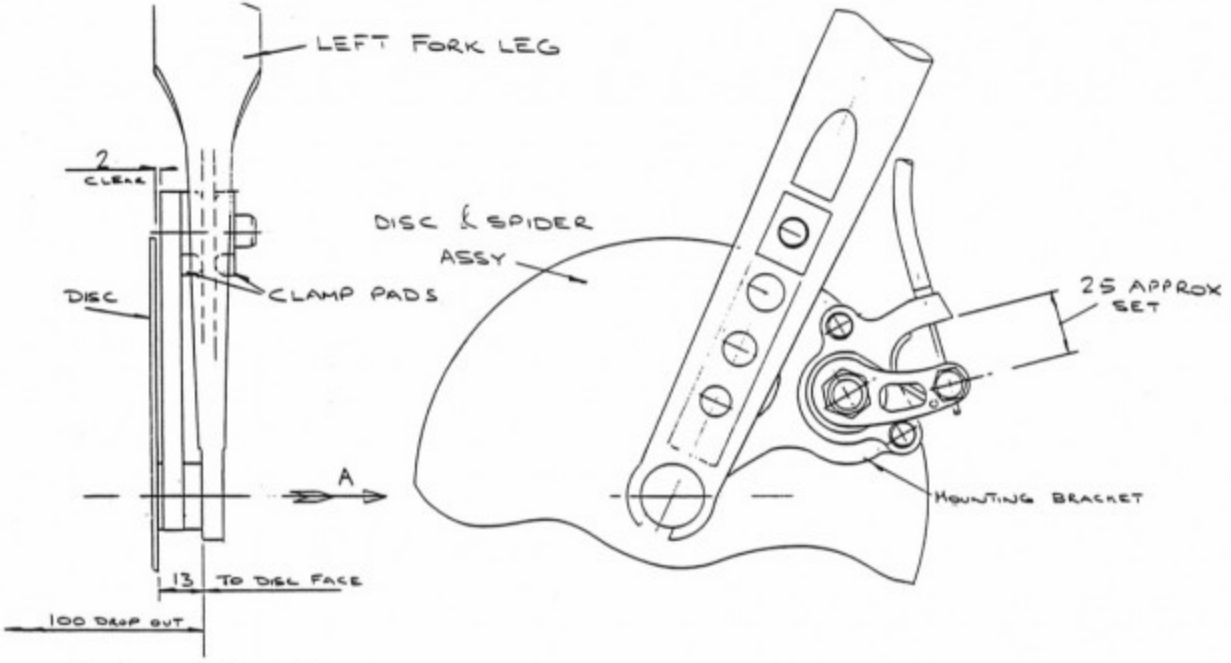


VIEW ON ARROW A
CALIPER NOT SHOWN

MOUNTING ARRANGEMENT

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HOPE TECHNOLOGY

HYDRAULIC DISC BRAKE DB100

Fitting to Cycle

NOTE:- Do not operate the brake lever until the caliper is fastened to the machine.
Reason: One mounting bolt also clamps the caliper halves together. Brake fluid may be lost if the lever is operated with only one bolt holding the caliper together.

Attach the lever assembly to the handle bars. Route the hose along the frame or forks. Ensure that the bars can be turned through 180 deg. without fouling, then fasten the caliper assembly to it's mounting bracket. The brake assembly is supplied fully 'bled' from the factory and no 'bleeding' should be required provided the hoses are not disconnected.

Install the wheel and check the brake's function. The wheel should spin freely with little or no drag. If sticking or drag occurs check caliper alignment and position. Finally attach the hose to the frame using plastic tie clips.

Set the brake lever to your requirements. Rotate the master cylinder in it's housing to bring it vertical then tighten clamping screw. Check the lever for free operation.

Hose Disconnection

In some instances when fitting a rear brake, due to routing problems it may be necessary to disconnect the hose, we advise doing this at the caliper end. Slide back the protection sleeve then using an 8mm spanner unscrew the connector. It will rotate in the hose without fluid loss. Do not lose the aluminium sealing washer. Keep the reservoir cap tightly closed. This will reduce fluid loss to a minimum. After routing the hose and connector screw back into caliper. It will then be necessary to 'bleed' the brake.

Bleeding the Brake

Use only DOT 4 and DOT 5.1 Hydraulic Fluid as used in motorcycles.
Remove the reservoir cap, rubber diaphragm, vacuum release washer and swash inhibitor pad, top up reservoir if required.
Obtain a small length of plastic tube, approximately 30cm long which is a push fit over the bleed nipple. Put a small quantity of brake fluid into a container and immerse open end of tube in the fluid. A helper will be required for the actual 'bleed' operation. Slacken nipple half a turn and slowly pull the brake lever the full extent of it's travel. Tighten nipple then release lever, ensure end of tube stays immersed in the brake fluid. Repeat this procedure a number of times, you will notice bubbles coming from the end of the tube, also the fluid level in the reservoir will require frequent topping up as the fluid is pumped through the system. If you pull the lever too fast fluid will spurt from the reservoir. use a gentle steady pull for the best results. When the bubbles cease to flow, tighten the nipple, top up the reservoir, replace diaphragm trying to avoid trapping air between fluid and diaphragm, replace washer and cap and check the brake's operation.
Avoid spillage of brake fluid as it can damage paintwork, keep away from eyes and skin. Wash with copious amounts of water if eyes are splashed.
Avoid contaminating the disc and pads with brake fluid, doing so will seriously impair the action of the brake. Remember use only DOT4 or DOT5.1 Brake Fluid.

Hose Replacement

Cut through the hose with a sharp knife 14mm from the end of the hose. If the same connector is to be used cut away the old hose from the connector. Try not to damage the 'fir tree' rings of the connector.

To fit a new hose special split jaws part no. HTT129 and a bench vice is required.

Grip the split bush and hose firmly in the vice and drive in the connector with a soft hammer. See Fig 1.

When fitted correctly connectors can be rotated in the hose without fluid loss.

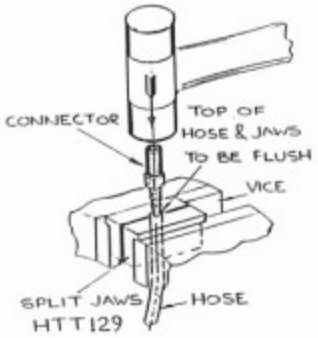


FIG 1

Fitting New Brake Pads

Remove the wheel. Then, using a small screw driver prise open the old pads until they are pushed back as far as they will go. Always leave the old pads in position whilst doing this so as not to damage the piston assembly.

Using pliers withdraw the pad retention split pins. The pads will then slide out.

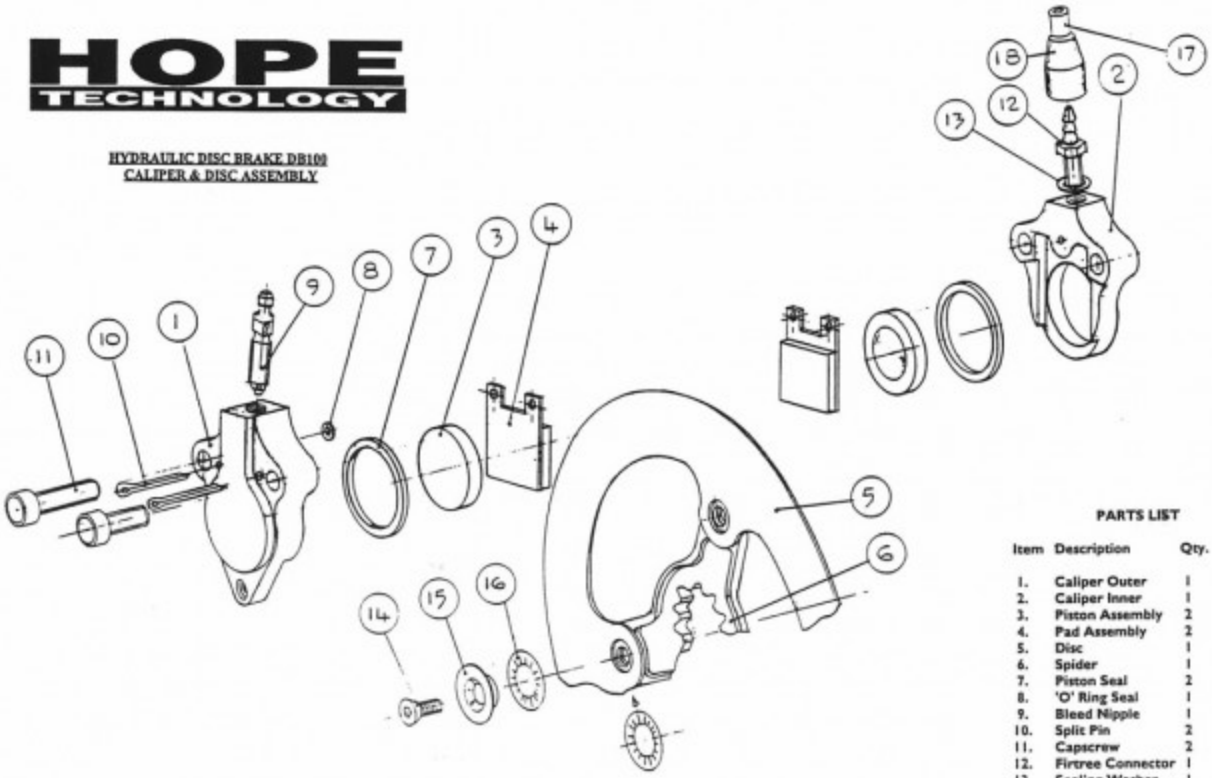
Clean out pad location slots with rag and screw driver, slide in new pads and re-fit split pins.

Replace wheel and check brake funcion.

CAUTION: Do not operate the brake lever without pads in the caliper. Always replace pads before they are worn down to the backing plate to prevent damage to the disc.

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HYDRAULIC DISC BRAKE DB100
CALIPER & DISC ASSEMBLY

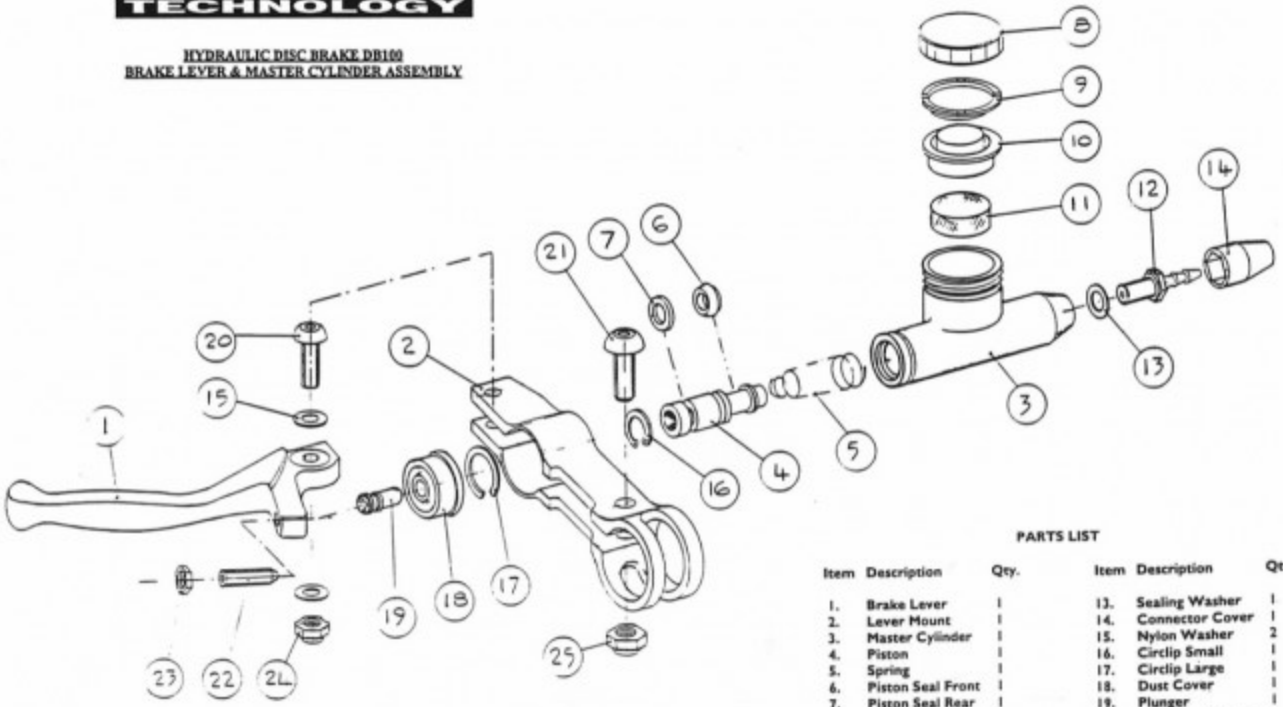


PARTS LIST

Item	Description	Qty.
1.	Caliper Outer	1
2.	Caliper Inner	1
3.	Piston Assembly	2
4.	Pad Assembly	2
5.	Disc	1
6.	Spider	1
7.	Piston Seal	2
8.	'O' Ring Seal	1
9.	Bleed Nipple	1
10.	Split Pin	2
11.	Capscrew	2
12.	Firtree Connector	1
13.	Sealing Washer	1
14.	C/Sunk Screw	3
15.	Shoulder Spacer	3
16.	Disc Spring	2
17.	Hose	1
18.	Connector Cover	1

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HYDRAULIC DISC BRAKE DB100
BRAKE LEVER & MASTER CYLINDER ASSEMBLY



PARTS LIST

Item	Description	Qty.	Item	Description	Qty.
1.	Brake Lever	1	13.	Sealing Washer	1
2.	Lever Mount	1	14.	Connector Cover	1
3.	Master Cylinder	1	15.	Nylon Washer	2
4.	Piston	1	16.	Circlip Small	1
5.	Spring	1	17.	Circlip Large	1
6.	Piston Seal Front	1	18.	Dust Cover	1
7.	Piston Seal Rear	1	19.	Plunger	1
8.	Filler Cap	1	20.	Lever Pivot Screw	1
9.	Vacuum Release Washer	1	21.	Clamp Screw	1
10.	Diaphragm	1	22.	Adjustable Screw	1
11.	Anti-Swish Pad	1	23.	Locknut	1
12.	Firtree Connector	1	24.	Locknut	1
			25.	Locknut	1

HYDRAULIC DISC BRAKE DB100

Fitting Instructions

Weld or Braze on Brackets

A good solid mounting is essential to prevent the caliper from twisting in use. For this reason a fixture HTT125 is supplied which positions the bracket or bosses during the welding or brazing operation.

It is recommended that a front mounted caliper is attached to the front of the left side fork leg and a rear mounted one in the left side rear triangle. Alternative positions are also shown. See Drawing DB100/128

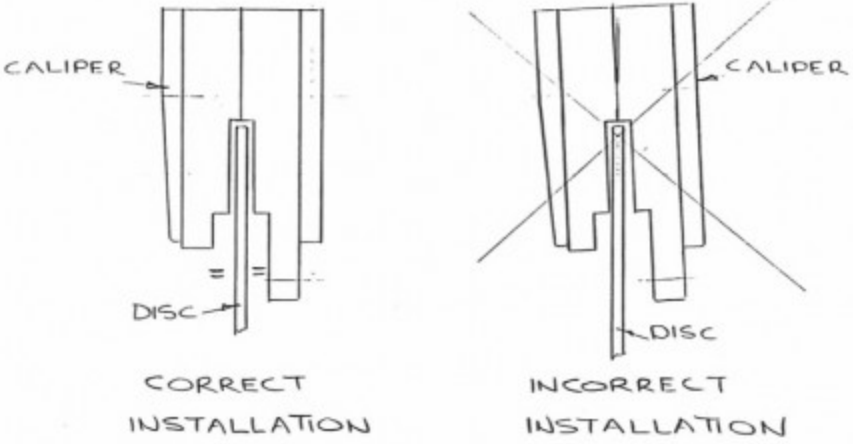
A plate is supplied in steel or aluminium (DB100/126 and DB126/126/1). Bosses can also be used as an alternative if required, these are shown on drawing DB100/128.

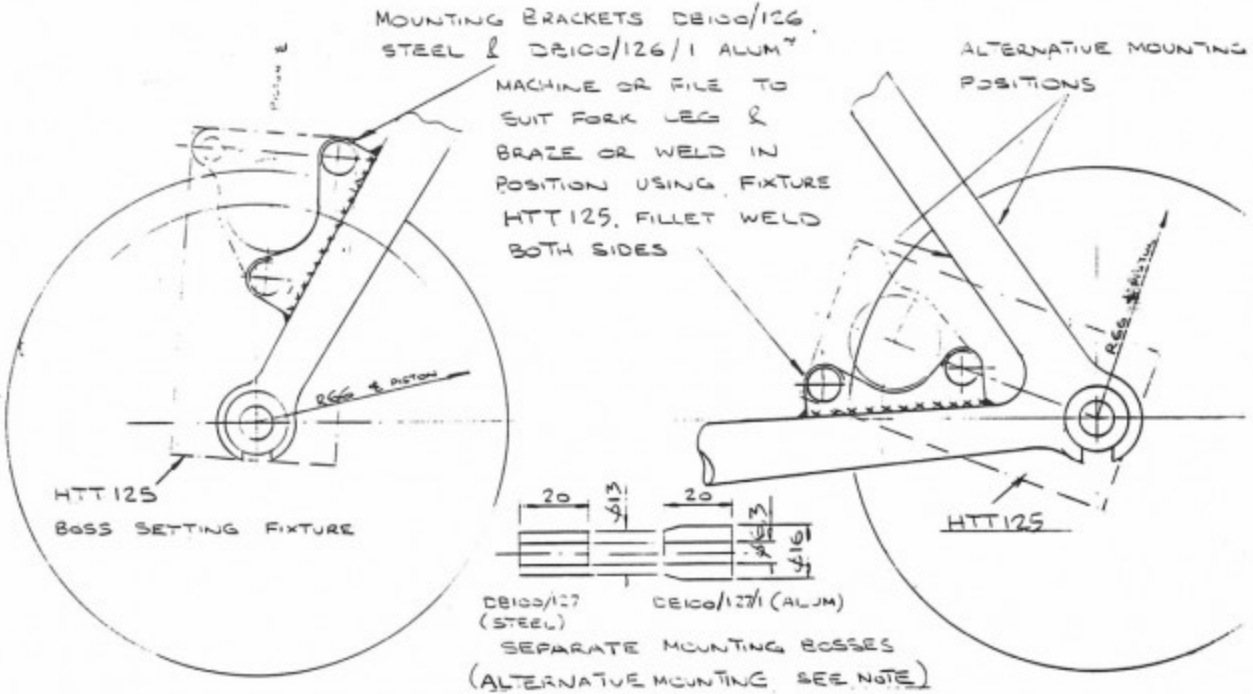
Load the fixture HTT125 to the frame or forks, as if fitting a wheel. Front and rear spindles and spacers are supplied. Attach the mounting bracket DB100/126 to the fixture. Check to see how they mate with the frame or forks. Machine or file to achieve a good match. When satisfied with the fit, proceed with the welding or brazing, leaving the fixture locating the bracket for as long as possible.

Once the bracket is firmly secured the fixture can then be removed so as to give access to the rear fillet weld. Re-load fixture to check position after final welding or braze.

At this stage it is wise to do a dummy build of the caliper and wheel to check for alignment and position. See sketches.

It is critical that the caliper is central, square and parallel to the disc.

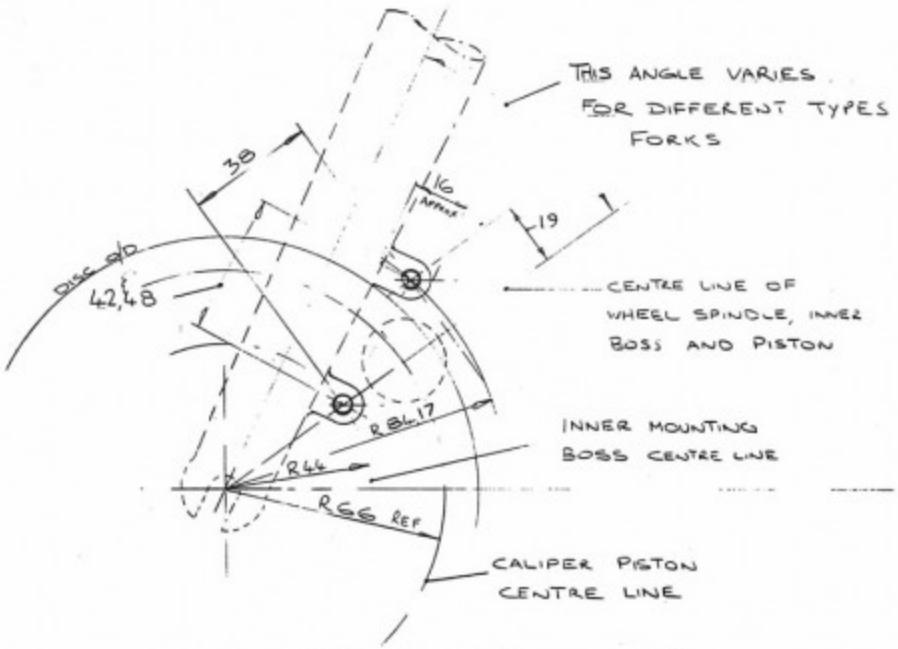


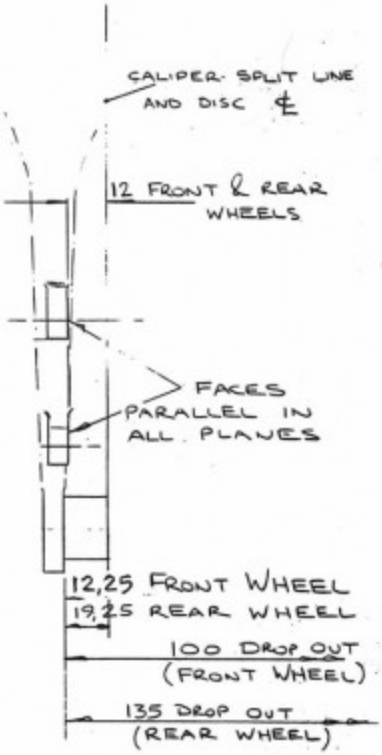


NOTE:- IF REQUIRED SEPARATE MOUNTING BOSSES MAY BE USED POSITION ON FIXTURE & BRAZE OR WELD TO FRAME

HOPE TECHNOLOGY	DB100/128	JAN 2

DB100 MOUNTING BOSSES.





CALIPER CAN BE MOUNTED EITHER LEG FRONT OR REAR OF LEG DIMENSIONS ALSO APPLY TO REAR WHEEL MOUNTING.

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HOPE
TECHNOLOGY

FITTING YOUR DISC BRAKE

When you receive your HOPE disc brake assembly it will be in two packages. One package contains the disc and spider already built as a sub-assembly. (Items 2, 3 and 22)
Assuming your wheel is already built to a HOPE splined hub , it can be loaded straight onto the hub splines and tightened up using the lock ring nut provided with the hub. Tighten to 40 newton/metres.
The other package contains the caliper sub-assembly, plus a small separate package containing the pads, pad retention feature, and split pin. (Items 14, 15, 16, 17 and 21)
They are packed separate to avoid contamination.
The caliper sub assembly is attached to a mounting bracket suitable for your application. Remove the bracket from the caliper by un-screwing bolts (item 19). Take care not to loose the slider pins (item 18).
If the bracket is a braze or weld type, modify and fit as described on the instructions for front or rear mounting. Note we recommend this be done by a competent person who is familiar with frame building. Your dealer will advise you or contact Hope Technology.
If it is a bolt on bracket it will usually be located on the spindle with a special clamp for the fork leg. The bracket and clamp will suit your application.
A diagram is provided showing the setting and fixing.
Slide the split bush and clamp onto the fork leg. With some types of fork i.e. Pace and Manitou it is necessary to separate the bush and the clamp so as to get them over the fork end. Slip the bush on first, follow with the clamp then re-mate the two together.

Caliper Installation (See exploded view)
Tools required: point nosed pliers, 4mm allen key, 8mm spanner and 13mm spanner.
The caliper is part assembled at the factory.
Select inner pad. (14) Insert into caliper (1) and retain in position using split pin (21). Use pliers to spread pin.
Insert the slider pins (18) into the caliper with the pin flanges on the inside. Place caliper over mounting bracket.
Slide bolts (19) through slider pins and screw into mounting bracket. With the bolts tight the caliper should slide freely on the pins.
Insert outer brake pad (15) into its location in the mounting bracket. The retention clip (16) will engage with the actuator adjuster when the disc and wheel assembly is fitted to the cycle. Install the brake cable through cable stop on caliper and pinch bolt. (11)

Adjustment
Push pads apart and install wheel with disc running between pads.
Screw the brake lever adjustment barrel fully home to allow for fine tuning later.
Tighten the cable in the pinch bolt. Set the distance between the pinch bolt and the back side of the cable stop to approximately 25mm when the brake is applied.
Loosen the actuator locknut (9) by inserting 4mm allen key into end of actuator adjuster screw. Hold firmly and turning locknut anti-clockwise using 13mm spanner. Spin wheel and gradually tighten actuator adjustment screw until pads contact the disc. Back off until wheel spins freely and tighten locknut. As the pads wear this adjustment should be repeated, ensuring the 25mm gap is maintained.

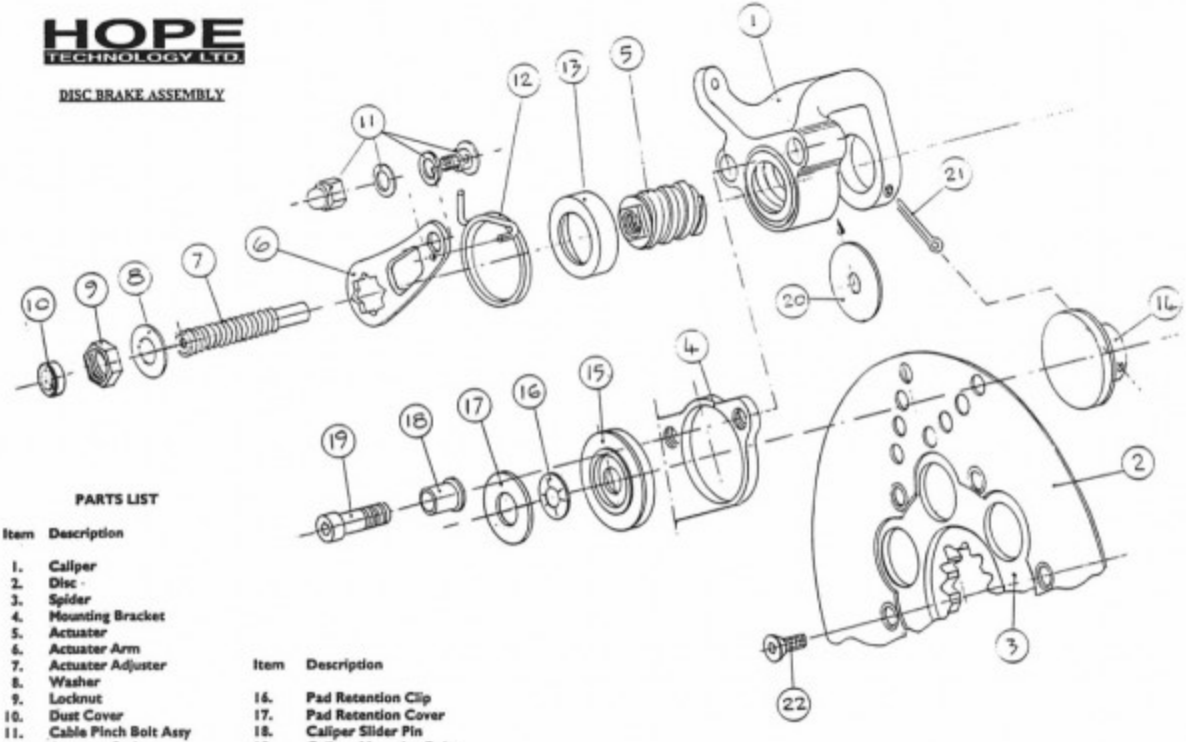
Run in Procedure
Rinse the disc and pads with clean water.
Ride approximately 500 m doing 4 or 5 severe stops.
Rinse the disc and pads with clean water once again, this removes any contaminates from the pads and disc during the manufacturing process. The brakes should then be re-adjusted if necessary. This procedure needs to be repeated after replacing brake pads.

Maintenance
Lubricate the actuator (5) and the slider pins (18) once per month and after wet or muddy riding conditions. Take care not to over grease as this could contaminate the brake pads.

Note: When cleaning the bicycle do not spray directly onto the caliper assembly and do not contaminate the pads and disc with grease or polish.

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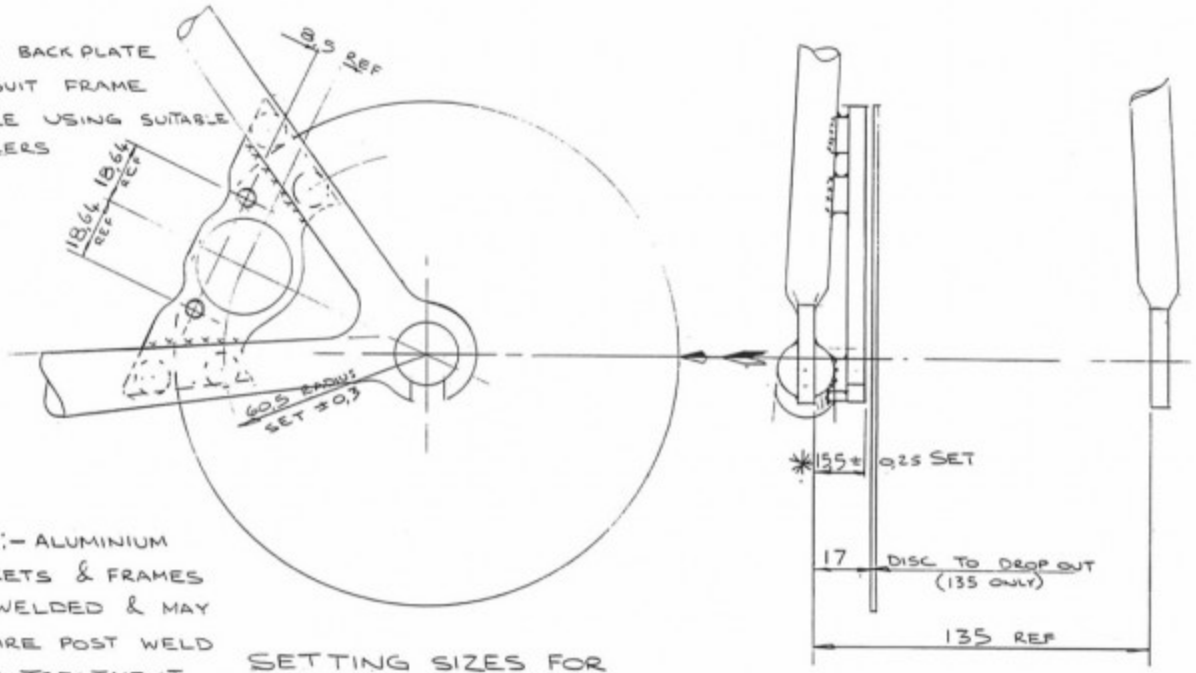
DISC BRAKE ASSEMBLY



PARTS LIST

Item	Description
1.	Caliper
2.	Disc
3.	Spider
4.	Mounting Bracket
5.	Actuator
6.	Actuator Arm
7.	Actuator Adjuster
8.	Washer
9.	Locknut
10.	Dust Cover
11.	Cable Pinch Bolt Assy
12.	Actuator Spring
13.	Outer Seal
14.	Inner Brake Pad
15.	Outer Brake Pad

Item	Description
16.	Pad Retention Clip
17.	Pad Retention Cover
18.	Caliper Slider Pin
19.	Caliper Mounting Bolt
20.	Inner Seal
21.	Split Pin
22.	Disc Mounting Screw

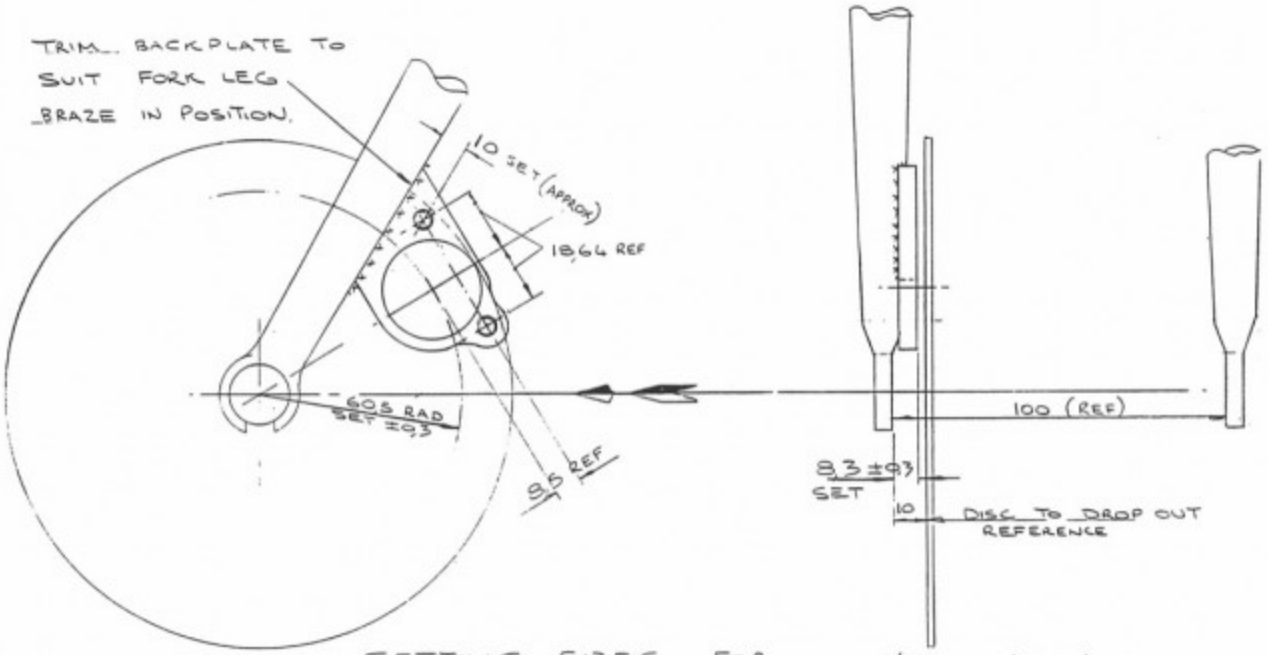


NOTE :- ALUMINIUM BRACKETS & FRAMES ARE WELDED & MAY REQUIRE POST WELD HEAT TREATMENT

SETTING SIZES FOR BRAZE ON BRACKET REAR MOUNTING

* THIS DIMENSION WILL CHANGE PRO-RATA WITH ANY DIFFERENCE IN DROPOUT (ie 205 FOR 140 D'OUT)

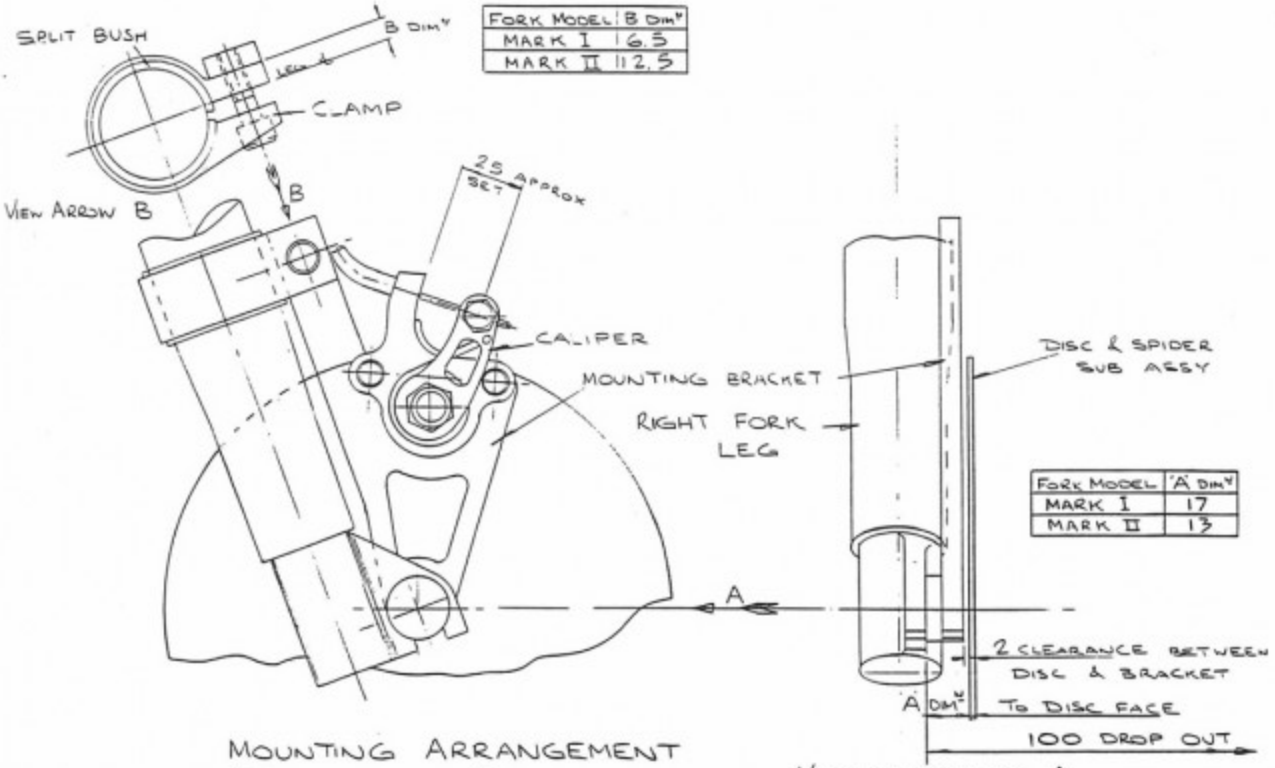
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SETTING SIZES FOR BRAZE ON BRACKET FRONT MOUNTING

VIEW ON ARROW

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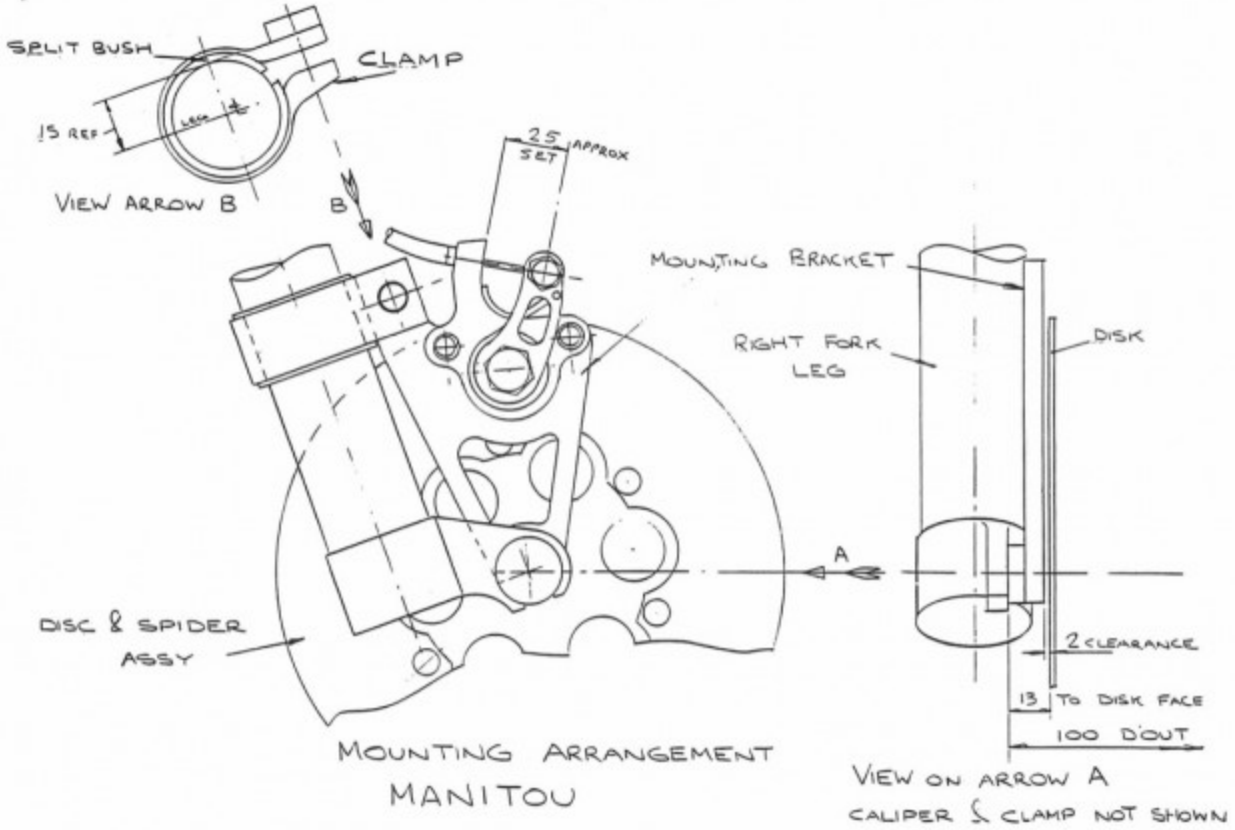
FORK MODEL	B DIM'
MARK I	16.5
MARK II	12.5

FORK MODEL	'A' DIM'
MARK I	17
MARK II	13

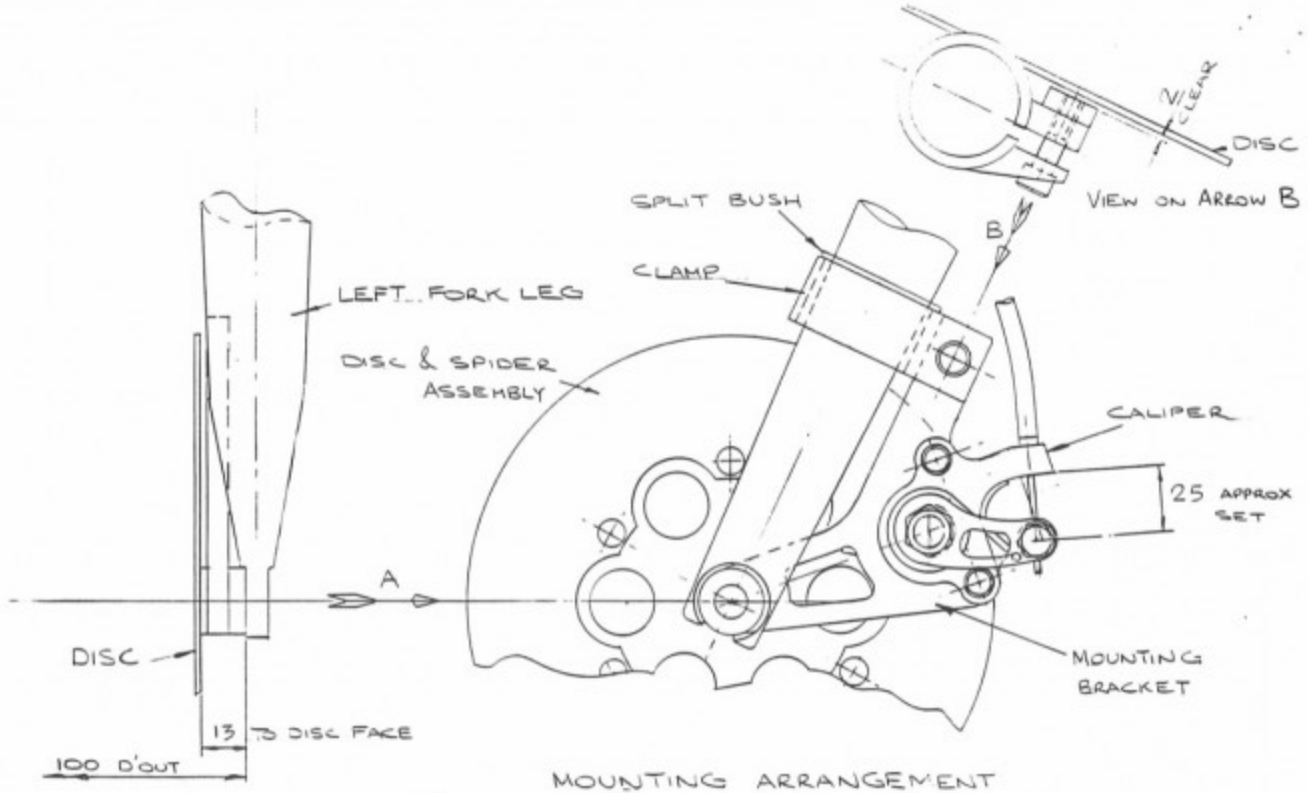
MOUNTING ARRANGEMENT
"PACE FORKS" MARK I & II

VIEW ON ARROW A

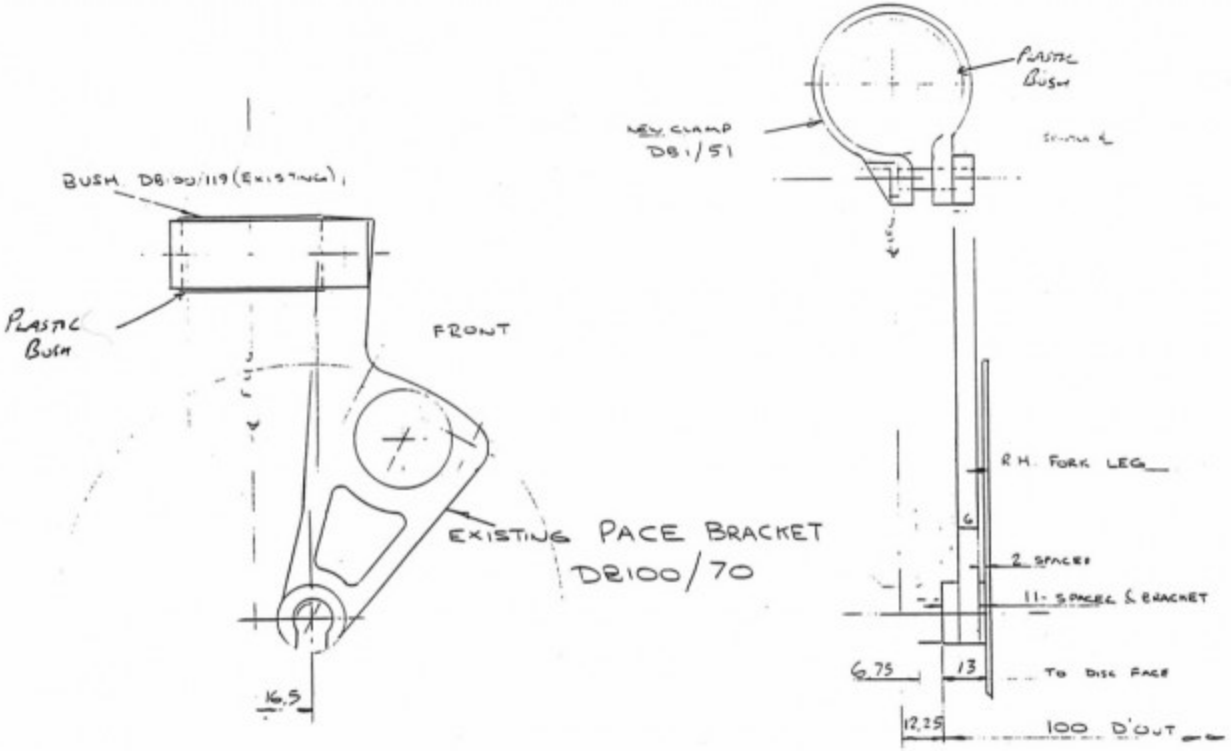
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MECHANICAL BRAKE MOUNTING

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