

## ASH Auto slack adjuster installation book

### ASH Auto slack performance introduction

This product is auto slack adjuster used on "S" drum brake. Mainly used on trailer, bus and coach

It can record the clearance increase caused by friction according to clearance induction principle, then assure brake safety. It adjusts clearance when the minimum torque brake shoe returns back; it avoids the elastic clearance influence of brake system to assure the same brake result of all wheels. This brake is safety, swift, reliable, and no need manual adjustment. It reduces the maintenance times, improves work efficiency and economic benefit.

Technical parameter:

1. Maximum work torque  $\leq 26000\text{in-ibs}(3000\text{N.m})$
2. Brake clearance: 0.2-0.7mm
3. 0 load Worm gear torque: clockwise  $\leq 8.47\text{N.m}$  anticlockwise  $\geq 19.8\text{N.m}$
4. Zero displacement: Center distance = 152.4 mm (6in); arm body displacement should be less than 6.35mm (1/4in)

### ASH Auto slack adjuster working principle

ASH auto slack adjuster use clearance induction principle

The stroke include three parts ( Fig 1)

- Angle C: Initial clearance
- Angle Coe: Increased clearance formed by brake
- Angle E: Formed by brake drum, brake lining and

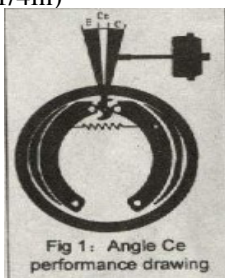


Fig 1: Angle Ce performance drawing

Other brake system parts.

ASH Auto slack adjuster only adjust the Coe Formed by brake. But it cannot adjust the Elastic clearance made by brake drum, brake lining and S camshaft. So the ASH Auto slack adjuster can provide correct clearance .Fig 2 is ASH Auto slack adjuster working principle. It doesn't work in the Elastic clearance, but only work in the Coe clearance. It adjusts clearance when the minimum torque brake shoe returns back. So it assures safety, reliable, improves working life.

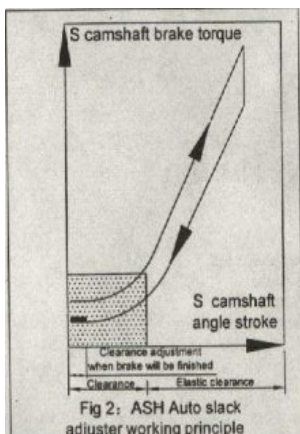


Fig 2: ASH Auto slack adjuster working principle

Fig 3 describe the difference Clearance for manual and auto slack adjuster. Manual slack always need maintance and increase cost. ASH Auto slack can provide safety, reliable brake, improves work efficiency and economic benefit.

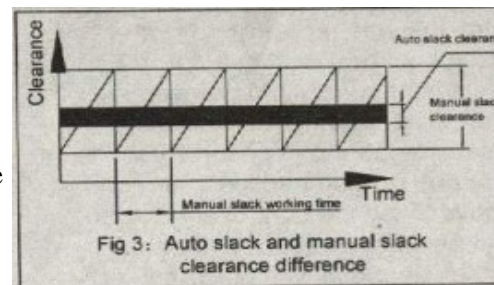


Fig 3: Auto slack and manual slack clearance difference

### ASH Auto slack installation step.

1. Please ensure the push rod is in preliminary position before installation. The air pressure should be more than 0.6Mpa (6bar) for parking chamber.

(As Fig 4)

2. Apply oil on the camshaft spline. Install the auto slack bracket or fixing bolt on the axle bracket.

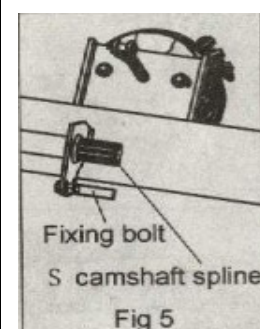


Fig 5

Please don't tighten the nut. Keep the fixing bolt or bracket move easily (As Fig 5)

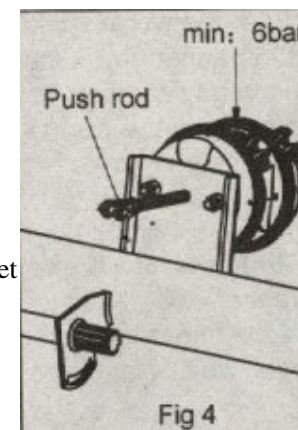


Fig 4

3. Assemble the auto slack adjuster on the camshaft . Take note the arrow should be same direction with the movement of push rod (As Fig 6)

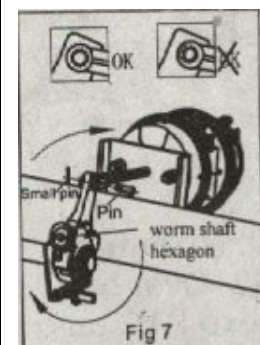


Fig 7

4. Turn the worm shaft hexagon clockwise with SW12 spanner (you can't use electric spanner ). Insert the clevis pin when the bush hole coincides with the clevis pin hole, and then secure . Now the angle between arm body and push rod should be 105-110 degree (As Fig 7)

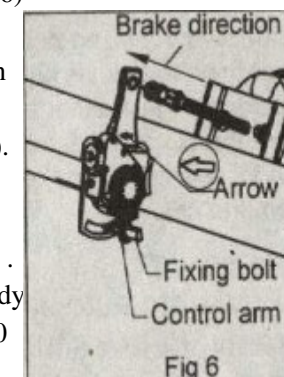
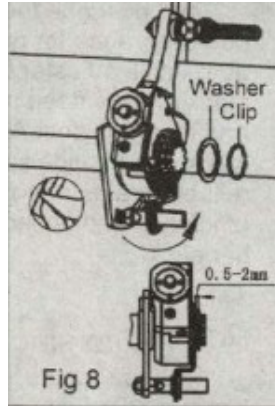
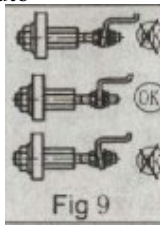


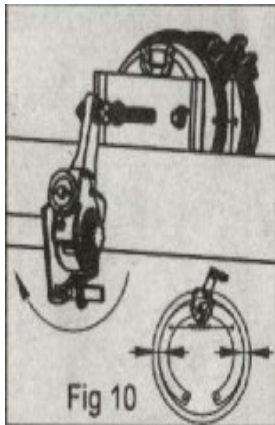
Fig 6

5. Use the washer or clip to fix the auto slack on the camshaft spline. The Auto slack need 0.5-2mm movement clearance left and right. Check if the control arm can move easily. Push the control arm arrow direction until it can not move. Now the control arm finger should be coincides with plate gap. Lock the fixing bolt with nut. (As Fig 8)

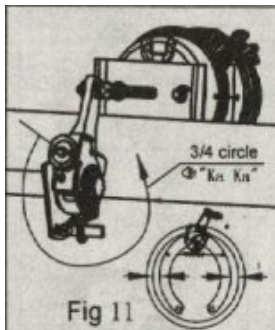
Note: the control arm should be vertical with fixing bolt. (As Fig 9)



6. Turn the worm shaft hexagon clockwise with SW12 spanner until it can't move. Now the brake shoe already contacts brake drum. (As Fig 10) Then back off the worm screw hexagon 3/4 circle sound. Now you need use longer arm spanner, but do not use electric spanner (As Fig 11)



7. Perform a few brake applications, the brake clearance will be adjusted to normal scope. The adjustment function can be seen when the hexagon head of the worm shaft rotates clockwise.



**Please teardown as below step:**

1. Teardown the fixing bolt or auto slack bracket.
2. Teardown the clevis pin.
3. Teardown the washer and clip.
4. Turn the worm shaft hexagon anti-clockwise with SW12 spanner to make the auto slack separate from the chamber.

**After service**

Fuwa-btc auto slack is one year limited warranty. Below situation is not included in the warranty:

1. Incorrect use .
2. Disassemble by yourself.
3. Over one year.

Fuwa-btc welcome all customers to choose BTC auto slack adjuster safe begins if you choose BTC products.

# ASH AUTO SLACK ADJUSTER INSTALLATION BOOK



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