IHC CABLE TYPE AUTOMATIC ADJUSTER

International Harvester
All Models (1965-74)

DESCRIPTION

These automatic adjuster brakes are two-shoe, self-centering type with brake shoe anchor at upper end of shoes above wheel cylinder. Single cylinder is double acting. Rear units contain linkage for cable operated parking brake. Automatic adjustment is accomplished by cable operated lever.

ADJUSTMENT & SERVICING

BRAKE SHOE ADJUSTMENT

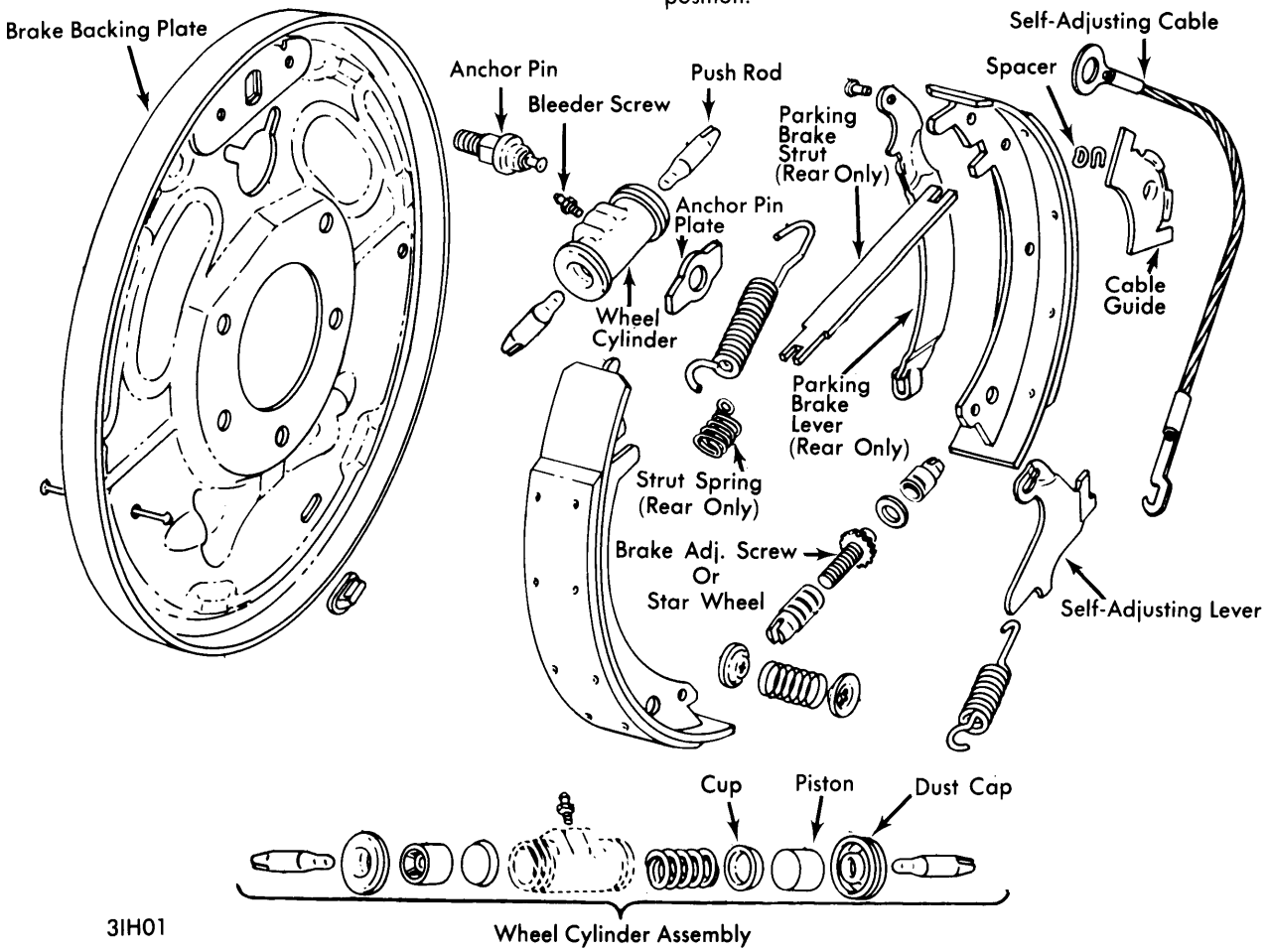
Brake shoes adjust when vehicle is traveling in reverse and brakes are applied. No other adjustment is necessary. During overhaul it is sometimes necessary to back off shoes to remove wheels. This is done with a star wheel accessible through hole in brake backing plate. A thin screwdriver or similar device must be used to disengage automatic adjuster lever while making manual adjustment.

PARKING BRAKE ADJUSTMENT

Rear Wheel Integral – Adjustment is not necessary in normal service; automatic service brake adjustments also adjust parking brake. In case of brake overhaul or to compensate for stretched cables, adjust as follows: Check parking brake cables when brake shoes are fully released. If cables are loose, loosen lock nut on equalizer rod and turn nut in front of equalizer several turns forward. Turn lock nut forward against equalizer until cables are just tight enough to remove slack. *NOTE – Excessive tightening may pull brake shoes off their anchors.* When cables are adjusted, tighten both nuts against equalizer. Rotate wheels and check for drag. There should be no drag with properly adjusted cables. Check cables for balance: Pull parking brake lever back until rear wheels can just be turned by hand. Check wheels for even brake drag. If drag is uneven, loosen tight brake to provide even drag.

Trans. Mounted, Internal Expanding – 1) While linkage may vary with different models, adjustment is same for all. Disconnect hand lever to parking brake linkage by removing clevis pin from adjustable yoke. Raise one rear wheel from floor or disconnect propeller shaft to permit hand rotation of brake drum.

2) Partially apply brake until a slight shoe drag is felt on drum and then back off on brake just enough for drum to turn free. A crescent wrench applied to vertical leg of bellcrank during this adjustment will provide sufficient leverage to overcome resistance of brake shoe retracting spring. Shorten rod at adjustable yoke so that when hand lever is in fully released position, adjustable yoke can be reconnected to control rod at new position.



BRAKE ASSEMBLY (TYPICAL)

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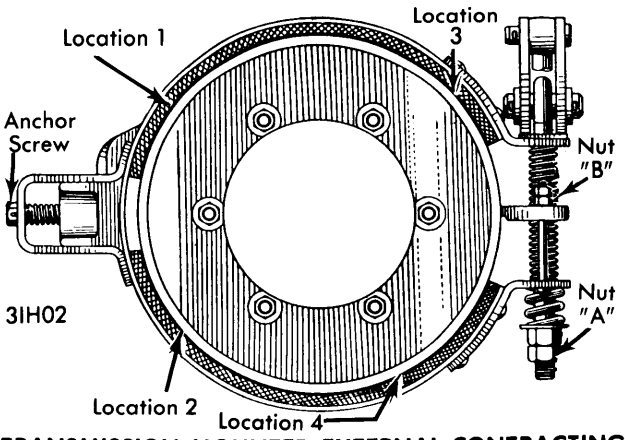
IHC CABLE TYPE AUTOMATIC ADJUSTER (Cont.)

Trans. Mounted, External Contracting – Place parking brake lever in extreme forward (release) position. Adjust anchor screw until .020-.030" clearance is obtained between drum and shoe at location 1 and 2 (see illustration). Tighten nut "A" to gain same clearance at location 3. Tighten nut "B" to gain same clearance at location 4. Recheck clearance at location 3 and readjust as necessary.



TRANSMISSION MOUNTED EXTERNAL CONTRACTING

ANCHOR PIN ADJUSTMENT

NOTE – Do not loosen anchor pins unless inspection of lining-to-drum clearance indicates a need for repositioning of anchors.

1) Loosen anchor pin lock nut ¼ to ½ turn and tap anchor pin with soft hammer. This will free anchor pin from backing plate in the event it has become rusted or stuck. Turn star wheel adjusting screw to expand brake shoes against brake drum until a heavy wheel drag is felt. Tap anchor pin again to position brake shoes in drum. Tighten anchor pin lock nut.

2) Back off star wheel adjusting screw 20 to 22 notches. Check for free wheel rotation. If lining drags on drum, it will be necessary to again loosen anchor pin lock nut ¼ to ½ turn and tap anchor pin lightly to relieve brake drag. Tighten anchor pin lock nut securely.

BLEEDING SYSTEM

See *Hydraulic Brake Bleeding in this Section.*

REMOVAL & INSTALLATION

BRAKE SHOES

Removal – 1) Secure wheel cylinder pistons with a cylinder clamp. Remove return springs from primary and secondary brake shoes. Pull adjusting lever, cable and adjuster spring down and toward rear to disconnect pivot hook from large hole in secondary shoe web. *CAUTION – Do not attempt to pry pivot hook out of hole.*

2) Remove adjuster lever and spring. Unhook cable eye from anchor pin and remove cable. Remove cable from secondary shoe. Remove brake shoe hold-down clips, springs, and pins; then spread shoes and lift from backing plate. Remove adjusting screw and disconnect parking brake cable from brake shoe. Remove shoe guide plate from anchor pin.

Installation – 1) Attach cable to parking brake lever by compressing cable retracting spring and sliding cable into loop at end of lever. Install adjusting screw assembly making sure that star wheel is accessible through backing plate hole. Attach shoes to backing plate with hold-down pins, springs, and cups. Assemble spring on strut against strut shoulder and assemble strut between front (primary) shoe and parking brake lever. Small loop of spring rests against inside of shoe web on right brake, and on outside of shoe web on left brake.

2) Install brake shoe guide plate on anchor pin. Position hooked end of adjuster spring completely into large hole in lower end of primary shoe. Place cable eye over anchor pin with crimped side toward shoe guide plate. Install cable on secondary shoe web with flanged hole fitted into hole in shoe web. Using a suitable lubricant (Lubriplate 110), lubricate cable where it travels over cable guide. Thread cable around cable guide groove. *NOTE – Be certain that cable is positioned in groove and not between cable guide and brake shoe web.* Using spring pliers, install primary and secondary brake shoe return springs.

3) Remove cylinder clamp. *NOTE – Be sure that cable eye is not cocked or binding on anchor pin.* Hook cable hook into hole in adjusting lever. Adjusting levers are stamped with an "R" or "L" to indicate installation on right or left brake assembly. Pull adjuster lever, cable and adjuster spring down and toward rear to engage pivot hook into large hole in secondary brake shoe return springs.

4) Check action of adjuster by pulling section of cable between cable guide and adjusting lever toward secondary shoe web far enough to lift lever past next tooth on adjusting screw star wheel. Lever should snap into position behind the next tooth. When cable is released, adjuster spring should return lever to its original position and turn adjusting screw one tooth.

WHEEL CYLINDER

Removal & Installation – To remove front wheel cylinder, carefully disconnect flexible brake line at frame. Remove bolts securing wheel cylinder to brake backing plate and remove cylinder. Remove rear wheel cylinder in a similar manner except that brake line is disconnected at cylinder, not at frame. To install, reverse removal procedure. Make sure that hydraulic lines are not twisted or kinked and that there is no sign of deterioration of flexible lines.

OVERHAUL

WHEEL CYLINDER

Disassembly & Reassembly – 1) Remove dust caps and shake pistons, cups and spring loose. *NOTE – Use caution when removing piston. Do not force, it will cause scoring of cylinder bore.* Clean cylinder in any commercial product so long as it is rinsed with denatured alcohol or clean brake fluid. Do not wash rubber parts with mineral base solvents such as gasoline, kerosene, carbon tetrachloride, etc.

2) After cleaning cylinder, hold it up to a strong light and sight through bore. Check for pitting, scratches and visible wear patterns. Use crocus cloth or jeweler's rouge to smooth cylinder bore. A hone may also be used provided it does not materially increase size of bore.

3) Piston fit in bore is gauged with a narrow (⅛" to ¼") .005" feeler gauge. If feeler can be inserted between piston and bore, cylinder should be replaced. If cylinder is usable, wet bore with brake fluid and dip new pistons and cups in brake fluid. Reassemble cylinder and install on brake backing plate.

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IHC CABLE TYPE AUTOMATIC ADJUSTER (Cont.)

1965 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
D900	11"	1 1/8"	1"	1"
D1000	11"	1 1/8"	1"	1"
D1100	12"	1 1/8"	1"	1"
D1200	12"	1 1/8"	1 1/8"	1 1/8"

1966 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
900A	11"	1 1/8"	1"	1"
1000A	11"	1 1/8"	.....	1"
1000A	12"	.....	1"	1"
1100A	12"	1 1/8"	1"	1"
1200A	12"	1 1/8"	1 1/8"	1 1/8"
Scout 800①	9" or 10"	1"	.....	7/8"
Scout 800①	11"	.....	1"	7/8"

① — Serial no. G224935 up.

1967 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
908B	11"	1 1/8"	1"	1"
1000B	11"	1 1/8"	.....	1"
1000B	12"	.....	1"	1"
1100B 4x2	12"	1 1/8"	1"	1"
1100B 4x4	12"	1 1/16"	1"	1"
1200B	12"	1 1/8"	1 1/8"	1 1/8"
Scout 800①	9" or 10"	1"	.....	7/8"
Scout 800①	11"	.....	1"	7/8"

① — Serial no. G224935 up.

1968 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
908C	11"	1 1/8"	1"	1"
1000C	11"	1 1/8"	1"	1"
1100C				
4x2	11" or 12"	1 1/8"	1"	1"
4x4	12"	1 1/16"	1"	1"
1200C	12"	1 1/8"	1 1/8"	1 1/8"
Scout 800①	9" or 10"	1"	.....	7/8"
Scout 800①	11"	.....	1"	7/8"

① — Serial no. G224935 up.

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IHC CABLE TYPE AUTOMATIC ADJUSTER (Cont.)

1969-71 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
1000D, 1100D, 1010, 1110	11″	1 1/8″	15/16″	1″
1200D, 1210①	12″	1 1/8″	1″	1 1/8″
1200D, 1210②	12″	1 3/16″	1 1/8″	1 1/8″
1300D, 1310	12″	1 3/16″	1 1/8″	1 1/8″
Scout 800A & 800B 4x2	9″	1″	.....	1″
Scout 800A & 800B 4x4	10″	1″	.....	1″
Scout 800A & 800B	11″	....	7/8″	1″

① — Prior to serial no. H921431.
② — Serial no. H921431 up.

1972-73 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
1010 & 1110	11″	.....	.....	.....
1210 & 1310	12″	.....	.....	.....
MHC 1510①	14.5″	.....	.....	.....
Scout II	11″	.....	.....	.....

① — Motor Home Chassis has two, duo-servo wheel cylinders per wheel.

1974 BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
100	11″	.....	.....	.....
200	12″	.....	.....	.....
Scout II	11″	.....	.....	.....

METRO BRAKE SYSTEM SPECIFICATIONS

Application	Drum Diam.	Wheel Cylinder Diameter		Master Cylinder
		Front	Rear	Diameter
DM106	12″	.....	.....	.....
M700, 800, 900, 1100	11″	1 1/8″	.....	1″
M800 & 1100	12″	1 1/8″	.....	1″
M700, 800, 900, 1100	11″ or 12″	.....	1″	1″
MS1210	12″	.....	.....	.....

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