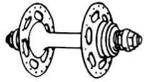


Hub	<div style="display: flex; justify-content: space-around;"> <div style="transform: rotate(-45deg); white-space: nowrap;">Trouble Chart</div> <div style="transform: rotate(-45deg); white-space: nowrap;">Exploded Drawing</div> <div style="transform: rotate(-45deg); white-space: nowrap;">Parts Interchangeability Chart</div> <div style="transform: rotate(-45deg); white-space: nowrap;">Disassembly and Assembly Instructions</div> <div style="transform: rotate(-45deg); white-space: nowrap;">Cleaning, Points to Check and Lubrication</div> </div>					Axle Thread Size
	page	page	page	page	page	
Bendix						
Blue Band	3-2	3-4	3-4	3-6	3-8	3/8" x 24 TPI
Red Band	3-2	3-4	3-4	3-9	3-11	3/8" x 24 TPI
Yellow Band	3-2	3-4	3-4	3-6	3-8	3/8" x 24 TPI
Sachs (F & S)						
Automatic A2110	3-3	3-12	3-12	3-17	3-18	3/8" x 26 TPI
Duomatic 101 (no brake)	3-3	3-12	3-12	similar to 102		13/32" x 26 TPI
Duomatic 102	3-3	3-12	3-12	similar to R2110		13/32" x 26 TPI
Duomatic R2110	3-3	3-12	3-12	3-14	3-16	3/8" x 26 TPI

BRAKE ARM MOUNTING

Coaster brake hubs have a brake arm which prevents the left-hand cone and axle from turning. Attach the brake arm and axle nuts finger tight before cinching down either. Make sure that the brake arm clamp will not pull the brake arm out of line as this will cause severe bearing alignment problems. Tighten axle nuts first, then brake arm clamp.



HUBS

BENDIX RED, BLUE & YELLOW BAND 2-SPEED COASTER BRAKES TROUBLE CHART

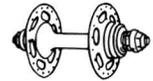
Possible Causes¹

Symptom	Resulting from wear, improper lubrication or abuse	Resulting from improper assembly or installation
Binds	Dust caps bent	Ball retainer reversed
	Ball retainer damaged or broken	
	Chain too tight	
Makes grinding, cracking or rubbing noise	Damaged or gummed internal parts	
Brake does not release	Cones (6) (24) (28) too tight	
	Axle (16) bent	
	Braking surfaces (29) (8) rough or burred	
Brake squeaks	Threads of low-speed driver (33) (20) and clutch (12) damaged	
	No lubricant	
Poor braking	Braking surfaces (29) (8) glazed or worn	Too few brake discs (8) or discs improperly stacked (Red Band)
Excessive back-wards pedal travel	Cones (6) (24) (28) too loose	
	Improper lubrication	
No braking (free-wheels backward)	Teeth on low-speed clutch (12) worn	
	Teeth on drive-side expander (30) worn (Yellow and Blue Band)	
Slips in 2nd gear	Sprocket loose on driver (33) (18)	
	Low-speed retarder spring (31) weak	
Slips in 1st gear	Bearing surfaces of low-speed and high-speed drivers (18) (20) (32) (33) worn	
	Low-speed clutch (12) or hub shell worn	
Whines when coasting or driving	Bearing or tapered surfaces of high-speed clutch (14) and hub shell worn	
Jumps from 2nd to 1st, or slips slightly in 2nd	Gear ring on high-speed driver (18) (32) broken loose	
	Fingers on indexing spring (17) damaged	Indexing spring (17) improperly installed
Shifts erratically or does not shift	High-speed retarder spring weak	

¹ Parts numbers in parenthesis refer to parts chart and exploded drawing.

SACHS (F & S) 2-SPEED COASTER BRAKES TROUBLE CHART

HUBS



SUTHERLAND'S HANDBOOK OF COASTER BRAKES AND INTERNALLY-GEARED HUBS

Symptom	Possible Causes ¹	
	Resulting from wear, improper lubrication or abuse	Resulting from improper assembly or installation
Slips in 1st gear	Brake cone (8) pawls faulty	Brake cone (8) pawls improperly installed
Slips in 2nd gear		
Jumps 2nd to 1st		
Stays in 1st gear only (hub turning at same speed as driver)	Drive ring (17) or hub shell (7) dogs worn	Gear ring (12) pawls improperly installed
Intermittently fails to shift	Gear ring (12) pawls faulty	
Stays in 2nd gear only (hub turning faster than driver)	Flyweights (14) sticking	Flyweights (14) for smaller size wheel
Stays in 1st gear only (hub turning at same speed as driver)	Control bush (16) friction spring too weak (Duomatic)	
Stays in 2nd gear only (hub turning faster than driver)	Brake cone (8) friction spring too weak	Brake cone (8) friction spring reversed (Automatic)
	Control bush (16) damaged or broken (Duomatic)	Improper friction spring used on brake cone (8) (Duomatic)
Pedals driven forward while coasting	Chain too tight	Ball retainer reversed
	Bearings too tight	Friction spring (9) reversed (Automatic)
	No lubrication or wrong lubrication	
Stiff running, noisy	Ball retainer damaged or broken	
	Brake lever forcing cone out of line	
Jammed	Loose or broken parts inside hub	
	Broken gear teeth	
Too much play in axle	Bearings loose or damaged	
No brake	Brake cone (8) friction spring weak or broken	Brake cone (8) friction spring missing
Weak brake	Wrong lubricant	
	Brake parts glazed or worn	
Brake too strong or jerky	Brake lever (4) loose at chainstay	
	Brake shell (6) unlubricated	
	Axle (28) loose in dropouts	
Brake does not release	Driver bush (13) and brake cone (8) threads worn or chipped	

¹ Parts numbers in parenthesis refer to parts chart and exploded drawing.