

Fault Finding – OR Coupling & Mechanical Drum Brakes

One service problem that has emerged in recent years is the phenomenon of the brake linings sticking fast to the inner surface of the drum. In extreme circumstances if towing the trailer is attempted, the affected hub will not turn and the tyre may be dragged along the ground.

Much investigation has been undertaken by the brake suppliers, but without any concrete conclusions. Although it is believed that the changes in the composition of the lining material in 1989, i.e. The removal of the asbestos content and its replacement with cintered metal, have an influence. Unfortunately it has proved very difficult to exactly reproduce the problems consistently under test conditions, but it is thought that under a combination of some or all conditions, the linings literally bond themselves to the drum, the cintered metal in many cases forming a rust bond. A summary of the conditions and possible remedies is as follows:

- A. Leaving the handbrake on when the trailer is parked for extended periods, particularly in damp conditions e.g. Parked up when damp, parked on long grass. It is essential that when a trailer is to be parked under these circumstances, that the handbrake is left off and the wheels adequately chocked.
- B. Trailers that are infrequently used often suffer most. This could not only be due to the handbrake as above, but also to the fact that the brakes never really are used and properly bedded in. It is vital that such trailers are regularly serviced on a time interval basis - see c) above.
- C. Boat trailers - immersion of the brakes in water, particularly salt water can have serious detrimental effects on the brakes and cause severe bonding problems. Additional servicing is essential - see [Boat Trailers](#) - Additional Operating Advice
- D. In the event of one or more brakes sticking on in this fashion, the only remedy is to strip down, clean and reassemble the hub/brake. It may be possible to break the bond by tapping the drum with a hammer after backing off the adjuster. This will enable the trailer to be moved, if stuck in an inconvenient place, but it is essential that the brakes be stripped down as soon as is practicable afterwards.
- E. If all else fails or you experience repeated problems with a particular trailer, consult the Service Department of either the axle or brake manufacturer.

Fault Finding Table

Fault	Possible Cause	Remedy
Brakes overheat	Wheel brakes over adjusted	Adjust correctly
	Wheel brake dirty/rusty	Clean and re-set
	Handbrake not releasing or left on	Check mechanism and adjust
	Bowden cable(s) kinked	Check and replace
	Drawtube dirty and/or bent	Clean or replace
	Overrun lever/brake lever Sticking and/or bent	Grease or replace
Braking effort weak	Wheel brakes not adjusted	Adjust correctly
	Brake linings glazed or contaminated	Clean or replace and re-set
	Incorrect clearances in system	Check and re-set
	Drawtube dirty and/or bent	Clean or replace
Reversing difficult	Braking system set too tight	Check and re-set
Handbrake weak	Braking system set incorrectly	Check and re-set to eliminate excessive travel
Uneven or jerky braking	Too much play in braking system	Check and re-set
	Worn damper in overrun	Replace

	Faulty components in wheel brake	Check and replace
	Ovality in drum	Check and have skimmed, or replace
	Wheel brakes unevenly adjusted	Check and re-set
	Bowden cable kinked	Check and replace
	Brake linings contaminated	Check and replace
	Excessive nose weight	Check and adjust load
Banging from overrun when braking	Damper resistance completely gone	Replace. Then adjust brakes.
Difficulty coupling and uncoupling	Coupling head mechanism dirty or damaged	Check and clean or replace
	Towball dirty	Clean and, if necessary, grease
	Towball damaged	Check and replace
Excessive play between coupling head and towball	Coupling head worn	Replace
	Towball worn	Replace
Wear in back of eye and rear of pin	Jaw too wide	Check and replace eye
Wear on inside and outside of front of eye	Jaw too tight	Replace with wider jaw
Pin seized in jaw	Jaw crimped by excessive noseweight	Replace jaw and reduce noseweight
Stress fractures on couplings or trailer drawbar	Incorrect eye/jaw combination	Check and replace with compatible components
	Excessive overhang on towing vehicle	Check and discuss with operator. Possibly fit Shocklink
	Mis-match of towing heights	Modify towball or trailer coupling position or fit height adjustable equipment

N.B. after any instance of the brakes overheating it is ESSENTIAL that the wheel bearings and grease are thoroughly checked over and replaced if necessary.