AAIB Bulletin No: 6/93 **Ref: EW/G93/03/06** **Category: 1c**

Aircraft Type and Registration:	Piper PA-28-140 Cherokee, G-BTON
No & Type of Engines:	1 Lycoming O-320-E3D piston engine
Year of Manufacture:	1991
Date & Time (UTC):	11 March 1993 at 1730 hrs
Location:	Ipswich Airport, Suffolk
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Damage to nose landing gear and propeller; engine shock loaded
Commander's Licence:	Private Pilot's licence with IMC and Night ratings
Commander's Age:	79 years
Commander's Flying Experience:	218 hours (of which 45 were on type) Last 90 days - 12 hours Last 28 days - 7 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The aircraft landed on Runway 14 at Ipswich Airport with the pilot and two passengers on board. The passengers disembarked and the pilot took off again for some solo circuit practice. The surface wind was 150°/7 kt and the weather was good.

The pilot reported that the first circuit was normal to the point of the flare when elevator control forces experienced were higher than expected. The aircraft touched down nosewheel first and bounced; a go-around was immediately initiated. A similar problem was experienced following the subsequent circuit and again the aircraft touched down nosewheel first. On the third approach the pilot gave particular attention to the pitch trim of the aircraft and this time no problem was experienced during the flare. The aircraft landed normally but the nose landing gear collapsed. The pilot carried out the shutdown check and, with the assistance of the AFS, vacated the aircraft without injury.

The pilot considered that she may not have trimmed the aircraft correctly on the first two approaches and may also not have had sufficient power applied to ensure adequate elevator response in the flare. The first two landing attempts may have placed sufficient stress on the nose landing gear to cause it to collapse under what appeared to be normal forces on the final landing.