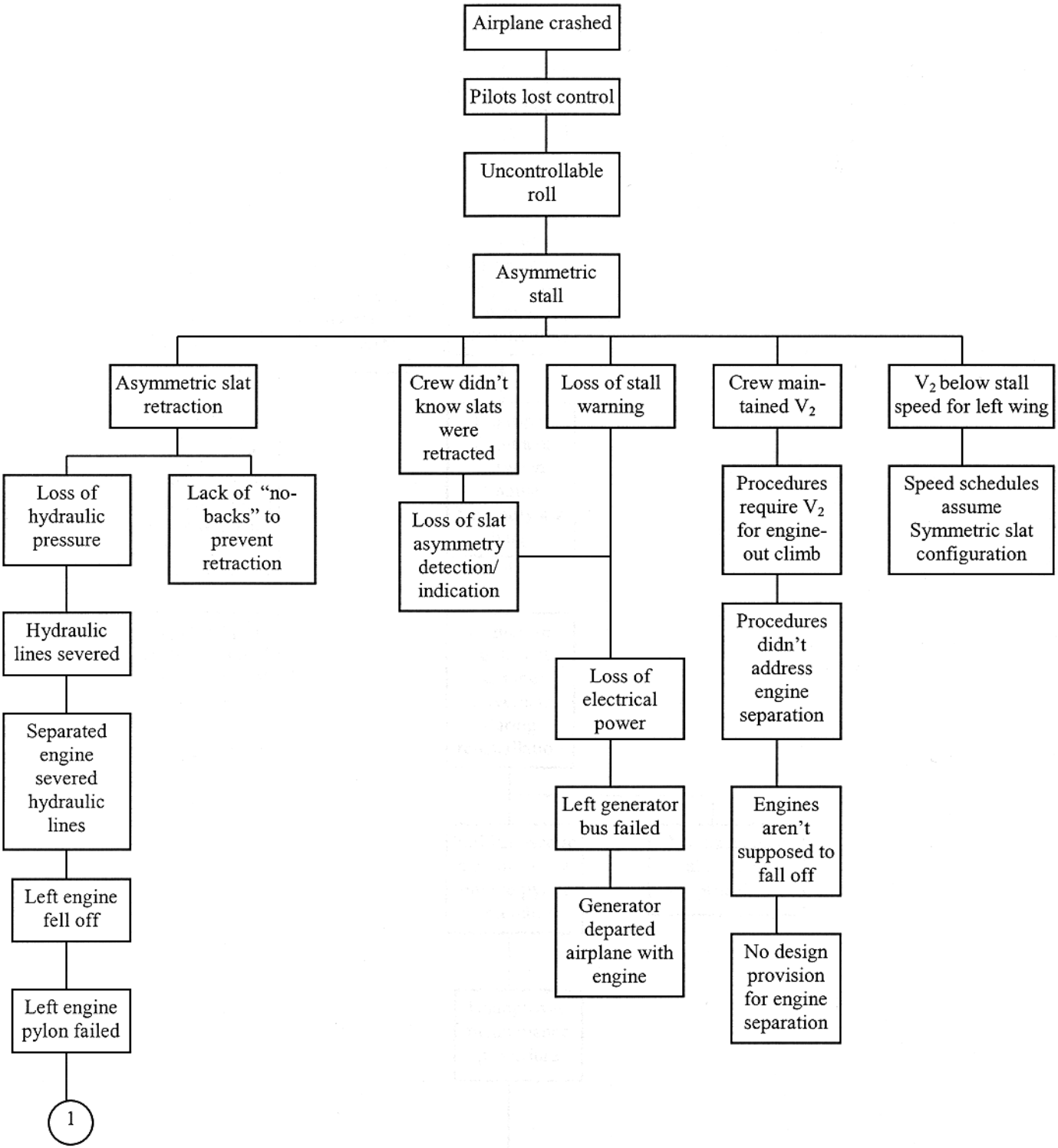
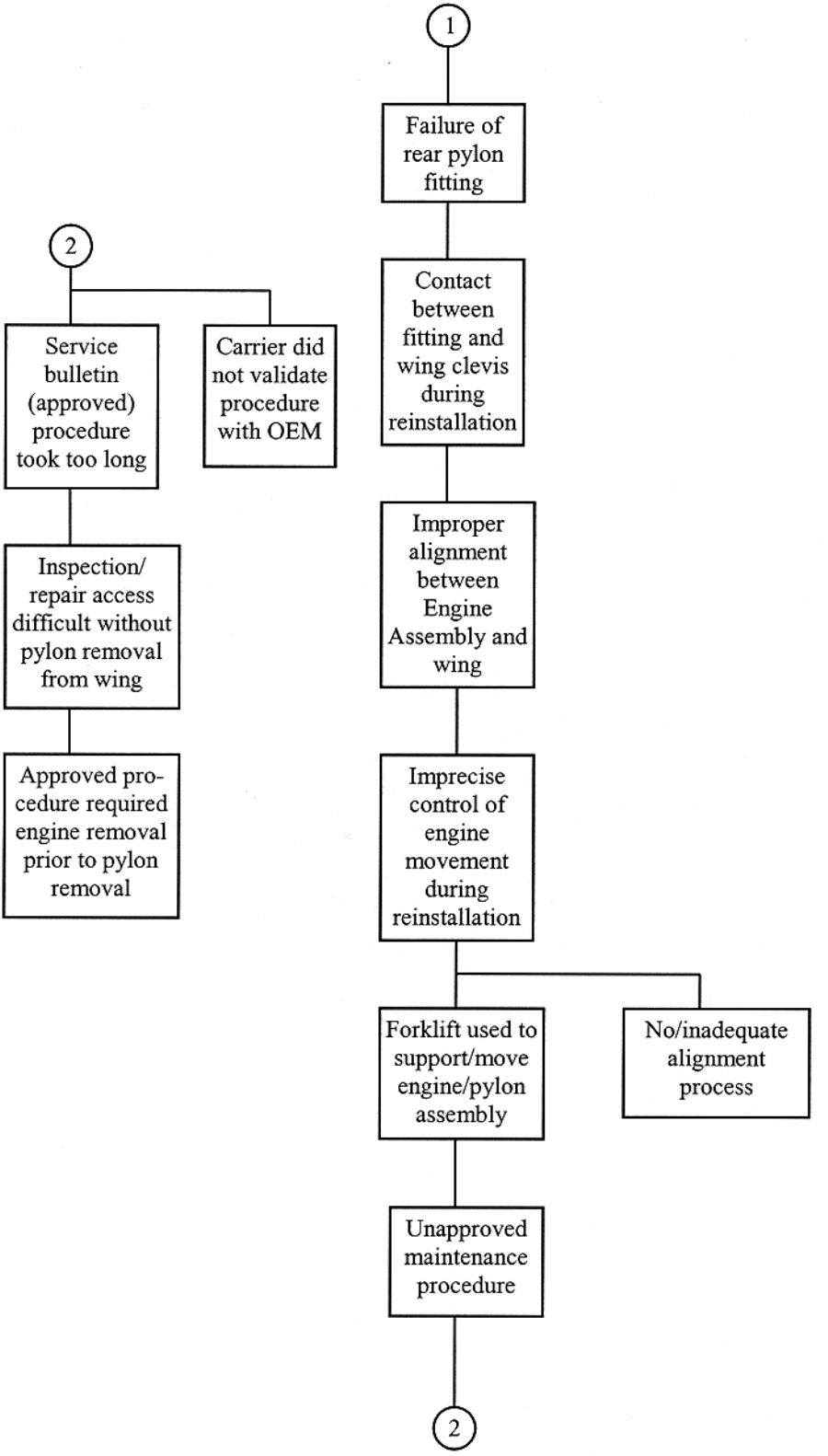

Airplane crashed
Pilots lost control
Uncontrollable roll
Asymmetric stall
Asymmetric slat retraction
Crew didn't know slats were retracted
Loss of stall warning
Crew maintained $V_2$
$V_2$ below stall speed for left wing
Loss of hydraulic pressure
Lack of "no-backs" to prevent retraction
Loss of slat asymmetry detection/ indication
Procedures require $V_2$ for engine-out climb
Speed schedules assume Symmetric slat configuration
Hydraulic lines severed
Loss of electrical power
Procedures didn't address engine separation
Separated engine severed hydraulic lines
Left generator bus failed
Engines aren't supposed to fall off
Left engine fell off
Generator departed airplane with engine
No design provision for engine separation
Left engine pylon failed
1


1
Failure of rear pylon fitting
Contact between fitting and wing clevis during reinstallation
Improper alignment between Engine Assembly and wing
Imprecise control of engine movement during reinstallation
Forklift used to support/move engine/pylon assembly
No/inadequate alignment process
Unapproved maintenance procedure
2
2
Service bulletin (approved) procedure took too long
Carrier did not validate procedure with OEM
Inspection/ repair access difficult without pylon removal from wing
Approved procedure required engine removal prior to pylon removal