



Airline Disclosure Guide

Maintenance accounting

In association with



Purpose of Airline Disclosure Guides

These Airline Disclosure Guides (ADGs) have been compiled by the IATA Industry Accounting Working Group (IAWG), which consists of senior finance representatives from IATA member airlines. This working group's mandate is to promote consistency in the application of International Financial Reporting Standards (IFRS) and to lobby accounting standard setters to take into consideration the interests of airlines globally.

The Airline Disclosure Guides (ADGs) cover the latest accounting practices, principally from airlines reporting under IFRS related frameworks, to highlight key issues, judgements and disclosures made by airlines. They are designed to help in the development and analysis of airlines annual reports. The sample for the disclosures used in the ADGs comes mainly from annual reports of members of the IAWG and of IATA's Financial Committee.

The ADGs are not intended as critical assessments of specific disclosures or accounting policies nor as a guide of best practice. Furthermore, they do not provide accounting advice or detailed analysis of the underlying standards, including relevant disclosure requirements, and they should not be used as a substitute for referring to the standards and interpretations of IFRS.

KPMG is a global network of member firms, providing audit, tax and advisory services and has provided the IATA IAWG with assistance in compiling the ADGs. The views expressed in the ADGs are not necessarily the views of KPMG.





Contents

Introduction & scope	3
Owned aircraft and aircraft held under a finance lease	4
Aircraft held under an operating lease	6

Maintenance accounting

Introduction

Airlines schedule their aircraft maintenance work based on a combination of their operating requirements, fleet composition, requirements of aviation regulatory authorities and manufacturer's specifications. Airframe, engines, auxiliary power units, landing gear and other aircraft parts require major maintenance events on a routine basis. Estimating the cost of these events can be done through past experience however it may differ when the part is inspected. This is one of a number of challenges faced by airlines when accounting for aircraft maintenance. It is therefore useful to review the common challenges faced by airlines and compare disclosed practice.

IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* and IAS 16 *Property, Plant and Equipment* provide guidance relevant to accounting for maintenance events. For owned or finance-leased aircraft, industry practice is to capitalise and depreciate maintenance expenses for 'major' or 'heavy' events. This involves capturing the embedded cost of maintenance on new aircraft.

For operating-leased aircraft, the treatment differs based on the lease conditions. Generally, the lessee is required to return an aircraft with a contractually agreed level of maintenance. Deviations from this agreed level may be settled financially or may require an additional maintenance event to be performed by the airline.

Many airlines transfer parts of this risk to maintenance providers using 'risk transfer' type arrangements. These agreements are generally billed and expensed on a 'by-the-hour' basis and are not covered further in this ADG.

Scope

This ADG details the accounting guidance and observed practice in accounting for maintenance costs in relation to:



Owned aircraft and aircraft held under a finance lease



Aircraft held under an operating lease

1. Owned aircraft and aircraft held under a finance lease



IAS 37 prohibits recognition of a provision for future operating losses and future expenditure that can be avoided. Provisions arise from legal or constructive obligations arising from a past event. Therefore, the cost of future maintenance of owned assets should not be provided for in advance of a maintenance event as it can be avoided by either not flying the aircraft or by selling the aircraft.

Major inspections and overhauls are identified and accounted for as an asset under IAS 16 if that component is used over more than one reporting period (please refer to the ADG entitled 'Aircraft acquisition and depreciation' for further guidance on this). When a major inspection or overhaul cost is embedded in the initial purchase cost of an aircraft, it is necessary to estimate the carrying amount of the component. Component accounting for overhaul costs is intended to be used only for major expenditure that occurs at regular intervals over the life of the asset. Costs associated with routine repairs and maintenance are expensed as they are incurred.

These initial embedded maintenance assets are depreciated over the time until the first maintenance event is performed. The cost of the new event is then capitalised and depreciated over the period until the next overhaul event.

Key accounting judgements and estimates

There are two main areas of judgement when accounting for aircraft maintenance events for owned aircraft, the determination of 'major' versus 'minor' events and the time period that events are depreciated over.

'Major' events versus 'minor' events

It is required by IAS 16 and common practice to capitalise maintenance events for owned aircraft. At times it can be difficult to determine which maintenance events qualify for capitalisation and which maintenance events should be expensed as incurred. Airlines refer to 'major' or 'heavy' events or checks as costs being capitalised, without disclosing specific details related to the nature of those costs.

Long term maintenance works or a 'major' inspection on an aircraft (e.g. air frame "D-checks" or engine "C-checks") will generally give rise to a benefit over multiple reporting periods. The future economic benefits embodied in an asset are consumed by an entity principally through its use. These checks are capitalised as a component of the aircraft.

Through observed practice outlined below, for short-middle term maintenance works most airlines use the 'expensed as incurred' method by recording the related cost in the income statement as incurred (i.e. the maintenance check takes place). The depreciation could be applied on a straight line basis or based on flight hours, flying cycles, etc.

Depreciation time period for the maintenance event

The depreciation method used should reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity. This means the recognised maintenance asset is depreciated over the period until the next scheduled maintenance work.

Observed practice

Disclosures by airlines we sampled that apply IFRS demonstrate that it is common practice for 'major' maintenance events including 'embedded' maintenance costs to be identified as a separate component at the time of the initial capitalisation of a new aircraft and to be depreciated over the period until the next overhaul event.

Example disclosure:
Air France – KLM 2014 Annual Report

Maintenance costs are recorded as expenses during the period when incurred, with the exception of programs that extend the useful life of the asset or increase its value, which are then capitalized (e.g. maintenance on airframes and engines, excluding parts with limited useful lives). Any major airframe and engine overhaul (excluding parts with limited useful lives) are treated as a separate asset component with the cost capitalized and depreciated over the period between the date of acquisition and the next major overhaul.

1. Owned aircraft and aircraft held under a finance lease (cont.)



Example disclosure:
Qantas Airways Limited Annual Report 30 June 2014

An element of the cost of an acquired aircraft (owned and finance leased aircraft) is attributed to its service potential, reflecting the maintenance condition of its engines and airframe. This cost is depreciated over the shorter of the period to the next major inspection event or the remaining life of the asset or remaining lease term.

The costs of subsequent major cyclical maintenance checks for owned and leased aircraft (including operating leases) are capitalised and depreciated over the shorter of the scheduled usage period to the next major inspection event or the remaining life of the aircraft or lease term (as appropriate). Maintenance checks are expensed on the basis of hours flown.

All other maintenance costs are expensed as incurred.

A number of airlines list the types of maintenance events they consider 'major'.

Example disclosure:
Air Canada Annual Report 31 December 2014

Major maintenance of airframes and engines, including replacement spares and parts, labor costs and/or third party maintenance service costs, are capitalized and amortized over the average expected life between major maintenance events. Major maintenance events typically consist of more complex inspections and servicing of the aircraft. All maintenance of fleet assets provided under power-by-the-hour contracts are charged to operating expenses in the income statement as incurred.

Example disclosure:
EasyJet Annual Report 31 December 2014

An element of the cost of a new aircraft is attributed on acquisition to prepaid maintenance and is depreciated over a period ranging from three to ten years from the date of manufacture. Subsequent costs incurred which lend enhancement to future periods, such as long-term scheduled maintenance and major overhaul of aircraft and engines, are capitalised and depreciated over the length of period benefiting from these enhancements. All other maintenance costs are charged to the income statement as incurred.



2. Aircraft held under an operating lease



Aircraft lease agreements often require the lessee to return the aircraft with a specific level of maintenance. In contrast to the treatment of maintenance of owned aircraft a lessee may, through the use of an aircraft, create an obligation to a lessor in order to keep the aircraft at that contractual level of maintenance. A liability is created to recognise this obligation over the lease term.

Should the aircraft be returned to the lessor at a maintenance level greater than the return condition, it is also possible that the lessor may be required to reimburse the lessee for the difference.

Key accounting judgements and estimates

At the termination of a lease agreement, the settlement due to the lessor should be relatively straight-forward to determine. The required level of maintenance according to the lease agreement can be compared to the actual level of maintenance for any one aircraft. Depending on the terms of the agreement, the difference represents either the maintenance that needs to be performed before the aircraft is handed back to the lessor, or the cash settlement amount due to the lessor. During the life of the lease, which may typically be up to twelve years, the accounting can be complicated as usage of the aircraft and the timing of maintenance events can make comparison to return conditions difficult.

IFRS does not contain specific guidance in relation to the timing and accounting for both a provision and a capitalised asset simultaneously on operating leased aircraft. Airlines look to IAS 37 and IAS 16 for guidance. The general position observed within the industry is that when flight hours are flown, or cycles operated, to a level that requires expected maintenance or a expected settlement with the lessor, then a present obligation exists and must be provided for during the lease term. It has been observed that some airlines also capitalise modifications that enhance the operating performance or extend the useful lives of aircraft. Such modifications are depreciated over the shorter of the period to the next event and the remaining lease term.

How do you identify and separate components of the lease contract?

In the case of an asset leased under an operating lease with no obligation to return the asset (or parts of the asset) in its original condition, the operating lease payments reflect the original condition of the asset and its anticipated condition at the end of the lease term. In other circumstances, if there is an obligation to return the asset (or parts of the asset) in its original condition, then the operating lease payments do not fully reflect the consumption of the asset during the lease term. The nature of the transaction determines the accounting treatment.

If repair or overhaul costs are included in the lease payments, then an entity could apply the 'component approach' and recognise major repair or overhaul costs as a leasehold improvement. This approach may be applied on initial recognition to the extent that repair or overhaul costs are included in the lease payments, effectively treating a part of the lease contract as a finance lease (or owned asset) and the other part as an operating lease contract. Other maintenance costs would be recognized as an expense when they are incurred.

Conversely, if an entity has a contractual obligation to hand back the asset in its original condition, then it would apply the 'liability approach' and recognise a provision for the maintenance cost over the period of the lease as the original component is consumed.

The approach adopted for calculating the provision for the maintenance costs is generally dependent upon the terms of lease contracts.

2. Aircraft held under an operating lease (cont.)



Observed practice

Example disclosure:
Qantas Airways Limited Annual Report 30 June 2014

With respect to operating lease agreements, where the Qantas Group is required to return the aircraft with adherence to certain maintenance conditions, provision is made during the lease term. This provision is based on the present value of the expected future cost of meeting the maintenance return condition, having regard to the current fleet plan and long-term maintenance schedules. The present value of non-maintenance return conditions is provided for at the inception of the lease.

Example disclosure:
Air New Zealand Annual Report 30 June 2014

Where there is a commitment to maintain aircraft held under operating lease arrangements, a provision is made during the lease term for the lease return obligations specified within those lease agreements. The provision is based upon historical experience, manufacturers' advice and, where appropriate, contractual obligations in determining the present value of the estimated future costs of major airframe inspections and engine overhauls by making appropriate charges to the Statement of Financial Performance, calculated by reference to the number of hours or cycles operated during the year.

Example disclosure:
Air China Annual Report 31 December 2014

In respect of aircraft and engines under operating leases, the Group has the responsibility to fulfil certain return conditions under the relevant operating leases. In order to fulfil these return conditions, major overhauls are required to be conducted on a regular basis. Accordingly, estimated costs of major overhauls for aircraft and engines under operating leases are accrued and charged to the profit or loss over the estimated period between overhauls using the ratios of actual flying hours/cycles and estimated flying hours/cycles between overhauls. The costs of major overhauls comprise mainly labor and materials. Differences between the estimated costs and the actual costs of overhauls are included in the profit or loss in the period of overhaul.

2. Aircraft held under an operating lease (cont.)



Example disclosure:
Ryanair Annual Report 31 March 2014

For aircraft held under operating lease agreements, Ryanair is contractually committed to either return the aircraft in a certain condition or to compensate the lessor based on the actual condition of the airframe, engines and life-limited parts upon return. In order to fulfil such conditions of the lease, maintenance, in the form of major airframe overhaul, engine maintenance checks, and restitution of major life-limited parts, is required to be performed during the period of the lease and upon return of the aircraft to the lessor. The estimated airframe and engine maintenance costs and the costs associated with the restitution of major life-limited parts, are accrued and charged to profit or loss over the lease term for this contractual obligation, based on the present value of the estimated future cost of the major airframe overhaul, engine maintenance checks and restitution of major life-limited parts, calculated by reference to the number of hours flown or cycles operated during the year.

Ryanair's aircraft operating lease agreements typically have a term of seven years, which closely correlates with the timing of heavy maintenance checks. The contractual obligation to maintain and replenish aircraft held under operating lease exists independently of any future actions within the control of Ryanair. While Ryanair may, in very limited circumstances, sub-lease its aircraft, it remains fully liable to perform all of its contractual obligations under the head lease notwithstanding any such sub-leasing.

Both of these elements of accounting policies involve the use of estimates in determining the quantum of both the initial maintenance asset and/or the amount of provisions to be recorded and the respective periods over which such amounts are charged to income. In making such estimates, Ryanair has primarily relied on its own and industry experience, industry regulations and recommendations from Boeing; however, these estimates can be subject to revision, depending on a number of factors, such as the timing of the planned maintenance, the ultimate utilization of the aircraft, changes to government regulations and increases or decreases in estimated costs. Ryanair evaluates its estimates and assumptions in each reporting period and, when warranted, adjusts its assumptions, which generally impact maintenance and depreciation expense in the income statement on a prospective basis.







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