111 Illustrated Checklists and Worksheets You Need before Buying a Home

- Informative illustrations with every list
- Covers exteriors, interiors, and electromechanicals
- ✓ Worksheets for every possible problem area
- Sidebar "quick check" boxes throughout

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Lists for evaluating three separate properties

# Norman Becker, P.E.

# HOME INSPECTION CHECKLISTS

111 Illustrated Checklists and Worksheets You Need before Buying a Home

# NORMAN BECKER, P.E.

McGraw-Hill

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# Introduction

This book is intended for homebuyers who want to do a preliminary inspection of the house that they are considering purchasing. It is a series of inspection checklists that is also an easy-tocarry field guide that outlines the items of concern and value to a homebuyer. Since all houses are made up of many systems and components, knowing the condition of these items will allow a buyer to make a decision based on facts rather than emotion.

So that the process of evaluation may be accomplished most effectively, this book has been divided into three main sections: Exterior, Interior, and Electromechanicals. These sections are further subdivided into the following chapters covering various systems and components:

**Exterior** Roofs; Roof-Mounted Structures and Projections; Paved Areas around the Structure; Walls, Windows, and Doors; Lot and Landscaping; Garage; Wood-Destroying Insects and Rot

Interior Attic; Interior Rooms; Basement and Crawl Space

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**Electromechanicals** Electrical System; Plumbing; Heating System; Domestic Hot Water; Air-Conditioning; Swimming Pool

The checklists in this book have been designed to include all the different types of systems and components that may be found in a house, and all the conditions they may be found in. Therefore, there are more items in the checklists than will be found in the house being evaluated. For example, a house may be heated using steam, hot water, or warm air; and a roof may be covered with asphalt shingles, wood shingles, slate, or tile. Check off only those items that apply. In evaluating the condition of a system or component, several types of problems may exist. Check off the ones that apply. For example, asphalt shingles may be curling \_\_\_\_\_, cracked \_\_\_\_\_, torn \_\_\_\_\_, or missing \_\_\_\_\_.

### vi Introduction

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The checklists are also useful when two or three houses are being considered. They will help determine which of the houses will require the least maintenance. The checklists have a provision for inspecting three houses. It is recommended that for each house a different color pencil or pen be used.

For more information on home inspection, and a detailed discussion of the checklist items, see my book *The Complete Book of Home Inspection* (3d ed., McGraw-Hill, 2002).

Norman Becker, P.E.

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Every roof has two basic elements: the deck and the weather-resistant covering. A proper roof inspection includes an evaluation of both. You can check the condition of the roof deck during your attic inspection. The use of binoculars is recommended for a pitched roof inspection. Try to look at all the roof slopes, especially the southerly and southwesterly exposures. Those slopes get the maximum sun, which accelerates the aging of the roof covering.

# CHECKPOINTS

HOUSE	
#1 #2 #3	PITCHED ROOFS
	Visually inspect all portions (slopes) of the roof.
	Are there any sagging, uneven, damaged, or patched sections? Yes No The cause for sagging and uneven sections can be checked during the attic inspection.
	Is the area directly below the roof deck ventilated? Yes No Look for gable vents, roof vents, or soffit and ridge vents. The lack of ventila- tion can cause the roof deck to delaminate.
	Are there any overhanging tree limbs or branches that can cause damage to the roof structure as well as the roof covering? Yes No

□ □ □ Is the roof in need of a cleaning to remove debris? Yes \_\_\_\_\_ No \_\_\_\_\_ A buildup of leaves, seed pods, pine needles, and twigs can impede the runoff of rainwater, resulting in leaks.

	Asphalt shingles
	Look for curling, cracked, torn, or missing shingles. Figure 1-1 If any are noted, repair or replacement is needed.
	Are shingles losing their stone granules? Yes No If so, it is a sign of aging.
	Look for eroded sections in the slots between the shingle tabs. Eroded sections are a path for leakage. Do you see any? Yes No
	Pay particular attention to slopes with a southerly or southwesterly exposure. Is there a difference between the shingles on the northerly and southerly expo- sures? Yes No The shingles on the southerly exposures normally deteriorate more rapidly than the shingles on the northerly exposures. Figure 1-2
	Have shingles deteriorated to a point where they should be replaced? Yes No Figure 1-3
	How old are the roof shingles? years old.



FIGURE 1-1 Aging asphalt shingles. Note curling of the edges, with some pitting.

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**FIGURE 1-2** The orientation of the house can affect the projected life of the roof shingles. The deteriorated shingles on the right slope have a southerly exposure, while the shingles on the left slope have a northerly exposure.



**FIGURE 1-3** Deteriorated asphalt roof shingles. Note torn, missing, and brittle shingles with a loss of the granule covering, exposing the roof mat.

- □ □ □ How many layers of shingles are there? \_\_\_\_\_ There shouldn't be more than two, although some communities allow three.
  - ] [] If the roof has been recently reshingled, is a guarantee/warranty available?

#### Wood shingles, shakes

- Look for rotting \_\_\_\_\_, loose \_\_\_\_\_, cracked \_\_\_\_\_, chipped \_\_\_\_\_, or missing \_\_\_\_\_\_ sections. Any noted? Yes \_\_\_\_\_ No \_\_\_\_\_ If any are noted, repair or replacement is needed.
- $\Box$   $\Box$  Pay particular attention to the slopes with heavy shade.
- □ □ □ Is there a buildup of moss? Yes \_\_\_\_\_ No \_\_\_\_\_ If so, it should be removed. Moss functions like a wick; the root system provides a direct path for water entry.

### Slate, asbestos-cement, clay tiles

- □ □ □ Look for missing \_\_\_\_\_, cracked \_\_\_\_, chipped \_\_\_\_, flaking \_\_\_\_\_, or loose \_\_\_\_\_ sections. If any are noted, repair or replacement is needed.
- □ □ □ Are any of the slate shingles ribbon slate? Figure 1-4 Yes \_\_\_\_\_ No \_\_\_\_\_ Ribbon slate is an inferior-quality roof shingle.



FIGURE 1-4 Slate roof shingles. The ribbon slate is of inferior quality. Cracking often occurs along the ribbon after only 10 years.

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**FIGURE 1-5** Valley joint filled with a heavy layer of asphalt cement is an indication of a problem condition.

	Are sections patched with asphalt cement? Yes	No	If so, antici-
	pate future repairs.		

□ □ Are the valley joints filled with asphalt cement? Figure 1-5 Yes \_\_\_\_\_ No \_\_\_\_\_ This is an indication of a problem condition.

□ □ □ Are there snow guards along the edge of the roof to keep the snow from sliding off? Yes \_\_\_\_\_ No \_\_\_\_ Figure 1-6

#### **FLAT ROOFS**

🗆 🗆 🔲 Is safe ad	cess available?Yes	No
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□ □ □ Are there any cracked \_\_\_\_\_, blistered \_\_\_\_\_, eroded \_\_\_\_\_, split \_\_\_\_, punctured \_\_\_\_\_, or torn \_\_\_\_\_ sections? Yes \_\_\_\_\_ No \_\_\_\_\_ If so, repair is needed.

□ □ □ Look for open joints and seams. Figure 1-7 Any noted? Yes \_\_\_\_\_ No \_\_\_\_\_ If any, they should be sealed. Open joints and seams are a cause of roof leakage.

 $\Box$   $\Box$  Look for areas of ponding water or low points where water will accumulate.

□ □ □ Is the drainage system functional? Yes \_\_\_\_\_ No \_\_\_\_\_

□ □ □ Is the area below the roof deck adequately ventilated? Yes \_\_\_\_\_ No \_\_\_\_\_



FIGURE 1-6 Snow guards along the edge of the roof will help keep the snow from sliding off the roof.



FIGURE 1-7 Cracked and open joint in the roof parapet wall will result in leakage.

Built-up roofs (BURs)

- □ □ □ Are there areas with missing aggregate? If so, replacement of aggregate is needed.
- Look for patched areas \_\_\_\_\_, surface erosion \_\_\_\_\_, and alligatoring \_\_\_\_\_.
  Figure 1-8
- $\Box$   $\Box$   $\Box$  Look for wrinkled sections and blisters in the membrane.
- □ □ □ □ Look for open joints and seams. Any noted? Yes \_\_\_\_\_ No \_\_\_\_\_ If any, they should be sealed. Open joints and seams are a cause of roof leakage.



FIGURE 1-8 Roof surface with alligator-type cracks.



FIGURE 1-9 Weathered, cracked, and aging roof membrane.

□ □ □ During the interior inspection, check the ceilings of the upper level rooms for water stains.

#### Roll roofing (tar paper)

□ □ □ Are there drying, eroding, or blistered sections? These are indications of aging. Figure 1-9

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□ □ □ Look for open joints and seams. Any noted? Yes \_\_\_\_\_ No \_\_\_\_\_ If any, they should be sealed. Open joints and seams are a cause of roof leakage.



When inspecting the roof, you should also inspect all roof-mounted structures and projections. Specifically look at the chimney, plumbing vent stacks, roof vents, roof hatch, skylights, TV antennas, and gutters and downspouts. These items can also be checked with the help of binoculars.

			CHECKPOINTS
н	DUSE		
#1	#2	#3	CHIMNEYS
			Masonry type (brick, stone, concrete block)
			Inspect for cracked, loose, chipped, eroding, or missing sections of masonry. If any are noted, repair or rebuilding is needed. Figure 2-1
			Check mortar joints for cracked, loose, and deteriorating sections. If any are noted, joints will need repointing.
			For stucco-finished chimneys, look for cracked, chipped,

¥.





	Is the chimney vertical or leaning? Yes No If it is leaning, brac- ing is needed.
	Are there open joints between the chimney and the sidewall? Figure 2-2 Yes No Open joints should be sealed.
	If the roof is flat, does the chimney extend 3 feet above the roofline?
	If the roof is pitched, does the chimney extend 2 feet above the roof ridge or above any part of the roof within 10 feet measured horizontally? Figure 2-3
	If possible, check for cracked or missing sections of the chim- ney cap.
	If possible, check the chimney flashing for holes, tears, or loose sections Figure 2-4 Check these vulnerable areas for leakage again during your attic inspection.
	If possible, check to see if the chimney flue is lined.
	Is there a chimney top damper? Figure 2-5 Yes No
	Is there a cricket (saddle) behind the chimney? Figure 2-6 Yes No A cricket is recommended if the chimney is more than 2 feet wide.