



ITEM NUMBER _____
DATE _____ INSPECTOR _____

TITLE ON FILM _____

P ELEMENT

Reel								
Element								
Gauge								
Date Code								
Base (a/p)								
Acidity								
Shrinkage								
No. of splices								
Emulsion Scratches								
Base Scratches								
Perf/ Edge Damage								
Warping								
Fading/Color Shift (Y/N)								
Footage								

On a Scale of 1-4: 1=Slight 2=Fair 3= Moderate 4=Heavy

I ELEMENT

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Shrinkage								
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On a Scale of 1-4: 1=Slight 2=Fair 3= Moderate 4=Heavy



Scratches

Scale: 1/Slight = Short, light, fine intermittent scratches that are hardly visible during projection.

Scale: 2/Fair = Continuous fine scratches that can be detected during projection, but are not distracting.

Scale: 3/Moderate = Heavier continuous scratches that detract from the film during projections.

Scale: 4/Heavy = Wide continuous scratches throughout the reel that render the print useless for projection.

http://www.kodak.com/US/en/motion/support/technical/storage_handling.jhtml?id=0.1.4.11.12.14&lc=en#damage

Scratches

Emulsion abrasions on color film are less tolerable than base side abrasions. If there are a few fine black lines with little sign of emulsion damage, they may be described as minimal base damage. Heavier and more frequent lines could be described as moderate. Major abrasion damage would exhibit many lines and would probably be present throughout the reel. Scratches are severe examples of abrasions. They physically damage the surfaces of the film and can cause the removal of a print from service.

A scratch the width of a human hair will project on a 6 foot screen almost 3/4 inch wide with super 8, 3/8 inch wide with 16 mm, and nearly 1/4 inch wide with 35 mm films. A scratch is a single definite line.

Again, scratches can be found on the emulsion or base side. Base scratches show up on the screen as black lines, because light shining through the clear base layer is refracted by the uneven surface of the scratches. Emulsion scratches on black and white film normally appear as black lines on the screen. On color film, a very light scratch on the emulsion generally appears neutral. But going deeper into the three color layers, it will project as most any color depending on the scratch depth, or even white if all the emulsion was removed. Scratches are best detected by visual observation on projection.

A few emulsion scratches can be tolerated if they do not materially detract from the film presentation. No scratch is desirable, but short, light intermittent scratches can be regarded as minor. Heavy scratches on either the base or emulsion should be cause to consider replacement of a print.

Minor base scratches can sometimes be rejuvenated, but heavy scratches usually mean replacement of the footage or withdrawal of the film. The presence of scratching should lead you to investigate all aspects of the operation rollers, gates, handling room, and any equipment with which the film comes into contact.



Perforation and Edge Damage

Scale 1/Slight = Very occasional instances of broken perforations or edge damage

Scale: 2/Fair = Broken Perforations or edge damage in regular intervals comprising less than 5-10% of the film.

Scale: 3/Moderate = Large areas of damage at regular intervals comprising 10-20% of the film.

Scale: 4/Heavy = Large areas and amounts of damage compromising more than 20% of the film.

Perforation Damage

Most perforation damage is caused by the film users. Perforation damage is often found on the first few feet of film, because it frequently results from improper threading. When you inspect the perforations through a magnifying glass or pass the film through your fingers, you will often find damage progressing from cracked, chipped, or elongated holes to tom holes. With severe damage, you will find holes that are torn completely through or even missing from the perforated film edge. Some perforation damage can be repaired with perforation repair tape, but major damage must be spliced out.

Your best bet for avoiding perforation damage, in addition to proper threading and a sufficient loop, is to be sure that the film isn't brittle, that it's properly lubricated, that damaged film reels are not producing a jerky take up action on the projector, and that your projector sprocket teeth and pull down claws are not worn out.

Edge Damage

A nick, crack, cut, or tear to the edge of a motion picture film greatly increases the film's chance of breaking. Film damage must not go unchecked. The leading causes of edge damage are damaged film reels, wobbles from bent spindles, and dry or brittle film. Nick for nick, convolution after convolution, the reel's damage transfers itself to the edge of the film.

Replacing damaged reels is the best preventative measure. Careful tape splicing is your best repair. Edge damage obviously threatens the sound track as well as the image. If the damage can fit comfortably under the splicing tape, and if the film doesn't show signs of physical distortion, creases, or wrinkles, a perforated tape may be applied over the damaged area without removing any frames. Anything too extensive must be completely replaced.

Warping

Scale: 1/Slight = Temporary buckle, edgewave, or spoking, exhibiting a gentle wave to the film in general that can be corrected with proper winding.

Scale: 2/Fair = Temporary buckle, edgewave, or spoking, exhibiting a steeper slope to the wave that lessens with proper winding or a reverse wind

Scale: 3/Moderate = Permanent buckle, edgewave or spoking that cannot be corrected with winding, though effects may be lessened with reverse winding.



Scale: 4/Heavy = Twist or curl that makes the film difficult to handle or control and cannot be corrected with winding the film either way.

Warping

Buckle-occurs when the edges (along the length) of a film are shorter than the center.

Temporary buckle is caused by the loss of moisture from the edges (emulsion and base) when the film is stored in very dry air for short periods.

Permanent buckle is caused by the loss of solvent from the edges when the film is stored in very dry air for extended periods.

Edgewave or Fluting occurs when one or both of the edges (again, along the length) are longer than the center. This is the opposite of BUCKLE.

Temporary edgewave or flute results from storage under moist conditions.

Permanent edgewave or flute results if a roll is wound under high tension or if one edge is stressed during film transport.

Twist-is caused by loose winding of new prints, emulsion in, under dry air conditions. If the film is wound emulsion out under the same conditions, the undulations do not alternate from one edge to the other, but are directly opposite one another.

Curl-the departure from flatness caused by dimensional differences between the emulsion layer and the base.

Spoking -is caused by loose winding of film that has considerable curl.

Temporary spoking disappears when the film is unwound.

Permanent spoking is seen as TWIST when the film is unwound.



an example of a completed sheet

ITEM NUMBER 111 ADC 2980
DATE 12/21/05 INSPECTOR C. Kovac

TITLE ON FILM Why We Fight

P ELEMENT

Reel	1	1	2	2	3	3	4	4
Element	DNS	DNT	DNS	DNT	DNS	DNT	DNS	DNT
Gauge	35	35	35	35	35	35	35	35
Date Code	1958	1959	1958	1959	1958	1959	1958	1959
Base (a/p)	A	A	A	A	A	A	A	A
Acidity	0	0	1	1	0	1	0	0
Shrinkage	.7%	.55%	.6%	.8%	.7%	.6%	.7%	.5%
No. of splices	3	2	1	0	4	0	2	0
Emulsion Scratches	1	2	1	1	1	2	1	3
Base Scratches	3	3	3	2	2	2	1	4
Perf/ Edge Damage	0	0	0	0	1	0	0	0
Warping	0	0	0	0	1	0	0	0
Fading/Color Shift (Y/N)	N	N	N	N	N	N	N	N
Footage	675	675	834	834	946	946	754	754

On a Scale of 1-4: 1=Slight 2=Fair 3= Moderate 4=Heavy

I ELEMENT

Reel	1	2	3	4				
Element	FGMC	FGMC	FGMC	FGMC				
Gauge	35	35	35	35				
Date Code	1991	1991	1992	1992				
Base (a/p)	P	P	P	P				
Acidity	0	0	0	0				
Shrinkage	.2%	.2%	.2%	.2%				
No. of splices	0	0	0	0				
Emulsion Scratches	0	0	0	0				
Base Scratches	1	0	0	0				
Perf/ Edge Damage	0	0	0	0				
Warping	0	0	0	0				
Fading/Color Shift (Y/N)	N	N	N	N				
Footage	675	834	946	754				