

APPENDIX - 3

Micro hardness of worn surfaces of the coating at 58.8 N load and sliding speed of 250 rpm with brass, medium carbon steel and high carbon steel pin is as shown in table 1-3 and fig. 1-3 shows the indentation

Sr. no.	Distance (μ)	Load (g)	Dwell (sec.)	D1	D2	Depth (μ)	Vickers hardness (Hv)
1.	0.05	5	10	7.3	7.08	1.03	179.31
2.	1.05	5	10	7.75	8.31	1.15	143.66
3.	2.05	5	10	7.75	8.88	1.19	134.12
4.	3.05	5	10	8.54	9.21	1.27	117.68
5.	4.05	5	10	9.66	10.11	1.41	94.84

Table 1. Microhardness of worn surfaces with brass pin at cross section

Sr. no.	Distance (μ)	Load (g)	Dwell (sec.)	D1	D2	Depth (μ)	Microhardness (Hv)
1.	0.05	5	10	7.84	7.95	1.13	148.65
2.	1.05	5	10	8.37	7.93	1.16	139.52
3.	2.05	5	10	8.26	9.13	1.24	122.62
4.	3.05	5	10	8.8	8.8	1.26	119.61
5.	4.05	5	10	9.13	9.78	1.35	103.68

Table 2. Microhardness of worn surfaces with medium carbon steel pin at cross section

Sr. no.	Distance (μ)	Load (g)	Dwell (sec.)	D1	D2	Depth (μ)	Microhardness (Hv)
1.	0.05	5	10	6.85	6.85	0.98	197.73
2.	1.05	5	10	7.28	7.61	1.06	167.25
3.	2.05	5	10	7.93	8.37	1.16	139.52
4.	3.05	5	10	8.8	8.13	1.28	115.3
5.	4.05	5	10	10.98	12.07	1.65	69.85

Table 3. Microhardness of worn surfaces with high carbon steel pin at cross section

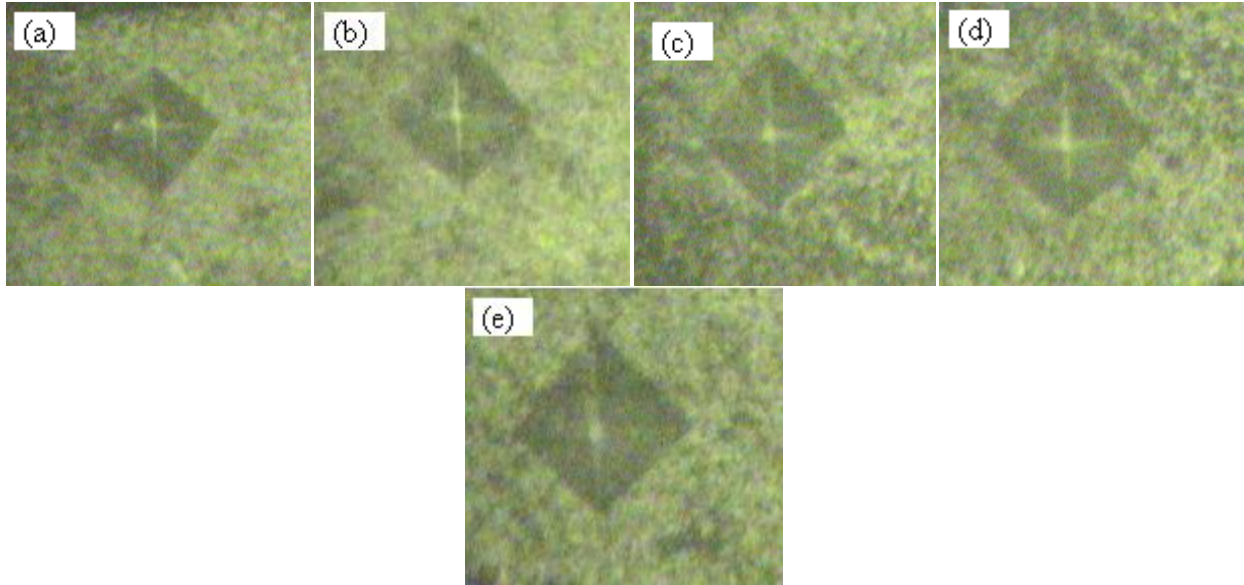


Figure 1. Vickers micro hardness indentation on the cross section of the worn surfaces of coating worn with brass pin at 250 rpm speed and 58.8 N load, at a distance (a) 0.05 micrometer (b) 1 micrometer (c) 2 micrometer (d) 3 micrometer (e) 4 micrometer, distance from the wear track

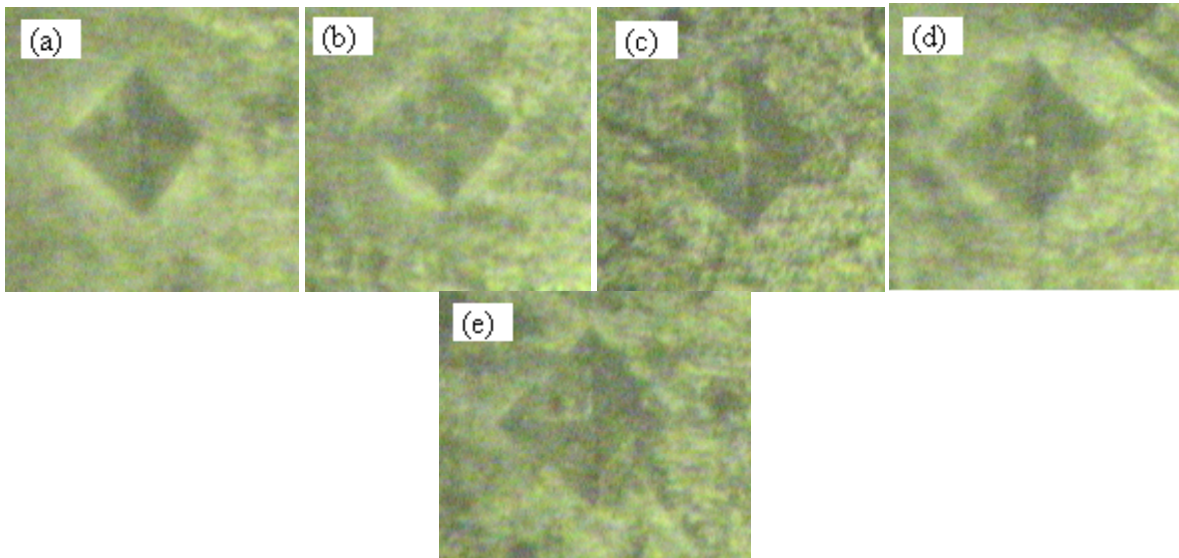


Figure 2. Vickers micro hardness indentation on the cross section of the worn surfaces of coating worn with medium carbon steel pin at 250 rpm speed and 58.8 N load, at a distance (a) 0.05 micrometer (b) 1 micrometer (c) 2 micrometer (d) 3 micrometer (e) 4 micrometer, distance from the wear track

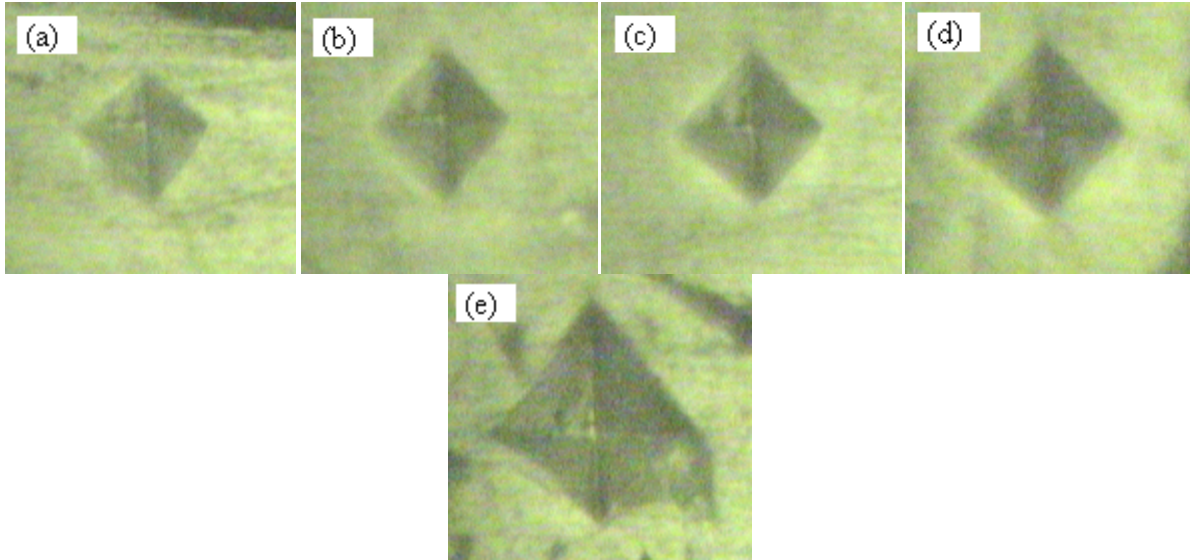


Figure 3. Vickers micro hardness indentation on the cross section of the worn surfaces of coating worn with high carbon steel pin at 250 rpm speed and 58.8 N load, at a distance (a) 0.05 micrometer (b) 1 micrometer (c) 2 micrometer (d) 3 micrometer (e) 4 micrometer, distance from the wear track