

1% carbon-iron	varied	12-17	25 mm	E-14	Loree, et al. (1966)
1.5% carbon-iron	varied	16-19	25 mm	E-14	Loree, et al. (1966)
2% carbon-iron	varied	15-21	25 mm	E-14	Loree, et al. (1966)
SAE 4340	annealed	19-14	6-50 mm <sup>++</sup>	G-5	Butcher, et al. (1968a)
SAE 4340	annealed	23-21	3-6 mm	G-8	Graham, et al. (1967b)
SAE 4340	RC-15	17	25 mm	E-14	Minshall (1961)
SAE 4340	RC-15	17-19	12 mm	G-2	Butcher, et al. (1964)
SAE 4340	RC-30	16	23 mm	E-5	Jones, et al. (1962)
SAE 4340	RC-32	16-20	12 mm	G-2	Butcher, et al. (1964)
SAE 4340	RC-35	25	25 mm	E-14	Minshall (1961)
SAE 4340	RC-40	20-18	20-51 mm	E-5	Jones, et al. (1962)
SAE 4340	RC-50	22	23 mm	E-5	Jones, et al. (1962)
SAE 4340	RC-54	14-31	12 mm	G-2	Butcher, et al. (1964)
Hampden tool steel	RC-20	14	19 mm	E-5	Jones, et al. (1962)
Hampden tool steel	RC-62	~22	19 mm $\phi$	E-5	Jones, et al. (1962)
Hampden tool steel	RC-66	>24	19 mm $\phi$	E-5	Jones, et al. (1962)
SAE 347 stainless steel	AR	6	127 mm	E-1,14	Minshall (1961)
3% silicon-iron crystal	-	~7	13 mm <sup>*</sup>	G-6	Taylor (1968)
3.34% silicon-iron	annealed	10-9	6-25 mm <sup>++</sup>	E-5	Mote (1968)
Invar, 36% nickel - 64% iron	AR	13	wedge	E-10	Curran (1961)
Invar, 36% nickel - 64% iron	annealed	5	13 mm	G-5	Graham, et al. (1967a)
30% nickel - 70% iron	annealed	5-3	10-13 mm	G-5	Graham, et al. (1967a)
30% nickel - 70% iron	martensitic	~20 (ramp)	13 mm $\phi$	G-5	Graham, et al. (1967a)
Russian steel 3	AR	13-6	20-120 mm <sup>++</sup>	E-7	Ivanov, et al. (1963)
Russian steel 30khGSA	annealed	17	60 mm <sup>++</sup>	E-7	Ivanov, et al. (1963)
Russian steel 30khGSA	hardened	18	60 mm <sup>++</sup>	E-7	Ivanov, et al. (1963)
Austenitic manganese steel	RB93	8	6 mm	E, G-5	Champion (1968)

## SUMMARY OF HUGONIOT ELASTIC LIMIT MEASUREMENTS (cont)

Material	Condition (a)	$\sigma_{HEL}$ (kbar) (b)	Remarks (c)	Technique (d)	Reference
304 stainless steel	RB77	6	6 mm	G-5	Butcher (1968b)
Vibrac	RC36	21	51-76 mm	E-1	Costello (1957)
Aluminum Alloys					
2024	T-4	5	wedge	E-10	Fowles (1961)
2024	annealed	1	wedge	E-10	Fowles (1961)
2024	-	4	25 mm	E-5	Jones, et al. (1962)
2024	-	6	-	E-6	McQueen (1964)
2024	T-4	-	13 mm	G-6	Taylor (1968)
6061	T-6	6	13-25 mm	G-1	Lundergan, et al. (1963)
6061	T-6	5	6 mm	G-5	Halpin, et al. (1963)
6061	T-6	5-7	25 mm	G-2	Barker, et al. (1964b)
6061	T-6	5	13 mm	G-4	Barker (1967)
6061	T-6	6	13-64 mm	G-2	Butcher, et al. (1966)
1060	annealed	0.3-0.5	25 mm <sup>*</sup>	G-4,5	Barker, et al. (1966)
1060	annealed	0.6-0.2	6-24 mm <sup>+*</sup>	G-4	Karnes (1967)
Russian alloy D-1	annealed	2-1	40-120 mm <sup>+</sup>	E-7	Novikov, et al. (1966)
Russian alloy D-16	annealed	3-2	30-80 mm <sup>+</sup> temp 283- 473° K	E-7	Novikov, et al. (1966)
Russian alloy D-16	hardened	5	30 mm	E-7	Novikov, et al. (1966)
French alloy AU4G	-	8	-	E-12	Peyre, et al. (1965)