

2nd Operation for Rocket Series on ST20 Lathe

SCOPE: all Rocket Series parts that require a 2nd Operation to finish an internal thread or external thread

TOOLS Required:

- Hainbach 1-1/2" Quick Change collet
- Hainbach 1" Quick Change collet
- Hainbach Quick Change collet installer
- 1-1/2" shank ER40 Stub Collet holder
- 1-1/2" shank ER32 Stub Collet holder
- 61/61" ER40 Collet
- 1/2" ER32 Collet
- ER40 Spanner Wrench
- ER32 Spanner Wrench
- 5/8 ID x 7/8 OD x 1-3/4 long compression spring
- Special Setting Tool to place 2nd Op face of part .062" from collet face establishing repeatable G55, G56 & G57 work offsets

WORK OFFSETS:

G55 – Used for 85L, 87L, 89L, 90L & 93L

G56 – Used for 88L

G57 – Used for 91L

2nd Op PROGRAM #'S:











67094 – Used for 85L, 87L, 89L

67095 – Used for 88L

67096 – Used for 90L

67097 – Used for 91L

67098 – Used for 93L

Rocket Series									
P/N	Description	1st Op	prgm #	2nd Op	Collet	prgm #	G5X	Thread	Length
84L		y	67084	No					
85L		y	67085	Yes	ER40 .953	67094	G55	3/8-16	0.320
86L		y	67086	No					
87L		y	67087	Yes	ER40 .953	67094	G55	3/8-16	0.320
88L		y	67088	Yes	ER40 .953	67095	G56	3/8-16	0.365
89L		y	67089	Yes	ER40 .953	67094	G55	3/8-16	0.350
90L		y	67090	Yes	ER40 .953	67096	G55	1/2-13	0.400
91L		y	67091	Yes	ER32 .500	67097	G57	3/8-16	0.350
92L		y	67092	No					
93L		y	67093	Yes	ER40 .953	67098	G55	3/8-16	0.350

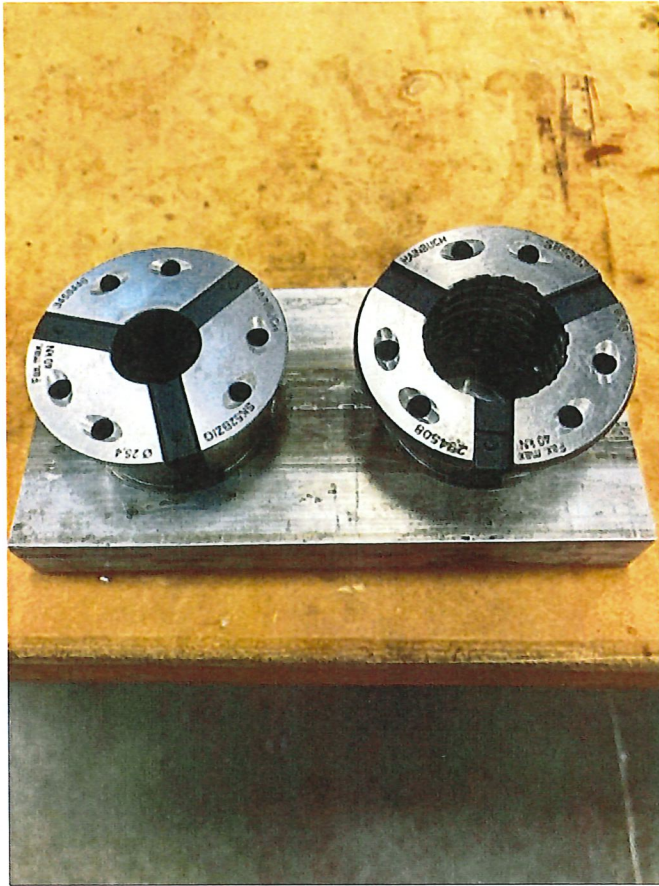


Figure 1 Hainbach collets



Figure 2 ER40 Collet Assembly



Figure 3 ER40 collet assembly



Figure 4 ER32 Collet components

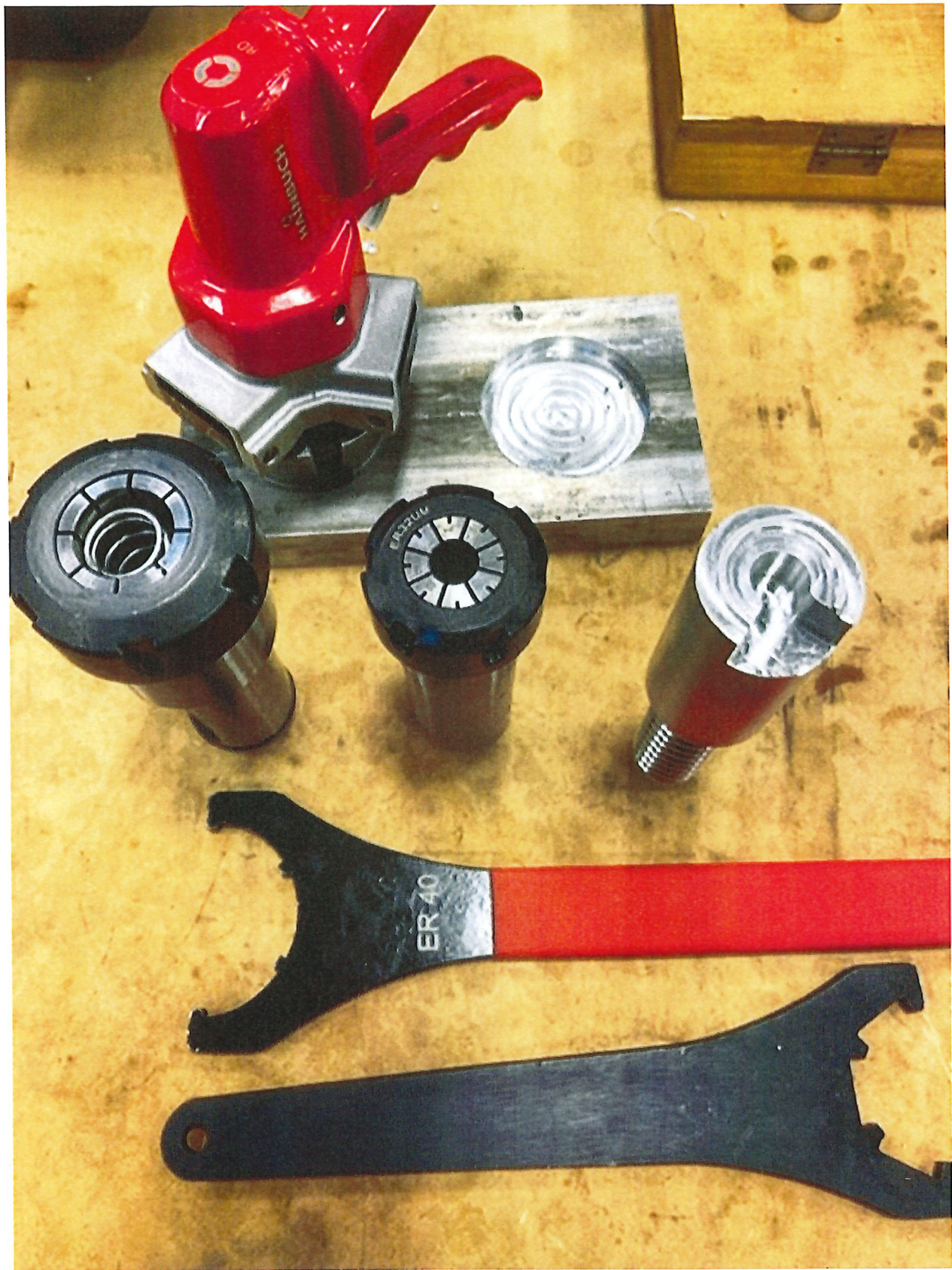


Figure 5 All 2nd Op fixtures plus part offset setter

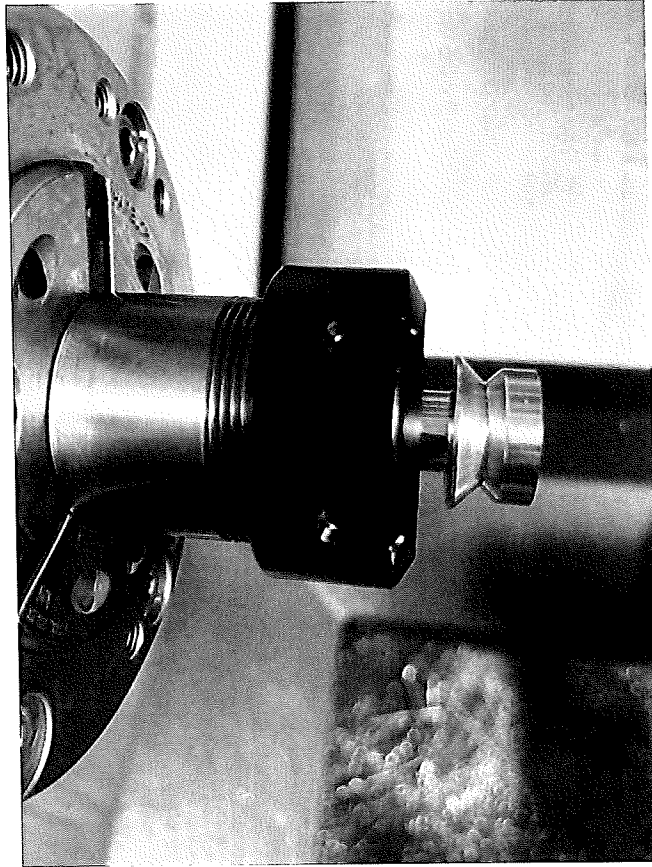


Figure 6 ER32 with 1/2 collet

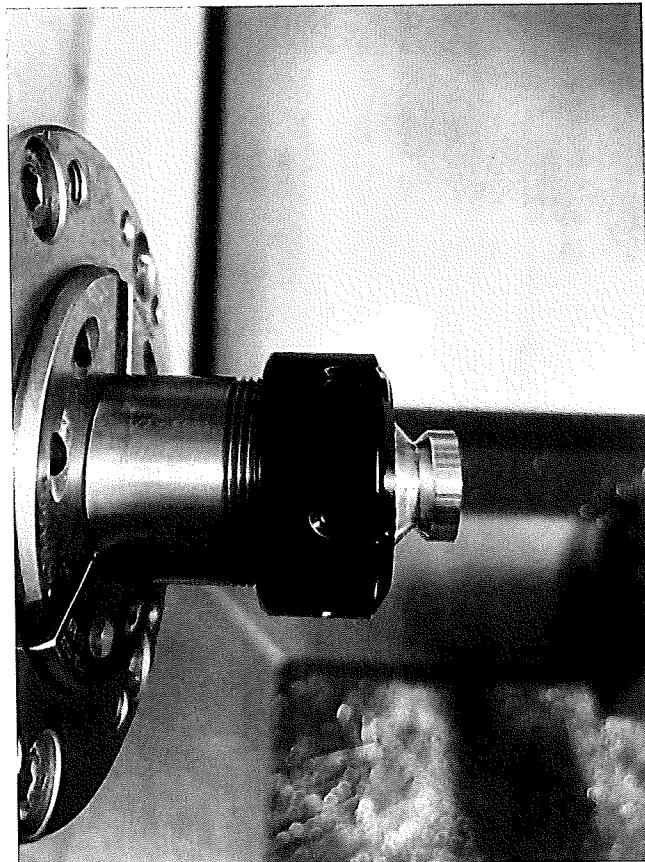


Figure 7 Part pushed against collet face for G57

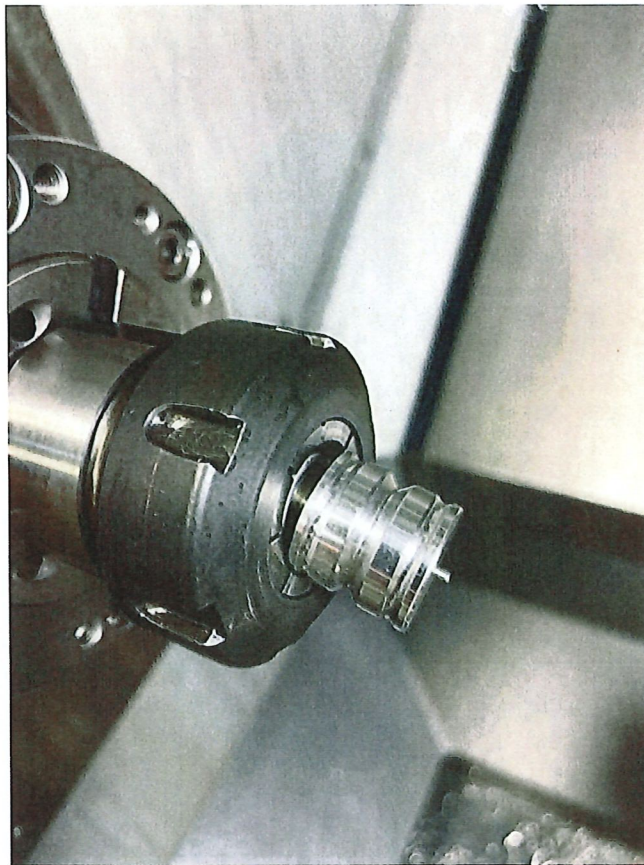


Figure 8 Loading part with spring in collet

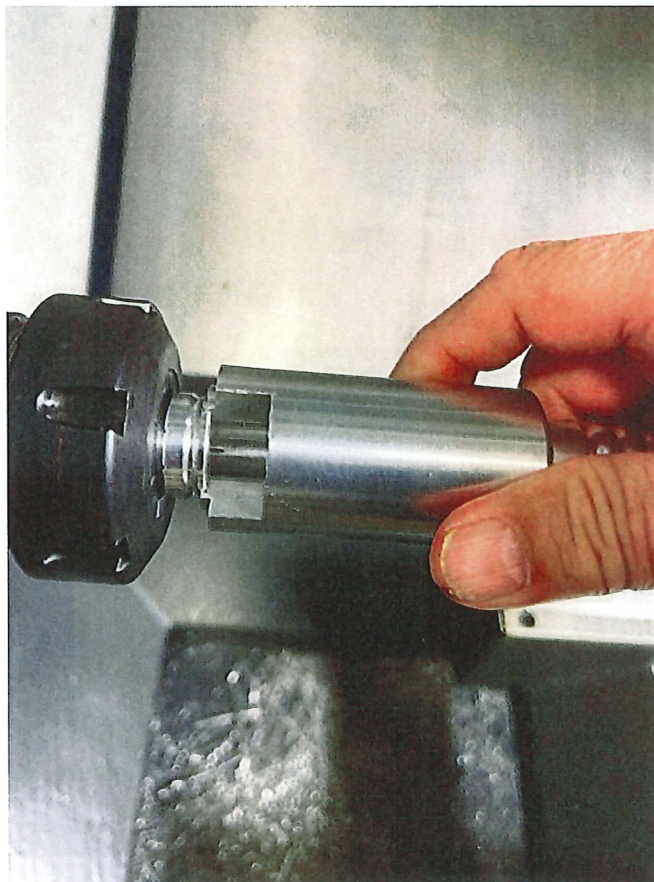


Figure 9 Pushing part into collet using setting tool

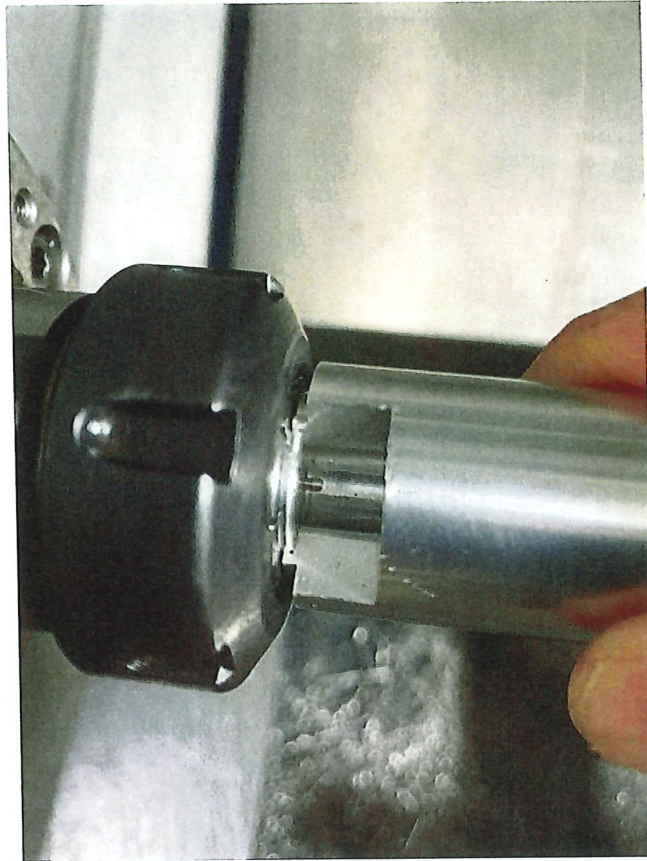


Figure 10 Setting part against collet

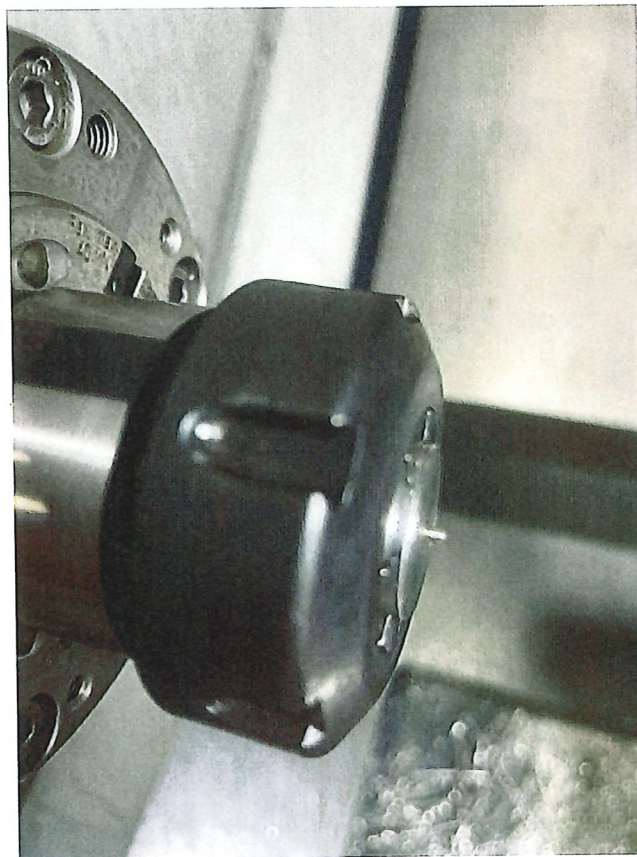


Figure 11 After clamped, part sitting .060" off face



Figure 12 Setting 88L external thread

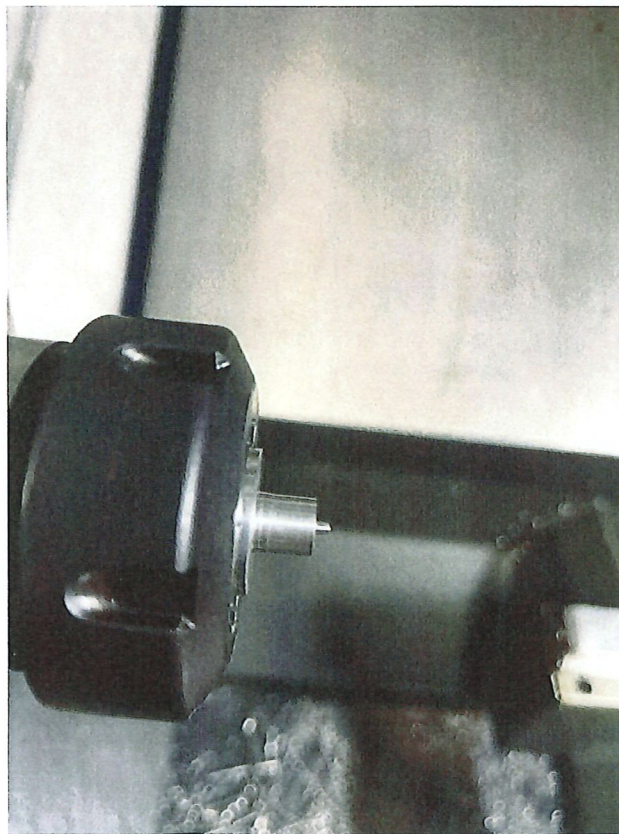


Figure 13 88L Clamped and ready to run with G56