CLINTON ENGINES

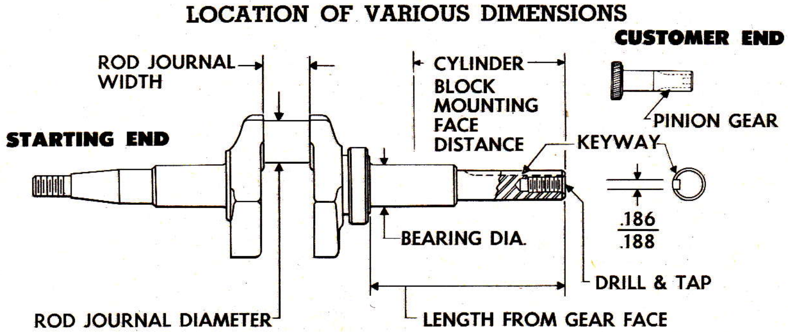
HOW TO IDENTIFY CLINTON CRANKSHAFTS

The difference between crankshafts used on the various Series Clinton Engines is best determined by the dimensions of the connecting rod journal. Therefore, to determine the basic series that a crankshaft belongs to, you should first check these dimensions. Following is a cross-reference between these dimensions and the basic series to which they belong.

MODEL	Journal Diameter	Journal Width	Cam drive gear	Position	No. of teeth	Type of teeth
290-490	.6596	.565	No		—	—
300-A300-VS300-350	.7485	.760	Yes	Flywheel	18	Straight
200-A-200-400-A400 VS200-AVS200-VS 400-AVS400-BVS400 CVS400(500 and 501 Series)	.7789	.680	No		—	—
V-100-VS100-VS 2100-100-2100-A 2100(400, 401, 402, 403 series)	.8120	.895	Yes	P.T.O. End	22	Straight cut
3100-4100-VS3100 VS4100-V3100-AV 3100-AVS3100-AVS 4100(405-406-407-408-409 and 424 Series)	.8745	.895	Yes	P.T.O. End	19	Straight cut
D700-800-A800 VS800-A & B1100-C1100-D1100-1200-VS900- V-1000-VS 1000(494 Series)	.8745	.9060	Yes	P.T.O. End	22	Helical Cut
500-650-700A-B700, C700-VS700-VS750	.8745	1.000	Yes	P.T.O. End	22	Helical cut
1200-2000-VS1100-V1100-A1200-VS 1200-V1200-B1290 (498 to 499 Series)	.9115	1.000	Yes	P.T.O. End	22	Helical cut
1600-A1600-A1690 (414 and 418 Series)	1.1243	1.140	Yes	P.T.O. End	29	Helical cut
2500-A2500-B2500 B2590-2790(420 and 422 Series)	1.2493	1.140	Yes	P.T.O. End	33	Helical cut
410-411-412-413 Series	1.2493	1.260	Yes	P.T.O. End*	29	Helical cut

*Note breaker cam part of crankshaft on flywheel end.

LOCATION OF VARIOUS DIMENSIONS



INDEX

The 1 or -1 means flywheel threaded end changed from 7/16 inch to 1/2 inch.

For example 6059-1, 6059-3, etc., were 7/16 inch threaded end. The 6059-11, 6059-31, etc., are 1/2 inch threaded flywheel end.

The 10100, 10128, 9100, etc., were 7/16 inch threaded flywheel end. The 10100-1, 10128-1, 9100-1, are 1/2 inch threaded flywheel end. The change was made on engines produced after July 1, 1958, and when crankshaft was changed only at the flywheel end, a 1 or -1 was added as a suffix to existing number.

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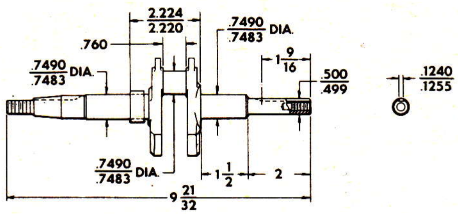
Decimal Equivalent Chart-Page 32

1962 PRODUCTION

CLINTON ENGINES

MODELS 300—350—A-300—VS-300

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



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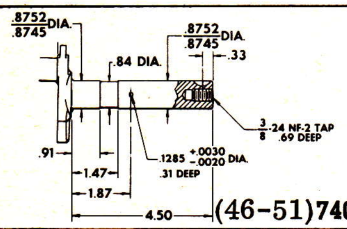

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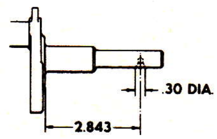

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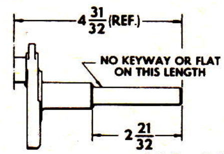
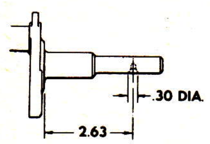


(46-664) 7805



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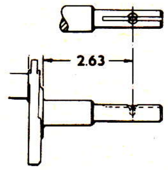

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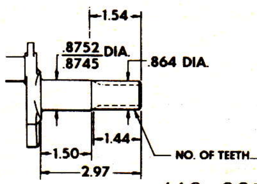

(46-667) 7808

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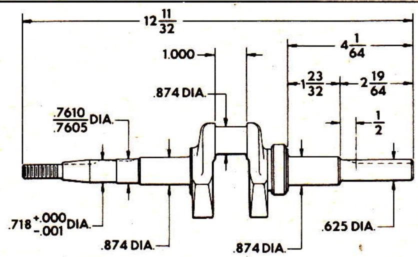

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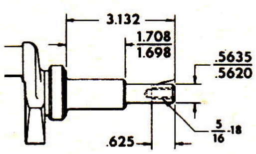

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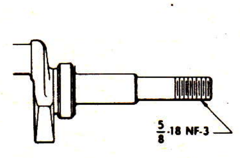

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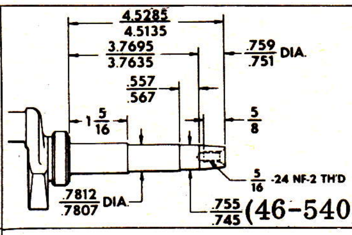

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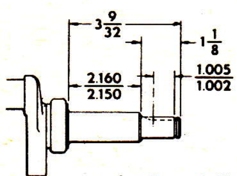

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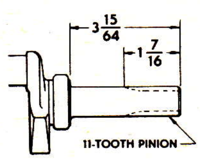

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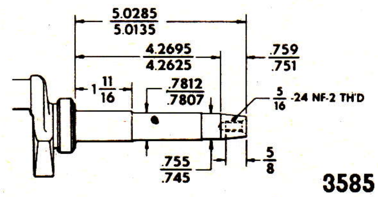

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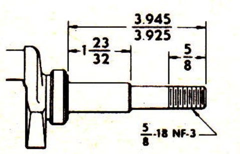

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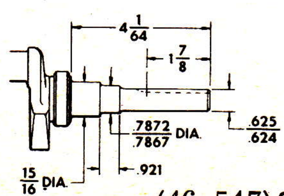

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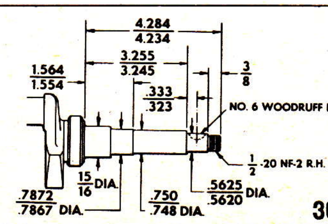

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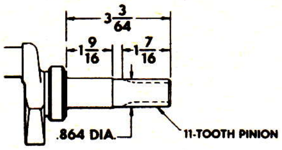

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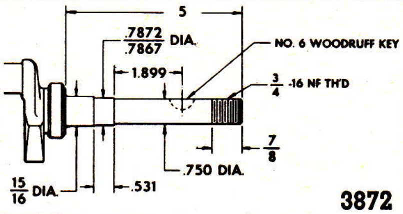

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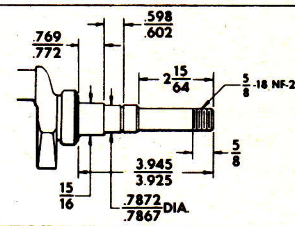

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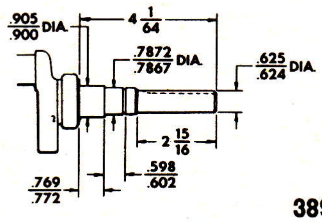

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MODELS A- and B-1100

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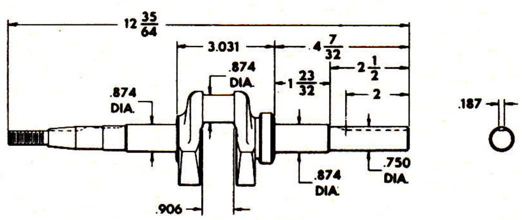

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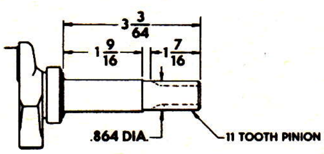

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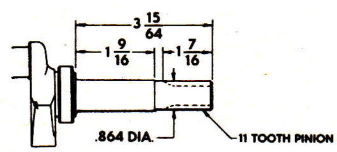

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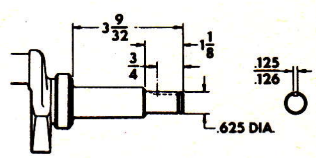

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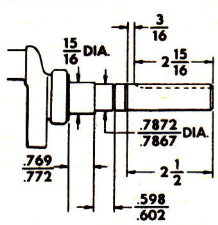

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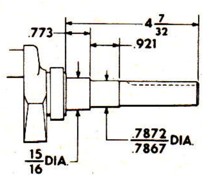

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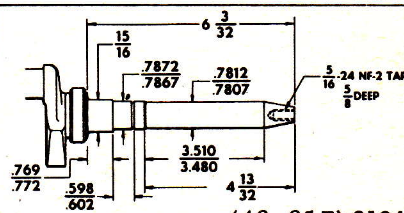

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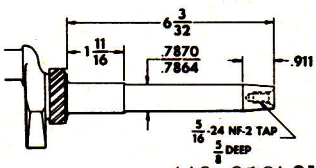

(46-618) 6135

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MODELS 500—650—B-700—C-700—VS-700—VS-750

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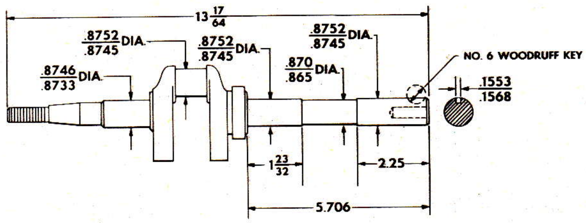

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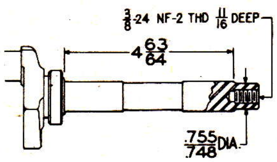

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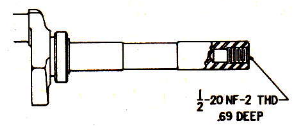

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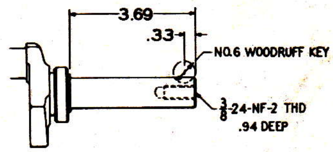

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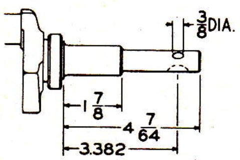

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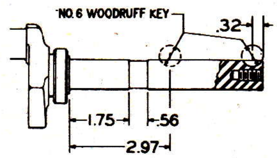

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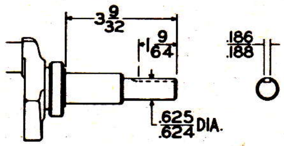

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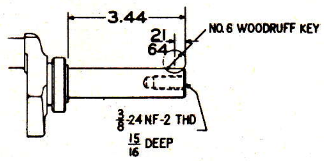

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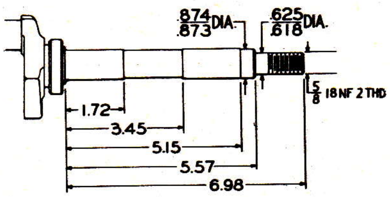

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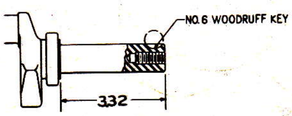

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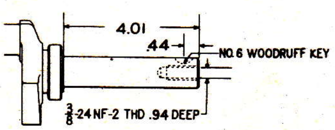

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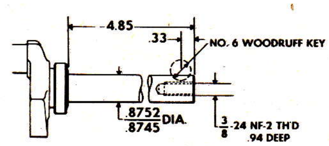

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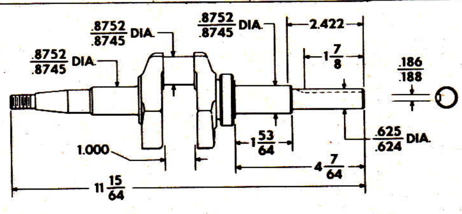
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



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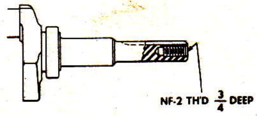

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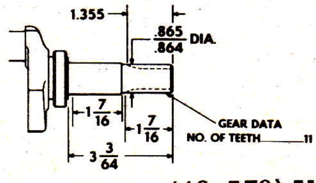

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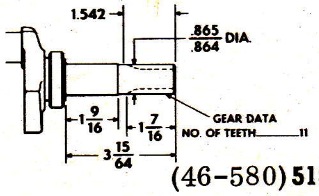

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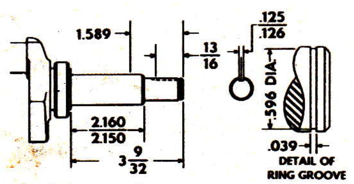
CLINTON ENGINES

MODELS 500—650—B-700—C-700—VS-700—VS-750 (Continued)



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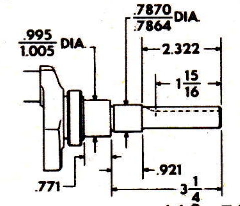

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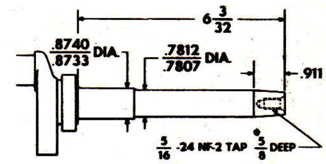

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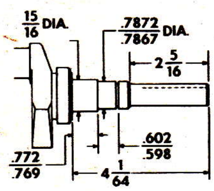

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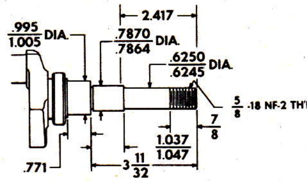

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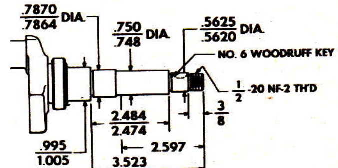

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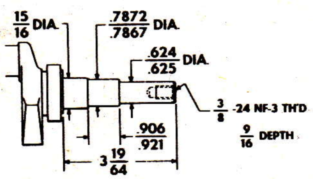

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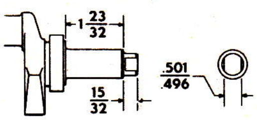

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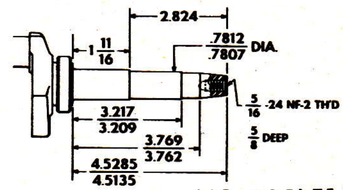

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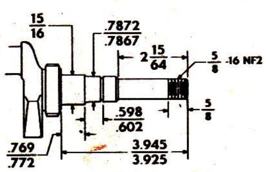

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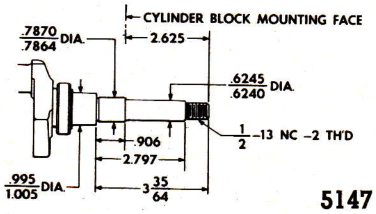

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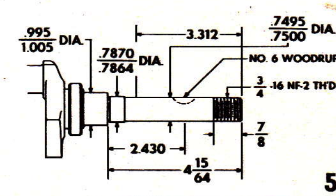

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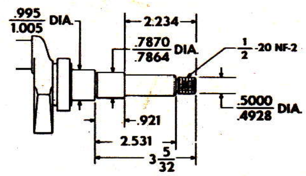

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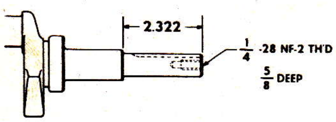

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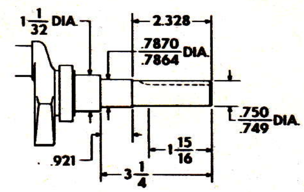

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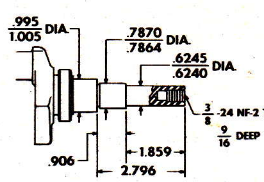

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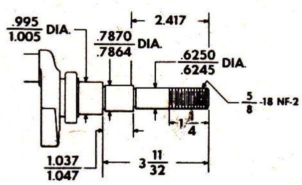
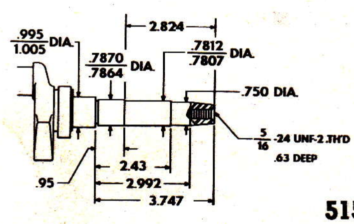


5153



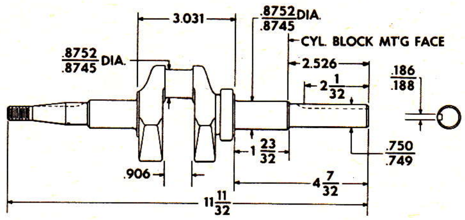
5154

GEN SET

CLINTON ENGINES

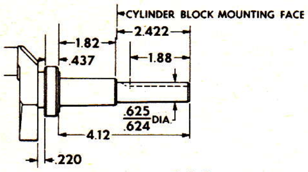
MODELS D-700—800—A-800—VS-800—900—C-1100—494 SERIES

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

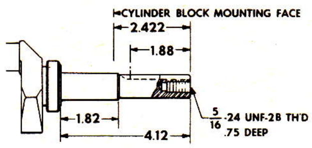


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

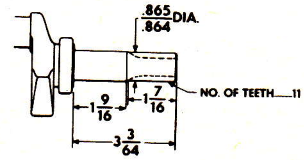
(46-74) 6059-1



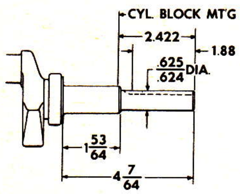
(46-507) 6013



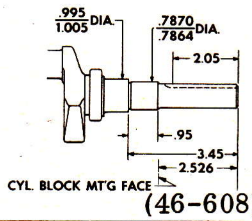
(46-283) 6015



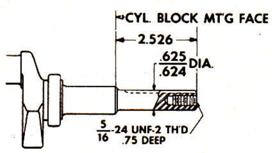
(46-509) 6049-1



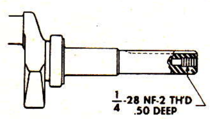
6059-3



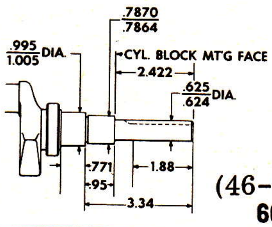
(46-608) 6059-4



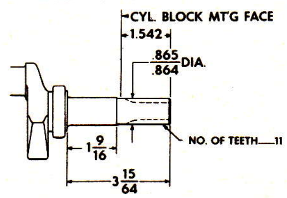
(46-275) 6059-5



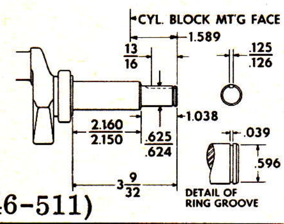
(46-609) 6059-6



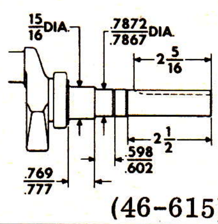
(46-610) 6059-7



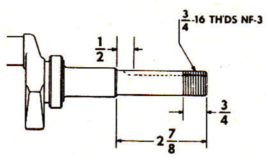
(46-512) 6089-1



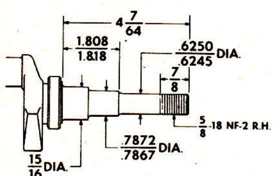
(46-511) 6091-1



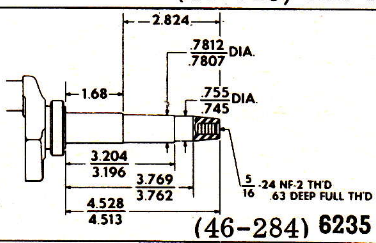
(46-615) 6127-1



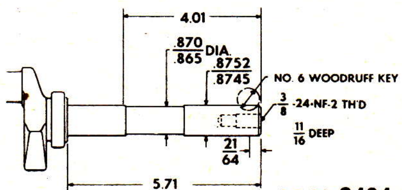
(46-622) 6144



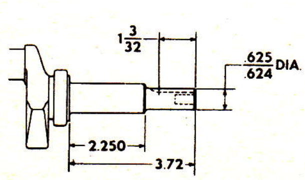
(46-623) 6150



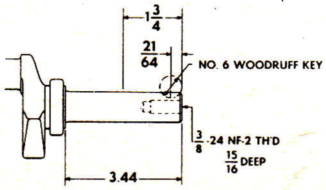
(46-284) 6235



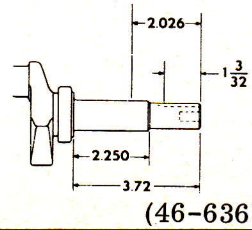
(46-633) 6404



(46-634) 6405



(46-635) 6406



(46-636) 6407

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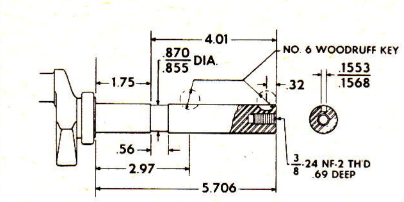
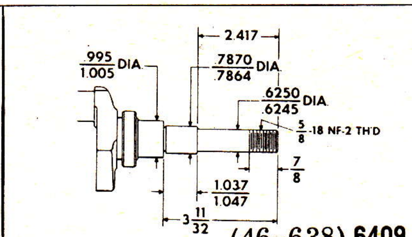
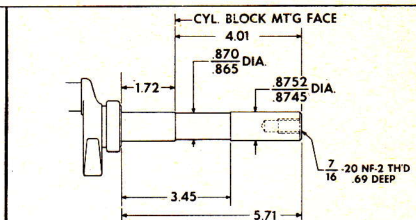
MODELS D-700—800—A-800—VS-800—900—C-1100—494 SERIES (Cont.)



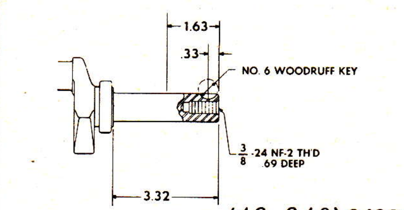
(46-637) 6408



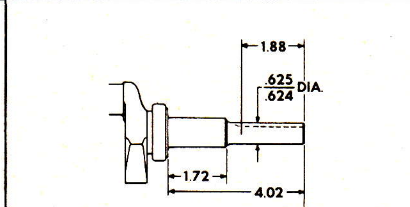
(46-638) 6409



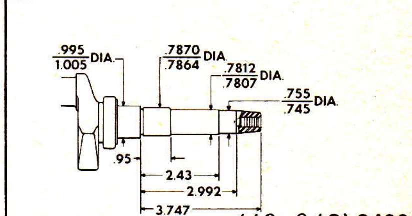
(46-639) 6410



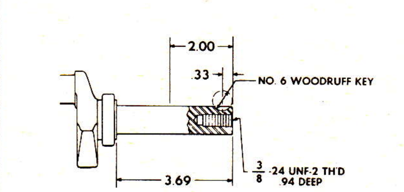
(46-640) 6428



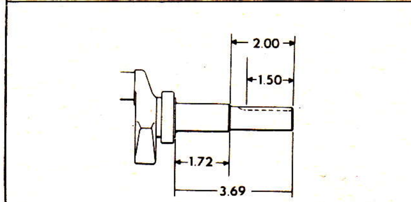
(46-641) 6429



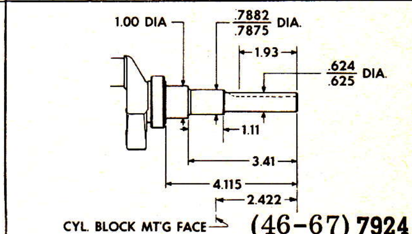
(46-642) 6430



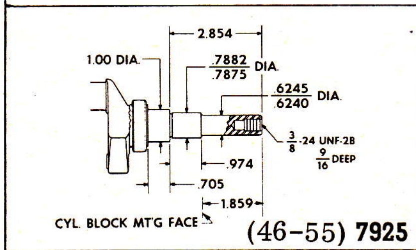
6431



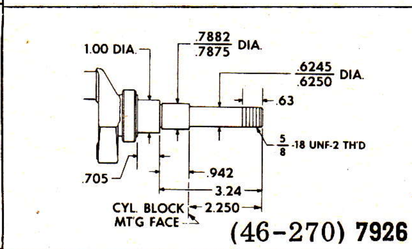
(46-644) 6432



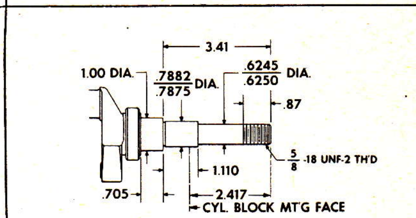
(46-67) 7924



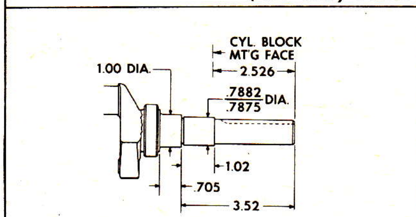
(46-55) 7925



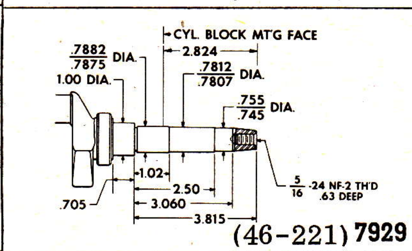
(46-270) 7926



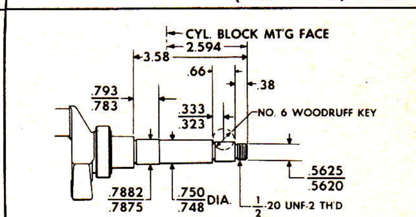
(46-220) 7927



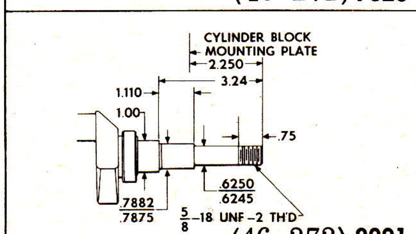
(46-271) 7928



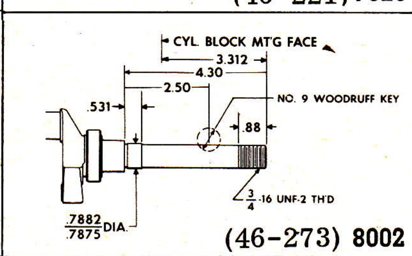
(46-221) 7929



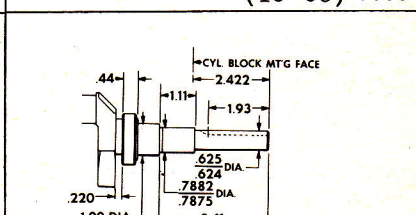
(46-69) 8000



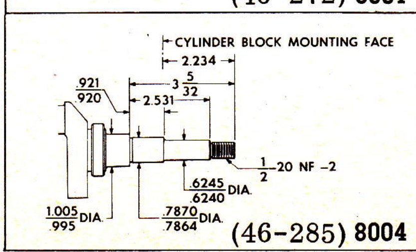
(46-272) 8001



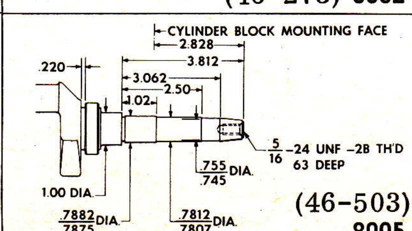
(46-273) 8002



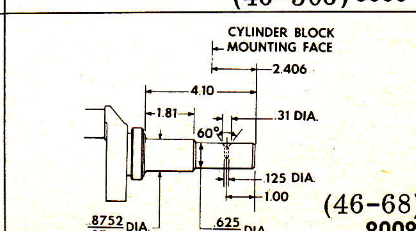
(46-506) 8003



(46-285) 8004



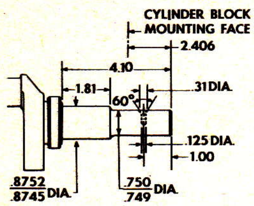
(46-503) 8005



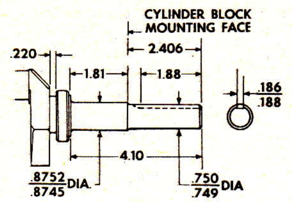
(46-68) 8008

CLINTON ENGINES

MODELS D-700—800—A-800—VS-800—900—C-1100—494 SERIES (Cont.)



8011



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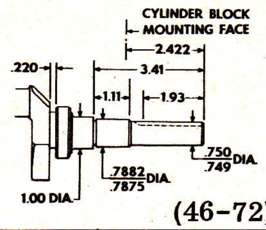
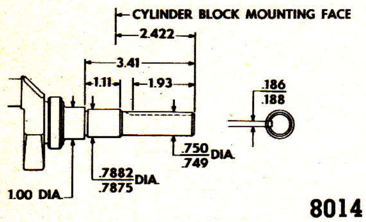
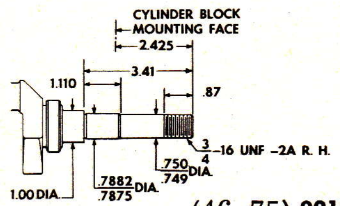


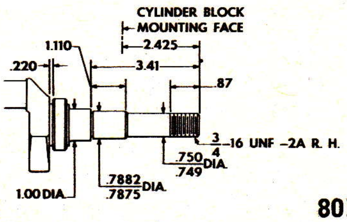
(46-72) 8013



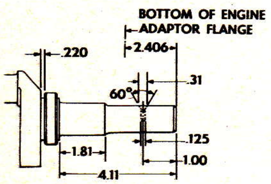
8014



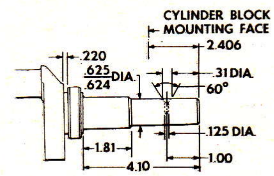
(46-75) 8016



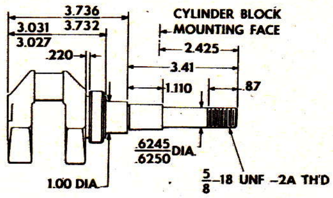
8017



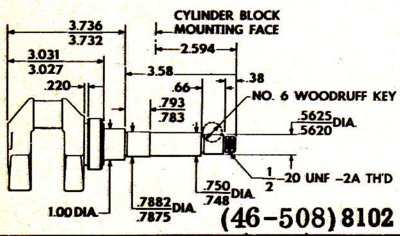
8018



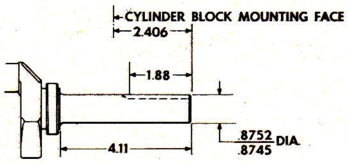
(46-504) 8100



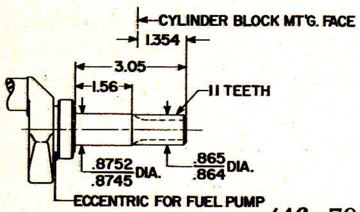
(46-505) 8101



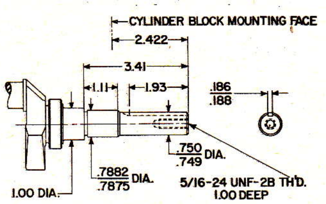
(46-508) 8102



(46-245) 12138



(46-797)



46-808

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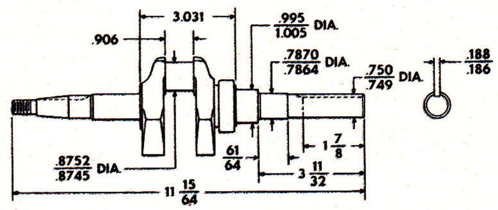
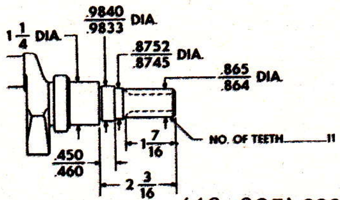
CLINTON ENGINES

MODEL D-1100 — 1200

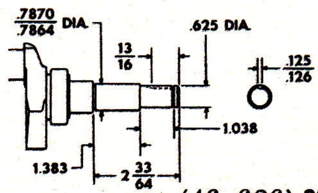
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



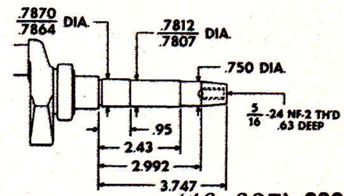
(46-49) 6203



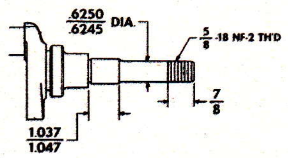
(46-625) 6204



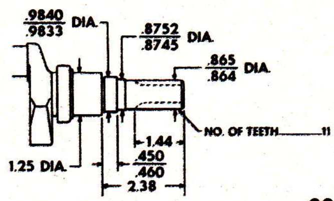
(46-626) 6205



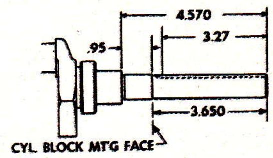
(46-627) 6206



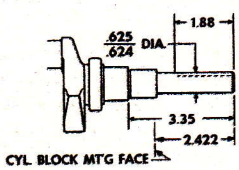
(46-628) 6207



6208



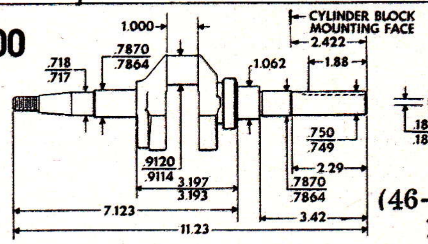
(46-630) 6228



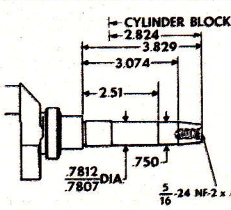
(46-631) 6229

MODEL 1200-2000

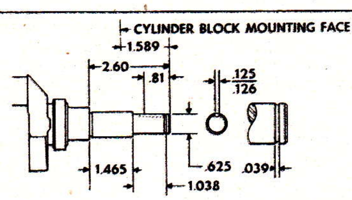
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



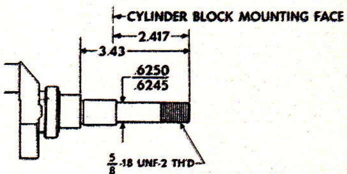
(46-207) 12100



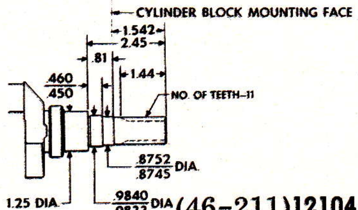
(46-208) 12101



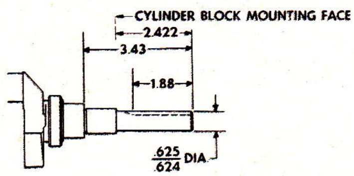
(46-209) 12102



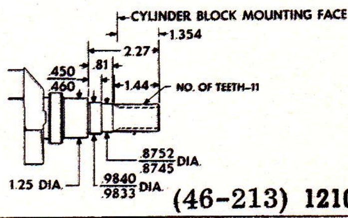
(46-210) 12103



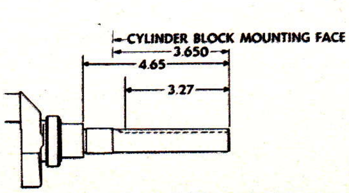
(46-211) 12104



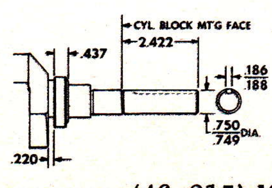
(46-212) 12105



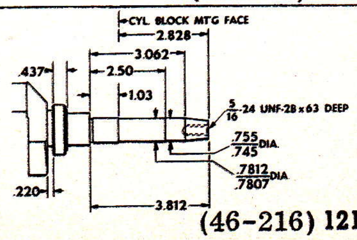
(46-213) 12106



(46-214) 12107



(46-215) 12108

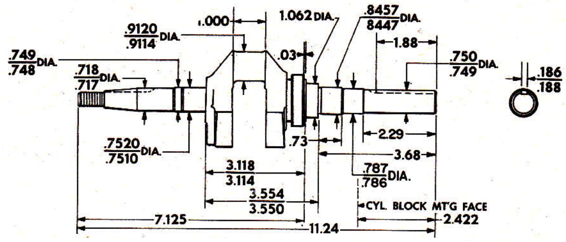


(46-216) 12109

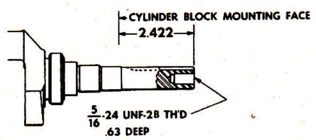
CLINTON ENGINES

MODEL A-1200

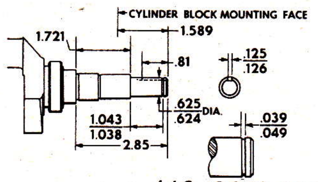
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



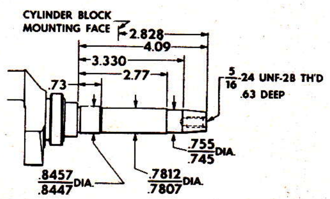
(46-227) 12120



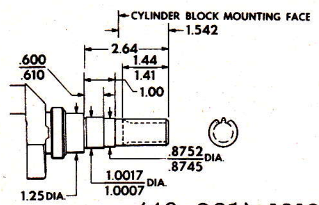
(46-228) 12121



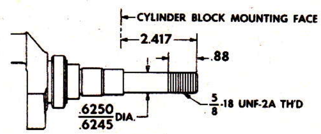
(46-229) 12122



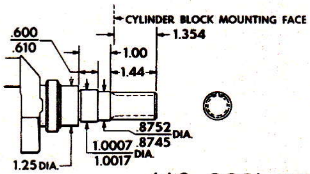
(46-230) 12123



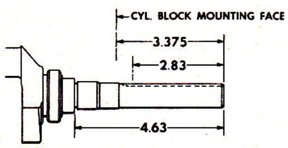
(46-231) 12124



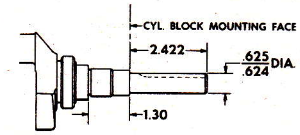
(46-232) 12125



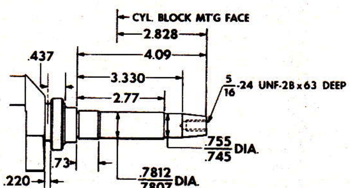
(46-233) 12126



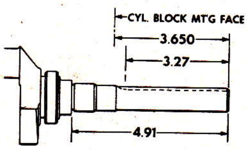
(46-234) 12127



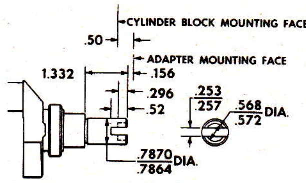
(46-235) 12128



(46-236) 12129



(46-237) 12130



(46-238) 12131

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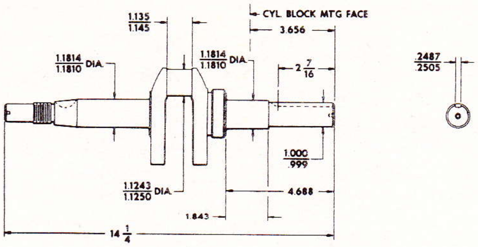
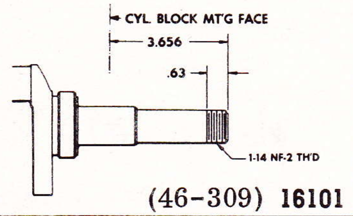
MODEL 1600

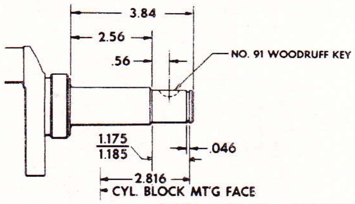
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



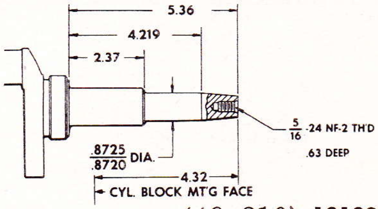
(46-308) 16100



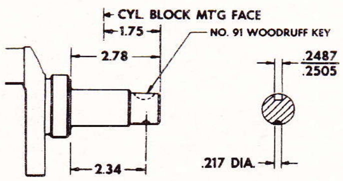
(46-309) 16101



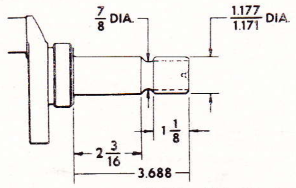
(46-517) 16102



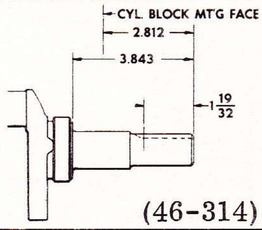
(46-310) 16103



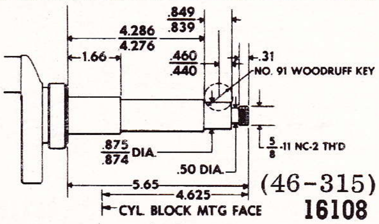
(46-312) 16105



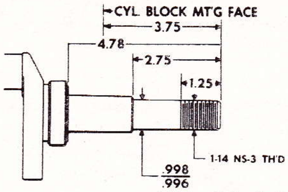
(46-313) 16106



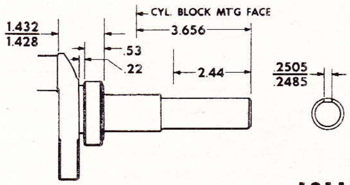
(46-314) 16107



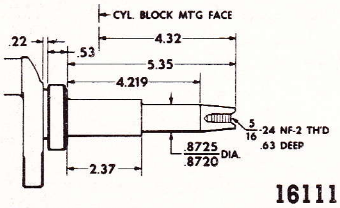
(46-315) 16108



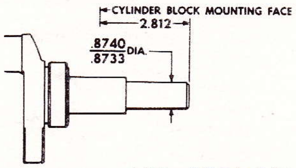
(46-317) 16109



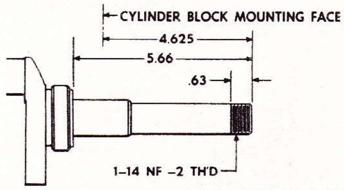
16110



16111



(46-325) 16116

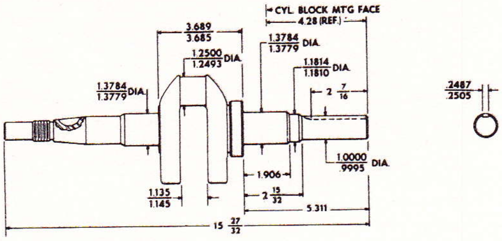


(46-327) 16118

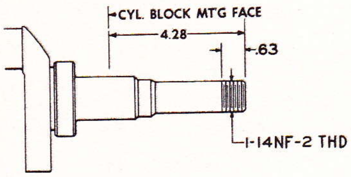
CLINTON ENGINES

MODEL 2500 — A-2500

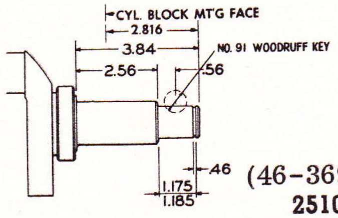
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



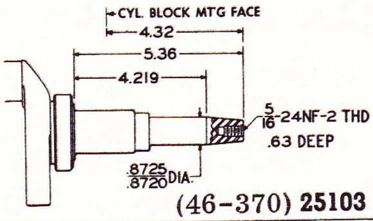
(46-367) **25100**



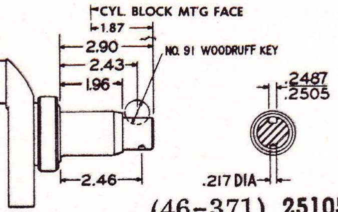
(46-368) **25101**



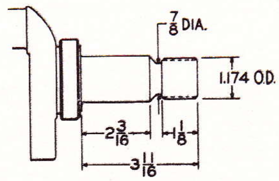
(46-369) **25102**



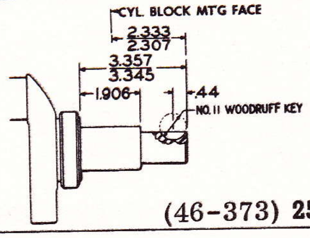
(46-370) **25103**



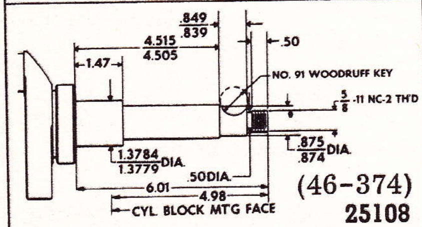
(46-371) **25105**



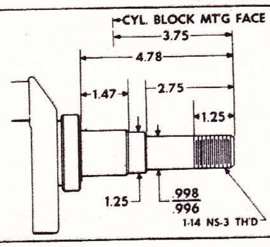
(46-372) **25106**



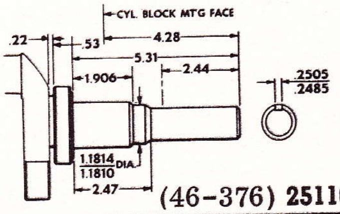
(46-373) **25107**



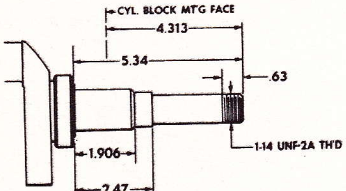
(46-374) **25108**



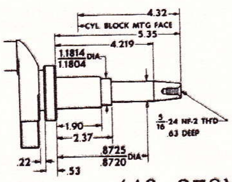
(46-375) **25109**



(46-376) **25110**



(46-377) **25111**

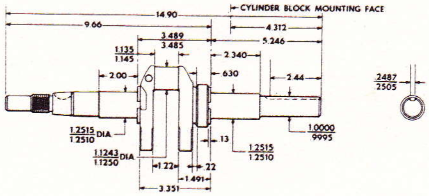


(46-378) **25112**

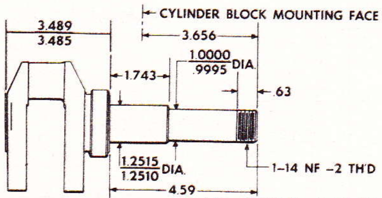
CLINTON ENGINES

MODELS A-1600—A-1690—1800—1890—414— 418 SERIES

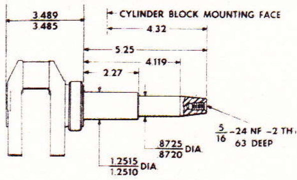
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



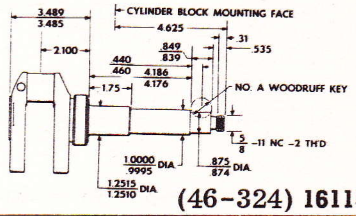
(46-321) 16112



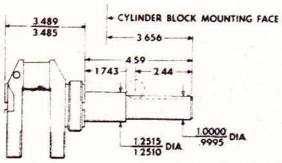
(46-322) 16113



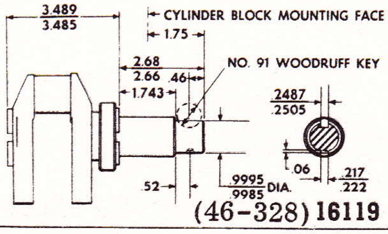
(46-323) 16114



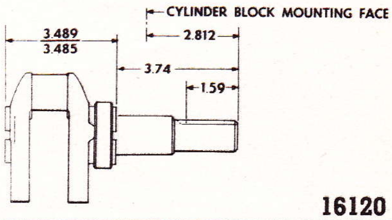
(46-324) 16115



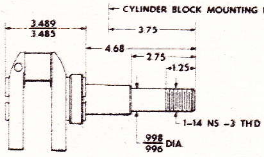
(46-326) 16117



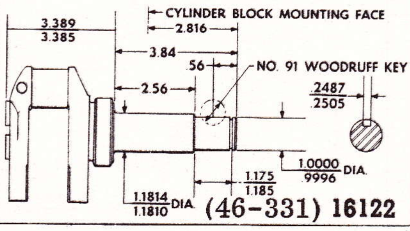
(46-328) 16119



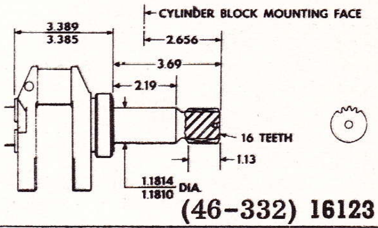
16120



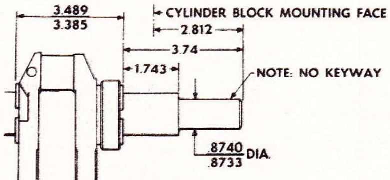
(46-330) 16121



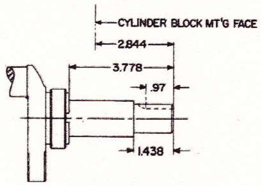
(46-331) 16122



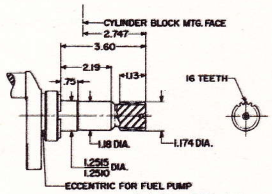
(46-332) 16123



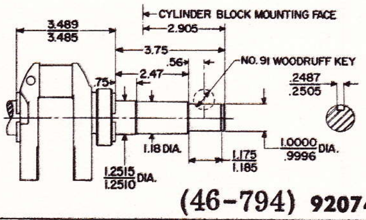
(46-333) 16124



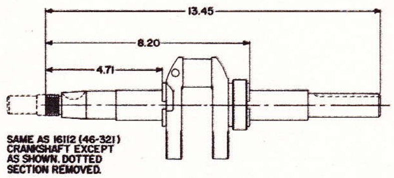
(46-334) 16125



(46-792) 92072



(46-794) 92074

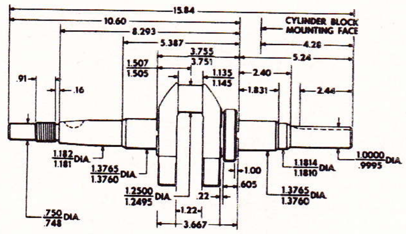


(46-796)

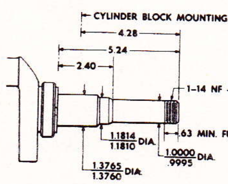
CLINTON ENGINES

MODELS B-2500—B-2590—2790—420—422 SERIES

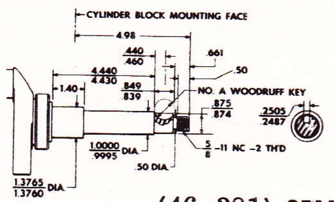
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



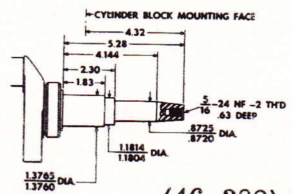
(46-379) 25113



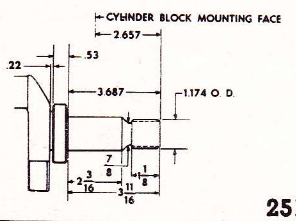
(46-380) 25114



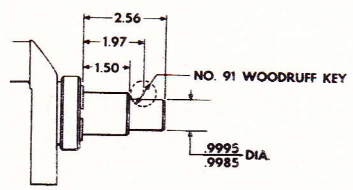
(46-381) 25115



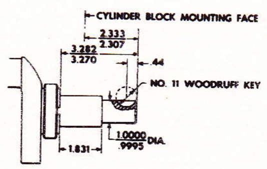
(46-382) 25116



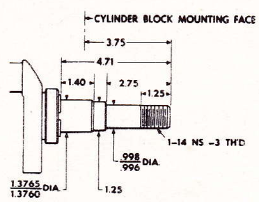
25117



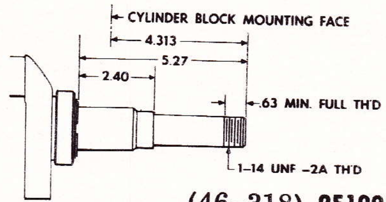
(46-384) 25118



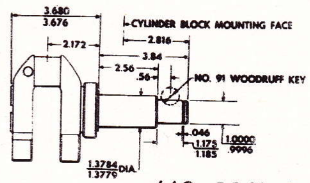
25119



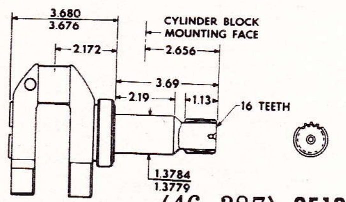
25121



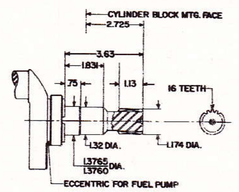
(46-318) 25123



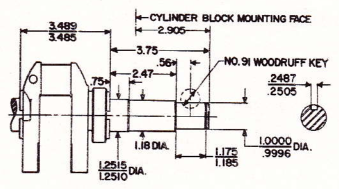
(46-386) 25124



(46-387) 25125



(46-791) 92071



(46-794) 92074

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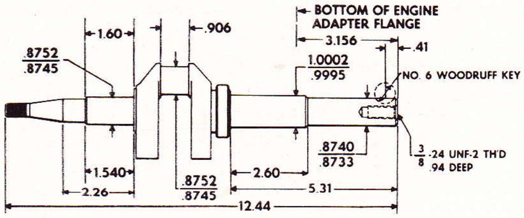
CLINTON ENGINES

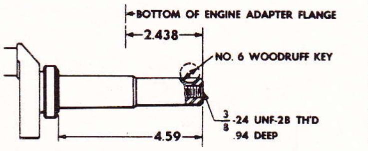
MODELS VS-900 — VS-1000 — V-1000

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

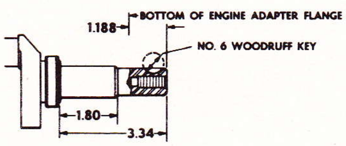


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

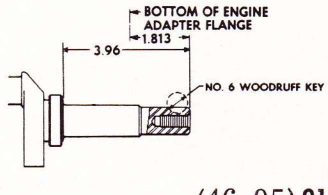
(46-92) **9100**



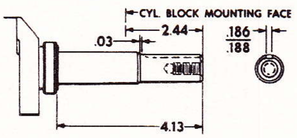
(46-93) **9101**



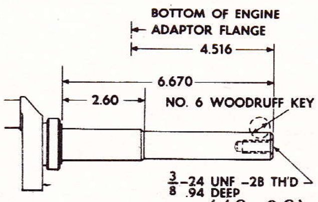
(46-94) **9102**



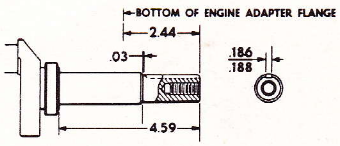
(46-95) **9103**



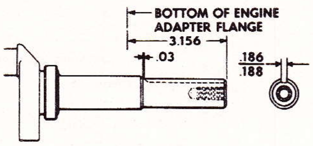
(46-101) **9104**



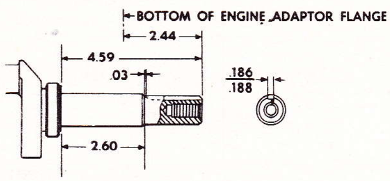
(46-96) **9105**



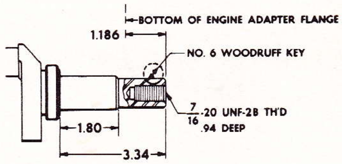
(46-102) **9106**



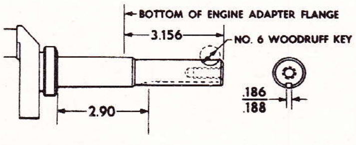
(46-103) **9107**



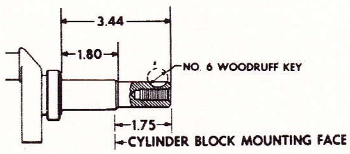
9108



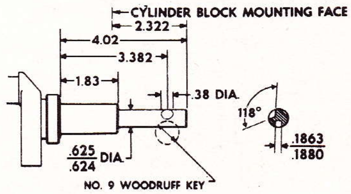
(46-104) **9109**



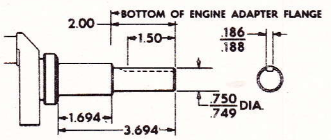
(46-105) **9110**



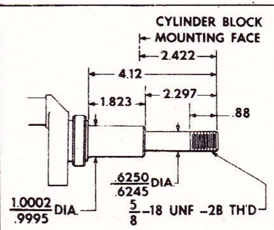
(46-106) **9124**



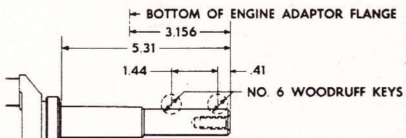
(46-107) **9125**



(46-108) **9126**



(46-109) **9127**

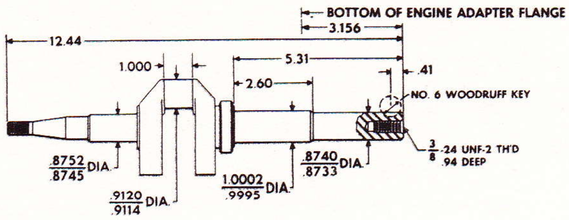


9128

CLINTON ENGINES

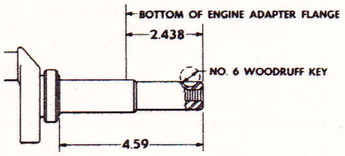
MODEL VS-1100

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

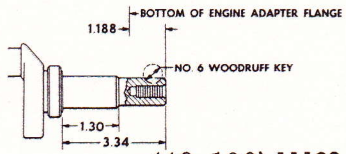


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

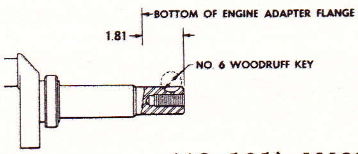
11100



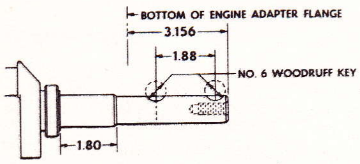
(46-189) 11101



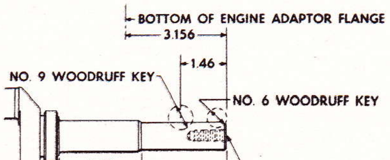
(46-190) 11102



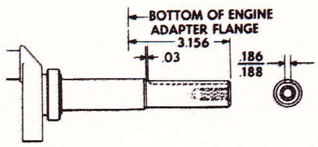
(46-191) 11103



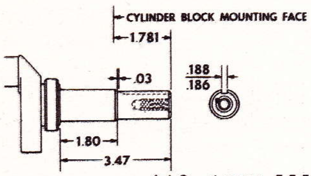
(46-277) 11104



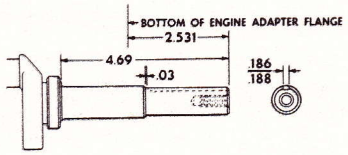
(46-194) 11106



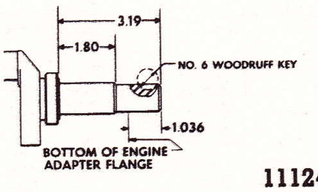
(46-195) 11107



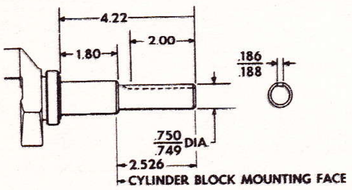
(46-196) 11108



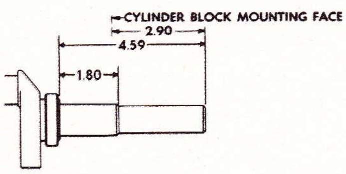
(46-201) 11123



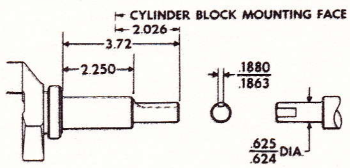
11124



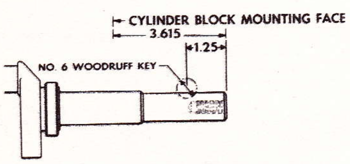
(46-286) 11125



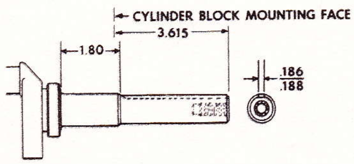
11126



(46-204) 11127



(46-205) 11128

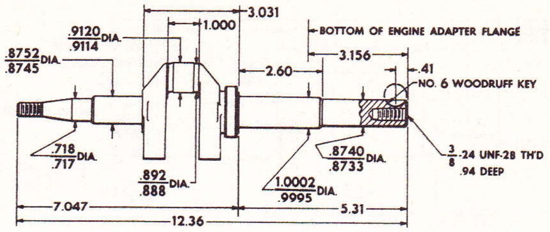


(46-282) 11129

CLINTON ENGINES

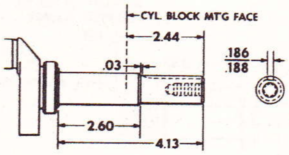
MODELS VS-1100—VS-1200

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

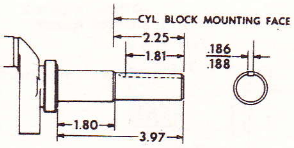


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

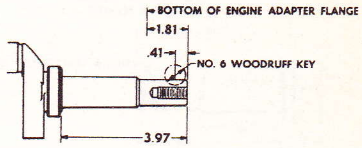
(46-197) 12150



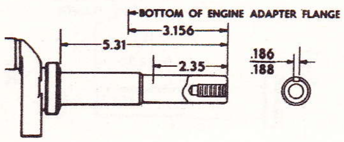
(46-293) 12110



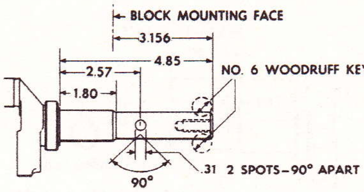
(46-247) 12151



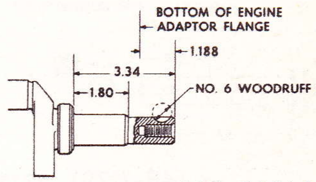
(46-199) 12152



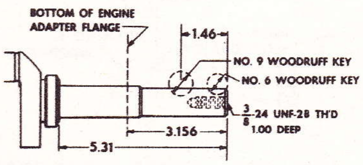
(46-248) 12153



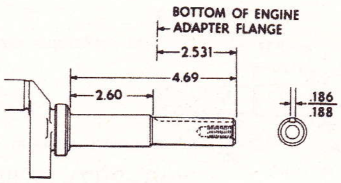
(46-250) 12154



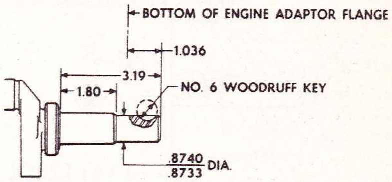
(46-198) 12156



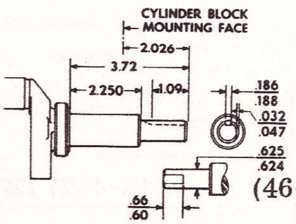
(46-251) 12157



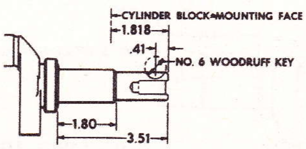
12158



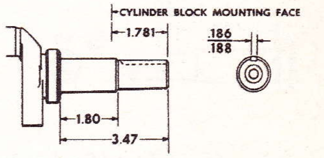
(46-253) 12159



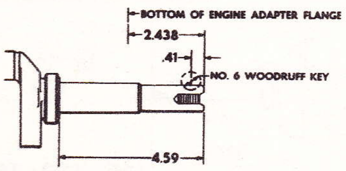
(46-249) 12160



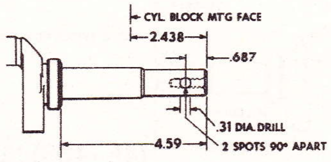
(46-287) 12161



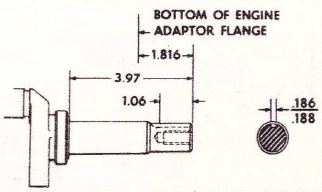
(46-288) 12162



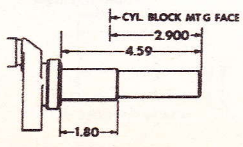
(46-200) 12163



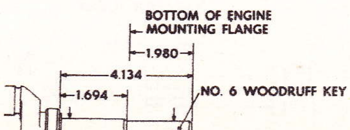
(46-263) 12164



(46-290) 12165



(46-291) 12166

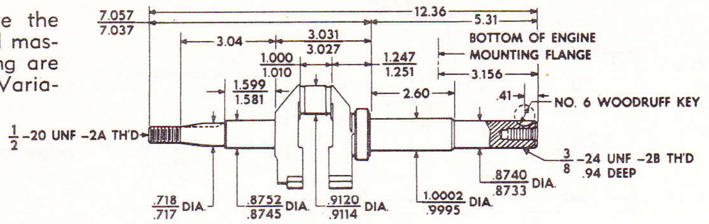


(46-292) 12167

CLINTON ENGINES

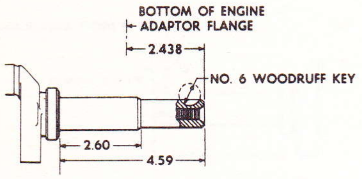
MODELS V-1100—V-1200—499 SERIES

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

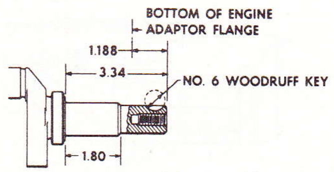


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

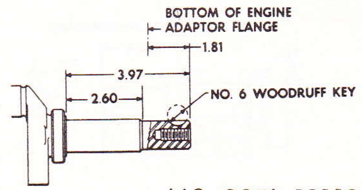
(46-267) **12169**



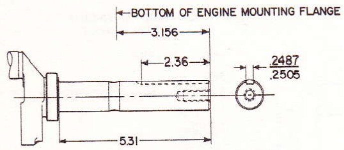
(46-223) **12116**



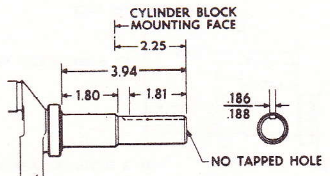
(46-224) **12117**



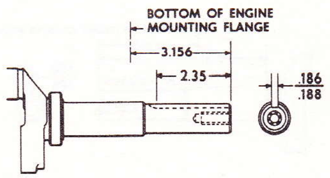
(46-225) **12118**



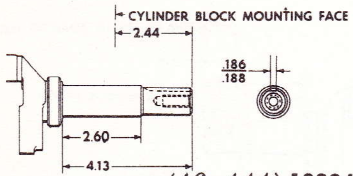
(46-679) **12178**



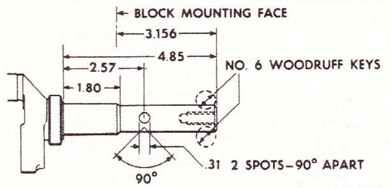
(46-294) **12198**



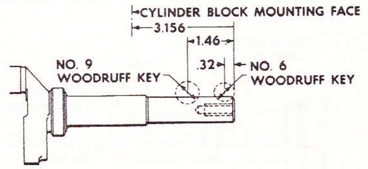
(46-295) **12199**



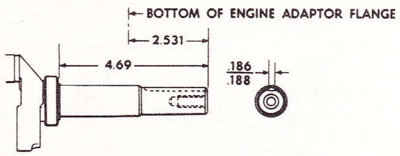
(46-444) **12264**



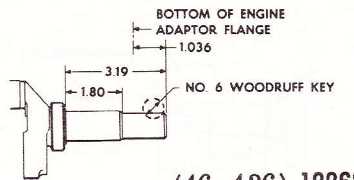
(46-297) **12265**



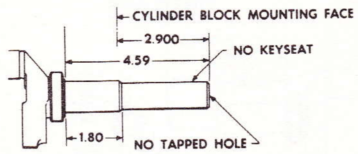
(46-434) **12266**



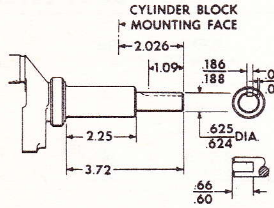
(46-435) **12267**



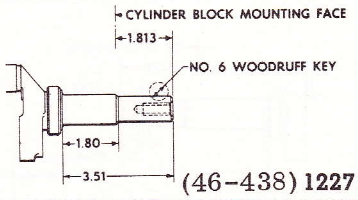
(46-436) **12268**



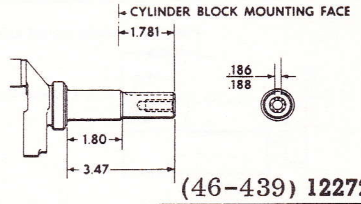
(46-442) **12269**



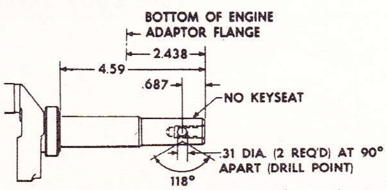
(46-437) **12270**



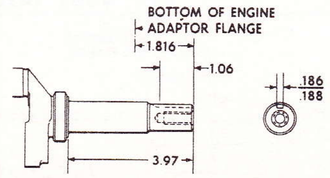
(46-438) **12271**



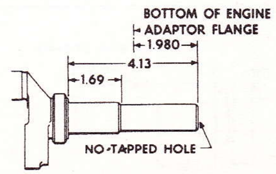
(46-439) **12272**



(46-440) **12273**



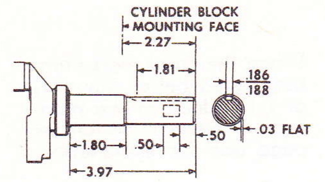
(46-441) **12274**



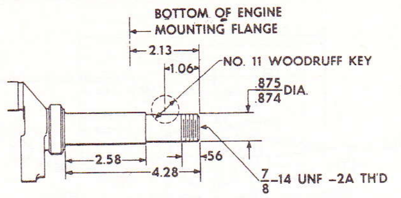
(46-443) **12275**

CLINTON ENGINES

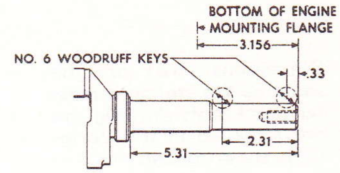
MODELS V-1100—V-1200—499 SERIES (Continued)



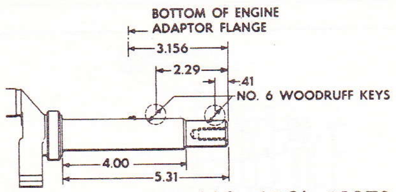
(46-447) **31164**



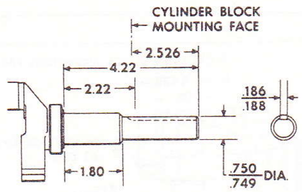
(46-453) **31170**



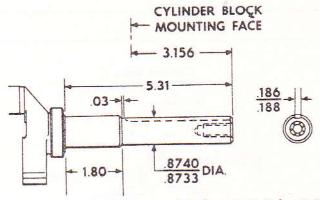
(46-454) **31171**



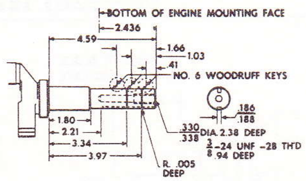
(46-456) **31173**



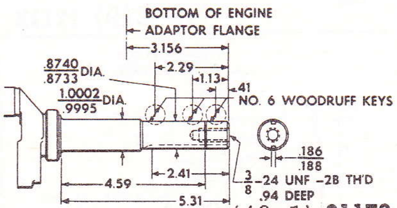
(46-457) **31174**



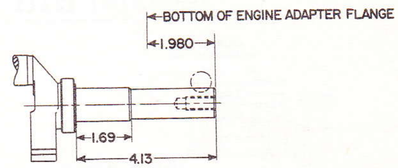
(46-459) **31176**



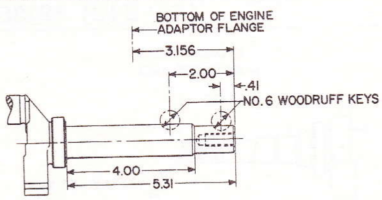
(46-460) **31177**



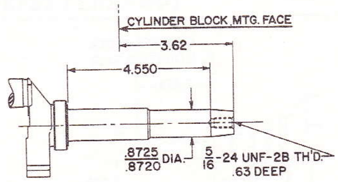
(46-1) **31178**



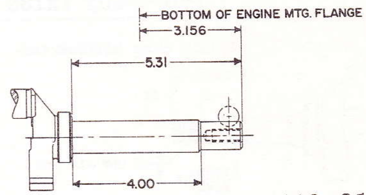
(46-759) **91450**



(46-786) 91975



(46-809)

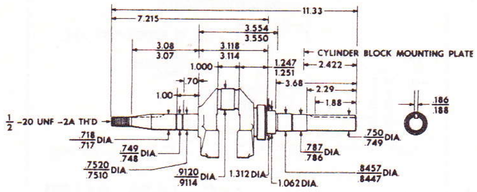


(46-814)

CLINTON ENGINES

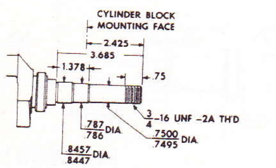
MODEL B-1290—498 SERIES

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

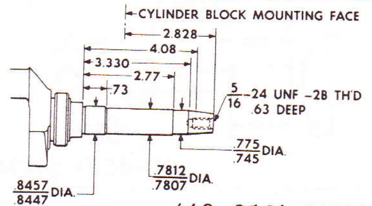


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

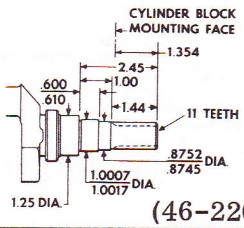
(46-239) **12132**



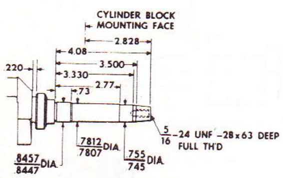
(46-218) **12111**



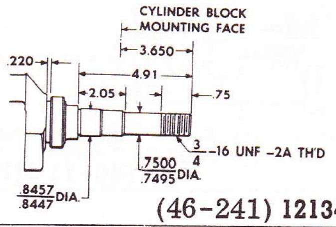
(46-219) **12112**



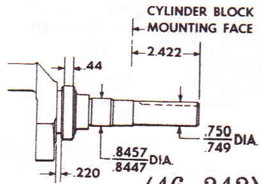
(46-226) **12119**



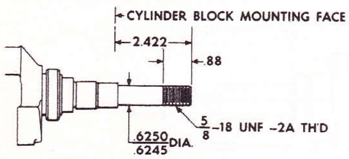
(46-240) **12133**



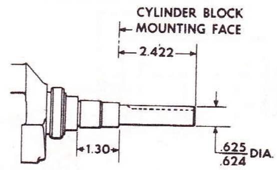
(46-241) **12134**



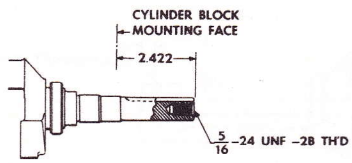
(46-242) **12135**



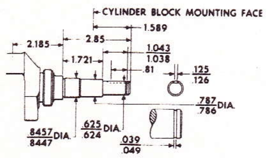
(46-243) **12136**



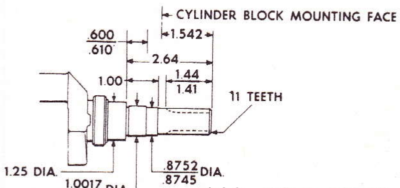
(46-244) **12137**



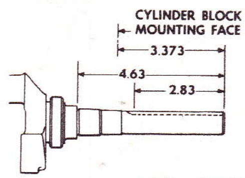
(46-246) **12139**



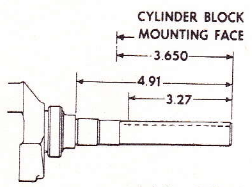
(46-268) **12170**



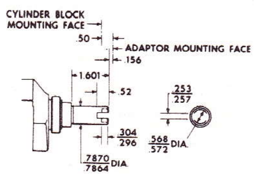
(46-269) **12171**



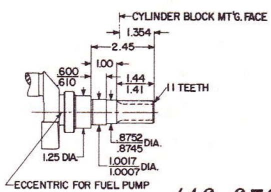
(46-278) **12181**



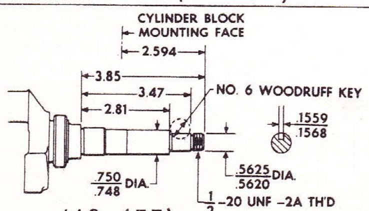
(46-280) **12183**



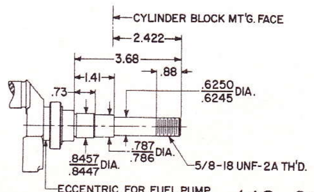
(46-281) **12184**



(46-670) **12187**



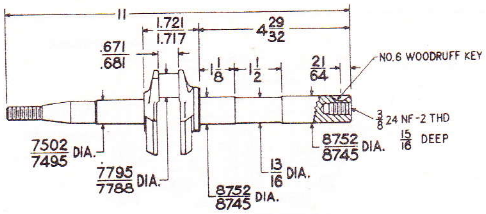
(46-455) **31172**



(46-800)

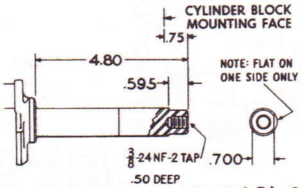
MODELS VS-200—AVS-200—VS-400—AVS-400 SERIES

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

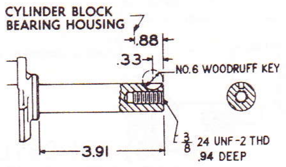


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

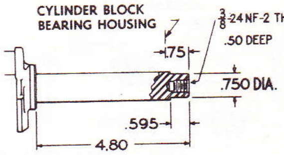
(46-3) **2041**



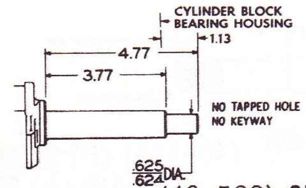
(46-518) **2141**



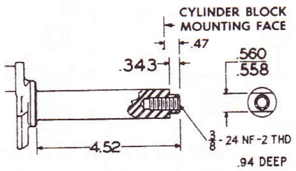
(46-520) **2143**



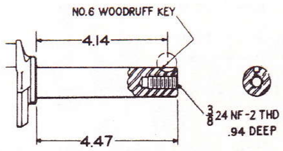
(46-521) **2144**



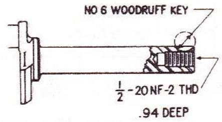
(46-522) **2145**



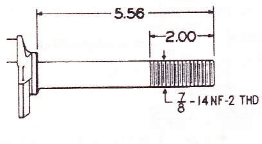
(46-523) **2146**



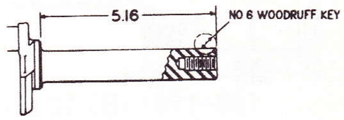
(46-524) **2147**



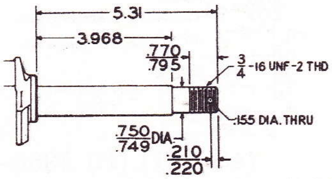
(46-525) **2148**



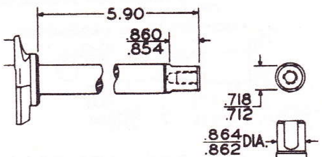
(46-526) **2149**



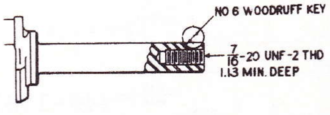
(46-529) **2291**



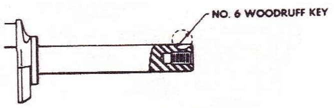
(46-530) **2292**



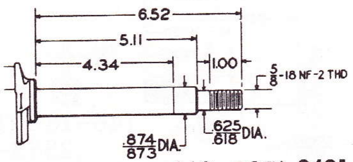
(46-531) **2293**



(46-532) **2294**



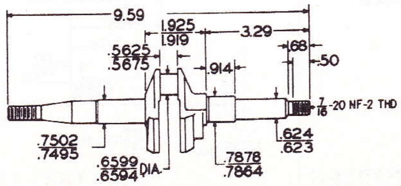
2295



(46-535) **2401**

MODEL 290-490-AOB

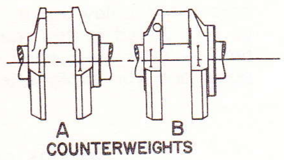
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

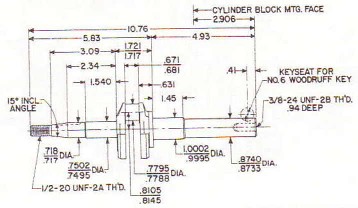


(46-516) **2504**

CLINTON ENGINES

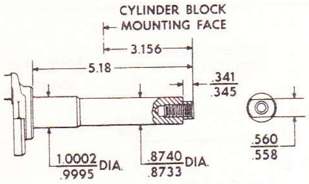
MODELS VS-200—AVS-200—VS-400—AVS-400—BVS-400—CVS-400—501 SERIES



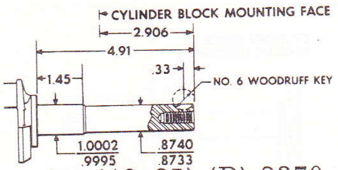


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

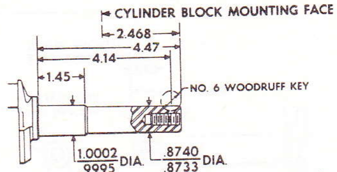
(46-35)(B) **2370-1**



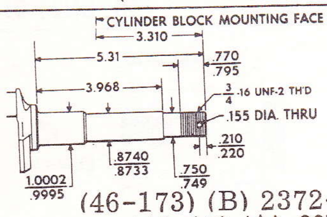
(46-186) (B) **2260**



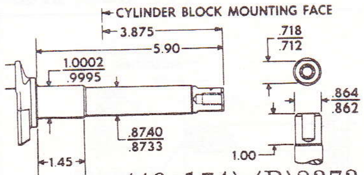
(46-35) (B) 2370-1
(46-13) (A) **2370**



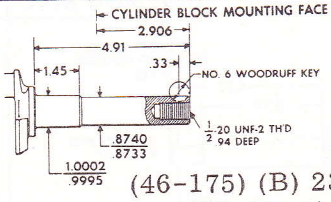
(46-172) (B) 2371-1
(46-14)(A) **2371**



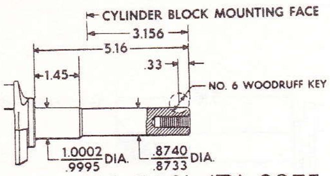
(46-173) (B) 2372-1
(46-15) (A) **2372**



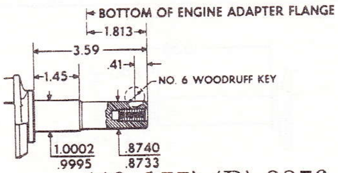
(46-174) (B)2373-1
(46-16) (A) **2373**



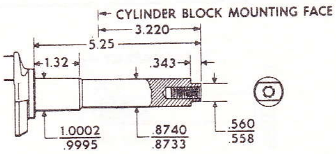
(46-175) (B) 2374-1
(46-17) (A) **2374**



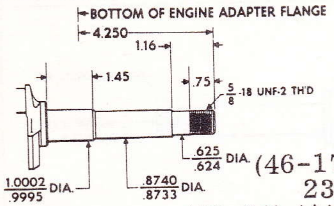
(46-176) (B) 2375-1
(46-18) (A) **2375**



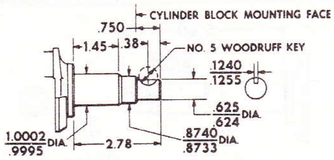
(46-177) (B) 2376-1
(46-19) (A) **2376**



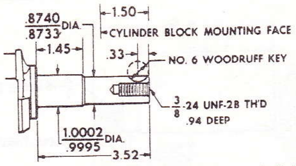
(46-178) (B) 2377-1
(46-20) (A) **2377**



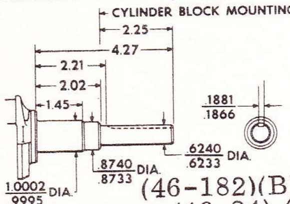
(46-179)(B) 2378-1
(46-21) (A) **2378**



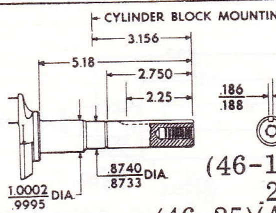
(46-180) (B) 2379-1
(46-22) (A) **2379**



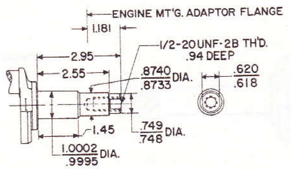
(46-181) (B) 2380-1
(46-23) (A) **2380**



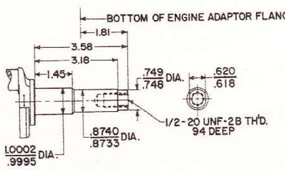
(46-182)(B)2382-1
(46-24) (A) **2382**



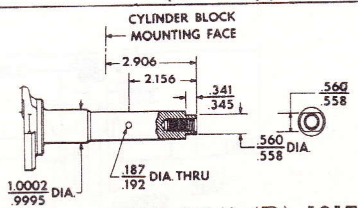
(46-183)(B) 2383-1
(46-25)(A) **2383**



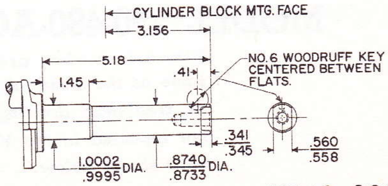
(46-773) (B)2395



(46-775)(B)2396

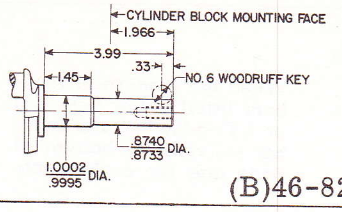


(46-184) (B) **10174**

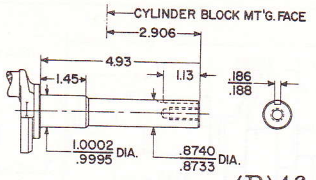


(B)46-820

MODELS VS-200—AVS-200—VS-400—AVS-400—BVS-400—CVS-400—501 SERIES

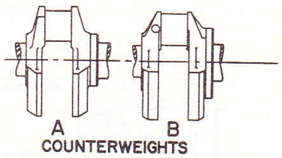


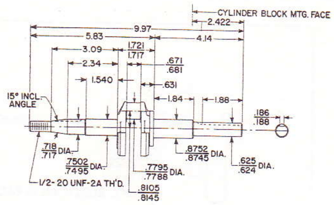
(B)46-824



(B)46-827

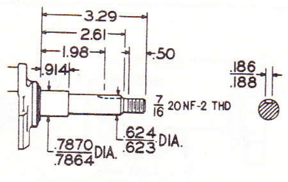
MODELS 200—A-200—400—A-400—500 SERIES



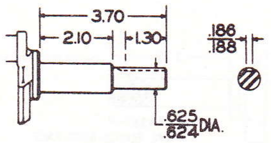


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

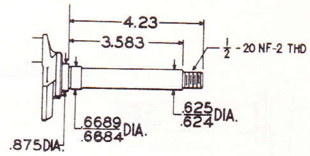
(46-30) (B)2252-1
(46-5) (A) **2252**



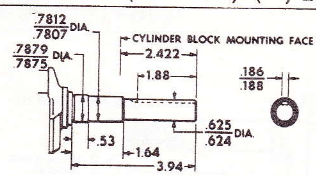
(46-519) (A) **2142**



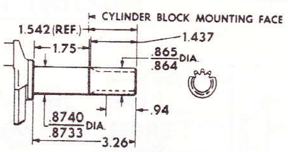
(46-527) (A) **2250**



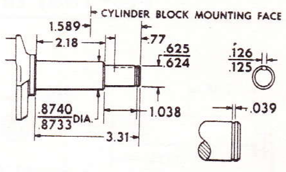
(46-4) (A) **2251**



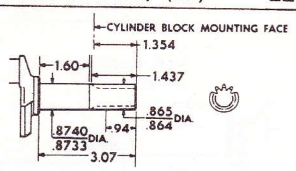
(46-32) (B) 2253-1
(46-6) (A) **2253**



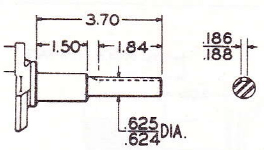
(46-11) (B) 2254-1
(46-7) (A) **2254**



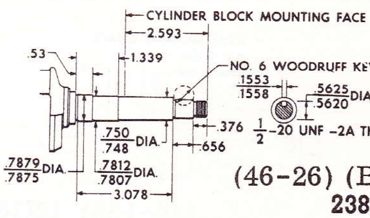
(46-34) (B) 2255-1
(46-8) (A) **2255**



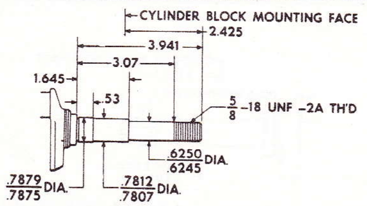
(46-31) (B) 2256-1
(46-9) (A) **2256**



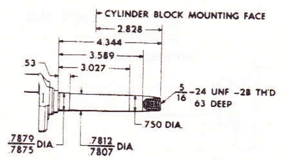
(46-528) (A) **2290**



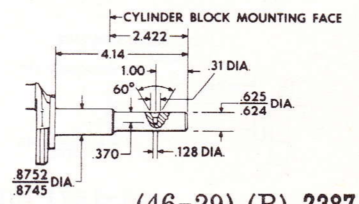
(46-26) (B)
2384



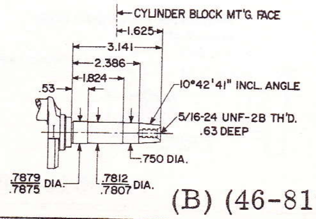
(46-27) (B) **2385**



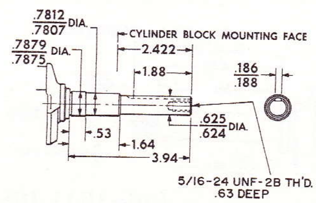
(46-28) (B) **2386**



(46-29) (B) **2387**



(B) (46-817)

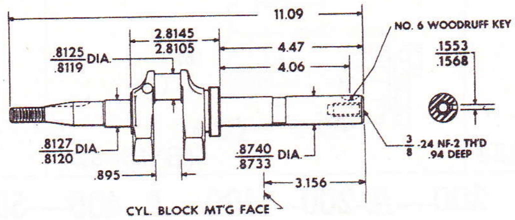


(46-671) (B) 2394

CLINTON ENGINES

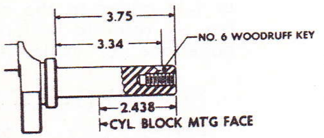
MODELS V-100—VS-100—VS-2100—100—2100—A-2100—400—401—402—403 SERIES

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

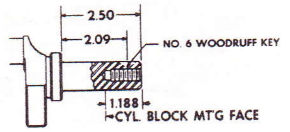


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

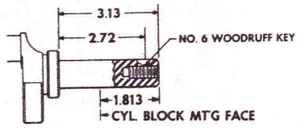
(46-355) **10100**



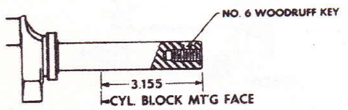
(46-356) **10101**



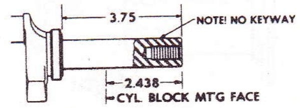
(46-357) **10102**



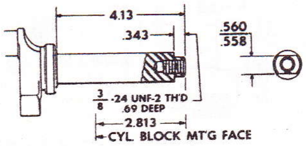
(46-358) **10103**



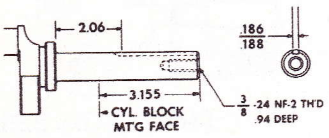
(46-153) **10104**



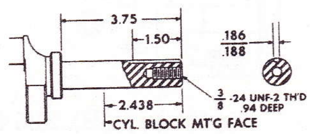
(46-154) **10105**



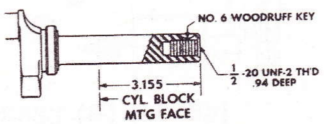
(46-144) **10106**



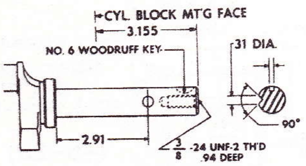
(46-155) **10107**



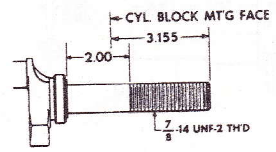
(46-145) **10108**



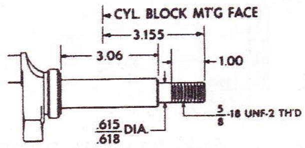
(46-146) **10109**



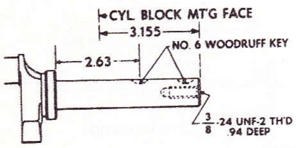
(46-156) **10110**



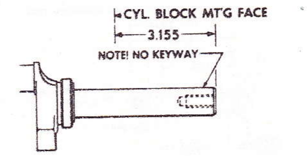
(46-157) **10111**



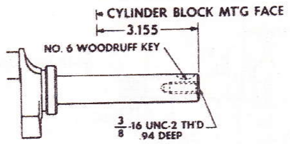
(46-158) **10112**



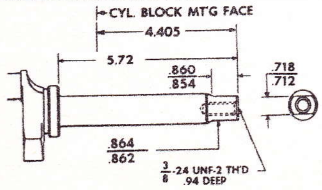
(46-147) **10113**



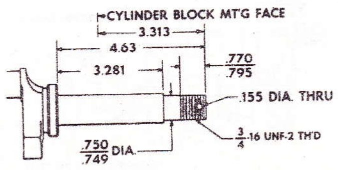
(46-159) **10114**



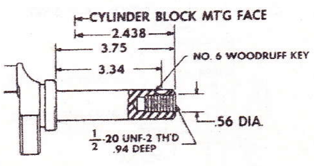
(46-152) **10115**



(46-148) **10116**



(46-161) **10117**



(46-645) **10118**

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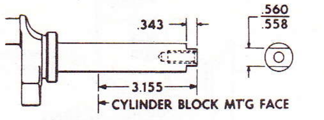
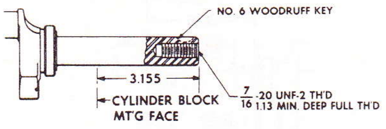
CLINTON ENGINES

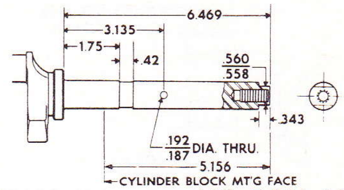
MODELS V-100—VS-100—VS-2100—100—2100—A-2100—400—401—402—403 SERIES (Cont.)



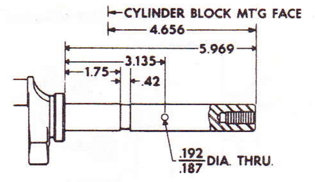
10119



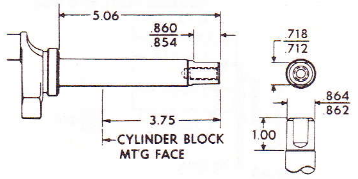
(46-149) 10120



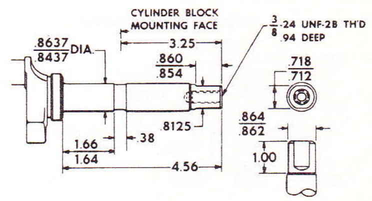
(46-162) 10121



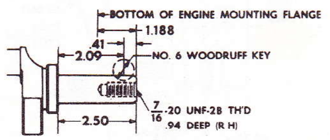
(46-163) 10122



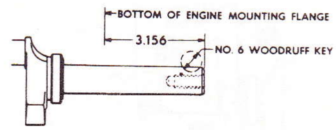
(46-164) 10123



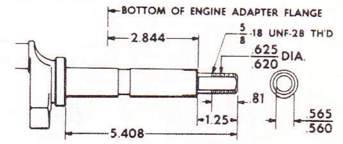
(46-165) 10124



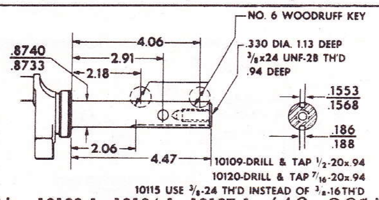
(46-166) 10125



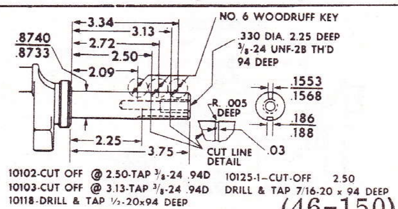
(46-167) 10126



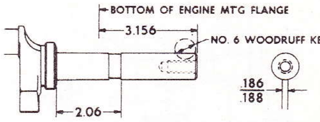
(46-168) 10127



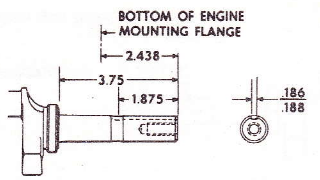
Also 10100-1, 10104-1, 10107-1, 10110-1, 10114-1, 10126-1 and 10130-1 as shown (46-361) 10128-1



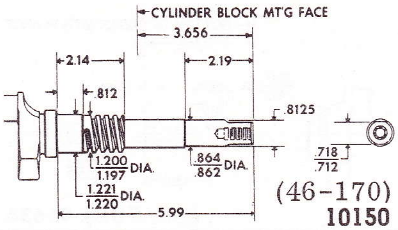
Also 10101-1, 10105-1 and 10108-1 as shown (46-150) 10129-1



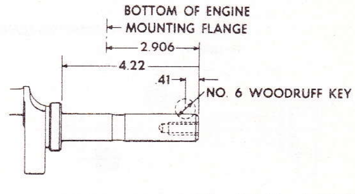
(46-169) 10130



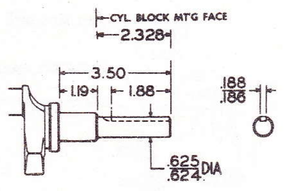
(46-187) 10132



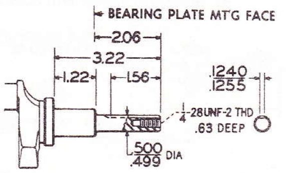
(46-170) 10150



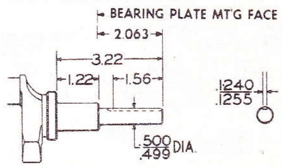
(46-171) 10161



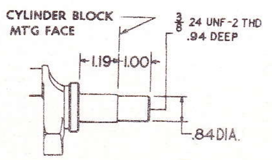
(46-353) 21100



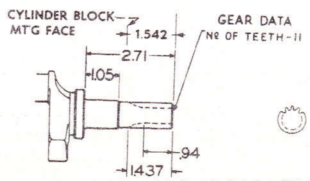
(46-363) 21101



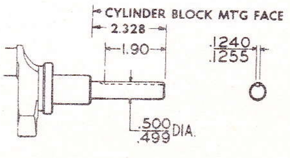
(46-362) 21102



(46-340) 21103



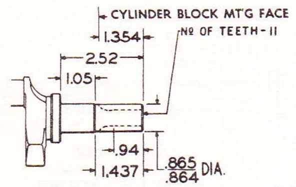
(46-360) 21104



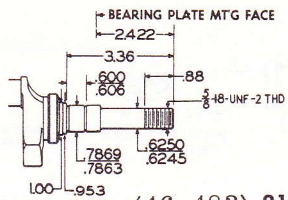
(46-364) 21105

CLINTON ENGINES

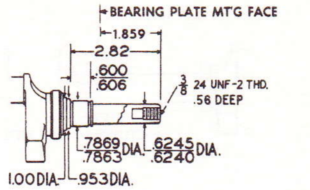
MODELS V-100—VS-100—VS-2100—100—2100—A-2100—400—401—402—403 SERIES (Cont.)



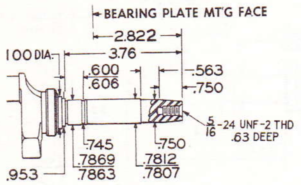
(46-510) **21106**



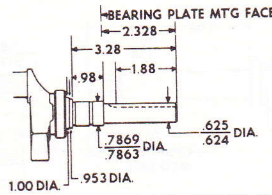
(46-483) **21107**



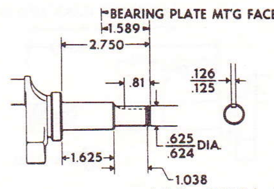
(46-365) **21108**



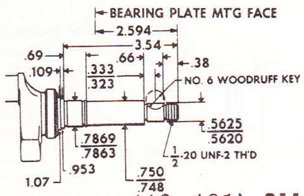
(46-482) **21109**



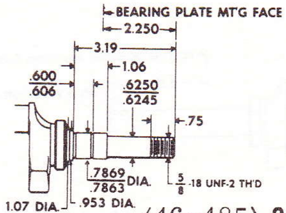
(46-354) **21110**



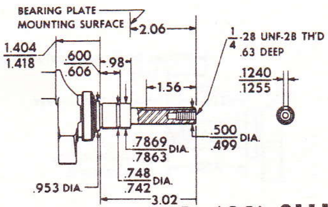
(46-359) **21111**



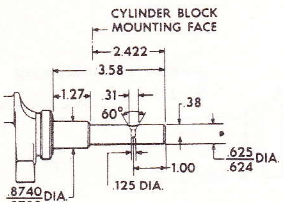
(46-481) **21112**



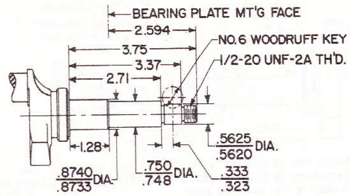
(46-485) **21113**



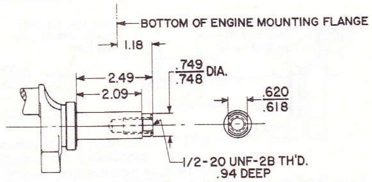
(46-486) **21115**



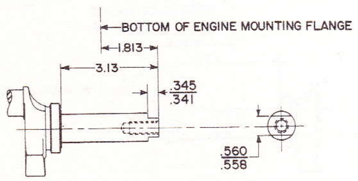
(46-352) **21117**



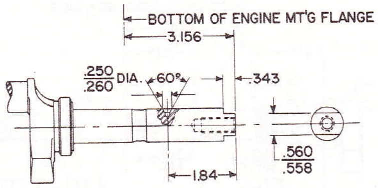
(46-745) **21302**



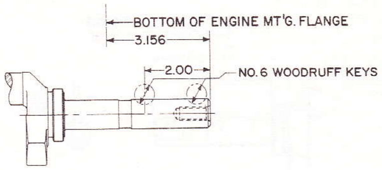
(46-770) **91527**



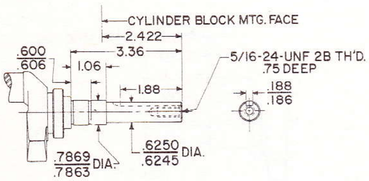
(46-772) **91549**



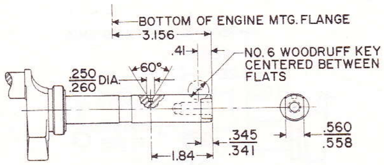
(46-760) **91634**



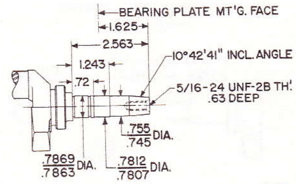
(46-790) **92020**



(46-799) **92159**



(46-819)

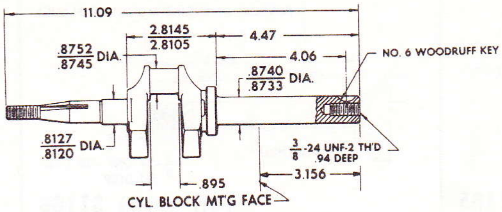


46-826

CLINTON ENGINES

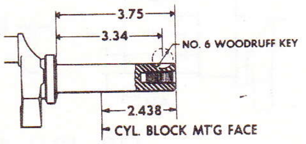
MODELS 3100—3190—H-3100—H-3190—VS-3100—AVS-3100—4100—VS-4100—AVS-4100 404—406—408—424

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

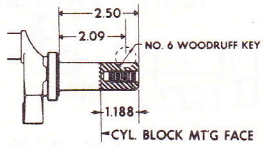


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

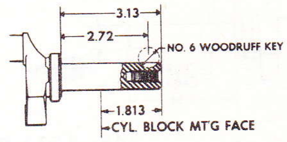
(46-409) **31100**



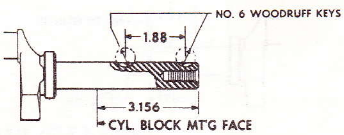
(46-411) **31101**



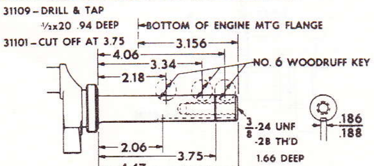
(46-412) **31102**



(46-413) **31103**

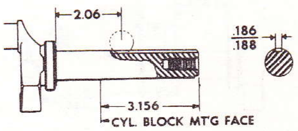


(46-425) **31104**

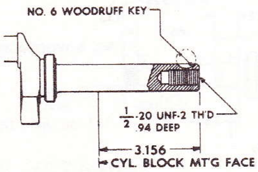


Also 31100-1, 31104-1, 31107-1, 31111-1, 31112, 31115-1 and 31165 as shown

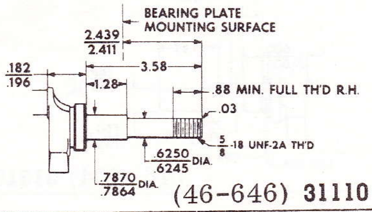
(46-422) **31105-1**



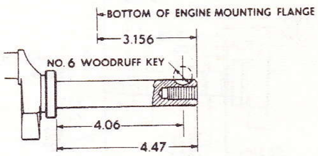
(46-426) **31107**



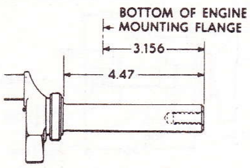
(46-423) **31109**



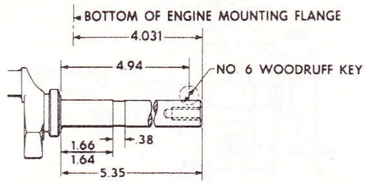
(46-646) **31110**



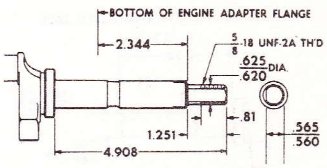
31111



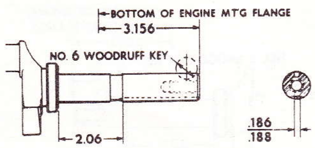
31112



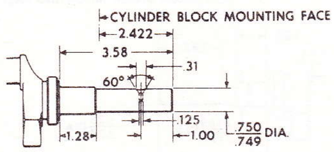
(46-429) **31113**



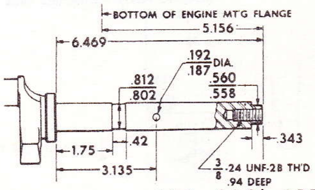
(46-430) **31114**



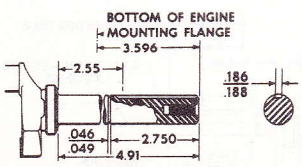
31115



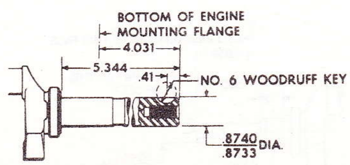
(46-402) **31116**



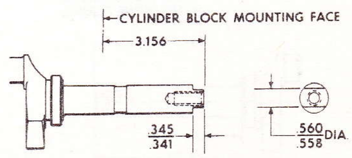
(46-432) **31121**



(46-433) **31122**



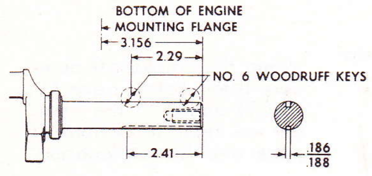
31124



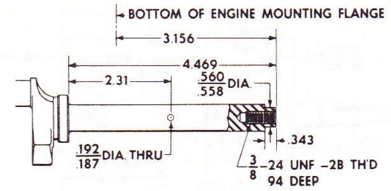
(46-445) **31162**

CLINTON ENGINES

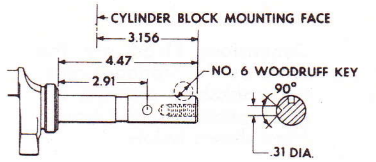
MODELS 3100—3190—H-3100—H-3190—VS-3100—AVS-3100—4100—VS-4100—AVS-4100 404—406—408—424 (Continued)



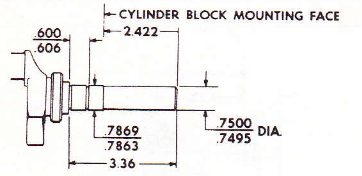
31165



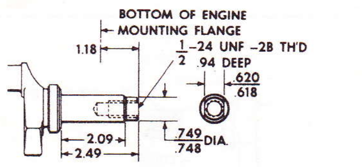
(46-449) 31166



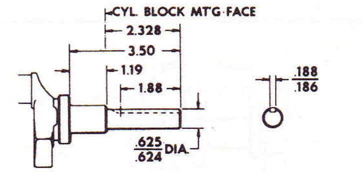
(46-450) 31167



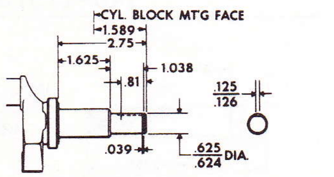
(46-451) 31168



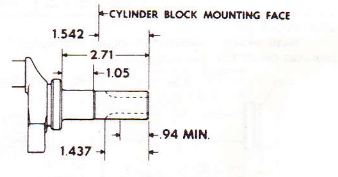
(46-452) 31169



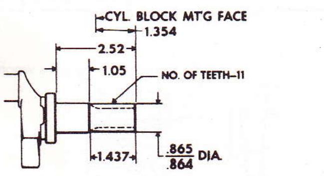
(46-424) 31300



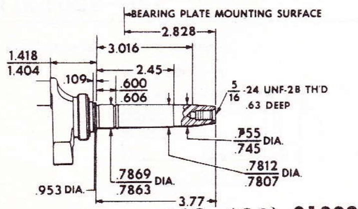
(46-418) 31302



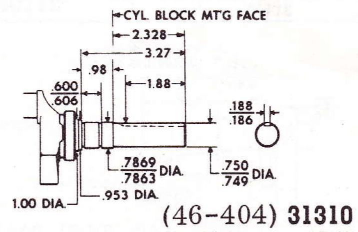
(46-419) 31304



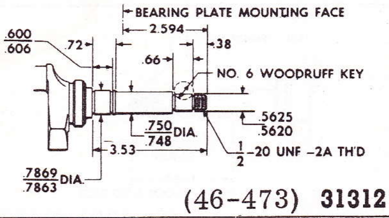
(46-417) 31306



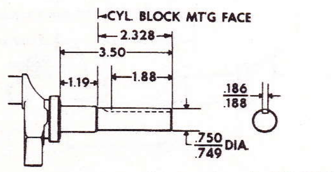
(46-480) 31309



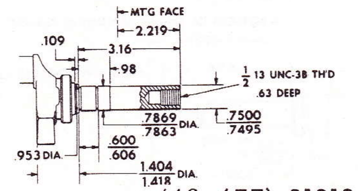
(46-404) 31310



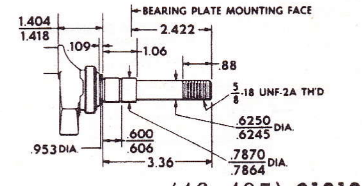
(46-473) 31312



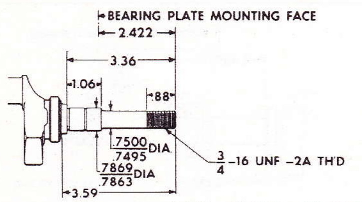
(46-403) 31314



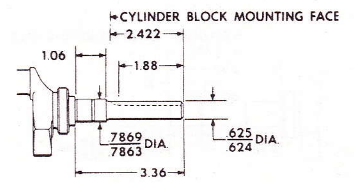
(46-477) 31316



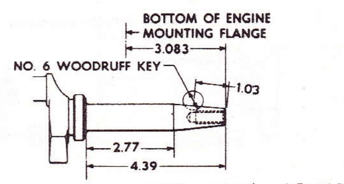
(46-495) 31318



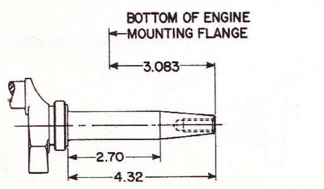
(46-479) 31319



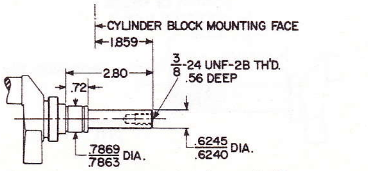
(46-490) 31330



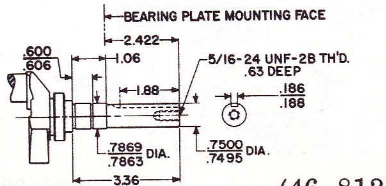
(46-500) 31341



(46-743) 16127



(46-744) 16128



(46-812)

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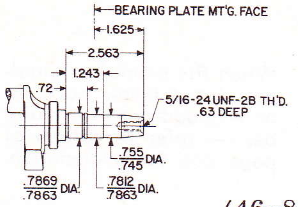
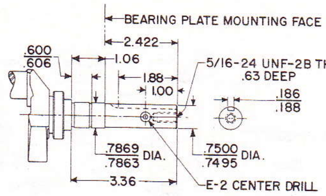
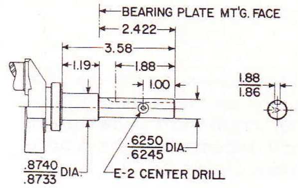
MODELS 3100—3190—H-3100—H-3190—VS-3100—AVS-3100—4100—VS-4100—AVS-4100 404—406—408—424 (Continued)



(46-815)



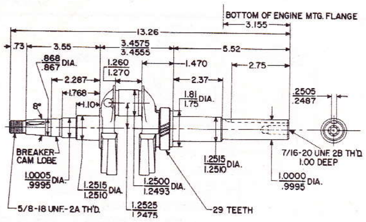
(46-829)



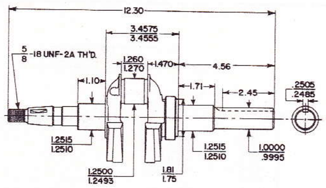
(46-830)

410—411—412—413 SERIES

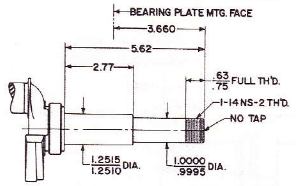
Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.



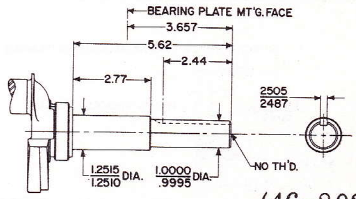
(46-752)



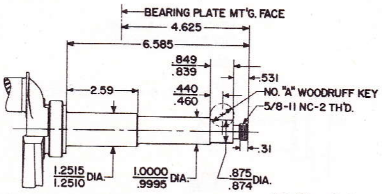
46-783)



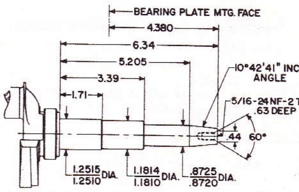
(46-801)



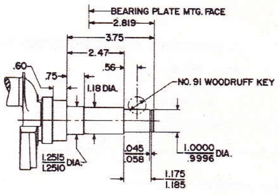
(46-802)



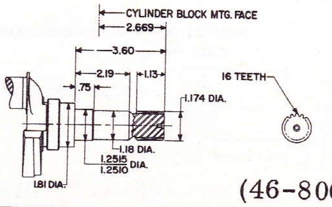
(46-803)



(46-804)



(46-805)

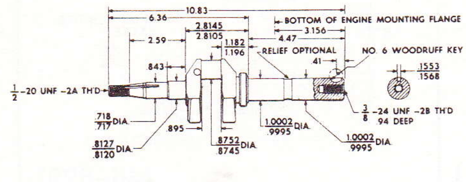


(46-806)

CLINTON ENGINES

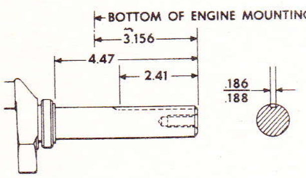
MODELS V-3100—VS-3100—AV-3100—AVS-3100—FV-3100—VS-4100—AVS-4100 405—407—409 SERIES

Dimensions that are the same as the standard master crankshaft drawing are not repeated in the Variations shown below.

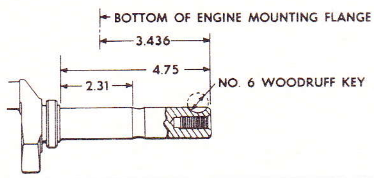


When the crankshaft numbers listed below have (1) or (-1) added to the number — refer to bottom of page one for explanation.

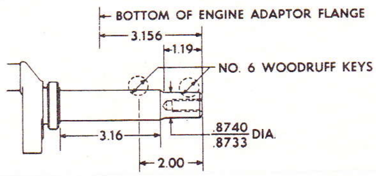
31128



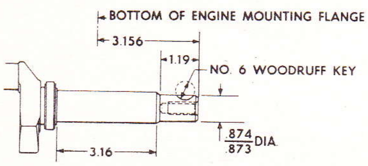
(46-395) 31106



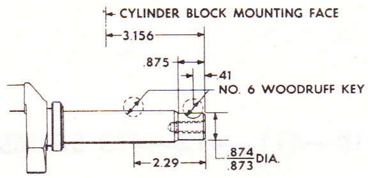
(46-397) 31108



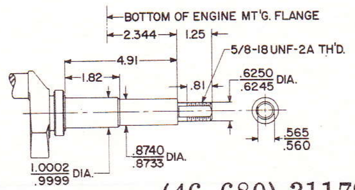
31119



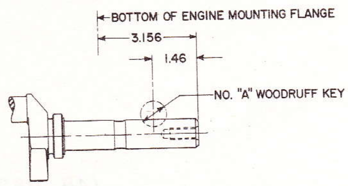
31135



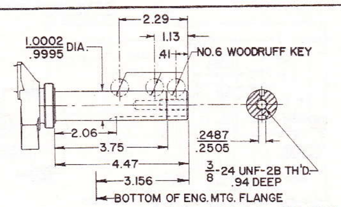
31163



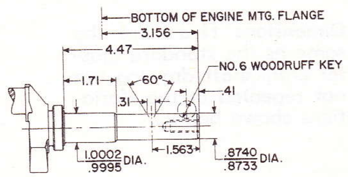
(46-680) 31179



(46-758)31180



(46-784) 31181



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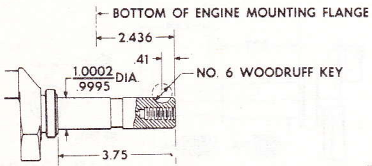

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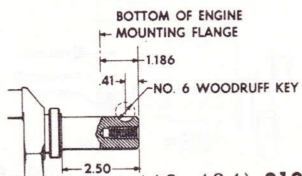

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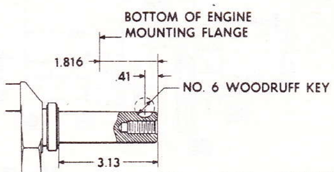

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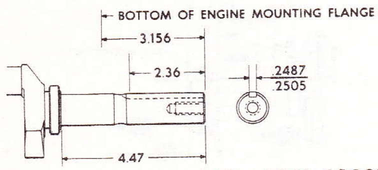

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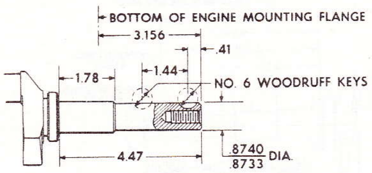

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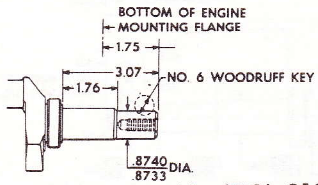

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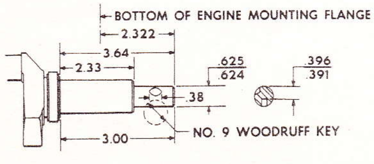

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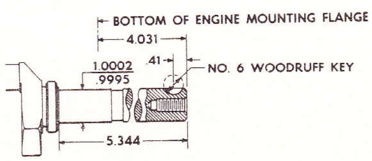
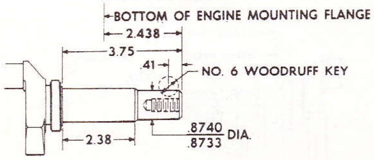


(46-484) 31324



(46-487) 31327

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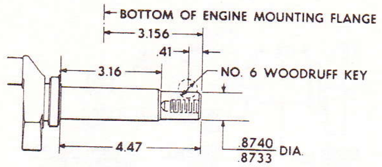
CLINTON ENGINES

MODELS V-3100—VS-3100—AV-3100—AVS-3100—F V-3100—VS-4100—AVS-4100 405—407—409 SERIES (Continued)



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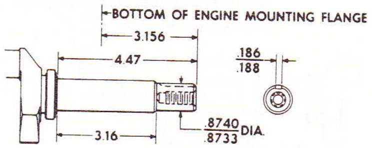
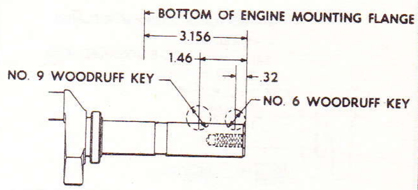
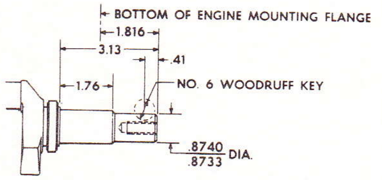


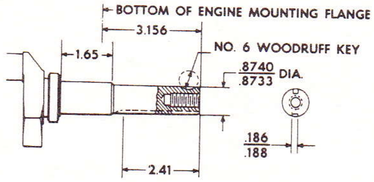
(46-489) 31329



(46-491) 31331



(46-492) 31332



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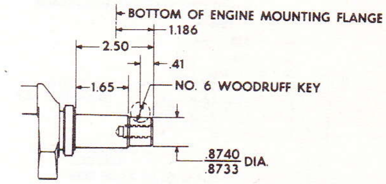
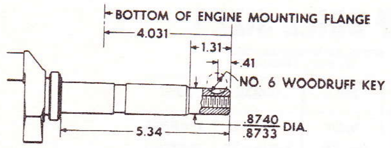


(46-494) 31334



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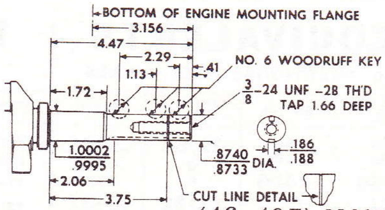
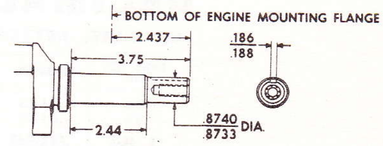
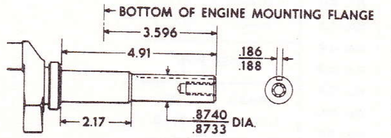


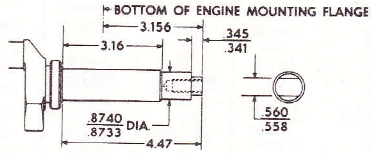
(46-497) 31337



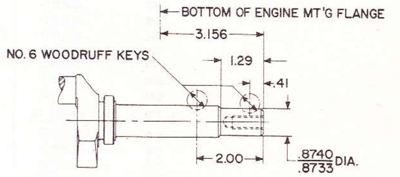
(46-498) 31338



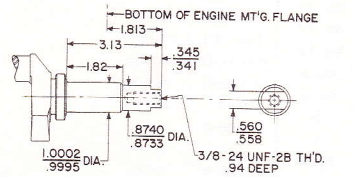
(46-499) 31339



(46-501) 31342



(46-748) 91371



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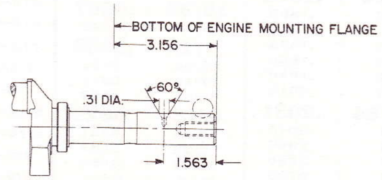
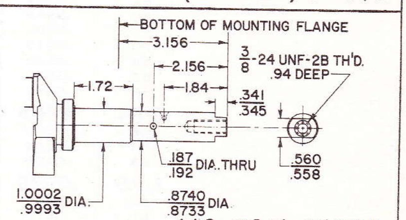
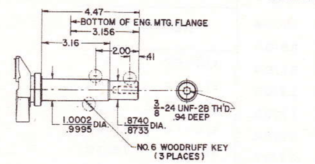


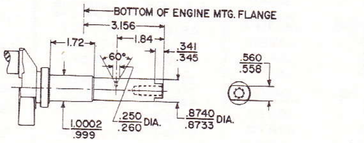
(46-776) 91926



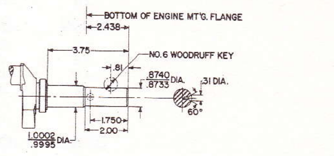
(46-787) 91993



(46-788) 91994



(46-795) 92112



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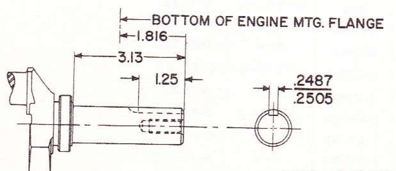

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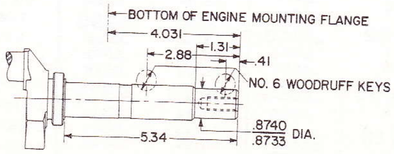

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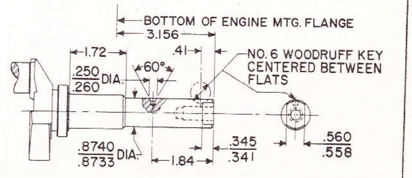
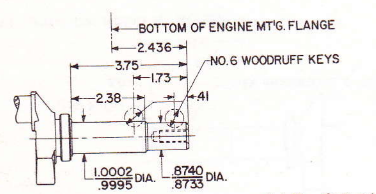


(46-821)

CLINTON ENGINES

MODELS V-3100—VS-3100—AV-3100—AVS-3100—FV-3100—VS-4100—AVS-4100
405—407—409 SERIES



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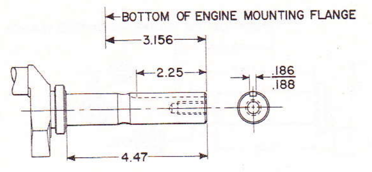

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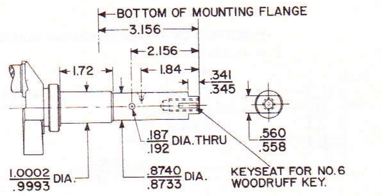

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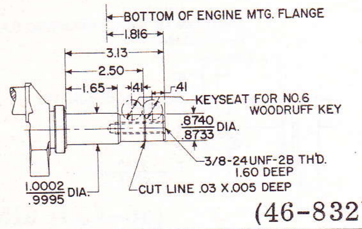

(46-832)

DECIMAL EQUIVALENTS
OF WIRE, LETTER AND FRACTIONAL SIZE DRILLS

DRILL SIZE No.	DECIMAL	DRILL SIZE No.	DECIMAL	DRILL SIZE No.	DECIMAL
80	.0135	29	.1360	21/64	.3281
79	.0145	28	.1405	Q	.3320
1/64	.0156	9/64	.1406	R	.3390
78	.0160	27	.1440	11/32	.3437
77	.0180	26	.1470	S	.3480
76	.0200	25	.1495	T	.3580
75	.0210	24	.1520	23/64	.3594
74	.0225	23	.1540	U	.3680
73	.0240	5/32	.1562	3/8	.3750
72	.0250	22	.1570	V	.3770
71	.0260	21	.1590	W	.3860
70	.0280	20	.1610	25/64	.3906
69	.0292	19	.1660	X	.3970
68	.0310	18	.1695	Y	.4040
1/32	.0313	11/64	.1719	13/32	.4062
67	.0320	17	.1730	Z	.4130
66	.0330	16	.1770	27/64	.4219
65	.0350	15	.1800	7/16	.4375
64	.0360	14	.1820	29/64	.4531
63	.0370	13	.1850	15/32	.4687
62	.0380	3/16	.1875	31/64	.4843
61	.0390	12	.1890	1/2	.5000
60	.0400	11	.1910	33/64	.5156
59	.0410	10	.1935	17/32	.5313
58	.0420	9	.1960	35/64	.5469
57	.0430	8	.1990	9/16	.5625
56	.0465	7	.2010	37/64	.5781
3/64	.0469	13/64	.2031	19/32	.5937
55	.0520	6	.2040	39/64	.6094
54	.0550	5	.2055	5/8	.6250
53	.0595	4	.2090	41/64	.6406
1/16	.0625	3	.2130	21/32	.6562
52	.0635	7/32	.2187	43/64	.6719
51	.0670	2	.2210	11/16	.6875
50	.0700	1	.2280	45/64	.7031
49	.0730	A	.2340	23/32	.7187
48	.0760	15/64	.2344	47/64	.7344
5/64	.0781	B	.2380	3/4	.7500
47	.0785	C	.2420	49/64	.7656
46	.0810	D	.2460	25/32	.7812
45	.0820	E1/4	.2500	51/64	.7969
44	.0860	F	.2570	13/16	.8125
43	.0890	G	.2610	53/64	.8281
42	.0935	17/64	.2656	27/32	.8437
3/32	.0937	H	.2660	55/64	.8594
41	.0960	I	.2720	7/8	.8750
40	.0980	J	.2770	57/64	.8906
39	.0995	K	.2811	29/32	.9062
38	.1015	9/32	.2812	59/64	.9219
37	.1040	L	.2900	15/16	.9375
36	.1065	M	.2950	61/64	.9531
7/64	.1093	19/64	.2968	31/32	.9687
35	.1100	N	.3020	63/64	.9844
34	.1110	5/16	.3125	1	1.000
33	.1130	O	.3160		
32	.1160	P	.3230		
31	.1200				
1/8	.1250				
30	.1285				

TAP DRILL SIZES
BASED ON APPROXIMATELY 75% FULL THREAD

THREAD	DRILL
#0–80	3/64
#1–64	No. 53
#1–72	No. 53
#2–56	No. 51
#2–64	No. 50
#3–48	5/64
#3–56	No. 46
#4–40	No. 43
#4–48	No. 42
#5–40	No. 39
#5–44	No. 37
#6–32	No. 36
#6–40	No. 33
#8–32	No. 29
#8–36	No. 29
#10–24	No. 25
#10–32	No. 21
#12–24	No. 17
#12–28	No. 15
1/4–20	No. 8
1/4–28	No. 3
5/16–18	F
5/16–24	I
3/8–16	5/16
3/8–24	Q
7/16–14	U
7/16–20	W
1/2–13	27/64
1/2–20	29/64
9/16–12	31/64
9/16–18	33/64
5/8–11	17/32
5/8–18	37/64
3/4–10	21/32
3/4–16	11/16
7/8–9	49/64
7/8–14	13/16
1–8	7/8
1–14	15/16
1-1/8–7	63/64
1-1/8–12	1-3/64
1-1/4–7	1-7/64
1-1/4–12	1-11/64
1-1/2–6	1-11/32
1-1/2–12	1-27/64

THREAD	DRILL
1-3/4–5	1-35/64
1-3/4–12	1-43/64
2–4-1/2	1-25/32
2–12	1-59/64
2-1/4-4-1/2	2-1/32
2-1/2–4	2-1/4
2-3/4–4	2-1/2
3–4	2-3/4

TAPER PIPE

1/8–27	R
1/4–18	7/16
3/8–18	37/64
1/2–14	23/32
3/4–14	59/64
1–11-1/2	1-5/32
1¼–11½	1-1/2
1½–11½	1-47/64
2–11-1/2	2-7/32
2-1/2–8	2-5/8
3–8	3-1/4
3-1/2–8	3-3/4
4–8	4-1/4
4-1/2–8	4-3/4
5–8	5-9/32
6–8	6-11/32

STRAIGHT PIPE

1/8–27	S
1/4–18	29/64
3/8–18	19/32
1/2–14	47/64
3/4–14	15/16
1–11-1/2	1-3/16
1¼–11½	1-33/64
1½–11½	1-3/4
2–11-1/2	2-7/32
2-1/2–8	2-21/32
3–8	3-9/32
3-1/2–8	3-25/32
4–8	4-9/32
4-1/2–8	4-25/32
5–8	5-11/32
6–8	6-13/32