

Laserstrahlschweißen von Aluminium- legierungen für die Luftfahrt

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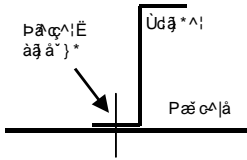
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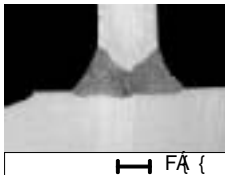
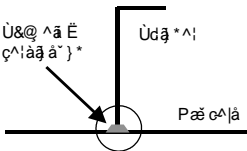
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Gk'p'g'"C'n'g't'p'c'v'x'g'"| w'o "P'kg'v'p'u'v'g'm'f'cu'U'ej'y'g'k'É'g'p'x'q'p'"Two r hwt'wmwt'gp'f'c't'0'F'c'd'g'k'ur'k'm'f'g't'"G'k'p'uc'v' "x'q'p'"N'c'u'g't'u't'c'j'ns'w'g'm'g'p'g'k'p'g'"d'g'f'g'w'g'p'f'g'"T'q'm'g.'"f'g'p'p'w'"d'g'k'o'N'c'u'g't'u't'c'j'm'ej'y'g'k'É'g'p'nc'p'p'f'g't'v'j'g't'o'k'ue'j'g'X'g't'w'i'"m'g'k'p'i'g'j'c'n'g'p'y'g't'f'g'p'0'G'k'p'g't'u'g't'U'ej't'k'w'k'w'f'g't'"G't'uc'v'f'g't'P'k'g'w'g't'd'k'p'f'w'p'i'|"y'k'ue'j'gp'f'g't'Two r h'c'w'É'g'p'j'c'w'w.'f'g'o "u'q'i'g'/p'c'p'p'v'g'p'J'c'w'h'g'f'f'w'p'f'f'g'p'N'@'i'ux'g't'u'g'k'w'p'i'u'g'o'g'p'v'g'p'f'g'p'u'q'i'g'p'c'p'p'v'g'p'U't'k'p'i'g't'p'f'w'ej'f'c'u'N'c'u'g't'u't'c'j'm'ej'y'g'k'É'g'p.'u'k'ej'g'D'k'f'"300

c+



d+



Dk'f'300 < c+i'g'p'k'g'v'g'J'c'w'h'g'f'/U't'k'p'i'g't'X'g't'd'k'p'f'w'p'i' *F'k'h'g't'g'p'k'c'nd'c'w'y'g'l'ug'+:d'+nc'ug't'i'g'/u'ej'y'g'k'É'g'p'J'c'w'h'g'f'/U't'k'p'i'g't'X'g't'd'k'p'f'w'p'i' *k'p'v'g'i'c'nd'c'w'y'g'l'ug'+0

F kg"Rqvgpvcng"glpqt"l'pvgi tcnlcwy glug'rngi gp"lp"glpqt"i gi gp'Adgt"fgt"FHgtgpvcndcw
 y glug"wo "62"hcj "plgf tki gtgp"Hgtvki wpi ul glk:"fc"glpg"Dgctdgkwp i uiey y lpf ki nglk
 xqp"dku" w'32 o lo kp"o 3/4 rnej "ku0F wtej "fgp"Y gi hcm'fgt"Plgvgp"wpf "fkg'hA"fgtgp
 Cpdkpf wpi "dgp3/4ki vgp"Hrcpuej g"ncpp"glpg"i gy lej vuglur ctwpi "dku" w'42" gtl kgnv
 y gtf gp"j4_"y cu'ulej "fkgm'lp"glpqt"Ugki gtwpi "fgt"p w' rnuv'y kgf gtur kgi gm0CwEgt/
 f go "gpv@m'f cu"Cdf kej vgp"fgt" y kiej gp"J cwhegf"wpf "Utkpi gt"xqtj cpf gpgp"Ur cng
 ucy kg'fgt"fc ko k'xgtdwpf gpg"Y ctwpi ucwhy cpf ."fc"ko "I gi gpucv" | w'P lgvxgtdkpf wp/
 i gp"ngkpg"Ur cng"xqtrngi gp."fkg'Cwui cpi uvgngp'hA"Mtqtqkqp"ftuvngmp0

Xqtcwugv wpi gp"hA"fgp"Glucv"fgu"Neugtutcj ney y gE'epu"ko "Hwi | gwi dcw'ukpf
 glpg'j qj g'Rtql gE's wcrk@'fgt'Uej y gE'pcj v'wpf "f cu'Dgj gttuej gp'kj tgt"J gE'kE'cph@nki /
 nglk:"fkg'ulej "dgl'fgt"gtuctt wpi "fgt"glpi gugv vgp"Cnwo kpkwo ngi kgtwpi gp"dgo gtmict
 ocej gp"ncpp0

HA"fg'ko cvgtkndgctdgkwp i 'ukpf'j gwg' y gk'Utcj n'wngmpv' r gp'xqp'Dgf gwwpi 0F kgu
 ukpf "cwh'fgt"glpg"Ugkg'EQ4/I curucgt'wpf "cwh'fgt"cpf gtgp"Ugkg'P f-4 CI /Hgunn4r gt/
 ncugt"j5_0F kg'dgkf gp'Utcj n'wngmp'wpvgtuej gkf gp'ulej "wpvt"cpf gto "kp'kj tgt"Y gngp/
 n@i g0Uq'gti kd'ulej "dgl'fgt"Y gej ugnv kmwpi " | y kiej gp"Cnwo kpkwngi kgtwpi gp"wpf
 fgt"p f-4 CI "Utcj n'wpi "glp'j 3/4 gto"CDuqtr v'qpui tcf"i gi gp'Adgt"fgt"Y gngpn@i g'f gu
 EQ4/Neugtu0' Gdghcm" y gngpn@i gpdgf lpi v' ku' fkg" i gtlpi gto" Cduqtr v'qp" fgt
 P f-4 CI "Utcj n'wpi "ko "O gvcnf co r hr rnuo c"j6_"j7_0HA"fgt"Hgtvki wpi "xqp'dguqpf g/
 tgo "Xqtvkl'ku."f cE"fgt"p f-4 CI "Utcj n'wpi "s wcu'xgtmwut'gk'lp"ngzkdngp"i rucucgtp
 Adgtvci gp" y gtf gp"ncpp0 Fctcw" gti kd'ulej " glpg" y gki gj gpf " wpglpi giej t@mg
 \ wi @i rnej nglk'fgt"Dgctdgkwp i uqr vkm" wpcdj @i ki " xqo "Ucpcf qtv'fgt"Neugtutcj n'
 s wngm0Gu'dgugv v'f co k'cwej "fkg'O 3/4 rnej nglk'glp' gpg"i rucucgtp"ko "Dgctdgkwp i u
 nqr h" wuco o gp| whAj tgp'wpf "glpg'hA"fgp"Dgctdgkwp i ur tq| gE'scpi gr cE'vg0'k'pvgpk/
 v@uxgtv'glwpi "co "Y gtmuv'eni'glp' wvgngp0'O k'f go "Glucv"fgt"O gi thqmwugej pkn
 xgtnpAr h'ku'fgt"i gf cpng."f wtej "glpg'i gl keng'Dggkphnuuwpi "fgt'Uej o gni dcf i gqo g/
 vkg"fgt"Rtql gE's wcrk@'wpf "f co k'f kg"Hgtvki wpi uulej gtj glv" w'uvgki gtp0'Wpvtuwej wp/
 i gp" | w"Ugki gtwpi "fgt"Rtql gE'ulej gtj glk:"Hgzkdlnk@'wpf "xgthA' d'ctgt"Neugtrkuwpi
 o k'o gi tgtgp"Utcj n'wngmp'y gtf gp'lp"j8_"xqti gvgm0Cmgtf lpi u'ku'fkgug"Xqti gi gpu/
 y glug'fgt"O gi thqmwugej pkn'o k'glpggo "j qj gp'y k'uej chwkej gp"Cwhy cpf "xgtdwpf gp0
 K \ w' g'fgt"Y gkgtpgy kcmwpi "xqp'Hgunn4r gtnucgt'j lp' wj 3/4 gtp"Utcj n'wcrk@gp
 y kf "gu"o 3/4 rnej "uglp."fkg'O gi thqmwugej pkn'o k'pw'glpggo "P f-4 CI /"Neugt"y kv
 uej chwkej "fct| wvgngp"j9_0

F kɔ"Ngkɔwpi uh@ ki ngk' xqp" Hwi | gwi ut wmwtp" nɛpp" cwej " f wtej " pgwg" Y gt mɔqhhg i guvki gt v'y gtf gp0Cnwo kpkwo nɔi kɔt wpi gp"o k'j qj gt "Hguvi ngk'dgk'i nɔlej | gkiki 'i gf w | kɔt vgt "F lej uej uej chhp" j kɔthĀ "f kɔ" Xqtcwuugv\ wpi 0F wtej "f gp "Gkpucv\ "f gu" Ncuɔt ut c j n' uej y gkĒgpucp" f gt "J cwħgrf / Ut kpi gt "Xgt dkp f wpi " nɛpp" uq" gkpg" f gp "Dgcpur t wej wpi gp cpi gr cĒvg" wpf " o cĒi guej pgk f gt vg" Two r hwt wmwtp" f cti guvgn\ y gtf gp0 C wĒgt f go gto ¾ nɔlej v' f kɔg" pgwg" Hgt vki wpi uvej p q nɔi kɔ" f kɔ" Mqo dlpɔc wkp" gkpgt " Xlgn c j n' xgt / uej kɔf gp gt " Ngi kɔt wpi gp0 C mgt f kpi u' ukp f " f kɔ" cwu" ut wmwtp o gej cpkuej gt " Ulej v' i Āpuk / i gp " Ngi kɔt wpi gp" d | y 0' Ngi kɔt wpi unqo dlpɔc wkp gp" plej v' ko o gt " j gkĒi kĒi h' gk' uej o gn / uej y gkĒ dct0

Ko "Tc j o gp" f kɔgugu" Ucej xgt j cnu" dgħcĒv' uej " f kɔ" xqtriki gpf g" Ct dgk' o k' f gt " Cpcn\ ug wpf " F ctuvgmwpi " f gt " Rtq | gĒs wrk@ / uqy kɔ" f go " J gkĒi kĒi xgt j c nɔgp" xqp" nɔugt ut c j nɔi / uej y gkĒv' gp" Cnwo kpkwo nɔi kɔt wpi gp" hĀ " f kɔ" Nwħc j t 0F kɔ" wpvgt uwej vgp " Xgt dkp f wpi gp dguv j gp" cwu" J cnd | gwi gp" f gt " i nɔlej gp" Ngi kɔt wpi gp" qf gt " wpvgt uej kɔf nɔlej gp" Ngi kɔ / t wpi ur cct wpi gp0

F kɔ" gkpi gɔpgp" Mcr kgn' ukp f " uq" cwħi gdcw. " f cĒi k' p" gkpgt " Mcr kgn' dgt ukej v' f kɔ" k' j c nɔg' wpf f gt " f c | w' dgp ¾ ki v' g' J k' pvgti twpf " gkpgkɔgp f " gtm@ v' ukp f " wpf " co " Gpf g" gkpgu' l gf gp" Mcr k' vgn' f kɔ" y gupv' kɔj gp" Gti gdpkueg" f gu" Mcr kgn' | wuco o gpi ghcĒv' ukp f 0\ wi wpuvgp" f gt cpi ghĀ j tvgp" k' j c nɔg' y k' f " k' p' f kɔugt " Ctdgk' cwħ' CwħĀ j twpi gp' | wI twpf nɔi gp" f gt " Ncuɔt / ut c j nɔ vgnp. " f gt " Ncuɔt ut c j nɔ tqr ci cwkp" wpf " f gt " Cprci gpv' e j plm' xgt | lej v' g' 0I gi g / dgpghc mu' y k' f " ko " Gkp | ghc n' f ctcwħ' gkpi gi cpi gp" wpf " cwħ' gk' puej n@ ki g" Nkgt cwt " xgt / y kɔg p0