User report

Vintage car restoration

Forming

Name	Kraftformer
Type	User KF 340 Piccolo
ID no.	00000064637
Year of manufacture	2012
Order	
Quantity	1 unit
Other equipment	

Client	Oldtimer-Restauration Weinberg
Location	Zetel (Germany)
Project	Hanomag Rekord Diesel
Purpose	Car body hull restoration
Start of project	2012
Completion of project	31/05/2018
World premiere	31/05/2018

Task:

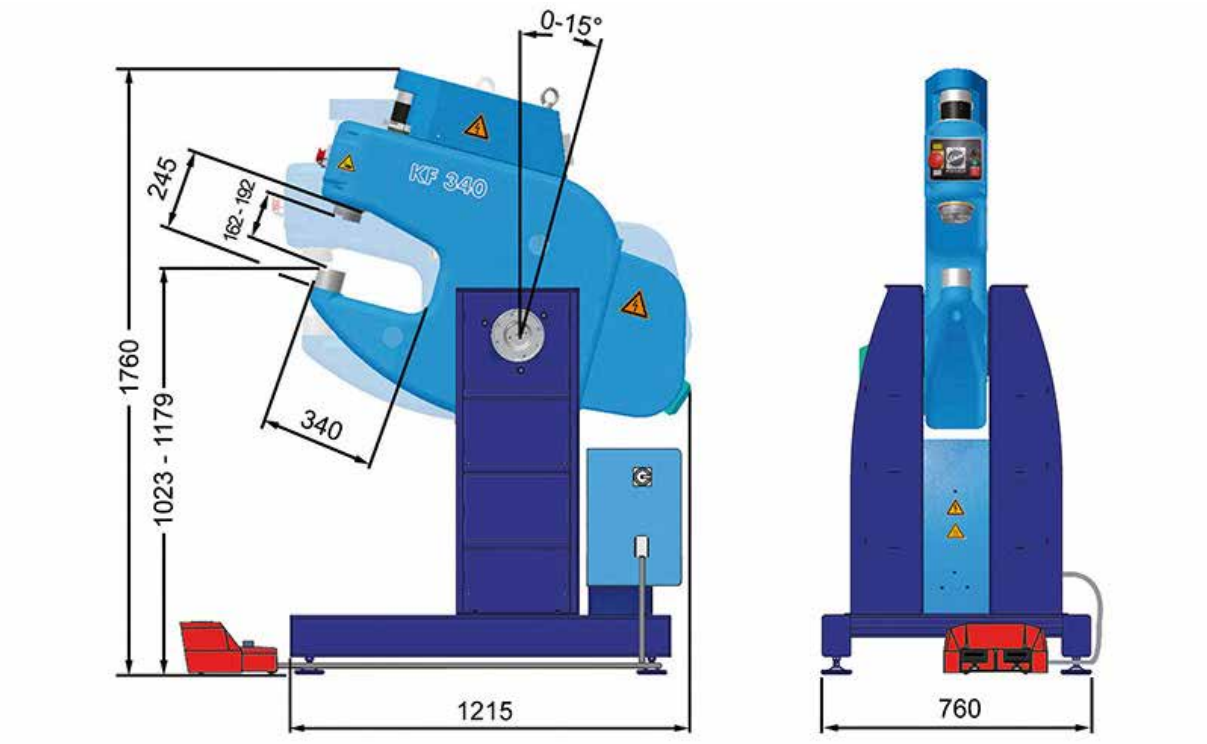
Complete reconstruction of Hanomag record-breaking Diesel from 1939. Car restoration professionals use advanced forming machines such as the Eckold Kraftformer to produce a tailor-engineered aluminium car body hull. The 1.5 mm aluminium sheets are brought into shape by means of stretching and shrinking. In total, about 32 square metres of aluminium sheet metal (Al 99.5) are machined to complete the hull. Eckold is heavily involved in this highly successful project.

Solution:

The streamlined sheet metal hull was reproduced from scratch purely on the basis of photographs and some vague sketches, and had to be meticulously adjusted to match the existing chassis.
Eckold Kraftformers – from models “Piccolo” to “Magnum” – are among the most popular machines for metal sheet forming tasks, especially in vintage car restoration. With the Kraftformer, professionals can bend profiles, form sheet metal sections, produce new part, restore existing components and perform minute adjustments on a single machine. This is possible thanks to the comprehensive portfolio of tools available for Kraftformers. Tool changes take only seconds. According to the trade magazine “Oldtimer-Praxis”, Kraftformers are popular not only in vintage car restoration, but also in aircraft construction, rail vehicle production, shipbuilding as well as apparatus and vessel production, to name just a few fields of application.

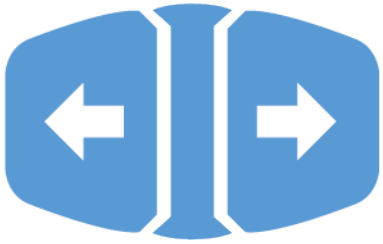
Name	Kraftformer
Type	KF 340
ID no.	00000064637
Drive system	Electric
Rated power	3.5 kW
Sheet metal thickness for forming	Steel (R_m = 400 mm²) max. 3.0 mm Al (R_m = 250 mm²) max. 4.0 mm Stainless steel (R_m = 600 mm²) max. 2.0 mm
Weight of Kraft-former	~ 485 kg

Ram adjustment	[A]	[mm]	30
Stroke		[mm]	8
Width (KF)	[X]	[mm]	760
Length (KF)	[Y]	[mm]	1215
Height (KF)	[Z]	[mm]	1760
Throat, horizontal	[B]		340
Throat, vertical	[C]		245

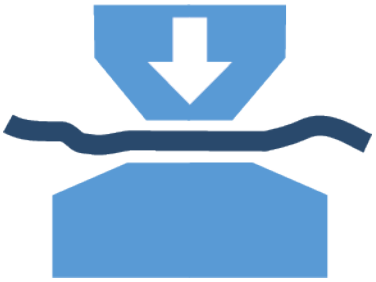


Designation	Forming tool
Type	LFA 90 S
Forming method	Shrinking
Special features	Plastic contact faces
suitable for	Light alloys and stainless steel
Sheet thickness	Steel (R_m = 400 mm^2) max. 1.5 mm
Sheet thickness	Stainless steel (R_m = 600 mm^2) max. 1.0 mm
Sheet thickness	Al (R_m = 250 mm^2) max. 2.0 mm

Designation	Forming tool
Type	LFR 90 S
Forming method	Stretching
Special features	Plastic contact faces
suitable for	Light alloys and stainless steel
Sheet thickness	Steel (R_m = 400 mm²) max. 1.5 mm
Sheet thickness	Stainless steel (R_m = 600 mm²) max. 1.0 mm
Sheet thickness	Al (R_m = 250 mm²) max. 2.0 mm



Designation	Planishing tool
Type	TP 25 S
Forming method	Planishing
Special features	Rubber-cushioned impact faces
suitable for	Planishing and polishing
Sheet thickness	Steel (R_m = 400 mm^2) 0.5 - 2.0 mm
Sheet thickness	Stainless steel (R_m = 600 mm^2) 0.5 - 2.0 mm
Sheet thickness	Al (R_m = 250 mm^2) 0.5 - 2.0 mm



Designation	Doming tool
Type	PFW 80 S
Forming method	Doming (crowning)
Special features	ø 80 mm
suitable for	
Sheet thickness	Steel (R_m = 400 mm^2) 0.5 - 2.0 mm
Sheet thickness	Stainless steel (R_m = 600 mm^2) 0.5 - 2.0 mm
Sheet thickness	Al (R_m = 250 mm^2) 0.5 - 2.0 mm

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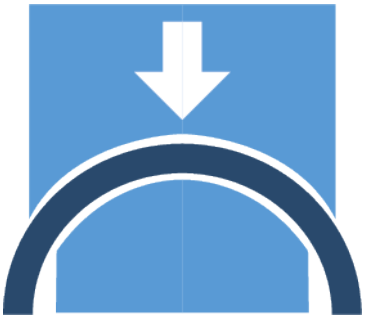
Designation	Reforming tool
Type	WT 100 T / NFW
Forming method	Planishing and calibrating
Special features	Exchangeable inserts
suitable for	Finishing with custom-shaped tools
Sheet thickness	Steel (R_m = 400 mm^2) 2.0 mm
Sheet thickness	Stainless steel (R_m = 600 mm^2) 2.0 mm
Sheet thickness	Al (R_m = 250 mm^2) 2.0 mm



HANOMAG Rekord Diesel

At the Land Speed Records Dessau 1939 event,
Karl Häberle drove

at 155.954 km/h over five kilometres from a flying start
at 155.450 km/h over five miles from a flying start
at 86.870 km/h over one kilometre from a standing start
at 98.481 km/h over one mile from a standing start

His records remained unbroken until the late 1950s.

Drive system:	Diesel engine 1.9 l
Vehicle weight	900 kg