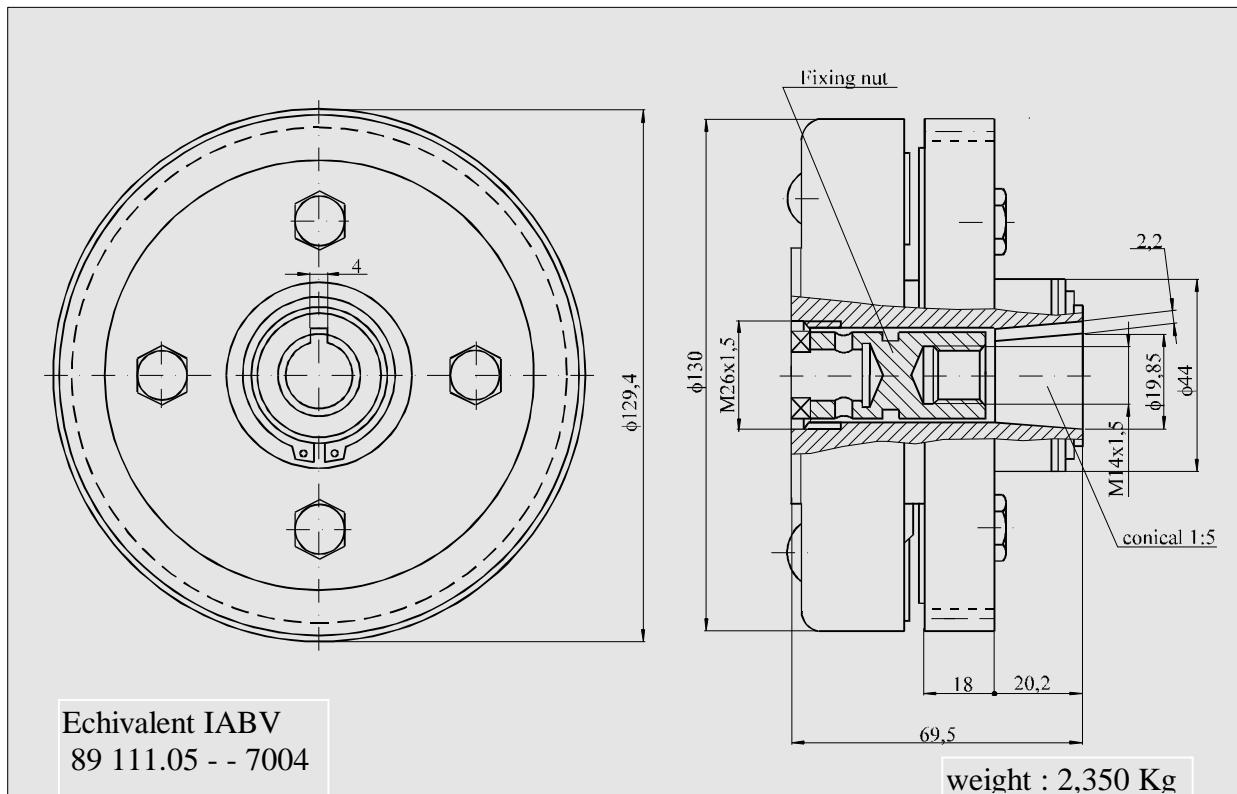




AUTOMATIC SPILL POINT VARIATOR VARIATOARE AUTOMATE DE AVANS

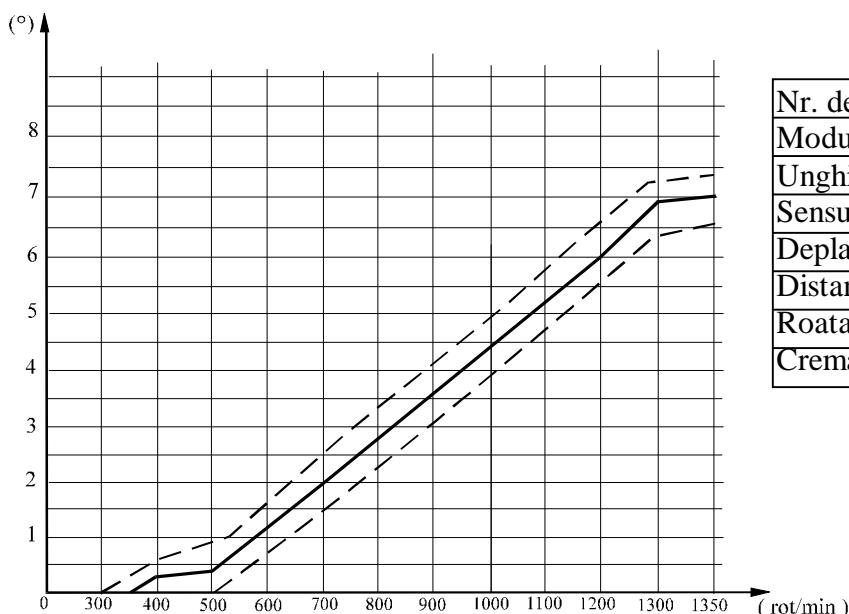
VARIATOR 0 825 111 003
RO - EP/SAZ 500 - - 1300 B 7 R3 type



Constructie centrifugala

- * Domeniu de functionare: 500 - 1300 rot/min
- * Utilizare: motoare 797 - 05 autocamion supraalimentat 798 - 05 combina C14
- * Unghiul maxim de variație al avansului : 7 grd.
- * Sensul de rotație privit dinspre antrenare : orar

- * Application field: 500 - 1300 rot. per minute
- * Engines: 797 - 05 Truck 798 - 05 Combine C14
- * Maximum variation angle of advance: 7 drg.
- * Revolving sense (looked from driving-side): clockwise

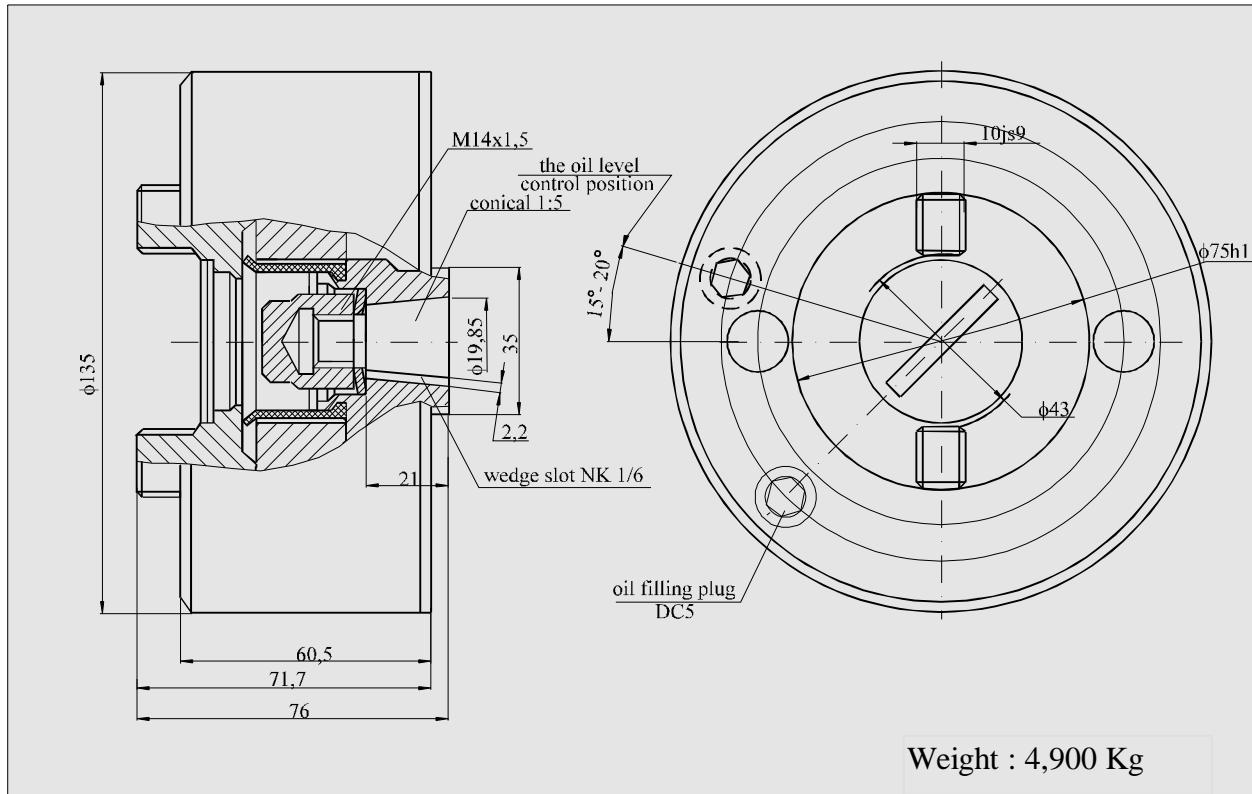


Nr. de dinti	60
Modulul normal	2
Unghiul de inclinare	20°
Sensul inclinarii	stanga
Deplasarea specifica	- 1,157
Distanta intre axe	141,389 - 0,018
Roata conjugata z ₁	74
Cremaliera de referinta	20° - 1 - 0,25

VARIATOR

0 425 026 987

RO - EP / SA 400 - -1100 B6 DL 104 type



* Domeniu de functionare: 400 - 1100 rot/min

* Utilizare: motoare D - 2156 HMU 81 U

autobuz D - 2156 HM 85 U }Fabricate in
orizontal D - 2156 HM 6 U Ungaria

* Conul de antrenare:diam. 20 mm

* Unghiul maxim de variație al avansului : 6 grd.

* Sensul de rotație privit dinspre antrenare : antiorar

* Ulei utilizat : T90 EP2 STAS 8960 - 71

* Application field: 400 - 1100 rot. per minute

* Engines: D - 2156 HMU 81 U

D - 2156 HM 85 U

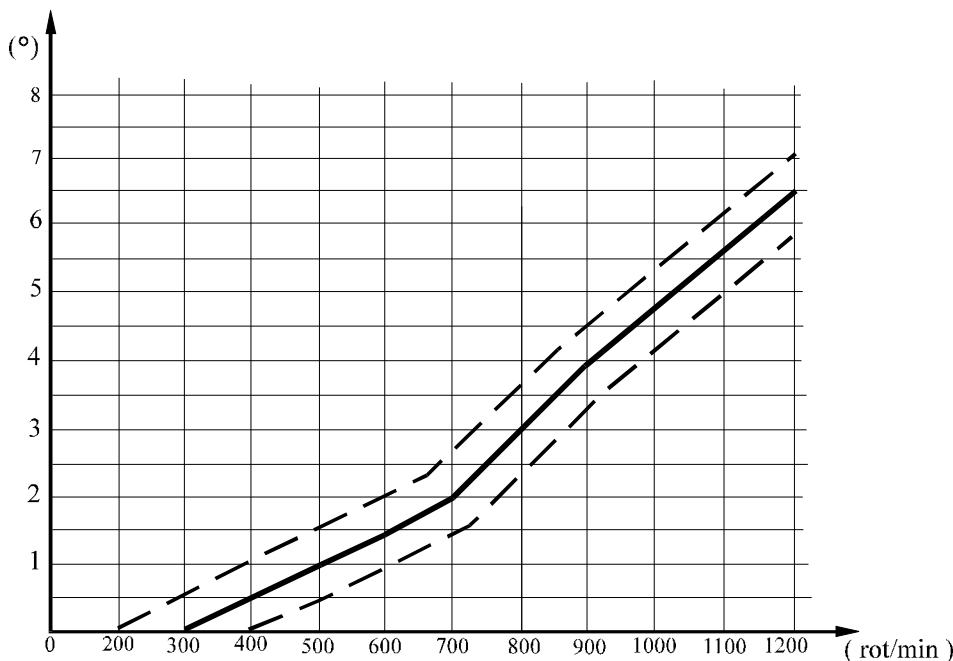
D - 2156 HM 6 U

* Driving cone:diam.20 mm

* Maximum variation angle of advance: 6 drg.

* Revolving sense (looked from driving - side): anti-clockwise

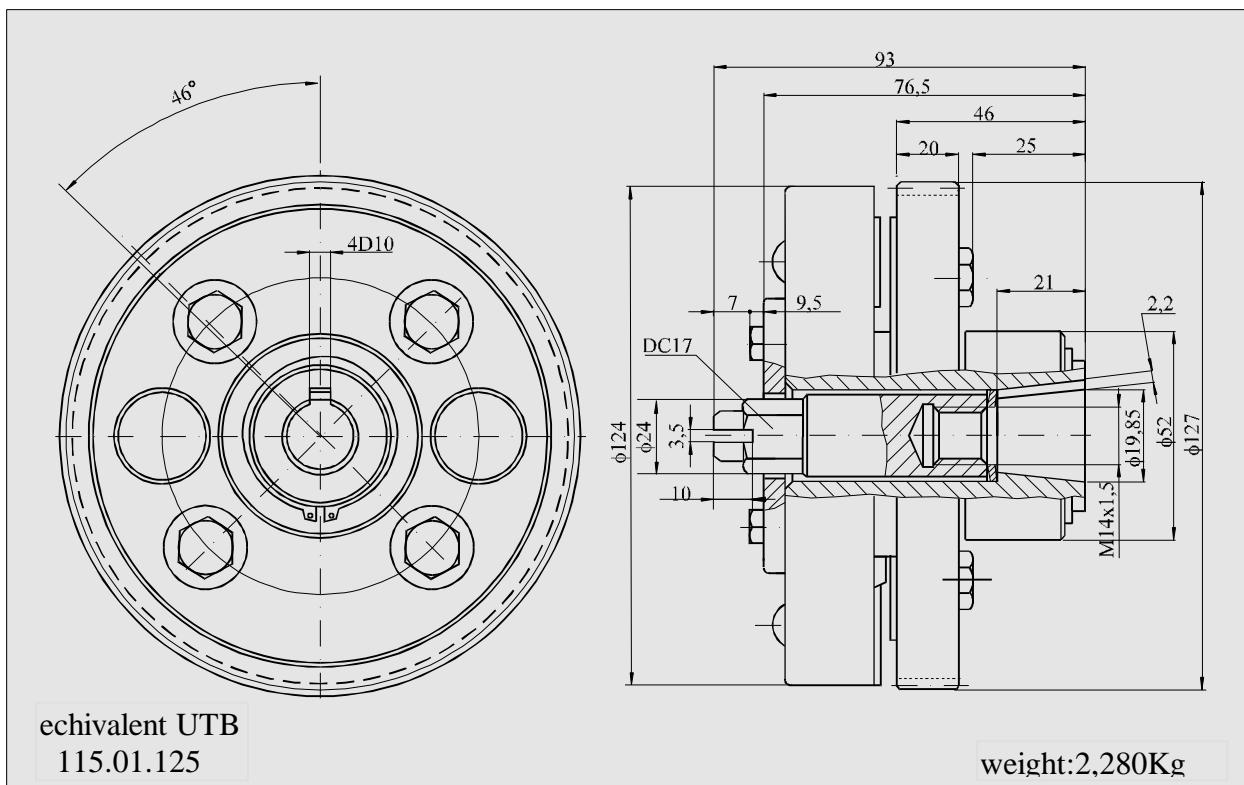
* Oil used : T90 EP2 STAS 8960 - 71



VARIATOR

0 825 111 004

RO - EP/SAZ 500 - 1200B 5, 5 R 10 type



* Domeniul de utilizare: 400 - 1200 rot/min

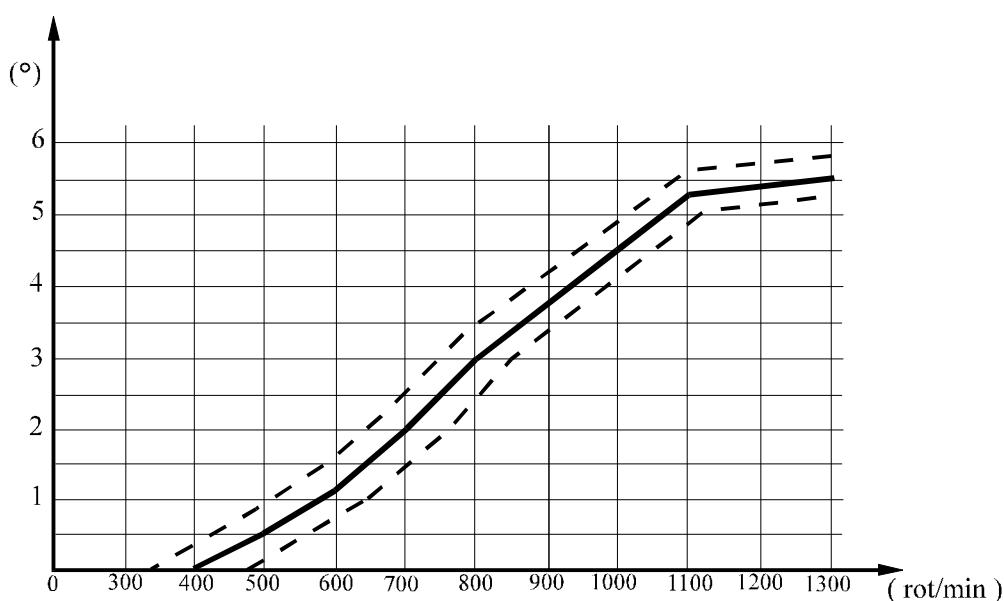
* Utilizare: motoare D 2601 - 050
D 2601 - 010

* Unghiul maxim de variație al avansului : 6 grd.
* Sensul de rotație privit dinspre antrenare : orar
* Ulei utilizat : T90 EP2 STAS 8960 - 71

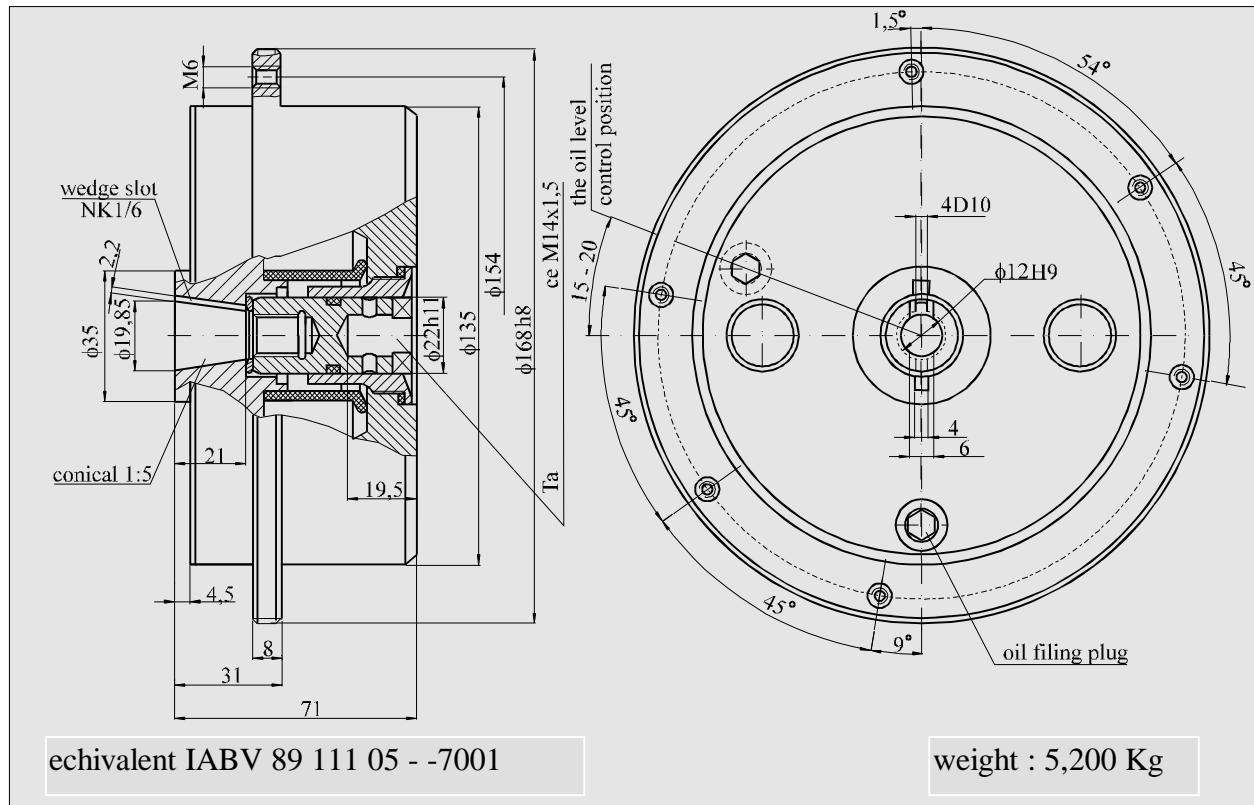
* Application field: 400 - 1200 rot. per minute

* Engines: D 2601 - 050
D 2601 - 010

* Maximum variation angle of advance: 6 drg.
* Revolving sense (looked from driving - side): clockwise
* Oil used : T90 EP2 STAS 8960 - 71

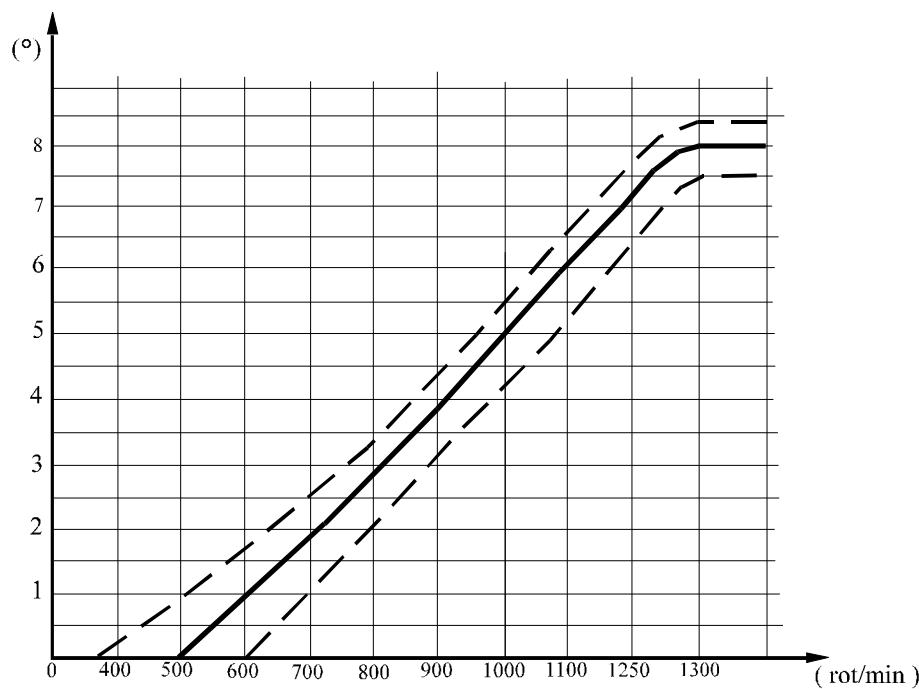


VARIATOR B 425 042 017
RO - EP/SAZ 500 - - 1250 B 8 RV 1603 type

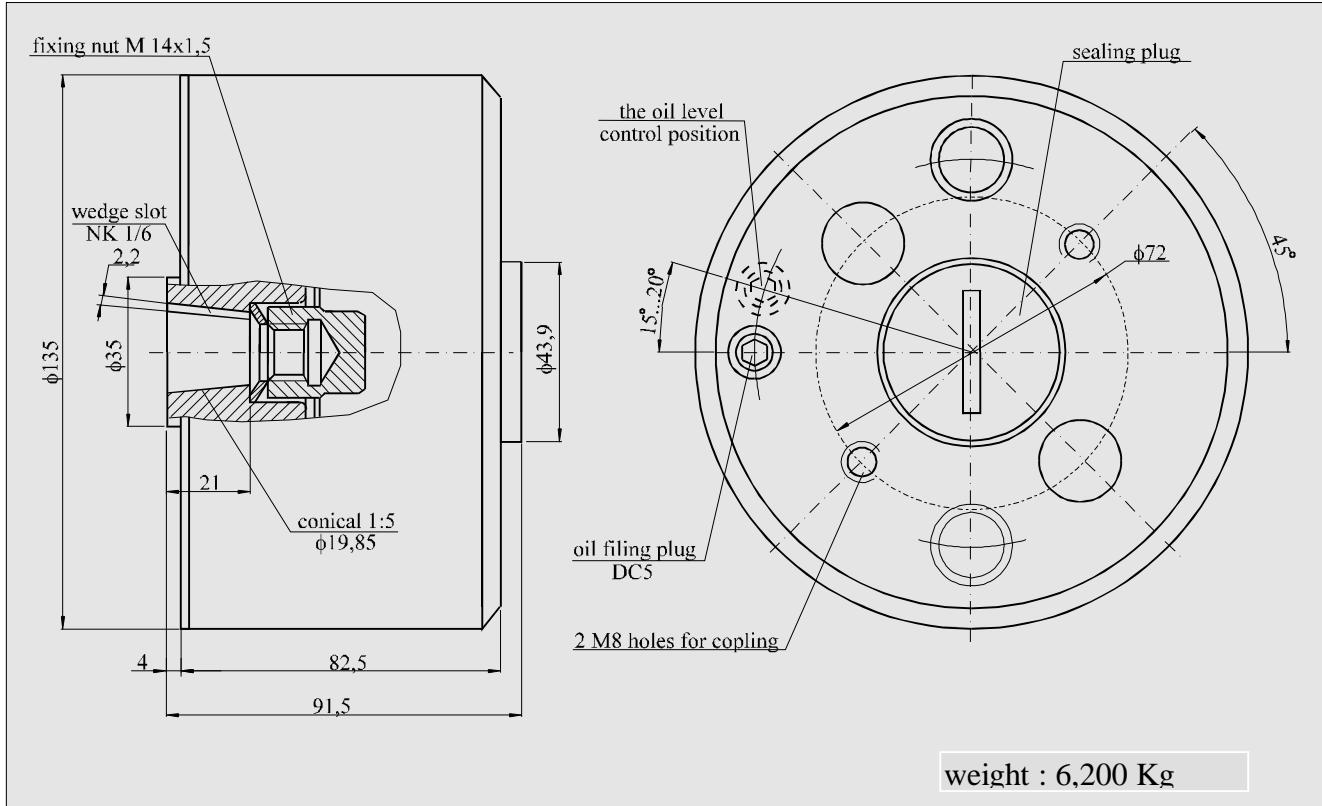


- * Domeniu de functionare: 500 - 1250 rot/min
- * Utilizare: motoare D - 2156 HMN8, D - 2156 HMN4
D - 2156 MTN 8, D - 2356 HMN8
D - 128, D - 131
- * Unghiul maxim de variație al avansului : 8 grd.
- * Sensul de rotație privit dinspre antrenare : orar
- * Ulei tilizat : T90 EP2 STAS 8960 - 71
Coroana dintata se monteaza la Brasov

- * Application field: 500 - 1250 rot. per minute
- * Engines: D - 2156 HMN8, D - 2156 HMN4
D - 2156 MTN 8, D - 2356 HMN8
D - 128 , D - 131
- * Maximum variation angle of advance: 8 drg.
- * Revolving sense (looked from driving - side): clockwise
- * Oil used : T90 EP2 STAS 8960 - 71

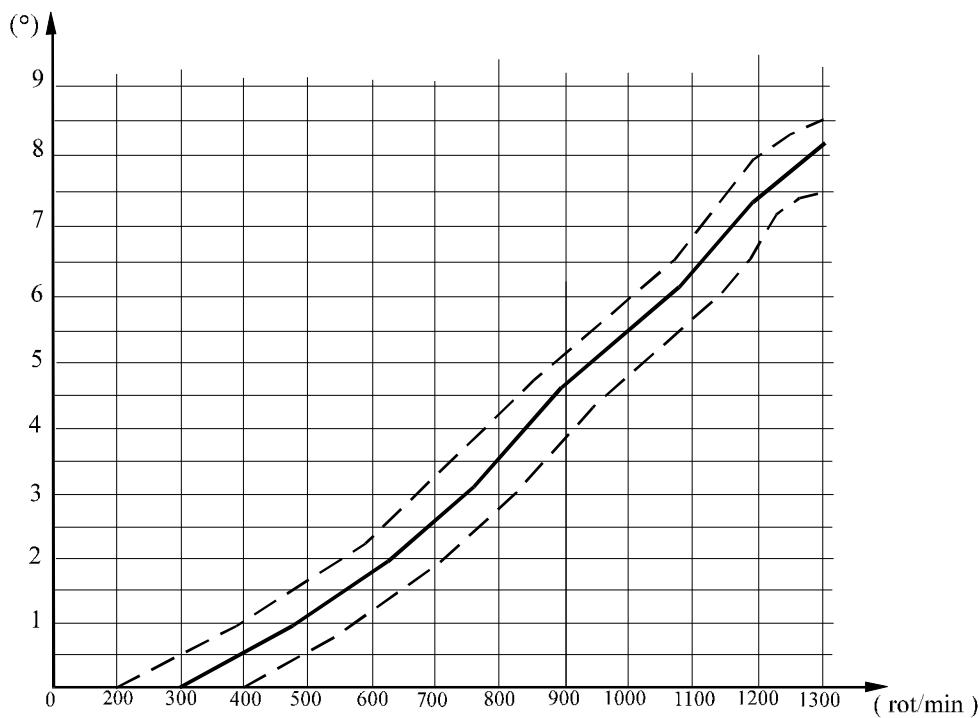


VARIATOR 0 825 016 001
RO - EP/SA/ 400 - - 1200 B8 R2 type



- * Domeniu de functionare: 400 - 1200 rot/min
- * Utilizare: motoare 1990 - V12D
- * Unghiul maxim de variație al avansului : 8 grd.
- * Sensul de rotație privit dinspre antrenare : dreapta
- * Ulei utilizat : T90 EP2 STAS 8960 - 71

- * Application field: 400 - 1200 rot. per minute
- * Engines: 1990 - V12D
- * Maximum variation angle of advance: 8 drg.
- * Revolving sense (looked from driving - side): right
- * Oil used : T90 EP2 STAS 8960 - 71



VARIATOR 0 825 111 013

RO - EP/SAZ 600 - - 1300 B 5,5S1

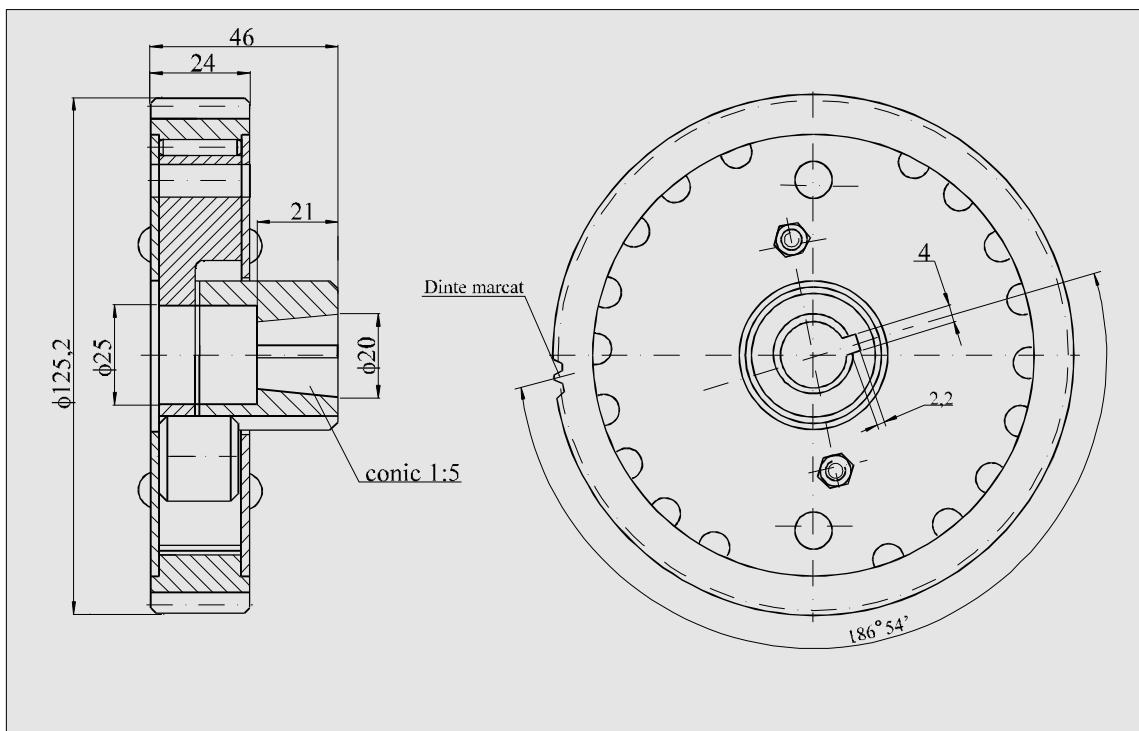
0 825 111 014

RO - EP/SAZ 500 - - 1800 B7,5 S1

motor - engine

D - 127

L - 27 ARO



* Domeniu de functionare: 550 - 1800 rot/min

* Utilizare: motoare D 127 Brasov

* Unghiul maxim de variație al avansului : 5,5 grd.

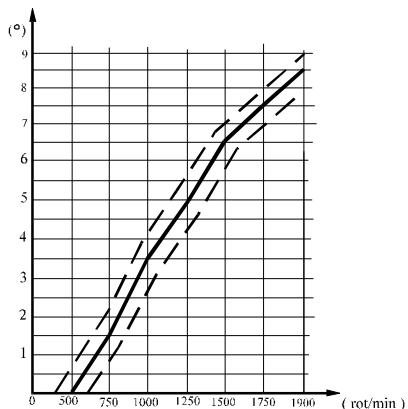
* Sensul de rotație privit dinspre antrenare :antiorar

* Application field: 550 - 1800 rot. per minute

* Engines: D 127 Brasov

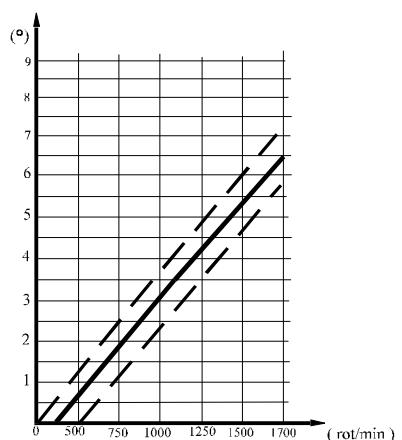
* Maximum variation angle of advance: 5,5 drg.

* Revolving sense (looked from driving - side): anti-clockwise



0 825 111 014

Numarul de dinti	z	80
Modulul normal	m_n	1,5
Unghiul de inclinare al dintelui	β	16^0
Sensul inclinării dintelui	-	stanga
Cremaliera de referinta	$\alpha_0 - f_0 - w_0$	$14^0 30' - 1,1 - 0,45$
Deplasarea specifica a profilului	ϵ	-0,924



0 825 111 013

Numarul de dinti	z	46
Modulul normal	m_n	2,5
Unghiul de inclinare al dintelui	β	$41^0 25' 35''$
Sensul inclinării dintelui	-	stanga
Cremaliera de referinta	$\alpha_0 - f_0 - w_0$	$20^0; 1; 0,25$
Deplasarea specifica a profilului	ϵ	0,1531

VRIATOR

0 825 111 009

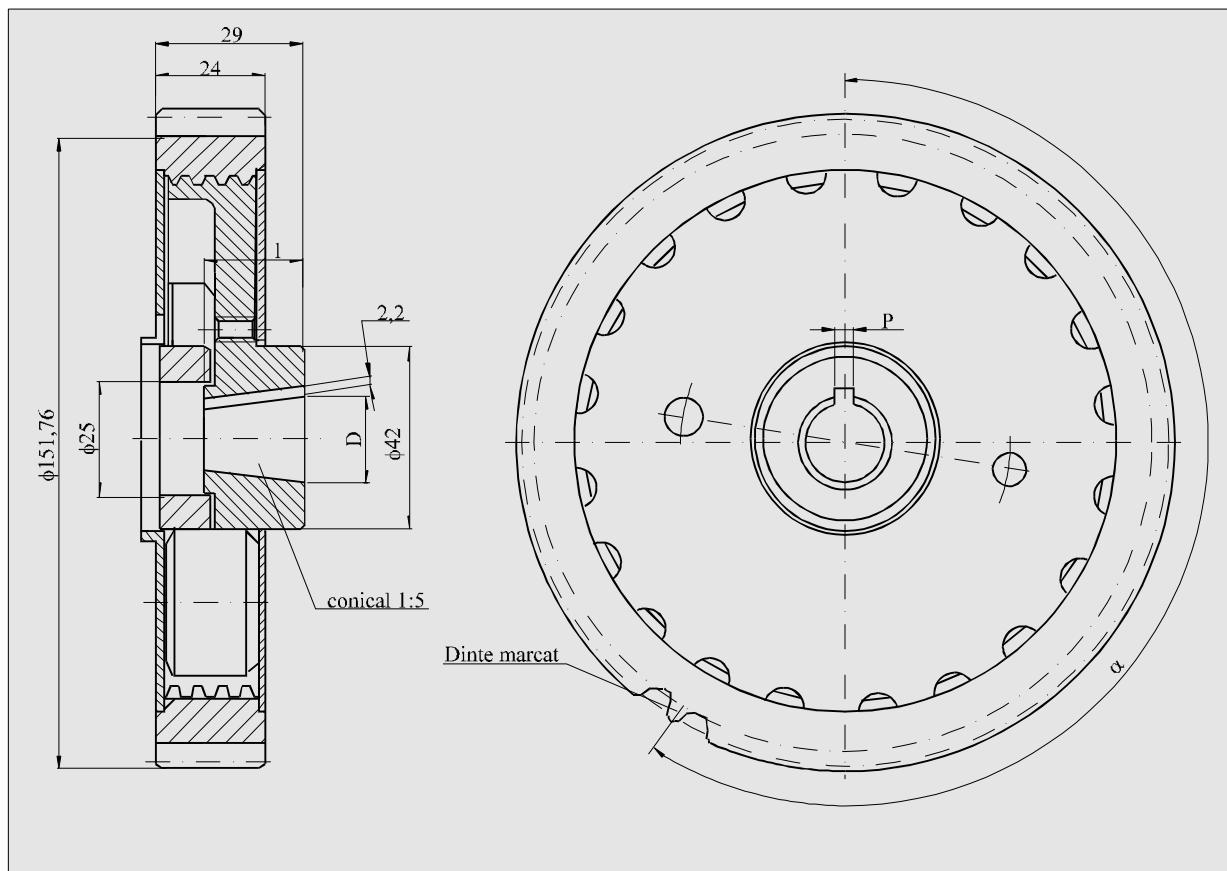
RO - EP/SCZ 650 - - 1300 B 5,5 S1

0 825 111 010

RO - EP/SCZ 650 - - 1300 A 5,5 S1

D a p
F 20 - 0,1 140⁰ 4

F 17 - 01 137⁰ 3



* Domeniu de functionare: 500 - 1400 rot/min

* Utilizare: motoare tip VAMO D3900 A

* Unghiul maxim de variație al avansului : 5,5 grd.

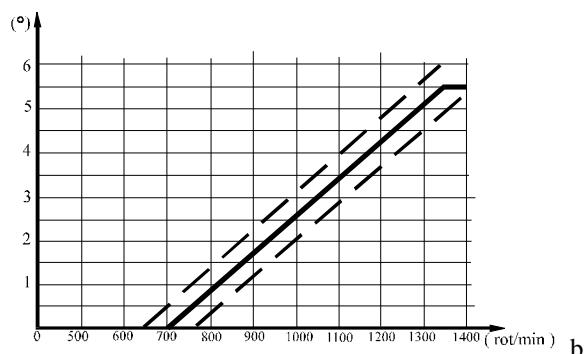
* Sensul de rotație privit dinspre antrenare : orar

* Application field: 500 - 1400 rot. per minute

* Engines: VAMO type D3900 A

* Maximum variation angle of advance: 5,5 drg.

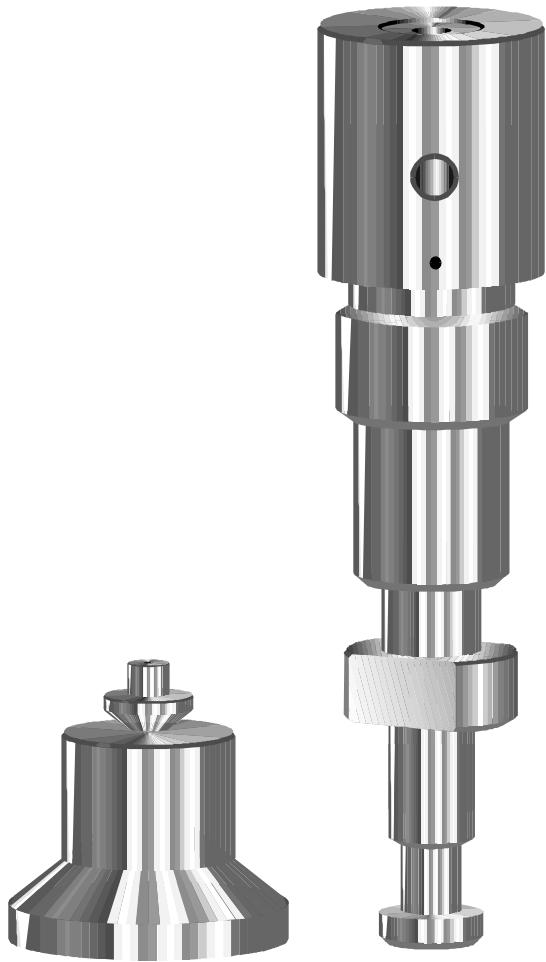
* Revolving sense (looked from driving - side): clockwise



0 825 111 009

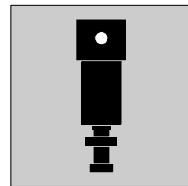
0 825 111 010

Numarul de dinti	z	56
Modulul normal	m_n	2,54
Unghiul de inclinatie	β	14 ⁰ 8 ¹
Sensul de inclinatie	-	dreapta
Cremaliera de referinta		20 ⁰ - 1 - 0,25



INJECTION ELEMENTS

ELEMENTI DE INJECTIE



GENERALITATI

Elementul de pompare este un ansamblu important al pompei de injectie. Acesta, comprima combustibilul la o presiune foarte ridicata si asigura trimitera acestuia catre motor prin intermediul injectoarelor, intr-o cantitate corespunzatoare cerintelor motorului. In acelasi timp, elementul de pompare realizeaza inceputul procesului de injectie la un moment bine stabilit precum si o durata determinata a acestuia, asigurand o functionare economica si nepoluanta a motorului.

Elemenutul de pompare este compus din: pistonas si o bucsa, prelucrate cu tolerante foarte stranse pentru a micsora scaparile de combustibil in timpul procesului de injectie. Intrucat elementul de pompare este un ansamblu foarte precis imperecheat, nu se admite inlocuirea separata a pieselor componente.

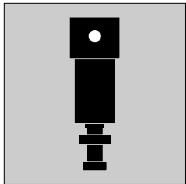
GENERAL DATES

The pumping element is a main subassembly of the fuel injection pump. It raises the pressure of the fuel at a very high level and forces it through the injectors and at a metered quantity to the combustion chamber of the engine. At the same time, the pumping element ensures the starting moment of the injection process and its duration, being also responsible for the performances of the engine in the terms of fuel economy and exhaust emission.

The pumping element has a piston and a barrel manufactured within very tight tolerances, to avoid fuel leakage during the injection process .

The pumping element is an assembly high accurate matched and this is the reason which for its components are not interchangeable.

	Caracteristici constructive ale elementilor	Elements constructive characteristics
1	Inceputul debitarii-constant	Delivery begining-constant
2	Inceputul debitarii-variabil	Delivery begining-variable
3	Sfarsitul debitarii-constant	Delivery end-constant
4	Sfarsitul debitarii-variabil	Delivery end-variable
5	Nut de start	Start chanel
6	Limitare debit pornire	Start delivery limitation
7	Cu drenarea scaparilor	With the
8	Cu ungere	With greasing

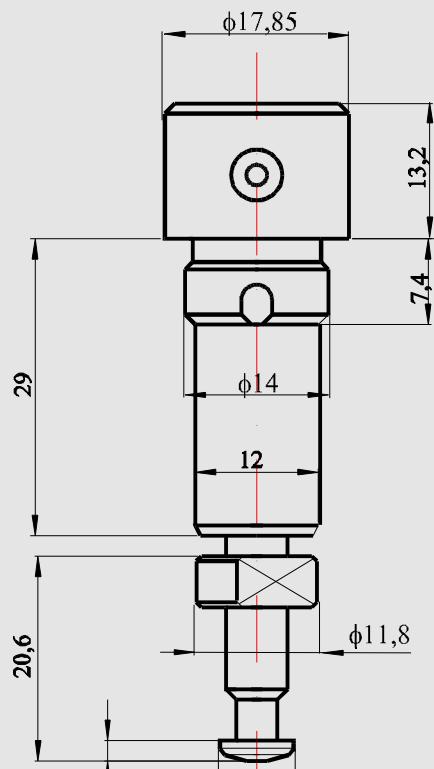


element asamblat

1	2	3	4	5	6	7	8
●			●			●	

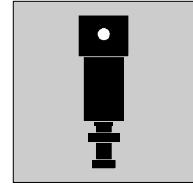
ϕ conform tabel	Diametral Pitch	Sense S
----------------------------	-----------------	------------

Reper/Item	Diametru Diameter	Utilizare/Used on
P406 - 15	9	Tractor U - 650
P426 - 15	9,5	Motor MAN/MAN engine
P427 - 15	9	Motor MAN/MAN engine
P431 - 15	9	
P432 - 15	7,5	Algeria
P410 - 15	7	
1 818 325 006		



Netto weight : 0,055 Kg

Reper /Item	Echivalent cu		Equivalent with		
	MEFIN	BOSCH	DUAP	MOTORPAL	OMAP
P406-15	1 418 325 095	1 418 325 095	PE 1 418 325 095	60 010-15	OEP 6121A
P427-15	1 418 325 039	1 418 325 039	PE 1 418 325 039		OEP 6119A



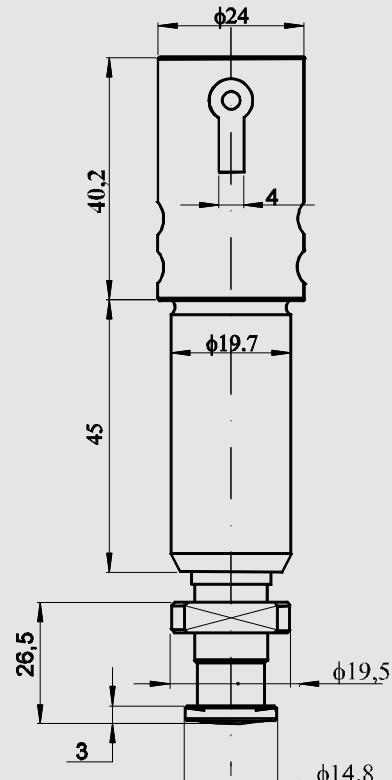
Element asamblat

P400-15

Motor naval 12-180
Naval engine 12-180

1	2	3	4	5	6	7	8
●			●			●	
Φ	Diametral Pitch			Sense			
13	27,6			S			

Netto weight : 0,260 Kg

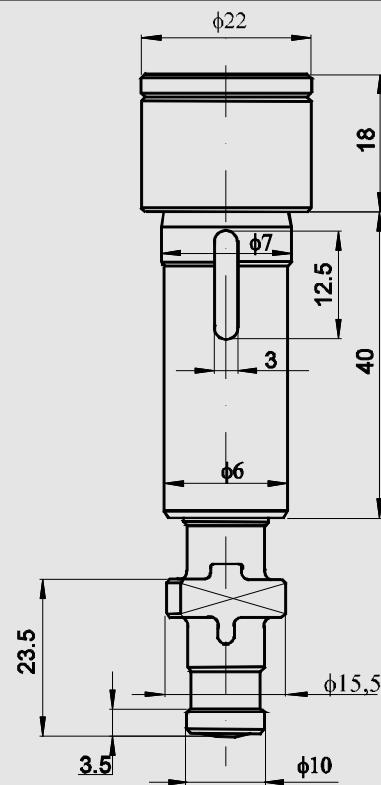


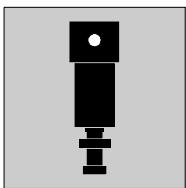
element asamblat

P403-15

Motor naval 8DVT-330
Naval engine 8DVT-330

1	2	3	4	5	6	7	8
Φ	Diametral Pitch			Sense			
11	20			S			



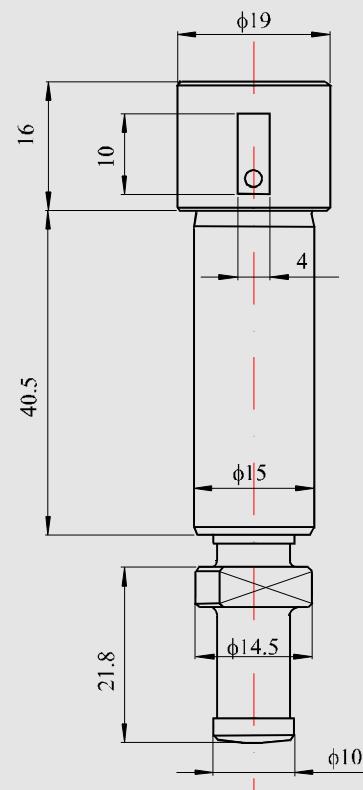


Element asamblat

P415-15

Motor naval SW 680 Lyland
Naval engine SW 680 Lyland

1	2	3	4	5	6	7	8
●			●			●	
ϕ	Diametral Pitch			Sense			
10 (9)	18 (24)			S (D)			

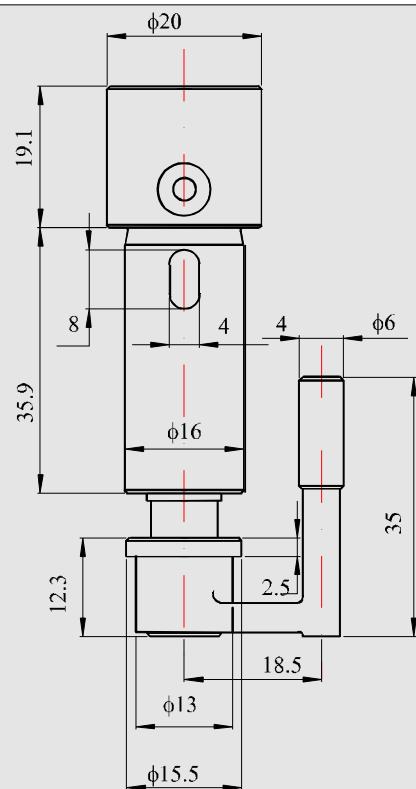


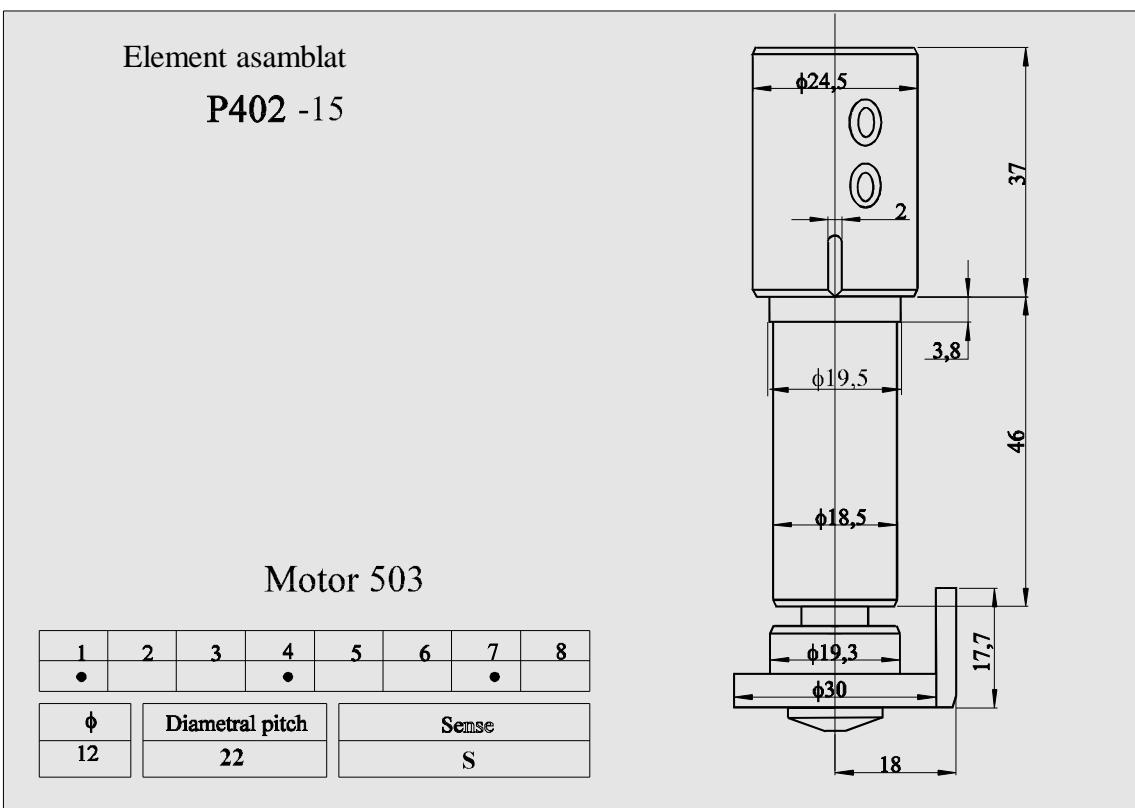
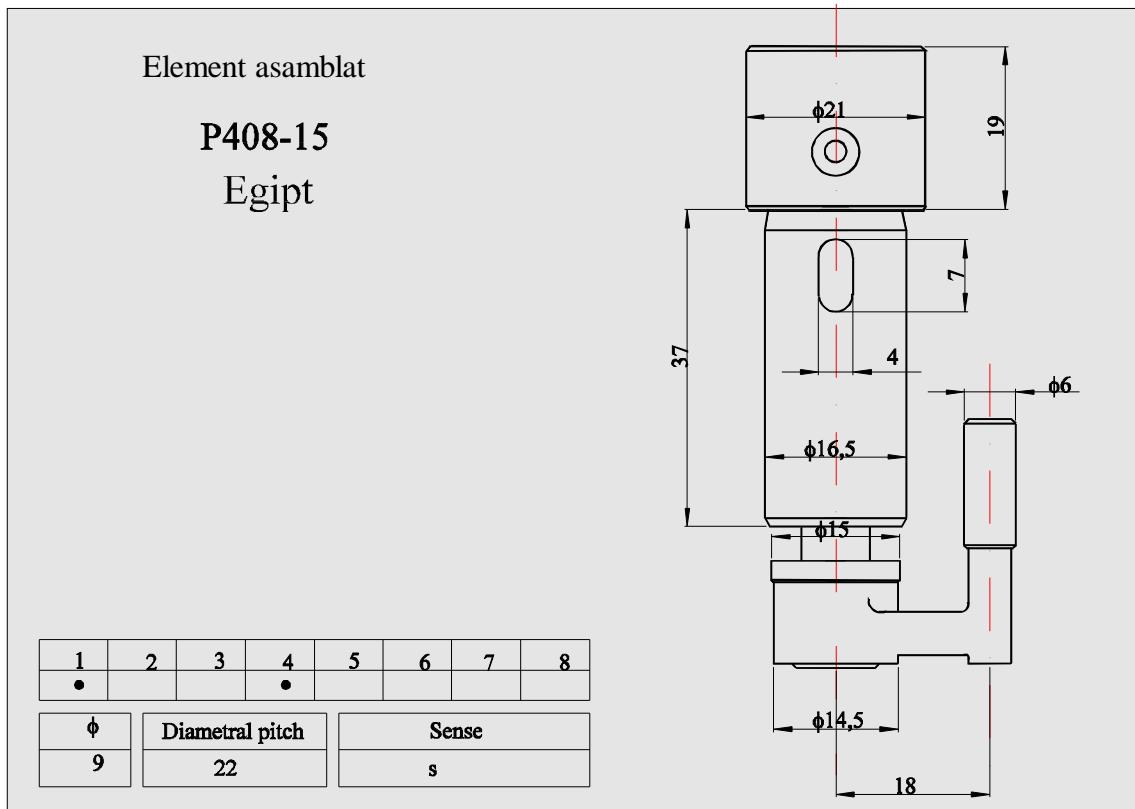
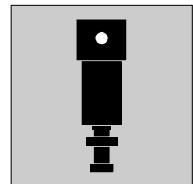
Element asamblat

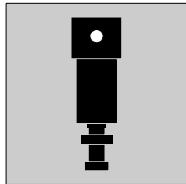
P414-15

Motor naval AD 1M
Naval engine AD 1M

1	2	3	4	5	6	7	8
●			●			●	
ϕ	Diametral Pitch			Sense			
10	38			S			







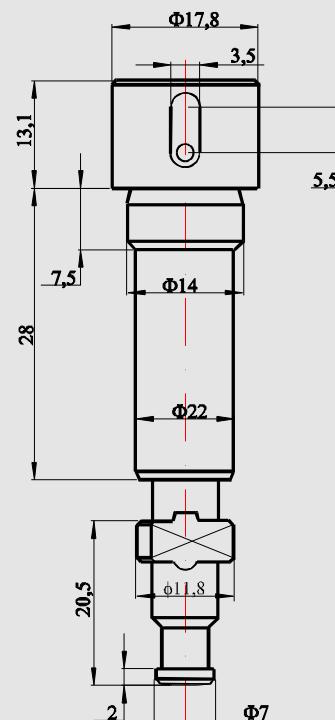
Element

P404-15

Motor RABA

1	2	3	4	5	6	7	8
•					•	•	
φ	Diametral pitch		Sense				

9							
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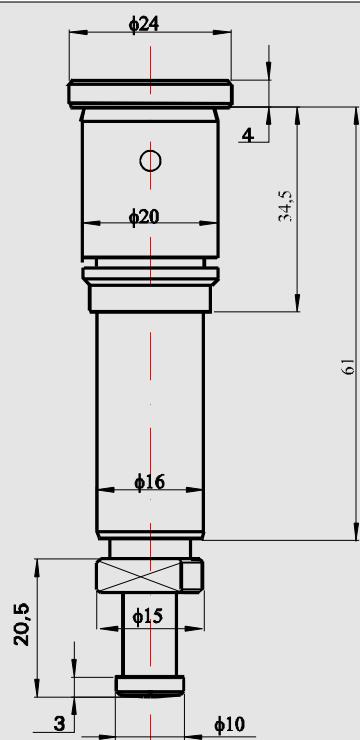


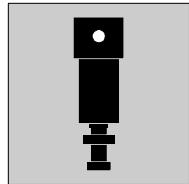
Element

P433 - 15

1	2	3	4	5	6	7	8
x		x					
φ	Diametral pitch		Sense				

12							
----	--	--	--	--	--	--	--

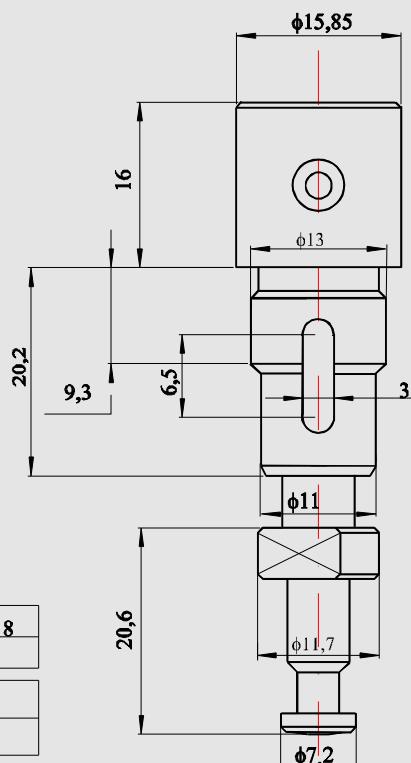




Element asamblat

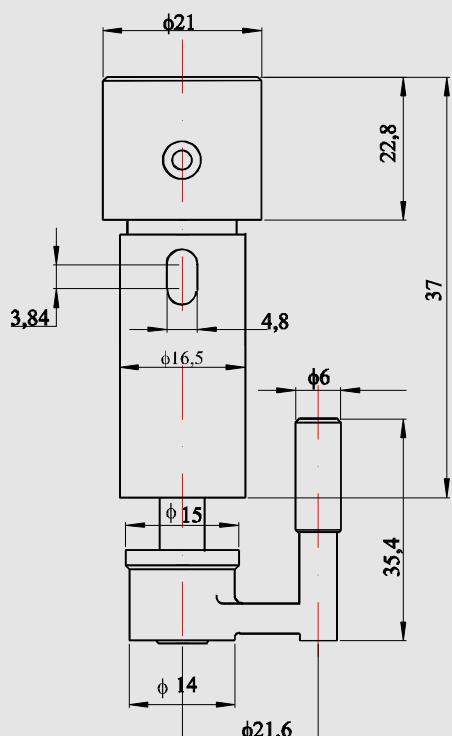
P405-15

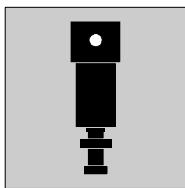
Egipt



Element asamblat
P407-15

Egipt





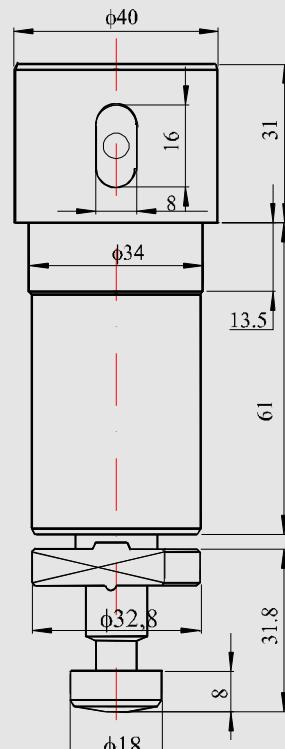
Element

P99-15S

Motor 5T 23 IH SW 266/m
E

1	2	3	4	5	6	7	8
●			●			●	
φ	Diametral Pitch			Sense			
17	39,5			D			

Netto weight : 0,774 Kg



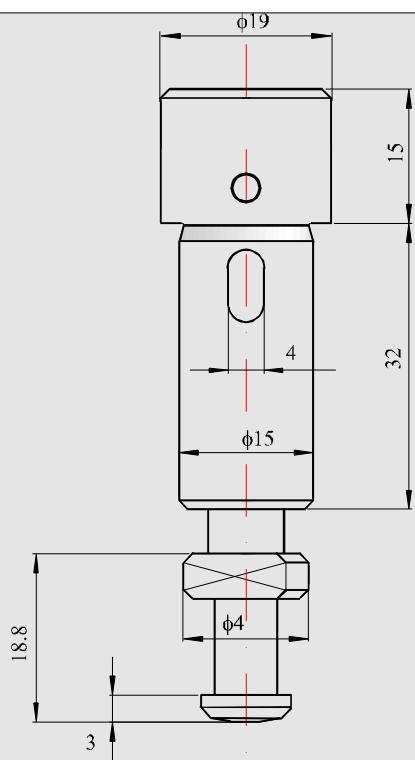
Element

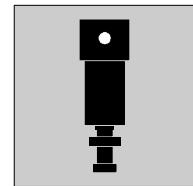
P97-15S

Motor SW 266/m5

1	2	3	4	5	6	7	8
●			●			●	
φ	Diametral Pitch			Sense			
8,5	18			D			

Netto weight : 0,072 Kg





Element

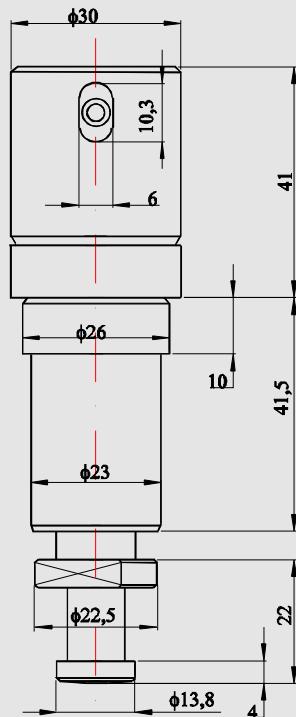
P416-15

Echivalent MEFIN
1 818 450 000 (p = 15)
1 818 450 001 (p = 25)

Motor naval 6NUD 26 A2
Naval engine 6NUD 26 A2

1	2	3	4	5	6	7	8
•			•		•	•	•

ϕ	Diametral pitch	Sense
14	25 (15)	D

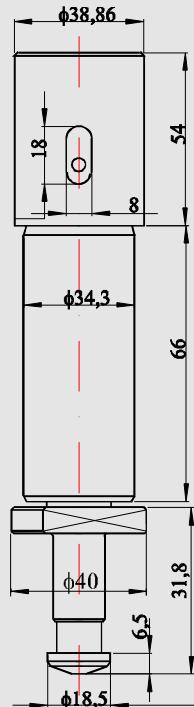


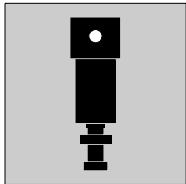
Element

P418-15

1	2	3	4	5	6	7	8
•			•		•		

ϕ	Diametral pitch	Sense
22	80,5	D





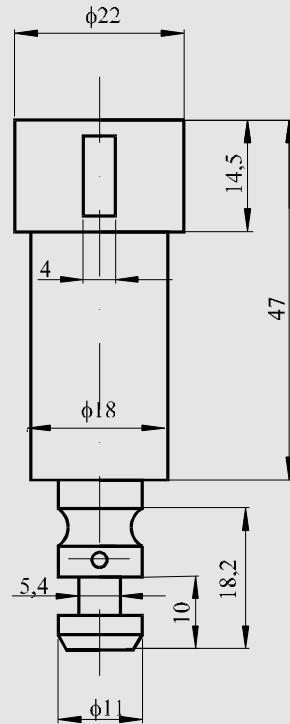
Element

P453 - 15

Motor S 80

1	2	3	4	5	6	7	8
•						•	•

ϕ	Diametral Pitch	Sense
11	12,5	D



Netto weight : 0,108 Kg

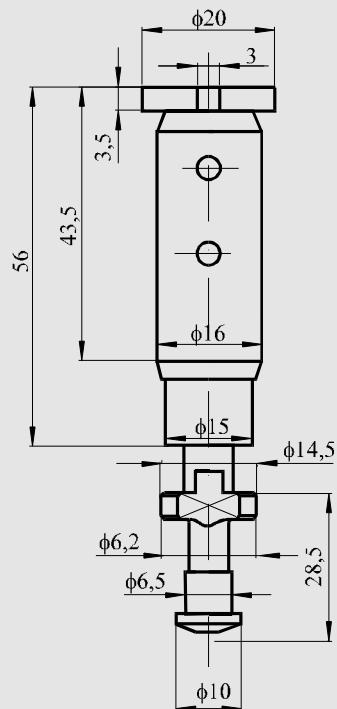
Element asamblat

P449 - 15

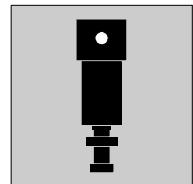
Motor IFA W 60

1	2	3	4	5	6	7	8
•						•	•

ϕ	Diametral Pitch	Sense
8,5		D



Netto weight : 0,165 Kg

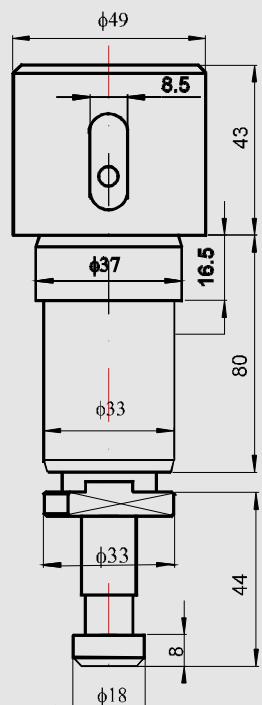


Element

P96-15

Motor naval
MAC 9M 453

1	2	3	4	5	6	7	8
•			•			•	
φ	Diametral Pitch			Sense			
24	50			D			



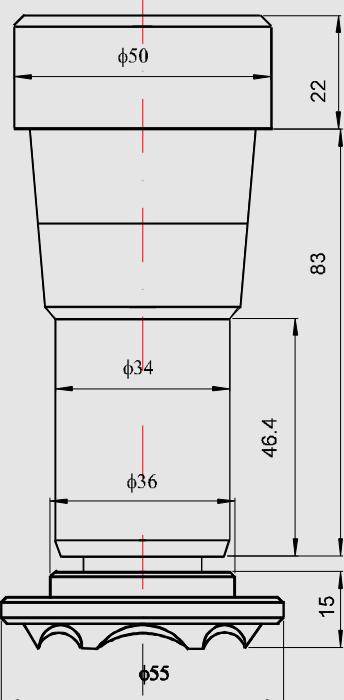
Netto weight : 1,092 Kg

Element

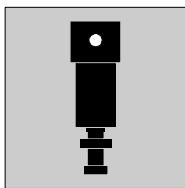
P95-15

Motor naval
TAD 36

1	2	3	4	5	6	7	8
•		•					
φ	Diametral Pitch			Sense			
23							



Netto weight : 1,032 Kg

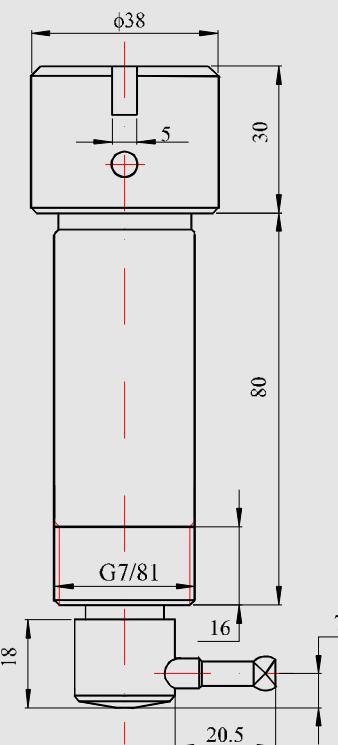


Element asamblat
P70-15DE $\phi 18$
P61-15 $\phi 16$

Motor naval
8 NVD 36 - 1

1	2	3	4	5	6	7	8
●			●			●	
ϕ 18	Diametral Pitch		Sense			D	

Netto weight : 0,736 Kg



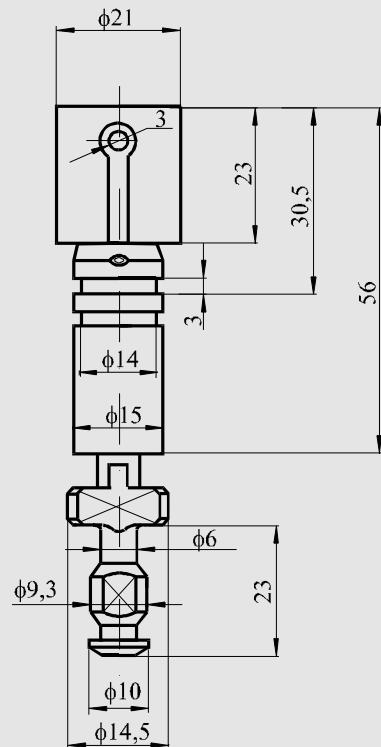
Element

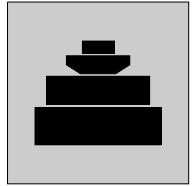
P444 - 15

Motor KAMAZ

1	2	3	4	5	6	7	8
	●		●			●	
ϕ 9	Diametral Pitch		Sense			S	

Netto weight : 0, 110





SUPAPE DE REFULARE

Supapa de refulare este un subansamblu de precizie al pompei de injectie. Ea are rolul de a controla debitul de combustibil trimis catre motor prin intermediul injectoarelor.

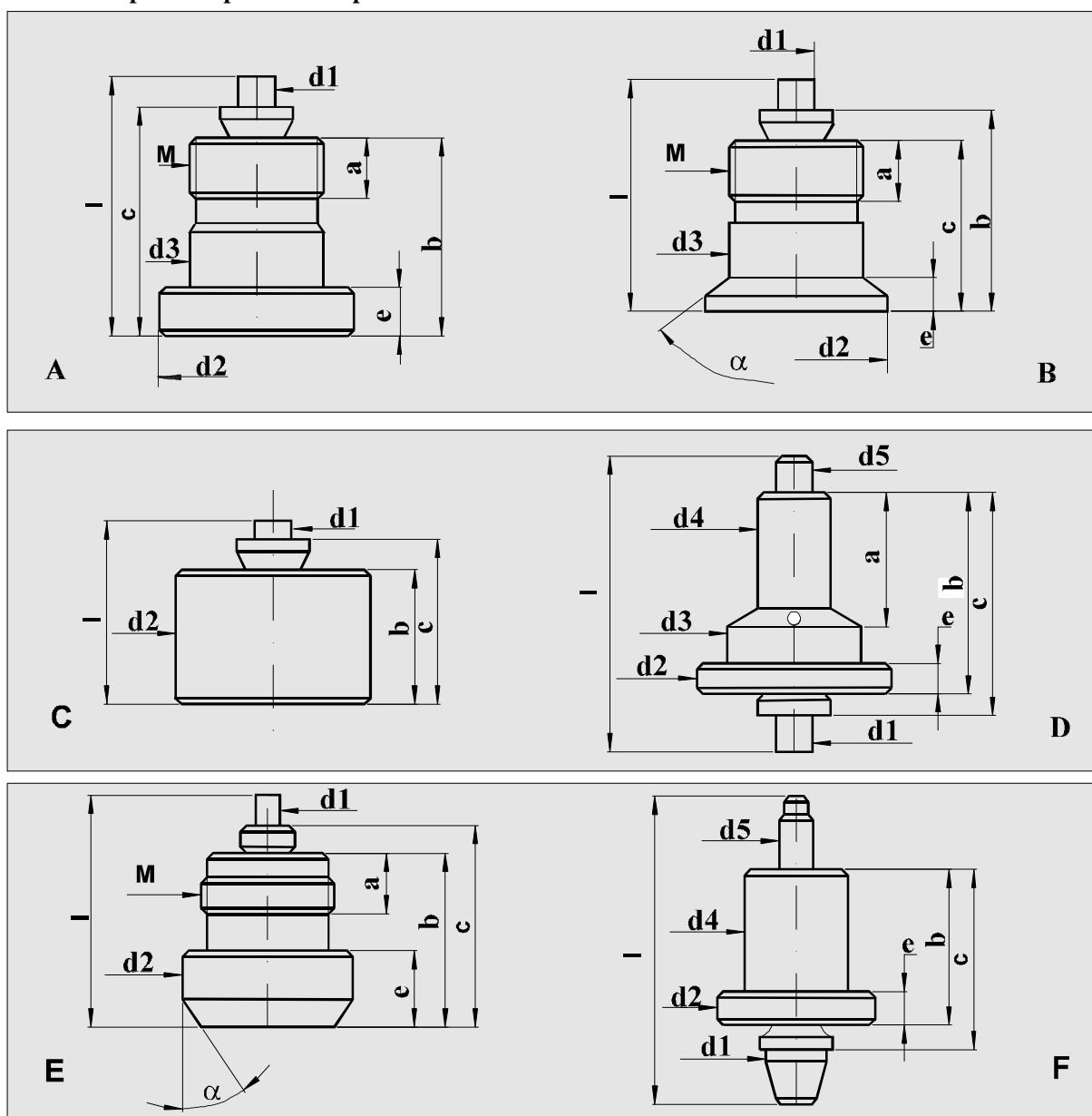
Supapa de refulare actioneaza, in acelasi timp, asupra valorii presiunii remanente din conducta de inalta presiune si asupra configuratiei caracteristicei de debit.

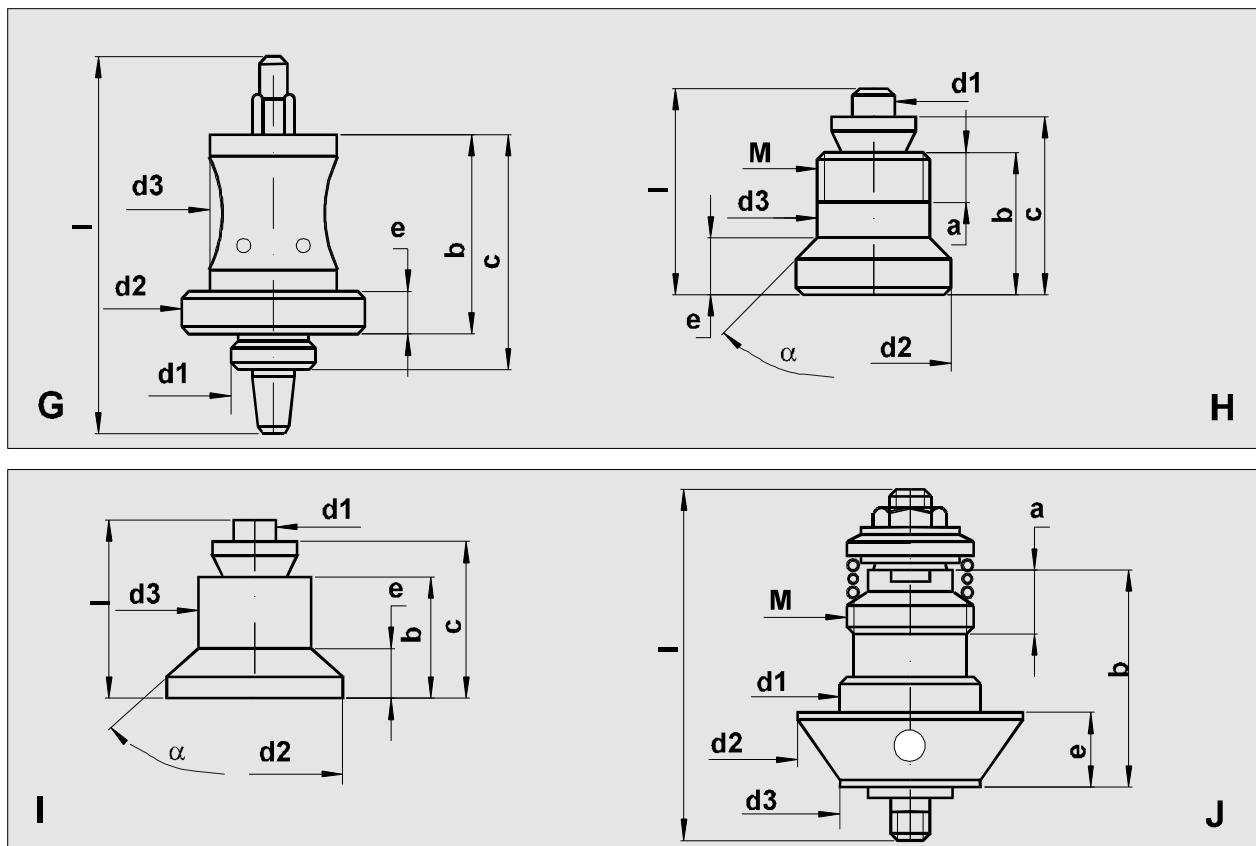
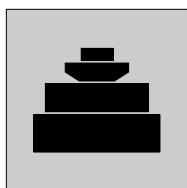
Intrucat supapa de refulare este un ansamblu precis imperecheat, nu se admite inlocuirea separata a pieselor componente.

DELIVERY VALVES

The delivery valve is a precision sub-assembly of the fuel injection pump. Its main role is to regulate the volume of fuel entering the combustion chamber of the engine, through the injectors.

The delivery valve also controls the remanent pressure in the high pressure pipe and the fuel delivery curve shape. The delivery valve being an assembly-accurate matched, its components are not interchangeable.





**SUPAPA DE REFULARE
DELIVERY VALVE**

FIG.

**POMPA DE INJECTIE
INJECTION PUMP**

1 418 522 047

I

RO-PES 6A 95...

1 418 522 055

I

RO-PES 2A....

RO-PES 3A..

RO-PES 4A..

RO-PES 6 A..

RO-PE 8A...

RO-PE 12A 95...22

RO-PFR 1K 70...

RO-PF 1B 80...

HIDROJET	MEFIN	BOSCH	ALTECNA	DAF	DEIMLER BENZ	DUAP
P406-16	1 418 522 055	1 418 522 055	773 304	118 710	DB 000 74 3684	VE 1 418 522 055
P427-16	1 418 522 047	1 418 522 047	774 299	108 210	-	VE 1 418 522 047

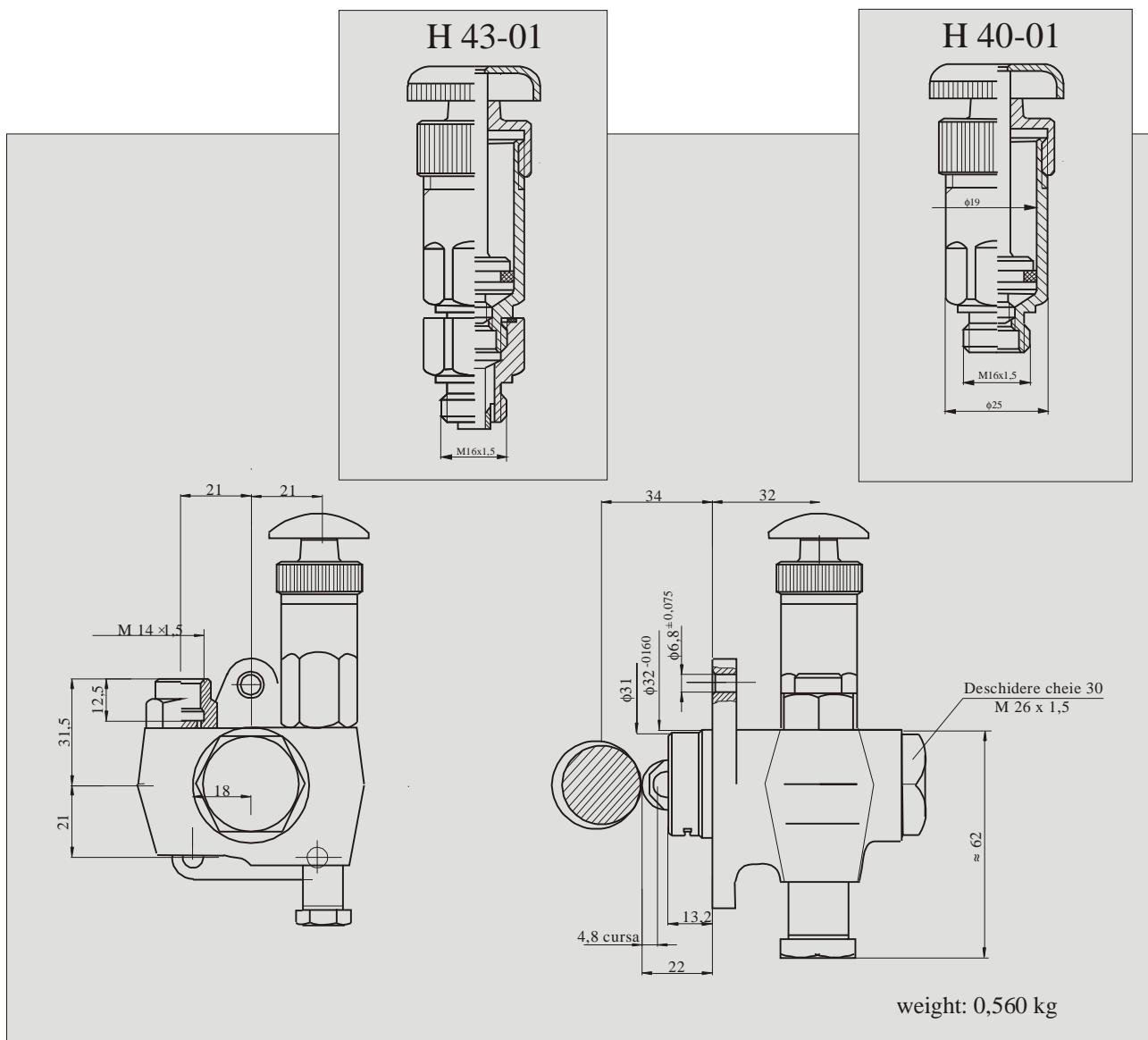
HIDROJET	GAMA DIESEL	IPM	KHD	LUCAS CAV	MERCEDES	MOTORPAL
P406-16	GDV 522 055	302 28 00	-	7231-11	000 074 3684	60 042-35
P427-16	-	302 29 00	213 8223	-	000 074 3584	60 042 34

HIDROJET	OMAP	FIAT/IVECO	SPACO	UNION	RESURGO
P406-16	OVE 173	998 5029	02194	90 055	
P427-16	OVE 168	774 289	02193	90 047	

Fig	Cod	D	Vol. des.	a	b	c	d1	d2	d3	d4	d5	e	I	M	a°	Utilizare Main use
I	P406-16 1 418 522 055	6	35	-	12,0	14,3	6,0	17,0	13,0-	-	-	3,0	16,5	-	120	RO-PES2A...12A
I	P427-16 1 418 522 047	6	50	-	12,0	14,3	6,0	17,0	13,0	-	-	3,0	16,5	-	120	RO-PES6A...
A	1 818 522 005	6	45	5,8	14,0	16,0	6,0	18,8	13,9	-	-	4,0	18,5	14x1,5	-	Grup.electrogen
C	1 818 592 004	12	350	-	25,0	27,2	9,0	40,5	-	-	-	-	31,0	-	-	6VD6-naval
H	1 818 592 006	12	350	11	24,5	27,0	9,0	39,9	27,9	-	-	9,0	31,0	28x1,5	120	6VD26
H	1 818 592 007	14	335	6,0	27,5	32,5	9,0	49,9	31,9	-	-	14,0	35,5	30x1,5	90	8NVD48A
C	1 818 592 009	15	706	-	35,0	39,0	11,8	65,9	-	-	-	-	43,0	-	-	8ZD27/48
C	1 818 592 011	10	400	-	32,0	34,5	8,3	55,0	-	-	-	-	36,5	-	-	5AL25
C	1 818 592 013	10	400	-	26,0	28,0	7,5	50,0	-	-	-	-	30,5	-	-	6BAH22
H	1 818 592 015	9	95	9,0	23,5	26,2	7,5	30,5	21,9	-	-	6,5	29,0	22x1,5	120	6NVD26A2
B	1 818 592 017	10	200	9,0	24,0	27,5	6,0	32,2	20,0	-	-	7,7	30,5	20x1,5	120	6GT18/22
C	1 818 592 019	14	0	-	26,0	31,0	10,0	94,5	-	-	-	-	35,0	-	-	KSZ70/120
H	1 818 592 021	9	100	9,0	23,7	26,7	7,8	24,9	18,0	-	-	4,85	29,7	18x1,5	120	6VD21/15
J	P55-13	8	0	10	28,1	-	-	26,0	18,0	-	-	12,0	45,2	16x1,5	-	8NVD26-1A
E	P55-16	7	0	6,3	20,0	22,0	5,0	18,0	13,7	-	-	10,8	24,5	16x1,5	-	8NVD26-1A
D	P63-13	5	0	26	34,0	42,8	5,8	18,5	11,8	10,0	5,0	5,5	49,0	-	30	6BAH22
D	P63-16	6	0	24	36,0	39,0	7,8	28,0	20,0	16,0	6,0	6,5	54,0	-	30	6BAH22
G	P80-13	8	600	-	45,2	53,4	14,8	34,0	21,8	-	-	10,1	80,0	-	-	7RND90
F	P80-17	7	0	-	33,2	38,2	14,8	34,0	-	19,8	7,0	10,0	80,0	-	-	7RND90
D	P86-16	8	650	21	38,0	42,5	8,0	30,0	21,8	16,0	8,0	7,5	65,6	-	30	DKRN76/160
D	P87-16	6	0	24	36,0	38,5	7,8	24,5	15,8	12,0	6,0	6,5	54,0	-	30	TAD48

POMPA DE ALIMENTARE H33-01

FEED PUMP H33-01



Reper de comanda: H33-01

To be ordered under : H33-01

Interschimbabil cu: RO-FP/KS22AD6/2 MEFIN SINAIA
Destinatie: Motor D-110

Interchangeable with: RO-FP/KS22AD6/2 MEFIN
Purpose: D-110 engine

CARACTERISTICI TEHNICE

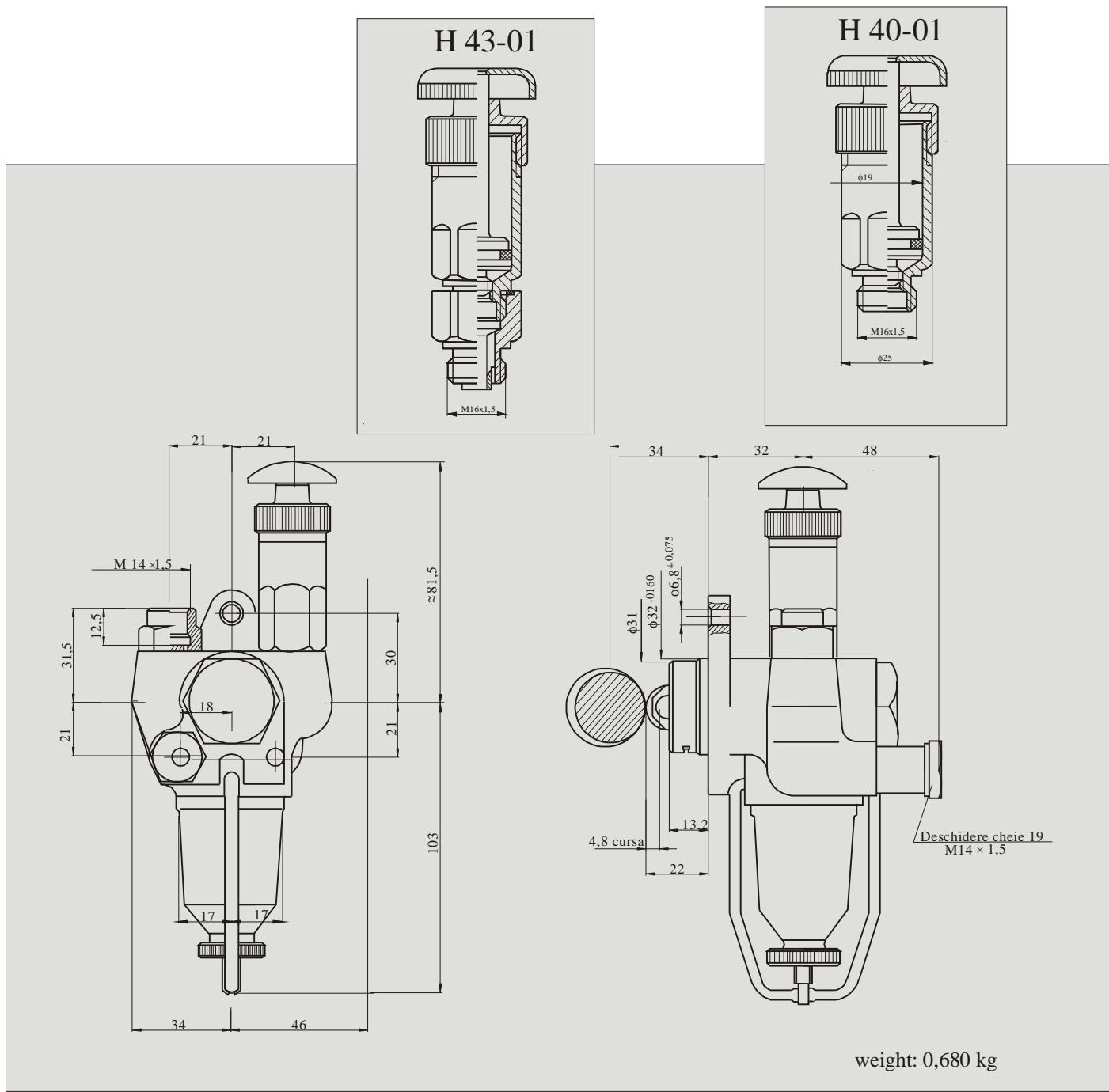
- * inaltimea coloanei de aspiratie: 1m
- * la contrapresiune manometrice de 1+0,1Kgf/cm² si turatie de 100rot pe minut debitul pompei este de min.250cmc/min. pump

TECHNICAL FEATURES

- * the suction column height: 1m
- * having a counter-pressure of 1+0.1Kgf per sqcm and a speed of 100rot. per min.the flow of the is min.250ccm per min.

POMPA DE ALIMENTARE H30-00

FEED PUMP H30-00



Reper de comanda: H30-00
 Interschimbabil cu: RO-FP/KS22AD33/2 MEFIN SINAIA
 Destinatie: Motor MAN , D-2156 HMN8

CARACTERISTICI TEHNICE

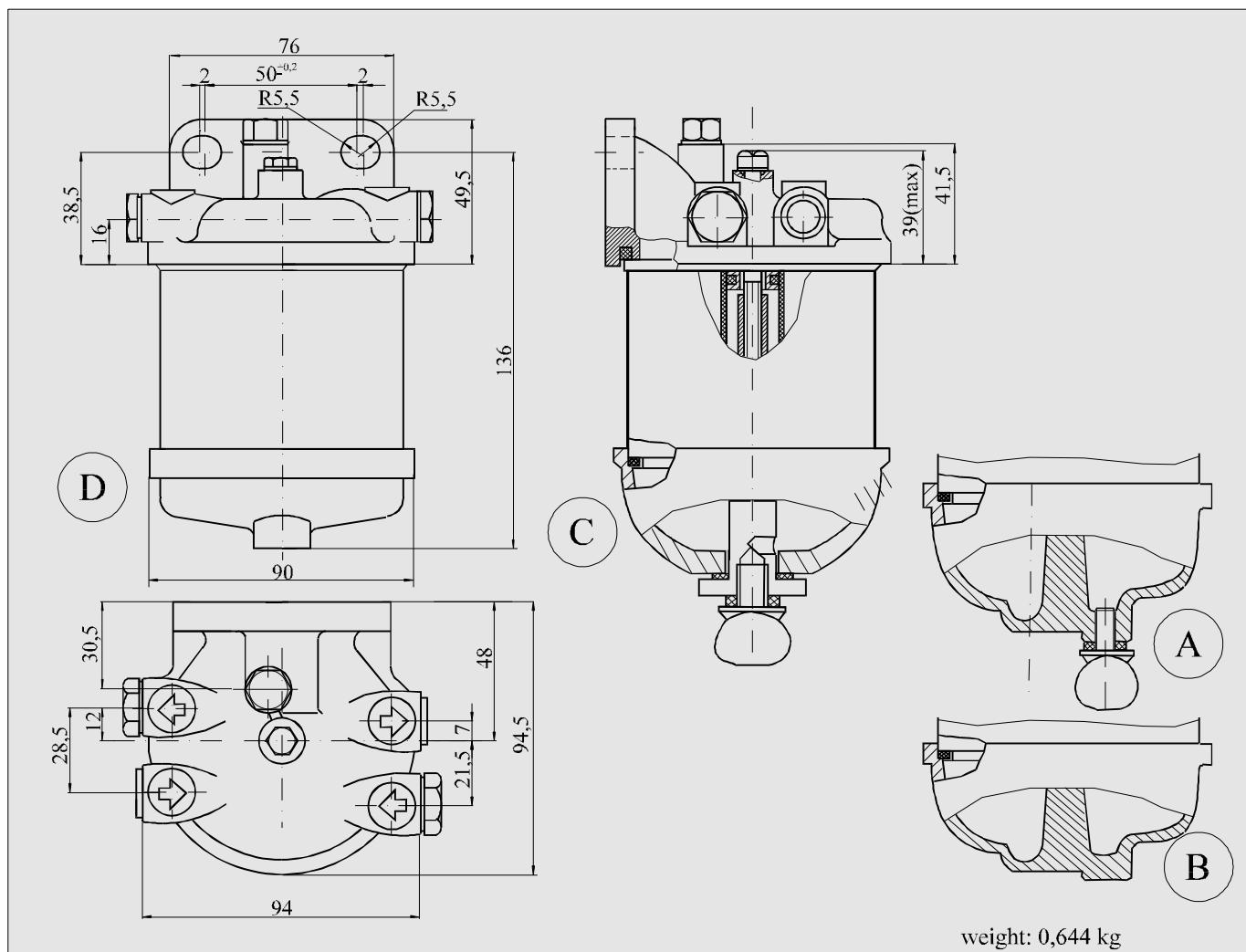
- * inaltimea coloanei de aspiratie: 1m
- * la contrapresiune manometrica de 1+0,1Kgf/cmp si turatie de 100rot pe minut debitul pompei este de min.120cmc/min. pump
- * Cursa pe cama: 4,8 mm
- * Turatie max.: 3000 rot/min
- * Φ pistonas : 22 mm

To be ordered under : H30-00
 Interchangeable with: RO-FP/KS22AD33/2 MEFIN
 Purpose: MAN engine , D-2156 HMN8

TECHNICAL FEATURES

- * the suction column height: 1m
- * having a counter-pressure of 1+0.1Kgf per sqcm and a speed of 100rot. per min.the flow of the is min.250ccm per min.
- * Stroke on cam: 4,8 mm
- * Maximum number of rotation: 3000rot/min
- * Φ of the piston: 22 mm

BATERIE FILTRANTA ASAMBLATA ASSEMBLYED FILTER MANAGER



Varianta	Baterie filtru	Element filtrare	Flansa de prindere	Cupa de sedimentare
D	BF-01/1	C.S. 23-00	M 12 x 1,25	PLAT
D	BF-01/2	C.S. 23-00	½" – UNF 3 A	PLAT
D	BF-01/3	C.S. 23-00	M 14 x 1,5	PLAT
C	BF-01/4	FC 25.10.00	M 14 x 1,5	STICLA cu purjare
D	BF-01/5	FC 25.10.00	M 14 x 1,5	PLAT
D	BF-01/7	-	½" – UNF 30'	PLAT
A	BF-01/8A	FC 25.10.00	M 14 x 1,5	cu purjare
B	BF-01/8B	FC 25.10.00	M 14 x 1,5	fara purjare

Caracteristici

- * Finetea hartiei filtrante 3 - 7 μ
- * Debitul : min 2,5 l/min la presiune de 1m coloana de lichid.
- * Presiunea maxima: 2 bar
- * Capacitatea de separare a apei : 90%
- * Mod de racordare : conform tipului de baterie

Characteristics

- * Fineness of the filtration paper 3 - 7 μ
- * Output: min 2,5 l/min at pressure of 1m liquid - column
- * Max. pressure: 2 bar
- * Water separation capacity : 90%
- * Way of conenction: according to the filter -type

Utilizare - Lise

Tractor :U - 445; U - 453; U - 530; U - 533; U - 643; U - 650; U - 700