



**Illustrated Parts Catalogue**

**Illustrated Parts Catalogue  
Woodward Diesel Systems**

**MAN Diesel (Paxman)  
Pumps & Injectors**

**Manual 55178**

## General

This Illustrated Parts Catalog (IPC) is designed to assist customers in identifying spare parts for the most common applications of Woodward equipment.

We recognize that there may be instances where engines of identical type have, at times, been fitted with fuel injection equipment which differs from that listed. It is important, therefore, to quote the type-code of the equipment in use when ordering replacement parts.

A number in parenthesis indicates quantity per unit of more than one.

An item number with suffix "ND" indicates item Not Drawn, and suffix "AR" indicates As Required.

Part numbers of other manufacturers are included for cross reference purposes only.

It is Woodward policy to update the information contained in this catalog periodically and to re-issue to Distributors and Operators as appropriate.

This IPC contains the spare part and sub assembly level of breakdown consistent with the overhaul and maintenance policy recommended by Woodward Diesel Systems.

If you have a need for additional or change information to be included in this IPC or for other applications to be added please contact Woodward Customer Services Department. Your requirements will be considered at the next revision point.

Woodward Diesel Systems strive to achieve the maximum accuracy of the information provided within this document, no liability can be accepted by Woodward for damage, loss or injury caused by any errors in the information within this IPC.

To guarantee the safety, performance, and reliability of the equipment, only genuine Woodward spares must be used during rework.

## References

These publications are available at [www.woodward.com/publications](http://www.woodward.com/publications):

**55142**—Diesel Engine Fuel Pump Supersession List

**55143**—Diesel Engine Fuel Pump Application List

**55151**—Fuel Injection Equipment Introductory Manual

**55152**—Practical Aspects of Fuel Injection Equipment

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**MAN Diesel (Paxman)**

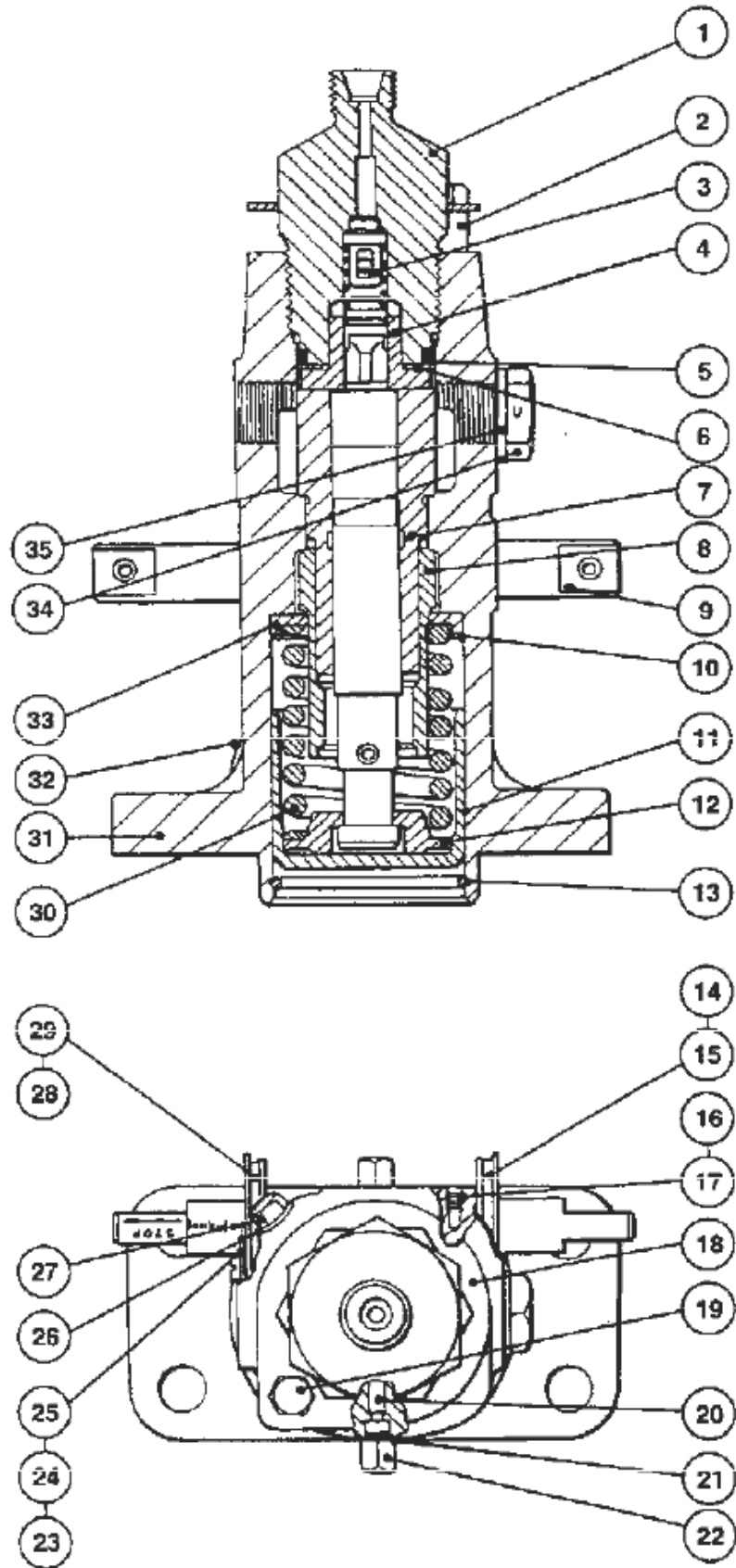
<b>Pump</b>	<b>Injector</b>	<b>Engine Ref.</b>
FCCAB160B0348	—	YL,YLX
FCCAB160B0432	—	YL,YLX
FCCAB200B0346	—	YLC
FCCAB200B0433	—	YLC
FCCAR180M0603	99/402	RP200 (MOD) Gen Set
FCCAR180M0603	99/444	RP200 Marine
FCCAR180M0603	99/444	RP200
FCCAR180M0603	99/484	RP200 (MOD)
FCCAR180M0765	99/444	RP200 (Rail Traction)
FCCAR180M0765	99/484	RP200 (MOD)
FCCAR180M0809	99/444	RP200 Marine
FCCAR180M0809	99/471	RP200
FCCAR180M0809	99/444	RP200
FCCAR180M0819	99/444	RP200 Marine
FCCAR180M0850	99/444	RP200 Marine
FCCAR180M0850	99/540	RP200 Marine
FCCAR180M0867	99/471	RP200 (MOD)
FCOAB140C6535	—	YHX
FCOAB140C6536	99/419	YH
FCOAB140C6603	—	YHA
FCOAB140C6603	99/414	YHAC, YHAX
—	97/2T	VEGA
—	97/14T	VP185(HST)
—	97/15T	VP185
—	99/319	YJC
—	99/357	YJC
—	99/358	YJC
—	99/363	YJ
—	99/461	YJ (MOD)



## FCCAB160B0348 Fuel Injection Pump for Paxman YL & YLX Engines

(April 1995, Issue #2)

Item			
No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCCAB160B0348	OD27296
1	Delivery-valve holder	6/157	
2	Collar-locking plate	25/22	
3	Spring delivery valve	6/121	OD28996P31
4	Delivery valve & seat assembly	21/125B	
5	Seal-O-ring	372/20	
6	Seal-high pressure	6/120	
7	Element assembly	6/110A	
8	Control sleeve	6/349	
9	Control rod assembly	6/136	
10	Circlip-upper	25/25	
11	Tappet	6/106	
12	Spring plate-lower	6/107	
13	Circlip-lower	6/105	
14	Retaining plate	6/163	
15	Screw-item 61	223/203	
16	Screw-control rod locating (2)	25/17	
17	Lead seal (2)	2/2	
18	Locking plate	6/126	
19	Bolt locking plate	25/21	
20	Dowel-barrel locating	6/125	
21	Washer-spill plug (2)	113/27	
22	Spill plug (2)	6/464	
23	Shims pointer (1AR)	106/1A-E	
24	Screw-pointer	223/205	
25	Pointer-control rod	3/2	
26	Washer-vent screw	113/75	
27	Screw-vent	3/262	
28	Dowel-retaining plate (2)	7029/281	
29	Retaining plate	6/164	
30	Spring-plunger	6/109	
31	Pump housing	6/166	
32	Plug-timing window	6/162	
33	Spring plate-upper	7022/232	
34	Blanking plug-inlet	6/102	
35	Washer-inlet connector	NW5/50W4	



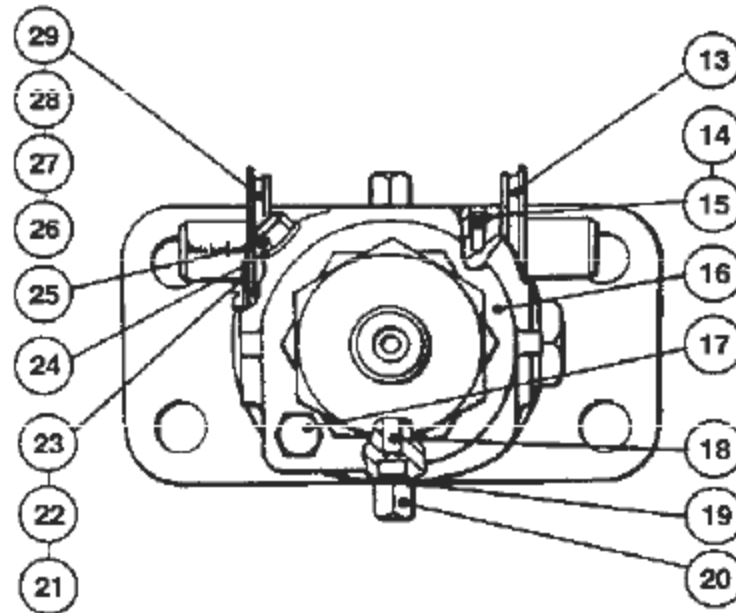
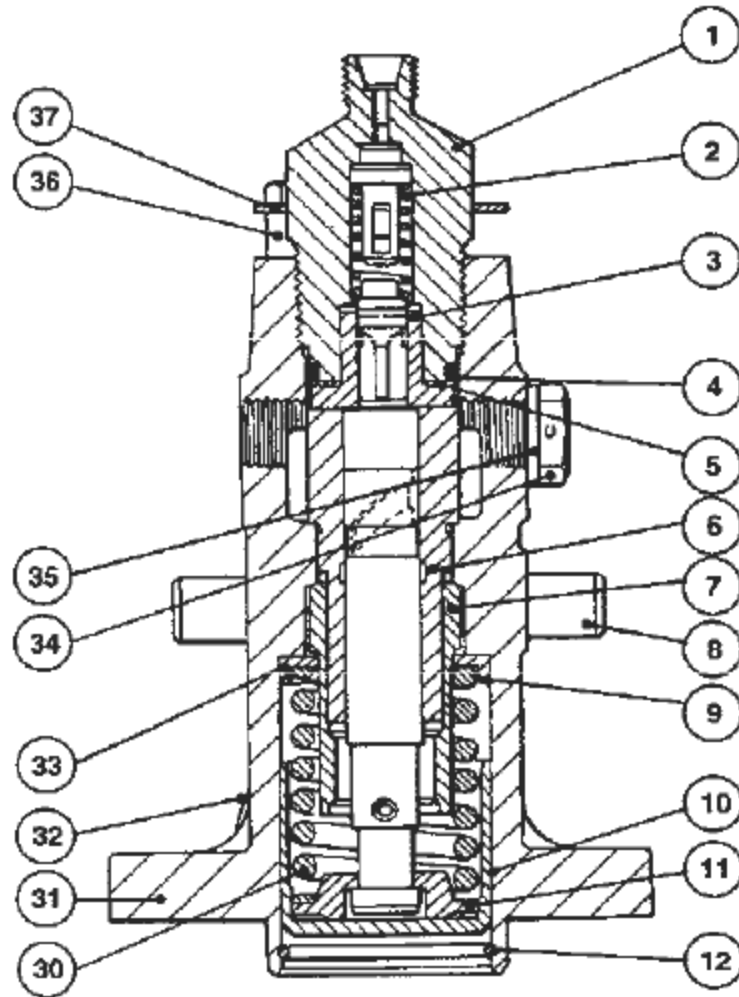
FCCAB160B0348 Fuel Injection Pump

## FCCAB160B0432 Fuel Injection Pump for Paxman YL & YLX Engines

(April 1995, Issue #2)

Item No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCCAB160B0432	
1	Delivery valve holder	6/157	
2	Spring delivery valve	6/121	OD28996P31
3	Delivery valve & seat assembly	21/125B	
4	Seal-O-ring	359/139	
5	Seal-high pressure	6/120	
6	Element assembly R.H.	6/110A	
7	Control sleeve	6/113	
8	Control rod assembly	6/177	
9	Circlip-upper	25/25	
10	Tappet	6/106	
11	Spring plate-lower	6/107	
12	Circlip-lower	6/105	
13	Retaining plate	6/164	
14	Lead seal (2)	2/2	
15	Screw-control rod locating (2)	25/17	
16	Locking plate	6/126	
17	Bolt locking plate	25/21	
18	Dowel-barrel locating	6/125	
19	Washer-spill plug (2)	113/27	
20	Spill plug (2)	122/4	
21	Shims pointer (1AR)	106/1A-E	
22	Screw-pointer	223/205	
23	Pointer-control rod	3/2	
24	Washer-vent screw	113/75	
25	Screw-vent	3/262	
26	Washer-locking	5244/22	
27	Screw-Item 61	223/203	
28	Dowel-retaining plate	7029/281	
29	Retaining plate	6/163	
30	Spring-plunger	6/109	
31	Pump housing	6/166	
32	Plug-timing window	6/162	
33	Spring plate-upper	7022/232	
34	Blanking plug-inlet	6/102	
35	Washer-inlet	NW5-50W4	
36	Collar-locking plate	25/22	
37	Locking plate	6/126	



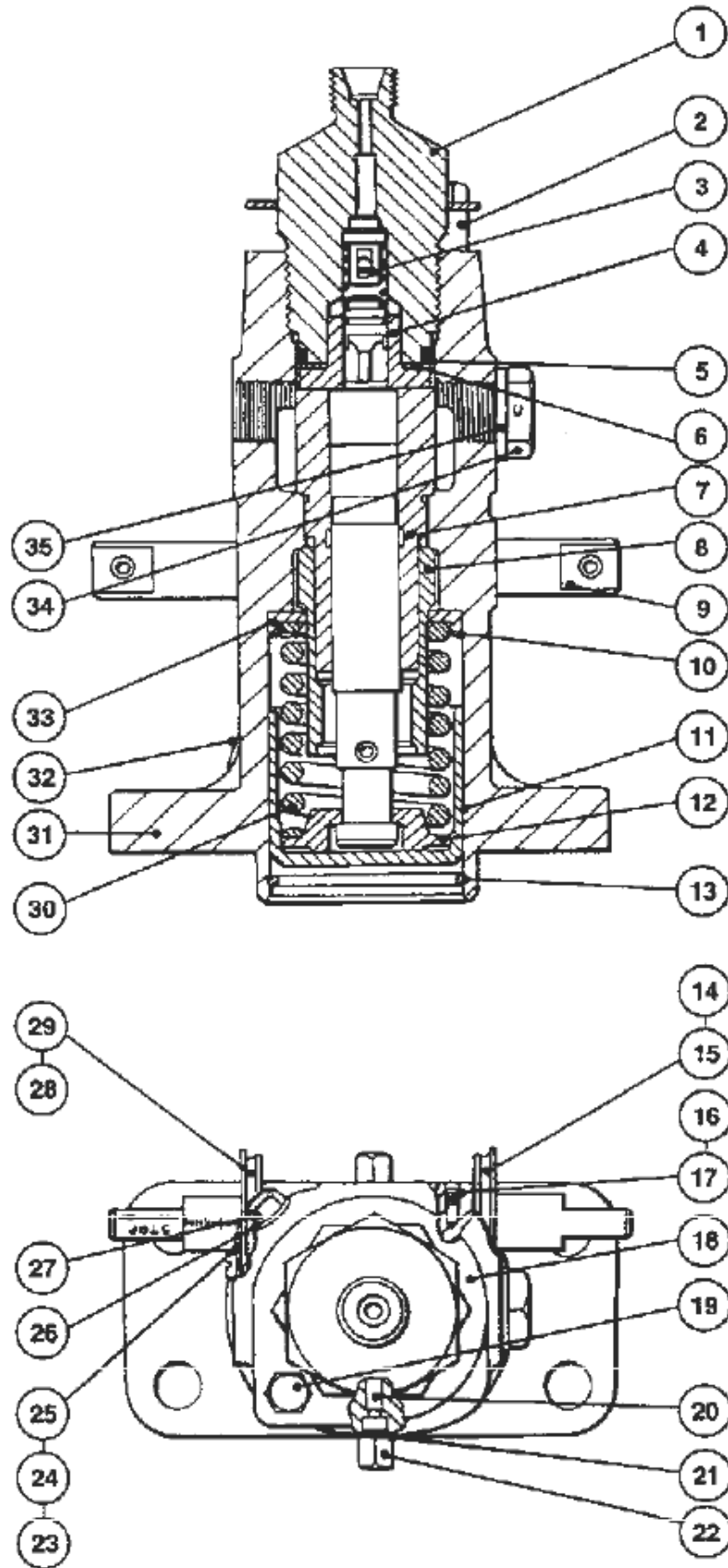


FCCAB160B0432 Fuel Injection Pump

## FCCAB200B0346 Fuel Injection Pump for Paxman YLC Engine

(April 1995, Issue #2)

Item No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCCAB200B0346	OD27295
1	Delivery valve holder	6/157	
2	Collar-locking plate	25/22	
3	Spring delivery valve	6/121	OD28996P31
4	Delivery valve & seat assembly	6/118	
5	Seal-O-ring	372/20	
6	Seal-high pressure	6/120	
7	Element assembly	6/110E	
8	Control sleeve	6/349	
9	Control rod assembly	6/136	
10	Circlip-upper	25/25	
11	Tappet	6/106	
12	Spring plate-lower	6/107	
13	Circlip-lower	6/105	
14	Retaining plate	6/163	
15	Screw-Item 61	2223/203	
16	Screw-control rod locating	25/17	
17	Lead seal (2)	2/2	
18	Locking plate	6/126	
19	Bolt locking plate	25/21	
20	Dowel-barrel locating	6/125	
21	Washer-spill plug (2)	133/27	
22	Spill plug (2)	6/464	
23	Shims pointer (1AR)	106/1A-E	
24	Screw-pointer	223/205	
25	Pointer-control rod	3/2	
26	Washer-vent screw	113/75	
27	Screw-vent	3/262	
28	Dowel-retaining plate (2)	7029/281	
29	Retaining plate	6/164	
30	Spring-plunger	6/109	
31	Pump housing	6/166	
32	Plug-timing window	6/162	
33	Spring plate-upper	7022/232	
34	Blanking plug-inlet	6/102	
35	Washer-inlet connector	NW5-50W4	

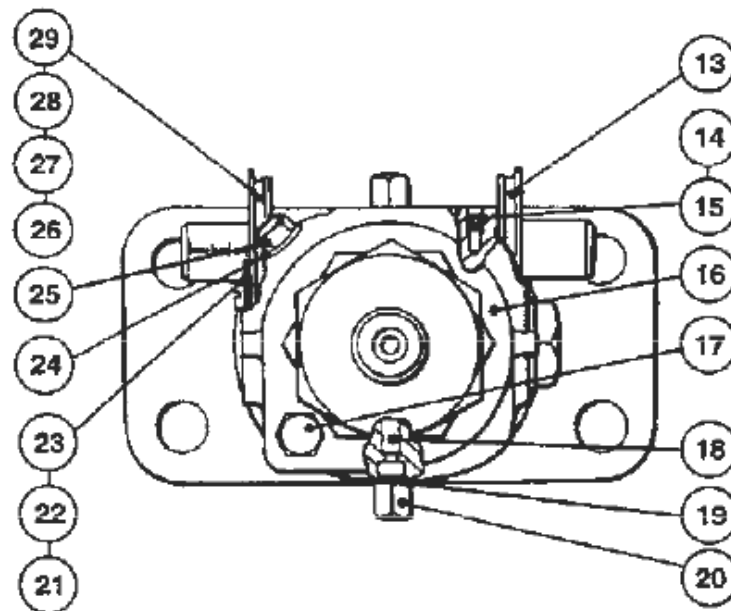
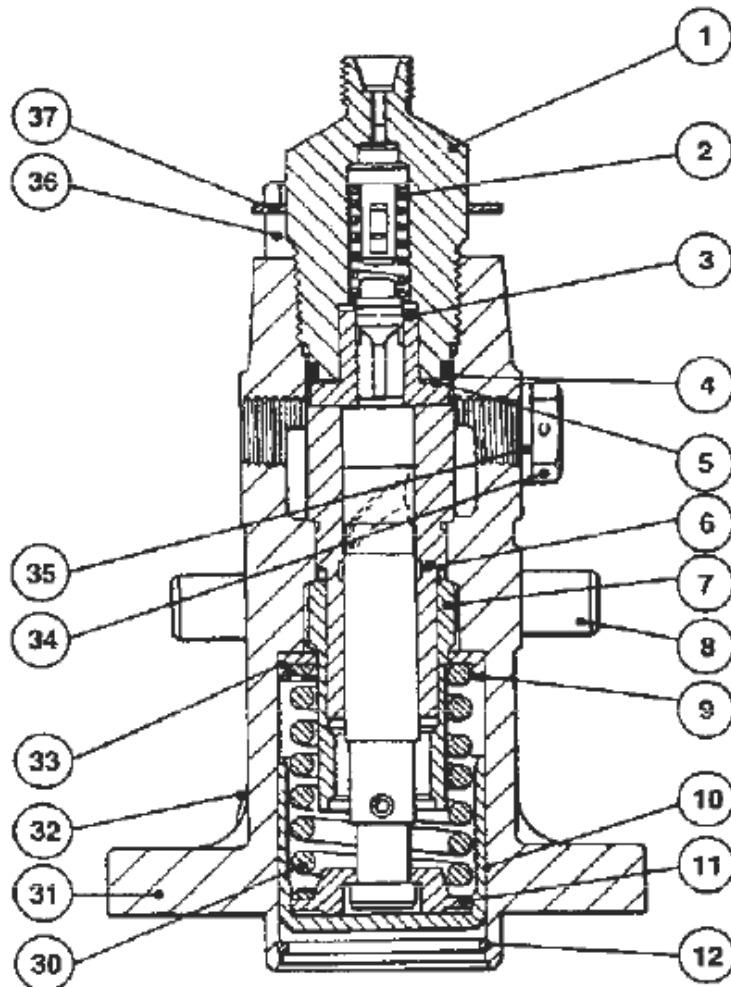


FCCAB200B0346 Fuel Injection Pump

## FCCAB200B0433 Fuel Injection Pump for Paxman YLC Engine

(April 1995, Issue #2)

Item No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCCAB200B0433	OD27559    OD27559-5
1	Delivery valve holder	6/157	
2	Spring delivery valve	6/121	OD28996P31
3	Delivery valve & seat assembly	6/118	
4	Seal-O-ring	372/20	
5	Seal-high pressure	6/120	
6	Element assembly	6/110E	
7	Control sleeve	6/349	
8	Control rod assembly	6/177	
9	Circlip-upper	25/25	
10	Tappet	6/106	
11	Spring plate-lower	6/107	
12	Circlip-lower	6/105	
13	Retaining plate	6/164	
14	Screw-control rod locating (2)	25/17	
15	Lead seal (2)	2/2	
16	Locking plate	6/126	
17	Bolt locking plate	25/21	
18	Dowel-barrel locating	6/125	
19	Washer-spill plug (2)	113/27	
20	Spill plug (2)	6/464	
21	Shims pointer (1AR)	106/1A-E	
22	Screw-pointer	223/205	
23	Pointer-control rod	3/2	
24	Washer-vent screw	113/75	
25	Screw-vent	3/262	
26	Washer-locking	205/3	
27	Screw-Item 61	223/203	
28	Dowel-retaining plate (2)	7029/281	
29	Retaining plate	6/163	
30	Spring-plunger	6/109	
31	Pump housing	6/166	
32	Plug-timing window	6/162	
33	Spring plate-upper	7022/232	
34	Blanking plug-inlet	6/102	
35	Washer-inlet	NW5-50W4	
36	Collar-locking plate	25/22	
37	Locking plate	6/126	



FCCAB200B0433 Fuel Injection Pump

## FCCAR180M0603 Fuel Injection Pump for Paxman Engines:

**RP200 (MOD) Gen Set, 216/254 bmep @ 1200 rpm**

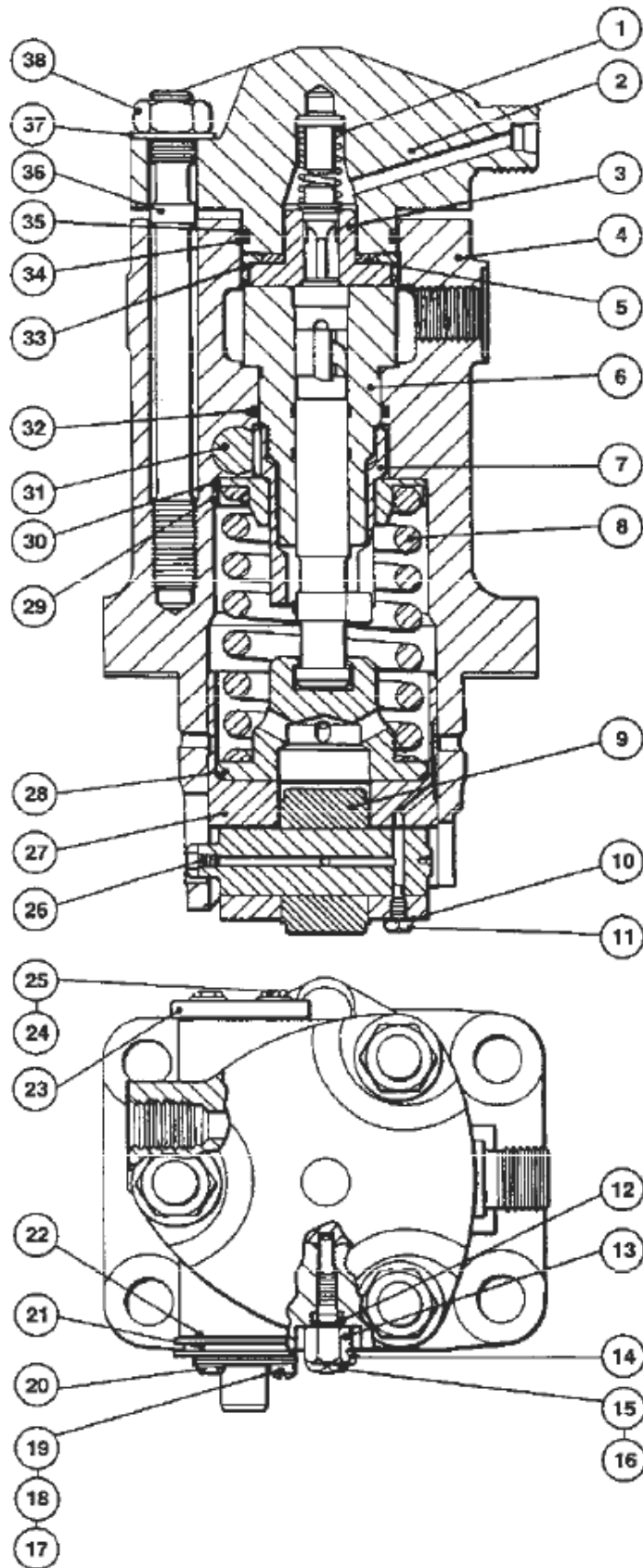
**RP200 Marine, 309 bmep @ 1600 rpm**

**RP200, 309 bmep @ 1600 rpm**

**RP200 (MOD), 194/252 bmep @ 1200 rpm**

(April 1995, Issue #2)

Item No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCCAR180M0603	OD28706
1	Spring-delivery valve	21/127	S4003597R S4006069
2	Delivery valve holder	6/246	S4003561R
3	Delivery valve & seat assembly	6/244F	S4003550R
4	Pump housing	6/238	S4003317R S4005843
5	Seal-high pressure	6/253B	S4003573R S4006045
6	Element assembly L.H.	6/243C	S4003330R S4005855
7	Control sleeve	6/266	S4003469R S4005983
8	Spring-plunger	6/270	S4003524R S4006021
9	Roller	6/500	
10	Washer-locating screw	259/504	S4003366 S4003366R
11	Screw-roller locking	6/259	S4005478R
12	Seal-O-ring	262/106	S4005429R S4006082
13	Screw-barrel locating	6/269	S4003354R
14	Wire locking (AR)		18SWG
15	Spill plug	6/272	S4003378R S400588016
16	Washer-spill plug	113/96	S4003380R S4005892
17	Shims-control rod plate (1AR)	6/351A	S4005776R
		6/351B	S4005788R
		6/351C	S4005790R
		6/351D	S4005806R
		6/351E	S4005818R
		6/351F	S4005820R
18	Screw-control rod plate	NS16/10	
19	Plate-control rod	6/350	S4003433R S4005910
20	Bolt-locking	383/0520	S4003470R
21	Retaining ring assembly	6/264	S4006136R
22	Gasket-control rod (2)	6/262	S4003410R
23	Stop plate	6/422	S4003421R S4005909
24	Washer (4)	NW2/32	S4003494R S4005995
25	Bolt (3)	383/0516	S4003482R
26	Roller pin assembly	6/509	
27	Tappet	6/265	S4003548R
28	Spring plate-lower	6/257	S4003536R S4006033
29	Circlip-upper	6/255	S4003512R S4006010
30	Spring plate-upper	6/256	S4003500R S4006008
31	Control rod	6/421	S4003391R
32	Seal-O-ring	235/34	S4003342R S4005867
33	Seal-support ring	6/254	S4003603R
34	Seal-O-ring	235/59	
35	Backing ring	419/3	
36	Stud housing (3)	6/260A	S4003339R
37	Washer-stud (3)	395/140	S4005480R S4006112
38	Nut-stud (3)	398/14	S4005491R S4006124



FCCAR180M0603 Fuel Injection Pump

## FCCAR180M0765 Fuel Injection Pump for Paxman Engines:

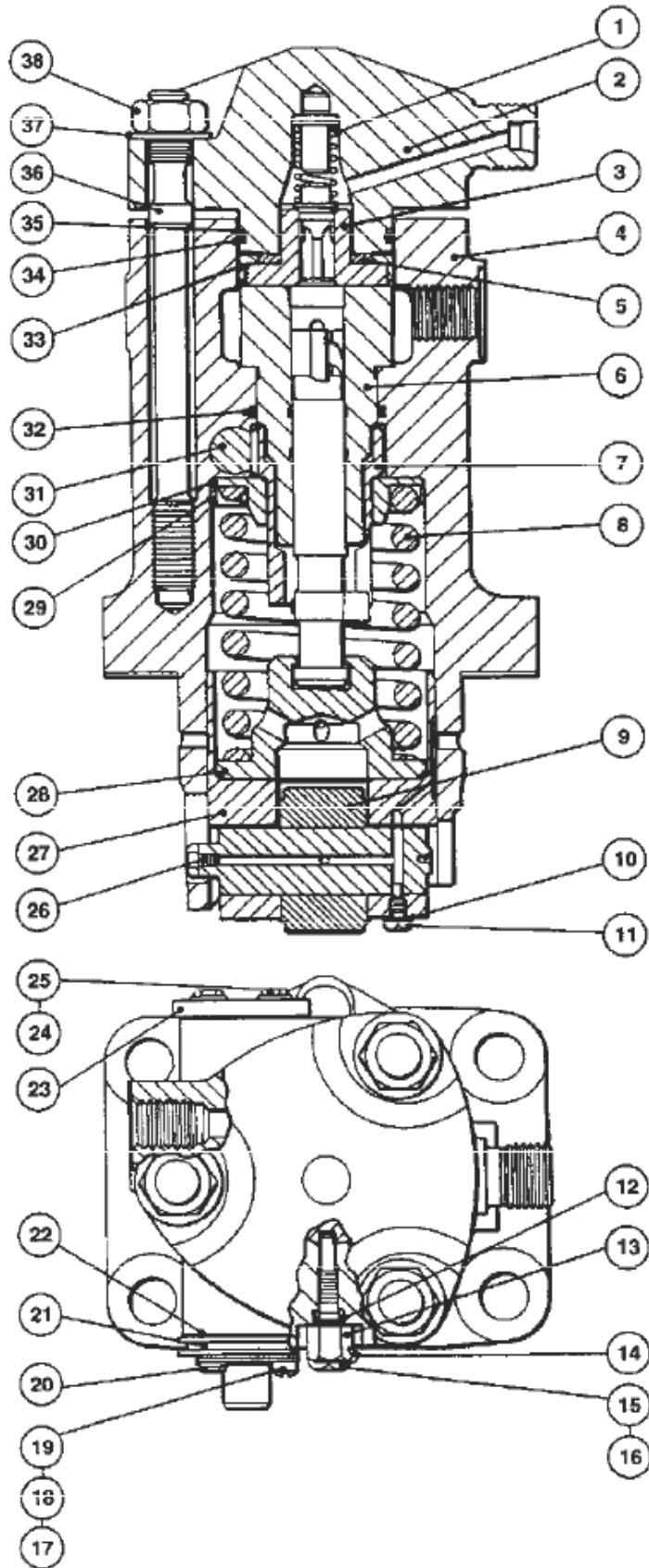
**RP200 (Rail Traction), 247 bmep @ 1500 rpm**

**RP200 (MOD), 247 bmep @ 1500 rpm**

(April 1995, Issue #2)

Item				
No.	Part Name	Woodward No.	Paxman No.	
	Fuel Pump	FCCAR180M0765	OD30298	
1	Spring-delivery valve	21/127	S4003597R	S4006069
2	Delivery valve holder	6/246	S4003561R	
3	Delivery valve & seat assembly	6/470K		
4	Pump housing	6/238	S4003317R	S4005843
5	Seal-high pressure	6/253B	S4003573R	S4006045
6	Element assembly L.H.	6/510C		
7	Control sleeve	6/266	S4003469R	S4005983
8	Spring-plunger	6/270	S4003524R	S4006021
9	Roller	6/500		
10	Washer-locating screw	259/504	S4003366	S4003366R
11	Screw-roller locking	6/259	S4005478R	
12	Seal-O-ring	262/106	S4005429R	S4006082
13	Screw-barrel locating	6/269	S4003354R	
14	Wire locking (AR)	18SWG		
15	Spill plug	6/272	S4003378R	S4005880
16	Washer-spill plug	113/96	S4003380R	S4005892
17	Shims-control rod plate (1AR)	6/351A	S4005776R	
		6/351B	S4005788R	
		6/351C	S4005790R	
		6/351D	S4005806R	
		6/351E	S4005818R	
		6/351F	S4005820R	
18	Screw-control rod plate	NS16/10		
19	Plate-control rod	6/350	S4003433R	S4005910
20	Bolt-locking	383/0520	S4003470R	
21	Retaining ring assembly	6/264	S4006136R	
22	Gasket-control rod (2)	6/262	S4003410R	
23	Stop plate	6/422	S4003421R	S4005909
24	Washer (4)	NW2/32	S4003494R	S4005995
25	Bolt (3)	383/0516	S4003482R	
26	Roller pin assembly	6/509		
27	Tappet	6/265	S4003548R	
28	Spring plate-lower	6/257	S4003536R	S4006033
29	Circlip-upper	6/255	S4003512R	S4006010
30	Spring plate-upper	6/256	S4003500R	S4006008
31	Control rod	6/421	S4003391R	
32	Seal-O-ring	235/34	S4003342R	S4005867
33	Seal-support ring	6/254	S4003603R	
34	Seal-O-ring	235/59		
35	Backing ring	419/3		
36	Stud housing (3)	6/260A	S4003339R	
37	Washer-stud (3)	395/140	S4005480R	S4006112
38	Nut-stud (3)	398/14	S4005491R	S4006124





FCCAR180M0765 Fuel Injection Pump

## FCCAR180M0809 Fuel Injection Pump for Paxman Engines:

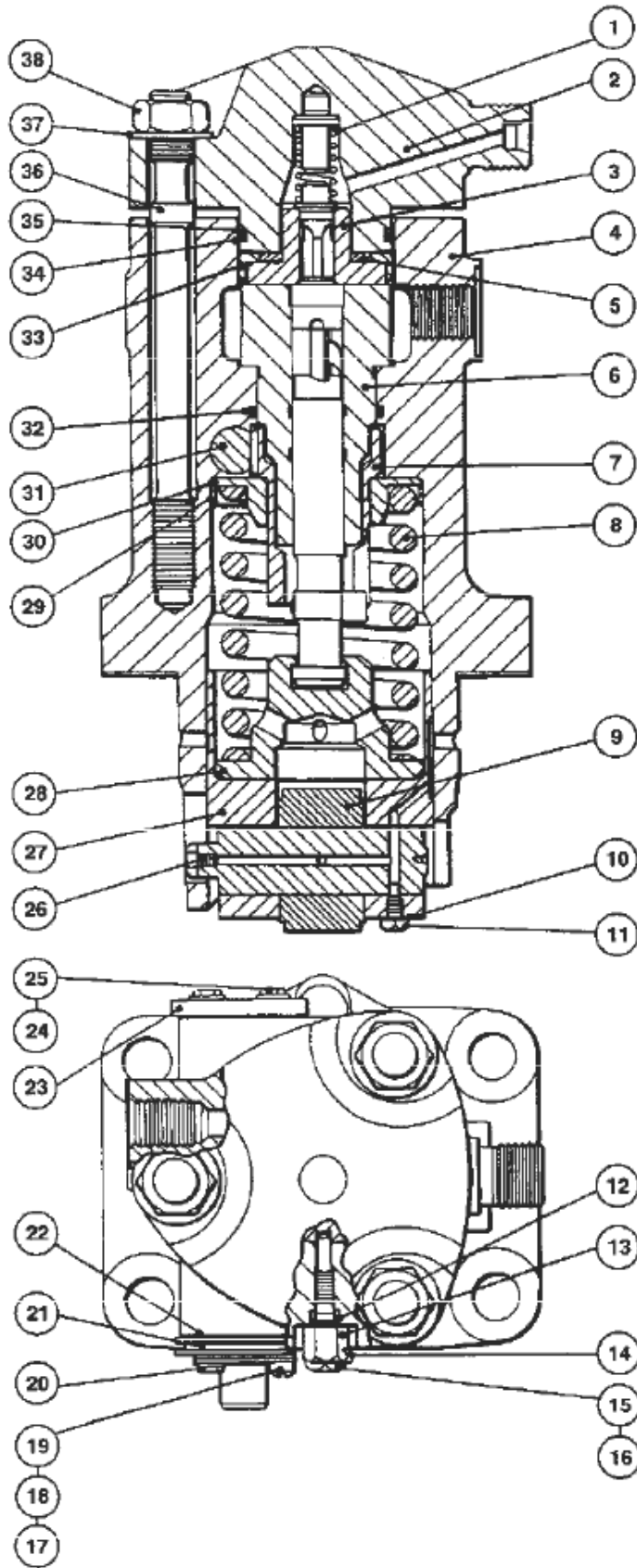
**RP200 Marine, 250 bmep @ 1600 rpm**

**RP200, 275 bmep @ 1500 rpm**

**RP200 Marine, 309 bmep @ 1600 rpm**

(April 1995, Issue #2)

Item No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCCAR180M0809	OD30539
1	Spring-delivery valve	21/127	S4003597R S4006069
2	Delivery valve holder	6/246	S4003561R
3	Delivery valve & seat assembly	6/244F	S4003550R
4	Pump housing	6/238	S4003317R S4005843
5	Seal-high pressure	6/253B	S4003573R S4006045
6	Element assembly	6/517C	
7	Control sleeve	6/266	S4003469R S4005983
8	Spring-plunger	6/270	S4003524R S4006021
9	Roller	6/500	
10	Washer-locating screw	259/504	S4003366 S4003366R
11	Screw-roller locking	6/259	S4005478R
12	Seal-O-ring	262/106	S4005429R S4006082
13	Screw-barrel locating	6/269	S4003354R
14	Wire locking	18SWG	
15	Spill plug	6/272	S4003378R S4005880
16	Washer-spill plug	113/96	S4003380R S4005892
17	Shims-control rod plate	6/351A	S4005776R
		6/351B	S4005788R
		6/351C	S4005790R
		6/351D	S4005806R
		6/351E	S4005818R
		6/351F	S4005820R
18	Screw-control rod plate	NS16/10	
19	Plate-control rod	6/350	S4003433R S4005910
20	Bolt-locking	383/0520	S4003470R
21	Retaining ring assembly	6/264	S4006136R
22	Gasket-control rod (2)	6/262	S4003410R
23	Stop plate	6/422	S4003421R S4005909
24	Washer (4)	NW2/32	S4003494R S4005995
25	Bolt (3)	383/0516	S4003482R
26	Roller pin assembly	6/509	
27	Tappet	6/265	S4003548R
28	Spring plate-lower	6/257	S4003536R S4006033
29	Circlip-upper	6/255	S4003512R S4006010
30	Spring plate-upper	6/256	S4003500R S4006008
31	Control rod	6/421	S4003391R
32	Seal-O-ring	235/34	S4003342R S4005867
33	Seal-support ring	6/254	S4003603R
34	Seal-O-ring	235/59	
35	Backing ring	419/3	
36	Stud housing (3)	6/260A	S4003339R
37	Washer-stud (3)	395/140	S4005480R S4006112
38	Nut-stud (3)	398/14	S4005491R S4006124

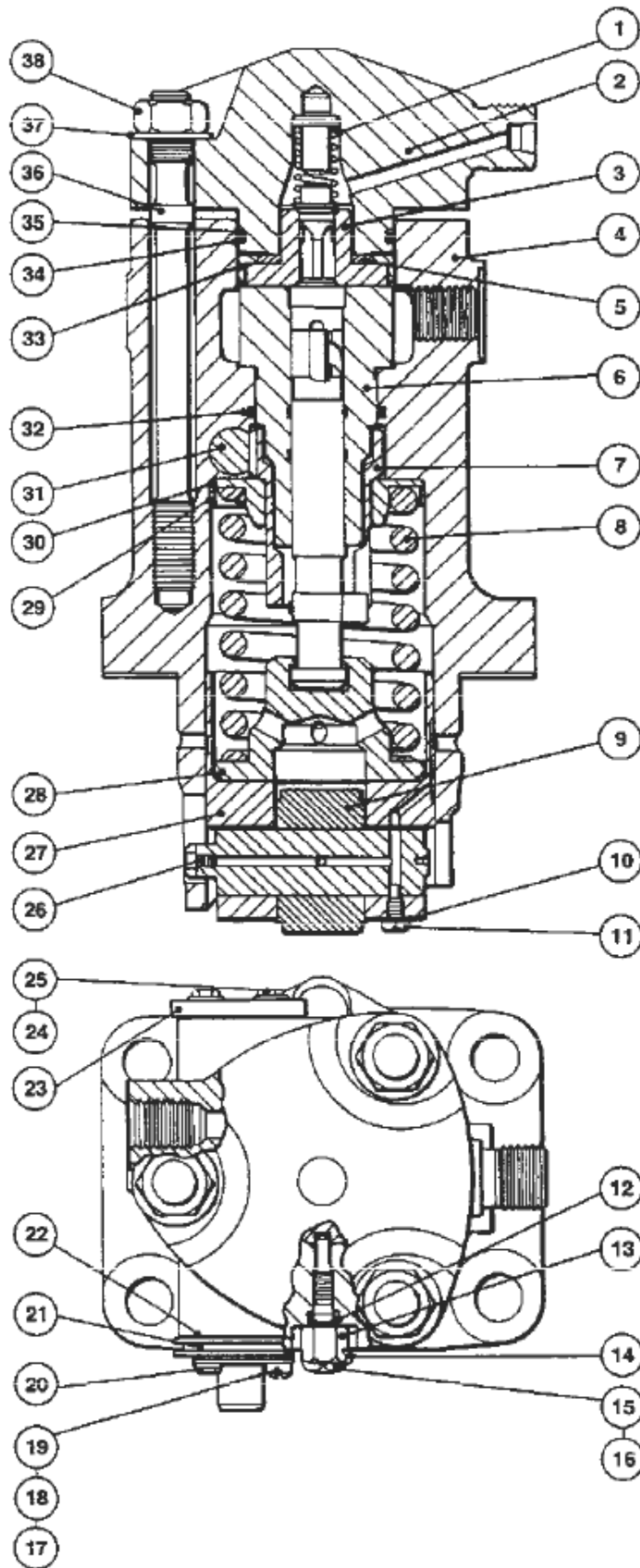


FCCAR180M0809 Fuel Injection Pump

## FCCAR180M0819 Fuel Injection Pump for Paxman RP200 Marine Engine, 309 bmep @ 1600 rpm

(April 1995, Issue #2)

Item No.	Part Name	Woodward No.	Paxman No.	
	Fuel Pump	FCCAR180M0819	OD30793	
1	Spring-delivery valve	21/127	S4003597R	S4006069
2	Delivery valve holder	6/246	S4003561R	
3	Delivery valve & seat assembly	6/470F		
4	Pump housing	6/238	S4003317R	S4005843
5	Seal-high pressure	6/253B	S4003573R	S4006045
6	Element assembly	6/522C		
7	Control sleeve	6/266	S4003469R	S4005983
8	Spring-plunger	6/270	S4003524R	S4006021
9	Roller	6/500		
10	Washer-locating screw	259/504	S4003366 S4003366R	
11	Screw-roller locking	6/259	S4005478R	
12	Seal-O-ring	262/106	S4005429R	S4006082
13	Screw-barrel locating	6/269	S4003354R	
14	Wire locking	18SWG		
15	Spill plug	6/272	S4003378R	S4005880
16	Washer-spill plug	113/96	S4003380R	S4005892
17	Shims-control rod plate	6/351A 6/351B 6/351C 6/351D 6/351E 6/351F	S4005776R S4005788R S4005790R S4005806R S4005818R S4005820R	
18	Screw-control rod plate	NS16/10		
19	Plate-control rod	6/350	S4003433R	S4005910
20	Bolt-locking	383/0520	S4003470R	
21	Retaining ring assembly	6/264	S4006136R	
22	Gasket-control rod (2)	6/262	S4003410R	
23	Stop plate	6/422	S4003421R	S4005909
24	Washer (4)	NW2/32	S4003494R	S4005995
25	Bolt (3)	383/0516	S4003482R	
26	Roller pin assembly	6/509		
27	Tappet	6/265	S4003548R	
28	Spring plate-lower	6/257	S4003536R	S4006033
29	Circlip-upper	6/255	S4003512R	S4006010
30	Spring plate-upper	6/256	S4003500R	S4006008
31	Control rod	6/421	S4003391R	
32	Seal-O-ring	235/34	S4003342R	S4005867
33	Seal-support ring	6/254	S4003603R	
34	Seal-O-ring	235/59		
35	Backing ring	419/3		
36	Stud housing (3)	6/260A	S4003339R	
37	Washer-stud (3)	395/140	S4005480R	S4006112
38	Nut-stud (3)	398/14	S4005491R	S4006124

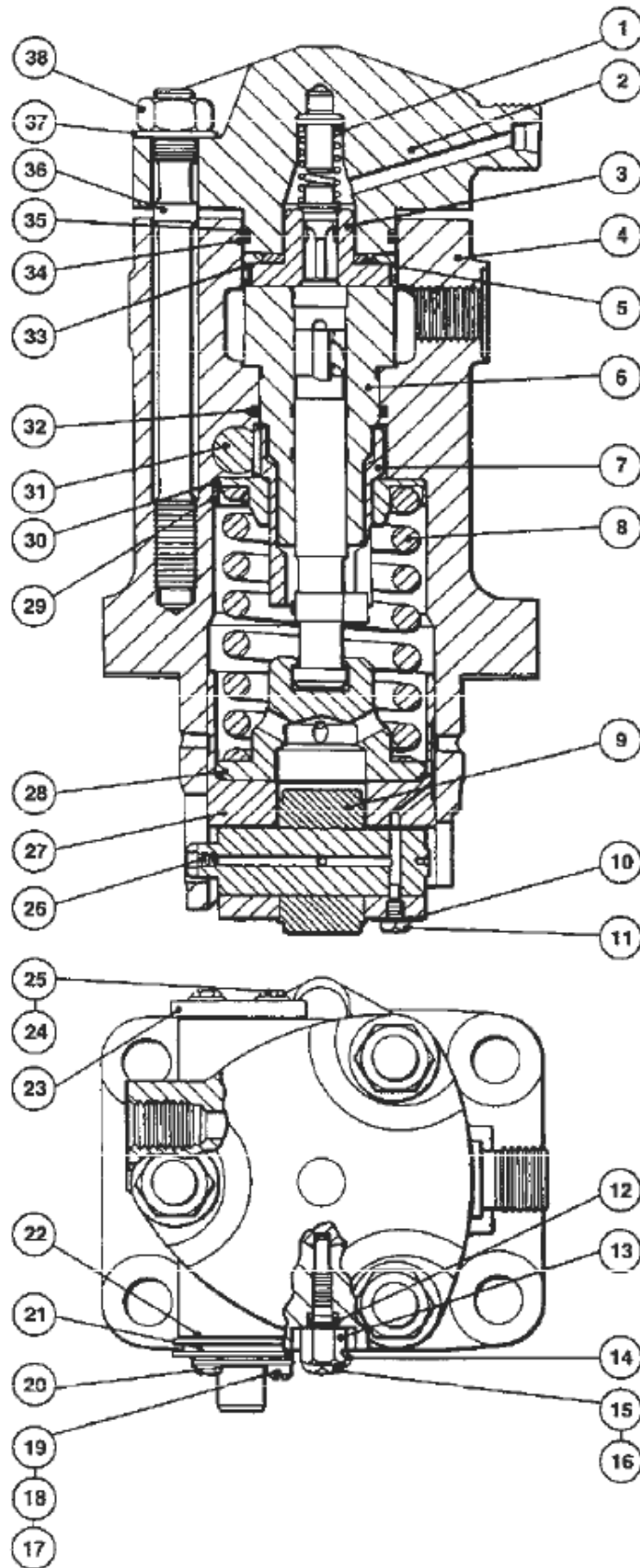


FCCAR180M0819 Fuel Injection Pump

## FCCAR180M0850 Fuel Injection Pump for Paxman RP200 Marine Engine, 309 bmep @ 1600 rpm

(April 1995, Issue #2)

Item				
No.	Part Name	Woodward No.	Paxman No.	
	Fuel Pump	FCCAR180M0850		
1	Spring-delivery valve	21/127	S4003597R	S4006069
2	Delivery valve holder	6/246	S4003561R	
3	Delivery valve & seat assembly	6/470J		
4	Pump housing	6/238	S4003317R	S4005843
5	Seal-high pressure	6/253B	S4003573R	S4006045
6	Element assembly	6/534C		
7	Control sleeve	6/266	S4003469R	S4005983
8	Spring-plunger	6/270	S4003524R	S4006021
9	Roller	6/500		
10	Washer-locating screw	259/504	S4003366	S4003366R
11	Screw-roller locking	6/259	S4005478R	
12	Seal-O-ring	262/106	S4005429R	S4006082
13	Screw-barrel locating	6/269	S4003354R	
14	Wire locking	18SWG		
15	Spill plug	6/272	S4003378R	S4005880
16	Washer-spill plug	113/96	S4003380R	S4005892
17	Shims-control rod plate	6/351A	S4005776R	
		6/351B	S4005788	
		6/351C	S4005790R	
		6/351D	S4005806R	
		6/351E	S4005818R	
		6/351F	S4005820R	
18	Screw-control rod plate	NS16/10		
19	Plate-control rod	6/350	S4003433R	S4005910
20	Bolt-locking	383/0520	S4003470R	
21	Retaining ring assembly	6/264	S4006136R	
22	Gasket-control rod (2)	6/262	S4003410R	
23	Stop plate	6/422	S4003421R	S4005909
24	Washer (4)	NW2/32	S4003494R	S4005995
25	Bolt (3)	383/0516	S4003482R	
26	Roller pin assembly	6/509		
27	Tappet	6/265	S4003548R	
28	Spring plate-lower	6/257	S4003536R	S4006033
29	Circlip-upper	6/255	S4003512R	S4006010
30	Spring plate-upper	6/256	S4003500R	S4006008
31	Control rod	6/421	S4003391R	
32	Seal-O-ring	235/34	S4003342R	S4005867
33	Seal-support ring	6/254	S4003603R	
34	Seal-O-ring	235/59		
35	Backing ring	419/3		
36	Stud housing (3)	6/260A	S4003339R	
37	Washer-stud (3)	395/140	S4005480R	S4006112
38	Nut-stud (3)	398/14	S4005491R	S4006124



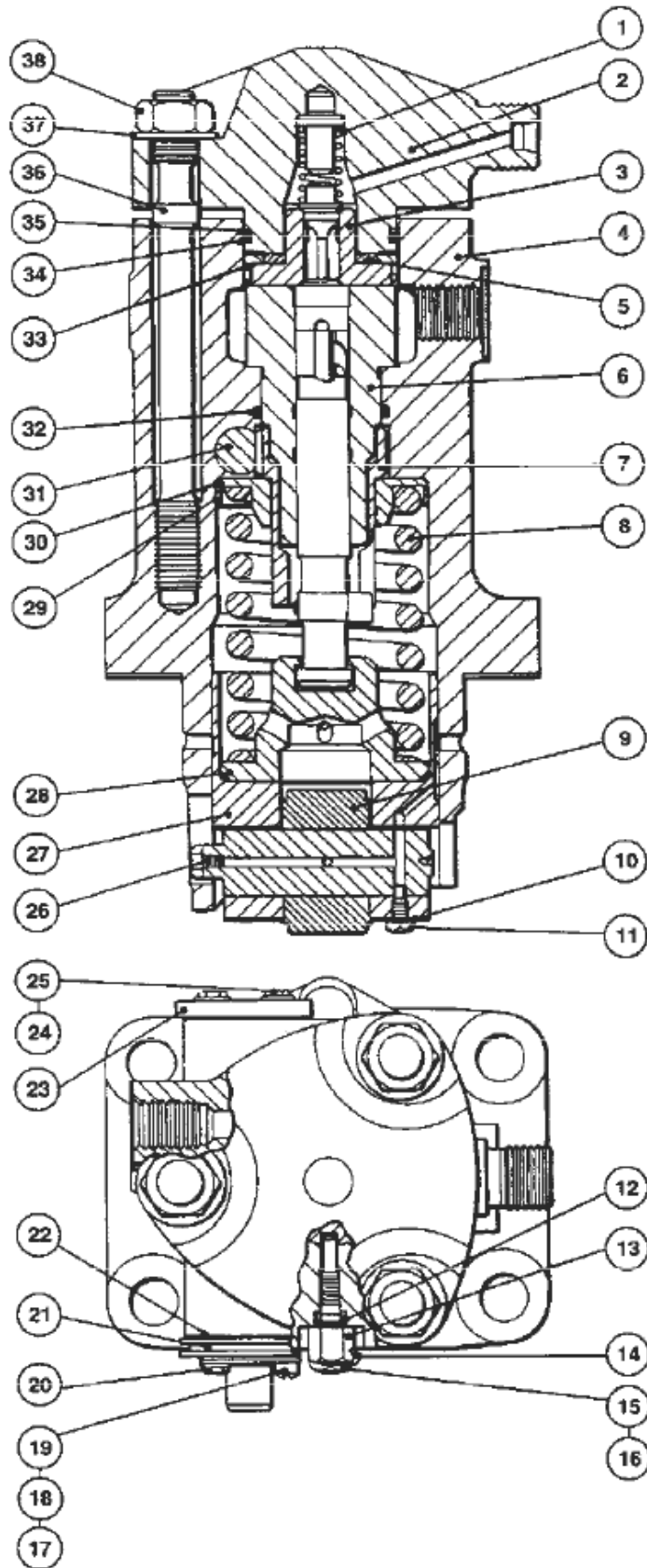
FCCAR180M0850 Fuel Injection Pump

## FCCAR180M0867 Fuel Injection Pump for Paxman RP200 (MOD) Engine, 250 bmep @ 1350 rpm

(April 1995, Issue #2)

Item				
No.	Part Name	Woodward No.	Paxman No.	
	Fuel Pump	FCCAR180M0867		
1	Spring-delivery valve	21/127	S4003597R	S400606
2	Delivery valve holder	6/246	S4003561R	
3	Delivery valve & seat assembly	6/470K		
4	Pump housing	6/238	S4003317R	S4005843
5	Seal-high pressure	6/253B	S4003573R	S4006045
6	Element assembly L.H.	6/510C		
7	Control sleeve	6/266	S4003469R	S4005983
8	Spring-plunger	6/270	S4003524R	S4006021
9	Roller	6/500		
10	Washer-locating screw	259/504	S4003366	S4003366R
11	Screw-roller locking	6/259	S4005478R	
12	Seal-O-ring	262/106	S4005429R	S4006082
13	Screw-barrel locating	6/269	S4003354R	
14	Wire locking	18SWG		
15	Spill plug	6/272	S4003378R	S4005880
16	Washer-spill plug	113/96	S4003380R	S4005892
17	Shims-control rod plate	6/351A	S4005776R	
		6/351B	S4005788R	
		6/351C	S4005790R	
		6/351D	S4005806R	
		6/351E	S4005818R	
		6/351F	S4005820R	
18	Screw-control rod plate	NS16/10		
19	Plate-control rod	6/350	S4003433R	S4005910
20	Bolt-locking	383/0520	S4003470R	
21	Retaining ring assembly	6/264	S4006136R	
22	Gasket-control rod (2)	6/262	S4003410R	
23	Stop plate	6/422	S4003421R	S4005909
24	Washer (4)	NW2/32	S4003494R	S4005995
25	Bolt (3)	383/0516	S4003482R	
26	Roller pin assembly	6/509		
27	Tappet	6/265	S4003548R	
28	Spring plate-lower	6/257	S4003536R	S4006033
29	Circlip-upper	6/255	S4003512R	S4006010
30	Spring plate-upper	6/256	S4003500R	S4006008
31	Control rod	6/421	S4003391R	
32	Seal-O-ring	235/34	S4003342R	S4005867
33	Seal-support ring	6/254	S4003603R	
34	Seal-O-ring	235/59		
35	Backing ring	419/3		
36	Stud housing (3)	6/260A	S4003339R	
37	Washer-stud (3)	395/140	S4005480R	S4006112
38	Nut-stud (3)	398/14	S4005491R	S4006124



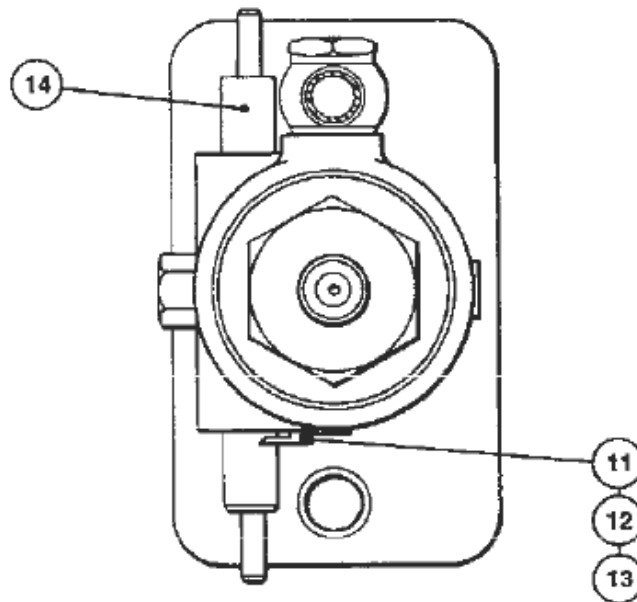
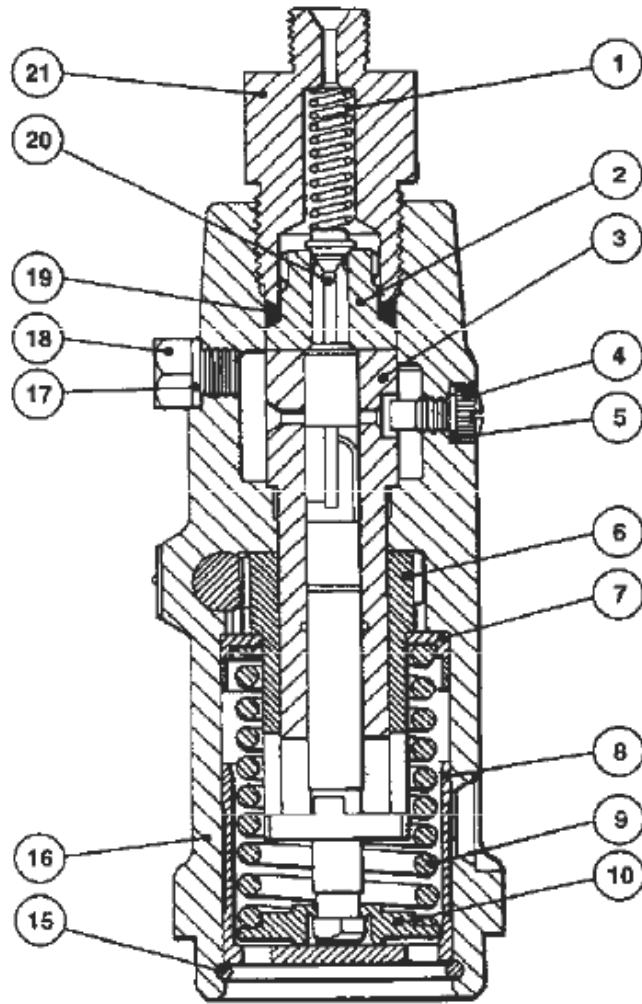


FCCAR180M0867 Fuel Injection Pump

## FCOAB140C6535 Fuel Injection Pump for Paxman YHX Engine

(April 1995, Issue #2)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Fuel Pump	FCOAB140C6535	OD19916
1	Spring delivery valve	7022/9	
2	Delivery valve & seat assembly	7022/173	
3	Element assembly	7022/76	
4	Dowel-barrel locating	7022/159	
5	Washer-locating screw	5936/32	
6	Control sleeve	7022/20	
7	Spring plate-upper	7022/11	
8	Tappet	7022/194	
9	Spring-plunger	7022/148	
10	Spring plate-lower	7022/12	
11	Pointer-control rod	7003/75	
12	Screw-pointer	409/0516	
13	Shims pointer (1AR)	106/1A-E	
14	Control rod	7022A/7A	
15	Circlip (2)	3/3361	
16	Pump housing	7022A/3AJ	
17	Washer-vent screw	5936/53	
18	Screw-vent	7022/157A	
19	Seal-high pressure	7035/96	
20	Spring peg	7022/175	
21	Delivery valve holder	7022/176A	
22ND	Retaining plate-bellows (2)	7022/207	
23ND	Dowel-retaining plate (2)	7029/281	
24ND	Locking wire (AR)	1mm dia.	
25ND	Screw-housing	NS16/12Y1	



FCOAB140C6535 Fuel Injection Pump

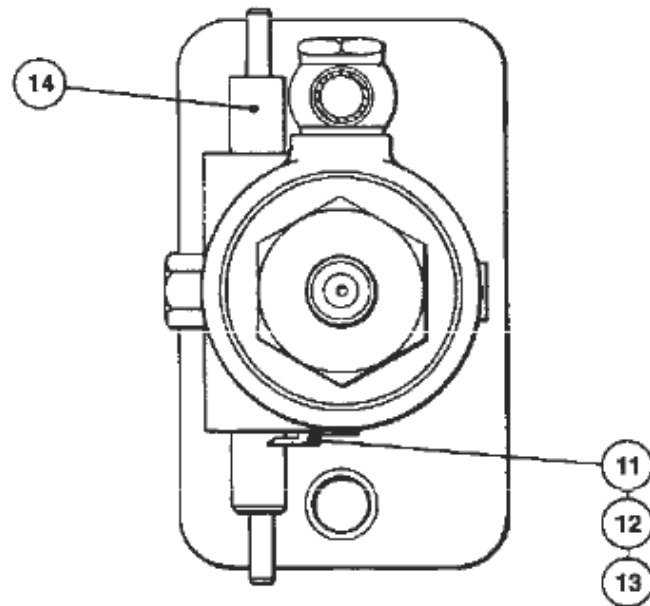
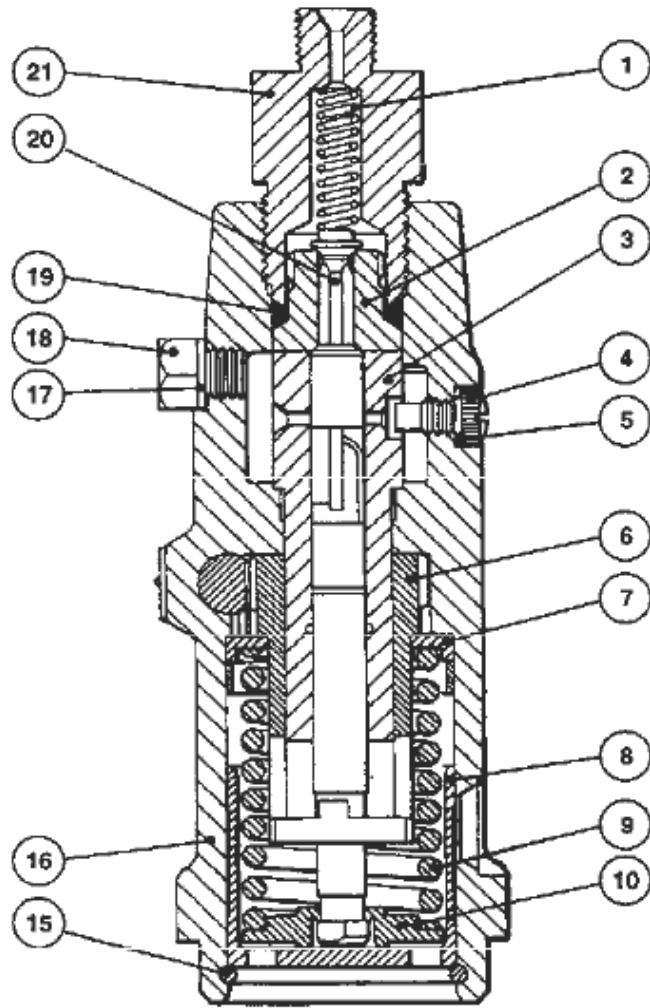
## FCOAB140C6536 Fuel Injection Pump for Paxman Engines:

**YH (above 1251 rpm)**

**YH (up to 1250 rpm)**

(April 1995, Issue #2)

Item			
No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCOAB140C6535	OD19916
1	Spring delivery valve	7022/9	
2	Delivery valve & seat assembly	7022/173	
3	Element assembly	7022/76	
4	Dowel-barrel locating	7022/159	
5	Washer-locating screw	5936/32	
6	Control sleeve	7022/20	
7	Spring plate-upper	7022/11	
8	Tappet	7022/194	
9	Spring-plunger	7022/148	
10	Spring plate-lower	7022/12	
11	Pointer-control rod	7003/75	
12	Screw-pointer	409/0516	
13	Shims pointer (1AR)	106/1A-E	
14	Control rod	7022A/7A	
15	Circlip (2)	3/3361	
16	Pump housing	7022A/3AJ	
17	Washer-vent screw	5936/53	
18	Screw-vent	7022/157A	
19	Seal-high pressure	7035/96	
20	Spring peg	7022/175	
21	Delivery valve holder	7022/176A	
22ND	Retaining plate-bellows (2)	7022/207	
23ND	Dowel-retaining plate (2)	7029/281	
24ND	Locking wire (AR)	1mm dia.	
25ND	Screw-housing	NS16/12Y1	

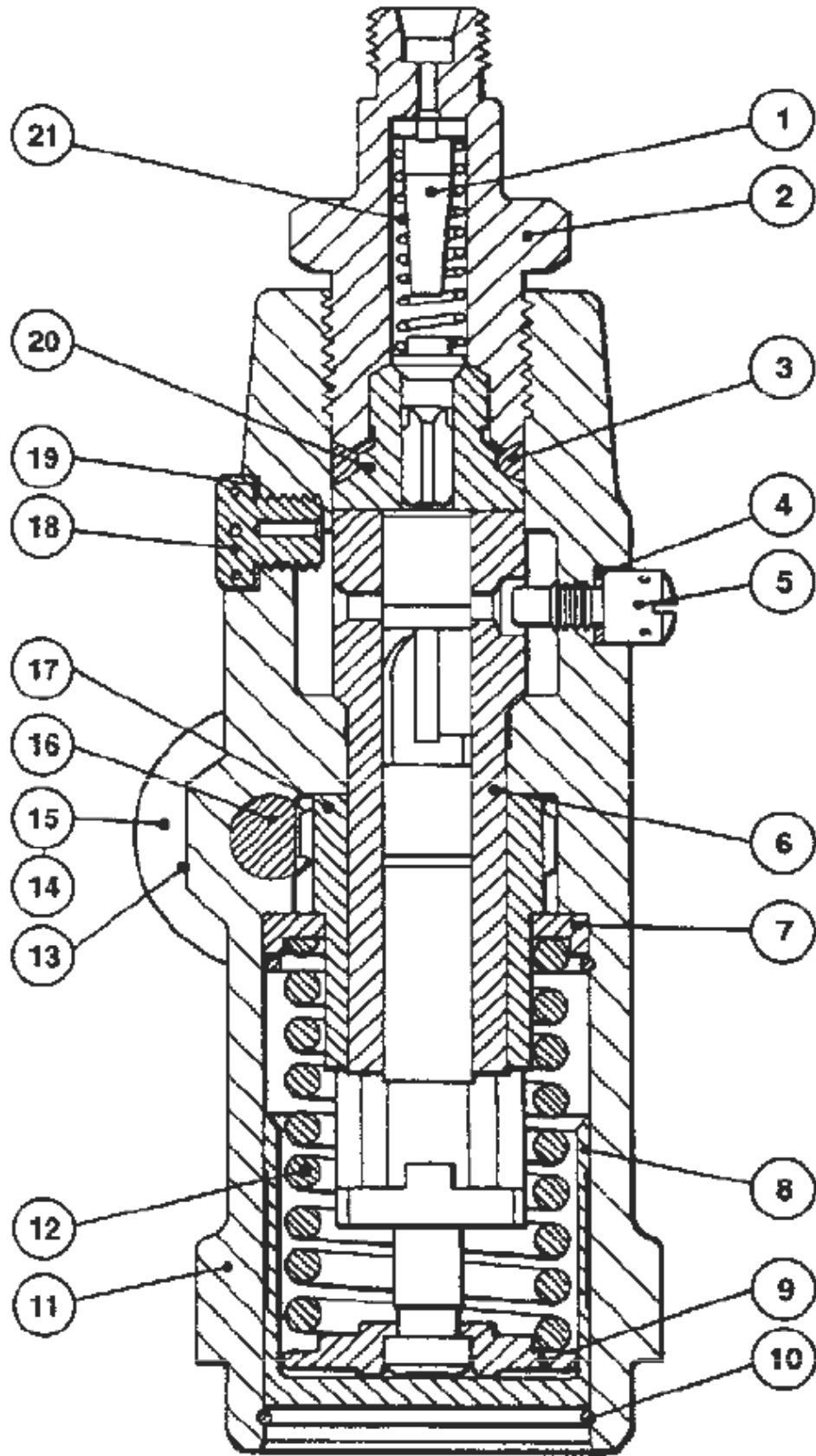


FCOAB140C6536 Fuel Injection Pump

## FCOAB140C6603 Fuel Injection Pump for Paxman YHA, YHAC, & YHAX Engines

(April 1995, Issue #2)

Item			
No.	Part Name	Woodward No.	Paxman No.
	Fuel Pump	FCOAB140C6603	OD25397
1	Spring peg	7022/175	
2	Delivery valve holder	7022/176A	
3	Seal-high pressure	7035/96	
4	Washer-locating screw	5936/32	
5	Dowel-barrel locating	7022/159	
6	Element assembly	7022/76	
7	Spring plate-upper	7022/11	
8	Tappet	7022/194	
9	Spring plate-lower	7022/12	
10	Circlip-lower (2)	3/3361	
11	Pump housing	7022/3AJ	
12	Spring-plunger	7022/148	
13	Screw-housing	NS16-12Y1	
14	Dowel-retaining plate (2)	7029/281	
15	Retaining plate-bellows (2)	7022/207	
16	Control rod	7022A/7A	
17	Control sleeve	7022/20	
18	Screw-vent	7022/157A	
19	Washer-vent screw	5936/53	
20	Delivery valve & seat assembly	7022/173B	
21	Spring delivery valve	7022/9	
22ND	Pointer-control rod	7003/75	
23ND	Screw-pointer	409/0516	
24ND	Shims-pointer	106/1A-E	
25ND	Washer-locking	205/3	



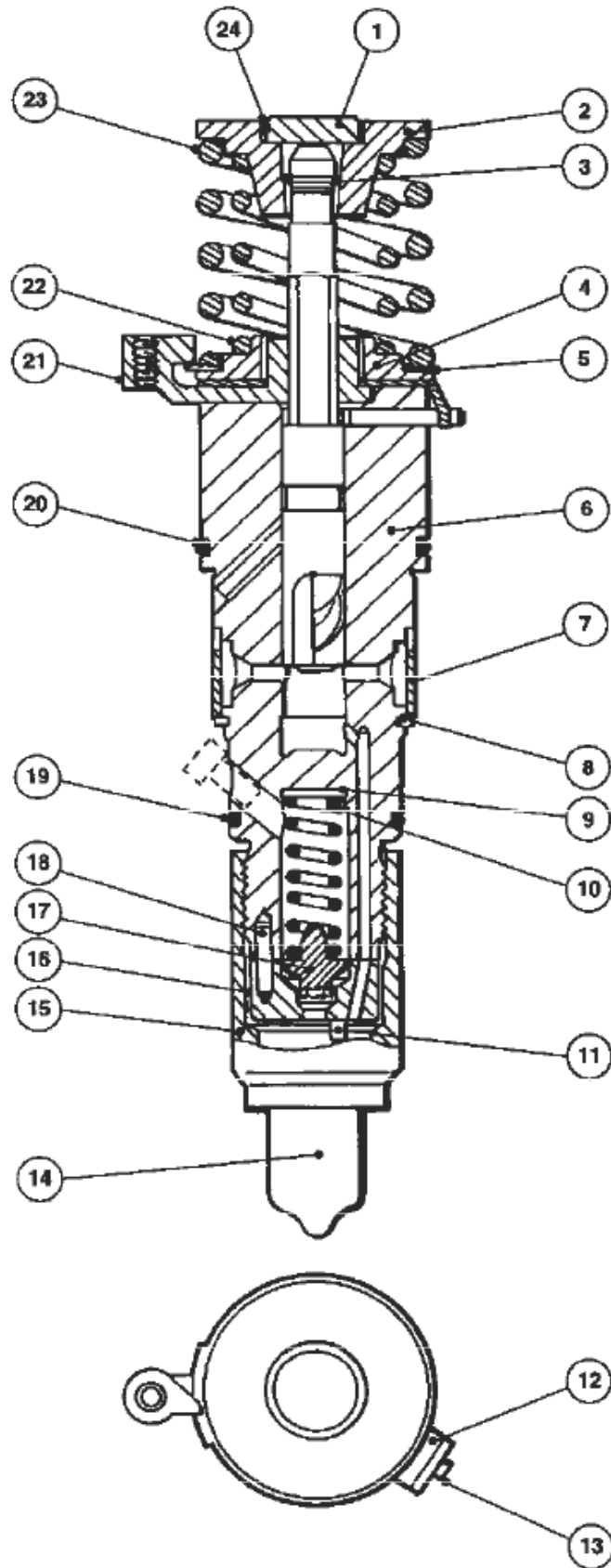
FCOAB140C6603 Fuel Injection Pump

## 97/2T Injector for Paxman Vega Engine

(April 2005, Issue #4)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	97/2T	
1	Insert-spring plate	20/211	
2	Spring plate-upper	20/210	
3	Circlip lower	124/69	
4	Spring plate-lower	20/216	
5	Retainer lower spring plate	20/215	
6	Housing element assembly R.H.	20/200CA	
7	Spill baffle	20/207	
8	Circlip (spill baffle)	124/66	
9	Shims-adjusting (1AR)	7169/310CA-CP	
10	Spring injector	52/329	
11	Dowel (2)	51/415A	
12	Retaining spring	20/206	
13	Timing pin	20/205	
14	Nozzle assembly	H155T26H837P4	
15	Nozzle nut	52/318	
16	Transfer block	20/212	
17	Thrust cap	52/461	
18	Dowel (2)	52/440	
19	Seal-O-ring	372/58	
20	Seal-O-ring	372/59	
21	Control sleeve	20/214	
22	Spring plunger-inner	20/209B	
23	Spring plunger-outer	20/209A	
24	Seal-O-ring	372/60	



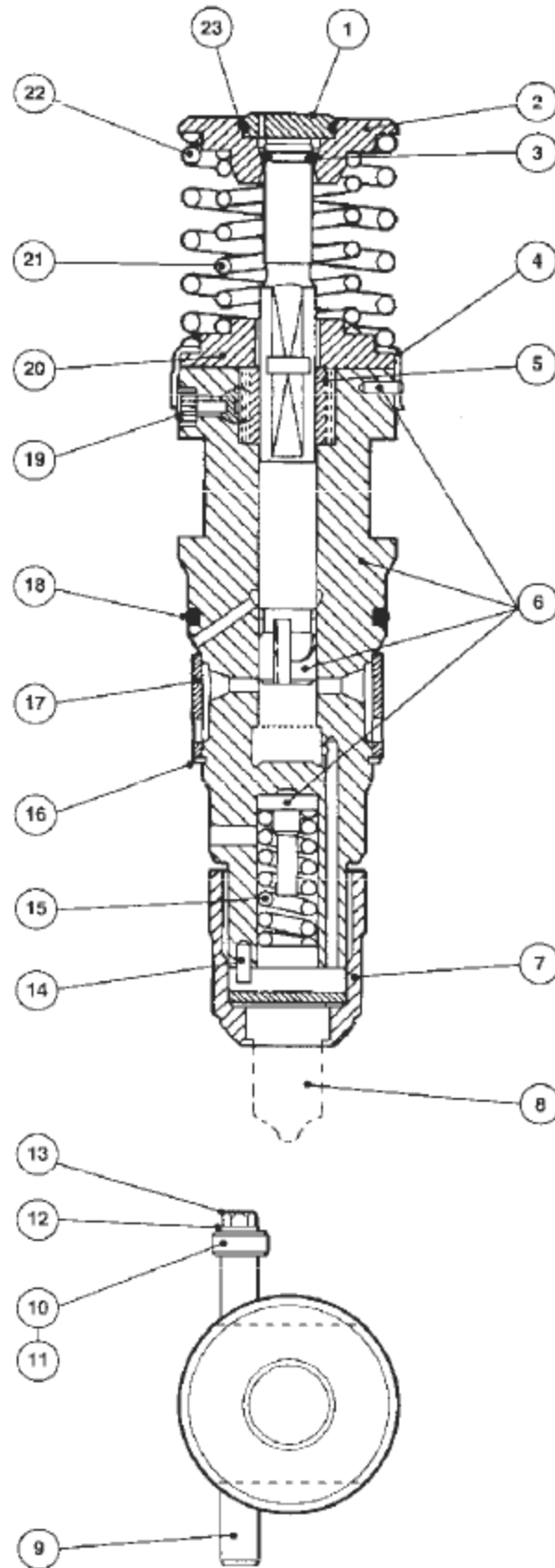


97/2T Injector

## 97/14T Injector for MAN Diesel (Paxman) VP185 (HST) Engine

(July 2000, Issue #5)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>MAN Diesel No.</b>
	Injector	97/14T	
1	Insert-upper spring plate	20/294	
2	Spring plate-upper	20/291	
3	Keeper (2)	20/293	
4	Retainer-lower spring plate	20/289	
5	Control sleeve	20/285	
6	Element assembly	20/281	
7	Nozzle nut	20/298	
8	Nozzle assembly	H150T36K932P4	
9	Control rod	20/286	
10	Stop cap	20/287	
11	Shims-adjusting (AR)	20/288A-Z	
12	Spring washer	282/3	
13	Set screw-hexagonal head	402/0514	
14	Dowel (2)	20/296	
15	Spring injector	20/297	
16	Circlip	124/75	
17	Spill baffle	20/295	
18	Seal-O-ring	372/61	
19	Screw-control rod locating	123/9	
20	Spring plate-lower	20/290	
21	Spring plunger-inner	20/292B	
22	Spring plunger-outer	20/292A	
23	Seal-O-ring	372/89	

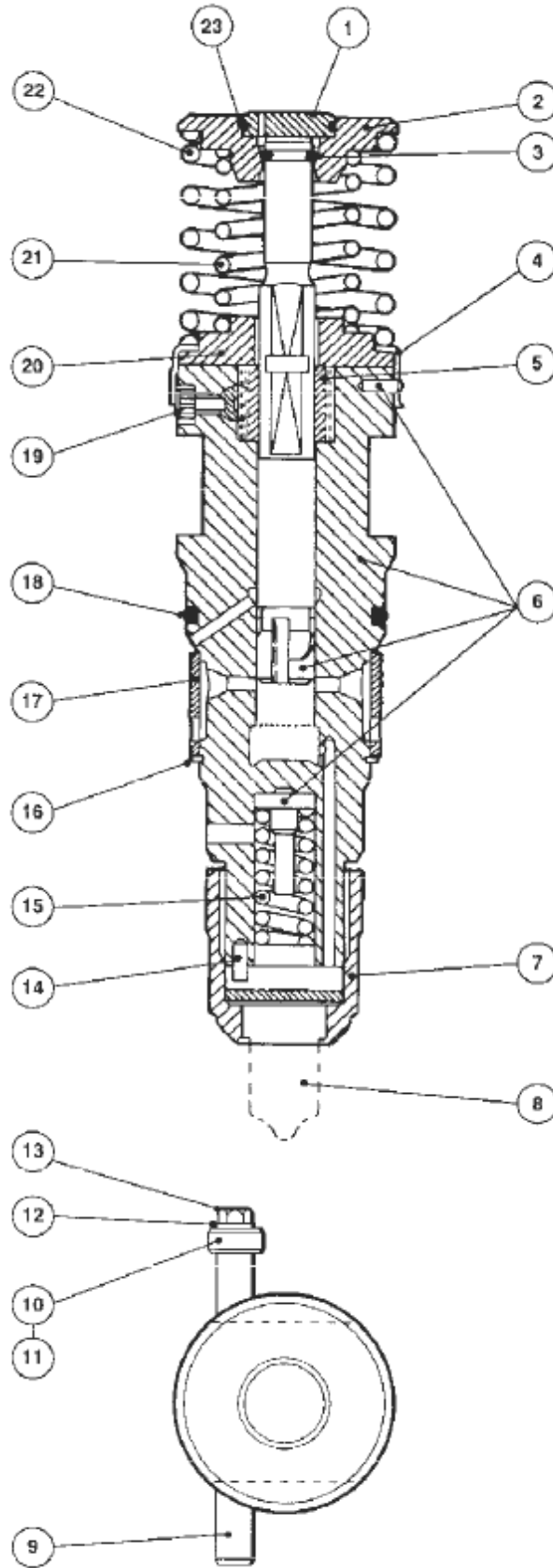


97/14T Injector

## 97/15T Injector for MAN Diesel (Paxman) VP185 Engine

(April 1995, Issue #2)

Item No.	Part Name	Woodward No.	MAN Diesel No.
	Injector	97/15T	
1	Insert-upper spring plate	20/294	
2	Spring plate-upper	20/291	
3	Keeper (2)	20/293	
4	Retainer-lower spring plate	20/289	
5	Control sleeve	20/285	
6	Element assembly	20/281	
7	Nozzle nut	20/298	
8	Nozzle assembly	H150T40K932P4	
9	Control rod	20/286	
10	Stop cap	20/287	
11	Shims-adjusting (AR)	20/288A-Z	
12	Spring washer	282/3	
13	Set screw-hexagonal head	402/0514	
14	Dowel (2)	20/296	
15	Spring injector	20/297	
16	Circlip	124/75	
17	Spill baffle	20/295	
18	Seal-O-ring	372/61	
19	Screw-control rod locating	123/9	
20	Spring plate-lower	20/290	
21	Spring plunger-inner	20/292B	
22	Spring plunger-outer	20/292A	
23	Seal-O-ring	372/89	

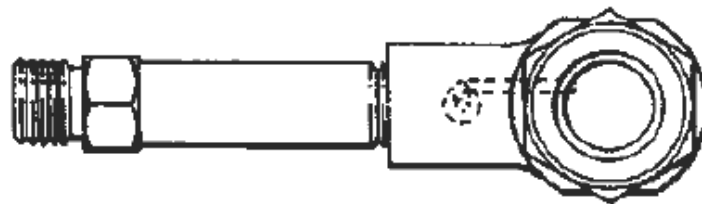
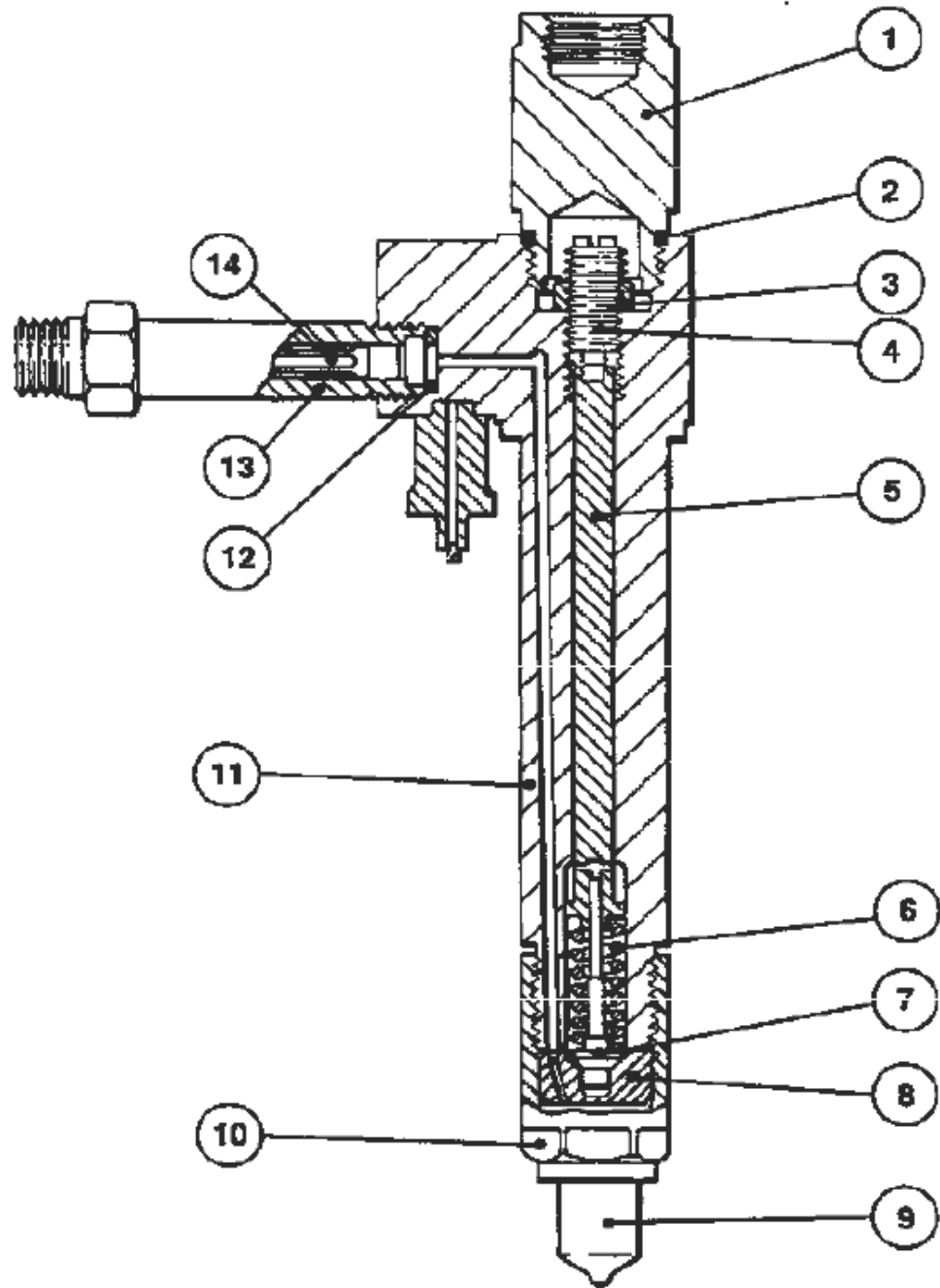


97/15T Injector

## 99/319 Injector for Paxman YJC Engine (cast iron cyl. heads)

(April 1995, Issue #2)

<b>Item No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/319	OD28624
1	Cap nut	52/334	
2	Washer	113/97	
3	Locknut-adjusting screw	112/28	
4	Screw-adjusting	52/332	
5	Spindle-one piece	52/314D	
6	Spring-injector	52/329	
7	Thrust cap-guided	52/315	
8	Transfer block	52/313	
9	Nozzle assembly	H160T36H696P4	OD28625
10	Nozzle nut	52/318	
11	Nozzle holder body	52/336	
12	Washer-inlet connector	5936/95L	
13	Inlet connector	52/335	
14	Edge filter	7024/57	



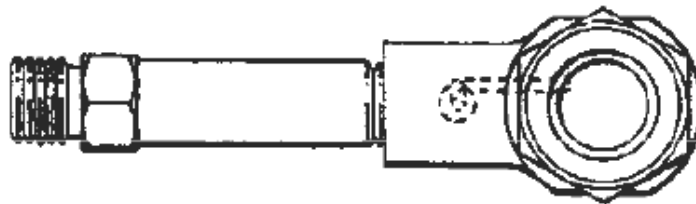
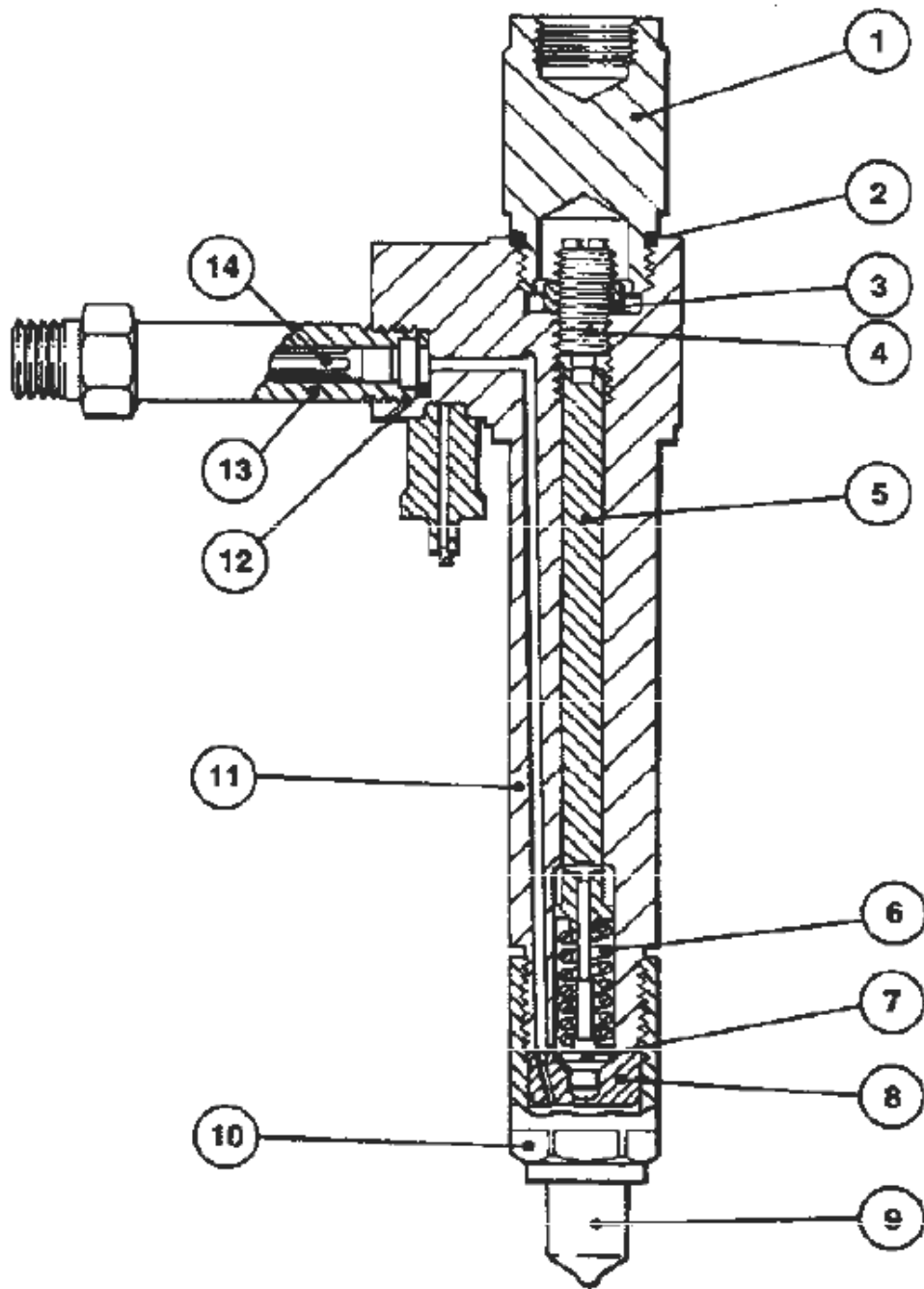
99/319 Injector

**99/357 Injector**  
**for Paxman YJC Engine**  
**(cast iron cyl. heads, up to 1250 rpm)**

(April 1995, Issue #2)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/357	OD28674
1	Cap nut	52/334	
2	Washer	113/97	
3	Locknut-adjusting screw	112/28	
4	Screw-adjusting	52/332	
5	Spindle-one piece	52/314D	
6	Spring-injector	52/329	
7	Thrust cap-guided	52/315	
8	Transfer block	52/313	
9	Nozzle assembly	H160T32H696P4	OD28675
10	Nozzle nut	52/318	
11	Nozzle holder body	52/336	
12	Washer-inlet connector	5936/95L	
13	Inlet connector	52/335	
14	Edge filter	7024/57	



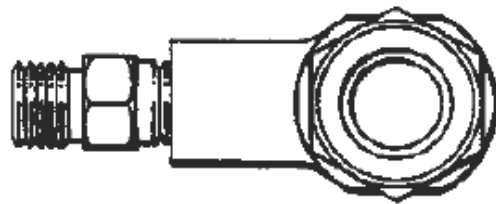
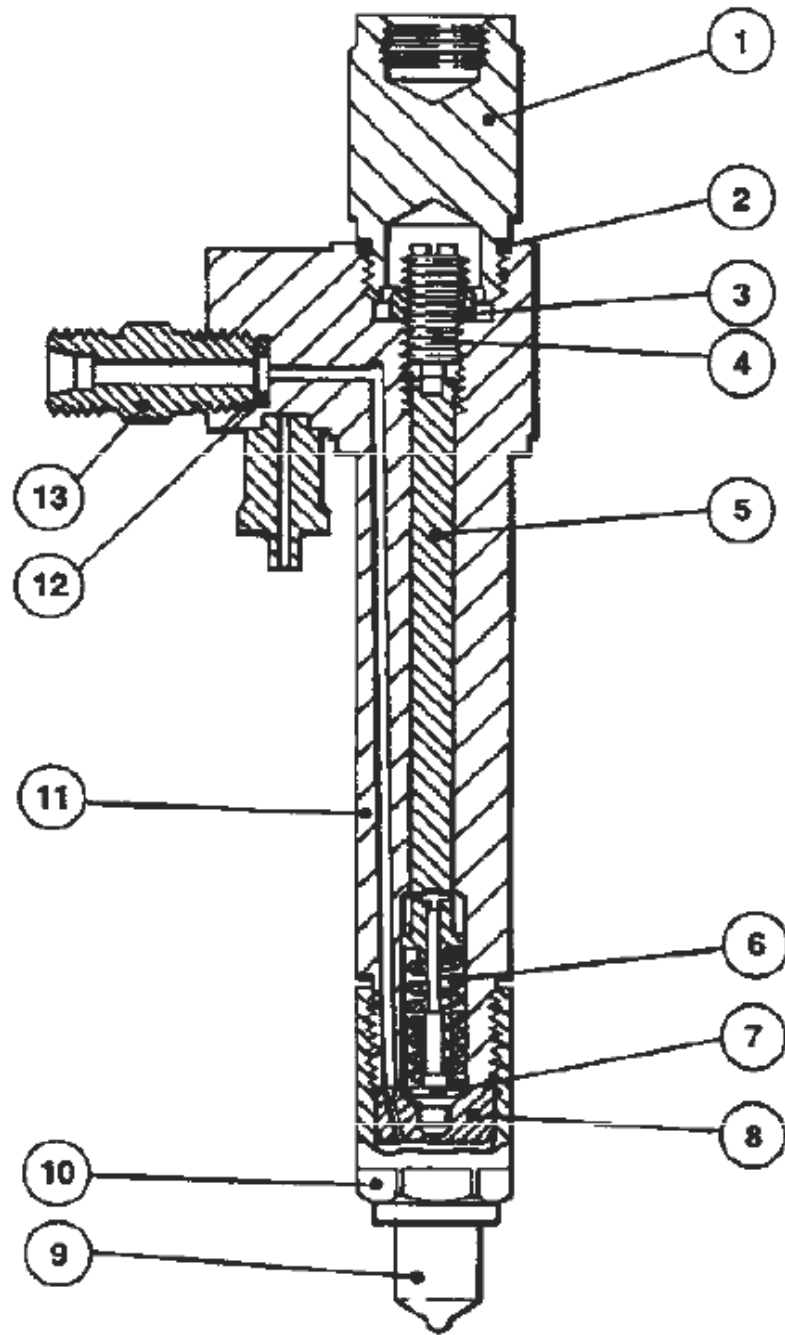


99/357 Injector

**99/358 Injector**  
**for Paxman YJC Engine**  
**(sheathed HP pipe, up to 1250 rpm)**

(April 1995, Issue #2)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/358	OD28676
1	Cap nut	52/334	
2	Washer	113/97	
3	Locknut-adjusting screw	112/28	
4	Screw-adjusting	52/332	
5	Spindle-one piece	52/314D	
6	Spring-injector	52/329	
7	Thrust cap-guided	52/315	
8	Transfer block	52/313	
9	Nozzle assembly	H160T32H696P4	OD28675
10	Nozzle nut	52/318	
11	Nozzle holder body	52/336	
12	Washer-inlet connector	5936/95L	
13	Inlet connector	52/323	

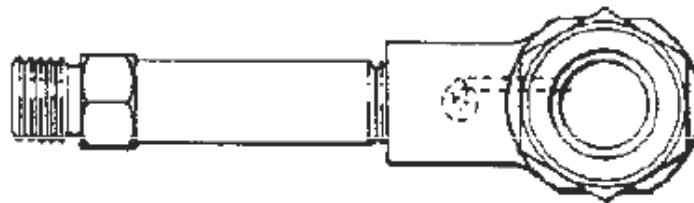
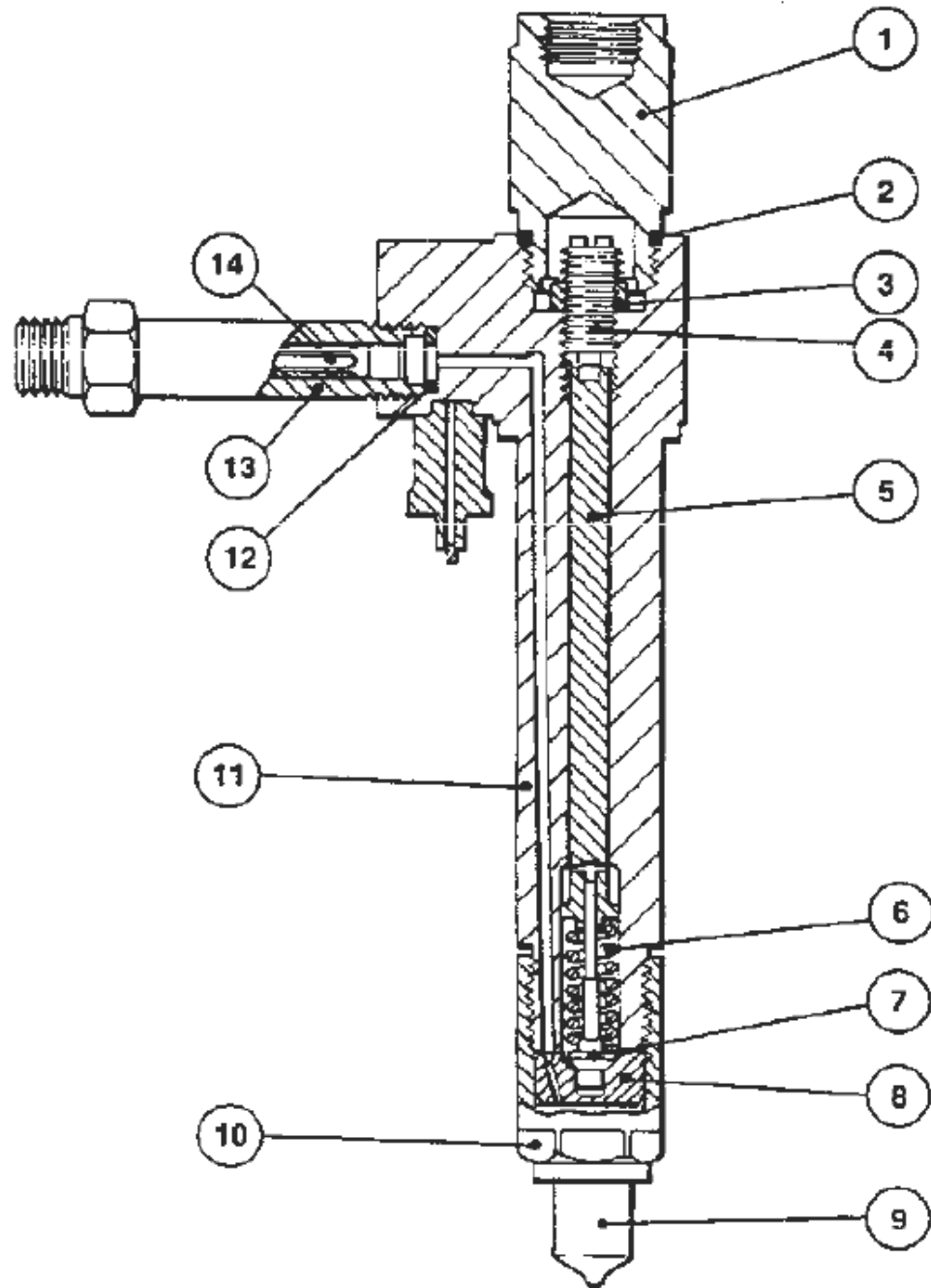


99/358 Injector

## 99/363 Injector for Paxman YJ Engine (naturally aspirated)

(April 1995, Issue #2)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/363	OD28270
1	Cap nut	52/334	
2	Washer	113/97	
3	Locknut-adjusting screw	112/28	
4	Screw-adjusting	52/332	
5	Spindle-one piece	52/314D	
6	Spring-injector	52/329	
7	Thrust cap-guided	52/315	
8	Transfer block	52/313	
9	Nozzle assembly	H150T33F696P4	OD28679
10	Nozzle nut	52/318	
11	Nozzle holder body	52/336	
12	Washer-inlet connector	5936/95L	
13	Inlet connector	52/335	
14	Edge filter	7024/57	

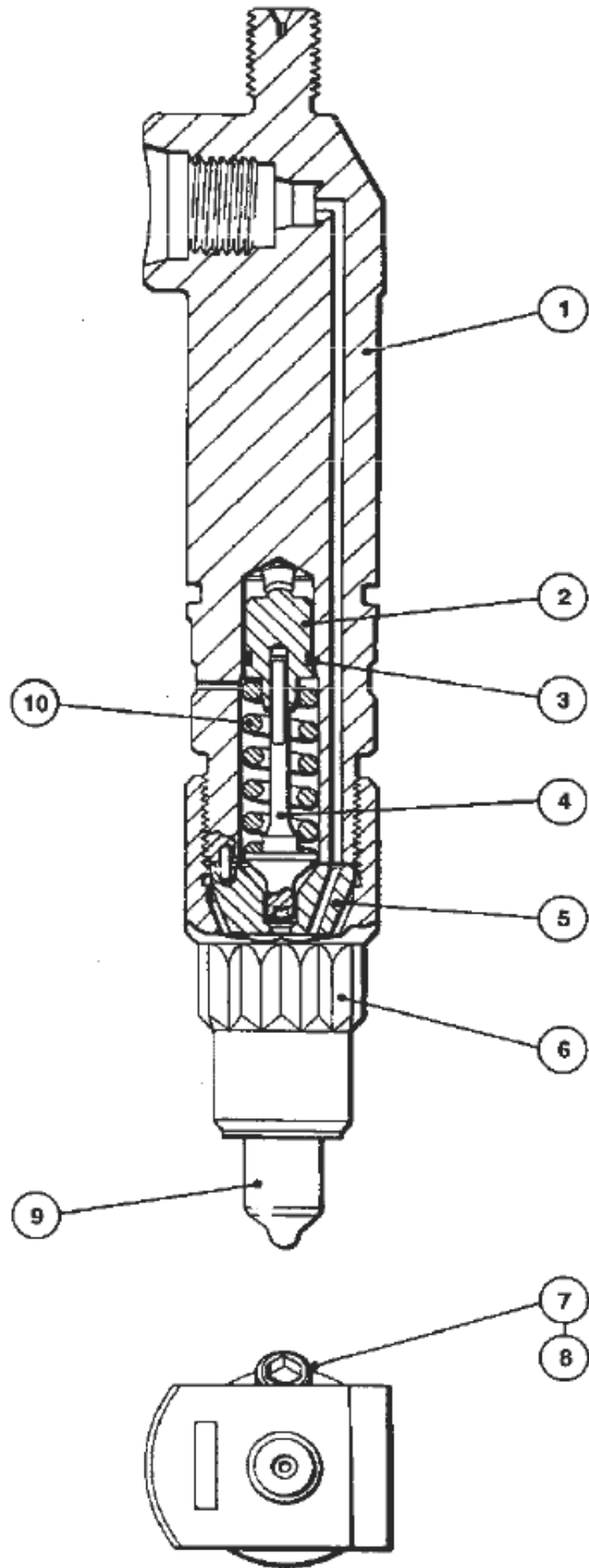


99/363 Injector

**99/402 Injector**  
**for Paxman RP200 (MOD) Gen Set**  
**(216/254 bmep @ 1200 rpm)**

(April 1995, Issue #2)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/402	OD28802
1	Nozzle holder body	52/346	
2	Spring plate-upper	52/343	S4005557R
3	Seal-O-ring	234/116	OD28059P28 OD29736P14 S4005569R S4013633
4	Spindle-one piece	52/339	OD29736P12 S4005521R
5	Transfer block	52/338	S4005508R
6	Nozzle nut	52/344	S4005570R
7	Screw-adjusting	52/143	OD29736P15 S4005533R
8	Locknut-adjusting screw	398/8	OD29736P16 S4005545R
9	Nozzle assembly	HL150T34L642P4	OD28800
10	Spring-injector	52/340	OD29736P13 S4005521R



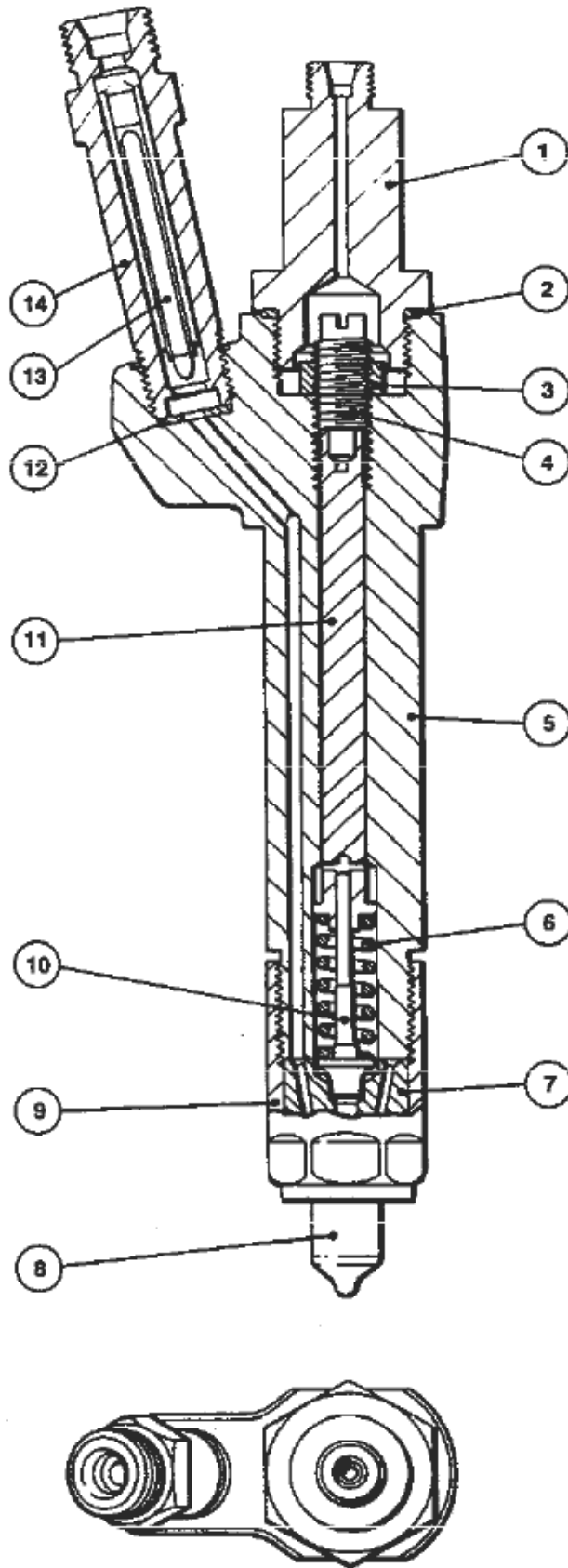
99/402 Injector

## 99/414 Injector for Paxman YHAC & YHAX Engines

(April 1995, Issue #2)

<b>Item No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/414	OD28919
1	Cap nut	52/449	
2	Washer	113/97	
3	Locknut-adjusting screw	112/28	
4	Screw-adjusting	52/332	
5	Nozzle holder body	52/448A	
6	Spring-injector	52/329	
7	Transfer block	52/313	
8	Nozzle assembly	H160T40E696P4	
9	Nozzle nut	52/318	
10	Thrust cap	52/315	
11	Spindle-one piece	52/314C	
12	Washer-inlet connector	5936/95E	
13	Edge filter	7024/57	
14	Inlet connector	52/335	





99/414 Injector

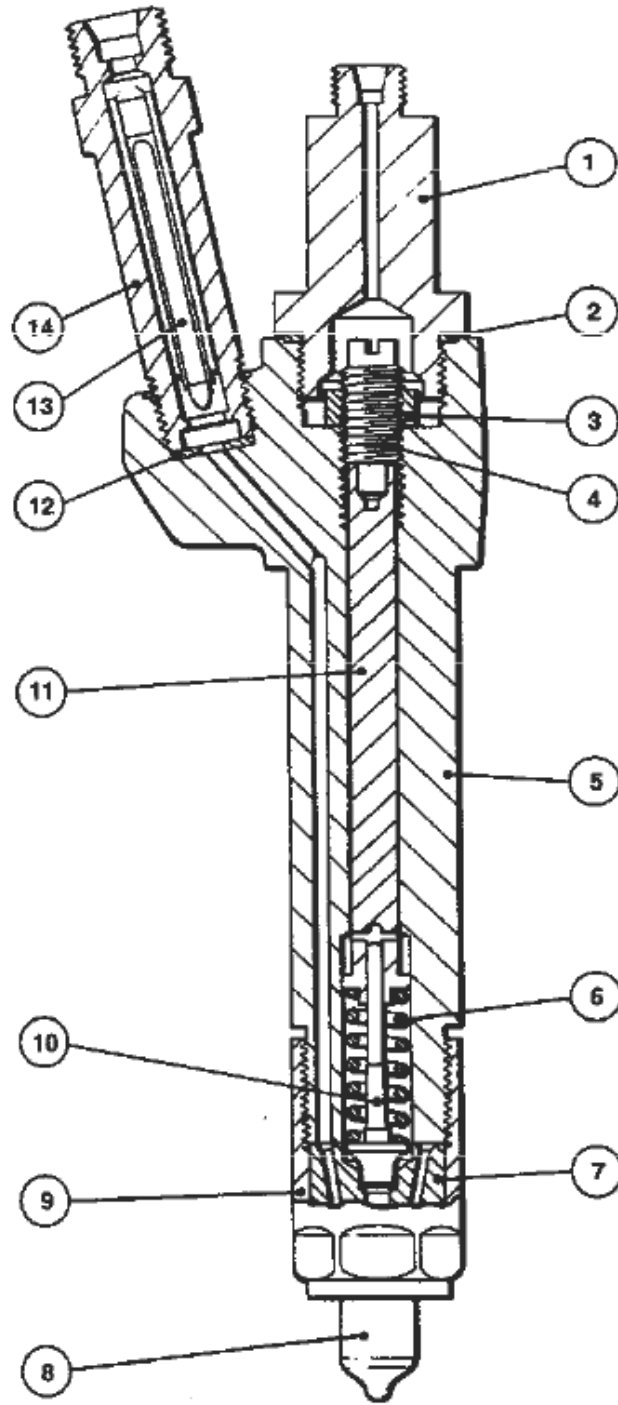
## 99/419 Injector for Paxman Engines:

YH (above 1251 rpm)

YH (up to 1250 rpm)

(April 1995, Issue #2)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/419	
1	Cap nut	52/449	
2	Washer	113/97	
3	Locknut-adjusting screw	112/28	
4	Screw-adjusting	52/332	
5	Nozzle holder body	52/448A	
6	Spring-injector	52/329	
7	Transfer block	52/313	
8	Nozzle assembly	H160T36E696P4	
9	Nozzle nut	52/318	
10	Thrust cap	52/315	
11	Spindle-one piece	52/314C	
12	Washer-inlet connector	5936/95E	
13	Edge filter	7024/57	
14	Inlet connector	52/335	



99/419 Injector

## 99/444 Injector for Paxman Engines:

**RP200 Marine (309 bmep @ 1600 rpm)**

**RP200 (309 bmep @ 1600 rpm)**

**RP200 Rail Traction (247 bmep @ 1500 rpm)**

**RP200 Marine (250 bmep @ 1600 rpm)**

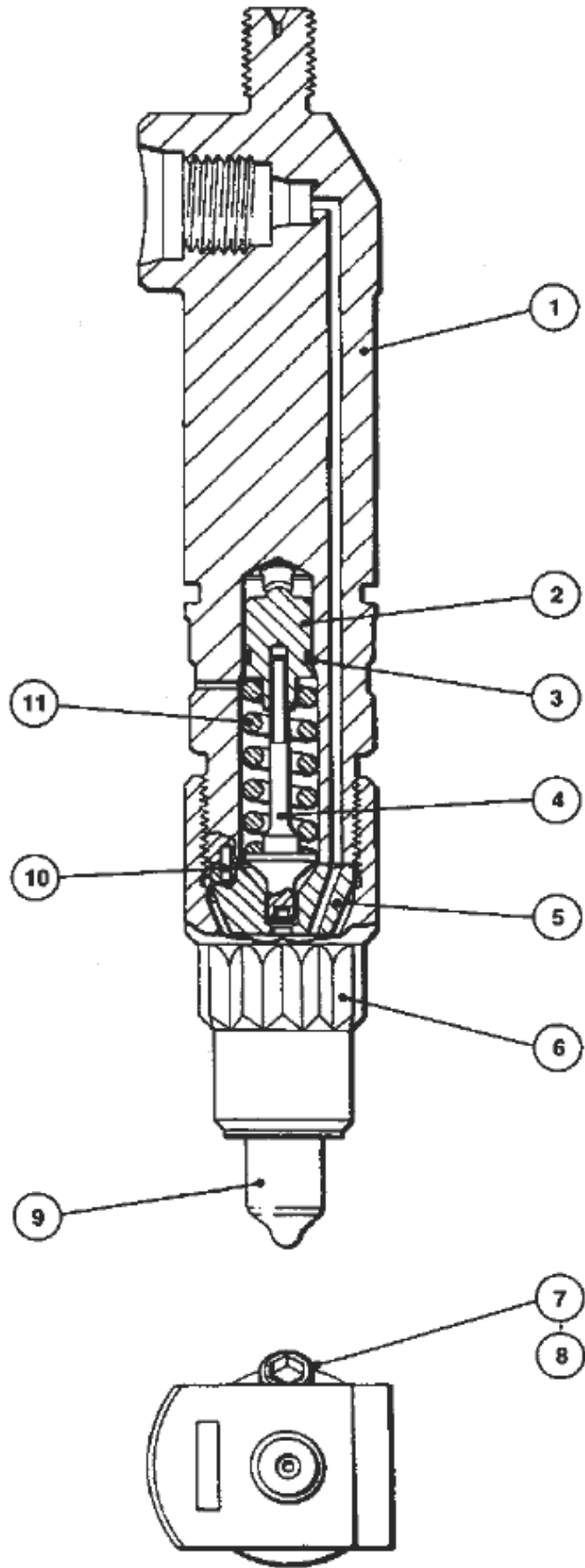
**RP200 (309 bmep @ 1600 rpm)**

**RP200 Marine (309 bmep @ 1600 rpm)**

(April 1995, Issue #2)

### Item

<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>	
	Injector	99/444	OD29707	
1	Nozzle holder body	52/533		
2	Spring plate-upper	52/343	S4005557R	
3	Seal-O-ring	234/116	OD28059P28	OD29736P14
			S4005569R	S4013633
4	Spindle-one piece	52/339	OD29736P12	S4005521R
5	Transfer block	52/532		
6	Nozzle nut	52/344	S4005570R	
7	Screw-adjusting	391/850		
8	Locknut-adjusting screw	398/8	OD29736P16	S4005545R
9	Nozzle assembly	HL150T35L759P4	OD29363	
10	Dowel (2)	51/415A		
11	Spring-injector	52/340	OD29736P13	S4005521R

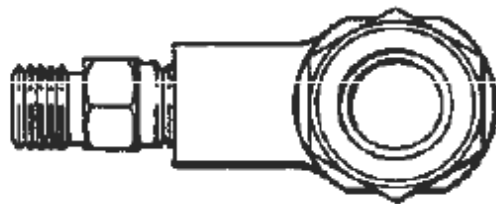
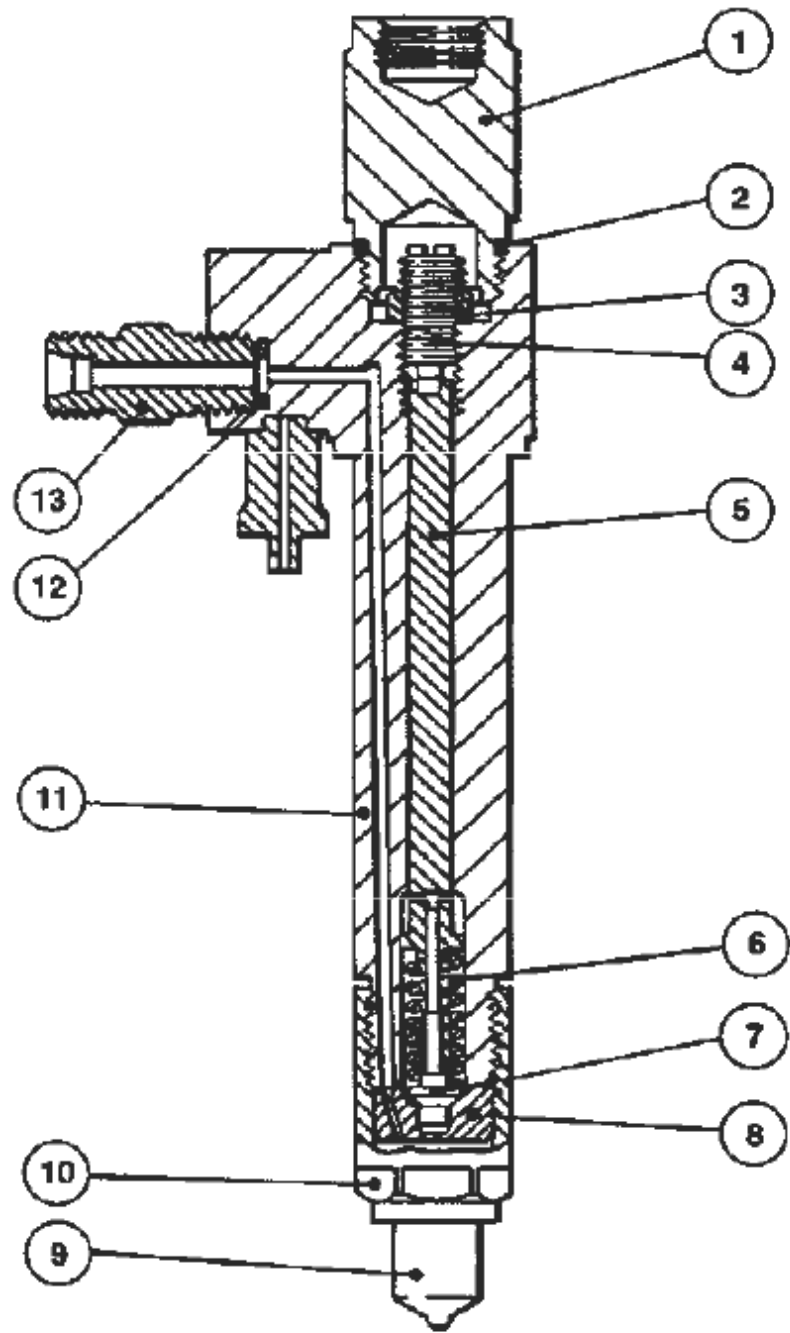


99/444 Injector

## 99/461 Injector for Paxman YJ (MOD) Engine

(April 1995, Issue #2)

<b>Item</b>			
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>
	Injector	99/461	
1	Cap nut	52/334	
2	Washer	113/97	
3	Locknut-adjusting screw	112/28	
4	Screw-adjusting	52/332	
5	Spindle-one piece	52/314D	
6	Spring-injector	52/329	
7	Thrust cap-guided	52/315	
8	Transfer block	52/313	
9	Nozzle assembly	H160T30H696P4	
10	Nozzle nut	52/318	
11	Nozzle holder body	52/336	
12	Washer-inlet connector	5936/95L	
13	Inlet connector	52/323	



99/461 Injector

## 99/471 Injector for Paxman Engines:

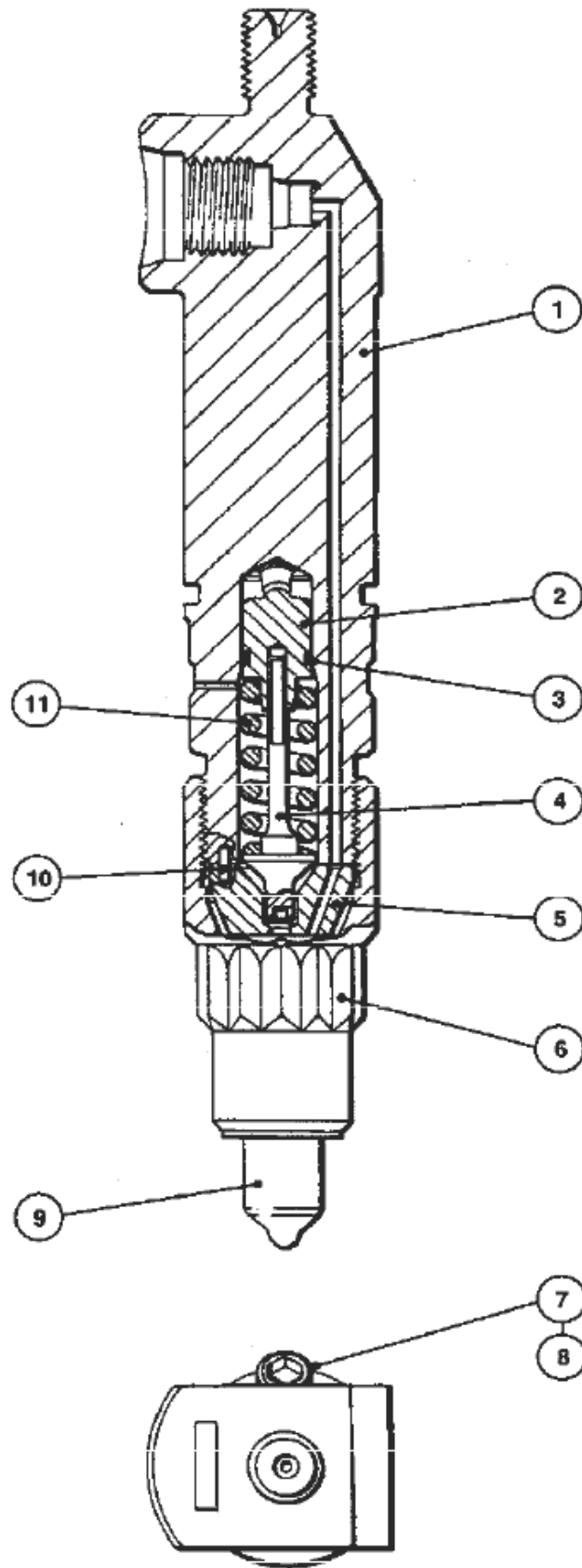
**RP200 (275 bmep @ 1500 rpm)**

**RP200 (MOD) (250 bmep @ 1350 rpm)**

(April 1995, Issue #2)

<b>Item</b>				
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>	
	Injector	99/471	OD30297	
1	Nozzle holder body	52/533		
2	Spring plate-upper	52/343	S4005557R	
3	Seal-O-ring	234/116	OD28059P28	OD29736P14
			S4005569R	S4013633
4	Spindle-one piece	52/339	OD29736P12	S4005521R
5	Transfer block	52/532		
6	Nozzle nut	52/344	S4005570R	
7	Screw-adjusting	391/850		
8	Locknut-adjusting screw	398/8	OD29736P16	S4005545R
9	Nozzle assembly		HL150T36K768P4	
10	Dowel (2)	51/415A		
11	Spring-injector	52/340	OD29736P13	S4005521R





99/471 Injector

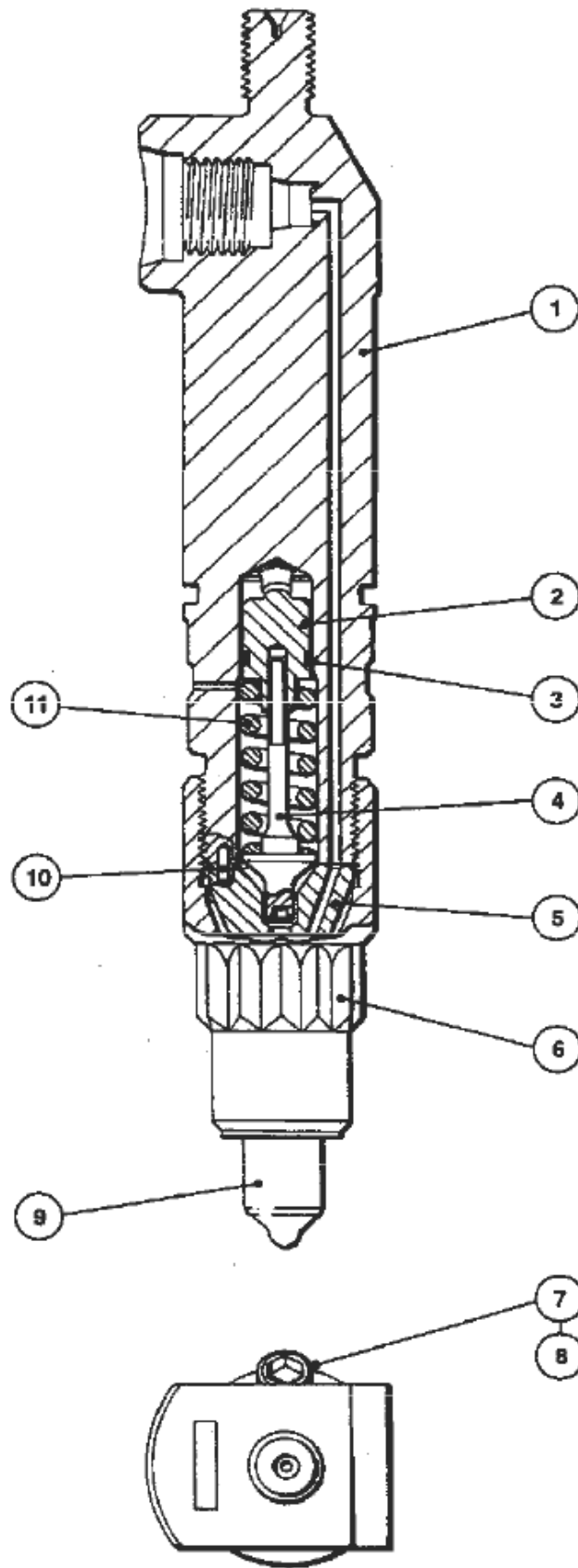
## 99/484 Injector for Paxman Engines:

**RP200 (MOD) (194/252 bmep @ 1200 rpm)**

**RP200 (MOD) (247 bmep @ 1500 rpm)**

(April 1995, Issue #2)

<b>Item</b>				
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>	
	Injector	99/484	OD30527	OD30821
1	Nozzle holder body	52/533		
2	Spring plate-upper	52/343	S4005557R	
3	Seal-O-ring	234/116	OD28059P28	OD29736P14
			S4005569R	S4013633
4	Spindle-one piece	52/339	OD29736P12	S4005521R
5	Transfer block	52/532		
6	Nozzle nut	52/344	S4005570R	
7	Screw-adjusting	391/850		
8	Locknut-adjusting screw	398/8	OD29736P16	S4005545R
9	Nozzle assembly	HL150T34L642P4	OD28800	
10	Dowel (2)	51/415A		
11	Spring-injector	52/340	OD29736P13	S4005521R

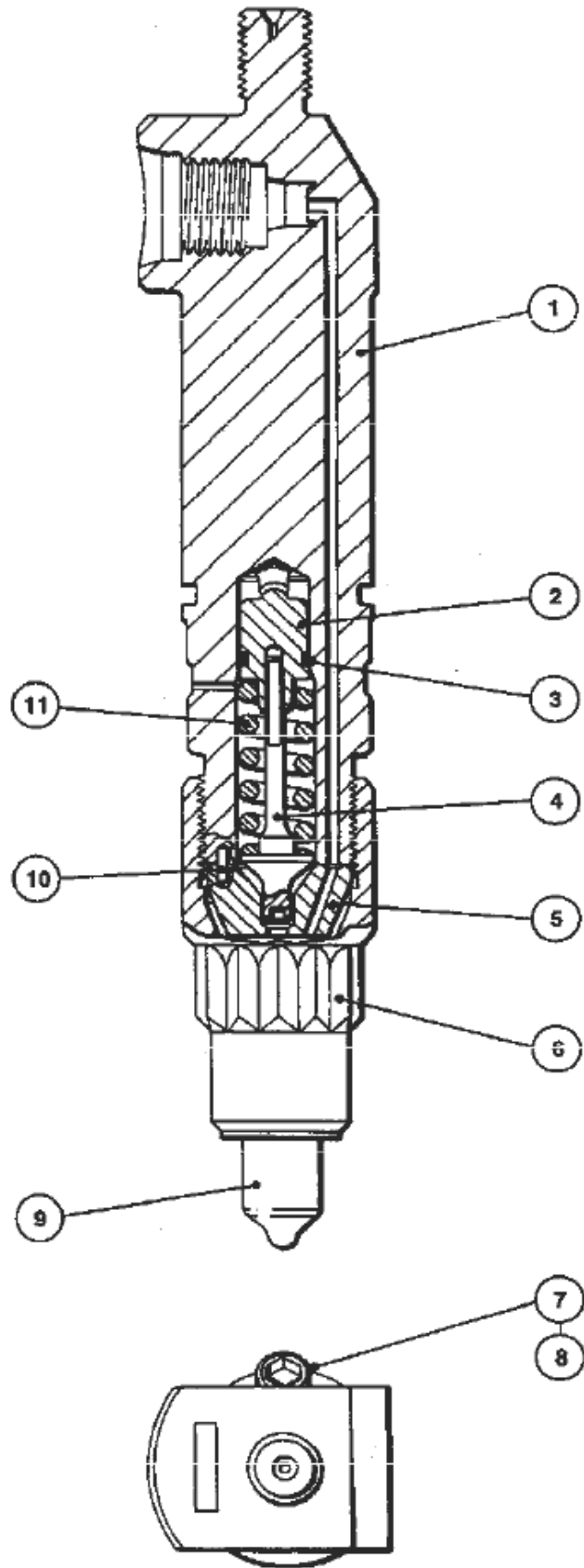


99/484 Injector

**99/540 Injector**  
**for Paxman RP200 Marine Engine**  
**(309 bmep @ 1600 rpm)**

(April 1995, Issue #2)

<b>Item</b>				
<b>No.</b>	<b>Part Name</b>	<b>Woodward No.</b>	<b>Paxman No.</b>	
	Injector	99/540		
1	Nozzle holder body	52/533		
2	Spring plate-upper	52/343	S4005557R	
3	Seal-O-ring	234/116	OD28059P28	OD29736P14
			S4005569R	S4013633
4	Spindle-one piece	52/339	OD29736P12	S4005521R
5	Transfer block	52/532		
6	Nozzle nut	52/344	S4005570R	
7	Screw-adjusting	391/850		
8	Locknut-adjusting screw	398/8	OD29736P16	S4005545R
9	Nozzle assembly	HL150T30L642P4		
10	Dowel (2)	51/415A		
11	Spring-injector	52/340	OD29736P13	S4005521R



99/540 Injector

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