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# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



December, 1984

Bulletin No. 312

Series G10

TO: ALL DISTRIBUTORS, DEALERS, OEMS AND FIELD PERSONNEL

SUBJECT: WARRANTY

There would appear to be some uncertainty in relation to the distributors' function regarding warranty. This, however, is not a complicated procedure and it is not necessary to advise end users of Lister powered equipment, whether supplied by the distributor or otherwise, that authorization is needed from the manufacturer, i.e., Lister Diesels Inc., before proceeding.

On receipt of a request from a Lister user that he is experiencing a problem and the engine is still in the warranty period, you should advise that you will attend to the problem as quickly as possible, and if on examination there is a failure determined to be due to faulty workmanship or material, then you will present a claim on his behalf to Lister. At the same time, if in your opinion upon investigation that the failure is due to abuse, misuse or failure to maintain, then the customer should pay for the service.

Warranty claims must be submitted within 30-days of the completion of the repair.



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HAWKER SIDDELEY

December, 1984

BULLETIN NO. 314

SERIES T2

TO: ALL LISTER DISTRIBUTORS, DEALERS AND FIELD PERSONNEL

SUBJECT: TS/TL FLYWHEEL END CRANKSHAFT SEAL

A lip type oil seal is introduced to replace the screw type oil seal.

The part number of this seal is 201-41490.

This seal is completely interchangeable with the earlier screw type seal, which is still used on the ST1 engine and for spares on the ST2 and ST3. The screw type seal, comprising Oil Retaining Ring 201-80830, Felt 201-80281 and Oil Thrower 201-80290, may be used for spares on the TS/TL series, particularly on engines operating in very dusty conditions where the abrasion resistance of the felt seal may be an advantage.



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# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



August, 1985

Bulletin No. 324

Series TS

TO: ALL DISTRIBUTORS, DEALERS, O.E.M.'S, and LDI PERSONNEL

SUBJECT: TS/TL ENGINES

1. Cylinder Head Clearance
2. Valve Cotters
3. Fuel Injection Pump Bolts
4. Crankshaft Balance Weight Screw Torque
5. Cylinder Barrel
6. Cylinder Head Removal
7. Conrod Nuts

1. Cylinder Head Clearance - TS engines only

The clearance has been changed to:

0.032/0.035 ins (0.813/0.889 mm)

The new settings have been incorporated in all TS engines from the following serial numbers:

3500437TS2

3500571TS3

2. Valve Cotters

Cotters are now made by pressing not machining and a new part number issued:

Machined 201-50290

Pressed 201-50291

These cotters are interchangeable ONLY in pairs and must not be mixed on an individual valve.

3. Fuel Injection Pump Bolts

The special bolt 601-21460 has been replaced by the same standard bolt 272-00165 used in the front fixing hole.

4. Crankshaft Balance Weight Screw Torque

This torque figure for TS/TL engines is now:

42 lbf ft./57Nm/5.8 Kgfm

5. Cylinder Barrel - TS engines only

The barrel has been modified. It has fewer fins which are scalloped for the full length of the barrel not drilled through as before.

Part Numbers affected:

570-30692	Cylinder Barrel, Piston, ConRod Assy	was 570-30690
201-37700	Cylinder Barrel	was 201-32450

The two types of barrel are interchangeable and may be fitted on the same engine.

6. Cylinder Head Removal

To avoid any chance of the top plate and cylinder head moving apart the injector clamp nut should be slackened off BEFORE the cylinder head nuts are touched.

7. Connecting Rod Securing Nuts

The material of these nuts has been upgraded to Grade 5 material. Care must be taken to assemble them (Pt No. 270-00778) with the identification groove and grade number face away from the contact face.



# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



August, 1985

Bulletin No. 325

Series L4

TO: ALL DISTRIBUTORS, DEALERS, O.E.M.'S, AND LDI PERSONNEL

SUBJECT: LVI & 2 Engines  
Valve Clearances

The valve to rocker clearances, which should be set up TDC firing stroke with a cold engine, have been altered. The revised settings are:

ROCKER TO VALVE CLEARANCES inches (mm) COLD				
	Inlet		Exhaust	
Rev/Min	Go	Not Go	Go	Not Go
Up to & including 3000	.004 (0.10)	.006 (0.15)	.004 (0.10)	.006 (0.15)
3600	.002 (0.05)	.004 (0.10)	.005 (0.13)	.007 (0.18)



# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



August, 1985

Bulletin No. 326

Series L5

TO: ALL DISTRIBUTORS, DEALERS, O.E.M.'S and LDI PERSONNEL

SUBJECT: LT/LV ENGINES

1. Rubber Cups - Push Rod Sealing Tube
2. Push Rod - LV

1. Push Rod Sealing Tube Rubbers

The material and design of these rubber seals has been improved to ease assembly of the tubes and minimize the chance of oil leaks.

The top and bottom cups are now of different designs and care should be taken to stock them separately.

PARTS AFFECTED

601-30261 replaced by 601-30262 Bottom  
601-30263 Top

2. Push Rods - LV

The LT push rods are now fitted to LV engines for standardization. The two types are totally interchangeable and may be mixed on an engine.

PARTS AFFECTED

601-40220 replaced by 601-30310



# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



August, 1985

Bulletin No. 327

Series T6

TO: ALL DISTRIBUTORS, DEALERS, O.E.M.'S and LDI PERSONNEL

SUBJECT: TS/TL ENGINES

1. Fuel Leak-Off Pipes
2. Fuel Supply Pipes
3. Engine mounted fuel tanks and fuel lift pump

## 1. Fuel Leak-Off Pipes

The fuel leak-off system has been redesigned completely and neither the assembly nor the individual components are interchangeable. The attached drawing (T17B), which will be included in the next issue of the TS/TL Parts List 027-08061, shows the new arrangement.

The cylinder head has also been modified to include a D shaped slot for the location of item 10 on the above drawing. Spare cylinder head assemblies 570-30192 will be supplied complete with a blanking grommet 202-41320 to be used when the head is fitted to an engine with the old style leak-off system.

## 2. Fuel Supply Pipes

The fuel supply pipes from filter to injection pump have been modified so that the fuel now enters the pumps through the original "bleed screw" hole. The bleed screw is now fitted in the lower position as a blanking plug. To bleed the system the fuel supply line swivel union plugs should be slackened to ensure all air is removed.

### Parts affected

202-32161	Fuel Pipe	TS/TL2	replaced by 202-37510
203-32161	Fuel Pipe	TS/TL3	replaced by 203-37510

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Series T6  
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The pipes are interchangeable.

### 3. Engine Mounted Fuel Tanks and Fuel Lift Pump

Accessory Code FB - TS2/3 13 1 EMFT

This kit now includes a pipe 366-07117 and hose 202-41280 which together link to the new leak off system.

Accessory Code FC - TL2/3 25 1 EMFT

This kit has been totally revised and now includes the TS lift pump 602-40480, new fuel supply pipes and a revised mounting bracket.

It is not interchangeable with the original kit FC - for details contact Lister Diesels Inc.

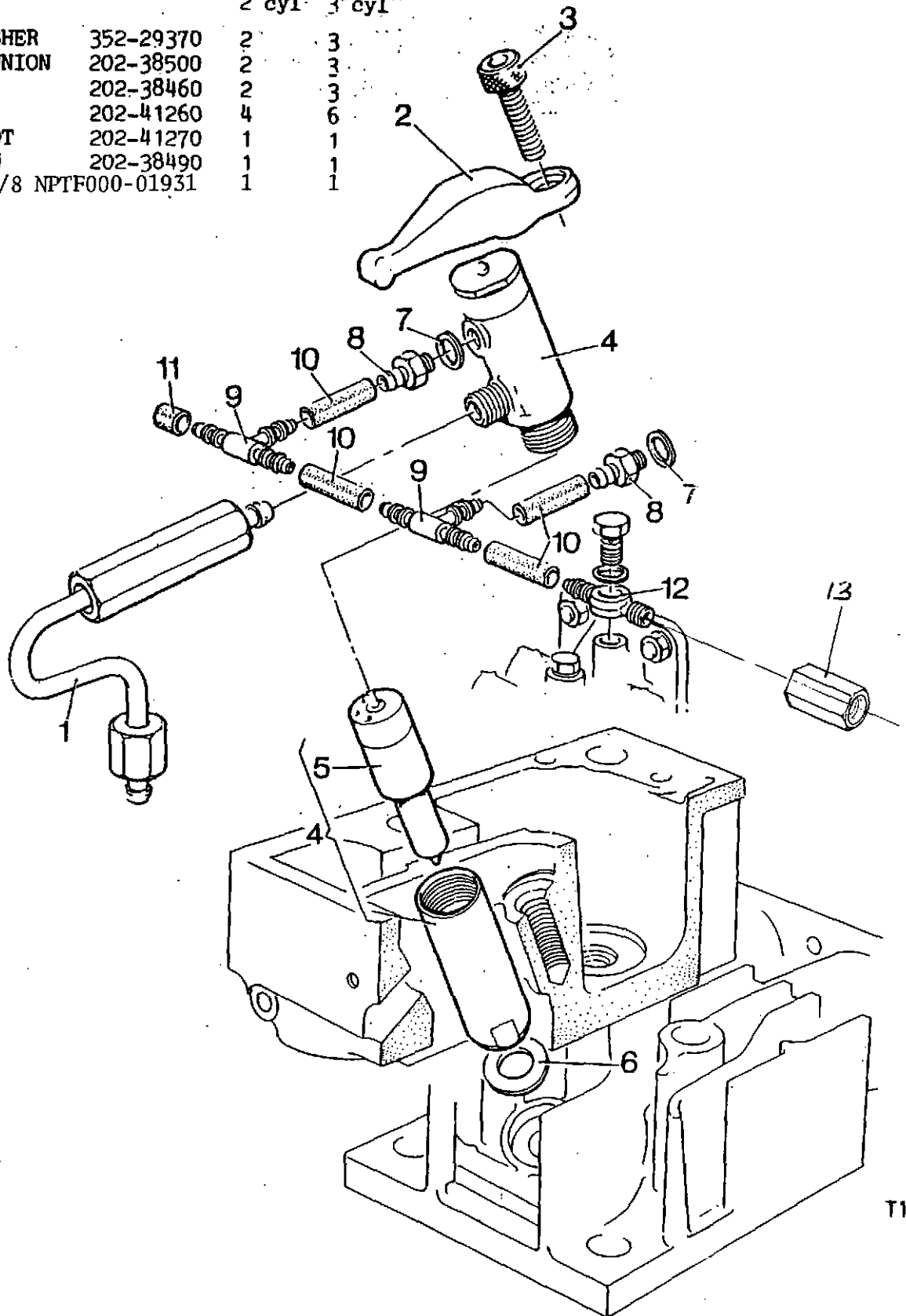
Accessory Code FE - Fuel Lift Pump

The leak-off connection to the top of the fuel filter is now as shown on the attached drawing item 12. The user is now provided with an 1/8 inch BSP male connection for the return line to his fuel tank.

L.D.I. have introduced a coupling Part No. 000-01931 (shown as item 13 on the attached drawing) to adapt the 1/8 inch BSP male thread to 1/8 inch NPT female. This adaptor is being supplied with all engines having a fuel lift pump.

NEW ITEMS

ITEM	DESCRIPTION	PT. NO	NO PER ENGINE	
			2 cyl	3 cyl
7	COPPER WASHER	352-29370	2	3
8	INJECTOR UNION	202-38500	2	3
9	TEE PIECE	202-38460	2	3
10	HOSE	202-41260	4	6
11	RUBBER BOOT	202-41270	1	1
12	CONNECTION	202-38490	1	1
13	Coupling 1/8 NPTF000-01931		1	1





# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



August, 1985

Bulletin No. 328

Series T4

TO: ALL DISTRIBUTORS, DEALERS, O.E.M.'S, and LDI PERSONNEL

SUBJECT: TS ENGINES - PLASTIC FLYWHEEL FAN

A polypropylene flywheel fan has been introduced on the TS range from the following engine serial numbers:

3500961TS2A-10

3500807TS3A-10

Flywheels have been modified to accept the new fans and neither part is interchangeable with the original ones. Also new cap screws are required.

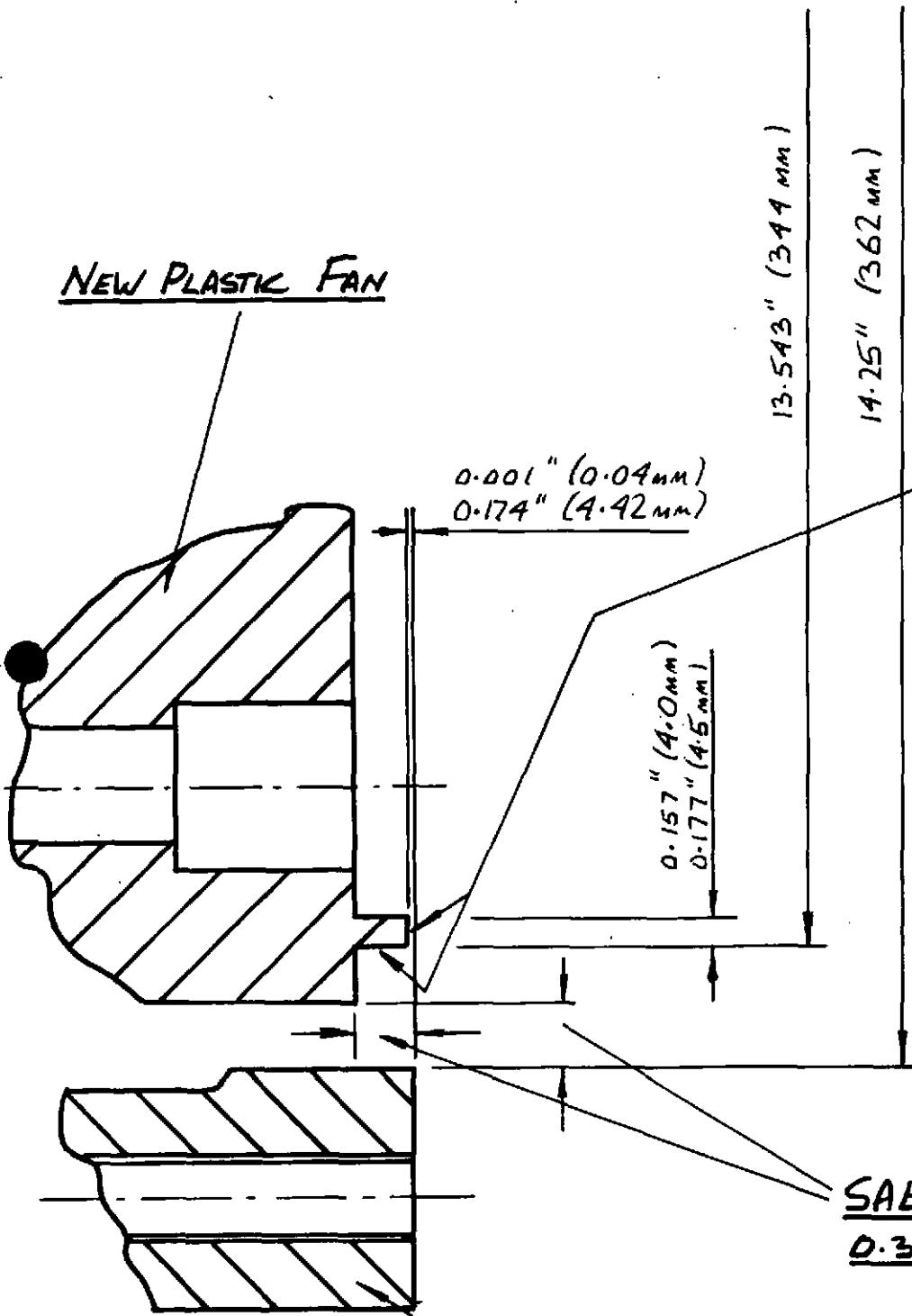
The only engines which are not affected are the TS2 Builds 08 and 09 on which there is no change.

**IMPORTANT:** The new fan has a stiffening rib which may be a possible foul point against the customers adaptor, see sketch on Sheet 2.

All LDI adaptors have been modified to clear this rib but customers using their own or proprietary adaptors will need to check this point.

Interchangeability: Is affected. See Sheet 3 for details.

NEW PLASTIC FAN



POSSIBLE FOUL POINT  
OF CUSTOMERS ADAPTOR  
ON FAN STIFFENING RIB

SAE MINIMUM  
0.31" (7.8mm)

FANSHROUD  
SAE A

PARTS AFFECTED

TS2 Interchangeability

For TS2 engines built before the introduction of this modification:

Builds 01, 05, 06, 10, 40, and 60: for spares of Flywheel 202-33560, Fan 202-33541 or Flywheel Assembly 202-35510, order Fan 202-33540, Flywheel Assembly 202-41960 and Capscrew 272-00176 (8 off).

Builds 02, 07, 11, and 61: for spares of Flywheel 202-33560, Fan 202-33541 or Flywheel Assembly 202-34140, order Fan 202-33540, Flywheel Assembly 202-41950 and Capscrew 272-00176 (8 off).

Builds 03 and 12: for spares of Flywheel 202-33561, Fan 202-33541 or Flywheel Assembly 202-35511, order Fan 202-33540, Flywheel Assembly 202-41961 and Capscrew 272-00176 (8 off).

Builds 04 and 13: for spares of Flywheel 202-33561, Fan 202-33541, or Flywheel Assembly 202-34141, order Fan 202-33540, Flywheel Assembly 202-41951 and Capscrew 272-00176 (8 off).

Builds 09 and 09: No change. Flywheel and Fan Assembly 202-37641 with Flywheel 202-33562, Fan 202-33551, Capscrew 272-00261, Spring washer 272-00071 and Gear Ring 202-30520 remains the same.

TS3 Interchangeability

For TS3 engine built before this modification:

Builds 01, 05, 06, 08, and 10: for spares of Flywheel 202-33560, Fan 203-33541 or Flywheel Assembly 202-35510, order Fan 203-33540, Flywheel Assembly 202-41960, Bolts 272-00176 (8 off).

Builds 02, 07, 09, and 11: for spares of Flywheel 202-33560, Fan 203-33541 or Flywheel Assembly 202-34140, order Fan 203-33540, Flywheel Assembly 202-41950, Bolts 272-00176 (8 off).

Builds 03 and 12: for spares of Flywheel 202-33561, Fan 203-33541 or Flywheel Assembly 202-35511, order Fan 203-33540, Flywheel Assembly 202-41961, Bolts 272-00176 (8 off).

Builds 04 and 13: for spares of Flywheel 202-33561, Fan 203-33541 or Flywheel Assembly 202-34141, order Fan 203-33540, Flywheel Assembly 202-41951, Bolts 272-00176 (8 off).



# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



Bulletin No. 330

September , 1985

Series G18

TO: ALL DISTRIBUTORS, DEALERS, OEM'S and LDI PERSONNEL

SUBJECT: TECHNICAL HANDBOOK

A new Lister Diesels Technical Handbook has been published to replace the earlier, small "Green Book" for which no further amendments will be issued.

The new handbook has been produced in the same format as the workshop manuals and many of the charts and tables are in U.S. units. Of particular note are fuel consumption charts in U.S. gal./hr. and "dimensions of wearing parts" on all engines from the L.D. to date in inch units.

It is not intended to issue amended pages for this book. It will be updated and reprinted from time to time and major interim changes will be advised by individual technical bulletins.

In order to make this information available as widely as possible we have discontinued the practice of numbering and registering books to each distributor.

The technical handbook is available from our Parts Department under part number 555-00043 at a current net price of \$15.65. This book will be a useful addition to your salesman's sales kit, as well as to your Service Departments technical library.

Order a sufficient quantity today!



# TECHNICAL BULLETIN

Lister Diesels, Inc. • 555 E. 56 Highway • Olathe, Kansas 66061 • (913) 764-3512



Bulletin No. 331

September, 1985

Series G19

TO: ALL DISTRIBUTORS, DEALERS, OEM'S and LDI PERSONNEL

SUBJECT: HR2/3 FUEL CONSUMPTION IMPROVEMENTS

Continuing investment in design and manufacturing techniques has resulted in improved consistency of production engine fuel consumption for the the HR 2 and 3 cylinder engines.

The specific fuel consumption figures are shown below and improvements of up to 6 percent can be seen, dependent on speed.

Rev/Min	HR2			HR3		
	Old lb/hp h	New lb/hp h	% Reduction	Old lb/hp h	New lb/hp h	% Reduction
1200	0.395	0.381	3.7	0.393	0.378	3.8
1500	0.396	0.381	3.7	0.393	0.378	3.8
1800	0.414	0.395	4.8	0.399	0.391	2.0
2000	0.432	0.411	4.9	0.414	0.408	1.6
2200	0.454	0.425	6.1	0.434	0.422	2.7

Please note that these figures also apply to the water-cooled HRW 2 & 3 engines.

Take advantage of these improvements - the HR and HRW engines having already established a reputation for reliability, durability and economy are now even more fuel efficient.