

Common Replacement Parts

This section focuses on the parts that will commonly fail in oil and gas fired heaters. There are many parts that you can put into a heater. Hopefully, this portion of the tech book will give you a better understanding of what common parts you will need to stock in your repair shop for expedient repair service.

Of course, you can call one of our technicians at **PHP** at **800-362-6951** for advice on servicing your heaters and getting set up to repair your customers heaters.

Brand Names Include:

Desa

Toro

Scheu

L.B. White

One of the most common things to replace in an oil fired heater is the Filter Kit. This replacement should be done **AT LEAST** once per season, or on an as needed basis. Dirty filters will cause poor performance in your heater.

REPLACEMENT PARTS INDEX

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Pre-Packaged Parts

These pre-packaged parts are for the following brands: Master, Dayton, Desa, Knipco, Remington, Reddy
Below are the part numbers for the individual blister packs, the part it contains, and where used.

Helpful Hint: It is usually less expensive to order HA part kits, than ordering all of the individual parts inside each kit.

Common Parts

| Part No. | Description | Used | Part No. | Description | Used |
|----------|---|---------------------------|--|--|-------------------------------------|
| HA3003 | M50671-03 Safety control | All models Pre 1998 | HA3020 | M8940 Ball, M10993-1 Spring M27694 Adj. Screw, M22997 Plug | All models |
| HA3004 | M22456-1 Rotor (1/2"), (4) M8643 Blades M22009 Insert | Most models since 1988 | HA3021 | 100070-01 Nozzle Kit | 55,000 BTU |
| HA3005 | M22456-2 Rotor (5/8"), (4) M8643-2 Blades M22009 Insert | 55, 60, 200 | HA3022 | 100006-01 Nozzle, M8882 Sleeve (Replaced by HA3009) | 110,000 BTU |
| HA3006 | 079744-01 Nozzle | 35,000 BTU | HA3023 | 100735-10 Nozzle, M8882 Sleeve | 165,000 BTU |
| HA3007 | M50597 Nozzle | 50,000 BTU | HA3024 | Nozzle | 60,000 BTU |
| HA3008 | M50880-01 Nozzle, M8882 Seal | 70,000 BTU | HA3026 | Nozzle | 70,000 BTU |
| HA3009 | 100735-06 Nozzle, M8882 Seal | 100-110,000 BTU | HA3027 | Nozzle | 110-115,000 BTU |
| HA3011 | 100735-07 Nozzle, M8882 Seal | 150,000 BTU before 1992 | HA3028 | Nozzle | 150-155,000 BTU |
| HA3012 | M10962-2 Spark plug | 70, 100, 150 | HA3029 | Nozzle | 165,000 BTU |
| HA3013 | M29835 Spark plug | 35, 50 | The parts below are not blister packed. | | |
| HA3014 | M29632 Filter, M29633 Filter M29612-01 Filter | 35, 50, 70 | HA1170 | Safety Control / Photo Cell Tester | All Models (Especially HSI Heaters) |
| HA3017 | M12179 Filter, M12244-1 Filter M11637 Filter, M51150-01 Fuel Filter | 100-150,000BTU After 1992 | HA1180 | 15 PSI Air Gauge | Non HSI Heaters |
| HA3018 | M12179 Filter, M12244-1 Filter M11637 Filter, M19630 Fuel Filter | 150,000 BTU before 1992 | HA1202 | Heavy Duty Wheel Kit | 35, 50, 70 |
| HA3019 | M16656-4 Photo Cell | All models Pre 1998 | HA1206 | Light Duty Wheel Kit | 35, 50, 70 |
| | | | HA1210 | Thermostat with numbers on dial | All non thermostat models |
| | | | HA2203 | Handle (front or rear) | 100,000 BTU |
| | | | HA2204 | Handle (front or rear) | 150,000 BTU |
| | | | HA2205 | Handle Kit | |

Bulk Packaged Parts - (Six Packs)

These parts are used only in Heaters made by DESA[®]
Brand Names Include: Reddy, Master, Remington, Knipco, Koehring, DESA, Dayton

| Part # | Description |
|----------|---|
| M22009-6 | Rotor Inserts for DESA Heaters |
| M27694-6 | Pressure Adjusting Screw |
| M22997-6 | Plastic Plug in End Plate |
| M8940-6 | Steel Ball in End Plate |
| M10993-6 | Spring in End Plate |
| M10962-6 | Long Spark Plug, Models 70-600 |
| M29835-6 | Short Spark Plug, Models 35 & 50 |
| M11637-6 | Small Lint Filter Models 100-150 |
| M12179-6 | Rectangular Sponge Air Filter, Models 100-150 |
| M12244-6 | Felt/Cork Output Filter Models 100-150 |
| M29633-6 | Half Moon Sponge Air Filter, Models 30-70 |
| M29612-6 | Felt/Cork Output Filter Models 30-70 |
| M29632-6 | Small Lint Filter Models 30-70 |
| 28268 | Plastic transformer -All DESA low pressure htrs |

These parts are used only in Heaters made by Toro
Brand Names Include: Champion, Porta Heat, Lawn Boy, Century, Gilson, Red Line, Wheat Belt

| Part # | Description |
|--------|-----------------------------|
| 224003 | 154003 Output Filters |
| 227019 | 147019 Input Filters |
| 227012 | 147012 Gaskets |
| 227015 | 73-6430 Rotor Inserts |
| 227790 | 147790 Round Input Filters |
| 224467 | 154467 Round Output Filters |
| 227080 | 147080 Spark Plugs |
| 224009 | 154009 Transformers |

Tune-Up Center

This parts center is for the following brands: Master, Dayton, Desa, Knipco, Remington, Reddy

Below are the part numbers for the individual blister packs, and the part description that are included on the parts center.

Tune Up Center

Part # HA3030

Compatibility: Master, Dayton, Reddy, Knipco, Remington, Desa, Sears, Koehring, and others

Includes a wire rack display, header card, low pressure service manual and these parts:

- | | |
|----------------------------|----------------------------------|
| 3 - HA3003 Safety control | 3 - HA3004 Rotor kit |
| 2 - HA3006 Nozzle 3 | 2 - HA3007 Nozzle 50 |
| 6 - HA3020 Pump Kit | 2 - HA3009 Nozzle 100,110 |
| 2 - HA3011 Nozzle 150 | 4 - HA3012 Plug 70, 100, 150 |
| 3 - HA3013 Plug 35, 50 | 3 - HA3014 Filter kit 35, 50, 70 |
| 3 - HA3017 Filter kit 100 | 3 - HA3018 Filter kit 150 |
| 3 - HA3027 Nozzle Assembly | 4 - HA3019 Photo Cell |



Common Parts

Getting Started . . . If you're just getting started, the parts kit listed above, is excellent, not only for retail sales, but it includes most of the common parts you need for heater repair.

Wheel Kits

Works on the following models: 30, 35, 40, 50, 55, 60 and 70,000 BTU heaters made by DESA. Brands include Reddy, Knipco, Desa, Master, Remington, and others.

Kit # HA1202

This is a heavy duty wheel kit that is similar to the wheel kits on the 100 & 150 models.

Kit # HA1206 (light duty)

Designed for units 70,000 BTU and smaller.
(Not Pictured)

Kit # 53599 Toro

The Toro kit will only work on recent heaters made by Toro: model numbers 53400, 53401, and 53412.

HA1202



Oil Fired Heater Tune Up Kits*

| Tune Up Kit Part# | Input Filter | Output Filter | Lint Filter | Spark Plug | Nozzle Seal/O-ring | Nozzle Spring | Nozzle Washer | Fuel Filter | Gasket | Nozzle Adapter | Misc. | Service Manual |
|-------------------------------|--------------|---------------|-------------|------------------|--------------------|---------------|---------------|------------------------|--------|----------------|-----------------------|----------------|
| TU150 | M12179 | M12244-1 | M11637 | M10962-2 | M8882 | M10809-1 | M10659-1 (2) | M19630 Long Filter | N/A | N/A | N/A | SM70101 |
| TU110 | M12179 | M12244-1 | M11637 | M10962-2 | M8882 | M10809-1 | M10659-1 (2) | M51150-01 Short Filter | N/A | N/A | N/A | SM70101 |
| TU50 | M29633 | M29612-01 | M29632 | M29835 | 147082 | N/A | N/A | N/A | N/A | 079980-01 | M29824 Spark Plug Nut | SM70101 |
| 154891** Toro/ Lawn Boy | 147019 | 154003 | N/A | 147080 | 147082 | N/A | N/A | 147046 | 147012 | 147081 | N/A | SM70101 |
| 53594** | 148442 | 154822 | N/A | 148544 | 147082 | N/A | N/A | 148647 | N/A | N/A | 147635 Spark Plug Nut | SM70101 |
| APRS** Round Shell | 6844NR | 6843NR | N/A | 6855NR | 147082 | N/A | N/A | 6861NR | 6839NR | N/A | N/A | SM70101 |
| APOS Octagon Shell | 6844NR | 6843NR | N/A | 1803NR Electrode | 147082 | N/A | N/A | 6861NR | 6839NR | N/A | N/A | SM70101 |

Desa Heater Models

Toro Heater Models

All Pro & N. Riverside

* Not designed for Hot Surface Ignition (H.S.I.) Heaters
 ** Limited quantity available

Spark Plugs



#M10962-2

Auburn plug is part #I-32
Used on Master, Reddy, Knipco,
Remington, Sears, Dayton, Others

Gapping Instructions for M10962-2 (HA3012)
150 Kerosene Models: .070" - .080"
150 Kerosene Models with Solid State Ignition: .050" - .060"

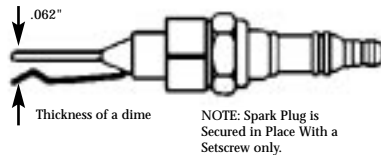
CHAMPION PLUG



#M29835 (Champion #N12YC)

Used on Master, Reddy, Knipco, Remington,
Sears, Dayton, Toro L.P., Others

Gapping Instructions for M29835 (HA3013)
45 & 80 LP Models: .060" - .080"
150 LP Models: .090" - .110"
Kerosene Gapping .050" - .060"



#147080 (Auburn #I-3)

Used on Champion, Porta Heat,
Lawn Boy, Red Line, Wheat Belt,
Century

Thermostats

PT100HTST



Part No. PT100HTST

This efficient thermostat, an optional accessory, holds the temperature at the level you select, helps you to economize on fuel. It also works as a convenient on-off control. Requires no special installation, just plugs into any standard 115V, 60Hz electrical outlet. Works very well in the construction/rental industry. It has a warmer-cooler dial. The temperature sensing element is inside the body so it is not as accurate as the HA1210. Range = 10° to 100° F

HA1210



Part No. HA1210

The HA1210 thermostat is more accurate because the sensing coil is on top of the unit, so it can respond faster to temperature change. It also has numbers on the adjustment dial. HA1210 range = 40° to 90° F.

**Replacement Thermostat Cord 6 foot
Part No. 12345**

Let Us Give You A Hand Fixing That Heater!



Low Pressure Service Manual

New & improved service manual. Includes info on Desa HSI heaters. It also covers all three manufacturers of low pressure oil fired heaters; Desa, Toro, and National Riverside.

Part #

SM70106



Gas Fired Service Manual

New service manual! Gives an understanding of gas fired heaters, parts description & photos and troubleshooting. It also covers three manufacturers of gas fired heaters: Desa, Scheu and L.B. White

Part #

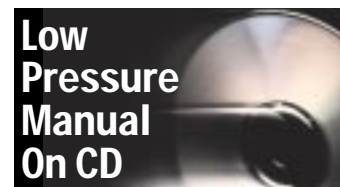
GM70103



Part #CDTECH



Part #CDTS



Part #CD70106



Part #CDGF

Essential Tool Kit For Repair Shop

Kit Includes

- HA1170-Safety control tester
- G14490-Low pressure gauge
- 40445-Electrode setting gauge
- 20T-Technical service catalog



Part#

RS100

A Must For
HSI
Troubleshooting

