

## General Shop Tools

Cylinder Head Reclaiming .....	14-3
Air Compressors .....	14-7
Miscellaneous .....	14-8



Cylinder Head Reclaiming

**9U-5982 and 9U-5983 Valve Stem Polishers**

Warranty: Six Months

- Easily polishes valve stems, push rods, and rocker arm shafts in a fraction of the time compared to hand polishing
- Removes burrs and nicks while producing up to 300 valves per hour with a clean, uniform micro-finish
- Comes equipped with a dial load meter, which indicates applied pressure for optimum performance
- Precision engineered for ease and speed of operation — quality built to last
- Replacement Part: 9U-5984 Polishing Wheel



Electrical:	
Motor RPM	1.725
Dimensions (W x D x H)	523.88 x 361.95 x 425.45 mm (20 5/8 x 14 1/4 x 16 3/4 in)
Weight	31.75 kg (70 lb)
Valve size capacity:	
Diameter	6 mm - 3/8 in (2 ranges) 3/8 in - 1/2 in
Length	222.25 mm (8 3/4 in) maximum
Output	300 Valves per hour

Part Number	Description	Electrical Requirements
9U-5982	Valve stem polisher	120V / 8.5A
9U-5983	Valve stem polisher	220V / 50 Hz, single-phase

**Air Seat Grinding Drivers**

**9U-5387 Air Seat Grinding Driver**

Warranty: Six Months

- Lightweight
- Spline drive
- Governor controlled
- Spring loaded spindle for dual-action grinding
- Up to 63.5 mm (2 1/2 in) wheel capacity



9U-5387

(Remote Exhaust)

Part Number	Angle of Drive	No. Load Speed	Hose Conn.	Hose Size	Wheel Diameter Capacity	Length	Net Weight	Max. HP
9U-5387	Straight	10,000 RPM	6.4 mm (1/4 in PT)	9.52 mm (3/8 in)	63.5 mm (2 1/2 in)	282.6 mm (11 1/8 in)	2.5 kg (5 1/2 lb)	1

# Cylinder Head Reclaiming

## 9U-5388 Air Seat Grinding Driver

Warranty: Six Months



9U-5388

Part Number	Angle of Drive	No. Load Speed	Hose Conn.	Hose Size	Wheel Diameter Capacity	Length	Net Weight	Max. HP
9U-5388	15 de- gree	10,000 RPM	6.4 mm (1/4 in PT)	9.52 mm (3/8 in)	63.5 mm (2 1/2 in)	298.45 mm (11 3/4 in)	12 kg (4 3/4 lb)	1

## Lifting Springs

Warranty: Six Months

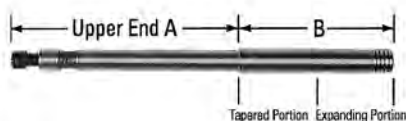


- Recommended under all wheels
- Can be used on most jobs, saving drive unit and wheel breakage
- Made in 2 lengths
- Place the lifting spring on pilot and bring the wheel up to speed before grinding

Part Number	Size	Usage
9U-5399	38.1 mm (1 1/2 in)	For use with "SK" Wheels
9U-5400	57.2 mm (2 1/4 in)	For use with "SK" Wheels

## Tapered Expanding Pilots [9.5 mm (3/8 in) + 00.010 No. 2 Upper End]

Warranty: Six Months



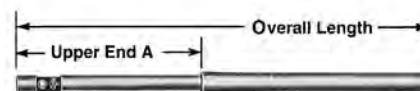
- Self-centered in the valve guide
- Range of expansion will handle valve guides from -0.002 to +0.008 on all standard sizes, reducing the number of pilots necessary for worn guides

Tapered Expanding Pilots			
Part Number	Size	A	B
9U-5406	5.99 mm (0.236 in)	92.0 mm (3 5/8 in)	47.6 mm (1 7/8 in)
9U-5407	6.4 mm (1/4 in)	95.3 mm (3 3/4 in)	47.6 mm (1 7/8 in)
9U-5408	6.5 mm (0.256 in)	95.3 mm (3 3/4 in)	47.6 mm (1 7/8 in)
9U-5411	7.5 mm (0.295 in)	95.3 mm (3 3/4 in)	47.6 mm (1 7/8 in)
9U-5421	10.0 mm (0.393 in)	95.3 mm (3 3/4 in)	69.9 mm (2 3/4 in)
9U-5422	10.1 mm (0.396 in)	95.3 mm (3 3/4 in)	66.7 mm (2 5/8 in)
9U-5425	11.0 mm (0.433 in)	95.3 mm (3 3/4 in)	73.0 mm (2 7/8 in)
9U-5426	11.1 mm (7/16 in)	95.3 mm (3 3/4 in)	73.0 mm (2 7/8 in)
9U-5427	11.5 mm (29/64 in)	95.3 mm (3 3/4 in)	73.0 mm (2 7/8 in)
9U-5450	11.9 mm (15/32 in)	95.3 mm (3 3/4 in)	73.0 mm (2 7/8 in)
9U-5384	10.2 mm (0.403 in)	95.3 mm (3 3/4 in)	73.0 mm (2 7/8 in)
9U-5423	10.3 mm (13/32 in)	95.3 mm (3 3/4 in)	73.0 mm (2 7/8 in)

## Standard Stock Size Tapered Pilots and Plug Gauges

Warranty: Six Months

- Patented pilot illustrated shows length of tapered pilot from end to end indicated as overall length (The other section of the pilot is indicated as upper end)



Tapered Pilots				
Part Number	Size Fractional	Size (Decimal)	Overall Length	Upper End
9U-5430	6.4 mm (1/4 in)	6.40 mm (0.252 in)	15.6 mm (39/64 in)	101.6 mm (4 in)
9U-5431	6.4 mm (1/4 in) plus 0.001	6.40 mm (0.252 in)	15.6 mm (39/64 in)	101.6 mm (4 in)
9U-5433	6.7 mm (17/64 in - 0.004	6.60 mm (0.260 in)	15.6 mm (39/64 in)	101.6 mm (4 in)
9U-5434	6.7 mm (17/64 in - 0.003)	6.70 mm (0.264 in)	15.6 mm (39/64 in)	101.6 mm (4 in)
9U-5439	7.9 mm (5/16 plus 0.002)	7.97 mm (0.314 in)	187.3 mm (7 3/8 in)	101.6 mm (4 in)
9U-5369	8.7 mm (11/32 in plus 0.003)	8.80 null (0 null)	212.7 mm (8 3/8 in)	127.0 mm (5 in)
9U-5453	9.5 mm (3/8 in plus 0.001)	9.60 mm (0.378 in)	203.2 mm (8 in)	101.6 mm (4 in)
9U-5455	9.9 mm (25/64 in plus 0.006)	10.10 mm (0.398 in)	203.2 mm (8 in)	101.6 mm (4 in)
9U-5456	9.9 mm (25/64 in plus 0.007)	10.10 mm (0.398 in)	203.2 mm (8 in)	101.6 mm (4 in)
9U-5457	10.3 mm (13/32 in)	10.30 mm (0.406 in)	203.2 mm (8 in)	101.6 mm (4 in)
9U-5458	10.3 mm (13/32 in plus 0.001)	10.30 mm (0.406 in)	203.2 mm (8 in)	101.6 mm (4 in)
9U-5459	11.1 mm (7/16 in)	11.10 mm (0.437 in)	222.3 mm (8 3/4 in)	101.6 mm (4 in)
9U-5460	11.1 mm (7/16 in plus 0.001)	11.10 mm (0.437 in)	222.3 mm (8 3/4 in)	101.6 mm (4 in)

## High Speed Valve Guide Reamer

Warranty: Six Months



Part Number	Size (Fractional)	Length
9U-5468	6.4 mm (1/4 in)	177.8 mm (7 in)
9U-5472	7.9 mm (5/16 in)	177.8 mm (7 in)
9U-5473	7.9 mm (5/16 in - 0.003)	177.8 mm (7 in)
9U-5474	8.7 mm (11/32 in)	177.8 mm (7 in)
9U-5475	9.1 mm (23/64 in - 0.005)	177.8 mm (7 in)

Part Number	Size (Fractional)	Length
9U-5477	9.9 mm (25/64 in plus 0.006	177.8 mm (7 in)
9U-5478	10.3 mm (13/32 in)	177.8 mm (7 in)
9U-5479	11.1 mm (7/16 in - 0.004)	228.6 mm (9 in)
9U-5480	11.1 mm (7/16 in)	228.6 mm (9 in)
9U-5481	11.5 mm (29/64 in)	228.6 mm (9 in)

## Reamers

Warranty: Six Months



- Taper pin reamer is required for reconditioning cracked cylinder heads by taper pin method
- Can also be used in general applications such as cleaning holes, deburring tubes, etc.

Item	Part Number	Description
1	8B-4422	Taper Reamer No.1
2	9F-8758	Tape Reamer No. 2

## 4C-9496 and 8S-2263 Valve and Brake Coil Spring Testers

Warranty: Six Months



- Designed for rapid spring testing
- Well equipped to handle a variety of valve and brake coil springs, including the heavy-duty diesel types up to 57 mm (2.25 in) diameter and 120.6 mm (4.75 in) free length
- Single pointer can be read at a glance with a full 108 mm (4.25 in) diameter dial and bold numbers
- Accurate to  $\pm 2\%$  of total capacity
- Scale graduated in one pound increments and one kilogram increments
- Holds maximum reading — has an adjustable maximum reading pointer
- Rugged aluminum housing with base plate drilled for bench mounting

Ram travel	120.6 mm (4.75 in)
Upper platform	57.15 mm (2.25 in)
Lower platform	82.6 mm (3.25 in)
Spring length scale	graduated in centimeters and inches
Spring pressure scale	graduated in kilograms and pounds
Height	387.35 mm (15.25 in)
Base (W x D)	146 x 260.35 mm (5.75 x 10.25 in)
Shipping weight	8 kg (18 lb)

Part Number	Max. Test Force
4C-9496	545 kg (1,202 lb)
8S-2263	159 kg (351 lb)

Air Compressors

**Gasoline Engine-Driven Air Compressors**

Warranty: Six Months

- Cast iron frame and cylinders
- Ductile iron crankshaft
- Splash lubricated
- 2-stage design
- V-belt drive
- Kohler Magnum Series engine
- Constant speed control with engine slow-down
- Standard equipment: Kohler, air-cooled gasoline engine, magneto ignition with 12-volt electric key start, 1.5 gallon fuel tank, 10-micron inlet filter on compressor, totally enclosed belt guard (TEBG), manual tank drain



Part No.	HP	Alternator Yes	Alternator No	Air Delivery @ 175 PSIG	Receiver Size	Shipping Weight	Length	Width	Height
4C-4440	12.5	X	--	24 cfm	30 gal	204 kg (450 lb)	1,117.6 mm (44 in)	558.8 mm (22 in)	1,168.4 mm (46 in)
4C-5681	12.5	--	X	24 cfm	30 gal	204 kg (450 lb)	1,117.6 mm (44 in)	558.8 mm (22 in)	1,168.4 mm (46 in)

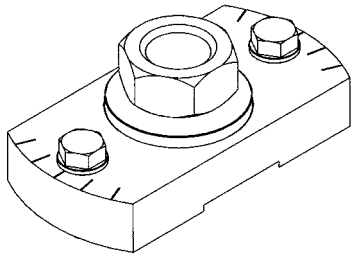
Miscellaneous

**186-3646 Locknut Wrench Assembly**

**Essential Tool**

Model: Feller Buncher (HF181, HF201, HF221 Felling Head)

Warranty: Six Months



- Used to adjust tension on cutting chain — this tool provides the only safe and efficient way of adjustment
- Used with 1 13/16 inch socket
- Distance between pins: 117.0 mm (4.60 in)

Part Number	Description
187-3978	Adapter
186-3646	Locknut Wrench Assembly

**5P-3920 Steel Rule**

Warranty: Six Months

- Length x width: 304.8 x 25.4 mm (12.0 x 1.0 in)



Part Number	Description
5P-3920	Rule - Steel

**187-3977 Spacer**

Warranty: Six Months



- Used to adapt a deburring wheel to a 3/4 inch shaft bench grinder
- Used with 4C-8296 Bench Grinder and 8T-7749 Deburr Wheel
- Deburring wheel can be used in many applications including deburring permanent hose couplings
- Requires 1 spacer and 2 adapters (187-3978)

Part Number	Description	Material	Weight
187-3977	Spacer	Steel	0.0807 kg (0.18 lb)



### 187-3978 Adapter

Warranty: Six Months

- Used to adapt a deburring wheel to a 3/4 inch shaft bench grinder
- Used with 4C-8296 Bench Grinder and 8T-7749 Deburr Wheel
- Deburring wheel can be used in many applications including deburring permanent hose couplings
- Requires 2 adapters and 1 spacer (187-3977)

Material	Weight	Max. Operating Speed	Hole Diameter
Aluminium	0.33 kg (0.7275 lb)	4000 RPM	19.05 mm (3/4 in)



Part Number	Description
187-3978	Adapter

### 305-2395 Crimp Tool

Model Usage: 735B, 740B and other Tier 4 engine applications

Warranty: Six Months

- Tool used to tighten and cut stainless steel cable ties
- Used on 290-1993 cable strap for Tier 4 engine applications

**Reference:**

UENR0203 Engine Supplement Disassemble & Assembly

Specifications	
Dimensions	228 x 165 x 57 mm (9 x 6.5 x 2.25 in)
Material	Steel and Plastic



Part Number	Description
305-2395	Crimp Tool

### 163-9487 Installation Tool

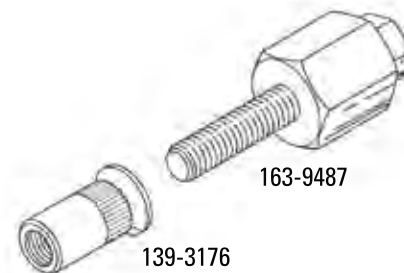
Model: PS150/200B Pneumatic Compactor

Warranty: Six Months

- Used to install 139-3176 Threaded Insert (M10 x 1.5)
- Used with standard hand tools
- Installation tool expands threaded insert in hole
- Allows convenient field repair of stripped or damaged threads
- Compact design allows installation in confined area

**Reference**

NEHS0677, Special Instruction



Part Number	Hex Size	Length	Bolt Thread
163-9487	9/16 in	12.7 mm (0.50 in)	M10 x 1.5

## 377-5250 Trim Tool

Model Usage: CT660 Truck

Warranty: Manufacturer's



- Used to customize, install and finish the exterior and interior trim
- Tapered forks slide under most types of body clips; then a squeeze of the handles extracts the clips out

Specifications	
Dimensions	279.4 x 45.7 x 177.8mm (11.0 x 1.8 x 7.0 in)
Weight	0.5 kg (1.0 lb)

Part Number	Description
377-5250	Trim Tool

## 204-6327 Insert Pliers, Insert Installers

### Essential Tool

Model: All Skid Steer Loaders

Warranty: Six Months



- Used to install M4, M5, M6, and M8 metric threaded inserts with radius corner hex bodies
- Installs into hex hole (radius corners expand to fill mounting hole)
- Combination pliers/insert installer properly installs insert even in various material thicknesses
- Insert installers sold separately and easily attach to pliers
- Overall length: 270 mm (10.6 in)

Insert Installers		
Part Number	Description	Size
204-6327	Insert pliers	--
Insert Installers		
205-0569	Insert installer	M4 x 0.7
205-0570	Insert installer	M5 x 0.8
204-5905	Insert installer	M6 x 1.00
204-5906	Insert installer	M8 x 1.25

## 4C-6507 Heavy-Duty Air Powered Caulking Gun

Warranty: Six Months



- Easy twist-lock loading
- Smooth uniform bead dispensing
- No after-dripping
- Pistol handle grip for comfort
- All metal construction
- Air pressure requirements are 34.5 to 690 kPa (5 to 100 psi)
- 3.048 m (10 ft) air line with standard 6.35 mm (1/4 in) fittings supplied

Part Number	Description
4C-6507	Caulking Gun

### FT2798 Track Bar Assembly

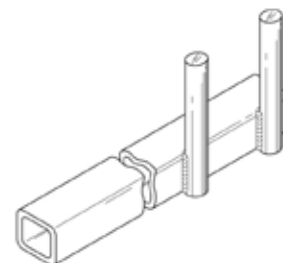
267 and 277 Skid Steer Loader with Rubber Track

Warranty: None

- Used to rotate tensioning wheels to increase track tension
- Material (tubing): SAE 1026 steel
- Material (rod): SAE 4140 steel

**Reference**

SEBU7494, Operation and Maintenance Manual

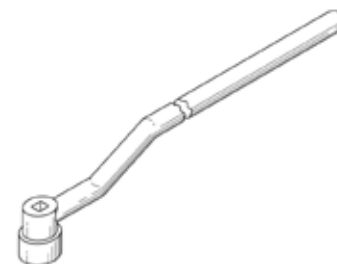


### FT2778 Pump Wrench Assembly

All Skid Steer Loaders

Warranty: None

- Used to adjust neutral adjusting bolt on hystat piston pump
- Socket: 6V-9112
- Handle material: SAE 4140 steel



### 385-1201 Defroster Repair Kit

Model: All Cat® machines with electrically heated windows for defrost

Warranty: Six Months

- Used to repair the most common rear window defroster problems, including broken grids, separated tabs, lost or damaged connectors and tabs
- Kit includes, tab repair kit, grid repair kit, trouble lamp, and solder paste
  - Tab repair kit is used to bond defroster tabs back to defroster
  - Grid repair kit is used to repair scratched or broken defroster grid lines
  - Trouble lamp is used for fast troubleshooting of defrosters in the field
  - Solder paste is used when solder is required to repair defroster tabs
- Equipped with 10 uni-con replacement connectors and 10 uni-clip replacement tabs



Part Number	Description
385-1201	Defroster Repair Kit

General Shop Tools

## 344-2750 Socket Kit for Installing Electrical Sensors

Warranty: Six Months



- Used to remove and install electrical sensors that require clearance for wires
- 1/4 inch square drive
- Also used for nut and bolt removal or installation, in place of a deep well socket set
- Hollow drive tool and socket design eliminates the need for special sensor removal tools (wires can pass through socket, extension, and ratchet wrench)
- Durable chrome plated finish

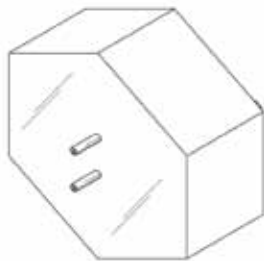
<b>Kit Includes</b>	
SAE sockets: 5/32, 3/16, 7/32, 1/4, 9/32, 5/16, 3/8, 7/16, 1/2, 9/16	
Metric sockets: 3.5, 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12, 13	
76 and 152 mm (3.0 and 6.0 in) extensions	
Locking flex gear ratchet handle with 11 locking positions with flexible head	
1/4 in drive adapter allows standard square drive sockets (not included) to be used with flex gear ratchet handle	
Molded carry case	

Part Number	Description
344-2750	Socket Kit

## FT3116 Spanner Assembly

Model: 773F through 777F Off-Highway Trucks>336, 337, 406, 407, and 220B through 580B Telehandlers

Warranty: None



- Used to remove and install the following window latches: 8Y-8294, 201-9820, and 269-7548 Two Pin Latch Assemblies 213-3263 Four Pin Latch Assembly
- Can be used with 6V-7798 Socket Assembly
- Pins engage latch so it can be removed or installed without damage
- Two-sided design allows tool to fit multiple applications
- Made from 3F-6353 Bolt (1-8)

<b>Service / Repair Parts</b>	
Part Number	Description
1L-5316	Spring Pin
3H-1118	Spring Pin

## 418-4567, 418-4568, 418-4569, 418-4570 Lift Cart

Model Usage: All

Warranty: Six Months



- Used to support different components during R&I procedures
- Heavy-duty construction with captured scissor rollers for maximum stability
- High quality casters and wheels for exceptional reliability
- Foot actuated caster brake
- Heavy-duty maintenance scissor lock pin
- Durable powder coated finish
- Superior hydraulic systems feature an integrated pump-cylinder for maximum reliability
- Ergonomic push handle with convenient lowering control
- Lowering control automatically stops when released for added safety

(Continued)

**418-4567, 418-4568, 418-4569, 418-4570 Lift Cart (Continued)**

Model Usage: All

Warranty: Six Months

Specifications			
Part Number	Dimensions	Weight	Capacity
418-4567	33.6 x 31.3 x 17.7 mm (853.4 x 795 x 449.6 in)	34.0 kg (75 lb)	150 kg (330 lb)
418-4568	39.7 x 35.3 x 19.7 mm (1008.4 x 896.6 x 500.4 in)	90.1 kg (200 lb)	299.4 kg (660 lb)
418-4569	46.9 x 37.8 x 20.5 mm (1191.3 x 960.1 x 520.7 in)	136.1 kg (300 lb)	499 kg (1100 lb)
418-4570	49.5 x 37.8 x 20.5 mm (1257.3 x 960.1 x 520.7 in)	136.1 kg (300 lb)	798.3 kg (1760 lb)

**378-4523 Special Hex Driver Bit**

Model Usage: C175 Engine with Auxiliary Driven Pumps

Warranty: Six Months

- Used to torque the auxiliary drive bolts on the C175 engine without removing front cover
- Special 8 mm hex ball driver designed to withstand a higher torque

Specifications	
Dimensions	17.2 x 120.0 mm (.67 x 4.72 in)
Weight	.07 kg (.15 lb)
Maximum Torque	135.5 N·m (100 ft-lb)
Material	Hardened and plated steel

Part Number	Description
378-4523	Special Hex Driver Bit

**360-0774 Test Kit, Brix Refractometer****Essential Tool**

Warranty: Manufacturer's

European Union compliant, CE marked

- Used to measure concentration levels in various fluids such as:
  - Urea concentration in Diesel Exhaust Fluid (DEF)
  - Cat® Extended Life Inhibitor (ELI) concentrations
  - Concentration (freeze protection) of ethylene glycol-based coolant in cooling systems
  - Concentration (freeze protection) of propylene glycol-based coolant in cooling systems
  - Specific gravity (battery state of charge) in battery fluid
- Calibrate with water only, no more special solutions required
- Battery life approximately 11,000 measurements (when using new alkaline batteries)
- Used with conversion charts (part of NEHS1097 Tool Operating Manual) to convert percent of Brix to other units of measurement



(Continued)

## 360-0774 Test Kit, Brix Refractometer (Continued)

### Essential Tool

Warranty: Manufacturer's

- Automatic Temperature Compensation feature allows testing fluids from 10 to 75° C (50 to 167° F)
- Ambient temperature range of 10 to 40° C (50 to 104° F)
- Requires only a 0.3 ml (.01 oz) sample volume
- Compact design weighs only 100g (3.5 oz) and fits in a shirt pocket, so it is convenient to carry and use indoors and outdoors
- Ergonomic design with easy to read LCD display for one-hand operation
- Includes storage case

### Reference

NEHS1097 Tool Operating Manual, 360-0774 Brix Refractometer

Measurement range	Brix 0.0 to 53.0%
Measurement accuracy	Brix $\pm 0.2\%$
Measurement time	3 seconds
Resolution	Brix 0.1%
Power supply	Two size AAA batteries
Dimensions (L x W x D)	109 x 55 x 31 mm (4.29 x 2.16 x 1.22 in)

Part Number	Description
360-0774	Test Kit, Brix Refractometer