

Undercarriage Tools

Frame and Recoil Spring..... 6-1

Roller and Idler 6-18

Undercarriage and Track 6-51

Frame and Recoil Spring

Track Roller Frame Boring Tools

SMCS Code: 4151-023

Model: D8H, D9G Tractors; 583H, 594 Pipelayers

Warranty: Six Months

- Used to rework mounting pockets in frame to original size
- On D8H, D9G Tractors, and 583H, 594 Pipelayers, track roller assembly is bolted to integral part of roller frame; in severe applications, if bolts securing end collars to roller frame are allowed to work loose, roller shaft can wallow out mounting pockets in frame; once pockets become enlarged, it is impossible to hold shaft securely to frame

Reference

FE035417, Procedure for Reboring Roller Frames

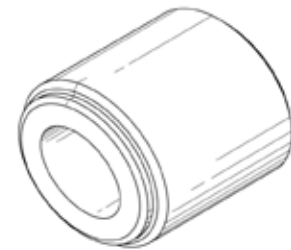
FT1175 Pilot

SMCS Code: 4158-011

Model: 594 Pipelayer

Warranty: None

- Used with FT0576 Tool Group to remove recoil spring when pilot is broken
- Replaces pilot portion of FT0576 Tool Group and provides needed clearance at rear of roller frame



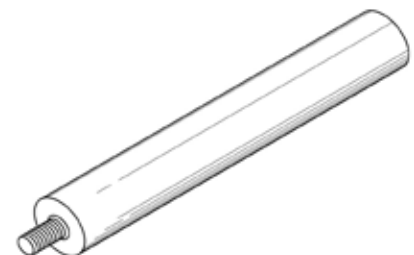
FT0572 Pin Spring Bolt Guide

SMCS Code: 4158-016

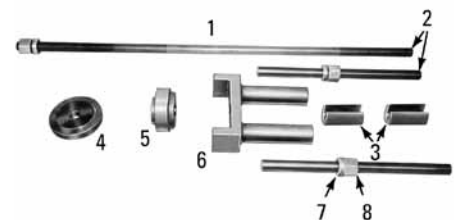
Model: D6B, D7E Tractors; 951B Traxcavator

Warranty: None

- Used with other tools listed in Tool Charts when assembling recoil springs



- Used for removal of recoil spring when front pilot is broken
- Will also control expansion after front cover has been removed
- Tie bolt (1) and studs (2) must be made of high strength steel having minimum yield strength of 7030 kg/cm² (100,000 PSI)
- Other parts can be fabricated using SAE1020 steel
- Large size drawings available



(Continued)

Frame and Recoil Spring

Item	Description	Qty.
1	Center Tie Bolt	
2	Studs	2
3	Spacers	2
4	Plate	
5	Pilot	
6	Fixture	
Not shown	Installation Plate	

Item	Part Number	Description	Quantity
7	3H-0467	Washer	3
8	3H-0466	Nut	3



WARNING

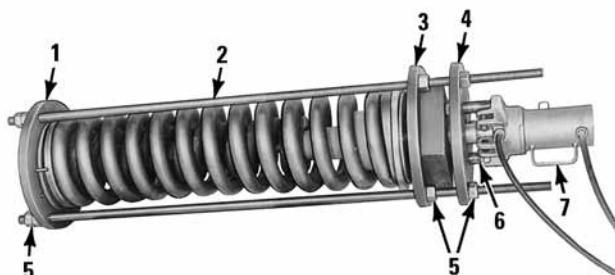
• Make center tie bolt from high strength steel having a 7030 kg/cm² (100,000 PSI) minimum yield strength. • Make studs from high strength steel having a 100,000 PSI minimum yield strength.

FT0577 Spring Compressor

SMCS Code: 4158-017, 4158-010

Model: 245

Warranty: None



- Required to disassemble and assemble recoil springs because of high force needed
- Current drawings show modifications required to assemble discontinued 8K-4239 Recoil Springs for 245 Excavators
- Consult Tool Selection Charts, SENS5503, for tools required for each machine model

Item	Description
1	Rear Plate
2	Tension Rod (3)
3	Center Push Plate ¹
4	Adapter Plate ²
Not shown	Spring Bolt Guides

Additional Items Required			
Item	Part No.	Description	Qty
5	3K-9770	Nut - Full	12
6	5F-9891	Bolt	2
6	9S-8900	Cylinder Group	--

Additional Items Required			
Item	Part No.	Description	Qty
--	9F-6936	Bolt ¹	4
--	8S-9971	Ram Adapter ¹	--
--	1D-4624	Bolt ¹	--
--	5P-3931	Anti-seize Lubricant ¹	--

¹ Additional parts required to assemble discontinued 8K-4239 Recoil Springs for 245 Excavators

311-0964 Compressor Group

Essential Tool

SMCS Code: 4158-017, 4158-010

Model: D5K Track-Type Tractor

Warranty: Six Months

- Used to contain spring (acts as a cage) when using a hydraulic shop press to disassemble and assemble recoil spring assembly
- Also used with 316-1494 or 196-5056 Cylinder for field disassembly and assembly of recoil spring assembly
- Made of heavy-duty steel with black oxide coating
- Heat-treated plates for added durability
- 6B-6682 Nut and 5P-8248 Hard Washer are serviceable

Reference

NEHS1013, Tool Operating Manual, 311-0964 Compressor Group



Part Number	Description
311-0964	Compressor Group

4C-9540 Track Recoil D&A Bench

SMCS Code: 4158-017

Model: 305.5 - 5090 Excavators & some Oval Design Track-Type Tractors

Warranty: One Year

- Used to safely contain front roller frame recoil spring during disassembly and assembly procedure
- Used on excavators and some oval design track-type tractors
- Designed to withstand 75 tons of spring compression
- Used with 223-3506 Cylinder and Hose Group

Reference:

NEHS0837, Tool Operating Manual

Note:

If used in conjunction with other cylinder and hydraulic pump groups, maximum capacity must not exceed 75 tons.

For assistance: Contact your Dealer Service Tools Representative

Part Number	Description
4C-9540	Track Recoil D&A Bench

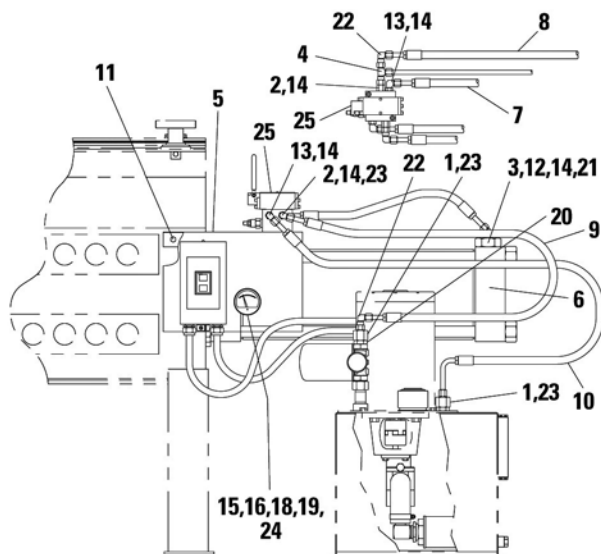
223-3506 Cylinder and Hose Group

SMCS Code: 41500-010, 4158-017

Model: Oval Track Undercarriage

Warranty: Six Months

Undercarriage Tools



- Used with 4C-9540 Bench Group and power supply
- Used to compress undercarriage springs
- Used with FT1175 Pilot, FT0572 Pin Spring Bolt Guide, FT0576 Tool Group, 142-4212 Socket Wrench Assembly
- Applies up to 75 tons of compression force
- Long cylinder stroke eliminates or reduces the use of adapters
- Power supply must be ordered to meet specific electrical requirements of user

Reference

SENR6159

SENR1647

SMHS8096

Item	Part Number	Description
5	164-5778 ¹	Bracket
6	165-5422 ¹	Hydraulic Cylinder
18	5P-6623 ¹	Tube
25		Directional Valve
¹ Not serviced		

Item	Part Number	Description
--	223-3506	Cylinder and Hose Group
Service/Repair Parts		
1	030-6936	Flared Reducer
2	030-7936	O-ring Connector
3	030-7942	Elbow
4	061-9258	Swivel Tee
7	166-7565	Hose Assembly ¹
8	166-7566	Hose Assembly ¹
9	166-7567	Hose Assembly ¹
10	166-7568	Hose Assembly ¹
11	1C-0569	Bolt
12	1U-1577	Plug
13	2P-7214	Elbow
14	3J-1907	O-ring Seal for 5P-9617 Adapter
15	3R-4437	Nut
16	3R-4463	Sleeve
17	4B-4994	Setscrew (3/8-16)
19	5P-8869	Flared Connector

¹ Not serviced

Item	Part Number	Description
Service/Repair Parts (Continued)		
20	5P-9172	Flared Connector
21	6K-6307	O-ring
22	6K-9194	Elbow
23	8M-0744	Flared Nut
24	8T-0852	Pressure Gauge
4C-9540 Service/Repair Part		
--	4C-9543	Pin
Power Supplies		
--	140-6241	Power Supply Group (220/380/440 VAC, 50 Hz, 3-phase)
--	149-7359	Power Supply Group (115 VAC, 60 Hz, 1-phase)
--	146-2461	Power Supply Group (230/460 VAC, 50/60 Hz, 1-phase)
--	146-2460	Power Supply Group (220 VAC, 50/60 Hz, 1-phase)

275-5820 Spacer

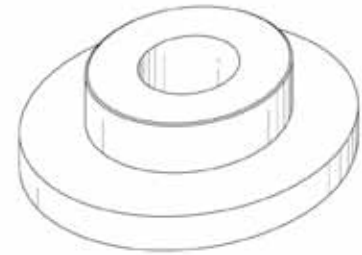
SMCS Code: 41500-010

Model: 305 Excavator

Warranty: Six Months

Part Number	Description
275-5820	Spacer

- Used to service recoil spring by providing smaller hole in bench
- Used with 4C-9540 Recoil Spring Disassembly and Assembly Bench



142-4212 Socket Wrench Assembly

SMCS Code: 4158-017

Model: 322 and 322B Excavators

Warranty: Six Months

- Used to remove and install retaining nut that holds recoil spring in compression
- Used with 4C-9540 Recoil Spring Disassembly and Assembly Bench
- Makes adjustment of recoil spring assembly length easier and safer

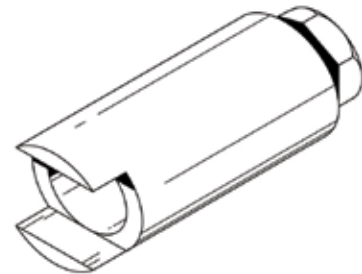
References

SEN6159, Disassembly and Assembly 322, 322L, 322N and 322LN Excavators Machine Systems

SEN1647, Disassembly and Assembly 322B and 322BL Excavators Machine Systems

Outside diameter	66.7 mm (2.63 in)
Inside diameter	47.6 mm (1.87 in)
Overall length	13.97 cm (5.50 in)
Distance between flats	47.6 mm (1.87 in)
Drive size	1 7/8 in Hex

Part Number	Description
142-4212	Socket Wrench Assembly



FT1838 Recoil Spring Tool Group

SMCS Code: 4158-010

Model: 245 Excavators and Front Shovels

Warranty: None

- Used to remove and install 8V-2390 Recoil Spring Group
- In preparation for removal, 8V-2390 Group must be compressed before tightening nut on tension bolt
- Used with suitable hydraulic pump and discontinued 6V-0113 or 316-1489 Cylinder Group for in-frame compression of recoil spring

Reference

SMHS8096, Special Instruction

245 Service Manual

Item	Part Number	Description	Quantity
1		Spacer	4
2		Plate	



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Frame and Recoil Spring

FT1838 Recoil Spring Tool Group (Continued)

SMCS Code: 4158-010

Model: 245 Excavators and Front Shovels

Warranty: None

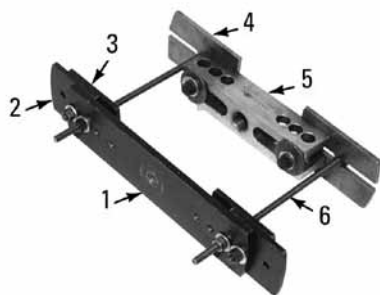
Item	Part Number	Description	Quantity
3	6M-2001	Bolt	4
4	1D-1090	Bolt	2
5	4B-4285	Washer	4

1U-5753 Seal Starter

SMCS Code: 4150-010, 4150-017

Model: D10N, D11N, D4H, D5H, D6H, D7H, D8L, D8N, D9N

Warranty: Six Months



- Used for installation of large shear seals inside recoil spring housing on H and L Series track-type tractors; interference fit of these seals makes them difficult to start into housing without distortion or damage; 1U-5753 allows seal to be started squarely into bore without cocking or rebounding that can occur when using only a hammer
- Correct assembly of 1U-5753 aided by markings, such as 5D, 6D and 8P, stamped near curved ends of plates; numbers indicate tractor model and letters indicate use of plate end as pilot (P) or driving member (D) of assembly
- Pilot plates fit seal's inner diameter; driving plates push against outside ring of seal; reaction plates push against inner shoulder of recoil spring housing
- Tractor models up through D9 require reaction plates to be mounted on 6V-3009 Bar; larger housings on D10 and D11 tractors require reaction plates to be mounted 8B-7548 Bearing Puller Assembly

Item	Part Number	Description
1		Center Plate
2		Driving Plate
3		Pilot Plate
4		Reaction Plate
6		Stud

Item	Part Number	Description
--	1U-5753	Seal Starter
5	6V-3009	Cross Bar
5	8B-7548	Puller Assembly - Bearing

Fabricated Tools for Service Operations on D10 Tractors

SMCS Code: 4192-010, 4158-017

Model: D10

Warranty: None



- Used to service D10 Tractor

(Continued)

Fabricated Tools for Service Operations on D10 Tractors (Continued)

SMCS Code: 4192-010, 4158-017

Model: D10

Warranty: None

Item	Part No.	Description	Use
1	FT1382	Straps	Support bogies for roller frame removal and installation
2	FT1383	Straps	Support bogies for roller frame removal and installation
3	FT1404	Bolt	Optional usage for bogie cartridge removal and installation
4	FT1375	Spacer	Disassembly and assembly of the recoil spring and equalizer bar

Fabricated Tools for D9L Track Roller Frame

SMCS Code: 4151-010

Model: D9L

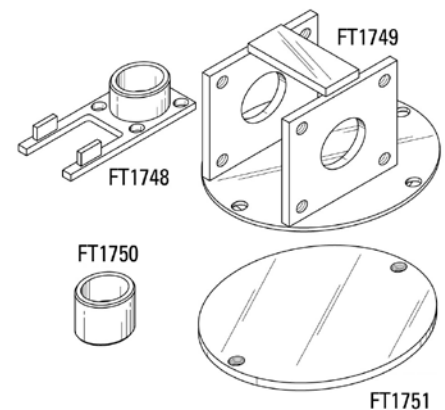
Warranty: None

- On early D9L Tractors, each end of equalizer bar pin is fastened to roller frame with cap and 2 bolts (2 caps and 4 bolts on each pin); on some tractors, caps have loosened and caused pin to damage bores for pin on roller frame
- On later tractors, a clamp-type joint (machined slot) with one bolt on each end of pin is used, which gives better pin joint; bolt through each clamp must be tightened to correct torque
- New plates have slot cut through one side into pin bore, same as clamp-type joints in production

Reference

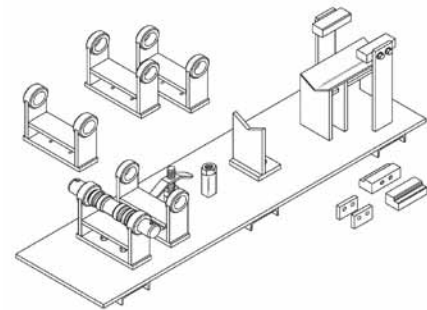
SMHS8197, Special Instruction

Part No.	Description
FT1748	Fixture
FT1749	Fixture
FT1750	Bearing
FT1751	Plate



FT2256 Fixture

SMCS Code: 4151-010
Model: D9L
Warranty: None

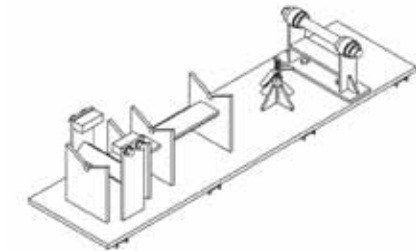


- Used when replacing front tube assembly after it has separated from front track roller frame

Reference
SEHS8958, Special Instruction

FT2556 Frame and Recoil Spring Fixture

SMCS Code: 4151-010
Model: D11N
Warranty: None



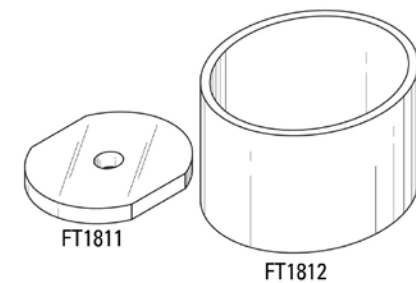
- Used to hold roller frame and recoil tube in alignment during repair procedure
- Fixture must be fabricated by dealer

Reference
SEHS9988, Special Instruction

FT1811 Plate

FT1812 Receiver

SMCS Code: 4151-028, 4151-010
Model: D8L, D9L
Warranty: None



- Used with other parts to install and remove bearing and sleeve in track roller frames

Part No.	Description	Use
FT1811	Plate	Bearing & Sleeve Removal or Installation
FT1812	Receiver	Bearing & Sleeve Removal
	Pump Group	Bearing & Sleeve Installation

FT1811 Plate (Continued)

FT1812 Receiver

SMCS Code: 4151-028, 4151-010

Model: D8L, D9L

Warranty: None

Part Number	Description
Tools Needed to Remove Bearing and Sleeve from Track Roller Frames	
4C-9634	Stud
1P-0544	Fast Runner Nut
4K-0684	Hardened Washer
6V-3175	Hydraulic Cylinder
6V-2168	Plate
7H-7539	Nut - Full
Tools Needed to Install Bearing in Track Roller Frames	
1P-0544	Fast Runner Nut
4K-0684	Hardened Washer
5P-8713	Plate
5P-4184	Stud
4C-9634	Stud
5P-8623	Coupler
6V-2168	Plate
6V-3175	Hydraulic Cylinder
7H-7539	Nut - Full

4C-6166 Plate

SMCS Code: 4158-010

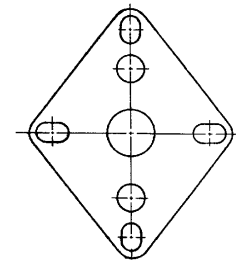
Model: 943, 953, 963 and 973 Track Loaders

Warranty: Six Months

- Used for compressing recoil springs
- 4C-6166 Plate adapts to 943 and 953 as well as the 963 and 973 Track Loaders, all of which now have stronger springs

Model	Maximum Assembly Force	Maximum Assembly Pressure with 8S-7172 Cylinder
943 Track Loader	77,900 N (17,500 lb)	5850 kPa (850 PSI)
953 Track Loader	89,000 N (20,000 lb)	6680 kPa (970 PSI)
963 Track Loader	151,000 N (34,000 lb)	11,350 kPa (1650 PSI)
973 Track Loader	231,400 N (52,000 lb)	17,000 kPa (2500 PSI)

Part Number	Description
4C-6166	Plate



WARNING

The 8S-7172 Cylinder shown in this setup can develop enough force to break the studs and/or 4C-6166 Plate if it is excessively pressurized. This can result in personal injury or death. Do not apply more than the maximum assembly pressure, listed below for each model, when using the 8S-7172 Cylinder in this application. If assembly requires higher pressures a problem exists; stop the procedure. Determine and correct the cause of the problem before proceeding with assembly.

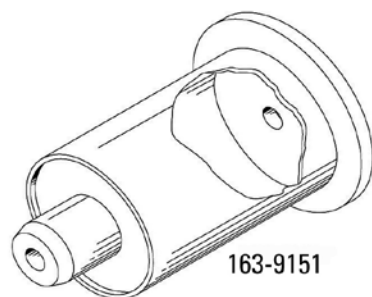
163-9151 Pilot

Essential Tool

SMCS Code: 4158-011

Model: D9, D10, D11 Track-Type Tractors; 578, and 589 Pipe Layers

Warranty: Six Months



- Used to remove or install recoil springs (provides correct spacing and size of tools)
- Requires three FT2631 Spacers and one 163-9151 Pilot

NOTE:

Read the specific machines Disassembly and Assembly (D&A) Instructions before working on any recoil assembly

Part Number	Description
163-9151	Pilot

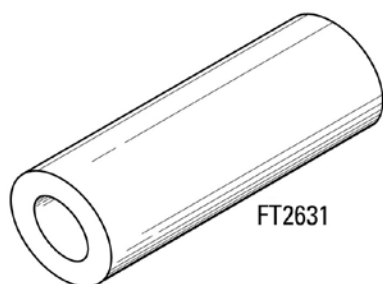
FT2631 Spacer

Essential Tool

SMCS Code: 4158-012

Model: D9, D10, D11 Track-Type Tractors; 578, and 589 Pipe Layers

Warranty: None



- Used to remove or install recoil springs (provides correct spacing and size of tools)
- Requires three FT2631 Spacers and one 163-9151 Pilot

NOTE:

Read the specific machines Disassembly and Assembly (D&A) Instructions before working on any recoil assembly

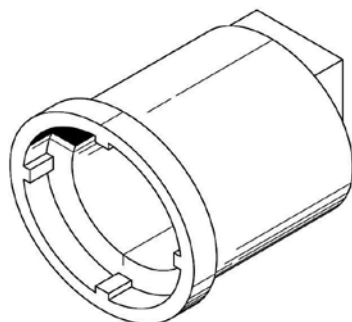
152-7159 Recoil Spring Retaining Nut Spanner Wrench

Essential Tool

SMCS Code: 0601, 4158

Model: 301.5 Mini Hydraulic Excavator

Warranty: Six Months



- Used to remove, install, and tighten 139-6266 Retaining Nut on idler recoil spring assembly
- Used with 1/2 inch square drive ratchet wrench or torque wrench
- Designed to fit properly onto retaining nut for ease of removal and installation -- helps prevent damage to nut during removal
- Heat-treated for maximum wear and durability

Reference

Service Manual Module

Overall length	92.7 mm (3.65 in)
Inside diameter	59.2 mm (2.331 in)
Number of teeth	4, equally spaced
Tooth width	6.02 mm (0.237 in)
Square drive	1/2 in

(Continued)

152-7159 Recoil Spring Retaining Nut Spanner Wrench (Continued)

Essential Tool

SMCS Code: 0601, 4158

Model: 301.5 Mini Hydraulic Excavator

Warranty: Six Months

Part Number	Description
152-7159	Recoil Spring Retaining Nut Spanner Wrench

Beam Assemblies

SMCS Code: 4150-010

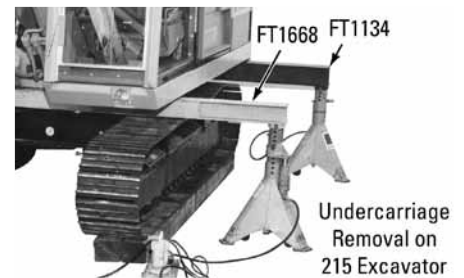
Model: 227 Loggers, 215 and 225 Excavators and 225 Excavators with special application undercarriage

Warranty: None

- Used with jack stands to support upper frame during undercarriage removal

Part No.	Description	Model
FT1134 ¹	Beam Assemblies	215 and 225 Excavator
FT1668	Beam Assemblies	227 Logger and 225 Excavator (special application) and 215 Excavator

¹ Modified for use on 215 Excavator; drawing includes modification



Beam Assemblies

SMCS Code: 4150-010

Model: 227 Loggers, 215 Excavators and 225 Excavators with special application undercarriage

Warranty: None

- Used with jack stands to support upper frame during undercarriage removal

Part No.	Description	Model
FT1667	Beam Assemblies	227 Logger and 225 Excavator (special application)
FT1668	Beam Assemblies	227 Logger and 225 Excavator (special application) and 215 Excavator



FT2485 Support Beam Assembly

Essential Tool

SMCS Code: 4150-010

Model: 307, E70, and E70B Excavators

Warranty: None

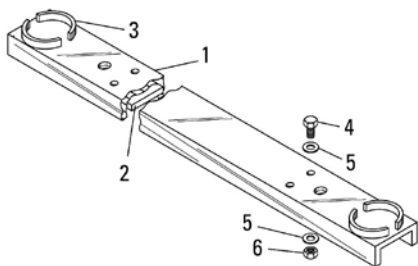
- Used to lift and support rear of upper structure during removal and installation of undercarriage
- Used with hydraulic jack stands
- Additional holes allow support beam to be used on E70 and E70B Excavators
- Designed to provide positive positioning of jack stands on support beam

Reference

SEN6199, Disassembly and Assembly 307 Excavators Machine Systems



FT2485 Support Beam Assembly



Item	Material	Description	Quantity
1	ASTM A36 steel	Channel	1
2	SAE1020 steel	Plate	2
3	SAE1026 steel	Ring	4

Item	Part Number	Description	Quantity
4	1D-4627	Bolt	4
--	5P-8249	Hard Washer ¹	8
6	2J-3505	Full Nut	4

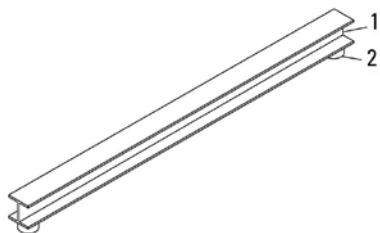
¹ Used to attach 138-7574 Link Brackets to D7E EDPM.

FT2932 Support Beam Assembly

SMCS Code: 4150-010

Model: 365B and 385B Hydraulic Excavators

Warranty: None



- Used to support rear upper structure of machine when servicing swing gear and swing bearings
- Used with hydraulic jack stands, 227-1393 Support Bracket Assembly (LH), and 227-1394 Support Bracket Assembly (RH)
- Material: Item 1, ASTM A36 steel I-beam; Item 2, SAE1026 steel

Reference

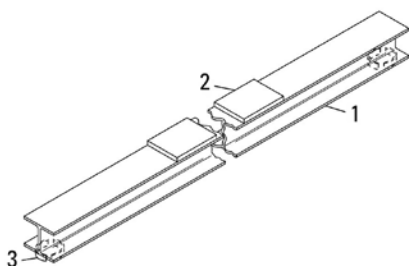
365B and 385B Disassembly and Assembly Manual, Machine Systems

FT2765 Support Beam Assembly

SMCS Code: 4150-010

Model: 325B, W330B, W345B Wheeled Material Handler

Warranty: None



- Used to support upper frame of material handler during undercarriage removal
- Used with jack stands

Item	Description	Quantity	Material
1	Beam	1	ASTM A-36
2	Plate	2	SAE1018 steel
3	Half socket	4	SAE1026 steel

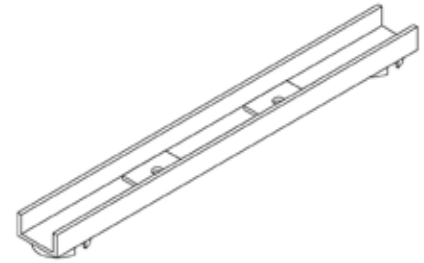
FT2322 Support Beam Assembly

SMCS Code: 4150-011

Model: E120B Excavator, Models X123 and X128

Warranty: None

- Used with jack stand to support car body when removing undercarriage or working on swing bearing or gear area
- Easier to use and safer than blocking



FT3113 Support Beam

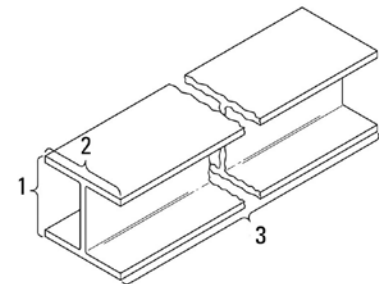
SMCS Code: 1000

Model: 993K Wheel Loader

Warranty: None

- Used to support engine from above, during removal of power train components
- Used with appropriate blocking to locate FT3113 Support Beam on machine frame rails above rear of engine
- Used with appropriate shackle and chain to connect engine to FT3113 Support Beam
- Material: ASTM A36 steel "I" beam

Item	Dimension
1	161.8 mm (6.37 in)
2	152.4 mm (6.0 in)
3	1676.4 mm (66.0 in)



Upper Structure Support Brackets

SMCS Code: 4150-010

Model: 365B and 385B Hydraulic Excavators

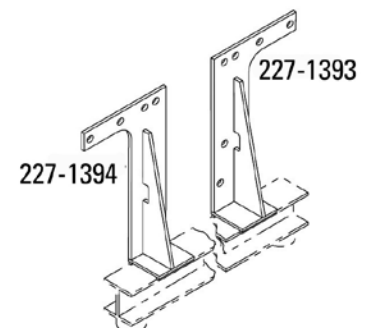
Warranty: Six Months

- Used to lift and support rear upper structure of machine
- Used with hydraulic jack stands and FT2932 Support Beam
- Used when servicing swing gear and swing bearings

Reference

365B and 385B Disassembly and Assembly Manual, Machine Systems

Part Number	Description
227-1393	Support Bracket Assembly (LH)
227-1394	Support Bracket Assembly (RH)



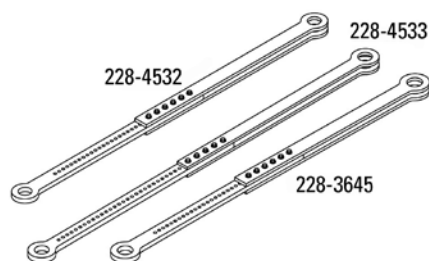
Boom Cylinder Link Assemblies

Essential Tool

SMCS Code: 4150-010

Model: 311 through 5090B Hydraulic Excavators

Warranty: Six Months



- Used to properly secure boom when removing upper structure during swing gear and bearing service
- Variable adjustment allows one link to fit several machines
- Installs in place of one boom cylinder
- Prevents cylinder drift while holding boom in a fixed position
- Link assembly bolts onto machine using previously removed cylinder hardware

Reference

Disassembly and Assembly Manual, Machine Systems

Part Number	Use
228-4532	311 through 325 Hydraulic Excavators (All Series), M300 Series Wheeled Excavators
228-4533	330 through 5080 Hydraulic Excavators
228-3645	385B and 5090B Hydraulic Excavators

FT3034 Support Beam

SMCS Code: 4150-010

Model: 305.5 Excavator

Warranty: None



- Used to support upper structure while servicing swing gear and bearing

Reference

REN9437, Disassembly and Assembly Service Manual

FT3013 Boom Support Link Assembly

Essential Tool

SMCS Code: 4050-017

Model: M325C Material Handler

Warranty: None



- Used to properly secure boom when removing upper structure during swing gear and bearing service
- Used with previously removed cylinder hardware
- Installs in place of one boom cylinder
- Prevents cylinder drift while holding boom in a fixed position
- Adjustable length
- Made from 228-4533 Link Assembly

Reference

SEN7164, Service Manual, M325C Material Handler

Large Special Taps for Tractor Undercarriage

SMCS Code: 4192-005, 4050-017

Model: D9N, D10N, D11N up to 74Z322, D11N 74Z322-Up, D11N

Warranty: Six Months

- Used to recondition threads in bogies of track-type tractors
- Spiralock thread design provides improved bolt retention; if tap with standard thread form is substituted, that feature is lost
- Spiralock threads are internal threads only so a bolt with standard thread form is always used whether internal threads are Spiralock or standard

Part Number	Description	Model	Location
1U-9707	Plug Tap 1 1/8-7-2B	D9N	Major bogie
4C-5051	Plug Tap 1 1/4-7-2B	D10N	Major bogie
1U-6600	Spiralock Tap 1 1/8-7	D11N, up to 74Z322	Minor bogie
1U-9708	Spiralock Tap 1 1/4-7	D11N, 74Z322-Up	Minor bogie
1U-9709	Plug Tap 1 3/8-6-2B	D11N	Major bogie

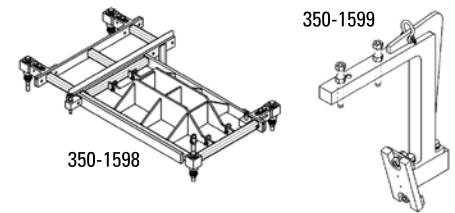
353-4386 Main Beam Repair Fixtures

SMCS Code: 7000-023-CS, 7051-023-CS

Model Usage: 784B, 784C, 785, 785B, 785C, 785D, 789D, 789B, 789C, 793, 793B, 793C, 793D Off-Highway Trucks

Warranty: Six Months

- Used to support the frame during main beam removal
- Functions as locating fixture for new main beam
- Fixture can be adjusted for nominal ROPS bore spacing dimensions
- Can be set to actual ROPS bore location on existing frame
- Recommended pin locations be set to actual bore location
- Main beam locating fixture equipped with 2 mm shim
- Shim to compensate for weld shrinkage in the transverse fore/aft beam welds
- Made as ordered (MAO)



Reference

SEPD1066, Service Magazine (upgrade instructions for 793B and 793C off-highway trucks)

Special Instruction, REHS0541, "Procedure for the Inspection, Repair, and Component Replacement on the Frames of Off-Highway Truck/Tractor"

Part No.	Description	Weight	Qty.
350-1598 ¹	Tool Assembly	544 kg (1200 lb)	1
350-1599 ¹	Support Assembly	91 kg (200 lb)	2
¹ Not serviced separately			

Part Number	Description
353-4386	Main Beam Repair Fixtures

330-0835 Compression Sleeve Assembly

Essential Tool

SMCS Code: 4158-017, 4158-010

Model: 279C, 289C, 299C Compact Track Loaders

Warranty: Six Months



- Used to disassemble and assemble track recoil spring assembly
- Used with a suitable hydraulic press to compress spring
- Contains spring when compressing recoil spring assembly to remove or install retainer nut
- Heavy-duty, welded-steel construction retains pieces of spring in event of breakage

Reference

KENR8831, 279C, 289C, and 299C Compact Track Loaders Power Train, Disassembly and Assembly

Part Number	Description
330-0835	Compression Sleeve Assembly



WARNING

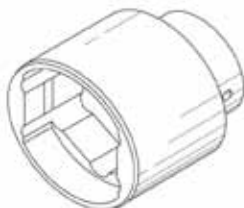
Personal injury can result from being struck by parts propelled by a released spring force. Make sure to wear all necessary protective equipment. Follow the recommended procedure and use all recommended tooling to contain the spring force.

FT3115 Socket

SMCS Code: 4158

Model: 973D Track Loader

Warranty: None



- Used to remove and install 292-7937 Nut from 291-5796 Recoil Spring Group
- Used with one inch square drive during assembly
- Designed to properly fit retaining nut -- machined slot (relief) prevents damage to nut during removal and installation
- Made from 2P-8262 Six Point Socket (2 7/8 in)
- Do not use with impact wrench
- Used in conjunction with 4C-9540 Recoil Spring Bench

Reference

KENR6526

371-1080 Socket

SMCS Code: 4158

Model Usage: 320D, 3232D, 325C, 325D, 329D, 333D, 345C Excavator

Warranty: Six Months

- Used to remove and install 215-4099 Nut from 149-3572 Recoil Spring Group
- Used with one inch ratchet wrench or breaker bar during disassembly
- Not for use with an impact wrench
- Used in conjunction with 4C-9540 Recoil Spring Disassembly and Assembly Bench

Part Number	Description
371-1080	Socket

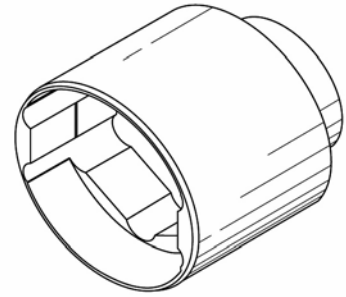
FT3172 Socket

SMCS Code: 4158

Model: 320D, 323D, 325C, 325D, 329D, 330D, 345C Excavators

Warranty: None

- Used to remove and install 215-4099 Nut from 149-3572 Recoil Spring Group
- Used with one inch ratchet wrench or breaker bar during disassembly
- Not for use with an impact wrench
- Used in conjunction with 4C-9540 Recoil Spring Bench
- Made from 9U-6577 Socket



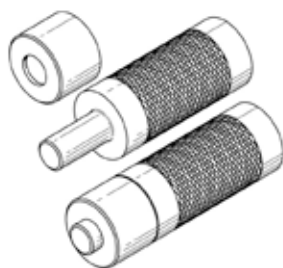
Roller and Idler

Track Roller and Idler Stopper Installer Assemblies

SMCS Code: 4159-016, 4180-016

Model: D7R, D7H, D8R, D8N, D8L, D9R, D9N, D9L, D10R, D10N, D10, D11R, D11N, 517, 527, 561M, 572R

Warranty: Six Months



- Used to install stoppers into rollers and idlers
- Provides fast, efficient method of installing stoppers while ensuring consistent installation depth

Service/Repair Parts			
Part Number	Pusher	Installer	Use
228-0597	228-0604 ¹	228-0605 ¹	Idlers: D6H, D6R, D7R, D7H, 517, 527, 561M, 572R Rollers: D8R, D8N, D8L, D9L, D10, 578, 583 Idlers and Rollers: with 9G-5664 Stopper
228-0600	228-0598 ¹	228-0599 ¹	Idlers: D8L, D8N, D8R, D9L, D9R, D9N, D10R, D10N, 578, 583R Rollers: D9L, D9N, D9R, D10N, D10R, D11N, D11R, 583R, 589 Idlers and Rollers: with 9G-4872 Stopper
228-0603	228-0601 ¹	228-0602 ¹	Idlers: D10, D11N, D11R Idlers: with 9G-1368 Stopper

¹Not serviced

Duo-Cone Installers

SMCS Code: 4150-012

Model: Most Cat® Track-Type Machines

Warranty: Six Months



- Required to install Duo-Cone floating ring seals and toric sealing rings

Duo-Cone Seal Group	Toric Sealing Ring	Toric Seal Ring (Silicone)	Seal Installer Tool
Normal Applications			
2M-2858 ¹	1M-3097	--	224-9466
1M-8747	8H-2262	--	1U-8840
1M-8746	8H-2265	--	1U-8841
1M-8748	6H-1309	--	--
6S-3285	6S-3284	--	1U-8850
6T-8440	4K-0174 ¹	--	1U-6443
6V-2474 ¹	--	--	8T-0826
6V-2696 ¹	--	--	8T-0827
6V-2733 ¹	--	--	8T-0829
3S-0303	3S-0302	--	--
Extreme Temperature Applications ²			
8L-5519	--	8L-5520	--
5K-6191	--	2S-2181	--
4S-8984	--	9M-9730	--
8S-5656	--	8S-5653	--
5P-0373	--	3N-3095	--

(Continued)

Duo-Cone Installers (Continued)

SMCS Code: 4150-012

Model: Most Cat® Track-Type Machines

Warranty: Six Months

Duo-Cone Seal Group	Toric Sealing Ring	Toric Seal Ring (Silicone)	Seal Installer Tool
Extreme Temperature Applications (Continued)²			
3P-1848	--	3P-1847	--

¹ Discontinued

² Also 3N-0801 Toric Seal Ring (Silicone)

Duo-Cone Seal Installer Application List

Duo-Cone Seal Installer Application List				
Seal Group	Seal Ring	Seal Diameter	Toric Ring	Installer
125-3677 ¹	107-9622 ²	109.52 mm	8H-2265	129-1340
107-9621	107-9622	109.52 mm	8S-5653	129-1340
107-4889	9W-8877 ¹	92 mm	9M-9730	224-9467
110-8882	9W-8877	92 mm	8H-2262	224-9467

¹ Discontinued

² Not serviced

317-3806 Duo-Cone Installer

Essential Tool

SMCS Code: 4150-012

Model: 160M Motor Grader

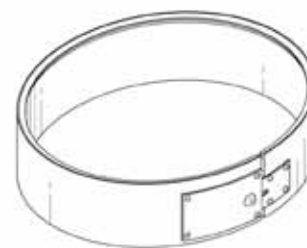
Warranty: Six Months

- Required to correctly install duo-cone floating ring seals and toric sealing rings
- Used to install 305-7976 Duo-Cone Seal on 160M Motor Grader
- Made from tough noncellular polyurethane to help protect seal during installation
- Proper installation requires a special tool (most seal failures result from mistakes made during installation)
- For longer service life, correct alignment of seal is critical
- Eliminates seal rolling and twisting -- rubber toric rings (seals) hold the steel rings parallel and concentric while maintaining correct face contact pressure

Reference

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals

Part Number	Description
317-3806	Duo-Cone Installer
Service/Repair Parts	
033-8755	Pan Head Screw
5P-0537	Washer (discontinued)
1F-1739	Wing Nut

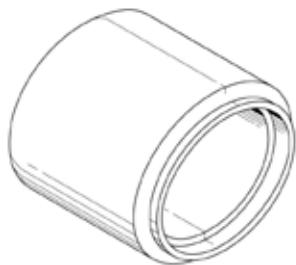


Duo-Cone Seal Installers

SMCS Code: 4150-012

Model: D3C, D3G, D4C, D4G, D4H, D5C, D5G, D5H, D5M, 320B, 320C, 325B, 325C, 330B, 330C, 561M, 933C, 939C, D8N, D8R, D9N, D9R, and 583R

Warranty: Six Months



- Used to install Duo Cone seals into track rollers
- Designed to eliminate “snagging” problems during installation

Reference

REN3962, Service Manual

Part No.	Description	Duo-Cone Seal	O.D. of Seal Face
224-9466	Seal Installer	2M-2858 ¹	82.55 mm (3.25 in)
224-9467	Seal Installer	162-7862	92 mm (3.62 in)
227-4755	Seal Installer	9W-8878, 125-3267, 111-9283 ¹	102 mm (4.02 in)

¹ Discontinued

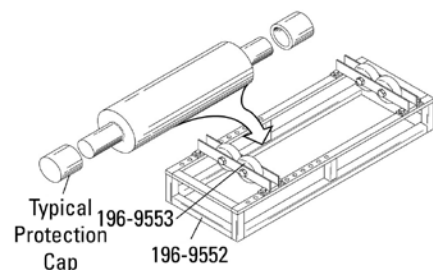
196-9552 Frame Assembly

Protection Caps

SMCS Code: 4158, 4159

Model: All track-type machines with idler and rollers

Warranty: Six Months



- Used to recondition seal ramps on inverted style roller and idler shafts to regain surface finish
- Used with protection caps and gravity fed blast machine or pressure blasting system
- Saves money -- recondition rather than replace shaft
- Reconditions smooth surface to help prevent toric ring slip
- Helps prevent oil leaks which can lead to component failure
- Protection caps protect shaft's thrust face and bearing surface from blasting overspray
- Replaceable 196-9553 Wheels can be ordered separately

Reference

SEBF8597, Reconditioning Procedure

Part Number	Description
196-9552	Frame Assembly

Part No.	Sleeve Diameter	Idler	Roller
196-9554	45 mm (1.77 in)	D4, D5H	D4, D5H, 939, 943, 953
196-9555	100 mm (3.94 in)	D10L, D11R/N	N/A
196-9556	74 mm (2.91 in)	D9L, D10N/R, 589	D10L, D11R/N
196-9557	68 mm (2.68 in)	D8R/N/L, D9R/N, 578	D9L, D10N/R, 589
196-9558	58 mm (2.28 in)	D5H, D6H/R/N, D7H/R/N, D8R/N/L, 517, 527	D6H, D7H, D9N/R 578, 579, 963, 973
196-9559	114.5 mm (4.51 in)	N/A	D7H, D8R/N/L, D9N/R, 578, 579, 973
197-8122	96 mm (3.78 in)	D4H, D5H	D4H, D5H, 939, 943, 953
197-8123	108 mm (4.25 in)	D5H, D6H/R/N, 517, 527	D6H, 963
197-8124	127 mm (5 in)	D7R/N/H, D8L/R/N, D9R/N, 578	D9L, D10R/L, 589
197-8125	136 mm (5.35 in)	D9L, D10R/N, 589	D10L, D11N/R
197-8126	163 mm (6.42 in)	D10L, D11N/R	N/A

129-1340 Duo-Cone Seal Installer Assembly

SMCS Code: 4150-012

Model: D10N and D10R Track-Type Tractors

Warranty: Six Months

- Used to install Duo-Cone seal in track idler (used with 107-9621 and discontinued 125-3677 Seal Groups used in special application machines)
- Installer makes installation faster and easier, while helping to prevent seal damage (uses a 130-8364 Extension Spring to hold the 2 halves together)
- Using installer prevents rolling and twisting of rubber toric ring during installation

Reference

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals

Outside diameter of installer	114.30 mm (4.5 in)
Outside diameter of seal	109.52 mm (4.312 in)
Overall length	102.0 mm (4.016 in)
Extension spring	130-8364

Part Number	Description
129-1340	Duo-Cone Seal Installer Assembly



159-9843 Duo-Cone Seal Installer Assembly

Essential Tool

SMCS Code: 4150-012

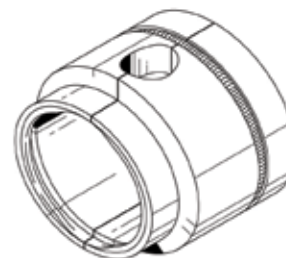
Model: Certain D11N and D11R Track-Type Tractors

Warranty: Six Months

- Used to install 155-9879 Seal Group used on certain D11N and D11R Track Idler Groups
- Makes installation faster and easier
- Helps to eliminate damage, twisting, or rotation during installation

Seal diameter	137.57 mm (5.416 in)
Overall OD	158 mm (6.2 in)
Length	102 mm (4 in)
Shoulder OD	137.25 mm (5.404 in)

Part Number	Description
159-9843	Duo-Cone Seal Installer Assembly



224-9467 Duo-Cone Seal Installer Assembly

SMCS Code: 4150-012

Model: D7H, D8L, D8N, D9N, and D9R Track-Type Tractor

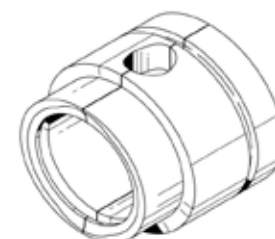
Warranty: Six Months

- Used to install 107-4889 Seal Group and 110-8882 Seal Group with a seal diameter of 92.00 mm (3.622 in) used in special application arrangements of D7H track idler group and D8L, D8N, D9N, and D9R track roller group
- Makes installation faster and easier while helping to eliminate damage during seal installation
- Prevents toric seal ring from rolling or twisting during assembly
- Seal installer halves are held together with a 130-8364 Extension Spring

References

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals

PELM0614, Information Release Memo



(Continued)

224-9467 Duo-Cone Seal Installer Assembly (Continued)

SMCS Code: 4150-012

Model: D7H, D8L, D8N, D9N, and D9R Track-Type Tractor

Warranty: Six Months

Overall diameter	114.3 mm (4.5 in)
Overall length	102 mm (4 in)
Outside shoulder diameter	96.5 mm (3.8 in)

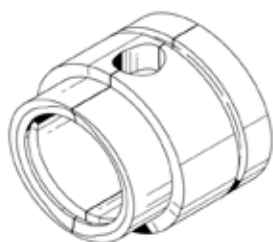
Part Number	Description
224-9467	Seal Installer

227-4755 Duo-Cone Seal Installer Assembly

SMCS Code: 4150-012

Model: D8L, D8N, D9N, D9R, and D10N Track-Type Tractor

Warranty: Six Months



- Used to install 9W-8878, 125-3267, and 111-9283 (discontinued) Seal Groups with a seal diameter of 102.00 mm (4.016 in) in D8L, D8N, D9N, and D9R track idler group and D10N track roller group
- Prevents toric seal ring from rolling or twisting during assembly
- Makes installation faster and easier while helping to eliminate damage during seal installation
- Seal installer halves are held together with a 130-8364 Extension Spring

Reference

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals
PELM0614, Information Release Memo

Overall outside diameter	114.3 mm (4.5 in)
Length	102 mm (4 in)
Outside shoulder diameter	106.5 mm (4.19 in)

Part Number	Description
227-4755	Seal Installer

4C-6206 Seal Installer

SMCS Code: 4150-012

Model: 385B and 5090B Hydraulic Excavators

Warranty: Six Months



- Used to install Duo-Cone seals in track roller assemblies (very difficult to install correctly without this tool)
- Makes installation faster and easier while eliminating seal rolling and twisting
- Outside diameter: 177.5 mm (6.99 in)

Reference

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals

Part Number	Description
4C-6206	Seal Installer

Track Seal Installers

SMCS Code: 4170-012

Model: D8N, D8L and D7H

Warranty: Six Months

- Used to correctly install rigid track seal in track link counterbore

Model	Seal Assembly Part No.	Seal Installer Part No.	Description
D8N, D8L and D7H	6T-8447 ¹	---	Seal Installer
¹ Discontinued			



Typical Seal Installer

Tools for Installing Duo-Cone Seals in Track Rollers and Idlers

SMCS Code: 4150-010

Model: D4H, D5H, D6H, D7H, D8L, D8N, D9L, D9N, D10, D10N, D11N Tractors, 943, 953, 963, 973 Loaders

Warranty: Six Months

- Used to install inverted Duo-Cone seals in track idlers and rollers on all H, L and N series tractors and hydrostatic loaders
- Seal installers have stop that helps to correctly position seal; stop also prevents seal from being installed too far on shaft
- Alignment sleeve keeps roller or idler concentric with shaft while retainer is bolted in place

Tool Part No. For Idler	Tool Part No. For Roller	Description
943 Loaders		
N/A	8T-0945	Alignment Sleeve
N/A	8T-0942	Retainer Seal Installer, Shaft Seal Installer
N/A	FT1994	Spin Socket
953 Loaders		
N/A	8T-0945	Alignment Sleeve
N/A	8T-0942	Retainer Seal Installer, Shaft Seal Installer
N/A	FT1994	Spin Socket
963 Loaders		
N/A	8T-0822	Alignment Sleeve
N/A	8T-0940	Retainer Seal Installer, Shaft Seal Installer
N/A	FT1911	Spin Socket
973 Loaders		
N/A	8T-0822	Alignment Sleeve
N/A	8T-0939	Retainer Seal Installer, Shaft Seal Installer
N/A	FT1911	Spin Socket



Seal Installer



Alignment Sleeve

(Continued)

Tools for Installing Duo-Cone Seals in Track Rollers and Idlers (Continued)

SMCS Code: 4150-010

Model: D4H, D5H, D6H, D7H, D8L, D8N, D9L, D9N, D10, D10N, D11N Tractors, 943, 953, 963, 973 Loaders

Warranty: Six Months

Undercarriage Tools

Part Number	Tool Part No. For Roller	Description
D4H Tractors, w/ FT1994 Spin Socket		
8T-0943	8T-0942	Retainer Seal Installer, Shaft Seal Installer
8T-0945	8T-0945	Alignment Sleeve
D5H Tractors, w/ FT1994 Spin Socket		
8T-0945	8T-0945	Alignment Sleeve
8T-0941	8T-0942	Retainer Seal Installer, Shaft Seal Installer
D6H Tractors, w/ FT1911 Spin Socket		
8T-0822	8T-0822	Sleeve - Align
8T-0939	8T-0939	Installer - Seal
D7H Tractors, w/ FT1911 Spin Socket		
8T-0822	8T-0822	Sleeve - Align
8T-0939	8T-0939	Installer - Seal
D8L Tractors, w/ FT1910 Spin Socket for Idler and FT1911 Spin Socket for Roller		
8T-0823	8T-0822	Alignment Sleeve
8T-0829	8T-0828	Installer - Seal
8T-0929	8T-0828	Spacer
D8N Tractors, w/ FT1910 Spin Socket for Idler and FT1911 Spin Socket for Roller		
8T-0823	8T-0822	Alignment Sleeve
8T-0829	8T-0828	Installer - Seal
D9L Tractors		
8T-0824	8T-0823	Alignment Sleeve
8T-0830	8T-0829	Installer - Seal
1U-9398	FT1910	Spin Socket

Part Number	Tool Part No. For Roller	Description
D9N Tractors, w/ FT1910 Spin Socket for Idler and FT1911 Spin Socket for Roller		
8T-0823	8T-0822	Alignment Sleeve
8T-7640	8T-7641	Retainer Seal Installer, Shaft Seal Installer
D10 Tractors		
8T-0825	8T-0824	Alignment Sleeve
8T-0826	8T-0827	Installer - Seal
1U-9399	1U-9398	Spin Socket
D10N Tractors, w/ FT1909 Spin Socket for Idler and FT1910 Spin Socket for Roller		
8T-0824	8T-0823	Alignment Sleeve
8T-0830	8T-0829	Installer - Seal
D11N Tractors, w/ 8T-0827 Retainer Seal and Shaft Seal Installer		
8T-0825	8T-0824	Alignment Sleeve
1U-9399	1U-9398	Spin Socket

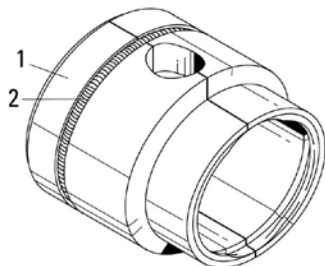
179-7208 Seal Installer Assembly

Essential Tool

SMCS Code: 4150-012

Model: D5M and D6M Track-Type Tractors

Warranty: Six Months



- Used to install 161-7247 Duo-Cone Seal into track idler
- Provides fast, easy installation
- Prevents rolling or twisting of Toric seal during assembly

Reference

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals

PELM0614, Information Release Memo

Overall diameter	89.6 mm (3.5 in)
Overall length	102 mm (4 in)
Outside shoulder diameter	81.8 mm (3.2 in)

(Continued)

179-7208 Seal Installer Assembly (Continued)

Essential Tool

SMCS Code: 4150-012

Model: D5M and D6M Track-Type Tractors

Warranty: Six Months

Item	Part Number	Description
1	179-7208	Seal Installer Assembly
2	9U-6259	Extension Spring

Duo-Cone Seal Installers

SMCS Code: 4180-016

Model: 330 and 375 Excavators

Warranty: Six Months

- Used to install Duo-Cone seals in undercarriage rollers -- makes installation fast and easy
- Proper installation requires a special tool (most seal failures result from mistakes made during installation)
- For longer service life, correct alignment of seal is critical (2 steel rings with their mating faces must be positioned parallel to each other)
- Eliminates seal rolling and twisting -- rubber toric rings (seals) hold the steel rings parallel and concentric while maintaining correct face contact pressure

Reference

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals

Part Number	Model
9U-7537	330 Excavator
9U-7538	375 Excavator



Duo-Cone Seal Installer Assemblies

SMCS Code: 4050-017, 4154-017, 4159-017, 4180-017

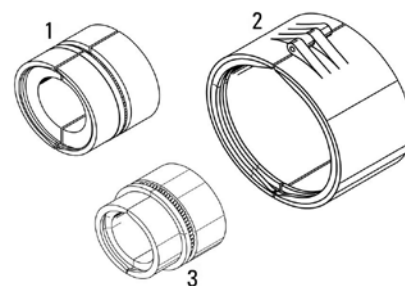
Model: 307, 311, 311B, 312, 312B, 315, 320, 320B, 322, and 322B Excavators

Warranty: Six Months

- Used to install Duo-Cone seal groups in track rollers, carrier rollers, and idlers
- For longest service life, 2 steel rings with their mating surfaces, must be positioned parallel to each other (most seal failures result from incorrect installation, many times caused by using improper installation tools)
- Prevents toric seal from rolling or twisting, making installation faster and easier (rubber toric rings hold steel rings parallel and concentric, while maintaining correct face contact pressure)

Reference

SEHS8364, Special Instruction, Assembly and Installation of Duo-Cone Seals



(Continued)

Duo-Cone Seal Installer Assemblies (Continued)

SMCS Code: 4050-017, 4154-017, 4159-017, 4180-017

Model: 307, 311, 311B, 312, 312B, 315, 320, 320B, 322, and 322B Excavators

Warranty: Six Months

Tool Usage and Seal Identification Chart					
Component	Seal Group	Toric C/S Diameter	Seal Ring OD	Installation Tool	Model Usage
Carrier Roller	099-0183	6.22 mm (0.245 in)	59 mm (2.3 in)	1U-6144	311, 311B, 312, 312B
Track Roller	099-0193	9.47 mm (0.373 in)	94.48 mm (3.72 in)	1U-6145	311, 311B, 312, 312B
Carrier Roller	8E-5608	6.22 mm (0.245 in)	65.67 mm (2.585 in)	9U-5985	315, 320, 320B, 322, 322B
Carrier Roller	099-6463	6.1 mm (0.24 in)	51 mm (2.0 in)	123-2999	307
Track Roller	136-0296	6.6 mm (0.26 in)	74 mm (2.9 in)	123-3800	307
Idler	093-1414	7.9 mm (0.31 in)	84 mm (3.3 in)	123-3801	307

Item	Part Number	Description
1	123-3801	Duo-Cone Seal Installer
2	1U-6145	Duo-Cone Seal Installer
3	1U-6144	Duo-Cone Seal Installer
--	9U-5985	Duo-Cone Seal Installer
--	123-2999	Duo-Cone Seal Installer
--	123-3800	Duo-Cone Seal Installer

Track Seal Installers and Track Bushing End Groove Gauges for Rigid Seals

SMCS Code: 4169-012, 4169-040, 0763

Model: D3C, D4C, D4E, D4H, D4H-Heavy Duty, D5, D5C, D5H, D5H-HD, D5M, D64-HD, D6D, D6H, D6M, D7G, D7H-HD, D7H, D8K, D8L, D8N, D8R, D9G, D9H, D9L, D9N, D9R, D10, D10N, D10R, D11N, D11R Track-Type Tractors; 571, 572, 578, 589 Pipelayers; 943, 955, 963, 973, 977, 983 Track-Type Loaders

Warranty: Six Months



- Install and inspect track link assembly (S and L)

Seal Installers

- Used to install new, improved rigid seals
- Simpler design, more durable than original installers
- More accurately locate new rigid seals (locate seals by inside diameter rather than outer portion of seal)
- Can hold installer and seal in 1 hand, even larger seal sizes, because diameter of handle, knurled portion of installer, is same size as outside diameter of seal



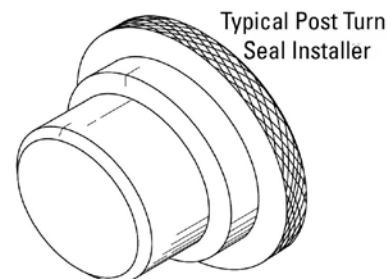
Seal Installer with Rigid Seal Attached

Post Turn Seal Installer

- Used to install Post Turn replacement seals when reworking track
- Seal has lip in new location — eliminates need to replace shaft

NOTE:

Original installers, if used carefully, can be used to install new rigid seals. The larger diameter of discontinued 8E-4512 Seal Assembly will not fit into discontinued 6V-4811 Installer. New-style installers can be used to install original rigid seals but care must be taken because in most cases there is a large clearance between the original rigid seal and the new installer.



Post Turn Seal Installers			
Model	Track Seal	Seal Installer	Groove Gauge
D10N, D10R	--	262-9822	4C-8612
D11N, D11R	--	241-1854	4C-8613

Track Bushing End Groove Gauges

- Designed for use with original rigid seals and new, improved rigid seals
- Simpler and more durable than original design
- Checks entire circumference of bushing for grooving without repeated attaching/removing

References

SEBF8546, Shop Repair Procedure for Positive Pin Retention Track

SEHS9371, Track Seal Installers and Track Bushing Gauges for Rigid Track Seals

SEBF8558, Undercarriage Reconditioning Guide

SEBF8565, Track Service Evaluation Checklist

SEBF8557, Shop Repair Procedure for Non-PPR Sealed and Lubricated Track



Model	Track Seal	Seal Installer	Groove Gauge
Seal Installers and End Grooving Gauges			
953	250-3990	165-2571	197-6569
D10, D10N, D10R	222-7001	4C-8622	4C-8611, 4C-8612
D11N, D11R	222-7007	4C-8623	4C-8613
D3C, D4C	252-7861	165-2571	165-2572
D4E, 943	252-7862	165-2573	165-2574
D4H, D5C	250-4000	4C-8615	4C-8602
D4H-HD, D5M	250-3992	133-1532	133-1535
D5	252-7859	165-2575	165-2576
D5H-HD, D6M, D5H	250-3988	4C-8616	133-1536, 4C-8603
D6D, 963, 955	250-3996	133-1533	133-1537
D6H-HD, D6R, D6H	207-0544	4C-8617	133-1538, 4C-8604
D7G, 977, 973, 571, 572	250-3998	133-1534	133-1539

(Continued)

Track Bushing End Groove Gauges (Continued)

Model	Track Seal	Seal Installer	Groove Gauge
Seal Installers and End Grooving Gauges (Continued)			
D7H	251-1659	4C-8619	4C-8605
D7H-HD, D7R, D8L, D8N, D8R, 578	222-6998	4C-8619	133-1540, 4C-8607
D8K, 983	248-1539	4C-8618	4C-8606
D9G, D9H	248-1537	4C-8620	4C-8608
D9L, 589, D9N, D9R	207-0545	4C-8621	4C-8609, 4C-8610

4C-8605 Track Bushing Groove Gauge

SMCS Code: 4170-040

Model: D8N, D8L, D7H

Warranty: Six Months



- Used to check wear on track bushing ends
- Provide quick visual check for bushing reusability when track bushings are being turned

Part Number	Model	Description
4C-8605	D8N, D8L, D7H	Track Bushing Groove Gauge
4C-8609	D9L	--
4C-8610	D9N	--
4C-8611	D10	--
4C-8612	D10N	--
4C-8613	D11N	--

264-0054 Cat® Roller Assembly Machine

SMCS Code: 4150

Model: All Cat® roller models

Warranty: Six Months

- Designed to simplify the roller disassembly and assembly process
- Used on all Cat roller models, including snap ring, oval track, and duo-cone seal
- Reduces cycle times by simplifying the positioning and pressing of the roller
- Indexing worktable allows for the shaft and collar to be easily installed/removed without removing the roller from the bench
- Built-in fixturing for pulling collars
- Uses Cat part-numbered maintenance and repair parts
- Order 1 of the following power units (sold separately):
149-7359 Power Supply Group (115 VAC, 60 Hz, 1-Phase)
146-2460 Power Supply Group (220 VAC, 50/60 Hz, 1-Phase)
146-2461 Power Supply Group (230/460 VAC, 60 Hz, 3-Phase)
140-6241 Power Supply Group (220/380/440 VAC, 50 Hz, 3-Phase)
- Dealership will connect power supply.

References

NEHS0836, Roller Assembly Machine Tool Operating Manual
REN2059, Disassembly and Assembly Procedures for Rollers with Inverted Duo-Cone Seals

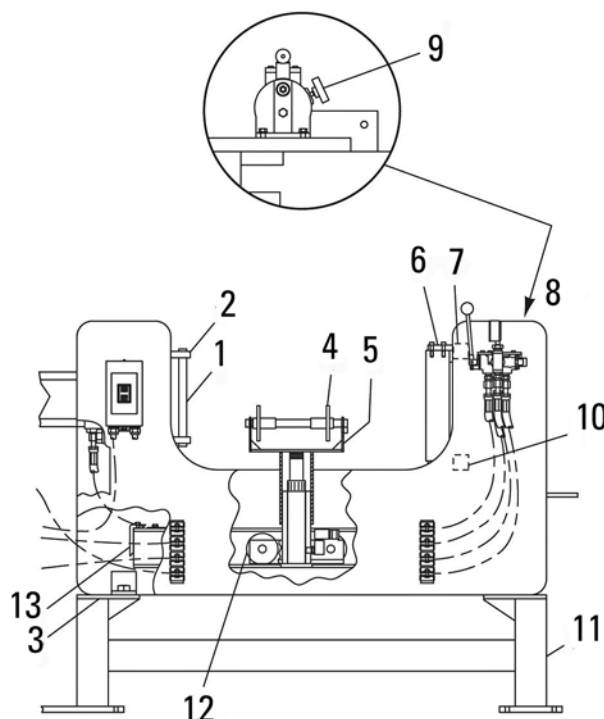
REN3961, Disassembly and Assembly Procedures for Rollers with Conventional Duo-Cone Seals

REN3962, Disassembly and Assembly Procedures for Snap Ring and Oval Track Rollers

Item	Description	Qty.
7	Gear Rack (upper)	1

Item	Part Number	Description	Quantity
--	264-0054	Cat® Roller Assembly Machine	--
1	264-0055	Pin	2
2	264-0060	Plate	4
3	262-9923	Carrier Guard	2
4	264-0059	Roller Assembly	4
5	264-0057	Support Group	1

¹ Not serviced



Undercarriage Tools

Item	Part Number	Description	Quantity
6	264-0058	Roller Stop Group	2
8	139-5449	Directional Valve ¹	1
9	1U-7544	Hydraulic Hand Pump	1
10	262-8357	Gear Rack (lower)	1
11	264-0061	Stand Assembly	1
12	264-0062	Carrier Assembly	1
13	262-9924	Angle Stop	4

2H-9482 Relief Valve Fitting

SMCS Code: 4154-041, 4159-041

Model: Older machines not equipped with lifetime lubricated seals

Warranty: Six Months



- Used to lubricate rollers and idlers on older machines not equipped with lifetime lubricated seals
- Limits pressure to 3100 kPa (450 PSI)
- Direct ship from Lincoln, St. Louis (Part # 82327)

Part Number	Description
2H-9482	Relief Valve Fitting

5M-2080 Lubricator Nozzle

SMCS Code: 4150-017, 4150-041

Model: Most Cat® Undercarriages

Warranty: Six Months



- Used to fill lifetime lubricated rollers and idlers after reconditioning

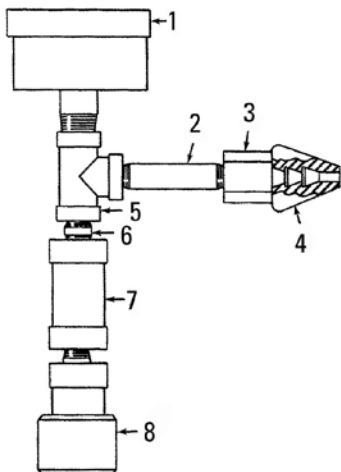
Item	Part Number	Description
--	5M-2080	Lubricator Nozzle
1	2F-1336	Fitting
2	2A-3307	Seal

FT0575 Testing Tool

SMCS Code: 4180-017, 4159-017

Model: Most Cat® Track-type Machines

Warranty: None



- Used to test sealing capabilities of Duo-Cone seals in front idlers, track rollers, and carrier rollers on track-type machines

Item	Description
3	Adapter
4	No. 61-A Rubber Tip ¹
7	No. 1198-1PP Check Valve ²
8	No. 2900 Push-Tite Coupling ³

¹ Available from Rinck-McIlwaine Inc., Dumont, N.J. 07628

² James Pond Clark Check Valve, available from Circle Seal Products, P. O. Box 3666, Anaheim, CA 92803

³ Available from Hansen Manufacturing, Cleveland, Ohio

Item	Part Number	Description
1	8T-0848	Gauge GP - Pressure (3)
2	3B-7263	Nipple - Pipe
5	3B-7900	Tee (1/8 in)
6	5H-7826	Nipple (1/8 x 1 in) Pipe

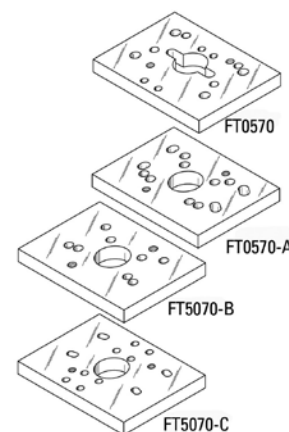
FT0570 Puller Plate

SMCS Code: 4159-017, 4159-015

Model: D5B, D8H, D8K, D9H

Warranty: None

- Used to pull corroded front idler bearings on various track-type machines
- Used with 6F-0025 Pump Group (or 3S-6224 Hydraulic Pump Assembly), 6V-3160 Hydraulic Puller, cross arm from 8B-7548 Push Puller with 8B-7550 Legs
- In addition to fabricated tools, 4 suitably sized bolts must be used to attach puller plate to idler bearing
- 4 basic puller plates listed in chart; each has several bolt hole patterns and each pattern permits adapting one of the basic plates to other machine models
- Material: 203.2 x 304.8 mm (8.0 x 12.0 in) steel plate, 31.8 mm (1.25 in) thick



Model	Bearing Number	Fabricated Tool No.	Bolt Hole Pattern	Bolt Hole Diameter
D8	2B-2435 ¹	FT0570-A	3	17.465 mm (0.688 in)
D8	2F-4807 ¹	FT0570	4	20.241 mm (0.797 in)
D7	6B-5939 ¹	FT0570-A	5	17.465 mm (0.688 in)
977	2M-7633 ¹	FT0570-A	6	17.465 mm (0.688 in)
D7	2B-6269 ¹	FT0570-A	7	17.465 mm (0.688 in)
977	4H-2777 ¹	FT0570-C	9	14.278 mm (0.562 in)
D6	7B-5475 ¹	FT0570-C	10	14.278 mm (0.562 in)
D6	5B-5285 ¹	FT0570	11	17.465 mm (0.688 in)
D6	2B-5901 ¹	FT0570-B	12	17.465 mm (0.688 in)

¹ Discontinued

Model	Bearing Number ¹	Fabricated Tool No.	Bolt Hole Pattern	Bolt Hole Diameter
D8H	2M-7099	FT0570	2	17.465 mm (0.688 in)
D7E, 977K, D7 ²	8M-0341	--	--	--
D7E, 977K, D7 ²	9F-9891	--	--	--
572	1H-5461	FT0570-A	6	17.465 mm (0.688 in)
D7	1F-8285	FT0570-A	6	17.465 mm (0.688 in)
D7	5B-5961	FT0570-B	8	17.465 mm (0.688 in)
D6C ³	5M-5003	--	--	--

Model	Bearing Number ¹	Fabricated Tool No.	Bolt Hole Pattern	Bolt Hole Diameter
D7	1F-9493	FT0570-C	9	14.278 mm (0.562 in)
583H	9H-7529	FT0570	2	17.465 mm (0.688 in)
977	5K-0269	FT0570-C	9	14.278 mm (0.562 in)
D4	3K-2849	FT0570	13	14.278 mm (0.562 in)
D9	9H-6982	FT0570	1	17.465 mm (0.688 in)
583H	8F-1977	FT0570	2	17.465 mm (0.688 in)
D4	5H-4027	FT0570	13	14.278 mm (0.562 in)
D4C	1M-8863	FT0570	13	14.278 mm (0.562 in)
955	4K-5285	FT0570	13	14.278 mm (0.562 in)
D3, 931	6S-3214	FT0570-C	14	14.278 mm (0.562 in)
D3, 931	6S-3451	FT0570-C	15	14.278 mm (0.562 in)

¹ Discontinued Bearing Numbers: 3K-2849, 5H-4027, 5K-0269, 8F-1977, 9H-6982, 9H-7529

² Use two FT0571 Puller Bars, two 1D-4624 Bolts and two 3/4 in-10 NC Nuts

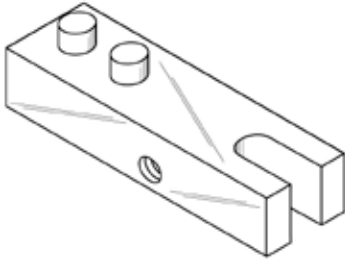
³ Same Tool as 8M-0341

FT0571 Puller Bar

SMCS Code: 4159-017

Model: D7G, 977L

Warranty: None



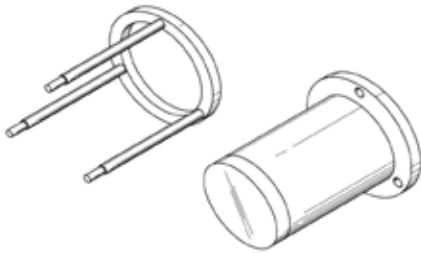
- Used to pull front idler bearing on track-type machines (2 required)

FT0578 Bushing Alignment Tool

SMCS Code: 4150-017

Model: Most Cat® Track-type Machines

Warranty: None



- Used to align flange bolt holes in track roller and front idler bushings with holes in hub when pressing bushing into place

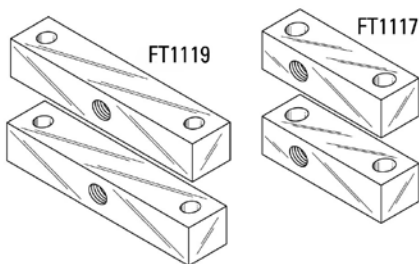
FT1117 Puller Bar

FT1119 Puller Bar

SMCS Code: 4159-017

Model: 225, 235 Excavators

Warranty: None



- Used to pull front idler bearings
- Two 7K-3515 Bolts and two 1B-4331 Nuts required for 225 Excavator; four 1D-4628 Bolts required for 235 Excavator
- 2 required
- Material: SAE 1020 Steel

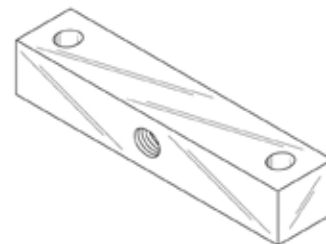
FT1233 Puller Bar

SMCS Code: 4159-017

Model: 245 Excavator

Warranty: None

- Used to pull front idler bearings
- Use 1H-3107 Push Puller with two FT1233 Puller Bars, two 5P-1670 Bolts, and two 1B-4331 Nuts
- Material: SAE 1020 Steel



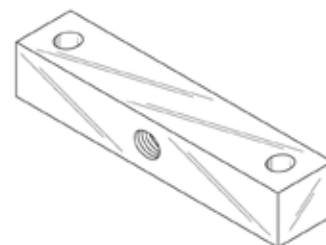
FT1327 Puller Bar

SMCS Code: 4159-017

Model: 215D, 219D

Warranty: None

- Used for removal of front idler bearings
- 1H-3107 Push Puller, two 8S-3887 Bolts, and two 1D-4719 Nuts also required for pulling operation
- Two required
- Material: SAE 1020 Steel



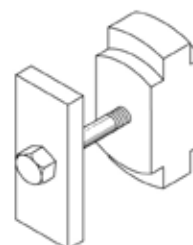
FT1216 Roller Bushing Removal Adapter

SMCS Code: 4100-017, 4180-017

Model: D3B, D3C, 931B, 931C, 935C Traxcavators

Warranty: None

- Used with horizontal or vertical press to remove bushings from track rollers

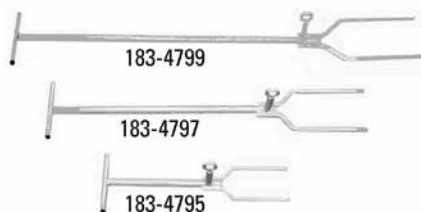


Track Roller Lifting Fork Assemblies

SMCS Code: 4150-010

Model: See Below

Warranty: Six Months



European Union compliant, CE marked

- Used in removal and installation of track rollers on track-type machines

Part Number	Model
183-4799	D8, D8L, D8N, D9, D9L, D9N, D10, D10N, D11N, 245, 983
183-4797	D4, D4H, D5, D5H, D6, D6H, D7, D7H, 225, 235, 941, 943, 951, 953, 955, 963, 973, 977
183-4795	D3, 931, 933

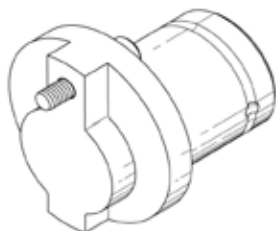
305-3015 Spanner Wrench

Essential Tool

SMCS Code: 4159-535

Model: D6K Track-Type Tractor

Warranty: Six Months



- Used to rotate track idler eccentric system to adjust position of track idler wheel
- Used with 1 inch square drive ratchet
- Designed to engage idler eccentric once lock bolt and key are removed
- 8T-9515 Socket Head Bolt (included) is used in place of standard lock bolt and secures tool to idler eccentric during use
- Durable welded steel construction

Reference

SEBU8126-06, D6K Track-Type Tractor, Operation and Maintenance Manual

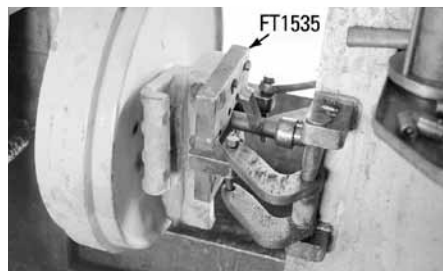
Part Number	Description
305-3015	Spanner Wrench

FT1535 Idler Bearing Puller

SMCS Code: 4167-012

Model: Most Cat® Track-type Tractors and Track Loaders

Warranty: None



- Used to remove idler bearings on tractors and track loaders so that bushing bolts can be removed
- Puller fastened to bearing with high strength bolts (listed on drawing) and placed in roller-idler press for removal of bearing

Maximum allowable working load	310 kN (35 ton)
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FT1316 Front Idler Bushing Removal Adapter

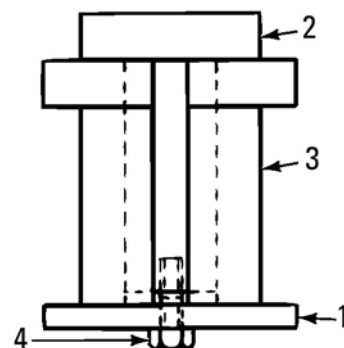
SMCS Code: 4159-017, 7210-017

Model: D3B, D3C, 215D, 219D, 931B, 931C, 935C, 973

Warranty: None

- Used with horizontal or vertical press for removing bushings from front idler

Item	Part No.	Description
1		Plate
2		Shaft
3		Sleeve
4	OS-1615	Bolt



FT1412 Wear Gauge

SMCS Code: 4159-040, 4180-040

Model: Most Cat® Track-type Machines

Warranty: None

- Used to check wear limit (maximum permissible clearance) between bronze bushing and shaft in track rollers and idlers
- With roller setting on press, insert gauge between shaft and bushing; if gauge can be inserted, bushing should be replaced; if it cannot be inserted, there is sufficient life remaining for rebuilt roller



Drivers for Rollers and Idlers

Essential Tool

SMCS Code: 4159, 4180

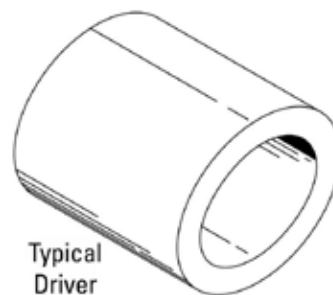
Warranty: Six Months

- Used to push collar onto shaft of rollers and idlers
- Sets correct depth providing a positive stop during assembly that eliminates measuring
- Tool is easy to use
- Decreases setup and processing time

References

SEBF8583, Disassembly and Assembly for Idlers with Conventional Duo Cone Seals

SEBF8584, Disassembly and Assembly Procedures for Track Rollers with Conventional Duo Cone Seals



(Continued)

Drivers for Rollers and Idlers (Continued)

Essential Tool

SMCS Code: 4159, 4180

Warranty: Six Months

Roller Group		
Model	Roller Group	Driver Part No.
D11R (SF)	156-1007 ¹	170-5404
D11R (DF)	156-1008 ¹	170-5404
D10R (SF)	125-3270 ¹	170-5408
D11R (DF)	125-3268 ¹	170-5408
D9R (SF)	104-3495 ¹	170-5410
D9R (DF)	104-3496 ¹	170-5410
D8R (SF)	132-7928 ¹	170-5407
D8R (DF)	132-7929 ¹	170-5407
Idlers		
Model	Idler Group	Driver Part No.
D11R	156-0313 ¹	170-5405
D10R	125-3537	170-5406
D9R	125-4655	170-5409
D8R	111-1730	170-5408
D8R	111-1729	170-5408
D7R (E W)	159-2086 ¹	170-5411
D7R	135-9896 ¹	170-5411
D6R	--	170-5412
D4H and D5M	160-9753 and 160-9754 ¹	201-1582
D5H and D6M	161-7549 ¹	201-1581
¹ Discontinued		

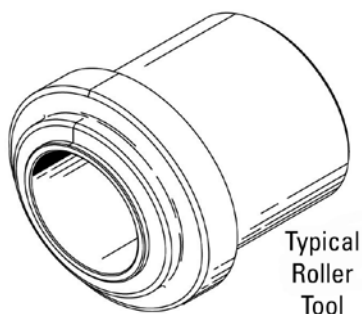
Track Roller Assembly Tools

Essential Tool

SMCS Code: 4180-016

Model: D4H, D5M, D5H, D6M, D6H, D6R, D7H, and D7R Track-Type Tractors

Warranty: Six Months



- Used to install bushings into track roller (provides correct and consistent installation depth)

Reference

SEHS8957, Special Instruction

Model	Roller Tool
D4H and D5M	126-4045 or if necessary ¹ , use 166-5902 Roller Tool
D5H and D6M	123-6692
D6H and D6R	123-6693
D7H and D7R	123-6699
¹ Used on certain 943, 939, 561H, D4H, D5C and D5M's that need shallower set points	

Tools for Replacing Track Roller and Idler Bearings

SMCS Code: 4150-010

Model: 245, 943, 953, 963, 973, D4H, D5H, D6H, D7H, D8L, D8N, D9L, D9N, D10, D10N, D11N

Warranty: Six Months

- Used to remove, install, and hone track roller and idler bearings following weld rebuild or installation of new bearings on all elevated sprocket tractors (N, L and H series), 245 Excavators, and hydrostatic loaders
- Refer to chart for list of all tools required and to following articles for parts serviced in each group

References

SMHS8067, Special Instruction

SEBF8586

Tool Function	Illus.	Part No.	Description
Holding Fixture	5	FT1688	Holding Fixture

Part Number	Description	Part Number	Description
Tool Function: Bearing Removal and Installation Tools, Illustration 1		Tool Function: Bearing Removal and Installation Tools, Illustration 1 (Continued)	
6V-6078	Pusher Plate	8T-7725	Pilot
6V-6079	Pusher Plate	8T-7726	Pusher Plate
6V-6081	Pusher Plate	8T-7727	Pusher Plate
6V-6083	Pusher Plate	8T-7728	Pusher Plate
6V-6084	Stud (adaptable to Wolff and L and B roller / idler presses)	8T-7729	Pusher Plate
6V-6085	Pilot	8T-7730	Pusher Plate
6V-6086	Pilot	8T-7731	Pusher Plate
6V-6087	Pilot	8T-7732	Pusher Plate
6V-6095	Plate	8T-7734	Pusher Plate
8T-7716	Plate	8T-7735	Pusher Plate
8T-7717	Plate	8T-7736	Pusher Plate
8T-7718	Plate	8T-7737	Stud
8T-7719	Plate	Tool Function: Honing Tools, Illustration 2	
8T-7720	Plate	5P-8591	Holder, Stone
8T-7721	Plate	6V-6089	Stone Set
8T-7722	Pilot	6V-6091	Stone Set
8T-7723	Pilot	6V-6092	Stone Set
8T-7724	Pilot	6V-6093	Stone Set
		6V-6094	Hone

Illustration 1 - Bearing and Removal Installation Tools

Item	Part Number	Description
1	6V-6084	Stud (adaptable to Wolff and L and B roller / idler presses)
2	6V-6095	Plate
3	6V-6079	Pusher Plate
4	6V-6085	Pilot
5	6V-6087	Pilot
6	6V-6078	Pusher Plate
7	6V-6083	Pusher Plate
8	6V-6081	Pusher Plate
9	6V-6086	Pilot

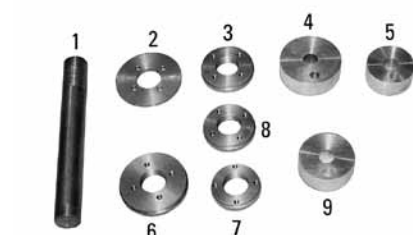


Illustration 1 - Bearing Removal and Installation Tools

(Continued)

Illustration 1 - Bearing and Removal Installation Tools (Continued)

Item	Part Number	Description
Not shown		
--	8T-7722	Pilot
--	8T-7723	Pilot
--	8T-7724	Pilot
--	8T-7725	Pilot
--	8T-7721	Plate
--	8T-7720	Plate
--	8T-7719	Plate
--	8T-7718	Plate
--	8T-7717	Plate
--	8T-7716	Plate
--	8T-7729	Pusher Plate
--	8T-7730	Pusher Plate
--	8T-7731	Pusher Plate
--	8T-7732	Pusher Plate
--	8T-7734	Pusher Plate
--	8T-7728	Pusher Plate
--	8T-7736	Pusher Plate
--	8T-7727	Pusher Plate
--	8T-7726	Pusher Plate
--	8T-7735	Pusher Plate
--	8T-7737	Stud

Bearing Removal and Installation Tools

Model	Component	Tools Needed
D11N, D10	Idler	8T-7721 Plate
		6V-6078 Pusher Plate
		6V-6085 Pilot
D11N, D10	Roller	6V-6079 Pusher Plate
		6V-6086 Pilot
		6V-6095 Plate
D10N	Idler	6V-6079 Pusher Plate
		6V-6086 Pilot
		6V-6095 Plate
D10N	Roller	8T-7720 Plate
		8T-7736 Pusher Plate
		6V-6087 Pilot
D9L	Roller	8T-7720 Plate
		6V-6081 Pusher Plate
		6V-6087 Pilot
D8L, D8N, D9N	Idler	8T-7720 Plate
		6V-6081 Pusher Plate
		6V-6087 Pilot
D8L	Roller	8T-7719 Plate
		8T-7725 Pilot
		8T-7735 Pusher Plate
D8N	Roller	8T-7719 Plate
		8T-7734 Pusher Plate

Bearing Removal and Installation Tools (Continued)

Model	Component	Tools Needed
245	Idler	6V-6083 Pusher Plate
		6V-6087 Pilot
		6V-6095 Plate
D7H	Idler	8T-7719 Plate
		8T-7725 Pilot
		8T-7735 Pusher Plate
D7H, 973	Roller	8T-7719 Plate
		8T-7725 Pilot
		8T-7732 Pusher Plate
D6H	Idler	8T-7718 Plate
		8T-7724 Pilot
		8T-7731 Pusher Plate
D6H, 963	Roller	8T-7718 Plate
		8T-7724 Pilot
		8T-7730 Pusher Plate
D5H	Idler	8T-7717 Plate
		8T-7722 Pilot
		8T-7729 Pusher Plate
D5H, 953	Roller	8T-7717 Plate
		8T-7723 Pilot
		8T-7728 Pusher Plate
D4H	Idler	8T-7716 Plate
		8T-7722 Pilot
		8T-7727 Pusher Plate
D4H, 943	Roller	8T-7716 Plate
		8T-7722 Pilot
		8T-7726 Pusher Plate

Illustration 2 - Honing Tools



Item	Part No.	Description
Not shown	FT2683	Universal Pilot

Item	Part Number	Description	Diameter
1	5P-8591	Holder, Stone	--
2	177-9709	Stone Set, D11, 280 Grit	101.14 - 406.4 mm (4.1 - 16.0 in)
3	177-9708	Stone Set, D10, 280 Grit	88.9 - 139.7 mm (3.5 - 5.5 in)
4	6V-6094	Hone	--
Not shown			
2	8B-3618	Wrench	2.38 mm (3/32 in)

Illustration 3 - Additional Taper Tools

Item	Part Number	Description
1	177-9710	Morse Taper #4-#4 Extension 347.66 mm (13 11/16 in) length
2	177-9711	Morse Taper #3-#4 Adapter 311.15 mm (12 1/4 in) length



Illustration 3 - Additional Tools

Illustration 4 - Parts of FT1688 Roller and Idler Holding Fixture

Item	Part No.	Description
1		Pump
2		Torsion Bars
3		Angle
4		Angle
5		Angle
6		Bracket Assembly (D8L)
7		Bracket Assembly (D9L, 245)
8	1J-4946	Hose Assembly
9		Shield Assembly
10		Guard
11		Eyebolt
12		Spacer, 9.52 mm (0.38 in)
13		Spacer, 6.5 mm (0.25 in)
14		Spacer, 3.18 mm (0.13 in)
15		Stop
16		Hose

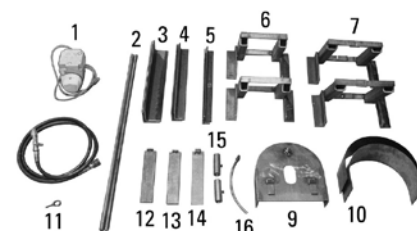


Illustration 4 - Parts of FT1688 Roller and Idler Holding Fixture

Illustration 5 - FT1688 Roller and Idler Holding Fixture



Illustration 5 — FT1688 Roller and Idler Holding Fixture

Cooling Adapters

SMCS Code: 0679

Model: 973, 963, 953, 943, D5H, D4H, D6H, D7H, D8L, D9L, D8N, D9N, D10, D10N, D11N

Warranty: Six Months except One Year for 1U-5530



- Permit water-cooling welding
- Elevated sprocket tractors (H, L, and N series) and hydrostatic loaders (943-973) which are to be weld reconditioned, require water cooled procedure to prevent damage to bearing pressed into roller shell; rollers must be disassembled and cooling adapter installed to permit water-cooling welding

Reference

SEBF8507-03, Undercarriage Reconditioning Guide, Bulletin MP -- 3 (3/88), additional information for wet welding track rollers

Service/Repair Parts		
Part Number	Description	Quantity
6V-6140 Cooling Adapter, D11N, D10, D10N, D9L		
2H-3933	O-ring Seal	--
8F-8733	O-ring Seal	2
8F-9516	O-ring Seal	2
9H-5604	Retainer Ring	--
9N-1545	Thrust Race	2
6V-6163 Cooling Adapter, D9N, D8L, D8N, D7H		
2H-3933	O-ring Seal	--
5F-3106	O-ring Seal	2
9H-5604	Retainer Ring	--

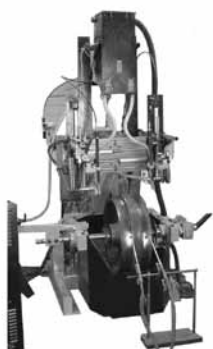
Service/Repair Parts		
Part Number	Description	Quantity
6V-6163 Cooling Adapter, D9N, D8L, D8N, D7H (Continued)		
9J-0114	Thrust Race	2
1U-5530 Cooling Adapter, 973, 963, 953, 943, D6H, D5H, D4H		
3H-2652	O-ring Seal	--
2J-8163	O-ring Seal	2
5H-6734	O-ring Seal	2
7H-4574	Retainer Ring	--
9J-0114	Thrust Race	2

Cat® Idler/Roller Welder

SMCS Code: 4150

Model: All Cat roller models

Warranty: Six Months



- Automated submerged-arc welding machine for resurfacing track idlers, rollers, and railroad rims
- Each weld head uses a dedicated power supply and automatic welder
- Three flux delivery options are available
- Chiller system for water-cooled roller welding is available separately
- Accommodates D3 through D11 idlers and rollers and 508 mm (23 in) wide railroad rims
- PLC program controls weld head motion
- 432 cm/min (170 in/min) maximum recommended wire feed rate increases production rate
- Direct drive motor/gearbox
- 45 degree yoke tilt allows flange welding
- Designed and supported exclusively by the Dealer Service Tools Division
- Offered in any configuration of 380/460/575 Volts and 50/60 Hz

Ordering Information

Contact the Caterpillar Dealer Service Tools Division for quotations and specifications. This product is purchased outside of the Cat parts network via a Purchase Order. See Contact Information.

References

SEBF8507-03, Undercarriage Reconditioning Guide/
Water-cooled Welding

(Continued)

Cat® Idler/Roller Welder (Continued)

SMCS Code: 4150

Model: All Cat roller models

Warranty: Six Months

Related Tooling (Sold Separately)	
Part No.	Description
FT1238	Track Lube Vacuum Unit
Cat® Roller Assembly Machine (Hydraulic press for roller shaft and collar disassembly and assembly)	

Related Tooling (Sold Separately)	
Part Number	Description
170-5664	Test and Fill Machine
Water cooling adapters for roller welding:	
6V-6140	for D9L, D10, D10N, D11N
6V-6163	for D7H, D8N, D8L, D9N
1U-5530	for D4H, D5H, D6H, 943-973

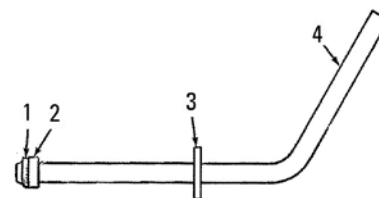
FT1768 Lubricator

SMCS Code: 4180-044

Model: 245 Excavator

Warranty: None

- Used to fill track rollers with oil while they are on or off the excavator
- 5M-2080 Nozzle Assembly will not correctly fill rollers on 245 Excavator
- Can be made from common service parts as shown in illustration
- Must be installed in end of track roller shaft until 4B-4280 Washer makes contact with shaft; roller must be tilted to approximately 30° above horizontal plane when lubricant is added
- If roller is on excavator, excavator can be put in position on a slope; when roller is full of oil, oil will flow out around tube of lubricator



Item	Part Number	Description
1	8M-5251	Seal
2 and 4	5P-1202	Tube (bulk)
3	4B-4280	Washer

Depth Gauge Modification

SMCS Code: 4150-040

Model: Most Cat® Track-type Machines

Warranty: Six Months

- To help eliminate problems during field use of discontinued 6V-0012 and 6V-6190 Depth Gauges, use 6V-9411 Plunger and 4B-2049 Nut
- 6V-6190 Depth Gauge requires 19 plungers and nuts; 6V-0012 Depth Gauge requires 16 plungers and nuts

Application Procedure

- Remove plastic set screws and springs from the depth gauges.
- Place probe through vertical hole. (Probes can be easily pushed into the holes if ends are rounded.)
- Screw 6V-9411 Plunger into threaded hole on side of gauge. Adjust plunger to the point where probe fits snug but is free to move.
- Tighten 4B-2049 Nut over 6V-9411 Plunger while holding the plunger with a screwdriver to prevent it from turning. Probe should be able to be removed and installed without further adjustment.



(Continued)

Depth Gauge Modification (Continued)

SMCS Code: 4150-040

Model: Most Cat® Track-type Machines

Warranty: Six Months

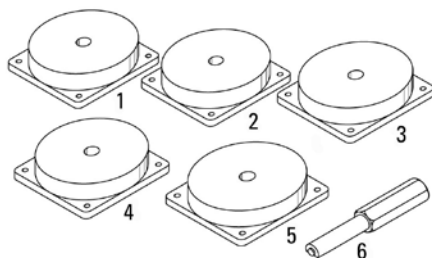
Item	Part Number	Description
1	6V-9411	Plunger
2	4B-2049	Nut

Fabricated Repair Tools for Track Rollers and Idlers

SMCS Code: 4150-023

Model: See Below

Warranty: None



SMCS Code: 4150-023

- Used for repairing retainer assemblies on track rollers and idlers

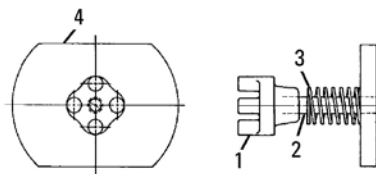
References

SEHS8515, Special Instruction, Repairing Retainer Assemblies

SEBF8515-0, (12/86), Undercarriage Reconditioning Bulletin MP-11, Track Roller, Carrier Roller and Idler Disassembly and Assembly Procedures

Item	Part No.	Description	Application
1	FT1913	Drill Fixture	963 Roller and Idler
2	FT1914	Drill Fixture	D8L Roller
3	FT1915	Drill Fixture	D8L Idler and D9L Roller
4	FT1916	Drill Fixture	D9L Idler and D10 Roller
5	FT1917	Drill Fixture	D10 Idler
6	FT1919	Punch	Needed for each repair

FT1918 Base Plate Assembly (needed for each repair)



FT1918 Base Plate Assembly

- Used for repairing retainer assemblies on track rollers and idlers

References

SEHS8515, Special Instruction, Repairing Retainer Assemblies

SEBF8515-0, (12/86), Undercarriage Reconditioning Bulletin MP-11, Track Roller, Carrier Roller and Idler Disassembly and Assembly Procedures

(Continued)

FT1918 Base Plate Assembly (Continued) (needed for each repair)

Chart below shows tools for pressing bushing assemblies out of track roller rim assemblies; tools are for reshelling or repairing trackrollers on 215, 215B, 215 SA, 225, 235 and 235B Excavators; 235 and 235B Front Shovels Excavators

Model	Part No.	Description
235	FT2212	Roller Bushing Removal Adapter
225, 225 SA	FT2211	Roller Bushing Removal Adapter
215	FT2210	Roller Bushing Removal Adapter
All	FT2209	Handle
All	2M-5795	Pin (Chevis)
All	7H-9737	Pin (Chevis)

FT1918 Base Plate Assembly(needed for each repair)

Item	Part No.	Description
1	6D-5356	Knob
2	8D-8815	Stud
3		Spring
4		Plate

Drill Fixtures

SMCS Code: 4150-023

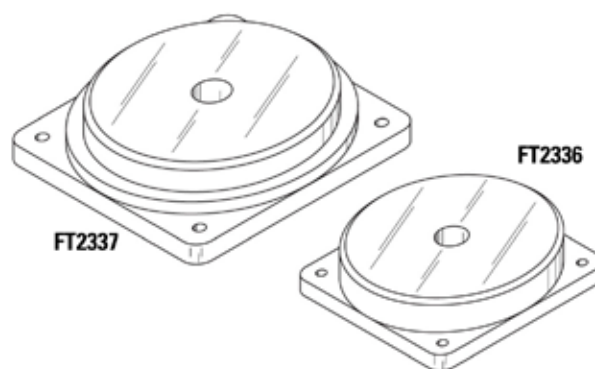
Model: See Below

Warranty: None

- Required to repair retainer assemblies on track rollers and idlers
- Repair is done by attaching new thrust washer to former retainer with pins
- FT2336 Drill Fixture used to repair D5H and D4H Idler/Roller and 953 and 943 Roller
- FT2337 Drill Fixture used to repair D7H Idler

Reference

SEHS8515-02, Special Instruction

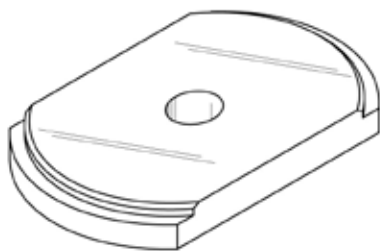


FT2365 Removal Plate

SMCS Code: 4153-011

Model: D10N Track-Type Tractor

Warranty: None



- Used to remove both bearing and sleeve in 1-step operation
- Non-destructive removal of D10N pivot shaft with bearing of steel-backed bronze material reduces rework

Reference

SENR3516, D10N Service Manual

Additional tools needed:	
Part No.	Description
FT1812	Receiver

Additional tools needed	
Part Number	Description
1P-9254	Retaining Ring
1S-8385	Retaining Ring
4K-0684	Hardened Washer
1P-0544	Fast Runner Nut
6V-2168	Plate
6V-3175	Hydraulic Cylinder

FT1852 Bracket, FT1849 Reaction Plate,

FT1851 Adapter

SMCS Code: 4150-012

Model: Most Cat® Track-type Machines

Warranty: None



- Needed to adapt roller idler press for replacement rim removal and installation
- FT1852 Bracket used to lift carrier roller into place in the press, permitting bracket and FT1849 Reaction Plate to both fit between rim flanges during rim removal
- Design of FT1852 Bracket also permits it to be used with FT1851 Adapter

6V-9413 Custom Track Service Kit

SMCS Code: 4150-082

Model: Most Cat® Track-type Machines

Warranty: Six Months

- Used to quickly measure wear on undercarriage components
- Replaces discontinued 5P-3919 Customer Track Service Kit
- Features new 6V-9410 Depth Gauge which has additional holes or “probe” locations; added holes provides more flexibility for more accurate measurements on all models
- Has a longer 6V-7784 Pouch



Item	Part Number	Description
--	6V-9413	Custom Track Service Kit
1	6V-7784	Pouch
2	8H-8580	Scraper
3	5P-3920	Rule - Steel
4	5P-8617	Sprocket Gauge (D7-D9)
5	5P-8616	Sprocket Gauge (D4-D6)
6	5P-3277	Tape
7	4S-9405	Caliper, 304.8 mm (12 in)
8	4S-9404	Caliper, 101.6 mm (4 in)
9	6V-9410	Depth Gauge

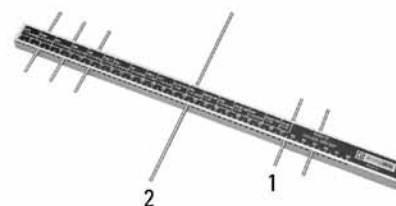
6V-9410 Gauge Group

SMCS Code: 4150-082

Model: Most Cat® Track-type Machines

Warranty: Six Months

- Used to measure track roller and link wear
- Replaces 6V-6190 Gauge Group
- 6V-9410 is longer, has new probe hole locations for N and H series roller and link measurement
- Decal has location number of probe holes and shows which holes are to be used to check rollers



Item	Part Number	Description	Size
--	6V-9410	Depth Gauge	--
1	6V-9408	Probe	101.6 mm (4 in)
2	6V-9409	Probe	254 mm (10 in)
Not Shown			
--	6V-9407	Gauge Kit Includes set screw (10), spring (10), ball (10)	--

8T-7790 Caliper

SMCS Code: 4170-036

Model: D11N

Warranty: Six Months



- Used to measure track bushing wear
- 152 mm (6 in)
- Not intended to replace 102 mm (4 in) 4S-9404 Caliper and will not be added to Custom Track Service Kit

Part Number	Description
8T-7790	Caliper

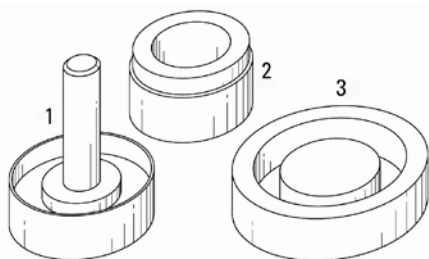
308-0711 Installer Group

Essential Tool

SMCS Code: 4180

Model: 277C, 287C, and 297C Series Skid Steer Loaders

Warranty: Six Months



- Used for idler assembly on 258-3031 Axle Group
- Used to maintain proper assembly depth of 258-3025 Sleeve
- Tools are sold individually or as complete set
- Steel construction with black oxide coating for corrosion resistance

Reference

KENR5197-02, 277C, 287C, and 297C Multi-Terrain Loaders Disassembly and Assembly

Item	Part Number	Description
--	308-0711	Installer Group
Consists:		
1	307-6706	Sleeve Installer
2	308-0709	Seal Installer
3	308-0710	Bearing Installer

8T-5071 Guard

SMCS Code: 4150-010

Model: D4H, D5H, D6H, DIFF, D7H, D8L, D9L, D9N

Warranty: Six Months



- Used to protect track roller frame seal (wiper) during installation or removal of track roller frame
- Flexible plastic strip 1320 mm (52 in) long that has a U-shaped cross section; one length is provided, and for any given application, guard must be cut to length to fit around inside surface of seal as shown

Part Number	Description
8T-5071	Guard

Reference

SMHS8519, Special Instruction

FT3040 Fixture

SMCS Code:

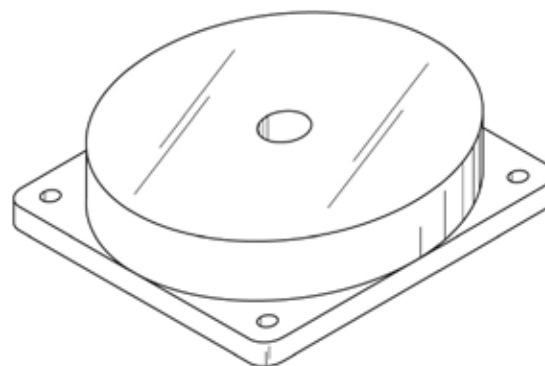
Model: 589 Pipelayer, D5, D9L, D10N, D10R, and D10T Track-Type Tractors

Warranty: None

- Used to drill new pin holes in retainers

Reference

SEHS8515, Special Instruction



FT2930 Fork Extension

SMCS Code: 4150-010

Model: 385B Hydraulic Excavator

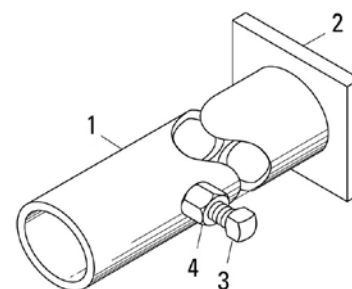
Warranty: None

- Used to remove and install track rollers
- Used with 183-4799 Fork Assembly
- Two required

Reference

385B Hydraulic Excavator Disassembly and Assembly Service Manual

Item	Description	Material
1	Extension Pipe	ASTM A500 Schedule 40 pipe
2	Base Plate	SAE1020M Steel



Service/Repair Parts		
Item	Part Number	Description
3	4B-3574	Set Screw - Square Head
4	2K-4973	Locknut

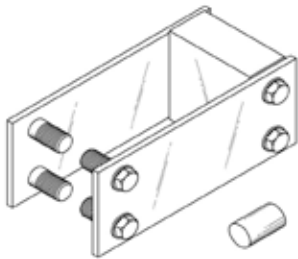
316-6042 Puller Group

Essential Tool

SMCS Code: 1234

Model: D7E Track-Type Tractor (electric drive)

Warranty: Six Months



- Used to remove 286-9353 Block from 309-6979 Idler Group
- Used with 6V-3175 Hydraulic Puller (55 Ton)
- 7X-2577 Bolt and 6V-8237 Hard Washer are serviceable

Part Number	Description
316-6042	Puller Group

Undercarriage and Track

Track Tool Arrangement, 100 Ton

SMCS Code: 4150-017

Model: See Chart

Warranty: Six Months

- Consists of 5P-2379 Press Frame and Tool Group, 8S-7172 Hydraulic Cylinder, and 8S-9903 Rollover Group; part numbers need to be ordered separately
- Includes all tools from discontinued 1P-3490 Master Pin Press Arrangement (to convert 1P-3490 Arrangement to this arrangement, refer to footnote below)
- Used to separate track with master pins and fix leaking seals on sealed and lubricated track; sealed track bushings cannot be installed to correct depth using this tool group
- Master pins or standard pins on any Cat® track-type tractor can be removed or installed in minimum time when this arrangement is used with auxiliary equipment and mounted on a standard 8S-9901 Tool Cart
- Can remove track pins in a single stroke when equipped with 8S-7172 Hydraulic Cylinder, 356 mm (14.00 in) stroke
- 5P-2379 Group includes 1P-3481 Press Frame which can be used on all track-type tractors including later D8H and D9G Tractors; adapters for 8S-7172 Hydraulic Cylinder and essential items from former 2S-8210 Track Tool Group are also contained in 5P-2379 Group
- 8S-9903 Rollover Group designed to handle master pin press around its center of gravity; greatly reduces effort required for positioning in close quarters; 8S-9903 Group also available separately for use by dealers who prefer to handle discontinued 2S-8210 Track Tool Group or discontinued 5P-2380 Master Pin Press Arrangement with an overhead hoist (Special Instruction SMHS6954)

NOTE:

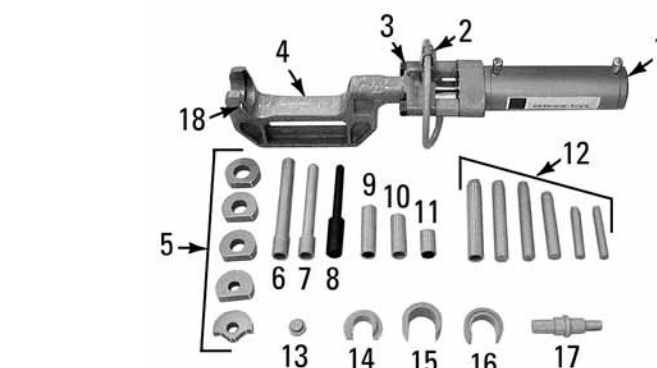
Early 1P-3482, 1P-3483, 1P-3484 and 1P-3485 Adapters and 2S-8228 and 2S-8229 Bushing Adapters must be modified for Sealed and Lubricated Track on D8K, D9G and D9H Tractors and the 983 Traxcavator as indicated in the following charts.

NOTE:

Early 5P-2188 Adapters must be modified as shown. See charts on following pages.

Item	Description
7	No longer available

Item	Part Number	Description
1	8S-7172	Cylinder Group
2	8S-9903	Rollover Group
5P-2379 Press Frame and Tool Group consists of:		
3	5F-3492	Bolt (2)
4	1P-3481	Frame - Press
5	1P-3484	Adapter
5	1P-3483	Adapter
5	1P-3482	Adapter
5	1P-3485	Adapter



Item	Part Number	Description
5P-2379 Press Frame and Tool Group consists of: (Continued)		
5	5P-2188	Adapter (See Note B) ¹
6	8S-9975	Ram Adapter
8	8S-9978	Ram Adapter
9	8S-9971	Ram Adapter ²
10	8S-9969	Ram Adapter
11	8S-9968	Ram Adapter
12	6H-8567	Pilot Pin, 307.8 mm (12.12 in)
12	5F-9455	Pilot Pin, 304.8 mm (12.0 in)

(Continued)

Undercarriage and Track

Track Tool Arrangement, 100 Ton (Continued)

SMCS Code: 4150-017

Model: See Chart

Warranty: Six Months

Undercarriage Tools

Item	Part Number	Description
5P-2379 Press Frame and Tool Group consists of: (Continued)		
12	5P-8734	Pilot Pin, 380.0 mm (15.0 in)
12	2S-8215	Pilot Pin, 354.0 mm (10.0 in)
12	5F-9447	Pilot Pin, 203.1 mm (8.0 in)
13	9S-0032	Plug
14	7S-8469	Bushing Adapter ¹
15	2S-8228	Bushing Adapter ¹

Item	Part Number	Description
5P-2379 Press Frame and Tool Group consists of: (Continued)		
16	2S-8229	Bushing Adapter ¹
16	2S-8235	Bushing Pusher ¹
18	4K-0487	Wing Bolt
Not Shown		
--	4C-6629	Ram Adapter

¹ Tools which must be procured to convert 1P-3490 Arrangement to above arrangement; 7S-8469, 2S-8228 and 2S-8229 Bushing Adapters and 2S-8235 Bushing Pusher were part of former 2S-8210 Track Tool Group

² Additional parts required to assemble discontinued 8K-4239 Recoil Springs for 245 Excavators

100 Ton Track Tool Arrangement

Track Pin						
Model	Track Pitch	Removal Adapter	R & I Adapter	Install Adapter	Install Plug	Install Pilot Pin
D9, 594, DD9	260 mm (10.3 in)	8S-9975	1P-3485	8S-9968		5P-8734
D9	229 mm (9.0 in)	8S-9975	1P-3484	8S-9968		6H-8567
D8, 583, 983, 245	229 mm (9.0 in)	8S-9975	1P-3484	8S-9969		6H-8567
D8, 583	203 mm (8.0 in)		1P-3484	8S-9969		5F-9455
D7H, D7, 571, 572, 973, 977, 235	216 mm (8.5 in)		1P-3482	8S-9969		2S-8215
D7, 572, 977	203 mm (8.0 in)		1P-3482	8S-9969		5F-9455
D6H, D6, 562, 963, 955, 235	203 mm (8.0 in)		1P-3482	8S-9969		5F-9455
D5H	190 mm (7.5 in)	8S-9978	1P-3483	8S-9971		
D5, D6, 951, 955, 977, 255	176 mm (6.9 in)	8S-9978	1P-3483	8S-9971	9S-0032	
953	176 mm (6.9 in)	8S-9978	1P-3483	8S-9971	9S-0032	
D6, 951, 955, 977, 561, E180, EL180	172 mm (6.8 in)	8S-9978	1P-3483	8S-9971	9S-0032	
D4H, D4, 933, 941, 943, 955, 215, 225	171 mm (6.7 in)	8S-9978	5P-2188	8S-9971	9S-0032	5F-9447
MS110-8, MS110L-8, MS120-8, MS140-8	171 mm (6.7 in)	8S-9978	5P-2188	8S-9971	9S-0032	5F-9447
MS180-8, MS180LC-8, MS240-8, MS240LC-8	176 mm (6.9 in)	8S-9978	1P-3483	8S-9971	9S-0032	
MS300-8, E240, EL240	190 mm (7.5 in)	8S-9978	1P-3483	8S-9971	9S-0032	
MS300LC-8, EL300	203 mm (8.0 in)		1P-3482	8S-9969		5F-9455
MS450-8	216 mm (8.5 in)		1P-3482	8S-9969		2S-8215
MS45-8	216 mm (8.5 in)		1P-3482	8S-9969		2S-8215
MS580, MS650-8	229 mm (9.0 in)		1P-3482	8S-9969		2S-8215

Track Bushing

Model	Track Pitch	Removal Ram Adapter	Removal Bushing Adapter	R & I Pusher	Install Ram Adapter	Install Adapter	Install Pilot Pin
D9, 594, DD9	260 mm (10.3 in)	8S-9975	2S-8228	2S-8235	8S-9971	1P-3485	5P-8734
D8, 583, 983, 245	229 mm (9.0 in)	8S-9975	2S-8229	2S-8235	8S-9971	1P-3484	6H-8567
MS580, MS650-8	229 mm (9.0 in)		2S-8229	2S-8235	8S-9971	1P-3482	
D7H, D7, 571, 572, 973, 977, 235, MS450-8	216 mm (8.5 in)		2S-8229	2S-8235	8S-9971	1P-3482	2S-8215
D6H, D6, 561, 963, 955, 235, EL300, MS300LC-8	203 mm (8.0 in)		2S-8229	2S-8235	8S-9971	1P-3482	5F-9455
D5H, MS240-8, MS240LC-8, MS300-8, E240, EL240	190 mm (7.5 in)	8S-9978	7S-8469	2S-8235	8S-9971	1P-3483	
D5, D6, 951, 955, 977, 225	176 mm (6.9 in)	8S-9978	7S-8469	2S-8235	8S-9971	1P-3483	
953	176 mm (6.9 in)	8S-9978	7S-8469	2S-8235	8S-9971	1P-3483	
E180, EL180, MS180-8, MS180LC-8	176 mm (6.9 in)	8S-9978	7S-8469	2S-8235	8S-9971	1P-3483	
D4H, D4, 933, 941, 943, 955, 215, 225	171 mm (6.7 in)	8S-9978	7S-8469	2S-8235	8S-9971	5P-2188	5F-9447

Large Multi-Pitch Track Press Tools for SystemOne™ Undercarriage

SMCS Code: 4150-017

Model: D6H, D6M, D6N, D6R, D8N, D8R, and D8T Track-Type Tractors, and 953, 963 Track-Type Loaders

Warranty: Six Months

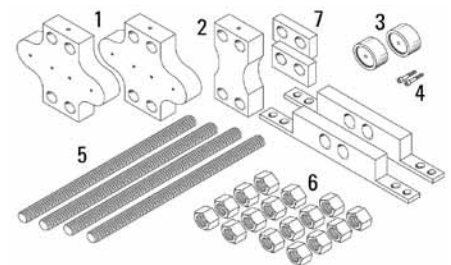
- Used to remove and install track links on SystemOne™ undercarriage
- Used with 1U-7545 Air-Over-Hydraulic Power Supply, high-pressure hydraulic hose, and 6V-3170 or 265-8034 Hydraulic Cylinder
- Requires a 264-5776 Clear Guard Group (parts sold separately)
- Used for in-shop or on-site repairs
- Allows track link replacement at any location on track chain
- Sold as individual pieces

References

NEHS0929, Tool Operating Manual, Operation and Parts for Large Multi-Pitch

SystemOne™ Track Press Tool

NENG2500, Tools and Shop Products Guide



Multi-Pitch Tooling for D6H, D6M, D6R, 953, and 963			
Item	Part Number	Description	Qty.
1	264-5768	Contact Plate	2
2	264-5770	Puller Plate	1
3	264-5778	Contact Tool (D6H, D6M, D6N, D6R, 953, 963)	2
4	4L-7124	Bolt - Hex Socket Head ¹	2

(Continued)

Undercarriage and Track

Large Multi-Pitch Track Press Tools for SystemOne™ Undercarriage (Continued)

SMCS Code: 4150-017

Model: D6H, D6M, D6N, D6R, D8N, D8R, and D8T Track-Type Tractors, and 953, 963 Track-Type Loaders

Warranty: Six Months

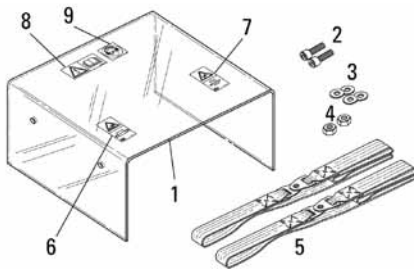
Multi-Pitch Tooling for D6H, D6M, D6R, 953, and 963			
Item	Part Number	Description	Qty.
5	264-5769	Standard Threaded Rod	4
6	3K-9770	Nut - Full	12
7	264-5777	Cylinder Centering Block	4
8	264-5771	Plate As - Link	2

⚠ WARNING

Always cover work with a protective guard when removing or installing a track link. With high forces being exerted on the part being removed/installed, breakage may sometimes result. By covering the work with a protective guard, the mechanic reduces the danger of personal injury or death by flying parts. Never apply pressure to the track press until a guard is in place.

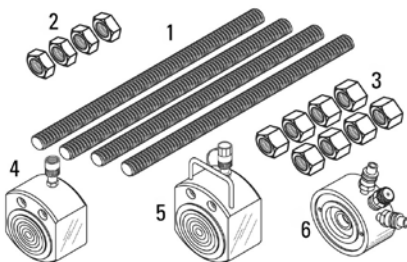
¹ Part of 1P-0520 Driver Group

Guard Group



Item	Part Number	Description	Qty.
1	264-5776	Clear Plastic Guard	1
2	2J-5245	Bolt - Hex Socket Head	2
3	5M-2894	Washer	4
4	9S-8752	Nut - Full	2
5	264-5772	Retaining Strap	2
6	261-7492	Film - warn (debris) (track pressure)	1
7	261-7491	Film - warn (hand) (oil)	1
8	224-0554	Warning Film	1
9	261-7493	Film, blue safety (eye/ear)	1

Additional Tooling to Increase Efficiency for Large Multi-Pitch Track Press Tools for SystemOne™ Undercarriage

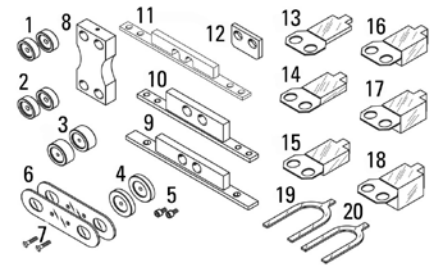


Item	Part Number	Description	Qty.
1	264-5774	Acme Threaded Rod	4
2	265-9028	Acme Half Nut	4
3	265-8989	Nut - Full	8
4	265-8034	50 ton Cylinder	--
5	265-8035	75 ton Cylinder	--
6	6V-3170	55 ton Cylinder	--

Additional Tooling to Increase Efficiency for Large Multi-Pitch Track Press Tools for SystemOne™ Undercarriage (Continued)

Item	Description
4	Installation Contact Tool (D8R, D8N, D8T)

Item	Part Number	Description
1	268-1698	Contact Rod End (Retro)
2	266-8997	Contact Rod End
3	272-1505	Removal Contact Tool (D8R, D8N, D8T)
5	8H-3128	Bolt - Hex Socket Head
6	268-1699	Installation Contact Plate (D3G, D4G, D5G, D5M, D5N)
7	2H-6120	Screw (used with 268-1699)
8	268-1700	Puller Plate (D3G, D4G, D5G, D5M, D5N)
9	270-4487	Top Plate (Pre-production D6R)
10	268-5658	Top Plate (D3G, D4G, D5G, D5M, D5N)
11	272-6559	Top Plate (D8N, D8R, D8T)
12	273-8788	Removal Spacer Plate (D8N, D8R, D8T)
13	268-7895	Shim, 12.7 mm (0.5 in) thick
14	268-7897	Shim, 25.4 mm (1.0 in) thick
15	268-7898	Shim, 38.1 mm (1.5 in) thick
16	268-7899	Shim, 50.8 mm (2.0 in) thick
17	268-7900	Shim, 63.5 mm (2.5 in) thick
18	268-7901	Shim, 76.2 mm (3.0 in) thick
19 ¹	279-0092	Contact Spacer Removal (D8N, D8R, D8T)
20 ¹	279-0095	Contact Spacer Removal



Undercarriage Tools

¹ Suggested quantity of six

267-2107 Large Multi-Pitch Track Press Group

SMCS Code: 4150-017

Model: D6H, D6M, D6N, D6R, D8N, D8R, D8T Track-Type Tractors; 953, 963 Loaders

Warranty: Six Months

European Union compliant, CE marked

- Used to remove and install track links on SystemOne™ undercarriage
- Used with European Union compliant, CE marked approved power supply and high pressure hydraulic hose
- Allows track link replacement at any location on track
- Used for in-shop or on-site repairs
- Sold as a kit (includes guard group)

References

NEHS0931, Tool Operating Manual, Operation and Parts for Small Multi-Pitch SystemOne Track Press Tool

NENG2500, Tools and Shop Products Guide

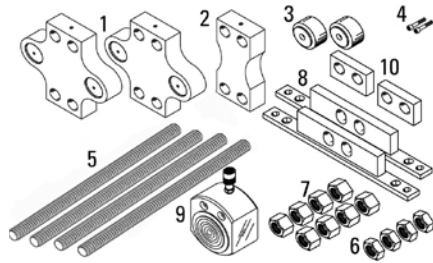


WARNING

Always cover work with a protective guard when removing or installing a track link. With high forces being exerted on the part being removed/installed, breakage may sometimes result. By covering the work with a protective guard, the mechanic reduces the danger of personal injury or death by flying parts. Never apply pressure to the track press until a guard is in place.

Undercarriage and Track

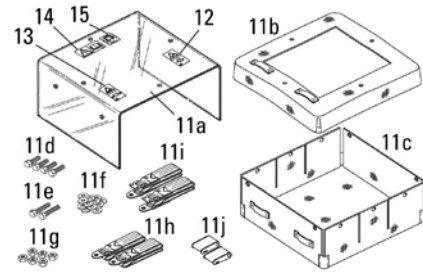
Multi-Pitch Track Press Group



Item	Part Number	Description	Qty.
--	267-2107	Multi-Pitch Track Press Group	--
267-2107 Multi-Pitch Track Press Group Consists of:			
1	264-5768	Contact Plate	2
2	264-5770	Puller Plate	1
3	264-5778	Contact Tool (D6H, D6M, D6N, D6R, 953, 963)	2
4	4L-7124	Bolt - Hex Socket Head ¹	2
5	264-5774	Acme Threaded Rod	4
6	265-9028	Acme Half Nut	4
7	265-8989	Nut - Full	8
8	264-5771	Plate As - Link	2
9	265-8034	50 ton Cylinder	1
10	264-5777	Cylinder Centering Block	2

¹ Part of 1P-0520 Driver Group

Multi-Pitch Track Press Group (Continued)

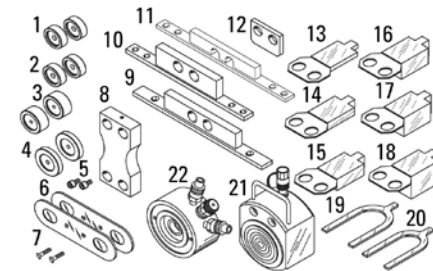


Item	Description	Qty.
11a	Clear Plastic Guard	1
11b	Flexible Guard (Upper Half)	1
11c	Flexible Guard (Lower Half)	1
11d	Bolt	4
11e	Bolt	2
11f	Flat Washer	12
11g	Nut	6
11h	Retaining Strap	2
11i	Retaining Strap with Clip	2
11j	Retaining Strap Buckle	2

Item	Part Number	Description	Qty.
267-2107 Multi-Pitch Track Press Group Consists of:			
11 ¹	267-2108	Guard Group	1
12	261-7491	Film - warn (hand) (oil)	1
13	261-7492	Film - warn (debris) (track pressure)	1
Not shown	224-0554	Warning Film	2
15	261-7493	Film, blue safety (eye/ear)	1

¹ Individual items not serviced separately

Additional Tooling to Increase Versatility (Purchased Separately) for Multi-Pitch Track Press Group



Item	Description
4	Installation Contact Tool (D8R, D8N, D8T)

Item	Part Number	Description
1	268-1698	Contact Rod End (Retro)
2	266-8997	Contact Rod End
3	272-1505	Removal Contact Tool (D8R, D8N, D8T)
5	8H-3128	Bolt - Hex Socket Head

(Continued)

Additional Tooling to Increase Versatility (Purchased Separately) for Multi-Pitch Track Press Group (Continued)

Item	Part Number	Description
6	268-1699	Installation Contact Plate (D3G, D4G, D5G, D5M, D5N)
7	2H-6120	Screw (used with 268-1699)
8	268-1700	Puller Plate (D3G, D4G, D5G, D5M, D5N)
8	264-5770	Puller Plate
9	270-4487	Top Plate (Pre-production D6R)
10	268-5658	Top Plate (D3G, D4G, D5G, D5M, D5N)
11	272-6559	Top Plate (D8N, D8R, D8T)
12	273-8788	Removal Spacer Plate (D8N, D8R, D8T)
13	268-7895	Shim, 12.7 mm (0.5 in) thick
14	268-7897	Shim, 25.4 mm (1.0 in) thick
15	268-7898	Shim, 38.1 mm (1.5 in) thick
16	268-7899	Shim, 50.8 mm (2.0 in) thick
17	268-7900	Shim, 63.5 mm (2.5 in) thick
18	268-7901	Shim, 76.2 mm (3.0 in) thick
19 ¹	279-0092	Contact Spacer Removal (D8N, D8R, D8T)
20 ¹	279-0095	Contact Spacer Removal
21	265-8035	75 ton Cylinder
22	6V-3170	55 ton Cylinder

¹ Suggested quantity of six

Small Multi-Pitch Track Press Tools for SystemOne™ Undercarriage

SMCS Code: 4150

Model: D3G, D4G, D5G, D5M, and D5N Track-Type Tractors

Warranty: Six Months

- Used to remove and install track links on SystemOne undercarriage
- Used with 1U-7545 Air-Over-Hydraulic Power Supply, high-pressure hydraulic hose, and 6V-3170 or 265-8034 Hydraulic Cylinder
- Requires a 264-5776 Clear Guard Group (sold separately)
- Used for in-shop or on-site repairs
- Allows track link replacement at any location on track chain
- Sold as individual pieces

References

NEHS0930, Tool Operating Manual, Operation and Parts for Multi-Pitch SystemOne™ Track Press Tool

NENG2500, Tools and Shop Products Guide



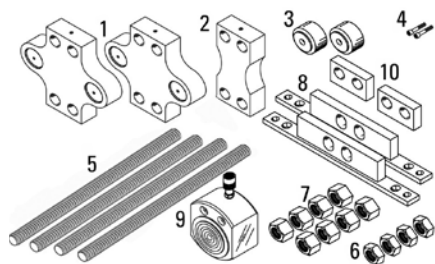
WARNING

Always cover work with a protective guard when removing or installing a track link. With high forces being exerted on the part being removed/installed, breakage may sometimes result. By covering the work with a protective guard, the mechanic reduces the danger of personal injury or death by flying parts. Never apply pressure to the track press until a guard is in place.

Undercarriage and Track

Multi-Pitch Tooling for D3G, D4G, D5G, D5M, and D5N

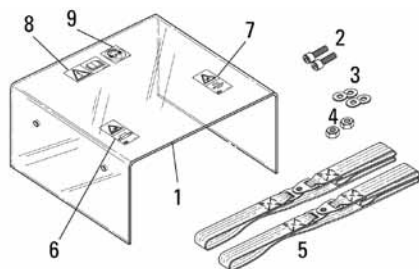
Undercarriage Tools



Item	Part Number	Description	Qty.
Multi-Pitch Tooling for D3G, D4G, D5G, D5M, and D5N			
1	266-8989	Contact Plate	2
2	266-8992	Puller Plate	1
3	266-8997	Contact Rod End	2
3	268-1698	Contact Rod End (Retro)	2
4	4L-7124	Bolt - Hex Socket Head ¹	2
5	266-8994	Acme Threaded Rod	4
6	266-8999	Acme Half Nut	4
7	266-8998	Acme Nut	8
8	266-8996	Cylinder Centering Block	2
9	266-8993	Top Plate	2
10	265-8034	50 ton Cylinder	1
11	6V-3170	55 ton Cylinder	1

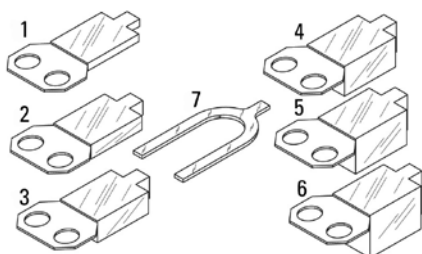
¹ Part of 1P-0520 Driver Group

Guard Group



Item	Part Number	Description	Qty.
Guard Group			
1	264-5776	Clear Plastic Guard	1
2	2J-5245	Bolt - Hex Socket Head	2
3	5M-2894	Washer	4
4	9S-8752	Nut - Full	2
5	264-5772	Retaining Strap	2
6	261-7492	Film - warn (debris) (track pressure)	1
7	261-7491	Film - warn (hand) (oil)	1
8	224-0554	Warning Film	1
9	261-7493	Film, blue safety (eye/ear)	1

Additional Multi-Pitch Track Press Tools



Item	Part Number	Description
Additional Multi-Pitch Track Press Tools		
1	268-7895	Shim, 12.7 mm (0.5 in) thick
2	268-7897	Shim, 25.4 mm (1.0 in) thick
3	268-7898	Shim, 38.1 mm (1.5 in) thick
4	268-7899	Shim, 50.8 mm (2.0 in) thick
5	268-7900	Shim, 63.5 mm (2.5 in) thick
6	268-7901	Shim, 76.2 mm (3.0 in) thick
7 ¹	279-0095	Contact Spacer Removal

¹ Suggested quantity of six

267-2109 Small Multi-Pitch Track Press Group

SMCS Code: 4150

Model: D3G, D4G, D5G, D5M, and D5N Track-Type Tractors

Warranty: Six Months

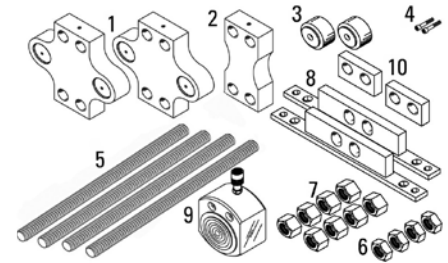
European Union compliant, CE marked

- Used to remove and install track links on SystemOne undercarriage
- Used with CE Compliant approved power supply and high-pressure hydraulic hose
- Used for in-shop or on-site repairs
- Allows track link replacement at any location on track chain
- Sold as a kit (includes guard group)

References

NEHS0933, Tool Operating Manual, Operation and Parts for Small Multi-Pitch SystemOne™ Track Press Tool

NENG2500, Tools and Shop Products Guide



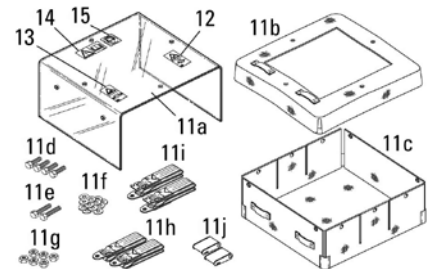
Undercarriage Tools

! WARNING

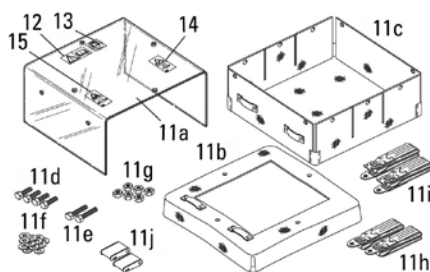
Always cover work with a protective guard when removing or installing a track link. With high forces being exerted on the part being removed/installed, breakage may sometimes result. By covering the work with a protective guard, the mechanic reduces the danger of personal injury or death by flying parts. Never apply pressure to the track press until a guard is in place.

Small Multi-Pitch Track Press Group Detail

Item	Part Number	Description	Qty.
--	267-2109	Multi-Pitch Track Press Group	--
267-2109 Multi-Pitch Track Press Group Consists of:			
1	266-8989	Contact Plate	2
2	266-8992	Puller Plate	1
3	268-1698	Contact Rod End (Retro)	2
3	266-8997	Contact Rod End	2
4	4L-7124	Bolt - Hex Socket Head ¹	2
5	266-8994	Acme Threaded Rod	4
6	266-8999	Acme Half Nut	4
7	266-8998	Acme Nut	8
8	266-8996	Cylinder Centering Block	2
9	266-8993	Top Plate	2
10	265-8034	50 ton Cylinder	1

¹ Part of 1P-0520 Driver Group

Guard Group



Item 11¹, 267-2108 Guard Group Consists:

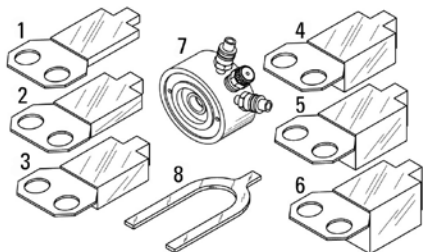
Item	Description	Qty.
11a	Clear Plastic Guard	1
11b	Flexible Guard (Upper Half)	1
11c	Flexible Guard (Lower Half)	1
11d	Bolt	4
11e	Bolt	2
11f	Flat Washer	12
11g	Nut	6
11h	Retaining Strap	2
11i	Retaining Strap with Clip	2
11j	Retaining Strap Buckle	2

¹ Individual items not serviced separately

Item	Part Number	Description	Qty.
11 ¹	267-2108	Guard Group	1
12	224-0554	Warning Film	2
13	261-7493	Film, blue safety (eye/ear)	1
14	261-7491	Film - warn (hand) (oil)	1
15	261-7492	Film - warn (debris) (track pressure)	1

¹ Individual items not serviced separately

Additional Tooling to Increase Versatility (Purchased Separately) for Guard Group



Item	Description
7	55 ton Cylinder

Item	Part Number	Description
1	268-7895	Shim, 12.7 mm (0.5 in) thick
2	268-7897	Shim, 25.4 mm (1.0 in) thick
3	268-7898	Shim, 38.1 mm (1.5 in) thick
4	268-7899	Shim, 50.8 mm (2.0 in) thick
5	268-7900	Shim, 63.5 mm (2.5 in) thick
6	268-7901	Shim, 76.2 mm (3.0 in) thick
8 ¹	279-0095	Contact Spacer Removal

¹ Suggested quantity of six

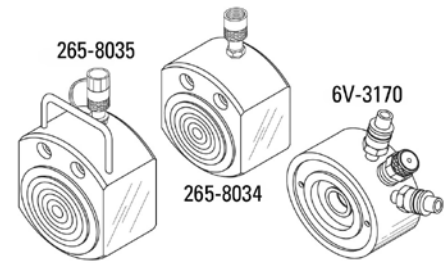
Hydraulic Cylinders for Multi-Pitch Track Press Tool for SystemOne Undercarriage

SMCS Code: 4150-017

Model: D3 -D8 Track-Type Tractors; 953 and 963 Track-Type Loaders

Warranty: Six Months

- Used to remove and install track links on SystemOne undercarriage
- Used with all multi-pitch track press tooling for SystemOne undercarriage, power supply, and high pressure hydraulic hose
- 256-8034 (50 ton) and 6V-3170 (55 ton) Hydraulic Cylinders are used with small track press tooling for D3G, D4G, D5G, D5M, and D5N Track-Type Tractors
- 256-8034 (50 ton), 6V-3170 (55 ton), and 265-8035 (75 ton) Hydraulic Cylinders are used with large track press tooling for D6H, D6M, D6N, D6R, D8N, D8R, D8T Track-Type Tractors and 953, 963 Track-Type Loaders
- Sold individually



Undercarriage Tools

Hydraulic Cylinders Used With Multi-Pitch Track Press Tools

Part No.	Cylinder Capacity	Collapsed Height	Extended Height	Plunger Stroke	Plunger Diameter	Overall Size	Weight
265-8034	45 metric ton (50 ton)	67 mm (2.63 in)	83 mm (3.27 in)	16 mm (0.63 in)	57.0 mm (2.25 in)	140.0 x 114.0 mm (5.5 x 4.5 in)	7 kg (15.4 lb)
6V-3170	50 metric ton (55 ton)	76 mm (3 in)	89 mm (3.50 in)	13 mm (0.50 in)	--	138.0 mm (5.44 in) diameter	9.5 kg (21 lb)
265-8035	68 metric ton (75 ton)	79 mm (3.13 in)	95 mm (3.75 in)	16 mm (0.63 in)	83 mm (3.25 in)	165 x 140 mm (6.50 x 5.50 in)	11 kg (24.3 lb)

Top Plate Assembly for Large and Small SystemOne™ Track Press Tools

SMCS Code: 4150

Model: D3G — D8 Track-Type Tractors, and 953, 963 Track-Type Loaders

Warranty: Six Months

European Union compliant, CE marked

- Used with track press tools for SystemOne undercarriage
- Used in place of track shoes during removal and installation of track link pins
- Adds versatility to existing groups of tools
- Order in pairs

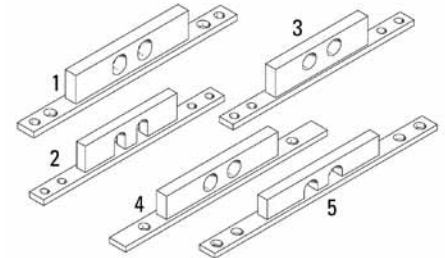
References

NEHS0929, Tool Operating Manual, Operation and Parts for Large Multi-Pitch SystemOne Track Press Tool

NEHS0930, Tool Operating Manual, Operation and Parts for Small Multi-Pitch SystemOne™ Track Press Tool

NEHS0931, Tool Operating Manual, Operation and Parts for Large Multi-Pitch SystemOne™ Track Press Tool (European Union compliant, CE marked)

NEHS0933, Tool Operating Manual, Operation and Parts for Small Multi-Pitch SystemOne™ Track Press Tool (European Union compliant, CE marked)



Item	Part Number	Used With
1	264-5771	Large SystemOne™ Track Press Tool for D6H, D6M, D6N, D6R Tractors and 953, 963 Loaders
2	266-8993	Small SystemOne™ Track Press Tool for D3G, D4G, D5G, D5M, and D5N Tractors
3	268-5658	Large SystemOne™ Track Press Tool for D3G, D4G, D5G, D5M, and D5N Tractors ¹
4	270-4487	Large SystemOne™ Track Press Tool for Pre-production D6R Tractor
5	272-6559	Large SystemOne™ Track Press Tool for D8N, D8R, and D8T Tractors

(Continued)

Top Plate Assembly for Large and Small SystemOne™ Track Press Tools (Continued)

SMCS Code: 4150

Model: D3G — D8 Track-Type Tractors, and 953, 963 Track-Type Loaders

Warranty: Six Months

¹ Additional tools required. Refer to NEHS0929 Tool Operating Manual; Operation and Parts for Large Multi-Pitch SystemOne™ Track Press Tool

SystemOne Starter Links

SMCS Code: 0729, 4157, 4170

Model Usage: All SystemOne Track Link Assemblies

Warranty: Six Months

European Union compliant, CE marked

- Flat plates replace current forged components
- Used to simulate outer links and to stabilize track components during master link removal and installation

Reference

NEHS0923, Tool Operating Manual

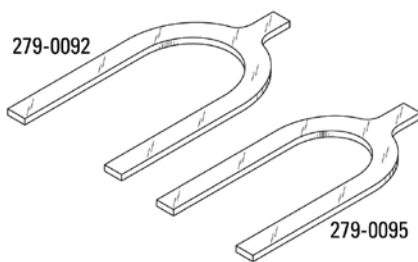
Specifications			
Part No.	Description	Models	Dimensions
357-9732	Starter Link	D3C, D3G, D3K, D4C, D4G, D4K	258 x 83 x 13 mm (10.2 x 3.3 x .5 in) , 1.0 kg (2.04 lb)
357-9733	Starter Link	953, D5K, D6K	279 x 89 x 13 mm (11 x 3.5 x .5 in), 1.0 kg (2.02 lb)
357-9734	Starter Link	D3C, D3G, D3K, D4C, D4G, D4H, D4K, D5C, D5G, D5M, D5N, D6K	260 x 90 x 13 mm (10.3 x 3.6 x .5 in), 1.0 kg (1.88 lb)
357-9735	Starter Link	953, D5H, D6M, D6N	287 x 98 x 13 mm (11.3 x 4 x .5 in), 1.1 kg (2.37 lb)
357-9736	Starter Link	963, D6H, D6R, D6T, D7R	311 x 109 x 13 mm (12.3 x 4.3 x .5 in), 1.3 kg (2.83 lb)
357-9737	Starter Link	973, D7E, D7R	323 x 107 x 123 mm (12.7 x 4.2 x .5 in), 1.3 kg (2.91 lb)
357-9738	Starter Link	D8N, D8R, D8T	343 x 127 x 13 mm (13.5 x 5.0 x .5 in), 2.0 kg (4.04 lb)

SystemOne™ Tool Spacers

SMCS Code: 4150

Model: See below

Warranty: Six Months



- Used to evenly pull off SystemOne™ links from an assembled track chain

References

NEHS0929, Tool Operating Manual, Operation and Parts for Large Multi-Pitch SystemOne™ Track Press Tool

NEHS0930, Tool Operating Manual, Operation and Parts for Small Multi-Pitch SystemOne™ Track Press Tool

NEHS0931, Tool Operating Manual, Operation and Parts for Large Multi-Pitch SystemOne™ Track Press Tool (European Union Compliant)

NEHS0933 Tool Operating Manual; Operation and Parts for Small Multi-Pitch SystemOne™ Track Press Tool (European Union Compliant)

Part Number	Description	Model
279-0092	Tool Spacer	D8 Track-Type Tractor
279-0095	Tool Spacer	D3-D7 Track-Type Tractor

Shims for SystemOne™ Track Press Tool

SMCS Code: 4150

Model: D3 — D8 Track-Type Tractors, 953, 963 Track-Type Loaders with SystemOne™ Undercarriage

Warranty: Six Months

- Used with large and small Multi-Pitch Track Press Tools
- Used to remove the inner track link when outer link is not installed
- Allows Multi-Pitch Tool to remove inner links from outer side of the chain
- Different thickness shims fit a variety of applications (shims may be stacked to required thickness)
- Shims are hung in positron on threaded rods of track press tool

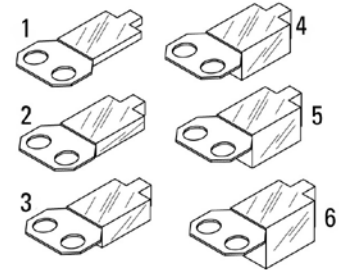
References

NEHS0929, Tool Operating Manual, Operation and Parts for Large Multi-Pitch SystemOne™ Track Press Tool

NEHS0930, Tool Operating Manual, Operation and Parts for Small Multi-Pitch SystemOne™ Track Press Tool

NEHS0931, Tool Operating Manual, Operation and Parts for Large Multi-Pitch SystemOne™ Track Press Tool (European Union Compliant)

NEHS0933, Tool Operating Manual, Operation and Parts for Small Multi-Pitch SystemOne™ Track Press Tool (European Union Compliant)



Item	Part Number	Size
1	268-7895	12.7 mm (0.5 in) thick
2	268-7897	25.4 mm (1.0 in) thick
3	268-7898	38.1 mm (1.5 in) thick
4	268-7899	50.8 mm (2.0 in) thick
5	268-7900	63.5 mm (2.5 in) thick
6	268-7901	76.2 mm (3.0 in) thick

Master Link Removal Tools for SystemOne™ Undercarriage

SMCS Code: 4170

Model: D3G, D4G, D5G, D6M, D5N, D6H, D6M, D6N, D6R, D8N, D8R, D8T Track-Type Tractors and 953, 963 Track-Type Loaders

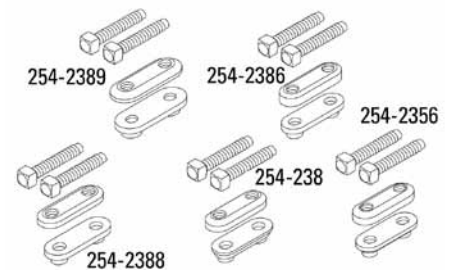
Warranty: Six Months

European Union compliant, CE marked

- Used to remove and install master link on SystemOne™ Undercarriage
- Used with various starter links and yoke plate groups (stabilizes track components during master link removal and installation)
- Simple forcing system provides easy way to release master link during assembly and disassembly

Reference

NEHS0923, Tool Operating Manual, Using the Master Clamp Tools to Connect and Disconnect SystemOne Undercarriage Track



Master Kit Part No. ¹	Used On	Service Parts	Used With Yoke Group Number	Used With Starter Link Number
254-2356	D3G, D4G	254-2359 Contact Plate, 254-2355 Set Screw ²	242-5383	--
254-2386	D5X, D5G (Phase IV), 953-T3	254-2374 Threaded Plate, 254-2381 Contact Plate, 254-2355 Set Screw ³	252-9908 ⁴	252-9913 ⁴
254-2387	D5G, D5M, D5N	Threaded Plate, Contact Plate, 254-2355 Set Screw ²	252-9399	--
254-2388	D6M, D6N, 953-T2	Threaded Plate, Contact Plate, 254-2355 Set Screw ²	252-9975	--
254-2389	D6H, D6R, 963	Threaded Plate, Contact Plate, 254-2355 Set Screw ²	242-5372	--

(Continued)

Undercarriage and Track

Master Link Removal Tools for SystemOne™ Undercarriage (Continued)

SMCS Code: 4170

Model: D3G, D4G, D5G, D6M, D5N, D6H, D6M, D6N, D6R, D8N, D8R, D8T Track-Type Tractors and 953, 963 Track-Type Loaders

Warranty: Six Months

Master Kit Part No. ¹	Used On	Service Parts	Used With Yoke Group Number	Used With Starter Link Number
264-8119	D8N, D8R, D8T	263-5389 Threaded Plate, 263-5390 Contact Plate, 254-2355 Set Screw ²	--	--

¹ Master kits contain one threaded plate, one contact plate, and two set screws

² 254-2355 Two required

³ 254-2374 and 254-2381 Not serviced; 254-2355 Two required

⁴ Not serviced

1P-3490 Master Pin Press Arrangement Discontinued — Service Parts Available

Parts of discontinued 1P-3490 Arrangement that are not part of discontinued 2S-8210 Track Tool Group		Parts of discontinued 1P-3490 Arrangement that are not part of discontinued 2S-8210 Track Tool Group	
Part Number ¹	Description	Part Number ¹	Description
1P-3481	Frame - Press	8S-9903	Rollover Group
1P-3482	Adapter	8S-9968	Ram Adapter
1P-3483	Adapter	8S-9969	Ram Adapter
1P-3484	Adapter	8S-9971	Ram Adapter ²
1P-3485	Adapter	8S-9975	Ram Adapter
5F-3492	Bolt (2)	8S-9978	Ram Adapter
8S-7172	Cylinder Group	9S-0032	Plug

¹ All part numbers in the table have a six month warranty

² Additional parts required to assemble discontinued 8K-4239 Recoil Springs for 245 Excavators

2S-8210 Track Tool Group Discontinued — Service Parts Available

2S-8210	Track Tool Group
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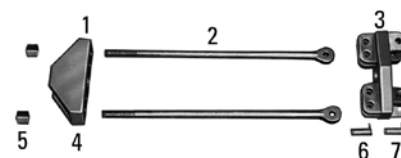
Service/Repair Parts		Service/Repair Parts	
Part Number ¹	Description	Part Number ¹	Description
2S-8232	Adapter	5F-9447	Pilot Pin
2S-8233	Adapter	5F-9455	Pilot Pin
2S-8234	Adapter	5P-8734	Pilot Pin
7S-8469	Bushing Adapter	2S-8215	Pilot Pin
2S-8228	Bushing Adapter	2S-8213	Ram Extension
2S-8229	Bushing Adapter	5F-9893	Stud (2)
2S-8235	Bushing Pusher	4K-0487	Wing Bolt (part of 1P-3490 also)
7F-0482	Nut (4)		

¹ All part numbers in the table have a six month warranty

5M-3069 Track Pin Pusher Group

Discontinued — Service Parts Available

5M-3069	Track Pin Pusher Group (discontinued)
Service/Repair Parts	
Item	Description
1	Adapter
3	Adapter



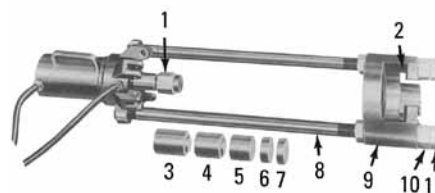
Item	Part Number ¹	Description	Quantity
Service/Repair Parts			
2	5M-3070	Rod	2
4	8B-7179	Set Screw	--
5	5B-0637	Nut	2
6	6H-4158	Pin	6
7	7B-2499	Ring	12

¹ All part numbers in the table have a six month warranty

5F-9426 Track Servicing Attachment Group

Discontinued — Service Parts Available

5F-9426	Track Servicing Attachment Group
Service/Repair Parts	
Item	Description
2	Yoke Adapter
3	Ram Cap Extension
4	Ram Cap Extension
5	Ram Cap
6	Ram Cap
7	Ram Cap
9	Yoke



Item	Part Number ¹	Description
Service/Repair Parts		
1	5F-9438	Ram Cap Adapter
8	8H-3152	Tension Rod (2)
10	1B-7413	Full Nut (1 1/2 in NF) (2)
11	1A-3585	Jam Nut (1 1/2 in NF) (4)

¹ All part numbers in the table have a six month warranty

8T-9199 Conversion Kit

SMCS Code: 4170-023

Model: D11N, MS1600 and Cat® Track-Type Machines

Warranty: Six Months

- Can be retrofitted to discontinued 5P-9729 Track Repair Group, enabling it to be used on D11N and MS1600 Track

(Continued)

Undercarriage and Track

8T-9199 Conversion Kit (Continued)

SMCS Code: 4170-023

Model: D11N, MS1600 and Cat® Track-Type Machines

Warranty: Six Months

Undercarriage Tools

Includes:	
Description	Qty.
Bolster	
Bushing	
Head	
Packing	9
Rings	3
Washers	2
Caution Decal	2

Part Number	Description	Quantity
8T-9199	Conversion Kit	--
8T-7779	Rod	2
8T-7781	Nut	2

216-3914 Track Repair Group

216-3915 Bolster, 216-3916 Cylinder

SMCS Code: 4159, 4169-017, 4170-017, 4175, 4180, 0729-044

Model: D9L, D9N, D10, D10N, D11

Warranty: Six Months

- Used to assemble and disassemble 201-7772 D11 Track Links which are 7 mm (0.28 in) taller than previous track links
- Portable track press provides field service of track links
- Removes 1 pin at a time
- Maximum 150 tons of pushing force

References

Service Manual, Power Train Disassembly and Assembly section of service manual SEHS8870, Special Instruction, Field Repair Procedure for Positive Pin Retention Track

Part Number	Description
216-3914	Track Repair Group
216-3915	Bolster
216-3916	Cylinder
Service/Repair Parts	
219-1406	Connecting Rod
222-8551	Nut
8T-7783	Piston Rod Cap



WARNING

Damage to track links and/or track press can occur by using tooling not designed for this track link which may result in bodily injury.

Field Repair Tools for Positive Pin Retention Track

SMCS Code: 4170-023

Model: Cat® Track-Type Machines

Warranty: Six Months



- Used for field repairs on positive pin retention track

Reference

SEHS8870, Special Instruction, Field Repair Procedure for Positive Pin Retention Track

Item	Part Number	Description
1	8T-3263	Pin Adapter D11N
1	8T-3210	Pin Adapter D10 and D9L
1	1U-6321	Pin Adapter D9N
1	5P-9688	Pin Adapter D10N
2	8T-7785	Receiver D11N

(Continued)

Field Repair Tools for Positive Pin Retention Track (Continued)

SMCS Code: 4170-023

Model: Cat® Track-Type Machines

Warranty: Six Months

Item	Part Number	Description
2	8T-3208	Receiver D10 and D10N
2	8T-5133	Receiver D9L and D9N
3	8T-3209	Piston Rod Cap D11N and D9N
4	3D-2898	Seal
4	5B-2547	Spring
5	198-5341	Extruder Assembly, D11N
5	198-5342	Extruder Assembly (142-5895 Body, Extruder) D10 and D10N ¹
5	198-5343	Extruder Assembly (discontinued 141-2396 Body, Extruder) D9L and D9N
5	203-0982	Extruder Assembly (198-5349 Body, Extruder) D8N

¹ 142-5895 Body, Extruder: Cancelled**Positive Pin Retention 2 Tooling**

SMCS Code: 4170

Model: 325, 345 Hydraulic Excavator, D6R Track-Type Tractor

Warranty: Six Months

- Used to swage cartridge pins on 325, 345, and D6R machines with PPR2 track
- Locks cartridge pins into assembled track
- Extrudes (swages) track link material in 4 places around end of cartridge pin
- Both ends of cartridge pin are swaged (locked) in 1 operation
- Once track link is swaged, compression forces in track link and cartridge pin are relieved using an unloader face
- Used in shop or out in field for on-site repairs
- Used with dealer-supplied hydraulic power supply (energy source) equipped with a 700 bar (10,000 PSI) maximum pressure relief valve, a high-pressure hose 700 bar (10,000 PSI) maximum pressure with a gauge, and a 265-8035 75-ton Hydraulic Cylinder

References

REHS2586 Installation of Positive Pin Retention 2 (PPR2) Track

SEBF8558 Guidelines for Reusable Track Parts

SEBF8598 Track Shop Servicing for Greased and Lubricated Track

SEBF8599 Undercarriage Reconditioning Guide

SEBF8614 Field Repair of Swaged Greased and Lubricated Track

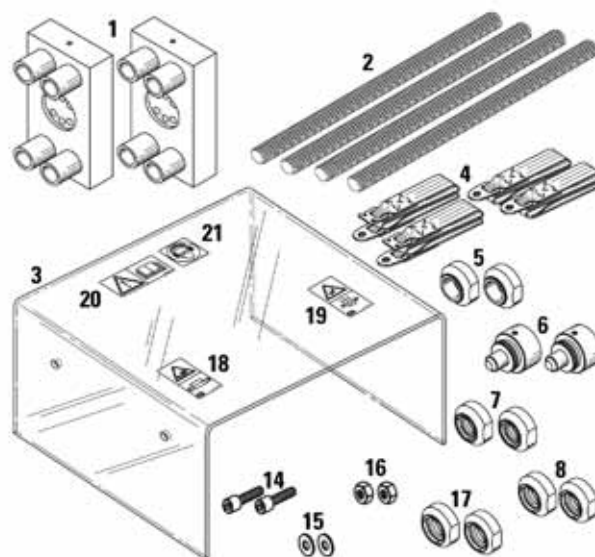
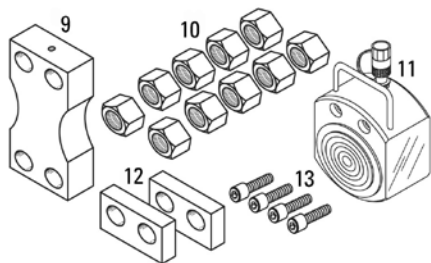


Illustration (Continued)



Item	Part Number	Description	Qty.
1	279-7148	Plate Assembly	2
2	279-7152	Threaded Rod	4
3 ¹	280-0946	Clear Plastic Guard	1
4	280-2563	Retaining Strap	2
5	280-2565	Unloader Face	2
6	276-3746	Extruder Tool Base	2
7	276-3747	Extruder Tool, D6R (used with 276-3746)	2
8	276-3748	Extruder Tool, 325 (used with 276-3746)	2
9	264-5770	Puller Plate	1
10	265-8989	Nut - Full	10
11	265-8035	75 ton Cylinder	1
12	264-5777	Cylinder Centering Block	2
13	5S-2586	Bolt - Hex Socket Head	4
14	2J-5245	Bolt - Hex Socket Head	2
15	5M-2894	Washer	4
16	9S-8752	Nut - Full	2
17	281-0201	Extruder Tool, 345 (used with 276-3746)	2
18	261-7492	Film - warn (debris) (track pressure)	1
19	261-7491	Film - warn (hand) (oil)	1
20	224-0554	Warning Film	1
21	261-7493	Film, blue safety (eye/ear)	1

¹ Guard must cover the tooling and track link whenever swaging cartridge pins

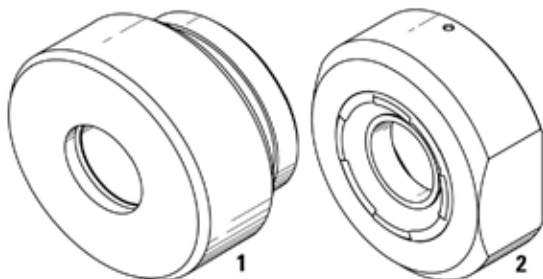
Extruder Group for 345 PPR2 Undercarriage

Essential Tool

SMCS Code: 4170-023

Model: 345 Excavator with Positive Pin Retention Undercarriage

Warranty: Six Months



- Used for field repairs on positive pin retention track
- Used to assemble track links
- Used with 216-3914 150-Ton Portable Track Press

Reference

SEHS8870, Special Instructions, Field Repair Procedure for Positive Pin Retention

266- 9698 Extruder Group		
Item	Part No.	Description
1	198-5348 {1}	Extruder Base
2		Extruder Face
{1} Not serviced		

Nut Wrenches

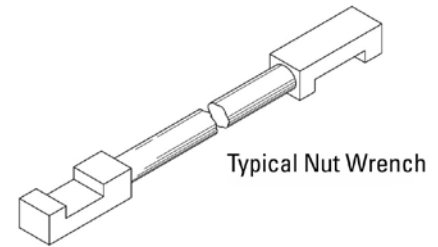
SMCS Code: 4170-010

Model: Cat® Track-Type Tractors

Warranty: Six Months

- Used to hold nuts while removing or installing track shoe bolts
- Made from high-strength steel
- Double-ended design has a different nut size on each end

Part Number	Size
188-0956	32 and 42 mm (1.25 and 1.65 in)
188-0959	25 and 30 mm (0.98 and 1.18 in)
4C-8207	38.354 and 33.528 mm (1.51 and 1.32 in)
4C-8208	32.258 and 30.226 mm (1.27 and 1.19 in)
4C-8209	29.21 and 26.162 mm (1.15 and 1.03 in)
4C-8210	25.4 and 22.606 mm (1.0 and 0.89 in)



Track Bolt Sockets

SMCS Code: 4170-010

Model: See Chart

Warranty: Six Months

- Impact sockets for use in removing and installing track bolts
- Specially designed for use with high torque impact wrenches
- In some cases undersize sockets are available for removal of worn track bolts
- Used with a 9S-4026 Drive Adapter, 1 1/2 inch female to 1 inch female, a 9S-4027 Extension, 1 inch male drive both ends, and a 5P-3588 Adapter, 1 inch female to 3/4 inch male

NOTE:

Hydraulic Torque Wrenches are featured in the Torquing Tools Section.

Impact Sockets for Track Bolts					
Inch	Metric Graduations	Part Number	Description	Drive	Application
1 1/8 in	--	9S-6369	Thin Wall	1 in Square	955, 977, 235
1 11/16 in	--	1U-8586	Tapered	1 1/2 in Square	D10, D10N
1 5/8 in	47.0 mm ¹	1U-8798	Tapered	1 1/2 in Square	D10, D10N worn bolts and 375, 5080
2 in	--	8T-9175	Standard	1 1/2 in Square	D11N worn bolts
2 1/16 in	--	8T-9174	Standard	1 1/2 in Square	D11N, 5130
7/8 in	--	9S-6375	Thin Wall	1 in Square	D3, D4, 941, 933, 931
27/32 in	--	6V-7929	Thin Wall	1 in Square	D3, D4, 941, 933, 931 worn bolts
15/16 in	--	9S-6374	Thin Wall	1 in Square	D4, 941, 943, 951, 953, 955, 215, 225
29/32 in	--	6V-7928	Thin Wall	1 in Square	D4, 941, 943, 951, 953, 955, 215, 225 worn bolts
15/16 in	--	9S-6370	Standard	1 in Square	D5, D6, D4H, D5H
29/32 in	--	6V-2002	Standard	1 in Square	D5, D6, D4H, D5H worn bolts
1 1/8 in	--	9S-6373	Standard	1 in Square	D6, D7, 963, D6H, D7H
1 3/32 in	--	5P-3579	Standard	1 in Square	D6, D7, 963, D6H, D7H worn bolts
1 5/16 in	--	9S-6372	Standard	1 in Square	D8, 973, 983, D8L, D8N
1 9/32 in	--	5P-3580 ²	Standard	1 in Square	D8, 973, 983, D8L, D8N worn bolts
1 1/2 in	--	9S-6371	Standard	1 in Square	D9, D9L, D9N, 245
1 15/32 in	--	5P-3581 ²	Standard	1 in Square	D9, D9L, D9N, 245 worn bolts
--	27.0 mm	1U-7629	Tapered	1 in Square	E(L)180, E(L)200, E(L)240, E300
1 1/16 in	--	214-6559	Thin Wall ³	3/4 in Square	E(L)180, E(L)200, E(L)240, E300
15/16 in	--	214-6557	Thin Wall ³	3/4 in Square	E110, E120, E140, 311, 312

(Continued)

Undercarriage and Track

Track Bolt Sockets (Continued)

SMCS Code: 4170-010

Model: See Chart

Warranty: Six Months

Undercarriage Tools

Impact Sockets for Track Bolts					
Inch	Metric Graduations	Part Number	Description	Drive	Application
--	24.0 mm	1U-7628	Tapered	1 in Square	E110, E120, E140, 311, 312
1 1/4 in	--	214-6562	Thin Wall ³	3/4 in Square	E450, E650, 330, 350
--	32.0 mm	1U-7631	Tapered	1 in Square	E450, E650, 330, 350
3/4 in	--	214-6553	Thin Wall ³	3/4 in Square	E70, 307
--	19.0 mm	1U-7626	Tapered	1 in Square	E70, 307
7/8 in	--	214-6556	Thin Wall ³	3/4 in Square	E90
--	22.0 mm	1U-7627	Tapered	1 in Square	E90
1 3/16 in	--	214-6561	Thin Wall ³	3/4 in Square	EL300, 320, 325
--	30.0 mm	1U-7630	Tapered	1 in Square	EL300, 320, 325

¹41 mm Metric for 375 and 5080 Applications only

²Chrome Finish

³Do not use these sockets on standard impact wrenches

Cat® 300 and 375 Ton Track Presses

SMCS Code: 4150

Model: All Cat track

Warranty: Six Months



European Union compliant, CE marked

- Replaces discontinued 350 Ton Track Press
- Disassembles and assembles track link assemblies to perform pin and bushing turns
- 300 and 375 ton models include a 10-foot long track indexer advanced by manually-operated hydraulic valves
- 375 ton model has an optional PLC controlled automatic indexing feature -- single push-button sequentially activates the hold-down shoe, encoder, indexer table raise/lower, and indexer advance/retract functions to automatically position the track for the next pressing operation
- Automatic indexing uses a digital encoder that reads the exact distance the track has moved during indexing and stops at exactly one full track pitch distance -- reduces operator time to manually position the track for the next operation
- Increased ram speeds reduce cycle times
- Individual hydraulic pressure control dials and gauges for each main ram-- gauges read directly in tons to eliminate PSI conversion
- Two 436 L (115 gal) hydraulic tanks provide cool and efficient flow to the unique non-drift hydraulic system
- 170-2503 Connecting Bars use "T-slot bolts" for easy mounting of contact tooling, and fine-tuning knobs allow for quick and precise positioning of tooling
- Designed and built exclusively through the Dealer Service Tools Division
- Uses Cat® part-numbered components when possible for simplified maintenance
- All models are offered in 380, 460 or 575 Volts/50 or 60 Hz configurations

References

NEHS0800, Caterpillar 375T Track Press Manual

NEHS0802, Caterpillar Track Press Tool Operating Manual - Introduction

Ordering Information

(Continued)

Cat® 300 and 375 Ton Track Presses (Continued)

SMCS Code: 4150

Model: All Cat track

Warranty: Six Months

Contact the Caterpillar Dealer Service Tools Division for quotations and specifications. This product is purchased outside of the Cat® parts network via a Purchase Order. See Contact Information.

Part No.	Description
Included with the press	
	53 kN (12,000 lb) winch with pendant control for loading track on conveyor
	Work area lights (2)
	Hydraulic hold-down shoe
	Saddle bolts and wedge bars
Sold Separately	
	Cat® saddles and contact tooling for each track pitch size
	Conversion groups to mount competitive contact tooling
Related tooling (Sold Separately)	
	Disassembly and assembly contact tooling
	15.25 m (50 ft) conveyor-includes hydraulically activated track shoe lifter and 1.5 m (5 ft) ramp
	Cat Track Torque Wrench (CTTW)
FT1238	Track Lube Vacuum Unit

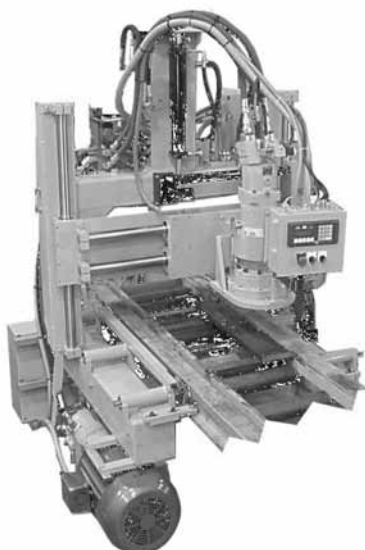
Part Number	Description
Included with the press	
170-2503	Connecting Bars (2)
Related tooling (Sold Separately)	
170-5664	Test and Fill Machine

Cat® Track Torque Wrench (CTTW)

SMCS Code: 4150

Model: All Cat track

Warranty: Six Months



European Union compliant, CE marked

- PLC controlled hydraulic torque wrench used to remove and replace track shoe bolts during the track reconditioning process
- CTTW travels up and down the rails of the conveyor that attaches to a track press
- Performs the Cat "Torque Turn" bolt-torquing process by adding a 120 degree "Torque Turn" past a "pre-torque" value that is input by the operator based on track shoe/link type
- For non-Cat track, the CTTW can also torque to a "final torque" setting, eliminating the 120 degree turn
- Max torque of 9520 Nm (7000 ft-lb) at low speed (40 RPM max); 1496 Nm (1100 ft-lb) at high speed (195 RPM max)
- Load-sensing and horsepower-limiting pumps
- Variable displacement fluid motor provides smoother and quieter shifting than mechanically shifting wrenches-- translates to reduced wear, maintenance and downtime
- Hydraulic oil cooler
- Joystick controlled functions (forward and reverse torquing, horizontal and vertical motion)
- Designed and built exclusively through the Dealer Service Tools Division
- Uses Cat® part-numbered hydraulic components for simplified maintenance
- Offered in any configuration of 380/460/575 Volts and 50/60 Hz

Ordering Information

Contact the Caterpillar Dealer Service Tools Division for quotations and specifications. This product is purchased outside of the Cat® parts network via a Purchase Order. See Contact Information.

References

NEHS0830, Caterpillar Track Torque Wrench Operation Manual
NEHS0802, Caterpillar Track Press Introduction

Related tooling (for use with the CTTW) (Sold Separately)
Disassembly and assembly sockets, extensions, and nut wrenches
15.25 m (50.0 ft) conveyor--includes hydraulically activated track shoe lifter and 1.5 m (5.0 ft) ramp
Cat® 300 and 375 Ton Track Presses

350T Track Press

Discontinued — Service Parts Available

Reference

Technical experts to answer questions are available at the Dealer Service Tools Division. For more information call one of the (800) numbers.

1-800-541-8665 (IL)

1-800-542-8665 (U.S.)

1-800-523-8665 (Canada)

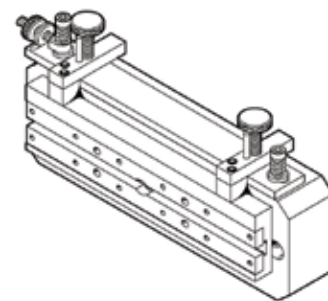
170-2503 Connecting Bar Assembly

SMCS Code: 0685

Warranty: Six Months

- Heavy duty connecting bar
- Used with Cat® 300T, 350T, and 375T Track Presses

Service/Repair Parts	
Part Number	Description
170-2503	Connecting Bars (2)
Service/Repair Parts	
170-2504	Slide Tool Mounting Bar
170-2505	Connecting Bar Assembly
170-2506	Slide Bar
170-2507	Connecting Bar
170-2508	Pin
171-5890	Thumb Screw
171-5891	Thumb Nut
171-5892	Swing Bolt
171-5893	Thrust Washer



206-3087 Saddle Assembly

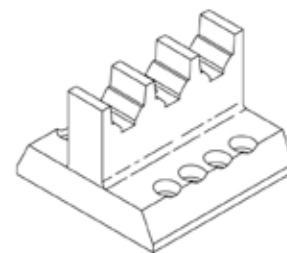
SMCS Code: 0685

Model: 245 Excavator

Warranty: Six Months

Part Number	Description
206-3087	Saddle Assembly

- Used to install and remove pins and bushings from track links
- Heat-treated for added durability and longer life



Contact and Saddle Tooling

SMCS Code: 0685

Model: Cat® Track Components

Warranty: Six Months

- Used to easily install and remove pins and bushings from track links
- Used with Cat-designed track presses (includes current 300 and 375 ton models, as well as non-current 350 ton models)

Contact Tooling

- Tremendous cost savings to dealers (requires 50% fewer pieces than competitor tool packages)
- Allows for future cost-effective expansion for servicing of new track groups
- Reduces damage to track components (plunger-style assembly tools provide better pin and bushing alignment, resulting in less damage)
- Tools give outstanding durability (tools are made from high alloy steel, heat-treated to Rc44)
- Removable base on assembly tools allows work on many models of track, while using same body and plunger (this means servicing more track sizes with fewer tools)
- Recessed threads in removable base allow quick and easy tool setup and teardown
- All tools can be used on competitive track assembly and disassembly machines (Cat conversion group required)
- All contact tools can be ordered separately

(Continued)

Contact and Saddle Tooling (Continued)

SMCS Code: 0685

Model: Cat® Track Components

Warranty: Six Months

Positive Pin Retention Tooling

- Used for D8, D9, D10, and D11 Track-Type Tractors with PPR Track
- Used to unload pin in positive pin retention (PPR) track during assembly
- Used with 300, 350, and 375 Track Presses
- Helps prevent thrust ring galling
- Heat-treated for added durability

Saddles (designed for use on Cat 300, 350, and 375 Ton Track Assembly and Disassembly Machine only)

- Requires only 1 saddle per pitch which eliminates saddle duplication within a pitch group (possible cost savings of up to 40% over many competitive units)
- Saddles use a semi vee-bushing pocket design that allows metal particles and dirt to fall away from bushing contact surfaces
- Bushing design also holds track securely in place for assembly and disassembly
- Saddles are secured in place with wedge bars or key

Conversion Groups for Cat Tools on Competitive Track Assembly and Disassembly Machines

To use the contact tooling with competitive units, order the appropriate conversion group. Cat® saddles are designed only for the 300, 350 and 375 Ton Track Presses.

NOTE: The saddles from OEM track presses are required in order to use Cat conversion groups and contact tooling.

- Wolff models 200 and 310 require a 1U-6261 Conversion Group which includes: 1U-6256 Stud (qty 2), 1U-6263 T-Slot Bolt (qty 4), 2J-3507 Full Nut (qty 2), 155-6540 Tool Mount Assembly (qty 2)

Conversion Groups for Competitive Tooling on Cat 300, 350, and 375 Ton Track Presses

- To use the 300, 350 or 375 Ton Track Presses with competitive tooling, order the appropriate conversion group.
- OTC Trackmaster tooling requires a 1U-6264 Conversion Group which includes: 1U-6278 Adapter Plate (discontinued), 9U-7681 Stud (qty 2), 2J-3507 Full Nut (qty 2), 1K-7945 Dowel (qty 4), and discontinued 1U-6279 Saddle Bolt (qty 10); adapter plate allows the tooling for the OTC 200 ton track press to be used on Cat® Track Presses; OEM saddles can also be used on the Cat track presses using these same adapter plates in the conversion group
- Centurion tooling requires a 1U-6266 Conversion Group which includes: 1U-6218 Adapter Plate, 1U-6283 Adapter Plate, t-slot bolt (qty 4), and 1U-6284 Filler Bar (discontinued, qty. 2); adapter plates allow the tooling for the Centurion 250 ton track press to be used on Cat Track Presses; OEM saddles can also be used on the Cat® track presses using these same adapter plates in the conversion group



Contact tools and saddles required to service nine machine models in nine-inch pitch track group

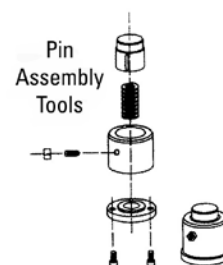
References



NEHS0804, Caterpillar Track Press Contact Tooling
NEHS0802, Caterpillar Track Press Tool Operating Manual - Introduction
SEBF8557, Track Shop Servicing Procedure for Non-PPR Sealed and Lubricated Track
SEBF8546, Track Shop Servicing Procedure for Positive Pin Retention Track

Contact and Saddle Tools by Pitch

Qty.	Description	D11N PPR 6T-8049	5130 Sealed 618643	MS1600 Sealed 960321
1	Link Spacer		9U-7793	9U-7792



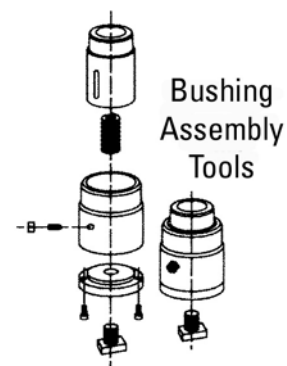
12.50 Inch Pitch Tracks				
Qty.	Description RH Link	D11N PPR 6T-8049	5130 Sealed 618643	MS1600 Sealed 960321
2	Pin Assembly Body	9U-7568	9U-7568	N/A
1	Saddle	9U-7767	9U-7767	N/A
1	Pin Assembly Plunger ¹	9U-7564	9U-7564	N/A
2	Pin Assembly Base	9U-7567	9U-7566	N/A
1	Pin Assembly Plunger ²	9U-7565	9U-7565	N/A
2	Bush Assembly Base	9U-7570	9U-7570	N/A
2	Bush Assembly Body	9U-7571	9U-7571	N/A
2	Bush Assembly Plunger	9U-7569	9U-7569	N/A
2	Pin Disassembly	9U-7777	9U-7777	9U-7777
2	Bushing Disassembly	9U-7778	9U-7778	9U-7778

12.50 Inch Pitch Tracks				
Qty.	Description RH Link	D11N PPR 6T-8049	5130 Sealed 618643	MS1600 Sealed 960321
2	Extruder Assembly, D11N	198-5341	--	--
2	Anvil Assembly	8T-3216	--	--
2	Stud	1U-6257	--	--
2	Handle Assembly	8T-3211	--	--
2	Extruder Base	9U-7829	--	--
8	Socket Head Screw	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578
4	Spring	248-2069	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041
2	Unloading Pin	157-8547	--	--
4	Tee Slot Bolt	248-2072	248-2072	248-2072

¹ First Assembly Side² Other Side

10.25 Inch Pitch Tracks

10.25 Inch Pitch Tracks									
Qty.	Description RH Link	D10N PPR 7T-0715	D10, 591 PPR 9W-5933	D9H, 594 S-LT 9S-1927 ¹	D10N S-LT 9W-5265	D10 S-LT 9G-5507 ¹	D10 S-LT 9W-5723	D9, 245 Sealed 9S-1927 ¹	375 Sealed 6Y-6721
1	S.R. Master Adapter				9U-7781	9U-7781	9U-7781		
1	Link Spacer							9U-7795	9U-7794
¹ Discontinued									



(Continued)

Undercarriage and Track

10.25 Inch Pitch Tracks (Continued)

Undercarriage Tools

10.25 Inch Pitch Tracks									
Qty.	Description RH Link	D10N PPR 7T-0715	D10, 591 PPR 9W- 5933	D9H, 594 S-LT 9S- 1927 ¹	D10N S-LT 9W-5265	D10 S-LT 9G-5507 ¹	D10 S-LT 9W-5723	D9, 245 Sealed 9S-1927 ¹	375 Sealed 6Y-6721
1	Saddle	9U-7768	9U-7768	9U-7768	9U-7768	9U-7768	9U-7768	206-3087	9U-7768
2	Pin Assembly Base	9U-7580	9U-7580	9U-7581	9U-7582	9U-7583	9U-7583	9U-7584	9U-7581
2	Pin Assembly Body	9U-7585	9U-7585	9U-7585	9U-7585	9U-7585	9U-7585	9U-7585	9U-7585
1	Pin Assembly Plunger ²	9U-7578	9U-7578	9U-7578	9U-7578	9U-7578	9U-7578	9U-7578	9U-7578
1	Pin Assembly Plunger ³	9U-7579	9U-7579	9U-7579	9U-7579	9U-7579	9U-7579	9U-7579	9U-7579
2	Bush Assembly Base	9U-7575	9U-7575	9U-7576	9U-7575	9U-7575	9U-7575	9U-7575	9U-7575
2	Bush Assembly Body	9U-7577	9U-7577	9U-7577	9U-7577	9U-7577	9U-7577	9U-7577	9U-7577
2	Bush Assembly Plunger	9U-7572	9U-7573	9U-7574	9U-7572	9U-7573	9U-7573	9U-7574	9U-7574
2	Pin Disassembly	9U-7779	9U-7779	9U-7779	9U-7779	9U-7779	9U-7779	9U-7779	9U-7779
2	Bush Disassembly	9U-7780	9U-7780	9U-7780	9U-7780	9U-7780	9U-7780	9U-7780	9U-7780
2	Extruder Assembly	198-5342	198-5342	--	--	--	--	--	--
2	Anvil Assembly	8T-3216	8T-3216	--	--	--	--	--	--
2	Stud	1U-6257	1U-6257	--	--	--	--	--	--
2	Handle Assembly	8T-3211	8T-3211	--	--	--	--	--	--
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
4	Spring	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
2	Unloading Pin	157-8547	157-8547	--	--	--	--	--	--
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹ Discontinued

² First Assembly Side

³ Other Side

9.45 Inch Pitch Tracks

9.45 Inch Pitch Tracks			
Qty.	Description RH Link	D9N PPR 7T-2275	DD9N S-LT 9W-2743
1	S.R. Master Adapter		9U-7784

Qty.	Description RH Link	D9N PPR 7T-2275	DD9N S-LT 9W- 2743
1	Saddle	9U-7769	9U-7769
2	Pin Assembly Base	9U-7830	9U-7600
2	Pin Assembly Body	9U-7605	9U-7605
1	Pin Assembly Plunge ¹	9U-7595	9U-7595
2	Bush Assembly Base	9U-7592	9U-7592
2	Bush Assembly Body	9U-7594	9U-7594
2	Bush Assembly Plunger	9U-7589	9U-7589
2	Pin Disassembly	9U-7782	9U-7782
2	Bush Disassembly	9U-7783	9U-7783
2	Extruder Assembly D9L and D9N with PPR	198-5343	--

Qty.	Description RH Link	D9N PPR 7T-2275	DD9N S-LT 9W- 2743
2	Anvil Assembly	8T-3216	--
2	Stud	1U-6257	--
2	Handle Assembly	8T-3211	--
8	Socket Head Screw	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578
4	Spring	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041
2	Unloading Pin	157-8547	--
4	Tee Slot Bolt	248-2072	248-2072
1	Pin Assembly Plunger ²	9U-7596	9U-7596

¹ First assembly side

² Other side

(Continued)

9.45 Inch Pitch Tracks (Continued)

9.00 Inch Pitch Tracks

9.00 Inch Pitch Tracks							
Qty.	Description RH Link	D9L, 589 PPR 7T-4137	D9L, 589 S-LT 7T-7629	D8K, 583, 983 S-LT 7S-9181 ¹	D8n Sealed 7S-9181 ¹	350 sealed 8E-6091	E650, MS580 Sealed 931985
1	Link Spacer				9U-7798	9U-7796	9U-7797
¹ Discontinued							

Qty.	Description RH Link	D9L, 589 PPR 7T-4137	D9L, 589 S-LT 7T-7629	D8K, 583, 983 S-LT 7S-9181 ¹	D8 Sealed 7S-9181 ¹	350 Sealed 8E-6091	E650, MS580 Sealed 931985
2	Bush Disassembly	9U-7783	9U-7783	9U-7783	9U-7783	9U-7783	9U-7783
1	Saddle	9U-7770	9U-7770	9U-7770	9U-7770	9U-7770	9U-7770
2	Pin Assembly Base	9U-7601	9U-7604	9U-7603	9U-7602	9U-7602	9U-7599
2	Pin Assembly Body	9U-7605	9U-7605	9U-7605	9U-7605	9U-7605	9U-7605
1	Pin Assembly Plunge ²	9U-7595	9U-7595	9U-7595	9U-7595	9U-7595	9U-7597
2	Bush Assembly Plunger	9U-7588	9U-7588	9U-7590	9U-7590	9U-7590	9U-7591
2	Pin Disassembly	9U-7782	9U-7782	9U-7782	9U-7782	9U-7782	9U-7782
2	Extruder Assembly D9L and D9N with PPR	198-5343	--	--	--	--	--
1	Pin Assembly Plunger ³	9U-7596	9U-7596	9U-7596	9U-7596	9U-7596	9U-7598
2	Anvil Assembly	8T-3216	--	--	--	--	--
2	Stud	1U-6257	--	--	--	--	--
2	Handle Assembly	8T-3211	--	--	--	--	--
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
4	Spring	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
2	Unloading Pin	157-8547	--	--	--	--	--
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹ Discontinued² First assembly side³ Other side

8.50 Inch Pitch Tracks

8.50 Inch Pitch Tracks										
Qty.	Description RH Link	D8N PPR 7T-8115 ¹	D8n, 578 PPR 8E-4513	D8N S-LT 9W-3309 ¹	D8N S-LT 8E-4505	D8L S-LT 8E-4519 ¹	D8L S-LT 7T-2207 ¹	D7H S-LT 9G-2417	D7H HD S-LT 619239	D7G, 977, 973 S-LT 7T-4657
1	S.R. Master Adapter			9U-7787	9U-7787					
¹ Discontinued										

(Continued)

Undercarriage and Track

8.50 Inch Pitch Tracks (Continued)

Undercarriage Tools

Qty.	Description RH Link	D8N PPR 7T-8115 ¹	D8N, 578 PPR 8E- 4613	D8N S-LT 9W- 3309 ¹	D8N S-LT 8E-4505	D8L S-LT 8E-4519 ¹	D8L S-LT 7T-2207 ¹	D7H S-LT 9G-2417	D7H HD S-LT 619239	D7G, 977, 973 S-LT 7T-4657
1	Saddle	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7632	9U-7632	9U-7633	9U-7633	9U-7633	9U-7633	9U-7634	4C-9413	9U-7633
2	Pin Assembly Body	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644
1	Pin Assembly Plunger ²	9U-7622	9U-7622	9U-7622	9U-7622	9U-7622	9U-7622	9U-7622	9U-7622	9U-7622
1	Pin Assembly Plunger ³	9U-7623	9U-7623	9U-7623	9U-7623	9U-7623	9U-7623	9U-7623	9U-7623	9U-7623
2	Bush Assembly Base	9U-7613	9U-7613	9U-7612	9U-7612	9U-7612	9U-7612	9U-7612	4C-9412	9U-7614
2	Bush Assembly Body	9U-7620	9U-7620	9U-7620	9U-7620	9U-7620	9U-7620	9U-7620	4C-9029	9U-7620
2	Bush Assembly Plunger	9U-7606	9U-7606	9U-7606	9U-7606	9U-7606	9U-7606	9U-7606	4C-9307	9U-7607
2	Pin Disassembly	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	4C-9414	9U-7785
2	Bush Disassembly	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786
2	Extruder Assembly (198-5439 Body, Extruder) D8N	203-0982	203-0982	--	--	--	--	--	--	--
2	Anvil Assembly	8T-3216	8T-3216	--	--	--	--	--	--	--
2	Stud	1U-6257	1U-6257	--	--	--	--	--	--	--
2	Handle Assembly	8T-3211	8T-3211	--	--	--	--	--	--	--
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
4	Spring	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
2	Unloading Pin	157-8547	157-8547	--	--	--	--	--	--	--
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹ Discontinued

² First assembly side

³ Other side

8.50 Inch Pitch Tracks (Continued)

8.50 Inch Pitch Tracks									
Qty.	Description RH Link	D7G, 977, 235 S-LT 8S2589	973 S-LT 9W-5939 ¹	D7, 973 Sealed 7T- 4657	D7, 977, 235 Sealed 8S2589	330 Sealed 6Y2589	235 Sealed 7T-9823	235 Sealed 8E-8641 ¹	E450, MS450 Sealed 969944
1	Link Spacer			9U-7801	9U-7801	9U-7799	9U-7800	9U-7800	9U-7802
¹ Discontinued									

Qty.	Description RH Link	D7G, 977, 235 S-LT 8S2589	973 S-LT 9W- 5939 ¹	D7, 973 Sealed 7T-4657	D7, 977, 235 Sealed 8S2589	330 Sealed 6Y2589	235 Sealed 7T-9823	235 Sealed 8E-8641 ¹	E450, MS450 Sealed 969944
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7633	9U-7633	9U-7633	9U-7633	9U-7634	9U-7633	9U-7635	9U-7633
2	Pin Assembly Body	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644
1	Pin Assembly Plunger ²	9U-7622	9U-7622	9U-7622	9U-7622	9U-7626	9U-7622	9U-7622	9U-7624
1	Pin Assembly Plunger ³	9U-7623	9U-7623	9U-7623	9U-7623	9U-7627	9U-7623	9U-7623	9U-7625
2	Bush Assembly Base	9U-7614	9U-7614	9U-7615	9U-7615	9U-7619	9U-7615	9U-7615	9U-7612

(Continued)

8.50 Inch Pitch Tracks (Continued) (Continued)

Qty.	Description RH Link	D7G, 977, 235 S-LT 8S2589	973 S-LT 9W- 5939 ¹	D7, 973 Sealed 7T-4657	D7, 977, 235 Sealed 8S2589	330 Sealed 6Y2589	235 Sealed 7T-9823	235 Sealed 8E-8641 ¹	E450, MS450 Sealed 969944
2	Bush Assembly Body	9U-7620	9U-7620	9U-7620	9U-7620	9U-7621	9U-7620	9U-7620	9U-7620
2	Bush Assembly Plunger	9U-7607	9U-7607	9U-7607	9U-7607	9U-7607	9U-7607	9U-7607	9U-7607
2	Pin Disassembly	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785
2	Bush Disassembly	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
4	Spring	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Saddle	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771	9U-7771
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹ Discontinued² First assembly side³ Other side

8.00 Inch Pitch Tracks

8.00 Inch Pitch Tracks							
Qty.	Description RH Link	D6H HD S-LT 8E-7405	D6H S-LT 9G- 8735 ¹	D6H S-LT 8E- 2355	D6D, 955, 963 S-LT 7T-4645	D6D, 955 S-LT 3P-1112	D6, D7, 977 Sealed 1S- 1863
1	Link Spacer						9U-7801

¹ Discontinued

Qty.	Description RH Link	D6H HD S-LT 8E- 7405	D6H S-LT 9G-8735 ¹	D6H S-LT 8E-2355	D6D, 955, 963 S-LT 7T- 4645	D6D, 955 S-LT 3P- 1112	D6, D7, 977 Sealed 1S- 1863
1	Saddle	9U-7772	9U-7772	9U-7772	9U-7772	9U-7772	9U-7772
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7637	9U-7638	9U-7638	9U-7639	9U-7639	9U-7640
2	Pin Assembly Body	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644
1	Pin Assembly Plunger ²	9U-7628	9U-7628	9U-7628	9U-7628	9U-7628	9U-7628
1	Pin Assembly Plunger ³	9U-7629	9U-7629	9U-7629	9U-7629	9U-7629	9U-7629
2	Bush Assembly Base	9U-7619	9U-7619	9U-7619	9U-7616	9U-7616	9U-7618
2	Bush Assembly Body	9U-7621	9U-7621	9U-7621	9U-7621	9U-7621	9U-7621
2	Bush Assembly Plunger	9U-7608	9U-7608	9U-7608	9U-7610	9U-7610	9U-7610
2	Pin Disassembly	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785
2	Bush Disassembly	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
4	Spring	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹ Discontinued² First assembly side

(Continued)

Undercarriage and Track

8.00 Inch Pitch Tracks (Continued)

³ Other side

8.00 Inch Pitch Tracks (Continued)

Undercarriage Tools

Qty.	Description RH Link	D6, D7, 977 Sealed 1S-6433	D8, 583 Sealed 1S-8839 ¹	D6, 955, 225 Sealed 3P-1112	D6 Sealed 7S-9109 ¹	D6 Sealed 8S-5231 ¹	325 Sealed 6Y-1607	EL300 Sealed 960264
1	Saddle	9U-7772	9U-7772	9U-7772	9U-7772	9U-7772	9U-7772	9U-7772
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7640	9U-7641	9U-7639	9U-7642	9U-7643	9U-7643	9U-7636
2	Pin Assembly Body	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644	9U-7644
1	Pin Assembly Plunger ²	9U-7628	9U-7628	9U-7628	9U-7628	9U-7628	9U-7628	9U-7628
1	Pin Assembly Plunger ³	9U-7629	9U-7629	9U-7629	9U-7629	9U-7629	9U-7629	9U-7629
2	Bush Assembly Base	9U-7618	9U-7619	9U-7618	9U-7618	9U-7618	9U-7619	9U-7617
2	Bush Assembly Body	9U-7621	9U-7621	9U-7621	9U-7621	9U-7621	9U-7621	9U-7621
2	Bush Assembly Plunger	9U-7610	9U-7610	9U-7610	9U-7610	9U-7610	9U-7611	9U-7610
2	Pin Disassembly	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785	9U-7785
2	Bush Disassembly	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786	9U-7786
1	Link Spacer	9U-7805	9U-7803	9U-7808	9U-7808	--	9U-7806	9U-7807
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
4	Spring	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069	248-2069
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹ Discontinued

² First assembly side

³ Other side

7.50 Inch Pitch Tracks

7.50 Inch Pitch Tracks					
Qty.	Description RH Link	D5H HD S-LT 1061625	D5H S-LT 3T-8405 ¹	D5H S-LT 6Y-9267	315, 320, 322 Sealed 9W-3137
1	Link Spacer				9U-7812
¹ Discontinued					

Qty.	Description RH Link	D5H HD S-LT 1061625	D5H S-LT 3T-8405 ¹	D5H S-LT 6Y-9267	315, 320, 322 Sealed 9W-3137
2	Bush Assembly Base	9U-7661	9U-7652	9U-7652	9U-7654
2	Bush Assembly Body	9U-7663	9U-7662	9U-7662	9U-7662
2	Bush Assembly Plunger	9U-7651	9U-7646	9U-7646	9U-7645
2	Bush Disassembly	9U-7789	9U-7789	9U-7789	9U-7789
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578
2	Pin Assembly Base	9U-7672	9U-7675	9U-7675	9U-7674
2	Pin Assembly Body	9U-7682	9U-7682	9U-7682	9U-7682
1	Pin Assembly Plunger ²	9U-7670	9U-7664	9U-7664	9U-7664
1	Pin Assembly Plunger ³	9U-7671	9U-7665	9U-7665	9U-7665
2	Pin Disassembly	9U-7788	9U-7788	9U-7788	9U-7788
1	Saddle	9U-7773	9U-7773	9U-7773	9U-7773

(Continued)

7.50 Inch Pitch Tracks (Continued)

Qty.	Description RH Link	D5H HD S-LT 1061625	D5H S-LT 3T-8405 ¹	D5H S-LT 6Y-9267	315, 320, 322 Sealed 9W-3137
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975
1	Spacer Group	126-4041	126-4041	126-4041	126-4041
2	Spring ⁴	248-2070	248-2070	248-2070	248-2070
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072

¹ Discontinued² First assembly side³ Other side⁴ For the Bushing Assembly Tools

7.50 Inch Pitch Tracks (Continued)

Qty.	Description RH Link	225B, 225D Sealed 7T-4043 ¹	E240, 3200B Sealed 966201	E240, E300 Sealed 965252	E300, EL240 Sealed 931981
2	Bush Assembly Base	9U-7654	9U-7653	9U-7652	9U-7653
2	Bush Assembly Body	9U-7662	9U-7662	9U-7662	9U-7662
2	Bush Assembly Plunger	9U-7645	9U-7645	9U-7648	9U-7645
2	Bush Disassembly	9U-7789	9U-7789	9U-7789	9U-7789
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578
1	Link Spacer	9U-7811	9U-7812	9U-7810	9U-7810
2	Pin Assembly Base	9U-7675	9U-7675	9U-7672	9U-7673
2	Pin Assembly Body	9U-7682	9U-7682	9U-7682	9U-7682
1	Pin Assembly Plunger ²	9U-7664	9U-7664	9U-7666	9U-7666
1	Pin Assembly Plunger ³	9U-7665	9U-7665	9U-7667	9U-7667
2	Pin Disassembly	9U-7788	9U-7788	9U-7788	9U-7788
1	Saddle	9U-7773	9U-7773	9U-7773	9U-7773
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975
1	Spacer Group	126-4041	126-4041	126-4041	126-4041
2	Spring ⁴	248-2070	248-2070	248-2070	248-2070
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072

¹ Discontinued² First assembly side³ Other side⁴ For the Bushing Assembly Tools

6.91 Inch Pitch Tracks

6.91 Inch Pitch Tracks						
Qty.	Description RH Link	D5B-, 951 S-LT 7T-4539	D5B-, 951, 953 S-LT 3P-7153	D5, 951, 955 Dealed 3P-7153	951 Sealed 7T- 4539	E180, EL180 Sealed 957130
1	Link Spacer			9U-7813	9U-7813	9U-7814

(Continued)

Undercarriage and Track

6.91 Inch Pitch Tracks (Continued)

Undercarriage Tools

Qty.	Description RH Link	D5B, 951 S-LT 7T-4539	D5B, 951, 953 S-LT 3P-7153	D5, 951,955 Sealed 3P- 7153	951 Sealed 7T-4539	E180, EL180 Sealed 95130
1	Saddle	9U-7774	9U-7774	9U-7774	9U-7774	9U-7774
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7675	9U-7675	9U-7675	9U-7675	9U-7675
2	Pin Assembly Body	9U-7682	9U-7682	9U-7682	9U-7682	9U-7682
1	Pin Assembly Plunger ¹	9U-7664	9U-7664	9U-7664	9U-7664	9U-7664
1	Pin Assembly Plunger ²	9U-7665	9U-7665	9U-7665	9U-7665	9U-7665
2	Bush Assembly Base	9U-7655	9U-7655	9U-7654	9U-7654	9U-7652
2	Bush Assembly Body	9U-7662	9U-7662	9U-7662	9U-7662	9U-7662
2	Bush Assembly Plunger	9U-7645	9U-7645	9U-7645	9U-7645	9U-7645
2	Pin Disassembly	9U-7788	9U-7788	9U-7788	9U-7788	9U-7788
2	Bush Disassembly	9U-7789	9U-7789	9U-7789	9U-7789	9U-7789
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
2	Spring ³	248-2070	248-2070	248-2070	248-2070	248-2070
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072

¹First assembly side

²Other side

³For the Bushing Assembly Tools

6.75 Inch Pitch Tracks

6.75 Inch Pitch Tracks								
Qty.	Description RH Link	D5C, D4H S-LT 6Y-9261	D4H S-LT 9G-8581	D4H HD S-LT 1080947	D4E, 941, 943 S-LT 9K-6629	943 S-LT 7T- 4173	D4 Sealed 9Y-6629	D5, 561, 951B Sealed 2S- 5959
1	Link Spacer						9U-7816	9U-7815

Qty.	Description RH Link	D5C, D4H S-LT 6Y- 9261	D4H S-LT 9G-8581	D4H HD S-LT 1080947	D4E, 941, 943 S-LT 9K-6629	943 S-LT 7T-4173	D4 Sealed 9K-6629	D5, 561, 951B Sealed 2S-5959
1	Saddle	9U-7775	9U-7775	9U-7775	9U-7775	9U-7775	9U-7775	9U-7775
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7677	9U-7678	4C-8087	9U-7678	9U-7678	9U-7678	9U-7676
2	Pin Assembly Body	9U-7683	9U-7683	9U-7682	9U-7683	9U-7683	9U-7683	9U-7682
1	Pin Assembly Plunger ¹	9U-7668	9U-7668	9U-7664	9U-7668	9U-7668	9U-7668	9U-7664
1	Pin Assembly Plunger ²	9U-7669	9U-7669	9U-7665	9U-7669	9U-7669	9U-7669	9U-7665
2	Bush Assembly Base	9U-7652	9U-7652	4C-8055	9U-7657	9U-7657	9U-7652	9U-7656
2	Bush Assembly Body	9U-7662	9U-7662	9U-7662	9U-7662	9U-7662	9U-7662	9U-7662
2	Bush Assembly Plunger	9U-7647	9U-7647	4C-6988	9U-7649	9U-7649	9U-7649	9U-7649
2	Pin Disassembly	9U-7788	9U-7788	4C-8125	9U-7788	9U-7788	9U-7788	9U-7788
2	Bush Disassembly	9U-7789	9U-7789	9U-7789	9U-7789	9U-7789	9U-7789	9U-7789
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
2	Spring ³	248-2070	248-2070	248-2070	248-2070	248-2070	248-2070	248-2070

(Continued)

6.75 Inch Pitch Tracks (Continued)

Qty.	Description RH Link	D5C, D4H S-LT 6Y- 9261	D4H S-LT 9G-8581	D4H HD S-LT 1080947	D4E, 941, 943 S-LT 9K-6629	943 S-LT 7T-4173	D4 Sealed 9K-6629	D5, 561, 951B Sealed 2S-5959
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹First assembly side²Other side³For the Bushing Assembly Tools

6.75 Inch Pitch Tracks (Continued)

Qty.	Description RH Link	D4, 941 Sealed 7K-1825	941, 955 Sealed 5K-9457	933, 955 Sealed 5K-9423	213 Sealed 5W-4147	205, 211, 213 Sealed 8U-2927	E140 Sealed 931978	E110, E110B, E120 Sealed 990650
1	Saddle	9U-7775	9U-7775	9U-7775	9U-7775	9U-7775	9U-7775	9U-7775
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7678	9U-7680	9U-7680	9U-7678	9U-7678	9U-7678	9U-7679
2	Pin Assembly Body	9U-7683	9U-7683	9U-7683	9U-7683	9U-7683	9U-7683	9U-7683
1	Pin Assembly Plunger ¹	9U-7668	9U-7668	9U-7668	9U-7668	9U-7668	9U-7668	9U-7668
1	Pin Assembly Plunger ²	9U-7669	9U-7669	9U-7669	9U-7669	9U-7669	9U-7669	9U-7669
2	Bush Assembly Base	9U-7658	9U-7659	9U-7659	9U-7652	9U-7652	9U-7652	9U-7660
2	Bush Assembly Body	9U-7662	9U-7662	9U-7662	9U-7662	9U-7662	9U-7662	9U-7662
2	Bush Assembly Plunger	9U-7649	9U-7650	9U-7650	9U-7649	9U-7649	9U-7650	9U-7650
2	Pin Disassembly	9U-7788	9U-7788	9U-7788	9U-7788	9U-7788	9U-7788	9U-7788
2	Bush Disassembly	9U-7789	9U-7789	9U-7789	9U-7789	9U-7789	9U-7789	9U-7789
1	Link Spacer	9U-7820	9U-7815	9U-7819	9U-7818	9U-7816	9U-7816	9U-7816
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
2	Spring ³	248-2070	248-2070	248-2070	248-2070	248-2070	248-2070	248-2070
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041	126-4041
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072	248-2072

¹First assembly side²Other side³For the Bushing Assembly Tools

6.125 Inch Pitch Tracks

6.125 Inch Pitch Tracks						
Qty.	Description RH Link	D3B, D3C, 931 S-LT 6Y-0935	D3, 931, SF250 Sealed 6Y-0935	TR225B Sealed 6S-8343	D3, 931 Sealed 6D-3143 ¹	D3 Sealed 6S- 8682
1	Link Spacer		9U-7824	9U-7824	9U-7823	9U-7823
¹ Discontinued						

(Continued)

Undercarriage and Track

6.125 Inch Pitch Tracks (Continued)

Undercarriage Tools

Qty.	Description RH Link	D3B, D3C, 931 S-LT 6Y-0935	D3, 931, SF250 Sealed 6Y- 0935	TR2258 Sealed 6S- 8343	D3, 931 Sealed 6D- 3143 ¹	D3 Sealed 6S-8682
1	Saddle	9U-7776	9U-7776	9U-7776	9U-7776	9U-7776 ²
2	Bush Assembly Base	9U-7689	9U-7690	9U-7690	9U-7690	9U-7690
1	Saddle Spacer	9U-7749	9U-7749	9U-7749	9U-7749	9U-7749
2	Pin Assembly Base	9U-7686	9U-7686	9U-7686	9U-7686	9U-7686
2	Pin Assembly Body	9U-7687	9U-7687	9U-7687	9U-7687	9U-7687
1	Pin Assembly Plunger ³	9U-7684	9U-7684	9U-7684	9U-7684	9U-7684
1	Pin Assembly Plunger ⁴	9U-7685	9U-7685	9U-7685	9U-7685	9U-7685
2	Bush Assembly Body	9U-7691	9U-7691	9U-7691	9U-7691	9U-7691
2	Bush Assembly Plunger	9U-7688	9U-7688	9U-7688	9U-7688	9U-7688
2	Pin Disassembly	9U-7790	9U-7790	9U-7790	9U-7790	9U-7790
2	Bush Disassembly	9U-7791	9U-7791	9U-7791	9U-7791	9U-7791
8	Socket Head Screw	9F-5975	9F-5975	9F-5975	9F-5975	9F-5975
4	Jam Nut (100/pkg)	1B-2578	1B-2578	1B-2578	1B-2578	1B-2578
2	Spring ⁵	9U-7748	9U-7748	9U-7748	9U-7748	9U-7748
2	Spring ⁶	248-2070	248-2070	248-2070	248-2070	248-2070
4	Set Screw	5B-0448	5B-0448	5B-0448	5B-0448	5B-0448
1	Spacer Group	126-4041	126-4041	126-4041	126-4041	126-4041
4	Tee Slot Bolt	248-2072	248-2072	248-2072	248-2072	248-2072

¹ Discontinued

² Use 219-2395 Saddle for 54 mm bushings

³ First assembly side

⁴ Other side

⁵ For the Pin Assembly Tools

⁶ For the Bushing Assembly Tools

Conversion Groups for Cat® and Competitive Track Tooling

Conversion Groups for Cat® Tools on Competitive Track Assembly and Disassembly Machines			
Competitive Track Machines	Conversion Group	Description	Qty.
Wolff 200, 310	1U-6261	Conversion Group	--
Consists:			
--	1U-6256	Stud (2)	2
--	1U-6263	T-Slot Bolt (4)	4
--	2J-3507	Nut	2
--	155-6540	Tool Mount Assembly	2
Conversion Groups for Competitive Tooling on the Cat 300, 350, and 375 Ton Track Assembly and Disassembly Machine Competitive Track Machine Tooling Conversion Group			
OTC Trackmaster	1U-6264	Conversion Group	--
Centurion	1U-6266	Conversion Group	--

Conversion Groups for Cat® Tools on Competitive Track Assembly and Disassembly Machines			
Competitive Track Machines	Conversion Group	Description	Qty.
1U-6264 Consists:			
--	1U-6278	Adapter Plate (discontinued)	--
--	9U-7681	Stud	2
--	2J-3507	Nut	2
--	1K-7945	Dowel	4
--	1U-6279	Saddle Bolt (discontinued)	10
1U-6266 Consists: ¹			
--	1U-6218	Adapter Plate	--
--	1U-6283	Adapter Plate	--
--	1U-6284	Filler Bar (discontinued)	2

¹ Includes: T-Slot Bolt (4)

Pin and Bushing Installation and Removal Tools

Essential Tool

SMCS Code: 0685

Model: 307 Excavator

Warranty: Six Months

- Used to easily install and remove pins and bushings from 5.31 pitch tracks (links)
- Used with 1U-6270 Track Assembly and Disassembly Machine (575 Volt, 60 Hz, 3-phase), 1U-6269 Track Assembly and Disassembly Machine (230 to 460 Volt, 60 Hz, 3-phase), 1U-6268 Track Assembly and Disassembly Machine (190 to 380 Volt, 50 Hz, 3-phase), and 1U-6267 Track Assembly and Disassembly Machine (308 Volt, 60 Hz, 3-phase)

Part Number	Description
169-0641	Bushing, Disassembly
169-0642	Bushing, Plunger
169-0643	Pin, Disassembly

Tools for Servicing Sealed and Lubricated Track

SMCS Code: 4170-010

Model: Cat® Sealed and Lubricated Track

Warranty: Six Months

- Tools and equipment for servicing Sealed and Lubricated Track
- Use 5P-3010 Deburring Tool to clear and chamfer oil reservoir hole and make new chamfer; track shoes do not need to be removed to do this

References

GMG02477, Special Instruction, Use of 5P-2420 Testing and Lubrication Group

Undercarriage Reconditioning Bulletin MP-13.1 (12/87), Sealed and Lubricated Track Servicing Procedure for Non-Restrained Track (use of 5P-3010 Deburring Tool)

Illus No.	Part No. and Description	Usage
	Form SEBF8554 Track Press Assembly Specification Decals	Provides maximum operating pressures for track press
1	FT1238 Vacuum Tank Assembly	Remove oil from pins before disassembling for reconditioning
	5P-3010 Deburring Tool	Clear and rechamfer the oil reservoir hole
2	5P-1725	Install rubber stoppers in track pins on D11N, D10, D10N, D9L, D9N, D9, D8L, D8N, D8, D7H, D7, 983, 977 and 973
2	5P-7392 Stopper Installation Tool Group	Install rubber stoppers in track pins on D6H, D6, D5H, D5, D4H, 963, 955, 953, 951, 943, and 941
2	6V-0136 Stopper Installation Tool Group	Install rubber stoppers in track pins on D3, 931, and 935
2	5P-7419 Installer Plug	Install plug in rubber stopper

FT1238 Vacuum Tank Assembly



FT1238 Vacuum Tank Assembly		
Item	Description	Detail
2	Tank	19 L (5 gal) capacity, air tight and capable of with-standing 635 mm (25 in) Hg. vacuum.
3	Carrying handle	

Item	Part Number	Description	Detail
1	5P-6014	Nylon Tubing	Connected to tank with 13 mm (0.50 in) minimum internal diameter rubber hose
2	5P-0306	Vacuum Transducer	Connect vacuum side directly to tank

FT1238 Vacuum Tank Assembly (Continued)



Item	Part Number	Description
1	5P-7419	Plug Installer
2	5P-1725	Stopper Installation Tool Group
3	6V-0136	Stopper Installation Tool Group
4	5P-7392	Stopper Installation Tool Group

8T-0831 Lubricator Tip

SMCS Code: 4170-010
Model: Cat® Sealed and Lubricator Track
Warranty: Six Months



- Replaces discontinued 5P-2415 Lubricator Tip
- Diameter of tip has been increased from 3.20 to 4.80 mm (0.125 to 0.1875 in)
- Provides a better seal and will not break as easily
- Used with discontinued 5P-2420 Track Seal and Lubricator Testing Group

Part Number	Description
8T-0831	Tip - Lubricator

170-5665 Gauge (500 PSI)

FT2724 Gauge Connection

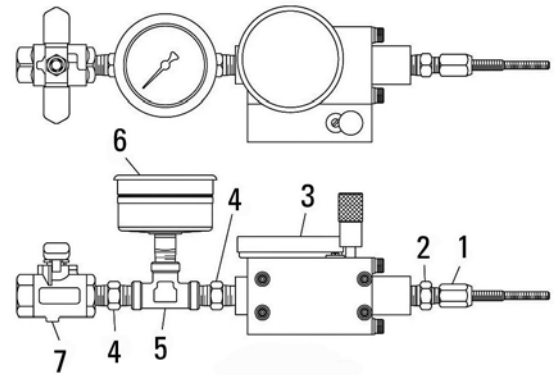
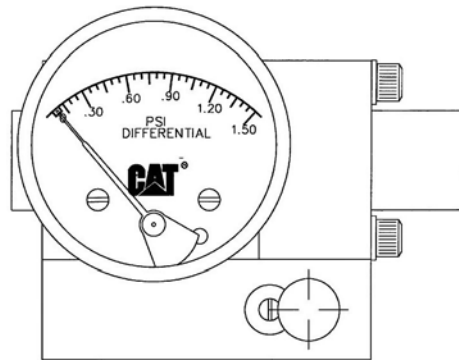
Warranty: 170-5665 Gauge (500 PSI): Six Months, FT2724 Gauge Connection: None

- Used to test roller, idler, and track joints (20 PSI pressure test procedure)

(Continued)

170-5665 Gauge (500 PSI) (Continued)**FT2724 Gauge Connection**

Warranty: 170-5665 Gauge (500 PSI): Six Months, FT2724 Gauge Connection: None



Item	Part Number	Description
1	8T-0831	Tip - Lubricator
2	4C-7099	Hex Nipple, 1/4 x 1/8 NPT
3	170-5665	Pressure Tester
4	5P-8998	Nipple - Pipe
5	006-0210	Pipe Tee
6	8T-0848	Gauge GP - Pressure (3)
7	4C-7090	Valve

170-5664 Test and Fill Machine**Essential Tool**

SMCS Code: 0729-044, 4159, 4175, 4180

Model: Cat® Rollers, Idlers, and Track Joints

Warranty: Six Months

- Used to pressure test and fill undercarriage components such as rollers, idlers, and track joints
- Simple, easy-to-use controls are designed for one-person operation with a start button located on nozzle handle
- Accurately fills joints within 80 to 90% of total capacity (no fill charts required)
- Performs a nitrogen pressure test with improved test results compared to vacuum testing
- Pulls vacuum on rollers, idlers, and track joints to evacuate component for proper fill
- Fills components with oil through plug hole without using an adapter
- Equipped with LCD display
- Pneumatic wheels for added convenience

References

NEHS0785, Using the 170-5664 Test and Fill Machine

PEVN4776, Undercarriage Test and Fill Machine (Video)

Power	120/220 V (single-phase)
Frequency	50 - 60 Hz
Electric motor	1/3 Hp
Pressure check period	10 seconds
System relief setting	1379 kPa (200 PSI)
Overall size	1575 x 889 x 1575 mm (62 x 35 x 62 in)
Weight	136 kg (300 lb)



(Continued)

170-5664 Test and Fill Machine (Continued)

Essential Tool

SMCS Code: 0729-044, 4159, 4175, 4180

Model: Cat® Rollers, Idlers, and Track Joints

Warranty: Six Months

Part Number	Description
170-5664	Test and Fill Machine

Test Tubes



Item	Part Number	Description	Size
Test Tubes			
1	216-2856	Test Tube	50 ml
2	183-9303	Test Tube	1000 ml
Not shown			
--	8T-0831	Tip - Lubricator	--
--	188-5058	Blocking Valve	--
--	188-5059	Air Valve	--
--	188-5060	Solenoid	--
--	188-5061	Relief Solenoid	--
--	188-5062	Transducer	--

275-9607 Test and Fill Machine

Essential Tool

SMCS Code: 0729-044, 4159, 4175, 4180

Model: Cat® Rollers, Idlers, and Track Joints

Warranty: Six Months



- Used to test and fill track joints, rollers, and idlers to the recommended Cat specifications
- Used with FT1238 Trac Vac, for removing oil from components
- Proper testing and filling of undercarriage components (track pins, rollers, and idlers) is essential for extending service life of undercarriage components
- Test undercarriage components using a pressure test which measures loss-of-pressure over a ten second period
- Oil-fill-cylinder dispenses a pre-measured volume of oil with a single stroke capacity of 510.0 mL (17.3 oz)
- Pressure differential test is used to identify leaks and results in improved testing compared to vacuum testing
- Pulls a vacuum in rollers, idlers, and track joints to enable quick oil-fill times
- Accurately fills required volume of total joint capacity, which will ensure oil reaches seals
- In-line extractor/dryer and air regulator are built into cabinet to provide a clean, dry, regulated [138 kPa (20 PSI)] air supply
- Uses a remote, air-powered pump to dispense oil from a 19 L (5 gal) container
- Pump can be adapted to fit larger oil containers, such as 208 L (55 gal) drums
- Simple, easy-to-use controls are designed for 1-person operation
- Unit is portable for use on service trucks or shop carts

Reference

NEHS0942, Using the 275-9607 Portable Test and Fill Machine

(Continued)

275-9607 Test and Fill Machine (Continued)**Essential Tool**

SMCS Code: 0729-044, 4159, 4175, 4180

Model: Cat® Rollers, Idlers, and Track Joints

Warranty: Six Months

Pressure check differential	10 seconds
System pressure (relief valve setting)	1378 kPa (200 PSI)
Oil-fill-cylinder capacity	510 mL (17.3 oz)
Minimum recommended oil temperature	27°C (80°F)
Maximum recommended oil temperature	49°C (120°F)
Oil Types	
Sealed and lubricated track	8T-9582; 80W-90 EP Gear Oil, 19 L (5 gal) pail
Sealed and lubricated (arctic) track	242-3466 75W-140 EP Gear Oil, 19 L (5 gal) pail
Rollers and idlers	8C-3698 SAE 30W Oil, 19 L (5 gal) pail
Rollers and idlers (arctic)	109-0926 ¹ 1 SAE 30W Oil, 19 L (5 gal) pail
¹ Not serviced	

Part Number	Description
275-9607	Test and Fill Machine

Service Parts for 275-9607 Test and Fill Machine

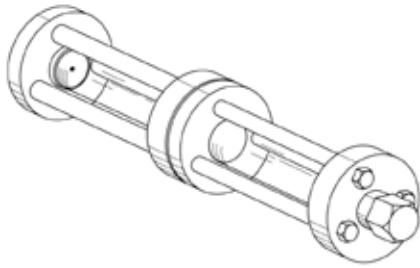
Part Number	Description
Service Parts	
188-5058	Blocking Valve
282-9092	Graduated Cylinder
282-9093	Air Switch
4C-7359	Pump
4C-7234	Pail Cover
4C-7146	Adapter Plate
4C-8964	Bung Adapter
4C-8858	Coupler
4C-7159	Fitting
8T-0831	Tip - Lubricator

216-2856 Test Tube

SMCS Code: 0729-044, 4159, 4175, 4180

Model: All track

Warranty: Six Months



- Used to visually show operator how oil flows from inner cavity of pin to outer cavity - verifies "test and fill machine" is correctly filling track pins
- Simulates inner and outer cavity of track pins
- If oil fills first chamber and then stops, "test and fill machine" is not working properly and should be serviced or repaired
- 2 oil fill level marks make sure pin is filled between 80 and 90%
- Hex fitting is used to drain second chamber

Part Number	Description
216-2856	Test Tube

References

NEHS0785, Using the 170-5664 Test and Fill Machine

PEVN4776, Undercarriage Test and Fill Machine (Video)

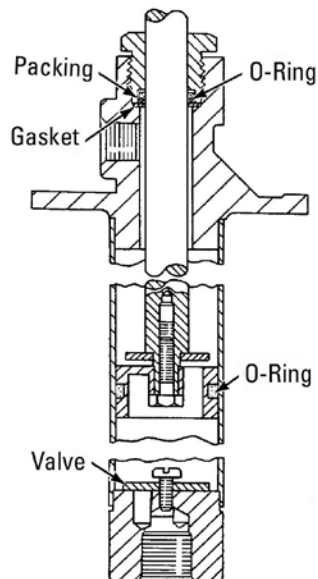
8T-3115 Portable Track Lubricator

6V-7921 Seal Kit

SMCS Code: 4169-017, 4175-041, 4170-016, 4170-017, 4159-017

Model: D10, D10N, D11N, D7G, D8K, D9H, D9N, 589, 973

Warranty: Six Months



- Provides easy method of lubricating track link joints in field
- Can be used to evacuate track link joints, and then to fill them to correct level
- Easier to transport than former 5P-2420 Track Lubricator, and does not need compressed air to operate
- 6V-7921 Seal Kit is used to service the 8T-3115 Portable Track Lubricator; location of the seal kit components is shown in the illustration; gasket that goes between the lid and the body of the pump is included in the kit, but not shown in the illustration

Part Number	Description
6V-7921	Seal Kit
8T-3115	Portable Track Lubricator

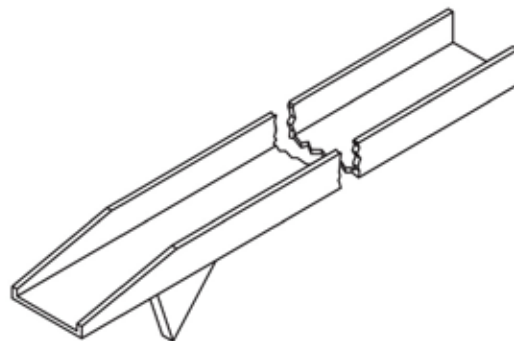
FT0956 Channel Guide Bar

SMCS Code: 4170-010

Model: D8H, D8K, D9H, 215C

Warranty: None

- Used to guide 1P-3533 Carrier Bar onto front idler on machines where length of carrier bar is not sufficient to reach front idler

**254-8168 Grease Pin Kit**

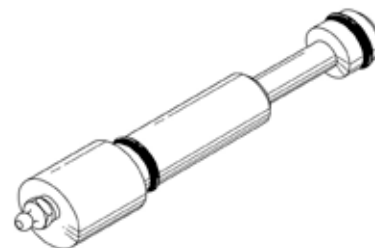
SMCS Code: 4159-017, 4169-017, 4170-016, 4170-017, 4175-041

Model: 354C, 364, 385C Excavators

Warranty: Six Months

Part Number	Description
254-8168	Grease Pin Kit
Service/Repair Parts	
3B-8489	Adapter STR (Dry-seal to PTF)
5D-1152	O-ring Seal (2)

- Used to lubricate greased track link joints in field

**Track Installation Tools**

SMCS Code: 4170-010

Model: Cat® Track-Type Machines

Warranty: Six Months

- Can be used on all track-type tractors to make track installation much easier and safer

Item	Part Number	Description
1	1P-3533	Carrier Bar
2	1P-3532	Track Block Assembly
3	1P-3545	Chain Coupling Tool Group



5P-6214 Track Block Assembly

SMCS Code: 4170-029

Model: D3 Tractor, 931 Track-Type Loader

Warranty: Six Months



- Can also be used on triple grouser track when larger 1P-3532 Track Block Assembly is too big to be used effectively

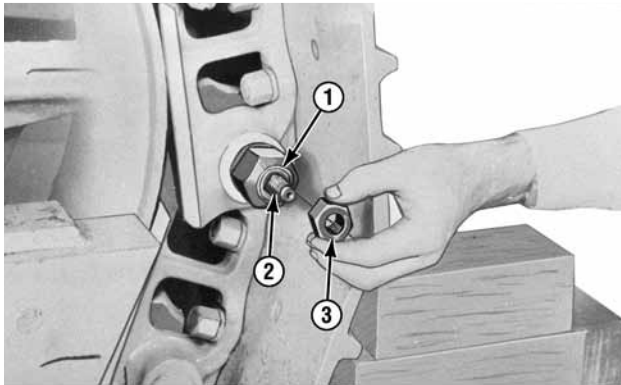
Part Number	Description
5P-6214	Track Block Assembly

Master Pin Plug Removal Tools

SMCS Code: 4170-011

Model: Cat® Track-Type Machines

Warranty: Six Months



- Used for easy removal of threaded taper plugs used in some earlier master pins

Thread Size				
Item	Description	12.7 mm (1/2 in NF)	9.5 mm (3/8 in NF)	15.9 mm (5/8 in NF)
1	Sleeve	2B-2108	7B-2709	--
2	Screw	3B-1027	2F-0040	3B-1022
3	Nut	--	7B-2710	3B-1023

Equalizer Bar Mounting Plate Installation Tools

SMCS Code: 7206-005

Model: D10

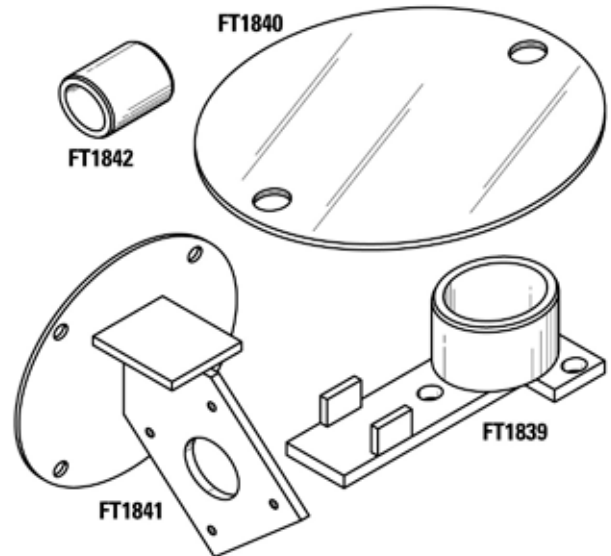
Warranty: None

- Used to install 7T-1812 equalizer bar mounting plate for repair of D10 Tractors equipped with 2-piece joint at equalizer bar-to-roller frame connection
- Used with line boring equipment, 1P-4000 Boring Bar Group, or similar equipment

Reference

SMHS8431-01, Special Instruction

Part No.	Description
FT1839	Fixture
FT1840	Plate
FT1841	Fixture
FT1842	Bearing



Undercarriage Tools

Clamps for Shipping and Storage of Track Assemblies

SMCS Code: 0661

Model: See Chart

Warranty: Six Months

- 8 clamps (10 on track groups for D10 and D11N Tractors) are equally spaced in sets of 2 around rolled track groups to keep them together during shipping and storage
- Use chart to find correct size and length of threaded rod to use with each clamp and track shoe width; order 2 clamps for each set required; threaded rod, nuts, and washers not included



Typical Track Clamp

(Continued)

Clamps for Shipping and Storage of Track Assemblies (Continued)

SMCS Code: 0661

Model: See Chart

Warranty: Six Months

Machine Model	Standard Track Shoe Width	Threaded Rod Length	Rod Diameter	Clamp ¹
D11N	711 mm (28 in)	457 mm (18 in)	20.0 mm (0.75 in)	9A-0436
D10N	610 mm (24 in)	356 mm (14 in)	20.0 mm (0.75 in)	9A-0436
D10	711 mm (28 in)	457 mm (18 in)	20.0 mm (0.75 in)	9A-0436
D9N	610 mm (24 in)	356 mm (14 in)	20.0 mm (0.75 in)	9A-0436
D9L	610 mm (24 in)	356 mm (14 in)	20.0 mm (0.75 in)	9A-0436
D9H	610 mm (24 in)	356 mm (14 in)	20.0 mm (0.75 in)	9A-0436
D8N	559 mm (22 in)	381 mm (15 in)	20.0 mm (0.75 in)	9A-0437
D8L	559 mm (22 in)	381 mm (15 in)	20.0 mm (0.75 in)	9A-0437
D8K	559 mm (22 in)	381 mm (15 in)	20.0 mm (0.75 in)	9A-0437
D7H	559 mm (22 in)	381 mm (15 in)	20.0 mm (0.75 in)	9A-0437
D7G	508 mm (20 in)	305 mm (12 in)	16.0 mm (0.625 in)	
D6H	559 mm (22 in)	381 mm (15 in)	20.0 mm (0.75 in)	9A-0437
D6D	457 mm (18 in)	254 mm (10 in)	16.0 mm (0.625 in)	
D5H	406 mm (16 in)	305 mm (12 in)	16.0 mm (0.625 in)	9A-1542
D5B	406 mm (16 in)	305 mm (12 in)	16.0 mm (0.625 in)	9A-1542
D4H	356 mm (14 in)	254 mm (10 in)	20.0 mm (0.75 in)	9A-1542
D4E	406 mm (16 in)	305 mm (12 in)	16.0 mm (0.625 in)	9A-1542
D3B	305 mm (12 in)	203 mm (8 in)	16.0 mm (0.625 in)	9A-1542
¹ Order 2 clamps for each set required				

Clamps for Shipping and Storage of Track Assemblies (Continued)

Machine Model	Standard Track Shoe Width	Threaded Rod Length	Rod Diameter	Clamp ¹
227	711 mm (28 in)	508 mm (20 in)	16.0 mm (0.625 in)	
245	762 mm (30 in)	508 mm (20 in)	20.0 mm (0.75 in)	9A-0436
235	762 mm (30 in)	559 mm (22 in)	16.0 mm (0.625 in)	
225	559 mm (22 in)	457 mm (18 in)	16.0 mm (0.625 in)	9A-1542
215	508 mm (20 in)	406 mm (16 in)	16.0 mm (0.625 in)	9A-1542
973	508 mm (20 in)	305 mm (12 in)	20.0 mm (0.75 in)	
963	457 mm (18 in))	254 mm (10 in)	20.0 mm (0.75 in)	
953	381 mm (15 in)	279 mm (11 in)	20.0 mm (0.75 in)	9A-1542
943	356 mm (14 in)	254 mm (10 in)	20.0 mm (0.75 in)	9A-1542
931B	305 mm (12 in)	203 mm (8 in)	20.0 mm (0.75 in)	9A-1542
¹ Order 2 clamps for each set required				

4C-4380 Belt Handling Arrangement

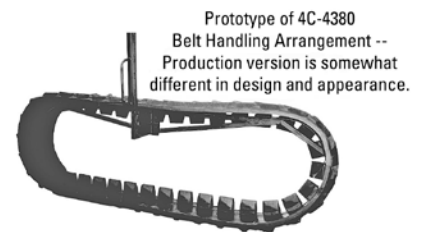
SMCS Code: 4198-010

Model: Challenger 65, 75 and 85 Tractors

Warranty: Six Months

Part Number	Description
4C-4380	Belt Handling Arrangement

- Primary use is to remove and install rubber belted track; secondary use is to remove and install outer drive and idler wheels; only C-hook portion of tool, along with an included adapter, is required for latter operation
- One-man operation
- Can be disassembled for easy transportation and storage
- Height of machine off ground not critical



Spacer Blocks

SMCS Code: 4198-010, 4198-011, 4198-012

Model: DV87 Traverse Tractor (Federal and Defense Products Tractor, Based on Challenger 65D)

Warranty: None

FT2526 Spacer Block (Idler)

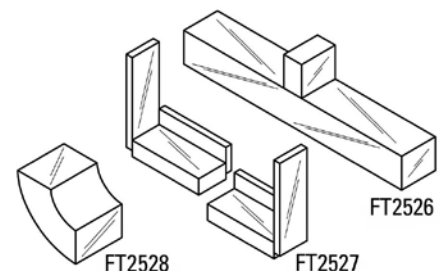
- Used to block the upper guide roller to remove and install track belt
- Acts as spacer block to hold bogie arm in position for belt removal and installation
- Material: ASTM A36 steel

FT2527 Spacer Assembly Block (Lower Roller)

- Used to block lower roller group to remove and install track belt
- Acts as spacer block to hold bogie assembly in position for belt removal and installation
- Two pieces required, 1 right-hand and 1 left-hand
- Material: ASTM A36 steel

FT2528 Spacer Block (Front Axle)

- Used to block front axle group to remove and install track belt
- Acts as a wedge between axle and pivot pin to prevent axle from tipping forward when belt tension is released
- Material: ASTM A36 steel



Reference

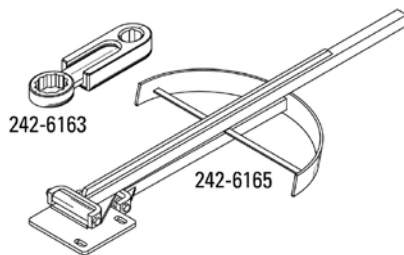
January 1996 Service Supplement, DV87 Traverse Tractor

Hydrostatic Pump and Track Installation Tools

SMCS Code: 4198-012

Model: 287 and 287B Multi-Terrain Loader

Warranty: Six Months



242-6163 Hex (Extension) Wrench

- Used to remove hydrostatic pump assembly mounting bolts
- 24 mm hex end wrench with 1/2 inch square drive
- 76.2 mm (3.0 in) center-to-center distance from drive to socket

242-6165 Track Installer Assembly

- Used to install rubber tracks
- Significantly reduces installation time and effort

Part Number	Description
242-6163	Hex (Extension) Wrench
242-6165	Track Installer Assembly

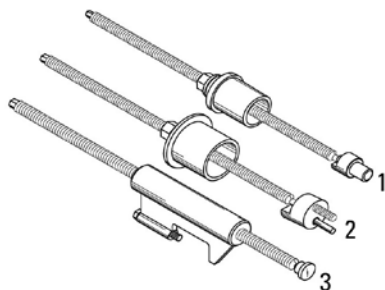
Installers and Remover

Essential Tool

SMCS Code: 4151

Model: 277C (JWF1-Up), 287C (MAS1-Up), and 297C (GCP1-Up) Multi-Terrain Loader

Warranty: Six Months



- 292-3838 and 292-3839 Installers are used together to push track roller frame onto front and rear torsion axles
- A pair of 292-3840 Removers are used to push track roller frame off torsion axles

Item	Part Number	Description
1	292-3838	Installer
2	292-3839	Installer
3	292-3840	Remover

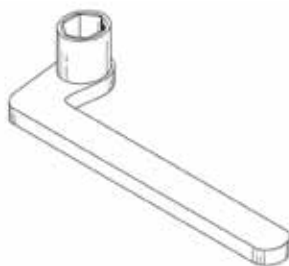
292-9203 Offset Wrench

Essential Tool

SMCS Code: 7217, 4151, 4180

Model: 277C (JWF1-Up), 287C (MAS1-Up), 297C (GCP1-Up) Multi-Terrain Loader

Warranty: Six Months



- Used to remove and install mounting bolts for bogie axles of Level II undercarriage
- Used with 194-4944 Ratchet and 3/4 inch socket
- Six point socket 3/4 inch

Part Number	Description
292-9203	Offset Wrench

Undercarriage Torsion Axle Tools for Multi-Terrain Loader

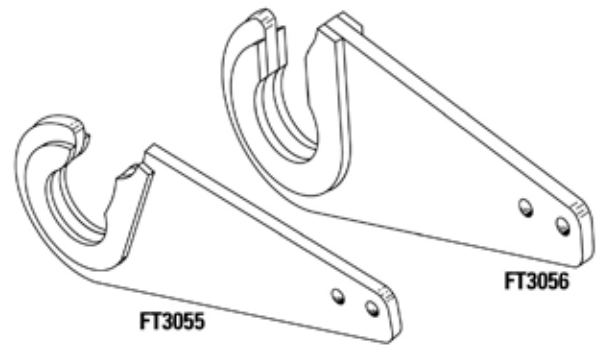
SMCS Code: 4151

Model: 277C MTL (JWF1-Up), 287C MTL (MAS1-Up), 297C MTL (GCP1-Up) Multi-Terrain Loader

Warranty: None

- Used together to remove and install track roller frame
- Used with a lever hoist to adjust center-to-center distance of front and rear torsion axles

Part No.	Description
FT3055	Tensioner Assembly, Rear Axle
FT3056	Tensioner Assembly, Front Axle



Undercarriage Tools

Undercarriage Tools for Challenger 34, 45, and 55

SMCS Code: See below

Model: Challenger 35, 45, and 55

Warranty: Six Months

Guide Studs

SMCS Code: 4150-010

- Used to guide undercarriage into place during assembly and make removal easier and faster
- For installation, put 1U-9785 in top hole of drive wheel; put 1U-6130 in bottom hole of drive wheel; put 1U-9817 in upper right hard bar mounting hole
- For removal, put 1U-9785 in top hole of drive wheel and put 1U-9817 in top center hard bar mounting hole
- Taper on end of stud helps align hole during installation
- Wrench flat on end of pin makes installation and removal of pins much easier
- Heat treated for hardness and durability



Part Number	Description	Length	Diameter	Wrench Flat Thickness	Thread
1U-6130	Guide Stud	254 mm (10 in)	23.9 mm (0.94 in)	19 mm (0.744 in)	M24 x 3
1U-9785	Guide Stud	279 mm (11 in)	23.9 mm (0.94 in)	19 mm (0.744 in)	M24
1U-9817	Guide Stud	305 mm (12 in)	23.9 mm (0.94 in)	19 mm (0.744 in)	M24 x 3

1U-9097 Wrench

SMCS Code: 4197

- Used to remove and install nut securing accumulator (nut located between the accumulator and right or left-hand manifold)
- Thin open end wrench easily fits onto nut (not enough space to insert thickness of standard wrench)
- Wrench opening: 47.625 mm (1 7/8 in)
- Thickness: 6.3 mm (0.25 in)



Part Number	Description
1U-9097	Wrench

Undercarriage and Track

1U-9058 Hose Group

SMCS Code: 4197-025

Undercarriage Tools



- Used to adjust tension on Mobil-Trac belts (all parts come assembled as shown)
- Allows Challengers hydraulic system to increase tension by directing oil from implement valve through hose assembly and into tension cylinder
- Hose group directs oil from tension cylinder back into sump during detensioning
- One end of hose assembly attaches to tension cylinder and other end to implement valve located at the rear of Challenger
- Items (14), (15), and (16) are only required when cylinder guard is in place
- Includes a hose and hose clamp for bleeding oil from nitrogen accumulator (part of belt tensioning system)
- 5P-6442 Hose
Length: 200 cm (79 in)
Inside diameter: 6.3 mm (0.25 in)

Reference

SENR8300, Service Manual

Item	Part Number	Description
1	5P-6442	Hose
2	1P-4278	Clamp Hose
3	6V-4144	Coupler Assembly (For 42000 kPa)
4	1U-9649	Hose Assembly
5	2D-7325	Pipe Tee
6	8T-0859	Gauge, 25,000 kPa, (3600 PSI)
7	8S-7169	Coupling
8	5P-8998	Nipple - Pipe
9	1S-8937	Valve - Needle

Item	Part Number	Description
10	6V-3966	Pressure Test Valve, 1/4 in-18 NPTF external
11	1U-9650	Hose Assembly
12	6B-5072	Reducing Bushing (2)
13	9X-2018	Nipple Assembly
14	6V-4143	Coupler Assembly
15	3B-6552	Elbow - 90° Pipe
16	8T-3613	Valved Nipple, External, 1/8 in NPT
17	6V-7145	Case
18	235-0853	Oil Sorbent
--	1U-9058	Hose Group

FT2536 Undercarriage Support Group

SMCS Code: 4150-010

Model: Challenger 35, 45, and 55 Agricultural Tractors

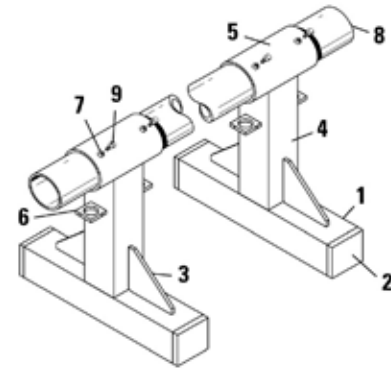
Warranty: None

- Used to support undercarriage while gauge change procedure (width between track belts) is being performed
- Used with a 5P-9694 Ratchet Hoist
- Cross-tube of support installs through rear counterweight tube mounting hole
- Securely supports undercarriage, which reduces time involved in gauge change
- Works on both right or left undercarriage
- Support allows gauge changes to be done by one person

References

SEHS9982, Special Instruction, Procedure to Change Track Gauge

SEVN3762, Video Tape, Procedure to Change Track Gauge



Item	Description	Material	Quantity
1	Tube	SAE 1026 steel	2
2	Plate	SAE 1020 steel	4
3	Gusset	SAE 1020 steel	4
4	Tube	SAE 1026 steel	2
5	Tube	SAE 1026 steel	2
6	Plate	SAE 1020 steel	8 ¹
7	Hex Nut (full)	--	4
8	Tube	SAE 1026 steel	1
9	Bolt	--	4

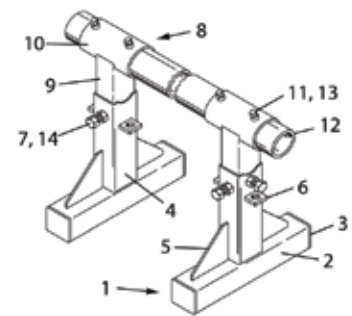
¹ four are used with vehicle undercarriage**FT2738 Undercarriage Support Group**

SMCS Code: 4150-010

Model: Challenger 35, 45, and 55 Agricultural Tractors

Warranty: None

- Used to hold Mobile Track System (MTS) in an upright position when removed from machine
- Allows mobile track storage away from machines work area
- Works on any mobile track with 102 mm (4.0 in) horizontal tube in undercarriage group
- Minimum height adjustment: 527.0 mm (20.75 in)
- Maximum height adjustment: 807.0 mm (31.75 in)



Item	Description	Qty.
1	Base Support Assembly	
2	Bottom Support Tube	2
3	End Cover Plate	4
4	Vertical Support Tube	2
5	Gusset Plate	4
6	Anchor Plate	4
8	Adjustable Support Assembly	
9	Vertical Adjustable Tube	2
10	Horizontal Slide Tube	2
12	Horizontal Support Tube	1

(Continued)

Undercarriage and Track

FT2738 Undercarriage Support Group (Continued)

SMCS Code: 4150-010

Model: Challenger 35, 45, and 55 Agricultural Tractors

Warranty: None

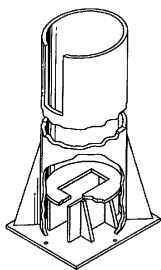
Item	Part Number	Description	Qty.
7	6B-6682	Nut (3/4 - 16)	4
11	6V-8188	Nut (1/2 - 13)	4
13	0S-1621	Bolt (1/2 - 16)	4
14	2H-3725	Bolt (3/4 - 16) 38.0 mm (1.5 in) long	--

9U-7835 Cylinder Fixture Assembly

SMCS Code: 4197-017

Model: All 65, 75, and 85 Challengers

Warranty: Six Months



- Used to disassemble and assemble tension cylinder in vertical position (provides quicker and simpler assembly of cylinder when held vertically)
- Allows tension spring to be vertically lowered into cylinder housing (less chance of damage to cylinder walls)
- Eliminates scratching or marring of inner cylinder walls which can occur when assembling cylinder in horizontal position
- Designed with stops to more easily tighten cylinder head to rod
- Fixture should be securely fastened to floor to prevent rotation during cylinder overhaul

Width of base	400.0 mm (15.8 in) square
Overall height	909.0 mm (15.8 in)
Approximate weight	45 kg (100 lb)

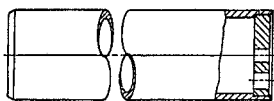
Part Number	Description
9U-7835	Cylinder Fixture Assembly

9U-5109 Support Group

SMCS Code: 7217 2D010

Model: Challenger 65B, 75 Agricultural Tractors, Models T466 and T569

Warranty: Six Months



- Used for quick, easy removal and installation of major bogie
- Service Part: 8S-2332 Bolt

Reference

SEN4973, Service Manual

Diameter	88.9 mm (3.5 in)
Length	787.4 mm (31 in)
Weight	3.62 kg (8 lb)

Part Number	Description
9U-5109	Support Group

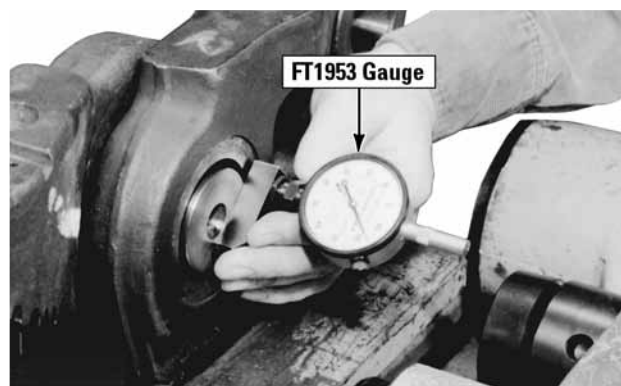
FT1953 Gauge

SMCS Code: 4169-017, 4170-017

Model: D10, D9N

Warranty: None

- Dial indicator group available as fabricated tool for use in track assembly
- Can be used to measure both pin and bushing projection on track assemblies

**Shop Repair Tools for Two-Piece Design Positive Pin Retention Track**

SMCS Code: 4170-023

Model: Cat® Track-Type Machines

Warranty: Six Months

- Used for repairs in the shop on positive pin retention track
- New track press assembly tooling and new jaws (or modification of the original jaws) are required; new tooling and information for modifying original jaws is available from manufacturer of your track press
- Extruder assembly as used on PPR track is compatible with Wolfe, Centurion, and OTC Track Presses
- Allows easy service of extruder face

References

SEBF8546, Undercarriage Reconditioning Bulletin, Shop Repair Procedure for Track Links with Positive Pin Retention

SEVN1347, Video Tape, "Shop Repair Positive Pin Retention Track" Major Equipment Guide

NEHC2008, Caterpillar 350 Ton Track Press Equipment

Item (includes)	Description
2	Plug
2	Pin
4	Extruder Assembly (142-5895 ¹ Extruder Body) D10 and D10N
4	Extruder Assembly (discontinued 141-2396 Extruder Body) D9L and D9N
4	Extruder Assembly (198-5349 Extruder Body) D8N
¹ Cancelled	

(Continued)

Undercarriage and Track

Shop Repair Tools for Two-Piece Design Positive Pin Retention Track (Continued)

SMCS Code: 4170-023

Model: Cat® Track-Type Machines

Warranty: Six Months

Undercarriage Tools



Item	Part Number	Description
1	8T-3211	Handle Assembly
2	8T-3216	Anvil Assembly
2	2L-6726	Ring
3	3D-2898	Seal
4	5B-2547	Spring
Not Shown		
--	198-5343	Extruder Assembly D9L and D9N with PPR

Axle Installation Fixture Groups

SMCS Code: 3259-012, 4192-017

Model: Challenger Tractor

Warranty: Six Months

- Used to repair Challenger 65 minor bogie axle assemblies if damaged due to a worn axle shaft
- No longer necessary to replace complete axle assembly
- Accurately positions axle within axle assembly support (length axle extends beyond both sides of axle support is critical -- it controls preload applied to metal-to-metal seal (duo-cone) at inside end of track roller)

Axle Installation Fixture Group by Serial Number	
4C-8701	
Challenger 65 (7YC)	
Challenger 75 (4CJ)	
MT116 (3YL)	
MP73 (3YL)	
MT73 (8KL)	
MP116 (9HL)	
MP128 (8ZL)	
Challenger 65C (2ZJ1-499)	
Challenger 75C (4KK1-499)	
Dimensions	508 mm (20 in) long
	424.0 mm (16.7 in) wide
	419.0 mm (16.5 in) high
Weight	48.8 kg (107 lb)

(Continued)

Axle Installation Fixture Groups (Continued)

SMCS Code: 3259-012, 4192-017

Model: Challenger Tractor

Warranty: Six Months

Works with the following		
Axle Assembly	Axle	Retainer (Seal)
8R-9022	8R-8780	8R-9006
100-3153	8R-8780	8R-9006

Reference for Axle Installation Fixture Groups

SEHS9285, Special Instruction (included with 4C-8701 Group)

Item	Part No.	Description
4C-8701 Axle Installation Fixture Group (prototype tools shown)		
1		Fixture Group
2		Pin
3	FT2369	Handle Assembly
4		Spacer Assembly
6	FT2335	Driver Assembly
7		Special Instruction SEHS9285



Item	Part Number	Description
5	4C-8697	Spacer Assembly
5	4C-8698	Spacer Assembly (Not shown)
5	4C-8699	Spacer Assembly (Not shown)

4C-9439 Bearing Nut Spanner Wrench

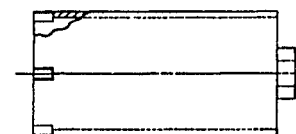
SMCS Code: 4150-010

Model: Challenger 65 Tractor, Model T466

Warranty: Six Months

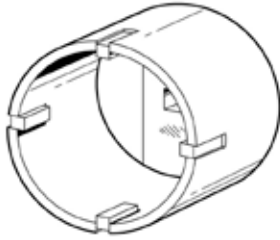
Part Number	Description
4C-9439	Bearing Nut Spanner Wrench

- Used to remove and install the bearing nut on the bogie axles
- Will not slip
- Provides fast, easy way to set bearing loads
- Use with 1/2 inch square drive
- Dimensions: 6.35 mm (2 1/2 in) diameter, 12.7 cm (5 in) long



9U-7523 Axle Nut Spanner Wrench

SMCS Code: 4150-010
Model: 65C and 75C Challenger
Warranty: Six Months

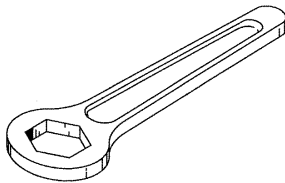


- Used to remove and install axle nut (fastest, easiest method)
- Used with 3/4 in drive ratchet or torque wrench
- Easy to set bearing load -- will not slip
- Diameter: 133.4 mm (5.25 in)
- Length: 127 mm (5 in)

Part Number	Description
9U-7523	Axle Nut Spanner Wrench

126-5762 Box End Wrench (Snubber Nut)

SMCS Code: 6307-010, 5569-025
Model: 525 Log Skidders Equipped with ESCO Series 2000 Sorting and Bunching Grapples
Warranty: Six Months



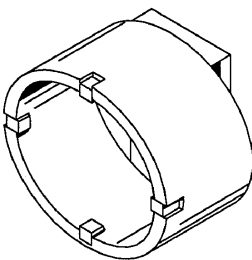
- Used to adjust snubber nut to obtain proper front-to-rear and side-to-side grapple head dampening
- Wrench is required for daily maintenance of grapple
- Heavy-duty design and construction is necessary for proper maintenance

Wrench opening (box end)	3 in hex
Overall length	54.00 mm (21.25 in)

Part Number	Description
126-5762	Box End Wrench (Snubber Nut)

1U-6230 Axle Bearing Nut Spanner Wrench

SMCS Code: 3250-010
Model: 65C (2ZJ500-UP), 70C (2YL1-UP), 75C (4KK500-UP), and 85C (9TK1-UP) Challengers
Warranty: Six Months



- Used to remove and install 4H-6507 Axle Bearing Nut
- Used with 3/4 inch square drive wrenches (can be used with torque wrench)
- Grips nut tightly -- will not slip
- Reduces chance of damage and saves time -- eliminates use of hammer and chisel

Height	100 mm (4 in)
Inside diameter	114.3 mm (4.5 in)
Distance between pins	105.75 mm (4.16 in)
Square drive	3/4 in

Part Number	Description
1U-6230	Axle Bearing Nut Spanner Wrench

Seal Installers for VFS-50 and VFS-70 Mid-Rollers and Idlers

SMCS Code: 4159, 4180

Model: VFS-50 and VFS-70

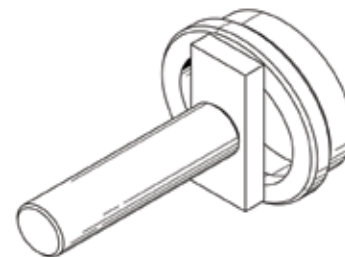
Warranty: Six Months

Part Number	Description	Used On
156-1029	Seal Driver Group	153-6420 Seal on VFS-50 Mid Rollers
156-1030	Seal Driver Group	140-6344 Seal on VFS-50 and VFS-70 Idlers ¹
156-1032	Seal Driver Group	153-6421 Seal on VFS-70 Mid Rollers

- Used to easily install seals in mid rollers and idlers
- Decreases possibility of damage during installation

Reference

REN1642, Service Manual

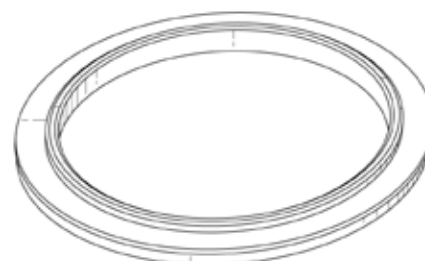
¹ 140-6344 Discontinued**204-3513 Seal Driver**

Model: D7R and D8R Track-Type Tractor

Warranty: Six Months

Part Number	Description
204-3513	Seal Driver

- Used to correctly install new roller frame seals
- Made of lightweight, high strength aluminum

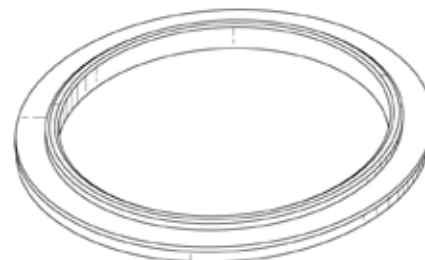
**214-9540 Seal Driver**

Model: D10R Track-Type Tractor

Warranty: Six Months

Part Number	Description
214-9540	Seal Driver

- Used to correctly install roller frame seal
- Designed specifically for this application
- Quickly and accurately installs seal to correct depth
- Helps eliminate possible seal damage caused by other tooling
- Made from high-strength aluminum (lightweight, yet durable)

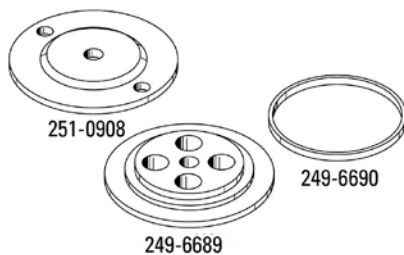


Pivot Shaft Seal Installation Tools for D9R and D10R Track-Type Tractor

Essential Tool

Model: All D8L, D9L, D9N, D9R, D9T, D10N, D10R, and D10T Track-Type Tractors

Warranty: Six Months



- Used to install pivot shaft seal into retainer and also to install retainer assembly onto roller frame
- Prevents damage to seal during assembly process

Reference

REN3927, Service Manual, Disassembly and Assembly

Part Number	Description
249-6689	Seal Installer
249-6690	Seal Installer
251-0908	Puller Plate

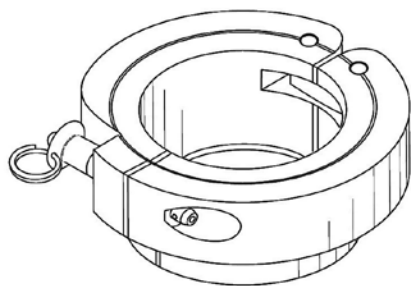
316-3490 Seal Installer

Essential Tool

SMCS Code: 4157

Model: D7E Track-Type Tractor (electric drive)

Warranty: Six Months



- Used to install 308-3053 Seal in track adjuster group
- Durable steel construction
- Hinged design for easy installation
- Replacement CL-6-BLPB-2.00 Lock-Pin available from Carr-Lane Mfg. Co.

Part Number	Description
316-3490	Seal Installer