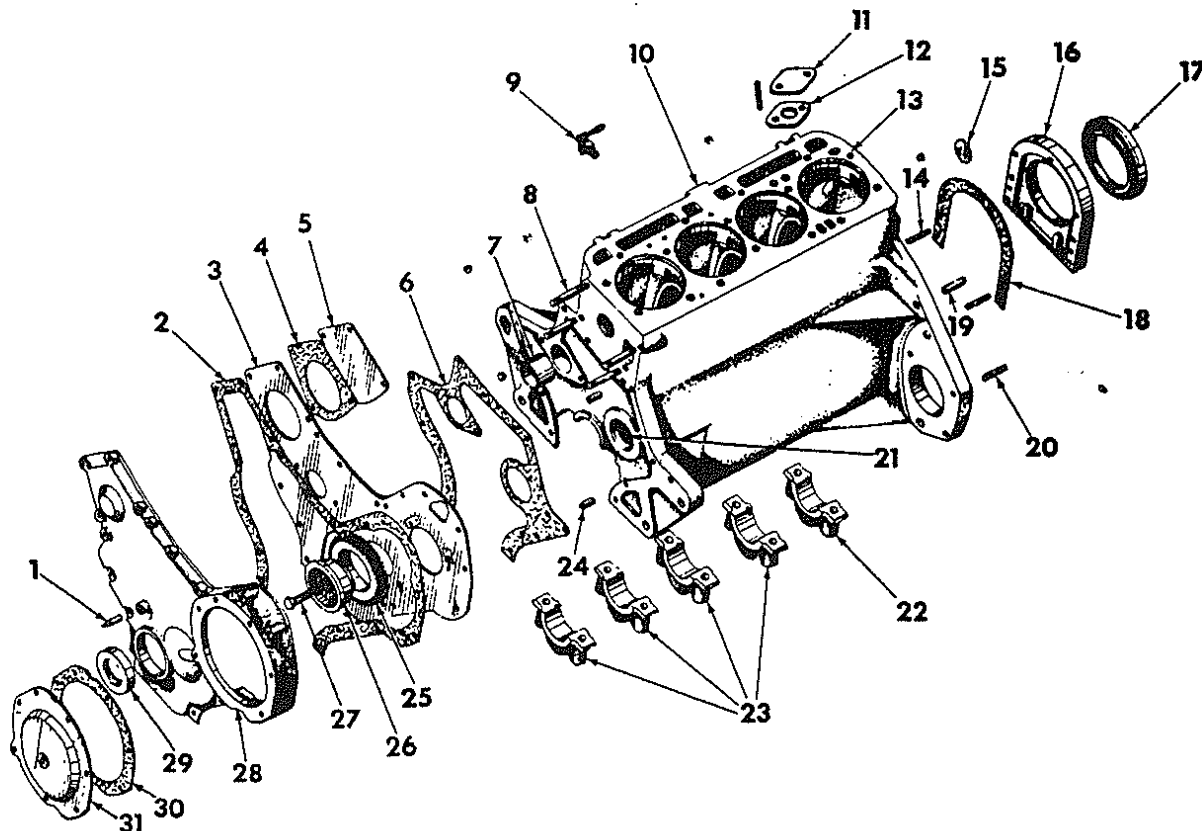




| REF. NO. | PART NUMBER | DESCRIPTION | REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|----------|-------------|-------------|
|----------|-------------|-------------|----------|-------------|-------------|

CRANKCASE

CRANKCASE - Continued



T 45-1

|   |             |                                       |
|---|-------------|---------------------------------------|
| 1 | 712 064 R1  | POINTER, timing                       |
| 2 | 708 285 R1  | GASKET, front cover                   |
| 3 | 709 901 R1  | PLATE, front cover                    |
|   | 179 816     | 5/16 x 3/4" Type 2 BOLT               |
|   | 703 638 R1  | Front plate bolt tab WASH.            |
|   | 3047 230 R1 | Front plate SCREW (2)                 |
| 4 | 703 851 R1  | GASKET, hyd pump opening              |
| 5 | 703 850 R1  | COVER, hyd pump opening               |
|   | 272 391     | 5/16 x 2-1/8" Type 2 BOLT             |
|   | 179 825     | 5/16 x 1-7/8" Type 2 BOLT (3)         |
|   | Q 397       | 3/4 x 11/32 x 16 ga WASH.             |
|   | 102 634     | 5/16" NUT (4)                         |
|   | 103 320     | 5/16" lk-WASH. (4)                    |
| 6 | 709 903 R1  | GASKET, front plate                   |
| 7 | 703 827 R1  | BUSHING, camshaft front               |
| 7 | 703 828 R1  | BUSHING, camshaft center              |
| 7 | 703 829 R1  | BUSHING, camshaft rear                |
| 8 | 703 832 R1  | STUD, water pump (4)                  |
| 9 | 106 794     | TAP, water drain (opt w/ 707 888 R92) |
| 9 | 707 888 R92 | TAP, water drain (opt w/ 106 794)     |

|    |              |                                  |             |
|----|--------------|----------------------------------|-------------|
| 10 | 3040 912 R41 | CRANKCASE                        |             |
|    |              | composed of:                     |             |
|    |              | 1 Bushing                        | 703 827 R1  |
|    |              | 1 Bushing                        | 703 828 R1  |
|    |              | 1 Bushing                        | 703 829 R1  |
|    |              | 1 Plug                           | 172 578     |
|    |              | 1 Stud                           | 703 877 R1  |
|    |              | 2 Pin                            | 141 287     |
|    |              | 4 Cap                            | 706 491 R2  |
|    |              | 1 Cap                            | 708 902 R2  |
|    |              | 10 Bolt                          | 3061 211 R1 |
|    |              | 10 Washer                        | 3061 325 R1 |
|    |              | 1 Tube                           | 751 826 R1  |
|    |              | 1 Tap                            | 106 794     |
|    |              |                                  | or          |
|    |              | 1 Insert                         | 707 888 R92 |
|    |              | 16 Insert                        | 751 610 R1  |
|    |              | 2 Pin                            | 751 834 R1  |
|    |              | 2 Pin                            | 141 244     |
|    |              | 2 Pin                            | 141 223     |
|    |              | 3 Plug                           | 103 883     |
|    |              | 2 Plug                           | 444 691     |
|    |              | 4 Stud                           | 703 832     |
|    | 103 883      | 1/8" sltd-hdls pipe PLUG (3)     |             |
|    | 444 691      | Hex soc pipe PLUG (2)            |             |
| 11 | 3042 468 R1  | COVER, hourmeter drive opening   |             |
|    | 179 791      | 1/4 x 1/2" Type 2 BOLT (2)       |             |
|    | 103 319      | 1/4" lk-WASH. (2)                |             |
| 12 | 3042 467 R1  | GASKET, hourmeter drive opening  |             |
| 13 | 751 834 R1   | INSERT, 7/16" (16)               |             |
| 14 | 141 223      | PIN, oil seal retainer dowel (2) |             |
| 15 | 172 578      | FLUG, 1-3/4" expansion           |             |

\* NOT SERVICED SEPARATELY.



BD-144C and BD-154T  
Diesel Engine

# CRAWLER TRACTORS

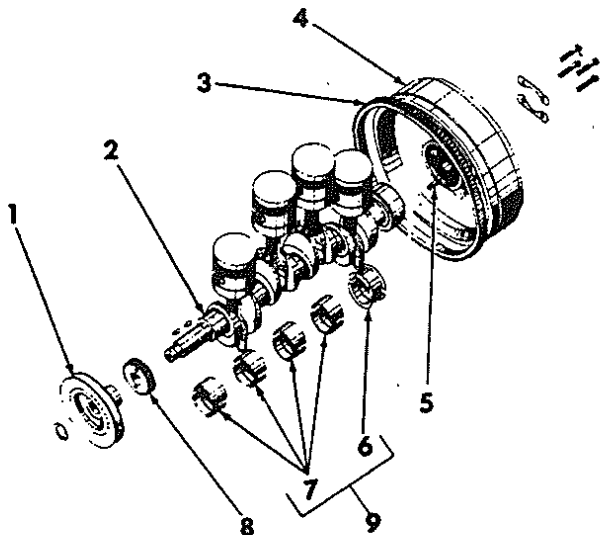
SECTION A  
TC-203A



| REF. NO.              | PART NUMBER                              | DESCRIPTION  |
|-----------------------|--|--|
| CRANKCASE - Continued |  |  |
| 16                    | 708 904 R1<br>706 732 R1<br>103 320      | RETAINER, crankshaft rear oil seal<br>Oil seal retainer BOLT (7)<br>5/16" 1k-WASH. (7)                       |
| 17                    | 3072 092 R91                             | SEAL, crankshaft rear oil  |
| 18                    | 708 907 R1                               | GASKET, rear oil seal retainer   |
| 19                    | 141 287                                  | PIN, dowel (2)   |
| 20                    | 703 877 R1                               | STUD, starter motor  |
| 21                    | 751 610 R1                               | INSERT, 1/2-NF x 1/2" idler gear   |
| 22                    | 708 902 R2                               | CAP, crankshaft rear brg   |
| 23                    | 706 491 R2<br>3061 211 R1<br>3061 325 R1 | CAP, crankshaft brg (4)<br>Brg cap BOLT (10)<br>Brg cap WASH. (10)   |
| 24                    | 141 244                                  | PIN, crankcase rear dowel (2)  |
| 25                    | 703 852 R1                               | GEAR, idler  |
| 26                    | 703 853 R11                              | SHAFT, idler gear (Includes 932 039 R1, PIN)   |
| 27                    | 181 434                                  | BOLT, 1/2-NF x 1-7/8" Type 2   |
| 28                    | 3043 217 R21                             | COVER, front (opt w/3071 302 R91)  |
| 28                    | 3071 302 R91                             | COVER, front (opt w/3043 217 R21) (Both include 703 844 R91, OIL SEAL, or 709 772 R21 & 712 064 R1, POINTER) |
|                       | 179 818                                  | 5/16 x 1" Type 2 BOLT (5)  |
|                       | 179 825                                  | 5/16 x 1-7/8" Type 2 BOLT (3)  |
|                       | 103 320                                  | 5/16" 1k-WASH. (8)   |
| 29                    | 703 844 R91                              | SEAL, crankcase front oil (opt w/709 772 R91)  |
| 29                    | 709 772 R91                              | SEAL, crankcase front oil (opt w/703 844 R91)  |
| 30                    | 703 849 R1                               | GASKET, injection pump gear cover  |
| 31                    | 3040 312 R1                              | COVER, injection pump gear   |
|                       | 179 828                                  | 5/16 x 2-1/2" Type 2 BOLT (6)  |
|                       | 179 816                                  | 5/16 x 3/4" Type 2 BOLT  |
|                       | 102 634                                  | 5/16" NUT (4)  |
|                       | 103 320                                  | 5/16" 1k-WASHER (7)  |

| REF. NO.                                   | PART NUMBER        | DESCRIPTION  |
|--|--------------------|--|
| FLYWHEEL CRANKSHAFT & BEARINGS - Continued |                    |  |
| 1  | 675 532 R1         | PULLEY, fan (for 11/16" cog type belt drive only)  |
| 1  | 676 621 R1         | PULLEY, fan (for 3/8" V type belt drive only)  |
|  | 218 211            | 1/4 x 3/4" Woodruff KEY  |
|  | 219 755            | 1" jam NUT (for 11/16" cog type)   |
|  | 272 620            | 1" jam NUT (for 3/8" V type)   |
|  | 138 516            | 1" ext-t 1k-WASHER   |
| 2  | 751 303 R51        | CRANKSHAFT, std (Includes 24 550 D, PINS)  |
| 2  | 3067 472 R11       | CRANKSHAFT, .015" undersize (Includes 24 550 D, PINS)  |
| 2  | 384 599 R91        | PACKAGE, std crankshaft service (Includes connecting rod bearings, front, center & rear bearings with crankshaft & pins)       |
| 2  | 384 600 R91        | PACKAGE, undersize crankshaft service (Includes connecting rod bearings, front, center & rear bearings with crankshaft & pins) |
| 3  | 13 456 VA          | GEAR, 112T flywheel ring   |
| 4  | 635 566 R11        | FLYWHEEL, power shift reverser (Includes 13 456 VA, GEAR)  |
| 4  | 635 567 R11        | FLYWHEEL, double stage clutch (Constant Running PTO) (Includes 13 456 VA, GEAR)  |
|  | 20 693 R1          | Flywheel BOLT (4)  |
|  | 607 183 R1         | Flywheel bolt LOCK (2)   |
| 4  | 675 558 R21        | FLYWHEEL, power shift reverser (Includes 13 456 VA, GEAR)  |
|  | 362 442 R1         | 7/16 - NF x 2" Type 4 BOLT (4)   |
|  | 607 183 R1         | Flywheel bolt LOCK (2)   |
| 5  | 24 550 D           | PIN, flywheel dowel (2)  |
| 6  | 708 910 R91        | BEARING, std main rear   |
| 6  | 708 915 R91        | BEARING, .015" undersize main rear   |
| 6  | 708 911 R91        | BEARING, .030" undersize main rear   |
| 7  | 3064 523 R11       | BEARING, std front & center (4)  |
| 7  | 3064 525 R11       | BEARING, .015" undersize front & center (4)  |
| 7  | 3064 524 R11       | BEARING, .030" undersize front & center (4)  |
| 8  | 703 865<br>218 211 | PINION, 33T crankshaft<br>1/4 x 3/4" Woodruff KEY  |
| 9  | 708 912 R91        | SET, crankshaft main brgs (std) (Includes 3064 523 R11 & 708 910 R91, BEARINGS)  |
| 9  | 708 913 R91        | SET, crankshaft main brgs (.030" undersize) (Includes 3064 524 R11 & 708 911 R91, BEARINGS)                                    |
| 9  | 708 914 R91        | SET, crankshaft main brgs (.015" undersize) (Includes 3064 525 R11 & 708 915 R91, BEARINGS)                                    |

## FLYWHEEL CRANKSHAFT & BEARINGS



T-45-3A

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BD-144C and BD-154T  
Diesel Engine

# CRAWLER TRACTORS

SECTION A  
TC-203A



| REF. NO.             | PART NUMBER  | DESCRIPTION   |
|----------------------|--------------|---|
| <b>CYLINDER HEAD</b> |              |   |
|                      |              |   |
| T-20-135             |              |   |
| 1                    | 703 896 R1   | GASKET, valve cover   |
| 2                    | 364 899 R91  | BREATHER, cyl hd  |
| 3                    | 3064 720 R11 | COVER, valve (opt w/703 894 R21)  |
| 3                    | 703 894 R21  | COVER, valve (opt w/3064 720 R11)   |
|                      | 179 833      | 3/8 x 1/2" Type 2 BOLT  |
|                      | 102 635      | 3/8" NUT (2)  |
|                      | Q 1 597      | 13/32 x 3/4 x 16 ga WASH.   |
|                      | 103 321      | 3/8" lk-WASH. (2)   |
| 4                    |              | NOZZLE, injection (4) (for components refer to "INJECTION NOZZLE & HOLDER") |
|                      | 706 077 R1   | Nozzle stud WASH. (8)   |
|                      | 103 026      | 3/8"-NF NUT (8)   |
| 5                    | 708 314 R1   | HOLDER, pre-combustion chamber (4)  |
|                      | 710 382 R3   | Chamber upr GASKET (4)  |
| 6                    | 3045 523 R1  | CHAMBER, pre-combustion (4)   |
|                      | 710 383 R1   | Chamber lower GASKET (4)  |
| 7                    | 172 558      | PLUG, cyl head expansion  |
| 8                    | 3043 824 R12 | HEAD ASSEMBLY, cyl (less valves) (BD 144 C)                                 |
|                      |              | composed of:  |
|                      |              | 4 Guide 704 455 R1  |
|                      |              | 4 Guide 704 456 R2  |
|                      |              | * 1 Head  |
|                      |              | 2 Plug 172 558  |
|                      |              | 4 Stud 703 874 R1   |
|                      |              | 2 Stud 703 875 R1   |
|                      |              | 8 Stud 703 876 R2   |
|                      | 103 868      | 1/2" sq-hd pipe PLUG  |
|                      | 708 331 R1   | Cyl hd short BOLT (15)  |
|                      | 708 332 R1   | Cyl head long BOLT  |
|                      | 63 116 D     | Cyl hd bolt WASH. (16)  |

| REF. NO.                         | PART NUMBER  | DESCRIPTION                                 |
|----------------------------------|--------------|---|
| <b>CYLINDER HEAD - Continued</b> |              |   |
| 8                                | 3044 490 R91 | HEAD ASSEMBLY, cyl (Less valves) (BD 154 T) |
|                                  |              | composed of:                                |
|                                  |              | 4 Guide 3044 492 R1                         |
|                                  |              | 4 Guide 3044 493 R2                         |
|                                  |              | * 1 Head                                    |
|                                  |              | 2 Plug 172 558                              |
|                                  |              | 4 Stud 703 874 R1                           |
|                                  |              | 2 Stud 703 875 R1                           |
|                                  |              | 8 Stud 703 876 R2                           |
|                                  | 103 868      | 1/2" sq-hd pipe PLUG                        |
|                                  | 708 331 R1   | Cyl hd short BOLT (15)                      |
|                                  | 708 332 R1   | Cyl hd long BOLT                            |
|                                  | 63 116 D     | Cyl hd bolt WASH. (16)                      |
| 8                                | 3040 360 R95 | HEAD ASSEMBLY, cyl (w/valves) (BD 144 C)    |
|                                  |              | composed of:                                |
|                                  |              | 8 Cup 704 446 R1                            |
|                                  |              | 1 Head 3043 824 R12                         |
|                                  |              | 16 Lock 704 443 R1                          |
|                                  |              | 8 Spring 710 347 R2                         |
|                                  |              | 4 Valve 3040 361 R1                         |
|                                  |              | 4 Valve 3043 826 R1                         |
|                                  | 103 868      | 1/2" sq-hd pipe PLUG                        |
|                                  | 708 331 R1   | Cyl hd short BOLT (15)                      |
|                                  | 708 332 R1   | Cyl hd long BOLT                            |
|                                  | 63 116 D     | Cyl hd bolt WASH. (16)                      |
| 6                                | 3044 489 R91 | HEAD ASSEMBLY, cyl (w/valves) (BD 154 T)    |
|                                  |              | composed of:                                |
|                                  |              | 8 Cup 3044 176 R1                           |
|                                  |              | 8 Cup 3044 491 R1                           |
|                                  |              | 1 Head 3044 490 R91                         |
|                                  |              | 16 Lock 704 443 R1                          |
|                                  |              | 8 Spring 3044 239 R1                        |
|                                  |              | 8 Spring 3044 240 R1                        |
|                                  |              | 4 Valve 3040 361 R1                         |
|                                  |              | 4 Valve 3043 826 R1                         |
|                                  | 103 868      | 1/2" sq-hd pipe PLUG                        |
|                                  | 708 331 R1   | Cyl hd short BOLT (15)                      |
|                                  | 708 332 R1   | Cyl hd long BOLT                            |
|                                  | 63 116 D     | Cyl hd bolt WASH. (16)                      |
| 9                                | 704 162 R1   | GASKET, air intake manifold (2)             |
| 10                               | 3043 648 R1  | MANIFOLD, air intake                        |
|                                  | 708 297 R1   | Banjo WASHER                                |
|                                  | 181 421      | 1/2 - NF x 1/2" Type 2 BOLT                 |
|                                  | 179 841      | 3/8 x 1-1/4" Type 2 BOLT (2)                |
|                                  | 186 279      | 3/8 x 3-1/8" Type 2 BOLT                    |
|                                  | 187 491      | 3/8 x 5-1/2" Type 2 BOLT                    |
|                                  | 103 321      | 3/8" lk-WASHER (4)                          |
| 11                               | 703 883 R6   | GASKET, cyl head                            |
|                                  | 3049 382 R1  | Gasket rubber GROMMET (2)                   |
| 12                               | 703 876 R2   | STUD, injection nozzle holder (8)           |
| 13                               | 704 455 R1   | GUIDE, intake valve stem (4) (BD-144 C)     |
| 13                               | 3044 492 R1  | GUIDE, intake valve stem (4) (BD-154 T)     |
| 14                               | 704 456 R1   | GUIDE, exhaust valve stem (4) (BD-144 C)    |
| 14                               | 3044 493 R1  | GUIDE, exhaust valve stem (4) (BD-154 T)    |
| 15                               | 703 875 R1   | STUD, valve lever end bracket (2)           |

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BD-144C and BD-154T  
Diesel Engine

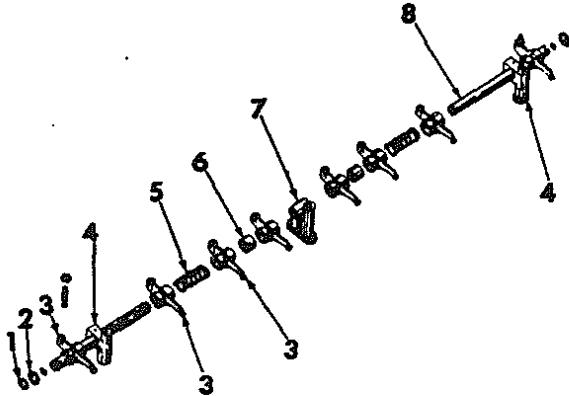
# CRAWLER TRACTORS

SECTION A  
TC-203A



| REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|
|----------|-------------|-------------|

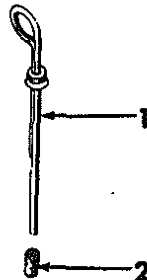
## VALVE LEVERS



T-20-135

|   |   |   |
|---|---|---|
| 1 | 43 375 D  | RING, valve lever shaft snap (2)  |
| 2 | 43 374 D  | WASHER, valve lever shaft spg (2)   |
| 3 | 706 131 R11<br>24 564 DA<br>16 067 DA<br>133 093 R1 | LEVER, valve (8) (Includes 24 564 DA, BUSHING)<br>Valve lever BUSHING (8)<br>Lever adj SCREW (8)<br>Adj screw NUT (8) |
| 4 | 703 886 R2<br>703 887 R2<br>442 934<br>102 635      | BRACKET, lever shaft front<br>BRACKET, lever shaft rear<br>3/16 x 1-1/4" groove PIN (2)<br>3/8" NUT (2)               |
| 5 | 45 949 D  | SPRING, valve lever (2)   |
| 6 | 703 893 R2  | SPACER, valve lever (2)   |
| 7 | 703 885 R1  | BRACKET, valve lever shaft center   |
| 8 | 703 884 R21<br>172 528                              | SHAFT, lever (2) (Includes 172 528, PLUG)<br>9/16" dia expansion PLUG   |

## OIL LEVEL DIPSTICK

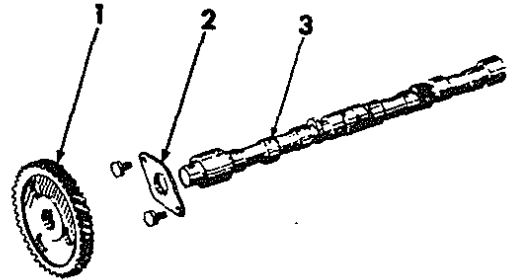


T-20-135

|   |             |                          |
|---|-------------|--------------------------|
| 1 | 706 877 R91 | DIPSTICK, oil level      |
| 2 | 751 826 R1  | TUBE, oil level dipstick |

| REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|
|----------|-------------|-------------|

## CAMSHAFT



T-20-135

|   |                                 |   |
|---|---------------------------------|---|
|   | 3064 086 R91                    | CAMSHAFT, (composed of all parts listed below unless otherwise noted)                   |
| 1 | 3064 085 R1<br>218 217          | GEAR<br>3/16 x 5/8" Woodruff KEY  |
| 2 | 43 249 D<br>26 058 D<br>115 549 | PLATE, camshaft thrust<br>Thrust plate SCREW (2) (+)<br>3/8" int-tooth lk-WASH. (2) (+) |
| 3 | 3063 934 R1                     | CAMSHAFT  |

\* NOT SERVICED SEPARATELY.  
+ Not Part of Camshaft Pkg.



BD-144C and BD-154T  
Diesel Engine

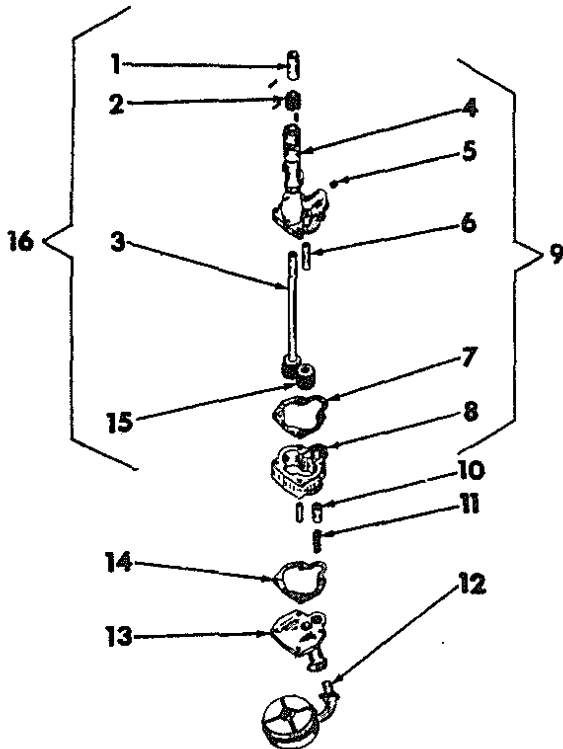
# CRAWLER TRACTORS

SECTION A  
TC-203A



| REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|
|----------|-------------|-------------|

## CRANKCASE OIL PUMP



H 8708

|    |                                     |  |
|----|-------------------------------------|--|
|    | 3043 131 R83                        | PUMP, oil (composed of all parts listed below, unless otherwise noted) |
|    | 179 840                             | 3/8 x 1-1/8" Type 2 BOLT (+)   |
|    | 115 549                             | 3/8" int-tooth lk-WASH. (+)  |
| 1  | 3042 479 R1<br>932 204 R1           | COUPLING, hourmeter drive<br>Coupling slit-spg PIN (2)                 |
| 2  | 704 107 R1<br>932 204 R1<br>103 905 | PINION, oil pump drive<br>Pinion roll PIN<br>1/8 x 5/8" Woodruff KEY   |
| 3  | 3042 572 R91                        | SHAFT, drive   |
| 4  |                                     | BODY, pump (*) (order 1-3042 570 R92, BODY)                            |
| 5  | 103 883                             | PLUG, 1/8" sq-hd pipe  |
| 6  |                                     | SHAFT, gear (*) (order 1-3042 570 R92, BODY)                           |
| 7  | 706 628 R1                          | GASKET, pump body  |
| 8  |                                     | CASE, gear (*) (order 1-3042 570 R92, BODY)                            |
| 9  | 3042 570 R92                        | BODY, oil pump (composed of all parts within the bracket)              |
| 10 | 751 830 R2                          | BALL, pressure regulating valve  |
| 11 | 751 829 R1                          | SPRING, regulating valve   |
| 12 | 56 108 D<br>108 635                 | SCREEN, oil pump<br>1/8 x 1-1/8" c-PIN                                 |

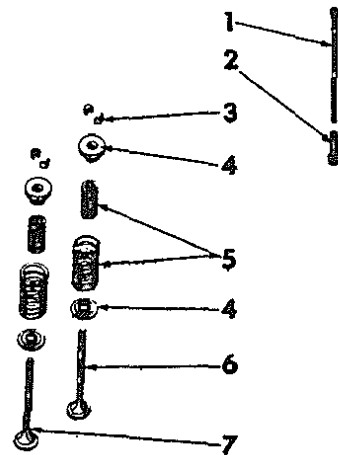
\* Not Serviced Separately  
+ Not Part of Oil Pump

| REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|
|----------|-------------|-------------|

## CRANKCASE OIL PUMP - Continued

|    |              |   |
|----|--------------|---|
| 13 | 751 828 R1   | COVER, oil pump                         |
|    | 932 204 R1   | Cover slit-spg PIN                      |
|    | 179 826      | 5/16 x 2" Type 2 BOLT                   |
|    | 179 828      | 5/16 x 2-1/2" Type 2 BOLT (2)           |
|    | 179 829      | 5/16 x 2-3/4" Type 2 BOLT               |
|    | 102 634      | 5/16" NUT                               |
|    | 115 548      | 5/16" int-tooth lk-WASHER (4)           |
| 14 | 711 558 R1   | GASKET, pump gear (as req'd)            |
| 15 | 3063 757 R1  | GEAR, idler                             |
| 16 | 3043 132 R93 | BODY ASSEMBLY, oil pump<br>composed of: |
|    | 1 Body       | 3042 570 R92                            |
|    | 1 Gear       | 3063 757 R1                             |
|    | 1 Key        | 103 905                                 |
|    | 1 Pinion     | 704 107 R1                              |
|    | 1 Pin        | 932 204 R1                              |
|    | 1 Shaft      | 3042 572 R1                             |
|    | 1 Coupling   | 3042 479 R1                             |

## VALVE, PUSH ROD & TAPPET



H 1493  
T-20-135

|   |             |                                       |
|---|-------------|---------------------------------------|
| 1 | 704 783 R2  | ROD, valve push (8)                   |
| 2 | 704 782 R1  | TAPPET, valve (8)                     |
| 3 | 704 443 R1  | LOCK, valve spg (16)                  |
| 4 | 704 446 R1  | CUP, spg retainer (8) (BD-144C)       |
| 4 | 3044 176 R1 | CUP, spg retainer upper (8) (BD-154T) |
| 4 | 3044 491 R1 | CUP, spg retainer lower (8) (BD-154T) |
| 5 | 710 347 R2  | SPRING, valve (8) (BD-144C)           |
| 5 | 3044 239 R1 | SPRING, valve, inner (8) (BD-154T)    |
| 5 | 3044 240 R1 | SPRING, valve, outer (8) (BD-154T)    |
| 6 | 3043 826 R1 | VALVE, exhaust (4)                    |
| 7 | 3040 361 R1 | VALVE, intake (4)                     |

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**CRAWLER TRACTORS**



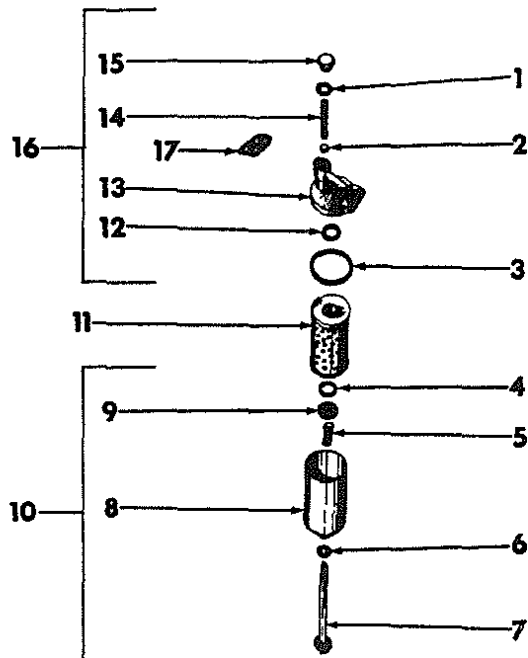
| REF. NO.                                     | PART NUMBER  | DESCRIPTION   |
|--|--------------|---|
| <b>CONNECTING ROD &amp; CYLINDER SLEEVES</b> |              |   |
|  |              |   |
| T-45-3A                                      |              |   |
| 1  | 704 100 R1   | RING, cylinder sleeve packing (4)   |
| 2  | 704 092 R1   | SLEEVE, cylinder (4) (BD-144 C)   |
| 2  | 3044 481 R3  | SLEEVE, cylinder (4) (BD-154 T)   |
| 3  | 704 099 R2   | PISTON, cylinder (4) (BD-144 C)   |
| 3  | 3044 486 R2  | PISTON, cylinder (4) (BD-154 T)   |
| 4  | 751 603 R92  | PACKAGE, piston & sleeve service (4) (Includes 751 605 R92, PISTON ASSEMBLY; 704 100 R1, RING & 704 092 R1, SLEEVE) (BD 144C)   |
| 4  | 3044 878 R92 | PACKAGE, piston & sleeve service (4) (Includes 3044 480 R92, PISTON ASSEMBLY; 704 100 R1, RING & 3044 481 R3, SLEEVE) (BD-154T) |
| 5  | 711 045 R1   | BUSHING, piston pin (4) (opt w/3043 611 R1)   |
| 5  | 3043 611 R1  | BUSHING, piston pin (4) (opt w/711 045 R1)  |
| 6  | 3061 214 R91 | ROD, connecting (4) (Includes 3043 216 R1, BOLTS & 711 045 R1 or 3043 611 R1, BUSHINGS)   |
|  | 3043 216 R1  | Connecting rod BOLT (8)   |
| 7  | 3061 216 R91 | SET, connecting rod (Includes 4 - 3061 214 R91, RODS)   |
| 8  | 3070 546 R91 | PACKAGE, std connecting rod brg replacement (Includes 4 - 3070 536 R11, BEARINGS)   |
| 8  | 3070 536 R11 | BEARING, connecting rod (std) (4)   |
| 8  | 3070 539 R91 | PACKAGE, .615" undersize connecting rod brg replacement (Includes 4 - 3070 538 R11, BEARINGS)                                   |
| 8  | 3070 538 R11 | BEARING, .015" undersize rod (4)  |
| 8  | 3070 547 R91 | PACKAGE, .030" undersize connecting rod brg replacement (Includes 4 - 3070 537 R11, BEARINGS)                                   |
| 8  | 3070 537 R11 | BEARING, .030" undersize (4)  |

| REF. NO.   | PART NUMBER  | DESCRIPTION   |
|--|--------------|---|
| <b>CONNECTING ROD AND CYLINDER SLEEVES - Continued</b> |              |   |
| 9  | 704 094 R1   | PIN, cylinder piston (std) (4) (BD-144 C)   |
| 9  | 3044 476 R1  | PIN, cylinder piston (std) (4) (BD-154 T)   |
|  | 706 411 R1   | PIN, .005" oversize piston (4) (BD-144 C)   |
| 9  | 3044 477 R1  | PIN, .005" oversize piston (4) (BD-154 T)   |
| 10   | 704 095R1    | RETAINER, piston pin (8)  |
| 11   | 751 606 R91  | RING, bottom groove (4) (opt w/3047 733 R91) (BD-144 C)   |
| 11   | 3047 733 R91 | RING, bottom groove (4) (opt w/751 606 R91) (BD-144 C)  |
| 11   |              | RING, bottom groove (4) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92)    |
| 11   | 3070 103R1   | RING, bottom groove (4) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)                       |
| 12   | 704 098 R1   | RING, 4th groove (4) (opt w/705 993 R1) (BD-144 C)  |
| 12   | 704 993 R1   | RING, 4th groove (4) (opt w/704 098 R1) (BD-144 C)  |
| 12   |              | RING, 4th groove (4) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92)       |
| 12   | 3070 103 R1  | RING, 4th groove (4) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)                          |
| 13   | 704 097 R1   | RING, 2nd & 3rd groove (8) (BD-144 C)   |
| 13   |              | RING, 2nd & 3rd groove (8) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92) |
| 13   | 3070 102 R1  | RING, 2nd & 3rd groove (8) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)                    |
| 14   | 704 096 R1   | RING, top groove (4) (BD-144 C)   |
| 14   |              | RING, top groove (4) (BD-154 T) (for service on Engines prior serial BD-154 T/718 order 1 - 3044 487 R92)       |
| 14   | 3070 101 R1  | RING, top groove (4) (BD-154 T) (for service on Engines with serial BD-154 T/718 & up)                          |
| 15   | 751 607 R91  | PACKAGE, piston ring service (Includes 704 096 R1, 704 097 R1, 704 098 R1, 751 606 R91, RINGS) (BD-144 C)       |
| 15   | 3044 487 R92 | PACKAGE, piston ring service (Includes 3070 101 R1, 3070 102 R1, 3070 103 R1, RINGS) (BD-154 T)                 |
| 16   | 751 605 R92  | PISTON ASSEMBLY, cylinder (4) (BD-144 C) composed of:   |
|  |              | 1 Pin 704 094 R1  |
|  |              | 1 Piston 704 099 R2   |
|  |              | 2 Retainer 704 095 R1   |
|  |              | 1 Ring 704 096 R1   |
|  |              | 2 Ring 704 097 R1   |
|  |              | 1 Ring 704 098 R1   |
|  |              | or 705 993 R1   |
|  |              | 1 Ring 751 606 R91  |
|  |              | or 3 047 733 R91  |
| 16   | 3044 480 R92 | PISTON ASSEMBLY, cylinder (4) (BD-154 T) composed of:   |
|  |              | 1 Pin 3044 476 R1   |
|  |              | 1 Piston 3044 486 R2  |
|  |              | 2 Retainer 704 095 R1   |
|  |              | 1 Ring 3070 101 R1  |
|  |              | 2 Ring 3070 102 R1  |
|  |              | 2 Ring 3070 103 R1  |



| REF. NO. | PART NUMBER | DESCRIPTION |
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|----------|-------------|-------------|

ENGINE OIL FILTER (A. C. Delco)

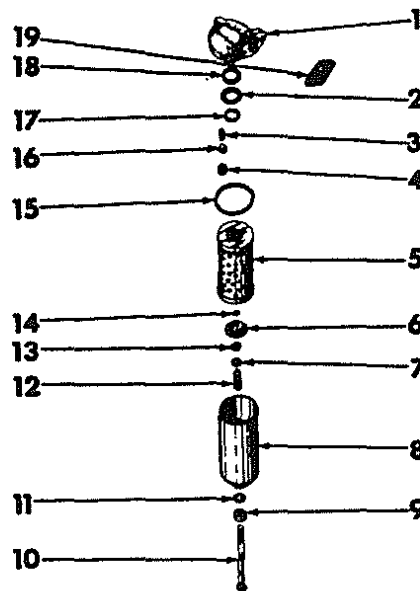


H 1494

|    |             |   |
|----|-------------|---|
|    | 705 612 R91 | FILTER, engine oil (opt w/3042 420 R92, 708 548 R91, 3066 851 R91, FILTERS) (Includes parts listed below, unless otherwise noted) |
|    | 179 841     | 3/8 x 1-1/4" Type 2 BOLT (2) (+)  |
|    | 103 321     | 3/8" 1k-WASHER (2) (+)  |
| 1  | 705 740 R1  | GASKET, valve plug  |
| 2  | 705 743 R1  | BALL, relief valve  |
| 3  | 705 744 R1  | GASKET, filter head cover   |
| 4  | 705 735 R1  | SEAL, lower element   |
| 5  | 705 737 R1  | SPRING, element retainer  |
| 6  | 705 733 R1  | WASHER, center bolt   |
| 7  | 705 732 R1  | BOLT, oil filter center   |
| 8  | 705 736 R1  | SHELL, oil filter element   |
| 9  | 705 734 R1  | RETAINER, lower seal  |
| 10 | 705 731 R91 | SHELL, (Reference No. 's 4 to 9 inclusive)  |
| 11 | 376 364 R91 | PACKAGE, filter element service   |
| 12 | 705 735 R1  | SEAL, element top   |
| 13 | 705 742 R1  | HEAD, oil filter  |
|    | 179 841     | 3/8 x 1-1/4" Type 2 BOLT (2) (+)  |
|    | 103 321     | 3/8" 1k-WASH. (2) (+)   |
| 14 | 705 741 R1  | SPRING, relief valve  |
| 15 | 705 739 R1  | PLUG, relief valve  |
| 16 | 705 738 R91 | COVER, oil filter head (Reference No. 's 1 to 3 and 11 to 15 inclusive)   |
| 17 | 706 592 R1  | GASKET, filter head crankcase (+)   |

| REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|
|----------|-------------|-------------|

ENGINE OIL FILTER (Purolator)



H 1494

|    |             |  |
|----|-------------|--|
|    | 708 548 R91 | FILTER, engine oil (opt w/3042 420 R92, 705 612 R91 & 3066 851 R91, FILTERS) (Includes parts listed below, unless otherwise noted) |
|    | 179 841     | 3/8 x 1-1/4" Type 2 BOLT (2) (+)   |
|    | 103 321     | 3/8" 1k-WASHER (2) (+)   |
| 1  | 707 873 R1  | HEAD, oil filter   |
| 2  | 707 868 R1  | GUIDE, filter element  |
| 3  | 707 865 R1  | SPRING, relief valve   |
| 4  | 707 864 R1  | SEAT, relief valve   |
| 5  | 376 364 R91 | PACKAGE, filter element service  |
| 6  | 707 871 R1  | GUIDE, filter element bottom   |
| 7  | 708 967 R1  | WASHER, lower guide  |
| 8  | 707 866 R1  | SHELL, oil filter element  |
| 9  | 707 862 R1  | COLLAR, center bolt  |
| 10 | 707 872 R1  | BOLT, oil filter center  |
| 11 | 707 863 R1  | "O" RING, center bolt collar   |
| 12 | 703 789 R1  | SPRING, lower element guide  |
| 13 | 703 795 R1  | SEAL, center spindle   |
| 14 | 707 869 R1  | CIRCLIP, lower element   |
| 15 | 707 859 R1  | SEAL, oil filter head  |
| 16 | 707 870 R1  | BALL, relief valve   |
| 17 | 707 874 R1  | CIRCLIP, filter head   |
| 18 | 707 861 R1  | GASKET, filter head  |
| 19 | 706 592 R1  | GASKET, oil filter crankcase (+)   |

\* Not Serviced Separately  
+ Not Part of Oil Filter

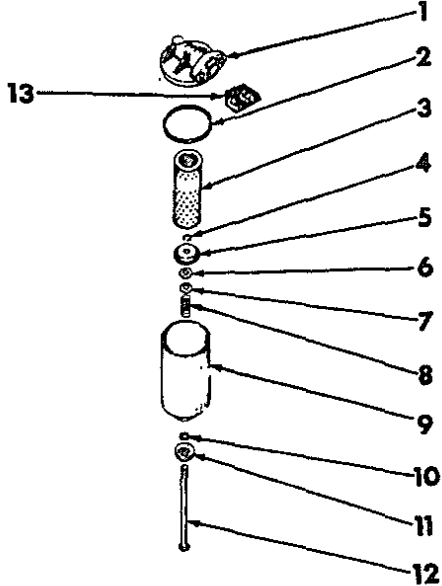
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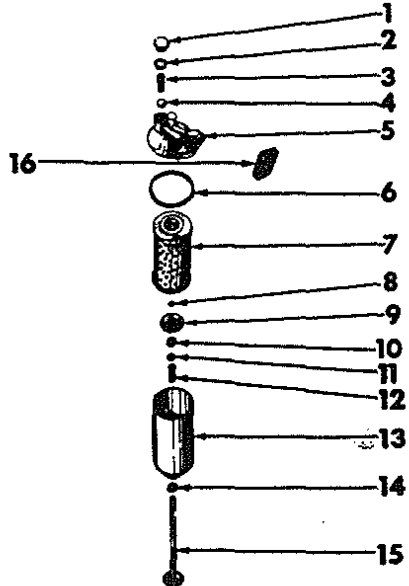
REPRODUCED IN UNITED STATES OF AMERICA



CRAWLER TRACTORS



| REF. NO.                      | PART NUMBER  | DESCRIPTION   |
|-------------------------------|--------------|---|
| ENGINE OIL FILTER (Purolator) |              |   |
|                               |              |    |
| 3066 851 R91                  |              | FILTER, engine oil (opt w/705 620 R91, 708 548 R91 & 3042 420 R92, FILTERS) (Includes parts listed below, unless otherwise noted) |
| 179 841                       |              | 3/8 x 1-1/4" Type 2 BOLT (2) (+)  |
| 103 321                       |              | 3/8" 1k-WASHER (2) (+)  |
| 1                             | 3069 113 R91 | HEAD ASSEMBLY, filter (*)   |
| 2                             | 707 859 R1   | SEAL, oil filter head   |
| 3                             | 376 364 R91  | PACKAGE, filter element service   |
| 4                             | 707 869 R1   | CIRCLIP, lower element  |
| 5                             | 3069 108 R1  | GUIDE, filter element bottom  |
| 6                             | 3069 109 R1  | SEAL, center spindle  |
| 7                             | 3069 114 R1  | WASHER, lower guide   |
| 8                             | 703 789 R1   | SPRING, lower element guide   |
| 9                             | 3069 111 R91 | PUMP ASSEMBLY   |
| 10                            | 707 863 R1   | "O" RING, center bolt collar  |
| 11                            | 707 862 R1   | COLLAR, center bolt   |
| 12                            | 3069 112 R1  | BOLT, oil filter center   |
| 13                            | 706 592 R1   | GASKET, filter head crankcase (+)   |

| REF. NO.                      | PART NUMBER  | DESCRIPTION   |
|-------------------------------|--------------|---|
| ENGINE OIL FILTER (Tecalemit) |              |   |
|                               |              |    |
| H 1494                        |              |   |
| 3042 420 R92                  |              | FILTER, engine oil (opt w/705 612 R91, 3066 851 R91 & 708 548 R91, FILTERS) (Includes parts listed below, unless otherwise noted) |
| 179 841                       |              | 3/8 x 1-1/4" Type 2 BOLT (2) (+)  |
| 103 321                       |              | 3/8" 1k-WASHER (2) (+)  |
| 1                             |              | PLUG, (Order 1 - 3069 975 R91, HEAD)  |
| 2                             |              | WASHER, (Order 1 - 3069 975 R91, HEAD)  |
| 3                             |              | SPRING, (Order 1 - 3069 975 R91, HEAD)  |
| 4                             |              | BALL, (Order 1 - 3069 975 R91, HEAD)  |
| 5                             | 3069 975 R91 | HEAD, filter  |
| 6                             | 3042 423 R1  | RING, container sealing   |
| 7                             | 376 364 R91  | PACKAGE, element service  |
| 8                             | 3065 965 R1  | CIRCLIP, center bolt  |
| 9                             | 3043 293 R1  | PLATE, pressure   |
| 10                            | 3042 428 R1  | WASHER, felt  |
| 11                            | 3043 292 R1  | WASHER, pressure plate spg  |
| 12                            | 3043 291 R1  | SPRING, pressure plate  |
| 13                            | 3043 289 R1  | CONTAINER   |
| 14                            | 3042 425 R1  | WASHER, center bolt sealing   |
| 15                            | 3069 976 R91 | BOLT, center ass'y  |
| 16                            | 706 592 R1   | GASKET, filter head crankcase (+)   |

\*Not Part of Oil Filter  
\*Not Serviced Separately





BD-144C & BD-154T  
Diesel Engine

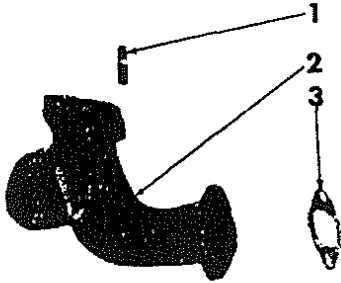
**CRAWLER TRACTORS**

SECTION A  
TC-203 A



| REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|
|----------|-------------|-------------|

ENGINE MANIFOLD

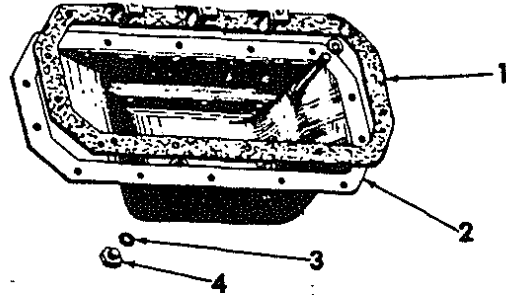


HA 4457

|   |                          |  |
|---|--------------------------|--|
| 1 | 704 164 R1<br>20 229 D   | STUD, exhaust manifold (2)<br>Exhaust pipe NUT (2)<br>3/8" 1k-WASH. (2)    |
| 2 | 3042 719 R11<br>20 229 D | MANIFOLD, exhaust (Includes 704 164 R1,<br>STUDS)<br>Manifold stud NUT (4) |
| 3 | 704 165 R2               | GASKET, exhaust manifold (2)   |

| REF. NO. | PART NUMBER | DESCRIPTION |
|----------|-------------|-------------|
|----------|-------------|-------------|

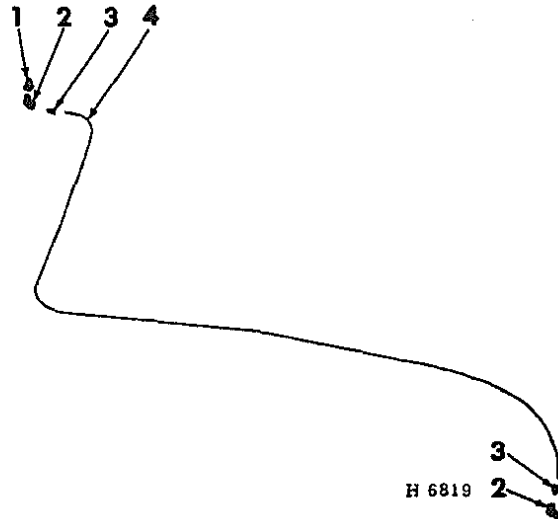
CRANKCASE OIL PAN



H 8708

|   |              |   |
|---|--------------|---|
| 1 | 703 840 R1   | GASKET, crankcase oil pan   |
| 2 | 3040 354 R11 | PAN, crankcase oil<br>5/16 x 7/8" Type 2 BOLT (14)<br>5/16" 1k-WASH. (14) |
| 3 | 3 405 H      | GASKET, drain plug (opt w/3043 644 R1)                                    |
| 3 | 3043 644 R1  | GASKET, drain plug (opt w/3 405 H)  |
| 4 | 359 875 R1   | PLUG, oil pan drain   |

OIL PRESSURE GAUGE LINE



|   |                          |  |
|---|--------------------------|--|
| 1 | 105 408                  | COUPLING, 1/8" at gauge                            |
| 2 | 36 637 D                 | ELBOW, 1/8" Hi-Duty male pipe (2)                  |
| 3 | 36 092 D                 | NUT, 1/8" Hi-Duty tube (2)                         |
| 4 | 635 338 R1<br>636 631 R1 | PIPE, oil pressure gauge<br>Oil pressure line LOOM |

\* Not Serviced Separately

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