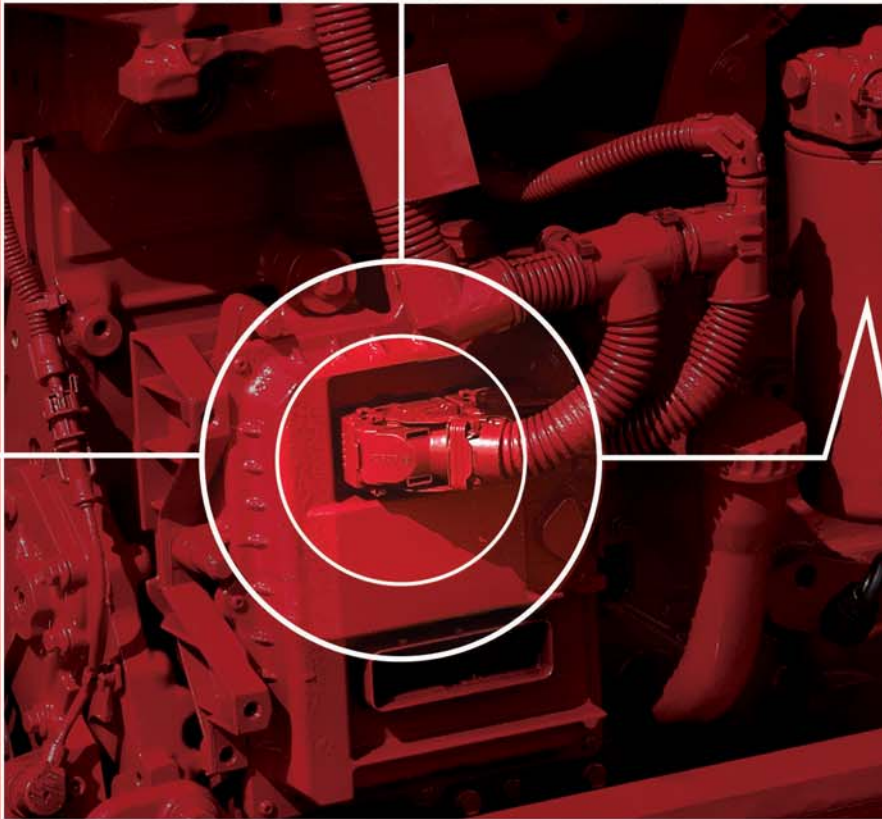


XTX Labour Time Schedules

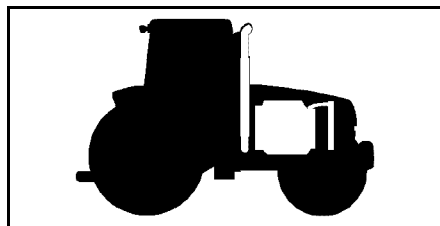


# XTX

## Labour Time Schedules



**McCORMICK**

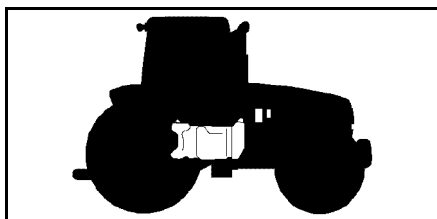


MI01M043



GENERAL

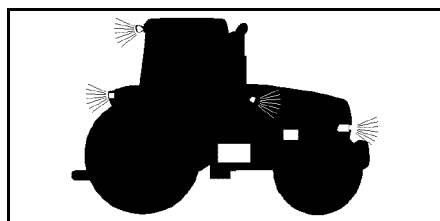
1



MI01M044

ENGINE

2



MI01M045

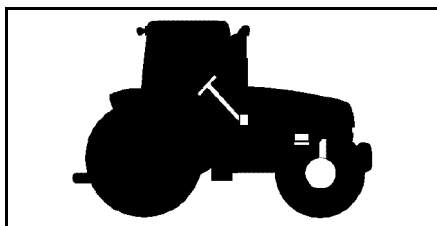
FUEL SYSTEM

3



ELECTRICAL SYSTEM

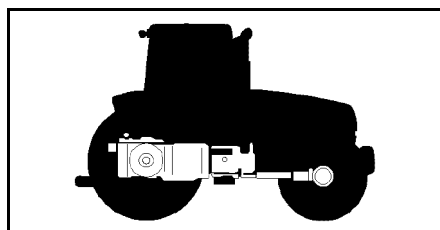
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MI01M046

STEERING SYSTEM

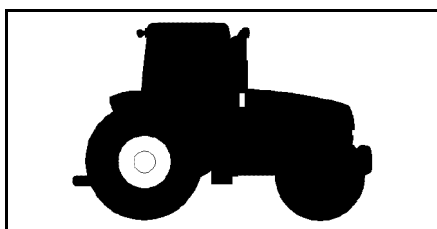
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MI01M047

POWER TRAIN

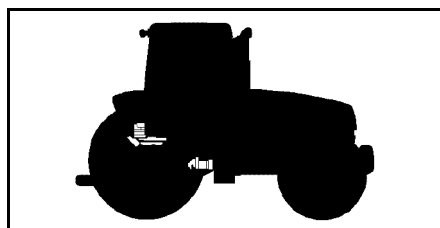
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MI01M048

BRAKES

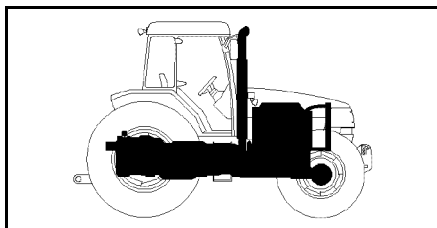
7



MI01M049

HYDRAULIC SYSTEM

8

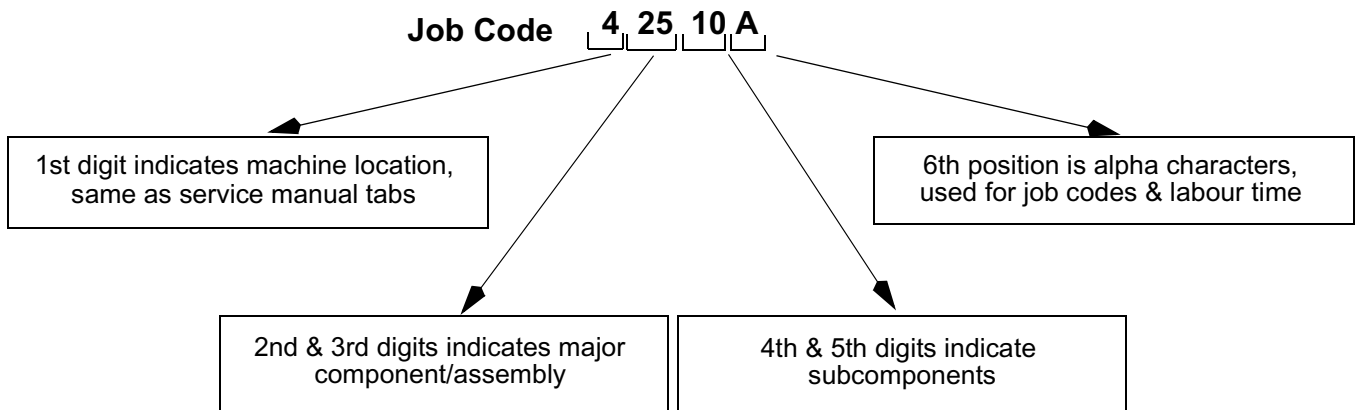


MI01M050

CHASSIS/MOUNTED EQUIPMENT

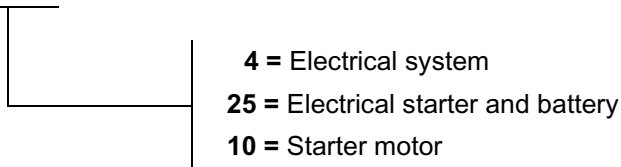
9

## Description of the machine location and job code system



### a) Machine location code

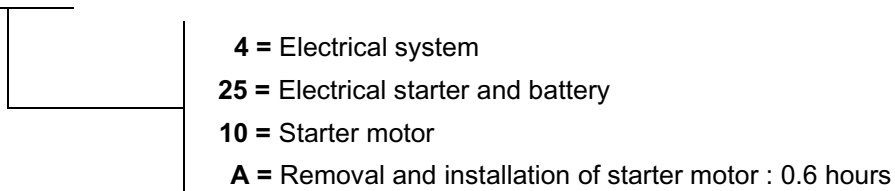
**42510**



**NOTE:** The machine location codes are indicated on pages 1 - 7 to 1 - 15 but are also shown in the spare parts catalogue for the machine concerned.

### b) Job code

**42510A**



## Troubleshooting time

Troubleshooting is a specific job. Times are listed in various sections of the manual for the hook-up of the test instruments and the proper running of the test requires.

Only in specific cases is troubleshooting included as part of the job time. For example R & I main relief valve includes pressure testing and adjusting just as R & I secondary relief valve includes hand-pumping and adjusting. If troubleshooting time is included, it will be noted in the job description.

## Welding time

With the flat rate times, welding (when performed by the dealership) is the only additional time to be considered. All requests for labour must be accompanied with a job code.

A request for welding labour is to be made by picking the job code for the component or part of which the welding was performed and then adding "W" as a second alphabetical character to the job code.

### Example :

The job code for a support frame is 90117C. Welding would be requested under job code 90117CW and labour calculated by the following guidelines :

### No job time provided (open box)

A job code must always be used when requesting labour ; however, when no job times are given, use the following guidelines to calculate :

1. Consider that a highly qualified mechanic has performed the repairs, in the dealership's "certified" shop.
2. Include in the job time cleaning of the area to be repaired and the actual repair job including associated problems encountered.
3. Troubleshooting performed should be requested by the appropriate troubleshooting job code.

## Failure Codes

<b>Description</b>	<b>Code</b>
Bad Appearance .....	15
Bad Clamping .....	75
Bent/Dented .....	25
Blistering .....	35
Blocked .....	40
Blown/Burst .....	30
Buckled/warped .....	50
Burned out .....	55
Chattering/Noisy .....	65
Chipped/Nicked .....	70
Collapsed .....	80
Contamination.....	90
Cracked .....	95
Cut/torn .....	105
Did Not Engage .....	110
Did Not Release.....	115
Longitudinal Play .....	125
Erratic/Fluctuating .....	130
External Leakage.....	100
Fell/Backed Out .....	135
Flaking/Peeling .....	140
Grooved .....	155
High Oil Consumption.....	165
High Temperature .....	325
High Torque .....	335
Internal Leakage .....	60
Jumped Out of Gear .....	175
Kinked/Pinched.....	180
Loose .....	200
Lost Charge .....	370
Low Temperature .....	330
Low Torque .....	335
Misaligned.....	205
Moisture Present.....	220
Needed Adjustment .....	10
No Adhesion .....	5
Not Properly Sealed.....	225
Out of Groove .....	230
Out of Round .....	120
Overshort/Damage Report.....	390
Part Omitted.....	213
Pitted.....	240
Poor Connection .....	85
Pressure High .....	245
Pressure Low .....	250

## General - Failure Codes

---

<b>Description</b>	<b>Code</b>
Radial Gear Play.....	20
Rubbing .....	170
Rusty/Corroded.....	260
Scored/Scratched .....	265
Seized.....	270
Service bulletin .....	275
Sheared .....	280
Short circuit.....	290
Slipping .....	295
Soft/Spongy .....	300
Sticking/Binding .....	305
Stripped/Pulled Out.....	315
Surging .....	320
Weld Cracked/Broken.....	365
Worn .....	360

*General - Request for Supplementary Job Code Or Modification of Time Allowed*

---

Reference of form used : .....  
Model concerned : .....  
Machine location : .....

**Request for additional job code**

Closest existing job code : .....  
.....  
Description of job code requested : .....  
.....  
Estimated time of requested job code : .....  
.....

**Request for a modification of time allowed**

**IMPORTANT:** *All requests for modifications must be supported by a copy of the job cards, and detail of time spent, etc...*

Job code : .....  
Time allowed : .....  
Time requested : .....

**McCormick dealer** \_\_\_\_\_  
**Town** \_\_\_\_\_  
**Telephone number** \_\_\_\_\_  
**Signature** \_\_\_\_\_  
**Date** \_\_\_\_\_

**Send this form, when completed to :**  
  
**McCORMICK TRACTORS INTERNATIONAL LIMITED**  
Warranty Administration  
P O Box 569  
Wheatley Hall Road  
Doncaster  
South Yorkshire  
England DN2 4PE

The Customer Services Manager is authorized to study all requests for modification on time spent, concerning a given job code. Attach all the documents necessary for studying the case : workshop job cards, details of time spent, etc.



**McCORMICK**

**XTX 2-Engine**



## 2-Engine - 1-Cooling System

*JOB CODE*



Engine oil filter, replace	22001A	0.3
Radiator cap, R&I	22011A	0.1
Top radiator coolant hoses, R&I	22011B	0.9
Bottom radiator coolant hoses, R&I	22011C	0.5
Mounting hardware to top of radiator, R&I	22011D	0.5
Mounting hardware at bottom or side of radiator, R&I	22011E	1.0
Radiator assembly, R&I (Includes) - Shrouds, hoses, & lines R&I - Oil cooler/condenser, R&I - Drain & Re-fill	22011F	2.4
Radiator assembly repair (Includes Job Code 22011F)	22011G	3.4
Coolant recovery tank, R&I	22011H	0.3
Coolant recovery tank to radiator, hose, R&I	22011I	0.2
Radiator shroud, R&I (Mounted on radiator)	22013A	1.0
Fan belt, R&I	22015A	0.5
Fan belt, R&I (With air conditioning)	22015B	0.6
Fan belt, R&I (With air conditioning and air brakes)	22015C	0.7
Radiator fan drive unit, R&I	22015D	0.5
Radiator fan, R&I (Includes Job Code 22015D)	22015E	0.7
Radiator fan/water pump drive pulley, R&I	22015F	0.7
Radiator fan & pulley, R&I (With air conditioning)	22015G	0.9
Water pump, R&I (Includes replacing gasket)	22017A	2.4
Water pump, overhaul	22017B	3.9
Thermostat & coolant outlet housing, R&I (Includes replacing gasket)	22019A	0.9
Thermostat/water pump carrier manifold, R&I (Includes replacing gaskets)	22019B	1.7
Oil filter base, R&I	22075A	0.5
Engine oil cooler, R&I	22075B	0.5
Lubrication Oil supply line to turbocharger, R&I	22077A	0.4
Oil drain line from turbocharger, R&I	22077B	0.4
Cooling Coolant supply line - Radiator to engine oil cooler, R&I	22077C	0.3
Coolant return line - Engine oil cooler to engine block, R&I	22077D	0.3

## 2-Engine - 2-Air inlet and exhaust

*JOB CODE*



Air cleaner elements, replace (Primary & secondary)	22001B	0.2
Air cleaner cup or cover, R&I	22021A	0.1
Air cleaner assembly, R&I	22021B	0.5
Mounting bracket for air cleaner, R&I (Includes Job Code 22021B)	22021C	0.7
Air cleaner valve (vacuator), R&I	22021D	0.2
Air inlet duct to air cleaner, R&I	22023A	0.2
Hose - Air cleaner to turbocharger, R&I	22023B	0.3
Hose or tubes - between turbocharger and intake manifold R&I	22023C	0.3
Turbocharger, R&I (If fitted) (Includes replacing gasket)	22025A	1.0
Turbocharger, overhaul (Includes Job Code 22025A)	22025B	2.7
Intake manifold, R&I (Includes Job Code 22025A and replacing gaskets)	22027A	1.3
Muffler assembly, R&I	22031A	0.5
Muffler extension, R&I	22031B	0.2
Manifold, muffler to exhaust extension, R&I	22031C	0.7
Heat shield, R&I	22031D	0.2
Exhaust connection - Turbo to muffler manifold, R&I	22033A	0.4
Exhaust manifold assembly, R&I (Includes Job Code 22025A)	22033B	1.8

## 2-Engine - 3-Cylinder head

*JOB CODE*



Breather cap and/or hose, R&I	22041A	0.2
Valve cover for cylinder head, R&I	22041B	1.0
Rocker arm assembly and push rods, R&I	22043A	1.8
Rocker arm assembly, overhaul	22043B	2.8
Cylinder head, R&I (Includes) - Cleaning head - Replacing gaskets - Adjusting valves	22045A	6.0
Expansion plug for cylinder head	22045B	0.7
Valves and springs, R&I (Includes Job Code 22043A)	22047A	6.8
Grind valve face and valve seat (Includes Job Code 22047A)	22047B	7.9
Valve guides, R&I (Includes Job Code 22047B)	22047C	8.8
Cylinder head, overhaul (Includes) - Grinding valve face and seats - Testing springs - Replacing valve guides and seat inserts where necessary	22047D	9.7
Valve seal, valve spring or retainer, R&I (One) (Head not removed)	22047E	1.4
Valve seal, valve spring or retainer, R&I (All) (Head not removed)	22047F	2.3
Camshaft, R&I	22065A	10.0
Lifters, R&I	22065B	10.0
Expansion plug, R&I (At rear for camshaft)	22065C	5.8
Camshaft bushing kit, R&I (Single bushing in front of block)	22065D	10.5

## 2-Engine - 4-Engine block

JOB CODE



Engine assembly, R&I (Includes) - R&I of any item or component necessary to access engine	22003A	12.0
Engine assembly, overhaul (Includes) - Engine, R&I complete disassembly - Clean of all components and passages - Assemble to all specifications and tolerances - using new parts as necessary - Do run-in procedures & adjustments - Cleaning & painting	22003B	35.0
Engine assembly, minor overhaul (Includes checking pistons and sleeves replace as necessary Fit new crankshaft bearings and thrust washers Check and rework new valves as necessary Rebuild, test and run)	22003C	15.5
Replace rings on piston (Includes) - Remove glaze from sleeve/cylinder - Checking piston & cylinder tolerances - One piston	22051A	8.5
Replace rings on piston (Includes) - Remove glaze from sleeve/cylinder - Checking piston & cylinder tolerances - All pistons	22051B	10.5
Piston, R&I (Includes) - Checking piston & cylinder tolerances - Fitting piston pin - One piston	22051C	9.5
Piston, R&I (Includes) - Checking piston & cylinder tolerances - Fitting piston pin - All pistons	22051D	12.0
Cylinder bore, over size (Includes) - Fitting and assembling oversize piston - One cylinder	22051E	10.5
Cylinder bore, over size (Includes) - Fitting and assembling oversize piston - All cylinder	22051F	13.0
Connecting rod -bearings, R&I - One	22055A	3.2
Connecting rod -bearings, R&I - All	22055B	4.0
Connecting rod assembly, R&I - One	22055C	7.5
Connecting rod assemblies, R&I - All	22055D	9.0
Connecting rod bushing, R&I - One	22055E	8.8
Connecting rod bushings, R&I - All	22055F	11.0
Crankshaft pulley, R&I	22061A	0.8
Crankshaft oil seal (front), R&I (Includes replacing wear seal)	22061B	4.0
Cover for gear housing, R&I (Includes replacing seal & gasket)	22061C	5.0
Timing gear housing, R&I	22061D	7.5
Crankshaft gear, R&I	22063A	14.5
Camshaft gear, R&I (Includes replacing thrust washer)	22063B	5.5
Idler gear, R&I	22063C	5.5
Crankshaft oil seal, rear R&I	22067A	6.6
Main bearing for crankshaft, R&I One with crankshaft in position Note removal of front and rear bearings "in place" is not advocated	22067B	5.5
All (engine removed)	22067C	12.5
Crankshaft assembly, R&I	22067D	14.2
Thrust washer crankshaft, R&I	22067E	9.0

Engine block casting, R&I (Includes)- Components, studs, and fitting, R&I(From old block to new block)- Check & set all enginespecifications & tolerances- Filter elements, replace- Run-in procedures- Clean and paint	22068A	20.5
Expansion plugs, R&I In rear of block	22068B	4.5
In side of block	22068C	1.2
Oil level dipstick, R&I	22071A	0.1
Dipstick tube, R&I	22071B	0.3
Filter tube for oil, R&I	22071C	0.3
Drain plug in oil pan, R&I	22071D	0.3
Oil pan assembly & gasket, R&I	22071E	3.5
Oil strainer & suction tube, R&I (Includes Job Code 22071E)	22073A	3.7
Relief valve assembly, R&I (Includes Job Code 22071E)	22073B	4.0
Oil pump assembly, R&I (Includes Job Code 22071E)	22073C	5.5

## 2-Engine - 5-Flywheel and Housing

*JOB CODE*



Flywheel, R&I	22069A	6.0
Ring gear on flywheel, R&I	22069B	6.5
Flywheel housing, R&I	22069C	6.4

## 2-Engine - 6-Cold Start Aids

*JOB CODE*



Ether injector, R&I	22029A	0.3
Tubes & fittings between switch, solenoid ether injector, R&I	22029B	0.3
Ether cylinder, R&I	22029C	0.3
Thermostart unit, R&I	22029D	0.3
Thermostart feed tube, R&I	22029E	0.3

## 2-Engine - 7-Troubleshooting

*JOB CODE*



Check and adjust engine speeds	?	0.3
Run engine until it reaches operating temperature (includes visual inspection and checking all instrument panel indicators)	22002A	0.3
Loosen injector line fitting to determine loss of power in engine cylinders (all)	22002B	0.6
Check intake system for air restriction or intake air leaks	22002C	0.6
Cooling system, pressure test	22002D	0.3
Thermostat operation, test (Includes Job Code 20319A) (22019A)	22002E	1.0
Troubleshoot engine (Includes compression, crankcase, and boost pressure test)	22002F	0.8
PTO Dynamometer test	22002G	1.0





**McCORMICK**

**XTX 3-Fuel System**

### 3-Fuel System - 1-Low pressure system

*JOB CODE*



Fuel filter at engine, replace	32001A	0.3
Fuel tank cap, R&I	32011A	0.1
Vent for fuel tank, R&I	32011B	0.5
Drain valve, R&I	32011C	0.4
Fuel tank, R&I	32011D	1.8
Fuel tank strap, R&I	32011E	0.4
Fuel line - fuel tank to in line filter, R&I (Includes floor plate R&I)	32013A	0.9
Fuel line - in line filter to lift pump	32013B	0.2
Fuel line - lift pump to filter, R&I	32013C	0.6
Fuel line - filter to Injector pump, R&I	32013D	0.5
Fuel return line - pump to filter, R&I	32013E	0.4
Fuel return line - Injectors to filter, R&I	32013F	0.2
Fuel return line - filter to tank, R&I (Hose)	32013G	0.6
Fuel return line - at tank, R&I (Includes floor plate R&I)	32013H	0.9
Fuel line - Injector pump to thermostat unit, R&I	32013I	0.2
Fuel line - filter to cooler, R&I	32013J	0.2
Fuel line - cooler to Injection pump, R&I	32013K	0.2
Fuel lift pump, R&I	32015A	0.5
Fuel cooler, R&I	32017A	0.7
Head assembly for fuel filter, R&I (Includes Job Code 32001A)	32021A	0.6

### 3-Fuel System - 2-High Pressure System

*JOB CODE*



Fuel injection pump, R&I	32031A	3.0
Drive gear for injection pump, R&I (Includes Job Code 32061D)	32031E	6.0
Connectors for fuel injection lines, R&I (One) (Includes replacing washer)	32031F	0.2
Clamp assembly for injector lines, R&I	32033A	0.2
Fuel injector line, R&I (One cylinder)	32033B	0.5
(All cylinders)	32033C	1.8
Injector leak of line, R&I	32033D	0.5
No 6 Cylinder - fuel injector line, R&I (Includes replacing seal)	32033E	0.6
Fuel injector, R&I (includes replacing seal) (One)	32035A	0.7
Fuel injector, R&I (includes replacing seal) (All)	32035B	3.6
Fuel injector, overhaul - One (Includes Job Code 30735A)	32035C	1.1
Fuel injector, overhaul - All (Includes Job Code 30735B)	32035D	4.0
Injector pressure, check and adjust (One Injector)	32035E	0.9

### 3-Fuel System - 3-Controls and Adjustments

*JOB CODE*



Fuel injection pump, check and adjust timing	32002A	1.0
Hand throttle lever, R&I	32043A	0.7
Foot throttle pedal, R&I	32043B	0.5
Throttle crossshaft, R&I	32043C	0.6
Throttle linkage (or cable), R&I hand throttle	32043D	0.8
Throttle linkage (or cable), R&I foot throttle	32043E	0.5
Support bracket for throttle cable, R&I	32043F	0.3
Throttle Potentiometer, R&I	32043G	0.3



**McCORMICK**

**XTX 4-Electrical system**

## 4-Electrical system - 1-Battery, Start, Charge

*JOB CODE*



(Hydrometer and load)	40002A	0.4
Charging system, check and test (Includes 40002A)	40002B	0.7
Starting system, check and test (Includes 40002A)	40002C	0.7
Ignition / key switch, R&I	41512A	0.5
Starter motor, R&I	42510A	0.6
Starter motor, overhaul (Includes Job Code 42510A)	42510B	2.8
Starter solenoid, R&I	42510C	1.0
Starter drive assembly, R&I (Includes Job Code 42510A)	42510D	1.3
Battery, R&I (One)	42550A	0.4
Battery, R&I (All)	42550B	0.6
Battery cable, R&I (Positive)	42550C	0.3
Battery cable, R&I (Negative)	42550D	0.3
Battery cable, R&I (Jumper)	42550E	0.2
Alternator, R&I	43010A	0.5
Alternator, overhaul (Includes Job Code 43010A)	43010B	1.9
Regulator and brush assembly, R&I	43010C	0.5
Element thermostart, R&I	44550F	0.3

## 4-Electrical system - 2-Wiring, Fuses, Circuit breakers, diodes

*JOB CODE*



Powershift control circuit, check & test (Includes console R&I)	40002E	0.8
Transmission shuttle circuit, complete check & test	40002F	0.8
EDC (Hitch) circuit, complete test & adjust (Includes console R&I)	40002G	1.0
PTO control circuit complete check & test	40002H	0.7
Connector or terminal for wire harness, replace	40003A	1.0
Transmission wire harness, R&I	40120A	2.5
Engine harness assembly, R&I	40140A	1.2
Instrument panel wiring harness, R&I	40150A	3.0
True ground speed sensor harness, R&I	40150B	0.3
Control console wiring harness, R&I	40150C	1.6
Rear fender lamps harness, R&I	40160A	0.9
Cab roof harness, R&I (Includes cab roof, R&I)	40170A	1.5
Cab floor and `B' post harness, R&I (Includes R&I floor mat)	40170B	3.5
Auxiliary outlet harness, R&I	40180A	0.8
Circuit breakers, R&I (Located -L H front console)	40510A	0.1
Fuse, R&I > L H front console	40520A	0.1
Speaker harness	44570E	0.7
Diode/diode module, R&I	46039P	0.5
Diode module, R&I	47025D	0.5
Fender wire harness for rear hitch control circuit, R&I	47025M	0.8

## 4-Electrical system - 3-Switches, Relays

*JOB CODE*



Relay (s), R&I (R H side console)	40510B	0.5
Relay (s), R&I (Front console)	40510C	0.3
Rectifier, R&I	40510D	0.5
Horn switch, R&I	41510C	0.8
Fuel pump auto advance switch, R&I	41510D	1.5
Driving lamp switch, R&I	41511A	0.4
Brake lamp switch, R&I	41511B	0.4
Turn signal switch, R&I	41511C	0.8
Hazard warning switch, R&I	41511D	0.5
Hi/Low beam switch, R&I	41511E	0.8
Rear-worklamp switch, R&I	41511F	0.4
Front worklamp switch, R&I	41511G	0.4
Rotating beacon switch, R&I	41511H	0.4
Relay (Cab roof), R&I (Includes connecting & disconnecting battery)	41531A	0.5
Switch assembly for park brake, R&I	42024A	0.3
Flasher unit for park brake, R&I	42024B	0.2
Switch temperature hand control for air conditioning, R&I	44010D	1.1
Switch - low pressure - air conditioning, R&I	44010E	1.1
Switch - high pressure - air conditioning, R&I	44010F	0.4
Switch - wiper motor, R&I	44020C	0.5
Switch for ether start, R&I	44550A	0.5
Switch, thermostart	44550E	0.3
Switch - forward/neutral/reverse, R&I (at shuttle lever)	46039G	1.2
Switch - powershift control switch, R&I (at range shift lever)	46039H	1.5
Switch - shift mode selector switch, R&I (at range shift lever)	46039I	1.5
Switch - differential lock, R&I	46039J	0.5
Switch - wheel slip limit control, R&I	46039K	0.5
Switch - MFD clutch, R&I	46039L	0.5
Switch - front PTO, R&I	46039M	0.5
Switch - rear PTO, R&I	46039N	1.0
Micro switch at brake pedal, R&I	46039O	0.7
Operator presence switch, R&I	46039R	0.6



4th Remote valve switch, R&I	46039S	0.5
Switch - filter bypass oil (temp), R&I	47011D	0.5
Switch - filter bypass oil (press), R&I	47011E	0.5
Switch - remote hitch, R&I (At rear fender)	47025A	0.5
Switch - hitch position control, R&I	47025B	0.6
Switch - up/down enable, R&I	47025C	0.6
Switch - drop speed control, R&I	47025E	0.5
Switch - travel control, R&I	47025F	0.5
Switch - upper limit control, R&I	47025G	0.5
Switch - load control, R&I	47025H	0.5

## 4-Electrical system - 4-Instruments, Controllers, Sensors

JOB CODE



Fuel shut off solenoid, R&I	41520A	1.0
Ignition solenoid, R&I	41520B	0.8
Engine electronic controller module, R&I	41520C	1.5
Engine temperature gauge, R&I	42012A	0.5
Sender for temperature gauge, R&I	42012B	0.3
Sensor - coolant level, R&I	42012C	0.5
Fuel level gauge, R&I	42013A	0.5
Fuel level sender, R&I (Includes R&I cab floor plate)	42013B	1.1
Hourmeter, R&I	42015A	0.4
Sender for engine air filter, R&I	42020A	0.2
Bulb for engine air filter condition indicator, R&I	42020B	0.1
Sender unit, engine oil pressure, R&I	42021A	0.2
Bulb, oil pressure indicator, R&I	42021B	0.1
Instrument panel (cluster), R&I	42040A	0.2
Tachometer module, R&I	42040C	0.5
Instrument panel (cluster), software download	42040D	0.5
Solenoid (metering valve) for ether start, R&I	44550B	0.3
Solenoid - forward/reverse clutches, R&I	46039A	0.6
Solenoid - powershift clutches, R&I	46039B	1.0
Solenoid - differential lock, R&I	46039C	0.5
Solenoid - MFD clutch, R&I	46039D	0.5
Solenoid - rear PTO, R&I	46039E	0.5
Solenoid - front PTO, R&I	46039F	0.5
CAB electronic controller module,Xtraspeed & Xtraspeed-E-, R&I	46039Q	1.5
Sensor - true ground speed (radar), R&I	47011A	0.4
Sensor - ground speed, R&I (transmission speed)	47011B	0.6
Sensor - PTO speed (540/1000), R&I	47011C	0.5
Electronic hitch controller module, Xtraspeed & Xtraspeed-E-, R&I	47025I	1.5
Error display module, R&I	47025J	0.5
Solenoid valve for draft controlvalve, R&I	47025K	1.0
Load pin hitch sensor, R&I (One) - R H Pin with rear hitch assist cylinder add Job Code (86161F) if necessary	47025L	0.5
Electronic hitch controller module Xtraspeed-Eplus, R&I	47025M	0.5

CAB electronic controller module,Xtraspeed-Eplus, R&I	47025N	0.5
Transmission controller module, R&I	47025O	1.0
Auxiliary Valve controller, Xtraspeed-Eplus, R&I	47025P	0.5
Electronic hitch controller module, software download	47025Q	0.5
Transmission controller module, software download	47025R	0.5
CAB electronic controller module, software download	47025S	0.5
Auxiliary Valve controller module, software download	47025T	0.5
Electronic Diagnosis, McCormick Diagnostic Centre	47025V	1.0
CAB suspension controller module, R&I	47025W	0.5
CAB suspension controller module, software download	47025X	0.5
Cab Suspension Potentiometer, R&I	47025Y	0.5

## 4-Electrical system - 5-Lighting

*JOB CODE*



Indicator lamp for charging system, R&I	42023A	0.1
Bulb for park brake indicator, R&I	42024C	0.1
Light bulb for cluster, R&I	42040B	0.3
Lamp assembly, R&I (One)	43510A	0.3
Bulb for headlamp, R&I	43510B	0.2
Bulb for sidelamp, R&I	43510C	0.2
Tail lamp bulb, R&I	43520A	0.2
Tail lamp assembly, R&I	43520B	0.4
Lens for tail lamp, R&I	43520C	0.2
Bulb for turn signal or hazard lamp, R&I	43530A	0.2
Turn signal or hazard lamp assembly, R&I	43530B	0.5
Lens for turn signal, R&I (One)	43530C	0.2
Bulb for lens for work lamp, R&I (Front or rear)	43550A	0.3
Work lamp assembly, R&I (Front or rear)	43550B	0.4
Dome lamp assembly, R&I	43560B	0.3
Operator switch for dome lamp, R&I	43560C	0.5
Door switch for dome lamp, R&I	43560D	0.3
Right hand console lamp assembly, R&I	43560E	0.3

## 4-Electrical system - 6-Motors

*JOB CODE*



Troubleshooting electrical circuits with test meter	40002D	1.0
Blower motor and fan, R&I (One)	44010A	1.8
Switch - blower motor, R&I	44010B	0.8
Resistor for blower motor, R&I	44010C	0.9
Front wiper motor, R&I	44020A	1.1
Rear wiper motor, R&I	44020B	0.7
Motor for windshield washer, R&I	44020D	0.7

## 4-Electrical system - 7-Crank, transmission Heaters

*JOB CODE*



Crankcase coolant heater, R&I	44550C	0.3
Engine oil heater, R&I	44550D	0.4
Heat maintainer for transmission oil, R&I	44550G	0.7

## 4-Electrical system - 8-Accessories, radio, sockets, Horn

*JOB CODE*



Horn, R&I	42031A	0.3
Rotating beacon, R&I	43530D	0.5
Bulb for dome lamp, R&I	43560A	0.2
Radio, R&I	44570A	0.4
Speaker, R&I	44570B	0.4
Lead-in for antenna, R&I	44570C	0.3
Antenna cable in filter housing, R&I	44570D	0.8
Element for lighter, R&I	44580A	0.1
Lighter socket, R&I	44580B	0.3
Auxiliary power outlet, R&I	44580C	0.3



**McCORMICK**

**XTX 5-Steering System**



## 5-Steering System - 1-Wheel, column, Linkage

*JOB CODE*



Steering wheel, R&I	50110A	0.5
Steering column assembly, R&I	50110B	1.5
Steering column, overhaul - standard - (Includes 50110B)	50110C	2.1
Steering column, overhaul - telescoping - (Includes 50110B)	50110D	2.6
Boot for steering column, R&I	50110E	0.8
Quadrant linkage for steering tilt, R&I	50120A	1.0
Linkage for telescoping steering, R&I	50120B	0.9
Spring for tilt latch, R&I	50120C	0.8
Mount for steering hand pump, R&I (includes Job Code 50743A)	50743C	2.5

## 5-Steering System - 2-Hydraulics

*JOB CODE*



R & I FRONT AXLE FRICTION PLATES (INCLUDES SEALS)	50320E	0.0
Fitting at priority valve, R&I	50733A	0.3
Supply line - priority valve to hand pump, R&I	50733B	1.6
Fitting at inlet of steering hand pump, R&I	50733C	0.3
Fitting at return of steering hand pump, R&I	50735A	0.3
Return line at outlet of steering hand pump to filter base, R&I	50735B	1.0
Signal line - steering hand pump to priority valve, R&I	50735C	1.5
Steering control hand pump, R&I	50743A	2.0
Steering control hand pump, overhaul (includes Job Code 50743A)	50743B	4.0
Steering relief in priority valve, R&I (includes floor plate, R&I)	50743D	2.0
Fitting at steering hand pump, R&I	50751A	0.3
Line at steering hand pump to steering cylinder, R&I	50751B	1.6
Fitting at steering cylinder, R&I (One)	50751C	0.3
Steering cylinder, R&I - 2WD	50761A	1.4
Steering cylinder, R&I - MFD	50761B	2.1
Steering cylinder, overhaul - 2 wheel drive (Includes Job Code 50761A)	50761C	2.0
Steering cylinder, overhaul - 4WD (MFD) (Includes tie-rods & cylinder tube) (Includes Job Code 50761B)	50761D	2.8

## 5-Steering System - 3-Front axle - 2WD

*JOB CODE*



Tie-rod assembly, R&I 2WD Tractor	50150B	0.7
Center section for front axle, R&I	50310A	2.0
Extension for front axle, R&I	50310B	1.0
Axle pivot pin, R&I	50310C	0.6
Bushings for axle pivot pin, R&I	50310D	1.7
Steering spindle, R&I (One)	50310E	1.3
Bushings for spindle, R&I (One side)	50310F	1.8
Steering arm for spindle, R&I	50310G	0.6
Center steering arm assembly, R&I	50310H	1.2
Hub assembly, R&I (One) (Includes 50320A)	50320B	0.8
Wheel bearings, R&I (One) (Includes 50320B)	50320C	1.0

## 5-Steering System - 4-Front Axle - 4WD

*JOB CODE*



Tie-rod assembly, R&I (One) MFD	50150A	1.0
Tie-rod joint Assembly, R&I (One) (MFD Tractor Only)	50150C	0.6
Tube for Tie Rod, R&I	50150D	1.1
Tie-rod end, R&I (One)	50150E	0.8
Ball joint for Tie Rod End, R&I (One)	50150F	0.8
Ball joint for steering cylinder, R&I (One)	50761E	0.9
Pivot bushings for steering cylinder, R&I	50761F	1.7
Planetary Carrier Replacement ( Suspension Axle )	50762A	0.3
Planetary Carrier Overhaul ( Suspension Axle )	50762B	0.6
Wheel Carrier Replacement ( Suspension Axle )	50762C	0.5
Wheel Carrier Overhaul ( Suspension Axle )	50762D	1.3
Wheel Hub Bearing & Seal Replacement ( Suspension Axle)	50762E	1.3
Wheel Stud Replacement X 1	50762F	0.1
Crown Gear Replacement ( Suspension Axle )	50762G	0.5
Swivel Housing Overhaul ( Suspension Axle )	50762H	2.0
Swivel Housing Replacement ( Suspension Axle )	50762I	2.0
Double U Joint Replacement ( Suspension Axle )	50762J	2.0
Double U Joint Overhaul ( Suspension Axle )	50762K	2.5
King Pin Replacement ( Suspension Axle )	50762L	1.0
Sensor Replacement & Adjustment ( Suspension Axle )	50762M	0.5
Steering Cylinder R&I (Suspension Axle)	50763A	1.0
Steering Rod R&I (Suspension Axle)	50763B	0.5
Steering Rod Ball Joint R&I (Suspension Axle)	50763C	0.3
Steering Rod Tie Rod R&I (Suspension Axle)	50763D	0.5
Ball Joint Protection R&I (Suspension Axle)	50763E	0.3
Tie Rod Protection R&I (Suspension Axle)	50763F	0.3
Steering Cylinder Overhaul (Suspension Axle) Includes Job Code 50763A	50763G	2.0
Central Body Replacement (Suspension Axle)	50764A	6.0
Differential Replcement (Suspension Axle 20.29)	50764B	3.0
Differential Replcement (Suspension Axle 20.25)	50764C	5.0
Pinion Bearings R&I (Suspension Axle)	50764D	3.5
Differential Housing Bearings R&I (Suspension Axle)	50764E	3.0
Bevel Gear/Planetary Gears/Side Gears/Spider Gears/Spider Overhaul (Suspension Axle)	50764F	4.0

Limited Slip Lock R&I	50764G	3.0
Trunion Overhaul (Suspension Axle) Includes Job Code 50764C	50764H	1.0
Trunion Replacement (Suspension Axle)	50764I	0.5
Pinion Seal/Input Flange R&I	50765A	0.5
Arm Bushes R&I (Suspension Axle)	50765B	3.0
Arm Pins R&I (Suspension Axle)	50765C	1.5
Torsion Bar R&I (Suspension Axle)	50765D	1.5
Suspension Cylinder Overhaul (Suspension Axle 20:29)	50765E	3.0
Suspension Cylinder Overhaul (Suspension Axle 20:25)	50765F	2.5
Upper Arm R&I (Suspension Axle)	50765G	2.5
Lower Arm R&I (Suspension Axle)	50765H	3.0
Suspension Control Valve/Accumulators R&I (Suspension Axle)	50765I	1.5
Arm Seals R&I (Suspension Axle)	50765J	2.0

# 5-Steering System - 5-Road Wheels and Tyres

Front wheel, R&I (One)

*JOB CODE*

50320A



0.5

# 5-Steering System - 6-Troubleshooting

Test & adjust steering system hydraulics

*JOB CODE*

50002A



0.8



**McCORMICK**

**XTX 6-Power Train**



# 6-Power Train - 01-Clutch/Torsion Damper

Drive hub, Torsional dampener, R&I

*JOB CODE*

61025A



3.5

## 6-Power Train - 02-Input Drive Shaft

*JOB CODE*



Input shaft assembly, R&I and overhaul	62321A	13.2
Drop shaft assembly, R&I and overhaul	62321B	15.2
Input shaft main bearings, R&I (Both)	62323B	8.8
Drop shaft main bearings, R&I (Both)	62323C	10.6
Syncro-shift speed input shaft, R&I	62521A	7.8
Drive shaft, R&I - engine to transmission - (Includes shield R&I)	63161A	2.0
Input shaft, R&I (Includes Job Code 60003U)	66010B	6.5

## 6-Power Train - 03-Speed Gearbox

*JOB CODE*



Speed transmission, R&I and overhaul - powershift (Includes split)	60003B	20.5
Speed transmission housing, replace (Includes R&I)	60003C	29.0
Creeper cover assembly, R&I	60003N	1.4
MFD clutch assembly, R&I and overhaul	62321C	13.2
MFD output shaft seal, R&I	62323D	1.4
Idler & drive gear for MFD clutch, R&I	62331A	12.7
Split tractor between front frame & speed transmission (Includes removing adapter plate)	62335A	5.8
Front bearing carrier plate, R&I in speed housing (Includes Job Code 62335A)	62335D	7.5
Shift lever shaft (O-ring/seal), R&I (One)	62511D	1.3
Output shaft for MFD in speed in transmission, R&I	62521C	2.6
Drive shaft for rear PTO in speed transmission, R&I (Includes drive gear for rear PTO & hydraulic pump)	62521F	13.3
Dual speed shaft - sleeve assembly, overhaul (Includes gears & bearings) (includes Job Code 60003U)	66010C	7.0
Output shaft, R&I	66010D	0.3
Oil seal for output shaft, R&I	66010E	0.5

## 6-Power Train - 04-Range Gearbox, Transaxle

*JOB CODE*



Range transmission, overhaul (2WD) (Includes R&I)	60003D	21.3
Range transmission, overhaul (MFD) (Includes R&I)	60003E	22.4
Range transmission housing, replace (Includes R&I)	60003F	34.0
Reseal sandwich plate to range transmission (MFD) (Includes Job Code 62335B)	60003G	12.4
Rear differential assembly, R&I (Includes axles, rockshaft HSG & PTO R&I)	60003H	12.9
Rear differential assembly, overhaul (Includes Job Code 60003H)	60003I	14.9
Rear axle differential bevel gear-set, R&I (2WD) (Includes split)	60003L	25.0
Rear axle differential bevel gear-set, R&I (MFD) (Includes split)	60003M	26.5
Forward/reverse clutch assembly, (Shuttle) R&I and overhaul - with MFD	62321D	22.0
Forward/reverse clutch assembly, (Shuttle) R&I and overhaul - without MFD	62321E	15.4
Oil distribution hub & shaft seals, R&I	62323A	7.2
Split tractor between speed & range transmission (Includes cab R&I and filter screen housing to access bolts for XTX185/200/215)	62335B	11.2
Reseal bearing carrier - sandwich plate - to range transmission (Includes Job Code 62335B)	62335C	12.3
- range transmission - gears (MFD-tractors add job code 63161A)	62511B	12.9
Main shaft - speed to range, R&I (without creeper)	62521D	2.9
Main shaft - speed to range, R&I (with creeper - includes Job Code 60003N)	62521E	3.5
Drop Shaft - Speed, R&I	62521G	3.5
Input Shaft - Speed, R&I	62521H	2.5
Intermediate gears in range transmission, R&I	62523A	15.8
Pinion shaft oil seal, R&I	63111D	1.2
Differential lock clutch, overhaul (Includes Job Code 60003H)	63117A	14.9
PTO drive shaft in range transmission, R&I (Includes Job Code 60003U)	66010A	5.1
PTO housing replace (Includes R&I of all components & adjustments)	66030A	9.5

## 6-Power Train - 05-Rear PTO

*JOB CODE*



Rear PTO housing assembly, R&I	60003U	5.0
Rear PTO housing assembly, overhaul (Includes Job Code 60003U)	60003V	9.0
PTO clutch/brake, R&I & overhaul (Includes Job Code 60003U)	66020A	7.2

## 6-Power Train - 06-Front PTO

*JOB CODE*



Front PTO complete assembly, R&I	60003W	2.3
Front PTO complete assembly, overhaul (Includes Job Code 60003W)	60003X	4.6
Lube line at PTO, R&I	66020H	0.3
Front PTO clutch, R&I	66020I	0.0
Front PTO clutch, overhaul (Includes Job Code 66020I)	66020J	0.0
Front PTO control valve, R&I	66020K	0.5
Front PTO control valve, overhaul (Includes Job Code 66020K)	66020L	0.8
Front PTO pressure line-front, R&I	66020M	0.3
Front PTO pressure line-middle, R&I	66020N	0.5
Front PTO pressure line-rear, R&I	66020O	0.3
Front PTO control valve return line, R&I	66020P	0.3

## 6-Power Train - 07-Rear Axle

*JOB CODE*



Rear axle housing assembly, R&I (One)	60003J	2.5
Rear axle housing assembly, overhaul bar or flange (Includes Job Code 60003J)	60003K	3.9
Axle shaft, R&I (One) bar or flange axle (Includes replacing seals)	63111A	3.7
Oil seal for bar axle, R&I (Includes Job Code 63171B)	63111B	1.5
Axle shaft, R&I (One)	63111C	3.2
Universal joints on axle shaft, R&I (Steering knuckle - MFD) (Includes replace seals)	63111E	3.4
Rear sun gear shaft, R&I (One)	63123A	2.6
Rear planetary ring gear, R&I (One)	63123B	3.9
Rear planetary gears, R&I (One-side)	63123C	3.2

## 6-Power Train - 08-Linkage, Controls

*JOB CODE*



Clutch pedal, R&I	65010A	0.7
Return spring for clutch pedal, R&I	65010B	0.4
Hand control lever - speed shift, R&I (gear) mechanical transmission	65010C	0.9
Hand control lever - range shift, R&I	65010D	1.0
Hand control lever - creeper shift, R&I	65010E	0.9
Hand control lever - shuttle shift, R&I	65010F	0.7
Boot for shift lever, R&I	65010G	0.4
Shift interlock latch assembly, R&I (Includes Job Code 90318G) (One)	65010H	0.9
Shift interlock latch assembly, R&I (Includes Job Code 90318G) (Two)	65010I	1.3
Cable to inching tool spool, R&I at clutch pedal	65020A	0.8
Shift cable (mechanical lock), R&I (Includes Job Code 90318G)	65020B	0.8
Shift cable creeper gear, R&I	65020C	1.0
Ball joint or yoke for cable, R&I (One)	65020D	0.3
Linkage - for speed lever, R&I	65020E	0.9
Linkage - for range lever, R&I	65020F	0.9
Bellcrank for speed/range linkage, R&I	65020G	1.1
Speed linkage - bellcrank to transmission, R&I	65020H	0.3
Range linkage - bellcrank to transmission, R&I	65020I	0.3
Shift levers at transmission, R&I (One)	65020J	0.3
PTO engage/disengage control lever, R&I	66060A	0.8
Cable/link for 540/1000, R&I	66060B	0.6
Lever at PTO housing, R&I (540/1000)	66060C	0.3
Operator PTO speed lever assembly, R&I (540/1000)	66060D	0.8



## 6-Power Train - 09-Rear Wheels

*JOB CODE*



Rear wheel & tire, R&I (One)	6317	1.0
Front wheel & tire, R&I (One)	63171A	0.4
Rear wheel & tire, R&I (One) (Flange axle)	63171B	0.6
Front tire/tube, R&I (One) - (Includes rim/wheel R&I)	63173A	0.8
Rear tire/tube, R&I - (One) - (Includes rim/wheel R&I)	63173B	1.3
Universal hub for rear wheel, R&I (One)	63175A	1.0
Wheel weight, R&I	63175B	0.3

## 6-Power Train - 10-Hydraulics-

*JOB CODE*



Drain and fill transmission oil	60001A	0.5
Drain and fill front differential	60001B	0.4
Drain and fill front planetary (One)	60001C	0.3
Powershift clutch circuits - pressure test -	60002A	0.5
Forward/reverse clutch - pressure test -	60002B	0.5
Hitch valve circuit - pressure test -	60002C	0.5
MFD clutch circuit - pressure test -	60002D	0.5
Rear - PTO clutch circuits - pressure test -	60002E	0.5
Front - PTO clutch circuits - pressure test -	60002F	0.5
Hydraulic leakage/flow tests on all circuits	60002G	1.5
High Low clutch circuits - pressure test -	60002H	0.5
External lube/supply lines, R&I (One)	62315A	0.4
Internal pressure/lube lines, R&I (Includes split)	62315B	6.2
Line - priority valve to powershift valve, R&I	62316A	0.5
Line - priority valve to forward/reverse valve, R&I (Shuttle)	62316B	0.4
Hydraulic accumulator, R&I	62316C	0.3
Powershift control valve, R&I (Manifold assembly) XTX185/200/215 (Includes R&I of R H cab mount brkt)	62317A	2.5
Powershift control valve, overhaul (Includes Job Code 62317A)	62317B	3.1
Forward/reverse valve, R&I (Shuttle)	62317C	2.0
Forward/reverse valve, overhaul (Includes Job Code 62317C)	62317D	3.1
Hydraulic line shuttle valve to PTO valve, R&I	66020B	0.5
Hydraulic fitting for PTO lines, R&I (One)	66020C	0.3
PTO control valve, R&I	66020D	0.4
PTO Control valve, overhaul (Includes Job Code 66020D)	66020E	0.7
Lube line at filter base, R&I	66020F	0.3
Intermediate lube line, R&I	66020G	0.3
Rear PTO - supply line valve to PTO	66020Q	0.0

## 6-Power Train - 12-MFD Driveline

*JOB CODE*



MFD axle-complete assembly, R&I	60003Q	3.0
MFD axle-complete assembly, overhaul (includes Job Code 60003Q)	60003R	16.3
MFD differential assembly, R&I	60003S	5.9
MFD differential assembly, overhaul (includes Job Code 60003S)	60003T	9.1
Steering knuckle - MFD (swivel or U-joint housing), R&I (One)	63119A	2.8
Pivot pin for front axle, R&I (MFD)	63119B	1.1
Bushings for pivot pin, front axle (MFD), R&I (Includes job code 63119B)	63119C	1.9
MFD sun gear shaft, R&I (One)	63123D	3.2
MFD planetary ring gear, R&I (One)	63123E	2.3
MFD planetary gears, R&I (One-side)	63123F	1.9
Front planetary sun gear, R&I	63123G	1.3
Planetary wheel hub (MFD), R&I (One) (Includes replacing seals)	63127A	2.5
Planetary gear cover, R&I (MFD)	63127B	1.2
MFD drive shaft, R&I - to MFD axle - (Includes shield R&I)	63161B	0.6
Universal joint, R&I - MFD drive shaft (Includes 63161B) (One)	63163A	0.8
Universal joint, R&I - MFD drive shaft (Includes 63161B) (All)	63163B	1.0
Universal joint, R&I - (One) - drive shaft Engine to transmission (Includes 63161A)	63163C	2.5
Universal joint, R&I - (All) - drive shaft Engine to transmission (Includes 63161A)	63163D	3.0



**McCORMICK**

**XTX 7-Brakes**

## 7-Brakes - 1-Park Brake

*JOB CODE*



Parking brake disks & actuating assembly, R&I and overhaul (Includes splitting tractor)	71073A	12.1
Hand lever for parking brake, R&I	71081B	0.6
Cable assembly - parking brake, R&I	71085A	0.6

## 7-Brakes - 2-Service Brake

*JOB CODE*



Line - supply to brake reservoir, R&I	71041A	0.4
Line - brake reservoir to sump, R&I	71041B	0.6
Line at inlet of brake valve, R&I (One)	71041C	0.4
Fitting at inlet of brake valve, R&I (One)	71041D	0.3
Line at work port of brake valve, R&I (One)	71041E	0.3
Equalizer line, R&I	71041F	0.3
Fitting at work port of brake valve, R&I (One)	71041G	0.3
Intermediate line between brake valve & brake cylinder, R&I (One)	71041H	0.3
Line at inlet of brake/wheel cylinder, R&I (One)	71041I	0.4
Fitting at inlet of brake/wheel cylinder, R&I (One)	71041J	0.3
Boost supply line-priority valve to master cylinders, R&I (Includes floor plate R&I)	71041K	1.5
Booster tubes, R&I (One)	71041L	0.5
Brake valve assembly, R&I (Both) (Master cylinder)	71055A	1.4
Brake valve assembly, overhaul (Includes Job Code 71055A)	71055B	2.4
Master cylinder booster, R&I & overhaul	71055C	1.2
Brake and piston & seal, R&I & overhaul (One) (Includes Job Code, 60003J)	71061A	3.2
Rear brake disc, R&I All - one side (Includes 60003J)	71073B	4.5
Brake pedals, R&I (Both)	71081A	1.4
Linkage - brake pedal to master cylinder, R&I	71083A	0.4
Return spring for brake pedal, R&I	71083B	0.4
Mounting bracket for brake pedals, R&I	71083C	1.2

## 7-Brakes - 3-Pneumatic Trailer Brakes

*JOB CODE*



Remove air from brake system	70001A	0.3
Mod Programme 2	70500	0.0
Air reservoir tank, R&I (One)	71011A	0.5
Air compressor, R&I	71033A	1.0
Air compressor drive belt, R&I	71033B	0.4
Line - air suction at compressor, R&I	71043A	0.3
Line compressor to pressure control valve, R&I (One)	71043B	0.3
Line -pressure control valve to air tank, R&I (One)	71043C	0.3
Line - air tank to valve, R&I	71043D	0.3
Line - air tank to hand brake valve, R&I	71043E	0.3
Line - valve to trailer brake coupling, R&I	71043F	0.3
Line - hand brake valve to trailer brake coupling, R&I	71043G	0.3
Trailer brake coupling, R&I	71043H	0.3
Line to solenoid (servo) valve, R&I	71043I	0.3
Line - brake cylinder to air brake, R&I	71043J	0.4
Air brake pressure control valve, R&I	71051C	0.4
Air brake valve, R&I	71053D	0.5
Air hand brake, R&I	71053E	0.7
Air flow control - solenoid valve, R&I	71053F	0.5
Moisture drain valve, R&I	71053G	0.3
Air gauge, R&I	71053H	0.3
Lever for air park brake, R&I	71085B	0.4
Rod for air park brake, R&I	71085C	0.3

## 7-Brakes - 4-Hydraulic Trailer Brakes

*JOB CODE*



Brake fluid reservoir, R&I	71013A	0.4
Line at inlet of trailer brake valve, R&I	71041M	0.4
Fitting at inlet of trailer brake valve, R&I	71041N	0.3
Line from trailer brake valve to trailer brake coupling, R&I	71041O	0.4
Trailer brake coupling, R&I	71041P	0.3
Hydraulic trailer brake priority valve, R&I	71051A	0.5
Hydraulic trailer brake priority valve, overhaul (Includes R&I)	71051B	0.9
Hydraulic trailer brake valve, R&I	71053A	0.5
Hydraulic trailer brake valve, overhaul (Includes 71053A)	71053B	0.9
Signal check valve, R&I (Located in trailer brake valve)	71053C	0.3



# 7-Brakes - 5-Troubleshooting

Test pressure for brake system

*JOB CODE*

70002A



0.6



**McCORMICK**

**XTX 8-Hydraulic System**

## 8-Hydraulic System - 1-Charge Pump, Filter

*JOB CODE*



Spin-on hydraulic oil filter, replace	80001A	0.3
Inlet screen for charge pump, R&I (Includes Cleaning)	80001B	0.8
Install portable filter & filter the oil in the hydraulic system (Includes Job Code 80001A)	80001C	1.2
Oil filter tube, R&I	86111C	0.8
Mounting base for hydraulic filter, R&I	86113A	2.3
Bypass valve for hydraulic filter, R&I	86113B	0.3
Charge pump, R&I & overhaul (Includes split tractor or working through screen housing on XTX185/200/215) - 2WD	86125A	13.5
Charge pump, R&I & overhaul (Includes split tractor or working through screen housing on XTX185/200/215) - 4WD	86125B	14.5

## 8-Hydraulic System - 2-Main Pump

*JOB CODE*



Piston pump assembly, R&I	86121A	2.7
Piston pump assembly, overhaul (Includes Job Code 86121A)	86121B	4.0
Hydraulic pump drive gear, R&I (Includes pump R&I & split)	86121C	15.4

## 8-Hydraulic System - 3-Valves, Couplers

*JOB CODE*



Check & adjust - low pressure standby	80002B	0.6
Check & adjust - high pressure standby	80002C	0.6
Test remote outlet pressure	80002G	0.4
Outlet line at remote valve, R&I	84461A	0.3
Remote coupler dust shield / oil collection boot and lines, R&I	86111E	0.3
Remote coupler drain collection tank & bracket, R&I	86111F	0.3
Lube relief valve, R&I (Includes Job Code 86113A)	86113C	2.6
Pump compensator assembly, R&I	86121D	1.4
Pump compensator assembly, overhaul (Includes Job Code 86121D)	86121E	1.9
Remote valve assembly, R&I - One section	86143A	0.6
Remote valve assembly, R&I - All sections	86143B	1.2
Remote valve section, overhaul - One - (Includes Job Code 86143A)	86143C	1.7
Detent for remote valve, overhaul - One - (Includes Job Code 86143A)	86143D	0.9
O-Rings between remote valve sections, replace (Includes Job Code 86143B)	86143E	1.3
Quick coupler at remote valve, R&I - One coupler	86143F	0.3
Quick couplers at remote valves, R&I - All couplers	86143G	0.6
Flow control valve, overhaul (One)	86143H	0.5
Load check valve, overhaul (One)	86143I	0.4
Valve - cooler bypass, R&I and overhaul	86143K	0.0
Priority/regulator valve, R&I (Includes floor plate R&I)	86147A	1.5
Priority/regulator valve, overhaul (Includes Job Code 86147A)	86147B	2.5
Steering priority spool, R&I (Includes floor plate R&I)	86147C	1.2
Steering pressure relief, R&I (Includes floor plate R&I)	86147D	1.2
Transmission regulator spool, R&I (Includes floor plate R&I)	86147E	1.2
Hitch control valve, R&I	86161A	2.0
Hitch control valve, overhaul (Includes Job Code 86161A)	86161B	3.0
Hitch cylinder cushion relief valve, R&I (Includes cover R&I)	86161D	0.5
Hose - cushion valve to EDC, (hitch) valve, One, R&I	86161I	0.0

## 8-Hydraulic System - 4-Hose, Tubes, Cooler

*JOB CODE*



Intermediate line, R&I	84461C	0.3
Breather, R&I	86111D	0.2
Internal line - charge pump to hydraulic filter, R&I (Includes transmission split)	86131A	11.8
Line - hydraulic filter to inlet of piston pump, R&I	86131B	0.5
Line - pump to priority/pressure regulator (Includes Job Code 90311F)	86133A	1.2
Line - priority valve/tee junction to EDC (Hitch) valve, R&I	86133B	0.5
Line - priority valve to remote valves, R&I	86133C	1.0
Line - remote valve base to EDC (Hitch) valve base	86133D	0.0
Outlet line at remote valve, R&I	86135A	1.1
Intermediate return line - remote valve to filter (Includes Job Code 90311F)	86135B	1.0
Inlet line at hydraulic filter, R&I	86135C	0.8
Compensator line - regulator/steering priority valve to tee junction, R&I	861379B	0.3
Return line/hose at outlet of oil cooler, R&I	86137A	0.3
Return line - intermediate, R&I (to cooler bypass on XTX185/200/215)	86137B	0.8
Return line - at rear of transmission housing, brake lube, R&I	86137C	0.3
Supply line - at filter, R&I (to cooler bypass on XTX185/200/215)	86137D	0.8
Supply line - intermediate, R&I (from cooler bypass on XTX185/200/215)	86137E	0.5
Supply line - at cooler, R&I	86137F	0.5
Return line - cooler bypass valve to rear tee	86137G	0.0
Compensator line - remote valve to EDC (Hitch) valve, R&I	86139A	1.1
Compensator line - tee junction to compensator, R&I	86139C	0.3
Compensator line -EDC (Hitch) valve to tee junction, R&I	86139D	0.3
Line - remote valve to coupling, (One) R&I	86143J	0.0
Line - draft control valve to hitch cylinder, R&I (cushion relief on XTX185/200/215)	86161C	1.2
Line - shuttle valve to EDC (hitch) valve	86161J	0.2
Oil cooler, R&I Add Job Code - 90001A - If required for air conditioning systems	86181A	0.7

## 8-Hydraulic System - 5-Cylinders, Rockshaft

*JOB CODE*



Test & adjust EDC HITCH circuit	80002H	1.5
Check valve in line to hitch cylinder, R&I	84461B	0.4
Inlet line at hitch cylinder, R&I	84461D	0.3
Front hitch cylinder, R&I (One)	84461E	0.6
Front hitch cylinder, overhaul (Includes Job Code 84461E)	84461F	1.0
Hitch cylinder, R&I and overhaul	86161E	2.3

# 8-Hydraulic System - 6-Controls, Linkages

*JOB CODE*



Dipstick, R&I

86111A

0.1

Dipstick tube, R&I

86111B

0.8



## 8-Hydraulic System - 7-Troubleshooting

*JOB CODE*



Pressure check charge circuit (at filter)	80002A	0.8
Flow test charge pump (using filter housing adapter)	80002D	1.0
Flow test main piston pump	80002E	1.0
Leak check complete hydraulic system with flowmeter	80002F	1.8



**McCORMICK**

**XTX 9-Chassis / Attachments**

## 9-Chassis / Attachments - 01-Cab

*JOB CODE*



Recover, evacuate & change air conditioning system	90001A	1.0
Strip away necessary air conditioning components back to cab, when splitting transmission or R&I of cab Job Code - 90001A - not used with this Job Code	90001B	1.8
Test air conditioning system using leak detector & manifold gauges	90002A	1.0
Front engine mount, R&I (One)	90115B	0.5
Rear engine mount, R&I (One) (Includes hood mounting bracket R&I)	90115C	0.7
Front cab mount bracket, R&I (One)	90115D	0.8
Rear cab mount bracket, R&I (One)	90115E	0.8
ISO-mount - Front cab mount, R&I (One) (Includes Job Code 90115D)	90115F	1.0
ISO-mount - Rear cab mount, R&I (One) (Includes Job Code 90115E)	90115G	1.0
Cab Suspension Cylinder, R&I (one)	90115H	0.5
Cab Suspension Valve Solenoid, R&I (one)	90115I	0.5
Cab Suspension Valve, R&I	90115J	1.0
Steps & support, R&I (One side)	90133A	0.4
Hand rail, R&I	90133E	0.3
Battery box, R&I (Includes batteries, R&I)	90136B	0.9
Air filter for cab, R&I	90142A	0.2
Cab, R&I (With air conditioning add 90001B)	90311A	4.5
Cab roof, R&I	90311B	0.8
Cab blower housing, R&I	90311C	1.2
Operator platform, R&I (Units without cab)	90311D	4.5
Inner roof panel, R&I (Support for A/C)	90311E	4.0
Front plate, R&I (Includes floor mat)	90311F	0.5
Cab window, R&I - front	90313A	0.0
Cab window, R&I - rear	90313B	0.7
Arm / blade for windshield wiper, R&I	90313E	0.2
Cab door, R&I	90313F	1.1
Assist cylinder for door or window, R&I	90313G	0.3
Door handle & latch assembly, R&I	90313H	0.5
Cab mirror, R&I	90313I	0.3
Latch & handle for rear window, R&I	90313J	0.3
Window washer reservoir, R&I	90313K	0.7

Cab door glass seal, R&I	90313L	1.0
Cab window glass seal, R&I	90313M	0.8
Heater control cable, R&I	90315A	1.5
Heater control valve, R&I - in cab roof	90315B	1.7
Heater control valve, R&I - at engine	90315C	0.5
Heater core, R&I (Tractors without air conditioning)	90315D	2.0
Heater hose, R&I - cab to engine (One)	90315E	1.5
Heater hoses, R&I - cab to engine (Both)	90315F	1.7
Heater hose, R&I - return hose at engine	90315G	0.5
Air louvers, R&I	90315H	0.2
Heater / evaporator core, R&I	90317A	2.2
Expansion valve, R&I	90317B	1.7
Air conditioning line, R&I - Compressor to expansion valve	90317C	1.6
Air conditioning line, R&I - Evaporator to condenser	90317D	1.6
Air conditioning line, R&I - Condenser to dryer	90317E	0.4
Air conditioning line, R&I - Dryer to compressor	90317F	0.8
Air conditioning compressor, R&I	90317G	1.1
Air conditioning compressor, overhaul (Includes Job Code 90317G)	90317H	2.8
Front seal for compressor, R&I	90317I	1.8
Clutch assembly for compressor, R&I	90317J	0.9
Belt for compressor, R&I	90317K	0.3
Dryer, R&I	90317L	0.5
Drain hose for evaporator drip pan, R&I	90317M	1.0
R H console frame, R&I	90318A	2.0
Remote levers / pivot pin, R&I (Includes cover & shroud R&I)	90318B	1.0
Gear shift lever / pivot pin, R&I (Includes cover & shroud R&I)	90318C	1.5
Support frame for instrument panel, R&I	90318I	1.2
Foam pads inside cab, R&I (Acoustic & Insulating)	90319A	0.0
Headliner, R&I	90319B	3.4
Control panel for headliner, R&I	90319C	0.9
Floormat, R&I	90319D	0.3
Ashtray, R&I	90319E	0.1
Coat hook, R&I	90319F	0.1
Sun visor, R&I	90319G	0.3
Roll over protection (ROPS), R&I	90321A	0.5

Seat assembly, R&I (Includes suspension assembly)	90331A	0.9
Standard seat assembly, overhaul (Includes Job Code 90331A)	90331B	1.6
Optional seat assembly, Overhaul (Includes Job Code 90331A)	90331C	2.0
Bracket assembly, R&I	90331D	0.9
Cushion / pad assembly for seat, R&I	90331E	0.9
Seat top assembly, R&I	90331F	0.6
Arm rest, R&I (One) Xtraspeed & Xtraspeed-E-	90331G	0.3
Boot or cover for suspension, R&I	90331H	0.5
Isolator/latch assembly, R&I	90331I	1.3
Swivel assembly, R&I	90331J	1.2
Wire harness, R&I	90331K	0.9
Air control switch, R&I	90331L	0.7
Seat air compressor, R&I	90331M	1.2
Seat air spring, R&I	90331N	1.4
Air line, R&I	90331O	0.5
Suspension rollers, R&I	90331P	1.2
Suspension shock absorber, R&I	90331Q	1.4
Isolator shock, R&I	90331R	1.1
Seat belt, R&I	90331S	0.4
Suspension cable, R&I	90331T	0.9
Isolator lock cable, R&I	90331U	1.3
Co-driver seat assembly, R&I	90331V	0.3
L/H Arm rest, R&I Xtraspeed-Eplus	90331W	0.3
R/H Arm rest, R&I Xtraspeed-Eplus	90331X	0.5
Third link, R&I	94421A	0.3
Third link, overhaul (Includes Job Code 94421A)	94421B	0.5

## 9-Chassis / Attachments - 02-Fenders

*JOB CODE*



Front fender & bracket, R&I (One)	90133B	0.4
Rear fender, R&I (One)	90133C	0.9
Rear fender extension, R&I (One)	90133D	0.4

## 9-Chassis / Attachments - 03-Frame, Bolster, Weights

*JOB CODE*



Engine/front frame assembly, R&I	90111A	10.5
Front extension casting, R&I	90111B	0.8
Radiator support/plate, R&I	90115A	4.0
Front weight, R&I (One)	90117A	0.2
Front weights, R&I (All)	90117B	0.6
Support frame for front weights, R&I	90117C	0.7

## 9-Chassis / Attachments - 04-Hood, Side Panels, Grille

*JOB CODE*



Hood assembly, R&I (Complete with rear frame)	90131A	0.5
Hood lift cylinder, R&I (One)	90131B	0.3
Rear hood support, R&I (One)	90131C	0.4
Side sheet, replace	90131D	0.3
Hood release, R&I	90131E	0.4
Seal strip for hood, R&I	90131F	0.4
Front grille frame, R&I	90132A	0.5
Front grille screen, R&I	90132B	0.6
Side grille frame, R&I	90132C	0.1
Side grille screen, R&I	90132D	0.3
Retaining latch for side screens, R&I	90132E	0.2



## 9-Chassis / Attachments - 05-Front 3Pt Hitch

*JOB CODE*



Mounting frame for front hitch, R&I	94431A	1.9
Front rockshaft / frame and caps, R&I	94433A	1.5
Front draft arm, R&I	94433B	0.3
Front draft arm latch, R&I	94433C	0.4

## 9-Chassis / Attachments - 06-Rear 3Pt Hitch

*JOB CODE*



Upper pin for lift cylinder, R&I	94421C	0.1
Lower pin for lift cylinder, R&I	94421D	0.1
Rockshaft and housing assembly, R&I	96120A	6.0
Bushings for rockshaft, R&I (Includes all bushings-seals R&I)	96120B	6.5
Oil seals, rockshaft, R&I (Both seals)	96120C	1.0
Third/top link, R&I and overhaul	96120D	0.3
Lift link, R&I and overhaul - One -	96120E	0.3
Mounting bracket, R&I - hitch sensing pin (Includes 96133C and - adjustments)	96131A	1.0
Cover plate, R&I - Hitch sensing pin	96131B	0.2
Top (third) link storage assembly, R&I	96131C	0.2
Rockshaft internal power arm, R&I	96133A	6.0
External lift arm, R&I	96133B	0.3
Draft arm / lower link, R&I (One - Standard or telescoping)	96133C	0.5
Telescope assembly for draft arm, R&I and overhaul	96133D	0.6
Sway stop on draft arm, R&I - (One)	96133E	0.2
Cam limiter sway block, R&I	96133F	0.2
Stabilizer assembly, R&I and overhaul	96133G	0.4
Quick hitch coupler assembly, R&I	96135A	0.2
Latch assembly for quick hitch coupler, Overhaul (One)	96135B	0.5
Linkage / bracket for hitch position sensor, R&I	96137A	0.8

## 9-Chassis / Attachments - 07-Trailer hitches

*JOB CODE*



Drawbar, R&I	90117D	0.2
Yoke for drawbar, R&I	90117E	0.3
Support bracket for drawbar, R&I	90117F	1.3
Drawbar pivot bracket, R&I	90117G	0.6
Auto hitch assembly, R&I	90117H	2.7
Auto hitch lift rod, R&I (One)	90117I	0.3
Auto hitch lift rod bracket, R&I (One)	90117J	0.3
Auto hitch bowden cable, R&I	90117K	0.6
Auto hitch lever assembly, R&I	90117L	0.4
Height adjustable trailer hitch assembly, R&I	90117M	1.1
Trailer hitch clevis, R&I	90117N	0.4
Trailer hitch auto clevis, overhaul	90117O	0.5
Piton main frame, R&I	90117P	1.7
Piton clevis assembly, R&I	90117Q	0.5

## 9-Chassis / Attachments - 08-Guards, Shields

*JOB CODE*



Shield R&I - Front drive shaft	90135A	0.3
Shield R&I - PTO shaft	90135B	0.3
Shield R&I - Fuel tank	90135C	0.3
Cover for battery box, R&I	90136A	0.2
Shrouds, R&I - Front instrument panel - R H side -	90318D	0.2
Shroud, R&I - Front instrument panel - L H side -	90318E	0.2
Shroud, R&I - Steering column	90318F	0.4
R H side console top cover, R&I	90318G	0.8
R H side console shroud, R&I (Includes lifting top cover)	90318H	0.9
Instrument top panel, R&I (Includes switch, R&I)	90318J	0.6

# 9-Chassis / Attachments - 09-Paint

Painting

*JOB CODE*

90137A



0.0

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## 9-Chassis / Attachments - 10-Accessories, Decals

*JOB CODE*



Tool box, R&I

90136C

0.2

Decals, replacing

90137B

0.0