



M-48

M-54

M-60

TIME SCHEDULE
AND
PROCEDURE MANUAL

Time Schedule Index

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INTRODUCTION TO TIME SCHEDULE AND PROCEDURE MANUAL

GENERAL

This Manual provides a general explanation of maintenance and repair functions and the time allotted by CUB CADET for the accomplishment of each function on CUB CADET COMMERCIAL, M-48, M-54, M-60 Tank series mowers.

The table of contents provides the operation number and name and the applicable section page number.

The body of the manual provides information on the maintenance and repair functions authorized for the model. Additional information on the tabular arrangement of this portion of the section and the related illustrations contained within it is provided below.

The alphabetical index lists part names, their associated operations numbers, and the related page number.

The purpose of this manual is to supply information on operations and applicable operation numbers to personnel responsible for repairing and/or costing of maintenance functions performed on a CUB CADET COMMERCIAL Tank unit, especially work required under warranty coverage.

EXPLANATION OF COLUMNS IN THE BODY OF EACH SECTION.

1. OPERATION NUMBER column: An operation number is a number given to each procedure accomplished on a given unit. The first letter of the operation number identifies the applicable subsection of the Time Schedule and Procedure Manual section for each model. The operation number also, in most cases appears on related exploded view illustrations of the components that are the subject of a particular operation. See the table of contents for additional information.

2 OPERATION DESCRIPTION column: This column names the component that is the subject of the procedure and describes the maintenance functions to be performed. Maintenance function are defined as follows.:

- a. Adjust.** To make changes to the variable elements of the equipment to cause the performance of the equipment to meet specifications.
- b. Check.** To determine a component's serviceability by comparing physical, mechanical, and/or electrical characteristics against established requirements.

- c. **Inspect.** To determine a components serviceability by comparing physical, mechanical, and/or electrical characteristics against established requirements.
- d. **Overhaul.** To perform complete disassembly of the item, complete cleaning, 100% inspection, replacement of damaged or worn components, reassembly, and reassembly verification.
- e. **Repair.** To restore an unserviceable piece of equipment to a serviceable condition by accomplishing only the required maintenance functions.
- f. **Remove/Install.** To remove a part and install the same part into the same position without any further maintenance.
- g. **Replace.** To substitute a serviceable component for an unserviceable component.

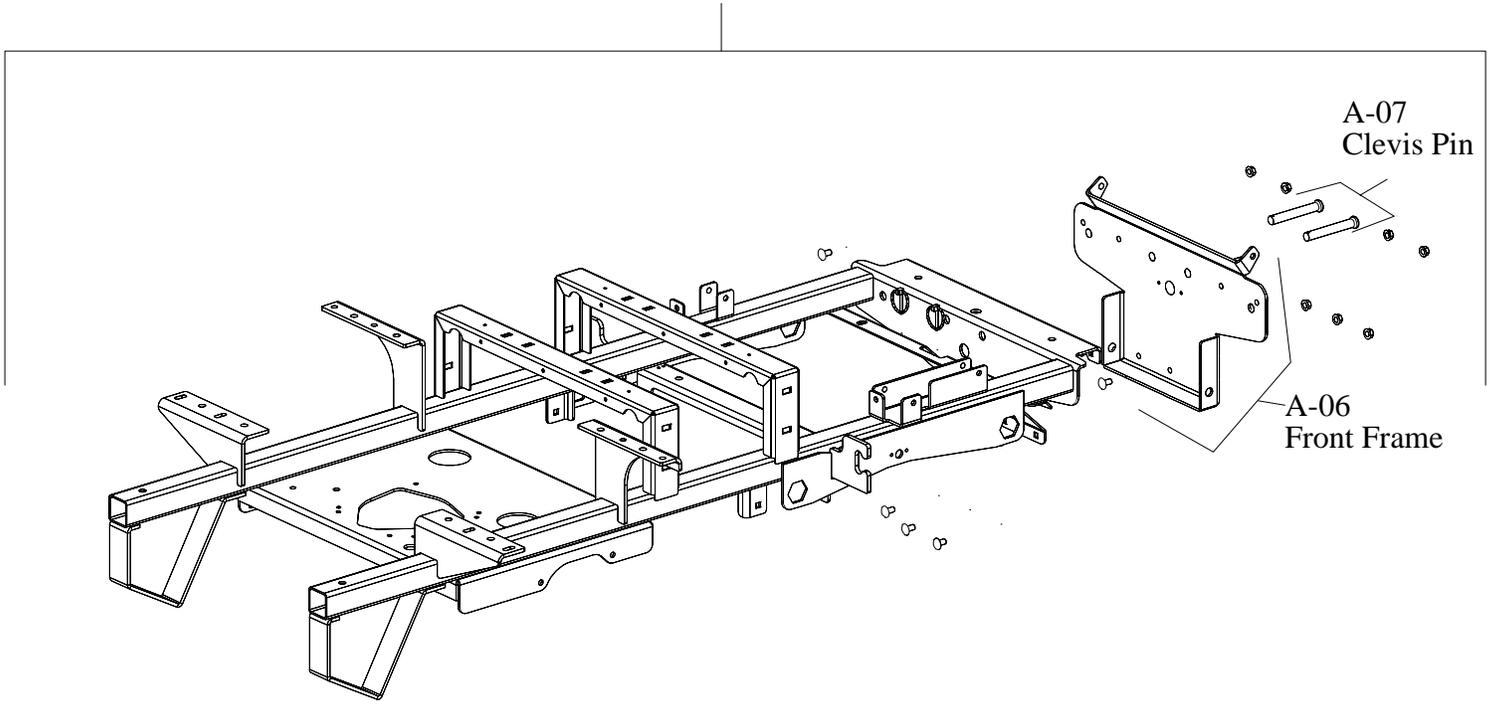
3. Operation Includes column: This column describes each operation and related operation number, or numbers, needed to accomplish the procedure. The FLAT RATE TIME column includes the times required to accomplish all subsidiary operations.

4. FLAT RATE TIME COLUMN: This column shows the amount of time allotted for the operation. This time is cumulative and includes the time allotted to accomplish the operation specified NUMBERS listed in the OPERATION INCLUDES column.

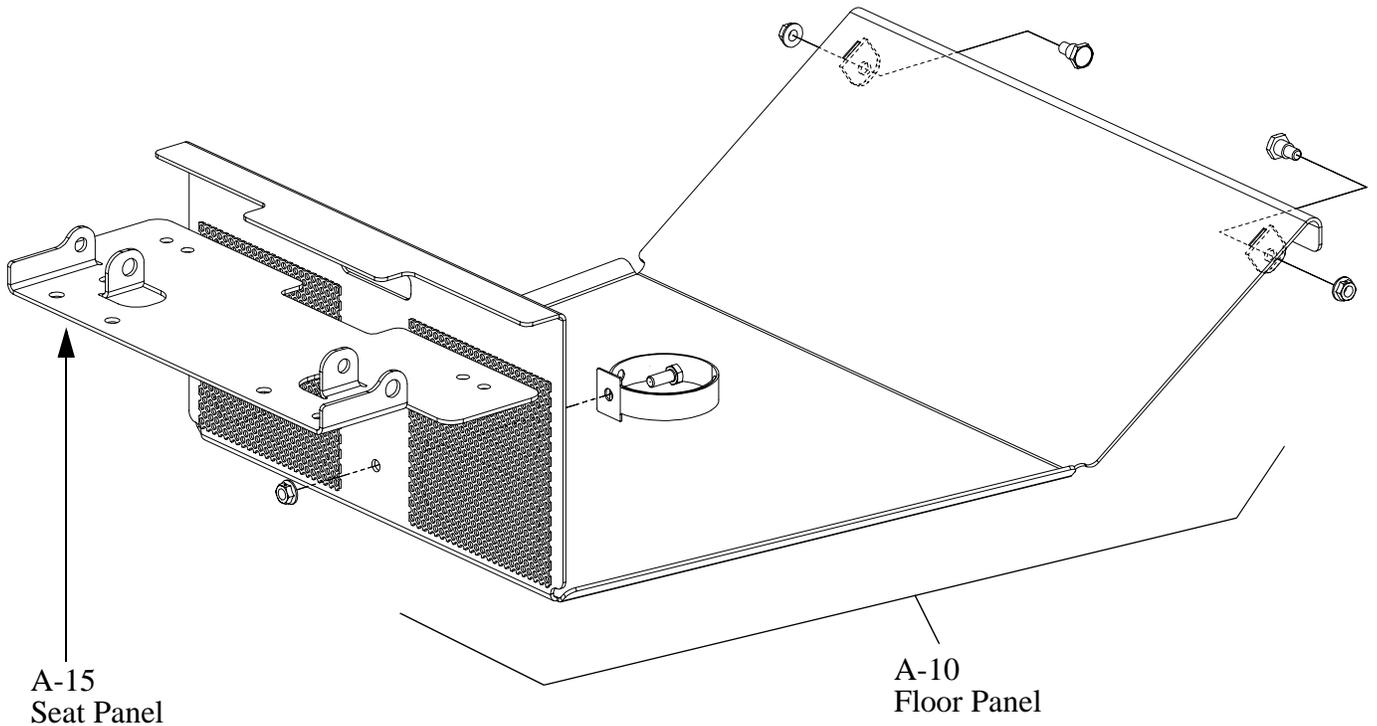
HOW TO USE THIS MANUAL

1. This document contains several methods of location applicable procedures: a table of contents in operation number and page number order, to find the page number upon which the information related to that operation is provided.
2. When a warranty claim is received and the operation number is not provided but the operation description or part name is, then refer to the alphabetical index to find appropriate operation and page numbers.
3. Additionally, scanning the exploded views contained in the manual will provide information on operation numbers related to the portion of the tractor illustrated.

A-05
Main Frame

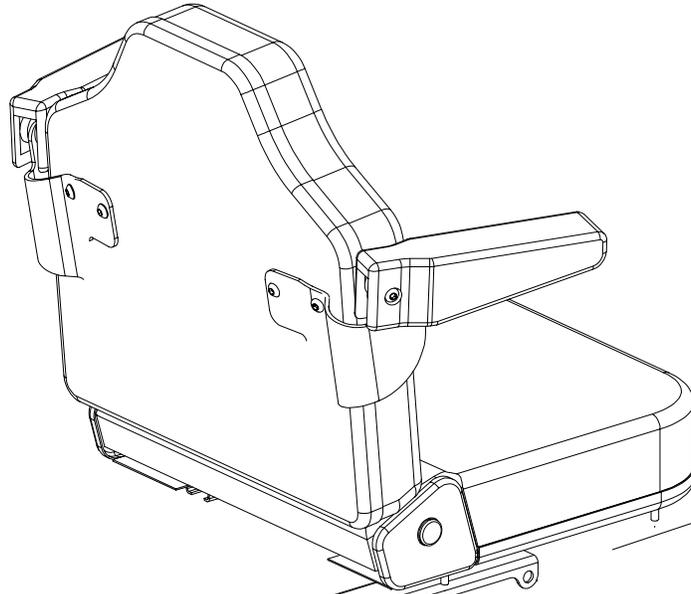


OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
A-05	MAIN FRAME	Remove all components from frame Replace frame Reassemble Adjust all linkages	10
A-06	FRONT FRAME	Remove pivot pin (B-10) Remove floor pan (A-10) Remove clevis pins (A-07) Remove seven retaining bolts Remove Install or Replace front frame Reassemble	0.5
A-07	CLEVIS PIN	Remove/Install or Replace clevis pins	0.1



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
A-10	FLOOR PANEL Remove/Install or Replace	Remove two shoulder bolts Remove/Install or Replace Floor Panel	0.1
A-15	SEAT PANEL Remove/Install or Replace	Remove side panel (C-30) Remove seat (A-20) Remove switch bracket (C-05) Remove/Install seat panel Reassemble	0.7

A-20
Seat

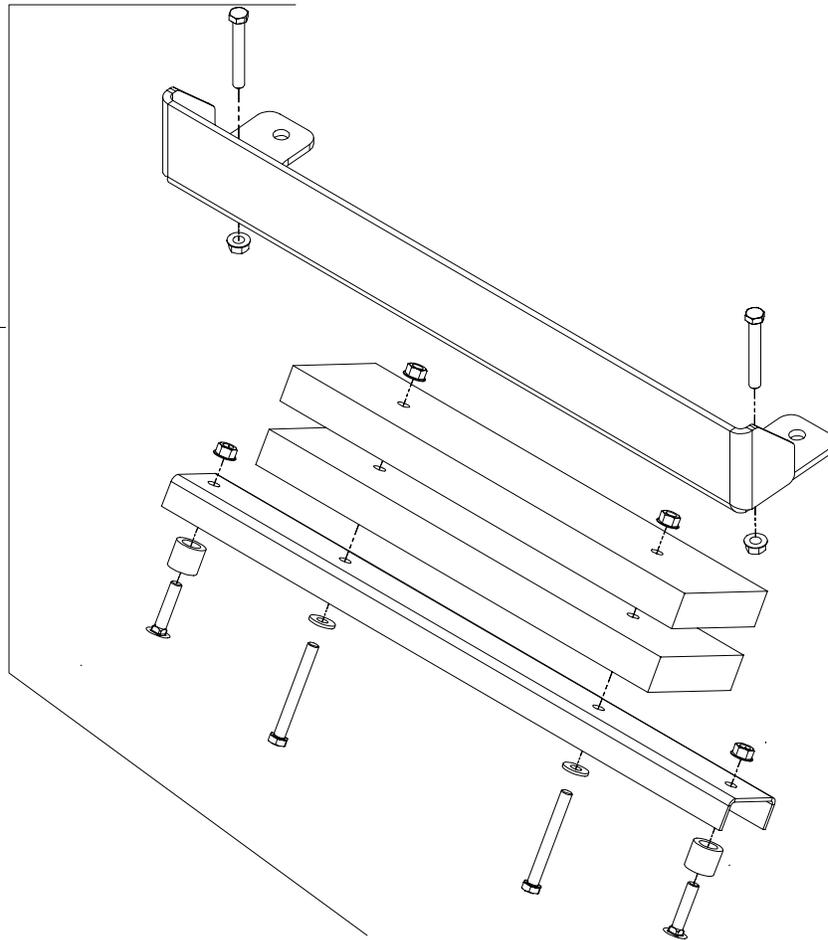


F-30
Seat Switch

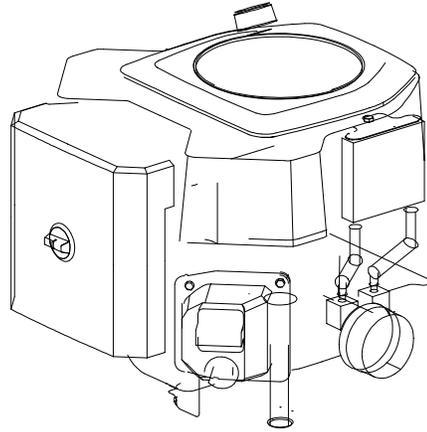
A-25
Seat Slide
Rails
A-26
Seat Pivot
Brackets

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
A-20	SEAT Remove/Install or Replace	Unplug harness from seat switch Remove four nuts retaining seat pivot bracket to seat slide Remove four bolts retaining the seat slide to seat Remove seat switch (F-30) Reassemble	0.3
A-25	SEAT RAILS	Remove seat (A-20) Replace slide Rail Reassemble	0.3
A-26	SEAT PIVOT BRACKET	Remove Seat (A-20) Remove side panel (C-30) Remove two shoulder bolts and nuts Remove/Install or Replace pivot brackets Reassemble	0.5

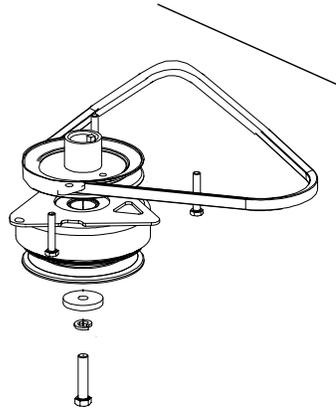
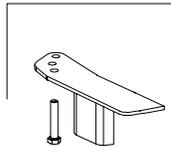
A-35
Weight Bracket



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
A-35	WEIGHT BRACKET Remove/Install or Replace	Remove the four bolts retaining the weights and bracket. Remove/Install or Replace weights or brackets Reassemble	0.2

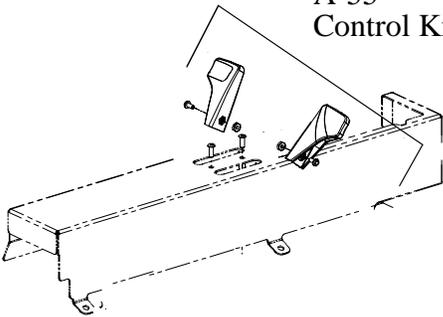


A-40
Pto Stop Bracket

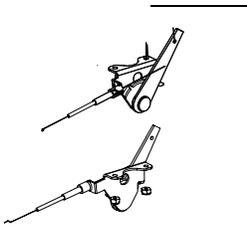
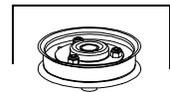


A-45 Transmission Pulley
A-50 Transmission Belt

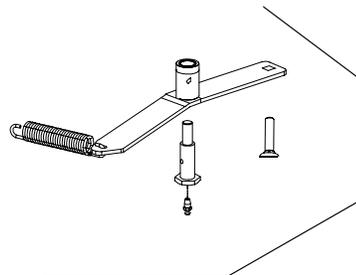
A-55
Control Knobs



A-70
Idler Pulley



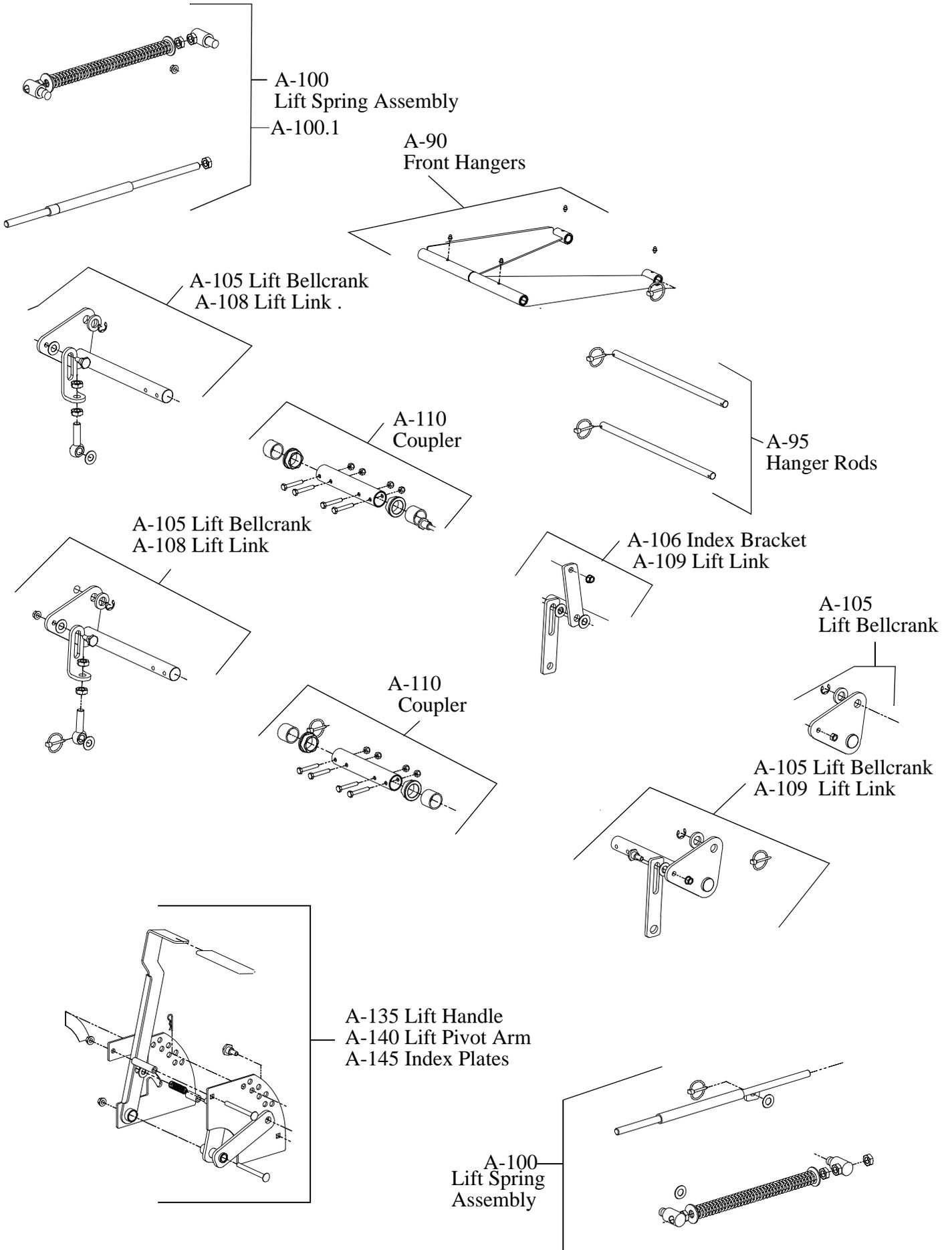
A-60 Throttle Cable
A-65 Choke Cable



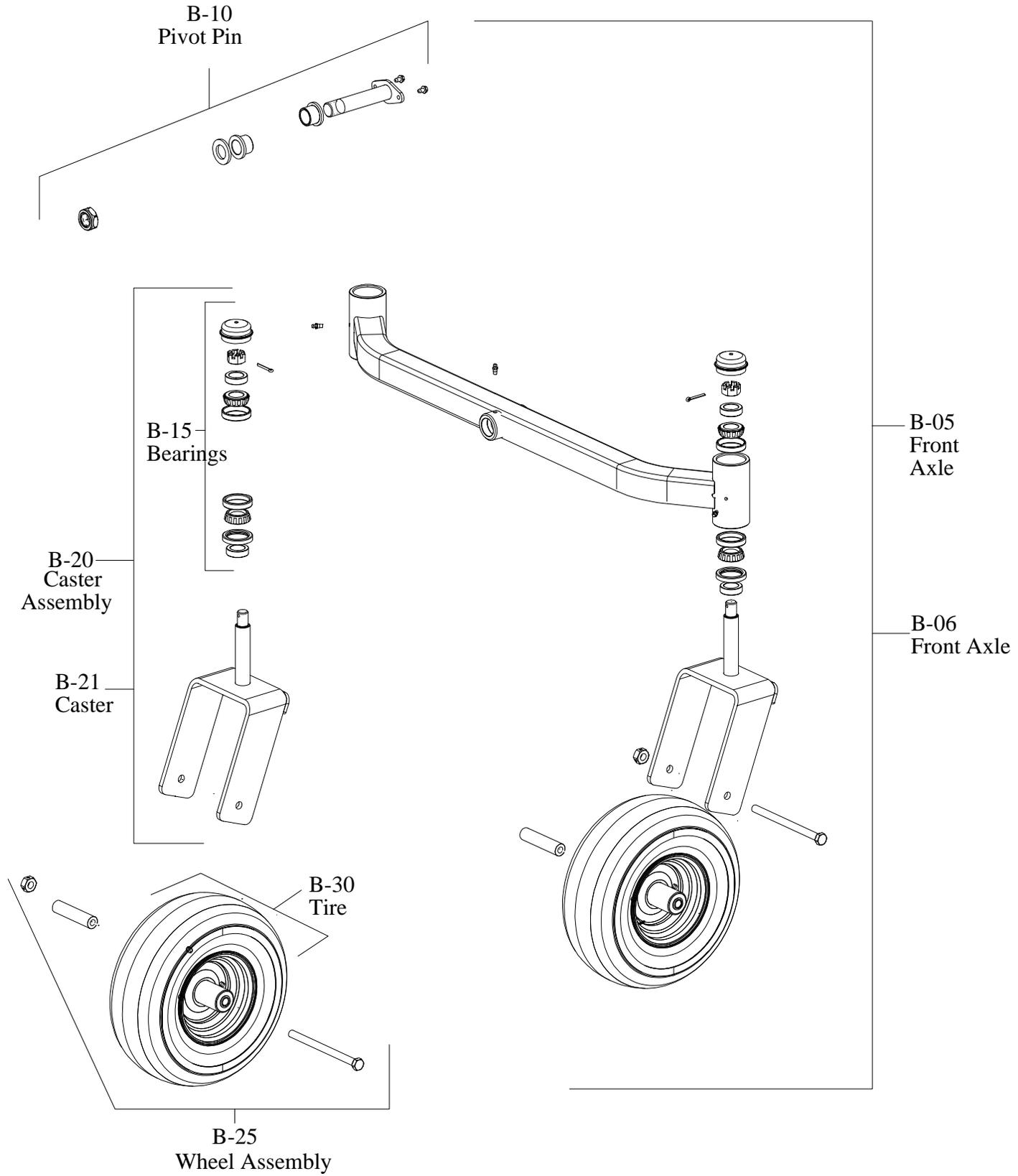
A-75 Idler Arm, Transmission Belt
A-80 Idler Spring

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
A-40	PTO STOP BRT. Remove/Install or Replace	Remove the two bolts retaining the PTO stop bracket Remove/Install or Replace the PTO stop bracket Reassemble	0.2
A-45	TRANSMISSION PULLEY Engine	Remove PTO Clutch (M-05) Remove belt from transmission pulley Remove/Install or Replace transmission pulley Reassemble	0.3
A-50	TRANSMISSION BELT Remove/Install or Replace	Remove PTO Belt from PTO Remove PTO (M-05) Remove belt from idler tension pulley Remove/Install or Replace transmission belt Reassemble	0.3
A-55	CONTROL KNOBS Remove/Install or Replace Per knob	Remove knob retaining screw and nut Remove/Install or Replace knob Reassemble	0.1
A-60	THROTTLE CABLE Remove/Install or Replace	Remove Knob (A-55) Remove left side panel (C-30) Remove throttle control retaining screws Disconnect throttle cable from engine controls Remove/Install or Replace throttle cable Reassemble	0.3
A-65	CHOKE CABLE Remove/Install or Replace	Remove Knob (A-55) Remove left side panel (C-30) Remove choke control retaining screws Disconnect choke cable from engine controls Remove/Install or Replace choke cable Reassemble	0.3
A-70	IDLER PULLEY Transmission Replace	Disconnect spring (A-80) Remove Idler arm (A-75) Replace idler pulley Reassemble	0.2

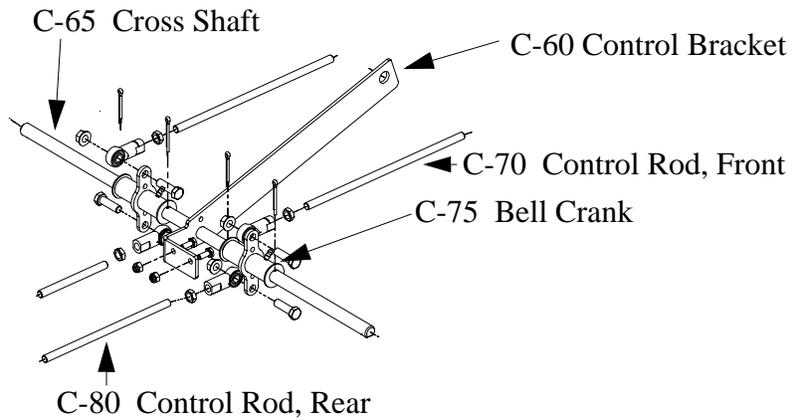
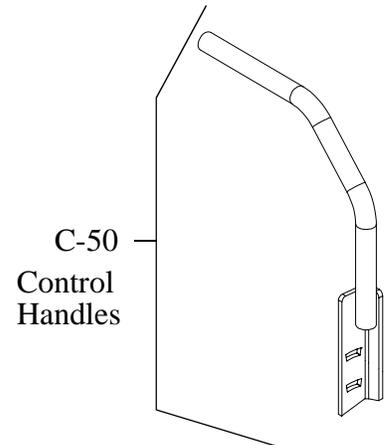
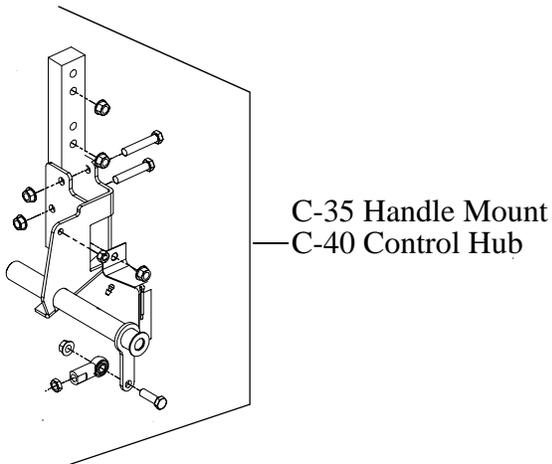
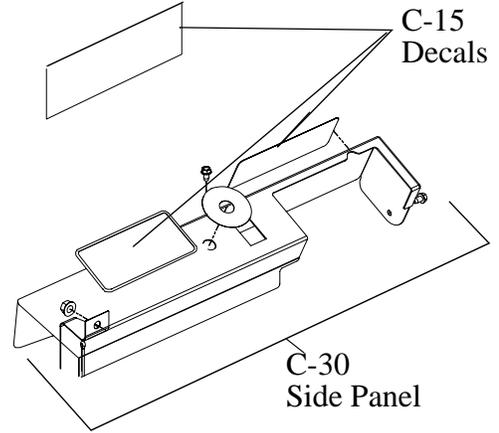
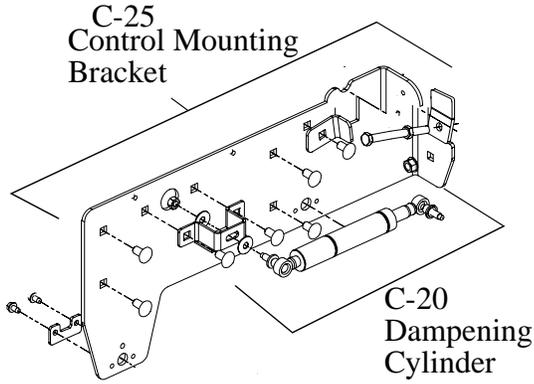
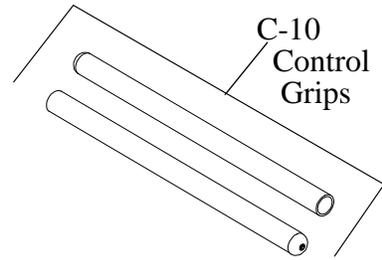
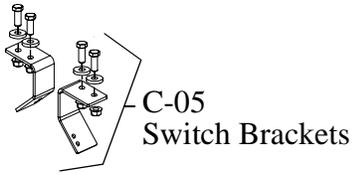
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
A-75	IDLER ARM Remove/Install or Replace	Disconnect spring (A-80) Remove Idler arm pivot bolt Remove Pulley if replacing arm (A-70) Remove/Install or Replace idler arm Reassemble	0.2
A-80	IDLER SPRING Remove/Install or Replace	Disconnect spring Remove Install or replace	0.1
A-90	FRONT DECK HANGERS	Remove hanger rods (A-95) Remove/Install or Replace hanger(s) Reassemble	0.2
A-95	HANGER RODS	Remove four lynch pins retaining rods Remove/Install or Replace hanger rod(s) Reassemble	0.1
A-100	LIFT SPRING ASSEMBLY Remove/Install	Remove deck from unit Remove two retaining E-clips Remove/Install lift spring assembly	0.2
A-100.1 Replace	LIFT SPRING ASSEMBLY	Remove lift spring assembly (A-100) Remove ferrules from end of rod Remove spring Reassemble with replacement part(s) Adjust	0.3
A-105	LIFT BELL CRANK Remove/Install or Replace	Remove deck from unit Remove lift spring assembly (A-100) Remove coupler (A-110) Remove lift link (A-108)or (A-109)or (A-106) Remove/Install or Replace lift bell crank Reassemble	0.5
A-106	INDEX BRACKET Remove/Install or Replace	Remove lift link (A-109) Remove two shoulder bolts Remove/Install or Replace index bracket Reassemble	0.2
A-108	LIFT LINK Remove/Install or Replace	Remove lynch pin from deck Remove shoulder bolt Remove/Install or Replace lift link Reassemble Adjust	0.2



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
A-109	LIFT LINK	Remove lynch pin from deck Remove shoulder bolt Remove/Install or Replace lift link Reassemble	0.1
A-110	COUPLER Remove/Install or Replace	Remove four retaining bolts Remove one bell crank (A-105) Remove/Install or Replace coupler Reassemble	0.6
A-135	LIFT HANDLE	Lower deck to ground Remove height index pin Remove bell crank to index bracket shoulder bolt Remove handle pivot bolt Remove two bolts and spacers between index plates Remove/Install or Replace lift handle Reassemble	0.5
A-140	LIFT PIVOT ARM Remove/Install or Replace	Remove lift handle (A-135) Remove/Install or Replace lift pivot arm Reassemble	0.5
A-145	INDEX PLATES	Remove lift handle (A-135) Remove/Install or Replace index plates Reassemble	0.5

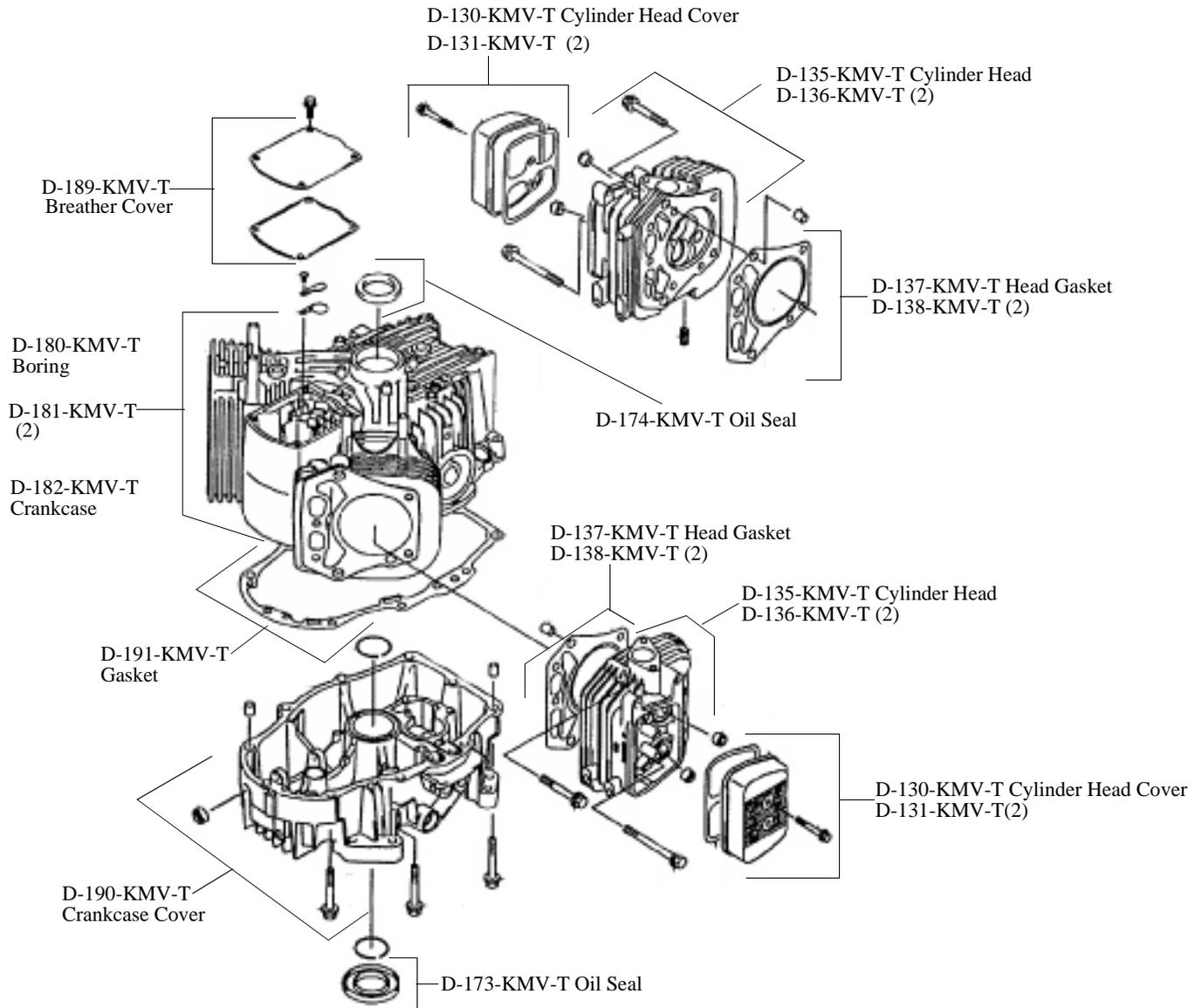


OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
B-05	FRONT AXLE Remove/Install	Raise tractor and support Remove pivot pin retaining nut Remove/Install front axle with front plate and pivot pin Reassemble	1
B-06	FRONT AXLE Replace	Remove front axle (B-05) Remove pivot pin (B-10) Remove Caster assemblies (B-20) Remove Caster Bearings (B-15) Remove Pivot pin bushings Reassemble	2
B-10	PIVOT PIN Replace	Remove retaining nut Remove two retaining screws from pin head Remove pivot pin Reassemble	0.2
B-15	Bearings, Caster Replace	Remove caster assembly (B-20) Remove bearing assembly Replace bearing assembly Reassemble	0.5
B-20	CASTER ASSEMBLY Remove/Install	Remove Dust Cap Remove cotter pin Remove castle nut Remove/Install caster assembly Reassemble	0.2
B-21	CASTER ASSEMBLY Replace	Remove caster assembly (B-20) Remove wheel assembly (B-25) Reassemble	0.3
B-25	WHEEL ASSEMBLY Remove/Install or Replace	Remove axle nut and bolt Remove/Install or Replace wheel assembly Reassemble	0.1
B-30	TIRE Replace	Remove wheel assembly (B-25) Replace tire Reassemble	0.3



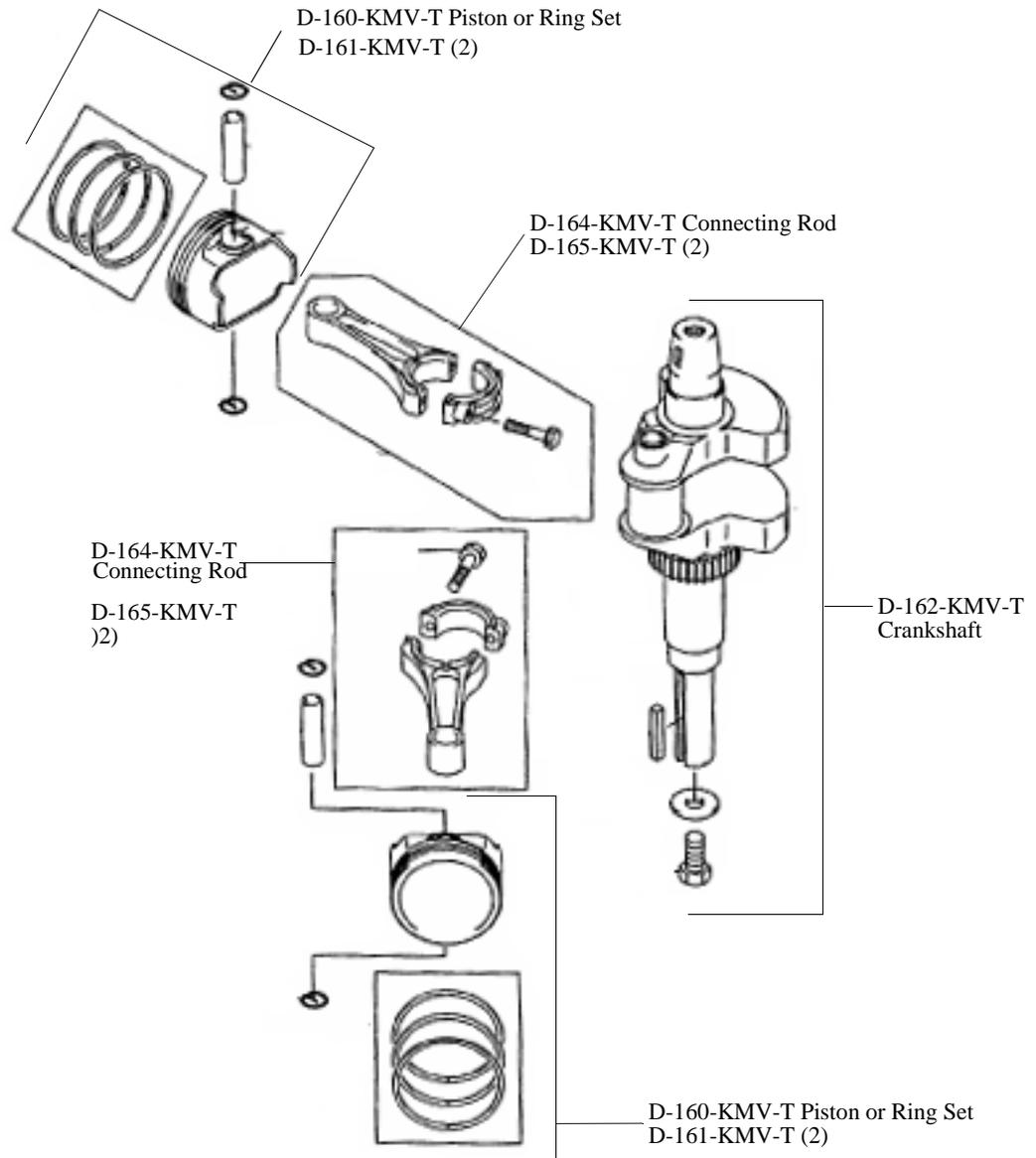
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
C-05	SWITCH BRACKETS Remove/Install or Replace	Unplug harness from switch Remove switch Remove/Install or Replace switch brackets Reassemble	0.1
C-10	CONTROL GRIPS Replace	Remove grips Install new grips	0.1
C-15	DECALS	Remove Decal Install new decal	0.1
C-20	DAMPENING CYLINDER Remove/Install or Replace	Remove two bolts from rear cylinder bracket Remove cylinder front retaining nut Remove cylinder from unit Remove rear cylinder bracket Reassemble	0.2
C-25	CONTROL MTG. BRKT.	Remove side panel (C-30) Remove seven carriage bolts and nuts Remove four bolts retaining the two cross shaft retainer plates Remove/Install or Replace control mounting bracket Reassemble	0.5
C-30	SIDE PANEL Right or Left	Remove five screws retaining panel Left side- remove throttle and choke control Right side- unplug harness Remove/Install or Replace side panel Reassemble	0.2
C-35	HANDLE MOUNT BLOCK	Remove control handle (C-50) Remove two bolts retaining block Remove/Install or Replace handle mount block Reassemble	0.2
C-40	CONTROL HUB	Remove side panel (C-30) Remove control handle (C-50) Remove control mounting bracket (C-25) Remove front cross shaft Remove/Install or Replace control hub Reassemble and adjust	1

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
C-50	CONTROL HANDLES Remove/Install or Replace	Remove two retaining bolts Remove/Install or Replace control handle Reassemble	0.1
C-60	CONTROL BRACKET	Remove cross shaft (C-65) Remove front cross shaft Remove two bolts from control bracket Remove/Install or Replace control bracket Reassemble	2
C-65	CROSS SHAFT Remove/Install or Replace	Remove cross shaft retainers Remove front control rod (C-70) Remove rear control rod (C-80) Remove bell crank (C-75) Remove/Install or Replace cross shaft Reassemble	1
C-70	CONTROL ROD, FRONT Remove/Install or Replace or adjust	Remove Two pivot bolts Remove ball joints Remove/Install or Replace rod Reassemble and adjust	0.2
C-75	BELL CRANK	Remove control rods (C-70), (C-80) Remove cotter pins Remove cross shaft (C-65) Remove/Install bell crank Reassemble and adjust	0.4
C-80	CONTROL ROD, REAR	Remove two pivot bolts Remove/Install or Replace rear control rod Reassemble	0.2

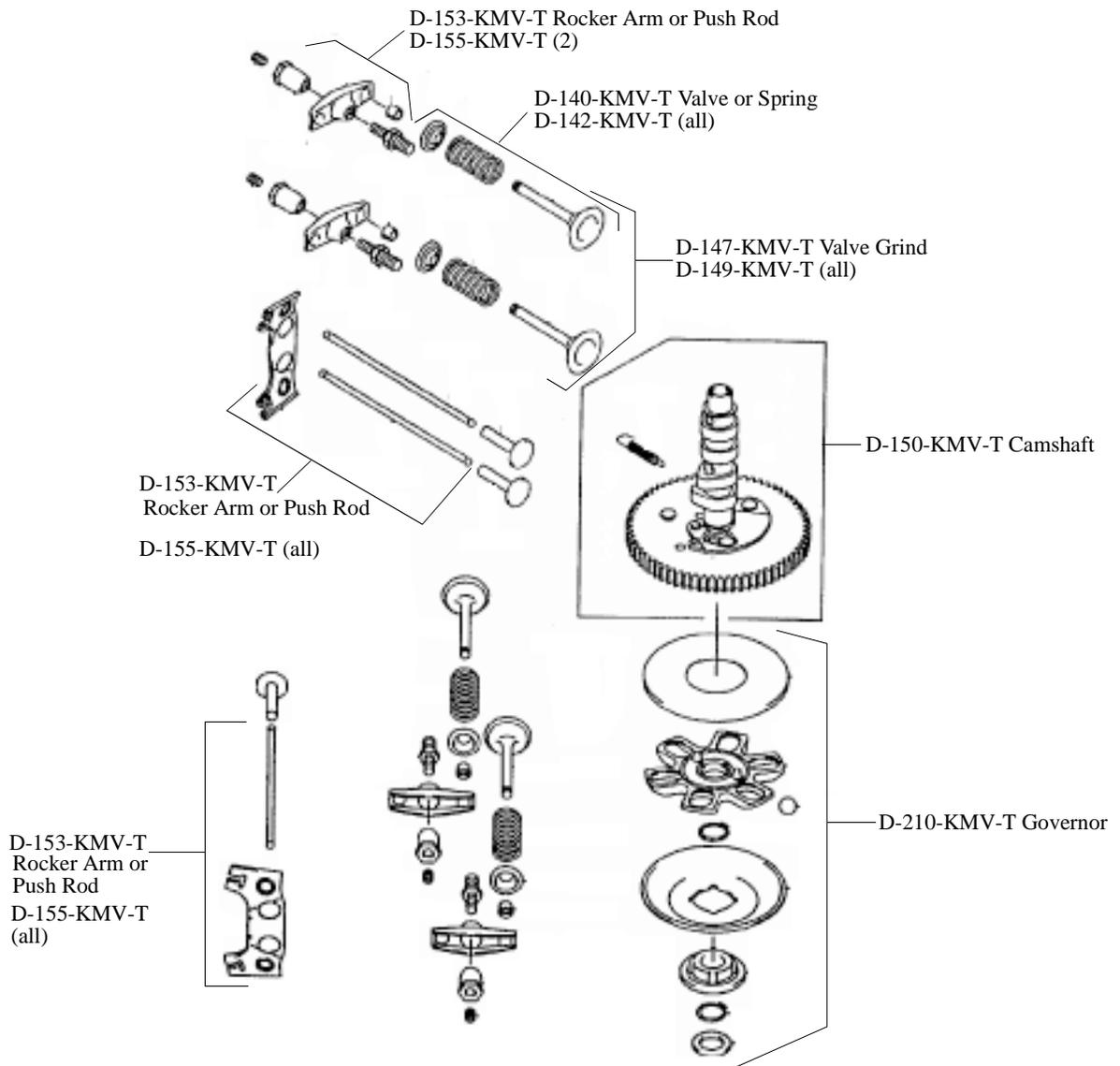


OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-100-KMV-T	ENGINE Remove/Install or Replace	Remove engine from frame Install or Replace engine on frame	1.0
D-130-KMV-T	CYLINDER HEAD COVER OR GASKET Remove/Install or Replace (One side)	Remove retaining hardware Remove cover and gasket Install or Replace gasket or cover Reassemble	0.1
D-131-KMV-T	CYLINDER HEAD COVERS OR GASKETS	Remove retaining hardware Remove covers and gaskets Install or Replace cover or gaskets Reassemble (Both sides)	0.2
D-135-KMV-T	CYLINDER HEAD Remove/Install or Replace (One side)	Remove Cylinder Head Install or Replace cylinder head and gasket Replace or repair valve train Reassemble	1.7
D-136-KMV-T	CYLINDER HEADS Remove/Install or Replace (Both sides)	Remove Cylinder Heads Install or Replace cylinder heads and gaskets Replace or repair valve train Reassemble	2.1
D-137-KMV-T	CYLINDER HEAD GASKET Replace (One side)	Remove Cylinder Head and gasket (D-135-KMV-T) Install head gasket Reassemble	1.3
D-138-KMV-T	CYLINDER HEAD GASKETS Replace (Both sides)	Remove Cylinder Heads and gaskets (D-136-KMV-T) Install head gaskets Reassemble	1.5
D-173-KMV-T	CRANKSHAFT OIL SEAL PTO SIDE Replace	Remove PTO and transmission pulley Remove engine (D100-KMV-T) Remove and Replace oil seal Reassemble	1.2
D-174-KMV-T	CRANKSHAFT OIL SEAL FLYWHEEL SIDE Replace	Remove engine blower housing Remove flywheel Remove and Replace oil seal Reassemble	0.8
D-180-KMV-T	CYLINDER BORING & HONING (One side)	Remove engine (D-100-KMV-T) Dissassemble engine Bore or Hone cylinder Clean crankcase Reassemble	4.4

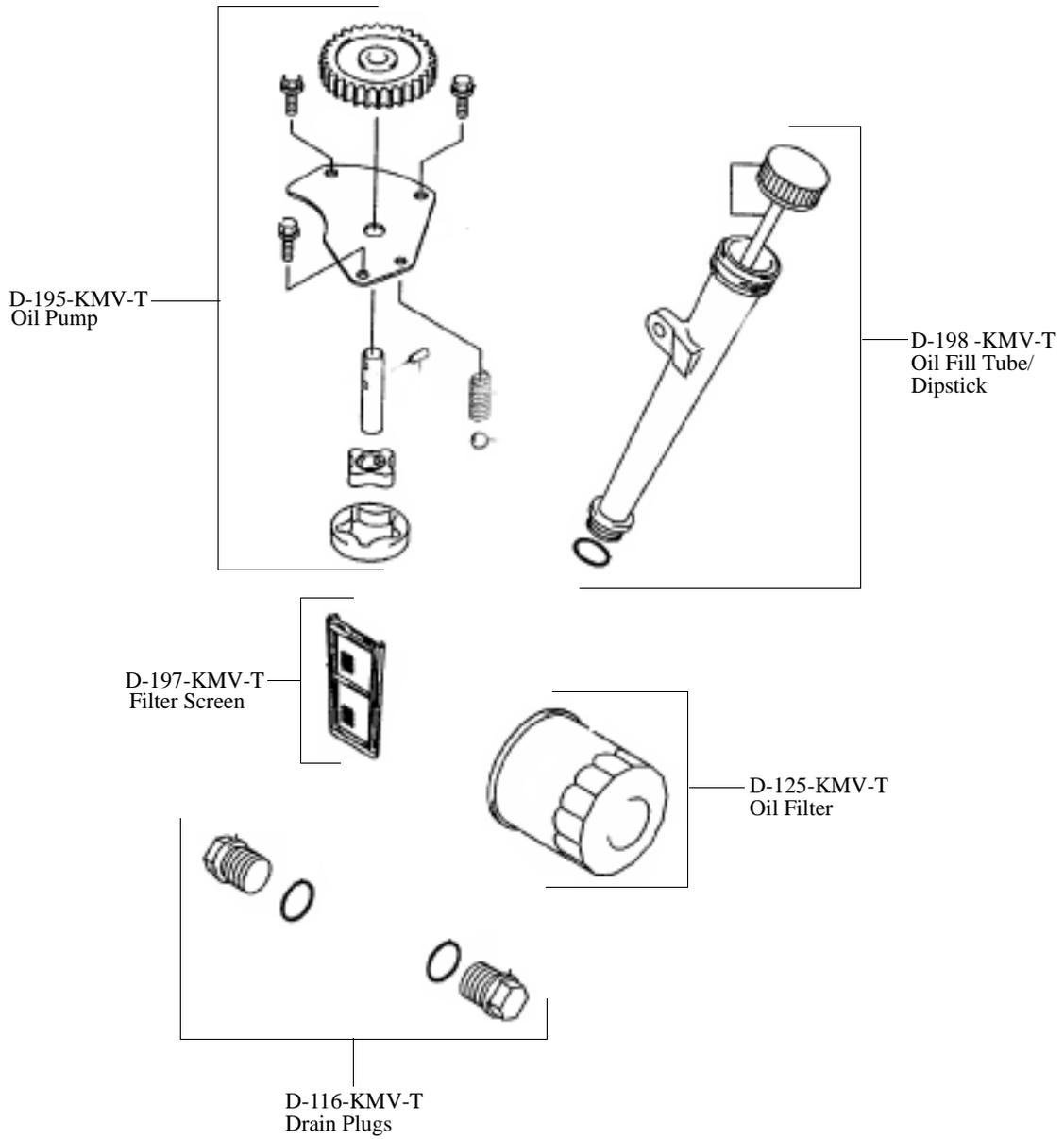
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-181-KMV-T	CYLINDER BORING & HONING (Both sides)	Remove engine (D-100-KMV-T) Dissassemble engine Bore or Hone cylinders Clean crankcase Reassemble	4.9
D-182-KMV-T	CRANKCASE Remove/Install or Replace	Remove engine (D-100-KMV-T) Dissassemble engine Replace crankcase Reassemble	4.1
D-189-KMV-T	BREATHER COVER	Remove/Install or Replace breather cover	0.3
D-190-KMV-T	CRANKCASE COVER Replace	Remove Engine (D-100-KMV-T) Remove crankcase cover and gasket Install or Replace crankcase cover and gasket Reassemble	2.2
D-191-KMV-T	CRANKCASE COVER GASKET Replace	Remove engine (D-100-KMV-T) Remove crankcase cover and gasket Replace gasket Reassemble	1.8



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-160-KMV-T	PISTON OR RING SET Remove/Install or Replace (One side)	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace piston or ring set Reassemble	3.1
D-161-KMV-T	PISTON OR RING SET Remove/Install or Replace (Both sides)	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace pistons or rings (Both sides) Reassemble	3.6
D-162-KMV-T	CRANKSHAFT Remove/Install or Replace	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace crankshaft Reassemble	4.3
D-164-KMV-T	CONNECTING ROD Remove/Install or Replace (One side)	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace connecting rod (one side) Reassemble	3.1
D-165-KMV-T	CONNECTING ROD Remove/Install or Replace (Both sides)	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace connecting rods (both sides) Reassemble	3.6

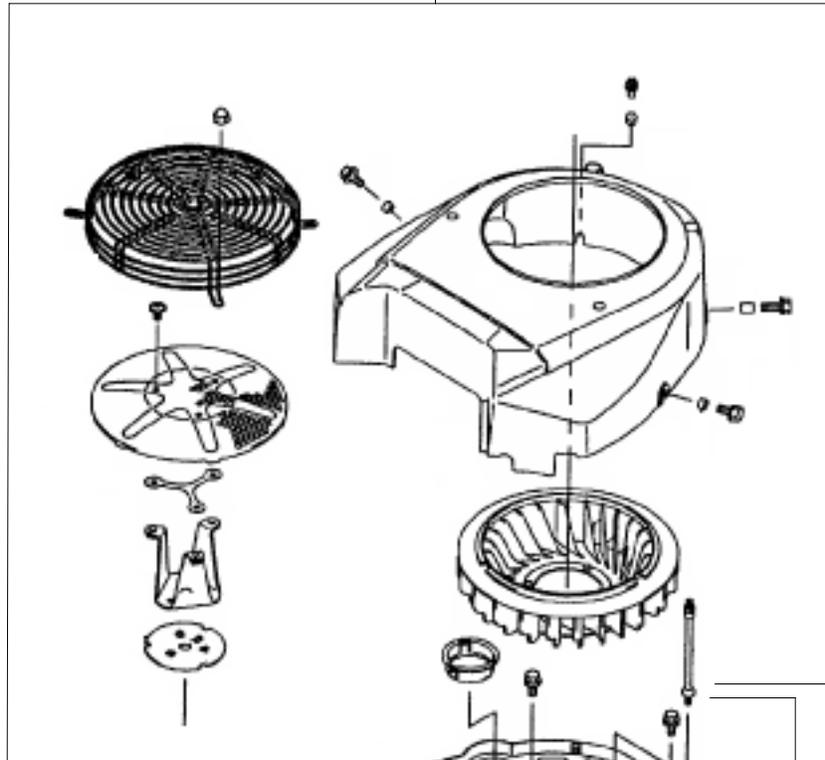


OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-140-KMV-T	VALVE OR SPRING Remove/Install or Replace (one)	Remove cylinder head (D-135-KMV-T) Remove or Replace valve or spring Reassemble	1.5
D-142-KMV-T	VALVES OR SPRINGS Remove/Install or Replace (all)	Remove cylinder heads (D-136-KMV-T) Remove or Replace valves or springs Reassemble	2.0
D-147-KMV-T	VALVE LAPPING OR VALVE GUIDE (one)	Remove cylinder head (D-135-KMV-T) Lap valve or replace and ream valve guide Clean cylinder heads Reassemble	1.6
D-149-KMV-T	VALVE LAPPING OR VALVE GUIDE (all)	Remove cylinder heads (D136-KMV-T) Lap valves or replace and ream valve guides Clean cylinder heads Reassemble	2.5
D-150-KMV-T	CAMSHAFT Remove/Install or Replace	Remove Engine (D-100-KMV-T) Disassemble engine Remove or Replace camshaft Reassemble	2.1
D-153-KMV-T	ROCKER ARM OR PUSH ROD Remove/Install or Replace (one)	Remove cylinder head cover (D-130-KMV-T) Remove and Replace rocker arm or push rod Adjust valve lash Reassemble	0.4
D-155-KMV-T	ROCKER ARMS OR PUSH RODS Remove/Install or Replace (all)	Remove cylinder head covers (D-131-KMV-T) Remove and Replace rocker arms or push rods Adjust valve lash Reassemble	0.6
D-210-KMV-T	GOVERNOR ASSEMBLY Remove/Install or Replace	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace governor assembly Reassemble	2.0



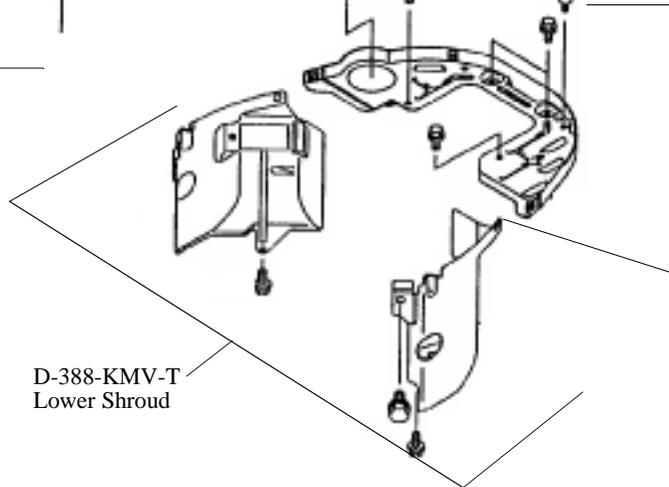
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-116-KMV-T	OIL DRAIN PLUGS OR O-RINGS Remove/Install or Replace (Both)	Remove/Install or Replace oil drain plugs or o-rings	0.1
D-125-KMV-T	OIL FILTER ELEMENT Remove/Install or Replace	Remove and Replace oil filter	0.1
D-195-KMV-T	OIL PUMP Remove/Install or Replace	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace oil pump Reassemble	2.1
D-197-KMV-T	OIL FILTER PICKUP SCREEN Remove/Install or Replace	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace screen Reassemble	1.9
D-198-KMV-T	OIL FILL TUBE, DIPSTICK OR O-RING Remove/Install or Replace	Remove/Install or Replace fill tube, dipstick or o-ring	0.1

D-382-KMV-T Blower Housing/Screen

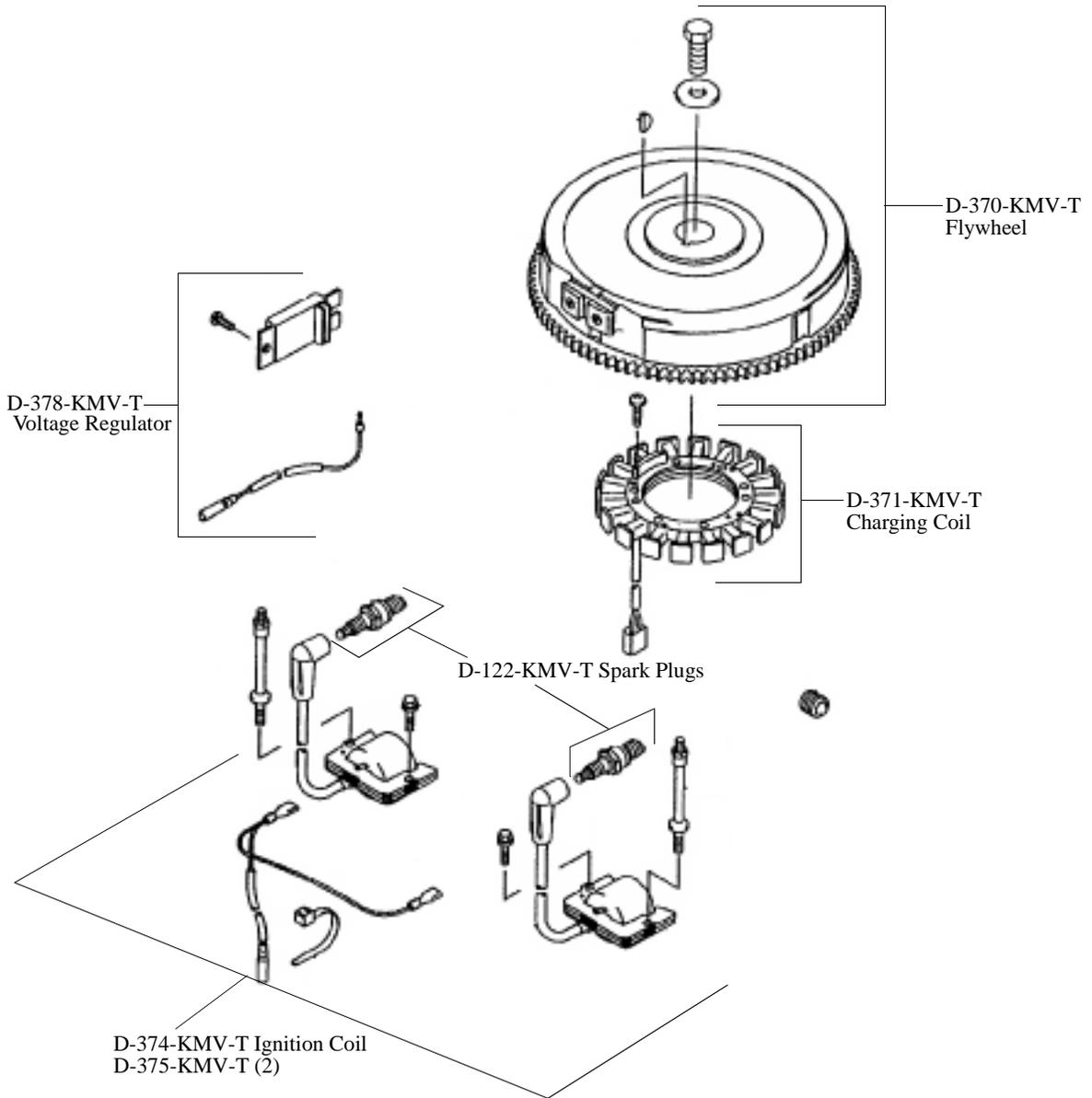


D-387-KMV-T
Upper Shroud

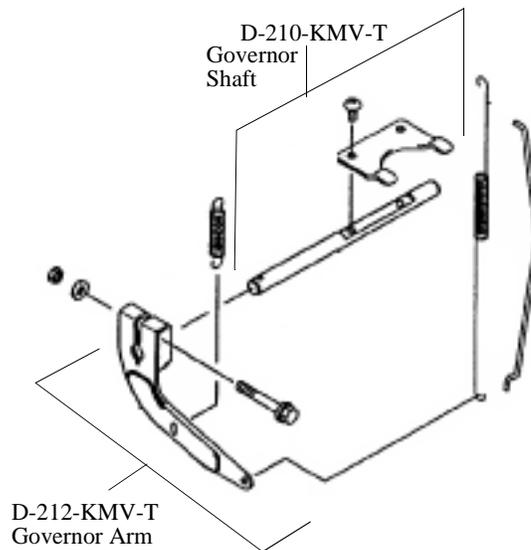
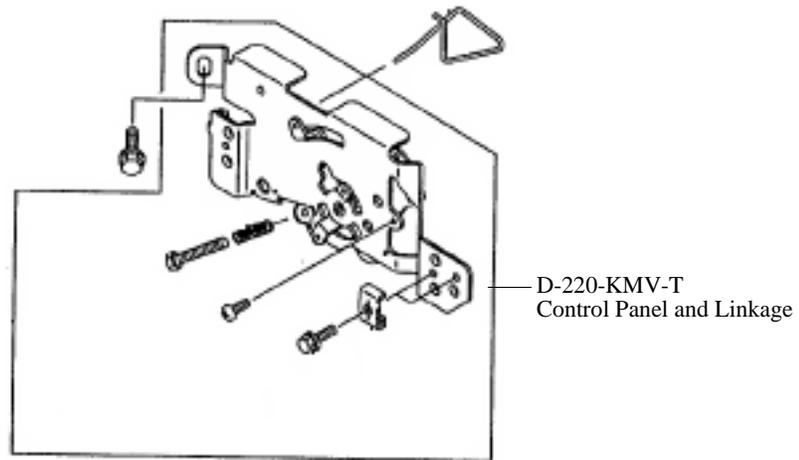
D-388-KMV-T
Lower Shroud



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-382-KMV-T	BLOWER HOUSING AND DEBRIS SCREEN Remove/Install or Replace	Remove/Install or Replace blower housing or debris screen	0.3
D-387-KMV-T	UPPER ENGINE SHROUD Remove/Install or Replace	Remove blower housing (D-382-KMV-T) Remove/Install or replace upper engine shroud Reassemble	0.5
D-388-KMV-T	LOWER ENGINE SHROUD Remove/Install or Replace	Remove blower housing (D-382-KMV-T) Remove/Install or Replace lower engine shroud Reassemble	0.5

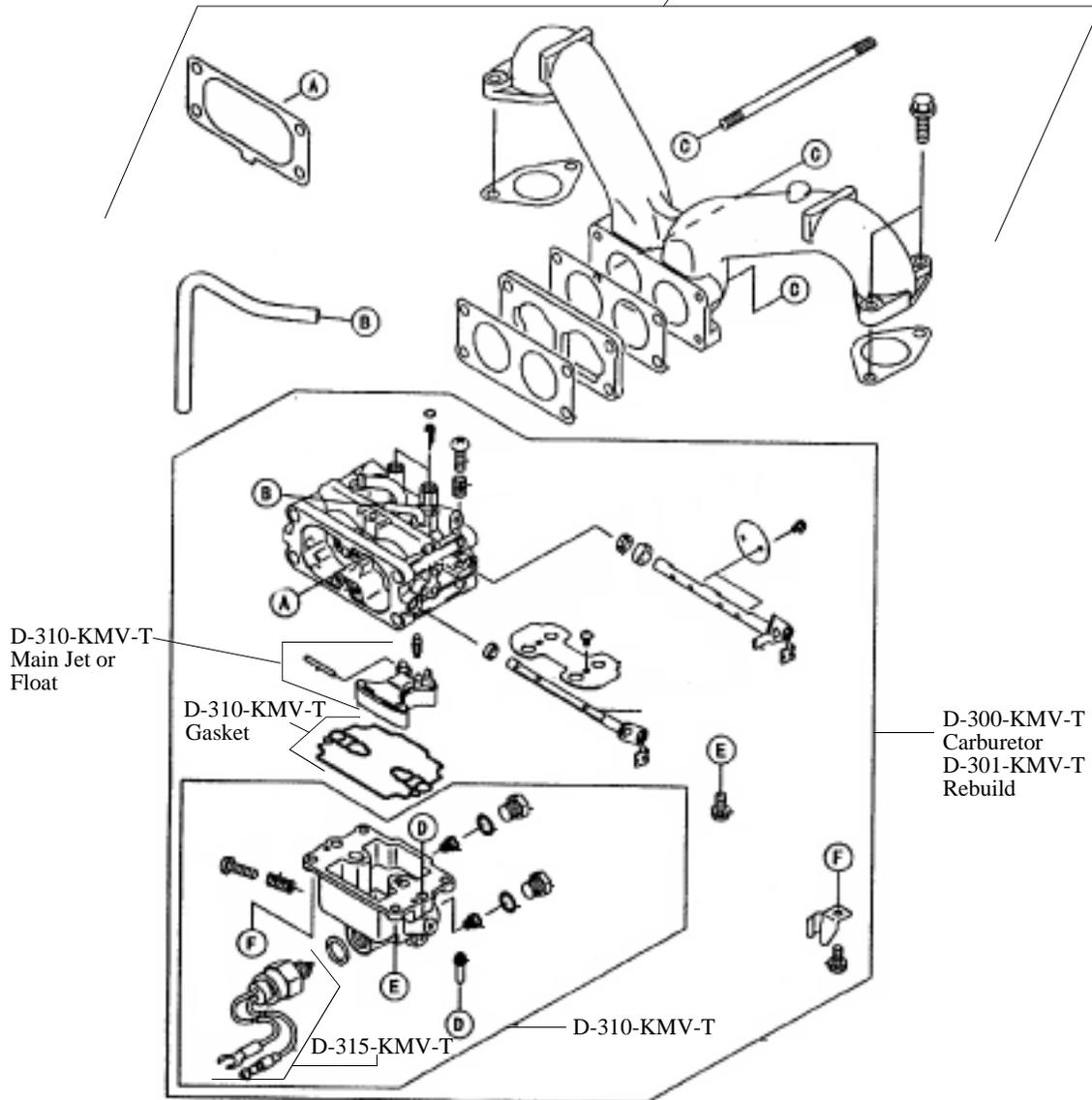


OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-122-KMV-T	SPARK PLUGS Remove/Install or Replace (Both)	Remove/Install or Replace spark plugs	0.2
D-370-KMV-T	FLYWHEEL Remove/Install or Replace	Remove blower housing (D-382-KMV-T) Remove/Install or Replace flywheel Reassemble	0.7
D-371-KMV-T	CHARGING COIL Remove/Install or Replace	Remove flywheel (D-370-KMV-T) Remove/Install or Replace charging coil Reassemble	0.9
D-374-KMV-T	IGNITION COIL Remove/Install or Replace (One side)	Remove blower housing (D-382-KMV-T) Remove/Install or Replace ignition coil (one side) Reassemble	0.5
D-375-KMV-T	IGNITION COILS Remove/Install or Replace (Both sides)	Remove blower housing (D-382-KMV-T) Remove/Install or Replace ignition coils (both sides) Reassemble	0.7
D-378-KMV-T	VOLTAGE REGULATOR Remove/Install/Replace or Test	Test regulator or Remove/Install or Replace voltage regulator Reassemble	0.2

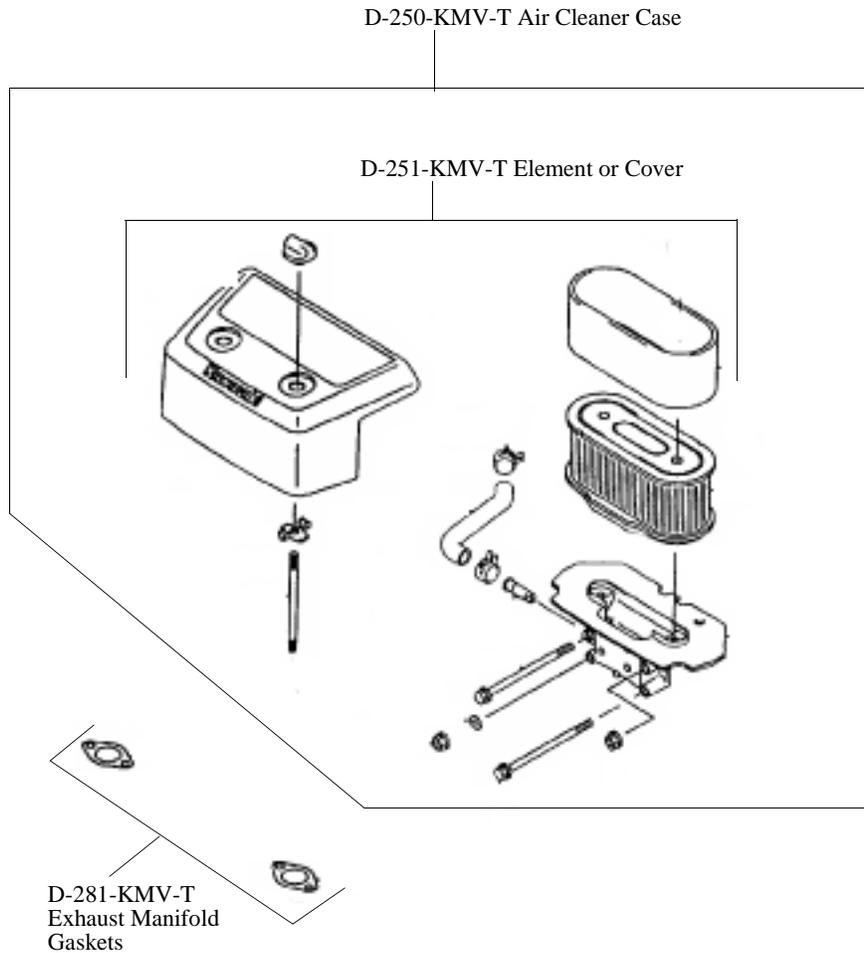


OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-210-KMV-T	GOVERNOR SHAFT Remove/Install or Replace	Remove engine (D-100-KMV-T) Disassemble engine Remove/Install or Replace governor shaft Reassemble	2.0
D-212-KMV-T	GOVERNOR LEVER Remove/Install or Replace	Remove/Install or Replace governor lever Adjust	0.3
D-220-KMV-T	CONTROL PANEL AND LINKAGE Remove/Install or Replace	Remove/Install or Replace control panel or linkage Adjust	0.3

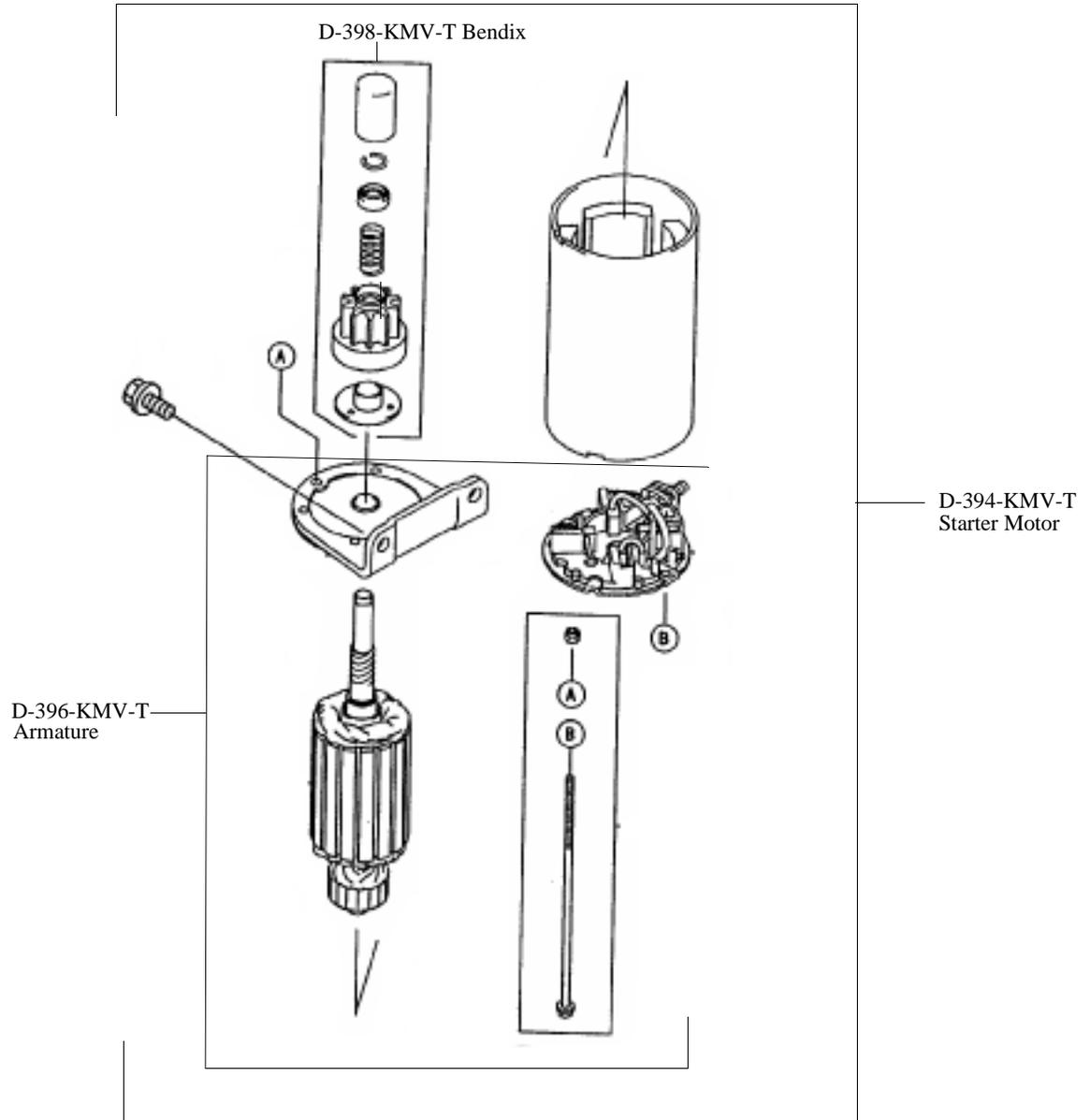
D-305-KMV-T Intake Manifold or Gaskets



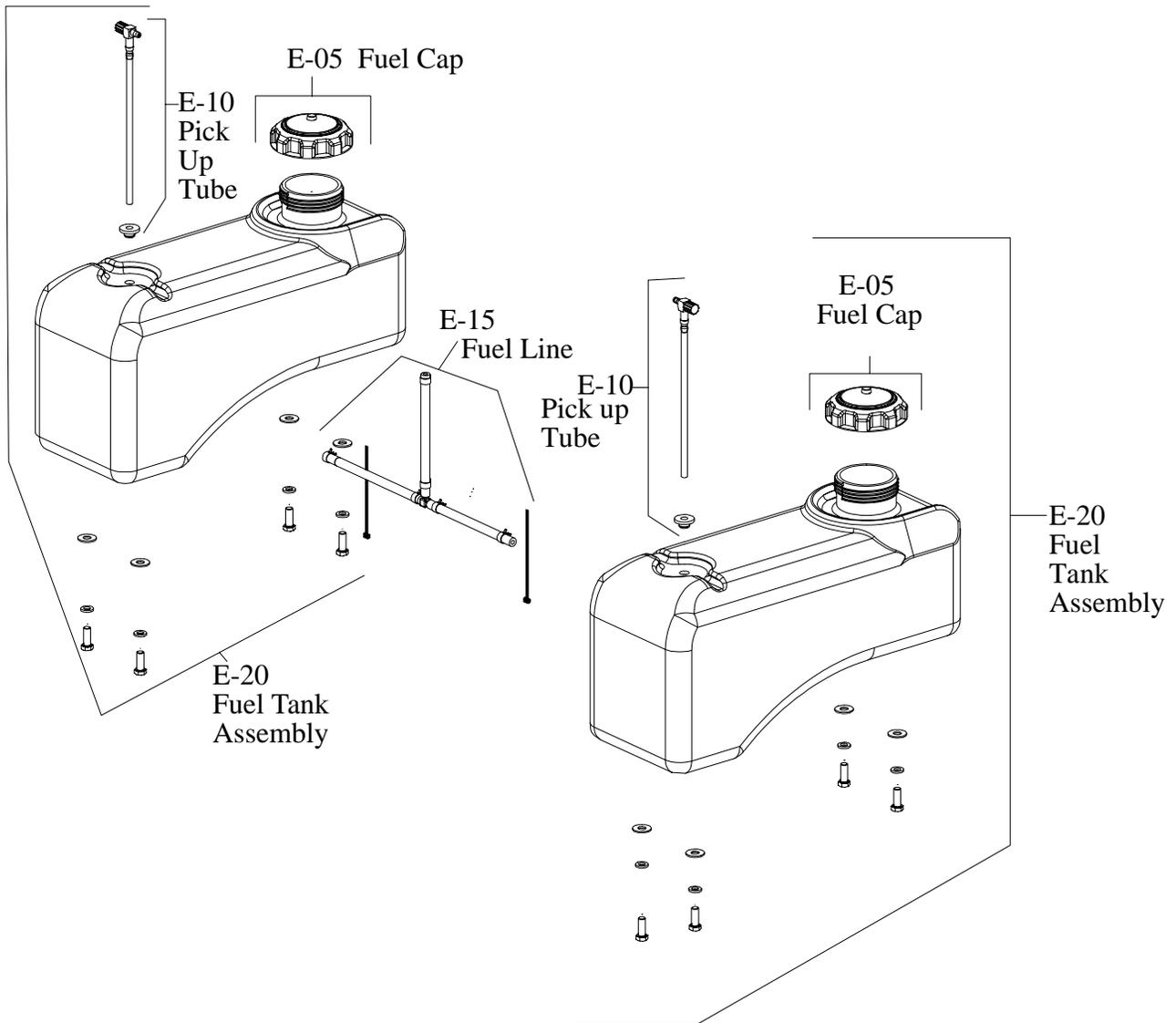
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION DESCRIPTION	FLAT RATE TIME
D-300-KMV-T	CARBURETOR Remove/Install or Replace	Remove/Install or Replace carburetor	0.4
D-301-KMV-T	CARBURETOR Rebuild	Remove/Install or Replace carburetor (D-300-KMV-T) Rebuild (overhaul) carburetor Reassemble	1.0
D-305-KMV-T	INTAKE MANIFOLD OR GASKETS Remove/Install or Replace	Remove/Install or Replace intake manifold or gaskets Reassemble	0.6
D-310-KMV-T	MAIN JET, FLOAT OR VALVE	SEE (D-301-KMV-T) rebuild	
D-315-KMV-T	SOLENOID VALVE Remove/Install or Replace	Remove/Install or Replace solenoid valve	0.3



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-250-KMV-T	AIR CLEANER CASE Remove/Install or Replace	Remove/Install or Replace air cleaner case	0.2
D-251-KMV-T	AIR CLEANER ELEMENT OR COVER Remove/Install or Replace	Remove/Install or Replace air cleaner element or cover	0.1
D-281-KMV-T	EXHAUST MANIFOLD OR GASKETS Remove/Install or Replace	Remove/Install or Replace exhaust manifold or gaskets	0.3



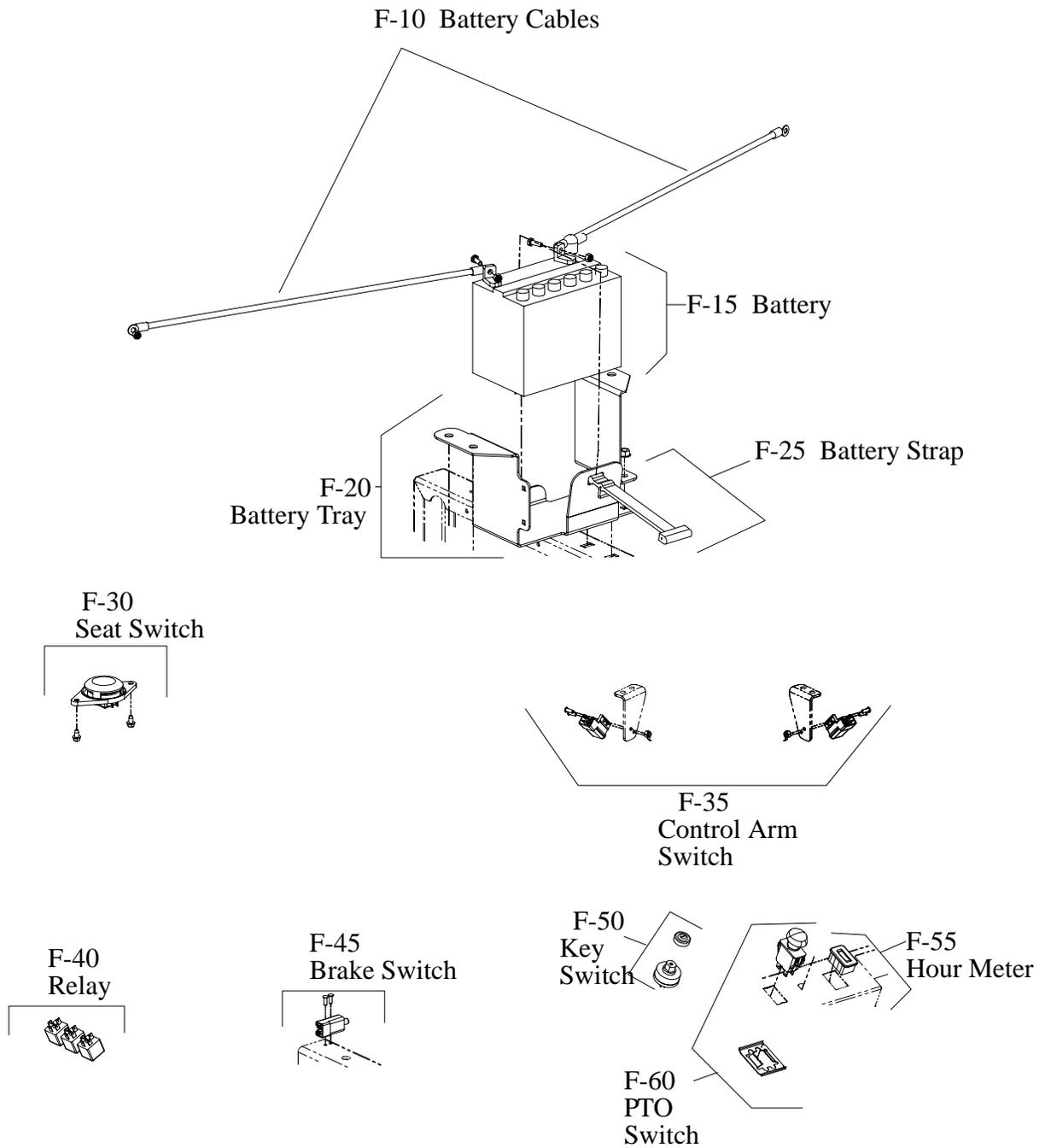
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
D-394-KMV-T	STARTER MOTOR ASSEMBLY Remove/Install or Replace	Remove/Install or Replace starter motor	0.2
D-396-KMV-T	ARMATURE OR BRUSHES Remove/Install or Replace	Remove starter (D-394-KMV-T) Disassemble starter Remove/Install or Replace armature or brushes Reassemble	0.5
D-398-KMV-T	STARTER BENDIX Remove/Install or Replace	Remove starter (D-394-KMV-T) Remove/Install or Replace bendix	0.5



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
E-05	FUEL CAP	Remove/Install or Replace fuel cap	0.1
E-10	FUEL SHUT OFF VALVE	Remove/Install or Replace fuel shut off valve	0.1
E-15	FUEL LINE	Remove/Install or Replace fuel line	0.3
E-20	FUEL TANK	Remove/Install or Replace fuel tank	0.2

F-00 Electrical Test

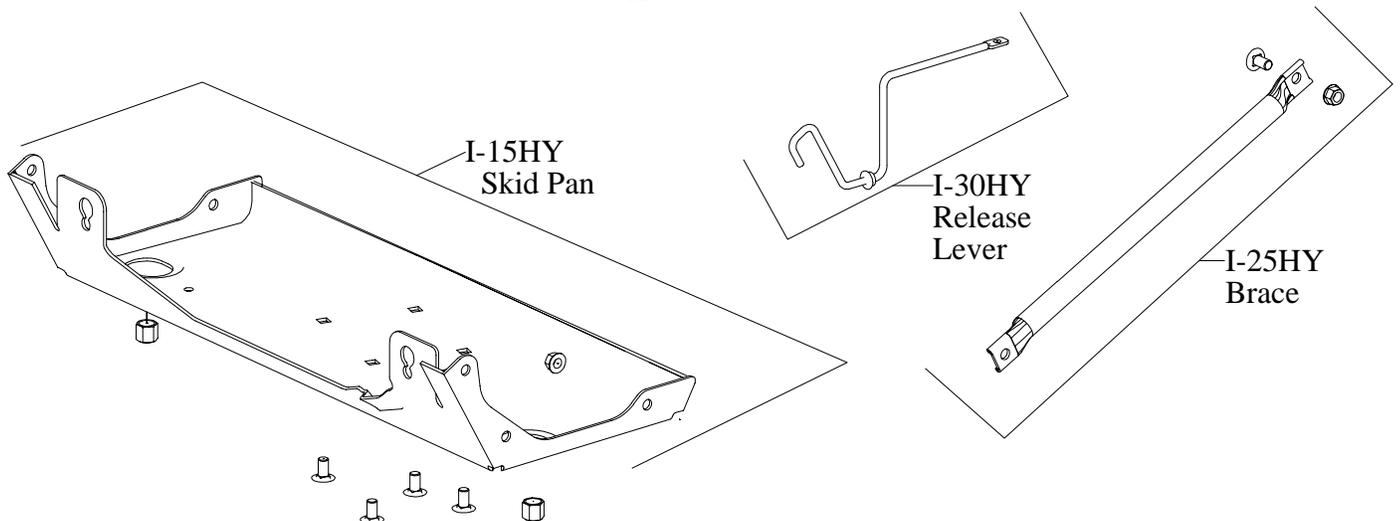
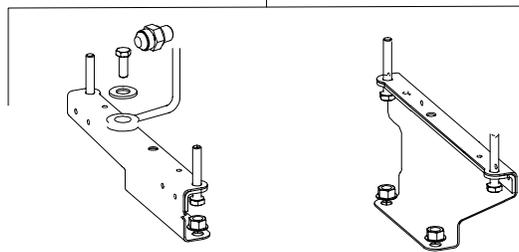
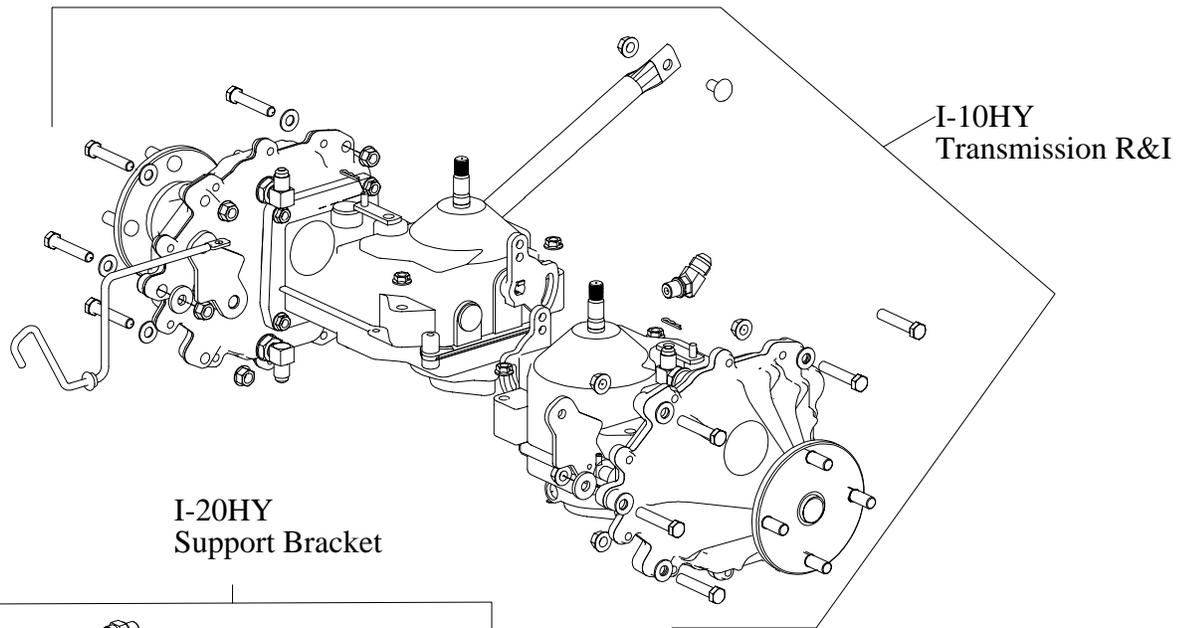
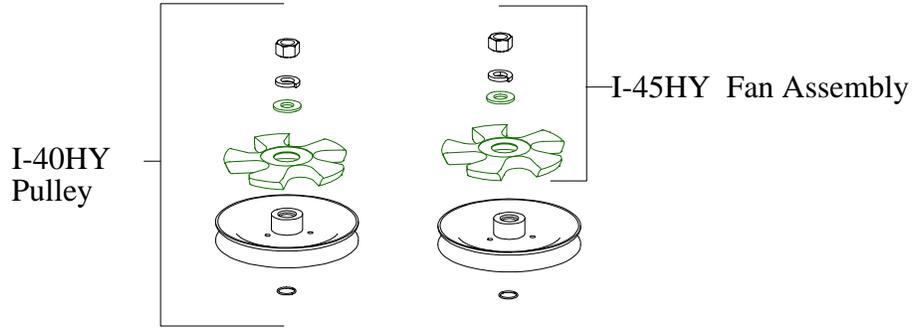
F-05 Harness Complete (not shown)



CUB CADET COMMERCIAL
M-48, M-54-M-60 TANK

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
F-00	ELECTRCAL TEST	Perform complete electrical test	0.7
F-05	HARNESS COMPLETE	Remove/Install or Replace main wire harness	1
F-10	BATTERY CABLES	Remove/Install or Replace (positive or negative) battery cable	0.1
F-15	BATTERY	Disconnect battery strap (F-25) Remove battery cable retaining bolts Remove/Install or Replace Battery	0.1
F-20	BATTERY TRAY	Remove battery (F-15) Remove/Install or Replace battery tray Reassemble	0.5
F-25	BATTERY STRAP	Remove/Install or Replace battery strap	0.1
F-30	SEAT SWITCH	Unplug harness from switch Remove two switch retaining bolts Remove /Install or Replace seat switch	0.1
F-35	CONTROL ARM SWITCH	Raise floor panel Unplug harness from switch Remove two switch retaining bolts Remove/Install or Replace switch	0.1
F-35.1	CONTROL ARM SWITCH second side	Remove/Install or Replace switch (F-35)	0.1
F-40	RELAY	Remove right side panel (C-30) Remove/Install or Replace relay Reassemble	0.3
F-40.1	Relay (two of three)	Remove/Install or Replace relay (F-40)	0.4
F-40.2	Relay (three of three)	Remove/Install or Replace relay (F-40, F-40.1)	0.5

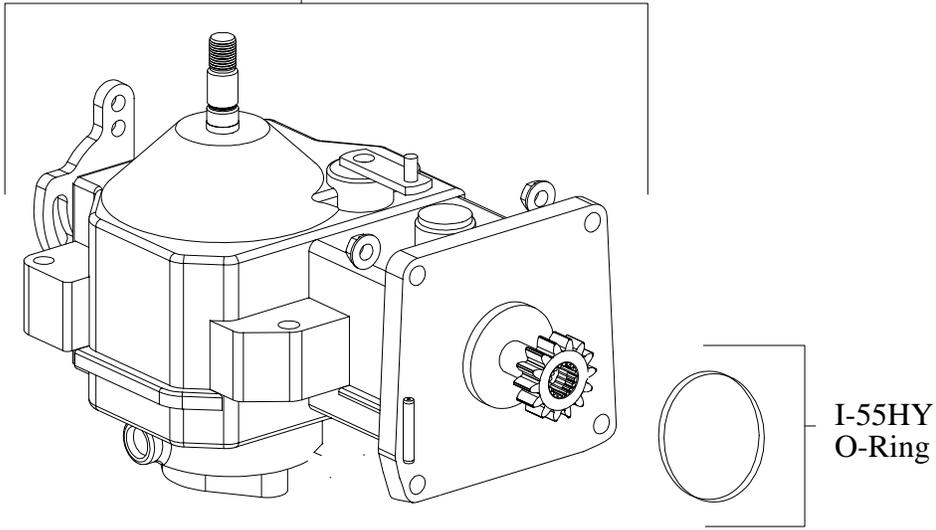
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
F-45	BRAKE SWITCH	Raise floor panel unplug harness from switch Remove two switch retaining bolts Remove/Install or Replace brake switch Reassemble	0.2
F-50	KEY SWITCH	Remove side panel (C-30) Remove/Install or Replace key switch Reassemble	0.3
F-55	HOUR METER	Remove right side panel (C-30) Unplug harness from meter Remove hour meter retaining clip Remove/Install or Replace hour meter Reassemble	0.3
F-60	PTO SWITCH	Remove right side panel (C-30) Unplug harness from PTO switch Remove PTO retaining clip Remove/Install or Replace PTO switch Reassemble	0.3



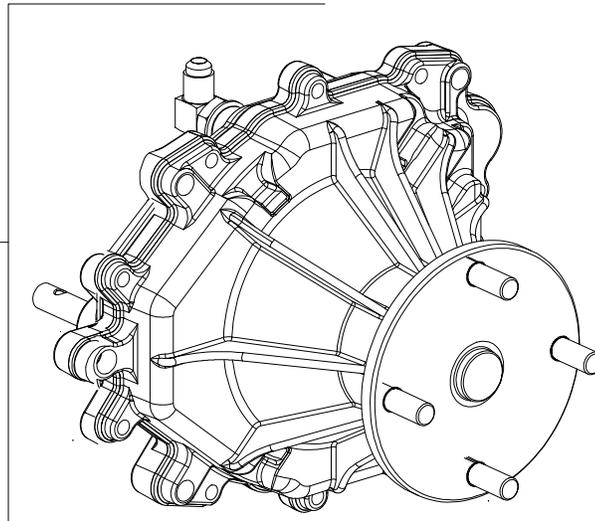
CUB CADET COMMERCIAL
M-48, M-54, M-60 TANK

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
I-10HY	TRANSMISSION ASSEMBLY Remove/Install or Replace	Remove mower deck Drain transmission oil Raise unit and support with stands Remove hydraulic hoses Remove transmission belt Remove control linkage Remove Brake linkage Remove two brace bolts Remove six bolts holding transmission to frame Lower transmission and pan assembly Remove hardware retaining pump/final drive assembly to pan. Remove/Install or Replace transmission assembly Reassemble, fill with oil and adjust	2.5
I-15HY	SKID PAN Remove Install or Replace	Remove transmission assembly (I-10HY) Remove transmissions from pan Remove/Install or Replace pan Reassemble	2.8
I-20HY	SUPPORT BRACKET Remove/Install or Replace	Remove transmission (I-10HY) Remove transmissions from pan Remove/Install or Replace support bracket	2.8
I-25HY	BRACE	Remove mower deck Remove brace retaining hardware Remove/Install or Replace brace Reassemble	0.2
I-30HY	RELEASE LEVER	Remove lever retaining hardware Remove/Install or Replace release lever Reassemble	0.2
I-40HY	PULLEY Remove/Install or Replace	Remove transmisson assembly (I-10HY) Remove/Install or Replace pulley Reassemble	2.5
I-45HY	FAN ASSEMBLY Remove/Install or Replace	Remove transmission assembly (I-10HY) Remove/Install or Replace fan Reassemble	2.5

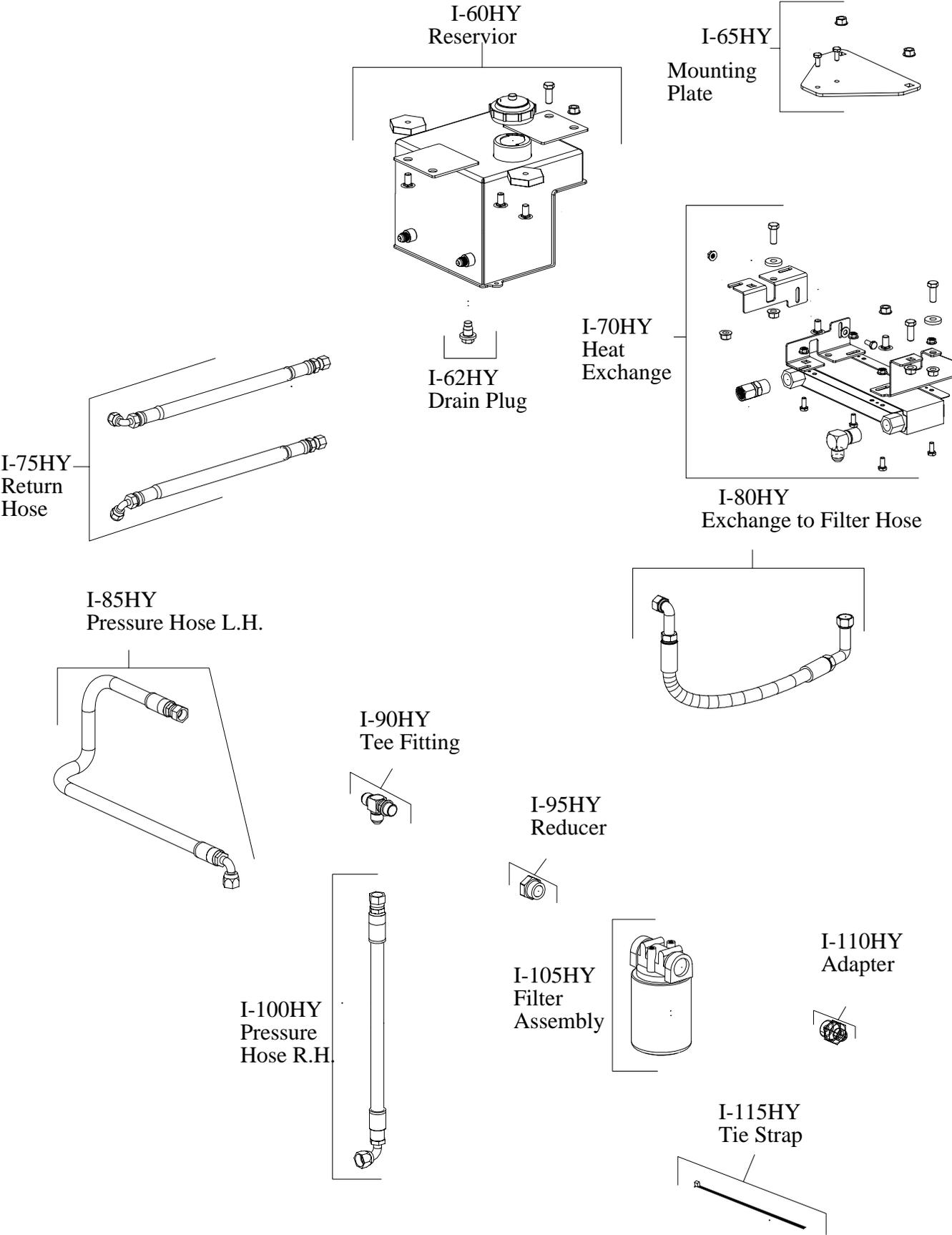
I-50HY Pump Rebuild



I-52HY
Final Drive
R&I

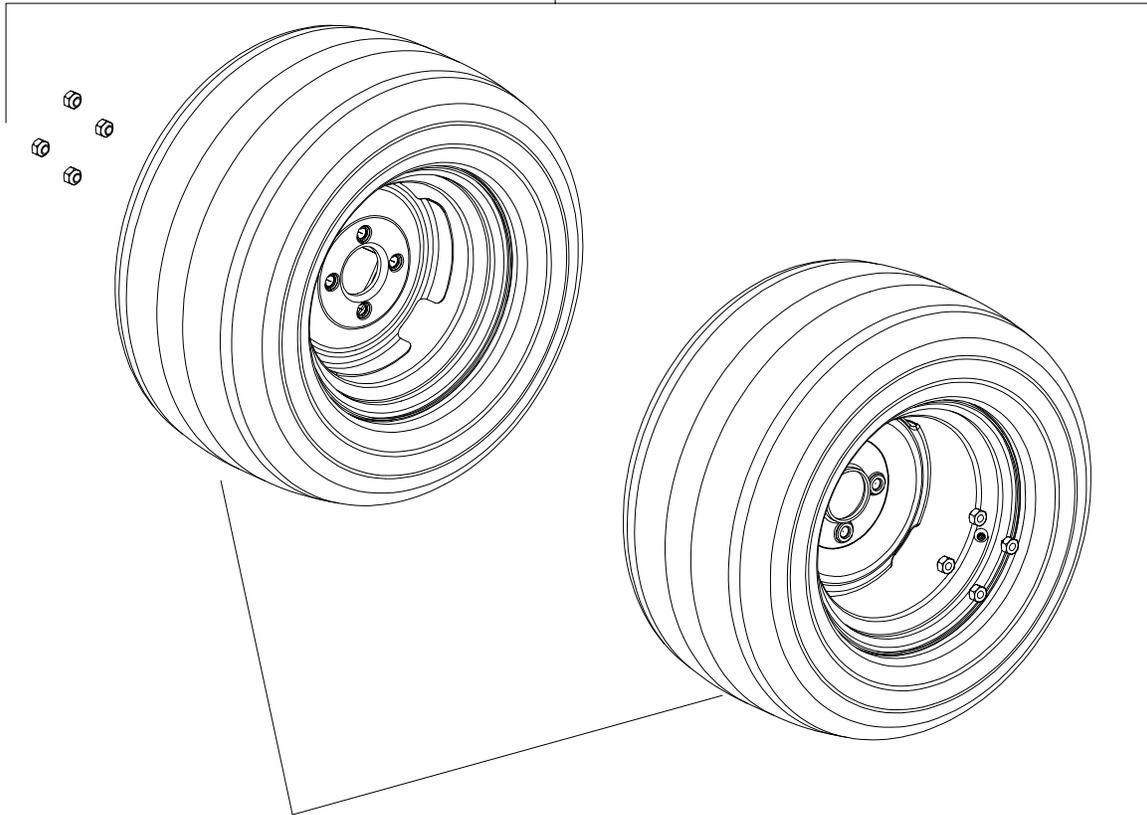


OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
I-50HY	PUMP REBUILD	Remove transmission (I-10HY) Remove pump from final drive Rebuild pump Reassemble	3.5
I-52HY	Final Drive Rebuild	Remove transmission (I-10HY) Remove pump from final drive Rebuild final drive Reassemble	3.5
I-55HY	O-RING	Remove transmission (I-10HY) Remove pump from final drive Replace O-Ring Reassemble	2.7



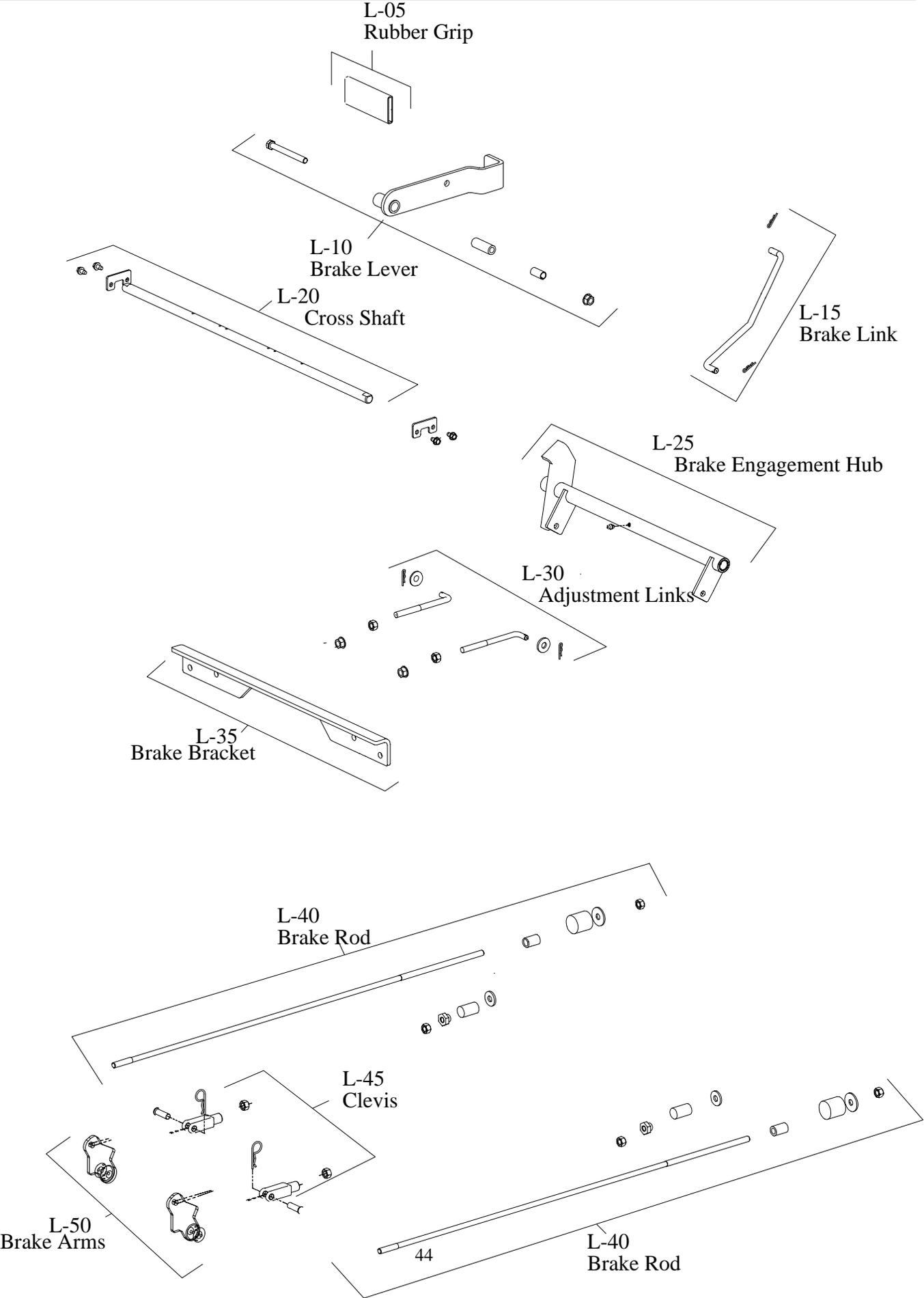
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
I-60HY	RESERVIOR	Drain transmission fluid Remove seat (A-20) Remove return hoses from tank Remove tank to heat exchange fitting Remove reservior retaining hardware Remove/Install or Replace	1
I-62HY	DRAIN PLUG	Replace drain plug	0.1
I-65HY	MOUNTING PLATE Remove/Install or Replace	Remove filter head retaining hardware Remove plate retaining hardware Remove/Install or Replace mounting plate Reassemble	0.3
I-75HY	RETURN HOSE Remove/Install or Replace	Drain transmission fluid Remove/Install or Replace return hose Reassemble	0.3
I-80HY	EXCHANGE TO FILTER HOSE Remove install or Replace	Remove/Install or Replace hose	0.2
I-85HY	Pressure Hose L.H. Remove/Install or Replace	Remove/Install or Replace l.h. pressure hose	0.2
I-90HY	TEE FITTING Remove/Install or Replace	Remove two hoses from tee Remove/Install or Replace tee fitting Reassemble	0.2
I-95HY	REDUCER Remove/Install or Replace	Remove tee fitting (I-90HY) Remove/Install or Replace reducer Reassemble	0.3
I-100HY	PRESSURE HOSE R.H. Remove/Install or Replace	Remove/Install or Replace r.h. pressure hose	0.2
I-105HY	FILTER HEAD ASSEMBLY Remove/Install or Replace	Remove mounting plate (I-65HY) Remove fittings (I-90HY, I-95HY, I-110HY) Remove/Install or Replace filter head assembly Reassemble	0.5
I-110HY	ADAPTER Remove/Install or Replace	Remove hose from fitting Remove/Install or Replace adapter Reassemble	0.1
I-115HY	TIE STRAP	Remove/Install or Replace tie strap	0.005

K-10 Rear Wheels

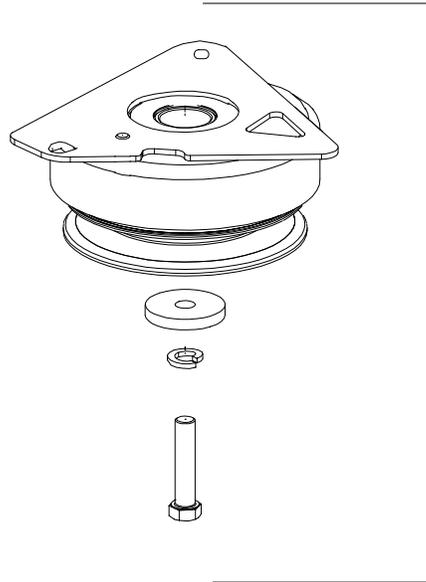


K-15
Tires

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
K-10	REAR WHEEL ASSEMBLY	Raise and support the unit Remove the four wheel lug bolts Remove/Install or Replace wheel assembly Reassemble	0.2
K-15	REAR TIRES	Remove rear wheel assembly (K-10) Remove tire from wheel rim Reassemble	0.4



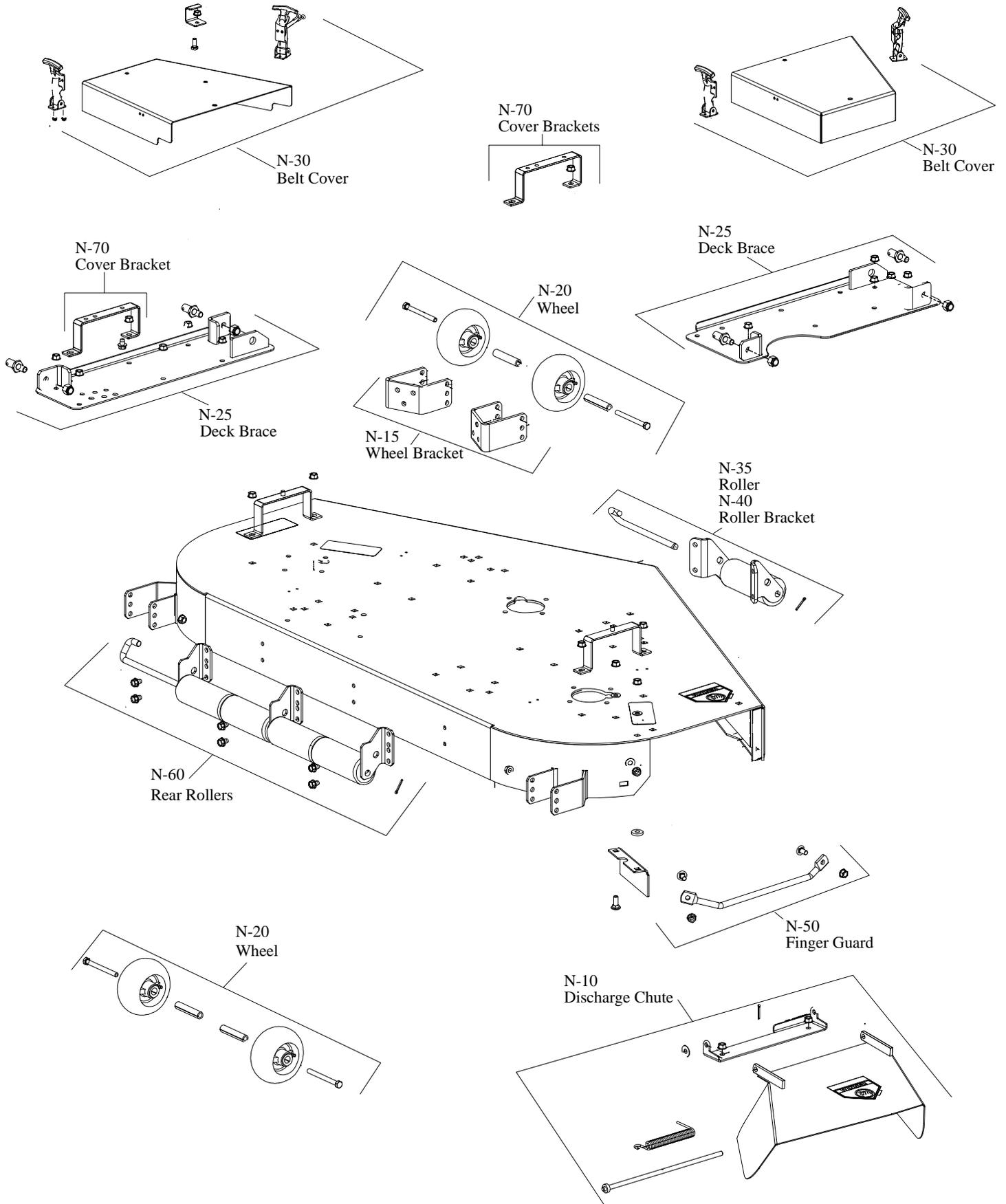
OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
L-05	RUBBER GRIP Replace	Replace Ruber Grip	0.1
L-10	BRAKE LEVER	Remove brake link retaining pin Remove lever pivot bolt and nut Remove/Install or Replace brake lever Reassemble	0.1
L-15	BRAKE LINK	Remove two retaining pin Remove/Install or Replace brake link Reassemble	0.1
L-20	CROSS SHAFT	Remove four bolts and two retaining plates Remove/Install or Replace cross shaft Reassemble	0.1
L-25	BRAKE ENGAGEMENT HUB	Remove adjustment link retaining pins Remove cross shaft (L-25) Remove/Install or Replace brake engagement hub Reassemble and adjust	0.5
L-30	ADJUSTMENT LINKS	Remove adjustment link retaining pins Remove adjustment link nuts Remove/Install or Replace adjustment links Reassemble and adjust	0.2
L-35	BRAKE BRACKET	Remove adjustment links (L-30) Remove Brake rod (L-40) Remove/Install or Replace Brake Bracket Reassemble and adjust	0.3
L-40	BRAKE ROD	Remove clevis retaining pin Remove shoulder nut Remove/Install or Replace brake rod Reassemble and adjust	0.5
L-45	CLEVIS	Remove retaining pins Remove/Install or Replace clevis Reassemble and adjust	0.2
L-50	BRAKE ARMS	Disconnect brake rod clevis Remove set screw Remove/Install or Replace brake arm Reassemble and adjust	0.3



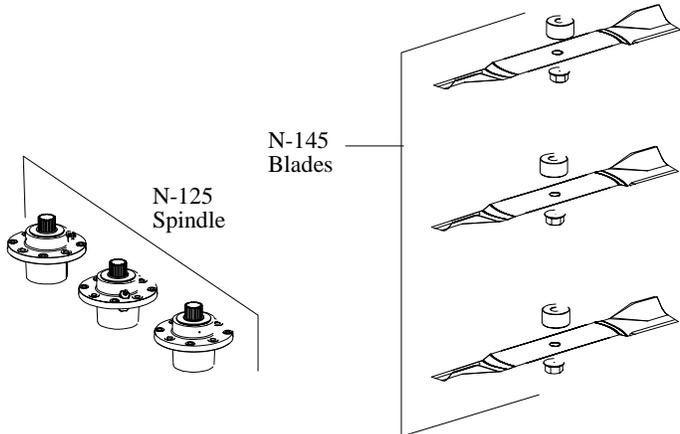
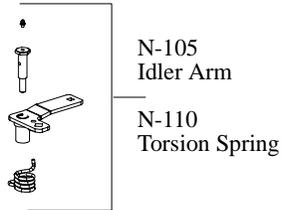
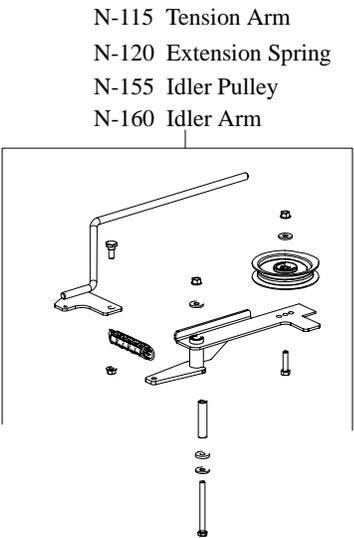
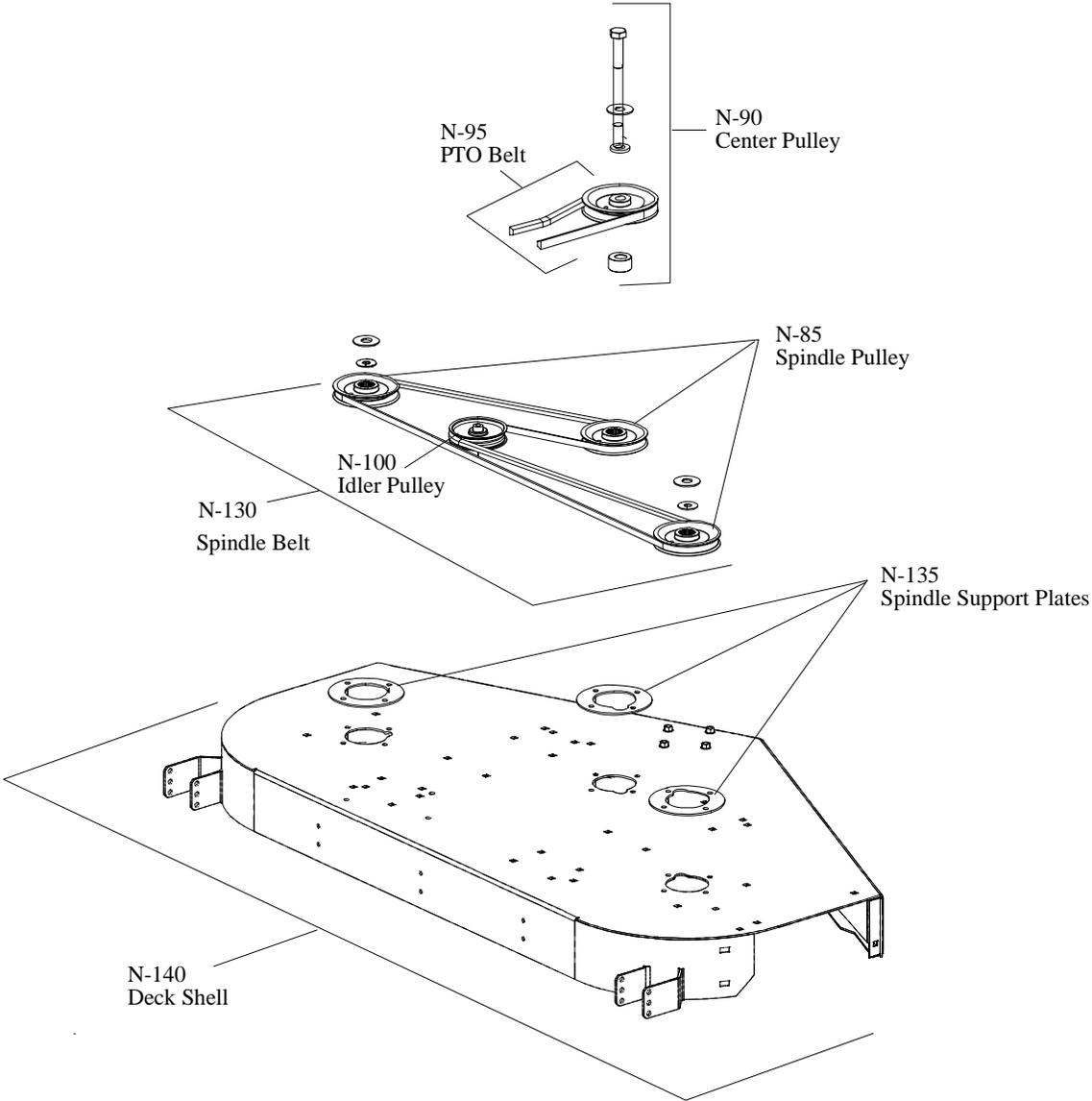
M-05 PTO Clutch
M-10 Adjust

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES:	FLAT RATE TIME
M-05	PTO CLUTCH	Unplug harness Remove PTO retaining bolt Remove/Install or Replace PTO clutch Reassemble	1
M-10	PTO CLUTCH Adjust	Adjust PTO air gap	0.5

CUB CADET COMMERCIAL
M-48, M-54, M-60 TANK



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
N-10	DISCHARGE CHUTE	Remove/Install or Replace discharge chute	0.2
N-15	WHEEL BRACKET	Remove wheel (N-20) Remove bracket hardware Remove/Install or Replace wheel bracket Reassemble	0.3
N-20	BALL WHEEL	Remove axle bolt and nut Remove/Install or Replace wheel Reassemble	0.1
N-25	DECK BRACE	Remove belt cover (N-30) Remove brace retaining hardware Remove/Install or Replace deck brace Reassemble	0.4
N-30	BELT COVER	Remove retaining hardware Remove/Install or Replace belt cover Reassemble	0.1
N-35	ROLLER	Remove roller axle pin Remove/Install or Replace roller Reassemble	0.1
N-40	ROLLER BRACKET	Remove roller (N-35) Remove roller bracket retaining hardware Remove/Install or Replace roller bracket Reassemble	0.2
N-50	FINGER GUARD	Remove finger guard retaining hardware Remove/Install or Replace finger guard Reassemble	0.1
N-60	REAR ROLLERS	Remove deck from unit Remove roller axle pin Remove/Install or Replace roller(s) Reassemble	0.5



OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
N-85	SPINDLE PULLEY	Remove deck from unit Remove belt cover (N-30) Remove spindle belt Remove spindle belt Remove blade/pulley retaining bolt Remove/Install or Replace spindle pulley Reassemble	0.5
N-90	CENTER PULLEY	Remove deck from unit Remove belt covers (N-30) Remove spindle belt Remove blade/pulley retaining bolt Remove/Install or Replace center pulley Reassemble	0.5
N-95	PTO BELT	Release tension on idler arm Remove/Install or Replace pto belt Apply tension to arm	0.1
N-100	Idler Pulley spindle belt	Remove deck from unit Remove spindle belt Remove pulley retaining bolt Remove/Install or Replace idler pulley Reassemble	0.3
N-105	IDLER ARM spindle belt	Remove deck from unit Remove spindle belt Remove idler arm pivot bolt Remove/Install or Replace idler arm Remove/Install or Replace idler pulley Reassemble	0.5
N-110	TORSION SPRING	Remove idler arm (N-105) Remove/Install or Replace torsion spring Reassemble	0.5
N-115	TENSION ARM	Remove deck from unit Release tension on belt Disconnect spring Remove tension arm pivot bolt Remove/Install or Replace tension arm Reassemble	0.4
N-120	EXTENSION SPRING	Remove deck from unit Release tension on belt Remove/Install or Replace extension spring Reassemble	0.3
N-125	SPINDLE ASSEMBLY	Remove deck from unit Remove belt covers (N-30) Remove spindle belt Remove blade (N-145) Remove pulley (N-85) Remove/Install or Replace spindle assembly	1.0

OPERATION NUMBER	OPERATION DESCRIPTION	OPERATION INCLUDES	FLAT RATE TIME
N-130	SPINDLE BELT	Remove deck from unit Remove belt covers (N-30) Remove/Install or Replace spindle belt	0.3
N-135	SPINDLE SUPPORT PLATES	Remove deck from unit Remove spindle (N-125) Remove/Install or Replace spindle support plate Reassemble	1.2
N-140	DECK SHELL replace	Remove deck from unit Disassemble deck components Replace deck shell Reassemble	3.0
N-145	BLADES	Remove deck from unit Remove blade/pulley retaining bolt Remove/Install or Replace blade Reassemble	0.5
N-155	IDLER PULLEY	Remove pulley retaining hardware Remove/Install or Replace idler pulley Reassemble	0.3
N-160	IDLER ARM	Remove deck from unit Remove idler spring (N-120) Remove/Install or Replace idler arm Reassemble	0.5



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