



Clutch and Oil Lines

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FRS 106 2017

What does a clutch do?

Simply put, the clutch serves as the link between the engine and the transmission.

Composed of friction plates and smooth steel plates (driven plates) housed within a clutch basket and affixed to a rotating shaft

User operates a clutch lever on the handlebar to engage clutch rod to push out the pressure plate, creating space between the friction and steel disks and breaking the contact between the two-- breaks link between trans and engine

Is a slip clutch-- serves as the "weakest link"



Expanded Clutch Design

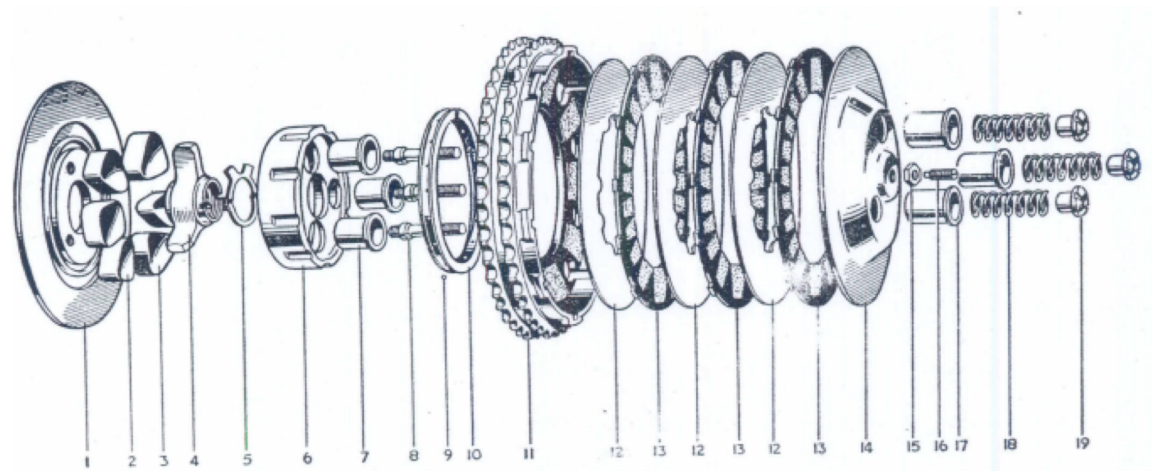
Parts 1-6 comprise clutch
backplate/shock absorber

The sprocket (11) connects to duplex
chain and transmission input
shaft

Houses three pairs of
driven/friction plates

Covered by pressure plate that holds
continuous pressure through 3
springs

Not pictured: pushrod



Potential Clutch Issues

Worn plates could lead to undue slippage

Poor connection (frayed cable) means clutch may not engage

Poorly compressed springs mean clutch may not engage or disengage

Bad bearings mean clutch may not be spinning with drive shaft

Grit and grime in clutch can wear components down

Worn sprocket and/or duplex chain may mean bad connection with transmission input shaft

Missing parts (i.e. key and tab washer) – gumption trap!



The Clutch and Duplex Chain

The clutch on Day 1.

Rusty

Bad Duplex Chain - It was scraping the case.

Springs incomplete or in bad shape



What we did:

1. Cleaned all the parts using Yield and the Orange Bath
2. Found a replacement for the backplate/shock absorber assembly
3. Found new springs and nuts/clutch pins
4. Reconditioned the duplex chain
5. Replacement of clutch plates

Clutch Artifacts

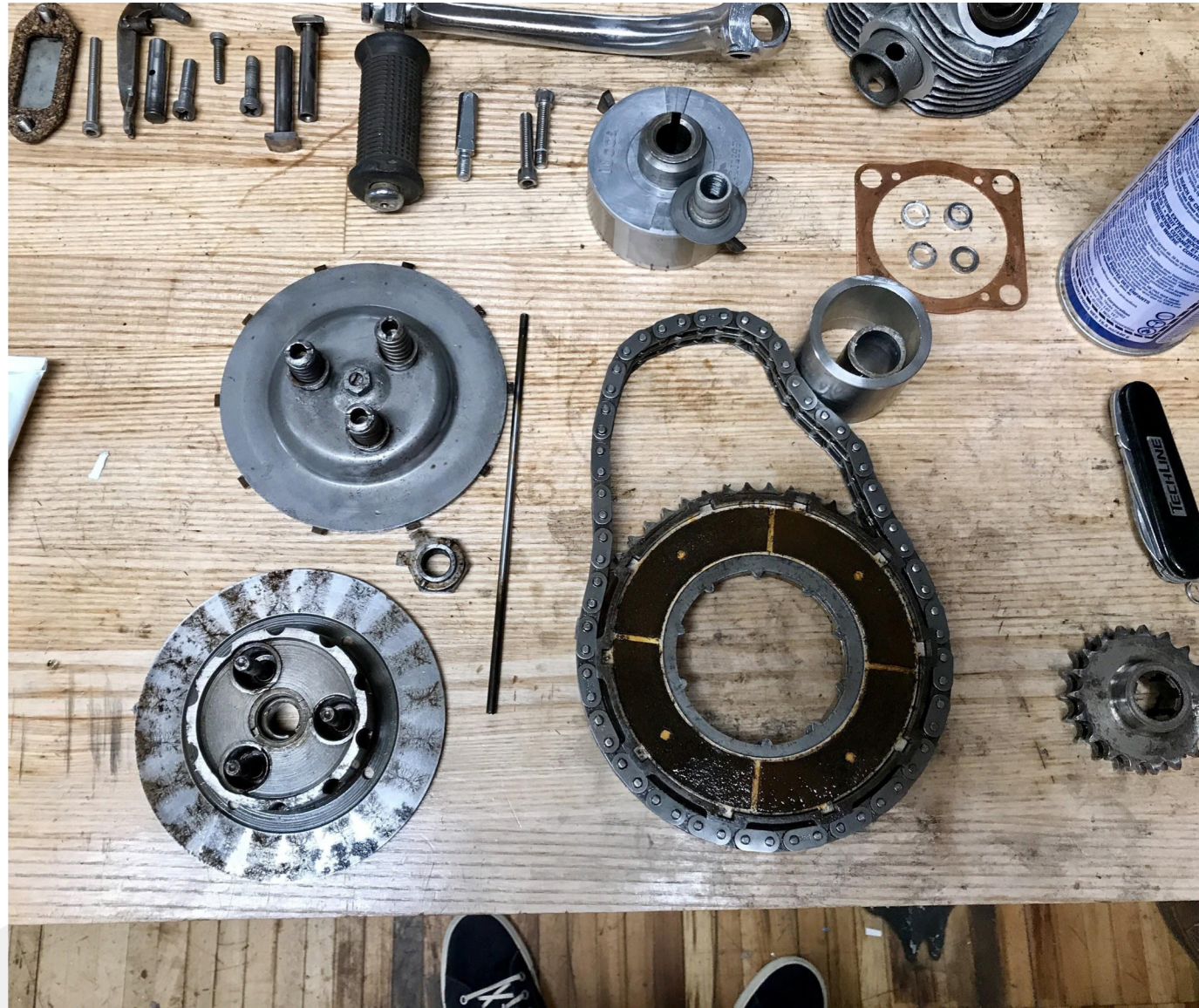
Backplate assembly: has rubber parts that protect against internal shocks between the rotor and the plates.

Severely degraded in condition, so we dissected it- usually assembled as an entire unit



The Reconditioned Clutch

All the pieces are clean and ready to be assembled!





Oil Lines

Theory and Design of Oil Lines

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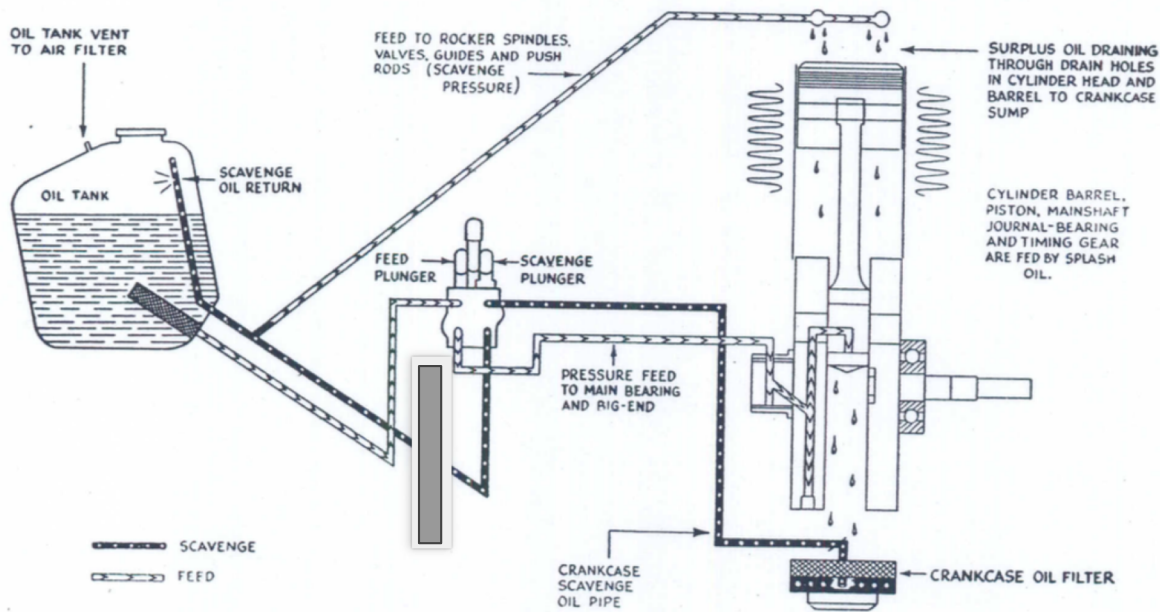


Fig. 2. ENGINE LUBRICATION DIAGRAM

Lubrication System

What do oil lines do?

Circulate motor oil throughout the engine for two purposes: redistributing heat and lubricating parts.

System composed of few main components:

Oil lines- metal

Oil reservoir (tank)

Oil pump

Filter

Galleries

